Final

Fourth Quarter 2016 - Quarterly Groundwater Monitoring Report

Red Hill Bulk Fuel Storage Facility
Joint Base Pearl Harbor-Hickam, Oahu, Hawaii

DOH Facility ID No.: 9-102271
DOH Release ID Nos.: 990051, 010011, 020028, and 140010

December 2016
Laboratory Data part 2 (SDG 81251, SDG 81287)

Contract Number N62742-12-D-1829, CTO 0053

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Appendix D:
Laboratory Reports
(on CD-ROM at end of document)

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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

November 16, 2016

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Thach

Title: Report of Data: Case 81251

Project: 60481245 CIV0053 Red Hill Fuel Storage. HI

Contract #: Prime contract # for DoD: NAVY CLEAN N62742-12-D-1829, CTO 0053
Subcontract: 14S-16234-HI16

Dear Ms. Thach:

Twelve water samples were received October 21, 2016. Written results for the requested analyses are being provided on this November 16, 2016.

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 her designee, as verified by the following signature.

Paula McCartney

Paula McCartney, Laboratory Director
APPL, Inc.

PM/rp
Enclosure
cc: File

Number of pages in this report: 963

Data Validation Package
for
60481245 CIV 0053 Red Hill Fuel Storage
APPL SDG 81251
TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

SAMPLE RECEIPT INFORMATION

Sample Receipt Information

ARF: 81251

Project: 60481245 CIV0053 Red Hill Fuel Storage. HI

Sample Receipt Information:

Twelve water samples were received October 21, 2016, at 3.0°C, 4.0°C, 4.0°C, 4.0°C, 4.0°C, 4.5°C, 4.5°C, 5.0°C, and 6.0°C. The sample group was assigned Analytical Request Form (ARF) number 81251. The sample numbers and requested analyses were compared to the chains of custody and email communications. A collection time discrepancy was noted for sample ERH089; the collection time listed on the container labels was used for the sample, as instructed. EDB and 1,2-DCA analyses were canceled for sample ERH107, as requested. No other exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
ERH091	AZ44687	WATER	10/19/16	10/21/16
ERH089	AZ44688	WATER	10/19/16	10/21/16
ERH093	AZ44689	WATER	10/19/16	10/21/16
ERH097	AZ44690	WATER	10/19/16	10/21/16
ERH098	AZ44691	WATER	10/19/16	10/21/16
ERH100	AZ44692	WATER	10/20/16	10/21/16
ERH101	AZ44693	WATER	10/20/16	10/21/16
ERH102	AZ44694	WATER	10/19/16	10/21/16
ERH104	AZ44695	WATER	10/20/16	10/21/16
ERH105	AZ44696	WATER	10/20/16	10/21/16
ERH106	AZ44697	WATER	10/19/16	10/21/16
ERH107	AZ44698	WATER	10/20/16	10/21/16

The samples and blanks were screened for J-value responses between the detection limit (DL) and limit of quantitation (LOQ).

APPL's Laboratory control limits generated in house statistically do not meet the control limits listed in DoD QSM 5.0 for all analytes. Laboratory control spike recoveries for this project meet all control limits listed in the DoD QSM 5.0 except where noted. A copy of our in house generated control limits is available upon request. In addition, a copy of our LOQ control limits, established using 7 data points, are also available upon request.

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.

CASE NARRATIVE

EPA Method 8011

EDB

Sample Preparation:

The water samples were extracted according to EPA method 8011. All holding times were met.

Sample Analysis Information:

The samples were analyzed according to the method using an Agilent Gas Chromatograph with an ECD.

Quality Control/Assurance

Calibrations:

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Blanks:

No target analyte was detected above one-half the limit of quantitation (LOQ) in the method blank.

Spikes:

A Laboratory Control Spike (LCS) was used for quality assurance. All acceptance criteria were met.

No s sample was designated by the client for MS/MSD analysis.

Surrogates

The surrogate recoveries are summarized in the Form 2 & 8. All surrogate recoveries were within the control limits.

Summary:

No problem was encountered.

EPA Method 8015B

Total Petroleum Hydrocarbons - Diesel & Oil

Sample Preparation:

The water samples were extracted according to EPA method 3510C and using gravity separation and a 10gram silica gel clean up according to APPL's SOP CLN004, as requested by the client. A reverse surrogate of Decanoic Acid Solution was used during the silica gel cleanup and was not detected in the samples. All holding times were met.

Sample Analysis Information:

The samples were analyzed according to the method using an Agilent Gas Chromatograph with a flame ionization detector.

Quality Control/Assurance

Calibrations:

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Blanks:

No target analyte was detected above one-half the LOQ in the method blanks.

Spikes:

Laboratory Control Spikes (LCS) were used for quality assurance. All acceptance criteria were met.

No s sample was designated by the client for MS/MSD analysis.

Surrogates:

Surrogate recoveries are summarized on the Form 2 & 8. All surrogate recoveries were acceptable.

Summary:

No analytical problem was encountered. The data generated are acceptable.

EPA Method 8270D-SIM
Polynuclear Aromatic Hydrocarbons

Sample Preparation:

The water samples were extracted according to EPA method 3510C. All holding times were met.

Analysis Information:

The samples were analyzed according to EPA Method 8270D using an Agilent Gas Chromatograph with a mass spectrometer detector, in selective ion monitoring mode (SIM).

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS) was used for quality assurance. All LCS recoveries met acceptance criteria.

No s sample was designated by the client for MS/MSD analysis.

Method blanks

No target compound was detected at or above one-half the LOQ in the method blank.

Surrogates

Surrogate recoveries are summarized on the Form 2 & 8. All surrogate recoveries met acceptance criteria.

Calibration

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Tuning:

The instrument was tuned using DFTPP. All method criteria were met.

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8270. All acceptance criteria were met.

Summary:

No analytical exception was encountered. The data generated are acceptable.

EPA Method 8270D
Semi-Volatile Organic Compounds

Sample Preparation:

The water samples were extracted according to EPA method 3510C. All holding times were met.

Analysis Information:

The samples were analyzed according to EPA Method 8270D using an Agilent Gas Chromatograph with a mass spectrometer detector.

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS) was used for quality assurance. All LCS recoveries met acceptance criteria.

No s sample was designated by the client for MS/MSD analysis.

Method blanks

No target compound was detected at or above one-half the LOQ in the method blank.

Surrogates

Surrogate recoveries are summarized on the Form 2 & 8. All surrogate recoveries met acceptance criteria.

Calibration

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Tuning:

The instrument was tuned using DFTPP. All method criteria were met.

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8270. All acceptance criteria were met.

Summary:

No analytical exception was encountered. The data generated are acceptable.

APPL SOP ANA2MEE

2-(2-Methoxyethoxy) ethanol by SPE, GC/MS

Sample Preparation:

The water samples were extracted according to EPA method 3535. All holding times were met.

Analysis Information:

The samples were analyzed according to an internal method APPL SOP ANA2MEE using an Agilent Gas Chromatograph with a mass spectrometer detector.

The target compound was manually integrated in the level five standard according to the SOP. Before and after chromatograms are provided in this package.

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS) was used for quality assurance. All LCS recoveries met acceptance criteria.

No s sample was designated by the client for MS/MSD analysis.

Method blanks

No target compound was detected at or above one-half the LOQ in the method blank.

Surrogates

No surrogate was used for this method.

Calibration

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Tuning:

The instrument was tuned using DFTPP. All method criteria were met.

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8270. Perylene-D12 has a low area response in sample ERH089. This IS is not used for calculation in this method. No further action was taken. All other acceptance criteria were met.

Summary:

No other analytical exception was encountered. The data generated are acceptable.

EPA Method 8260B
Volatile Organic Analysis

Sample Preparation:

The water samples were purged according to EPA method 5030B. All holding times were met.

Sample Analysis Information:

The samples were analyzed according to EPA method 8260B using an Agilent Gas Chromatograph with a mass spectrometer detector.

Quality Control/Assurance:

Calibrations:

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Blanks:

No analyte was detected above one-half the limit of quantitation (LOQ) in the method blanks.

Spikes:

Laboratory Control Spikes (LCS) were used for quality assurance. All LCS recovery acceptance criteria were met.

No s sample was designated by the client for MS/MSD analysis.

Surrogates:

Surrogate recoveries are summarized on the Form 2 & 8. All surrogate recoveries were acceptable.

Tuning:

The instrument was tuned using BFB. All method criteria were met.

Internal Standards:

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8260. All method acceptance criteria were met.

Summary:

No problem was encountered. The data generated are acceptable.

EPA Method 8260B
Gasoline

Sample Preparation:

The water samples were purged according to EPA method 5030B. All holding times were met.

Sample Analysis Information:

The samples were analyzed according to EPA method 8260B using an Agilent Gas Chromatograph with a mass spectrometer detector.

Quality Control/Assurance:

Calibrations:

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Blanks:

No analyte was detected above one-half the limit of quantitation (LOQ) in the method blanks.

Spikes:

Laboratory Control Spikes (LCS) were used for quality assurance. All LCS recovery acceptance criteria were met.

No s sample was designated by the client for MS/MSD analysis.

Surrogates:

Surrogate recoveries are summarized on the Form 2 & 8. All surrogate recoveries were acceptable.

Tuning:

The instrument was tuned using BFB. All method criteria were met.

Internal Standards:

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8260. All method acceptance criteria were met.

Summary:

No problem was encountered. The data generated are acceptable.

Methane
RSK-175

Sample Preparation and Analysis

The water samples were analyzed with guidance from RSK-175. The samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed using a Hewlett Packard Gas Chromatograph with a flame ionization detector. All holding times were met.

Quality Control/Assurance

Spike Recovery

Laboratory Control Spikes (LCS) were used for quality assurance. All acceptance criteria were met.

No s sample was designated by the client for MS/MSD analysis.

Method blanks

The blanks contained no target analyte above one-half the limit of quantitation (LOQ).

Calibration

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Summary:

No analytical exception is noted.

EPA Method 300.0 and SM 3500 FeB

Anions, and Ferrous Iron

Sample Preparation Information:

The water samples were prepared according to the methods.

Analysis Information:

Samples:

The samples were analyzed according to the methods. A Dionex DX500 ion chromatograph was used for the EPA 300.0 analysis. The samples were received more than 24 hours after collection. The samples were analyzed as soon as possible upon arrival for ferrous iron and nitrate. All other holding times were met.

Calibrations:

Initial and continuing calibrations were performed according to the methods and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Blanks:

No target analyte was detected above one-half the LOQ in the method blanks.

Spikes:

Laboratory Control Spikes (LCS) were used for quality assurance. All recoveries were within acceptance limits in the LCS.

No sample was designated by the client for MS/MSD analysis.

Summary:

No other analytical exception is noted. All data are acceptable.

APPL Inc.
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 – (See case narrative)
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
U	Not detected
Y	Percent difference between primary and confirmation column > 40%

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form 81251

Client: AECOM
Address: 1001 Bishop Street, Suite 1600
Honolulu, HI 96813
Attn: Margie Thach
Phone: 808-356-5373 Fax: 808-523-8950
Job: 60481245 CIV0053 Red Hill Fuel Storage
PO #: 14S-16234-HI16, PO# 77265
Chain of Custody (Y/N): Y # 38430,33628
RAD Screen (Y/N): Y pH (Y/N): Y
Turn Around Type: 1 WEEK

Received by: SMA
Date Received: 10/21/16 Time: 10:15
Delivered by: FED EX
Shuttle Custody Seals (Y/N): Y Time Zone: -10
Chest Temp(s): 3,4,4,4,4,2X4.5,5,6°
Color: VOA/L-PURPLEBRN
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Libby Cheesebor
QC Report Type: DVP4DOD/EQUIS/HI
Due Date: 10/28/16

Comments:
7-day TAT for Form 1s; 21 day TAT for DVP; F1s, login to Margie.Thach@aecom.com
AN: DOD QSM ver 5.0; DOD Forms (LOQ/LOD database/DL) Print ND as LOD w/U Qual.
8260: BTEX & TPH-G only; 8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only.
TPH D & O both with and w/o SGC, reverse surrogate for the SGC, when requested.
RSK: Methane only; 8011: EDB only; $87DC53W5: report phenol only;
$87DMEEW5: special SPE Extraction for 2-MEE (see Diane).
FR: HC to LDC, 2 labeled CDs to Margie Thach. PM needs to review after Admin Review is complete.
EDD: AECOM EQuIS EDD 2.5.3 to Margie.Thach@aecom.com & jecklund@lab-data.com

Sample Distribution:
GC: 10-$87DC53W5, 10-$87DMEEW5, 3-$DOC53SGCW5, 10-$DOC53W5, 10-$SIMDOD5W, 2-$8011
Extractions: 10-_MWE3535, 10-_SEP004, 10-_SEP004S, 10-_SEP011LL, 3-_SEP011LLSGC, 3-_MWE012
VOA: 12-$86BXDOD5W, 12-$GASBL, 12-$GRO86BW, 9-$RSKMETH
Wetlab: 7-$300W(NO3,CL,SO4), 7-$35FE, 5-$300WD(CL,SO4)

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.	ERH091	AZ44687W	10/19/16 12:40	$300W(NO3,CL,SO4), $35FE, $86BXDOD5W, $87DC53W5, $87DMEEW5, $DOC53SGCW5, $DOC53W5, $GASBL, $GRO86BW, $RSKMETH, $SIMDOD5W
2.	ERH089	AZ44688W	10/19/16 15:15	$300W(NO3,CL,SO4), $300WD(CL,SO4), $35FE, $86BXDOD5W, $87DC53W5, $87DMEEW5, $DOC53SGCW5, $DOC53W5, $GASBL, $GRO86BW, $RSKMETH, $SIMDOD5W

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -10 UTC
Page 1 Client Code: AECOM-CIV053 *Printed 10/28/16 10:47:20 AM* Computer: RENEECOMPUT **# 81251**

3.	ERH093	AZ44689W 10/19/16	10:25	$300W(NO3,CL,SO4), $35FE, $86BXDOD5W, $87DC53W5, $87DMEEW5, $DOC53SGCW5, $DOC53W5, $GASBL, $GRO86BW, $RSKMETH, $SIMDOD5W
4.	ERH097	AZ44690W 10/19/16	09:35	$300W(NO3,CL,SO4), $300WD(CL,SO4), $35FE, $86BXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5, $GASBL, $GRO86BW, $RSKMETH, $SIMDOD5W
5.	ERH098	AZ44691W 10/19/16	11:50	$300W(NO3,CL,SO4), $300WD(CL,SO4), $35FE, $86BXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5, $GASBL, $GRO86BW, $RSKMETH, $SIMDOD5W
6.	ERH100	AZ44692W 10/20/16	08:00	$86BXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5, $GASBL, $GRO86BW, $SIMDOD5W
7.	ERH101	AZ44693W 10/20/16	09:20	$86BXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5, $GASBL, $GRO86BW, $SIMDOD5W
8.	ERH102	AZ44694W 10/19/16	16:50	$300W(NO3,CL,SO4), $300WD(CL,SO4), $35FE, $8011, $86BXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5, $GASBL, $GRO86BW, $RSKMETH, $SIMDOD5W -- 8260 BTEX + 1,2-DCA
9.	ERH104	AZ44695W 10/20/16	10:30	$300W(NO3,CL,SO4), $300WD(CL,SO4), $35FE, $86BXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5, $GASBL, $GRO86BW, $RSKMETH, $SIMDOD5W
10.	ERH105	AZ44696W 10/20/16	10:30	$86BXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5, $GASBL, $GRO86BW, $SIMDOD5W
11.	ERH106	AZ44697W 10/19/16	08:00	$8011, $86BXDOD5W, $GASBL, $GRO86BW, $RSKMETH -- 8260 BTEX + 1,2-DCA
12.	ERH107	AZ44698W 10/20/16	08:00	$86BXDOD5W, $GASBL, $GRO86BW, $RSKMETH -- unpreser vial 8011;cancel 1,2-DCA & EDB

APPL Sample Receipt Form

ARF# **81251**

Sample	Container Type	Count	pH
AZ44687	[3] PL 250mL	1	NA
	[13] VOAs - HCL	6	NA
	[17] Amber Liter	8	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
AZ44688	[3] PL 250mL	1	NA
	[13] VOAs - HCL	6	NA
	[17] Amber Liter	8	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
AZ44689	[3] PL 250mL	1	NA
	[13] VOAs - HCL	6	NA
	[17] Amber Liter	6	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
AZ44690	[3] PL 250mL	1	NA
	[13] VOAs - HCL	6	NA
	[17] Amber Liter	6	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
AZ44691	[3] PL 250mL	1	NA
	[13] VOAs - HCL	6	NA
	[17] Amber Liter	6	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
AZ44692	[13] VOAs - HCL	5	NA
	[17] Amber Liter	6	NA
AZ44693	[13] VOAs - HCL	5	NA
	[17] Amber Liter	6	NA
AZ44694	[3] PL 250mL	1	NA
	[13] VOAs - HCL	7	NA
	[15] VOAs - NP	3	NA
	[17] Amber Liter	8	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
AZ44695	[3] PL 250mL	1	NA
	[13] VOAs - HCL	6	NA
	[17] Amber Liter	6	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
AZ44696	[13] VOAs - HCL	4	NA
	[17] Amber Liter	5	NA
AZ44697	[13] VOAs - HCL	6	NA
AZ44698	[13] VOAs - HCL	3	NA
	[15] VOAs - NP	3	NA

Sample	Container Type	Count	pH

Libby Cheeseborough

From: Thach, Margie <Margie.Thach@aecom.com>
Sent: Friday, October 21, 2016 6:57 PM
To: Libby Cheeseborough
Subject: RE: CIV 53: Oct 2016 gw sampling
Attachments: CIV 53_COC_20161020_rev01.pdf

Flag Status: Flagged

Hi Libby,
Just want to check if the lab has analyzed the EDB and BTEX/DCA samples yet for the samples received Friday. If not yet, please cancel the EDB and DCA request on ERH107; I've attached a revised COC. If the lab has already analyze EDB/DCA for ERH, then please ignore this request.
Sorry about this, and thank you so very much!

ERH107 is logged in for
* BTEX + 1,2-DCA
* GRO
8011 - (EDB)
RSK - methane
* = complete in LW

Thank you,

Margie Pascua Thach
Environmental Scientist
Environment, West Region, Pacific District
Direct 808.356.5373
Margie.Thach@aecom.com

From: Thach, Margie
Sent: Thursday, October 20, 2016 4:24 PM
To: Libby Cheeseborough
Subject: RE: CIV 53: Oct 2016 gw sampling

HI Libby,
Please see COC for samples shipped today. There were only 9 coolers—we couldn't collect the last monitoring well. We will need to sample that next week.
https://www.fedex.com/apps/fedextrack/?tracknumbers=808524650494&cntry_code=us

Thank you,

Margie Pascua Thach
Environmental Scientist
Environment, West Region, Pacific District
Direct 808.356.5373
Margie.Thach@aecom.com

From: Thach, Margie
Sent: Wednesday, October 19, 2016 3:56 PM
To: Libby Cheeseborough
Subject: RE: CIV 53: Oct 2016 gw sampling

Sorry, I got this wrong:
ERH099 is the trip blank, 8260 BTEX, 8260 TPH-g, and RSK 175M Methane only.

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611

Phone: (559) 275-2175
Fax: (559) 275-4422

CHAIN OF CUSTODY RECORD

COC rev01
MT 10/21/16

C.O.C. 33628

Report to: PLEASE PRINT

Company Name: AECOM
Address: 1001 Bishop Street Suite 1600
Honolulu HI, 96813
Attn: Margie Thach
(808) 356-5373

Attn:

Invoice to: PLEASE PRINT

Company Name: AECOM
Address: 1001 Bishop Street Suite 1600
Honolulu HI, 96813
Attn. Mary Basano
(808) 356-7249

Phone:
Fax:

Attn:

Project Name/Number	Sampler (Print)
60451245 ; CW53	CB, TV, AM, JK, TG, RG
Purchase Order Number	**Sampler (Signature)**
77265	MT [signature] for CB, TV, TG, AM, JK, RG

Date Shipped: 10/20/16
Carrier: FedEx
Waybill No.:
Comments:

Sample Identification	Location	Date Collected	Time Collected	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	Matrix	8260C BTEX	8260C TPH-G	8260C DCA	8011 EDB	8270D SIM PAH	8015C TPH-DRO	8015C TPH-DRO w/ SGT	8270D Phenol	Lab Dissolved ethane/ethene	SM 3500 ferrous iron	300.0 Nitrate, chloride, sulfate	RSK-175M Methane	Comments
ERH106	TB	10/19/16	0800	8	X				X	X	X	X								X	
ERH107	TB	10/20/16	0800	6	X				X	X	~~X~~	~~X~~								X	DCA&EDB not needed (MT 10/21/16)

MT 10/20/16

Shuttle Temperature:

Turnaround Requested: MUST CHECK ONE
☐ Standard (2-3 week) ☒ One week ☐ 24-48 hour

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

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Margie Thach AECOM	10/20/16	1530					
Relinquished by:	**Date**	**Time**	**Received by:**	**Relinquished by:**	**Date**	**Time**	**Received at lab by:**

White: Return to client with report Yellow: Laboratory Copy Pink: Sampler

See reverse side for Container Preservative and Sampling Information

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From: receiving [mailto:receiving@applinc.com]
Sent: Tuesday, October 25, 2016 4:17 PM
To: Libby Anderson
Subject: AECOM-Red Hill Project

Hi Libby,

In response to Margies email, for sample ERH093 we actually did receive a total of 16 containers. There seemed to be a miscount by Yang, the labeler. We in fact did receive all 16 containers.(1-250 poly; 6-VOAs w/HLC; 8-Amber liters; 1-Brown poly w/HCL)=16 containers. All analysis can be perfromed on the sample with out a doubt.

Seeings that there was a miscount for sample ERH093, there was not a mislabel of the extra containers for sample ERH102. For this sample we received the following containers: (1-250ml poly; 7-VOAs w/HCL; 3-Voas NP; 8-Amber Liters; 1-205 brown poly w/HCL)=20 containers all with the same sample ID and collection tine and date.

Pertaining to samples ERH105, It seems that all analysis can still be performed with the containers we received.

I went ahead and double checked the VOAs for Sample ERH106, and infact DID notice the sampler's hand written "NP" on the VOAs. These VOAs will be logged in as nonpreserved and used for the 8011 analysis.

I hope this answers all of Margies questions thoroughly, If you catch anything I missed please feel free to ask!

Thank you,
Stephanie Mast

Libby Cheeseborough

From: Thach, Margie <Margie.Thach@aecom.com>
Sent: Monday, October 24, 2016 7:21 PM
To: Libby Cheeseborough
Subject: RE: ARF 81251 Receiving Notes

Hi Libby,
For ERH089, please go with bottle times.
ERH093, ok. Please let me know if any of the analyses cannot be performed due to the missing containers (VOAs?).
ERH102, ok. Is it possible that the two missing containers for ERH093 was logged in as ERH102?
ERH105, ok. Please let me know if any of the analyses cannot be performed due broken container.
ERH106, the team had to create unpreserved trip blanks on field from the preserved vials (decontaminating them prior to refilling with DI water). They would have labeled these vials as "NP" in the AECOM sample label. Can sample receiving please check and separate these vials out and log them as unpreserved?

Thank you,

Margie Pascua Thach
Environmental Scientist
Environment, West Region, Pacific District
Direct 808.356.5373
Margie.Thach@aecom.com

From: Libby Cheeseborough [mailto:libby@applinc.com]
Sent: Monday, October 24, 2016 10:26 AM
To: Thach, Margie
Subject: FW: ARF 81251 Receiving Notes

Hi Margie,
Please see receiving notes below.

thank you,
Libby

Libby Cheeseborough

Agriculture & Priority Pollutants Laboratories, Inc.
WOSB. NELAP Accredited.
t. 559.275-2175 f. 559.275-4422
a. 908 N. Temperance Ave., Clovis, CA 93611

Website • Email

DoD accredited for ISM, Dioxins and PCB congeners.

From: receiving [mailto:receiving@applinc.com]
Sent: Monday, October 24, 2016 1:22 PM
To: 'Libby Cheesebourough'
Subject: RE: ARF 81251 Receiving Notes

Libby,

AECOM: 60481245 CIV0053 Red Hill Fuel Storage

All ferrous iron samples were received out of hold time. Samples were collected on 10/19/16. Hold time for ferrous iron analysis is 24 hours.

For sample "ERH089" the collection time on the COC is listed as 15:50. The collection time listed on the container labels is 15:15.

For sample "ERH093" the COC states this sample contains 16 containers in total. APPL only received 14 containers for this sample.

For sample "ERH102" the COC states this samples contains 18 containers in total. APPL received a total of 20 containers for this sample.

For sample "ERH105" the COC listed this sample as having 14 containers in total. APPL received a total of 10. Out of the 10 containers received, one amber liter was received broken.

For sample "ERH106" the COC listed 8 containers in total for this sample. APPL received a total of 6 containers.

The COC requests EPA 8011 to be analyzed for sample "ERH106" For this samples we received only HCL preserved voa vials. To perform analysis 8011 EDB, unpreserved VOA vials are required.

Please see attached COC for more information

Thank you!

Stephanie Mast

4x4.0 2x4.5 3.0, 5.0, 6.0

CHAIN OF CUSTODY RECORD

81251

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611

Phone: (559) 275-2175
Fax: (559) 275-4422

C.O.C. 38430

Report to: PLEASE PRINT	Invoice to: PLEASE PRINT
Company Name: AECOM	Company Name: AECOM
Address: 1001 Bishop Street Suite 1600, Honolulu HI, 96813	Address: 1001 Bishop Street Suite 1600, Honolulu HI, 96813
Attn: Margie Thach, (808) 356-5373	Attn. Mary Basano, (808) 356-7249
	hone:
	Fax:
Attn:	Attn:

Project Name/Number	Sampler (Print)
CIV 53 ; 60481245	CO, TV, AM, JR, TQ, RG
Purchase Order Number	**Sampler (Signature)**
77265	Margie Thach (signature) for CO, TV, AM, JK, TR, RG

Date Shipped: 10/20/16
Carrier: FedEx
Waybill No.:
Comments:

Analysis Requested/Method Number

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Aq	Sed.	Soil		8260C BTEX	8260C TPH-G	8260C DCA	8011 EDB	8270D SIM PAHs	8015C TPH-D/O	3630C 8015C TPH-D/O w/SGT	8270D Phenol, TICs	Lab 2-(2-methoxyethoxy)ethanol	SM 3500 Ferrous iron	300.0 Nitrate, Sulfate, Chloride	RSK 175M Methane	Comments
ERH091	RHMW02	10/19/16	1240	HST	16	X				X	X			X	X	X	X	X	X	X	X	
ERH089	RHMW05	10/19/16	1550	HST	16	X				X	X			X	X	X	X	X	X	X	X	
ERH093	RHMW03	10/19/16	1025	HST	16	X				X	X			X	X	X	X	X	X	X	X	
~~ERH095~~ MT 10/20/16 ERH097	RHMW06	10/19/16	0935	HST	14	X				X	X			X	X		X	X	X	X	X	
ERH098	RHMW07	10/19/16	1150	HST	14	X				X	X			X	X		X	X	X	X	X	
ERH100	EB	10/20/16	0800	HST	11	X				X	X			X	X		X	X				
ERH101	FB	10/20/16	0920	HST	11	X				X	X			X	X		X	X				
ERH102	RHMW08	10/19/16	1650	HST	18	X				X	X	X	X	X	X		X	X	X	X	X	
MT 10/20/16 ~~ERH103~~	~~RHMW09~~	~~10/20/16~~		~~HST~~	~~18~~	~~X~~				~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~only nitrate/sulfate/chloride bottle in cooler.~~
ERH104	OWDFMW01	10/20/16	1030	HST	14	X				X	X			X	X		X	X	X	X	X	
ERH105	OWDFMW01	10/20/16	1030	HST	14	X				X	X			X	X		X	X				

Shuttle Temperature:	Sample Disposal: ☐ Return to client ☐ Disposal by Lab (30-day retention) — ☒ 1 wk TAT	Sample Disposal: ☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Margie Thach AECOM	10/20/16	1530					
Relinquished by:	**Date**	**Time**	**Received by:**	**Relinquished by:**	**Date**	**Time**	**Received at lab by:**
					10/21/16	10:15	(signature)

White: Return to client with report Yellow: Laboratory Copy Pink: Sampler

See reverse side for Container Preservative and Sampling Information

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611

CHAIN OF CUSTODY RECORD

Phone: (559) 275-2175
Fax: (559) 275-4422

C.O.C. 33628

Report to: PLEASE PRINT	Invoice to: PLEASE PRINT
Company Name: AECOM	Company Name: AECOM
Address: 1001 Bishop Street Suite 1600, Honolulu HI, 96813	Address: 1001 Bishop Street Suite 1600, Honolulu HI, 96813
Attn: Margie Thach (808) 356-5373	Attn. Mary Basano (808) 356-7249
Attn:	Attn:
	Phone:
	Fax:

Project Name/Number: 60481245; CW53

Sampler (Print): CB, TV, AM, JK, TQ, RG

Purchase Order Number: 77265

Sampler (Signature): MT [signature] for CB, TV, TQ, AM, JK, RG

Date Shipped: 10/20/16

Carrier: FedEx

Waybill No.:

Comments:

Analysis Requested/Method Number

Sample Identification	Location	Date Collected	Time Collected	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	8260C BTEX	8260C TPH-G	8260C DCA	8011 EDB	8270D SIM PAHs	8015C TPH-D/O	3640C 8015C TPH-D/O w/ SGT	8270D Phenol, TICs	Lab 2-methoxy ethanol	SM 3500 Ferrous iron	300.0 Nitrate, chloride, sulfate	RSK 175M Methane
ERH106	TB	10/19/16	0800	8	X			X	X	X	X								X
ERH107	TB	10/20/16	0800	6	X			X	X	X	X								X

MT 10/20/16

Shuttle Temperature:

Turnaround Requested: MUST CHECK ONE
☐ Standard (2-3 week) ☒ One week ☐ 24-48 hour

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

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Margie Thach AECOM	10/20/16	1530					
Relinquished by:	**Date**	**Time**	**Received by:**	**Relinquished by:**	**Date**	**Time**	**Received at lab by:**
					10/21/16	10:15	[signature]

White: Return to client with report Yellow: Laboratory Copy Pink: Sampler

See reverse side for Container Preservative and Sampling Information

COOLER RECEIPT FORM **ARF: 81251**

1) Project: 60481245 CIV0053 Red Hill Fuel Storage Date Received: 10/21/16

2) Coolers: Number of Coolers: 9

3) YES Were custody seals present and intact?
How many? 18 Name/Date on seal? See below

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

5) Type of packing in cooler: X bubble wrap __popcorn __foam X plastic bags
X wet ice __dry ice __no ice __other

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use J5297

8) Cooler temp(s): In °C
1: 3.0 2: 4.0 3: 4.0 4: 4.0 5: 4.0 6: 4.5
7: 4.5 8: 5.0 9: 6.0 10: 11: 12:

CUSTODY SEAL
AECOM (808) 523-8874
Initials KS Date 10/20/16

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/NO 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/NO 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) Yes Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea:
Smaller than a pea: AZ44688W04-W06,AZ44694W07,AZ44698W01-W06

Preservation Hold time:

18) YES/NO 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 sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?

22) Yes Were unpreserved VOA Vials received?

23) Yes Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?
pH strip lot number: 90B2031
Lab notified if pH was not adequate:

Notes/Deficiencies:

Received Ferrous Iron greater than 24 hours. Sample ERH089 - COC collection time is 15:50, label time is 15:15. Sample ERH093 - COC listed 16 containers but received total of 14 containers. Sample ERH102 - COC listed 18 containers but received total of 20 containers. Sample ERH105 - COC listed 14 containers but received total of 10 containers but one amber liter received broken, as a result, there is a total of 9 containers in house. Sample ERH106 - COC listed 8 containers but received total of 6 containers. Samples ERH106 and ERH107 - both are marked for 8011 analysis but sample ERH106 has only HCL preserved voa vials and sample ERH107 containers are trip blanks (3 HCL preserved voa vials and 3 non-preserved voa vials).

Personnel receiving samples: YL Second reviewer: SM
Personnel labeling samples:
Project manager notified: YL Date/Time of notification 10/24/16 08:56
Name of client notified: Date/Time of notification

Revision: 22, November 5, 2013

ORGANICS

APPL, INC.

ORGANICS

QC Summary

APPL, INC.

Method Blank
EPA 8011

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161026W-44694 - 213154**
Batch ID: #8011-161026A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	EDB	0.020 U	0.02	0.020	0.010	ug/L	10/26/16	10/26/16
BLANK	SURROGATE: 1,3-DIBROMOPRO	112	70-132			%	10/26/16	10/26/16

Quant Method: 80111027.M
Run #: 1011183
Instrument: Herbie
Sequence: 161011
Initials: RHA

GC SC-Blank-REG MDLs-DOD
Printed: 10/28/16 12:02:18 PM

Laboratory Control Spike Recovery

EPA 8011

APPL ID: **161026W-44694 LCS - 213154**
Batch ID: #8011-161026A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
EDB	0.250	0.228	91.2	60-140
SURROGATE: 1,3-DIBROMOPROPANE (	0.350	0.251	71.7	70-132

Comments: _____

Primary	SPK
Quant Method :	80111027.M
Extraction Date :	10/26/16
Analysis Date :	10/26/16
Instrument :	Herbie
Run :	1011185
Initials :	RHA

Printed: 10/28/16 12:02:06 PM
APPL Standard LCS

8011

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/26/16

Matrix: WATER Instrument: Herbie

APPL ID.	Client Sample No.	SURROGATE: 1,3-DIBROMOPROPANE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
161026A-BLK	Blank	70-132	112				
161026A-LCS	Lab Control Spike	70-132	71.7				
AZ44694	ERH102	70-132	114				
AZ44697	ERH106	70-132	107				

Comments: Batch: #8011-161026A

8011

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/26/16

Matrix: WATER Instrument: Herbie

Blank ID: 161026A-BLK Time Analyzed: 2153

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161026A-BLK	Blank	1011183	10/26/16 2153
161026A-LCS	Lab Control Spike	1011185	10/26/16 2233
AZ44694	ERH102	1011189	10/26/16 2353
AZ44697	ERH106	1011190	10/27/16 0013

Comments: Batch: #8011-161026A

Printed: 10/28/16 12:02:01 PM
Form 4, Blank Summary

ORGANICS

Sample Data

APPL, INC.

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach
Project: 60481245 CIV0053 Red Hill Fuel Storage
Sample ID: ERH102
Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251
APPL ID: AZ44694
QCG: #8011-161026A-213154

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.020 U	0.02	0.020	0.010	ug/L	10/26/16	10/26/16
8011	SURROGATE: 1,3-DIBROMOPROPANE	114	70-132			%	10/26/16	10/26/16

Quant Method: 80111027.M
Run #: 1011189
Instrument: Herbie
Sequence: 161011
Dilution Factor: 1
Initials: RHA

Printed: 10/28/16 12:01:55 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\161011\1011189.D\ECD1A.CH Vial: 89
Signal #2 : G:\HERBIE\DATA\161011\1011189.D\ECD2B.CH
Acq On : 10-26-16 23:53:49 Operator: RH
Sample : AZ44694W12 2/35.20G Inst : Herbie
Misc : Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 28 11:49 2016 Quant Results File: 80111027.RES

Quant Method : G:\HERBIE\DATA\161011\80111027.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Thu Oct 27 13:33:16 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

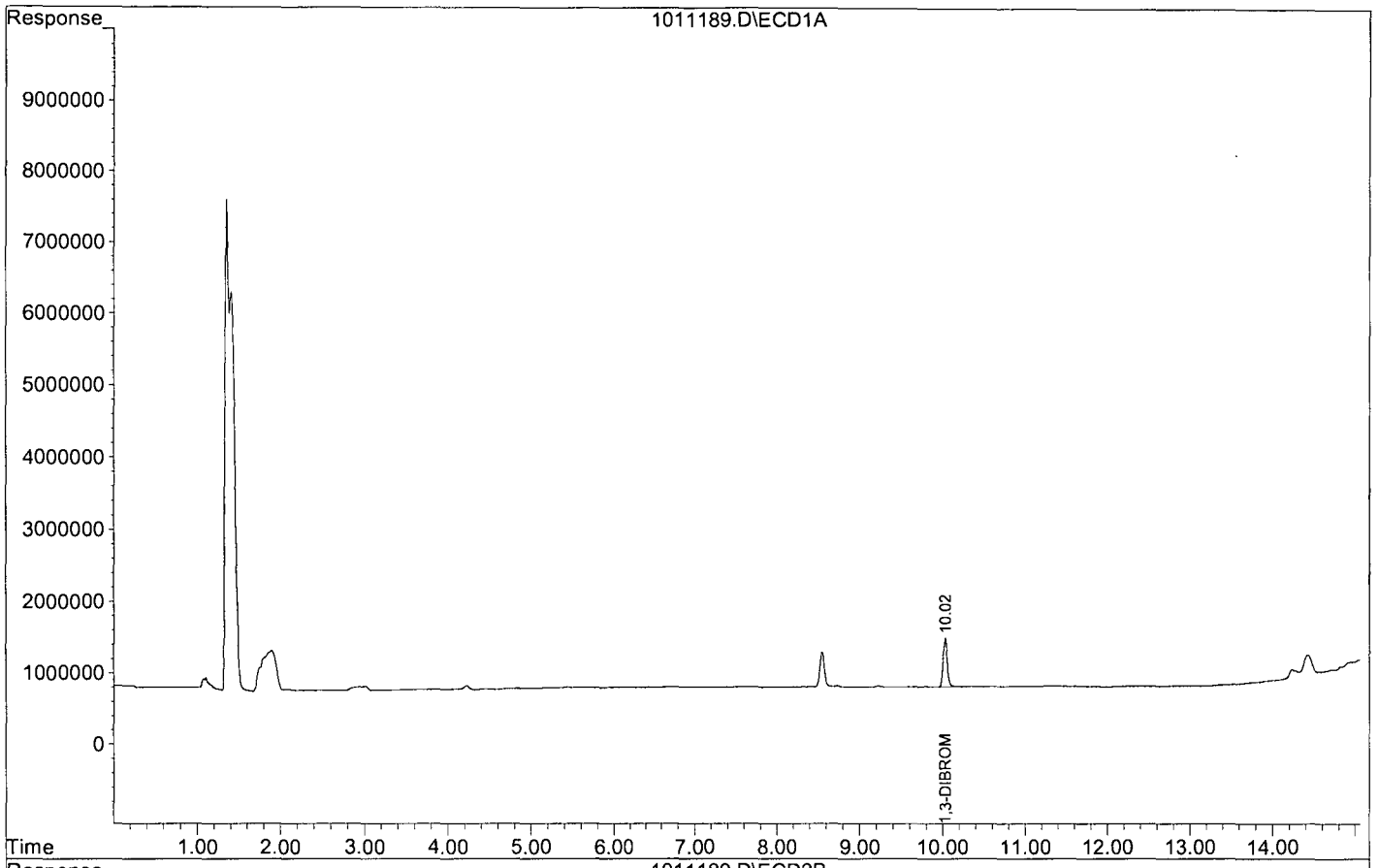
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.05	688962	922858	0.395	0.417
Spiked Amount	0.348			Recovery	=	113.50%	119.82%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

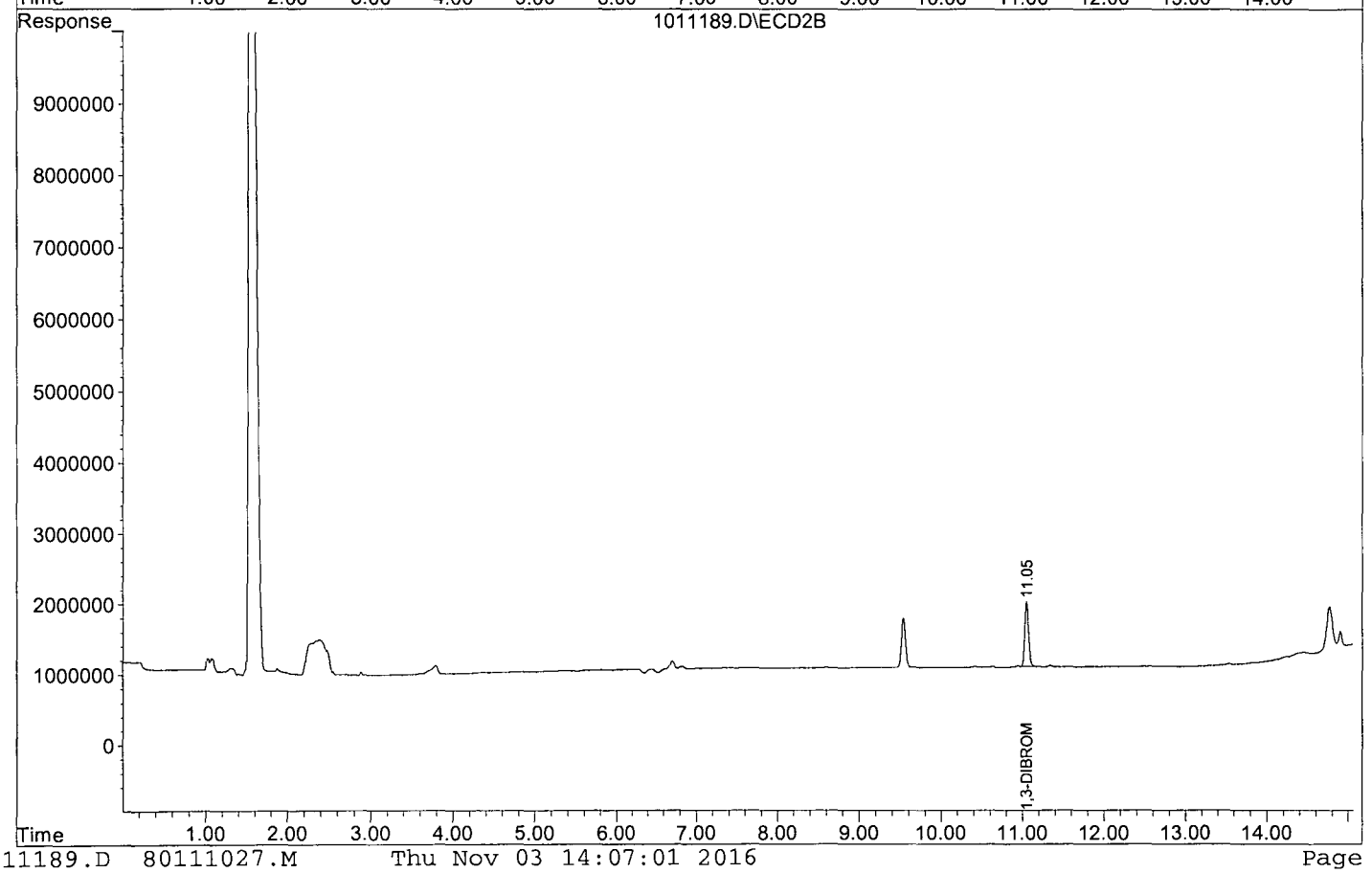
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\161011\1011189.D
Acq On : 10-26-16 23:53:49
Sample : AZ44694W12 2/35.20G
Misc :
Quant Method : G:\HERBIE\DATA\161011\80111027.M

Vial: 89
Operator: RH
Inst : Herbie
Multiplr: 0.99





EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH106

APPL ID: AZ44697

Sample Collection Date: 10/19/16

QCG: #8011-161026A-213154

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.020 U	0.02	0.020	0.010	ug/L	10/26/16	10/27/16
8011	SURROGATE: 1,3-DIBROMOPROPANE	107	70-132			%	10/26/16	10/27/16

Quant Method: 80111027.M
Run #: 1011190
Instrument: Herbie
Sequence: 161011
Dilution Factor: 1
Initials: RHA

Printed: 10/28/16 12:01:55 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\161011\1011190.D\ECD1A.CH Vial: 90
Signal #2 : G:\HERBIE\DATA\161011\1011190.D\ECD2B.CH
Acq On : 10-27-16 0:13:50 Operator: RH
Sample : AZ44697W02 2/35.01G Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 28 11:49 2016 Quant Results File: 80111027.RES

Quant Method : G:\HERBIE\DATA\161011\80111027.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Thu Oct 27 13:33:16 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

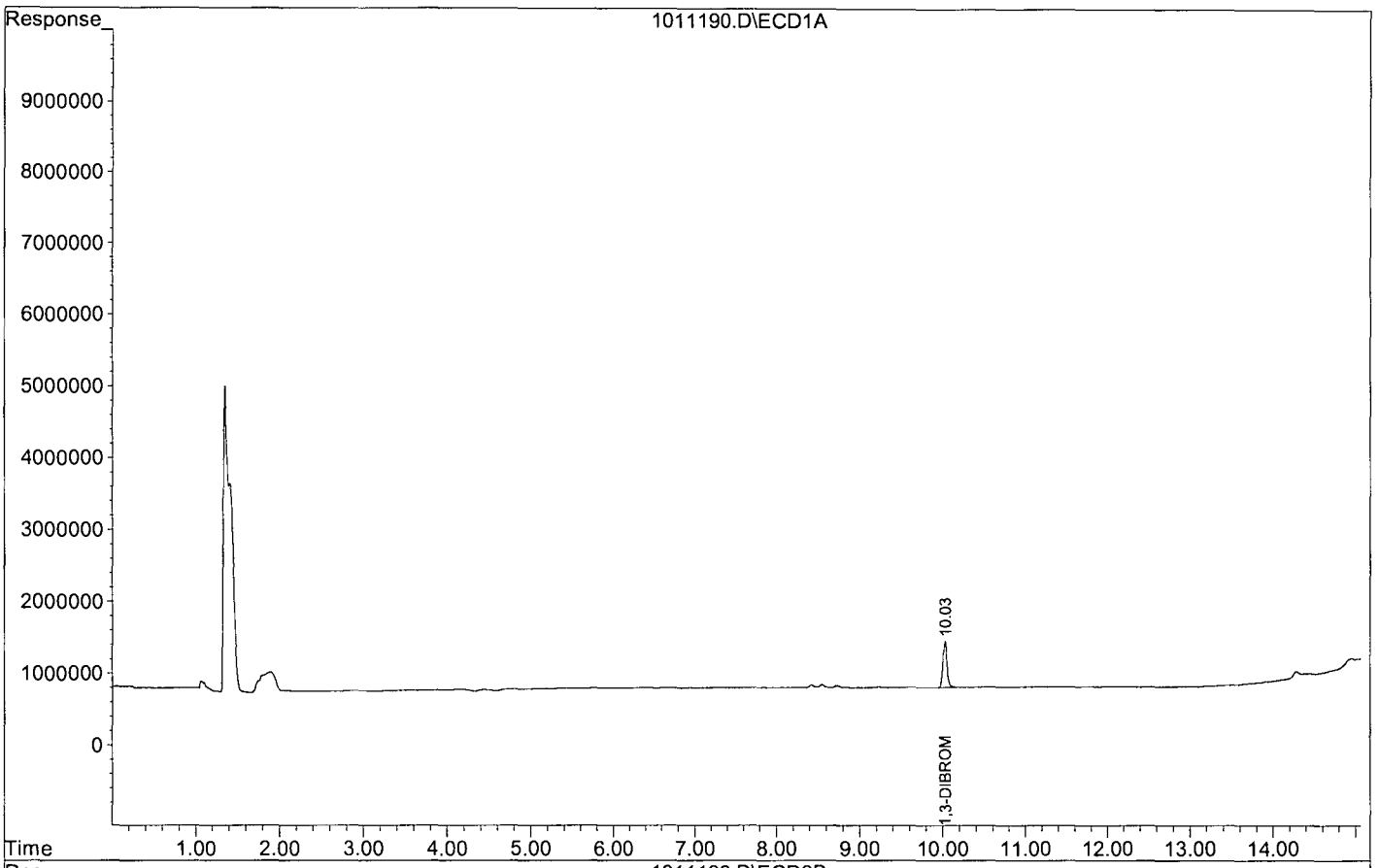
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.03	11.05	648012	868889	0.374	0.395
Spiked Amount	0.350			Recovery	=	106.89%	112.89%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

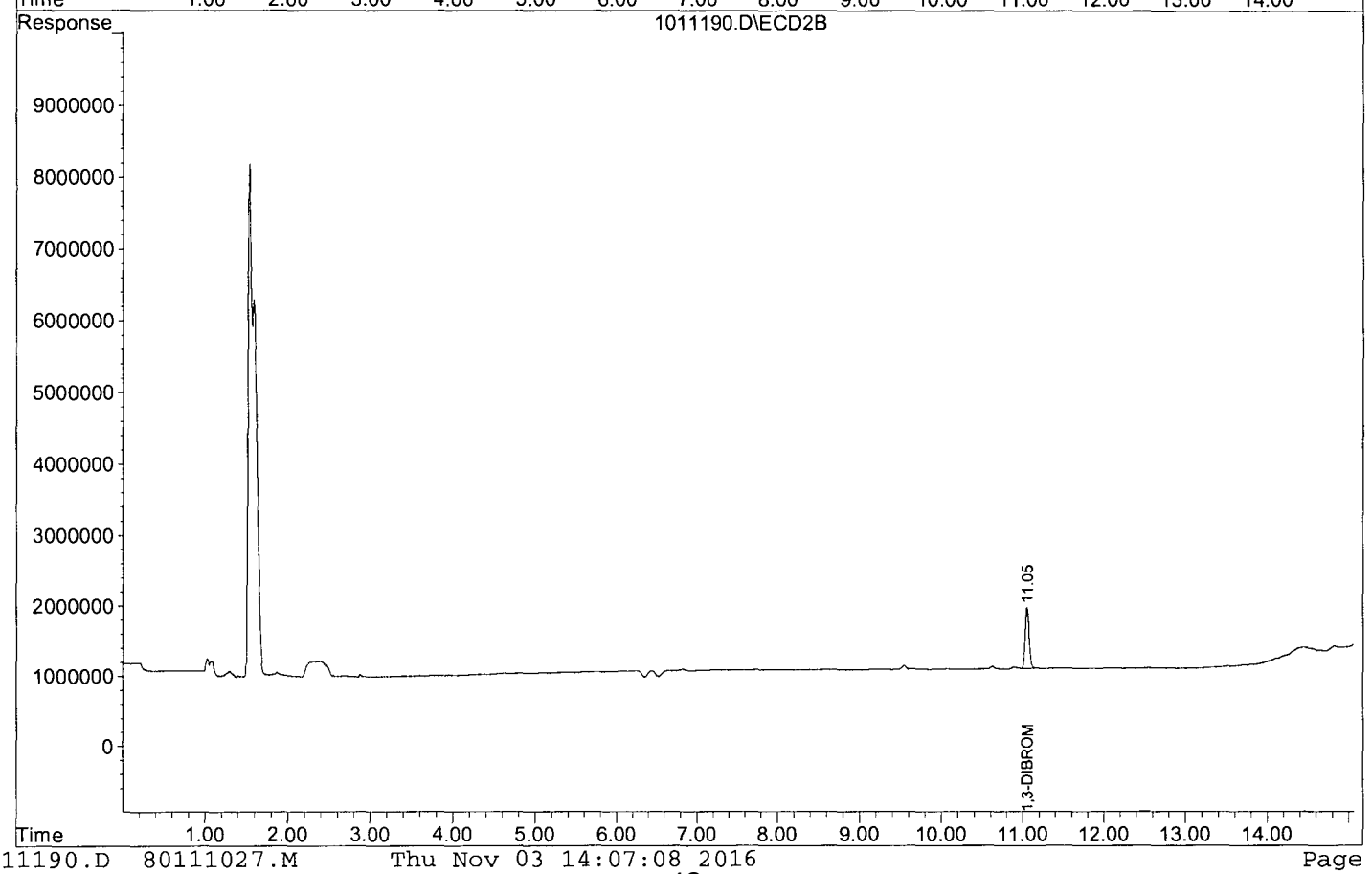
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\161011\1011190.D
Acq On : 10-27-16 0:13:50
Sample : AZ44697W02 2/35.01G
Misc :
Quant Method : G:\HERBIE\DATA\161011\80111027.M

Vial: 90
Operator: RH
Inst : Herbie
Multiplr: 1.00





ORGANICS

Calibration Data

APPL, INC.

DBCP/EDB/1,2,3-TCP Analysis by
504 8011 0301

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/26/16
Matrix: Instrument: Herbie Initials:

1011176.D 1011177.D 1011178.D 1011179.D 1011180.D 1011181.D

		Compound	1	2	3	4	5	6					Avg	%RSD		
1	TM	EDB	589925	686550	599976	547514	630072	555526					601594	8.5	TM	
2	TM	1,2,3-TCP	461900	271715	236608	216706	211276	201625					266638	37	TM	
3	S	1,3-DIBROMOPROPANE(S)	992625	982215	860090	791536	800435	773115					866669	11	S	
4	TM	DBCP	3011550	2867865	2626616	2477909	2561695	2550246					2682647	7.8	TM	
5		Signal #2											0	0		
6																
7																
8																
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1.8495978

DBCP/EDB/1,2,3-TCP Analysis by
504 8011 0301

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/26/16
Matrix: Instrument: Herbie Initials:

1011176.D 1011177 D 1011178.D 1011179.D 1011180.D 1011181 D

		Compound	1	2	3	4	5	6					Avg	%RSD		
36	TM	EDB #2	1874975	1860590	1742772	1654192	1741392	1605211					1746522	6.2	TM	
37	TM	1,2,3-TCP #2	314625	327935	292688	277941	299837	281958					299164	6.4	TM	
38	S	1,3-DIBROMOPROPANE(S) #2	1168075	1170570	1106326	1064736	1086295	1000868					1099478	5.9	S	
39	TM	DBCP #2	4508325	4832630	4487894	4336540	4864519	4797570					4637913	4.8	TM	
40																
41																
42																
43																
44																
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0.6646375

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161011\1011176.D\ECD1A.CH Vial: 76
Signal #2 : G:\HERBIE\DATA\161011\1011176.D\ECD2B.CH
Acq On : 10-26-16 19:32:00 Operator: RH
Sample : 8011 STD 1 10/26/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 27 13:32 2016 Quant Results File: 80111027.RES

Quant Method : G:\HERBIE\DATA\161011\80111027.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Thu Oct 27 13:32:18 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
3) S	1,3-DIBROMOPROPA	10.03	11.05	39705	46723	0.033	0.021	#
Spiked Amount	0.350			Recovery	=	9.43%	6.00%	
	Target Compounds							
1) TM	EDB	5.79	7.23	23597	74999	0.016	0.021	#
2) TM	1,2,3-TCP	9.24	10.46	18476	12585	0.057	0.020	#
4) TM	DBCP	13.35	14.10	120462	180333	0.029	0.017	#

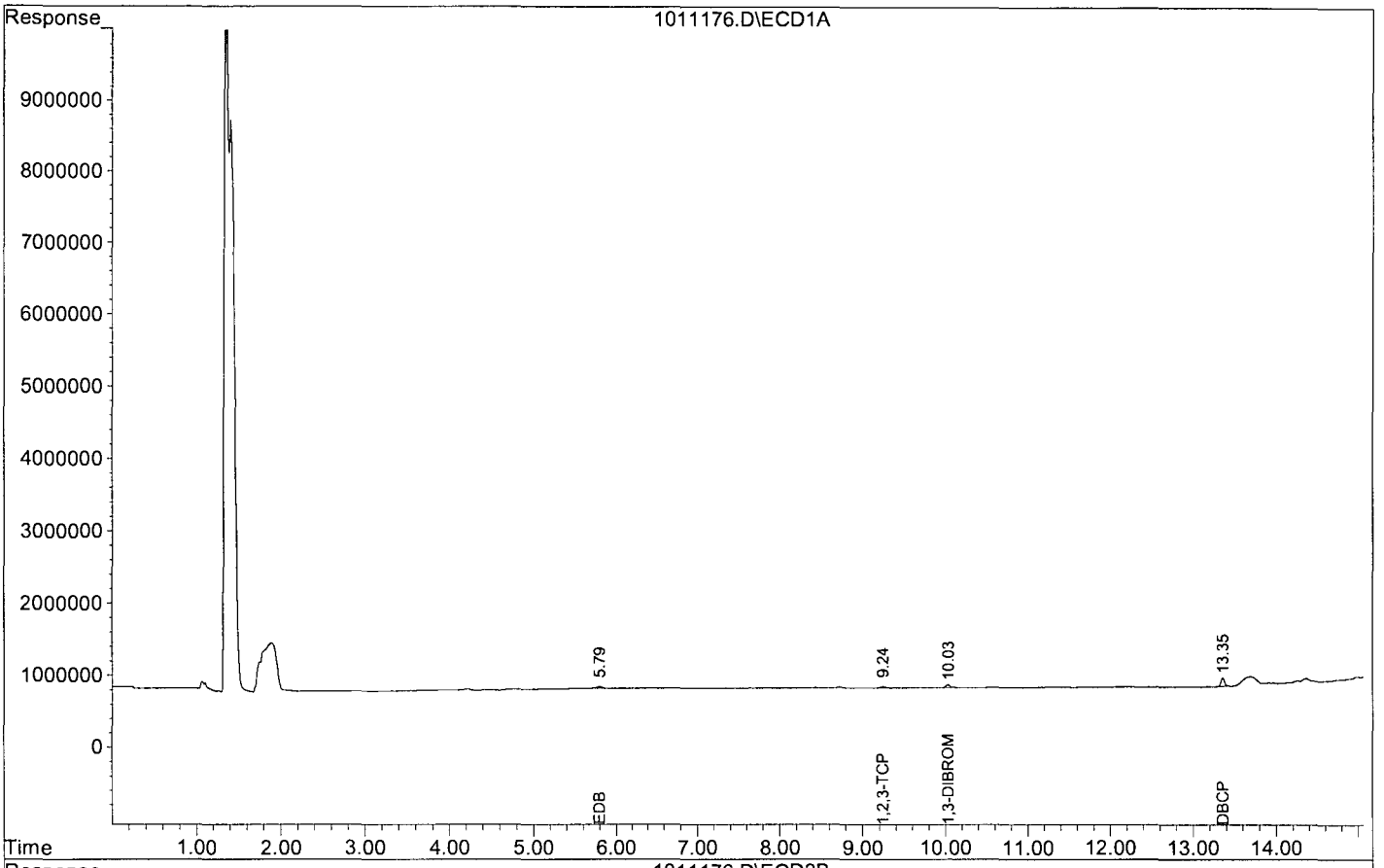
Target Compounds

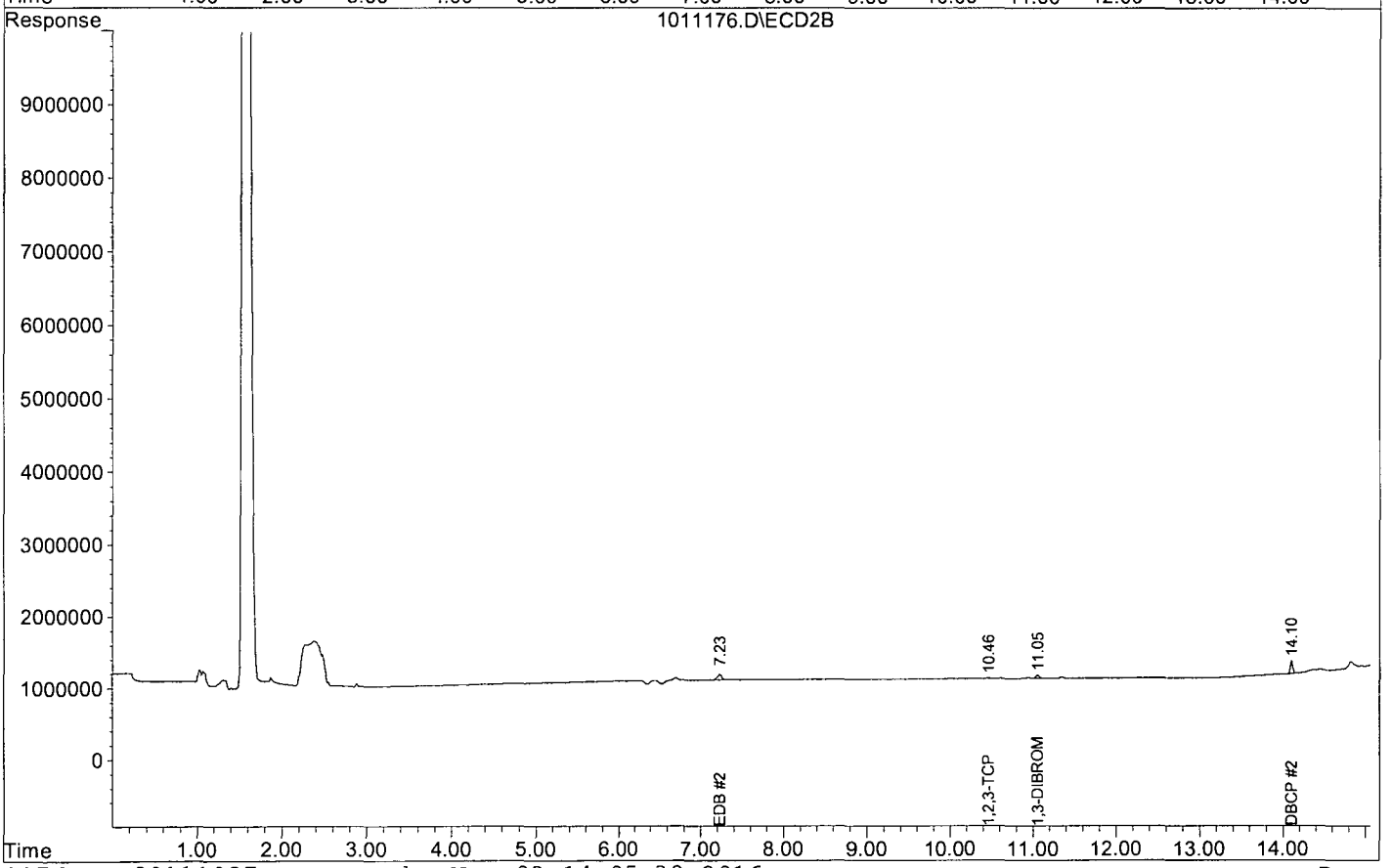
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161011\1011176.D
Acq On : 10-26-16 19:32:00
Sample : 8011 STD 1 10/26/16
Misc :
Quant Method : G:\HERBIE\DATA\161011\80111027.M

Vial: 76
Operator: RH
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161011\1011177.D\ECD1A.CH Vial: 77
Signal #2 : G:\HERBIE\DATA\161011\1011177.D\ECD2B.CH
Acq On : 10-26-16 19:52:18 Operator: RH
Sample : 8011 STD 2 10/26/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 27 13:32 2016 Quant Results File: 80111027.RES

Quant Method : G:\HERBIE\DATA\161011\80111027.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Thu Oct 27 13:32:18 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
3) S	1,3-DIBROMOPROPA	10.03	11.05	196443	234114	0.163	0.104	#
Spiked Amount	0.350			Recovery	=	46.57%	29.71%	
	Target Compounds							
1) TM	EDB	5.80	7.22	137310	372118	0.094	0.104	
2) TM	1,2,3-TCP	9.26	10.46	54343	65587	0.168	0.102	#
4) TM	DBCP	13.35	14.10	573573	966526	0.140	0.089	#

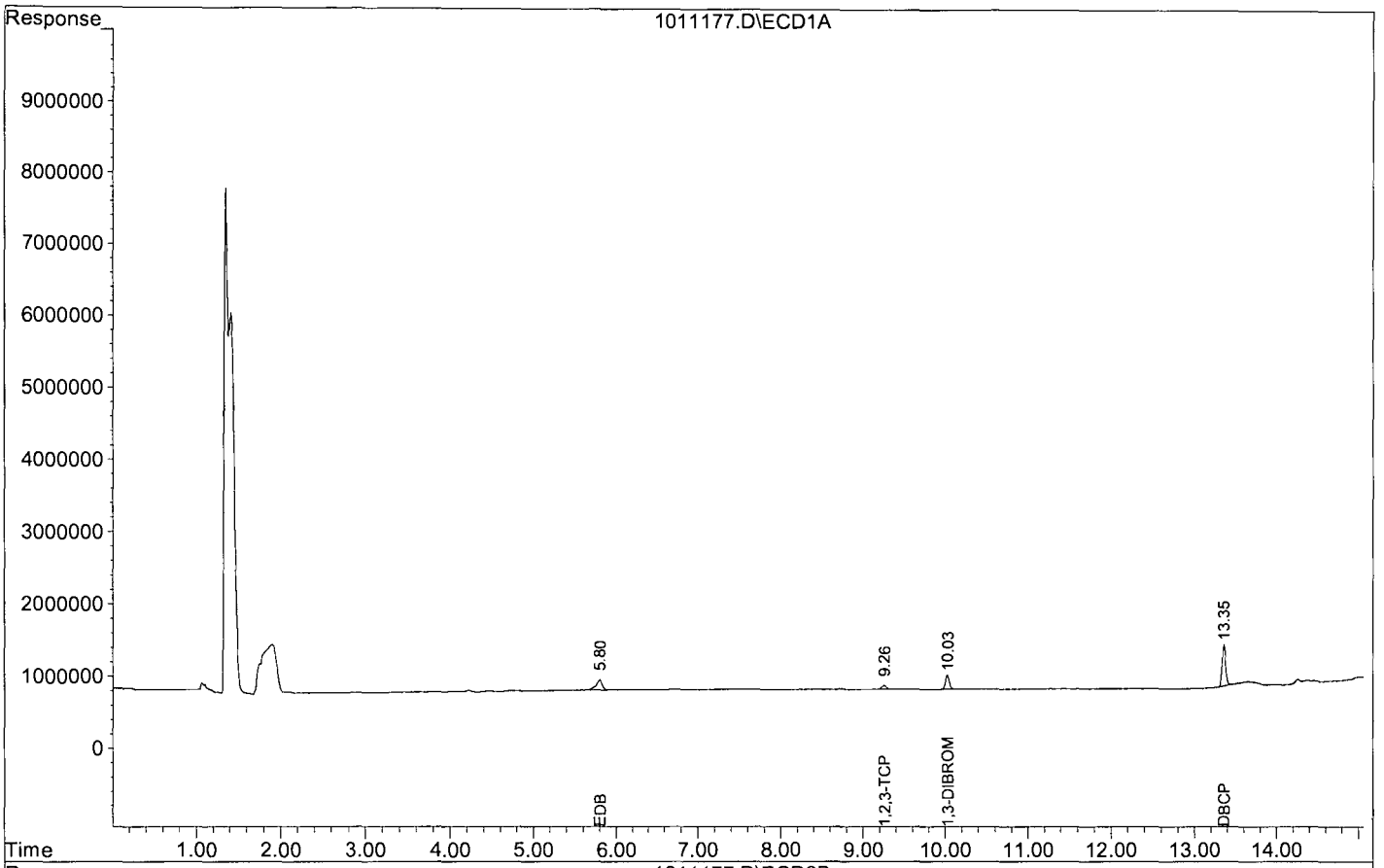
Target Compounds

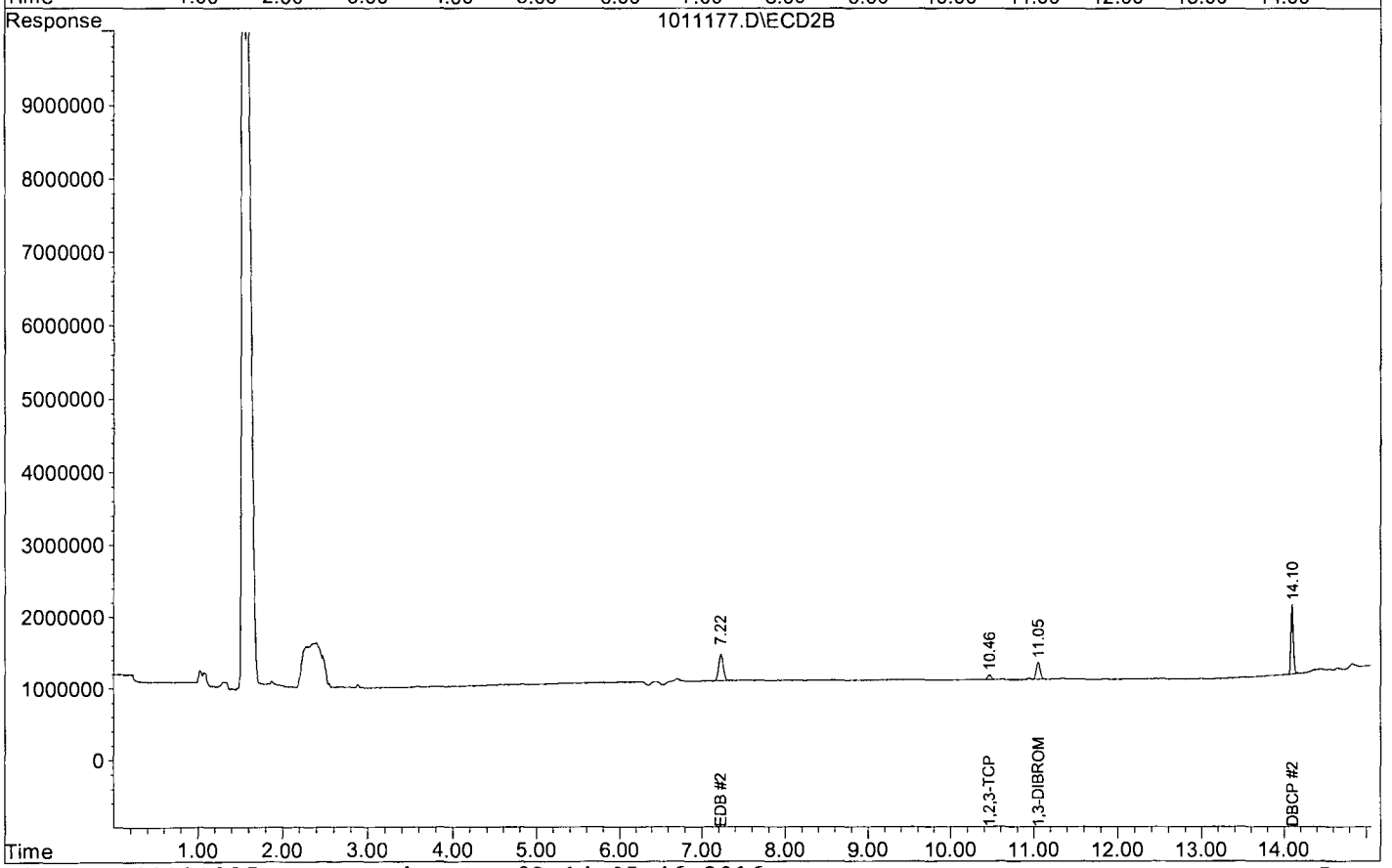
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161011\1011177.D
Acq On : 10-26-16 19:52:18
Sample : 8011 STD 2 10/26/16
Misc :
Quant Method : G:\HERBIE\DATA\161011\80111027.M

Vial: 77
Operator: RH
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161011\1011178.D\ECD1A.CH Vial: 78
Signal #2 : G:\HERBIE\DATA\161011\1011178.D\ECD2B.CH
Acq On : 10-26-16 20:12:33 Operator: RH
Sample : 8011 STD 3 10/26/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 27 13:32 2016 Quant Results File: 80111027.RES

Quant Method : G:\HERBIE\DATA\161011\80111027.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Thu Oct 27 13:32:18 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
3) S	1,3-DIBROMOPROPA	10.02	11.05	430045	553163	0.357	0.245	#
Spiked Amount	0.350			Recovery	=	102.00%	70.00%	
	Target Compounds							
1) TM	EDB	5.80	7.22	299988	871386	0.206	0.243	
2) TM	1,2,3-TCP	9.26	10.46	118304	146344	0.365	0.227	#
4) TM	DBCP	13.35	14.10	1313308	2243947	0.321	0.207	#

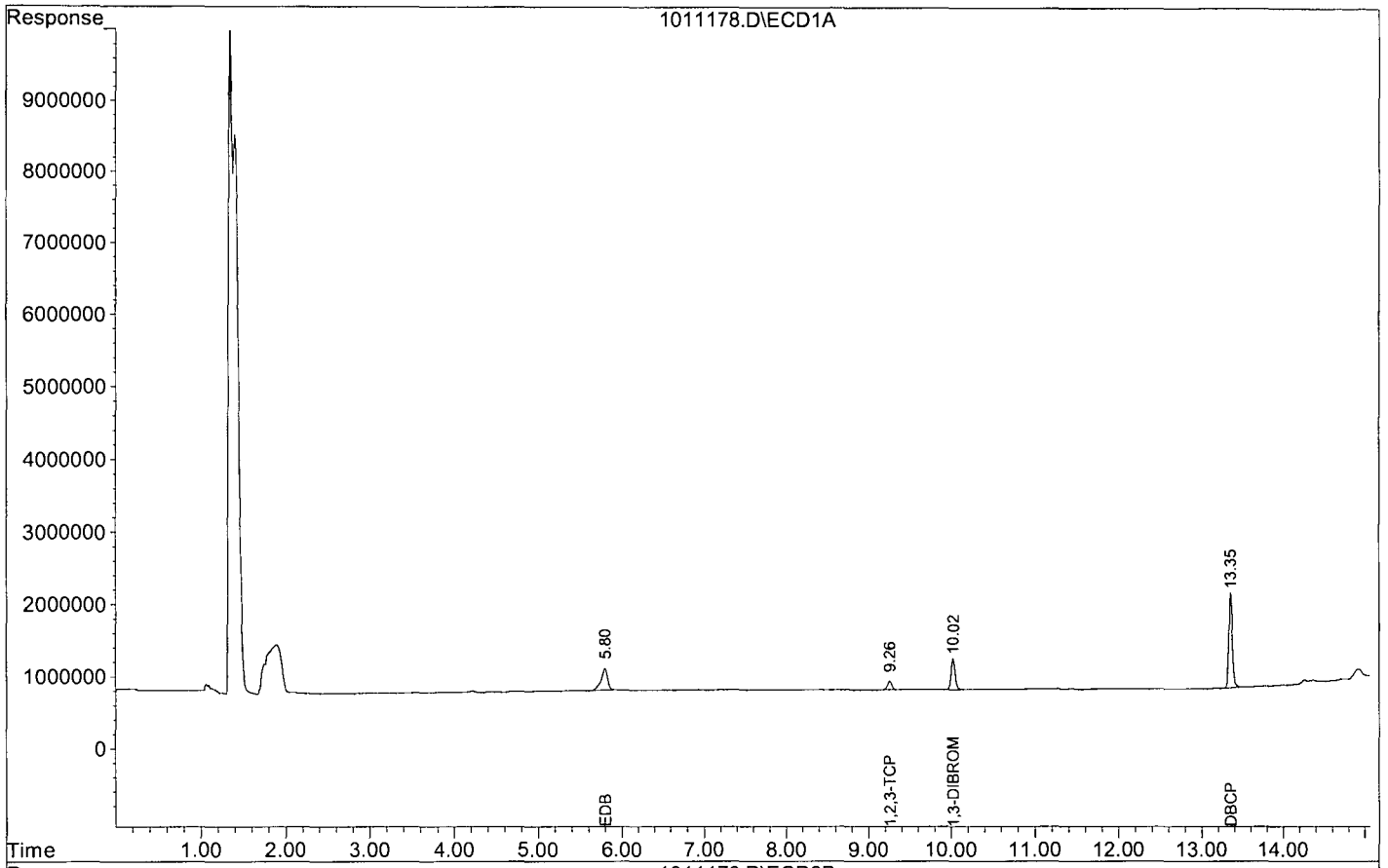
Target Compounds

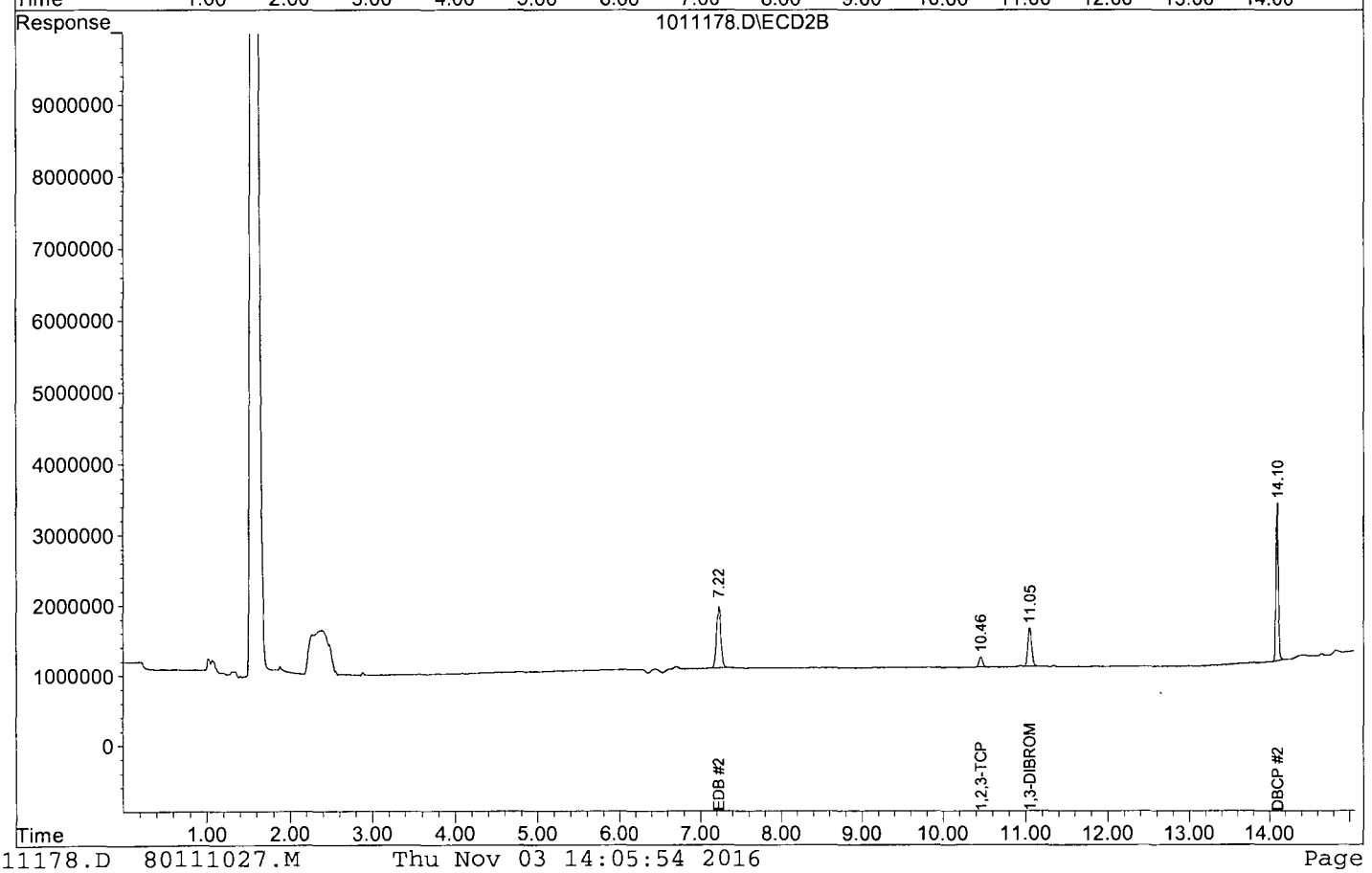
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161011\1011178.D
Acq On : 10-26-16 20:12:33
Sample : 8011 STD 3 10/26/16
Misc :
Quant Method : G:\HERBIE\DATA\161011\80111027.M

Vial: 78
Operator: RH
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161011\1011179.D\ECD1A.CH Vial: 79
Signal #2 : G:\HERBIE\DATA\161011\1011179.D\ECD2B.CH
Acq On : 10-26-16 20:32:52 Operator: RH
Sample : 8011 STD 4 10/26/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 27 13:32 2016 Quant Results File: 80111027.RES

Quant Method : G:\HERBIE\DATA\161011\80111027.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Thu Oct 27 13:32:18 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
3) S	1,3-DIBROMOPROPA	10.02	11.05	791536	1064736	0.657	0.471	#
Spiked Amount	0.350			Recovery	=	187.71%	134.57%	
	Target Compounds							
1) TM	EDB	5.80	7.22	547514	1654192	0.376	0.461	
2) TM	1,2,3-TCP	9.26	10.46	216706	277941	0.669	0.432	#
4) TM	DBCP	13.35	14.10	2477909	4336540	0.605	0.400	#

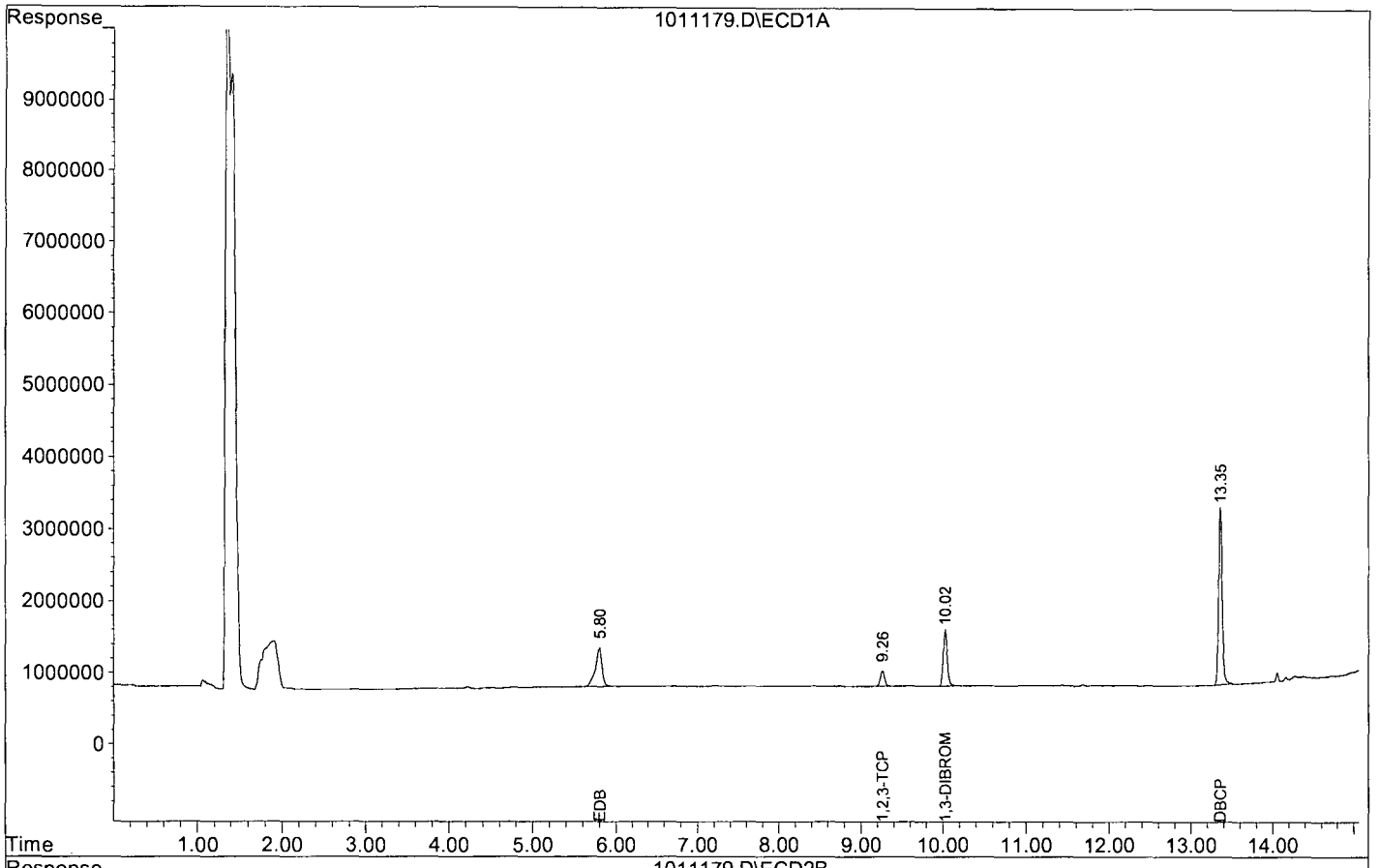
Target Compounds

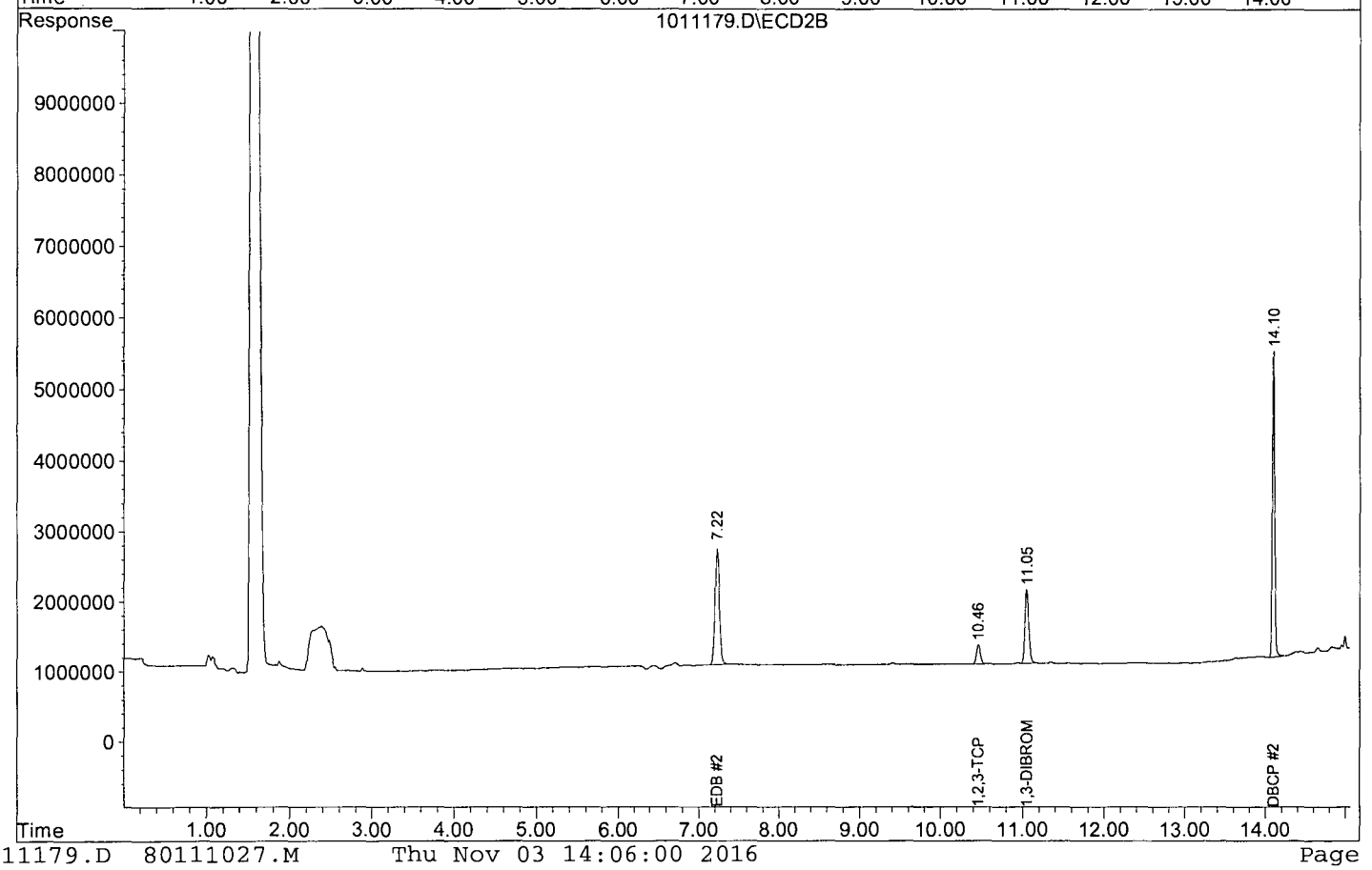
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161011\1011179.D
Acq On : 10-26-16 20:32:52
Sample : 8011 STD 4 10/26/16
Misc :
Quant Method : G:\HERBIE\DATA\161011\80111027.M

Vial: 79
Operator: RH
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161011\1011180.D\ECD1A.CH Vial: 80
Signal #2 : G:\HERBIE\DATA\161011\1011180.D\ECD2B.CH
Acq On : 10-26-16 20:53:01 Operator: RH
Sample : 8011 STD 5 10/26/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 27 13:32 2016 Quant Results File: 80111027.RES

Quant Method : G:\HERBIE\DATA\161011\80111027.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Thu Oct 27 13:32:18 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
3) S	1,3-DIBROMOPROPA	10.02	11.05	1200653	1629442	0.997	0.721	#
Spiked Amount	0.350			Recovery	=	284.86%	206.00%	
	Target Compounds							
1) TM	EDB	5.80	7.23	945108	2612088	0.650	0.728	
2) TM	1,2,3-TCP	9.26	10.46	316914	449755	0.979	0.699	#
4) TM	DBCP	13.35	14.10	3842542	7296779	0.939	0.674	#

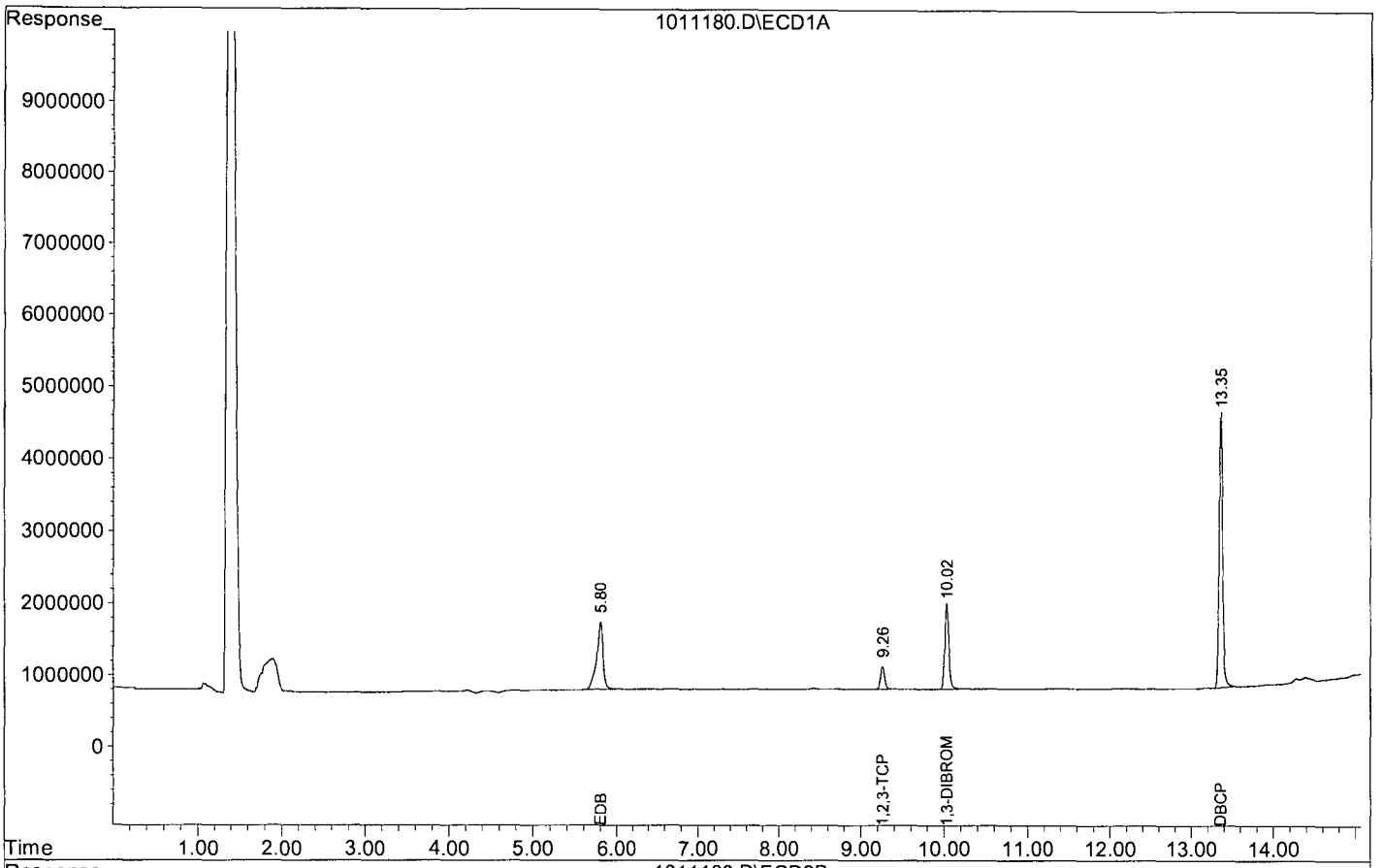
Target Compounds

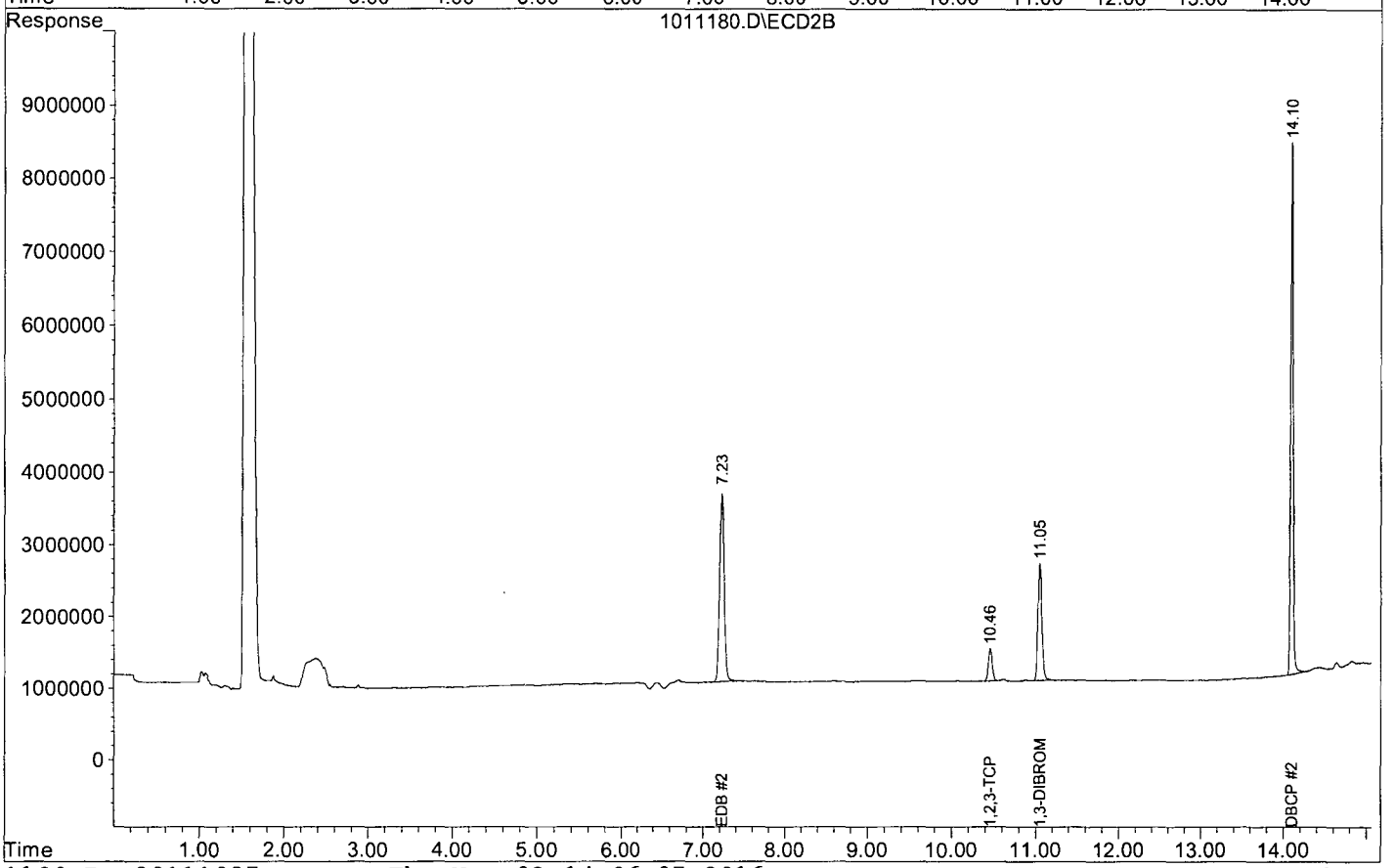
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161011\1011180.D
Acq On : 10-26-16 20:53:01
Sample : 8011 STD 5 10/26/16
Misc :
Quant Method : G:\HERBIE\DATA\161011\80111027.M

Vial: 80
Operator: RH
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161011\1011181.D\ECD1A.CH Vial: 81
Signal #2 : G:\HERBIE\DATA\161011\1011181.D\ECD2B.CH
Acq On : 10-26-16 21:13:10 Operator: RH
Sample : 8011 STD 6 10/26/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 27 13:32 2016 Quant Results File: 80111027.RES

Quant Method : G:\HERBIE\DATA\161011\80111027.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Thu Oct 27 13:32:18 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

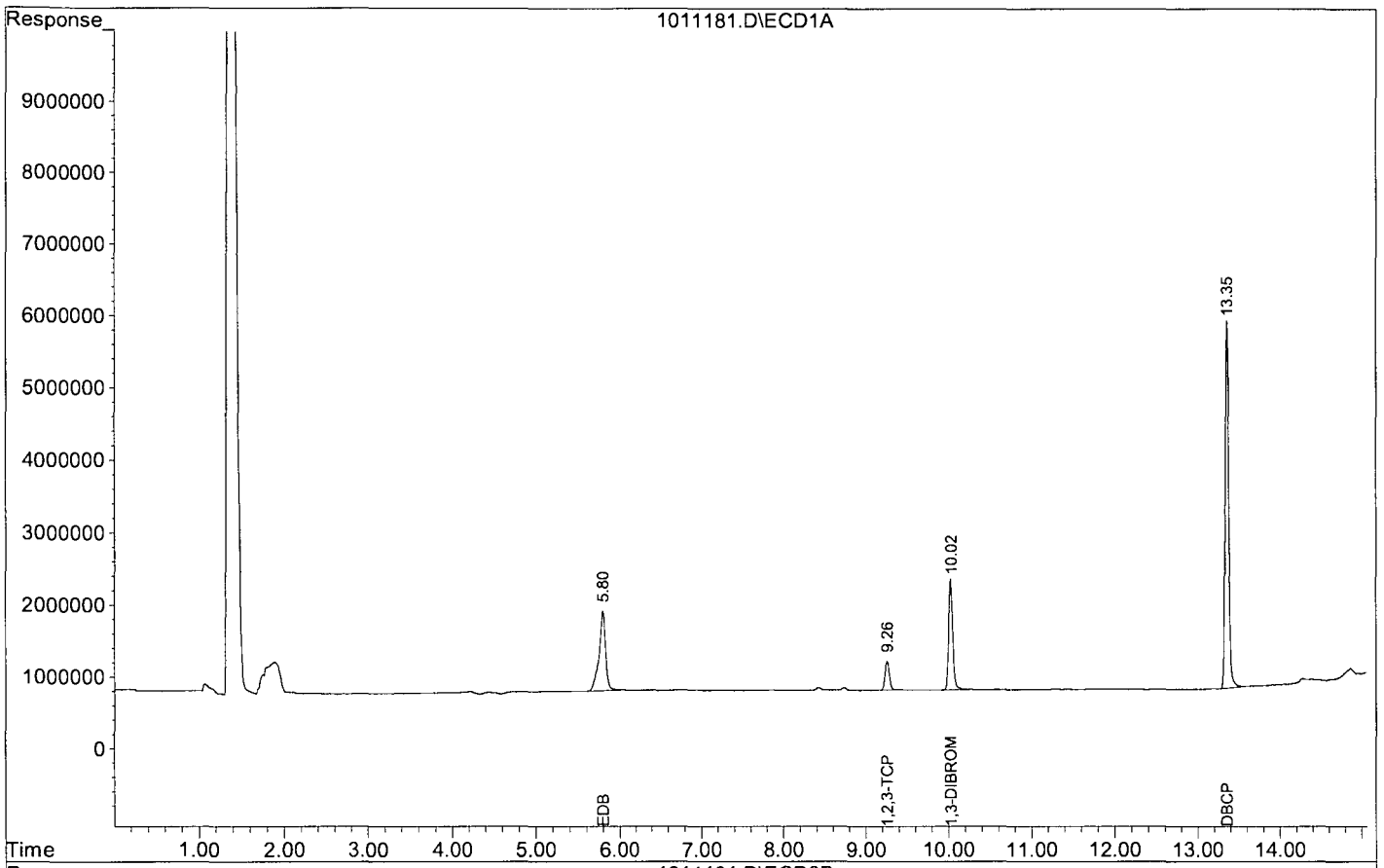
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
3) S	1,3-DIBROMOPROPA	10.02	11.05	1546230	2001736	1.284	0.886	#
Spiked Amount	0.350			Recovery	=	366.86%	253.14%	
	Target Compounds							
1) TM	EDB	5.80	7.22	1111052	3210421	0.764	0.895	
2) TM	1,2,3-TCP	9.26	10.46	403250	563915	1.246	0.876	#
4) TM	DBCP	13.35	14.10	5100492	9595139	1.246	0.886	#

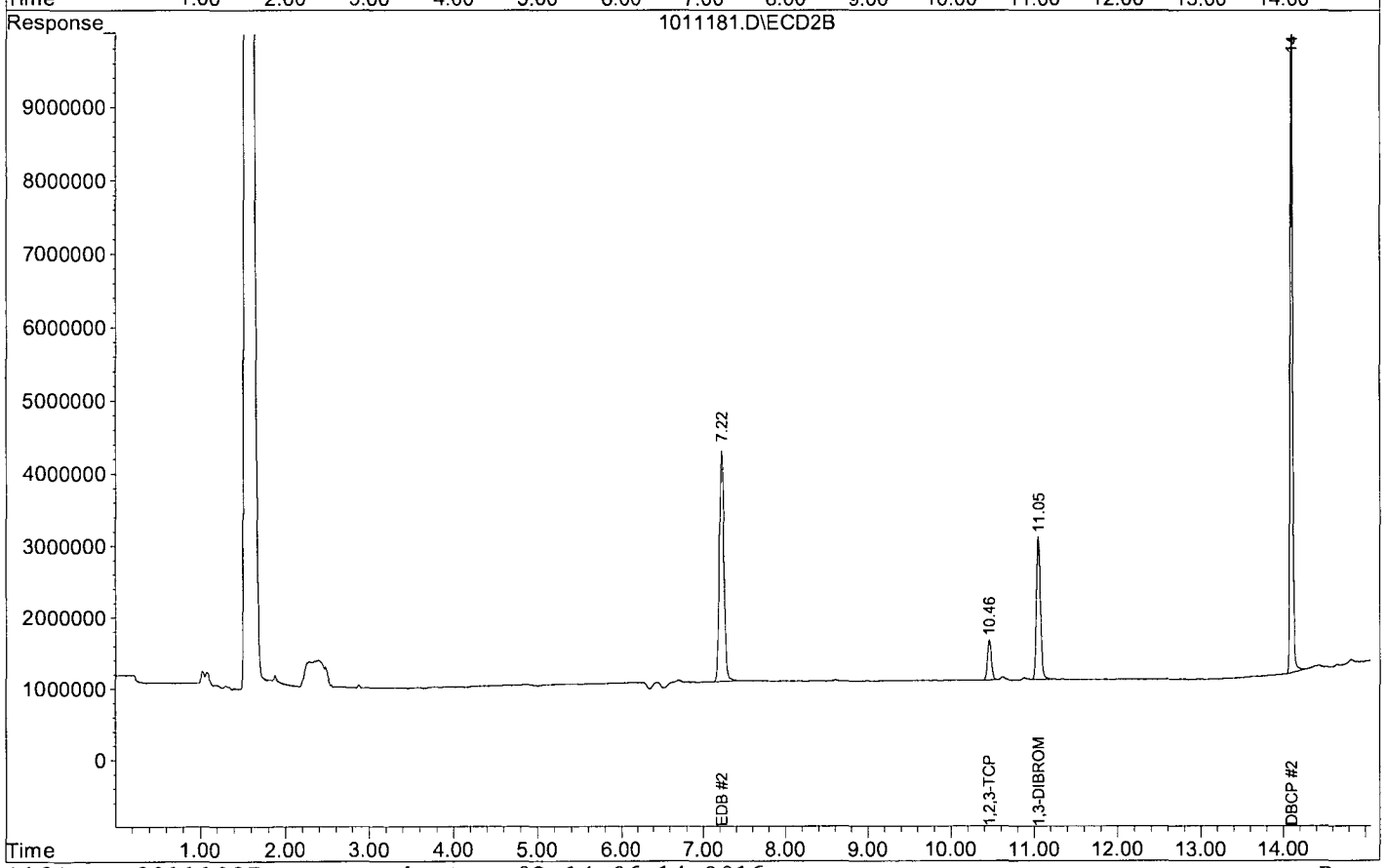
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161011\1011181.D Vial: 81
Acq On : 10-26-16 21:13:10 Operator: RH
Sample : 8011 STD 6 10/26/16 Inst : Herbie
Misc : Multiplr: 1.00
Quant Method : G:\HERBIE\DATA\161011\80111027.M





DBCP/EDB/1,2,3-TCP Analysis by
504 8011 0301

Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 10/26/16
Instrument: Herbie
Initial Cal. Date: 10/26/16
Data File: 1011184.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	601594	649325	7.9	TM	
2	TM	1,2,3-TCP	266638	290540	9.0	TM	
3	TM	DBCP	2682650	3181040	19	TM	
4							
5							
6							
7							
8							
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34							
35							
36							
37							
38							
39							
40							
		Average			12.0		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011 0301

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/26/16
Instrument: Herbie
Cal. Date: 10/26/16
Data File: 1011184.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	EDB	1746520	1844260	5.6	TM	
42	TM	1,2,3-TCP	299164	338450	13	TM	
43	TM	DBCP	4637910	5178890	12	TM	
44							
45							
46							
47							
48							
49							
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72							
73							
74							
75							
76							
77							
78							
79							
80							
		Average			10.2		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161011\1011184.D\ECD1A.CH Vial: 84
Signal #2 : G:\HERBIE\DATA\161011\1011184.D\ECD2B.CH
Acq On : 10-26-16 22:13:30 Operator: RH
Sample : 161026A LCS-1 2/35.63G Inst : Herbie
Misc : Multiplr: 0.98
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 28 11:47 2016 Quant Results File: 80111027.RES

Quant Method : G:\HERBIE\DATA\161011\80111027.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Thu Oct 27 13:33:16 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.03	11.05	695651	917580	0.394	0.410
Spiked Amount	0.344			Recovery	=	114.60%	119.25%
	Target Compounds						
1) TM	EDB	5.80	7.23	129865	368852	0.106	0.104
2) TM	1,2,3-TCP	9.26	10.46	58108	67690	0.107	0.111
4) TM	DBCP	13.36	14.10	636208	1035778	0.116	0.110

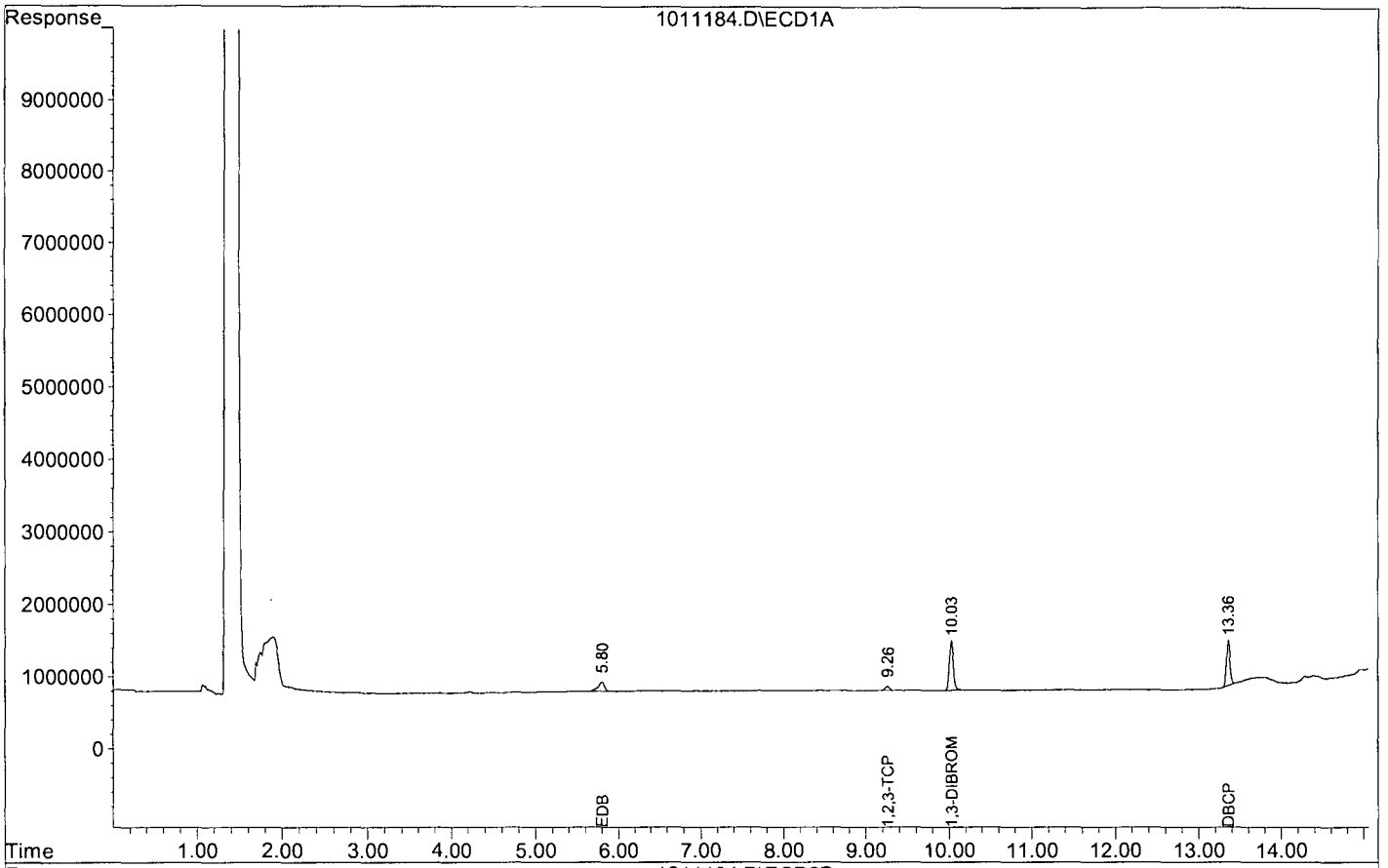
Target Compounds

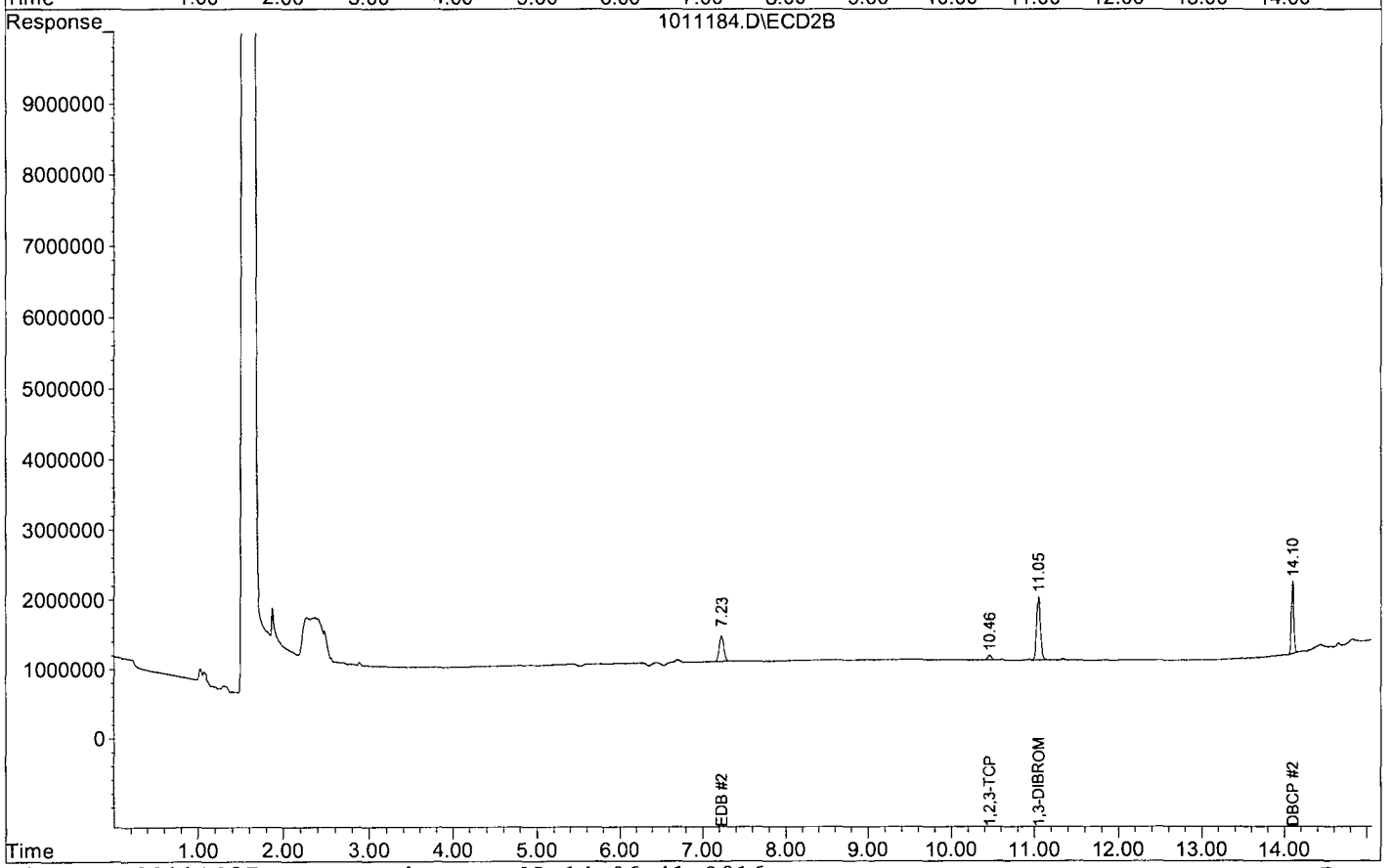
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161011\1011184.D
Acq On : 10-26-16 22:13:30
Sample : 161026A LCS-1 2/35.63G
Misc :
Quant Method : G:\HERBIE\DATA\161011\80111027.M

Vial: 84
Operator: RH
Inst : Herbie
Multiplr: 0.98





DBCP/EDB/1,2,3-TCP Analysis by
504 8011 0301

Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 10/27/16
Instrument: Herbie
Initial Cal. Date: 10/26/16
Data File: 1011194.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	601594	590172	1.9	TM	
2	TM	1,2,3-TCP	266638	235106	12	TM	
3	S	1,3-DIBROMOPROPANE(S)	866669	857600	1.0	S	
4	TM	DBCP	2682650	2616110	2.5	TM	
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.4		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011 0301

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/27/16
Instrument: Herbie
Cal. Date: 10/26/16
Data File: 1011194.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	EDB	1746520	1680050	3.8	TM	
42	TM	1,2,3-TCP	299164	288910	3.4	TM	
43	S	1,3-DIBROMOPROPANE(S)	1099480	1119550	1.8	S	
44	TM	DBCP	4637910	4406720	5.0	TM	
45							
46							
47							
48							
49							
50							
51							
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
		Average			3.5		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161011\1011194.D\ECD1A.CH Vial: 94
Signal #2 : G:\HERBIE\DATA\161011\1011194.D\ECD2B.CH
Acq On : 10-27-16 1:33:44 Operator: RH
Sample : 8011 STD 3 10/26/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 28 11:35 2016 Quant Results File: 80111027.RES

Quant Method : G:\HERBIE\DATA\161011\80111027.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Thu Oct 27 13:33:16 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.05	428800	559775	0.247	0.255
Spiked Amount	0.350			Recovery	=	70.57%	72.86%
	Target Compounds						
1) TM	EDB	5.80	7.22	295086	840027	0.245	0.240
2) TM	1,2,3-TCP	9.26	10.46	117553	144455	0.220	0.241
4) TM	DBCP	13.35	14.10	1308053	2203360	0.244	0.238

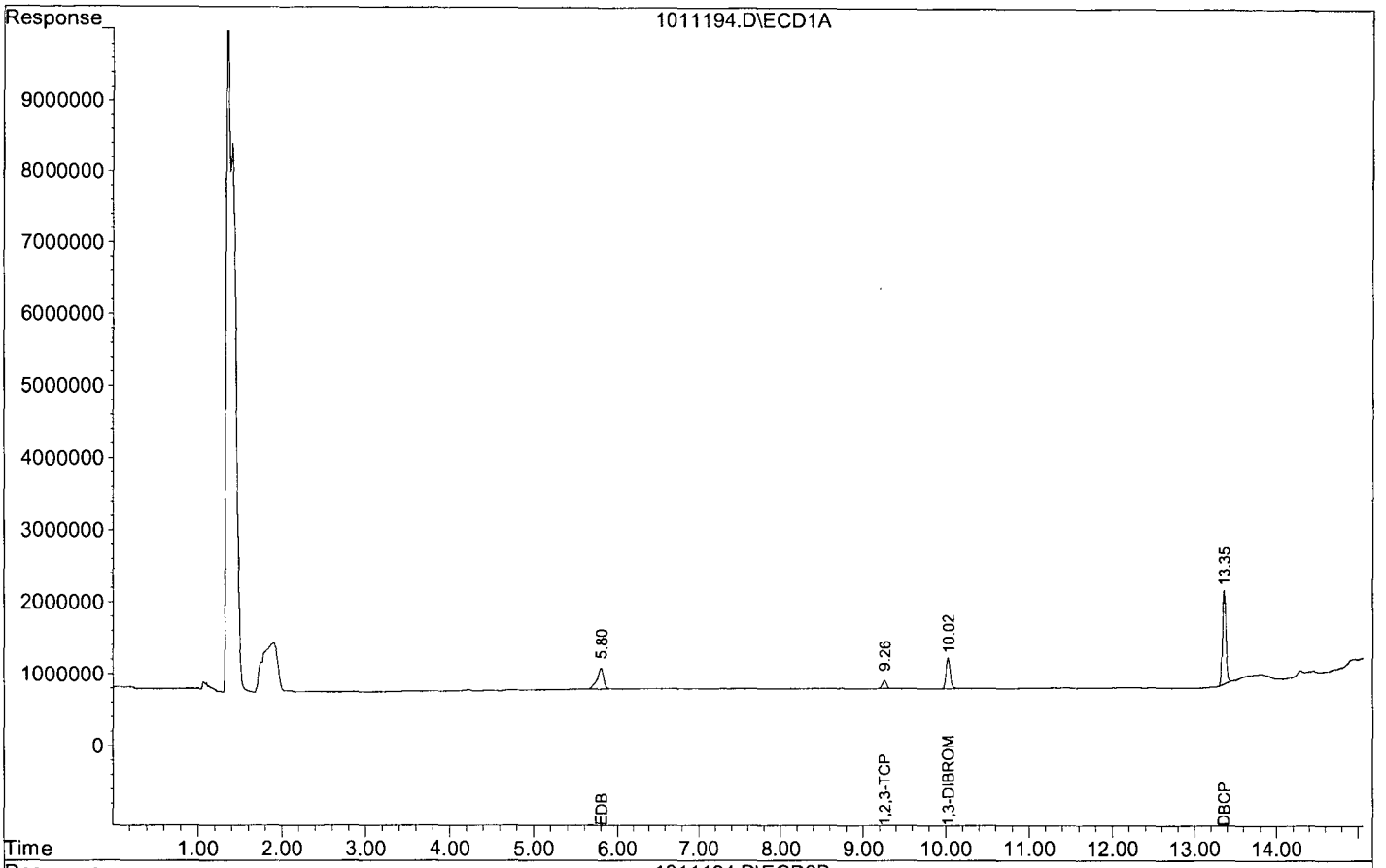
Target Compounds

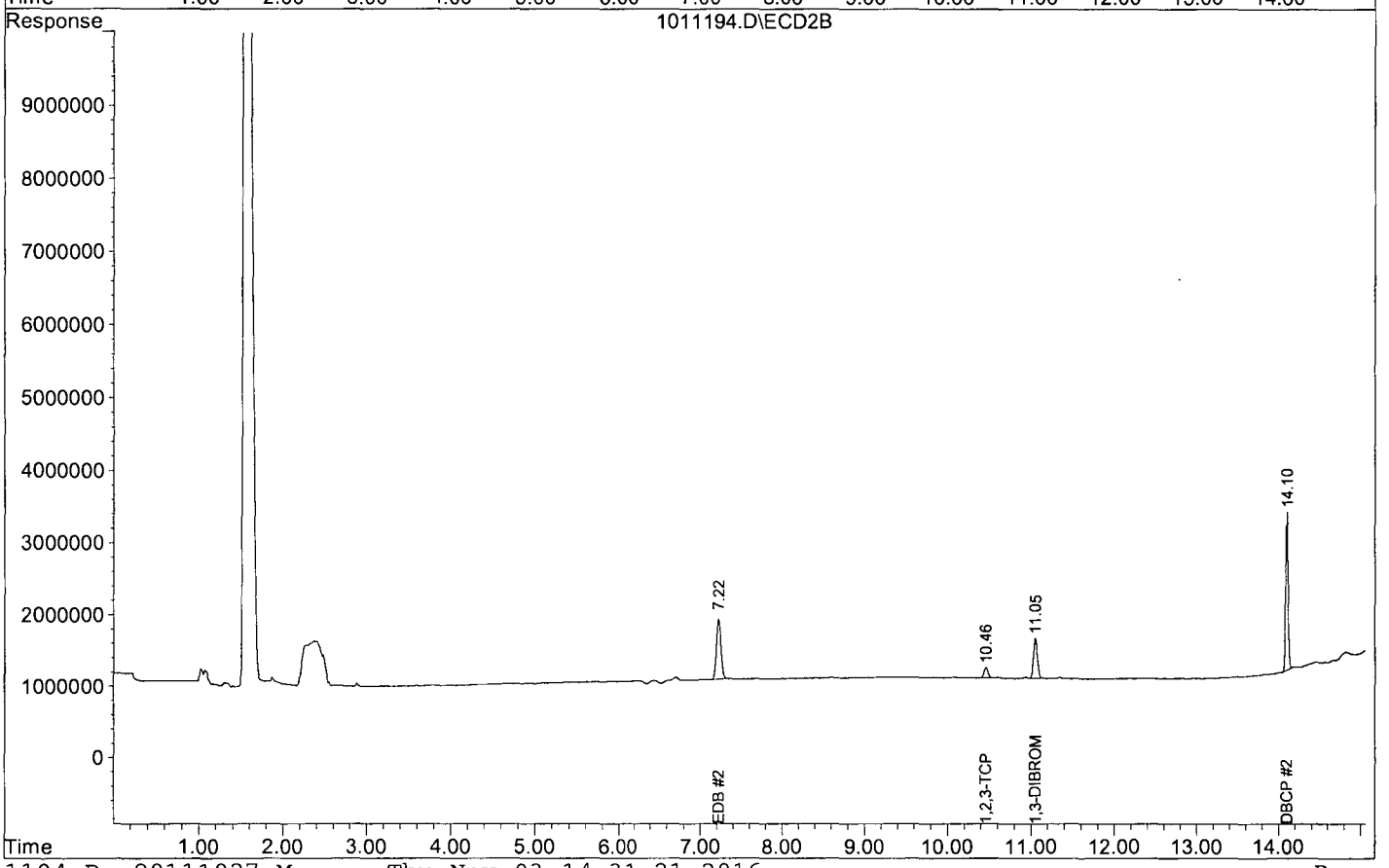
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161011\1011194.D
Acq On : 10-27-16 1:33:44
Sample : 8011 STD 3 10/26/16
Misc :
Quant Method : G:\HERBIE\DATA\161011\80111027.M

Vial: 94
Operator: RH
Inst : Herbie
Multiplr: 1.00





ORGANICS

Raw Data

APPL, INC.

Method Blank
EPA 8011

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161026W-44694 - 213154**
Batch ID: #8011-161026A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	EDB	0.020 U	0.02	0.020	0.010	ug/L	10/26/16	10/26/16
BLANK	SURROGATE: 1,3-DIBROMOPRO	112	70-132			%	10/26/16	10/26/16

Quant Method: 80111027.M
Run #: 1011183
Instrument: Herbie
Sequence: 161011
Initials: RHA

GC SC-Blank-REG MDLs-DOD
Printed: 10/28/16 12:02:18 PM

Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\161011\1011183.D\ECD1A.CH Vial: 83
Signal #2 : G:\HERBIE\DATA\161011\1011183.D\ECD2B.CH
Acq On : 10-26-16 21:53:28 Operator: RH
Sample : 161026A BLK 2/35.52G Inst : Herbie
Misc : Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 28 11:48 2016 Quant Results File: 80111027.RES

Quant Method : G:\HERBIE\DATA\161011\80111027.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Thu Oct 27 13:33:16 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

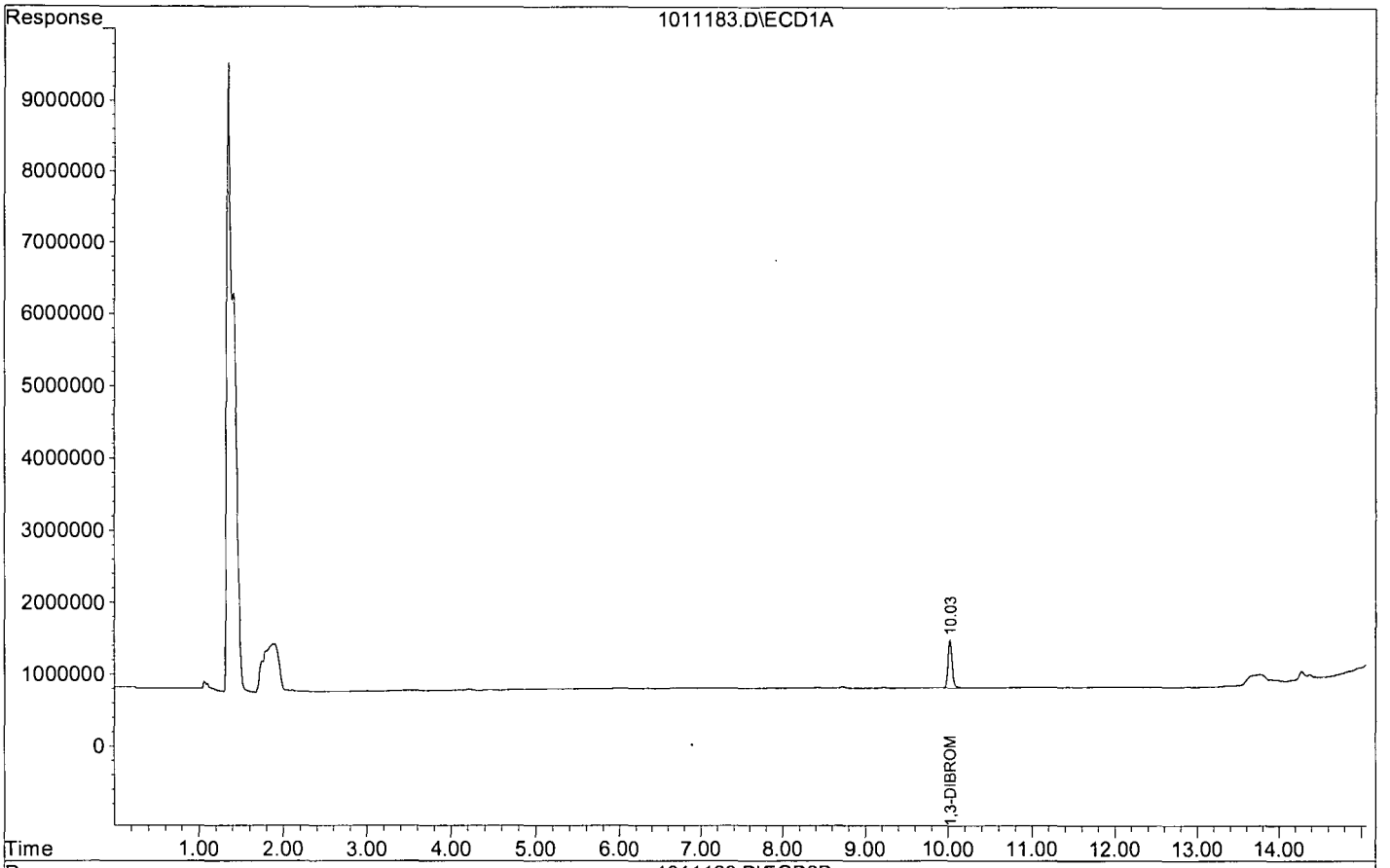
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.03	11.05	676808	891161	0.385	0.399
Spiked Amount	0.345			Recovery	=	111.63%	115.69%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

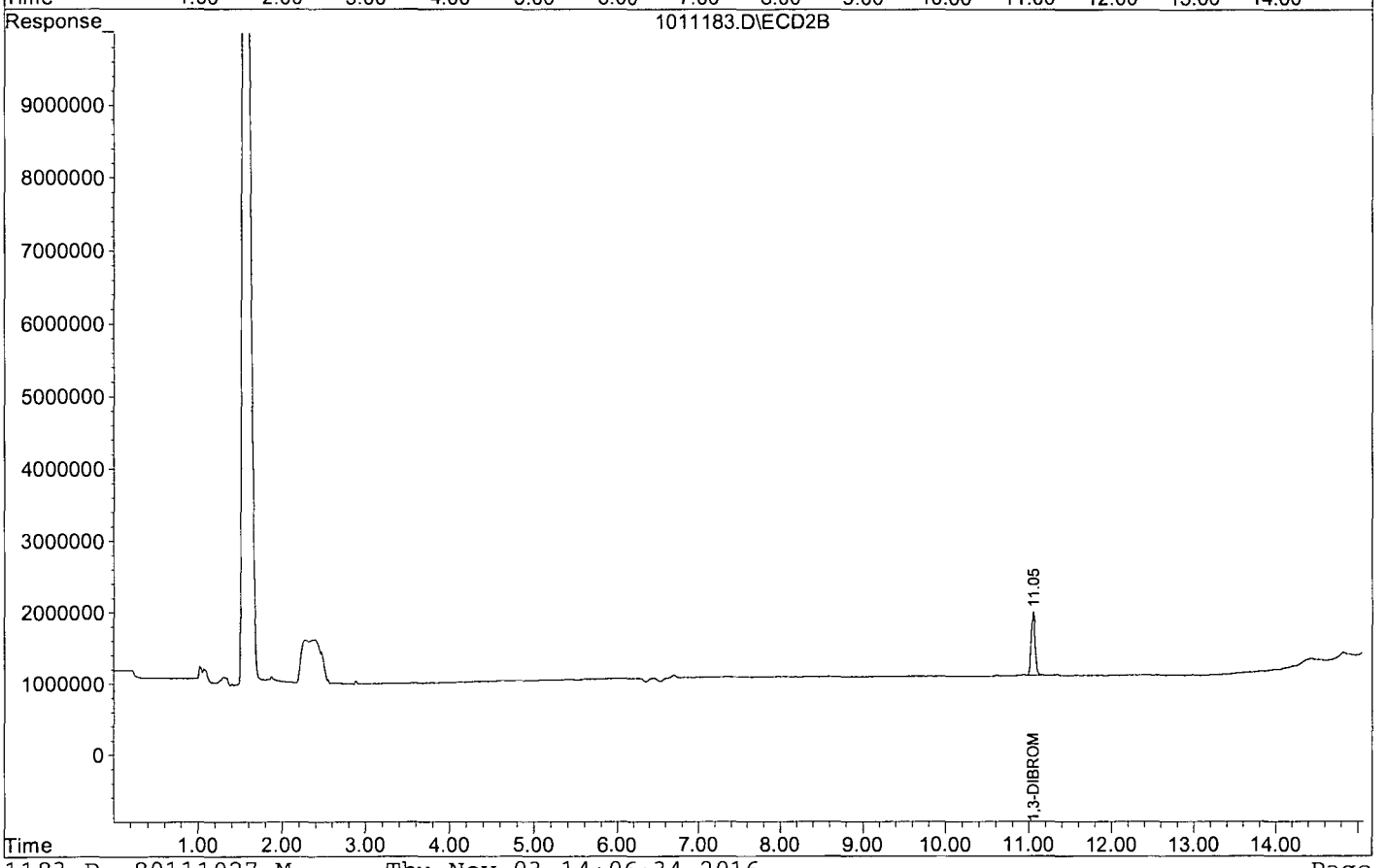
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\161011\1011183.D
Acq On : 10-26-16 21:53:28
Sample : 161026A BLK 2/35.52G
Misc :
Quant Method : G:\HERBIE\DATA\161011\80111027.M

Vial: 83
Operator: RH
Inst : Herbie
Multiplr: 0.99





Laboratory Control Spike Recovery

EPA 8011

APPL ID: **161026W-44694 LCS - 213154**
Batch ID: #8011-161026A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
EDB	0.250	0.228	91.2	60-140
SURROGATE: 1,3-DIBROMOPROPANE (	0.350	0.251	71.7	70-132

Comments: _____

Primary	SPK
Quant Method :	80111027.M
Extraction Date :	10/26/16
Analysis Date :	10/26/16
Instrument :	Herbie
Run :	1011185
Initials :	RHA

Printed: 10/28/16 12:02:06 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161011\1011185.D\ECD1A.CH Vial: 85
Signal #2 : G:\HERBIE\DATA\161011\1011185.D\ECD2B.CH
Acq On : 10-26-16 22:33:39 Operator: RH
Sample : 161026A LCS-2 2/35.43G Inst : Herbie
Misc : Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 28 11:47 2016 Quant Results File: 80111027.RES

Quant Method : G:\HERBIE\DATA\161011\80111027.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Thu Oct 27 13:33:16 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.03	11.05	441246	554265	0.251	0.249
Spiked Amount	0.346			Recovery	=	72.60%	72.02%
	Target Compounds						
1) TM	EDB	5.80	7.23	277493	874186	0.228	0.247
2) TM	1,2,3-TCP	9.26	10.46	119691	150826	0.222	0.249
4) TM	DBCP	13.36	14.10	1365935	2261423	0.251	0.241

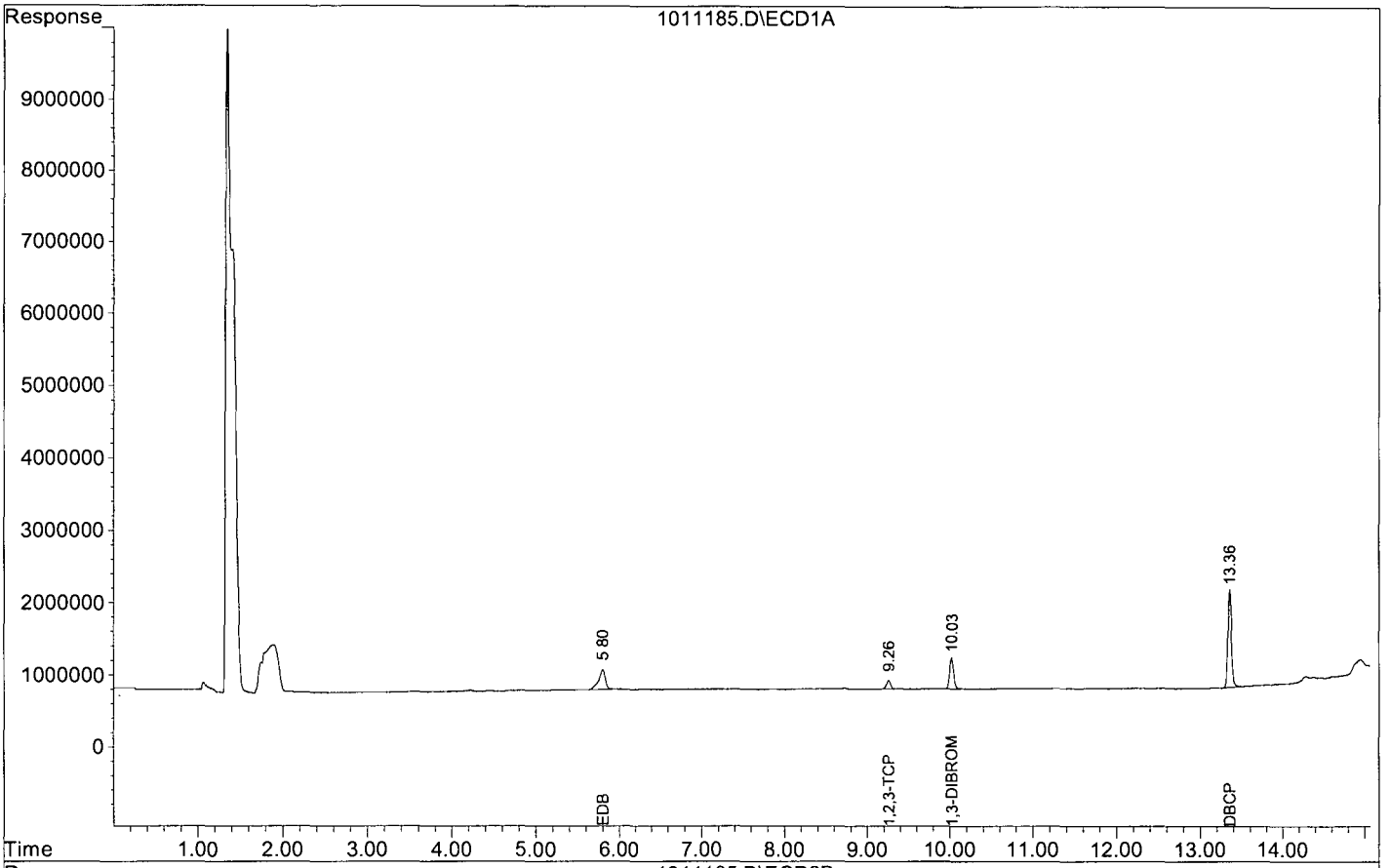
Target Compounds

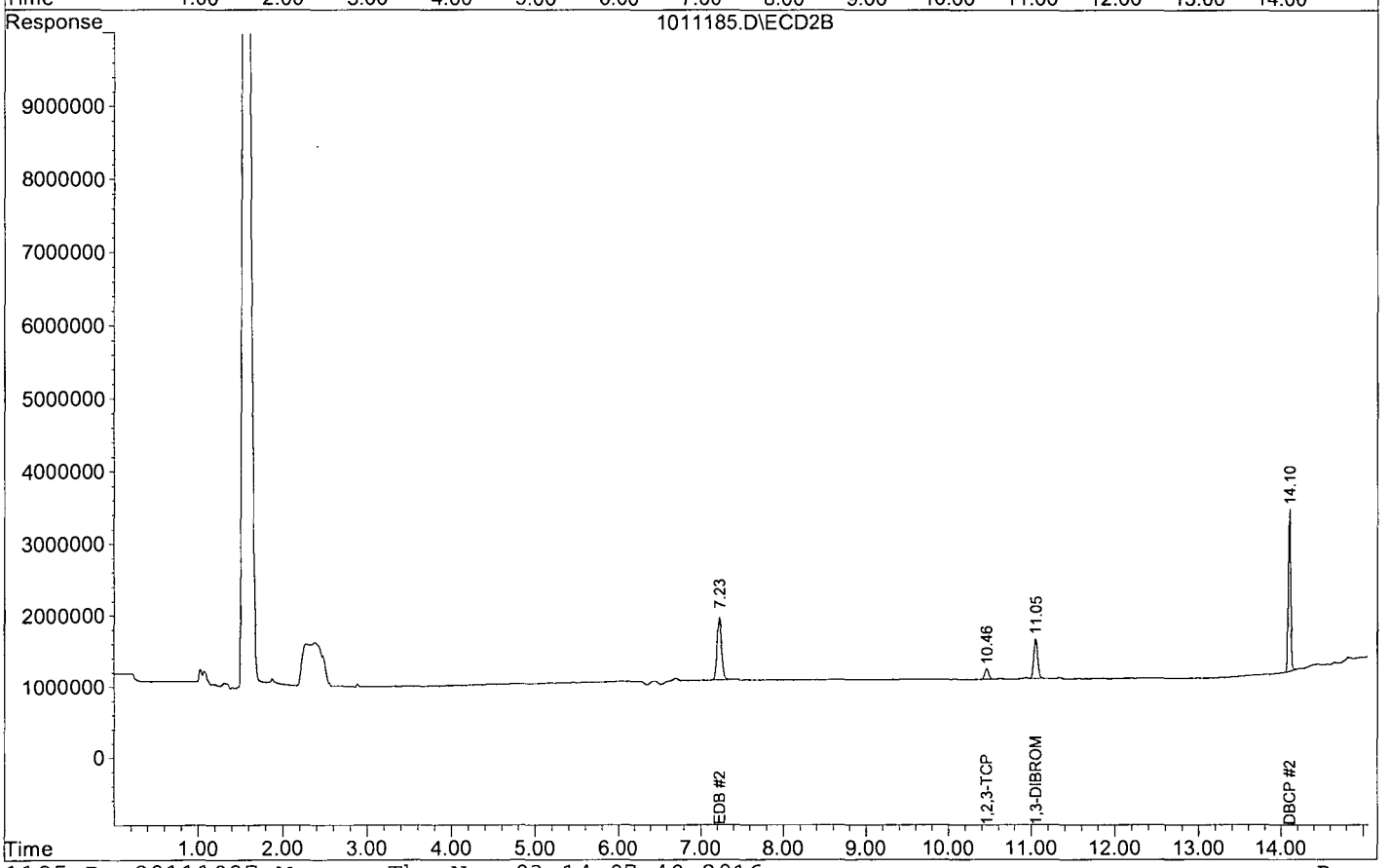
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161011\1011185.D
Acq On : 10-26-16 22:33:39
Sample : 161026A LCS-2 2/35.43G
Misc :
Quant Method : G:\HERBIE\DATA\161011\80111027.M

Vial: 85
Operator: RH
Inst : Herbie
Multiplr: 0.99





	504/8011 SS					
Prep:03/11/16-L.H. Ex: 12/30/16						
Compound	**Initial Conc.**	**Source**	**Aliquot**	**Final Vol.**	**Final Conc.**	**Solvent**
EDB	0.35ug/mL	504/8011 SPI	1000uL	10mL	0.035ug/mL	Methanol
TCP		prep. 12/30/15				021915C
DBCP		Exp: 12/30/16				

		504/8011 SS STOCK				
Prep: 12/30/15-L.H. Ex: 12/30/16						
Compound	**Initial Conc.**	**Source**	**Aliquot**	**Final Vol.**	**Final Conc.**	**Solvent**
EDB	200ug/mL	Absolute	44uL	25mL	0.35ug/mL	Methanol
TCP		CAT 30096				070913A
DBCP		Lot 010615-34593				
		open 12/30/15				
		exp 12/30/16				

	504/8011 SURROGATE					
Prep: 12/30/15-L.H. Ex: 12/30/16						
Compound	**Initial Conc.**	**Source**	**Aliquot**	**Final Vol.**	**Final Conc.**	**Solvent**
1,3 DBP	100	1,3 DBP STOCK	35ul	10mL	0.35ug/mL	Methanol
		prep.12/30/15				070913A
		exp. 12/30/16				

	504/8011 M STD					
Prep: 10/13/16 Exp: 12/03/16 RH						
Compound	**Initial Conc.**	**Source**	**Aliquot**	**Final Vol.**	**Final Conc.**	**Solvent**
EDB	0.35ug/mL	/8011 M STD	1000uL	10mL	0.035ug/mL	Methanol
TCP		prep.08/03/16				010616A
DBCP		exp: 12/03/16				
1,3 DBP						

504/8011 M STD STOCK						
Prep: 08/03/16-R.H.		Ex: 12/03/16				
Compound	**Initial Conc.**	**Source**	**Aliquot**	**Final Vol.**	**Final Conc.**	**Solvent**
EDB	20ug/mL	504/DOHS STOCK	438uL	25mL	0.35ug/mL	Methanol
TCP		prep. 06/07/16				021915C
DBCP		exp: 06/07/17				
1,3 DBP	100ug/mL	1,3 DBP STOCK	88uL			
		prep.06/07/16				
		exp. 06/07/17				

504 DOHS STOCK prep: 6/7/16 Exp: 6/7/17 LH						
Compounds	**Init. Conc.**	**Stock SRC**	**Aliquot**	**Final Vol.**	**Final Conc.**	**Solvent**
EDB	1000ug/mL	O2SI	500uL	25mL	20ug/mL	Methanol
TCP	Cat:	130271-08				Lot # 021915C
DBCP	Lot:	270815-36134				
	Op:	06/07/16				
	Exp:	06/07/17				

1,3-DBP STOCK						
Compounds	**Init. Conc.**	**Stock SRC**	**Aliquot**	**Final Vol.**	**Final Conc.**	**Solvent**
1,3 DBP	1000ug/mL	Absolute	1000uL	10mL	100ug/mL	Methanol
	Cat:	71326				Lot # 021915C
	Lot:	031413-33900				
	Op:	06/07/16				
	Exp:	06/07/17		Prep: 6/7/16 Exp: 6/7/17 LH		

Organic Extraction Worksheet

Method	EPA Method 8011 DBCP/EDB	Extraction Set	161026A	Extraction Method	MWE012	Units	mL

Spiked ID 1	504.1 SS 3-11-16 exp 12-30-16		Surrogate ID 1	504.1 Surrogate 12-30-15 exp 12-30-16	
Spiked ID 2	504.1 M. STD 10-13-16 exp 12-3-17		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:	10/26/16 12:50	
Spiked ID 8			Ext. End Time:	10/26/17 15:45	
			GC Requires Extract By:	**10/28/16 0:00**	

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: KY **Date** 10/26/16 **Witnessed By:** CFM **Date** 10/26/16

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	161026A Blk				0.035	1 equip	35.52g	2	7	10/26/16 12:50	
2	161026A LCS-1		0.1	1	0.035	1 equip	35.63g	2	7	10/26/16 12:50	
3	161026A LCS-2		0.250	2	NA	NA equip	35.43g	2	7	10/26/16 12:50	
4	AZ44636	AZ44636W05			0.035	1 equip	35.03g	2	7	10/26/16 12:50	81241
5	AZ44673	AZ44673W03			0.035	1 equip	33.61g	2	7	10/26/16 12:50	81250
6	AZ44674	AZ44674W03			0.035	1 equip	34.09g	2	7	10/26/16 12:50	81250
7	AZ44694	AZ44694W12			0.035	1 equip	35.20g	2	7	10/26/16 12:50	81251 1 WEEK
8	AZ44697	AZ44697W02			0.035	1 equip	35.01g	2	7	10/26/16 12:50	81251 1 WEEK
9	AZ44698	AZ44698W05			0.035	1 equip	34.69g	2	7	10/26/16 12:50	81251 1 WEEK
10	M STD 1		0.020	2	NA	NA equip	35.42g	2	7	10/26/16 12:50	
11	M STD 2		0.1	2	NA	NA equip	35.76g	2	7	10/26/16 12:50	
12	M STD 3		0.250	2	NA	NA equip	35.60g	2	7	10/26/16 12:50	
13	M STD 4		0.5	2	NA	NA equip	35.06g	2	7	10/26/16 12:50	
14	M STD 5		0.750	2	NA	NA equip	35.40g	2	7	10/26/16 12:50	
15	M STD 6		1	2	NA	NA equip	35.41g	2	7	10/26/16 12:50	

m 10/26/16

Solvent and Lot#	
NaCL	16B100011
Sod. Thiosulfate	24050
GC2 Hexane	DN636

Extraction COC Transfer	
Extraction lab employee Initials	DL
GC analyst's initials	RH
Date	10/26/16
Time	2:30
Refrigerator	Hobert

	Technician's Initials
Scanned By	KY
Sample Preparation	KY
Extraction	KY
Concentration	----------

Modified	10/26/16 1:47:39 PM

Reviewed By: m **Date** 10/26/16

Injection Log

Directory: G:\HERBIE\DATA\161011\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	76	1011176.D	1	8011 STD 1 10/26/16		10-26-16 19:32:00
2	77	1011177.D	1	8011 STD 2 10/26/16		10-26-16 19:52:18
3	78	1011178.D	1	8011 STD 3 10/26/16		10-26-16 20:12:33
4	79	1011179.D	1	8011 STD 4 10/26/16		10-26-16 20:32:52
5	80	1011180.D	1	8011 STD 5 10/26/16		10-26-16 20:53:01
6	81	1011181.D	1	8011 STD 6 10/26/16		10-26-16 21:13:10
7	83	1011183.D	0.98536	161026A BLK 2/35.52G		10-26-16 21:53:28
8	84	1011184.D	0.98232	161026A LCS-1 2/35.63G		10-26-16 22:13:30
9	85	1011185.D	0.98786	161026A LCS-2 2/35.43G		10-26-16 22:33:39
10	89	1011189.D	0.99432	AZ44694W12 2/35.20G		10-26-16 23:53:49
11	90	1011190.D	0.99971	AZ44697W02 2/35.01G		10-27-16 0:13:50
12	94	1011194.D	1	8011 STD 3 10/26/16		10-27-16 1:33:44

ORGANICS

APPL, INC.

ORGANICS

QC Summary

APPL, INC.

Method Blank

EPA 8015B TPH WATER

Blank Name/QCG: **161025W-44687 - 213355**

Batch ID: #DOC53-161025A1

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
BLANK	SURROGATE: OCTACOSANE (S)	104	60-142			%	10/25/16	11/01/16
BLANK	SURROGATE: ORTHO-TERPHEN	79.5	56-125			%	10/25/16	11/01/16

Quant Method:DOC1027.M
Run #:1031097
Instrument:Apollo
Sequence:161031
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/03/16 6:14:18 PM

Method Blank

EPA 8015B TPH WATER W/ SGC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161025W-44687 - 213354**
Batch ID: #DOC53-161025A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
BLANK	SURROGATE: (R) DECANOIC AC	0.0	0-1			%	10/25/16	11/01/16
BLANK	SURROGATE: OCTACOSANE (S)	104	60-142			%	10/25/16	11/01/16
BLANK	SURROGATE: ORTHO-TERPHEN	80.9	56-125			%	10/25/16	11/01/16

Quant Method:DOC1027.M
Run #:1031079
Instrument:Apollo
Sequence:161031
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/03/16 6:14:42 PM

Laboratory Control Spike Recovery
EPA 8015B TPH WATER

APPL ID: **161025W-44687 LCS - 213355**
Batch ID: #DOC53-161025A1

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL (C10-C24)	1330	1020	76.5	36-132
OIL (C24-C40)	1330	1110	83.3	41-113
SURROGATE: OCTACOSANE (S)	40.0	41.5	104	60-142
SURROGATE: ORTHO-TERPHENYL (S)	40.0	39.9	99.8	56-125

Comments: _____

Primary	SPK
Quant Method :	DOC1027.M
Extraction Date :	10/25/16
Analysis Date :	11/01/16
Instrument :	Apollo
Run :	1031098
Initials :	DPO

Printed: 11/03/16 6:14:19 PM
APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8015B TPH WATER W/ SGC

APPL ID: **161025W-44687 LCS - 213354**
Batch ID: #DOC53-161025A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL (C10-C24)	1330	944	70.8	36-132
OIL (C24-C40)	1330	1070	80.3	41-113
SURROGATE: (R) DECANOIC ACID (S)	10.00	0	0.0	0-1
SURROGATE: OCTACOSANE (S)	40.0	40.5	101	60-142
SURROGATE: ORTHO-TERPHENYL (S)	40.0	40.6	102	56-125

Comments: _____

Primary	SPK
Quant Method :	DOC1027.M
Extraction Date :	10/25/16
Analysis Date :	11/01/16
Instrument :	Apollo
Run :	1031080
Initials :	DPO

Printed: 11/03/16 6:14:43 PM
APPL Standard LCS

EPA 8015B-eLL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 11/01/16

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161025A1-BLK	Blank	60-142	104		56-125	79.5	
161025A1-LCS	Lab Control Spike	60-142	104		56-125	99.8	
AZ44687	ERH091	60-142	88.4		56-125	75.4	
AZ44688	ERH089	60-142	94.5		56-125	73.3	
AZ44689	ERH093	60-142	101		56-125	78.3	
AZ44690	ERH097	60-142	95.4		56-125	73.6	
AZ44691	ERH098	60-142	95.9		56-125	78.4	
AZ44692	ERH100	60-142	83.6		56-125	65.3	
AZ44693	ERH101	60-142	95.9		56-125	76.8	
AZ44694	ERH102	60-142	86.4		56-125	68.4	
AZ44695	ERH104	60-142	97.9		56-125	79.7	
AZ44696	ERH105	60-142	95.3		56-125	77.8	

Comments: Batch: #DOC53-161025A1

EPA 8015B-eLL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 11/01/16

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: (R) DECANOIC ACID (S)			SURROGATE: OCTACOSANE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161025A-BLK	Blank	0-1	0.0		60-142	104	
161025A-LCS	Lab Control Spike	0-1	0.0		60-142	101	
AZ44687	ERH091	0-1	0.0		60-142	76.8	
AZ44688	ERH089	0-1	0.0		60-142	81.7	
AZ44689	ERH093	0-1	0.0		60-142	93.4	

Comments: Batch: #DOC53-161025A

Printed: 11/03/16 6:14:43 PM

Form 2 & 8, Surrogate Recovery Summary

EPA 8015B-eLL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 11/01/16

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: ORTHO-TERPHENYL (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
161025A-BLK	Blank	56-125	80.9				
161025A-LCS	Lab Control Spike	56-125	102				
AZ44687	ERH091	56-125	61.4				
AZ44688	ERH089	56-125	64.8				
AZ44689	ERH093	56-125	74.6				

Comments: Batch: #DOC53-161025A

EPA 8015B-eL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 11/01/16

Matrix: WATER Instrument: Apollo

Blank ID: 161025A1-BLK Time Analyzed: 1830

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161025A1-BLK	Blank	1031097	11/01/16 1830
161025A1-LCS	Lab Control Spike	1031098	11/01/16 1850
AZ44687	ERH091	1031100	11/01/16 1932
AZ44688	ERH089	1031101	11/01/16 1953
AZ44689	ERH093	1031102	11/01/16 2013
AZ44690	ERH097	1031103	11/01/16 2034
AZ44691	ERH098	1031104	11/01/16 2055
AZ44692	ERH100	1031105	11/01/16 2115
AZ44693	ERH101	1031106	11/01/16 2136
AZ44694	ERH102	1031110	11/01/16 2258
AZ44695	ERH104	1031111	11/01/16 2319
AZ44696	ERH105	1031112	11/01/16 2340

Comments: Batch: #DOC53-161025A1

Printed: 11/03/16 6:14:21 PM

Form 4, Blank Summary

EPA 8015B-eL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 11/01/16

Matrix: WATER Instrument: Apollo

Blank ID: 161025A-BLK Time Analyzed: 1211

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161025A-BLK	Blank	1031079	11/01/16 1211
161025A-LCS	Lab Control Spike	1031080	11/01/16 1232
AZ44687	ERH091	1031082	11/01/16 1314
AZ44688	ERH089	1031083	11/01/16 1335
AZ44689	ERH093	1031084	11/01/16 1356

Comments: Batch: #DOC53-161025A

Printed: 11/03/16 6:14:45 PM
Form 4, Blank Summary

ORGANICS

Sample Data

APPL, INC.

EPA 8015B TPH WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH091

APPL ID: AZ44687

Sample Collection Date: 10/19/16

QCG: #DOC53-161025A1-213355

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	1300	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	88.4	60-142			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	75.4	56-125			%	10/25/16	11/01/16

Quant Method: DOC1027.M
Run #: 1031100
Instrument: Apollo
Sequence: 161031
Dilution Factor: 1
Initials: DPO

Printed: 11/03/16 6:14:21 PM

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

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031100.D Vial: 100
Acq On : 11-1-16 19:32:28 Operator: DP
Sample : AZ44687W13 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 17:58 2016 Quant Results File: DOC1027.RES

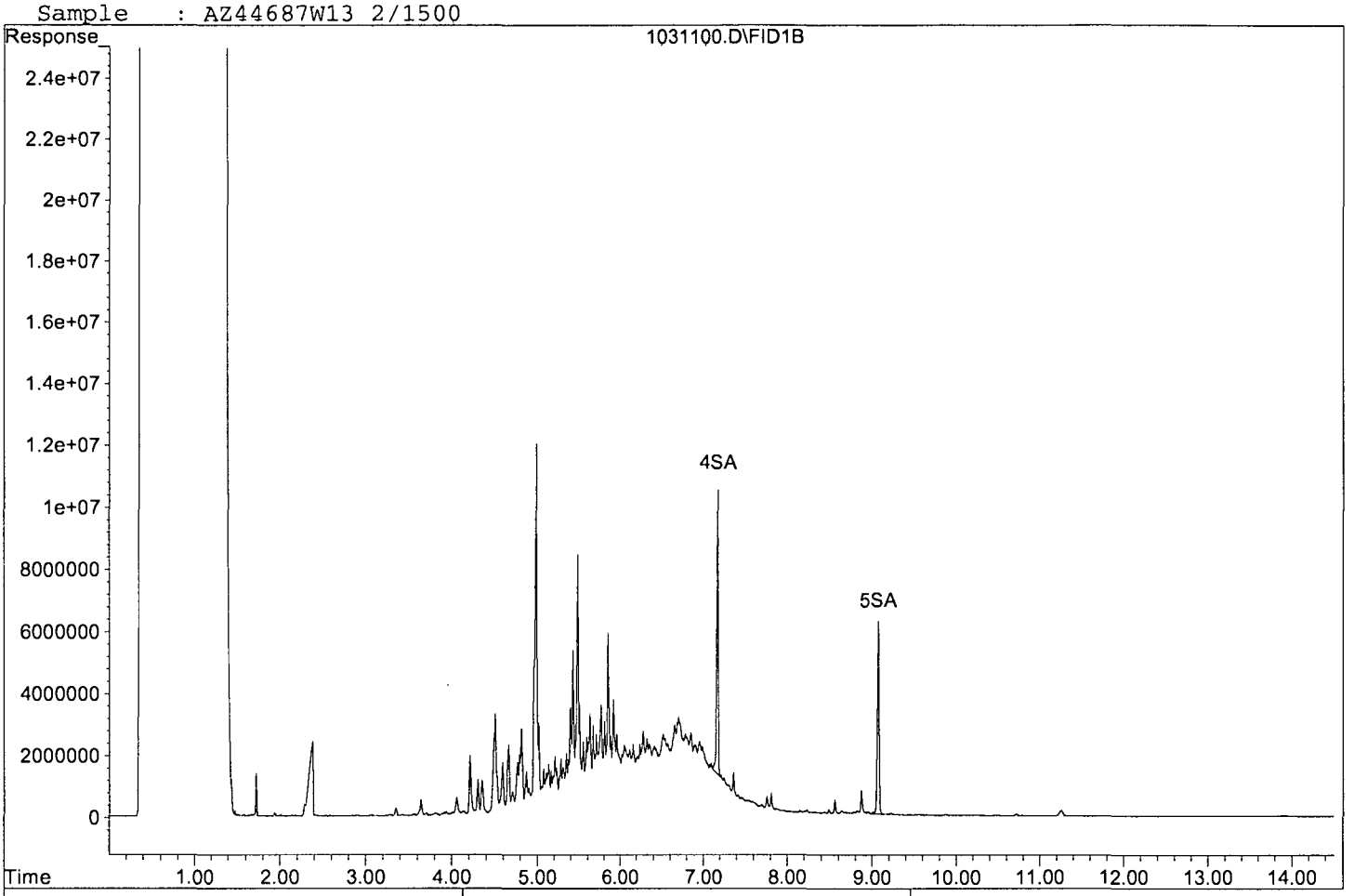
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

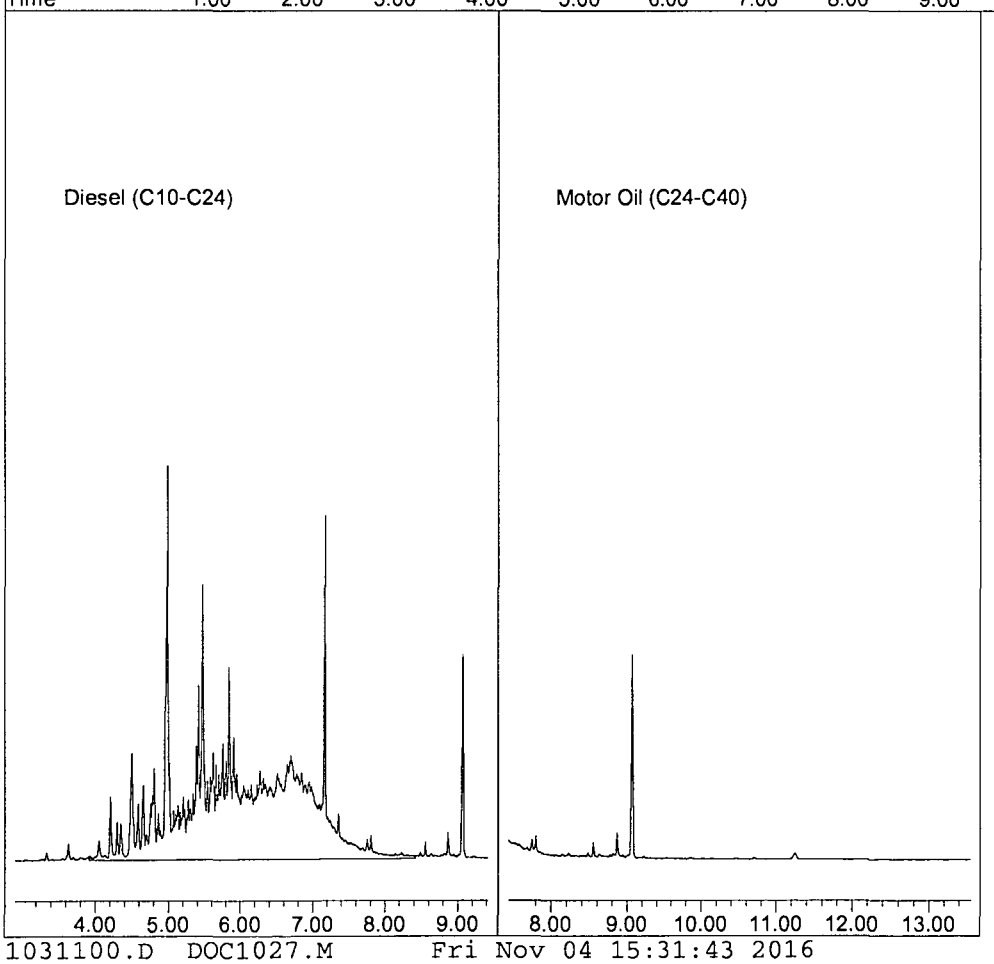
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	101929119	30.138	ppb
Surrogate Spike 40.000		Recovery =	75.35%	
5) SA Octacosane(S)	9.07	87685248	35.372	ppb
Surrogate Spike 40.000		Recovery =	88.43%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	3738361189	1336.974	ppb

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

Data File: G:\APOLLO\DATA\161031\1031100.D
Sample : AZ44687W13 2/1500





EPA 8015B TPH WATER W/ SGC

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH091

APPL ID: AZ44687

Sample Collection Date: 10/19/16

QCG: #DOC53-161025A-213354

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	300 ++	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: (R) DECANOIC ACID (S)	0.0	0-1			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	76.8	60-142			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	61.4	56-125			%	10/25/16	11/01/16

++(T2M) The analyst has noted that the chromatogram of this sample is mainly lower boiling hydrocarbons.

Quant Method: DOC1027.M
Run #: 1031082
Instrument: Apollo
Sequence: 161031
Dilution Factor: 1
Initials: DPO

Printed: 11/03/16 6:14:45 PM

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

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031082.D Vial: 82
Acq On : 11-1-16 13:14:11 Operator: DP
Sample : AZ44687W13 2/1500 SGC Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 18:03 2016 Quant Results File: DOC1027.RES

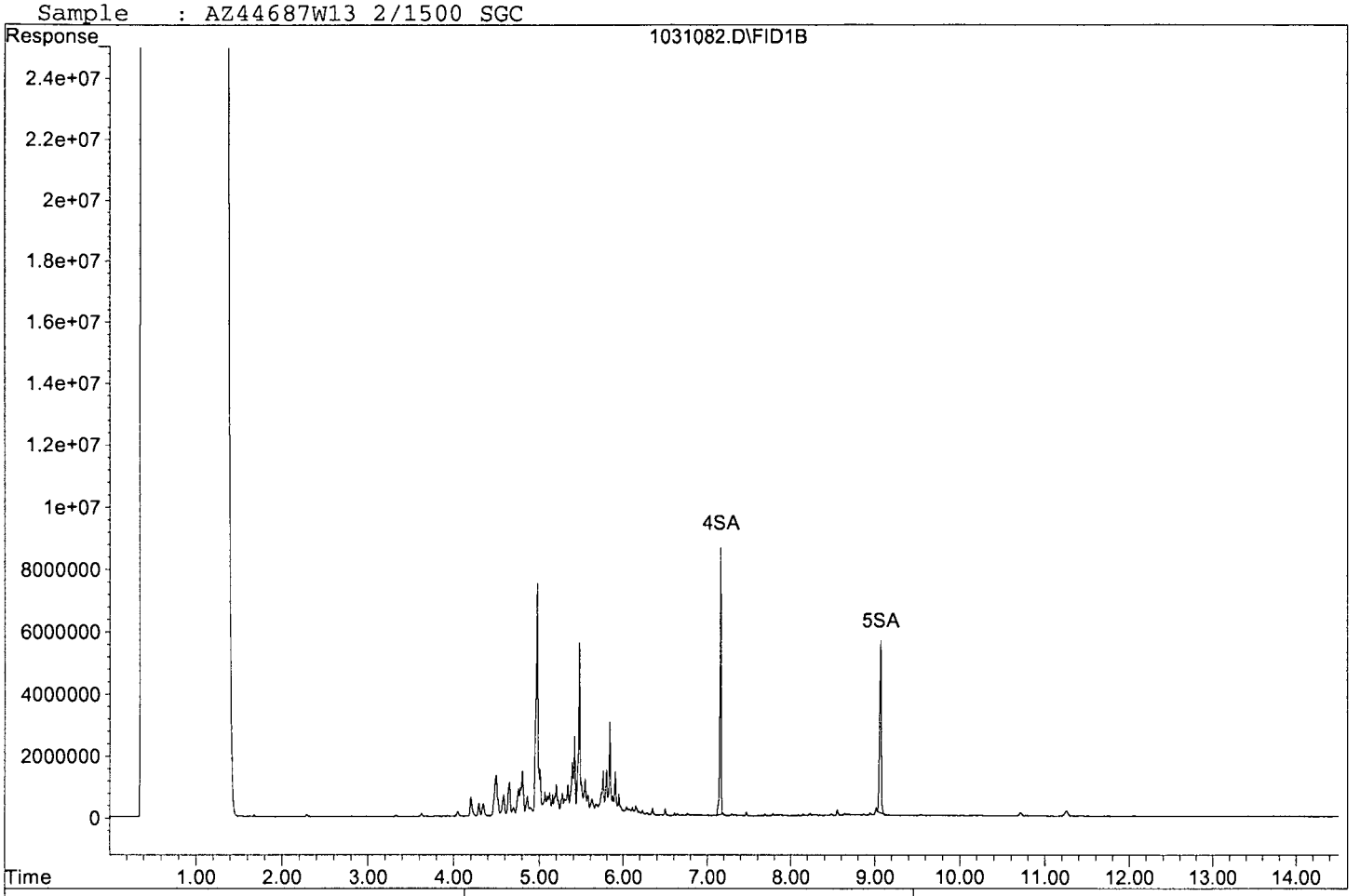
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

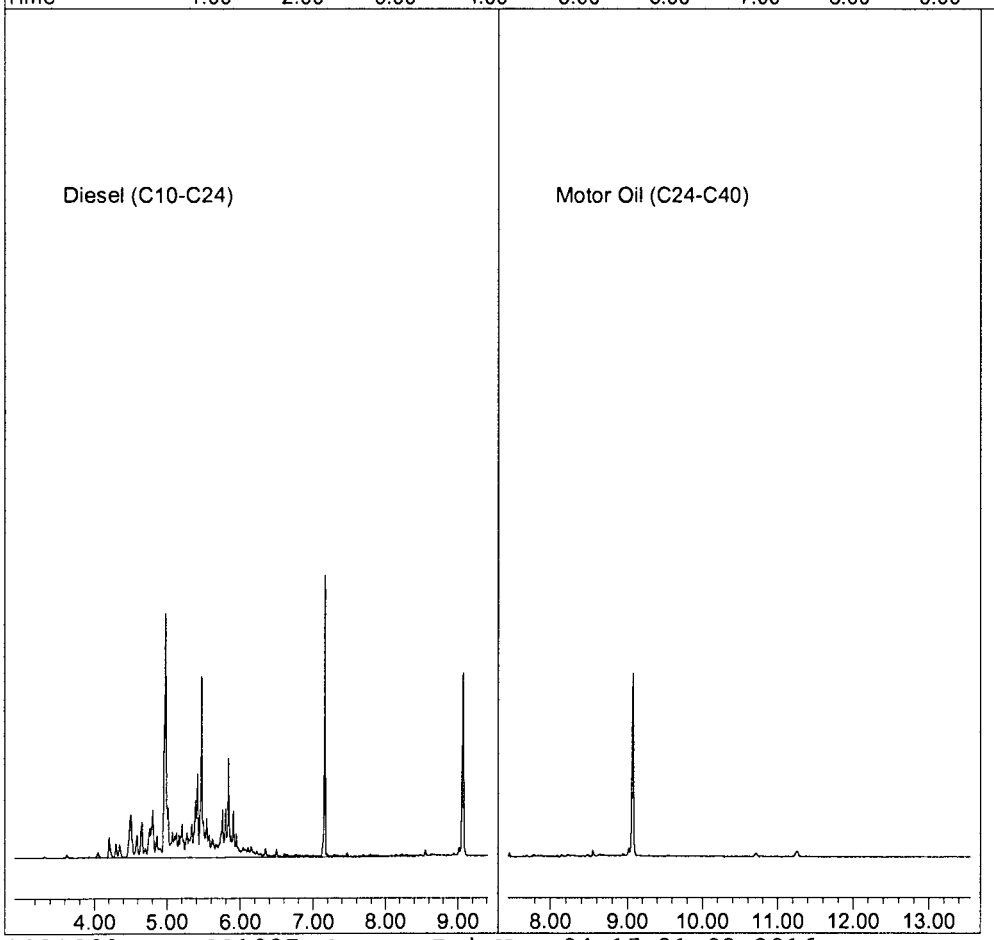
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.16	83079978	24.565 ppb
Surrogate Spike 40.000		Recovery =	61.41%
5) SA Octacosane(S)	9.07	76156379	30.721 ppb
Surrogate Spike 40.000		Recovery =	76.80%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	831627193	297.420 ppb

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

Data File: G:\APOLLO\DATA\161031\1031082.D
Sample : AZ44687W13 2/1500 SGC





EPA 8015B TPH WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH089

APPL ID: AZ44688

Sample Collection Date: 10/19/16

QCG: #DOC53-161025A1-213355

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	94.5	60-142			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	73.3	56-125			%	10/25/16	11/01/16

Quant Method: DOC1027.M
Run #: 1031101
Instrument: Apollo
Sequence: 161031
Dilution Factor: 1
Initials: DPO

Printed: 11/03/16 6:14:21 PM

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

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031101.D Vial: 1
Acq On : 11-1-16 19:53:12 Operator: DP
Sample : AZ44688W14 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 17:59 2016 Quant Results File: DOC1027.RES

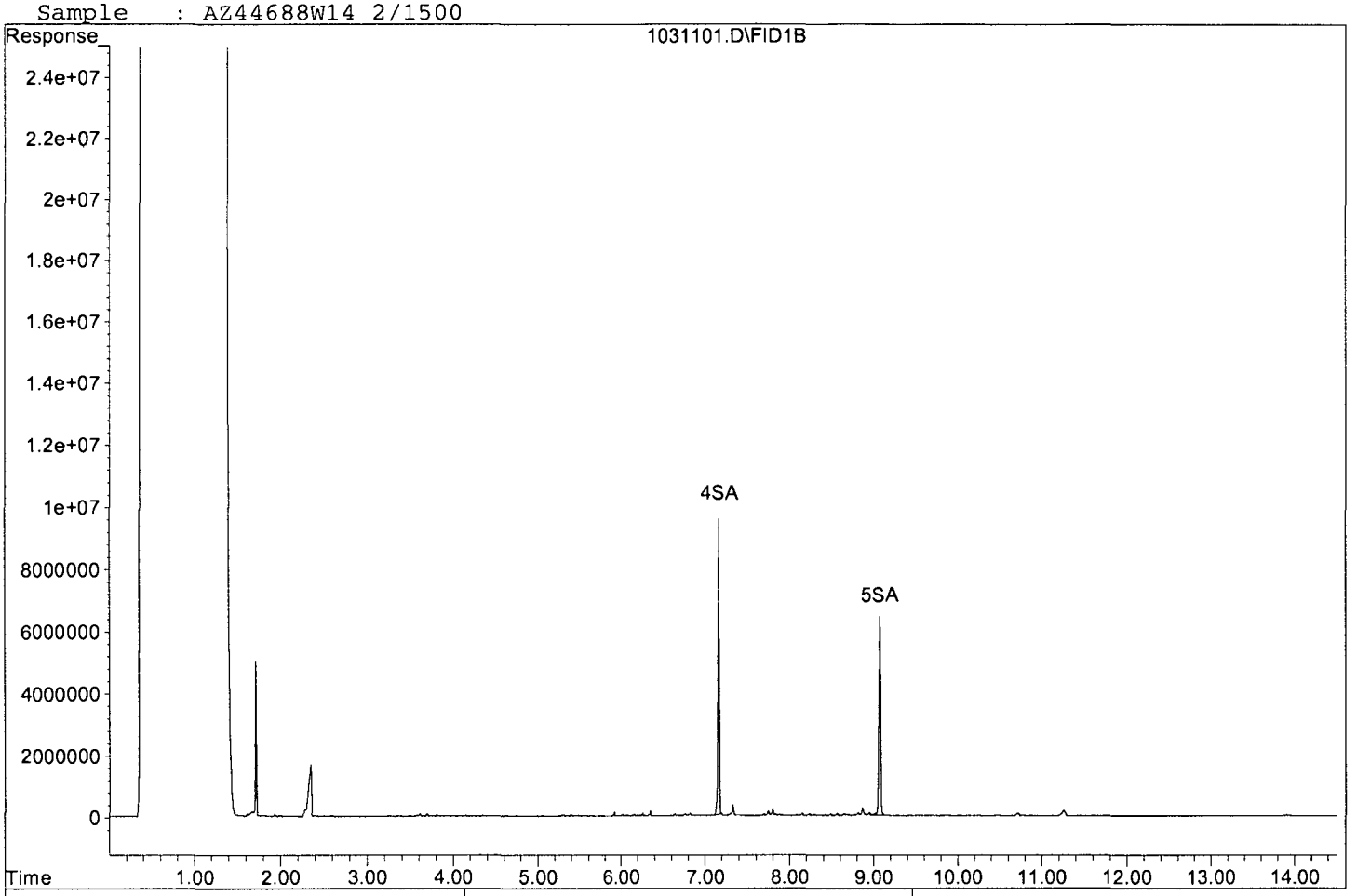
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

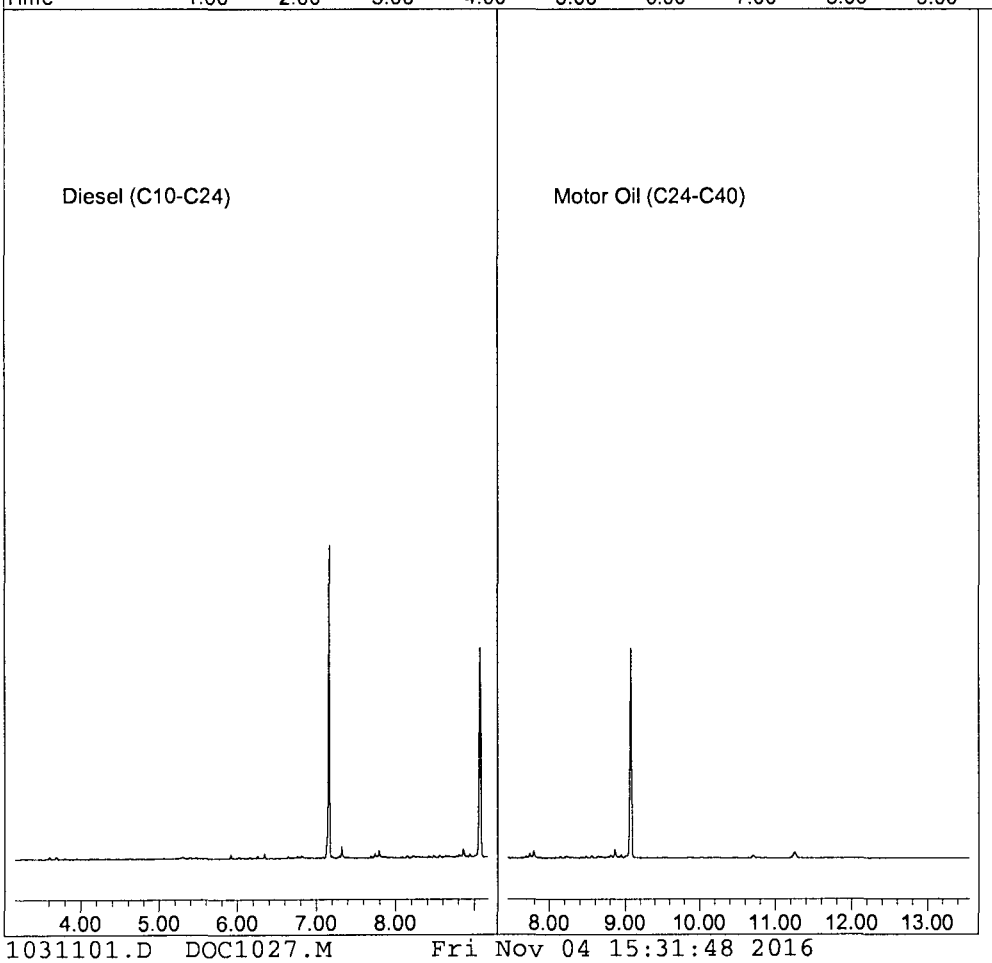
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	99125539	29.309	ppb
Surrogate Spike 40.000	Recovery =		73.27%	
5) SA Octacosane(S)	9.07	93660847	37.783	ppb
Surrogate Spike 40.000	Recovery =		94.46%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\161031\1031101.D
Sample : AZ44688W14 2/1500





EPA 8015B TPH WATER W/ SGC

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach
Project: 60481245 CIV0053 Red Hill Fuel Storage
Sample ID: ERH089
Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251
APPL ID: AZ44688
QCG: #DOC53-161025A-213354

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: (R) DECANOIC ACID (S)	0.0	0-1			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	81.7	60-142			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	64.8	56-125			%	10/25/16	11/01/16

Quant Method: DOC1027.M
Run #: 1031083
Instrument: Apollo
Sequence: 161031
Dilution Factor: 1
Initials: DPO

Printed: 11/03/16 6:14:45 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031083.D Vial: 83
Acq On : 11-1-16 13:35:19 Operator: DP
Sample : AZ44688W14 2/1500 SGC Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 18:03 2016 Quant Results File: DOC1027.RES

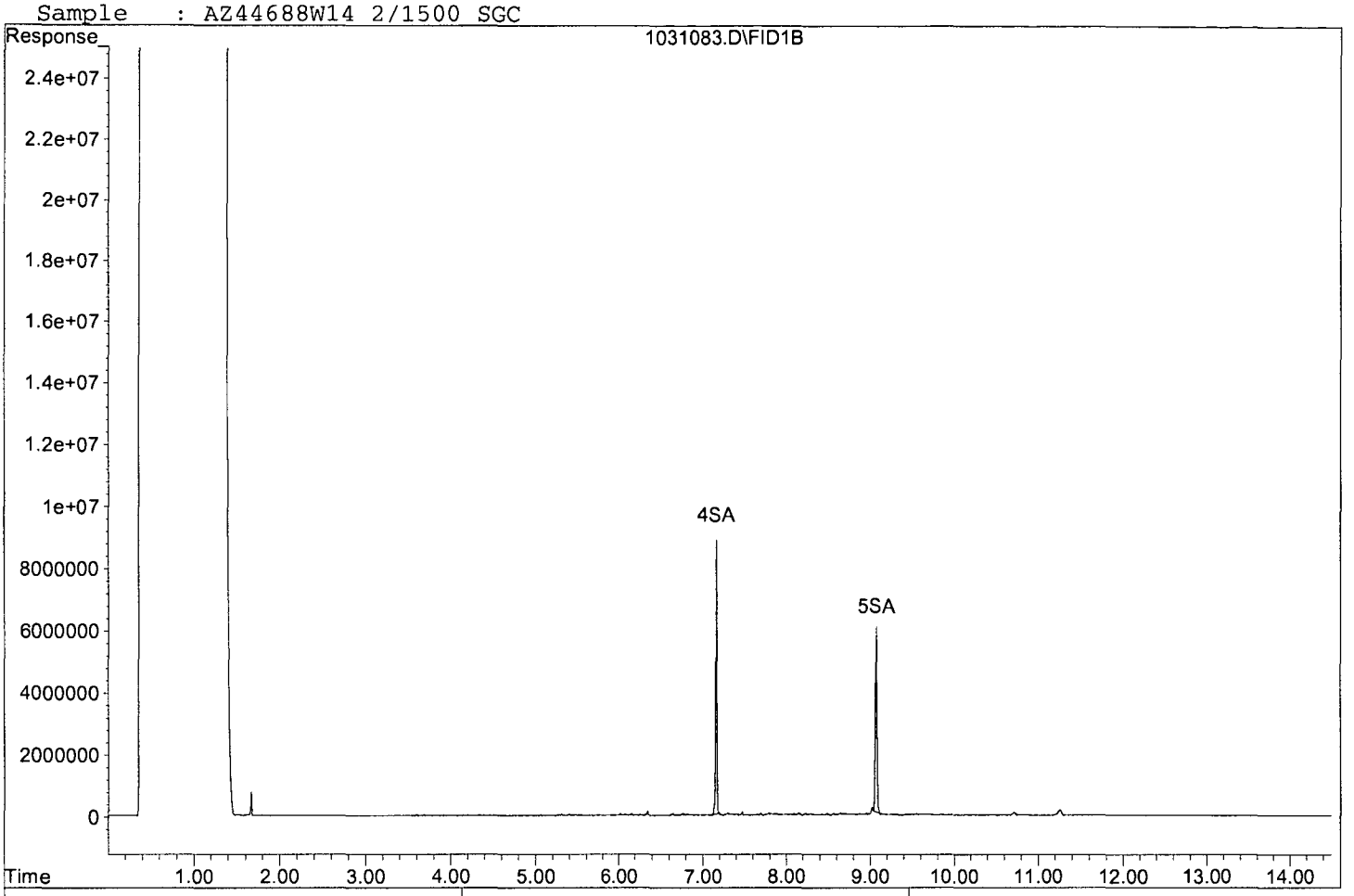
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

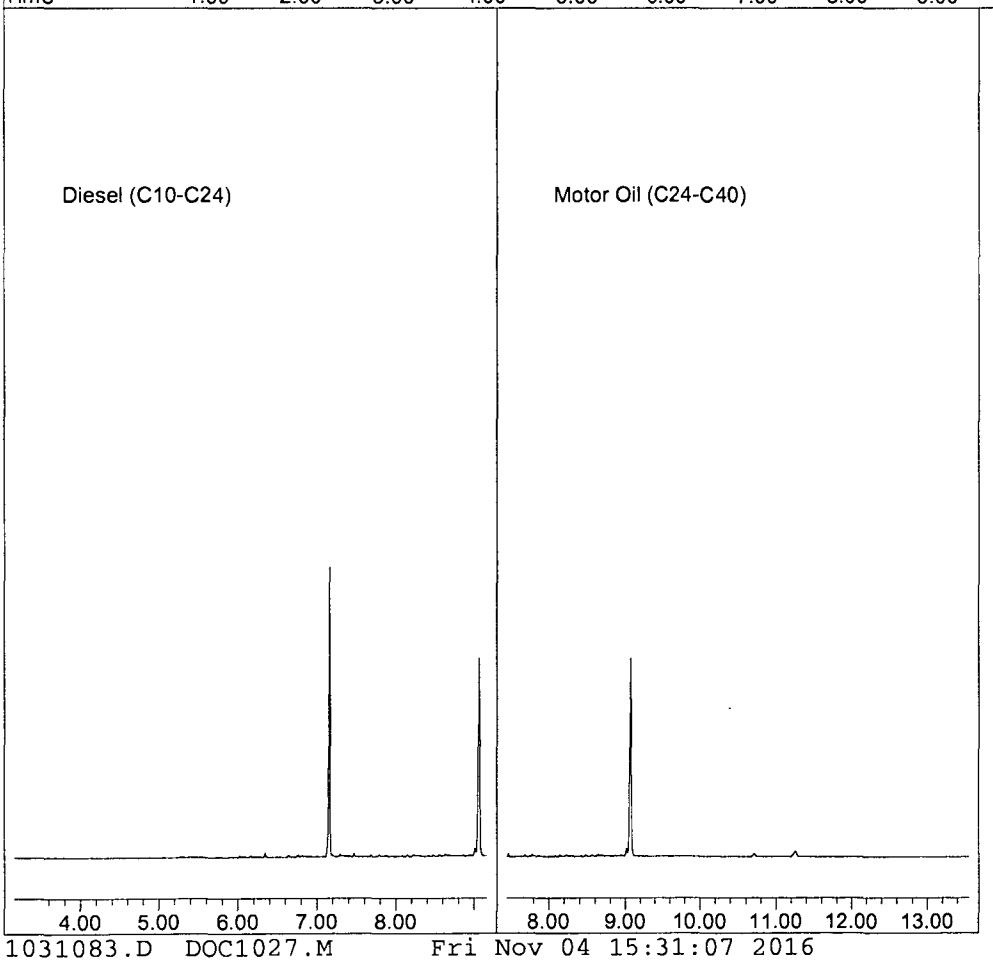
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.16	87665909	25.921	ppb
Surrogate Spike 40.000		Recovery =	64.80%	
5) SA Octacosane(S)	9.07	81045012	32.694	ppb
Surrogate Spike 40.000		Recovery =	81.74%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\161031\1031083.D
Sample : AZ44688W14 2/1500 SGC





EPA 8015B TPH WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH093

APPL ID: AZ44689

Sample Collection Date: 10/19/16

QCG: #DOC53-161025A1-213355

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	65 ++	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
EPA 8015B-eL	OIL (C24-C40)	59	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	101	60-142			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	78.3	56-125			%	10/25/16	11/01/16

++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC1027.M
Run #: 1031102
Instrument: Apollo
Sequence: 161031
Dilution Factor: 1
Initials: DPO

Printed: 11/03/16 6:14:21 PM

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

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031102.D Vial: 2
Acq On : 11-1-16 20:13:51 Operator: DP
Sample : AZ44689W15 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 17:59 2016 Quant Results File: DOC1027.RES

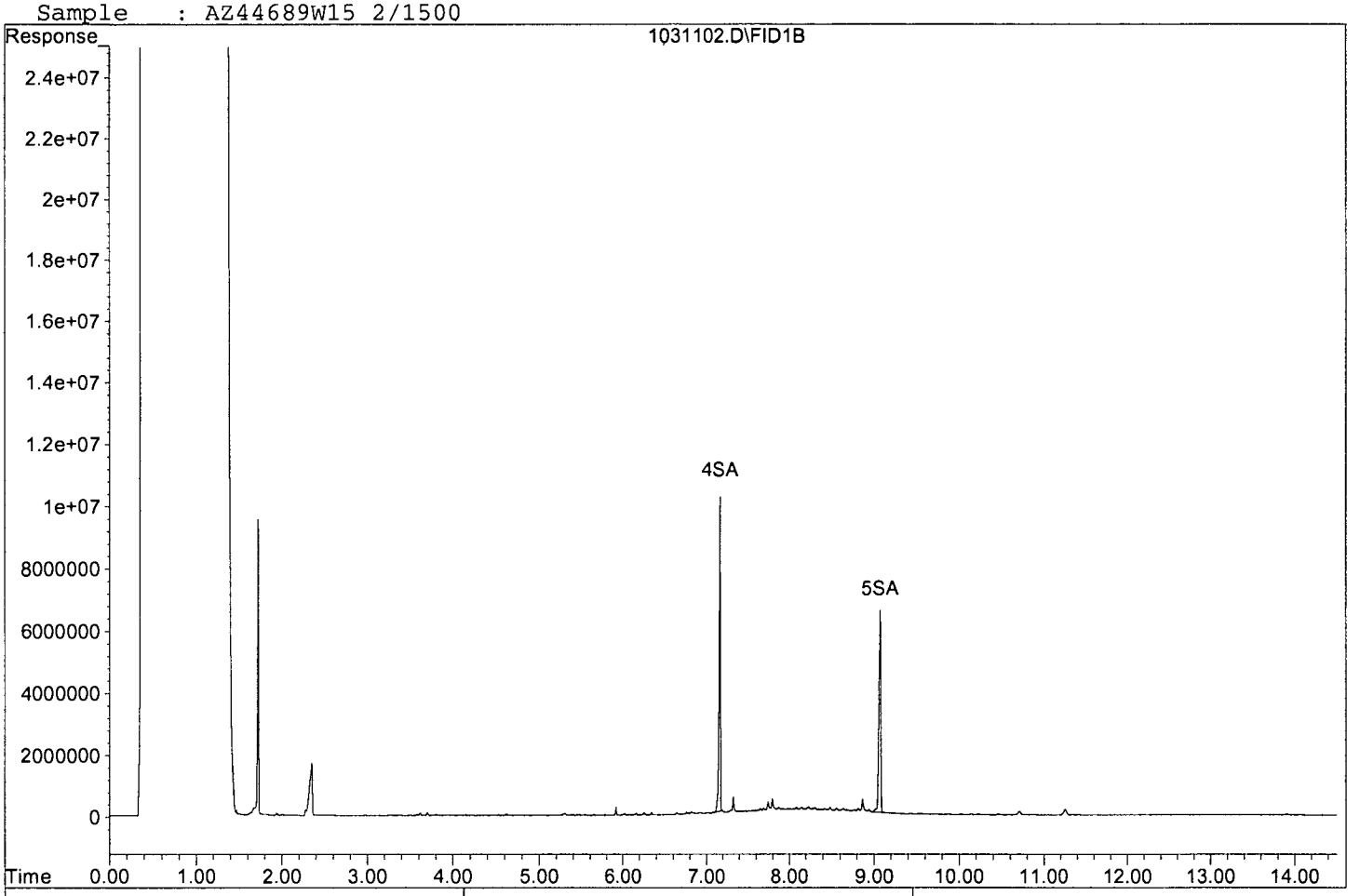
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

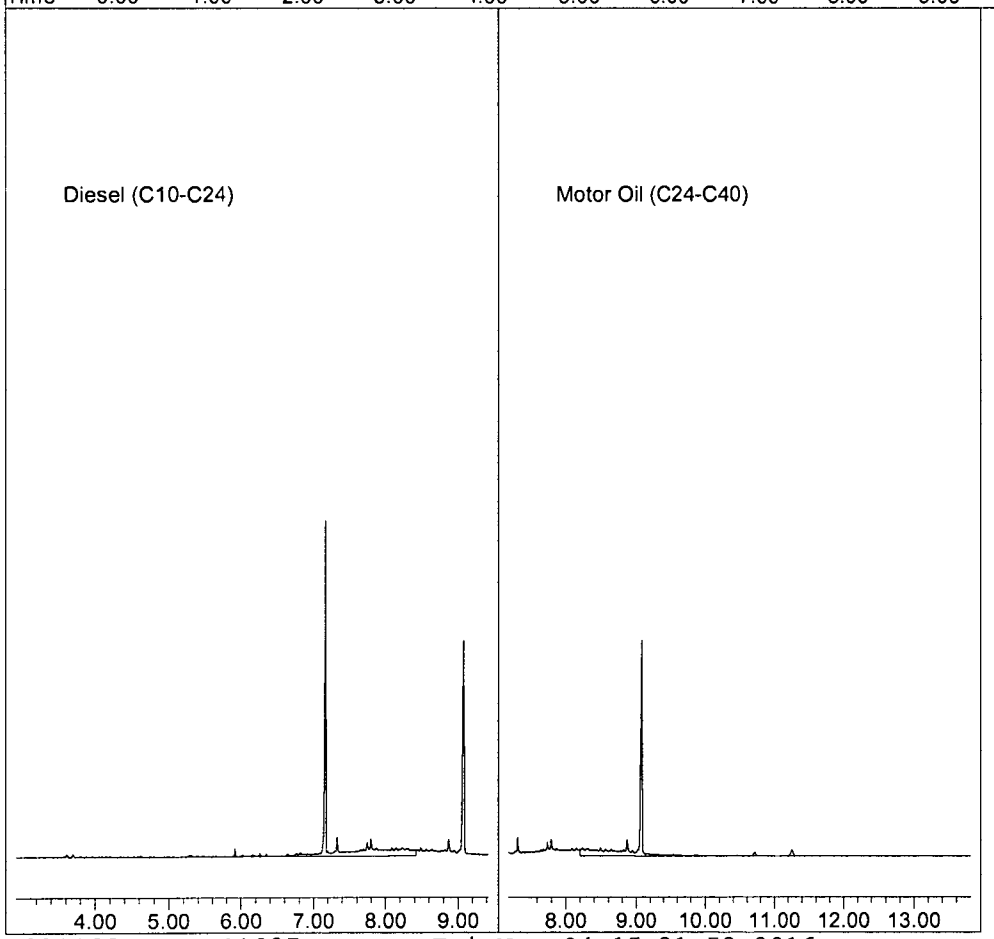
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	105924849	31.320	ppb
Surrogate Spike 40.000		Recovery =	78.30%	
5) SA Octacosane(S)	9.08	100055474	40.362	ppb
Surrogate Spike 40.000		Recovery =	100.91%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	183082526	65.477	ppb
2) HBTM Motor Oil (C24-C40)	10.50	122520781	59.497	ppb

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

Data File: G:\APOLLO\DATA\161031\1031102.D
Sample : AZ44689W15 2/1500





EPA 8015B TPH WATER W/ SGC

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH093

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44689

QCG: #DOC53-161025A-213354

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: (R) DECANOIC ACID (S)	0.0	0-1			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	93.4	60-142			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	74.6	56-125			%	10/25/16	11/01/16

Quant Method: DOC1027.M
Run #: 1031084
Instrument: Apollo
Sequence: 161031
Dilution Factor: 1
Initials: DPO

Printed: 11/03/16 6:14:45 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031084.D Vial: 84
Acq On : 11-1-16 13:56:26 Operator: DP
Sample : AZ44689W15 2/1500 SGC Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 18:03 2016 Quant Results File: DOC1027.RES

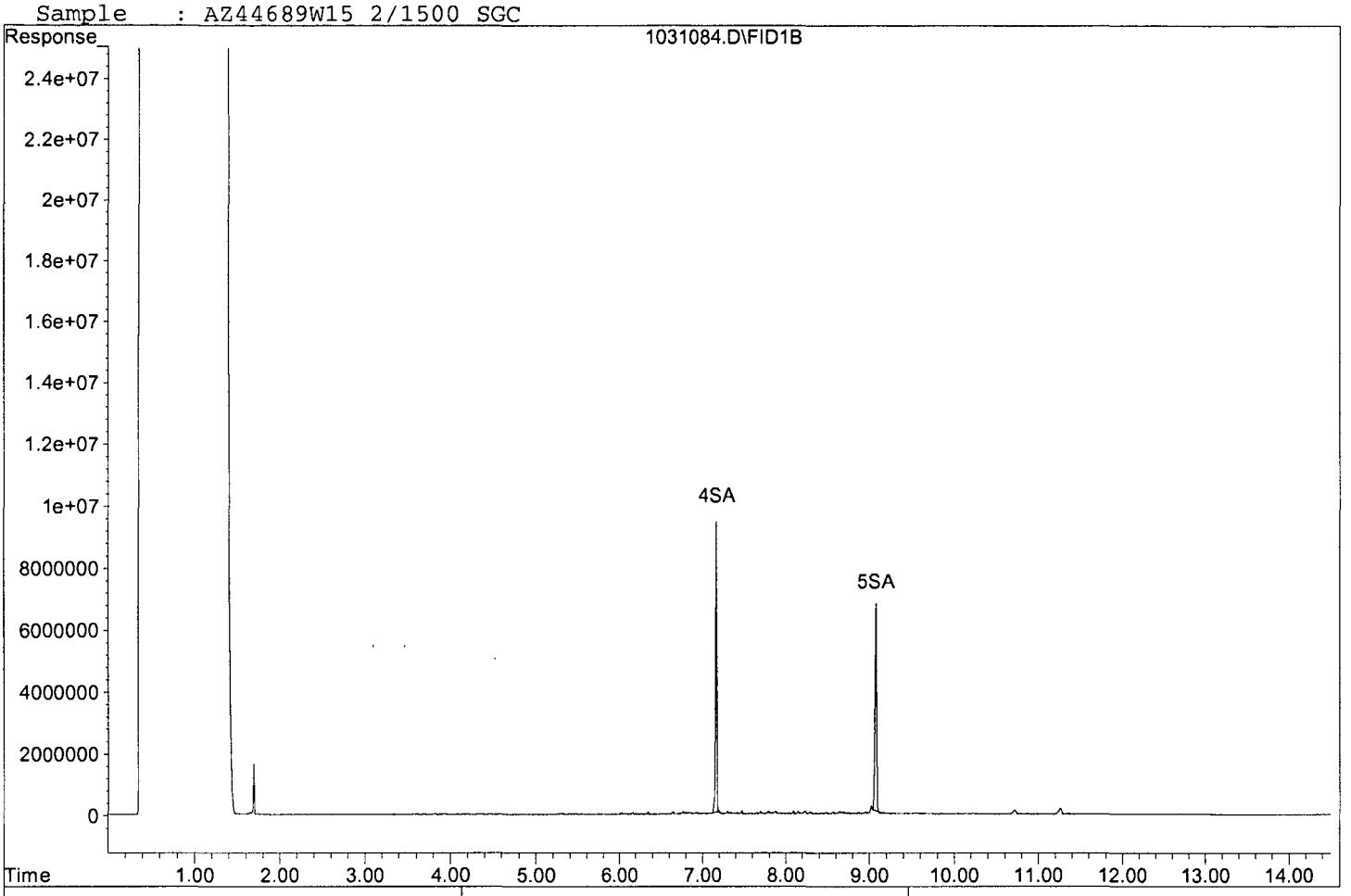
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

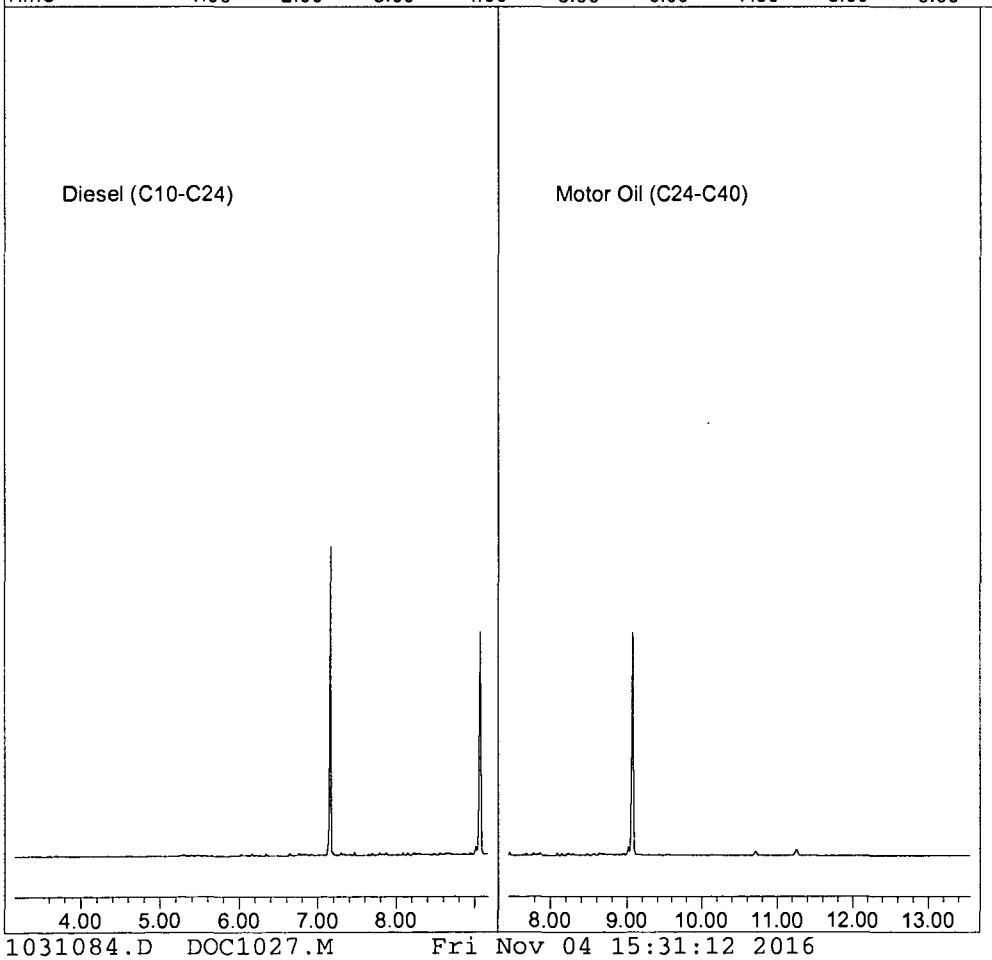
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	100858416	29.822	ppb
Surrogate Spike 40.000		Recovery =	74.55%	
5) SA Octacosane(S)	9.08	92635434	37.369	ppb
Surrogate Spike 40.000		Recovery =	93.42%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\161031\1031084.D
Sample : AZ44689W15 2/1500 SGC





EPA 8015B TPH WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH097

APPL ID: AZ44690

Sample Collection Date: 10/19/16

QCG: #DOC53-161025A1-213355

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	95.4	60-142			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	73.6	56-125			%	10/25/16	11/01/16

Quant Method: DOC1027.M
Run #: 1031103
Instrument: Apollo
Sequence: 161031
Dilution Factor: 1
Initials: DPO

Printed: 11/03/16 6:14:21 PM

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

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031103.D Vial: 3
Acq On : 11-1-16 20:34:34 Operator: DP
Sample : AZ44690W13 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 17:59 2016 Quant Results File: DOC1027.RES

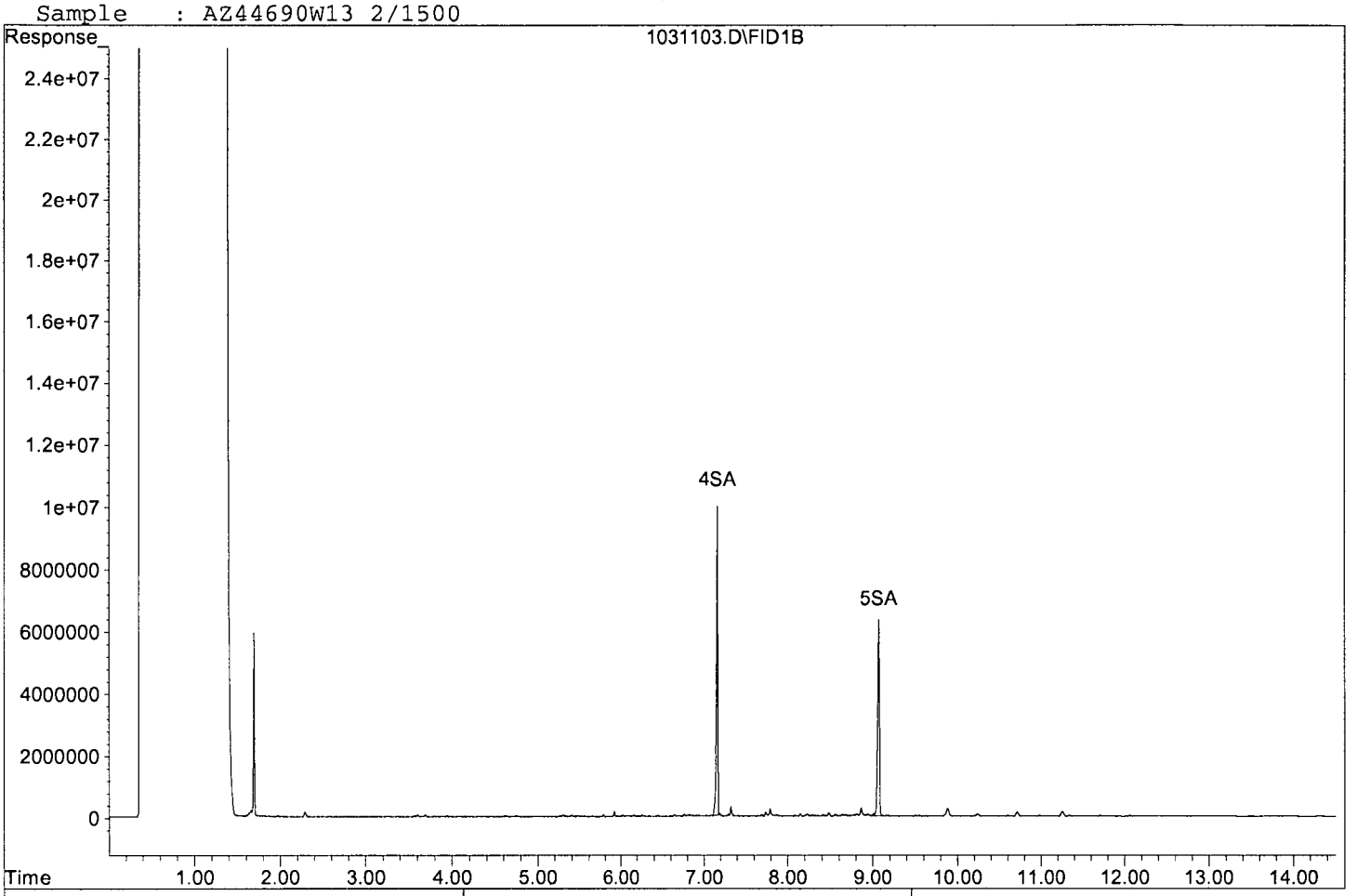
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

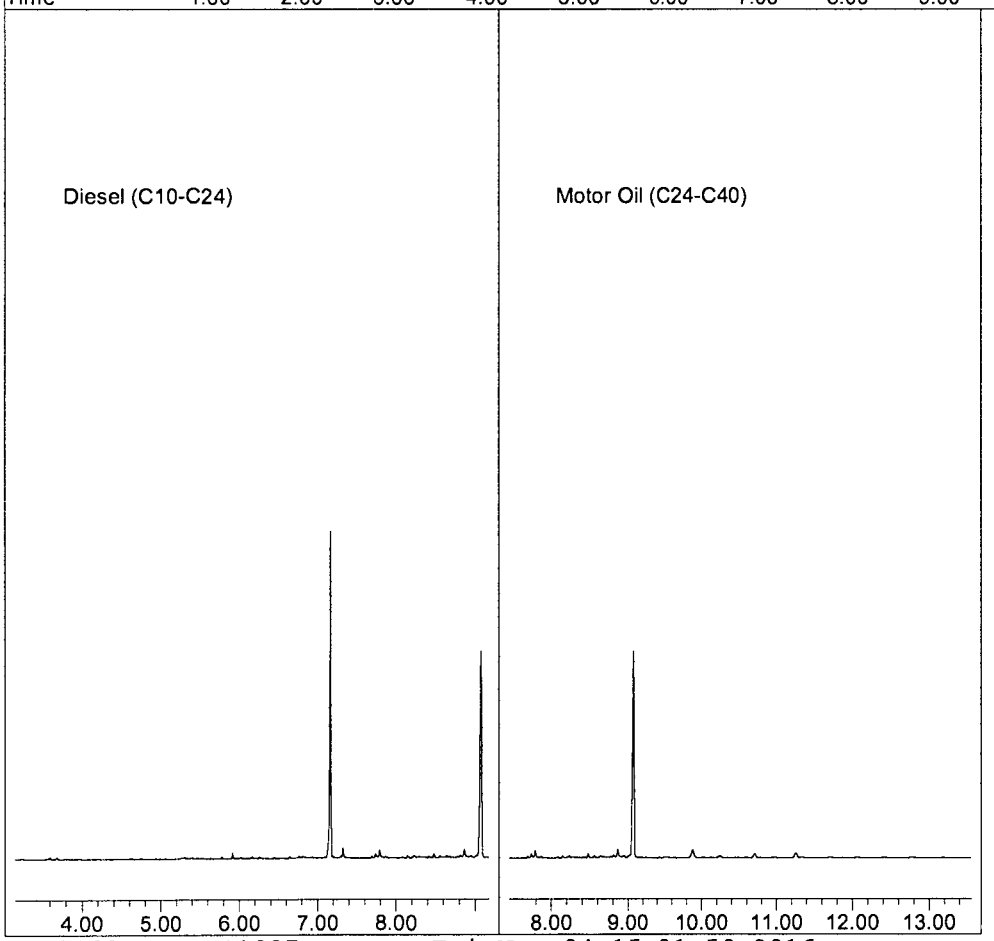
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.17	99581798	29.444 ppb
Surrogate Spike 40.000		Recovery =	73.61%
5) SA Octacosane(S)	9.07	94582335	38.155 ppb
Surrogate Spike 40.000		Recovery =	95.39%
Target Compounds			

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

Data File: G:\APOLLO\DATA\161031\1031103.D
Sample : AZ44690W13 2/1500





EPA 8015B TPH WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH098

APPL ID: AZ44691

Sample Collection Date: 10/19/16

QCG: #DOC53-161025A1-213355

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	95.9	60-142			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	78.4	56-125			%	10/25/16	11/01/16

Quant Method: DOC1027.M
Run #: 1031104
Instrument: Apollo
Sequence: 161031
Dilution Factor: 1
Initials: DPO

Printed: 11/03/16 6:14:21 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031104.D Vial: 4
Acq On : 11-1-16 20:55:11 Operator: DP
Sample : AZ44691W09 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 17:59 2016 Quant Results File: DOC1027.RES

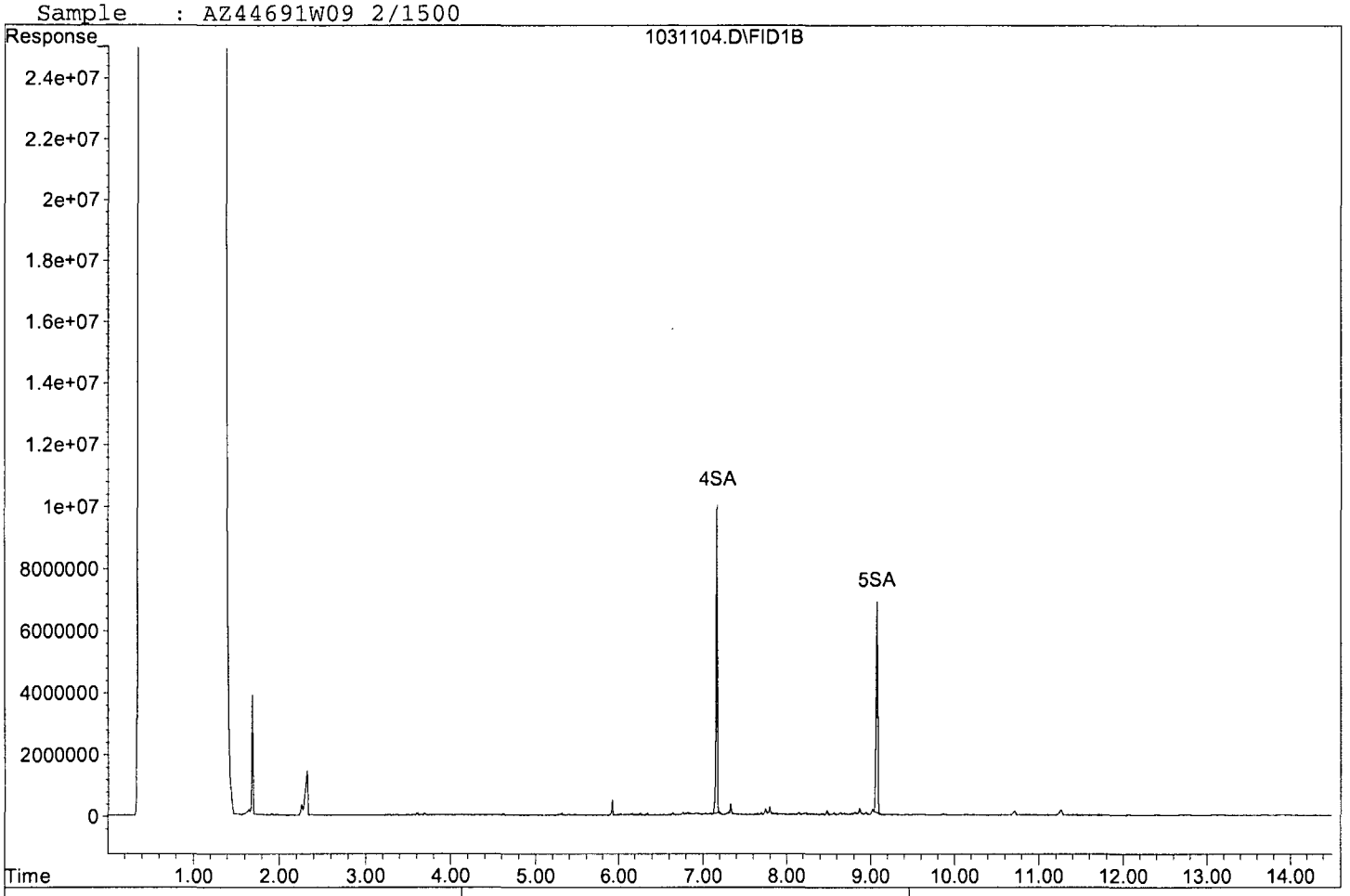
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

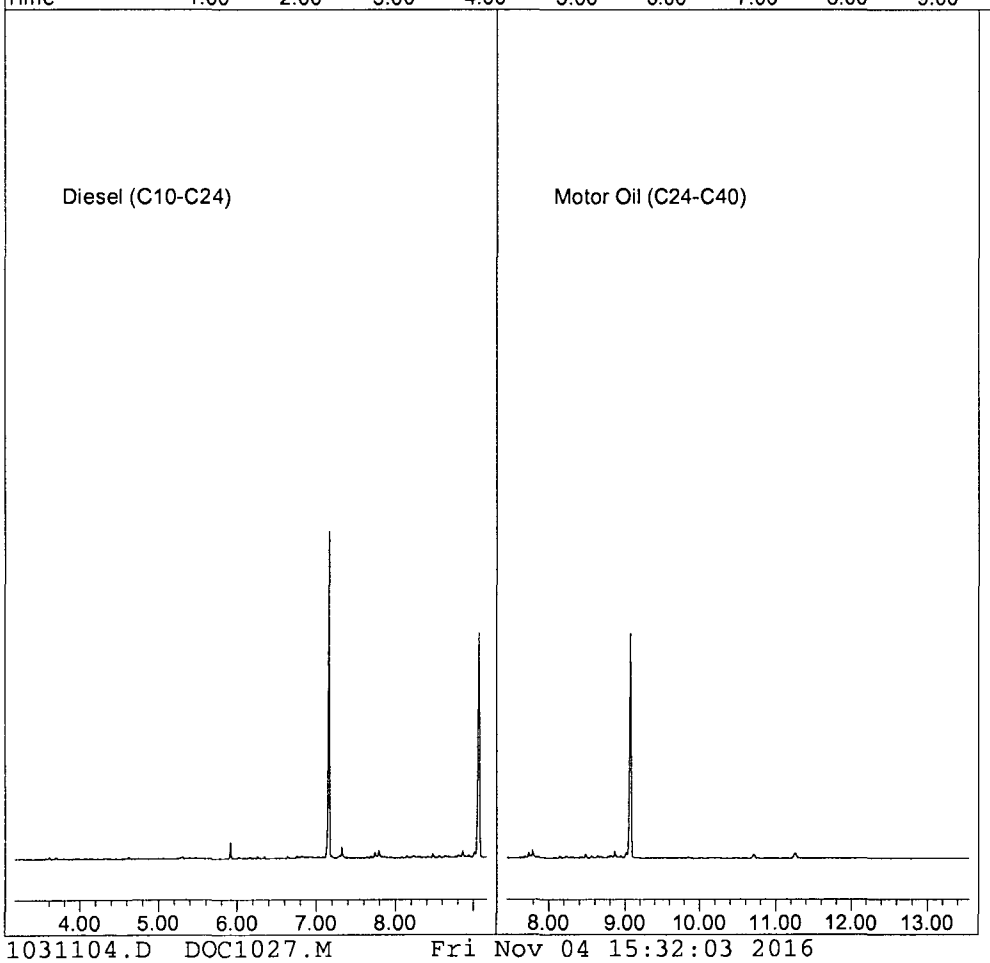
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	106047380	31.356	ppb
Surrogate Spike 40.000		Recovery =	78.39%	
5) SA Octacosane(S)	9.07	95109316	38.367	ppb
Surrogate Spike 40.000		Recovery =	95.92%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\161031\1031104.D
Sample : AZ44691W09 2/1500





EPA 8015B TPH WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH100

APPL ID: AZ44692

Sample Collection Date: 10/20/16

QCG: #DOC53-161025A1-213355

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	83.6	60-142			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	65.3	56-125			%	10/25/16	11/01/16

Quant Method: DOC1027.M
Run #: 1031105
Instrument: Apollo
Sequence: 161031
Dilution Factor: 1
Initials: DPO

Printed: 11/03/16 6:14:21 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031105.D Vial: 5
Acq On : 11-1-16 21:15:53 Operator: DP
Sample : AZ44692W08 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 18:00 2016 Quant Results File: DOC1027.RES

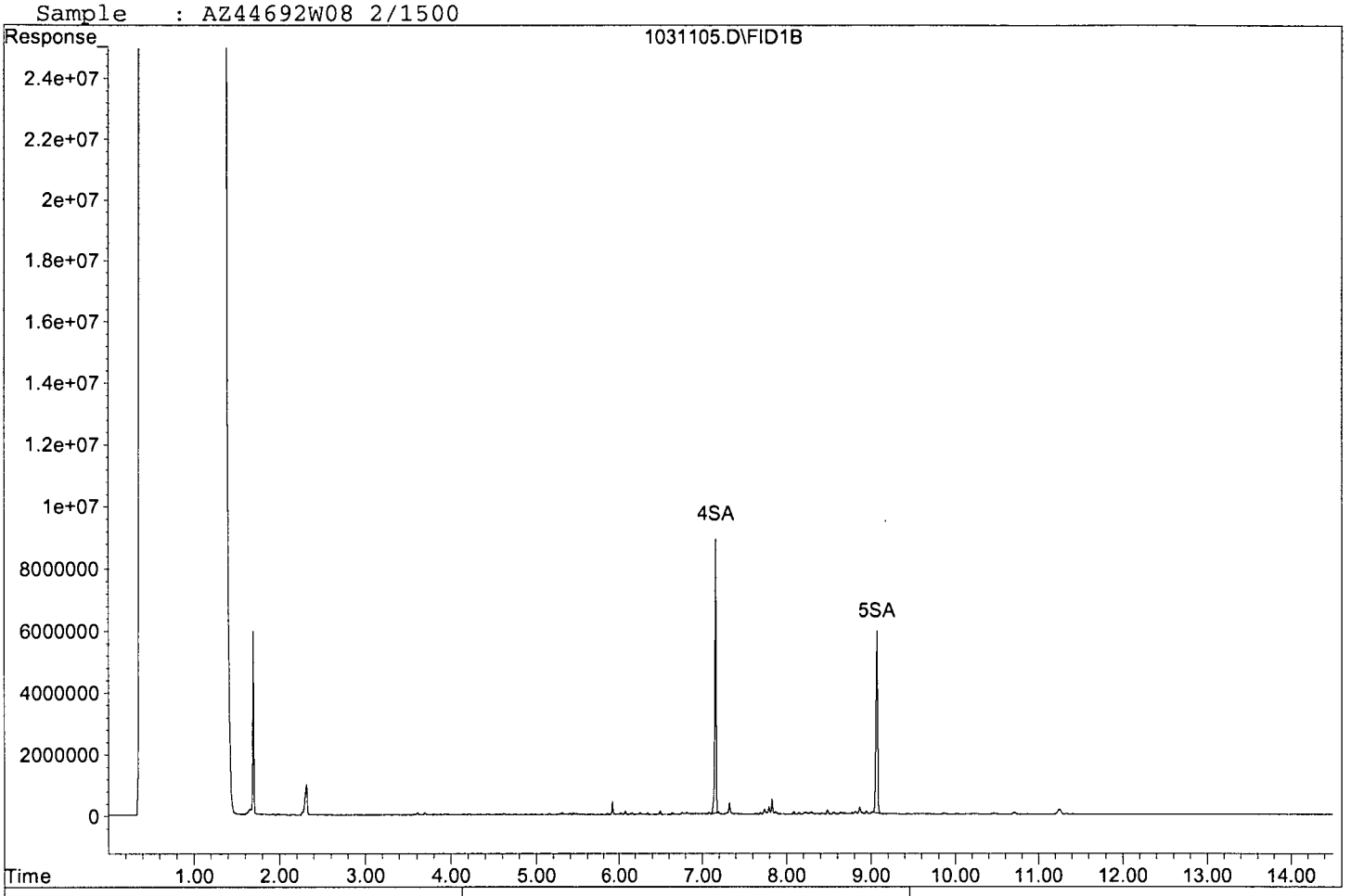
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

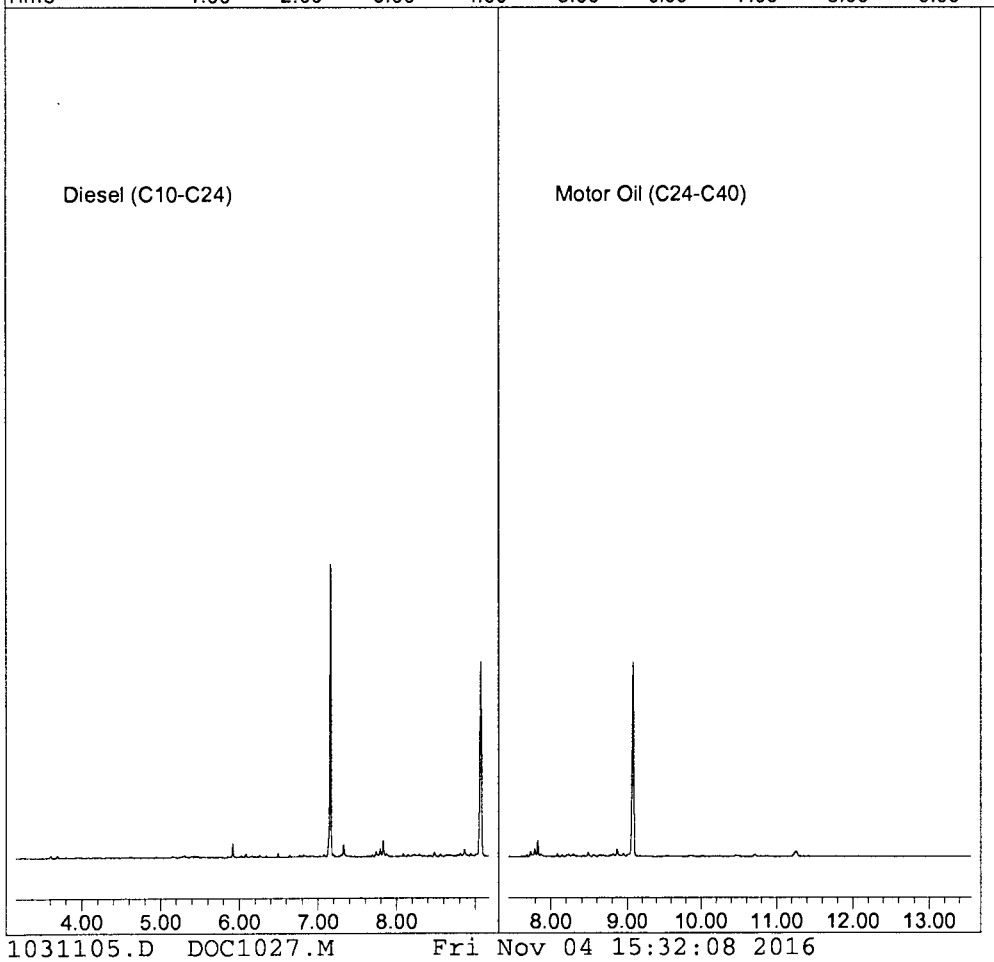
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.16	88293430	26.106 ppb
Surrogate Spike 40.000		Recovery =	65.27%
5) SA Octacosane(S)	9.07	82905832	33.444 ppb
Surrogate Spike 40.000		Recovery =	83.61%
Target Compounds			

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

Data File: G:\APOLLO\DATA\161031\1031105.D
Sample : AZ44692W08 2/1500





EPA 8015B TPH WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH101

APPL ID: AZ44693

Sample Collection Date: 10/20/16

QCG: #DOC53-161025A1-213355

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	95.9	60-142			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	76.8	56-125			%	10/25/16	11/01/16

Quant Method: DOC1027.M
Run #: 1031106
Instrument: Apollo
Sequence: 161031
Dilution Factor: 1
Initials: DPO

Printed: 11/03/16 6:14:21 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031106.D Vial: 6
Acq On : 11-1-16 21:36:31 Operator: DP
Sample : AZ44693W09 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 18:00 2016 Quant Results File: DOC1027.RES

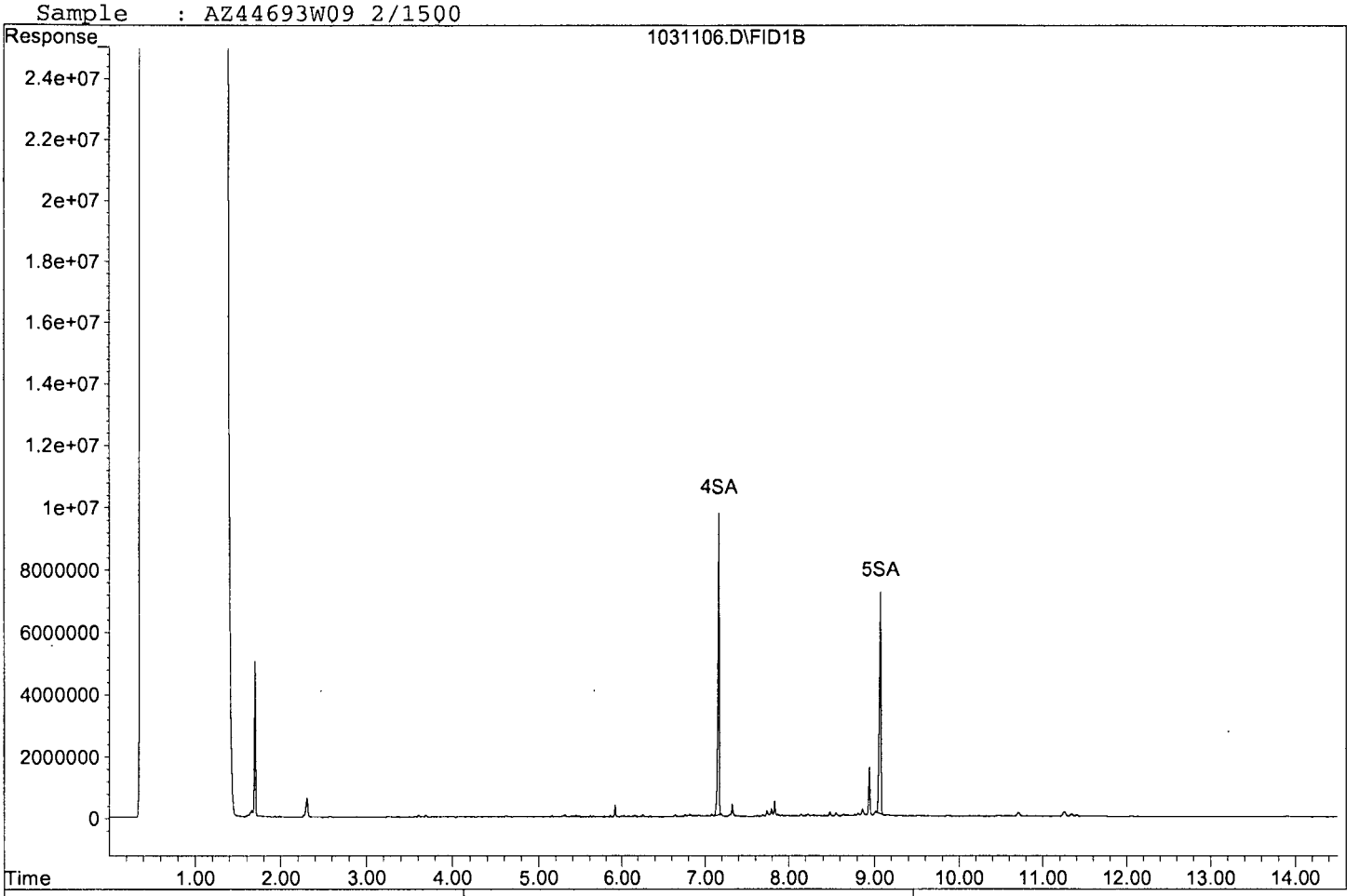
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

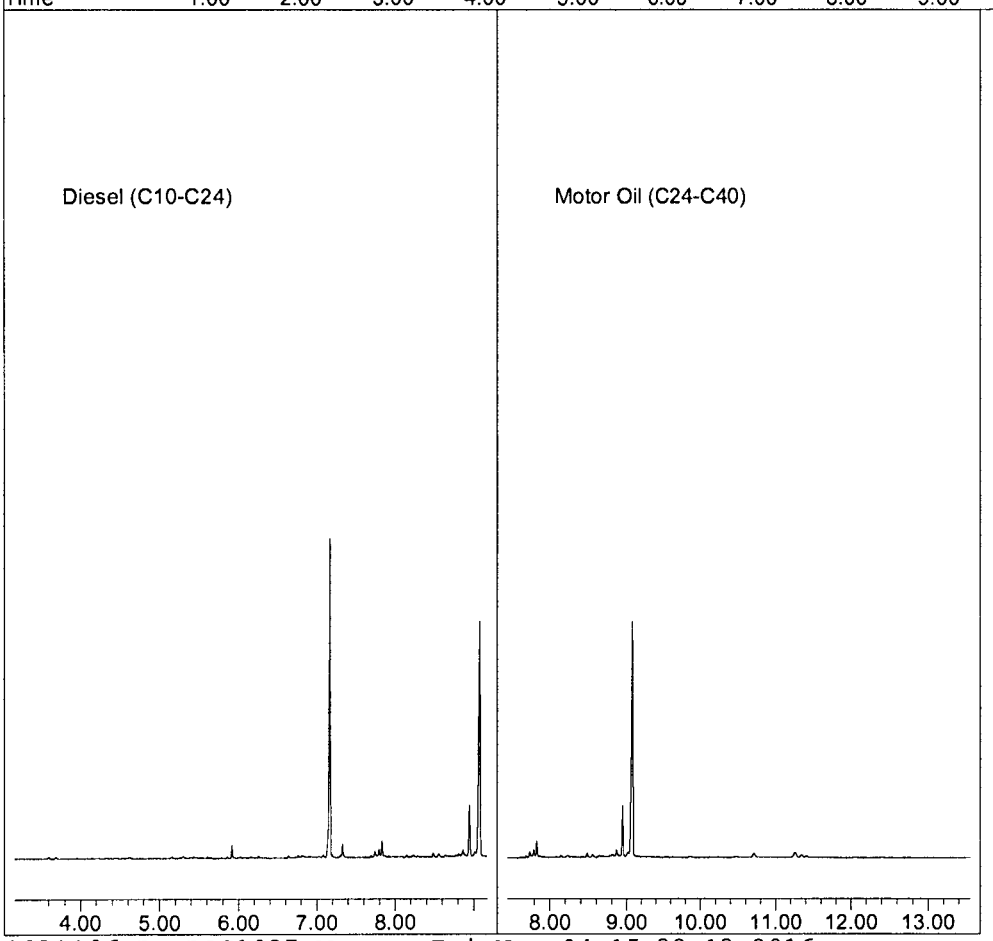
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	103932055	30.731	ppb
Surrogate Spike 40.000		Recovery =	76.83%	
5) SA Octacosane(S)	9.07	95062899	38.348	ppb
Surrogate Spike 40.000		Recovery =	95.87%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\161031\1031106.D
Sample : AZ44693W09 2/1500





EPA 8015B TPH WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH102

APPL ID: AZ44694

Sample Collection Date: 10/19/16

QCG: #DOC53-161025A1-213355

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	86.4	60-142			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	68.4	56-125			%	10/25/16	11/01/16

Quant Method: DOC1027.M
Run #: 1031110
Instrument: Apollo
Sequence: 161031
Dilution Factor: 1
Initials: DPO

Printed: 11/03/16 6:14:21 PM

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

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031110.D Vial: 10
Acq On : 11-1-16 22:58:53 Operator: DP
Sample : AZ44694W18 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 18:00 2016 Quant Results File: DOC1027.RES

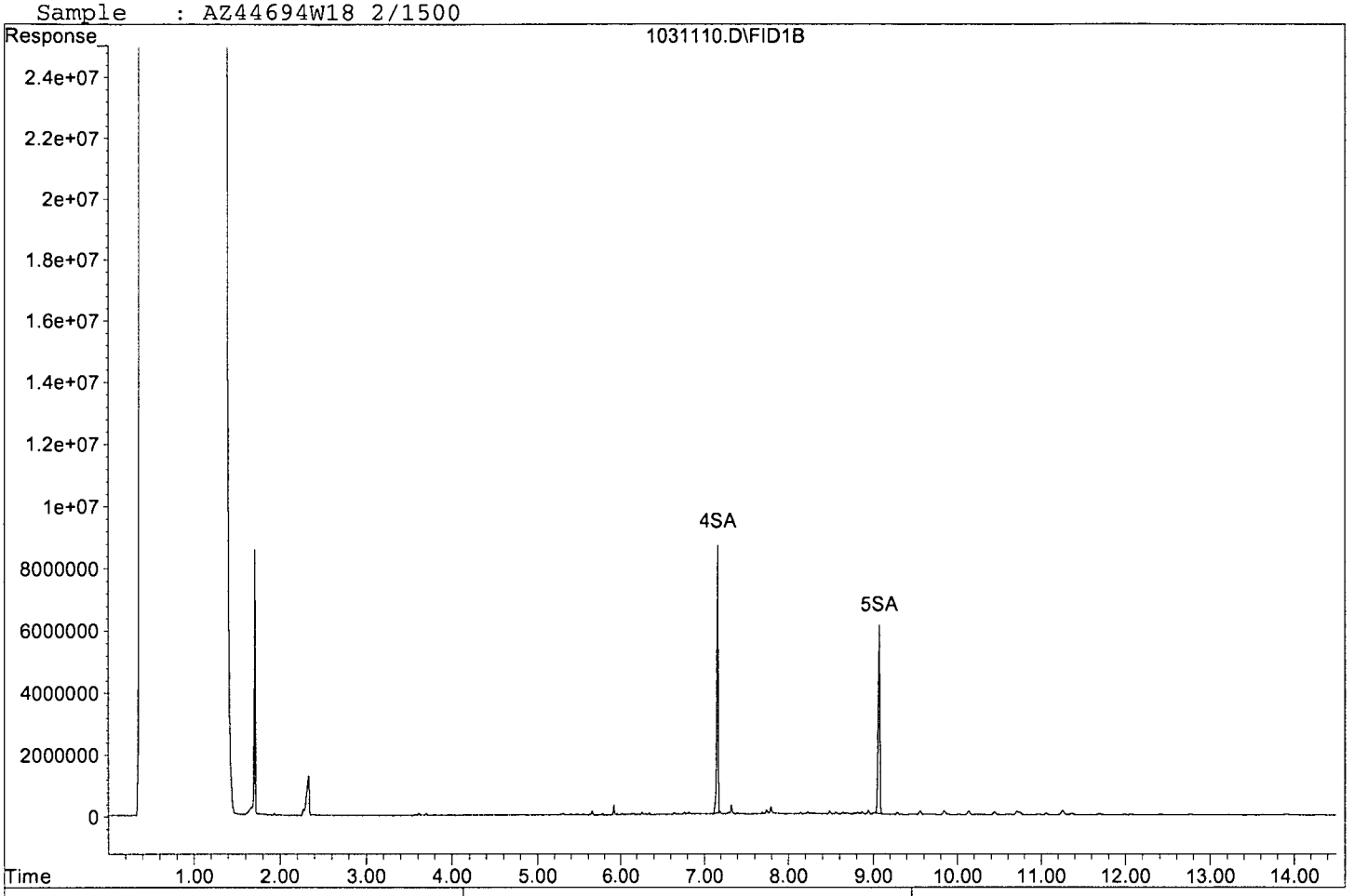
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

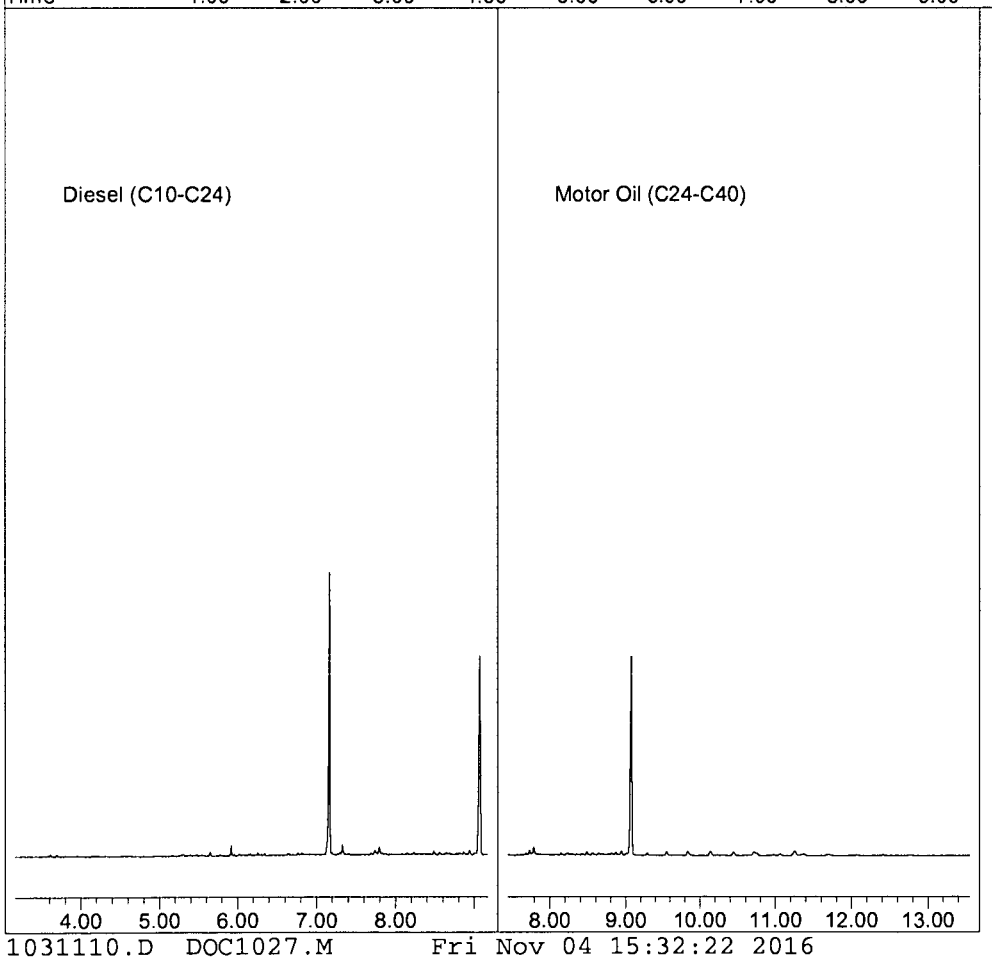
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.16	92515657	27.355	ppb
Surrogate Spike 40.000	Recovery =		68.39%	
5) SA Octacosane(S)	9.07	85691144	34.568	ppb
Surrogate Spike 40.000	Recovery =		86.42%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\161031\1031110.D
Sample : AZ44694W18 2/1500





EPA 8015B TPH WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH104

Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44695

QCG: #DOC53-161025A1-213355

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	54 ++	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
EPA 8015B-eL	OIL (C24-C40)	110	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	97.9	60-142			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	79.7	56-125			%	10/25/16	11/01/16

++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC1027.M
Run #: 1031111
Instrument: Apollo
Sequence: 161031
Dilution Factor: 1
Initials: DPO

Printed: 11/03/16 6:14:21 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031111.D Vial: 11
Acq On : 11-1-16 23:19:29 Operator: DP
Sample : AZ44695W10 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 18:00 2016 Quant Results File: DOC1027.RES

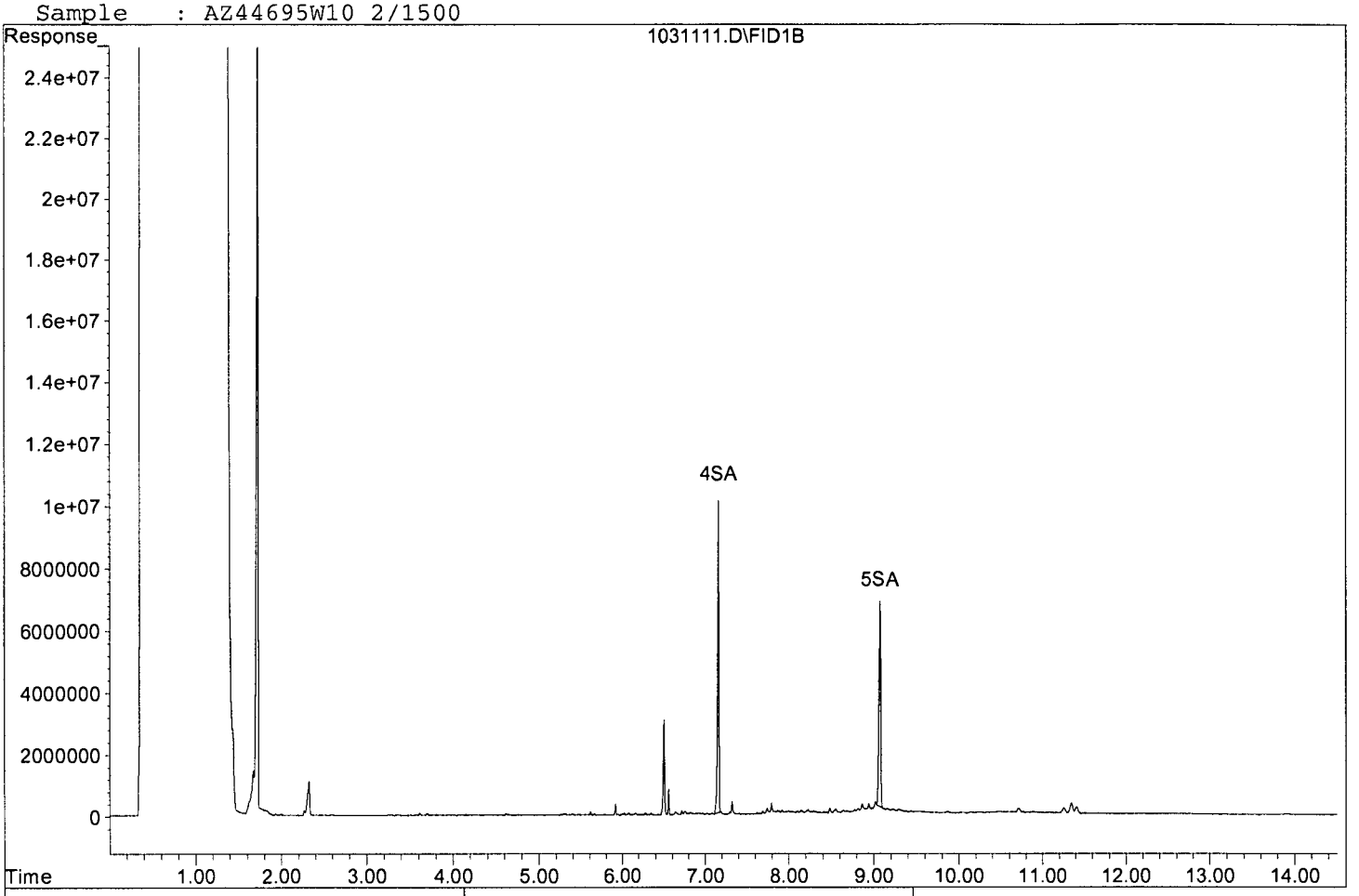
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

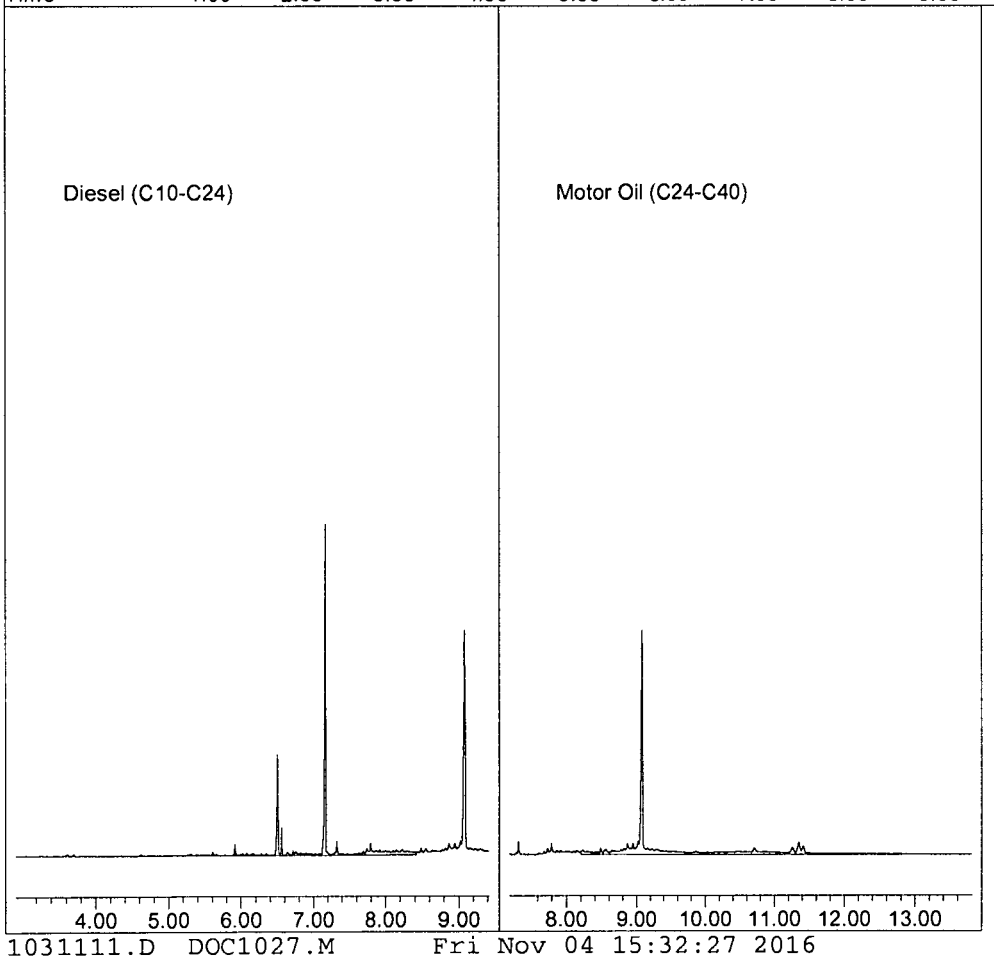
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.17	107809816	31.877 ppb
Surrogate Spike 40.000		Recovery =	79.69%
5) SA Octacosane(S)	9.08	97117421	39.177 ppb
Surrogate Spike 40.000		Recovery =	97.94%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	149934088	53.622 ppb
2) HBTM Motor Oil (C24-C40)	10.50	222173867	107.889 ppb

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

Data File: G:\APOLLO\DATA\161031\1031111.D
Sample : AZ44695W10 2/1500





EPA 8015B TPH WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH105

APPL ID: AZ44696

Sample Collection Date: 10/20/16

QCG: #DOC53-161025A1-213355

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	95.3	60-142			%	10/25/16	11/01/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	77.8	56-125			%	10/25/16	11/01/16

Quant Method: DOC1027.M
Run #: 1031112
Instrument: Apollo
Sequence: 161031
Dilution Factor: 1
Initials: DPO

Printed: 11/03/16 6:14:21 PM

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

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031112.D Vial: 12
Acq On : 11-1-16 23:40:03 Operator: DP
Sample : AZ44696W05 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 18:01 2016 Quant Results File: DOC1027.RES

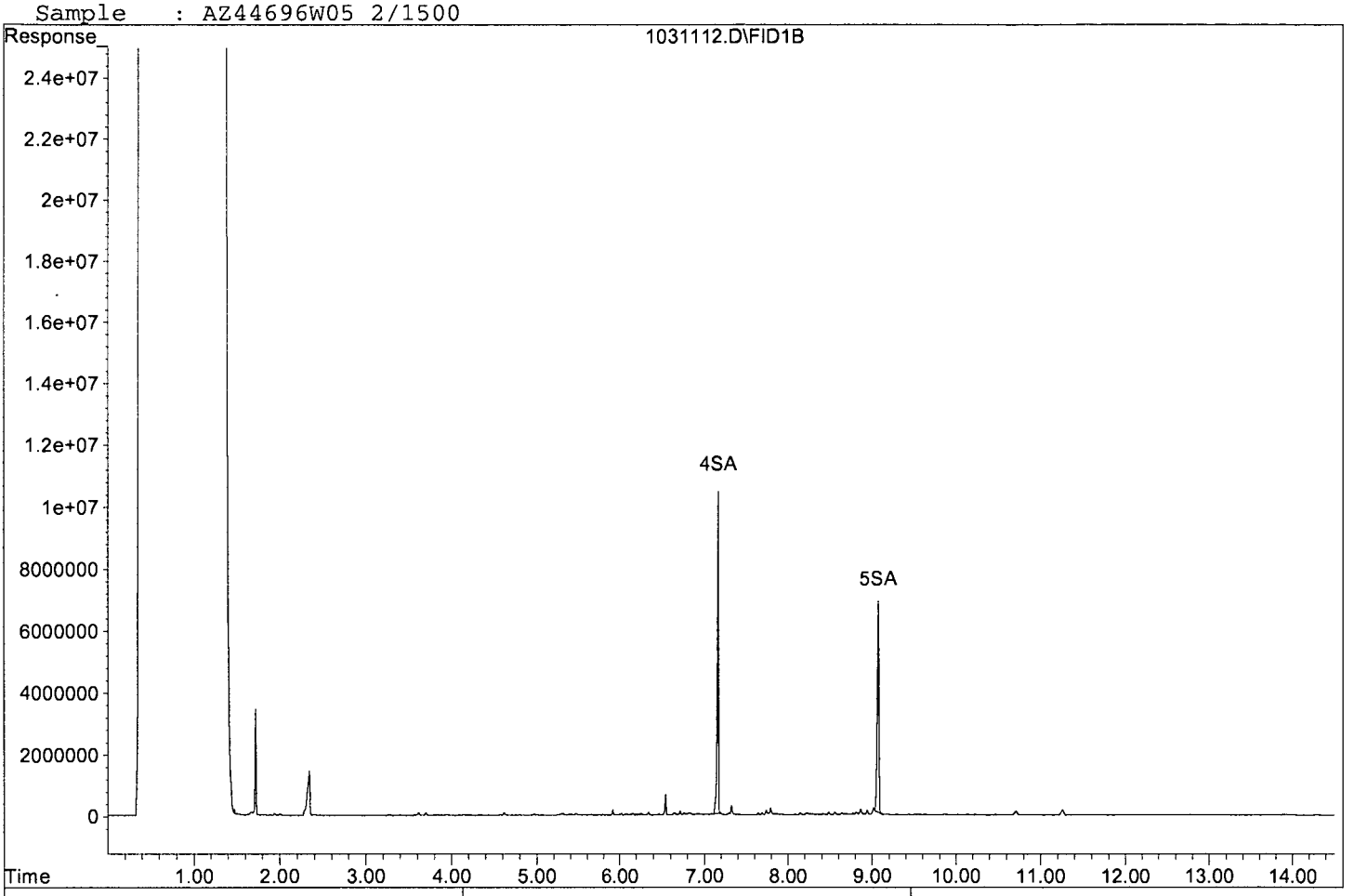
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

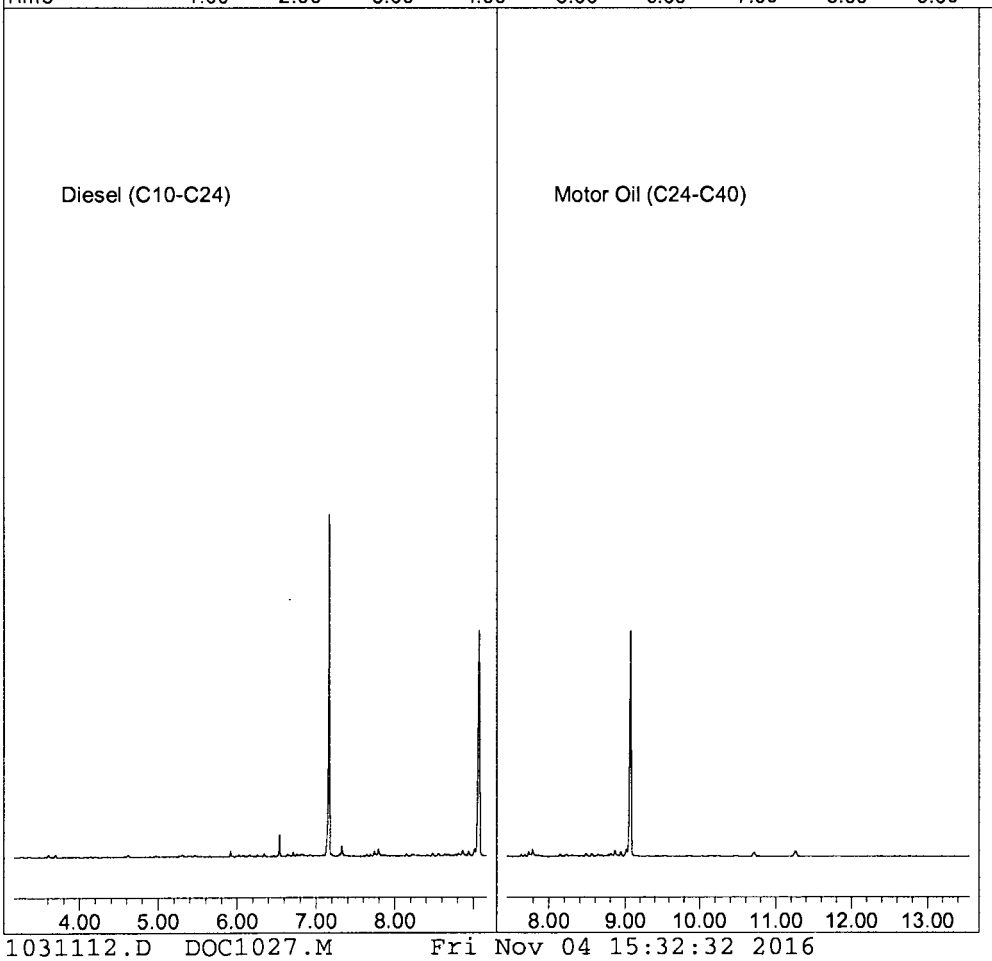
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	105259751	31.123	ppb
Surrogate Spike 40.000		Recovery =	77.81%	
5) SA Octacosane(S)	9.07	94469843	38.109	ppb
Surrogate Spike 40.000		Recovery =	95.27%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\161031\1031112.D
Sample : AZ44696W05 2/1500





ORGANICS

Calibration Data

APPL, INC.

TPH Extractables
DOC1027

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/28/16
Matrix: Water Instrument: Apollo Initials:

Diesel: 1027002.D 1027003.D 1027004.D 1027005.D 1027006.D 1027007.D
Motor Oil: 1028002.D 1028003.D 1028004.D 1028005.D 1028006.D 1028007.D

		Compound	1	2	3	4	5	6					Avg	%RSD		
1	HATM	Diesel (C10-C24)	2258285	2083322	1792136	1688298	1652234	1710241					1864086	13	HATM	
2	HBTM	Motor Oil (C24-C40)	1547461	1573593	1266210	1319225	1308991	1221658					1372856	11	HBTM	
3	SC	Decanoic Acid(S)	433088	637243	708157	651849	585305	621099					606124	15	SC	
4	SA	Ortho-Terphenyl(S)	1623101	2784637	2351811	2261671	2219163	2287776					2254693	16	SA	
5	SA	Octacosane(S)	1827829	1929319	1618166	1515775	1488172	1536433					1652616	11	SA	
6																
7																
8																
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1.9223699

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161027\1027002.D Vial: 2
Acq On : 10-27-16 17:29:08 Operator: lac
Sample : DIESEL 10ppb 10/27/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 3 17:51 2016 Quant Results File: DOC1027.RES

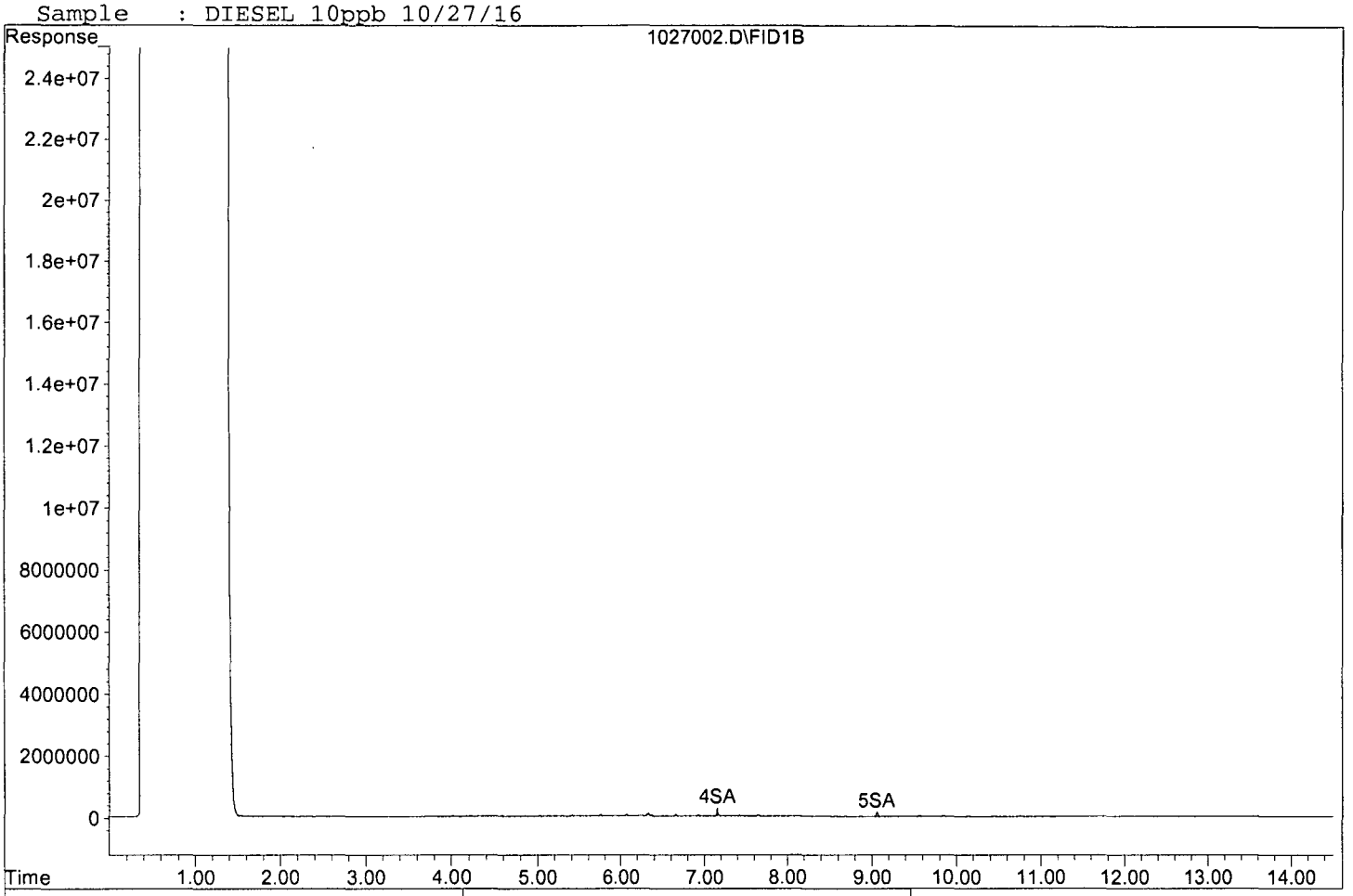
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

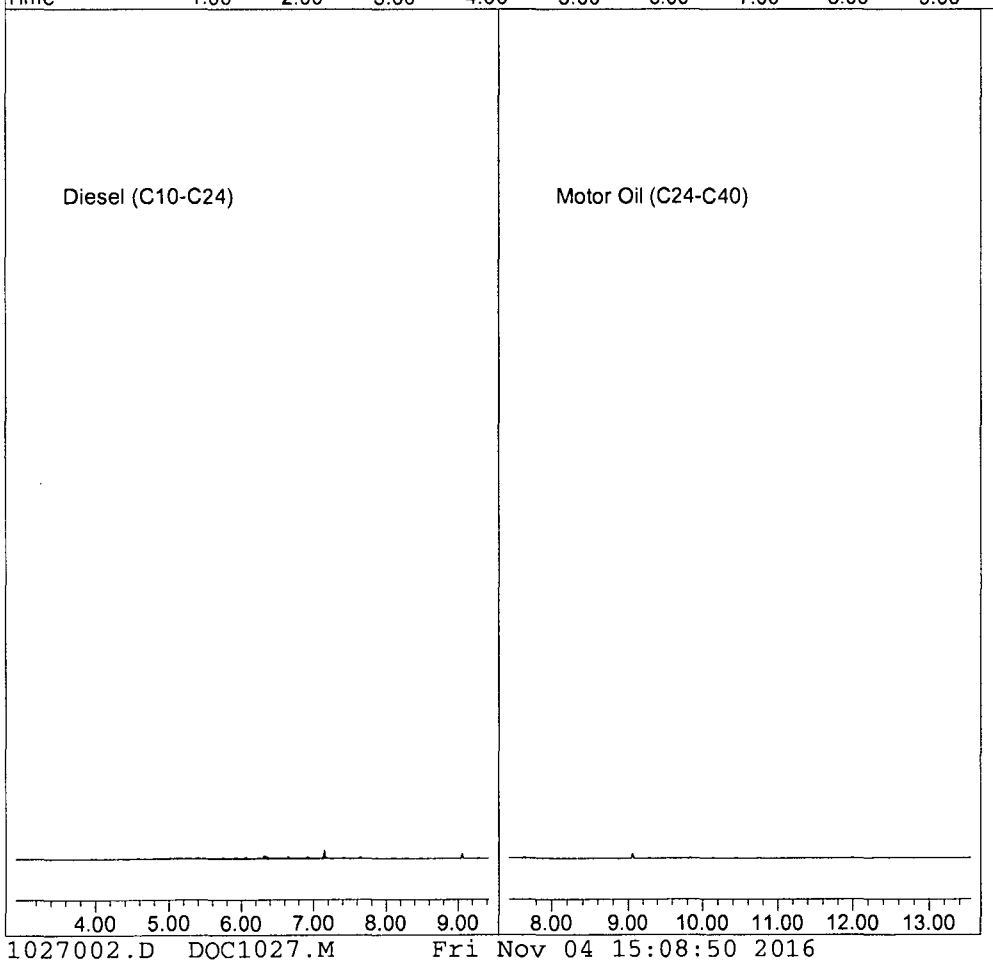
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.15	1623101	0.261 ppb
Surrogate Spike 30.000	Recovery =		0.87%
5) SA Octacosane(S)	9.06	1827829	0.562 ppb
Surrogate Spike 30.000	Recovery =		1.87%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	45165697	12.523 ppb

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

Data File: G:\APOLLO\DATA\161027\1027002.D
Sample : DIESEL 10ppb 10/27/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161027\1027003.D Vial: 3
Acq On : 10-27-16 17:50:22 Operator: lac
Sample : DIESEL 100ppb 10/27/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 3 17:51 2016 Quant Results File: DOC1027.RES

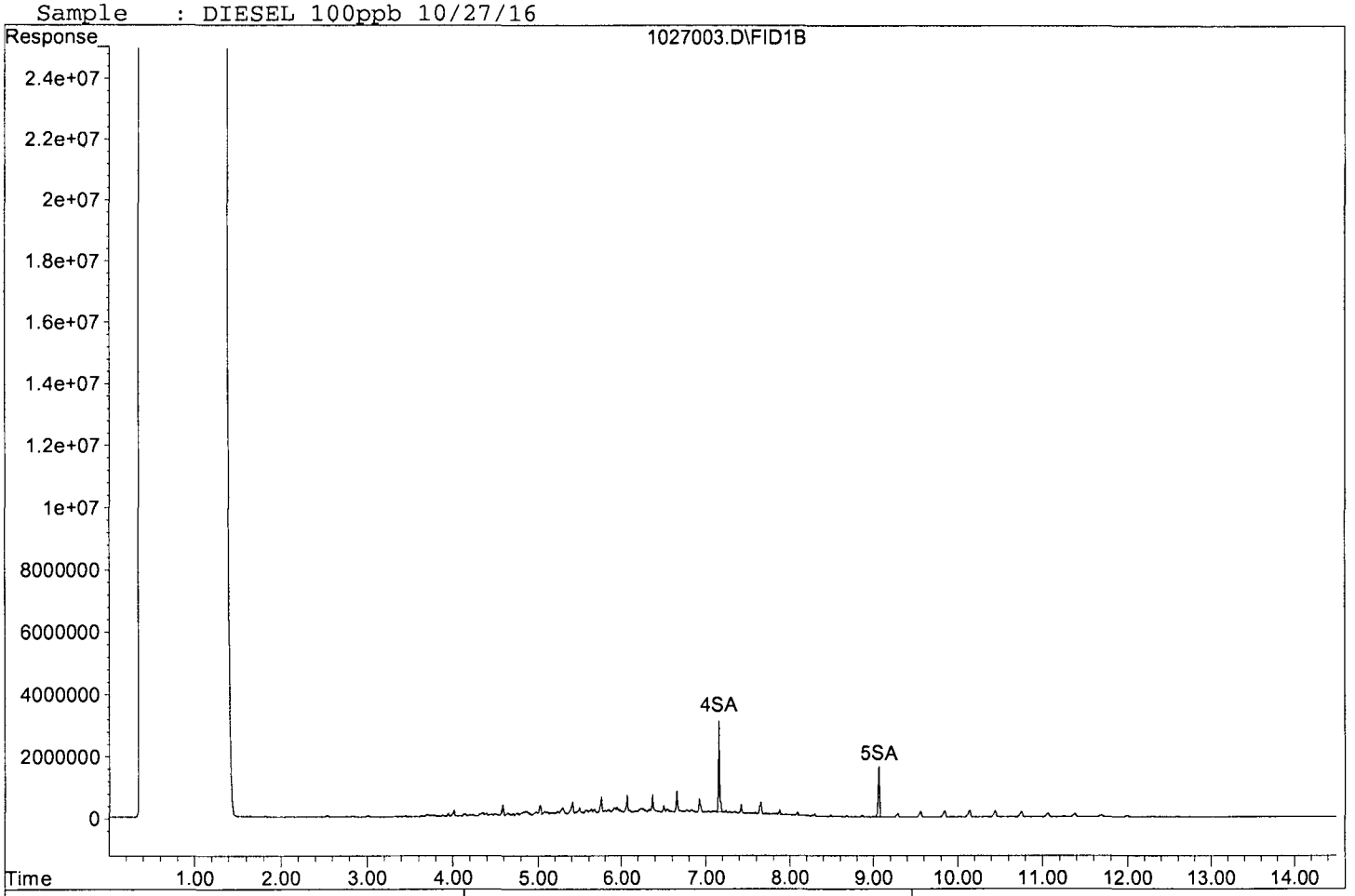
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

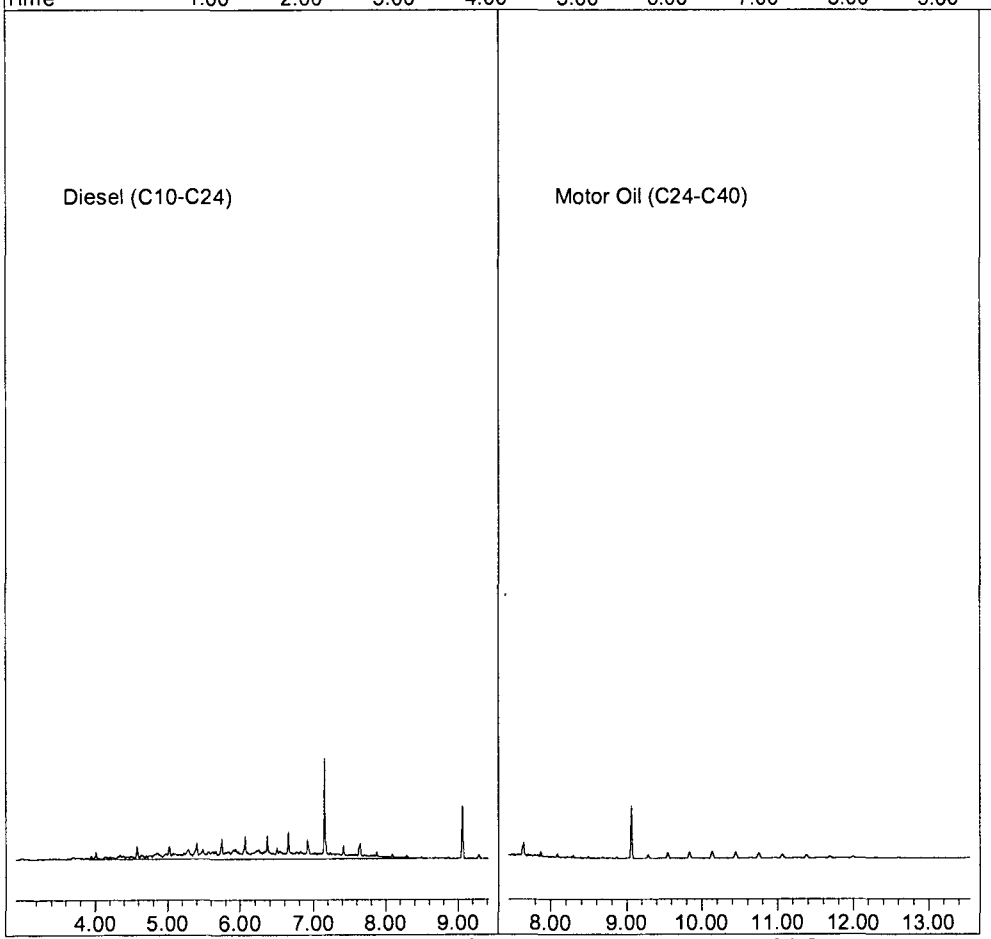
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.16	27846368	4.473 ppb
Surrogate Spike 30.000		Recovery =	14.91%
5) SA Octacosane(S)	9.06	19293192	5.937 ppb
Surrogate Spike 30.000		Recovery =	19.79%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	416664449	115.526 ppb

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

Data File: G:\APOLLO\DATA\161027\1027003.D
Sample : DIESEL 100ppb 10/27/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161027\1027004.D Vial: 4
Acq On : 10-27-16 18:11:31 Operator: lac
Sample : DIESEL 400ppb 10/27/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 3 17:51 2016 Quant Results File: DOC1027.RES

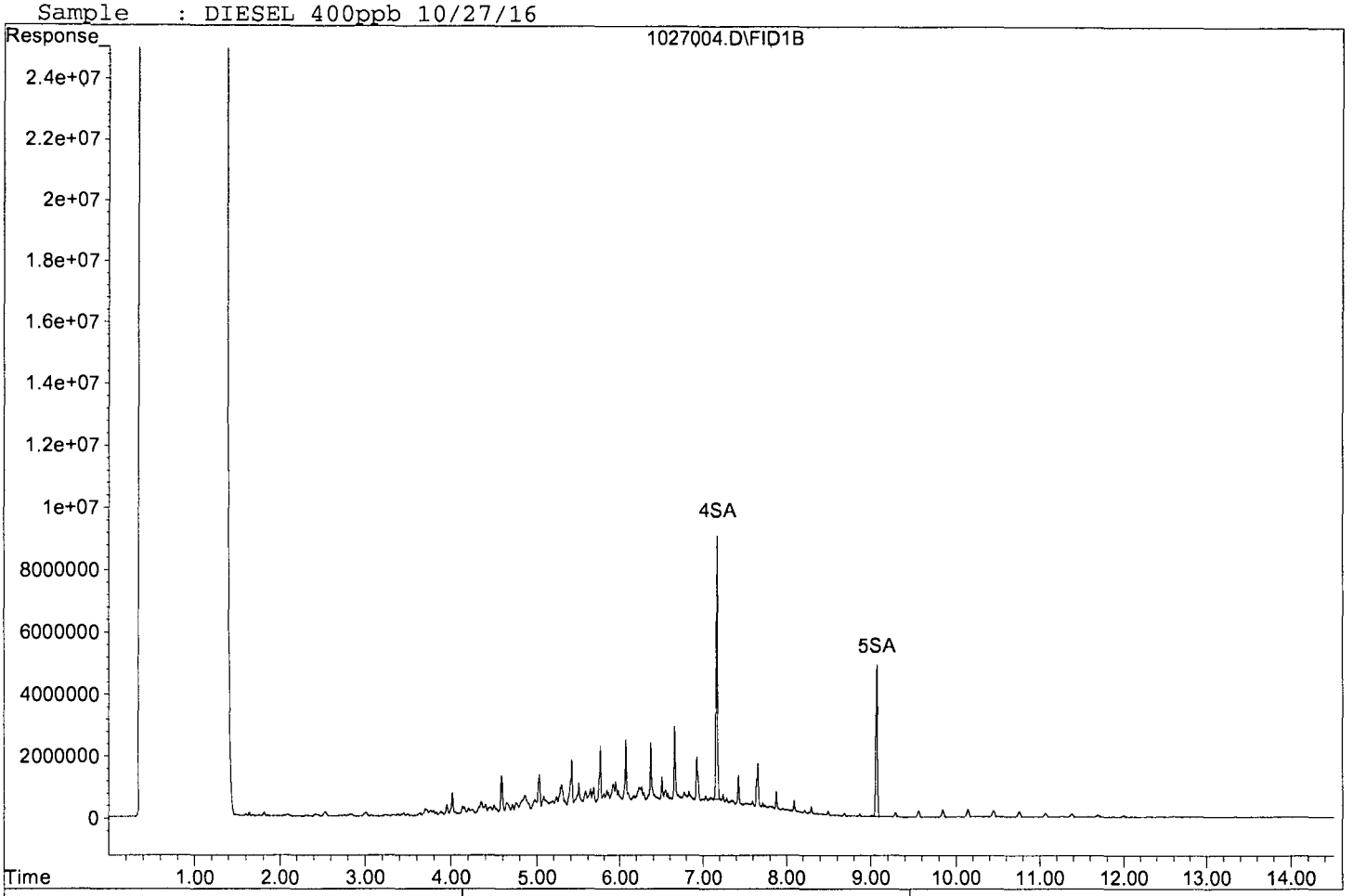
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

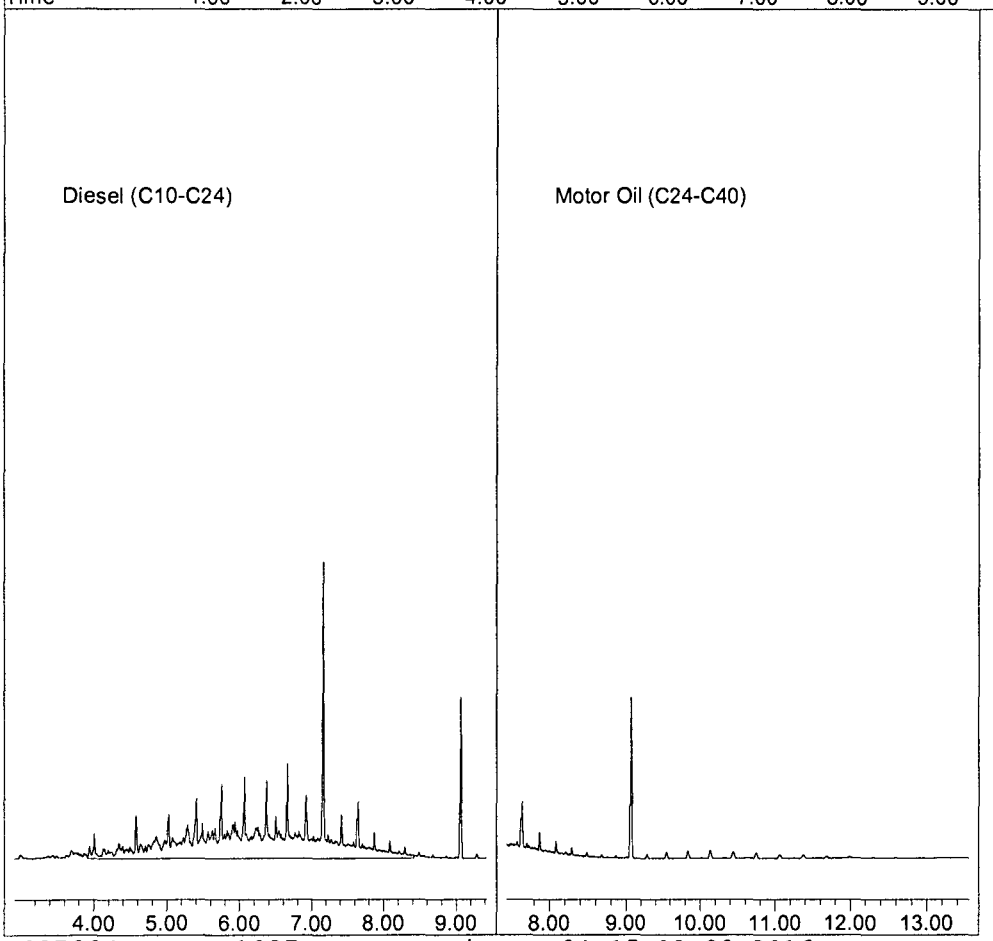
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.17	94072425	15.110 ppb
Surrogate Spike 30.000	Recovery =		50.37%
5) SA Octacosane(S)	9.07	64726641	19.918 ppb
Surrogate Spike 30.000	Recovery =		66.39%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	1433708582	397.514 ppb

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

Data File: G:\APOLLO\DATA\161027\1027004.D
Sample : DIESEL 400ppb 10/27/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161027\1027005.D Vial: 5
Acq On : 10-27-16 18:32:45 Operator: lac
Sample : DIESEL 600ppb 10/27/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 3 17:51 2016 Quant Results File: DOC1027.RES

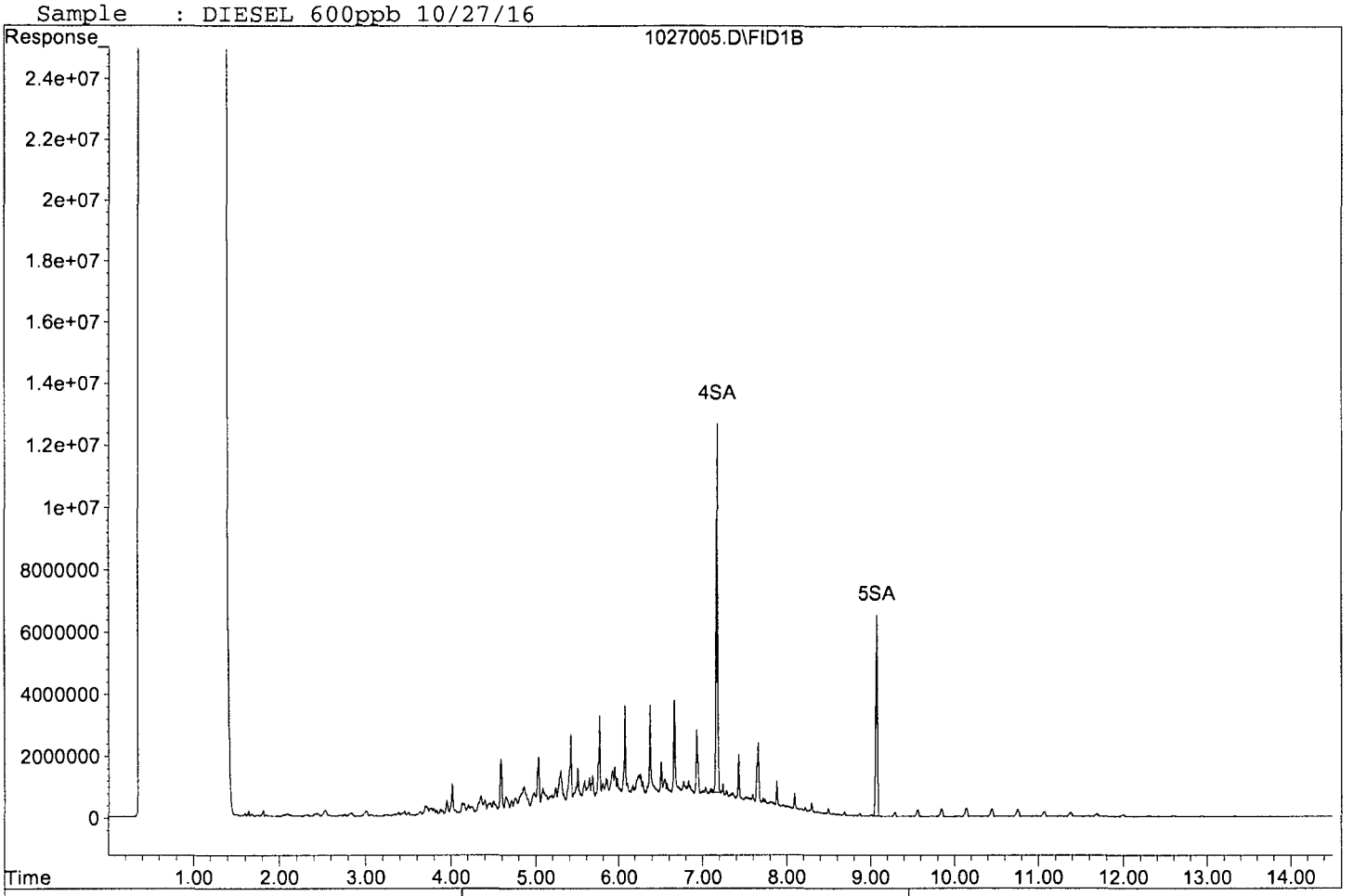
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

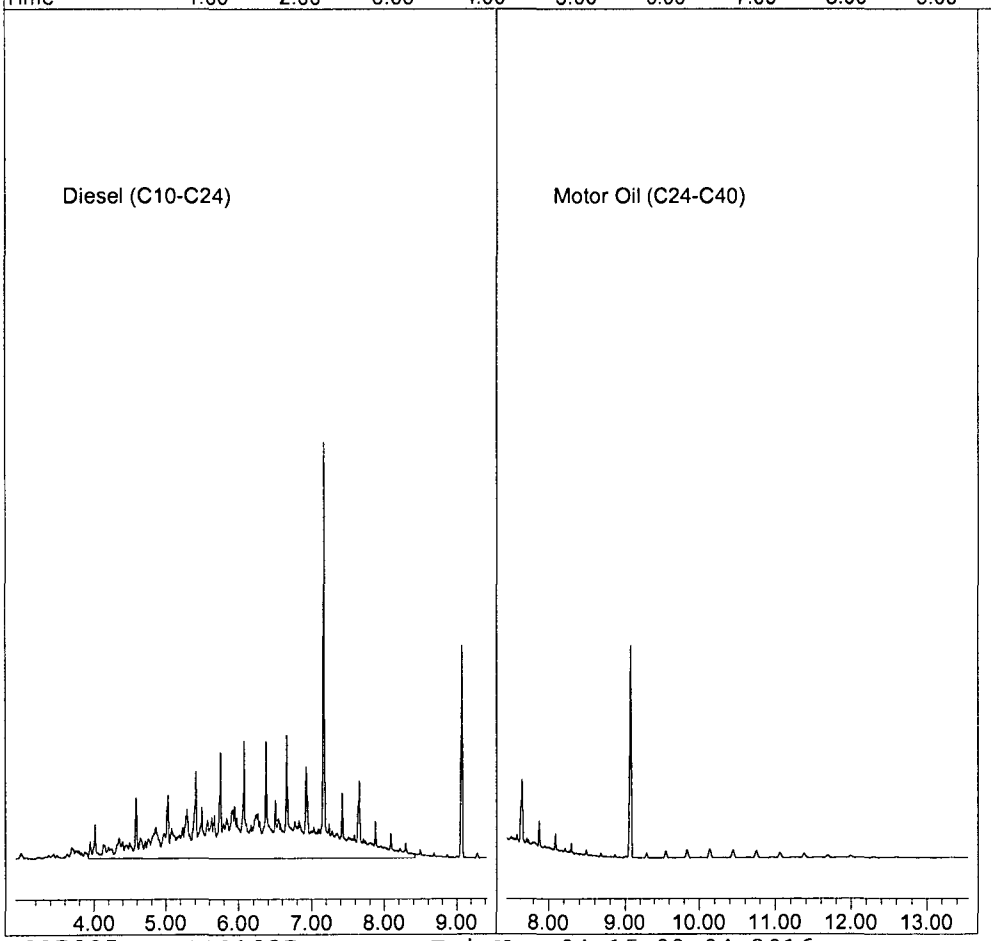
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	135700282	21.797	ppb
Surrogate Spike 30.000		Recovery =	72.66%	
5) SA Octacosane(S)	9.07	90946488	27.987	ppb
Surrogate Spike 30.000		Recovery =	93.29%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	2025957458	561.723	ppb

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

Data File: G:\APOLLO\DATA\161027\1027005.D
Sample : DIESEL 600ppb 10/27/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161027\1027006.D Vial: 6
Acq On : 10-27-16 18:53:54 Operator: lac
Sample : DIESEL 800ppb 10/27/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 3 17:51 2016 Quant Results File: DOC1027.RES

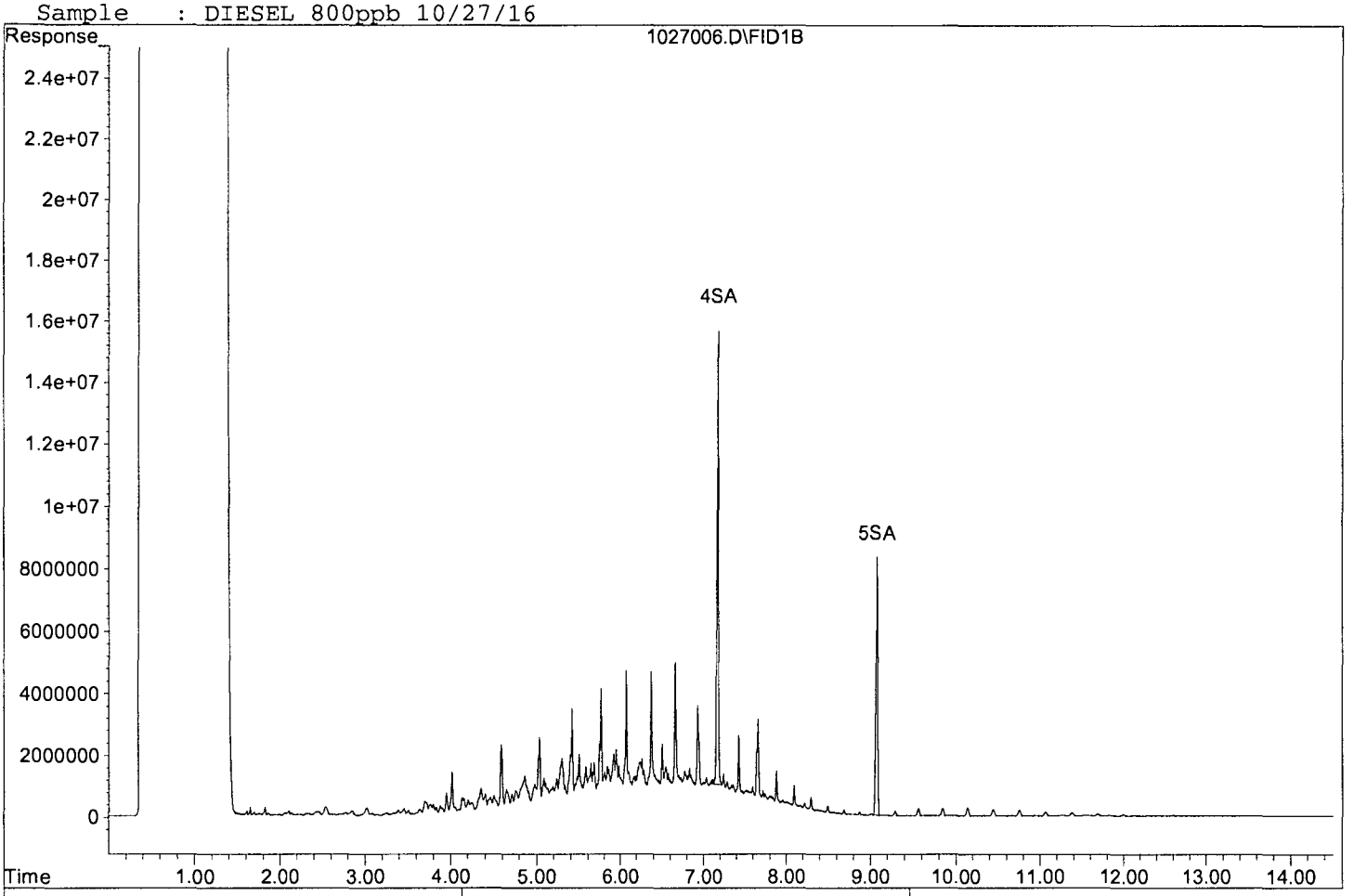
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

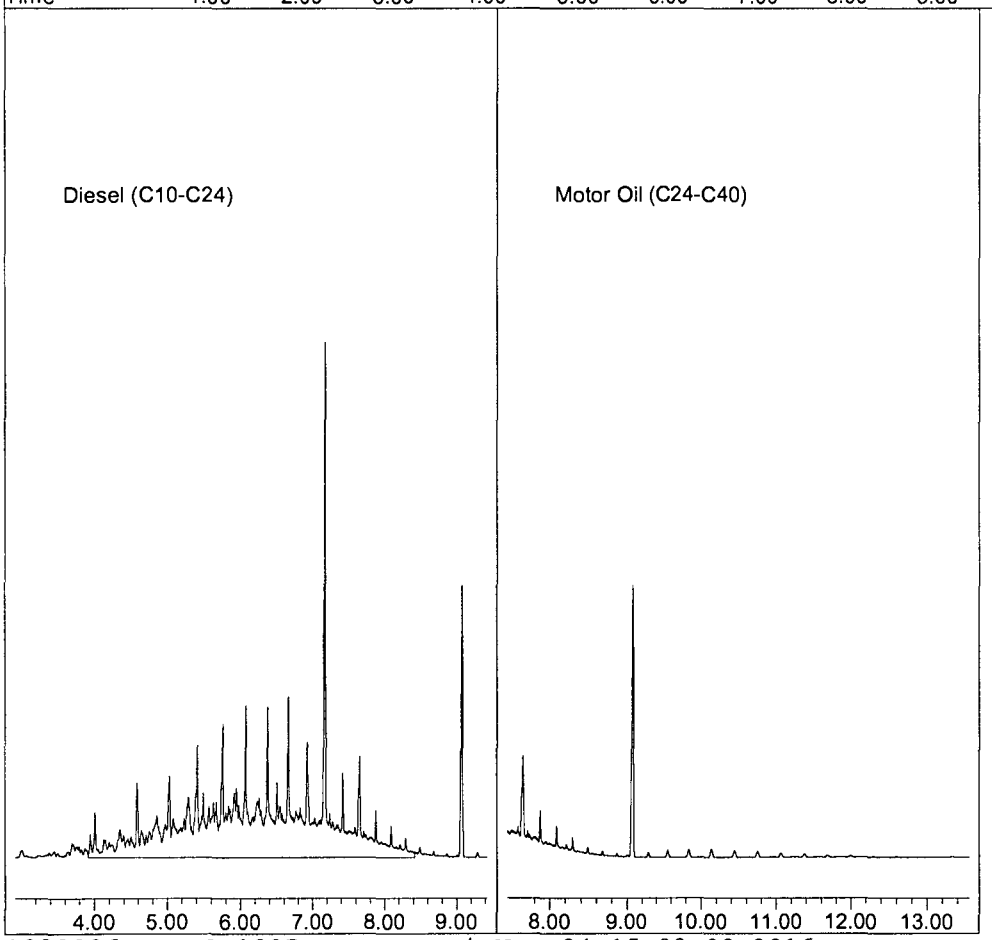
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.18	177533039	28.516	ppb
Surrogate Spike 30.000		Recovery =	95.05%	
5) SA Octacosane(S)	9.08	119053790	36.637	ppb
Surrogate Spike 30.000		Recovery =	122.12%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	2643574302	732.965	ppb

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

Data File: G:\APOLLO\DATA\161027\1027006.D
Sample : DIESEL 800ppb 10/27/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161027\1027007.D Vial: 7
Acq On : 10-27-16 19:15:05 Operator: lac
Sample : DIESEL 1000ppb 10/27/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 3 17:51 2016 Quant Results File: DOC1027.RES

Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

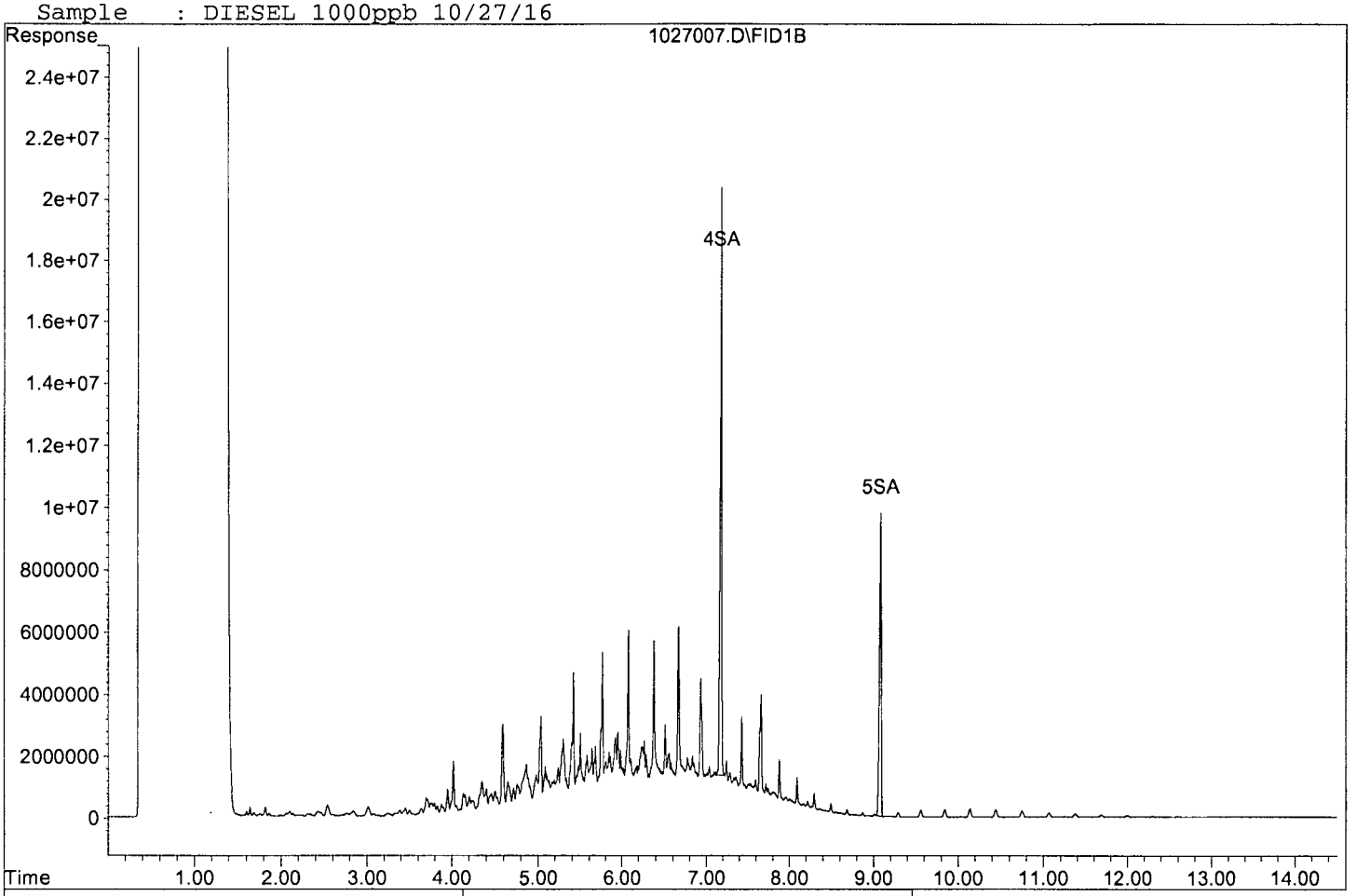
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

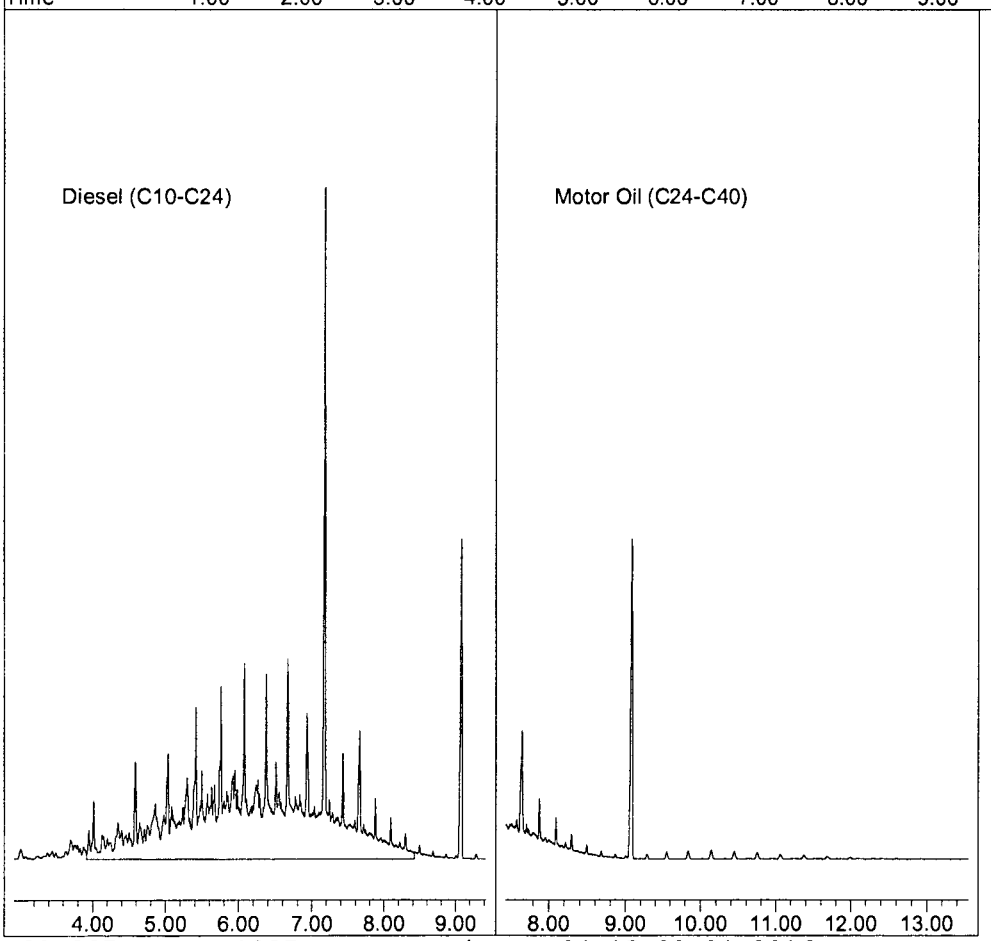
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.18	228777574	36.747 ppb
Surrogate Spike 30.000		Recovery =	122.49%
5) SA Octacosane(S)	9.08	153643306	47.281 ppb
Surrogate Spike 30.000		Recovery =	157.60%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	3420481189	948.372 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\161027\1027007.D
Sample : DIESEL 1000ppb 10/27/16





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161028\1028002.D Vial: 2
Acq On : 10-28-16 9:07:30 Operator: DP
Sample : MO 20ppb 10/28/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:13 2016 Quant Results File: DOC1027.RES

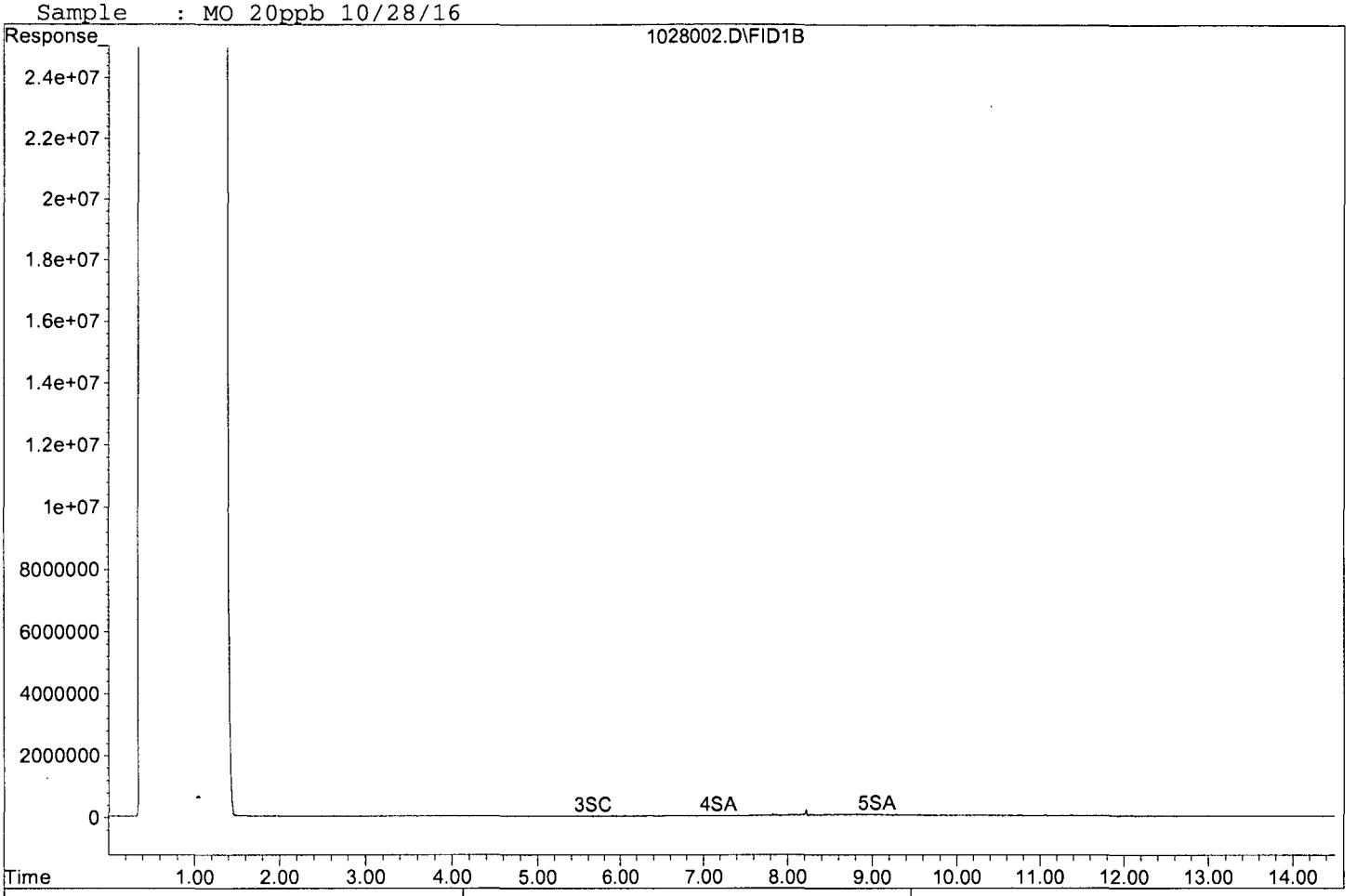
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

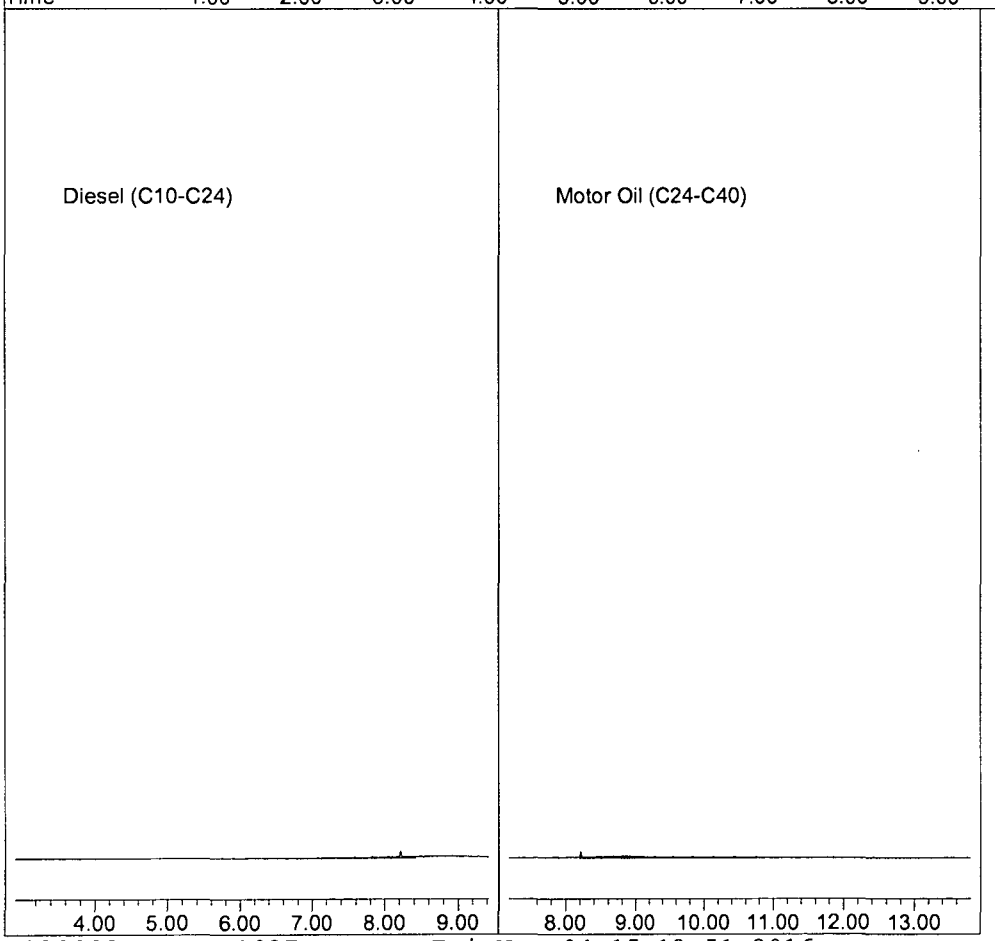
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.66	20729	0.017	ppb
Surrogate Spike 48.000	Recovery	=	0.04%	
4) SA Ortho-Terphenyl(S)	7.18	66432	0.015	ppb
Surrogate Spike 30.000	Recovery	=	0.05%	
5) SA Octacosane(S)	9.05	42548	0.013	ppb
Surrogate Spike 30.000	Recovery	=	0.04%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	23115994	6.200	ppb
2) HBTM Motor Oil (C24-C40)	10.50	62507592	22.766	ppb

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

Data File: G:\APOLLO\DATA\161028\1028002.D
Sample : MO 20ppb 10/28/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161028\1028003.D Vial: 3
Acq On : 10-28-16 9:28:13 Operator: DP
Sample : MO 50ppb 10/28/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:13 2016 Quant Results File: DOC1027.RES

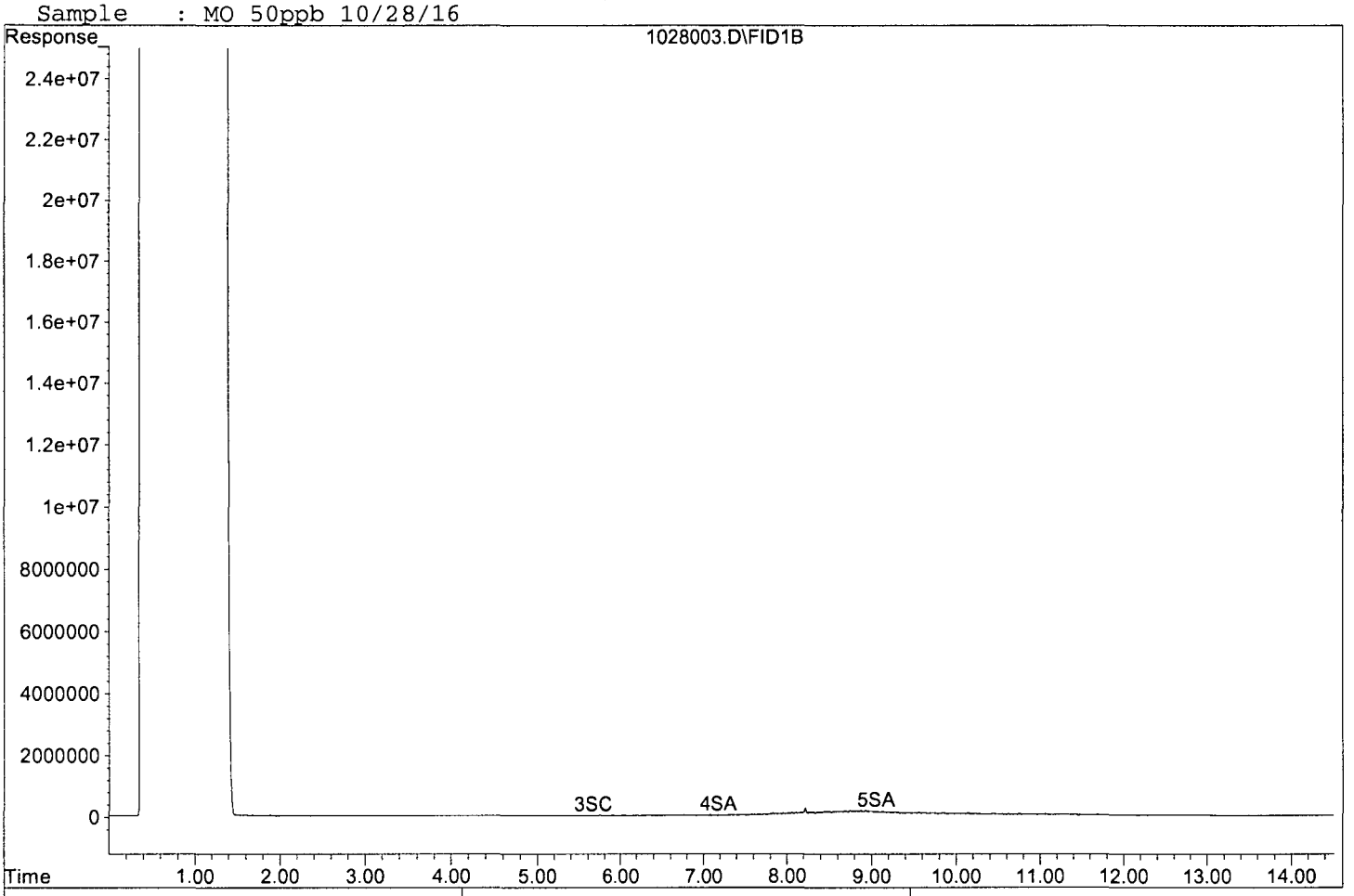
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

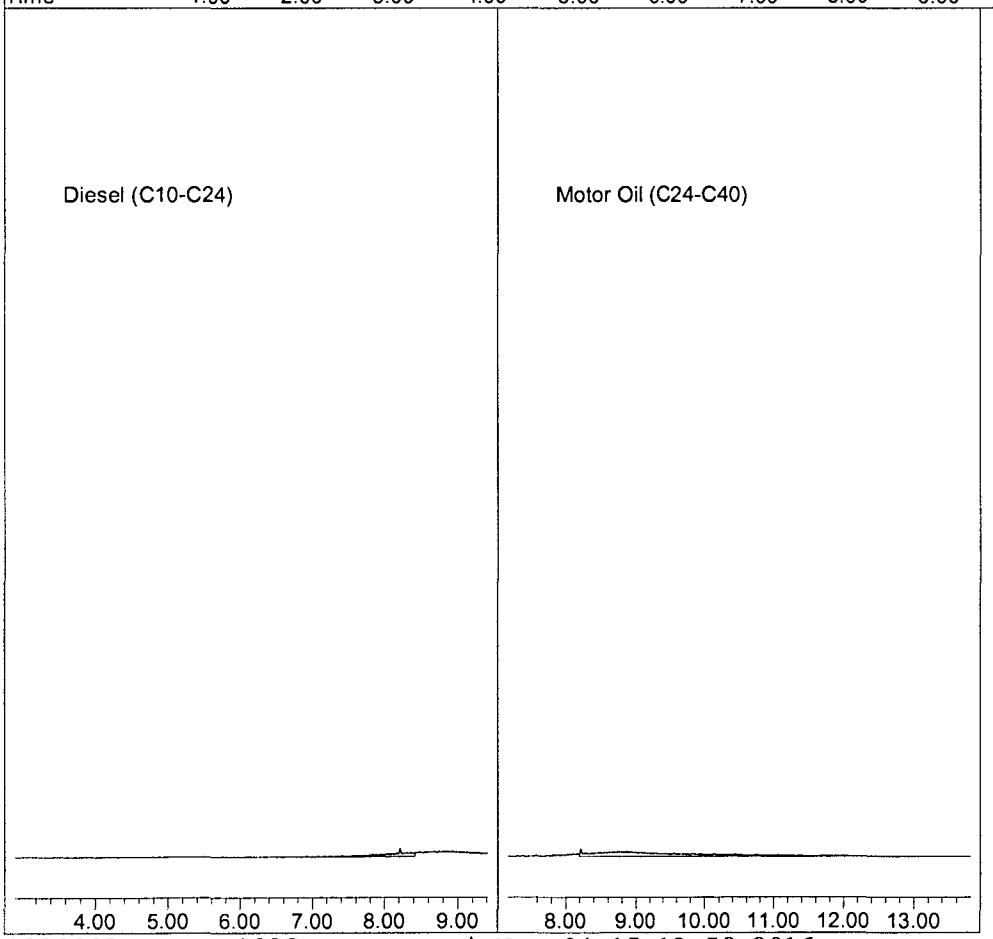
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.66	32693	0.027 ppb
Surrogate Spike 48.000	Recovery	=	0.06%
4) SA Ortho-Terphenyl(S)	7.18	61264	0.014 ppb
Surrogate Spike 30.000	Recovery	=	0.05%
5) SA Octacosane(S)	9.05	375953	0.114 ppb
Surrogate Spike 30.000	Recovery	=	0.38%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	45920311	12.317 ppb
2) HBTM Motor Oil (C24-C40)	10.50	160376925	58.410 ppb

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

Data File: G:\APOLLO\DATA\161028\1028003.D
Sample : MO 50ppb 10/28/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161028\1028004.D Vial: 4
Acq On : 10-28-16 9:49:06 Operator: DP
Sample : MO 250ppb 10/28/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:14 2016 Quant Results File: DOC1027.RES

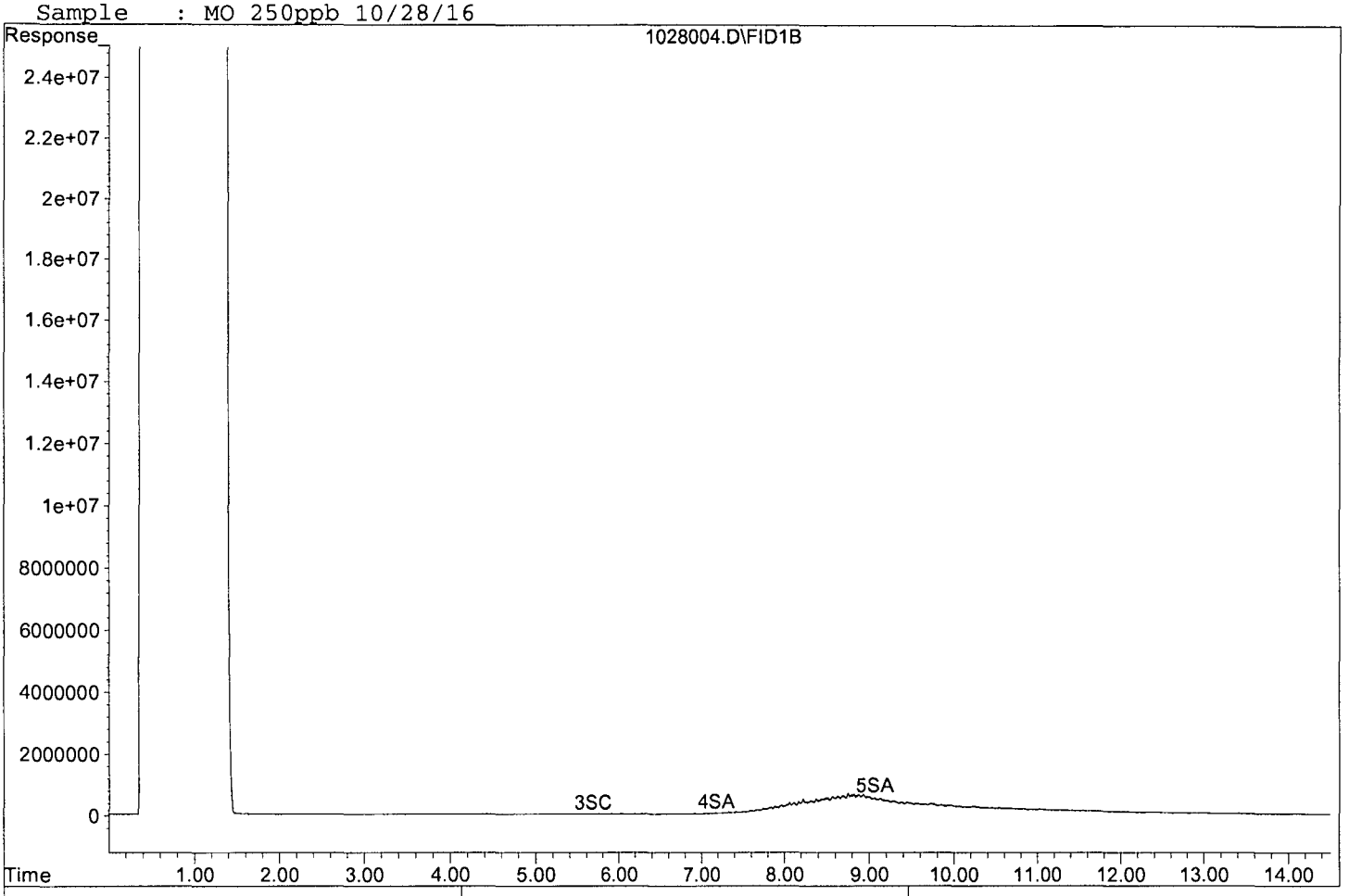
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

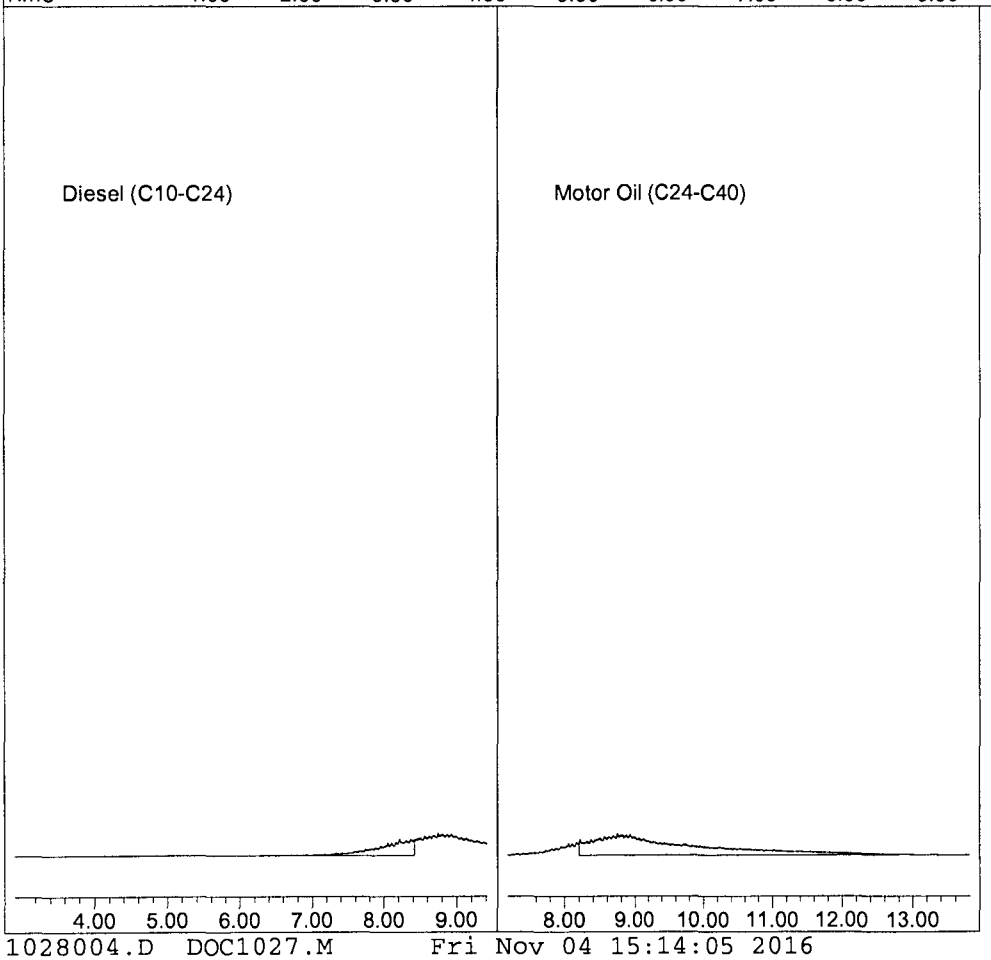
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.67	12210	0.010	ppb
Surrogate Spike 48.000	Recovery	=	0.02%	
4) SA Ortho-Terphenyl(S)	7.17	294293	0.065	ppb
Surrogate Spike 30.000	Recovery	=	0.22%	
5) SA Octacosane(S)	9.07	335741	0.102	ppb
Surrogate Spike 30.000	Recovery	=	0.34%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	158994256	42.647	ppb
2) HBTM Motor Oil (C24-C40)	10.50	641488837	233.633	ppb

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

Data File: G:\APOLLO\DATA\161028\1028004.D
Sample : MO 250ppb 10/28/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161028\1028005.D Vial: 5
Acq On : 10-28-16 10:09:58 Operator: DP
Sample : MO 1000ppb 10/28/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:14 2016 Quant Results File: DOC1027.RES

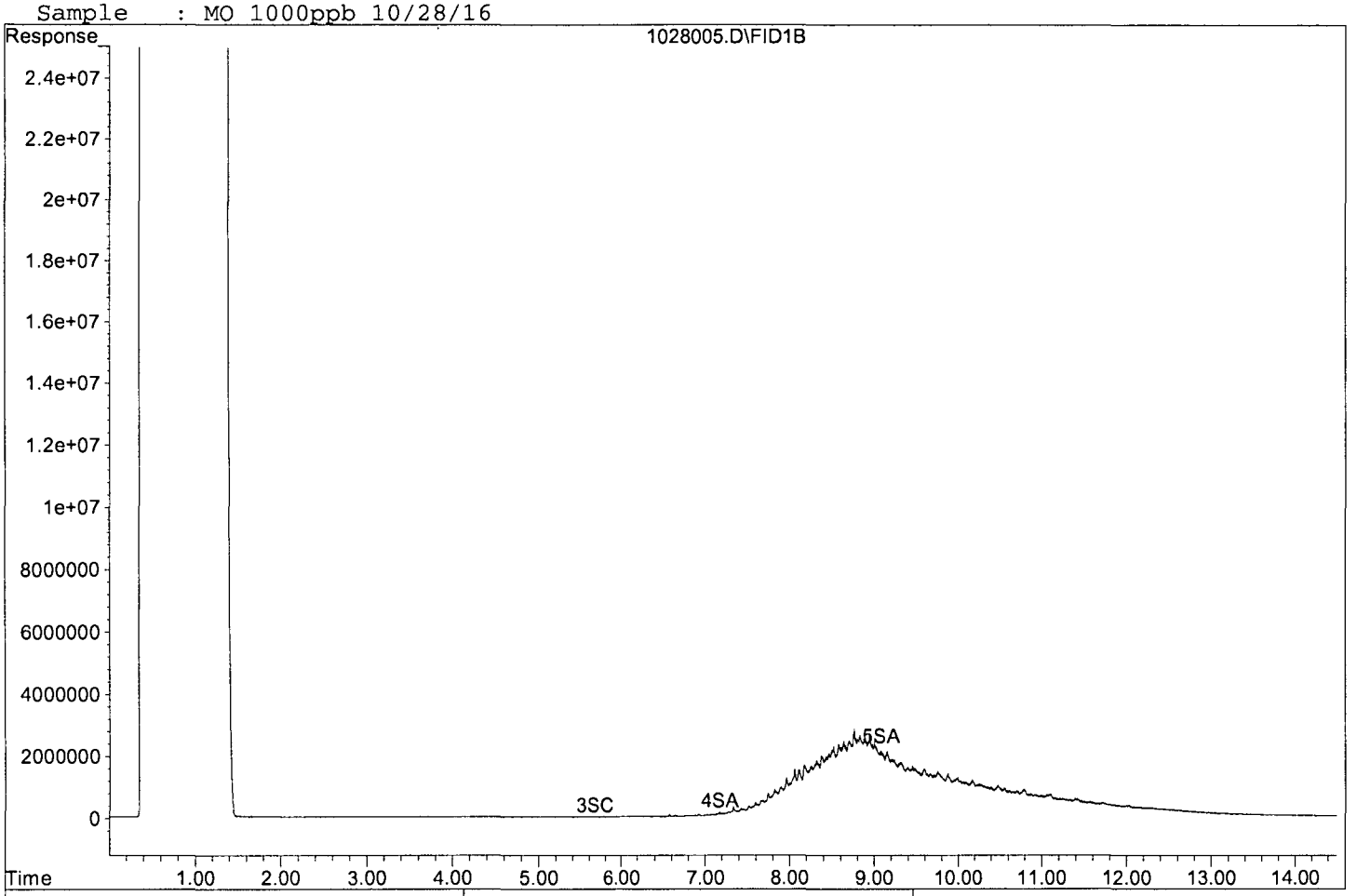
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

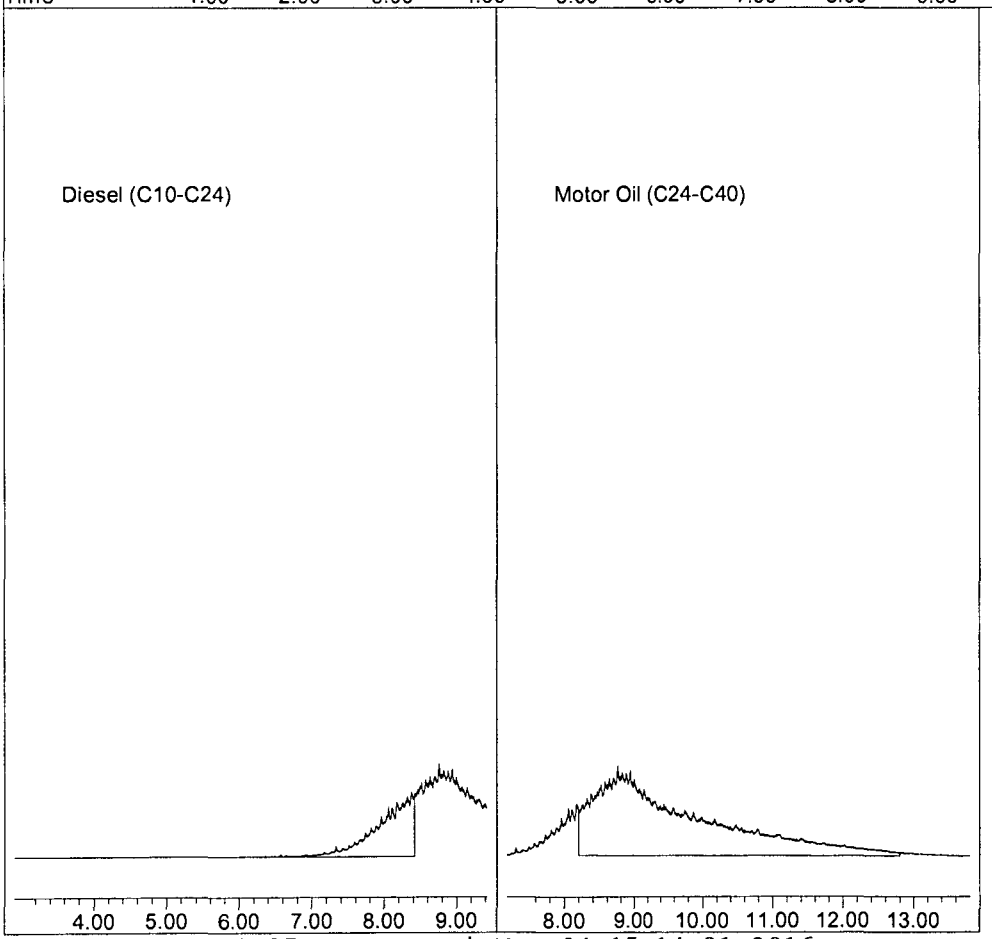
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.66	16479	0.014	ppb
Surrogate Spike 48.000	Recovery =		0.03%	
4) SA Ortho-Terphenyl(S)	7.17	575593	0.128	ppb
Surrogate Spike 30.000	Recovery =		0.43%	
5) SA Octacosane(S)	9.07	1316048	0.398	ppb
Surrogate Spike 30.000	Recovery =		1.33%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	617788969	165.708	ppb
2) HBTM Motor Oil (C24-C40)	10.50	2680029704	976.078	ppb

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

Data File: G:\APOLLO\DATA\161028\1028005.D
Sample : MO 1000ppb 10/28/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161028\1028006.D Vial: 6
Acq On : 10-28-16 10:30:51 Operator: DP
Sample : MO 1500ppb 10/28/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:14 2016 Quant Results File: DOC1027.RES

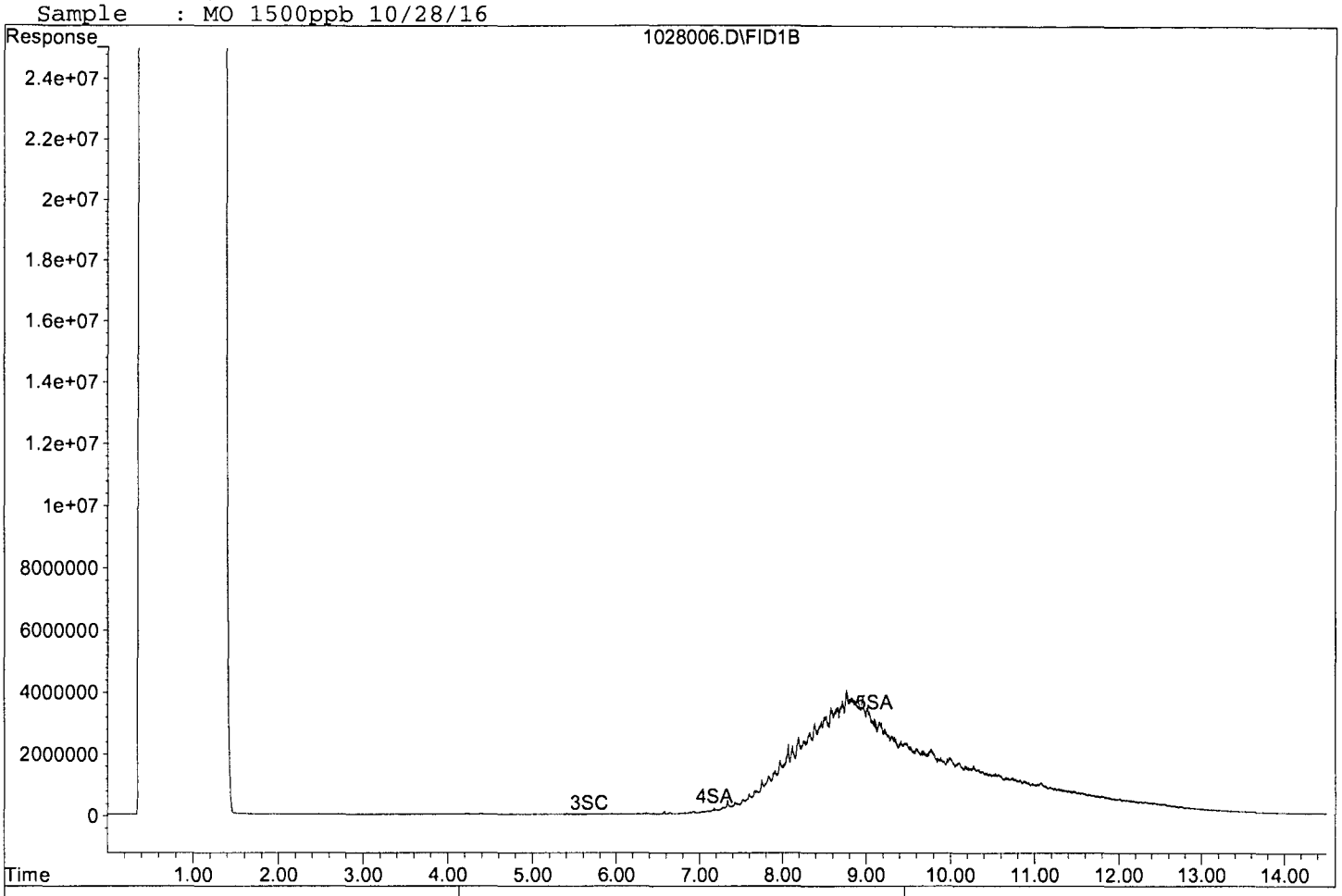
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

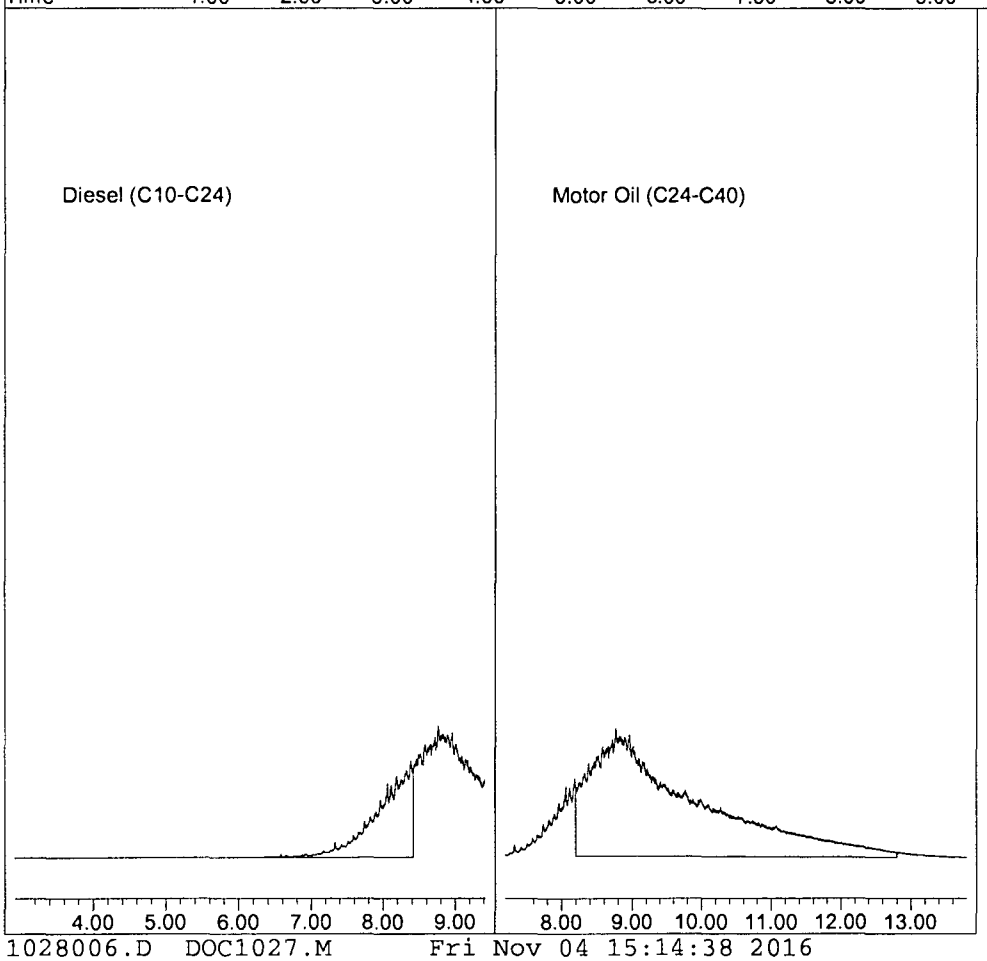
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.67	10789	0.009	ppb
Surrogate Spike 48.000		Recovery =	0.02%	
4) SA Ortho-Terphenyl(S)	7.18	610601	0.135	ppb
Surrogate Spike 30.000		Recovery =	0.45%	
5) SA Octacosane(S)	9.09	3582185	1.084	ppb
Surrogate Spike 30.000		Recovery =	3.61%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	915205648	245.484	ppb
2) HBTM Motor Oil (C24-C40)	10.50	3965906010	1444.399	ppb

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

Data File: G:\APOLLO\DATA\161028\1028006.D
Sample : MO 1500ppb 10/28/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161028\1028007.D Vial: 7
Acq On : 10-28-16 10:51:50 Operator: DP
Sample : MO 2000ppb 10/28/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:14 2016 Quant Results File: DOC1027.RES

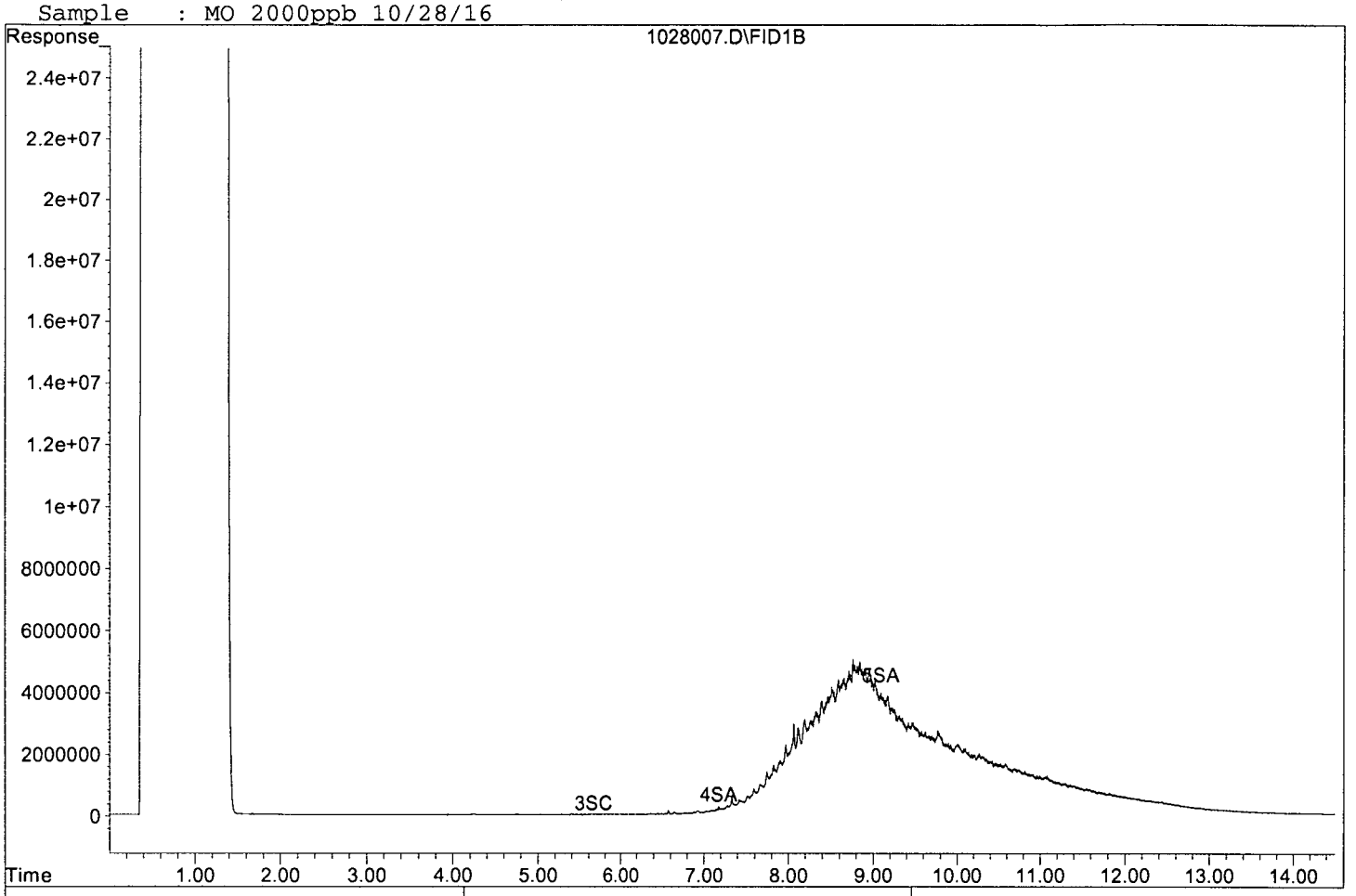
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

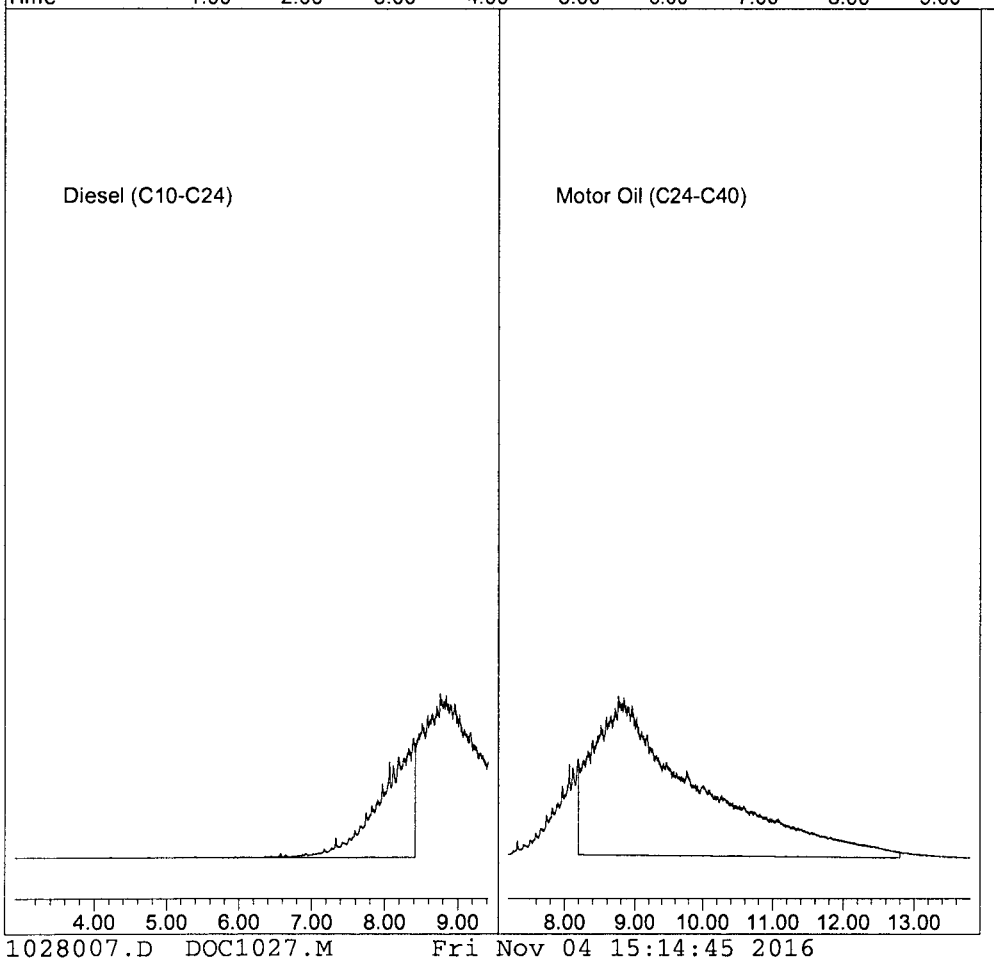
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.66	30141	0.025	ppb
Surrogate Spike 48.000	Recovery	=	0.05%	
4) SA Ortho-Terphenyl(S)	7.18	876705	0.194	ppb
Surrogate Spike 30.000	Recovery	=	0.65%	
5) SA Octacosane(S)	9.09	566554	0.171	ppb
Surrogate Spike 30.000	Recovery	=	0.57%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	1154666926	309.714	ppb
2) HBTM Motor Oil (C24-C40)	10.50	4983276169	1814.930	ppb

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

Data File: G:\APOLLO\DATA\161028\1028007.D
Sample : MO 2000ppb 10/28/16





TPH Extractables
DOC1027

Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 10/28/16
Instrument: Apollo
Initial Cal. Date: 10/28/16
Data File: 1027009.D (Diesel) 1028008.D (Motor Oil)

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1864090	1836360	1.5	HATM	
2	HBTM	Motor Oil (C24-C40)	1372860	1255810	8.5	HBTM	
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40							
		Average			5.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161027\1027009.D Vial: 9
Acq On : 10-27-16 19:57:54 Operator: lac
Sample : DIESEL-SS 400ppb 8/1/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:11 2016 Quant Results File: DOC1027.RES

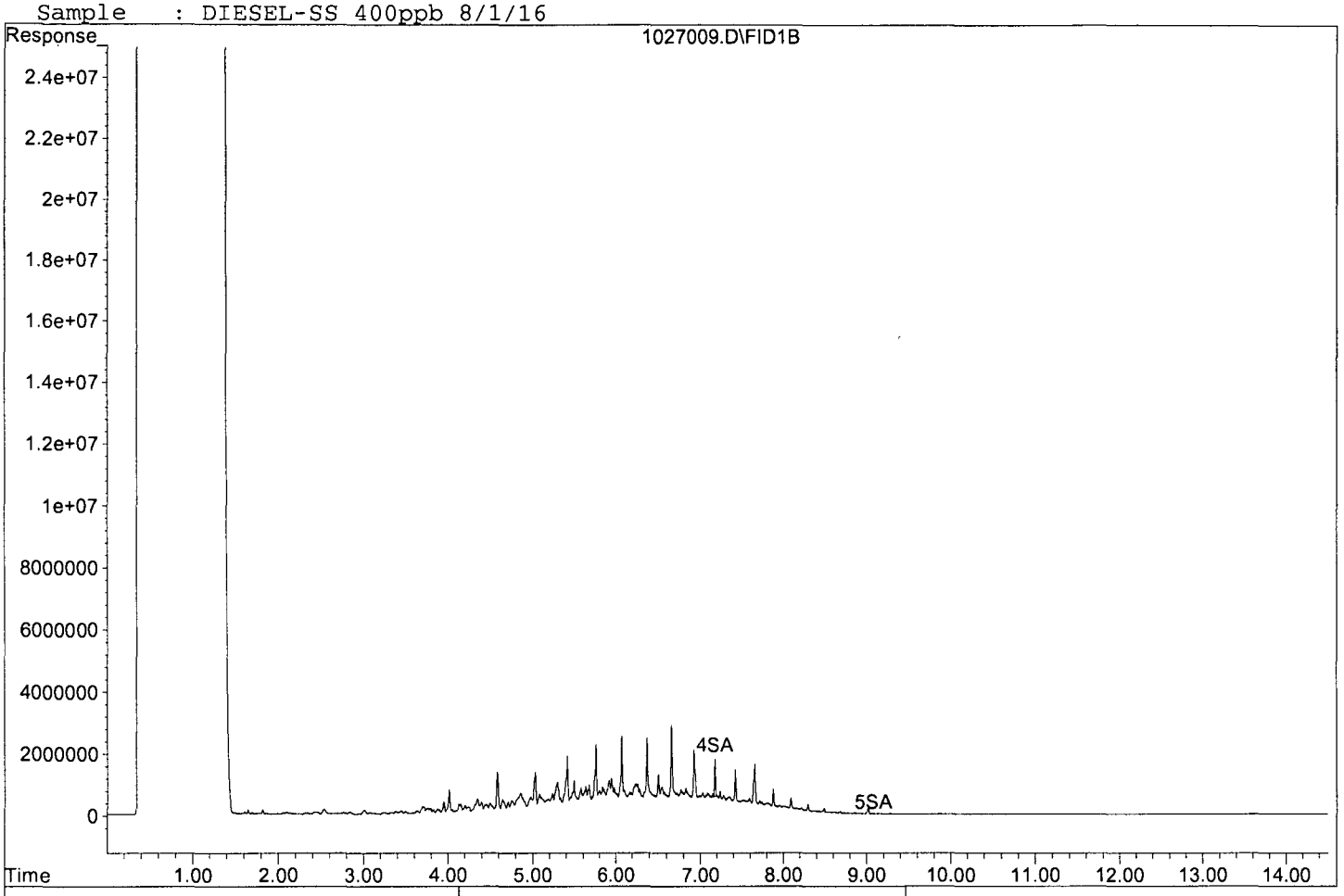
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

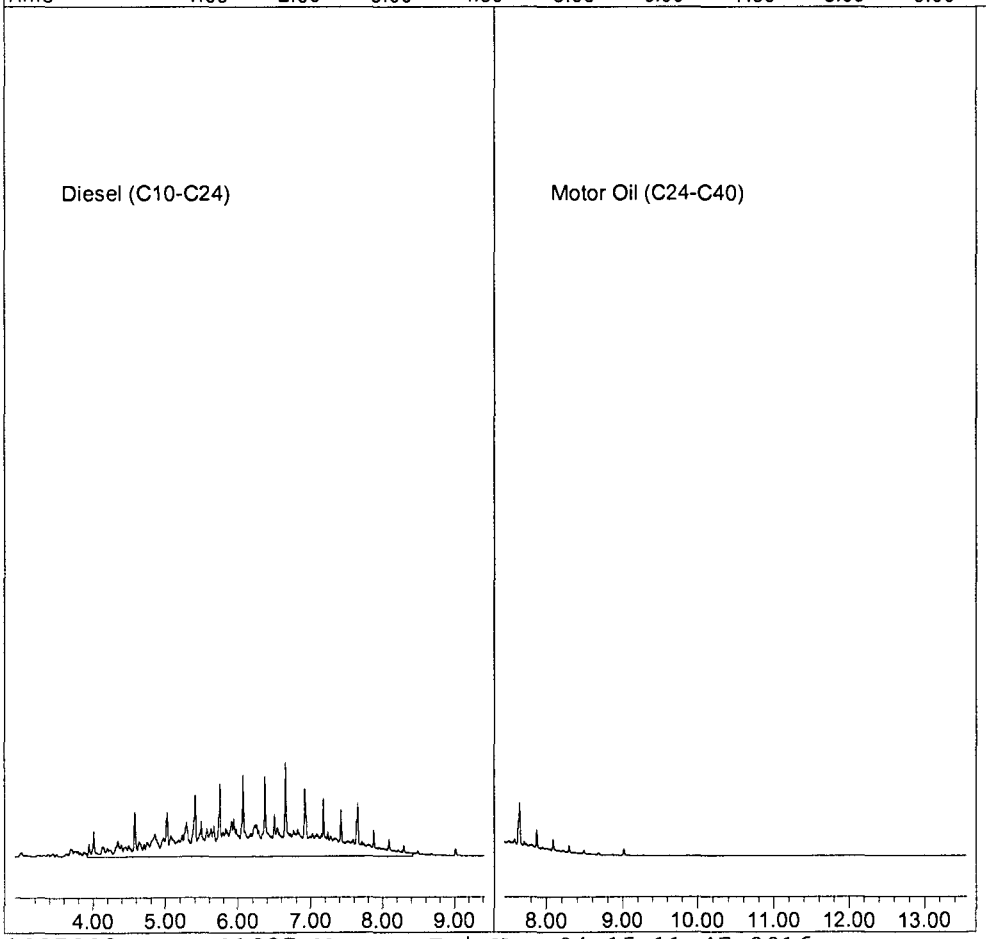
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.18	10777609	2.390	ppb
Surrogate Spike 30.000	Recovery =		7.97%	
5) SA Octacosane(S)	9.08	176637	0.053	ppb
Surrogate Spike 30.000	Recovery =		0.18%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	1469088775	394.051	ppb

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

Data File: G:\APOLLO\DATA\161027\1027009.D
Sample : DIESEL-SS 400ppb 8/1/16





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161028\1028008.D Vial: 8
Acq On : 10-28-16 11:12:44 Operator: DP
Sample : MO SS 1000ppb 7/6/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:12 2016 Quant Results File: DOC1027.RES

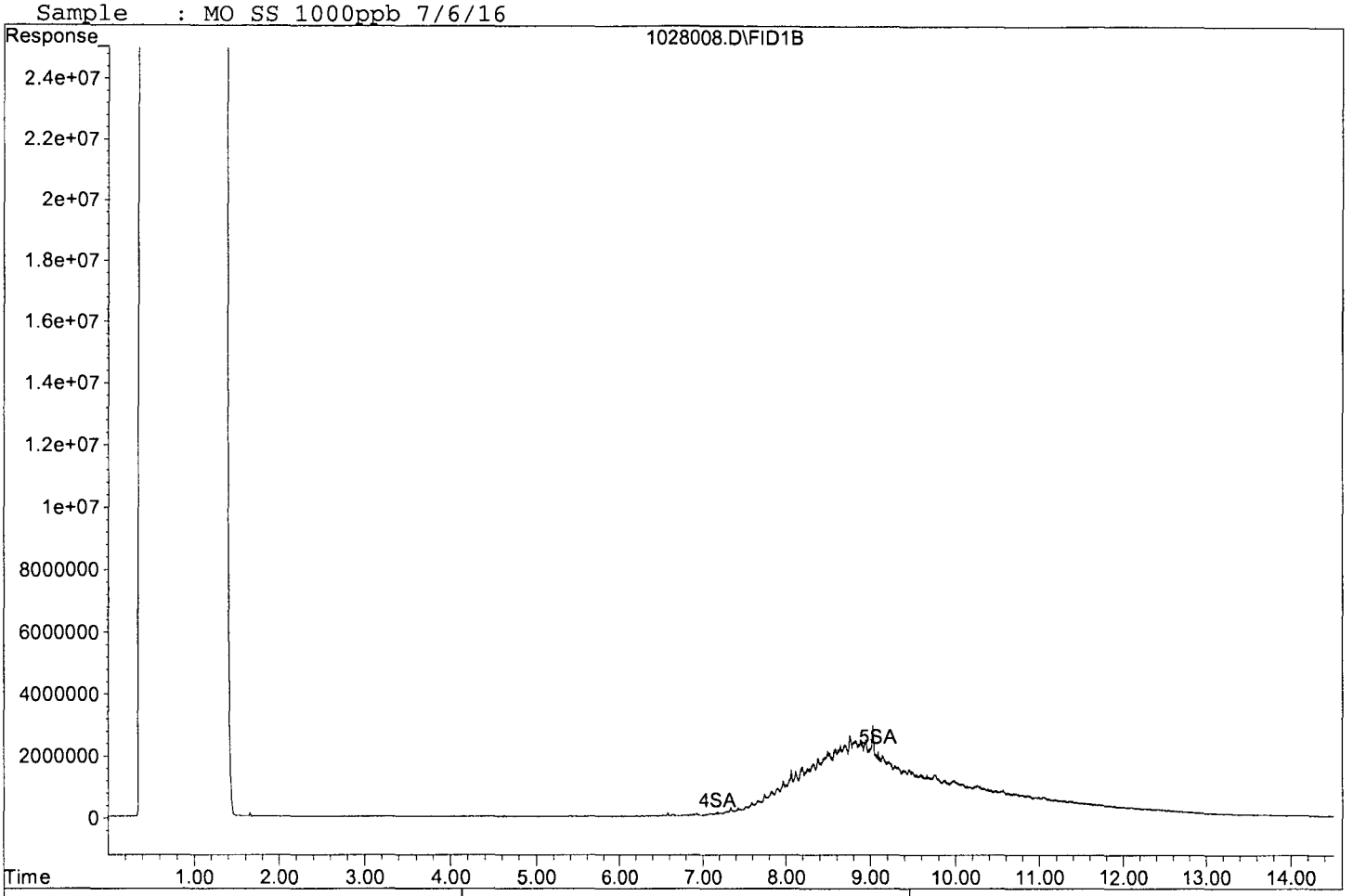
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

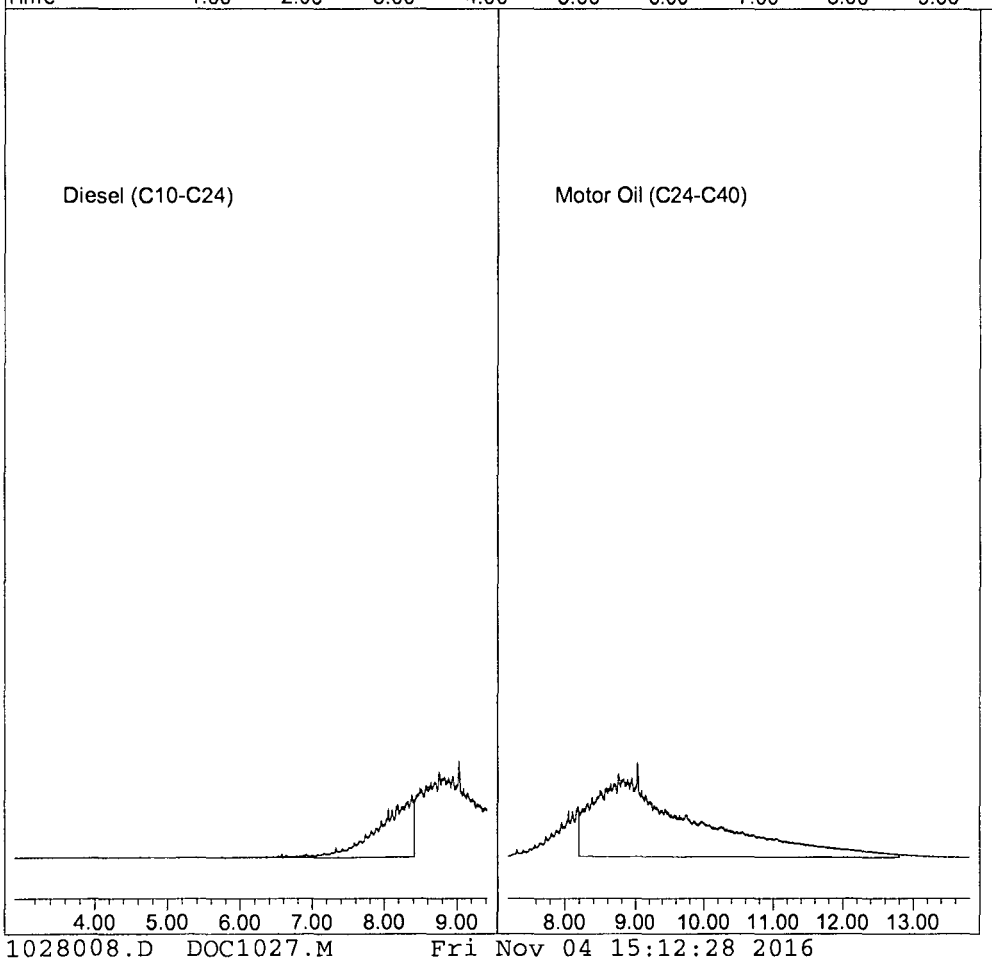
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	747984	0.166	ppb
Surrogate Spike 30.000	Recovery =		0.55%	
5) SA Octacosane(S)	9.09	2492290	0.754	ppb
Surrogate Spike 30.000	Recovery =		2.51%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	603419098	161.854	ppb
2) HBTM Motor Oil (C24-C40)	10.50	2511616588	914.741	ppb

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

Data File: G:\APOLLO\DATA\161028\1028008.D
Sample : MO SS 1000ppb 7/6/16





TPH Extractables
DOC1027

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/01/16
Matrix: Instrument: Apollo
Initial Cal. Date: 10/27/16
Data File: 1031076-77.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1864090	1778660	4.6	HATM	
2	HBTM	Motor Oil (C24-C40)	1372860	1278760	6.9	HBTM	
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38							
39							
40							
		Average			4.6		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161031\1031076.D Vial: 76
Acq On : 11-1-16 11:08:25 Operator: DP
Sample : CCV: DIESEL 400 ppm 10/26/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:21 2016 Quant Results File: DOC1027.RES

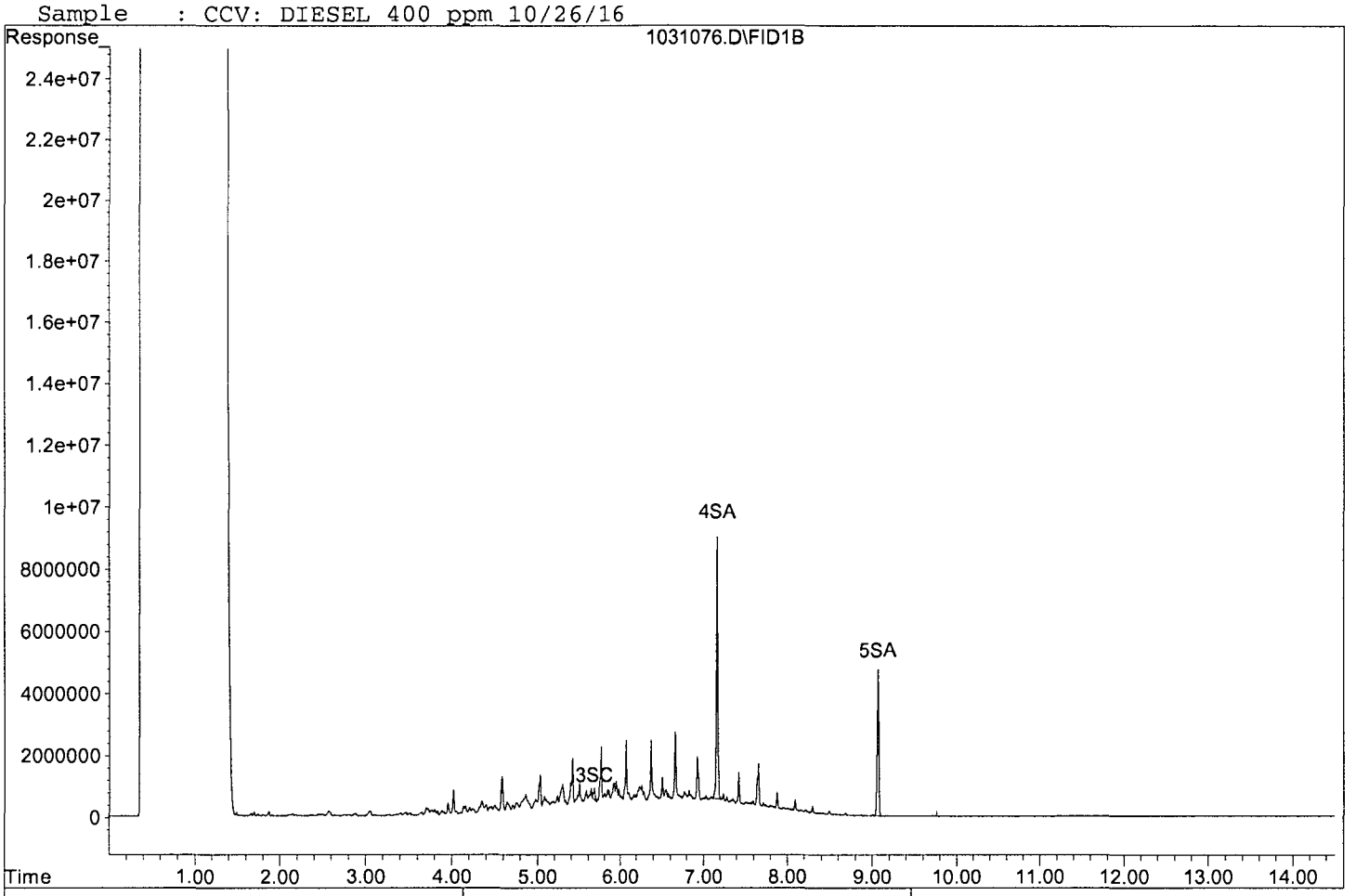
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

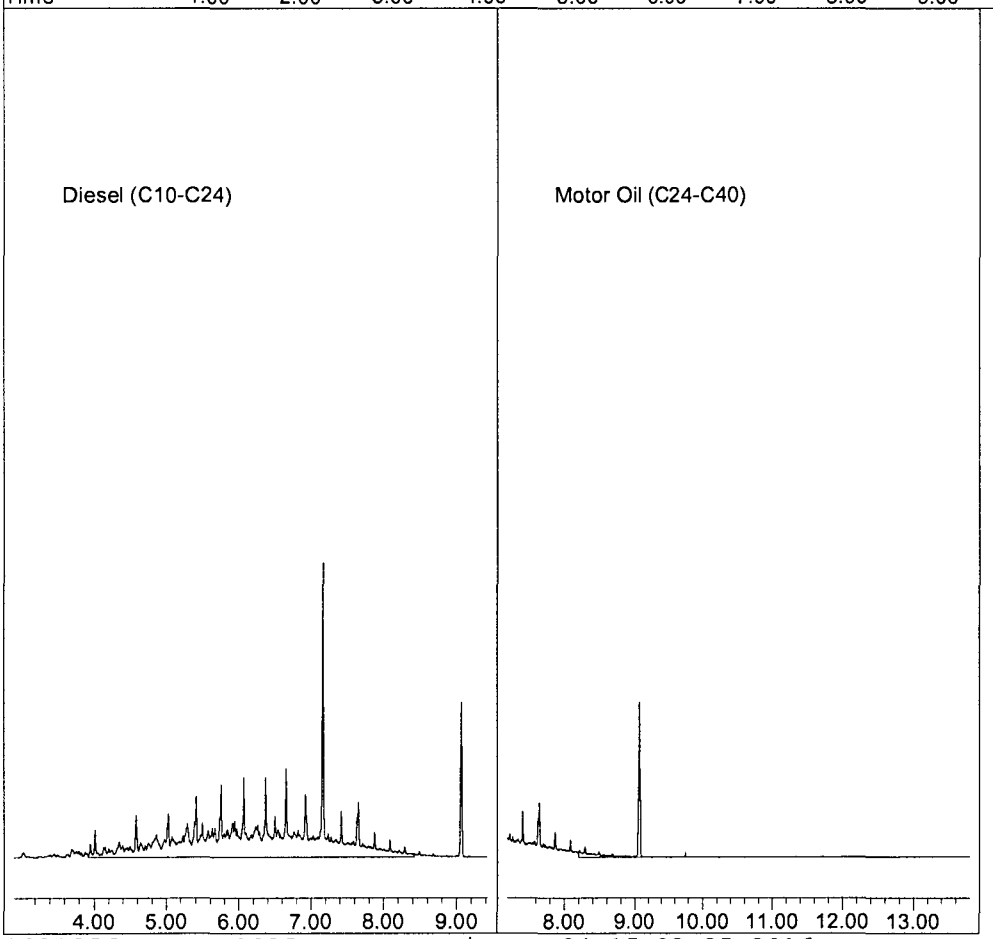
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.67	4758003	3.925	ppb
Surrogate Spike 48.000	Recovery =		8.18%	
4) SA Ortho-Terphenyl(S)	7.17	94448126	20.945	ppb
Surrogate Spike 30.000	Recovery =		69.82%	
5) SA Octacosane(S)	9.07	62973238	19.053	ppb
Surrogate Spike 30.000	Recovery =		63.51%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	1422925685	381.668	ppb
2) HBTM Motor Oil (C24-C40)	10.50	48328668	17.602	ppb

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

Data File: G:\APOLLO\DATA\161031\1031076.D
Sample : CCV: DIESEL 400 ppm 10/26/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161031\1031077.D Vial: 77
Acq On : 11-1-16 11:29:21 Operator: DP
Sample : CCV: MO 1000 ppm 10/26/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:22 2016 Quant Results File: DOC1027.RES

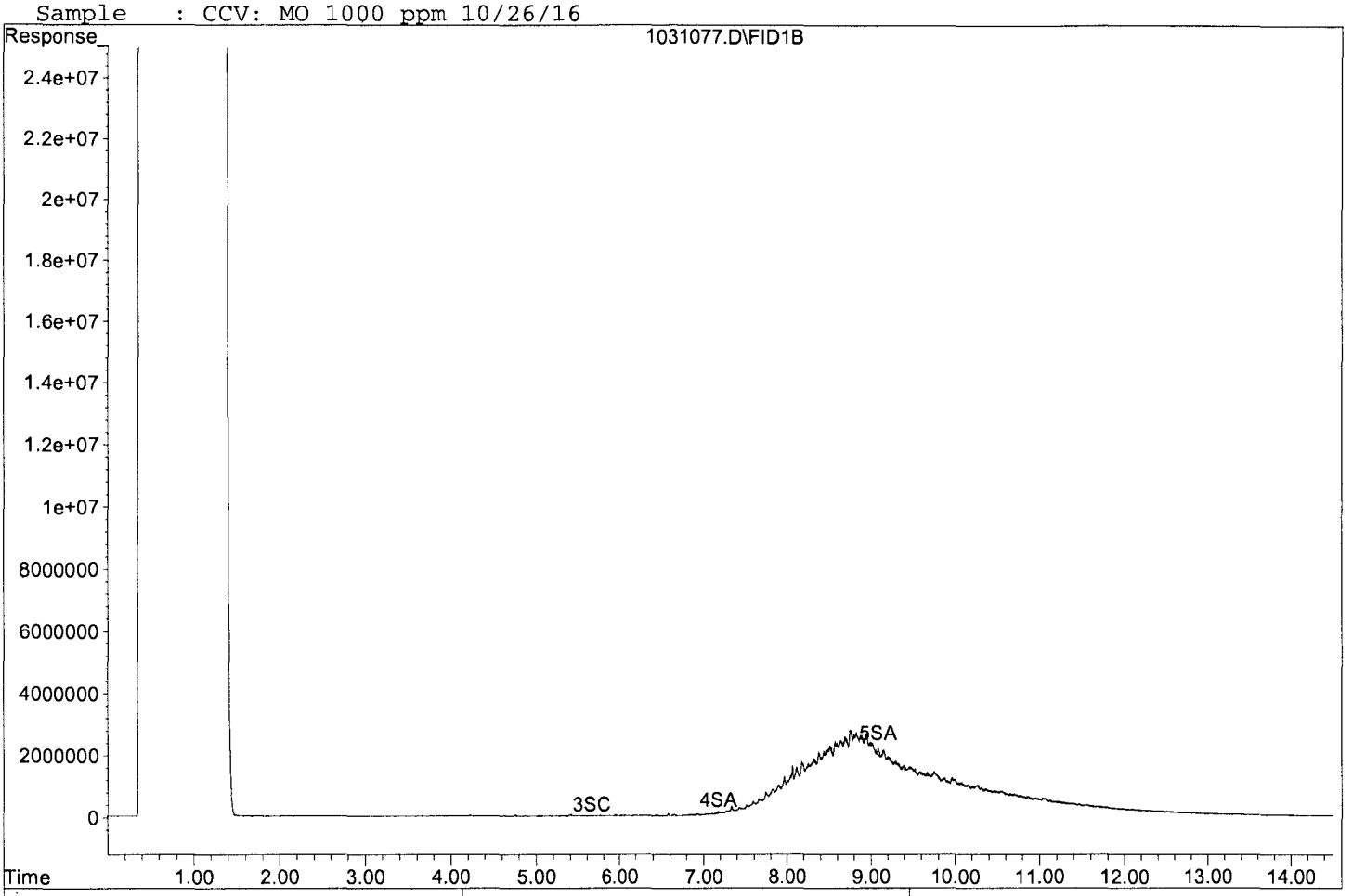
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

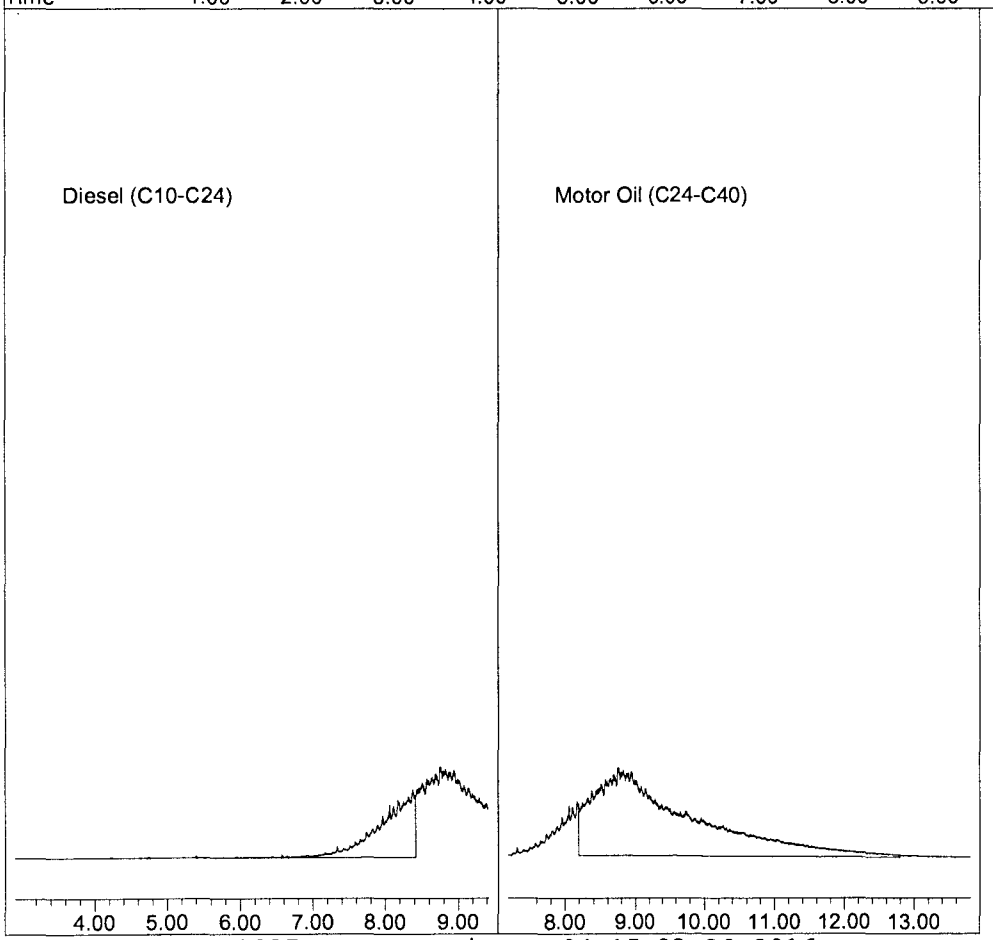
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.65	80676	0.067 ppb
Surrogate Spike 48.000	Recovery =		0.14%
4) SA Ortho-Terphenyl(S)	7.17	560503	0.124 ppb
Surrogate Spike 30.000	Recovery =		0.41%
5) SA Octacosane(S)	9.09	3478855	1.053 ppb
Surrogate Spike 30.000	Recovery =		3.51%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	647041628	173.555 ppb
2) HBTM Motor Oil (C24-C40)	10.50	2557511986	931.456 ppb

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

Data File: G:\APOLLO\DATA\161031\1031077.D
Sample : CCV: MO 1000 ppm 10/26/16





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031063.D Vial: 63
Acq On : 11-1-16 6:39:09 Operator: DP
Sample : CCV: DECANOIC ACID 9/9/16 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:24 2016 Quant Results File: DOC1027.RES

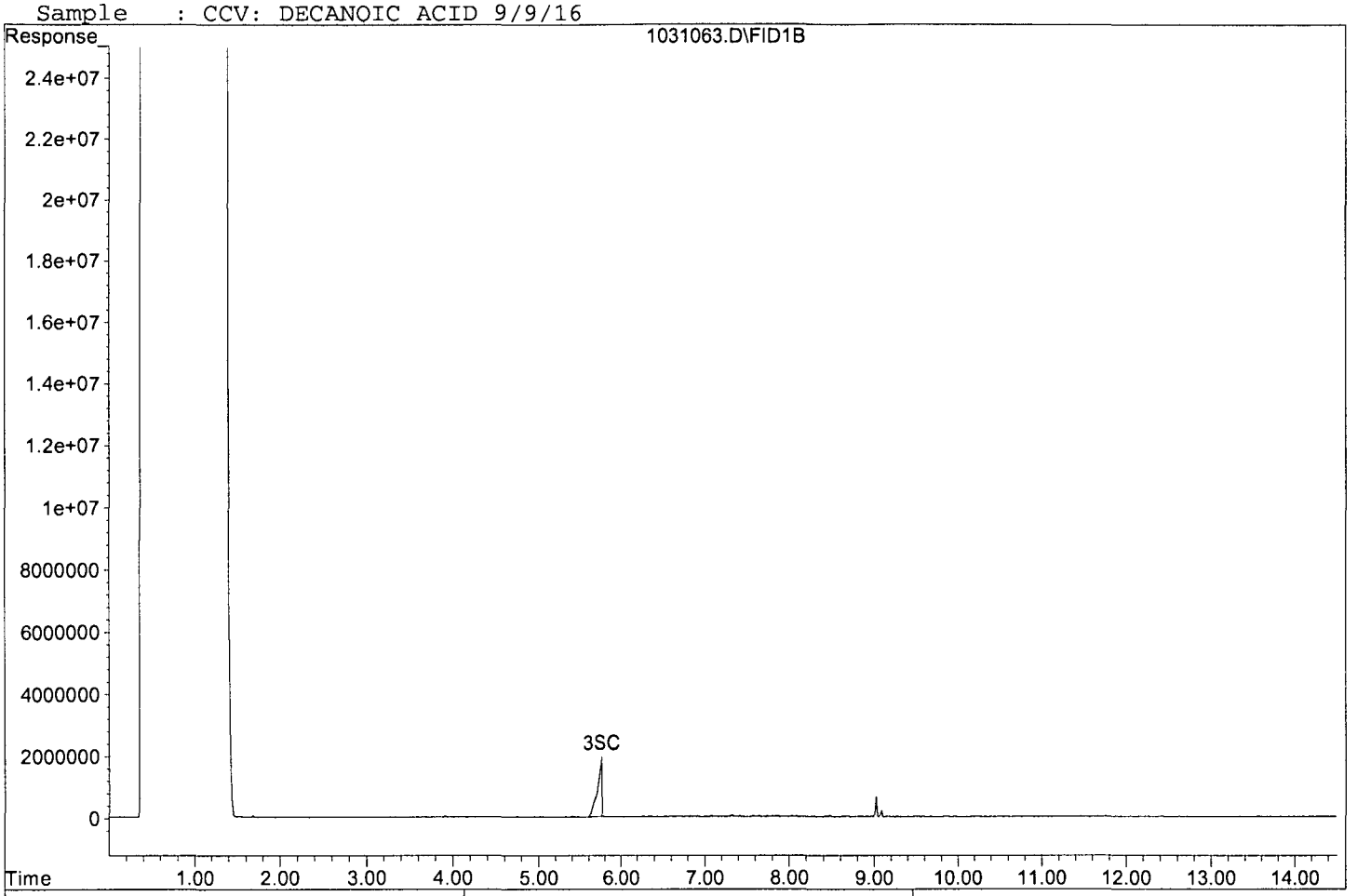
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

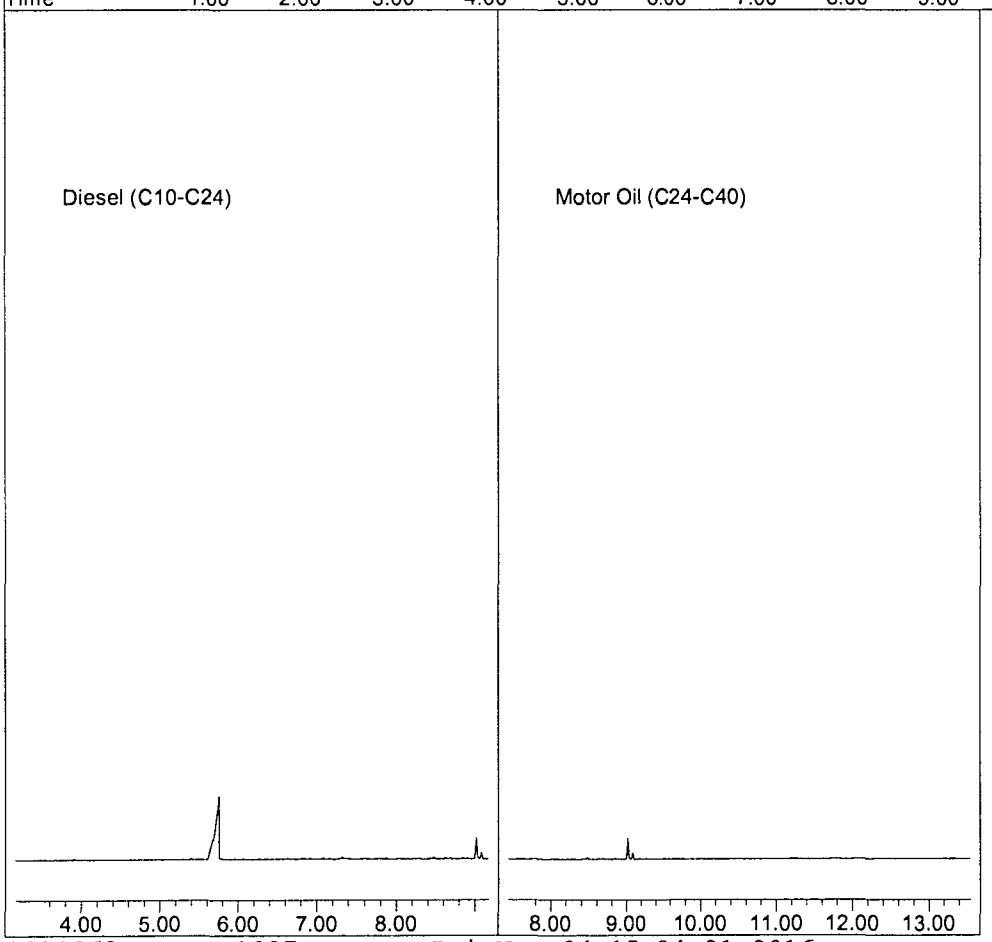
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.75	70106471	57.832 ppb
Surrogate Spike 48.000		Recovery =	120.48%
Target Compounds			

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

Data File: G:\APOLLO\DATA\161031\1031063.D
Sample : CCV: DECANOIC ACID 9/9/16





TPH Extractables
DOC1027

Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 11/01/16
Instrument: Apollo
Initial Cal. Date: 10/27/16
Data File: 1031092-93.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1864090	1670250	10	HATM	
2	HBTM	Motor Oil (C24-C40)	1372860	1247690	9.1	HBTM	
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38							
39							
40							
		Average			9.6		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161031\1031092.D Vial: 92
Acq On : 11-1-16 16:45:24 Operator: DP
Sample : CCV: DIESEL 400 ppm 10/26/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:25 2016 Quant Results File: DOC1027.RES

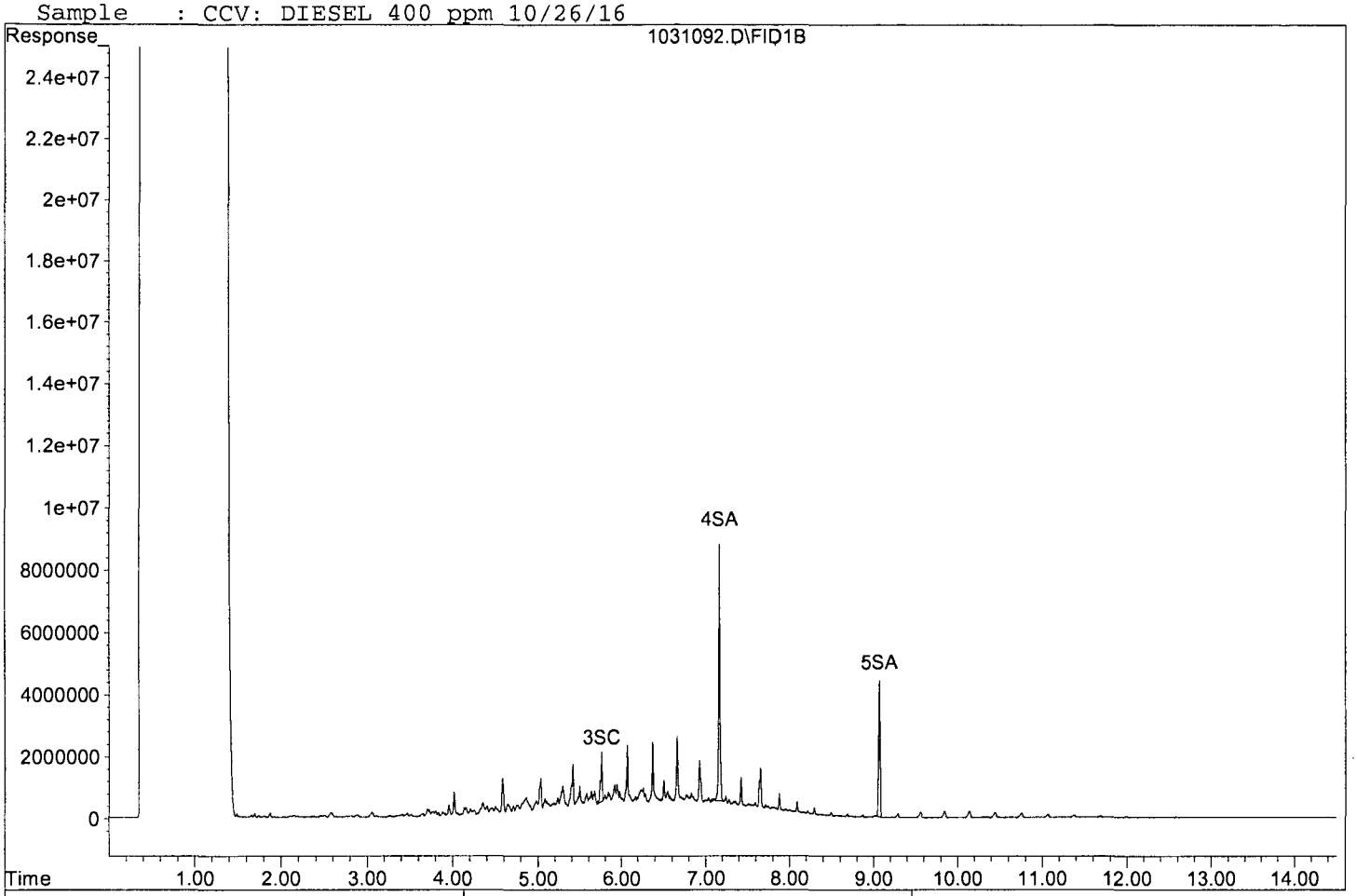
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

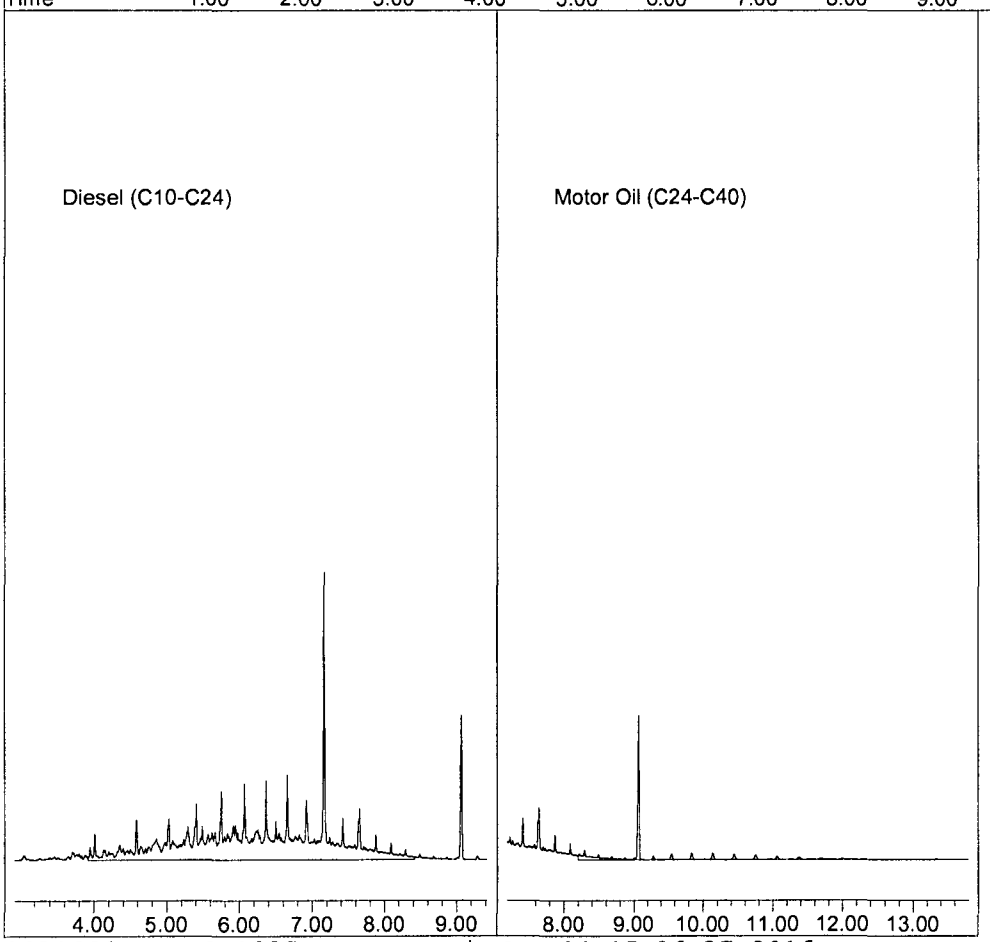
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.75	21424393	17.673	ppb
Surrogate Spike 48.000		Recovery =	36.82%	
4) SA Ortho-Terphenyl(S)	7.17	90217881	20.007	ppb
Surrogate Spike 30.000		Recovery =	66.69%	
5) SA Octacosane(S)	9.07	60090387	18.180	ppb
Surrogate Spike 30.000		Recovery =	60.60%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	1336199119	358.406	ppb
2) HBTM Motor Oil (C24-C40)	10.50	68040105	24.780	ppb

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

Data File: G:\APOLLO\DATA\161031\1031092.D
Sample : CCV: DIESEL 400 ppm 10/26/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161031\1031093.D Vial: 93
Acq On : 11-1-16 17:06:30 Operator: DP
Sample : CCV: MO 1000 ppm 10/26/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:25 2016 Quant Results File: DOC1027.RES

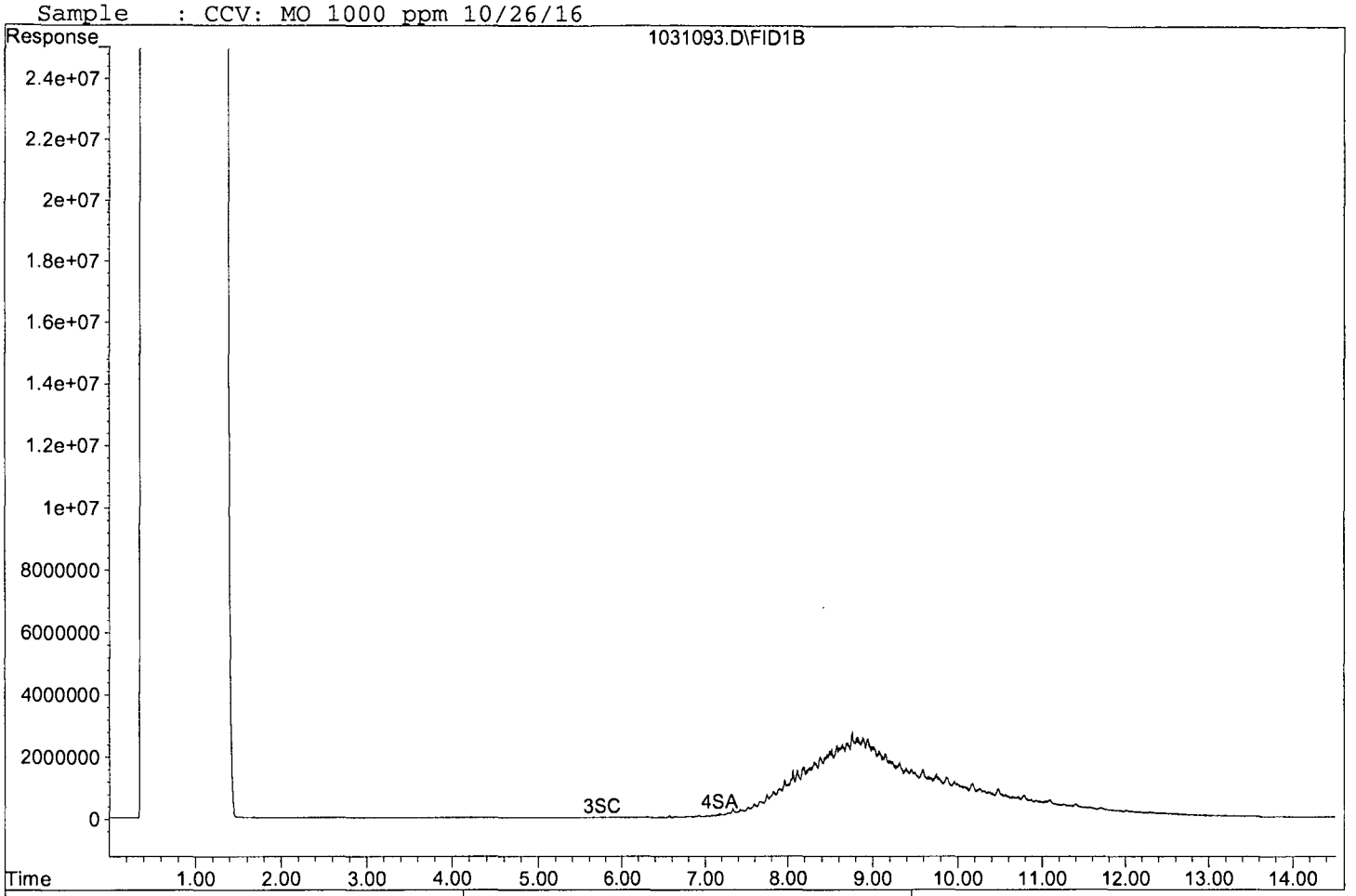
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

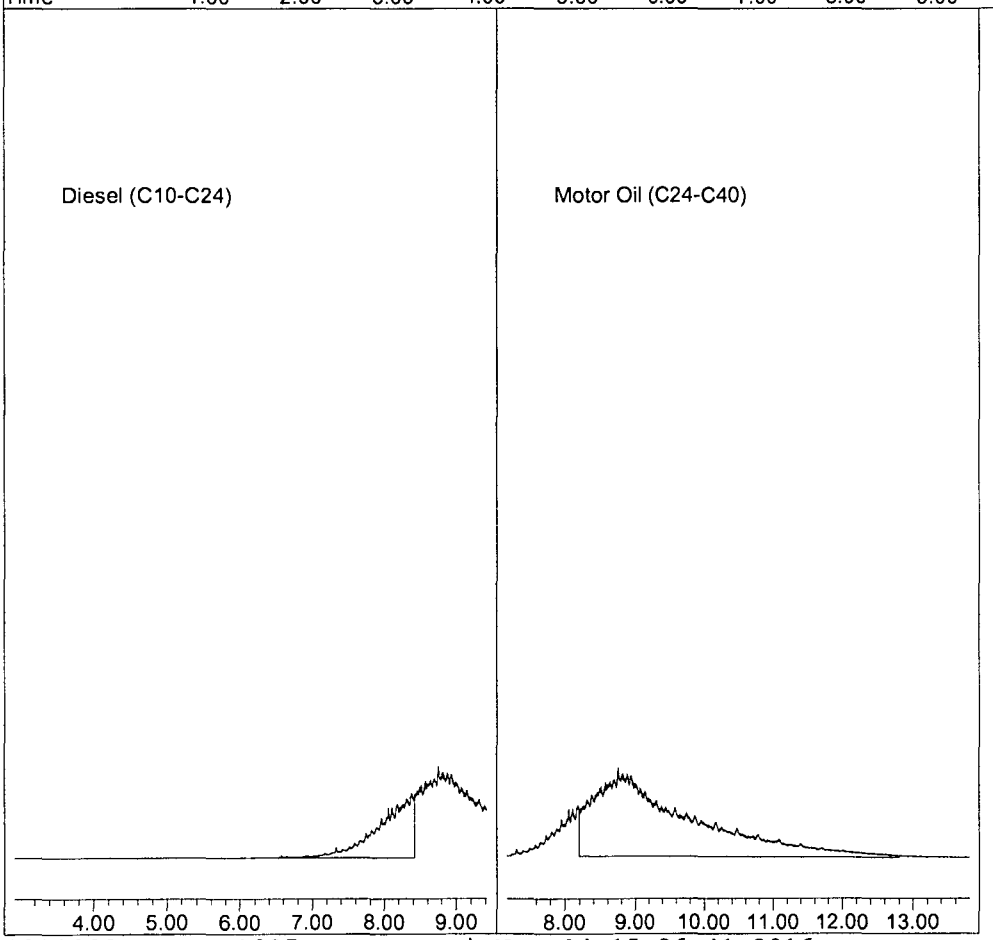
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.75	44198	0.036	ppb
Surrogate Spike 48.000	Recovery	=	0.08%	
4) SA Ortho-Terphenyl(S)	7.17	871228	0.193	ppb
Surrogate Spike 30.000	Recovery	=	0.64%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	625312904	167.726	ppb
2) HBTM Motor Oil (C24-C40)	10.50	2495374380	908.826	ppb

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

Data File: G:\APOLLO\DATA\161031\1031093.D
Sample : CCV: MO 1000 ppm 10/26/16





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031085.D Vial: 85
Acq On : 11-1-16 14:17:39 Operator: DP
Sample : CCV: DECANOIC ACID 9/9/16 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:25 2016 Quant Results File: DOC1027.RES

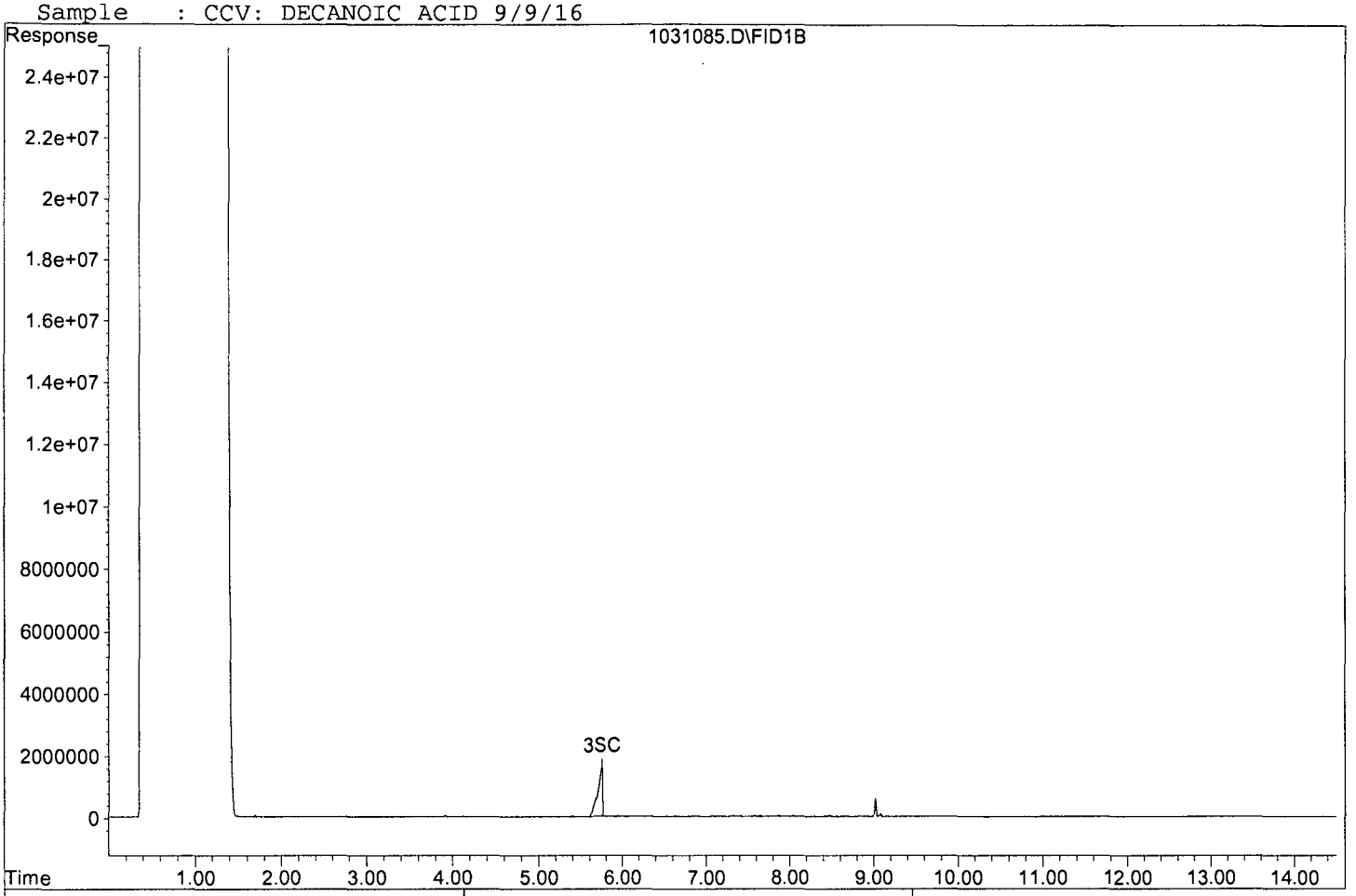
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

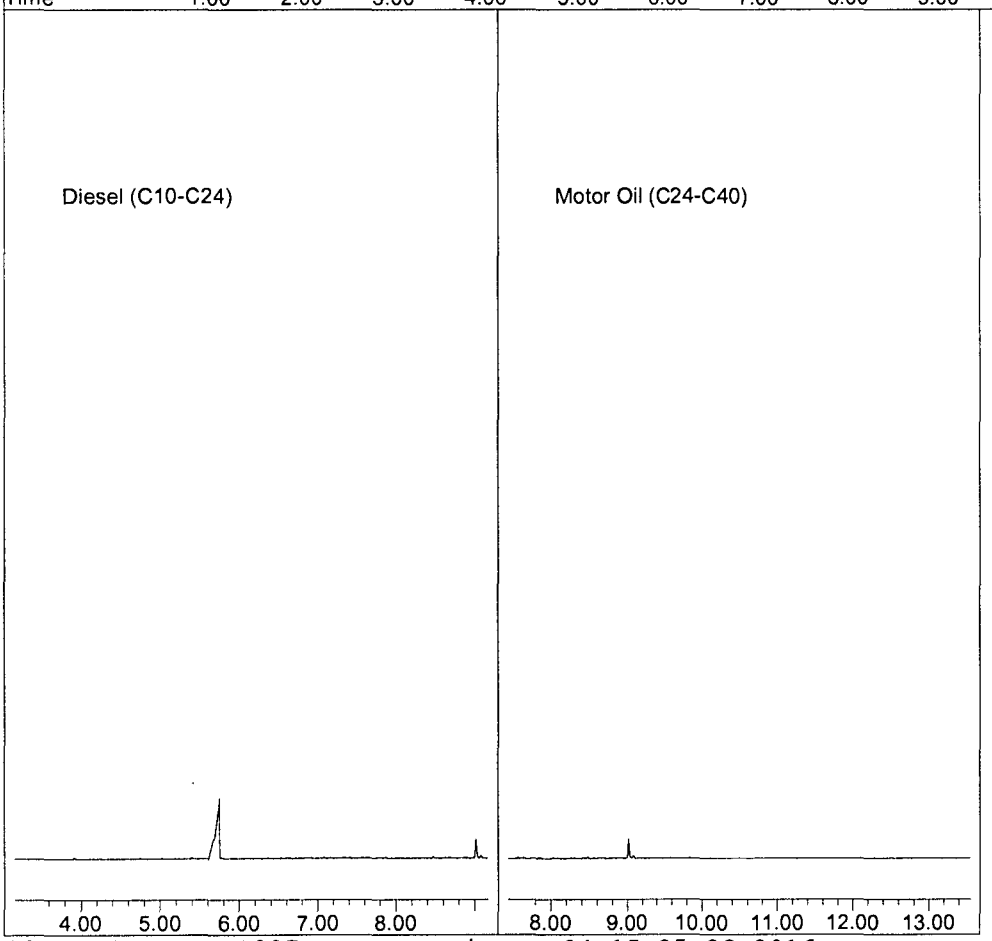
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.75	65146372	53.740 ppb
Surrogate Spike 48.000	Recovery	=	111.96%
Target Compounds			

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

Data File: G:\APOLLO\DATA\161031\1031085.D
Sample : CCV: DECANOIC ACID 9/9/16





TPH Extractables
DOC1027

Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 11/01/16
Instrument: Apollo
Initial Cal. Date: 10/27/16
Data File: 1031107-108.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1864090	1794250	3.7	HATM	
2	HBTM	Motor Oil (C24-C40)	1372860	1231160	10	HBTM	
3							
4							
5							
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31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			6.9		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161031\1031107.D Vial: 7
Acq On : 11-1-16 21:57:08 Operator: DP
Sample : CCV: DIESEL 400 ppm 10/26/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:26 2016 Quant Results File: DOC1027.RES

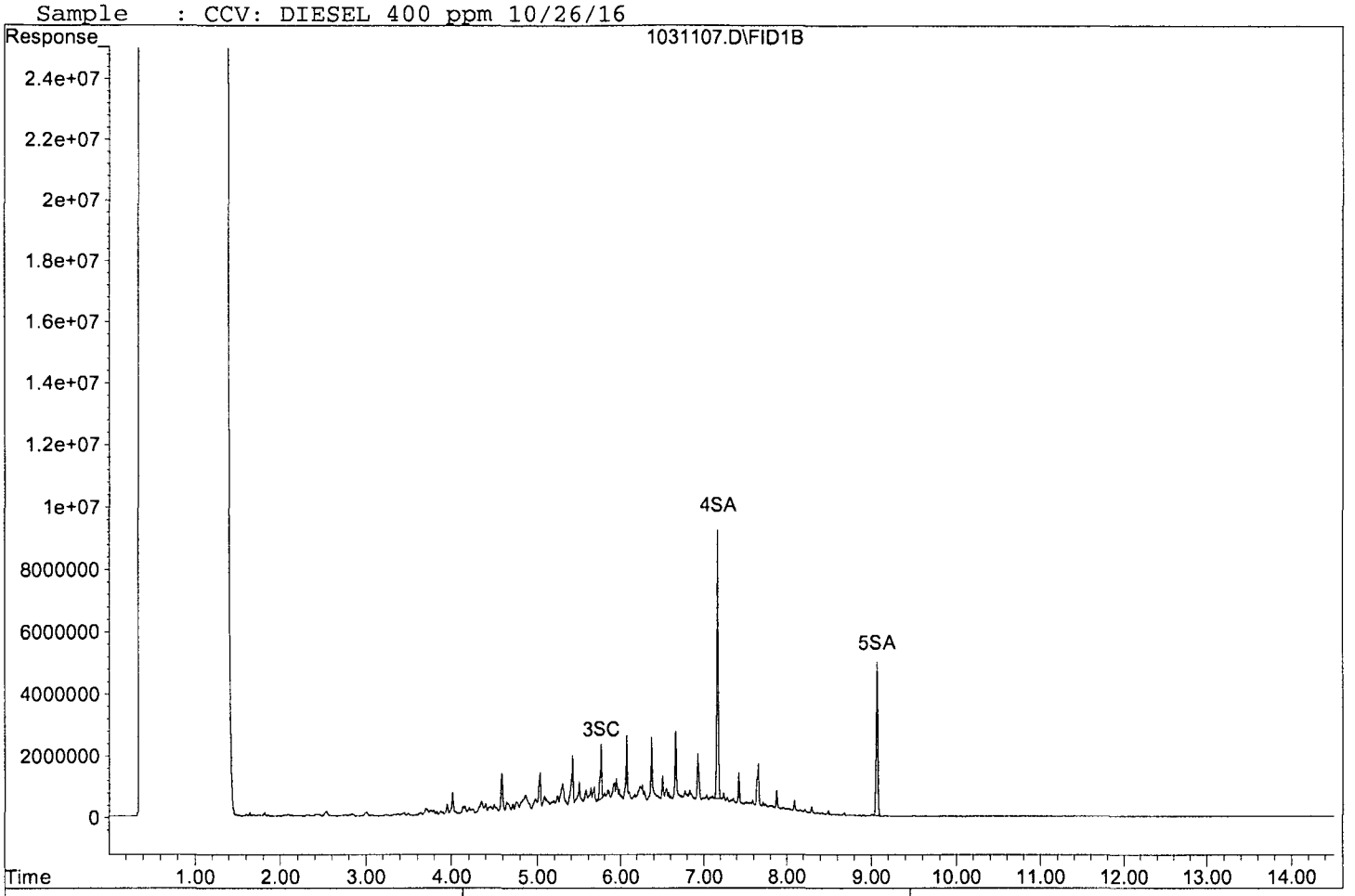
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

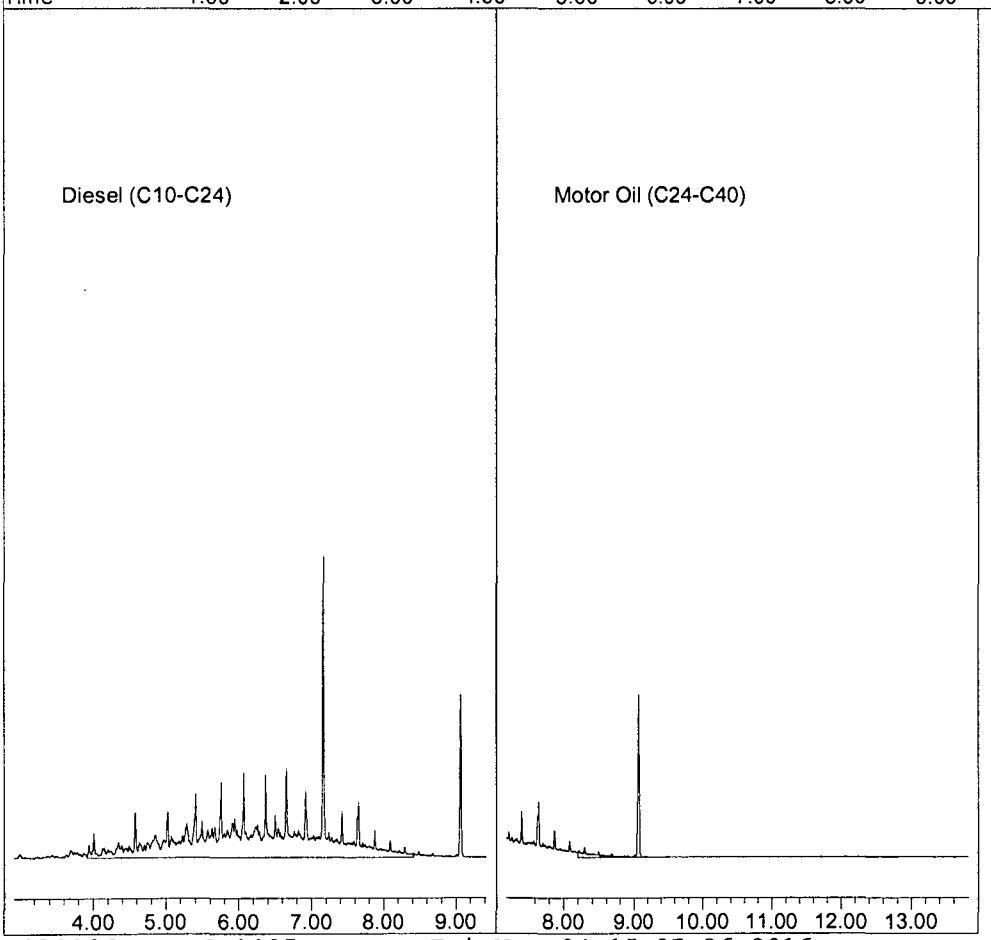
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.75	22024010	18.168	ppb
Surrogate Spike 48.000	Recovery =		37.85%	
4) SA Ortho-Terphenyl(S)	7.17	97001607	21.511	ppb
Surrogate Spike 30.000	Recovery =		71.70%	
5) SA Octacosane(S)	9.07	64011850	19.367	ppb
Surrogate Spike 30.000	Recovery =		64.56%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	1435401662	385.015	ppb
2) HBTM Motor Oil (C24-C40)	10.50	47494958	17.298	ppb

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

Data File: G:\APOLLO\DATA\161031\1031107.D
Sample : CCV: DIESEL 400 ppm 10/26/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161031\1031108.D Vial: 8
Acq On : 11-1-16 22:17:44 Operator: DP
Sample : CCV: MO 1000 ppm 10/26/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:27 2016 Quant Results File: DOC1027.RES

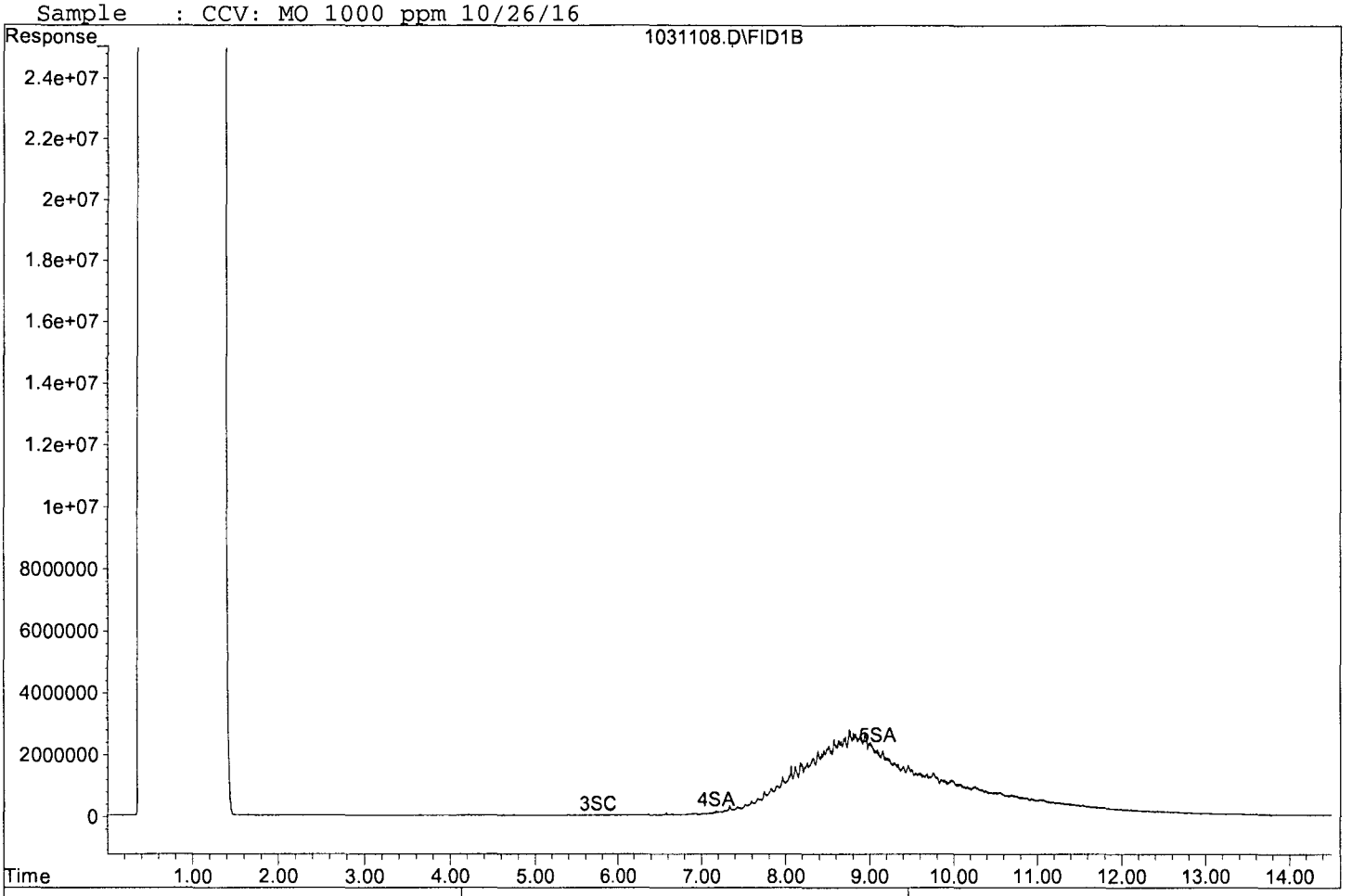
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

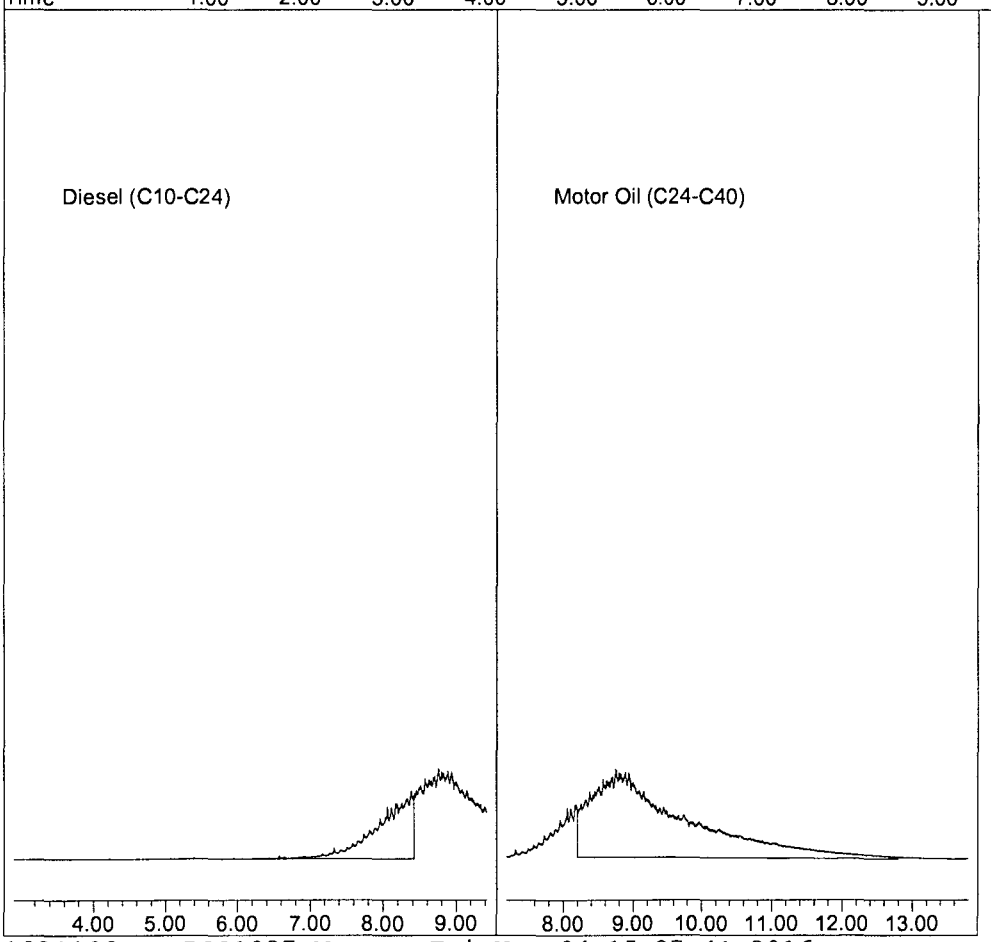
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.75	42420	0.035	ppb
Surrogate Spike 48.000	Recovery	=	0.07%	
4) SA Ortho-Terphenyl(S)	7.17	582251	0.129	ppb
Surrogate Spike 30.000	Recovery	=	0.43%	
5) SA Octacosane(S)	9.09	721223	0.218	ppb
Surrogate Spike 30.000	Recovery	=	0.73%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	643199863	172.524	ppb
2) HBTM Motor Oil (C24-C40)	10.50	2462316617	896.786	ppb

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

Data File: G:\APOLLO\DATA\161031\1031108.D
Sample : CCV: MO 1000 ppm 10/26/16





TPH Extractables
DOC1027

Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 11/02/16
Instrument: Apollo
Initial Cal. Date: 10/27/16
Data File: 1031118-119.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1864090	1682200	9.8	HATM	
2	HBTM	Motor Oil (C24-C40)	1372860	1214030	12	HBTM	
3							
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35							
36							
37							
38							
39							
40							
		Average			10.9		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161031\1031118.D Vial: 18
Acq On : 11-2-16 1:43:09 Operator: DP
Sample : CCV: DIESEL 400 ppm 10/26/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:28 2016 Quant Results File: DOC1027.RES

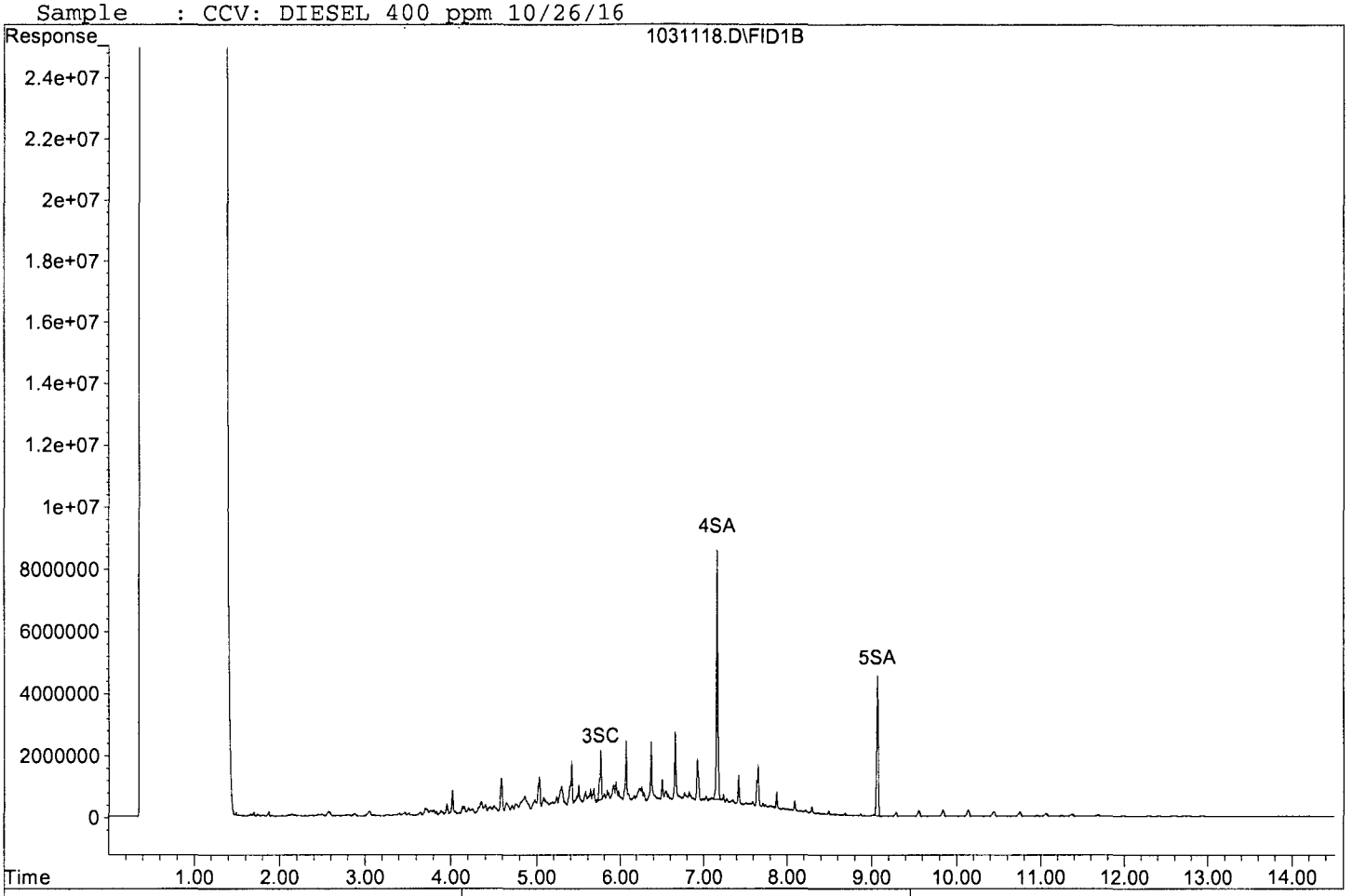
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

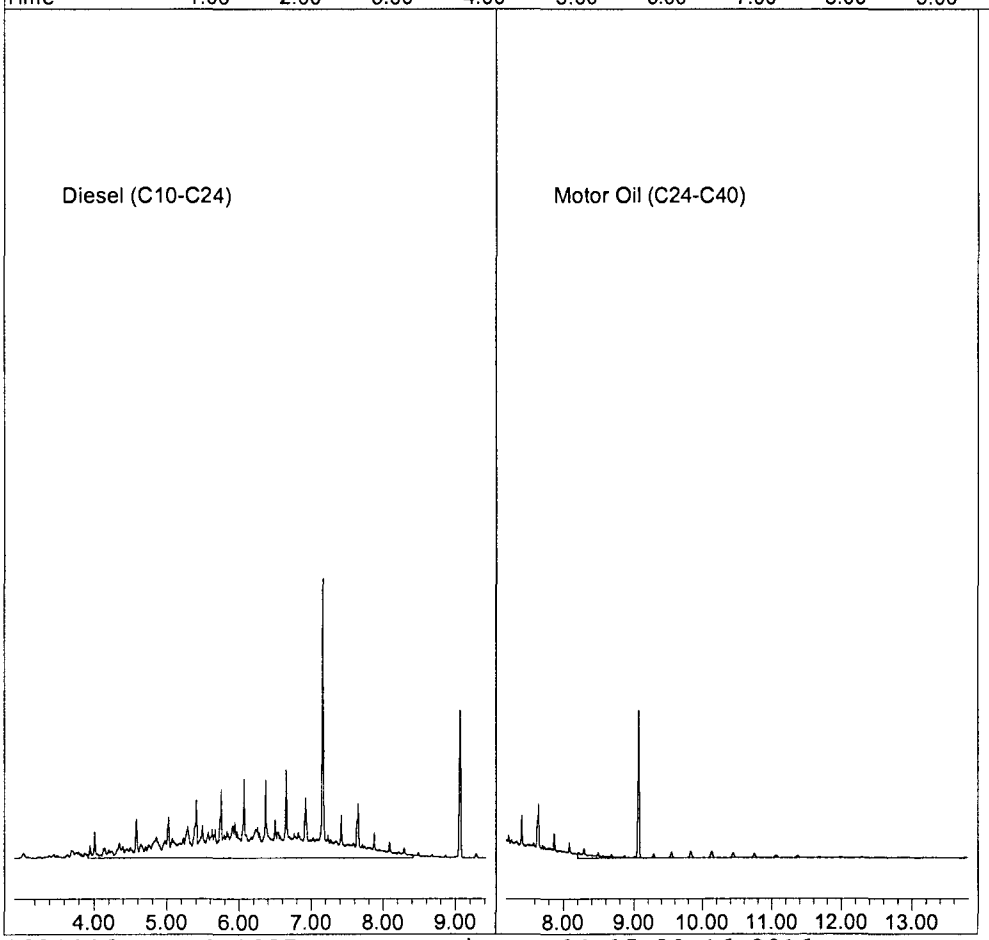
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.75	20711135	17.085	ppb
Surrogate Spike 48.000		Recovery =	35.59%	
4) SA Ortho-Terphenyl(S)	7.16	90438229	20.056	ppb
Surrogate Spike 30.000		Recovery =	66.85%	
5) SA Octacosane(S)	9.07	59199941	17.911	ppb
Surrogate Spike 30.000		Recovery =	59.70%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	1345757533	360.970	ppb
2) HBTM Motor Oil (C24-C40)	10.50	68689228	25.017	ppb

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

Data File: G:\APOLLO\DATA\161031\1031118.D
Sample : CCV: DIESEL 400 ppm 10/26/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161031\1031119.D Vial: 19
Acq On : 11-2-16 2:03:39 Operator: DP
Sample : CCV: MO 1000 ppm 10/26/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:28 2016 Quant Results File: DOC1027.RES

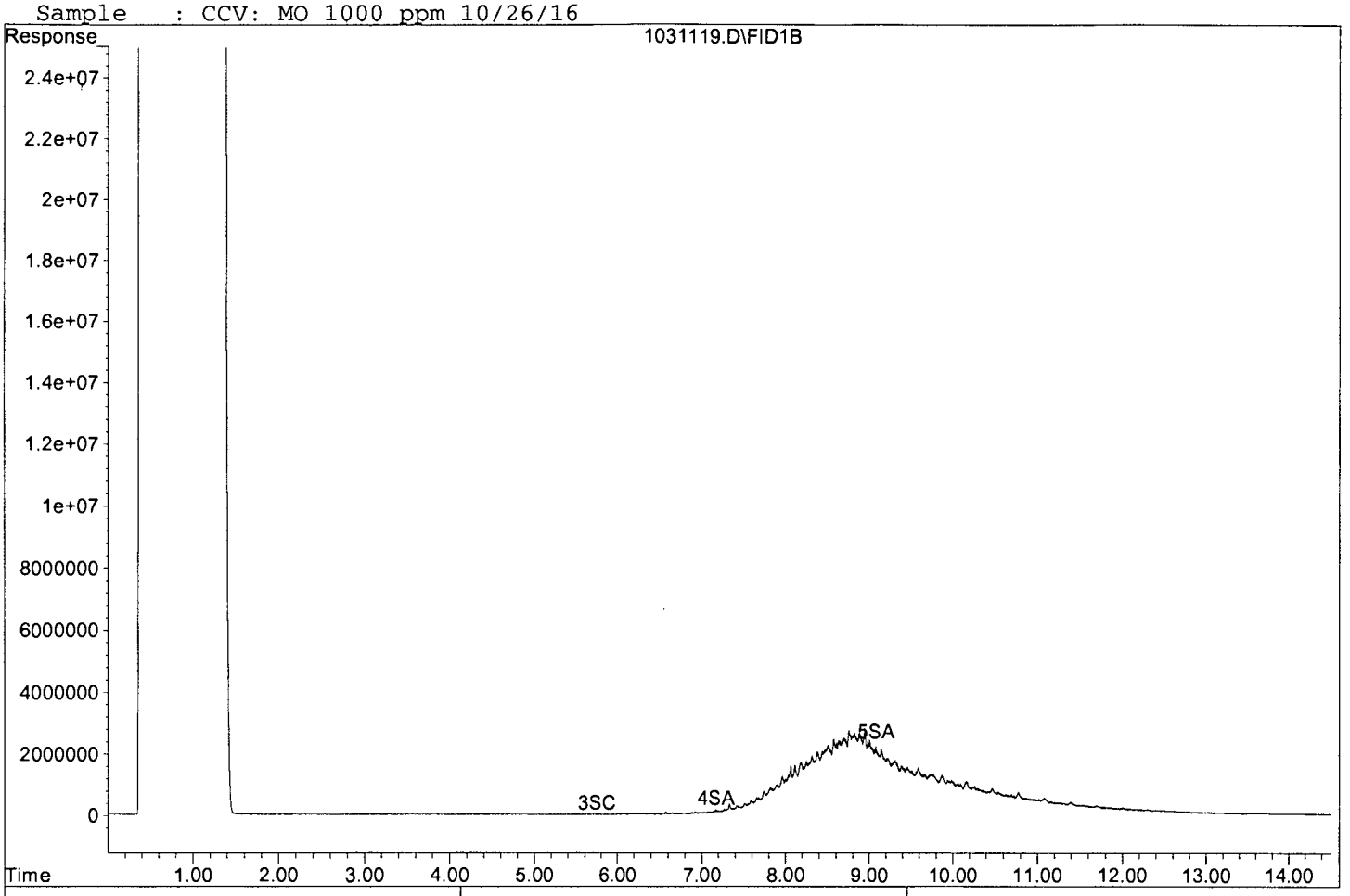
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

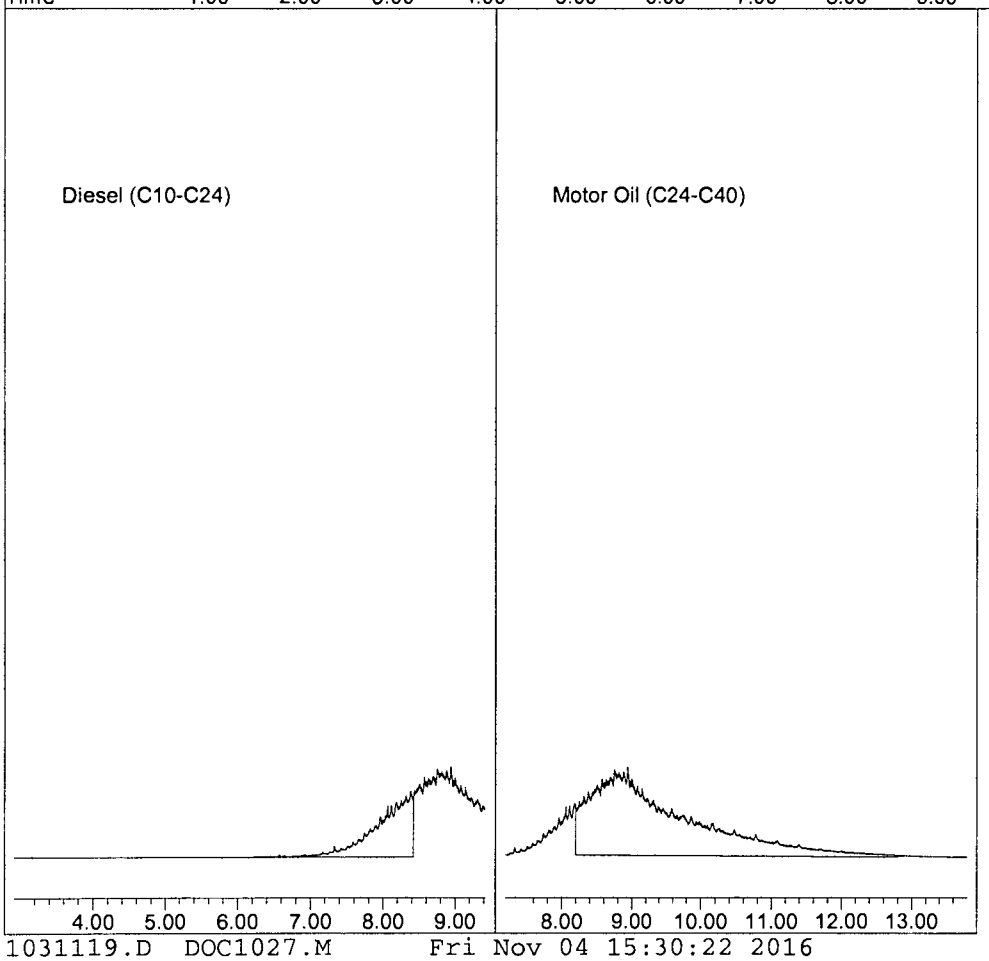
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.75	53821	0.044	ppb
Surrogate Spike 48.000		Recovery =	0.09%	
4) SA Ortho-Terphenyl(S)	7.17	647558	0.144	ppb
Surrogate Spike 30.000		Recovery =	0.48%	
5) SA Octacosane(S)	9.08	1050377	0.318	ppb
Surrogate Spike 30.000		Recovery =	1.06%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	639519634	171.537	ppb
2) HBTM Motor Oil (C24-C40)	10.50	2428067614	884.312	ppb

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

Data File: G:\APOLLO\DATA\161031\1031119.D
Sample : CCV: MO 1000 ppm 10/26/16





ORGANICS

Raw Data

APPL, INC.

Method Blank

EPA 8015B TPH WATER

Blank Name/QCG: **161025W-44687 - 213355**
Batch ID: #DOC53-161025A1

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
BLANK	SURROGATE: OCTACOSANE (S)	104	60-142			%	10/25/16	11/01/16
BLANK	SURROGATE: ORTHO-TERPHEN	79.5	56-125			%	10/25/16	11/01/16

Quant Method:DOC1027.M
Run #:1031097
Instrument:Apollo
Sequence:161031
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/03/16 6:14:22 PM

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031097.D Vial: 97
Acq On : 11-1-16 18:30:12 Operator: DP
Sample : 161025A BLK 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 17:57 2016 Quant Results File: DOC1027.RES

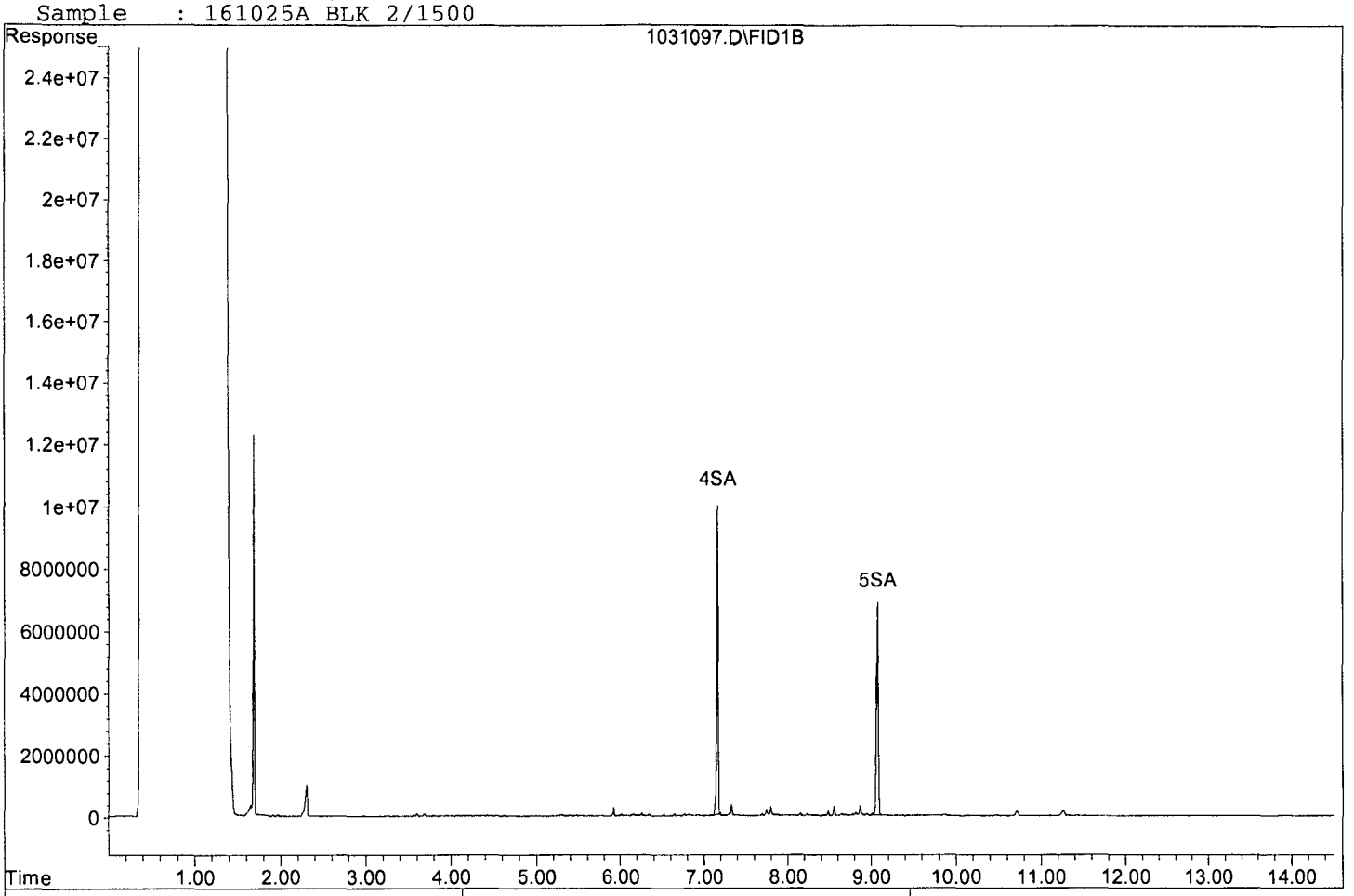
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

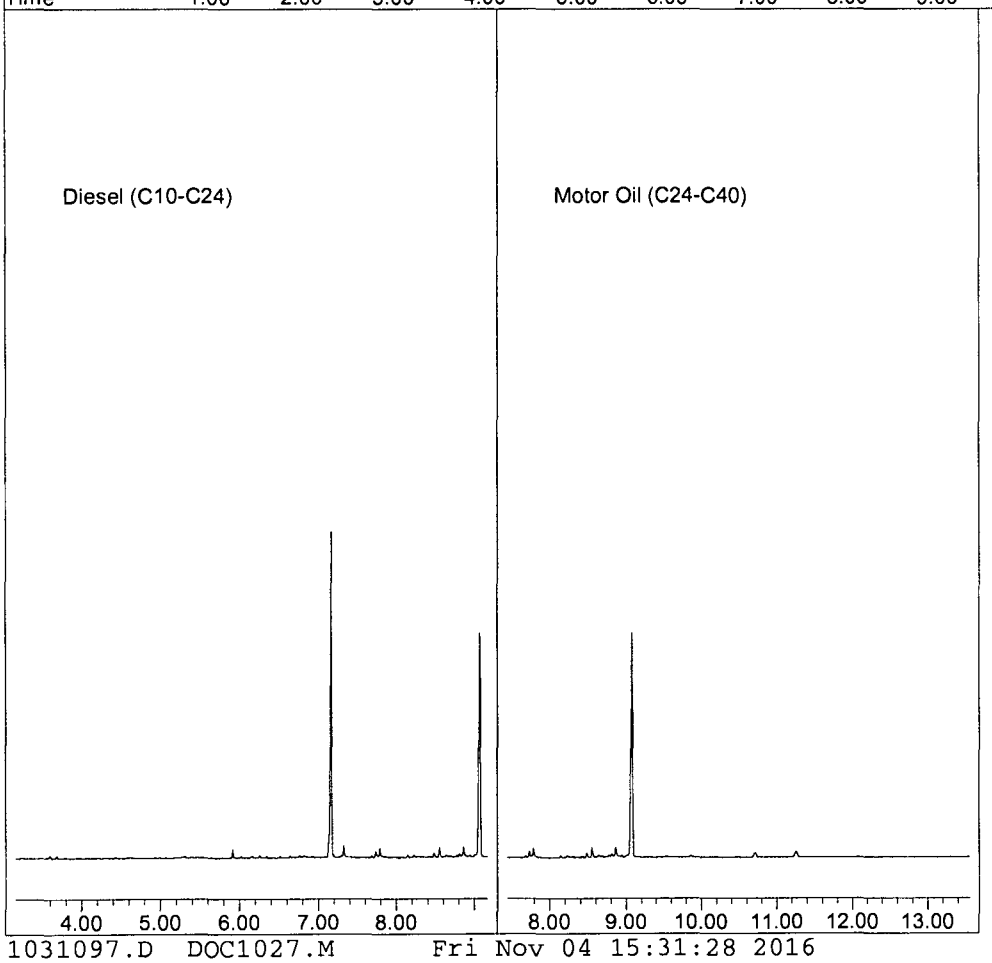
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	107595456	31.814	ppb
Surrogate Spike 40.000		Recovery =	79.54%	
5) SA Octacosane(S)	9.08	102818580	41.477	ppb
Surrogate Spike 40.000		Recovery =	103.69%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\161031\1031097.D
Sample : 161025A BLK 2/1500





Method Blank

EPA 8015B TPH WATER W/ SGC

Blank Name/QCG: **161025W-44687 - 213354**
Batch ID: #DOC53-161025A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	10/25/16	11/01/16
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	10/25/16	11/01/16
BLANK	SURROGATE: (R) DECANOIC AC	0.0	0-1			%	10/25/16	11/01/16
BLANK	SURROGATE: OCTACOSANE (S)	104	60-142			%	10/25/16	11/01/16
BLANK	SURROGATE: ORTHO-TERPHEN	80.9	56-125			%	10/25/16	11/01/16

Quant Method:DOC1027.M
Run #:1031079
Instrument:Apollo
Sequence:161031
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/03/16 6:14:46 PM

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031079.D Vial: 79
Acq On : 11-1-16 12:11:14 Operator: DP
Sample : 161025A BLK 2/1500 SGC Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 18:02 2016 Quant Results File: DOC1027.RES

Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

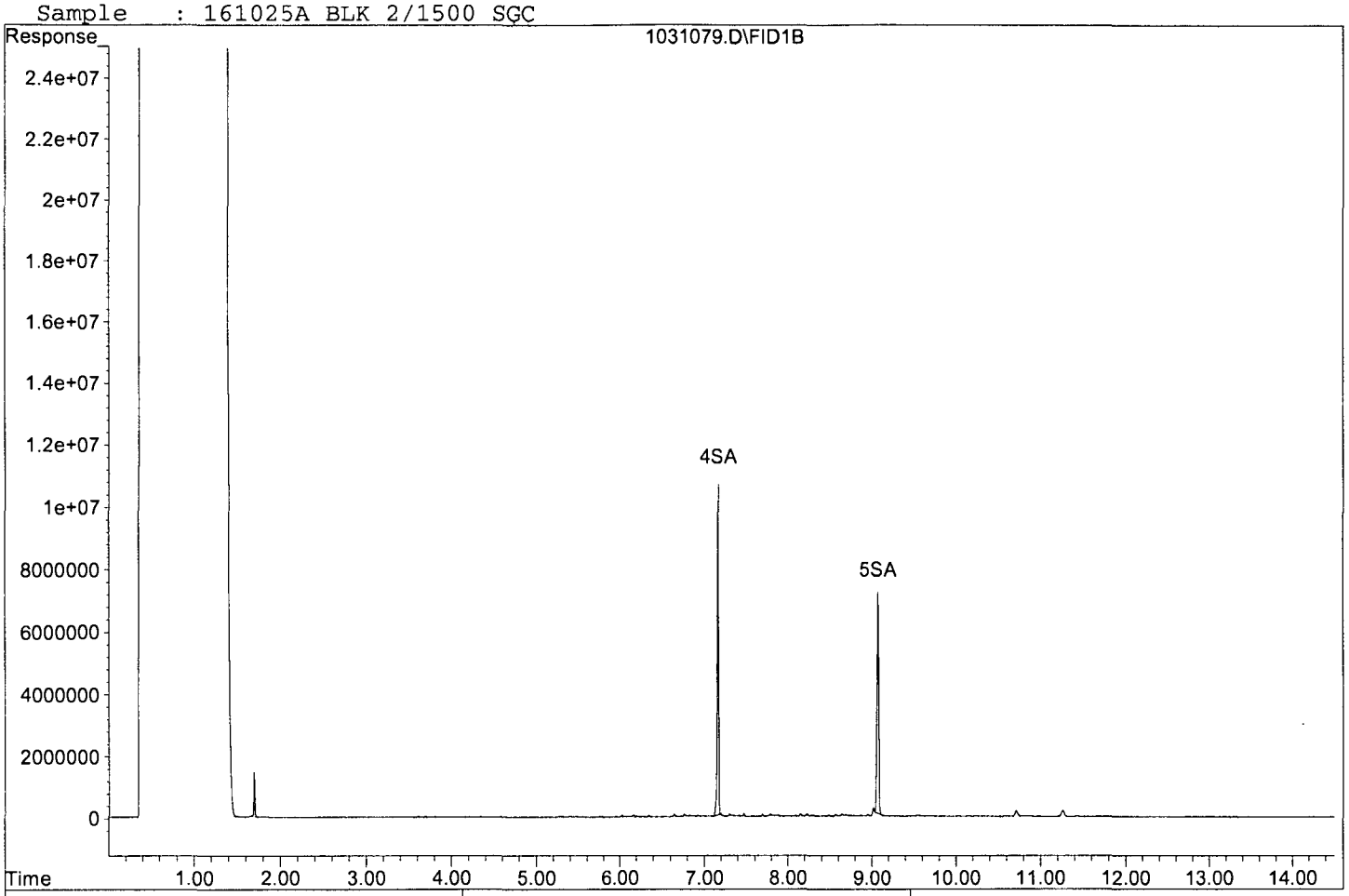
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

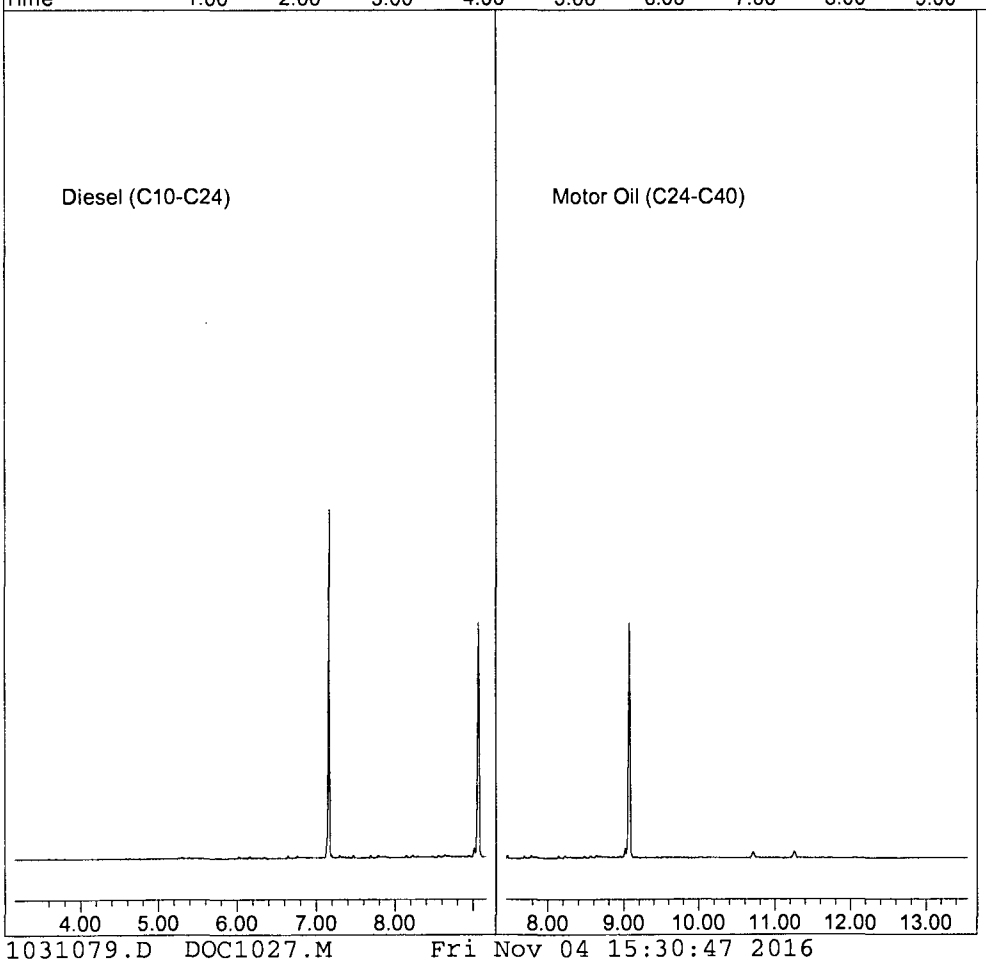
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	109413819	32.351	ppb
Surrogate Spike 40.000		Recovery =	80.88%	
5) SA Octacosane(S)	9.08	102876035	41.500	ppb
Surrogate Spike 40.000		Recovery =	103.75%	
Target Compounds				

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

Quantitation Report

Data File: G:\APOLLO\DATA\161031\1031079.D
Sample : 161025A BLK 2/1500 SGC





Laboratory Control Spike Recovery

EPA 8015B TPH WATER

APPL ID: **161025W-44687 LCS - 213355**
Batch ID: #DOC53-161025A1

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL (C10-C24)	1330	1020	76.5	36-132
OIL (C24-C40)	1330	1110	83.3	41-113
SURROGATE: OCTACOSANE (S)	40.0	41.5	104	60-142
SURROGATE: ORTHO-TERPHENYL (S)	40.0	39.9	99.8	56-125

Comments: _____

Primary	SPK
Quant Method :	DOC1027.M
Extraction Date :	10/25/16
Analysis Date :	11/01/16
Instrument :	Apollo
Run :	1031098
Initials :	DPO

Printed: 11/03/16 6:14:22 PM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031098.D Vial: 98
Acq On : 11-1-16 18:50:56 Operator: DP
Sample : 161025A LCS-1 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 17:57 2016 Quant Results File: DOC1027.RES

Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

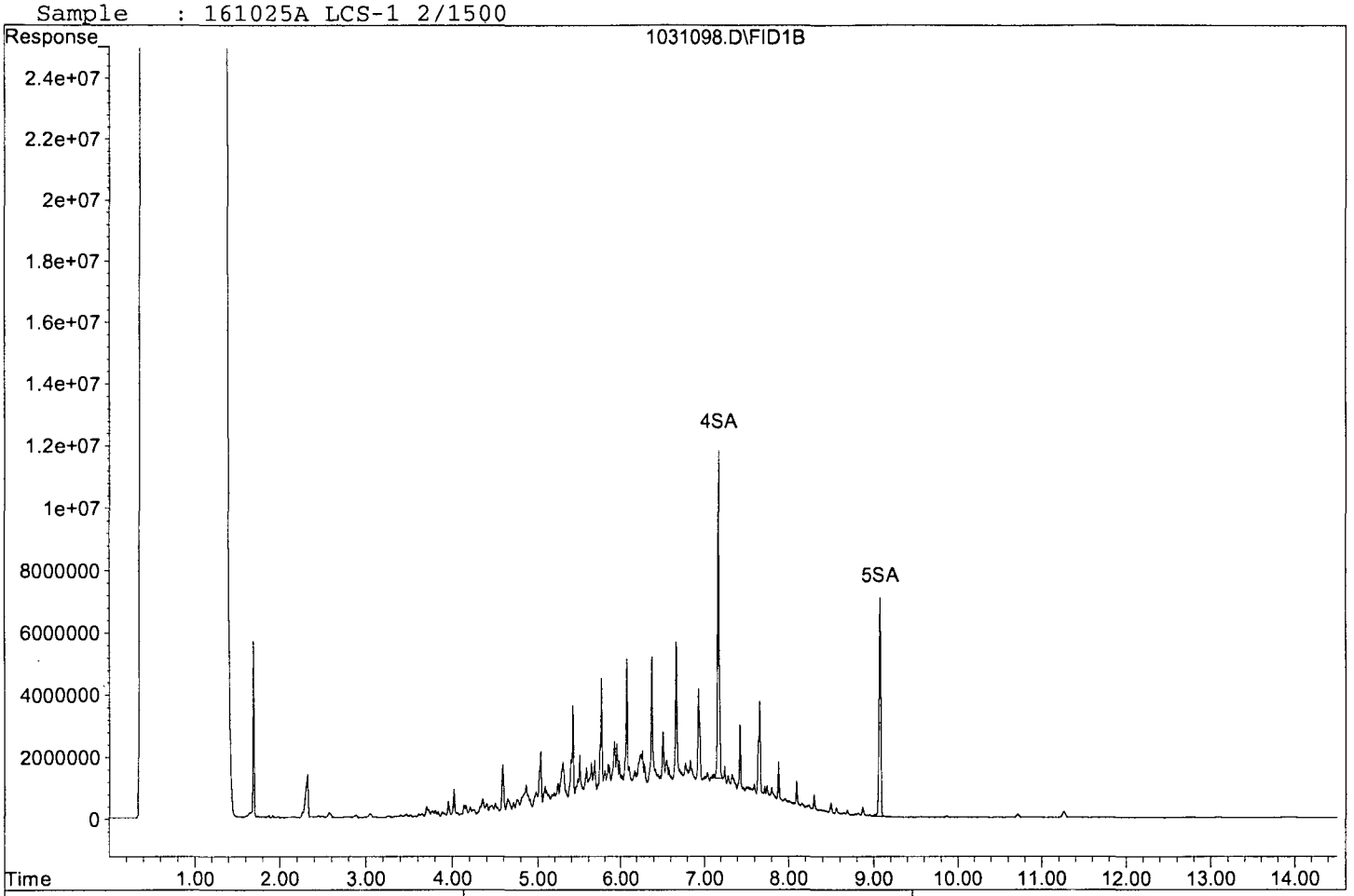
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

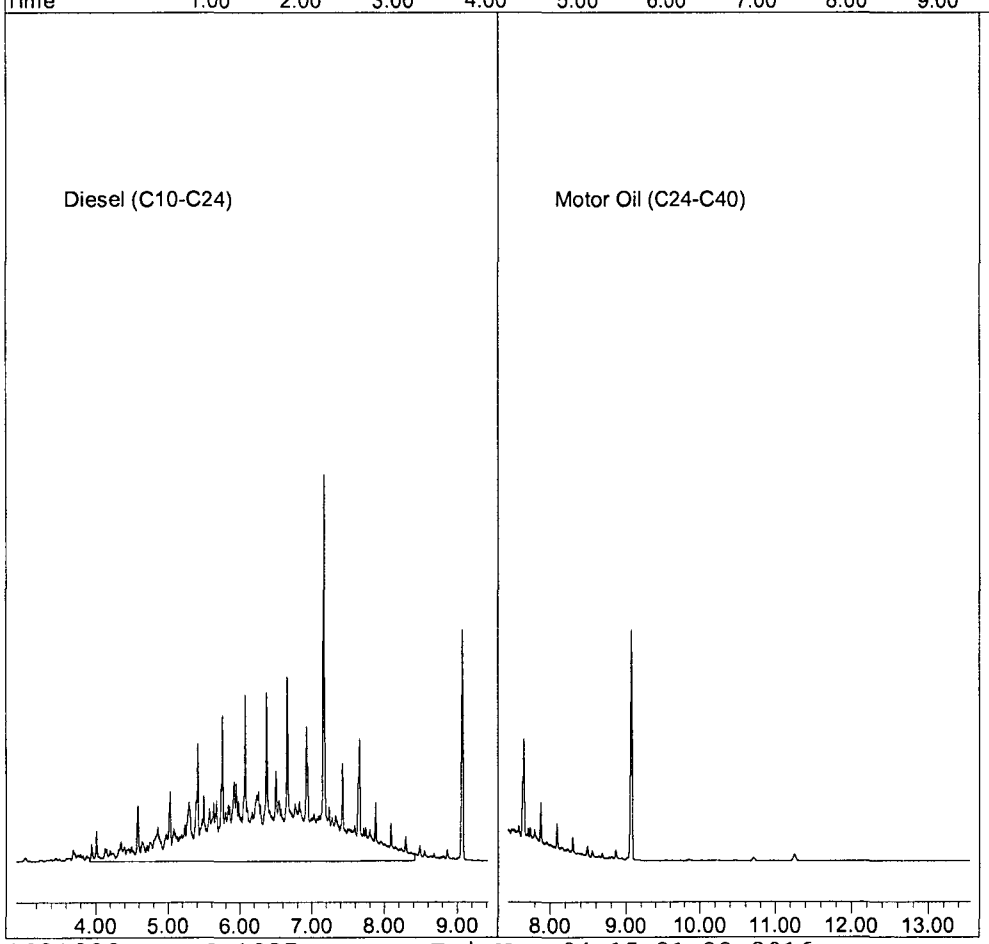
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	134934060	39.897	ppb
Surrogate Spike 40.000		Recovery =	99.74%	
5) SA Octacosane(S)	9.07	102777474	41.460	ppb
Surrogate Spike 40.000		Recovery =	103.65%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	2851167142	1019.681	ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\161031\1031098.D
Sample : 161025A LCS-1 2/1500





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031099.D Vial: 99
Acq On : 11-1-16 19:11:41 Operator: DP
Sample : 161025A LCS-2 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 17:58 2016 Quant Results File: DOC1027.RES

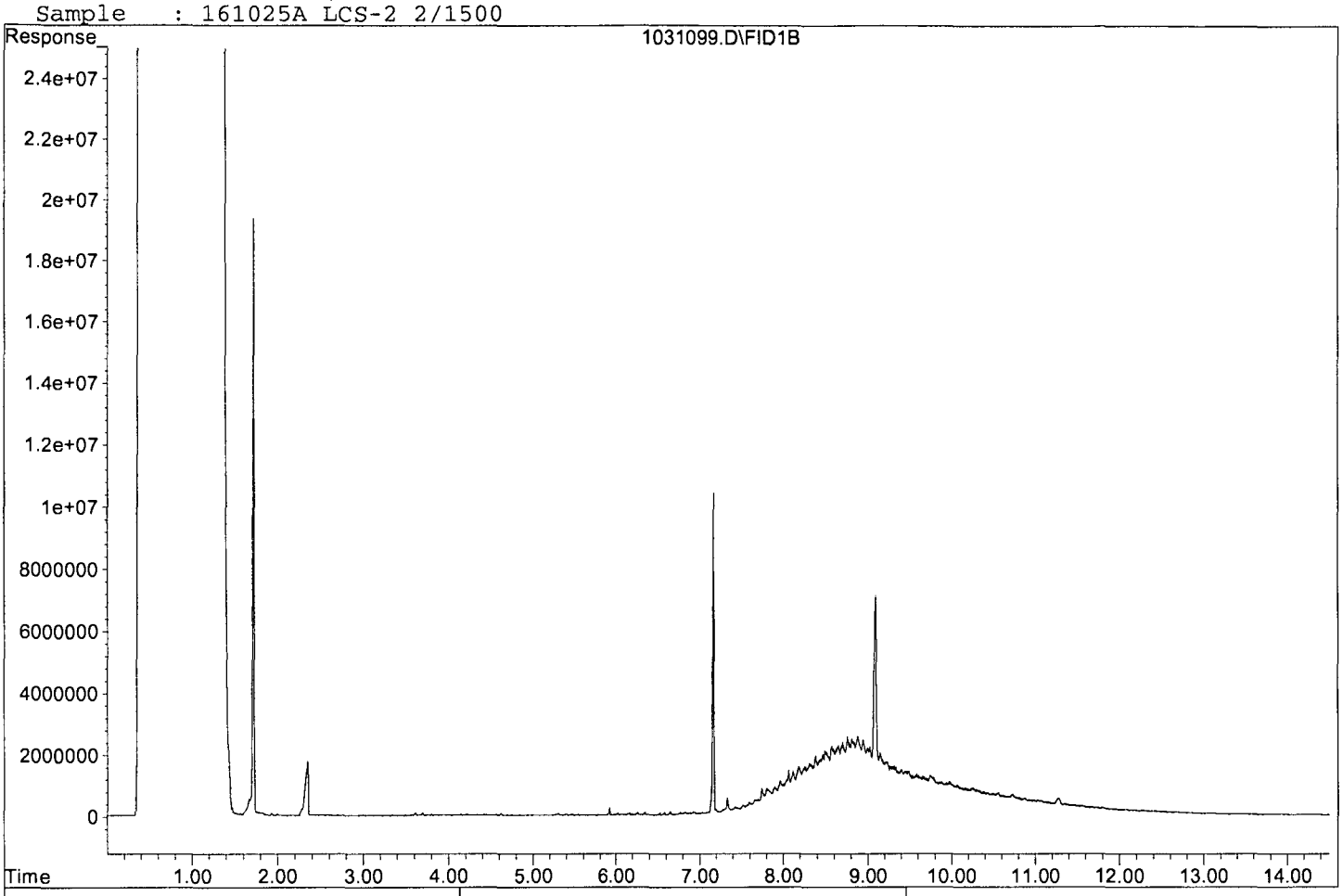
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

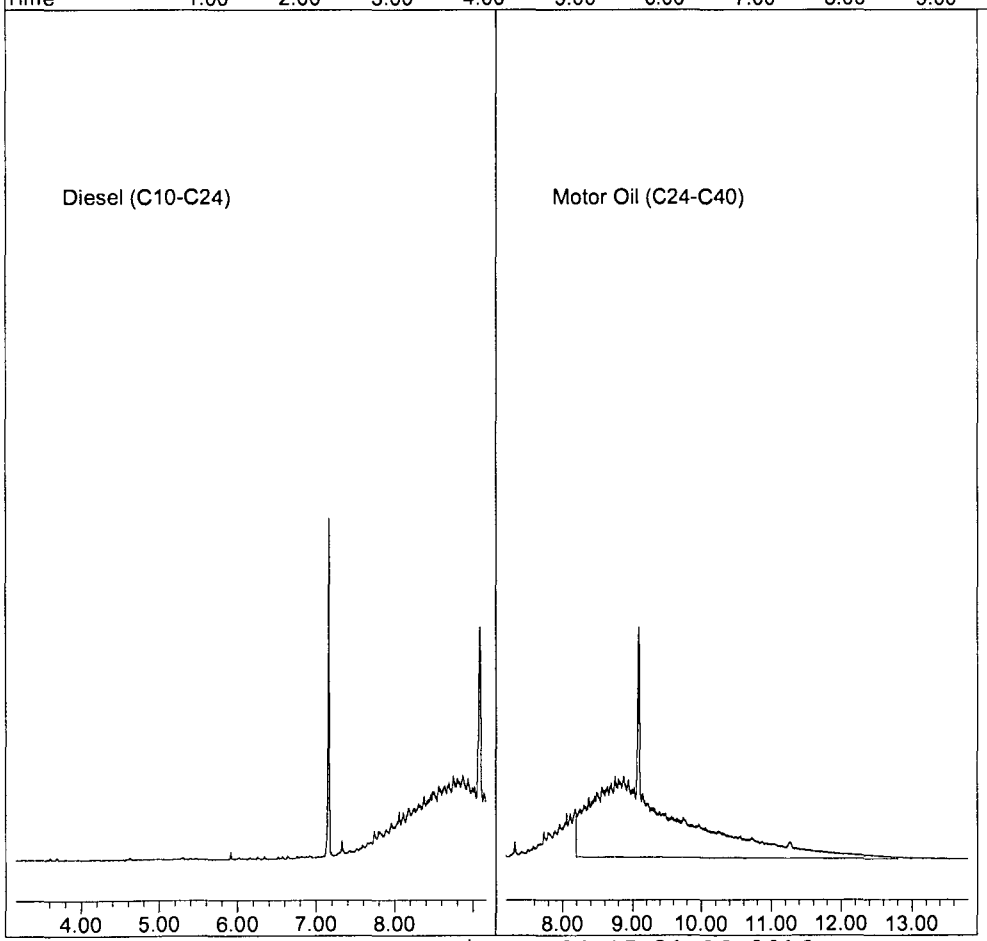
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
2) HBTM Motor Oil (C24-C40)	10.50	2287599812	1110.868	ppb

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

Data File: G:\APOLLO\DATA\161031\1031099.D
Sample : 161025A LCS-2 2/1500





Laboratory Control Spike Recovery
EPA 8015B TPH WATER W/ SGC

APPL ID: **161025W-44687 LCS - 213354**
Batch ID: #DOC53-161025A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL (C10-C24)	1330	944	70.8	36-132
OIL (C24-C40)	1330	1070	80.3	41-113
SURROGATE: (R) DECANOIC ACID (S)	10.00	0	0.0	0-1
SURROGATE: OCTACOSANE (S)	40.0	40.5	101	60-142
SURROGATE: ORTHO-TERPHENYL (S)	40.0	40.6	102	56-125

Comments: _____

Primary	SPK
Quant Method :	DOC1027.M
Extraction Date :	10/25/16
Analysis Date :	11/01/16
Instrument :	Apollo
Run :	1031080
Initials :	DPO

Printed: 11/03/16 6:14:46 PM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031080.D Vial: 80
Acq On : 11-1-16 12:32:10 Operator: DP
Sample : 161025A LCS-1 2/1500 SGC Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 18:02 2016 Quant Results File: DOC1027.RES

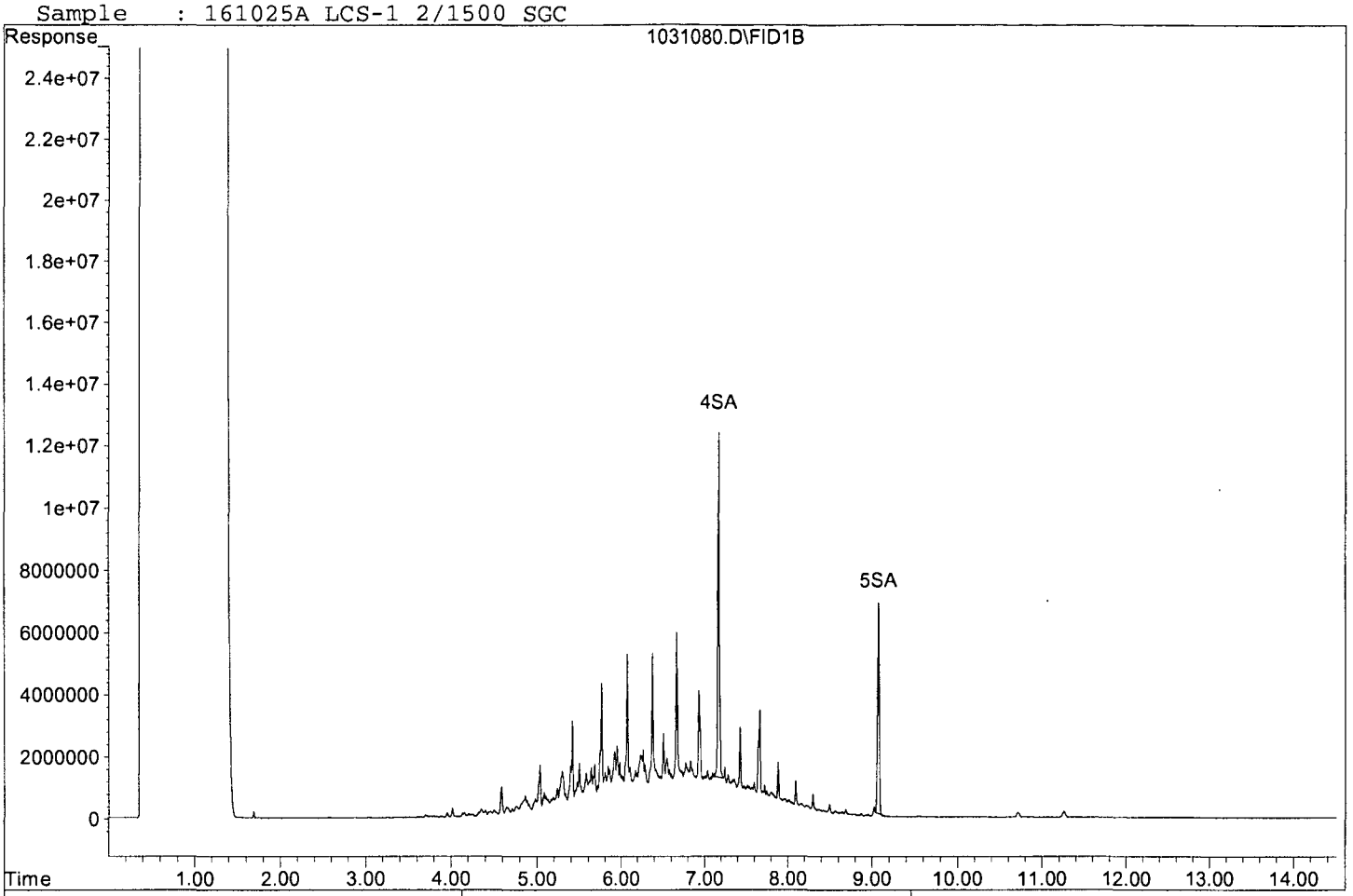
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

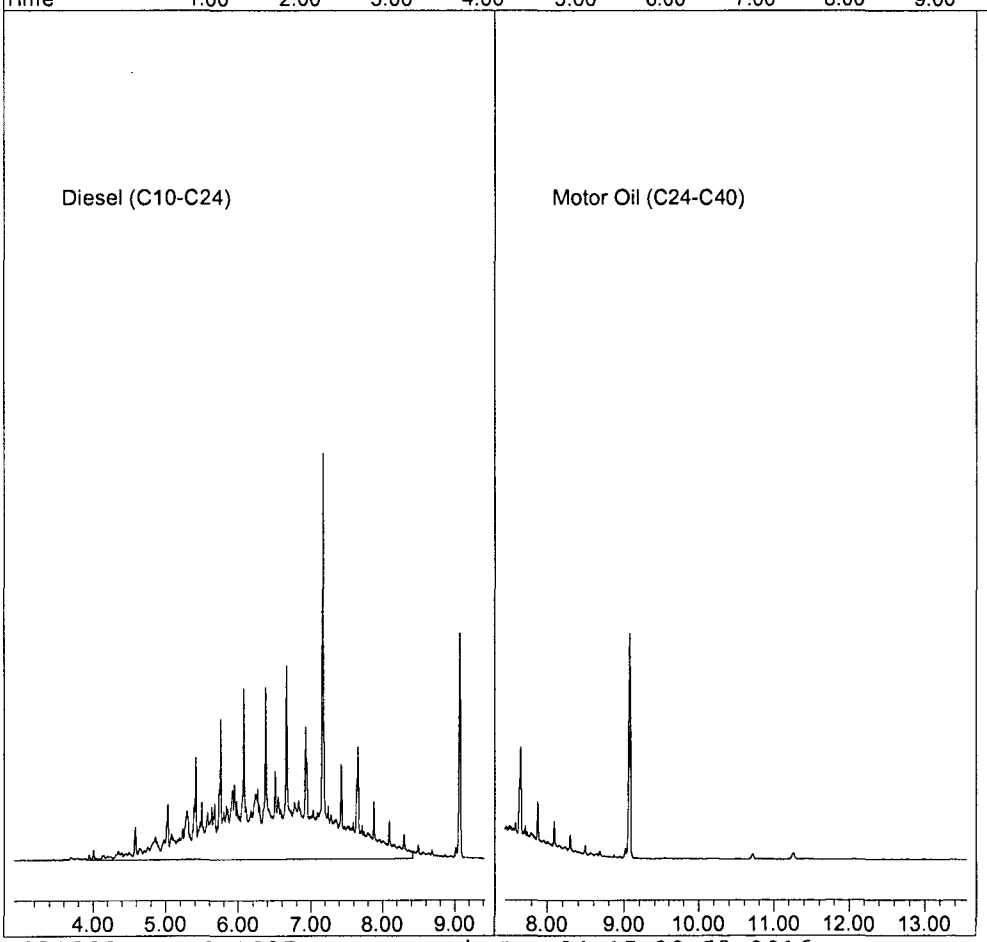
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	137313638	40.601	ppb
Surrogate Spike 40.000		Recovery =	101.50%	
5) SA Octacosane(S)	9.08	100515825	40.548	ppb
Surrogate Spike 40.000		Recovery =	101.37%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	2638455755	943.608	ppb

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

Data File: G:\APOLLO\DATA\161031\1031080.D
Sample : 161025A LCS-1 2/1500 SGC





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161031\1031081.D Vial: 81
Acq On : 11-1-16 12:53:11 Operator: DP
Sample : 161025A LCS-2 2/1500 SGC Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 3 18:02 2016 Quant Results File: DOC1027.RES

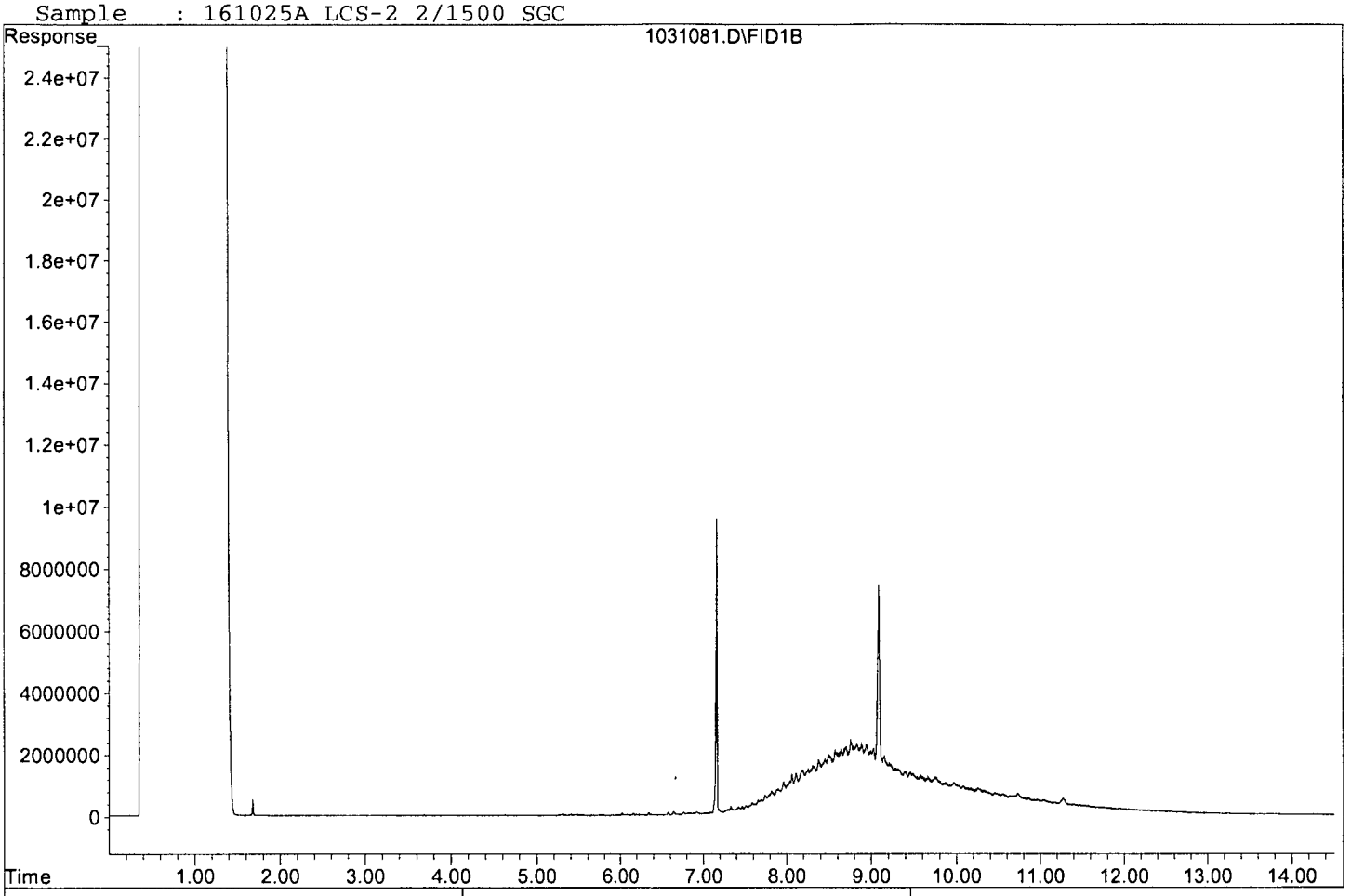
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

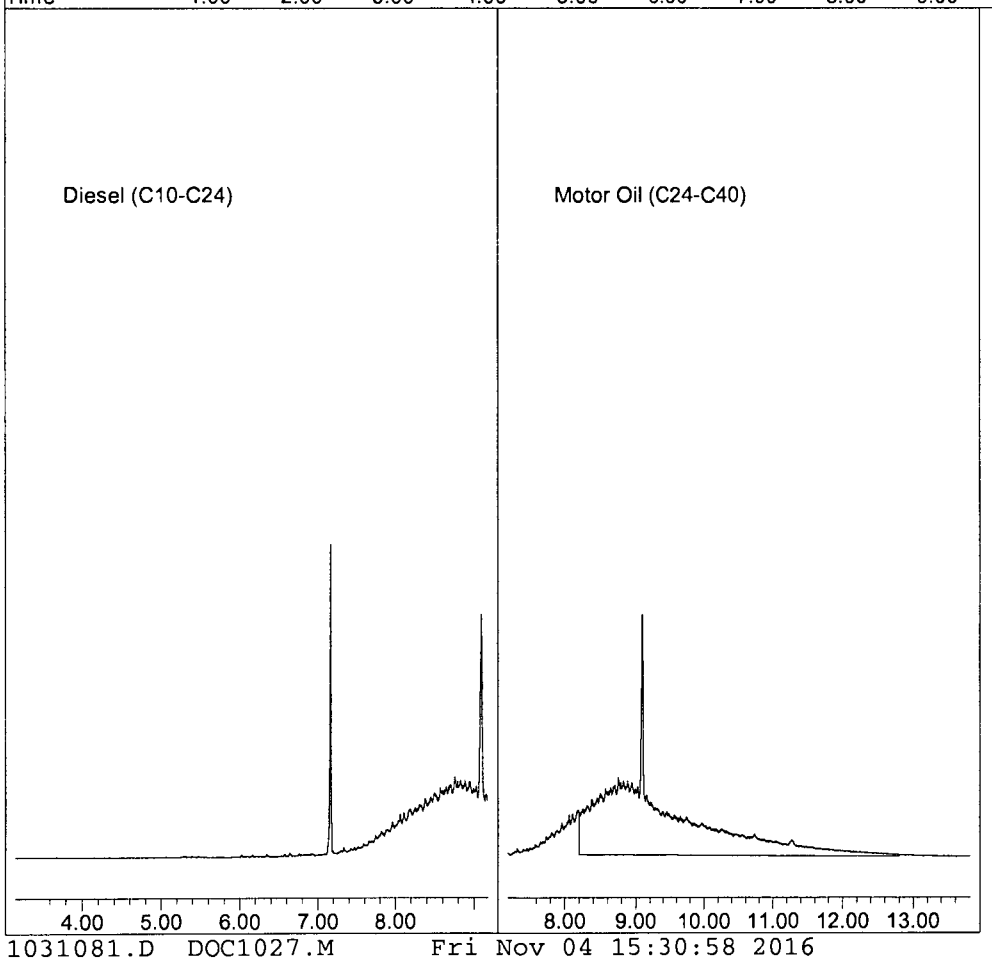
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
2) HBTM Motor Oil (C24-C40)	10.50	2211887283	1074.102	ppb

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

Data File: G:\APOLLO\DATA\161031\1031081.D
Sample : 161025A LCS-2 2/1500 SGC





DIESEL CURVE		prep:10/27/16 G.A.		ex:4/27/17						
STD	**[µg/mL]**	**LOT #**	**DATE**	**EXP. DATE**	**µL**	**µL**	**µL**	**µL**	**µL**	**µL**
DIESEL	1000		10/26/16	04/26/17	10	100	400	600	800	200
MC	N/A	56098			990	900	600	400	200	NA
				Final VOL.	1000	1000	1000	1000	1000	200
				ppm	10	100	400	600	800	1000

Prep: 10/26/16-D.P. Exp: 4/26/17						
DIESEL CAL STD.						
STD.	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT / LOT#
DIESEL FUEL #2	50,000 ug/mL	O2SI CAT#011598-03 LOT#237562-37103 OP: 10/26/16 EXP: 10/26/17	500 µL	25 mL	1000ug/mL	MC LOT# 56098
O-TERPHENYL OCTACOSANE	600 ug/mL	O2SI CAT#110316-05 LOT#266278-36701 OP: 10/18/16 EXP: 10/18/17	2080 µL		50ug/mL	

MOTOR OIL CURVE		prep: 10/28/16-D.P.		ex:4/26/17						
STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
MOTOR OIL	2000		10/26/16	04/26/17	10	25	125	500	750	200
MC	N/A	56098			990	975	875	500	250	NA
				Final VOL.	1000	1000	1000	1000	1000	200
				ppm	20	50	250	1000	1500	2000

Prep: 10/26/16 -D.P. Ex: 4/26/17						
MOTOR OIL CAL STD						
STD.	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT / LOT#
MOTOR OIL	50,000 ug/mL	O2SI CAT#116390-02 LOT#239390-36901 OP:10/26/16 EXP:10/26/17	1mL	25mL	2000ug/mL	MC LOT# 56098

DIESEL SECOND SOURCE prep: 08/01/16-D.P. ex: 07/6/17						
standard	initial conc.	SOURCE DATE	ALIQUOT	FINAL VOL.	FINAL CONC.	SOLVENT LOT
DIESEL SECOND SOURCE	50,000 ug/mL	O2SI CAT#011598-03-SS LOT#244813-34634 OP: 08/28/15 Exp 03/14/19	200uL	10mL	1000ug/mL	MC #56061

MOTOR OIL SECOND SOURCE prep: 07/6/16-L.H. ex: 07/6/17						
standard	initial conc.	SOURCE DATE	ALIQUOT	FINAL VOL.	FINAL CONC.	SOLVENT LOT
MOTOR OIL SECOND SOURCE	50,000 ug/mL	O2SI CAT#116390-02-SS LOT#244814-34637 OP: 07/06/16 Exp 07/06/17	200uL	10mL	1000ug/mL	MC #56061

Decanoic Acid CCV prep: 9/9/16. ex: 2/10/17					
STD	**[µg/mL]**	**LOT #**	**DATE**	**EXP. DATE**	**µL**
Decanoic Acid STD	60		05/19/16	02/10/17	2000
MC		56061			3000
				Final VOL.	5000

DIESEL CCV 400ug/ml						
Prep: 10/26/16-D.P. Ex: 1/26/17						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000 µg/mL	Diesel Std.	2000µL	5mL	400 µg/ml	MC
	PREP:	10/26/16				56098
	Exp:	04/26/17				

MOTOR OIL CCV 1000ppm						
Prep: 10/26/16-D.P. Ex: 1/26/17						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MO STD.	2000 µg/mL	MO Std.	2500µL	5mL	1000 µg/ml	MC
	PREP:	10/26/16				56098
	Exp:	04/26/17				

Motor Oil Spike
Cat: 116390-02
Lot: 239390-36901
Op: 10/26/2016-D.P.
Exp: 10/26/17

Diesel Fuel #2
Conc. 50000 ug/ml
O2SI
CAT #011598-03
LOT# 237562-37102
OP: 10/25/16 RH
EXP: 10/25/17

THC Surrogate
Cat: 110316-05
Lot: 266278-367
Op: 10/18/16
Exp: 10/18/17

_SEP011LL

Organic Extraction Worksheet

Method	THC Sep Fun Ext 3510C (LOW LEVEL)	Extraction Set	161025A	Extraction Method	SEP011LL	Units	mL

Spiked ID 1	Diesel Spike 10-25-16 EXP 10-25-17		Surrogate ID 1	THC Surrogate 10-18-16 EXP 10-18-16	
Spiked ID 2	Motor Oil Spike 5-24-16 EXP 5-24-17		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:	10/25/16 16:00	
Spiked ID 8			Ext. End Time:	10/26/16 13:00	
			GC Requires Extract By:	**10/28/16 0:00**	

pH1			Water Bath Temp Criteria	35,35,35,3
pH2				
pH3				

Spiked By: KY **Date** 10/25/16 **Witnessed By:** CFM **Date** 10/25/16

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	161025A Blk				0.1	1 equip	1500 E-WB1	2	7	10/25/16 16:00	
2	161025A LCS-1		0.040	1	0.1	1 equip	1500 E-WB2	2	7	10/25/16 16:00	
3	161025A LCS-2		0.040	2	0.1	1 equip	1500 E-WB1	2	7	10/25/16 16:00	
4	AZ44687	AZ44687W13			0.1	1 equip	1500 E-WB3	2	7	10/25/16 16:00	81251 1 WEEK
5	AZ44688	AZ44688W14			0.1	1 equip	1500 E-WB2	2	7	10/25/16 16:00	81251 1 WEEK
6	AZ44689	AZ44689W15			0.1	1 equip	1500 E-WB1	2	7	10/25/16 16:00	81251 1 WEEK
7	AZ44690	AZ44690W13			0.1	1 equip	1500 E-WB2	2	7	10/25/16 16:00	81251 1 WEEK
8	AZ44691	AZ44691W09			0.1	1 equip	1500 E-WB1	2	7	10/25/16 16:00	81251 1 WEEK
9	AZ44692	AZ44692W08			0.1	1 equip	1500 E-WB1	2	7	10/25/16 16:00	81251 1 WEEK
10	AZ44693	AZ44693W09			0.1	1 equip	1500 E-WB4	2	7	10/25/16 16:00	81251 1 WEEK
11	AZ44694	AZ44694W18			0.1	1 equip	1500 E-WB2	2	7	10/25/16 16:00	81251 1 WEEK
12	AZ44695	AZ44695W10			0.1	1 equip	1500 E-WB1	2	7	10/25/16 16:00	81251 1 WEEK
13	AZ44696	AZ44696W05			0.1	1 equip	1500 E-WB2	2	7	10/25/16 16:00	81251 1 WEEK

LG 10/26/16

Solvent and Lot#	
MC	56098
Na2SO4	XK07E
ph-indicator strips	HC 574756
Filter Paper	400112

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	D.P.
Date	10/26/16
Time	17:00
Refrigerator	Hobart

	Technician's Initials
Scanned By	DC
Sample Preparation	KY,DL,DC
Extraction	KY,DL,DC
Concentration	MP

Modified	10/26/16 2:29:10 PM

Reviewed By: LG **Date** 10/26/16

_SEP011LLS

Organic Extraction Worksheet

Method	THC Sep Fun Ext 3510C (LowL SILICA GEL)	Extraction Set	161025A	Extraction Method	SEP011LLSGC	Units	mL

Spiked ID 1	Diesel Spike 10-25-16 EXP 10-25-17		Surrogate ID 1	THC Surrogate 10-18-16 EXP 10-18-17	
Spiked ID 2	Motor Oil Spike 5-24-16 EP 5-24-17		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:	10/25/16 16:00	
Spiked ID 8			Ext. End Time:	10/26/16 13:00	
			GC Requires Extract By:	**10/28/16 0:00**	

pH1			Water Bath Temp Criteria	35,35,35 °
pH2				
pH3				

Spiked By: KY **Date** 10/25/16 **Witnessed By:** CFM **Date** 10/25/16

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	161025A Blk				0.1	1	1500	2	7	10/25/16 16:00	*
						equip	E-WB2				
2	161025A LCS-1		0.040	1	0.1	1	1500	2	7	10/25/16 16:00	*
						equip	E-WB1				
3	161025A LCS-2		0.040	2	0.1	1	1500	2	7	10/25/16 16:00	*
						equip	E-WB1				
4	AZ44687	AZ44687W13			0.1	1	1500	2	7	10/25/16 16:00	81251 1 WEEK *
						equip	E-WB3				
5	AZ44688	AZ44688W14			0.1	1	1500	2	7	10/25/16 16:00	81251 1 WEEK *
						equip	E-WB2				
6	AZ44689	AZ44689W15			0.1	1	1500	2	7	10/25/16 16:00	81251 1 WEEK *
						equip	E-WB1				

lcs 10/26/16

Solvent and Lot#	
MC	56098
Na2SO4	XKE07
Filter Paper	400112
Ph Strip	HC 574756
Activated Silica Gel (*)	08-01-16B

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	DJ.
Date	10/28/16
Time	9:00
Refrigerator	Hobart

	Technician's Initials
Scanned By	DC
Sample Preparation	KY,DL,DC
Extraction	KY,DL,DC
Concentration	DL

Modified	10/26/16 2:31:24 PM

Reviewed By: Ky **Date** 10/26/16

Injection Log

Directory: G:\APOLLO\DATA\161027\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1027002.D	1	DIESEL 10ppb 10/27/16	Mix(A)	10-27-16 17:29:08
2	3	1027003.D	1	DIESEL 100ppb 10/27/16	Mix(A)	10-27-16 17:50:22
3	4	1027004.D	1	DIESEL 400ppb 10/27/16	Mix(A)	10-27-16 18:11:31
4	5	1027005.D	1	DIESEL 600ppb 10/27/16	Mix(A)	10-27-16 18:32:45
5	6	1027006.D	1	DIESEL 800ppb 10/27/16	Mix(A)	10-27-16 18:53:54
6	7	1027007.D	1	DIESEL 1000ppb 10/27/16	Mix(A)	10-27-16 19:15:05
7	9	1027009.D	1	DIESEL-SS 400ppb 8/1/16	Mix(A)	10-27-16 19:57:54
8	2	1028002.D	1	MO 20ppb 10/28/16	Mix(B)	10-28-16 9:07:30
9	3	1028003.D	1	MO 50ppb 10/28/16	Mix(B)	10-28-16 9:28:13
10	4	1028004.D	1	MO 250ppb 10/28/16	Mix(B)	10-28-16 9:49:06
11	5	1028005.D	1	MO 1000ppb 10/28/16	Mix(B)	10-28-16 10:09:58
12	6	1028006.D	1	MO 1500ppb 10/28/16	Mix(B)	10-28-16 10:30:51
13	7	1028007.D	1	MO 2000ppb 10/28/16	Mix(B)	10-28-16 10:51:50
14	8	1028008.D	1	MO SS 1000ppb 7/6/16	Mix(B)	10-28-16 11:12:44
15	63	1031063.D	1	CCV: DECANOIC ACID 9/9/16	Mix(C)	11-1-16 6:39:09
16	76	1031076.D	1	CCV: DIESEL 400 ppm 10/26/16	Mix(A)	11-1-16 11:08:25
17	77	1031077.D	1	CCV: MO 1000 ppm 10/26/16	Mix(B)	11-1-16 11:29:21
18	79	1031079.D	1.33333	161025A BLK 2/1500 SGC	water	11-1-16 12:11:14
19	80	1031080.D	1.33333	161025A LCS-1 2/1500 SGC	water	11-1-16 12:32:10
20	81	1031081.D	1.33333	161025A LCS-2 2/1500 SGC	water	11-1-16 12:53:11
21	82	1031082.D	1.33333	AZ44687W13 2/1500 SGC	water	11-1-16 13:14:11
22	83	1031083.D	1.33333	AZ44688W14 2/1500 SGC	water	11-1-16 13:35:19
23	84	1031084.D	1.33333	AZ44689W15 2/1500 SGC	water	11-1-16 13:56:26
24	85	1031085.D	1	CCV: DECANOIC ACID 9/9/16	Mix(C)	11-1-16 14:17:39
25	92	1031092.D	1	CCV: DIESEL 400 ppm 10/26/16	Mix(A)	11-1-16 16:45:24
26	93	1031093.D	1	CCV: MO 1000 ppm 10/26/16	Mix(B)	11-1-16 17:06:30
27	97	1031097.D	1.33333	161025A BLK 2/1500	water	11-1-16 18:30:12
28	98	1031098.D	1.33333	161025A LCS-1 2/1500	water	11-1-16 18:50:56
29	99	1031099.D	1.33333	161025A LCS-2 2/1500	water	11-1-16 19:11:41
30	100	1031100.D	1.33333	AZ44687W13 2/1500	water	11-1-16 19:32:28
31	1	1031101.D	1.33333	AZ44688W14 2/1500	water	11-1-16 19:53:12
32	2	1031102.D	1.33333	AZ44689W15 2/1500	water	11-1-16 20:13:51
33	3	1031103.D	1.33333	AZ44690W13 2/1500	water	11-1-16 20:34:34
34	4	1031104.D	1.33333	AZ44691W09 2/1500	water	11-1-16 20:55:11
35	5	1031105.D	1.33333	AZ44692W08 2/1500	water	11-1-16 21:15:53
36	6	1031106.D	1.33333	AZ44693W09 2/1500	water	11-1-16 21:36:31
37	7	1031107.D	1	CCV: DIESEL 400 ppm 10/26/16	Mix(A)	11-1-16 21:57:08
38	8	1031108.D	1	CCV: MO 1000 ppm 10/26/16	Mix(B)	11-1-16 22:17:44
39	10	1031110.D	1.33333	AZ44694W18 2/1500	water	11-1-16 22:58:53
40	11	1031111.D	1.33333	AZ44695W10 2/1500	water	11-1-16 23:19:29
41	12	1031112.D	1.33333	AZ44696W05 2/1500	water	11-1-16 23:40:03
42	18	1031118.D	1	CCV: DIESEL 400 ppm 10/26/16	Mix(A)	11-2-16 1:43:09
43	19	1031119.D	1	CCV: MO 1000 ppm 10/26/16	Mix(B)	11-2-16 2:03:39

ORGANICS

APPL, INC.

ORGANICS

QC Summary

APPL, INC.

Method Blank
EPA 8270D SIM

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161026W-44687 - 213165**
Batch ID: #SIMDO-161026A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/26/16	10/28/16
BLANK	SURROGATE: 2-FLUORBIPHENY	61.7	53-106			%	10/26/16	10/28/16
BLANK	SURROGATE: NITROBENZENE-	71.4	55-111			%	10/26/16	10/28/16
BLANK	SURROGATE: TERPHENYL-D14 (	87.9	58-132			%	10/26/16	10/28/16

Quant Method: L1026P.M
Run #: 1026L081
Instrument: Linus
Sequence: L161026
Initials: RHA

GC SC-Blank-REG MDLs-DOD
Printed: 11/03/16 12:16:18 PM

Laboratory Control Spike Recovery
EPA 8270D SIM

APPL ID: **161026W-44687 LCS - 213165**
Batch ID: #SIMDO-161026A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1-METHYLNAPHTHALENE	5.00	3.46	69.2	41-115
2-METHYLNAPHTHALENE	5.00	3.64	72.8	39-114
NAPHTHALENE	5.00	3.36	67.2	43-114
SURROGATE: 2-FLUORBIPHENYL (S)	5.00	3.04	60.8	53-106
SURROGATE: NITROBENZENE-D5 (S)	5.00	3.37	67.4	55-111
SURROGATE: TERPHENYL-D14 (S)	5.00	4.03	80.6	58-132

Comments: _____

Primary	SPK
Quant Method :	L1026P.M
Extraction Date :	10/26/16
Analysis Date :	10/28/16
Instrument :	Linus
Run :	1026L082
Initials :	RHA

Printed: 11/03/16 12:16:11 PM
APPL Standard LCS

8270D-SIM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/27/16

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
AZ44689	ERH093	53-106	56.4		55-111	60.4	
AZ44690	ERH097	53-106	53.6		55-111	57.0	
AZ44691	ERH098	53-106	53.0		55-111	57.3	
AZ44692	ERH100	53-106	57.2		55-111	59.8	
AZ44695	ERH104	53-106	54.9		55-111	58.8	
161026A-BLK	Blank	53-106	61.7		55-111	71.4	
161026A-LCS	Lab Control Spike	53-106	60.8		55-111	67.4	
AZ44687	ERH091	53-106	58.3		55-111	78.1	
AZ44688	ERH089	53-106	61.9		55-111	66.7	
AZ44693	ERH101	53-106	62.4		55-111	67.4	
AZ44694	ERH102	53-106	61.0		55-111	66.2	
AZ44696	ERH105	53-106	64.1		55-111	67.8	

Comments: Batch: #SIMDO-161026A

8270D-SIM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/27/16

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
AZ44689	ERH093	58-132	71.9				
AZ44690	ERH097	58-132	70.9				
AZ44691	ERH098	58-132	73.0				
AZ44692	ERH100	58-132	75.0				
AZ44695	ERH104	58-132	75.6				
161026A-BLK	Blank	58-132	87.9				
161026A-LCS	Lab Control Spike	58-132	80.6				
AZ44687	ERH091	58-132	77.6				
AZ44688	ERH089	58-132	86.8				
AZ44693	ERH101	58-132	78.5				
AZ44694	ERH102	58-132	83.3				
AZ44696	ERH105	58-132	85.4				

Comments: Batch: #SIMDO-161026A

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/28/16

Matrix: WATER Instrument: Linus

Blank ID: 161026A-BLK Time Analyzed: 1312

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ44689	ERH093	1026L043	10/27/16 1749
AZ44690	ERH097	1026L044	10/27/16 1821
AZ44691	ERH098	1026L045	10/27/16 1854
AZ44692	ERH100	1026L046	10/27/16 1926
AZ44695	ERH104	1026L052	10/27/16 2207
161026A-BLK	Blank	1026L081	10/28/16 1312
161026A-LCS	Lab Control Spike	1026L082	10/28/16 1344
AZ44687	ERH091	1026L083	10/28/16 1417
AZ44688	ERH089	1026L084	10/28/16 1449
AZ44693	ERH101	1026L085	10/28/16 1522
AZ44694	ERH102	1026L086	10/28/16 1554
AZ44696	ERH105	1026L087	10/28/16 1627

Comments: Batch: #SIMDO-161026A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 81251
Matrix: Water
ID: SV TUNE 9/22/16

SDG No: 81251
Date Analyzed: 10/26/16
Instrument: Linus
Time Analyzed: 10:58

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.1 ug/ml PAH 10/26/	1026L003.D	10/26/16 11:23
2		0.2 ug/ml PAH 10/26/	1026L004.D	10/26/16 11:56
3		0.5 ug/ml PAH 10/26/	1026L005.D	10/26/16 12:28
4		1.0 ug/ml PAH 10/26/	1026L006.D	10/26/16 13:01
5		5.0 ug/ml PAH 10/26/	1026L007.D	10/26/16 13:33
6		10.0 ug/ml PAH 10/26	1026L008.D	10/26/16 14:05
7		50.0 ug/ml PAH 10/26	1026L009.D	10/26/16 14:37
8		100.0 ug/ml PAH 10/2	1026L010.D	10/26/16 15:09
9		SS PAH 10/26/16	1026L011.D	10/26/16 15:42
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	30 - 60% of mass 198	31.3
68	0 - 2% of mass 69	0.0
69	100 - 100% of mass 69	100.0
70	0 - 2% of mass 69	0.4
127	40 - 60% of mass 198	50.4
197	0 - 1% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	25.7
365	1 - 100% of mass 198	2.6
441	0.01 - 100% of mass 443	76.7
442	40 - 150% of mass 198	57.8
443	17 - 23% of mass 442	21.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 81251
Matrix: Water
ID: SV Tune 10/19/16

SDG No: 81251
Date Analyzed: 10/27/16
Instrument: Linus
Time Analyzed: 9:12

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		2.5 ug/ml PAH 10/26/	1026L028.D	10/27/16 9:29
2	ERH093	AZ44689W12 1/1070	1026L043.D	10/27/16 17:49
3	ERH097	AZ44690W09 1/1070	1026L044.D	10/27/16 18:21
4	ERH098	AZ44691W12 1/1070	1026L045.D	10/27/16 18:54
5	ERH100	AZ44692W07 1/1070	1026L046.D	10/27/16 19:26
6		2.5 ug/ml PAH 10/26/	1026L049.D	10/27/16 20:30
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	30 - 60% of mass 198	31.5
68	0 - 2% of mass 69	0.0
69	100 - 100% of mass 69	100.0
70	0 - 2% of mass 69	0.6
127	40 - 60% of mass 198	50.5
197	0 - 1% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 30% of mass 198	26.2
365	1 - 100% of mass 198	2.7
441	0.01 - 100% of mass 443	77.2
442	40 - 150% of mass 198	58.7
443	17 - 23% of mass 442	21.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 81251
Matrix: Water
ID: SV Tune 10/19/16

SDG No: 81251
Date Analyzed: 10/27/16
Instrument: Linus
Time Analyzed: 20:13

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		2.5 ug/ml PAH 10/26/	1026L049.D	10/27/16 20:30
2	ERH104	AZ44695W09 1/1020	1026L052.D	10/27/16 22:07
3		2.5 ug/ml PAH 10/26/	1026L071.D	10/28/16 7:49
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	31.3
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.5
127	39.5 - 60% of mass 198	50.3
197	0 - 1% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 30% of mass 198	26.2
365	1 - 100% of mass 198	2.7
441	0.01 - 100% of mass 443	78.2
442	50 - 150% of mass 198	61.0
443	17 - 23% of mass 442	21.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 81251
Matrix: Water
ID: SV Tune 10/19/16

SDG No: 81251
Date Analyzed: 10/28/16
Instrument: Linus
Time Analyzed: 7:32

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		2.5 ug/ml PAH 10/26/	1026L071.D	10/28/16 7:49
2	Blank	161026A BLK 1/1000	1026L081.D	10/28/16 13:12
3	Lab Control Spike	161026A LCS-1 1/1000	1026L082.D	10/28/16 13:44
4	ERH091	AZ44687W14 1/1070	1026L083.D	10/28/16 14:17
5	ERH089	AZ44688W10 1/1050	1026L084.D	10/28/16 14:49
6	ERH101	AZ44693W07 1/1070	1026L085.D	10/28/16 15:22
7	ERH102	AZ44694W19 1/1070	1026L086.D	10/28/16 15:54
8	ERH105	AZ44696W09 1/1070	1026L087.D	10/28/16 16:27
9		2.5 ug/ml PAH 10/26/	1026L092.D	10/28/16 18:53
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	30 - 60% of mass 198	31.4
68	0 - 2% of mass 69	0.0
69	100 - 100% of mass 69	100.0
70	0 - 2% of mass 69	0.4
127	40 - 60% of mass 198	50.6
197	0 - 1% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	27.2
365	1 - 100% of mass 198	2.7
441	0.01 - 100% of mass 443	75.9
442	40 - 150% of mass 198	65.3
443	17 - 23% of mass 442	21.6

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 81251

Lab File ID (Standard): 1026L007.D Date Analyzed: 10/26/16

Instrument ID: Linus Time Analyzed: 13:33

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

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2942	5.89	1477	7.94	2585	9.87
	UPPER LIMIT	5884	6.39	2954	8.44	5170	10.37
	LOWER LIMIT	1471	5.39	739	7.44	1293	9.37
	SAMPLE NO.						
01	2.5 ug/ml PAH 10/26/16	2881	5.89	1465	7.94	2541	9.87
02	AZ44689W12 1/1070	3215	5.90	1670	7.94	2815	9.87
03	AZ44690W09 1/1070	3198	5.90	1630	7.94	2840	9.87
04	AZ44691W12 1/1070	3400	5.90	1757	7.94	2979	9.89
05	AZ44692W07 1/1070	3179	5.90	1639	7.94	2834	9.89
06	2.5 ug/ml PAH 10/26/16	2781	5.89	1403	7.94	2473	9.87
07	AZ44695W09 1/1020	3250	5.90	1659	7.94	2880	9.87
08	2.5 ug/ml PAH 10/26/16	2866	5.89	1470	7.94	2570	9.87
09	161026A BLK 1/1000	2976	5.90	1544	7.94	2687	9.87
10	161026A LCS-1 1/1000	2897	5.89	1489	7.94	2647	9.87
11	AZ44687W14 1/1070	2804	5.90	1423	7.94	2371	9.87
12	AZ44688W10 1/1050	3228	5.90	1684	7.94	2888	9.87
13	AZ44693W07 1/1070	3713	5.89	1897	7.94	3338	9.87
14	AZ44694W19 1/1070	3238	5.90	1681	7.94	2873	9.87
15	AZ44696W09 1/1070	3148	5.90	1625	7.94	2851	9.87
16	2.5 ug/ml PAH 10/26/16	2712	5.90	1420	7.94	2527	9.87
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 = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 81251

Lab File ID (Standard): 1026L007.D Date Analyzed: 10/26/16

Instrument ID: Linus Time Analyzed: 13:33

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

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3262	16.84	2933	20.60		
	UPPER LIMIT	6524	17.34	5866	21.10		
	LOWER LIMIT	1631	16.34	1467	20.10		
	SAMPLE NO.						
01	2.5 ug/ml PAH 10/26/16	3232	16.84	2928	20.59		
02	AZ44689W12 1/1070	3552	16.84	3351	20.60		
03	AZ44690W09 1/1070	3459	16.85	3257	20.61		
04	AZ44691W12 1/1070	3647	16.85	3429	20.61		
05	AZ44692W07 1/1070	3441	16.85	3230	20.61		
06	2.5 ug/ml PAH 10/26/16	3148	16.84	2867	20.59		
07	AZ44695W09 1/1020	3527	16.84	3278	20.60		
08	2.5 ug/ml PAH 10/26/16	3277	16.84	3010	20.59		
09	161026A BLK 1/1000	3361	16.84	3128	20.60		
10	161026A LCS-1 1/1000	3391	16.83	3109	20.59		
11	AZ44687W14 1/1070	3236	16.83	3062	20.59		
12	AZ44688W10 1/1050	3624	16.85	3322	20.61		
13	AZ44693W07 1/1070	4126	16.85	3844	20.61		
14	AZ44694W19 1/1070	3631	16.84	3352	20.60		
15	AZ44696W09 1/1070	3510	16.84	3293	20.61		
16	2.5 ug/ml PAH 10/26/16	3234	16.84	2981	20.59		
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 = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

ORGANICS

Sample Data

APPL, INC.

EPA 8270D SIM

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH091

APPL ID: AZ44687

Sample Collection Date: 10/19/16

QCG: #SIMDO-161026A-213165

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	25	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
8270D-SIM	2-METHYLNAPHTHALENE	9.2	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
8270D-SIM	NAPHTHALENE	49	0.2	0.10	0.05	ug/L	10/26/16	10/28/16
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	58.3	53-106			%	10/26/16	10/28/16
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	78.1	55-111			%	10/26/16	10/28/16
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	77.6	58-132			%	10/26/16	10/28/16

Quant Method: L1026P.M
Run #: 1026L083
Instrument: Linus
Sequence: L161026
Dilution Factor: 1
Initials: RHA

Printed: 10/28/16 3:02:06 PM

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

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L083.D Vial: 83
Acq On : 28 Oct 16 14:17 Operator: MA
Sample : AZ44687W14 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 28 14:50 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	5.90	136	2804	2.50000	ppb	0.01
6) Acenaphthene-D10(IS)	7.94	164	1423	2.50000	ppb	0.00
11) Phenanthrene-D10(IS)	9.87	188	2371	2.50000	ppb	0.00
15) Chrysene-D12(IS)	16.83	240	3236	2.50000	ppb	-0.01
21) Perylene-D12(IS)	20.59	264	3062	2.50000	ppb	-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.05	82	1325	3.65112	ppb	0.00
Spiked Amount 4.673			Recovery = 78.131%			
7) Surrogate Recovery (FBP)	7.16	172	2676	2.72469	ppb	0.00
Spiked Amount 4.673			Recovery = 58.315%			
17) Surrogate Recovery (TPH)	13.87	244	4317	3.62698	ppb	-0.01
Spiked Amount 4.673			Recovery = 77.618%			
Target Compounds						Qvalue
3) Naphthalene	5.93	128	55795	45.58315	ppb	97
4) 2-Methylnaphthalene	6.74	142	6556	8.58018	ppb	99
5) 1-Methylnaphthalene	6.84	142	17897	22.89754	ppb	97

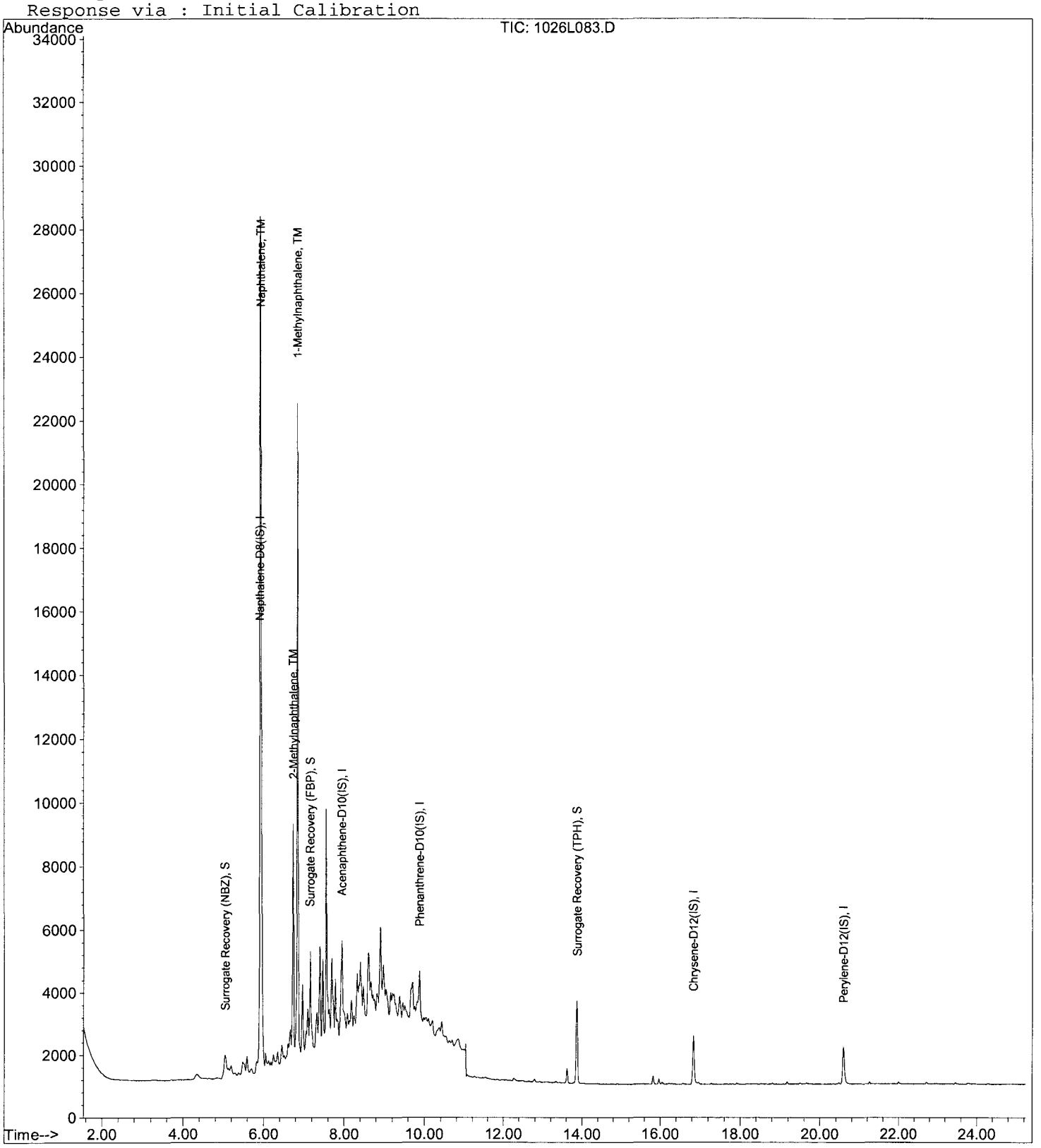
(#) = qualifier out of range (m) = manual integration

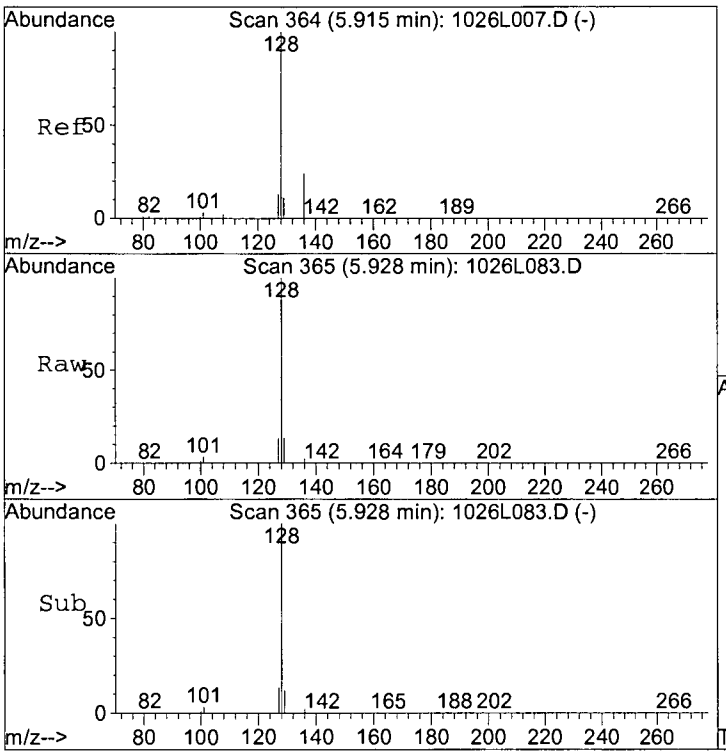
Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L083.D Vial: 83
Acq On : 28 Oct 16 14:17 Operator: MA
Sample : AZ44687W14 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 28 14:50 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration

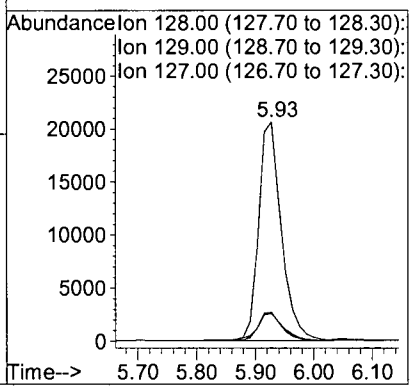


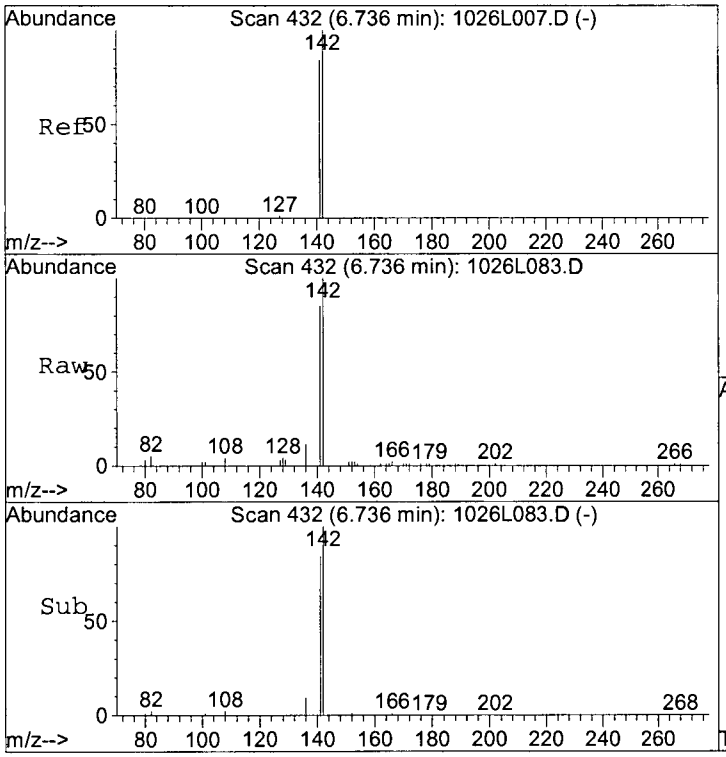


#3
Naphthalene
Concen: 45.58315 ppb
RT: 5.93 min Scan# 365
Delta R.T. 0.01 min
Lab File: 1026L083.D
Acq: 28 Oct 16 14:17

Tgt Ion:128 Resp: 55795

Ion	Ratio	Lower	Upper
128	100		
129	12.5	7.6	14.2
127	13.1	8.8	16.4

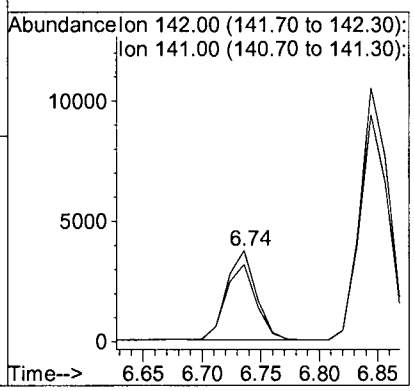


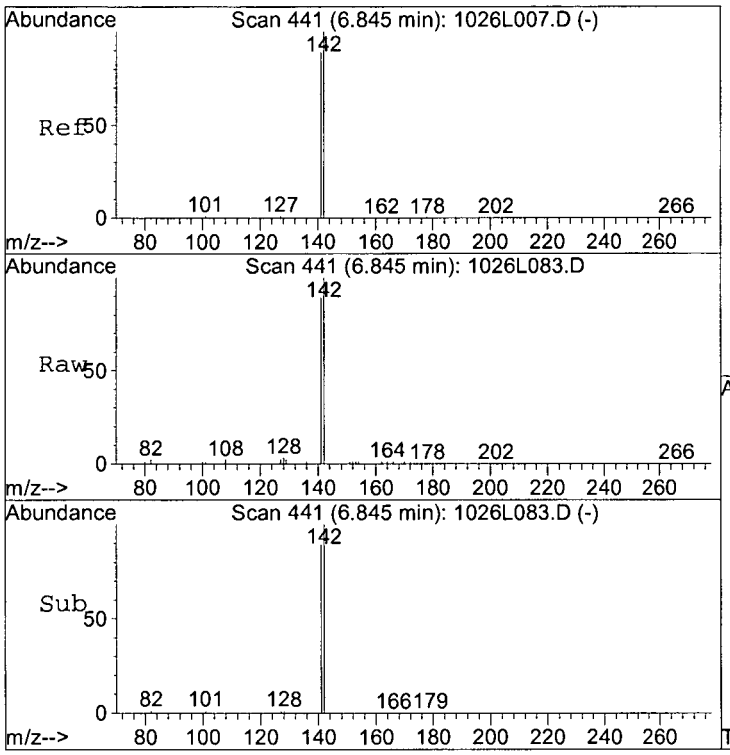


#4
2-Methylnaphthalene
Concen: 8.58018 ppb
RT: 6.74 min Scan# 432
Delta R.T. 0.00 min
Lab File: 1026L083.D
Acq: 28 Oct 16 14:17

Tgt Ion:142 Resp: 6556

Ion	Ratio	Lower	Upper
142	100		
141	84.1	59.4	110.4

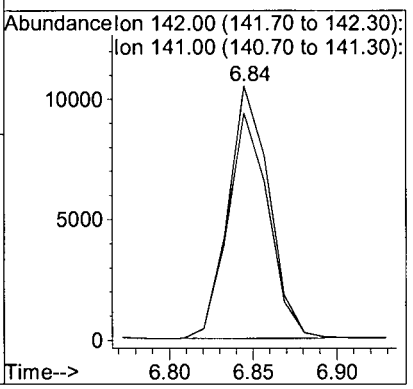




#5
1-Methylnaphthalene
Concen: 22.89754 ppb
RT: 6.84 min Scan# 441
Delta R.T. 0.00 min
Lab File: 1026L083.D
Acq: 28 Oct 16 14:17

Tgt Ion:142 Resp: 17897

Ion	Ratio	Lower	Upper
142	100		
141	89.1	60.2	111.8



EPA 8270D SIM

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH089

APPL ID: AZ44688

Sample Collection Date: 10/19/16

QCG: #SIMDO-161026A-213165

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/26/16	10/28/16
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	61.9	53-106			%	10/26/16	10/28/16
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	66.7	55-111			%	10/26/16	10/28/16
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	86.8	58-132			%	10/26/16	10/28/16

Quant Method: L1026P.M
Run #: 1026L084
Instrument: Linus
Sequence: L161026
Dilution Factor: 1
Initials: RHA

Printed: 11/01/16 5:19:30 PM

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

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L084.D Vial: 84
Acq On : 28 Oct 16 14:49 Operator: MA
Sample : AZ44688W10 1/1050 Inst : Linus
Misc : water Multiplr: 0.95

Quant Time: Oct 31 10:50 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	5.90	136	3228	2.50000 ppb	0.01
6) Acenaphthene-D10(IS)	7.94	164	1684	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.87	188	2888	2.50000 ppb	0.00
15) Chrysene-D12(IS)	16.85	240	3624	2.50000 ppb	0.01
21) Perylene-D12(IS)	20.61	264	3322	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.05	82	1305	3.17756 ppb	0.00
Spiked Amount 4.762			Recovery = 66.738%		
7) Surrogate Recovery (FBP)	7.16	172	3364	2.94947 ppb	0.00
Spiked Amount 4.762			Recovery = 61.929%		
17) Surrogate Recovery (TPH)	13.87	244	5413	4.13823 ppb	-0.01
Spiked Amount 4.762			Recovery = 86.898%		

Target Compounds Qvalue

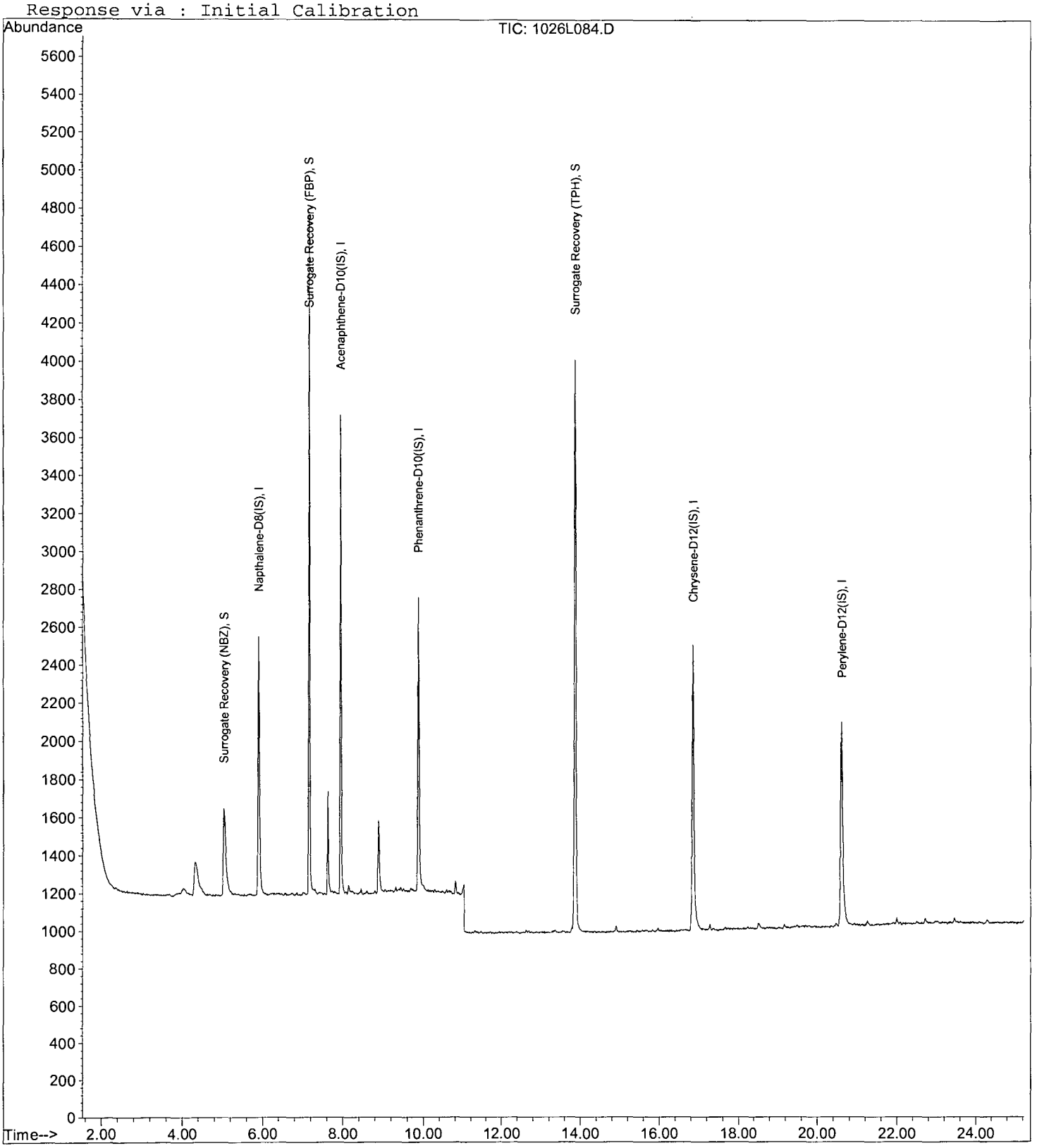
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L084.D Vial: 84
Acq On : 28 Oct 16 14:49 Operator: MA
Sample : AZ44688W10 1/1050 Inst : Linus
Misc : water Multiplr: 0.95

Quant Time: Oct 31 10:50 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



EPA 8270D SIM

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH093

APPL ID: AZ44689

Sample Collection Date: 10/19/16

QCG: #SIMDO-161026A-213165

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/27/16
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/27/16
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/26/16	10/27/16
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	56.4	53-106			%	10/26/16	10/27/16
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	60.4	55-111			%	10/26/16	10/27/16
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	71.9	58-132			%	10/26/16	10/27/16

Quant Method: L1026P.M
Run #: 1026L043
Instrument: Linus
Sequence: L161026
Dilution Factor: 1
Initials: RHA

Printed: 10/28/16 3:02:06 PM

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

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L043.D Vial: 43
Acq On : 27 Oct 16 17:49 Operator: MA
Sample : AZ44689W12 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 28 13:30 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	5.90	136	3215	2.50000 ppb	0.01
6) Acenaphthene-D10(IS)	7.94	164	1670	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.87	188	2815	2.50000 ppb	0.00
15) Chrysene-D12(IS)	16.84	240	3552	2.50000 ppb	0.00
21) Perylene-D12(IS)	20.60	264	3351	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.05	82	1178	2.82252 ppb	0.00
Spiked Amount 4.673			Recovery = 60.412%		
7) Surrogate Recovery (FBP)	7.16	172	3036	2.63403 ppb	0.00
Spiked Amount 4.673			Recovery = 56.368%		
17) Surrogate Recovery (TPH)	13.87	244	4392	3.36171 ppb	-0.01
Spiked Amount 4.673			Recovery = 71.947%		

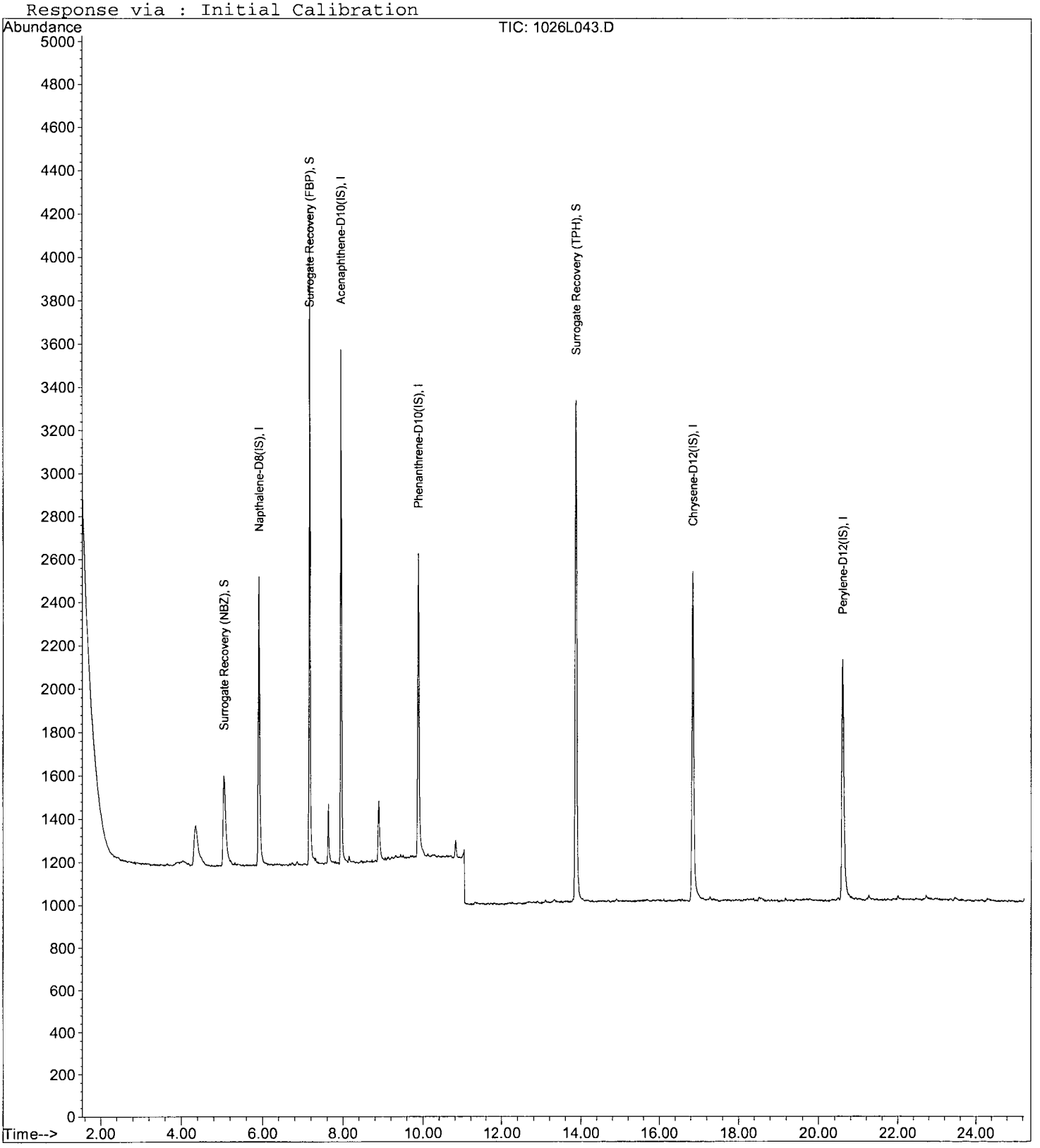
Target Compounds	Qvalue

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

Data File : M:\LINUS\DATA\L161026\1026L043.D Vial: 43
Acq On : 27 Oct 16 17:49 Operator: MA
Sample : AZ44689W12 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 28 13:30 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



EPA 8270D SIM

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH097

APPL ID: AZ44690

Sample Collection Date: 10/19/16

QCG: #SIMDO-161026A-213165

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/27/16
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/27/16
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/26/16	10/27/16
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	53.6	53-106			%	10/26/16	10/27/16
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	57.0	55-111			%	10/26/16	10/27/16
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	70.9	58-132			%	10/26/16	10/27/16

Quant Method: L1026P.M
Run #: 1026L044
Instrument: Linus
Sequence: L161026
Dilution Factor: 1
Initials: RHA

Printed: 10/28/16 3:02:06 PM

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

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L044.D Vial: 44
Acq On : 27 Oct 16 18:21 Operator: MA
Sample : AZ44690W09 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 28 13:32 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	5.90	136	3198	2.50000 ppb	0.01
6) Acenaphthene-D10(IS)	7.94	164	1630	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.87	188	2840	2.50000 ppb	0.00
15) Chrysene-D12(IS)	16.85	240	3459	2.50000 ppb	0.01
21) Perylene-D12(IS)	20.61	264	3257	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.05	82	1106	2.66196 ppb	0.00
Spiked Amount 4.673			Recovery = 56.967%		
7) Surrogate Recovery (FBP)	7.16	172	2818	2.50489 ppb	0.00
Spiked Amount 4.673			Recovery = 53.607%		
17) Surrogate Recovery (TPH)	13.87	244	4215	3.31298 ppb	-0.01
Spiked Amount 4.673			Recovery = 70.898%		

Target Compounds Qvalue

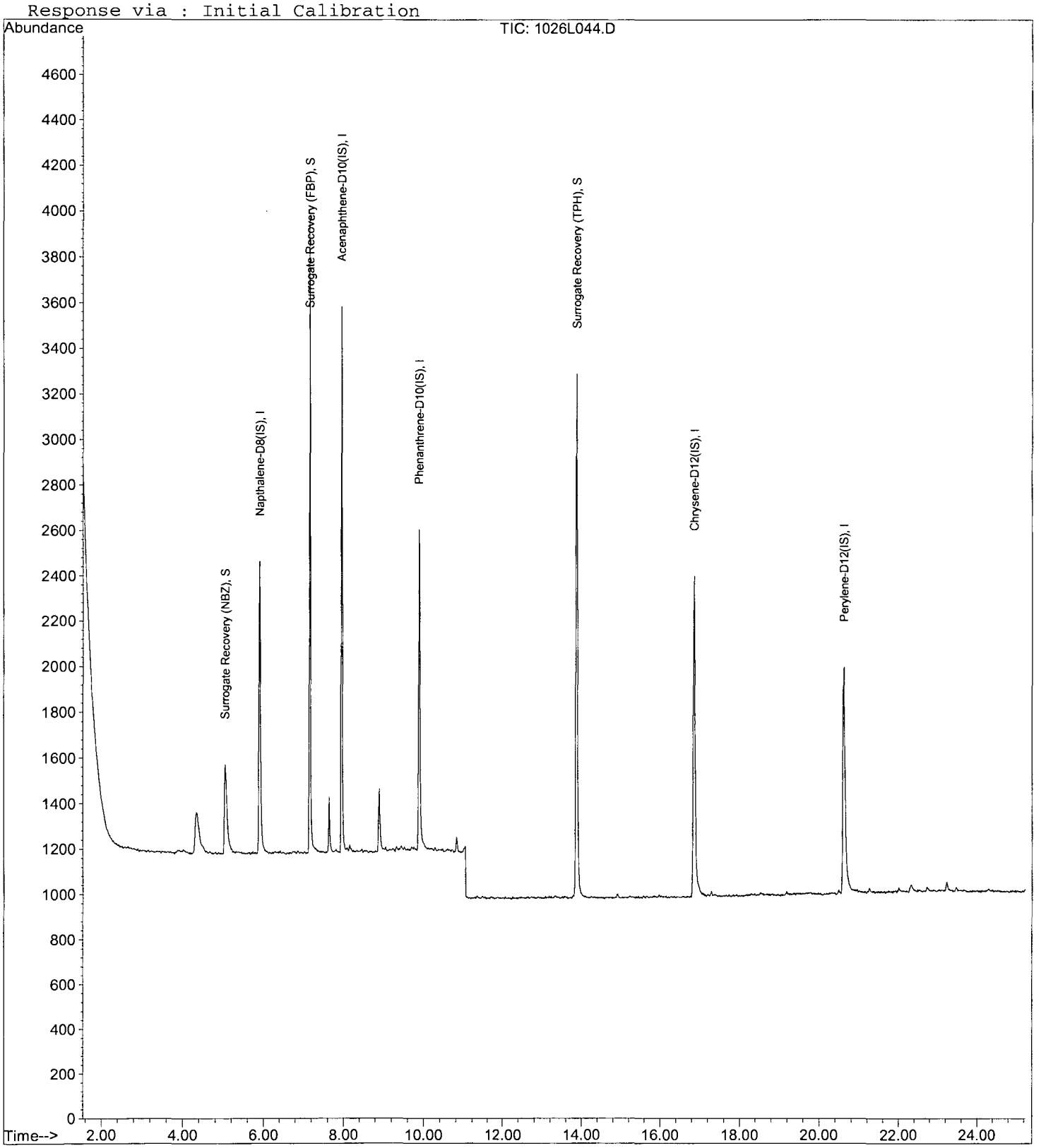
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L044.D Vial: 44
Acq On : 27 Oct 16 18:21 Operator: MA
Sample : AZ44690W09 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 28 13:32 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



EPA 8270D SIM

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach
Project: 60481245 CIV0053 Red Hill Fuel Storage
Sample ID: ERH098
Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251
APPL ID: AZ44691
QCG: #SIMDO-161026A-213165

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/27/16
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/27/16
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/26/16	10/27/16
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	53.0	53-106			%	10/26/16	10/27/16
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	57.3	55-111			%	10/26/16	10/27/16
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	73.0	58-132			%	10/26/16	10/27/16

Quant Method: L1026P.M
Run #: 1026L045
Instrument: Linus
Sequence: L161026
Dilution Factor: 1
Initials: RHA

Printed: 10/28/16 3:02:06 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L045.D Vial: 45
Acq On : 27 Oct 16 18:54 Operator: MA
Sample : AZ44691W12 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 28 13:33 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	5.90	136	3400	2.50000 ppb	0.01
6) Acenaphthene-D10(IS)	7.94	164	1757	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.89	188	2979	2.50000 ppb	0.01
15) Chrysene-D12(IS)	16.85	240	3647	2.50000 ppb	0.01
21) Perylene-D12(IS)	20.61	264	3429	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.05	82	1182	2.67606 ppb	0.00
Spiked Amount 4.673			Recovery = 57.266%		
7) Surrogate Recovery (FBP)	7.16	172	3001	2.47474 ppb	0.00
Spiked Amount 4.673			Recovery = 52.965%		
17) Surrogate Recovery (TPH)	13.87	244	4577	3.41206 ppb	-0.01
Spiked Amount 4.673			Recovery = 73.017%		

Target Compounds	Qvalue

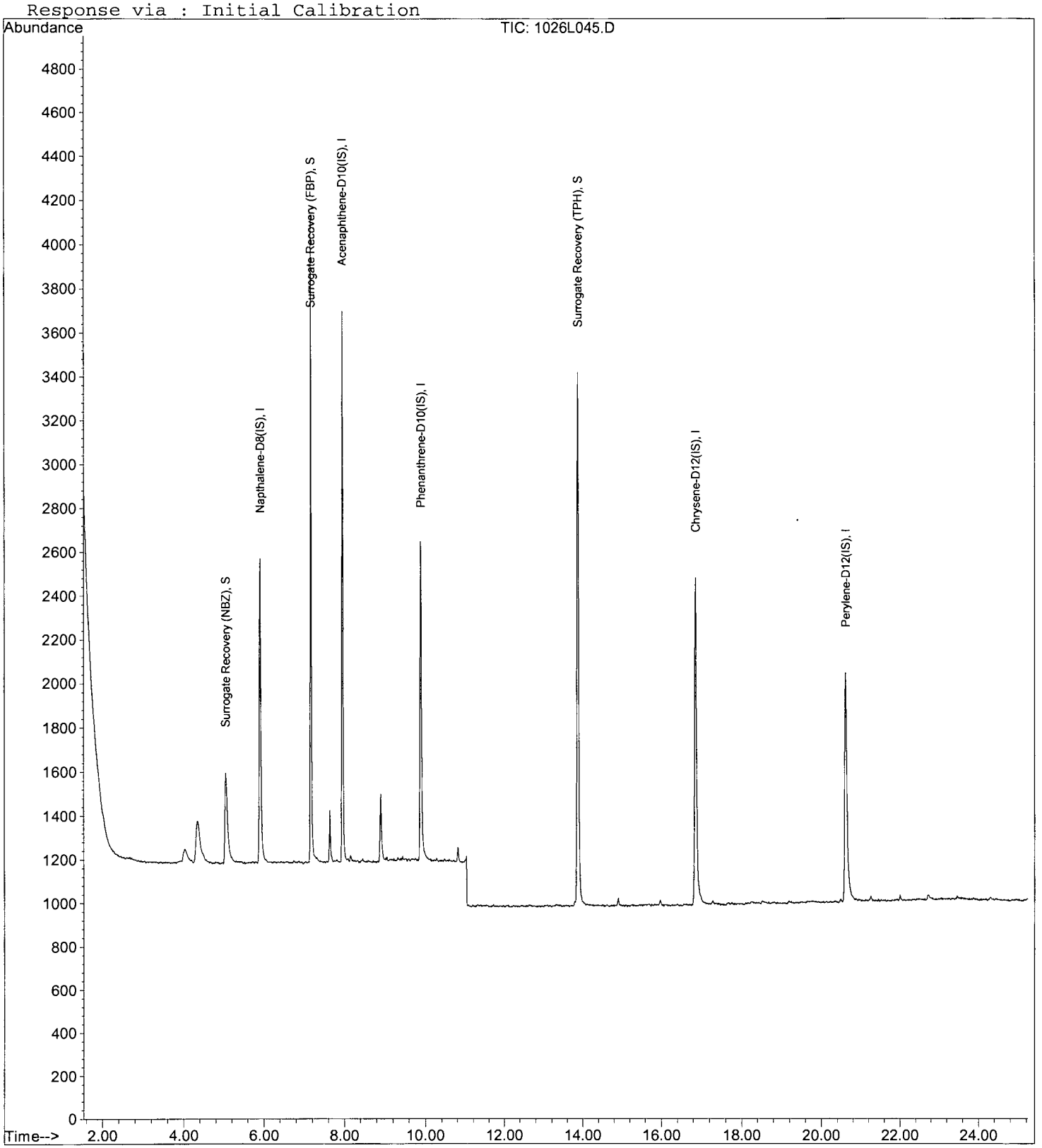
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L045.D Vial: 45
Acq On : 27 Oct 16 18:54 Operator: MA
Sample : AZ44691W12 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 28 13:33 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



EPA 8270D SIM

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach
Project: 60481245 CIV0053 Red Hill Fuel Storage
Sample ID: ERH100
Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251
APPL ID: AZ44692
QCG: #SIMDO-161026A-213165

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/27/16
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/27/16
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/26/16	10/27/16
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	57.2	53-106			%	10/26/16	10/27/16
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	59.8	55-111			%	10/26/16	10/27/16
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	75.0	58-132			%	10/26/16	10/27/16

Quant Method: L1026P.M
Run #: 1026L046
Instrument: Linus
Sequence: L161026
Dilution Factor: 1
Initials: RHA

Printed: 10/28/16 3:02:06 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L046.D Vial: 46
Acq On : 27 Oct 16 19:26 Operator: MA
Sample : AZ44692W07 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 28 13:34 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	5.90	136	3179	2.50000	ppb	0.01
6) Acenaphthene-D10(IS)	7.94	164	1639	2.50000	ppb	0.00
11) Phenanthrene-D10(IS)	9.89	188	2834	2.50000	ppb	0.01
15) Chrysene-D12(IS)	16.85	240	3441	2.50000	ppb	0.00
21) Perylene-D12(IS)	20.61	264	3230	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.05	82	1154	2.79598	ppb	0.00
Spiked Amount 4.673			Recovery = 59.834%			
7) Surrogate Recovery (FBP)	7.16	172	3022	2.67148	ppb	0.00
Spiked Amount 4.673			Recovery = 57.159%			
17) Surrogate Recovery (TPH)	13.87	244	4434	3.50334	ppb	-0.01
Spiked Amount 4.673			Recovery = 74.964%			

Target Compounds	Qvalue

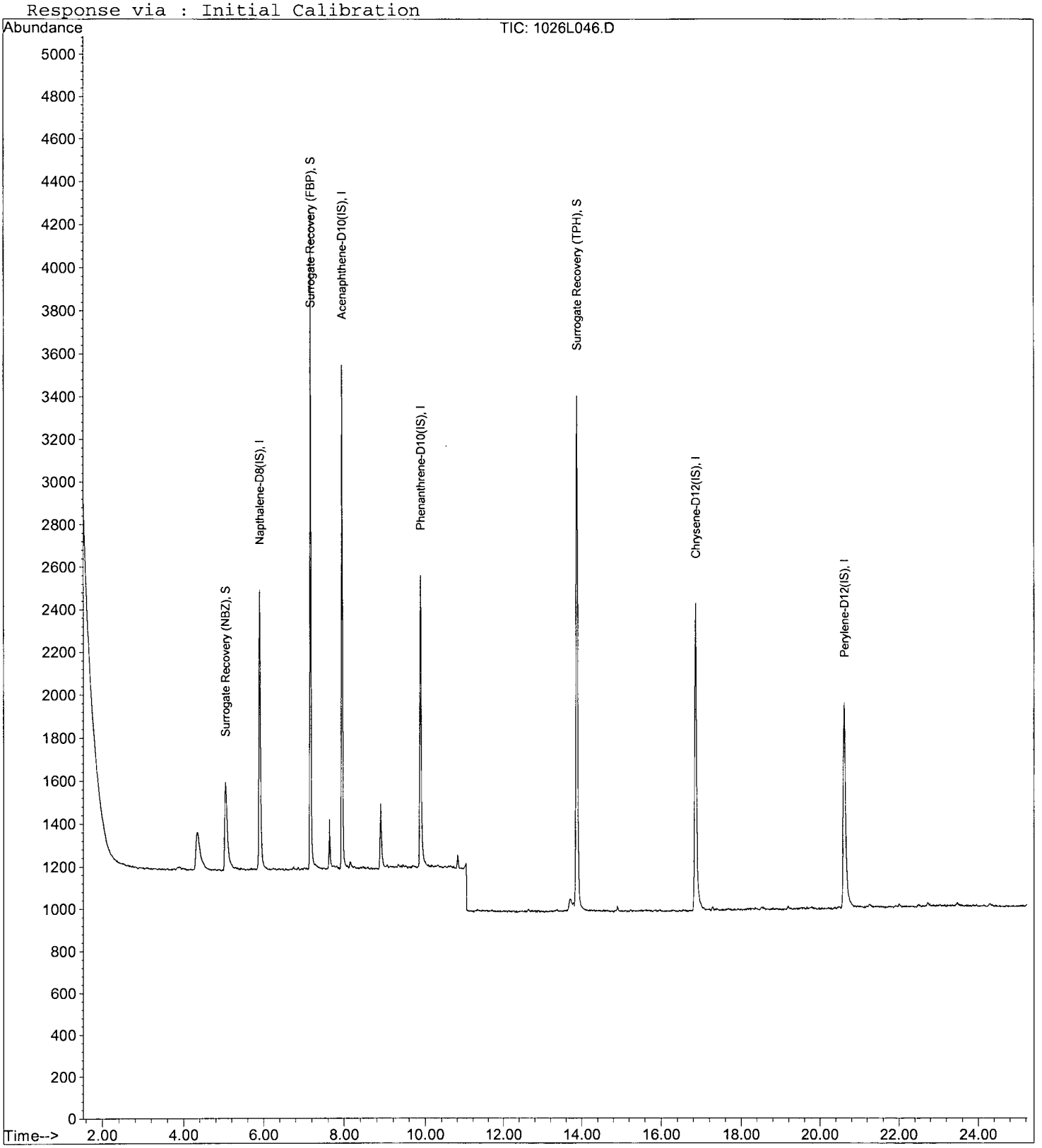
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L046.D Vial: 46
Acq On : 27 Oct 16 19:26 Operator: MA
Sample : AZ44692W07 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 28 13:34 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



EPA 8270D SIM

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH101

Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44693

QCG: #SIMDO-161026A-213165

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/26/16	10/28/16
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	62.4	53-106			%	10/26/16	10/28/16
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	67.4	55-111			%	10/26/16	10/28/16
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	78.5	58-132			%	10/26/16	10/28/16

Quant Method: L1026P.M
Run #: 1026L085
Instrument: Linus
Sequence: L161026
Dilution Factor: 1
Initials: RHA

Printed: 11/01/16 5:19:49 PM

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

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L085.D Vial: 85
Acq On : 28 Oct 16 15:22 Operator: MA
Sample : AZ44693W07 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 31 10:55 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	5.89	136	3713	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	7.94	164	1897	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.87	188	3338	2.50000 ppb	0.00
15) Chrysene-D12(IS)	16.85	240	4126	2.50000 ppb	0.01
21) Perylene-D12(IS)	20.61	264	3844	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.05	82	1517	3.15165 ppb	0.00
Spiked Amount 4.673			Recovery = 67.453%		
7) Surrogate Recovery (FBP)	7.16	172	3821	2.91840 ppb	0.00
Spiked Amount 4.673			Recovery = 62.445%		
17) Surrogate Recovery (TPH)	13.87	244	5571	3.67092 ppb	-0.01
Spiked Amount 4.673			Recovery = 78.559%		

Target Compounds Qvalue

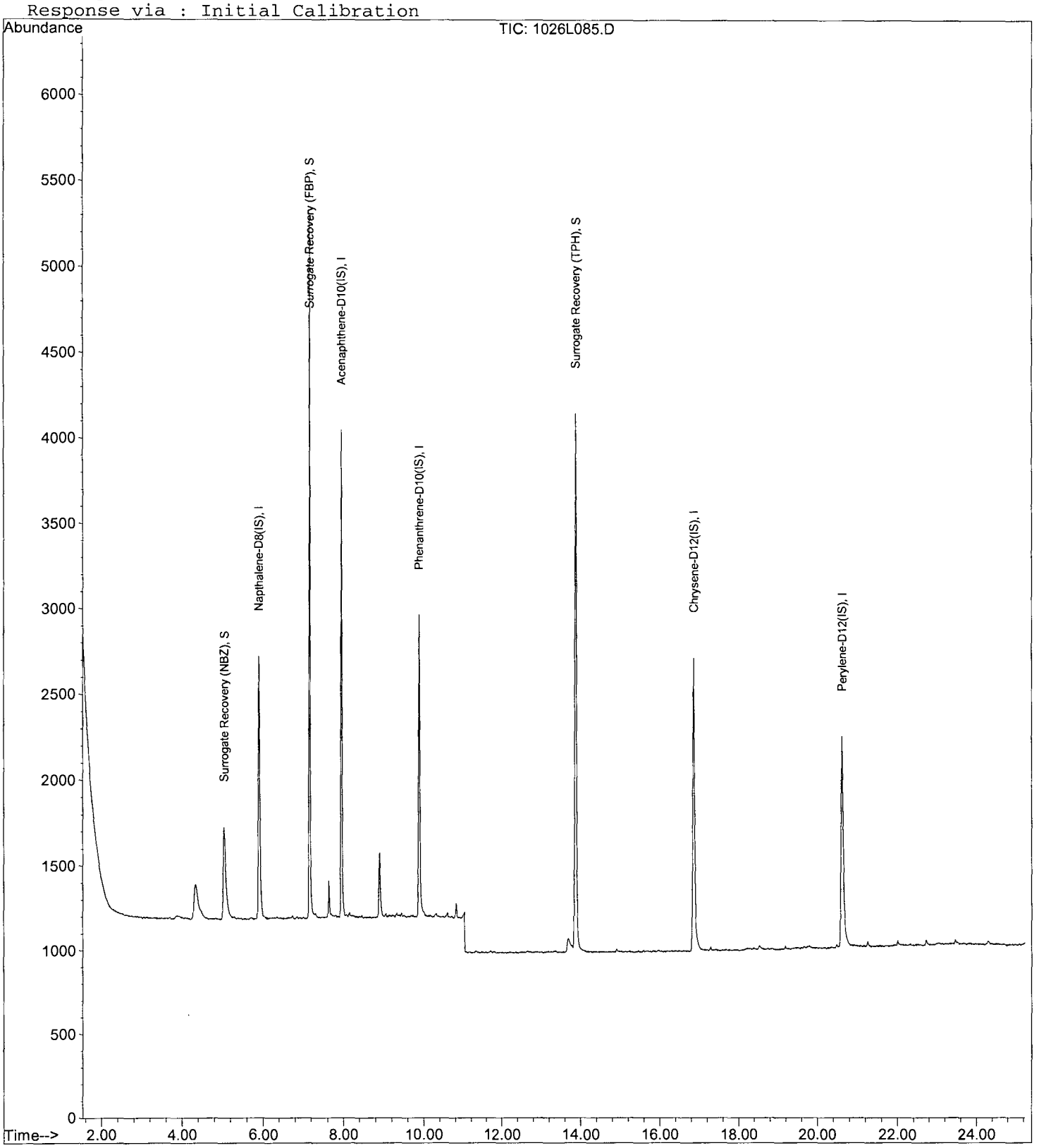
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L085.D Vial: 85
Acq On : 28 Oct 16 15:22 Operator: MA
Sample : AZ44693W07 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 31 10:55 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



EPA 8270D SIM

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH102

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44694

QCG: #SIMDO-161026A-213165

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/26/16	10/28/16
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	61.0	53-106			%	10/26/16	10/28/16
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	66.2	55-111			%	10/26/16	10/28/16
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	83.3	58-132			%	10/26/16	10/28/16

Quant Method: L1026P.M
Run #: 1026L086
Instrument: Linus
Sequence: L161026
Dilution Factor: 1
Initials: RHA

Printed: 11/01/16 5:20:00 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L086.D Vial: 86
Acq On : 28 Oct 16 15:54 Operator: MA
Sample : AZ44694W19 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 31 10:55 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	5.90	136	3238	2.50000 ppb	0.01
6) Acenaphthene-D10(IS)	7.94	164	1681	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.87	188	2873	2.50000 ppb	0.00
15) Chrysene-D12(IS)	16.84	240	3631	2.50000 ppb	0.00
21) Perylene-D12(IS)	20.60	264	3352	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.05	82	1299	3.09395 ppb	0.00
Spiked Amount 4.673			Recovery =	66.212%	
7) Surrogate Recovery (FBP)	7.16	172	3309	2.85210 ppb	0.00
Spiked Amount 4.673			Recovery =	61.033%	
17) Surrogate Recovery (TPH)	13.86	244	5200	3.89357 ppb	-0.02
Spiked Amount 4.673			Recovery =	83.332%	
Target Compounds					Qvalue

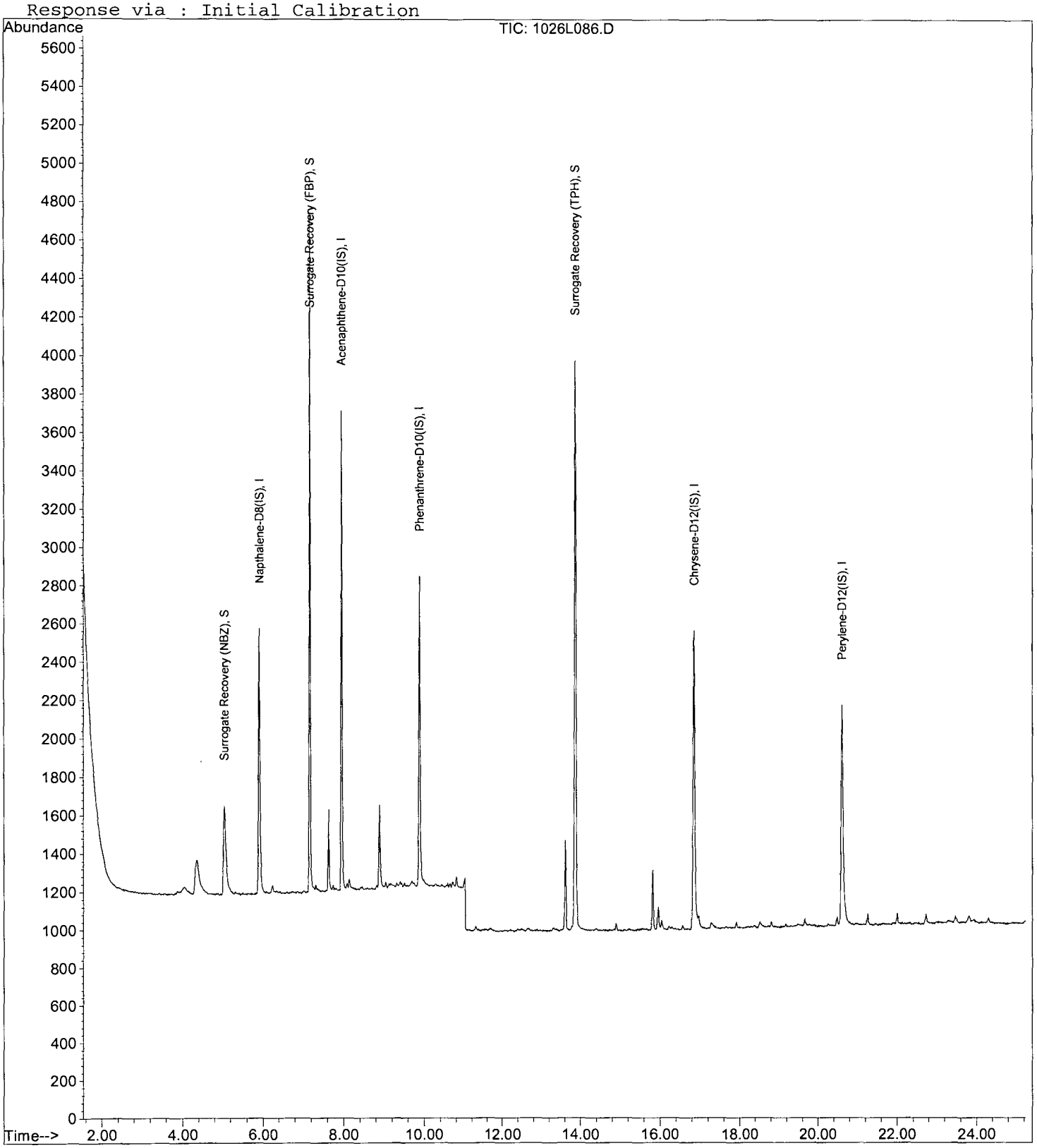
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L086.D Vial: 86
Acq On : 28 Oct 16 15:54 Operator: MA
Sample : AZ44694W19 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 31 10:55 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



EPA 8270D SIM

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH104

APPL ID: AZ44695

Sample Collection Date: 10/20/16

QCG: #SIMDO-161026A-213165

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/27/16
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/27/16
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/26/16	10/27/16
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	54.9	53-106			%	10/26/16	10/27/16
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	58.8	55-111			%	10/26/16	10/27/16
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	75.6	58-132			%	10/26/16	10/27/16

Quant Method: L1026P.M
Run #: 1026L052
Instrument: Linus
Sequence: L161026
Dilution Factor: 1
Initials: RHA

Printed: 10/28/16 3:02:06 PM

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

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L052.D Vial: 52
Acq On : 27 Oct 16 22:07 Operator: MA
Sample : AZ44695W09 1/1020 Inst : Linus
Misc : water Multiplr: 0.98

Quant Time: Oct 28 14:43 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	5.90	136	3250	2.50000 ppb	0.01
6) Acenaphthene-D10(IS)	7.94	164	1659	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.87	188	2880	2.50000 ppb	0.00
15) Chrysene-D12(IS)	16.84	240	3527	2.50000 ppb	0.00
21) Perylene-D12(IS)	20.60	264	3278	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.05	82	1160	2.88320 ppb	0.00
Spiked Amount 4.902			Recovery = 58.813%		
7) Surrogate Recovery (FBP)	7.16	172	2939	2.69260 ppb	0.00
Spiked Amount 4.902			Recovery = 54.937%		
17) Surrogate Recovery (TPH)	13.87	244	4584	3.70675 ppb	-0.01
Spiked Amount 4.902			Recovery = 75.623%		

Target Compounds Qvalue

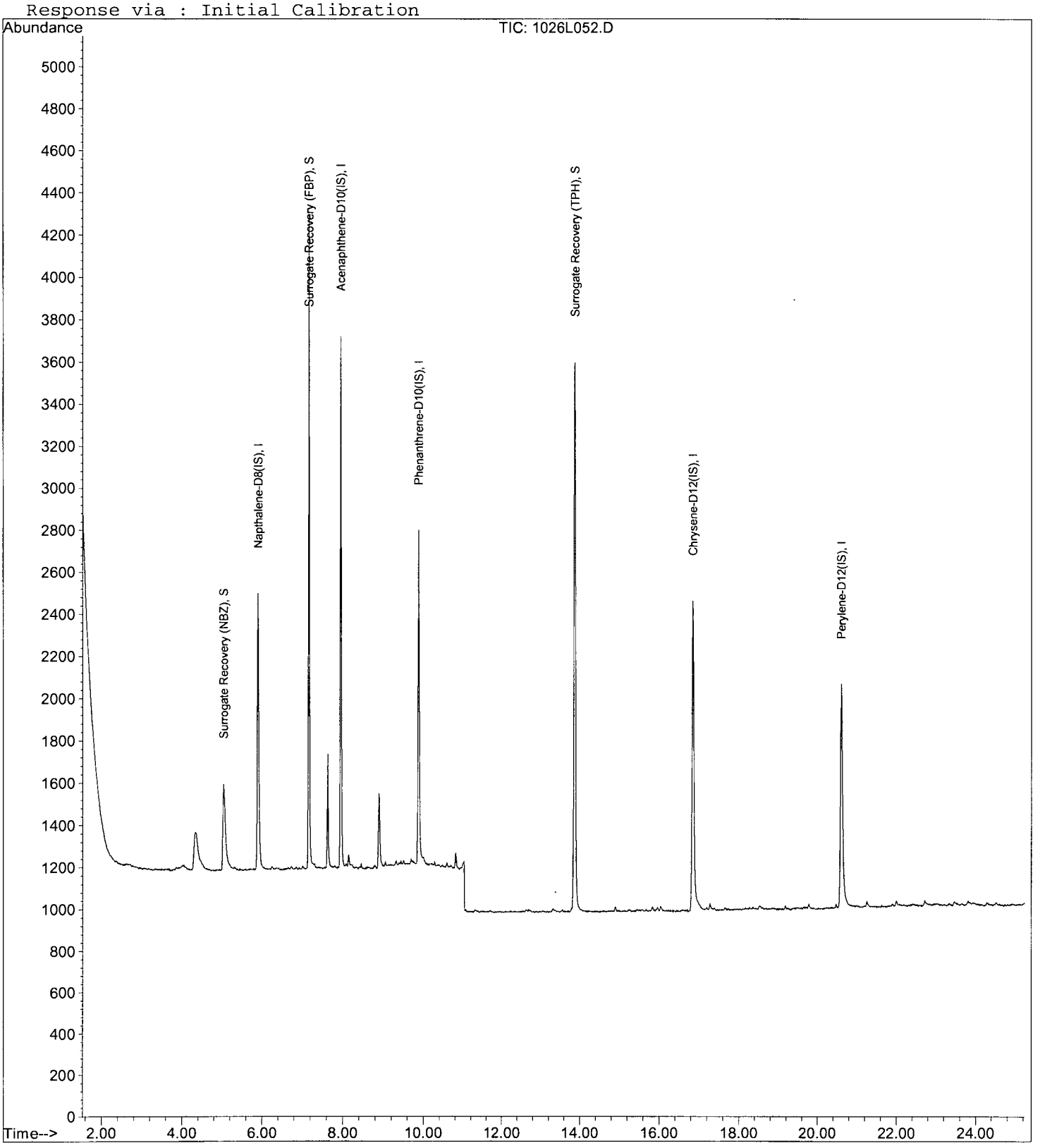
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L052.D Vial: 52
Acq On : 27 Oct 16 22:07 Operator: MA
Sample : AZ44695W09 1/1020 Inst : Linus
Misc : water Multiplr: 0.98

Quant Time: Oct 28 14:43 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



EPA 8270D SIM

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH105

APPL ID: AZ44696

Sample Collection Date: 10/20/16

QCG: #SIMDO-161026A-213165

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/26/16	10/28/16
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	64.1	53-106			%	10/26/16	10/28/16
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	67.8	55-111			%	10/26/16	10/28/16
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	85.4	58-132			%	10/26/16	10/28/16

Quant Method: L1026P.M
Run #: 1026L087
Instrument: Linus
Sequence: L161026
Dilution Factor: 1
Initials: RHA

Printed: 11/01/16 5:20:13 PM

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

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L087.D Vial: 87
Acq On : 28 Oct 16 16:27 Operator: MA
Sample : AZ44696W09 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 31 10:57 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	5.90	136	3148	2.50000 ppb	0.01
6) Acenaphthene-D10(IS)	7.94	164	1625	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.87	188	2851	2.50000 ppb	0.00
15) Chrysene-D12(IS)	16.84	240	3510	2.50000 ppb	0.00
21) Perylene-D12(IS)	20.61	264	3293	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.05	82	1294	3.17109 ppb	0.00
Spiked Amount 4.673			Recovery = 67.859%		
7) Surrogate Recovery (FBP)	7.16	172	3363	2.99853 ppb	0.00
Spiked Amount 4.673			Recovery = 64.179%		
17) Surrogate Recovery (TPH)	13.87	244	5154	3.99216 ppb	-0.01
Spiked Amount 4.673			Recovery = 85.429%		

Target Compounds Qvalue

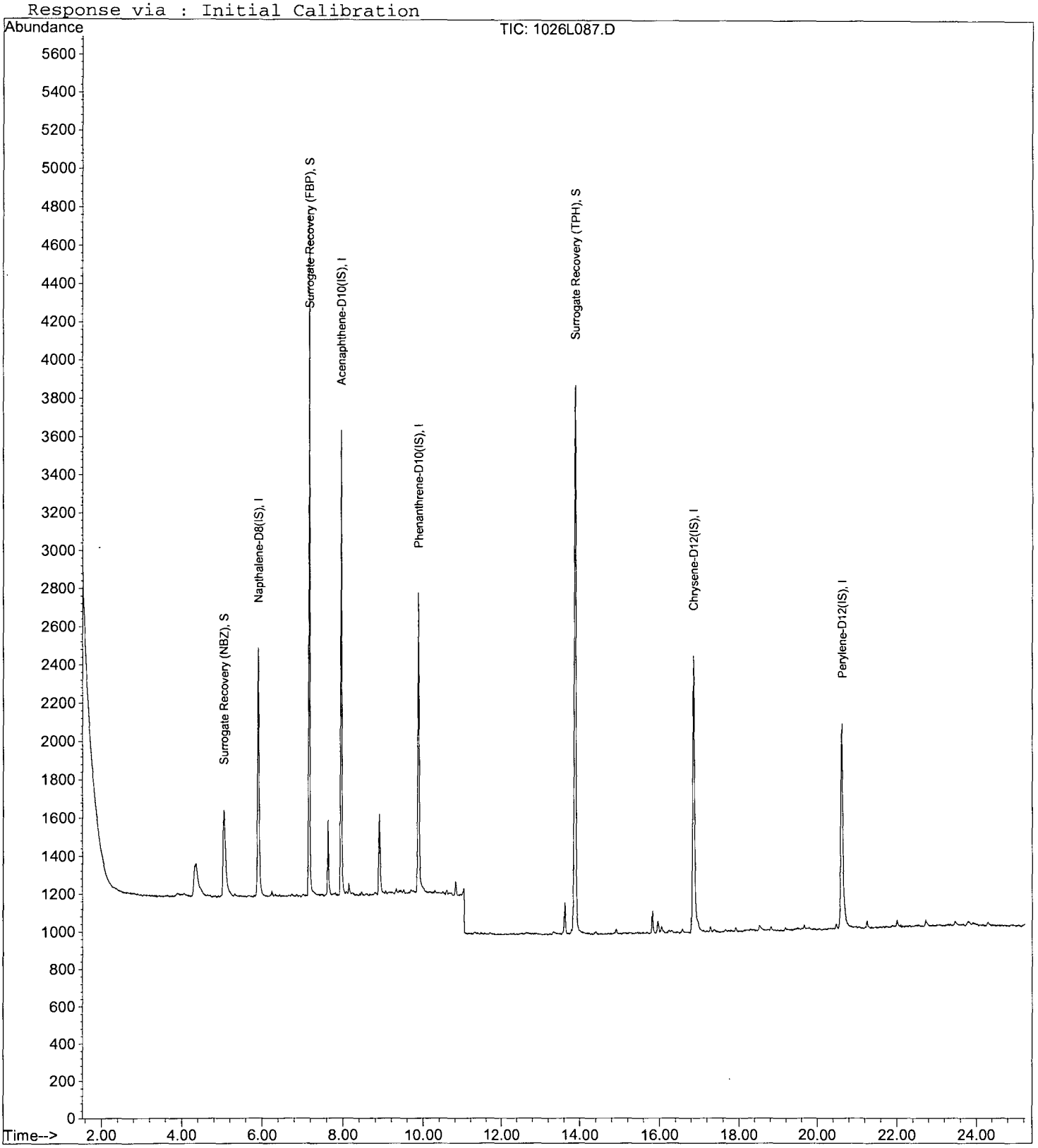
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L087.D Vial: 87
Acq On : 28 Oct 16 16:27 Operator: MA
Sample : AZ44696W09 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Oct 31 10:57 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



ORGANICS

Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/26/16
Matrix: Instrument: Linus Initials:

		Compound	0.1	0.2	0.5	1	5	10	50	100			Avg	%RSD		
			1026L003.D	1026L004.D	1026L005.D	1026L006.D	1026L007.D	1026L008.D	1026L009.D	1026L010.D						
1	I	Napthalene-D8(IS)														
2	SL	Surrogate Recovery (NBZ)	0.0804	0.3248	0.2336	0.2296	0.3042	0.3217	0.3012	0.2990			0.26	31	SL	1.000
3	TM	Naphthalene	1.093	1.058	0.9776	0.9622	1.079	1.065	0.9798	0.9449			1.0	5.8	TM	
4	TM	2-Methylnaphthalene	0.6190	0.6163	0.5906	0.5922	0.7073	0.7051	0.6480	0.6150			0.64	7.3	TM	
5	TM	1-Methylnaphthalene	0.7154	0.6995	0.6590	0.6161	0.6859	0.6794	0.5923	0.5625			0.65	8.4	TM	
6	I	Acenaphthene-D10(IS)														
7	S	Surrogate Recovery (FBP)	1.836	1.693	1.539	1.472	1.693	1.691	1.497	1.479			1.6	8.3	S	
8	TM	Acenaphthylene	2.007	2.013	1.915	1.895	2.275	2.242	2.059	1.996			2.1	6.8	TM	
9	*TM	Acenaphthene	1.353	1.216	1.158	1.178	1.322	1.313	1.191	1.156			1.2	6.5	*TM	
10	TM	Fluorene	1.493	1.372	1.332	1.314	1.566	1.550	1.413	1.365			1.4	6.9	TM	
11	I	Phenanthrene-D10(IS)														
12	TM	Phenanthrene	1.230	1.150	1.056	1.044	1.240	1.222	1.159	1.146			1.2	6.5	TM	
13	TM	Anthracene	0.9570	1.040	0.9985	0.9861	1.219	1.204	1.097	1.057			1.1	9.1	TM	
14	*TM	Fluoranthene	1.467	1.458	1.392	1.359	1.692	1.703	1.689	1.748			1.6	10	*TM	
15	I	Chrysene-D12(IS)														
16	TM	Pyrene	1.451	1.378	1.226	1.218	1.401	1.386	1.296	1.331			1.3	6.3	TM	
17	S	Surrogate Recovery (TPH)	1.024	0.9543	0.8040	0.7782	0.8541	0.8678	0.7977	0.7947			0.86	10	S	
18	TM	Benz (a) anthracene	1.156	1.102	1.027	1.021	1.221	1.256	1.226	1.133			1.1	7.8	TM	
19	TM	Chrysene	1.280	1.279	1.279	1.191	1.301	1.263	1.139	1.149			1.2	5.3	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.079	0.9954	1.025	1.057	1.233	1.254	1.210	1.222			1.1	9.3	TM	
21	I	Perylene-D12(IS)														
22	TM	Benzo (b) fluoranthene	1.137	0.9566	0.9689	0.9943	1.184	1.252	1.308	1.404			1.2	15	TM	
23	TML	Benzo (k) fluoranthene	0.8067	0.8751	0.8849	0.8451	1.200	1.135	1.110				0.98	17	TML	1.000
24	*TM	Benzo (a) pyrene	1.154	1.068	1.067	1.007	1.225	1.226	1.208	1.236			1.1	7.8	*TM	
25	TML	Dibenz (a,h) anthracene	0.6534	0.7507	0.9234	0.8434	1.105	1.128	1.115	1.121			0.96	20	TML	1.00
26	TM	Benzo (g,h,i) perylene	1.033	0.9952	0.9584	0.9260	1.106	1.118	1.083	1.084			1.0	6.9	TM	
27																
28																
29																
30																
31																
32																
33																
34																
35																

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L003.D Vial: 3
Acq On : 26 Oct 16 11:23 Operator: MA
Sample : 0.1 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 28 8:24 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	3110	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1607	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.89	188	2743	2.50000	ppb		0.01
15) Chrysene-D12(IS)	16.86	240	3222	2.50000	ppb		0.02
21) Perylene-D12(IS)	20.61	264	3099	2.50000	ppb		0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.03	82	5	-0.02736	ppb		-0.01
Spiked Amount 5.000			Recovery = -0.540%				
7) Surrogate Recovery (FBP)	7.17	172	59	0.05692	ppb		0.01
Spiked Amount 5.000			Recovery = 1.140%				
17) Surrogate Recovery (TPH)	13.91	244	66	0.05959	ppb		0.03
Spiked Amount 5.000			Recovery = 1.200%				
Target Compounds							Qvalue
3) Naphthalene	5.92	128	136	0.10719	ppb		99
4) 2-Methylnaphthalene	6.74	142	77	0.09722	ppb		97
5) 1-Methylnaphthalene	6.84	142	89	0.10985	ppb		95
8) Acenaphthylene	7.79	152	129	0.09789	ppb		100
9) Acenaphthene	7.98	154	87	0.10949	ppb		98
10) Fluorene	8.61	166	96	0.10475	ppb		97
12) Phenanthrene	9.93	178	135	0.10645	ppb		99
13) Anthracene	10.03	178	105	0.08946	ppb		98
14) Fluoranthene	12.72	202	161	0.09385	ppb		97
16) Pyrene	13.35	202	187	0.10863	ppb		98
18) Benz (a) anthracene	16.84	228	149	0.10115	ppb		92
19) Chrysene	16.93	228	165	0.10363	ppb		98
20) Indeno (1,2,3-cd) pyrene	22.95	276	139	0.09508	ppb	#	95
22) Benzo (b) fluoranthene	19.72	252	141	0.09886	ppb		92
24) Benzo (a) pyrene	20.36	252	143	0.10041	ppb		93
25) Dibenz (a,h) anthracene	23.01	278	81	0.15217	ppb		96
26) Benzo (g,h,i) perylene	23.49	276	128	0.09949	ppb		91

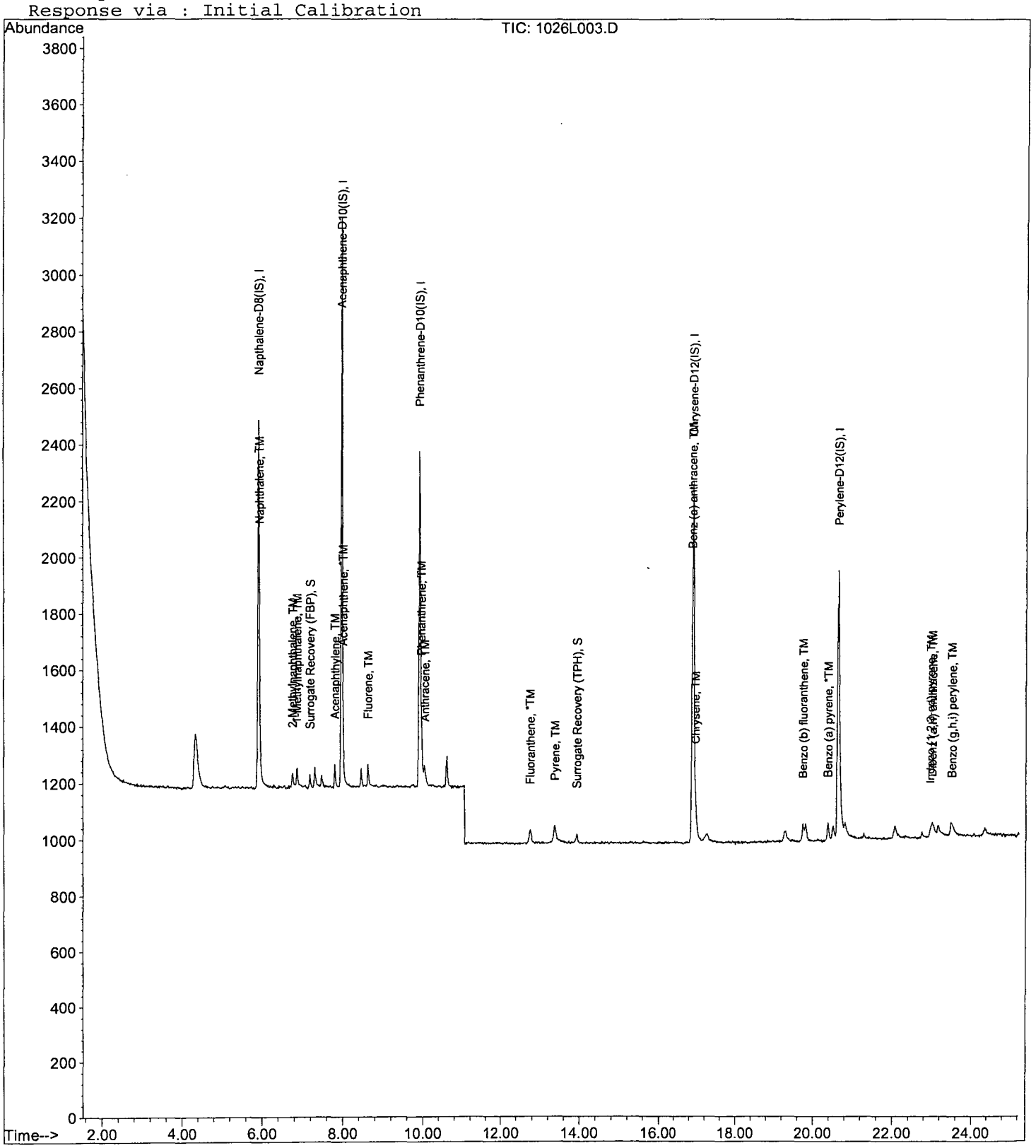
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L003.D Vial: 3
Acq On : 26 Oct 16 11:23 Operator: MA
Sample : 0.1 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 28 8:24 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L004.D Vial: 4
Acq On : 26 Oct 16 11:56 Operator: MA
Sample : 0.2 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	3002	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1521	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.89	188	2597	2.50000	ppb		0.01
15) Chrysene-D12(IS)	16.86	240	3039	2.50000	ppb		0.02
21) Perylene-D12(IS)	20.61	264	2914	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.05	82	39	0.40403	ppb		0.03
Spiked Amount 5.000			Recovery =	8.080%			
7) Surrogate Recovery (FBP)	7.17	172	103	0.09222	ppb		0.01
Spiked Amount 5.000			Recovery =	1.840%			
17) Surrogate Recovery (TPH)	13.91	244	116	0.09317	ppb		0.03
Spiked Amount 5.000			Recovery =	1.860%			
Target Compounds							Qvalue
3) Naphthalene	5.92	128	254	0.19348	ppb		99
4) 2-Methylnaphthalene	6.74	142	148	0.19912	ppb		99
5) 1-Methylnaphthalene	6.86	142	168	0.19556	ppb		96
8) Acenaphthylene	7.79	152	245	0.20066	ppb		99
9) Acenaphthene	7.98	154	148	0.17973	ppb		96
10) Fluorene	8.61	166	167	0.18379	ppb		98
12) Phenanthrene	9.93	178	239	0.18699	ppb		98
13) Anthracene	10.03	178	216	0.21728	ppb		97
14) Fluoranthene	12.71	202	303	0.19878	ppb		99
16) Pyrene	13.34	202	335	0.18993	ppb		98
18) Benz (a) anthracene	16.84	228	268	0.19070	ppb		98
19) Chrysene	16.93	228	311	0.19983	ppb		96
20) Indeno (1,2,3-cd) pyrene	22.95	276	242	0.18458	ppb	#	98
22) Benzo (b) fluoranthene	19.71	252	223	0.16820	ppb		99
23) Benzo (k) fluoranthene	19.78	252	204	0.21695	ppb		100
24) Benzo (a) pyrene	20.36	252	249	0.18518	ppb		95
25) Dibenz (a,h) anthracene	23.00	278	175	0.22977	ppb		98
26) Benzo (g,h,i) perylene	23.48	276	232	0.19276	ppb		94

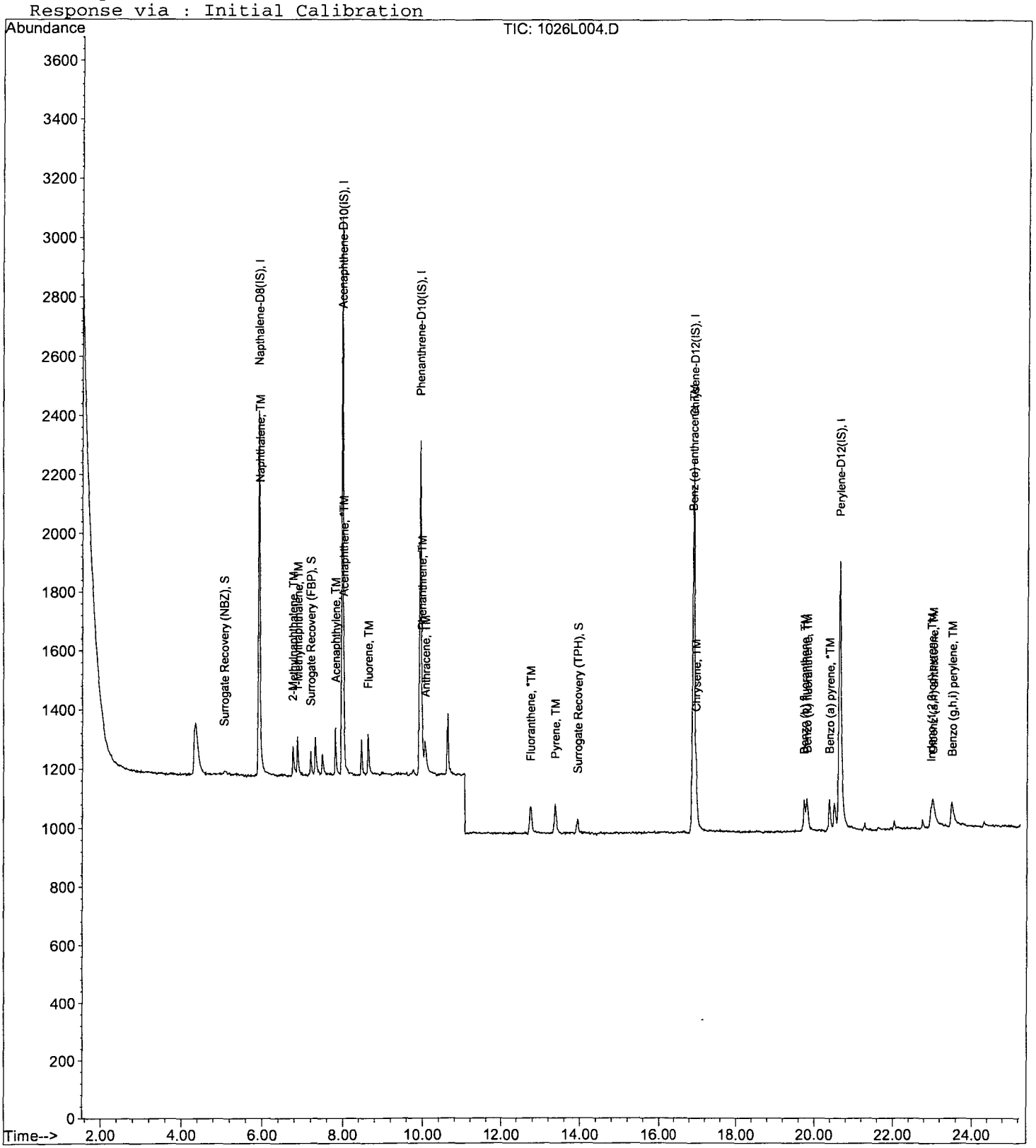
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L004.D Vial: 4
Acq On : 26 Oct 16 11:56 Operator: MA
Sample : 0.2 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L005.D Vial: 5
Acq On : 26 Oct 16 12:28 Operator: MA
Sample : 0.5 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	2997	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1546	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.89	188	2604	2.50000	ppb		0.01
15) Chrysene-D12(IS)	16.86	240	3072	2.50000	ppb		0.02
21) Perylene-D12(IS)	20.61	264	2859	2.50000	ppb		0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.06	82	70	0.28823	ppb		0.04
Spiked Amount 5.000			Recovery =	5.760%			
7) Surrogate Recovery (FBP)	7.17	172	238	0.21813	ppb		0.01
Spiked Amount 5.000			Recovery =	4.360%			
17) Surrogate Recovery (TPH)	13.90	244	247	0.20320	ppb		0.02
Spiked Amount 5.000			Recovery =	4.060%			
Target Compounds							Qvalue
3) Naphthalene	5.93	128	586	0.45453	ppb		99
4) 2-Methylnaphthalene	6.74	142	354	0.47812	ppb		100
5) 1-Methylnaphthalene	6.84	142	395	0.46573	ppb		97
8) Acenaphthylene	7.79	152	592	0.47623	ppb		100
9) Acenaphthene	7.98	154	358	0.45056	ppb		98
10) Fluorene	8.61	166	412	0.46494	ppb		99
12) Phenanthrene	9.93	178	550	0.44358	ppb		99
13) Anthracene	10.03	178	520	0.50007	ppb		100
14) Fluoranthene	12.71	202	725	0.47580	ppb		97
16) Pyrene	13.34	202	753	0.43324	ppb		98
18) Benz (a) anthracene	16.84	228	631	0.45474	ppb		99
19) Chrysene	16.93	228	786	0.49983	ppb		98
20) Indeno (1,2,3-cd) pyrene	22.94	276	630	0.49442	ppb	#	99
22) Benzo (b) fluoranthene	19.71	252	554	0.46268	ppb		99
23) Benzo (k) fluoranthene	19.78	252	506	0.52618	ppb		100
24) Benzo (a) pyrene	20.36	252	610	0.48017	ppb		96
25) Dibenz (a,h) anthracene	23.00	278	528	0.65763	ppb		99
26) Benzo (g,h,i) perylene	23.47	276	548	0.47262	ppb		96

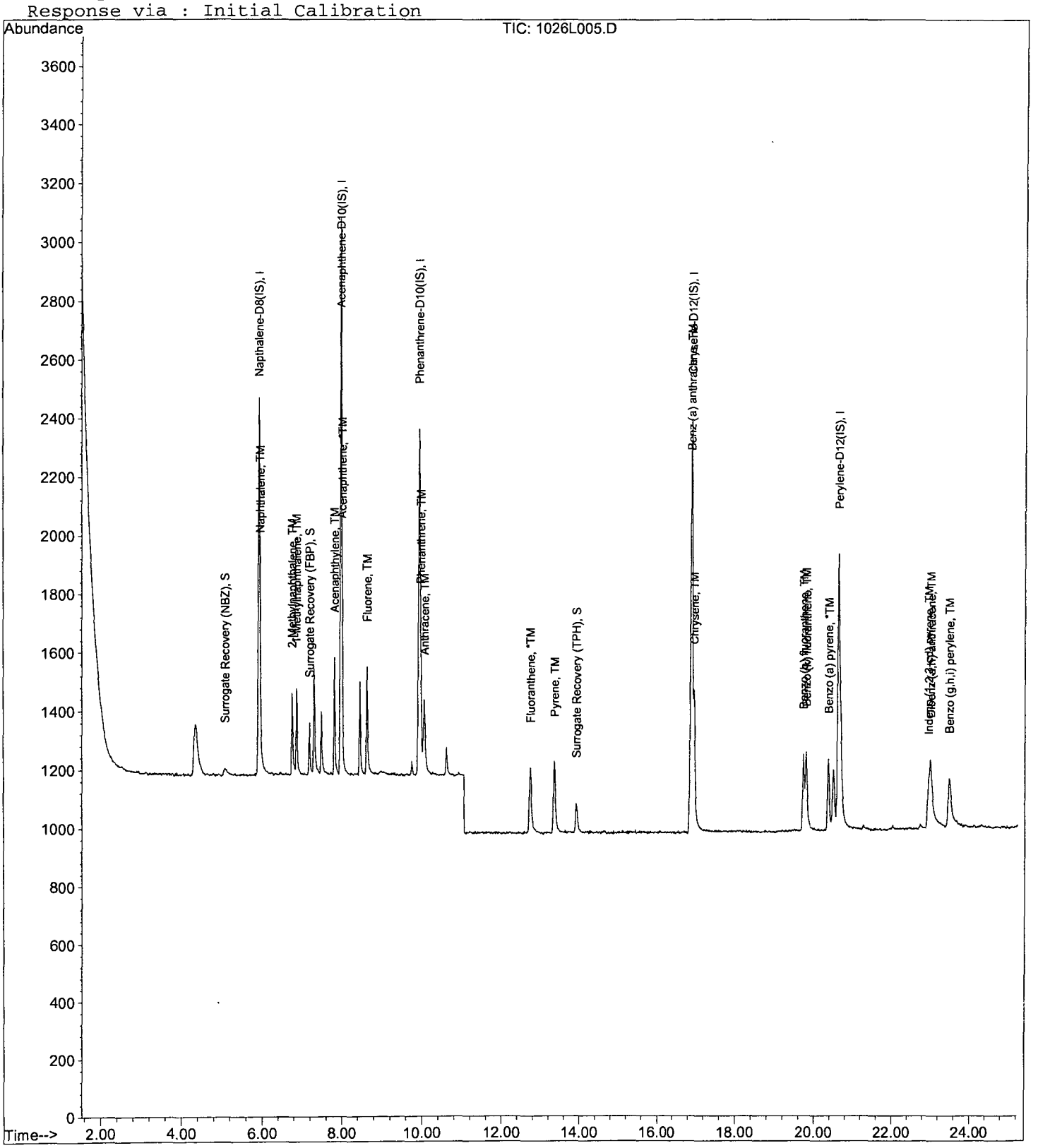
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L005.D Vial: 5
Acq On : 26 Oct 16 12:28 Operator: MA
Sample : 0.5 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L006.D Vial: 6
Acq On : 26 Oct 16 13:01 Operator: MA
Sample : 1.0 ug/ml PAH 10/26/16 (1) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	3027	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1545	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.89	188	2662	2.50000 ppb		0.01
15) Chrysene-D12(IS)	16.85	240	3161	2.50000 ppb		0.01
21) Perylene-D12(IS)	20.61	264	2967	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.05	82	139	0.53919 ppb		0.03
Spiked Amount 5.000			Recovery = 10.780%			
7) Surrogate Recovery (FBP)	7.17	172	455	0.43581 ppb		0.01
Spiked Amount 5.000			Recovery = 8.720%			
17) Surrogate Recovery (TPH)	13.90	244	492	0.41953 ppb		0.02
Spiked Amount 5.000			Recovery = 8.400%			
Target Compounds						Qvalue
3) Naphthalene	5.93	128	1165	0.92265 ppb		99
4) 2-Methylnaphthalene	6.74	142	717	0.97300 ppb		99
5) 1-Methylnaphthalene	6.84	142	746	0.89122 ppb		98
8) Acenaphthylene	7.79	152	1171	0.95780 ppb		100
9) Acenaphthene	7.98	154	728	0.94806 ppb		97
10) Fluorene	8.61	166	812	0.93887 ppb		99
12) Phenanthrene	9.92	178	1112	0.91159 ppb		99
13) Anthracene	10.02	178	1050	0.98771 ppb		99
14) Fluoranthene	12.70	202	1447	0.94417 ppb		97
16) Pyrene	13.33	202	1540	0.90120 ppb		99
18) Benz (a) anthracene	16.83	228	1291	0.93232 ppb		99
19) Chrysene	16.93	228	1506	0.93083 ppb		99
20) Indeno (1,2,3-cd) pyrene	22.94	276	1337	1.02354 ppb	#	100
22) Benzo (b) fluoranthene	19.71	252	1180	0.97384 ppb		99
23) Benzo (k) fluoranthene	19.77	252	1003	0.98779 ppb		98
24) Benzo (a) pyrene	20.35	252	1195	0.91857 ppb		98
25) Dibenz (a,h) anthracene	22.99	278	1001	1.08714 ppb		95
26) Benzo (g,h,i) perylene	23.46	276	1099	0.93031 ppb		96

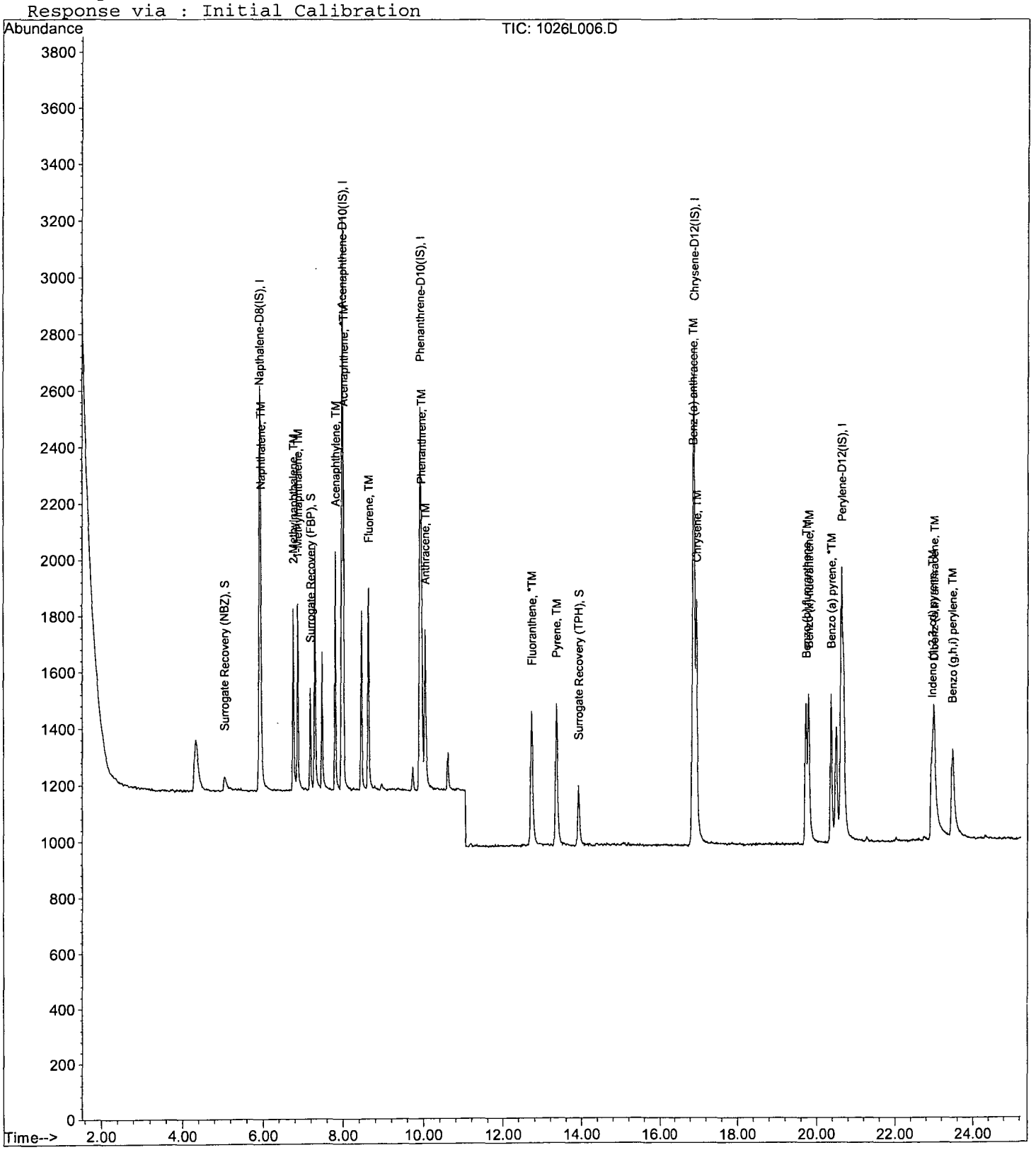
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L006.D Vial: 6
Acq On : 26 Oct 16 13:01 Operator: MA
Sample : 1.0 ug/ml PAH 10/26/16 (1) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L007.D Vial: 7
Acq On : 26 Oct 16 13:33 Operator: MA
Sample : 5.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	2942	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1477	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	2585	2.50000 ppb		0.00
15) Chrysene-D12(IS)	16.84	240	3262	2.50000 ppb		0.00
21) Perylene-D12(IS)	20.60	264	2933	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.05	82	895	3.50342 ppb		0.03
Spiked Amount 5.000			Recovery = 70.060%			
7) Surrogate Recovery (FBP)	7.16	172	2500	2.58785 ppb		0.00
Spiked Amount 5.000			Recovery = 51.760%			
17) Surrogate Recovery (TPH)	13.88	244	2786	2.39859 ppb		0.00
Spiked Amount 5.000			Recovery = 47.980%			
Target Compounds						Qvalue
3) Naphthalene	5.92	128	6347	5.27386 ppb		100
4) 2-Methylnaphthalene	6.74	142	4162	5.85067 ppb		99
5) 1-Methylnaphthalene	6.84	142	4036	5.09968 ppb		97
8) Acenaphthylene	7.79	152	6719	5.80999 ppb		99
9) Acenaphthene	7.98	154	3906	5.39090 ppb		98
10) Fluorene	8.59	166	4625	5.68065 ppb		98
12) Phenanthrene	9.91	178	6410	5.53358 ppb		99
13) Anthracene	10.01	178	6300	6.12160 ppb		100
14) Fluoranthene	12.68	202	8746	5.95997 ppb		96
16) Pyrene	13.31	202	9137	5.31261 ppb		99
18) Benz (a) anthracene	16.82	228	7969	5.67276 ppb		99
19) Chrysene	16.92	228	8489	5.17390 ppb		99
20) Indeno (1,2,3-cd) pyrene	22.90	276	8042	5.93101 ppb	#	98
22) Benzo (b) fluoranthene	19.69	252	6943	5.83458 ppb		100
23) Benzo (k) fluoranthene	19.76	252	7038	7.03310 ppb		98
24) Benzo (a) pyrene	20.34	252	7187	5.70464 ppb		96
25) Dibenz (a,h) anthracene	22.96	278	6484	6.97171 ppb		100
26) Benzo (g,h,i) perylene	23.43	276	6490	5.65605 ppb		98

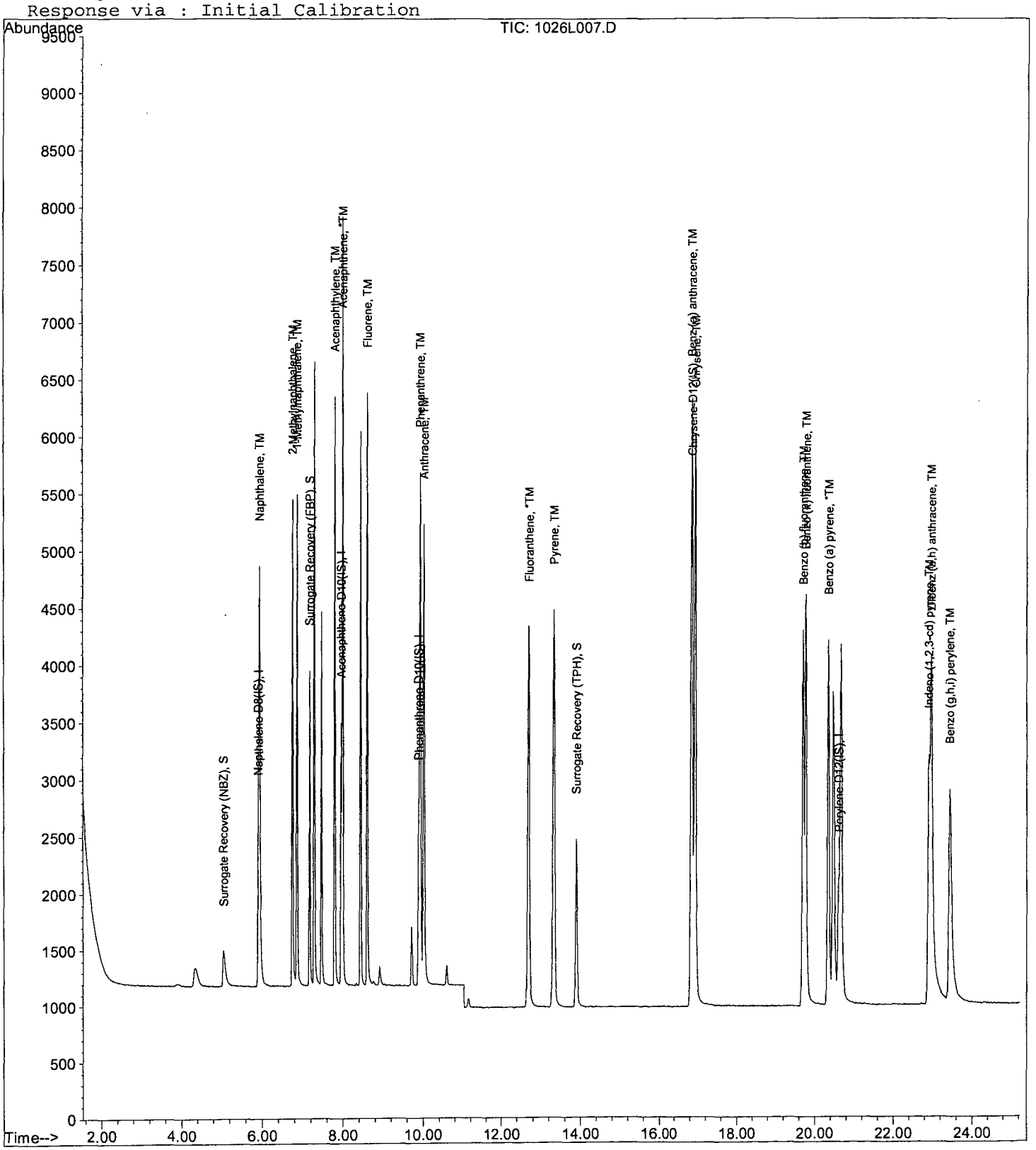
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L007.D Vial: 7
Acq On : 26 Oct 16 13:33 Operator: MA
Sample : 5.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L008.D Vial: 8
Acq On : 26 Oct 16 14:05 Operator: MA
Sample : 10.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	2986	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1505	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	2677	2.50000	ppb		0.00
15) Chrysene-D12(IS)	16.84	240	3400	2.50000	ppb		0.00
21) Perylene-D12(IS)	20.59	264	3039	2.50000	ppb		-0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.05	82	1921	6.85829	ppb		0.00
Spiked Amount 5.000			Recovery = 137.160%				
7) Surrogate Recovery (FBP)	7.16	172	5091	5.13577	ppb		0.00
Spiked Amount 5.000			Recovery = 102.720%				
17) Surrogate Recovery (TPH)	13.88	244	5901	4.91410	ppb		0.00
Spiked Amount 5.000			Recovery = 98.280%				
Target Compounds							Qvalue
3) Naphthalene	5.93	128	12724	10.30399	ppb		100
4) 2-Methylnaphthalene	6.74	142	8422	11.28079	ppb		99
5) 1-Methylnaphthalene	6.84	142	8115	10.06248	ppb		97
8) Acenaphthylene	7.79	152	13495	11.09277	ppb		99
9) Acenaphthene	7.98	154	7905	10.54234	ppb		99
10) Fluorene	8.58	166	9332	10.95063	ppb		97
12) Phenanthrene	9.91	178	13084	10.67897	ppb		100
13) Anthracene	9.99	178	12890	11.57524	ppb		99
14) Fluoranthene	12.67	202	18238	11.55739	ppb		97
16) Pyrene	13.30	202	18848	10.38432	ppb		100
18) Benz (a) anthracene	16.82	228	17088	11.36461	ppb		99
19) Chrysene	16.91	228	17182	9.97769	ppb		100
20) Indeno (1,2,3-cd) pyrene	22.89	276	17051	11.63162	ppb	#	98
22) Benzo (b) fluoranthene	19.69	252	15215	11.94137	ppb		99
23) Benzo (k) fluoranthene	19.75	252	13796	12.30485	ppb		98
24) Benzo (a) pyrene	20.33	252	14907	11.10660	ppb		99
25) Dibenz (a,h) anthracene	22.95	278	13714	13.19086	ppb		99
26) Benzo (g,h,i) perylene	23.42	276	13588	11.13668	ppb		98

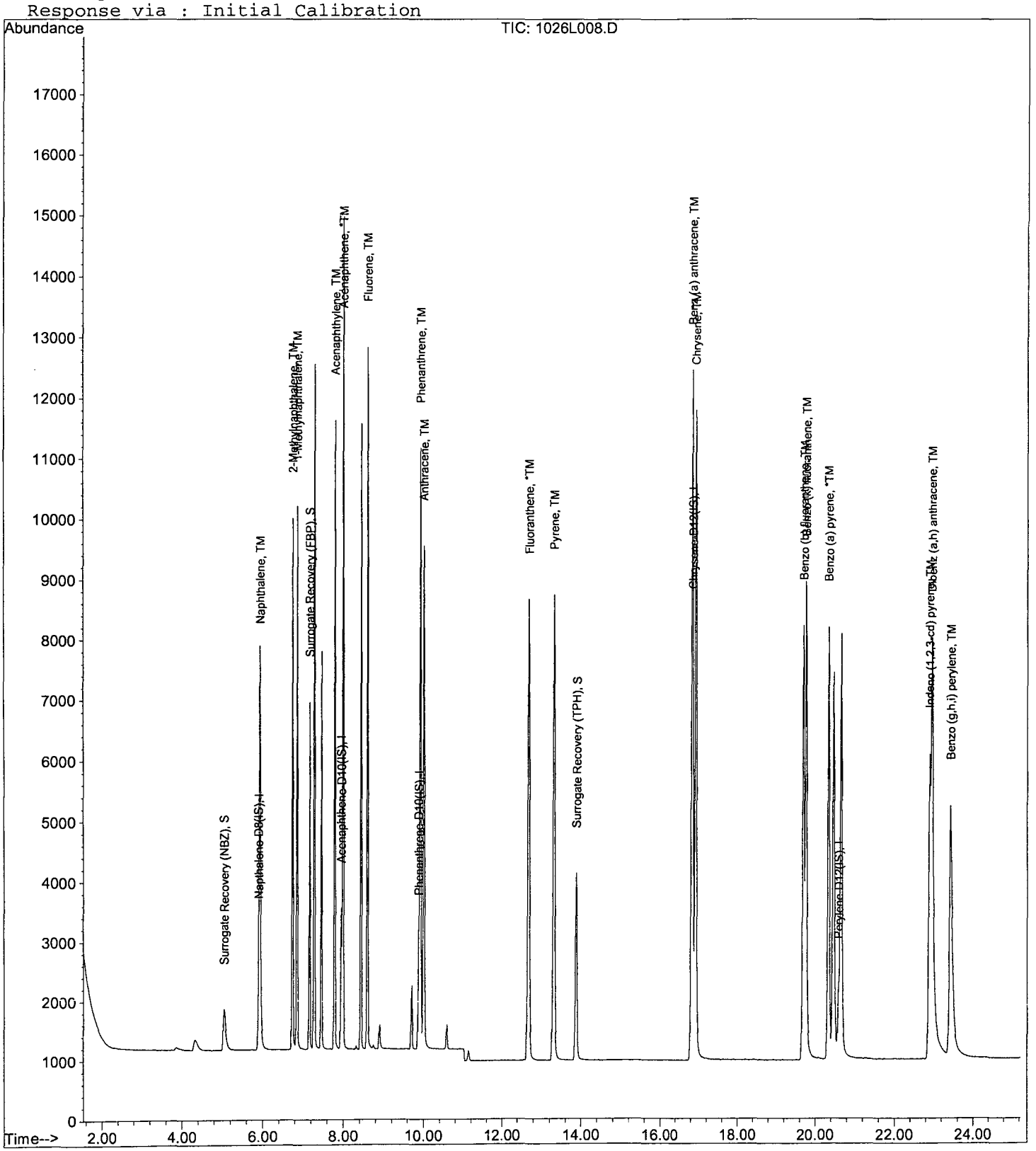
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L008.D Vial: 8
Acq On : 26 Oct 16 14:05 Operator: MA
Sample : 10.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L009.D Vial: 9
Acq On : 26 Oct 16 14:37 Operator: MA
Sample : 50.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	2794	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1386	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	2434	2.50000 ppb		0.00
15) Chrysene-D12(IS)	16.85	240	3234	2.50000 ppb		0.01
21) Perylene-D12(IS)	20.60	264	2790	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.03	82	8415	30.23463 ppb		-0.01
Spiked Amount 5.000			Recovery = 604.700%			
7) Surrogate Recovery (FBP)	7.16	172	20751	22.62838 ppb		0.00
Spiked Amount 5.000			Recovery = 452.560%			
17) Surrogate Recovery (TPH)	13.87	244	25797	22.65018 ppb		-0.01
Spiked Amount 5.000			Recovery = 453.000%			
Target Compounds						Qvalue
3) Naphthalene	5.93	128	54753	47.14744 ppb		100
4) 2-Methylnaphthalene	6.74	142	36210	50.75083 ppb		99
5) 1-Methylnaphthalene	6.84	142	33098	43.81569 ppb		97
8) Acenaphthylene	7.79	152	57065	50.02321 ppb		100
9) Acenaphthene	7.99	154	33025	47.39617 ppb		96
10) Fluorene	8.59	166	39169	49.13071 ppb		99
12) Phenanthrene	9.92	178	56397	50.05941 ppb		99
13) Anthracene	10.01	178	53407	51.39823 ppb		99
14) Fluoranthene	12.68	202	82212	55.84917 ppb		97
16) Pyrene	13.31	202	83805	48.23348 ppb		99
18) Benz (a) anthracene	16.83	228	79293	54.20887 ppb		99
19) Chrysene	16.93	228	73686	45.00303 ppb		100
20) Indeno (1,2,3-cd) pyrene	22.90	276	78247	54.63168 ppb	#	99
22) Benzo (b) fluoranthene	19.71	252	72967	60.42347 ppb		99
23) Benzo (k) fluoranthene	19.78	252	61939	57.94864 ppb		99
24) Benzo (a) pyrene	20.36	252	67423	53.72649 ppb		96
25) Dibenz (a,h) anthracene	22.96	278	62206	61.88207 ppb		99
26) Benzo (g,h,i) perylene	23.43	276	60431	52.94634 ppb		97

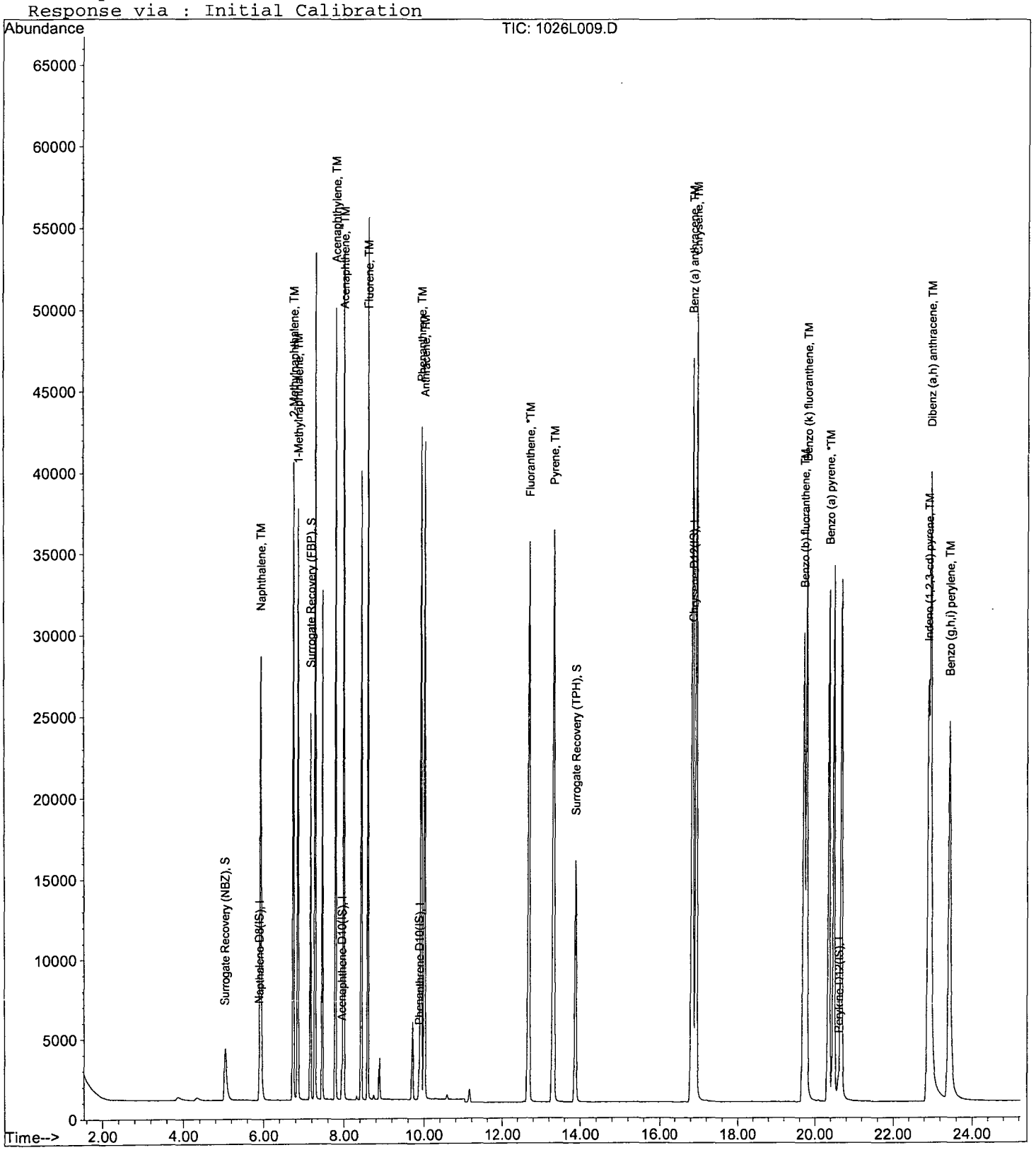
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L009.D Vial: 9
Acq On : 26 Oct 16 14:37 Operator: MA
Sample : 50.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L010.D Vial: 10
Acq On : 26 Oct 16 15:09 Operator: MA
Sample : 100.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	5.90	136	2855	2.50000 ppb		0.01
6) Acenaphthene-D10(IS)	7.95	164	1362	2.50000 ppb		0.01
11) Phenanthrene-D10(IS)	9.89	188	2333	2.50000 ppb		0.01
15) Chrysene-D12(IS)	16.88	240	3111	2.50000 ppb		0.04
21) Perylene-D12(IS)	20.62	264	2663	2.50000 ppb		0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.05	82	17071	58.28135 ppb		0.00
Spiked Amount 5.000			Recovery = 1165.620%			
7) Surrogate Recovery (FBP)	7.16	172	40283	45.31564 ppb		0.00
Spiked Amount 5.000			Recovery = 906.320%			
17) Surrogate Recovery (TPH)	13.88	244	49449	45.74789 ppb		0.00
Spiked Amount 5.000			Recovery = 914.960%			
Target Compounds						Qvalue
3) Naphthalene	5.93	128	107908	91.68077 ppb		99
4) 2-Methylnaphthalene	6.74	142	70232	96.12565 ppb		100
5) 1-Methylnaphthalene	6.86	142	64241	84.72330 ppb		99
8) Acenaphthylene	7.79	152	108768	97.01976 ppb		99
9) Acenaphthene	7.99	154	63005	92.70530 ppb		99
10) Fluorene	8.59	166	74351	95.14008 ppb		99
12) Phenanthrene	9.93	178	106925	99.00134 ppb		99
13) Anthracene	10.02	178	98627	98.63251 ppb		98
14) Fluoranthene	12.70	202	163122	113.71087 ppb		97
16) Pyrene	13.34	202	165586	99.57259 ppb		99
18) Benz (a) anthracene	16.85	228	141018	99.02815 ppb		99
19) Chrysene	16.97	228	143007	92.10839 ppb		99
20) Indeno (1,2,3-cd) pyrene	22.94	276	152037	108.90723 ppb	#	98
22) Benzo (b) fluoranthene	19.73	252	149573	126.01447 ppb		99
23) Benzo (k) fluoranthene	19.82	252	80228	76.89275 ppb		98
24) Benzo (a) pyrene	20.39	252	131607	108.71585 ppb		97
25) Dibenz (a,h) anthracene	23.01	278	119414	120.37099 ppb		96
26) Benzo (g,h,i) perylene	23.48	276	115421	105.06387 ppb		98

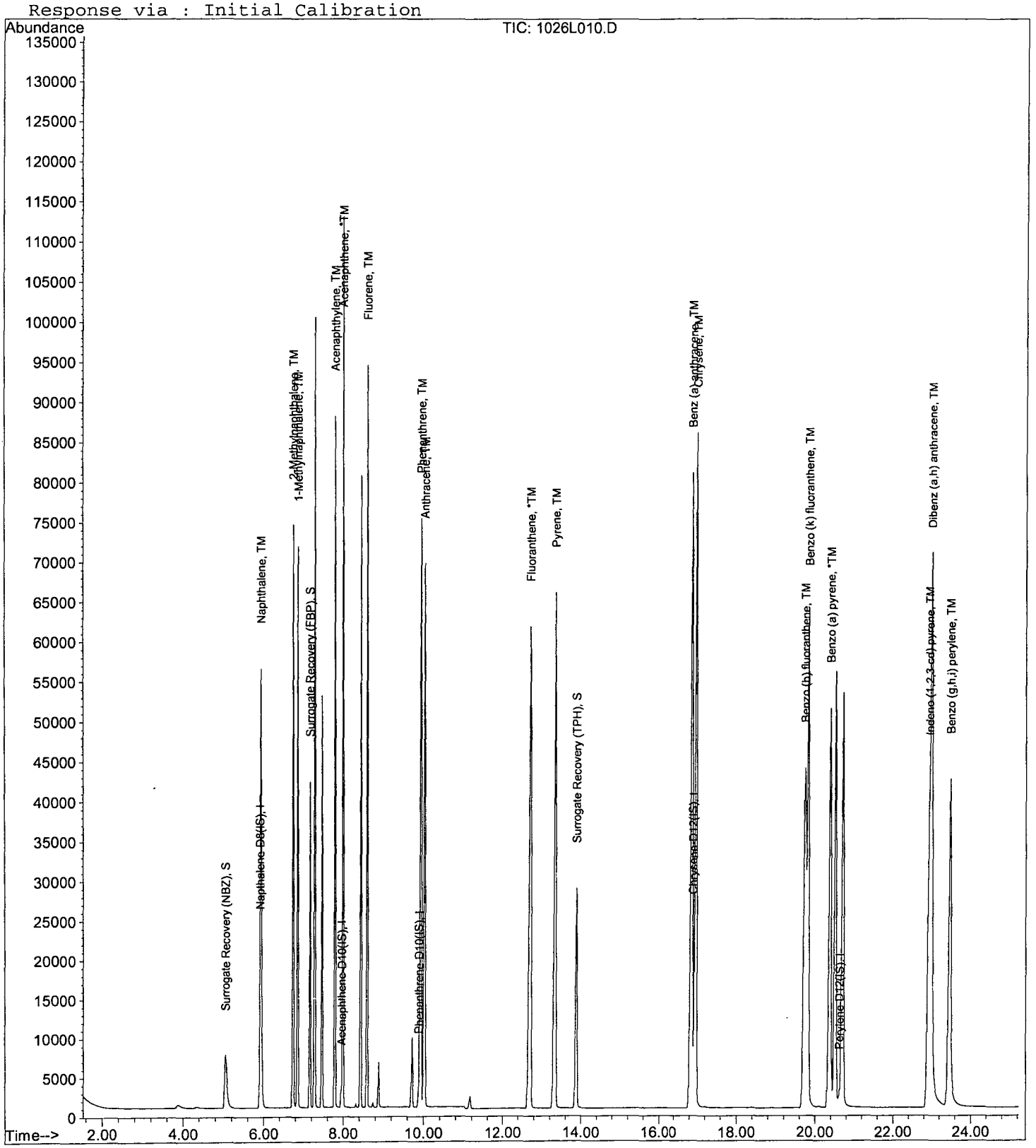
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L010.D Vial: 10
Acq On : 26 Oct 16 15:09 Operator: MA
Sample : 100.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 10/26/16
Instrument: Linus
Initial Cal. Date: 10/26/16
Data File: 1026L011.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Naphthalene	1.020	1.149	13	TM	
2	TM	2-Methylnaphthalene	0.6367	0.7311	15	TM	
3	TM	1-Methylnaphthalene	0.6513	0.7303	12	TM	
4	TM	Acenaphthylene	2.050	2.256	10	TM	
5	*TM	Acenaphthene	1.236	1.335	8.0	*TM	
6	TM	Fluorene	1.426	1.572	10	TM	
7	TM	Phenanthrene	1.156	1.229	6.3	TM	
8	TM	Anthracene	1.070	1.196	12	TM	
9	*TM	Fluoranthene	1.564	1.710	9.4	*TM	
10	TM	Pyrene	1.336	1.394	4.4	TM	
11	TM	Benz (a) anthracene	1.143	1.235	8.0	TM	
12	TM	Chrysene	1.235	1.312	6.2	TM	
13	TM	Indeno (1,2,3-cd) pyrene	1.134	1.292	14	TM	
14	TM	Benzo (b) fluoranthene	1.151	1.183	2.8	TM	
15	TML	Benzo (k) fluoranthene	0.9795	1.143	17	TML	2.5
16	*TM	Benzo (a) pyrene	1.149	1.228	6.9	*TM	
17	TML	Dibenz (a,h) anthracene	0.9550	1.177	23	TML	6.9
18	TM	Benzo (g,h,i) perylene	1.038	1.117	7.6	TM	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
		Average			10.3		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L011.D Vial: 11
Acq On : 26 Oct 16 15:42 Operator: MA
Sample : SS PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 16:20 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 16:16:15 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	5.90	136	2785	2.50000 ppb		0.01
6) Acenaphthene-D10(IS)	7.94	164	1444	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	2515	2.50000 ppb		0.00
15) Chrysene-D12(IS)	16.85	240	3169	2.50000 ppb		0.01
21) Perylene-D12(IS)	20.60	264	2834	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.06	82	1	-0.03779 ppb		0.01
Spiked Amount 5.000			Recovery =	-0.760%		
7) Surrogate Recovery (FBP)	7.16	172	7	0.00752 ppb		0.00
Spiked Amount 5.000			Recovery =	0.160%		
17) Surrogate Recovery (TPH)	13.90	244	3	0.00275 ppb		0.02
Spiked Amount 5.000			Recovery =	0.060%		
Target Compounds						Qvalue
3) Naphthalene	5.93	128	6402	5.63457 ppb		100
4) 2-Methylnaphthalene	6.74	142	4072	5.74118 ppb		99
5) 1-Methylnaphthalene	6.84	142	4068	5.60694 ppb		97
8) Acenaphthylene	7.79	152	6514	5.50095 ppb		99
9) Acenaphthene	7.98	154	3856	5.40076 ppb		98
10) Fluorene	8.59	166	4539	5.51180 ppb		100
12) Phenanthrene	9.92	178	6183	5.31717 ppb		99
13) Anthracene	10.01	178	6017	5.59144 ppb		100
14) Fluoranthene	12.68	202	8601	5.46808 ppb		97
16) Pyrene	13.31	202	8838	5.22011 ppb		99
18) Benz (a) anthracene	16.82	228	7826	5.40169 ppb		99
19) Chrysene	16.92	228	8315	5.30991 ppb		99
20) Indeno (1,2,3-cd) pyrene	22.91	276	8191	5.69657 ppb	#	97
22) Benzo (b) fluoranthene	19.69	252	6704	5.14014 ppb		100
23) Benzo (k) fluoranthene	19.76	252	6480	5.12262 ppb		98
24) Benzo (a) pyrene	20.34	252	6962	5.34581 ppb		97
25) Dibenz (a,h) anthracene	22.96	278	6674	5.34490 ppb		99
26) Benzo (g,h,i) perylene	23.44	276	6331	5.38111 ppb		98

Algorithum = $\frac{6402 * 1 * 2.5}{1 * 2785 * 1.02} = \frac{16003}{2840.7} = 5.63417$

RH 10/27/16

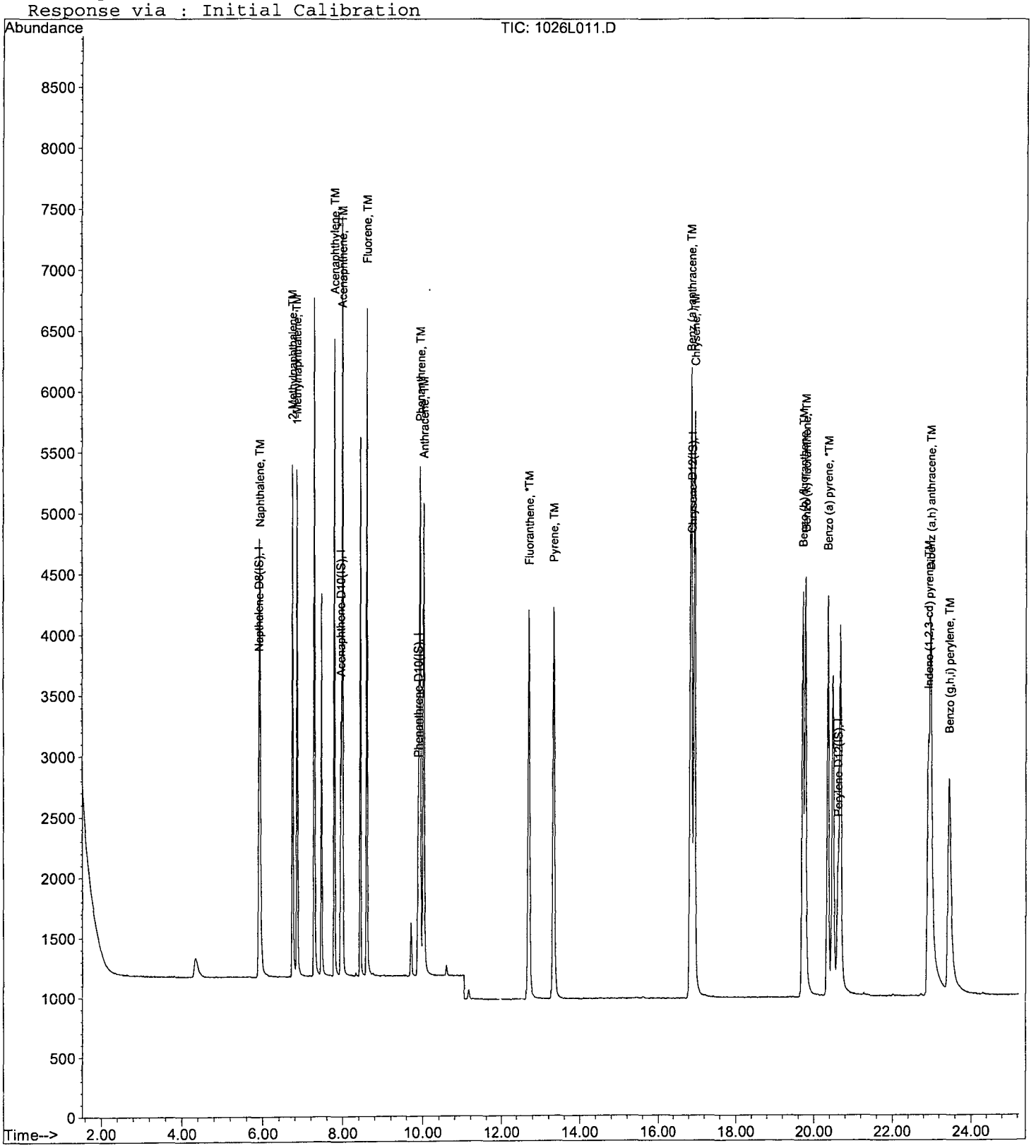
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L011.D Vial: 11
Acq On : 26 Oct 16 15:42 Operator: MA
Sample : SS PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 16:20 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 10/27/16
Instrument: Linus
Initial Cal. Date: 10/26/16
Data File: 1026L028.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	SL	Surrogate Recovery (NBZ)	0.2618	0.3145	20	SL	3.5
3	TM	Naphthalene	1.020	1.127	10	TM	
4	TM	2-Methylnaphthalene	0.6367	0.7282	14	TM	
5	TM	1-Methylnaphthalene	0.6513	0.7157	9.9	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.613	1.689	4.8	S	
8	TM	Acenaphthylene	2.050	2.320	13	TM	
9	*TM	Acenaphthene	1.236	1.359	10.0	*TM	
10	TM	Fluorene	1.426	1.596	12	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.156	1.299	12	TM	
13	TM	Anthracene	1.070	1.273	19	TM	
14	*TM	Fluoranthene	1.564	1.779	14	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.336	1.454	8.9	TM	
17	S	Surrogate Recovery (TPH)	0.8594	0.8855	3.0	S	
18	TM	Benz (a) anthracene	1.143	1.252	9.5	TM	
19	TM	Chrysene	1.235	1.386	12	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.134	1.328	17	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TM	Benzo (b) fluoranthene	1.151	1.302	13	TM	
23	TML	Benzo (k) fluoranthene	0.9795	1.111	13	TML	0.45
24	*TM	Benzo (a) pyrene	1.149	1.267	10	*TM	
25	TML	Dibenz (a,h) anthracene	0.9550	1.181	24	TML	7.2
26	TM	Benzo (g,h,i) perylene	1.038	1.161	12	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			12.4		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L028.D Vial: 28
Acq On : 27 Oct 16 9:29 Operator: MA
Sample : 2.5 ug/ml PAH 10/10/16 (1) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 27 14:11 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

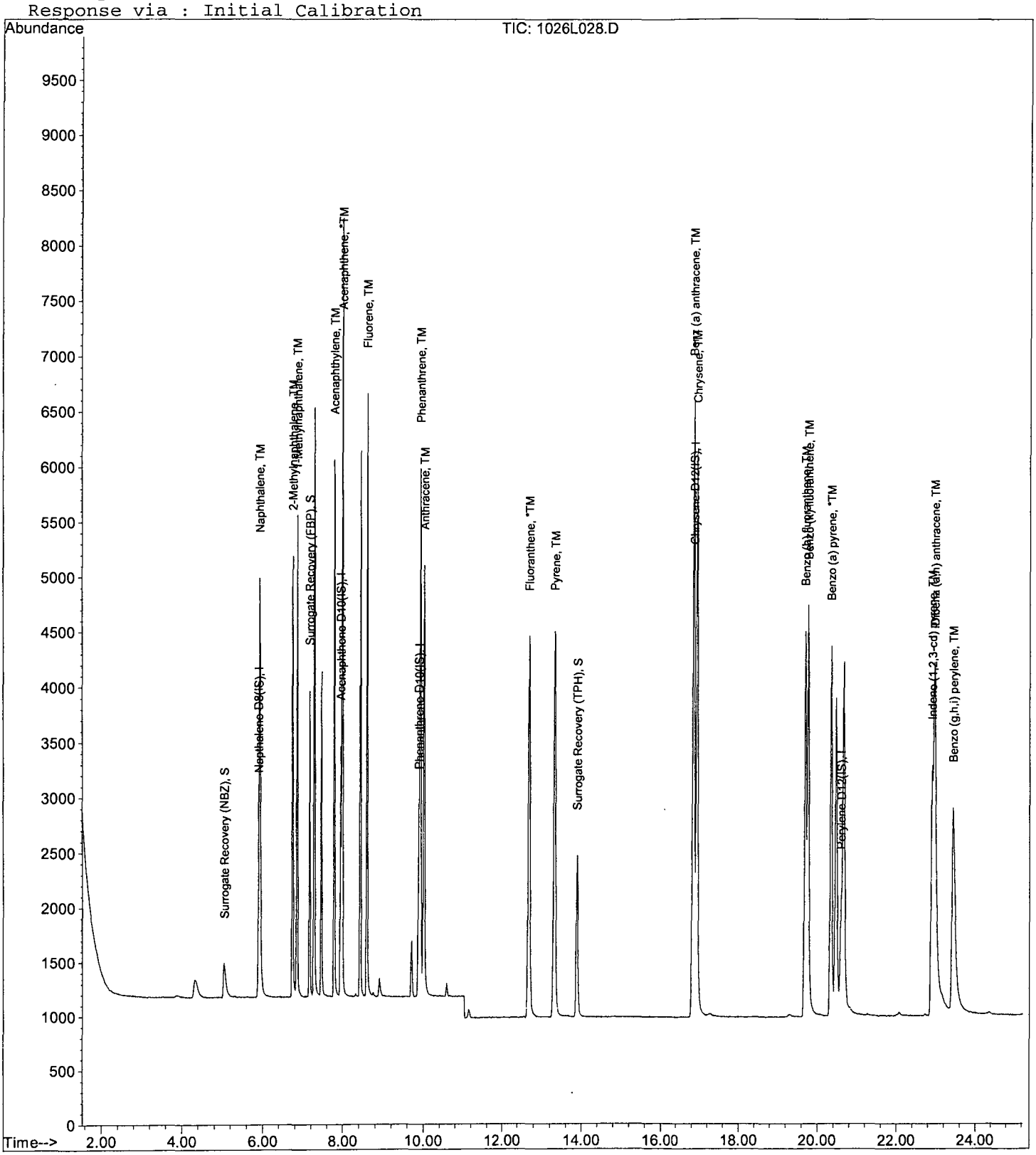
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	2881	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1465	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	2541	2.50000	ppb		0.00
15) Chrysene-D12(IS)	16.84	240	3232	2.50000	ppb		0.00
21) Perylene-D12(IS)	20.59	264	2928	2.50000	ppb		-0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.05	82	906	2.58626	ppb		0.00
Spiked Amount 5.000			Recovery = 51.720%				
7) Surrogate Recovery (FBP)	7.16	172	2475	2.61913	ppb		0.00
Spiked Amount 5.000			Recovery = 52.380%				
17) Surrogate Recovery (TPH)	13.88	244	2862	2.57604	ppb		0.00
Spiked Amount 5.000			Recovery = 51.520%				
Target Compounds							Qvalue
3) Naphthalene	5.92	128	6493	5.52424	ppb		99
4) 2-Methylnaphthalene	6.74	142	4196	5.71888	ppb		98
5) 1-Methylnaphthalene	6.84	142	4124	5.49472	ppb		97
8) Acenaphthylene	7.77	152	6798	5.65849	ppb		100
9) Acenaphthene	7.98	154	3983	5.49867	ppb		99
10) Fluorene	8.58	166	4677	5.59796	ppb		98
12) Phenanthrene	9.91	178	6602	5.61940	ppb		99
13) Anthracene	10.01	178	6469	5.94997	ppb		100
14) Fluoranthene	12.67	202	9041	5.68900	ppb		98
16) Pyrene	13.31	202	9399	5.44325	ppb		98
18) Benz (a) anthracene	16.82	228	8092	5.47642	ppb		100
19) Chrysene	16.91	228	8958	5.60902	ppb		99
20) Indeno (1,2,3-cd) pyrene	22.90	276	8585	5.85420	ppb	#	97
22) Benzo (b) fluoranthene	19.68	252	7623	5.65712	ppb		100
23) Benzo (k) fluoranthene	19.75	252	6506	4.97743	ppb		98
24) Benzo (a) pyrene	20.33	252	7422	5.51606	ppb		98
25) Dibenz (a,h) anthracene	22.96	278	6915	5.35986	ppb		99
26) Benzo (g,h,i) perylene	23.43	276	6801	5.59501	ppb		99

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

Data File : M:\LINUS\DATA\L161026\1026L028.D Vial: 28
Acq On : 27 Oct 16 9:29 Operator: MA
Sample : 2.5 ug/ml PAH 10/10/16 (1) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 27 14:11 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Date Analyzed: 10/27/16

Matrix: Instrument: Linus

Initial Cal. Date: 10/26/16

Data File: 1026L049.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	SL	Surrogate Recovery (NBZ)	0.2618	0.3089	18	SL	1.6
3	TM	Naphthalene	1.020	1.120	9.8	TM	
4	TM	2-Methylnaphthalene	0.6367	0.7402	16	TM	
5	TM	1-Methylnaphthalene	0.6513	0.7210	11	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.613	1.684	4.4	S	
8	TM	Acenaphthylene	2.050	2.370	16	TM	
9	*TM	Acenaphthene	1.236	1.378	12	*TM	
10	TM	Fluorene	1.426	1.620	14	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.156	1.292	12	TM	
13	TM	Anthracene	1.070	1.264	18	TM	
14	*TM	Fluoranthene	1.564	1.778	14	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.336	1.474	10	TM	
17	S	Surrogate Recovery (TPH)	0.8594	0.8672	0.91	S	
18	TM	Benz (a) anthracene	1.143	1.309	15	TM	
19	TM	Chrysene	1.235	1.343	8.7	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.134	1.342	18	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TM	Benzo (b) fluoranthene	1.151	1.323	15	TM	
23	TML	Benzo (k) fluoranthene	0.9795	1.122	15	TML	0.58
24	*TM	Benzo (a) pyrene	1.149	1.264	10	*TM	
25	TML	Dibenz (a,h) anthracene	0.9550	1.189	24	TML	7.9
26	TM	Benzo (g,h,i) perylene	1.038	1.157	11	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			13.0		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L049.D Vial: 49
Acq On : 27 Oct 16 20:30 Operator: MA
Sample : 2.5 ug/ml PAH 10/10/16 (1) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 28 8:29 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	2781	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1403	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	2473	2.50000 ppb		0.00
15) Chrysene-D12(IS)	16.84	240	3148	2.50000 ppb		0.00
21) Perylene-D12(IS)	20.59	264	2867	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.05	82	859	2.53954 ppb		0.00
Spiked Amount 5.000			Recovery = 50.800%			
7) Surrogate Recovery (FBP)	7.16	172	2363	2.61111 ppb		0.00
Spiked Amount 5.000			Recovery = 52.220%			
17) Surrogate Recovery (TPH)	13.88	244	2730	2.52280 ppb		0.00
Spiked Amount 5.000			Recovery = 50.460%			
Target Compounds						Qvalue
3) Naphthalene	5.92	128	6231	5.49196 ppb		99
4) 2-Methylnaphthalene	6.74	142	4117	5.81298 ppb		98
5) 1-Methylnaphthalene	6.84	142	4010	5.53495 ppb		98
8) Acenaphthylene	7.79	152	6649	5.77904 ppb		99
9) Acenaphthene	7.98	154	3868	5.57588 ppb		99
10) Fluorene	8.59	166	4547	5.68287 ppb		99
12) Phenanthrene	9.91	178	6390	5.58851 ppb		100
13) Anthracene	10.01	178	6252	5.90850 ppb		100
14) Fluoranthene	12.67	202	8795	5.68638 ppb		98
16) Pyrene	13.31	202	9283	5.51953 ppb		98
18) Benz (a) anthracene	16.82	228	8244	5.72816 ppb		100
19) Chrysene	16.91	228	8453	5.43405 ppb		99
20) Indeno (1,2,3-cd) pyrene	22.90	276	8449	5.91520 ppb	#	97
22) Benzo (b) fluoranthene	19.68	252	7584	5.74793 ppb		100
23) Benzo (k) fluoranthene	19.75	252	6436	5.02887 ppb		99
24) Benzo (a) pyrene	20.33	252	7249	5.50211 ppb		98
25) Dibenz (a,h) anthracene	22.96	278	6817	5.39568 ppb		98
26) Benzo (g,h,i) perylene	23.43	276	6632	5.57207 ppb		99

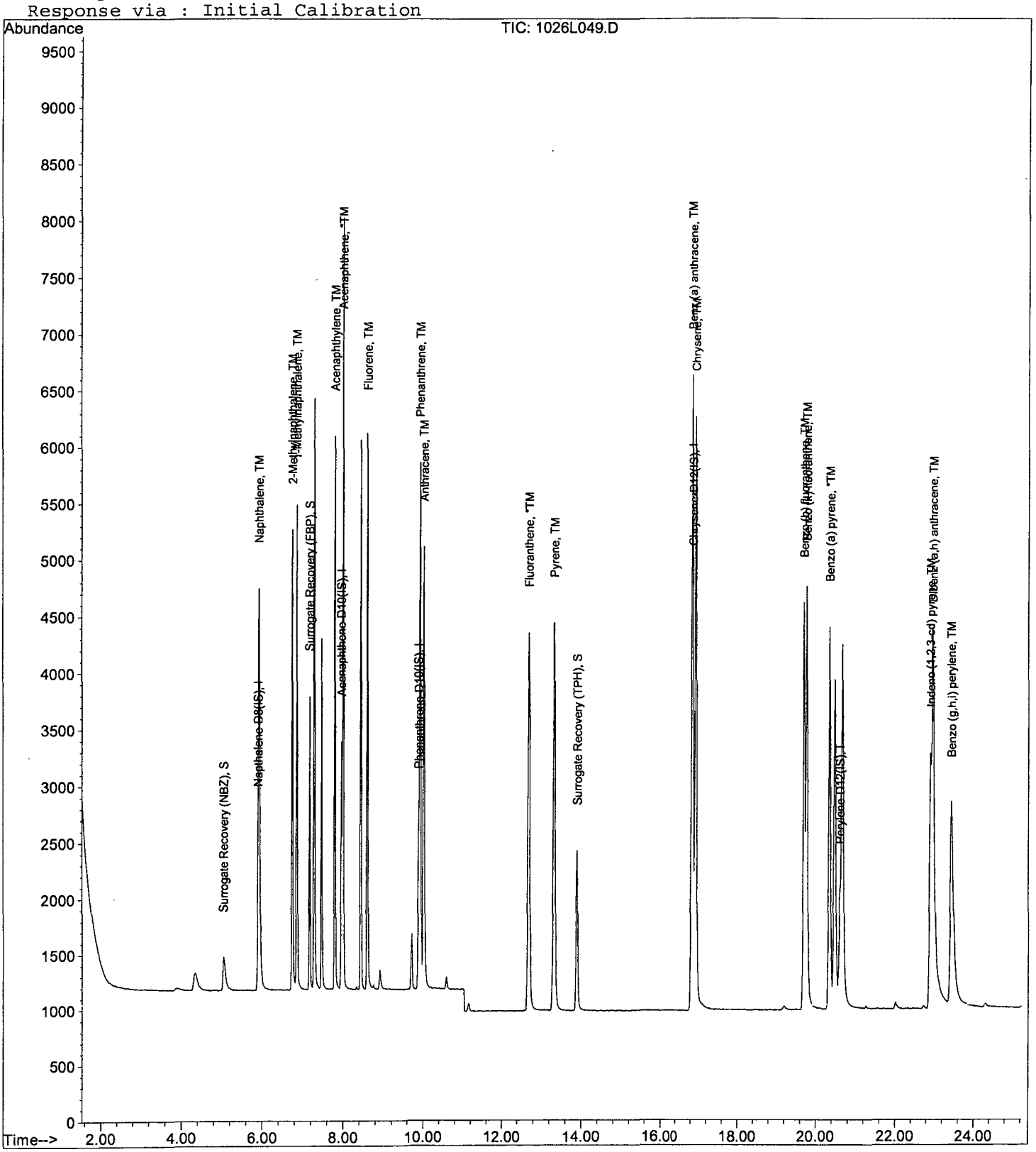
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L049.D Vial: 49
Acq On : 27 Oct 16 20:30 Operator: MA
Sample : 2.5 ug/ml PAH 10/10/16 (1) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 28 8:29 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Date Analyzed: 10/28/16

Matrix: Instrument: Linus

Initial Cal. Date: 10/26/16

Data File: 1026L071.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	SL	Surrogate Recovery (NBZ)	0.2618	0.3088	18	SL	1.6
3	TM	Naphthalene	1.020	1.012	0.74	TM	
4	TM	2-Methylnaphthalene	0.6367	0.6636	4.2	TM	
5	TM	1-Methylnaphthalene	0.6513	0.6394	1.8	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.613	1.680	4.2	S	
8	TM	Acenaphthylene	2.050	2.081	1.5	TM	
9	*TM	Acenaphthene	1.236	1.227	0.77	*TM	
10	TM	Fluorene	1.426	1.426	0.03	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.156	1.141	1.3	TM	
13	TM	Anthracene	1.070	1.124	5.1	TM	
14	*TM	Fluoranthene	1.564	1.589	1.7	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.336	1.313	1.7	TM	
17	S	Surrogate Recovery (TPH)	0.8594	0.8782	2.2	S	
18	TM	Benz (a) anthracene	1.143	1.171	2.5	TM	
19	TM	Chrysene	1.235	1.198	3.0	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.134	1.199	5.7	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TM	Benzo (b) fluoranthene	1.151	1.145	0.47	TM	
23	TML	Benzo (k) fluoranthene	0.9795	0.9728	0.69	TML	13
24	*TM	Benzo (a) pyrene	1.149	1.115	3.0	*TM	
25	TML	Dibenz (a,h) anthracene	0.9550	1.054	10	TML	4.1
26	TM	Benzo (g,h,i) perylene	1.038	1.024	1.4	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			3.3		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L071.D Vial: 71
Acq On : 28 Oct 16 7:49 Operator: MA
Sample : 2.5 ug/ml PAH 10/26/16 (2) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 28 8:30 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	2866	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1470	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	2570	2.50000 ppb		0.00
15) Chrysene-D12(IS)	16.84	240	3277	2.50000 ppb		0.00
21) Perylene-D12(IS)	20.59	264	3010	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.05	82	885	2.53880 ppb		0.00
Spiked Amount 5.000			Recovery = 50.780%			
7) Surrogate Recovery (FBP)	7.16	172	2470	2.60495 ppb		0.00
Spiked Amount 5.000			Recovery = 52.100%			
17) Surrogate Recovery (TPH)	13.88	244	2878	2.55487 ppb		0.00
Spiked Amount 5.000			Recovery = 51.100%			
Target Compounds						Qvalue
3) Naphthalene	5.92	128	5803	4.96303 ppb		100
4) 2-Methylnaphthalene	6.74	142	3804	5.21174 ppb		99
5) 1-Methylnaphthalene	6.84	142	3665	4.90872 ppb		98
8) Acenaphthylene	7.79	152	6119	5.07598 ppb		99
9) Acenaphthene	7.98	154	3606	4.96127 ppb		99
10) Fluorene	8.58	166	4193	5.00159 ppb		97
12) Phenanthrene	9.91	178	5864	4.93492 ppb		100
13) Anthracene	10.01	178	5777	5.25353 ppb		100
14) Fluoranthene	12.68	202	8170	5.08292 ppb		97
16) Pyrene	13.31	202	8608	4.91670 ppb		98
18) Benz (a) anthracene	16.82	228	7677	5.12421 ppb		99
19) Chrysene	16.91	228	7851	4.84837 ppb		100
20) Indeno (1,2,3-cd) pyrene	22.90	276	7856	5.28352 ppb	#	98
22) Benzo (b) fluoranthene	19.68	252	6894	4.97675 ppb		99
23) Benzo (k) fluoranthene	19.75	252	5856	4.35532 ppb		99
24) Benzo (a) pyrene	20.33	252	6711	4.85177 ppb		98
25) Dibenz (a,h) anthracene	22.96	278	6345	4.79415 ppb		99
26) Benzo (g,h,i) perylene	23.43	276	6162	4.93122 ppb		98

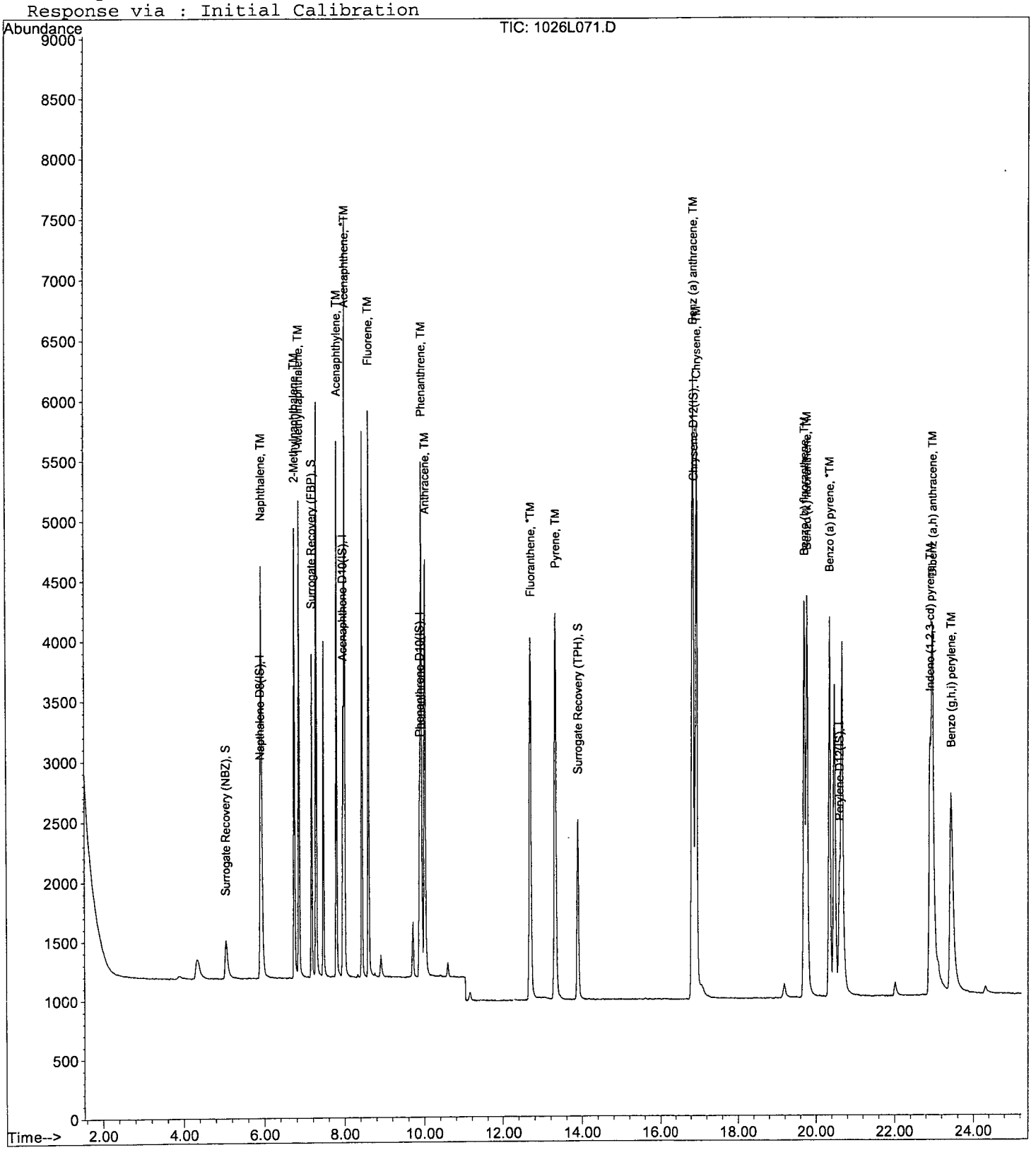
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L071.D Vial: 71
Acq On : 28 Oct 16 7:49 Operator: MA
Sample : 2.5 ug/ml PAH 10/26/16 (2) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 28 8:30 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Date Analyzed: 10/28/16

Matrix: Instrument: Linus

Initial Cal. Date: 10/26/16

Data File: 1026L092.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	SL	Surrogate Recovery (NBZ)	0.2618	0.3226	23	SL	6.2
3	TM	Naphthalene	1.020	1.144	12	TM	
4	TM	2-Methylnaphthalene	0.6367	0.7544	18	TM	
5	TM	1-Methylnaphthalene	0.6513	0.7338	13	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.613	1.682	4.3	S	
8	TM	Acenaphthylene	2.050	2.346	14	TM	
9	*TM	Acenaphthene	1.236	1.377	11	*TM	
10	TM	Fluorene	1.426	1.626	14	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.156	1.274	10	TM	
13	TM	Anthracene	1.070	1.258	18	TM	
14	*TM	Fluoranthene	1.564	1.782	14	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.336	1.444	8.1	TM	
17	S	Surrogate Recovery (TPH)	0.8594	0.8621	0.32	S	
18	TM	Benz (a) anthracene	1.143	1.298	14	TM	
19	TM	Chrysene	1.235	1.384	12	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.134	1.351	19	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TM	Benzo (b) fluoranthene	1.151	1.337	16	TM	
23	TML	Benzo (k) fluoranthene	0.9795	1.127	15	TML	0.99
24	*TM	Benzo (a) pyrene	1.149	1.267	10	*TM	
25	TML	Dibenz (a,h) anthracene	0.9550	1.199	26	TML	8.8
26	TM	Benzo (g,h,i) perylene	1.038	1.158	12	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			13.5		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L092.D Vial: 92
Acq On : 28 Oct 16 18:53 Operator: MA
Sample : 2.5 ug/ml PAH 10/26/16 (1) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 31 10:58 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	5.90	136	2712	2.50000 ppb		0.01
6) Acenaphthene-D10(IS)	7.94	164	1420	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	2527	2.50000 ppb		0.00
15) Chrysene-D12(IS)	16.84	240	3234	2.50000 ppb		0.00
21) Perylene-D12(IS)	20.59	264	2981	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.05	82	875	2.65448 ppb		0.00
Spiked Amount 5.000			Recovery = 53.080%			
7) Surrogate Recovery (FBP)	7.16	172	2388	2.60715 ppb		0.00
Spiked Amount 5.000			Recovery = 52.140%			
17) Surrogate Recovery (TPH)	13.88	244	2788	2.50789 ppb		0.00
Spiked Amount 5.000			Recovery = 50.160%			
Target Compounds						Qvalue
3) Naphthalene	5.92	128	6206	5.60909 ppb		100
4) 2-Methylnaphthalene	6.74	142	4092	5.92468 ppb		99
5) 1-Methylnaphthalene	6.84	142	3980	5.63331 ppb		97
8) Acenaphthylene	7.79	152	6663	5.72188 ppb		99
9) Acenaphthene	7.98	154	3911	5.57037 ppb		100
10) Fluorene	8.58	166	4619	5.70374 ppb		97
12) Phenanthrene	9.91	178	6439	5.51102 ppb		100
13) Anthracene	10.01	178	6356	5.87842 ppb		100
14) Fluoranthene	12.67	202	9007	5.69900 ppb		98
16) Pyrene	13.31	202	9338	5.40458 ppb		98
18) Benz (a) anthracene	16.82	228	8398	5.67999 ppb		100
19) Chrysene	16.91	228	8952	5.60180 ppb		99
20) Indeno (1,2,3-cd) pyrene	22.90	276	8739	5.95553 ppb	#	98
22) Benzo (b) fluoranthene	19.68	252	7970	5.80948 ppb		100
23) Benzo (k) fluoranthene	19.75	252	6719	5.04931 ppb		99
24) Benzo (a) pyrene	20.33	252	7553	5.51362 ppb		98
25) Dibenz (a,h) anthracene	22.96	278	7147	5.43976 ppb		98
26) Benzo (g,h,i) perylene	23.43	276	6906	5.58038 ppb		100

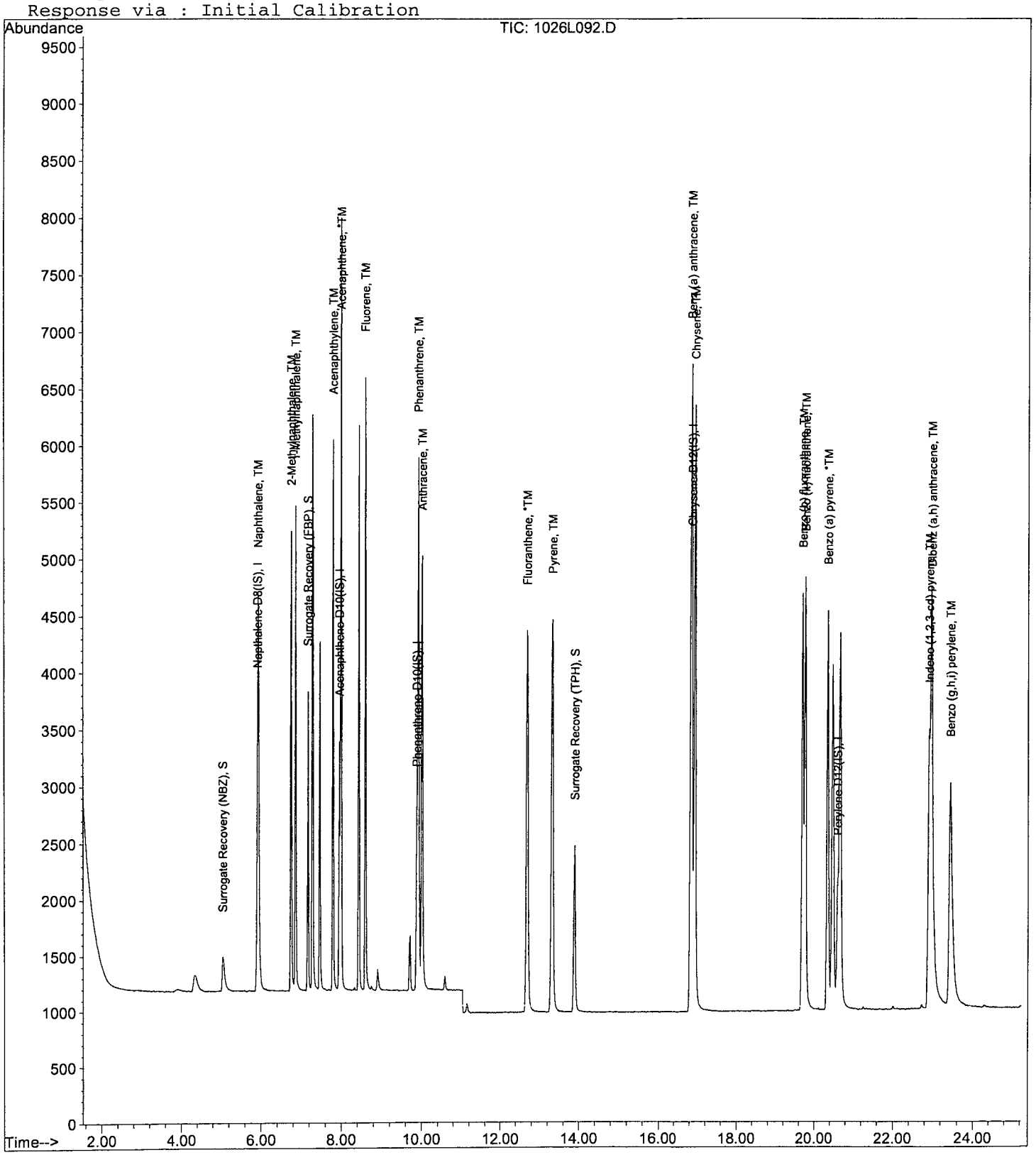
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L092.D Vial: 92
Acq On : 28 Oct 16 18:53 Operator: MA
Sample : 2.5 ug/ml PAH 10/26/16 (1) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 31 10:58 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



ORGANICS

Raw Data

APPL, INC.

Method Blank
EPA 8270D SIM

Blank Name/QCG: **161026W-44687 - 213165**
Batch ID: #SIMDO-161026A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/26/16	10/28/16
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/26/16	10/28/16
BLANK	SURROGATE: 2-FLUORBIPHENY	61.7	53-106			%	10/26/16	10/28/16
BLANK	SURROGATE: NITROBENZENE-	71.4	55-111			%	10/26/16	10/28/16
BLANK	SURROGATE: TERPHENYL-D14 (	87.9	58-132			%	10/26/16	10/28/16

Quant Method: L1026P.M
Run #: 1026L081
Instrument: Linus
Sequence: L161026
Initials: RHA

GC SC-Blank-REG MDLs-DOD
Printed: 10/28/16 3:02:10 PM

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L081.D Vial: 81
Acq On : 28 Oct 16 13:12 Operator: MA
Sample : 161026A BLK 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 28 14:17 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	5.90	136	2976	2.50000 ppb	0.01
6) Acenaphthene-D10(IS)	7.94	164	1544	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.87	188	2687	2.50000 ppb	0.00
15) Chrysene-D12(IS)	16.84	240	3361	2.50000 ppb	0.00
21) Perylene-D12(IS)	20.60	264	3128	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.05	82	1286	3.56908 ppb	0.00
Spiked Amount 5.000			Recovery = 71.380%		
7) Surrogate Recovery (FBP)	7.16	172	3071	3.08356 ppb	0.00
Spiked Amount 5.000			Recovery = 61.680%		
17) Surrogate Recovery (TPH)	13.86	244	5080	4.39694 ppb	-0.02
Spiked Amount 5.000			Recovery = 87.940%		

Target Compounds Qvalue

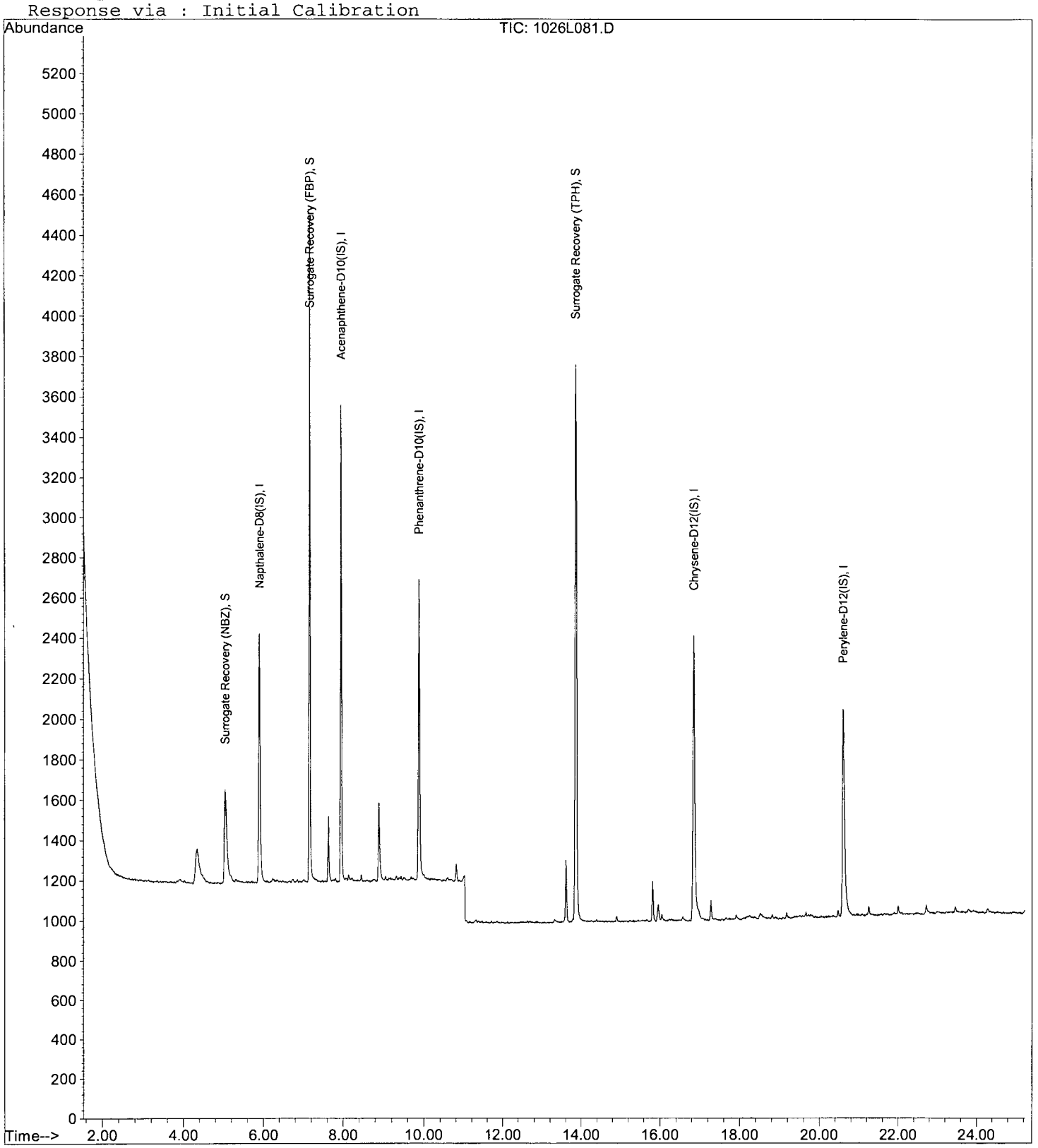
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L081.D Vial: 81
Acq On : 28 Oct 16 13:12 Operator: MA
Sample : 161026A BLK 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 28 14:17 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Laboratory Control Spike Recovery

EPA 8270D SIM

APPL ID: **161026W-44687 LCS - 213165**
Batch ID: #SIMDO-161026A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1-METHYLNAPHTHALENE	5.00	3.46	69.2	41-115
2-METHYLNAPHTHALENE	5.00	3.64	72.8	39-114
NAPHTHALENE	5.00	3.36	67.2	43-114
SURROGATE: 2-FLUORBIPHENYL (S)	5.00	3.04	60.8	53-106
SURROGATE: NITROBENZENE-D5 (S)	5.00	3.37	67.4	55-111
SURROGATE: TERPHENYL-D14 (S)	5.00	4.03	80.6	58-132

Comments: _____

Primary	SPK
Quant Method :	L1026P.M
Extraction Date :	10/26/16
Analysis Date :	10/28/16
Instrument :	Linus
Run :	1026L082
Initials :	RHA

Printed: 10/28/16 3:01:54 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L082.D Vial: 82
Acq On : 28 Oct 16 13:44 Operator: MA
Sample : 161026A LCS-1 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 28 14:17 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	2897	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1489	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	2647	2.50000	ppb		0.00
15) Chrysene-D12(IS)	16.83	240	3391	2.50000	ppb		-0.01
21) Perylene-D12(IS)	20.59	264	3109	2.50000	ppb		-0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.05	82	1182	3.36762	ppb		0.00
Spiked Amount 5.000			Recovery = 67.360%				
7) Surrogate Recovery (FBP)	7.16	172	2918	3.03816	ppb		0.00
Spiked Amount 5.000			Recovery = 60.760%				
17) Surrogate Recovery (TPH)	13.87	244	4693	4.02604	ppb		-0.01
Spiked Amount 5.000			Recovery = 80.520%				
Target Compounds							Qvalue
3) Naphthalene	5.92	128	3970	3.35902	ppb		100
4) 2-Methylnaphthalene	6.74	142	2687	3.64198	ppb		99
5) 1-Methylnaphthalene	6.84	142	2613	3.46227	ppb		98
8) Acenaphthylene	7.77	152	4517	3.69924	ppb		100
9) Acenaphthene	7.98	154	2659	3.61167	ppb		99
10) Fluorene	8.58	166	3306	3.89321	ppb		99
12) Phenanthrene	9.91	178	4883	3.98981	ppb		100
13) Anthracene	9.99	178	4553	4.02000	ppb		99
14) Fluoranthene	12.66	202	7255	4.38235	ppb		99
16) Pyrene	13.30	202	7554	4.16963	ppb		99
18) Benz (a) anthracene	16.81	228	6924	4.46623	ppb		99
19) Chrysene	16.91	228	7168	4.27777	ppb		99
20) Indeno (1,2,3-cd) pyrene	22.90	276	7037	4.57360	ppb	#	96
22) Benzo (b) fluoranthene	19.68	252	6629	4.63306	ppb		100
23) Benzo (k) fluoranthene	19.75	252	5452	3.92354	ppb		98
24) Benzo (a) pyrene	20.33	252	6188	4.33120	ppb		97
25) Dibenz (a,h) anthracene	22.96	278	5825	4.27154	ppb		98
26) Benzo (g,h,i) perylene	23.43	276	5628	4.36046	ppb		98

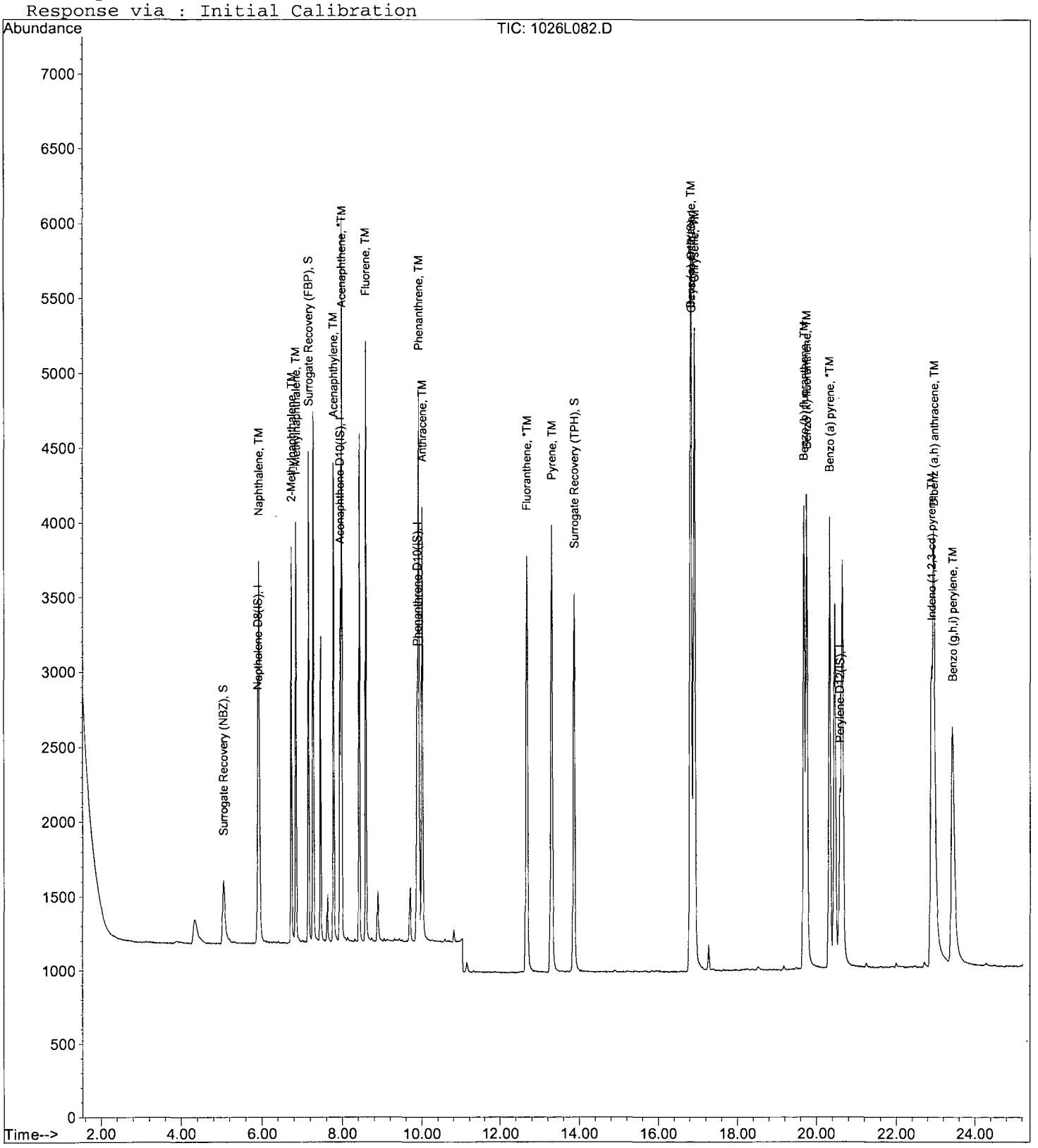
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L082.D Vial: 82
Acq On : 28 Oct 16 13:44 Operator: MA
Sample : 161026A LCS-1 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

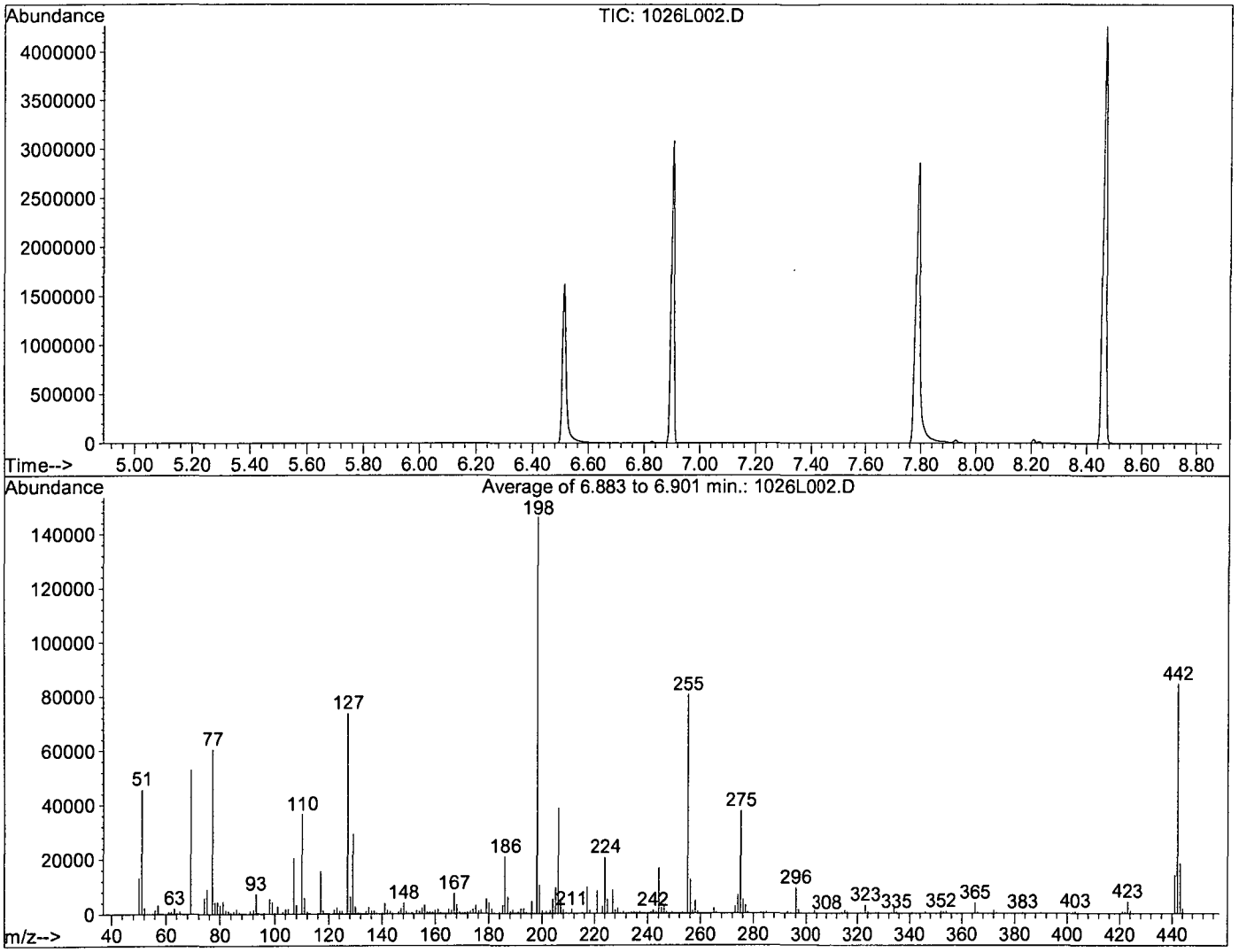
Quant Time: Oct 28 14:17 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L161026\1026L002.D Vial: 2
Acq On : 26 Oct 16 10:58 Operator: MA
Sample : SV TUNE 9/22/16 Inst : Linus
Misc : water Multiplr: 1.00

Method : M:\LINUS\DATA\L161026\DFTPP2.M (Chemstation Integrator)
Title :



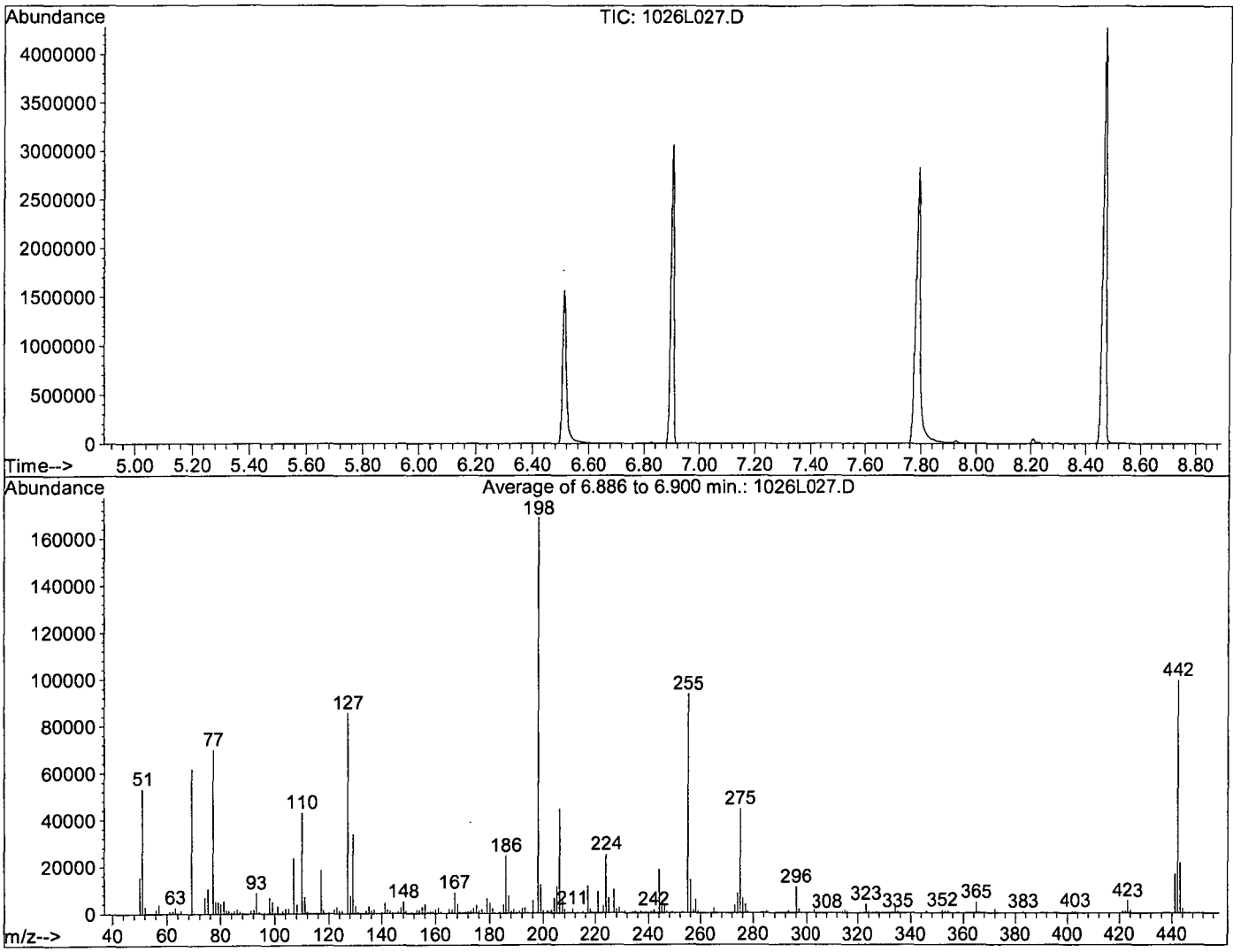
Spectrum Information: Average of 6.883 to 6.901 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.3	45754	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	52873	PASS
70	69	0.00	2	0.4	194	PASS
127	198	40	60	50.4	73640	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	146234	PASS
199	198	5	9	6.9	10141	PASS
275	198	10	30	25.7	37577	PASS
365	198	1	100	2.6	3776	PASS
441	443	0.01	100	76.7	13986	PASS
442	198	40	150	57.8	84489	PASS
443	442	17	23	21.6	18242	PASS

1026L002.D DFTPP2.M Wed Oct 26 16:35:21 2016

Data File : M:\LINUS\DATA\L161026\1026L027.D Vial: 27
Acq On : 27 Oct 16 9:12 Operator: MA
Sample : SV Tune 10/19/16 Inst : Linus
Misc : water Multiplr: 1.00

Method : M:\LINUS\DATA\L161026\DFTPP2.M (Chemstation Integrator)
Title :

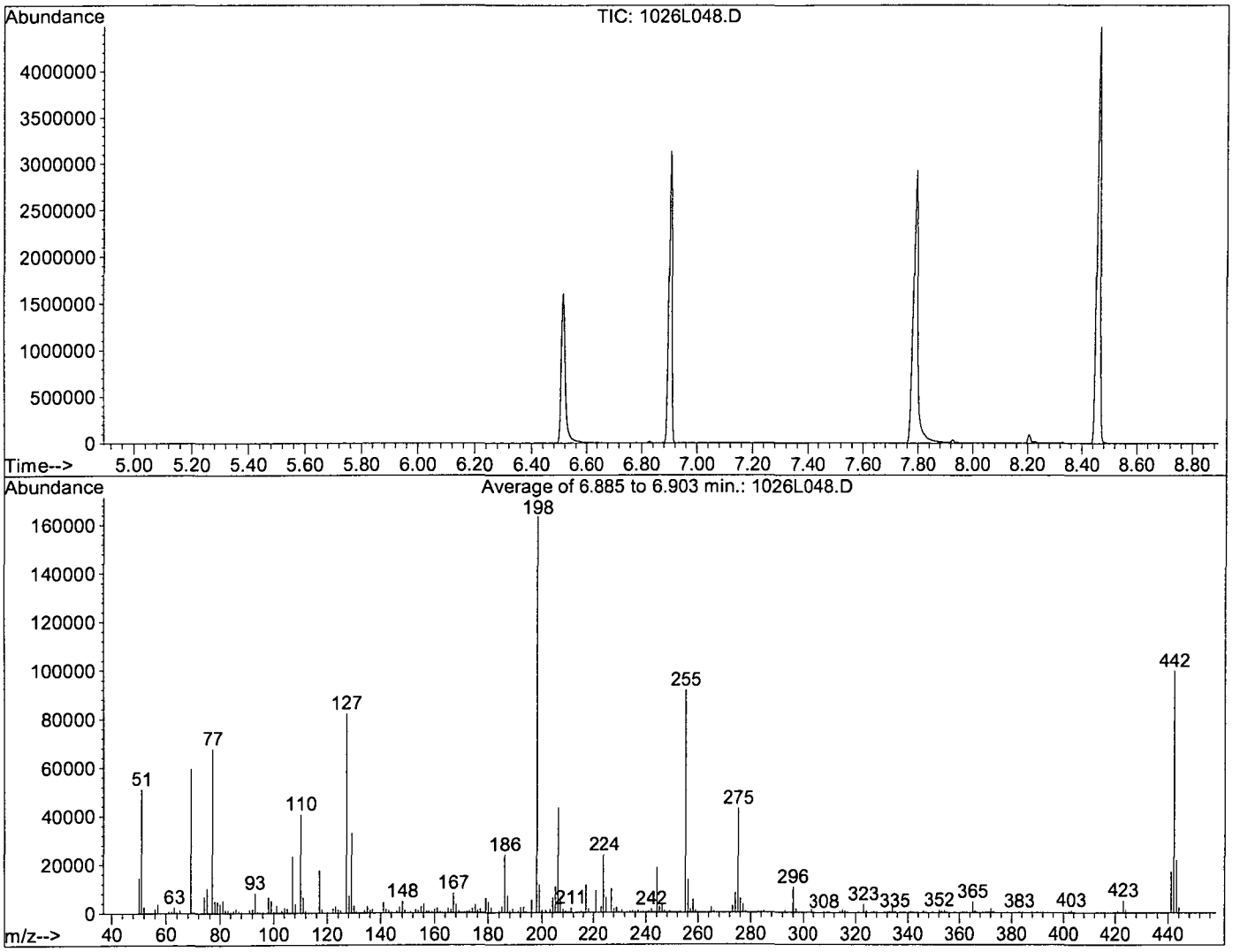


Spectrum Information: Average of 6.886 to 6.900 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.5	53197	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	61886	PASS
70	69	0.00	2	0.6	342	PASS
127	198	40	60	50.5	85364	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	169022	PASS
199	198	5	9	7.0	11885	PASS
275	198	10	30	26.2	44225	PASS
365	198	1	100	2.7	4557	PASS
441	443	0.01	100	77.2	16571	PASS
442	198	40	150	58.7	99219	PASS
443	442	17	23	21.6	21458	PASS

Data File : M:\LINUS\DATA\L161026\1026L048.D Vial: 48
Acq On : 27 Oct 16 20:13 Operator: MA
Sample : SV Tune 10/19/16 Inst : Linus
Misc : water Multiplr: 1.00

Method : M:\LINUS\DATA\L161026\DFTPP2.M (Chemstation Integrator)
Title :

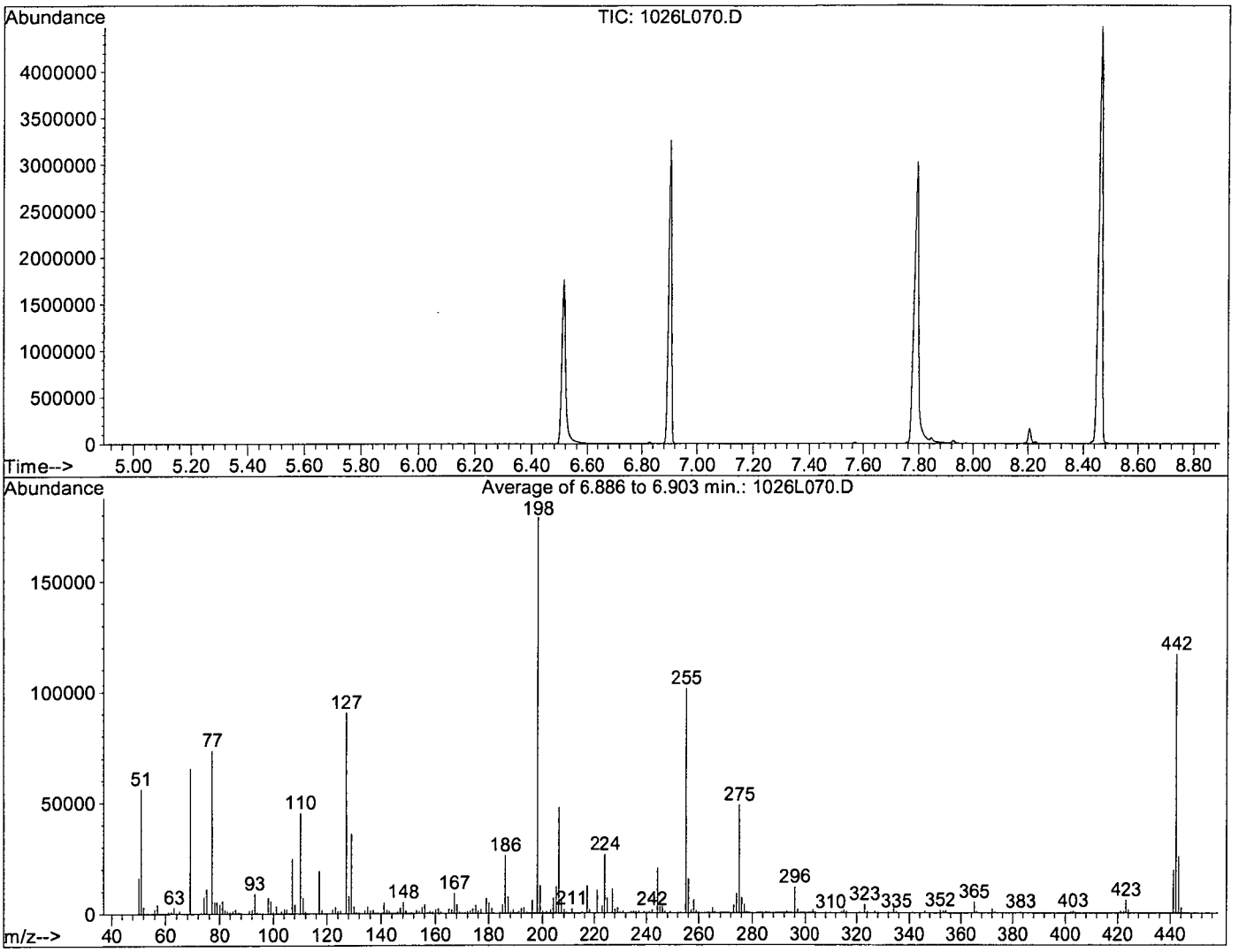


Spectrum Information: Average of 6.885 to 6.903 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.3	51089	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	59594	PASS
70	69	0.00	2	0.5	292	PASS
127	198	40	60	50.3	82225	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	163321	PASS
199	198	5	9	7.0	11367	PASS
275	198	10	30	26.2	42752	PASS
365	198	1	100	2.7	4404	PASS
441	443	0.01	100	78.2	16780	PASS
442	198	40	150	61.0	99552	PASS
443	442	17	23	21.6	21456	PASS

Data File : M:\LINUS\DATA\L161026\1026L070.D Vial: 70
Acq On : 28 Oct 16 7:32 Operator: MA
Sample : SV Tune 10/19/16 Inst : Linus
Misc : water Multiplr: 1.00

Method : M:\LINUS\DATA\L161026\DFTPP2.M (Chemstation Integrator)
Title :



Spectrum Information: Average of 6.886 to 6.903 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.4	56139	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	65510	PASS
70	69	0.00	2	0.4	258	PASS
127	198	40	60	50.6	90552	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	178833	PASS
199	198	5	9	6.9	12423	PASS
275	198	10	30	27.2	48577	PASS
365	198	1	100	2.7	4752	PASS
441	443	0.01	100	75.9	19189	PASS
442	198	40	150	65.3	116804	PASS
443	442	17	23	21.6	25270	PASS

1026L070.D DFTPP2.M Mon Oct 31 12:57:39 2016

8270 PAH SIM Standard Curve

PREP DATE:	10/26/16 RH											
8270 PAH SIM STANDARD CURVE												
Exp.DATE:	**12/20/16**					**0.1**	**0.2**	**0.5**	**1**	**5**	**10**	**50**	**100**
		Conc.		Date									
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL
O2si	8270 PAH SIM S	200	278353-36992	9/12/16	9/12/17	0	0	0	0	5	5	25	50
	5.0ug/mL	5		9/12/16	7/29/17	0	0	10	20	0	0	0	0
	1.0ug/mL	1		9/12/16	7/29/17	10	20	0	0	0	0	0	0
O2SI	BNA SURR.	100/200		10/18/16	1/18/17	0	0	0	0	5	5	25	50
EM Science	Methylene Chloride		56061			90	80	90	80	190	90	50	0
Supelco	SV Internal St	2000	XA14020V-36768	10/10/16	10/10/17	2	2	2	2	4	2	2	2
				Final Vol.		102	102	102	102	204	102	102	102

8270 PAH SIM 2ND SRC

8270 PAH SIM 2ND SRC			Prep: 09/06/16 Exp 01/12/17 RH		
Supplier	**Standard**	**Conc.**	**Prep**	**Exp**	**µL**
O2SI	8270 2ND SRC	VARIOUS	06/03/16	01/21/17	25
	Methylene Chloride				75
o2si	8V Internal Standar	2000	10/10/16	10/10/17	2
LOT#	XA10079V-35507			Final Vol.	102

8270 SIM PAH Internal Standard						
PREP DATE:	10/10/16 RH.					
8270 SIM PAH Internal Standard Mix 125ug/ml						
Exp.DATE:	10/10/17					
		Conc.		Date	Exp.	125
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
Supelco	SV Internal	2000	XA14020V-36768	10/10/16	10/10/17	350
EM Science	Methylene Chloride		56061			5250
				Final Vol.		5600

PAH SIM STD prep: 09/12/16-R.H.						
Exp:	19/12/17					
		Conc.				
Supplier	ID #	mg/L	Lot #	Open Date	Exp.Date	µL
o2si	110780-01	200	278353-36992	6/22/16	6/22/17	1000
				Fin Vol.		1000

8270 Surrog Mix 100/200ppm						
Prep: 10/18/16 -RH Ex: 01/18/17						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
8270 Acid Surrog Mix	10000 ug/ml	Restek Cat# 33029 Lot# A0118884-36874 Op: 10/03/16 EX: 10/03/17	2.0 mL	100 mL	200 µg/mL	MC
8270 B/N surrog Mix	5000 µg/mL	Restek Cat# 31086 Lot# A0119223-36869 Op: 10/03/16 EX: 10/03/17	2.0 mL	100 mL	100 ug/mL	MC

SIM SPIKE	
CAT:	110780-01
Lot:	278353-369
OP: 10/21/16-R.H.	
EX: 10/21/17	

_SEP004S

Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	161026A	Extraction Method	SEP004S	Units	mL

Spiked ID 1	PAH SIM Spike 10-21-16 EXP 10-21-17		Surrogate ID 1	8270 Surrogate 10-18-16 EXP 1-18-17	
Spiked ID 2			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:	10/26/16 10:30	
Spiked ID 8			Ext. End Time:	10/26/16 16:35	
			GC Requires Extract By:	10/28/16 0:00	

pH1	2	0/26/16 10:45:00 AM	Water Bath Temp Criteria	75 °C
pH2	14	0/26/16 12:50:00 PM		
pH3				

Spiked By: DL **Date** 10/26/16 **Witnessed By:** CFM **Date** 10/26/16

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	161026A Blk				0.050	1	1000	1	2/1	10/26/16 10:30	
						equip	E-WB6				
2	161026A LCS-1		0.0250	1	0.050	1	1000	1	2/1	10/26/16 10:30	
						equip	E-WB6				
3	AZ44687	AZ44687W14			0.050	1	1070	1	2/1	10/26/16 10:30	81251 1 WEEK
						equip	E-WB6				
4	AZ44688	AZ44688W10			0.050	1	1050	1	2/1	10/26/16 10:30	81251 1 WEEK
						equip	E-WB6				
5	AZ44689	AZ44689W12			0.050	1	1070	1	2/1	10/26/16 10:30	81251 1 WEEK
						equip	E-WB6				
6	AZ44690	AZ44690W09			0.050	1	1070	1	2/1	10/26/16 10:30	81251 1 WEEK
						equip	E-WB6				
7	AZ44691	AZ44691W12			0.050	1	1070	1	2/1	10/26/16 10:30	81251 1 WEEK
						equip	E-WB6				
8	AZ44692	AZ44692W07			0.050	1	1070	1	2/1	10/26/16 10:30	81251 1 WEEK
						equip	E-WB6				
9	AZ44693	AZ44693W07			0.050	1	1070	1	2/1	10/26/16 10:30	81251 1 WEEK
						equip	E-WB6				
10	AZ44694	AZ44694W19			0.050	1	1070	1	2/1	10/26/16 10:30	81251 1 WEEK
						equip	E-WB6				
11	AZ44695	AZ44695W09			0.050	1	1020	1	2/1	10/26/16 10:30	81251 1 WEEK
						equip	E-WB6				
12	AZ44696	AZ44696W09			0.050	1	1070	1	2/1	10/26/16 10:30	81251 1 WEEK
						equip	E-WB6				

KY 10/26/16

Solvent and Lot#	
1+1 Acid	9-28-16
PH STRIP	HC 574756
MC	56098
A. Na2SO4	9-26-16
10N NaOH	9-2-16
B. Na2SO4	XK07E
FILTER PAPER	400112

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	RH
Date	10/26/16
Time	5:00
Refrigerator	GC-C

	Technician's Initials
Scanned By	DC
Sample Preparation	DC,KY,DL
Extraction	DC,KY,DL
Concentration	DL

Modified	10/26/16 4:39:36 PM

Reviewed By: KY **Date** 10/26/16

Injection Log

Directory: M:\LINUS\DATA\L161026\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1026L002.D	1	SV TUNE 9/22/16	water	26 Oct 16 10:58
2	3	1026L003.D	1	0.1 ug/ml PAH 10/26/16	water	26 Oct 16 11:23
3	4	1026L004.D	1	0.2 ug/ml PAH 10/26/16	water	26 Oct 16 11:56
4	5	1026L005.D	1	0.5 ug/ml PAH 10/26/16	water	26 Oct 16 12:28
5	6	1026L006.D	1	1.0 ug/ml PAH 10/26/16 (1)	water	26 Oct 16 13:01
6	7	1026L007.D	1	5.0 ug/ml PAH 10/26/16	water	26 Oct 16 13:33
7	8	1026L008.D	1	10.0 ug/ml PAH 10/26/16	water	26 Oct 16 14:05
8	9	1026L009.D	1	50.0 ug/ml PAH 10/26/16	water	26 Oct 16 14:37
9	10	1026L010.D	1	100.0 ug/ml PAH 10/26/16	water	26 Oct 16 15:09
10	11	1026L011.D	1	SS PAH 10/26/16	water	26 Oct 16 15:42
11	27	1026L027.D	1	SV Tune 10/19/16	water	27 Oct 16 9:12
12	28	1026L028.D	1	2.5 ug/ml PAH 10/26/16 (1)	water	27 Oct 16 9:29
13	43	1026L043.D	0.93458	AZ44689W12 1/1070	water	27 Oct 16 17:49
14	44	1026L044.D	0.93458	AZ44690W09 1/1070	water	27 Oct 16 18:21
15	45	1026L045.D	0.93458	AZ44691W12 1/1070	water	27 Oct 16 18:54
16	46	1026L046.D	0.93458	AZ44692W07 1/1070	water	27 Oct 16 19:26
17	48	1026L048.D	1	SV Tune 10/19/16	water	27 Oct 16 20:13
18	49	1026L049.D	1	2.5 ug/ml PAH 10/26/16 (1)	water	27 Oct 16 20:30
19	52	1026L052.D	0.98039	AZ44695W09 1/1020	water	27 Oct 16 22:07
20	70	1026L070.D	1	SV Tune 10/19/16	water	28 Oct 16 7:32
21	71	1026L071.D	1	2.5 ug/ml PAH 10/26/16 (2)	water	28 Oct 16 7:49
22	81	1026L081.D	1	161026A BLK 1/1000	water	28 Oct 16 13:12
23	82	1026L082.D	1	161026A LCS-1 1/1000	water	28 Oct 16 13:44
24	83	1026L083.D	0.93458	AZ44687W14 1/1070	water	28 Oct 16 14:17
25	84	1026L084.D	0.95238	AZ44688W10 1/1050	water	28 Oct 16 14:49
26	85	1026L085.D	0.934579	AZ44693W07 1/1070	water	28 Oct 16 15:22
27	86	1026L086.D	0.934579	AZ44694W19 1/1070	water	28 Oct 16 15:54
28	87	1026L087.D	0.934579	AZ44696W09 1/1070	water	28 Oct 16 16:27
29	92	1026L092.D	1	2.5 ug/ml PAH 10/26/16 (1)	water	28 Oct 16 18:53

ORGANICS

APPL, INC.

ORGANICS

QC Summary

APPL, INC.

Method Blank
EPA 8270D WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161026W-44687 - 213140**
Batch ID: #87DC5-161026A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/26/16	10/27/16
BLANK	SURROGATE: 2,4,6-TRIBROMOP	71.9	43-140			%	10/26/16	10/27/16
BLANK	SURROGATE: 2-FLUORBIPHENY	68.3	44-119			%	10/26/16	10/27/16
BLANK	SURROGATE: 2-FLUOROPHENO	49.0	19-119			%	10/26/16	10/27/16
BLANK	SURROGATE: NITROBENZENE-	66.3	44-120			%	10/26/16	10/27/16
BLANK	SURROGATE: PHENOL-D6 (S)	29.5	10-115			%	10/26/16	10/27/16
BLANK	SURROGATE: TERPHENYL-D14 (	70.8	50-134			%	10/26/16	10/27/16

Quant Method:Y1021.M
Run #:1021Y104
Instrument:Yoda
Sequence:Y161021
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 10/28/16 10:11:42 AM

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/27/16

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161026A-BLK	Blank	43-140	71.9		44-119	68.3	
161026A-LCS	Lab Control Spike	43-140	67.0		44-119	56.3	
AZ44687	ERH091	43-140	73.2		44-119	61.6	
AZ44688	ERH089	43-140	70.7		44-119	63.6	
AZ44689	ERH093	43-140	67.9		44-119	63.0	
AZ44690	ERH097	43-140	63.7		44-119	56.7	
AZ44691	ERH098	43-140	61.8		44-119	56.8	
AZ44692	ERH100	43-140	64.3		44-119	61.4	
AZ44693	ERH101	43-140	61.4		44-119	55.5	
AZ44694	ERH102	43-140	63.8		44-119	54.3	
AZ44695	ERH104	43-140	63.6		44-119	59.0	
AZ44696	ERH105	43-140	62.9		44-119	59.1	

Comments: Batch: #87DC5-161026A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/27/16

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161026A-BLK	Blank	19-119	49.0		44-120	66.3	
161026A-LCS	Lab Control Spike	19-119	43.2		44-120	58.3	
AZ44687	ERH091	19-119	41.7		44-120	61.5	
AZ44688	ERH089	19-119	42.5		44-120	62.1	
AZ44689	ERH093	19-119	43.5		44-120	63.1	
AZ44690	ERH097	19-119	39.1		44-120	55.2	
AZ44691	ERH098	19-119	41.5		44-120	54.1	
AZ44692	ERH100	19-119	41.9		44-120	59.6	
AZ44693	ERH101	19-119	40.0		44-120	55.2	
AZ44694	ERH102	19-119	37.7		44-120	53.5	
AZ44695	ERH104	19-119	42.1		44-120	58.4	
AZ44696	ERH105	19-119	41.8		44-120	57.6	

Comments: Batch: #87DC5-161026A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/27/16

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL-D6 (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161026A-BLK	Blank	10-115	29.5		50-134	70.8	
161026A-LCS	Lab Control Spike	10-115	27.2		50-134	68.4	
AZ44687	ERH091	10-115	25.7		50-134	61.9	
AZ44688	ERH089	10-115	26.2		50-134	66.3	
AZ44689	ERH093	10-115	26.5		50-134	64.4	
AZ44690	ERH097	10-115	24.9		50-134	59.9	
AZ44691	ERH098	10-115	25.9		50-134	59.2	
AZ44692	ERH100	10-115	25.8		50-134	63.3	
AZ44693	ERH101	10-115	24.9		50-134	62.1	
AZ44694	ERH102	10-115	23.5		50-134	60.5	
AZ44695	ERH104	10-115	26.2		50-134	62.4	
AZ44696	ERH105	10-115	26.4		50-134	60.5	

Comments: Batch: #87DC5-161026A

Laboratory Control Spike Recovery
EPA 8270D WATER

APPL ID: **161026W-44687 LCS - 213140**
Batch ID: #87DC5-161026A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
PHENOL	50.0	17.7	35.4	10-115
SURROGATE: 2,4,6-TRIBROMOPHENOL	200	134	67.0	43-140
SURROGATE: 2-FLUORBIPHENYL (S)	100	56.3	56.3	44-119
SURROGATE: 2-FLUOROPHENOL (S)	200	86.4	43.2	19-119
SURROGATE: NITROBENZENE-D5 (S)	100	58.3	58.3	44-120
SURROGATE: PHENOL-D6 (S)	200	54.4	27.2	10-115
SURROGATE: TERPHENYL-D14 (S)	100	68.4	68.4	50-134

Comments: _____

Primary	SPK
Quant Method :	Y1021.M
Extraction Date :	10/26/16
Analysis Date :	10/27/16
Instrument :	Yoda
Run :	1021Y105
Initials :	MA

Printed: 10/28/16 10:11:45 AM
APPL Standard LCS

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/27/16

Matrix: WATER Instrument: Yoda

Blank ID: 161026A-BLK Time Analyzed: 1017

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161026A-BLK	Blank	1021Y104	10/27/16 1017
161026A-LCS	Lab Control Spike	1021Y105	10/27/16 1046
AZ44687	ERH091	1021Y106	10/27/16 1116
AZ44688	ERH089	1021Y107	10/27/16 1145
AZ44689	ERH093	1021Y108	10/27/16 1215
AZ44690	ERH097	1021Y109	10/27/16 1244
AZ44691	ERH098	1021Y110	10/27/16 1314
AZ44692	ERH100	1021Y111	10/27/16 1343
AZ44693	ERH101	1021Y112	10/27/16 1413
AZ44694	ERH102	1021Y113	10/27/16 1442
AZ44695	ERH104	1021Y114	10/27/16 1512
AZ44696	ERH105	1021Y115	10/27/16 1541

Comments: Batch: #87DC5-161026A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: SV Tune 10/19/16

SDG No: 81251
Date Analyzed: 10/24/16
Instrument: Yoda
Time Analyzed: 9:35

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5ug/ml SVOC 10/20/16	1021Y003.D	10/24/16 9:51
2		10ug/ml SVOC 10/20/1	1021Y004.D	10/24/16 10:21
3		20ug/ml SVOC 10/20/1	1021Y005.D	10/24/16 10:50
4		40ug/ml SVOC 10/20/1	1021Y006.D	10/24/16 11:20
5		50ug/ml SVOC 10/20/1	1021Y007.D	10/24/16 11:49
6		60ug/ml SVOC 10/20/1	1021Y008.D	10/24/16 12:19
7		80ug/ml SVOC 10/20/1	1021Y009.D	10/24/16 12:48
8		100ug/ml SVOC 10/20/	1021Y010.D	10/24/16 13:18
9		SS SVOC 10/20/16	1021Y011.D	10/24/16 13:47
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	45.4
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.4
127	40 - 60% of mass 198	54.9
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 197.95	100.0
199	5 - 9% of mass 198	7.4
275	10 - 30% of mass 198	22.4
365	1 - 100% of mass 198	3.2
441	0.01 - 100% of mass 443	88.7
442	50 - 150% of mass 197.95	88.0
443	17 - 23% of mass 442	19.1

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 81251
Matrix: Water
ID: SV Tune 10/19/16

SDG No: 81251
Date Analyzed: 10/27/16
Instrument: Yoda
Time Analyzed: 9:22

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml SVOC 10/20/1	1021Y103.D	10/27/16 9:37
2	Blank	161026A BLK 1/1000	1021Y104.D	10/27/16 10:17
3	Lab Control Spike	161026A LCS-1 1/1000	1021Y105.D	10/27/16 10:46
4	ERH091	AZ44687W11 1/1070	1021Y106.D	10/27/16 11:16
5	ERH089	AZ44688W12 1/1070	1021Y107.D	10/27/16 11:45
6	ERH093	AZ44689W14 1/1070	1021Y108.D	10/27/16 12:15
7	ERH097	AZ44690W14 1/1070	1021Y109.D	10/27/16 12:44
8	ERH098	AZ44691W14 1/1070	1021Y110.D	10/27/16 13:14
9	ERH100	AZ44692W11 1/1070	1021Y111.D	10/27/16 13:43
10	ERH101	AZ44693W10 1/1070	1021Y112.D	10/27/16 14:13
11	ERH102	AZ44694W14 1/1070	1021Y113.D	10/27/16 14:42
12	ERH104	AZ44695W12 1/1070	1021Y114.D	10/27/16 15:12
13	ERH105	AZ44696W06 1/1070	1021Y115.D	10/27/16 15:41
14		50ug/ml SVOC 10/20/1	1021Y117.D	10/27/16 16:45
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	46.0
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.6
127	40 - 60% of mass 198	56.2
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 197.95	100.0
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.7
365	1 - 100% of mass 198	3.3
441	0.01 - 100% of mass 443	84.0
442	50 - 150% of mass 197.95	94.7
443	17 - 23% of mass 442	19.4

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 81251

Lab File ID (Standard): 1021Y007.D Date Analyzed: 10/24/16

Instrument ID: Yoda Time Analyzed: 11:49

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

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	316560	5.11	1345290	6.55	793448	8.58
	UPPER LIMIT	633120	5.61	2690580	7.05	1586896	9.08
	LOWER LIMIT	158280	4.61	672645	6.05	396724	8.08
	SAMPLE NO.						
01	50ug/ml SVOC 10/20/16	317064	5.11	1367340	6.55	796206	8.58
02	161026A BLK 1/1000	306650	5.11	1367600	6.55	778427	8.58
03	161026A LCS-1 1/1000	336489	5.12	1445900	6.55	845953	8.58
04	AZ44687W11 1/1070	368963	5.12	1586560	6.55	890096	8.58
05	AZ44688W12 1/1070	337524	5.11	1511300	6.55	855785	8.58
06	AZ44689W14 1/1070	331512	5.11	1444520	6.55	822932	8.57
07	AZ44690W14 1/1070	369702	5.11	1620810	6.55	917777	8.57
08	AZ44691W14 1/1070	335894	5.11	1486710	6.55	849414	8.58
09	AZ44692W11 1/1070	332866	5.11	1448930	6.55	838184	8.58
10	AZ44693W10 1/1070	337521	5.11	1456780	6.55	836343	8.58
11	AZ44694W14 1/1070	341502	5.12	1485740	6.55	840359	8.58
12	AZ44695W12 1/1070	342426	5.11	1487630	6.55	855764	8.58
13	AZ44696W06 1/1070	328169	5.12	1430180	6.55	825169	8.58
14	50ug/ml SVOC 10/20/16	311947	5.12	1360970	6.55	795409	8.58
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 = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 81251

Lab File ID (Standard): 1021Y007.D Date Analyzed: 10/24/16

Instrument ID: Yoda Time Analyzed: 11:49

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

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1468740	10.32	1279340	13.42	1312430	15.17
	UPPER LIMIT	2937480	10.82	2558680	13.92	2624860	15.67
	LOWER LIMIT	734370	9.82	639670	12.92	656215	14.67
	SAMPLE NO.						
01	50ug/ml SVOC 10/20/16	1474200	10.32	1246030	13.41	1298590	15.17
02	161026A BLK 1/1000	1438500	10.32	1352310	13.41	620683 *	15.17
03	161026A LCS-1 1/1000	1530960	10.31	1362820	13.42	906679	15.16
04	AZ44687W11 1/1070	1676070	10.31	1607180	13.41	965957	15.16
05	AZ44688W12 1/1070	1562850	10.31	1463450	13.41	898171	15.17
06	AZ44689W14 1/1070	1495570	10.31	1421150	13.41	870590	15.17
07	AZ44690W14 1/1070	1676870	10.32	1585990	13.41	1007630	15.17
08	AZ44691W14 1/1070	1533390	10.31	1479890	13.41	949418	15.17
09	AZ44692W11 1/1070	1514170	10.31	1440420	13.41	945986	15.16
10	AZ44693W10 1/1070	1524140	10.31	1430920	13.41	959437	15.16
11	AZ44694W14 1/1070	1543200	10.31	1463020	13.42	979111	15.16
12	AZ44695W12 1/1070	1554570	10.31	1467040	13.41	1014020	15.17
13	AZ44696W06 1/1070	1511150	10.31	1427140	13.41	1000270	15.16
14	50ug/ml SVOC 10/20/16	1464550	10.32	1319240	13.41	1306210	15.17
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 = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

ORGANICS

Sample Data

APPL, INC.

EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH091

APPL ID: AZ44687

Sample Collection Date: 10/19/16

QCG: #87DC5-161026A-213140

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	73.2	43-140			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	61.6	44-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	41.7	19-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	61.5	44-120			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: PHENOL-D6 (S)	25.7	10-115			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	61.9	50-134			%	10/26/16	10/27/16

Quant Method: Y1021.M
Run #: 1021Y106
Instrument: Yoda
Sequence: Y161021
Dilution Factor: 1
Initials: MA

Printed: 10/28/16 10:12:05 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y106.D Vial: 6
Acq On : 27 Oct 16 11:16 Operator: MA
Sample : AZ44687W11 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:06 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	368963	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1586562	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	890096	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.31	188	1676065	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1607181	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.16	264	965957	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.60	112	1031961	77.96123 ppb	-0.01
Spiked Amount 186.916			Recovery =	41.709%	
5) Phenol-D6 (S)	4.75	99	847955	47.97429 ppb	0.00
Spiked Amount 186.916			Recovery =	25.666%	
21) Nitrobenzene-D5(S)	5.75	82	1007021	57.47866 ppb	0.00
Spiked Amount 93.458			Recovery =	61.503%	
45) 2-Fluorobiphenyl(S)	7.80	172	1739872	57.55029 ppb	0.00
Spiked Amount 93.458			Recovery =	61.578%	
63) 2,4,6-Tribromophenol(S)	9.52	330	594386	136.76452 ppb	0.00
Spiked Amount 186.916			Recovery =	73.169%	
81) Terphenyl-D14(S)	12.19	244	2382946	57.88845 ppb	0.00
Spiked Amount 93.458			Recovery =	61.940%	

Target Compounds	Qvalue

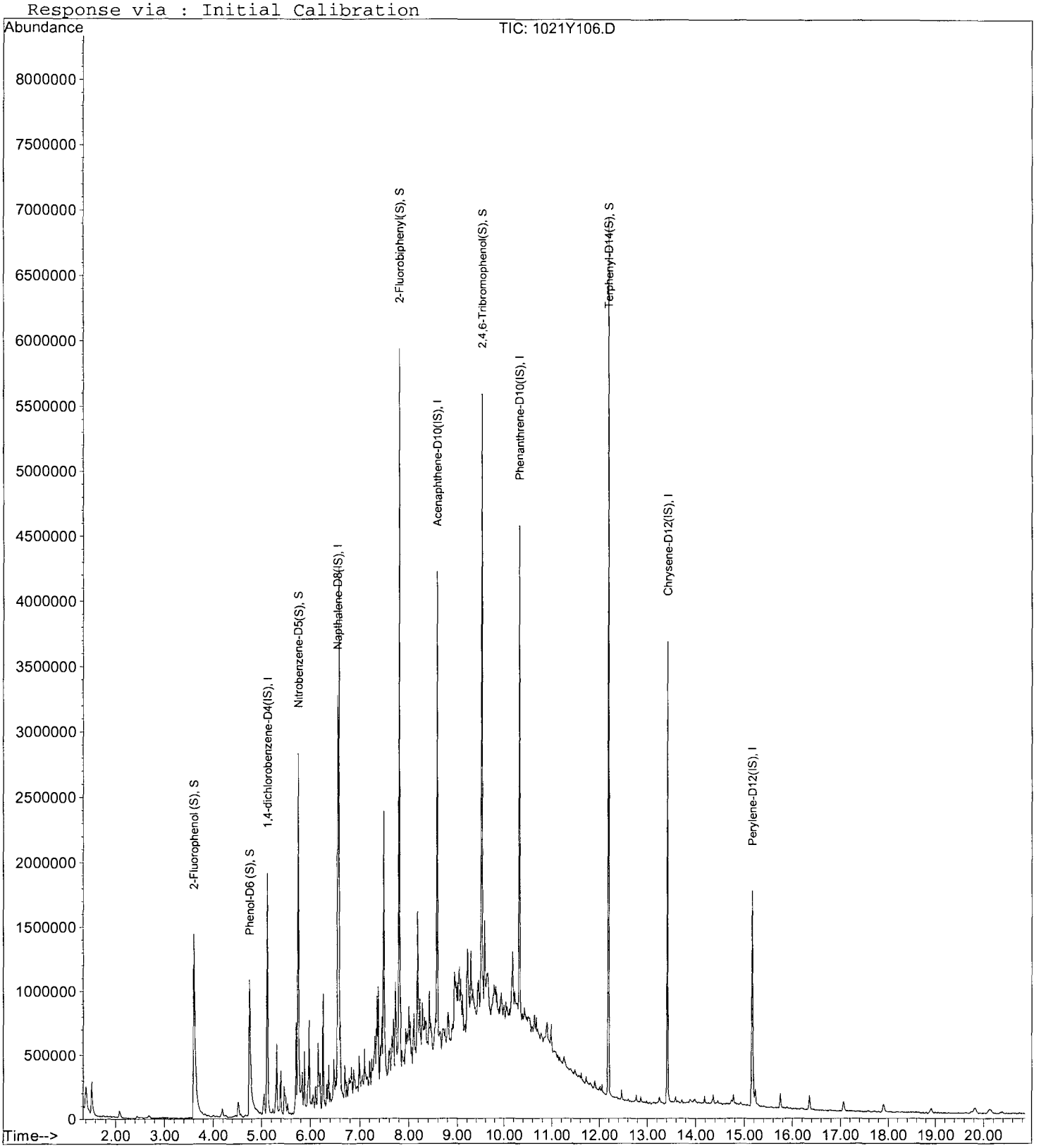
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y106.D Vial: 6
Acq On : 27 Oct 16 11:16 Operator: MA
Sample : AZ44687W11 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:06 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH089

APPL ID: AZ44688

Sample Collection Date: 10/19/16

QCG: #87DC5-161026A-213140

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	70.7	43-140			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	63.6	44-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	42.5	19-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	62.1	44-120			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: PHENOL-D6 (S)	26.2	10-115			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	66.3	50-134			%	10/26/16	10/27/16

Quant Method: Y1021.M
Run #: 1021Y107
Instrument: Yoda
Sequence: Y161021
Dilution Factor: 1
Initials: MA

Printed: 10/28/16 10:12:05 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y107.D Vial: 7
Acq On : 27 Oct 16 11:45 Operator: MA
Sample : AZ44688W12 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:07 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	337524	40.00000	ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1511299	40.00000	ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	855785	40.00000	ppb	0.00
64) Phenanthrene-D10(IS)	10.31	188	1562845	40.00000	ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1463453	40.00000	ppb	0.00
88) Perylene-D12(IS)	15.17	264	898171	40.00000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.61	112	962556	79.49129	ppb	0.00
Spiked Amount 186.916			Recovery = 42.528%			
5) Phenol-D6 (S)	4.75	99	791130	48.92849	ppb	0.00
Spiked Amount 186.916			Recovery = 26.176%			
21) Nitrobenzene-D5(S)	5.74	82	968475	58.03142	ppb	0.00
Spiked Amount 93.458			Recovery = 62.093%			
45) 2-Fluorobiphenyl(S)	7.80	172	1727028	59.41578	ppb	0.00
Spiked Amount 93.458			Recovery = 63.575%			
63) 2,4,6-Tribromophenol(S)	9.51	330	552123	132.13348	ppb	0.00
Spiked Amount 186.916			Recovery = 70.691%			
81) Terphenyl-D14(S)	12.19	244	2322312	61.95613	ppb	0.00
Spiked Amount 93.458			Recovery = 66.293%			

Target Compounds Qvalue

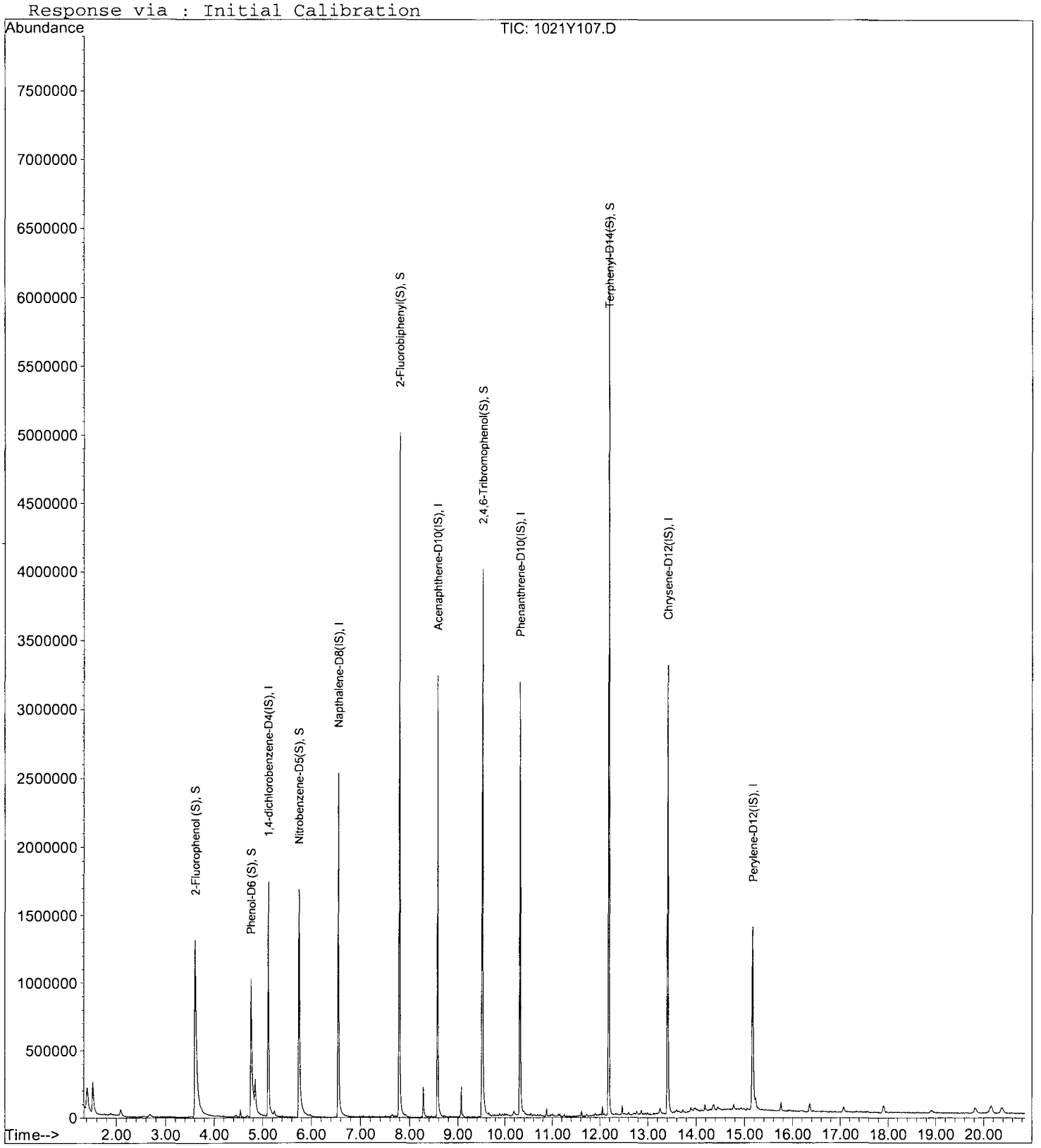
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y107.D Vial: 7
Acq On : 27 Oct 16 11:45 Operator: MA
Sample : AZ44688W12 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:07 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH093

APPL ID: AZ44689

Sample Collection Date: 10/19/16

QCG: #87DC5-161026A-213140

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	67.9	43-140			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	63.0	44-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	43.5	19-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	63.1	44-120			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: PHENOL-D6 (S)	26.5	10-115			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	64.4	50-134			%	10/26/16	10/27/16

Quant Method: Y1021.M
Run #: 1021Y108
Instrument: Yoda
Sequence: Y161021
Dilution Factor: 1
Initials: MA

Printed: 10/28/16 10:12:05 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y108.D Vial: 8
Acq On : 27 Oct 16 12:15 Operator: MA
Sample : AZ44689W14 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:08 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	331512	40.00000	ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1444523	40.00000	ppb	0.00
40) Acenaphthene-D10(IS)	8.57	164	822932	40.00000	ppb	0.00
64) Phenanthrene-D10(IS)	10.31	188	1495567	40.00000	ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1421149	40.00000	ppb	0.00
88) Perylene-D12(IS)	15.17	264	870590	40.00000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.61	112	966801	81.28980	ppb	0.00
Spiked Amount 186.916			Recovery = 43.490%			
5) Phenol-D6 (S)	4.75	99	785180	49.44115	ppb	0.00
Spiked Amount 186.916			Recovery = 26.451%			
21) Nitrobenzene-D5(S)	5.75	82	940644	58.96930	ppb	0.00
Spiked Amount 93.458			Recovery = 63.097%			
45) 2-Fluorobiphenyl(S)	7.79	172	1644584	58.83818	ppb	0.00
Spiked Amount 93.458			Recovery = 62.957%			
63) 2,4,6-Tribromophenol(S)	9.51	330	509899	126.90009	ppb	0.00
Spiked Amount 186.916			Recovery = 67.892%			
81) Terphenyl-D14(S)	12.19	244	2192011	60.22067	ppb	0.00
Spiked Amount 93.458			Recovery = 64.436%			

Target Compounds Qvalue

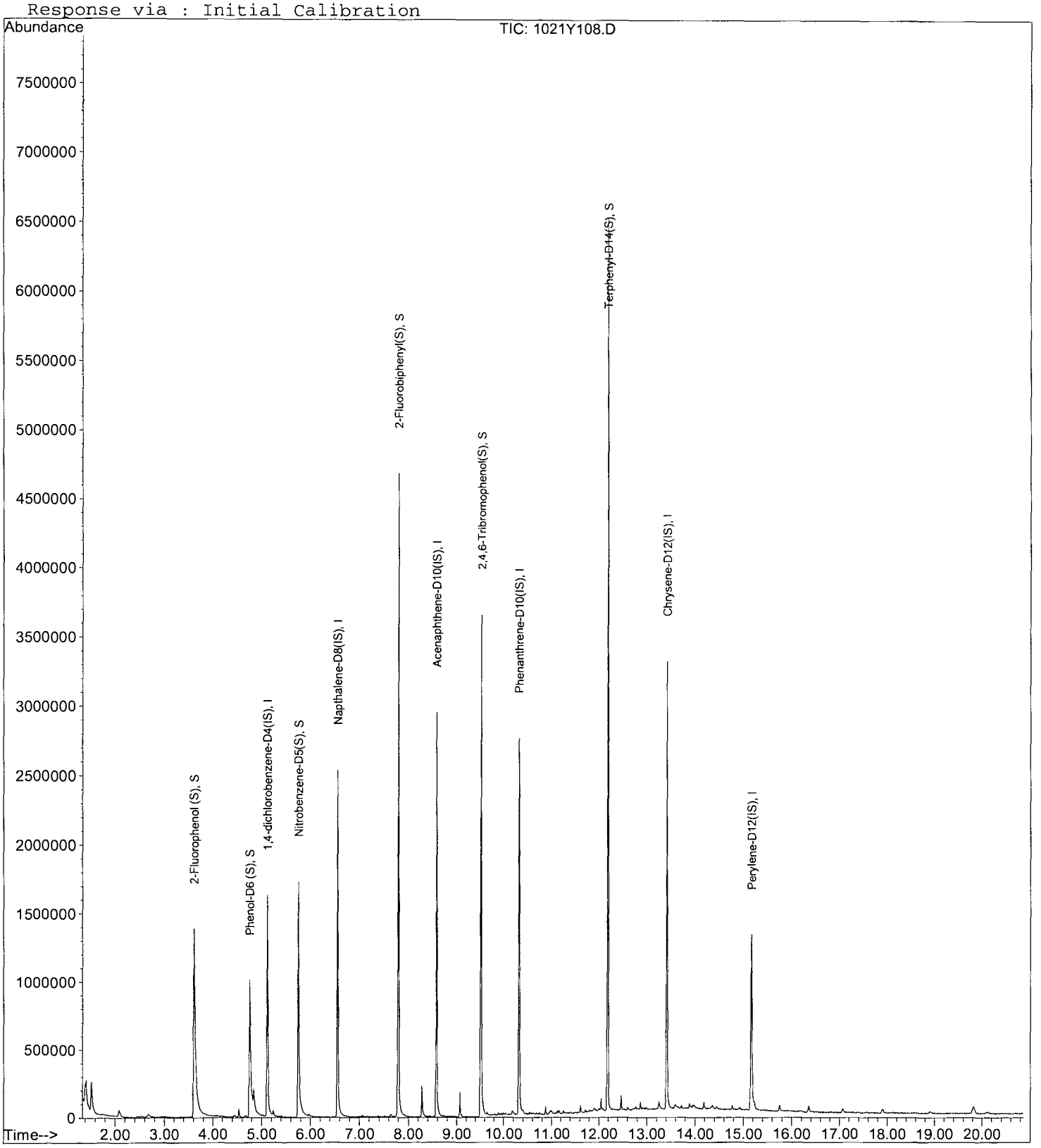
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y108.D Vial: 8
Acq On : 27 Oct 16 12:15 Operator: MA
Sample : AZ44689W14 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:08 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH097

APPL ID: AZ44690

Sample Collection Date: 10/19/16

QCG: #87DC5-161026A-213140

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	63.7	43-140			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	56.7	44-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	39.1	19-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	55.2	44-120			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: PHENOL-D6 (S)	24.9	10-115			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	59.9	50-134			%	10/26/16	10/27/16

Quant Method: Y1021.M
Run #: 1021Y109
Instrument: Yoda
Sequence: Y161021
Dilution Factor: 1
Initials: MA

Printed: 10/28/16 10:12:05 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y109.D Vial: 9
Acq On : 27 Oct 16 12:44 Operator: MA
Sample : AZ44690W14 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:09 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	369702	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1620812	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.57	164	917777	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.32	188	1676874	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1585985	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.17	264	1007634	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.61	112	970517	73.17278 ppb	0.00
Spiked Amount 186.916			Recovery =	39.148%	
5) Phenol-D6 (S)	4.75	99	824192	46.53666 ppb	0.00
Spiked Amount 186.916			Recovery =	24.897%	
21) Nitrobenzene-D5(S)	5.75	82	922570	51.54563 ppb	0.00
Spiked Amount 93.458			Recovery =	55.154%	
45) 2-Fluorobiphenyl(S)	7.79	172	1652590	53.01455 ppb	0.00
Spiked Amount 93.458			Recovery =	56.726%	
63) 2,4,6-Tribromophenol(S)	9.51	330	533763	119.11131 ppb	0.00
Spiked Amount 186.916			Recovery =	63.724%	
81) Terphenyl-D14(S)	12.19	244	2273232	55.96122 ppb	0.00
Spiked Amount 93.458			Recovery =	59.878%	
Target Compounds					Qvalue

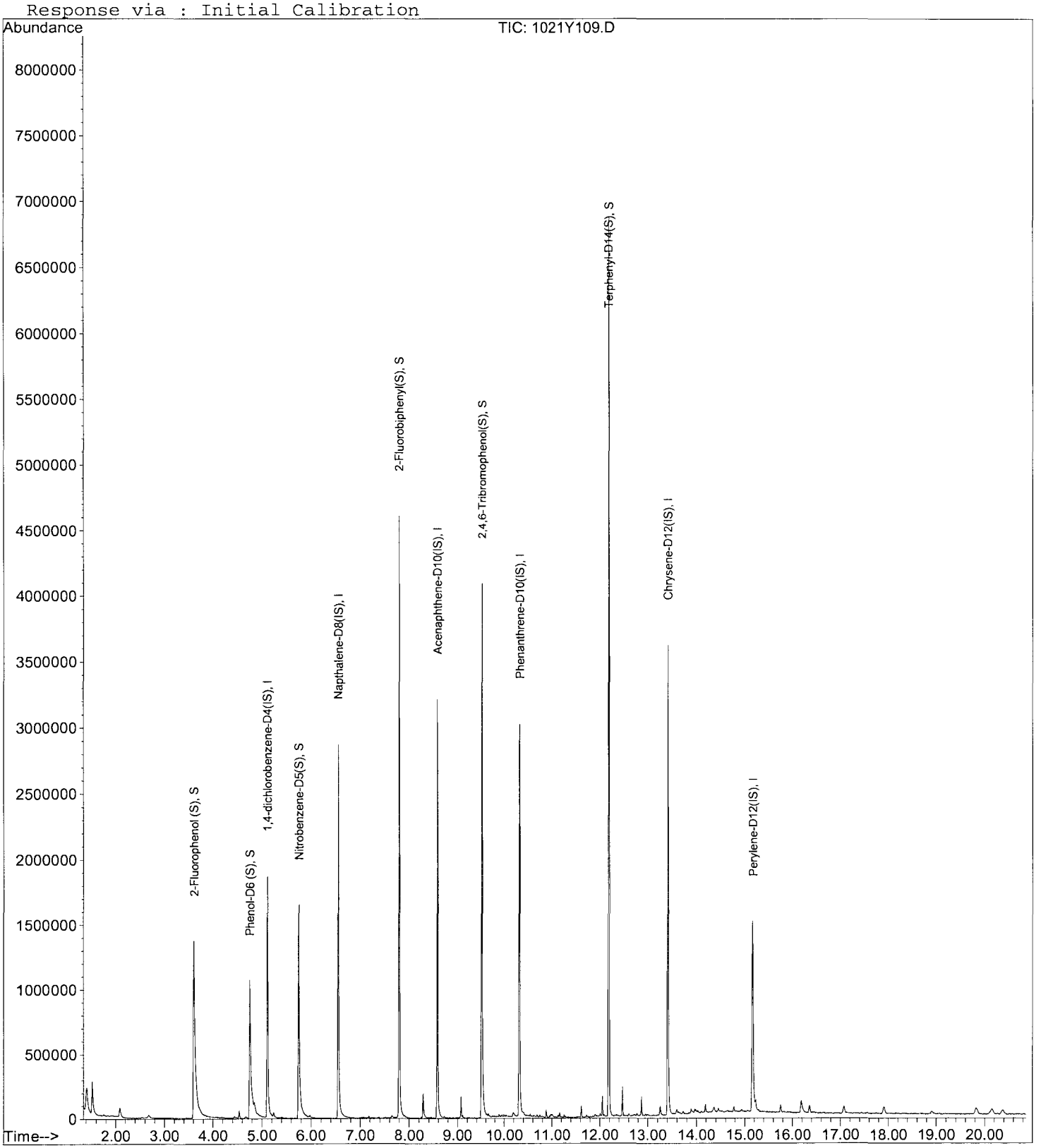
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y109.D Vial: 9
Acq On : 27 Oct 16 12:44 Operator: MA
Sample : AZ44690W14 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:09 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH098

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44691

QCG: #87DC5-161026A-213140

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	61.8	43-140			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	56.8	44-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	41.5	19-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	54.1	44-120			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: PHENOL-D6 (S)	25.9	10-115			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	59.2	50-134			%	10/26/16	10/27/16

Quant Method: Y1021.M
Run #: 1021Y110
Instrument: Yoda
Sequence: Y161021
Dilution Factor: 1
Initials: MA

Printed: 10/28/16 10:12:05 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y110.D Vial: 10
Acq On : 27 Oct 16 13:14 Operator: MA
Sample : AZ44691W14 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:09 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	335894	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1486713	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	849414	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.31	188	1533394	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1479893	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.17	264	949418	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.61	112	935500	77.63182 ppb	0.00
Spiked Amount 186.916			Recovery =	41.533%	
5) Phenol-D6 (S)	4.75	99	778550	48.38412 ppb	0.00
Spiked Amount 186.916			Recovery =	25.885%	
21) Nitrobenzene-D5(S)	5.75	82	830218	50.56968 ppb	0.00
Spiked Amount 93.458			Recovery =	54.110%	
45) 2-Fluorobiphenyl(S)	7.80	172	1531250	53.07546 ppb	0.00
Spiked Amount 93.458			Recovery =	56.790%	
63) 2,4,6-Tribromophenol(S)	9.51	330	479283	115.56181 ppb	0.00
Spiked Amount 186.916			Recovery =	61.826%	
81) Terphenyl-D14(S)	12.19	244	2097443	55.33531 ppb	0.00
Spiked Amount 93.458			Recovery =	59.208%	

Target Compounds Qvalue

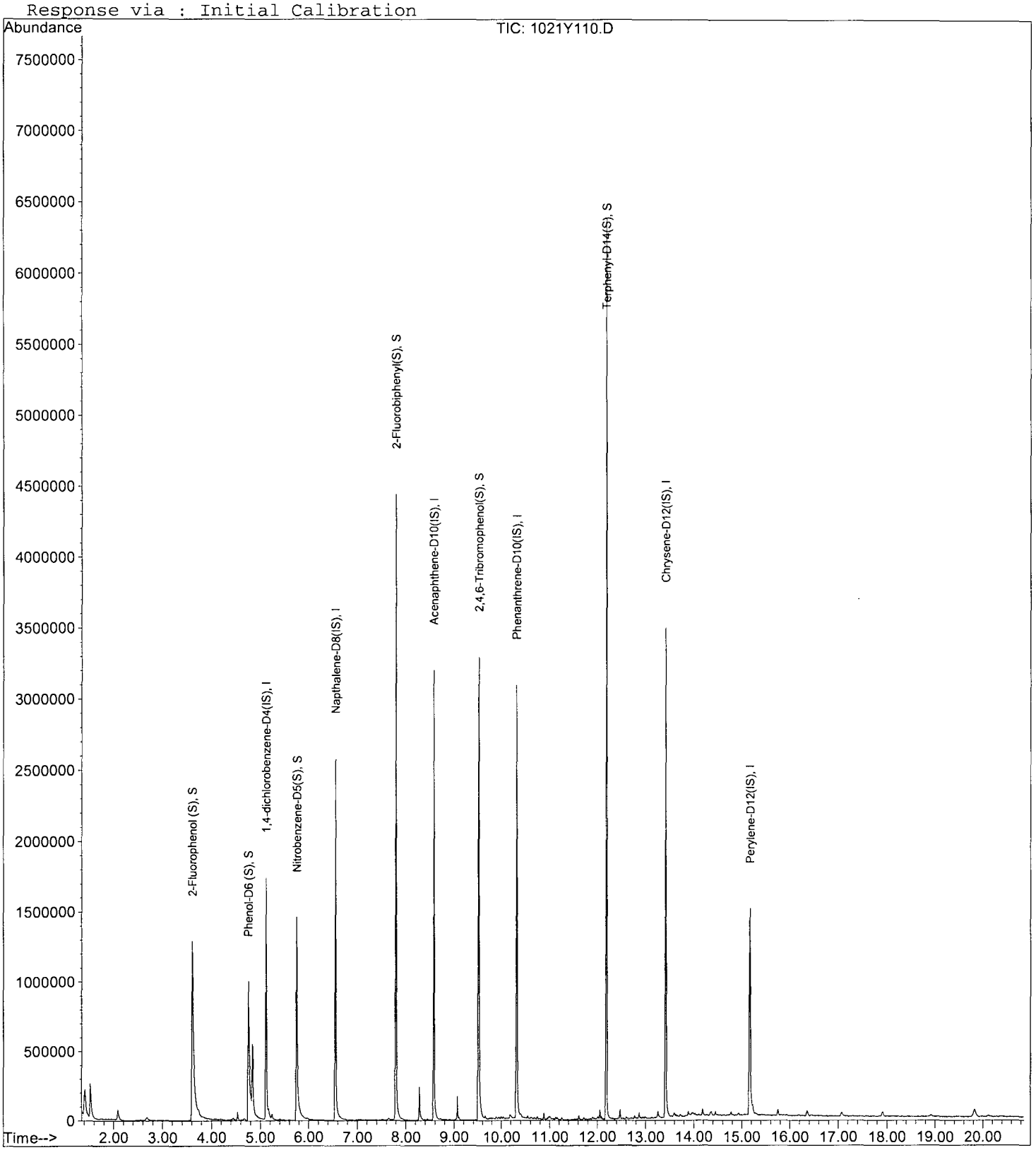
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y110.D Vial: 10
Acq On : 27 Oct 16 13:14 Operator: MA
Sample : AZ44691W14 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:09 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH100

APPL ID: AZ44692

Sample Collection Date: 10/20/16

QCG: #87DC5-161026A-213140

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	64.3	43-140			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	61.4	44-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	41.9	19-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	59.6	44-120			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: PHENOL-D6 (S)	25.8	10-115			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	63.3	50-134			%	10/26/16	10/27/16

Quant Method: Y1021.M
Run #: 1021Y111
Instrument: Yoda
Sequence: Y161021
Dilution Factor: 1
Initials: MA

Printed: 10/28/16 10:12:05 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y111.D Vial: 11
Acq On : 27 Oct 16 13:43 Operator: MA
Sample : AZ44692W11 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:10 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	332866	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1448929	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	838184	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.31	188	1514169	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1440416	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.16	264	945986	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.60	112	934470	78.25177 ppb	-0.02
Spiked Amount 186.916			Recovery = 41.865%		
5) Phenol-D6 (S)	4.75	99	769949	48.28487 ppb	0.00
Spiked Amount 186.916			Recovery = 25.832%		
21) Nitrobenzene-D5(S)	5.75	82	890871	55.67919 ppb	0.00
Spiked Amount 93.458			Recovery = 59.577%		
45) 2-Fluorobiphenyl(S)	7.80	172	1632648	57.34827 ppb	0.00
Spiked Amount 93.458			Recovery = 61.362%		
63) 2,4,6-Tribromophenol(S)	9.52	330	491954	120.20619 ppb	0.00
Spiked Amount 186.916			Recovery = 64.310%		
81) Terphenyl-D14(S)	12.19	244	2183031	59.17175 ppb	0.00
Spiked Amount 93.458			Recovery = 63.314%		

Target Compounds	Qvalue

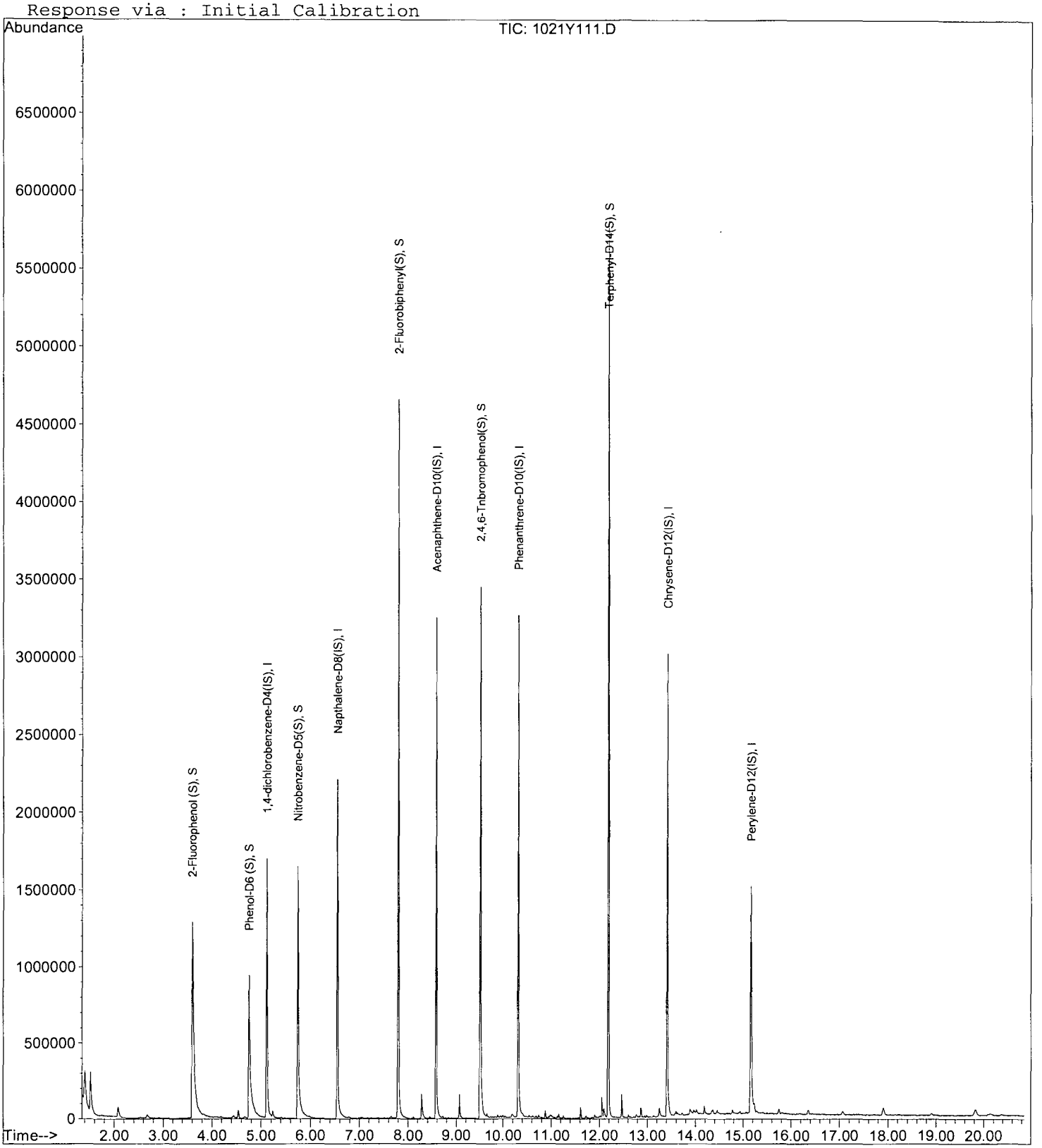
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y111.D Vial: 11
Acq On : 27 Oct 16 13:43 Operator: MA
Sample : AZ44692W11 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:10 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH101

APPL ID: AZ44693

Sample Collection Date: 10/20/16

QCG: #87DC5-161026A-213140

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	61.4	43-140			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	55.5	44-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	40.0	19-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	55.2	44-120			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: PHENOL-D6 (S)	24.9	10-115			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	62.1	50-134			%	10/26/16	10/27/16

Quant Method: Y1021.M
Run #: 1021Y112
Instrument: Yoda
Sequence: Y161021
Dilution Factor: 1
Initials: MA

Printed: 10/28/16 10:12:05 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y112.D Vial: 12
Acq On : 27 Oct 16 14:13 Operator: MA
Sample : AZ44693W10 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:11 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	337521	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1456778	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	836343	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.31	188	1524144	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1430916	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.16	264	959437	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.61	112	905837	74.80790 ppb	0.00
Spiked Amount 186.916			Recovery =	40.022%	
5) Phenol-D6 (S)	4.75	99	751850	46.49958 ppb	0.00
Spiked Amount 186.916			Recovery =	24.878%	
21) Nitrobenzene-D5(S)	5.75	82	829861	51.58663 ppb	0.00
Spiked Amount 93.458			Recovery =	55.198%	
45) 2-Fluorobiphenyl(S)	7.80	172	1473593	51.87525 ppb	0.00
Spiked Amount 93.458			Recovery =	55.506%	
63) 2,4,6-Tribromophenol(S)	9.51	330	468699	114.77606 ppb	0.00
Spiked Amount 186.916			Recovery =	61.405%	
81) Terphenyl-D14(S)	12.19	244	2125397	57.99204 ppb	0.00
Spiked Amount 93.458			Recovery =	62.051%	

Target Compounds Qvalue

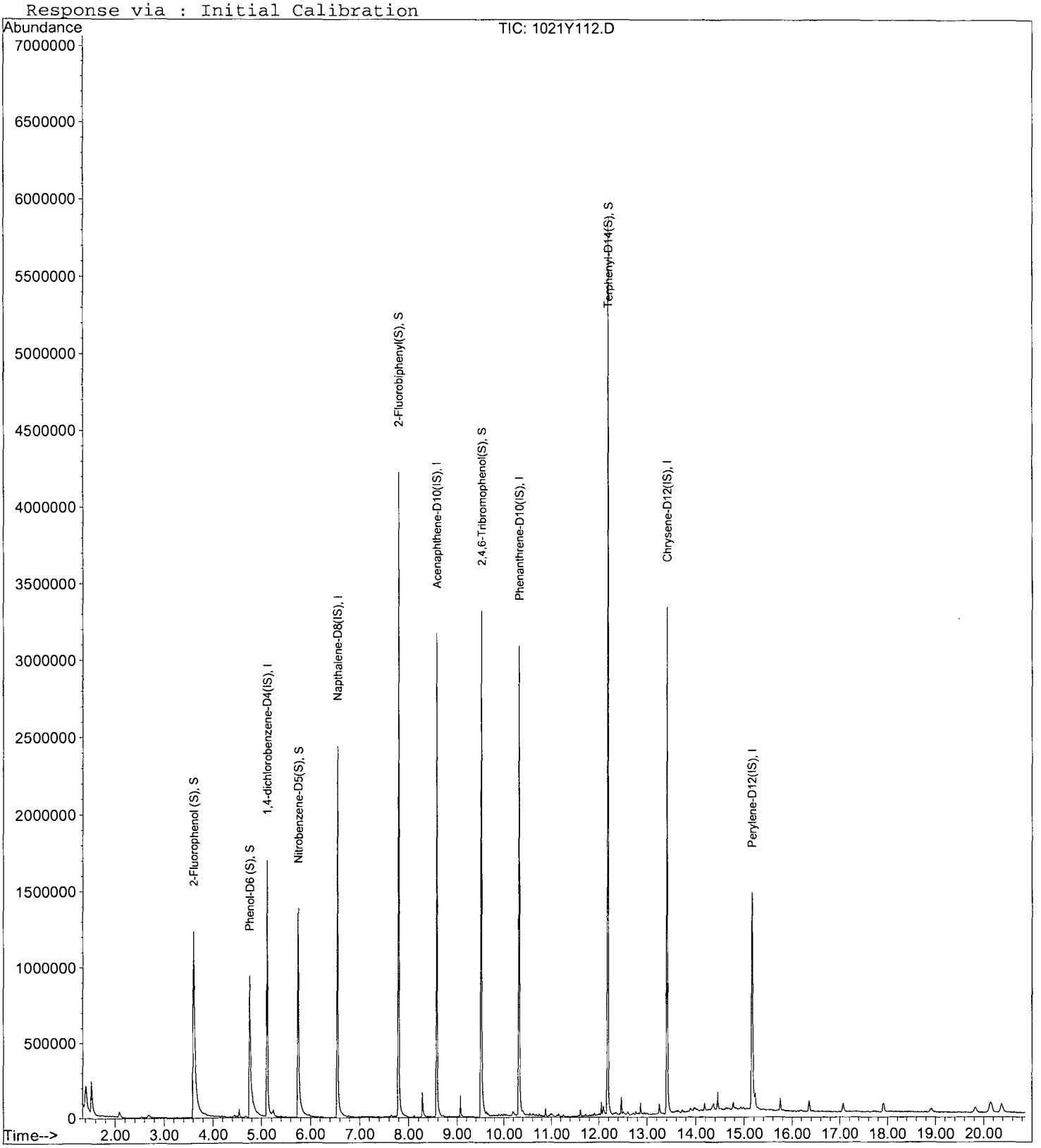
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y112.D Vial: 12
Acq On : 27 Oct 16 14:13 Operator: MA
Sample : AZ44693W10 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:11 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH102

APPL ID: AZ44694

Sample Collection Date: 10/19/16

QCG: #87DC5-161026A-213140

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	63.8	43-140			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	54.3	44-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	37.7	19-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	53.5	44-120			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: PHENOL-D6 (S)	23.5	10-115			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	60.5	50-134			%	10/26/16	10/27/16

Quant Method: Y1021.M
Run #: 1021Y113
Instrument: Yoda
Sequence: Y161021
Dilution Factor: 1
Initials: MA

Printed: 10/28/16 10:12:05 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y113.D Vial: 13
Acq On : 27 Oct 16 14:42 Operator: MA
Sample : AZ44694W14 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:11 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	341502	40.00000	ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1485736	40.00000	ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	840359	40.00000	ppb	0.00
64) Phenanthrene-D10(IS)	10.31	188	1543197	40.00000	ppb	0.00
78) Chrysene-D12(IS)	13.42	240	1463022	40.00000	ppb	0.00
88) Perylene-D12(IS)	15.16	264	979111	40.00000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.61	112	863502	70.48039	ppb	0.00
Spiked Amount 186.916			Recovery = 37.707%			
5) Phenol-D6 (S)	4.75	99	719930	44.00638	ppb	0.00
Spiked Amount 186.916			Recovery = 23.543%			
21) Nitrobenzene-D5(S)	5.75	82	820494	50.01024	ppb	0.00
Spiked Amount 93.458			Recovery = 53.511%			
45) 2-Fluorobiphenyl(S)	7.80	172	1448718	50.75585	ppb	0.00
Spiked Amount 93.458			Recovery = 54.309%			
63) 2,4,6-Tribromophenol(S)	9.52	330	489631	119.32894	ppb	0.00
Spiked Amount 186.916			Recovery = 63.841%			
81) Terphenyl-D14(S)	12.19	244	2117053	56.49674	ppb	0.00
Spiked Amount 93.458			Recovery = 60.452%			

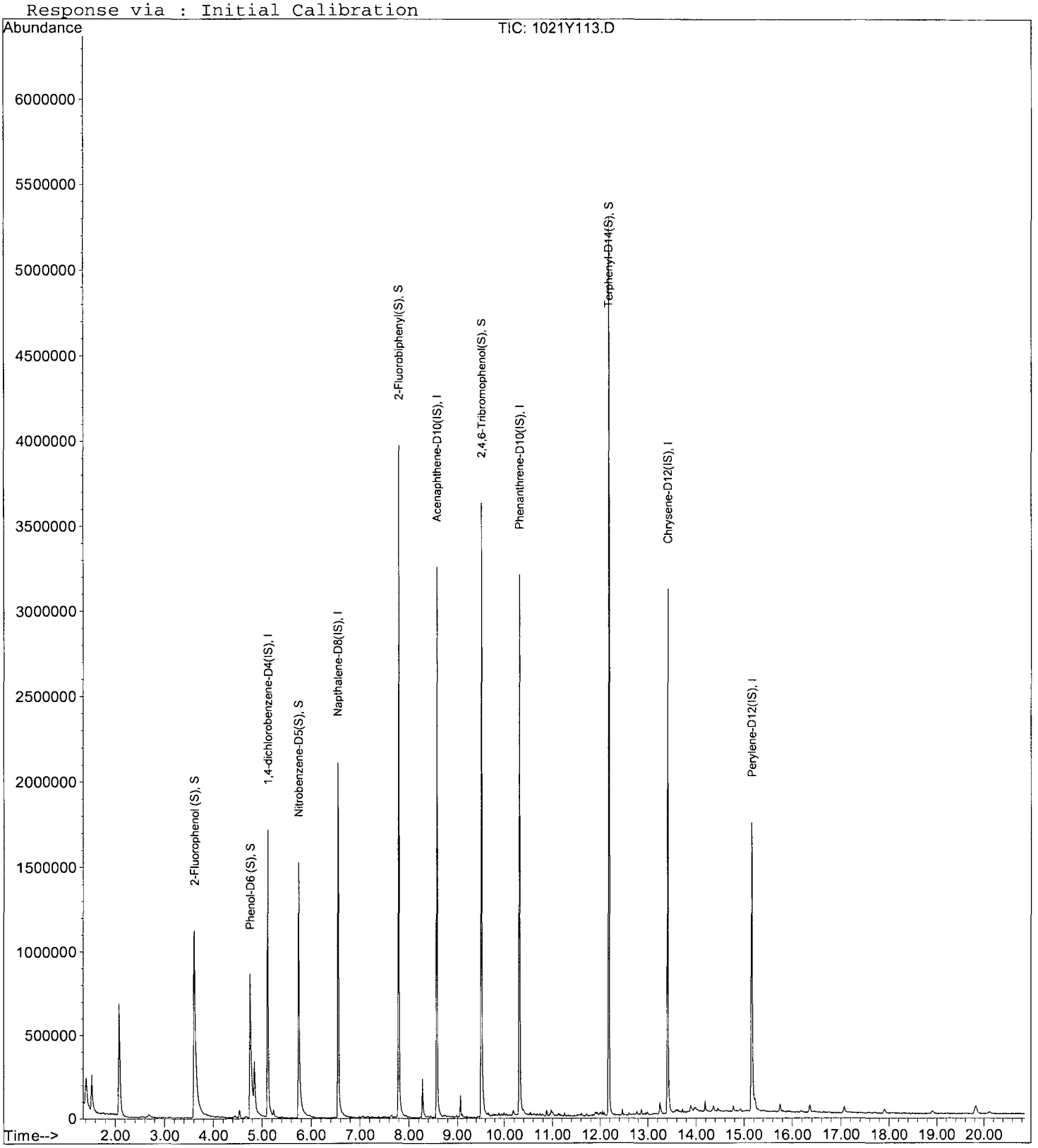
Target Compounds Qvalue

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

Data File : M:\YODA\DATA\Y161021\1021Y113.D Vial: 13
Acq On : 27 Oct 16 14:42 Operator: MA
Sample : AZ44694W14 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:11 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH104

Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44695

QCG: #87DC5-161026A-213140

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	63.6	43-140			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	59.0	44-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	42.1	19-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	58.4	44-120			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: PHENOL-D6 (S)	26.2	10-115			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	62.4	50-134			%	10/26/16	10/27/16

Quant Method: Y1021.M
Run #: 1021Y114
Instrument: Yoda
Sequence: Y161021
Dilution Factor: 1
Initials: MA

Printed: 10/28/16 10:12:05 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y114.D Vial: 14
Acq On : 27 Oct 16 15:12 Operator: MA
Sample : AZ44695W12 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:12 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	342426	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1487629	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	855764	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.31	188	1554573	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1467038	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.17	264	1014024	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.61	112	966263	78.65509 ppb	0.00
Spiked Amount 186.916			Recovery =	42.080%	
5) Phenol-D6 (S)	4.75	99	802849	48.94245 ppb	0.00
Spiked Amount 186.916			Recovery =	26.184%	
21) Nitrobenzene-D5(S)	5.74	82	896329	54.56297 ppb	0.00
Spiked Amount 93.458			Recovery =	58.382%	
45) 2-Fluorobiphenyl(S)	7.80	172	1602991	55.14983 ppb	0.00
Spiked Amount 93.458			Recovery =	59.011%	
63) 2,4,6-Tribromophenol(S)	9.51	330	496791	118.89441 ppb	0.00
Spiked Amount 186.916			Recovery =	63.608%	
81) Terphenyl-D14(S)	12.19	244	2192991	58.36305 ppb	0.00
Spiked Amount 93.458			Recovery =	62.448%	

Target Compounds Qvalue

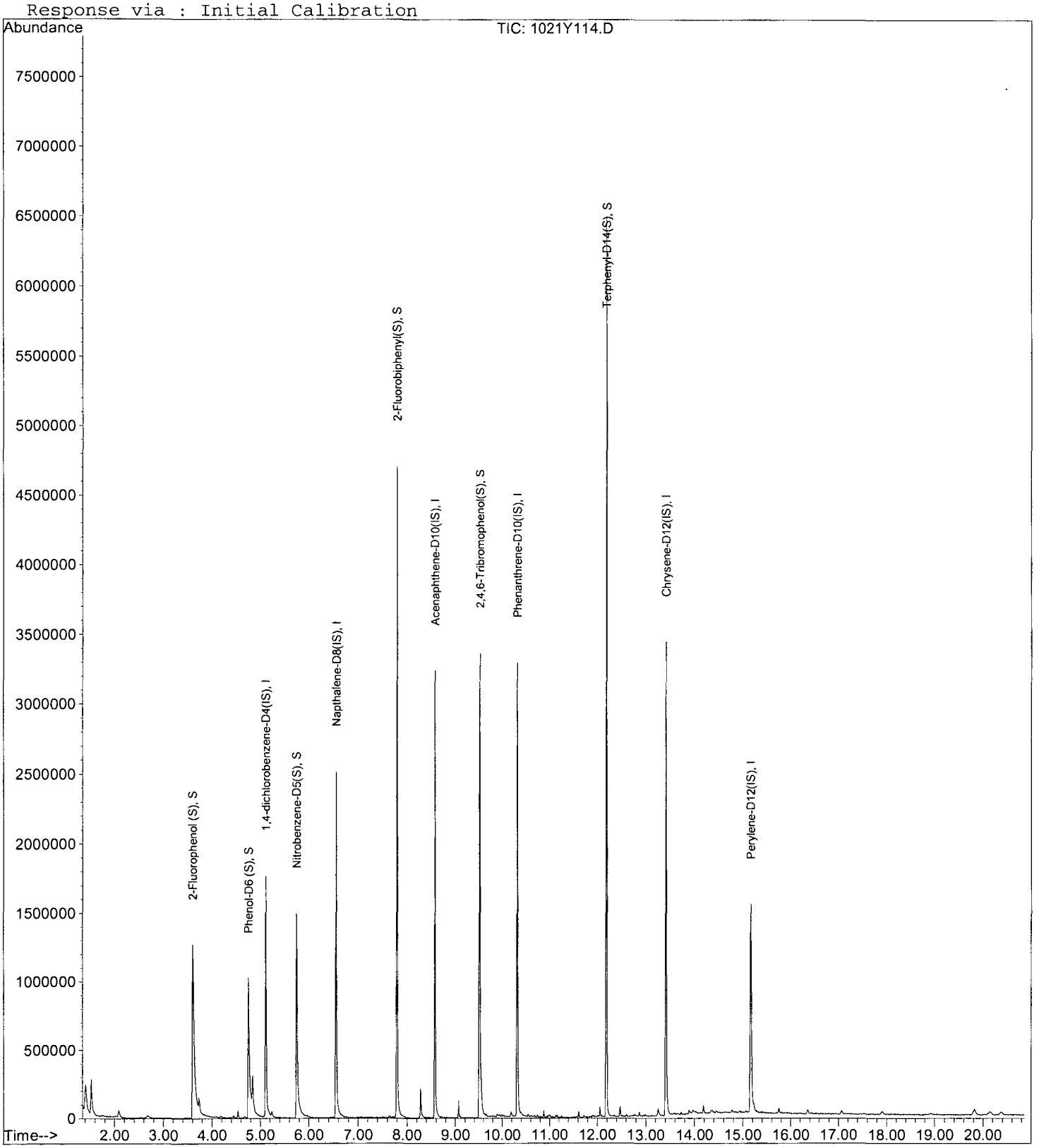
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y114.D Vial: 14
Acq On : 27 Oct 16 15:12 Operator: MA
Sample : AZ44695W12 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:12 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH105

Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44696

QCG: #87DC5-161026A-213140

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	62.9	43-140			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	59.1	44-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	41.8	19-119			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	57.6	44-120			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: PHENOL-D6 (S)	26.4	10-115			%	10/26/16	10/27/16
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	60.5	50-134			%	10/26/16	10/27/16

Quant Method: Y1021.M
Run #: 1021Y115
Instrument: Yoda
Sequence: Y161021
Dilution Factor: 1
Initials: MA

Printed: 10/28/16 10:12:05 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y115.D Vial: 15
Acq On : 27 Oct 16 15:41 Operator: MA
Sample : AZ44696W06 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:13 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	328169	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1430182	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	825169	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.31	188	1511152	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1427136	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.16	264	1000268	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.61	112	919666	78.11435 ppb	0.00
Spiked Amount 186.916			Recovery =	41.791%	
5) Phenol-D6 (S)	4.75	99	775831	49.35011 ppb	0.00
Spiked Amount 186.916			Recovery =	26.402%	
21) Nitrobenzene-D5(S)	5.75	82	850471	53.85095 ppb	0.00
Spiked Amount 93.458			Recovery =	57.621%	
45) 2-Fluorobiphenyl(S)	7.80	172	1547485	55.21418 ppb	0.00
Spiked Amount 93.458			Recovery =	59.079%	
63) 2,4,6-Tribromophenol(S)	9.52	330	473913	117.62440 ppb	0.00
Spiked Amount 186.916			Recovery =	62.929%	
81) Terphenyl-D14(S)	12.19	244	2066031	56.52154 ppb	0.00
Spiked Amount 93.458			Recovery =	60.479%	

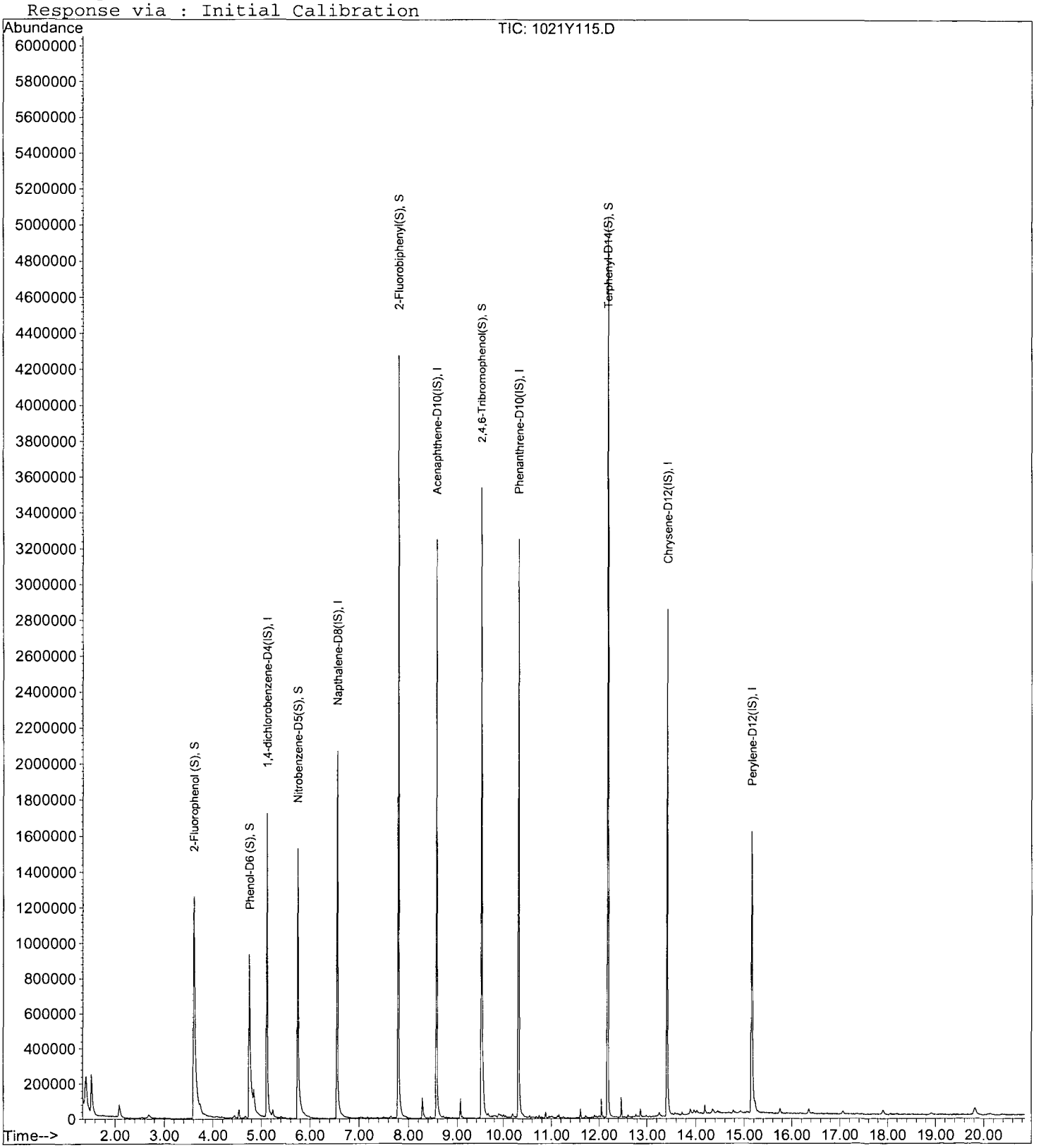
Target Compounds Qvalue

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

Data File : M:\YODA\DATA\Y161021\1021Y115.D Vial: 15
Acq On : 27 Oct 16 15:41 Operator: MA
Sample : AZ44696W06 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Oct 28 9:13 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



ORGANICS

Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/24/16
Matrix: Instrument: Yoda Initials:

			1021Y003.D	1021Y004.D	1021Y005.D	1021Y006.D	1021Y007.D	1021Y008.D	1021Y009.D	1021Y010.D						
		Compound	5	10	20	40	50	60	80	100			Avg	%RSD		
1	I	1,4-dichlorobenzene-D4(IS)														
2	TM	n-Nitrosodimethylamine	0.5935	0.5913	0.5819	0.6012	0.6630	0.6089	0.6069	0.5272			0.60	6.3	TM	
3	TM	Pyridine	1.111	1.247	1.312	1.225	1.293	1.375	1.308	1.095			1.2	7.9	TM	
4	S	2-Fluorophenol (S)	1.174	1.263	1.376	1.377	1.409	1.411	1.430	1.289			1.3	6.7	S	
5	S	Phenol-D6 (S)	1.783	1.830	1.869	1.820	1.835	1.808	1.791	1.592			1.8	4.7	S	
6	*TM	Phenol	2.058	2.159	2.117	2.015	2.023	1.938	1.938	1.584			2.0	9.0	*TM	
7	TM	Aniline	1.633	1.848	1.840	1.787	1.769	1.732	1.728	1.425			1.7	8.0	TM	
8	TM	Bis (2-chloroethyl) ether	0.9048	0.9643	0.9954	0.9439	0.9271	0.9238	0.9335	0.7764			0.92	7.0	TM	
9	TM	2-Chlorophenol	1.579	1.600	1.564	1.495	1.498	1.460	1.481	1.230			1.5	7.8	TM	
10	TM	1,3-DCB	1.678	1.736	1.645	1.594	1.584	1.583	1.554	1.287			1.6	8.4	TM	
11	*TM	1,4-DCB	1.730	1.765	1.719	1.633	1.607	1.589	1.572	1.311			1.6	8.8	*TM	
12	TM	Benzyl alcohol	0.7093	0.8125	0.8303	0.8353	0.8200	0.8306	0.8317	0.6839			0.79	7.7	TM	
13	TM	1,2-DCB	1.670	1.605	1.592	1.528	1.511	1.468	1.439	1.191			1.5	9.7	TM	
14	TM	2-Methylphenol	1.170	1.234	1.218	1.170	1.137	1.134	1.139	0.9523			1.1	7.5	TM	
15	TM	Bis (2-chloroisopropyl) ether	2.098	2.185	2.083	1.957	1.930	1.877	1.840	1.534			1.9	10	TM	
16	TM	Acetophenone	2.131	2.281	2.158	2.102	2.072	2.029	2.032	1.720			2.1	7.8	TM	
17	TM	3&4-Methylphenol	1.559	1.613	1.571	1.554	1.526	1.501	1.480	1.222			1.5	8.0	TM	
18	**TM	n-Nitrosodi-n-propylamine	1.209	1.207	1.160	1.102	1.077	1.078	1.085	0.8821			1.1	9.4	**TM	
19	TM	Hexachloroethane	0.6827	0.7206	0.6988	0.6599	0.6558	0.6443	0.6541	0.5297			0.66	8.7	TM	
20	I	Napthalene-D8(IS)														
21	S	Nitrobenzene-D5(S)	0.4171	0.4261	0.4116	0.4106	0.4221	0.4093	0.4252	0.3806			0.41	3.5	S	
22	TM	Nitrobenzene	0.4136	0.4442	0.4236	0.4012	0.4081	0.3935	0.4127	0.3464			0.41	7.0	TM	
23	TM	Isophorone	0.6942	0.7339	0.7198	0.6949	0.7011	0.6771	0.6983	0.5958			0.69	6.0	TM	
24	*TM	2-Nitrophenol	0.1839	0.2081	0.2065	0.1981	0.2029	0.1965	0.2033	0.1713			0.20	6.4	*TM	
25	TM	2,4-Dimethylphenol	0.3067	0.3157	0.3250	0.3027	0.3152	0.2957	0.3108	0.2575			0.30	6.8	TM	
26	TMQ	Benzoic acid		0.1387	0.1819	0.2247	0.2326	0.2343	0.2096	0.1902			0.20	17	TMQ	0.998
27	TM	Bis (2-chloroethoxy) methane	0.3849	0.4068	0.3941	0.3829	0.3856	0.3748	0.3859	0.3229			0.38	6.5	TM	
28	*TM	2,4-Dichlorophenol	0.2771	0.3040	0.3023	0.2936	0.2904	0.2865	0.2941	0.2482			0.29	6.2	*TM	
29	TM	1,2,4-Trichlorobenzene	0.3286	0.3466	0.3370	0.3133	0.3180	0.3055	0.3093	0.2602			0.31	8.3	TM	
30	TM	3,4-Dimethylphenol	0.5178	0.4966	0.4846	0.4569	0.4650	0.4500	0.4677	0.3917			0.47	8.0	TM	
31	TM	Naphthalene	1.112	1.113	1.077	1.007	1.030	1.005	1.011	0.8455			1.0	8.3	TM	
32	TM	4-Chloroaniline	0.3433	0.3859	0.3843	0.3604	0.3383	0.3336	0.3093	0.2437			0.34	14	TM	
33	TM	2,6-Dichlorophenol	0.3021	0.3026	0.2966	0.2686	0.2698	0.2588	0.2606	0.2213			0.27	10	TM	
34	TM	Hexachloropropene	0.2189	0.2403	0.2346	0.2314	0.2294	0.2260	0.2288	0.1936			0.23	6.3	TM	
35	*TM	Hexachlorobutadiene	0.2044	0.2036	0.2021	0.1879	0.1889	0.1847	0.1860	0.1568			0.19	8.2	*TM	

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/24/16
Matrix: Instrument: Yoda Initials:

		Compound	5	10	20	40	50	60	80	100			Avg	%RSD		
36	TM	Caprolactum	0.1453	0.1745	0.1722	0.1664	0.1656	0.1644	0.1682	0.1461			0.16	6.8	TM	
37	*TM	4-Chloro-3-methylphenol	0.3059	0.3252	0.3367	0.3316	0.3315	0.3209	0.3338	0.2836			0.32	5.6	*TM	
38	TM	2-Methylnaphthalene	0.7116	0.7329	0.7041	0.6716	0.6765	0.6469	0.6689	0.5506			0.67	8.3	TM	
39	TM	1-Methylnaphthalene	0.7138	0.7271	0.6870	0.6514	0.6593	0.6375	0.6564	0.5531			0.66	8.1	TM	
40	I	Acenaphthene-D10(IS)														
41	**TML	Hexachlorocyclopentadiene		0.0981	0.1554	0.2185	0.2237	0.2382	0.2743				0.20	32	**TML	0.990
42	TM	1,2,4,5-Tetrachlorobenzene	0.5587	0.5795	0.5436	0.5177	0.5083	0.4852	0.4941	0.4095			0.51	10	TM	
43	*TM	2,4,6-Trichlorophenol	0.3347	0.3671	0.3669	0.3412	0.3472	0.3319	0.3359	0.2878			0.34	7.3	*TM	
44	TM	2,4,5-Trichlorophenol	0.3347	0.4000	0.3837	0.3567	0.3582	0.3411	0.3500	0.2964			0.35	8.9	TM	
45	S	2-Fluorobiphenyl(S)	1.420	1.399	1.355	1.252	1.263	1.187	1.203	1.079			1.3	9.2	S	
46	TM	1,1'-Biphenyl	1.594	1.668	1.592	1.492	1.457	1.420	1.416	1.202			1.5	9.8	TM	
47	TM	2-Chloronaphthalene	1.197	1.280	1.204	1.146	1.138	1.083	1.087	0.9188			1.1	9.5	TM	
48	TM	2-Nitroaniline	0.3931	0.4238	0.4125	0.4030	0.4008	0.3912	0.4028	0.3370			0.40	6.5	TM	
49	TM	Dimethyl phthalate	1.417	1.491	1.456	1.359	1.361	1.306	1.336	1.130			1.4	8.1	TM	
50	TM	2,6-DNT	0.2962	0.3324	0.3274	0.3202	0.3165	0.3082	0.3145	0.2673			0.31	6.7	TM	
51	TM	Acenaphthylene	1.913	2.072	1.947	1.827	1.810	1.742	1.743	1.500			1.8	9.4	TM	
52	TM	3-Nitroaniline	0.2823	0.3524	0.3439	0.3401	0.3369	0.3348	0.3292	0.2761			0.32	8.9	TM	
53	*TM	Acenaphthene	1.210	1.238	1.188	1.114	1.103	1.054	1.052	0.8977			1.1	9.9	*TM	
54	**TMQ	2,4-Dinitrophenol	0.0302	0.0704	0.0957	0.1538	0.1581	0.1655	0.1834	0.1665			0.13	43	**TMQ	0.992
55	**TM	4-Nitrophenol			0.1646	0.2448	0.2432	0.2475	0.2639	0.2291			0.23	15	**TM	
56	TM	Dibenzofuran	1.719	1.813	1.724	1.628	1.599	1.521	1.500	1.275			1.6	11	TM	
57	TM	2,4-DNT	0.4225	0.4680	0.4549	0.4431	0.4287	0.4291	0.4328	0.3608			0.43	7.4	TM	
58	TM	2,3,4,6-Tetrachlorophenol	0.2458	0.2843	0.2813	0.2865	0.2856	0.2830	0.2872	0.2473			0.28	6.4	TM	
59	TM	Diethyl phthalate	1.477	1.524	1.459	1.382	1.368	1.312	1.321	1.134			1.4	8.9	TM	
60	TM	4-Chlorophenyl phenyl ether	0.7025	0.7329	0.6478	0.5964	0.5734	0.5636	0.5651	0.4910			0.61	13	TM	
61	TM	Fluorene	1.413	1.472	1.369	1.273	1.228	1.178	1.184	1.031			1.3	11	TM	
62	TM	4-Nitroaniline	0.3256	0.3728	0.3587	0.3149	0.3177	0.3053	0.3011	0.2518			0.32	12	TM	
63	S	2,4,6-Tribromophenol(S)	0.1848	0.1915	0.1892	0.1807	0.1840	0.1753	0.1852	0.1694			0.18	4.0	S	
64	I	Phenanthrene-D10(IS)														
65	TM	4,6-Dinitro-2-methylphenol	0.1054	0.1201	0.1330	0.1372	0.1444	0.1414	0.1411	0.1224			0.13	10	TM	
66	TM	Diphenyl amine	0.5509	0.5641	0.5237	0.4887	0.4779	0.4585	0.4655	0.3839			0.49	12	TM	
67	*TM	n-Nitrosodiphenylamine	0.5509	0.5641	0.5237	0.4887	0.4779	0.4585	0.4655	0.3839			0.49	12	*TM	
68	TM	1,2-Diphenylhydrazine	0.8375	0.8516	0.8115	0.7726	0.7680	0.7385	0.8627	0.7057			0.79	7.1	TM	
69	TM	4-Bromophenyl phenyl ether	0.2046	0.2184	0.1983	0.1947	0.1945	0.1864	0.1877	0.1565			0.19	9.2	TM	
70	TM	Hexachlorobenzene	0.2274	0.2363	0.2138	0.2010	0.1988	0.1931	0.1995	0.1599			0.20	11	TM	

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/24/16
Matrix: Instrument: Yoda Initials:

		Compound	5	10	20	40	50	60	80	100			Avg	%RSD		
71	TM	Atrazine	0.2251	0.2311	0.2201	0.2139	0.2088	0.2084	0.2101	0.1723			0.21	8.4	TM	
72	*TM	Pentachlorophenol		0.0640	0.0700	0.0795	0.0841	0.0809	0.0943	0.0818			0.08	12	*TM	
73	TM	Phenanthrene	1.146	1.180	1.109	1.043	1.032	0.9747	1.004	0.8209			1.0	11	TM	
74	TM	Anthracene	1.200	1.244	1.170	1.083	1.097	1.055	1.070	0.8663			1.1	11	TM	
75	TM	Carbazol	1.037	1.116	1.036	1.001	0.9867	0.9412	0.9550	0.8002			0.98	9.4	TM	
76	TM	Di-n-butylphthalate	1.359	1.384	1.334	1.283	1.272	1.241	1.238	1.030			1.3	8.7	TM	
77	*TM	Fluoranthene	1.249	1.323	1.218	1.149	1.136	1.117	1.103	0.9120			1.2	11	*TM	
78	I	Chrysene-D12(IS)														
79	TM	Benzidine	0.3462	0.3988	0.4487	0.4308	0.4040	0.4129	0.3861	0.3284			0.39	10	TM	
80	TM	Pyrene	1.421	1.461	1.439	1.389	1.356	1.360	1.340	1.171			1.4	6.6	TM	
81	S	Terphenyl-D14(S)	1.047	1.002	0.9885	0.9550	0.9491	0.9312	0.9105	0.8767			0.96	5.7	S	
82	TM	Butyl benzylphthalate	0.6851	0.6945	0.6814	0.6845	0.6726	0.6569	0.6686	0.5728			0.66	5.8	TM	
83	TM	3,3'-Dichlorobenzidine	0.4153	0.4661	0.4731	0.4460	0.4297	0.4231	0.3908	0.3277			0.42	11	TM	
84	TM	Benz (a) anthracene	1.295	1.375	1.276	1.260	1.293	1.242	1.235	1.048			1.3	7.5	TM	
85	TM	Bis (2-ethylhexyl) phthalate	0.9567	0.9518	0.9579	0.9069	0.9134	0.8876	0.8715	0.7578			0.90	7.4	TM	
86	TM	Chrysene	1.350	1.349	1.311	1.271	1.191	1.234	1.164	1.034			1.2	8.7	TM	
87	*TM	Di-n-octylphthalate	1.650	1.690	1.710	1.649	1.677	1.623	1.617	1.409			1.6	5.8	*TM	
88	I	Perylene-D12(IS)														
89	TM	Benzo (b) fluoranthene	1.300	1.319	1.392	1.319	1.223	1.172	1.179	1.063			1.2	8.5	TM	
90	TM	Benzo (k) fluoranthene	1.425	1.538	1.244	1.217	1.212	1.073	1.178				1.3	12	TM	
91	*TM	Benzo (a) pyrene	1.276	1.355	1.273	1.192	1.171	1.081	1.137	0.9356			1.2	11	*TM	
92	TM	Indeno (1,2,3-cd) pyrene	1.505	1.567	1.450	1.385	1.338	1.232	1.243	1.034			1.3	13	TM	
93	TM	Dibenz (a,h) anthracene	1.249	1.312	1.233	1.165	1.135	1.032	1.051	0.8652			1.1	13	TM	
94	TM	Benzo (g,h,i) perylene	1.237	1.287	1.225	1.176	1.142	1.049	1.079	0.8792			1.1	12	TM	
95																
96																
97																
98																
99																
100																
101																
102																
103																
104																
105																

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y003.D Vial: 3
Acq On : 24 Oct 16 9:51 Operator: MA
Sample : 5ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Sep 30 14:29:21 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	331909	40.00000 ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1427990	40.00000 ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	814957	40.00000 ppb		0.00
64) Phenanthrene-D10(IS)	10.31	188	1475827	40.00000 ppb		0.00
78) Chrysene-D12(IS)	13.41	240	1372518	40.00000 ppb		0.00
88) Perylene-D12(IS)	15.17	264	1287283	40.00000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.66	112	97417	8.05740 ppb		0.05
Spiked Amount 200.000			Recovery =	4.029%		
5) Phenol-D6 (S)	4.78	99	147971	8.99916 ppb		0.03
Spiked Amount 200.000			Recovery =	4.500%		
21) Nitrobenzene-D5(S)	5.76	82	74444	4.83179 ppb		0.01
Spiked Amount 100.000			Recovery =	4.832%		
45) 2-Fluorobiphenyl(S)	7.80	172	144695	5.33447 ppb		0.00
Spiked Amount 100.000			Recovery =	5.334%		
63) 2,4,6-Tribromophenol(S)	9.52	330	37655	10.10556 ppb		0.01
Spiked Amount 200.000			Recovery =	5.053%		
81) Terphenyl-D14(S)	12.19	244	179695	5.23685 ppb		0.00
Spiked Amount 100.000			Recovery =	5.237%		
Target Compounds						Qvalue
2) n-Nitrosodimethylamine	1.90	42	24623	6.00899 ppb		85
3) Pyridine	1.93	79	46102	5.39123 ppb		96
6) Phenol	4.80	94	85398	5.13053 ppb		94
7) Aniline	4.79	66	67750	5.02442 ppb		97
8) Bis (2-chloroethyl) ether	4.84	63	37537	4.82529 ppb		99
9) 2-Chlorophenol	4.92	128	65507	5.22078 ppb		94
10) 1,3-DCB	5.05	146	69623	5.27510 ppb		96
11) 1,4-DCB	5.13	146	71781	5.38066 ppb		94
12) Benzyl alcohol	5.34	108	29426	4.34438 ppb		95
13) 1,2-DCB	5.31	146	69272	5.57407 ppb		98
14) 2-Methylphenol	5.46	107	48525	5.16138 ppb	#	74
15) Bis (2-chloroisopropyl) et	5.43	45	87025	5.15425 ppb	#	91
16) Acetophenone	5.60	105	88420	5.23112 ppb		97
17) 3&4-Methylphenol	5.64	107	129356	10.42296 ppb		96
18) n-Nitrosodi-n-propylamine	5.58	70	50145	5.51813 ppb		90
19) Hexachloroethane	5.67	117	28323	5.28839 ppb		90
22) Nitrobenzene	5.78	77	73835	5.28650 ppb		96
23) Isophorone	6.03	82	123910	5.11565 ppb		98
24) 2-Nitrophenol	6.15	139	32828	4.80250 ppb		94
25) 2,4-Dimethylphenol	6.22	122	54737	5.12902 ppb		92
26) Benzoic acid	6.42	105	13667	8.14689 ppb	#	79
27) Bis (2-chloroethoxy) metha	6.29	93	68699	5.01904 ppb		98
28) 2,4-Dichlorophenol	6.48	162	49457	5.01003 ppb		98
29) 1,2,4-Trichlorobenzene	6.50	180	58650	5.35940 ppb		99
30) 3,4-Dimethylphenol	6.56	107	92435	5.79185 ppb		81
31) Naphthalene	6.57	128	198413	5.47525 ppb		100
32) 4-Chloroaniline	6.68	127	61272	5.43326 ppb		97
33) 2,6-Dichlorophenol	6.67	162	53916	5.69822 ppb		97
34) Hexachloropropene	6.67	213	39070	5.29409 ppb		93
35) Hexachlorobutadiene	6.71	225	36477	5.80351 ppb		98
36) Caprolactum	7.06	55	25929	4.48607 ppb		90
37) 4-Chloro-3-methylphenol	7.28	107	54600	4.88569 ppb		93

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y003.D Vial: 3
Acq On : 24 Oct 16 9:51 Operator: MA
Sample : 5ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Sep 30 14:29:21 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.38	142	127024	5.39597	ppb		99
39)	1-Methylnaphthalene	7.49	142	127421	5.50761	ppb		98
41)	Hexachlorocyclopentadiene	7.55	237	6011	10.32793	ppb		87
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	56919	5.60632	ppb		99
43)	2,4,6-Trichlorophenol	7.74	196	34091	5.13663	ppb		98
44)	2,4,5-Trichlorophenol	7.74	196	34091	4.94552	ppb		95
46)	1,1'-Biphenyl	7.92	154	162413	5.50198	ppb		96
47)	2-Chloronaphthalene	7.94	162	121987	5.39658	ppb		98
48)	2-Nitroaniline	8.10	65	40047	5.11852	ppb		95
49)	Dimethyl phthalate	8.28	163	144300	5.37699	ppb		98
50)	2,6-DNT	8.37	165	30178	4.94251	ppb		84
51)	Acenaphthylene	8.42	152	194841	5.62348	ppb		99
52)	3-Nitroaniline	8.60	138	28753	4.41731	ppb		92
53)	Acenaphthene	8.61	154	123275	5.53224	ppb		98
54)	2,4-Dinitrophenol	8.78	184	3080	9.44834	ppb	#	77
55)	4-Nitrophenol	8.83	65	1775	6.76584	ppb	#	31
56)	Dibenzofuran	8.83	168	175104	5.56704	ppb		98
57)	2,4-DNT	8.85	165	43037	5.23037	ppb		95
58)	2,3,4,6-Tetrachlorophenol	9.00	232	25039	4.56346	ppb		86
59)	Diethyl phthalate	9.10	149	150460	5.62249	ppb		99
60)	4-Chlorophenyl phenyl ethe	9.23	204	71564	6.07133	ppb		95
61)	Fluorene	9.23	166	143923	5.72472	ppb		96
62)	4-Nitroaniline	9.32	138	33167	5.59819	ppb	#	82
65)	4,6-Dinitro-2-methylphenol	9.35	198	19452	5.47116	ppb		95
66)	Diphenyl amine	9.37	169	203275	10.56340	ppb		98
67)	n-Nitrosodiphenylamine	9.37	169	203275	10.56340	ppb		98
68)	1,2-Diphenylhydrazine	9.41	77	154498	5.31509	ppb		95
69)	4-Bromophenyl phenyl ether	9.79	248	37752	5.49821	ppb		89
70)	Hexachlorobenzene	9.88	284	41949	5.82812	ppb		93
71)	Atrazine	10.01	200	20759	2.80562	ppb		97
72)	Pentachlorophenol	10.14	266	9644	9.08048	ppb		90
73)	Phenanthrene	10.34	178	211495	5.53021	ppb		98
74)	Anthracene	10.40	178	221423	5.56630	ppb		96
75)	Carbazol	10.62	167	191316	5.62534	ppb		97
76)	Di-n-butylphthalate	11.01	149	250785	5.56852	ppb		99
77)	Fluoranthene	11.74	202	230437	5.56082	ppb		97
79)	Benzidine	11.94	184	59402	5.44822	ppb	#	90
80)	Pyrene	12.00	202	243742	5.18358	ppb		99
82)	Butyl benzylphthalate	12.75	149	117543	5.27313	ppb		87
83)	3,3'-Dichlorobenzidine	13.38	252	71258	5.71539	ppb	#	99
84)	Benz (a) anthracene	13.40	228	222150	5.14913	ppb		99
85)	Bis (2-ethylhexyl) phthala	13.42	149	164141	5.47974	ppb	#	95
86)	Chrysene	13.44	228	231691	5.55864	ppb		98
87)	Di-n-octylphthalate	14.15	149	283157	5.24476	ppb		99
89)	Benzo (b) fluoranthene	14.66	252	209207	4.90242	ppb		99
90)	Benzo (k) fluoranthene	14.69	252	229325	5.58679	ppb		98
91)	Benzo (a) pyrene	15.09	252	205294	5.21643	ppb		99
92)	Indeno (1,2,3-cd) pyrene	16.91	276	242218	5.41666	ppb		99
93)	Dibenz (a,h) anthracene	16.93	278	200969	5.32959	ppb		98
94)	Benzo (g,h,i) perylene	17.43	276	198975	5.21454	ppb		98

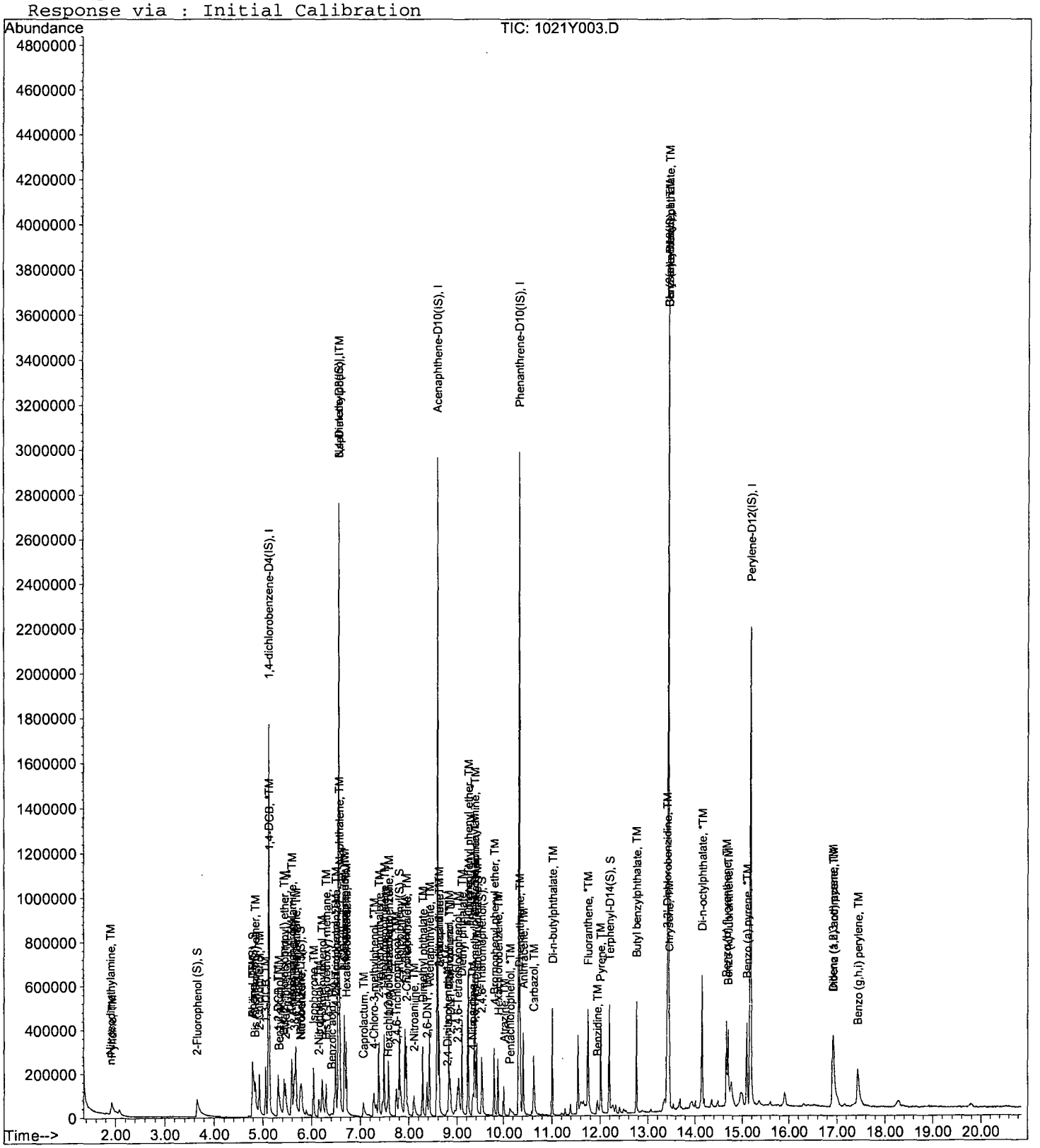
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y003.D Vial: 3
Acq On : 24 Oct 16 9:51 Operator: MA
Sample : 5ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y004.D Vial: 4
Acq On : 24 Oct 16 10:21 Operator: MA
Sample : 10ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	325880	40.00000 ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1402269	40.00000 ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	795903	40.00000 ppb		0.00
64) Phenanthrene-D10(IS)	10.31	188	1458207	40.00000 ppb		0.00
78) Chrysene-D12(IS)	13.41	240	1363498	40.00000 ppb		0.00
88) Perylene-D12(IS)	15.17	264	1274569	40.00000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.64	112	205734	17.33116 ppb		0.02
Spiked Amount 200.000			Recovery =	8.666%		
5) Phenol-D6 (S)	4.76	99	298114	18.46583 ppb		0.01
Spiked Amount 200.000			Recovery =	9.233%		
21) Nitrobenzene-D5(S)	5.75	82	149369	9.87263 ppb		0.00
Spiked Amount 100.000			Recovery =	9.873%		
45) 2-Fluorobiphenyl(S)	7.80	172	278269	10.50454 ppb		0.00
Spiked Amount 100.000			Recovery =	10.505%		
63) 2,4,6-Tribromophenol(S)	9.51	330	76210	20.94230 ppb		0.00
Spiked Amount 200.000			Recovery =	10.471%		
81) Terphenyl-D14(S)	12.19	244	341445	10.01656 ppb		0.00
Spiked Amount 100.000			Recovery =	10.017%		
Target Compounds						Qvalue
2) n-Nitrosodimethylamine	1.89	42	48175	11.97413 ppb		92
3) Pyridine	1.91	79	101617	12.10307 ppb		98
6) Phenol	4.78	94	175915	10.76413 ppb		89
7) Aniline	4.77	66	150518	11.36911 ppb		89
8) Bis (2-chloroethyl) ether	4.84	63	78558	10.28528 ppb		99
9) 2-Chlorophenol	4.91	128	130319	10.57831 ppb		95
10) 1,3-DCB	5.05	146	141404	10.91191 ppb		98
11) 1,4-DCB	5.13	146	143809	10.97927 ppb		99
12) Benzyl alcohol	5.32	108	66195	9.95366 ppb		96
13) 1,2-DCB	5.30	146	130781	10.71817 ppb		94
14) 2-Methylphenol	5.45	107	100556	10.89355 ppb	#	86
15) Bis (2-chloroisopropyl) et	5.43	45	177990	10.73688 ppb		93
16) Acetophenone	5.59	105	185804	11.19594 ppb		93
17) 3&4-Methylphenol	5.62	107	262840	21.57036 ppb		97
18) n-Nitrosodi-n-propylamine	5.58	70	98345	11.02245 ppb		97
19) Hexachloroethane	5.67	117	58711	11.16517 ppb		89
22) Nitrobenzene	5.77	77	155731	11.35467 ppb		98
23) Isophorone	6.03	82	257284	10.81687 ppb		100
24) 2-Nitrophenol	6.14	139	72951	10.86797 ppb		88
25) 2,4-Dimethylphenol	6.20	122	110664	10.55975 ppb		93
26) Benzoic acid	6.40	105	48623	12.14672 ppb		90
27) Bis (2-chloroethoxy) metha	6.28	93	142621	10.61079 ppb		98
28) 2,4-Dichlorophenol	6.45	162	106584	10.99507 ppb		99
29) 1,2,4-Trichlorobenzene	6.49	180	121508	11.30699 ppb		98
30) 3,4-Dimethylphenol	6.55	107	174096	11.10871 ppb		86
31) Naphthalene	6.57	128	390169	10.96428 ppb		99
32) 4-Chloroaniline	6.66	127	135290	12.21681 ppb		93
33) 2,6-Dichlorophenol	6.66	162	106085	11.41746 ppb		95
34) Hexachloropropene	6.67	213	84236	11.62356 ppb		96
35) Hexachlorobutadiene	6.71	225	71367	11.56280 ppb		99
36) Caprolactum	7.06	55	61161	10.77578 ppb		96
37) 4-Chloro-3-methylphenol	7.26	107	114016	10.38947 ppb		94

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y004.D Vial: 4
Acq On : 24 Oct 16 10:21 Operator: MA
Sample : 10ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	256935	11.11477	ppb		96
39)	1-Methylnaphthalene	7.48	142	254903	11.21995	ppb		97
41)	Hexachlorocyclopentadiene	7.55	237	19512	12.73212	ppb		98
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	115302	11.62872	ppb		99
43)	2,4,6-Trichlorophenol	7.73	196	73034	11.26778	ppb		97
44)	2,4,5-Trichlorophenol	7.82	196	79597	11.82343	ppb		92
46)	1,1'-Biphenyl	7.91	154	331971	11.51523	ppb		94
47)	2-Chloronaphthalene	7.94	162	254634	11.53443	ppb		94
48)	2-Nitroaniline	8.08	65	84318	11.03493	ppb		90
49)	Dimethyl phthalate	8.28	163	296576	11.31576	ppb		99
50)	2,6-DNT	8.36	165	66145	11.09249	ppb		99
51)	Acenaphthylene	8.42	152	412230	12.18257	ppb		99
52)	3-Nitroaniline	8.59	138	70128	11.03167	ppb	#	89
53)	Acenaphthene	8.61	154	246422	11.32348	ppb		99
54)	2,4-Dinitrophenol	8.75	184	14009	13.01575	ppb	#	39
55)	4-Nitrophenol	8.84	65	6476	7.62919	ppb	#	20
56)	Dibenzofuran	8.82	168	360647	11.74047	ppb		97
57)	2,4-DNT	8.85	165	93125	11.58862	ppb		98
58)	2,3,4,6-Tetrachlorophenol	8.99	232	56559	10.55488	ppb		94
59)	Diethyl phthalate	9.10	149	303244	11.60311	ppb		99
60)	4-Chlorophenyl phenyl ethe	9.22	204	145839	12.66886	ppb		95
61)	Fluorene	9.22	166	292855	11.92756	ppb		99
62)	4-Nitroaniline	9.30	138	74176	12.81975	ppb		97
65)	4,6-Dinitro-2-methylphenol	9.33	198	43783	10.55237	ppb		88
66)	Diphenyl amine	9.37	169	411309	21.63237	ppb		99
67)	n-Nitrosodiphenylamine	9.37	169	411309	21.63237	ppb		99
68)	1,2-Diphenylhydrazine	9.40	77	310466	10.80982	ppb		93
69)	4-Bromophenyl phenyl ether	9.79	248	79609	11.73438	ppb		86
70)	Hexachlorobenzene	9.87	284	86132	12.11121	ppb		89
71)	Atrazine	10.00	200	42126	5.76220	ppb		99
72)	Pentachlorophenol	10.14	266	23320	12.99690	ppb		98
73)	Phenanthrene	10.34	178	430267	11.38664	ppb		99
74)	Anthracene	10.41	178	453423	11.53623	ppb		99
75)	Carbazol	10.61	167	406719	12.10342	ppb		99
76)	Di-n-butylphthalate	11.01	149	504475	11.33689	ppb		99
77)	Fluoranthene	11.74	202	482284	11.77892	ppb		98
79)	Benzidine	11.93	184	135953	12.55179	ppb		97
80)	Pyrene	12.00	202	498021	10.66130	ppb		100
82)	Butyl benzylphthalate	12.75	149	236724	10.69000	ppb		89
83)	3,3'-Dichlorobenzidine	13.39	252	158874	12.82711	ppb		99
84)	Benz (a) anthracene	13.40	228	468817	10.93842	ppb		99
85)	Bis (2-ethylhexyl) phthala	13.42	149	324451	10.90325	ppb	#	95
86)	Chrysene	13.44	228	459886	11.10640	ppb		99
87)	Di-n-octylphthalate	14.15	149	576049	10.74042	ppb		92
89)	Benzo (b) fluoranthene	14.66	252	420162	9.94402	ppb		98
90)	Benzo (k) fluoranthene	14.69	252	490019	12.05686	ppb		99
91)	Benzo (a) pyrene	15.08	252	431741	11.07979	ppb		97
92)	Indeno (1,2,3-cd) pyrene	16.90	276	499418	11.27976	ppb		98
93)	Dibenz (a,h) anthracene	16.92	278	417994	11.19555	ppb		96
94)	Benzo (g,h,i) perylene	17.42	276	410127	10.85542	ppb		99

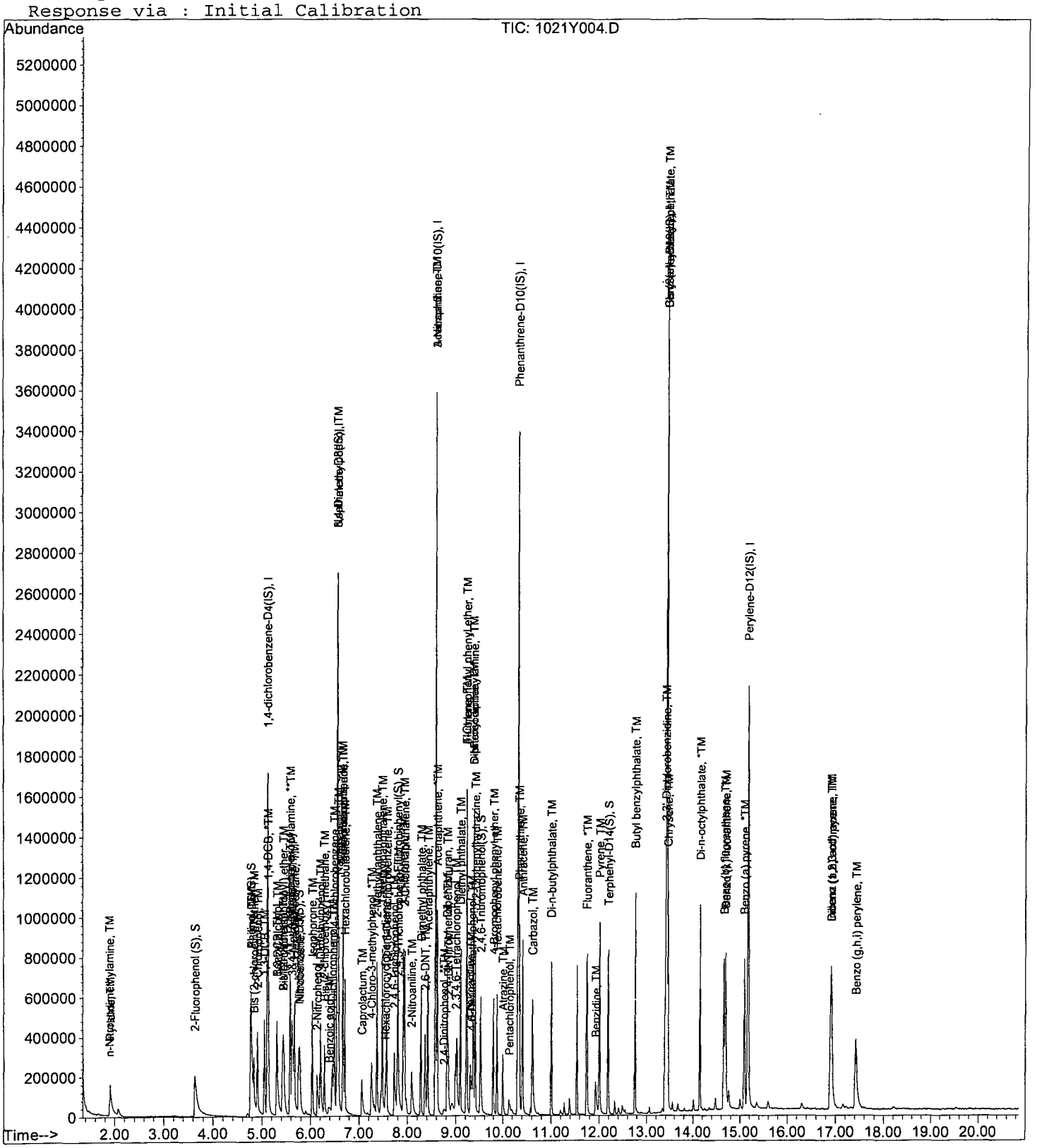
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y004.D Vial: 4
Acq On : 24 Oct 16 10:21 Operator: MA
Sample : 10ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y005.D Vial: 5
Acq On : 24 Oct 16 10:50 Operator: MA
Sample : 20ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:14 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	316715	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1364954	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	788263	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.32	188	1475196	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1330895	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.17	264	1295210	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.63	112	435772	37.77199 ppb	0.00
Spiked Amount 200.000			Recovery =	18.886%	
5) Phenol-D6 (S)	4.75	99	591810	37.71881 ppb	0.00
Spiked Amount 200.000			Recovery =	18.860%	
21) Nitrobenzene-D5(S)	5.75	82	280903	19.07402 ppb	0.00
Spiked Amount 100.000			Recovery =	19.074%	
45) 2-Fluorobiphenyl(S)	7.79	172	534038	20.35510 ppb	0.00
Spiked Amount 100.000			Recovery =	20.355%	
63) 2,4,6-Tribromophenol(S)	9.51	330	149156	41.38492 ppb	0.00
Spiked Amount 200.000			Recovery =	20.693%	
81) Terphenyl-D14(S)	12.19	244	657821	19.77044 ppb	0.00
Spiked Amount 100.000			Recovery =	19.770%	
Target Compounds					Qvalue
2) n-Nitrosodimethylamine	1.89	42	92143	23.56533 ppb	85
3) Pyridine	1.91	79	207802	25.46643 ppb	95
6) Phenol	4.77	94	335191	21.10364 ppb	83
7) Aniline	4.77	66	291369	22.64490 ppb	97
8) Bis (2-chloroethyl) ether	4.83	63	157622	21.23399 ppb	95
9) 2-Chlorophenol	4.90	128	247736	20.69126 ppb	97
10) 1,3-DCB	5.05	146	260530	20.68645 ppb	99
11) 1,4-DCB	5.13	146	272259	21.38744 ppb	98
12) Benzyl alcohol	5.31	108	131486	20.34352 ppb	98
13) 1,2-DCB	5.31	146	252100	21.25876 ppb	97
14) 2-Methylphenol	5.44	107	192953	21.50810 ppb	99
15) Bis (2-chloroisopropyl) et	5.43	45	329890	20.47579 ppb	95
16) Acetophenone	5.59	105	341787	21.19094 ppb	97
17) 3&4-Methylphenol	5.61	107	497668	42.02374 ppb	92
18) n-Nitrosodi-n-propylamine	5.58	70	183770	21.19285 ppb	98
19) Hexachloroethane	5.67	117	110653	21.65201 ppb	98
22) Nitrobenzene	5.77	77	289065	21.65252 ppb	98
23) Isophorone	6.03	82	491236	21.21740 ppb	98
24) 2-Nitrophenol	6.13	139	140942	21.57103 ppb	94
25) 2,4-Dimethylphenol	6.20	122	221774	21.74058 ppb	97
26) Benzoic acid	6.37	105	124131	21.11187 ppb	96
27) Bis (2-chloroethoxy) metha	6.28	93	268992	20.55970 ppb	98
28) 2,4-Dichlorophenol	6.44	162	206302	21.86365 ppb	96
29) 1,2,4-Trichlorobenzene	6.50	180	229962	21.98424 ppb	99
30) 3,4-Dimethylphenol	6.55	107	330720	21.67946 ppb	98
31) Naphthalene	6.58	128	735210	21.22522 ppb	99
32) 4-Chloroaniline	6.66	127	262293	24.33281 ppb	96
33) 2,6-Dichlorophenol	6.66	162	202427	22.38191 ppb	98
34) Hexachloropropene	6.67	213	160139	22.70137 ppb	98
35) Hexachlorobutadiene	6.71	225	137896	22.95254 ppb	99
36) Caprolactum	7.06	55	117540	21.27518 ppb	96
37) 4-Chloro-3-methylphenol	7.26	107	229819	21.51427 ppb	99

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y005.D Vial: 5
Acq On : 24 Oct 16 10:50 Operator: MA
Sample : 20ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:14 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	480523	21.35526	ppb		99
39)	1-Methylnaphthalene	7.49	142	468842	21.20098	ppb		100
41)	Hexachlorocyclopentadiene	7.55	237	61250	20.19267	ppb		97
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	214259	21.81842	ppb		97
43)	2,4,6-Trichlorophenol	7.72	196	144608	22.52655	ppb		95
44)	2,4,5-Trichlorophenol	7.80	196	151227	22.68116	ppb		94
46)	1,1'-Biphenyl	7.92	154	627575	21.97997	ppb		100
47)	2-Chloronaphthalene	7.93	162	474528	21.70353	ppb		93
48)	2-Nitroaniline	8.08	65	162591	21.48496	ppb		98
49)	Dimethyl phthalate	8.28	163	573795	22.10515	ppb		99
50)	2,6-DNT	8.36	165	129051	21.85155	ppb		96
51)	Acenaphthylene	8.42	152	767274	22.89490	ppb		99
52)	3-Nitroaniline	8.57	138	135536	21.52749	ppb	#	93
53)	Acenaphthene	8.62	154	468397	21.73219	ppb		100
54)	2,4-Dinitrophenol	8.73	184	37737	20.69903	ppb		90
55)	4-Nitrophenol	8.89	65	64870m	18.37400	ppb		37
56)	Dibenzofuran	8.83	168	679624	22.33885	ppb		98
57)	2,4-DNT	8.84	165	179277	22.52573	ppb		93
58)	2,3,4,6-Tetrachlorophenol	8.99	232	110887	20.89398	ppb		92
59)	Diethyl phthalate	9.09	149	574869	22.20957	ppb		97
60)	4-Chlorophenyl phenyl ethe	9.22	204	255329	22.39509	ppb		96
61)	Fluorene	9.22	166	539449	22.18392	ppb		99
62)	4-Nitroaniline	9.28	138	141389	24.67294	ppb	#	83
65)	4,6-Dinitro-2-methylphenol	9.33	198	98115	21.55787	ppb		99
66)	Diphenyl amine	9.36	169	772556	40.16384	ppb		98
67)	n-Nitrosodiphenylamine	9.36	169	772556	40.16384	ppb		98
68)	1,2-Diphenylhydrazine	9.40	77	598525	20.59947	ppb	#	88
69)	4-Bromophenyl phenyl ether	9.79	248	146234	21.30668	ppb		91
70)	Hexachlorobenzene	9.87	284	157712	21.92084	ppb		94
71)	Atrazine	10.00	200	81173	10.97537	ppb		98
72)	Pentachlorophenol	10.12	266	51668	20.87821	ppb		92
73)	Phenanthrene	10.34	178	817986	21.39798	ppb		99
74)	Anthracene	10.40	178	863357	21.71302	ppb		100
75)	Carbazol	10.61	167	764473	22.48771	ppb		100
76)	Di-n-butylphthalate	11.01	149	983795	21.85386	ppb		99
77)	Fluoranthene	11.74	202	898312	21.68699	ppb		99
79)	Benzidine	11.92	184	298560	28.23964	ppb		98
80)	Pyrene	12.00	202	957674	21.00347	ppb		99
82)	Butyl benzylphthalate	12.76	149	453461	20.97907	ppb		92
83)	3,3'-Dichlorobenzidine	13.38	252	314808	26.03948	ppb		99
84)	Benz (a) anthracene	13.40	228	848942	20.29270	ppb		98
85)	Bis (2-ethylhexyl) phthala	13.42	149	637448	21.94635	ppb	#	96
86)	Chrysene	13.45	228	872582	21.58937	ppb		99
87)	Di-n-octylphthalate	14.14	149	1137602	21.73015	ppb		98
89)	Benzo (b) fluoranthene	14.66	252	901582	20.99779	ppb		97
90)	Benzo (k) fluoranthene	14.69	252	805767	19.50986	ppb		99
91)	Benzo (a) pyrene	15.09	252	824418	20.81990	ppb		99
92)	Indeno (1,2,3-cd) pyrene	16.90	276	938723	20.86395	ppb		100
93)	Dibenz (a,h) anthracene	16.92	278	798380	21.04302	ppb		97
94)	Benzo (g,h,i) perylene	17.42	276	793320	20.66330	ppb		99

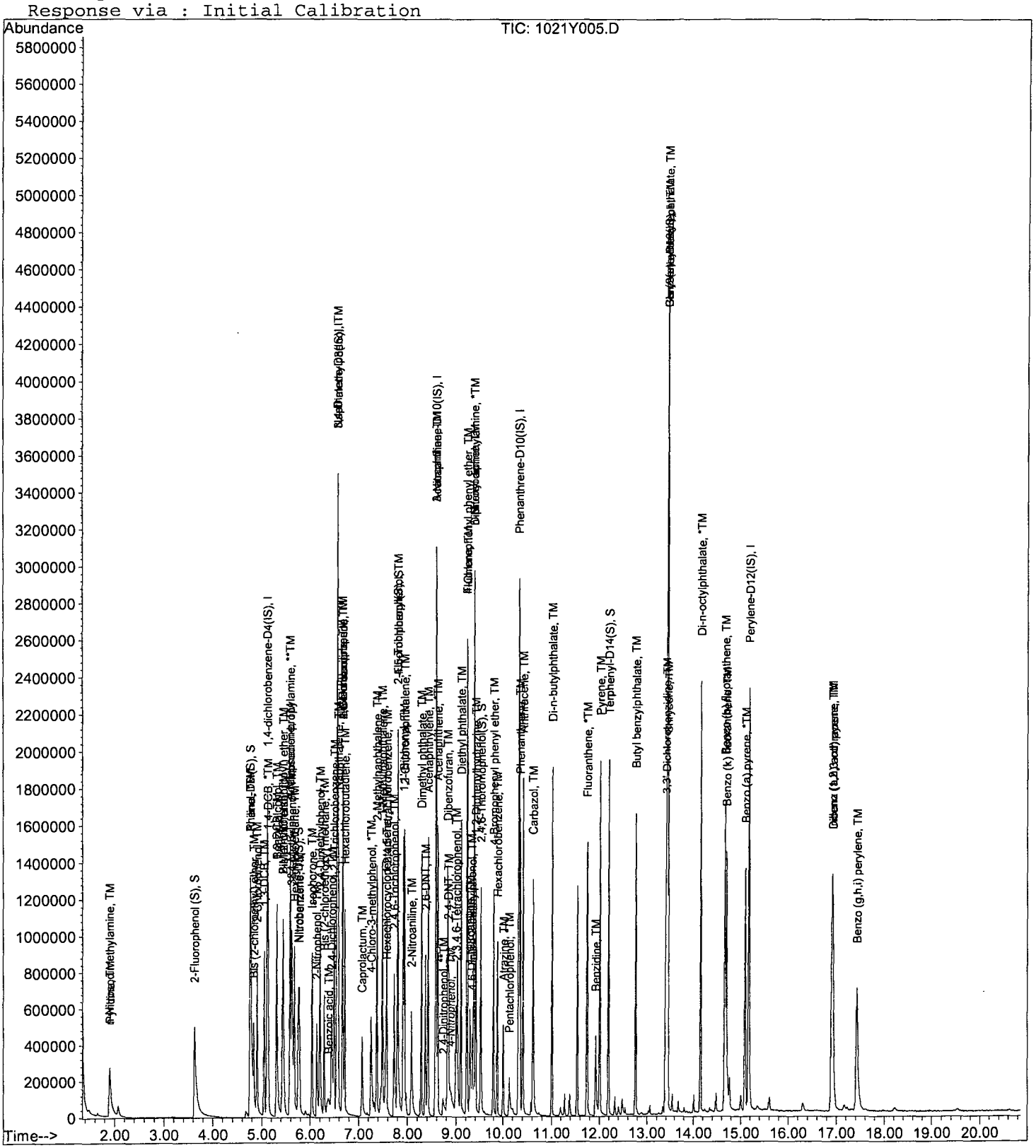
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y005.D Vial: 5
Acq On : 24 Oct 16 10:50 Operator: MA
Sample : 20ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:14 2016 Quant Results File: Y1021.RES

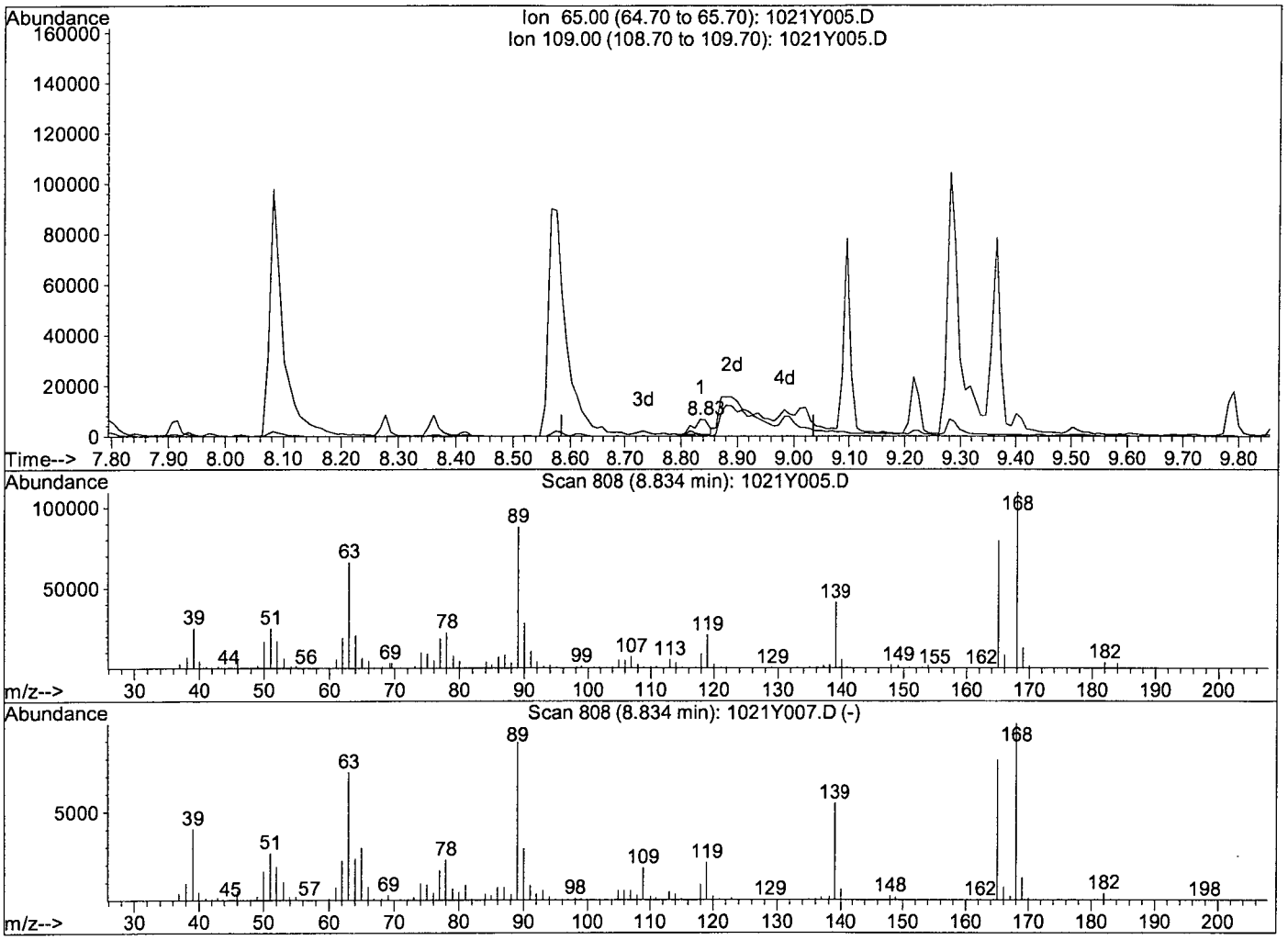
Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y005.D Vial: 5
Acq On : 24 Oct 16 10:50 Operator: MA
Sample : 20ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Oct 24 14:01 2016 Quant Results File: temp.res

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:01:34 2016
Response via : Multiple Level Calibration



TIC: 1021Y005.D

(55) 4-Nitrophenol (**TM)

8.83min 8.5711ppb

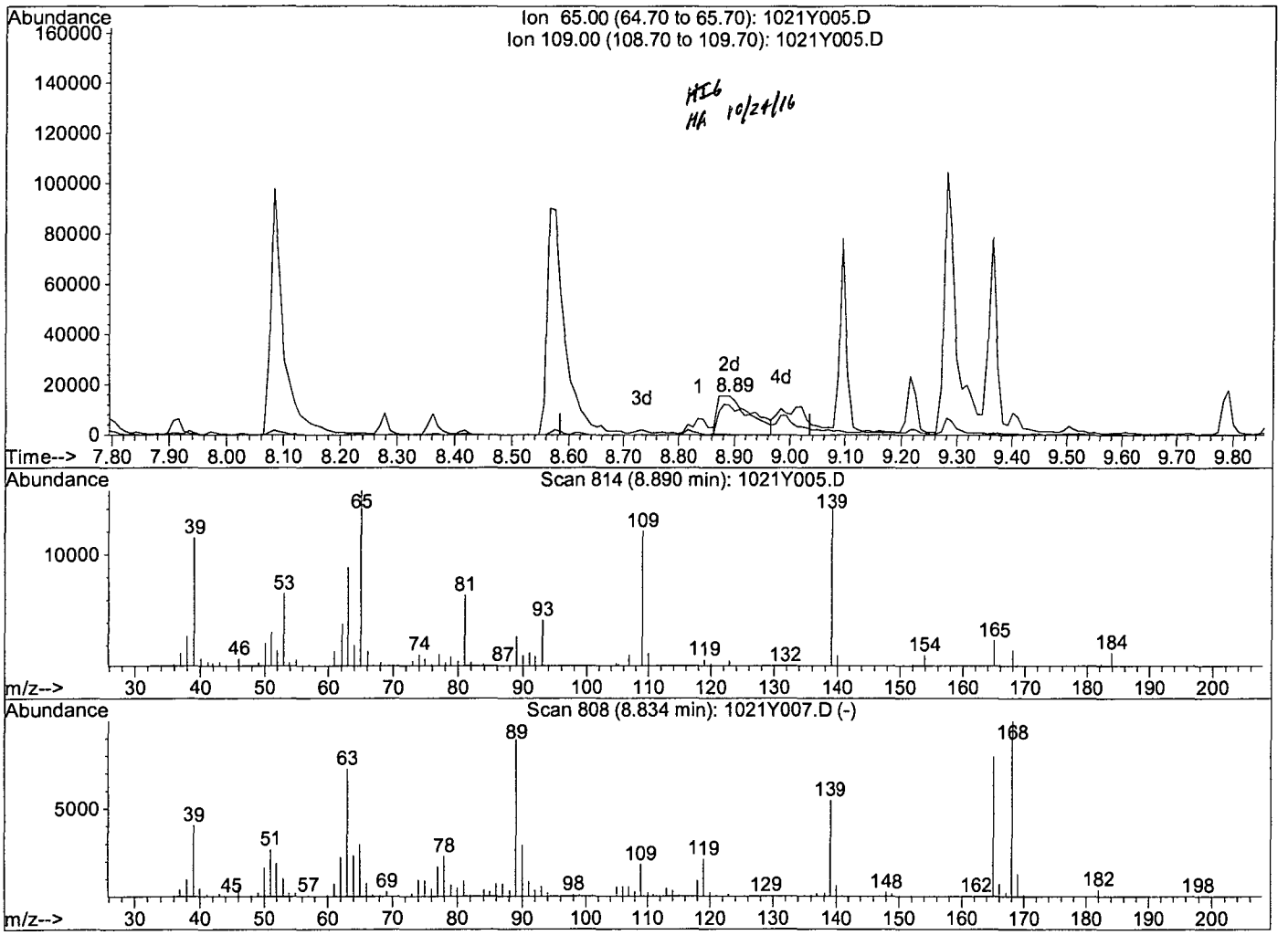
response 11538

Ion	Exp%	Act%
65.00	100	100
109.00	61.10	13.15#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y005.D Vial: 5
Acq On : 24 Oct 16 10:50 Operator: MA
Sample : 20ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Oct 24 14:14 2016 Quant Results File: temp.res

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:01:34 2016
Response via : Multiple Level Calibration



TIC: 1021Y005.D

(55) 4-Nitrophenol (**TM)

8.89min 18.3740ppb m

response 64870

Ion	Exp%	Act%
65.00	100	100
109.00	61.10	76.80
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y006.D Vial: 6
Acq On : 24 Oct 16 11:20 Operator: MA
Sample : 40ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	355261	40.00000 ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1539511	40.00000 ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	891922	40.00000 ppb		0.00
64) Phenanthrene-D10(IS)	10.32	188	1661674	40.00000 ppb		0.00
78) Chrysene-D12(IS)	13.41	240	1438737	40.00000 ppb		0.00
88) Perylene-D12(IS)	15.17	264	1448773	40.00000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.61	112	978306	75.59731 ppb		0.00
Spiked Amount 200.000			Recovery =	37.799%		
5) Phenol-D6 (S)	4.75	99	1292856	73.45932 ppb		0.00
Spiked Amount 200.000			Recovery =	36.730%		
21) Nitrobenzene-D5(S)	5.75	82	632191	38.06004 ppb		0.00
Spiked Amount 100.000			Recovery =	38.060%		
45) 2-Fluorobiphenyl(S)	7.80	172	1116323	37.60410 ppb		0.00
Spiked Amount 100.000			Recovery =	37.604%		
63) 2,4,6-Tribromophenol(S)	9.51	330	322387	79.05388 ppb		0.00
Spiked Amount 200.000			Recovery =	39.527%		
81) Terphenyl-D14(S)	12.19	244	1373922	38.19734 ppb		0.00
Spiked Amount 100.000			Recovery =	38.197%		
Target Compounds						Qvalue
2) n-Nitrosodimethylamine	1.88	42	213588	48.69778 ppb		93
3) Pyridine	1.90	79	435097	47.53632 ppb		99
6) Phenol	4.76	94	715925	40.18404 ppb		81
7) Aniline	4.76	66	634878	43.98843 ppb		99
8) Bis (2-chloroethyl) ether	4.83	63	335337	40.27330 ppb		93
9) 2-Chlorophenol	4.90	128	530971	39.53572 ppb		97
10) 1,3-DCB	5.05	146	566289	40.08551 ppb		96
11) 1,4-DCB	5.13	146	580087	40.62475 ppb		98
12) Benzyl alcohol	5.30	108	296751	40.93170 ppb		99
13) 1,2-DCB	5.30	146	542882	40.81235 ppb		96
14) 2-Methylphenol	5.44	107	415609	41.30062 ppb		96
15) Bis (2-chloroisopropyl) et	5.43	45	695313	38.47450 ppb	#	93
16) Acetophenone	5.58	105	746857	41.28128 ppb		94
17) 3&4-Methylphenol	5.60	107	1104452	83.14247 ppb		94
18) n-Nitrosodi-n-propylamine	5.59	70	391592	40.25962 ppb		96
19) Hexachloroethane	5.67	117	234444	40.89735 ppb		95
22) Nitrobenzene	5.77	77	617706	41.02324 ppb		96
23) Isophorone	6.04	82	1069874	40.97037 ppb		97
24) 2-Nitrophenol	6.13	139	305046	41.39338 ppb		99
25) 2,4-Dimethylphenol	6.20	122	465953	40.49840 ppb		99
26) Benzoic acid	6.37	105	345942	42.42535 ppb		98
27) Bis (2-chloroethoxy) metha	6.28	93	589528	39.95002 ppb		98
28) 2,4-Dichlorophenol	6.43	162	452057	42.47640 ppb		95
29) 1,2,4-Trichlorobenzene	6.50	180	482292	40.87904 ppb		99
30) 3,4-Dimethylphenol	6.54	107	703446	40.88406 ppb		100
31) Naphthalene	6.58	128	1550669	39.69128 ppb		100
32) 4-Chloroaniline	6.65	127	554905	45.64144 ppb		94
33) 2,6-Dichlorophenol	6.66	162	413512	40.53705 ppb		99
34) Hexachloropropene	6.67	213	356185	44.76780 ppb		98
35) Hexachlorobutadiene	6.71	225	289343	42.69994 ppb		96
36) Caprolactum	7.08	55	256143	41.10601 ppb		96
37) 4-Chloro-3-methylphenol	7.25	107	510452	42.36731 ppb		99

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

Data File : M:\YODA\DATA\Y161021\1021Y006.D Vial: 6
Acq On : 24 Oct 16 11:20 Operator: MA
Sample : 40ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	1033957	40.74069	ppb		99
39)	1-Methylnaphthalene	7.48	142	1002828	40.20602	ppb		100
41)	Hexachlorocyclopentadiene	7.55	237	194894	39.94379	ppb		96
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	461720	41.55346	ppb		99
43)	2,4,6-Trichlorophenol	7.72	196	304341	41.89933	ppb		99
44)	2,4,5-Trichlorophenol	7.79	196	318191	42.17626	ppb		98
46)	1,1'-Biphenyl	7.92	154	1330743	41.19077	ppb		99
47)	2-Chloronaphthalene	7.94	162	1022380	41.32617	ppb		94
48)	2-Nitroaniline	8.08	65	359437	41.97639	ppb		96
49)	Dimethyl phthalate	8.28	163	1211750	41.25666	ppb		99
50)	2,6-DNT	8.36	165	285590	42.73741	ppb		97
51)	Acenaphthylene	8.42	152	1629586	42.97440	ppb		99
52)	3-Nitroaniline	8.57	138	303378	42.58602	ppb		96
53)	Acenaphthene	8.62	154	993232	40.72718	ppb		98
54)	2,4-Dinitrophenol	8.71	184	137146	46.31500	ppb		94
55)	4-Nitrophenol	8.84	65	218309	41.91399	ppb		97
56)	Dibenzofuran	8.83	168	1452311	42.18868	ppb		98
57)	2,4-DNT	8.84	165	395235	43.88882	ppb		95
58)	2,3,4,6-Tetrachlorophenol	8.98	232	255496	42.54701	ppb	#	85
59)	Diethyl phthalate	9.10	149	1232666	42.08826	ppb		99
60)	4-Chlorophenyl phenyl ethe	9.23	204	531986	41.23796	ppb		96
61)	Fluorene	9.23	166	1135201	41.25770	ppb		99
62)	4-Nitroaniline	9.29	138	280866	43.31604	ppb		96
65)	4,6-Dinitro-2-methylphenol	9.33	198	228016	42.88766	ppb		97
66)	Diphenyl amine	9.37	169	1623995	74.95384	ppb		100
67)	n-Nitrosodiphenylamine	9.37	169	1623995	74.95384	ppb		100
68)	1,2-Diphenylhydrazine	9.41	77	1283855	39.22777	ppb		96
69)	4-Bromophenyl phenyl ether	9.79	248	323497	41.84480	ppb		95
70)	Hexachlorobenzene	9.88	284	334003	41.21419	ppb		96
71)	Atrazine	10.01	200	177695	21.32979	ppb		98
72)	Pentachlorophenol	10.13	266	132179	39.31456	ppb		98
73)	Phenanthrene	10.35	178	1733705	40.26299	ppb		100
74)	Anthracene	10.40	178	1799537	40.17857	ppb		99
75)	Carbazol	10.61	167	1663343	43.43790	ppb		99
76)	Di-n-butylphthalate	11.01	149	2132740	42.05963	ppb		100
77)	Fluoranthene	11.74	202	1908702	40.90855	ppb		100
79)	Benzidine	11.91	184	619778	54.22831	ppb	#	96
80)	Pyrene	12.00	202	1997687	40.52874	ppb		99
82)	Butyl benzylphthalate	12.76	149	984804	42.14620	ppb		96
83)	3,3'-Dichlorobenzidine	13.38	252	641660	49.09689	ppb		98
84)	Benz (a) anthracene	13.40	228	1812246	40.07204	ppb		100
85)	Bis (2-ethylhexyl) phthala	13.42	149	1304855	41.55680	ppb		99
86)	Chrysene	13.45	228	1828952	41.85992	ppb		99
87)	Di-n-octylphthalate	14.15	149	2372465	41.92128	ppb		99
89)	Benzo (b) fluoranthene	14.66	252	1911128	39.79220	ppb		99
90)	Benzo (k) fluoranthene	14.69	252	1763255	38.16801	ppb		99
91)	Benzo (a) pyrene	15.09	252	1727216	38.99579	ppb		99
92)	Indeno (1,2,3-cd) pyrene	16.90	276	2006664	39.87250	ppb		99
93)	Dibenz (a,h) anthracene	16.93	278	1688443	39.78549	ppb		99
94)	Benzo (g,h,i) perylene	17.42	276	1703405	39.66514	ppb		98

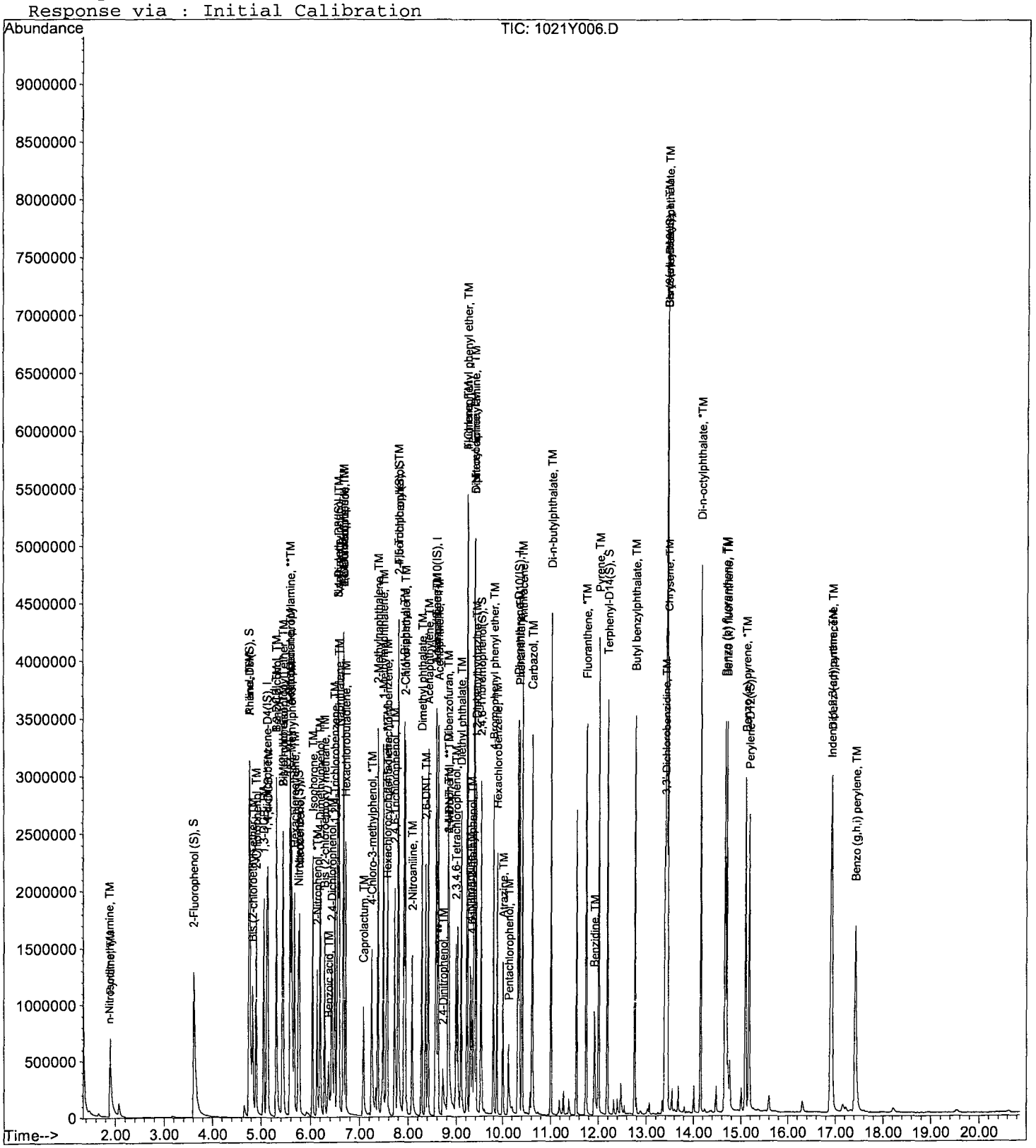
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y006.D Vial: 6
Acq On : 24 Oct 16 11:20 Operator: MA
Sample : 40ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y007.D Vial: 7
Acq On : 24 Oct 16 11:49 Operator: MA
Sample : 50ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	316560	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1345294	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	793448	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.32	188	1468739	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.42	240	1279339	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.17	264	1312429	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.62	112	1114893	96.68438 ppb	0.00
Spiked Amount 200.000			Recovery =	48.342%	
5) Phenol-D6 (S)	4.75	99	1452232	92.60283 ppb	0.00
Spiked Amount 200.000			Recovery =	46.302%	
21) Nitrobenzene-D5(S)	5.75	82	709827	48.90340 ppb	0.00
Spiked Amount 100.000			Recovery =	48.903%	
45) 2-Fluorobiphenyl(S)	7.79	172	1252677	47.43434 ppb	0.00
Spiked Amount 100.000			Recovery =	47.434%	
63) 2,4,6-Tribromophenol(S)	9.51	330	365067	100.62981 ppb	0.00
Spiked Amount 200.000			Recovery =	50.315%	
81) Terphenyl-D14(S)	12.19	244	1517766	47.45387 ppb	0.00
Spiked Amount 100.000			Recovery =	47.454%	
Target Compounds					Qvalue
2) n-Nitrosodimethylamine	1.88	42	262359	67.13049 ppb	100
3) Pyridine	1.90	79	511690	62.73905 ppb	100
6) Phenol	4.77	94	800315	50.41254 ppb	100
7) Aniline	4.76	66	700146	54.44127 ppb	100
8) Bis (2-chloroethyl) ether	4.83	63	366871	49.44708 ppb	100
9) 2-Chlorophenol	4.90	128	592804	49.53607 ppb	100
10) 1,3-DCB	5.05	146	626612	49.77823 ppb	100
11) 1,4-DCB	5.13	146	635981	49.98426 ppb	100
12) Benzyl alcohol	5.30	108	324461	50.22519 ppb	100
13) 1,2-DCB	5.31	146	597733	50.42952 ppb	100
14) 2-Methylphenol	5.44	107	450006	50.18586 ppb	100
15) Bis (2-chloroisopropyl) et	5.43	45	763609	47.41930 ppb	100
16) Acetophenone	5.58	105	819979	50.86394 ppb	100
17) 3&4-Methylphenol	5.61	107	1207780	102.03647 ppb	100
18) n-Nitrosodi-n-propylamine	5.58	70	426201	49.17472 ppb	100
19) Hexachloroethane	5.67	117	259493	50.80111 ppb	100
22) Nitrobenzene	5.77	77	686330	52.16109 ppb	100
23) Isophorone	6.04	82	1178939	51.66473 ppb	100
24) 2-Nitrophenol	6.13	139	341259	52.99261 ppb	100
25) 2,4-Dimethylphenol	6.20	122	530062	52.72153 ppb	100
26) Benzoic acid	6.37	105	391137	52.94695 ppb	100
27) Bis (2-chloroethoxy) metha	6.29	93	648504	50.29107 ppb	100
28) 2,4-Dichlorophenol	6.43	162	488418	52.51843 ppb	100
29) 1,2,4-Trichlorobenzene	6.49	180	534762	51.87006 ppb	100
30) 3,4-Dimethylphenol	6.54	107	781975	52.00938 ppb	100
31) Naphthalene	6.58	128	1732695	50.75324 ppb	100
32) 4-Chloroaniline	6.66	127	568930	53.55070 ppb	100
33) 2,6-Dichlorophenol	6.66	162	453619	50.88864 ppb	100
34) Hexachloropropene	6.67	213	385819	55.49315 ppb	100
35) Hexachlorobutadiene	6.72	225	317725	53.65760 ppb	100
36) Caprolactum	7.09	55	278514	51.14880 ppb	100
37) 4-Chloro-3-methylphenol	7.25	107	557403	52.94328 ppb	100

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y007.D Vial: 7
Acq On : 24 Oct 16 11:49 Operator: MA
Sample : 50ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	2-Methylnaphthalene	7.37	142	1137655	51.29820	ppb	100
39)	1-Methylnaphthalene	7.49	142	1108691	50.86755	ppb	100
41)	Hexachlorocyclopentadiene	7.55	237	221826	48.50898	ppb	100
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	504160	51.00412	ppb	100
43)	2,4,6-Trichlorophenol	7.72	196	344348	53.29084	ppb	100
44)	2,4,5-Trichlorophenol	7.79	196	355228	52.92925	ppb	100
46)	1,1'-Biphenyl	7.92	154	1445557	50.29785	ppb	100
47)	2-Chloronaphthalene	7.94	162	1129106	51.30456	ppb	100
48)	2-Nitroaniline	8.08	65	397563	52.19113	ppb	100
49)	Dimethyl phthalate	8.28	163	1350099	51.67198	ppb	100
50)	2,6-DNT	8.36	165	313888	52.80174	ppb	100
51)	Acenaphthylene	8.42	152	1794919	53.20908	ppb	100
52)	3-Nitroaniline	8.56	138	334165	52.72934	ppb	100
53)	Acenaphthene	8.62	154	1093746	50.41486	ppb	100
54)	2,4-Dinitrophenol	8.71	184	156764	56.40549	ppb	100
55)	4-Nitrophenol	8.83	65	241244	50.50348	ppb	100
56)	Dibenzofuran	8.82	168	1585915	51.78746	ppb	100
57)	2,4-DNT	8.84	165	425155	53.07063	ppb	100
58)	2,3,4,6-Tetrachlorophenol	8.99	232	283244	53.02175	ppb	100
59)	Diethyl phthalate	9.10	149	1356853	52.07830	ppb	100
60)	4-Chlorophenyl phenyl ethe	9.22	204	568725	49.55731	ppb	100
61)	Fluorene	9.22	166	1217544	49.74223	ppb	100
62)	4-Nitroaniline	9.29	138	315126	54.63138	ppb	100
65)	4,6-Dinitro-2-methylphenol	9.33	198	265070	55.93512	ppb	100
66)	Diphenyl amine	9.37	169	1754658	91.62266	ppb	100
67)	n-Nitrosodiphenylamine	9.37	169	1754658	91.62266	ppb	100
68)	1,2-Diphenylhydrazine	9.41	77	1409908	48.73822	ppb	100
69)	4-Bromophenyl phenyl ether	9.79	248	357095	52.25841	ppb	100
70)	Hexachlorobenzene	9.87	284	365059	50.96366	ppb	100
71)	Atrazine	10.00	200	191701	26.03376	ppb	100
72)	Pentachlorophenol	10.12	266	154381	49.90133	ppb	100
73)	Phenanthrene	10.35	178	1894173	49.76817	ppb	100
74)	Anthracene	10.40	178	2013094	50.85094	ppb	100
75)	Carbazol	10.61	167	1811463	53.52019	ppb	100
76)	Di-n-butylphthalate	11.01	149	2335629	52.11138	ppb	100
77)	Fluoranthene	11.74	202	2085538	50.57027	ppb	100
79)	Benzidine	11.92	184	646023	63.56729	ppb	100
80)	Pyrene	12.00	202	2168761	49.48153	ppb	100
82)	Butyl benzylphthalate	12.76	149	1075640	51.76918	ppb	100
83)	3,3'-Dichlorobenzidine	13.38	252	687123	59.12610	ppb	100
84)	Benz (a) anthracene	13.40	228	2068157	51.42847	ppb	100
85)	Bis (2-ethylhexyl) phthala	13.42	149	1460627	52.31364	ppb	100
86)	Chrysene	13.45	228	1904186	49.01187	ppb	100
87)	Di-n-octylphthalate	14.14	149	2681659	53.28857	ppb	100
89)	Benzo (b) fluoranthene	14.65	252	2007063	46.13109	ppb	100
90)	Benzo (k) fluoranthene	14.69	252	1988230	47.50896	ppb	100
91)	Benzo (a) pyrene	15.09	252	1921373	47.88586	ppb	100
92)	Indeno (1,2,3-cd) pyrene	16.91	276	2195319	48.15274	ppb	100
93)	Dibenz (a,h) anthracene	16.93	278	1862332	48.44176	ppb	100
94)	Benzo (g,h,i) perylene	17.42	276	1874064	48.17260	ppb	100

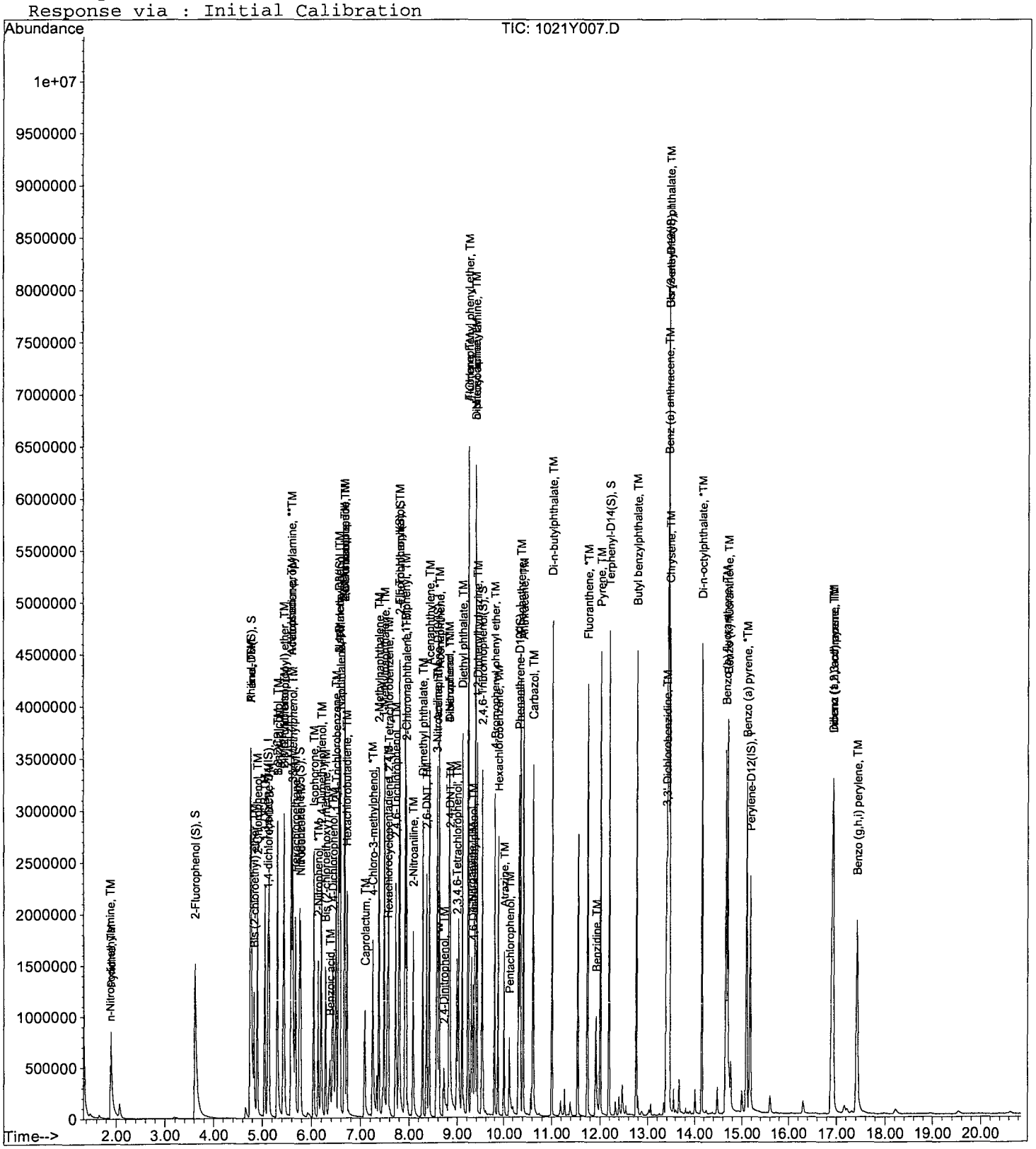
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y007.D Vial: 7
Acq On : 24 Oct 16 11:49 Operator: MA
Sample : 50ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y008.D Vial: 8
Acq On : 24 Oct 16 12:19 Operator: MA
Sample : 60ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	325913	40.00000	ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1411580	40.00000	ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	832595	40.00000	ppb		0.00
64) Phenanthrene-D10(IS)	10.32	188	1550197	40.00000	ppb		0.00
78) Chrysene-D12(IS)	13.41	240	1309075	40.00000	ppb		0.00
88) Perylene-D12(IS)	15.17	264	1429809	40.00000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol (S)	3.61	112	1380020	116.24195	ppb		0.00
Spiked Amount 200.000			Recovery =	58.121%			
5) Phenol-D6 (S)	4.75	99	1767461	109.46932	ppb		0.00
Spiked Amount 200.000			Recovery =	54.735%			
21) Nitrobenzene-D5(S)	5.75	82	866578	56.89917	ppb		0.00
Spiked Amount 100.000			Recovery =	56.899%			
45) 2-Fluorobiphenyl(S)	7.80	172	1482917	53.51251	ppb		0.00
Spiked Amount 100.000			Recovery =	53.513%			
63) 2,4,6-Tribromophenol(S)	9.51	330	437892	115.02858	ppb		0.00
Spiked Amount 200.000			Recovery =	57.515%			
81) Terphenyl-D14(S)	12.19	244	1828425	55.86825	ppb		0.00
Spiked Amount 100.000			Recovery =	55.868%			
Target Compounds							Qvalue
2) n-Nitrosodimethylamine	1.88	42	297688	73.98429	ppb		92
3) Pyridine	1.89	79	672429	80.08143	ppb		89
6) Phenol	4.76	94	947438	57.96726	ppb		86
7) Aniline	4.76	66	846912	63.96351	ppb		92
8) Bis (2-chloroethyl) ether	4.83	63	451641	59.12552	ppb		92
9) 2-Chlorophenol	4.90	128	713649	57.92278	ppb		95
10) 1,3-DCB	5.05	146	773715	59.70024	ppb		98
11) 1,4-DCB	5.13	146	776722	59.29377	ppb		98
12) Benzyl alcohol	5.30	108	406038	61.04923	ppb		95
13) 1,2-DCB	5.30	146	717718	58.81469	ppb		98
14) 2-Methylphenol	5.44	107	554150	60.02674	ppb		96
15) Bis (2-chloroisopropyl) et	5.43	45	917483	55.33966	ppb	#	87
16) Acetophenone	5.58	105	991682	59.74947	ppb		89
17) 3&4-Methylphenol	5.61	107	1467262	120.40087	ppb		94
18) n-Nitrosodi-n-propylamine	5.59	70	527052	59.06568	ppb		97
19) Hexachloroethane	5.67	117	314983	59.89479	ppb		94
22) Nitrobenzene	5.77	77	833091	60.34174	ppb		99
23) Isophorone	6.04	82	1433633	59.87597	ppb		98
24) 2-Nitrophenol	6.14	139	415962	61.55971	ppb		99
25) 2,4-Dimethylphenol	6.19	122	626183	59.35732	ppb		90
26) Benzoic acid	6.39	105	496108	62.62020	ppb		100
27) Bis (2-chloroethoxy) metha	6.28	93	793513	58.64675	ppb		98
28) 2,4-Dichlorophenol	6.42	162	606577	62.16097	ppb		94
29) 1,2,4-Trichlorobenzene	6.49	180	646875	59.79822	ppb		98
30) 3,4-Dimethylphenol	6.54	107	952885	60.40057	ppb		97
31) Naphthalene	6.57	128	2127470	59.39047	ppb		99
32) 4-Chloroaniline	6.66	127	706440	63.37140	ppb	#	93
33) 2,6-Dichlorophenol	6.66	162	548047	58.59480	ppb		99
34) Hexachloropropene	6.67	213	478482	65.58931	ppb		99
35) Hexachlorobutadiene	6.71	225	390990	62.92992	ppb		98
36) Caprolactum	7.09	55	348077	60.92218	ppb		98
37) 4-Chloro-3-methylphenol	7.25	107	679435	61.50369	ppb		96

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y008.D Vial: 8
Acq On : 24 Oct 16 12:19 Operator: MA
Sample : 60ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	1369744	58.86303	ppb		100
39)	1-Methylnaphthalene	7.48	142	1349901	59.02607	ppb		99
41)	Hexachlorocyclopentadiene	7.56	237	297548	59.42229	ppb		99
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	605973	58.42179	ppb		97
43)	2,4,6-Trichlorophenol	7.72	196	414565	61.14097	ppb		99
44)	2,4,5-Trichlorophenol	7.79	196	425948	60.48251	ppb		95
46)	1,1'-Biphenyl	7.92	154	1773472	58.80621	ppb		99
47)	2-Chloronaphthalene	7.94	162	1352053	58.54633	ppb		93
48)	2-Nitroaniline	8.08	65	488531	61.11778	ppb		93
49)	Dimethyl phthalate	8.28	163	1631567	59.50850	ppb		100
50)	2,6-DNT	8.36	165	384947	61.71052	ppb		93
51)	Acenaphthylene	8.42	152	2175897	61.47010	ppb		100
52)	3-Nitroaniline	8.57	138	418113	62.87380	ppb		98
53)	Acenaphthene	8.62	154	1316697	57.83791	ppb		99
54)	2,4-Dinitrophenol	8.72	184	206700	67.75414	ppb		92
55)	4-Nitrophenol	8.83	65	309156	60.25041	ppb		78
56)	Dibenzofuran	8.82	168	1899658	59.11597	ppb		90
57)	2,4-DNT	8.85	165	535908	63.75024	ppb		91
58)	2,3,4,6-Tetrachlorophenol	8.99	232	353459	63.05464	ppb	#	84
59)	Diethyl phthalate	9.11	149	1639135	59.95472	ppb		100
60)	4-Chlorophenyl phenyl ethe	9.22	204	703886	58.45106	ppb		88
61)	Fluorene	9.23	166	1470928	57.26862	ppb		100
62)	4-Nitroaniline	9.29	138	381230	62.98392	ppb		97
65)	4,6-Dinitro-2-methylphenol	9.33	198	328699	65.45585	ppb		96
66)	Diphenyl amine	9.38	169	2132145	105.48358	ppb		100
67)	n-Nitrosodiphenylamine	9.38	169	2132145	105.48358	ppb		100
68)	1,2-Diphenylhydrazine	9.40	77	1717267	56.24377	ppb	#	88
69)	4-Bromophenyl phenyl ether	9.79	248	433409	60.09358	ppb		93
70)	Hexachlorobenzene	9.88	284	449031	59.39250	ppb		95
71)	Atrazine	10.01	200	242321	31.17894	ppb		97
72)	Pentachlorophenol	10.13	266	188090	56.61879	ppb		93
73)	Phenanthrene	10.35	178	2266393	56.41895	ppb		99
74)	Anthracene	10.41	178	2452884	58.70427	ppb		100
75)	Carbazol	10.61	167	2188567	61.26406	ppb		99
76)	Di-n-butylphthalate	11.01	149	2885589	60.99875	ppb		99
77)	Fluoranthene	11.74	202	2596271	59.64649	ppb		99
79)	Benzidine	11.91	184	810775	77.96634	ppb		98
80)	Pyrene	12.00	202	2671201	59.56061	ppb		99
82)	Butyl benzylphthalate	12.76	149	1289861	60.66921	ppb		92
83)	3,3'-Dichlorobenzidine	13.39	252	830747	69.86098	ppb		97
84)	Benz (a) anthracene	13.40	228	2439707	59.28965	ppb		100
85)	Bis (2-ethylhexyl) phthala	13.42	149	1742923	61.00634	ppb	#	98
86)	Chrysene	13.45	228	2422792	60.94374	ppb		100
87)	Di-n-octylphthalate	14.15	149	3186133	61.87504	ppb		98
89)	Benzo (b) fluoranthene	14.66	252	2512575	53.00899	ppb		99
90)	Benzo (k) fluoranthene	14.69	252	2300442	50.45660	ppb		99
91)	Benzo (a) pyrene	15.09	252	2317541	53.01769	ppb		99
92)	Indeno (1,2,3-cd) pyrene	16.90	276	2642907	53.21120	ppb		95
93)	Dibenz (a,h) anthracene	16.93	278	2213798	52.85652	ppb		99
94)	Benzo (g,h,i) perylene	17.43	276	2250676	53.10390	ppb		99

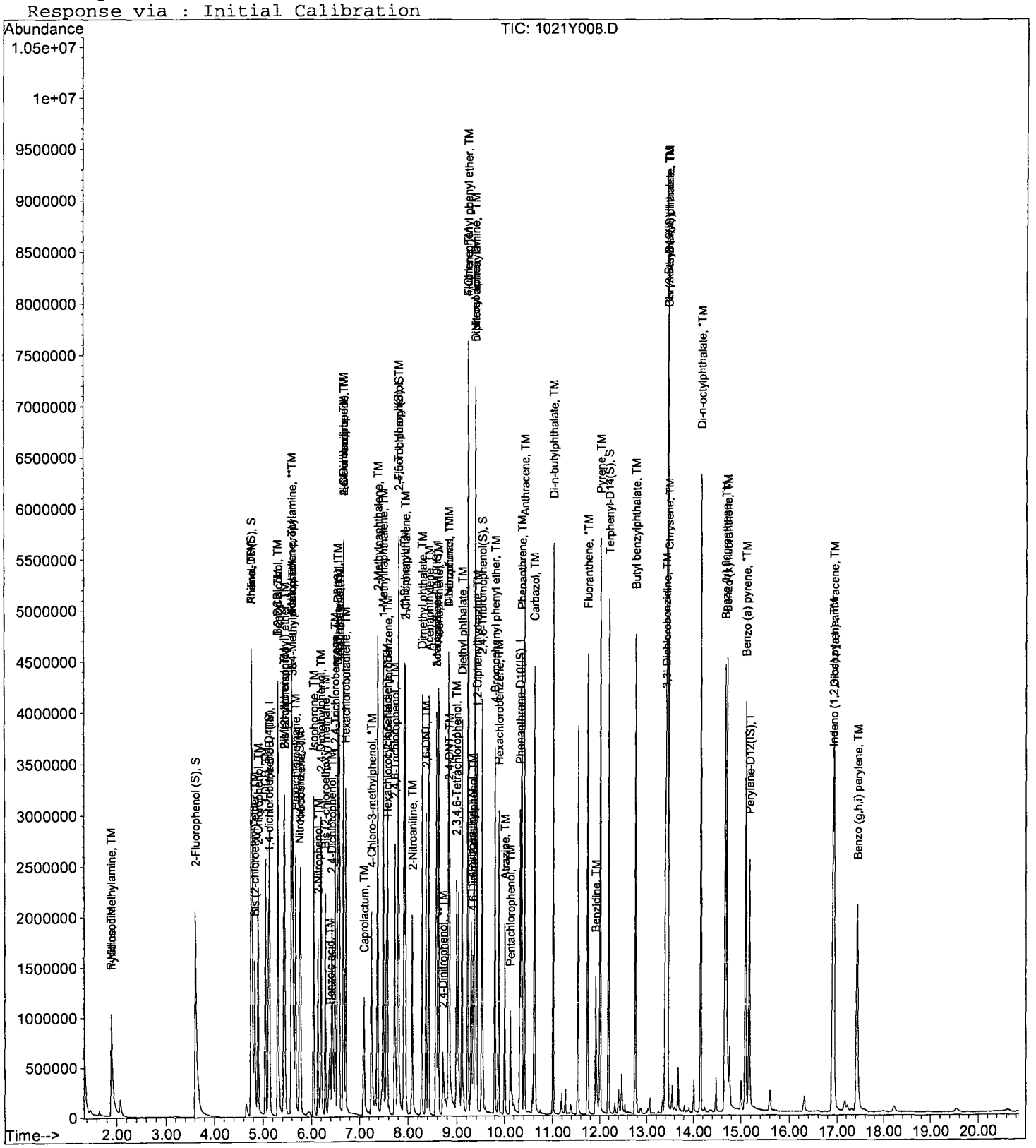
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y008.D Vial: 8
Acq On : 24 Oct 16 12:19 Operator: MA
Sample : 60ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y009.D Vial: 9
Acq On : 24 Oct 16 12:48 Operator: MA
Sample : 80ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	341978	40.00000 ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1452178	40.00000 ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	871064	40.00000 ppb		0.00
64) Phenanthrene-D10(IS)	10.32	188	1605794	40.00000 ppb		0.00
78) Chrysene-D12(IS)	13.42	240	1386963	40.00000 ppb		0.00
88) Perylene-D12(IS)	15.17	264	1428930	40.00000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.61	112	1956571	157.06399 ppb		0.00
Spiked Amount 200.000			Recovery =	78.532%		
5) Phenol-D6 (S)	4.75	99	2450221	144.62766 ppb		0.00
Spiked Amount 200.000			Recovery =	72.314%		
21) Nitrobenzene-D5(S)	5.75	82	1234855	78.81337 ppb		0.00
Spiked Amount 100.000			Recovery =	78.813%		
45) 2-Fluorobiphenyl(S)	7.81	172	2095374	72.27427 ppb		0.01
Spiked Amount 100.000			Recovery =	72.274%		
63) 2,4,6-Tribromophenol(S)	9.52	330	645283	162.02152 ppb		0.01
Spiked Amount 200.000			Recovery =	81.011%		
81) Terphenyl-D14(S)	12.19	244	2525558	72.83581 ppb		0.00
Spiked Amount 100.000			Recovery =	72.836%		
Target Compounds						Qvalue
2) n-Nitrosodimethylamine	1.88	42	415084	98.31453 ppb		94
3) Pyridine	1.90	79	894890	101.56838 ppb		98
6) Phenol	4.77	94	1325517	77.28955 ppb		93
7) Aniline	4.77	66	1181809	85.06380 ppb	#	73
8) Bis (2-chloroethyl) ether	4.83	63	638460	79.65606 ppb		97
9) 2-Chlorophenol	4.90	128	1012798	78.34136 ppb		98
10) 1,3-DCB	5.05	146	1062597	78.13888 ppb		98
11) 1,4-DCB	5.13	146	1074985	78.20767 ppb		99
12) Benzyl alcohol	5.30	108	568820	81.50643 ppb		98
13) 1,2-DCB	5.30	146	984225	76.86522 ppb		98
14) 2-Methylphenol	5.44	107	778729	80.39098 ppb		96
15) Bis (2-chloroisopropyl) et	5.43	45	1258710	72.35486 ppb	#	93
16) Acetophenone	5.59	105	1389763	79.80054 ppb		96
17) 3&4-Methylphenol	5.61	107	2024940	158.35713 ppb		99
18) n-Nitrosodi-n-propylamine	5.60	70	742020	79.25029 ppb		92
19) Hexachloroethane	5.67	117	447367	81.07172 ppb		100
22) Nitrobenzene	5.77	77	1198533	84.38418 ppb		96
23) Isophorone	6.05	82	2028214	82.34059 ppb		97
24) 2-Nitrophenol	6.13	139	590433	84.93744 ppb		99
25) 2,4-Dimethylphenol	6.20	122	902539	83.16195 ppb		95
26) Benzoic acid	6.40	105	608643	73.40196 ppb		99
27) Bis (2-chloroethoxy) metha	6.29	93	1120863	80.52451 ppb		100
28) 2,4-Dichlorophenol	6.42	162	854303	85.09997 ppb		96
29) 1,2,4-Trichlorobenzene	6.50	180	898260	80.71525 ppb		98
30) 3,4-Dimethylphenol	6.54	107	1358342	83.69419 ppb		96
31) Naphthalene	6.58	128	2935085	79.64521 ppb		99
32) 4-Chloroaniline	6.66	127	898261	78.32605 ppb		97
33) 2,6-Dichlorophenol	6.66	162	756737	78.64514 ppb		98
34) Hexachloropropene	6.67	213	664596	88.55454 ppb		100
35) Hexachlorobutadiene	6.72	225	540224	84.51836 ppb		98
36) Caprolactum	7.11	55	488526	83.11386 ppb		98
37) 4-Chloro-3-methylphenol	7.25	107	969408	85.29930 ppb		99

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y009.D Vial: 9
Acq On : 24 Oct 16 12:48 Operator: MA
Sample : 80ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	1942731	81.15244	ppb		100
39)	1-Methylnaphthalene	7.49	142	1906412	81.02973	ppb		99
41)	Hexachlorocyclopentadiene	7.55	237	477855	86.24385	ppb		99
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	860740	79.31901	ppb		98
43)	2,4,6-Trichlorophenol	7.72	196	585194	82.49418	ppb		96
44)	2,4,5-Trichlorophenol	7.79	196	609773	82.76089	ppb		94
46)	1,1'-Biphenyl	7.92	154	2466104	78.16169	ppb		99
47)	2-Chloronaphthalene	7.94	162	1893906	78.38773	ppb		98
48)	2-Nitroaniline	8.08	65	701781	83.91909	ppb		94
49)	Dimethyl phthalate	8.29	163	2327173	81.13094	ppb		99
50)	2,6-DNT	8.37	165	547946	83.96141	ppb		78
51)	Acenaphthylene	8.42	152	3037177	82.01238	ppb		100
52)	3-Nitroaniline	8.57	138	573460	82.42575	ppb		98
53)	Acenaphthene	8.62	154	1832727	76.94994	ppb		99
54)	2,4-Dinitrophenol	8.71	184	319590	93.10437	ppb		93
55)	4-Nitrophenol	8.83	65	459689	82.91367	ppb	#	68
56)	Dibenzofuran	8.83	168	2612464	77.70759	ppb		88
57)	2,4-DNT	8.84	165	753955	85.72762	ppb		94
58)	2,3,4,6-Tetrachlorophenol	8.99	232	500258	85.30132	ppb		92
59)	Diethyl phthalate	9.10	149	2300878	80.44258	ppb		98
60)	4-Chlorophenyl phenyl ethe	9.23	204	984553	78.14710	ppb		100
61)	Fluorene	9.23	166	2063404	76.78799	ppb		100
62)	4-Nitroaniline	9.30	138	524502	82.82730	ppb		99
65)	4,6-Dinitro-2-methylphenol	9.33	198	453050	86.60067	ppb	#	81
66)	Diphenyl amine	9.37	169	2989823	142.79423	ppb		99
67)	n-Nitrosodiphenylamine	9.37	169	2989823	142.79423	ppb		99
68)	1,2-Diphenylhydrazine	9.41	77	2770661	87.60262	ppb		95
69)	4-Bromophenyl phenyl ether	9.79	248	602741	80.67853	ppb		93
70)	Hexachlorobenzene	9.88	284	640833	81.82711	ppb		94
71)	Atrazine	10.01	200	337339	41.90192	ppb		96
72)	Pentachlorophenol	10.13	266	302970	84.50449	ppb		94
73)	Phenanthrene	10.35	178	3225055	77.50398	ppb		99
74)	Anthracene	10.41	178	3434947	79.36148	ppb		100
75)	Carbazol	10.61	167	3067214	82.88713	ppb		98
76)	Di-n-butylphthalate	11.01	149	3974637	81.11123	ppb		99
77)	Fluoranthene	11.74	202	3543685	78.59358	ppb		98
79)	Benzidine	11.92	184	1070979	97.20473	ppb		98
80)	Pyrene	12.01	202	3717236	78.22982	ppb		98
82)	Butyl benzylphthalate	12.76	149	1854602	82.33336	ppb		96
83)	3,3'-Dichlorobenzidine	13.38	252	1084098	86.04667	ppb		100
84)	Benz (a) anthracene	13.40	228	3426255	78.58878	ppb		100
85)	Bis (2-ethylhexyl) phthala	13.42	149	2417405	79.86303	ppb		99
86)	Chrysene	13.45	228	3229024	76.66267	ppb		100
87)	Di-n-octylphthalate	14.16	149	4485412	82.21548	ppb	#	91
89)	Benzo (b) fluoranthene	14.67	252	3368335	71.10708	ppb		97
90)	Benzo (k) fluoranthene	14.70	252	3365934	73.87192	ppb		98
91)	Benzo (a) pyrene	15.09	252	3248767	74.36679	ppb		100
92)	Indeno (1,2,3-cd) pyrene	16.91	276	3552281	71.56415	ppb		98
93)	Dibenz (a,h) anthracene	16.94	278	3004276	71.77406	ppb		99
94)	Benzo (g,h,i) perylene	17.44	276	3083518	72.79927	ppb		95

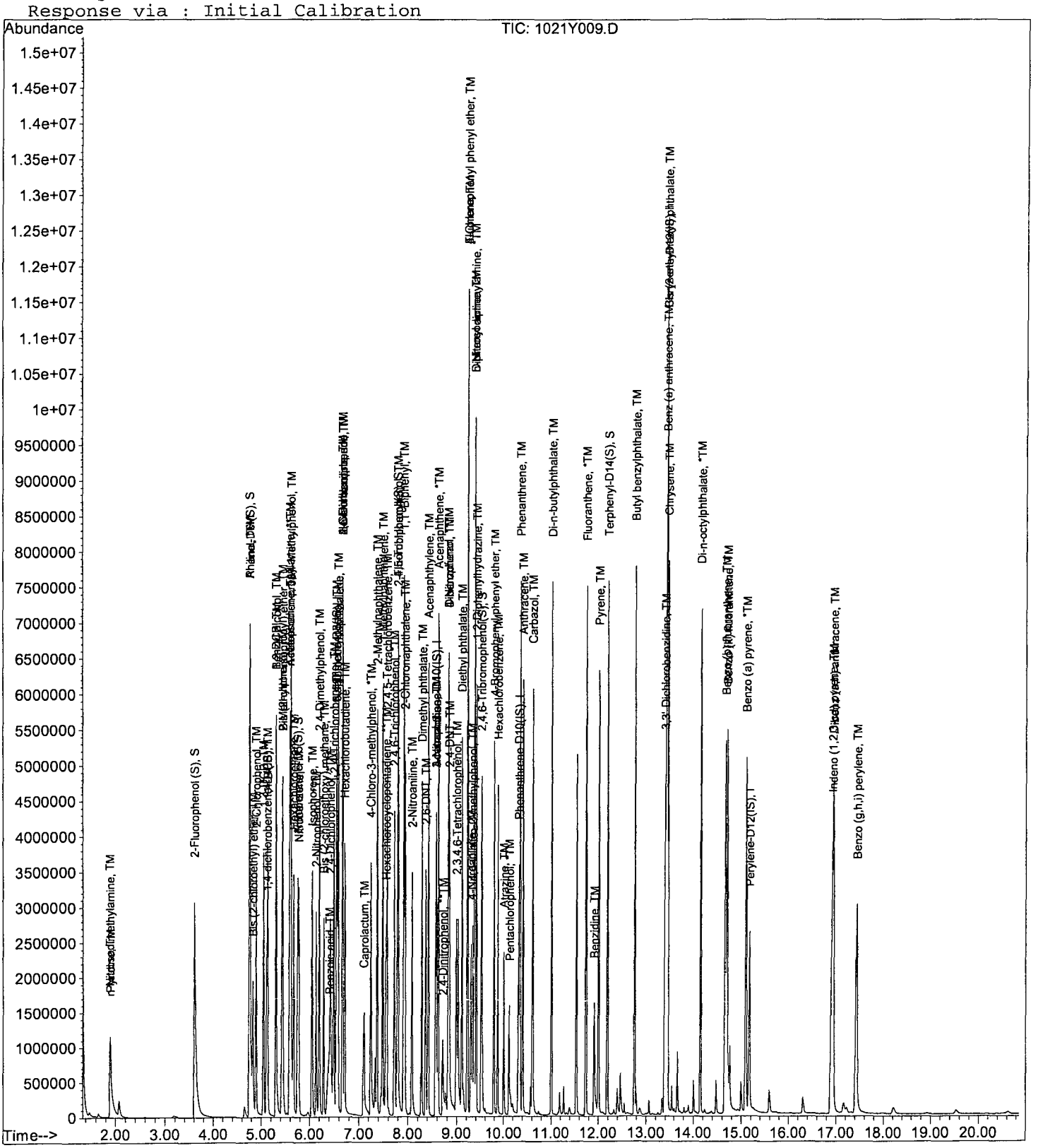
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y009.D Vial: 9
Acq On : 24 Oct 16 12:48 Operator: MA
Sample : 80ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y010.D Vial: 10
Acq On : 24 Oct 16 13:18 Operator: MA
Sample : 100ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	379158	40.00000	ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1591114	40.00000	ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	950577	40.00000	ppb		0.00
64) Phenanthrene-D10(IS)	10.32	188	1807389	40.00000	ppb		0.00
78) Chrysene-D12(IS)	13.42	240	1479174	40.00000	ppb		0.00
88) Perylene-D12(IS)	15.17	264	1554764	40.00000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol (S)	3.61	112	2444119	176.96252	ppb		0.00
Spiked Amount 200.000			Recovery = 88.482%				
5) Phenol-D6 (S)	4.76	99	3017690	160.65664	ppb		0.01
Spiked Amount 200.000			Recovery = 80.329%				
21) Nitrobenzene-D5(S)	5.75	82	1513797	88.18001	ppb		0.00
Spiked Amount 100.000			Recovery = 88.180%				
45) 2-Fluorobiphenyl(S)	7.81	172	2564542	81.05779	ppb		0.01
Spiked Amount 100.000			Recovery = 81.058%				
63) 2,4,6-Tribromophenol(S)	9.52	330	805218	185.26728	ppb		0.01
Spiked Amount 200.000			Recovery = 92.634%				
81) Terphenyl-D14(S)	12.19	244	3241805	87.66376	ppb		0.00
Spiked Amount 100.000			Recovery = 87.664%				
Target Compounds							Qvalue
2) n-Nitrosodimethylamine	1.88	42	499752	106.76138	ppb		87
3) Pyridine	1.90	79	1038293	106.28861	ppb		98
6) Phenol	4.77	94	1501728	78.97774	ppb		98
7) Aniline	4.77	66	1350961	87.70377	ppb	#	72
8) Bis (2-chloroethyl) ether	4.83	63	735903	82.81017	ppb		99
9) 2-Chlorophenol	4.90	128	1166275	81.36679	ppb		100
10) 1,3-DCB	5.05	146	1220012	80.91716	ppb		98
11) 1,4-DCB	5.13	146	1242224	81.51262	ppb		99
12) Benzyl alcohol	5.31	108	648255	83.78009	ppb		95
13) 1,2-DCB	5.30	146	1128626	79.49933	ppb		97
14) 2-Methylphenol	5.44	107	902717	84.05248	ppb		98
15) Bis (2-chloroisopropyl) et	5.43	45	1454164	75.39340	ppb		99
16) Acetophenone	5.59	105	1630796	84.45837	ppb		94
17) 3&4-Methylphenol	5.61	107	2316864	163.41952	ppb		95
18) n-Nitrosodi-n-propylamine	5.60	70	836181	80.54962	ppb		99
19) Hexachloroethane	5.67	117	502116	82.07057	ppb		99
22) Nitrobenzene	5.78	77	1377993	88.54756	ppb		95
23) Isophorone	6.05	82	2369778	87.80645	ppb		98
24) 2-Nitrophenol	6.13	139	681462	89.47233	ppb		96
25) 2,4-Dimethylphenol	6.20	122	1024249	86.13562	ppb		92
26) Benzoic acid	6.41	105	756496	82.37656	ppb		99
27) Bis (2-chloroethoxy) metha	6.29	93	1284472	84.22068	ppb		100
28) 2,4-Dichlorophenol	6.42	162	987392	89.76884	ppb		95
29) 1,2,4-Trichlorobenzene	6.50	180	1034963	84.87835	ppb		99
30) 3,4-Dimethylphenol	6.54	107	1558078	87.61812	ppb		97
31) Naphthalene	6.58	128	3363116	83.29125	ppb		100
32) 4-Chloroaniline	6.66	127	969537	77.15900	ppb		98
33) 2,6-Dichlorophenol	6.66	162	880179	83.48654	ppb		99
34) Hexachloropropene	6.67	213	770098	93.65212	ppb		99
35) Hexachlorobutadiene	6.72	225	623692	89.05656	ppb		99
36) Caprolactum	7.13	55	581033	90.22048	ppb		98
37) 4-Chloro-3-methylphenol	7.25	107	1127972	90.58489	ppb		96

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y010.D Vial: 10
Acq On : 24 Oct 16 13:18 Operator: MA
Sample : 100ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.38	142	2189993	83.49302	ppb		97
39)	1-Methylnaphthalene	7.49	142	2200206	85.35118	ppb		100
41)	Hexachlorocyclopentadiene	7.55	237	563108	92.38737	ppb		99
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	973205	82.18118	ppb		99
43)	2,4,6-Trichlorophenol	7.72	196	683920	88.34694	ppb		99
44)	2,4,5-Trichlorophenol	7.79	196	704323	87.59748	ppb		95
46)	1,1'-Biphenyl	7.92	154	2855682	82.93831	ppb		99
47)	2-Chloronaphthalene	7.94	162	2183392	82.81026	ppb		96
48)	2-Nitroaniline	8.08	65	800896	87.76029	ppb		94
49)	Dimethyl phthalate	8.29	163	2685977	85.80704	ppb		100
50)	2,6-DNT	8.37	165	635330	89.20806	ppb		87
51)	Acenaphthylene	8.42	152	3563509	88.17591	ppb		100
52)	3-Nitroaniline	8.58	138	656215	86.43083	ppb	#	91
53)	Acenaphthene	8.62	154	2133373	82.08051	ppb		99
54)	2,4-Dinitrophenol	8.71	184	395702	103.21025	ppb		92
55)	4-Nitrophenol	8.82	65	544488	89.44310	ppb		79
56)	Dibenzofuran	8.83	168	3030771	82.60932	ppb		87
57)	2,4-DNT	8.84	165	857308	89.32540	ppb		87
58)	2,3,4,6-Tetrachlorophenol	8.99	232	587735	91.83454	ppb		92
59)	Diethyl phthalate	9.11	149	2695951	86.37084	ppb		99
60)	4-Chlorophenyl phenyl ethe	9.23	204	1166737	84.86126	ppb		98
61)	Fluorene	9.23	166	2449594	83.53450	ppb		99
62)	4-Nitroaniline	9.30	138	598498	86.60676	ppb		86
65)	4,6-Dinitro-2-methylphenol	9.34	198	552936	93.77877	ppb		99
66)	Diphenyl amine	9.38	169	3468946	147.19767	ppb		100
67)	n-Nitrosodiphenylamine	9.38	169	3468946	147.19767	ppb		100
68)	1,2-Diphenylhydrazine	9.41	77	3188783	89.57707	ppb		93
69)	4-Bromophenyl phenyl ether	9.80	248	707017	84.08050	ppb	#	81
70)	Hexachlorobenzene	9.88	284	722411	81.95490	ppb	#	86
71)	Atrazine	10.01	200	389283	42.96066	ppb		99
72)	Pentachlorophenol	10.13	266	369790	91.09948	ppb		95
73)	Phenanthrene	10.35	178	3709025	79.19264	ppb		100
74)	Anthracene	10.41	178	3914242	80.34810	ppb		99
75)	Carbazol	10.61	167	3615513	86.80628	ppb		97
76)	Di-n-butylphthalate	11.01	149	4653113	84.36559	ppb		99
77)	Fluoranthene	11.74	202	4120743	81.19806	ppb		98
79)	Benzidine	11.92	184	1214355	103.34697	ppb		99
80)	Pyrene	12.01	202	4331333	85.47112	ppb		98
82)	Butyl benzylphthalate	12.76	149	2118169	88.17213	ppb		91
83)	3,3'-Dichlorobenzidine	13.38	252	1211908	90.19465	ppb		98
84)	Benz (a) anthracene	13.41	228	3876897	83.38169	ppb		100
85)	Bis (2-ethylhexyl) phthala	13.42	149	2802168	86.80329	ppb		100
86)	Chrysene	13.46	228	3823726	85.12263	ppb		100
87)	Di-n-octylphthalate	14.15	149	5210643	89.55466	ppb		94
89)	Benzo (b) fluoranthene	14.67	252	4132299	80.17441	ppb		99
90)	Benzo (k) fluoranthene	14.70	252	3463528	69.86167	ppb		99
91)	Benzo (a) pyrene	15.10	252	3636495	76.50502	ppb		98
92)	Indeno (1,2,3-cd) pyrene	16.92	276	4020345	74.43857	ppb		100
93)	Dibenz (a,h) anthracene	16.95	278	3363134	73.84453	ppb		99
94)	Benzo (g,h,i) perylene	17.45	276	3417555	74.15535	ppb		97

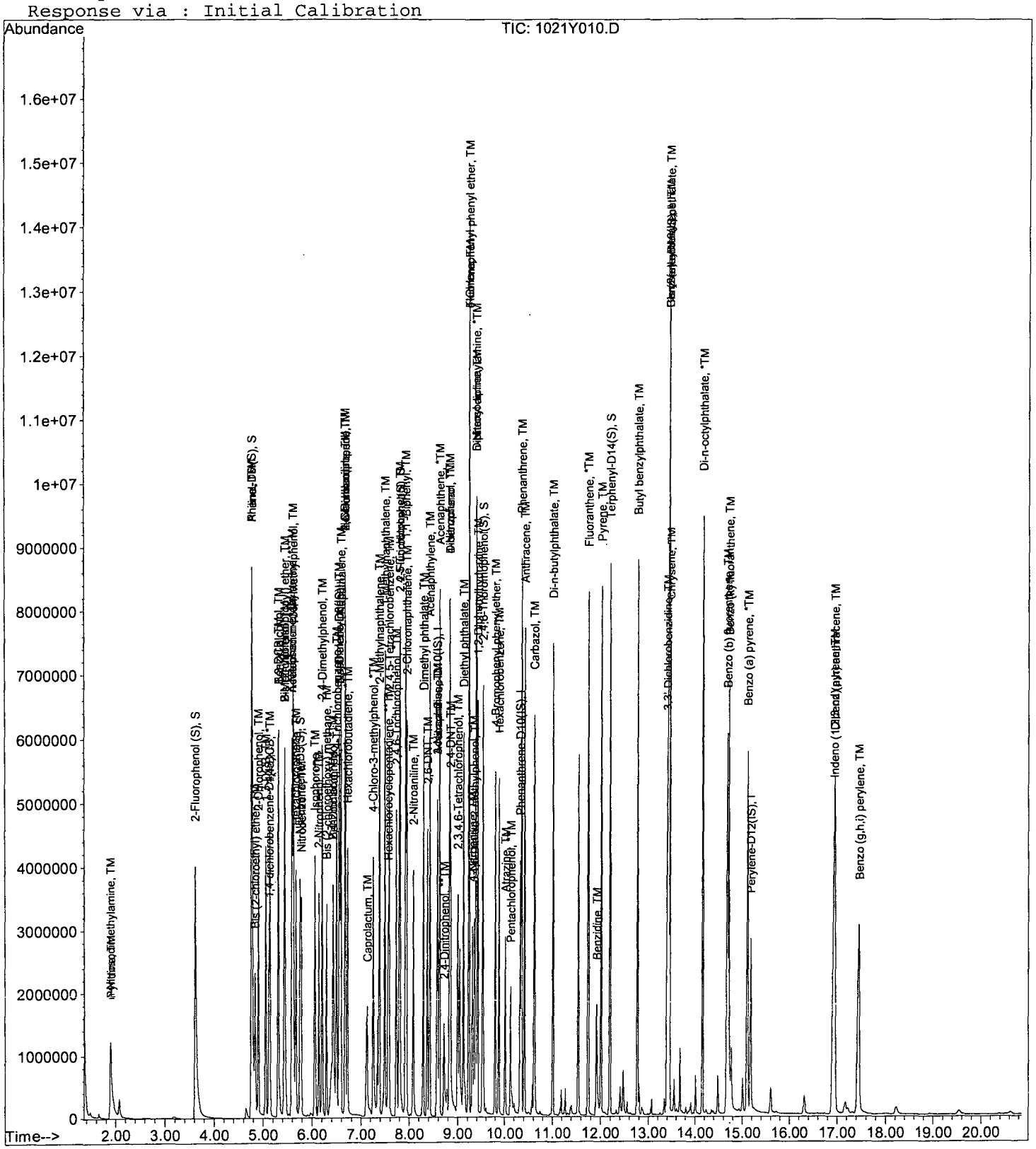
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y010.D Vial: 10
Acq On : 24 Oct 16 13:18 Operator: MA
Sample : 100ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



389

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Date Analyzed: 10/24/16

Matrix: Instrument: Yoda

Initial Cal. Date: 10/24/16

Data File: 1021Y011.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	n-Nitrosodimethylamine	0.5967	0.6231	4.4	TM	
2	TM	Pyridine	1.246	1.371	10.0	TM	
3	*TM	Phenol	1.979	2.015	1.8	*TM	
4	TM	Aniline	1.720	1.601	6.9	TM	
5	TM	Bis (2-chloroethyl) ether	0.9211	1.042	13	TM	
6	TM	2-Chlorophenol	1.488	1.497	0.56	TM	
7	TM	1,3-DCB	1.582	1.757	11	TM	
8	*TM	1,4-DCB	1.616	1.790	11	*TM	
9	TM	Benzyl alcohol	0.7942	0.9099	15	TM	
10	TM	1,2-DCB	1.500	1.651	10	TM	
11	TM	2-Methylphenol	1.144	1.114	2.7	TM	
12	TM	Bis (2-chloroisopropyl) ether	1.938	2.002	3.3	TM	
13	TM	Acetophenone	2.066	2.157	4.4	TM	
14	TM	3&4-Methylphenol	1.503	1.532	1.9	TM	
15	**TM	n-Nitrosodi-n-propylamine	1.100	1.104	0.38	**TM	
16	TM	Hexachloroethane	0.6557	0.7241	10	TM	
17	TM	Nitrobenzene	0.4054	0.4197	3.5	TM	
18	TM	Isophorone	0.6894	0.7845	14	TM	
19	*TM	2-Nitrophenol	0.1963	0.1993	1.5	*TM	
20	TM	2,4-Dimethylphenol	0.3036	0.3086	1.6	TM	
21	TMQ	Benzoic acid	0.2017	0.2643	31	TMQ	16
22	TM	Bis (2-chloroethoxy) methane	0.3798	0.4156	9.4	TM	
23	*TM	2,4-Dichlorophenol	0.2870	0.2892	0.76	*TM	
24	TM	1,2,4-Trichlorobenzene	0.3148	0.3545	13	TM	
25	TM	3,4-Dimethylphenol	0.4663	0.4469	4.2	TM	
26	TM	Naphthalene	1.025	1.004	2.1	TM	
27	TM	4-Chloroaniline	0.3374	0.3554	5.3	TM	
28	TM	2,6-Dichlorophenol	0.2725	0.2826	3.7	TM	
29	TM	Hexachloropropene	0.2254	0.2348	4.2	TM	
30	*TM	Hexachlorobutadiene	0.1893	0.2129	12	*TM	
31	TM	Caprolactum	0.1628	0.1558	4.3	TM	
32	*TM	4-Chloro-3-methylphenol	0.3211	0.3248	1.1	*TM	
33	TM	2-Methylnaphthalene	0.6704	0.6819	1.7	TM	
34	TM	1-Methylnaphthalene	0.6607	0.6338	4.1	TM	
35	**TML	Hexachlorocyclopentadiene	0.2014	0.2470	23	**TML	2.3
36	TM	1,2,4,5-Tetrachlorobenzene	0.5121	0.5200	1.5	TM	
37	*TM	2,4,6-Trichlorophenol	0.3391	0.3383	0.24	*TM	
38	TM	2,4,5-Trichlorophenol	0.3526	0.3773	7.0	TM	
39	TM	1,1'-Biphenyl	1.480	1.487	0.49	TM	
40	TM	2-Chloronaphthalene	1.132	1.248	10	TM	
		Average			6.7		

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/24/16
Instrument: Yoda
Cal. Date: 10/24/16
Data File: 1021Y011.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	2-Nitroaniline	0.3955	0.4100	3.7	TM	
42	TM	Dimethyl phthalate	1.357	1.351	0.40	TM	
43	TM	2,6-DNT	0.3104	0.3296	6.2	TM	
44	TM	Acenaphthylene	1.819	1.824	0.25	TM	
45	TM	3-Nitroaniline	0.3245	0.3468	6.9	TM	
46	*TM	Acenaphthene	1.107	1.114	0.61	*TM	
47	**TML	2,4-Dinitrophenol	0.1419	0.1447	1.9	**TML	8.3
48	**TM	4-Nitrophenol	0.2322	0.2377	2.4	**TM	
49	TM	Dibenzofuran	1.597	1.588	0.59	TM	
50	TM	2,4-DNT	0.4300	0.4546	5.7	TM	
51	TM	2,3,4,6-Tetrachlorophenol	0.2751	0.2969	7.9	TM	
52	TM	Diethyl phthalate	1.372	1.397	1.8	TM	
53	TM	4-Chlorophenyl phenyl ether	0.6091	0.5987	1.7	TM	
54	TM	Fluorene	1.268	1.210	4.6	TM	
55	TM	4-Nitroaniline	0.3185	0.3283	3.1	TM	
56	TM	4,6-Dinitro-2-methylphenol	0.1306	0.1426	9.2	TM	
57	TM	Diphenyl amine	0.4891	0.5414	11	TM	
58	*TM	n-Nitrosodiphenylamine	0.4891	0.5414	11	*TM	
59	TM	1,2-Diphenylhydrazine	0.7935	0.8164	2.9	TM	
60	TM	4-Bromophenyl phenyl ether	0.1926	0.2010	4.3	TM	
61	TM	Hexachlorobenzene	0.2037	0.2235	9.7	TM	
62	TM	Atrazine	0.2112	0.1939	8.2	TM	
63	*TM	Pentachlorophenol	0.0792	0.0811	2.4	*TM	
64	TM	Phenanthrene	1.039	1.046	0.70	TM	
65	TM	Anthracene	1.098	1.055	3.9	TM	
66	TM	Carbazol	0.9842	0.9773	0.69	TM	
67	TM	Di-n-butylphthalate	1.268	1.299	2.5	TM	
68	*TM	Fluoranthene	1.151	1.162	1.0	*TM	
69	TM	Benzidine	0.3945	0.4450	13	TM	
70	TM	Pyrene	1.367	1.367	0.04	TM	
71	TM	Butyl benzylphthalate	0.6645	0.6965	4.8	TM	
72	TM	3,3'-Dichlorobenzidine	0.4215	0.4773	13	TM	
73	TM	Benz (a) anthracene	1.253	1.243	0.78	TM	
74	TM	Bis (2-ethylhexyl) phthalate	0.9005	0.9219	2.4	TM	
75	TM	Chrysene	1.238	1.208	2.4	TM	
76	*TM	Di-n-octylphthalate	1.628	1.639	0.69	*TM	
77	TM	Benzo (b) fluoranthene	1.246	1.279	2.6	TM	
78	TM	Benzo (k) fluoranthene	1.270	1.136	11	TM	
79	*TM	Benzo (a) pyrene	1.178	1.168	0.85	*TM	
80	TM	Indeno (1,2,3-cd) pyrene	1.344	1.338	0.50	TM	
		Average			4.2		

0
0

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/24/16
Instrument: Yoda
Cal. Date: 10/24/16
Data File: 1021Y011.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	Dibenz (a,h) anthracene	1.130	1.095	3.1	TM	
82	TM	Benzo (g,h,i) perylene	1.134	1.124	0.93	TM	
83							
84							
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114							
115							
116							
117							
118							
119							
120							
		Average			2.0		

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y011.D Vial: 11
Acq On : 24 Oct 16 13:47 Operator: MA
Sample : SS SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 26 11:35 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	354774	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1526673	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	894462	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.31	188	1653163	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1445468	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.17	264	1515423	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	0.00	112	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
5) Phenol-D6 (S)	0.00	99	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
21) Nitrobenzene-D5(S)	5.67	82	81285	5.15909 ppb	-0.08
Spiked Amount 100.000			Recovery =	5.159%	
45) 2-Fluorobiphenyl(S)	7.80	172	1107	0.03899 ppb	0.00
Spiked Amount 100.000			Recovery =	0.039%	
63) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
81) Terphenyl-D14(S)	12.19	244	532	0.01538 ppb	0.00
Spiked Amount 100.000			Recovery =	0.015%	

Algorithm = $\frac{893484 \times 1 \times 40}{1 \times 354774 \times 1.979} = 50.90$ MA 11/1/16

Target Compounds					Qvalue
2) n-Nitrosodimethylamine	1.88	42	276332	52.20965 ppb	88
3) Pyridine	1.89	79	607803	54.99976 ppb	93
6) Phenol	4.77	94	893484	50.90262 ppb	93
7) Aniline	4.77	66	709964	46.53070 ppb	81
8) Bis (2-chloroethyl) ether	4.83	63	461885	56.53494 ppb	97
9) 2-Chlorophenol	4.90	128	663695	50.27811 ppb	94
10) 1,3-DCB	5.05	146	779213	55.51683 ppb	97
11) 1,4-DCB	5.13	146	793648	55.38245 ppb	99
12) Benzyl alcohol	5.30	108	403490	57.28232 ppb	95
13) 1,2-DCB	5.30	146	732311	55.02877 ppb	98
14) 2-Methylphenol	5.44	107	493884	48.66513 ppb	94
15) Bis (2-chloroisopropyl) et	5.43	45	887859	51.65458 ppb #	82
16) Acetophenone	5.58	105	956418	52.20230 ppb	92
17) 3&4-Methylphenol	5.61	107	1358939	101.91536 ppb	99
18) n-Nitrosodi-n-propylamine	5.59	70	489711	50.19018 ppb	95
19) Hexachloroethane	5.67	117	321102	55.21060 ppb	89
22) Nitrobenzene	5.77	77	800926	51.76114 ppb	95
23) Isophorone	6.04	82	1497090	56.89862 ppb	96
24) 2-Nitrophenol	6.14	139	380276	50.74813 ppb	95
25) 2,4-Dimethylphenol	6.19	122	588896	50.81493 ppb	93
26) Benzoic acid	6.39	105	504432	58.04439 ppb	96
27) Bis (2-chloroethoxy) metha	6.28	93	793027	54.71444 ppb	97
28) 2,4-Dichlorophenol	6.42	162	551936	50.38025 ppb	97
29) 1,2,4-Trichlorobenzene	6.49	180	676482	56.30385 ppb	98
30) 3,4-Dimethylphenol	6.54	107	852913	47.92393 ppb	96
31) Naphthalene	6.57	128	1915602	48.96463 ppb	99
32) 4-Chloroaniline	6.66	127	678189	52.66998 ppb	96
33) 2,6-Dichlorophenol	6.67	162	539362	51.85279 ppb	98
34) Hexachloropropene	6.67	213	448127	52.09625 ppb	98
35) Hexachlorobutadiene	6.71	225	406365	56.24727 ppb	97
36) Caprolactum	7.09	55	297411	47.85685 ppb	99
37) 4-Chloro-3-methylphenol	7.24	107	619815	50.56854 ppb	96

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y011.D Vial: 11
Acq On : 24 Oct 16 13:47 Operator: MA
Sample : SS SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 26 11:35 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	1301275	50.85749 ppb		100
39)	1-Methylnaphthalene	7.48	142	1209599	47.96715 ppb		100
41)	Hexachlorocyclopentadiene	7.55	237	276129	51.15466 ppb		98
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	581387	50.77215 ppb		97
43)	2,4,6-Trichlorophenol	7.72	196	378228	49.88226 ppb		100
44)	2,4,5-Trichlorophenol	7.79	196	421833	53.50133 ppb		95
46)	1,1'-Biphenyl	7.92	154	1663032	50.24257 ppb		99
47)	2-Chloronaphthalene	7.94	162	1395835	55.15231 ppb		95
48)	2-Nitroaniline	8.08	65	458390	51.82635 ppb		88
49)	Dimethyl phthalate	8.28	163	1510989	49.79800 ppb		100
50)	2,6-DNT	8.36	165	368518	53.09960 ppb		94
51)	Acenaphthylene	8.42	152	2038977	50.12392 ppb		100
52)	3-Nitroaniline	8.57	138	387782	53.44593 ppb		96
53)	Acenaphthene	8.61	154	1245493	50.30648 ppb		100
54)	2,4-Dinitrophenol	8.72	184	161732	45.87121 ppb		94
55)	4-Nitrophenol	8.84	65	265737	51.18156 ppb		99
56)	Dibenzofuran	8.82	168	1775478	49.70543 ppb		94
57)	2,4-DNT	8.85	165	508312	52.86723 ppb		90
58)	2,3,4,6-Tetrachlorophenol	8.99	232	331954	53.95879 ppb	#	86
59)	Diethyl phthalate	9.10	149	1562291	50.91593 ppb		97
60)	4-Chlorophenyl phenyl ethe	9.22	204	669352	49.14263 ppb		87
61)	Fluorene	9.22	166	1352418	47.68430 ppb		99
62)	4-Nitroaniline	9.29	138	367074	51.54165 ppb		96
65)	4,6-Dinitro-2-methylphenol	9.33	198	294652	54.58123 ppb		94
66)	Diphenyl amine	9.38	169	2237516	110.68244 ppb		100
67)	n-Nitrosodiphenylamine	9.38	169	2237516	110.68244 ppb		100
68)	1,2-Diphenylhydrazine	9.40	77	1687027	51.44136 ppb	#	88
69)	4-Bromophenyl phenyl ether	9.79	248	415279	52.16416 ppb		91
70)	Hexachlorobenzene	9.88	284	461840	54.85022 ppb		91
71)	Atrazine	10.01	200	200355	22.95112 ppb		96
72)	Pentachlorophenol	10.12	266	167614	51.17771 ppb		96
73)	Phenanthrene	10.34	178	2161757	50.35172 ppb		99
74)	Anthracene	10.41	178	2179643	48.02777 ppb		100
75)	Carbazol	10.61	167	2019608	49.65316 ppb		100
76)	Di-n-butylphthalate	11.01	149	2684423	51.23920 ppb		100
77)	Fluoranthene	11.74	202	2402100	50.50455 ppb		99
79)	Benzidine	11.91	184	804051m	56.40367 ppb		99
80)	Pyrene	12.00	202	2469266	49.98068 ppb		98
82)	Butyl benzylphthalate	12.76	149	1258370	52.40012 ppb		84
83)	3,3'-Dichlorobenzidine	13.38	252	862372	56.62105 ppb	#	97
84)	Benz (a) anthracene	13.40	228	2246582	49.61204 ppb		100
85)	Bis (2-ethylhexyl) phthala	13.42	149	1665672	51.18934 ppb	#	99
86)	Chrysene	13.45	228	2182881	48.78974 ppb		100
87)	Di-n-octylphthalate	14.15	149	2961786	50.34272 ppb		97
89)	Benzo (b) fluoranthene	14.66	252	2422185	51.31799 ppb		98
90)	Benzo (k) fluoranthene	14.70	252	2151706	44.73732 ppb		98
91)	Benzo (a) pyrene	15.09	252	2211678	49.57719 ppb		98
92)	Indeno (1,2,3-cd) pyrene	16.91	276	2533911	49.75039 ppb		98
93)	Dibenz (a,h) anthracene	16.93	278	2074543	48.44306 ppb		98
94)	Benzo (g,h,i) perylene	17.42	276	2128744	49.53612 ppb		100

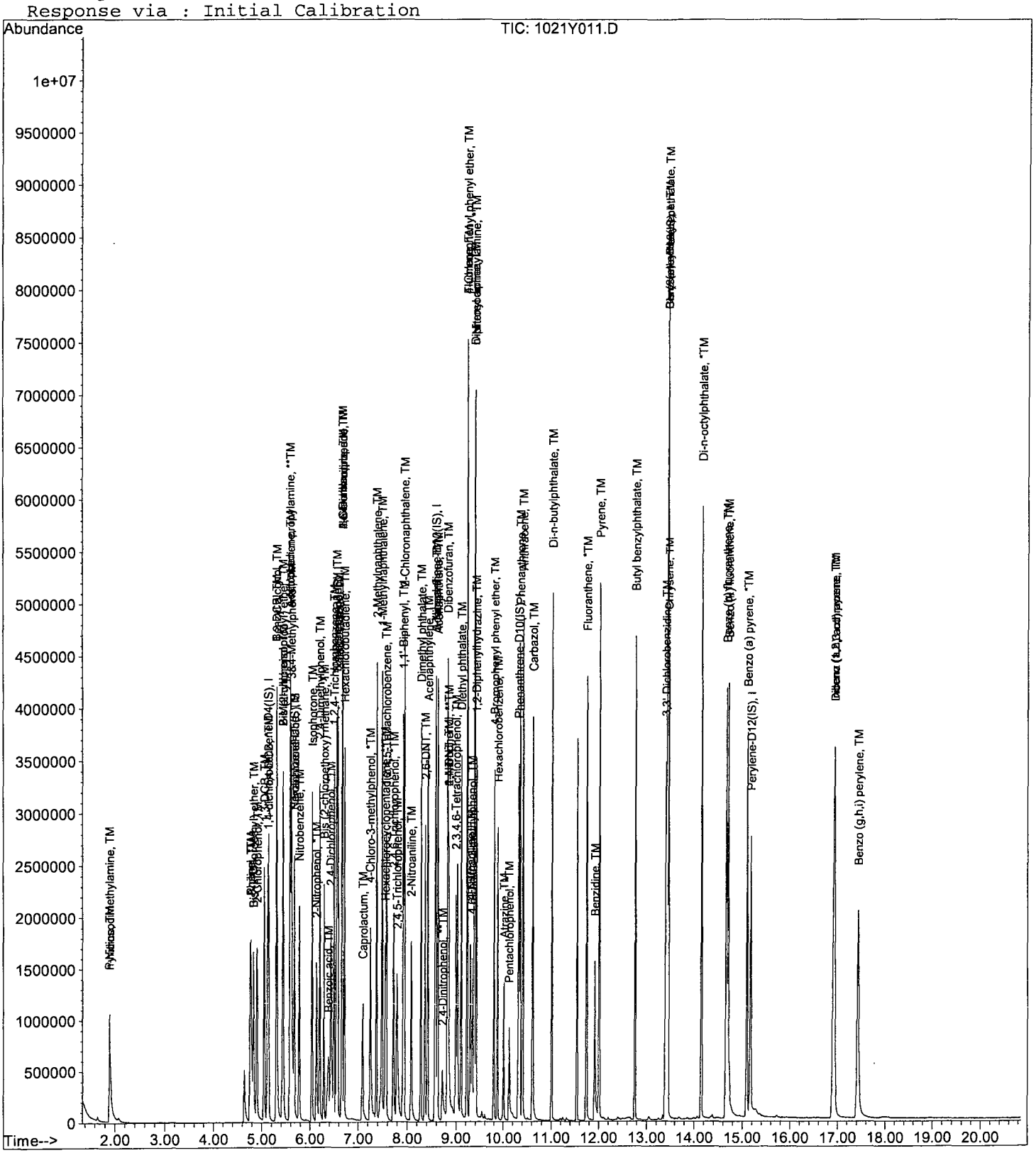
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y011.D Vial: 11
Acq On : 24 Oct 16 13:47 Operator: MA
Sample : SS SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 26 11:35 2016 Quant Results File: Y1021.RES

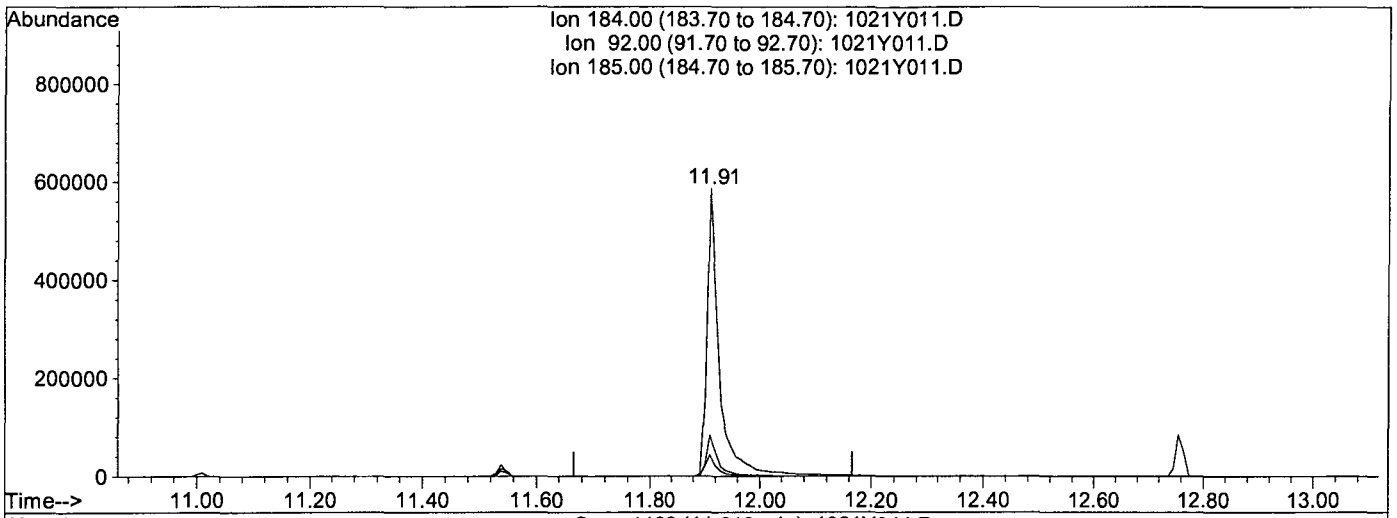
Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration

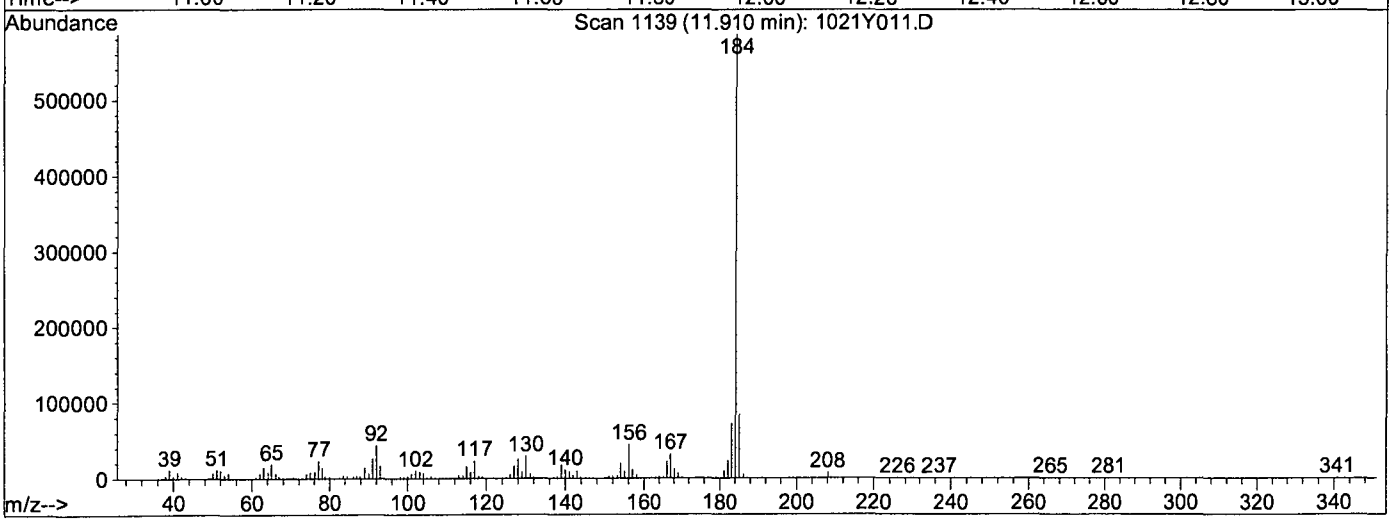


Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y011.D Vial: 11
Acq On : 24 Oct 16 13:47 Operator: MA
Sample : SS SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Oct 25 8:01 2016 Quant Results File: temp.res

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Multiple Level Calibration





TIC: 1021Y011.D

(79) Benzidine (TM)

11.91min 63.2237ppb

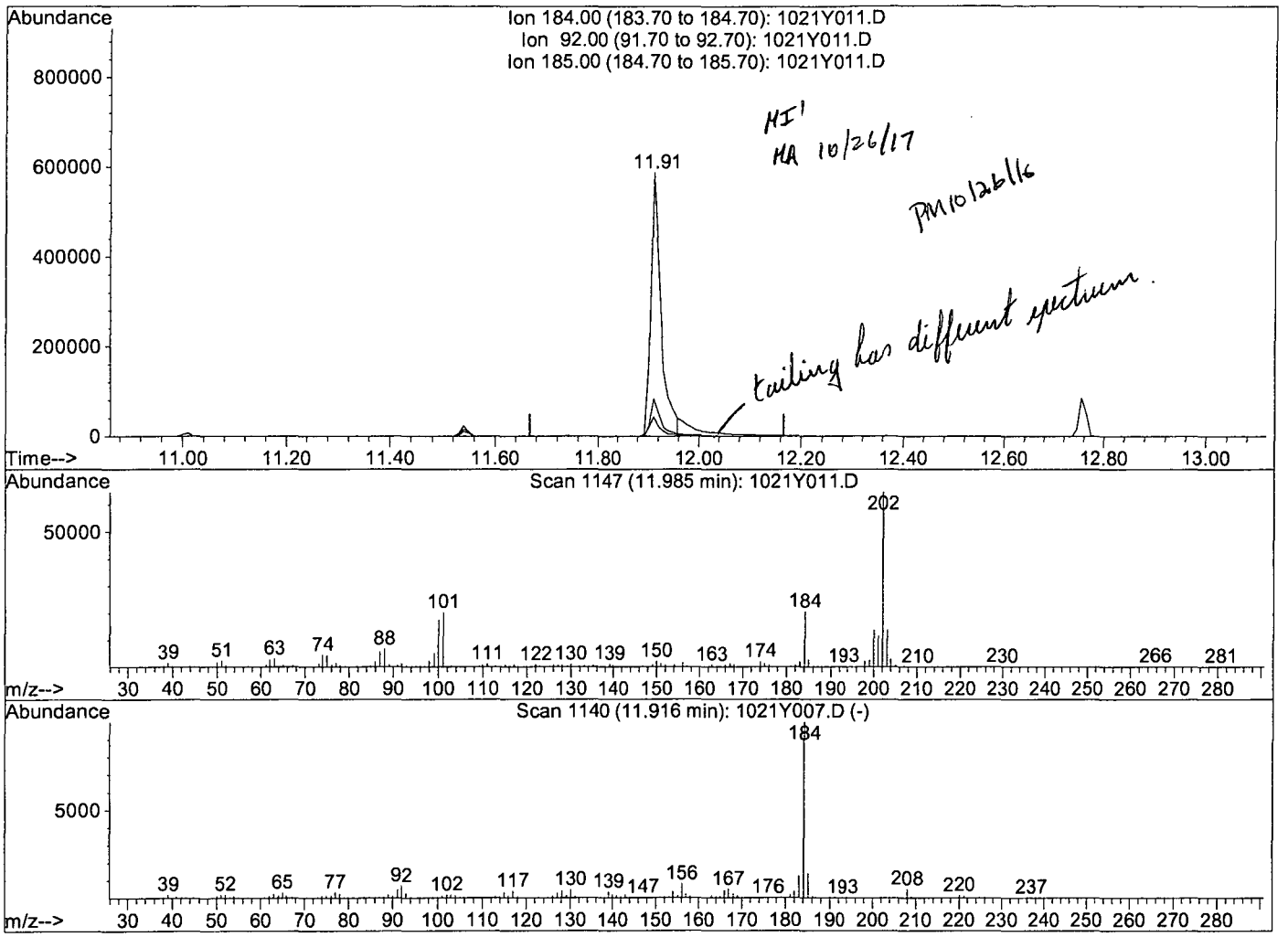
response 901272

Ion	Exp%	Act%
184.00	100	100
92.00	6.80	7.43
185.00	13.80	14.28
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y011.D Vial: 11
Acq On : 24 Oct 16 13:47 Operator: MA
Sample : SS SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Oct 26 11:35 2016 Quant Results File: temp.res

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Multiple Level Calibration



TIC: 1021Y011.D

(79) Benzidine (TM)

11.91min 56.4037ppb m

response 804051

Ion	Exp%	Act%
184.00	100	100
92.00	6.80	7.43
185.00	13.80	14.27
0.00	0.00	0.00

Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 10/27/16
Instrument: Yoda
Initial Cal. Date: 10/24/16
Data File: 1021Y103.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	n-Nitrosodimethylamine	0.5967	0.6043	1.3	TM	
3	TM	Pyridine	1.246	1.387	11	TM	
4	S	2-Fluorophenol (S)	1.341	1.439	7.3	S	
5	S	Phenol-D6 (S)	1.791	1.883	5.2	S	
6	*TM	Phenol	1.979	2.038	3.0	*TM	
7	TM	Aniline	1.720	1.831	6.4	TM	
8	TM	Bis (2-chloroethyl) ether	0.9211	0.9744	5.8	TM	
9	TM	2-Chlorophenol	1.488	1.525	2.5	TM	
10	TM	1,3-DCB	1.582	1.641	3.7	TM	
11	*TM	1,4-DCB	1.616	1.663	2.9	*TM	
12	TM	Benzyl alcohol	0.7942	0.8909	12	TM	
13	TM	1,2-DCB	1.500	1.532	2.1	TM	
14	TM	2-Methylphenol	1.144	1.183	3.4	TM	
15	TM	Bis (2-chloroisopropyl) ether	1.938	1.976	2.0	TM	
16	TM	Acetophenone	2.066	2.128	3.0	TM	
17	TM	3&4-Methylphenol	1.503	1.536	2.2	TM	
18	**TM	n-Nitrosodi-n-propylamine	1.100	1.138	3.4	**TM	
19	TM	Hexachloroethane	0.6557	0.6730	2.6	TM	
20	I	Napthalene-D8(IS)	ISTD			I	
21	S	Nitrobenzene-D5(S)	0.4128	0.4232	2.5	S	
22	TM	Nitrobenzene	0.4054	0.4188	3.3	TM	
23	TM	Isophorone	0.6894	0.7109	3.1	TM	
24	*TM	2-Nitrophenol	0.1963	0.2013	2.5	*TM	
25	TM	2,4-Dimethylphenol	0.3036	0.3154	3.9	TM	
26	TMQ	Benzoic acid	0.2017	0.2433	21	TMQ	5.5
27	TM	Bis (2-chloroethoxy) methane	0.3798	0.3970	4.5	TM	
28	*TM	2,4-Dichlorophenol	0.2870	0.2932	2.1	*TM	
29	TM	1,2,4-Trichlorobenzene	0.3148	0.3257	3.5	TM	
30	TM	3,4-Dimethylphenol	0.4663	0.4792	2.8	TM	
31	TM	Naphthalene	1.025	1.037	1.1	TM	
32	TM	4-Chloroaniline	0.3374	0.3616	7.2	TM	
33	TM	2,6-Dichlorophenol	0.2725	0.2776	1.9	TM	
34	TM	Hexachloropropene	0.2254	0.2347	4.1	TM	
35	*TM	Hexachlorobutadiene	0.1893	0.1918	1.3	*TM	
36	TM	Caprolactum	0.1628	0.1748	7.4	TM	
37	*TM	4-Chloro-3-methylphenol	0.3211	0.3353	4.4	*TM	
38	TM	2-Methylnaphthalene	0.6704	0.6936	3.5	TM	
39	TM	1-Methylnaphthalene	0.6607	0.6713	1.6	TM	
40	I	Acenaphthene-D10(IS)	ISTD			I	
		Average			4.4		

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/27/16
Instrument: Yoda
Cal. Date: 10/24/16
Data File: 1021Y103.D

		Compound	MEAN	CCRF	%D		%Drift
41	**TML	Hexachlorocyclopentadiene	0.2014	0.2485	23	**TML	2.8
42	TM	1,2,4,5-Tetrachlorobenzene	0.5121	0.5227	2.1	TM	
43	*TM	2,4,6-Trichlorophenol	0.3391	0.3558	4.9	*TM	
44	TM	2,4,5-Trichlorophenol	0.3526	0.3694	4.8	TM	
45	S	2-Fluorobiphenyl(S)	1.270	1.275	0.42	S	
46	TM	1,1'-Biphenyl	1.480	1.513	2.2	TM	
47	TM	2-Chloronaphthalene	1.132	1.148	1.4	TM	
48	TM	2-Nitroaniline	0.3955	0.4119	4.1	TM	
49	TM	Dimethyl phthalate	1.357	1.374	1.3	TM	
50	TM	2,6-DNT	0.3104	0.3222	3.8	TM	
51	TM	Acenaphthylene	1.819	1.857	2.1	TM	
52	TM	3-Nitroaniline	0.3245	0.3423	5.5	TM	
53	*TM	Acenaphthene	1.107	1.138	2.8	*TM	
54	**TML	2,4-Dinitrophenol	0.1419	0.1600	13	**TML	0.06
55	**TM	4-Nitrophenol	0.2322	0.2429	4.6	**TM	
56	TM	Dibenzofuran	1.597	1.639	2.6	TM	
57	TM	2,4-DNT	0.4300	0.4514	5.0	TM	
58	TM	2,3,4,6-Tetrachlorophenol	0.2751	0.2942	7.0	TM	
59	TM	Diethyl phthalate	1.372	1.384	0.84	TM	
60	TM	4-Chlorophenyl phenyl ether	0.6091	0.5974	1.9	TM	
61	TM	Fluorene	1.268	1.264	0.30	TM	
62	TM	4-Nitroaniline	0.3185	0.3186	0.02	TM	
63	S	2,4,6-Tribromophenol(S)	0.1825	0.1856	1.7	S	
64	I	Phenanthrene-D10(IS)	ISTD			I	
65	TM	4,6-Dinitro-2-methylphenol	0.1306	0.1438	10	TM	
66	TM	Diphenyl amine	0.4891	0.4882	0.19	TM	
67	*TM	n-Nitrosodiphenylamine	0.4891	0.4882	0.19	*TM	
68	TM	1,2-Diphenylhydrazine	0.7935	0.7959	0.30	TM	
69	TM	4-Bromophenyl phenyl ether	0.1926	0.2005	4.1	TM	
70	TM	Hexachlorobenzene	0.2037	0.2022	0.76	TM	
71	TM	Atrazine	0.2112	0.2152	1.9	TM	
72	*TM	Pentachlorophenol	0.0792	0.0894	13	*TM	
73	TM	Phenanthrene	1.039	1.046	0.69	TM	
74	TM	Anthracene	1.098	1.116	1.6	TM	
75	TM	Carbazol	0.9842	0.9997	1.6	TM	
76	TM	Di-n-butylphthalate	1.268	1.317	3.9	TM	
77	*TM	Fluoranthene	1.151	1.154	0.28	*TM	
78	I	Chrysene-D12(IS)	ISTD			I	
79	TM	Benzidine	0.3945	0.4444	13	TM	
80	TM	Pyrene	1.367	1.415	3.5	TM	
		Average			4.0		

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/27/16
Matrix: 0 Instrument: Yoda
Cal. Date: 10/24/16
Data File: 1021Y103.D

		Compound	MEAN	CCRF	%D		%Drift
81	S	Terphenyl-D14(S)	0.9575	0.9895	3.3	S	
82	TM	Butyl benzylphthalate	0.6645	0.7146	7.5	TM	
83	TM	3,3'-Dichlorobenzidine	0.4215	0.4544	7.8	TM	
84	TM	Benz (a) anthracene	1.253	1.302	3.9	TM	
85	TM	Bis (2-ethylhexyl) phthalate	0.9005	0.9642	7.1	TM	
86	TM	Chrysene	1.238	1.298	4.8	TM	
87	*TM	Di-n-octylphthalate	1.628	1.739	6.8	*TM	
88	I	Perylene-D12(IS)	ISTD			I	
89	TM	Benzo (b) fluoranthene	1.246	1.306	4.8	TM	
90	TM	Benzo (k) fluoranthene	1.270	1.154	9.1	TM	
91	*TM	Benzo (a) pyrene	1.178	1.170	0.65	*TM	
92	TM	Indeno (1,2,3-cd) pyrene	1.344	1.371	1.9	TM	
93	TM	Dibenz (a,h) anthracene	1.130	1.154	2.1	TM	
94	TM	Benzo (g,h,i) perylene	1.134	1.156	1.9	TM	
95							
96							
97							
98							
99							
100							
101							
102							
103							
104							
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109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			4.7		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y103.D Vial: 3
Acq On : 27 Oct 16 9:37 Operator: MA
Sample : 50ug/ml SVOC 10/20/16 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Oct 27 10:02 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	317064	40.00000	ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1367340	40.00000	ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	796206	40.00000	ppb		0.00
64) Phenanthrene-D10(IS)	10.32	188	1474204	40.00000	ppb		0.00
78) Chrysene-D12(IS)	13.41	240	1246028	40.00000	ppb		0.00
88) Perylene-D12(IS)	15.17	264	1298586	40.00000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol (S)	3.62	112	1140287	107.26276	ppb		0.00
Spiked Amount 200.000			Recovery = 53.632%				
5) Phenol-D6 (S)	4.75	99	1492846	105.16475	ppb		0.00
Spiked Amount 200.000			Recovery = 52.583%				
21) Nitrobenzene-D5(S)	5.75	82	723266	51.25429	ppb		0.00
Spiked Amount 100.000			Recovery = 51.254%				
45) 2-Fluorobiphenyl(S)	7.80	172	1269055	50.21178	ppb		0.00
Spiked Amount 100.000			Recovery = 50.212%				
63) 2,4,6-Tribromophenol(S)	9.51	330	369376	101.66430	ppb		0.00
Spiked Amount 200.000			Recovery = 50.832%				
81) Terphenyl-D14(S)	12.19	244	1541161	51.67092	ppb		0.00
Spiked Amount 100.000			Recovery = 51.671%				
Target Compounds							Qvalue
2) n-Nitrosodimethylamine	1.89	42	239514	50.63553	ppb		93
3) Pyridine	1.91	79	549629	55.65093	ppb		100
6) Phenol	4.77	94	807739	51.49076	ppb		99
7) Aniline	4.76	66	725547	53.20760	ppb		99
8) Bis (2-chloroethyl) ether	4.83	63	386186	52.89132	ppb		89
9) 2-Chlorophenol	4.90	128	604561	51.24546	ppb		96
10) 1,3-DCB	5.05	146	650191	51.83395	ppb		98
11) 1,4-DCB	5.13	146	658969	51.45340	ppb		98
12) Benzyl alcohol	5.30	108	353083	56.08794	ppb		96
13) 1,2-DCB	5.30	146	607335	51.06548	ppb		96
14) 2-Methylphenol	5.44	107	468811	51.68870	ppb		95
15) Bis (2-chloroisopropyl) et	5.43	45	783220	50.98630	ppb	#	85
16) Acetophenone	5.58	105	843340	51.50501	ppb		91
17) 3&4-Methylphenol	5.61	107	1217632	102.17875	ppb		98
18) n-Nitrosodi-n-propylamine	5.59	70	450929	51.71207	ppb		95
19) Hexachloroethane	5.67	117	266712	51.31293	ppb		94
22) Nitrobenzene	5.77	77	715864	51.65490	ppb		97
23) Isophorone	6.04	82	1215036	51.55995	ppb		97
24) 2-Nitrophenol	6.13	139	344072	51.26724	ppb		97
25) 2,4-Dimethylphenol	6.19	122	539019	51.93096	ppb		93
26) Benzoic acid	6.38	105	415797	52.77082	ppb		98
27) Bis (2-chloroethoxy) metha	6.28	93	678462	52.26476	ppb		97
28) 2,4-Dichlorophenol	6.42	162	501104	51.07036	ppb		96
29) 1,2,4-Trichlorobenzene	6.49	180	556763	51.73944	ppb		98
30) 3,4-Dimethylphenol	6.54	107	819035	51.38303	ppb		98
31) Naphthalene	6.57	128	1771644	50.56187	ppb		99
32) 4-Chloroaniline	6.65	127	618108	53.59771	ppb		95
33) 2,6-Dichlorophenol	6.66	162	474545	50.93762	ppb		98
34) Hexachloropropene	6.67	213	401088	52.06124	ppb		98
35) Hexachlorobutadiene	6.71	225	327882	50.67248	ppb		98
36) Caprolactum	7.09	55	298781	53.67963	ppb		99
37) 4-Chloro-3-methylphenol	7.25	107	573015	52.19800	ppb		93

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

Data File : M:\YODA\DATA\Y161021\1021Y103.D Vial: 3
Acq On : 27 Oct 16 9:37 Operator: MA
Sample : 50ug/ml SVOC 10/20/16 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Oct 27 10:02 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

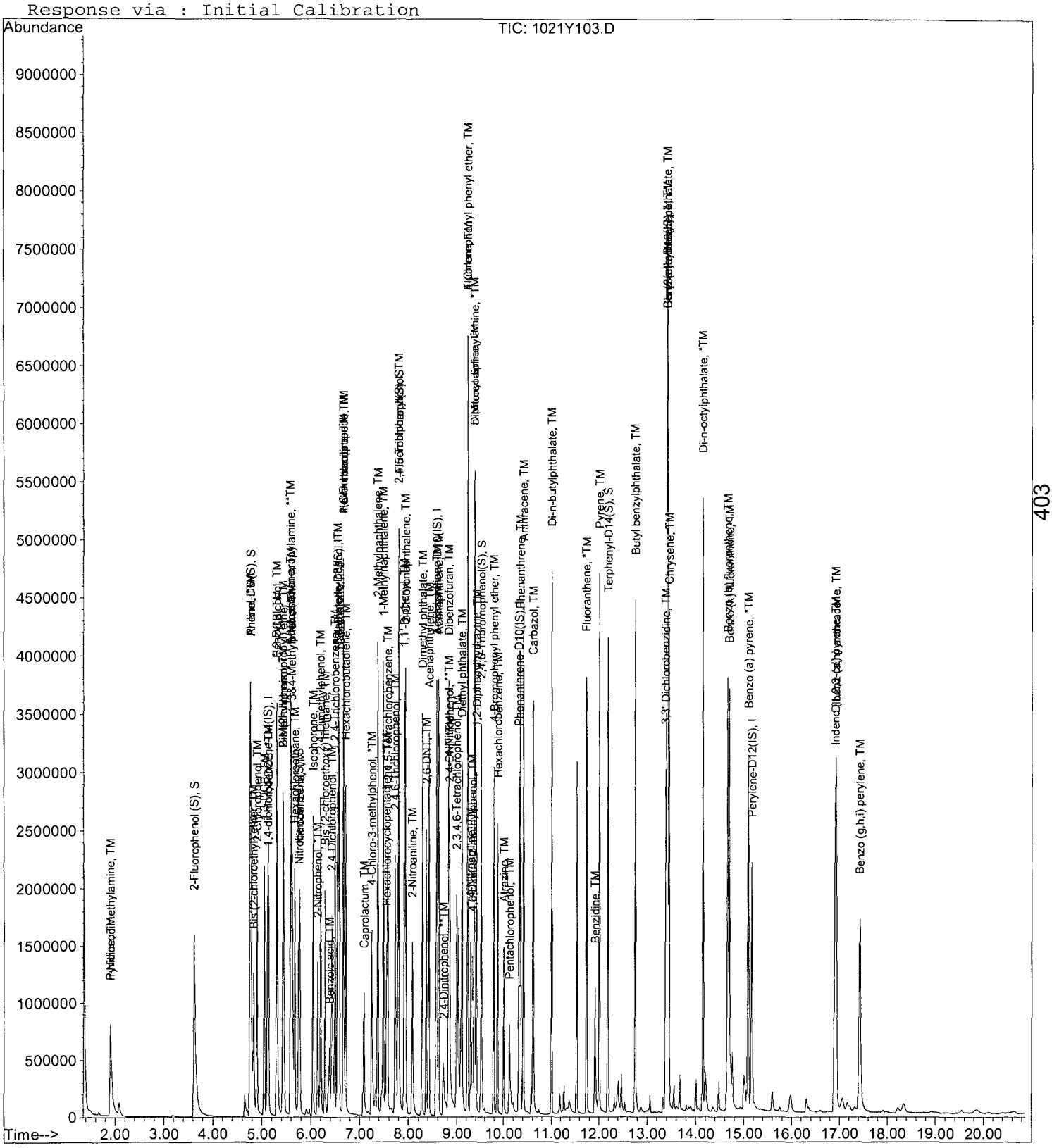
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	1185437	51.72897	ppb		99
39)	1-Methylnaphthalene	7.48	142	1147331	50.79965	ppb		99
41)	Hexachlorocyclopentadiene	7.55	237	247330	51.41591	ppb		99
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	520206	51.03546	ppb		98
43)	2,4,6-Trichlorophenol	7.72	196	354103	52.46365	ppb		97
44)	2,4,5-Trichlorophenol	7.79	196	367660	52.38499	ppb		96
46)	1,1'-Biphenyl	7.92	154	1505635	51.10076	ppb		99
47)	2-Chloronaphthalene	7.94	162	1142191	50.69964	ppb		94
48)	2-Nitroaniline	8.07	65	409941	52.06828	ppb		87
49)	Dimethyl phthalate	8.28	163	1367613	50.63494	ppb		99
50)	2,6-DNT	8.36	165	320658	51.90523	ppb		94
51)	Acenaphthylene	8.42	152	1848352	51.04508	ppb		99
52)	3-Nitroaniline	8.57	138	340630	52.74075	ppb		97
53)	Acenaphthene	8.61	154	1132748	51.39873	ppb		98
54)	2,4-Dinitrophenol	8.72	184	159276	49.96911	ppb		92
55)	4-Nitrophenol	8.84	65	241795	52.31730	ppb		95
56)	Dibenzofuran	8.82	168	1630773	51.28832	ppb		94
57)	2,4-DNT	8.85	165	449306	52.49704	ppb		93
58)	2,3,4,6-Tetrachlorophenol	8.98	232	292852	53.47724	ppb	#	86
59)	Diethyl phthalate	9.11	149	1377170	50.42150	ppb		97
60)	4-Chlorophenyl phenyl ethe	9.22	204	594575	49.03960	ppb		88
61)	Fluorene	9.23	166	1258498	49.84866	ppb		99
62)	4-Nitroaniline	9.29	138	317046	50.01076	ppb		98
65)	4,6-Dinitro-2-methylphenol	9.33	198	264989	55.04526	ppb		97
66)	Diphenyl amine	9.37	169	1799256	99.80760	ppb		99
67)	n-Nitrosodiphenylamine	9.37	169	1799256	99.80760	ppb		99
68)	1,2-Diphenylhydrazine	9.40	77	1466629	50.14975	ppb	#	89
69)	4-Bromophenyl phenyl ether	9.79	248	369456	52.04189	ppb		90
70)	Hexachlorobenzene	9.88	284	372584	49.62141	ppb		98
71)	Atrazine	10.01	200	198243	25.46594	ppb		99
72)	Pentachlorophenol	10.13	266	164693	56.39022	ppb		95
73)	Phenanthrene	10.34	178	1927456	50.34427	ppb		100
74)	Anthracene	10.41	178	2056577	50.81712	ppb		99
75)	Carbazol	10.61	167	1842249	50.79094	ppb		100
76)	Di-n-butylphthalate	11.01	149	2426736	51.94360	ppb		99
77)	Fluoranthene	11.74	202	2126573	50.13925	ppb		99
79)	Benzidine	11.91	184	692106	56.32187	ppb		98
80)	Pyrene	12.00	202	2203177	51.73261	ppb		99
82)	Butyl benzylphthalate	12.75	149	1112973	53.76371	ppb		89
83)	3,3'-Dichlorobenzidine	13.38	252	707752	53.90699	ppb	#	98
84)	Benz (a) anthracene	13.40	228	2027787	51.94788	ppb		99
85)	Bis (2-ethylhexyl) phthala	13.42	149	1501710	53.53734	ppb	#	98
86)	Chrysene	13.45	228	2021114	52.40466	ppb		99
87)	Di-n-octylphthalate	14.15	149	2708073	53.39788	ppb		95
89)	Benzo (b) fluoranthene	14.66	252	2119898	52.41318	ppb		99
90)	Benzo (k) fluoranthene	14.69	252	1872951	45.44400	ppb		99
91)	Benzo (a) pyrene	15.09	252	1898880	49.67303	ppb		98
92)	Indeno (1,2,3-cd) pyrene	16.90	276	2224699	50.97292	ppb		98
93)	Dibenz (a,h) anthracene	16.93	278	1873816	51.06217	ppb		99
94)	Benzo (g,h,i) perylene	17.42	276	1876153	50.94834	ppb		99

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

Data File : M:\YODA\DATA\Y161021\1021Y103.D Vial: 3
Acq On : 27 Oct 16 9:37 Operator: MA
Sample : 50ug/ml SVOC 10/20/16 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Oct 27 10:02 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 10/27/16
Instrument: Yoda
Initial Cal. Date: 10/24/16
Data File: 1021Y117.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	n-Nitrosodimethylamine	0.5967	0.7089	19	TM	
3	TM	Pyridine	1.246	1.358	9.0	TM	
4	S	2-Fluorophenol (S)	1.341	1.419	5.8	S	
5	S	Phenol-D6 (S)	1.791	1.892	5.6	S	
6	*TM	Phenol	1.979	2.078	5.0	*TM	
7	TM	Aniline	1.720	1.855	7.8	TM	
8	TM	Bis (2-chloroethyl) ether	0.9211	0.9643	4.7	TM	
9	TM	2-Chlorophenol	1.488	1.547	3.9	TM	
10	TM	1,3-DCB	1.582	1.623	2.5	TM	
11	*TM	1,4-DCB	1.616	1.657	2.6	*TM	
12	TM	Benzyl alcohol	0.7942	0.8817	11	TM	
13	TM	1,2-DCB	1.500	1.532	2.1	TM	
14	TM	2-Methylphenol	1.144	1.196	4.5	TM	
15	TM	Bis (2-chloroisopropyl) ether	1.938	2.002	3.3	TM	
16	TM	Acetophenone	2.066	2.147	4.0	TM	
17	TM	3&4-Methylphenol	1.503	1.568	4.3	TM	
18	**TM	n-Nitrosodi-n-propylamine	1.100	1.163	5.7	**TM	
19	TM	Hexachloroethane	0.6557	0.6849	4.4	TM	
20	I	Napthalene-D8(IS)	ISTD			I	
21	S	Nitrobenzene-D5(S)	0.4128	0.4197	1.7	S	
22	TM	Nitrobenzene	0.4054	0.4156	2.5	TM	
23	TM	Isophorone	0.6894	0.7082	2.7	TM	
24	*TM	2-Nitrophenol	0.1963	0.1988	1.2	*TM	
25	TM	2,4-Dimethylphenol	0.3036	0.3093	1.9	TM	
26	TMQ	Benzoic acid	0.2017	0.2335	16	TMQ	0.87
27	TM	Bis (2-chloroethoxy) methane	0.3798	0.3887	2.4	TM	
28	*TM	2,4-Dichlorophenol	0.2870	0.2906	1.3	*TM	
29	TM	1,2,4-Trichlorobenzene	0.3148	0.3229	2.6	TM	
30	TM	3,4-Dimethylphenol	0.4663	0.4695	0.68	TM	
31	TM	Naphthalene	1.025	1.033	0.81	TM	
32	TM	4-Chloroaniline	0.3374	0.3532	4.7	TM	
33	TM	2,6-Dichlorophenol	0.2725	0.2780	2.0	TM	
34	TM	Hexachloropropene	0.2254	0.2333	3.5	TM	
35	*TM	Hexachlorobutadiene	0.1893	0.1942	2.6	*TM	
36	TM	Caprolactum	0.1628	0.1723	5.8	TM	
37	*TM	4-Chloro-3-methylphenol	0.3211	0.3369	4.9	*TM	
38	TM	2-Methylnaphthalene	0.6704	0.6843	2.1	TM	
39	TM	1-Methylnaphthalene	0.6607	0.6690	1.3	TM	
40	I	Acenaphthene-D10(IS)	ISTD			I	
		Average			4.5		

0
0

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/27/16
Instrument: Yoda
Cal. Date: 10/24/16
Data File: 1021Y117.D

		Compound	MEAN	CCRF	%D		%Drift
41	**TML	Hexachlorocyclopentadiene	0.2014	0.2274	13	**TML	4.3
42	TM	1,2,4,5-Tetrachlorobenzene	0.5121	0.5230	2.1	TM	
43	*TM	2,4,6-Trichlorophenol	0.3391	0.3535	4.3	*TM	
44	TM	2,4,5-Trichlorophenol	0.3526	0.3604	2.2	TM	
45	S	2-Fluorobiphenyl(S)	1.270	1.295	2.0	S	
46	TM	1,1'-Biphenyl	1.480	1.511	2.1	TM	
47	TM	2-Chloronaphthalene	1.132	1.133	0.09	TM	
48	TM	2-Nitroaniline	0.3955	0.4157	5.1	TM	
49	TM	Dimethyl phthalate	1.357	1.376	1.4	TM	
50	TM	2,6-DNT	0.3104	0.3178	2.4	TM	
51	TM	Acenaphthylene	1.819	1.853	1.9	TM	
52	TM	3-Nitroaniline	0.3245	0.3464	6.8	TM	
53	*TM	Acenaphthene	1.107	1.124	1.5	*TM	
54	**TML	2,4-Dinitrophenol	0.1419	0.1371	3.4	**TML	12
55	**TM	4-Nitrophenol	0.2322	0.2447	5.4	**TM	
56	TM	Dibenzofuran	1.597	1.602	0.30	TM	
57	TM	2,4-DNT	0.4300	0.4410	2.6	TM	
58	TM	2,3,4,6-Tetrachlorophenol	0.2751	0.2902	5.5	TM	
59	TM	Diethyl phthalate	1.372	1.387	1.1	TM	
60	TM	4-Chlorophenyl phenyl ether	0.6091	0.6103	0.20	TM	
61	TM	Fluorene	1.268	1.287	1.5	TM	
62	TM	4-Nitroaniline	0.3185	0.3106	2.5	TM	
63	S	2,4,6-Tribromophenol(S)	0.1825	0.1900	4.1	S	
64	I	Phenanthrene-D10(IS)	ISTD			I	
65	TM	4,6-Dinitro-2-methylphenol	0.1306	0.1404	7.5	TM	
66	TM	Diphenyl amine	0.4891	0.4936	0.91	TM	
67	*TM	n-Nitrosodiphenylamine	0.4891	0.4936	0.91	*TM	
68	TM	1,2-Diphenylhydrazine	0.7935	0.7834	1.3	TM	
69	TM	4-Bromophenyl phenyl ether	0.1926	0.1985	3.0	TM	
70	TM	Hexachlorobenzene	0.2037	0.2138	4.9	TM	
71	TM	Atrazine	0.2112	0.2125	0.59	TM	
72	*TM	Pentachlorophenol	0.0792	0.0781	1.4	*TM	
73	TM	Phenanthrene	1.039	1.066	2.7	TM	
74	TM	Anthracene	1.098	1.116	1.6	TM	
75	TM	Carbazol	0.9842	1.008	2.5	TM	
76	TM	Di-n-butylphthalate	1.268	1.309	3.2	TM	
77	*TM	Fluoranthene	1.151	1.196	4.0	*TM	
78	I	Chrysene-D12(IS)	ISTD			I	
79	TM	Benzidine	0.3945	0.4028	2.1	TM	
80	TM	Pyrene	1.367	1.356	0.78	TM	
		Average			2.9		

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/27/16
Matrix: 0 Instrument: Yoda
Cal. Date: 10/24/16
Data File: 1021Y117.D

		Compound	MEAN	CCRF	%D	%Drift	
81	S	Terphenyl-D14(S)	0.9575	0.9439	1.4	S	
82	TM	Butyl benzylphthalate	0.6645	0.6708	0.94	TM	
83	TM	3,3'-Dichlorobenzidine	0.4215	0.4313	2.3	TM	
84	TM	Benz (a) anthracene	1.253	1.263	0.80	TM	
85	TM	Bis (2-ethylhexyl) phthalate	0.9005	0.9028	0.27	TM	
86	TM	Chrysene	1.238	1.240	0.18	TM	
87	*TM	Di-n-octylphthalate	1.628	1.625	0.17	*TM	
88	I	Perylene-D12(IS)	ISTD			I	
89	TM	Benzo (b) fluoranthene	1.246	1.322	6.1	TM	
90	TM	Benzo (k) fluoranthene	1.270	1.184	6.8	TM	
91	*TM	Benzo (a) pyrene	1.178	1.208	2.6	*TM	
92	TM	Indeno (1,2,3-cd) pyrene	1.344	1.369	1.8	TM	
93	TM	Dibenz (a,h) anthracene	1.130	1.151	1.8	TM	
94	TM	Benzo (g,h,i) perylene	1.134	1.155	1.8	TM	
95							
96							
97							
98							
99							
100							
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110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			2.1		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y117.D Vial: 17
Acq On : 27 Oct 16 16:45 Operator: MA
Sample : 50ug/ml SVOC 10/20/16 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Oct 28 7:02 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	311947	40.00000 ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1360967	40.00000 ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	795409	40.00000 ppb		0.00
64) Phenanthrene-D10(IS)	10.32	188	1464547	40.00000 ppb		0.00
78) Chrysene-D12(IS)	13.41	240	1319237	40.00000 ppb		0.00
88) Perylene-D12(IS)	15.17	264	1306213	40.00000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.62	112	1106356	105.77811 ppb		0.00
Spiked Amount 200.000			Recovery =	52.889%		
5) Phenol-D6 (S)	4.75	99	1475469	105.64559 ppb		0.00
Spiked Amount 200.000			Recovery =	52.823%		
21) Nitrobenzene-D5(S)	5.76	82	714032	50.83687 ppb		0.00
Spiked Amount 100.000			Recovery =	50.837%		
45) 2-Fluorobiphenyl(S)	7.80	172	1287114	50.97733 ppb		0.00
Spiked Amount 100.000			Recovery =	50.977%		
63) 2,4,6-Tribromophenol(S)	9.52	330	377744	104.07162 ppb		0.00
Spiked Amount 200.000			Recovery =	52.036%		
81) Terphenyl-D14(S)	12.19	244	1556582	49.29186 ppb		0.00
Spiked Amount 100.000			Recovery =	49.292%		
Target Compounds						Qvalue
2) n-Nitrosodimethylamine	1.88	42	276406	59.39338 ppb		99
3) Pyridine	1.90	79	529583	54.50081 ppb		99
6) Phenol	4.76	94	810109	52.48894 ppb		83
7) Aniline	4.76	66	723247	53.90896 ppb		94
8) Bis (2-chloroethyl) ether	4.83	63	376015	52.34307 ppb		90
9) 2-Chlorophenol	4.90	128	603189	51.96785 ppb		97
10) 1,3-DCB	5.05	146	632703	51.26717 ppb		98
11) 1,4-DCB	5.13	146	646219	51.28554 ppb		99
12) Benzyl alcohol	5.30	108	343789	55.50739 ppb		97
13) 1,2-DCB	5.30	146	597399	51.05400 ppb		97
14) 2-Methylphenol	5.44	107	466379	52.26403 ppb		96
15) Bis (2-chloroisopropyl) et	5.43	45	780825	51.66418 ppb	#	87
16) Acetophenone	5.58	105	837310	51.97556 ppb		91
17) 3&4-Methylphenol	5.61	107	1222635	104.28155 ppb		97
18) n-Nitrosodi-n-propylamine	5.59	70	453425	52.85126 ppb		95
19) Hexachloroethane	5.67	117	267061	52.22289 ppb		93
22) Nitrobenzene	5.77	77	706943	51.25005 ppb		99
23) Isophorone	6.04	82	1204801	51.36503 ppb		97
24) 2-Nitrophenol	6.14	139	338127	50.61735 ppb		99
25) 2,4-Dimethylphenol	6.19	122	526144	50.92790 ppb		91
26) Benzoic acid	6.38	105	397223	50.43449 ppb		97
27) Bis (2-chloroethoxy) metha	6.28	93	661233	51.17607 ppb		98
28) 2,4-Dichlorophenol	6.42	162	494423	50.62542 ppb		96
29) 1,2,4-Trichlorobenzene	6.50	180	549346	51.28923 ppb		96
30) 3,4-Dimethylphenol	6.54	107	798697	50.34174 ppb		99
31) Naphthalene	6.57	128	1757983	50.40694 ppb		98
32) 4-Chloroaniline	6.66	127	600889	52.34860 ppb		95
33) 2,6-Dichlorophenol	6.67	162	472910	50.99983 ppb		99
34) Hexachloropropene	6.67	213	396914	51.76071 ppb		99
35) Hexachlorobutadiene	6.71	225	330401	51.30089 ppb		99
36) Caprolactum	7.09	55	293180	52.92000 ppb		100
37) 4-Chloro-3-methylphenol	7.25	107	573209	52.46018 ppb		97

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y117.D Vial: 17
Acq On : 27 Oct 16 16:45 Operator: MA
Sample : 50ug/ml SVOC 10/20/16 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Oct 28 7:02 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	1164105	51.03597	ppb		98
39)	1-Methylnaphthalene	7.48	142	1138098	50.62682	ppb		100
41)	Hexachlorocyclopentadiene	7.55	237	226122	47.84177	ppb		98
42)	1,2,4,5-Tetrachlorobenzene	7.58	216	520046	51.07089	ppb		96
43)	2,4,6-Trichlorophenol	7.72	196	351474	52.12631	ppb		98
44)	2,4,5-Trichlorophenol	7.79	196	358286	51.10051	ppb		95
46)	1,1'-Biphenyl	7.92	154	1501977	51.02769	ppb		99
47)	2-Chloronaphthalene	7.94	162	1126301	50.04440	ppb		93
48)	2-Nitroaniline	8.09	65	413339	52.55248	ppb		97
49)	Dimethyl phthalate	8.28	163	1368524	50.71944	ppb		100
50)	2,6-DNT	8.36	165	315960	51.19600	ppb		98
51)	Acenaphthylene	8.42	152	1842675	50.93929	ppb		100
52)	3-Nitroaniline	8.57	138	344414	53.38007	ppb		99
53)	Acenaphthene	8.62	154	1117446	50.75520	ppb		98
54)	2,4-Dinitrophenol	8.72	184	136360	43.87200	ppb		96
55)	4-Nitrophenol	8.84	65	243266	52.68832	ppb		99
56)	Dibenzofuran	8.82	168	1592922	50.14809	ppb		92
57)	2,4-DNT	8.85	165	438485	51.28405	ppb		93
58)	2,3,4,6-Tetrachlorophenol	8.99	232	288553	52.74500	ppb	#	85
59)	Diethyl phthalate	9.11	149	1379190	50.54605	ppb		98
60)	4-Chlorophenyl phenyl ethe	9.22	204	606802	50.09822	ppb		87
61)	Fluorene	9.23	166	1279835	50.74460	ppb		100
62)	4-Nitroaniline	9.29	138	308800	48.75884	ppb		97
65)	4,6-Dinitro-2-methylphenol	9.33	198	257048	53.74778	ppb		96
66)	Diphenyl amine	9.38	169	1807273	100.91337	ppb		99
67)	n-Nitrosodiphenylamine	9.38	169	1807273	100.91337	ppb		99
68)	1,2-Diphenylhydrazine	9.40	77	1434146	49.36238	ppb	#	88
69)	4-Bromophenyl phenyl ether	9.79	248	363332	51.51673	ppb		92
70)	Hexachlorobenzene	9.88	284	391324	52.46089	ppb		91
71)	Atrazine	10.01	200	194491	25.14871	ppb		97
72)	Pentachlorophenol	10.13	266	143038	49.29857	ppb		98
73)	Phenanthrene	10.35	178	1952282	51.32895	ppb		99
74)	Anthracene	10.41	178	2043276	50.82138	ppb		100
75)	Carbazol	10.61	167	1845851	51.22581	ppb		99
76)	Di-n-butylphthalate	11.01	149	2395888	51.62146	ppb		99
77)	Fluoranthene	11.74	202	2190333	51.98307	ppb		99
79)	Benzidine	11.91	184	664167	51.04894	ppb		96
80)	Pyrene	12.00	202	2236830	49.60814	ppb		100
82)	Butyl benzylphthalate	12.76	149	1106225	50.47229	ppb		84
83)	3,3'-Dichlorobenzidine	13.39	252	711175	51.16175	ppb		98
84)	Benz (a) anthracene	13.41	228	2082885	50.39829	ppb		100
85)	Bis (2-ethylhexyl) phthala	13.42	149	1488829	50.13263	ppb	#	97
86)	Chrysene	13.45	228	2045260	50.08787	ppb		99
87)	Di-n-octylphthalate	14.15	149	2680281	49.91706	ppb		97
89)	Benzo (b) fluoranthene	14.66	252	2157956	53.04260	ppb		99
90)	Benzo (k) fluoranthene	14.70	252	1932664	46.61903	ppb		99
91)	Benzo (a) pyrene	15.09	252	1972345	51.29355	ppb		98
92)	Indeno (1,2,3-cd) pyrene	16.91	276	2235539	50.92221	ppb		99
93)	Dibenz (a,h) anthracene	16.93	278	1879212	50.91020	ppb		99
94)	Benzo (g,h,i) perylene	17.43	276	1885606	50.90605	ppb		96

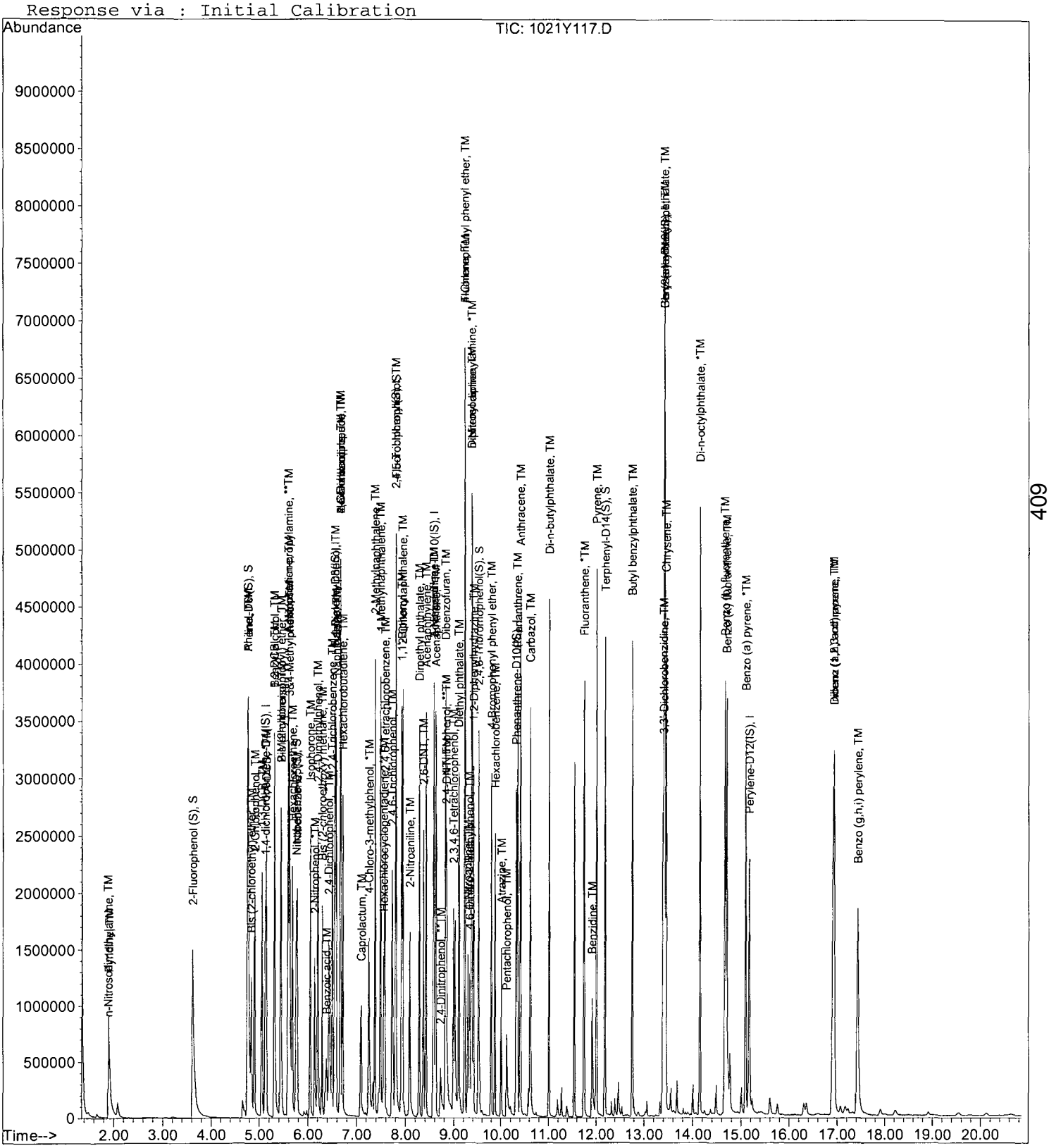
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y117.D Vial: 17
Acq On : 27 Oct 16 16:45 Operator: MA
Sample : 50ug/ml SVOC 10/20/16 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Oct 28 7:02 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



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ORGANICS

Raw Data

APPL, INC.

Method Blank
EPA 8270D WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161026W-44687 - 213140**
Batch ID: #87DC5-161026A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/26/16	10/27/16
BLANK	SURROGATE: 2,4,6-TRIBROMOP	71.9	43-140			%	10/26/16	10/27/16
BLANK	SURROGATE: 2-FLUORBIPHENY	68.3	44-119			%	10/26/16	10/27/16
BLANK	SURROGATE: 2-FLUOROPHENO	49.0	19-119			%	10/26/16	10/27/16
BLANK	SURROGATE: NITROBENZENE-	66.3	44-120			%	10/26/16	10/27/16
BLANK	SURROGATE: PHENOL-D6 (S)	29.5	10-115			%	10/26/16	10/27/16
BLANK	SURROGATE: TERPHENYL-D14 (	70.8	50-134			%	10/26/16	10/27/16

Quant Method:Y1021.M
Run #:1021Y104
Instrument:Yoda
Sequence:Y161021
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 10/28/16 10:12:10 AM

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y104.D Vial: 4
Acq On : 27 Oct 16 10:17 Operator: MA
Sample : 161026A BLK 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Oct 28 9:05 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	306650	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1367601	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	778427	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.32	188	1438500	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1352312	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.17	264	620683	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.61	112	1007686	98.00856 ppb	0.00
Spiked Amount 200.000			Recovery =	49.005%	
5) Phenol-D6 (S)	4.75	99	810416	59.02923 ppb	0.00
Spiked Amount 200.000			Recovery =	29.515%	
21) Nitrobenzene-D5(S)	5.75	82	936118	66.32540 ppb	0.00
Spiked Amount 100.000			Recovery =	66.325%	
45) 2-Fluorobiphenyl(S)	7.80	172	1687611	68.29754 ppb	0.00
Spiked Amount 100.000			Recovery =	68.298%	
63) 2,4,6-Tribromophenol(S)	9.51	330	510854	143.81499 ppb	0.00
Spiked Amount 200.000			Recovery =	71.908%	
81) Terphenyl-D14(S)	12.19	244	2292884	70.83227 ppb	0.00
Spiked Amount 100.000			Recovery =	70.832%	

Target Compounds Qvalue

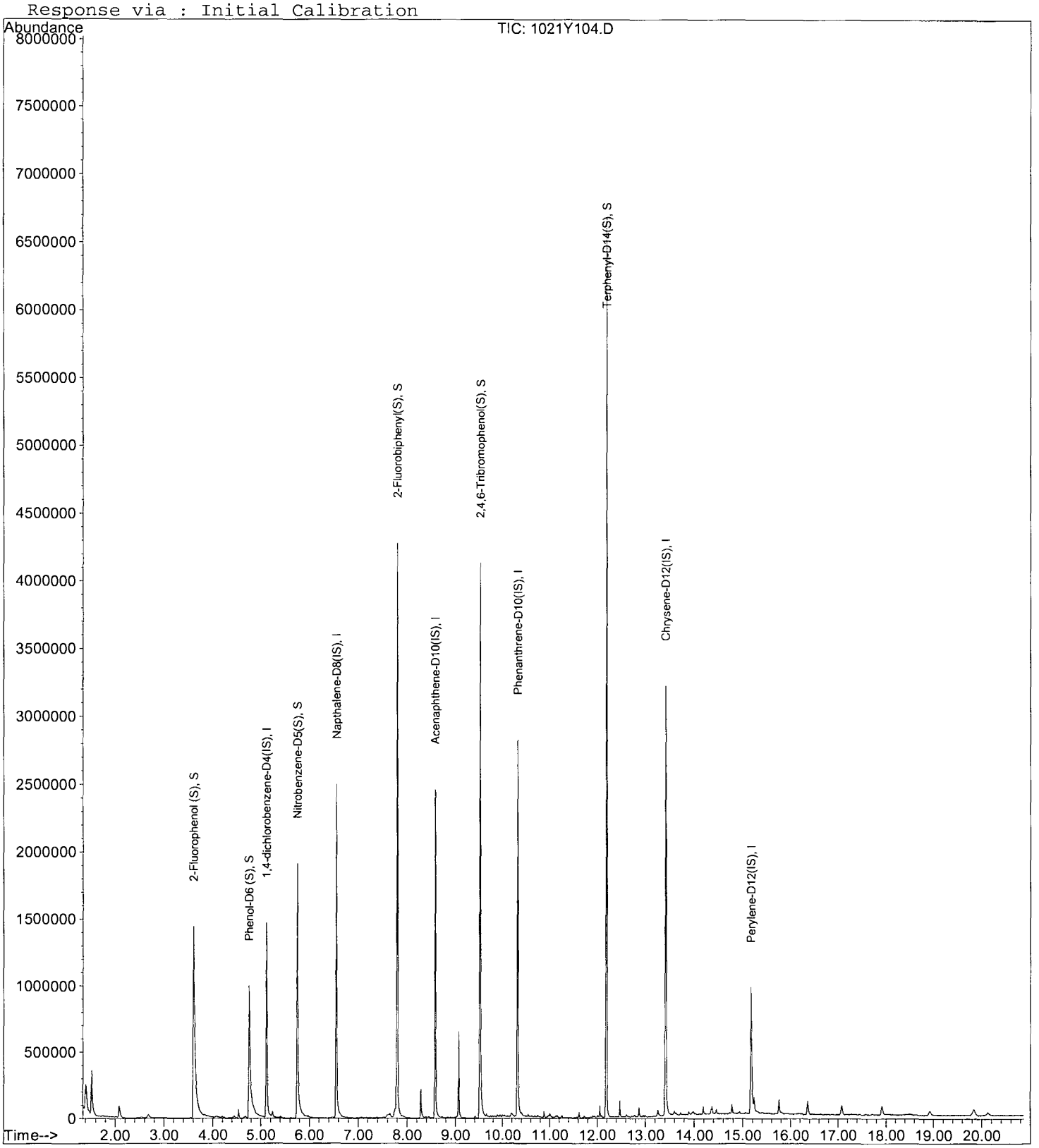
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y104.D Vial: 4
Acq On : 27 Oct 16 10:17 Operator: MA
Sample : 161026A BLK 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Oct 28 9:05 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8270D WATER

APPL ID: **161026W-44687 LCS - 213140**
Batch ID: #87DC5-161026A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
PHENOL	50.0	17.7	35.4	10-115
SURROGATE: 2,4,6-TRIBROMOPHENOL	200	134	67.0	43-140
SURROGATE: 2-FLUORBIPHENYL (S)	100	56.3	56.3	44-119
SURROGATE: 2-FLUOROPHENOL (S)	200	86.4	43.2	19-119
SURROGATE: NITROBENZENE-D5 (S)	100	58.3	58.3	44-120
SURROGATE: PHENOL-D6 (S)	200	54.4	27.2	10-115
SURROGATE: TERPHENYL-D14 (S)	100	68.4	68.4	50-134

Comments: _____

Primary	SPK
Quant Method :	Y1021.M
Extraction Date :	10/26/16
Analysis Date :	10/27/16
Instrument :	Yoda
Run :	1021Y105
Initials :	MA

Printed: 10/28/16 10:12:11 AM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y105.D Vial: 5
Acq On : 27 Oct 16 10:46 Operator: MA
Sample : 161026A LCS-1 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Oct 28 8:59 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	336489	40.00000 ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1445897	40.00000 ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	845953	40.00000 ppb		0.00
64) Phenanthrene-D10(IS)	10.31	188	1530959	40.00000 ppb		0.00
78) Chrysene-D12(IS)	13.42	240	1362822	40.00000 ppb		0.00
88) Perylene-D12(IS)	15.16	264	906679	40.00000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.60	112	974843	86.40633 ppb		-0.01
Spiked Amount 200.000			Recovery = 43.203%			
5) Phenol-D6 (S)	4.74	99	819309	54.38498 ppb		0.00
Spiked Amount 200.000			Recovery = 27.193%			
21) Nitrobenzene-D5(S)	5.75	82	869665	58.28051 ppb		0.00
Spiked Amount 100.000			Recovery = 58.281%			
45) 2-Fluorobiphenyl(S)	7.80	172	1511358	56.28229 ppb		0.00
Spiked Amount 100.000			Recovery = 56.282%			
63) 2,4,6-Tribromophenol(S)	9.52	330	517420	134.03623 ppb		0.00
Spiked Amount 200.000			Recovery = 67.018%			
81) Terphenyl-D14(S)	12.19	244	2230427	68.37146 ppb		0.00
Spiked Amount 100.000			Recovery = 68.371%			
Target Compounds						Qvalue
2) n-Nitrosodimethylamine	1.89	42	121757	24.25462 ppb		91
3) Pyridine	1.90	79	199495	19.03316 ppb		90
6) Phenol	4.76	94	294045	17.66233 ppb	#	50
7) Aniline	4.75	66	358919	24.80166 ppb	#	70
8) Bis (2-chloroethyl) ether	4.83	63	249944	32.25572 ppb		98
9) 2-Chlorophenol	4.89	128	399285	31.89145 ppb		99
10) 1,3-DCB	5.05	146	388948	29.21736 ppb		98
11) 1,4-DCB	5.13	146	404584	29.76692 ppb		96
12) Benzyl alcohol	5.30	108	230189	34.45508 ppb		94
13) 1,2-DCB	5.30	146	379383	30.05751 ppb		98
14) 2-Methylphenol	5.43	107	291880	30.32342 ppb		99
15) Bis (2-chloroisopropyl) et	5.42	45	519099	31.84168 ppb		99
16) Acetophenone	5.58	105	573610	33.00954 ppb		95
17) 3&4-Methylphenol	5.61	107	753464	59.57761 ppb		96
18) n-Nitrosodi-n-propylamine	5.58	70	311960	33.71000 ppb		100
19) Hexachloroethane	5.67	117	159434	28.90289 ppb		86
22) Nitrobenzene	5.77	77	463402	31.62118 ppb		93
23) Isophorone	6.03	82	829355	33.28150 ppb		100
24) 2-Nitrophenol	6.14	139	231358	32.59975 ppb		97
25) 2,4-Dimethylphenol	6.19	122	311074	28.34165 ppb		94
26) Benzoic acid	6.35	105	103917	16.03367 ppb		99
27) Bis (2-chloroethoxy) metha	6.29	93	460028	33.51250 ppb		100
28) 2,4-Dichlorophenol	6.42	162	352377	33.96157 ppb		98
29) 1,2,4-Trichlorobenzene	6.49	180	347078	30.50125 ppb		99
30) 3,4-Dimethylphenol	6.54	107	568766	33.74349 ppb		99
31) Naphthalene	6.57	128	1161951	31.35983 ppb		99
32) 4-Chloroaniline	6.66	127	502983	41.24529 ppb		98
33) 2,6-Dichlorophenol	6.67	162	334235	33.92754 ppb		98
34) Hexachloropropene	6.67	213	245378	30.11963 ppb		98
35) Hexachlorobutadiene	6.71	225	202631	29.61418 ppb		99
36) Caprolactum	7.07	55	71704	12.18258 ppb		98
37) 4-Chloro-3-methylphenol	7.24	107	440214	37.92197 ppb		96

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y105.D Vial: 5
Acq On : 27 Oct 16 10:46 Operator: MA
Sample : 161026A LCS-1 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Oct 28 8:59 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	775976	32.02158	ppb		98
39)	1-Methylnaphthalene	7.48	142	759124	31.78512	ppb		100
41)	Hexachlorocyclopentadiene	7.55	237	88228	23.42942	ppb		97
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	348210	32.15268	ppb		99
43)	2,4,6-Trichlorophenol	7.72	196	252426	35.19996	ppb		96
44)	2,4,5-Trichlorophenol	7.78	196	264488	35.46873	ppb		96
46)	1,1'-Biphenyl	7.91	154	1022128	32.65067	ppb		99
47)	2-Chloronaphthalene	7.94	162	788685	32.94951	ppb		97
48)	2-Nitroaniline	8.08	65	325350	38.89394	ppb		93
49)	Dimethyl phthalate	8.28	163	1279769	44.59620	ppb		99
50)	2,6-DNT	8.36	165	243667	37.12316	ppb		81
51)	Acenaphthylene	8.41	152	1290819	33.55164	ppb		99
52)	3-Nitroaniline	8.57	138	260090	37.90236	ppb	#	94
53)	Acenaphthene	8.62	154	772751	33.00182	ppb		99
54)	2,4-Dinitrophenol	8.72	184	86746	29.19041	ppb	#	70
55)	4-Nitrophenol	8.84	65	24852	5.06103	ppb	#	24
56)	Dibenzofuran	8.82	168	1171790	34.68598	ppb		97
57)	2,4-DNT	8.84	165	350904	38.58870	ppb		88
58)	2,3,4,6-Tetrachlorophenol	8.99	232	214160	36.80767	ppb		92
59)	Diethyl phthalate	9.10	149	1113574	38.37306	ppb		98
60)	4-Chlorophenyl phenyl ethe	9.22	204	454583	35.28846	ppb		94
61)	Fluorene	9.22	166	945461	35.24713	ppb		100
62)	4-Nitroaniline	9.28	138	267504	39.71464	ppb		91
65)	4,6-Dinitro-2-methylphenol	9.32	198	197194	39.44389	ppb	#	81
66)	Diphenyl amine	9.37	169	1404421	75.01740	ppb		99
67)	n-Nitrosodiphenylamine	9.37	169	1404421	75.01740	ppb		99
68)	1,2-Diphenylhydrazine	9.40	77	1081171	35.59892	ppb		92
69)	4-Bromophenyl phenyl ether	9.79	248	279764	37.94689	ppb	#	81
70)	Hexachlorobenzene	9.87	284	301649	38.68484	ppb	#	86
71)	Atrazine	10.00	200	156252	19.32776	ppb		98
72)	Pentachlorophenol	10.13	266	97293	32.07778	ppb		88
73)	Phenanthrene	10.34	178	1542031	38.78401	ppb		100
74)	Anthracene	10.41	178	1613660	38.39469	ppb		99
75)	Carbazol	10.61	167	1495890	39.71290	ppb		98
76)	Di-n-butylphthalate	11.01	149	1941733	40.02147	ppb		98
77)	Fluoranthene	11.73	202	1705599	38.72296	ppb		98
79)	Benzidine	11.92	184	277052	20.61363	ppb		98
80)	Pyrene	12.00	202	1823225	39.14208	ppb		99
82)	Butyl benzylphthalate	12.76	149	902680	39.86824	ppb		93
83)	3,3'-Dichlorobenzidine	13.38	252	587132	40.88729	ppb		98
84)	Benz (a) anthracene	13.41	228	1668566	39.08207	ppb		100
85)	Bis (2-ethylhexyl) phthala	13.42	149	1223036	39.86563	ppb	#	91
86)	Chrysene	13.44	228	1657449	39.29234	ppb		99
87)	Di-n-octylphthalate	14.15	149	2245593	40.48400	ppb		92
89)	Benzo (b) fluoranthene	14.66	252	1907747	67.55593	ppb		98
90)	Benzo (k) fluoranthene	14.69	252	1475340	51.26954	ppb		98
91)	Benzo (a) pyrene	15.09	252	1604124	60.10052	ppb		99
92)	Indeno (1,2,3-cd) pyrene	16.91	276	1835774	60.24273	ppb		98
93)	Dibenz (a,h) anthracene	16.92	278	1553596	60.63559	ppb		99
94)	Benzo (g,h,i) perylene	17.43	276	1567230	60.95532	ppb		98

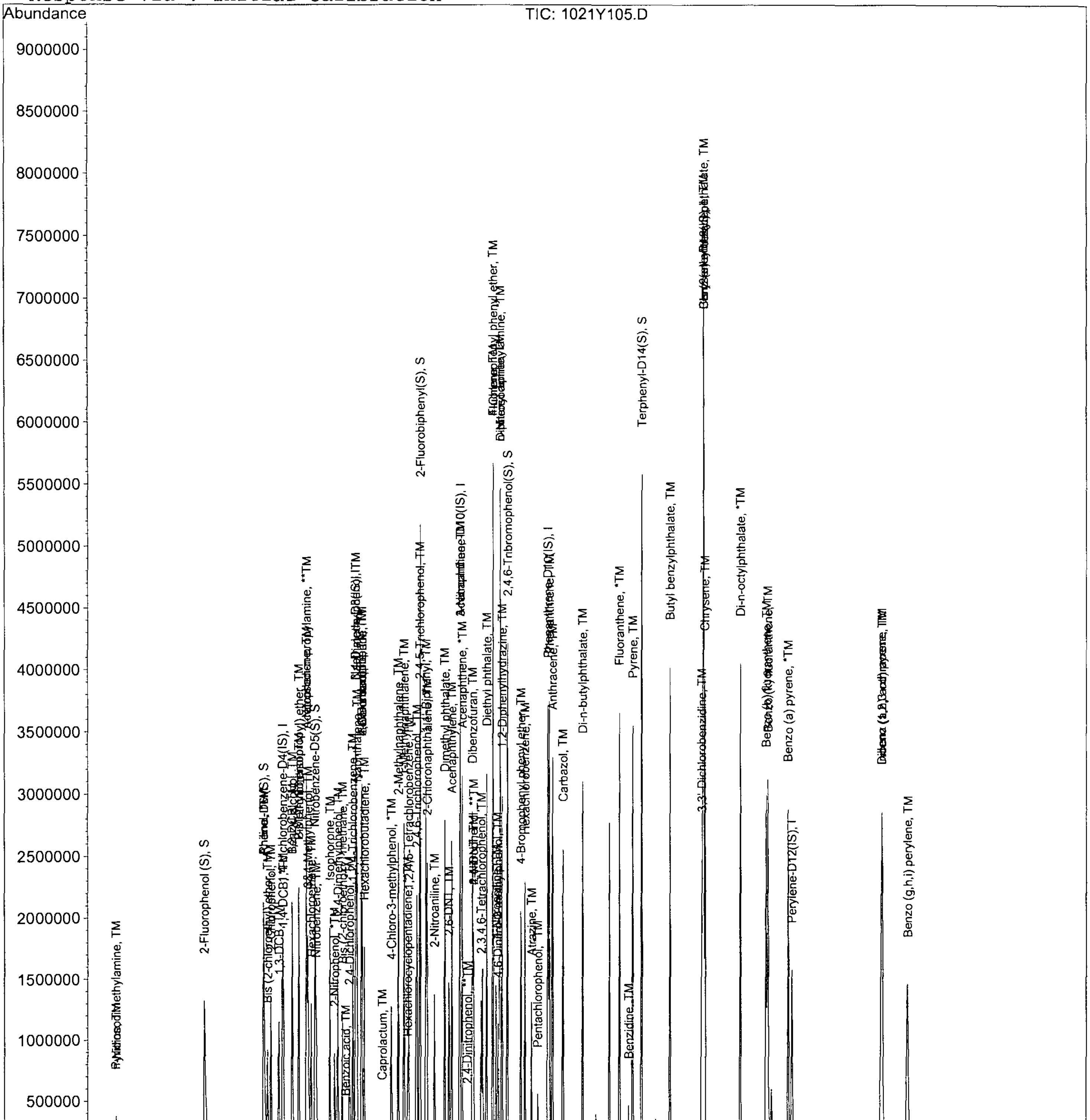
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y105.D Vial: 5
Acq On : 27 Oct 16 10:46 Operator: MA
Sample : 161026A LCS-1 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Oct 28 8:59 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration

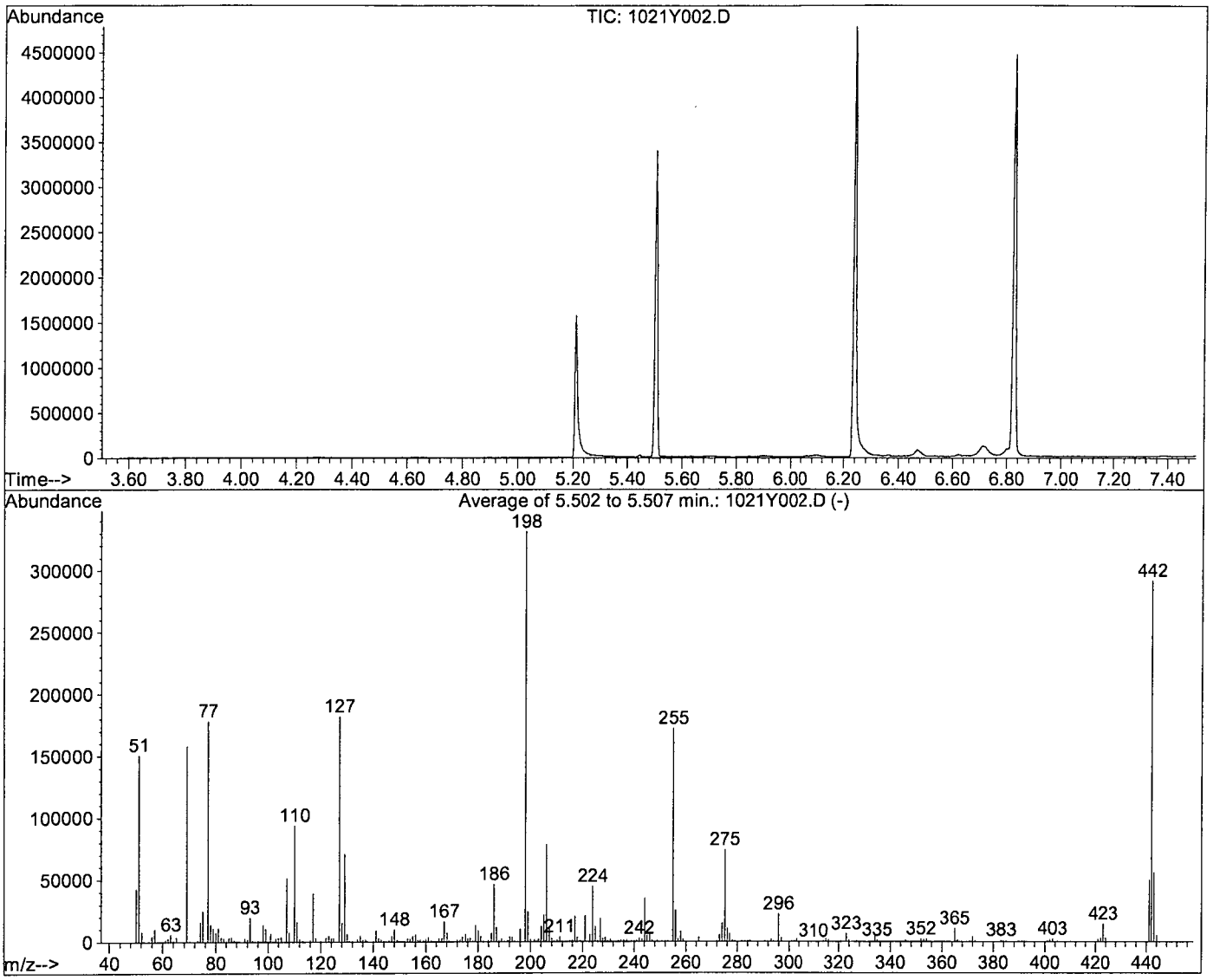


417

DFTPP

Data File : M:\YODA\DATA\Y161021\1021Y002.D Vial: 2
Acq On : 24 Oct 16 9:35 Operator: MA
Sample : SV Tune 10/19/16 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C

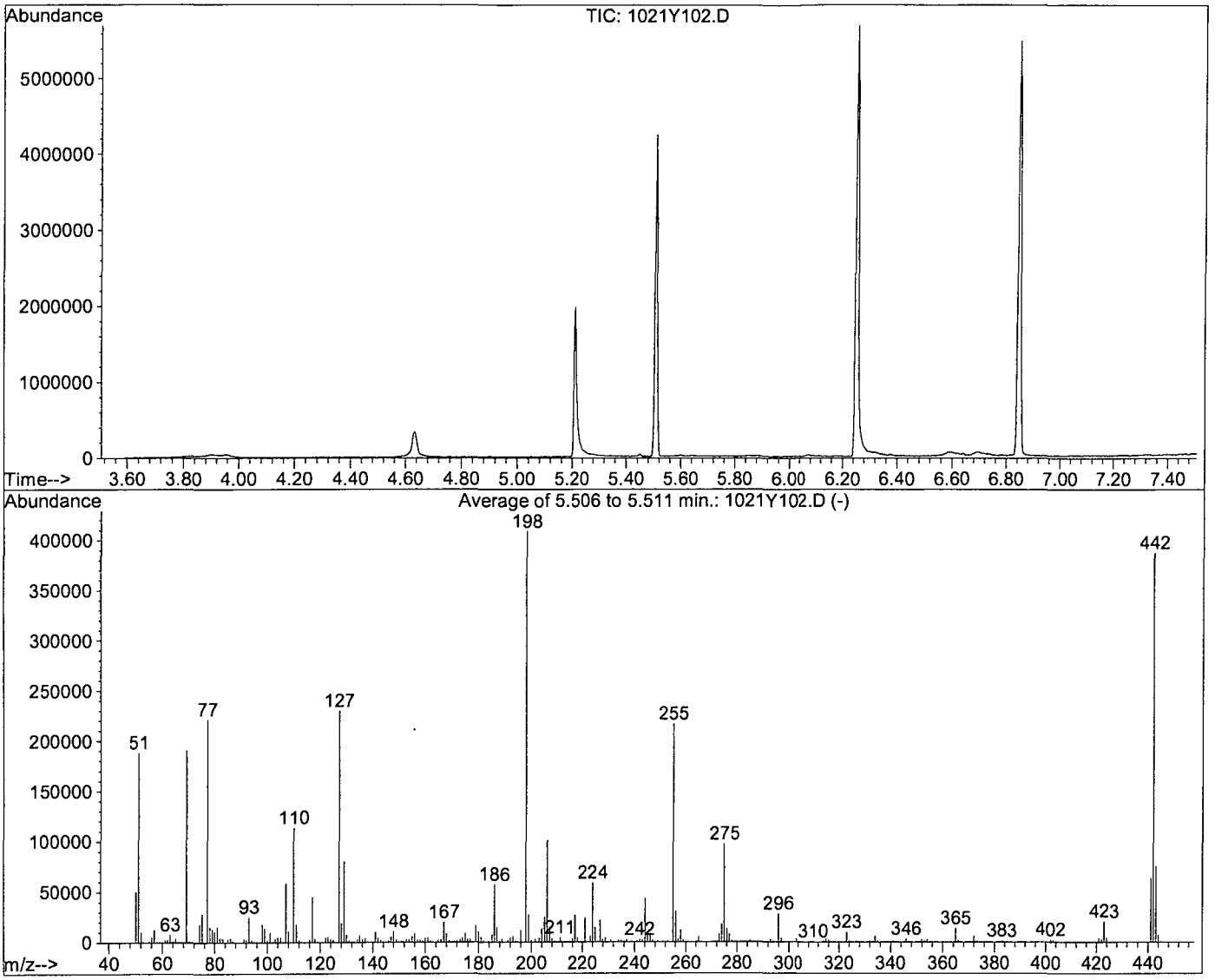


AutoFind: Scans 766, 767, 768; Background Corrected with Scan 758

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.4	150707	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.4	702	PASS
127	198	40	60	54.9	182123	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	331840	PASS
199	198	5	9	7.4	24451	PASS
275	198	10	30	22.4	74253	PASS
365	198	1	100	3.2	10585	PASS
441	443	0.01	100	88.7	49437	PASS
442	198	50	150	88.0	291904	PASS
443	442	17	23	19.1	55752	PASS

Data File : M:\YODA\DATA\Y161021\1021Y102.D Vial: 2
Acq On : 27 Oct 16 9:22 Operator: MA
Sample : SV Tune 10/19/16 Inst : Yoda
Misc : water Multiplr: 1.00

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 768, 769, 770; Background Corrected with Scan 759

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	46.0	188202	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	1106	PASS
127	198	40	60	56.2	229611	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	408917	PASS
199	198	5	9	6.6	26949	PASS
275	198	10	30	23.7	96709	PASS
365	198	1	100	3.3	13496	PASS
441	443	0.01	100	84.0	63213	PASS
442	198	50	150	94.7	387221	PASS
443	442	17	23	19.4	75296	PASS

Semivolatile (SV) Tuning Solution -G.A.						
PREP DATE:	10/19/16	RH				
Semivolatile (SV) Tune Solution 50ug/ml						
Exp:	01/19/17					
		Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Ultra Scient	Semivolatile	1000	N081628-37012	08/23/16	8/23/17	200
EM Science	Methylene Chloride		55098			3800
				Final Vol.		4000

8270 Full Scan Standard Curve													
PREP DATE:	10/20/16 RH												
8270 Standard Curve													
Exp:	2/11/17					5	10	20	40	50	60	80	100
		Conc.		Date									
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL
Absolute	8270 Stock	200	VAR	10/17/16	10/17/17	5	5	10	20	25	30	40	50
o2si	8270 BN:A	200/400	277272-36400	6/20/16	12/20/16	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		56098			190	90	80	60	50	40	20	0
Supelco	SV Internal	2000	A14020V-3661	10/19/16	10/19/17	4	2	2	2	2	2	2	2
				Final Vol.		204	102	102	102	102	102	102	102

8270 Full Scan Second Source (SS)						
PREP DATE:	10/20/16 RH					
Exp:	1/18/17	Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
o2si	8270 Stock S	200	VAR	07/08/16	07/08/17	25
EM Science	Methylene Chloride		56098			75
Supelco	SV Internal	2000	A14020V-3661	10/19/16	10/19/17	2
				Final Vol.		102

8270 Surrog Mix 200/400ppm						
Prep: 06/20/16 -LH Ex: 12/20/16						
STANDARD	**INITIAL CONC.**	**SOURCE DATE**	**ALIQUOT**	**FINAL VOL**	**FINAL CONC.**	**SOLVENT /LOT#**
8270 Acid Surrog Mix	5000 µg/mL	06/20/16	8.0mL	100 mL	400 µg/mL	MC
8270 B/N surrog Mix	5000 µg/mL	Restek Cat# 31086 Lot# A0119223-36720	4.0 mL	100 mL	200 ug/mL	MC
	PREP:	06/20/16				
	Exp:	12/20/16				

8270 SVOC Stock 10mL						
8270 Stock/Spike Standard						
prep:	10/17/16 RH					
Exp:	10/17/17					
		Conc.				
Supplier	ID #	µg/mL	Lot #	Open Date	Exp.Date	µL
Absolute	10001	2000	53014-3683	10/17/16	10/17/17	1000
Absolute	10002	2000	11114-3624	10/17/16	10/17/17	1000
Absolute	10004	2000	12516-3684	10/17/16	10/17/17	1000
Absolute	10005	2000	10314-3684	10/17/16	10/17/17	1000
Absolute	10006	2000	22416-3684	10/17/16	10/17/17	1000
Absolute	10007	2000	20515-3685	10/17/16	10/17/17	1000
Absolute	10018	2000	30216-3707	10/17/16	10/17/17	1000
Absolute	70023	1000	20915-3685	10/17/16	10/17/17	1000
Absolute	82705	2000	12516-3686	10/17/16	10/17/17	1000
Absolute	94552	2000	42016-3686	10/17/16	10/17/17	1000
				Final Vol.		10000

8270 Full Scan Second Source Stock						
	7/8/16 GA					
8270 Second Source Stock						
Exp:	07/08/17					
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	116070-02	2000	234696-35233	07/08/16	07/08/17	1000
o2si	110391-01	2000	252133-35880	07/08/16	07/08/17	1000
o2si	010337-01	1000	259144-35881	07/08/16	07/08/17	1000
o2si	110396-01	2000	252136-35882	07/08/16	07/08/17	1000
o2si	110397-01	2000	263077-35835	07/08/16	01/08/17	1000
o2si	110393-01	2000	252141-35248	07/08/16	07/08/17	1000
o2si	110394-01	2000	252143-35884	07/08/16	07/08/17	1000
o2si	**110395-01**	2000	252146-35885	07/08/16	07/08/17	1000
o2si	110392-01	2000	243259-35886	07/08/16	07/08/17	1000
Absolute	10006	2000	091115-35856	07/08/16	07/08/17	1000
				Final Vol.		10000

_SEP004

Organic Extraction Worksheet

Method	625/8270 Separatory Funnel Extra 3510C	Extraction Set	161026A	Extraction Method	SEP004	Units	mL

Spiked ID 1	8270T Spike 10-17-16 EXP 10-17-17		Surrogate ID 1	8270 Surrogate 10-18-17 EXP 1-18-17	
Spiked ID 2			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:	10/26/16 10:30	
Spiked ID 8			Ext. End Time:	10/26/16 16:35	
			GC Requires Extract By:	**10/28/16 0:00**	

pH1	2	0/26/16 10:45:00 AM	Water Bath Temp Criteria	75,76 °C
pH2	14	0/26/16 12:50:00 PM		
pH3				

Spiked By: DL **Date** 10/26/16 **Witnessed By:** CFM **Date** 10/26/16

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	161026A Blk				1	1 equip	1000 E-WB7	1	2/1	10/26/16 10:30	
2	161026A LCS-1		0.250	1	1	1 equip	1000 E-WB7	1	2/1	10/26/16 10:30	
3	AZ44687	AZ44687W11			1	1 equip	1070 E-WB7	1	2/1	10/26/16 10:30	81251 1 WEEK
4	AZ44688	AZ44688W12			1	1 equip	1070 E-WB7	1	2/1	10/26/16 10:30	81251 1 WEEK
5	AZ44689	AZ44689W14			1	1 equip	1070 E-WB7	1	2/1	10/26/16 10:30	81251 1 WEEK
6	AZ44690	AZ44690W14			1	1 equip	1070 E-WB7	1	2/1	10/26/16 10:30	81251 1 WEEK
7	AZ44691	AZ44691W14			1	1 equip	1070 E-WB7	1	2/1	10/26/16 10:30	81251 1 WEEK
8	AZ44692	AZ44692W11			1	1 equip	1070 E-WB7	1	2/1	10/26/16 10:30	81251 1 WEEK
9	AZ44693	AZ44693W10			1	1 equip	1070 E-WB6	1	2/1	10/26/16 10:30	81251 1 WEEK
10	AZ44694	AZ44694W14			1	1 equip	1070 E-WB6	1	2/1	10/26/16 10:30	81251 1 WEEK
11	AZ44695	AZ44695W12			1	1 equip	1070 E-WB6	1	2/1	10/26/16 10:30	81251 1 WEEK
12	AZ44696	AZ44696W06			1	1 equip	1070 E-WB6	1	2/1	10/26/16 10:30	81251 1 WEEK

Kg 10/26/16

Solvent and Lot#	
MC	56098
1+1 Sulfuric Acid	9-28-16
Acidified Na2SO4	9-26-16
B.Na2SO4	XK07E
10N NaOH	9-2-16
ph strips	HC 574756
Filter Paper	400112

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	RH
Date	10/26/16
Time	5:00
Refrigerator	GC-C

	Technician's Initials
Scanned By	DC
Sample Preparation	KY,DC,DL
Extraction	KY,DC,DL
Concentration	DL

Modified	10/26/16 4:44:51 PM

Reviewed By: Kg **Date** 10/26/16

Injection Log

Directory: M:\YODA\DATA\Y161021\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1021Y002.D	1	SV Tune 10/19/16		24 Oct 16 9:35
2	3	1021Y003.D	1	5ug/ml SVOC 10/20/16		24 Oct 16 9:51
3	4	1021Y004.D	1	10ug/ml SVOC 10/20/16		24 Oct 16 10:21
4	5	1021Y005.D	1	20ug/ml SVOC 10/20/16		24 Oct 16 10:50
5	6	1021Y006.D	1	40ug/ml SVOC 10/20/16		24 Oct 16 11:20
6	7	1021Y007.D	1	50ug/ml SVOC 10/20/16		24 Oct 16 11:49
7	8	1021Y008.D	1	60ug/ml SVOC 10/20/16		24 Oct 16 12:19
8	9	1021Y009.D	1	80ug/ml SVOC 10/20/16		24 Oct 16 12:48
9	10	1021Y010.D	1	100ug/ml SVOC 10/20/16		24 Oct 16 13:18
10	11	1021Y011.D	1	SS SVOC 10/20/16		24 Oct 16 13:47
11	2	1021Y102.D	1	SV Tune 10/19/16	water	27 Oct 16 9:22
12	3	1021Y103.D	1	50ug/ml SVOC 10/20/16	water	27 Oct 16 9:37
13	4	1021Y104.D	1	161026A BLK 1/1000	water	27 Oct 16 10:17
14	5	1021Y105.D	1	161026A LCS-1 1/1000	water	27 Oct 16 10:46
15	6	1021Y106.D	0.93458	AZ44687W11 1/1070	water	27 Oct 16 11:16
16	7	1021Y107.D	0.93458	AZ44688W12 1/1070	water	27 Oct 16 11:45
17	8	1021Y108.D	0.93458	AZ44689W14 1/1070	water	27 Oct 16 12:15
18	9	1021Y109.D	0.93458	AZ44690W14 1/1070	water	27 Oct 16 12:44
19	10	1021Y110.D	0.93458	AZ44691W14 1/1070	water	27 Oct 16 13:14
20	11	1021Y111.D	0.93458	AZ44692W11 1/1070	water	27 Oct 16 13:43
21	12	1021Y112.D	0.93458	AZ44693W10 1/1070	water	27 Oct 16 14:13
22	13	1021Y113.D	0.93458	AZ44694W14 1/1070	water	27 Oct 16 14:42
23	14	1021Y114.D	0.93458	AZ44695W12 1/1070	water	27 Oct 16 15:12
24	15	1021Y115.D	0.93458	AZ44696W06 1/1070	water	27 Oct 16 15:41
25	17	1021Y117.D	1	50ug/ml SVOC 10/20/16	water	27 Oct 16 16:45

ORGANICS

APPL, INC.

ORGANICS

QC Summary

APPL, INC.

Method Blank

EPA 8270D MODIFIED WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161027W-44579 - 213144**
Batch ID: #87DME-161027A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	10/27/2016	10/27/2016

Quant Method: Y0GLYCOL.
Run #: 1027Y014
Instrument: Yoda
Sequence: Y161027
Initials: DA

GC SC-Blank-REG MDLs-DOD
Printed: 10/28/2016 10:53:08 AM

Laboratory Control Spike Recovery
EPA 8270D MODIFIED WATER

APPL ID: **161027W-44579 LCS - 213144**
Batch ID: #87DME-161027A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2-(2-METHOXYETHOXY)-ETHANOL	500	500	100	30-130

Comments: _____

Primary	SPK
Quant Method :	Y0GLYCOL.M
Extraction Date :	10/27/2016
Analysis Date :	10/28/2016
Instrument :	Yoda
Run :	1027Y015
Initials :	DA

Printed: 10/28/2016 10:53:03 AM
APPL Standard LCS

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/27/2016

Matrix: WATER Instrument: Yoda

Blank ID: 161027A-BLK Time Analyzed: 2349

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161027A-BLK	Blank	1027Y014	10/27/2016 2349
161027A-LCS	Lab Control Spike	1027Y015	10/28/2016 0019
AZ44687	ERH091	1027Y022	10/28/2016 0346
AZ44688	ERH089	1027Y023	10/28/2016 0416
AZ44689	ERH093	1027Y024	10/28/2016 0445
AZ44690	ERH097	1027Y025	10/28/2016 0515
AZ44691	ERH098	1027Y026	10/28/2016 0544
AZ44692	ERH100	1027Y027	10/28/2016 0614
AZ44693	ERH101	1027Y028	10/28/2016 0644
AZ44694	ERH102	1027Y029	10/28/2016 0713
AZ44695	ERH104	1027Y030	10/28/2016 0743
AZ44696	ERH105	1027Y031	10/28/2016 0812

Comments: Batch: #87DME-161027A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: ~~1027Y002.D~~ 81251
Matrix: Water mp 11-16-16
ID: SV Tune 10/19/16

SDG No: mp 11-16-16 ~~Yoda~~ 81251
Date Analyzed: 10/27/2016
Instrument: Yoda
Time Analyzed: 18:24

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml DEG 10/27/16	1027Y003.D	10/27/2016 18:40
2		100ug/ml DEG 10/27/1	1027Y004.D	10/27/2016 19:10
3		200ug/ml DEG 10/27/1	1027Y005.D	10/27/2016 19:39
4		400ug/ml DEG 10/27/1	1027Y006.D	10/27/2016 20:09
5		500ug/ml DEG 10/27/1	1027Y007.D	10/27/2016 20:39
6		600ug/ml DEG 10/27/1	1027Y008.D	10/27/2016 21:08
7		800ug/ml DEG 10/27/1	1027Y009.D	10/27/2016 21:38
8		1000ug/ml DEG 10/27/	1027Y010.D	10/27/2016 22:07
9		SS2 DEG 10/27/16	1027Y012.D	10/27/2016 23:07
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	44.8
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.3
127	40 - 60% of mass 198	54.8
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 197.95	100.0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	22.7
365	1 - 100% of mass 198	3.3
441	0.01 - 100% of mass 443	83.5
442	50 - 150% of mass 197.95	94.2
443	17 - 23% of mass 442	19.5

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 81251
Matrix: Water
ID: SV Tune 10/19/16

SDG No: 81251
Date Analyzed: 10/27/2016
Instrument: Yoda
Time Analyzed: 23:33

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS2 DEG 10/27/16	1027Y012.D	10/27/2016 23:07
2	Blank	161027A BLK 2/500	1027Y014.D	10/27/2016 23:49
3	Lab Control Spike	161027A LCS-1 2/500	1027Y015.D	10/28/2016 0:19
4	ERH091	AZ44687W15 2/500	1027Y022.D	10/28/2016 3:46
5	ERH089	AZ44688W16 2/500	1027Y023.D	10/28/2016 4:16
6	ERH093	AZ44689W11 2/500	1027Y024.D	10/28/2016 4:45
7	ERH097	AZ44690W11 2/500	1027Y025.D	10/28/2016 5:15
8	ERH098	AZ44691W13 2/500	1027Y026.D	10/28/2016 5:44
9	ERH100	AZ44692W09 2/500	1027Y027.D	10/28/2016 6:14
10	ERH101	AZ44693W08 2/500	1027Y028.D	10/28/2016 6:44
11	ERH102	AZ44694W15 2/500	1027Y029.D	10/28/2016 7:13
12	ERH104	AZ44695W11 2/500	1027Y030.D	10/28/2016 7:43
13	ERH105	AZ44696W07 2/500	1027Y031.D	10/28/2016 8:12
14		500ug/ml DEG 10/27/1	1027Y037.D	10/28/2016 10:51
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	41.4
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.3
127	40 - 60% of mass 198	54.6
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	24.1
365	1 - 100% of mass 198	3.7
441	0.01 - 100% of mass 443	85.6
442	50 - 150% of mass 198	100.8
443	17 - 23% of mass 442	18.9

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 81251

Lab File ID (Standard): 1027Y007.D Date Analyzed: 10/27/16

Instrument ID: Yoda Time Analyzed: 20:39

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

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	308248	5.12	1348650	6.55	765702	8.58
	UPPER LIMIT	616496	5.62	2697300	7.05	1531404	9.08
	LOWER LIMIT	154124	4.62	674325	6.05	382851	8.08
	SAMPLE NO.						
01	SS2 DEG 10/27/16	287842	5.13	1271820	6.55	733959	8.58
02	161027A BLK 2/500	287469	5.13	1297930	6.55	762494	8.57
03	161027A LCS-1 2/500	289042	5.13	1322800	6.55	755323	8.58
04	AZ44687W15 2/500	263659	5.14	1247220	6.55	714187	8.57
05	AZ44688W16 2/500	280837	5.12	1262440	6.55	740247	8.58
06	AZ44689W11 2/500	276337	5.12	1296140	6.55	752336	8.57
07	AZ44690W11 2/500	291119	5.12	1333590	6.55	761967	8.57
08	AZ44691W13 2/500	282297	5.12	1243840	6.55	724278	8.58
09	AZ44692W09 2/500	276618	5.12	1284790	6.55	762086	8.58
10	AZ44693W08 2/500	307360	5.11	1389260	6.55	798345	8.58
11	AZ44694W15 2/500	267834	5.12	1271110	6.55	730890	8.58
12	AZ44695W11 2/500	273183	5.13	1254160	6.55	728778	8.58
13	AZ44696W07 2/500	292572	5.13	1367040	6.55	778910	8.58
14	500ug/ml DEG 10/27/16	278299	5.13	1240490	6.55	731404	8.58
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 = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 81251

Lab File ID (Standard): 1027Y007.D Date Analyzed: 10/27/16

Instrument ID: Yoda Time Analyzed: 20:39

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

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1384410	10.31	1254680	13.41	1397200	15.16
	UPPER LIMIT	2768820	10.81	2509360	13.91	2794400	15.66
	LOWER LIMIT	692205	9.81	627340	12.91	698600	14.66
	SAMPLE NO.						
01	SS2 DEG 10/27/16	1323240	10.31	1205340	13.41	1075090	15.16
02	161027A BLK 2/500	1358370	10.32	1249840	13.41	1500410	15.17
03	161027A LCS-1 2/500	1355110	10.31	1247860	13.41	1578670	15.16
04	AZ44687W15 2/500	1308160	10.31	1236550	13.41	2414690	15.17
05	AZ44688W16 2/500	1324480	10.31	1271430	13.41	3695800 *	15.17
06	AZ44689W11 2/500	1323410	10.31	1244760	13.41	2080100	15.17
07	AZ44690W11 2/500	1380910	10.31	1250380	13.41	1207840	15.16
08	AZ44691W13 2/500	1287350	10.31	1233780	13.41	1047520	15.16
09	AZ44692W09 2/500	1385780	10.31	1265240	13.41	1440070	15.16
10	AZ44693W08 2/500	1451100	10.31	1357300	13.41	2324860	15.17
11	AZ44694W15 2/500	1323270	10.31	1238110	13.41	1396190	15.16
12	AZ44695W11 2/500	1278350	10.31	1201660	13.40	1160800	15.16
13	AZ44696W07 2/500	1416300	10.31	1288430	13.41	1279410	15.16
14	500ug/ml DEG 10/27/16	1287950	10.31	1196770	13.41	1231040	15.16
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 = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

ORGANICS

Sample Data

APPL, INC.

EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH091

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44687

QCG: #87DME-161027A-213144

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/27/16	10/28/16

Quant Method:	Y0GLYCOL.M
Run #:	1027Y022
Instrument:	Yoda
Sequence:	Y161027
Dilution Factor:	1
Initials:	DA

Printed: 10/28/2016 10:52:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y022.D Vial: 22
Acq On : 28 Oct 16 3:46 Operator: MA
Sample : AZ44687W15 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:43 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.14	152	263659	40.00	ppb	0.01
3) Napthalene-D8(IS)	6.55	136	1247216	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.57	164	714187	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1308162	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1236548	40.00	ppb	0.00
7) Perylene-D12(IS)	15.17	264	2414690	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

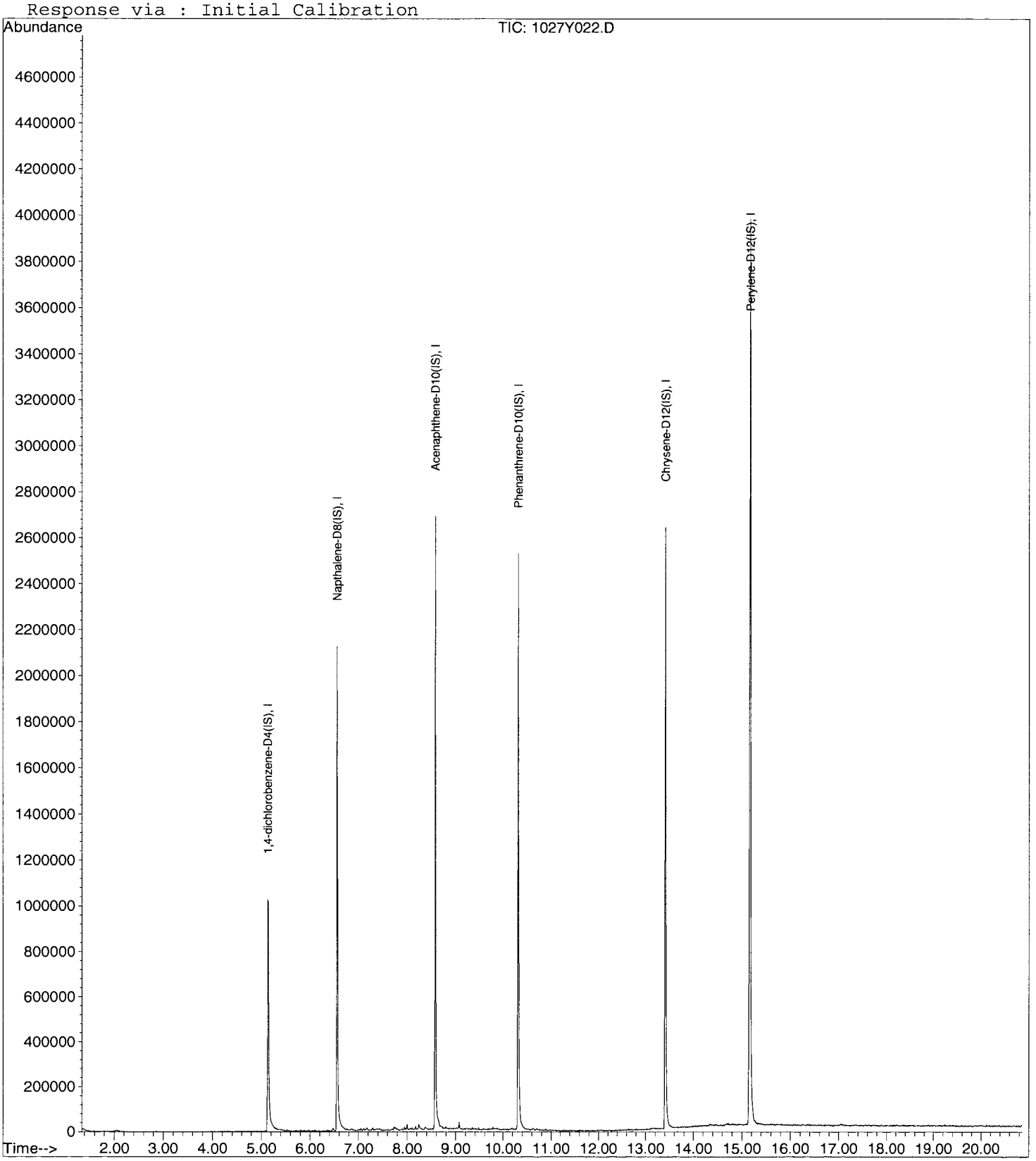
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y022.D Vial: 22
Acq On : 28 Oct 16 3:46 Operator: MA
Sample : AZ44687W15 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:43 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH089

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44688

QCG: #87DME-161027A-213144

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/27/16	10/28/16

Quant Method:	Y0GLYCOL.M
Run #:	1027Y023
Instrument:	Yoda
Sequence:	Y161027
Dilution Factor:	1
Initials:	DA

Printed: 10/28/2016 10:52:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y023.D Vial: 23
Acq On : 28 Oct 16 4:16 Operator: MA
Sample : AZ44688W16 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:43 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	280837	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1262439	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	740247	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1324477	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1271431	40.00	ppb	0.00
7) Perylene-D12(IS)	15.17	264	3695801	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

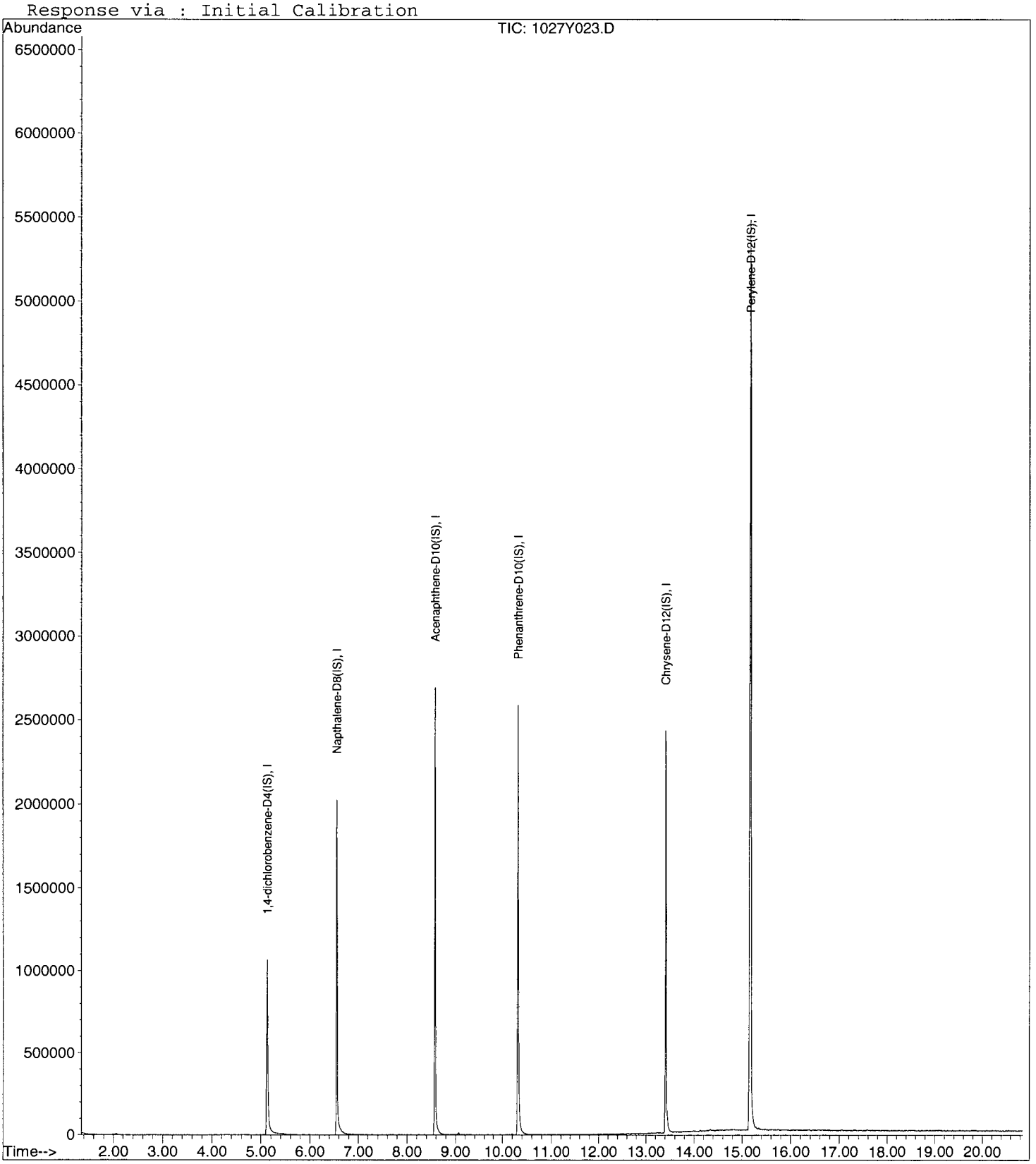
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y023.D Vial: 23
Acq On : 28 Oct 16 4:16 Operator: MA
Sample : AZ44688W16 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:43 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH093

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44689

QCG: #87DME-161027A-213144

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/27/16	10/28/16

Quant Method: Y0GLYCOL.M
Run #: 1027Y024
Instrument: Yoda
Sequence: Y161027
Dilution Factor: 1
Initials: DA

Printed: 10/28/2016 10:52:56 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y024.D Vial: 24
Acq On : 28 Oct 16 4:45 Operator: MA
Sample : AZ44689W11 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:43 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	276337	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1296143	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.57	164	752336	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1323406	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1244762	40.00	ppb	0.00
7) Perylene-D12(IS)	15.17	264	2080095	40.00	ppb	0.00

System Monitoring Compounds

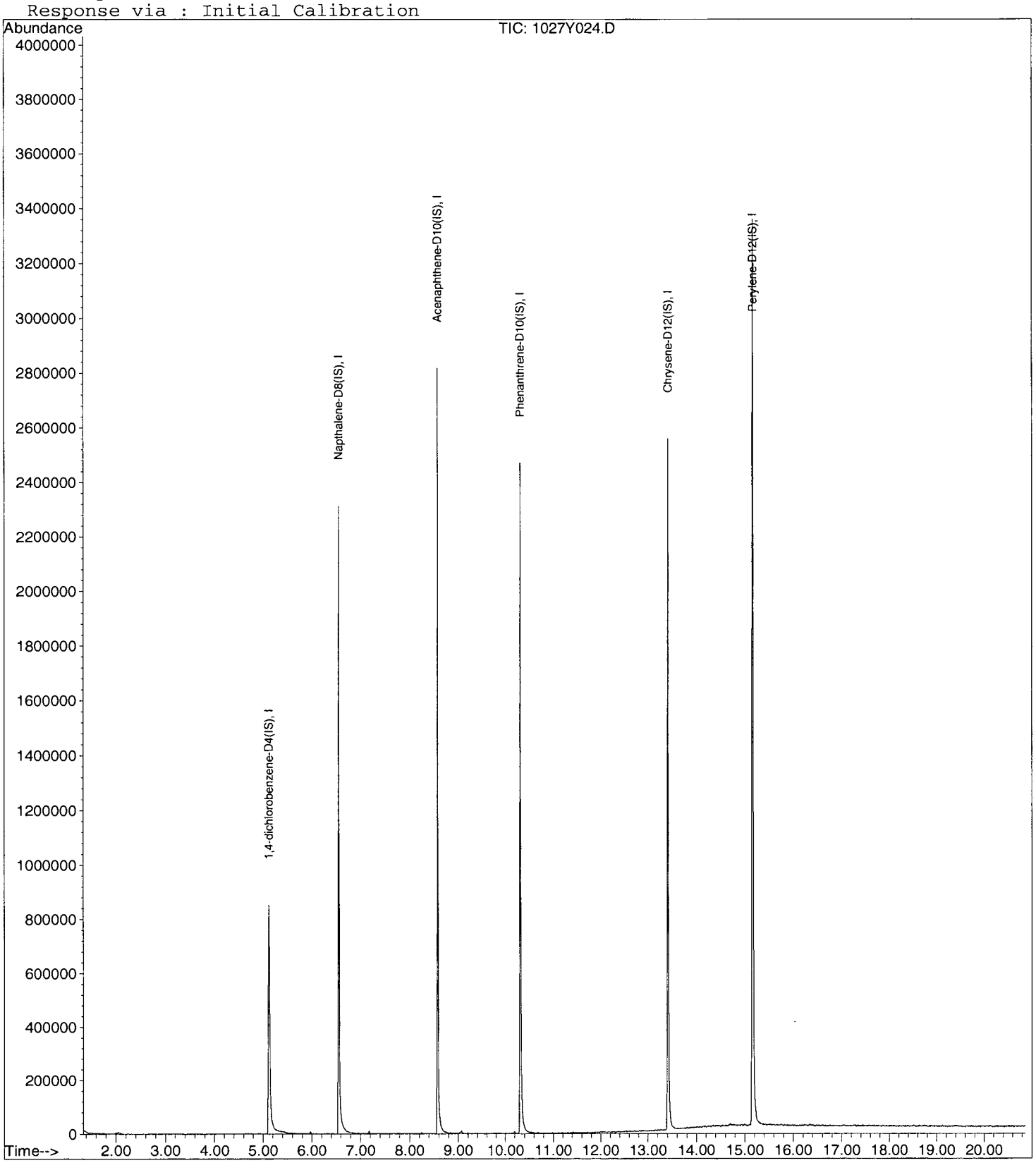
Target Compounds Qvalue

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

Data File : M:\YODA\DATA\Y161027\1027Y024.D Vial: 24
Acq On : 28 Oct 16 4:45 Operator: MA
Sample : AZ44689W11 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:43 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach
Project: 60481245 CIV0053 Red Hill Fuel Storage
Sample ID: ERH097
Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251
APPL ID: AZ44690
QCG: #87DME-161027A-213144

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/27/16	10/28/16

Quant Method:	Y0GLYCOL.M
Run #:	1027Y025
Instrument:	Yoda
Sequence:	Y161027
Dilution Factor:	1
Initials:	DA

Printed: 10/28/2016 10:52:56 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y025.D Vial: 25
Acq On : 28 Oct 16 5:15 Operator: MA
Sample : AZ44690W11 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:44 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	291119	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1333585	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.57	164	761967	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1380907	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1250383	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1207836	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

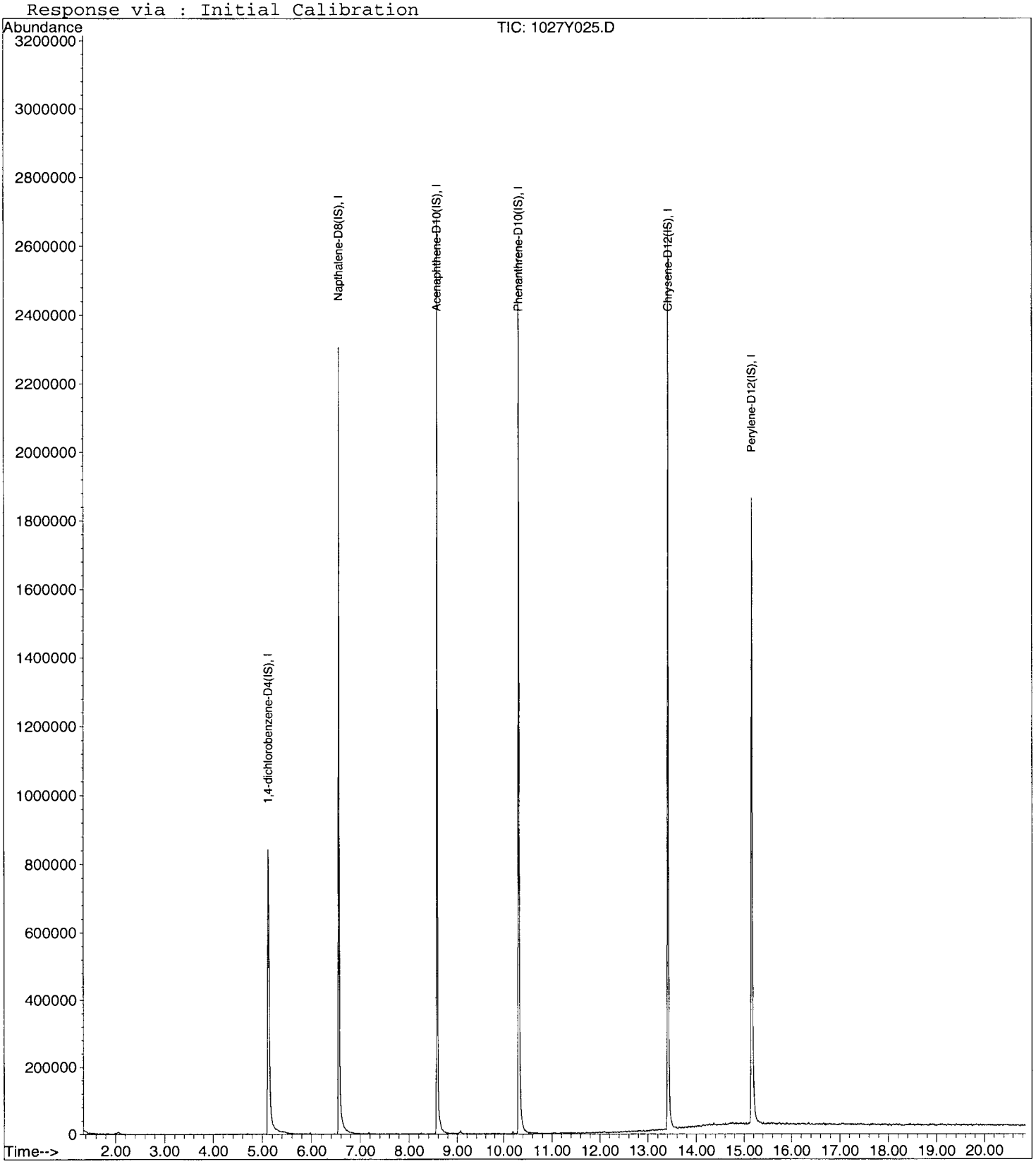
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y025.D Vial: 25
Acq On : 28 Oct 16 5:15 Operator: MA
Sample : AZ44690W11 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:44 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH098

APPL ID: AZ44691

Sample Collection Date: 10/19/16

QCG: #87DME-161027A-213144

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/27/16	10/28/16

Quant Method:	Y0GLYCOL.M
Run #:	1027Y026
Instrument:	Yoda
Sequence:	Y161027
Dilution Factor:	1
Initials:	DA

Printed: 10/28/2016 10:52:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y026.D Vial: 26
Acq On : 28 Oct 16 5:44 Operator: MA
Sample : AZ44691W13 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:44 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	282297	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1243841	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	724278	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1287345	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1233783	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1047519	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

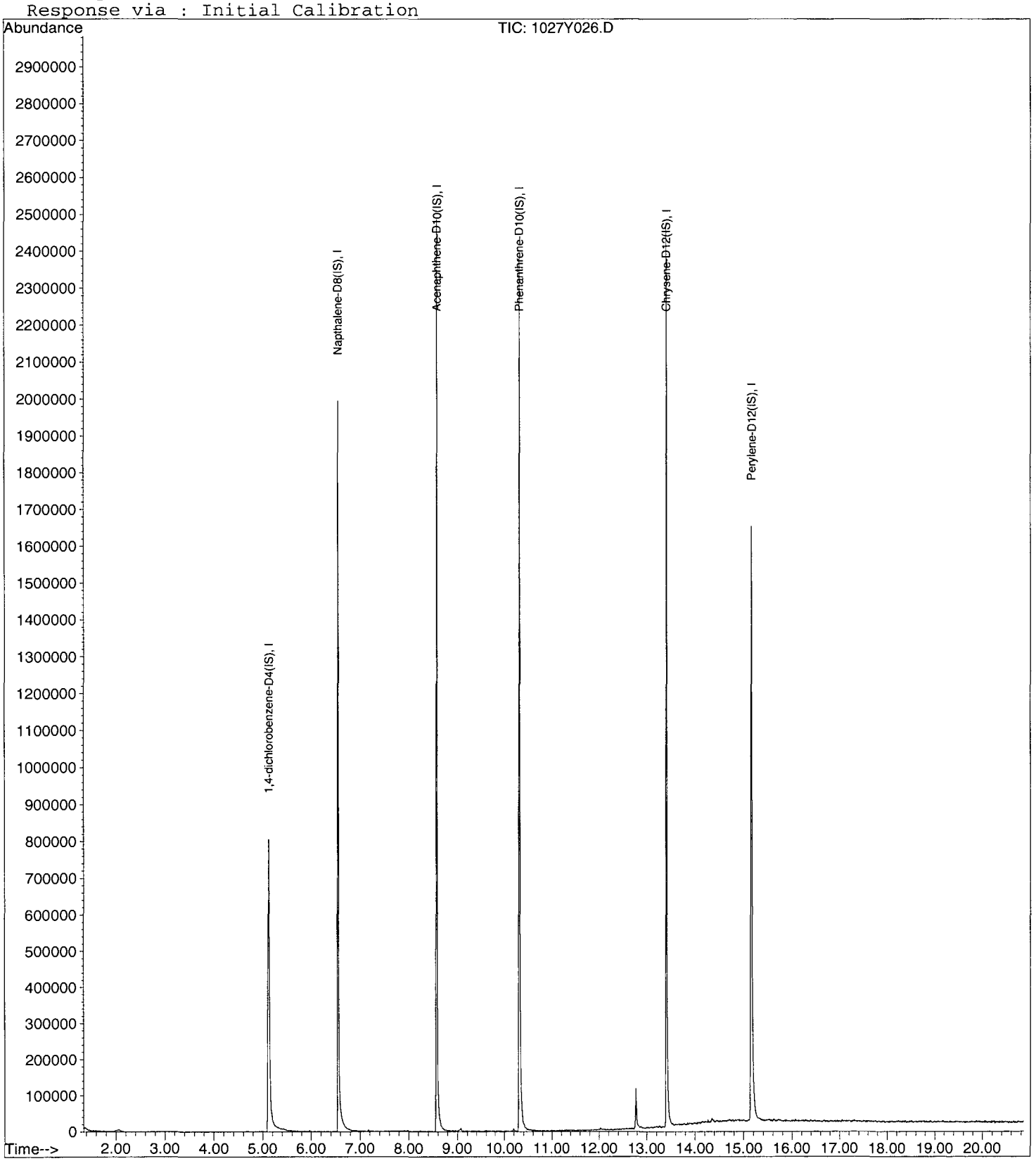
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y026.D Vial: 26
Acq On : 28 Oct 16 5:44 Operator: MA
Sample : AZ44691W13 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:44 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH100

Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44692

QCG: #87DME-161027A-213144

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/27/16	10/28/16

Quant Method:	Y0GLYCOL.M
Run #:	1027Y027
Instrument:	Yoda
Sequence:	Y161027
Dilution Factor:	1
Initials:	DA

Printed: 10/28/2016 10:52:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y027.D Vial: 27
Acq On : 28 Oct 16 6:14 Operator: MA
Sample : AZ44692W09 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:44 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	276618	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1284789	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	762086	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1385784	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1265235	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1440066	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

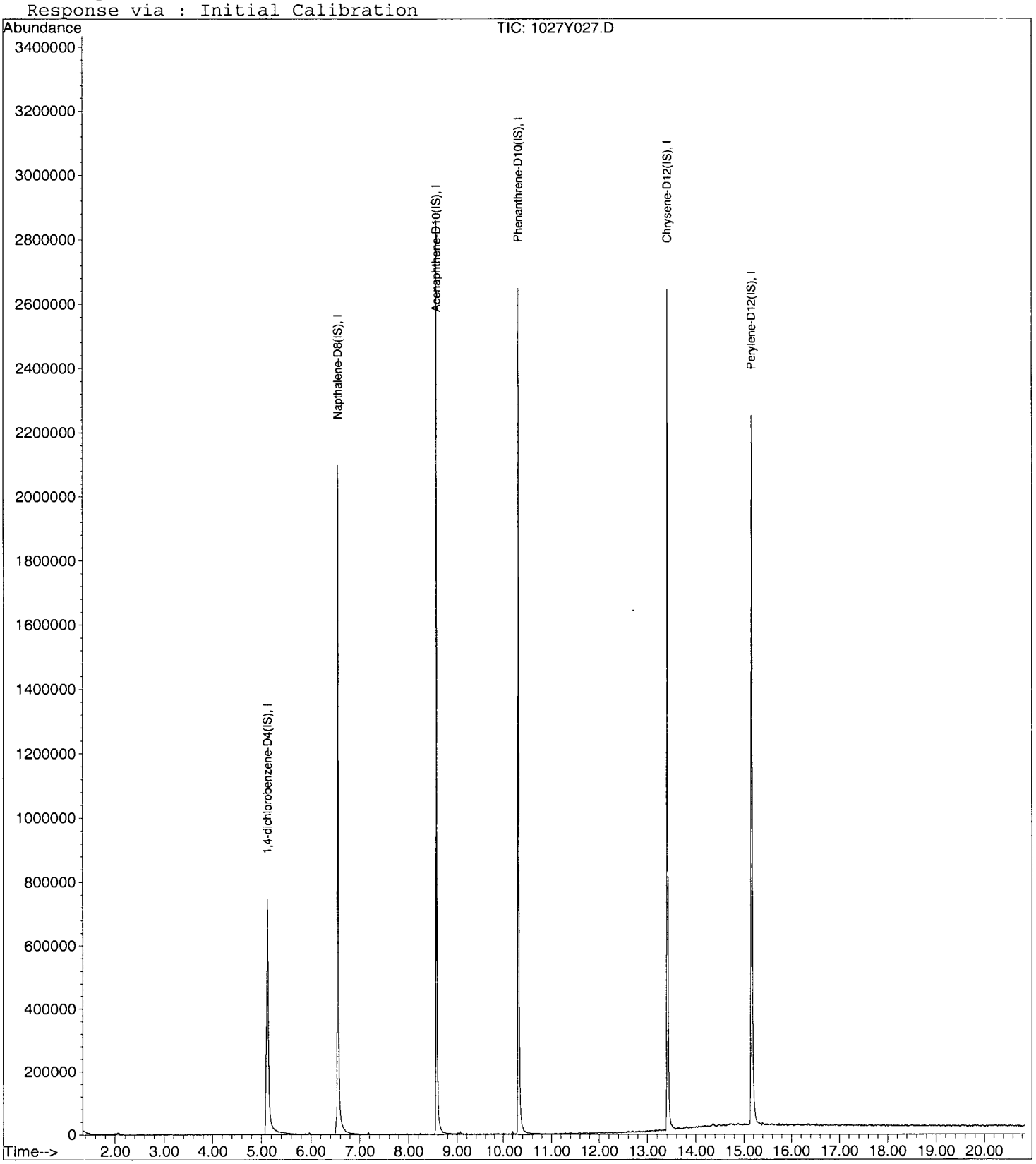
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y027.D Vial: 27
Acq On : 28 Oct 16 6:14 Operator: MA
Sample : AZ44692W09 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:44 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach
Project: 60481245 CIV0053 Red Hill Fuel Storage
Sample ID: ERH101
Sample Collection Date: 10/20/16

ARF: 81251
APPL ID: AZ44693
QCG: #87DME-161027A-213144

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/27/16	10/28/16

Quant Method:	Y0GLYCOL.M
Run #:	1027Y028
Instrument:	Yoda
Sequence:	Y161027
Dilution Factor:	1
Initials:	DA

Printed: 10/28/2016 10:52:56 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y028.D Vial: 28
Acq On : 28 Oct 16 6:44 Operator: MA
Sample : AZ44693W08 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:44 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	307360	40.00	ppb	-0.01
3) Napthalene-D8(IS)	6.55	136	1389263	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	798345	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1451096	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1357304	40.00	ppb	0.00
7) Perylene-D12(IS)	15.17	264	2324857	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

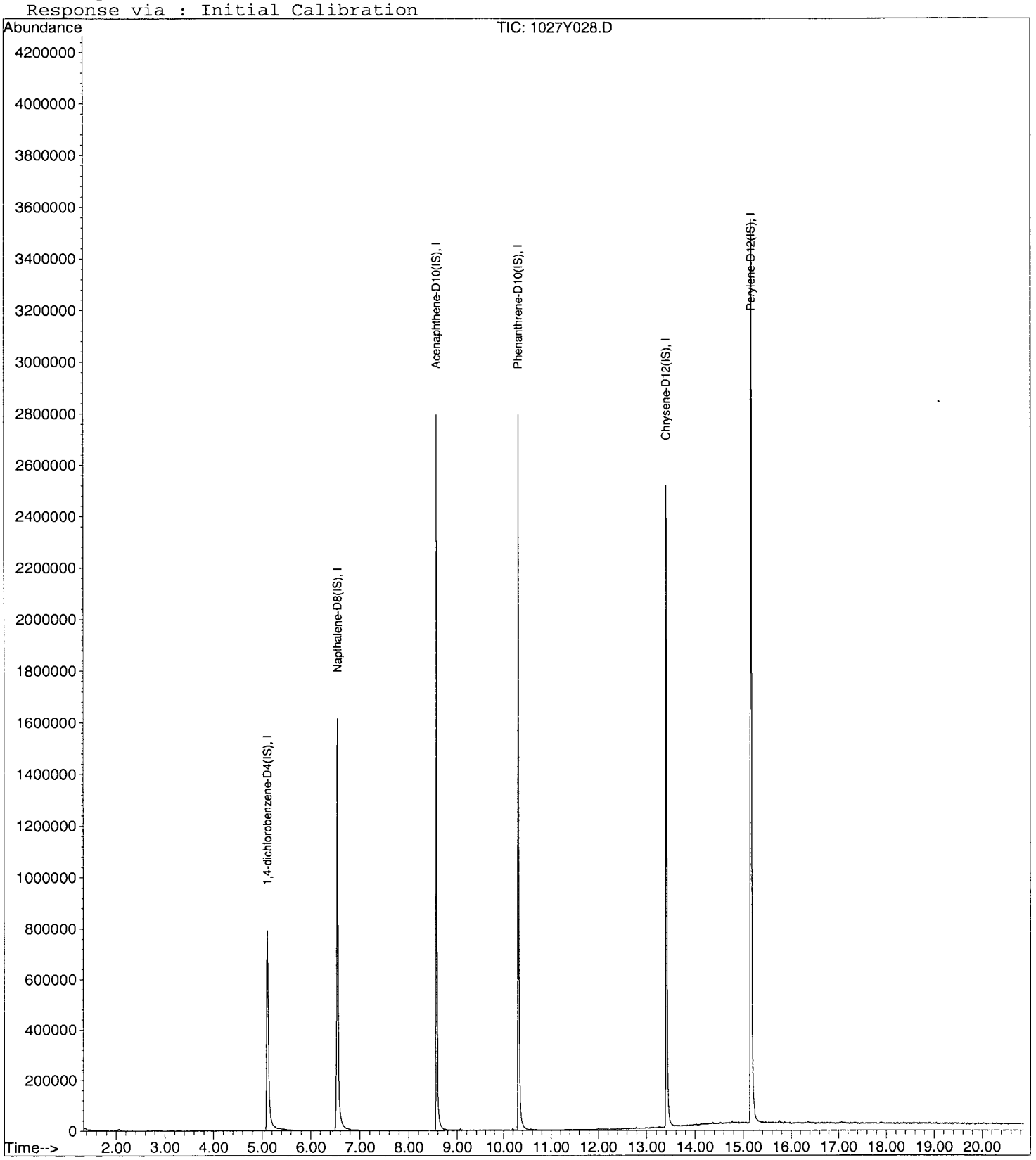
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y028.D Vial: 28
Acq On : 28 Oct 16 6:44 Operator: MA
Sample : AZ44693W08 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:44 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH102

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44694

QCG: #87DME-161027A-213144

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/27/16	10/28/16

Quant Method: Y0GLYCOL.M
Run #: 1027Y029
Instrument: Yoda
Sequence: Y161027
Dilution Factor: 1
Initials: DA

Printed: 10/28/2016 10:52:56 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y029.D Vial: 29
Acq On : 28 Oct 16 7:13 Operator: MA
Sample : AZ44694W15 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:45 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	267834	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1271109	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	730890	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1323273	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1238105	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1396191	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

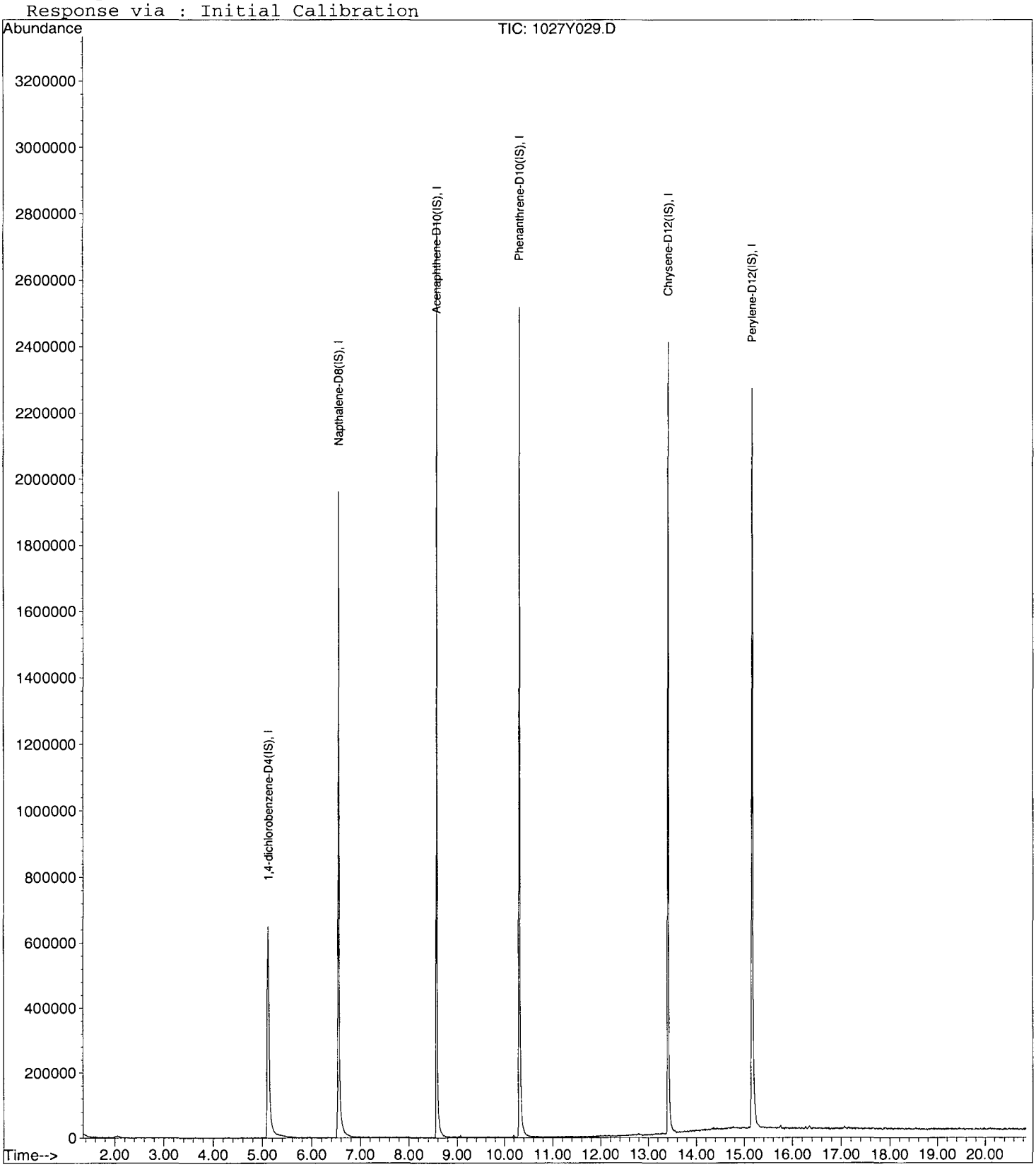
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y029.D Vial: 29
Acq On : 28 Oct 16 7:13 Operator: MA
Sample : AZ44694W15 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:45 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH104

APPL ID: AZ44695

Sample Collection Date: 10/20/16

QCG: #87DME-161027A-213144

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/27/16	10/28/16

Quant Method:	Y0GLYCOL.M
Run #:	1027Y030
Instrument:	Yoda
Sequence:	Y161027
Dilution Factor:	1
Initials:	DA

Printed: 10/28/2016 10:52:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y030.D Vial: 30
Acq On : 28 Oct 16 7:43 Operator: MA
Sample : AZ44695W11 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:45 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.13	152	273183	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1254162	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	728778	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1278351	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.40	240	1201658	40.00	ppb	-0.01
7) Perylene-D12(IS)	15.16	264	1160796	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

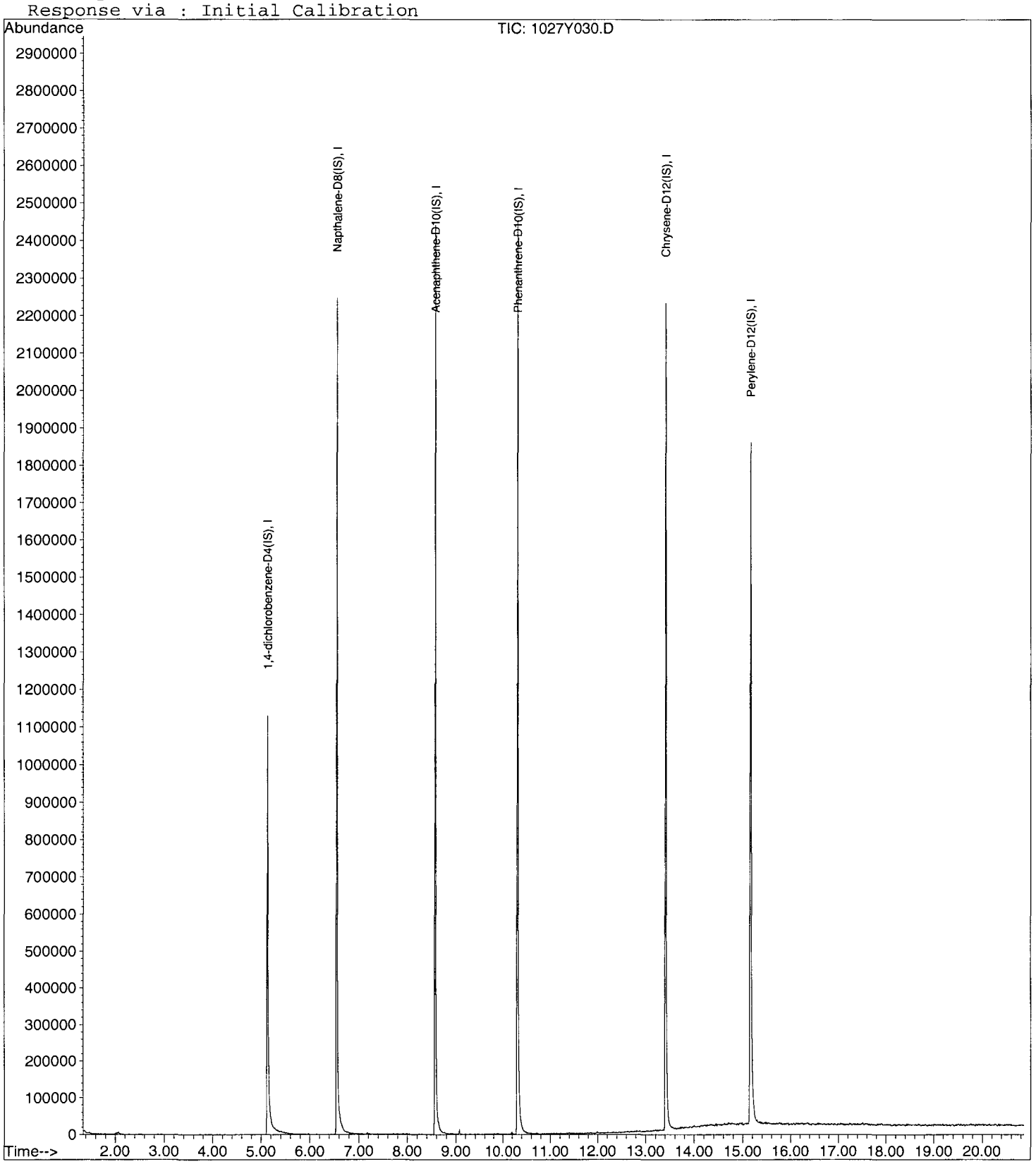
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y030.D Vial: 30
Acq On : 28 Oct 16 7:43 Operator: MA
Sample : AZ44695W11 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:45 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH105

Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44696

QCG: #87DME-161027A-213144

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/27/16	10/28/16

Quant Method:	Y0GLYCOL.M
Run #:	1027Y031
Instrument:	Yoda
Sequence:	Y161027
Dilution Factor:	1
Initials:	DA

Printed: 10/28/2016 10:52:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y031.D Vial: 31
Acq On : 28 Oct 16 8:12 Operator: MA
Sample : AZ44696W07 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:45 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.13	152	292572	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1367038	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	778910	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1416302	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1288432	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1279410	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

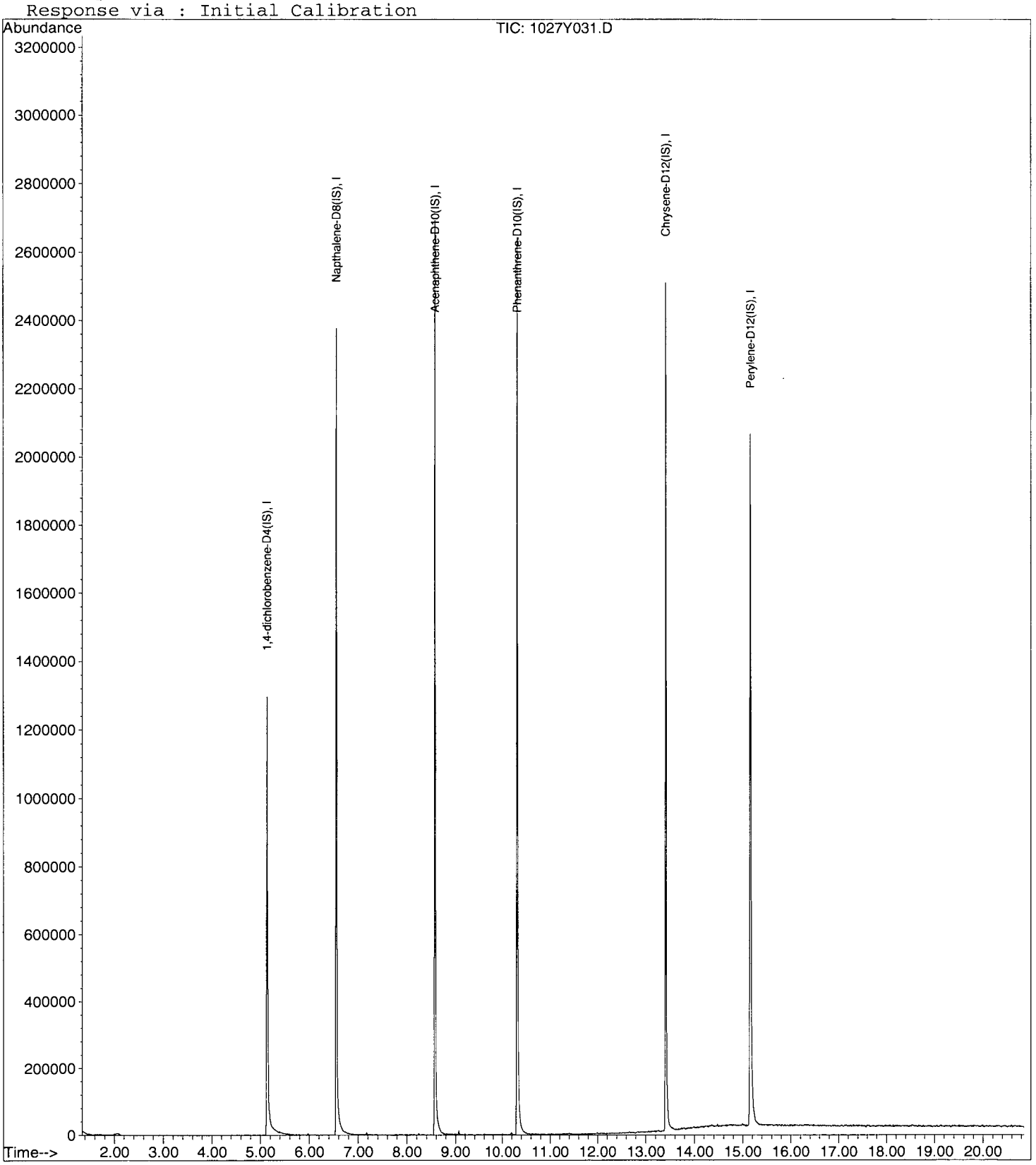
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y031.D Vial: 31
Acq On : 28 Oct 16 8:12 Operator: MA
Sample : AZ44696W07 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:45 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



ORGANICS

Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Initial Cal. Date: 10/27/2016

Matrix: Instrument: Yoda

Initials:

			1027Y003.D	1027Y004.D	1027Y005.D	1027Y006.D	1027Y007.D	1027Y008.D	1027Y009.D	1027Y010.D						
		Compound	1	2	3	4	5	6	7	8			Avg	%RSD		
1	I	1,4-dichlorobenzene-D4(IS)														
2	TML	2-(2-Methoxyethoxy)ethanol	0.0439	0.0889	0.1458	0.1643	0.1900	0.1994	0.2122	0.2156			0.16	39	TML	0.996
3	I	Napthalene-D8(IS)														
4	I	Acenaphthene-D10(IS)														
5	I	Phenanthrene-D10(IS)														
6	I	Chrysene-D12(IS)														
7	I	Perylene-D12(IS)														
8																
9																
10																
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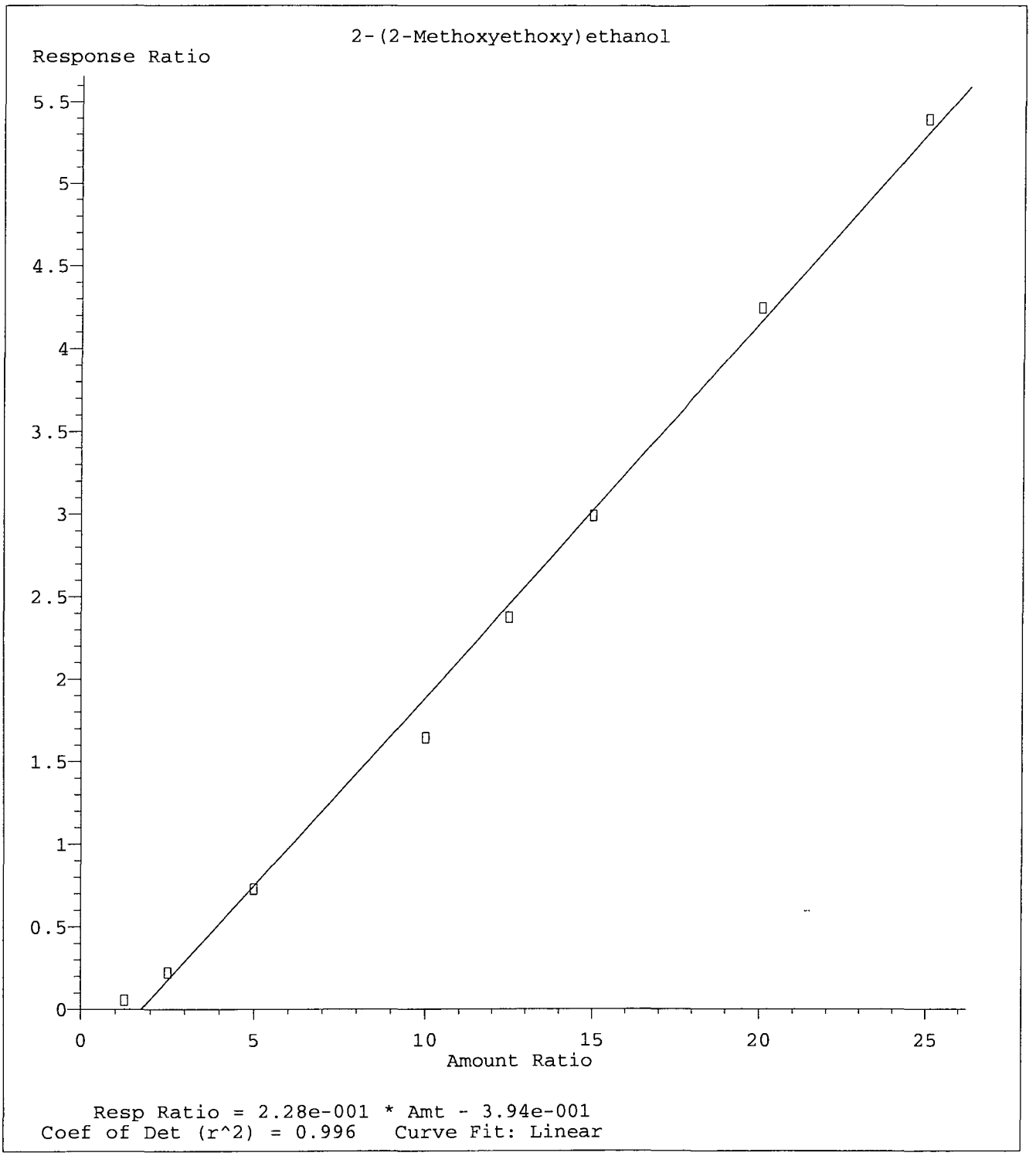


Method Name: M:\YODA\DATA\Y160929\Y0GLYCOL.M
Calibration Table Last Updated: Fri Oct 28 08:26:10 2016

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y003.D Vial: 3
Acq On : 27 Oct 16 18:40 Operator: MA
Sample : 50ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:18 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 21 16:18:29 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.13	152	327778	40.00	ppb	0.02
6) Napthalene-D8(IS)	6.55	136	1437056	40.00	ppb	0.00
8) Acenaphthene-D10(IS)	8.58	164	821152	40.00	ppb	0.00
11) Phenanthrene-D10(IS)	10.31	188	1471944	40.00	ppb	0.00
12) Chrysene-D12(IS)	13.41	240	1333314	40.00	ppb	0.00
15) Perylene-D12(IS)	15.17	264	1192442	40.00	ppb	0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	0.00	112	0	0.00	ppb	
Spiked Amount 200.000			Recovery = 0.000%			
3) Phenol-D6 (S)	4.73	99	359	1095.36	ppb	0.00
Spiked Amount 200.000			Recovery = 547.680%			
7) Nitrobenzene-D5(S)	5.65	82	138	392.26	ppb	-0.04
Spiked Amount 100.000			Recovery = 392.263%			
9) 2-Fluorobiphenyl(S)	0.00	172	0	0.00	ppb	
Spiked Amount 100.000			Recovery = 0.000%			
10) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00	ppb	
Spiked Amount 200.000			Recovery = 0.000%			
13) Terphenyl-D14(S)	12.21	244	152	43.25	ppb	0.00
Spiked Amount 100.000			Recovery = 43.253%			
14) Diethylene Glycol-d6(S)	12.75	TIC	2390	0.00	ppb	-0.02
Spiked Amount 50.000			Recovery = 0.000%			
Target Compounds						Qvalue
5) 2-(2-Methoxyethoxy)ethanol	4.45	45	17975	11.36	ppb	96

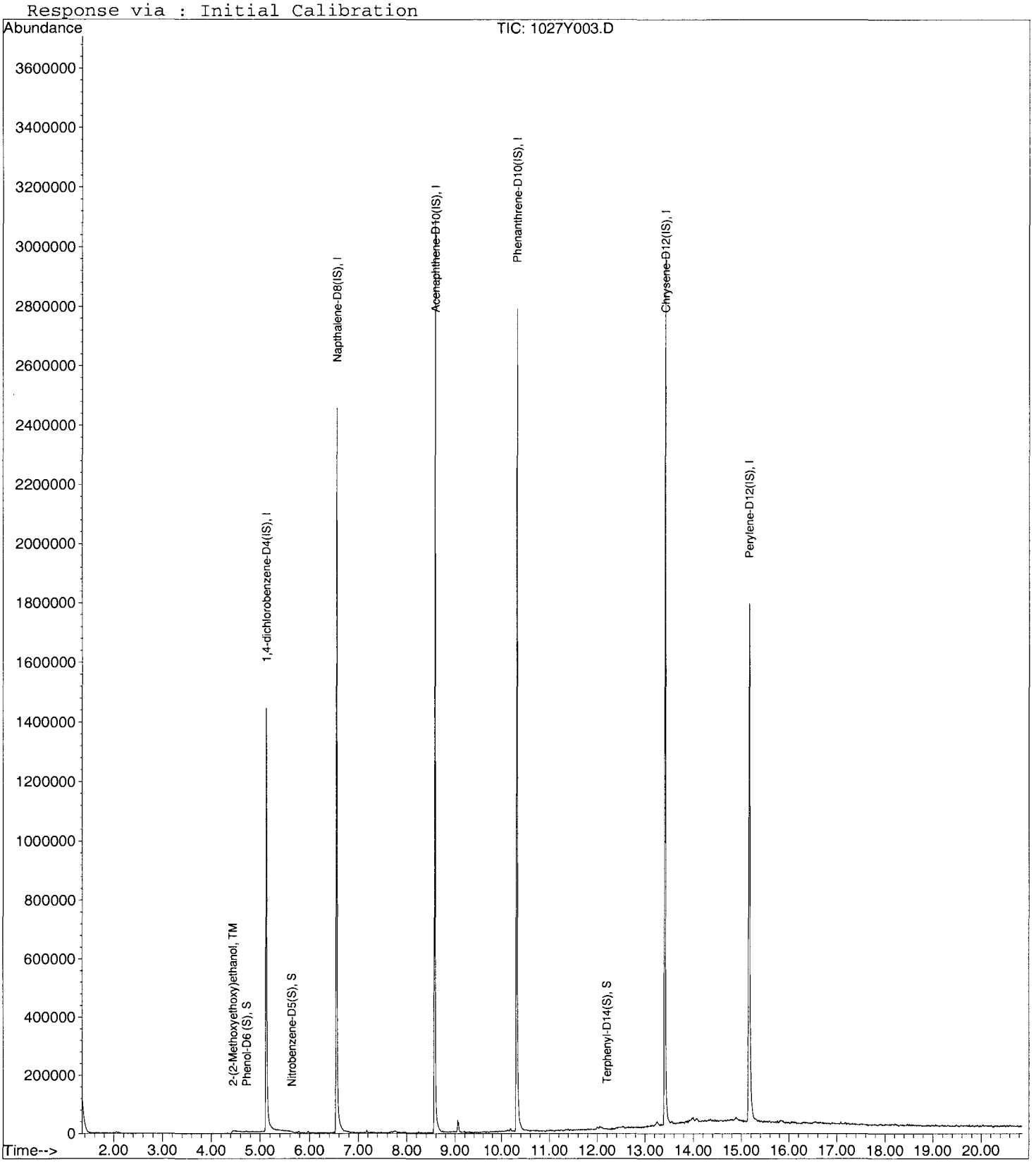
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y003.D Vial: 3
Acq On : 27 Oct 16 18:40 Operator: MA
Sample : 50ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:18 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y004.D Vial: 4
Acq On : 27 Oct 16 19:10 Operator: MA
Sample : 100ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:18 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 21 16:18:29 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	293456	40.00	ppb	0.00
6) Napthalene-D8(IS)	6.55	136	1323096	40.00	ppb	0.00
8) Acenaphthene-D10(IS)	8.58	164	752526	40.00	ppb	0.00
11) Phenanthrene-D10(IS)	10.31	188	1346265	40.00	ppb	0.00
12) Chrysene-D12(IS)	13.41	240	1224496	40.00	ppb	0.00
15) Perylene-D12(IS)	15.16	264	1068147	40.00	ppb	0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	0.00	112	0	0.00	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
3) Phenol-D6 (S)	4.79	99	404	1376.83	ppb	0.05
Spiked Amount 200.000			Recovery =	688.415%		
7) Nitrobenzene-D5(S)	5.60	82	145	447.66	ppb	-0.08
Spiked Amount 100.000			Recovery =	447.660%		
9) 2-Fluorobiphenyl(S)	0.00	172	0	0.00	ppb	
Spiked Amount 100.000			Recovery =	0.000%		
10) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
13) Terphenyl-D14(S)	12.21	244	400	123.94	ppb	0.00
Spiked Amount 100.000			Recovery =	123.939%		
14) Diethylene Glycol-d6(S)	12.75	TIC	8923	0.00	ppb	-0.02
Spiked Amount 50.000			Recovery =	0.000%		
Target Compounds						Qvalue
4) Phenol	4.84	94	149	586.26	ppb #	33
5) 2-(2-Methoxyethoxy)ethanol	4.42	45	65248	46.07	ppb	95

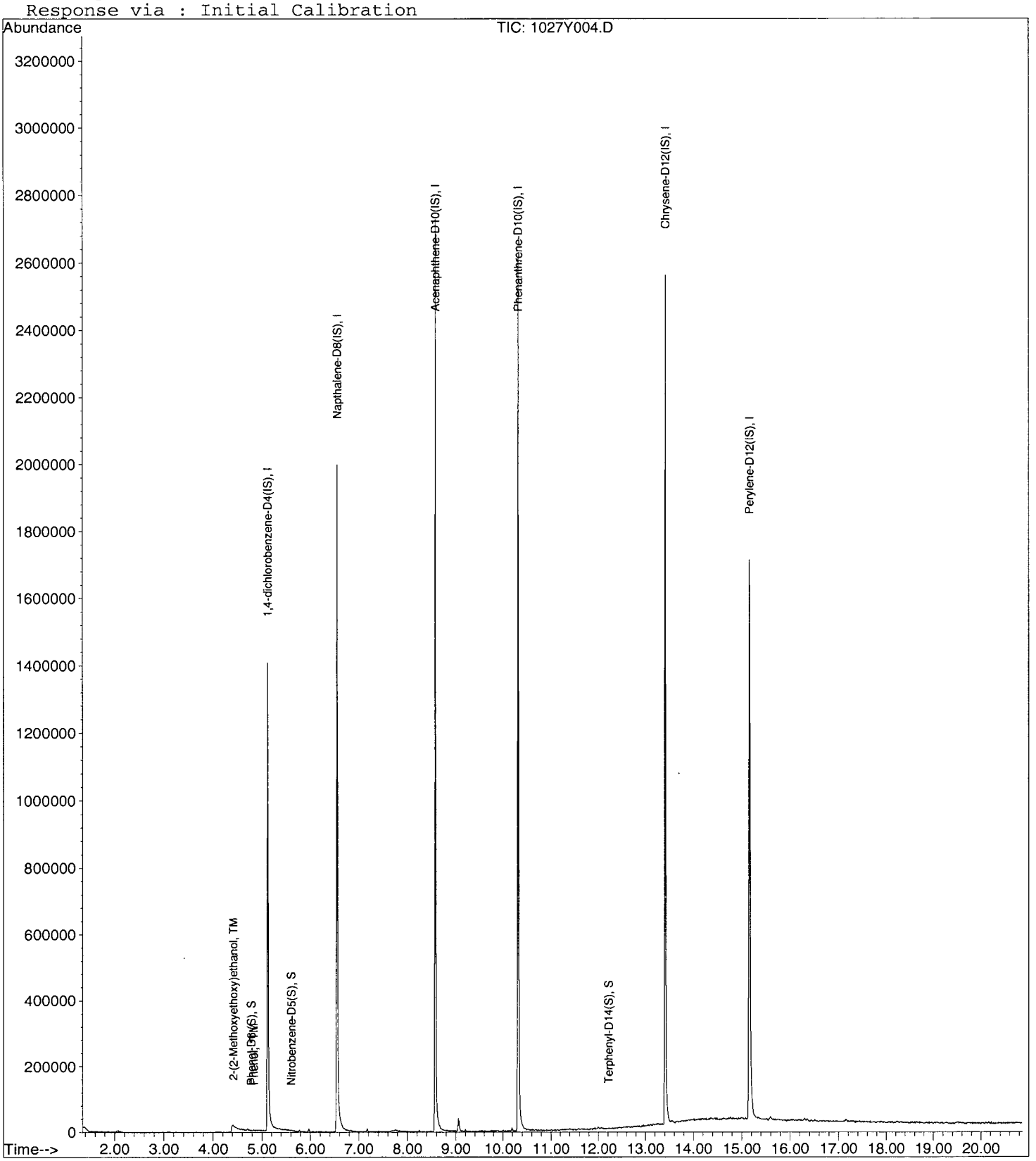
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y004.D Vial: 4
Acq On : 27 Oct 16 19:10 Operator: MA
Sample : 100ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:18 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y005.D Vial: 5
Acq On : 27 Oct 16 19:39 Operator: MA
Sample : 200ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:27 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:21:43 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	307677	40.00	ppb	0.00
6) Napthalene-D8(IS)	6.55	136	1383855	40.00	ppb	0.00
8) Acenaphthene-D10(IS)	8.58	164	770019	40.00	ppb	0.00
11) Phenanthrene-D10(IS)	10.31	188	1403691	40.00	ppb	0.00
12) Chrysene-D12(IS)	13.41	240	1279656	40.00	ppb	0.00
15) Perylene-D12(IS)	15.16	264	1133390	40.00	ppb	0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	0.00	112	0	0.00	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
3) Phenol-D6 (S)	4.86	99	656	367.86	ppb	0.03
Spiked Amount 200.000			Recovery =	183.931%		
7) Nitrobenzene-D5(S)	5.72	82	146	132.48	ppb	0.03
Spiked Amount 100.000			Recovery =	132.483%		
9) 2-Fluorobiphenyl(S)	0.00	172	0	0.00	ppb	
Spiked Amount 100.000			Recovery =	0.000%		
10) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
13) Terphenyl-D14(S)	12.22	244	382	221.73	ppb	0.00
Spiked Amount 100.000			Recovery =	221.733%		
14) Diethylene Glycol-d6(S)	12.74	TIC	2587	0.00	ppb	-0.01
Spiked Amount 50.000			Recovery =	0.000%		
Target Compounds						Qvalue
5) 2-(2-Methoxyethoxy)ethanol	4.34	45	224232m	324.42	ppb	99

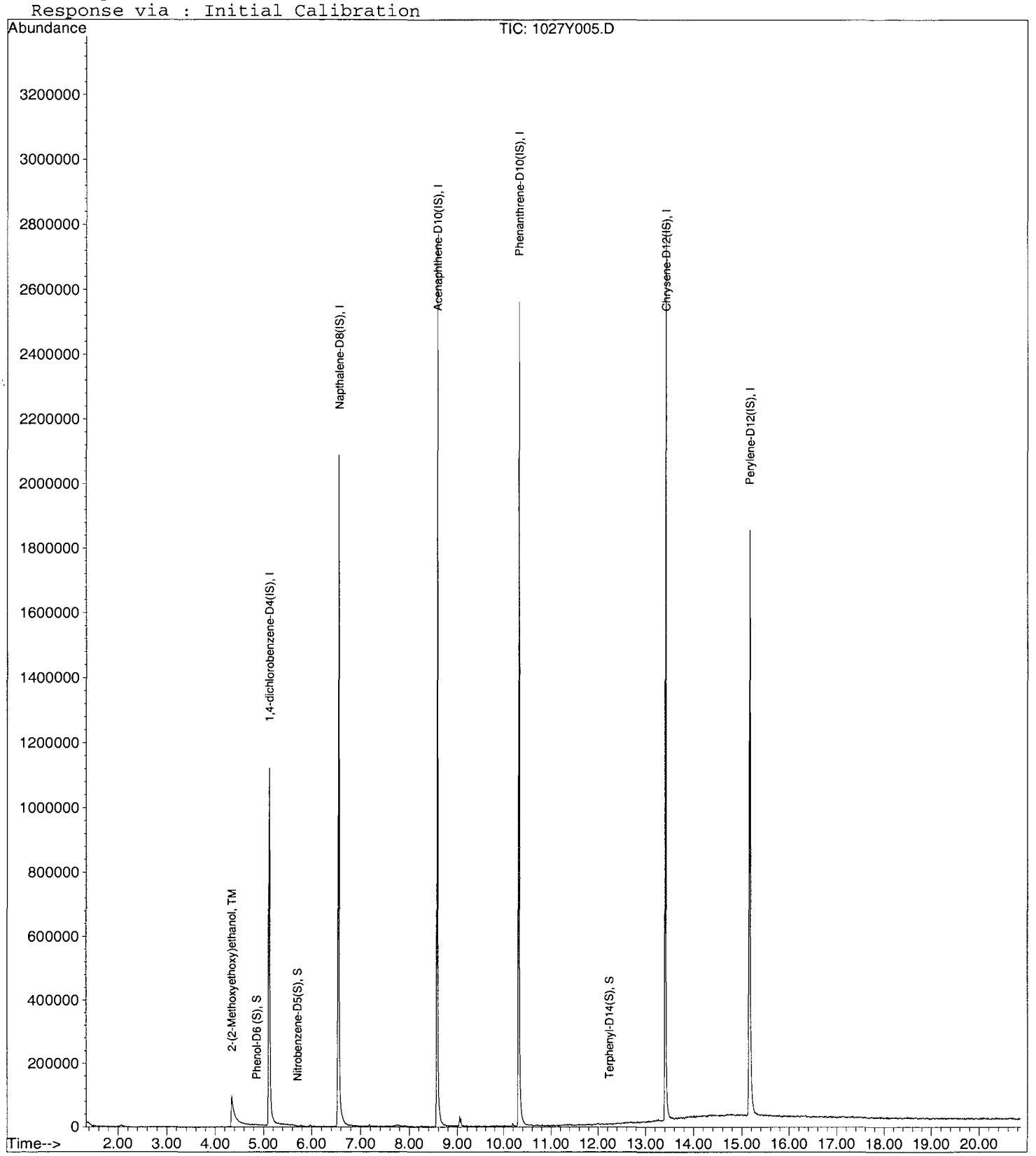
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y005.D Vial: 5
Acq On : 27 Oct 16 19:39 Operator: MA
Sample : 200ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:27 2016 Quant Results File: Y0GLYCOL.RES

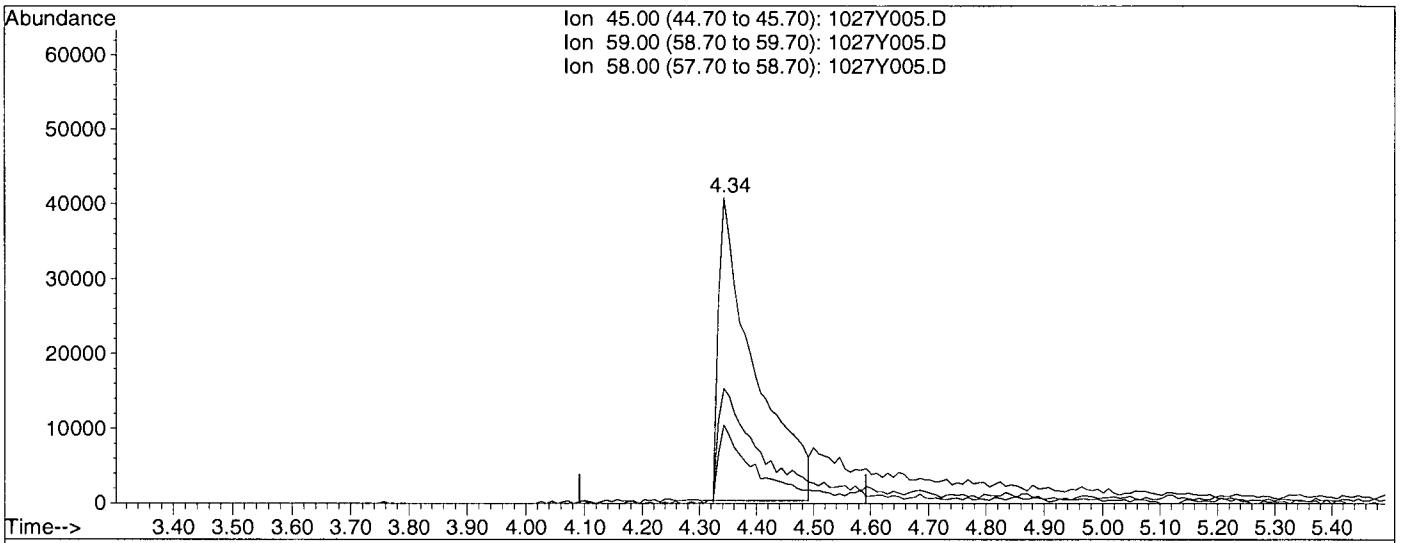
Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration

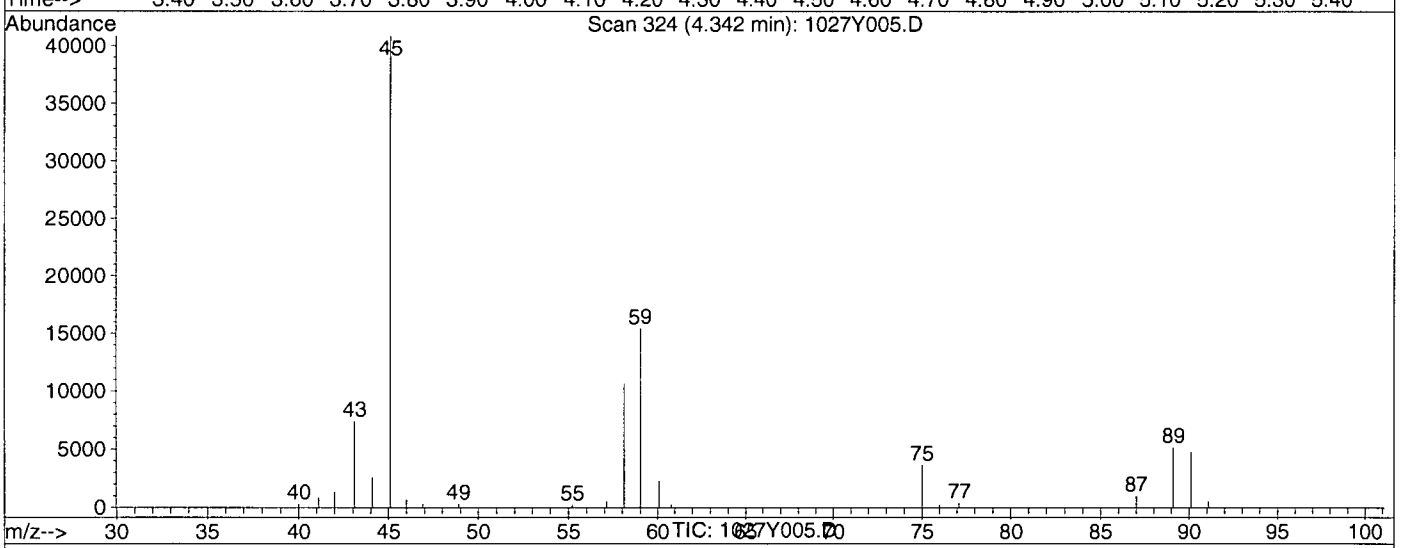


Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y005.D Vial: 5
Acq On : 27 Oct 16 19:39 Operator: MA
Sample : 200ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Oct 28 8:21 2016 Quant Results File: temp.res

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:25:00 2016
Response via : Multiple Level Calibration





(5) 2-(2-Methoxyethoxy)ethanol (TM)

4.34min 254.3455ppb

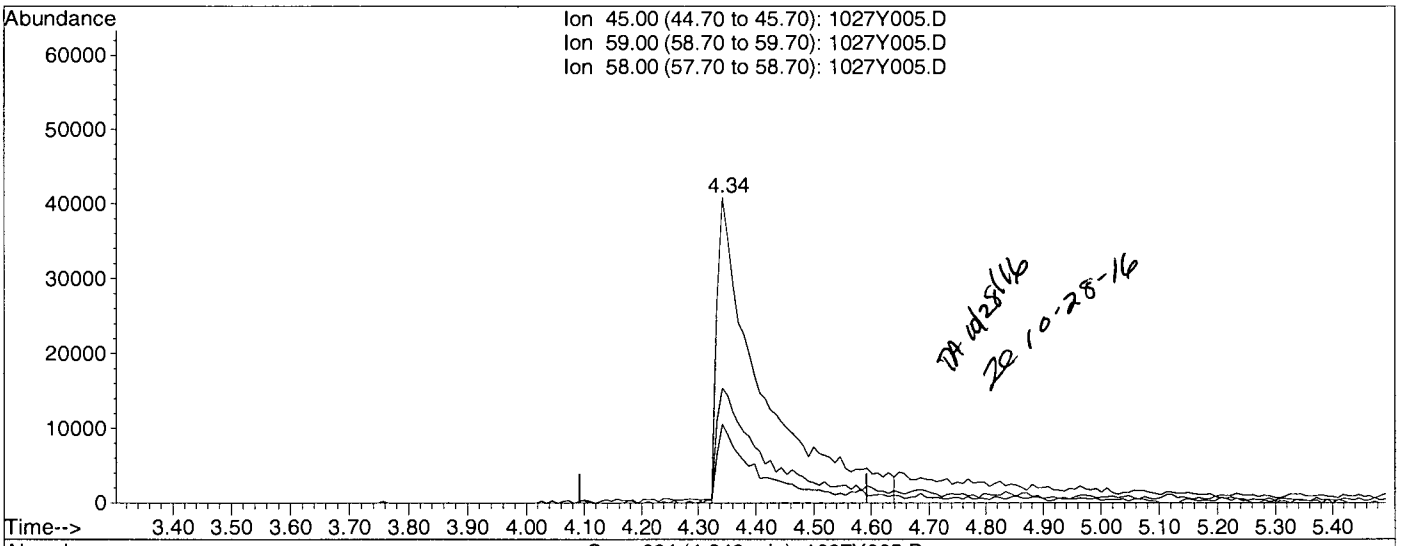
response 175799

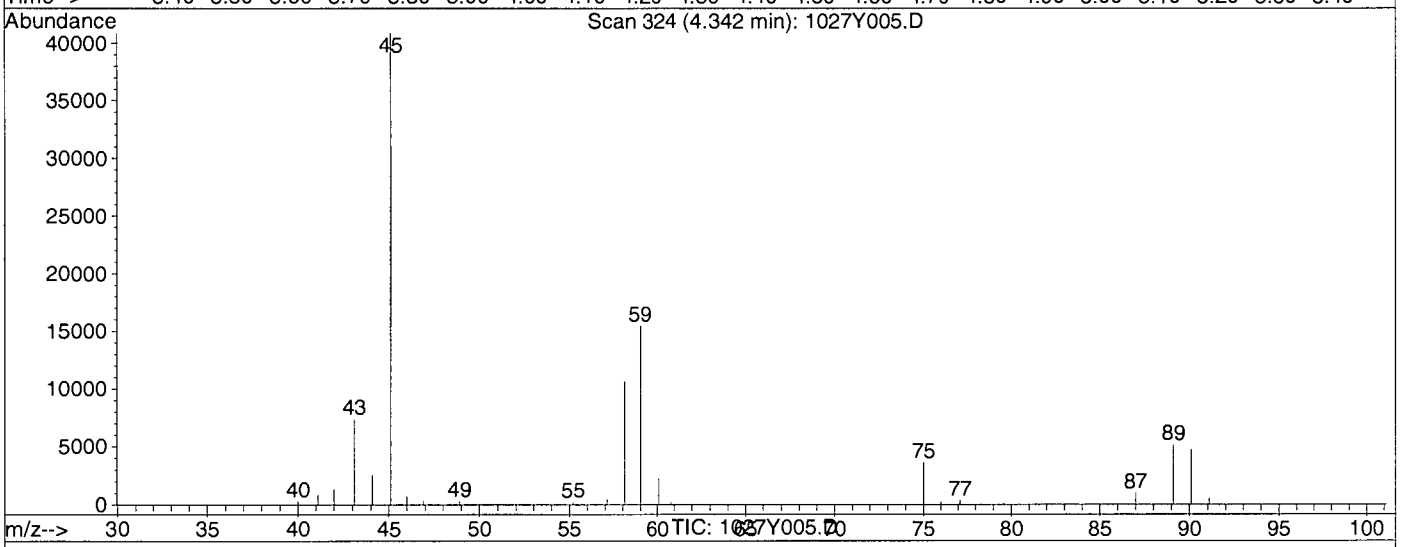
Ion	Exp%	Act%
45.00	100	100
59.00	37.70	38.05
58.00	25.90	25.64
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y005.D Vial: 5
Acq On : 27 Oct 16 19:39 Operator: MA
Sample : 200ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Oct 28 8:27 2016 Quant Results File: temp.res

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:25:00 2016
Response via : Multiple Level Calibration





(5) 2-(2-Methoxyethoxy)ethanol (TM)

4.34min 324.4183ppb m

response 224232

Ion	Exp%	Act%
45.00	100	100
59.00	37.70	37.72
58.00	25.90	25.93
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y006.D Vial: 6
Acq On : 27 Oct 16 20:09 Operator: MA
Sample : 400ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:23 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:22:13 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	294355	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1285103	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	725616	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1305044	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1201682	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1187815	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.32	45	483744	731.55	ppb	100

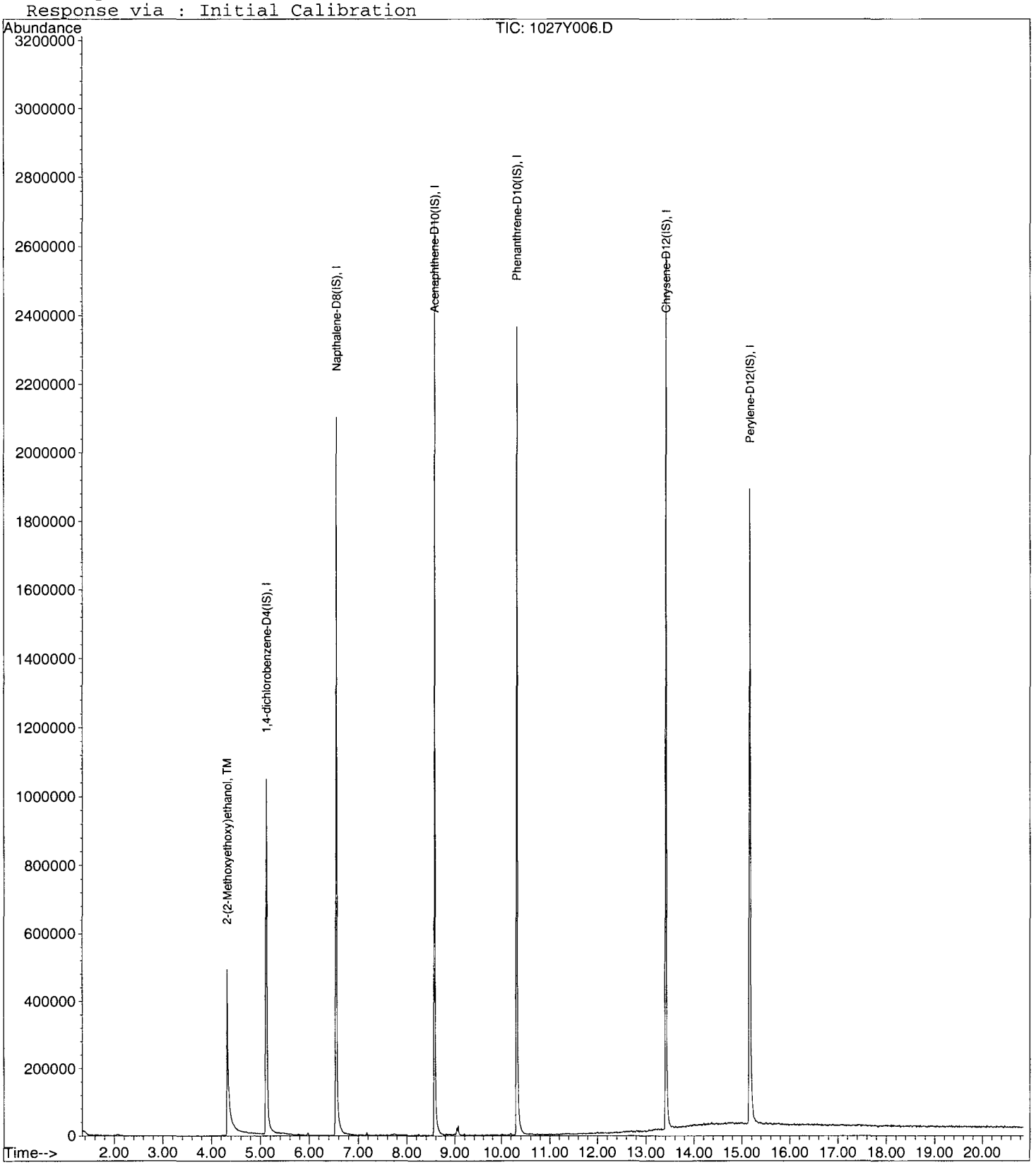
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y006.D Vial: 6
Acq On : 27 Oct 16 20:09 Operator: MA
Sample : 400ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:23 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y007.D Vial: 7
Acq On : 27 Oct 16 20:39 Operator: MA
Sample : 500ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:23 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:22:13 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	308248	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1348651	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	765702	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1384410	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1254676	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1397202	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.33	45	732151	1057.31	ppb	95

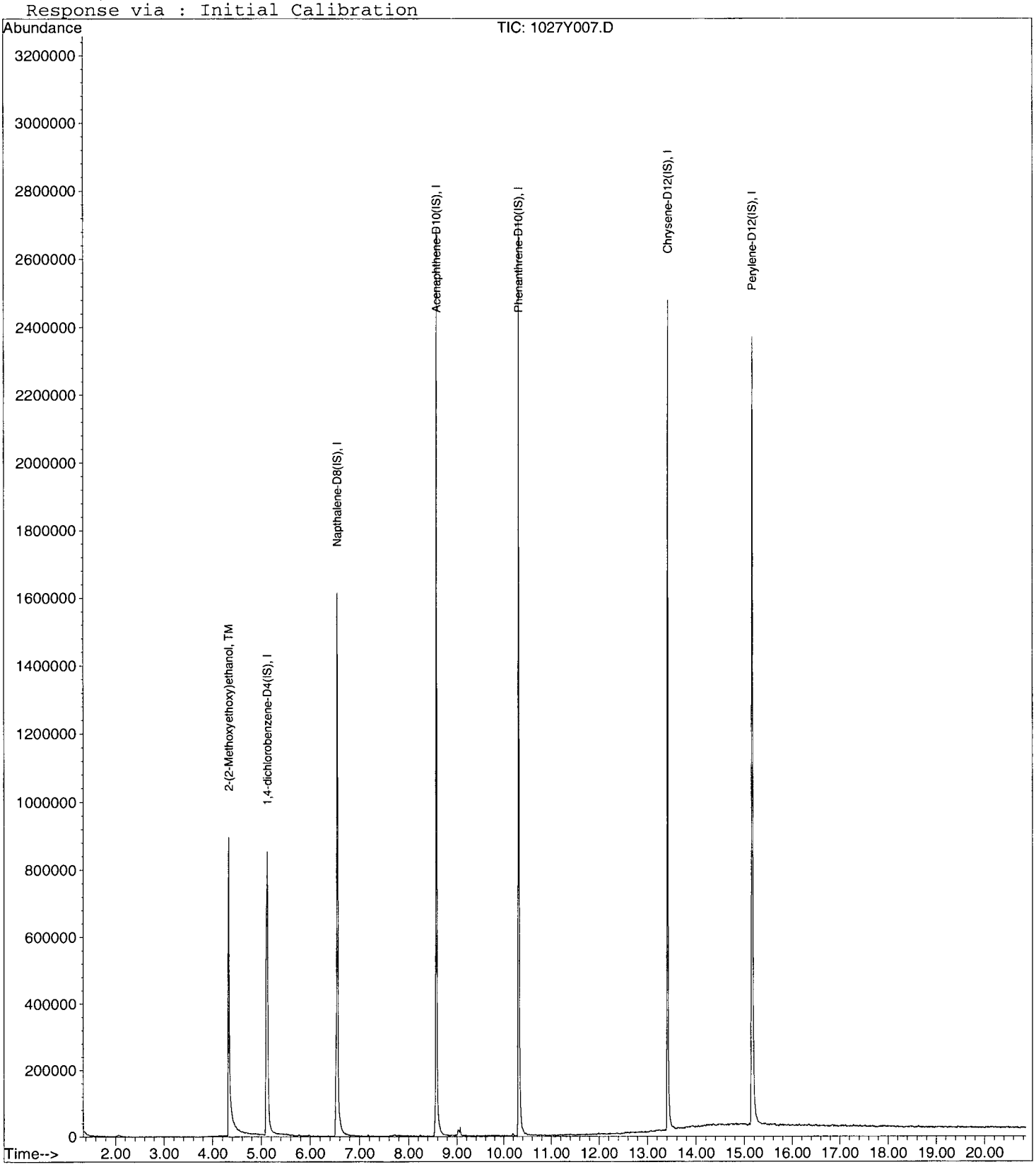
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y007.D Vial: 7
Acq On : 27 Oct 16 20:39 Operator: MA
Sample : 500ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:23 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y008.D Vial: 8
Acq On : 27 Oct 16 21:08 Operator: MA
Sample : 600ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:23 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:22:13 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	307468	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1329951	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	771961	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1375007	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1269842	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1176305	40.00	ppb	0.00

System Monitoring Compounds

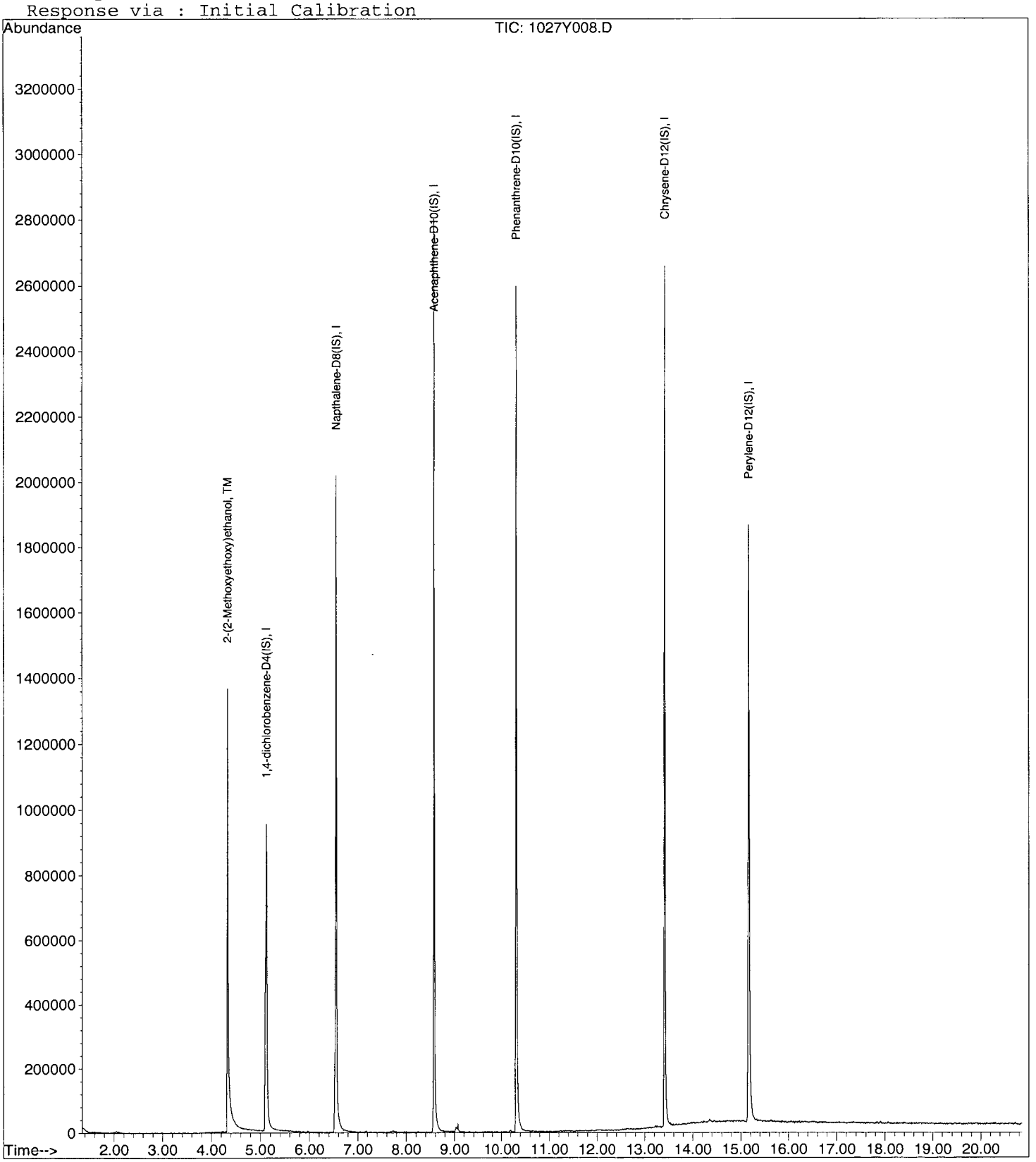
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.33	45	919727	1331.56	ppb	97

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

Data File : M:\YODA\DATA\Y161027\1027Y008.D Vial: 8
Acq On : 27 Oct 16 21:08 Operator: MA
Sample : 600ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:23 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y009.D Vial: 9
Acq On : 27 Oct 16 21:38 Operator: MA
Sample : 800ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:24 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:22:13 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	283606	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1267339	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.57	164	716538	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1287526	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1196228	40.00	ppb	0.00
7) Perylene-D12(IS)	15.18	264	3605536	40.00	ppb	0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.33	45	1203766	1889.42	ppb	98

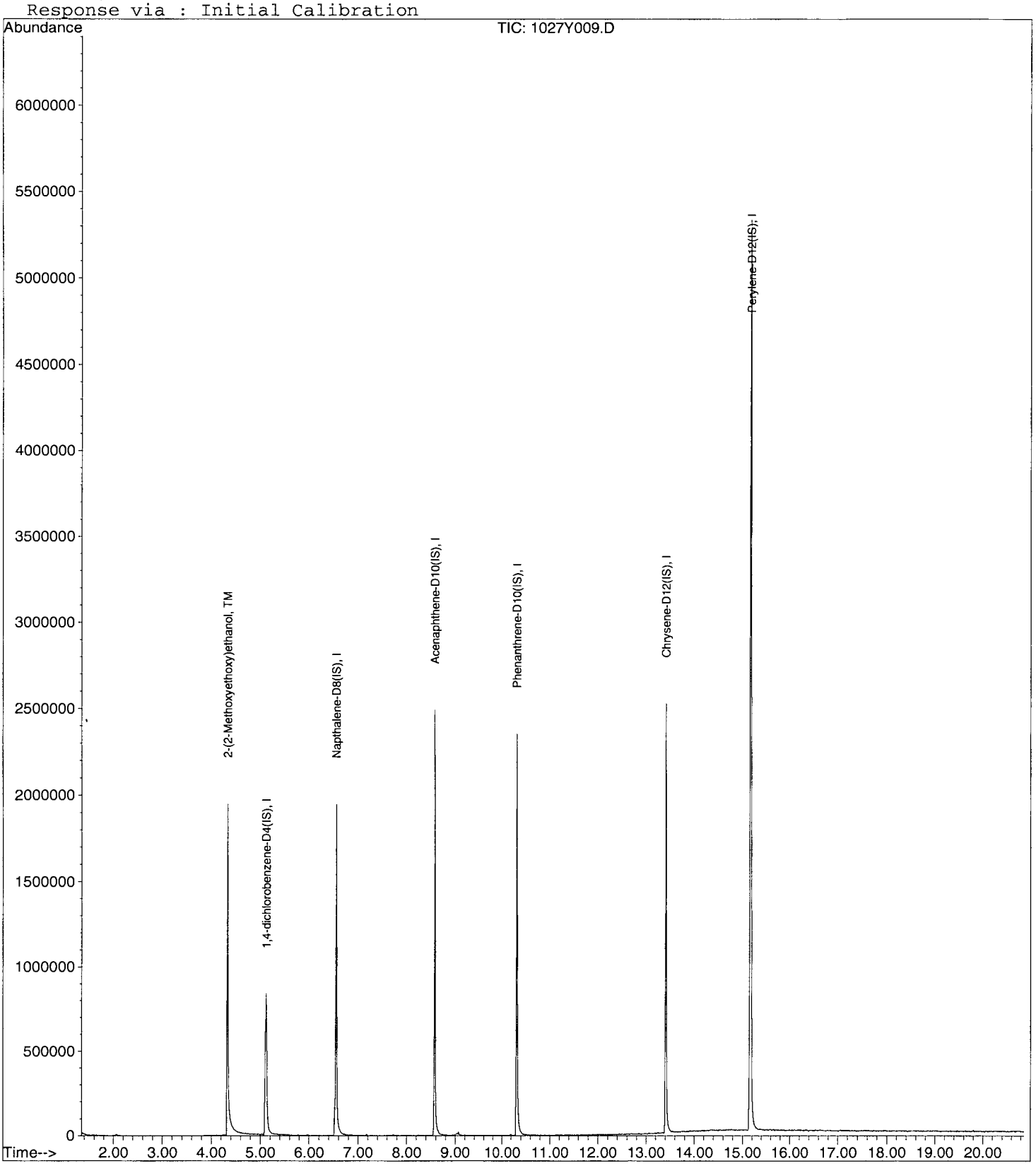
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y009.D Vial: 9
Acq On : 27 Oct 16 21:38 Operator: MA
Sample : 800ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:24 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y010.D Vial: 10
Acq On : 27 Oct 16 22:07 Operator: MA
Sample : 1000ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:24 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:22:13 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	291465	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1260168	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	721600	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1301310	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1168546	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1521994	40.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.35	45	1570840	2399.10	ppb	96

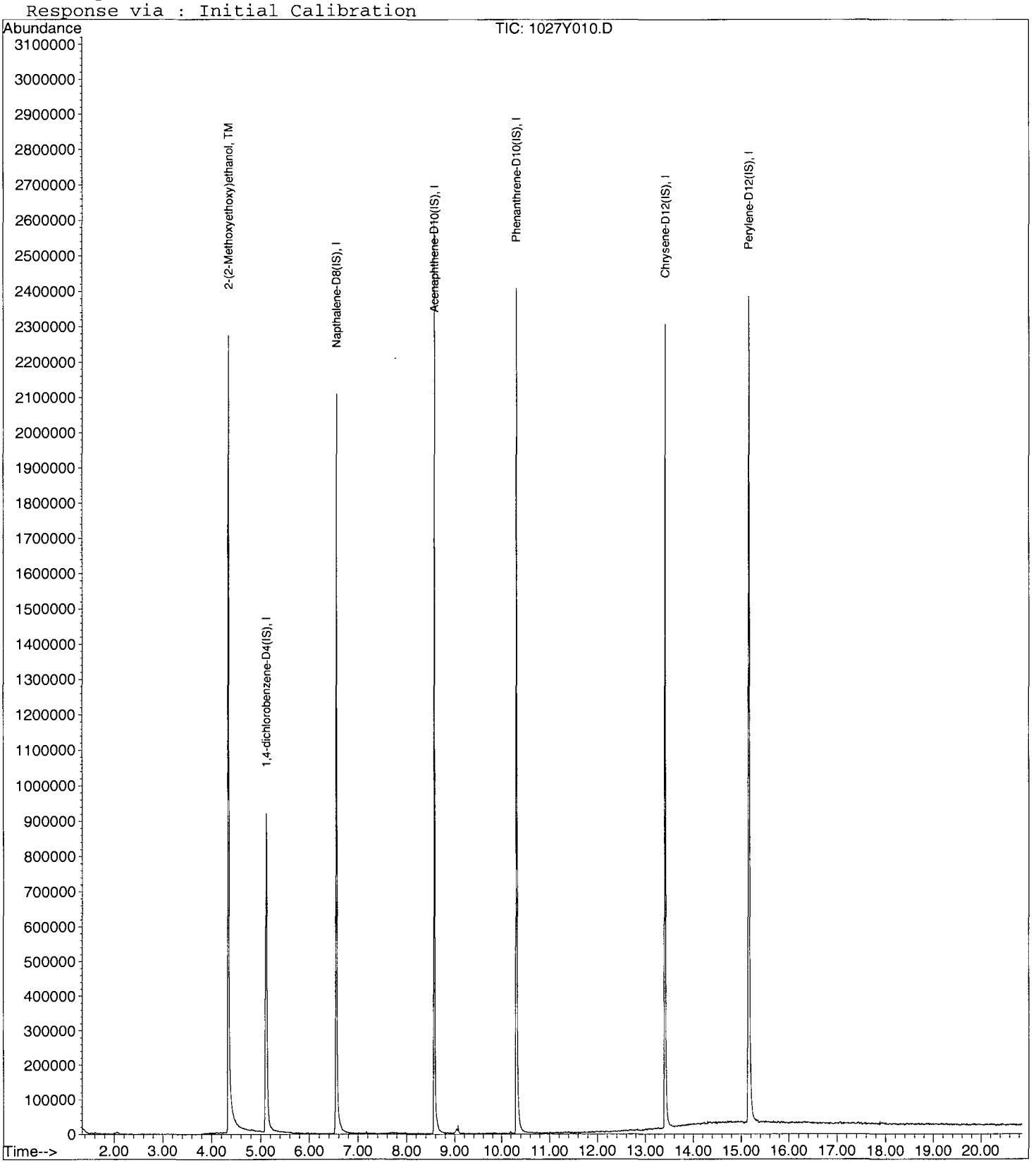
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y010.D Vial: 10
Acq On : 27 Oct 16 22:07 Operator: MA
Sample : 1000ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:24 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 10/27/2016
Instrument: Yoda
Initial Cal. Date: 10/27/2016
Data File: 1027Y012.D

		Compound	MEAN	CCRF	%D		%Drift
1	TML	2-(2-Methoxyethoxy)ethanol	0.1575	0.2158	37	TML	8.5
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			37.0		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y012.D Vial: 12
Acq On : 27 Oct 16 23:07 Operator: MA
Sample : SS2 DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:38 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.13	152	287842	40.00 ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1271816	40.00 ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	733959	40.00 ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1323244	40.00 ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1205335	40.00 ppb	0.00
7) Perylene-D12(IS)	15.16	264	1075089	40.00 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.33	45	776493	542.48 ppb	96

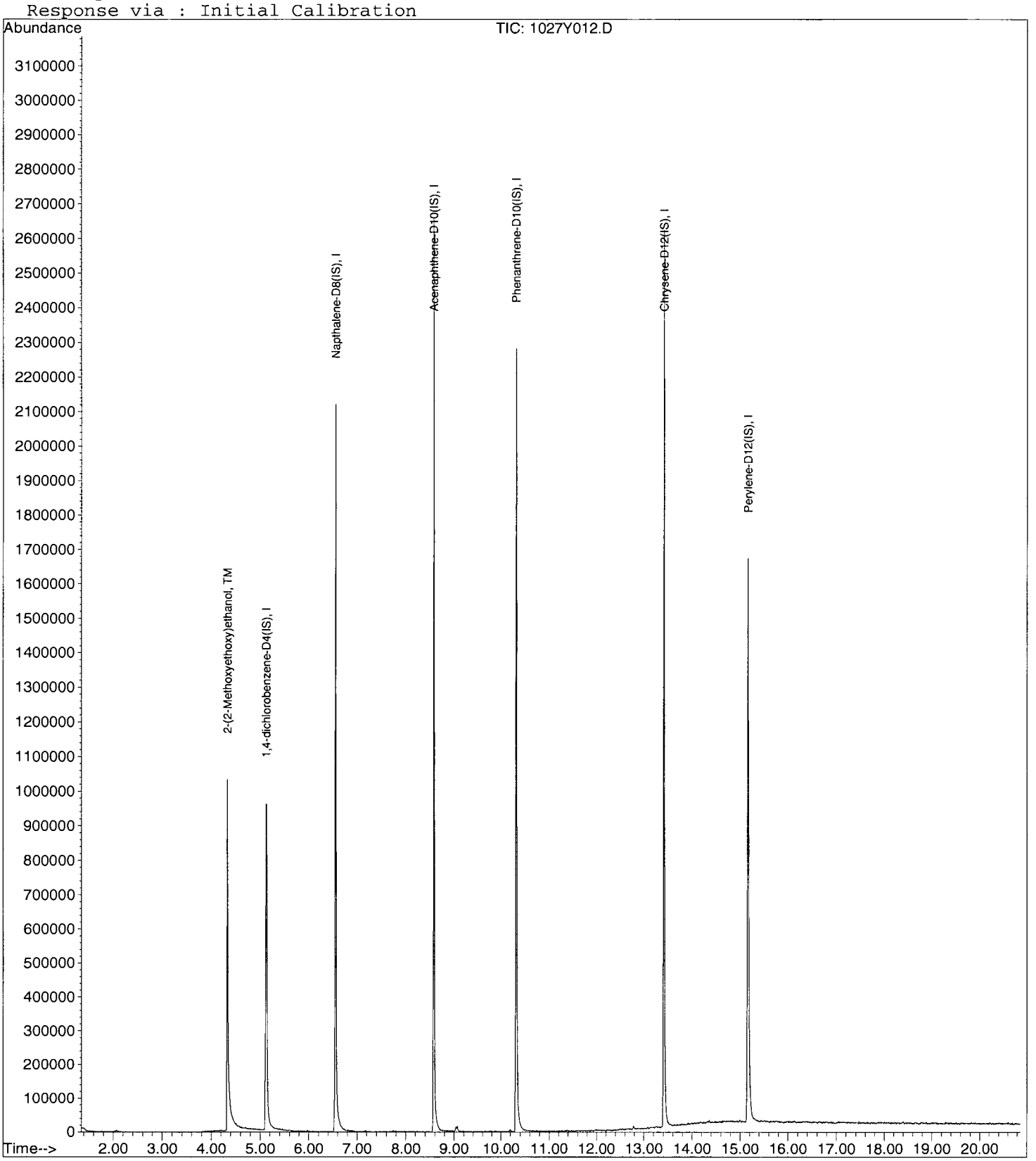
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y012.D Vial: 12
Acq On : 27 Oct 16 23:07 Operator: MA
Sample : SS2 DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:38 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Form 7

Ending Continuing Calibration

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

SDG No:
Date Analyzed: 10/28/2016
Instrument: Yoda
Initial Cal. Date: 10/27/2016
Data File: 1027Y037.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TML	2-(2-Methoxyethoxy)ethanol	0.1575	0.1452	7.8	TML	22
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
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28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			7.8		

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y037.D Vial: 37
Acq On : 28 Oct 16 10:51 Operator: MA
Sample : 500ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 11:10 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.13	152	278299	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1240492	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	731404	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1287945	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1196766	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1231043	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.34	45	505144	387.62	ppb	95

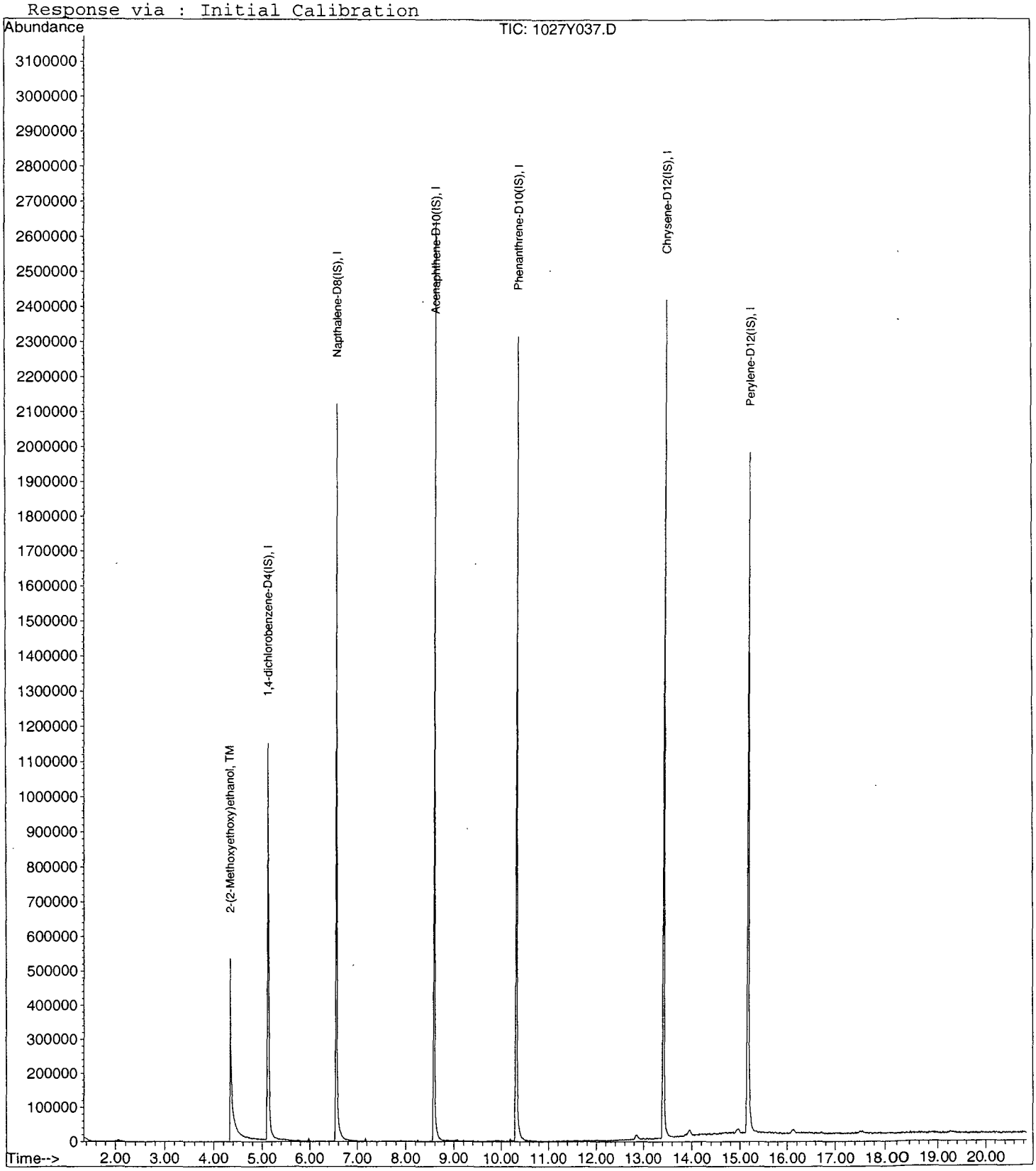
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y037.D Vial: 37
Acq On : 28 Oct 16 10:51 Operator: MA
Sample : 500ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 11:10 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



ORGANICS

Raw Data

APPL, INC.

Method Blank

EPA 8270D MODIFIED WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161027W-44579 - 213144**
Batch ID: #87DME-161027A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	10/27/2016	10/27/2016

Quant Method: Y0GLYCOL.
Run #: 1027Y014
Instrument: Yoda
Sequence: Y161027
Initials: DA

GC SC-Blank-REG MDLs-DOD
Printed: 10/28/2016 10:53:07 AM

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y014.D Vial: 14
Acq On : 27 Oct 16 23:49 Operator: MA
Sample : 161027A BLK 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:40 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.13	152	287469	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1297927	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.57	164	762494	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.32	188	1358368	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1249844	40.00	ppb	0.00
7) Perylene-D12(IS)	15.17	264	1500410	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

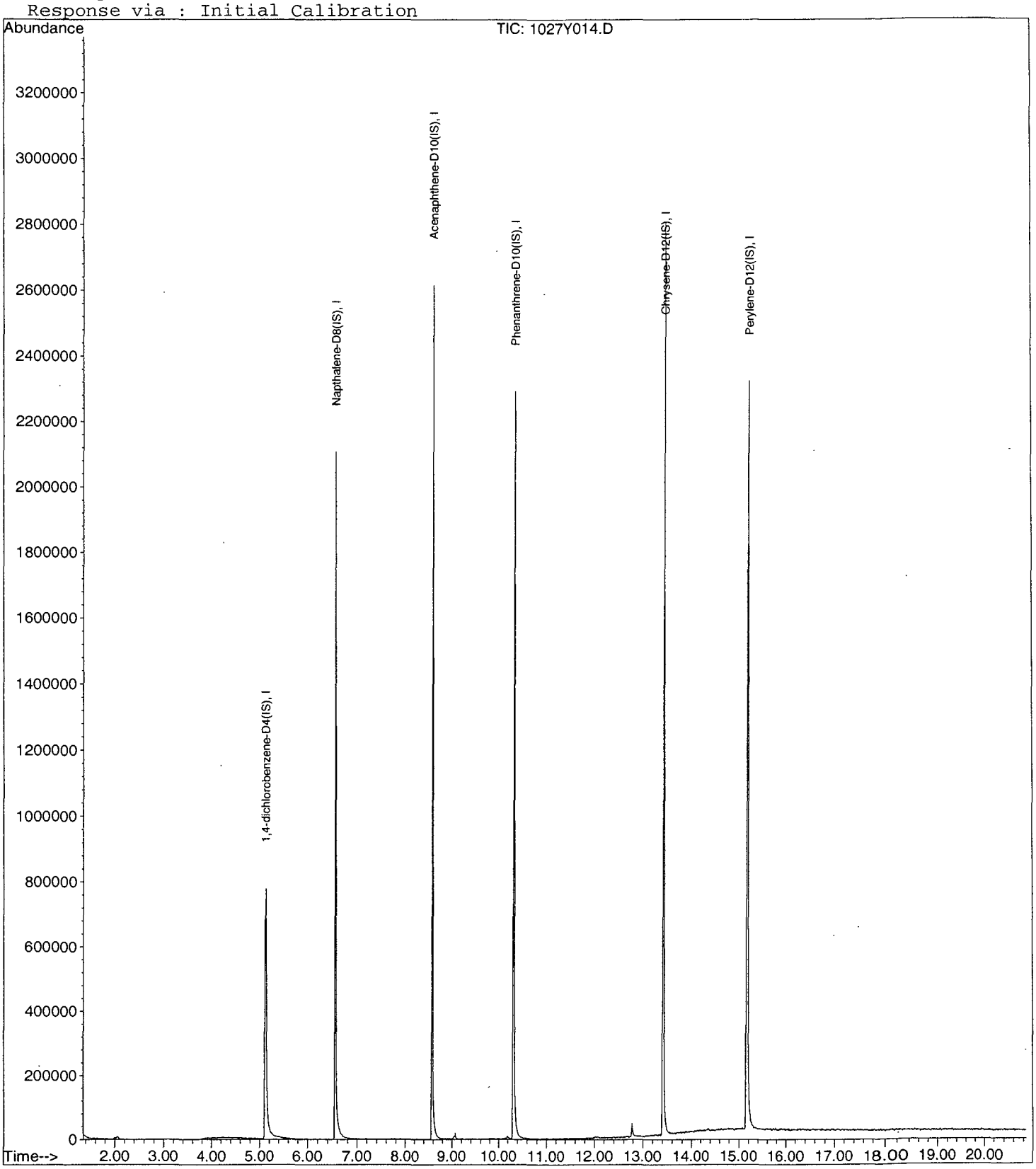
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y014.D Vial: 14
Acq On : 27 Oct 16 23:49 Operator: MA
Sample : 161027A BLK 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:40 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8270D MODIFIED WATER

APPL ID: **161027W-44579 LCS - 213144**
Batch ID: #87DME-161027A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2-(2-METHOXYETHOXY)-ETHANOL	500	500	100	30-130

Comments: _____

Primary	SPK
Quant Method :	Y0GLYCOL.M
Extraction Date :	10/27/2016
Analysis Date :	10/28/2016
Instrument :	Yoda
Run :	1027Y015
Initials :	DA

Printed: 10/28/2016 10:53:04 AM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y015.D Vial: 15
Acq On : 28 Oct 16 00:19 Operator: MA
Sample : 161027A LCS-1 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:40 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.13	152	289042	40.00 ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1322799	40.00 ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	755323	40.00 ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1355109	40.00 ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1247856	40.00 ppb	0.00
7) Perylene-D12(IS)	15.16	264	1578669	40.00 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.41	45	710274	500.32 ppb	99

$$\frac{\left[\left(710274/289042\right) + 6.394\right] \times 40.0}{0.228} = 500.2$$

JR 10-28-16

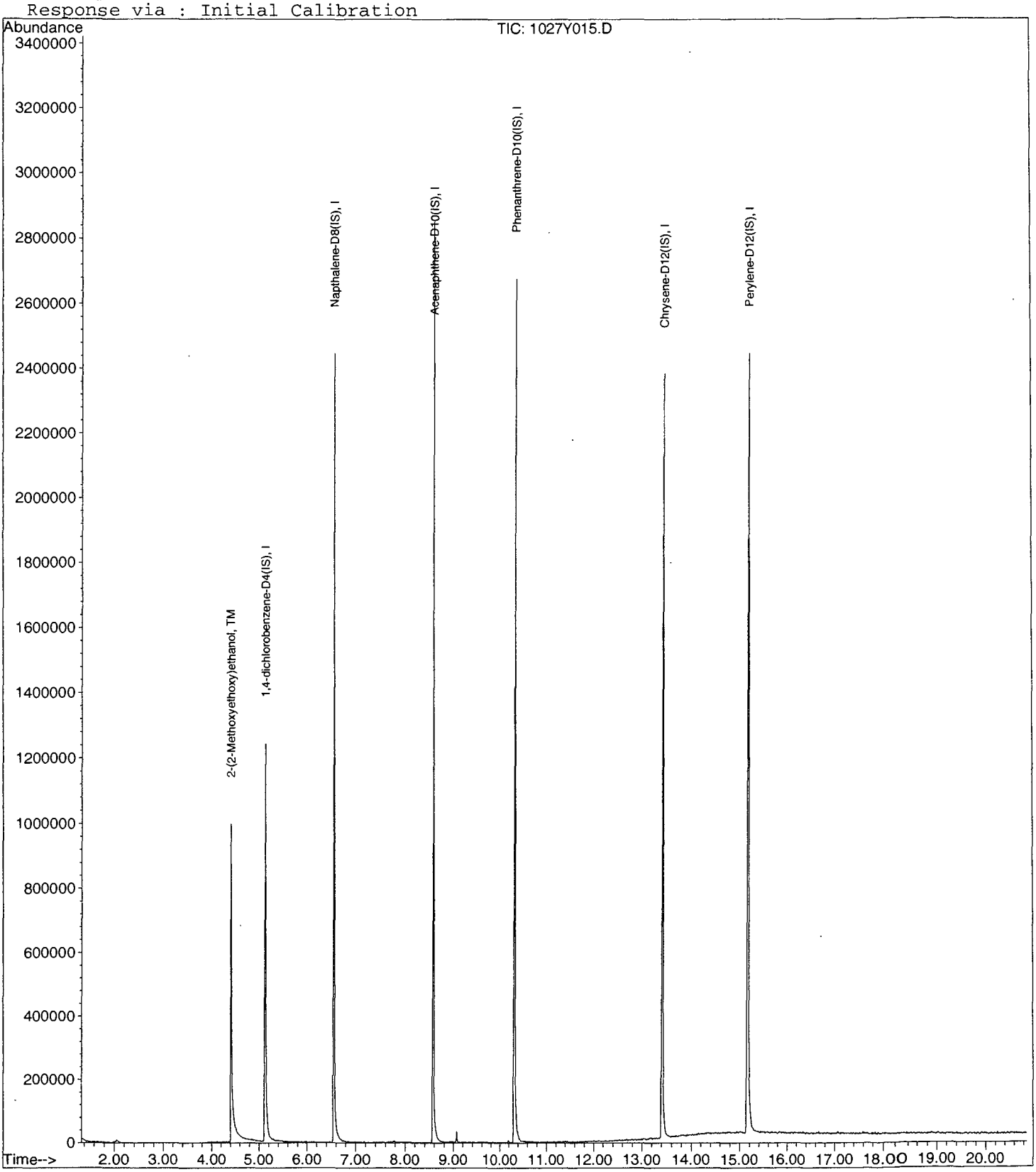
(#) = qualifier out of range (m) = manual integration
1027Y015.D Y0GLYCOL.M Fri Oct 28 10:02:32 2016 Page 1

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y015.D Vial: 15
Acq On : 28 Oct 16 00:19 Operator: MA
Sample : 161027A LCS-1 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:40 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



_MWE3535

Organic Extraction Worksheet

Method	EPA Method 3535A	Extraction Set	161027A	Extraction Method	MWE3535	Units	mL

Spiked ID 1	DEG W/SURROGATE STD 1000ug/mL10-19-16 exp 10-19-17	Surrogate ID 1	
Spiked ID 2	DEG SS 10-20-16 exp 10-20-17	Surrogate ID 2	
Spiked ID 3	MEE 1154Q ug/mL 9-27-16 exp 9-27-17	Surrogate ID 3	
Spiked ID 4		Surrogate ID 4	
Spiked ID 5		Surrogate ID 5	
Spiked ID 6		Sufficient Vol for Matrix QC:	YES
Spiked ID 7		Ext. Start Time:	10/27/16 11:20
Spiked ID 8		Ext. End Time:	10/27/16 16:45
		GC Requires Extract By:	10/26/16 0:00

pH1			Water Bath Temp Criteria
pH2			
pH3			

Spiked By: KY **Date** 10/27/16 **Witnessed By:** CFM **Date** 10/27/16

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	161027A Blk				NA	NA equip	500	2	7	10/27/16 11:20	
2	161027A LCS-1		0.250	1	NA	NA equip	500	2	7	10/27/16 11:20	
3	AZ44505	AZ44505W11			NA	NA equip	500	2	7	10/27/16 11:20	81222 7 DAYS
4	AZ44579 MS-1	AZ44579W34	0.250	1	NA	NA equip	500	2	7	10/27/16 11:20	81236 7 DAYS
5	AZ44579 MSD-1	AZ44579W34	0.250	1	NA	NA equip	500	2	7	10/27/16 11:20	81236 7 DAYS
6	AZ44579	AZ44579W31			NA	NA equip	500	2	7	10/27/16 11:20	81236 7 DAYS
7	AZ44580	AZ44580W10			NA	NA equip	500	2	7	10/27/16 11:20	81236 7 DAYS
8	AZ44581	AZ44581W12			NA	NA equip	500	2	7	10/27/16 11:20	81236 7 DAYS
9	AZ44687	AZ44687W15			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
10	AZ44688	AZ44688W16			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
11	AZ44689	AZ44689W11			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
12	AZ44690	AZ44690W11			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
13	AZ44691	AZ44691W13			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
14	AZ44692	AZ44692W09			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
15	AZ44693	AZ44693W08			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
16	AZ44694	AZ44694W15			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	8088703
PH Strip	HC 574756
DI WATER	10-27-16
Dichloromethane	56098
METHANOL	060316C

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	RH
Date	10/27/16
Time	5:00
Refrigerator	GC-C R Hobert

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	KY,CFM

Modified	10/27/16 11:46:32 AM

Reviewed By: KY **Date** 10/27/16

_MWE3535

Organic Extraction Worksheet

Method	EPA Method 3535A	Extraction Set	161027A	Extraction Method	MWE3535	Units	mL

Spiked ID 1	DEG W/SURROGATE STD 1000ug/mL10-19-16 exp 10-19-17		Surrogate ID 1		
Spiked ID 2	DEG SS 10-20-16 exp 10-20-17		Surrogate ID 2		
Spiked ID 3	MEE 1154Q ug/mL 9-27-16 exp 9-27-17		Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	10/27/16 11:20	
Spiked ID 8			Ext. End Time:	10/27/16 16:45	
			GC Requires Extract By:	10/26/16 0:00	

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: KY **Date** 10/27/16 **Witnessed By:** CFM **Date** 10/27/16

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ44695	AZ44695W11			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
18	AZ44696	AZ44696W07			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
19	AZ44891	AZ44891W20			NA	NA equip	500	2	7	10/27/16 11:20	81287 7 DAYS
20	AZ44893	AZ44893W09			NA	NA equip	500	2	7	10/27/16 11:20	81287 7 DAYS
21	M STD		1	1	NA	NA equip	500	2	7	10/27/16 11:20	
22	SS		1	2	NA	NA equip	500	2	7	10/27/16 11:20	
23	SS 2		0.087	3	NA	NA equip	500	2	7	10/27/16 11:20	

KY 10/27/16

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	8088703
PH Strip	HC 574756
DI WATER	10-27-16
Dichloromethane	56098
METHANOL	060316C

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	KY,CFM

Modified	10/27/16 11:46:32 AM

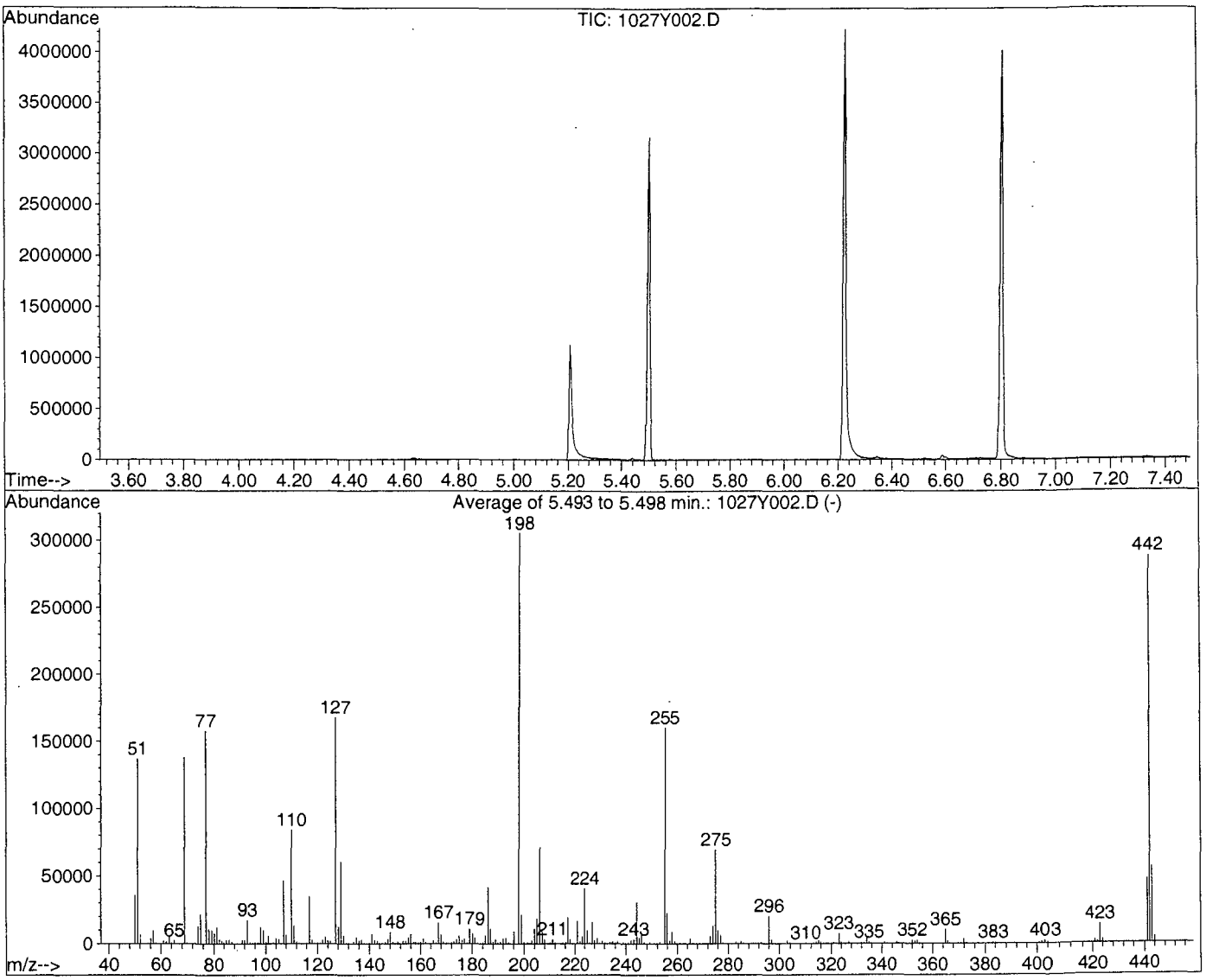
Reviewed By: KY **Date** 10/27/16

DFTPP

Data File : M:\YODA\DATA\Y161027\1027Y002.D
Acq On : 27 Oct 16 18:24
Sample : SV Tune 10/19/16
Misc :

Vial: 2
Operator: MA
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C



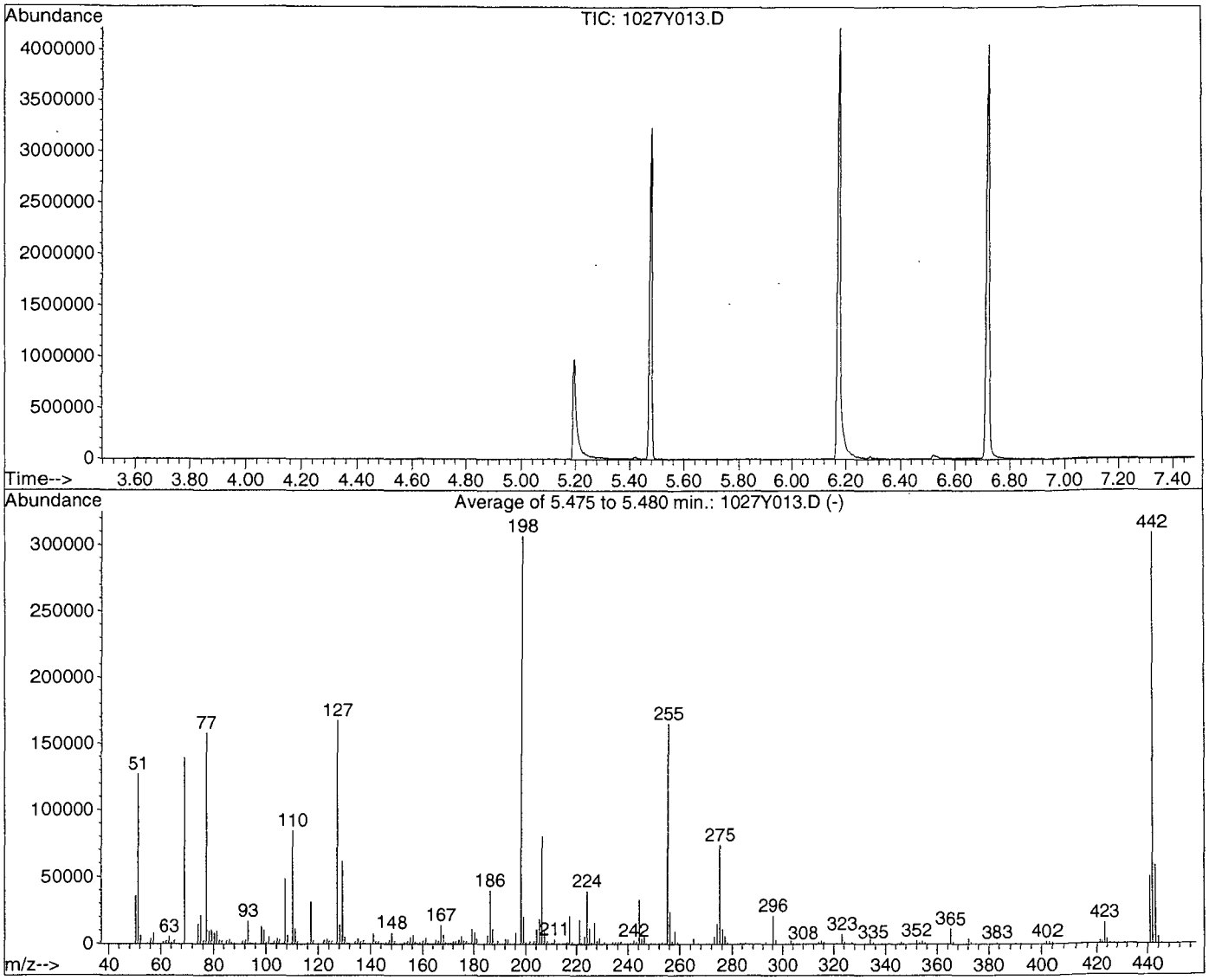
AutoFind: Scans 764, 765, 766; Background Corrected with Scan 755

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	44.8	136893	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	465	PASS
127	198	40	60	54.8	167584	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	305579	PASS
199	198	5	9	6.9	21142	PASS
275	198	10	30	22.7	69317	PASS
365	198	1	100	3.3	10191	PASS
441	443	0.01	100	83.5	46968	PASS
442	198	50	150	94.2	288000	PASS
443	442	17	23	19.5	56235	PASS

Data File : M:\YODA\DATA\Y161027\1027Y013.D
Acq On : 27 Oct 16 23:33
Sample : SV Tune 10/19/16
Misc :

Vial: 13
Operator: MA
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 756, 757, 758; Background Corrected with Scan 747

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.4	127112	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	446	PASS
127	198	40	60	54.6	167619	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	307093	PASS
199	198	5	9	6.6	20361	PASS
275	198	10	30	24.1	74080	PASS
365	198	1	100	3.7	11226	PASS
441	443	0.01	100	85.6	50200	PASS
442	198	50	150	100.8	309461	PASS
443	442	17	23	18.9	58632	PASS

Injection Log

Directory: M:\YODA\DATA\Y161027

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1027Y002.D	1	SV Tune 10/19/16		10/27/2016 18:24
2	3	1027Y003.D	1	50ug/ml DEG 10/27/16		10/27/2016 18:40
3	4	1027Y004.D	1	100ug/ml DEG 10/27/16		10/27/2016 19:10
4	5	1027Y005.D	1	200ug/ml DEG 10/27/16		10/27/2016 19:39
5	6	1027Y006.D	1	400ug/ml DEG 10/27/16		10/27/2016 20:09
6	7	1027Y007.D	1	500ug/ml DEG 10/27/16		10/27/2016 20:39
7	8	1027Y008.D	1	600ug/ml DEG 10/27/16		10/27/2016 21:08
8	9	1027Y009.D	1	800ug/ml DEG 10/27/16		10/27/2016 21:38
9	10	1027Y010.D	1	1000ug/ml DEG 10/27/16		10/27/2016 22:07
10	12	1027Y012.D	1	SS2 DEG 10/27/16		10/27/2016 23:07
11	13	1027Y013.D	1	SV Tune 10/19/16		10/27/2016 23:33
12	14	1027Y014.D	1	161027A BLK 2/500		10/27/2016 23:49
13	15	1027Y015.D	1	161027A LCS-1 2/500		10/28/2016 00:19
14	22	1027Y022.D	1	AZ44687W15 2/500		10/28/2016 03:46
15	23	1027Y023.D	1	AZ44688W16 2/500		10/28/2016 04:16
16	24	1027Y024.D	1	AZ44689W11 2/500		10/28/2016 04:45
17	25	1027Y025.D	1	AZ44690W11 2/500		10/28/2016 05:15
18	26	1027Y026.D	1	AZ44691W13 2/500		10/28/2016 05:44
19	27	1027Y027.D	1	AZ44692W09 2/500		10/28/2016 06:14
20	28	1027Y028.D	1	AZ44693W08 2/500		10/28/2016 06:44
21	29	1027Y029.D	1	AZ44694W15 2/500		10/28/2016 07:13
22	30	1027Y030.D	1	AZ44695W11 2/500		10/28/2016 07:43
23	31	1027Y031.D	1	AZ44696W07 2/500		10/28/2016 08:12
24	37	1027Y037.D	1	500ug/ml DEG 10/27/16		10/28/2016 10:51

ORGANICS

APPL, INC.

ORGANICS
QC Summary

APPL, INC.

Method Blank
EPA 8260B WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161022W-44692 - 213025**
Batch ID: #86BXD-161022AM

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,2-DCA	0.30 U	1.0	0.30	0.14	ug/L	10/22/16	10/22/16
BLANK	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/22/16	10/22/16
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/22/16	10/22/16
BLANK	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/22/16	10/22/16
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/22/16	10/22/16
BLANK	SURROGATE: 1,2-DICHLOROET	98.1	81-118			%	10/22/16	10/22/16
BLANK	SURROGATE: 4-BROMOFLUORO	98.1	85-114			%	10/22/16	10/22/16
BLANK	SURROGATE: DIBROMOFLUOR	97.5	80-119			%	10/22/16	10/22/16
BLANK	SURROGATE: TOLUENE-D8 (S)	101	89-112			%	10/22/16	10/22/16

Quant Method: MALLW.M
Run #: 1022M12
Instrument: MAX
Sequence: M161020
Initials: SV

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/16 11:17:20 AM

Method Blank
EPA 8260B WATER

Blank Name/QCG: **161023W-44579 - 213065**
Batch ID: #86BXD-161023BM

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/23/16	10/23/16
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/23/16	10/23/16
BLANK	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/23/16	10/23/16
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/23/16	10/23/16
BLANK	SURROGATE: 1,2-DICHLOROET	95.2	81-118			%	10/23/16	10/23/16
BLANK	SURROGATE: 4-BROMOFLUORO	97.1	85-114			%	10/23/16	10/23/16
BLANK	SURROGATE: DIBROMOFLUOR	96.6	80-119			%	10/23/16	10/23/16
BLANK	SURROGATE: TOLUENE-D8 (S)	102	89-112			%	10/23/16	10/23/16

Quant Method: MALLW.M
Run #: 1023M37
Instrument: MAX
Sequence: M161020
Initials: SV

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/16 11:17:20 AM

Laboratory Control Spike Recovery
EPA 8260B WATER

APPL ID: **161023W-44579 LCS - 213065**
Batch ID: #86BXD-161023BM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
BENZENE	10.00	9.55	95.5	79-120
ETHYLBENZENE	10.00	9.92	99.2	79-121
TOLUENE	10.00	9.90	99.0	80-121
XYLENES (TOTAL)	30.0	29.7	99.0	79-121
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	24.6	98.4	81-118
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.2	101	85-114
SURROGATE: DIBROMOFLUOROMETH	25.0	25.1	100	80-119
SURROGATE: TOLUENE-D8 (S)	25.0	25.1	100	89-112

Comments: _____

Primary	SPK
Quant Method :	MALLW.M
Extraction Date :	10/23/16
Analysis Date :	10/23/16
Instrument :	MAX
Run :	1023M32
Initials :	SV

Printed: 10/31/16 10:11:57 AM
APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8260B WATER

APPL ID: **161022W-44692 LCS - 213025**
Batch ID: #86BXD-161022AM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,2-DCA	10.00	10.2	102	73-128
BENZENE	10.00	9.99	99.9	79-120
ETHYLBENZENE	10.00	10.4	104	79-121
TOLUENE	10.00	10.3	103	80-121
XYLENES (TOTAL)	30.0	31.0	103	79-121
SURROGATE: 1,2-DICHLOROETHANE-	25.0	25.5	102	81-118
SURROGATE: 4-BROMOFLUOROBENZ	25.0	25.0	100	85-114
SURROGATE: DIBROMOFLUOROMETH	25.0	25.6	102	80-119
SURROGATE: TOLUENE-D8 (S)	25.0	24.9	99.6	89-112

Comments: _____

Primary	SPK
Quant Method :	MALLW.M
Extraction Date :	10/22/16
Analysis Date :	10/22/16
Instrument :	MAX
Run :	1022M02
Initials :	SV

Printed: 11/16/16 11:58:42 AM
APPL Standard LCS

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/22/16

Matrix: WATER Instrument: MAX

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161022AM-LCS	Lab Control Spike	81-118	102		85-114	100	
161022AM-BLK	Blank	81-118	98.1		85-114	98.1	
AZ44694	ERH102	81-118	97.9		85-114	97.8	
AZ44697	ERH106	81-118	103		85-114	99.3	
AZ44698	ERH107	81-118	101		85-114	97.2	
AZ44692	ERH100	81-118	100		85-114	97.9	
AZ44693	ERH101	81-118	97.7		85-114	97.8	
AZ44696	ERH105	81-118	99.3		85-114	96.9	

Comments: Batch: #86BXD-161022AM

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/22/16

Matrix: WATER Instrument: MAX

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161022AM-LCS	Lab Control Spike	80-119	102		89-112	99.6	
161022AM-BLK	Blank	80-119	97.5		89-112	101	
AZ44694	ERH102	80-119	99.6		89-112	99.2	
AZ44697	ERH106	80-119	98.0		89-112	101	
AZ44698	ERH107	80-119	100		89-112	99.8	
AZ44692	ERH100	80-119	102		89-112	102	
AZ44693	ERH101	80-119	99.5		89-112	101	
AZ44696	ERH105	80-119	97.9		89-112	99.4	

Comments: Batch: #86BXD-161022AM

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/23/16

Matrix: WATER Instrument: MAX

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161023BM-LCS	Lab Control Spike	81-118	98.4		85-114	101	
161023BM-BLK	Blank	81-118	95.2		85-114	97.1	
AZ44691	ERH098	81-118	97.3		85-114	94.7	
AZ44687	ERH091	81-118	101		85-114	103	
AZ44688	ERH089	81-118	96.3		85-114	97.0	
AZ44689	ERH093	81-118	98.2		85-114	96.7	
AZ44690	ERH097	81-118	96.8		85-114	96.6	
AZ44695	ERH104	81-118	96.7		85-114	95.7	

Comments: Batch: #86BXD-161023BM

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/23/16

Matrix: WATER Instrument: MAX

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161023BM-LCS	Lab Control Spike	80-119	100		89-112	100	
161023BM-BLK	Blank	80-119	96.6		89-112	102	
AZ44691	ERH098	80-119	101		89-112	98.2	
AZ44687	ERH091	80-119	101		89-112	102	
AZ44688	ERH089	80-119	98.1		89-112	99.6	
AZ44689	ERH093	80-119	98.4		89-112	100	
AZ44690	ERH097	80-119	97.8		89-112	99.1	
AZ44695	ERH104	80-119	97.9		89-112	97.6	

Comments: Batch: #86BXD-161023BM

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/22/16

Matrix: WATER Instrument: MAX

Blank ID: 161022AM-BLK Time Analyzed: 1400

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161022AM-LCS	Lab Control Spike	1022M02	10/22/16 1023
161022AM-BLK	Blank	1022M12	10/22/16 1400
AZ44694	ERH102	1022M15	10/22/16 1505
AZ44697	ERH106	1022M16	10/22/16 1527
AZ44698	ERH107	1022M17	10/22/16 1549
AZ44692	ERH100	1022M19	10/22/16 1632
AZ44693	ERH101	1022M20	10/22/16 1654
AZ44696	ERH105	1022M21	10/22/16 1716

Comments: Batch: #86BXD-161022AM

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/23/16

Matrix: WATER Instrument: MAX

Blank ID: 161023BM-BLK Time Analyzed: 2147

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161023BM-LCS	Lab Control Spike	1023M32	10/23/16 1958
161023BM-BLK	Blank	1023M37	10/23/16 2147
AZ44691	ERH098	1023M38	10/23/16 2208
AZ44687	ERH091	1023M40	10/23/16 2252
AZ44688	ERH089	1023M41	10/23/16 2314
AZ44689	ERH093	1023M42	10/23/16 2336
AZ44690	ERH097	1023M43	10/23/16 2358
AZ44695	ERH104	1023M44	10/24/16 0020

Comments: Batch: #86BXD-161023BM

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 1020M05.D
Matrix: Water
ID: 5ng- BFB STD 10-12-16

SDG No: MAX
Date Analyzed: 10/20/16
Instrument: MAX
Time Analyzed: 11:58

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.3ug/L VOC STD 10/2	1020M06.D	10/20/16 12:19
2		0.5ug/L VOC STD 10/2	1020M07.D	10/20/16 12:41
3		1.0ug/L VOC STD 10/2	1020M08.D	10/20/16 13:03
4		2.0ug/L VOC STD 10/2	1020M09.D	10/20/16 13:25
5		5.0ug/L VOC STD 10/2	1020M10.D	10/20/16 13:47
6		10ug/L VOC STD 10/20	1020M11.D	10/20/16 14:09
7		40ug/L VOC STD 10/20	1020M13.D	10/20/16 14:52
8		100ug/L VOC STD 10/2	1020M14.D	10/20/16 15:14
9		(SS) 10ug/L VOC STD	1020M21.D	10/20/16 17:47
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	22.0
75	30 - 60% of mass 95	51.6
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.4
173	0 - 2% of mass 174	0.0
174	50 - 100% of mass 95	87.9
175	5 - 9% of mass 174	7.6
176	95.06 - 101% of mass 174	95.6
177	5 - 9% of mass 176	6.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 81251
Matrix: Water
ID: 5ng- BFB STD 10-12-16

SDG No: 81251
Date Analyzed: 10/22/16
Instrument: MAX
Time Analyzed: 9:38

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Lab Control Spike	161022A CCV/LCS 10ug	1022M02.D	10/22/16 10:23
2	Blank	161022A BLK-1WM	1022M12.D	10/22/16 14:00
3	ERH102	AZ44694W01	1022M15.D	10/22/16 15:05
4	ERH106	AZ44697W01	1022M16.D	10/22/16 15:27
5	ERH107	AZ44698W01	1022M17.D	10/22/16 15:49
6	ERH100	AZ44692W01	1022M19.D	10/22/16 16:32
7	ERH101	AZ44693W01	1022M20.D	10/22/16 16:54
8	ERH105	AZ44696W01	1022M21.D	10/22/16 17:16
9		Ending CCV 8260 10ug	1022M26.D	10/22/16 19:06
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	20.0
75	30 - 60% of mass 95	52.3
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	8.3
173	0 - 2% of mass 174	0.4
174	50 - 100% of mass 95	97.0
175	5 - 9% of mass 174	8.2
176	95.06 - 101% of mass 174	96.6
177	5 - 9% of mass 176	5.2

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 81251
Matrix: Water
ID: 5ng- BFB STD 10-12-16

SDG No: 81251
Date Analyzed: 10/23/16
Instrument: MAX
Time Analyzed: 19:36

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Lab Control Spike	161023B CCV/LCS 10ug	1023M32.D	10/23/16 19:58
2	Blank	161023B BLK-1WM	1023M37.D	10/23/16 21:47
3	ERH098	AZ44691W01	1023M38.D	10/23/16 22:08
4	ERH091	AZ44687W01	1023M40.D	10/23/16 22:52
5	ERH089	AZ44688W01	1023M41.D	10/23/16 23:14
6	ERH093	AZ44689W01	1023M42.D	10/23/16 23:36
7	ERH097	AZ44690W01	1023M43.D	10/23/16 23:58
8	ERH104	AZ44695W01	1023M44.D	10/24/16 0:20
9		Ending CCV 8260 10ug	1023M49.D	10/24/16 2:09
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	22.1
75	30 - 60% of mass 95	51.4
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	5.8
173	0 - 2% of mass 174	0.0
174	50 - 100% of mass 95	95.4
175	5 - 9% of mass 174	8.1
176	95.06 - 101% of mass 174	97.4
177	5 - 9% of mass 176	6.2

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 81251

Lab File ID (Standard): 1020M11.D Date Analyzed: 10/20/16

Instrument ID: MAX Time Analyzed: 14:09

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	346592	5.53	255148	9.16	139924	12.35
	UPPER LIMIT	693184	6.03	510296	9.66	279848	12.85
	LOWER LIMIT	173296	5.03	127574	8.66	69962	11.85
	SAMPLE NO.						
01	0.3ug/L VOC STD 10/20	333677	5.52	241772	9.16	125666	12.35
02	0.5ug/L VOC STD 10/20	335960	5.52	237803	9.16	125548	12.35
03	1.0ug/L VOC STD 10/20	329092	5.53	237074	9.16	124990	12.35
04	2.0ug/L VOC STD 10/20	338019	5.52	242362	9.16	128498	12.35
05	5.0ug/L VOC STD 10/20	344045	5.53	251263	9.16	137533	12.35
06	10ug/L VOC STD 10/20/	346592	5.53	255148	9.16	139924	12.35
07	40ug/L VOC STD 10/20/	338131	5.53	252832	9.16	143737	12.35
08	100ug/L VOC STD 10/2(	379136	5.52	291939	9.16	180096	12.36
09	161022A BLK-1WM	355477	5.53	259271	9.16	132244	12.35
10	AZ44694W01	349673	5.53	256477	9.16	132567	12.35
11	AZ44697W01	336654	5.53	247011	9.16	131124	12.35
12	AZ44698W01	336993	5.53	246293	9.16	126630	12.35
13	AZ44692W01	336650	5.53	248823	9.16	125335	12.35
14	AZ44693W01	323239	5.53	237625	9.16	125608	12.35
15	AZ44696W01	330270	5.53	241940	9.16	125123	12.35
16	161023B BLK-1WM	318344	5.53	224612	9.16	114740	12.35
17	AZ44691W01	314595	5.53	237369	9.16	119861	12.35
18	AZ44687W01	287293	5.53	212181	9.16	118952	12.35
19	AZ44688W01	311609	5.53	227289	9.16	119565	12.35
20	AZ44689W01	304367	5.53	224666	9.16	118482	12.35
21	AZ44690W01	309868	5.53	227369	9.16	117411	12.35
22	AZ44695W01	318077	5.53	239031	9.16	122759	12.35

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

ORGANICS
Sample Data

APPL, INC.

EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH091

APPL ID: AZ44687

Sample Collection Date: 10/19/16

QCG: #86BXD-161023BM-213065

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/23/16	10/23/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/23/16	10/23/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/23/16	10/23/16
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/23/16	10/23/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	101	81-118			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	103	85-114			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	101	80-119			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	102	89-112			%	10/23/16	10/23/16

Quant Method:	MALLW.M
Run #:	1023M40
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:40:55 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M40.D Vial: 40
Acq On : 23 Oct 16 22:52 Operator: DG,CM,SV
Sample : AZ44687W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:42 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.53	96	287293	25.00	ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	212181	25.00	ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	118952	25.00	ppb		0.00
System Monitoring Compounds							
31) Dibromofluoromethane(S)	4.80	111	70398	25.25	ppb		0.00
Spiked Amount 25.000			Recovery = 101.000%				
36) 1,2-DCA-D4(S)	5.15	65	67222	25.18	ppb		0.00
Spiked Amount 25.000			Recovery = 100.732%				
56) Toluene-D8(S)	7.36	98	283398	25.47	ppb		0.00
Spiked Amount 25.000			Recovery = 101.876%				
64) 4-Bromofluorobenzene(S)	10.74	95	103919	25.77	ppb		0.00
Spiked Amount 25.000			Recovery = 103.080%				
Target Compounds							Qvalue
71) Isopropylbenzene	10.56	105	47070	2.78	ppb		99
76) n-Propylbenzene	11.13	91	101762	5.02	ppb		99
78) 2-Chlorotoluene	11.13	91	101762	9.26	ppb	#	40
83) Sec-Butylbenzene	12.15	105	67493	3.78	ppb		98
85) Benzyl Chloride	12.67	91	10225	7.10	ppb	#	54
88) n-Butylbenzene	12.95	91	62383	4.36	ppb		98
94) Naphthalene	15.56	128	300240	88.36	ppb		98

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

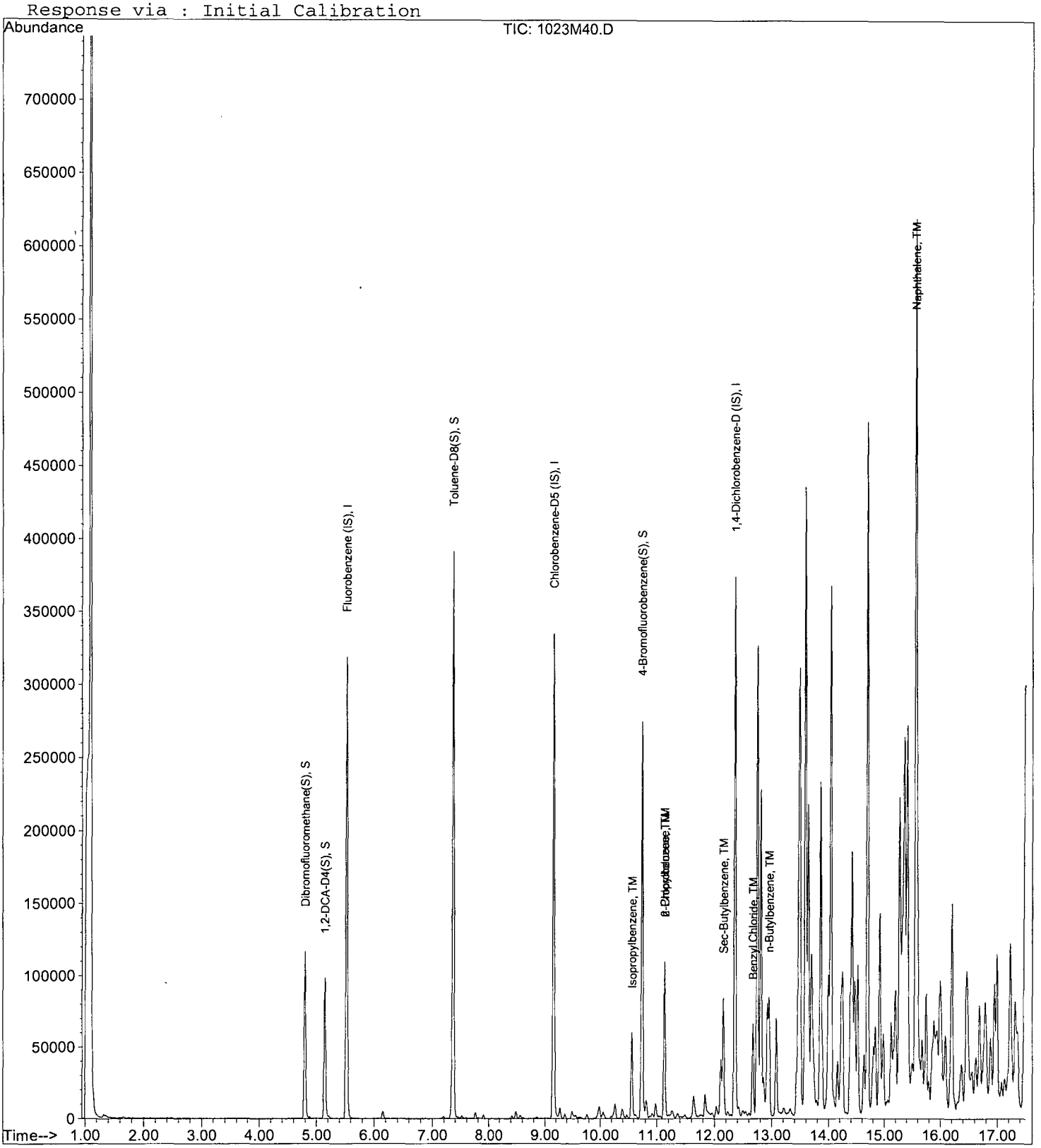
Quantitation Report

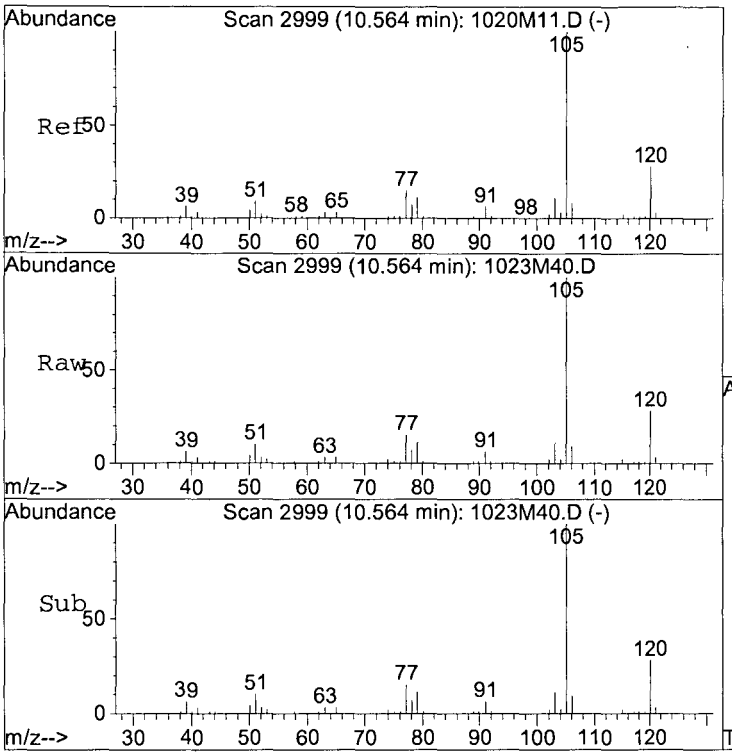
Data File : M:\MAX\DATA\M161020\1023M40.D
Acq On : 23 Oct 16 22:52
Sample : AZ44687W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 40
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 15:42 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration

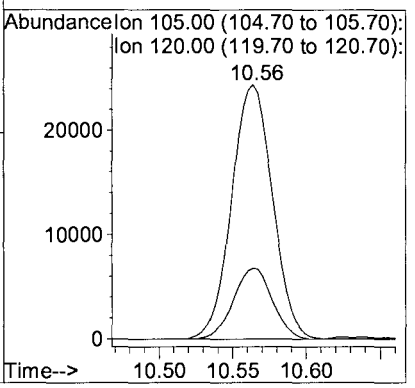


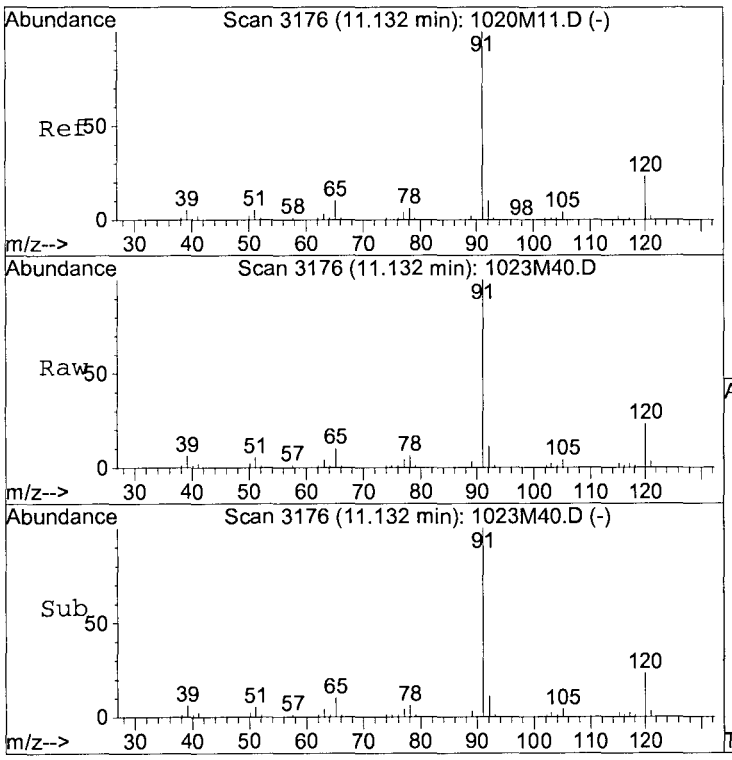


#71
Isopropylbenzene
Concen: 2.78 ppb
RT: 10.56 min Scan# 2999
Delta R.T. 0.00 min
Lab File: 1023M40.D
Acq: 23 Oct 16 22:52

Tgt Ion:105 Resp: 47070

Ion	Ratio	Lower	Upper
105	100		
120	27.9	22.1	33.1

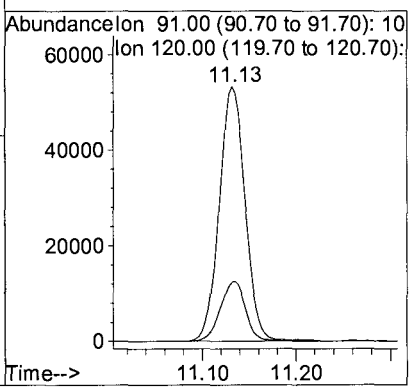


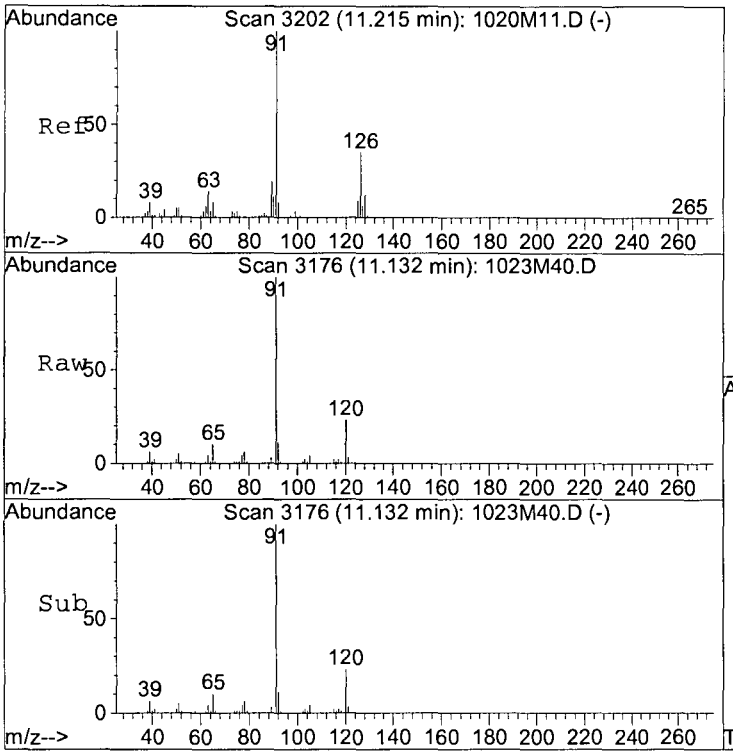


#76
n-Propylbenzene
Concen: 5.02 ppb
RT: 11.13 min Scan# 3176
Delta R.T. 0.00 min
Lab File: 1023M40.D
Acq: 23 Oct 16 22:52

Tgt Ion: 91 Resp: 101762

Ion	Ratio	Lower	Upper
91	100		
120	23.4	16.0	29.6

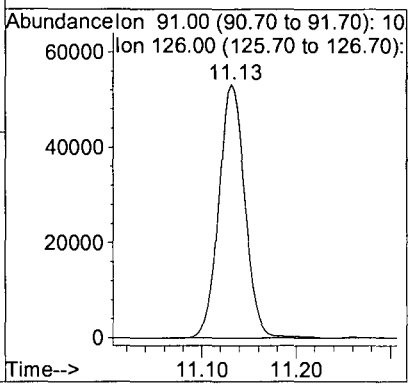


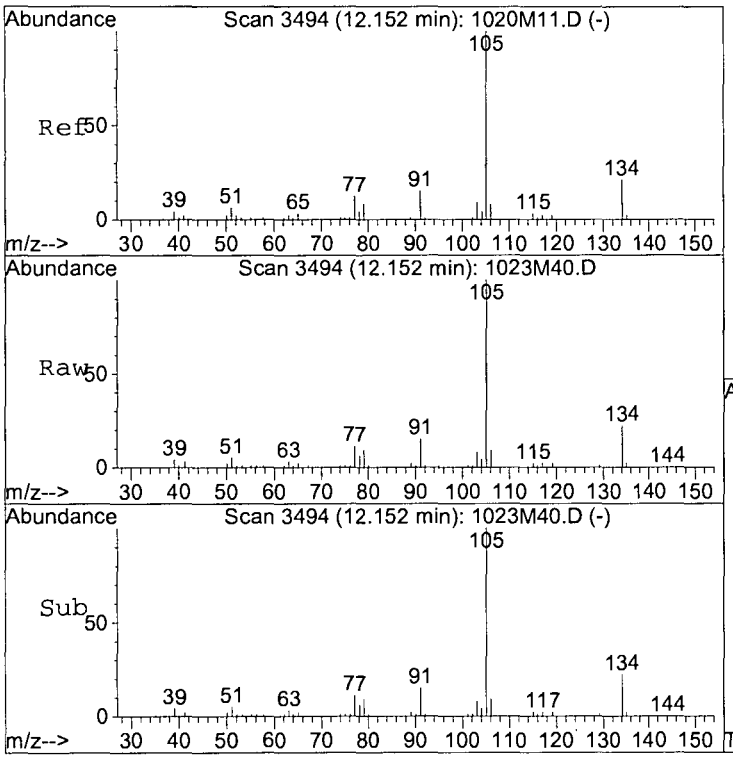


#78
2-Chlorotoluene
Concen: 9.26 ppb
RT: 11.13 min Scan# 3176
Delta R.T. -0.08 min
Lab File: 1023M40.D
Acq: 23 Oct 16 22:52

Tgt Ion: 91 Resp: 101762

Ion	Ratio	Lower	Upper
91	100		
126	0.0	24.1	44.7#

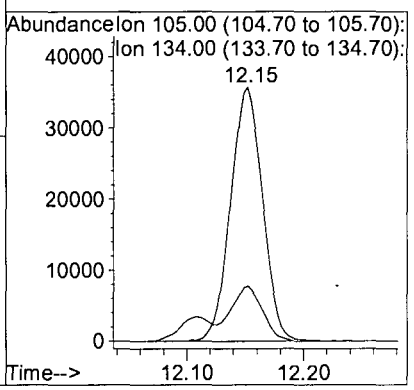


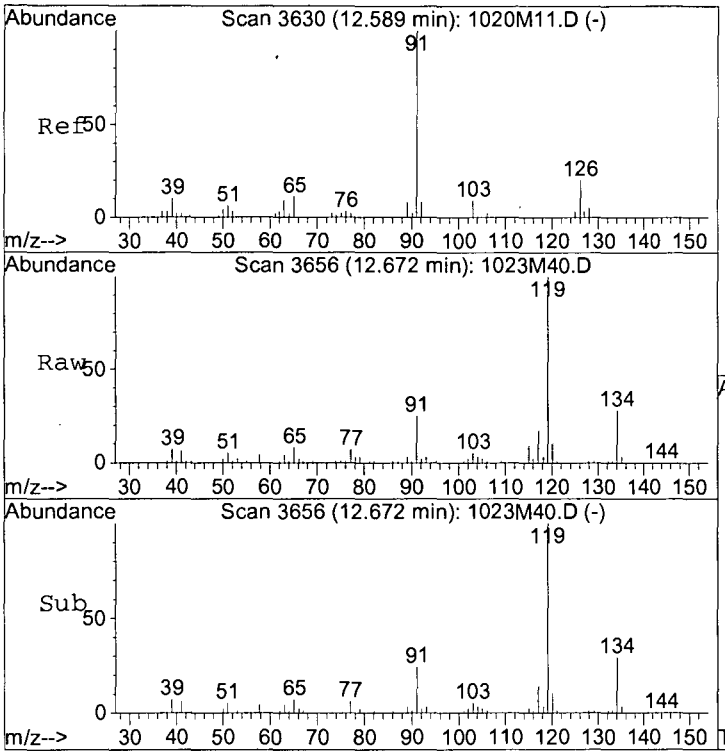


#83
Sec-Butylbenzene
Concen: 3.78 ppb
RT: 12.15 min Scan# 3494
Delta R.T. 0.00 min
Lab File: 1023M40.D
Acq: 23 Oct 16 22:52

Tgt Ion:105 Resp: 67493

Ion	Ratio	Lower	Upper
105	100		
134	21.7	14.6	27.2

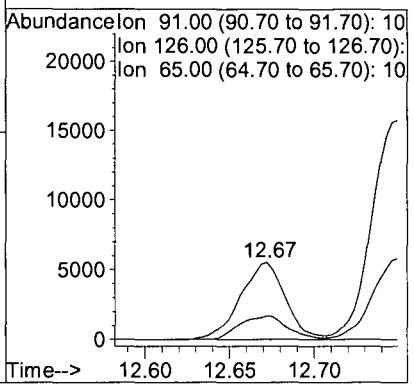


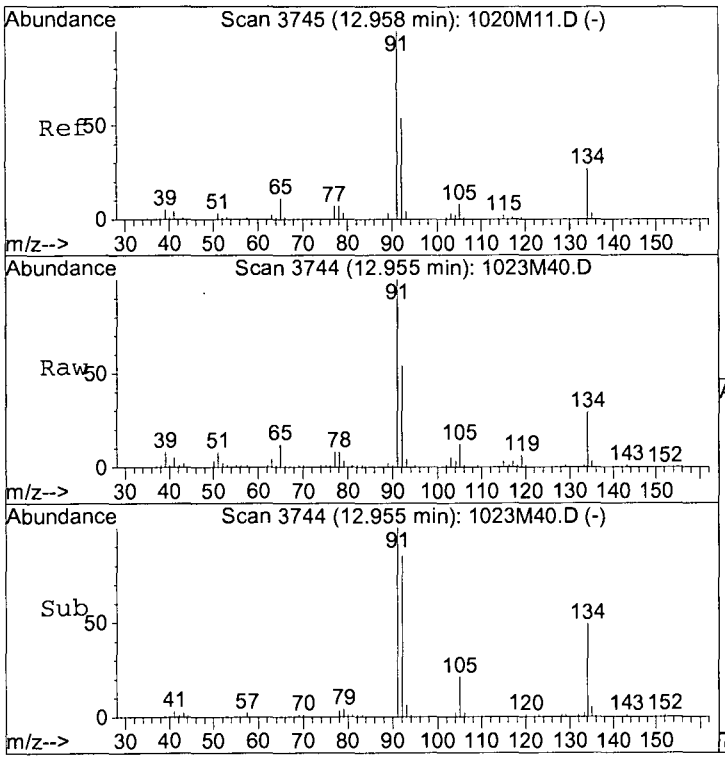


#85
Benzyl Chloride
Concen: 7.10 ppb
RT: 12.67 min Scan# 3656
Delta R.T. 0.08 min
Lab File: 1023M40.D
Acq: 23 Oct 16 22:52

Tgt Ion: 91 Resp: 10225

Ion	Ratio	Lower	Upper
91	100		
126	0.0	13.9	25.9#
65	30.9	7.8	14.6#

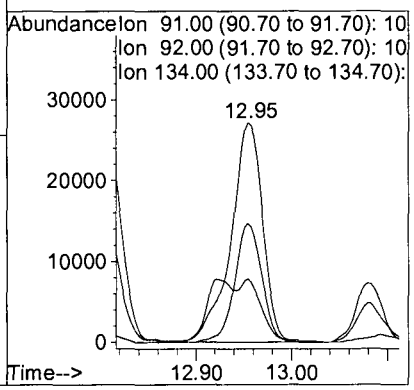


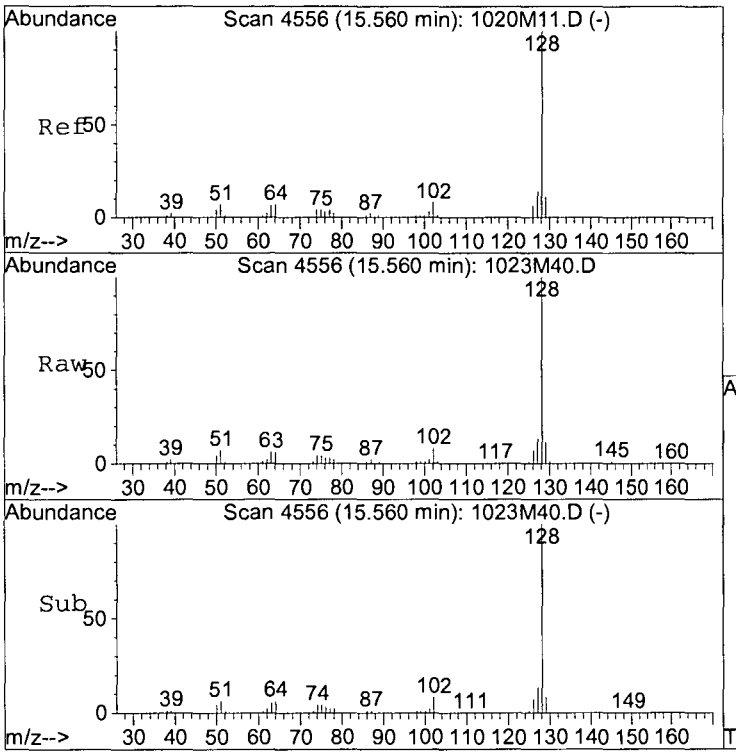


#88
n-Butylbenzene
Concen: 4.36 ppb
RT: 12.95 min Scan# 3744
Delta R.T. -0.00 min
Lab File: 1023M40.D
Acq: 23 Oct 16 22:52

Tgt Ion: 91 Resp: 62383

Ion	Ratio	Lower	Upper
91	100		
92	54.2	37.7	69.9
134	29.1	18.9	35.1

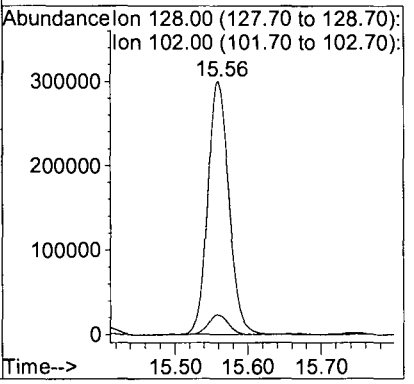




#94
Naphthalene
Concen: 88.36 ppb
RT: 15.56 min Scan# 4556
Delta R.T. 0.00 min
Lab File: 1023M40.D
Acq: 23 Oct 16 22:52

Tgt Ion:128 Resp: 300240

Ion	Ratio	Lower	Upper
128	100		
102	7.8	5.9	10.9



EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH089

APPL ID: AZ44688

Sample Collection Date: 10/19/16

QCG: #86BXD-161023BM-213065

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/23/16	10/23/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/23/16	10/23/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/23/16	10/23/16
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/23/16	10/23/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	96.3	81-118			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	97.0	85-114			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	98.1	80-119			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.6	89-112			%	10/23/16	10/23/16

Quant Method:	MALLW.M
Run #:	1023M41
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:40:55 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M41.D Vial: 41
Acq On : 23 Oct 16 23:14 Operator: DG,CM,SV
Sample : AZ44688W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:44 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	311609	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	227289	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	119565	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	74167	24.53	ppb	0.00
Spiked Amount 25.000			Recovery = 98.104%			
36) 1,2-DCA-D4(S)	5.14	65	69678	24.07	ppb	0.00
Spiked Amount 25.000			Recovery = 96.264%			
56) Toluene-D8(S)	7.36	98	296843	24.90	ppb	0.00
Spiked Amount 25.000			Recovery = 99.616%			
64) 4-Bromofluorobenzene(S)	10.74	95	104795	24.26	ppb	0.00
Spiked Amount 25.000			Recovery = 97.040%			
Target Compounds						Qvalue
94) Naphthalene	15.56	128	12681	3.71	ppb	98

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

Quantitation Report

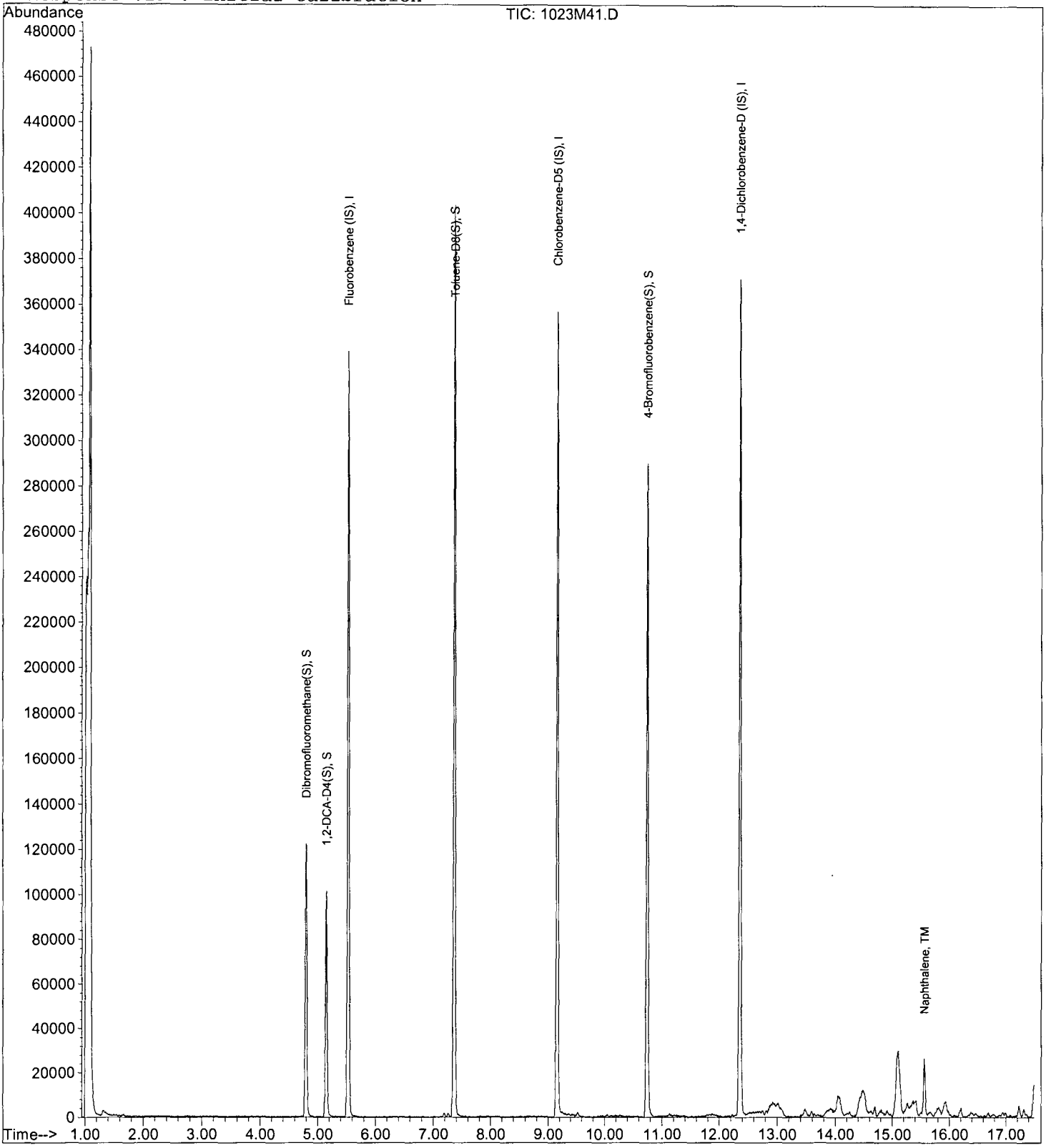
Data File : M:\MAX\DATA\M161020\1023M41.D
Acq On : 23 Oct 16 23:14
Sample : AZ44688W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

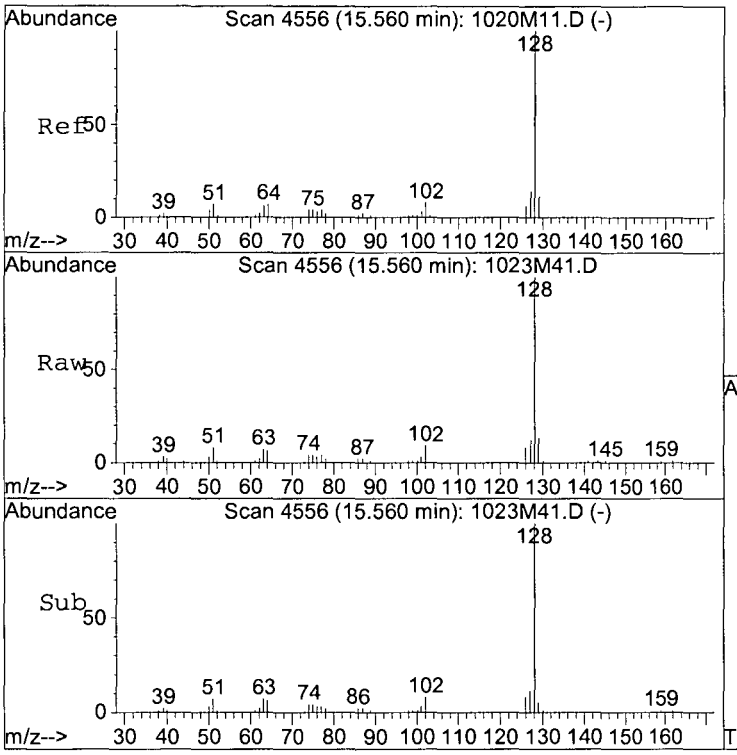
Vial: 41
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 15:44 2016

Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration

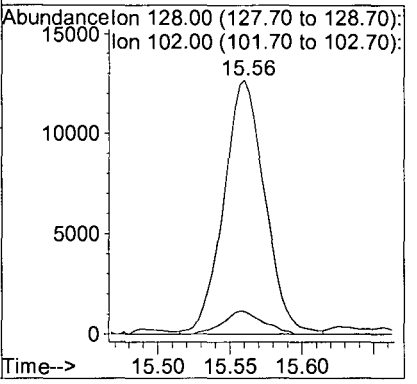




#94
Naphthalene
Concen: 3.71 ppb
RT: 15.56 min Scan# 4556
Delta R.T. 0.00 min
Lab File: 1023M41.D
Acq: 23 Oct 16 23:14

Tgt Ion:128 Resp: 12681

Ion	Ratio	Lower	Upper
128	100		
102	9.0	5.9	10.9



EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH093

APPL ID: AZ44689

Sample Collection Date: 10/19/16

QCG: #86BXD-161023BM-213065

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/23/16	10/23/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/23/16	10/23/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/23/16	10/23/16
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/23/16	10/23/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	98.2	81-118			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	96.7	85-114			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	98.4	80-119			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	100	89-112			%	10/23/16	10/23/16

Quant Method:	MALLW.M
Run #:	1023M42
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:40:55 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M42.D Vial: 42
Acq On : 23 Oct 16 23:36 Operator: DG,CM,SV
Sample : AZ44689W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:45 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	304367	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	224666	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	118482	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.79	111	72638	24.59	ppb	0.00
Spiked Amount 25.000			Recovery =	98.368%		
36) 1,2-DCA-D4(S)	5.15	65	69429	24.55	ppb	0.00
Spiked Amount 25.000			Recovery =	98.204%		
56) Toluene-D8(S)	7.36	98	295455	25.08	ppb	0.00
Spiked Amount 25.000			Recovery =	100.308%		
64) 4-Bromofluorobenzene(S)	10.74	95	103231	24.18	ppb	0.00
Spiked Amount 25.000			Recovery =	96.708%		

Target Compounds Qvalue

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

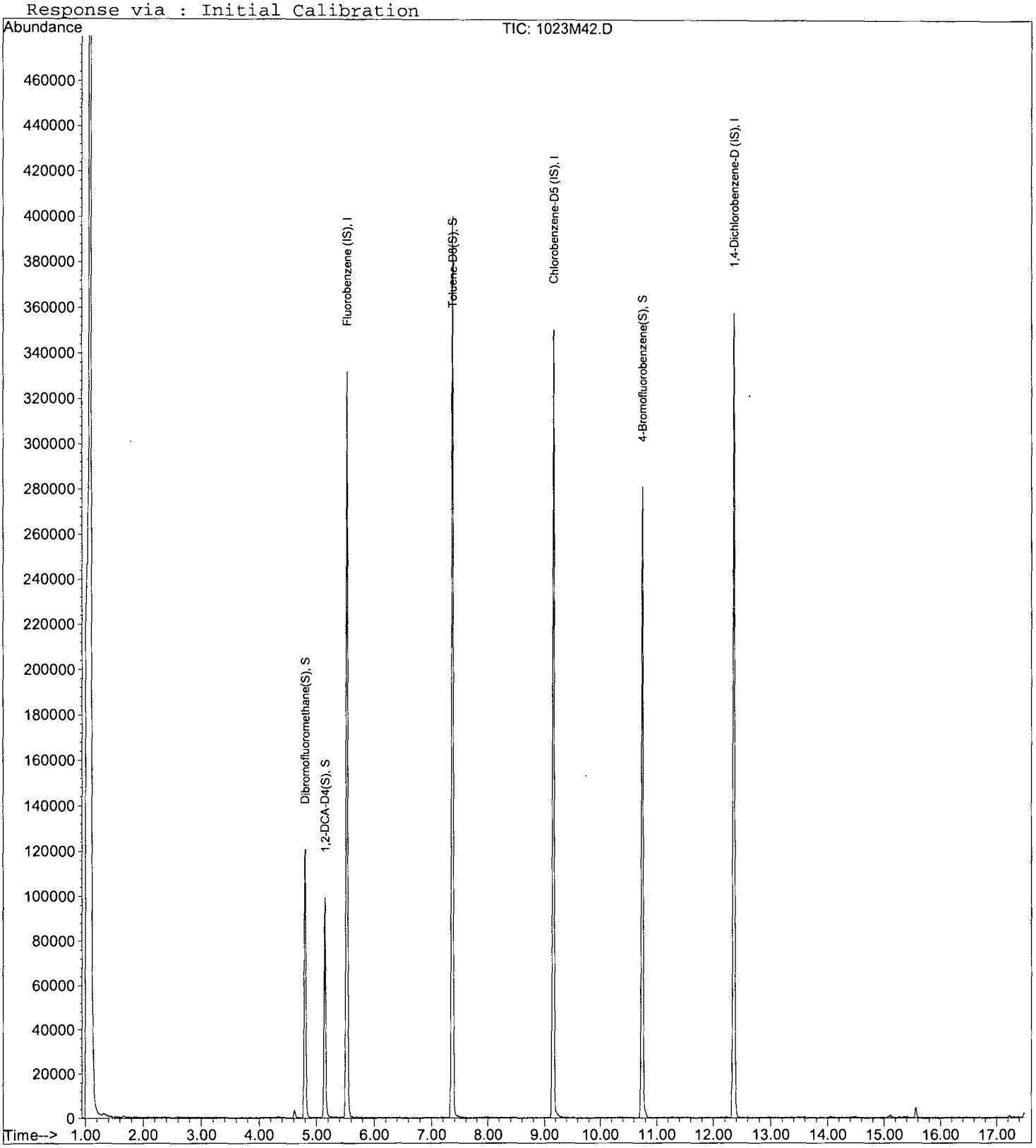
Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M42.D
Acq On : 23 Oct 16 23:36
Sample : AZ44689W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 42
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 15:45 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH097

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44690

QCG: #86BXD-161023BM-213065

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/23/16	10/23/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/23/16	10/23/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/23/16	10/23/16
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/23/16	10/23/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	96.8	81-118			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	96.6	85-114			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	97.8	80-119			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.1	89-112			%	10/23/16	10/23/16

Quant Method: MALLW.M
Run #: 1023M43
Instrument: MAX
Sequence: M161020
Dilution Factor: 1
Initials: SV

Printed: 11/16/16 10:40:55 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M43.D Vial: 43
Acq On : 23 Oct 16 23:58 Operator: DG,CM,SV
Sample : AZ44690W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:46 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	309868	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	227369	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	117411	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.79	111	73556	24.46	ppb	0.00
Spiked Amount 25.000			Recovery = 97.844%			
36) 1,2-DCA-D4(S)	5.14	65	69646	24.19	ppb	0.00
Spiked Amount 25.000			Recovery = 96.760%			
56) Toluene-D8(S)	7.36	98	295270	24.76	ppb	0.00
Spiked Amount 25.000			Recovery = 99.052%			
64) 4-Bromofluorobenzene(S)	10.74	95	104353	24.15	ppb	0.00
Spiked Amount 25.000			Recovery = 96.596%			

Target Compounds Qvalue

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

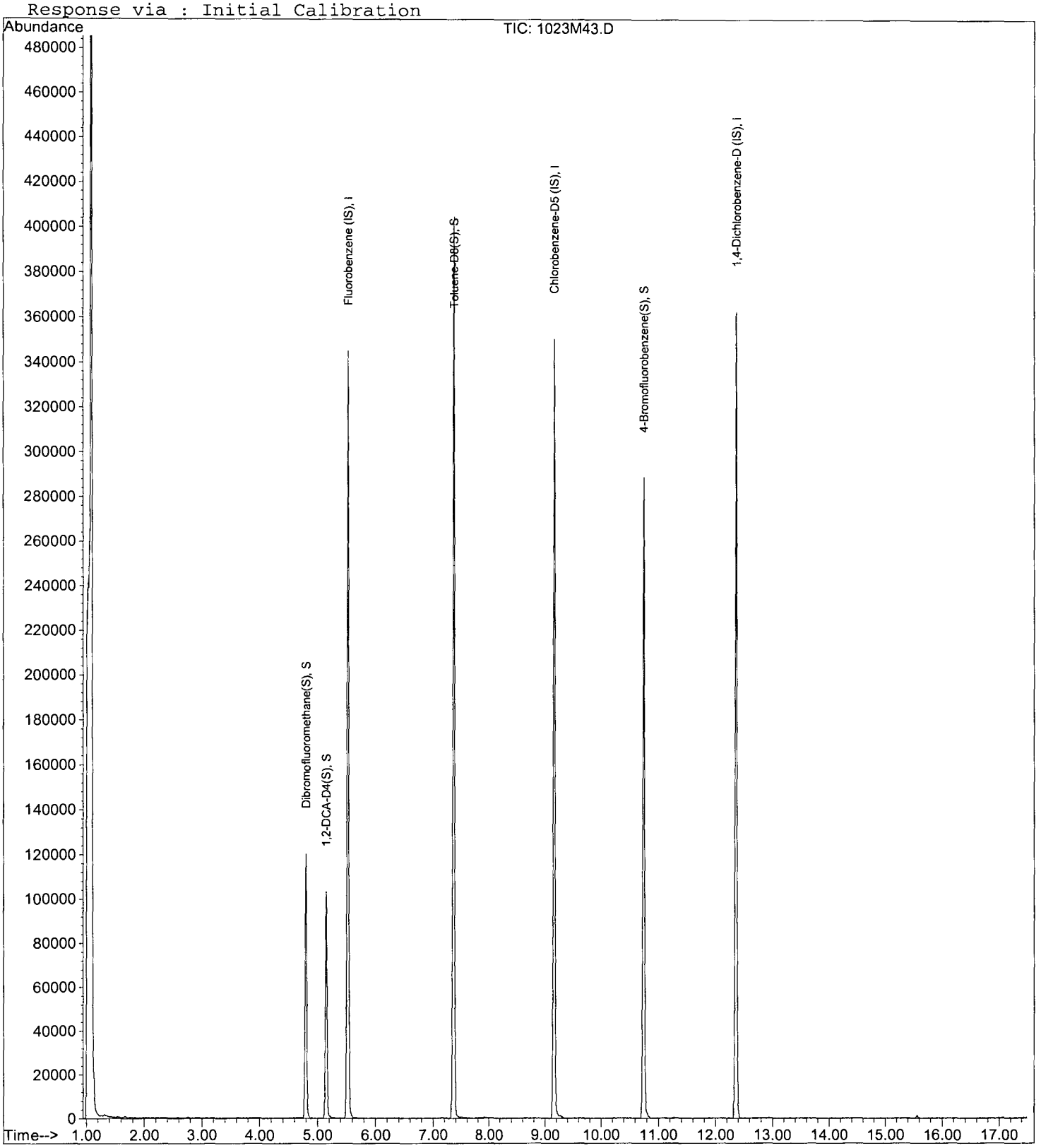
Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M43.D
Acq On : 23 Oct 16 23:58
Sample : AZ44690W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 43
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 15:46 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH098

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44691

QCG: #86BXD-161023BM-213065

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/23/16	10/23/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/23/16	10/23/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/23/16	10/23/16
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/23/16	10/23/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	97.3	81-118			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	94.7	85-114			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	101	80-119			%	10/23/16	10/23/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	98.2	89-112			%	10/23/16	10/23/16

Quant Method: MALLW.M
Run #: 1023M38
Instrument: MAX
Sequence: M161020
Dilution Factor: 1
Initials: SV

Printed: 11/16/16 10:40:55 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M38.D Vial: 38
Acq On : 23 Oct 16 22:08 Operator: DG,CM,SV
Sample : AZ44691W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:39 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	314595	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	237369	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	119861	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.79	111	76916	25.19	ppb	0.00
Spiked Amount 25.000			Recovery =	100.776%		
36) 1,2-DCA-D4(S)	5.14	65	71130	24.33	ppb	0.00
Spiked Amount 25.000			Recovery =	97.340%		
56) Toluene-D8(S)	7.36	98	305512	24.54	ppb	0.00
Spiked Amount 25.000			Recovery =	98.172%		
64) 4-Bromofluorobenzene(S)	10.74	95	106832	23.68	ppb	0.00
Spiked Amount 25.000			Recovery =	94.724%		

Target Compounds Qvalue

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

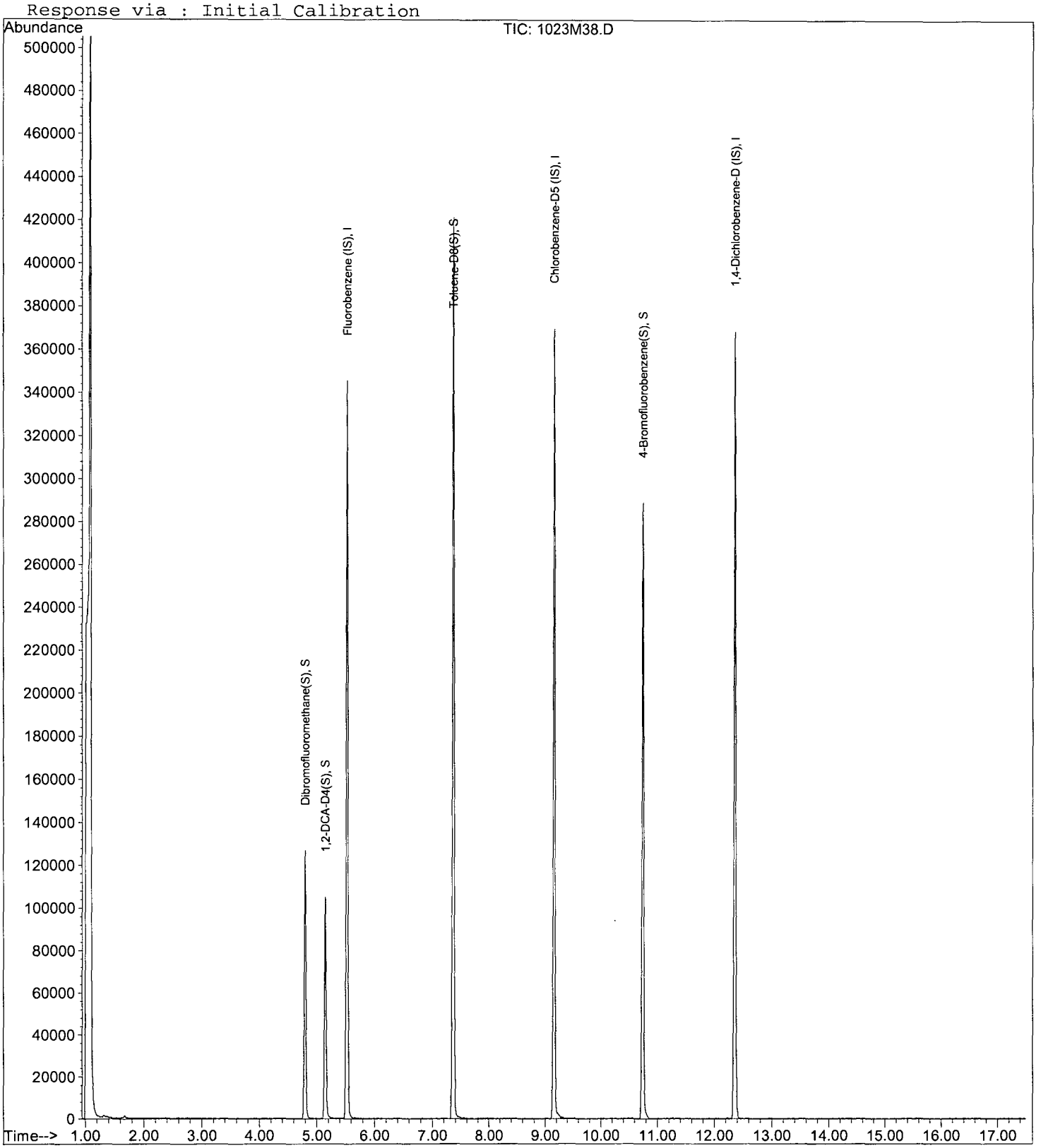
Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M38.D
Acq On : 23 Oct 16 22:08
Sample : AZ44691W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 38
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 15:39 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH100

APPL ID: AZ44692

Sample Collection Date: 10/20/16

QCG: #86BXD-161022AM-213025

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/22/16	10/22/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/22/16	10/22/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/22/16	10/22/16
EPA 8260B	XYLENES (TOTAL)	0.21 J	2.0	0.30	0.19	ug/L	10/22/16	10/22/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	100	81-118			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	97.9	85-114			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	102	80-119			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	102	89-112			%	10/22/16	10/22/16

J = Estimated value.

Quant Method:	MALLW.M
Run #:	1022M19
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:40:55 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M19.D Vial: 19
Acq On : 22 Oct 16 16:32 Operator: DG,CM,SV
Sample : AZ44692W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:54 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	336650	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	248823	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	125335	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.79	111	83457	25.55	ppb	0.00
Spiked Amount 25.000			Recovery = 102.180%			
36) 1,2-DCA-D4(S)	5.15	65	78227	25.01	ppb	0.00
Spiked Amount 25.000			Recovery = 100.036%			
56) Toluene-D8(S)	7.36	98	333447	25.55	ppb	0.00
Spiked Amount 25.000			Recovery = 102.216%			
64) 4-Bromofluorobenzene(S)	10.74	95	115719	24.47	ppb	0.00
Spiked Amount 25.000			Recovery = 97.880%			
Target Compounds						Qvalue
11) Acetone	2.60	43	2706	2.60	ppb	85
61) m&p-Xylene	9.53	106	1641	0.21	ppb	63

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

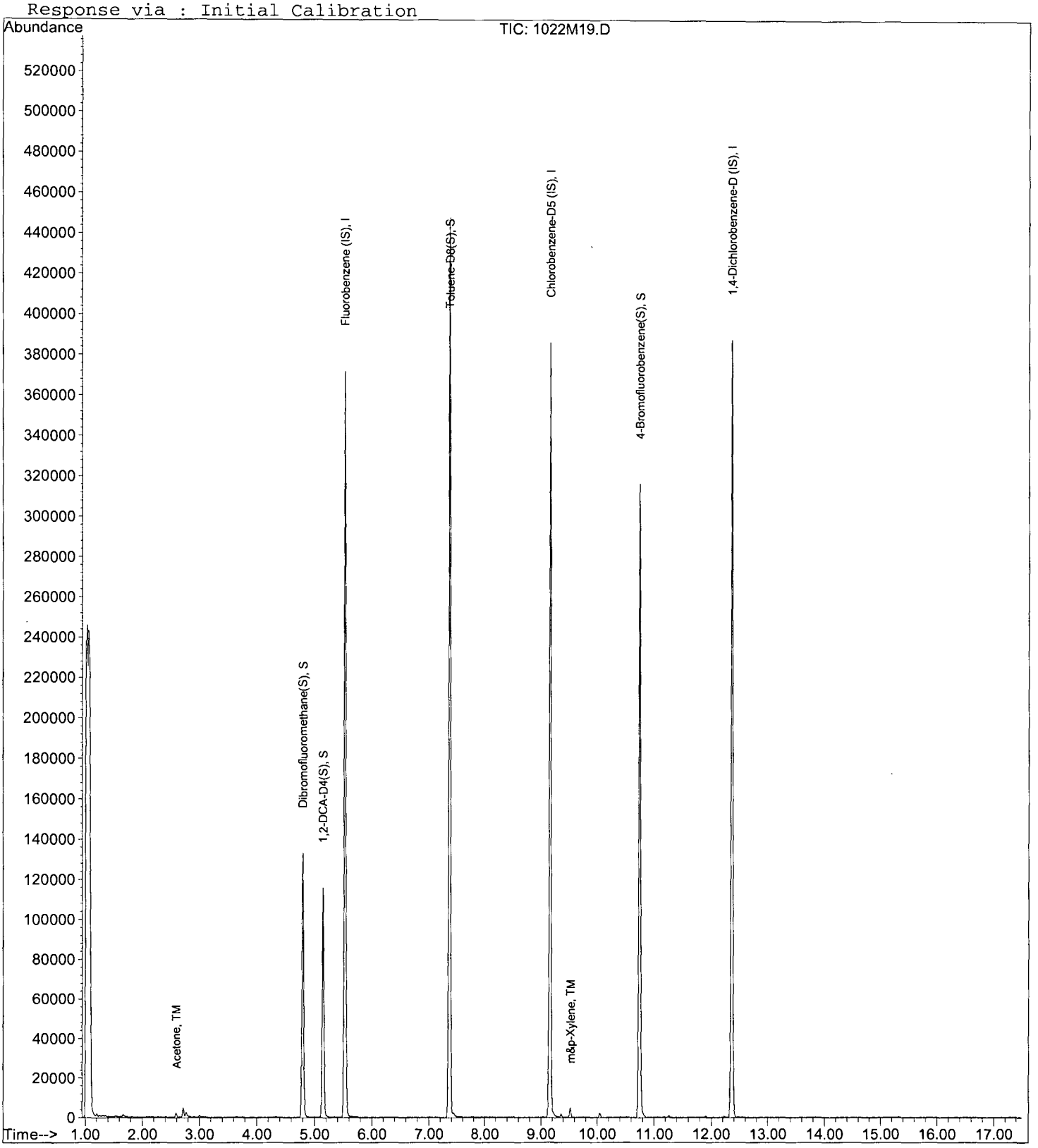
Quantitation Report

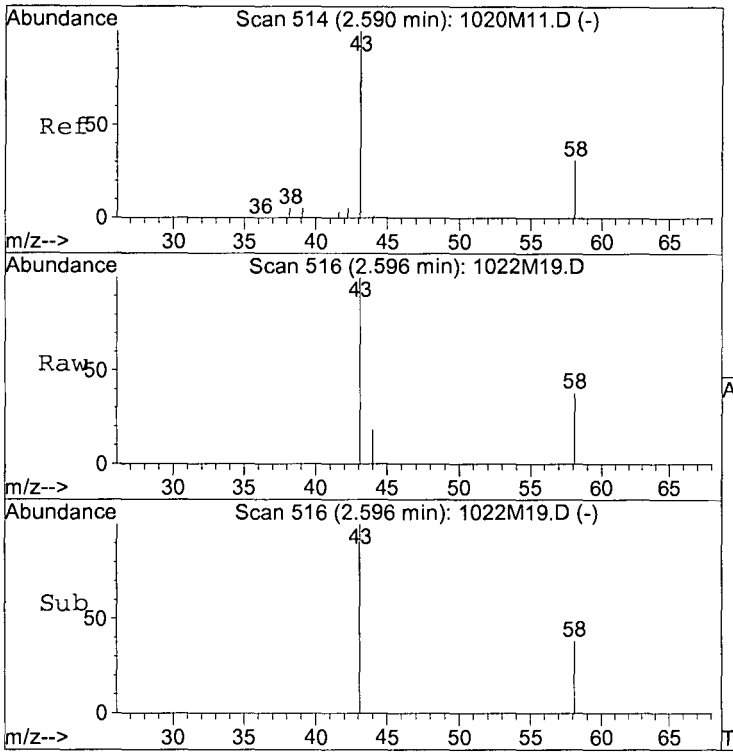
Data File : M:\MAX\DATA\M161020\1022M19.D
Acq On : 22 Oct 16 16:32
Sample : AZ44692W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 19
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 13:54 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration

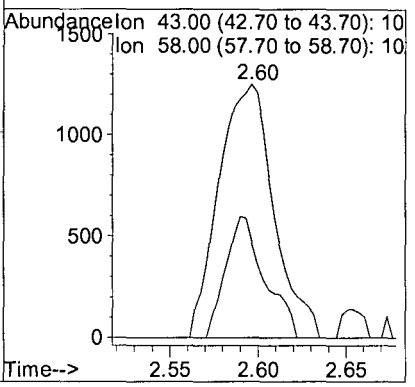


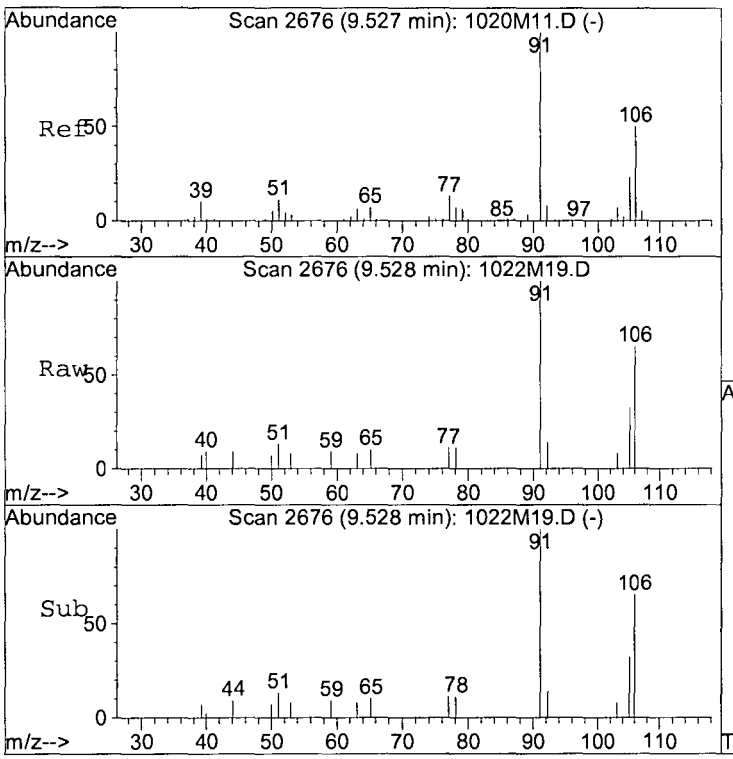


#11
Acetone
Concen: 2.60 ppb
RT: 2.60 min Scan# 516
Delta R.T. 0.01 min
Lab File: 1022M19.D
Acq: 22 Oct 16 16:32

Tgt Ion: 43 Resp: 2706

Ion	Ratio	Lower	Upper
43	100		
58	37.7	20.7	38.5

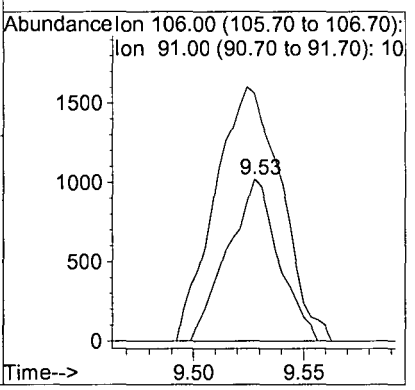




#61
m&p-Xylene
Concen: 0.21 ppb
RT: 9.53 min Scan# 2676
Delta R.T. 0.00 min
Lab File: 1022M19.D
Acq: 22 Oct 16 16:32

Tgt Ion:106 Resp: 1641

Ion	Ratio	Lower	Upper
106	100		
91	143.1	139.8	259.6



EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH101

APPL ID: AZ44693

Sample Collection Date: 10/20/16

QCG: #86BXD-161022AM-213025

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/22/16	10/22/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/22/16	10/22/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/22/16	10/22/16
EPA 8260B	XYLENES (TOTAL)	0.25 J	2.0	0.30	0.19	ug/L	10/22/16	10/22/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	97.7	81-118			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	97.8	85-114			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	99.5	80-119			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	101	89-112			%	10/22/16	10/22/16

J = Estimated value.

Quant Method:	MGAS6825.M
Run #:	1022M20
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:40:55 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M20.D Vial: 20
Acq On : 22 Oct 16 16:54 Operator: DG,CM,SV
Sample : AZ44693W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:56 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	323239	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	237625	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	125608	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	78006	24.87	ppb	0.00
Spiked Amount 25.000			Recovery = 99.472%			
36) 1,2-DCA-D4(S)	5.14	65	73359	24.43	ppb	0.00
Spiked Amount 25.000			Recovery = 97.704%			
56) Toluene-D8(S)	7.36	98	313413	25.15	ppb	0.00
Spiked Amount 25.000			Recovery = 100.600%			
64) 4-Bromofluorobenzene(S)	10.74	95	110364	24.44	ppb	0.00
Spiked Amount 25.000			Recovery = 97.752%			
Target Compounds						Qvalue
11) Acetone	2.59	43	2665	2.72	ppb	89
61) m&p-Xylene	9.52	106	1859	0.25	ppb	75

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

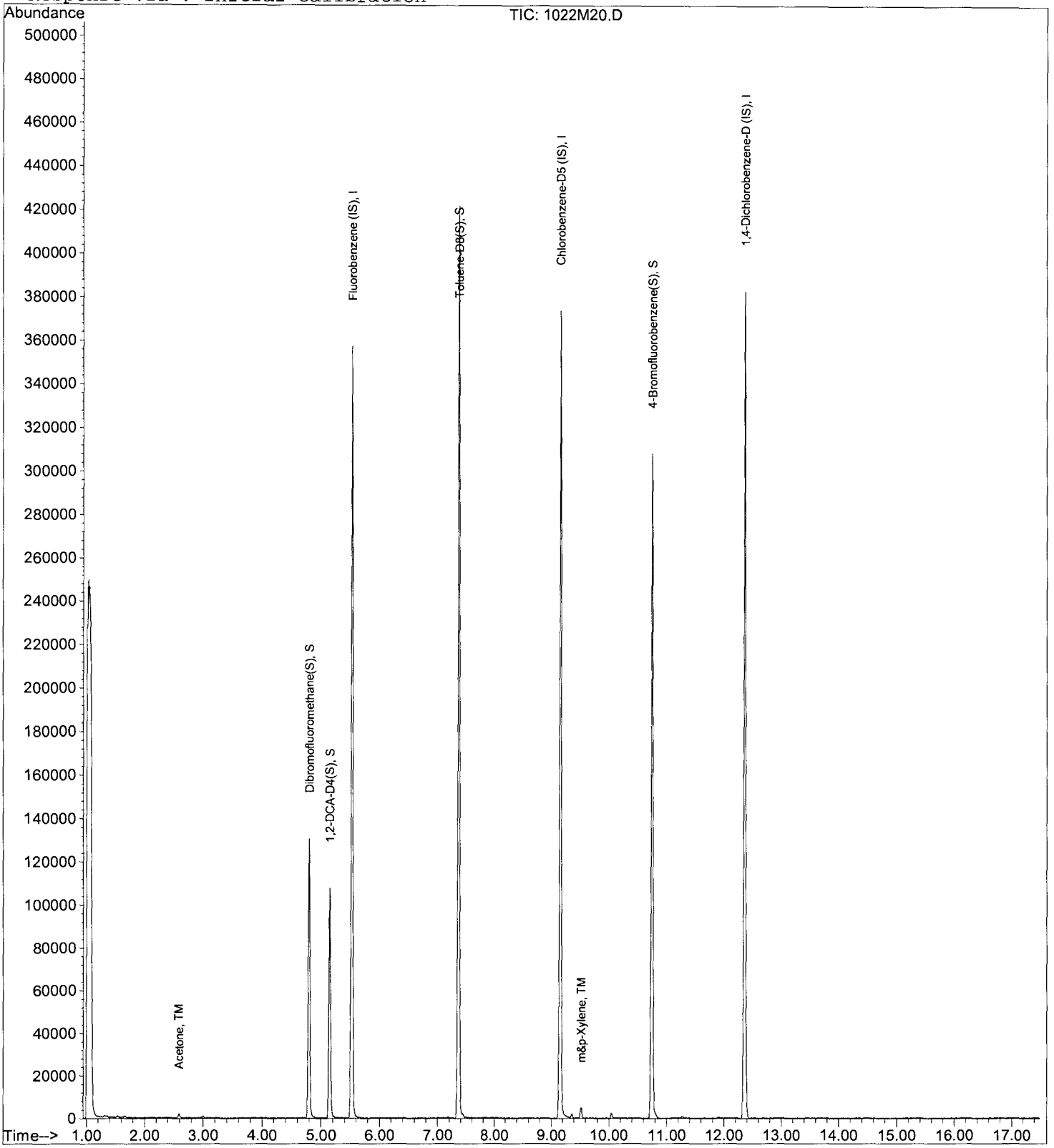
Quantitation Report

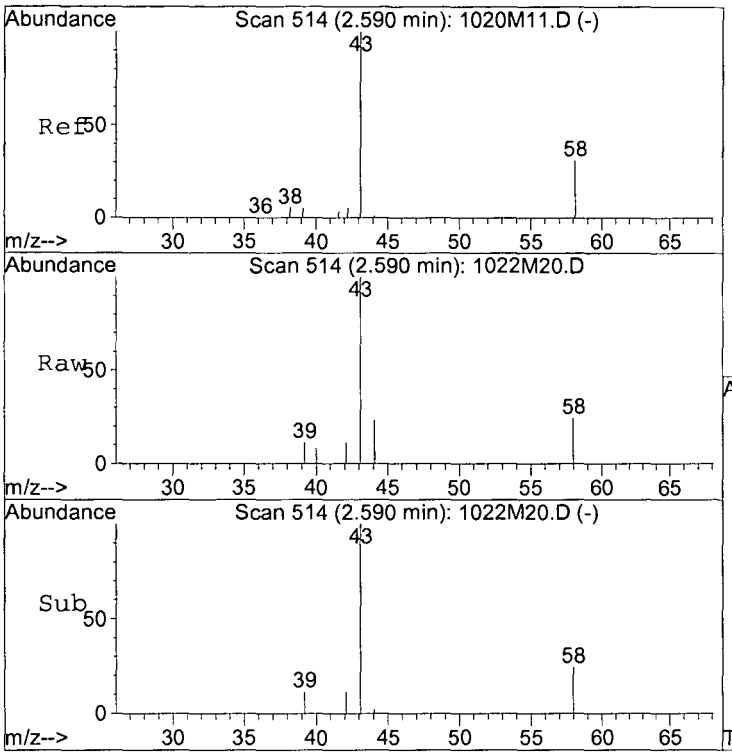
Data File : M:\MAX\DATA\M161020\1022M20.D
Acq On : 22 Oct 16 16:54
Sample : AZ44693W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 20
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 13:56 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration

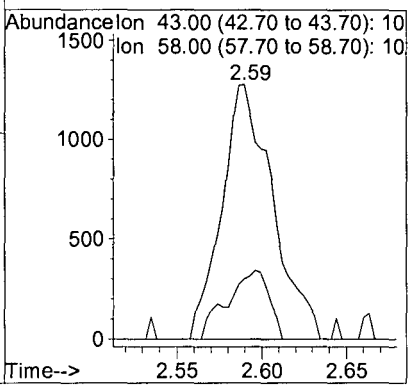


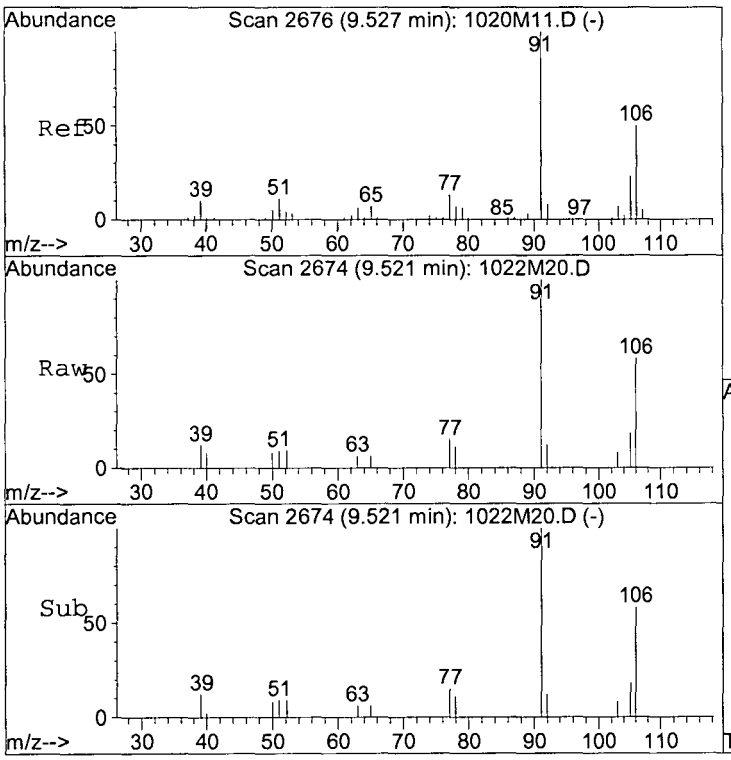


#11
Acetone
Concen: 2.72 ppb
RT: 2.59 min Scan# 514
Delta R.T. 0.00 min
Lab File: 1022M20.D
Acq: 22 Oct 16 16:54

Tgt Ion: 43 Resp: 2665

Ion	Ratio	Lower	Upper
43	100		
58	23.6	20.7	38.5

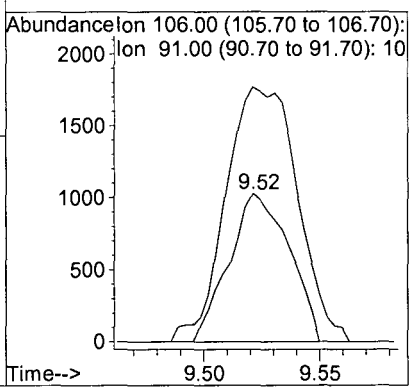




#61
m&p-Xylene
Concen: 0.25 ppb
RT: 9.52 min Scan# 2674
Delta R.T. -0.01 min
Lab File: 1022M20.D
Acq: 22 Oct 16 16:54

Tgt Ion:106 Resp: 1859

Ion	Ratio	Lower	Upper
106	100		
91	161.3	139.8	259.6



EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH102

APPL ID: AZ44694

Sample Collection Date: 10/19/16

QCG: #86BXD-161022AM-213025

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DCA	0.30 U	1.0	0.30	0.14	ug/L	10/22/16	10/22/16
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/22/16	10/22/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/22/16	10/22/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/22/16	10/22/16
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/22/16	10/22/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	97.9	81-118			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	97.8	85-114			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	99.6	80-119			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.2	89-112			%	10/22/16	10/22/16

Quant Method:	MALLW.M
Run #:	1022M15
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:40:55 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M15.D Vial: 15
Acq On : 22 Oct 16 15:05 Operator: DG,CM,SV
Sample : AZ44694W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:49 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	349673	25.00 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	256477	25.00 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	132567	25.00 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.80	111	84488	24.90 ppb	0.00
Spiked Amount 25.000			Recovery =	99.592%	
36) 1,2-DCA-D4(S)	5.15	65	79543	24.48 ppb	0.00
Spiked Amount 25.000			Recovery =	97.932%	
56) Toluene-D8(S)	7.36	98	333716	24.81 ppb	0.00
Spiked Amount 25.000			Recovery =	99.244%	
64) 4-Bromofluorobenzene(S)	10.74	95	119180	24.45 ppb	0.00
Spiked Amount 25.000			Recovery =	97.800%	

Target Compounds Qvalue

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

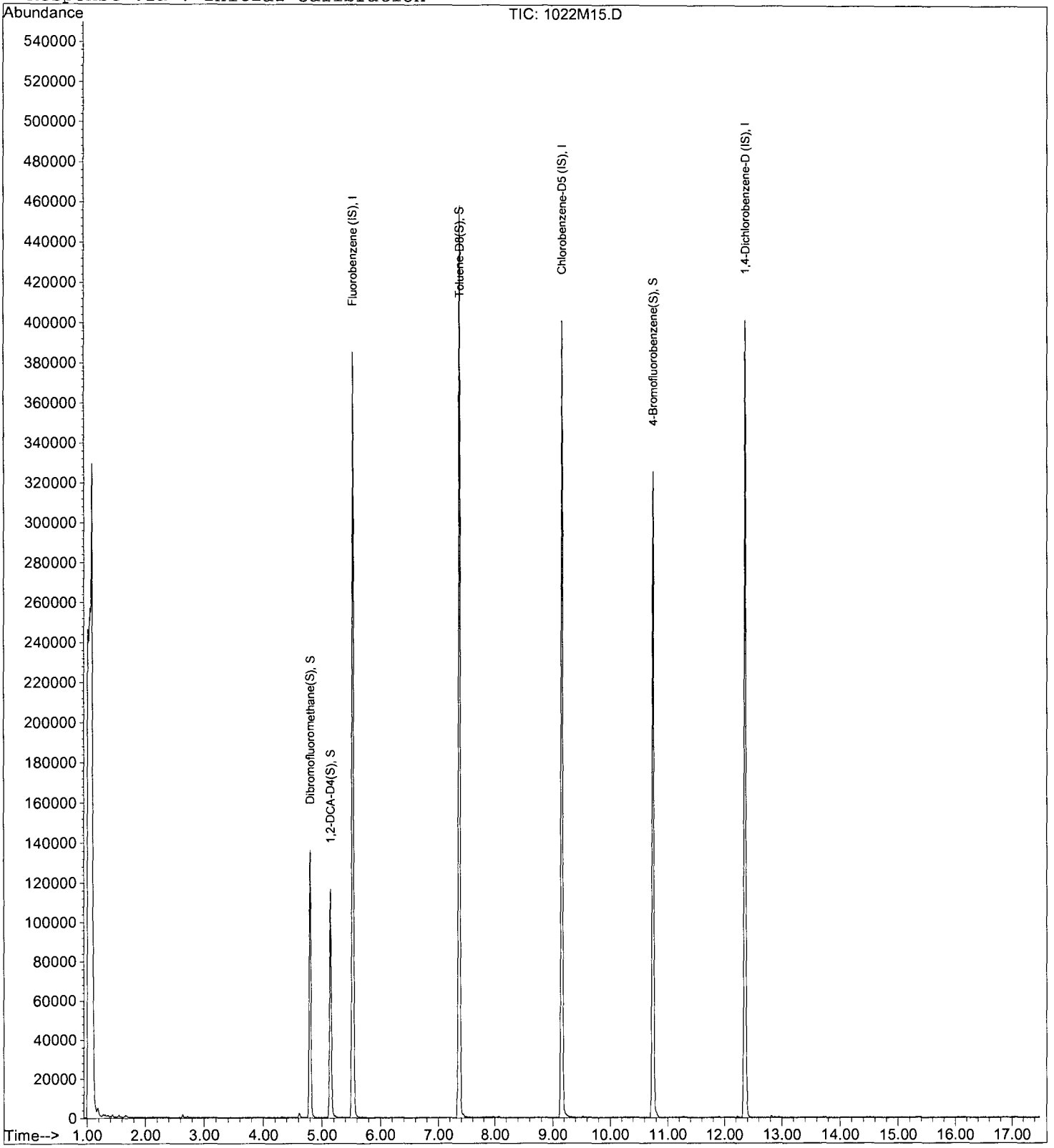
Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M15.D
Acq On : 22 Oct 16 15:05
Sample : AZ44694W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 15
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 13:49 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH104

APPL ID: AZ44695

Sample Collection Date: 10/20/16

QCG: #86BXD-161023BM-213065

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/24/16	10/24/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/24/16	10/24/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/24/16	10/24/16
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/24/16	10/24/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	96.7	81-118			%	10/24/16	10/24/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	95.7	85-114			%	10/24/16	10/24/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	97.9	80-119			%	10/24/16	10/24/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	97.6	89-112			%	10/24/16	10/24/16

Quant Method: MALLW.M
Run #: 1023M44
Instrument: MAX
Sequence: M161020
Dilution Factor: 1
Initials: SV

Printed: 11/16/16 10:40:55 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M44.D Vial: 44
Acq On : 24 Oct 16 00:20 Operator: DG,CM,SV
Sample : AZ44695W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 9:50 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	318077	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	239031	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	122759	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.79	111	75533	24.47	ppb	0.00
Spiked Amount 25.000			Recovery = 97.880%			
36) 1,2-DCA-D4(S)	5.14	65	71425	24.17	ppb	0.00
Spiked Amount 25.000			Recovery = 96.672%			
56) Toluene-D8(S)	7.36	98	305979	24.41	ppb	0.00
Spiked Amount 25.000			Recovery = 97.636%			
64) 4-Bromofluorobenzene(S)	10.74	95	108644	23.92	ppb	0.00
Spiked Amount 25.000			Recovery = 95.664%			

Target Compounds Qvalue

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

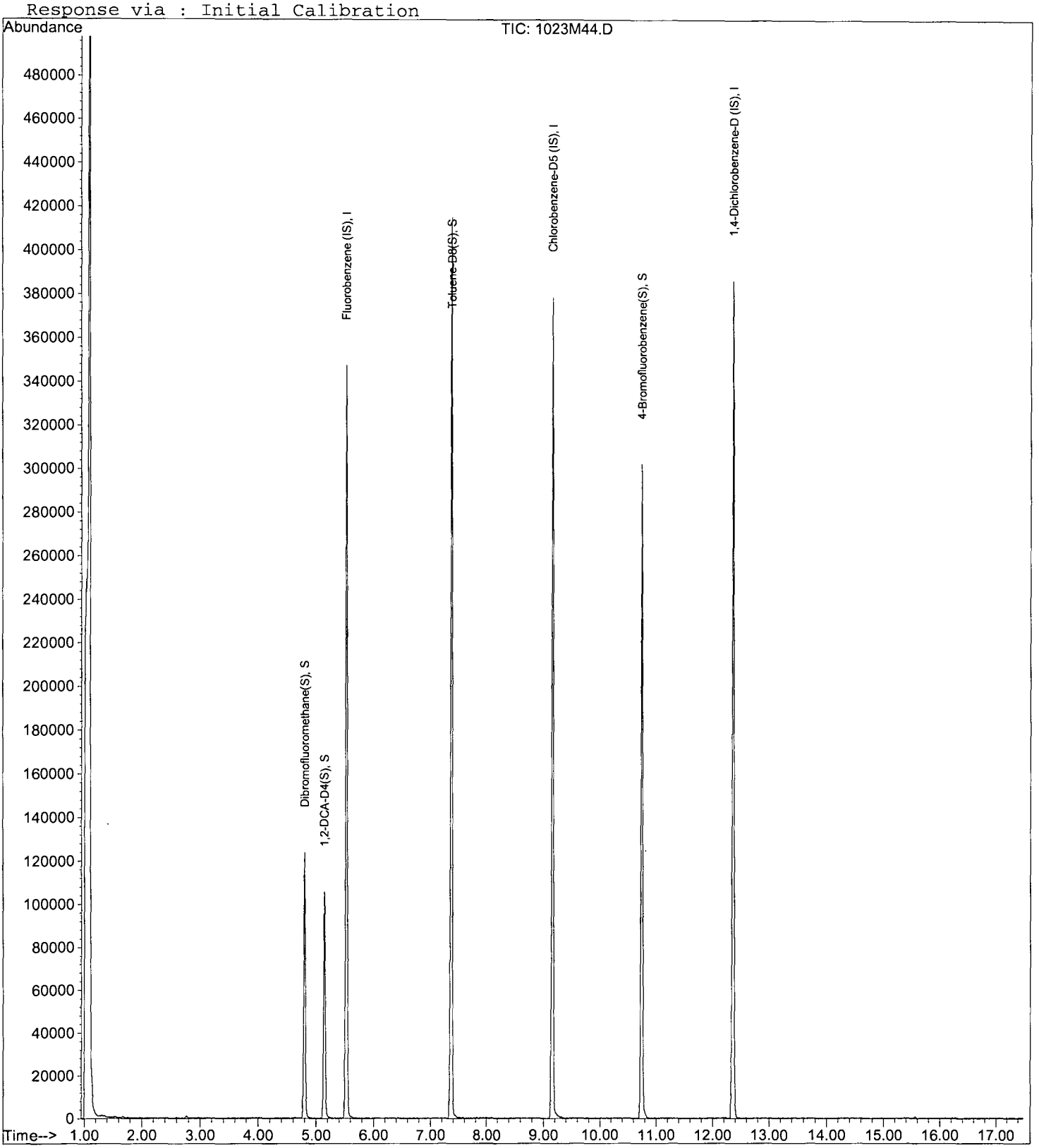
Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M44.D
Acq On : 24 Oct 16 00:20
Sample : AZ44695W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 44
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 26 9:50 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH105

APPL ID: AZ44696

Sample Collection Date: 10/20/16

QCG: #86BXD-161022AM-213025

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/22/16	10/22/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/22/16	10/22/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/22/16	10/22/16
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/22/16	10/22/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	99.3	81-118			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	96.9	85-114			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	97.9	80-119			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.4	89-112			%	10/22/16	10/22/16

Quant Method:	MALLW.M
Run #:	1022M21
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:40:55 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M21.D Vial: 21
Acq On : 22 Oct 16 17:16 Operator: DG,CM,SV
Sample : AZ44696W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:28 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	330270	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	241940	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	125123	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.79	111	78472	24.48	ppb	0.00
Spiked Amount 25.000			Recovery = 97.936%			
36) 1,2-DCA-D4(S)	5.15	65	76204	24.83	ppb	0.00
Spiked Amount 25.000			Recovery = 99.332%			
56) Toluene-D8(S)	7.36	98	315197	24.84	ppb	0.00
Spiked Amount 25.000			Recovery = 99.368%			
64) 4-Bromofluorobenzene(S)	10.74	95	111384	24.22	ppb	0.00
Spiked Amount 25.000			Recovery = 96.896%			

Target Compounds Qvalue

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

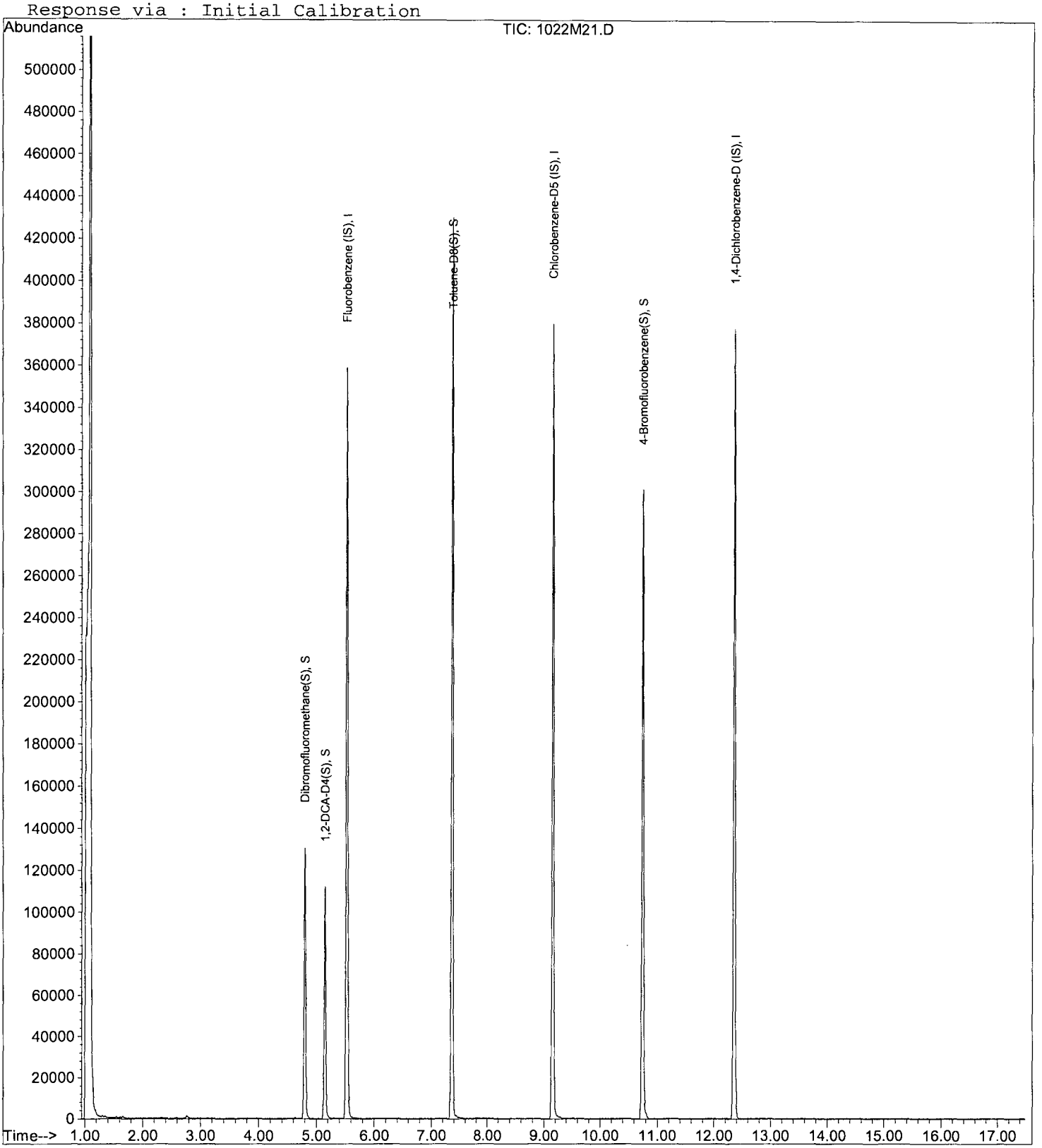
Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M21.D
Acq On : 22 Oct 16 17:16
Sample : AZ44696W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 21
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 15:28 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH106

APPL ID: AZ44697

Sample Collection Date: 10/19/16

QCG: #86BXD-161022AM-213025

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DCA	0.30 U	1.0	0.30	0.14	ug/L	10/22/16	10/22/16
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/22/16	10/22/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/22/16	10/22/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/22/16	10/22/16
EPA 8260B	XYLENES (TOTAL)	0.42 J	2.0	0.30	0.19	ug/L	10/22/16	10/22/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	103	81-118			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	99.3	85-114			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	98.0	80-119			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	101	89-112			%	10/22/16	10/22/16

J = Estimated value.

Quant Method: MGAS6825.M
Run #: 1022M16
Instrument: MAX
Sequence: M161020
Dilution Factor: 1
Initials: SV

Printed: 11/16/16 10:40:55 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M16.D Vial: 16
Acq On : 22 Oct 16 15:27 Operator: DG,CM,SV
Sample : AZ44697W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:50 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	336654	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	247011	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	131124	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	80074	24.51	ppb	0.00
Spiked Amount 25.000			Recovery =	98.040%		
36) 1,2-DCA-D4(S)	5.15	65	80161	25.63	ppb	0.00
Spiked Amount 25.000			Recovery =	102.508%		
56) Toluene-D8(S)	7.36	98	325504	25.13	ppb	0.00
Spiked Amount 25.000			Recovery =	100.512%		
64) 4-Bromofluorobenzene(S)	10.74	95	116540	24.82	ppb	0.00
Spiked Amount 25.000			Recovery =	99.300%		
Target Compounds						Qvalue
61) m&p-Xylene	9.52	106	1819	0.24	ppb	93
62) o-Xylene	10.05	106	1403	0.19	ppb	99

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

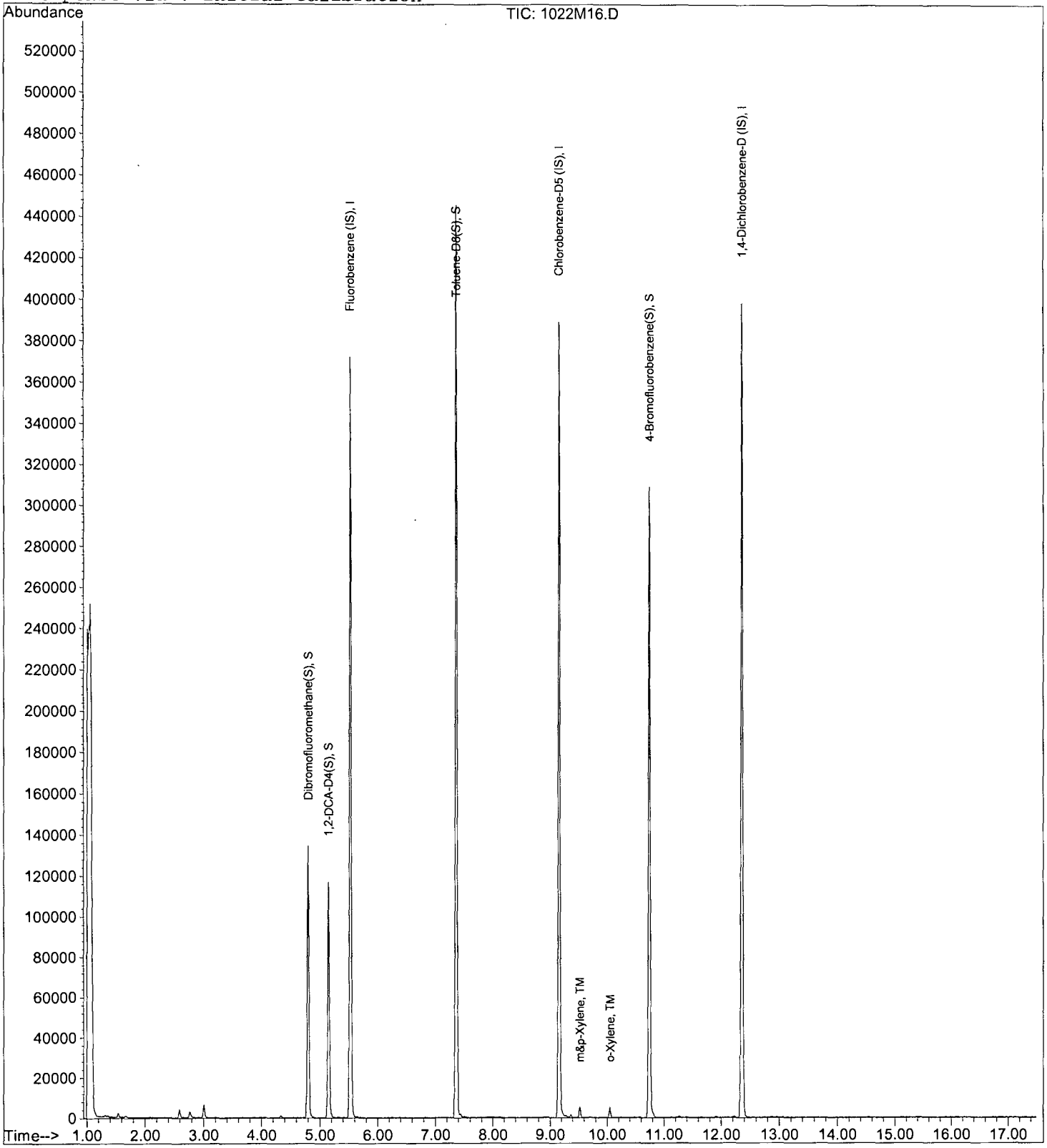
Quantitation Report

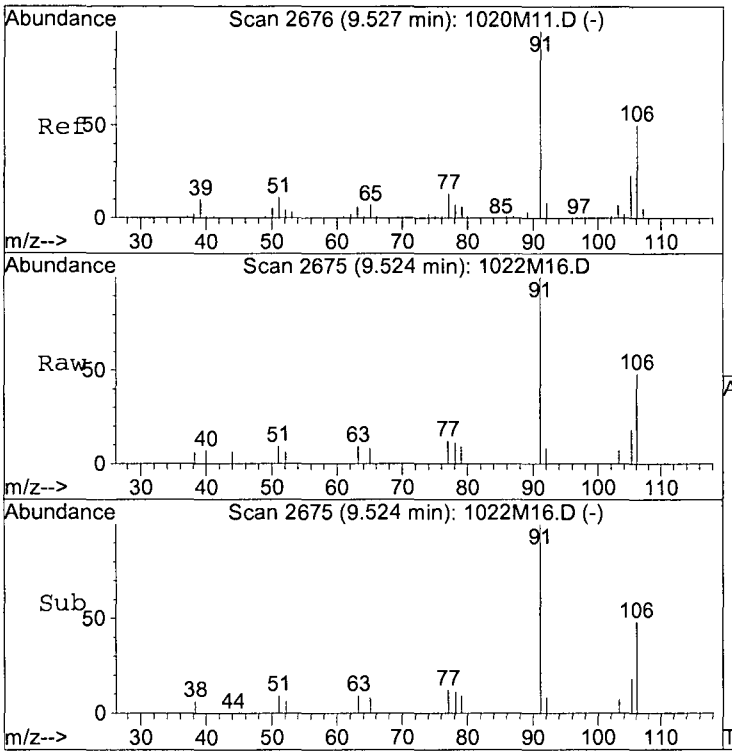
Data File : M:\MAX\DATA\M161020\1022M16.D
Acq On : 22 Oct 16 15:27
Sample : AZ44697W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 16
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 13:50 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration

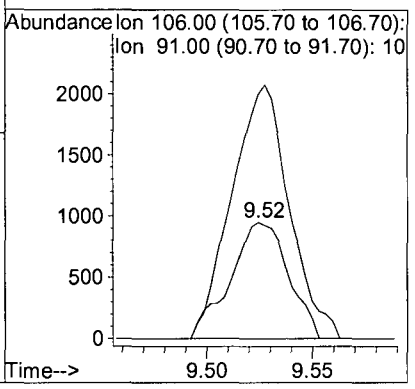


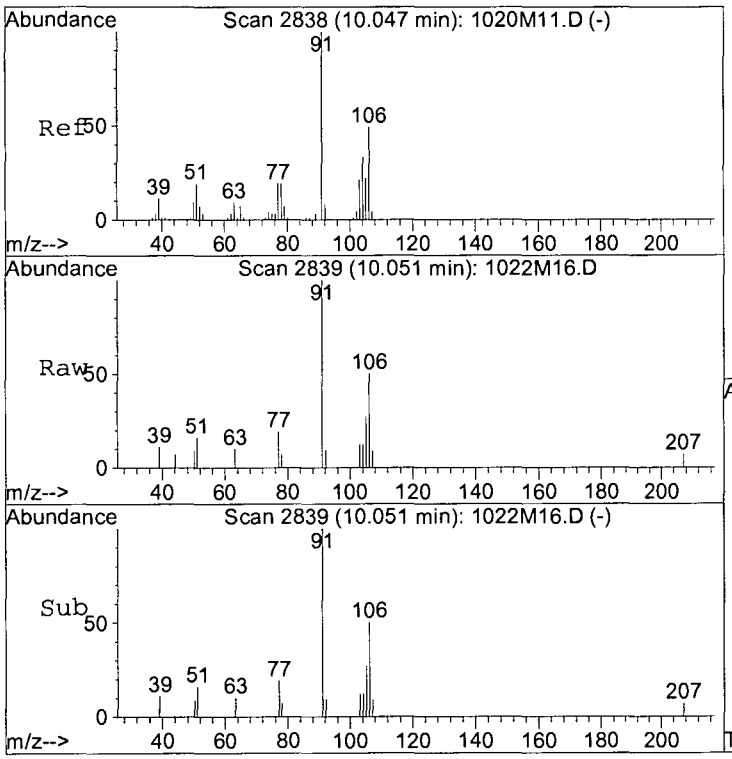


#61
m&p-Xylene
Concen: 0.24 ppb
RT: 9.52 min Scan# 2675
Delta R.T. -0.00 min
Lab File: 1022M16.D
Acq: 22 Oct 16 15:27

Tgt Ion:106 Resp: 1819

Ion	Ratio	Lower	Upper
106	100		
91	210.2	139.8	259.6

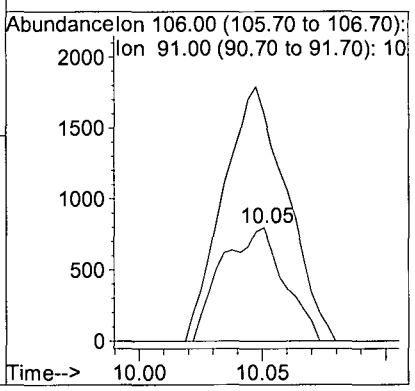




#62
o-Xylene
Concen: 0.19 ppb
RT: 10.05 min Scan# 2839
Delta R.T. 0.00 min
Lab File: 1022M16.D
Acq: 22 Oct 16 15:27

Tgt Ion:106 Resp: 1403

Ion	Ratio	Lower	Upper
106	100		
91	201.6	142.4	264.4



EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH107

Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44698

QCG: #86BXD-161022AM-213025

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/22/16	10/22/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/22/16	10/22/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/22/16	10/22/16
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/22/16	10/22/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	101	81-118			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	97.2	85-114			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	100	80-119			%	10/22/16	10/22/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.8	89-112			%	10/22/16	10/22/16

Quant Method: MALLW.M
Run #: 1022M17
Instrument: MAX
Sequence: M161020
Dilution Factor: 1
Initials: SV

Printed: 11/16/16 10:40:55 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M17.D Vial: 17
Acq On : 22 Oct 16 15:49 Operator: DG,CM,SV
Sample : AZ44698W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:52 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	336993	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	246293	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	126630	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	81996	25.07	ppb	0.00
Spiked Amount 25.000			Recovery = 100.292%			
36) 1,2-DCA-D4(S)	5.15	65	78690	25.13	ppb	0.00
Spiked Amount 25.000			Recovery = 100.528%			
56) Toluene-D8(S)	7.36	98	322338	24.96	ppb	0.00
Spiked Amount 25.000			Recovery = 99.824%			
64) 4-Bromofluorobenzene(S)	10.74	95	113746	24.30	ppb	0.00
Spiked Amount 25.000			Recovery = 97.200%			

Target Compounds Qvalue

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

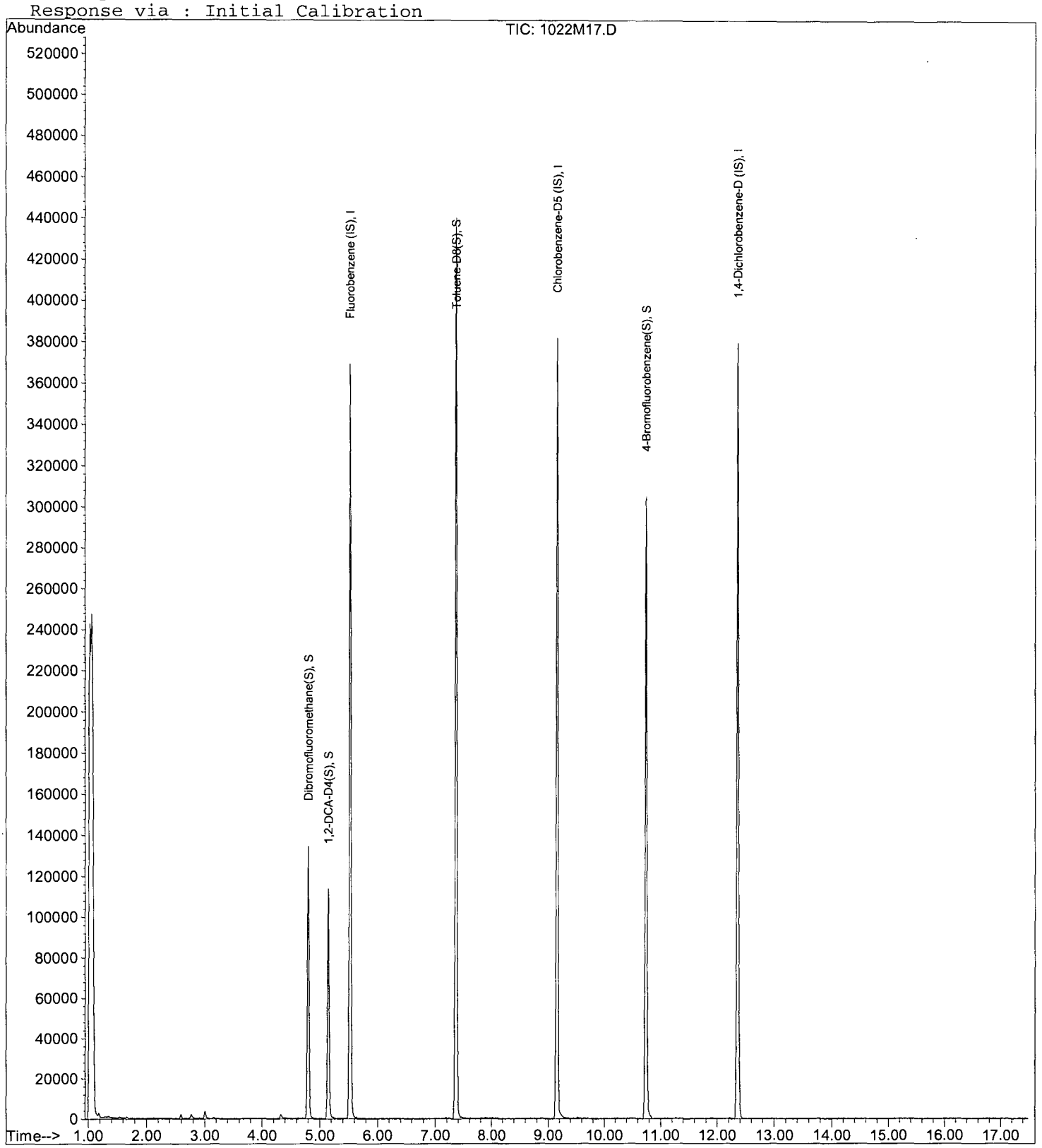
Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M17.D
Acq On : 22 Oct 16 15:49
Sample : AZ44698W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 17
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 13:52 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



ORGANICS
Calibration Data

APPL, INC.

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/20/16
Matrix: Instrument: MAX Initials:

		Compound	1020M06.D	1020M07.D	1020M08.D	1020M09.D	1020M10.D	1020M11.D	1020M13.D	1020M14.D			Avg	%RSD		
1	I	Fluorobenzene (IS)														
2	TM	Dichlorodifluoromethane		0.1333	0.1539	0.1303	0.1475	0.1423	0.1504	0.1442			0.14	6.1	TM	
3	TM	Freon 114		0.2371	0.2626	0.2179	0.2578	0.2399	0.2560	0.2343			0.24	6.5	TM	
4	TM**	Chloromethane		0.0305	0.0213	0.0256	0.0303	0.0250	0.0257	0.0253			0.03	12	TM**	
5	TM*	Vinyl chloride		0.2270	0.1828	0.1938	0.2131	0.2075	0.2154	0.2148			0.21	7.2	TM*	
6	TM	Bromomethane		0.1650	0.1901	0.1794	0.1793	0.1870	0.1912	0.2283			0.19	10	TM	
7	TM	Chloroethane		0.1121	0.1110	0.0993	0.1133	0.0976	0.1454				0.11	15	TM	
8	TM	Dichlorofluoromethane		0.6193	0.6175	0.5770	0.5944	0.5574	0.5783	0.5656			0.59	4.1	TM	
9	TM	Trichlorofluoromethane		0.3509	0.4390	0.3785	0.4340	0.4283	0.4404	0.4214			0.41	8.4	TM	
10	TM	Acrolein		0.0121	0.0122	0.0110	0.0116	0.0111	0.0113				0.01	4.4	TM	
11	TML	Acetone		0.1533	0.1176	0.0729	0.0678	0.0558	0.0481	0.0459			0.08	50	TML	1.000
12	TM	Freon-113		0.1323	0.1489	0.1174	0.1247	0.1097	0.1167	0.1121			0.12	11	TM	
13	TM*	1,1-DCE		0.4451	0.4250	0.4119	0.4154	0.4023	0.4230	0.4060			0.42	3.4	TM*	
14	TM	t-Butanol	0.0131	0.0117	0.0123	0.0119	0.0120	0.0120	0.0155				0.01	11	TM	
15	TM	Methyl Acetate		0.1530	0.1415	0.1397	0.1379	0.1237	0.1302	0.1287			0.14	7.2	TM	
16	TML	Iodomethane		0.1499	0.1473	0.1605	0.1873	0.2051	0.2341	0.2398			0.19	20	TML	1.000
17	TM	Acrylonitrile		0.0563	0.0649	0.0530	0.0618	0.0562	0.0601	0.0587			0.06	6.8	TM	
18	TML	Methylene chloride			0.3861	0.3154	0.2912	0.2639	0.2650	0.2574			0.30	17	TML	1.000
19	TM	Carbon disulfide		0.8260	0.8228	0.7506	0.7820	0.7443	0.7807	0.7660			0.78	4.1	TM	
20	TM	Methyl t-butyl ether (MtBE)		0.2697	0.2717	0.2720	0.2599	0.2353	0.2579	0.2528			0.26	5.1	TM	
21	TM	Trans-1,2-DCE		0.2630	0.2617	0.2517	0.2731	0.2534	0.2727	0.2592			0.26	3.2	TM	
22	TM	Diisopropyl Ether		0.9236	0.9101	0.8738	0.9200	0.8521	0.8946	0.8626			0.89	3.2	TM	
23	TM**	1,1-DCA		0.5215	0.5372	0.5110	0.5224	0.4892	0.5115	0.4835			0.51	3.7	TM**	
24	TM	Vinyl Acetate		0.1735	0.1546	0.1230	0.1405	0.1295	0.1415	0.1422			0.14	12	TM	
25	TM	Ethyl tert Butyl Ether		0.6449	0.6489	0.5953	0.6437	0.6022	0.6498	0.6328			0.63	3.6	TM	
26	TM	MEK (2-Butanone)			0.0910	0.0793	0.0813	0.0707	0.0707	0.0706			0.08	11	TM	
27	TM	Cis-1,2-DCE		0.3291	0.3110	0.2723	0.2978	0.2866	0.3021	0.2863			0.30	6.2	TM	
28	TM	2,2-Dichloropropane		0.1732	0.1623	0.1572	0.1518	0.1426	0.1597	0.1642			0.16	6.1	TM	
29	TM*	Chloroform		0.5079	0.5138	0.4566	0.4953	0.4558	0.4872	0.4544			0.48	5.3	TM*	
30	TM	Bromochloromethane		0.1124	0.1097	0.1247	0.1241	0.1132	0.1205	0.1110			0.12	5.5	TM	
31	S	Dibromofluoromethane(S)	0.2790	0.2821	0.2231	0.2119	0.2367	0.2399	0.2367	0.2315			0.24	10	S	
32	TM	1,1,1-TCA		0.3811	0.4164	0.3800	0.4098	0.3874	0.4103	0.3978			0.40	3.8	TM	
33	TM	Cyclohexane		0.3094	0.2797	0.2551	0.2669	0.2596	0.2596	0.2484			0.27	7.7	TM	
34	TM	1,1-Dichloropropene		0.3627	0.3696	0.3534	0.3853	0.3750	0.3839	0.3673			0.37	3.1	TM	
35	TM	2,2,4-Trimethylpentane		0.9119	0.9672	0.9319	0.9226	0.8888	0.9213	0.8900			0.92	2.9	TM	

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: _____
Case No: _____ Initial Cal. Date: 10/20/16
Matrix: _____ Instrument: MAX Initials: _____

		Compound	1	2	3	4	5	6	8	9			Avg	%RSD		
36	S	1,2-DCA-D4(S)	0.2686	0.2704	0.2204	0.2059	0.2293	0.2330	0.2164	0.2143			0.23	11	S	
37	TM	Carbon Tetrachloride		0.2950	0.3248	0.2748	0.3155	0.2927	0.3294	0.3242			0.31	6.7	TM	
38	TM	Tert Amyl Methyl Ether		0.5176	0.5493	0.5122	0.5466	0.5336	0.5650	0.5581			0.54	3.7	TM	
39	TM	1,2-DCA		0.3024	0.3403	0.3077	0.3283	0.3027	0.3127	0.3061			0.31	4.6	TM	
40	TM	Benzene		1.272	1.196	1.145	1.176	1.097	1.161	1.103			1.2	5.1	TM	
41	TM	TCE		0.2855	0.3263	0.2809	0.2896	0.2670	0.2862	0.2655			0.29	7.1	TM	
42	TM	2-Pentanone		0.1150	0.1201	0.1123	0.1159	0.1149	0.1277	0.1323			0.12	6.3	TM	
43	TM*	1,2-Dichloropropane		0.3048	0.3012	0.2934	0.3091	0.2799	0.2928	0.2787			0.29	4.0	TM*	
44	TM	Bromodichloromethane		0.3273	0.3352	0.2812	0.3311	0.3102	0.3335	0.3229			0.32	6.0	TM	
45	TM	Methyl Cyclohexane		0.4566	0.4809	0.4625	0.4622	0.4503	0.4735	0.4459			0.46	2.7	TM	
46	TM	Dibromomethane		0.1347	0.1434	0.1224	0.1288	0.1246	0.1280	0.1198			0.13	6.2	TM	
47	TML	MIBK (methyl isobutyl ketone)		0.2978	0.2492	0.2250	0.2115	0.1768	0.1729	0.1682			0.21	22	TML	1.000
48	TM	1-Bromo-2-chloroethane		0.1707	0.1704	0.1477	0.1606	0.1526	0.1530	0.1524			0.16	5.8	TM	
49	TM	2-Chloroethyl vinyl ether													TM	
50	TM	Cis-1,3-Dichloropropene		0.3300	0.3579	0.3254	0.3504	0.3337	0.3910	0.3907			0.35	7.8	TM	
51	TM*	Toluene		1.377	1.312	1.243	1.367	1.259	1.323	1.286			1.3	3.9	TM*	
52	TM	Trans-1,3-Dichloropropene		0.1201	0.1312	0.1146	0.1237	0.1291	0.1583				0.13	12	TM	
53	TM	1,1,2-TCA		0.1676	0.1666	0.1553	0.1668	0.1569	0.1579	0.1554			0.16	3.6	TM	
54	TM	2-Hexanone		0.0640	0.0427	0.0501	0.0580	0.0541	0.0616	0.0597			0.06	13	TM	
55	I	Chlorobenzene-D5 (IS)														
56	S	Toluene-D8(S)	1.467	1.539	1.254	1.156	1.274	1.291	1.281	1.226			1.3	9.7	S	
57	TM	1,2-EDB		0.2504	0.2286	0.2212	0.2335	0.2186	0.2342	0.2302			0.23	4.5	TM	
58	TM	Tetrachloroethene		0.2023	0.2058	0.1885	0.1942	0.1733	0.1823	0.1679			0.19	7.6	TM	
59	TM	1-Chlorohexane		0.5433	0.5298	0.4759	0.5350	0.5003	0.5435	0.5194			0.52	4.8	TM	
60	TM	1,1,1,2-Tetrachloroethane		0.3154	0.3196	0.2971	0.3148	0.3080	0.3489	0.3458			0.32	6.0	TM	
61	TM	m&p-Xylene		0.7816	0.7911	0.7243	0.8185	0.7533	0.7906	0.7806			0.78	3.9	TM	
62	TM	o-Xylene		0.8213	0.7134	0.7157	0.7950	0.7393	0.7724	0.7636			0.76	5.3	TM	
63	TM	Styrene		1.207	1.113	1.142	1.261	1.235	1.288	1.302			1.2	5.9	TM	
64	S	4-Bromofluorobenzene(S)	0.5378	0.5225	0.4311	0.4133	0.4691	0.4771	0.4691	0.4811			0.48	8.7	S	
65	TM	1,3-Dichloropropane		0.5233	0.4998	0.4389	0.4893	0.4464	0.4578	0.4307			0.47	7.4	TM	
66	TM	Dibromochloromethane		0.2820	0.2671	0.2537	0.2669	0.2629	0.2955	0.2889			0.27	5.5	TM	
67	TM**	Chlorobenzene		1.214	1.156	1.069	1.166	1.069	1.091	1.054			1.1	5.5	TM**	
68	TM*	Ethylbenzene		2.075	1.915	1.889	2.062	1.934	2.003	1.936			2.0	3.7	TM*	
69	TM**	Bromoform		0.1348	0.1185	0.1435	0.1586	0.1489	0.1700	0.1775			0.15	14	TM**	
70	I	1,4-Dichlorobenzene-D (IS)														

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/20/16
Matrix: Instrument: MAX Initials:

		Compound	1	2	3	4	5	6	8	9			Avg	%RSD		
71	TM	Isopropylbenzene		3.821	3.750	3.404	3.654	3.479	3.550	3.256			3.6	5.6	TM	
72	TM**	1,1,2,2-Tetrachloroethane		0.5321	0.5248	0.5258	0.5398	0.4970	0.5005	0.4562			0.51	5.6	TM**	
73	TML	1,2,3-Trichloropropane		0.2425	0.1838	0.1806	0.1724	0.1543	0.1518	0.1368			0.17	20	TML	0.998
74	TM	t-1,4-Dichloro-2-Butene			0.0982	0.1150	0.1176	0.1050	0.1139	0.1083			0.11	6.6	TM	
75	TM	Bromobenzene		0.8483	0.9209	0.8027	0.8398	0.7981	0.8044	0.7328			0.82	7.0	TM	
76	TM	n-Propylbenzene		4.368	4.234	4.211	4.472	4.249	4.281	3.994			4.3	3.5	TM	
77	TM	4-Ethyltoluene		3.506	3.518	3.476	3.696	3.460	3.579	3.383			3.5	2.8	TM	
78	TM	2-Chlorotoluene		2.416	2.357	2.331	2.402	2.290	2.255	2.117			2.3	4.4	TM	
79	TM	1,3,5-Trimethylbenzene		3.062	3.008	2.877	3.126	2.916	2.958	2.863			3.0	3.3	TM	
80	TM	4-Chlorotoluene		2.959	2.895	2.741	2.897	2.728	2.741	2.624			2.8	4.3	TM	
81	TM	Tert-Butylbenzene		2.568	2.615	2.884	2.678	2.506	2.601	2.438			2.6	5.5	TM	
82	TM	1,2,4-Trimethylbenzene		2.937	2.925	2.800	3.136	2.959	3.040	2.930			3.0	3.5	TM	
83	TM	Sec-Butylbenzene		3.677	3.701	3.620	3.959	3.790	3.853	3.671			3.8	3.2	TM	
84	TM	p-Isopropyltoluene		3.449	3.445	3.225	3.418	3.260	3.399	3.327			3.4	2.7	TM	
85	TM	Benzyl Chloride		0.2824	0.2934	0.2616	0.3424	0.3326					0.30	11	TM	
86	TM	1,3-DCB		1.764	1.806	1.653	1.726	1.586	1.630	1.526			1.7	6.0	TM	
87	TM	1,4-DCB		1.778	1.808	1.632	1.736	1.610	1.635	1.550			1.7	5.7	TM	
88	TM	n-Butylbenzene		2.981	2.974	2.803	3.064	2.950	3.200	3.058			3.0	4.1	TM	
89	TM	1,2-DCB		1.468	1.474	1.460	1.517	1.418	1.451	1.289			1.4	5.1	TM	
90	TM	Hexachloroethane		0.3572	0.3374	0.3443	0.3866	0.3856	0.4626	0.4894			0.39	15	TM	
91	TM	1,2-Dibromo-3-chloropropane				0.0541	0.0669	0.0636	0.0769	0.0661			0.07	12	TM	
92	TM	1,2,4-Trichlorobenzene		1.087	0.9181	0.9476	1.054	0.9801	1.114	0.9014			1.0	8.5	TM	
93	TM	Hexachlorobutadiene		0.6715	0.6243	0.6291	0.6329	0.5885	0.6178	0.5053			0.61	8.6	TM	
94	TM	Naphthalene		0.5803	0.6863	0.6864	0.7527	0.7295	0.8752	0.6889			0.71	12	TM	
95	TM	1,2,3-Trichlorobenzene		0.8690	0.8177	0.8522	0.9061	0.8445	0.9593	0.7567			0.86	7.5	TM	
96																
97																
98																
99																
100																
101																
102																
103																
104																
105																

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1020M06.D Vial: 5
Acq On : 20 Oct 16 12:19 Operator: DG,CM,SV
Sample : 0.3ug/L VOC STD 10/20/16AA Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 9:06 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 07:54:28 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	333677	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	241772	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	125666	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.80	111	18620	5.83366 ppb	0.00
Spiked Amount 25.000			Recovery =	23.336%	
36) 1,2-DCA-D4(S)	5.14	65	17923	5.94742 ppb	0.00
Spiked Amount 25.000			Recovery =	23.788%	
56) Toluene-D8(S)	7.36	98	70914	5.55540 ppb	0.00
Spiked Amount 25.000			Recovery =	22.220%	
64) 4-Bromofluorobenzene(S)	10.74	95	26006	5.68014 ppb	0.00
Spiked Amount 25.000			Recovery =	22.720%	
Target Compounds					Qvalue
14) t-Butanol	3.17	59	1750	10.78362 ppb	99

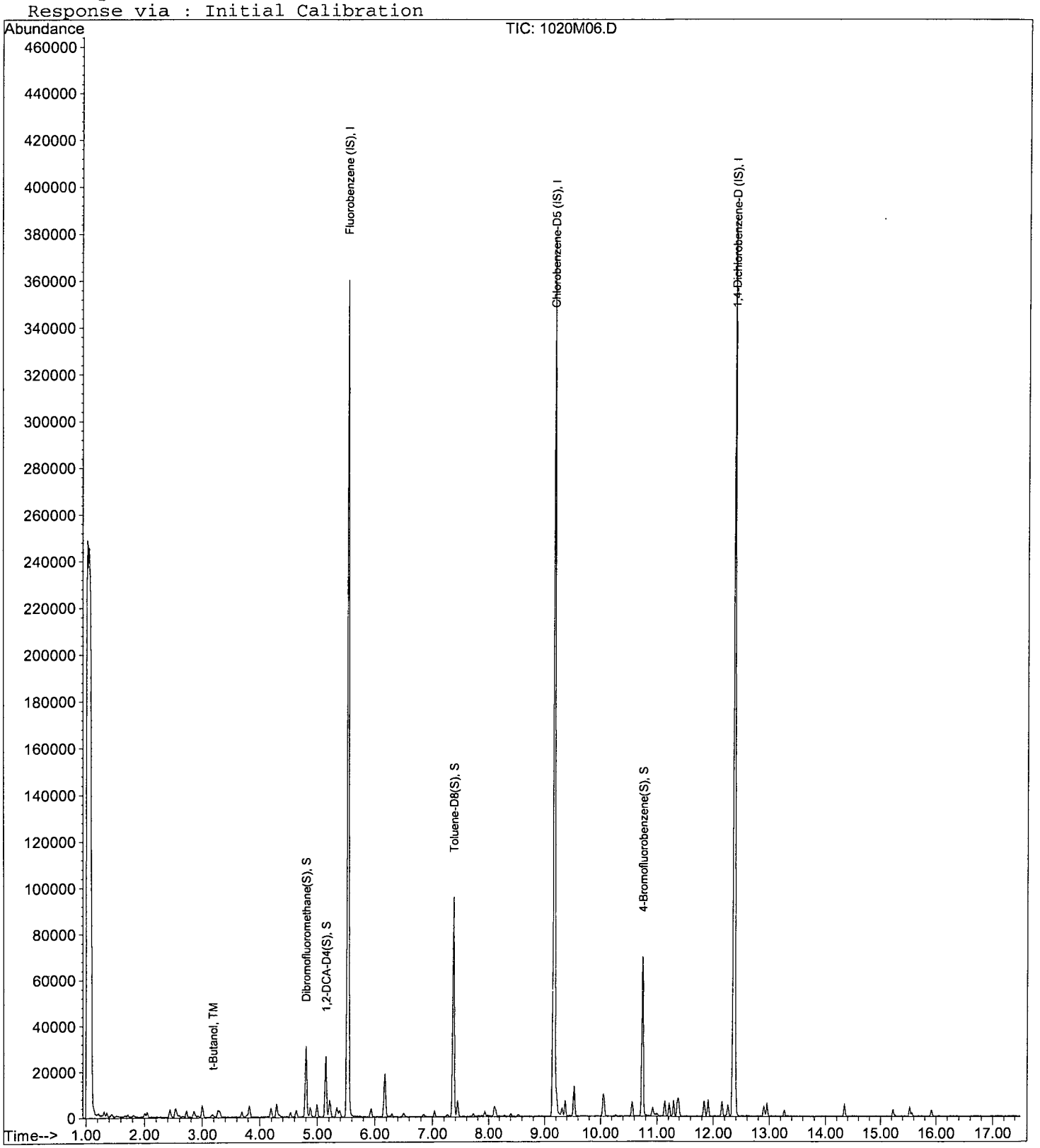
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M06.D Vial: 5
Acq On : 20 Oct 16 12:19 Operator: DG,CM,SV
Sample : 0.3ug/L VOC STD 10/20/16AA Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 9:06 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M07.D Vial: 6
Acq On : 20 Oct 16 12:41 Operator: DG,CM,SV
Sample : 0.5ug/L VOC STD 10/20/16AB Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 8:35 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:12 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.52	96	335960	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	237803	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	125548	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.79	111	18957	5.81449 ppb		0.00
Spiked Amount 25.000			Recovery = 23.256%			
36) 1,2-DCA-D4(S)	5.14	65	18170	5.82092 ppb		0.00
Spiked Amount 25.000			Recovery = 23.284%			
56) Toluene-D8(S)	7.36	98	73203	5.86988 ppb		0.00
Spiked Amount 25.000			Recovery = 23.480%			
64) 4-Bromofluorobenzene(S)	10.74	95	24850	5.49841 ppb		0.00
Spiked Amount 25.000			Recovery = 21.992%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	896	0.46581 ppb		88
3) Freon 114	1.31	85	1593	0.48650 ppb		96
4) Chloromethane	1.36	49	205	0.58155 ppb	#	35
5) Vinyl chloride	1.45	62	1525	0.54620 ppb		90
6) Bromomethane	1.72	94	1109	0.43750 ppb		98
7) Chloroethane	1.82	64	753	0.49541 ppb		85
8) Dichlorofluoromethane	2.00	67	4161	0.52743 ppb		98
9) Trichlorofluoromethane	2.04	101	2358	0.42463 ppb		99
10) Acrolein	2.43	56	4066	26.41738 ppb		94
11) Acetone	2.59	43	1030	1.88007 ppb		98
12) Freon-113	2.55	101	889	0.53732 ppb		83
13) 1,1-DCE	2.53	61	2991	0.53196 ppb		97
14) t-Butanol	3.17	59	3915	23.96057 ppb	#	83
15) Methyl Acetate	2.93	43	1028	0.56091 ppb	#	54
16) Iodomethane	2.66	142	1007	1.11270 ppb	#	69
17) Acrylonitrile	3.23	53	378	0.47927 ppb	#	13
18) Methylene chloride	3.00	84	3504	0.41895 ppb	#	75
19) Carbon disulfide	2.72	76	5550	0.52829 ppb		98
20) Methyl t-butyl ether (MtBE	3.30	73	1812	0.51885 ppb		98
21) Trans-1,2-DCE	3.28	96	1767	0.50165 ppb		96
22) Diisopropyl Ether	3.82	45	6206	0.51833 ppb		99
23) 1,1-DCA	3.69	63	3504	0.51038 ppb		96
24) Vinyl Acetate	3.77	43	1166	0.60445 ppb		99
25) Ethyl tert Butyl Ether	4.19	59	4333	0.51093 ppb		95
26) MEK (2-Butanone)	4.33	43	702	0.67596 ppb	#	50
27) Cis-1,2-DCE	4.29	96	2211	0.55235 ppb		93
28) 2,2-Dichloropropane	4.29	77	1164	0.54570 ppb		96
29) Chloroform	4.63	83	3413	0.52738 ppb		82
30) Bromochloromethane	4.53	128	755	0.48212 ppb		100
32) 1,1,1-TCA	4.81	97	2561	0.47933 ppb		90
33) Cyclohexane	4.87	41	2079	0.57645 ppb		71
34) 1,1-Dichloropropene	4.99	75	2437	0.48877 ppb	#	84
35) 2,2,4-Trimethylpentane	5.34	57	6127	0.49457 ppb		96
37) Carbon Tetrachloride	5.00	117	1982	0.47504 ppb		95
38) Tert Amyl Methyl Ether	5.39	73	3478	0.47898 ppb		97
39) 1,2-DCA	5.23	62	2032	0.48107 ppb	#	76
40) Benzene	5.21	78	8548	0.53961 ppb		94
41) TCE	5.94	95	1918	0.49202 ppb		89
42) 2-Pentanone	6.17	43	38622	23.72323 ppb		95

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M07.D Vial: 6
Acq On : 20 Oct 16 12:41 Operator: DG,CM,SV
Sample : 0.5ug/L VOC STD 10/20/16AB Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 8:35 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:12 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	6.18	63	2048	0.51548	ppb	#	66
44)	Bromodichloromethane	6.50	83	2199	0.50442	ppb		86
45)	Methyl Cyclohexane	6.16	83	3068	0.49407	ppb		99
46)	Dibromomethane	6.30	93	905	0.52278	ppb		89
47)	MIBK (methyl isobutyl ket	7.26	43	2001	0.12723	ppb	#	82
48)	1-Bromo-2-chloroethane	6.84	63	1147	0.53951	ppb	#	80
50)	Cis-1,3-Dichloropropene	7.03	75	2217	0.46584	ppb		92
51)	Toluene	7.44	91	9250	0.52105	ppb		94
52)	Trans-1,3-Dichloropropene	7.72	75	807	0.46375	ppb	#	76
53)	1,1,2-TCA	7.93	83	1126	0.52064	ppb		80
54)	2-Hexanone	8.29	58	430	0.57405	ppb	#	48
57)	1,2-EDB	8.54	107	1191	0.54214	ppb		93
58)	Tetrachloroethene	8.11	164	962	0.53864	ppb		96
59)	1-Chlorohexane	9.22	91	2584	0.52138	ppb		95
60)	1,1,1,2-Tetrachloroethane	9.31	131	1500	0.49068	ppb		93
61)	m&p-Xylene	9.52	106	7435	0.99552	ppb		98
62)	o-Xylene	10.04	106	3906	0.54152	ppb		69
63)	Styrene	10.06	104	5741	0.48800	ppb		97
65)	1,3-Dichloropropane	8.13	76	2489	0.55737	ppb		88
66)	Dibromochloromethane	8.40	129	1341	0.51480	ppb		83
67)	Chlorobenzene	9.19	112	5774	0.54330	ppb		88
68)	Ethylbenzene	9.36	91	9871	0.52475	ppb		99
69)	Bromoform	10.26	173	641	0.44846	ppb		99
71)	Isopropylbenzene	10.56	105	9595	0.53272	ppb		99
72)	1,1,2,2-Tetrachloroethane	10.97	83	1336	0.52170	ppb	#	85
73)	1,2,3-Trichloropropane	10.99	110	609	-0.28276	ppb	#	66
74)	t-1,4-Dichloro-2-Butene	11.05	53	101	0.18337	ppb	#	10
75)	Bromobenzene	10.92	156	2130	0.51661	ppb		79
76)	n-Propylbenzene	11.13	91	10968	0.51289	ppb		96
77)	4-Ethyltoluene	11.30	105	8804	0.49852	ppb		100
78)	2-Chlorotoluene	11.21	91	6066	0.52299	ppb		94
79)	1,3,5-Trimethylbenzene	11.39	105	7689	0.51198	ppb		91
80)	4-Chlorotoluene	11.37	91	7430	0.52352	ppb		88
81)	Tert-Butylbenzene	11.84	119	6449	0.48656	ppb		93
82)	1,2,4-Trimethylbenzene	11.91	105	7375	0.49331	ppb		92
83)	Sec-Butylbenzene	12.15	105	9232	0.48711	ppb		97
84)	p-Isopropyltoluene	12.38	119	8660	0.50413	ppb		97
85)	Benzyl Chloride	12.60	91	709	0.46676	ppb	#	62
86)	1,3-DCB	12.26	146	4430	0.51975	ppb		91
87)	1,4-DCB	12.38	146	4465	0.51548	ppb		87
88)	n-Butylbenzene	12.95	91	7484	0.49623	ppb		94
89)	1,2-DCB	12.90	146	3686	0.50829	ppb	#	62
90)	Hexachloroethane	13.26	117	897	0.45251	ppb	#	66
92)	1,2,4-Trichlorobenzene	15.23	180	2729	0.54333	ppb	#	96
93)	Hexachlorobutadiene	15.52	225	1686	0.54665	ppb		86
94)	Naphthalene	15.56	128	1457	0.40624	ppb	#	85
95)	1,2,3-Trichlorobenzene	15.92	180	2182	0.50251	ppb		84

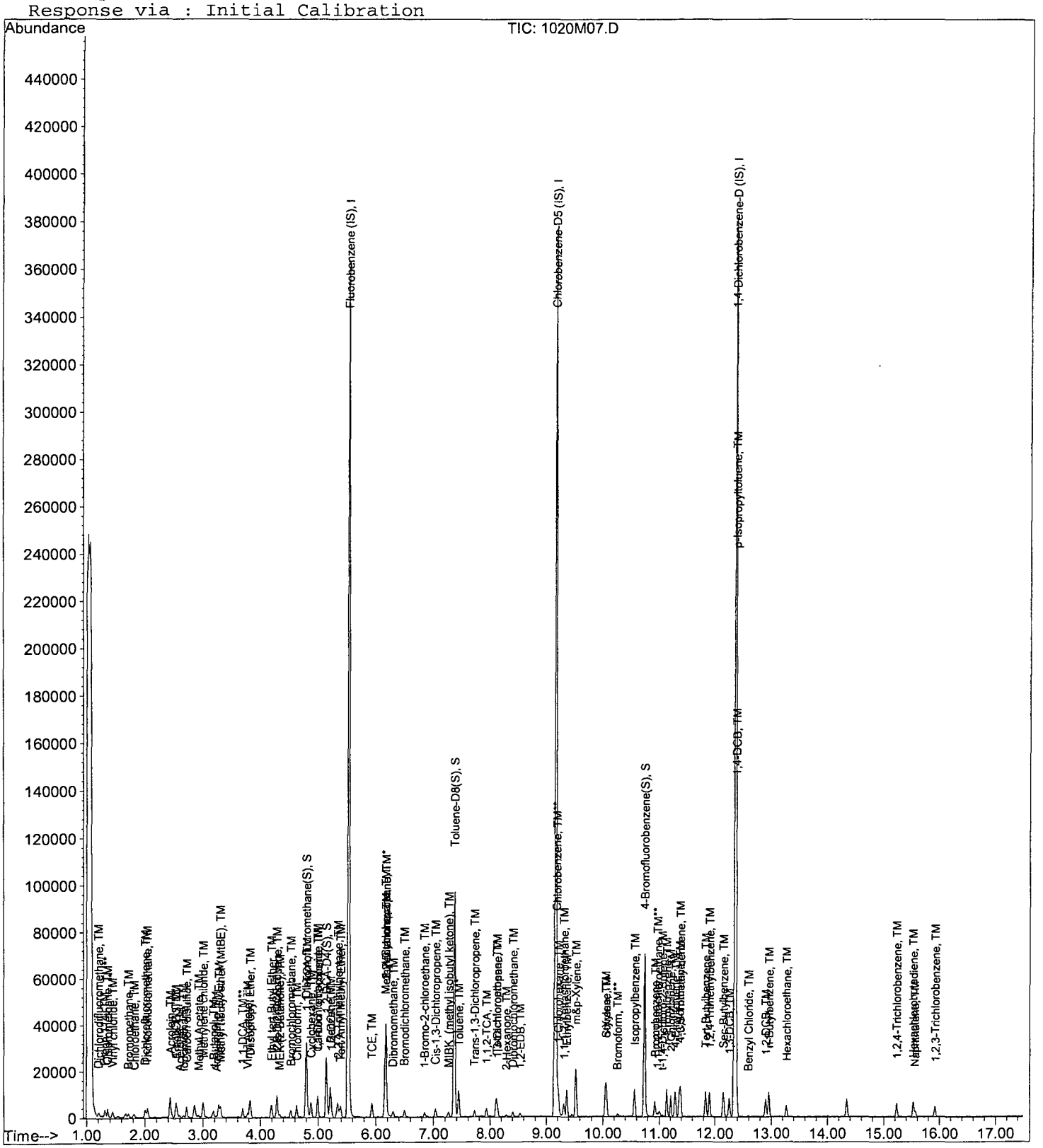
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M07.D Vial: 6
Acq On : 20 Oct 16 12:41 Operator: DG,CM,SV
Sample : 0.5ug/L VOC STD 10/20/16AB Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 8:35 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M08.D Vial: 7
Acq On : 20 Oct 16 13:03 Operator: DG,CM,SV
Sample : 1.0ug/L VOC STD 10/20/16AC Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.53	96	329092	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	237074	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	124990	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	29374	9.19762 ppb		0.00
Spiked Amount 25.000			Recovery	= 36.792%		
36) 1,2-DCA-D4(S)	5.15	65	29015	9.48920 ppb		0.00
Spiked Amount 25.000			Recovery	= 37.956%		
56) Toluene-D8(S)	7.36	98	118927	9.56564 ppb		0.00
Spiked Amount 25.000			Recovery	= 38.264%		
64) 4-Bromofluorobenzene(S)	10.74	95	40878	9.07265 ppb		0.00
Spiked Amount 25.000			Recovery	= 36.292%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	2026	1.07525 ppb		89
3) Freon 114	1.31	85	3457	1.07779 ppb		85
4) Chloromethane	1.36	49	280	0.81089 ppb	#	46
5) Vinyl chloride	1.44	62	2406	0.87973 ppb		97
6) Bromomethane	1.72	94	2502	1.00765 ppb		95
7) Chloroethane	1.81	64	1461	0.98127 ppb		98
8) Dichlorofluoromethane	2.01	67	8128	1.05176 ppb		92
9) Trichlorofluoromethane	2.05	101	5779	1.06240 ppb		82
10) Acrolein	2.44	56	8011	53.13484 ppb		100
11) Acetone	2.59	43	1548	3.39195 ppb		97
12) Freon-113	2.55	101	1960	1.20936 ppb		84
13) 1,1-DCE	2.53	61	5595	1.01586 ppb		94
14) t-Butanol	3.18	59	8118	50.72062 ppb		100
15) Methyl Acetate	2.92	43	1863	1.03774 ppb	#	80
16) Iodomethane	2.66	142	1939	1.41271 ppb	#	87
17) Acrylonitrile	3.24	53	854	1.10540 ppb	#	64
18) Methylene chloride	3.01	84	5083	0.90779 ppb		90
19) Carbon disulfide	2.72	76	10831	1.05250 ppb		94
20) Methyl t-butyl ether (MtBE	3.31	73	3577	1.04562 ppb		92
21) Trans-1,2-DCE	3.27	96	3445	0.99844 ppb		98
22) Diisopropyl Ether	3.82	45	11980	1.02146 ppb		98
23) 1,1-DCA	3.69	63	7072	1.05158 ppb		96
24) Vinyl Acetate	3.78	43	2035	1.07696 ppb		95
25) Ethyl tert Butyl Ether	4.19	59	8542	1.02826 ppb		99
26) MEK (2-Butanone)	4.33	43	1198	1.17764 ppb	#	80
27) Cis-1,2-DCE	4.29	96	4094	1.04410 ppb		91
28) 2,2-Dichloropropane	4.28	77	2137	1.02277 ppb		98
29) Chloroform	4.63	83	6764	1.06698 ppb		98
30) Bromochloromethane	4.53	128	1444	0.94133 ppb	#	84
32) 1,1,1-TCA	4.82	97	5482	1.04744 ppb		99
33) Cyclohexane	4.88	41	3682	1.04222 ppb		86
34) 1,1-Dichloropropene	5.00	75	4865	0.99610 ppb		91
35) 2,2,4-Trimethylpentane	5.34	57	12732	1.04918 ppb		97
37) Carbon Tetrachloride	4.99	117	4275	1.04600 ppb		97
38) Tert Amyl Methyl Ether	5.39	73	7231	1.01662 ppb	#	96
39) 1,2-DCA	5.23	62	4480	1.08275 ppb		99
40) Benzene	5.21	78	15738	1.01422 ppb		98
41) TCE	5.93	95	4295	1.12479 ppb		83
42) 2-Pentanone	6.17	43	79037	49.56096 ppb		95

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

Data File : M:\MAX\DATA\M161020\1020M08.D Vial: 7
Acq On : 20 Oct 16 13:03 Operator: DG,CM,SV
Sample : 1.0ug/L VOC STD 10/20/16AC Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

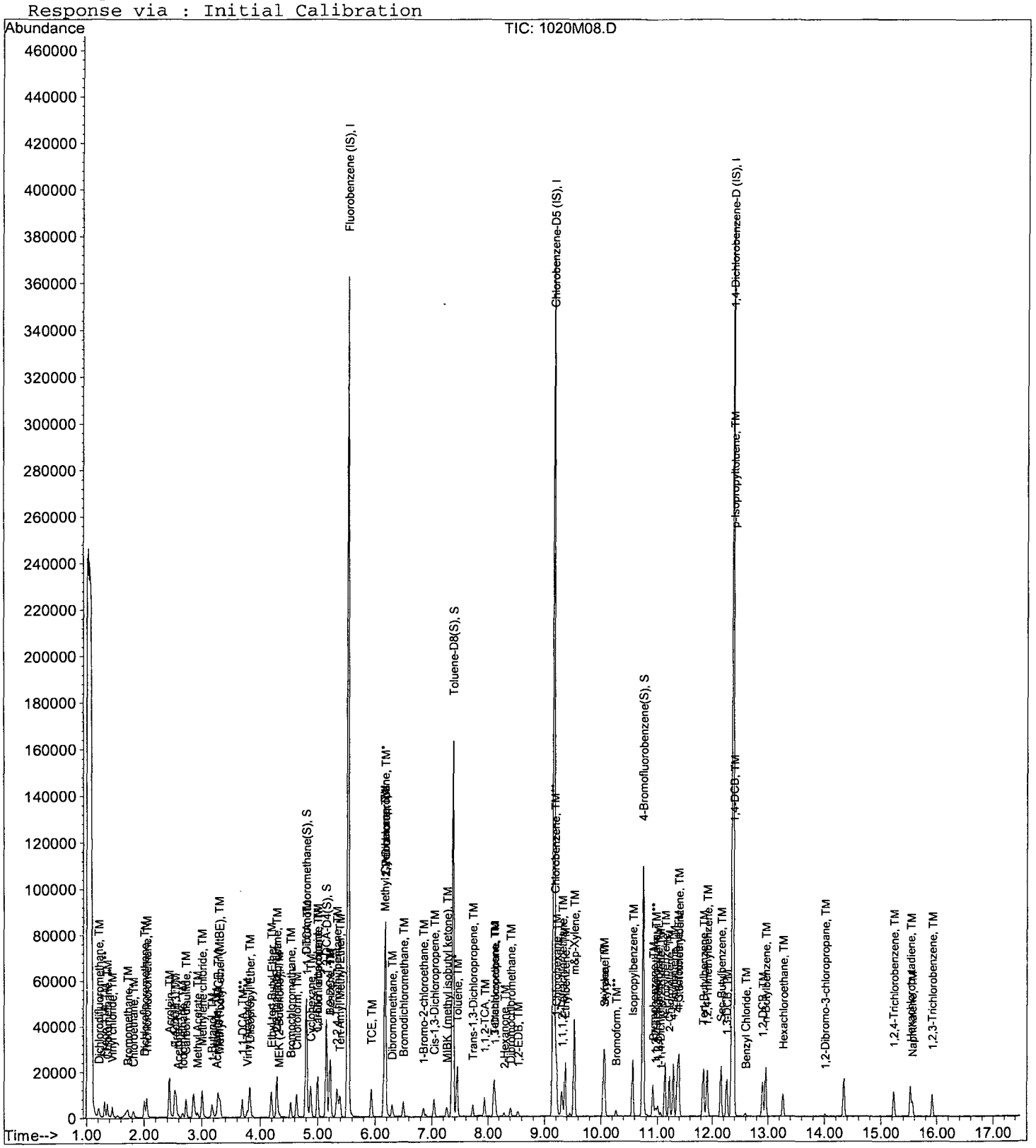
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	6.17	63	3965	1.01882	ppb	#	88
44)	Bromodichloromethane	6.50	83	4412	1.03316	ppb		96
45)	Methyl Cyclohexane	6.16	83	6330	1.04065	ppb		99
46)	Dibromomethane	6.30	93	1888	1.11338	ppb		97
47)	MIBK (methyl isobutyl ket	7.26	43	3281	0.72709	ppb		90
48)	1-Bromo-2-chloroethane	6.85	63	2243	1.07705	ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	4711	1.01055	ppb		96
51)	Toluene	7.44	91	17276	0.99347	ppb		92
52)	Trans-1,3-Dichloropropene	7.72	75	1727	1.01315	ppb		95
53)	1,1,2-TCA	7.93	83	2193	1.03517	ppb		84
54)	2-Hexanone	8.29	58	562	0.76593	ppb	#	70
57)	1,2-EDB	8.53	107	2168	0.98990	ppb		98
58)	Tetrachloroethene	8.11	164	1952	1.09633	ppb		95
59)	1-Chlorohexane	9.22	91	5024	1.01681	ppb		97
60)	1,1,1,2-Tetrachloroethane	9.31	131	3031	0.99456	ppb		96
61)	m&p-Xylene	9.53	106	15004	2.01516	ppb		90
62)	o-Xylene	10.04	106	6765	0.94076	ppb		85
63)	Styrene	10.07	104	10554	0.89989	ppb		85
65)	1,3-Dichloropropane	8.13	76	4740	1.06471	ppb		93
66)	Dibromochloromethane	8.41	129	2533	0.97540	ppb	#	61
67)	Chlorobenzene	9.19	112	10964	1.03482	ppb		94
68)	Ethylbenzene	9.37	91	18159	0.96832	ppb		100
69)	Bromoform	10.27	173	1124	0.78879	ppb		81
71)	Isopropylbenzene	10.56	105	18748	1.04554	ppb		94
72)	1,1,2,2-Tetrachloroethane	10.97	83	2624	1.02922	ppb	#	92
73)	1,2,3-Trichloropropane	11.01	110	919	0.17396	ppb		96
74)	t-1,4-Dichloro-2-Butene	11.05	53	491	0.89543	ppb	#	60
75)	Bromobenzene	10.92	156	4604	1.12164	ppb		96
76)	n-Propylbenzene	11.13	91	21166	0.99418	ppb		99
77)	4-Ethyltoluene	11.30	105	17589	1.00041	ppb		95
78)	2-Chlorotoluene	11.21	91	11785	1.02059	ppb		97
79)	1,3,5-Trimethylbenzene	11.40	105	15038	1.00579	ppb		93
80)	4-Chlorotoluene	11.37	91	14475	1.02446	ppb		91
81)	Tert-Butylbenzene	11.83	119	13074	0.99081	ppb		88
82)	1,2,4-Trimethylbenzene	11.91	105	14624	0.98257	ppb		99
83)	Sec-Butylbenzene	12.15	105	18504	0.98068	ppb		98
84)	p-Isopropyltoluene	12.38	119	17225	1.00720	ppb		97
85)	Benzyl Chloride	12.60	91	1467	0.97009	ppb	#	87
86)	1,3-DCB	12.26	146	9031	1.06428	ppb		97
87)	1,4-DCB	12.39	146	9037	1.04798	ppb		99
88)	n-Butylbenzene	12.95	91	14869	0.99029	ppb		98
89)	1,2-DCB	12.90	146	7371	1.02098	ppb		98
90)	Hexachloroethane	13.26	117	1687	0.85484	ppb	#	85
91)	1,2-Dibromo-3-chloropropan	14.02	75	208	0.10049	ppb	#	32
92)	1,2,4-Trichlorobenzene	15.23	180	4590	0.91793	ppb		88
93)	Hexachlorobutadiene	15.52	225	3121	1.01643	ppb		93
94)	Naphthalene	15.56	128	3431	0.96091	ppb		93
95)	1,2,3-Trichlorobenzene	15.92	180	4088	0.94567	ppb	#	91

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

Data File : M:\MAX\DATA\M161020\1020M08.D Vial: 7
Acq On : 20 Oct 16 13:03 Operator: DG,CM,SV
Sample : 1.0ug/L VOC STD 10/20/16AC Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



578

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M09.D Vial: 8
Acq On : 20 Oct 16 13:25 Operator: DG,CM,SV
Sample : 2.0ug/L VOC STD 10/20/16AD Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.52	96	338019	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	242362	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	128498	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	28649	8.73369 ppb		0.00
Spiked Amount 25.000			Recovery = 34.936%			
36) 1,2-DCA-D4(S)	5.14	65	27838	8.86383 ppb		0.00
Spiked Amount 25.000			Recovery = 35.456%			
56) Toluene-D8(S)	7.36	98	112076	8.81791 ppb		0.00
Spiked Amount 25.000			Recovery = 35.272%			
64) 4-Bromofluorobenzene(S)	10.74	95	40068	8.69884 ppb		0.00
Spiked Amount 25.000			Recovery = 34.796%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	3524	1.82089 ppb		99
3) Freon 114	1.31	85	5891	1.78813 ppb	#	74
4) Chloromethane	1.36	49	691	1.94831 ppb	#	79
5) Vinyl chloride	1.45	62	5240	1.86536 ppb		97
6) Bromomethane	1.71	94	4851	1.90208 ppb		98
7) Chloroethane	1.81	64	2685	1.75574 ppb		97
8) Dichlorofluoromethane	2.00	67	15604	1.96583 ppb		98
9) Trichlorofluoromethane	2.04	101	10235	1.83188 ppb		100
10) Acrolein	2.43	56	11134	71.89854 ppb		96
11) Acetone	2.60	43	1970	4.42961 ppb		94
12) Freon-113	2.55	101	3174	1.90671 ppb		95
13) 1,1-DCE	2.52	61	11139	1.96905 ppb		94
14) t-Butanol	3.18	59	12043	73.25655 ppb		96
15) Methyl Acetate	2.93	43	3777	2.04832 ppb		98
16) Iodomethane	2.66	142	4341	2.13309 ppb		91
17) Acrylonitrile	3.24	53	1432	1.80460 ppb		95
18) Methylene chloride	3.00	84	8529	1.86163 ppb		93
19) Carbon disulfide	2.71	76	20296	1.92017 ppb		98
20) Methyl t-butyl ether (MtBE	3.31	73	7354	2.09292 ppb		97
21) Trans-1,2-DCE	3.27	96	6806	1.92044 ppb		97
22) Diisopropyl Ether	3.82	45	23628	1.96141 ppb		98
23) 1,1-DCA	3.69	63	13817	2.00027 ppb		97
24) Vinyl Acetate	3.78	43	3326	1.71369 ppb	#	78
25) Ethyl tert Butyl Ether	4.19	59	16098	1.88665 ppb		99
26) MEK (2-Butanone)	4.33	43	2144	2.05190 ppb		87
27) Cis-1,2-DCE	4.29	96	7363	1.82821 ppb		98
28) 2,2-Dichloropropane	4.29	77	4250	1.98033 ppb		93
29) Chloroform	4.63	83	12347	1.89623 ppb		97
30) Bromochloromethane	4.53	128	3373	2.14077 ppb		84
32) 1,1,1-TCA	4.81	97	10275	1.91139 ppb		96
33) Cyclohexane	4.87	41	6897	1.90069 ppb		90
34) 1,1-Dichloropropene	4.99	75	9557	1.90510 ppb		97
35) 2,2,4-Trimethylpentane	5.34	57	25201	2.02184 ppb		98
37) Carbon Tetrachloride	4.99	117	7430	1.76995 ppb		100
38) Tert Amyl Methyl Ether	5.38	73	13851	1.89590 ppb		96
39) 1,2-DCA	5.23	62	8322	1.95819 ppb		96
40) Benzene	5.21	78	30964	1.94274 ppb		98
41) TCE	5.93	95	7597	1.93698 ppb		93
42) 2-Pentanone	6.17	43	113850	69.50540 ppb		99

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M09.D Vial: 8
Acq On : 20 Oct 16 13:25 Operator: DG,CM,SV
Sample : 2.0ug/L VOC STD 10/20/16AD Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	1,2-Dichloropropane	6.17	63	7934	1.98483 ppb	#	95
44)	Bromodichloromethane	6.50	83	7605	1.73384 ppb		91
45)	Methyl Cyclohexane	6.15	83	12507	2.00185 ppb		93
46)	Dibromomethane	6.30	93	3311	1.90098 ppb		85
47)	MIBK (methyl isobutyl ket	7.26	43	6085	1.92750 ppb		98
48)	1-Bromo-2-chloroethane	6.85	63	3993	1.86673 ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	8799	1.83761 ppb		98
51)	Toluene	7.44	91	33605	1.88145 ppb		97
52)	Trans-1,3-Dichloropropene	7.72	75	3100	1.77059 ppb		91
53)	1,1,2-TCA	7.93	83	4200	1.93018 ppb		94
54)	2-Hexanone	8.29	58	1354	1.79657 ppb		93
57)	1,2-EDB	8.54	107	4288	1.91517 ppb		85
58)	Tetrachloroethene	8.11	164	3654	2.00746 ppb		98
59)	1-Chlorohexane	9.22	91	9227	1.82672 ppb		94
60)	1,1,1,2-Tetrachloroethane	9.31	131	5760	1.84878 ppb		95
61)	m&p-Xylene	9.53	106	28086	3.68988 ppb		98
62)	o-Xylene	10.05	106	13876	1.88754 ppb		90
63)	Styrene	10.06	104	22145	1.84699 ppb		96
65)	1,3-Dichloropropane	8.13	76	8509	1.86962 ppb		92
66)	Dibromochloromethane	8.40	129	4919	1.85286 ppb		82
67)	Chlorobenzene	9.19	112	20733	1.91415 ppb		97
68)	Ethylbenzene	9.36	91	36625	1.91041 ppb		97
69)	Bromoform	10.27	173	2783	1.91042 ppb		98
71)	Isopropylbenzene	10.56	105	34996	1.89838 ppb		98
72)	1,1,2,2-Tetrachloroethane	10.97	83	5405	2.06215 ppb		98
73)	1,2,3-Trichloropropane	11.01	110	1857	1.46990 ppb		90
74)	t-1,4-Dichloro-2-Butene	11.05	53	1182	2.09675 ppb		97
75)	Bromobenzene	10.92	156	8252	1.95549 ppb		98
76)	n-Propylbenzene	11.13	91	43284	1.97758 ppb		100
77)	4-Ethyltoluene	11.30	105	35728	1.97663 ppb		92
78)	2-Chlorotoluene	11.22	91	23958	2.01814 ppb		99
79)	1,3,5-Trimethylbenzene	11.39	105	29575	1.92407 ppb		99
80)	4-Chlorotoluene	11.37	91	28174	1.93957 ppb		99
81)	Tert-Butylbenzene	11.84	119	29651	2.18575 ppb		93
82)	1,2,4-Trimethylbenzene	11.91	105	28786	1.88129 ppb		93
83)	Sec-Butylbenzene	12.15	105	37212	1.91833 ppb		97
84)	p-Isopropyltoluene	12.38	119	33152	1.88558 ppb		97
85)	Benzyl Chloride	12.59	91	2689	1.72963 ppb	#	89
86)	1,3-DCB	12.26	146	16988	1.94734 ppb		95
87)	1,4-DCB	12.39	146	16779	1.89266 ppb		98
88)	n-Butylbenzene	12.96	91	28817	1.86684 ppb		97
89)	1,2-DCB	12.90	146	15004	2.02152 ppb		96
90)	Hexachloroethane	13.27	117	3539	1.74434 ppb		88
91)	1,2-Dibromo-3-chloropropan	14.02	75	556	1.09361 ppb	#	72
92)	1,2,4-Trichlorobenzene	15.23	180	9741	1.89487 ppb		92
93)	Hexachlorobutadiene	15.52	225	6467	2.04864 ppb		92
94)	Naphthalene	15.56	128	7056	1.92220 ppb		99
95)	1,2,3-Trichlorobenzene	15.92	180	8760	1.97111 ppb		92

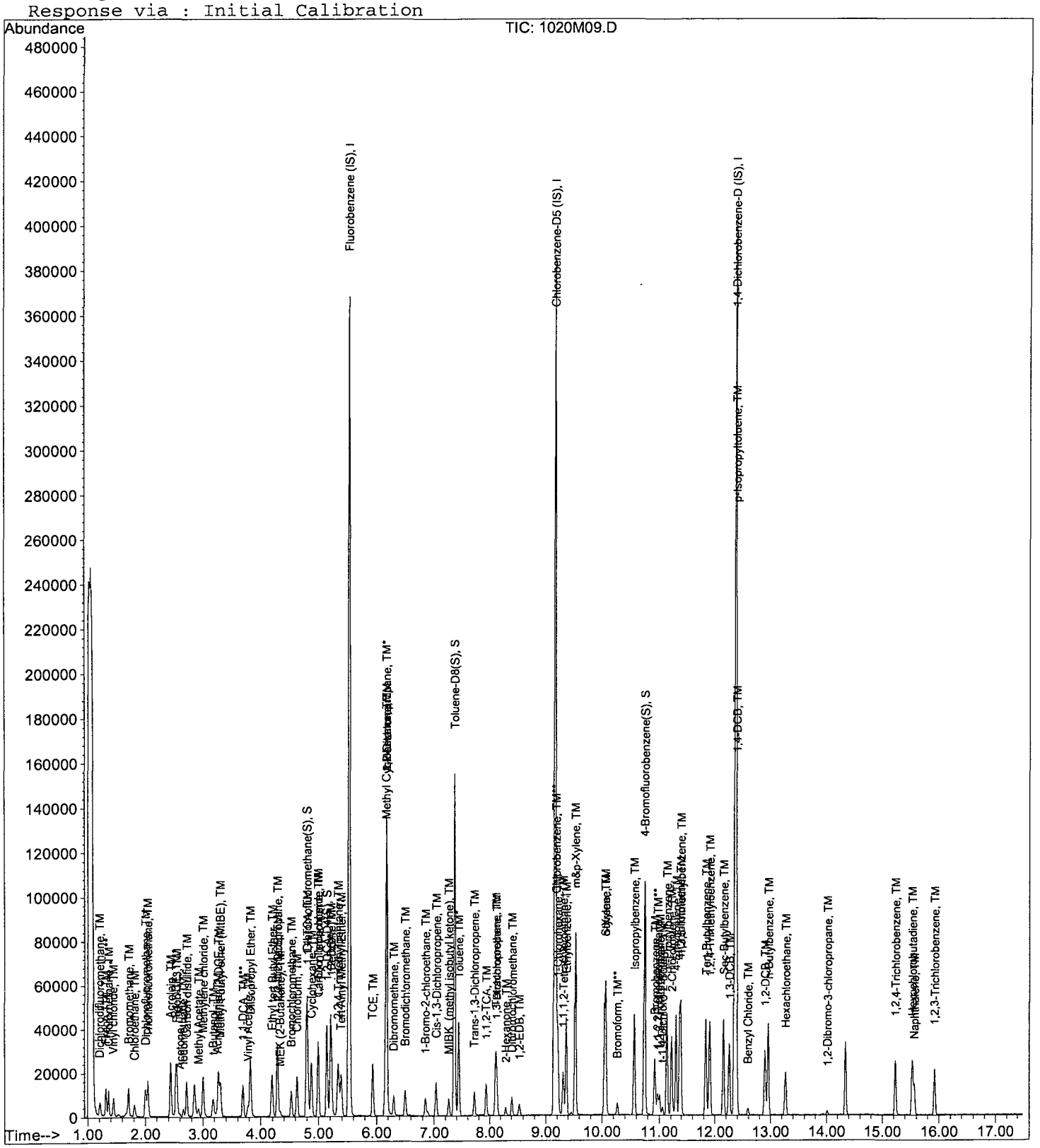
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M09.D Vial: 8
Acq On : 20 Oct 16 13:25 Operator: DG,CM,SV
Sample : 2.0ug/L VOC STD 10/20/16AD Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



581

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M10.D Vial: 9
Acq On : 20 Oct 16 13:47 Operator: DG,CM,SV
Sample : 5.0ug/L VOC STD 10/20/16AE Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.53	96	344045	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	251263	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	137533	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	81437	24.39137 ppb		0.00
Spiked Amount 25.000			Recovery = 97.564%			
36) 1,2-DCA-D4(S)	5.15	65	78880	24.67607 ppb		0.00
Spiked Amount 25.000			Recovery = 98.704%			
56) Toluene-D8(S)	7.36	98	320158	24.29703 ppb		0.00
Spiked Amount 25.000			Recovery = 97.188%			
64) 4-Bromofluorobenzene(S)	10.74	95	117865	24.68224 ppb		0.00
Spiked Amount 25.000			Recovery = 98.728%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	10150	5.15274 ppb		100
3) Freon 114	1.32	85	17741	5.29072 ppb		93
4) Chloromethane	1.36	49	2087	5.78133 ppb	#	87
5) Vinyl chloride	1.45	62	14666	5.12942 ppb		96
6) Bromomethane	1.71	94	12336	4.75223 ppb		86
7) Chloroethane	1.82	64	7795	5.00792 ppb		95
8) Dichlorofluoromethane	2.01	67	40897	5.06207 ppb		98
9) Trichlorofluoromethane	2.05	101	29866	5.25186 ppb		97
10) Acrolein	2.44	56	15963	101.27663 ppb		100
11) Acetone	2.59	43	4666	11.56816 ppb		93
12) Freon-113	2.55	101	8583	5.06573 ppb		96
13) 1,1-DCE	2.53	61	28583	4.96415 ppb		98
14) t-Butanol	3.18	59	16467	98.41292 ppb		99
15) Methyl Acetate	2.92	43	9491	5.05694 ppb		99
16) Iodomethane	2.66	142	12891	4.68550 ppb		98
17) Acrylonitrile	3.24	53	4251	5.26327 ppb	#	82
18) Methylene chloride	3.01	84	20038	5.07886 ppb		94
19) Carbon disulfide	2.72	76	53812	5.00189 ppb		99
20) Methyl t-butyl ether (MtBE	3.31	73	17880	4.99946 ppb		97
21) Trans-1,2-DCE	3.27	96	18794	5.21019 ppb		97
22) Diisopropyl Ether	3.82	45	63304	5.16295 ppb		97
23) 1,1-DCA	3.69	63	35943	5.11229 ppb		97
24) Vinyl Acetate	3.78	43	9670	4.89511 ppb		93
25) Ethyl tert Butyl Ether	4.19	59	44291	5.09988 ppb		97
26) MEK (2-Butanone)	4.34	43	5596	5.26180 ppb		89
27) Cis-1,2-DCE	4.29	96	20488	4.99799 ppb		96
28) 2,2-Dichloropropane	4.29	77	10444	4.78124 ppb		100
29) Chloroform	4.63	83	34081	5.14243 ppb		93
30) Bromochloromethane	4.53	128	8541	5.32583 ppb		97
32) 1,1,1-TCA	4.82	97	28198	5.15361 ppb		95
33) Cyclohexane	4.88	41	18367	4.97295 ppb		90
34) 1,1-Dichloropropene	5.00	75	26515	5.19296 ppb		96
35) 2,2,4-Trimethylpentane	5.34	57	63483	5.00393 ppb		97
37) Carbon Tetrachloride	4.99	117	21712	5.08158 ppb		94
38) Tert Amyl Methyl Ether	5.39	73	37608	5.05756 ppb		98
39) 1,2-DCA	5.23	62	22589	5.22215 ppb		97
40) Benzene	5.21	78	80919	4.98809 ppb		97
41) TCE	5.94	95	19927	4.99172 ppb		98
42) 2-Pentanone	6.17	43	159489	95.66258 ppb		100

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M10.D Vial: 9
Acq On : 20 Oct 16 13:47 Operator: DG,CM,SV
Sample : 5.0ug/L VOC STD 10/20/16AE Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	1,2-Dichloropropane	6.17	63	21272	5.22835 ppb		99
44)	Bromodichloromethane	6.50	83	22780	5.10257 ppb		98
45)	Methyl Cyclohexane	6.16	83	31801	5.00087 ppb		99
46)	Dibromomethane	6.30	93	8865	5.00061 ppb		97
47)	MIBK (methyl isobutyl ket	7.26	43	14551	5.55798 ppb		91
48)	1-Bromo-2-chloroethane	6.85	63	11053	5.07677 ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	24110	4.94702 ppb		97
51)	Toluene	7.44	91	94078	5.17490 ppb		99
52)	Trans-1,3-Dichloropropene	7.71	75	8509	4.77487 ppb		97
53)	1,1,2-TCA	7.93	83	11478	5.18252 ppb		95
54)	2-Hexanone	8.30	58	3993	5.20537 ppb	#	88
57)	1,2-EDB	8.54	107	11735	5.05558 ppb		98
58)	Tetrachloroethene	8.11	164	9761	5.17261 ppb		98
59)	1-Chlorohexane	9.22	91	26884	5.13383 ppb		97
60)	1,1,1,2-Tetrachloroethane	9.31	131	15819	4.89755 ppb		91
61)	m&p-Xylene	9.53	106	82261	10.42443 ppb		98
62)	o-Xylene	10.04	106	39952	5.24212 ppb		94
63)	Styrene	10.07	104	63352	5.09666 ppb		99
65)	1,3-Dichloropropane	8.13	76	24588	5.21114 ppb		93
66)	Dibromochloromethane	8.41	129	13411	4.87262 ppb		96
67)	Chlorobenzene	9.19	112	58607	5.21915 ppb		96
68)	Ethylbenzene	9.37	91	103604	5.21267 ppb		98
69)	Bromoform	10.27	173	7969	5.27661 ppb		90
71)	Isopropylbenzene	10.56	105	100519	5.09451 ppb		99
72)	1,1,2,2-Tetrachloroethane	10.97	83	14849	5.29310 ppb		98
73)	1,2,3-Trichloropropane	11.00	110	4742	5.12596 ppb		94
74)	t-1,4-Dichloro-2-Butene	11.05	53	3236	5.36324 ppb		95
75)	Bromobenzene	10.92	156	23101	5.11465 ppb		88
76)	n-Propylbenzene	11.13	91	123015	5.25115 ppb		99
77)	4-Ethyltoluene	11.30	105	101654	5.25449 ppb		97
78)	2-Chlorotoluene	11.22	91	66069	5.19981 ppb		99
79)	1,3,5-Trimethylbenzene	11.39	105	85985	5.22646 ppb		96
80)	4-Chlorotoluene	11.37	91	79676	5.12475 ppb		99
81)	Tert-Butylbenzene	11.84	119	73660	5.07320 ppb		96
82)	1,2,4-Trimethylbenzene	11.91	105	86256	5.26689 ppb		97
83)	Sec-Butylbenzene	12.15	105	108895	5.24491 ppb		98
84)	p-Isopropyltoluene	12.37	119	94014	4.99594 ppb		98
85)	Benzyl Chloride	12.59	91	9419	5.66052 ppb		98
86)	1,3-DCB	12.25	146	47463	5.08329 ppb		99
87)	1,4-DCB	12.39	146	47751	5.03244 ppb		98
88)	n-Butylbenzene	12.96	91	84281	5.10127 ppb		99
89)	1,2-DCB	12.90	146	41720	5.25175 ppb		97
90)	Hexachloroethane	13.27	117	10634	4.89707 ppb		93
91)	1,2-Dibromo-3-chloropropan	14.01	75	1840	4.46954 ppb		87
92)	1,2,4-Trichlorobenzene	15.23	180	28981	5.26719 ppb		100
93)	Hexachlorobutadiene	15.53	225	17409	5.15260 ppb		98
94)	Naphthalene	15.56	128	20704	5.26967 ppb		98
95)	1,2,3-Trichlorobenzene	15.92	180	24924	5.23979 ppb		99

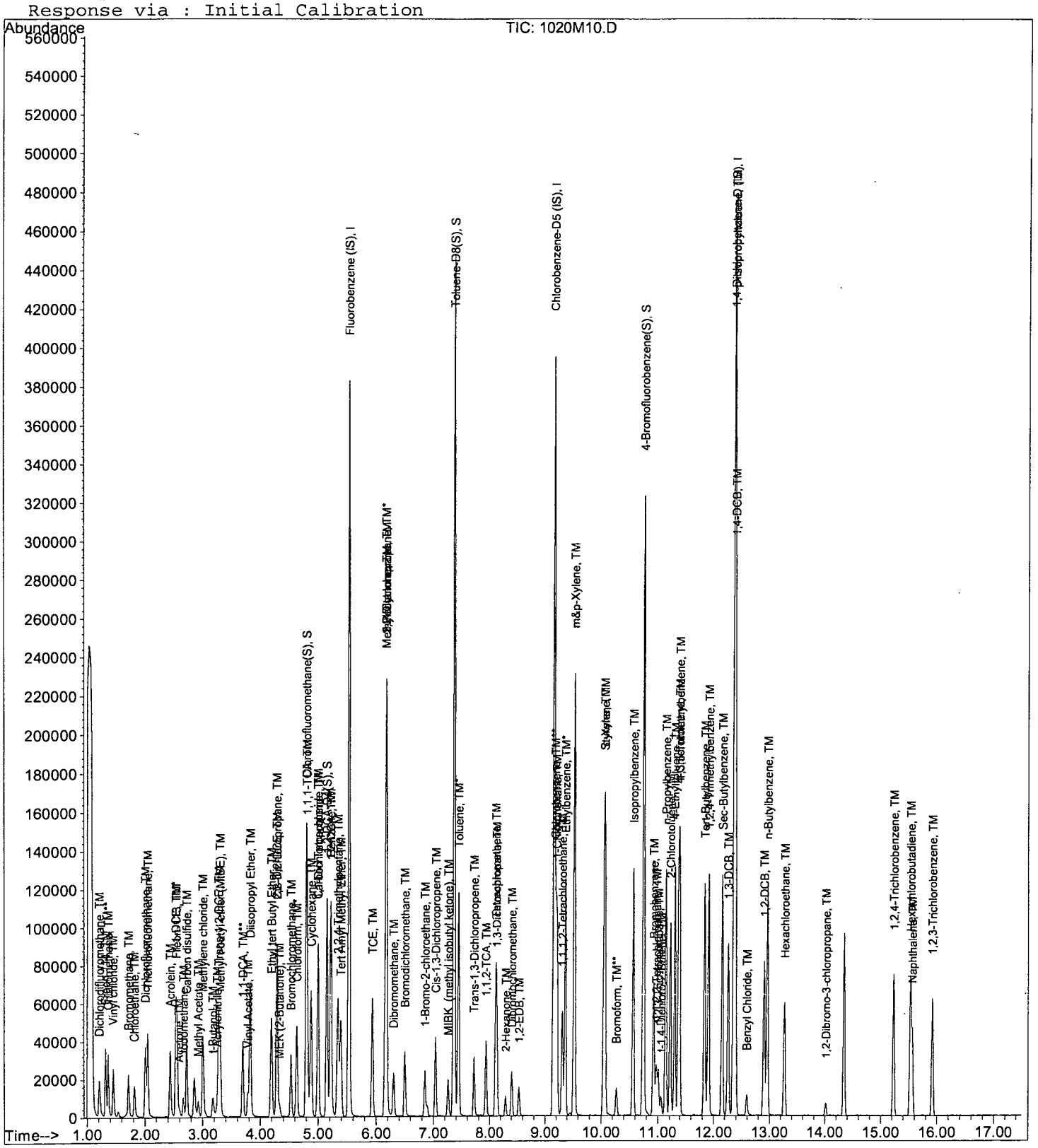
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M10.D Vial: 9
Acq On : 20 Oct 16 13:47 Operator: DG,CM,SV
Sample : 5.0ug/L VOC STD 10/20/16AE Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



584

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M11.D Vial: 10
Acq On : 20 Oct 16 14:09 Operator: DG,CM,SV
Sample : 10ug/L VOC STD 10/20/16AF Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	346592	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	255148	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	139924	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.79	111	83132	24.71606 ppb	0.00
Spiked Amount 25.000			Recovery = 98.864%		
36) 1,2-DCA-D4(S)	5.14	65	80773	25.08257 ppb	0.00
Spiked Amount 25.000			Recovery = 100.332%		
56) Toluene-D8(S)	7.36	98	329318	24.61165 ppb	0.00
Spiked Amount 25.000			Recovery = 98.448%		
64) 4-Bromofluorobenzene(S)	10.74	95	121724	25.10223 ppb	0.00
Spiked Amount 25.000			Recovery = 100.408%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.21	85	19728	9.94151 ppb	100
3) Freon 114	1.31	85	33264	9.84710 ppb	100
4) Chloromethane	1.36	49	3460	9.51433 ppb	100
5) Vinyl chloride	1.45	62	28768	9.98765 ppb	100
6) Bromomethane	1.71	94	25929	9.91529 ppb	100
7) Chloroethane	1.81	64	13535	8.63170 ppb	100
8) Dichlorofluoromethane	2.00	67	77276	9.49463 ppb	100
9) Trichlorofluoromethane	2.04	101	59374	10.36404 ppb	100
10) Acrolein	2.43	56	19248	121.22078 ppb	100
11) Acetone	2.59	43	7739	19.65977 ppb	100
12) Freon-113	2.55	101	15212	8.91223 ppb	100
13) 1,1-DCE	2.53	61	55774	9.61535 ppb	100
14) t-Butanol	3.17	59	20816	123.48995 ppb	100
15) Methyl Acetate	2.92	43	17149	9.07008 ppb	100
16) Iodomethane	2.66	142	28433	9.30465 ppb	100
17) Acrylonitrile	3.24	53	7790	9.57412 ppb	100
18) Methylene chloride	3.00	84	36580	9.68877 ppb	100
19) Carbon disulfide	2.72	76	103181	9.52031 ppb	100
20) Methyl t-butyl ether (MtBE	3.30	73	32616	9.05280 ppb	100
21) Trans-1,2-DCE	3.27	96	35129	9.66712 ppb	100
22) Diisopropyl Ether	3.82	45	118134	9.56398 ppb	100
23) 1,1-DCA	3.69	63	67815	9.57467 ppb	100
24) Vinyl Acetate	3.77	43	17952	9.02081 ppb	100
25) Ethyl tert Butyl Ether	4.19	59	83482	9.54189 ppb	100
26) MEK (2-Butanone)	4.33	43	9806	9.15261 ppb	100
27) Cis-1,2-DCE	4.29	96	39734	9.62177 ppb	100
28) 2,2-Dichloropropane	4.28	77	19776	8.98689 ppb	100
29) Chloroform	4.63	83	63192	9.46487 ppb	100
30) Bromochloromethane	4.53	128	15700	9.71796 ppb	100
32) 1,1,1-TCA	4.81	97	53702	9.74272 ppb	100
33) Cyclohexane	4.87	41	35990	9.67286 ppb	100
34) 1,1-Dichloropropene	5.00	75	51986	10.10663 ppb	100
35) 2,2,4-Trimethylpentane	5.34	57	123220	9.64122 ppb	100
37) Carbon Tetrachloride	4.99	117	40576	9.42681 ppb	100
38) Tert Amyl Methyl Ether	5.38	73	73973	9.87485 ppb	100
39) 1,2-DCA	5.23	62	41959	9.62885 ppb	100
40) Benzene	5.21	78	152136	9.30921 ppb	100
41) TCE	5.93	95	37012	9.20339 ppb	100
42) 2-Pentanone	6.17	43	199077	118.53024 ppb	100

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M11.D Vial: 10
Acq On : 20 Oct 16 14:09 Operator: DG,CM,SV
Sample : 10ug/L VOC STD 10/20/16AF Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	1,2-Dichloropropane	6.17	63	38804	9.46738 ppb	100
44)	Bromodichloromethane	6.50	83	43008	9.56272 ppb	100
45)	Methyl Cyclohexane	6.15	83	62434	9.74591 ppb	100
46)	Dibromomethane	6.30	93	17271	9.67071 ppb	100
47)	MIBK (methyl isobutyl ket	7.26	43	24513	9.80718 ppb	100
48)	1-Bromo-2-chloroethane	6.85	63	21160	9.64761 ppb	100
50)	Cis-1,3-Dichloropropene	7.03	75	46257	9.42152 ppb	100
51)	Toluene	7.44	91	174573	9.53207 ppb	100
52)	Trans-1,3-Dichloropropene	7.71	75	17896	9.96863 ppb	100
53)	1,1,2-TCA	7.93	83	21756	9.75104 ppb	100
54)	2-Hexanone	8.29	58	7497	9.70144 ppb	100
57)	1,2-EDB	8.54	107	22307	9.46380 ppb	100
58)	Tetrachloroethene	8.11	164	17688	9.23061 ppb	100
59)	1-Chlorohexane	9.22	91	51061	9.60226 ppb	100
60)	1,1,1,2-Tetrachloroethane	9.31	131	31437	9.58467 ppb	100
61)	m&p-Xylene	9.53	106	153766	19.18912 ppb	100
62)	o-Xylene	10.05	106	75450	9.74908 ppb	100
63)	Styrene	10.07	104	126018	9.98377 ppb	100
65)	1,3-Dichloropropane	8.13	76	45563	9.50951 ppb	100
66)	Dibromochloromethane	8.41	129	26830	9.59972 ppb	100
67)	Chlorobenzene	9.19	112	109146	9.57181 ppb	100
68)	Ethylbenzene	9.37	91	197373	9.77931 ppb	100
69)	Bromoform	10.27	173	15195	9.90805 ppb	100
71)	Isopropylbenzene	10.56	105	194713	9.69982 ppb	100
72)	1,1,2,2-Tetrachloroethane	10.97	83	27818	9.74662 ppb	100
73)	1,2,3-Trichloropropane	11.01	110	8638	10.10135 ppb	100
74)	t-1,4-Dichloro-2-Butene	11.06	53	5876	9.57228 ppb	100
75)	Bromobenzene	10.92	156	44669	9.72089 ppb	100
76)	n-Propylbenzene	11.13	91	237808	9.97786 ppb	100
77)	4-Ethyltoluene	11.30	105	193627	9.83754 ppb	100
78)	2-Chlorotoluene	11.22	91	128149	9.91334 ppb	100
79)	1,3,5-Trimethylbenzene	11.39	105	163211	9.75101 ppb	100
80)	4-Chlorotoluene	11.37	91	152701	9.65388 ppb	100
81)	Tert-Butylbenzene	11.84	119	140238	9.49360 ppb	100
82)	1,2,4-Trimethylbenzene	11.91	105	165615	9.93983 ppb	100
83)	Sec-Butylbenzene	12.15	105	212122	10.04224 ppb	100
84)	p-Isopropyltoluene	12.38	119	182433	9.52890 ppb	100
85)	Benzyl Chloride	12.59	91	18613	10.99468 ppb	100
86)	1,3-DCB	12.25	146	88772	9.34502 ppb	100
87)	1,4-DCB	12.38	146	90127	9.33610 ppb	100
88)	n-Butylbenzene	12.96	91	165111	9.82288 ppb	100
89)	1,2-DCB	12.90	146	79339	9.81661 ppb	100
90)	Hexachloroethane	13.27	117	21582	9.76891 ppb	100
91)	1,2-Dibromo-3-chloropropan	14.01	75	3561	8.97153 ppb	100
92)	1,2,4-Trichlorobenzene	15.23	180	54853	9.79898 ppb	100
93)	Hexachlorobutadiene	15.53	225	32938	9.58218 ppb	100
94)	Naphthalene	15.56	128	40832	10.21514 ppb	100
95)	1,2,3-Trichlorobenzene	15.92	180	47265	9.76676 ppb	100

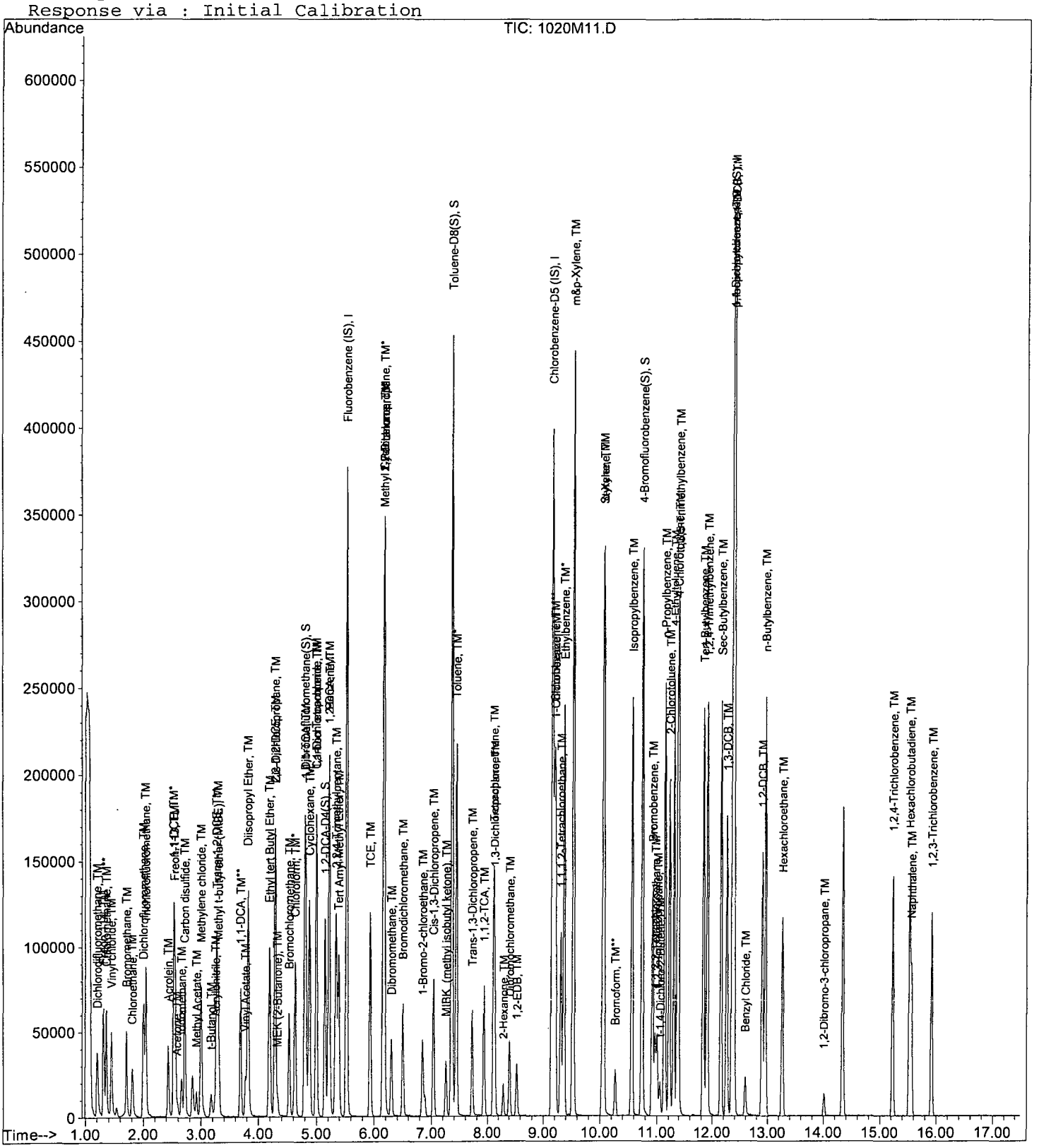
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M11.D Vial: 10
Acq On : 20 Oct 16 14:09 Operator: DG,CM,SV
Sample : 10ug/L VOC STD 10/20/16AF Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



587

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M13.D Vial: 12
Acq On : 20 Oct 16 14:52 Operator: DG,CM,SV
Sample : 40ug/L VOC STD 10/20/16AH Inst : MAX
Misc : 10uL-50ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	338131	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	252832	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	143737	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.80	111	160038	48.77168 ppb	0.00
Spiked Amount 25.000			Recovery = 195.088%		
36) 1,2-DCA-D4(S)	5.15	65	146335	46.57873 ppb	0.00
Spiked Amount 25.000			Recovery = 186.316%		
56) Toluene-D8(S)	7.36	98	647863	48.86169 ppb	0.00
Spiked Amount 25.000			Recovery = 195.448%		
64) 4-Bromofluorobenzene(S)	10.74	95	237204	49.36489 ppb	0.00
Spiked Amount 25.000			Recovery = 197.460%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.21	85	81376	42.03385 ppb	99
3) Freon 114	1.32	85	138515	42.03046 ppb	91
4) Chloromethane	1.36	49	13883	39.13080 ppb	92
5) Vinyl chloride	1.45	62	116520	41.46558 ppb	96
6) Bromomethane	1.73	94	103451	40.54972 ppb	95
7) Chloroethane	1.82	64	78648	51.41140 ppb	96
8) Dichlorofluoromethane	2.00	67	312874	39.40363 ppb	98
9) Trichlorofluoromethane	2.04	101	238258	42.62984 ppb	100
10) Acrolein	2.44	56	26640	171.97258 ppb	98
11) Acetone	2.61	43	26018	70.07171 ppb	91
12) Freon-113	2.55	101	63136	37.91496 ppb	97
13) 1,1-DCE	2.53	61	228839	40.43869 ppb	97
14) t-Butanol	3.21	59	36685	223.07783 ppb	94
15) Methyl Acetate	2.93	43	70417	38.17540 ppb	96
16) Iodomethane	2.66	142	126661	39.62656 ppb	95
17) Acrylonitrile	3.25	53	32505	40.94916 ppb	93
18) Methylene chloride	3.01	84	143346	40.72013 ppb	95
19) Carbon disulfide	2.72	76	422355	39.94502 ppb	99
20) Methyl t-butyl ether (MtBE	3.31	73	139520	39.69376 ppb	96
21) Trans-1,2-DCE	3.28	96	147541	41.61766 ppb	97
22) Diisopropyl Ether	3.82	45	483970	40.16202 ppb	98
23) 1,1-DCA	3.69	63	276747	40.05109 ppb	99
24) Vinyl Acetate	3.78	43	76528	39.41729 ppb	97
25) Ethyl tert Butyl Ether	4.19	59	351567	41.18918 ppb	99
26) MEK (2-Butanone)	4.34	43	38242	36.58703 ppb	97
27) Cis-1,2-DCE	4.29	96	163452	40.57108 ppb	98
28) 2,2-Dichloropropane	4.29	77	86384	40.23811 ppb	100
29) Chloroform	4.63	83	263563	40.46417 ppb	100
30) Bromochloromethane	4.53	128	65214	41.37612 ppb	96
32) 1,1,1-TCA	4.82	97	221967	41.27733 ppb	100
33) Cyclohexane	4.88	41	140437	38.68904 ppb	93
34) 1,1-Dichloropropene	5.00	75	207679	41.38529 ppb	96
35) 2,2,4-Trimethylpentane	5.34	57	498412	39.97357 ppb	100
37) Carbon Tetrachloride	5.00	117	178221	42.44122 ppb	97
38) Tert Amyl Methyl Ether	5.39	73	305683	41.82751 ppb	97
39) 1,2-DCA	5.23	62	169163	39.79129 ppb	98
40) Benzene	5.21	78	628298	39.40760 ppb	98
41) TCE	5.94	95	154851	39.46869 ppb	96
42) 2-Pentanone	6.18	43	302330	184.51125 ppb	98

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M13.D Vial: 12
Acq On : 20 Oct 16 14:52 Operator: DG,CM,SV
Sample : 40ug/L VOC STD 10/20/16AH Inst : MAX
Misc : 10uL-50ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

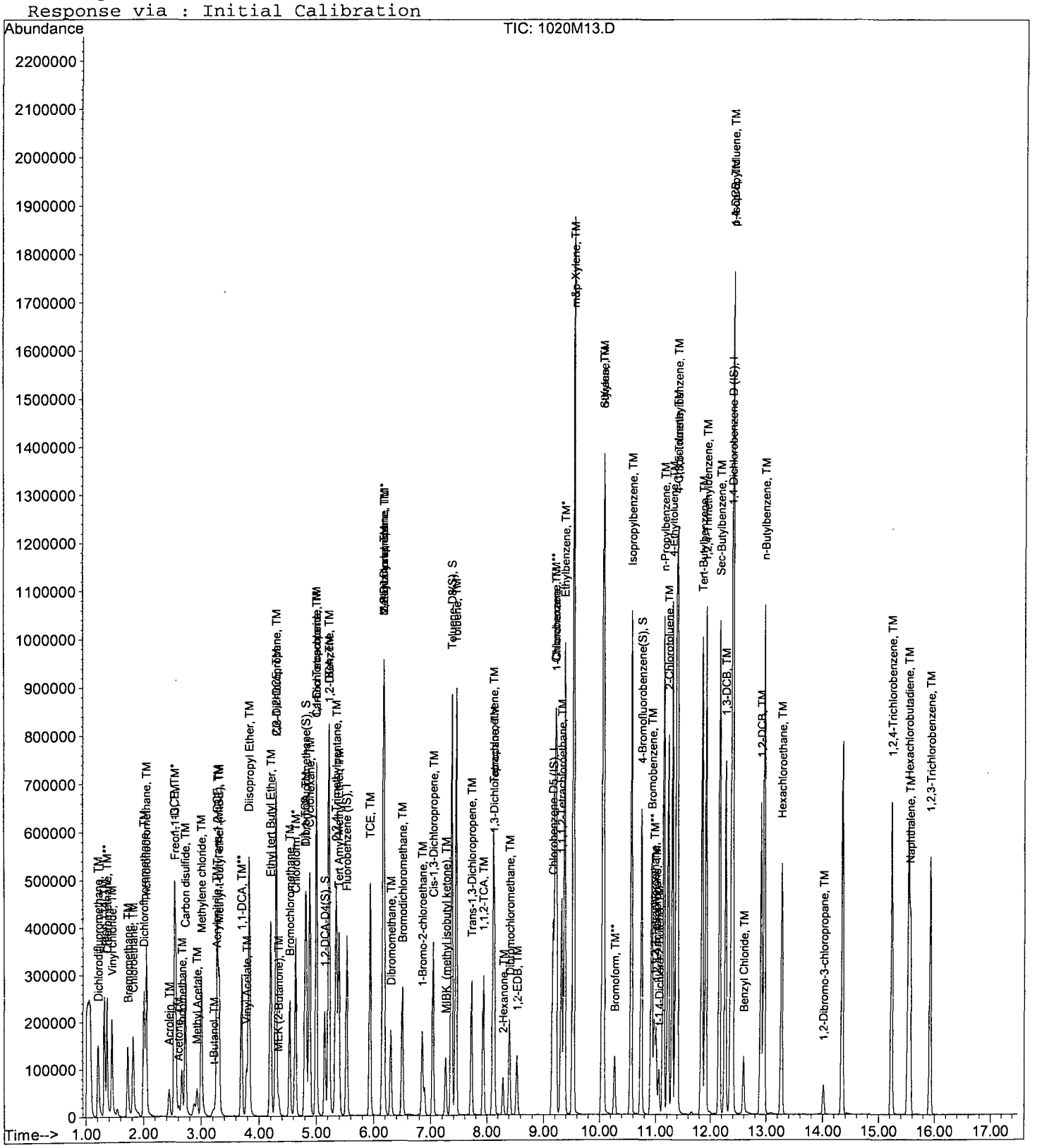
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	6.18	63	158423	39.61914	ppb		99
44)	Bromodichloromethane	6.50	83	180451	41.12681	ppb		99
45)	Methyl Cyclohexane	6.16	83	256175	40.98939	ppb		98
46)	Dibromomethane	6.30	93	69232	39.73576	ppb		95
47)	MIBK (methyl isobutyl ket	7.26	43	93566	40.59266	ppb		98
48)	1-Bromo-2-chloroethane	6.85	63	82784	38.68868	ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	211531	44.16223	ppb		98
51)	Toluene	7.44	91	715934	40.06977	ppb		98
52)	Trans-1,3-Dichloropropene	7.72	75	85624	48.88872	ppb		97
53)	1,1,2-TCA	7.93	83	85440	39.25243	ppb		98
54)	2-Hexanone	8.30	58	33336	44.21766	ppb		95
57)	1,2-EDB	8.54	107	94739	40.56143	ppb		100
58)	Tetrachloroethene	8.11	164	73728	38.82791	ppb		97
59)	1-Chlorohexane	9.22	91	219871	41.72651	ppb		99
60)	1,1,1,2-Tetrachloroethane	9.31	131	141135	43.42413	ppb		97
61)	m&p-Xylene	9.53	106	639638	80.55439	ppb		98
62)	o-Xylene	10.05	106	312443	40.74135	ppb		96
63)	Styrene	10.07	104	521192	41.66963	ppb		100
65)	1,3-Dichloropropane	8.13	76	185203	39.00805	ppb		90
66)	Dibromochloromethane	8.41	129	119552	43.16731	ppb		91
67)	Chlorobenzene	9.19	112	441454	39.06896	ppb		99
68)	Ethylbenzene	9.37	91	810428	40.52239	ppb		98
69)	Bromoform	10.27	173	68785	45.26280	ppb		93
71)	Isopropylbenzene	10.56	105	816467	39.59416	ppb		99
72)	1,1,2,2-Tetrachloroethane	10.97	83	115103	39.25891	ppb		96
73)	1,2,3-Trichloropropane	11.01	110	34915	43.17540	ppb		100
74)	t-1,4-Dichloro-2-Butene	11.05	53	26202	41.55198	ppb	#	77
75)	Bromobenzene	10.92	156	184995	39.19075	ppb		99
76)	n-Propylbenzene	11.14	91	984531	40.21277	ppb		100
77)	4-Ethyltoluene	11.30	105	823037	40.70650	ppb		99
78)	2-Chlorotoluene	11.22	91	518641	39.05666	ppb		100
79)	1,3,5-Trimethylbenzene	11.39	105	680220	39.56153	ppb		98
80)	4-Chlorotoluene	11.37	91	630483	38.80226	ppb		98
81)	Tert-Butylbenzene	11.84	119	598267	39.42612	ppb		97
82)	1,2,4-Trimethylbenzene	11.91	105	699075	40.84385	ppb		99
83)	Sec-Butylbenzene	12.15	105	886221	40.84232	ppb		100
84)	p-Isopropyltoluene	12.38	119	781656	39.74466	ppb		99
85)	Benzyl Chloride	12.59	91	100997	58.07620	ppb		99
86)	1,3-DCB	12.26	146	374899	38.41866	ppb		99
87)	1,4-DCB	12.39	146	376108	37.92686	ppb		99
88)	n-Butylbenzene	12.96	91	735880	42.61805	ppb		100
89)	1,2-DCB	12.90	146	333626	40.18446	ppb		98
90)	Hexachloroethane	13.27	117	106377	46.87331	ppb		95
91)	1,2-Dibromo-3-chloropropan	14.01	75	17677	45.34723	ppb		97
92)	1,2,4-Trichlorobenzene	15.23	180	256082	44.53311	ppb		99
93)	Hexachlorobutadiene	15.53	225	142091	40.23993	ppb		97
94)	Naphthalene	15.56	128	201280	49.01938	ppb		99
95)	1,2,3-Trichlorobenzene	15.92	180	220615	44.37820	ppb		99

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

Data File : M:\MAX\DATA\M161020\1020M13.D Vial: 12
Acq On : 20 Oct 16 14:52 Operator: DG,CM,SV
Sample : 40ug/L VOC STD 10/20/16AH Inst : MAX
Misc : 10uL-50ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



590

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M14.D Vial: 13
Acq On : 20 Oct 16 15:14 Operator: DG,CM,SV
Sample : 100ug/L VOC STD 10/20/16AI Inst : MAX
Misc : 20uL-100ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	379136	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	291939	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.36	152	180096	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.80	111	351079	95.42000 ppb	0.00
Spiked Amount 25.000			Recovery = 381.680%		
36) 1,2-DCA-D4(S)	5.14	65	324922	92.23770 ppb	0.00
Spiked Amount 25.000			Recovery = 368.952%		
56) Toluene-D8(S)	7.36	98	1432239	93.54934 ppb	0.00
Spiked Amount 25.000			Recovery = 374.196%		
64) 4-Bromofluorobenzene(S)	10.74	95	561796	101.25460 ppb	0.00
Spiked Amount 25.000			Recovery = 405.020%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.20	85	218624	100.71417 ppb	98
3) Freon 114	1.31	85	355309	96.15314 ppb	95
4) Chloromethane	1.35	49	38424	96.58907 ppb	90
5) Vinyl chloride	1.44	62	325760	103.38915 ppb	98
6) Bromomethane	1.71	94	346301	121.05893 ppb	94
7) Chloroethane	1.79	64	269184	156.93179 ppb	97
8) Dichlorofluoromethane	1.99	67	857818	96.35004 ppb	100
9) Trichlorofluoromethane	2.03	101	639140	101.98872 ppb	99
10) Acrolein	2.44	56	32592	187.64024 ppb	97
11) Acetone	2.60	43	69622	168.54332 ppb	99
12) Freon-113	2.54	101	169984	91.03985 ppb	96
13) 1,1-DCE	2.52	61	615707	97.03559 ppb	97
14) t-Butanol	3.20	59	34353	186.30414 ppb	99
15) Methyl Acetate	2.93	43	195139	94.34962 ppb	96
16) Iodomethane	2.65	142	363691	100.22478 ppb	96
17) Acrylonitrile	3.25	53	89001	99.99532 ppb	94
18) Methylene chloride	3.00	84	390333	99.74282 ppb	97
19) Carbon disulfide	2.71	76	1161611	97.97961 ppb	99
20) Methyl t-butyl ether (MtBE	3.31	73	383360	97.27080 ppb	96
21) Trans-1,2-DCE	3.27	96	393076	98.88523 ppb	98
22) Diisopropyl Ether	3.82	45	1308127	96.81374 ppb	98
23) 1,1-DCA	3.69	63	733147	94.62643 ppb	99
24) Vinyl Acetate	3.78	43	215680	99.07550 ppb	96
25) Ethyl tert Butyl Ether	4.19	59	959599	100.26626 ppb	99
26) MEK (2-Butanone)	4.33	43	107134	91.41212 ppb	96
27) Cis-1,2-DCE	4.29	96	434140	96.10502 ppb	97
28) 2,2-Dichloropropane	4.29	77	249088	103.47777 ppb	99
29) Chloroform	4.63	83	689127	94.35728 ppb	100
30) Bromochloromethane	4.53	128	168364	95.26823 ppb	99
32) 1,1,1-TCA	4.81	97	603350	100.06507 ppb	98
33) Cyclohexane	4.88	41	376665	92.54472 ppb	95
34) 1,1-Dichloropropene	5.00	75	556999	98.99147 ppb	98
35) 2,2,4-Trimethylpentane	5.34	57	1349770	96.54597 ppb	99
37) Carbon Tetrachloride	4.99	117	491735	104.43596 ppb	99
38) Tert Amyl Methyl Ether	5.39	73	846313	103.27892 ppb	94
39) 1,2-DCA	5.23	62	464253	97.39291 ppb	98
40) Benzene	5.21	78	1672342	93.54689 ppb	99
41) TCE	5.93	95	402643	91.52692 ppb	94
42) 2-Pentanone	6.17	43	401229	218.38555 ppb	99

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

Data File : M:\MAX\DATA\M161020\1020M14.D Vial: 13
Acq On : 20 Oct 16 15:14 Operator: DG,CM,SV
Sample : 100ug/L VOC STD 10/20/16AI Inst : MAX
Misc : 20uL-100ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	1,2-Dichloropropane	6.18	63	422638	94.26387 ppb		99
44)	Bromodichloromethane	6.50	83	489644	99.52591 ppb		100
45)	Methyl Cyclohexane	6.16	83	676221	96.49689 ppb		97
46)	Dibromomethane	6.30	93	181680	92.99759 ppb		93
47)	MIBK (methyl isobutyl ket	7.26	43	255012	99.76036 ppb		98
48)	1-Bromo-2-chloroethane	6.85	63	231104	96.32410 ppb		99
50)	Cis-1,3-Dichloropropene	7.04	75	592576	110.33442 ppb		99
51)	Toluene	7.44	91	1949675	97.31864 ppb		98
52)	Trans-1,3-Dichloropropene	7.72	75	256064	130.39220 ppb		96
53)	1,1,2-TCA	7.93	83	235652	96.55313 ppb		97
54)	2-Hexanone	8.30	58	90538	107.10337 ppb		95
57)	1,2-EDB	8.54	107	268808	99.67048 ppb		100
58)	Tetrachloroethene	8.11	164	196096	89.43762 ppb		98
59)	1-Chlorohexane	9.22	91	606562	99.69176 ppb		97
60)	1,1,1,2-Tetrachloroethane	9.31	131	403846	107.60987 ppb		98
61)	m&p-Xylene	9.53	106	1823147	198.84588 ppb		99
62)	o-Xylene	10.05	106	891668	100.69496 ppb		96
63)	Styrene	10.07	104	1520580	105.28612 ppb		99
65)	1,3-Dichloropropane	8.13	76	502910	91.73527 ppb		92
66)	Dibromochloromethane	8.41	129	337340	105.48868 ppb		91
67)	Chlorobenzene	9.19	112	1231356	94.37782 ppb		99
68)	Ethylbenzene	9.37	91	2260892	97.90398 ppb		98
69)	Bromoform	10.27	173	207303	118.13897 ppb		93
71)	Isopropylbenzene	10.57	105	2345862	90.79448 ppb		98
72)	1,1,2,2-Tetrachloroethane	10.97	83	328615	89.45476 ppb		99
73)	1,2,3-Trichloropropane	11.01	110	98560	98.73618 ppb		98
74)	t-1,4-Dichloro-2-Butene	11.06	53	78023	98.75168 ppb	#	74
75)	Bromobenzene	10.92	156	527929	89.26138 ppb		100
76)	n-Propylbenzene	11.14	91	2877175	93.79191 ppb		100
77)	4-Ethyltoluene	11.31	105	2436851	96.19175 ppb		98
78)	2-Chlorotoluene	11.22	91	1525158	91.66585 ppb		100
79)	1,3,5-Trimethylbenzene	11.40	105	2062233	95.72512 ppb		99
80)	4-Chlorotoluene	11.38	91	1889987	92.83399 ppb		98
81)	Tert-Butylbenzene	11.84	119	1756650	92.39293 ppb		97
82)	1,2,4-Trimethylbenzene	11.91	105	2110427	98.40966 ppb		100
83)	Sec-Butylbenzene	12.16	105	2644527	97.27043 ppb		98
84)	p-Isopropyltoluene	12.38	119	2396738	97.26312 ppb		98
85)	Benzyl Chloride	12.59	91	372606	171.00313 ppb		98
86)	1,3-DCB	12.26	146	1099607	89.93524 ppb		99
87)	1,4-DCB	12.39	146	1116803	89.88255 ppb		98
88)	n-Butylbenzene	12.96	91	2202908	101.82336 ppb		99
89)	1,2-DCB	12.90	146	928272	89.23557 ppb		98
90)	Hexachloroethane	13.27	117	352549	123.98292 ppb		95
91)	1,2-Dibromo-3-chloropropan	14.01	75	47582	98.01760 ppb		91
92)	1,2,4-Trichlorobenzene	15.23	180	649301	90.11862 ppb		99
93)	Hexachlorobutadiene	15.53	225	364027	82.27896 ppb		98
94)	Naphthalene	15.56	128	496256	96.45782 ppb		99
95)	1,2,3-Trichlorobenzene	15.92	180	545084	87.51098 ppb		99

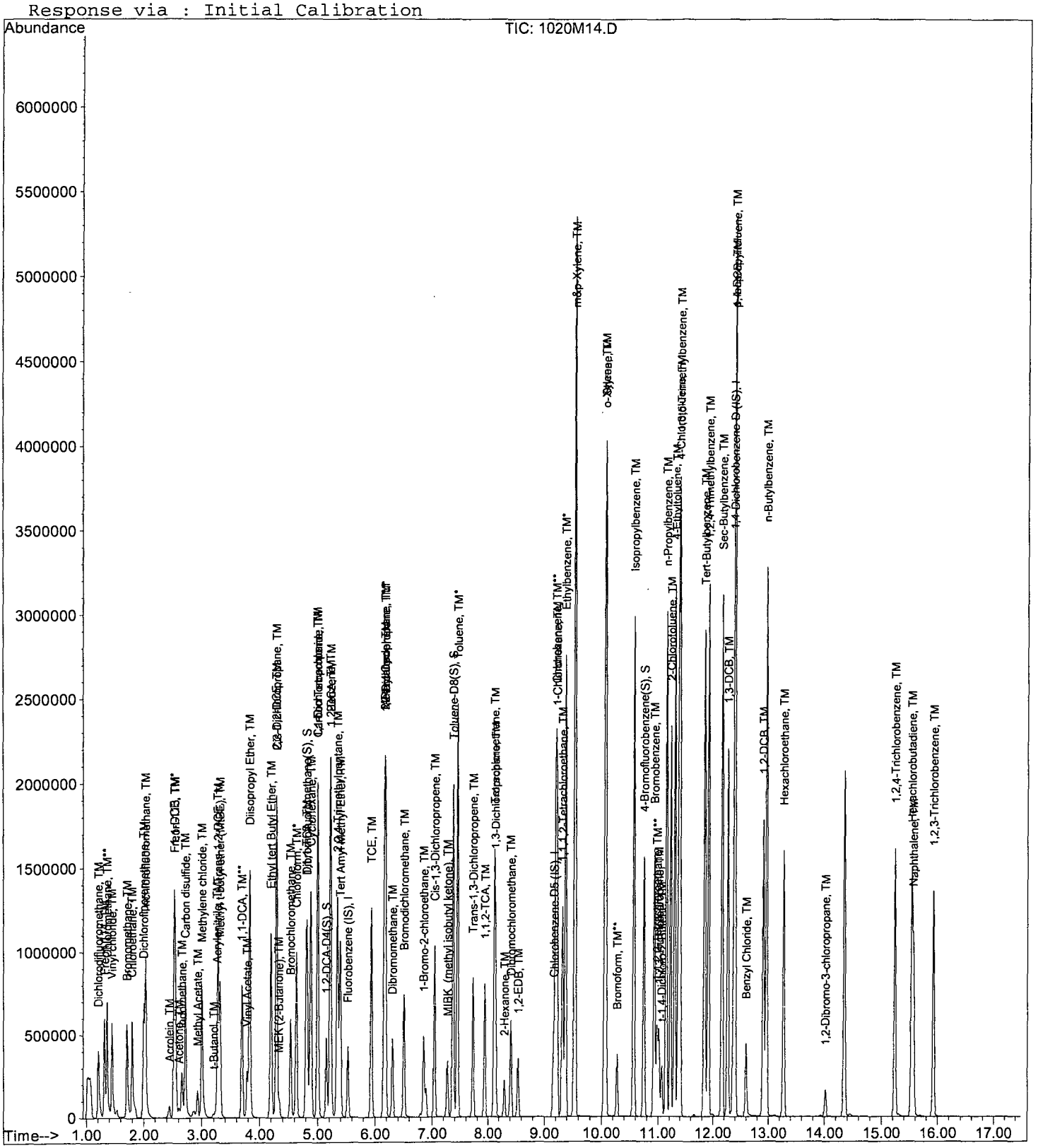
(#) = qualifier out of range (m) = manual integration

Quantitation Report

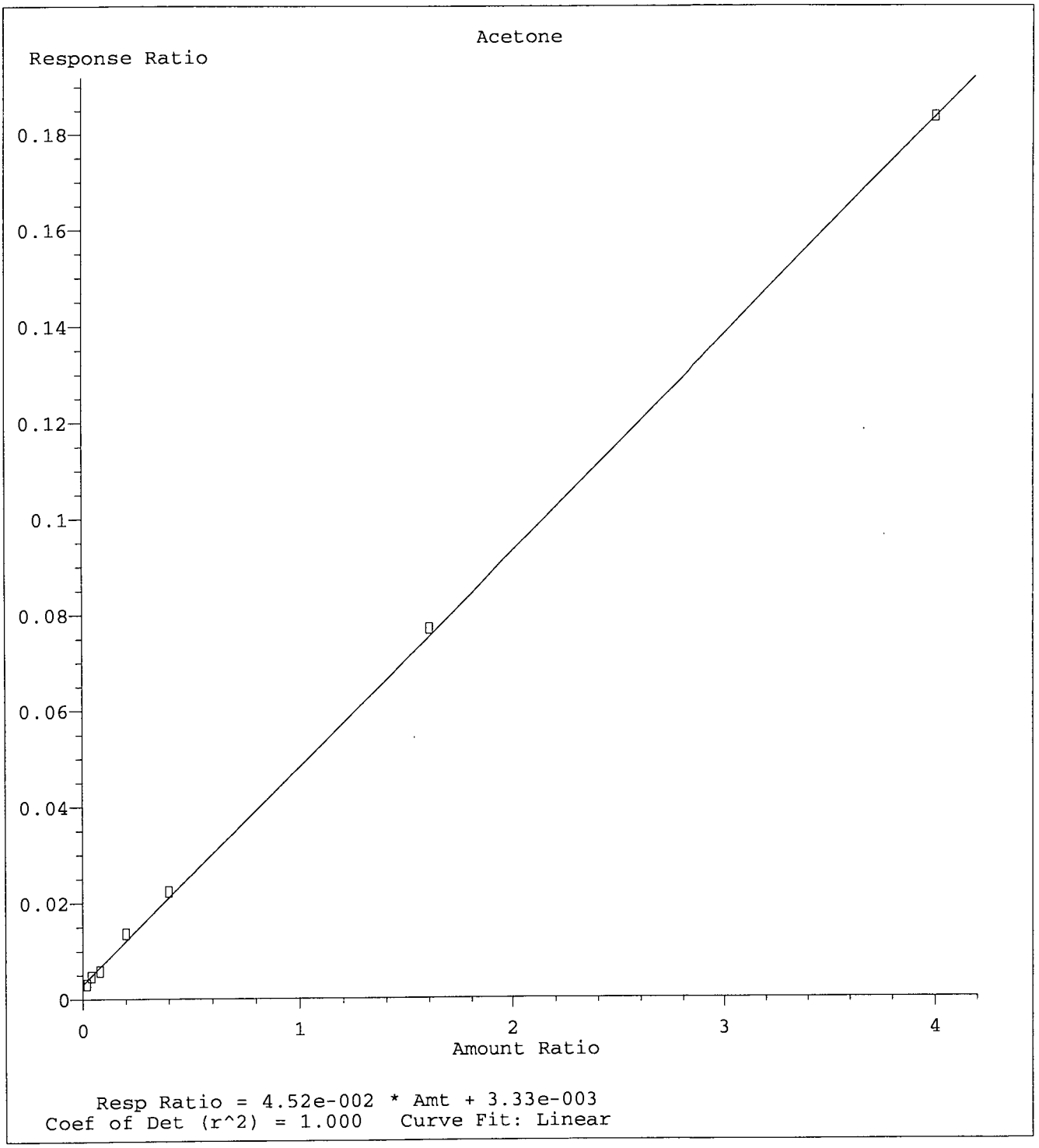
Data File : M:\MAX\DATA\M161020\1020M14.D Vial: 13
Acq On : 20 Oct 16 15:14 Operator: DG,CM,SV
Sample : 100ug/L VOC STD 10/20/16AI Inst : MAX
Misc : 20uL-100ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

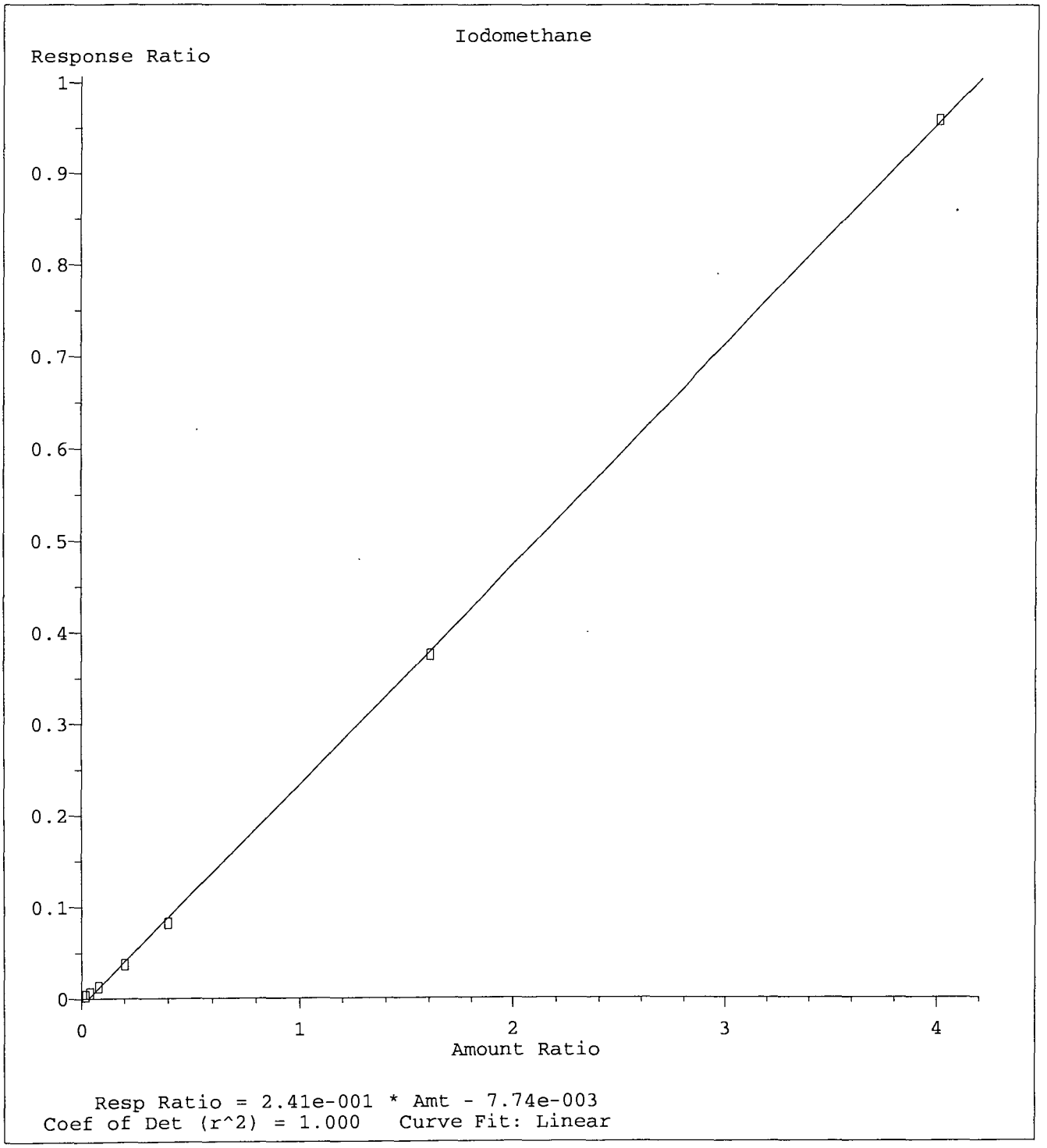
Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



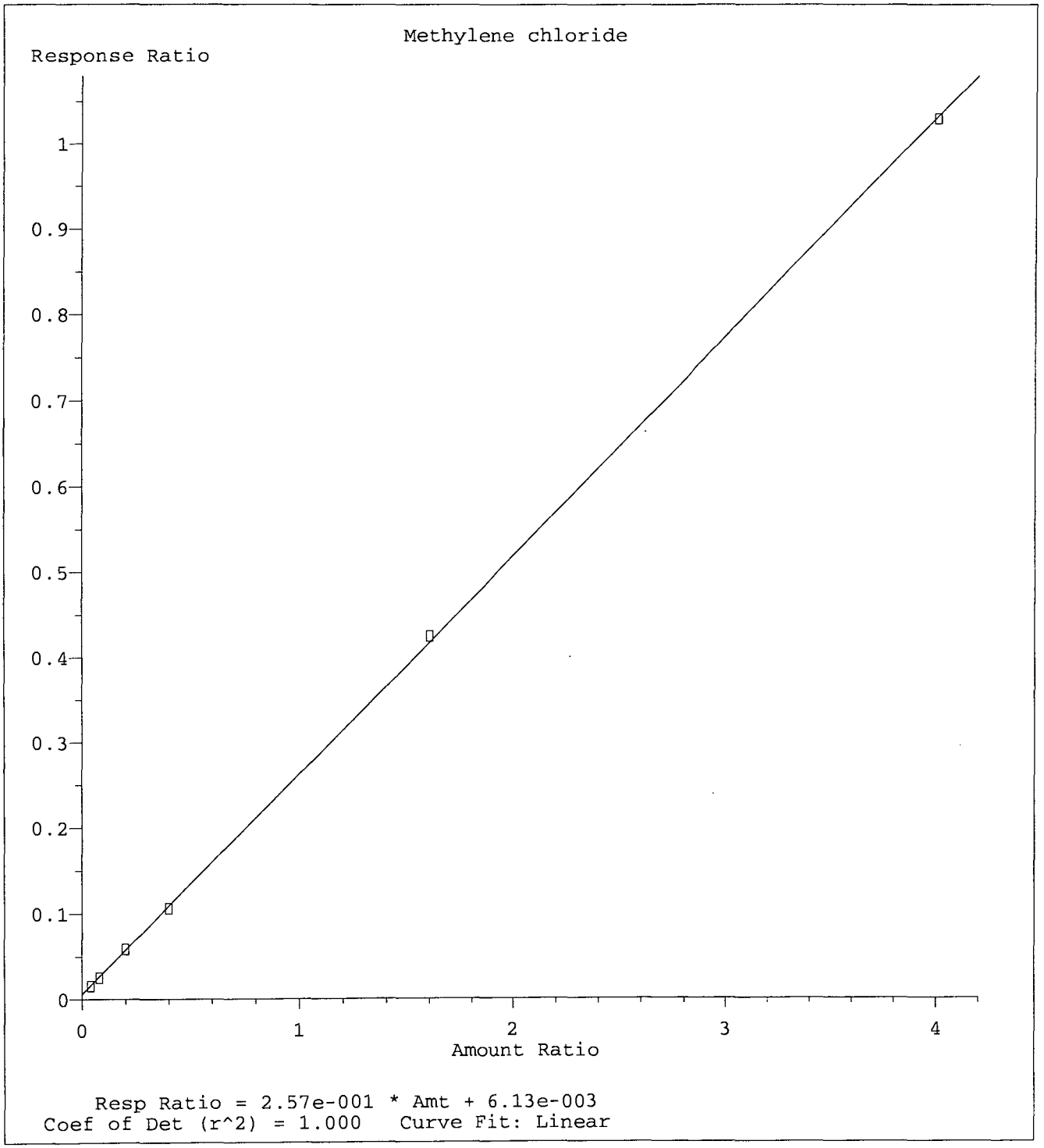
593



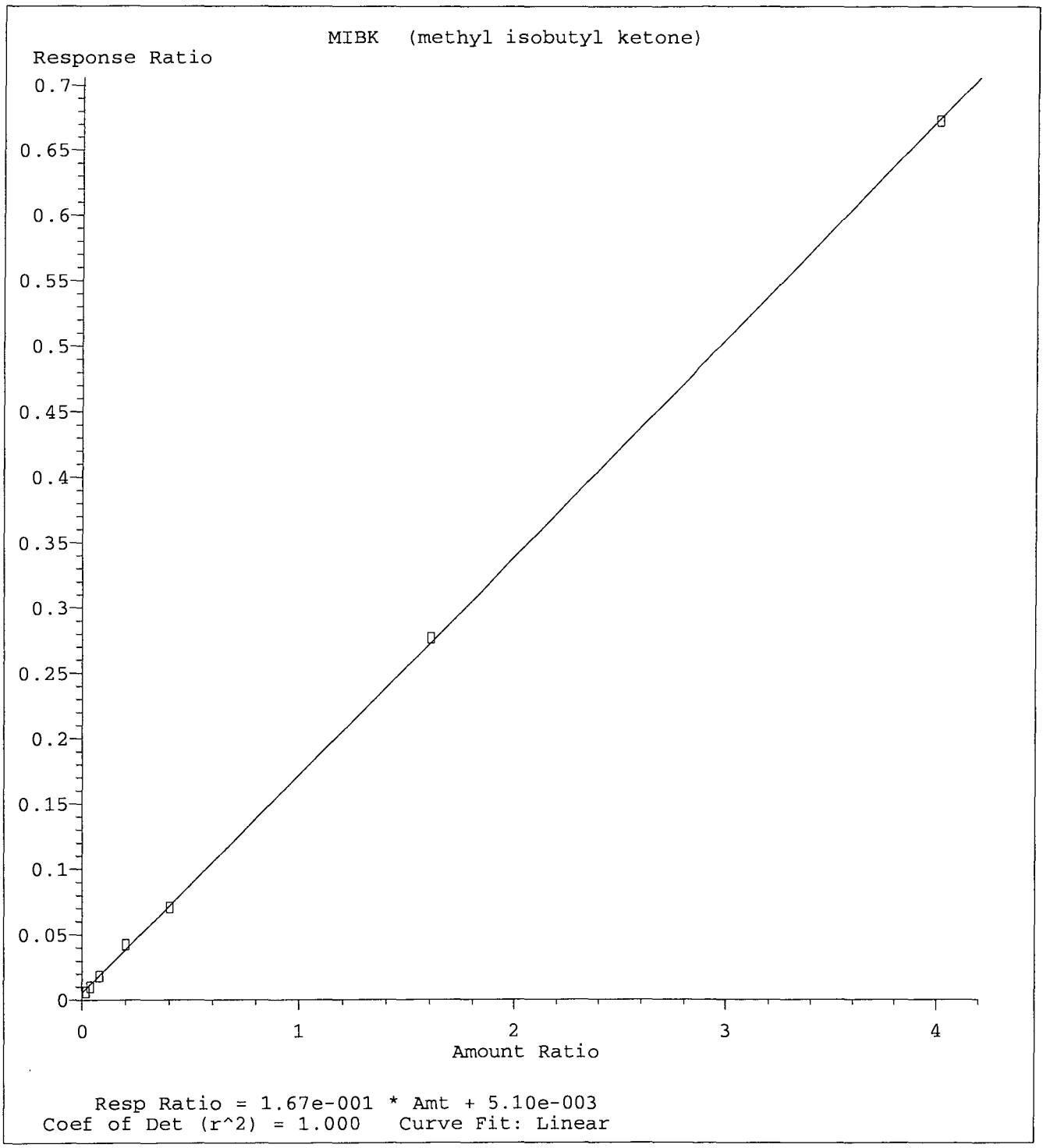
Method Name: M:\MAX\DATA\M161020\MALLW.M
Calibration Table Last Updated: Fri Oct 21 08:51:50 2016



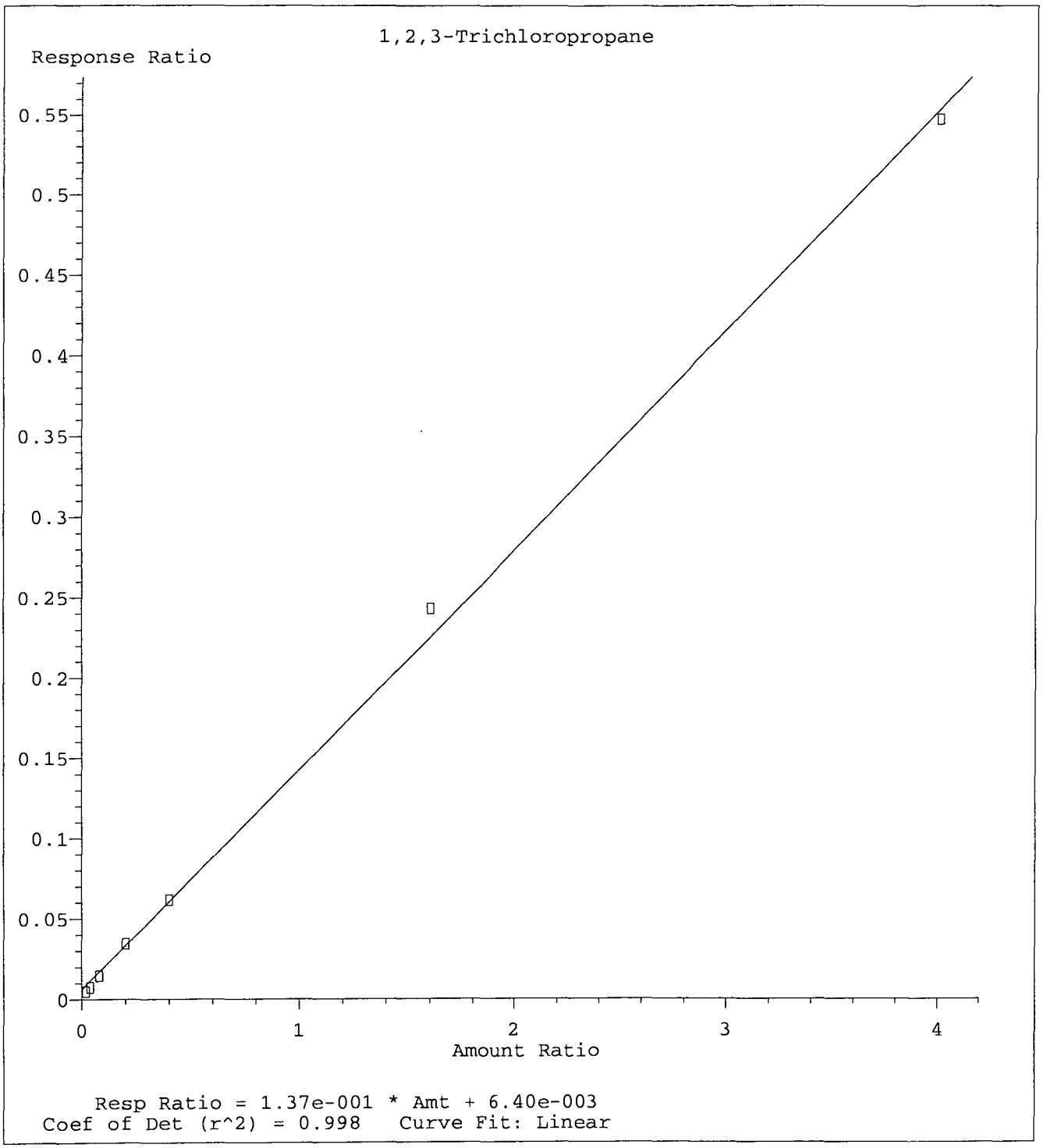
Method Name: M:\MAX\DATA\M161020\MALLW.M
Calibration Table Last Updated: Fri Oct 21 08:51:50 2016



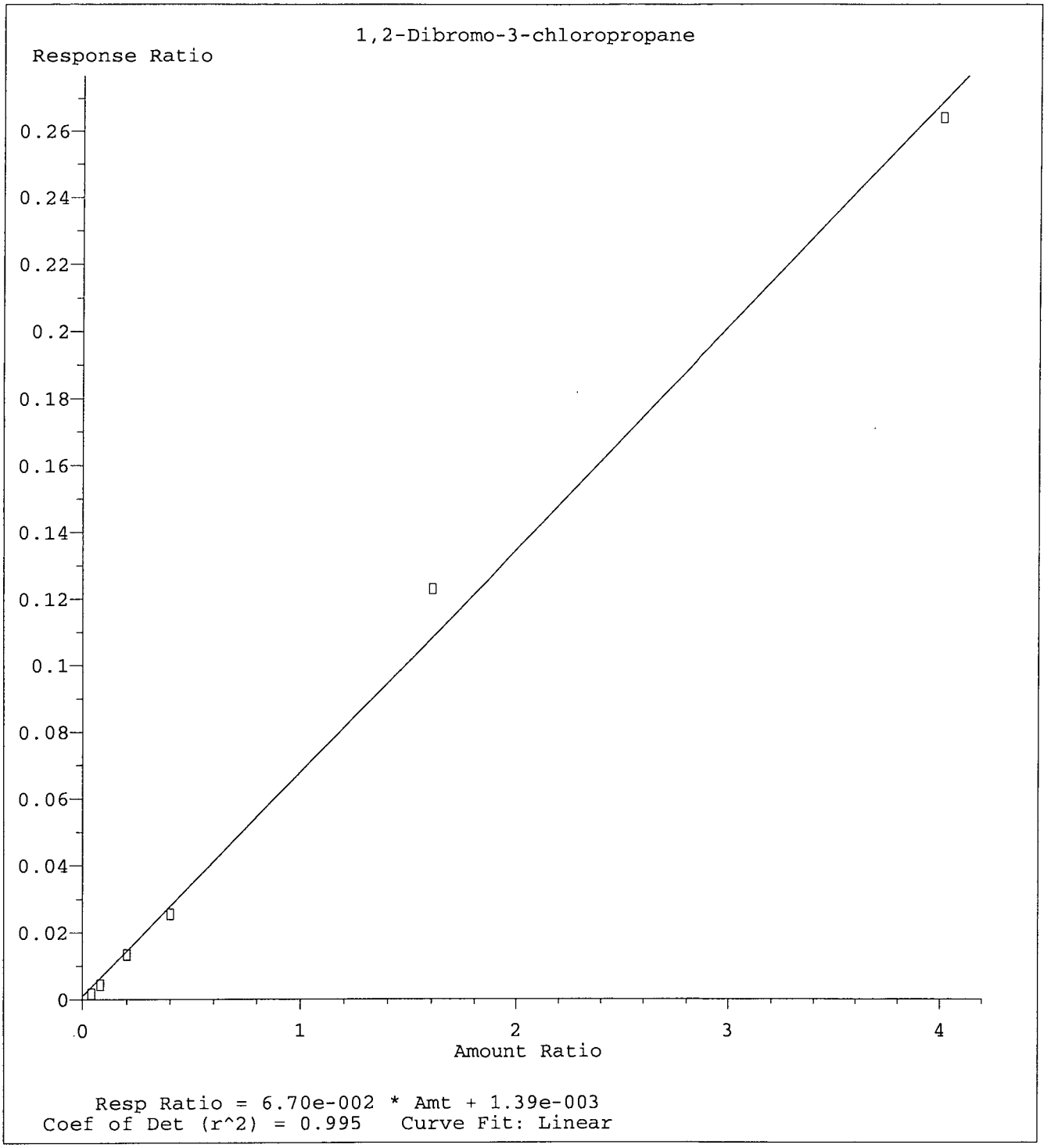
Method Name: M:\MAX\DATA\M161020\MALLW.M
Calibration Table Last Updated: Fri Oct 21 08:51:50 2016



Method Name: M:\MAX\DATA\M161020\MALLW.M
Calibration Table Last Updated: Fri Oct 21 08:51:50 2016



Method Name: M:\MAX\DATA\M161020\MALLW.M
Calibration Table Last Updated: Fri Oct 21 08:51:50 2016



Method Name: M:\MAX\DATA\M161020\MALLW.M
Calibration Table Last Updated: Fri Oct 21 08:51:50 2016

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/20/16
Matrix: Instrument: MAX
Initial Cal. Date: 10/20/16
Data File: 1020M21.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Dichlorodifluoromethane	0.1431	0.1420	0.77	TM	
2	TM	Freon 114	0.2437	0.2694	11	TM	
3	TM**	Chloromethane	0.0262	0.0248	5.6	TM**	
4	TM*	Vinyl chloride	0.2078	0.2017	2.9	TM*	
5	TM	Bromomethane	0.1886	0.1924	2.0	TM	
6	TM	Chloroethane	0.1131	0.1070	5.4	TM	
7	TM	Dichlorofluoromethane	0.5871	0.5679	3.3	TM	
8	TM	Trichlorofluoromethane	0.4132	0.4089	1.0	TM	
9	TM	Acrolein	0.0115	0.0115	0.51	TM	
10	TML	Acetone	0.0802	0.0615	23	TML	18
11	TM	Freon-113	0.1231	0.1218	1.0	TM	
12	TM*	1,1-DCE	0.4184	0.4168	0.38	TM*	
13	TM	t-Butanol	0.0126	0.0128	1.7	TM	
14	TM	Methyl Acetate	0.1364	0.1387	1.7	TM	
15	TML	Iodomethane	0.1892	0.1990	5.2	TML	9.5
16	TM	Acrylonitrile	0.0587	0.0621	5.9	TM	
17	TML	Methylene chloride	0.2965	0.2799	5.6	TML	3.2
18	TM	Carbon disulfide	0.7818	0.7803	0.19	TM	
19	TM	Methyl t-butyl ether (MtBE)	0.2599	0.2630	1.2	TM	
20	TM	Trans-1,2-DCE	0.2621	0.2732	4.2	TM	
21	TM	Diisopropyl Ether	0.8910	0.8992	0.93	TM	
22	TM**	1,1-DCA	0.5109	0.4995	2.2	TM**	
23	TM	Vinyl Acetate	0.1435	0.1529	6.5	TM	
24	TM	Ethyl tert Butyl Ether	0.6311	0.6543	3.7	TM	
25	TM	MEK (2-Butanone)	0.0773	0.0714	7.6	TM	
26	TM	Cis-1,2-DCE	0.2979	0.2969	0.31	TM	
27	TM	2,2-Dichloropropane	0.1587	0.1670	5.2	TM	
28	TM*	Chloroform	0.4816	0.4820	0.09	TM*	
29	TM	Bromochloromethane	0.1165	0.1212	4.0	TM	
30	TM	1,1,1-TCA	0.3976	0.4035	1.5	TM	
31	TM	Cyclohexane	0.2684	0.2688	0.14	TM	
32	TM	1,1-Dichloropropene	0.3710	0.3883	4.7	TM	
33	TM	2,2,4-Trimethylpentane	0.9191	0.9797	6.6	TM	
34	TM	Carbon Tetrachloride	0.3081	0.3106	0.82	TM	
35	TM	Tert Amyl Methyl Ether	0.5403	0.5611	3.8	TM	
36	TM	1,2-DCA	0.3143	0.3100	1.4	TM	
37	TM	Benzene	1.164	1.134	2.6	TM	
38	TM	TCE	0.2859	0.2852	0.23	TM	
39	TM	2-Pentanone	0.1197	0.1205	0.67	TM	
40	TM*	1,2-Dichloropropane	0.2943	0.2993	1.7	TM*	
		Average			3.4		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/20/16
Instrument: MAX
Cal. Date: 10/20/16
Data File: 1020M21.D

		Compound	MEAN	CCRF	%D		%Drift	
41	TM	Bromodichloromethane	0.3202	0.3272	2.2	TM		
42	TM	Methyl Cyclohexane	0.4617	0.4850	5.1	TM		
43	TM	Dibromomethane	0.1288	0.1326	2.9	TM		
44	TML	MIBK (methyl isobutyl ketone)	0.2145	0.1918	11	TML	7.1	
45	TM	1-Bromo-2-chloroethane	0.1582	0.1617	2.2	TM		
46	TM	2-Chloroethyl vinyl ether	0.0000	0.0056	0.00	TM		
47	TM	Cis-1,3-Dichloropropene	0.3541	0.3719	5.0	TM		
48	TM*	Toluene	1.310	1.308	0.15	TM*		
49	TM	Trans-1,3-Dichloropropene	0.1295	0.1422	9.8	TM		
50	TM	1,1,2-TCA	0.1609	0.1630	1.3	TM		
51	TM	2-Hexanone	0.0557	0.0618	11	TM		
52	TM	1,2-EDB	0.2310	0.2388	3.4	TM		
53	TM	Tetrachloroethene	0.1878	0.1878	0.04	TM		
54	TM	1-Chlorohexane	0.5210	0.5550	6.5	TM		
55	TM	1,1,1,2-Tetrachloroethane	0.3214	0.3450	7.4	TM		
56	TM	m&p-Xylene	0.7771	0.8015	3.1	TM		
57	TM	o-Xylene	0.7601	0.7577	0.31	TM		
58	TM	Styrene	1.221	1.315	7.7	TM		
59	TM	1,3-Dichloropropane	0.4695	0.4842	3.1	TM		
60	TM	Dibromochloromethane	0.2738	0.2865	4.6	TM		
61	TM**	Chlorobenzene	1.117	1.116	0.13	TM**		
62	TM*	Ethylbenzene	1.973	2.048	3.8	TM*		
63	TM**	Bromoform	0.1503	0.1579	5.0	TM**		
64	TM	Isopropylbenzene	3.559	3.537	0.62	TM		
65	TM**	1,1,2,2-Tetrachloroethane	0.5109	0.5366	5.0	TM**		
66	TML	1,2,3-Trichloropropane	0.1746	0.1679	3.8	TML	11	
67	TM	t-1,4-Dichloro-2-Butene	0.1097	0.1084	1.1	TM		
68	TM	Bromobenzene	0.8210	0.8197	0.15	TM		
69	TM	n-Propylbenzene	4.258	4.486	5.3	TM		
70	TM	4-Ethyltoluene	3.517	3.683	4.7	TM		
71	TM	2-Chlorotoluene	2.310	2.361	2.2	TM		
72	TM	1,3,5-Trimethylbenzene	2.973	3.085	3.8	TM		
73	TM	4-Chlorotoluene	2.798	2.837	1.4	TM		
74	TM	Tert-Butylbenzene	2.613	2.650	1.4	TM		
75	TM	1,2,4-Trimethylbenzene	2.961	3.125	5.5	TM		
76	TM	Sec-Butylbenzene	3.753	3.906	4.1	TM		
77	TM	p-Isopropyltoluene	3.360	3.470	3.3	TM		
78	TM	Benzyl Chloride	0.3025	0.3846	27	TM		nt
79	TM	1,3-DCB	1.670	1.668	0.16	TM		
80	TM	1,4-DCB	1.679	1.723	2.6	TM		
		Average			4.2			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/20/16
Instrument: MAX
Cal. Date: 10/20/16
Data File: 1020M21.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	n-Butylbenzene	3.004	3.281	9.2	TM	
82	TM	1,2-DCB	1.439	1.512	5.0	TM	
83	TM	Hexachloroethane	0.3947	0.4013	1.7	TM	
84	TM	1,2-Dibromo-3-chloropropane	0.0655	0.0672	2.6	TM	
85	TM	1,2,4-Trichlorobenzene	1.000	1.127	13	TM	
86	TM	Hexachlorobutadiene	0.6099	0.6491	6.4	TM	
87	TM	Naphthalene	0.7142	0.8270	16	TM	
88	TM	1,2,3-Trichlorobenzene	0.8579	0.9450	10	TM	
89							
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			8.0		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M21.D
Acq On : 20 Oct 16 17:47
Sample : (SS) 10ug/L VOC STD 10/20/16
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 20
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 10:57 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	350330	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	257046	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	144644	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.79	111	83572	24.58176 ppb	0.00
Spiked Amount 25.000			Recovery = 98.328%		
36) 1,2-DCA-D4(S)	5.15	65	79678	24.47854 ppb	0.00
Spiked Amount 25.000			Recovery = 97.916%		
56) Toluene-D8(S)	7.36	98	338817	25.13458 ppb	0.00
Spiked Amount 25.000			Recovery = 100.540%		
64) 4-Bromofluorobenzene(S)	10.74	95	125809	25.75308 ppb	0.00
Spiked Amount 25.000			Recovery = 103.012%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.21	85	19904	9.92318 ppb	96
3) Freon 114	1.31	85	37752	11.05643 ppb	89
4) Chloromethane	1.36	49	3470	9.44001 ppb	96
5) Vinyl chloride	1.45	62	28264	9.70797 ppb	97
6) Bromomethane	1.71	94	26956	10.19803 ppb	93
7) Chloroethane	1.81	64	15000	9.46391 ppb	97
8) Dichlorofluoromethane	2.00	67	79586	9.67411 ppb	99
9) Trichlorofluoromethane	2.04	101	57299	9.89512 ppb	98
10) Acrolein	2.43	56	20104	124.36387 ppb	96
11) Acetone	2.59	43	8616	11.75320 ppb	88
12) Freon-113	2.55	101	17072	9.89522 ppb	97
13) 1,1-DCE	2.53	61	58407	9.96184 ppb	99
14) t-Butanol	3.18	59	22506	127.10276 ppb	97
15) Methyl Acetate	2.92	43	19442	10.17313 ppb	95
16) Iodomethane	2.66	142	27886	9.05210 ppb	96
17) Acrylonitrile	3.24	53	8707	10.58695 ppb	91
18) Methylene chloride	3.00	84	39230	10.31625 ppb	95
19) Carbon disulfide	2.72	76	109342	9.98113 ppb	99
20) Methyl t-butyl ether (MtBE	3.30	73	36848	10.11829 ppb	95
21) Trans-1,2-DCE	3.27	96	38284	10.42293 ppb	92
22) Diisopropyl Ether	3.82	45	126007	10.09252 ppb	99
23) 1,1-DCA	3.69	63	70003	9.77813 ppb	98
24) Vinyl Acetate	3.77	43	21424	10.65061 ppb	97
25) Ethyl tert Butyl Ether	4.19	59	91686	10.36778 ppb	94
26) MEK (2-Butanone)	4.33	43	10007	9.24056 ppb	97
27) Cis-1,2-DCE	4.29	96	41610	9.96854 ppb	92
28) 2,2-Dichloropropane	4.29	77	23408	10.52389 ppb	99
29) Chloroform	4.63	83	67544	10.00877 ppb	99
30) Bromochloromethane	4.53	128	16986	10.40178 ppb	98
32) 1,1,1-TCA	4.81	97	56546	10.15015 ppb	99
33) Cyclohexane	4.87	41	37661	10.01396 ppb	95
34) 1,1-Dichloropropene	4.99	75	54410	10.46501 ppb	97
35) 2,2,4-Trimethylpentane	5.34	57	137289	10.65948 ppb	100
37) Carbon Tetrachloride	4.99	117	43522	10.08192 ppb	97
38) Tert Amyl Methyl Ether	5.39	73	78626	10.38400 ppb	99
39) 1,2-DCA	5.23	62	43440	9.86234 ppb	99
40) Benzene	5.21	78	158902	9.73913 ppb	98
41) TCE	5.93	95	39966	9.97729 ppb	94
42) 2-Pentanone	6.17	43	211122	125.83406 ppb	100

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M21.D Vial: 20
Acq On : 20 Oct 16 17:47 Operator: DG,CM,SV
Sample : (SS) 10ug/L VOC STD 10/20/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 10:57 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	1,2-Dichloropropane	6.17	63	41937	10.16948 ppb		100
44)	Bromodichloromethane	6.50	83	45853	10.21918 ppb		95
45)	Methyl Cyclohexane	6.15	83	67969	10.50544 ppb		98
46)	Dibromomethane	6.30	93	18579	10.29211 ppb		88
47)	MIBK (methyl isobutyl ket	7.26	43	26882	10.70502 ppb	#	96
48)	1-Bromo-2-chloroethane	6.85	63	22656	10.21947 ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	52120	10.50241 ppb		98
51)	Toluene	7.44	91	183248	9.98541 ppb		99
52)	Trans-1,3-Dichloropropene	7.71	75	19928	10.98208 ppb		94
53)	1,1,2-TCA	7.93	83	22846	10.13032 ppb		94
54)	2-Hexanone	8.30	58	8659	11.08556 ppb		94
57)	1,2-EDB	8.54	107	24556	10.34102 ppb		98
58)	Tetrachloroethene	8.11	164	19312	10.00369 ppb		99
59)	1-Chlorohexane	9.22	91	57062	10.65154 ppb		97
60)	1,1,1,2-Tetrachloroethane	9.31	131	35472	10.73503 ppb		95
61)	m&p-Xylene	9.53	106	164815	20.62640 ppb		98
62)	o-Xylene	10.05	106	77905	9.96864 ppb		94
63)	Styrene	10.06	104	135253	10.77217 ppb		99
65)	1,3-Dichloropropane	8.13	76	49789	10.31480 ppb		96
66)	Dibromochloromethane	8.41	129	29455	10.46112 ppb		98
67)	Chlorobenzene	9.19	112	114723	9.98661 ppb		99
68)	Ethylbenzene	9.37	91	210581	10.37804 ppb		98
69)	Bromoform	10.27	173	16230	10.50479 ppb		92
71)	Isopropylbenzene	10.56	105	204659	9.93807 ppb		98
72)	1,1,2,2-Tetrachloroethane	10.97	83	31049	10.50418 ppb		94
73)	1,2,3-Trichloropropane	11.01	110	9716	11.09412 ppb	#	82
74)	t-1,4-Dichloro-2-Butene	11.06	53	6273	9.88555 ppb	#	80
75)	Bromobenzene	10.92	156	47428	9.98450 ppb		97
76)	n-Propylbenzene	11.13	91	259523	10.53364 ppb		99
77)	4-Ethyltoluene	11.30	105	213067	10.47198 ppb		99
78)	2-Chlorotoluene	11.22	91	136611	10.22309 ppb		100
79)	1,3,5-Trimethylbenzene	11.39	105	178468	10.37616 ppb		98
80)	4-Chlorotoluene	11.37	91	164145	10.14013 ppb		97
81)	Tert-Butylbenzene	11.84	119	153300	10.14003 ppb		97
82)	1,2,4-Trimethylbenzene	11.91	105	180792	10.55333 ppb		98
83)	Sec-Butylbenzene	12.15	105	225993	10.40774 ppb		99
84)	p-Isopropyltoluene	12.37	119	200756	10.32585 ppb		98
85)	Benzyl Chloride	12.59	91	22254	12.71645 ppb		99
86)	1,3-DCB	12.26	146	96483	9.98447 ppb		100
87)	1,4-DCB	12.39	146	99673	10.26313 ppb		98
88)	n-Butylbenzene	12.95	91	189818	10.92054 ppb		99
89)	1,2-DCB	12.90	146	87466	10.50307 ppb		98
90)	Hexachloroethane	13.27	117	23219	10.16692 ppb		96
91)	1,2-Dibromo-3-chloropropan	14.01	75	3888	10.25891 ppb		91
92)	1,2,4-Trichlorobenzene	15.23	180	65191	11.26574 ppb		99
93)	Hexachlorobutadiene	15.53	225	37554	10.64217 ppb		97
94)	Naphthalene	15.56	128	47848	11.57975 ppb		97
95)	1,2,3-Trichlorobenzene	15.92	180	54678	11.01572 ppb		97

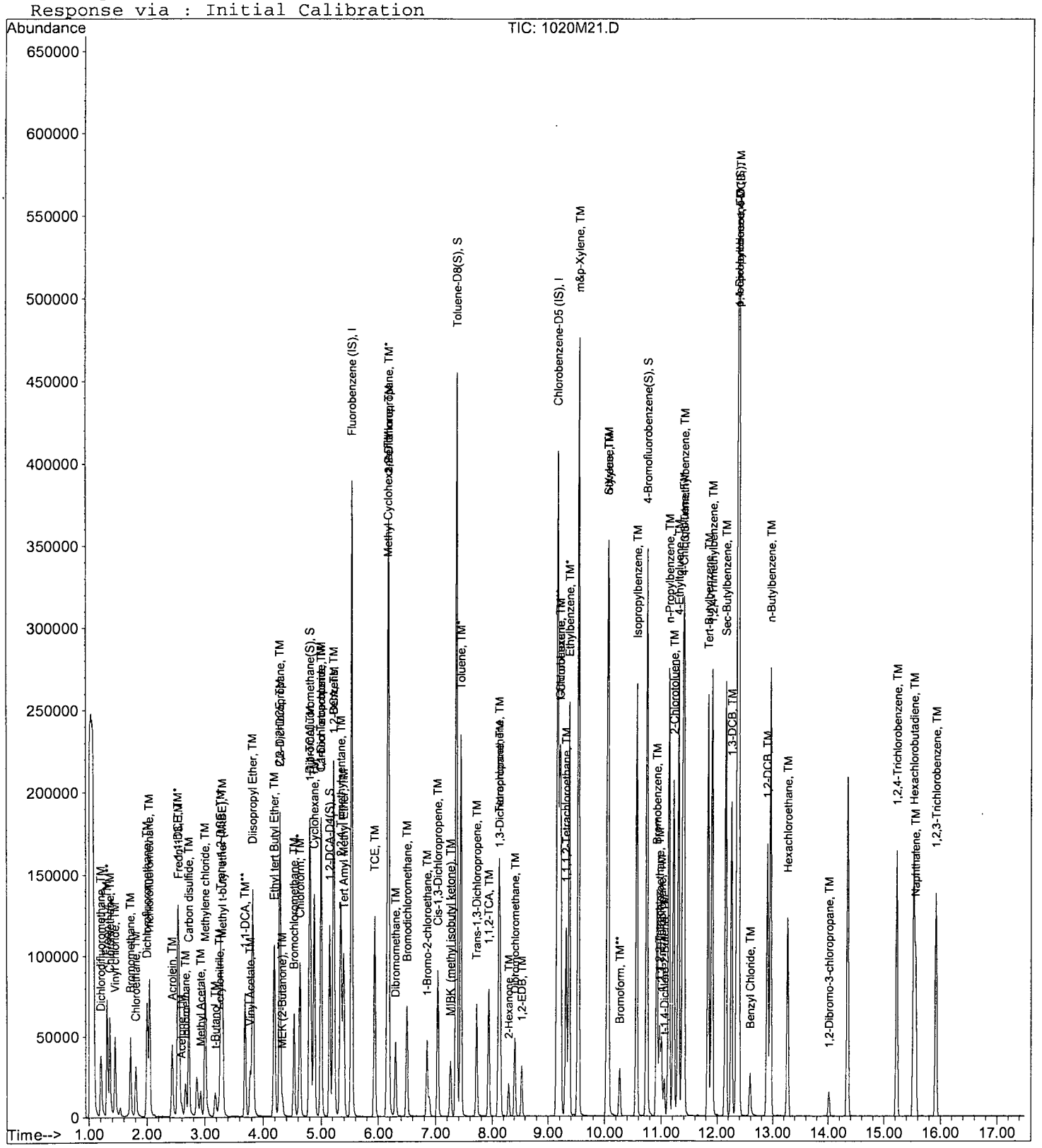
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M21.D Vial: 20
Acq On : 20 Oct 16 17:47 Operator: DG,CM,SV
Sample : (SS) 10ug/L VOC STD 10/20/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 10:57 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 10/22/16
Instrument: MAX
Initial Cal. Date: 10/20/16
Data File: 1022M02.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.1431	0.1482	3.5	TM	
3	TM	Freon 114	0.2437	0.2576	5.7	TM	
4	TM**	Chloromethane	0.0262	0.0257	1.9	TM**	
5	TM*	Vinyl chloride	0.2078	0.2027	2.4	TM*	
6	TM	Bromomethane	0.1886	0.1978	4.9	TM	
7	TM	Chloroethane	0.1131	0.1099	2.8	TM	
8	TM	Dichlorofluoromethane	0.5871	0.5714	2.7	TM	
9	TM	Trichlorofluoromethane	0.4132	0.4449	7.7	TM	
10	TM	Acrolein	0.0115	0.0114	0.93	TM	
11	TML	Acetone	0.0802	0.0559	30	TML	5.2
12	TM	Freon-113	0.1231	0.1154	6.2	TM	
13	TM*	1,1-DCE	0.4184	0.4192	0.18	TM*	
14	TM	t-Butanol	0.0126	0.0117	7.8	TM	
15	TM	Methyl Acetate	0.1364	0.1246	8.6	TM	
16	TML	Iodomethane	0.1892	0.2101	11	TML	4.9
17	TM	Acrylonitrile	0.0587	0.0552	6.0	TM	
18	TML	Methylene chloride	0.2965	0.2765	6.8	TML	1.8
19	TM	Carbon disulfide	0.7818	0.7545	3.5	TM	
20	TM	Methyl t-butyl ether (MtBE)	0.2599	0.2455	5.5	TM	
21	TM	Trans-1,2-DCE	0.2621	0.2768	5.6	TM	
22	TM	Diisopropyl Ether	0.8910	0.8782	1.4	TM	
23	TM**	1,1-DCA	0.5109	0.5207	1.9	TM**	
24	TM	Vinyl Acetate	0.1435	0.1327	7.6	TM	
25	TM	Ethyl tert Butyl Ether	0.6311	0.6191	1.9	TM	
26	TM	MEK (2-Butanone)	0.0773	0.0884	14	TM	
27	TM	Cis-1,2-DCE	0.2979	0.2887	3.1	TM	
28	TM	2,2-Dichloropropane	0.1587	0.1553	2.1	TM	
29	TM*	Chloroform	0.4816	0.4896	1.7	TM*	
30	TM	Bromochloromethane	0.1165	0.1221	4.8	TM	
31	S	Dibromofluoromethane(S)	0.2426	0.2480	2.2	S	
32	TM	1,1,1-TCA	0.3976	0.4023	1.2	TM	
33	TM	Cyclohexane	0.2684	0.2704	0.74	TM	
34	TM	1,1-Dichloropropene	0.3710	0.3923	5.7	TM	
35	TM	2,2,4-Trimethylpentane	0.9191	0.9717	5.7	TM	
36	S	1,2-DCA-D4(S)	0.2323	0.2366	1.8	S	
37	TM	Carbon Tetrachloride	0.3081	0.2950	4.3	TM	
38	TM	Tert Amyl Methyl Ether	0.5403	0.5398	0.10	TM	
39	TM	1,2-DCA	0.3143	0.3192	1.6	TM	
40	TM	Benzene	1.164	1.163	0.12	TM	
		Average			4.8		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/22/16
Matrix: 0 Instrument: MAX
Cal. Date: 10/20/16
Data File: 1022M02.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	TCE	0.2859	0.2916	2.0	TM	
42	TM	2-Pentanone	0.1197	0.1136	5.1	TM	
43	TM*	1,2-Dichloropropane	0.2943	0.2975	1.1	TM*	
44	TM	Bromodichloromethane	0.3202	0.3110	2.9	TM	
45	TM	Methyl Cyclohexane	0.4617	0.4679	1.3	TM	
46	TM	Dibromomethane	0.1288	0.1271	1.4	TM	
47	TML	MIBK (methyl isobutyl ketone)	0.2145	0.1827	15	TML	1.6
48	TM	1-Bromo-2-chloroethane	0.1582	0.1558	1.5	TM	
49	TM	2-Chloroethyl vinyl ether	0.0000	0.0043	0.00	TM	
50	TM	Cis-1,3-Dichloropropene	0.3541	0.3459	2.3	TM	
51	TM*	Toluene	1.310	1.352	3.2	TM*	
52	TM	Trans-1,3-Dichloropropene	0.1295	0.1258	2.8	TM	
53	TM	1,1,2-TCA	0.1609	0.1616	0.39	TM	
54	TM	2-Hexanone	0.0557	0.0525	5.8	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	1.311	1.307	0.34	S	
57	TM	1,2-EDB	0.2310	0.2139	7.4	TM	
58	TM	Tetrachloroethene	0.1878	0.1907	1.6	TM	
59	TM	1-Chlorohexane	0.5210	0.5359	2.9	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.3214	0.3084	4.0	TM	
61	TM	m&p-Xylene	0.7771	0.8084	4.0	TM	
62	TM	o-Xylene	0.7601	0.7721	1.6	TM	
63	TM	Styrene	1.221	1.273	4.3	TM	
64	S	4-Bromofluorobenzene(S)	0.4751	0.4744	0.15	S	
65	TM	1,3-Dichloropropane	0.4695	0.4555	3.0	TM	
66	TM	Dibromochloromethane	0.2738	0.2651	3.2	TM	
67	TM**	Chlorobenzene	1.117	1.128	0.96	TM**	
68	TM*	Ethylbenzene	1.973	2.058	4.3	TM*	
69	TM**	Bromoform	0.1503	0.1365	9.1	TM**	
70	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
71	TM	Isopropylbenzene	3.559	3.525	0.97	TM	
72	TM**	1,1,2,2-Tetrachloroethane	0.5109	0.4767	6.7	TM**	
73	TML	1,2,3-Trichloropropane	0.1746	0.1493	15	TML	2.7
74	TM	t-1,4-Dichloro-2-Butene	0.1097	0.0905	17	TM	
75	TM	Bromobenzene	0.8210	0.8040	2.1	TM	
76	TM	n-Propylbenzene	4.258	4.354	2.2	TM	
77	TM	4-Ethyltoluene	3.517	3.631	3.2	TM	
78	TM	2-Chlorotoluene	2.310	2.199	4.8	TM	
79	TM	1,3,5-Trimethylbenzene	2.973	2.998	0.85	TM	
80	TM	4-Chlorotoluene	2.798	2.761	1.3	TM	
		Average			3.8		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/22/16
Matrix: 0 Instrument: MAX
Cal. Date: 10/20/16
Data File: 1022M02.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	Tert-Butylbenzene	2.613	2.608	0.21	TM	
82	TM	1,2,4-Trimethylbenzene	2.961	3.046	2.9	TM	
83	TM	Sec-Butylbenzene	3.753	3.914	4.3	TM	
84	TM	p-Isopropyltoluene	3.360	3.376	0.46	TM	
85	TM	Benzyl Chloride	0.3025	0.3125	3.3	TM	
86	TM	1,3-DCB	1.670	1.613	3.5	TM	
87	TM	1,4-DCB	1.679	1.653	1.5	TM	
88	TM	n-Butylbenzene	3.004	3.053	1.6	TM	
89	TM	1,2-DCB	1.439	1.411	2.0	TM	
90	TM	Hexachloroethane	0.3947	0.3696	6.4	TM	
91	TM	1,2-Dibromo-3-chloropropane	0.0655	0.0565	14	TM	
92	TM	1,2,4-Trichlorobenzene	1.000	1.009	0.85	TM	
93	TM	Hexachlorobutadiene	0.6099	0.6056	0.71	TM	
94	TM	Naphthalene	0.7142	0.6858	4.0	TM	
95	TM	1,2,3-Trichlorobenzene	0.8579	0.7896	8.0	TM	
96							
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
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111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			3.6		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1022M02.D Vial: 2
Acq On : 22 Oct 16 10:23 Operator: DG,CM,SV
Sample : 161022A CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:38 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.52	96	323946	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	242686	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	138559	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.79	111	80343	25.55671 ppb		0.00
Spiked Amount 25.000			Recovery = 102.228%			
36) 1,2-DCA-D4(S)	5.14	65	76636	25.46154 ppb		0.00
Spiked Amount 25.000			Recovery = 101.848%			
56) Toluene-D8(S)	7.36	98	317095	24.91507 ppb		0.00
Spiked Amount 25.000			Recovery = 99.660%			
64) 4-Bromofluorobenzene(S)	10.74	95	115131	24.96179 ppb		0.00
Spiked Amount 25.000			Recovery = 99.848%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	19200	10.35181 ppb		98
3) Freon 114	1.31	85	33380	10.57222 ppb		94
4) Chloromethane	1.36	49	3333	9.80580 ppb	#	85
5) Vinyl chloride	1.45	62	26264	9.75575 ppb		94
6) Bromomethane	1.72	94	25628	10.48528 ppb		100
7) Chloroethane	1.81	64	14243	9.71819 ppb		99
8) Dichlorofluoromethane	2.00	67	74036	9.73245 ppb		100
9) Trichlorofluoromethane	2.04	101	57653	10.76714 ppb		100
10) Acrolein	2.43	56	18512	123.84252 ppb		100
11) Acetone	2.59	43	7247	10.52452 ppb		100
12) Freon-113	2.55	101	14958	9.37604 ppb		95
13) 1,1-DCE	2.53	61	54315	10.01842 ppb		99
14) t-Butanol	3.17	59	18875	115.27851 ppb		94
15) Methyl Acetate	2.92	43	16145	9.13601 ppb		97
16) Iodomethane	2.66	142	27223	9.51190 ppb		94
17) Acrylonitrile	3.24	53	7151	9.40316 ppb		93
18) Methylene chloride	3.00	84	35825	10.18071 ppb		96
19) Carbon disulfide	2.72	76	97764	9.65109 ppb		99
20) Methyl t-butyl ether (MtBE	3.30	73	31816	9.44808 ppb		99
21) Trans-1,2-DCE	3.27	96	35866	10.55991 ppb		93
22) Diisopropyl Ether	3.82	45	113790	9.85629 ppb		98
23) 1,1-DCA	3.69	63	67467	10.19143 ppb		99
24) Vinyl Acetate	3.77	43	17192	9.24284 ppb		99
25) Ethyl tert Butyl Ether	4.19	59	80217	9.80966 ppb		95
26) MEK (2-Butanone)	4.32	43	11449	11.43316 ppb		97
27) Cis-1,2-DCE	4.29	96	37411	9.69255 ppb		96
28) 2,2-Dichloropropane	4.28	77	20128	9.78627 ppb		92
29) Chloroform	4.63	83	63440	10.16627 ppb		100
30) Bromochloromethane	4.53	128	15826	10.48075 ppb		93
32) 1,1,1-TCA	4.81	97	52128	10.11920 ppb		98
33) Cyclohexane	4.87	41	35032	10.07358 ppb		98
34) 1,1-Dichloropropene	5.00	75	50829	10.57249 ppb		94
35) 2,2,4-Trimethylpentane	5.34	57	125912	10.57236 ppb		99
37) Carbon Tetrachloride	4.99	117	38220	9.57481 ppb		97
38) Tert Amyl Methyl Ether	5.38	73	69949	9.99044 ppb		99
39) 1,2-DCA	5.22	62	41363	10.15563 ppb		99
40) Benzene	5.21	78	150694	9.98830 ppb		98
41) TCE	5.93	95	37782	10.20027 ppb		89
42) 2-Pentanone	6.17	43	184017	118.61166 ppb		99

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

Data File : M:\MAX\DATA\M161020\1022M02.D Vial: 2
Acq On : 22 Oct 16 10:23 Operator: DG,CM,SV
Sample : 161022A CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:38 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	1,2-Dichloropropane	6.17	63	38548	10.10900 ppb	98
44)	Bromodichloromethane	6.50	83	40303	9.71382 ppb	100
45)	Methyl Cyclohexane	6.16	83	60629	10.13418 ppb	93
46)	Dibromomethane	6.30	93	16465	9.86390 ppb	93
47)	MIBK (methyl isobutyl ket	7.26	43	23678	10.16087 ppb	97
48)	1-Bromo-2-chloroethane	6.85	63	20192	9.84984 ppb	98
50)	Cis-1,3-Dichloropropene	7.03	75	44821	9.76722 ppb	97
51)	Toluene	7.44	91	175184	10.32347 ppb	98
52)	Trans-1,3-Dichloropropene	7.71	75	16306	9.71791 ppb	100
53)	1,1,2-TCA	7.93	83	20935	10.03900 ppb	93
54)	2-Hexanone	8.30	58	6803	9.41879 ppb	93
57)	1,2-EDB	8.53	107	20764	9.26153 ppb	95
58)	Tetrachloroethene	8.11	164	18512	10.15669 ppb	97
59)	1-Chlorohexane	9.21	91	52023	10.28553 ppb	98
60)	1,1,1,2-Tetrachloroethane	9.31	131	29937	9.59604 ppb	98
61)	m&p-Xylene	9.53	106	156949	20.80422 ppb	97
62)	o-Xylene	10.04	106	74950	10.15800 ppb	96
63)	Styrene	10.06	104	123619	10.42816 ppb	97
65)	1,3-Dichloropropane	8.13	76	44222	9.70358 ppb	96
66)	Dibromochloromethane	8.41	129	25732	9.67963 ppb	94
67)	Chlorobenzene	9.19	112	109505	10.09643 ppb	99
68)	Ethylbenzene	9.36	91	199746	10.42654 ppb	99
69)	Bromoform	10.27	173	13254	9.08619 ppb	94
71)	Isopropylbenzene	10.56	105	195356	9.90292 ppb	99
72)	1,1,2,2-Tetrachloroethane	10.97	83	26418	9.32997 ppb	98
73)	1,2,3-Trichloropropane	11.00	110	8273	9.73148 ppb	99
74)	t-1,4-Dichloro-2-Butene	11.06	53	5016	8.25180 ppb	85
75)	Bromobenzene	10.92	156	44561	9.79292 ppb	98
76)	n-Propylbenzene	11.13	91	241311	10.22458 ppb	99
77)	4-Ethyltoluene	11.30	105	201216	10.32383 ppb	98
78)	2-Chlorotoluene	11.21	91	121887	9.52181 ppb	97
79)	1,3,5-Trimethylbenzene	11.40	105	166155	10.08453 ppb	98
80)	4-Chlorotoluene	11.37	91	153030	9.86866 ppb	98
81)	Tert-Butylbenzene	11.84	119	144521	9.97915 ppb	95
82)	1,2,4-Trimethylbenzene	11.91	105	168802	10.28617 ppb	99
83)	Sec-Butylbenzene	12.15	105	216947	10.42991 ppb	100
84)	p-Isopropyltoluene	12.37	119	187098	10.04598 ppb	98
85)	Benzyl Chloride	12.59	91	17321	10.33229 ppb	99
86)	1,3-DCB	12.26	146	89374	9.65498 ppb	98
87)	1,4-DCB	12.38	146	91640	9.85038 ppb	97
88)	n-Butylbenzene	12.95	91	169226	10.16341 ppb	98
89)	1,2-DCB	12.90	146	78191	9.80166 ppb	96
90)	Hexachloroethane	13.27	117	20486	9.36416 ppb	92
91)	1,2-Dibromo-3-chloropropan	14.02	75	3129	8.61879 ppb	92
92)	1,2,4-Trichlorobenzene	15.23	180	55902	10.08475 ppb	98
93)	Hexachlorobutadiene	15.53	225	33565	9.92948 ppb	95
94)	Naphthalene	15.56	128	38008	9.60232 ppb	99
95)	1,2,3-Trichlorobenzene	15.92	180	43761	9.20351 ppb	91

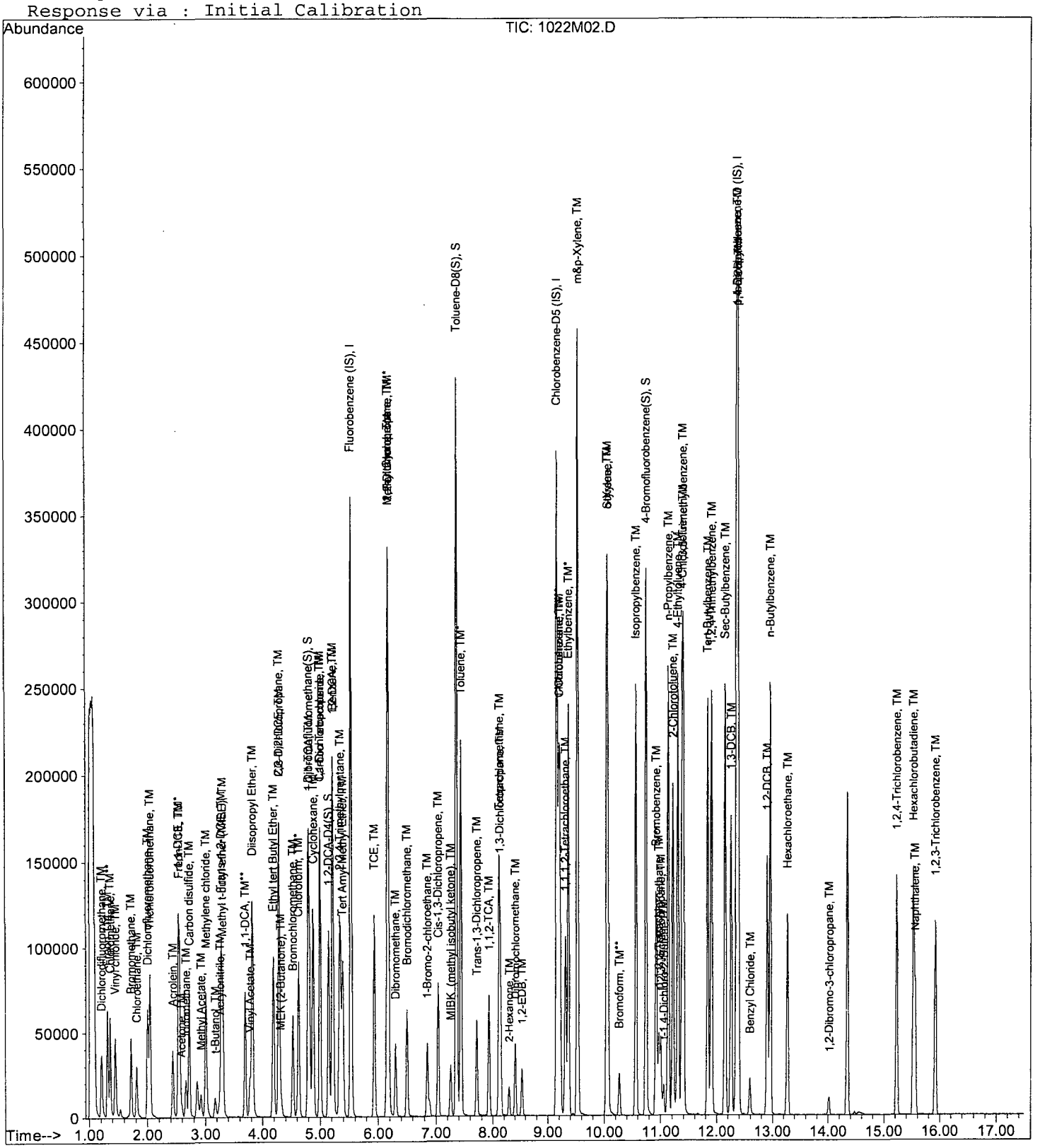
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M02.D Vial: 2
Acq On : 22 Oct 16 10:23 Operator: DG,CM,SV
Sample : 161022A CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:38 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/22/16
Matrix: Instrument: MAX
Initial Cal. Date: 10/20/16
Data File: 1022M26.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.1431	0.1405	1.8	TM	
3	TM	Freon 114	0.2437	0.2269	6.9	TM	
4	TM**	Chloromethane	0.0262	0.0260	1.0	TM**	
5	TM*	Vinyl chloride	0.2078	0.1961	5.6	TM*	
6	TM	Bromomethane	0.1886	0.2347	24	TM	
7	TM	Chloroethane	0.1131	0.1045	7.6	TM	
8	TM	Dichlorofluoromethane	0.5871	0.5507	6.2	TM	
9	TM	Trichlorofluoromethane	0.4132	0.3998	3.2	TM	
10	TM	Acrolein	0.0115	0.0114	1.2	TM	
11	TML	Acetone	0.0802	0.0582	27	TML	10
12	TM	Freon-113	0.1231	0.1037	16	TM	
13	TM*	1,1-DCE	0.4184	0.3801	9.2	TM*	
14	TM	t-Butanol	0.0126	0.0125	1.0	TM	
15	TM	Methyl Acetate	0.1364	0.1351	0.91	TM	
16	TML	Iodomethane	0.1892	0.1207	36	TML	42
17	TM	Acrylonitrile	0.0587	0.0585	0.29	TM	
18	TML	Methylene chloride	0.2965	0.2743	7.5	TML	0.96
19	TM	Carbon disulfide	0.7818	0.6838	13	TM	
20	TM	Methyl t-butyl ether (MtBE)	0.2599	0.2443	6.0	TM	
21	TM	Trans-1,2-DCE	0.2621	0.2538	3.2	TM	
22	TM	Diisopropyl Ether	0.8910	0.8593	3.6	TM	
23	TM**	1,1-DCA	0.5109	0.4795	6.1	TM**	
24	TM	Vinyl Acetate	0.1435	0.1262	12	TM	
25	TM	Ethyl tert Butyl Ether	0.6311	0.6271	0.63	TM	
26	TM	MEK (2-Butanone)	0.0773	0.0702	9.2	TM	
27	TM	Cis-1,2-DCE	0.2979	0.2801	6.0	TM	
28	TM	2,2-Dichloropropane	0.1587	0.1179	26	TM	
29	TM*	Chloroform	0.4816	0.4640	3.7	TM*	
30	TM	Bromochloromethane	0.1165	0.1171	0.46	TM	
31	S	Dibromofluoromethane(S)	0.2426	0.2436	0.41	S	
32	TM	1,1,1-TCA	0.3976	0.3716	6.5	TM	
33	TM	Cyclohexane	0.2684	0.2467	8.1	TM	
34	TM	1,1-Dichloropropene	0.3710	0.3480	6.2	TM	
35	TM	2,2,4-Trimethylpentane	0.9191	0.7410	19	TM	
36	S	1,2-DCA-D4(S)	0.2323	0.2344	0.90	S	
37	TM	Carbon Tetrachloride	0.3081	0.2737	11	TM	
38	TM	Tert Amyl Methyl Ether	0.5403	0.5457	1.00	TM	
39	TM	1,2-DCA	0.3143	0.3100	1.4	TM	
40	TM	Benzene	1.164	1.110	4.6	TM	
		Average			7.8		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/22/16
Matrix: 0 Instrument: MAX
Cal. Date: 10/20/16
Data File: 1022M26.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	TCE	0.2859	0.2791	2.4	TM	
42	TM	2-Pentanone	0.1197	0.1175	1.9	TM	
43	TM*	1,2-Dichloropropane	0.2943	0.2853	3.1	TM*	
44	TM	Bromodichloromethane	0.3202	0.3030	5.4	TM	
45	TM	Methyl Cyclohexane	0.4617	0.4111	11	TM	
46	TM	Dibromomethane	0.1288	0.1275	0.99	TM	
47	TML	MIBK (methyl isobutyl ketone)	0.2145	0.1824	15	TML	1.4
48	TM	1-Bromo-2-chloroethane	0.1582	0.1509	4.6	TM	
49	TM	2-Chloroethyl vinyl ether	0.0000	0.0044	0.00	TM	
50	TM	Cis-1,3-Dichloropropene	0.3541	0.3100	12	TM	
51	TM*	Toluene	1.310	1.276	2.5	TM*	
52	TM	Trans-1,3-Dichloropropene	0.1295	0.1197	7.5	TM	
53	TM	1,1,2-TCA	0.1609	0.1628	1.2	TM	
54	TM	2-Hexanone	0.0557	0.0617	11	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	1.311	1.339	2.1	S	
57	TM	1,2-EDB	0.2310	0.2159	6.5	TM	
58	TM	Tetrachloroethene	0.1878	0.1713	8.7	TM	
59	TM	1-Chlorohexane	0.5210	0.4777	8.3	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.3214	0.2923	9.1	TM	
61	TM	m&p-Xylene	0.7771	0.7596	2.3	TM	
62	TM	o-Xylene	0.7601	0.7201	5.3	TM	
63	TM	Styrene	1.221	1.208	1.1	TM	
64	S	4-Bromofluorobenzene(S)	0.4751	0.4855	2.2	S	
65	TM	1,3-Dichloropropane	0.4695	0.4478	4.6	TM	
66	TM	Dibromochloromethane	0.2738	0.2495	8.9	TM	
67	TM**	Chlorobenzene	1.117	1.068	4.4	TM**	
68	TM*	Ethylbenzene	1.973	1.925	2.5	TM*	
69	TM**	Bromoform	0.1503	0.1374	8.5	TM**	
70	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
71	TM	Isopropylbenzene	3.559	3.244	8.9	TM	
72	TM**	1,1,2,2-Tetrachloroethane	0.5109	0.4832	5.4	TM**	
73	TML	1,2,3-Trichloropropane	0.1746	0.1445	17	TML	6.2
74	TM	t-1,4-Dichloro-2-Butene	0.1097	0.0888	19	TM	
75	TM	Bromobenzene	0.8210	0.7896	3.8	TM	
76	TM	n-Propylbenzene	4.258	3.905	8.3	TM	
77	TM	4-Ethyltoluene	3.517	3.310	5.9	TM	
78	TM	2-Chlorotoluene	2.310	2.105	8.9	TM	
79	TM	1,3,5-Trimethylbenzene	2.973	2.832	4.7	TM	
80	TM	4-Chlorotoluene	2.798	2.609	6.8	TM	
		Average			6.4		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/22/16
Matrix: 0 Instrument: MAX
Cal. Date: 10/20/16
Data File: 1022M26.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	Tert-Butylbenzene	2.613	2.399	8.2	TM	
82	TM	1,2,4-Trimethylbenzene	2.961	2.869	3.1	TM	
83	TM	Sec-Butylbenzene	3.753	3.460	7.8	TM	
84	TM	p-Isopropyltoluene	3.360	3.066	8.8	TM	
85	TM	Benzyl Chloride	0.3025	0.2469	18	TM	
86	TM	1,3-DCB	1.670	1.533	8.2	TM	
87	TM	1,4-DCB	1.679	1.559	7.1	TM	
88	TM	n-Butylbenzene	3.004	2.687	11	TM	
89	TM	1,2-DCB	1.439	1.378	4.3	TM	
90	TM	Hexachloroethane	0.3947	0.3222	18	TM	
91	TM	1,2-Dibromo-3-chloropropane	0.0655	0.0545	17	TM	
92	TM	1,2,4-Trichlorobenzene	1.000	0.9245	7.6	TM	
93	TM	Hexachlorobutadiene	0.6099	0.5169	15	TM	
94	TM	Naphthalene	0.7142	0.6820	4.5	TM	
95	TM	1,2,3-Trichlorobenzene	0.8579	0.7839	8.6	TM	
96							
97							
98							
99							
100							
101							
102							
103							
104							
105							
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108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			9.8		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1022M26.D Vial: 26
Acq On : 22 Oct 16 19:06 Operator: DG,CM,SV
Sample : Ending CCV 8260 10ug/L 10/22/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:39 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	336991	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	249204	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	142543	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.80	111	82092	25.10222 ppb	0.00
Spiked Amount 25.000			Recovery = 100.408%		
36) 1,2-DCA-D4(S)	5.15	65	78978	25.22390 ppb	0.00
Spiked Amount 25.000			Recovery = 100.896%		
56) Toluene-D8(S)	7.36	98	333678	25.53230 ppb	0.00
Spiked Amount 25.000			Recovery = 102.128%		
64) 4-Bromofluorobenzene(S)	10.74	95	120989	25.54578 ppb	0.00
Spiked Amount 25.000			Recovery = 102.184%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.21	85	18944	9.81841 ppb	96
3) Freon 114	1.31	85	30589	9.31321 ppb	89
4) Chloromethane	1.36	49	3500	9.89852 ppb	98
5) Vinyl chloride	1.45	62	26432	9.43809 ppb	96
6) Bromomethane	1.71	94	31638	12.44311 ppb	94
7) Chloroethane	1.81	64	14088	9.24034 ppb	97
8) Dichlorofluoromethane	2.00	67	74231	9.38034 ppb	99
9) Trichlorofluoromethane	2.05	101	53898	9.67621 ppb	99
10) Acrolein	2.43	56	19208	123.52444 ppb	94
11) Acetone	2.59	43	7844	11.02505 ppb	99
12) Freon-113	2.55	101	13972	8.41897 ppb	98
13) 1,1-DCE	2.53	61	51231	9.08378 ppb	97
14) t-Butanol	3.17	59	21068	123.69126 ppb	95
15) Methyl Acetate	2.92	43	18216	9.90891 ppb	99
16) Iodomethane	2.66	142	16270	5.80604 ppb	89
17) Acrylonitrile	3.24	53	7888	9.97076 ppb	90
18) Methylene chloride	3.00	84	36974	10.09578 ppb	96
19) Carbon disulfide	2.72	76	92168	8.74645 ppb	98
20) Methyl t-butyl ether (MtBE	3.31	73	32936	9.40207 ppb	98
21) Trans-1,2-DCE	3.27	96	34212	9.68300 ppb	94
22) Diisopropyl Ether	3.82	45	115831	9.64470 ppb	98
23) 1,1-DCA	3.69	63	64640	9.38641 ppb	96
24) Vinyl Acetate	3.78	43	17016	8.79408 ppb	95
25) Ethyl tert Butyl Ether	4.19	59	84531	9.93706 ppb	98
26) MEK (2-Butanone)	4.33	43	9459	9.08026 ppb	93
27) Cis-1,2-DCE	4.29	96	37752	9.40228 ppb	96
28) 2,2-Dichloropropane	4.28	77	15886	7.42481 ppb	100
29) Chloroform	4.63	83	62540	9.63409 ppb	97
30) Bromochloromethane	4.53	128	15781	10.04639 ppb	95
32) 1,1,1-TCA	4.81	97	50087	9.34662 ppb	97
33) Cyclohexane	4.88	41	33250	9.19104 ppb	94
34) 1,1-Dichloropropene	5.00	75	46914	9.38043 ppb	95
35) 2,2,4-Trimethylpentane	5.34	57	99885	8.06231 ppb	97
37) Carbon Tetrachloride	4.99	117	36888	8.88339 ppb	97
38) Tert Amyl Methyl Ether	5.39	73	73562	10.09976 ppb	97
39) 1,2-DCA	5.23	62	41783	9.86164 ppb	100
40) Benzene	5.21	78	149673	9.53659 ppb	100
41) TCE	5.93	95	37618	9.76285 ppb	91
42) 2-Pentanone	6.17	43	197944	122.64959 ppb	99

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1022M26.D Vial: 26
Acq On : 22 Oct 16 19:06 Operator: DG,CM,SV
Sample : Ending CCV 8260 10ug/L 10/22/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:39 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43)	1,2-Dichloropropane	6.17	63	38452	9.69347	ppb	99
44)	Bromodichloromethane	6.50	83	40837	9.46152	ppb	100
45)	Methyl Cyclohexane	6.15	83	55408	8.90297	ppb	99
46)	Dibromomethane	6.30	93	17192	9.90074	ppb	94
47)	MIBK (methyl isobutyl ket	7.26	43	24588	10.14159	ppb	97
48)	1-Bromo-2-chloroethane	6.85	63	20344	9.53983	ppb	97
50)	Cis-1,3-Dichloropropene	7.04	75	41792	8.75461	ppb	99
51)	Toluene	7.44	91	172062	9.74699	ppb	99
52)	Trans-1,3-Dichloropropene	7.71	75	16139	9.24605	ppb	97
53)	1,1,2-TCA	7.93	83	21945	10.11597	ppb	98
54)	2-Hexanone	8.30	58	8315	11.06652	ppb	86
57)	1,2-EDB	8.54	107	21525	9.34985	ppb	94
58)	Tetrachloroethene	8.11	164	17080	9.12592	ppb	97
59)	1-Chlorohexane	9.22	91	47617	9.16818	ppb	97
60)	1,1,1,2-Tetrachloroethane	9.31	131	29135	9.09470	ppb	98
61)	m&p-Xylene	9.53	106	151427	19.54726	ppb	97
62)	o-Xylene	10.05	106	71778	9.47366	ppb	97
63)	Styrene	10.06	104	120408	9.89162	ppb	99
65)	1,3-Dichloropropane	8.13	76	44640	9.53910	ppb	89
66)	Dibromochloromethane	8.41	129	24872	9.11142	ppb	99
67)	Chlorobenzene	9.19	112	106495	9.56209	ppb	99
68)	Ethylbenzene	9.37	91	191881	9.75402	ppb	100
69)	Bromoform	10.27	173	13701	9.14696	ppb	90
71)	Isopropylbenzene	10.56	105	184960	9.11388	ppb	97
72)	1,1,2,2-Tetrachloroethane	10.97	83	27548	9.45713	ppb	96
73)	1,2,3-Trichloropropane	11.01	110	8237	9.38073	ppb	88
74)	t-1,4-Dichloro-2-Butene	11.06	53	5065	8.09952	ppb	97
75)	Bromobenzene	10.92	156	45023	9.61791	ppb	100
76)	n-Propylbenzene	11.13	91	222651	9.17027	ppb	100
77)	4-Ethyltoluene	11.30	105	188723	9.41222	ppb	100
78)	2-Chlorotoluene	11.21	91	119993	9.11186	ppb	99
79)	1,3,5-Trimethylbenzene	11.39	105	161494	9.52768	ppb	100
80)	4-Chlorotoluene	11.37	91	148756	9.32491	ppb	100
81)	Tert-Butylbenzene	11.84	119	136796	9.18174	ppb	98
82)	1,2,4-Trimethylbenzene	11.91	105	163555	9.68788	ppb	97
83)	Sec-Butylbenzene	12.15	105	197274	9.21904	ppb	99
84)	p-Isopropyltoluene	12.37	119	174807	9.12370	ppb	97
85)	Benzyl Chloride	12.59	91	14076	8.16191	ppb	99
86)	1,3-DCB	12.25	146	87393	9.17710	ppb	99
87)	1,4-DCB	12.39	146	88881	9.28679	ppb	99
88)	n-Butylbenzene	12.95	91	153182	8.94271	ppb	99
89)	1,2-DCB	12.90	146	78567	9.57352	ppb	99
90)	Hexachloroethane	13.27	117	18371	8.16269	ppb	94
91)	1,2-Dibromo-3-chloropropan	14.01	75	3107	8.31899	ppb	96
92)	1,2,4-Trichlorobenzene	15.23	180	52710	9.24314	ppb	99
93)	Hexachlorobutadiene	15.52	225	29474	8.47554	ppb	97
94)	Naphthalene	15.56	128	38888	9.55005	ppb	97
95)	1,2,3-Trichlorobenzene	15.92	180	44696	9.13742	ppb	96

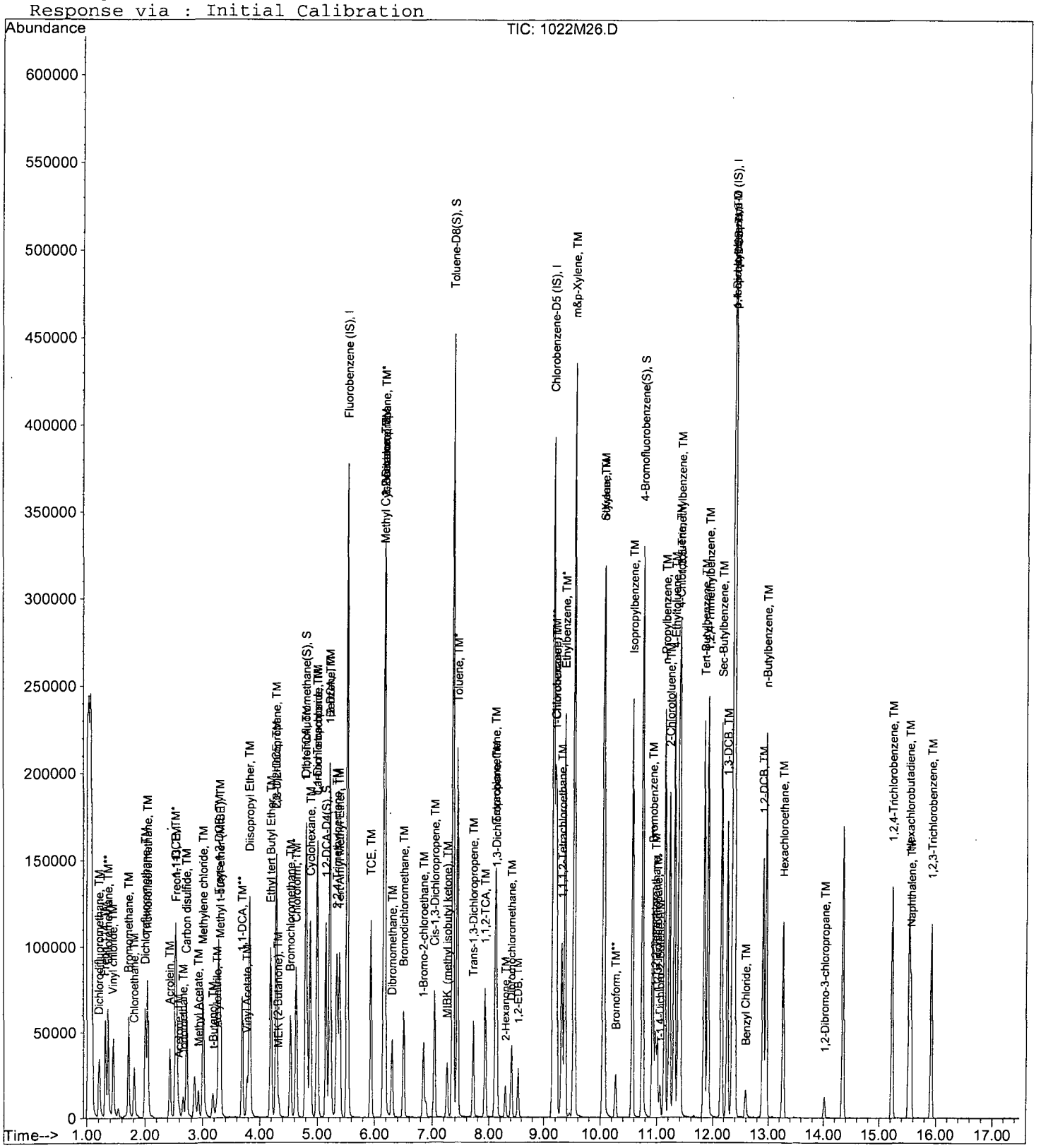
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M26.D Vial: 26
Acq On : 22 Oct 16 19:06 Operator: DG,CM,SV
Sample : Ending CCV 8260 10ug/L 10/22/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:39 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



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VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/23/16
Matrix: Instrument: MAX
Initial Cal. Date: 10/20/16
Data File: 1023M32.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.1431	0.1313	8.2	TM		
3	TM	Freon 114	0.2437	0.2457	0.85	TM		
4	TM**	Chloromethane	0.0262	0.0231	12	TM**		
5	TM*	Vinyl chloride	0.2078	0.1873	9.9	TM*		
6	TM	Bromomethane	0.1886	0.1781	5.6	TM		
7	TM	Chloroethane	0.1131	0.1030	8.9	TM		
8	TM	Dichlorofluoromethane	0.5871	0.5579	5.0	TM		
9	TM	Trichlorofluoromethane	0.4132	0.4028	2.5	TM		
10	TM	Acrolein	0.0115	0.0097	16	TM		
11	TML	Acetone	0.0802	0.0613	24	TML	17	
12	TM	Freon-113	0.1231	0.1070	13	TM		
13	TM*	1,1-DCE	0.4184	0.4003	4.3	TM*		
14	TM	t-Butanol	0.0126	0.0091	28	TM		nt
15	TM	Methyl Acetate	0.1364	0.1229	9.9	TM		
16	TML	Iodomethane	0.1892	0.1335	29	TML	37	nt
17	TM	Acrylonitrile	0.0587	0.0608	3.5	TM		
18	TML	Methylene chloride	0.2965	0.2590	13	TML	5.0	
19	TM	Carbon disulfide	0.7818	0.6911	12	TM		
20	TM	Methyl t-butyl ether (MtBE)	0.2599	0.2353	9.5	TM		
21	TM	Trans-1,2-DCE	0.2621	0.2613	0.32	TM		
22	TM	Diisopropyl Ether	0.8910	0.8399	5.7	TM		
23	TM**	1,1-DCA	0.5109	0.4850	5.1	TM**		
24	TM	Vinyl Acetate	0.1435	0.0929	35	TM		nt
25	TM	Ethyl tert Butyl Ether	0.6311	0.5730	9.2	TM		
26	TM	MEK (2-Butanone)	0.0773	0.0644	17	TM		
27	TM	Cis-1,2-DCE	0.2979	0.2810	5.7	TM		
28	TM	2,2-Dichloropropane	0.1587	0.1184	25	TM		nt
29	TM*	Chloroform	0.4816	0.4638	3.7	TM*		
30	TM	Bromochloromethane	0.1165	0.1193	2.4	TM		
31	S	Dibromofluoromethane(S)	0.2426	0.2431	0.22	S		
32	TM	1,1,1-TCA	0.3976	0.3817	4.0	TM		
33	TM	Cyclohexane	0.2684	0.2479	7.6	TM		
34	TM	1,1-Dichloropropene	0.3710	0.3545	4.5	TM		
35	TM	2,2,4-Trimethylpentane	0.9191	0.7988	13	TM		
36	S	1,2-DCA-D4(S)	0.2323	0.2287	1.6	S		
37	TM	Carbon Tetrachloride	0.3081	0.2914	5.4	TM		
38	TM	Tert Amyl Methyl Ether	0.5403	0.5114	5.4	TM		
39	TM	1,2-DCA	0.3143	0.3034	3.5	TM		
40	TM	Benzene	1.164	1.111	4.5	TM		
		Average			9.6			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/23/16
Instrument: MAX
Cal. Date: 10/20/16
Data File: 1023M32.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	TCE	0.2859	0.2893	1.2	TM	
42	TM	2-Pentanone	0.1197	0.1116	6.8	TM	
43	TM*	1,2-Dichloropropane	0.2943	0.2833	3.7	TM*	
44	TM	Bromodichloromethane	0.3202	0.3129	2.3	TM	
45	TM	Methyl Cyclohexane	0.4617	0.4199	9.1	TM	
46	TM	Dibromomethane	0.1288	0.1264	1.9	TM	
47	TML	MIBK (methyl isobutyl ketone)	0.2145	0.1705	20	TML	5.7
48	TM	1-Bromo-2-chloroethane	0.1582	0.1492	5.7	TM	
49	TM	2-Chloroethyl vinyl ether	0.0000	0.0042	0.00	TM	
50	TM	Cis-1,3-Dichloropropene	0.3541	0.3308	6.6	TM	
51	TM*	Toluene	1.310	1.296	1.0	TM*	
52	TM	Trans-1,3-Dichloropropene	0.1295	0.1272	1.8	TM	
53	TM	1,1,2-TCA	0.1609	0.1656	2.9	TM	
54	TM	2-Hexanone	0.0557	0.0495	11	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	1.311	1.316	0.40	S	
57	TM	1,2-EDB	0.2310	0.2179	5.6	TM	
58	TM	Tetrachloroethene	0.1878	0.1822	2.9	TM	
59	TM	1-Chlorohexane	0.5210	0.4880	6.3	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.3214	0.3094	3.7	TM	
61	TM	m&p-Xylene	0.7771	0.7705	0.86	TM	
62	TM	o-Xylene	0.7601	0.7537	0.84	TM	
63	TM	Styrene	1.221	1.224	0.24	TM	
64	S	4-Bromofluorobenzene(S)	0.4751	0.4793	0.88	S	
65	TM	1,3-Dichloropropane	0.4695	0.4389	6.5	TM	
66	TM	Dibromochloromethane	0.2738	0.2662	2.8	TM	
67	TM**	Chlorobenzene	1.117	1.091	2.4	TM**	
68	TM*	Ethylbenzene	1.973	1.957	0.83	TM*	
69	TM**	Bromoform	0.1503	0.1482	1.4	TM**	
70	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
71	TM	Isopropylbenzene	3.559	3.447	3.2	TM	
72	TM**	1,1,2,2-Tetrachloroethane	0.5109	0.4837	5.3	TM**	
73	TML	1,2,3-Trichloropropane	0.1746	0.1497	14	TML	2.4
74	TM	t-1,4-Dichloro-2-Butene	0.1097	0.0911	17	TM	
75	TM	Bromobenzene	0.8210	0.8007	2.5	TM	
76	TM	n-Propylbenzene	4.258	4.162	2.3	TM	
77	TM	4-Ethyltoluene	3.517	3.526	0.28	TM	
78	TM	2-Chlorotoluene	2.310	2.202	4.7	TM	
79	TM	1,3,5-Trimethylbenzene	2.973	2.892	2.7	TM	
80	TM	4-Chlorotoluene	2.798	2.755	1.5	TM	
		Average			4.3		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/23/16
Instrument: MAX
Cal. Date: 10/20/16
Data File: 1023M32.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	Tert-Butylbenzene	2.613	2.524	3.4	TM	
82	TM	1,2,4-Trimethylbenzene	2.961	2.962	0.05	TM	
83	TM	Sec-Butylbenzene	3.753	3.745	0.22	TM	
84	TM	p-Isopropyltoluene	3.360	3.185	5.2	TM	
85	TM	Benzyl Chloride	0.3025	0.2417	20	TM	
86	TM	1,3-DCB	1.670	1.597	4.4	TM	
87	TM	1,4-DCB	1.679	1.644	2.1	TM	
88	TM	n-Butylbenzene	3.004	2.859	4.8	TM	
89	TM	1,2-DCB	1.439	1.400	2.7	TM	
90	TM	Hexachloroethane	0.3947	0.3577	9.4	TM	
91	TM	1,2-Dibromo-3-chloropropane	0.0655	0.0533	19	TM	
92	TM	1,2,4-Trichlorobenzene	1.000	0.9505	5.0	TM	
93	TM	Hexachlorobutadiene	0.6099	0.5784	5.2	TM	
94	TM	Naphthalene	0.7142	0.6766	5.3	TM	
95	TM	1,2,3-Trichlorobenzene	0.8579	0.7908	7.8	TM	
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			6.3		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M32.D Vial: 32
Acq On : 23 Oct 16 19:58 Operator: DG,CM,SV
Sample : 161023B CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 9:16 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.53	96	317204	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	237721	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	132670	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	77127	25.05517 ppb		0.00
Spiked Amount 25.000			Recovery = 100.220%			
36) 1,2-DCA-D4(S)	5.15	65	72535	24.61123 ppb		0.00
Spiked Amount 25.000			Recovery = 98.444%			
56) Toluene-D8(S)	7.36	98	312901	25.09902 ppb		0.00
Spiked Amount 25.000			Recovery = 100.396%			
64) 4-Bromofluorobenzene(S)	10.74	95	113944	25.22041 ppb		0.00
Spiked Amount 25.000			Recovery = 100.880%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	16664	9.17547 ppb		94
3) Freon 114	1.31	85	31178	10.08467 ppb		96
4) Chloromethane	1.36	49	2929	8.80037 ppb		95
5) Vinyl chloride	1.45	62	23760	9.01322 ppb		97
6) Bromomethane	1.71	94	22598	9.44212 ppb		91
7) Chloroethane	1.81	64	13073	9.10947 ppb		99
8) Dichlorofluoromethane	2.00	67	70787	9.50313 ppb		99
9) Trichlorofluoromethane	2.05	101	51104	9.74692 ppb		99
10) Acrolein	2.43	56	15367	104.98796 ppb		98
11) Acetone	2.59	43	7774	11.70563 ppb		92
12) Freon-113	2.55	101	13575	8.69000 ppb		96
13) 1,1-DCE	2.53	61	50796	9.56848 ppb		99
14) t-Butanol	3.18	59	14455	90.15990 ppb		94
15) Methyl Acetate	2.92	43	15597	9.01350 ppb		96
16) Iodomethane	2.66	142	16936	6.33580 ppb		92
17) Acrylonitrile	3.24	53	7709	10.35236 ppb	#	90
18) Methylene chloride	3.00	84	32856	9.49756 ppb		96
19) Carbon disulfide	2.72	76	87687	8.84029 ppb		99
20) Methyl t-butyl ether (MtBE	3.30	73	29856	9.05448 ppb		94
21) Trans-1,2-DCE	3.27	96	33152	9.96830 ppb		92
22) Diisopropyl Ether	3.82	45	106565	9.42666 ppb		98
23) 1,1-DCA	3.69	63	61534	9.49277 ppb		100
24) Vinyl Acetate	3.78	43	11793	6.47496 ppb		96
25) Ethyl tert Butyl Ether	4.19	59	72705	9.08000 ppb		97
26) MEK (2-Butanone)	4.33	43	8168	8.33007 ppb		99
27) Cis-1,2-DCE	4.29	96	35659	9.43500 ppb		98
28) 2,2-Dichloropropane	4.29	77	15022	7.45896 ppb		96
29) Chloroform	4.63	83	58854	9.63182 ppb		99
30) Bromochloromethane	4.53	128	15135	10.23617 ppb		97
32) 1,1,1-TCA	4.82	97	48430	9.60116 ppb		100
33) Cyclohexane	4.88	41	31454	9.23695 ppb		97
34) 1,1-Dichloropropene	5.00	75	44977	9.55411 ppb		97
35) 2,2,4-Trimethylpentane	5.34	57	101354	8.69120 ppb		98
37) Carbon Tetrachloride	4.99	117	36979	9.46081 ppb		95
38) Tert Amyl Methyl Ether	5.39	73	64882	9.46371 ppb		96
39) 1,2-DCA	5.23	62	38495	9.65236 ppb		99
40) Benzene	5.21	78	141011	9.54514 ppb		98
41) TCE	5.93	95	36705	10.12012 ppb		91
42) 2-Pentanone	6.17	43	176979	116.49979 ppb		99

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M32.D Vial: 32
Acq On : 23 Oct 16 19:58 Operator: DG,CM,SV
Sample : 161023B CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 9:16 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	1,2-Dichloropropane	6.17	63	35951	9.62833 ppb		99
44)	Bromodichloromethane	6.50	83	39701	9.77211 ppb		100
45)	Methyl Cyclohexane	6.16	83	53277	9.09456 ppb		96
46)	Dibromomethane	6.30	93	16032	9.80864 ppb		94
47)	MIBK (methyl isobutyl ket	7.26	43	21637	9.43143 ppb		95
48)	1-Bromo-2-chloroethane	6.85	63	18936	9.43348 ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	41976	9.34167 ppb		98
51)	Toluene	7.44	91	164482	9.89882 ppb		96
52)	Trans-1,3-Dichloropropene	7.71	75	16137	9.82160 ppb		97
53)	1,1,2-TCA	7.93	83	21007	10.28764 ppb		91
54)	2-Hexanone	8.29	58	6281	8.88091 ppb		98
57)	1,2-EDB	8.54	107	20723	9.43630 ppb		94
58)	Tetrachloroethene	8.11	164	17328	9.70565 ppb		99
59)	1-Chlorohexane	9.22	91	46403	9.36601 ppb		97
60)	1,1,1,2-Tetrachloroethane	9.31	131	29422	9.62793 ppb		100
61)	m&p-Xylene	9.53	106	146523	19.82786 ppb		96
62)	o-Xylene	10.05	106	71669	9.91620 ppb		98
63)	Styrene	10.06	104	116396	10.02392 ppb		95
65)	1,3-Dichloropropane	8.13	76	41733	9.34868 ppb		93
66)	Dibromochloromethane	8.41	129	25313	9.72089 ppb		97
67)	Chlorobenzene	9.19	112	103737	9.76438 ppb		98
68)	Ethylbenzene	9.36	91	186095	9.91686 ppb		99
69)	Bromoform	10.27	173	14092	9.86245 ppb		96
71)	Isopropylbenzene	10.56	105	182920	9.68411 ppb		100
72)	1,1,2,2-Tetrachloroethane	10.97	83	25669	9.46785 ppb		97
73)	1,2,3-Trichloropropane	11.01	110	7942	9.75985 ppb		89
74)	t-1,4-Dichloro-2-Butene	11.05	53	4832	8.30195 ppb		89
75)	Bromobenzene	10.92	156	42491	9.75251 ppb		98
76)	n-Propylbenzene	11.13	91	220861	9.77349 ppb		98
77)	4-Ethyltoluene	11.30	105	187144	10.02804 ppb		97
78)	2-Chlorotoluene	11.21	91	116852	9.53367 ppb		98
79)	1,3,5-Trimethylbenzene	11.40	105	153446	9.72657 ppb		98
80)	4-Chlorotoluene	11.37	91	146188	9.84589 ppb		98
81)	Tert-Butylbenzene	11.84	119	133933	9.65856 ppb		96
82)	1,2,4-Trimethylbenzene	11.91	105	157203	10.00458 ppb		100
83)	Sec-Butylbenzene	12.15	105	198729	9.97816 ppb		99
84)	p-Isopropyltoluene	12.37	119	169030	9.47870 ppb		99
85)	Benzyl Chloride	12.59	91	12827	7.99118 ppb		99
86)	1,3-DCB	12.26	146	84744	9.56117 ppb		99
87)	1,4-DCB	12.38	146	87241	9.79379 ppb		95
88)	n-Butylbenzene	12.96	91	151746	9.51813 ppb		98
89)	1,2-DCB	12.90	146	74283	9.72510 ppb		97
90)	Hexachloroethane	13.27	117	18983	9.06230 ppb		93
91)	1,2-Dibromo-3-chloropropan	14.01	75	2829	8.13833 ppb	#	84
92)	1,2,4-Trichlorobenzene	15.23	180	50443	9.50387 ppb		99
93)	Hexachlorobutadiene	15.53	225	30694	9.48321 ppb		98
94)	Naphthalene	15.56	128	35904	9.47340 ppb		100
95)	1,2,3-Trichlorobenzene	15.92	180	41966	9.21777 ppb		99

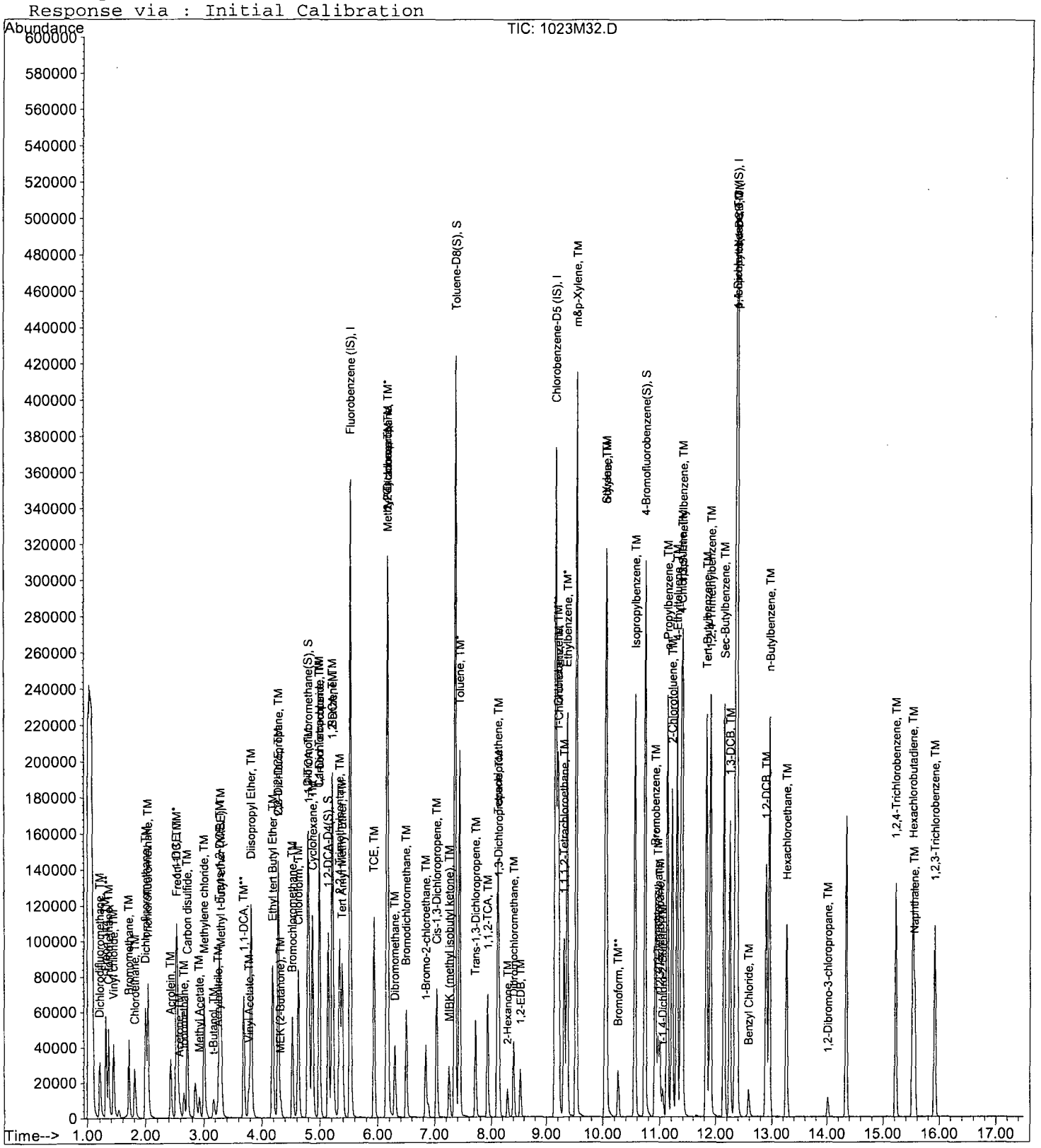
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M32.D Vial: 32
Acq On : 23 Oct 16 19:58 Operator: DG,CM,SV
Sample : 161023B CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 9:16 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



623

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/24/16
Matrix: Instrument: MAX
Initial Cal. Date: 10/20/16
Data File: 1023M49.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.1431	0.1380	3.6	TM	
3	TM	Freon 114	0.2437	0.2303	5.5	TM	
4	TM**	Chloromethane	0.0262	0.0255	2.9	TM**	
5	TM*	Vinyl chloride	0.2078	0.1959	5.7	TM*	
6	TM	Bromomethane	0.1886	0.1898	0.64	TM	
7	TM	Chloroethane	0.1131	0.1034	8.6	TM	
8	TM	Dichlorofluoromethane	0.5871	0.5496	6.4	TM	
9	TM	Trichlorofluoromethane	0.4132	0.4053	1.9	TM	
10	TM	Acrolein	0.0115	0.0088	24	TM	
11	TML	Acetone	0.0802	0.0569	29	TML	7.4
12	TM	Freon-113	0.1231	0.1070	13	TM	
13	TM*	1,1-DCE	0.4184	0.3931	6.0	TM*	
14	TM	t-Butanol	0.0126	0.0121	3.9	TM	
15	TM	Methyl Acetate	0.1364	0.1313	3.7	TM	
16	TML	Iodomethane	0.1892	0.1595	16	TML	26
17	TM	Acrylonitrile	0.0587	0.0569	3.0	TM	
18	TML	Methylene chloride	0.2965	0.2553	14	TML	6.5
19	TM	Carbon disulfide	0.7818	0.6724	14	TM	
20	TM	Methyl t-butyl ether (MtBE)	0.2599	0.2457	5.4	TM	
21	TM	Trans-1,2-DCE	0.2621	0.2519	3.9	TM	
22	TM	Diisopropyl Ether	0.8910	0.8415	5.5	TM	
23	TM**	1,1-DCA	0.5109	0.4887	4.3	TM**	
24	TM	Vinyl Acetate	0.1435	0.0768	47	TM	
25	TM	Ethyl tert Butyl Ether	0.6311	0.6162	2.4	TM	
26	TM	MEK (2-Butanone)	0.0773	0.0660	15	TM	
27	TM	Cis-1,2-DCE	0.2979	0.2866	3.8	TM	
28	TM	2,2-Dichloropropane	0.1587	0.0940	41	TM	
29	TM*	Chloroform	0.4816	0.4721	2.0	TM*	
30	TM	Bromochloromethane	0.1165	0.1207	3.6	TM	
31	S	Dibromofluoromethane(S)	0.2426	0.2271	6.4	S	
32	TM	1,1,1-TCA	0.3976	0.3860	2.9	TM	
33	TM	Cyclohexane	0.2684	0.2431	9.4	TM	
34	TM	1,1-Dichloropropene	0.3710	0.3610	2.7	TM	
35	TM	2,2,4-Trimethylpentane	0.9191	0.7259	21	TM	
36	S	1,2-DCA-D4(S)	0.2323	0.2218	4.5	S	
37	TM	Carbon Tetrachloride	0.3081	0.2966	3.7	TM	
38	TM	Tert Amyl Methyl Ether	0.5403	0.5285	2.2	TM	
39	TM	1,2-DCA	0.3143	0.3076	2.1	TM	
40	TM	Benzene	1.164	1.092	6.2	TM	
		Average			9.1		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/24/16
Matrix: 0 Instrument: MAX
Cal. Date: 10/20/16
Data File: 1023M49.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	TCE	0.2859	0.2997	4.8	TM	
42	TM	2-Pentanone	0.1197	0.1136	5.2	TM	
43	TM*	1,2-Dichloropropane	0.2943	0.2792	5.1	TM*	
44	TM	Bromodichloromethane	0.3202	0.3210	0.24	TM	
45	TM	Methyl Cyclohexane	0.4617	0.4252	7.9	TM	
46	TM	Dibromomethane	0.1288	0.1276	0.97	TM	
47	TML	MIBK (methyl isobutyl ketone)	0.2145	0.1806	16	TML	0.36
48	TM	1-Bromo-2-chloroethane	0.1582	0.1497	5.4	TM	
49	TM	2-Chloroethyl vinyl ether	0.0000	0.0047	0.00	TM	
50	TM	Cis-1,3-Dichloropropene	0.3541	0.3256	8.1	TM	
51	TM*	Toluene	1.310	1.283	2.0	TM*	
52	TM	Trans-1,3-Dichloropropene	0.1295	0.1217	6.0	TM	
53	TM	1,1,2-TCA	0.1609	0.1678	4.3	TM	
54	TM	2-Hexanone	0.0557	0.0550	1.3	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	1.311	1.286	1.9	S	
57	TM	1,2-EDB	0.2310	0.2366	2.5	TM	
58	TM	Tetrachloroethene	0.1878	0.1892	0.76	TM	
59	TM	1-Chlorohexane	0.5210	0.4991	4.2	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.3214	0.3222	0.27	TM	
61	TM	m&p-Xylene	0.7771	0.7750	0.28	TM	
62	TM	o-Xylene	0.7601	0.7713	1.5	TM	
63	TM	Styrene	1.221	1.261	3.2	TM	
64	S	4-Bromofluorobenzene(S)	0.4751	0.4658	2.0	S	
65	TM	1,3-Dichloropropane	0.4695	0.4622	1.5	TM	
66	TM	Dibromochloromethane	0.2738	0.2763	0.90	TM	
67	TM**	Chlorobenzene	1.117	1.094	2.1	TM**	
68	TM*	Ethylbenzene	1.973	1.992	0.96	TM*	
69	TM**	Bromoform	0.1503	0.1499	0.24	TM**	
70	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
71	TM	Isopropylbenzene	3.559	3.519	1.1	TM	
72	TM**	1,1,2,2-Tetrachloroethane	0.5109	0.4555	11	TM**	
73	TML	1,2,3-Trichloropropane	0.1746	0.1564	10	TML	2.5
74	TM	t-1,4-Dichloro-2-Butene	0.1097	0.0923	16	TM	
75	TM	Bromobenzene	0.8210	0.8215	0.06	TM	
76	TM	n-Propylbenzene	4.258	4.166	2.2	TM	
77	TM	4-Ethyltoluene	3.517	3.475	1.2	TM	
78	TM	2-Chlorotoluene	2.310	2.230	3.5	TM	
79	TM	1,3,5-Trimethylbenzene	2.973	2.956	0.58	TM	
80	TM	4-Chlorotoluene	2.798	2.690	3.8	TM	
		Average			3.7		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/24/16
Instrument: MAX
Cal. Date: 10/20/16
Data File: 1023M49.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	Tert-Butylbenzene	2.613	2.566	1.8	TM	
82	TM	1,2,4-Trimethylbenzene	2.961	2.957	0.12	TM	
83	TM	Sec-Butylbenzene	3.753	3.738	0.39	TM	
84	TM	p-Isopropyltoluene	3.360	3.164	5.9	TM	
85	TM	Benzyl Chloride	0.3025	0.2052	32	TM	
86	TM	1,3-DCB	1.670	1.636	2.1	TM	
87	TM	1,4-DCB	1.679	1.645	2.0	TM	
88	TM	n-Butylbenzene	3.004	2.742	8.7	TM	
89	TM	1,2-DCB	1.439	1.442	0.22	TM	
90	TM	Hexachloroethane	0.3947	0.3910	0.94	TM	
91	TM	1,2-Dibromo-3-chloropropane	0.0655	0.0668	2.0	TM	
92	TM	1,2,4-Trichlorobenzene	1.000	0.9834	1.7	TM	
93	TM	Hexachlorobutadiene	0.6099	0.5405	11	TM	
94	TM	Naphthalene	0.7142	0.7336	2.7	TM	
95	TM	1,2,3-Trichlorobenzene	0.8579	0.8404	2.0	TM	
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			4.9		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M49.D Vial: 49
Acq On : 24 Oct 16 2:09 Operator: DG,CM,SV
Sample : Ending CCV 8260 10ug/L 10/23/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 9:16 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.53	96	312961	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	227500	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	128033	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.79	111	71071	23.40086 ppb		0.00
Spiked Amount 25.000			Recovery = 93.604%			
36) 1,2-DCA-D4(S)	5.15	65	69402	23.86746 ppb		0.00
Spiked Amount 25.000			Recovery = 95.468%			
56) Toluene-D8(S)	7.36	98	292567	24.52231 ppb		0.00
Spiked Amount 25.000			Recovery = 98.088%			
64) 4-Bromofluorobenzene(S)	10.74	95	105978	24.51109 ppb		0.00
Spiked Amount 25.000			Recovery = 98.044%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	17272	9.63918 ppb		99
3) Freon 114	1.31	85	28832	9.45229 ppb		93
4) Chloromethane	1.36	49	3190	9.71451 ppb		93
5) Vinyl chloride	1.45	62	24528	9.43071 ppb		95
6) Bromomethane	1.71	94	23765	10.06435 ppb		91
7) Chloroethane	1.81	64	12940	9.13904 ppb		99
8) Dichlorofluoromethane	2.00	67	68803	9.36201 ppb		99
9) Trichlorofluoromethane	2.04	101	50734	9.80754 ppb		95
10) Acrolein	2.44	56	13809	95.62272 ppb		96
11) Acetone	2.59	43	7121	10.73600 ppb		99
12) Freon-113	2.55	101	13394	8.69038 ppb		93
13) 1,1-DCE	2.53	61	49208	9.39502 ppb		98
14) t-Butanol	3.18	59	18993	120.07079 ppb		91
15) Methyl Acetate	2.92	43	16439	9.62889 ppb		94
16) Iodomethane	2.66	142	19973	7.41660 ppb		93
17) Acrylonitrile	3.24	53	7129	9.70327 ppb		86
18) Methylene chloride	3.00	84	31955	9.35384 ppb		100
19) Carbon disulfide	2.72	76	84176	8.60138 ppb		99
20) Methyl t-butyl ether (MtBE	3.31	73	30760	9.45512 ppb		96
21) Trans-1,2-DCE	3.27	96	31534	9.61034 ppb		94
22) Diisopropyl Ether	3.82	45	105346	9.44517 ppb		98
23) 1,1-DCA	3.69	63	61177	9.56565 ppb		98
24) Vinyl Acetate	3.78	43	9611	5.34847 ppb		95
25) Ethyl tert Butyl Ether	4.19	59	77133	9.76360 ppb		95
26) MEK (2-Butanone)	4.33	43	8259	8.53707 ppb	#	85
27) Cis-1,2-DCE	4.29	96	35883	9.62299 ppb		96
28) 2,2-Dichloropropane	4.28	77	11769	5.92296 ppb		91
29) Chloroform	4.63	83	59101	9.80338 ppb		99
30) Bromochloromethane	4.53	128	15115	10.36124 ppb		92
32) 1,1,1-TCA	4.81	97	48316	9.70842 ppb		99
33) Cyclohexane	4.88	41	30438	9.05977 ppb		98
34) 1,1-Dichloropropene	5.00	75	45192	9.72993 ppb		96
35) 2,2,4-Trimethylpentane	5.34	57	90873	7.89809 ppb		98
37) Carbon Tetrachloride	4.99	117	37132	9.62875 ppb		97
38) Tert Amyl Methyl Ether	5.39	73	66159	9.78080 ppb		98
39) 1,2-DCA	5.23	62	38510	9.78703 ppb		100
40) Benzene	5.21	78	136670	9.37672 ppb		99
41) TCE	5.93	95	37512	10.48285 ppb		94
42) 2-Pentanone	6.17	43	177694	118.55629 ppb		99

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

Data File : M:\MAX\DATA\M161020\1023M49.D Vial: 49
Acq On : 24 Oct 16 2:09 Operator: DG,CM,SV
Sample : Ending CCV 8260 10ug/L 10/23/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 9:16 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	6.18	63	34952	9.48769	ppb		97
44)	Bromodichloromethane	6.50	83	40178	10.02360	ppb		98
45)	Methyl Cyclohexane	6.16	83	53233	9.21025	ppb		97
46)	Dibromomethane	6.30	93	15969	9.90255	ppb		95
47)	MIBK (methyl isobutyl ket	7.26	43	22613	10.03572	ppb		96
48)	1-Bromo-2-chloroethane	6.85	63	18744	9.46443	ppb		97
50)	Cis-1,3-Dichloropropene	7.04	75	40760	9.19403	ppb		95
51)	Toluene	7.44	91	160633	9.79825	ppb		95
52)	Trans-1,3-Dichloropropene	7.71	75	15236	9.39894	ppb		93
53)	1,1,2-TCA	7.93	83	21007	10.42711	ppb		97
54)	2-Hexanone	8.29	58	6887	9.86977	ppb	#	96
57)	1,2-EDB	8.54	107	21532	10.24518	ppb		98
58)	Tetrachloroethene	8.11	164	17216	10.07615	ppb		94
59)	1-Chlorohexane	9.22	91	45415	9.57842	ppb		99
60)	1,1,1,2-Tetrachloroethane	9.31	131	29324	10.02698	ppb		99
61)	m&p-Xylene	9.53	106	141048	19.94450	ppb		97
62)	o-Xylene	10.05	106	70186	10.14730	ppb		95
63)	Styrene	10.06	104	114710	10.32255	ppb		100
65)	1,3-Dichloropropane	8.13	76	42064	9.84617	ppb		87
66)	Dibromochloromethane	8.41	129	25144	10.08981	ppb		91
67)	Chlorobenzene	9.19	112	99587	9.79489	ppb		99
68)	Ethylbenzene	9.36	91	181310	10.09595	ppb		99
69)	Bromoform	10.27	173	13641	9.97573	ppb		98
71)	Isopropylbenzene	10.56	105	180204	9.88585	ppb		98
72)	1,1,2,2-Tetrachloroethane	10.97	83	23327	8.91563	ppb		97
73)	1,2,3-Trichloropropane	11.00	110	8010	10.25259	ppb		91
74)	t-1,4-Dichloro-2-Butene	11.06	53	4728	8.41747	ppb	#	75
75)	Bromobenzene	10.92	156	42070	10.00559	ppb		98
76)	n-Propylbenzene	11.13	91	213349	9.78300	ppb		99
77)	4-Ethyltoluene	11.30	105	177943	9.88034	ppb		98
78)	2-Chlorotoluene	11.22	91	114183	9.65331	ppb		100
79)	1,3,5-Trimethylbenzene	11.39	105	151370	9.94248	ppb		100
80)	4-Chlorotoluene	11.37	91	137780	9.61569	ppb		100
81)	Tert-Butylbenzene	11.84	119	131409	9.81975	ppb		99
82)	1,2,4-Trimethylbenzene	11.91	105	151454	9.98780	ppb		100
83)	Sec-Butylbenzene	12.15	105	191455	9.96108	ppb		97
84)	p-Isopropyltoluene	12.37	119	162019	9.41460	ppb		99
85)	Benzyl Chloride	12.59	91	10510	6.78483	ppb		96
86)	1,3-DCB	12.26	146	83777	9.79439	ppb		99
87)	1,4-DCB	12.39	146	84222	9.79730	ppb		98
88)	n-Butylbenzene	12.95	91	140427	9.12716	ppb		98
89)	1,2-DCB	12.90	146	73872	10.02156	ppb		99
90)	Hexachloroethane	13.27	117	20026	9.90647	ppb		96
91)	1,2-Dibromo-3-chloropropan	14.01	75	3423	10.20376	ppb		81
92)	1,2,4-Trichlorobenzene	15.23	180	50363	9.83246	ppb		98
93)	Hexachlorobutadiene	15.53	225	27680	8.86173	ppb		95
94)	Naphthalene	15.56	128	37568	10.27145	ppb		100
95)	1,2,3-Trichlorobenzene	15.92	180	43041	9.79628	ppb		99

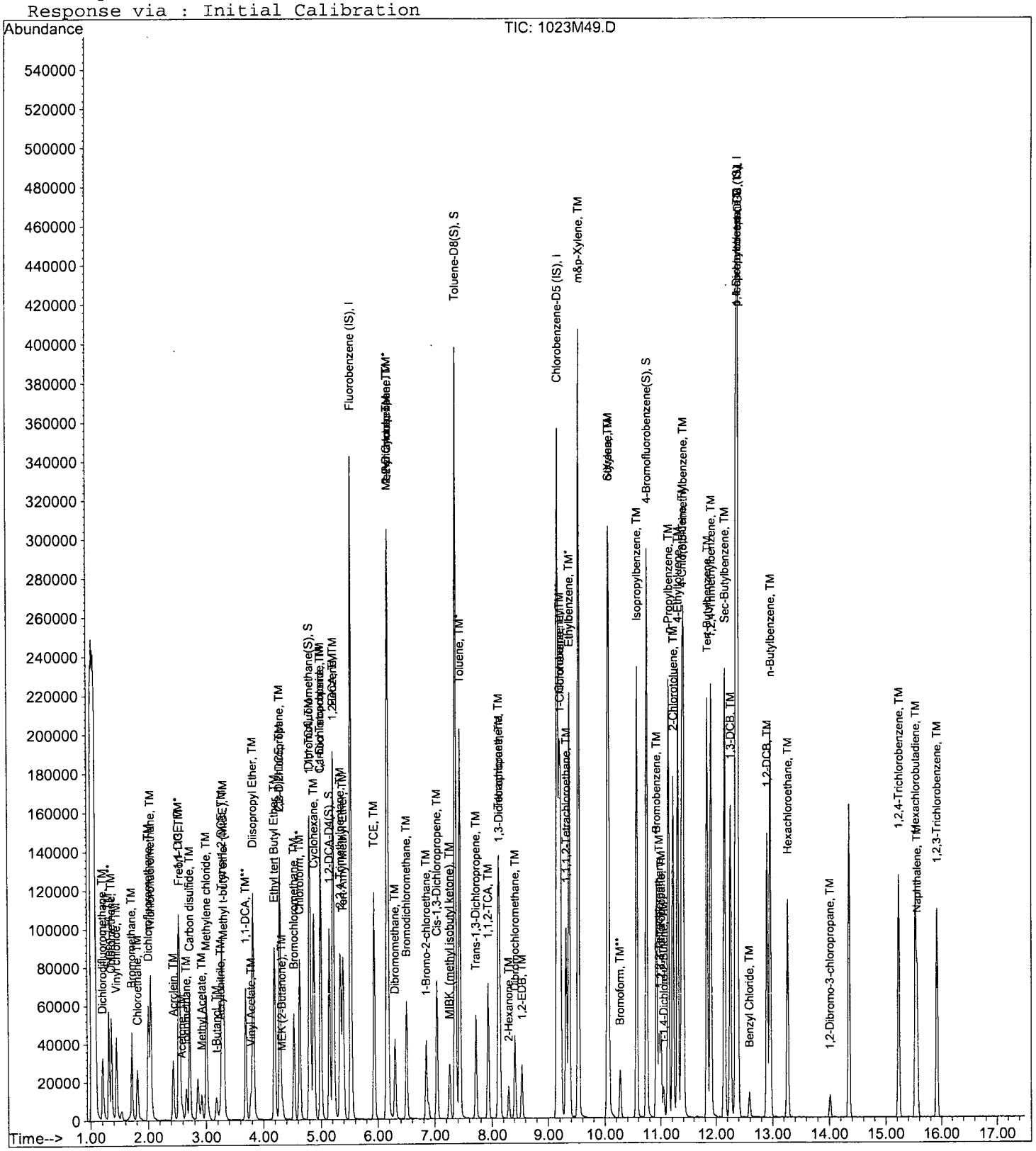
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M49.D Vial: 49
Acq On : 24 Oct 16 2:09 Operator: DG,CM,SV
Sample : Ending CCV 8260 10ug/L 10/23/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 9:16 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



629

ORGANICS
Raw Data

APPL, INC.

Method Blank
EPA 8260B WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161022W-44692 - 213025**
Batch ID: #86BXD-161022AM

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,2-DCA	0.30 U	1.0	0.30	0.14	ug/L	10/22/16	10/22/16
BLANK	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/22/16	10/22/16
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/22/16	10/22/16
BLANK	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/22/16	10/22/16
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/22/16	10/22/16
BLANK	SURROGATE: 1,2-DICHLOROET	98.1	81-118			%	10/22/16	10/22/16
BLANK	SURROGATE: 4-BROMOFLUORO	98.1	85-114			%	10/22/16	10/22/16
BLANK	SURROGATE: DIBROMOFLUOR	97.5	80-119			%	10/22/16	10/22/16
BLANK	SURROGATE: TOLUENE-D8 (S)	101	89-112			%	10/22/16	10/22/16

Quant Method: MALLW.M
Run #: 1022M12
Instrument: MAX
Sequence: M161020
Initials: SV

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/16 10:40:59 AM

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M12.D Vial: 12
Acq On : 22 Oct 16 14:00 Operator: DG,CM,SV
Sample : 161022A BLK-1WM Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:48 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	355477	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	259271	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	132244	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.80	111	84088	24.37542 ppb	0.00
Spiked Amount 25.000			Recovery = 97.500%		
36) 1,2-DCA-D4(S)	5.15	65	81013	24.52831 ppb	0.00
Spiked Amount 25.000			Recovery = 98.112%		
56) Toluene-D8(S)	7.36	98	342670	25.20226 ppb	0.00
Spiked Amount 25.000			Recovery = 100.808%		
64) 4-Bromofluorobenzene(S)	10.74	95	120824	24.52040 ppb	0.00
Spiked Amount 25.000			Recovery = 98.080%		

Target Compounds Qvalue

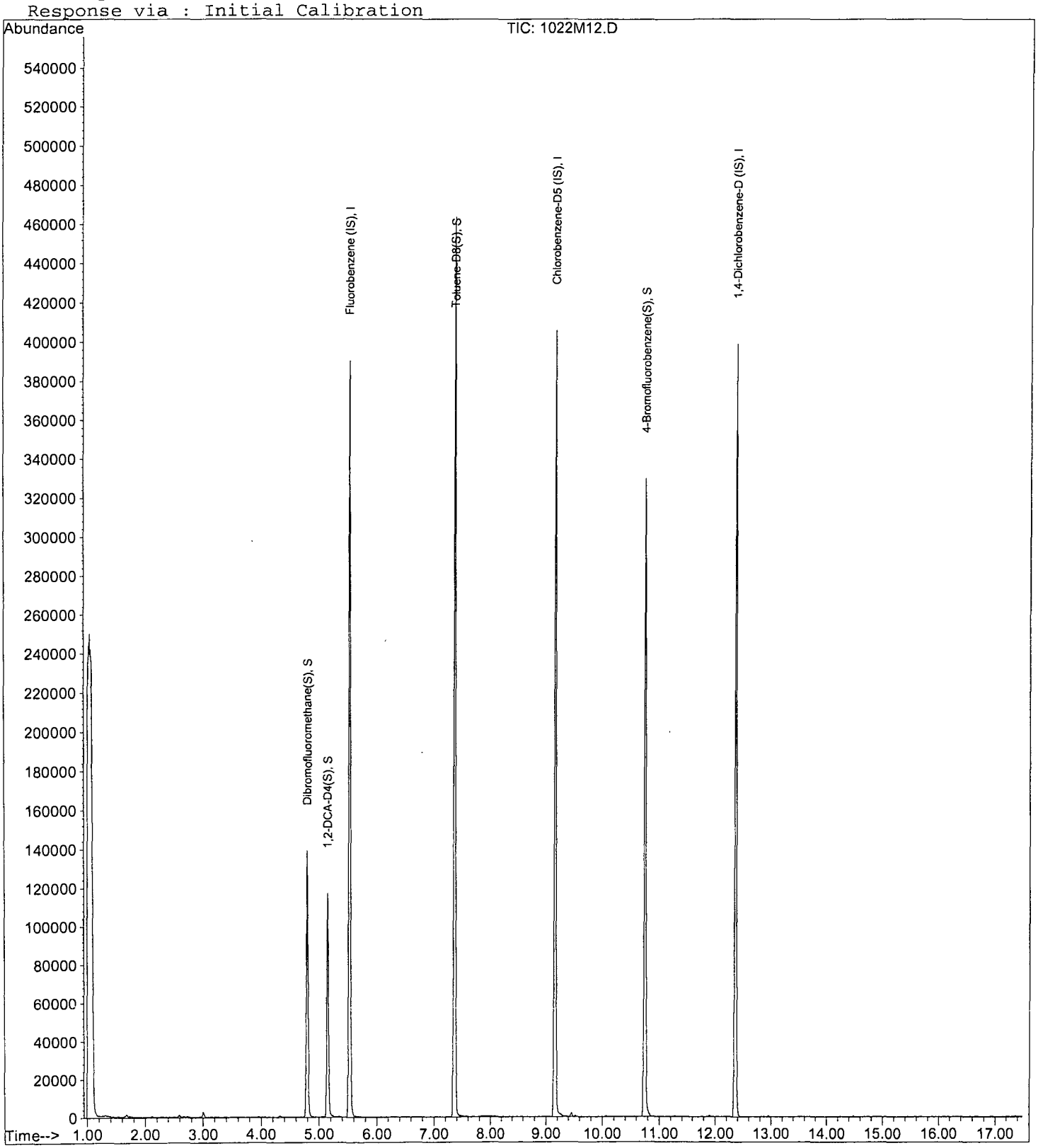
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M12.D Vial: 12
Acq On : 22 Oct 16 14:00 Operator: DG,CM,SV
Sample : 161022A BLK-1WM Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:48 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



Method Blank
EPA 8260B WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161023W-44579 - 213065**
Batch ID: #86BXD-161023BM

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/23/16	10/23/16
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/23/16	10/23/16
BLANK	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/23/16	10/23/16
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/23/16	10/23/16
BLANK	SURROGATE: 1,2-DICHLOROET	95.2	81-118			%	10/23/16	10/23/16
BLANK	SURROGATE: 4-BROMOFLUORO	97.1	85-114			%	10/23/16	10/23/16
BLANK	SURROGATE: DIBROMOFLUOR	96.6	80-119			%	10/23/16	10/23/16
BLANK	SURROGATE: TOLUENE-D8 (S)	102	89-112			%	10/23/16	10/23/16

Quant Method: MALLW.M
Run #: 1023M37
Instrument: MAX
Sequence: M161020
Initials: SV

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/16 10:40:59 AM

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M37.D Vial: 37
Acq On : 23 Oct 16 21:47 Operator: DG,CM,SV
Sample : 161023B BLK-1WM Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 9:19 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	318344	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	224612	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	114740	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.79	111	74571	24.13809 ppb	0.00
Spiked Amount 25.000			Recovery = 96.552%		
36) 1,2-DCA-D4(S)	5.15	65	70406	23.80331 ppb	0.00
Spiked Amount 25.000			Recovery = 95.212%		
56) Toluene-D8(S)	7.36	98	299163	25.39758 ppb	0.00
Spiked Amount 25.000			Recovery = 101.592%		
64) 4-Bromofluorobenzene(S)	10.74	95	103672	24.28604 ppb	0.00
Spiked Amount 25.000			Recovery = 97.144%		

Target Compounds Qvalue

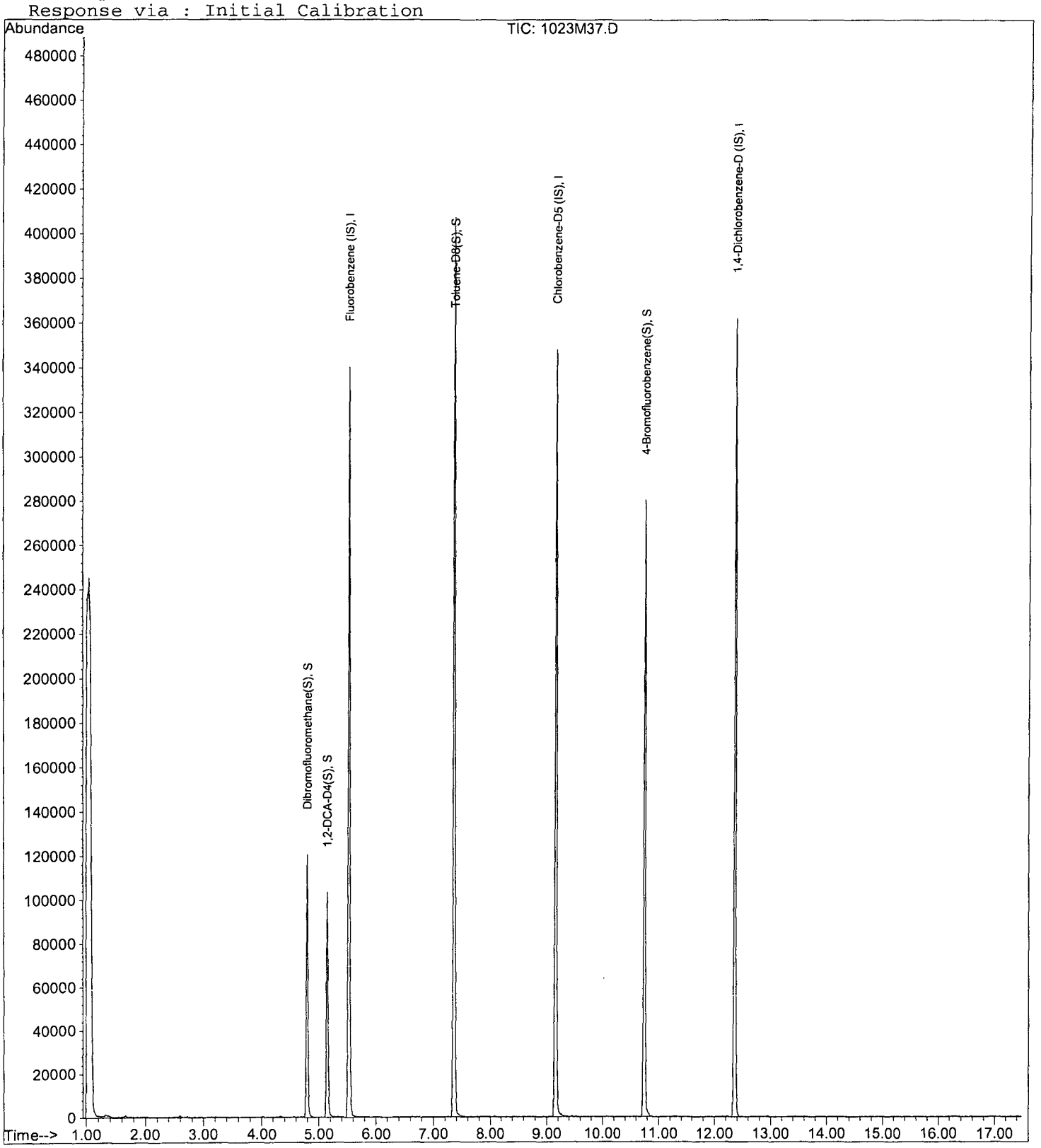
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M37.D Vial: 37
Acq On : 23 Oct 16 21:47 Operator: DG,CM,SV
Sample : 161023B BLK-1WM Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 9:19 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8260B WATER

APPL ID: **161022W-44692 LCS - 213025**
Batch ID: #86BXD-161022AM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,2-DCA	10.00	10.2	102	73-128
BENZENE	10.00	9.99	99.9	79-120
ETHYLBENZENE	10.00	10.4	104	79-121
TOLUENE	10.00	10.3	103	80-121
XYLENES (TOTAL)	30.0	31.0	103	79-121
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	25.5	102	81-118
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.0	100	85-114
SURROGATE: DIBROMOFLUOROMETH	25.0	25.6	102	80-119
SURROGATE: TOLUENE-D8 (S)	25.0	24.9	99.6	89-112

Comments:

Primary	SPK
Quant Method :	MALLW.M
Extraction Date :	10/22/16
Analysis Date :	10/22/16
Instrument :	MAX
Run :	1022M02
Initials :	SV

Printed: 11/16/16 12:04:32 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1022M02.D Vial: 2
Acq On : 22 Oct 16 10:23 Operator: DG,CM,SV
Sample : 161022A CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:38 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.52	96	323946	25.00	ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	242686	25.00	ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	138559	25.00	ppb		0.00
System Monitoring Compounds							
31) Dibromofluoromethane(S)	4.79	111	80343	25.56	ppb		0.00
Spiked Amount 25.000			Recovery = 102.228%				
36) 1,2-DCA-D4(S)	5.14	65	76636	25.46	ppb		0.00
Spiked Amount 25.000			Recovery = 101.848%				
56) Toluene-D8(S)	7.36	98	317095	24.92	ppb		0.00
Spiked Amount 25.000			Recovery = 99.660%				
64) 4-Bromofluorobenzene(S)	10.74	95	115131	24.96	ppb		0.00
Spiked Amount 25.000			Recovery = 99.848%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.21	85	19200	10.35	ppb		98
3) Freon 114	1.31	85	33380	10.57	ppb		94
4) Chloromethane	1.36	49	3333	9.81	ppb	#	85
5) Vinyl chloride	1.45	62	26264	9.76	ppb		94
6) Bromomethane	1.72	94	25628	10.49	ppb		100
7) Chloroethane	1.81	64	14243	9.72	ppb		99
8) Dichlorofluoromethane	2.00	67	74036	9.73	ppb		100
9) Trichlorofluoromethane	2.04	101	57653	10.77	ppb		100
10) Acrolein	2.43	56	18512	123.84	ppb		100
11) Acetone	2.59	43	7247	10.52	ppb		100
12) Freon-113	2.55	101	14958	9.38	ppb		95
13) 1,1-DCE	2.53	61	54315	10.02	ppb		99
14) t-Butanol	3.17	59	18875	115.28	ppb		94
15) Methyl Acetate	2.92	43	16145	9.14	ppb		97
16) Iodomethane	2.66	142	27223	9.51	ppb		94
17) Acrylonitrile	3.24	53	7151	9.40	ppb		93
18) Methylene chloride	3.00	84	35825	10.18	ppb		96
19) Carbon disulfide	2.72	76	97764	9.65	ppb		99
20) Methyl t-butyl ether (MtBE	3.30	73	31816	9.45	ppb		99
21) Trans-1,2-DCE	3.27	96	35866	10.56	ppb		93
22) Diisopropyl Ether	3.82	45	113790	9.86	ppb		98
23) 1,1-DCA	3.69	63	67467	10.19	ppb		99
24) Vinyl Acetate	3.77	43	17192	9.24	ppb		99
25) Ethyl tert Butyl Ether	4.19	59	80217	9.81	ppb		95
26) MEK (2-Butanone)	4.32	43	11449	11.43	ppb		97
27) Cis-1,2-DCE	4.29	96	37411	9.69	ppb		96
28) 2,2-Dichloropropane	4.28	77	20128	9.79	ppb		92
29) Chloroform	4.63	83	63440	10.17	ppb		100
30) Bromochloromethane	4.53	128	15826	10.48	ppb		93
32) 1,1,1-TCA	4.81	97	52128	10.12	ppb		98
33) Cyclohexane	4.87	41	35032	10.07	ppb		98
34) 1,1-Dichloropropene	5.00	75	50829	10.57	ppb		94
35) 2,2,4-Trimethylpentane	5.34	57	125912	10.57	ppb		99
37) Carbon Tetrachloride	4.99	117	38220	9.57	ppb		97
38) Tert Amyl Methyl Ether	5.38	73	69949	9.99	ppb		99
39) 1,2-DCA	5.22	62	41363	10.16	ppb		99
40) Benzene	5.21	78	150694	9.99	ppb		98
41) TCE	5.93	95	37782	10.20	ppb		89
42) 2-Pentanone	6.17	43	184017	118.61	ppb		99

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1022M02.D Vial: 2
Acq On : 22 Oct 16 10:23 Operator: DG,CM,SV
Sample : 161022A CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 13:38 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43)	1,2-Dichloropropane	6.17	63	38548	10.11	ppb	98
44)	Bromodichloromethane	6.50	83	40303	9.71	ppb	100
45)	Methyl Cyclohexane	6.16	83	60629	10.13	ppb	93
46)	Dibromomethane	6.30	93	16465	9.86	ppb	93
47)	MIBK (methyl isobutyl ket	7.26	43	23678	10.16	ppb	97
48)	1-Bromo-2-chloroethane	6.85	63	20192	9.85	ppb	98
50)	Cis-1,3-Dichloropropene	7.03	75	44821	9.77	ppb	97
51)	Toluene	7.44	91	175184	10.32	ppb	98
52)	Trans-1,3-Dichloropropene	7.71	75	16306	9.72	ppb	100
53)	1,1,2-TCA	7.93	83	20935	10.04	ppb	93
54)	2-Hexanone	8.30	58	6803	9.42	ppb	93
57)	1,2-EDB	8.53	107	20764	9.26	ppb	95
58)	Tetrachloroethene	8.11	164	18512	10.16	ppb	97
59)	1-Chlorohexane	9.21	91	52023	10.29	ppb	98
60)	1,1,1,2-Tetrachloroethane	9.31	131	29937	9.60	ppb	98
61)	m&p-Xylene	9.53	106	156949	20.80	ppb	97
62)	o-Xylene	10.04	106	74950	10.16	ppb	96
63)	Styrene	10.06	104	123619	10.43	ppb	97
65)	1,3-Dichloropropane	8.13	76	44222	9.70	ppb	96
66)	Dibromochloromethane	8.41	129	25732	9.68	ppb	94
67)	Chlorobenzene	9.19	112	109505	10.10	ppb	99
68)	Ethylbenzene	9.36	91	199746	10.43	ppb	99
69)	Bromoform	10.27	173	13254	9.09	ppb	94
71)	Isopropylbenzene	10.56	105	195356	9.90	ppb	99
72)	1,1,2,2-Tetrachloroethane	10.97	83	26418	9.33	ppb	98
73)	1,2,3-Trichloropropane	11.00	110	8273	9.73	ppb	99
74)	t-1,4-Dichloro-2-Butene	11.06	53	5016	8.25	ppb	85
75)	Bromobenzene	10.92	156	44561	9.79	ppb	98
76)	n-Propylbenzene	11.13	91	241311	10.22	ppb	99
77)	4-Ethyltoluene	11.30	105	201216	10.32	ppb	98
78)	2-Chlorotoluene	11.21	91	121887	9.52	ppb	97
79)	1,3,5-Trimethylbenzene	11.40	105	166155	10.08	ppb	98
80)	4-Chlorotoluene	11.37	91	153030	9.87	ppb	98
81)	Tert-Butylbenzene	11.84	119	144521	9.98	ppb	95
82)	1,2,4-Trimethylbenzene	11.91	105	168802	10.29	ppb	99
83)	Sec-Butylbenzene	12.15	105	216947	10.43	ppb	100
84)	p-Isopropyltoluene	12.37	119	187098	10.05	ppb	98
85)	Benzyl Chloride	12.59	91	17321	10.33	ppb	99
86)	1,3-DCB	12.26	146	89374	9.65	ppb	98
87)	1,4-DCB	12.38	146	91640	9.85	ppb	97
88)	n-Butylbenzene	12.95	91	169226	10.16	ppb	98
89)	1,2-DCB	12.90	146	78191	9.80	ppb	96
90)	Hexachloroethane	13.27	117	20486	9.36	ppb	92
91)	1,2-Dibromo-3-chloropropan	14.02	75	3129	8.62	ppb	92
92)	1,2,4-Trichlorobenzene	15.23	180	55902	10.08	ppb	98
93)	Hexachlorobutadiene	15.53	225	33565	9.93	ppb	95
94)	Naphthalene	15.56	128	38008	9.60	ppb	99
95)	1,2,3-Trichlorobenzene	15.92	180	43761	9.20	ppb	91

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

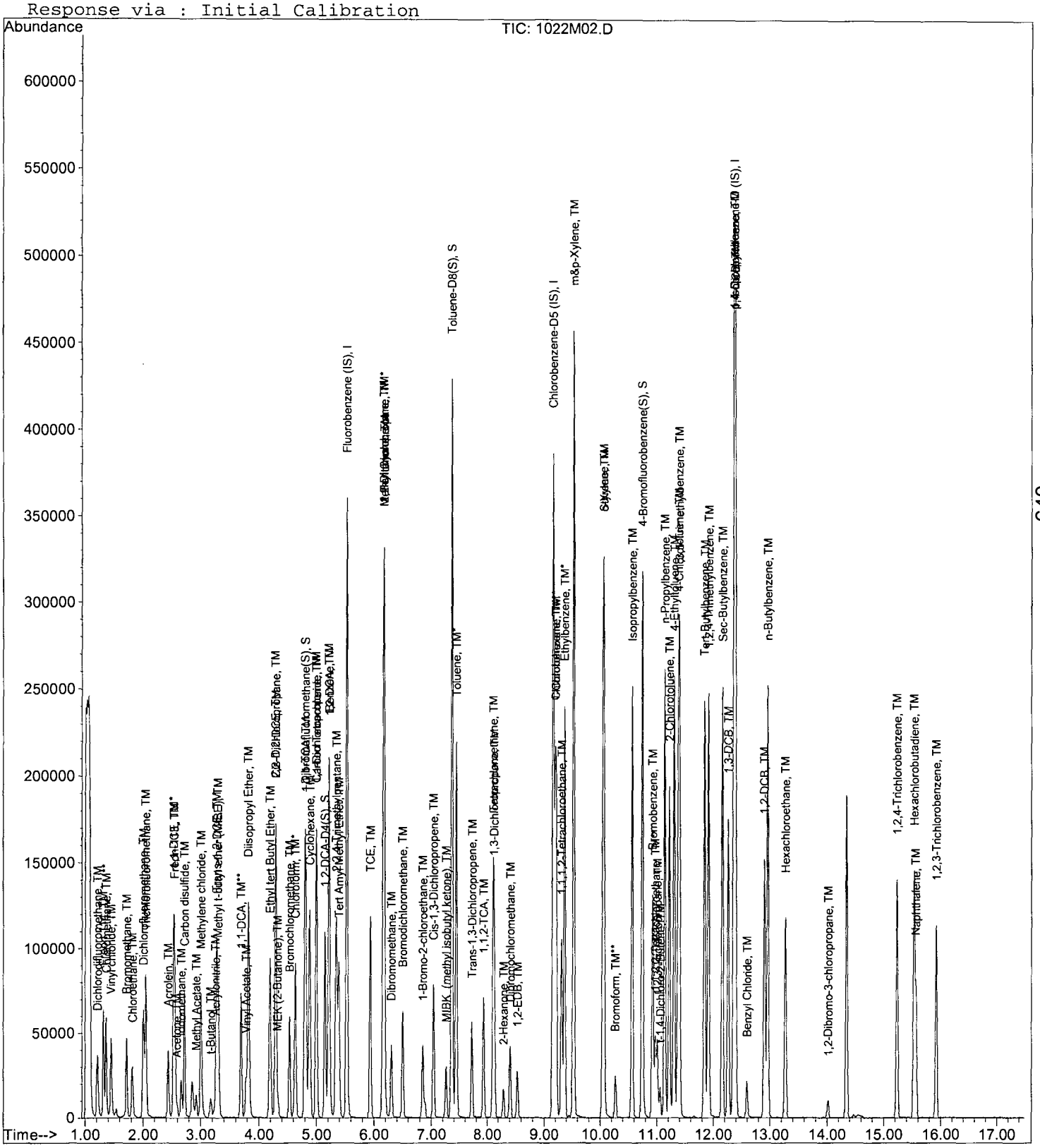
Data File : M:\MAX\DATA\M161020\1022M02.D
Acq On : 22 Oct 16 10:23
Sample : 161022A CCV/LCS 10ug/L
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 2
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 13:38 2016

Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



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Laboratory Control Spike Recovery
EPA 8260B WATER

APPL ID: **161023W-44579 LCS - 213065**
Batch ID: #86BXD-161023BM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
BENZENE	10.00	9.55	95.5	79-120
ETHYLBENZENE	10.00	9.92	99.2	79-121
TOLUENE	10.00	9.90	99.0	80-121
XYLENES (TOTAL)	30.0	29.7	99.0	79-121
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	24.6	98.4	81-118
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.2	101	85-114
SURROGATE: DIBROMOFLUOROMETH	25.0	25.1	100	80-119
SURROGATE: TOLUENE-D8 (S)	25.0	25.1	100	89-112

Comments: _____

Primary	SPK
Quant Method :	MALLW.M
Extraction Date :	10/23/16
Analysis Date :	10/23/16
Instrument :	MAX
Run :	1023M32
Initials :	SV

Printed: 11/16/16 12:04:32 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M32.D Vial: 32
Acq On : 23 Oct 16 19:58 Operator: DG,CM,SV
Sample : 161023B CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 9:16 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.53	96	317204	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	237721	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	132670	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	77127	25.05517 ppb		0.00
Spiked Amount 25.000			Recovery = 100.220%			
36) 1,2-DCA-D4(S)	5.15	65	72535	24.61123 ppb		0.00
Spiked Amount 25.000			Recovery = 98.444%			
56) Toluene-D8(S)	7.36	98	312901	25.09902 ppb		0.00
Spiked Amount 25.000			Recovery = 100.396%			
64) 4-Bromofluorobenzene(S)	10.74	95	113944	25.22041 ppb		0.00
Spiked Amount 25.000			Recovery = 100.880%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	16664	9.17547 ppb		94
3) Freon 114	1.31	85	31178	10.08467 ppb		96
4) Chloromethane	1.36	49	2929	8.80037 ppb		95
5) Vinyl chloride	1.45	62	23760	9.01322 ppb		97
6) Bromomethane	1.71	94	22598	9.44212 ppb		91
7) Chloroethane	1.81	64	13073	9.10947 ppb		99
8) Dichlorofluoromethane	2.00	67	70787	9.50313 ppb		99
9) Trichlorofluoromethane	2.05	101	51104	9.74692 ppb		99
10) Acrolein	2.43	56	15367	104.98796 ppb		98
11) Acetone	2.59	43	7774	11.70563 ppb		92
12) Freon-113	2.55	101	13575	8.69000 ppb		96
13) 1,1-DCE	2.53	61	50796	9.56848 ppb		99
14) t-Butanol	3.18	59	14455	90.15990 ppb		94
15) Methyl Acetate	2.92	43	15597	9.01350 ppb		96
16) Iodomethane	2.66	142	16936	6.33580 ppb		92
17) Acrylonitrile	3.24	53	7709	10.35236 ppb	#	90
18) Methylene chloride	3.00	84	32856	9.49756 ppb		96
19) Carbon disulfide	2.72	76	87687	8.84029 ppb		99
20) Methyl t-butyl ether (MtBE	3.30	73	29856	9.05448 ppb		94
21) Trans-1,2-DCE	3.27	96	33152	9.96830 ppb		92
22) Diisopropyl Ether	3.82	45	106565	9.42666 ppb		98
23) 1,1-DCA	3.69	63	61534	9.49277 ppb		100
24) Vinyl Acetate	3.78	43	11793	6.47496 ppb		96
25) Ethyl tert Butyl Ether	4.19	59	72705	9.08000 ppb		97
26) MEK (2-Butanone)	4.33	43	8168	8.33007 ppb		99
27) Cis-1,2-DCE	4.29	96	35659	9.43500 ppb		98
28) 2,2-Dichloropropane	4.29	77	15022	7.45896 ppb		96
29) Chloroform	4.63	83	58854	9.63182 ppb		99
30) Bromochloromethane	4.53	128	15135	10.23617 ppb		97
32) 1,1,1-TCA	4.82	97	48430	9.60116 ppb		100
33) Cyclohexane	4.88	41	31454	9.23695 ppb		97
34) 1,1-Dichloropropene	5.00	75	44977	9.55411 ppb		97
35) 2,2,4-Trimethylpentane	5.34	57	101354	8.69120 ppb		98
37) Carbon Tetrachloride	4.99	117	36979	9.46081 ppb		95
38) Tert Amyl Methyl Ether	5.39	73	64882	9.46371 ppb		96
39) 1,2-DCA	5.23	62	38495	9.65236 ppb		99
40) Benzene	5.21	78	141011	9.54514 ppb		98
41) TCE	5.93	95	36705	10.12012 ppb		91
42) 2-Pentanone	6.17	43	176979	116.49979 ppb		99

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M32.D Vial: 32
Acq On : 23 Oct 16 19:58 Operator: DG,CM,SV
Sample : 161023B CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 9:16 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	6.17	63	35951	9.62833	ppb		99
44)	Bromodichloromethane	6.50	83	39701	9.77211	ppb		100
45)	Methyl Cyclohexane	6.16	83	53277	9.09456	ppb		96
46)	Dibromomethane	6.30	93	16032	9.80864	ppb		94
47)	MIBK (methyl isobutyl ket	7.26	43	21637	9.43143	ppb		95
48)	1-Bromo-2-chloroethane	6.85	63	18936	9.43348	ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	41976	9.34167	ppb		98
51)	Toluene	7.44	91	164482	9.89882	ppb		96
52)	Trans-1,3-Dichloropropene	7.71	75	16137	9.82160	ppb		97
53)	1,1,2-TCA	7.93	83	21007	10.28764	ppb		91
54)	2-Hexanone	8.29	58	6281	8.88091	ppb		98
57)	1,2-EDB	8.54	107	20723	9.43630	ppb		94
58)	Tetrachloroethene	8.11	164	17328	9.70565	ppb		99
59)	1-Chlorohexane	9.22	91	46403	9.36601	ppb		97
60)	1,1,1,2-Tetrachloroethane	9.31	131	29422	9.62793	ppb		100
61)	m&p-Xylene	9.53	106	146523	19.82786	ppb		96
62)	o-Xylene	10.05	106	71669	9.91620	ppb		98
63)	Styrene	10.06	104	116396	10.02392	ppb		95
65)	1,3-Dichloropropane	8.13	76	41733	9.34868	ppb		93
66)	Dibromochloromethane	8.41	129	25313	9.72089	ppb		97
67)	Chlorobenzene	9.19	112	103737	9.76438	ppb		98
68)	Ethylbenzene	9.36	91	186095	9.91686	ppb		99
69)	Bromoform	10.27	173	14092	9.86245	ppb		96
71)	Isopropylbenzene	10.56	105	182920	9.68411	ppb		100
72)	1,1,2,2-Tetrachloroethane	10.97	83	25669	9.46785	ppb		97
73)	1,2,3-Trichloropropane	11.01	110	7942	9.75985	ppb		89
74)	t-1,4-Dichloro-2-Butene	11.05	53	4832	8.30195	ppb		89
75)	Bromobenzene	10.92	156	42491	9.75251	ppb		98
76)	n-Propylbenzene	11.13	91	220861	9.77349	ppb		98
77)	4-Ethyltoluene	11.30	105	187144	10.02804	ppb		97
78)	2-Chlorotoluene	11.21	91	116852	9.53367	ppb		98
79)	1,3,5-Trimethylbenzene	11.40	105	153446	9.72657	ppb		98
80)	4-Chlorotoluene	11.37	91	146188	9.84589	ppb		98
81)	Tert-Butylbenzene	11.84	119	133933	9.65856	ppb		96
82)	1,2,4-Trimethylbenzene	11.91	105	157203	10.00458	ppb		100
83)	Sec-Butylbenzene	12.15	105	198729	9.97816	ppb		99
84)	p-Isopropyltoluene	12.37	119	169030	9.47870	ppb		99
85)	Benzyl Chloride	12.59	91	12827	7.99118	ppb		99
86)	1,3-DCB	12.26	146	84744	9.56117	ppb		99
87)	1,4-DCB	12.38	146	87241	9.79379	ppb		95
88)	n-Butylbenzene	12.96	91	151746	9.51813	ppb		98
89)	1,2-DCB	12.90	146	74283	9.72510	ppb		97
90)	Hexachloroethane	13.27	117	18983	9.06230	ppb		93
91)	1,2-Dibromo-3-chloropropan	14.01	75	2829	8.13833	ppb	#	84
92)	1,2,4-Trichlorobenzene	15.23	180	50443	9.50387	ppb		99
93)	Hexachlorobutadiene	15.53	225	30694	9.48321	ppb		98
94)	Naphthalene	15.56	128	35904	9.47340	ppb		100
95)	1,2,3-Trichlorobenzene	15.92	180	41966	9.21777	ppb		99

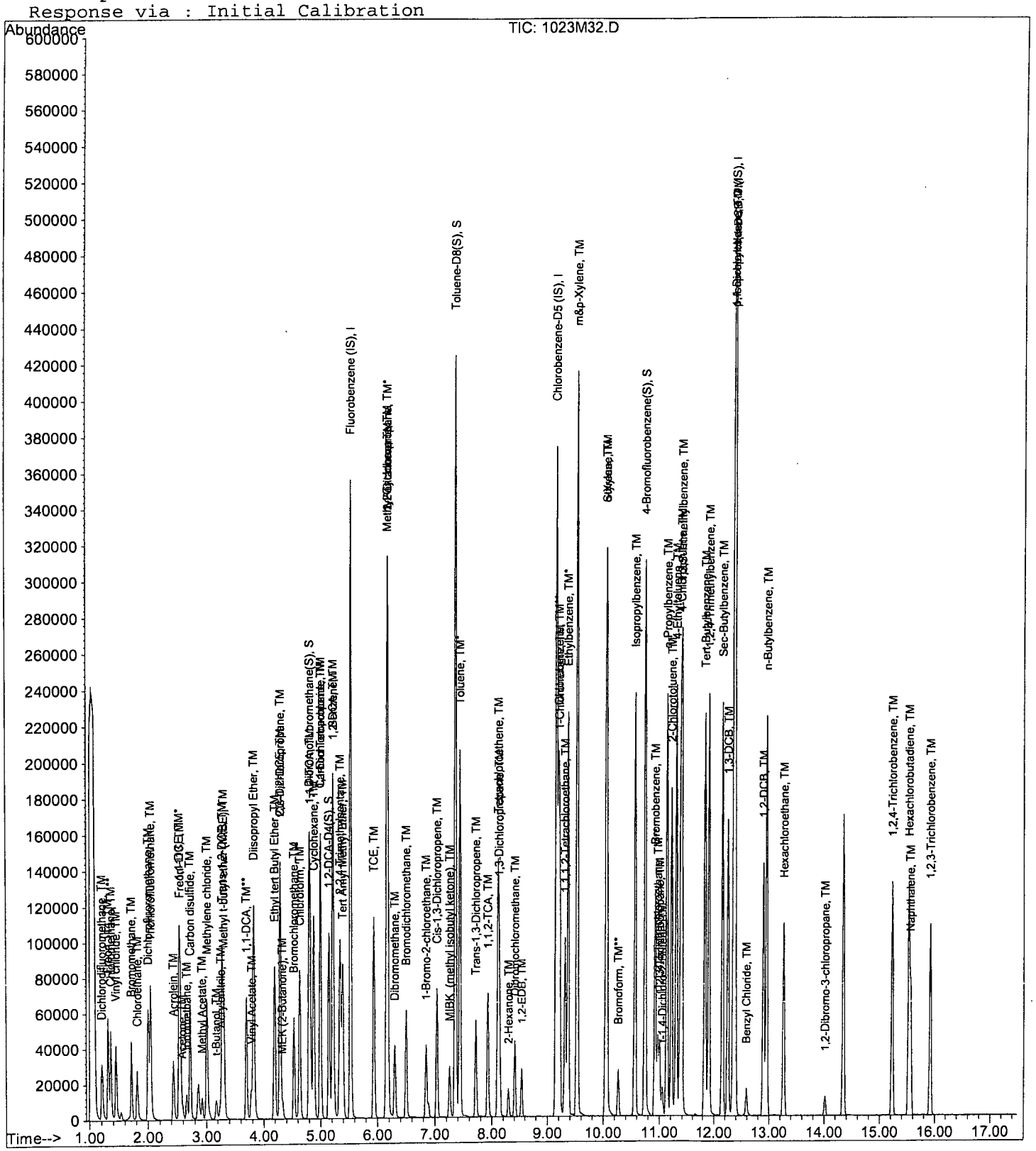
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M32.D Vial: 32
Acq On : 23 Oct 16 19:58 Operator: DG,CM,SV
Sample : 161023B CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 9:16 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



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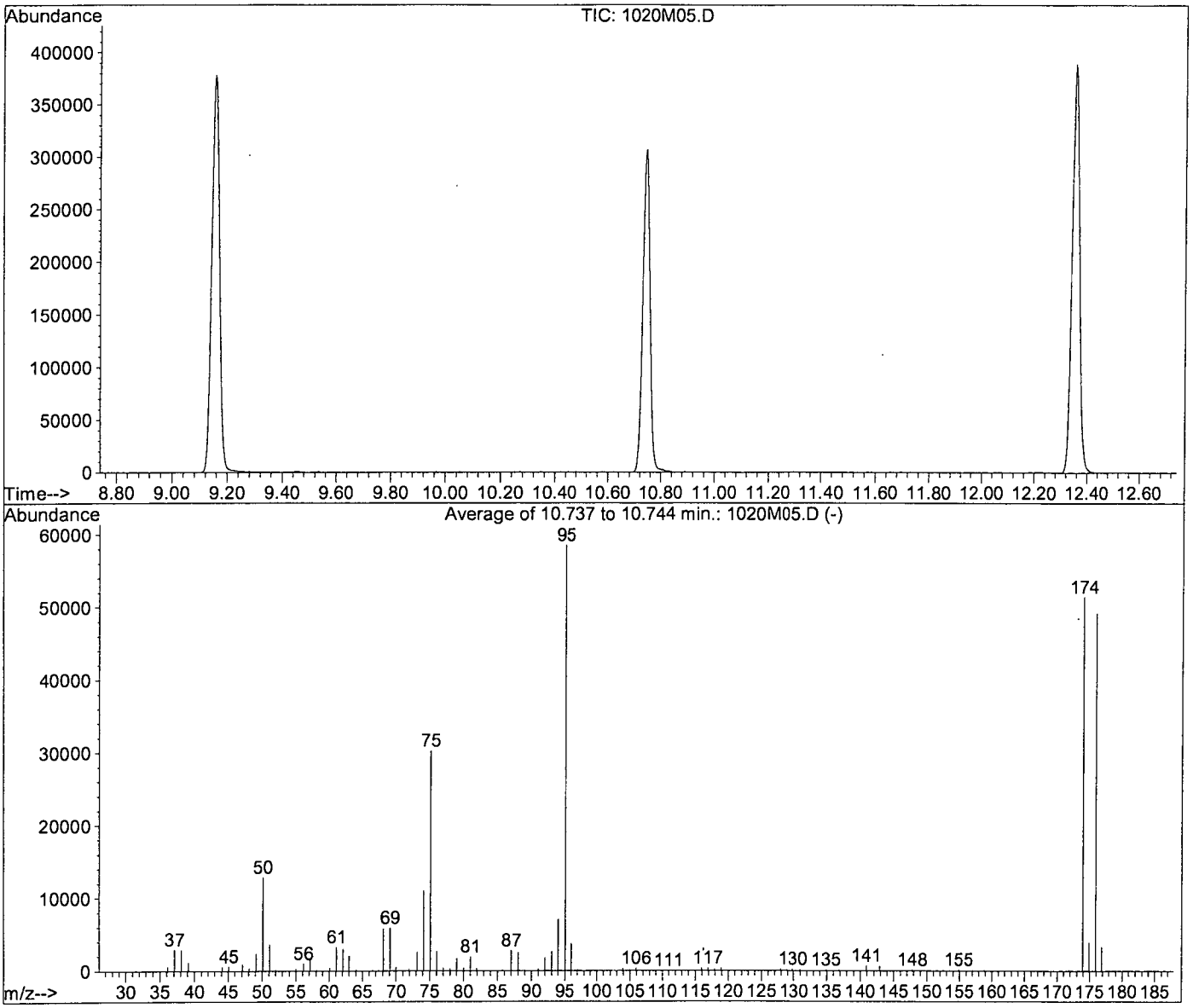
Data File : M:\MAX\DATA\M161020\1020M05.D
Acq On : 20 Oct 16 11:58
Sample : 5ng- BFB STD 10-12-16
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 4
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B



AutoFind: Scans 3053, 3054, 3055; Background Corrected with Scan 3038

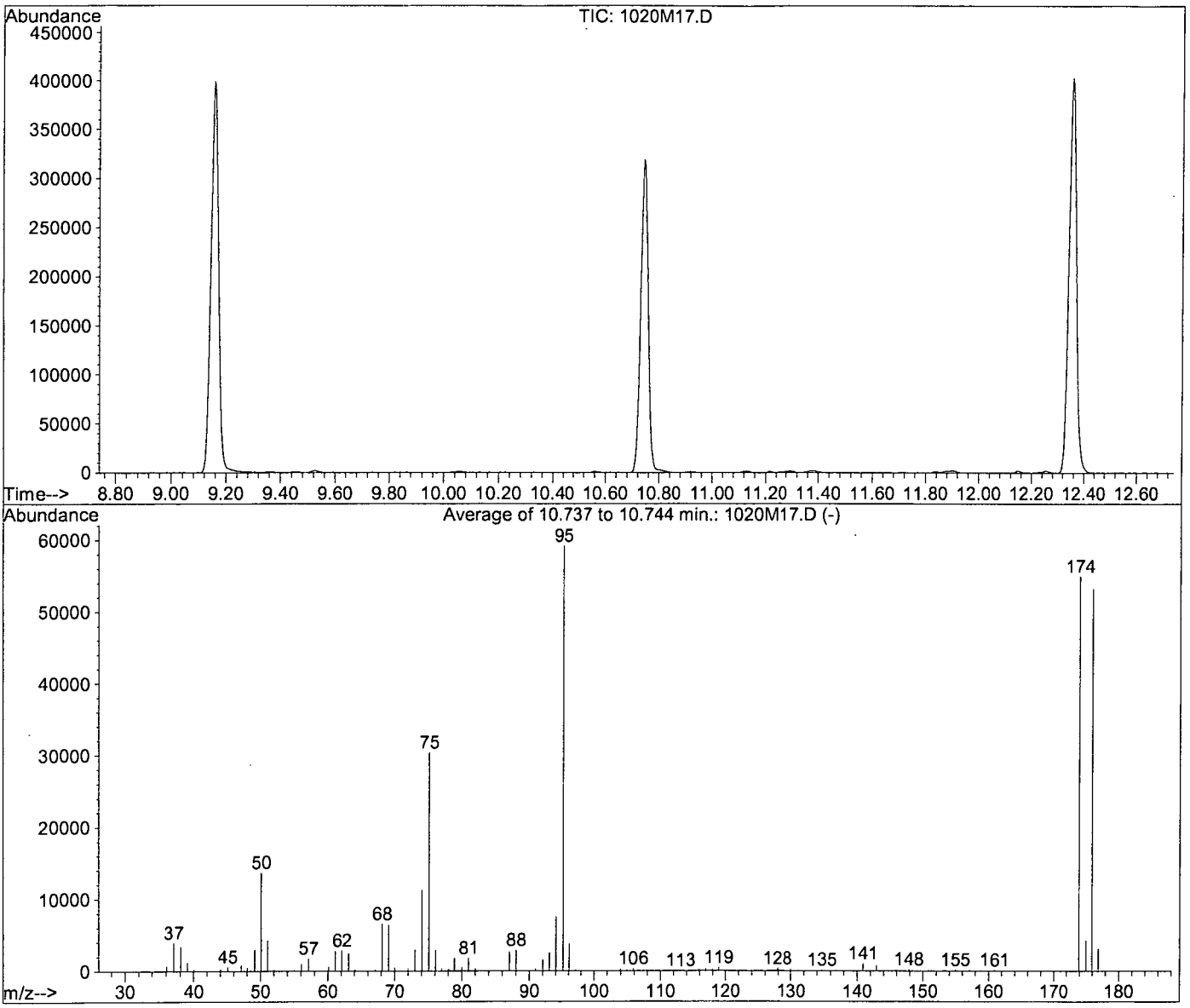
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.0	12848	PASS
75	95	30	60	51.6	30219	PASS
95	95	100	100	100.0	58525	PASS
96	95	5	9	6.4	3724	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	87.9	51437	PASS
175	174	5	9	7.6	3910	PASS
176	174	95	101	95.6	49195	PASS
177	176	5	9	6.7	3286	PASS

1020M05.D MALLW.M Fri Oct 21 08:57:21 2016

Data File : M:\MAX\DATA\M161020\1020M17.D
Acq On : 20 Oct 16 16:20
Sample : 5ng- BFB STD 10-12-16
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 16
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B



AutoFind: Scans 3053, 3054, 3055; Background Corrected with Scan 3037

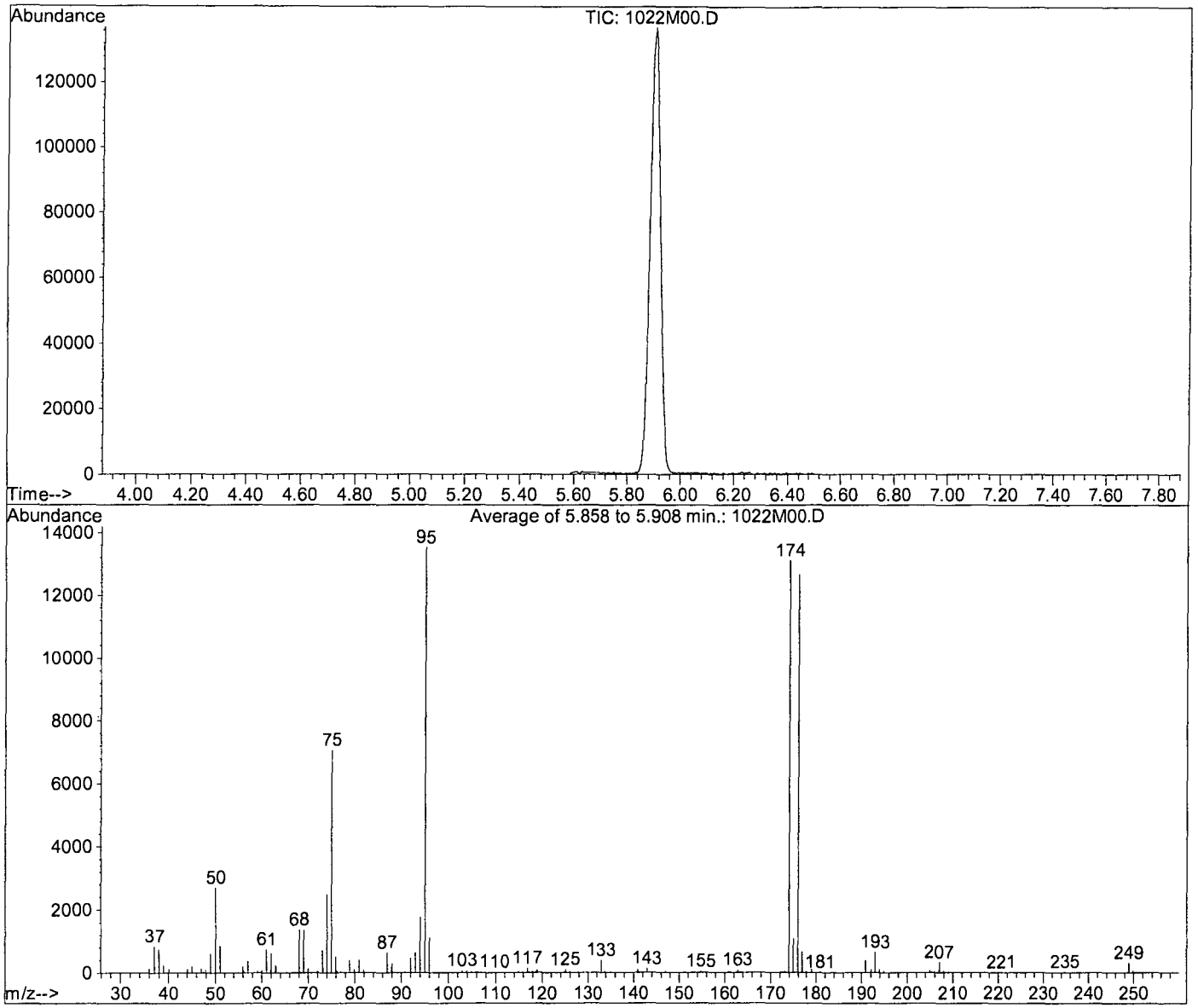
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.1	13650	PASS
75	95	30	60	51.2	30309	PASS
95	95	100	100	100.0	59171	PASS
96	95	5	9	6.4	3794	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	92.9	54960	PASS
175	174	5	9	7.7	4238	PASS
176	174	95	101	96.9	53243	PASS
177	176	5	9	5.9	3150	PASS

1020M17.D MALLW.M Fri Oct 21 09:08:19 2016

Data File : M:\MAX\DATA\M161020\1022M00.D
Acq On : 22 Oct 16 9:38
Sample : 5ng- BFB STD 10-12-16
Misc : 2uL

Vial: 1
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B



Spectrum Information: Average of 5.858 to 5.908 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.0	2701	PASS
75	95	30	60	52.3	7067	PASS
95	95	100	100	100.0	13520	PASS
96	95	5	9	8.3	1117	PASS
173	174	0.00	2	0.4	51	PASS
174	95	50	100	97.0	13109	PASS
175	174	5	9	8.2	1074	PASS
176	174	95	101	96.6	12660	PASS
177	176	5	9	5.2	661	PASS

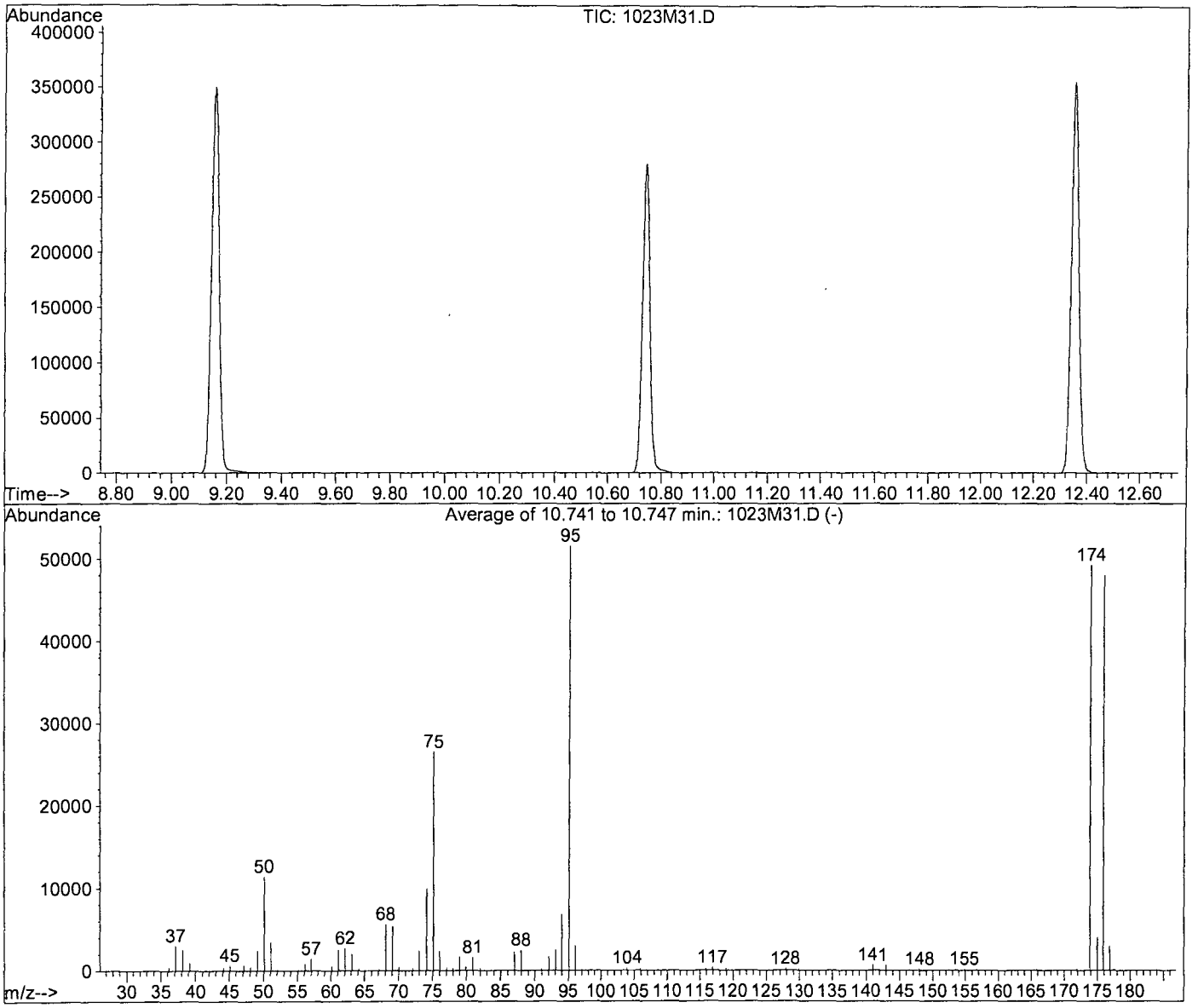
1022M00.D MALLW.M Mon Oct 24 13:45:04 2016

BFB

Data File : M:\MAX\DATA\M161020\1023M31.D
Acq On : 23 Oct 16 19:36
Sample : 5ng- BFB STD 10-12-16
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 31
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B



AutoFind: Scans 3054, 3055, 3056; Background Corrected with Scan 3038

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.1	11402	PASS
75	95	30	60	51.4	26504	PASS
95	95	100	100	100.0	51579	PASS
96	95	5	9	5.8	2998	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	95.4	49229	PASS
175	174	5	9	8.1	4010	PASS
176	174	95	101	97.4	47971	PASS
177	176	5	9	6.2	2971	PASS

1023M31.D MALLW.M Wed Oct 26 09:17:22 2016

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-MAX										
Exp Date:	10/21/16	5µg/mL	5µg/mL	5µg/mL	50µg/mL	50µg/mL	50µg/mL	50µg/mL	250µg/mL	
		Vol Std #9	Vol Std #10	Vol Std #12	Vol Std #7	Vol Std #8	Vol Std #1	Vol Std #2	TBA	
		10/17/16L	10/17/16M	10/17/16N	10/17/16H	10/17/16J	10/17/16I	10/17/16K	10/17/16O	Final Vol
	Conc.	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	w/P&T H2O
Date/code	µg/L	ul	ul	ul	ul	ul	ul	ul	ul	mL
10/20/16AA-CM	0.3	3	3	3	n/a	n/a	n/a	n/a	2	50
10/20/16AB-CM	0.5	5	5	5	n/a	n/a	n/a	n/a	5	50
10/20/16AC-CM	1	10	10	10	n/a	n/a	n/a	n/a	10	50
10/20/16AD-CM	2	20	20	20	n/a	n/a	n/a	n/a	15	50
10/20/16AE-CM	5	n/a	n/a	n/a	5	5	5	5	20	50
10/20/16AF-CM	10	n/a	n/a	n/a	10	10	10	10	25	50
10/20/16AG-CM	20	n/a	n/a	n/a	20	20	20	20	30	50
10/20/16AH-CM	40	n/a	n/a	n/a	40	40	40	40	35	50
10/20/16AI-CMN	100	n/a	n/a	n/a	100	100	100	100	40	50

PRIMARY STANDARD

10/08/16K							
50ug/ml Vol Work Std #7							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03	Gas Mix	2000	279822-36651	10/08/16A-CMM	02/19/19	100
02SI	020049-02	HEXACHLOROETHANE	1000	254167-36561	10/08/16B-CMM	12/28/17	200
02SI	020228-02	Benzyl Chloride	1000	279824-36572	10/08/16C-CMM	06/21/17	200
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3500
10/08/16L							
50ug/ml Vol Work Std #1							
Exp:11/08/16					Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	020145-02-02	2-CEVE	2000	254169-35358	10/08/16D-CMM	06/26/18	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1950
10/08/16M							
50ug/ml Vol Work Std #8							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	122039-02	Volatile Mix, 20-29	2000	240422-35671	09/24/16B-CMM	11/19/16	100
02SI	120023-03	VOC'S-54 COMP	2000	253202-35681	09/24/16C-CMM	06/04/17	100
02SI	020232-02	Vinyl Acetate	2000	287418-37044	09/24/16D-CMM	11/27/16	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3700
10/08/16N							
50ug/ml Vol Work Std #2							
Exp:11/08/16							
Supplier	ID #	ID	ug/ml				
02SI	121020-05	HSL'S-Ketone Solution	2000	258036-36078	10/08/16E-CMM	08/17/16	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3900
		10/08/16O					
		5ug/ml Vol Work Std #9					
		SOURCES	**Lot**	**APPL Code**	**APPL Exp Date**	ul	
		50ug/ml Vol Work Std #7		**10/08/16K**	Exp:11/08/16	200	
		50ug/ml Vol Work Std #8		**10/08/16M**	Exp:11/08/16	200	
		J&T Brand		10/07/16	01/27/18	1600	
		10/08/16P					
		5ug/ml Vol Work Std #10					
		SOURCES	**Lot**	**APPL Code**	**APPL Exp Date**	ul	
		50ug/ml Vol Work Std #1		**10/08/16L**	Exp:11/08/16	200	
		J&T Brand		10/07/16	01/27/18	1800	
		10/08/16Q					
		5ug/ml Vol Work Std #12					
		SOURCES	**Lot**	**APPL Code**	**APPL Exp Date**	ul	
		50ug/ml Vol Work Std #2		**10/08/16N**	Exp:11/08/16	200	
		J&T Brand		10/07/16	01/27/18	1800	
10/15/16E							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P							
Exp:11/08/16			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120166-01	Volatile Mix 4-3	2000	275544-36405	10/15/16A-CMM	03/28/17	500
02SI	020229-09-02	Acrolein	10000	287739-37070	10/15/16B-CMM	10/16/16	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3400

SECONDARY SOURCE

10/08/16S							
50ug/ml VOC Std#4							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
O2SI	120296-01-SS	Custom 8260 Solution	2000	258037-36086	09/24/16F-CMM	02/18/17	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1950
10/08/16T							
50ug/ml VOC Std#5							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
O2SI	120016-03-SS	8260 Gases(SS)	2000	279826-36659	10/08/16G-CMM	06/01/19	50
02SI	020145-02-02-SS	2-CEVE (SS)	2000	254171-35393	10/08/16I-CMM	06/21/17	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1900
10/08/16U							

50ug/ml VOC Std#6							
Exp:11/08/16							
	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120023-03-SS	VOC'S 54 COMP.	2000	26589735924	09/24/16J-CMM	11/29/17	50
02SI	020232-02-SS	Vinyl Acetate(SS)	2000	287420-37048	09/24/16H-CMM	11/27/16	50
02SI	020049-02-SS	HEXACHLOROETHANE (SS)	1000	265899-35936	10/08/16H-CMM	11/30/17	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1800
10/15/16F							
250ug/ml TBA/IBA/Acetonitrile/Acrolein/2-P							
Exp:11/08/16			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120166-01-SS	VOC Mix 4-3 (SS)	2000	258040-35710	10/15/16C-CMM	08/22/18	250
02SI	020229-09-SS	Acrolein SOLUTION (SS)	10000	287741-37068	10/15/16D-CMM	10/16/16	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1700
8260 water		spiked with		Total Vol			
CCV/LCS	10ug/L Vol Std	10uL of 50ug/ml Std #7		50mL P&T H2O			
Ending CCV		10uL of 50ug/ml Std #8					
		10uL of 50ug/ml Std #1					
		10uL of 50ug/ml Std #2					
		25uL of 250ug/ml Std TBA					
X4 ketones							
LCS	10ug/L Vol Std	10uL of 50ug/ml Std #7		50mL P&T H2O			
		10uL of 50ug/ml Std #8					
		10uL of 50ug/ml Std #1					
		40uL of 50ug/ml Std #2					
		25uL of 250ug/ml Std TBA					
8260 soil		spiked with		Total Vol			
CCV/LCS	50ug/Kg Vol Std	5uL of 50ug/ml Std #7		5mL P&T H2O			
Ending CCV		5uL of 50ug/ml Std #8					
		5uL of 50ug/ml Std #1					
		5uL of 50ug/ml Std #2					
		5uL of 250ug/ml Std TBA					
Matrix spikes are prepared with same standards as ccv (see above) into the sample.							
8260water		spiked with		Total Vol			
SS	10ug/L STD	10uL of 50ug/ml Std #4		50mL P&T H2O			
		10uL of 50ug/ml Std #5					
		10uL of 50ug/ml Std #6					
		25uL of 250ug/ml Std TBA					
8260 SOIL	50ug/Kg STD	5uL of 50ug/ml Std #4		Total Vol			
SS		5uL of 50ug/ml Std #5		5mL P&T H2O			
		5uL of 50ug/ml Std #6					
		5uL of 250ug/ml Std TBA					

Injection Log

Directory: M:\MAX\DATA\M161020\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	4	1020M05.D	1	5ng- BFB STD 10-12-16	10ml w/IS&S 7/26/16,7/25/1(	20 Oct 16 11:58
2	5	1020M06.D	1	0.3ug/L VOC STD 10/20/16AA	1uL-5ppb	20 Oct 16 12:19
3	6	1020M07.D	1	0.5ug/L VOC STD 10/20/16AB	1uL-5ppb	20 Oct 16 12:41
4	7	1020M08.D	1	1.0ug/L VOC STD 10/20/16AC	2uL-10ppb	20 Oct 16 13:03
5	8	1020M09.D	1	2.0ug/L VOC STD 10/20/16AD	2uL-10ppb	20 Oct 16 13:25
6	9	1020M10.D	1	5.0ug/L VOC STD 10/20/16AE	5uL-25ppb	20 Oct 16 13:47
7	10	1020M11.D	1	10ug/L VOC STD 10/20/16AF	5uL-25ppb	20 Oct 16 14:09
8	12	1020M13.D	1	40ug/L VOC STD 10/20/16AH	10uL-50ppb	20 Oct 16 14:52
9	13	1020M14.D	1	100ug/L VOC STD 10/20/16AI	20uL-100ppb	20 Oct 16 15:14
10	20	1020M21.D	1	(SS) 10ug/L VOC STD 10/20/16	10ml w/IS&S 7/26/16,7/25/1(	20 Oct 16 17:47
11	1	1022M00.D	1	5ng- BFB STD 10-12-16	2uL	22 Oct 16 9:38
12	2	1022M02.D	1	161022A CCV/LCS 10ug/L	10ml w/IS&S 7/26/16,7/25/1(	22 Oct 16 10:23
13	12	1022M12.D	1	161022A BLK-1WM	10ml w/IS&S 7/26/16,7/25/1(	22 Oct 16 14:00
14	15	1022M15.D	1	AZ44694W01	10ml w/IS&S 7/26/16,7/25/1(	22 Oct 16 15:05
15	16	1022M16.D	1	AZ44697W01	10ml w/IS&S 7/26/16,7/25/1(	22 Oct 16 15:27
16	17	1022M17.D	1	AZ44698W01	10ml w/IS&S 7/26/16,7/25/1(	22 Oct 16 15:49
17	19	1022M19.D	1	AZ44692W01	10ml w/IS&S 7/26/16,7/25/1(	22 Oct 16 16:32
18	20	1022M20.D	1	AZ44693W01	10ml w/IS&S 7/26/16,7/25/1(	22 Oct 16 16:54
19	21	1022M21.D	1	AZ44696W01	10ml w/IS&S 7/26/16,7/25/1(	22 Oct 16 17:16
20	26	1022M26.D	1	Ending CCV 8260 10ug/L 10/22/16	10ml w/IS&S 7/26/16,7/25/1(	22 Oct 16 19:06
21	31	1023M31.D	1	5ng- BFB STD 10-12-16	10ml w/IS&S 7/26/16,7/25/1(	23 Oct 16 19:36
22	32	1023M32.D	1	161023B CCV/LCS 10ug/L	10ml w/IS&S 7/26/16,7/25/1(	23 Oct 16 19:58
23	37	1023M37.D	1	161023B BLK-1WM	10ml w/IS&S 7/26/16,7/25/1(	23 Oct 16 21:47
24	38	1023M38.D	1	AZ44691W01	10ml w/IS&S 7/26/16,7/25/1(	23 Oct 16 22:08
25	40	1023M40.D	1	AZ44687W01	10ml w/IS&S 7/26/16,7/25/1(	23 Oct 16 22:52
26	41	1023M41.D	1	AZ44688W01	10ml w/IS&S 7/26/16,7/25/1(	23 Oct 16 23:14
27	42	1023M42.D	1	AZ44689W01	10ml w/IS&S 7/26/16,7/25/1(	23 Oct 16 23:36
28	43	1023M43.D	1	AZ44690W01	10ml w/IS&S 7/26/16,7/25/1(	23 Oct 16 23:58
29	44	1023M44.D	1	AZ44695W01	10ml w/IS&S 7/26/16,7/25/1(	24 Oct 16 00:20
30	49	1023M49.D	1	Ending CCV 8260 10ug/L 10/23/16	10ml w/IS&S 7/26/16,7/25/1(	24 Oct 16 2:09

ORGANICS

APPL, INC.

ORGANICS
QC Summary

APPL, INC.

Method Blank
EPA 8260B GRO WATER

Blank Name/QCG: **161022W-44692 - 213020**
Batch ID: #GRO86-161022AM

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/22/16	10/22/16
BLANK	SURROGATE: 4-BROMOFLUORO	98.1	85-114			%	10/22/16	10/22/16

Quant Method: MGAS6825.
Run #: 1022M12
Instrument: MAX
Sequence: M161020
Initials: SV

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/16 10:39:59 AM

Method Blank
EPA 8260B GRO WATER

Blank Name/QCG: **161023W-44579 - 213069**
Batch ID: #GRO86-161023BM

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/23/16	10/23/16
BLANK	SURROGATE: 4-BROMOFLUORO	97.1	85-114			%	10/23/16	10/23/16

Quant Method: MGAS6825.
Run #: 1023M37
Instrument: MAX
Sequence: M161020
Initials: SV

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/16 10:39:59 AM

Laboratory Control Spike Recovery
EPA 8260B GRO WATER

APPL ID: **161023W-44579 LCS - 213069**
Batch ID: #GRO86-161023BM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
GASOLINE RANGE ORGANICS	300	245	81.7	78-122
SURROGATE: 4-BROMOFLUOROBENZE	25.0	24.4	97.6	85-114

Comments: _____

Primary	SPK
Quant Method :	MGAS6825.M
Extraction Date :	10/23/16
Analysis Date :	10/23/16
Instrument :	MAX
Run :	1023M34
Initials :	SV

Printed: 10/31/16 10:11:57 AM
APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8260B GRO WATER

APPL ID: **161022W-44692 LCS - 213020**
Batch ID: #GRO86-161022AM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
GASOLINE RANGE ORGANICS	300	276	92.0	78-122
SURROGATE: 4-BROMOFLUOROBENZE	25.0	24.9	99.6	85-114

Comments: _____

Primary	SPK
Quant Method :	MGAS6825.M
Extraction Date :	10/22/16
Analysis Date :	10/22/16
Instrument :	MAX
Run :	1022M07
Initials :	SV

Printed: 10/31/16 10:11:57 AM
APPL Standard LCS

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/22/16

Matrix: WATER Instrument: MAX

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
161022AM-LCS	Lab Control Spike	85-114	99.6				
161022AM-BLK	Blank	85-114	98.1				
AZ44694	ERH102	85-114	97.8				
AZ44697	ERH106	85-114	99.3				
AZ44698	ERH107	85-114	97.2				
AZ44692	ERH100	85-114	97.9				
AZ44693	ERH101	85-114	97.8				
AZ44696	ERH105	85-114	96.9				

Comments: Batch: #GRO86-161022AM

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/23/16

Matrix: WATER Instrument: MAX

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
161023BM-LCS	Lab Control Spike	85-114	97.6				
161023BM-BLK	Blank	85-114	97.1				
AZ44691	ERH098	85-114	94.7				
AZ44687	ERH091	85-114	103				
AZ44688	ERH089	85-114	97.0				
AZ44689	ERH093	85-114	96.7				
AZ44690	ERH097	85-114	96.6				
AZ44695	ERH104	85-114	95.7				

Comments: Batch: #GRO86-161023BM

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/22/16

Matrix: WATER Instrument: MAX

Blank ID: 161022AM-BLK Time Analyzed: 1400

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161022AM-LCS	Lab Control Spike	1022M07	10/22/16 1211
161022AM-BLK	Blank	1022M12	10/22/16 1400
AZ44694	ERH102	1022M15	10/22/16 1505
AZ44697	ERH106	1022M16	10/22/16 1527
AZ44698	ERH107	1022M17	10/22/16 1549
AZ44692	ERH100	1022M19	10/22/16 1632
AZ44693	ERH101	1022M20	10/22/16 1654
AZ44696	ERH105	1022M21	10/22/16 1716

Comments: Batch: #GRO86-161022AM

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/23/16

Matrix: WATER Instrument: MAX

Blank ID: 161023BM-BLK Time Analyzed: 2147

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161023BM-LCS	Lab Control Spike	1023M34	10/23/16 2041
161023BM-BLK	Blank	1023M37	10/23/16 2147
AZ44691	ERH098	1023M38	10/23/16 2208
AZ44687	ERH091	1023M40	10/23/16 2252
AZ44688	ERH089	1023M41	10/23/16 2314
AZ44689	ERH093	1023M42	10/23/16 2336
AZ44690	ERH097	1023M43	10/23/16 2358
AZ44695	ERH104	1023M44	10/24/16 0020

Comments: Batch: #GRO86-161023BM

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 81251

Lab File ID (Standard): 1020M11.D Date Analyzed: 10/20/16

Instrument ID: MAX Time Analyzed: 14:09

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	346592	5.53	255148	9.16	139924	12.35
	UPPER LIMIT	693184	6.03	510296	9.66	279848	12.85
	LOWER LIMIT	173296	5.03	127574	8.66	69962	11.85
	SAMPLE NO.						
01	0.3ug/L VOC STD 10/20	333677	5.52	241772	9.16	125666	12.35
02	0.5ug/L VOC STD 10/20	335960	5.52	237803	9.16	125548	12.35
03	1.0ug/L VOC STD 10/20	329092	5.53	237074	9.16	124990	12.35
04	2.0ug/L VOC STD 10/20	338019	5.52	242362	9.16	128498	12.35
05	5.0ug/L VOC STD 10/20	344045	5.53	251263	9.16	137533	12.35
06	10ug/L VOC STD 10/20/	346592	5.53	255148	9.16	139924	12.35
07	40ug/L VOC STD 10/20/	338131	5.53	252832	9.16	143737	12.35
08	100ug/L VOC STD 10/2(	379136	5.52	291939	9.16	180096	12.36
09	161022A CCV/LCS 300(	347186	5.53	255122	9.16	135458	12.35
10	161022A BLK-1WM	355477	5.53	259271	9.16	132244	12.35
11	AZ44694W01	349673	5.53	256477	9.16	132567	12.35
12	AZ44697W01	336654	5.53	247011	9.16	131124	12.35
13	AZ44698W01	336993	5.53	246293	9.16	126630	12.35
14	AZ44692W01	336650	5.53	248823	9.16	125335	12.35
15	AZ44693W01	323239	5.53	237625	9.16	125608	12.35
16	AZ44696W01	330270	5.53	241940	9.16	125123	12.35
17	Ending CCV GAS 300ug	341840	5.53	252542	9.16	133036	12.35
18	161023B CCV/LCS 300(	311487	5.53	232482	9.16	124173	12.35
19	161023B BLK-1WM	318344	5.53	224612	9.16	114740	12.35
20	AZ44691W01	314595	5.53	237369	9.16	119861	12.35
21	AZ44687W01	287293	5.53	212181	9.16	118952	12.35
22	AZ44688W01	311609	5.53	227289	9.16	119565	12.35

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 81251

Lab File ID (Standard): 1020M11.D Date Analyzed: 10/20/16

Instrument ID: MAX Time Analyzed: 14:09

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	346592	5.5259	255148	9.1552	139924	12.355
	UPPER LIMIT	693184	6.0259	510296	9.6552	279848	12.855
	LOWER LIMIT	173296	5.0259	127574	8.6552	69962	11.855
	SAMPLE NO.						
23	AZ44689W01	304367	5.53	224666	9.16	118482	12.35
24	AZ44690W01	309868	5.53	227369	9.16	117411	12.35
25	AZ44695W01	318077	5.53	239031	9.16	122759	12.35
26	Ending CCV GAS 300ug	309793	5.53	226163	9.16	117539	12.35
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

ORGANICS
Sample Data

APPL, INC.

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH091

APPL ID: AZ44687

Sample Collection Date: 10/19/16

QCG: #GRO86-161023BM-213069

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	35	20	18.0	8.6	ug/L	10/23/16	10/23/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	103	85-114			%	10/23/16	10/23/16

Quant Method:	MGAS6825.M
Run #:	1023M40
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:39:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M40.D Vial: 40
Acq On : 23 Oct 16 22:52 Operator: DG,CM,SV
Sample : AZ44687W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:08 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	318761	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	3734513m	35.08488	ppb	100

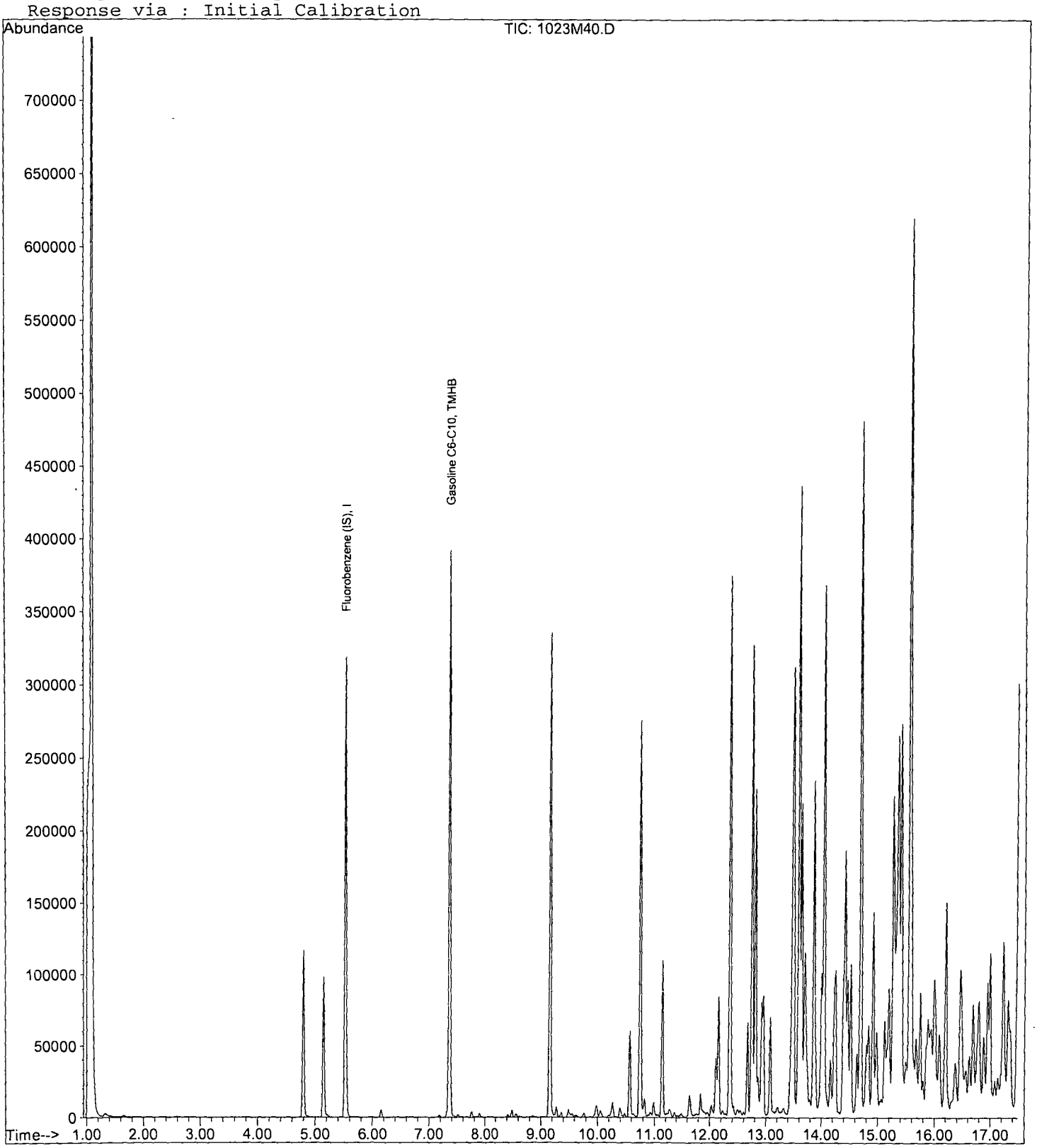
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M40.D Vial: 40
Acq On : 23 Oct 16 22:52 Operator: DG,CM,SV
Sample : AZ44687W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:08 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M40.D Vial: 40
Acq On : 23 Oct 16 22:52 Operator: DG,CM,SV
Sample : AZ44687W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:46 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	287293	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	212181	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	118952	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	70398	25.25020 ppb	0.00
Spiked Amount 25.000			Recovery = 101.000%		
3) 1,2-DCA-D4(S)	5.15	65	67222	25.18319 ppb	0.00
Spiked Amount 25.000			Recovery = 100.732%		
5) Toluene-D8(S)	7.36	98	283398	25.46875 ppb	0.00
Spiked Amount 25.000			Recovery = 101.876%		
6) 4-Bromofluorobenzene(S)	10.74	95	103919	25.77014 ppb	0.00
Spiked Amount 25.000			Recovery = 103.080%		

Target Compounds Qvalue

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

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH089

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44688

QCG: #GRO86-161023BM-213069

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/23/16	10/23/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	97.0	85-114			%	10/23/16	10/23/16

Quant Method:	MGAS6825.M
Run #:	1023M41
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:39:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M41.D Vial: 41
Acq On : 23 Oct 16 23:14 Operator: DG,CM,SV
Sample : AZ44688W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:08 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	339222	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

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

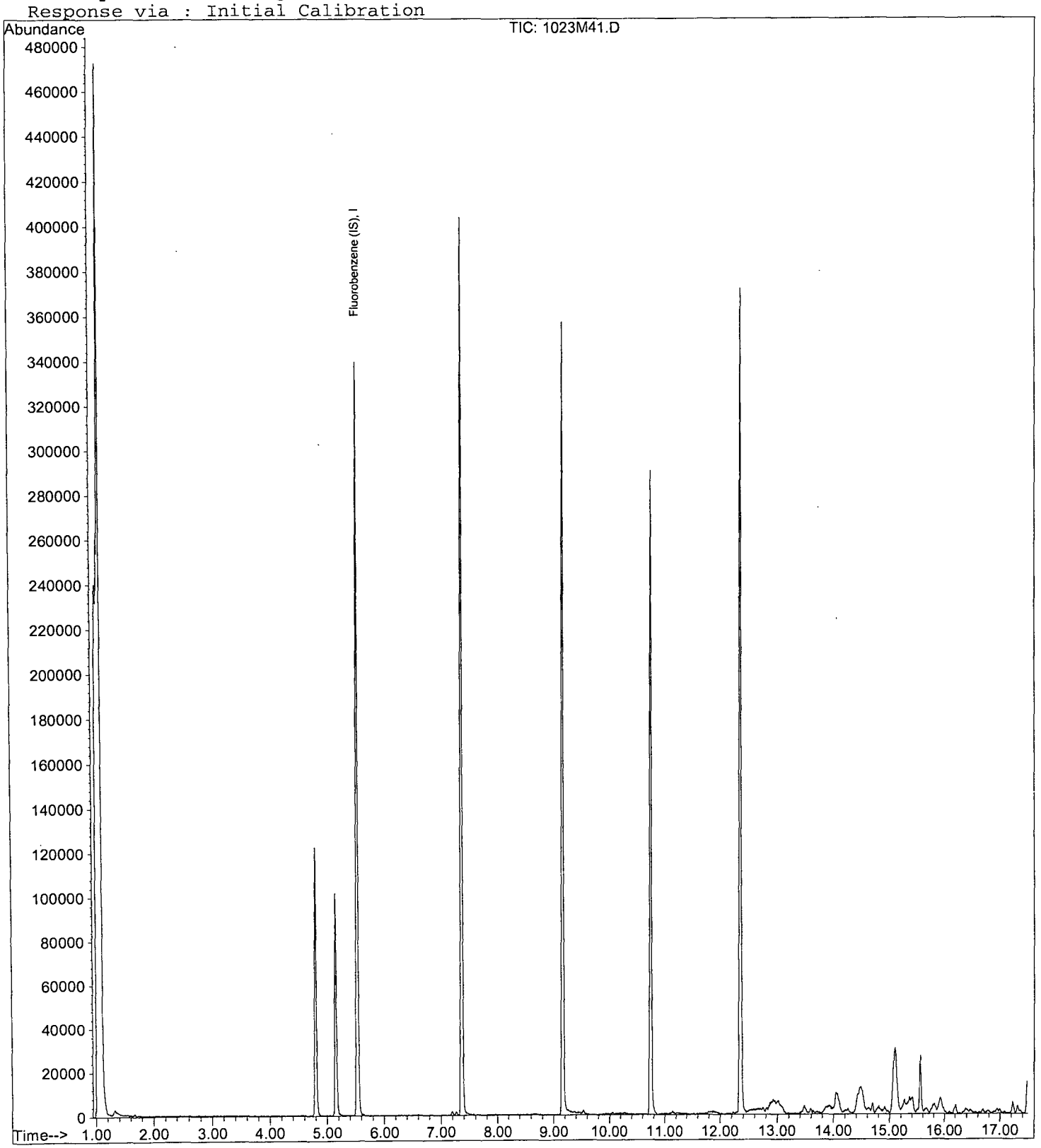
Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M41.D
Acq On : 23 Oct 16 23:14
Sample : AZ44688W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 41
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 26 10:08 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M41.D Vial: 41
Acq On : 23 Oct 16 23:14 Operator: DG,CM,SV
Sample : AZ44688W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:46 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	311609	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	227289	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	119565	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	74167	24.52620 ppb	0.00
Spiked Amount 25.000			Recovery =	98.104%	
3) 1,2-DCA-D4(S)	5.14	65	69678	24.06634 ppb	0.00
Spiked Amount 25.000			Recovery =	96.264%	
5) Toluene-D8(S)	7.36	98	296843	24.90381 ppb	0.00
Spiked Amount 25.000			Recovery =	99.616%	
6) 4-Bromofluorobenzene(S)	10.74	95	104795	24.25998 ppb	0.00
Spiked Amount 25.000			Recovery =	97.040%	

Target Compounds Qvalue

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

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH093

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44689

QCG: #GRO86-161023BM-213069

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/23/16	10/23/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	96.7	85-114			%	10/23/16	10/23/16

Quant Method:	MGAS6825.M
Run #:	1023M42
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:39:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M42.D Vial: 42
Acq On : 23 Oct 16 23:36 Operator: DG,CM,SV
Sample : AZ44689W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:08 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	331896	25.00000 ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

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

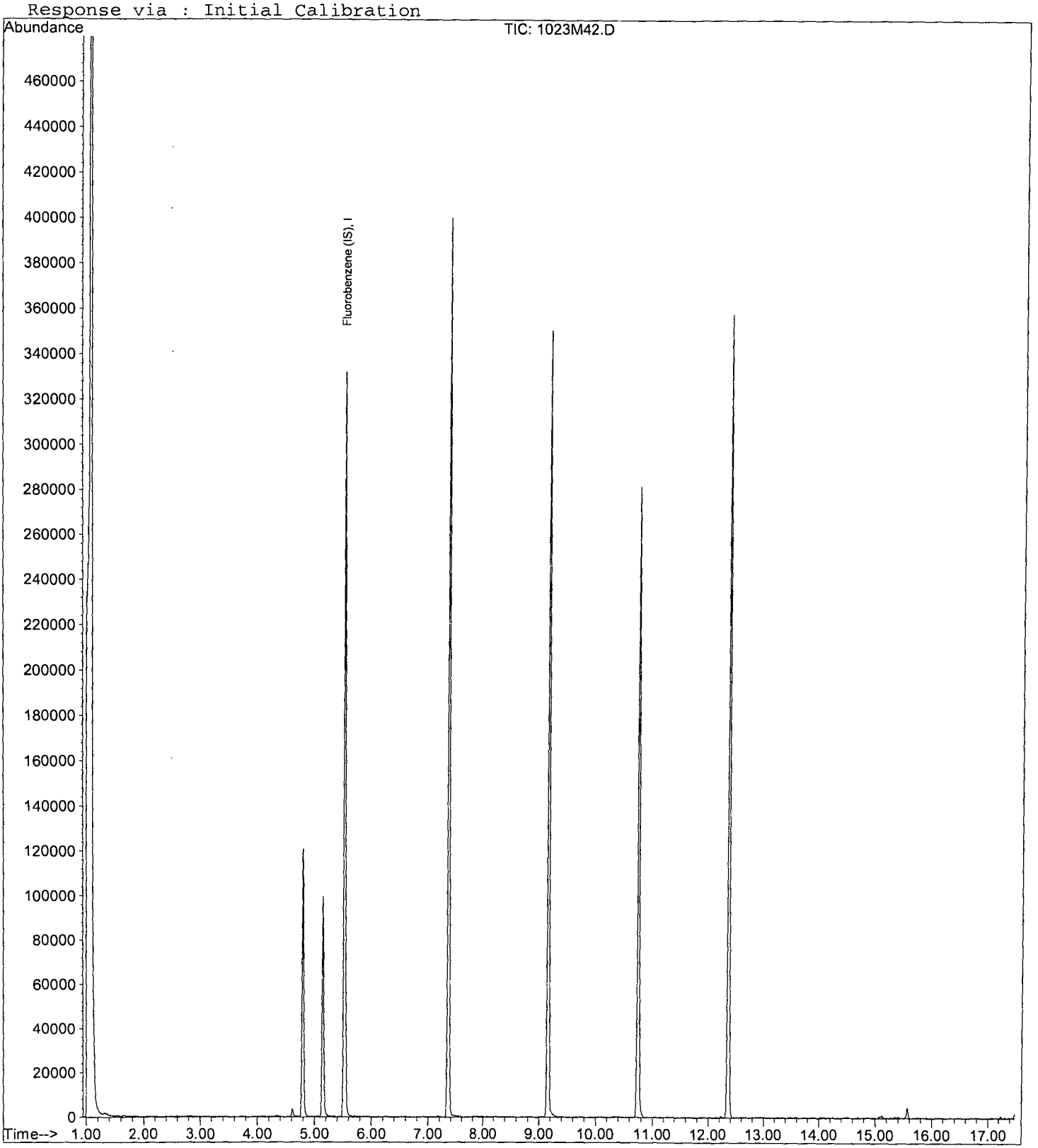
Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M42.D
Acq On : 23 Oct 16 23:36
Sample : AZ44689W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 42
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 26 10:08 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M42.D Vial: 42
Acq On : 23 Oct 16 23:36 Operator: DG,CM,SV
Sample : AZ44689W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:46 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	304367	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	224666	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	118482	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.79	111	72638	24.59212 ppb	0.00
Spiked Amount 25.000			Recovery =	98.368%	
3) 1,2-DCA-D4(S)	5.15	65	69429	24.55092 ppb	0.00
Spiked Amount 25.000			Recovery =	98.204%	
5) Toluene-D8(S)	7.36	98	295455	25.07676 ppb	0.00
Spiked Amount 25.000			Recovery =	100.308%	
6) 4-Bromofluorobenzene(S)	10.74	95	103231	24.17692 ppb	0.00
Spiked Amount 25.000			Recovery =	96.708%	

Target Compounds Qvalue

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

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH097

APPL ID: AZ44690

Sample Collection Date: 10/19/16

QCG: #GRO86-161023BM-213069

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/23/16	10/23/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	96.6	85-114			%	10/23/16	10/23/16

Quant Method:	MGAS6825.M
Run #:	1023M43
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:39:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M43.D Vial: 43
Acq On : 23 Oct 16 23:58 Operator: DG,CM,SV
Sample : AZ44690W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:09 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	344869	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

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

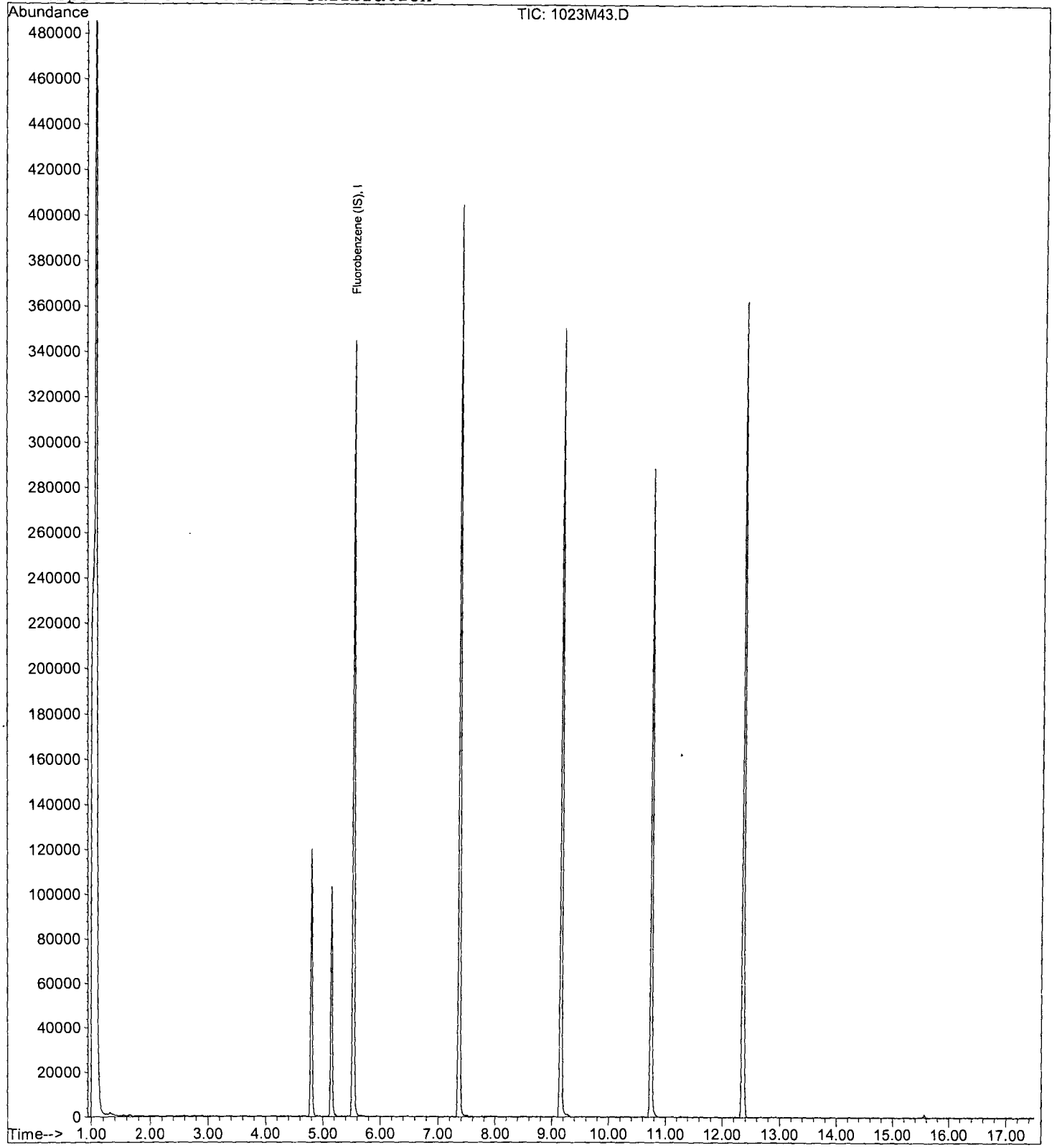
Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M43.D
Acq On : 23 Oct 16 23:58
Sample : AZ44690W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 43
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 26 10:09 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M43.D Vial: 43
Acq On : 23 Oct 16 23:58 Operator: DG,CM,SV
Sample : AZ44690W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:46 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	309868	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	227369	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	117411	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.79	111	73556	24.46082 ppb	0.00
Spiked Amount 25.000			Recovery =	97.844%	
3) 1,2-DCA-D4(S)	5.14	65	69646	24.19044 ppb	0.00
Spiked Amount 25.000			Recovery =	96.760%	
5) Toluene-D8(S)	7.36	98	295270	24.76312 ppb	0.00
Spiked Amount 25.000			Recovery =	99.052%	
6) 4-Bromofluorobenzene(S)	10.74	95	104353	24.14915 ppb	0.00
Spiked Amount 25.000			Recovery =	96.596%	

Target Compounds Qvalue

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

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH098

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44691

QCG: #GRO86-161023BM-213069

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/23/16	10/23/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	94.7	85-114			%	10/23/16	10/23/16

Quant Method:	MGAS6825.M
Run #:	1023M38
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:39:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M38.D Vial: 38
Acq On : 23 Oct 16 22:08 Operator: DG,CM,SV
Sample : AZ44691W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:07 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	345641	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

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

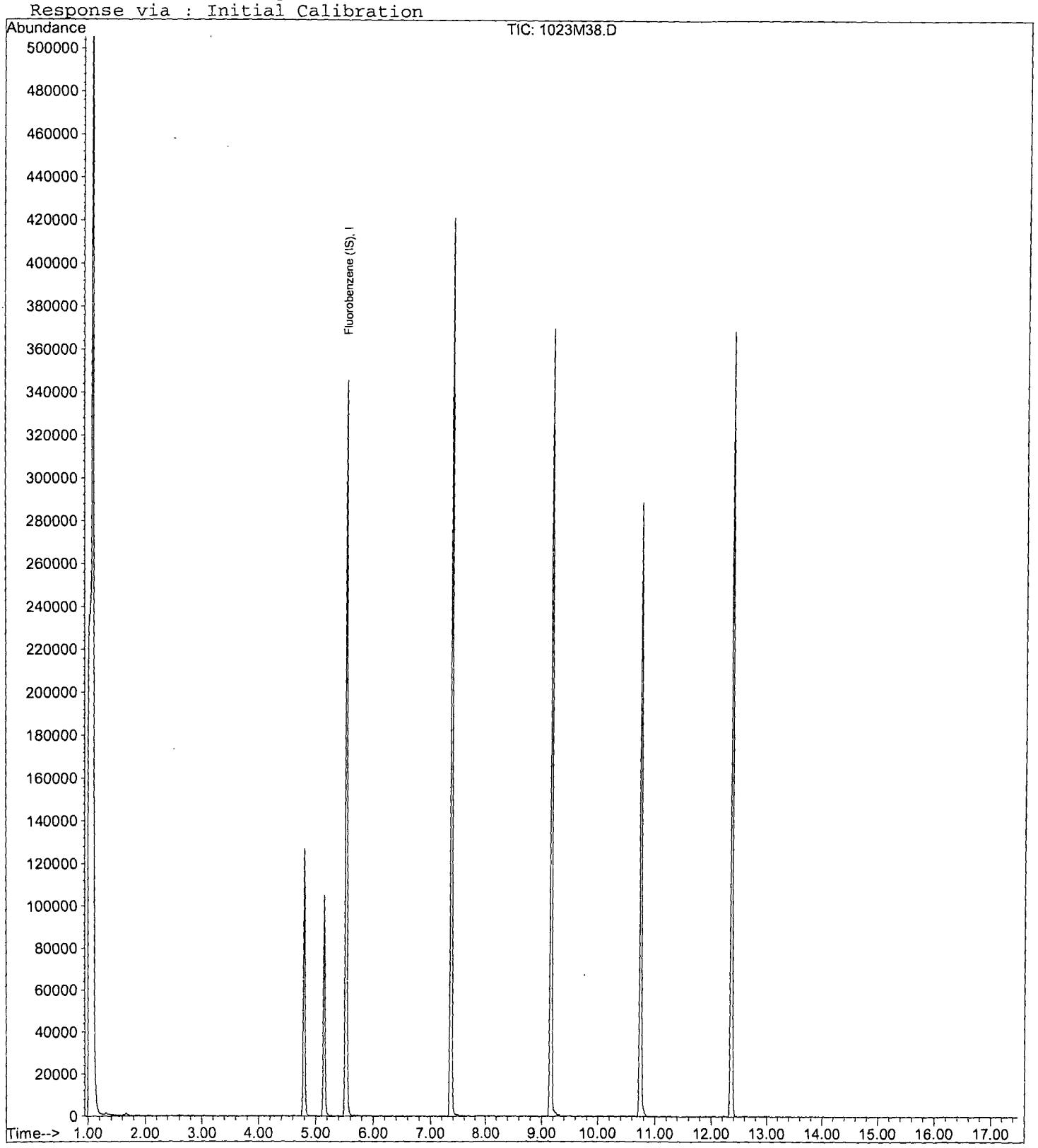
Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M38.D
Acq On : 23 Oct 16 22:08
Sample : AZ44691W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 38
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 26 10:07 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M38.D Vial: 38
Acq On : 23 Oct 16 22:08 Operator: DG,CM,SV
Sample : AZ44691W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:46 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	314595	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	237369	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	119861	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.79	111	76916	25.19385 ppb	0.00
Spiked Amount 25.000			Recovery = 100.776%		
3) 1,2-DCA-D4(S)	5.14	65	71130	24.33467 ppb	0.00
Spiked Amount 25.000			Recovery = 97.340%		
5) Toluene-D8(S)	7.36	98	305512	24.54266 ppb	0.00
Spiked Amount 25.000			Recovery = 98.172%		
6) 4-Bromofluorobenzene(S)	10.74	95	106832	23.68130 ppb	0.00
Spiked Amount 25.000			Recovery = 94.724%		

Target Compounds Qvalue

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

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH100

Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44692

QCG: #GRO86-161022AM-213020

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/22/16	10/22/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	97.9	85-114			%	10/22/16	10/22/16

Quant Method:	MGAS6825.M
Run #:	1022M19
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:39:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M19.D Vial: 19
Acq On : 22 Oct 16 16:32 Operator: DG,CM,SV
Sample : AZ44692W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:51 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	371735	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

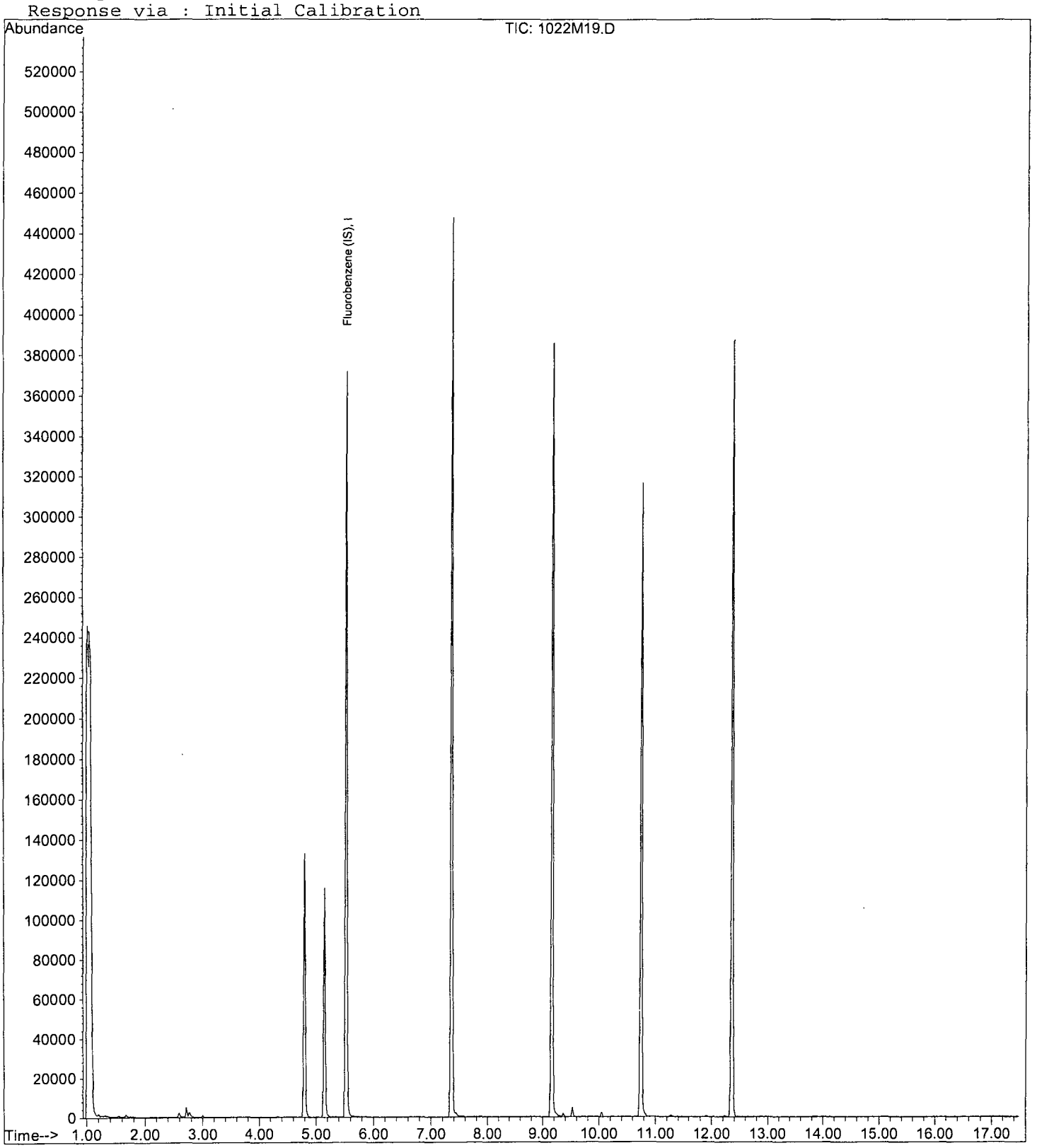
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M19.D Vial: 19
Acq On : 22 Oct 16 16:32 Operator: DG,CM,SV
Sample : AZ44692W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:51 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1022M19.D Vial: 19
Acq On : 22 Oct 16 16:32 Operator: DG,CM,SV
Sample : AZ44692W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 25 7:20 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	336650	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	248823	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	125335	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.79	111	83457	25.54546 ppb	0.00
Spiked Amount 25.000			Recovery = 102.180%		
3) 1,2-DCA-D4(S)	5.15	65	78227	25.00935 ppb	0.00
Spiked Amount 25.000			Recovery = 100.036%		
5) Toluene-D8(S)	7.36	98	333447	25.55369 ppb	0.00
Spiked Amount 25.000			Recovery = 102.216%		
6) 4-Bromofluorobenzene(S)	10.74	95	115719	24.47047 ppb	0.00
Spiked Amount 25.000			Recovery = 97.880%		

Target Compounds Qvalue

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

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH101

Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44693

QCG: #GRO86-161022AM-213020

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/22/16	10/22/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	97.8	85-114			%	10/22/16	10/22/16

Quant Method:	MGAS6825.M
Run #:	1022M20
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:39:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M20.D Vial: 20
Acq On : 22 Oct 16 16:54 Operator: DG,CM,SV
Sample : AZ44693W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:51 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	357247	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

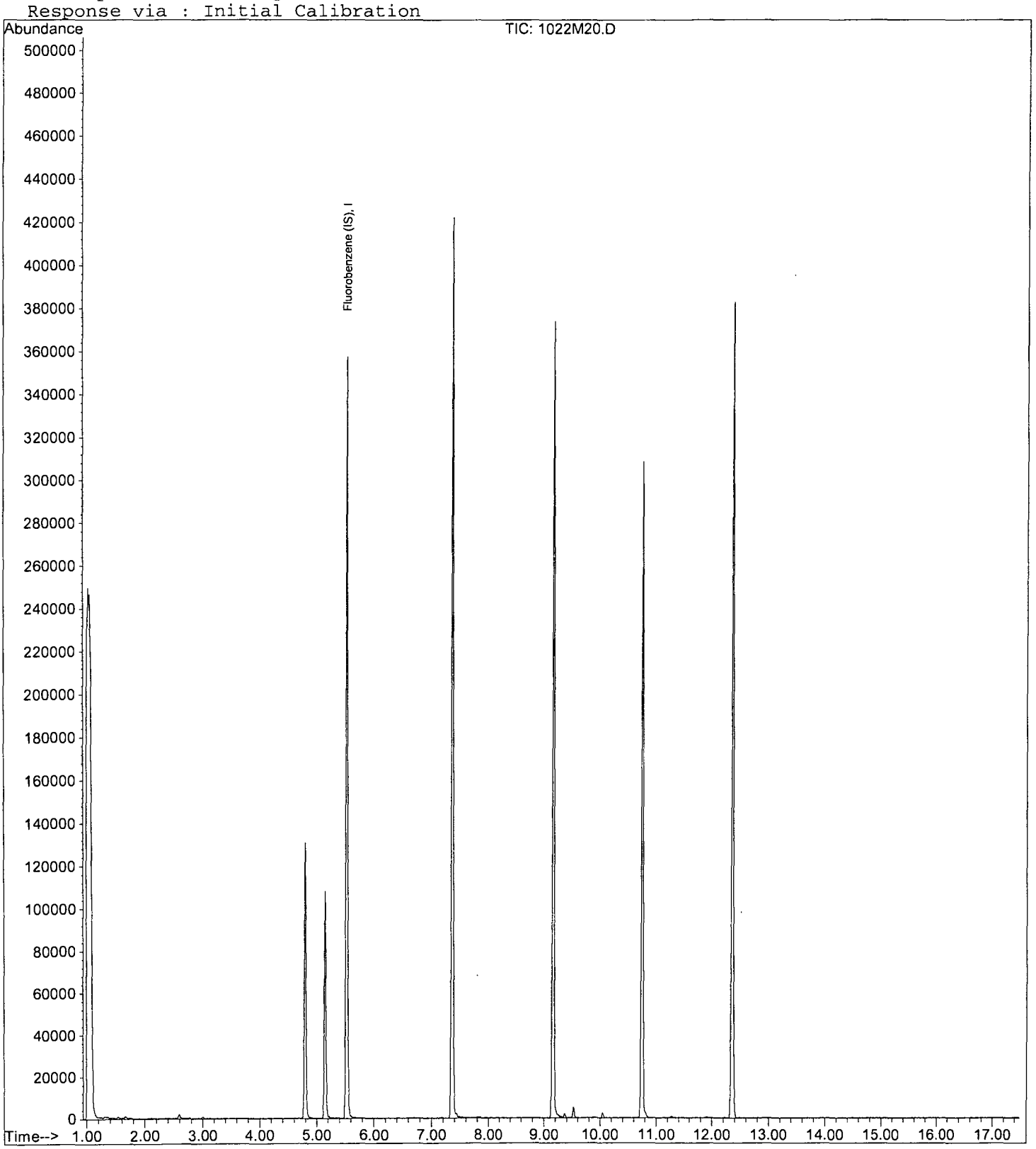
(#) = qualifier out of range (m) = manual integration
1022M20.D MGAS6825.M Mon Oct 24 15:56:31 2016 Page 1

Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M20.D Vial: 20
Acq On : 22 Oct 16 16:54 Operator: DG,CM,SV
Sample : AZ44693W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:51 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1022M20.D Vial: 20
Acq On : 22 Oct 16 16:54 Operator: DG,CM,SV
Sample : AZ44693W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 25 7:20 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	323239	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	237625	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	125608	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	78006	24.86760 ppb	0.00
Spiked Amount 25.000			Recovery = 99.472%		
3) 1,2-DCA-D4(S)	5.14	65	73359	24.42609 ppb	0.00
Spiked Amount 25.000			Recovery = 97.704%		
5) Toluene-D8(S)	7.36	98	313413	25.15025 ppb	0.00
Spiked Amount 25.000			Recovery = 100.600%		
6) 4-Bromofluorobenzene(S)	10.74	95	110364	24.43788 ppb	0.00
Spiked Amount 25.000			Recovery = 97.752%		

Target Compounds Qvalue

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

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH102

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44694

QCG: #GRO86-161022AM-213020

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/22/16	10/22/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	97.8	85-114			%	10/22/16	10/22/16

Quant Method:	MGAS6825.M
Run #:	1022M15
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:39:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M15.D Vial: 15
Acq On : 22 Oct 16 15:05 Operator: DG,CM,SV
Sample : AZ44694W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:50 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	385111	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

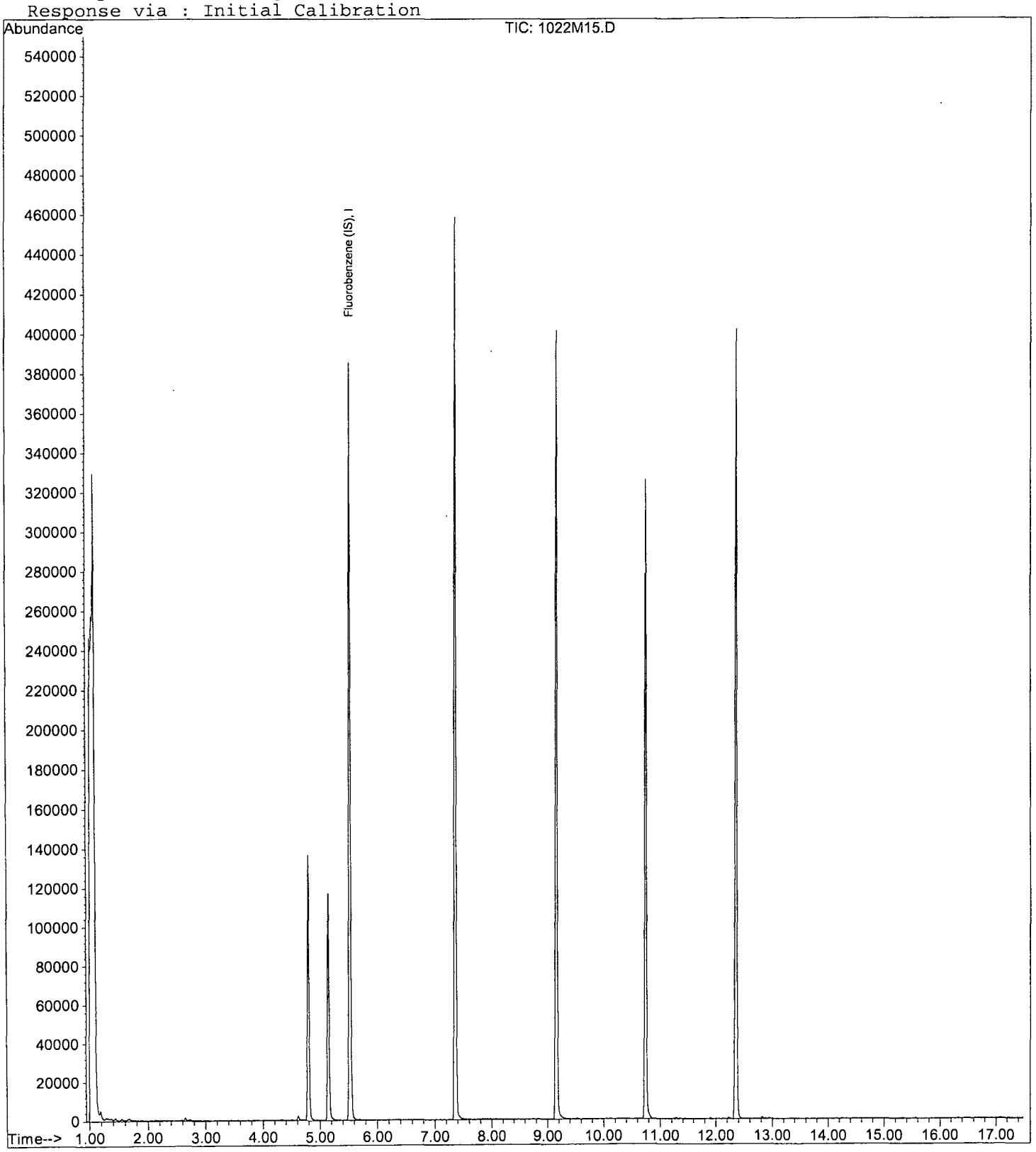
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M15.D Vial: 15
Acq On : 22 Oct 16 15:05 Operator: DG,CM,SV
Sample : AZ44694W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:50 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1022M15.D Vial: 15
Acq On : 22 Oct 16 15:05 Operator: DG,CM,SV
Sample : AZ44694W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 25 7:20 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	349673	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	256477	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	132567	25.00000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.80	111	84488	24.89789	ppb	0.00
Spiked Amount 25.000			Recovery = 99.592%			
3) 1,2-DCA-D4(S)	5.15	65	79543	24.48298	ppb	0.00
Spiked Amount 25.000			Recovery = 97.932%			
5) Toluene-D8(S)	7.36	98	333716	24.81110	ppb	0.00
Spiked Amount 25.000			Recovery = 99.244%			
6) 4-Bromofluorobenzene(S)	10.74	95	119180	24.45024	ppb	0.00
Spiked Amount 25.000			Recovery = 97.800%			

Target Compounds Qvalue

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

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH104

APPL ID: AZ44695

Sample Collection Date: 10/20/16

QCG: #GRO86-161023BM-213069

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/24/16	10/24/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	95.7	85-114			%	10/24/16	10/24/16

Quant Method:	MGAS6825.M
Run #:	1023M44
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:39:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M44.D Vial: 44
Acq On : 24 Oct 16 00:20 Operator: DG,CM,SV
Sample : AZ44695W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:09 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	TIC	347391	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

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

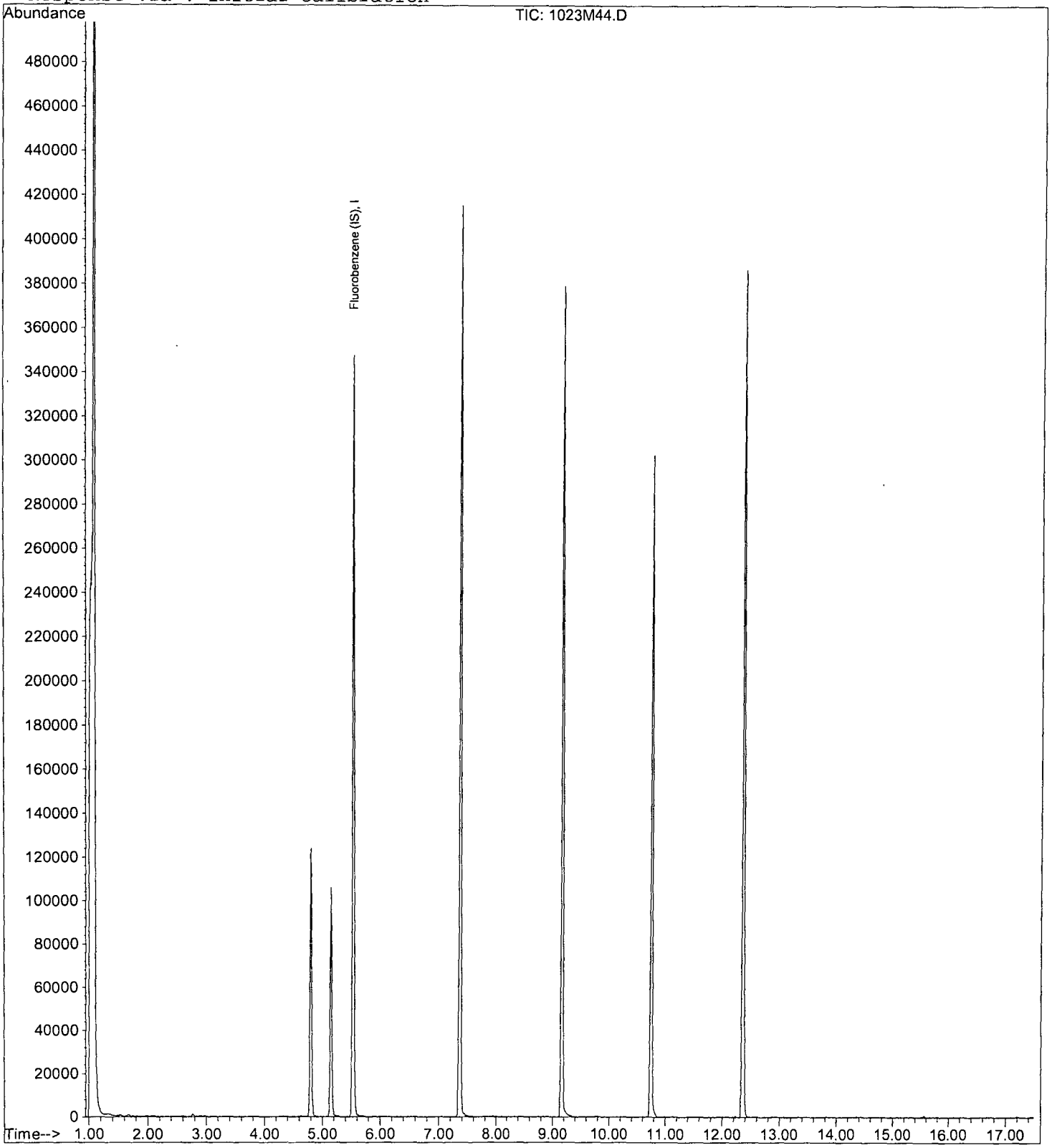
Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M44.D
Acq On : 24 Oct 16 00:20
Sample : AZ44695W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 44
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 26 10:09 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M44.D Vial: 44
Acq On : 24 Oct 16 00:20 Operator: DG,CM,SV
Sample : AZ44695W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:46 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	318077	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	239031	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	122759	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.79	111	75533	24.47001 ppb	0.00
Spiked Amount 25.000			Recovery =	97.880%	
3) 1,2-DCA-D4(S)	5.14	65	71425	24.16809 ppb	0.00
Spiked Amount 25.000			Recovery =	96.672%	
5) Toluene-D8(S)	7.36	98	305979	24.40927 ppb	0.00
Spiked Amount 25.000			Recovery =	97.636%	
6) 4-Bromofluorobenzene(S)	10.74	95	108644	23.91552 ppb	0.00
Spiked Amount 25.000			Recovery =	95.664%	

Target Compounds Qvalue

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

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH105

Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44696

QCG: #GRO86-161022AM-213020

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/22/16	10/22/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	96.9	85-114			%	10/22/16	10/22/16

Quant Method:	MGAS6825.M
Run #:	1022M21
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:39:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M21.D Vial: 21
Acq On : 22 Oct 16 17:16 Operator: DG,CM,SV
Sample : AZ44696W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:51 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	358773	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

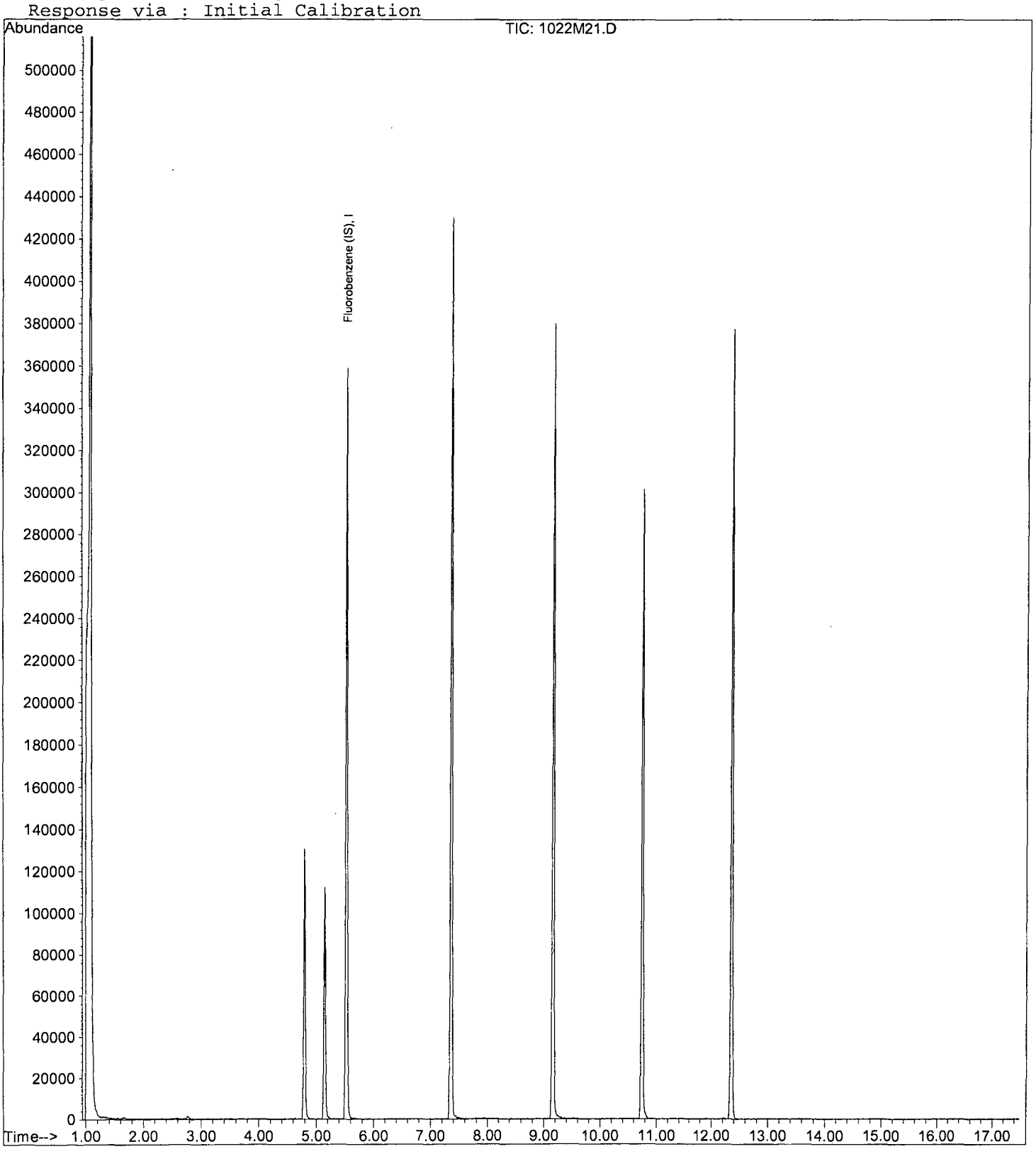
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M21.D Vial: 21
Acq On : 22 Oct 16 17:16 Operator: DG,CM,SV
Sample : AZ44696W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:51 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Data File : M:\MAX\DATA\M161020\1022M21.D Vial: 21
Acq On : 22 Oct 16 17:16 Operator: DG,CM,SV
Sample : AZ44696W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 25 7:20 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	330270	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	241940	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	125123	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.79	111	78472	24.48360 ppb	0.00
Spiked Amount 25.000			Recovery = 97.936%		
3) 1,2-DCA-D4(S)	5.15	65	76204	24.83322 ppb	0.00
Spiked Amount 25.000			Recovery = 99.332%		
5) Toluene-D8(S)	7.36	98	315197	24.84230 ppb	0.00
Spiked Amount 25.000			Recovery = 99.368%		
6) 4-Bromofluorobenzene(S)	10.74	95	111384	24.22386 ppb	0.00
Spiked Amount 25.000			Recovery = 96.896%		

Target Compounds Qvalue

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

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH106

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44697

QCG: #GRO86-161022AM-213020

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/22/16	10/22/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	99.3	85-114			%	10/22/16	10/22/16

Quant Method:	MGAS6825.M
Run #:	1022M16
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:39:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M16.D Vial: 16
Acq On : 22 Oct 16 15:27 Operator: DG,CM,SV
Sample : AZ44697W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:50 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	371982	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

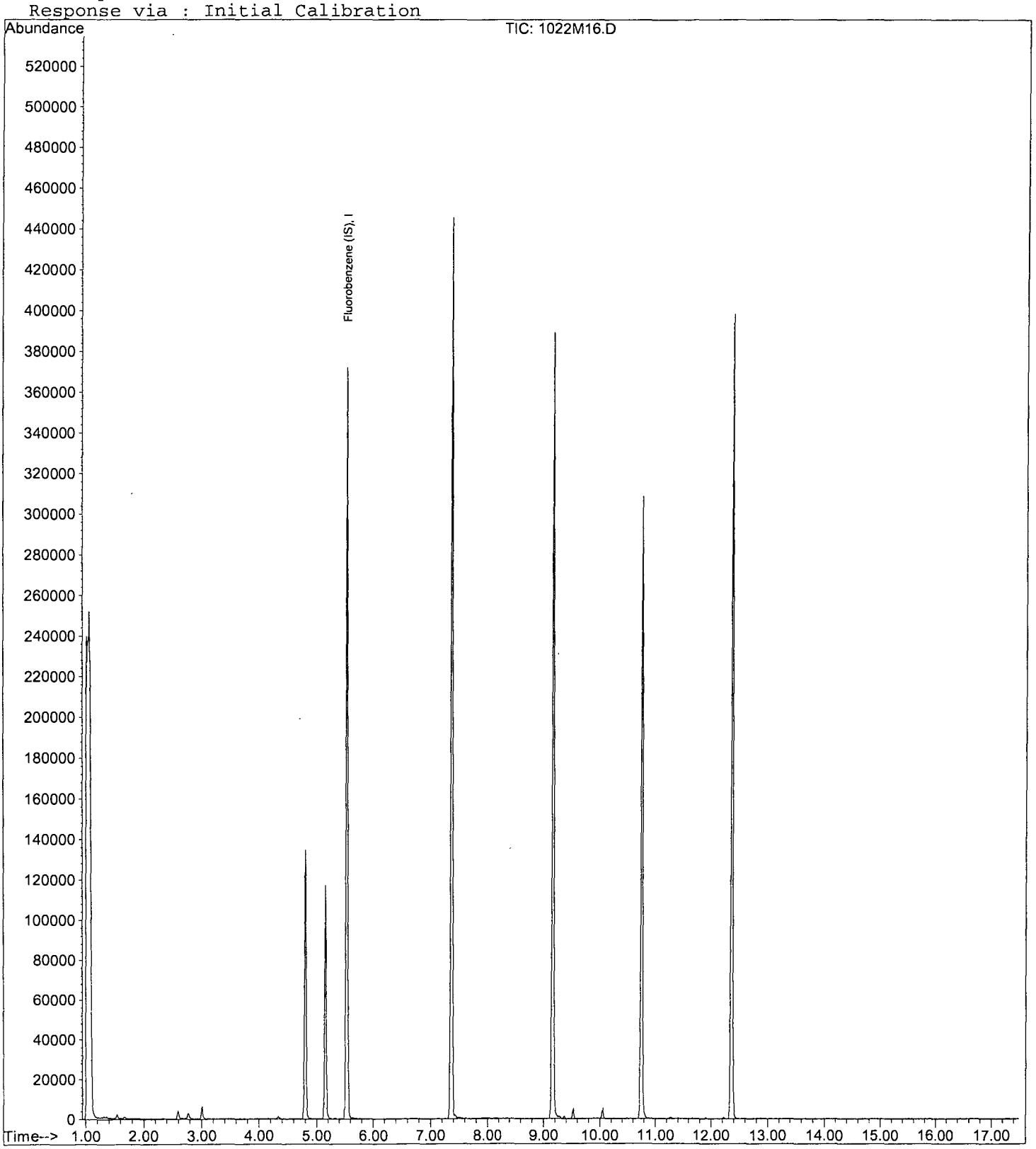
(#) = qualifier out of range (m) = manual integration
1022M16.D MGAS6825.M Mon Oct 24 15:56:21 2016 Page 1

Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M16.D Vial: 16
Acq On : 22 Oct 16 15:27 Operator: DG,CM,SV
Sample : AZ44697W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:50 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1022M16.D Vial: 16
Acq On : 22 Oct 16 15:27 Operator: DG,CM,SV
Sample : AZ44697W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 25 7:20 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	336654	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	247011	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	131124	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	80074	24.50966 ppb	0.00
Spiked Amount 25.000			Recovery = 98.040%		
3) 1,2-DCA-D4(S)	5.15	65	80161	25.62735 ppb	0.00
Spiked Amount 25.000			Recovery = 102.508%		
5) Toluene-D8(S)	7.36	98	325504	25.12797 ppb	0.00
Spiked Amount 25.000			Recovery = 100.512%		
6) 4-Bromofluorobenzene(S)	10.74	95	116540	24.82487 ppb	0.00
Spiked Amount 25.000			Recovery = 99.300%		

Target Compounds Qvalue

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

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH107

Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44698

QCG: #GRO86-161022AM-213020

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/22/16	10/22/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	97.2	85-114			%	10/22/16	10/22/16

Quant Method:	MGAS6825.M
Run #:	1022M17
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/16/16 10:39:56 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M17.D Vial: 17
Acq On : 22 Oct 16 15:49 Operator: DG,CM,SV
Sample : AZ44698W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:51 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	369208	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

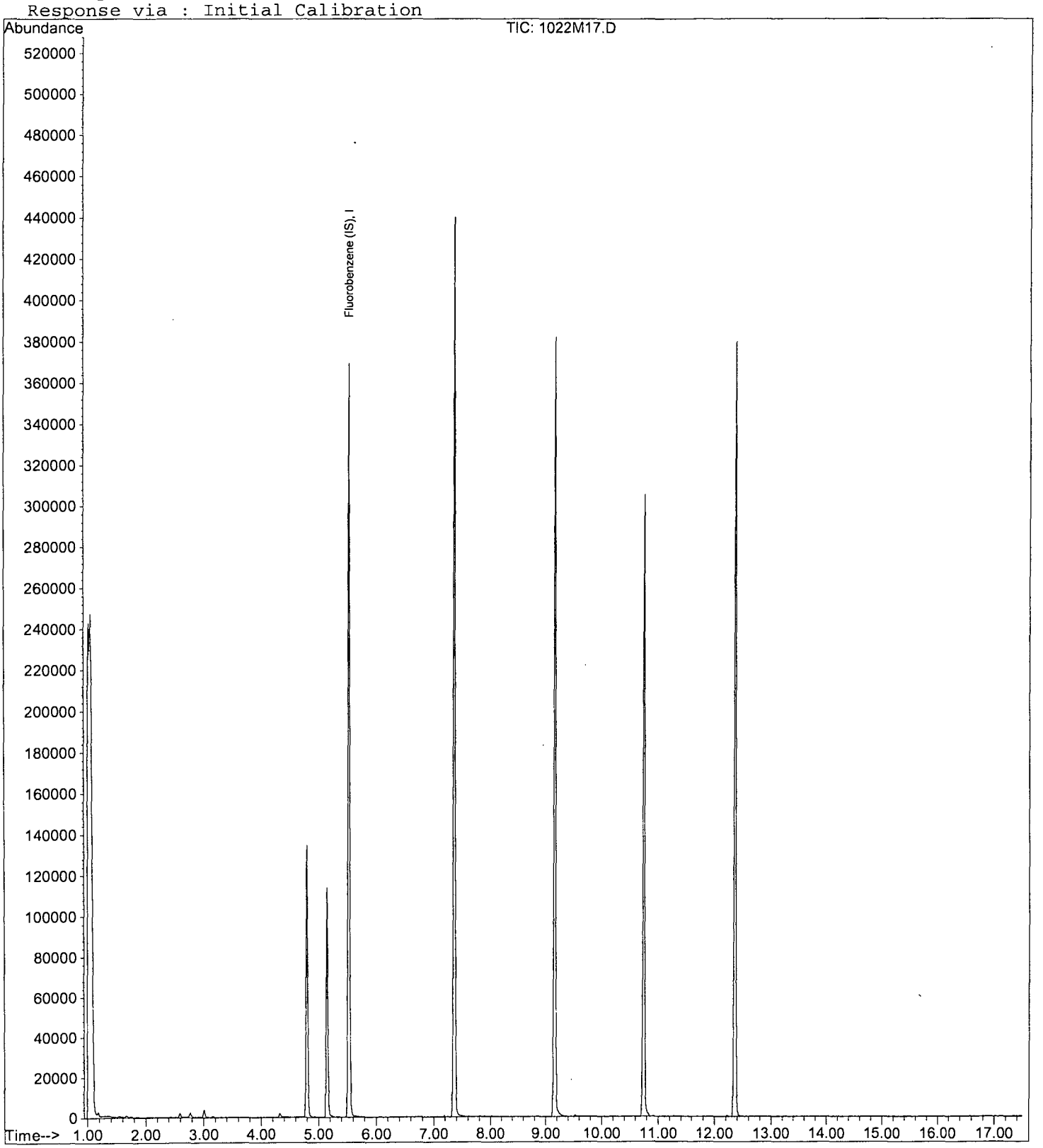
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M17.D Vial: 17
Acq On : 22 Oct 16 15:49 Operator: DG,CM,SV
Sample : AZ44698W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:51 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1022M17.D Vial: 17
Acq On : 22 Oct 16 15:49 Operator: DG,CM,SV
Sample : AZ44698W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 25 7:20 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	336993	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	246293	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	126630	25.00000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.80	111	81996	25.07272	ppb	0.00
Spiked Amount 25.000			Recovery = 100.292%			
3) 1,2-DCA-D4(S)	5.15	65	78690	25.13177	ppb	0.00
Spiked Amount 25.000			Recovery = 100.528%			
5) Toluene-D8(S)	7.36	98	322338	24.95610	ppb	0.00
Spiked Amount 25.000			Recovery = 99.824%			
6) 4-Bromofluorobenzene(S)	10.74	95	113746	24.30034	ppb	0.00
Spiked Amount 25.000			Recovery = 97.200%			

Target Compounds Qvalue

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

ORGANICS
Calibration Data

APPL, INC.

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

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

SDG No:
Initial Cal. Date: 08/25/16
Instrument: MAX

Initials:

			0825M17.D	0825M18.D	0825M19.D	0825M20.D	0825M21.D	0825M22.D	0825M23.D							
		Compound	1	2	3	4	5	6	7				Avg	%RSD		
1	I	Fluorobenzene (IS)														
2	TMHBL	Gasoline C6-C10	13.9	6.189	3.716	2.101	1.689	1.599	1.516				4.4	103	TMHBL	1.000
3																
4																
5																
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Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M17.D Vial: 17
Acq On : 25 Aug 16 18:23 Operator: DG,CM,SV
Sample : 20ug/L GAS STD 08/25/16R Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:53 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	478375	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	5321705m	27.86074	ppb	100

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

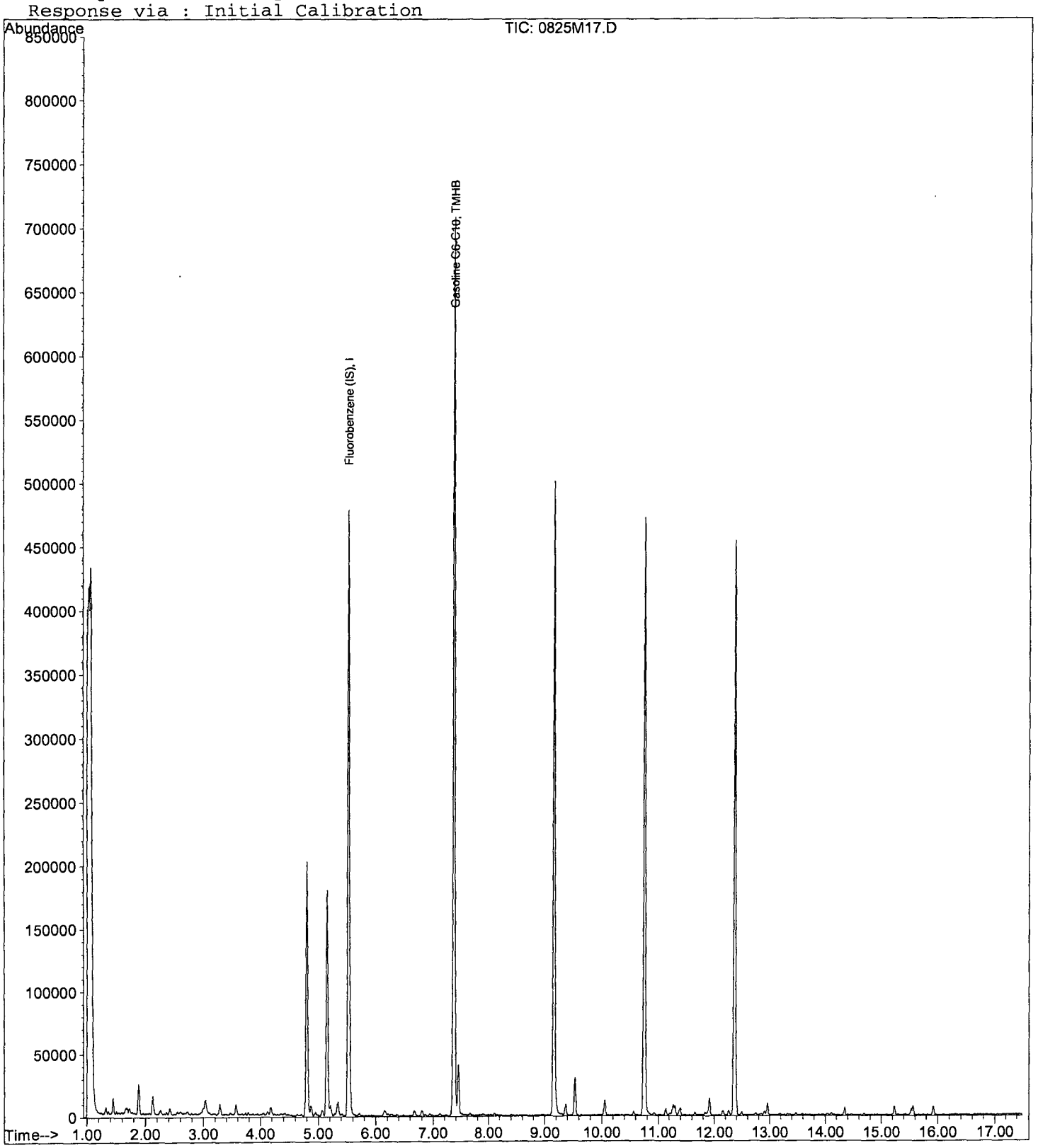
Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M17.D
Acq On : 25 Aug 16 18:23
Sample : 20ug/L GAS STD 08/25/16R
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 17
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Aug 26 12:53 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M18.D Vial: 18
Acq On : 25 Aug 16 18:45 Operator: DG,CM,SV
Sample : 50ug/L GAS STD 08/25/1S Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:48 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	484962	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	6002990m	52.22651	ppb	100

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

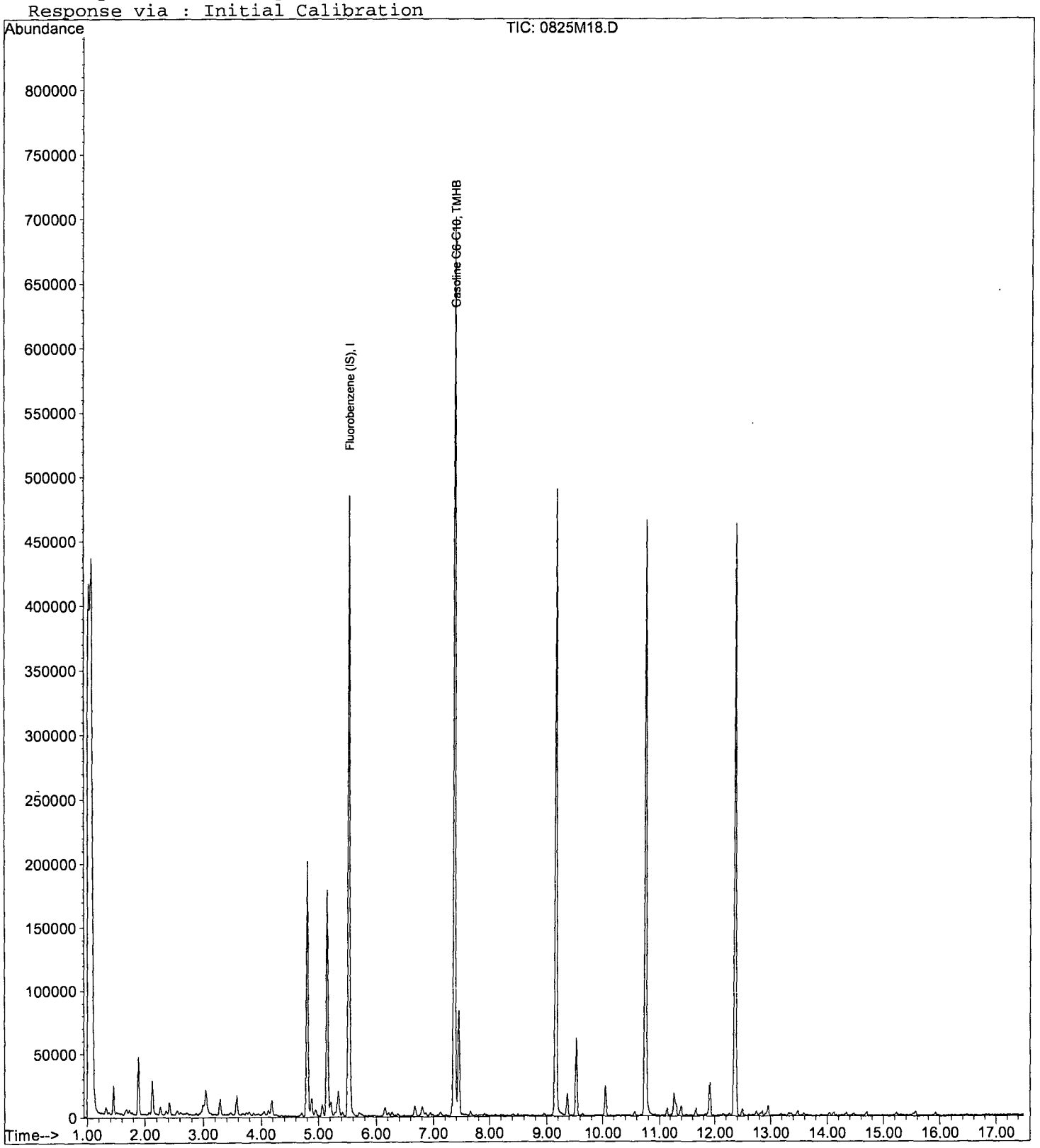
Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M18.D
Acq On : 25 Aug 16 18:45
Sample : 50ug/L GAS STD 08/25/1S
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 18
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Aug 26 12:48 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M19.D Vial: 19
Acq On : 25 Aug 16 19:06 Operator: DG,CM,SV
Sample : 100ug/L GAS STD 08/25/1T Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:49 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	472596	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	7025078m	100.55298	ppb	100

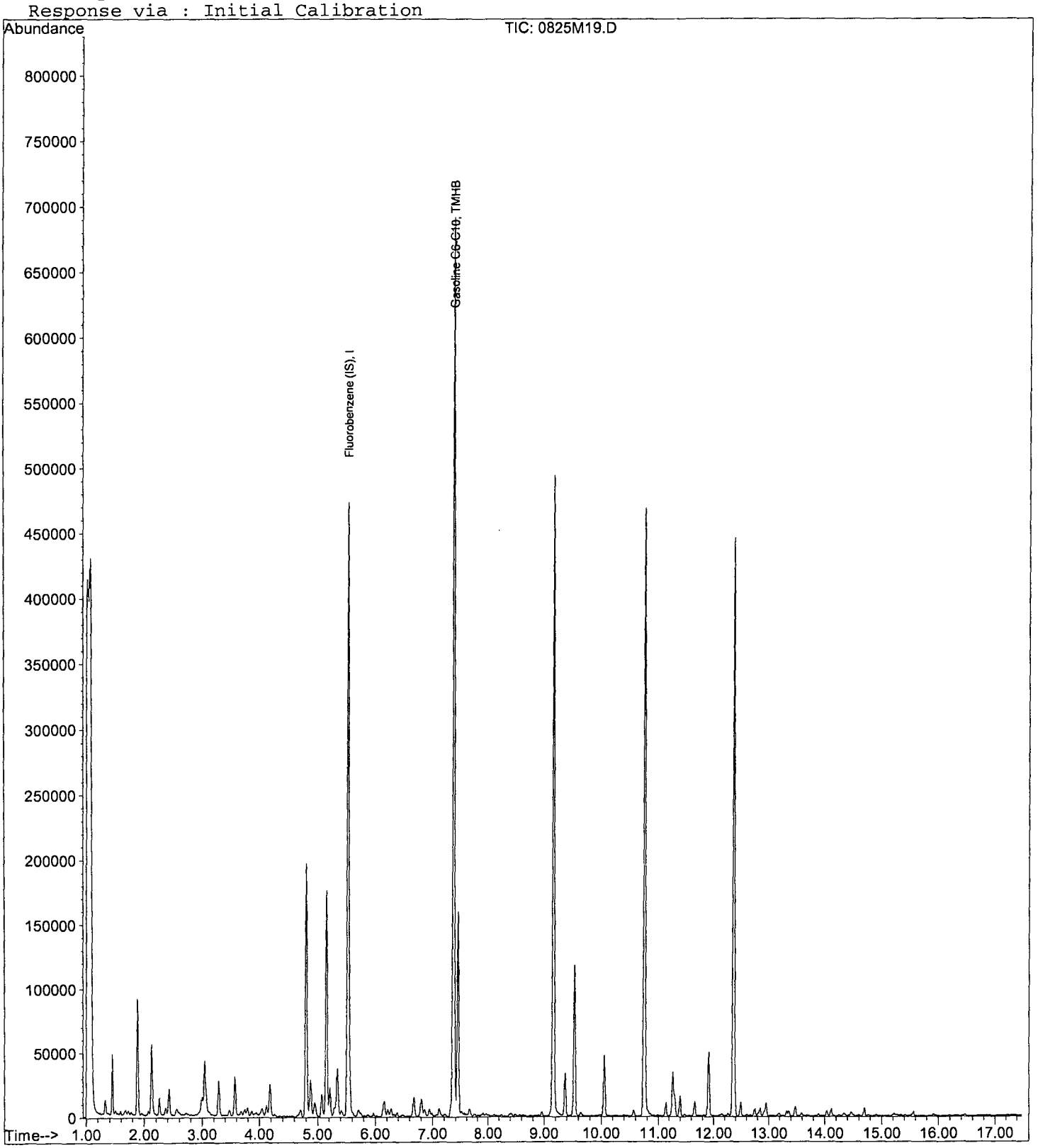
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M19.D Vial: 19
Acq On : 25 Aug 16 19:06 Operator: DG,CM,SV
Sample : 100ug/L GAS STD 08/25/1T Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:49 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M20.D Vial: 20
Acq On : 25 Aug 16 19:28 Operator: DG,CM,SV
Sample : 300ug/L GAS STD 08/25/1U Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:50 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	437133	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	11021977m	301.69041	ppb	100

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

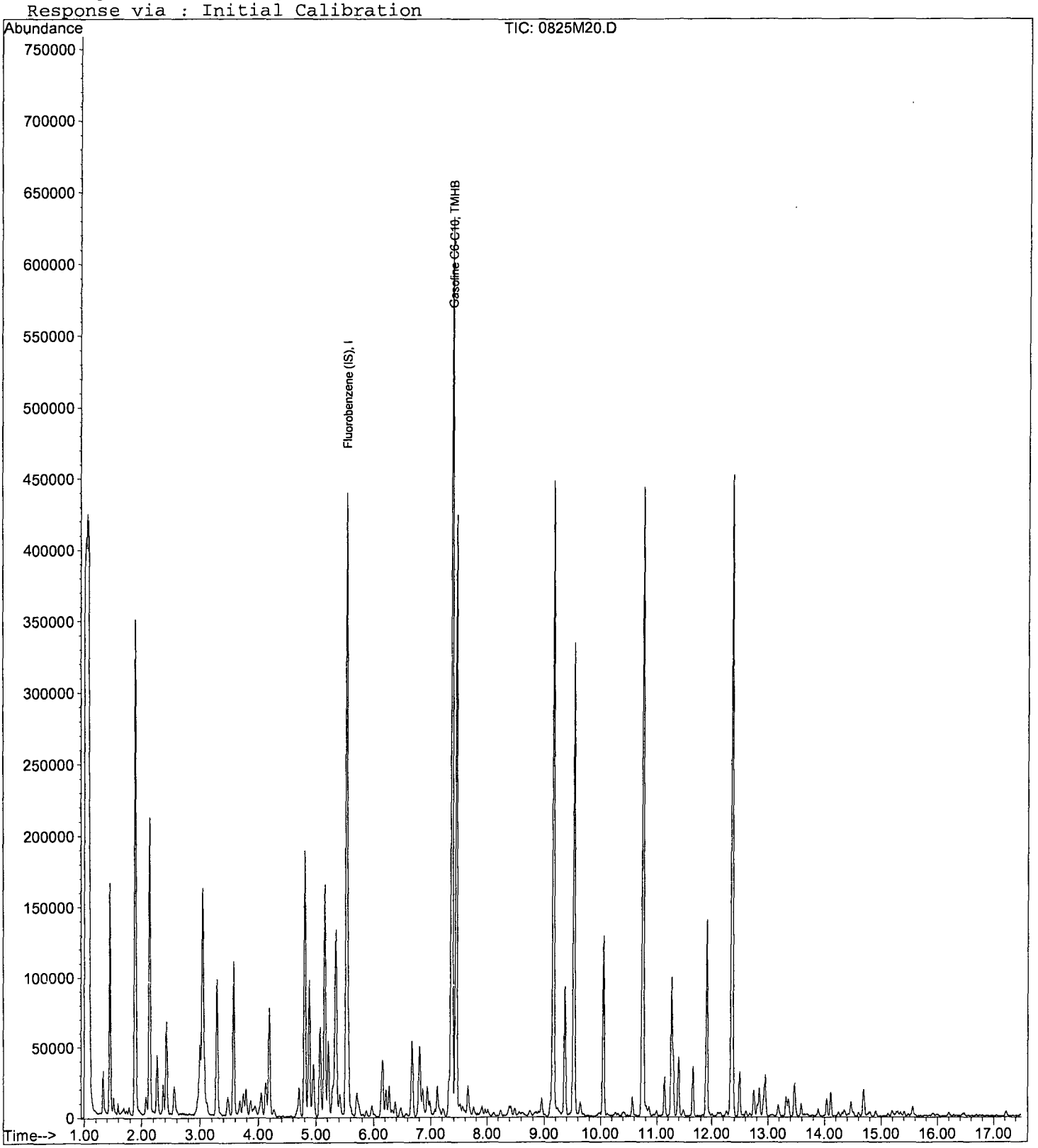
Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M20.D
Acq On : 25 Aug 16 19:28
Sample : 300ug/L GAS STD 08/25/1U
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 20
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Aug 26 12:50 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M21.D Vial: 21
Acq On : 25 Aug 16 19:50 Operator: DG,CM,SV
Sample : 600ug/L GAS STD 08/25/1V Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:56 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	458873	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	7.44	TIC	18605837m	599.67505	ppb	100

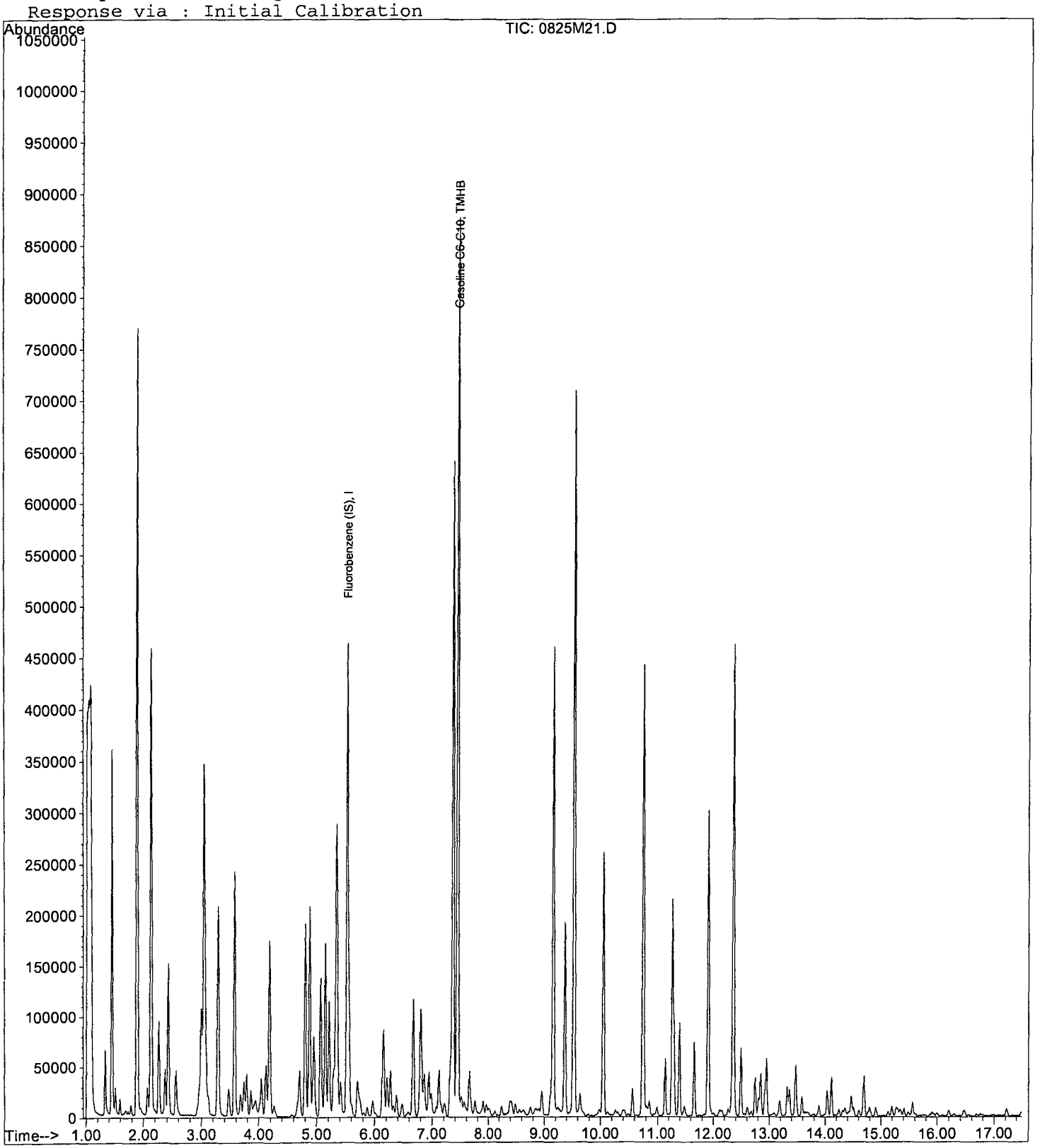
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M21.D Vial: 21
Acq On : 25 Aug 16 19:50 Operator: DG,CM,SV
Sample : 600ug/L GAS STD 08/25/1V Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:56 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M22.D Vial: 22
Acq On : 25 Aug 16 20:12 Operator: DG,CM,SV
Sample : 800ug/L GAS STD 08/25/1W Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 13:00 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	447661	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.44	TIC	22909499m	806.25064	ppb	100

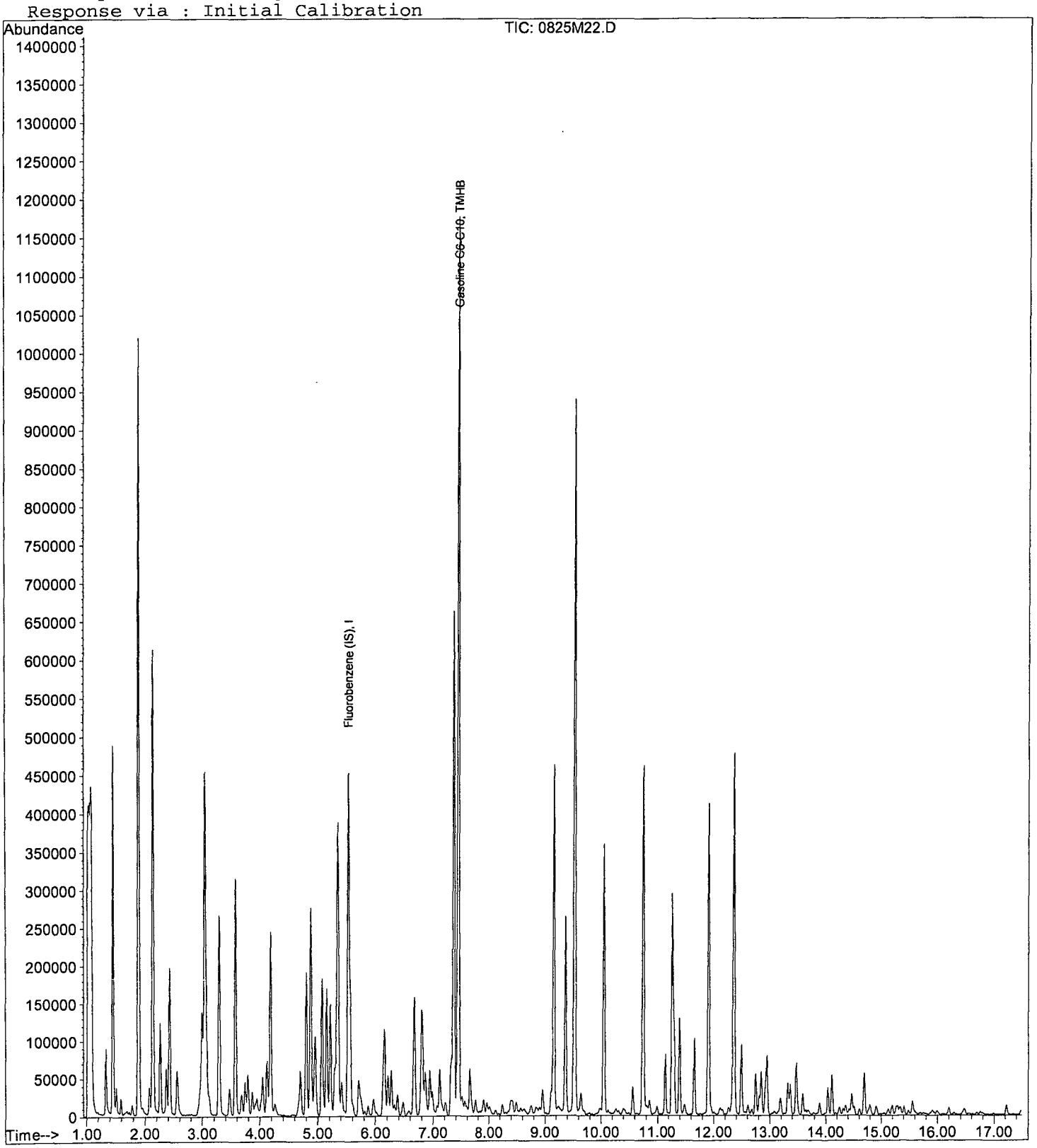
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M22.D Vial: 22
Acq On : 25 Aug 16 20:12 Operator: DG,CM,SV
Sample : 800ug/L GAS STD 08/25/1W Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 13:00 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M23.D Vial: 23
Acq On : 25 Aug 16 20:34 Operator: DG,CM,SV
Sample : 1000ug/L GAS STD 08/25/1X Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:58 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	457689	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	7.44	TIC	27762500m	990.53097	ppb	100

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

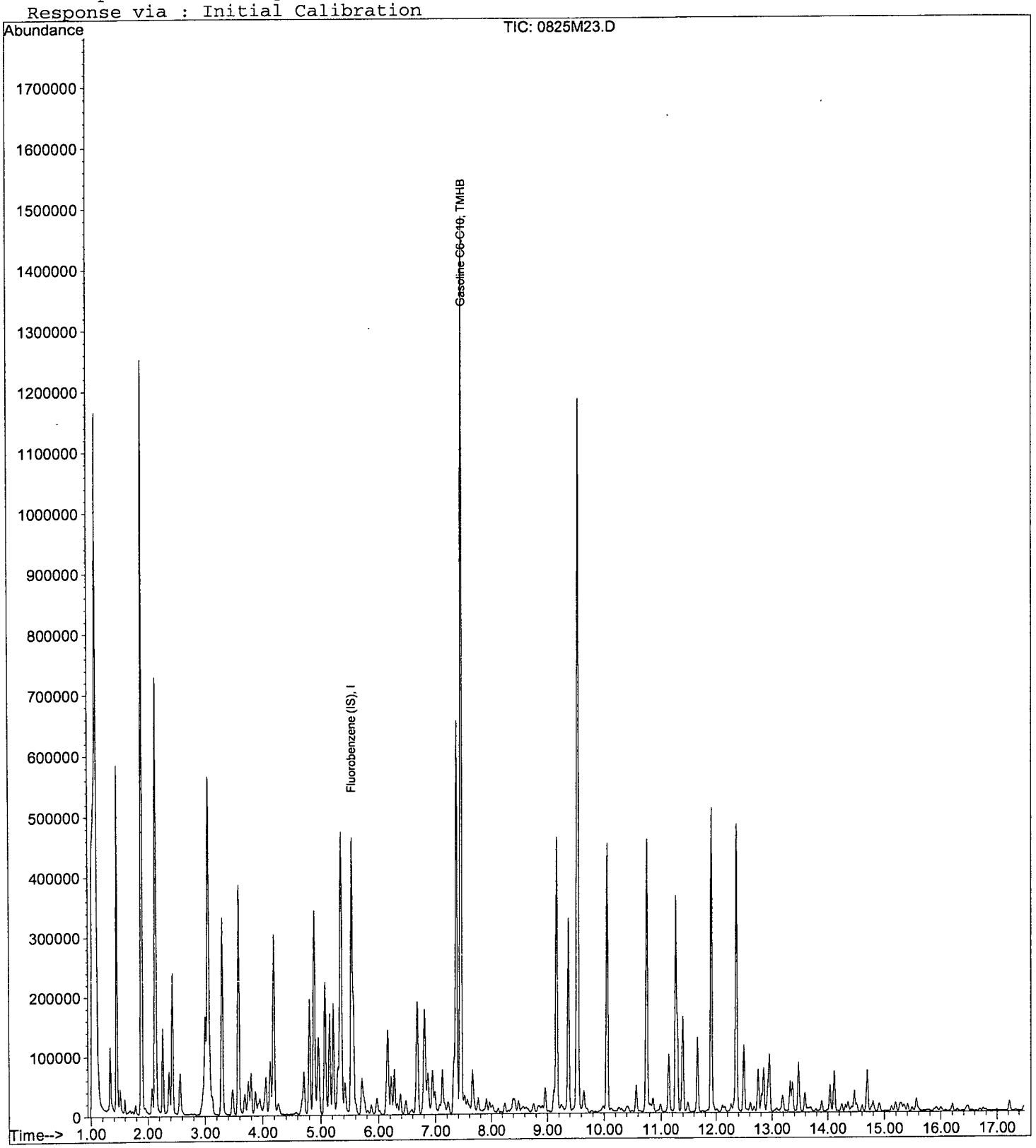
Quantitation Report

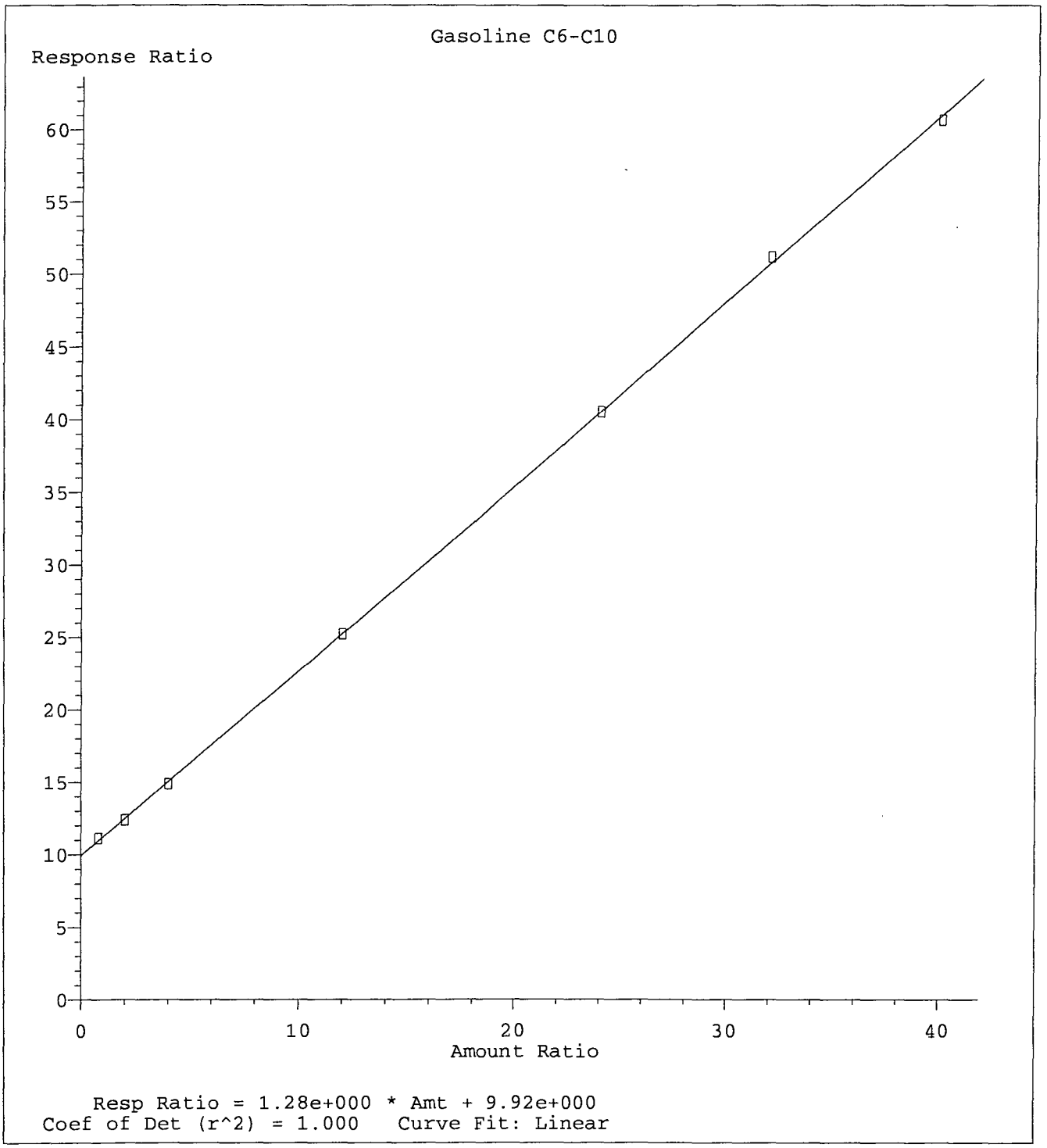
Data File : M:\MAX\DATA\M160825\0825M23.D
Acq On : 25 Aug 16 20:34
Sample : 1000ug/L GAS STD 08/25/1X
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 23
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Aug 26 12:58 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration





Method Name: M:\MAX\DATA\M160825\MGAS6825.M
Calibration Table Last Updated: Fri Aug 26 13:01:44 2016

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 08/25/16
Instrument: MAX
Initial Cal. Date: 08/25/16
Data File: 0825M27.D

		Compound	MEAN	CCRF	%D		%Drift
1	TMHB	Gasoline C6-C10	4.388	2.053	53	TMHBL	3.9
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
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31							
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33							
34							
35							
36							
37							
38							
39							
40							
		Average			53.0		

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M27.D Vial: 27
Acq On : 25 Aug 16 22:01 Operator: DG,CM,SV
Sample : (SS) 300ug/L GAS STD 08/25/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 13:10 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	434939	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	10715631m	288.24082	ppb	100

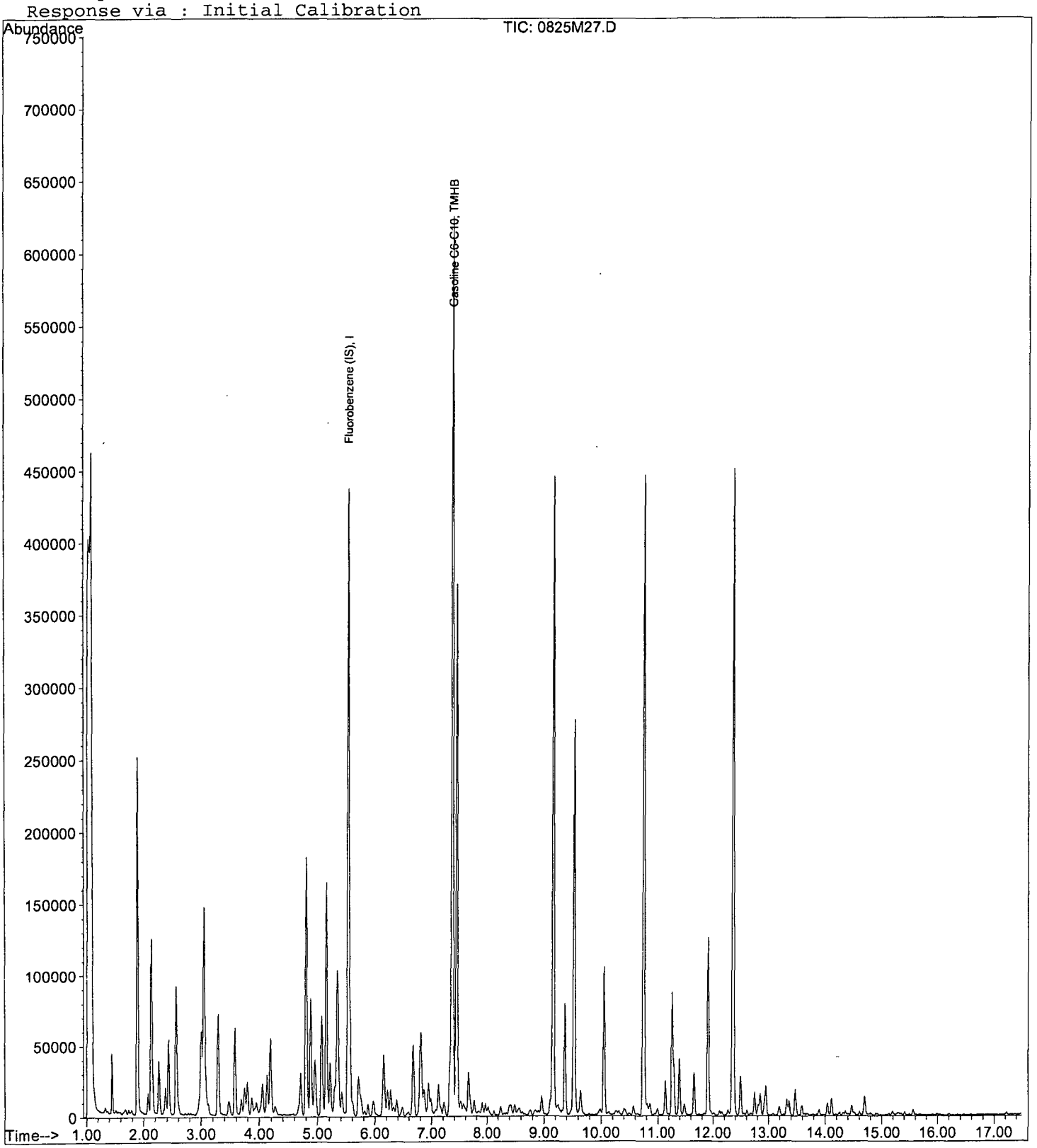
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M27.D Vial: 27
Acq On : 25 Aug 16 22:01 Operator: DG,CM,SV
Sample : (SS) 300ug/L GAS STD 08/25/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 13:10 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/20/16
Matrix: Instrument: MAX Initials:

			1020M06.D	1020M07.D	1020M08.D	1020M09.D	1020M10.D	1020M11.D	1020M13.D	1020M14.D						
		Compound	1	2	3	4	5	6	8	9			Avg	%RSD		
1	I	Fluorobenzene (IS)														
2	S	Dibromofluoromethane(S)	0.2790	0.2821	0.2231	0.2119	0.2367	0.2399	0.2367	0.2315			0.24	10	S	
3	S	1,2-DCA-D4(S)	0.2686	0.2704	0.2204	0.2059	0.2293	0.2330	0.2164	0.2143			0.23	11	S	
4	I	Chlorobenzene-D5 (IS)														
5	S	Toluene-D8(S)	1.467	1.539	1.254	1.156	1.274	1.291	1.281	1.226			1.3	9.7	S	
6	S	4-Bromofluorobenzene(S)	0.5378	0.5225	0.4311	0.4133	0.4691	0.4771	0.4691	0.4811			0.48	8.7	S	
7	I	1,4-Dichlorobenzene-D (IS)														
8																
9																
10																
11																
12																
13																
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35																

Data File : M:\MAX\DATA\M161020\1020M06.D Vial: 5
Acq On : 20 Oct 16 12:19 Operator: DG,CM,SV
Sample : 0.3ug/L VOC STD 10/20/16AA Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	333677	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	241772	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	125666	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	18620	5.75020 ppb	0.00
Spiked Amount 25.000			Recovery	= 23.000%	
3) 1,2-DCA-D4(S)	5.14	65	17923	5.78108 ppb	0.00
Spiked Amount 25.000			Recovery	= 23.124%	
5) Toluene-D8(S)	7.36	98	70914	5.59298 ppb	0.00
Spiked Amount 25.000			Recovery	= 22.372%	
6) 4-Bromofluorobenzene(S)	10.74	95	26006	5.65973 ppb	0.00
Spiked Amount 25.000			Recovery	= 22.640%	

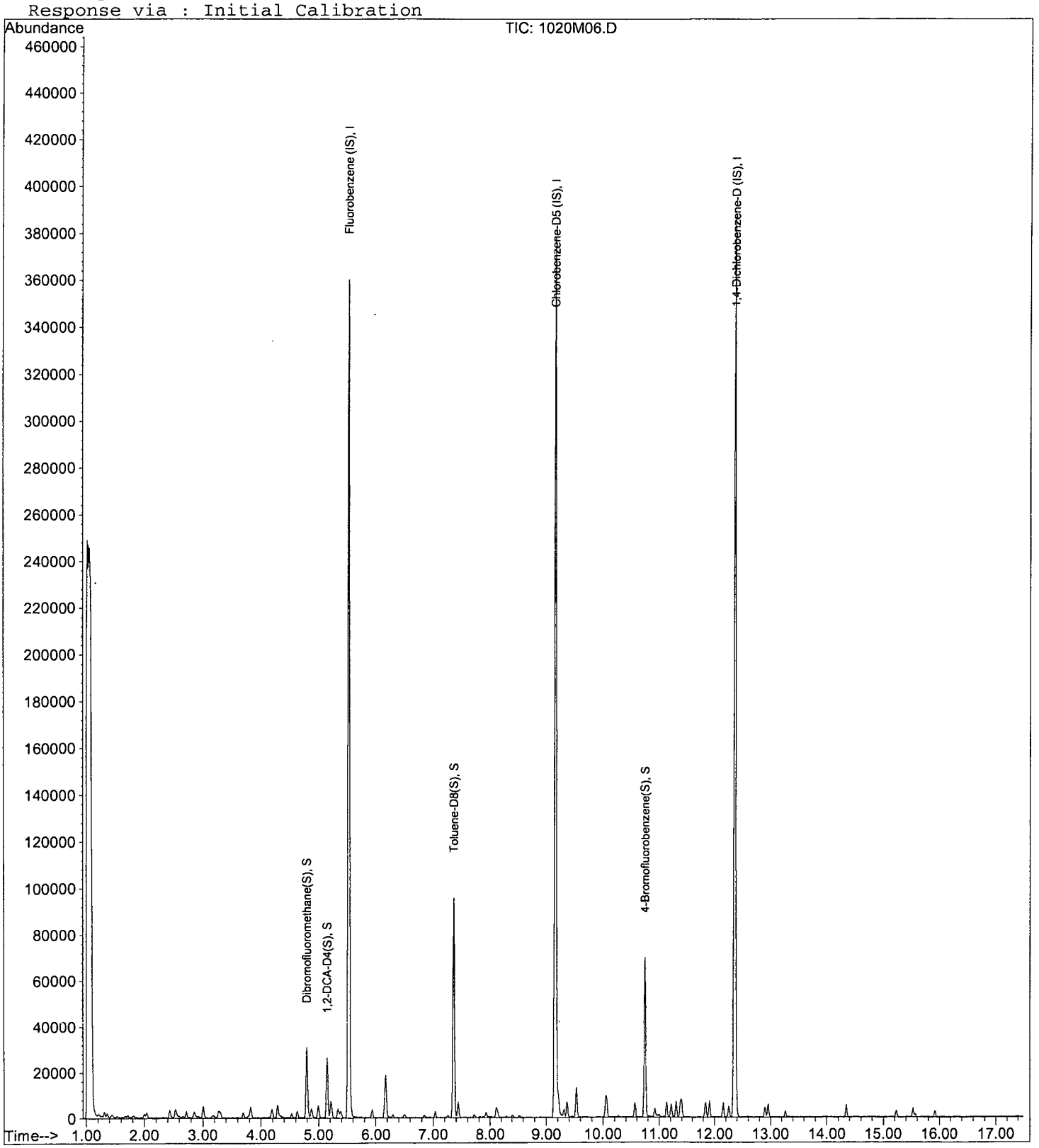
Target Compounds Qvalue

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

Data File : M:\MAX\DATA\M161020\1020M06.D Vial: 5
Acq On : 20 Oct 16 12:19 Operator: DG,CM,SV
Sample : 0.3ug/L VOC STD 10/20/16AA Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Data File : M:\MAX\DATA\M161020\1020M07.D Vial: 6
Acq On : 20 Oct 16 12:41 Operator: DG,CM,SV
Sample : 0.5ug/L VOC STD 10/20/16AB Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	335960	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	237803	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	125548	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.79	111	18957	5.81449 ppb	0.00
Spiked Amount 25.000			Recovery =	23.256%	
3) 1,2-DCA-D4(S)	5.14	65	18170	5.82092 ppb	0.00
Spiked Amount 25.000			Recovery =	23.284%	
5) Toluene-D8(S)	7.36	98	73203	5.86988 ppb	0.00
Spiked Amount 25.000			Recovery =	23.480%	
6) 4-Bromofluorobenzene(S)	10.74	95	24850	5.49841 ppb	0.00
Spiked Amount 25.000			Recovery =	21.992%	

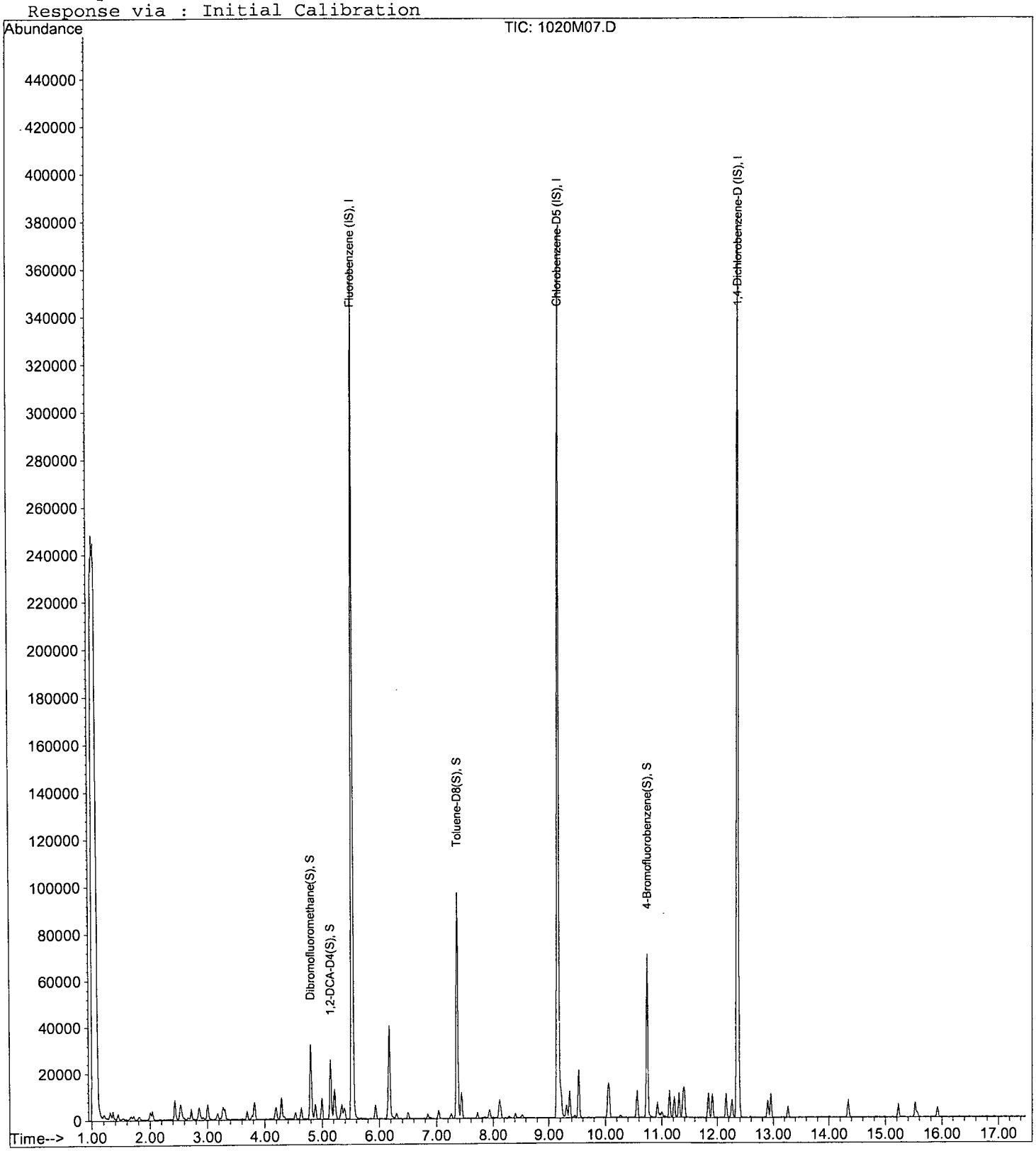
Target Compounds Qvalue

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

Data File : M:\MAX\DATA\M161020\1020M07.D Vial: 6
Acq On : 20 Oct 16 12:41 Operator: DG,CM,SV
Sample : 0.5ug/L VOC STD 10/20/16AB Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Data File : M:\MAX\DATA\M161020\1020M08.D Vial: 7
Acq On : 20 Oct 16 13:03 Operator: DG,CM,SV
Sample : 1.0ug/L VOC STD 10/20/16AC Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	329092	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	237074	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	124990	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	29374	9.19762 ppb	0.00
Spiked Amount 25.000			Recovery	= 36.792%	
3) 1,2-DCA-D4(S)	5.15	65	29015	9.48920 ppb	0.00
Spiked Amount 25.000			Recovery	= 37.956%	
5) Toluene-D8(S)	7.36	98	118927	9.56564 ppb	0.00
Spiked Amount 25.000			Recovery	= 38.264%	
6) 4-Bromofluorobenzene(S)	10.74	95	40878	9.07265 ppb	0.00
Spiked Amount 25.000			Recovery	= 36.292%	

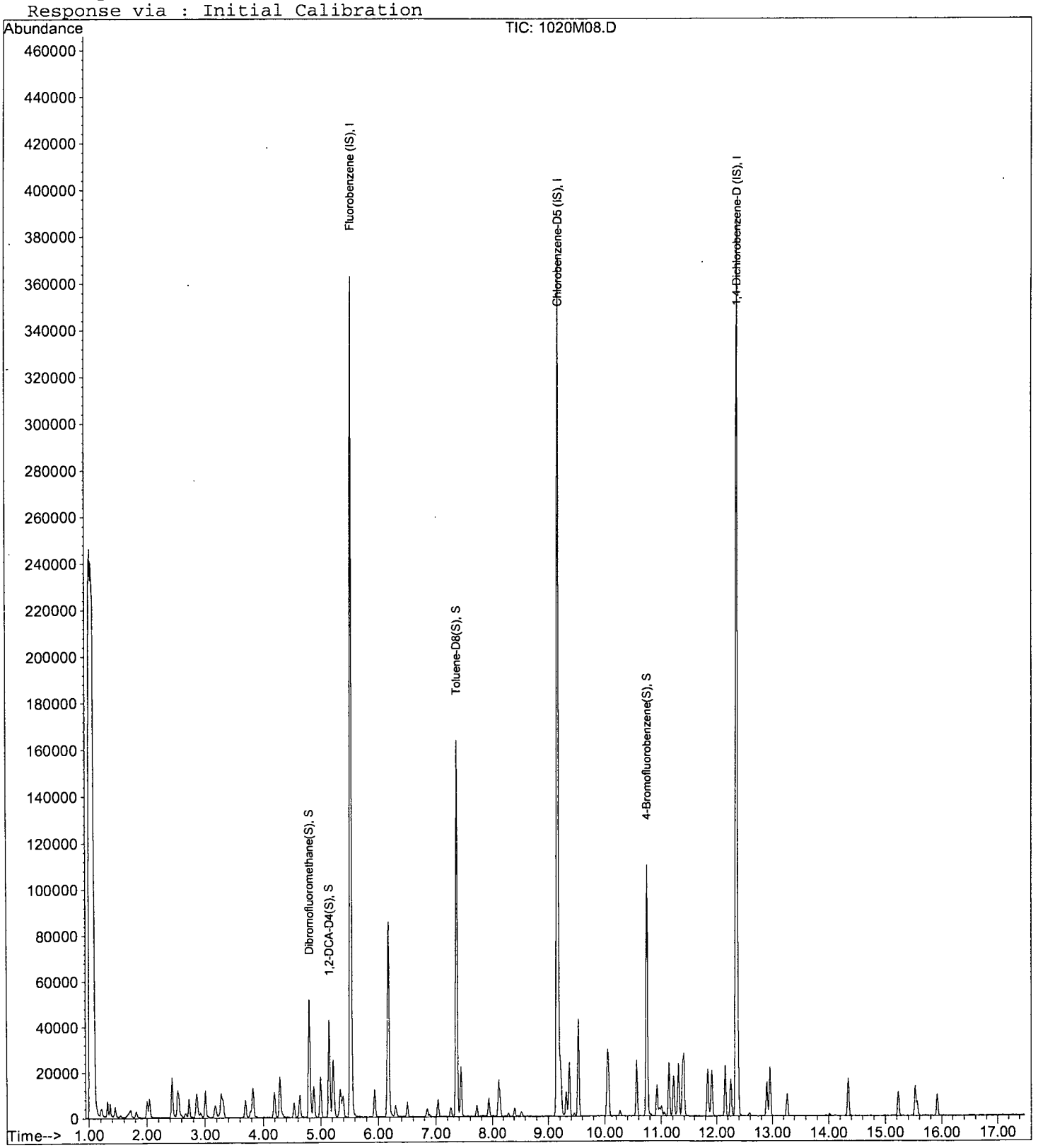
Target Compounds Qvalue

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

Data File : M:\MAX\DATA\M161020\1020M08.D Vial: 7
Acq On : 20 Oct 16 13:03 Operator: DG,CM,SV
Sample : 1.0ug/L VOC STD 10/20/16AC Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Data File : M:\MAX\DATA\M161020\1020M09.D Vial: 8
Acq On : 20 Oct 16 13:25 Operator: DG,CM,SV
Sample : 2.0ug/L VOC STD 10/20/16AD Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	338019	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	242362	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	128498	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	28649	8.73369 ppb	0.00
Spiked Amount 25.000			Recovery	= 34.936%	
3) 1,2-DCA-D4(S)	5.14	65	27838	8.86383 ppb	0.00
Spiked Amount 25.000			Recovery	= 35.456%	
5) Toluene-D8(S)	7.36	98	112076	8.81791 ppb	0.00
Spiked Amount 25.000			Recovery	= 35.272%	
6) 4-Bromofluorobenzene(S)	10.74	95	40068	8.69884 ppb	0.00
Spiked Amount 25.000			Recovery	= 34.796%	

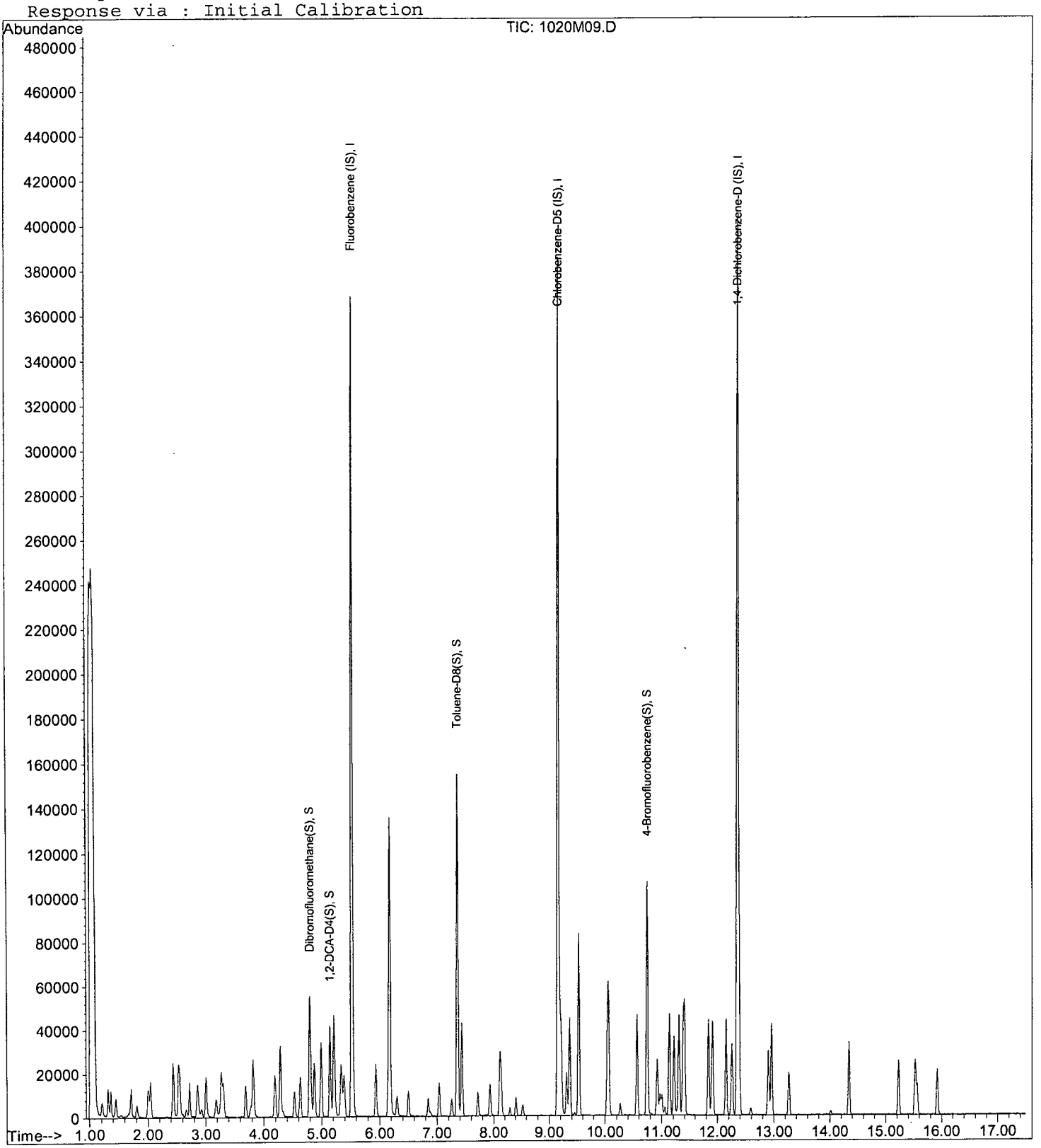
Target Compounds Qvalue

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

Data File : M:\MAX\DATA\M161020\1020M09.D Vial: 8
Acq On : 20 Oct 16 13:25 Operator: DG,CM,SV
Sample : 2.0ug/L VOC STD 10/20/16AD Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Data File : M:\MAX\DATA\M161020\1020M10.D Vial: 9
Acq On : 20 Oct 16 13:47 Operator: DG,CM,SV
Sample : 5.0ug/L VOC STD 10/20/16AE Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	344045	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	251263	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	137533	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	81437	24.39137 ppb	0.00
Spiked Amount 25.000			Recovery =	97.564%	
3) 1,2-DCA-D4(S)	5.15	65	78880	24.67607 ppb	0.00
Spiked Amount 25.000			Recovery =	98.704%	
5) Toluene-D8(S)	7.36	98	320158	24.29703 ppb	0.00
Spiked Amount 25.000			Recovery =	97.188%	
6) 4-Bromofluorobenzene(S)	10.74	95	117865	24.68224 ppb	0.00
Spiked Amount 25.000			Recovery =	98.728%	

Target Compounds Qvalue

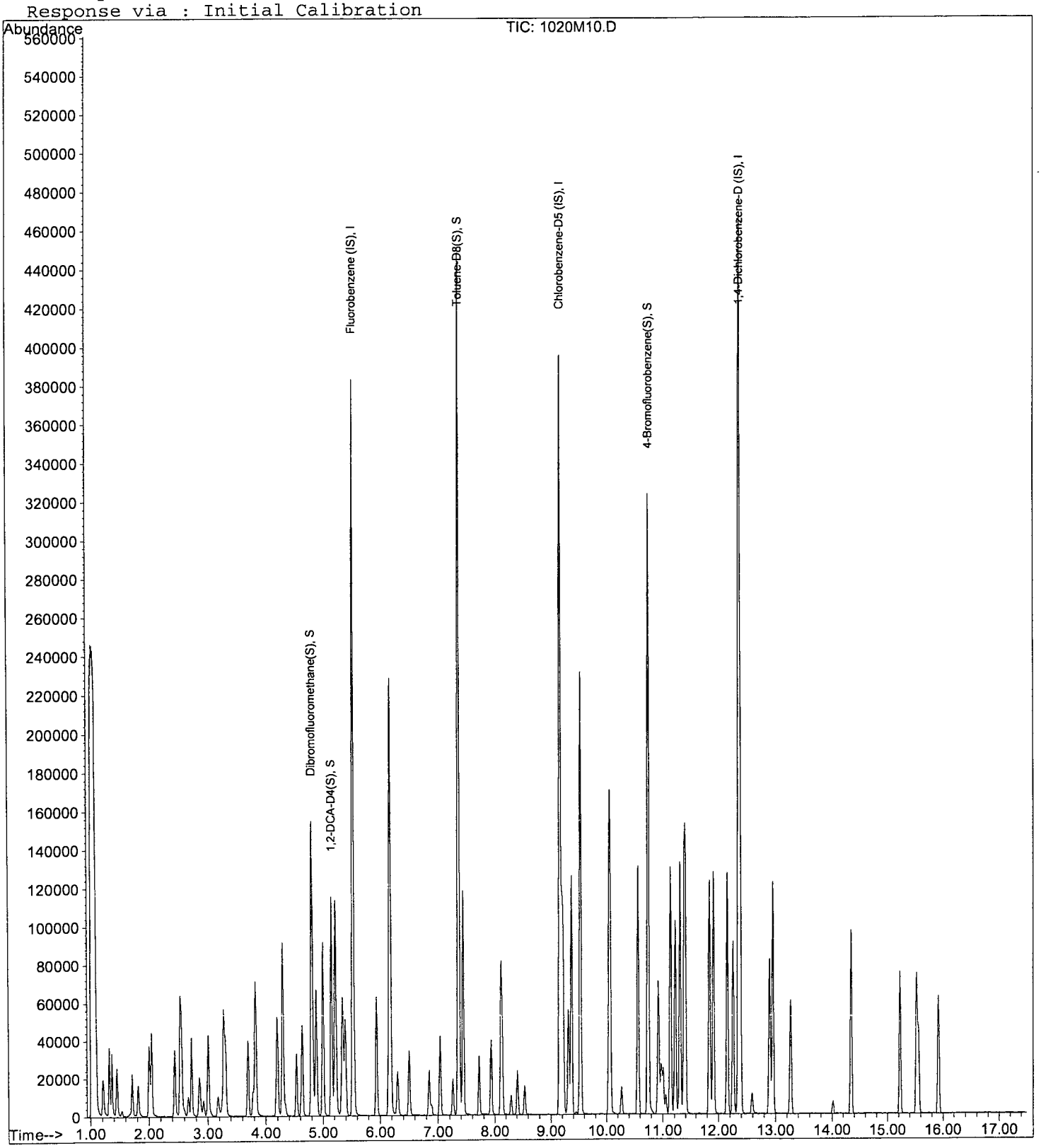
(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M161020\1020M10.D
Acq On : 20 Oct 16 13:47
Sample : 5.0ug/L VOC STD 10/20/16AE
Misc : 5uL-25ppb

Vial: 9
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Data File : M:\MAX\DATA\M161020\1020M11.D Vial: 10
Acq On : 20 Oct 16 14:09 Operator: DG,CM,SV
Sample : 10ug/L VOC STD 10/20/16AF Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	346592	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	255148	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	139924	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.79	111	83132	24.71606 ppb	0.00
Spiked Amount 25.000			Recovery = 98.864%		
3) 1,2-DCA-D4(S)	5.14	65	80773	25.08257 ppb	0.00
Spiked Amount 25.000			Recovery = 100.332%		
5) Toluene-D8(S)	7.36	98	329318	24.61165 ppb	0.00
Spiked Amount 25.000			Recovery = 98.448%		
6) 4-Bromofluorobenzene(S)	10.74	95	121724	25.10223 ppb	0.00
Spiked Amount 25.000			Recovery = 100.408%		

Target Compounds Qvalue

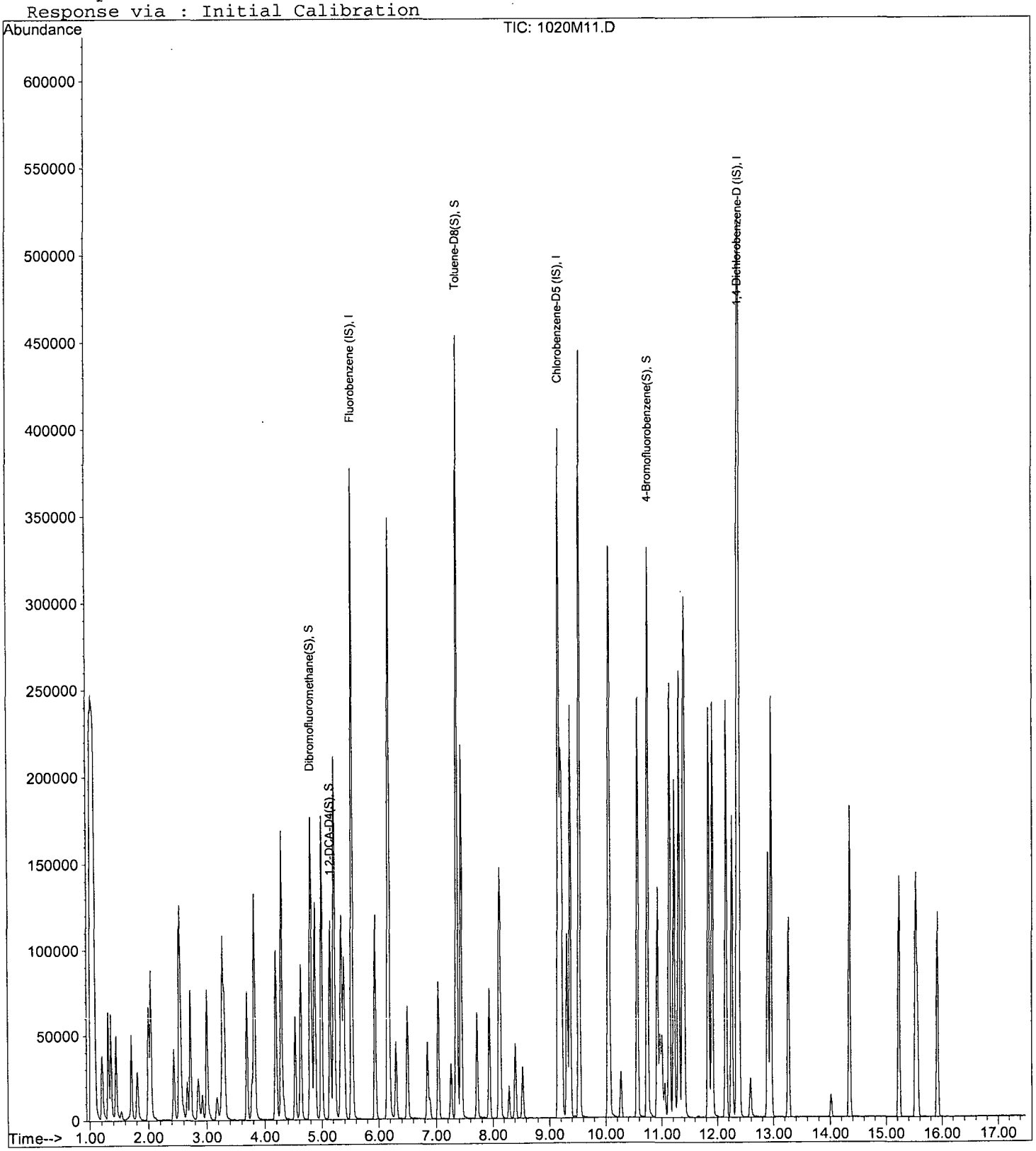
(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M161020\1020M11.D
Acq On : 20 Oct 16 14:09
Sample : 10ug/L VOC STD 10/20/16AF
Misc : 5uL-25ppb

Vial: 10
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Data File : M:\MAX\DATA\M161020\1020M13.D Vial: 12
Acq On : 20 Oct 16 14:52 Operator: DG,CM,SV
Sample : 40ug/L VOC STD 10/20/16AH Inst : MAX
Misc : 10uL-50ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	338131	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	252832	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	143737	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	160038	48.77168 ppb	0.00
Spiked Amount 25.000			Recovery = 195.088%		
3) 1,2-DCA-D4(S)	5.15	65	146335	46.57873 ppb	0.00
Spiked Amount 25.000			Recovery = 186.316%		
5) Toluene-D8(S)	7.36	98	647863	48.86169 ppb	0.00
Spiked Amount 25.000			Recovery = 195.448%		
6) 4-Bromofluorobenzene(S)	10.74	95	237204	49.36489 ppb	0.00
Spiked Amount 25.000			Recovery = 197.460%		

Target Compounds Qvalue

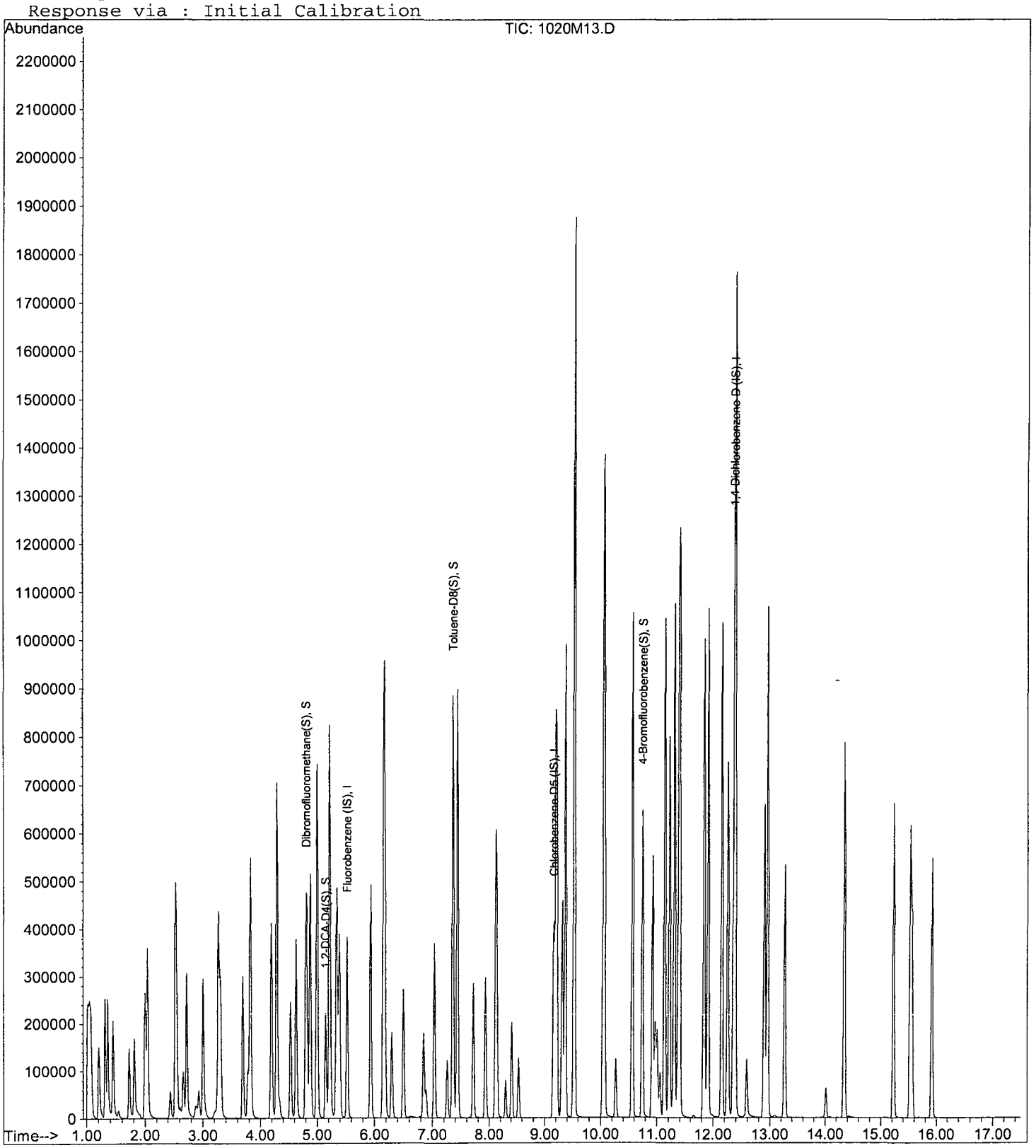
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M13.D Vial: 12
Acq On : 20 Oct 16 14:52 Operator: DG,CM,SV
Sample : 40ug/L VOC STD 10/20/16AH Inst : MAX
Misc : 10uL-50ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M14.D Vial: 13
Acq On : 20 Oct 16 15:14 Operator: DG,CM,SV
Sample : 100ug/L VOC STD 10/20/16AI Inst : MAX
Misc : 20uL-100ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	379136	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	291939	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.36	152	180096	25.00000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.80	111	351079	95.42000	ppb	0.00
Spiked Amount 25.000			Recovery = 381.680%			
3) 1,2-DCA-D4(S)	5.14	65	324922	92.23770	ppb	0.00
Spiked Amount 25.000			Recovery = 368.952%			
5) Toluene-D8(S)	7.36	98	1432239	93.54934	ppb	0.00
Spiked Amount 25.000			Recovery = 374.196%			
6) 4-Bromofluorobenzene(S)	10.74	95	561796	101.25460	ppb	0.00
Spiked Amount 25.000			Recovery = 405.020%			

Target Compounds Qvalue

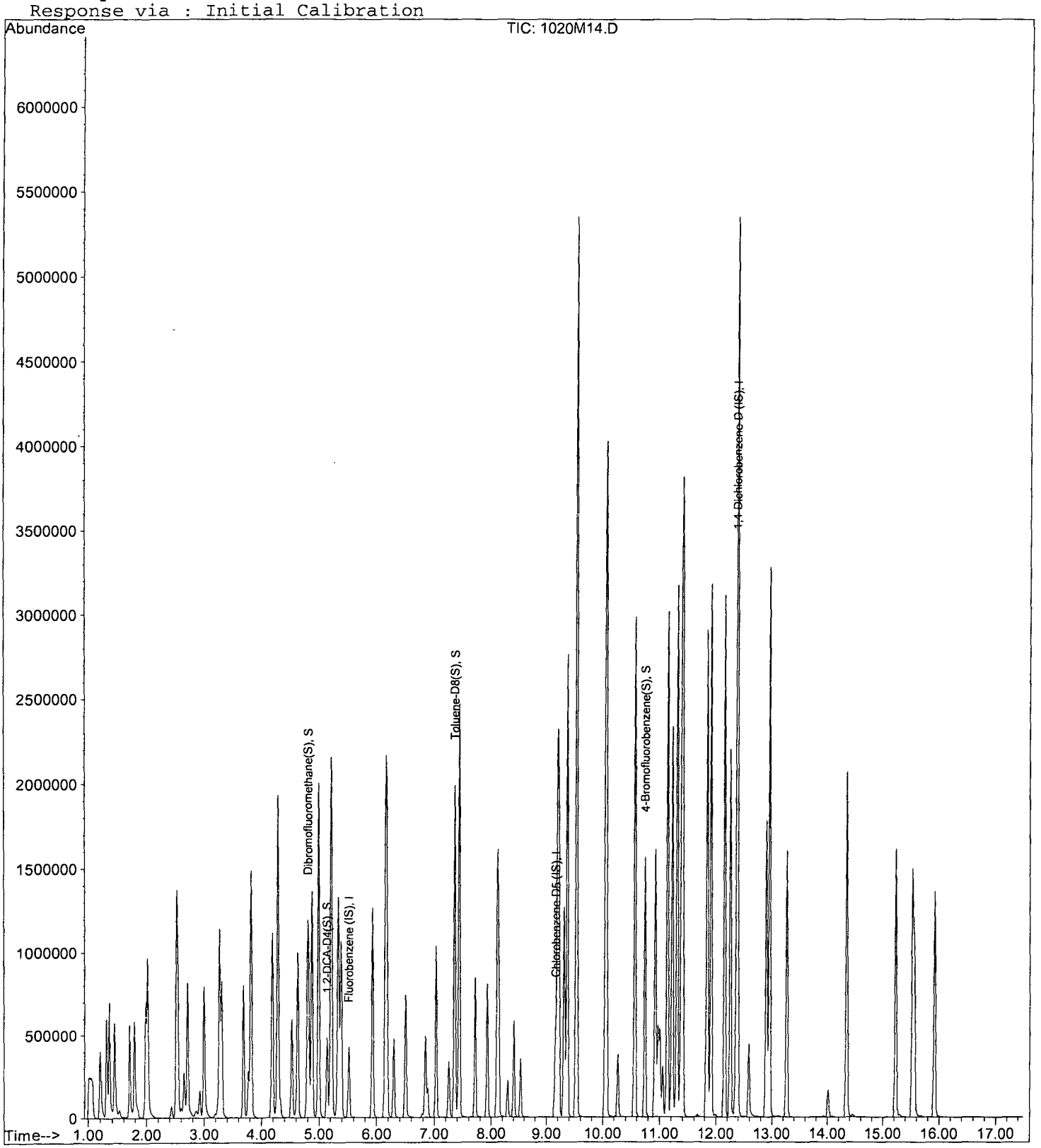
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M14.D Vial: 13
Acq On : 20 Oct 16 15:14 Operator: DG,CM,SV
Sample : 100ug/L VOC STD 10/20/16AI Inst : MAX
Misc : 20uL-100ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/20/16
Matrix: Instrument: MAX
Initial Cal. Date: 10/20/16
Data File: 1020M21.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Dichlorodifluoromethane	0.1431	0.1420	0.77	TM	
2	TM	Freon 114	0.2437	0.2694	11	TM	
3	TM**	Chloromethane	0.0262	0.0248	5.6	TM**	
4	TM*	Vinyl chloride	0.2078	0.2017	2.9	TM*	
5	TM	Bromomethane	0.1886	0.1924	2.0	TM	
6	TM	Chloroethane	0.1131	0.1070	5.4	TM	
7	TM	Dichlorofluoromethane	0.5871	0.5679	3.3	TM	
8	TM	Trichlorofluoromethane	0.4132	0.4089	1.0	TM	
9	TM	Acrolein	0.0115	0.0115	0.51	TM	
10	TML	Acetone	0.0802	0.0615	23	TML	18
11	TM	Freon-113	0.1231	0.1218	1.0	TM	
12	TM*	1,1-DCE	0.4184	0.4168	0.38	TM*	
13	TM	t-Butanol	0.0126	0.0128	1.7	TM	
14	TM	Methyl Acetate	0.1364	0.1387	1.7	TM	
15	TML	Iodomethane	0.1892	0.1990	5.2	TML	9.5
16	TM	Acrylonitrile	0.0587	0.0621	5.9	TM	
17	TML	Methylene chloride	0.2965	0.2799	5.6	TML	3.2
18	TM	Carbon disulfide	0.7818	0.7803	0.19	TM	
19	TM	Methyl t-butyl ether (MtBE)	0.2599	0.2630	1.2	TM	
20	TM	Trans-1,2-DCE	0.2621	0.2732	4.2	TM	
21	TM	Diisopropyl Ether	0.8910	0.8992	0.93	TM	
22	TM**	1,1-DCA	0.5109	0.4995	2.2	TM**	
23	TM	Vinyl Acetate	0.1435	0.1529	6.5	TM	
24	TM	Ethyl tert Butyl Ether	0.6311	0.6543	3.7	TM	
25	TM	MEK (2-Butanone)	0.0773	0.0714	7.6	TM	
26	TM	Cis-1,2-DCE	0.2979	0.2969	0.31	TM	
27	TM	2,2-Dichloropropane	0.1587	0.1670	5.2	TM	
28	TM*	Chloroform	0.4816	0.4820	0.09	TM*	
29	TM	Bromochloromethane	0.1165	0.1212	4.0	TM	
30	TM	1,1,1-TCA	0.3976	0.4035	1.5	TM	
31	TM	Cyclohexane	0.2684	0.2688	0.14	TM	
32	TM	1,1-Dichloropropene	0.3710	0.3883	4.7	TM	
33	TM	2,2,4-Trimethylpentane	0.9191	0.9797	6.6	TM	
34	TM	Carbon Tetrachloride	0.3081	0.3106	0.82	TM	
35	TM	Tert Amyl Methyl Ether	0.5403	0.5611	3.8	TM	
36	TM	1,2-DCA	0.3143	0.3100	1.4	TM	
37	TM	Benzene	1.164	1.134	2.6	TM	
38	TM	TCE	0.2859	0.2852	0.23	TM	
39	TM	2-Pentanone	0.1197	0.1205	0.67	TM	
40	TM*	1,2-Dichloropropane	0.2943	0.2993	1.7	TM*	
		Average			3.4		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/20/16
Instrument: MAX
Cal. Date: 10/20/16
Data File: 1020M21.D

		Compound	MEAN	CCRF	%D		%Drift	
41	TM	Bromodichloromethane	0.3202	0.3272	2.2	TM		
42	TM	Methyl Cyclohexane	0.4617	0.4850	5.1	TM		
43	TM	Dibromomethane	0.1288	0.1326	2.9	TM		
44	TML	MIBK (methyl isobutyl ketone)	0.2145	0.1918	11	TML	7.1	
45	TM	1-Bromo-2-chloroethane	0.1582	0.1617	2.2	TM		
46	TM	2-Chloroethyl vinyl ether	0.0000	0.0056	0.00	TM		
47	TM	Cis-1,3-Dichloropropene	0.3541	0.3719	5.0	TM		
48	TM*	Toluene	1.310	1.308	0.15	TM*		
49	TM	Trans-1,3-Dichloropropene	0.1295	0.1422	9.8	TM		
50	TM	1,1,2-TCA	0.1609	0.1630	1.3	TM		
51	TM	2-Hexanone	0.0557	0.0618	11	TM		
52	TM	1,2-EDB	0.2310	0.2388	3.4	TM		
53	TM	Tetrachloroethene	0.1878	0.1878	0.04	TM		
54	TM	1-Chlorohexane	0.5210	0.5550	6.5	TM		
55	TM	1,1,1,2-Tetrachloroethane	0.3214	0.3450	7.4	TM		
56	TM	m&p-Xylene	0.7771	0.8015	3.1	TM		
57	TM	o-Xylene	0.7601	0.7577	0.31	TM		
58	TM	Styrene	1.221	1.315	7.7	TM		
59	TM	1,3-Dichloropropane	0.4695	0.4842	3.1	TM		
60	TM	Dibromochloromethane	0.2738	0.2865	4.6	TM		
61	TM**	Chlorobenzene	1.117	1.116	0.13	TM**		
62	TM*	Ethylbenzene	1.973	2.048	3.8	TM*		
63	TM**	Bromoform	0.1503	0.1579	5.0	TM**		
64	TM	Isopropylbenzene	3.559	3.537	0.62	TM		
65	TM**	1,1,2,2-Tetrachloroethane	0.5109	0.5366	5.0	TM**		
66	TML	1,2,3-Trichloropropane	0.1746	0.1679	3.8	TML	11	
67	TM	t-1,4-Dichloro-2-Butene	0.1097	0.1084	1.1	TM		
68	TM	Bromobenzene	0.8210	0.8197	0.15	TM		
69	TM	n-Propylbenzene	4.258	4.486	5.3	TM		
70	TM	4-Ethyltoluene	3.517	3.683	4.7	TM		
71	TM	2-Chlorotoluene	2.310	2.361	2.2	TM		
72	TM	1,3,5-Trimethylbenzene	2.973	3.085	3.8	TM		
73	TM	4-Chlorotoluene	2.798	2.837	1.4	TM		
74	TM	Tert-Butylbenzene	2.613	2.650	1.4	TM		
75	TM	1,2,4-Trimethylbenzene	2.961	3.125	5.5	TM		
76	TM	Sec-Butylbenzene	3.753	3.906	4.1	TM		
77	TM	p-Isopropyltoluene	3.360	3.470	3.3	TM		
78	TM	Benzyl Chloride	0.3025	0.3846	27	TM		*
79	TM	1,3-DCB	1.670	1.668	0.16	TM		
80	TM	1,4-DCB	1.679	1.723	2.6	TM		
		Average			4.2			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/20/16
Instrument: MAX
Cal. Date: 10/20/16
Data File: 1020M21.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	n-Butylbenzene	3.004	3.281	9.2	TM	
82	TM	1,2-DCB	1.439	1.512	5.0	TM	
83	TM	Hexachloroethane	0.3947	0.4013	1.7	TM	
84	TM	1,2-Dibromo-3-chloropropane	0.0655	0.0672	2.6	TM	
85	TM	1,2,4-Trichlorobenzene	1.000	1.127	13	TM	
86	TM	Hexachlorobutadiene	0.6099	0.6491	6.4	TM	
87	TM	Naphthalene	0.7142	0.8270	16	TM	
88	TM	1,2,3-Trichlorobenzene	0.8579	0.9450	10	TM	
89							
90							
91							
92							
93							
94							
95							
96							
97							
98							
99							
100							
101							
102							
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107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			8.0		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M21.D Vial: 20
Acq On : 20 Oct 16 17:47 Operator: DG,CM,SV
Sample : (SS) 10ug/L VOC STD 10/20/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 10:57 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	350330	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	257046	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	144644	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.79	111	83572	24.58	ppb	0.00
Spiked Amount 25.000			Recovery =	98.328%		
36) 1,2-DCA-D4(S)	5.15	65	79678	24.48	ppb	0.00
Spiked Amount 25.000			Recovery =	97.916%		
56) Toluene-D8(S)	7.36	98	338817	25.13	ppb	0.00
Spiked Amount 25.000			Recovery =	100.540%		
64) 4-Bromofluorobenzene(S)	10.74	95	125809	25.75	ppb	0.00
Spiked Amount 25.000			Recovery =	103.012%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	19904	9.92	ppb	96
3) Freon 114	1.31	85	37752	11.06	ppb	89
4) Chloromethane	1.36	49	3470	9.44	ppb	96
5) Vinyl chloride	1.45	62	28264	9.71	ppb	97
6) Bromomethane	1.71	94	26956	10.20	ppb	93
7) Chloroethane	1.81	64	15000	9.46	ppb	97
8) Dichlorofluoromethane	2.00	67	79586	9.67	ppb	99
9) Trichlorofluoromethane	2.04	101	57299	9.90	ppb	98
10) Acrolein	2.43	56	20104	124.36	ppb	96
11) Acetone	2.59	43	8616	11.75	ppb	88
12) Freon-113	2.55	101	17072	9.90	ppb	97
13) 1,1-DCE	2.53	61	58407	9.96	ppb	99
14) t-Butanol	3.18	59	22506	127.10	ppb	97
15) Methyl Acetate	2.92	43	19442	10.17	ppb	95
16) Iodomethane	2.66	142	27886	9.05	ppb	96
17) Acrylonitrile	3.24	53	8707	10.59	ppb	91
18) Methylene chloride	3.00	84	39230	10.32	ppb	95
19) Carbon disulfide	2.72	76	109342	9.98	ppb	99
20) Methyl t-butyl ether (MtBE	3.30	73	36848	10.12	ppb	95
21) Trans-1,2-DCE	3.27	96	38284	10.42	ppb	92
22) Diisopropyl Ether	3.82	45	126007	10.09	ppb	99
23) 1,1-DCA	3.69	63	70003	9.78	ppb	98
24) Vinyl Acetate	3.77	43	21424	10.65	ppb	97
25) Ethyl tert Butyl Ether	4.19	59	91686	10.37	ppb	94
26) MEK (2-Butanone)	4.33	43	10007	9.24	ppb	97
27) Cis-1,2-DCE	4.29	96	41610	9.97	ppb	92
28) 2,2-Dichloropropane	4.29	77	23408	10.52	ppb	99
29) Chloroform	4.63	83	67544	10.01	ppb	99
30) Bromochloromethane	4.53	128	16986	10.40	ppb	98
32) 1,1,1-TCA	4.81	97	56546	10.15	ppb	99
33) Cyclohexane	4.87	41	37661	10.01	ppb	95
34) 1,1-Dichloropropene	4.99	75	54410	10.47	ppb	97
35) 2,2,4-Trimethylpentane	5.34	57	137289	10.66	ppb	100
37) Carbon Tetrachloride	4.99	117	43522	10.08	ppb	97
38) Tert Amyl Methyl Ether	5.39	73	78626	10.38	ppb	99
39) 1,2-DCA	5.23	62	43440	9.86	ppb	99
40) Benzene	5.21	78	158902	9.74	ppb	98
41) TCE	5.93	95	39966	9.98	ppb	94
42) 2-Pentanone	6.17	43	211122	125.83	ppb	100

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M21.D Vial: 20
Acq On : 20 Oct 16 17:47 Operator: DG,CM,SV
Sample : (SS) 10ug/L VOC STD 10/20/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 10:57 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	6.17	63	41937	10.17	ppb		100
44)	Bromodichloromethane	6.50	83	45853	10.22	ppb		95
45)	Methyl Cyclohexane	6.15	83	67969	10.51	ppb		98
46)	Dibromomethane	6.30	93	18579	10.29	ppb		88
47)	MIBK (methyl isobutyl ket	7.26	43	26882	10.71	ppb	#	96
48)	1-Bromo-2-chloroethane	6.85	63	22656	10.22	ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	52120	10.50	ppb		98
51)	Toluene	7.44	91	183248	9.99	ppb		99
52)	Trans-1,3-Dichloropropene	7.71	75	19928	10.98	ppb		94
53)	1,1,2-TCA	7.93	83	22846	10.13	ppb		94
54)	2-Hexanone	8.30	58	8659	11.09	ppb		94
57)	1,2-EDB	8.54	107	24556	10.34	ppb		98
58)	Tetrachloroethene	8.11	164	19312	10.00	ppb		99
59)	1-Chlorohexane	9.22	91	57062	10.65	ppb		97
60)	1,1,1,2-Tetrachloroethane	9.31	131	35472	10.74	ppb		95
61)	m&p-Xylene	9.53	106	164815	20.63	ppb		98
62)	o-Xylene	10.05	106	77905	9.97	ppb		94
63)	Styrene	10.06	104	135253	10.77	ppb		99
65)	1,3-Dichloropropane	8.13	76	49789	10.31	ppb		96
66)	Dibromochloromethane	8.41	129	29455	10.46	ppb		98
67)	Chlorobenzene	9.19	112	114723	9.99	ppb		99
68)	Ethylbenzene	9.37	91	210581	10.38	ppb		98
69)	Bromoform	10.27	173	16230	10.50	ppb		92
71)	Isopropylbenzene	10.56	105	204659	9.94	ppb		98
72)	1,1,2,2-Tetrachloroethane	10.97	83	31049	10.50	ppb		94
73)	1,2,3-Trichloropropane	11.01	110	9716	11.09	ppb	#	82
74)	t-1,4-Dichloro-2-Butene	11.06	53	6273	9.89	ppb	#	80
75)	Bromobenzene	10.92	156	47428	9.98	ppb		97
76)	n-Propylbenzene	11.13	91	259523	10.53	ppb		99
77)	4-Ethyltoluene	11.30	105	213067	10.47	ppb		99
78)	2-Chlorotoluene	11.22	91	136611	10.22	ppb		100
79)	1,3,5-Trimethylbenzene	11.39	105	178468	10.38	ppb		98
80)	4-Chlorotoluene	11.37	91	164145	10.14	ppb		97
81)	Tert-Butylbenzene	11.84	119	153300	10.14	ppb		97
82)	1,2,4-Trimethylbenzene	11.91	105	180792	10.55	ppb		98
83)	Sec-Butylbenzene	12.15	105	225993	10.41	ppb		99
84)	p-Isopropyltoluene	12.37	119	200756	10.33	ppb		98
85)	Benzyl Chloride	12.59	91	22254	12.72	ppb		99
86)	1,3-DCB	12.26	146	96483	9.98	ppb		100
87)	1,4-DCB	12.39	146	99673	10.26	ppb		98
88)	n-Butylbenzene	12.95	91	189818	10.92	ppb		99
89)	1,2-DCB	12.90	146	87466	10.50	ppb		98
90)	Hexachloroethane	13.27	117	23219	10.17	ppb		96
91)	1,2-Dibromo-3-chloropropan	14.01	75	3888	10.26	ppb		91
92)	1,2,4-Trichlorobenzene	15.23	180	65191	11.27	ppb		99
93)	Hexachlorobutadiene	15.53	225	37554	10.64	ppb		97
94)	Naphthalene	15.56	128	47848	11.58	ppb		97
95)	1,2,3-Trichlorobenzene	15.92	180	54678	11.02	ppb		97

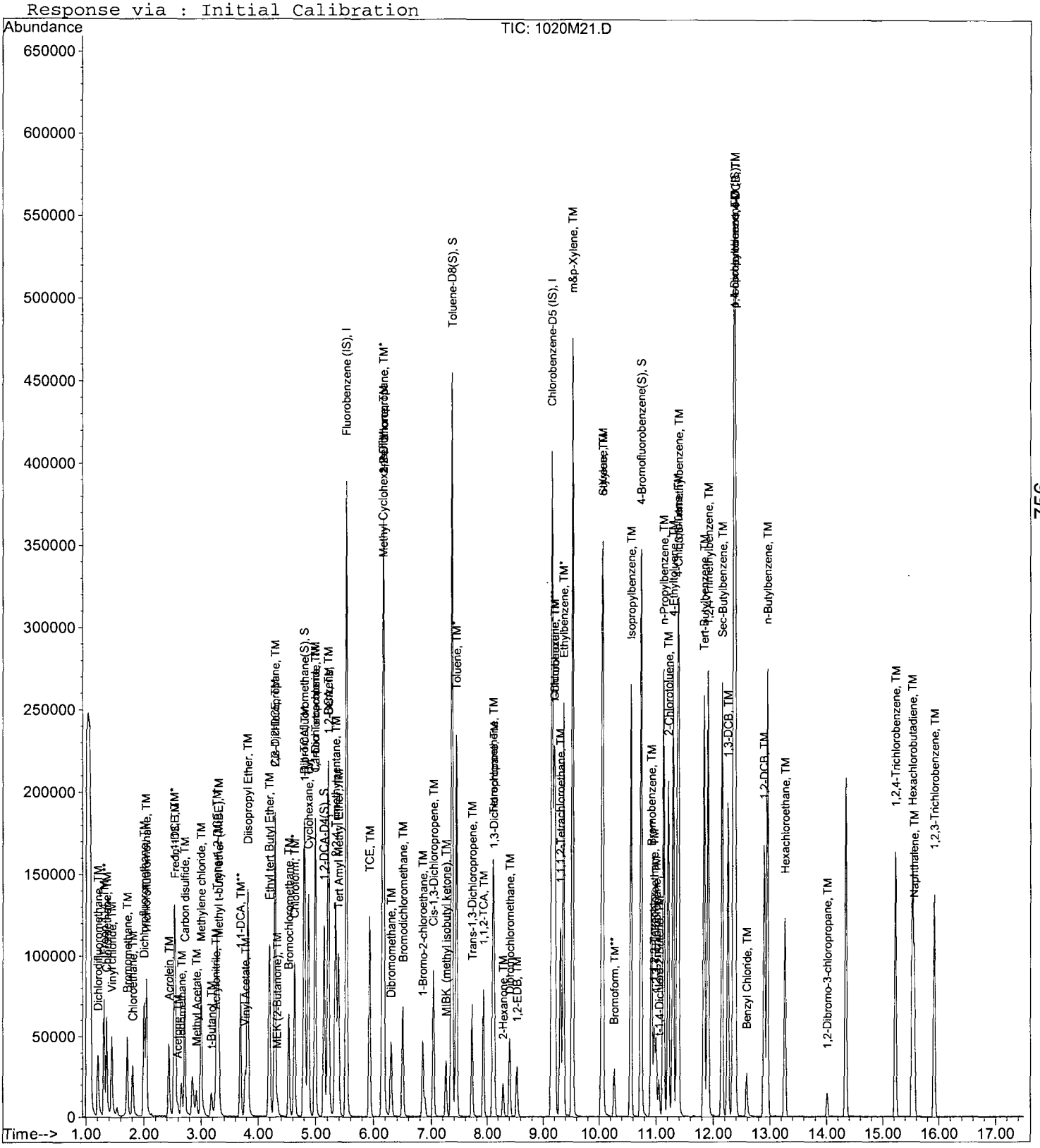
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M21.D Vial: 20
Acq On : 20 Oct 16 17:47 Operator: DG,CM,SV
Sample : (SS) 10ug/L VOC STD 10/20/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 10:57 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 10/22/16
Instrument: MAX
Initial Cal. Date: 08/25/16
Data File: 1022M07.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	4.388	2.000	54	TMHBL	8.1
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
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15							
16							
17							
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29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			54.0		

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M07.D Vial: 7
Acq On : 22 Oct 16 12:11 Operator: DG,CM,SV
Sample : 161022A CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:45 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	372447	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	8939933m	275.82234	ppb	100

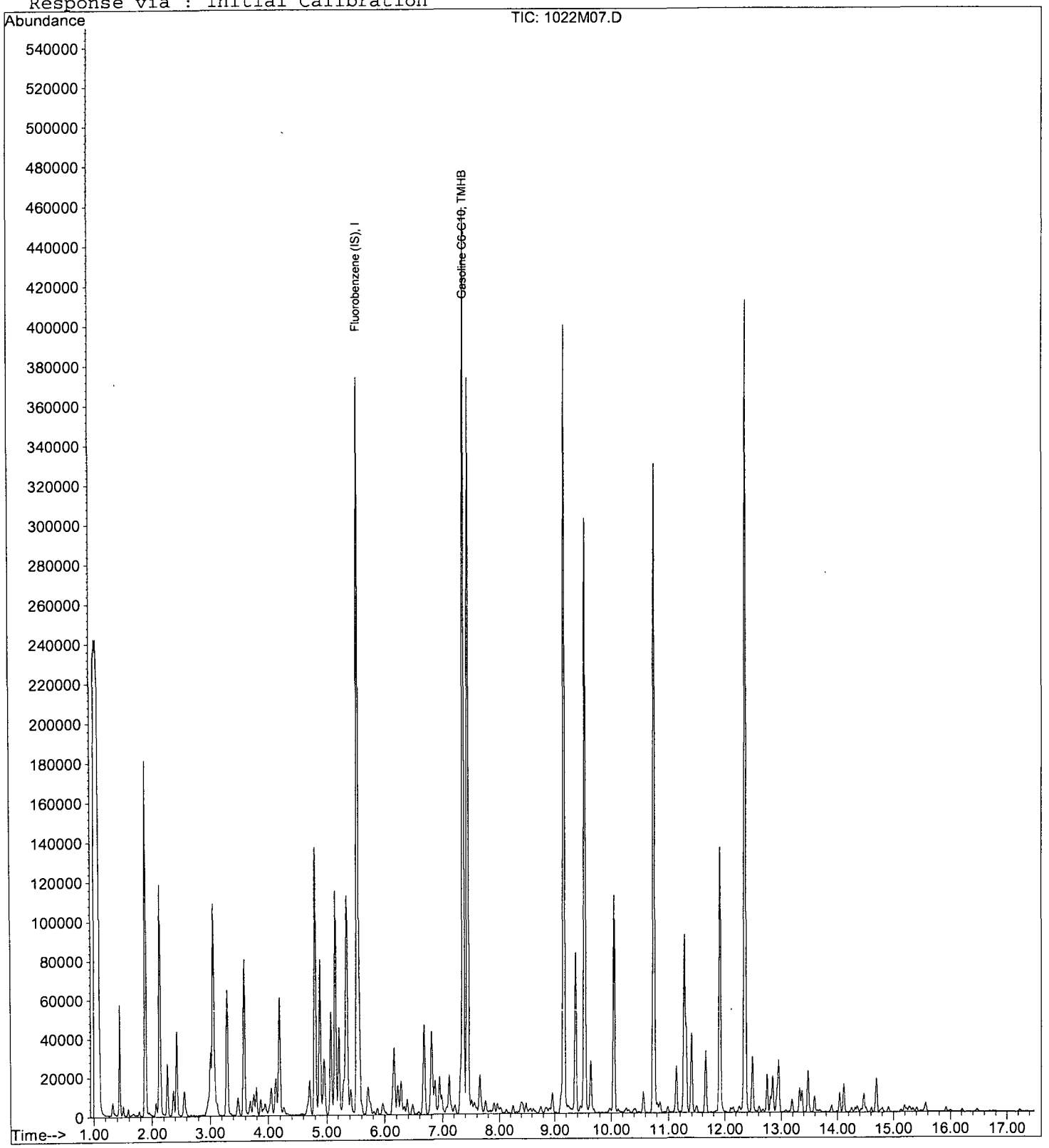
(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M161020\1022M07.D
Acq On : 22 Oct 16 12:11
Sample : 161022A CCV/LCS 300ug/L
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 7
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 15:45 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

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

SDG No:
Date Analyzed: 10/22/16
Instrument: MAX
Initial Cal. Date: 08/25/16
Data File: 1022M27.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	4.388	1.838	58	TMHBL	21
3							
4							
5							
6							
7							
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35							
36							
37							
38							
39							
40							
		Average			58.0		

Data File : M:\MAX\DATA\M161020\1022M27.D Vial: 27
Acq On : 22 Oct 16 19:28 Operator: DG,CM,SV
Sample : Ending CCV GAS 300ug/L 10/22/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:47 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

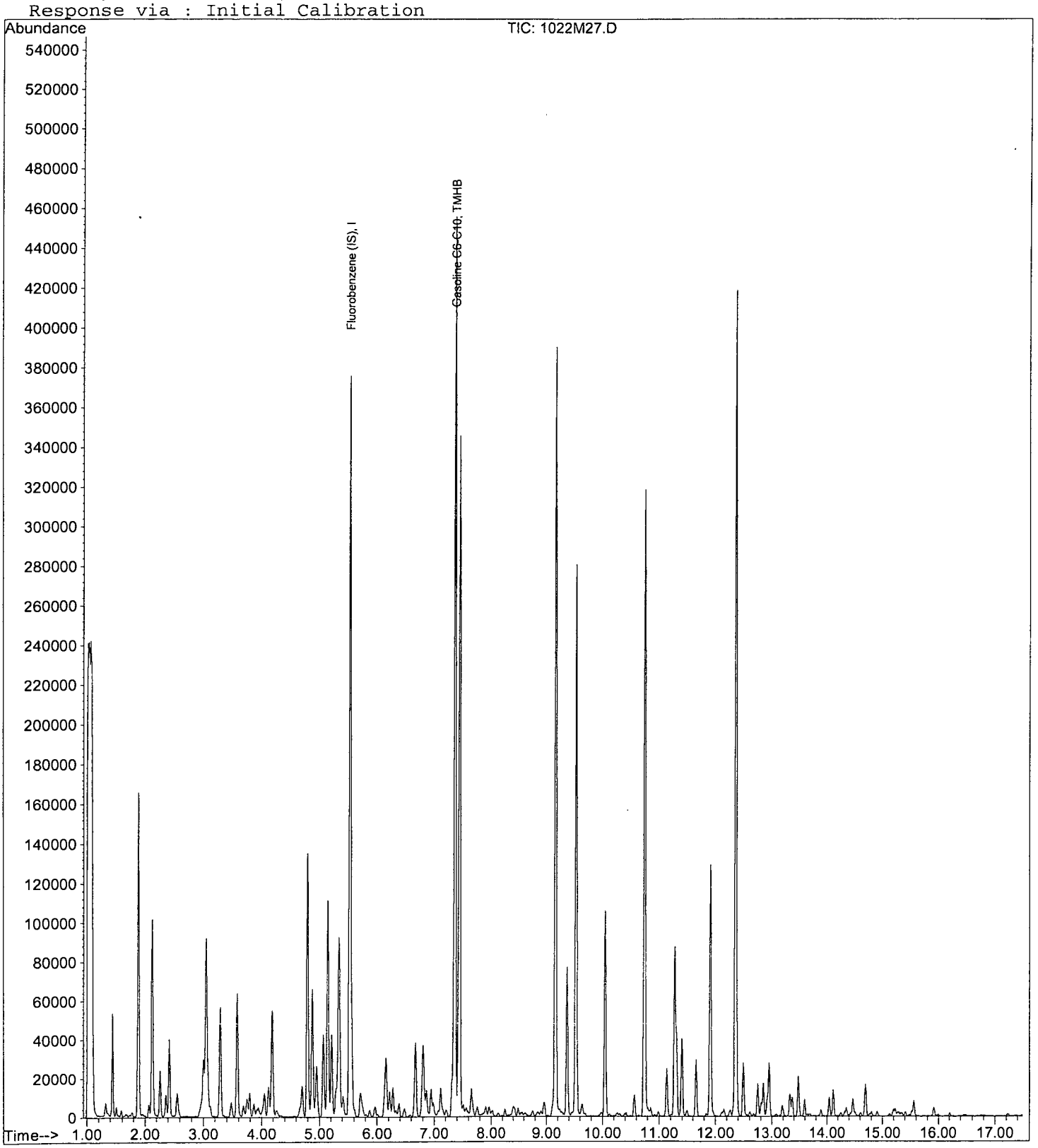
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	374615	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	8264648m	237.78394	ppb	100

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

Data File : M:\MAX\DATA\M161020\1022M27.D Vial: 27
Acq On : 22 Oct 16 19:28 Operator: DG,CM,SV
Sample : Ending CCV GAS 300ug/L 10/22/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:47 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

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

SDG No:
Date Analyzed: 10/22/16
Instrument: MAX
Initial Cal. Date: 10/20/16
Data File: 1022M27.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	S	Dibromofluoromethane(S)	0.2426	0.2400	1.1	S	
3	S	1,2-DCA-D4(S)	0.2323	0.2246	3.3	S	
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	S	Toluene-D8(S)	1.311	1.309	0.12	S	
6	S	4-Bromofluorobenzene(S)	0.4751	0.4614	2.9	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
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35							
36							
37							
38							
39							
40							
		Average			1.9		

Data File : M:\MAX\DATA\M161020\1022M27.D Vial: 27
Acq On : 22 Oct 16 19:28 Operator: DG,CM,SV
Sample : Ending CCV GAS 300ug/L 10/22/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 25 7:20 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	341840	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	252542	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	133036	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	82044	24.73168 ppb	0.00
Spiked Amount 25.000			Recovery =	98.928%	
3) 1,2-DCA-D4(S)	5.14	65	76786	24.17595 ppb	0.00
Spiked Amount 25.000			Recovery =	96.704%	
5) Toluene-D8(S)	7.36	98	330684	24.96876 ppb	0.00
Spiked Amount 25.000			Recovery =	99.876%	
6) 4-Bromofluorobenzene(S)	10.74	95	116530	24.27909 ppb	0.00
Spiked Amount 25.000			Recovery =	97.116%	

Target Compounds Qvalue

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

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 10/23/16
Instrument: MAX
Initial Cal. Date: 08/25/16
Data File: 1023M34.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	4.388	1.871	57	TMHBL	18
3							
4							
5							
6							
7							
8							
9							
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39							
40							
		Average			57.0		

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M34.D Vial: 34
Acq On : 23 Oct 16 20:41 Operator: DG,CM,SV
Sample : 161023B CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:06 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	339375	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	7618289m	245.35206	ppb	100

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

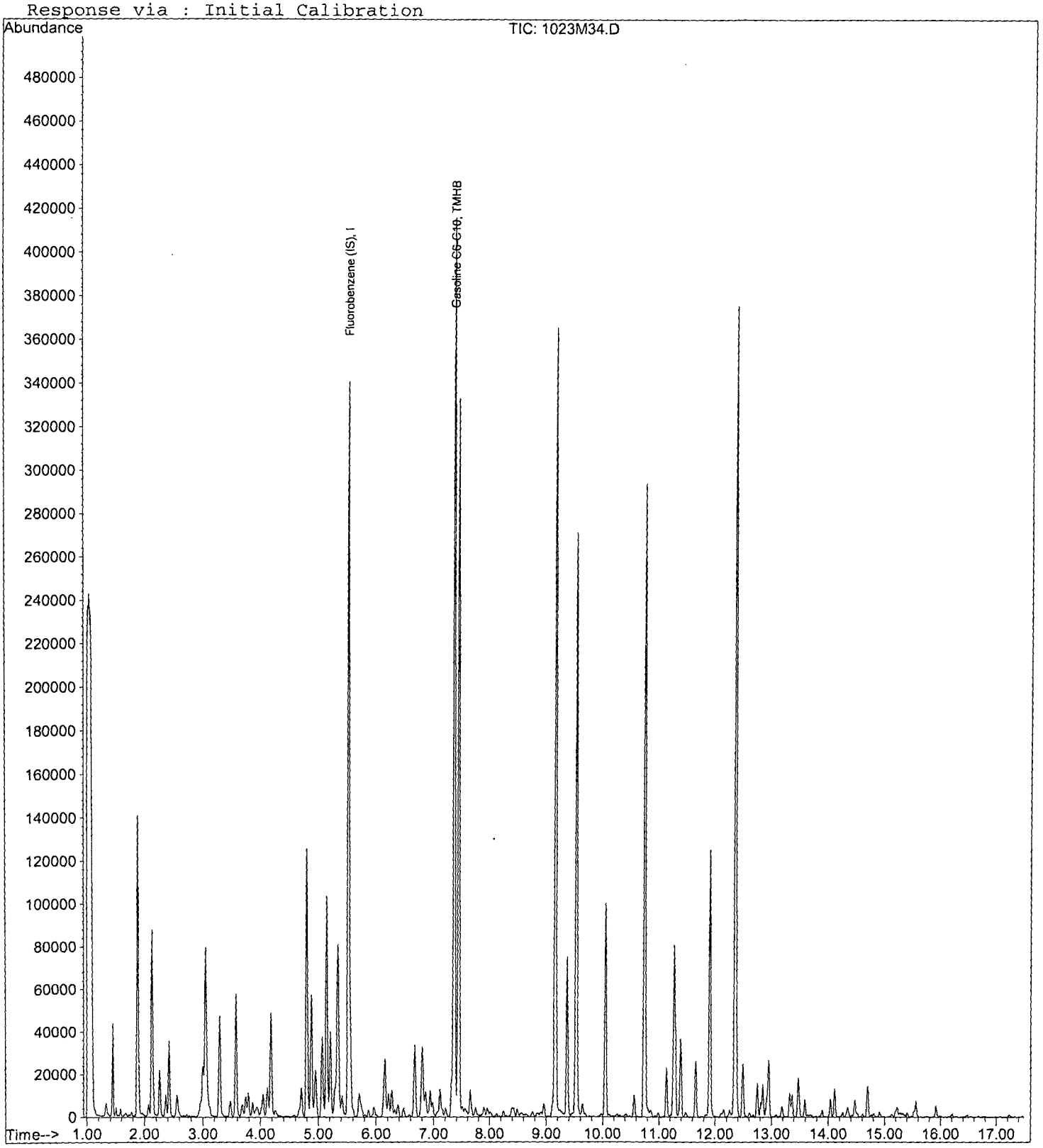
Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M34.D
Acq On : 23 Oct 16 20:41
Sample : 161023B CCV/LCS 300ug/L
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 34
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 26 10:06 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

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

SDG No:
Date Analyzed: 10/24/16
Instrument: MAX
Initial Cal. Date: 08/25/16
Data File: 1023M50.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	4.388	1.775	60	TMHBL	26
3							
4							
5							
6							
7							
8							
9							
10							
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36							
37							
38							
39							
40							
		Average			60.0		

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M50.D Vial: 50
Acq On : 24 Oct 16 2:31 Operator: DG,CM,SV
Sample : Ending CCV GAS 300ug/L 10/23/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:14 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	336347	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	7162745m	222.77624	ppb	100

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

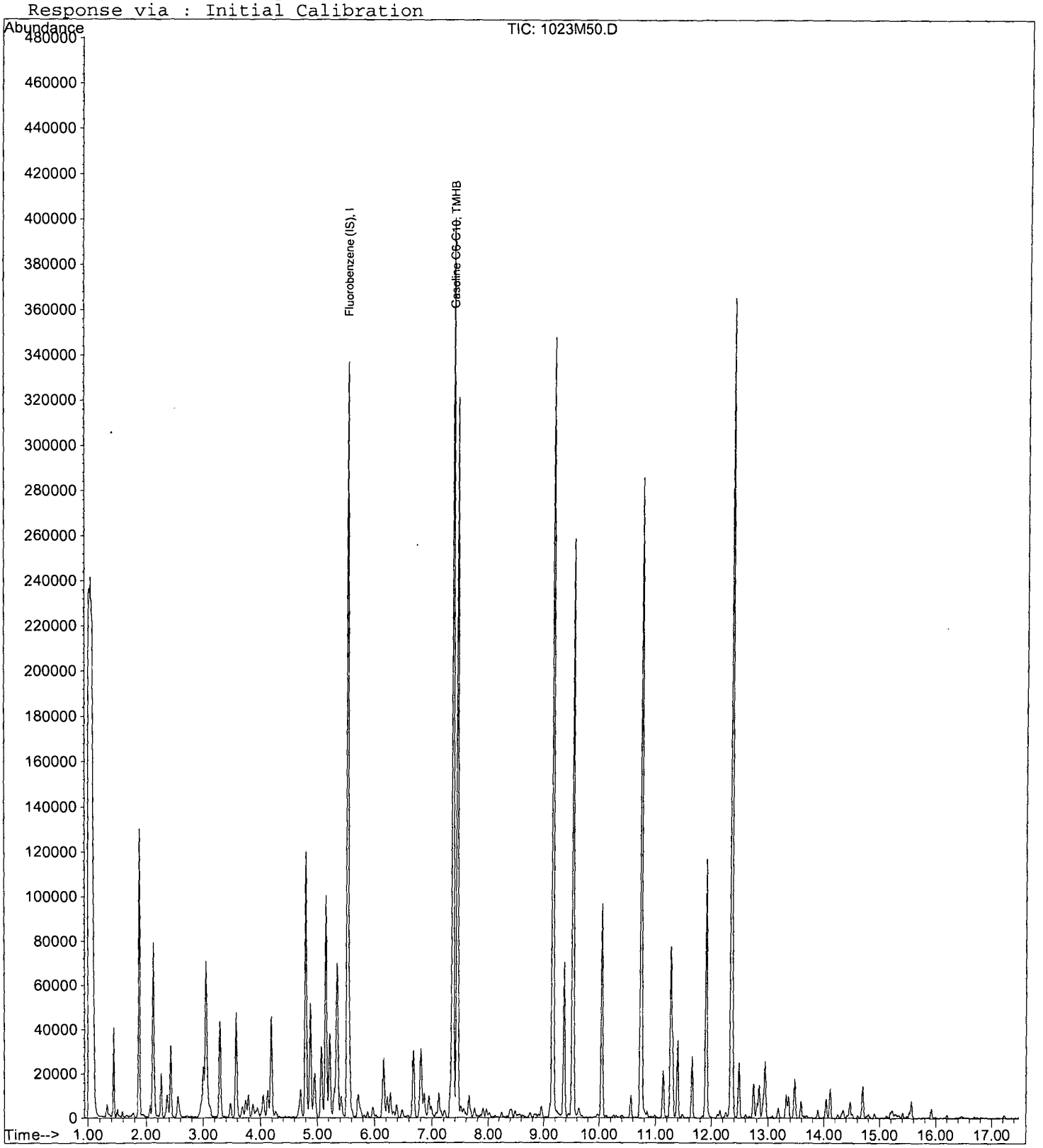
Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M50.D
Acq On : 24 Oct 16 2:31
Sample : Ending CCV GAS 300ug/L 10/23/16
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 50
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 26 10:14 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/24/16
Matrix: Instrument: MAX
Initial Cal. Date: 10/20/16
Data File: 1023M50.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	S	Dibromofluoromethane(S)	0.2426	0.2272	6.3	S	
3	S	1,2-DCA-D4(S)	0.2323	0.2153	7.3	S	
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	S	Toluene-D8(S)	1.311	1.303	0.61	S	
6	S	4-Bromofluorobenzene(S)	0.4751	0.4628	2.6	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
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33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.2		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M50.D Vial: 50
Acq On : 24 Oct 16 2:31 Operator: DG,CM,SV
Sample : Ending CCV GAS 300ug/L 10/23/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:47 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	309793	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	226163	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	117539	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	70397	23.41597 ppb	0.00
Spiked Amount 25.000			Recovery =	93.664%	
3) 1,2-DCA-D4(S)	5.15	65	66683	23.16690 ppb	0.00
Spiked Amount 25.000			Recovery =	92.668%	
5) Toluene-D8(S)	7.36	98	294693	24.84652 ppb	0.00
Spiked Amount 25.000			Recovery =	99.388%	
6) 4-Bromofluorobenzene(S)	10.74	95	104673	24.35238 ppb	0.00
Spiked Amount 25.000			Recovery =	97.408%	

Target Compounds Qvalue

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

ORGANICS
Raw Data

APPL, INC.

Method Blank

EPA 8260B GRO WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161022W-44692 - 213020**
Batch ID: #GRO86-161022AM

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/22/16	10/22/16
BLANK	SURROGATE: 4-BROMOFLUORO	98.1	85-114			%	10/22/16	10/22/16

Quant Method: MGAS6825.
Run #: 1022M12
Instrument: MAX
Sequence: M161020
Initials: SV

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/16 10:40:00 AM

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M12.D Vial: 12
Acq On : 22 Oct 16 14:00 Operator: DG,CM,SV
Sample : 161022A BLK-1WM Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:49 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	390154	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

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

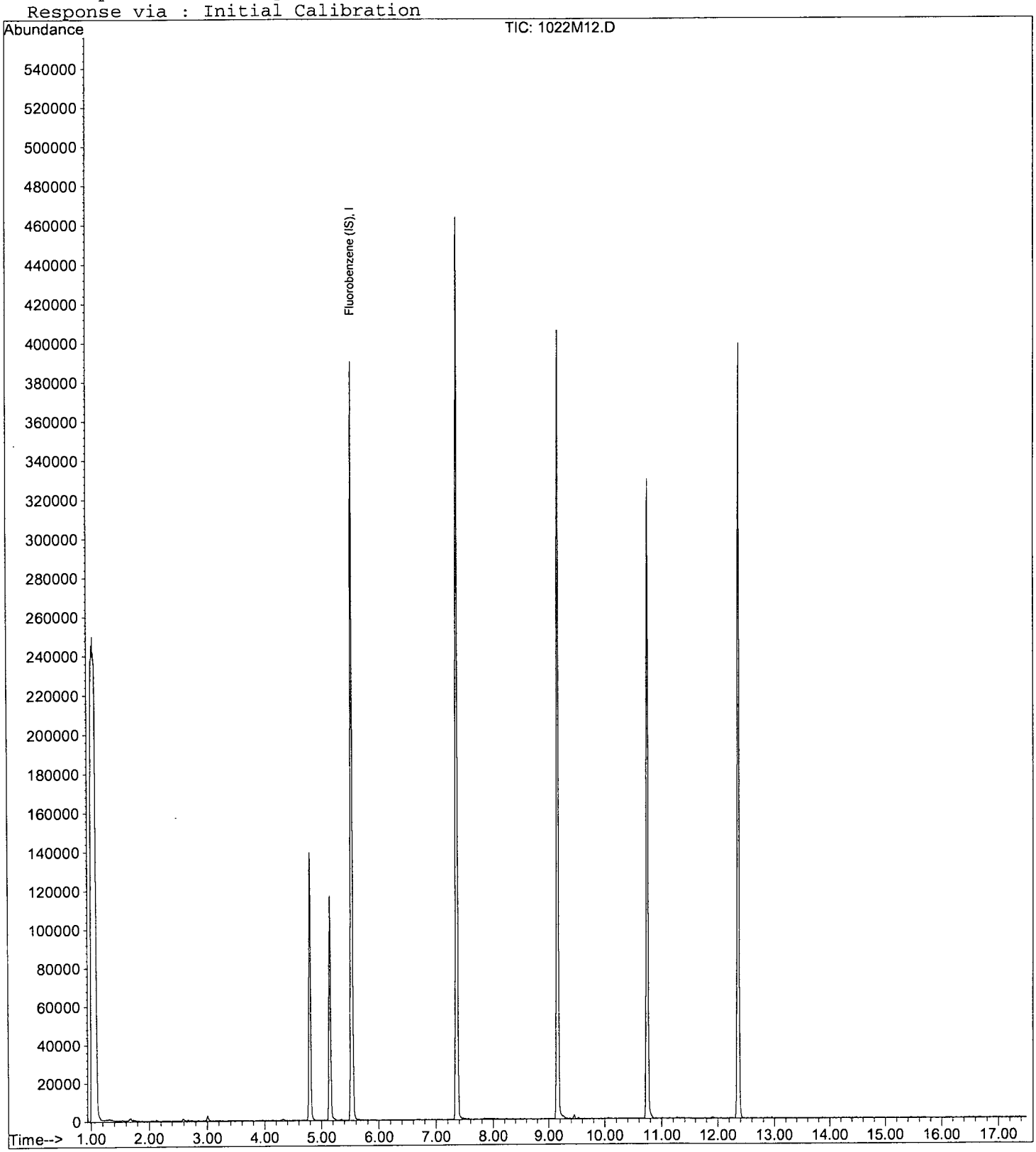
Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M12.D
Acq On : 22 Oct 16 14:00
Sample : 161022A BLK-1WM
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 12
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 15:49 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1022M12.D Vial: 12
Acq On : 22 Oct 16 14:00 Operator: DG,CM,SV
Sample : 161022A BLK-1WM Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 25 7:20 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	355477	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	259271	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	132244	25.00000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.80	111	84088	24.37542	ppb	0.00
Spiked Amount 25.000			Recovery = 97.500%			
3) 1,2-DCA-D4(S)	5.15	65	81013	24.52831	ppb	0.00
Spiked Amount 25.000			Recovery = 98.112%			
5) Toluene-D8(S)	7.36	98	342670	25.20226	ppb	0.00
Spiked Amount 25.000			Recovery = 100.808%			
6) 4-Bromofluorobenzene(S)	10.74	95	120824	24.52040	ppb	0.00
Spiked Amount 25.000			Recovery = 98.080%			

Target Compounds	Qvalue

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

Method Blank
EPA 8260B GRO WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161023W-44579 - 213069**
Batch ID: #GRO86-161023BM

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/23/16	10/23/16
BLANK	SURROGATE: 4-BROMOFLUORO	97.1	85-114			%	10/23/16	10/23/16

Quant Method: MGAS6825.
Run #: 1023M37
Instrument: MAX
Sequence: M161020
Initials: SV

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/16 10:40:00 AM

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M37.D Vial: 37
Acq On : 23 Oct 16 21:47 Operator: DG,CM,SV
Sample : 161023B BLK-1WM Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:07 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	TIC	340277	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

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

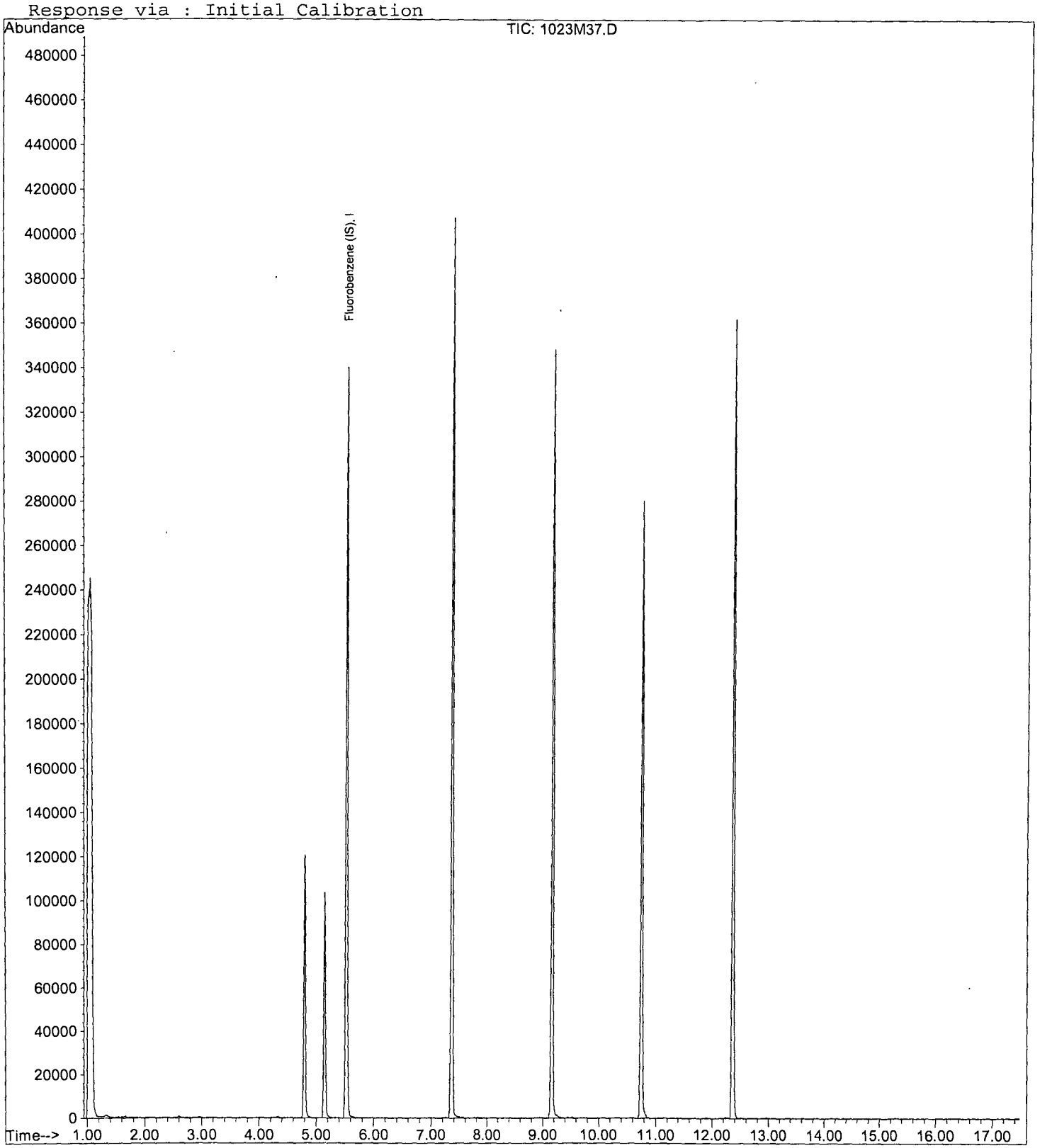
Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M37.D
Acq On : 23 Oct 16 21:47
Sample : 161023B BLK-1WM
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 37
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 26 10:07 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M37.D Vial: 37
Acq On : 23 Oct 16 21:47 Operator: DG,CM,SV
Sample : 161023B BLK-1WM Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:46 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	318344	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	224612	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	114740	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.79	111	74571	24.13809 ppb	0.00
Spiked Amount 25.000			Recovery = 96.552%		
3) 1,2-DCA-D4(S)	5.15	65	70406	23.80331 ppb	0.00
Spiked Amount 25.000			Recovery = 95.212%		
5) Toluene-D8(S)	7.36	98	299163	25.39758 ppb	0.00
Spiked Amount 25.000			Recovery = 101.592%		
6) 4-Bromofluorobenzene(S)	10.74	95	103672	24.28604 ppb	0.00
Spiked Amount 25.000			Recovery = 97.144%		

Target Compounds Qvalue

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

Laboratory Control Spike Recovery
EPA 8260B GRO WATER

APPL ID: **161022W-44692 LCS - 213020**
Batch ID: #GRO86-161022AM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
GASOLINE RANGE ORGANICS	300	276	92.0	78-122
SURROGATE: 4-BROMOFLUOROBENZE	25.0	24.9	99.6	85-114

Comments: _____

Primary	SPK
Quant Method :	MGAS6825.M
Extraction Date :	10/22/16
Analysis Date :	10/22/16
Instrument :	MAX
Run :	1022M07
Initials :	SV

Printed: 11/16/16 10:45:17 AM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1022M07.D Vial: 7
Acq On : 22 Oct 16 12:11 Operator: DG,CM,SV
Sample : 161022A CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 25 7:20 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	347186	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	255122	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	135458	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	81774	24.27072 ppb	0.00
Spiked Amount 25.000			Recovery = 97.084%		
3) 1,2-DCA-D4(S)	5.15	65	78303	24.27396 ppb	0.00
Spiked Amount 25.000			Recovery = 97.096%		
5) Toluene-D8(S)	7.36	98	337559	25.23011 ppb	0.00
Spiked Amount 25.000			Recovery = 100.920%		
6) 4-Bromofluorobenzene(S)	10.74	95	120884	24.93154 ppb	0.00
Spiked Amount 25.000			Recovery = 99.728%		

Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1022M07.D Vial: 7
Acq On : 22 Oct 16 12:11 Operator: DG,CM,SV
Sample : 161022A CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 15:45 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	372447	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	8939933m	275.82234	ppb	100

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

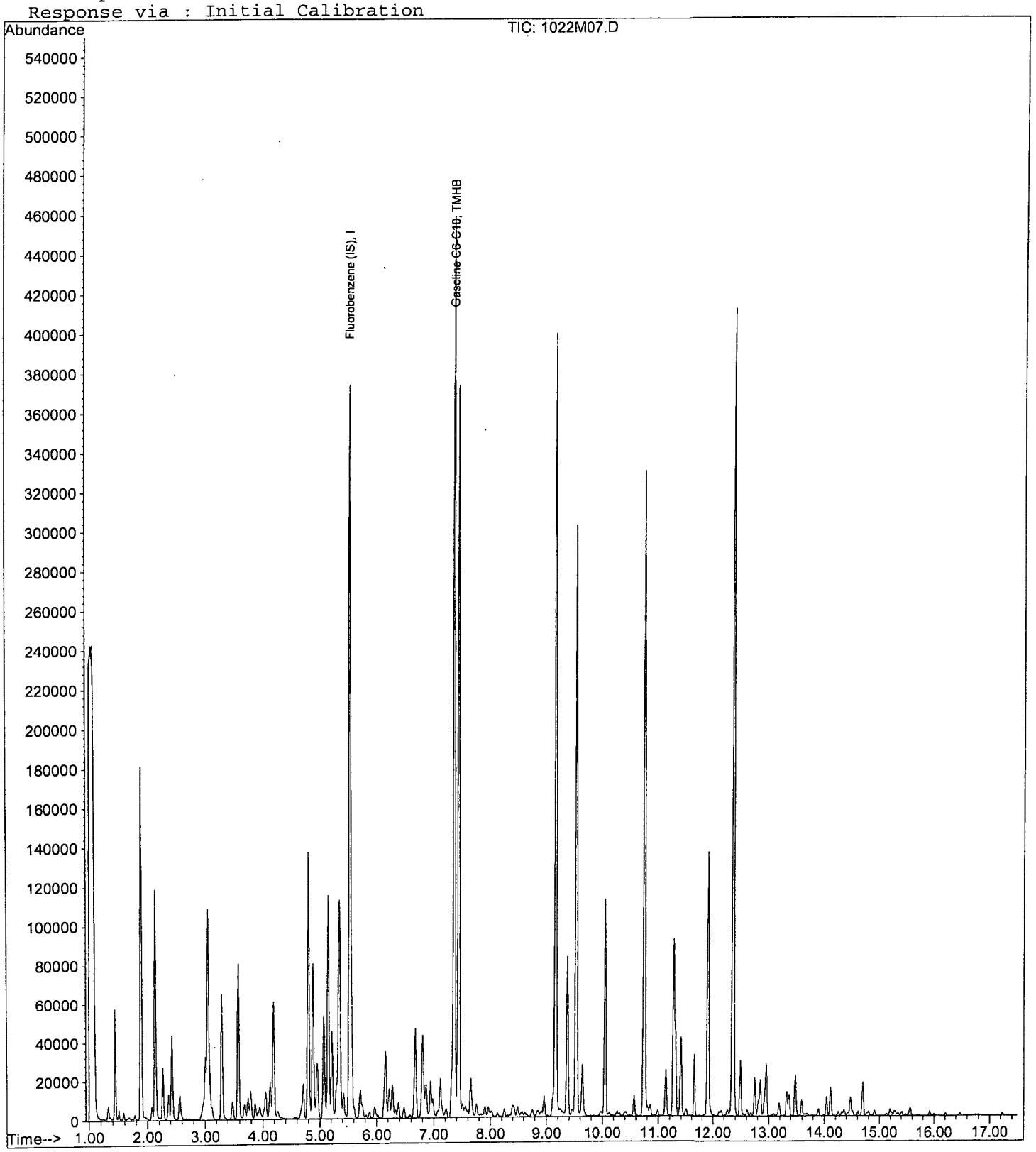
Quantitation Report

Data File : M:\MAX\DATA\M161020\1022M07.D
Acq On : 22 Oct 16 12:11
Sample : 161022A CCV/LCS 300ug/L
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 7
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 15:45 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1022M07.D Vial: 7
Acq On : 22 Oct 16 12:11 Operator: DG,CM,SV
Sample : 161022A CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 25 7:20 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	347186	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	255122	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	135458	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	81774	24.27072 ppb	0.00
Spiked Amount 25.000			Recovery = 97.084%		
3) 1,2-DCA-D4(S)	5.15	65	78303	24.27396 ppb	0.00
Spiked Amount 25.000			Recovery = 97.096%		
5) Toluene-D8(S)	7.36	98	337559	25.23011 ppb	0.00
Spiked Amount 25.000			Recovery = 100.920%		
6) 4-Bromofluorobenzene(S)	10.74	95	120884	24.93154 ppb	0.00
Spiked Amount 25.000			Recovery = 99.728%		

Target Compounds Qvalue

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

Laboratory Control Spike Recovery
EPA 8260B GRO WATER

APPL ID: **161023W-44579 LCS - 213069**
Batch ID: #GRO86-161023BM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
GASOLINE RANGE ORGANICS	300	245	81.7	78-122
SURROGATE: 4-BROMOFLUOROBENZE	25.0	24.4	97.6	85-114

Comments: _____

Primary	SPK
Quant Method :	MGAS6825.M
Extraction Date :	10/23/16
Analysis Date :	10/23/16
Instrument :	MAX
Run :	1023M34
Initials :	SV

Printed: 11/16/16 10:45:17 AM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M34.D Vial: 34
Acq On : 23 Oct 16 20:41 Operator: DG,CM,SV
Sample : 161023B CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:46 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	311487	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	232482	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	124173	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.79	111	75739	25.05586 ppb	0.00
Spiked Amount 25.000			Recovery	= 100.224%	
3) 1,2-DCA-D4(S)	5.14	65	70538	24.37292 ppb	0.00
Spiked Amount 25.000			Recovery	= 97.492%	
5) Toluene-D8(S)	7.36	98	308306	25.28774 ppb	0.00
Spiked Amount 25.000			Recovery	= 101.152%	
6) 4-Bromofluorobenzene(S)	10.74	95	108021	24.44821 ppb	0.00
Spiked Amount 25.000			Recovery	= 97.792%	

Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1023M34.D Vial: 34
Acq On : 23 Oct 16 20:41 Operator: DG,CM,SV
Sample : 161023B CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:06 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	339375	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	7618289m	245.35206	ppb	100

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

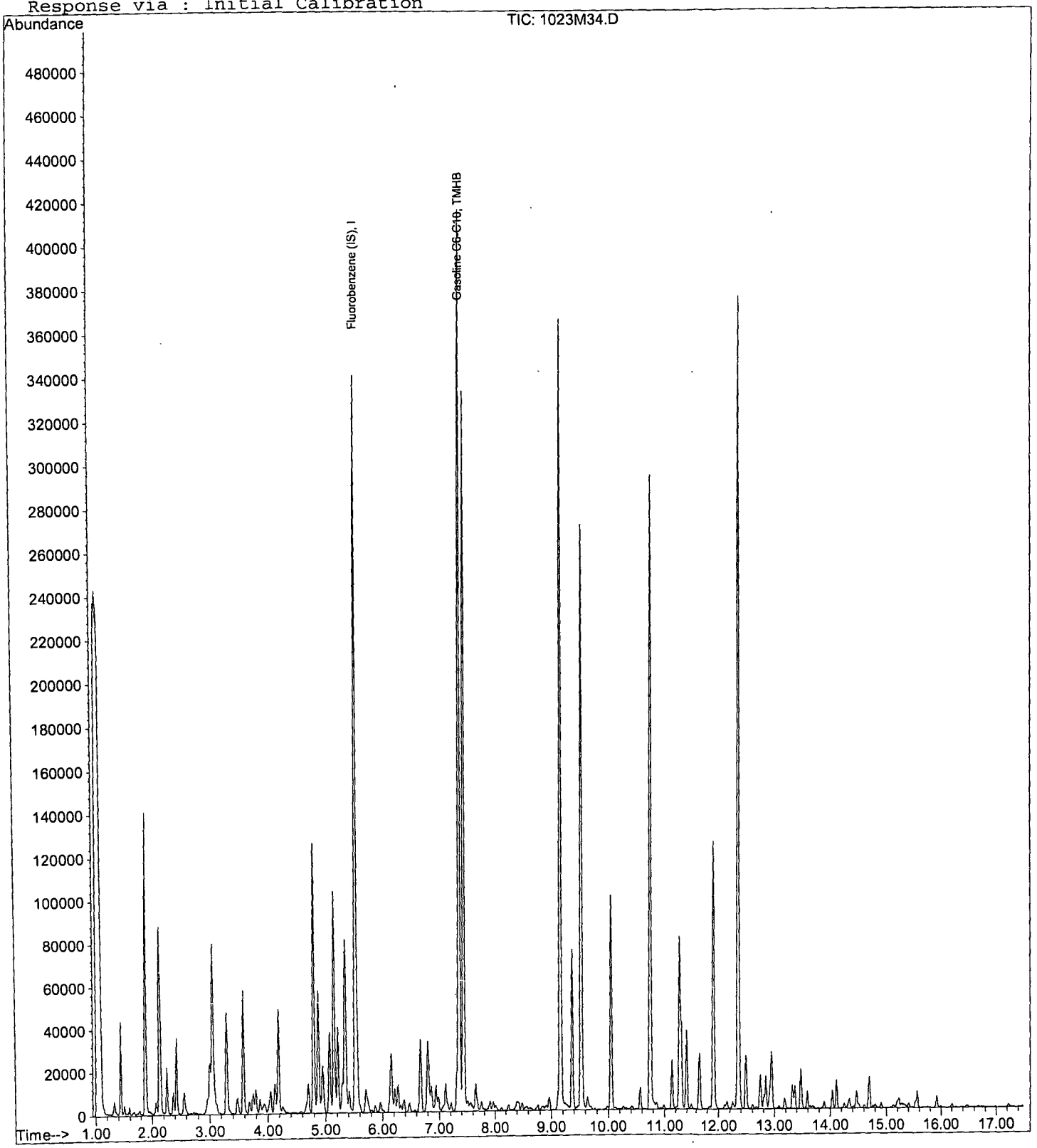
Quantitation Report

Data File : M:\MAX\DATA\M161020\1023M34.D
Acq On : 23 Oct 16 20:41
Sample : 161023B CCV/LCS 300ug/L
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 34
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 26 10:06 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1023M34.D Vial: 34
Acq On : 23 Oct 16 20:41 Operator: DG,CM,SV
Sample : 161023B CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 26 10:46 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	311487	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	232482	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	124173	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.79	111	75739	25.05586 ppb	0.00
Spiked Amount 25.000			Recovery = 100.224%		
3) 1,2-DCA-D4(S)	5.14	65	70538	24.37292 ppb	0.00
Spiked Amount 25.000			Recovery = 97.492%		
5) Toluene-D8(S)	7.36	98	308306	25.28774 ppb	0.00
Spiked Amount 25.000			Recovery = 101.152%		
6) 4-Bromofluorobenzene(S)	10.74	95	108021	24.44821 ppb	0.00
Spiked Amount 25.000			Recovery = 97.792%		

Target Compounds Qvalue

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

Gasoline Curve Preparation for 100mL Purge (water)-MAX			
Exp Date:	08/26/16	2000ug/ml	
		08/25/16Q	Final Volume
	Conc.	Exp.03/31/21	w/ P&T H2O
Date/code	µg/L	uL	mL
08/25/16R-CN	20	1	100
08/25/16S-CN	50	2.5	100
08/25/16T-CN	100	5	100
08/25/16U-CN	300	15	100
08/25/16V-CN	600	30	100
08/25/16W-CI	800	40	100
08/25/16X-CN	1000	50	100

Gasoline SECOND SOURCE preparation @300ppb-MAX			
Exp Date:	08/10/16	2000ug/ml	
		07/08/16B	Final Volume
	Conc.	Exp.05-04-18	w/ P&T H2O
Date/code	µg/L	uL	mL
08/09/2016D	300	15	100

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-MAX										
Exp Date:	10/21/16	5µg/mL	5µg/mL	5µg/mL	50µg/mL	50µg/mL	50µg/mL	50µg/mL	250µg/mL	
		Vol Std #9	Vol Std #10	Vol Std #12	Vol Std #7	Vol Std #8	Vol Std #1	Vol Std #2	TBA	
		10/17/16L	10/17/16M	10/17/16N	10/17/16H	10/17/16J	10/17/16I	10/17/16K	10/17/16O	Final Vol
	Conc.	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	w/P&T H2O
Date/code	µg/L	ul	ul	ul	ul	ul	ul	ul	ul	mL
10/20/16AA-CM	0.3	3	3	3	n/a	n/a	n/a	n/a	2	50
10/20/16AB-CM	0.5	5	5	5	n/a	n/a	n/a	n/a	5	50
10/20/16AC-CM	1	10	10	10	n/a	n/a	n/a	n/a	10	50
10/20/16AD-CM	2	20	20	20	n/a	n/a	n/a	n/a	15	50
10/20/16AE-CM	5	n/a	n/a	n/a	5	5	5	5	20	50
10/20/16AF-CM	10	n/a	n/a	n/a	10	10	10	10	25	50
10/20/16AG-CM	20	n/a	n/a	n/a	20	20	20	20	30	50
10/20/16AH-CM	40	n/a	n/a	n/a	40	40	40	40	35	50
10/20/16AI-CMN	100	n/a	n/a	n/a	100	100	100	100	40	50

PRIMARY STANDARD

10/08/16K							
50ug/ml Vol Work Std #7							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03	Gas Mix	2000	279822-36651	10/08/16A-CMM	02/19/19	100
02SI	020049-02	HEXACHLOROETHANE	1000	254167-36561	10/08/16B-CMM	12/28/17	200
02SI	020228-02	Benzyl Chloride	1000	279824-36572	10/08/16C-CMM	06/21/17	200
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3500
10/08/16L							
50ug/ml Vol Work Std #1							
Exp:11/08/16					Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	020145-02-02	2-CEVE	2000	254169-35358	10/08/16D-CMM	06/26/18	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1950
10/08/16M							
50ug/ml Vol Work Std #8							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	122039-02	Volatile Mix, 20-29	2000	240422-35671	09/24/16B-CMM	11/19/16	100
02SI	120023-03	VOC'S-54 COMP	2000	253202-35681	09/24/16C-CMM	06/04/17	100
02SI	020232-02	Vinyl Acetate	2000	287418-37044	09/24/16D-CMM	11/27/16	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3700
10/08/16N							
50ug/ml Vol Work Std #2							
Exp:11/08/16							
Supplier	ID #	ID	ug/ml				
02SI	121020-05	HSL'S-Ketone Solution	2000	258036-36078	10/08/16E-CMM	08/17/16	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3900
		10/08/16O					
		5ug/ml Vol Work Std #9					
		SOURCES	**Lot**	**APPL Code**	**APPL Exp Date**	ul	
		50ug/ml Vol Work Std #7		**10/08/16K**	Exp:11/08/16	200	
		50ug/ml Vol Work Std #8		**10/08/16M**	Exp:11/08/16	200	
		J&T Brand		10/07/16	01/27/18	1600	
		10/08/16P					
		5ug/ml Vol Work Std #10					
		SOURCES	**Lot**	**APPL Code**	**APPL Exp Date**	ul	
		50ug/ml Vol Work Std #1		**10/08/16L**	Exp:11/08/16	200	
		J&T Brand		10/07/16	01/27/18	1800	
		10/08/16Q					
		5ug/ml Vol Work Std #12					
		SOURCES	**Lot**	**APPL Code**	**APPL Exp Date**	ul	
		50ug/ml Vol Work Std #2		**10/08/16N**	Exp:11/08/16	200	
		J&T Brand		10/07/16	01/27/18	1800	
10/15/16E							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P							
Exp:11/08/16			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120166-01	Volatile Mix 4-3	2000	275544-36405	10/15/16A-CMM	03/28/17	500
02SI	020229-09-02	Acrolein	10000	287739-37070	10/15/16B-CMM	10/16/16	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3400

SECONDARY SOURCE

10/08/16S							
50ug/ml VOC Std#4							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
O2SI	120296-01-SS	Custom 8260 Solution	2000	258037-36086	09/24/16F-CMM	02/18/17	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1950
10/08/16T							
50ug/ml VOC Std#5							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
O2SI	120016-03-SS	8260 Gases(SS)	2000	279826-36659	10/08/16G-CMM	06/01/19	50
02SI	020145-02-02-SS	2-CEVE (SS)	2000	254171-35393	10/08/16I-CMM	06/21/17	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1900
10/08/16U							

50ug/ml VOC Std#6							
Exp:11/08/16							
	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120023-03-SS	VOC'S 54 COMP.	2000	26589735924	09/24/16J-CMM	11/29/17	50
02SI	020232-02-SS	Vinyl Acetate(SS)	2000	287420-37048	09/24/16H-CMM	11/27/16	50
02SI	020049-02-SS	HEXACHLOROETHANE (SS)	1000	265899-35936	10/08/16H-CMM	11/30/17	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1800
10/15/16F							
250ug/ml TBA/IBA/Acetonitrile/Acrolein/2-P							
Exp:11/08/16			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120166-01-SS	VOC Mix 4-3 (SS)	2000	258040-35710	10/15/16C-CMM	08/22/18	250
02SI	020229-09-SS	Acrolein SOLUTION (SS)	10000	287741-37068	10/15/16D-CMM	10/16/16	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1700
8260 water		spiked with		Total Vol			
CCV/LCS	10ug/L Vol Std	10uL of 50ug/ml Std #7		50mL P&T H2O			
Ending CCV		10uL of 50ug/ml Std #8					
		10uL of 50ug/ml Std #1					
		10uL of 50ug/ml Std #2					
		25uL of 250ug/ml Std TBA					
X4 ketones							
LCS	10ug/L Vol Std	10uL of 50ug/ml Std #7		50mL P&T H2O			
		10uL of 50ug/ml Std #8					
		10uL of 50ug/ml Std #1					
		40uL of 50ug/ml Std #2					
		25uL of 250ug/ml Std TBA					
8260 soil		spiked with		Total Vol			
CCV/LCS	50ug/Kg Vol Std	5uL of 50ug/ml Std #7		5mL P&T H2O			
Ending CCV		5uL of 50ug/ml Std #8					
		5uL of 50ug/ml Std #1					
		5uL of 50ug/ml Std #2					
		5uL of 250ug/ml Std TBA					
Matrix spikes are prepared with same standards as ccv (see above) into the sample.							
8260water		spiked with		Total Vol			
SS	10ug/L STD	10uL of 50ug/ml Std #4		50mL P&T H2O			
		10uL of 50ug/ml Std #5					
		10uL of 50ug/ml Std #6					
		25uL of 250ug/ml Std TBA					
8260 SOIL	50ug/Kg STD	5uL of 50ug/ml Std #4		Total Vol			
SS		5uL of 50ug/ml Std #5		5mL P&T H2O			
		5uL of 50ug/ml Std #6					
		5uL of 250ug/ml Std TBA					

Injection Log

Directory: M:\MAX\DATA\M160825\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	17	0825M17.D	1	20ug/L GAS STD 08/25/16R	10ml w/IS&S 7/26/16,7/25/16	25 Aug 16 18:23
2	18	0825M18.D	1	50ug/L GAS STD 08/25/1S	10ml w/IS&S 7/26/16,7/25/16	25 Aug 16 18:45
3	19	0825M19.D	1	100ug/L GAS STD 08/25/1T	10ml w/IS&S 7/26/16,7/25/16	25 Aug 16 19:06
4	20	0825M20.D	1	300ug/L GAS STD 08/25/1U	10ml w/IS&S 7/26/16,7/25/16	25 Aug 16 19:28
5	21	0825M21.D	1	600ug/L GAS STD 08/25/1V	10ml w/IS&S 7/26/16,7/25/16	25 Aug 16 19:50
6	22	0825M22.D	1	800ug/L GAS STD 08/25/1W	10ml w/IS&S 7/26/16,7/25/16	25 Aug 16 20:12
7	23	0825M23.D	1	1000ug/L GAS STD 08/25/1X	10ml w/IS&S 7/26/16,7/25/16	25 Aug 16 20:34
8	27	0825M27.D	1	(SS) 300ug/L GAS STD 08/25/16	10ml w/IS&S 7/26/16,7/25/16	25 Aug 16 22:01
9	5	1020M06.D	1	0.3ug/L VOC STD 10/20/16AA	1uL-5ppb	20 Oct 16 12:19
10	6	1020M07.D	1	0.5ug/L VOC STD 10/20/16AB	1uL-5ppb	20 Oct 16 12:41
11	7	1020M08.D	1	1.0ug/L VOC STD 10/20/16AC	2uL-10ppb	20 Oct 16 13:03
12	8	1020M09.D	1	2.0ug/L VOC STD 10/20/16AD	2uL-10ppb	20 Oct 16 13:25
13	9	1020M10.D	1	5.0ug/L VOC STD 10/20/16AE	5uL-25ppb	20 Oct 16 13:47
14	10	1020M11.D	1	10ug/L VOC STD 10/20/16AF	5uL-25ppb	20 Oct 16 14:09
15	12	1020M13.D	1	40ug/L VOC STD 10/20/16AH	10uL-50ppb	20 Oct 16 14:52
16	13	1020M14.D	1	100ug/L VOC STD 10/20/16AI	20uL-100ppb	20 Oct 16 15:14
17	20	1020M21.D	1	(SS) 10ug/L VOC STD 10/20/16	10ml w/IS&S 7/26/16,7/25/16	20 Oct 16 17:47
18	7	1022M07.D	1	161022A CCV/LCS 300ug/L	10ml w/IS&S 7/26/16,7/25/16	22 Oct 16 12:11
19	12	1022M12.D	1	161022A BLK-1WM	10ml w/IS&S 7/26/16,7/25/16	22 Oct 16 14:00
20	15	1022M15.D	1	AZ44694W01	10ml w/IS&S 7/26/16,7/25/16	22 Oct 16 15:05
21	16	1022M16.D	1	AZ44697W01	10ml w/IS&S 7/26/16,7/25/16	22 Oct 16 15:27
22	17	1022M17.D	1	AZ44698W01	10ml w/IS&S 7/26/16,7/25/16	22 Oct 16 15:49
23	19	1022M19.D	1	AZ44692W01	10ml w/IS&S 7/26/16,7/25/16	22 Oct 16 16:32
24	20	1022M20.D	1	AZ44693W01	10ml w/IS&S 7/26/16,7/25/16	22 Oct 16 16:54
25	21	1022M21.D	1	AZ44696W01	10ml w/IS&S 7/26/16,7/25/16	22 Oct 16 17:16
26	27	1022M27.D	1	Ending CCV GAS 300ug/L 10/22/16	10ml w/IS&S 7/26/16,7/25/16	22 Oct 16 19:28
27	34	1023M34.D	1	161023B CCV/LCS 300ug/L	10ml w/IS&S 7/26/16,7/25/16	23 Oct 16 20:41
28	37	1023M37.D	1	161023B BLK-1WM	10ml w/IS&S 7/26/16,7/25/16	23 Oct 16 21:47
29	38	1023M38.D	1	AZ44691W01	10ml w/IS&S 7/26/16,7/25/16	23 Oct 16 22:08
30	40	1023M40.D	1	AZ44687W01	10ml w/IS&S 7/26/16,7/25/16	23 Oct 16 22:52
31	41	1023M41.D	1	AZ44688W01	10ml w/IS&S 7/26/16,7/25/16	23 Oct 16 23:14
32	42	1023M42.D	1	AZ44689W01	10ml w/IS&S 7/26/16,7/25/16	23 Oct 16 23:36
33	43	1023M43.D	1	AZ44690W01	10ml w/IS&S 7/26/16,7/25/16	23 Oct 16 23:58
34	44	1023M44.D	1	AZ44695W01	10ml w/IS&S 7/26/16,7/25/16	24 Oct 16 00:20
35	50	1023M50.D	1	Ending CCV GAS 300ug/L 10/23/16	10ml w/IS&S 7/26/16,7/25/16	24 Oct 16 2:31

ORGANICS

APPL, INC.

ORGANICS
QC Summary

APPL, INC.

Method Blank
METHANE

Blank Name/QCG: **161022W-44688 - 213706**
Batch ID: #RSKMETH-161022

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/22/16	10/22/16

Quant Method: RSK0901.M
Run #: 1022006
Instrument: Rocky
Sequence: 160901
Initials: PY

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/16 4:38:00 PM

Method Blank
METHANE

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161025W-44687 - 213707**
Batch ID: #RSKMETH-161025

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/25/16	10/25/16

Quant Method: RSK0901.M
Run #: 1025004
Instrument: Rocky
Sequence: 160901
Initials: PY

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/16 4:38:01 PM

Laboratory Control Spike Recovery
METHANE

APPL ID: **161022W-44688 LCS - 213706**
Batch ID: #RSKMETH-161022

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
METHANE	320	345	108	72-125

Comments:

Primary	SPK
Quant Method :	RSK0901.M
Extraction Date :	10/22/16
Analysis Date :	10/22/16
Instrument :	Rocky
Run :	1002001
Initials :	PY

Printed: 11/15/16 4:38:02 PM
APPL Standard LCS

Laboratory Control Spike Recovery
METHANE

APPL ID: **161025W-44687 LCS - 213707**
Batch ID: #RSKMETH-161025

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
METHANE	320	371	116	72-125

Comments: _____

Primary	SPK
Quant Method :	RSK0901.M
Extraction Date :	10/25/16
Analysis Date :	10/25/16
Instrument :	Rocky
Run :	1025003
Initials :	PY

Printed: 11/15/16 4:38:02 PM
APPL Standard LCS

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/22/16

Matrix: WATER Instrument: Rocky

Blank ID: 161022-BLK Time Analyzed: 1344

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161022-LCS	Lab Control Spike	1002001	10/22/16 1042
161022-BLK	Blank	1022006	10/22/16 1344
AZ44688	ERH089	1022014	10/22/16 1408
AZ44689	ERH093	1022015	10/22/16 1412
AZ44690	ERH097	1022016	10/22/16 1415
AZ44691	ERH098	1022017	10/22/16 1417
AZ44694	ERH102	1022018	10/22/16 1419
AZ44695	ERH104	1022019	10/22/16 1421
AZ44697	ERH106	1022020	10/22/16 1424
AZ44698	ERH107	1022021	10/22/16 1426

Comments: Batch: #RSKMETH-16102

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81251

Case No: 81251 Date Analyzed: 10/25/16

Matrix: WATER Instrument: Rocky

Blank ID: 161025-BLK Time Analyzed: 1143

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161025-LCS	Lab Control Spike	1025003	10/25/16 1138
161025-BLK	Blank	1025004	10/25/16 1143
AZ44687	ERH091	1025005	10/25/16 1209

Comments: Batch: #RSKMETH-16102

ORGANICS
Sample Data

APPL, INC.

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH091

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44687

QCG: #RSKMETH-161025-213707

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	47000	250.0	50.00	12.50	ug/L	10/25/16	10/25/16

Quant Method:	RSK0901.M
Run #:	1025005
Instrument:	Rocky
Sequence:	160901
Dilution Factor:	50
Initials:	PY

Printed: 11/15/16 4:38:23 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1025005.D Vial: 6
Acq On : 25 Oct 16 12:09 Operator: lac
Sample : AZ44687W04 DF50 Inst : 7890
Misc : Multiplr: 50.00
IntFile : autoint1.e
Quant Time: Nov 11 10:26 2016 Quant Results File: RSK0901.RES

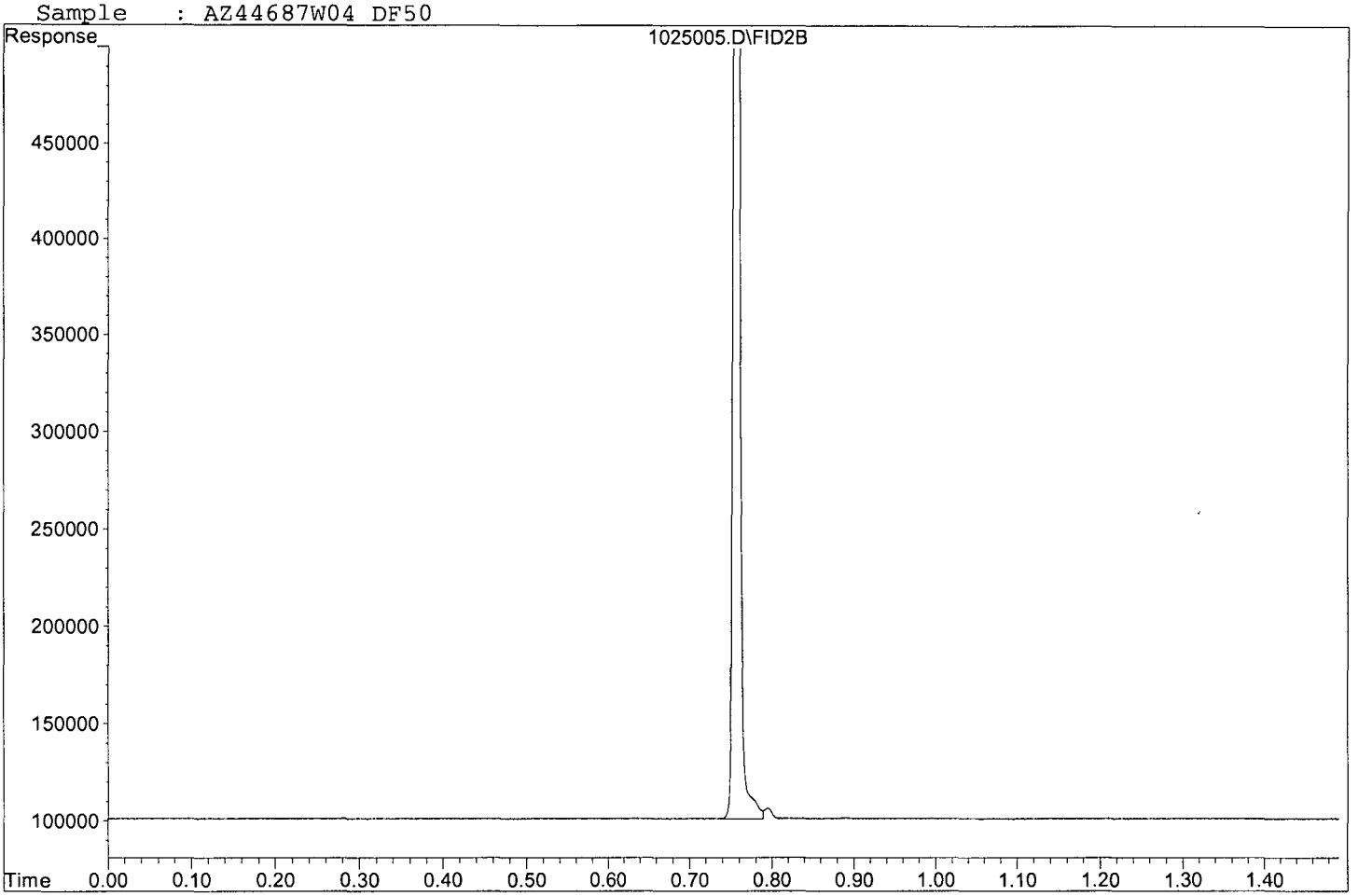
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.76	1026191	46706.708	ppb
Target Compounds				
2) ATM Ethane	0.89	660	N.D.	ppb
3) ATM Ethene	0.97	276	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\1025005.D
Sample : AZ44687W04 DF50



METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH089

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44688

QCG: #RSKMETH-161022-213706

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/22/16	10/22/16

Quant Method:	RSK0901.M
Run #:	1022014
Instrument:	Rocky
Sequence:	160901
Dilution Factor:	1
Initials:	PY

Printed: 11/15/16 4:38:23 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1022014.D Vial: 15
Acq On : 22 Oct 16 14:08 Operator: lac
Sample : AZ44688W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:25 2016 Quant Results File: RSK0901.RES

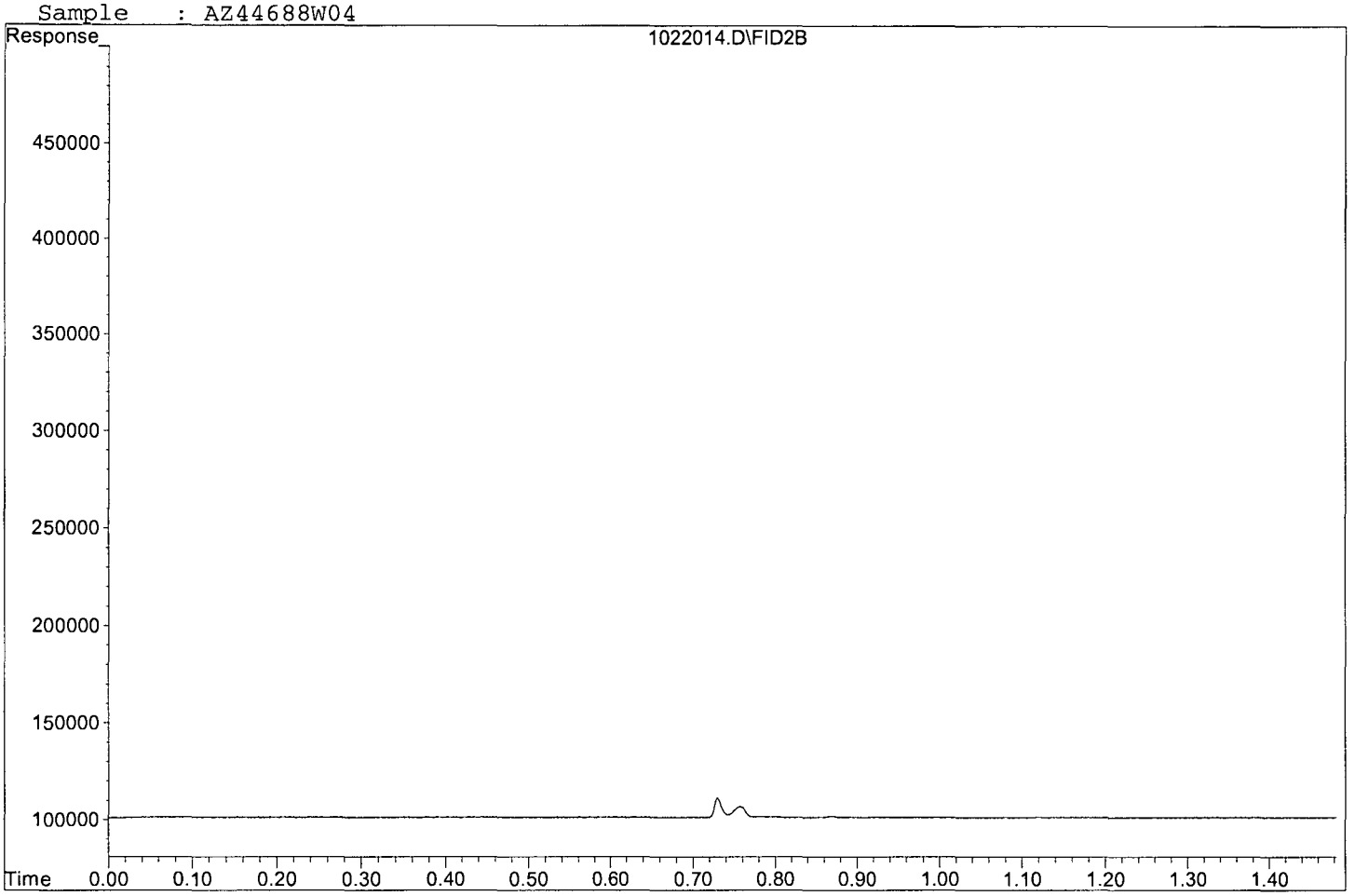
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.76	5816	N.D.	ppb
2) ATM Ethane	0.89	380	N.D.	ppb
3) ATM Ethene	0.97	354	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\1022014.D
Sample : AZ44688W04



METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH093

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44689

QCG: #RSKMETH-161022-213706

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/22/16	10/22/16

Quant Method:	RSK0901.M
Run #:	1022015
Instrument:	Rocky
Sequence:	160901
Dilution Factor:	1
Initials:	PY

Printed: 11/15/16 4:38:23 PM

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

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1022015.D Vial: 16
Acq On : 22 Oct 16 14:12 Operator: lac
Sample : AZ44689W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:25 2016 Quant Results File: RSK0901.RES

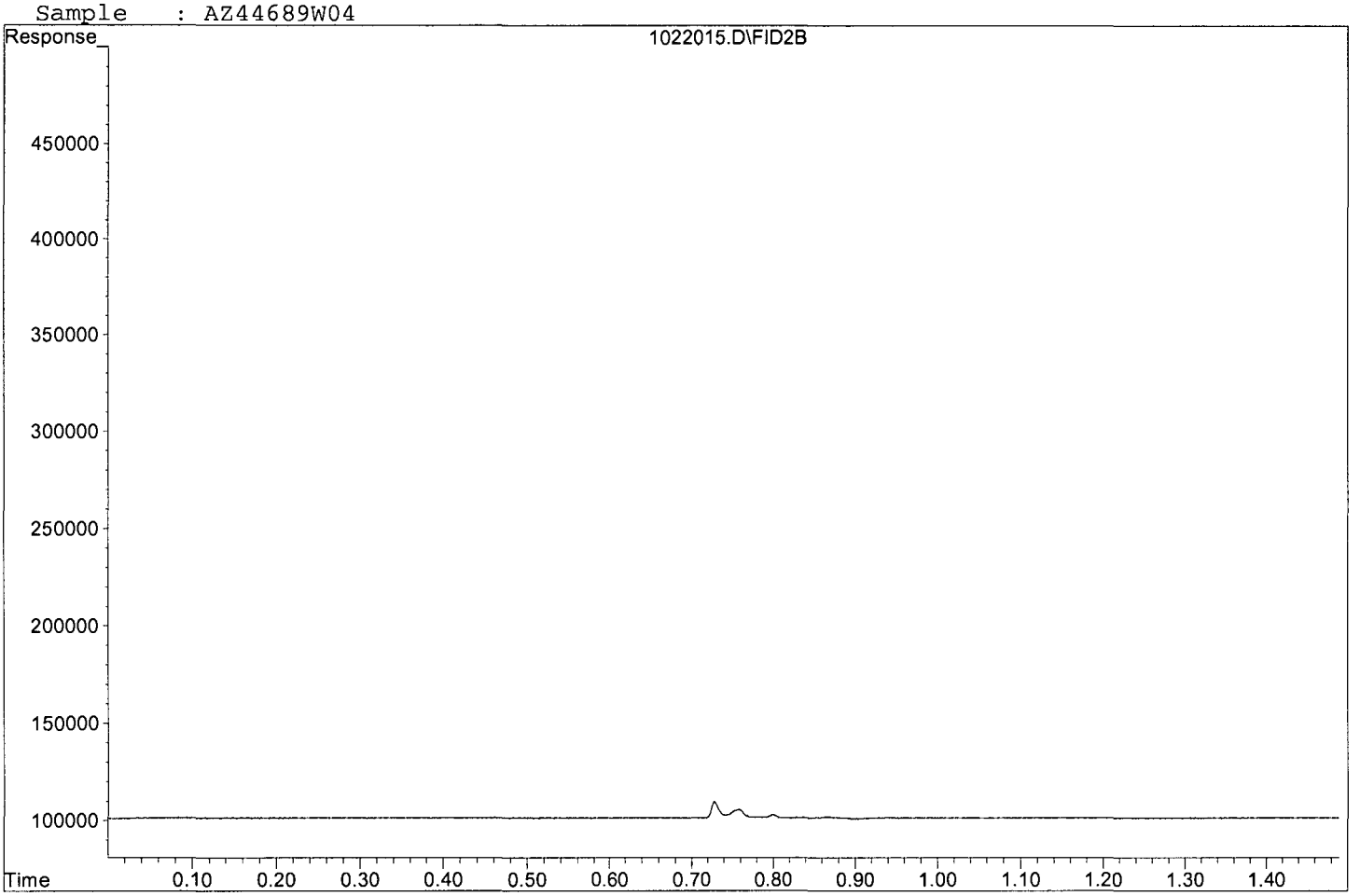
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.76	4661	N.D.	ppb
2) ATM Ethane	0.90	244	N.D.	ppb
3) ATM Ethene	0.97	433	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\1022015.D
Sample : AZ44689W04



METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81251

Sample ID: ERH097

APPL ID: AZ44690

Sample Collection Date: 10/19/16

QCG: #RSKMETH-161022-213706

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/22/16	10/22/16

Quant Method:	RSK0901.M
Run #:	1022016
Instrument:	Rocky
Sequence:	160901
Dilution Factor:	1
Initials:	PY

Printed: 11/15/16 4:38:23 PM

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

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1022016.D Vial: 17
Acq On : 22 Oct 16 14:15 Operator: lac
Sample : AZ44690W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:25 2016 Quant Results File: RSK0901.RES

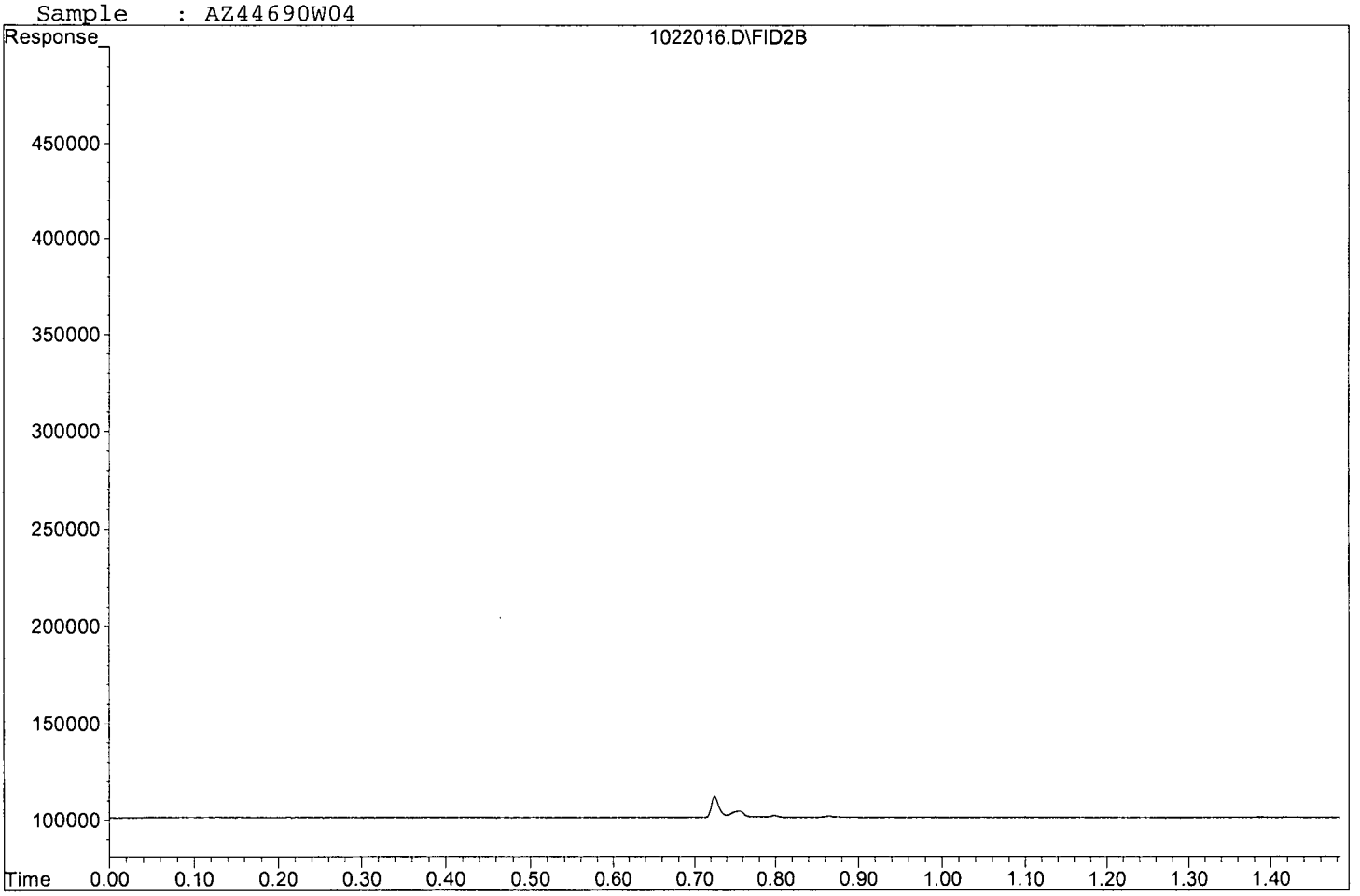
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.76	3462	N.D.	ppb
2) ATM Ethane	0.89	347	N.D.	ppb
3) ATM Ethene	0.97	282	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\1022016.D
Sample : AZ44690W04



METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH098

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44691

QCG: #RSKMETH-161022-213706

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/22/16	10/22/16

Quant Method:	RSK0901.M
Run #:	1022017
Instrument:	Rocky
Sequence:	160901
Dilution Factor:	1
Initials:	PY

Printed: 11/15/16 4:38:23 PM

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

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1022017.D Vial: 18
Acq On : 22 Oct 16 14:17 Operator: lac
Sample : AZ44691W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:25 2016 Quant Results File: RSK0901.RES

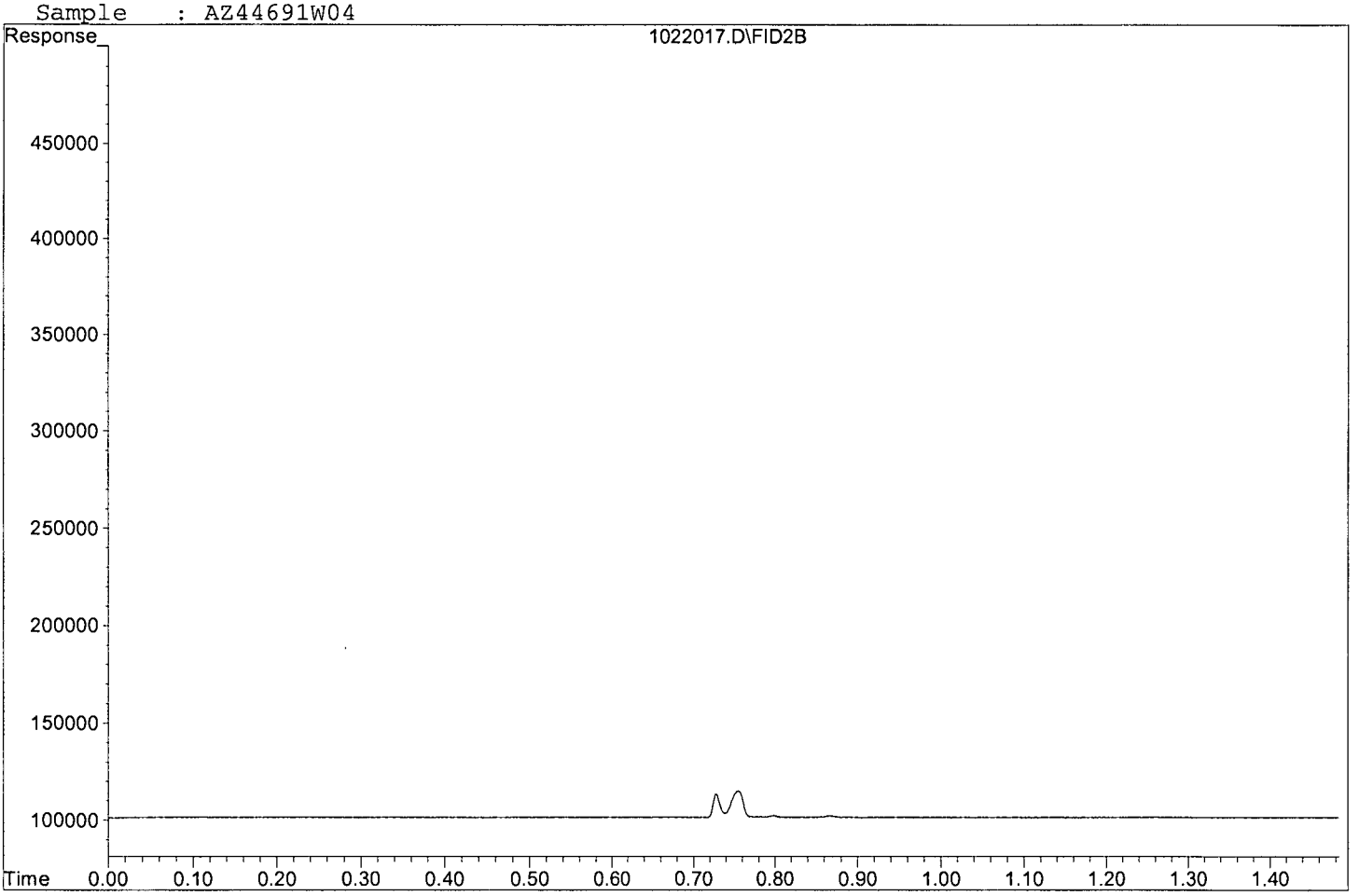
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.76	13681	N.D.	ppb
2) ATM Ethane	0.89	348	N.D.	ppb
3) ATM Ethene	0.97	272	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\1022017.D
Sample : AZ44691W04



METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH102

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44694

QCG: #RSKMETH-161022-213706

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/22/16	10/22/16

Quant Method:	RSK0901.M
Run #:	1022018
Instrument:	Rocky
Sequence:	160901
Dilution Factor:	1
Initials:	PY

Printed: 11/15/16 4:38:23 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1022018.D Vial: 19
Acq On : 22 Oct 16 14:19 Operator: lac
Sample : AZ44694W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:25 2016 Quant Results File: RSK0901.RES

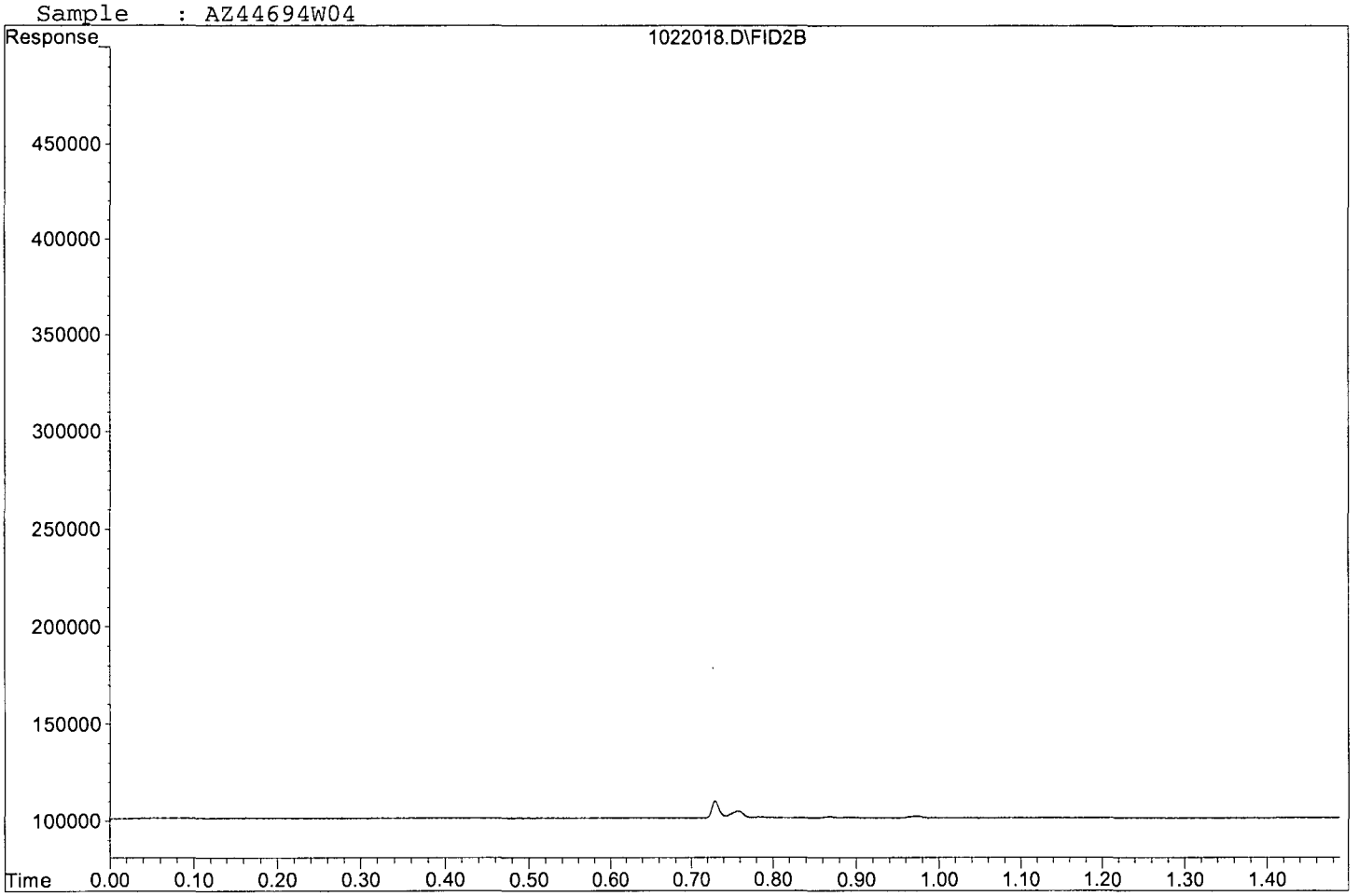
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.76	3566	N.D.	ppb
2) ATM Ethane	0.89	724	N.D.	ppb
3) ATM Ethene	0.97	1118	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\1022018.D
Sample : AZ44694W04



METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH104

Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44695

QCG: #RSKMETH-161022-213706

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/22/16	10/22/16

Quant Method:	RSK0901.M
Run #:	1022019
Instrument:	Rocky
Sequence:	160901
Dilution Factor:	1
Initials:	PY

Printed: 11/15/16 4:38:23 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1022019.D Vial: 20
Acq On : 22 Oct 16 14:21 Operator: lac
Sample : AZ44695W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:25 2016 Quant Results File: RSK0901.RES

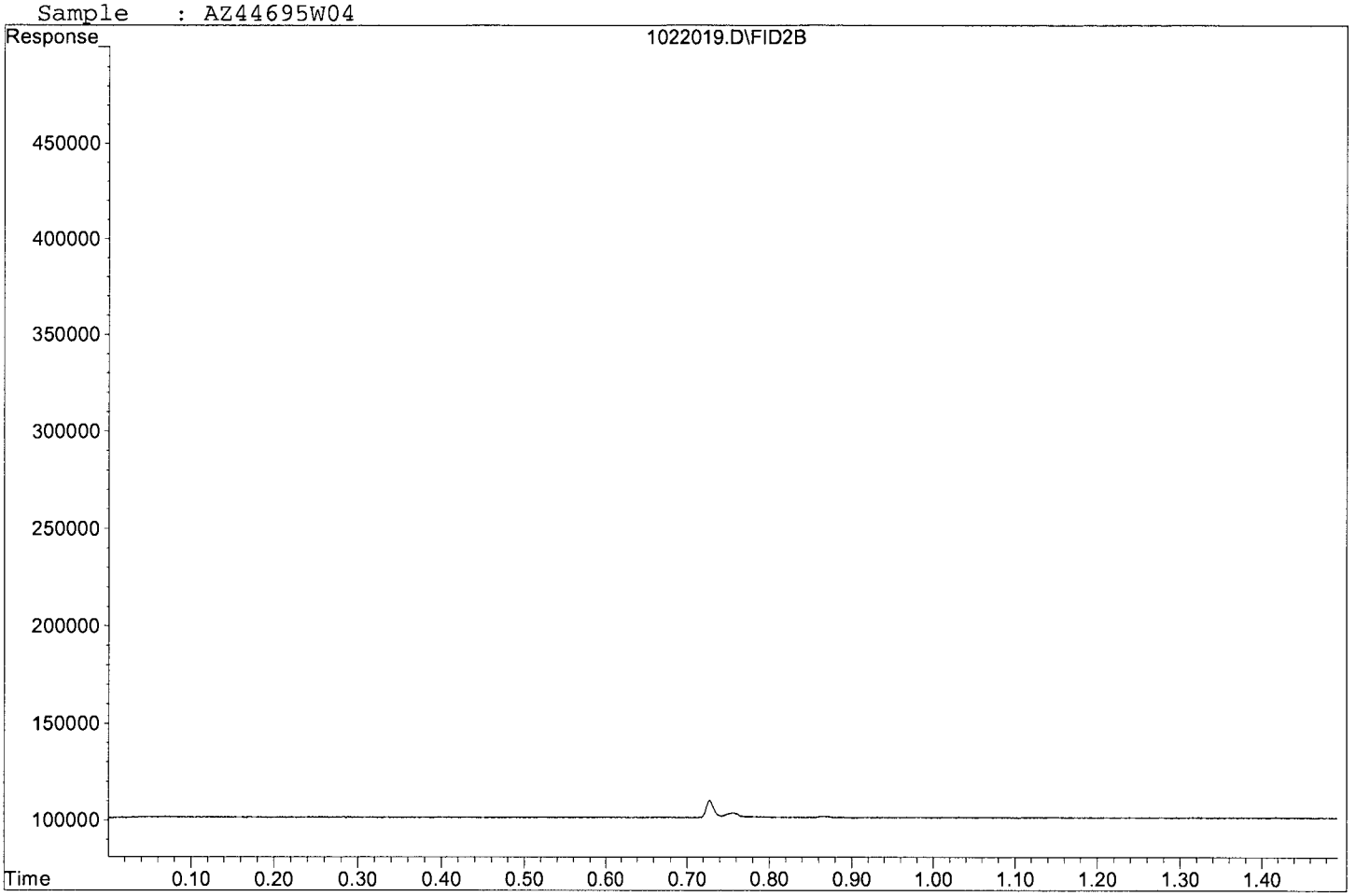
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.76	2527	N.D.	ppb
2) ATM Ethane	0.89	418	N.D.	ppb
3) ATM Ethene	0.97	375	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\1022019.D
Sample : AZ44695W04



METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH106

Sample Collection Date: 10/19/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44697

QCG: #RSKMETH-161022-213706

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/22/16	10/22/16

Quant Method:	RSK0901.M
Run #:	1022020
Instrument:	Rocky
Sequence:	160901
Dilution Factor:	1
Initials:	PY

Printed: 11/15/16 4:38:23 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1022020.D Vial: 21
Acq On : 22 Oct 16 14:24 Operator: lac
Sample : AZ44697W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:25 2016 Quant Results File: RSK0901.RES

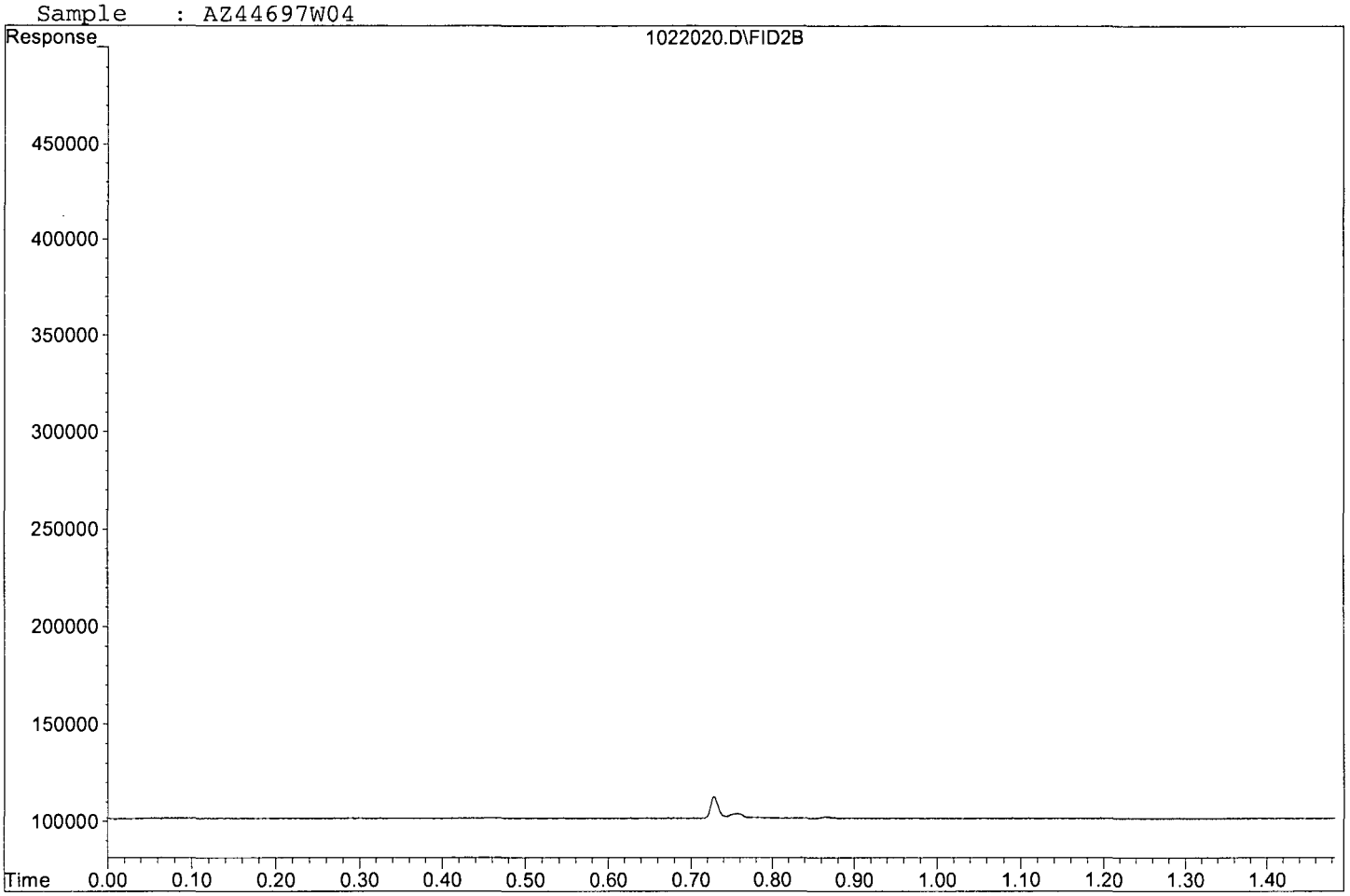
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.76	2508	N.D.	ppb
2) ATM Ethane	0.90	523	N.D.	ppb
3) ATM Ethene	0.98	381	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\1022020.D
Sample : AZ44697W04



METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH107

Sample Collection Date: 10/20/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81251

APPL ID: AZ44698

QCG: #RSKMETH-161022-213706

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/22/16	10/22/16

Quant Method:	RSK0901.M
Run #:	1022021
Instrument:	Rocky
Sequence:	160901
Dilution Factor:	1
Initials:	PY

Printed: 11/15/16 4:38:23 PM

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

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1022021.D Vial: 22
Acq On : 22 Oct 16 14:26 Operator: lac
Sample : AZ44698W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:25 2016 Quant Results File: RSK0901.RES

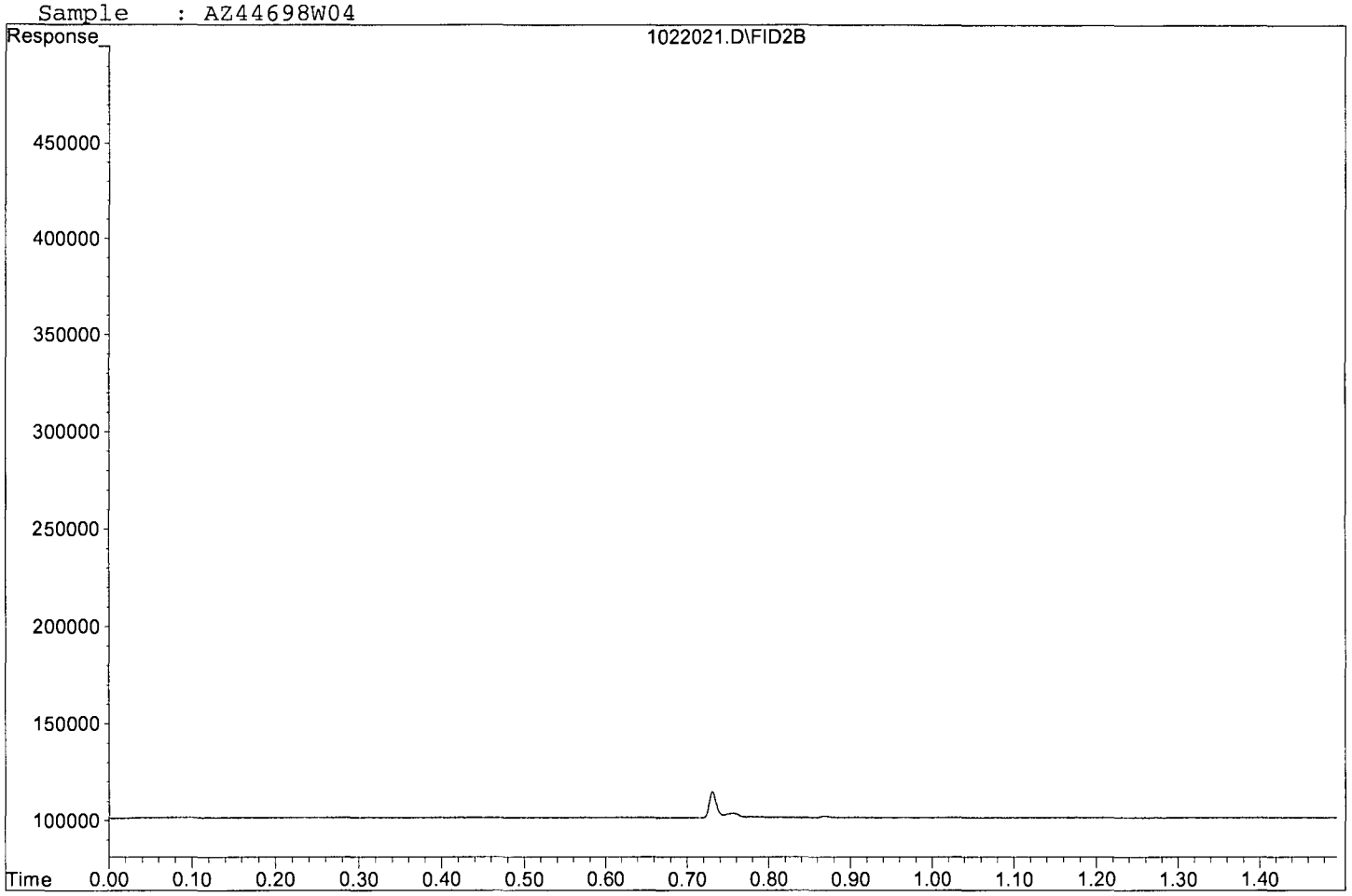
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.76	2590	N.D.	ppb
2) ATM Ethane	0.89	343	N.D.	ppb
3) ATM Ethene	0.97	309	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\1022021.D
Sample : AZ44698W04



ORGANICS
Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 09/01/16
Matrix: Instrument: 7890 Initials:

			0901000.D	0901001.D	0901002.D	0901003.D	0901004.D	0901005.D	0901006.D	0901007.D	0901008.D	0901009.D				
		Compound	1	2	3	4	5	6	7	8	9	10	Avg	%RSD		
1	ATM	Methane	7448	5672	3042	3435	1074	1006	1184	1314	1084	1089	2635	87	ATM	
2	ATM	Ethane	1509	1521	1416	2554	478	657	816	933	791	798	1147	54	ATM	
3	ATM	Ethene	1826	1525	1280	2301	444	570	693	733	628	626	1063	60	ATM	
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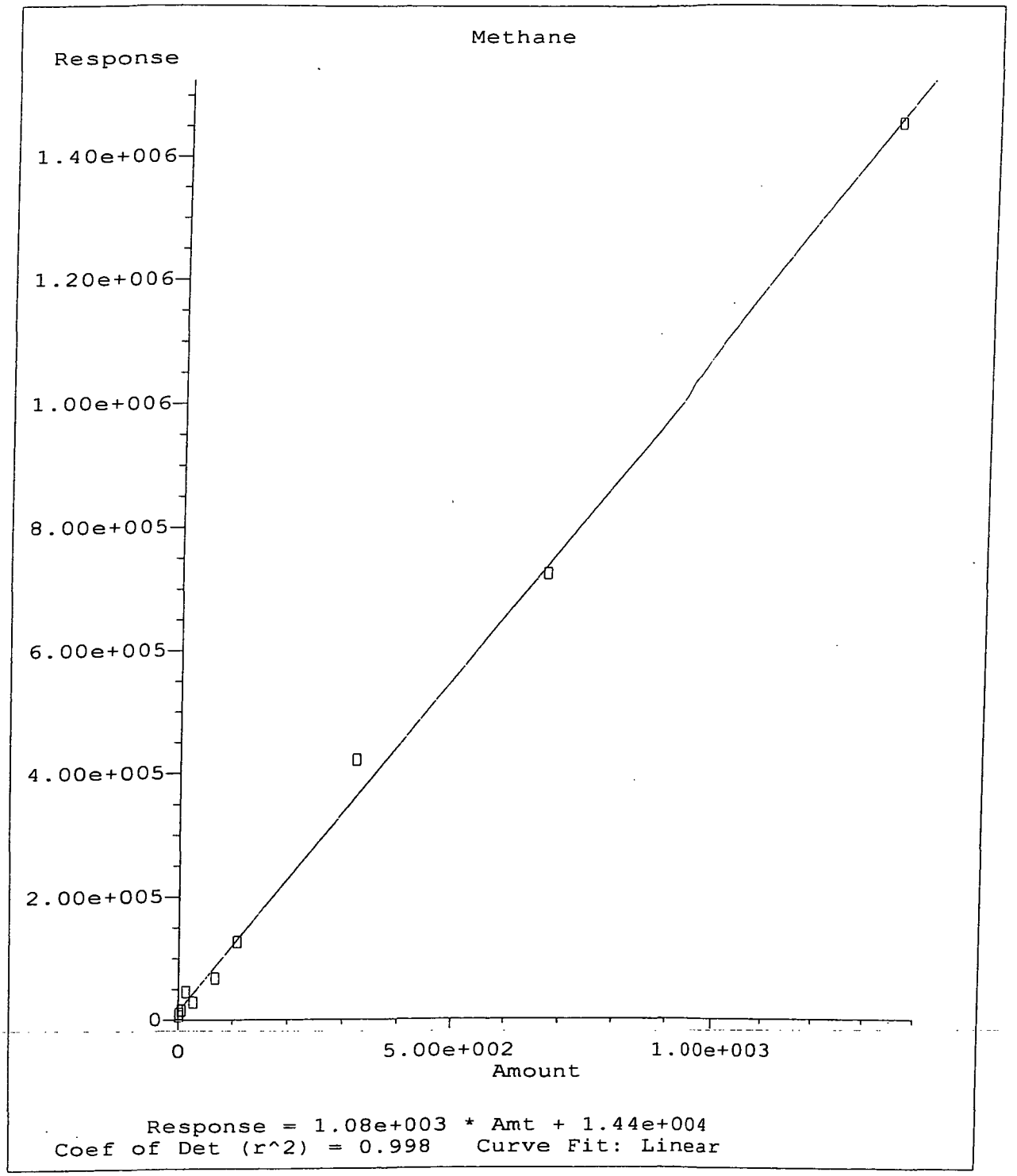
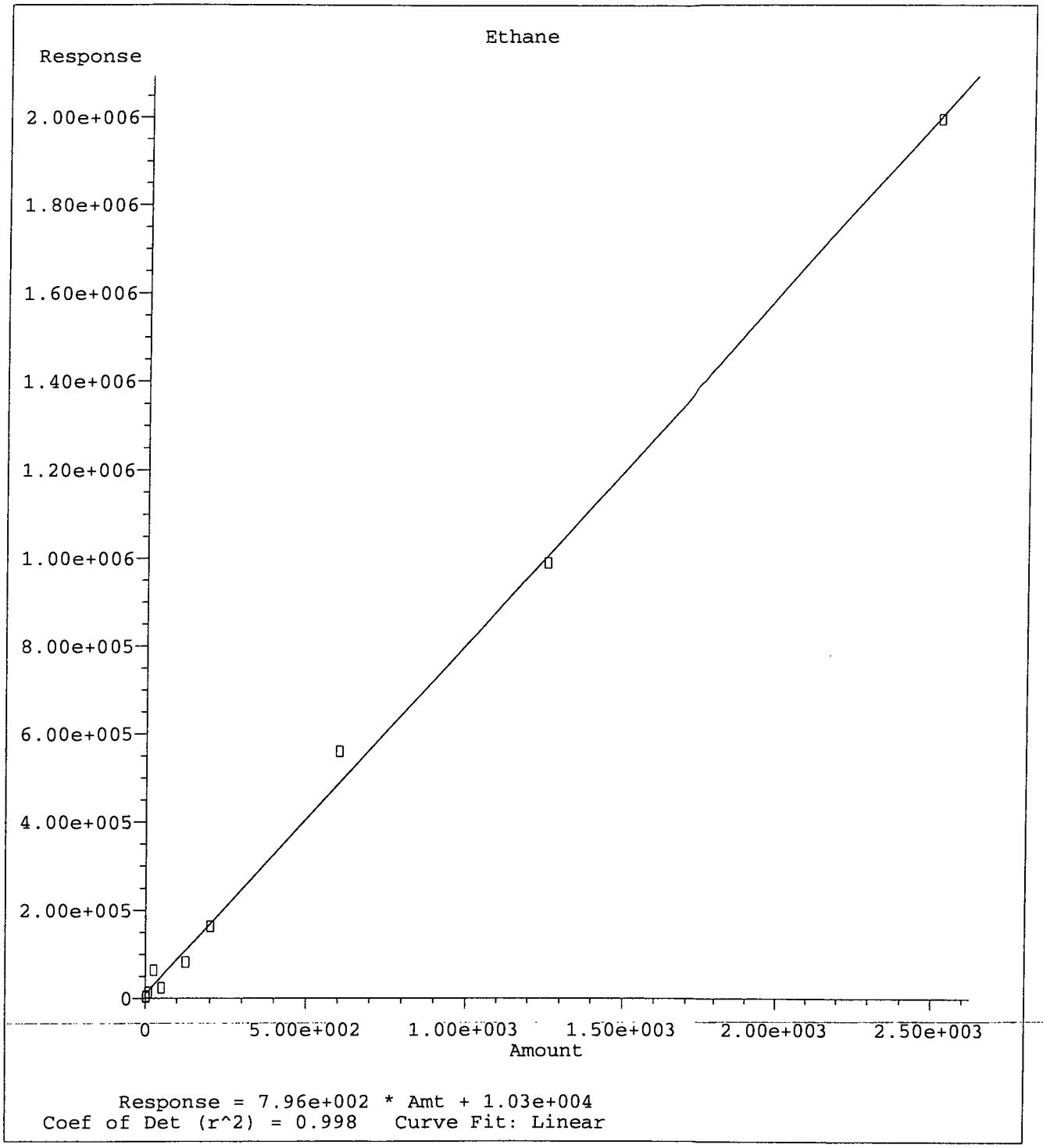
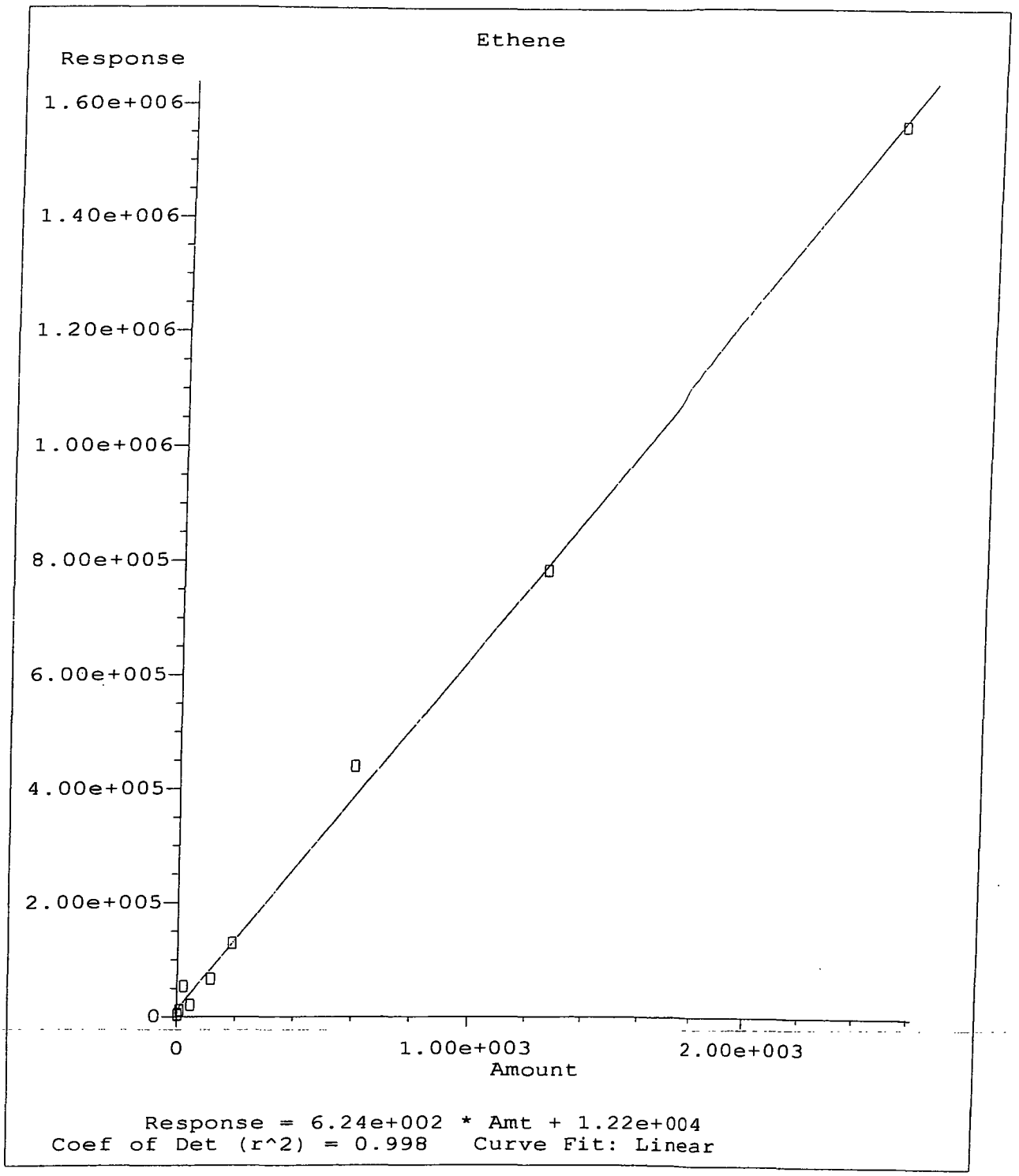


Method Name: G:\ROCKY\DATA\160901R\RSK0901.M
Calibration Table Last Updated: Fri Sep 02 15:25:38 2016



Method Name: G:\ROCKY\DATA\160901R\RSK0901.M
Calibration Table Last Updated: Thu Nov 10 08:49:51 2016



Method Name: G:\ROCKY\DATA\160901R\RSK0901.M
Calibration Table Last Updated: Fri Sep 02 15:25:38 2016

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901000.D Vial: 1
Acq On : 1 Sep 16 11:38 Operator: lac
Sample : RSK Level 1 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

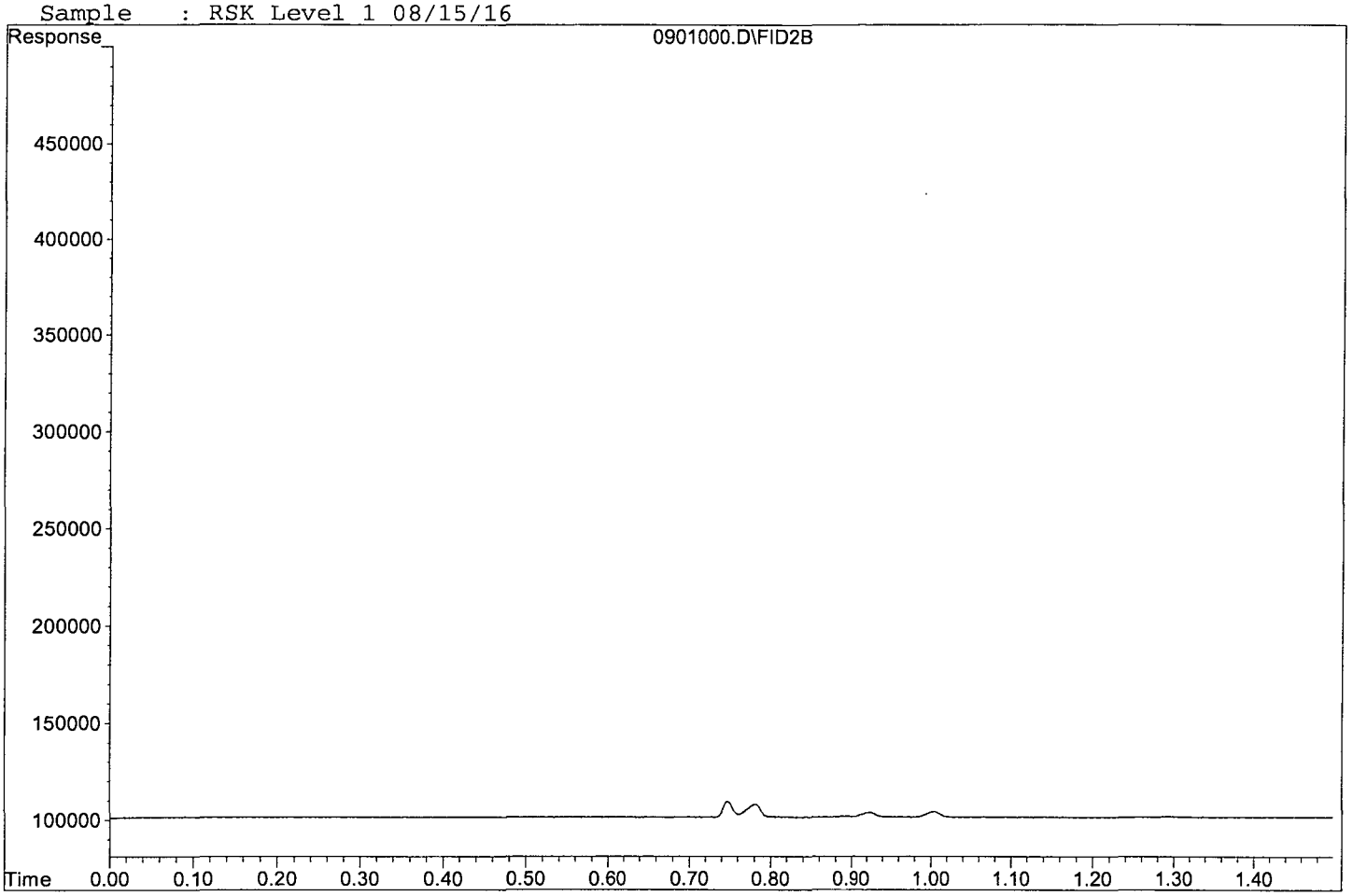
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.78	6703	N.D.	ppb
2) ATM Ethane	0.92	2566	N.D.	ppb
3) ATM Ethene	1.00	2922	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\0901000.D
Sample : RSK Level 1 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901001.D Vial: 2
Acq On : 1 Sep 16 11:41 Operator: lac
Sample : RSK Level 2 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

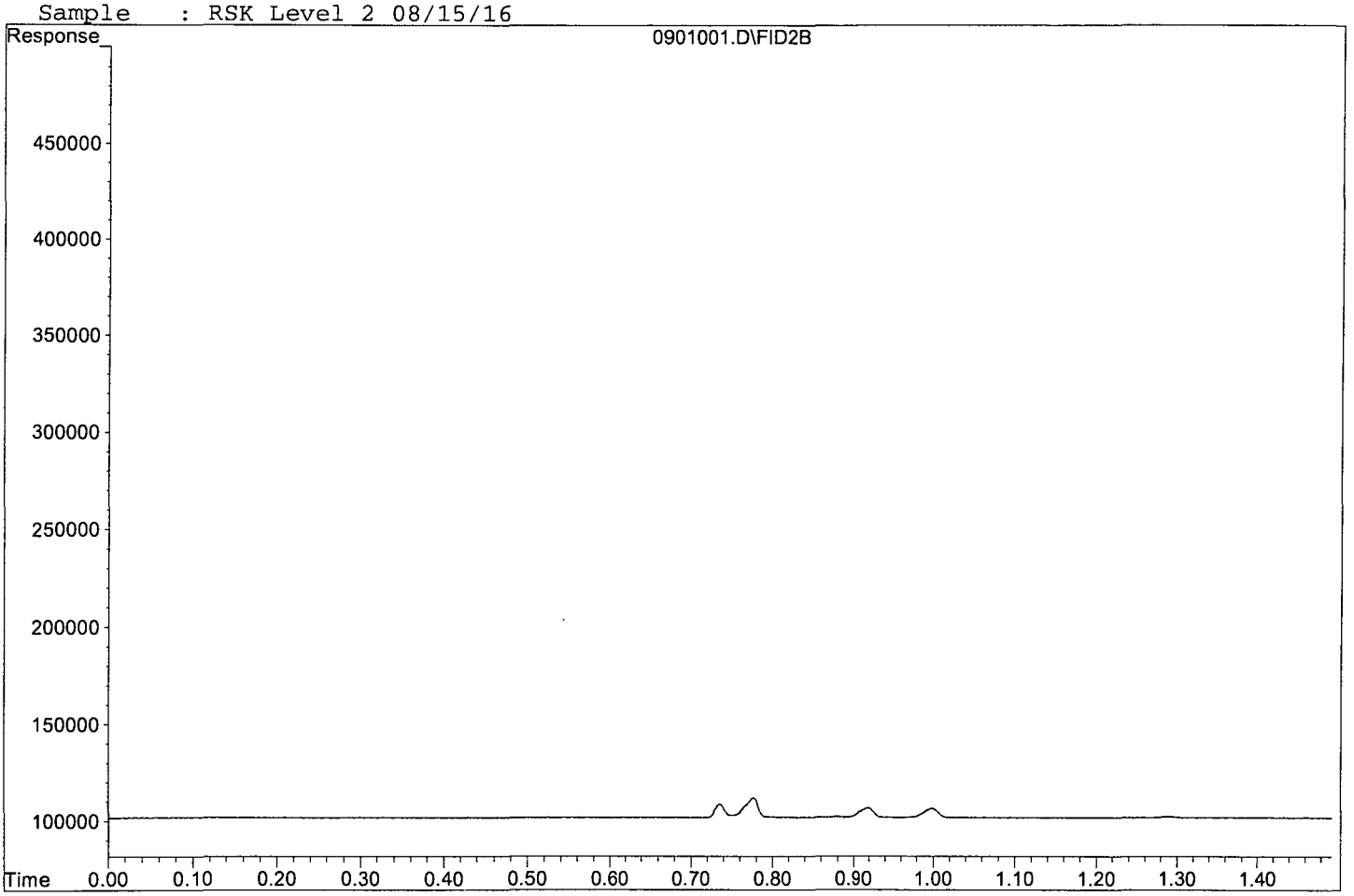
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.79	569	N.D.	ppb
2) ATM Ethane	0.94	352	N.D.	ppb
3) ATM Ethene	1.02	250	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\0901001.D
Sample : RSK Level 2 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901002.D Vial: 3
Acq On : 1 Sep 16 11:44 Operator: lac
Sample : RSK Level 3 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 14 13:31 2016 Quant Results File: RSK0901.RES

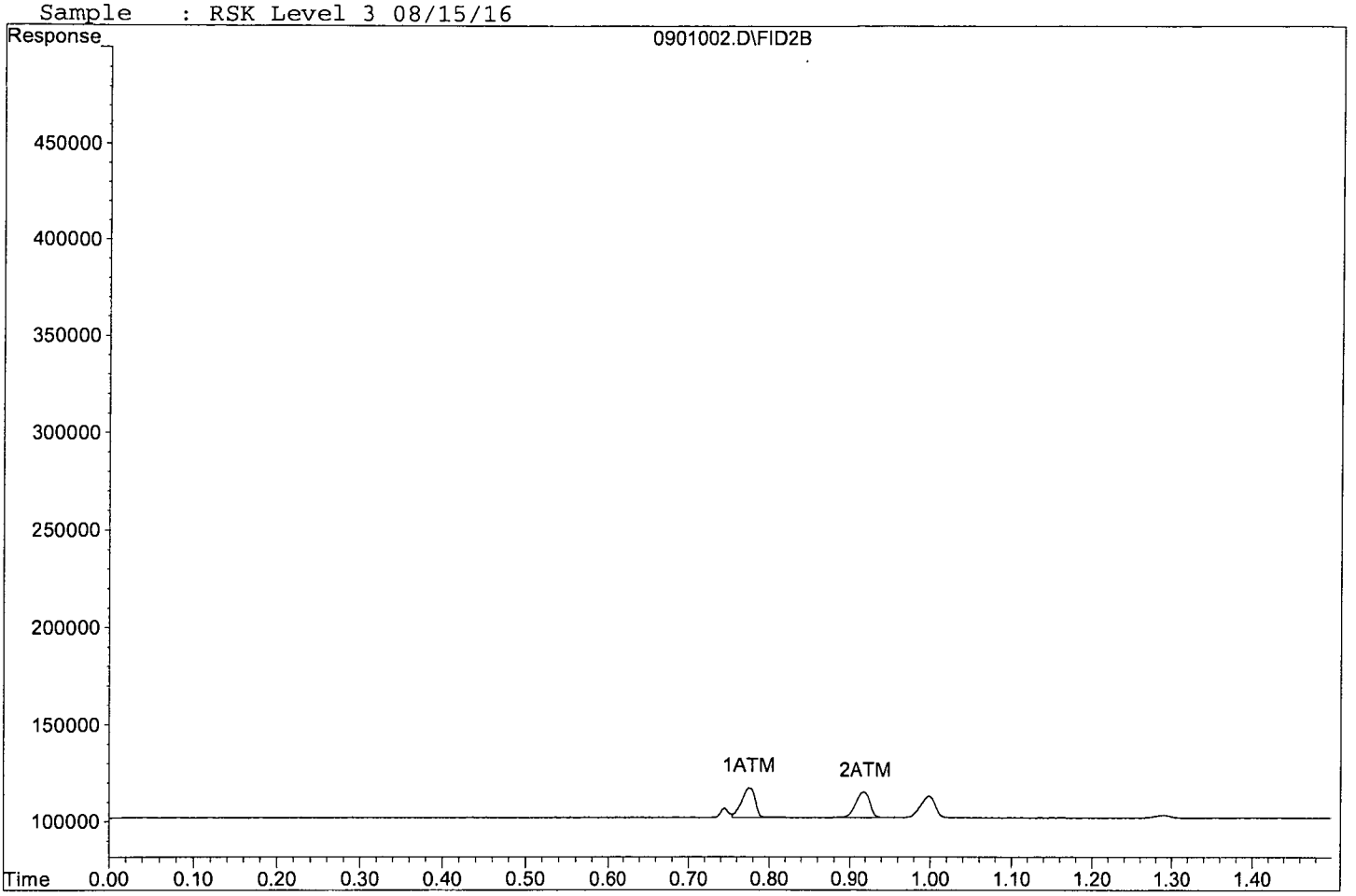
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.77	15515	1.054	ppb
2) ATM Ethane	0.92	13452	3.912	ppb
Target Compounds				
3) ATM Ethene	1.00	11390	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\0901002.D
Sample : RSK Level 3 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901003.D Vial: 4
Acq On : 1 Sep 16 11:46 Operator: lac
Sample : RSK Level 4 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

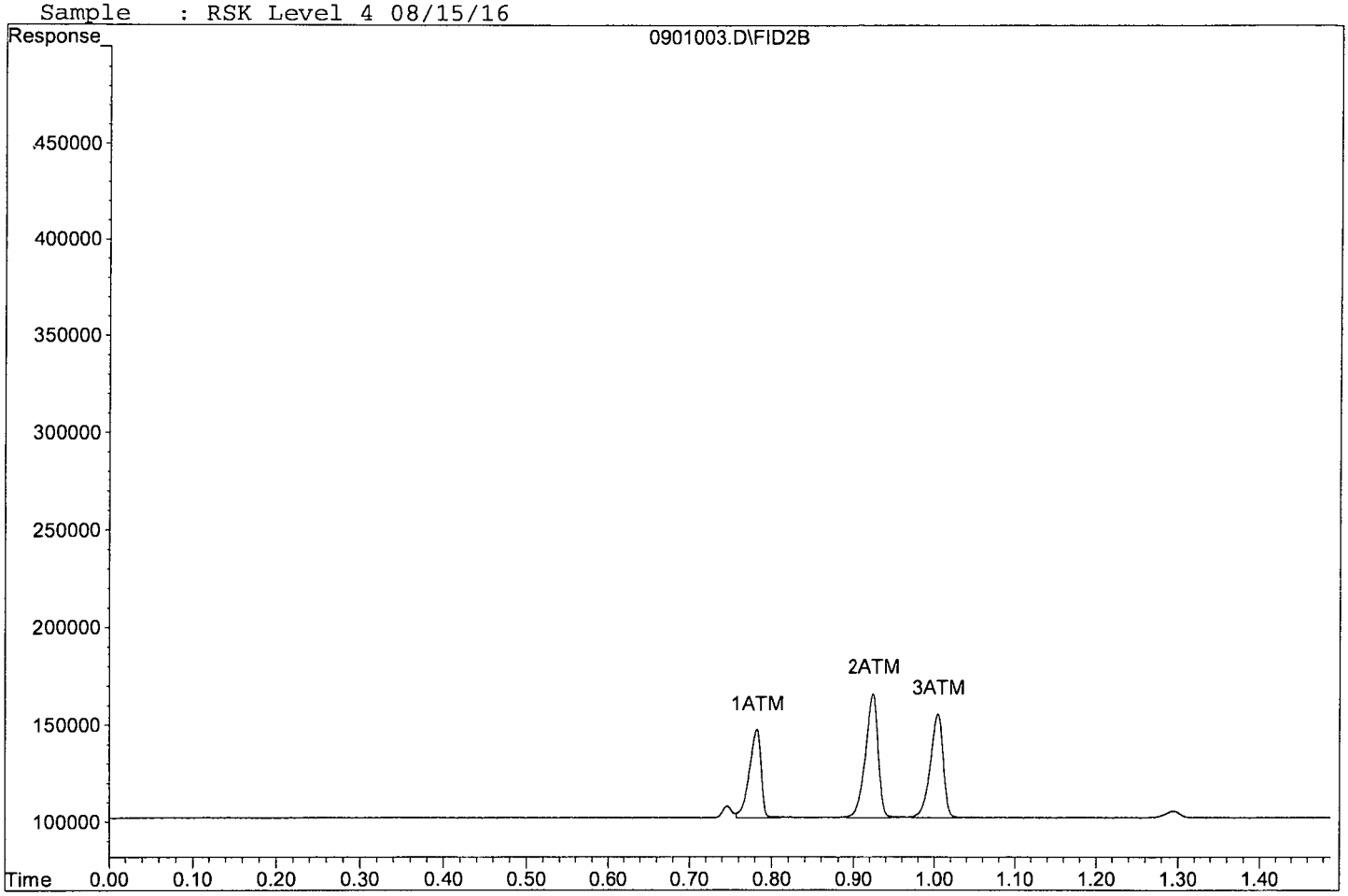
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.78	45792	29.006 ppb
2) ATM Ethane	0.92	63853	67.197 ppb
3) ATM Ethene	1.00	53608	66.354 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\0901003.D
Sample : RSK Level 4 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901004.D Vial: 5
Acq On : 1 Sep 16 11:48 Operator: lac
Sample : RSK Level 5 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

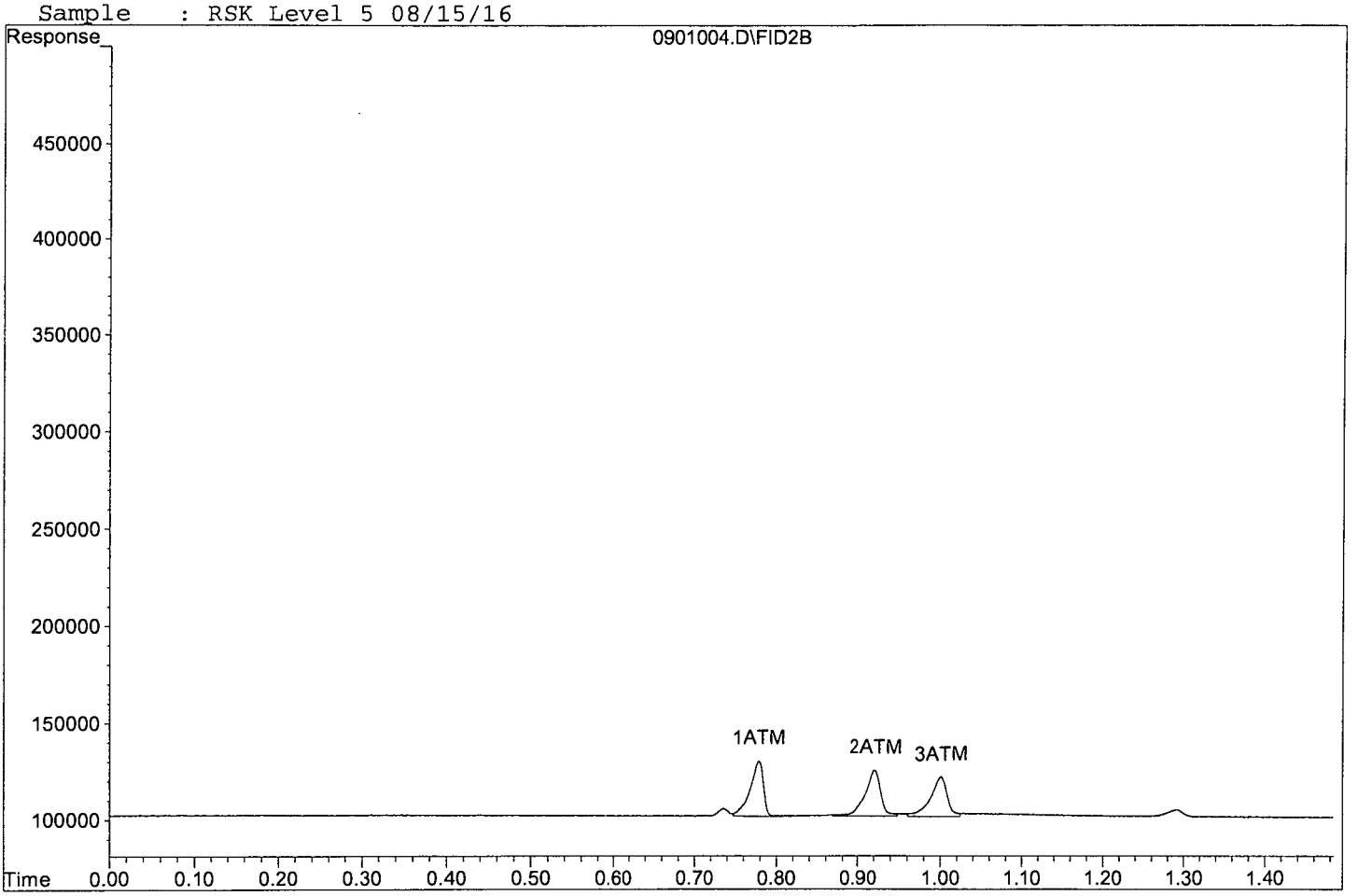
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.78	28664	13.193 ppb
2) ATM Ethane	0.92	23891	17.020 ppb
3) ATM Ethene	1.00	20700	13.631 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\0901004.D
Sample : RSK Level 5 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901005.D Vial: 6
Acq On : 1 Sep 16 11:50 Operator: lac
Sample : RSK Level 6 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

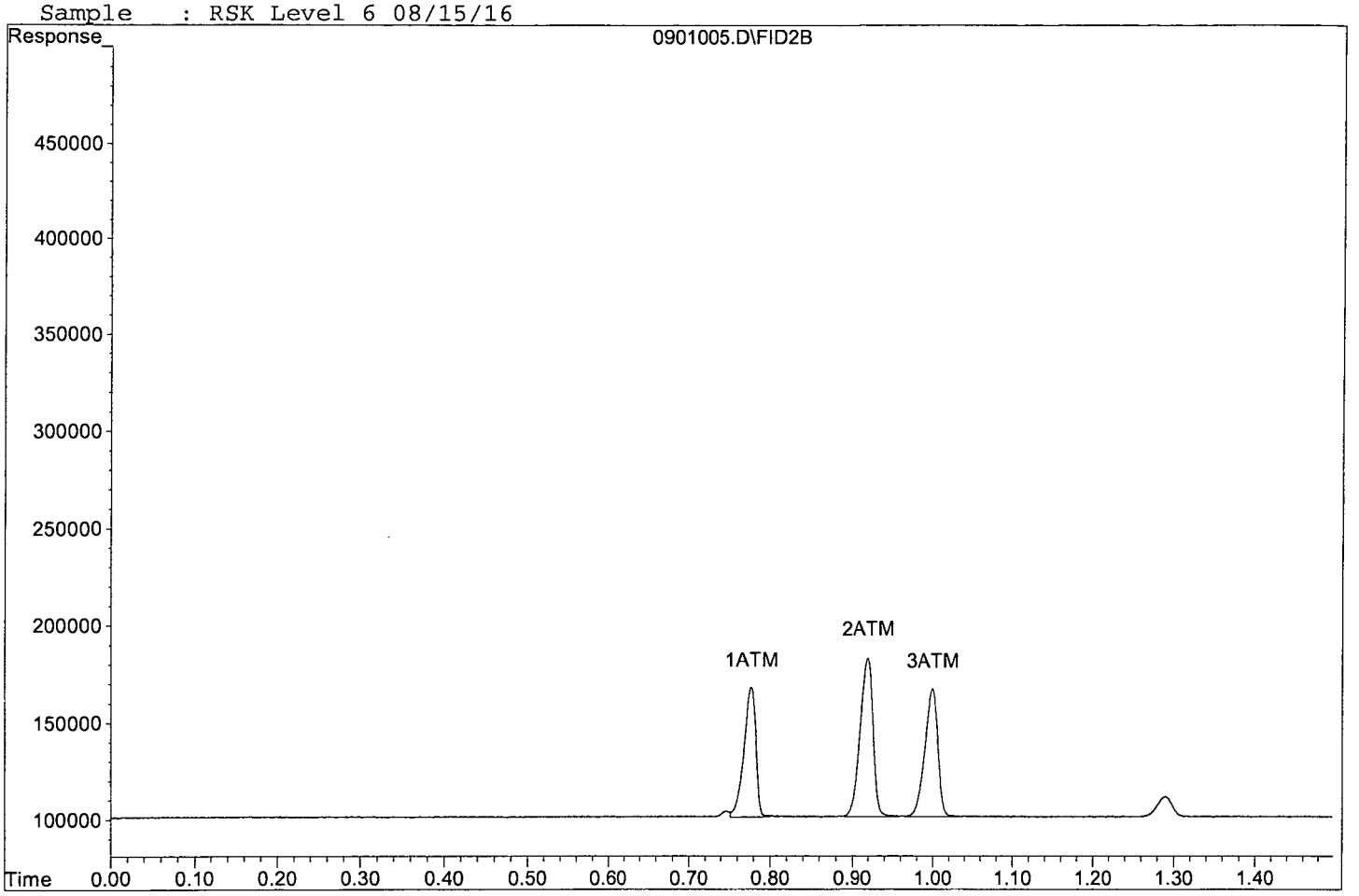
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.78	67137	48.712 ppb
2) ATM Ethane	0.92	82167	90.193 ppb
3) ATM Ethene	1.00	66348	86.764 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\0901005.D
Sample : RSK Level 6 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901006.D Vial: 7
Acq On : 1 Sep 16 11:52 Operator: lac
Sample : RSK Level 7 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

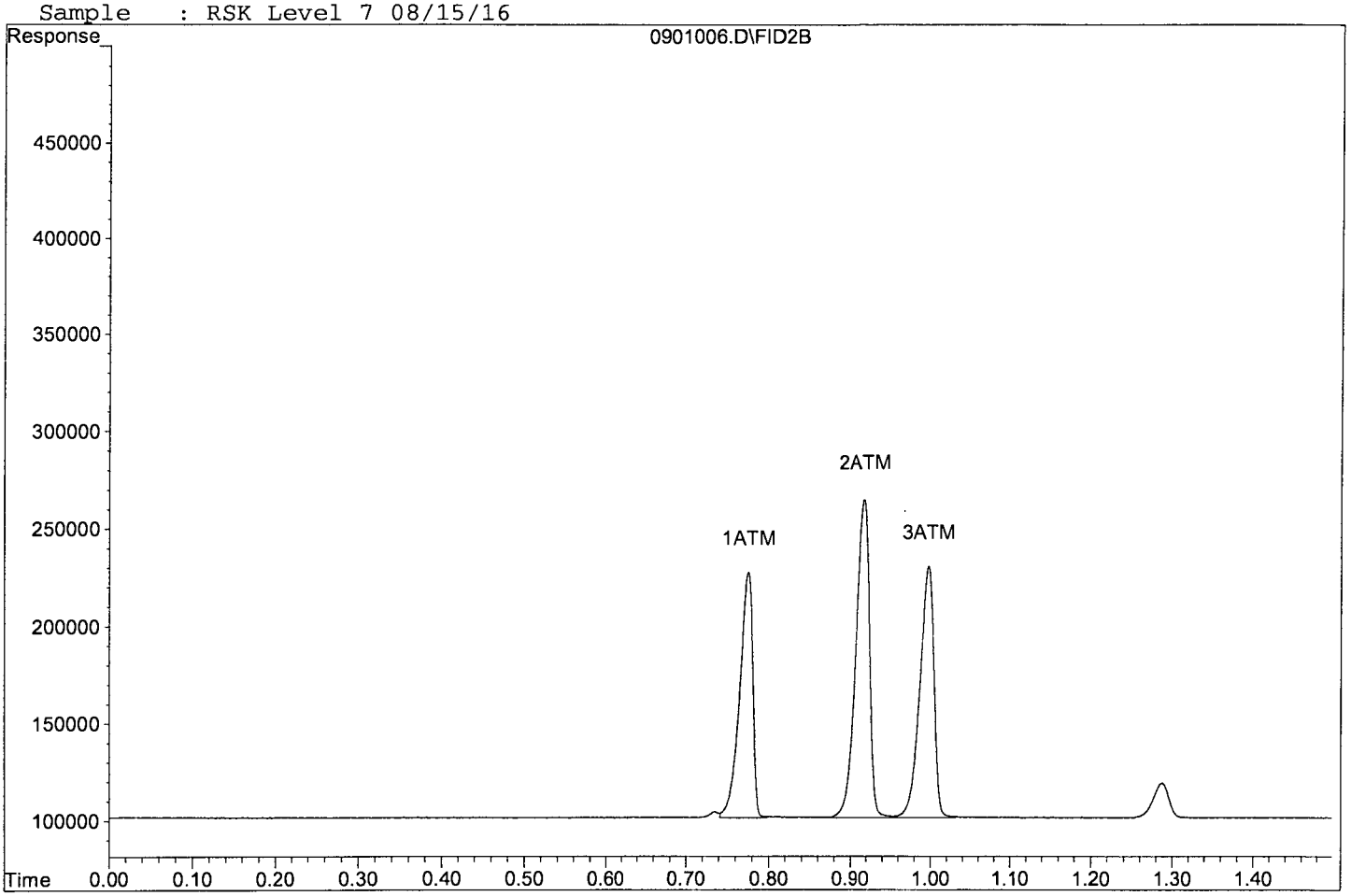
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.78	126422	103.446 ppb
2) ATM Ethane	0.92	163281	192.041 ppb
3) ATM Ethene	1.00	129200	187.460 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\0901006.D
Sample : RSK Level 7 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901007.D Vial: 8
Acq On : 1 Sep 16 11:55 Operator: lac
Sample : RSK Level 8 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

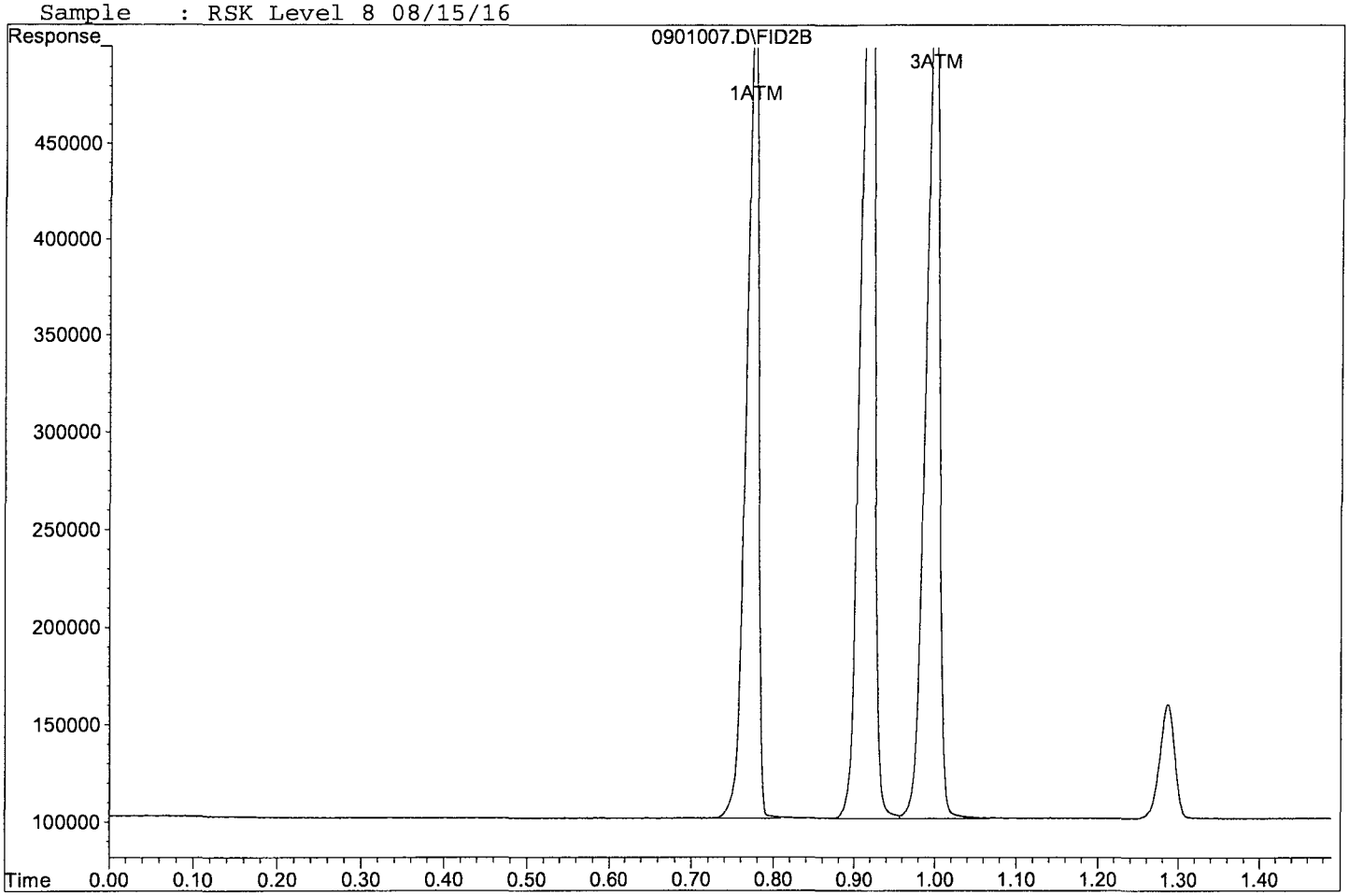
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.77	421052	375.455 ppb
2) ATM Ethane	0.92	559640	689.720 ppb
3) ATM Ethene	1.00	439383	684.403 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\0901007.D
Sample : RSK Level 8 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901008.D Vial: 9
Acq On : 1 Sep 16 11:57 Operator: lac
Sample : RSK Level 9 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

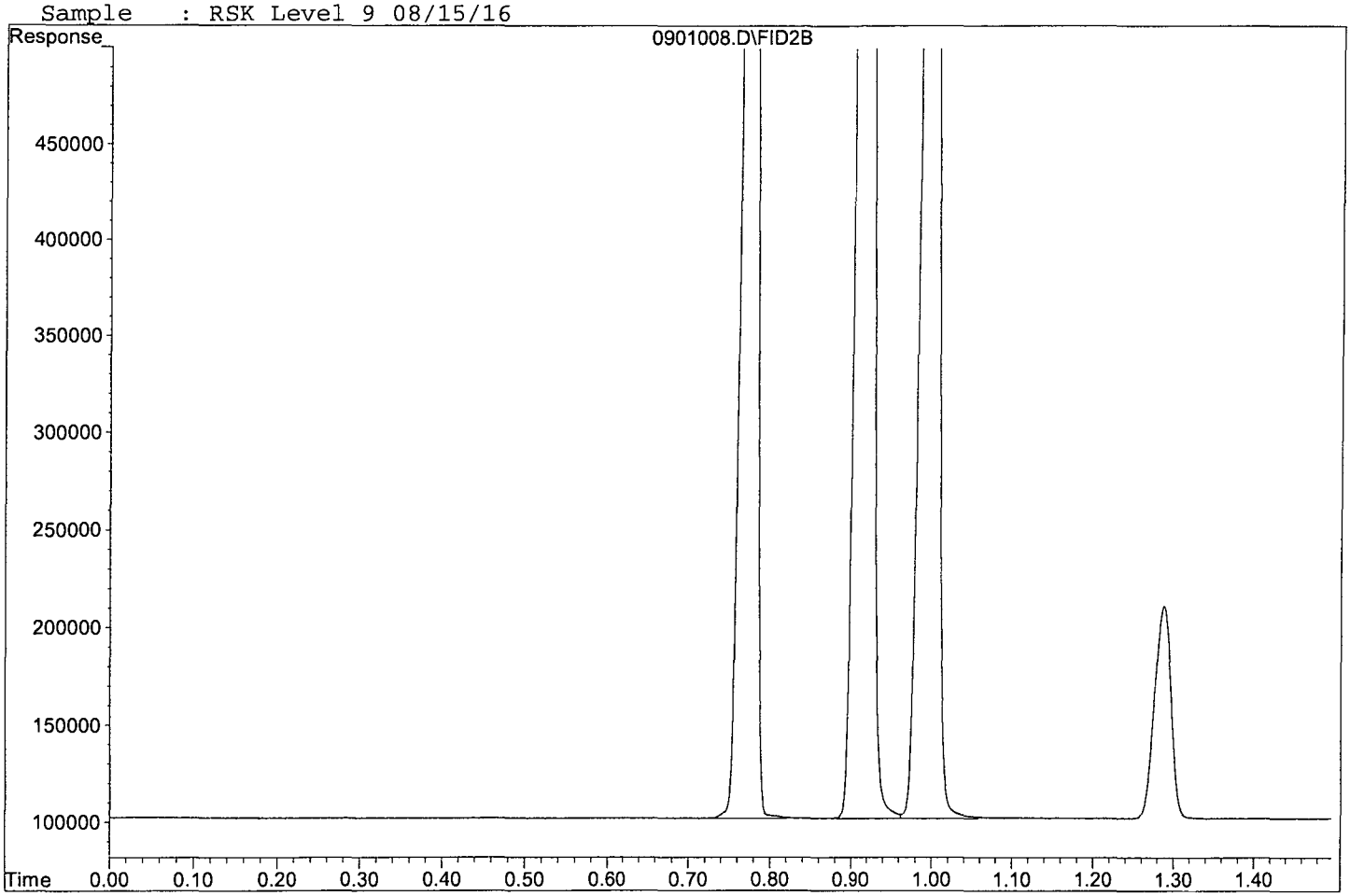
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.78	723824	654.982	ppb
2) ATM Ethane	0.92	989344	1229.268	ppb
3) ATM Ethene	1.00	783615	1235.897	ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\0901008.D
Sample : RSK Level 9 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901009.D Vial: 10
Acq On : 1 Sep 16 11:59 Operator: lac
Sample : RSK Level 10 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

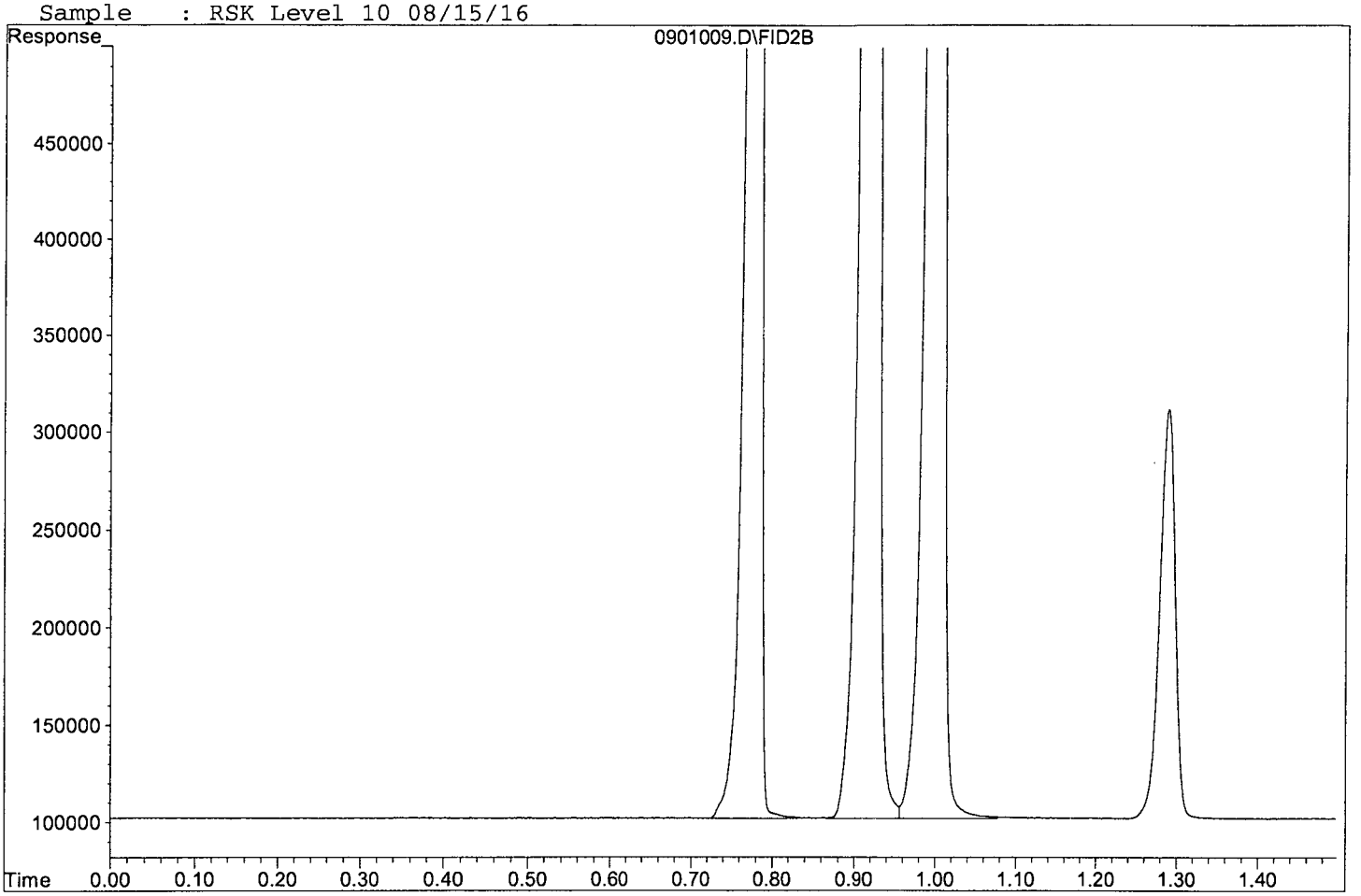
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.78	1454283	1329.358	ppb
2) ATM Ethane	0.92	1994598	2491.490	ppb
3) ATM Ethene	1.00	1562244	2483.337	ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\0901009.D
Sample : RSK Level 10 08/15/16



Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 1 Sep 16 13:11
Instrument: 7890
Initial Cal. Date: 09/01/16
Data File: 0901018.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATML	Methane	2635	1090	59	ATML	19
2	ATML	Ethane	1147	964	16	ATML	11
3	ATML	Ethene	1063	853	20	ATML	20
4							
5							
6							
7							
8							
9							
10							
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28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			31.7		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901018.D Vial: 19
Acq On : 1 Sep 16 13:11 Operator: lac
Sample : (SS/LCS) RSK Level 6 09/01/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 1 13:16 2016 Quant Results File: RSK0901.RES

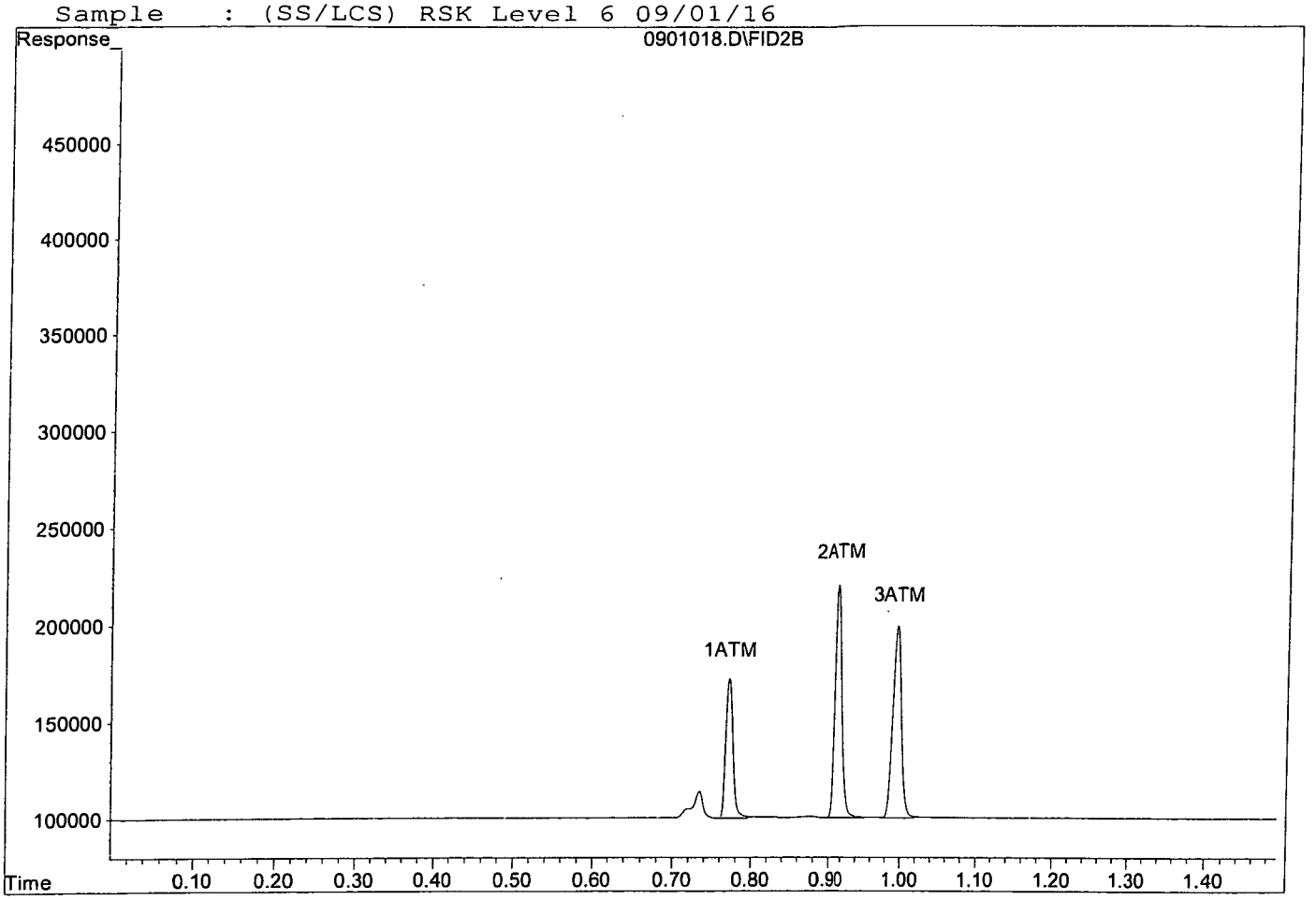
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Sep 01 14:40:19 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.77	72750	53.894 ppb
2) ATM Ethane	0.91	120545	138.382 ppb
3) ATM Ethene	0.99	99349	139.636 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\160901R\0901018.D
Sample : (SS/LCS) RSK Level 6 09/01/16



Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 10/22/16
Instrument: 7890
Initial Cal. Date: 09/01/16
Data File: 1022001.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATML	Methane	2635	1210	54	ATML	7.5
2	ATML	Ethane	1147	831	28	ATML	2.1
3	ATML	Ethene	1063	637	40	ATML	1.2
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
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28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			40.7		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1022001.D Vial: 2
Acq On : 22 Oct 16 10:42 Operator: lac
Sample : 161022A LCS / CCV RSK Level 8 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:24 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

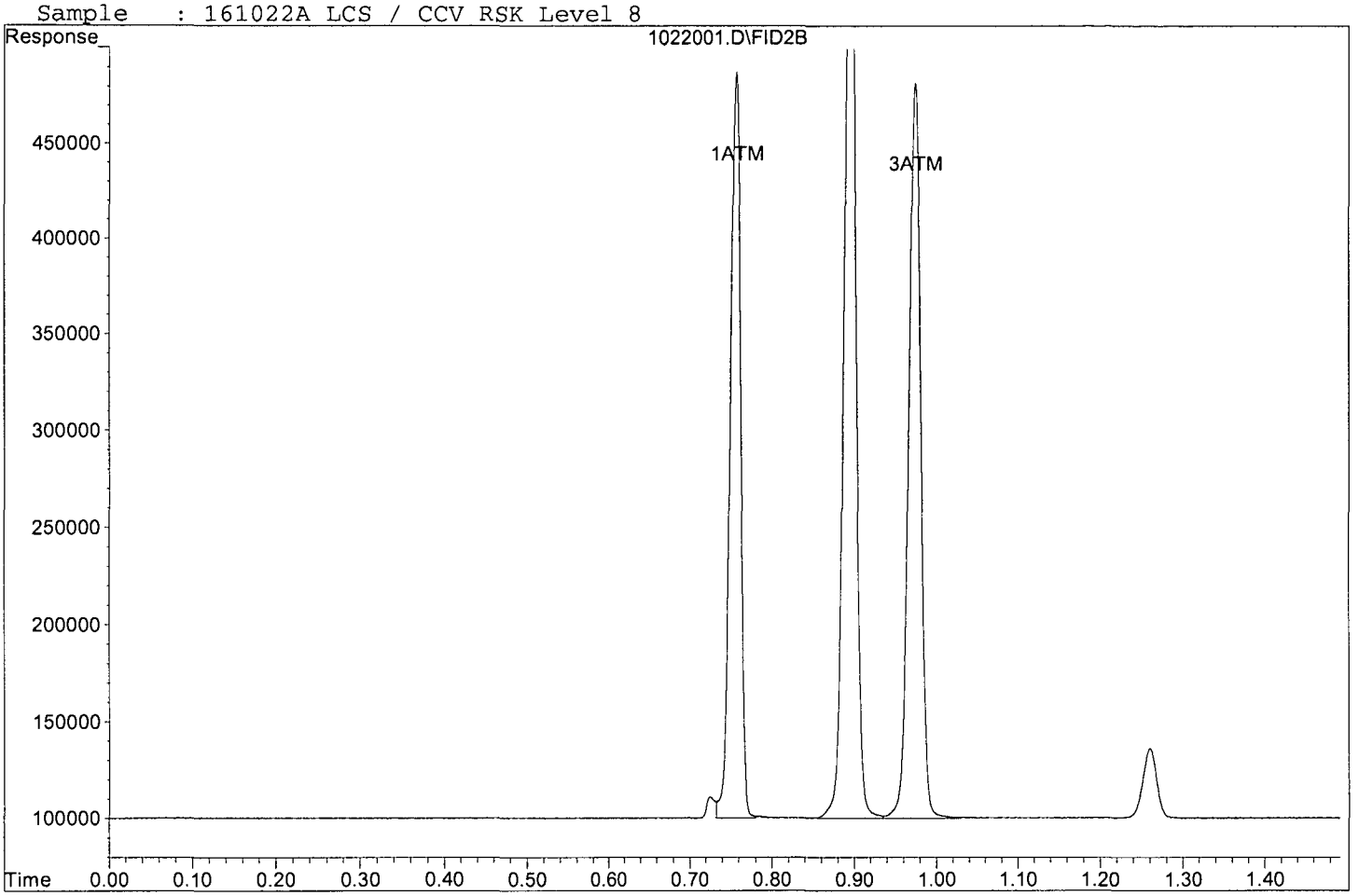
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.76	387552	344.527 ppb
2) ATM Ethane	0.90	498302	612.702 ppb
3) ATM Ethene	0.97	381738	592.051 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\1022001.D
Sample : 161022A LCS / CCV RSK Level 8



Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 10/22/16
Instrument: 7890
Initial Cal. Date: 09/01/16
Data File: 1022025.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATML	Methane	2635	987	63	ATML	13
2	ATML	Ethane	1147	691	40	ATML	15
3	ATML	Ethene	1063	537	49	ATML	17
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
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30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			50.7		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1022025.D Vial: 26
Acq On : 22 Oct 16 14:39 Operator: lac
Sample : Ending CCV RSK Level 8 10/22/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:25 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

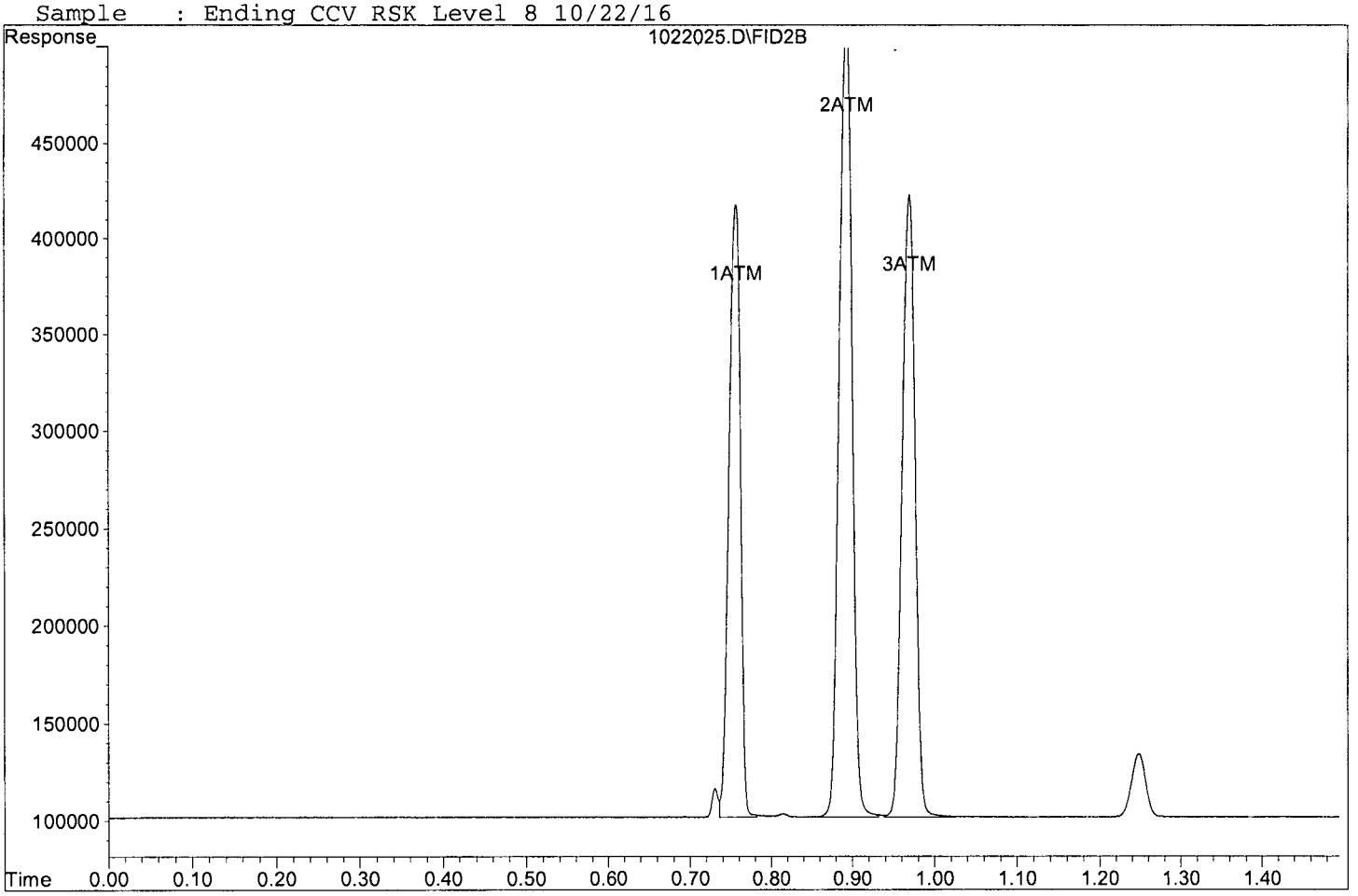
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.76	316270	278.718 ppb
2) ATM Ethane	0.89	414391	507.342 ppb
3) ATM Ethene	0.97	321691	495.849 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\1022025.D
Sample : Ending CCV RSK Level 8 10/22/16



Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 10/25/16
Instrument: 7890
Initial Cal. Date: 09/01/16
Data File: 1025003.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATML	Methane	2635	1301	51	ATML	16
2	ATML	Ethane	1147	933	19	ATML	15
3	ATML	Ethene	1063	720	32	ATML	12
4							
5							
6							
7							
8							
9							
10							
11							
12							
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36							
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38							
39							
40							
		Average			34.0		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1025003.D Vial: 4
Acq On : 25 Oct 16 11:38 Operator: lac
Sample : 161025A LCS / CCV RSK Level 8 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:26 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

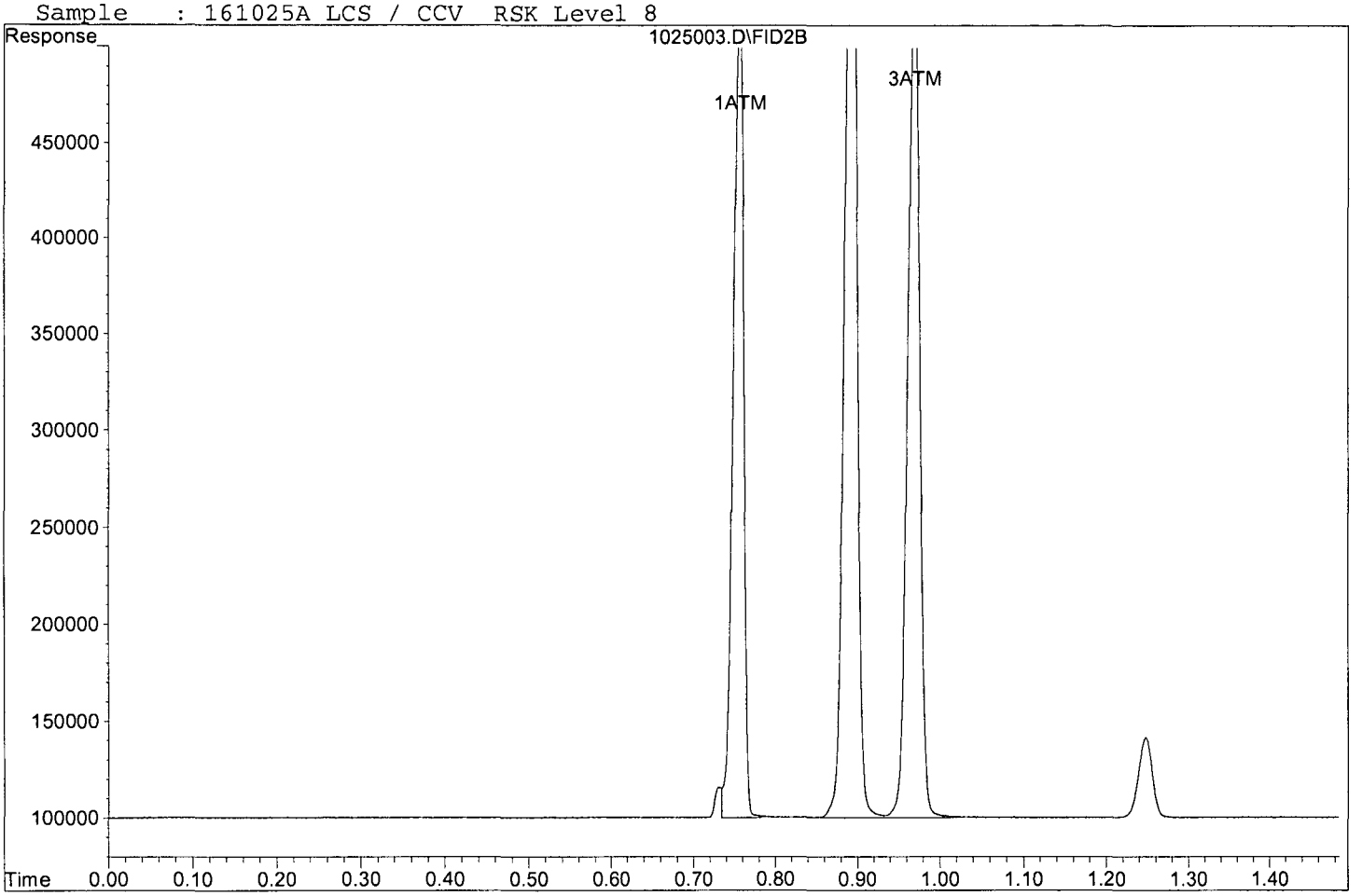
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.76	416734	371.469 ppb
2) ATM Ethane	0.89	559728	689.831 ppb
3) ATM Ethene	0.97	431308	671.466 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\1025003.D
Sample : 161025A LCS / CCV RSK Level 8



Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Date Analyzed: 10/25/16

Matrix: Instrument: 7890

Initial Cal. Date: 09/01/16

Data File: 1025022.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATML	Methane	2635	1310	50	ATML	17
2	ATML	Ethane	1147	909	21	ATML	12
3	ATML	Ethene	1063	692	35	ATML	7.6
4							
5							
6							
7							
8							
9							
10							
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12							
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31							
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33							
34							
35							
36							
37							
38							
39							
40							
		Average			35.3		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1025022.D Vial: 23
Acq On : 25 Oct 16 12:54 Operator: lac
Sample : Ending CCV RSK Level 8 10/25/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:26 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

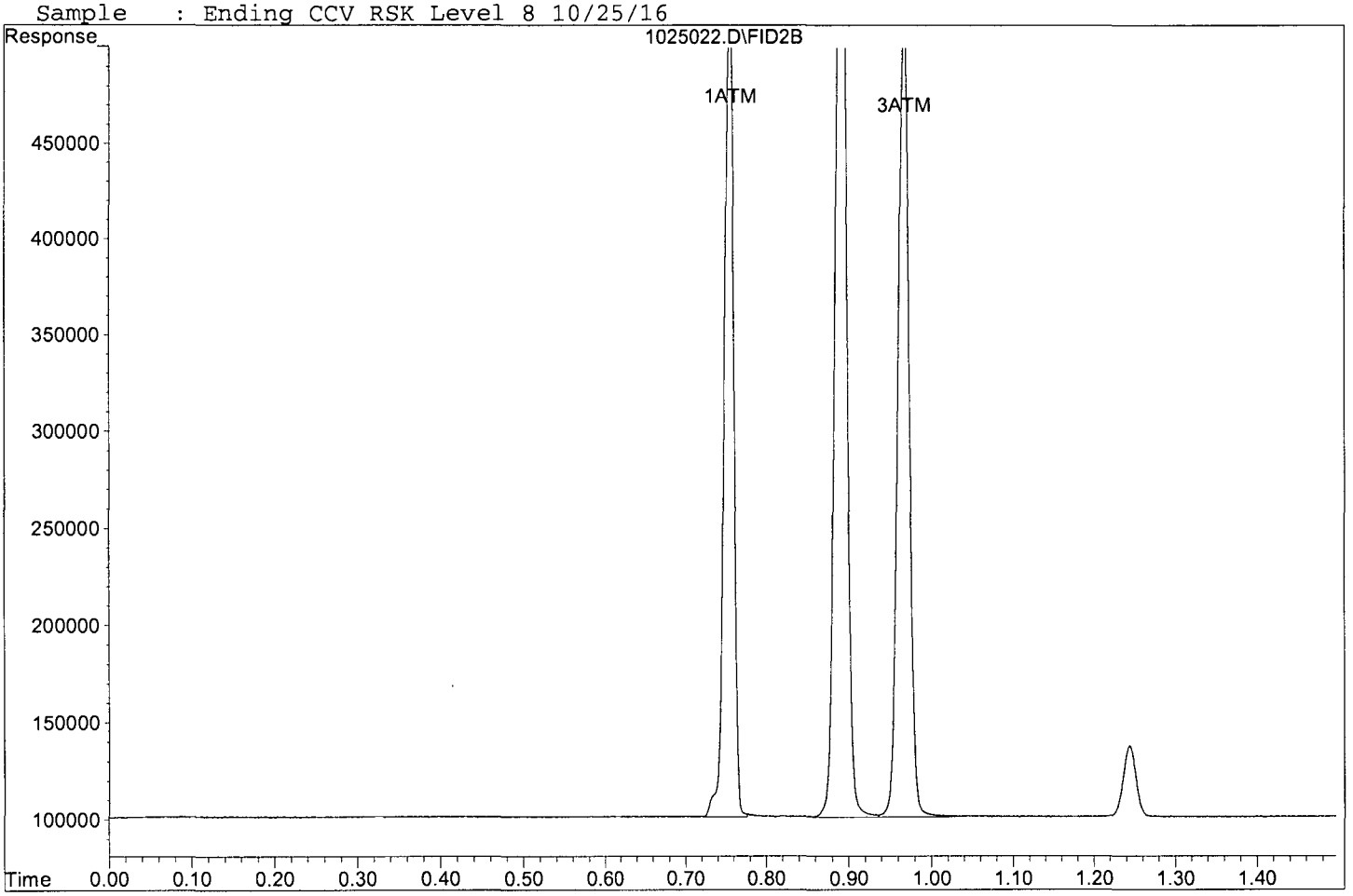
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.76	419807	374.305 ppb
2) ATM Ethane	0.89	545522	671.994 ppb
3) ATM Ethene	0.97	414589	644.680 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\1025022.D
Sample : Ending CCV RSK Level 8 10/25/16



ORGANICS
Raw Data

APPL, INC.

Method Blank
METHANE

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161022W-44688 - 213706**
Batch ID: #RSKMETH-161022

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/22/16	10/22/16

Quant Method: RSK0901.M
Run #: 1022006
Instrument: Rocky
Sequence: 160901
Initials: PY

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/16 10:50:04 AM

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1022006.D Vial: 7
Acq On : 22 Oct 16 13:44 Operator: lac
Sample : 161022A BLK-RSK Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:25 2016 Quant Results File: RSK0901.RES

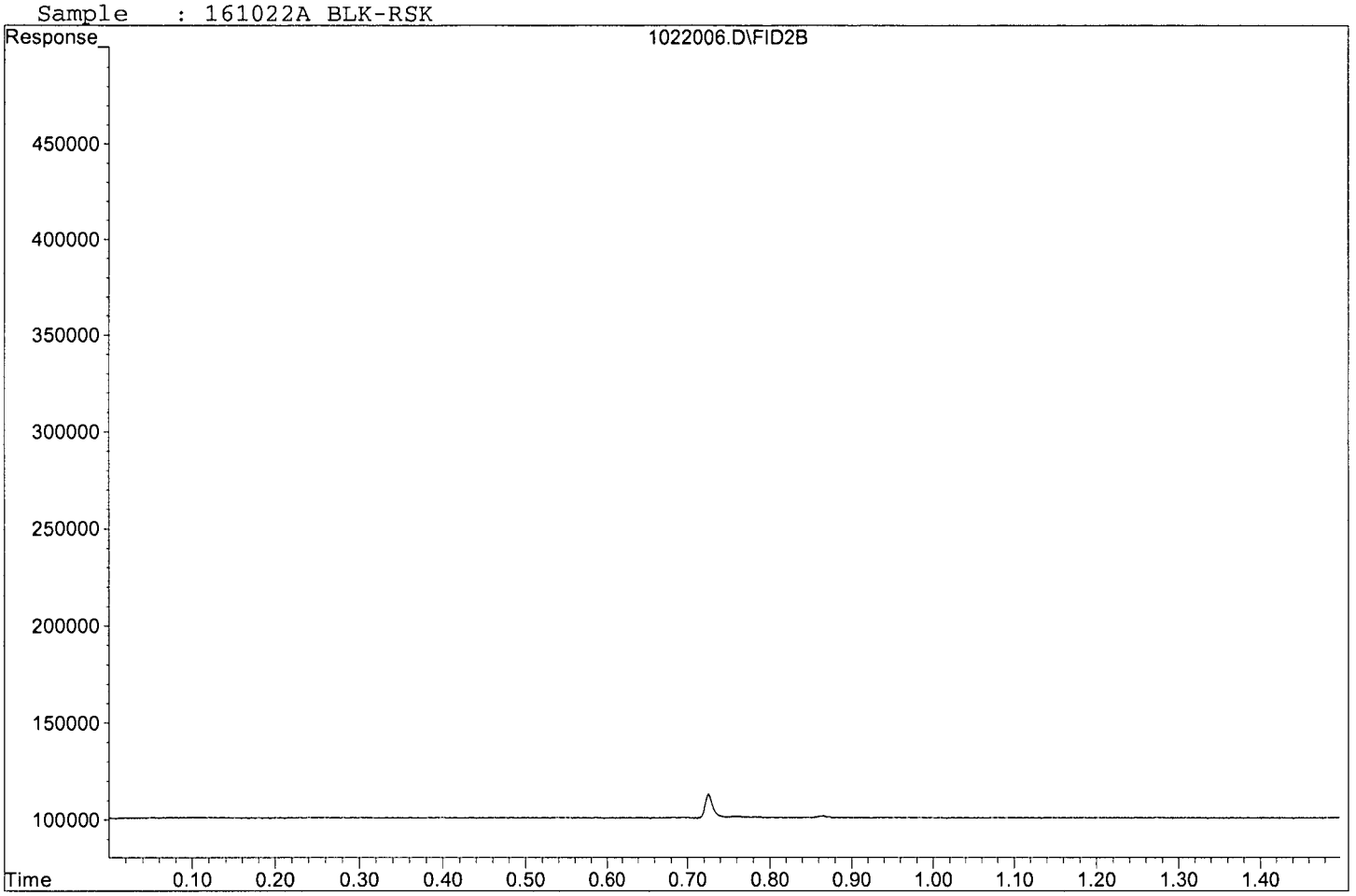
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.76	942	N.D.	ppb
2) ATM Ethane	0.88	474	N.D.	ppb
3) ATM Ethene	0.96	373	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\1022006.D
Sample : 161022A BLK-RSK



Method Blank
METHANE

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161025W-44687 - 213707**
Batch ID: #RSKMETH-161025

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/25/16	10/25/16

Quant Method: RSK0901.M
Run #: 1025004
Instrument: Rocky
Sequence: 160901
Initials: PY

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/16 10:50:04 AM

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1025004.D Vial: 5
Acq On : 25 Oct 16 11:43 Operator: lac
Sample : 161025A BLK-RSK Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:26 2016 Quant Results File: RSK0901.RES

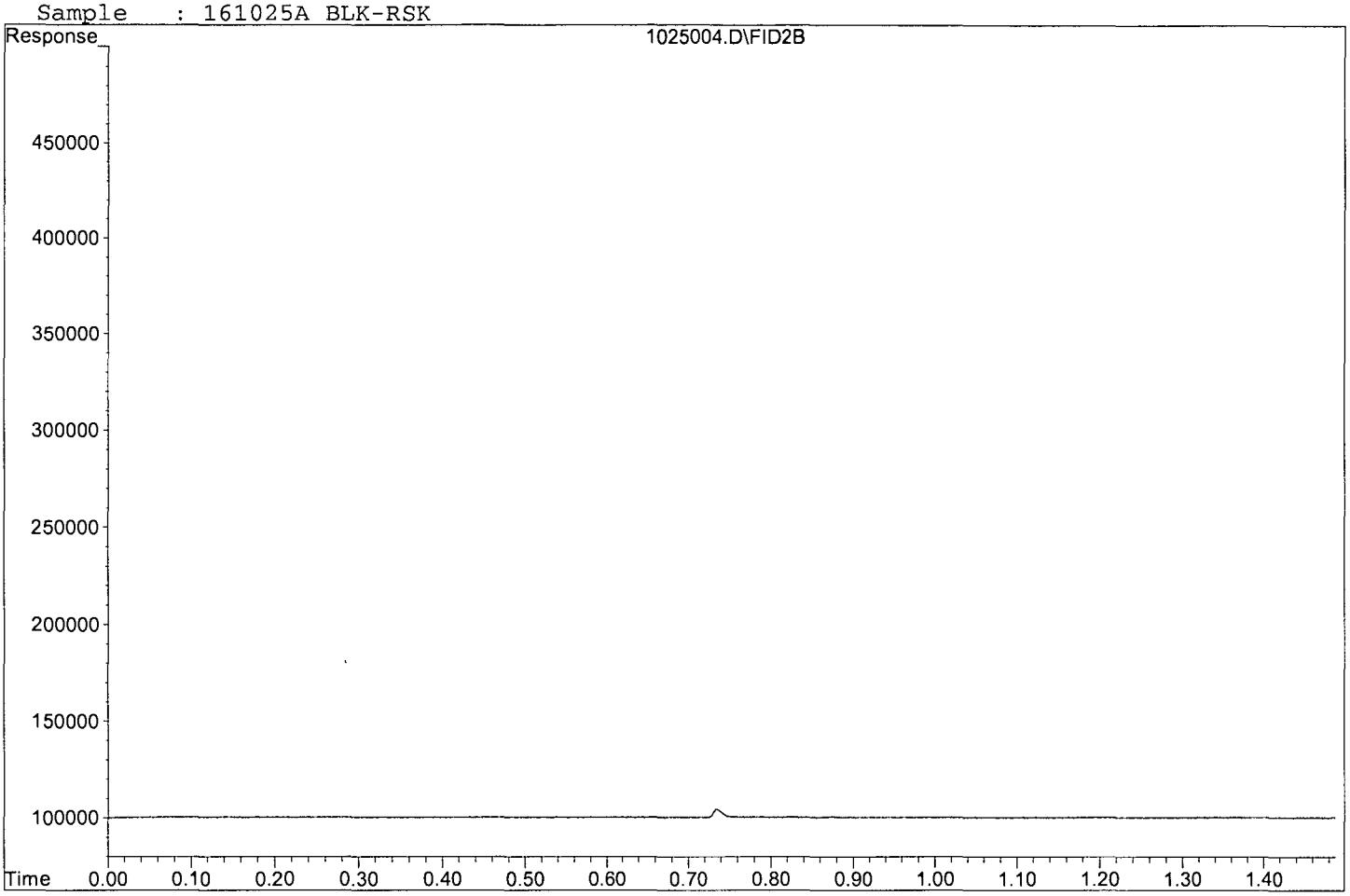
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.76	443	N.D.	ppb
2) ATM Ethane	0.89	180	N.D.	ppb
3) ATM Ethene	0.97	211	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\1025004.D
Sample : 161025A BLK-RSK



Laboratory Control Spike Recovery
METHANE

APPL ID: **161022W-44688 LCS - 213706**
Batch ID: #RSKMETH-161022

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
METHANE	320	345	108	72-125

Comments: _____

Primary	SPK
Quant Method :	RSK0901.M
Extraction Date :	10/22/16
Analysis Date :	10/22/16
Instrument :	Rocky
Run :	1002001
Initials :	PY

Printed: 11/16/16 10:49:49 AM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1022001.D Vial: 2
Acq On : 22 Oct 16 10:42 Operator: lac
Sample : 161022A LCS / CCV RSK Level 8 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:27 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

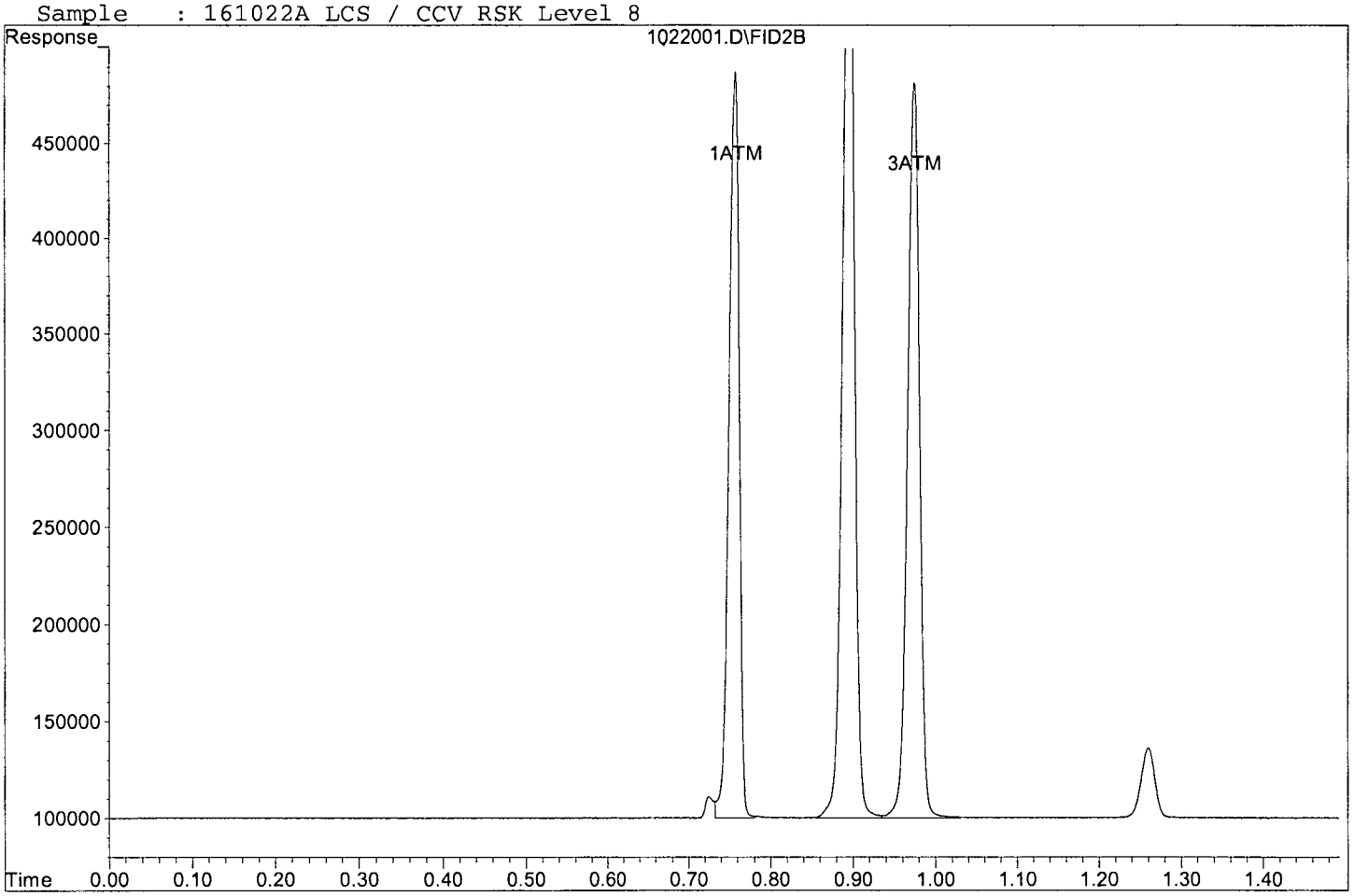
Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.76	387552	344.527 ppb
2) ATM Ethane	0.90	498302	612.702 ppb
3) ATM Ethene	0.97	381738	592.051 ppb

Target Compounds

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

Quantitation Report

Data File: G:\ROCKY\DATA\160901R\1022001.D
Sample : 161022A LCS / CCV RSK Level 8



Laboratory Control Spike Recovery
METHANE

APPL ID: **161025W-44687 LCS - 213707**
Batch ID: #RSKMETH-161025

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
METHANE	320	371	116	72-125

Comments: _____

Primary	SPK
Quant Method :	RSK0901.M
Extraction Date :	10/25/16
Analysis Date :	10/25/16
Instrument :	Rocky
Run :	1025003
Initials :	PY

Printed: 11/16/16 10:49:49 AM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1025003.D Vial: 4
Acq On : 25 Oct 16 11:38 Operator: lac
Sample : 161025A LCS / CCV RSK Level 8 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 10:27 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

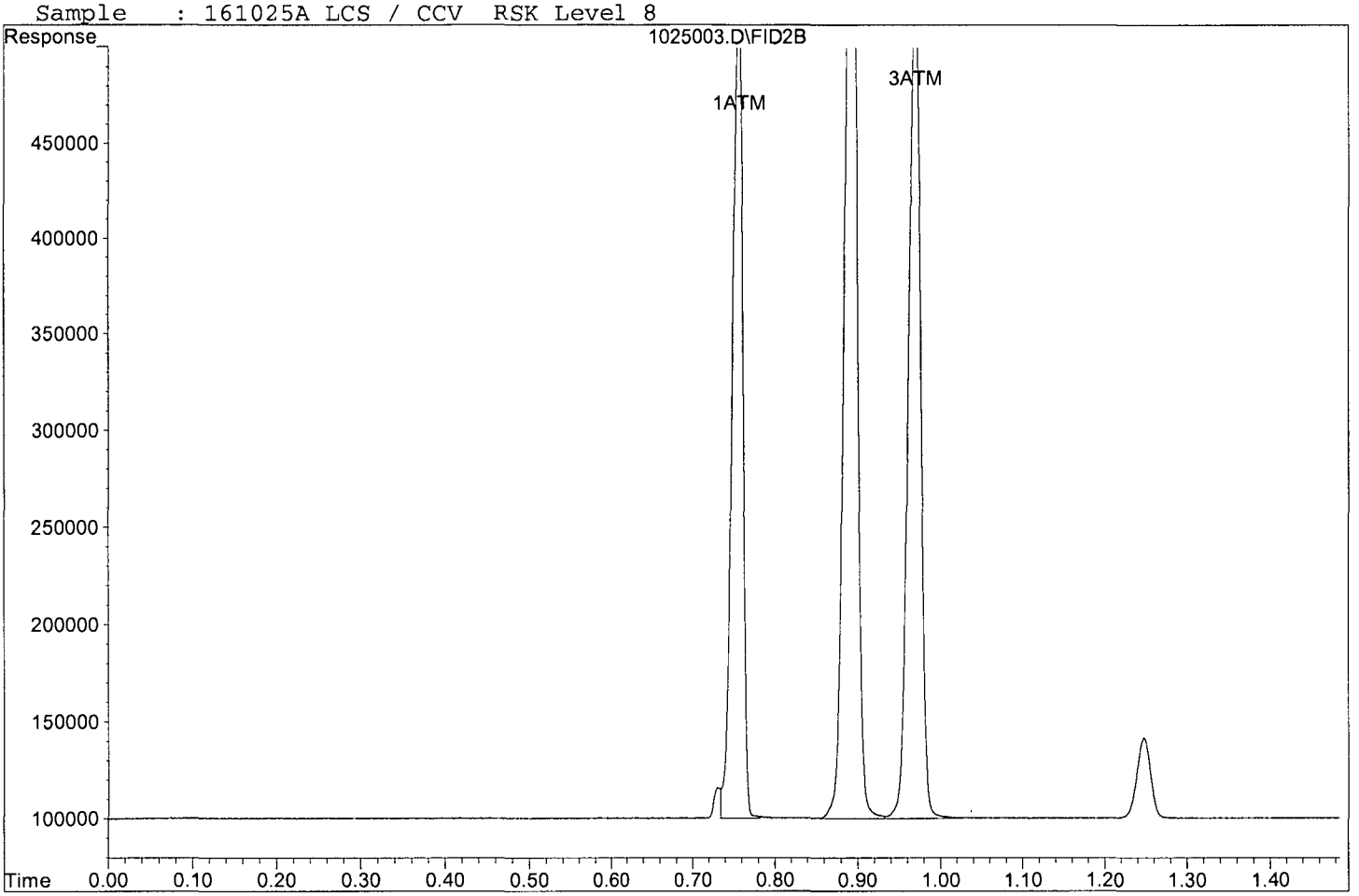
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.76	416734	371.469 ppb
2) ATM Ethane	0.89	559728	689.831 ppb
3) ATM Ethene	0.97	431308	671.466 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\1025003.D
Sample : 161025A LCS / CCV RSK Level 8



Primary Source Stock Standard 10,000ppmV **Manufacturer Exp date 7-8-2017** CM 8/15/16

RSK Gas Mix (Scott Specialty Gas) Cat.# 23452, Lot # 164PLU4SPC05L-34436

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Intermediate Calibration Stock Standard 100ppmV **Expires 8/15/17** CM 8/15/16

Prepared in a 1 L Tedlar bag. Add 990mL Nitrogen and 10mL of 164PLU4SPC05L-34436 standard.

RSK Calibration Curve **Vial expiration date 9/28/16** CM 9/1/16

Analye	Conc Std 1 (ug/L)	Conc Std 2 (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)	Conc Std 8 (ug/L)	Conc Std 9 (ug/L)	Conc Std 10 (ug/L)
Methane (MW 16	0.90	1.80	5.10	13.33	26.70	66.75	106.80	320.4	667.5	1335.0
Ethane (MW 30.0	1.70	3.40	9.50	25.00	50.00	125.00	200.00	600.0	1250.0	2500.0
Ethene (MW 28.(	1.60	3.20	8.90	23.30	46.60	116.50	186.40	599.2	1248.0	2496.0
Stock Source	Intermediate Calib Std 8/15/16	Intermediate Calib Std 8/15/16	Intermediate Calib Std 8/15/16	Intermediate Calib Std 8/15/16	Intermediate Calib Std 8/15/16	Intermediate Calib Std 8/15/16	Primary Source Std #164PLU4S PC05L-34436	Primary Source Std #164PLU4S PC05L-34436	Primary Source Std #164PLU4S PC05L-34436	Primary Source Std #164PLU4S PC05L-34436
Stock Conc (ppr	100 ppmV	100 ppmV	100 ppmV	100 ppmV	100 ppmV	100 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (m	0.135 mL	0.270 mL	0.760 mL	2.0 mL	4.0 mL	10.0 mL	0.160 mL	0.480 mL	1.00 mL	2.00 mL
Final Volume P&T V	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL

Second Source Stock Standard 10,000ppmV **Manufacturer Exp Date 6-19-18** CM 8/15/16

RSK Gas Mix (Scott Specialty Gas) Cat.# 0104E40028`4, Lot # 170PLU5SPC06L-35410

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Intermediate Second Source Standard 100ppmV **Expires 8/15/17** CM 8/15/16

Prepared in a 1 L Tedlar bag. Add 990mL Nitrogen and 10mL of lot# 170PLU5SPC06L-35410 standard.

Second Source / LCS - Level 6 **Expires 10/1/16** CM 9/1/16

10.0mL of Intermediate SS stock 8/15/16 into 10mL P&T water
final conc:66.7ppb Methane, 125.0ppb Ethane, and 116.5 ppb Ethene

CCV/LCS - Level 6 **Expires 10/1/16** CM 9/2/16

10.0mL of Intermediate calib stock 8/15/16 into 10mL P&T water
final conc:66.7ppb Methane, 125.0ppb Ethane, and 116.5 ppb Ethene

CCV/LCS - Level 7 **Expires 10/1/16** CM 9/2/16

0.160mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water
final conc:106.8ppb Methane, 200 ppb Ethane, and 186.4 ppb Ethene

CCV/LCS - Level 8 **Expires 10/1/16** CM 9/2/16

0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

AZ42293W06/W07 MS/MSD CM 9/2/16

4.0mL of Intermediate calib stock 8/15/16 into 10mL P&T water
final conc:26.7ppb Methane, 50.0ppb Ethane, and 46.6 ppb Ethene

CCV/LCS - Level 8 **Expires 11/22/16** CM 10/22/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

CCV/LCS - Level 8 **Expires 11/25/16** CM 10/25/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

AZ44579 W10 and W11 MS/MSD **Expires 11/25/16** CM 10/25/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL sample AZ44579 water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

CCV/LCS - Level 8 **Expires 11/29/16** CM 10/29/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

AZ44621 W9 and W10 MS/MSD **Expires 11/29/16** CM 10/29/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL sample AZ44621 water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

CCV/LCS - Level 8 **Expires 11/30/16** CM 10/30/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

CCV/LCS - Level 8 **Expires 12/1/16** CM 11/1/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

CCV/LCS - Level 8 **Expires 12/4/16** CM 11/4/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

Injection Log

Directory: G:\Rocky\Data\160901R

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0901000.D		RSK Level 1 / LOD Chk 08/15/16	Methane 0.9, Ethane, 1.7 Ethene 1.6 ug/L	9/1/16 11:38
2	2	0901001.D		RSK Level 2 08/15/16		9/1/16 11:41
3	3	0901002.D		RSK Level 3 / LOQ Chk 08/15/16	Methane 5.1, Ethane, 9.5 Ethene 8.9 ug/L	9/1/16 11:44
4	4	0901003.D		RSK Level 4 08/15/16		9/1/16 11:46
5	5	0901004.D		RSK Level 5 08/15/16		9/1/16 11:48
6	6	0901005.D		RSK Level 6 08/15/16		9/1/16 11:50
7	7	0901006.D		RSK Level 7 08/15/16		9/1/16 11:52
8	8	0901007.D		RSK Level 8 08/15/16		9/1/16 11:55
9	9	0901008.D		RSK Level 9 08/15/16		9/1/16 11:57
10	10	0901009.D		RSK Level 10 08/15/16		9/1/16 11:59
11	19	0901018.D		(SS/LCS) RSK Level 6 09/01/16		9/1/16 13:11
12	2	1022001.D		161022A LCS / CCV RSK Level 8		10/22/16 10:42
13	7	1022006.D		161022A BLK-RSK		10/22/16 13:44
14	15	1022014.D		AZ44688W04		10/22/16 14:08
15	16	1022015.D		AZ44689W04		10/22/16 14:12
16	17	1022016.D		AZ44690W04		10/22/16 14:15
17	18	1022017.D		AZ44691W04		10/22/16 14:17
18	19	1022018.D		AZ44694W04		10/22/16 14:19
19	20	1022019.D		AZ44695W04		10/22/16 14:21
20	21	1022020.D		AZ44697W04		10/22/16 14:24
21	22	1022021.D		AZ44698W04		10/22/16 14:26
22	26	1022025.D		Ending CCV RSK Level 8 10/22/16		10/22/16 14:39
23	4	1025003.D	1	161025A LCS / CCV RSK Level 8		10/25/16 11:38
24	5	1025004.D		161025A BLK-RSK		10/25/16 11:43
25	6	1025005.D	50	AZ44687W04 DF50		10/25/16 12:09
26	23	1025022.D	1	Ending CCV RSK Level 8 10/25/16		10/25/16 12:54

INORGANIC ANALYSIS

APPL, INC.

INORGANIC ANALYSIS
QC Summary

APPL, INC.

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	10/21/16	10/21/16	#300W-161021B-AZ44687
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	10/21/16	10/21/16	#300W-161021B-AZ44687
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/21/16	10/21/16	#300W-161021B-AZ44687
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	10/21/16	10/21/16	#35FE-161021A-AZ44579
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	10/24/16	10/24/16	#300WD-161024A-AZ44688
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/24/16	10/24/16	#300WD-161024A-AZ44688

Wetlab SC-Blank-REG MDLs
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Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	18.2	91.0	90-110	10/21/16	10/21/16	#300W-161021B-AZ44687
EPA 300.0	NITRATE	22.1	20.0	90.5	90-110	10/21/16	10/21/16	#300W-161021B-AZ44687
EPA 300.0	SULFATE	20.0	18.3	91.5	90-110	10/21/16	10/21/16	#300W-161021B-AZ44687
SM3500Fe	FERROUS IRON	3.00	2.99	99.7	80-120	10/21/16	10/21/16	#35FE-161021A-AZ44579

Comments: _____

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	18.3	91.5	90-110	10/24/16	10/24/16	#300WD-161024A-AZ44688
EPA 300.0	SULFATE	20.0	18.3	91.5	90-110	10/24/16	10/24/16	#300WD-161024A-AZ44688

Comments: _____

INORGANIC ANALYSIS
Sample Data

APPL, INC.

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH091

APPL ID: AZ44687

Sample Collection Date: 10/19/16

ARF: 81251

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	38.0	1.0	0.20	0.08	mg/L	1	10/21/16	10/21/16
EPA 300.0	NITRATE	0.43 J	0.5	0.18	0.04	mg/L	1	10/21/16	10/21/16
EPA 300.0	SULFATE	0.85 J	1.0	0.20	0.09	mg/L	1	10/21/16	10/21/16
SM3500FeB	FERROUS IRON	2.8	1.0	0.32	0.16	mg/L	1	10/21/16	10/21/16

J = Estimated value.

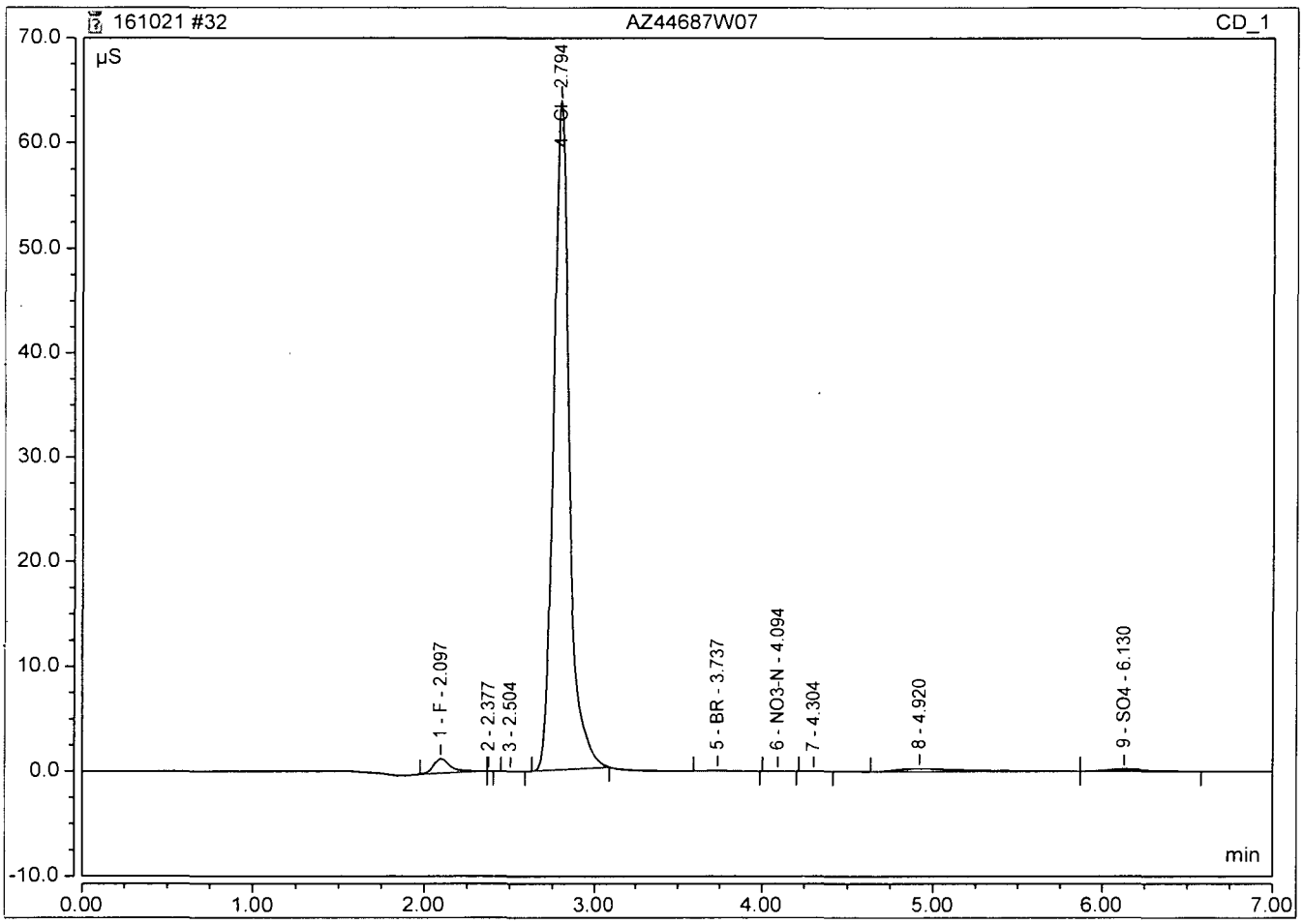
Printed: 10/30/16 9:37:14 AM

APPL-F1-SC-NoMC-REG MDLs

Peak Integration Report

Sample Name:	**AZ44687W07**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Oct-2016 / 16:31**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.155	1.359	0.7261
4	2.79	Cl	BMB	6.811	63.864	38.0267
5	3.74	BR	BMB	0.008	0.059	0.2511
6	4.09	NO3-N	BMB	0.000	0.004	0.0966
9	6.13	SO4	BMB	0.043	0.188	0.8445
TOTAL:				7.02	65.47	39.95



Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH089

APPL ID: AZ44688

Sample Collection Date: 10/19/16

ARF: 81251

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	153	5.0	1.00	0.40	mg/L	5	10/24/16	10/24/16
EPA 300.0	SULFATE	46.0	5.0	1.00	0.45	mg/L	5	10/24/16	10/24/16
EPA 300.0	NITRATE	4.3	0.5	0.18	0.04	mg/L	1	10/21/16	10/21/16
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/21/16	10/21/16

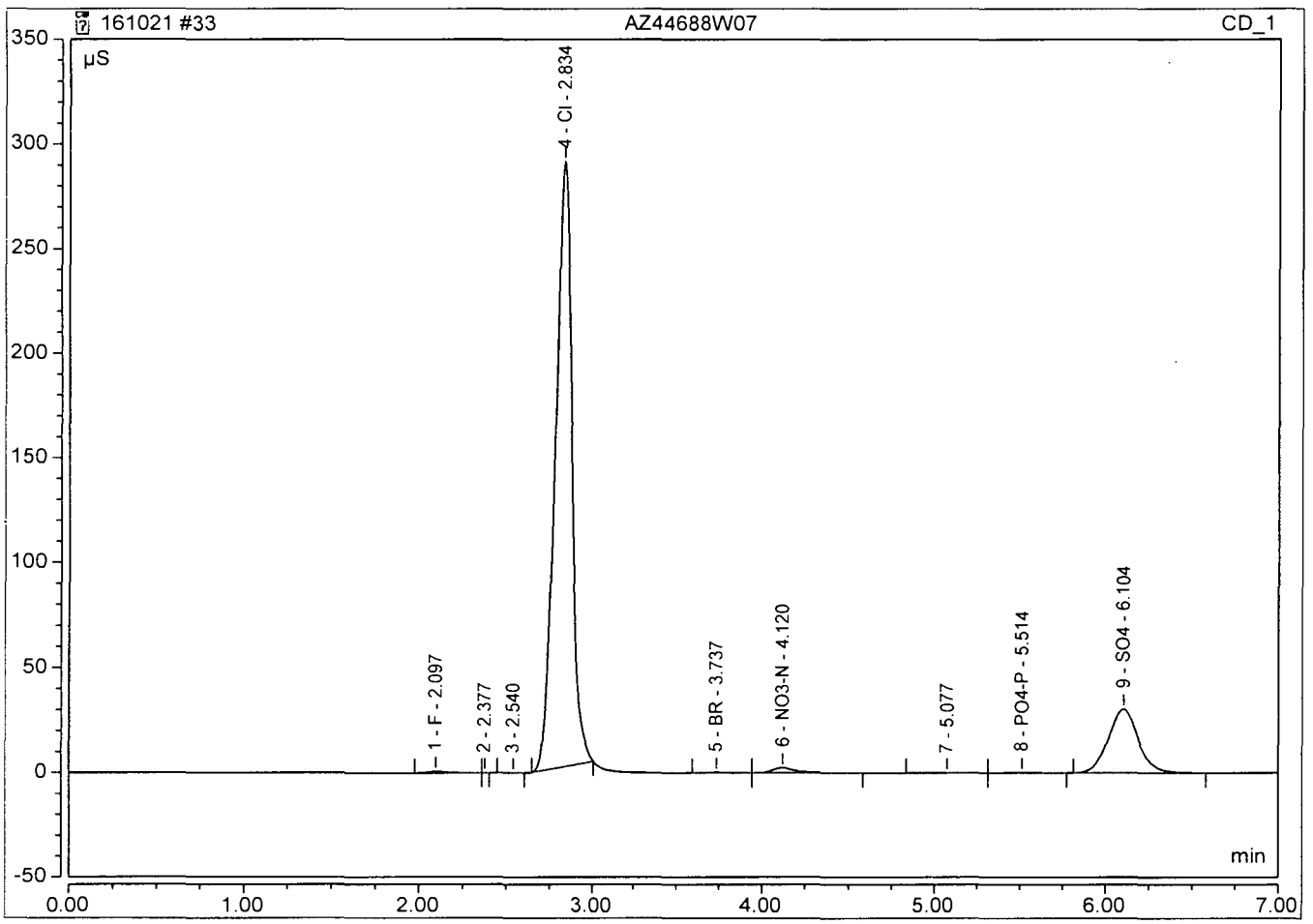
Printed: 10/30/16 9:37:14 AM

APPL-F1-SC-NoMC-REG MDLs

Peak Integration Report

Sample Name:	**AZ44688W07**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Oct-2016 / 16:44**	*Run Time:*	**7.00**

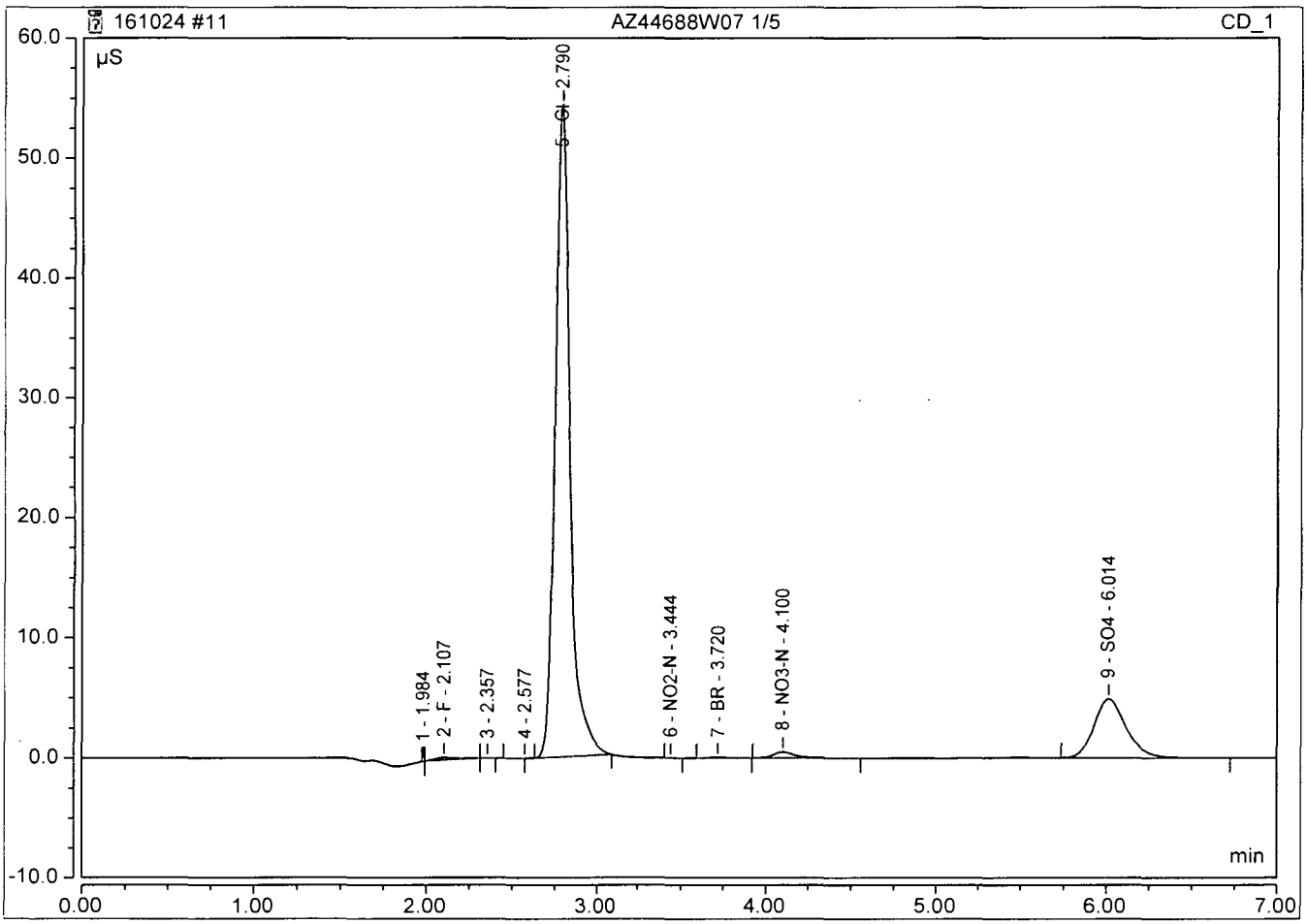
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.080	0.720	0.3933
4	2.83	Cl	BMB	32.088	288.841	177.2103
5	3.74	BR	BMB	0.031	0.251	0.6177
6	4.12	NO3-N	BMB	0.365	2.461	0.9821
8	5.51	PO4-P	BMB	0.050	0.258	0.4682
9	6.10	SO4	BMB	6.117	30.429	50.5821
TOTAL:				38.73	322.96	230.25



Peak Integration Report

Sample Name:	**AZ44688W07 1/5**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**5.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**24-Oct-2016 / 11:37**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
2	2.11	F	BMB	0.030	0.211	0.8613
5	2.79	Cl	BMB	5.476	54.360	153.3704
6	3.44	NO2-N	BMB	0.000	0.001	0.1086
7	3.72	BR	BMB	0.006	0.051	1.1176
8	4.10	NO3-N	BMB	0.072	0.497	1.3542
9	6.01	SO4	BMB	1.064	4.881	46.0266
TOTAL:				6.65	60.00	202.84



Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH093

Sample Collection Date: 10/19/16

APPL ID: AZ44689

ARF: 81251

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	46.4	1.0	0.20	0.08	mg/L	1	10/21/16	10/21/16
EPA 300.0	NITRATE	5.7	0.5	0.18	0.04	mg/L	1	10/21/16	10/21/16
EPA 300.0	SULFATE	46.0	1.0	0.20	0.09	mg/L	1	10/21/16	10/21/16
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/21/16	10/21/16

Printed: 10/30/16 9:37:14 AM

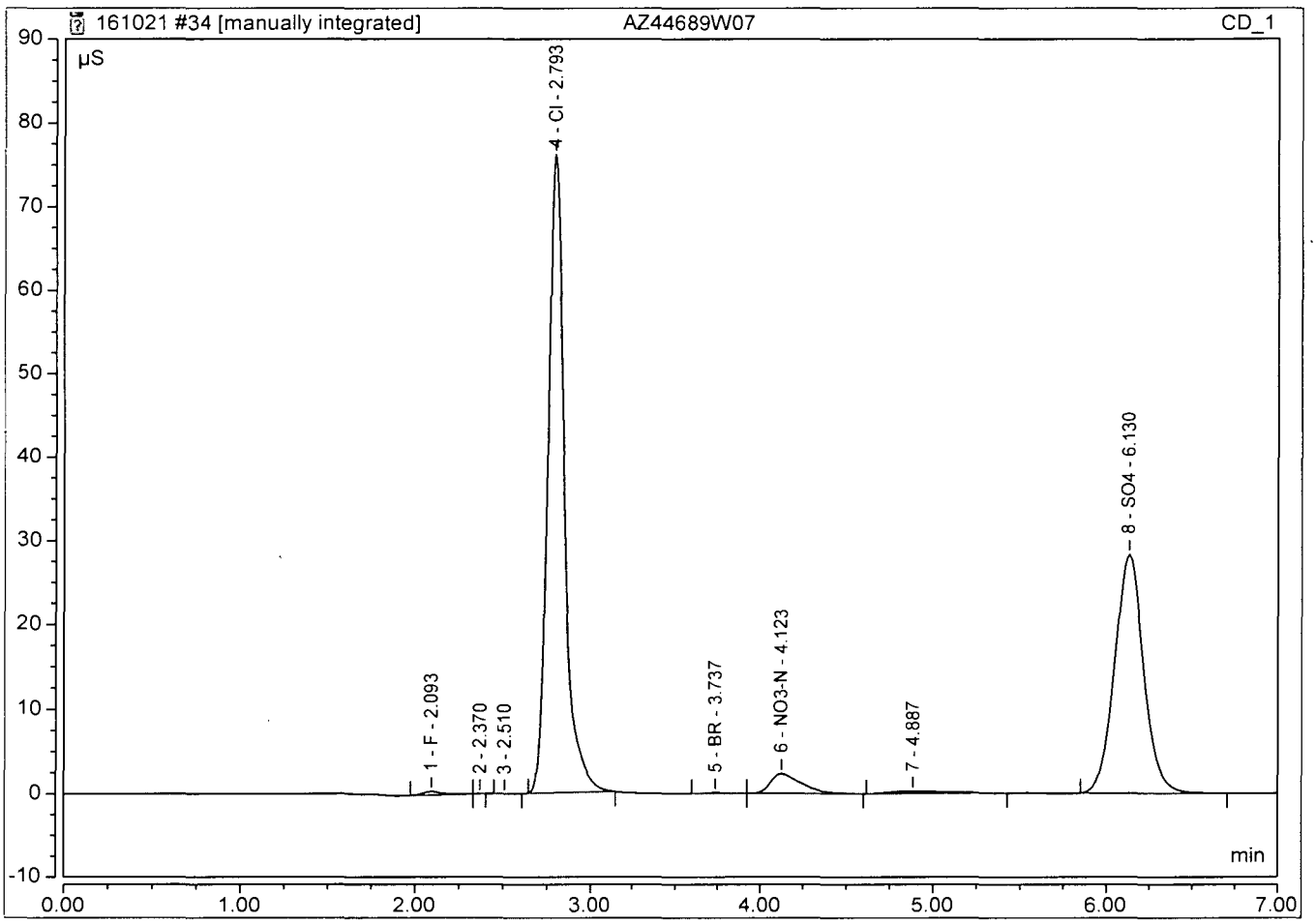
APPL-F1-SC-NoMC-REG MDLs

MI MM 10/30/16

Peak Integration Report QW

Sample Name:	**AZ44689W07**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Oct-2016 / 16:57**	*Run Time:*	**7.00**

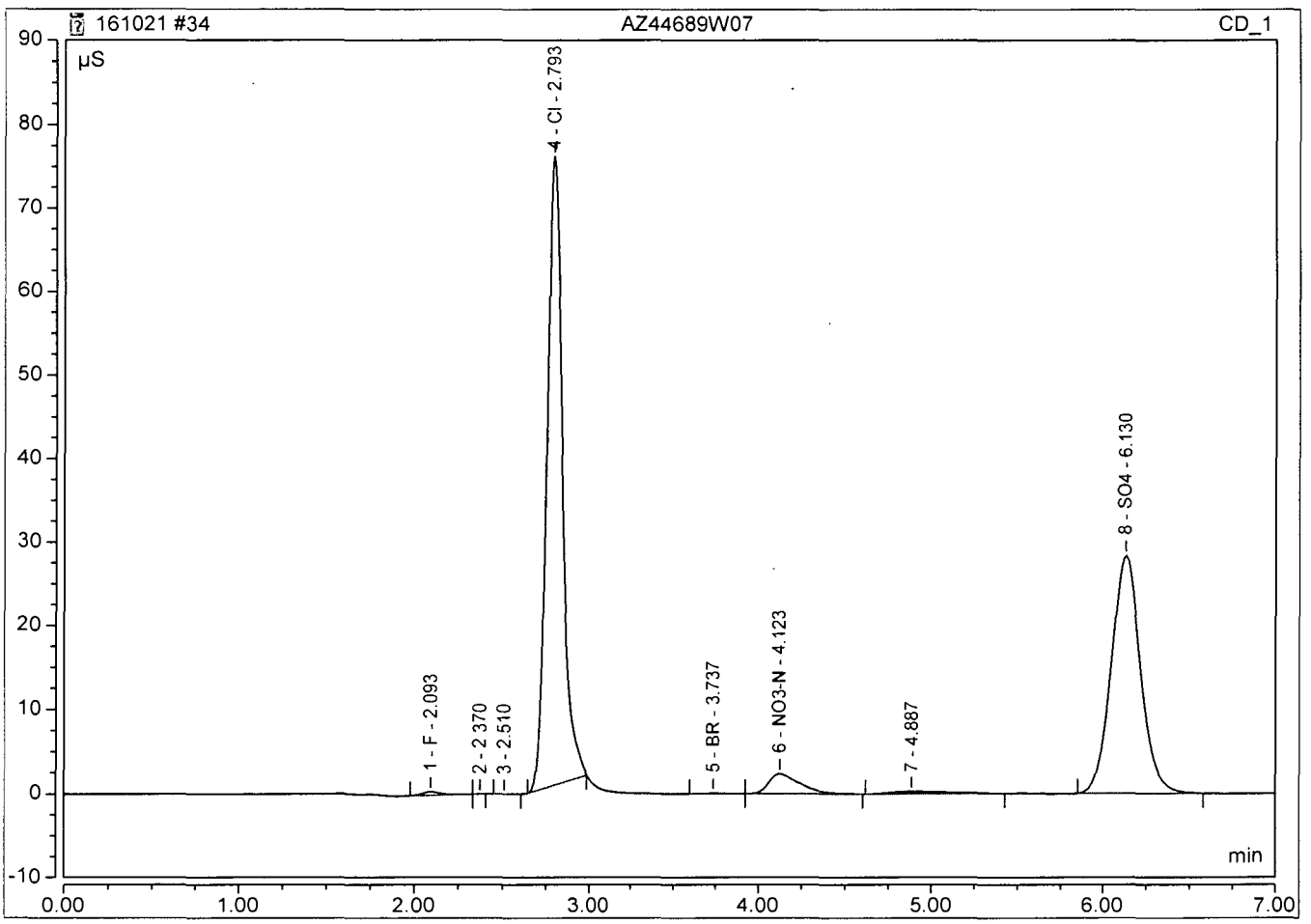
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.09	F	BMB	0.046	0.408	0.2406
4	2.79	Cl	BMB*	8.331	76.106	46.3965
5	3.74	BR	BMB	0.010	0.075	0.2838
6	4.12	NO3-N	BMB	0.490	2.373	1.2858
8	6.13	SO4	BMB	5.560	28.293	46.0251
TOTAL:				14.44	107.26	94.23



Peak Integration Report

Sample Name:	**AZ44689W07**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Oct-2016 / 16:57**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.09	F	BMB	0.046	0.408	0.2406
4	2.79	Cl	BMB	7.884	75.212	43.9319
5	3.74	BR	BMB	0.010	0.075	0.2838
6	4.12	NO3-N	BMB	0.490	2.373	1.2858
8	6.13	SO4	BMB	5.546	28.280	45.9098
TOTAL:				13.98	106.35	91.65



Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH097

APPL ID: AZ44690

Sample Collection Date: 10/19/16

ARF: 81251

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	371	10.0	2.00	0.80	mg/L	10	10/24/16	10/24/16
EPA 300.0	NITRATE	3.0	1.0	0.36	0.08	mg/L	2	10/21/16	10/21/16
EPA 300.0	SULFATE	84.5	2.0	0.40	0.18	mg/L	2	10/21/16	10/21/16
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/21/16	10/21/16

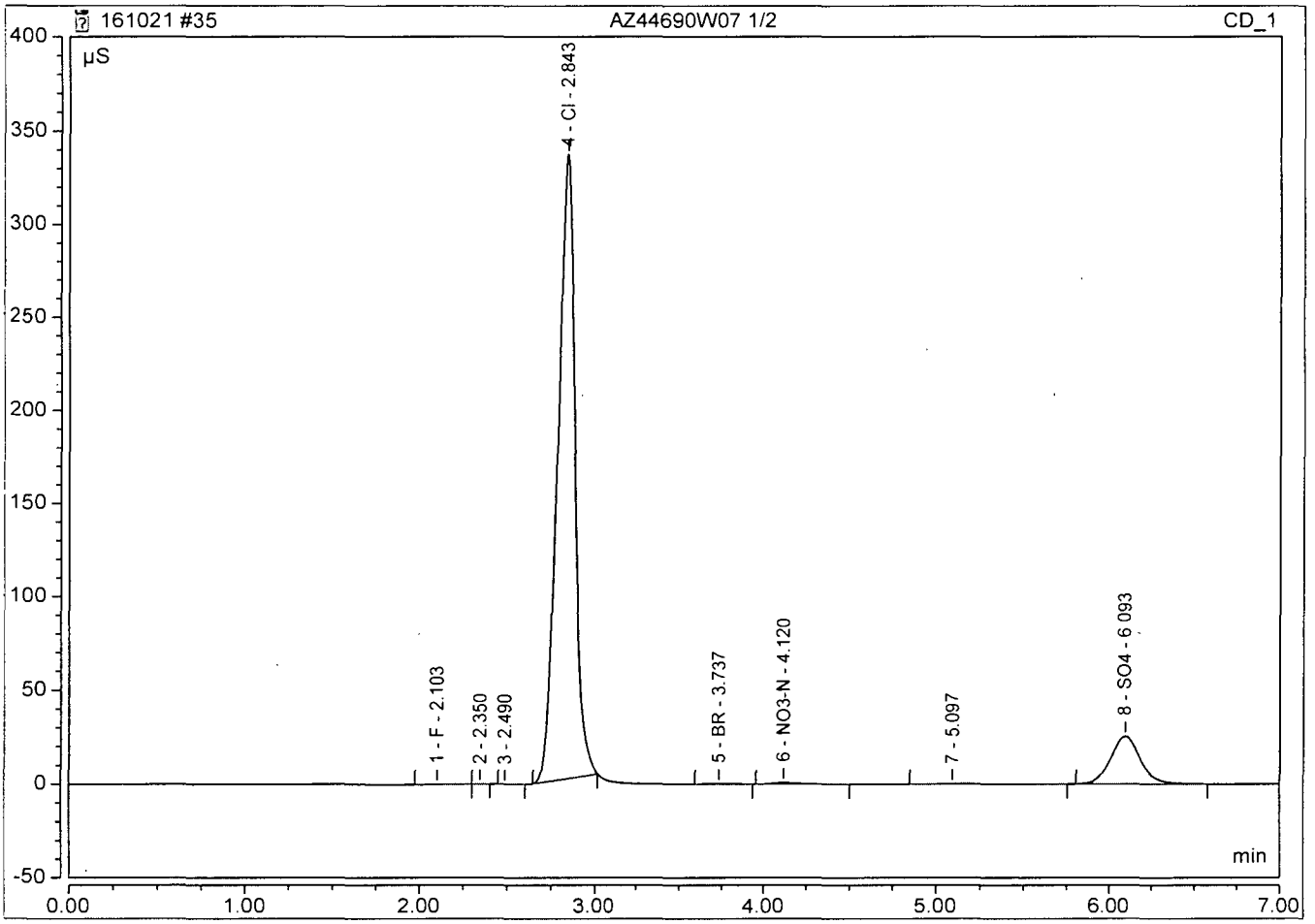
Printed: 10/30/16 9:37:14 AM

APPL-F1-SC-NoMC-REG MDLs

Peak Integration Report

Sample Name:	**AZ44690W07 1/2**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**2.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Oct-2016 / 17:10**	*Run Time:*	**7.00**

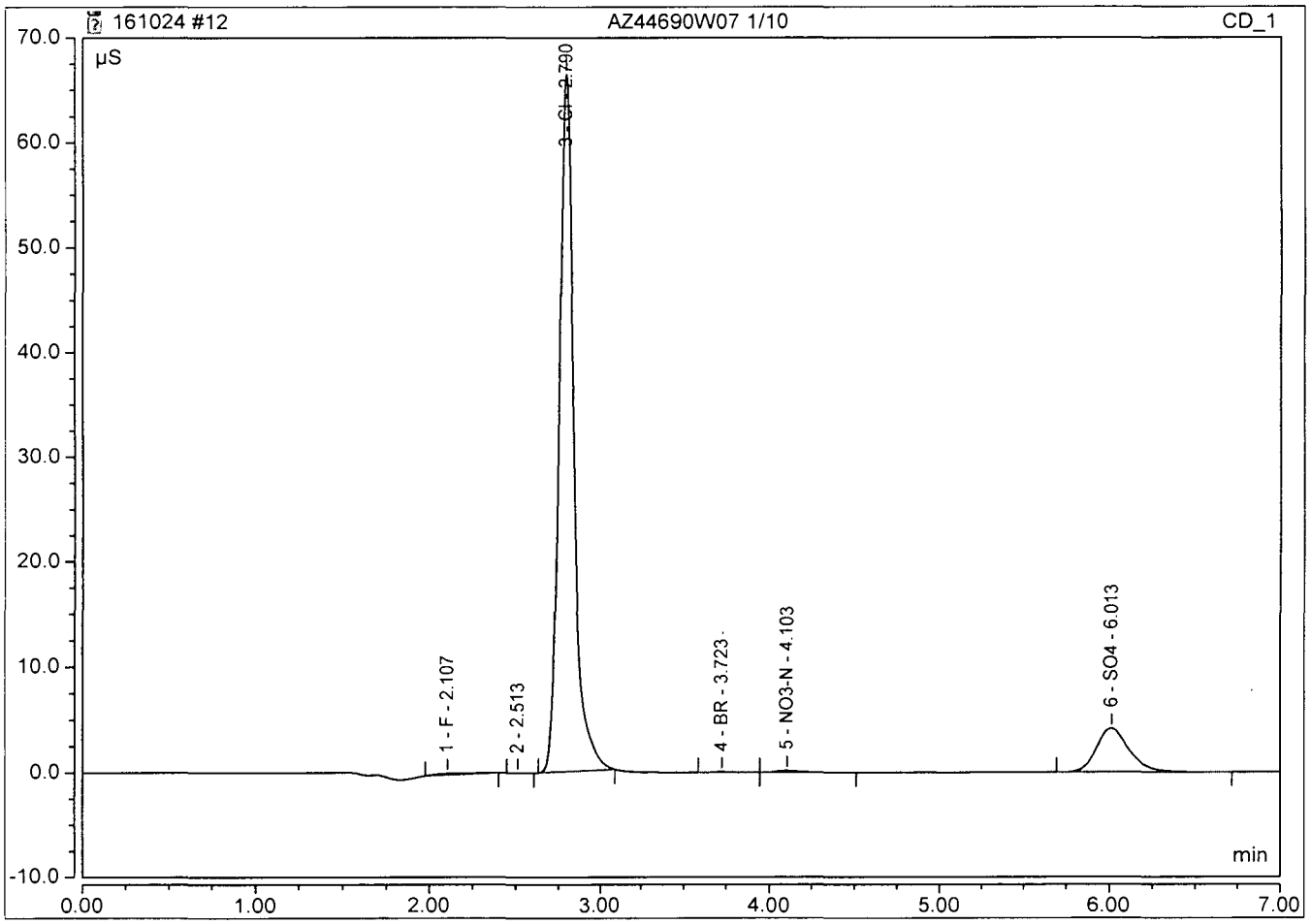
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.016	0.118	0.2218
4	2.84	Cl	BMB	38.204	334.352	421.7745
5	3.74	BR	BMB	0.033	0.268	1.2981
6	4.12	NO3-N	BMB	0.100	0.690	0.6778
8	6.09	SO4	BMB	5.079	25.099	84.1615
TOTAL:				43.43	360.53	508.13



Peak Integration Report

Sample Name:	**AZ44690W07 1/10**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**10.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**24-Oct-2016 / 11:50**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.11	F	BMB	0.034	0.133	1.8822
3	2.79	Cl	BMB	6.643	66.399	370.9664
4	3.72	BR	BMB	0.007	0.055	2.2909
5	4.10	NO3-N	BMB	0.021	0.146	1.4695
6	6.01	SO4	BMB	0.905	4.144	79.0623
TOTAL:				7.61	70.88	455.67



Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH098

Sample Collection Date: 10/19/16

APPL ID: AZ44691

ARF: 81251

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	414	10.0	2.00	0.80	mg/L	10	10/24/16	10/24/16
EPA 300.0	NITRATE	4.2	1.0	0.36	0.08	mg/L	2	10/21/16	10/21/16
EPA 300.0	SULFATE	70.0	2.0	0.40	0.18	mg/L	2	10/21/16	10/21/16
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/21/16	10/21/16

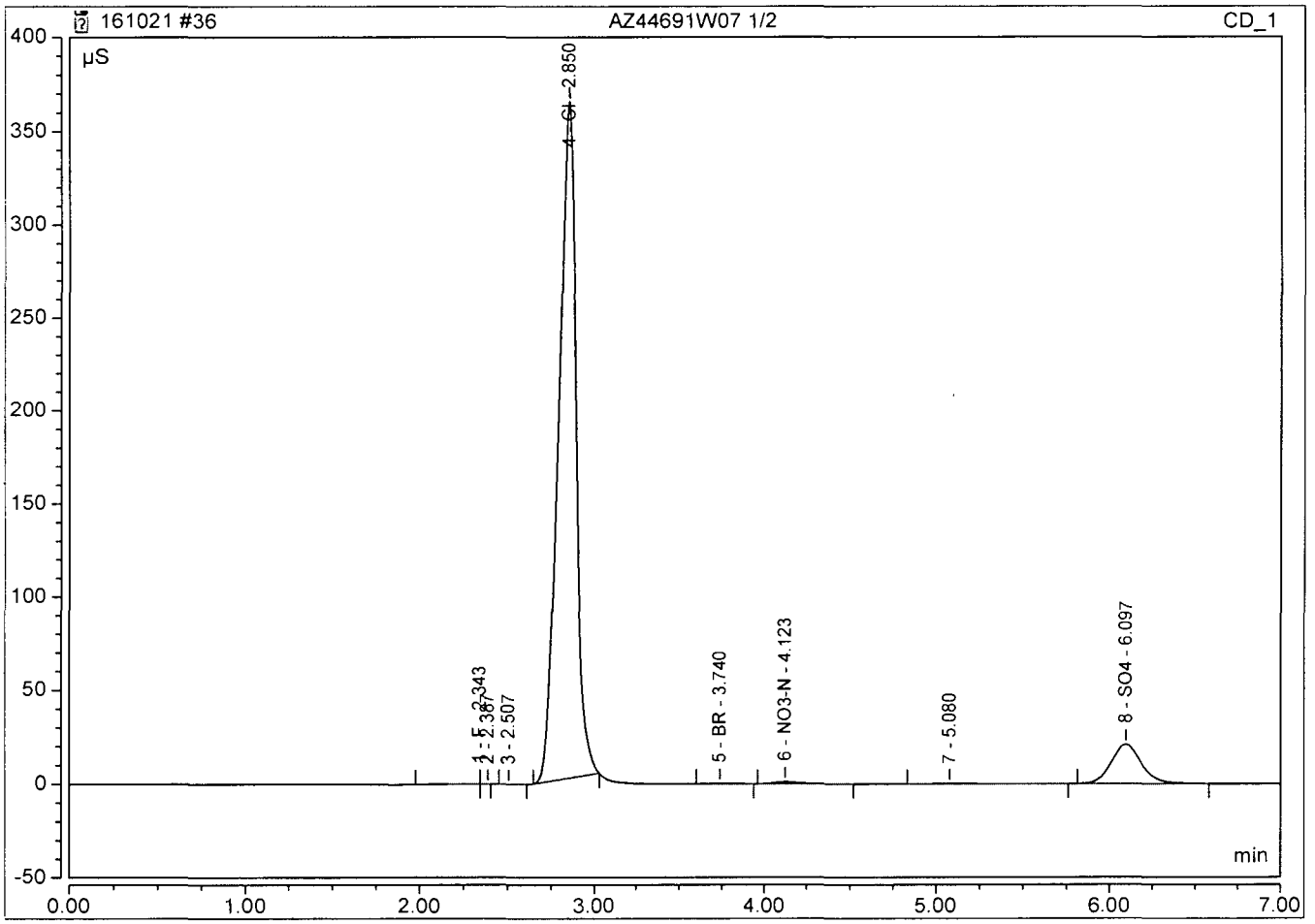
Printed: 10/30/16 9:37:14 AM

APPL-F1-SC-NoMC-REG MDLs

Peak Integration Report

Sample Name:	**AZ44691W07 1/2**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**2.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Oct-2016 / 17:23**	*Run Time:*	**7.00**

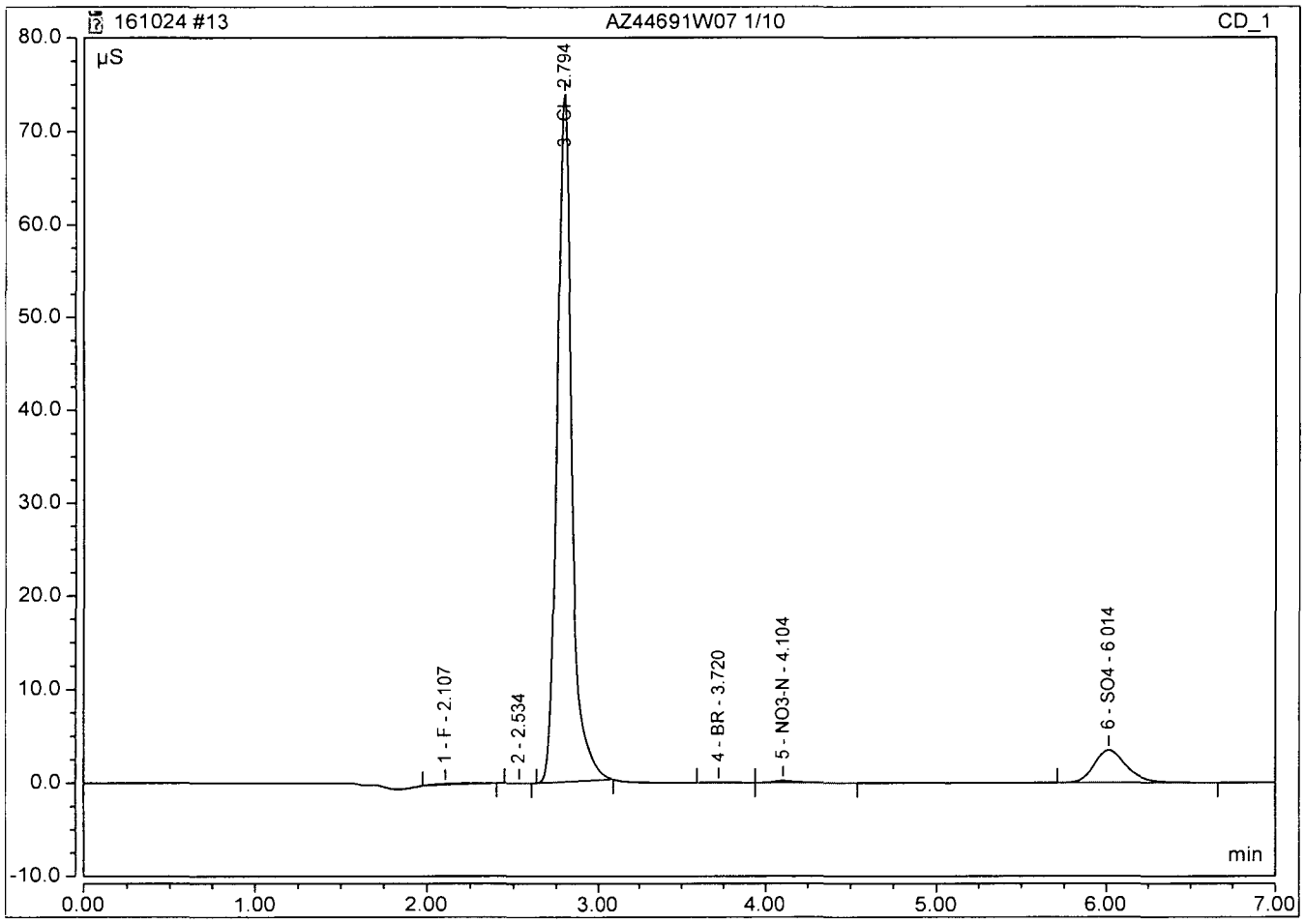
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.34	F	BMB	0.015	0.000	0.2089
4	2.85	Cl	BMB	42.407	362.618	468.0658
5	3.74	BR	BMB	0.036	0.289	1.3793
6	4.12	NO3-N	BMB	0.155	1.053	0.9442
8	6.10	SO4	BMB	4.200	20.708	69.7725
TOTAL:				46.81	384.67	540.37



Peak Integration Report

Sample Name:	**AZ44691W07 1/10**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**10.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**24-Oct-2016 / 12:03**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.11	F	BMB	0.033	0.128	1.8504
3	2.79	Cl	BMB	7.424	73.771	413.9793
4	3.72	BR	BMB	0.007	0.059	2.3808
5	4.10	NO3-N	BMB	0.032	0.219	1.7248
6	6.01	SO4	BMB	0.761	3.457	67.2279
TOTAL:				8.26	77.63	487.16



Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH102

Sample Collection Date: 10/19/16

APPL ID: AZ44694

ARF: 81251

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	152	10.0	2.00	0.80	mg/L	10	10/24/16	10/24/16
EPA 300.0	NITRATE	1.6	0.5	0.18	0.04	mg/L	1	10/21/16	10/21/16
EPA 300.0	SULFATE	43.0	1.0	0.20	0.09	mg/L	1	10/21/16	10/21/16
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/21/16	10/21/16

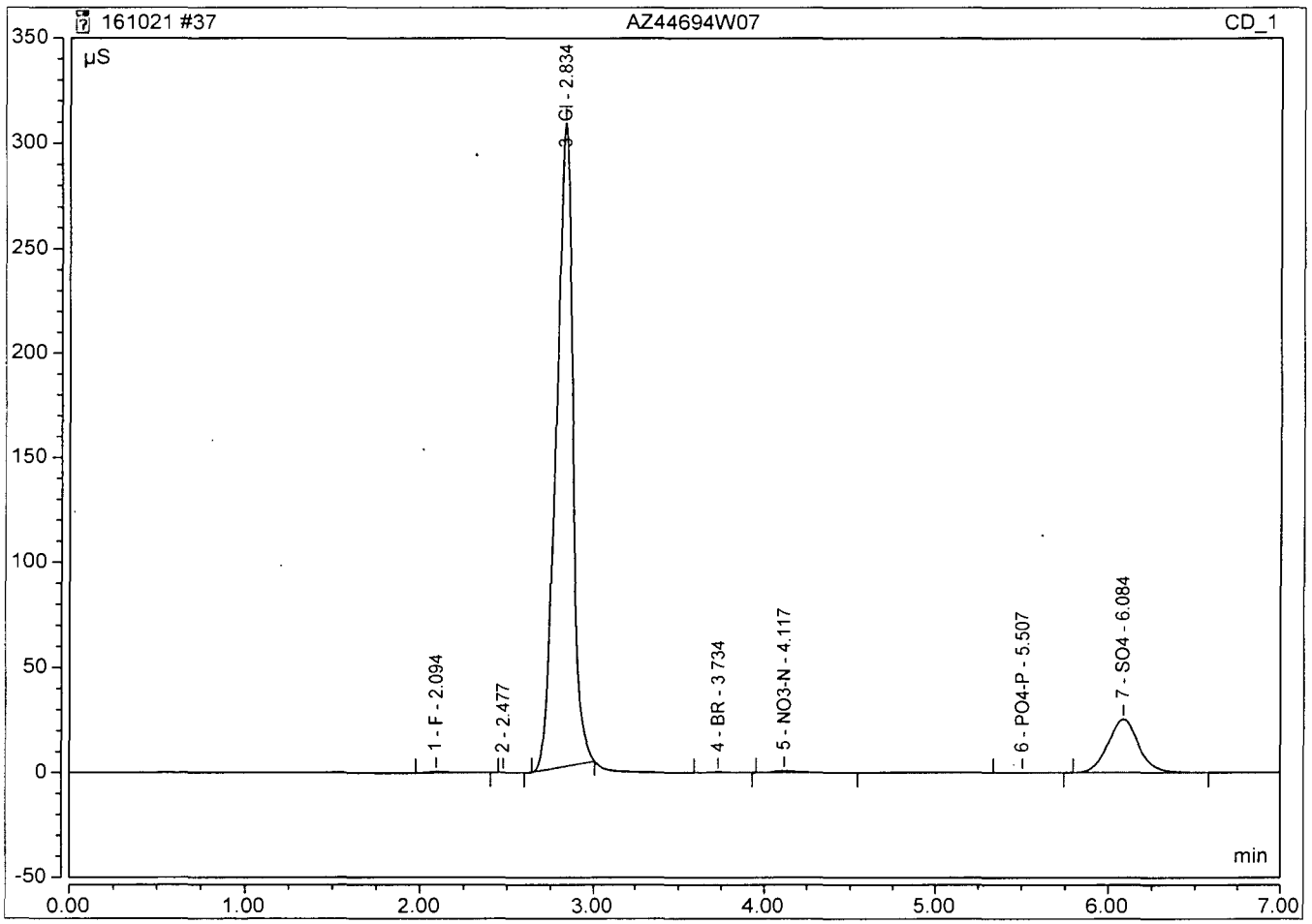
Printed: 10/30/16 9:37:14 AM

APPL-F1-SC-NoMC-REG MDLs

Peak Integration Report

Sample Name:	**AZ44694W07**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Oct-2016 / 17:36**	*Run Time:*	**7.00**

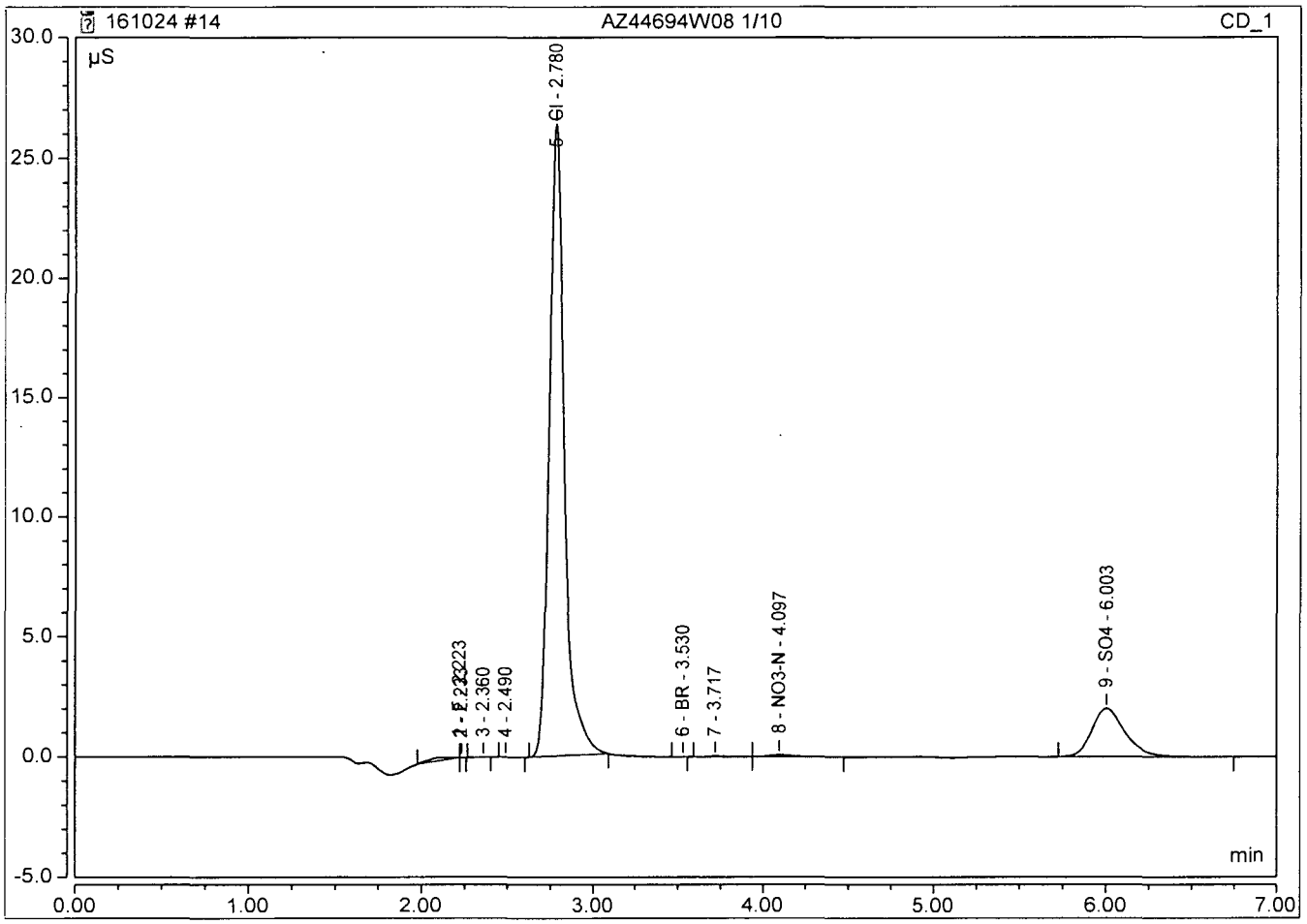
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.09	F	BMB	0.075	0.615	0.3729
3	2.83	Cl	BMB	34.272	306.822	189.2405
4	3.73	BR	BMB	0.032	0.257	0.6323
5	4.12	NO3-N	BMB	0.109	0.751	0.3608
6	5.51	PO4-P	BMB	0.012	0.064	0.1605
7	6.08	SO4	BMB	5.178	25.383	42.8954
TOTAL:				39.68	333.89	233.66



Peak Integration Report

Sample Name:	**AZ44694W08 1/10**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**10.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**24-Oct-2016 / 12:16**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.22	F	BMB	0.017	0.000	1.1436
5	2.78	Cl	BMB	2.665	26.357	151.9458
6	3.53	BR	BMB	0.000	0.000	1.2578
8	4.10	NO3-N	BMB	0.011	0.078	1.2353
9	6.00	SO4	BMB	0.446	2.002	41.4392
TOTAL:				3.14	28.44	197.02



Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH104

Sample Collection Date: 10/20/16

APPL ID: AZ44695

ARF: 81251

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	1020	50.0	10.00	4.00	mg/L	50	10/24/16	10/24/16
EPA 300.0	SULFATE	326	50.0	10.00	4.50	mg/L	50	10/24/16	10/24/16
EPA 300.0	NITRATE	7.9	2.5	0.90	0.20	mg/L	5	10/21/16	10/21/16
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/21/16	10/21/16

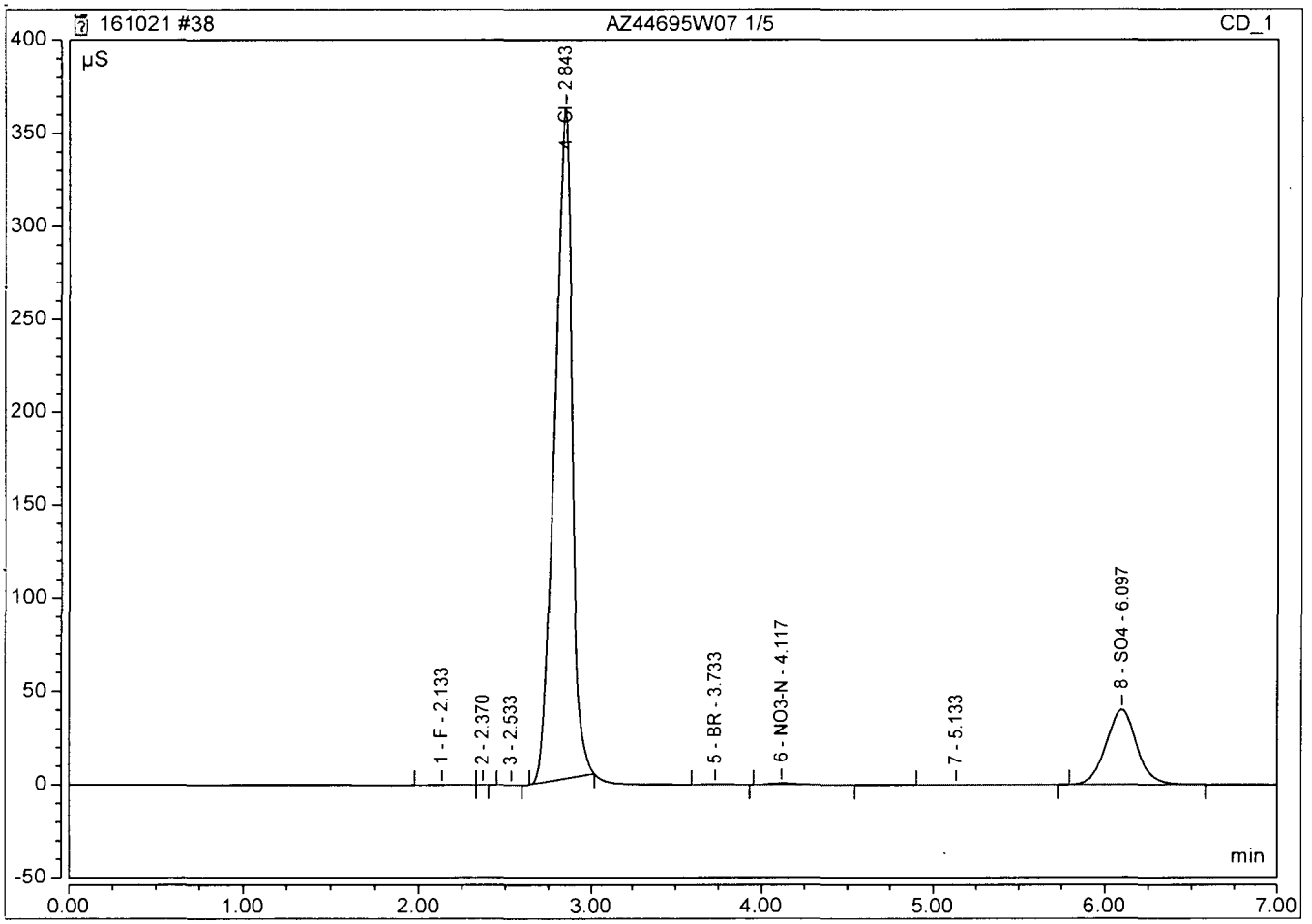
Printed: 10/30/16 9:37:14 AM

APPL-F1-SC-NoMC-REG MDLs

Peak Integration Report

Sample Name:	**AZ44695W07 1/5**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**5.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Oct-2016 / 17:49**	*Run Time:*	**7.00**

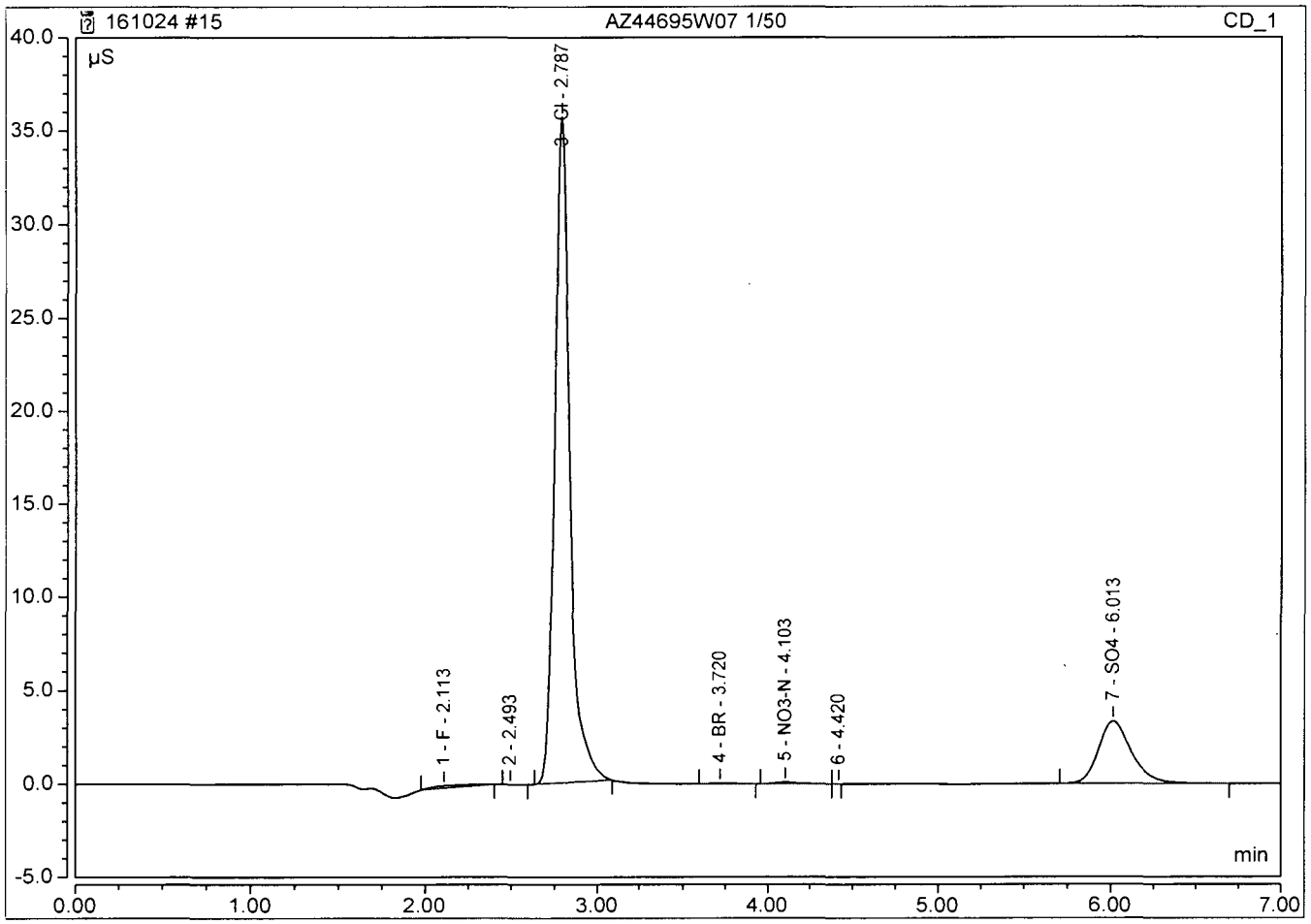
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.13	F	BMB	0.017	0.090	0.5688
4	2.84	Cl	BMB	41.976	359.989	1158.3106
5	3.73	BR	BMB	0.032	0.257	3.1274
6	4.12	NO3-N	BMB	0.107	0.729	1.7740
8	6.10	SO4	BMB	8.147	39.912	336.0282
TOTAL:				50.28	400.98	1499.81



Peak Integration Report

Sample Name:	**AZ44695W07 1/50**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**50.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**24-Oct-2016 / 12:29**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.11	F	BMB	0.035	0.131	9.7320
3	2.79	Cl	BMB	3.594	35.671	1015.6061
4	3.72	BR	BMB	0.003	0.029	8.9736
5	4.10	NO3-N	BMB	0.011	0.081	6.1371
7	6.01	SO4	BMB	0.735	3.312	325.5357
TOTAL:				4.38	39.22	1365.98



INORGANIC ANALYSIS
Calibration Data

APPL, INC.

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 81251 SDG: 81251

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 05/20/16

Analyte	Calibration Verification									M
	True ICV	Found 12:41	%R(1)	True CCV1	Found 16:16	%R(1)	True CCV1	Found 16:29	%R(1)	
Ferrous Iron	3	3.01396	100	4	3.86314	96.6	4	3.88312	97.1	

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 81251 SDG: 81251

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 10/21/16

Analyte	Calibration Verification									M
	True CCV1	Found 17:15	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
Ferrous Iron	4	4.00300	100							

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

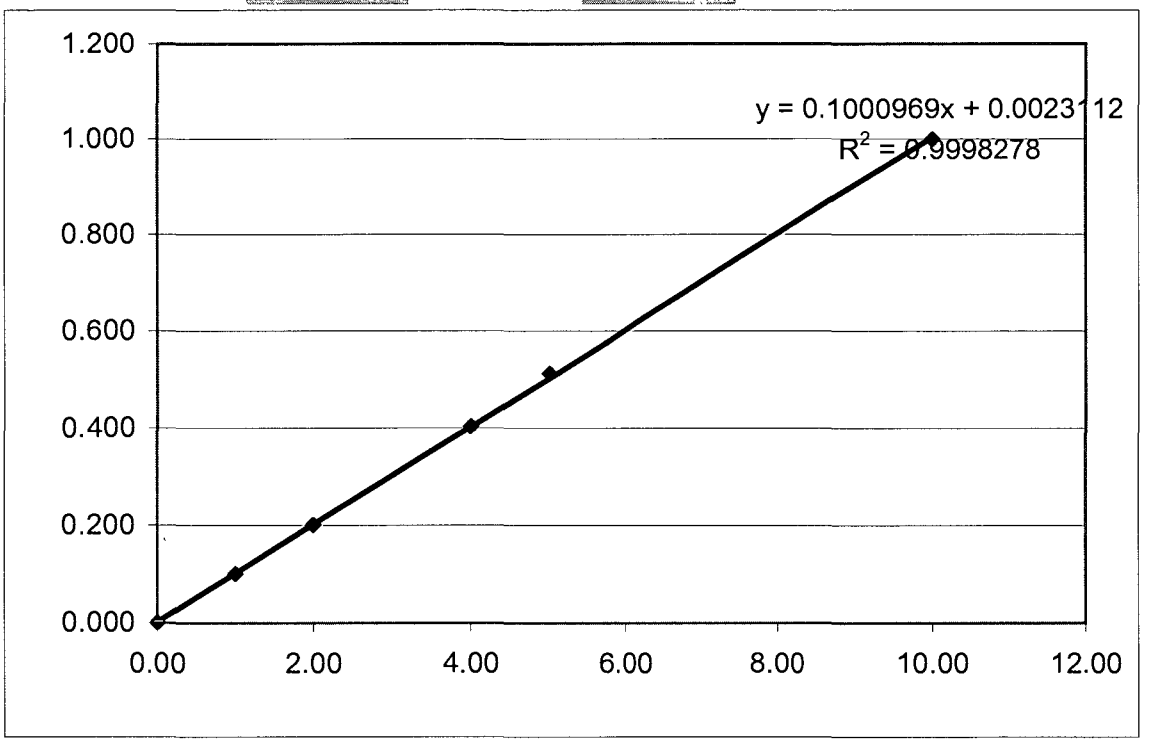
ARF No.: 81251 SDG: 81251

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 05/20/16 12:42	C	CCB 10/21/16 16:17	C	CCB 10/21/16 16:30	C	CCB 10/21/16 17:16	C		C	
Ferrous Iron	1.000	U	1.000	U	1.000	U	1.000	U			

Ferrous Iron **161021A**



X	Y
0.00	0.000
1.00	0.101
2.00	0.201
4.00	0.403
5.00	0.512
10.00	0.999

Algorithm Check

reading (y)=	0.302	10/21/16	16:18
dilution=	1		
result (x)=	2.99 ✓		

MM 10/30/16

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 81251 SDG: 81251

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 10/20/16

Analyte	Calibration Verification									M
	True ICV	Found 12:37	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
chloride	20	18.2183	91.1							
Nitrate(NO3)	22.1	20.0573	90.8							
sulfate	20	18.4058	92.0							

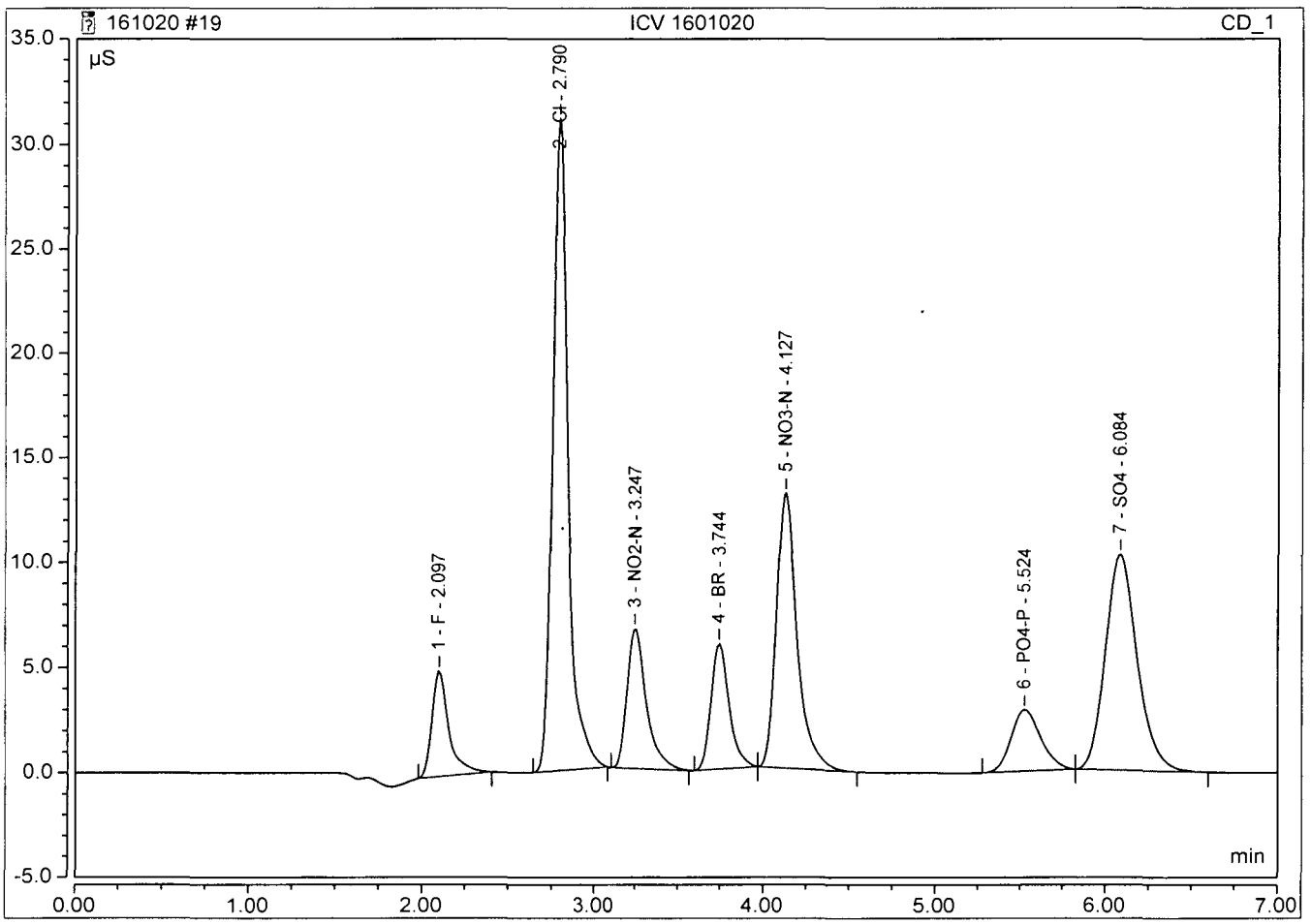
(1) Control Limits: 90-110

ILM02.0

Peak Integration Report

Sample Name:	**ICV 1601020**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 12:37**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.568	5.018	2.5594
2	2.79	Cl	BMB	3.214	31.139	18.2184
3	3.25	NO2-N	BMB	0.894	6.653	2.9873
4	3.74	BR	BMB	0.739	5.970	11.8423
5	4.13	NO3-N	BMB	1.827	13.075	4.5291
6	5.52	PO4-P	BMB	0.590	2.913	4.8011
7	6.08	SO4	BMB	2.187	10.255	18.4058
TOTAL:				10.02	75.02	63.34



Algorithm Check y = Peak Area
x = Amount

y = .412x - .039

x = 4.53 ✓

MM 10/30/16

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 81251 SDG: 81251

Preparation Blank Matrix (soil/water): water

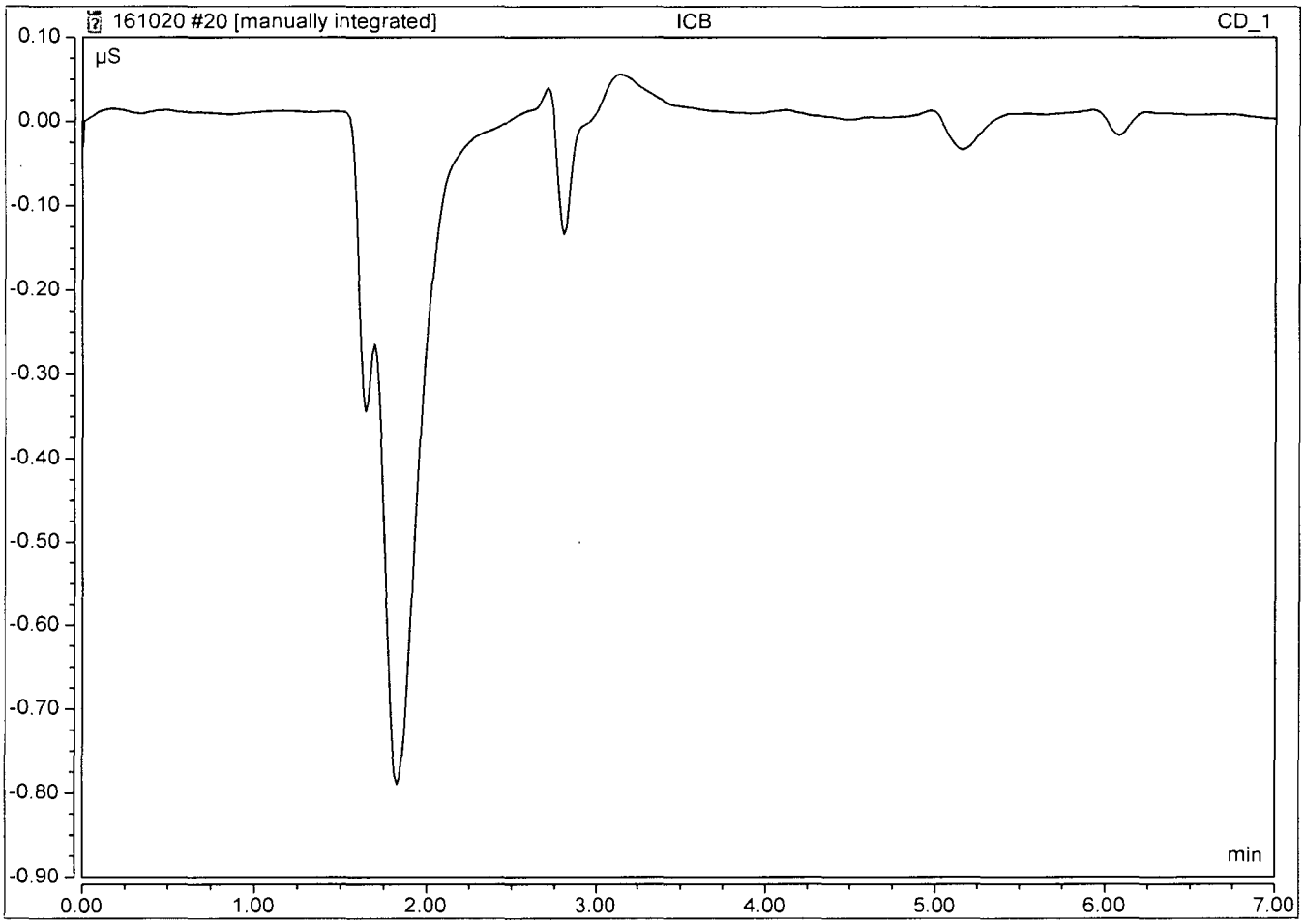
Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 10/20/16 12:50	C		C		C		C		C	
chloride	1.000	U									
Nitrate(NO3)	.500	U									
sulfate	1.000	U									

Peak Integration Report

Sample Name:	**ICB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 12:50**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount n.a.
		TOTAL:		0.00	0.00	0.00



A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 81251 SDG: 81251

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 10/21/16

Analyte	Calibration Verification									M
	True CCV1	Found 15:39	%R(1)	True CCV1	Found 18:15	%R(1)	True	Found	%R(1)	
chloride	25	23.232	92.9	25	23.1908	92.8				
Nitrate(NO3)	22.1	20.8130	94.2	22.1	20.7980	94.1				
sulfate	25	23.3406	93.4	25	23.3279	93.3				

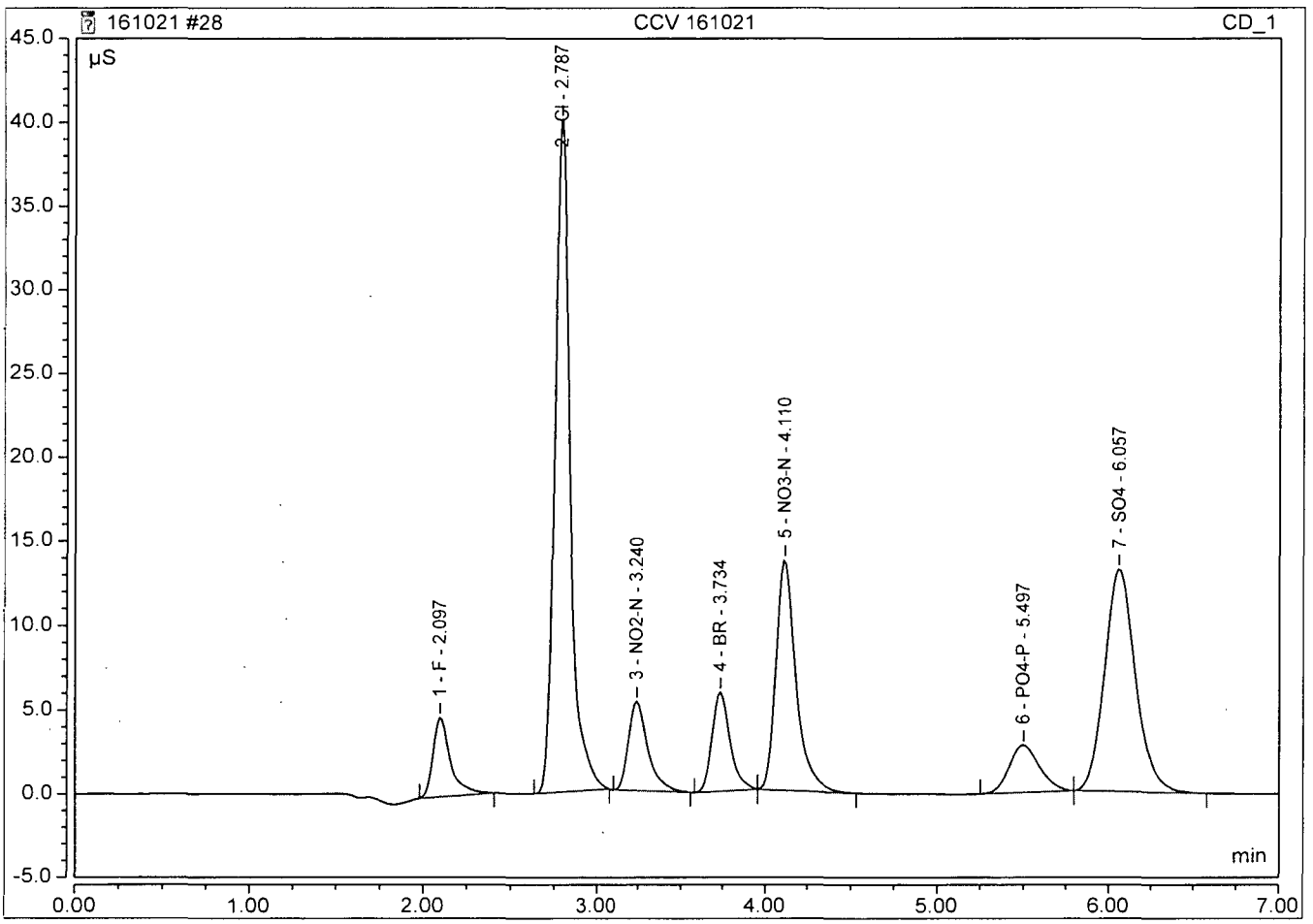
(1) Control Limits: 90-110

ILM02.0

Peak Integration Report

Sample Name:	**CCV 161021**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Oct-2016 / 15:39**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.538	4.720	2.4274
2	2.79	Cl	BMB	4.125	40.053	23.2320
3	3.24	NO2-N	BMB	0.706	5.316	2.3645
4	3.73	BR	BMB	0.728	5.879	11.6598
5	4.11	NO3-N	BMB	1.897	13.646	4.6997
6	5.50	PO4-P	BMB	0.574	2.818	4.6719
7	6.06	SO4	BMB	2.790	13.162	23.3406
TOTAL:				11.36	85.59	72.40



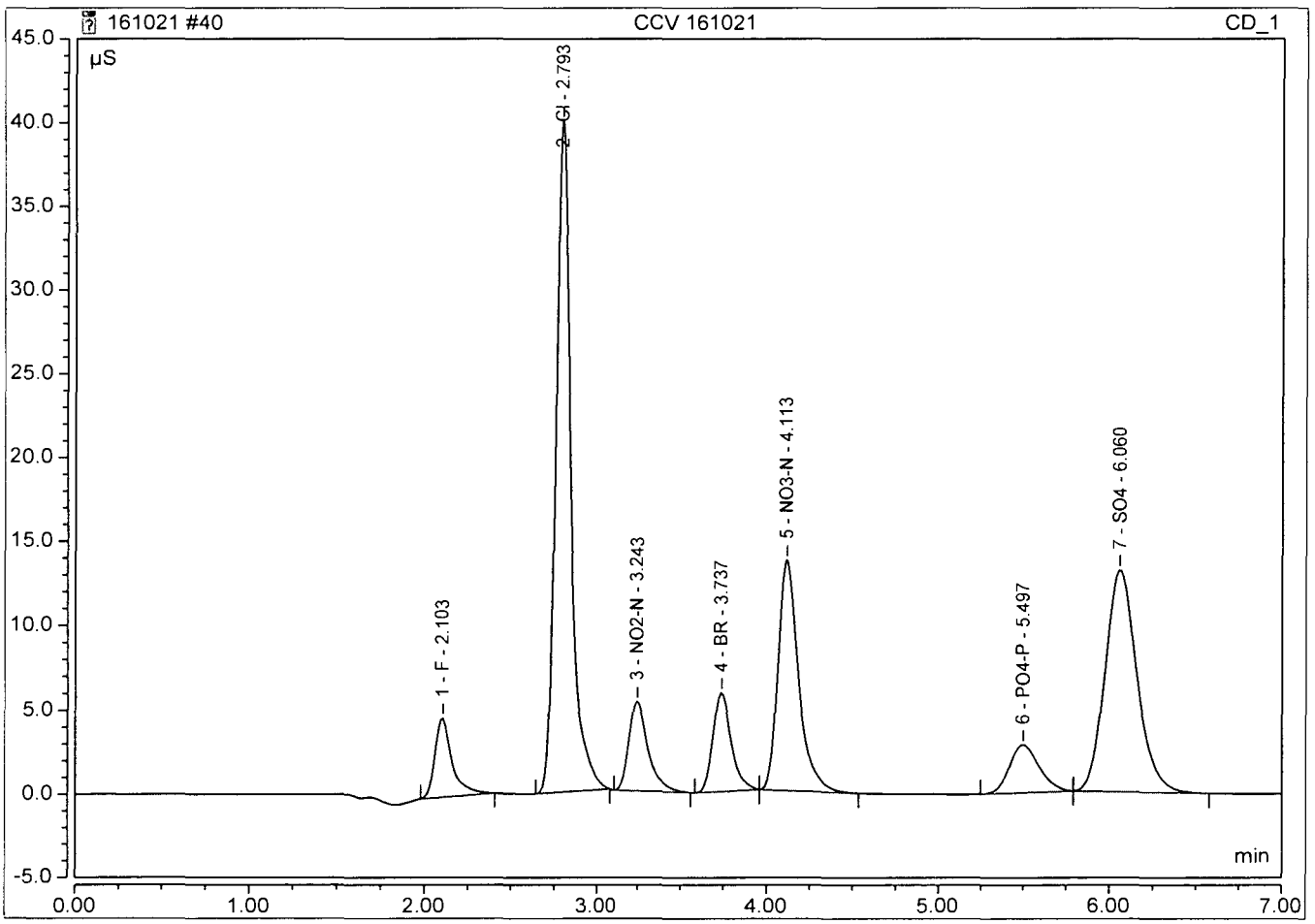
Algorithm Check
y=.412x - .039
x=4.70 ✓

y=Peak Area
X=Amount
MM 10/30/16

Peak Integration Report

Sample Name:	**CCV 161021**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Oct-2016 / 18:15**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.540	4.726	2.4364
2	2.79	Cl	BMB	4.117	40.004	23.1908
3	3.24	NO2-N	BMB	0.706	5.320	2.3641
4	3.74	BR	BMB	0.728	5.885	11.6577
5	4.11	NO3-N	BMB	1.896	13.655	4.6963
6	5.50	PO4-P	BMB	0.582	2.870	4.7331
7	6.06	SO4	BMB	2.788	13.154	23.3279
TOTAL:				11.36	85.61	72.41



A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 81251 SDG: 81251

Preparation Blank Matrix (soil/water): water

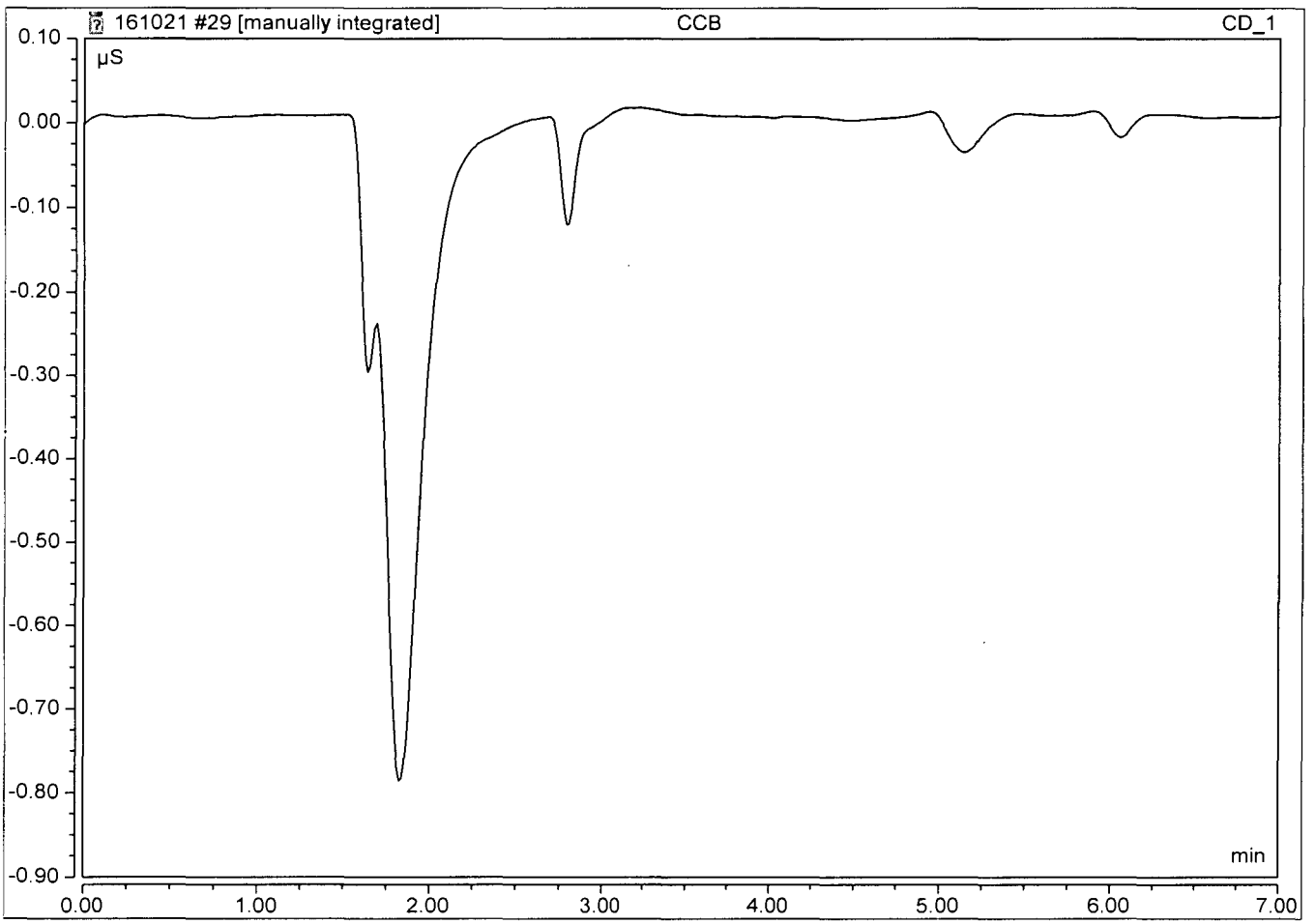
Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 10/21/16 15:52	C	CCB 10/21/16 18:29	C		C		C		C	
chloride	1.000	U	1.000	U							
Nitrate(NO3)	.500	U	.500	U							
sulfate	1.000	U	1.000	U							

Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Oct-2016 / 15:52**	*Run Time:*	**7.00**

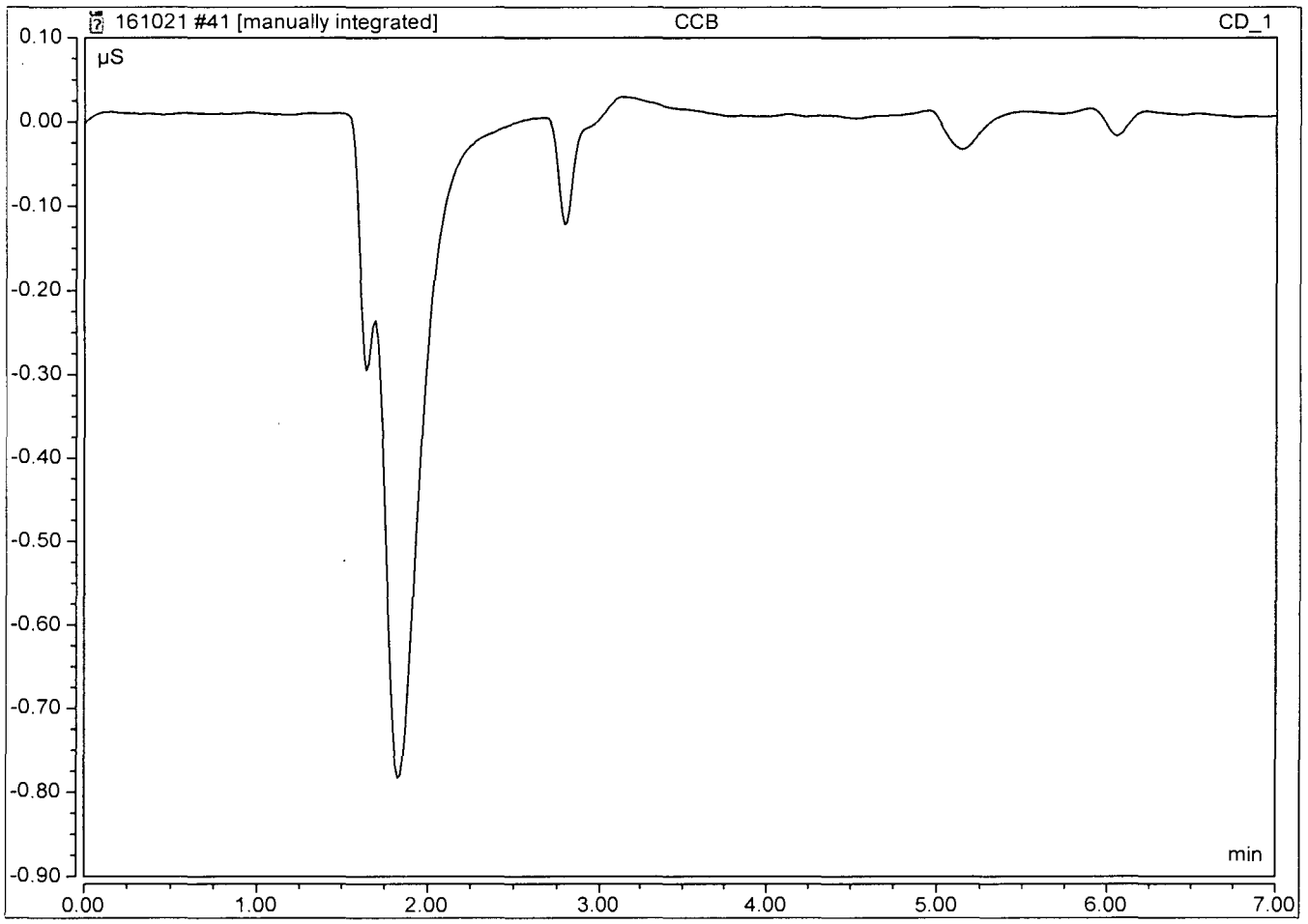
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount n.a.
		TOTAL:		0.00	0.00	0.00



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Oct-2016 / 18:29**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount n.a.
		TOTAL:		0.00	0.00	0.00



A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 81251 SDG: 81251

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 10/24/16

Analyte	Calibration Verification									M
	True CCV1	Found 9:39	%R(1)	True CCV1	Found 13:08	%R(1)	True	Found	%R(1)	
chloride	25	23.2677	93.1	25	23.4373	93.7				
sulfate	25	23.3175	93.3	25	23.3566	93.4				

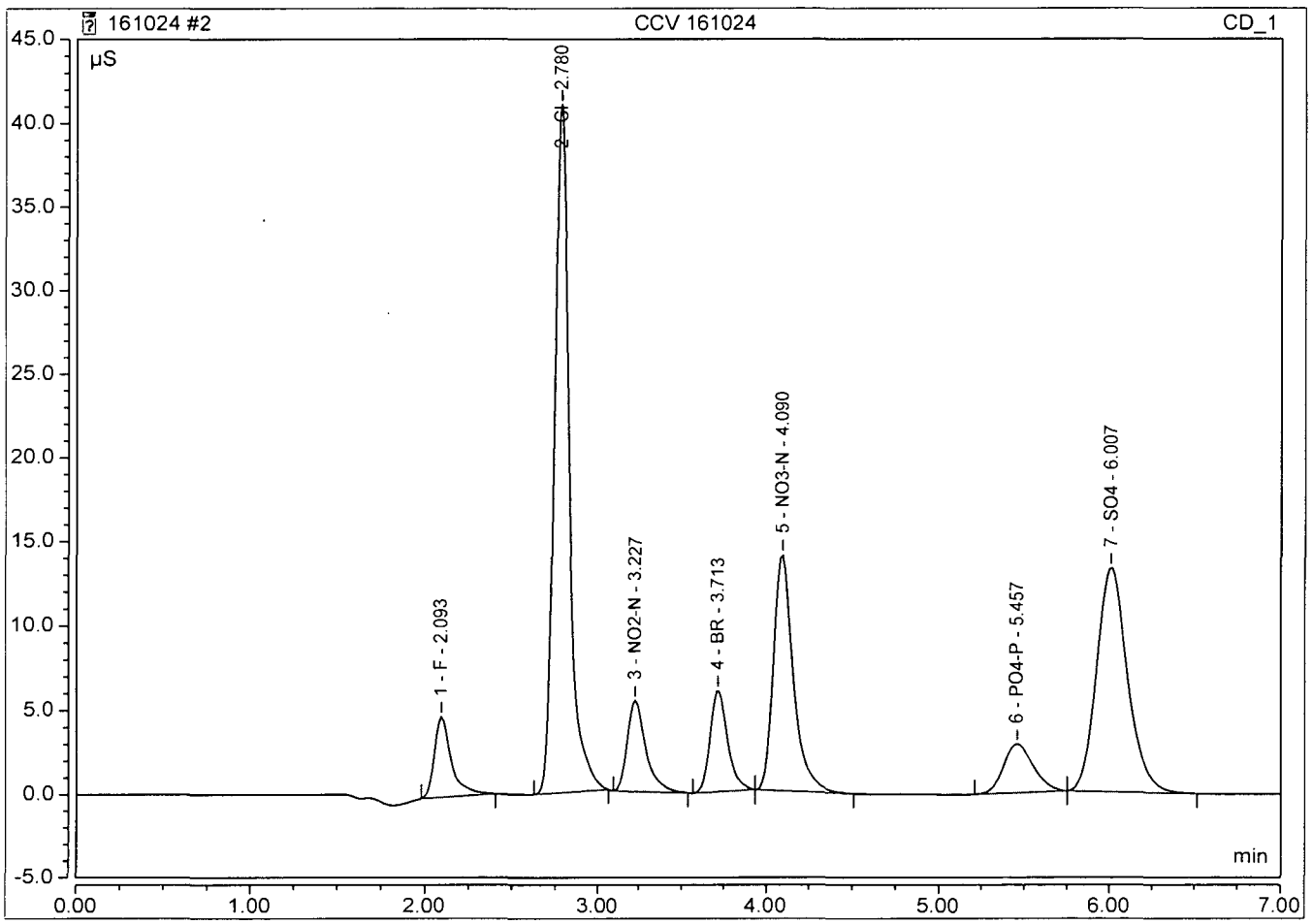
(1) Control Limits: 90-110

ILM02.0

Peak Integration Report

Sample Name:	**CCV 161024**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**24-Oct-2016 / 09:39**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.09	F	BMB	0.540	4.790	2.4344
2	2.78	Cl	BMB	4.131	41.025	23.2677
3	3.23	NO2-N	BMB	0.701	5.402	2.3470
4	3.71	BR	BMB	0.730	6.023	11.6898
5	4.09	NO3-N	BMB	1.903	13.997	4.7150
6	5.46	PO4-P	BMB	0.580	2.912	4.7236
7	6.01	SO4	BMB	2.787	13.263	23.3175
TOTAL:				11.37	87.41	72.49



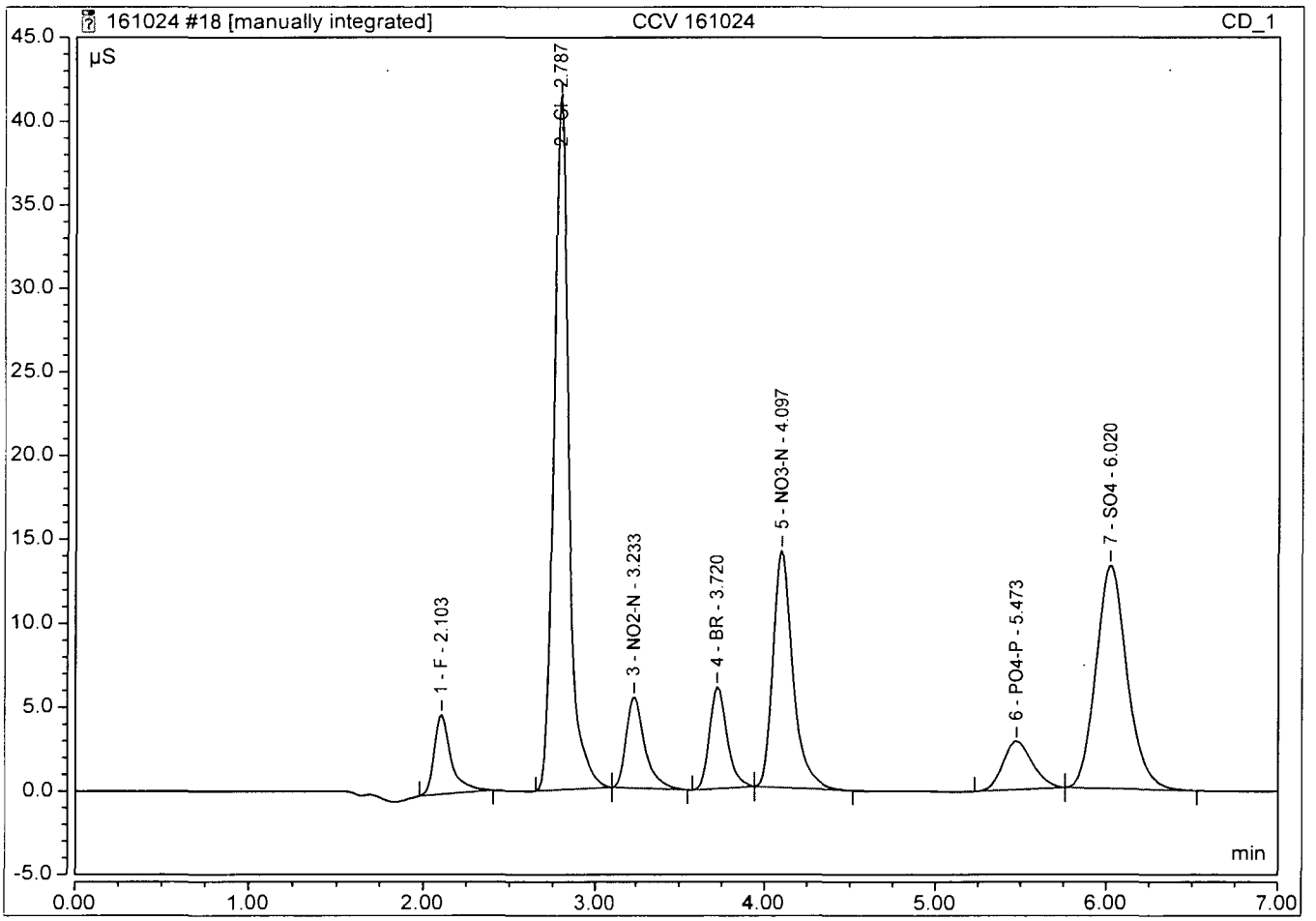
Algorithm Check
y = .412x − .039
x = 4.71 ✓
y = Peak Area
x = Amount
MM 10/30/16

MI MM 10/30/16

Peak Integration Report PW

Sample Name:	**CCV 161024**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**24-Oct-2016 / 13:08**	*Run Time:*	**7.00**

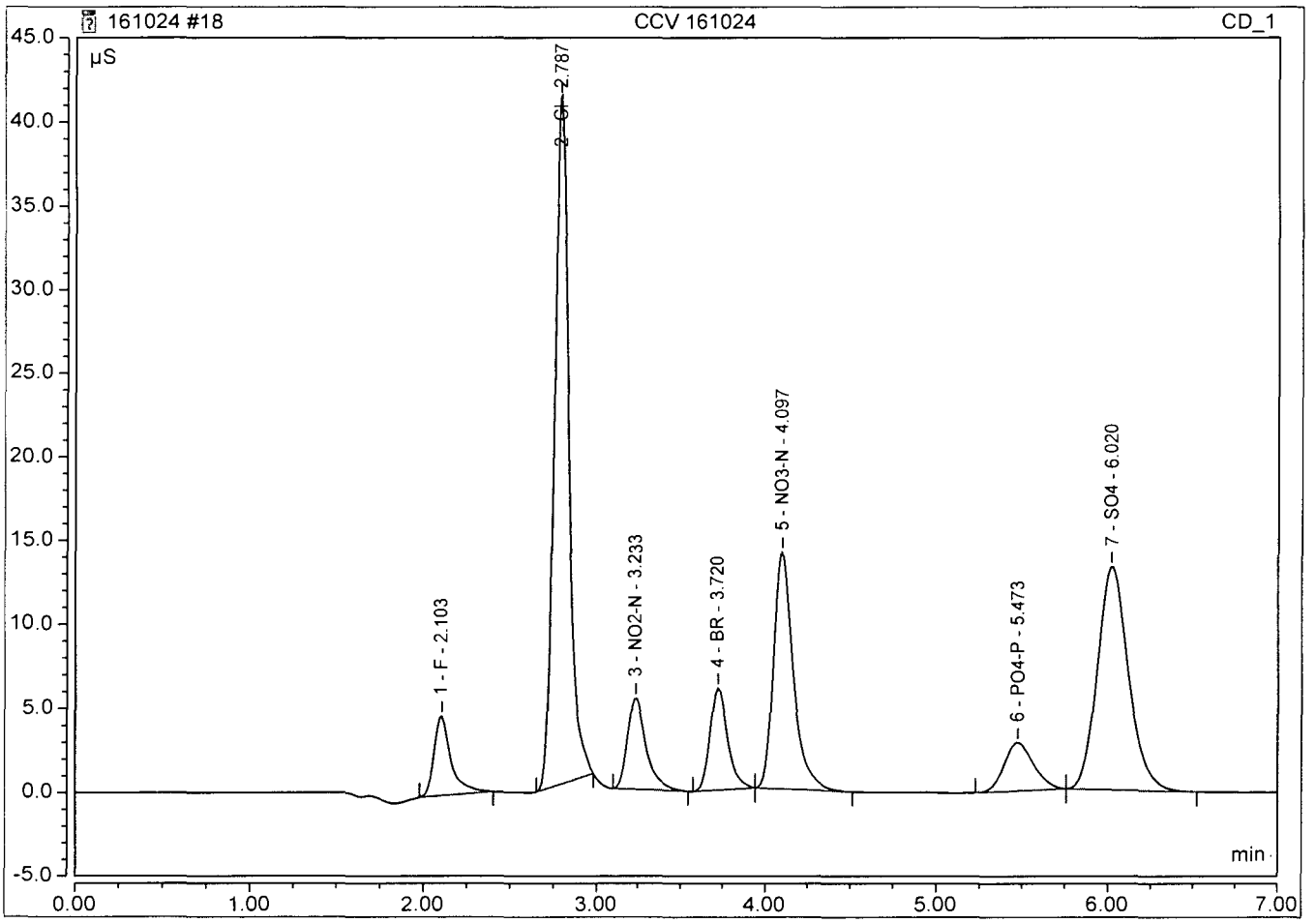
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.539	4.742	2.4329
2	2.79	Cl	BMb*	4.162	41.409	23.4373
3	3.23	NO2-N	bMB*	0.706	5.433	2.3623
4	3.72	BR	BMB	0.733	6.068	11.7499
5	4.10	NO3-N	BMB	1.912	14.093	4.7370
6	5.47	PO4-P	BMB	0.576	2.884	4.6861
7	6.02	SO4	BMB	2.792	13.265	23.3566
		TOTAL:		11.42	87.89	72.76



Peak Integration Report

Sample Name:	**CCV 161024**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing.Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**24-Oct-2016 / 13:08**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.539	4.742	2.4329
2	2.79	Cl	BMB	3.970	41.018	22.3805
3	3.23	NO2-N	BMB	0.706	5.433	2.3623
4	3.72	BR	BMB	0.733	6.068	11.7499
5	4.10	NO3-N	BMB	1.912	14.093	4.7370
6	5.47	PO4-P	BMB	0.576	2.884	4.6861
7	6.02	SO4	BMB	2.792	13.265	23.3566
TOTAL:				11.23	87.50	71.71



A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 81251 SDG: 81251

Preparation Blank Matrix (soil/water): water

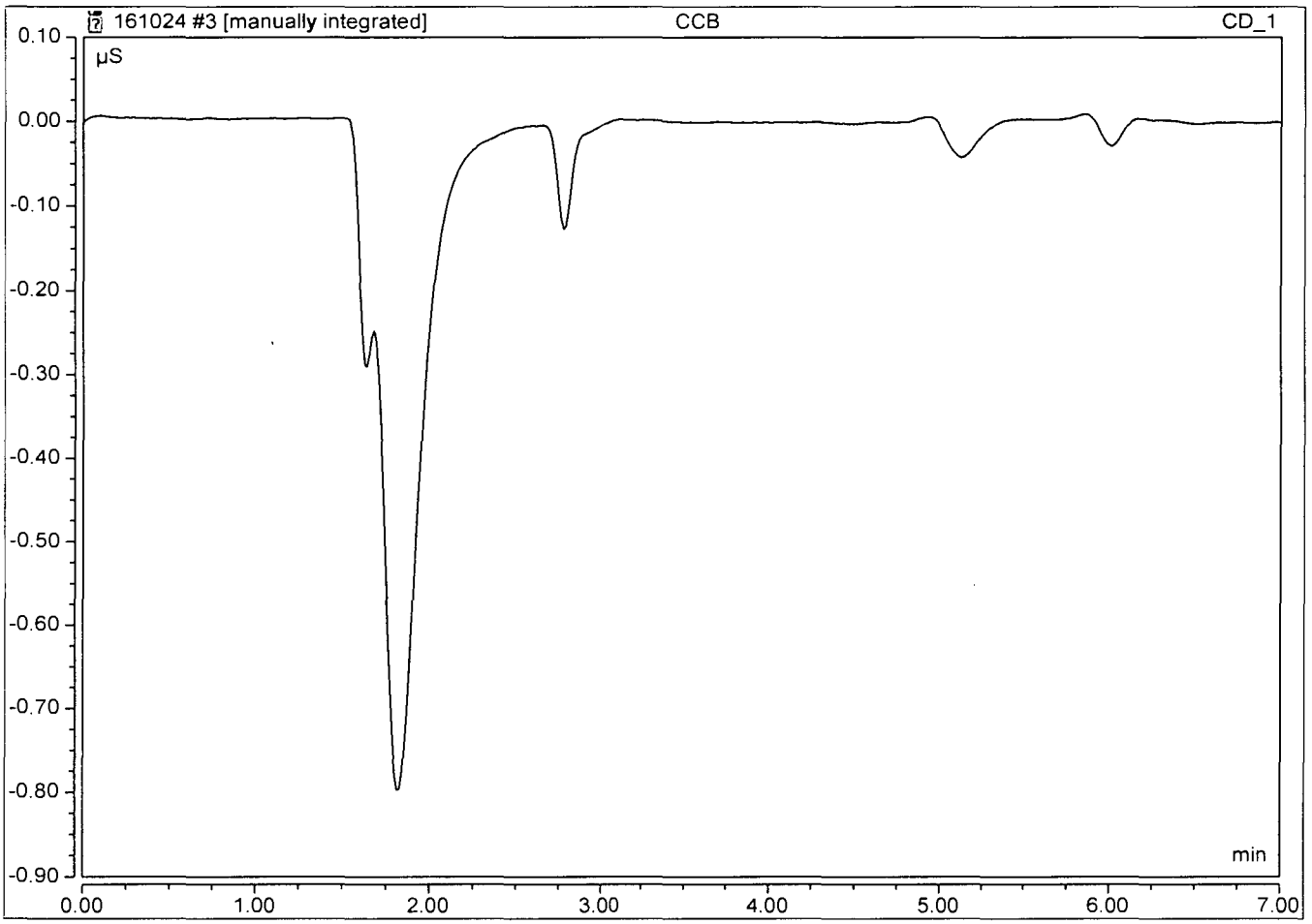
Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 10/24/16 09:52	C	CCB 10/24/16 13:21	C		C		C		C	
chloride	1.000	U	1.000	U							
sulfate	1.000	U	1.000	U							

Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**24-Oct-2016 / 09:52**	*Run Time:*	**7.00**

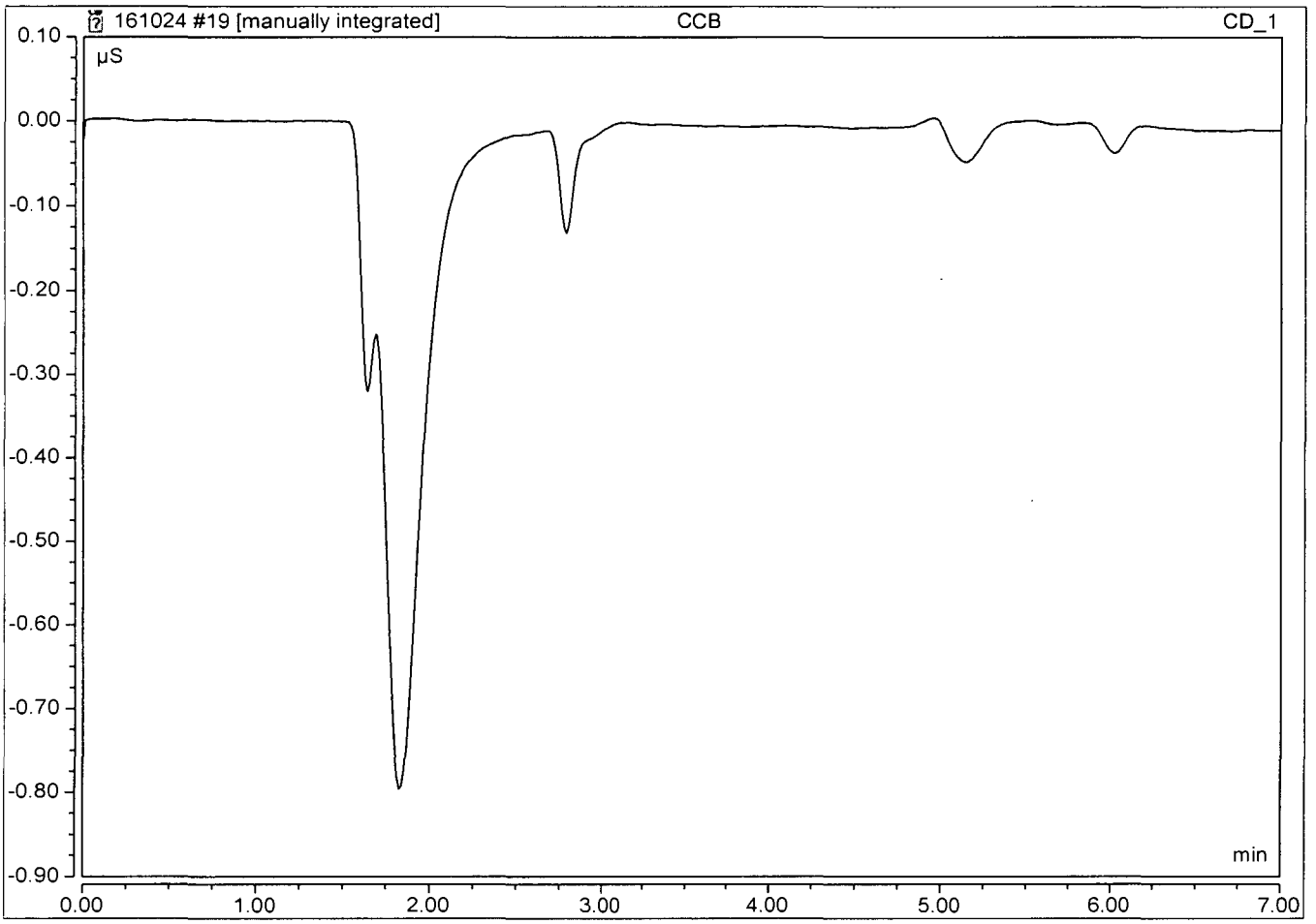
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount n.a.
		TOTAL:		0.00	0.00	0.00



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**24-Oct-2016 / 13:21**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount n.a.
		TOTAL:		0.00	0.00	0.00



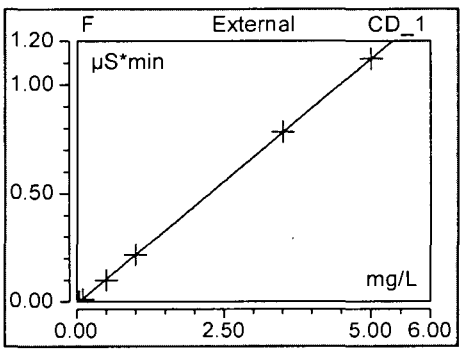
Calibration Batch Report

Sequence:	**161020**	*Injection Volume:*	**25.00**
Instrument Method:	**Program 1**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 12:24**	*Run Time:*	**7**

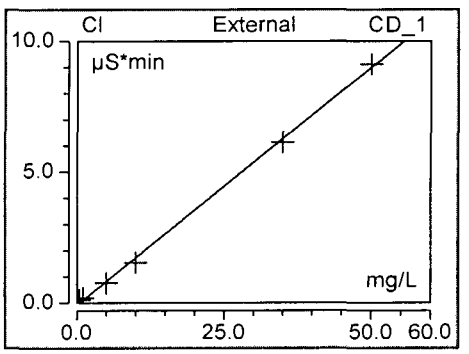
Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
F	Area	WithOffset,	6.000	-0.009	0.225	0.000	99.9840
Cl	Area	in, WithOffse	6.000	-0.094	0.182	0.000	99.8613
NO2-N	Area	in, WithOffse	6.000	-0.007	0.301	0.000	99.9917
BR	Area	in, WithOffse	6.000	-0.008	0.063	0.000	99.9802
NO3-N	Area	in, WithOffse	6.000	-0.039	0.412	0.000	99.9329
PO4-P	Area	in, WithOffse	6.000	-0.008	0.125	0.000	99.9563
SO4	Area	in, WithOffse	6.000	-0.060	0.122	0.000	99.9400
		AVERAGE:		-0.0322	0.2043	0.0000	99.9495

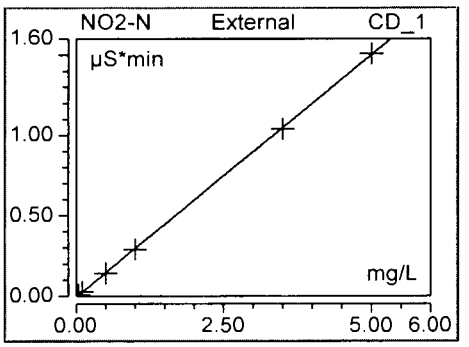
Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	F	F	F	F
ICAL 1 10/20/16	2.123	0.0012	0.022	0.044
ICAL 2 10/20/16	2.107	0.0123	0.139	0.093
ICAL 3 10/20/16	2.100	0.1000	0.922	0.483
ICAL 4 10/20/16	2.104	0.2174	1.958	1.004
ICAL 5 10/20/16	2.097	0.7826	6.953	3.513
ICAL 6 10/20/16	2.103	1.1183	9.996	5.004
Average	2.106			
Rel. Std. Dev.	0.443 %			



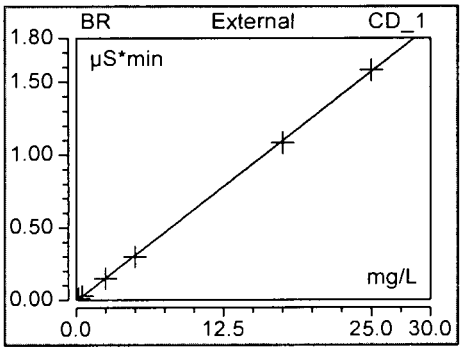
Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	Cl	Cl	Cl	Cl
ICAL 1 10/20/16	2.793	0.1132	1.052	1.143
ICAL 2 10/20/16	2.790	0.1861	1.743	1.544
ICAL 3 10/20/16	2.790	0.7617	7.117	4.714
ICAL 4 10/20/16	2.797	1.5419	14.708	9.010
ICAL 5 10/20/16	2.793	6.1288	59.398	34.268
ICAL 6 10/20/16	2.803	9.1171	87.978	50.723
Average	2.795			
Rel. Std. Dev.	0.179 %			



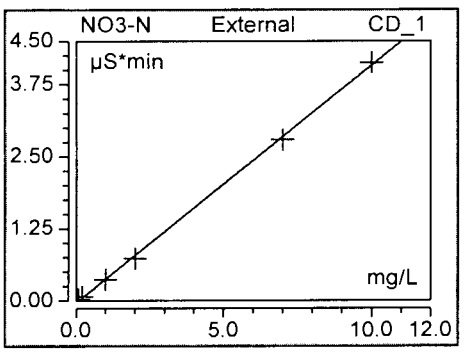
Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	NO2-N	NO2-N	NO2-N	NO2-N
ICAL 1 10/20/16	3.250	0.0095	0.073	0.053
ICAL 2 10/20/16	3.247	0.0276	0.209	0.113
ICAL 3 10/20/16	3.250	0.1420	1.072	0.493
ICAL 4 10/20/16	3.254	0.2907	2.188	0.986
ICAL 5 10/20/16	3.250	1.0405	7.775	3.473
ICAL 6 10/20/16	3.257	1.5072	11.205	5.022
Average	3.251			
Rel. Std. Dev.	0.106 %			



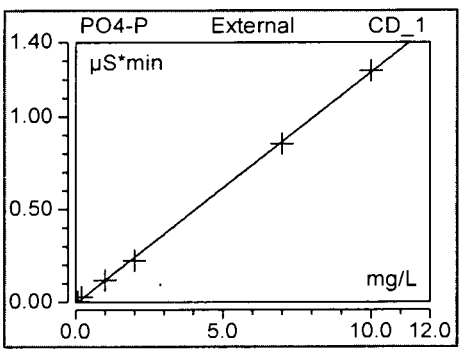
Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	BR	BR	BR	BR
ICAL 1 10/20/16	3.757	0.0109	0.087	0.299
ICAL 2 10/20/16	3.753	0.0293	0.232	0.589
ICAL 3 10/20/16	3.750	0.1485	1.179	2.478
ICAL 4 10/20/16	3.754	0.2993	2.389	4.870
ICAL 5 10/20/16	3.743	1.0832	8.801	17.295
ICAL 6 10/20/16	3.747	1.5800	13.023	25.169
Average	3.751			
Rel. Std. Dev.	0.131 %			



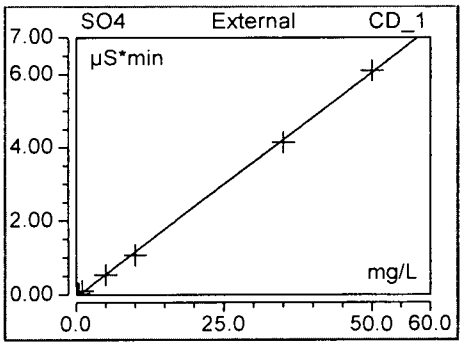
Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	NO3-N	NO3-N	NO3-N	NO3-N
ICAL 1 10/20/16	4.143	0.0290	0.196	0.166
ICAL 2 10/20/16	4.140	0.0717	0.496	0.270
ICAL 3 10/20/16	4.137	0.3656	2.533	0.983
ICAL 4 10/20/16	4.140	0.7330	5.168	1.875
ICAL 5 10/20/16	4.123	2.7923	20.144	6.873
ICAL 6 10/20/16	4.123	4.1278	30.098	10.114
Average	4.135			
Rel. Std. Dev.	0.215 %			



Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	PO4-P	PO4-P	PO4-P	PO4-P
ICAL 1 10/20/16	5.540	0.0032	0.021	0.092
ICAL 2 10/20/16	5.540	0.0284	0.107	0.295
ICAL 3 10/20/16	5.537	0.1191	0.557	1.022
ICAL 4 10/20/16	5.537	0.2251	1.103	1.873
ICAL 5 10/20/16	5.520	0.8544	4.243	6.922
ICAL 6 10/20/16	5.523	1.2473	6.244	10.075
Average	5.533			
Rel. Std. Dev.	0.160 %			



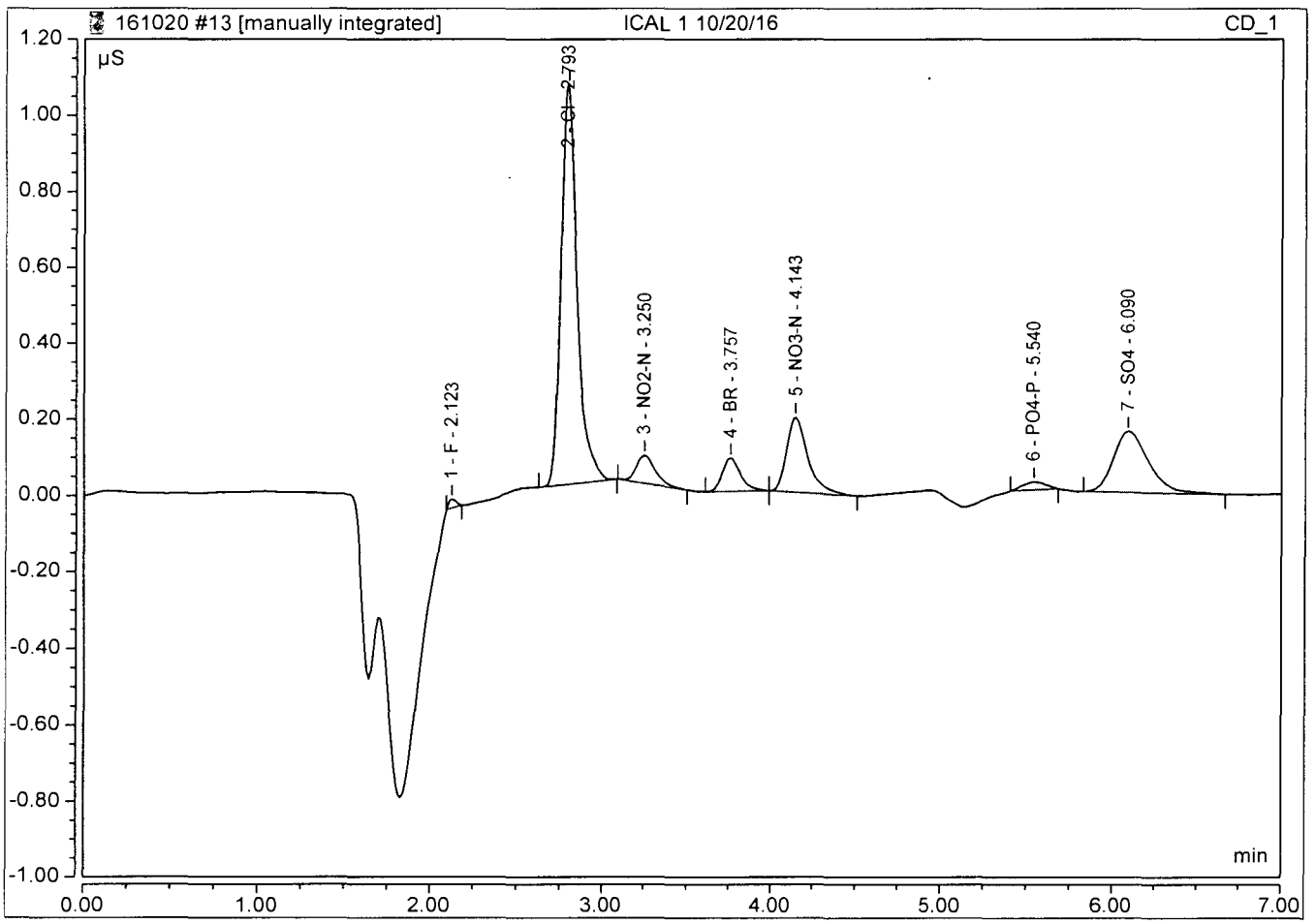
Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	SO4	SO4	SO4	SO4
ICAL 1 10/20/16	6.090	0.0385	0.159	0.808
ICAL 2 10/20/16	6.093	0.1046	0.455	1.350
ICAL 3 10/20/16	6.097	0.5456	2.464	4.961
ICAL 4 10/20/16	6.100	1.0756	4.975	9.302
ICAL 5 10/20/16	6.097	4.1512	19.714	34.487
ICAL 6 10/20/16	6.110	6.1057	29.270	50.492
Average	6.098			
Rel. Std. Dev.	0.113 %			



Peak Integration Report

Sample Name:	**ICAL 1 10/20/16**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 11:19**	*Run Time:*	**7.00**

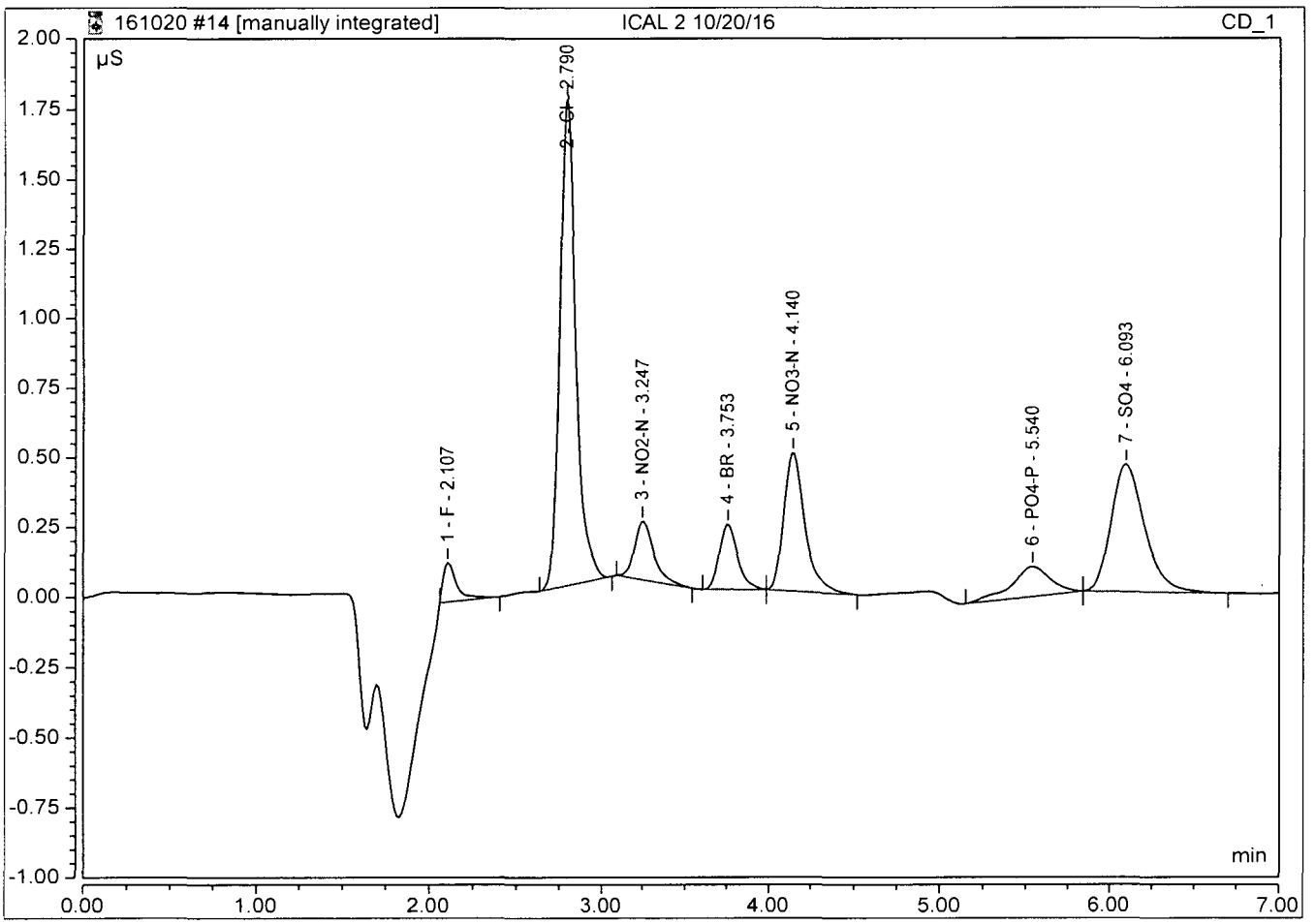
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.12	F	BMB*	0.001	0.022	0.0438
2	2.79	Cl	BMB	0.113	1.052	1.1427
3	3.25	NO2-N	BMB	0.009	0.073	0.0531
4	3.76	BR	BMB	0.011	0.087	0.2985
5	4.14	NO3-N	BMB	0.029	0.196	0.1660
6	5.54	PO4-P	BMB*	0.003	0.021	0.0923
7	6.09	SO4	BMB	0.038	0.159	0.8084
TOTAL:				0.21	1.61	2.60



Peak Integration Report

Sample Name:	**ICAL 2 10/20/16**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 11:32**	*Run Time:*	**7.00**

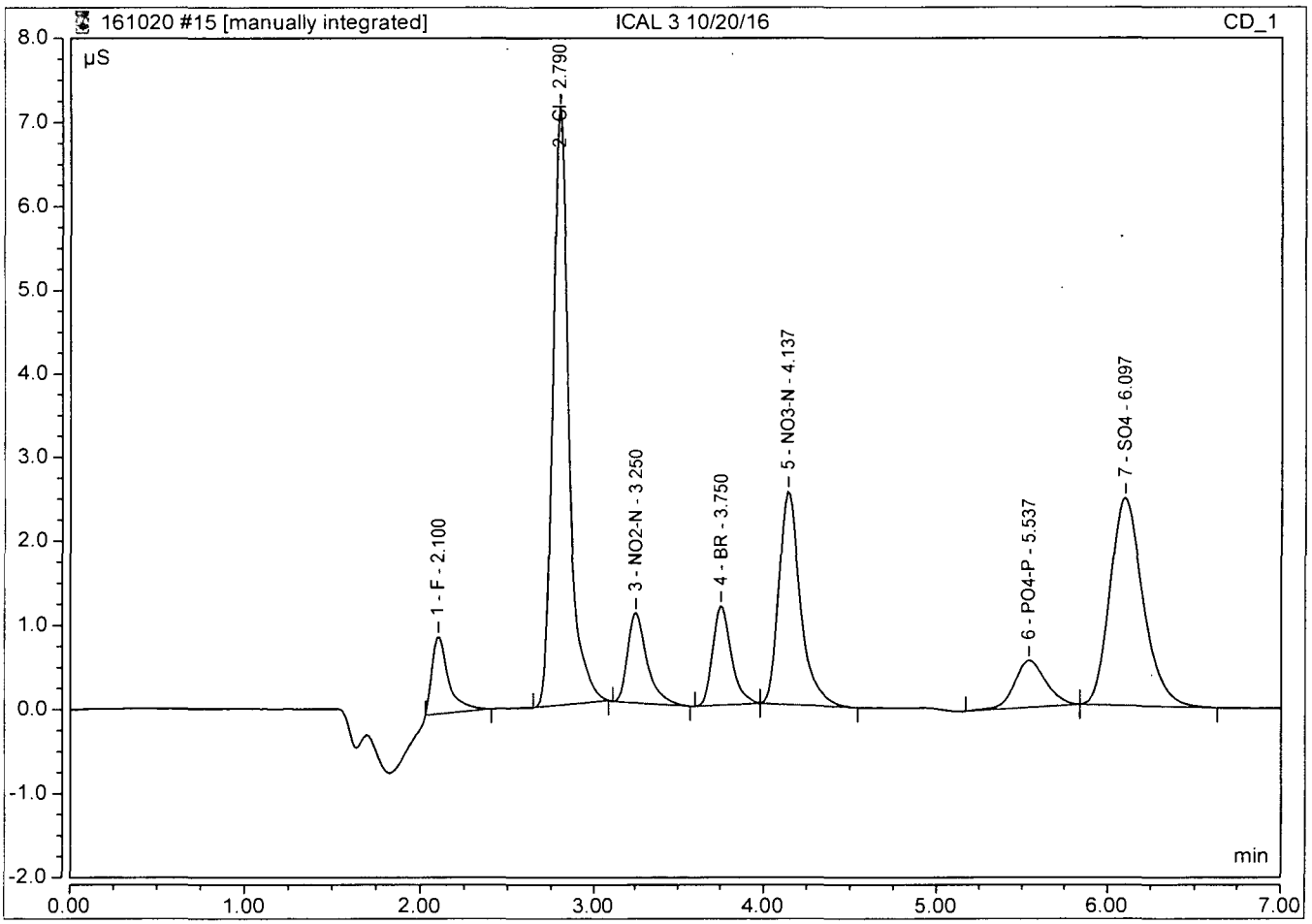
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.11	F	BMB*	0.012	0.139	0.0933
2	2.79	Cl	BMB	0.186	1.743	1.5439
3	3.25	NO2-N	BMB	0.028	0.209	0.1132
4	3.75	BR	BMB	0.029	0.232	0.5894
5	4.14	NO3-N	BMB	0.072	0.496	0.2699
6	5.54	PO4-P	BMB	0.028	0.107	0.2946
7	6.09	SO4	BMB	0.105	0.455	1.3496
TOTAL:				0.46	3.38	4.25



Peak Integration Report

Sample Name:	**ICAL 3 10/20/16**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 11:45**	*Run Time:*	**7.00**

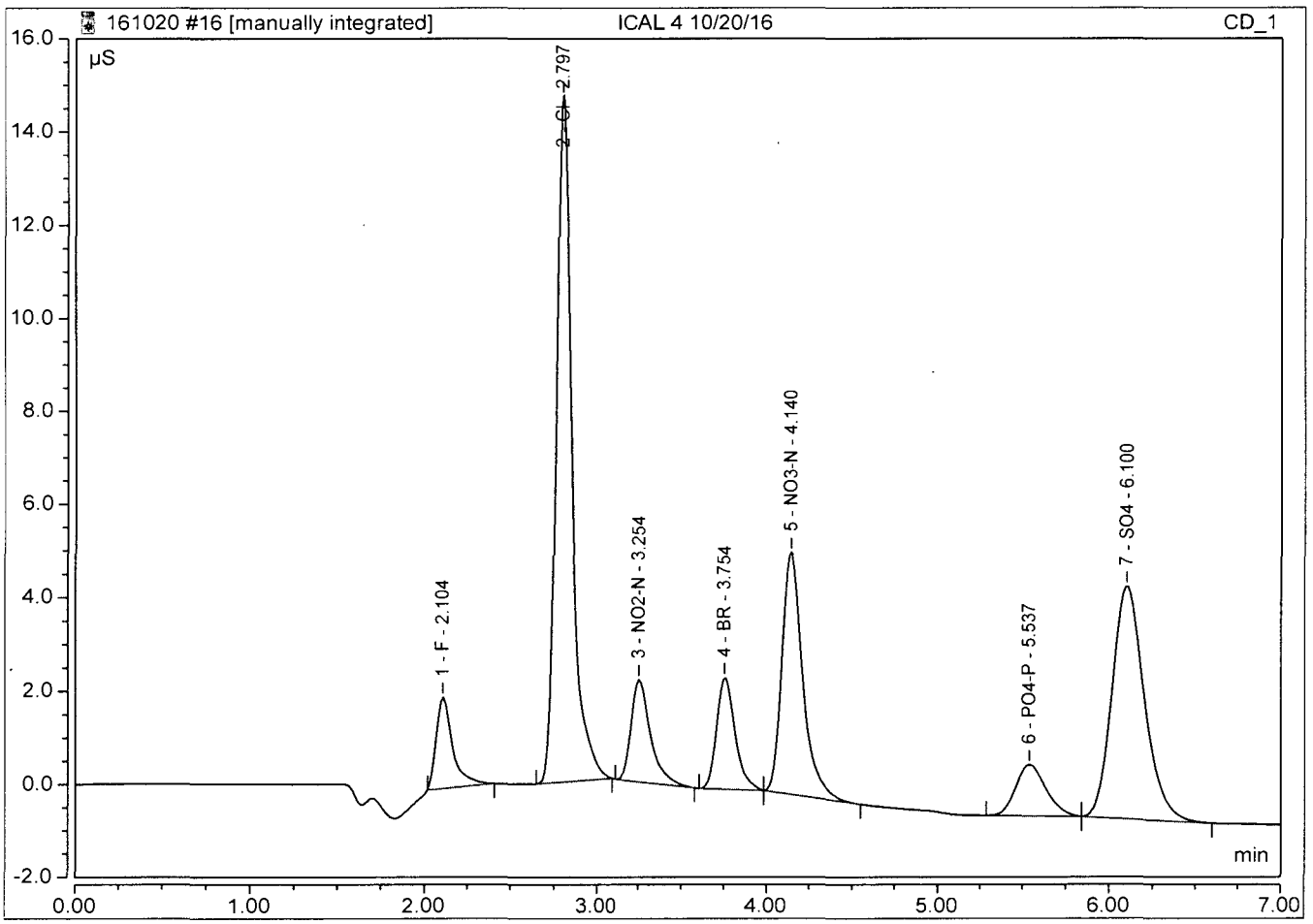
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB*	0.100	0.922	0.4827
2	2.79	Cl	BMB	0.762	7.117	4.7137
3	3.25	NO2-N	BMB	0.142	1.072	0.4926
4	3.75	BR	BMB	0.148	1.179	2.4784
5	4.14	NO3-N	BMB	0.366	2.533	0.9830
6	5.54	PO4-P	BMB	0.119	0.557	1.0221
7	6.10	SO4	BMB	0.546	2.464	4.9609
TOTAL:				2.18	15.84	15.13



Peak Integration Report

Sample Name:	**ICAL 4 10/20/16**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 11:58**	*Run Time:*	**7.00**

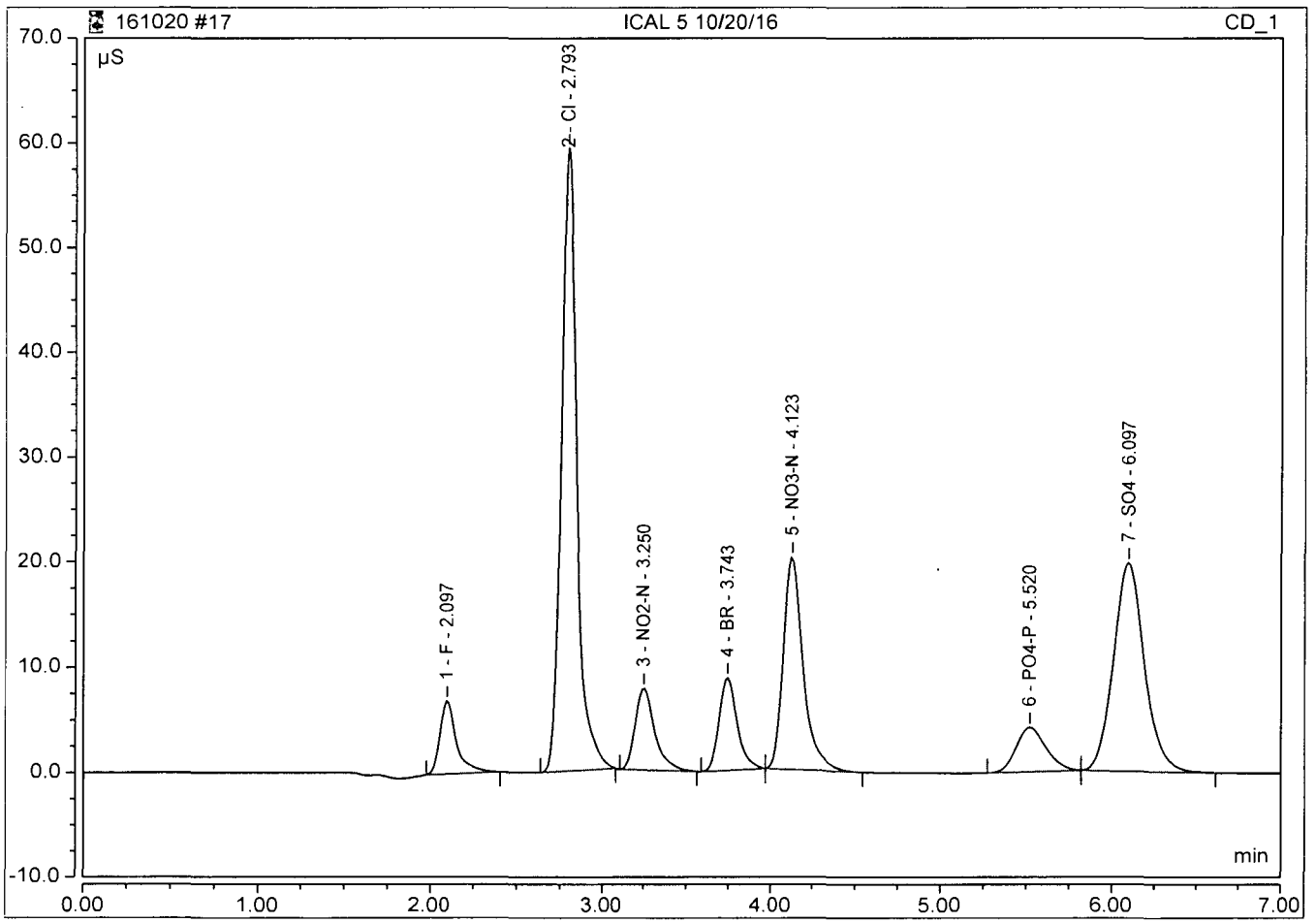
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB*	0.217	1.958	1.0036
2	2.80	Cl	BMB	1.542	14.708	9.0096
3	3.25	NO2-N	BMB	0.291	2.188	0.9859
4	3.75	BR	BMB	0.299	2.389	4.8695
5	4.14	NO3-N	BMB	0.733	5.168	1.8746
6	5.54	PO4-P	BMB	0.225	1.103	1.8731
7	6.10	SO4	BMB	1.076	4.975	9.3015
TOTAL:				4.38	32.49	28.92



Peak Integration Report

Sample Name:	**ICAL 5 10/20/16**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 12:11**	*Run Time:*	**7.00**

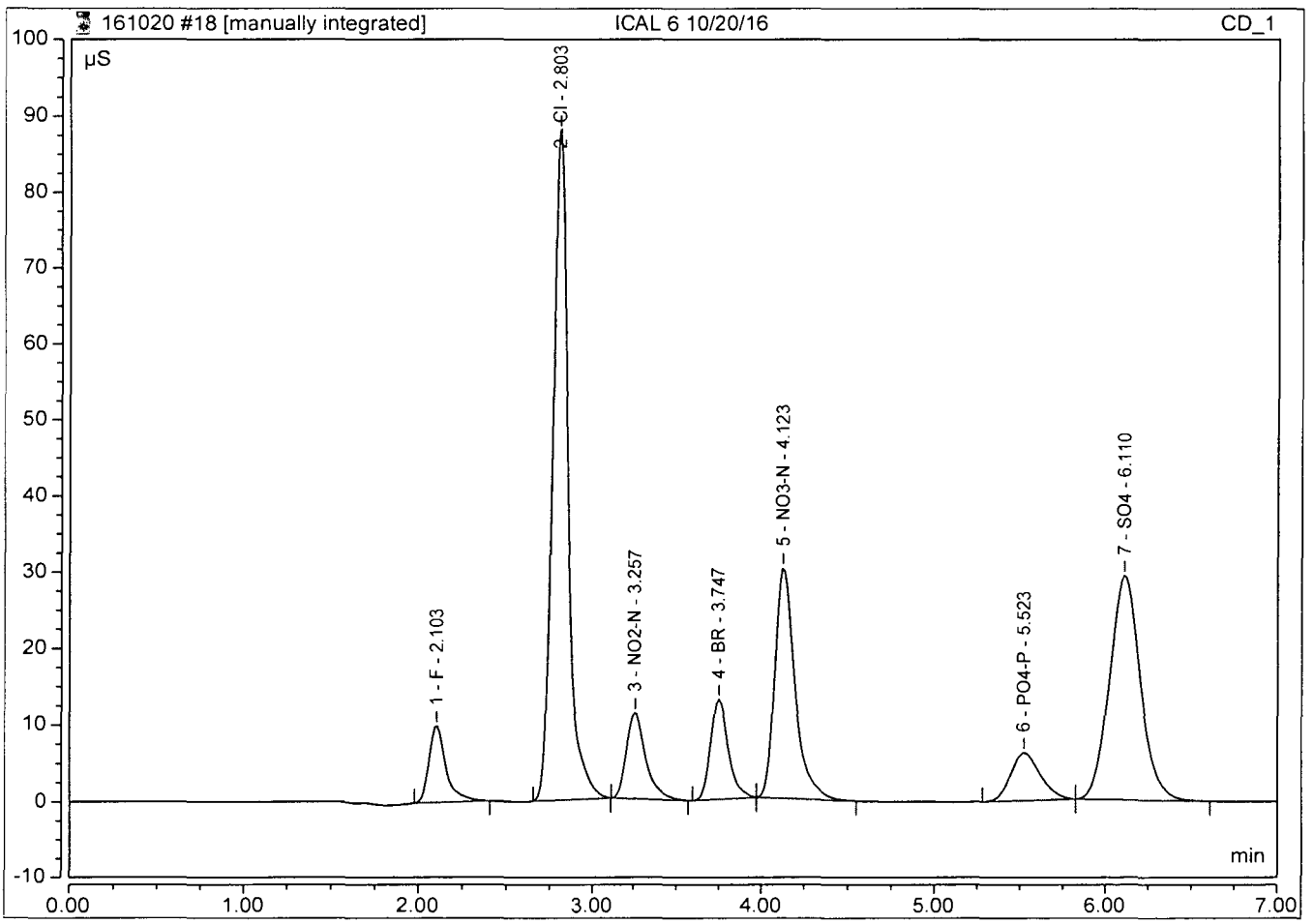
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.783	6.953	3.5131
2	2.79	Cl	BMB	6.129	59.398	34.2675
3	3.25	NO2-N	BMB	1.040	7.775	3.4734
4	3.74	BR	BMB	1.083	8.801	17.2948
5	4.12	NO3-N	BMB	2.792	20.144	6.8727
6	5.52	PO4-P	BMB	0.854	4.243	6.9225
7	6.10	SO4	BMB	4.151	19.714	34.4871
TOTAL:				16.83	127.03	106.83



Peak Integration Report

Sample Name:	**ICAL 6 10/20/16**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 12:24**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	1.118	9.996	5.0036
2	2.80	Cl	BMB*	9.117	87.978	50.7226
3	3.26	NO2-N	BMB	1.507	11.205	5.0218
4	3.75	BR	BMB	1.580	13.023	25.1693
5	4.12	NO3-N	BMB	4.128	30.098	10.1138
6	5.52	PO4-P	BMB	1.247	6.244	10.0755
7	6.11	SO4	BMB	6.106	29.270	50.4924
TOTAL:				24.80	187.81	156.60



INORGANIC ANALYSIS
Raw Data

APPL, INC.

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	10/21/16	10/21/16	#300W-161021B-AZ44687
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	10/21/16	10/21/16	#300W-161021B-AZ44687
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/21/16	10/21/16	#300W-161021B-AZ44687
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	10/21/16	10/21/16	#35FE-161021A-AZ44579
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	10/24/16	10/24/16	#300WD-161024A-AZ44688
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/24/16	10/24/16	#300WD-161024A-AZ44688

Wetlab SC-Blank-REG MDLs
Printed: 10/30/16 9:37:18 AM

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

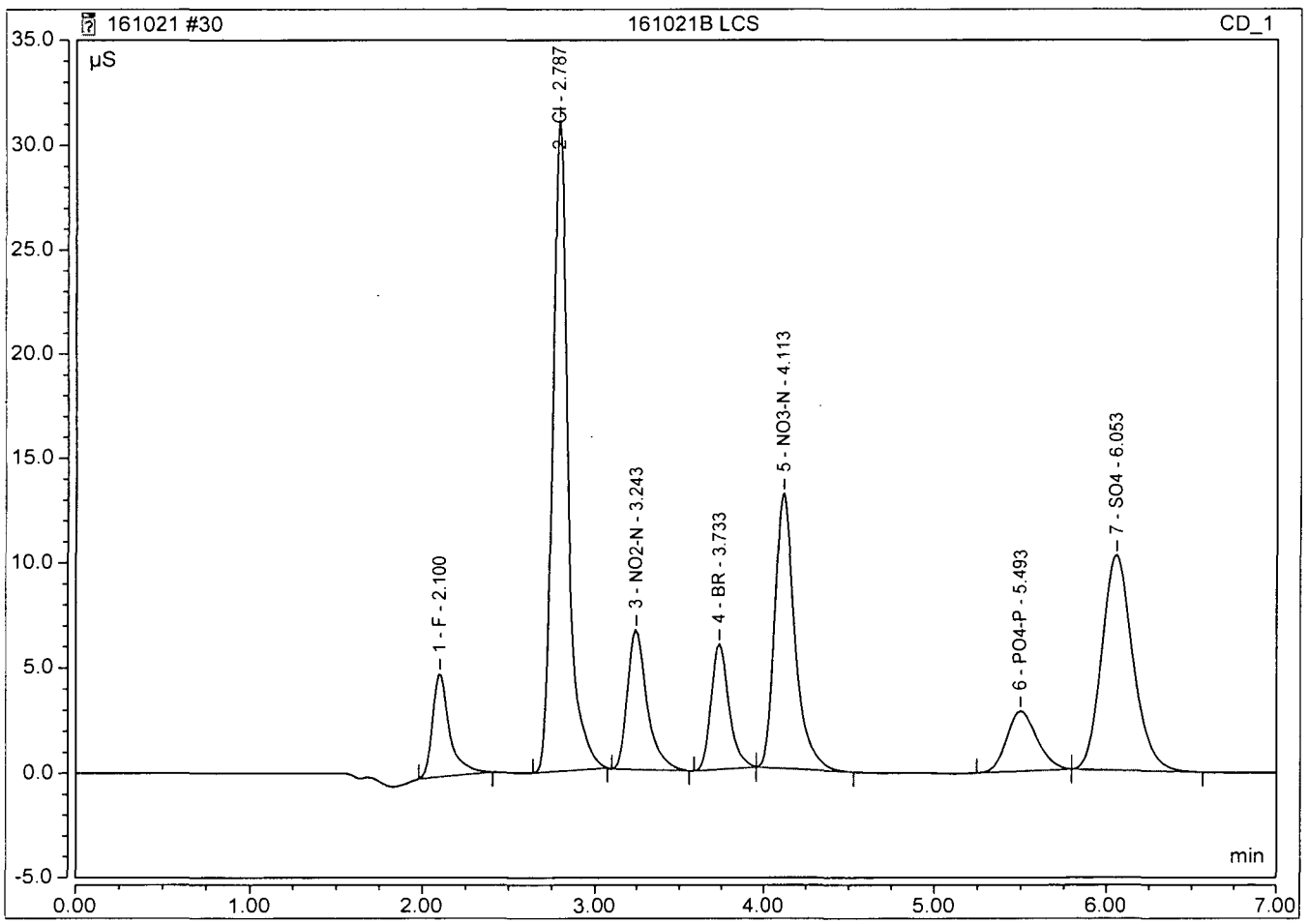
Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	18.2	91.0	90-110	10/21/16	10/21/16	#300W-161021B-AZ44687
EPA 300.0	NITRATE	22.1	20.0	90.5	90-110	10/21/16	10/21/16	#300W-161021B-AZ44687
EPA 300.0	SULFATE	20.0	18.3	91.5	90-110	10/21/16	10/21/16	#300W-161021B-AZ44687
SM3500Fe	FERROUS IRON	3.00	2.99	99.7	80-120	10/21/16	10/21/16	#35FE-161021A-AZ44579

Comments: _____

Peak Integration Report

Sample Name:	**161021B LCS**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Oct-2016 / 16:05**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.560	4.910	2.5242
2	2.79	Cl	BMB	3.206	31.056	18.1746
3	3.24	NO2-N	BMB	0.890	6.628	2.9732
4	3.73	BR	BMB	0.734	5.948	11.7662
5	4.11	NO3-N	BMB	1.817	13.080	4.5053
6	5.49	PO4-P	BMB	0.578	2.847	4.7052
7	6.05	SO4	BMB	2.171	10.205	18.2733
TOTAL:				9.96	74.67	62.92



Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

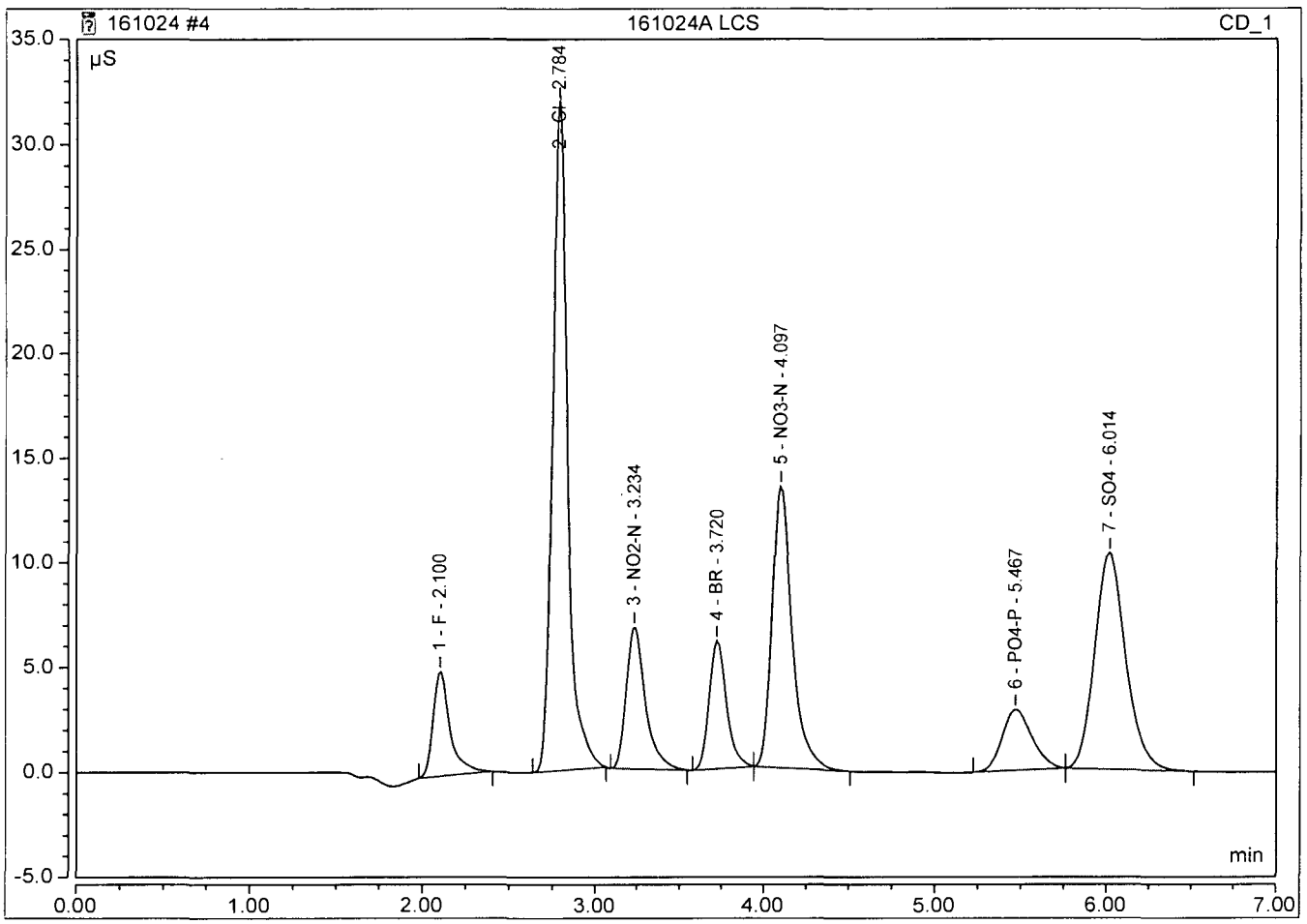
Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	18.3	91.5	90-110	10/24/16	10/24/16	#300WD-161024A-AZ44688
EPA 300.0	SULFATE	20.0	18.3	91.5	90-110	10/24/16	10/24/16	#300WD-161024A-AZ44688

Comments: _____

Peak Integration Report

Sample Name:	**161024A LCS**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**24-Oct-2016 / 10:05**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.563	4.997	2.5402
2	2.78	Cl	BMB	3.223	31.949	18.2677
3	3.23	NO2-N	BMB	0.886	6.761	2.9622
4	3.72	BR	BMB	0.738	6.100	11.8171
5	4.10	NO3-N	BMB	1.826	13.441	4.5285
6	5.47	PO4-P	BMB	0.576	2.888	4.6902
7	6.01	SO4	BMB	2.171	10.297	18.2680
TOTAL:				9.98	76.43	63.07



SPECTROPHOTOMETRIC ANALYSIS (Ferrous Iron)

Method: SM3500Fe
Analyte: Ferrous Iron
Analyst: MM
Units: mg/L
QCG: 161021A
Notes:
Final Volume: 50mL

Instrument: GENESYS 10UV
Raw Spec: abs. @ 510nm
R-Squared: 0.99983
Reagent (lot#): COLORIZING REAGENT (05/20/16)
BUFFER (05/20/16)

Date	Time	APPL ID	DF	Raw Result	SubSample Amt	Raw BLK	Calc Conc	Result	QC True	QC%
05/20/16	12:37	0 BB 5/20/16	1	0.000						
05/20/16	12:38	1	1	0.101						
05/20/16	12:39	2	1	0.201						
05/20/16	12:39	4	1	0.403						
05/20/16	12:40	5	1	0.512						
05/20/16	12:40	10	1	0.999						
05/20/16	12:41	160520A ICV 3.0	1	0.304	25mL		3.01	3.01	3.000	100.5%
05/20/16	12:42	160520A ICB	1	0.000	25mL		-0.02	-0.02		
10/21/16	16:16	CCV 4.0 161021	1	0.389			3.86	3.863	4.000	*96.58*
10/21/16	16:17	CCB 161021	1	-0.001			-0.03	-0.033		
10/21/16	16:18	161021A LCS 3.0	1	0.302			2.99	2.994	3.000	*99.80*
10/21/16	16:19	DOC 1	1	0.208			2.05	2.055	2.000	*102.74*
10/21/16	16:20	DOC 2	1	0.210			2.07	2.075	2.000	*103.74*
10/21/16	16:21	DOC 3	1	0.206			2.03	2.035	2.000	*101.75*
10/21/16	16:22	DOC 4	1	0.202			1.99	1.995	2.00	*99.75*
10/21/16	16:23	AZ44579W20	1	0.021			0.19	0.187		
10/21/16	16:24	AZ44579W20 DUP	1	0.021			0.19	0.187		
10/21/16	16:25	AZ44579W20 MS	1	0.312			3.09	3.094	3.00	*103.13*
10/21/16	16:26	AZ44579W20 MSD	1	0.324			3.21	3.214		
10/21/16	16:27	AZ44581W08	1	0.242			2.39	2.395		
10/21/16	16:28	AZ44582W08	1	0.015			0.13	0.127		
10/21/16	16:29	CCV 4.0 161021	1	0.391			3.88	3.883	4.000	*97.08*
10/21/16	16:30	CCB 161021	1	0.000			-0.02	-0.023		
10/21/16	17:07	AZ44688W08	1	0.010			0.08	0.077		
10/21/16	17:08	AZ44687W08	1	0.281			2.78	2.784		
10/21/16	17:09	AZ44689W08	1	0.010			0.08	0.077		
10/21/16	17:10	AZ44690W08	1	0.011			0.09	0.087		
10/21/16	17:11	AZ44691W08	1	0.011			0.09	0.087		
10/21/16	17:12	AZ44694W09	1	0.014			0.12	0.117		
10/21/16	17:13	AZ44695W08	1	0.009			0.07	0.067		

10/21/16	17:14	161021A LCSD 3.0	1	0.304	3.01	3.014	3.00	*100.47*
10/21/16	17:15	CCV 4.0 161021	1	0.403	4.00	4.003	4.00	*100.08*
10/21/16	17:16	CCB 161021	1	0.001	-0.01	-0.013		

Ferrous Iron Standard Prep

Stock Standard Prep:

Prep Date: 5/20/16
Exp Date: 5/20/17
Prep'd By: BB

CCV Stock (200 mg/L): 0.3502 g $Fe(NH_4)2(SO_4)_2*6H_2O$ EMD Lot #2013050298 up to 250 mL with DI

ICV Stock (200 mg/L): 0.3500 g $Fe(NH_4)2(SO_4)_2*6H_2O$ JT Baker Lot #0000068681 up to 250 mL with DI

Curve Prep

Prep Date: 5/20/16
Exp Date: 5/20/17
Prep'd By: BB

METHOD 3500FeBc								
				ICAL #1	ICAL#2	ICAL #3 (CCV)	ICAL #4	ICAL #5
ID#	mg/L	Prep Date	EXP. DATE	mL	mL	mL	mL	mL
Fe CCV Stock	200	5/20/16	5/20/17	0.25	0.5	1	1.25	2.5
Brought up w/ DI Water to final volume of (mL):				50	50	50	50	50
	Final Conc Fe (mg/L):			1	2	4	5	10
Standards are then carried through the sample prep procedure according to the SOP								

ICV (3.0 mg/L): 0.75 mL of ICV Stock (prep: 05/20/16) brought up to 50 mL with DI then carried through the sample prep procedure

Ferrous Iron Standard Prep

Stock Standard Prep:

Prep Date: 5/20/16
Exp Date: 5/20/17
Prep'd By: BB

CCV Stock (200 mg/L): 0.3502 g $Fe(NH_4)2(SO_4)_2*6H_2O$ EMD Lot #2013050298 up to 250 mL with DI

ICV Stock (200 mg/L): 0.3500 g $Fe(NH_4)2(SO_4)_2*6H_2O$ JT Baker Lot #0000068681 up to 250 mL with DI

QC Prep

Prep Date: 10/21/16
Exp Date: 10/22/16
Prep'd By: MM

CCV (4.0 mg/L): 0.5 mL of CCV Stock (prep: 5/20/16) into 25 mL DI then carried through sample prep procedure

LCS (3.0 mg/L): 0.375 mL of ICV Stock (prep: 5/20/16) into 25 mL DI then carried through sample prep procedure

MS/MSD (3.0 mg/L): 0.375 mL of ICV Stock (prep: 5/20/16) into 25 mL sample then carried through sample prep procedure

METHOD 300 / 9056		ANION STOCK					PW 10/20/16
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)	
O2SI	F-	1,000	1085520-36282	07/24/17	0.25	5	
O2SI*	Cl-	5,000	1069557-34558	01/08/17	0.5	50	
O2SI	NO2-N	1,000	1088548-36281	09/26/17	0.25	5	
Ultra Scientific	Br-	1,000	CL-3274-36926	08/31/20	1.25	25	
O2SI	NO3-N	1,000	1078397-35587	01/30/17	0.5	10	
O2SI	PO4-P	1,000	1072004-34911	09/03/16	0.5	10	
Ultra Scientific	SO4	5,000	CP-1469-36296	04/30/18	0.5	50	
Brought up with milipore water to Final Volume of:						50	

METHOD 300 / 9056		ANION ICV / LCS/MS/MSD				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
CPI	F-	1,000	16B115-36204	09/03/17	0.125	2.50
CPI	Cl-	1,000	16E065-36694	12/06/17	1.00	20.00
CPI	NO2-N	304	15J001-36257	09/24/17	0.50	3.04
CPI	Br-	1,000	15L093-36101	07/21/17	0.625	12.50
CPI	NO3-N	1,000	16E022-36783	12/30/17	0.25	5.00
CPI	PO4-P	1,000	15B116-36258	09/24/17	0.25	5.00
CPI	SO4	1,000	16E104-36693	12/06/17	1.00	20.00
Brought up with milipore water to Final Volume of:					50	

METHOD 300 / 9056		ANION CAL CURVE							
				ICAL #1	ICAL#2	ICAL #3	ICAL #4	ICAL #5	ICAL #6
ID#	mg/L	Prep Date	EXP. DATE	mL	mL	mL	mL	mL	mL
ANION STOCK	100	08/19/16	08/21/16	0.4	2	10	2	7	10
Brought up w/ Milipore Water to final volume of (mL):				50	100	100	10	10	na
Final Conc F (mg/L):				0.04	0.1	0.5	1	3.5	5
Final Conc Cl (mg/L):				0.4	1	5	10	35	50
Final Conc NO2-N (mg/L):				0.04	0.1	0.5	1	3.5	5
Final Conc Br (mg/L):				0.2	0.5	2.5	5	17.5	25
Final Conc NO3-N (mg/L):				0.08	0.2	1	2	7	10
Final Conc PO4-P (mg/L):				0.08	0.2	1	2	7	10
Final Conc SO4 (mg/L):				0.4	1	5	10	35	50

161021 PW

		CCV				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
O2SI	F-	1,000	1085520-36282	07/24/17	0.125	2.50
O2SI	Cl-	5,000	1069557-34558	01/08/17	0.25	25.0
O2SI	NO2-N	1,000	1088548-36281	09/26/17	0.125	2.5
Ultra Scientific	Br-	1,000	CL-3274-36926	08/31/20	0.625	12.50
O2SI	NO3-N	1,000	1078397-35587	01/30/17	0.25	5.0
O2SI	PO4-P	1,000	1072004-34911	09/03/16	0.25	5.0
Ultra Scientific	SO4	5,000	CP-1469-36296	04/30/18	0.25	25.0
Brought up with milipore water to Final Volume of:					50	

METHOD 300 / 9056		ICV LCS MS				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
CPI	F-	1,000	16B115-36204	09/03/17	0.125	2.50
CPI	Cl-	1,000	16E065-36694	12/06/17	1.00	20.00
CPI	NO2-N	304	15C058-35411	09/24/17	0.50	3.04
CPI	Br-	1,000	15L093-36101	07/21/17	0.63	12.50
CPI	NO3-N	1,000	16E022-36783	12/30/17	0.250	5.00
CPI	PO4-P	1,000	15B116-36258	09/24/17	0.25	5.00
CPI	SO4	1,000	16E104-36693	12/06/17	1.00	20.00
Final Volume of Sample: (mL)					50	

161024 PW

		CCV				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
O2SI	F-	1,000	1085520-36282	07/24/17	0.125	2.50
O2SI	Cl-	5,000	1069557-34558	01/08/17	0.25	25.0
O2SI	NO2-N	1,000	1088548-36281	09/26/17	0.125	2.5
Ultra Scientific	Br-	1,000	CL-3274-36926	08/31/20	0.625	12.50
O2SI	NO3-N	1,000	1078397-35587	01/30/17	0.25	5.0
O2SI	PO4-P	1,000	1072004-34911	09/03/16	0.25	5.0
Ultra Scientific	SO4	5,000	CP-1469-36296	04/30/18	0.25	25.0
Brought up with milipore water to Final Volume of:					50	

METHOD 300 / 9056		ICV LCS MS				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
CPI	F-	1,000	16B115-36204	09/03/17	0.125	2.50
CPI	Cl-	1,000	16E065-36694	12/06/17	1.00	20.00
CPI	NO2-N	304	15C058-35411	09/24/17	0.50	3.04
CPI	Br-	1,000	15L093-36101	07/21/17	0.63	12.50
CPI	NO3-N	1,000	16E022-36783	12/30/17	0.250	5.00
CPI	PO4-P	1,000	15B116-36258	09/24/17	0.25	5.00
CPI	SO4	1,000	16E104-36693	12/06/17	1.00	20.00
Final Volume of Sample: (mL)					50	

SM3500 Injection Log

Directory: I:\Spec Sheets\Ferrous Iron (Fe2)\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	20 May 2016	12:37	0 BB 5/20/16		161021a	1.
2	20 May 2016	12:38	1		161021a	1.
3	20 May 2016	12:39	4		161021a	1.
4	20 May 2016	12:39	2		161021a	1.
5	20 May 2016	12:40	5		161021a	1.
6	20 May 2016	12:40	10		161021a	1.
7	20 May 2016	12:41	160520A ICV 3.0		161021a	1.
8	20 May 2016	12:42	160520A ICB		161021a	1.
9	21 Oct 2016	16:16	CCV 4.0 161021		161021a	1.
10	21 Oct 2016	16:17	CCB 161021		161021a	1.
11	21 Oct 2016	16:18	161021A LCS 3.0		161021a	1.
22	21 Oct 2016	16:29	CCV 4.0 161021		161021a	1.
23	21 Oct 2016	16:30	CCB 161021		161021a	1.
24	21 Oct 2016	17:07	AZ44688W08		161021a	1.
25	21 Oct 2016	17:08	AZ44687W08		161021a	1.
26	21 Oct 2016	17:09	AZ44689W08		161021a	1.
27	21 Oct 2016	17:10	AZ44690W08		161021a	1.
28	21 Oct 2016	17:11	AZ44691W08		161021a	1.
29	21 Oct 2016	17:12	AZ44694W09		161021a	1.
30	21 Oct 2016	17:13	AZ44695W08		161021a	1.
32	21 Oct 2016	17:15	CCV 4.0 161021		161021a	1.
33	21 Oct 2016	17:16	CCB 161021		161021a	1.

300/9056A Injection Log

Directory: I:\Dionex\Charlie\Anions\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
14	20 Oct 2016	11:19	ICAL 1 10/20/16		161020	1.
15	20 Oct 2016	11:32	ICAL 2 10/20/16		161020	1.
16	20 Oct 2016	11:45	ICAL 3 10/20/16		161020	1.
17	20 Oct 2016	11:58	ICAL 4 10/20/16		161020	1.
18	20 Oct 2016	12:11	ICAL 5 10/20/16		161020	1.
19	20 Oct 2016	12:24	ICAL 6 10/20/16		161020	1.
20	20 Oct 2016	12:37	ICV 1601020		161020	1.
21	20 Oct 2016	12:50	ICB		161020	1.

300/9056A Injection Log

Directory: I:\Dionex\Charlie\Anions\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
28	21 Oct 2016	15:39	CCV 161021		161021	1.
29	21 Oct 2016	15:52	CCB		161021	1.
30	21 Oct 2016	16:05	161021B LCS		161021	1.
32	21 Oct 2016	16:31	AZ44687W07		161021	1.
33	21 Oct 2016	16:44	AZ44688W07		161021	1.
34	21 Oct 2016	16:57	AZ44689W07		161021	1.
35	21 Oct 2016	17:10	AZ44690W07 1/2		161021	2.
36	21 Oct 2016	17:23	AZ44691W07 1/2		161021	2.
37	21 Oct 2016	17:36	AZ44694W07		161021	1.
38	21 Oct 2016	17:49	AZ44695W07 1/5		161021	5.
40	21 Oct 2016	18:15	CCV 161021		161021	1.
41	21 Oct 2016	18:29	CCB		161021	1.

300/9056A Injection Log

Directory: I:\Dionex\Charlie\Anions\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
2	24 Oct 2016	09:39	CCV 161024		161024	1.
3	24 Oct 2016	09:52	CCB		161024	1.
4	24 Oct 2016	10:05	161024A LCS		161024	1.
11	24 Oct 2016	11:37	AZ44688W07 1/5		161024	5.
12	24 Oct 2016	11:50	AZ44690W07 1/10		161024	10.
13	24 Oct 2016	12:03	AZ44691W07 1/10		161024	10.
14	24 Oct 2016	12:16	AZ44694W08 1/10		161024	10.
15	24 Oct 2016	12:29	AZ44695W07 1/50		161024	50.
18	24 Oct 2016	13:08	CCV 161024		161024	1.
19	24 Oct 2016	13:21	CCB		161024	1.

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

November 22, 2016

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Thach

Title: Report of Data: Case 81287

Project: 60481245 CIV0053 Red Hill Fuel Storage. HI

Contract #: Prime contract # for DoD: NAVY CLEAN N62742-12-D-1829, CTO 0053
Subcontract: 14S-16234-HI16

Dear Ms. Thach:

Three water samples were received October 26, 2016. Written results for the requested analyses are being provided on this November 22, 2016.

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 her designee, as verified by the following signature.

Paula McCartney

Paula McCartney, Laboratory Director
APPL, Inc.

PM/rp
Enclosure
cc: File

Number of pages in this report: 630

Data Validation Package
for
60481245 CIV 0053 Red Hill Fuel Storage
APPL SDG 81287
TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

SAMPLE RECEIPT INFORMATION

Sample Receipt Information

ARF: 81287

Project: 60481245 CIV0053 Red Hill Fuel Storage. HI

Sample Receipt Information:

Three water samples were received October 26, 2016, at 3.7°C and 4.0°C. The sample group was assigned Analytical Request Form (ARF) number 81287. The sample numbers and requested analyses were compared to the chains of custody and email communications. Three liter bottles labeled ERH096 were received broken; the client was notified. No other exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
ERH103	AZ44891	WATER	10/25/16	10/26/16
ERH108	AZ44892	WATER	10/25/16	10/26/16
ERH096	AZ44893	WATER	10/25/16	10/26/16

The samples and blanks were screened for J-value responses between the detection limit (DL) and limit of quantitation (LOQ).

APPL's Laboratory control limits generated in house statistically do not meet the control limits listed in DoD QSM 5.0 for all analytes. Laboratory control spike recoveries for this project meet all control limits listed in the DoD QSM 5.0 except where noted. A copy of our in house generated control limits is available upon request. In addition, a copy of our LOQ control limits, established using 7 data points, are also available upon request.

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.

CASE NARRATIVE

EPA Method 8011

EDB

Sample Preparation:

The water sample was extracted according to EPA method 8011. All holding times were met.

Sample Analysis Information:

The sample was analyzed according to the method using an Agilent Gas Chromatograph with an ECD.

Quality Control/Assurance

Calibrations:

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Blanks:

No target analyte was detected above one-half the limit of quantitation (LOQ) in the method blank.

Spikes:

A Laboratory Control Spike (LCS) was used for quality assurance. All acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Surrogates

The surrogate recoveries are summarized in the Form 2 & 8. All surrogate recoveries were within the control limits.

Summary:

No problem was encountered.

EPA Method 8015B

Total Petroleum Hydrocarbons - Diesel & Oil

Sample Preparation:

The water samples were extracted according to EPA method 3510C. All holding times were met.

Sample Analysis Information:

The samples were analyzed according to the method using an Agilent Gas Chromatograph with a flame ionization detector.

Quality Control/Assurance

Calibrations:

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Blanks:

No target analyte was detected above one-half the LOQ in the method blank.

Spikes:

A Laboratory Control Spike (LCS) was used for quality assurance. All acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Surrogates:

Surrogate recoveries are summarized on the Form 2 & 8. All surrogate recoveries were acceptable.

Summary:

No analytical problem was encountered. The data generated are acceptable.

EPA Method 8270D-SIM
Polynuclear Aromatic Hydrocarbons

Sample Preparation:

The water samples were extracted according to EPA method 3510C. All holding times were met.

Analysis Information:

The samples were analyzed according to EPA Method 8270D using an Agilent Gas Chromatograph with a mass spectrometer detector, in selective ion monitoring mode (SIM).

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS) was used for quality assurance. All LCS recoveries met acceptance criteria.

No sample was designated by the client for MS/MSD analysis.

Method blanks

No target compound was detected at or above one-half the LOQ in the method blank.

Surrogates

Surrogate recoveries are summarized on the Form 2 & 8. One surrogate recovered below the control limits in the blank. All other surrogate recoveries met acceptance criteria.

Calibration

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Tuning:

The instrument was tuned using DFTPP. All method criteria were met.

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8270. All acceptance criteria were met.

Summary:

No analytical exception was encountered. The data generated are acceptable.

EPA Method 8270D
Semi-Volatile Organic Compounds

Sample Preparation:

The water samples were extracted according to EPA method 3510C. All holding times were met.

Analysis Information:

The samples were analyzed according to EPA Method 8270D using an Agilent Gas Chromatograph with a mass spectrometer detector.

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS) was used for quality assurance. All LCS recoveries met acceptance criteria.

No s sample was designated by the client for MS/MSD analysis.

Method blanks

No target compound was detected at or above one-half the LOQ in the method blank.

Surrogates

Surrogate recoveries are summarized on the Form 2 & 8. All surrogate recoveries met acceptance criteria.

Calibration

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Tuning:

The instrument was tuned using DFTPP. All method criteria were met.

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8270. All acceptance criteria were met.

Summary:

No analytical exception was encountered. The data generated are acceptable.

APPL SOP ANA2MEE

2-(2-Methoxyethoxy) ethanol by SPE, GC/MS

Sample Preparation:

The water samples were extracted according to EPA method 3535. All holding times were met.

Analysis Information:

The samples were analyzed according to an internal method APPL SOP ANA2MEE using an Agilent Gas Chromatograph with a mass spectrometer detector.

The target compound was manually integrated in the level five standard according to the SOP. Before and after chromatograms are provided in this package.

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS) was used for quality assurance. All LCS recoveries met acceptance criteria.

No sample was designated by the client for MS/MSD analysis.

Method blanks

No target compound was detected at or above one-half the LOQ in the method blank.

Surrogates

No surrogate was used for this method.

Calibration

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Tuning:

The instrument was tuned using DFTPP. All method criteria were met.

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8270. All acceptance criteria were met.

Summary:

No other analytical exception was encountered. The data generated are acceptable.

EPA Method 8260B
Volatile Organic Analysis

Sample Preparation:

The water samples were purged according to EPA method 5030B. All holding times were met.

Sample Analysis Information:

The samples were analyzed according to EPA method 8260B using an Agilent Gas Chromatograph with a mass spectrometer detector.

Quality Control/Assurance:

Calibrations:

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Blanks:

No analyte was detected above one-half the limit of quantitation (LOQ) in the method blank.

Spikes:

A Laboratory Control Spike (LCS) was used for quality assurance. All LCS recovery acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Surrogates:

Surrogate recoveries are summarized on the Form 2 & 8. All surrogate recoveries were acceptable.

Tuning:

The instrument was tuned using BFB. All method criteria were met.

Internal Standards:

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8260. All method acceptance criteria were met.

Summary:

No problem was encountered. The data generated are acceptable.

EPA Method 8260B
Gasoline Range Organics

Sample Preparation:

The water samples were purged according to EPA method 5030B. All holding times were met.

Sample Analysis Information:

The samples were analyzed according to EPA method 8260B using an Agilent Gas Chromatograph with a mass spectrometer detector.

Quality Control/Assurance:

Calibrations:

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Blanks:

No analyte was detected above one-half the limit of quantitation (LOQ) in the method blank.

Spikes:

A Laboratory Control Spike (LCS) was used for quality assurance. All LCS recovery acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Surrogates:

Surrogate recoveries are summarized on the Form 2 & 8. All surrogate recoveries were acceptable.

Tuning:

The instrument was tuned using BFB. All method criteria were met.

Internal Standards:

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8260. All method acceptance criteria were met.

Summary:

No problem was encountered. The data generated are acceptable.

Methane
RSK-175

Sample Preparation and Analysis

The water samples were analyzed with guidance from RSK-175. The samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed using a Hewlett Packard Gas Chromatograph with a flame ionization detector. All holding times were met.

Quality Control/Assurance

Spike Recovery

A Laboratory Control Spike (LCS) was used for quality assurance. All acceptance criteria were met.

No sample was designated by the client for MS/MSD analysis.

Method blanks

The blank contained no target analyte above one-half the limit of quantitation (LOQ).

Calibration

Initial and continuing calibrations were performed according to the method and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Summary:

No analytical exception is noted.

EPA Method 300.0 and SM 3500 FeB

Anions, and Ferrous Iron

Sample Preparation Information:

The water samples were prepared according to the methods.

Analysis Information:

Samples:

The samples were analyzed according to the methods. A Dionex DX500 ion chromatograph was used for the EPA 300.0 analysis. One sample was received more than 24 hours after collection. The samples were analyzed as soon as possible for ferrous iron. All other holding times were met.

Calibrations:

Initial and continuing calibrations were performed according to the methods and the DoD QSM v5.0. A second source standard was injected to verify the initial calibration. All calibration acceptance criteria were met.

Blanks:

No target analyte was detected above one-half the LOQ in the method blanks.

Spikes:

Laboratory Control Spikes (LCS) were used for quality assurance. All recoveries were within acceptance limits in the LCS.

No sample was designated by the client for MS/MSD analysis.

Summary:

No other analytical exception is noted. All data are acceptable.

APPL Inc.
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 – (See case narrative)
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
U	Not detected
Y	Percent difference between primary and confirmation column > 40%

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form 81287

Client: **AECOM**
Address: **1001 Bishop Street, Suite 1600**
Honolulu, HI 96813
Attn: **Margie Thach**
Phone: **808-356-5373** Fax: **808-523-8950**
Job: **60481245 CIV0053 Red Hill Fuel Storage**
PO #: **14S-16234-HI16, PO# 77265**
Chain of Custody (Y/N): **Y** # **33626,33627**
RAD Screen (Y/N): **Y** pH (Y/N): **Y**
Turn Around Type: **1 WEEK**

Received by: **CM**
Date Received: **10/26/16** Time: **10:15**
Delivered by: **FED EX**
Shuttle Custody Seals (Y/N): **Y** Time Zone: **-10**
Chest Temp(s): **4.0° 3.7°C**
Color: **VOA/E-BRN**
Samples Chilled until Placed in Refrig/Freezer: **Y**
Project Manager: **Libby Cheesebor**
QC Report Type: **DVP4DOD/EQUIS/HI**
Due Date: **11/02/16**

Comments:
7-day TAT for Form 1s; 21 day TAT for DVP; F1s, login to Margie.Thach@aecom.com
A: DOD QSM ver 5.0; DOD Forms (LOQ/LOD database/DL) Print ND as LOD w/U Qual.
8260: BTEX & TPH-G only; add 1,2-DCA to AZ44891
8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only. RSK: Methane only; 8011: EDB only
$87DC53W5: report phenol only; $87DMEEW5: special SPE Extraction for 2-MEE (see Diane).
FR: HC to LDC, 2 labeled CDs to Margie Thach. PM needs to review after Admin Review is complete.
EDD: AECOM EQuIS EDD 2.5.3 to Margie.Thach@aecom.com & jecklund@lab-data.com

Sample Distribution:
GC: 1-$8011, 2-$87DC53W5, 2-$87DMEEW5, 2-$DOC53W5, 2-$SIMDOD5W
Extractions: 1-_MWE012, 2-_MWE3535, 2-_SEP004, 2-_SEP004S, 2-_SEP011LL
VOA: 3-$86BXDOD5W, 3-$GASBL, 3-$GRO86BW, 2-$RSKMETH
Wetlab: 2-$300W(NO3,CL,SO4), 2-$35FE

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.	ERH103	AZ44891W	10/25/16 08:50	$300W(NO3,CL,SO4), $35FE, $8011, $86BXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5, $GASBL, $GRO86BW, $RSKMETH, $SIMDOD5W -- 8260 BTEX 1,2-DCA, unpres vials for 8011
2.	ERH108	AZ44892W	10/25/16 08:25	$86BXDOD5W, $GASBL, $GRO86BW -- 3 preserv, 3 unpreserved vials
3.	ERH096	LTD VOL AZ44893W	10/25/16 11:40	$300W(NO3,CL,SO4), $35FE, $86BXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5, $GASBL, $GRO86BW, $RSKMETH, $SIMDOD5W -- 3 liter bottles left

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# **81287**

Sample	Container Type	Count	pH
AZ44891	[3] PL 250mL	1	NA
	[13] VOAs - HCL	7	NA
	[15] VOAs - NP	3	NA
	[17] Amber Liter	8	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
AZ44892	[13] VOAs - HCL	3	NA
	[15] VOAs - NP	3	NA
AZ44893	[3] PL 250mL	1	NA
	[13] VOAs - HCL	6	NA
	[17] Amber Liter	3	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7

Sample	Container Type	Count	pH

4.0° 87287

CHAIN OF CUSTODY RECORD

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
Phone: (559) 275-2175
Fax: (559) 275-4422

C.O.C. 33627

Report to: PLEASE PRINT	Invoice to: PLEASE PRINT
Company Name: AECOM 1001 Bishop Street Suite 1600 Honolulu HI, 96813 Attn: Margie Thach (808) 356-5373	Company Name: AECOM 1001 Bishop Street Suite 1600 Honolulu HI, 96813 Attn. Mary Basano (808) 356-7249
Address:	Address:
Attn:	Attn:
	Phone:
	Fax:

Project Name/Number	Sampler (Print)
CV 53; 60481245	Kaela Shiigi
Purchase Order Number	Sampler (Signature)
77265	Kaela Shiigi

Sample Identification	Location	Date Collected	Time Collected	No. of Containers	Matrix: Aq	Sed.	Soil	Analysis Requested/Method Number	Date Shipped: 10/25/16
GRH 103	RHMW 09	10/25/16	0850	20	X			X X X X X X X X X X X X	Carrier: Fedex
									Waybill No.:
									Comments:

Shuttle Temperature:

Turnaround Requested: MUST CHECK ONE
☐ Standard (2-3 week) ☒ One week ☐ 24-48 hour

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

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Kaela Shiigi	10/25/16	1400					
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:
					10/26/16	1015	

White: Return to client with report Yellow: Laboratory Copy Pink: Sampler

See reverse side for Container Preservative and Sampling Information

3.7°

APPL LABS

CHAIN OF CUSTODY RECORD

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611

Phone: (559) 275-2175
Fax: (559) 275-4422

C.O.C. 33626

Report to: PLEASE PRINT	Invoice to: PLEASE PRINT
Company Name: AECOM	Company Name: AECOM
Address: 1001 Bishop Street Suite 1600, Honolulu HI, 96813	Address: 1001 Bishop Street Suite 1600, Honolulu HI, 96813
Attn: Margie Thach (808) 356-5373	Attn. Mary Basano (808) 356-7249
	Phone:
	Fax:

Project Name/Number: CV53, 60481345
Purchase Order Number: 77265
Sampler (Print): Kaela Shiigi
Sampler (Signature): Kaela

Sample Identification	Location	Date Collected	Time Collected	No. of Containers	Matrix: Aq	Sed.	Soil	Analysis Requested/Method Number	Comments
GRH108	TRIP BLANK	10/25/16	0825	6	X			X X	
GRH096	RHUW04	10/25/16	1140	14	X			X X X X X X X X	

Date Shipped: 10/25/16
Carrier: Fedex
Waybill No.:
Comments:

Shuttle Temperature:

Turnaround Requested: MUST CHECK ONE
☐ Standard (2-3 week) ☒ One week ☐ 24-48 hour

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

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Kaela Shiigi AECOM	10/25/16	1400					
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:
					10/26/16	10:15	

White: Return to client with report Yellow: Laboratory Copy Pink: Sampler

See reverse side for Container Preservation and Sampling Information

COOLER RECEIPT FORM **ARF: 81287**

1) Project: 60481245 CIV0053 Red Hill Fuel Storage Date Received: 10/26/16

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: FED EX

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

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use J5297 and IR GUN(CF -1°C)

8) Cooler temp(s): In °C
1: 4.0 2: 3.7 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) Yes Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea: ____
Smaller than a pea: AZ44892W01-W03

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 sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?

22) Yes Were unpreserved VOA Vials received?

23) Yes Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?
pH strip lot number: 90B2031
Lab notified if pH was not adequate: ____

Notes/Deficiencies:

Received 3 amber liter broken, 3 left for sample ERH096. Analysis on amber liter is 2 for TPH and 1 for 8270 (SIM). One voa vial for sample ERH103 has client marked as non-preserved but it has ESS label that says HCL preserved. See email attachment.

CUSTODY SEAL
APPL, Inc.
(559) 275-2175
Initials KS
Date 10/26/16

Personnel receiving samples: YL Second reviewer: SM
Personnel labeling samples: ____
Project manager notified: YL Date/Time of notification 10/26/16 13:10
Name of client notified: ____ Date/Time of notification ____

Revision: 22, November 5, 2013

ORGANICS

APPL, INC.

ORGANICS

QC Summary

APPL, INC.

Method Blank

EPA 8011

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161101W-44891 - 213288**
Batch ID: #8011-161101A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	EDB	0.020 U	0.02	0.020	0.010	ug/L	11/01/16	11/01/16
BLANK	SURROGATE: 1,3-DIBROMOPRO	117	70-132			%	11/01/16	11/01/16

Quant Method: 80111101.M
Run #: 1101021
Instrument: Herbie
Sequence: 161101
Initials: RHA

GC SC-Blank-REG MDLs-DOD
Printed: 11/14/16 4:53:12 PM

Laboratory Control Spike Recovery

EPA 8011

APPL ID: **161101W-44891 LCS - 213288**
Batch ID: #8011-161101A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
EDB	0.250	0.242	96.8	60-140
SURROGATE: 1,3-DIBROMOPROPANE (	0.350	0.252	72.0	70-132

Comments: _____

Primary	SPK
Quant Method :	80111101.M
Extraction Date :	11/01/16
Analysis Date :	11/01/16
Instrument :	Herbie
Run :	1101023
Initials :	RHA

Printed: 11/14/16 4:53:03 PM
APPL Standard LCS

8011

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 11/01/16

Matrix: WATER Instrument: Herbie

APPL ID.	Client Sample No.	SURROGATE: 1,3-DIBROMOPROPANE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
161101A-BLK	Blank	70-132	117				
161101A-LCS	Lab Control Spike	70-132	72.0				
AZ44891	ERH103	70-132	121				

Comments: Batch: #8011-161101A

8011

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 11/01/16

Matrix: WATER Instrument: Herbie

Blank ID: 161101A-BLK Time Analyzed: 2245

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161101A-BLK	Blank	1101021	11/01/16 2245
161101A-LCS	Lab Control Spike	1101023	11/01/16 2325
AZ44891	ERH103	1101024	11/01/16 2345

Comments: Batch: #8011-161101A

Printed: 11/14/16 4:53:00 PM
Form 4, Blank Summary

ORGANICS

Sample Data

APPL, INC.

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH103

Sample Collection Date: 10/25/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81287

APPL ID: AZ44891

QCG: #8011-161101A-213288

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.020 U	0.02	0.020	0.010	ug/L	11/01/16	11/01/16
8011	SURROGATE: 1,3-DIBROMOPROPANE	121	70-132			%	11/01/16	11/01/16

Quant Method:	80111101.M
Run #:	1101024
Instrument:	Herbie
Sequence:	161101
Dilution Factor:	1
Initials:	RHA

Printed: 11/14/16 4:52:57 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\161101\1101024.D\ECD1A.CH Vial: 24
Signal #2 : G:\HERBIE\DATA\161101\1101024.D\ECD2B.CH
Acq On : 11-01-16 23:45:39 Operator: RH
Sample : AZ44891W10 2/34.16G Inst : Herbie
Misc : water Multiplr: 1.02
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 2 11:02 2016 Quant Results File: 80111101.RES

Quant Method : G:\HERBIE\DATA\161101\80111101.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Wed Nov 02 11:27:56 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

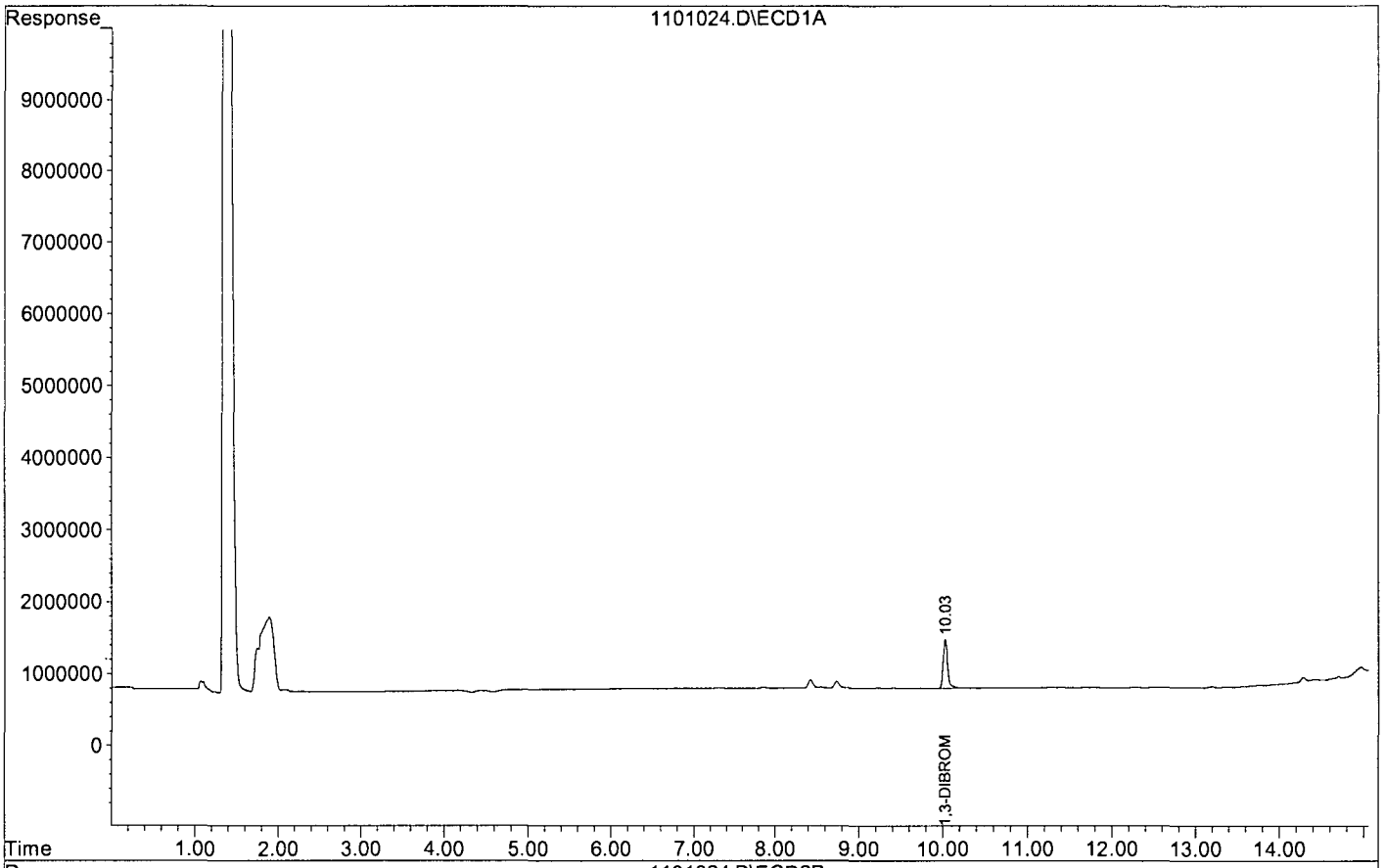
Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

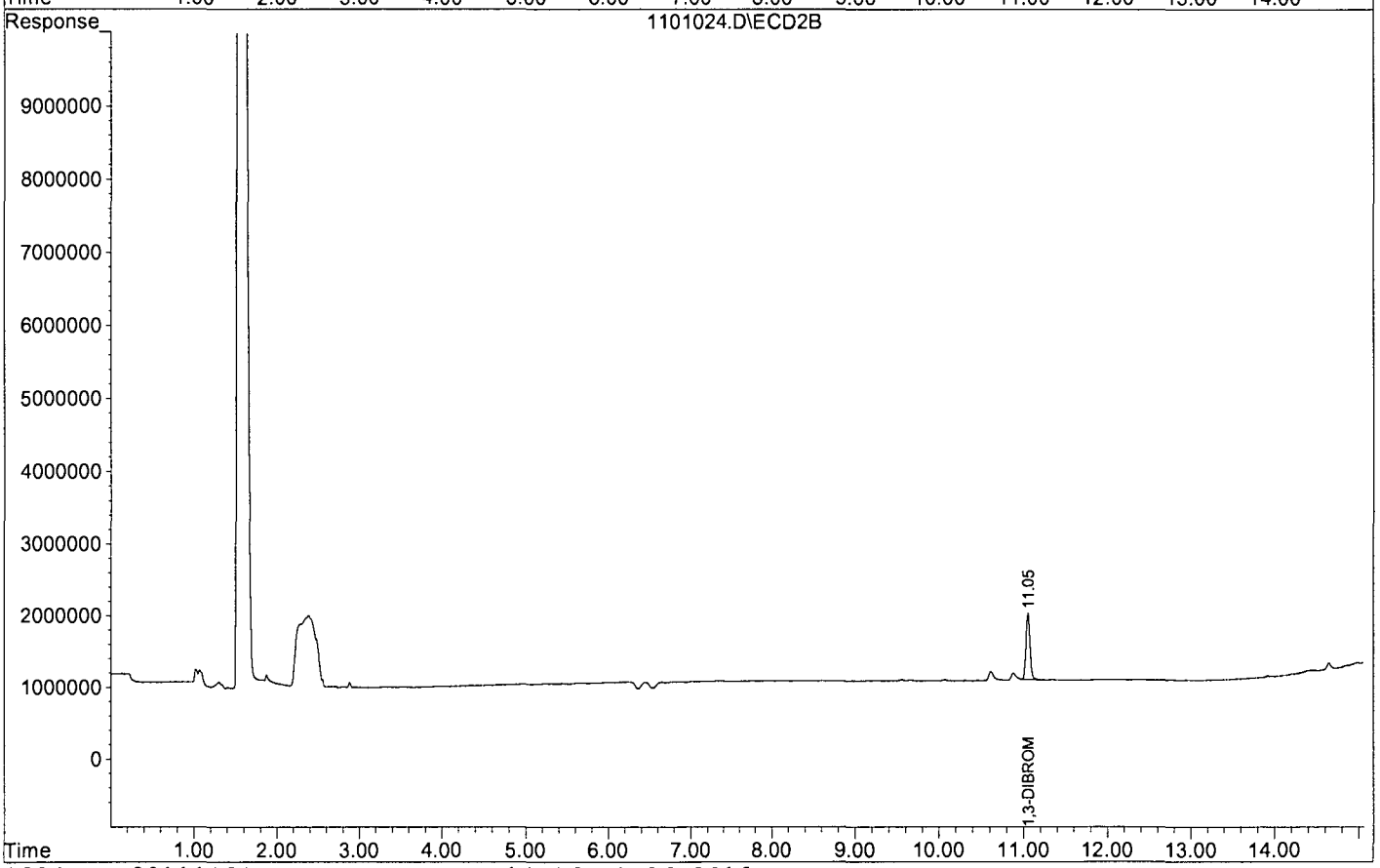
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.03	11.05	683730	924232	0.425	0.434
	Spiked Amount 0.359			Recovery	=	118.51%	121.02%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\161101\1101024.D Vial: 24
Acq On : 11-01-16 23:45:39 Operator: RH
Sample : AZ44891W10 2/34.16G Inst : Herbie
Misc : water Multiplr: 1.02
Quant Method : G:\HERBIE\DATA\161101\80111101.M





ORGANICS

Calibration Data

APPL, INC.

DBCP/EDB/1,2,3-TCP Analysis by
504 8011 0301

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/01/16
Matrix: Instrument: Herbie Initials:

1101015.D 1101016.D 1101017.D 1101018.D 1101019.D 1101020.D

		Compound	1	2	3	4	5	6					Avg	%RSD		
1	TM	EDB	764775	616130	506080	568737	524025	555288					589172	16	TM	
2	TM	1,2,3-TCP	324925	236190	226482	211687	205025	214019					236388	19	TM	
3	S	1,3-DIBROMOPROPANE(S)	888675	856200	837490	775692	769241	816221					823920	5.6	S	
4	TM	DBCP	3228850	2667175	2668630	2547391	2508690	2777784					2733087	9.6	TM	
5		Signal #2											0	0		
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35																

1.4318948

DBCP/EDB/1,2,3-TCP Analysis by
504 8011 0301

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/01/16
Matrix: Instrument: Herbie
Initials:

			1101015.D	1101016.D	1101017.D	1101018.D	1101019.D	1101020 D								
		Compound	1	2	3	4	5	6					Avg	%RSD		
36	TM	EDB #2	1966000	1656060	1604128	1534122	1653191	1752649					1694358	8.9	TM	
37	TM	1,2,3-TCP #2	293725	303155	289136	272640	284700	304239					291266	4.1	TM	
38	S	1,3-DIBROMOPROPANE(S) #2	1254325	1088865	1052298	1018694	1037123	1092705					1090668	7.8	S	
39	TM	DBCP #2	5125050	4245170	4269558	4518187	4670833	5063331					4648688	8.2	TM	
40																
41																
42																
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0.8286646

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161101\1101015.D\ECD1A.CH Vial: 15
Signal #2 : G:\HERBIE\DATA\161101\1101015.D\ECD2B.CH
Acq On : 11-01-16 20:46:28 Operator: RH
Sample : 8011 M STD 1 11/1/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 2 10:27 2016 Quant Results File: 80111101.RES

Quant Method : G:\HERBIE\DATA\161101\80111101.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Wed Nov 02 11:26:48 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

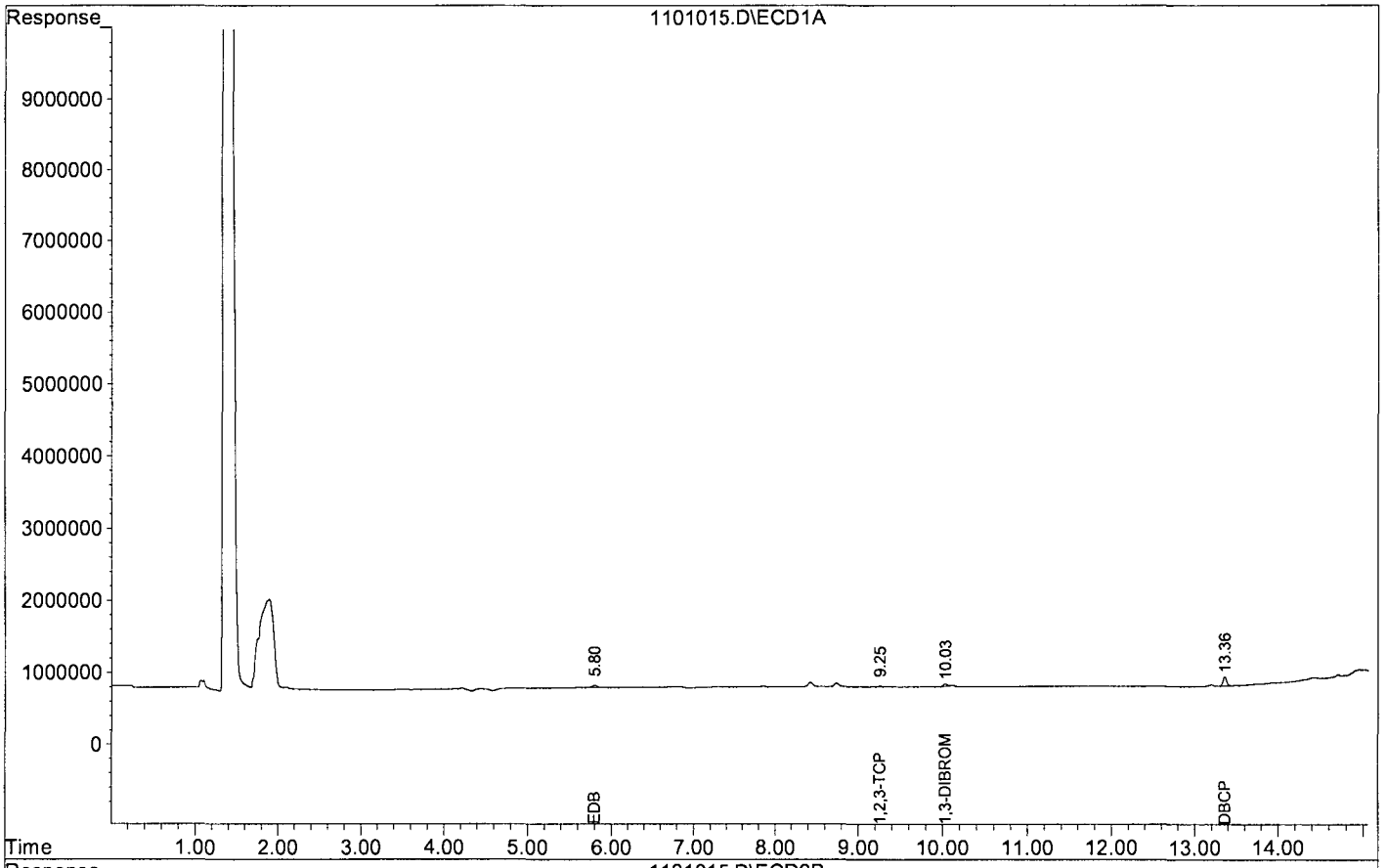
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
3) S	1,3-DIBROMOPROPA	10.03	11.05	35547	50173	0.023	0.025	
Spiked Amount	0.350			Recovery	=	6.57%	7.14%	
	Target Compounds							
1) TM	EDB	5.80	7.23	30591	78640	0.022	0.024	
2) TM	1,2,3-TCP	9.25	10.46	12997	11749	0.030	0.021	#
4) TM	DBCP	13.36	14.10	129154	205002	0.026	0.024	

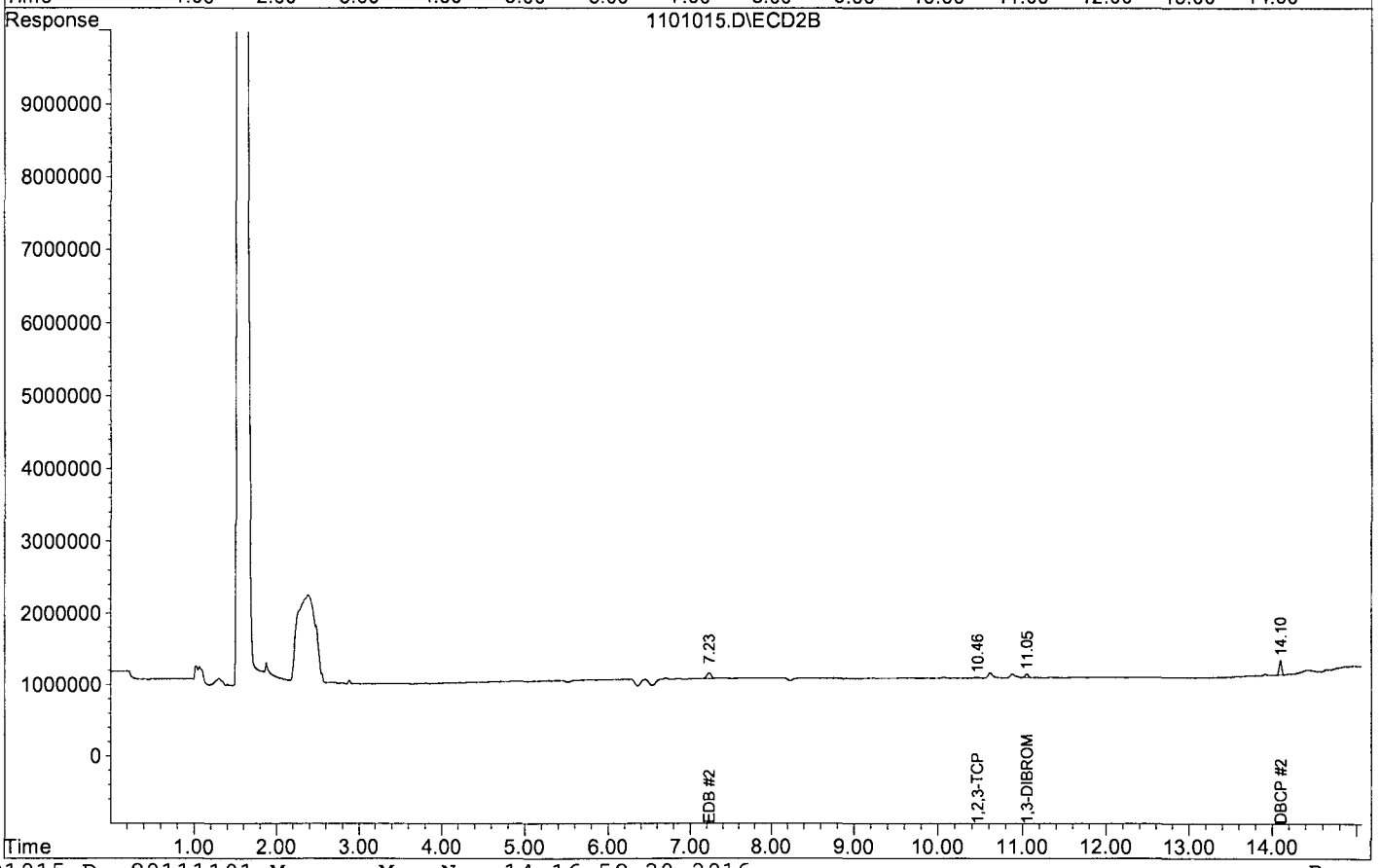
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161101\1101015.D Vial: 15
Acq On : 11-01-16 20:46:28 Operator: RH
Sample : 8011 M STD 1 11/1/16 Inst : Herbie
Misc : Multiplr: 1.00
Quant Method : G:\HERBIE\DATA\161101\80111101.M





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161101\1101016.D\ECD1A.CH Vial: 16
Signal #2 : G:\HERBIE\DATA\161101\1101016.D\ECD2B.CH
Acq On : 11-01-16 21:06:25 Operator: RH
Sample : 8011 M STD 2 11/1/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 2 10:27 2016 Quant Results File: 80111101.RES

Quant Method : G:\HERBIE\DATA\161101\80111101.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Wed Nov 02 11:26:48 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

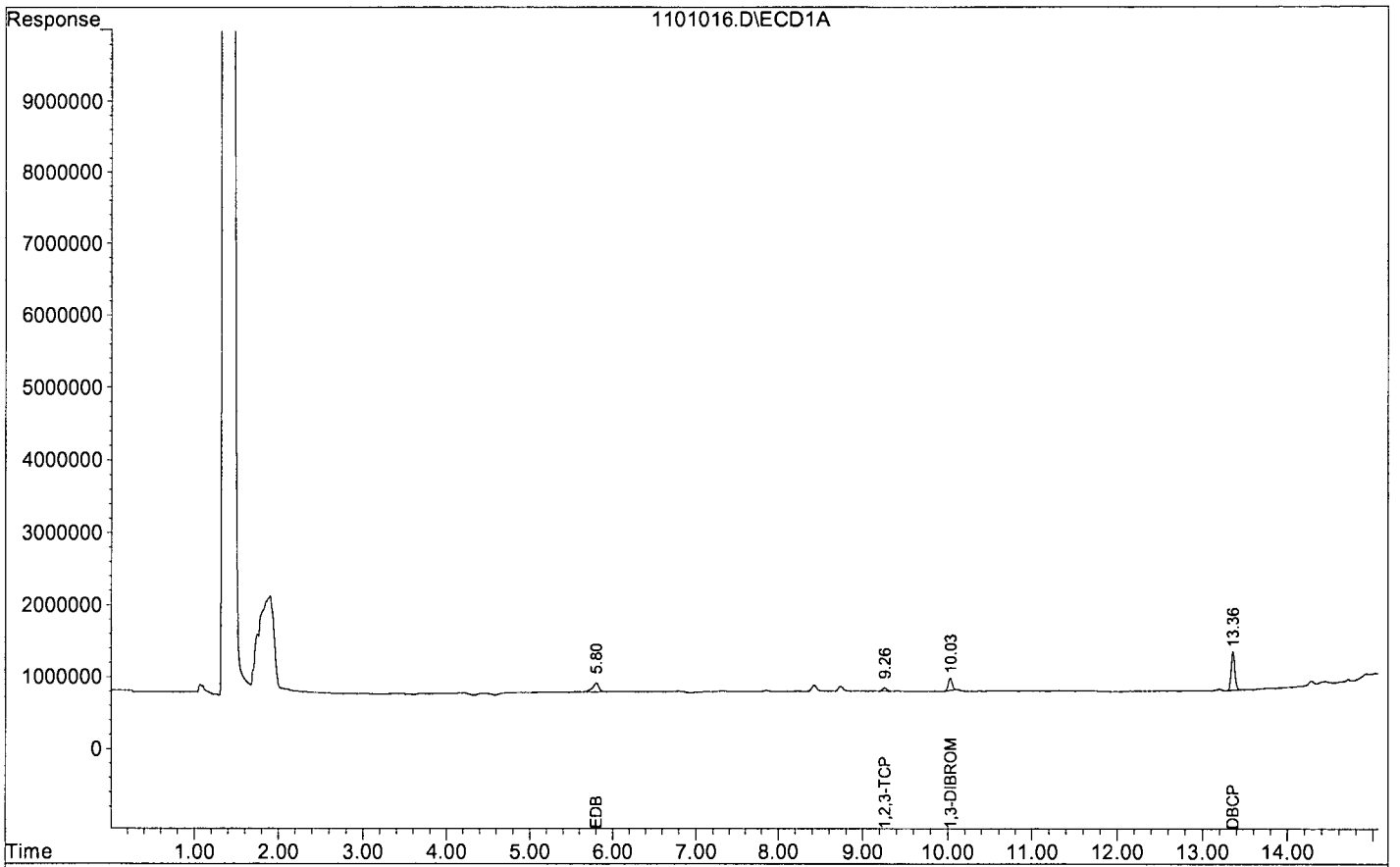
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.03	11.05	171240	217773	0.111	0.108
Spiked Amount	0.350			Recovery	=	31.71%	30.86%
	Target Compounds						
1) TM	EDB	5.80	7.23	123226	331212	0.088	0.100
2) TM	1,2,3-TCP	9.26	10.46	47238	60631	0.108	0.108
4) TM	DBCP	13.36	14.10	533435	849034	0.107	0.099

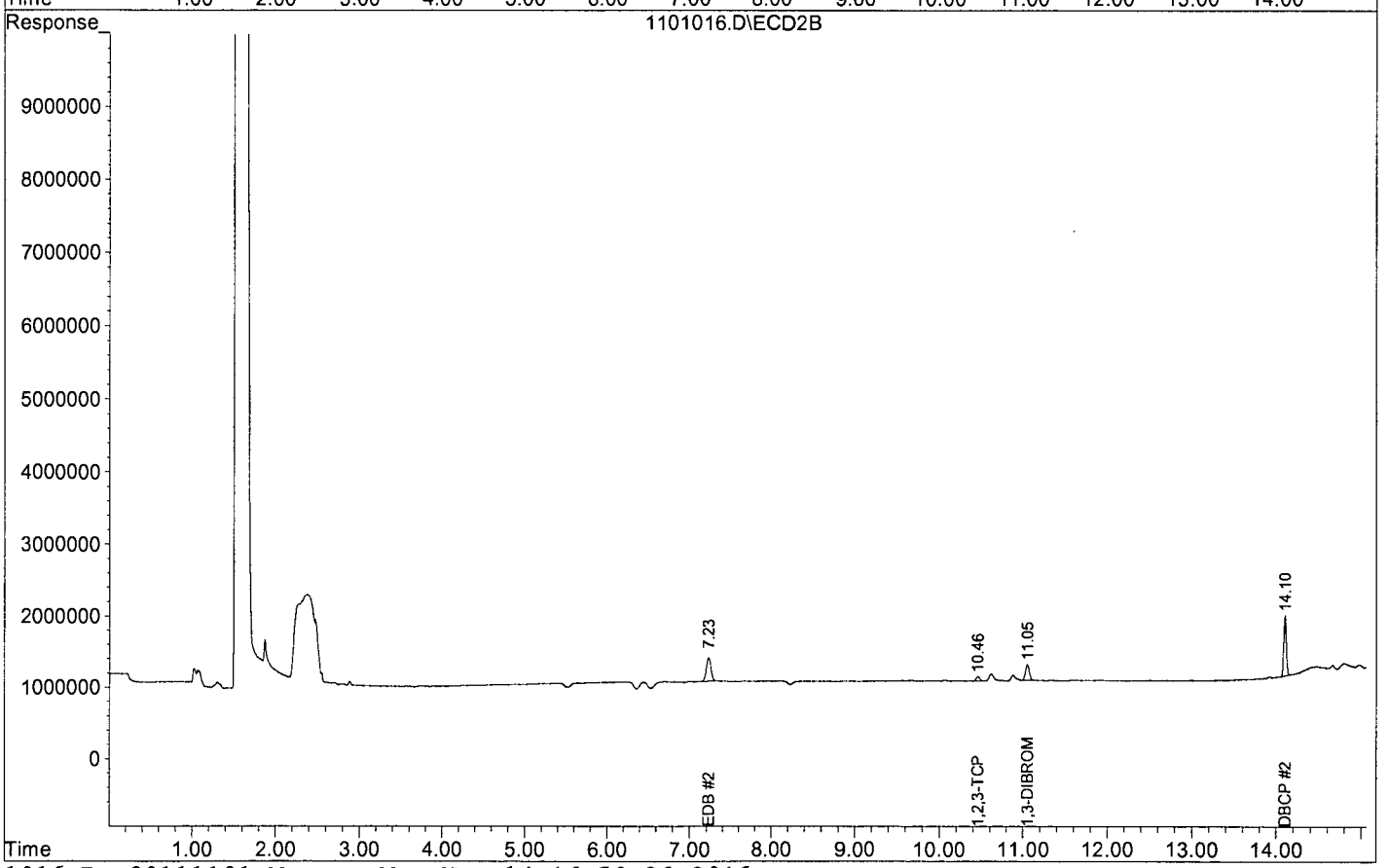
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161101\1101016.D Vial: 16
Acq On : 11-01-16 21:06:25 Operator: RH
Sample : 8011 M STD 2 11/1/16 Inst : Herbie
Misc : Multiplr: 1.00
Quant Method : G:\HERBIE\DATA\161101\80111101.M





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161101\1101017.D\ECD1A.CH Vial: 17
Signal #2 : G:\HERBIE\DATA\161101\1101017.D\ECD2B.CH
Acq On : 11-01-16 21:26:22 Operator: RH
Sample : 8011 M STD 3 11/1/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 2 10:27 2016 Quant Results File: 80111101.RES

Quant Method : G:\HERBIE\DATA\161101\80111101.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Wed Nov 02 11:26:48 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
3) S	1,3-DIBROMOPROPA	10.03	11.05	418745	526149	0.271	0.261	
Spiked Amount	0.350			Recovery	=	77.43%	74.57%	
	Target Compounds							
1) TM	EDB	5.80	7.23	253040	802064	0.181	0.241	#
2) TM	1,2,3-TCP	9.26	10.46	113241	144568	0.259	0.258	
4) TM	DBCP	13.36	14.10	1334315	2134779	0.267	0.249	

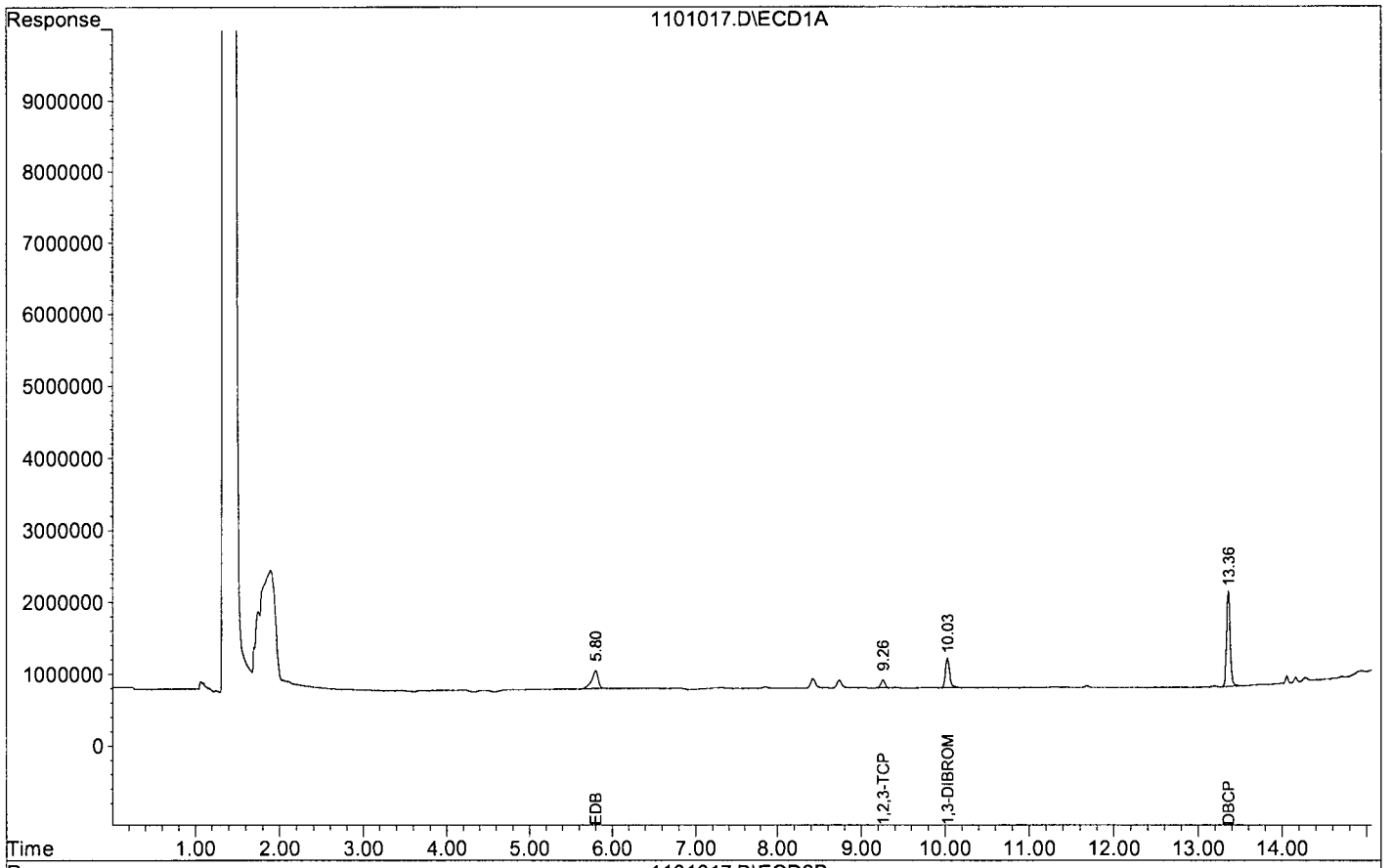
Target Compounds

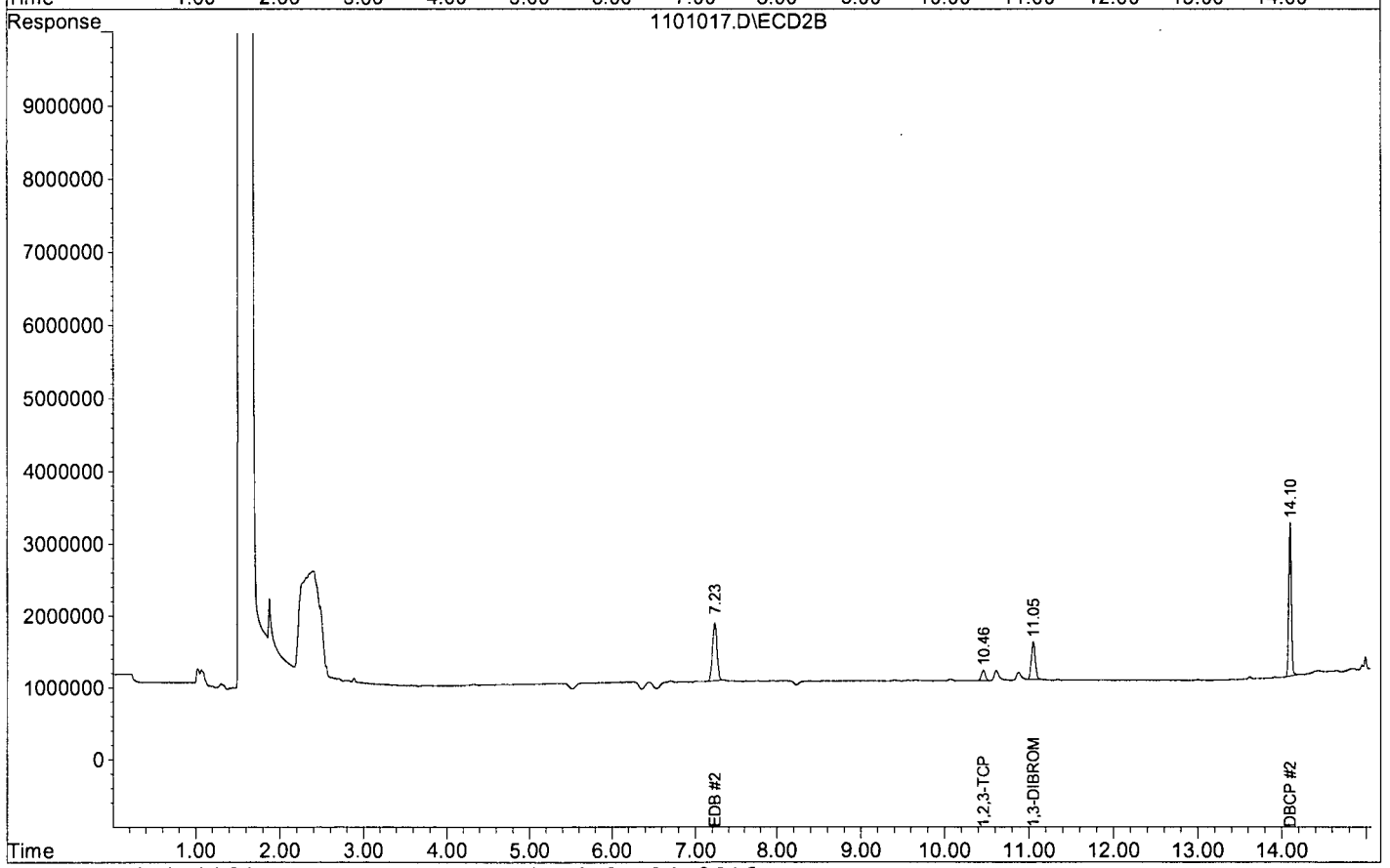
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161101\1101017.D
Acq On : 11-01-16 21:26:22
Sample : 8011 M STD 3 11/1/16
Misc :
Quant Method : G:\HERBIE\DATA\161101\80111101.M

Vial: 17
Operator: RH
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161101\1101018.D\ECD1A.CH Vial: 18
Signal #2 : G:\HERBIE\DATA\161101\1101018.D\ECD2B.CH
Acq On : 11-01-16 21:46:17 Operator: RH
Sample : 8011 M STD 4 11/1/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 2 10:27 2016 Quant Results File: 80111101.RES

Quant Method : G:\HERBIE\DATA\161101\80111101.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Wed Nov 02 11:26:48 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.03	11.05	775692	1018694	0.502	0.505
Spiked Amount	0.350			Recovery	=	143.43%	144.29%
	Target Compounds						
1) TM	EDB	5.80	7.23	568737	1534122	0.407	0.462
2) TM	1,2,3-TCP	9.26	10.46	211687	272640	0.483	0.487
4) TM	DBCP	13.36	14.10	2547391	4518187	0.509	0.527

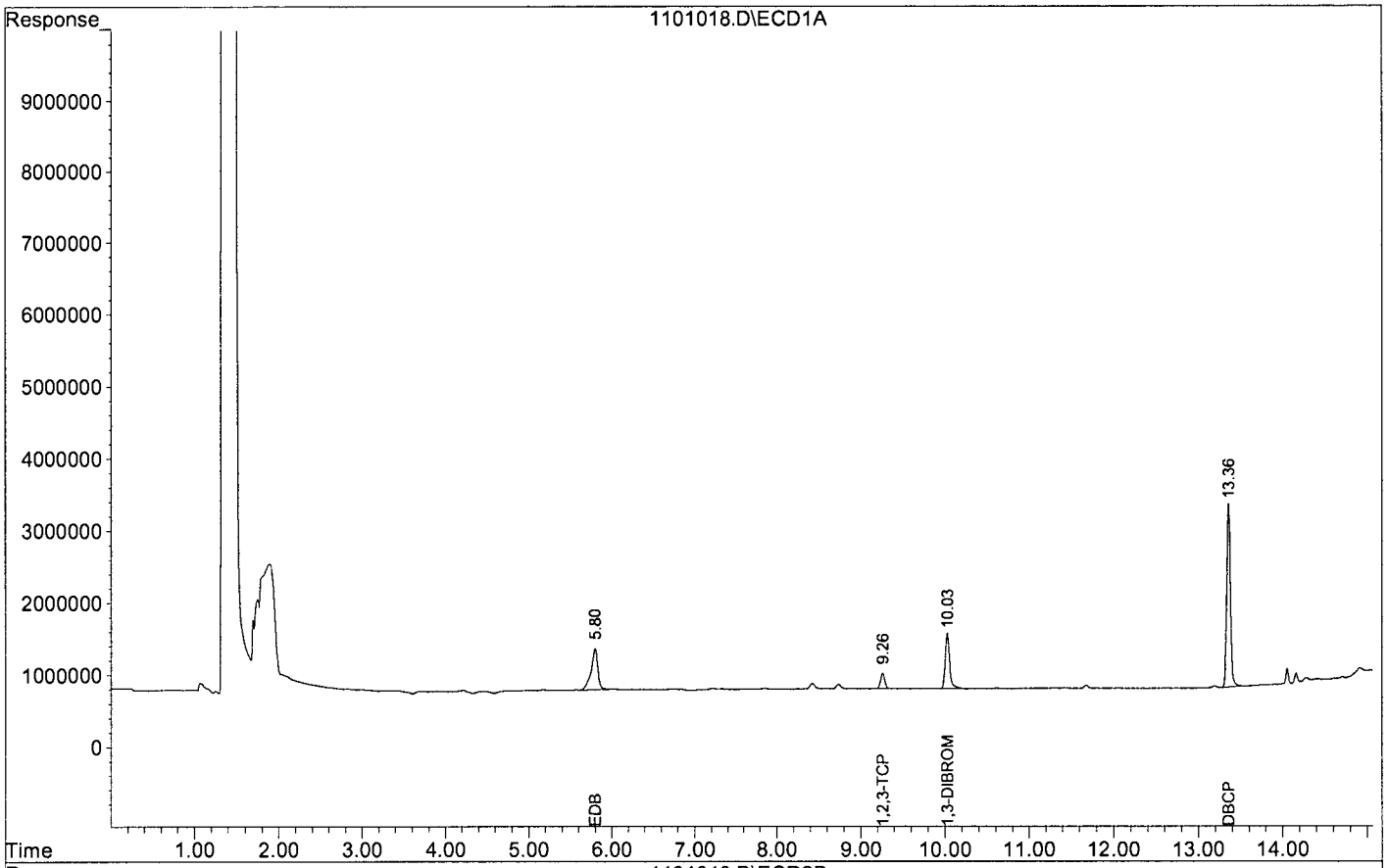
Target Compounds

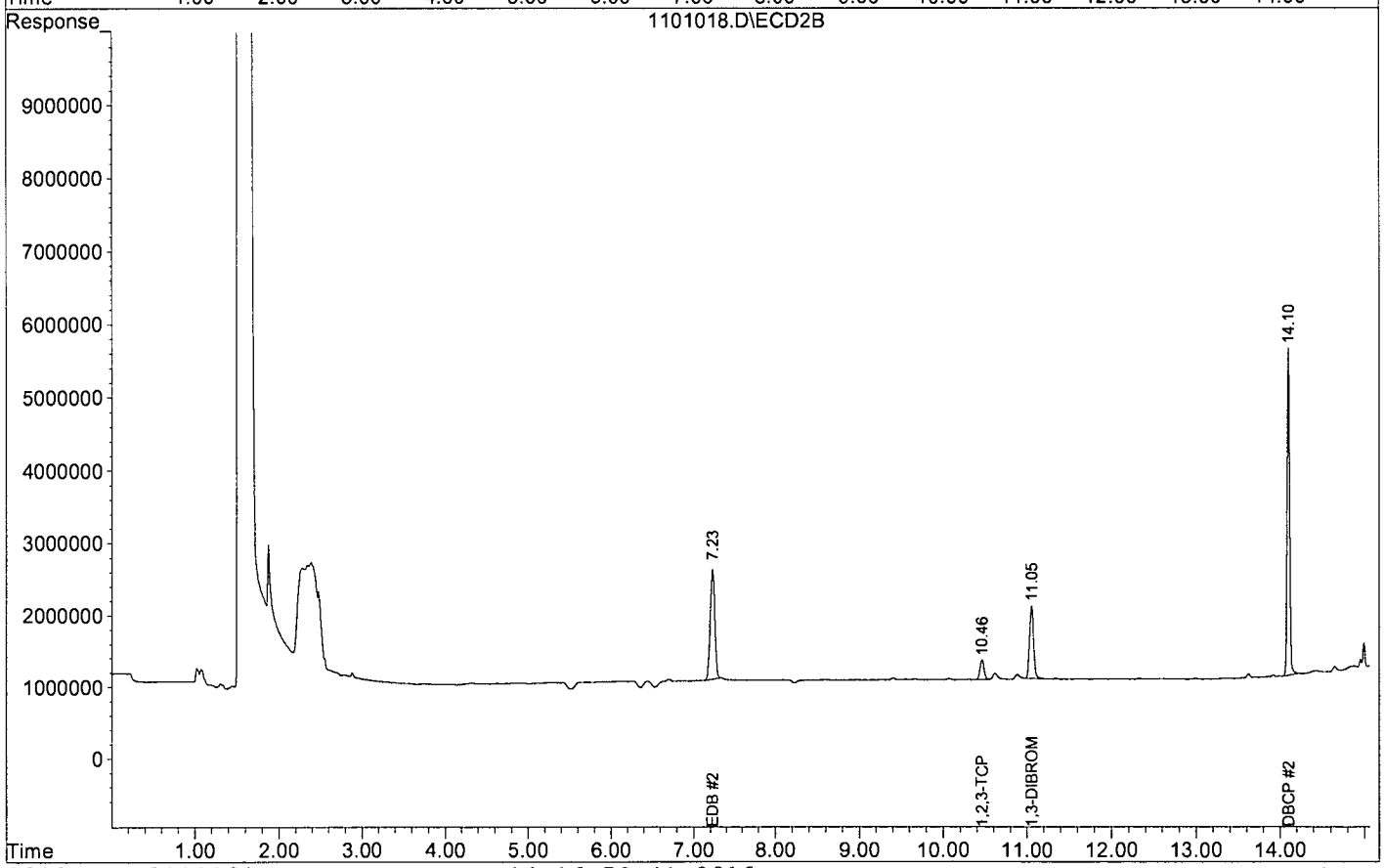
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161101\1101018.D
Acq On : 11-01-16 21:46:17
Sample : 8011 M STD 4 11/1/16
Misc :
Quant Method : G:\HERBIE\DATA\161101\80111101.M

Vial: 18
Operator: RH
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161101\1101019.D\ECD1A.CH Vial: 19
Signal #2 : G:\HERBIE\DATA\161101\1101019.D\ECD2B.CH
Acq On : 11-01-16 22:06:11 Operator: RH
Sample : 8011 M STD 5 11/1/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 2 10:27 2016 Quant Results File: 80111101.RES

Quant Method : G:\HERBIE\DATA\161101\80111101.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Wed Nov 02 11:26:48 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

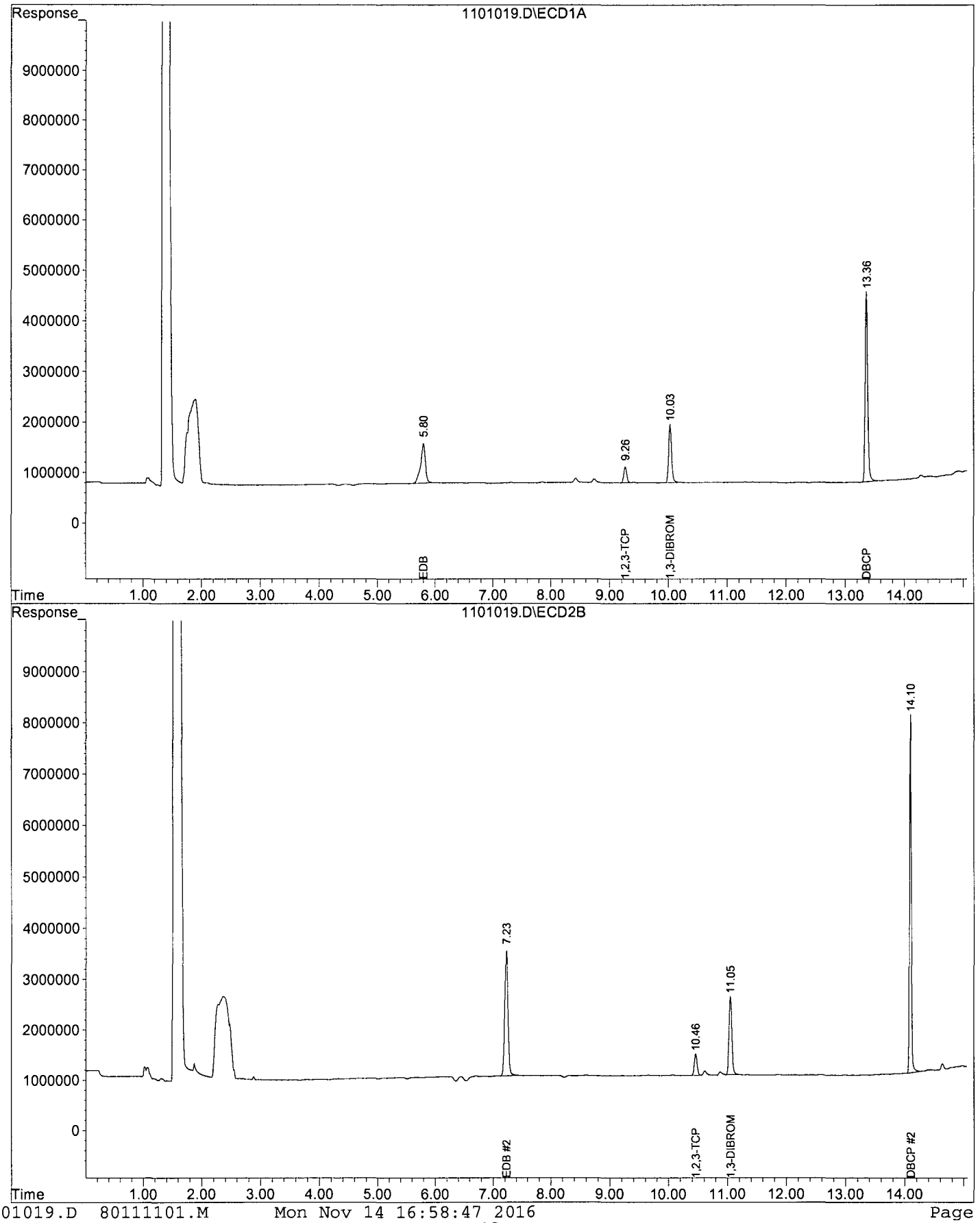
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
3) S	1,3-DIBROMOPROPA	10.03	11.05	1153861	1555684	0.747	0.771	
	Spiked Amount 0.350			Recovery	=	213.43%	220.29%	
	Target Compounds							
1) TM	EDB	5.80	7.23	786038	2479786	0.563	0.746	#
2) TM	1,2,3-TCP	9.26	10.46	307538	427050	0.702	0.762	
4) TM	DBCP	13.36	14.10	3763035	7006249	0.752	0.817	

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161101\1101019.D Vial: 19
Acq On : 11-01-16 22:06:11 Operator: RH
Sample : 8011 M STD 5 11/1/16 Inst : Herbie
Misc : Multiplr: 1.00
Quant Method : G:\HERBIE\DATA\161101\80111101.M



Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161101\1101020.D\ECD1A.CH Vial: 20
Signal #2 : G:\HERBIE\DATA\161101\1101020.D\ECD2B.CH
Acq On : 11-01-16 22:26:04 Operator: RH
Sample : 8011 M STD 6 11/1/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 2 10:27 2016 Quant Results File: 80111101.RES

Quant Method : G:\HERBIE\DATA\161101\80111101.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Wed Nov 02 11:26:48 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.03	11.05	1632441	2185410	1.056	1.084
	Spiked Amount 0.350			Recovery =		301.71%	309.71%
	Target Compounds						
1) TM	EDB	5.80	7.23	1110575	3505298	0.795	1.055 #
2) TM	1,2,3-TCP	9.26	10.46	428037	608478	0.977	1.086
4) TM	DBCP	13.36	14.10	5555568	10126662	1.110	1.181

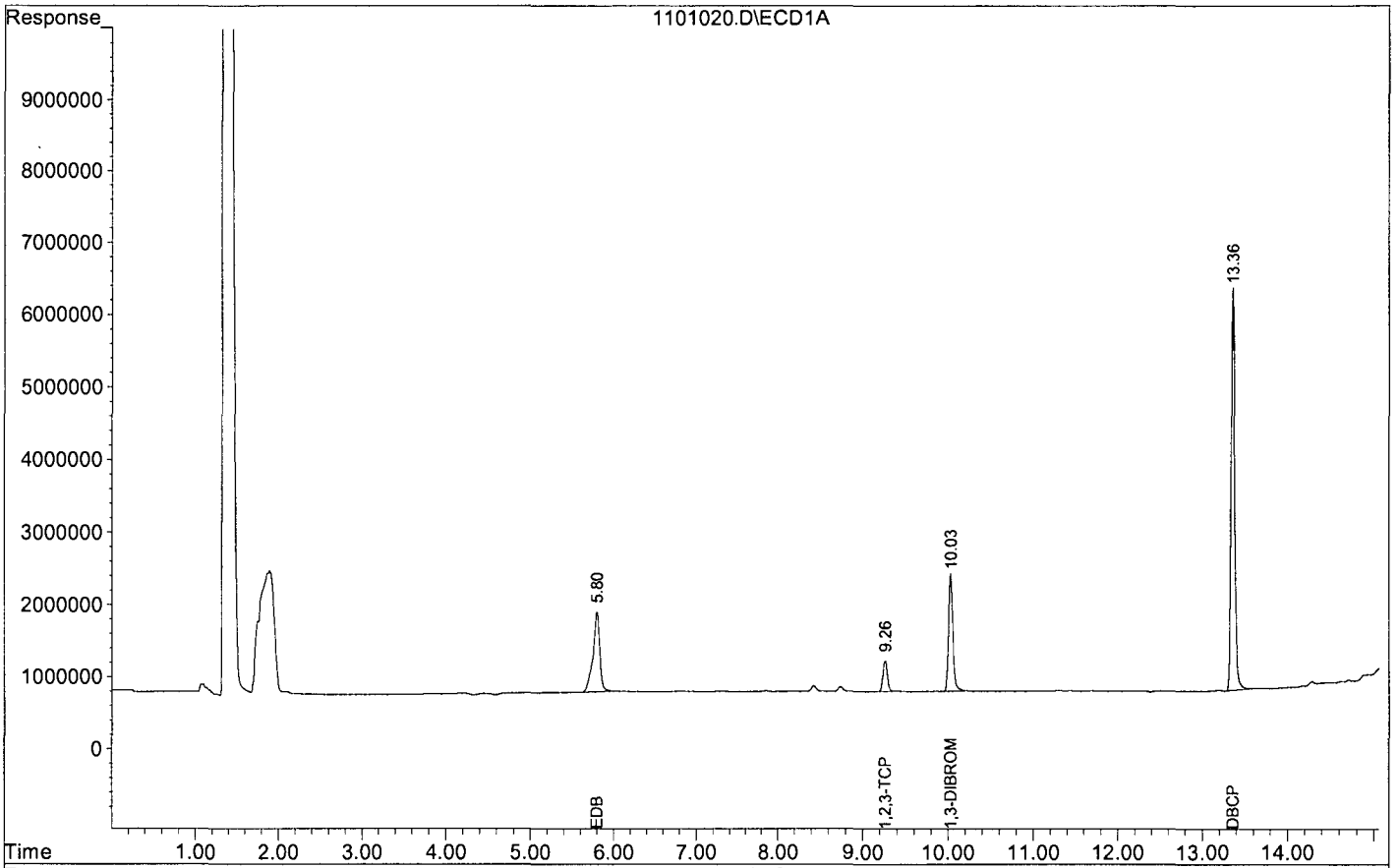
Target Compounds

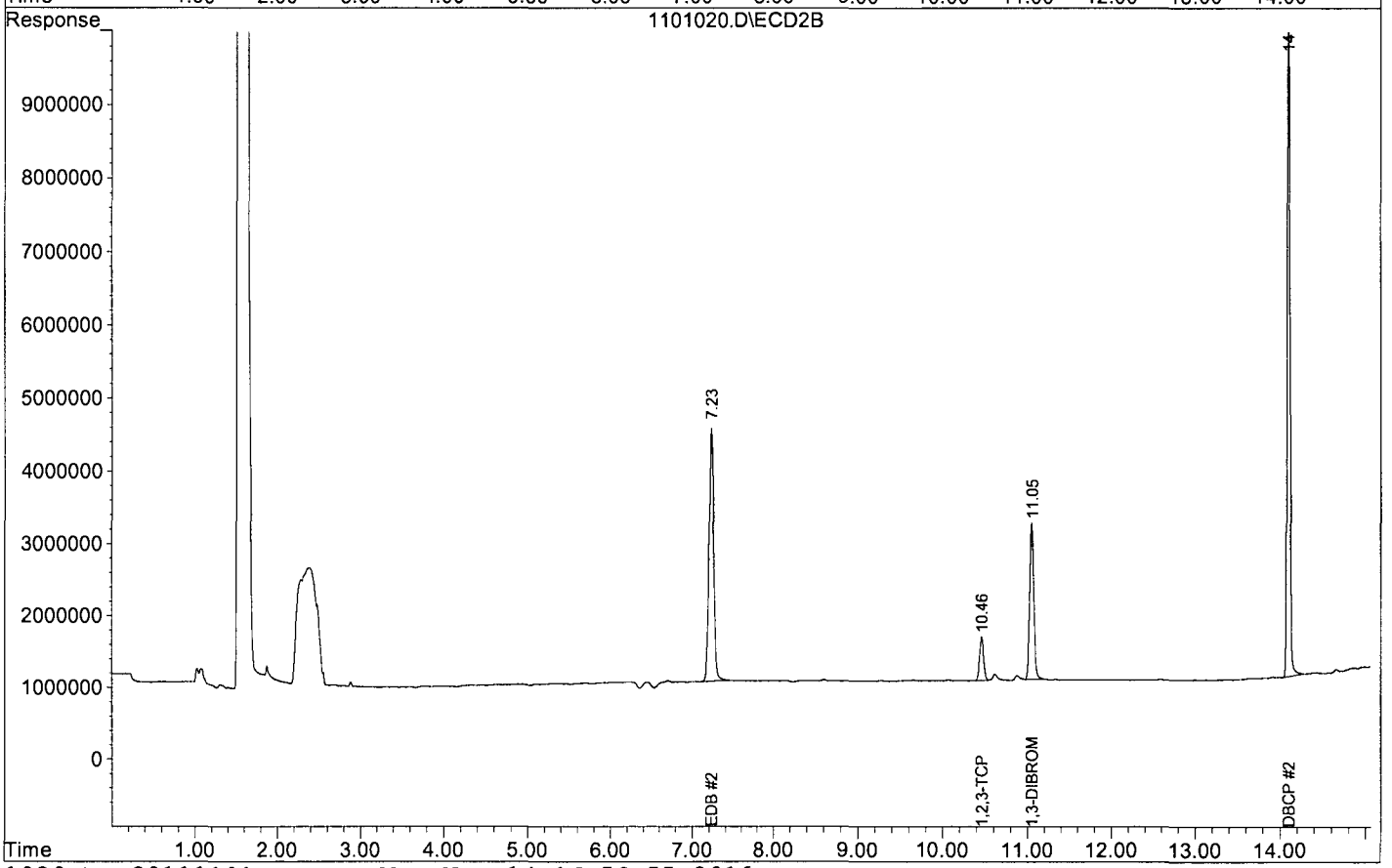
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161101\1101020.D
Acq On : 11-01-16 22:26:04
Sample : 8011 M STD 6 11/1/16
Misc :
Quant Method : G:\HERBIE\DATA\161101\80111101.M

Vial: 20
Operator: RH
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011 0301

Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 11/01/16
Instrument: Herbie
Initial Cal. Date: 11/01/16
Data File: 1101022.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	589172	498100	15	TM	
2	TM	1,2,3-TCP	236388	270885	15	TM	
3	TM	DBCP	2733090	2980030	9.0	TM	
4							
5							
6							
7							
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9							
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29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			13.0		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011 0301

Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 11/01/16
Instrument: Herbie
Cal. Date: 11/01/16
Data File: 1101022.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	EDB	1694360	1866730	10	TM	
42	TM	1,2,3-TCP	291266	353865	21	TM	*
43	TM	DBCP	4648690	5288650	14	TM	
44							
45							
46							
47							
48							
49							
50							
51							
52							
53							
54							
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69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
		Average			15.0		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161101\1101022.D\ECD1A.CH Vial: 22
Signal #2 : G:\HERBIE\DATA\161101\1101022.D\ECD2B.CH
Acq On : 11-01-16 23:05:56 Operator: RH
Sample : 161101A LCS-1 2/35.17G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 2 11:01 2016 Quant Results File: 80111101.RES

Quant Method : G:\HERBIE\DATA\161101\80111101.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Wed Nov 02 11:27:56 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.03	11.05	685278	917672	0.414	0.419
Spiked Amount	0.348			Recovery	=	118.86%	120.30%
	Target Compounds						
1) TM	EDB	5.80	7.23	99620	373345	0.084 ✓	0.110 #
2) TM	1,2,3-TCP	9.26	10.46	54177	70773	0.114	0.121
4) TM	DBCP	13.36	14.10	596005	1057730	0.109	0.113

Target Compounds

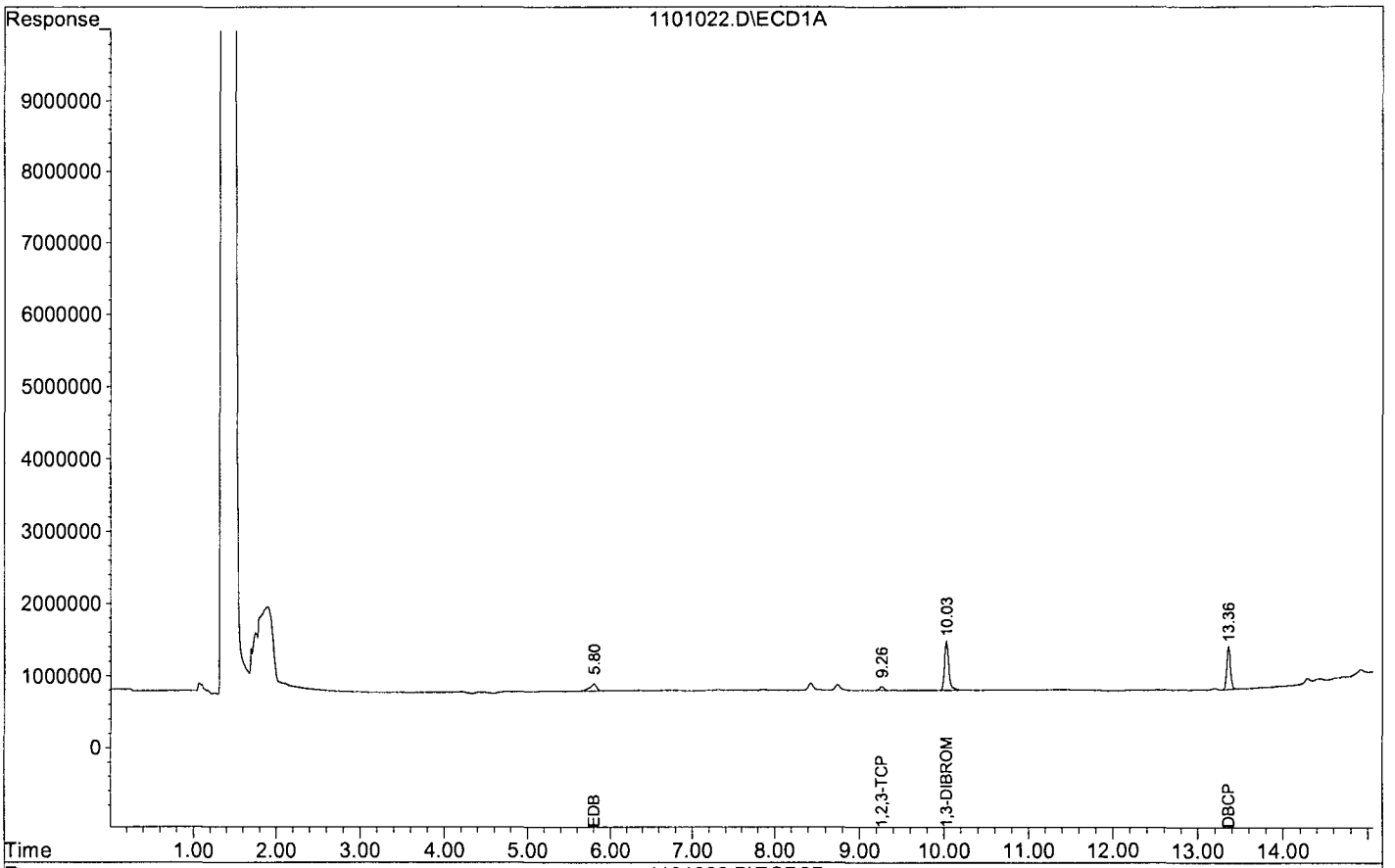
$$\text{Algorithum} = \frac{99620 * 1}{589172 * 2} = 0.0845$$ ✓

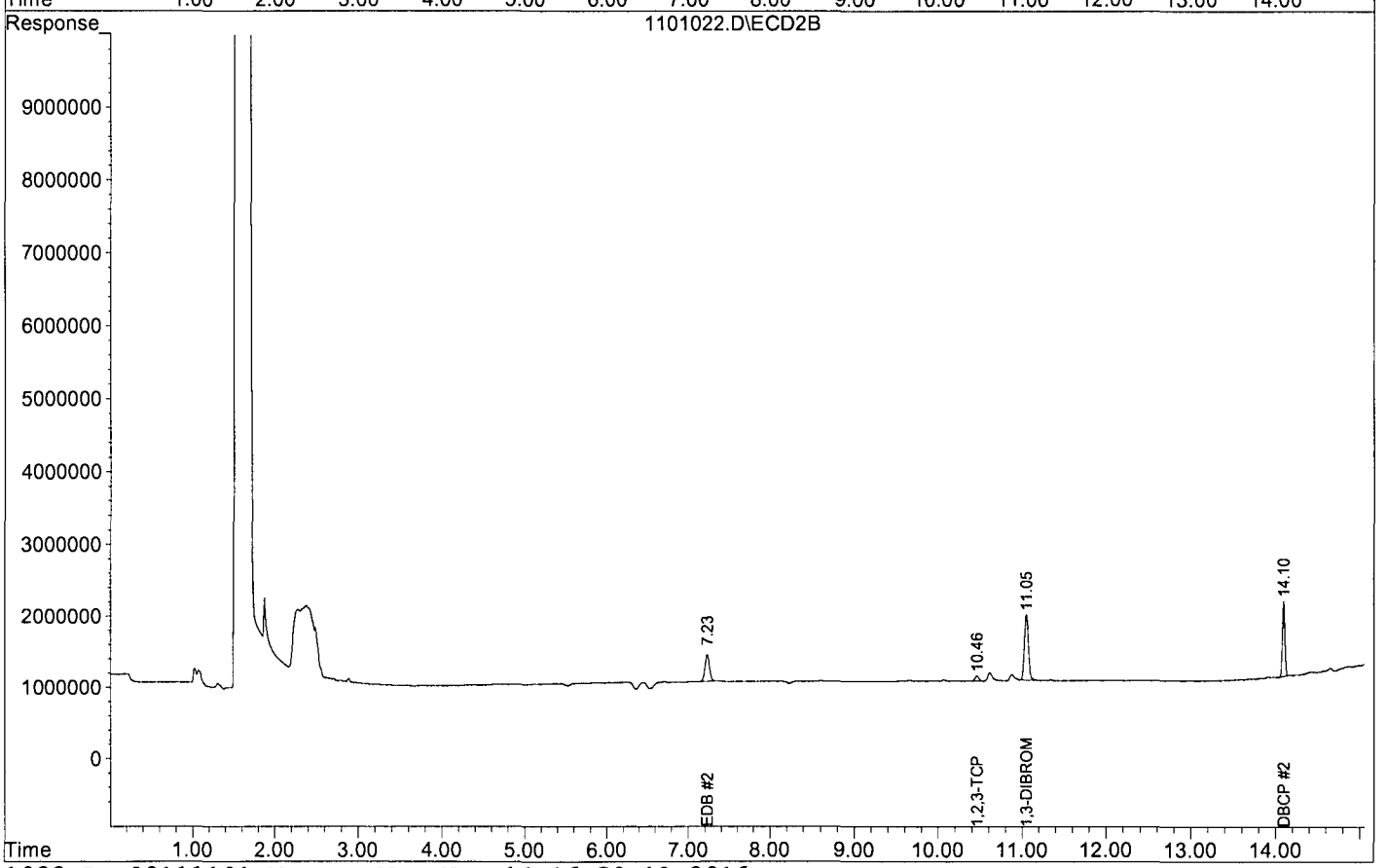
RH 11/14/16

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161101\1101022.D Vial: 22
Acq On : 11-01-16 23:05:56 Operator: RH
Sample : 161101A LCS-1 2/35.17G Inst : Herbie
Misc : water Multiplr: 1.00
Quant Method : G:\HERBIE\DATA\161101\80111101.M





DBCP/EDB/1,2,3-TCP Analysis by
504 8011 0301

Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 11/02/16
Instrument: Herbie
Initial Cal. Date: 11/01/16
Data File: 1101026.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	589172	546900	7.2	TM	
2	TM	1,2,3-TCP	236388	223338	5.5	TM	
3	S	1,3-DIBROMOPROPANE(S)	823920	820916	0.36	S	
4	TM	DBCP	2733090	2653740	2.9	TM	
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
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30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.0		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011 0301

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/02/16
Instrument: Herbie
Cal. Date: 11/01/16
Data File: 1101026.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	EDB	1694360	1589840	6.2	TM	
42	TM	1,2,3-TCP	291266	290962	0.10	TM	
43	S	1,3-DIBROMOPROPANE(S)	1090670	1061050	2.7	S	
44	TM	DBCP	4648690	4458860	4.1	TM	
45							
46							
47							
48							
49							
50							
51							
52							
53							
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69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
		Average			3.3		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161101\1101026.D\ECD1A.CH Vial: 26
Signal #2 : G:\HERBIE\DATA\161101\1101026.D\ECD2B.CH
Acq On : 11-02-16 0:25:17 Operator: RH
Sample : 8011 M STD 3 11/1/16 Inst : Herbie
Misc : Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 2 10:32 2016 Quant Results File: 80111101.RES

Quant Method : G:\HERBIE\DATA\161101\80111101.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Wed Nov 02 11:27:56 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

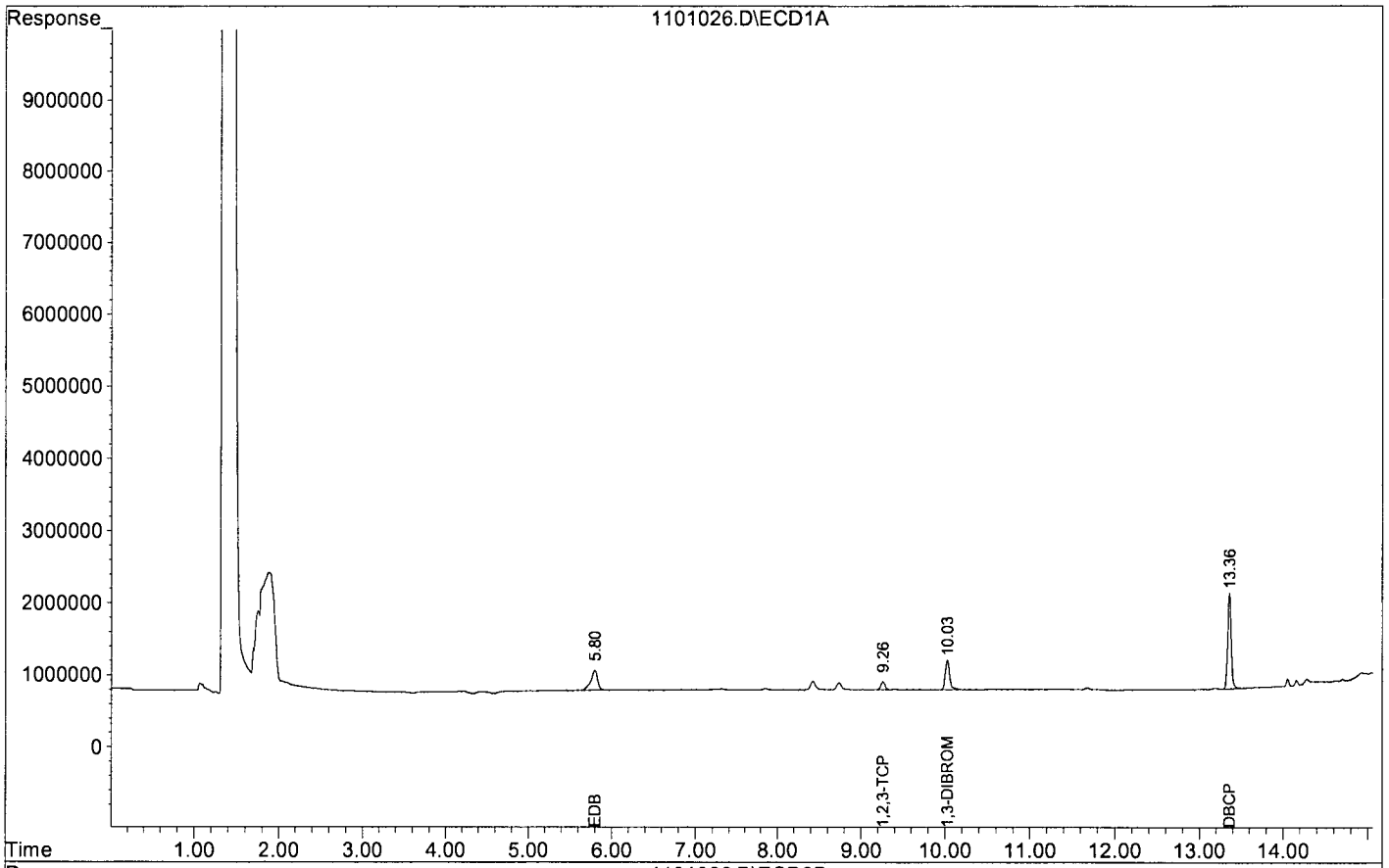
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.03	11.05	410458	530525	0.249	0.243
Spiked Amount	0.350			Recovery	=	71.14%	69.43%
	Target Compounds						
1) TM	EDB	5.80	7.23	273450	794919	0.232	0.235
2) TM	1,2,3-TCP	9.26	10.46	111669	145481	0.236	0.250
4) TM	DBCP	13.36	14.10	1326872	2229429	0.243	0.240

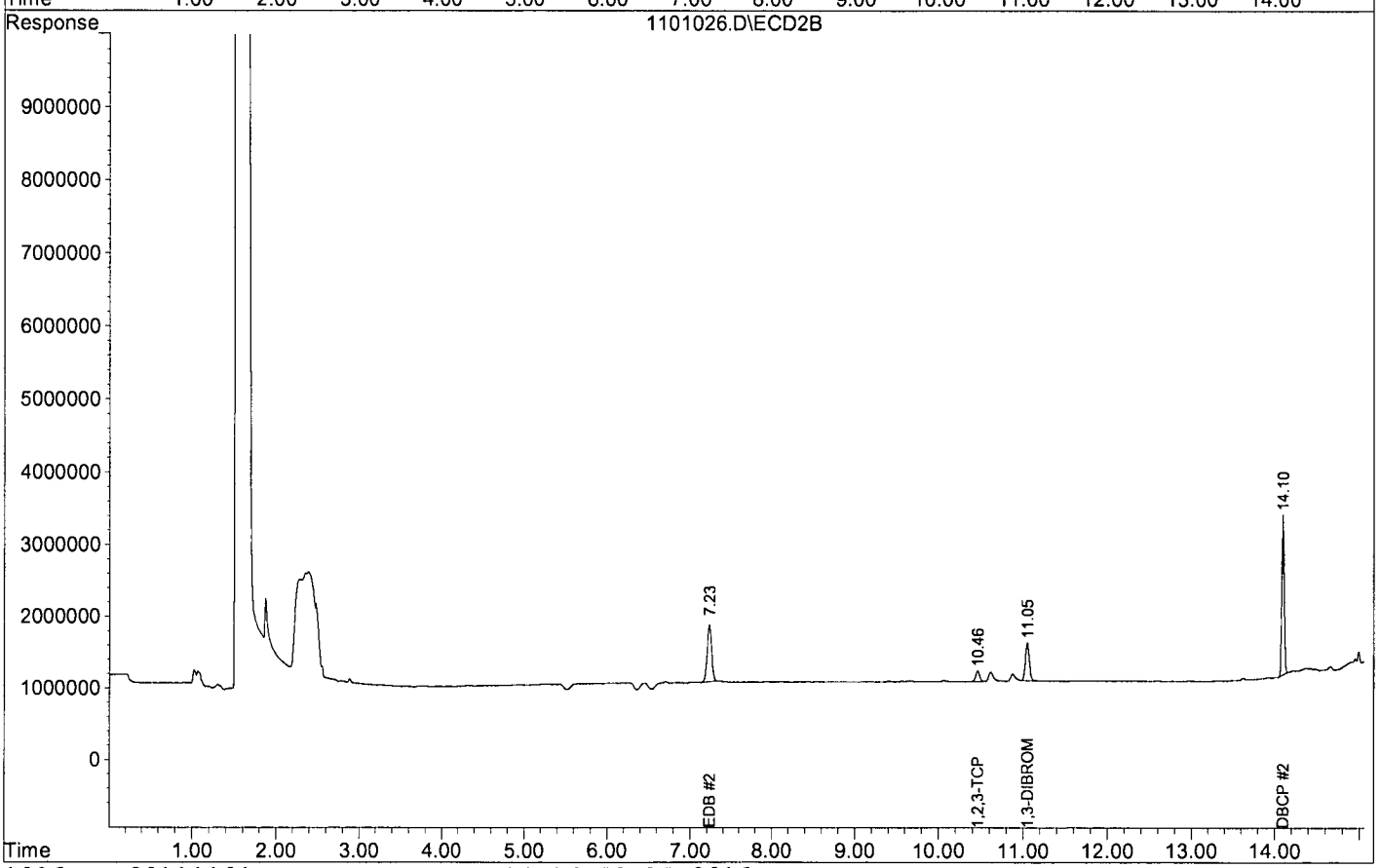
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161101\1101026.D Vial: 26
Acq On : 11-02-16 0:25:17 Operator: RH
Sample : 8011 M STD 3 11/1/16 Inst : Herbie
Misc : Multiplr: 1.00
Quant Method : G:\HERBIE\DATA\161101\80111101.M





ORGANICS

Raw Data

APPL, INC.

Method Blank
EPA 8011

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161101W-44891 - 213288**
Batch ID: #8011-161101A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	EDB	0.020 U	0.02	0.020	0.010	ug/L	11/01/16	11/01/16
BLANK	SURROGATE: 1,3-DIBROMOPRO	117	70-132			%	11/01/16	11/01/16

Quant Method: 80111101.M
Run #: 1101021
Instrument: Herbie
Sequence: 161101
Initials: RHA

GC SC-Blank-REG MDLs-DOD
Printed: 11/14/16 4:53:12 PM

Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\161101\1101021.D\ECD1A.CH Vial: 21
Signal #2 : G:\HERBIE\DATA\161101\1101021.D\ECD2B.CH
Acq On : 11-01-16 22:45:57 Operator: RH
Sample : 161101A BLK 2/34.54G Inst : Herbie
Misc : water Multiplr: 1.01
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 2 11:01 2016 Quant Results File: 80111101.RES

Quant Method : G:\HERBIE\DATA\161101\80111101.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Wed Nov 02 11:27:56 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

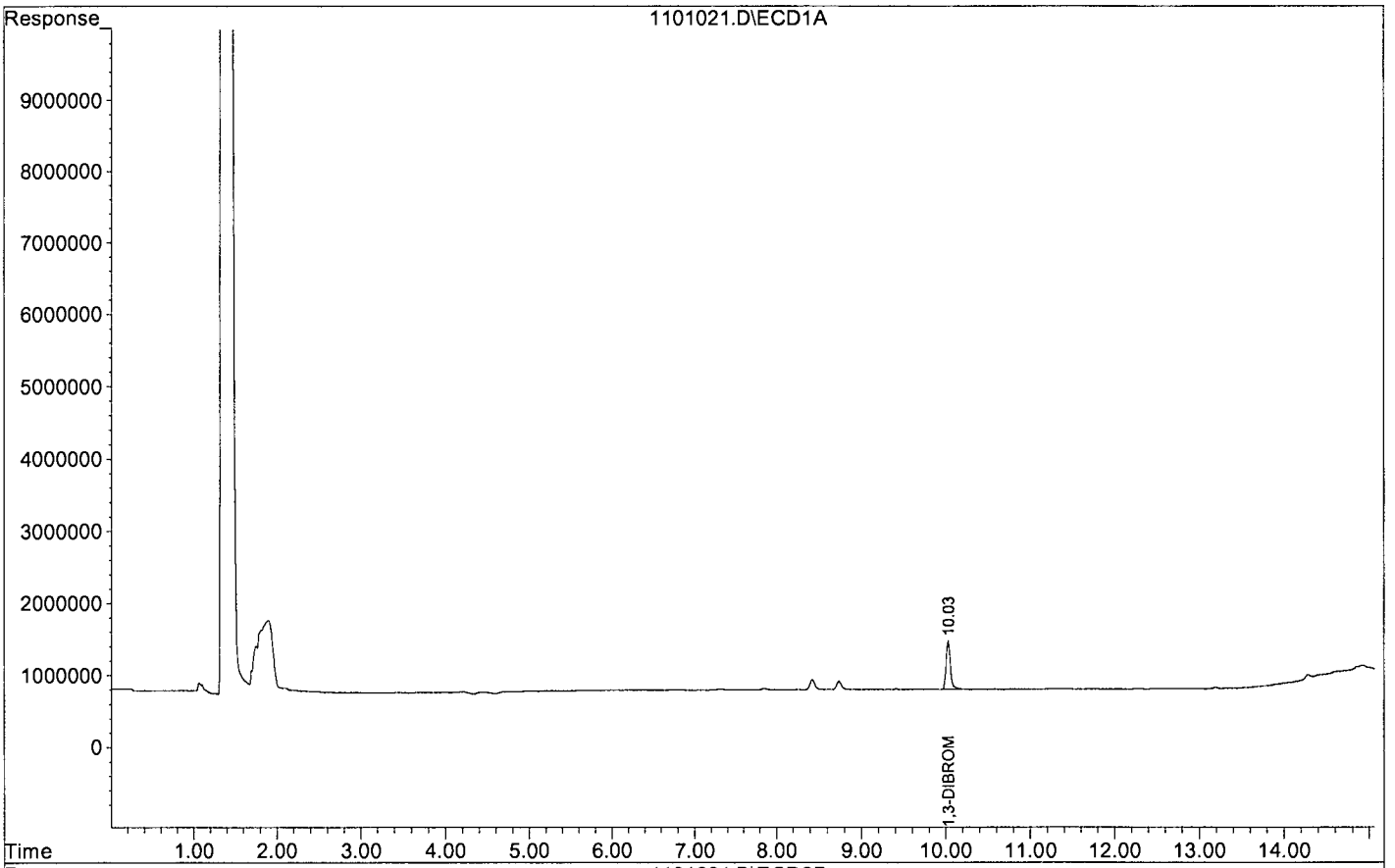
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.03	11.05	680437	892688	0.418	0.415
Spiked Amount	0.355			Recovery	=	117.86%	117.01%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

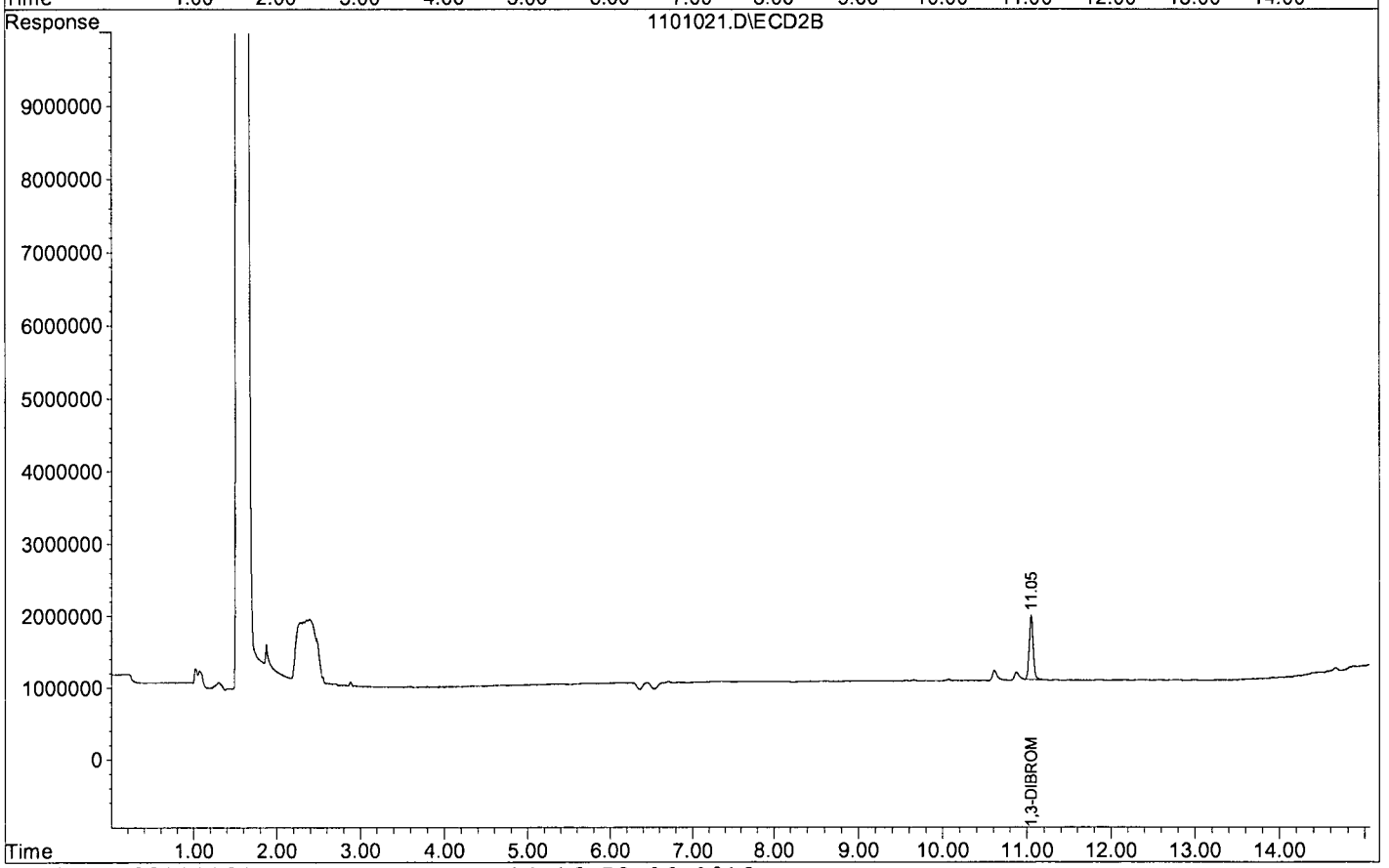
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\161101\1101021.D
Acq On : 11-01-16 22:45:57
Sample : 161101A BLK 2/34.54G
Misc : water
Quant Method : G:\HERBIE\DATA\161101\80111101.M

Vial: 21
Operator: RH
Inst : Herbie
Multiplr: 1.01





Laboratory Control Spike Recovery
EPA 8011

APPL ID: **161101W-44891 LCS - 213288**
Batch ID: #8011-161101A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
EDB	0.250	0.242	96.8	60-140
SURROGATE: 1,3-DIBROMOPROPANE (	0.350	0.252	72.0	70-132

Comments: _____

Primary	SPK
Quant Method :	80111101.M
Extraction Date :	11/01/16
Analysis Date :	11/01/16
Instrument :	Herbie
Run :	1101023
Initials :	RHA

Printed: 11/14/16 4:53:03 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\161101\1101023.D\ECD1A.CH Vial: 23
Signal #2 : G:\HERBIE\DATA\161101\1101023.D\ECD2B.CH
Acq On : 11-01-16 23:25:47 Operator: RH
Sample : 161101A LCS-2 2/35.30G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 2 11:01 2016 Quant Results File: 80111101.RES

Quant Method : G:\HERBIE\DATA\161101\80111101.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Wed Nov 02 11:27:56 2016
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

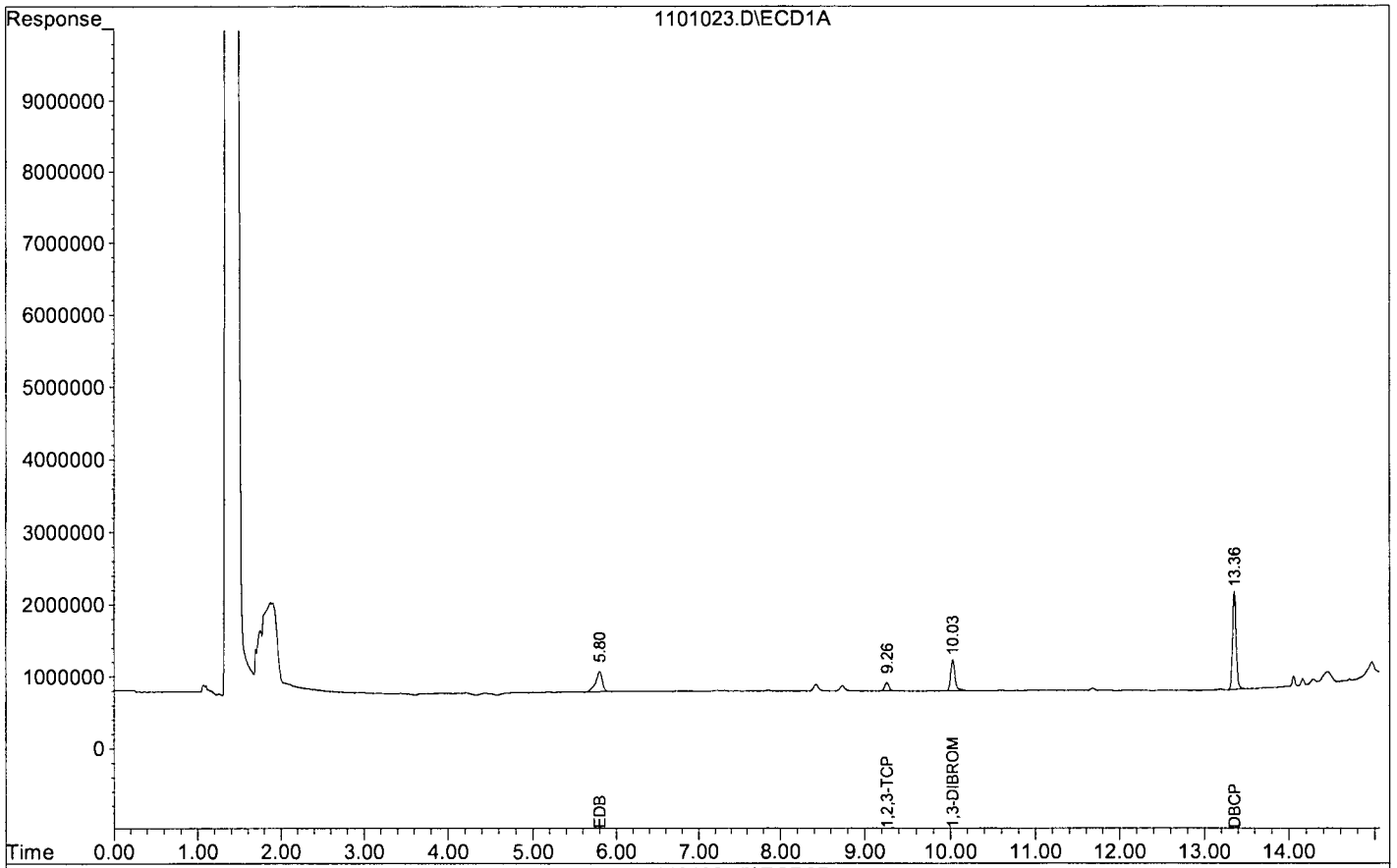
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.03	11.05	434724	553442	0.262	0.252
Spiked Amount	0.347			Recovery	=	75.50%	72.62%
	Target Compounds						
1) TM	EDB	5.80	7.23	280753	827415	0.236	0.242
2) TM	1,2,3-TCP	9.26	10.46	114385	149367	0.240	0.254
4) TM	DBCP	13.36	14.10	1357234	2293270	0.246	0.245

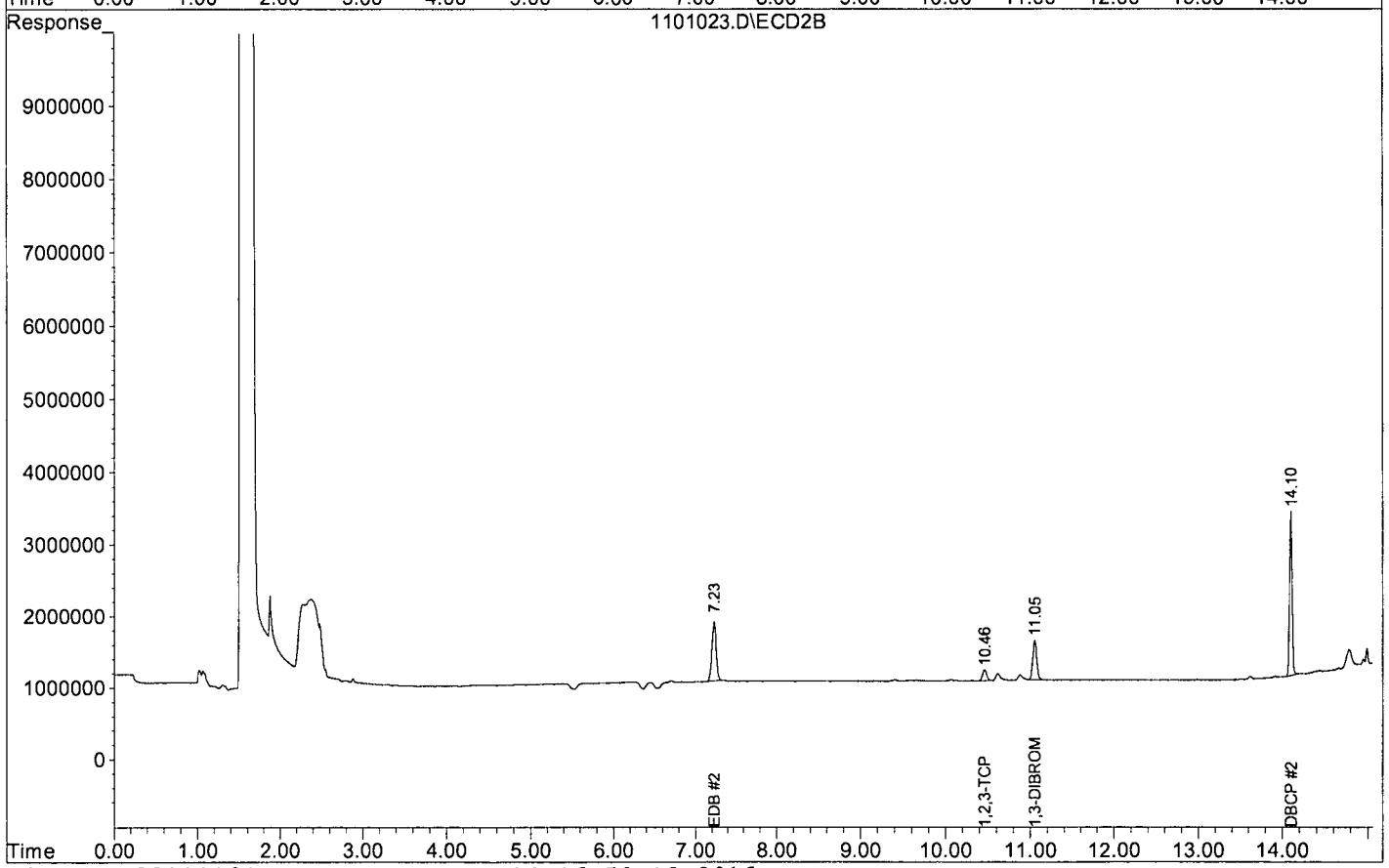
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\161101\1101023.D Vial: 23
Acq On : 11-01-16 23:25:47 Operator: RH
Sample : 161101A LCS-2 2/35.30G Inst : Herbie
Misc : water Multiplr: 0.99
Quant Method : G:\HERBIE\DATA\161101\80111101.M





	504/8011 M STD					
Prep: 11/01/16 Exp: 12/03/16 RH						
Compound	**Initial Conc.**	**Source**	**Aliquot**	**Final Vol.**	**Final Conc.**	**Solvent**
EDB	0.35ug/mL	/8011 M STD	1000uL	10mL	0.035ug/mL	Methanol
TCP		prep.08/03/16				010616A
DBCP		exp: 12/03/16				
1,3 DBP						

504/8011 M STD STOCK						
Prep: 08/03/16-R.H.		Ex: 12/03/16				
Compound	**Initial Conc.**	**Source**	**Aliquot**	**Final Vol.**	**Final Conc.**	**Solvent**
EDB	20ug/mL	504/DOHS STOCK	438uL	25mL	0.35ug/mL	Methanol
TCP		prep. 06/07/16				021915C
DBCP		exp: 06/07/17				
1,3 DBP	100ug/mL	1,3 DBP STOCK	88uL			
		prep.06/07/16				
		exp. 06/07/17				

1,3-DBP STOCK						
Compounds	**Init. Conc.**	**Stock SRC**	**Aliquot**	**Final Vol.**	**Final Conc.**	**Solvent**
1,3 DBP	1000ug/mL	Absolute	1000uL	10mL	100ug/mL	Methanol
	Cat:	71326				Lot # 021915C
	Lot:	031413-33900				
	Op:	06/07/16				
	Exp:	06/07/17		Prep: 6/7/16 Exp: 6/7/17 LH		

504 DOHS STOCK prep: 6/7/16 Exp: 6/7/17 LH						
Compounds	**Init. Conc.**	**Stock SRC**	**Aliquot**	**Final Vol.**	**Final Conc.**	**Solvent**
EDB	1000ug/mL	O2SI	500uL	25mL	20ug/mL	Methanol
TCP	Cat:	130271-08				Lot # 021915C
DBCP	Lot:	270815-36134				
	Op:	06/07/16				
	Exp:	06/07/17				

_MWE012

Organic Extraction Worksheet

Method	EPA Method 8011 DBCP/EDB	Extraction Set	161101A	Extraction Method	MWE012	Units	mL

Spiked ID 1	504.1 SS 3-11-16 EXP 12-3-16		Surrogate ID 1	504.1 Surrogate 12-30-15 EXP 12-30-16	
Spiked ID 2	504.1 M. STD 9-7-16 EXP 12-3-16		Surrogate ID 2		
Spiked ID 3	504.1 M. STD 10-13-16 EXP 12-3-16		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:	11/01/16 13:20	
Spiked ID 8			Ext. End Time:	11/01/16 14:20	
			GC Requires Extract By:	**11/02/16** 0:00	

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: KY **Date** 11/01/16 **Witnessed By:** DC **Date** 11/01/16

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	161101A Blk				0.035	1 equip	34.54g	2	7	11/01/16 13:20	
2	161101A LCS-1		0.1	1	0.035	1 equip	35.17g	2	7	11/01/16 13:20	
3	161101A LCS-2		0.250	2	NA	NA equip	35.30g	2	7	11/01/16 13:20	
4	AZ44891	AZ44891W10			0.035	1 equip	34.16g	2	7	11/01/16 13:20	81287 1 WEEK
5	M STD 1		0.020	2	NA	NA equip	35.41g	2	7	11/01/16 13:20	
6	M STD 2		0.1	2	NA	NA equip	35.38g	2	7	11/01/16 13:20	
7	M STD 3		0.250	2	NA	NA equip	35.37g	2	7	11/01/16 13:20	
8	M STD 4		0.5	2	NA	NA equip	35.46g	2	7	11/01/16 13:20	
9	M STD 5		0.750	2	NA	NA equip	35.28g	2	7	11/01/16 13:20	
10	M STD 6		1	3	NA	NA equip	35.29g	2	7	11/01/16 13:20	

DL 11/01/16

Solvent and Lot#	
NaCL	16B100011
Sod. Thiosulfate	24050
GC2 Hexane	DN636

Extraction COC Transfer	
Extraction lab employee Initials	DL
GC analyst's initials	RH
Date	11/1/16
Time	3:00
Refrigerator	Hoberr

	Technician's Initials
Scanned By	KY
Sample Preparation	KY
Extraction	KY
Concentration	----------

Modified	11/01/16 2:29:19 PM

Reviewed By: DL **Date** 11/01/16

Injection Log

Directory: G:\HERBIE\DATA\161101\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	15	1101015.D	1	8011 M STD 1 11/1/16		11-01-16 20:46:28
2	16	1101016.D	1	8011 M STD 2 11/1/16		11-01-16 21:06:25
3	17	1101017.D	1	8011 M STD 3 11/1/16		11-01-16 21:26:22
4	18	1101018.D	1	8011 M STD 4 11/1/16		11-01-16 21:46:17
5	19	1101019.D	1	8011 M STD 5 11/1/16		11-01-16 22:06:11
6	20	1101020.D	1	8011 M STD 6 11/1/16		11-01-16 22:26:04
7	21	1101021.D	1.01332	161101A BLK 2/34.54G	water	11-01-16 22:45:57
8	22	1101022.D	0.995166	161101A LCS-1 2/35.17G	water	11-01-16 23:05:56
9	23	1101023.D	0.991501	161101A LCS-2 2/35.30G	water	11-01-16 23:25:47
10	24	1101024.D	1.02459	AZ44891W10 2/34.16G	water	11-01-16 23:45:39
11	26	1101026.D	1	8011 M STD 3 11/1/16		11-02-16 0:25:17

ORGANICS

APPL, INC.

ORGANICS

QC Summary

APPL, INC.

Method Blank
EPA 8015B TPH WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161101W-44891 - 213316**
Batch ID: #DOC53-161101A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/01/16	11/02/16
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/01/16	11/02/16
BLANK	SURROGATE: OCTACOSANE (S)	98.9	60-142			%	11/01/16	11/02/16
BLANK	SURROGATE: ORTHO-TERPHEN	75.8	56-125			%	11/01/16	11/02/16

Quant Method:DOC1027.M
Run #:1102004
Instrument:Apollo
Sequence:161102
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/04/16 4:44:15 PM

Laboratory Control Spike Recovery
EPA 8015B TPH WATER

APPL ID: **161101W-44891 LCS - 213316**
Batch ID: #DOC53-161101A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL (C10-C24)	1330	922	69.2	36-132
OIL (C24-C40)	1330	1090	81.8	41-113
SURROGATE: OCTACOSANE (S)	40.0	39.2	98.0	60-142
SURROGATE: ORTHO-TERPHENYL (S)	40.0	37.5	93.8	56-125

Comments: _____

Primary	SPK
Quant Method :	DOC1027.M
Extraction Date :	11/01/16
Analysis Date :	11/02/16
Instrument :	Apollo
Run :	1102005
Initials :	DPO

Printed: 11/04/16 4:49:09 PM
APPL Standard LCS

EPA 8015B-eLL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 11/02/16

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161101A-BLK	Blank	60-142	98.9		56-125	75.8	
161101A-LCS	Lab Control Spike	60-142	98.0		56-125	93.8	
AZ44893	ERH096	60-142	99.8		56-125	76.0	
AZ44891	ERH103	60-142	101		56-125	76.3	

Comments: Batch: #DOC53-161101A

EPA 8015B-eL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 11/02/16

Matrix: WATER Instrument: Apollo

Blank ID: 161101A-BLK Time Analyzed: 1002

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161101A-BLK	Blank	1102004	11/02/16 1002
161101A-LCS	Lab Control Spike	1102005	11/02/16 1023
AZ44893	ERH096	1102008	11/02/16 1125
AZ44891	ERH103	1102025	11/02/16 1721

Comments: Batch: #DOC53-161101A

Printed: 11/04/16 4:44:14 PM
Form 4, Blank Summary

ORGANICS

Sample Data

APPL, INC.

EPA 8015B TPH WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81287

Sample ID: ERH103

APPL ID: AZ44891

Sample Collection Date: 10/25/16

QCG: #DOC53-161101A-213316

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/01/16	11/02/16
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/01/16	11/02/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	101	60-142			%	11/01/16	11/02/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	76.3	56-125			%	11/01/16	11/02/16

Quant Method: DOC1027.M
Run #: 1102025
Instrument: Apollo
Sequence: 161102
Dilution Factor: 1
Initials: DPO

Printed: 11/04/16 4:44:15 PM

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

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161102\1102025.D Vial: 25
Acq On : 11-2-16 17:21:47 Operator: DP
Sample : AZ44891W13 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 4 16:38 2016 Quant Results File: DOC1027.RES

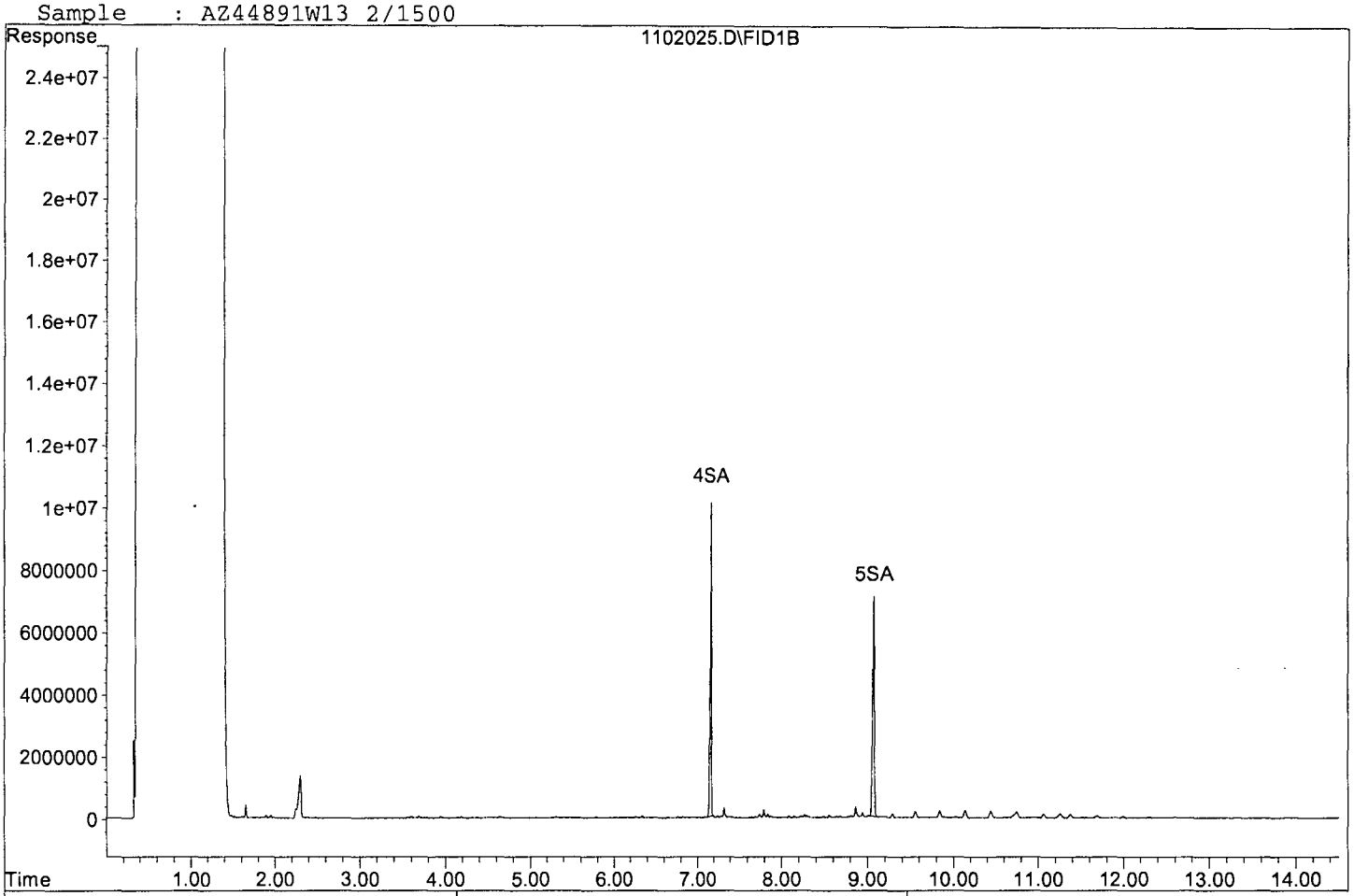
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

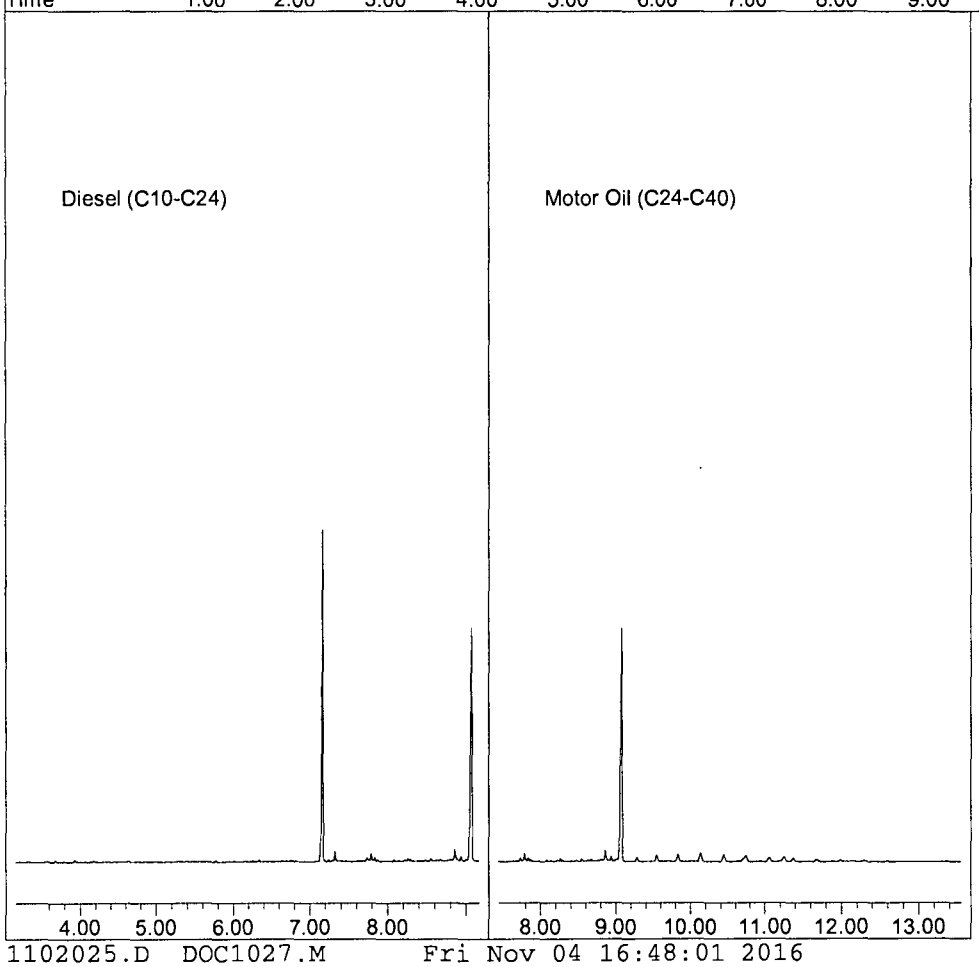
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.17	103245288	30.527 ppb
Surrogate Spike 40.000		Recovery =	76.32%
5) SA Octacosane(S)	9.07	100097797	40.379 ppb
Surrogate Spike 40.000		Recovery =	100.95%
Target Compounds			

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

Data File: G:\APOLLO\DATA\161102\1102025.D
Sample : AZ44891W13 2/1500





EPA 8015B TPH WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81287

Sample ID: ERH096

APPL ID: AZ44893

Sample Collection Date: 10/25/16

QCG: #DOC53-161101A-213316

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/01/16	11/02/16
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/01/16	11/02/16
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	99.8	60-142			%	11/01/16	11/02/16
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S	76.0	56-125			%	11/01/16	11/02/16

Quant Method: DOC1027.M
Run #: 1102008
Instrument: Apollo
Sequence: 161102
Dilution Factor: 1
Initials: DPO

Printed: 11/04/16 4:44:15 PM

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

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161102\1102008.D Vial: 8
Acq On : 11-2-16 11:25:41 Operator: DP
Sample : AZ44893W10 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 4 16:39 2016 Quant Results File: DOC1027.RES

Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

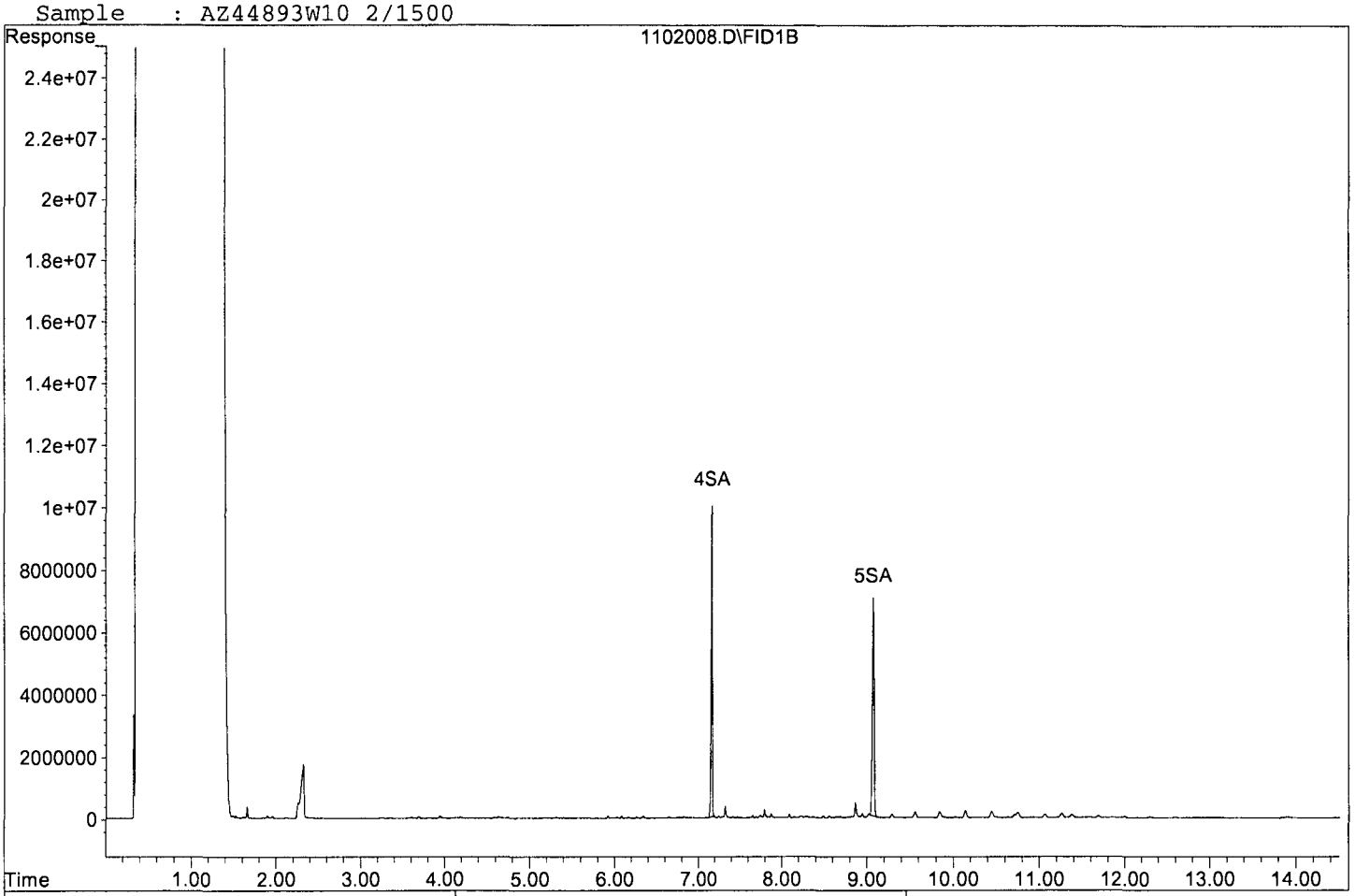
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

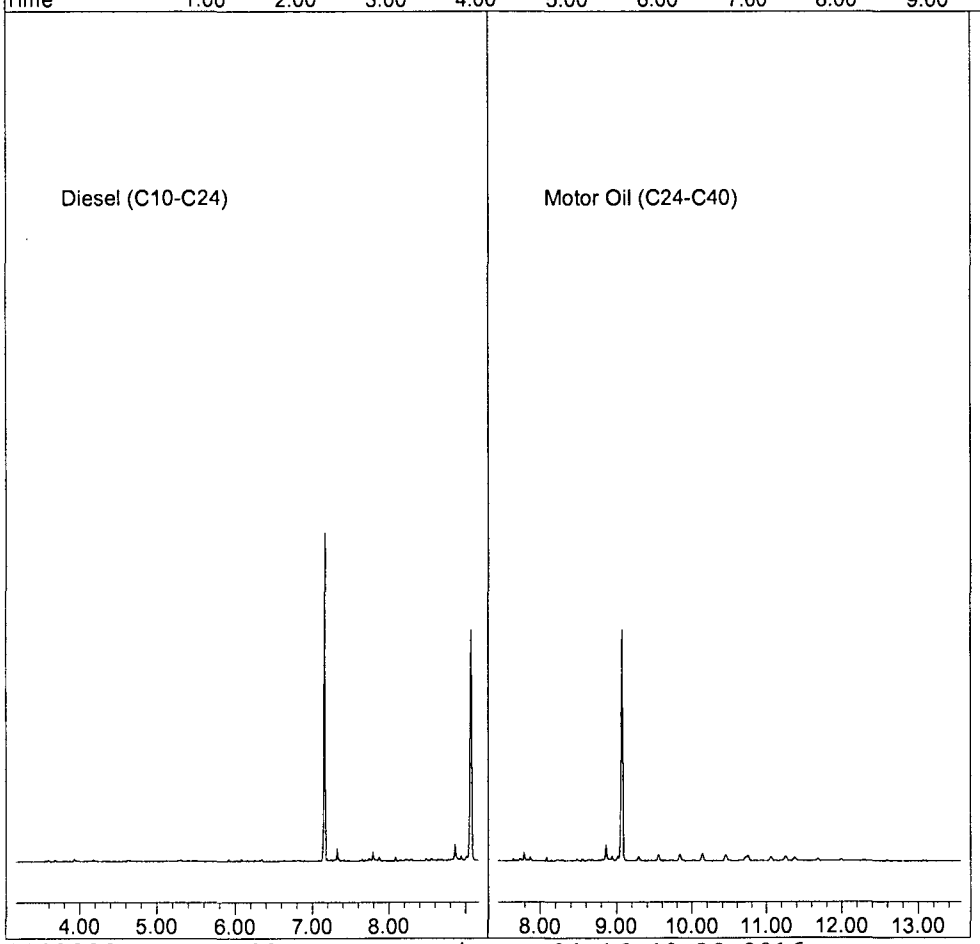
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	102868861	30.416	ppb
Surrogate Spike 40.000		Recovery =	76.04%	
5) SA Octacosane(S)	9.08	98929623	39.908	ppb
Surrogate Spike 40.000		Recovery =	99.77%	
Target Compounds				

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

Quantitation Report

Data File: G:\APOLLO\DATA\161102\1102008.D
Sample : AZ44893W10 2/1500





ORGANICS

Calibration Data

APPL, INC.

TPH Extractables
DOC1027

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/28/16
Matrix: Water Instrument: Apollo Initials:

Diesel:	1027002.D	1027003.D	1027004.D	1027005.D	1027006.D	1027007.D										
Motor Oil:	1028002.D	1028003.D	1028004.D	1028005.D	1028006.D	1028007.D										

		Compound	1	2	3	4	5	6					Avg	%RSD		
1	HATM	Diesel (C10-C24)	2258285	2083322	1792136	1688298	1652234	1710241					1864086	13	HATM	
2	HBTM	Motor Oil (C24-C40)	1547461	1573593	1266210	1319225	1308991	1221658					1372856	11	HBTM	
3	SC	Decanoic Acid(S)	433088	637243	708157	651849	585305	621099					606124	15	SC	
4	SA	Ortho-Terphenyl(S)	1623101	2784637	2351811	2261671	2219163	2287776					2254693	16	SA	
5	SA	Octacosane(S)	1827829	1929319	1618166	1515775	1488172	1536433					1652616	11	SA	
6																
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1.9223699

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161027\1027002.D Vial: 2
Acq On : 10-27-16 17:29:08 Operator: lac
Sample : DIESEL 10ppb 10/27/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 3 17:51 2016 Quant Results File: DOC1027.RES

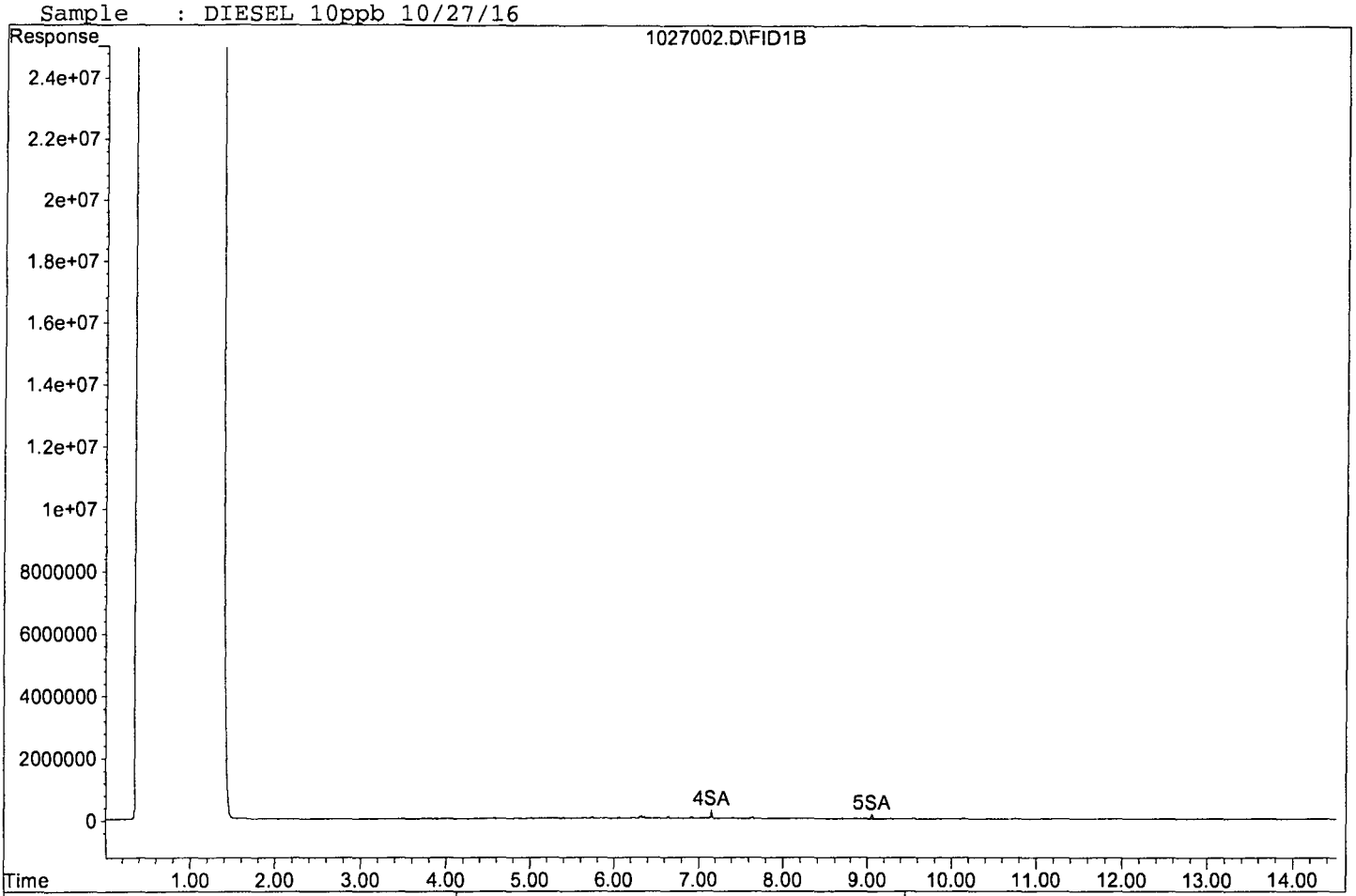
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

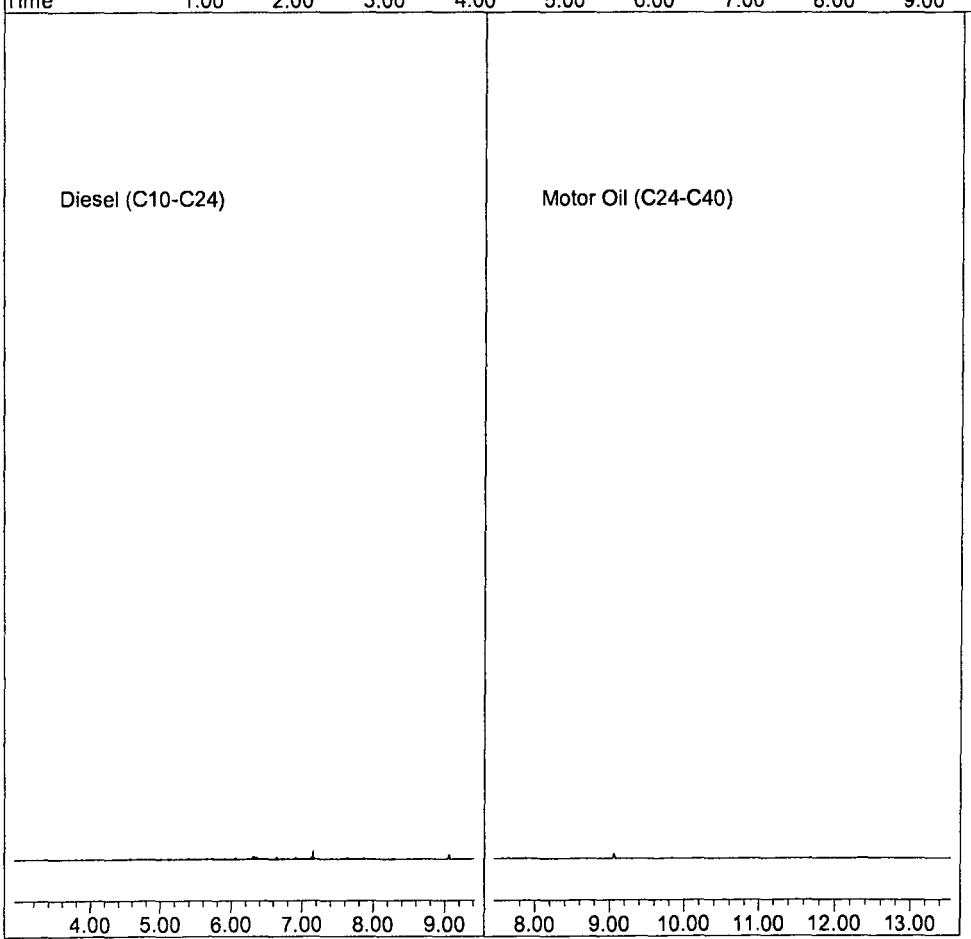
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.15	1623101	0.261 ppb
Surrogate Spike 30.000	Recovery =		0.87%
5) SA Octacosane(S)	9.06	1827829	0.562 ppb
Surrogate Spike 30.000	Recovery =		1.87%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	45165697	12.523 ppb

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

Data File: G:\APOLLO\DATA\161027\1027002.D
Sample : DIESEL 10ppb 10/27/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161027\1027003.D Vial: 3
Acq On : 10-27-16 17:50:22 Operator: lac
Sample : DIESEL 100ppb 10/27/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 3 17:51 2016 Quant Results File: DOC1027.RES

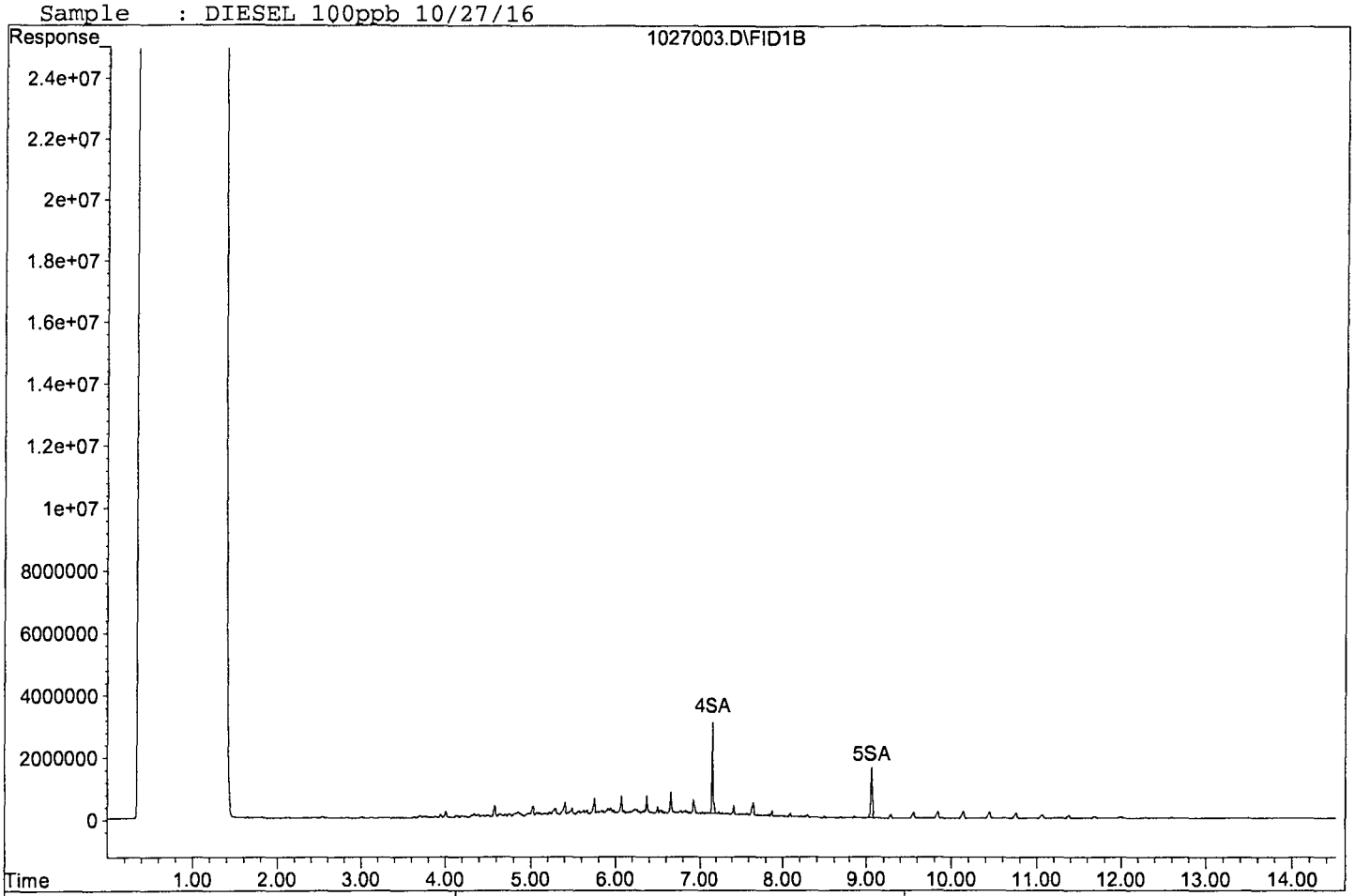
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

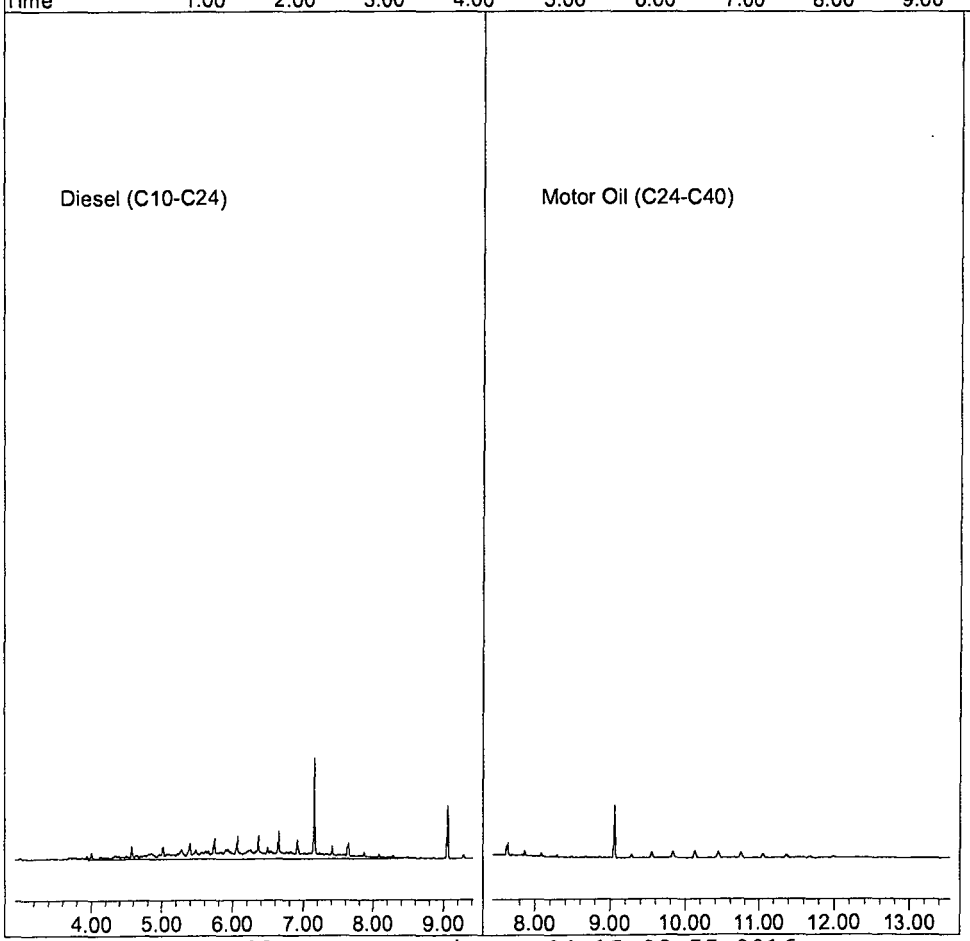
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.16	27846368	4.473 ppb
Surrogate Spike 30.000		Recovery =	14.91%
5) SA Octacosane(S)	9.06	19293192	5.937 ppb
Surrogate Spike 30.000		Recovery =	19.79%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	416664449	115.526 ppb

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

Data File: G:\APOLLO\DATA\161027\1027003.D
Sample : DIESEL 100ppb 10/27/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161027\1027004.D Vial: 4
Acq On : 10-27-16 18:11:31 Operator: lac
Sample : DIESEL 400ppb 10/27/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 3 17:51 2016 Quant Results File: DOC1027.RES

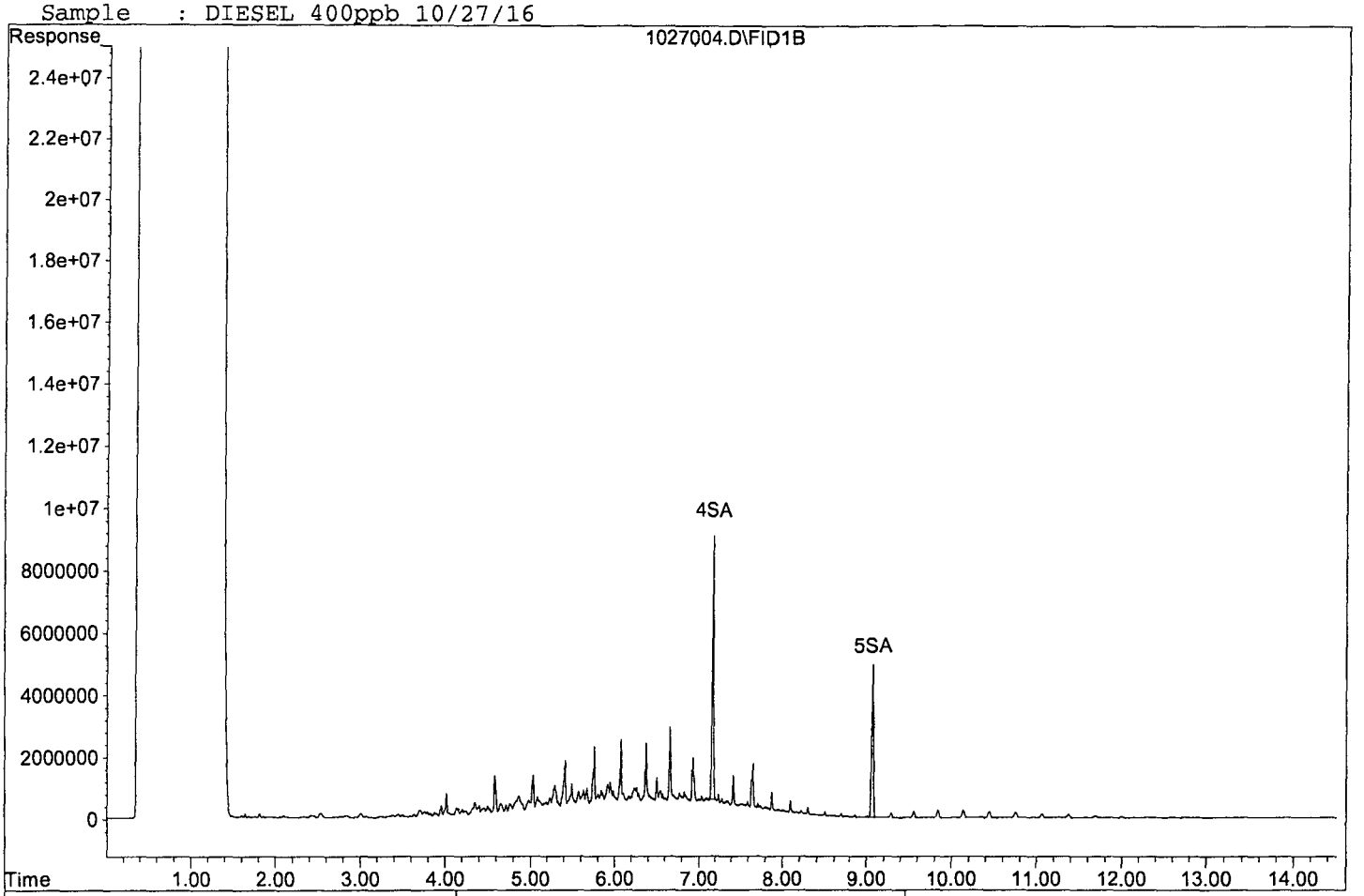
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

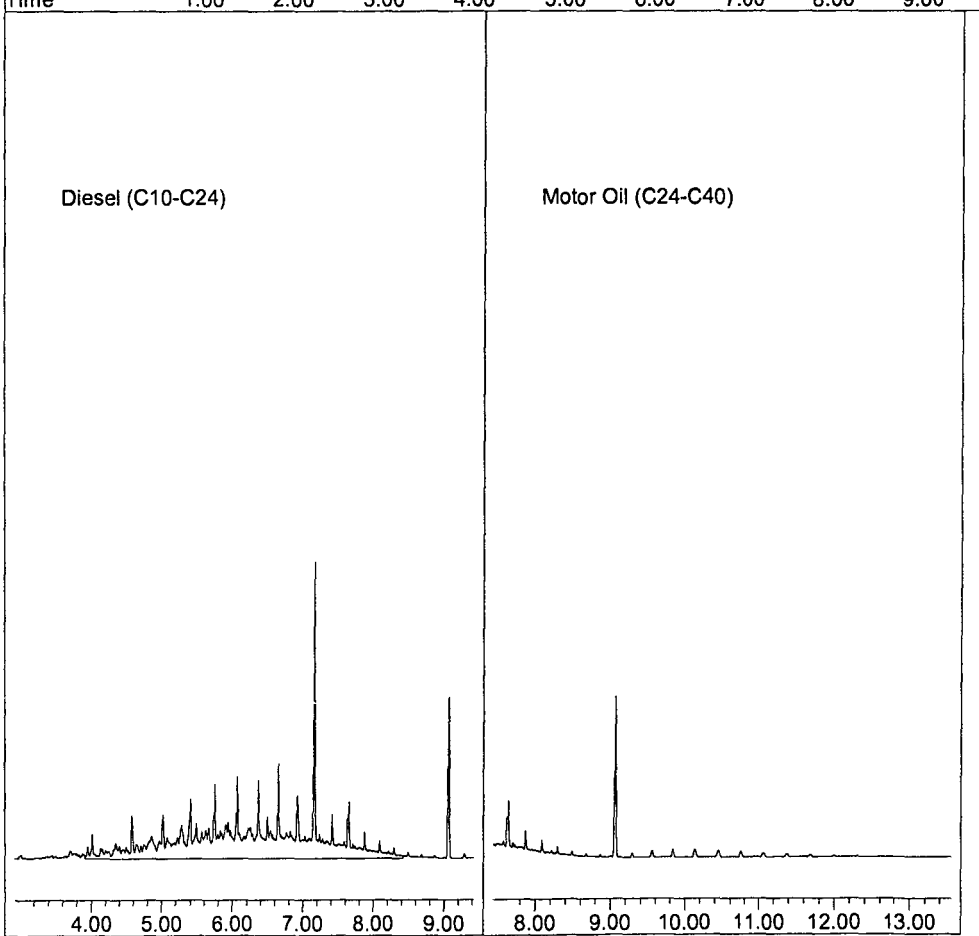
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.17	94072425	15.110 ppb
Surrogate Spike 30.000	Recovery =		50.37%
5) SA Octacosane(S)	9.07	64726641	19.918 ppb
Surrogate Spike 30.000	Recovery =		66.39%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	1433708582	397.514 ppb

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

Data File: G:\APOLLO\DATA\161027\1027004.D
Sample : DIESEL 400ppb 10/27/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161027\1027005.D Vial: 5
Acq On : 10-27-16 18:32:45 Operator: lac
Sample : DIESEL 600ppb 10/27/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 3 17:51 2016 Quant Results File: DOC1027.RES

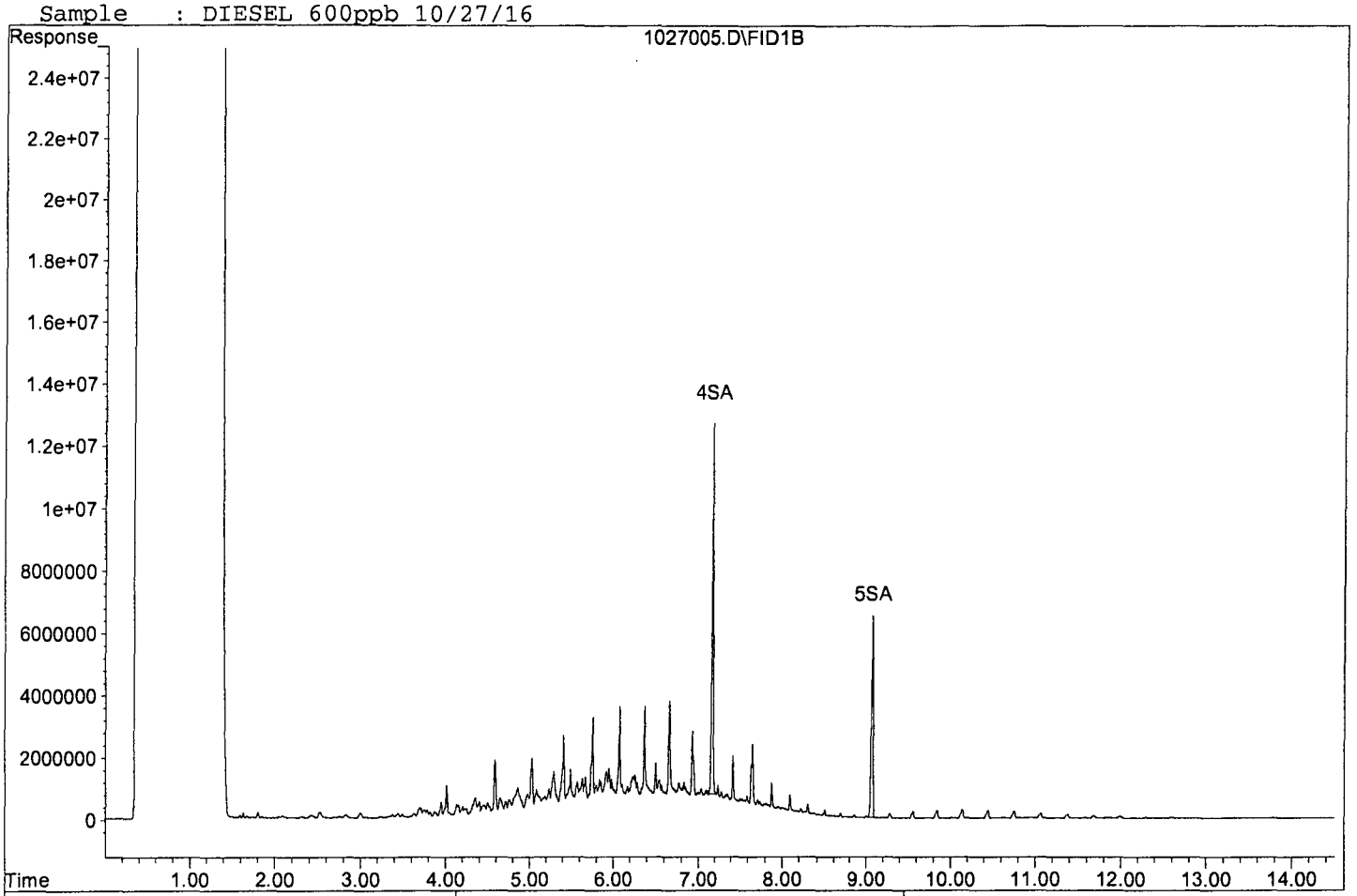
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

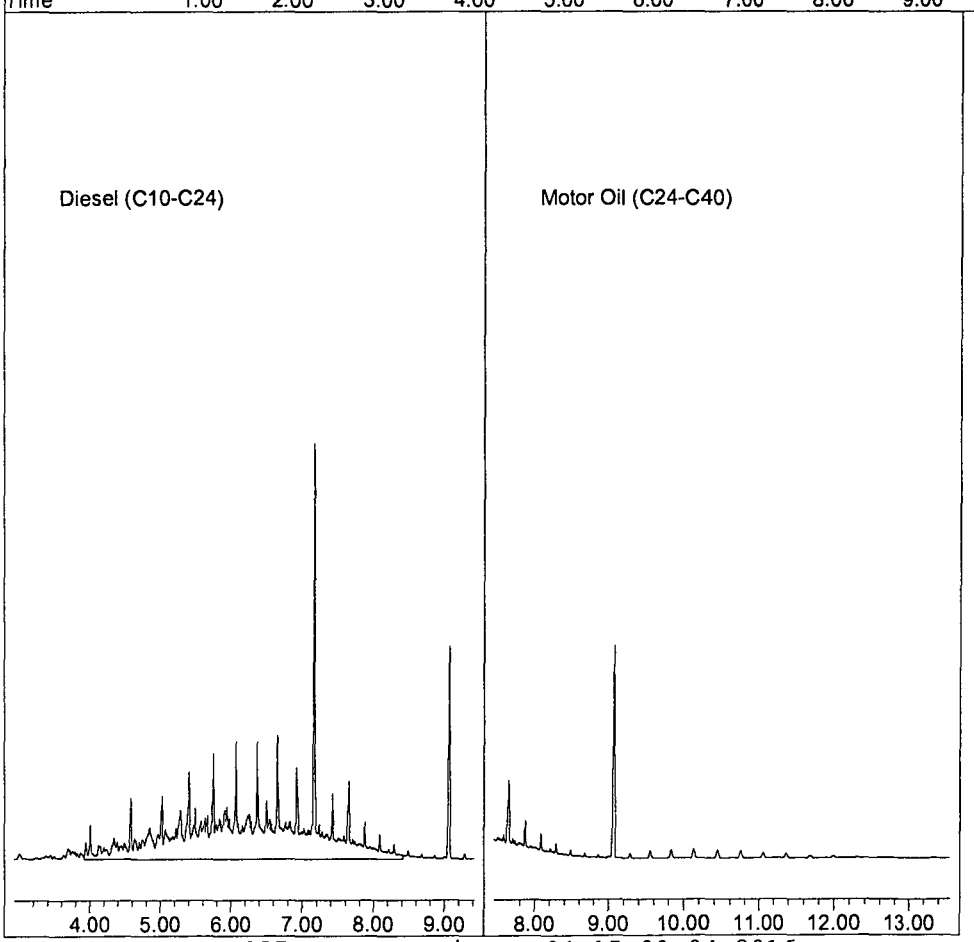
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.17	135700282	21.797 ppb
Surrogate Spike 30.000		Recovery =	72.66%
5) SA Octacosane(S)	9.07	90946488	27.987 ppb
Surrogate Spike 30.000		Recovery =	93.29%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	2025957458	561.723 ppb

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

Data File: G:\APOLLO\DATA\161027\1027005.D
Sample : DIESEL 600ppb 10/27/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161027\1027006.D Vial: 6
Acq On : 10-27-16 18:53:54 Operator: lac
Sample : DIESEL 800ppb 10/27/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 3 17:51 2016 Quant Results File: DOC1027.RES

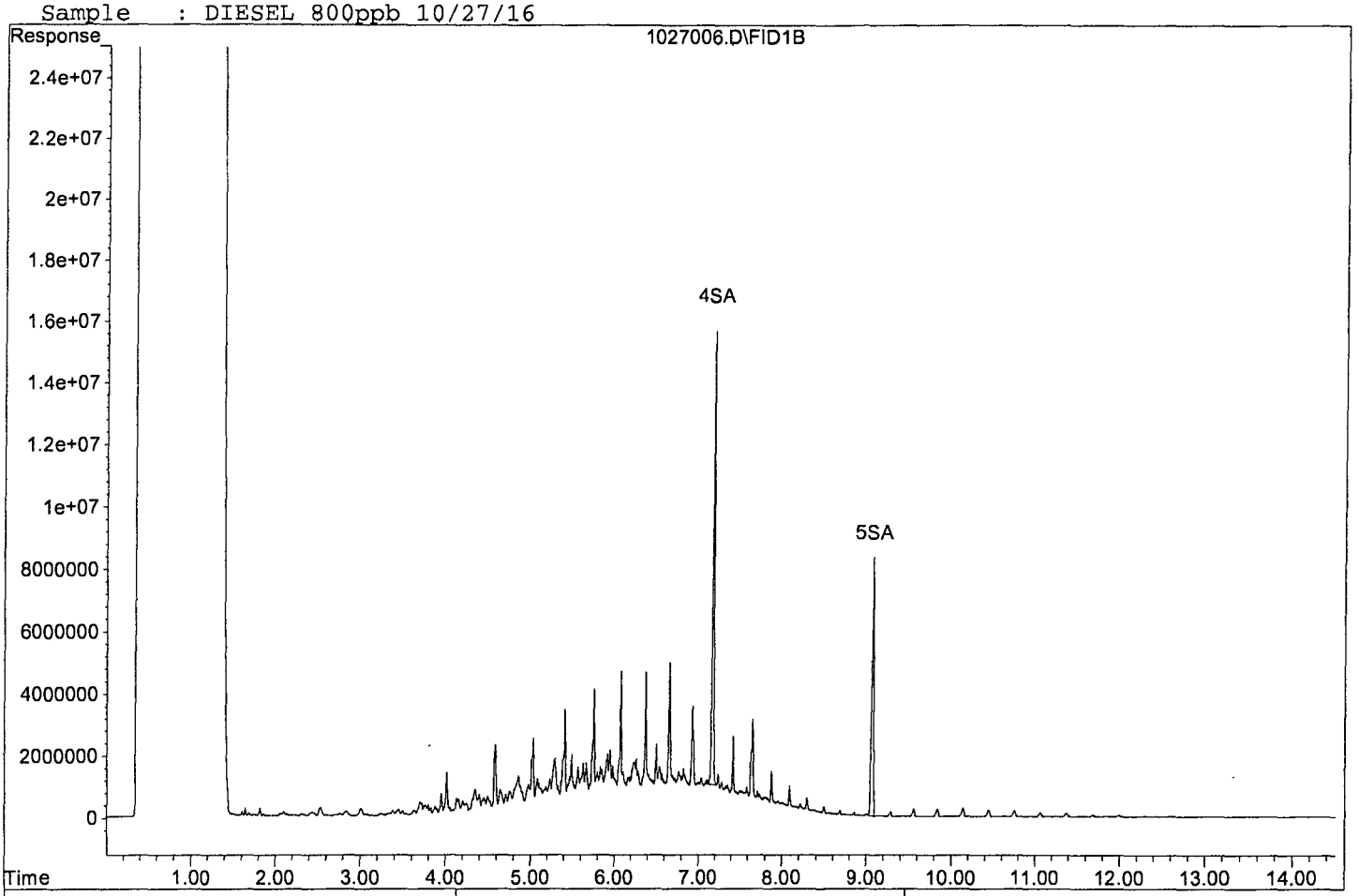
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

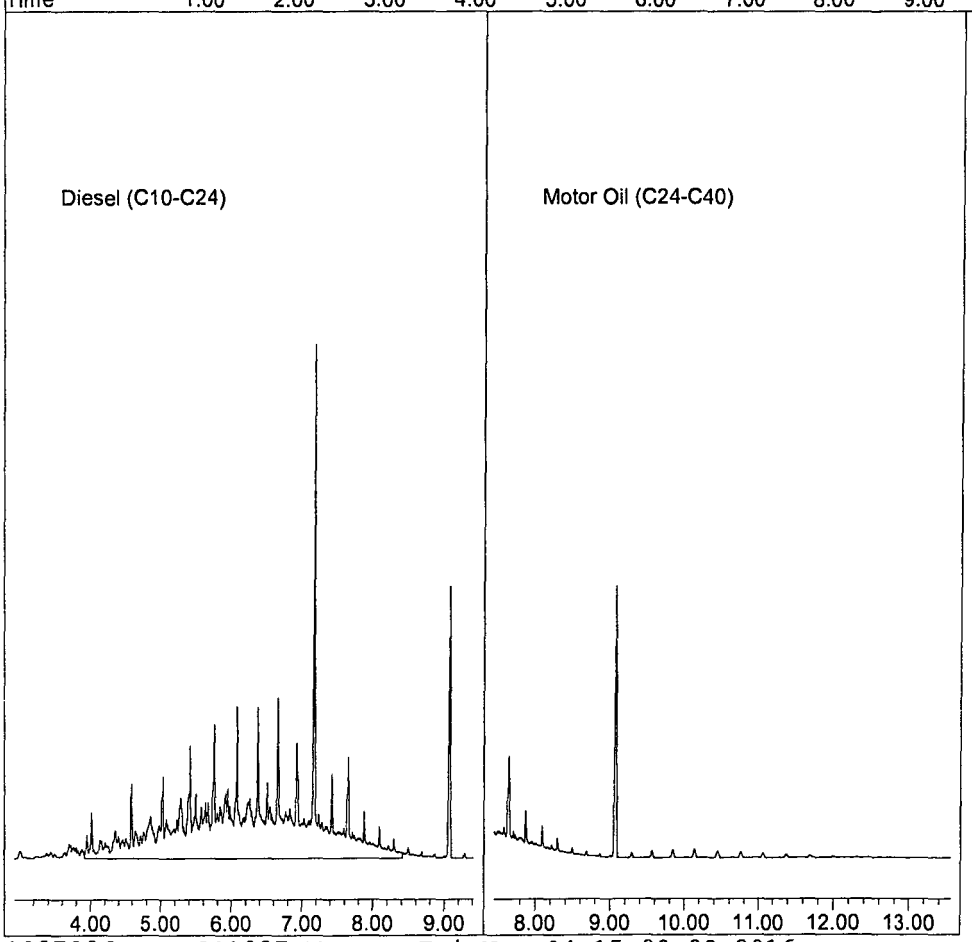
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.18	177533039	28.516 ppb
Surrogate Spike 30.000		Recovery =	95.05%
5) SA Octacosane(S)	9.08	119053790	36.637 ppb
Surrogate Spike 30.000		Recovery =	122.12%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	2643574302	732.965 ppb

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

Data File: G:\APOLLO\DATA\161027\1027006.D
Sample : DIESEL 800ppb 10/27/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161027\1027007.D Vial: 7
Acq On : 10-27-16 19:15:05 Operator: lac
Sample : DIESEL 1000ppb 10/27/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 3 17:51 2016 Quant Results File: DOC1027.RES

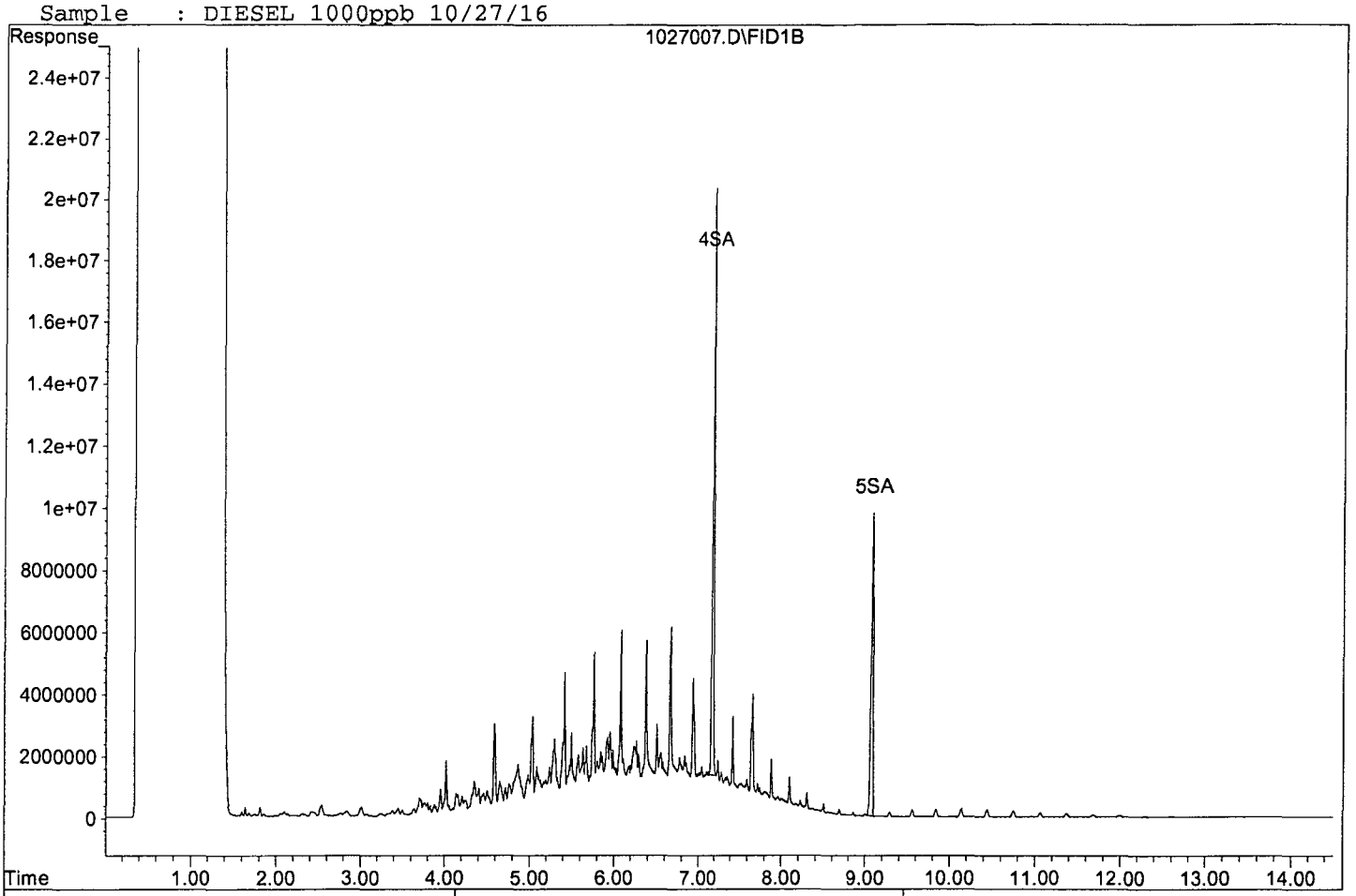
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

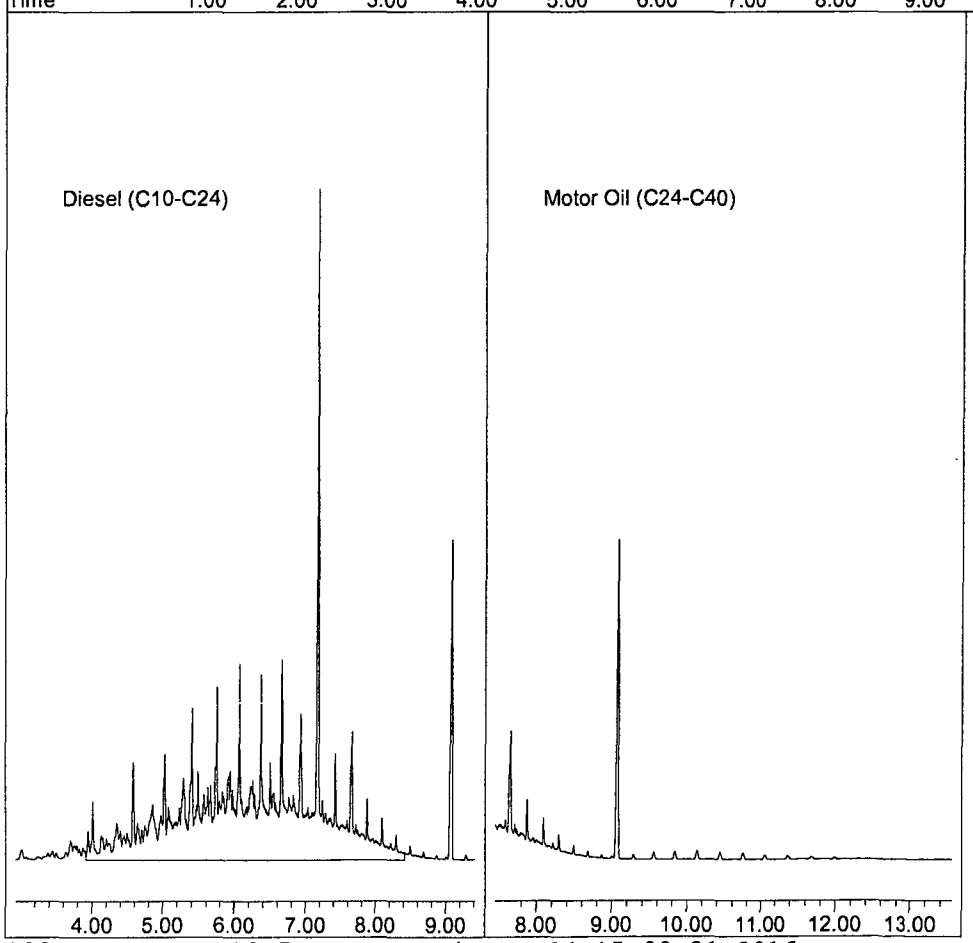
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.18	228777574	36.747 ppb
Surrogate Spike 30.000		Recovery =	122.49%
5) SA Octacosane(S)	9.08	153643306	47.281 ppb
Surrogate Spike 30.000		Recovery =	157.60%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	3420481189	948.372 ppb

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

Data File: G:\APOLLO\DATA\161027\1027007.D
Sample : DIESEL 1000ppb 10/27/16





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161028\1028002.D Vial: 2
Acq On : 10-28-16 9:07:30 Operator: DP
Sample : MO 20ppb 10/28/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:13 2016 Quant Results File: DOC1027.RES

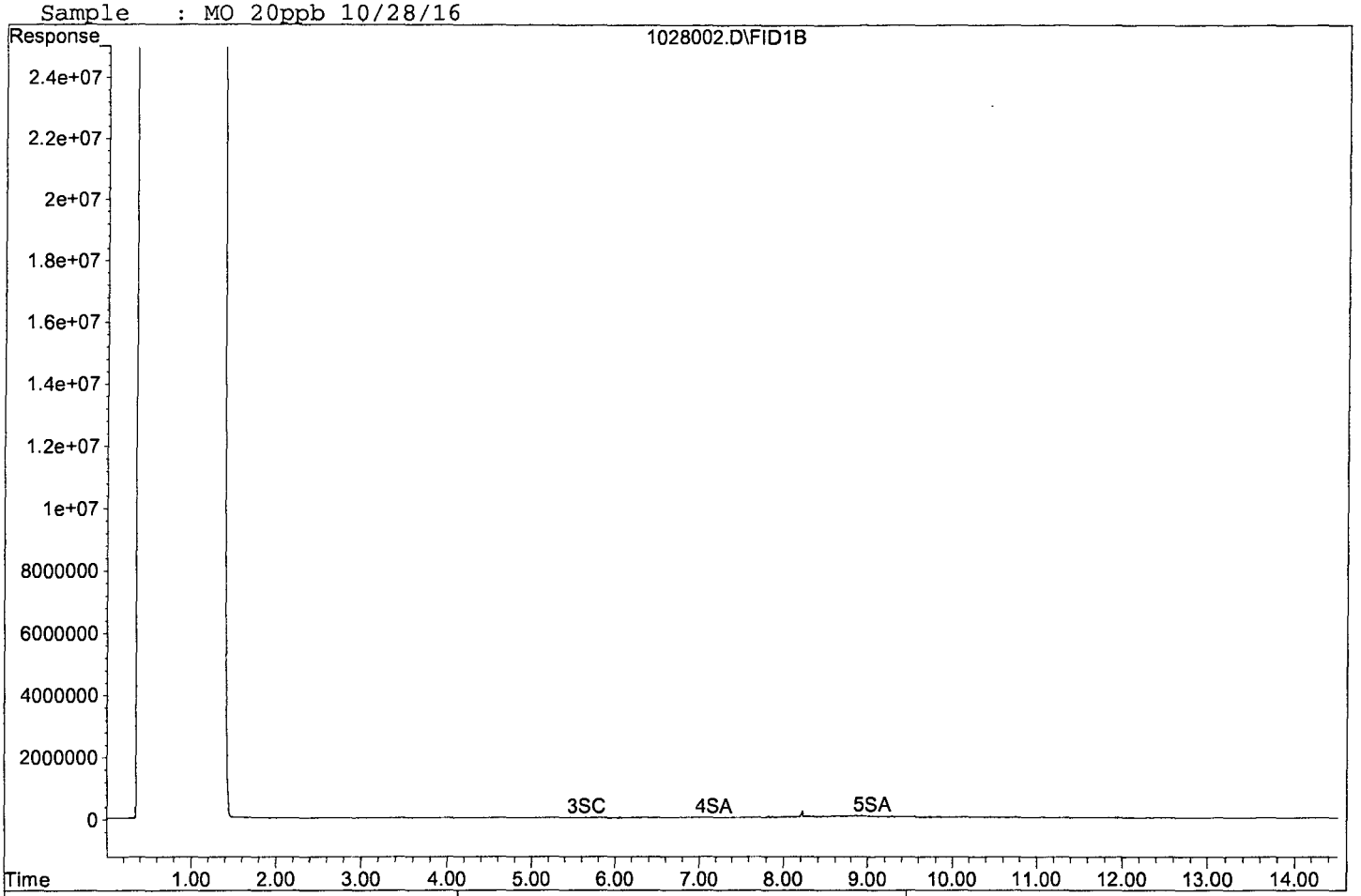
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

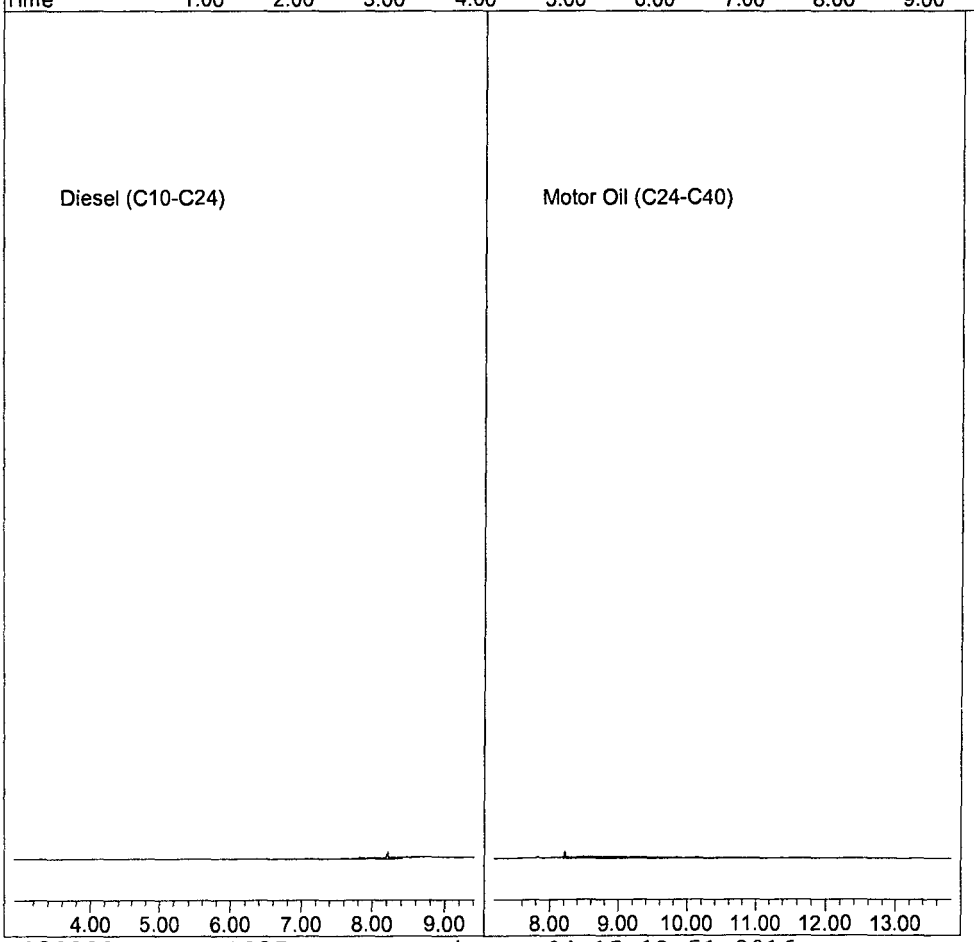
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.66	20729	0.017 ppb
Surrogate Spike 48.000	Recovery	=	0.04%
4) SA Ortho-Terphenyl(S)	7.18	66432	0.015 ppb
Surrogate Spike 30.000	Recovery	=	0.05%
5) SA Octacosane(S)	9.05	42548	0.013 ppb
Surrogate Spike 30.000	Recovery	=	0.04%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	23115994	6.200 ppb
2) HBTM Motor Oil (C24-C40)	10.50	62507592	22.766 ppb

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

Data File: G:\APOLLO\DATA\161028\1028002.D
Sample : MO 20ppb 10/28/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161028\1028003.D Vial: 3
Acq On : 10-28-16 9:28:13 Operator: DP
Sample : MO 50ppb 10/28/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:13 2016 Quant Results File: DOC1027.RES

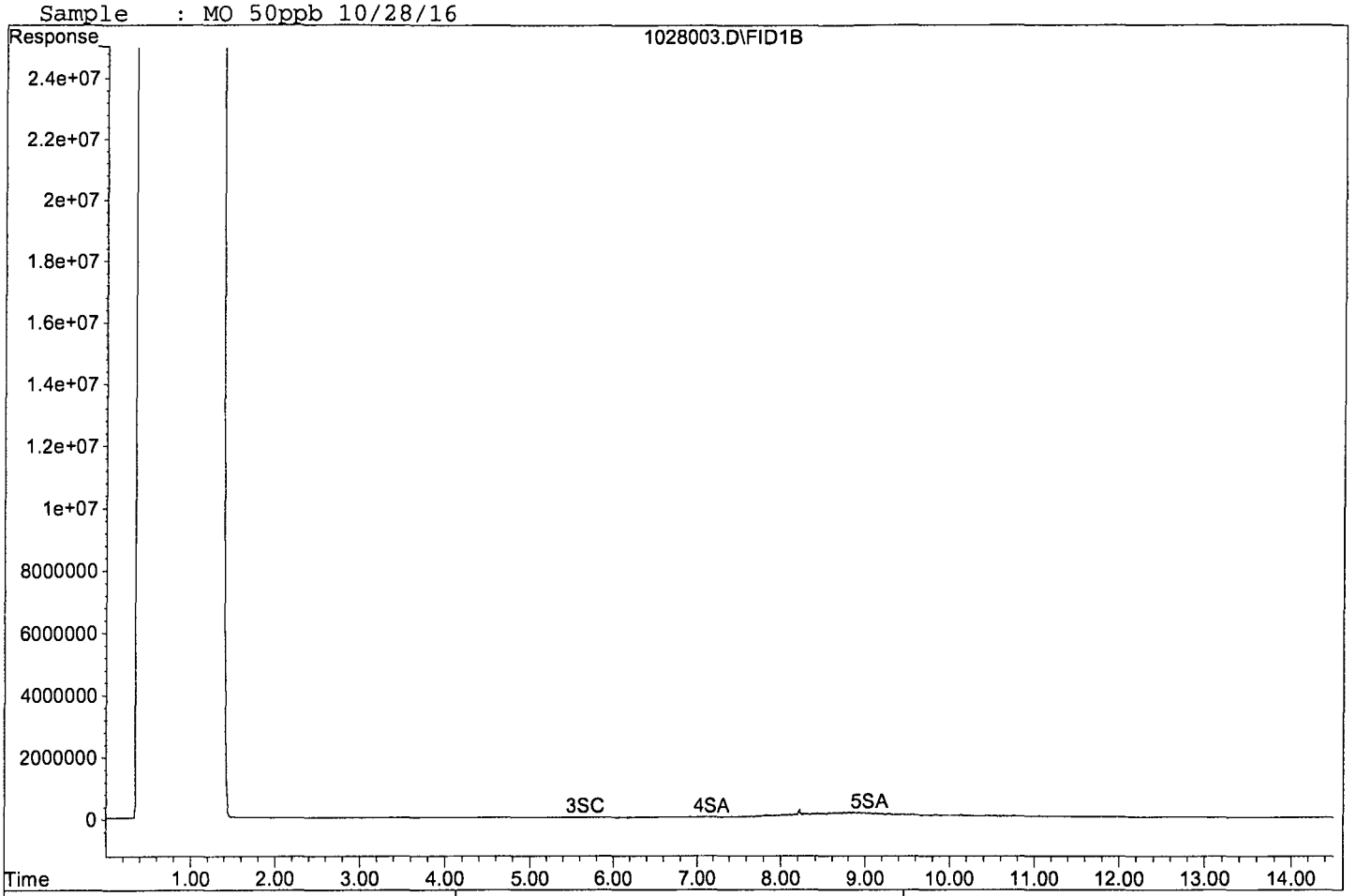
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

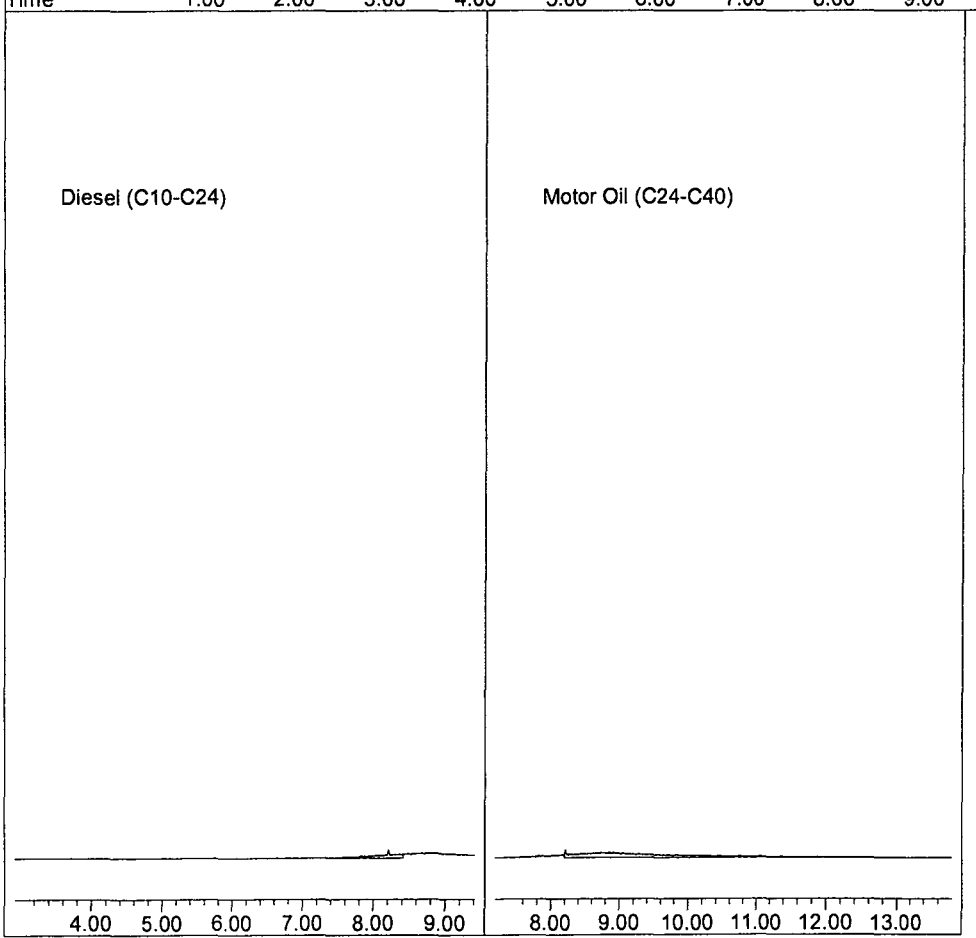
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.66	32693	0.027 ppb
Surrogate Spike 48.000	Recovery	=	0.06%
4) SA Ortho-Terphenyl(S)	7.18	61264	0.014 ppb
Surrogate Spike 30.000	Recovery	=	0.05%
5) SA Octacosane(S)	9.05	375953	0.114 ppb
Surrogate Spike 30.000	Recovery	=	0.38%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	45920311	12.317 ppb
2) HBTM Motor Oil (C24-C40)	10.50	160376925	58.410 ppb

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

Data File: G:\APOLLO\DATA\161028\1028003.D
Sample : MO 50ppb 10/28/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161028\1028004.D Vial: 4
Acq On : 10-28-16 9:49:06 Operator: DP
Sample : MO 250ppb 10/28/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:14 2016 Quant Results File: DOC1027.RES

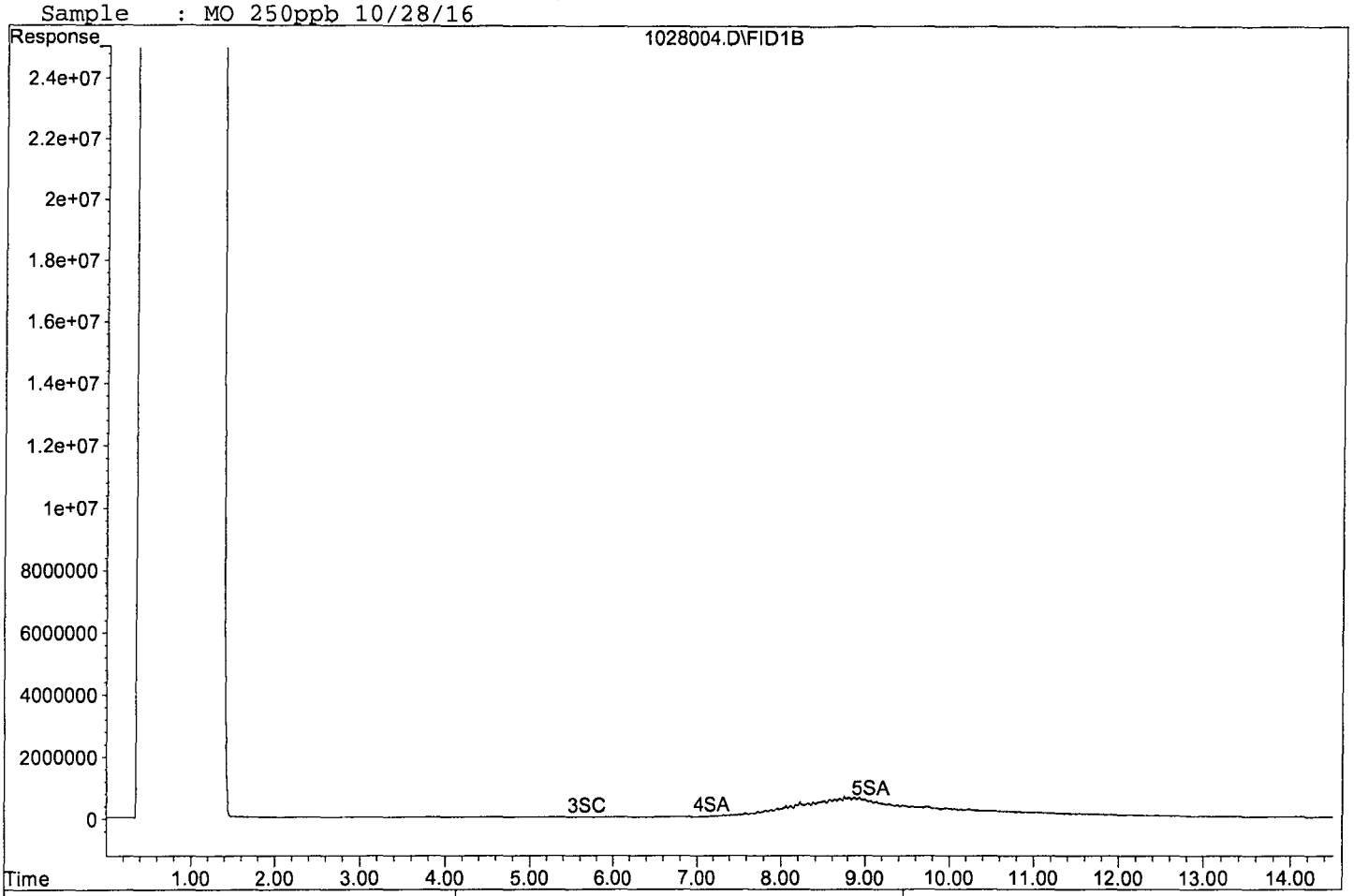
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

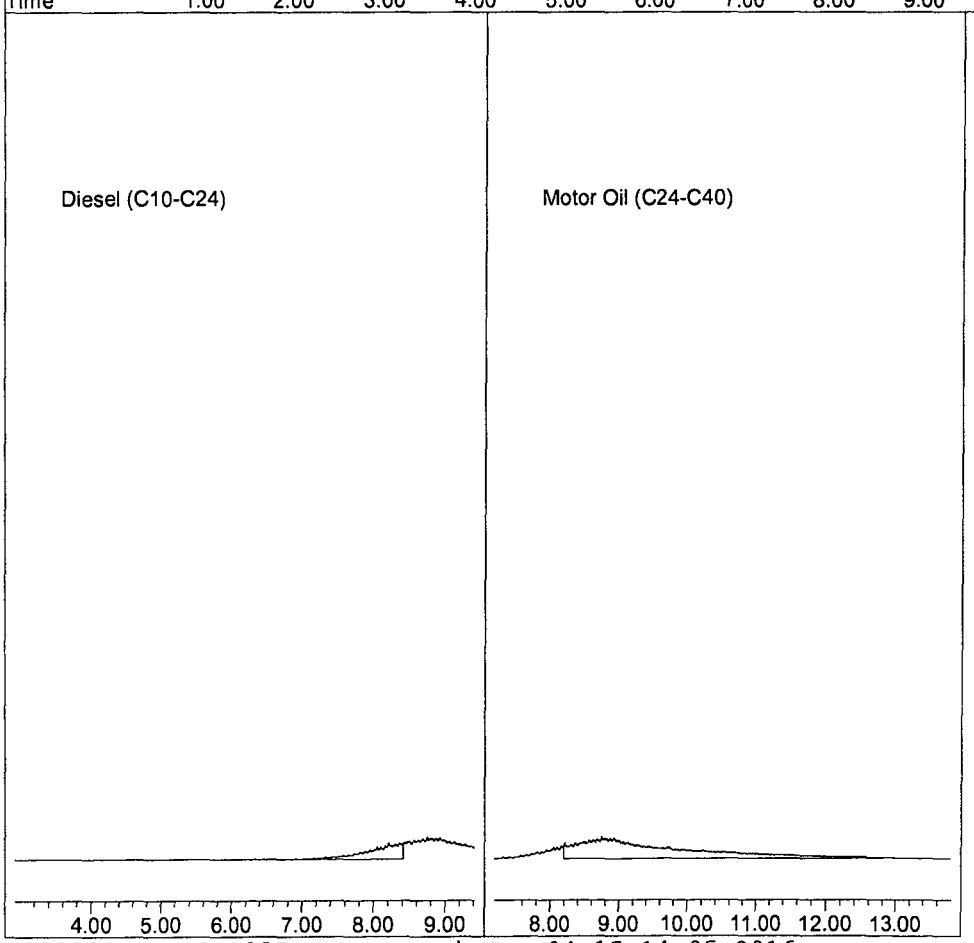
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.67	12210	0.010 ppb
Surrogate Spike 48.000	Recovery	=	0.02%
4) SA Ortho-Terphenyl(S)	7.17	294293	0.065 ppb
Surrogate Spike 30.000	Recovery	=	0.22%
5) SA Octacosane(S)	9.07	335741	0.102 ppb
Surrogate Spike 30.000	Recovery	=	0.34%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	158994256	42.647 ppb
2) HBTM Motor Oil (C24-C40)	10.50	641488837	233.633 ppb

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

Data File: G:\APOLLO\DATA\161028\1028004.D
Sample : MO 250ppb 10/28/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161028\1028005.D Vial: 5
Acq On : 10-28-16 10:09:58 Operator: DP
Sample : MO 1000ppb 10/28/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:14 2016 Quant Results File: DOC1027.RES

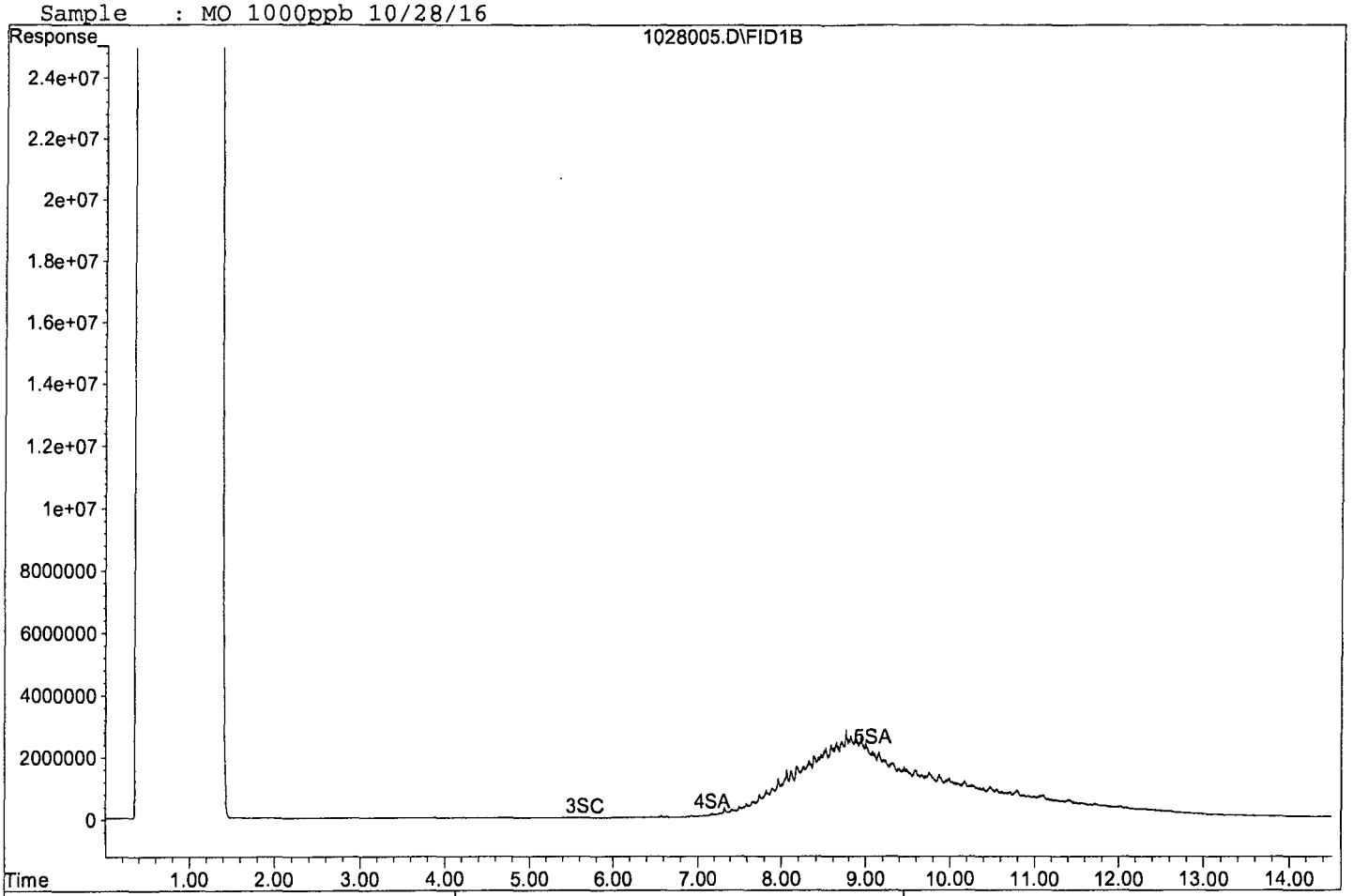
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

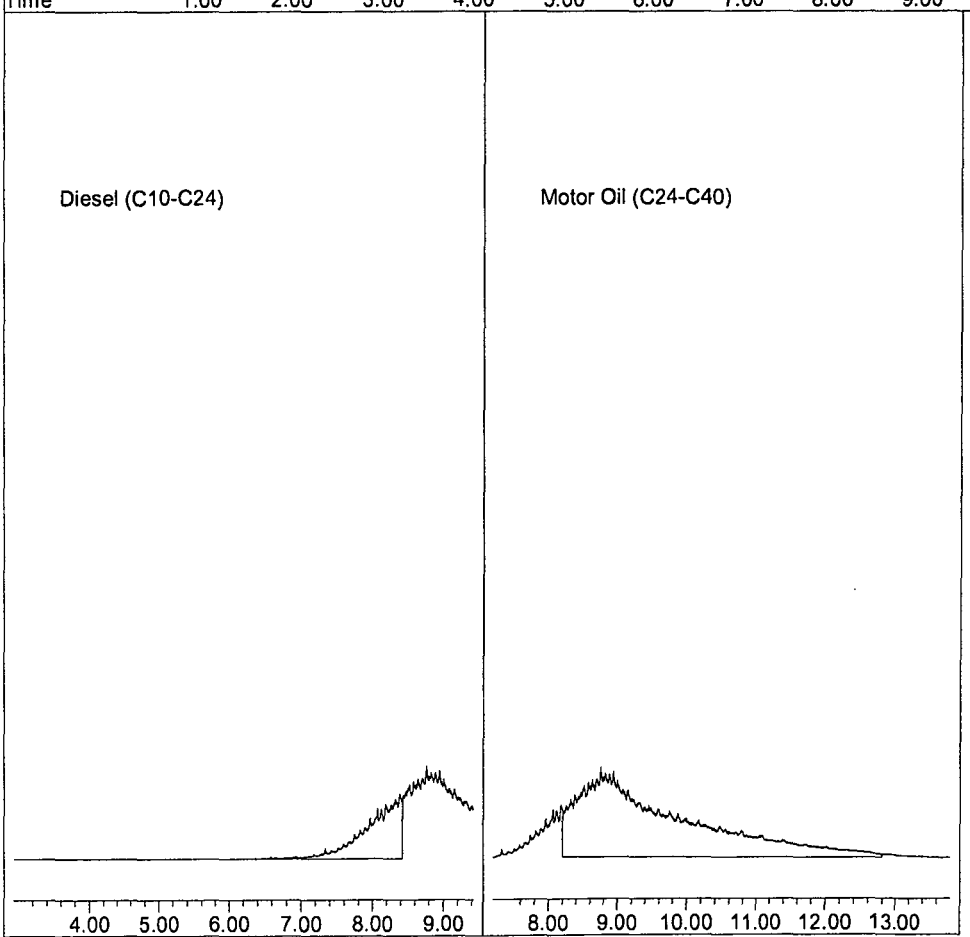
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.66	16479	0.014 ppb
Surrogate Spike 48.000	Recovery	=	0.03%
4) SA Ortho-Terphenyl(S)	7.17	575593	0.128 ppb
Surrogate Spike 30.000	Recovery	=	0.43%
5) SA Octacosane(S)	9.07	1316048	0.398 ppb
Surrogate Spike 30.000	Recovery	=	1.33%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	617788969	165.708 ppb
2) HBTM Motor Oil (C24-C40)	10.50	2680029704	976.078 ppb

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

Data File: G:\APOLLO\DATA\161028\1028005.D
Sample : MO 1000ppb 10/28/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161028\1028006.D Vial: 6
Acq On : 10-28-16 10:30:51 Operator: DP
Sample : MO 1500ppb 10/28/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:14 2016 Quant Results File: DOC1027.RES

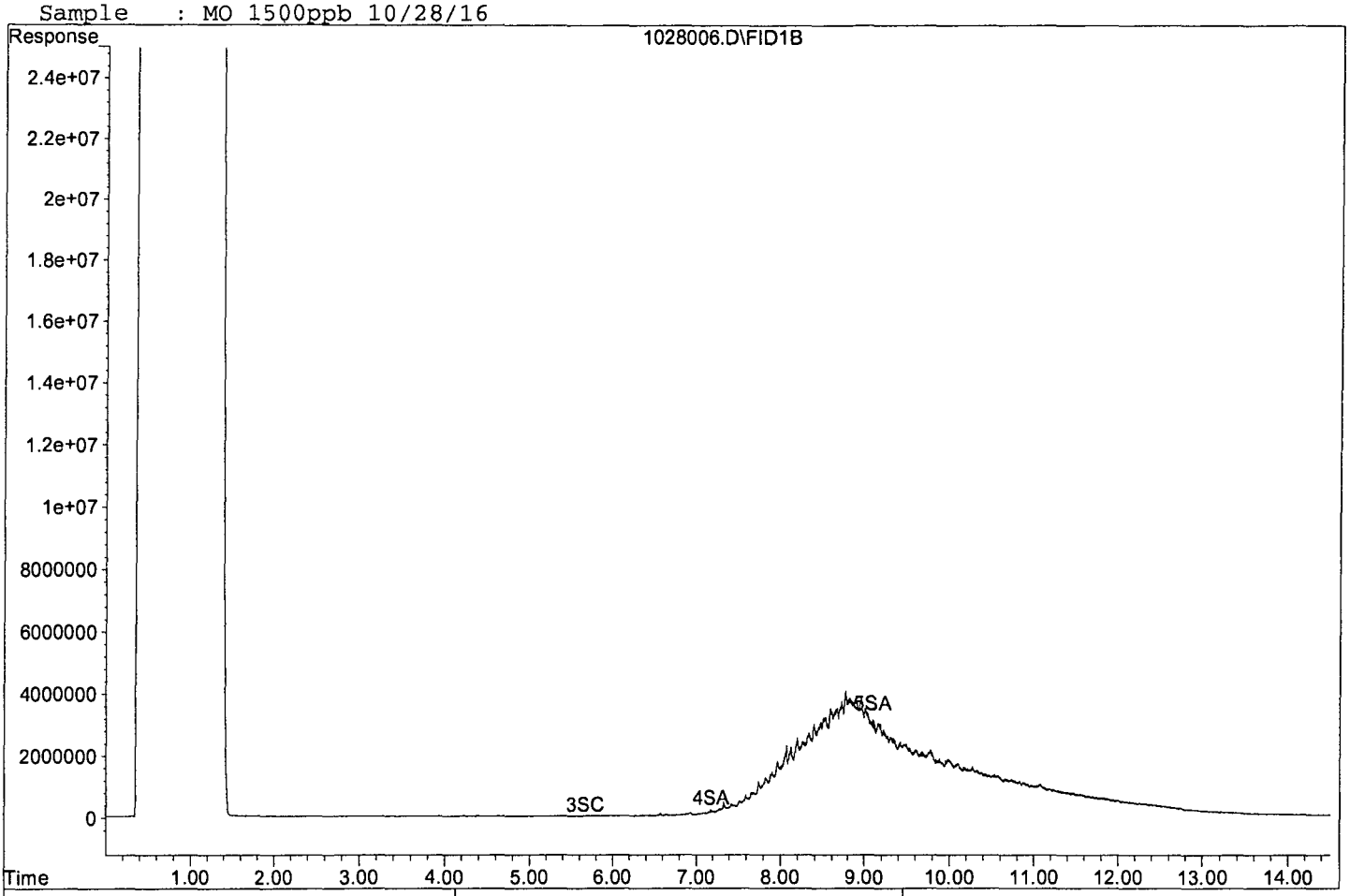
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

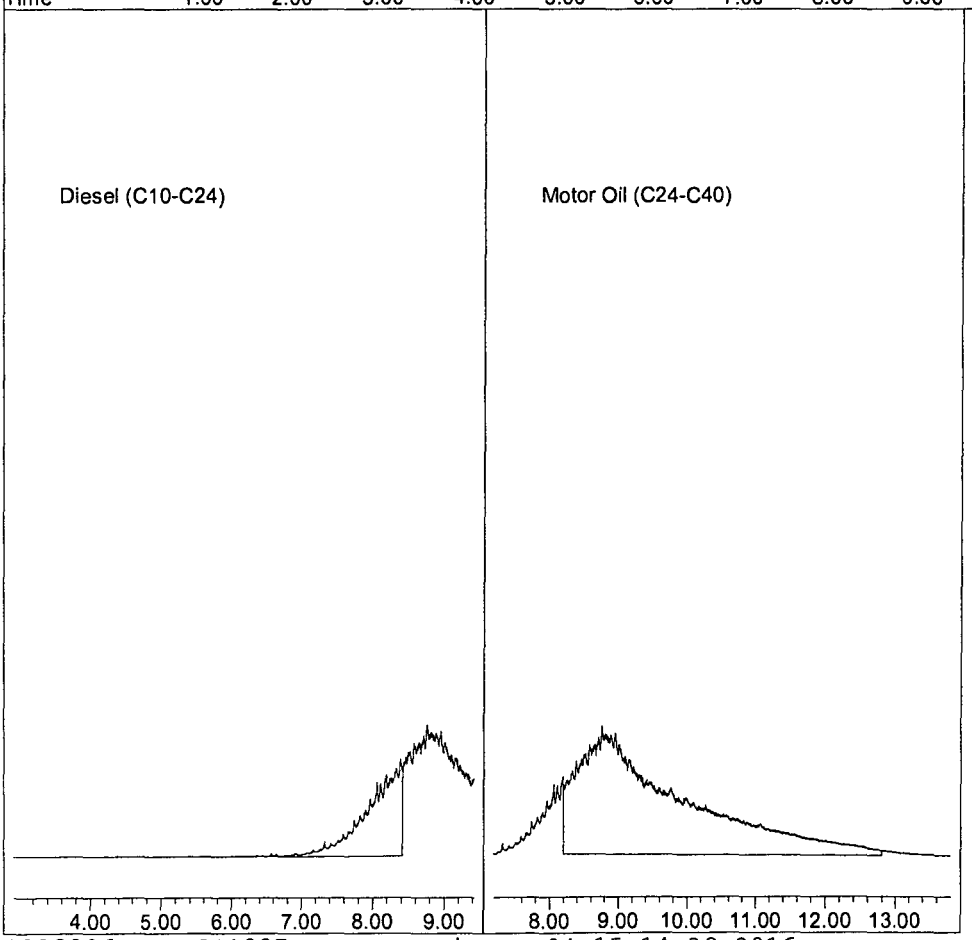
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.67	10789	0.009 ppb
Surrogate Spike 48.000	Recovery	=	0.02%
4) SA Ortho-Terphenyl(S)	7.18	610601	0.135 ppb
Surrogate Spike 30.000	Recovery	=	0.45%
5) SA Octacosane(S)	9.09	3582185	1.084 ppb
Surrogate Spike 30.000	Recovery	=	3.61%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	915205648	245.484 ppb
2) HBTM Motor Oil (C24-C40)	10.50	3965906010	1444.399 ppb

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

Data File: G:\APOLLO\DATA\161028\1028006.D
Sample : MO 1500ppb 10/28/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161028\1028007.D Vial: 7
Acq On : 10-28-16 10:51:50 Operator: DP
Sample : MO 2000ppb 10/28/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:14 2016 Quant Results File: DOC1027.RES

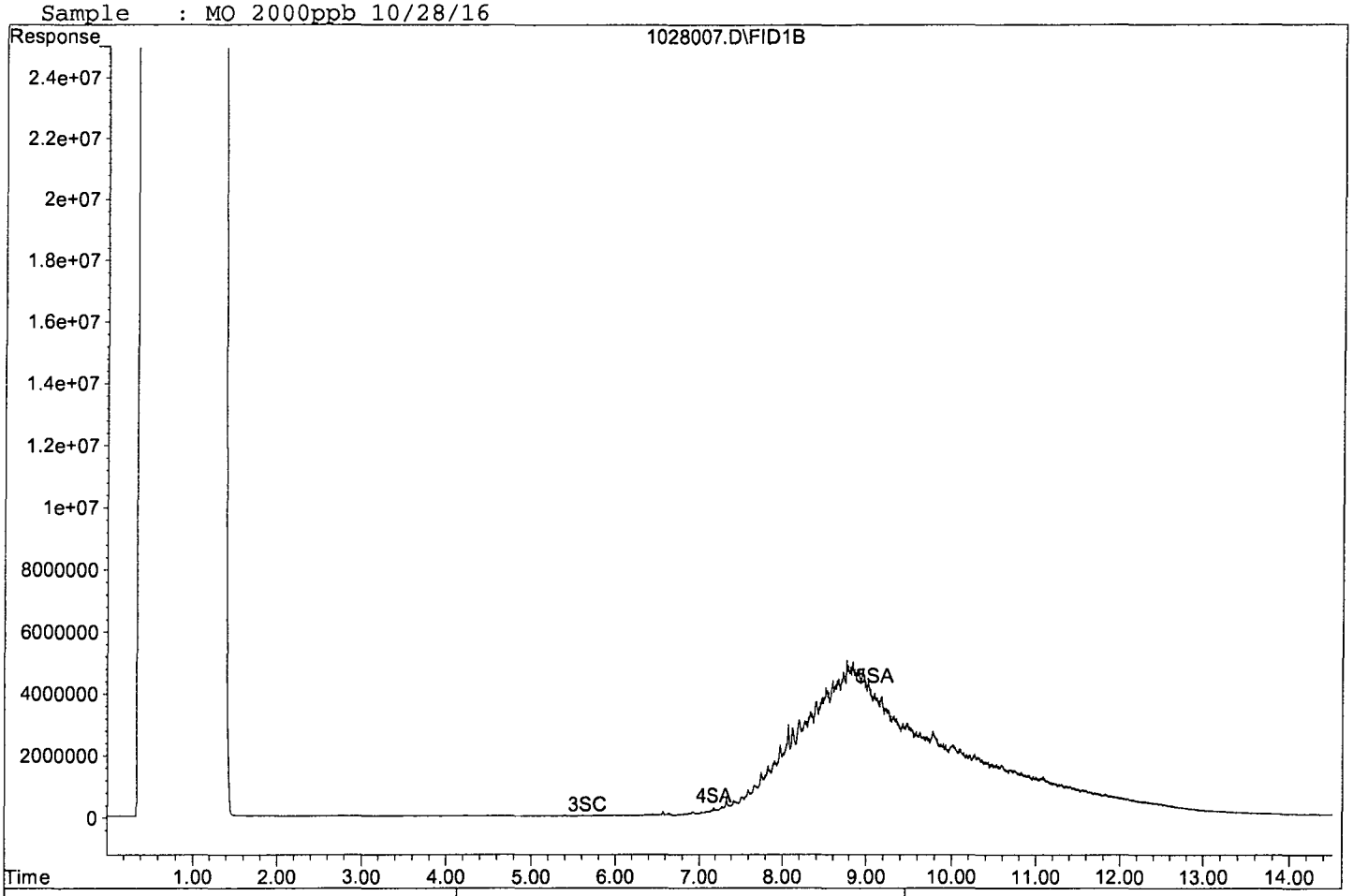
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

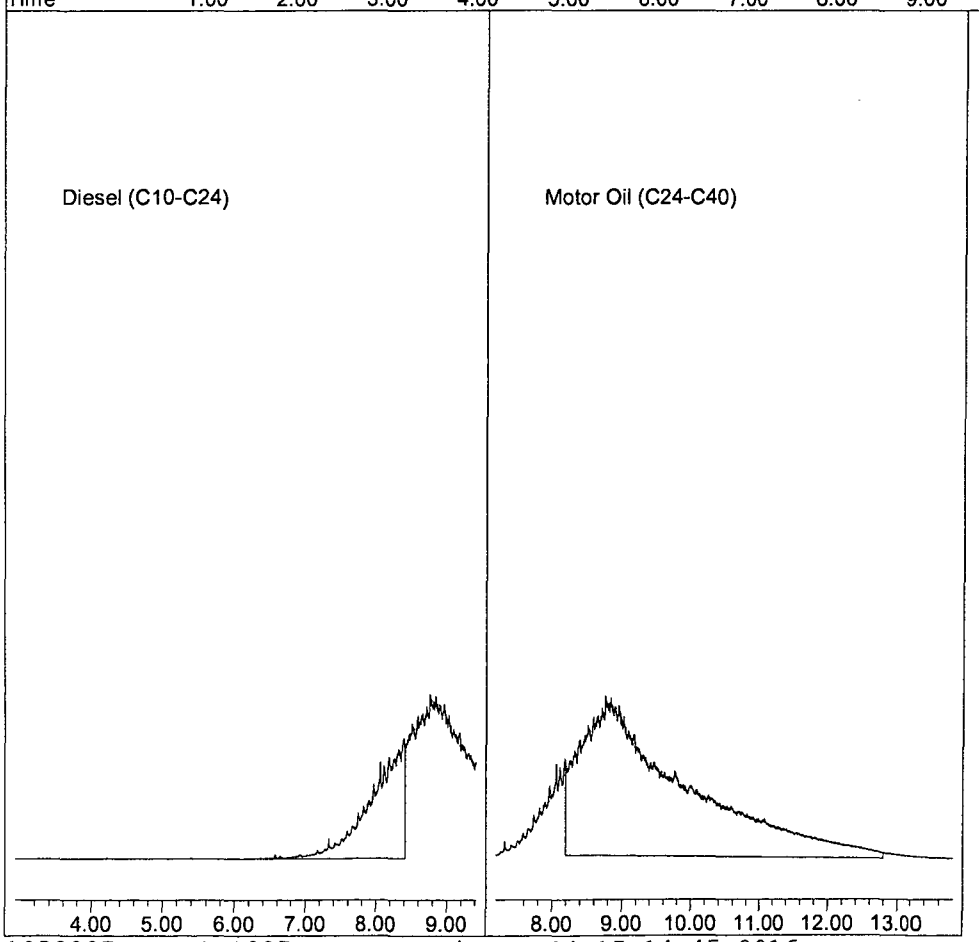
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.66	30141	0.025 ppb
Surrogate Spike 48.000	Recovery	=	0.05%
4) SA Ortho-Terphenyl(S)	7.18	876705	0.194 ppb
Surrogate Spike 30.000	Recovery	=	0.65%
5) SA Octacosane(S)	9.09	566554	0.171 ppb
Surrogate Spike 30.000	Recovery	=	0.57%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	1154666926	309.714 ppb
2) HBTM Motor Oil (C24-C40)	10.50	4983276169	1814.930 ppb

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

Data File: G:\APOLLO\DATA\161028\1028007.D
Sample : MO 2000ppb 10/28/16





TPH Extractables
DOC1027

Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 10/28/16
Instrument: Apollo
Initial Cal. Date: 10/28/16
Data File: 1027009.D 1028008.D
Diesel Motor Oil

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1864090	1836360	1.5	HATM	
2	HBTM	Motor Oil (C24-C40)	1372860	1255810	8.5	HBTM	
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		Average			5.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161027\1027009.D Vial: 9
Acq On : 10-27-16 19:57:54 Operator: lac
Sample : DIESEL-SS 400ppb 8/1/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:11 2016 Quant Results File: DOC1027.RES

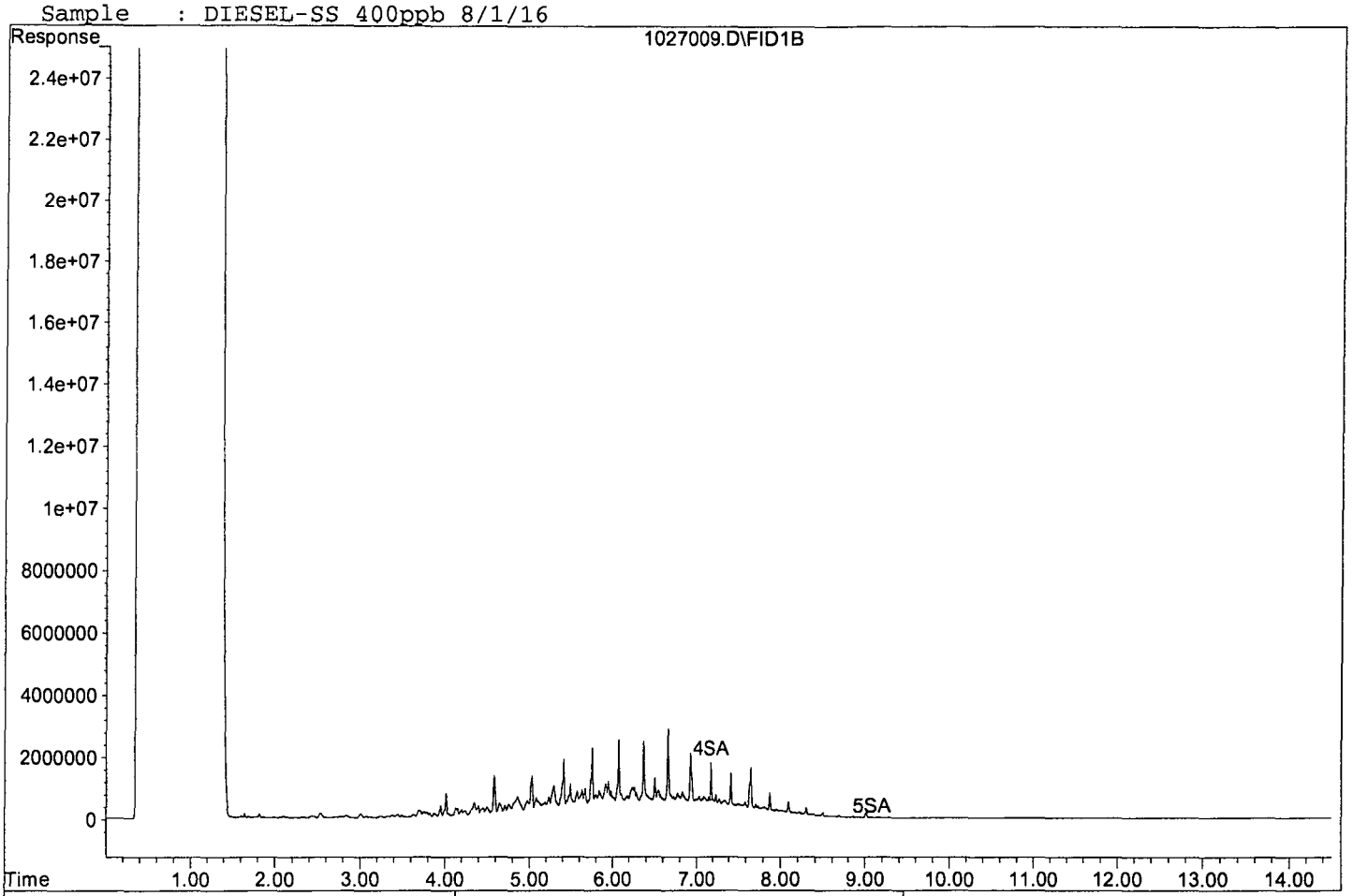
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

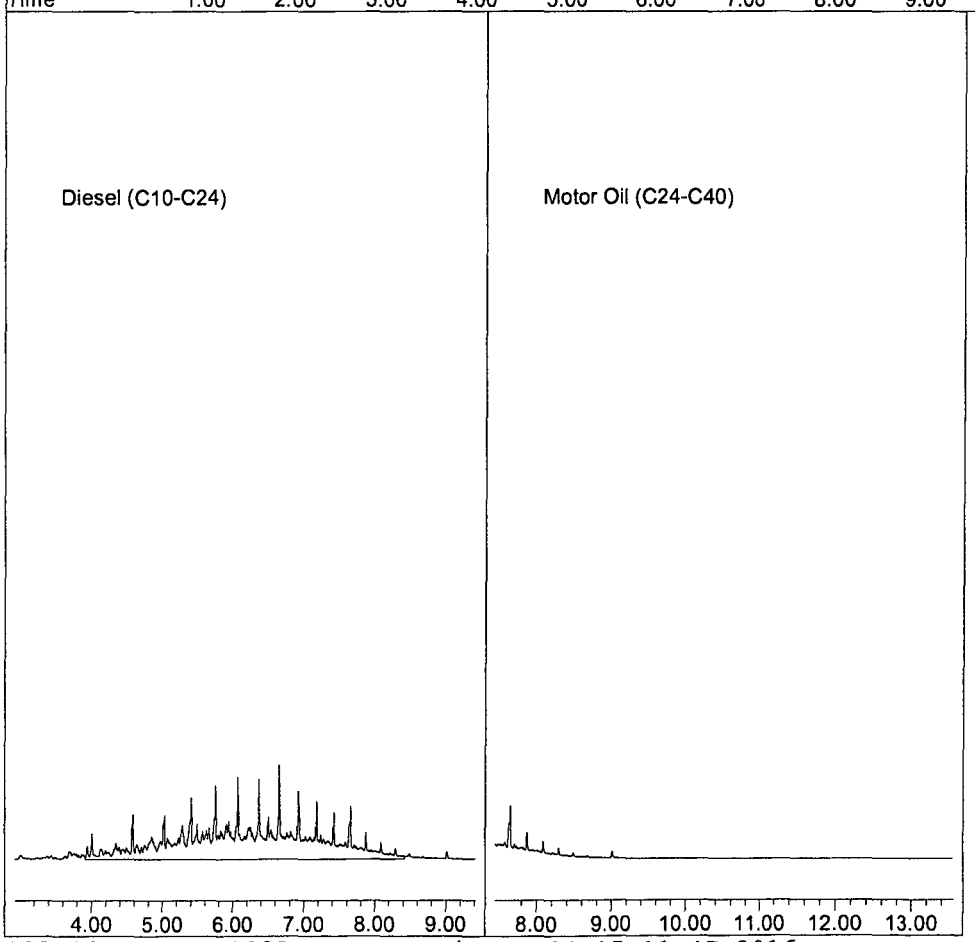
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.18	10777609	2.390 ppb
Surrogate Spike 30.000	Recovery =		7.97%
5) SA Octacosane(S)	9.08	176637	0.053 ppb
Surrogate Spike 30.000	Recovery =		0.18%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	1469088775	394.051 ppb

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

Data File: G:\APOLLO\DATA\161027\1027009.D
Sample : DIESEL-SS 400ppb 8/1/16





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161028\1028008.D Vial: 8
Acq On : 10-28-16 11:12:44 Operator: DP
Sample : MO SS 1000ppb 7/6/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 15:12 2016 Quant Results File: DOC1027.RES

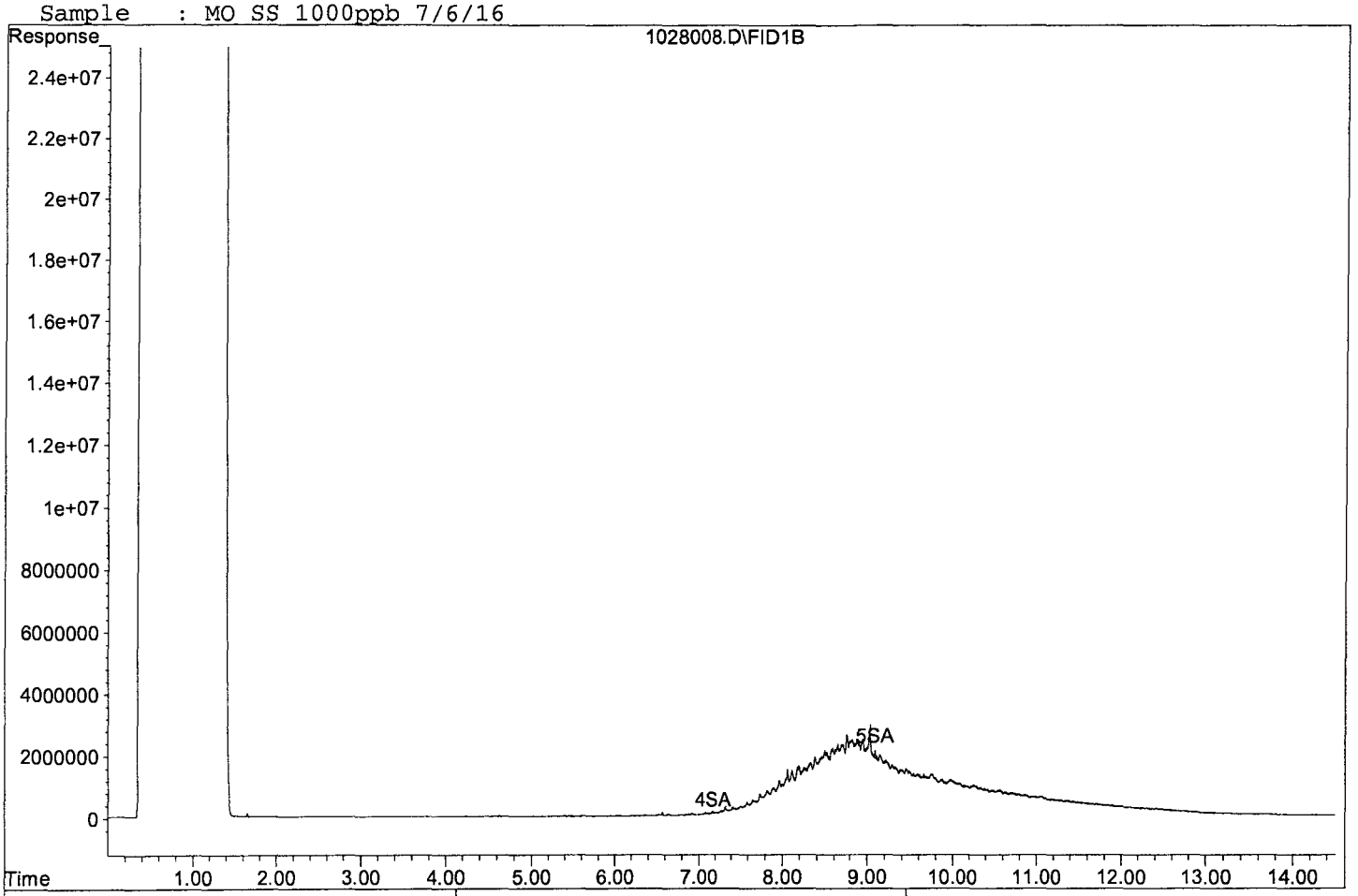
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Thu Nov 03 17:51:02 2016
Response via : Multiple Level Calibration

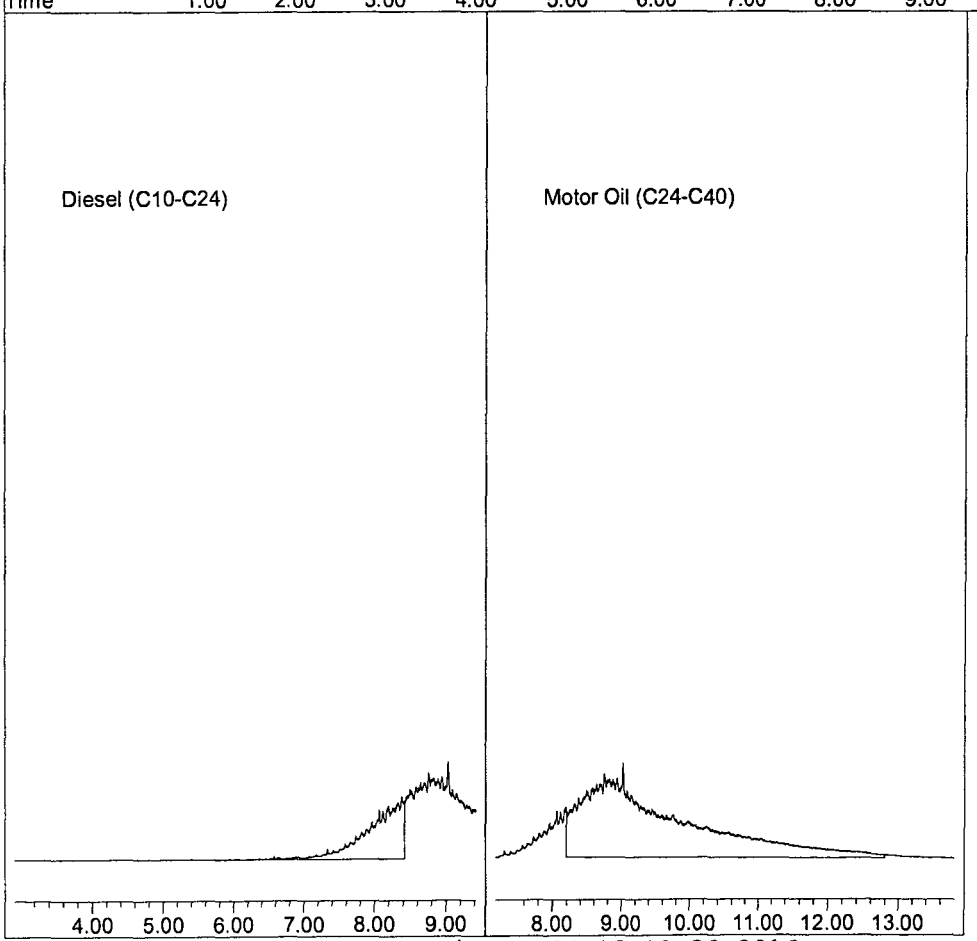
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.17	747984	0.166 ppb
Surrogate Spike 30.000	Recovery	=	0.55%
5) SA Octacosane(S)	9.09	2492290	0.754 ppb
Surrogate Spike 30.000	Recovery	=	2.51%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	603419098	161.854 ppb
2) HBTM Motor Oil (C24-C40)	10.50	2511616588	914.741 ppb

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

Data File: G:\APOLLO\DATA\161028\1028008.D
Sample : MO SS 1000ppb 7/6/16





TPH Extractables
DOC1027

Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 11/02/16
Instrument: Apollo
Initial Cal. Date: 10/27/16
Data File: 1102002-3.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1864090	1639370	12	HATM	
2	HBTM	Motor Oil (C24-C40)	1372860	1318430	4.0	HBTM	
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		Average			8.0		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161102\1102002.D Vial: 2
Acq On : 11-2-16 9:21:57 Operator: DP
Sample : CCV: DIESEL 400ppb 10/26/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 16:52 2016 Quant Results File: DOC1027.RES

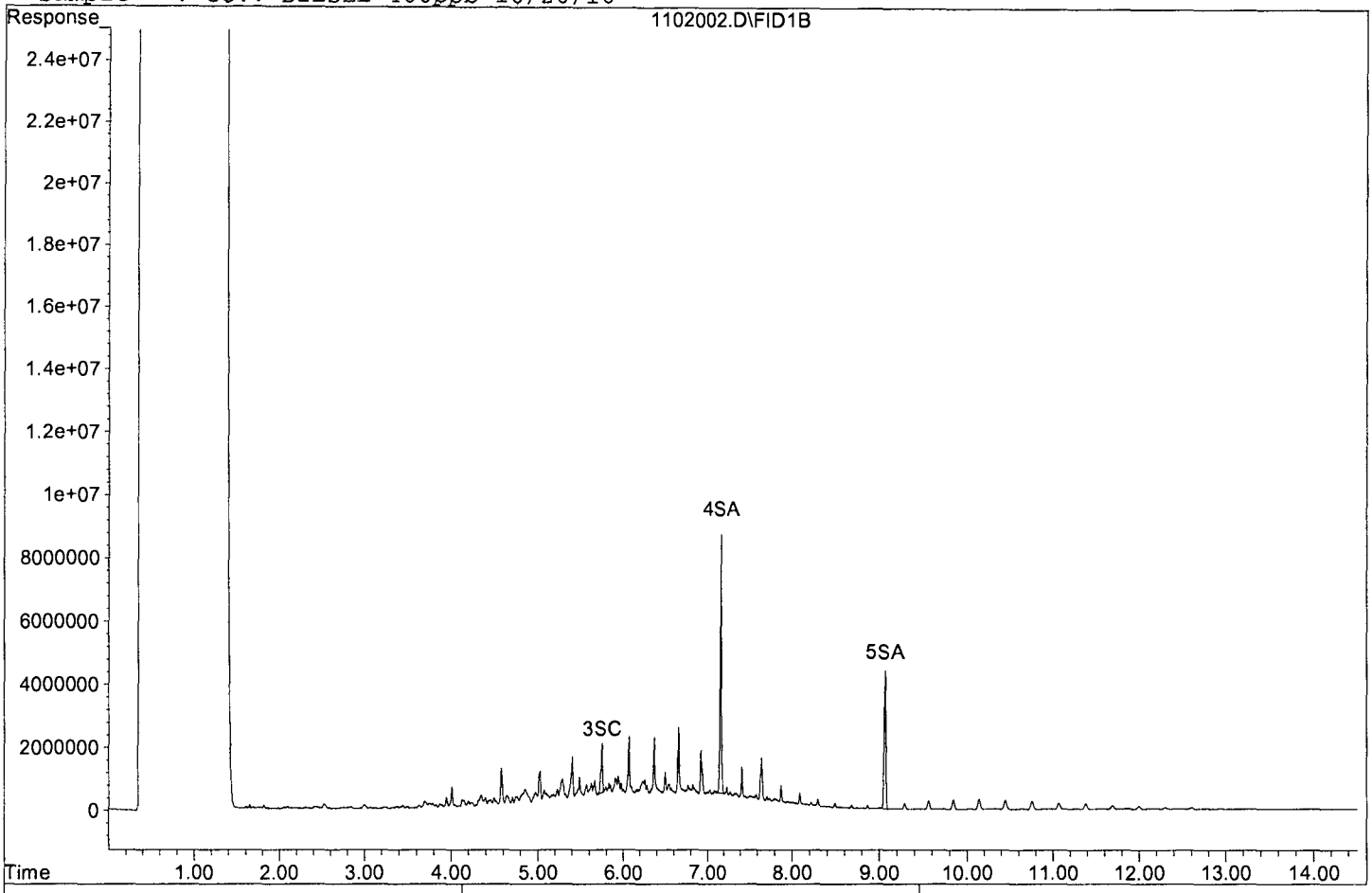
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

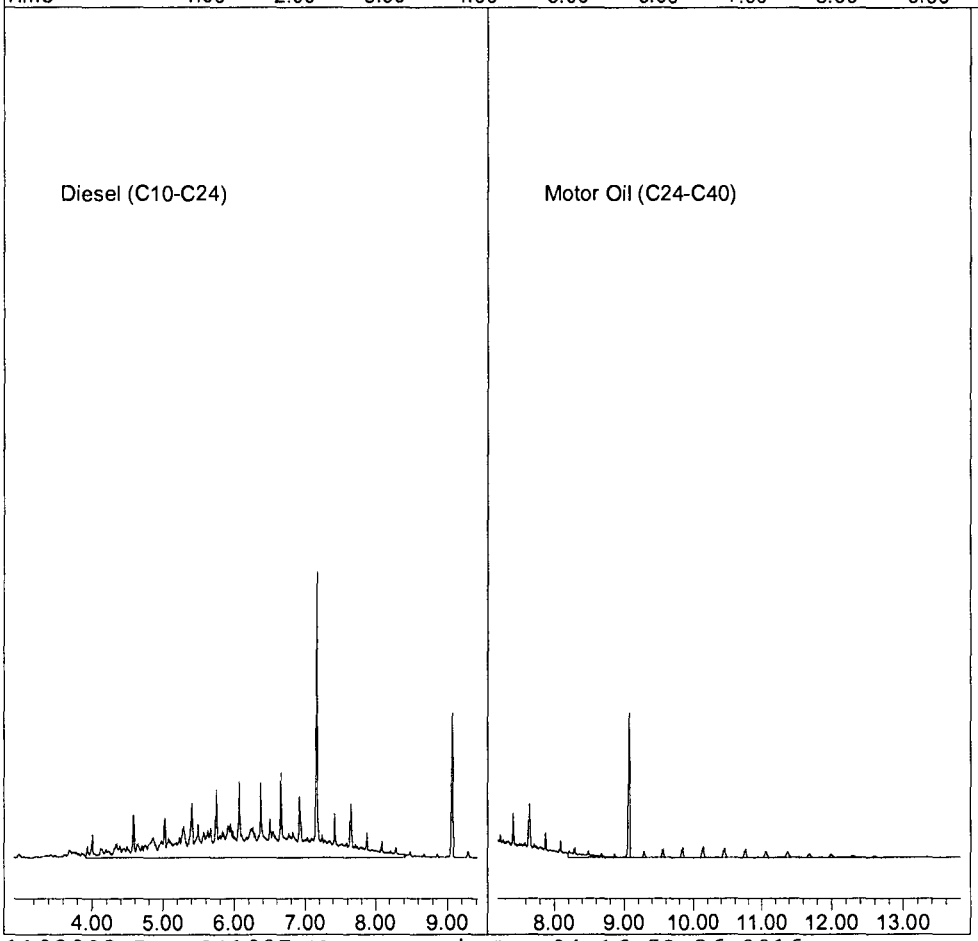
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.75	19918198	16.431 ppb
Surrogate Spike 48.000	Recovery =		34.23%
4) SA Ortho-Terphenyl(S)	7.17	88608685	19.650 ppb
Surrogate Spike 30.000	Recovery =		65.50%
5) SA Octacosane(S)	9.07	60926915	18.433 ppb
Surrogate Spike 30.000	Recovery =		61.44%
Target Compounds			
1) HATM Diesel (C10-C24)	6.17	1311498027	351.780 ppb
2) HBTM Motor Oil (C24-C40)	10.50	96765626	35.242 ppb

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

Data File: G:\APOLLO\DATA\161102\1102002.D
Sample : CCV: DIESEL 400ppb 10/26/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161102\1102003.D Vial: 3
Acq On : 11-2-16 9:42:21 Operator: DP
Sample : CCV: MO 1000ppb 10/26/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 16:53 2016 Quant Results File: DOC1027.RES

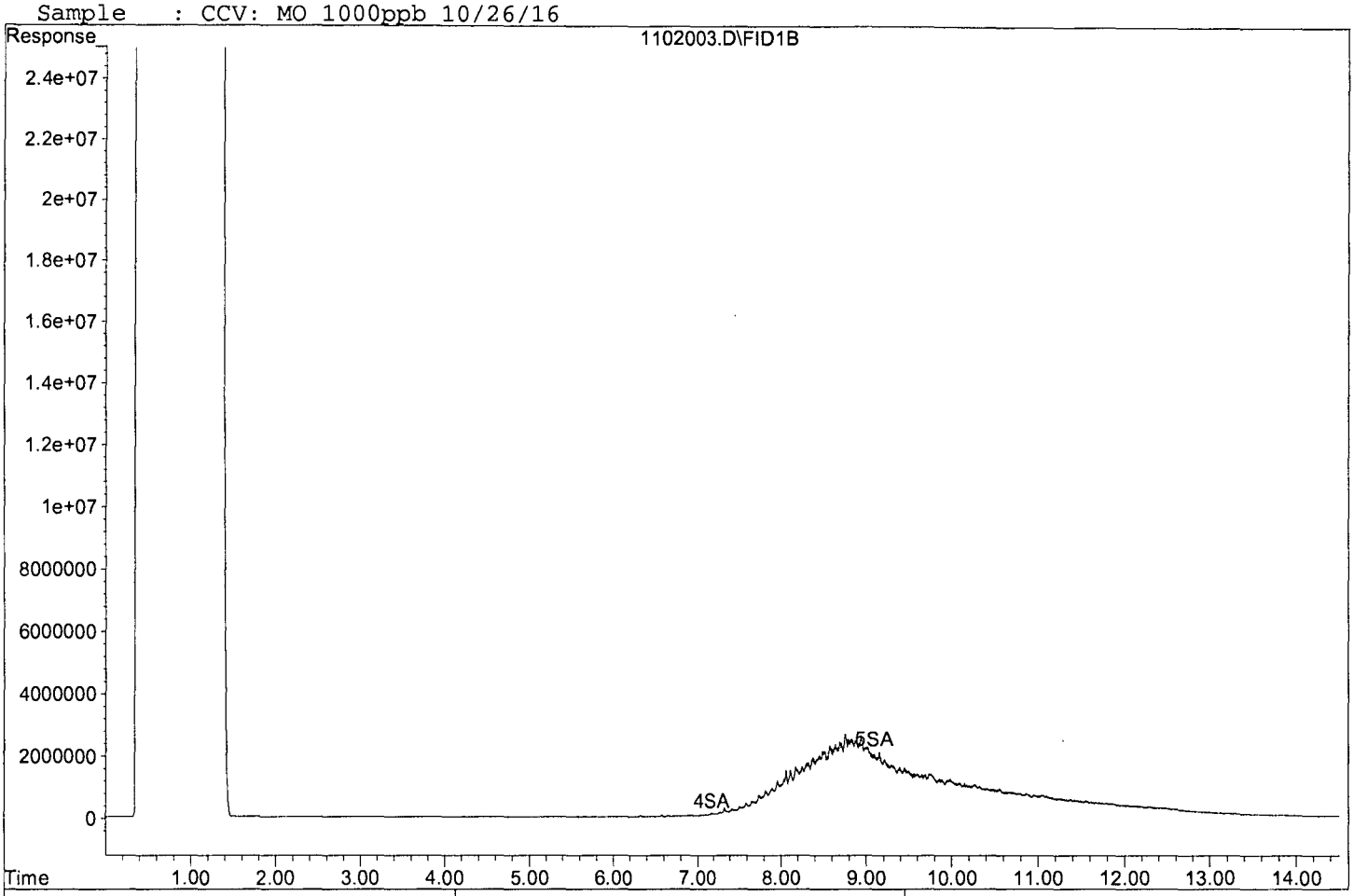
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

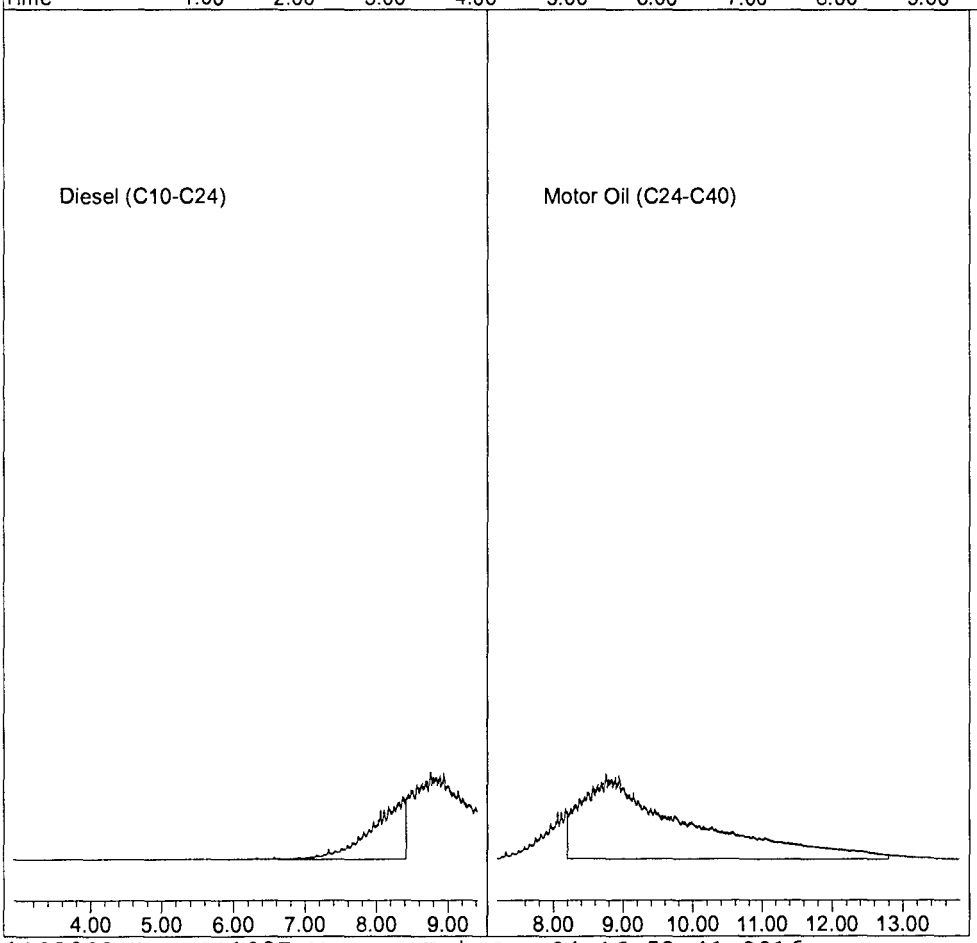
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	486707	0.108	ppb
Surrogate Spike 30.000	Recovery =		0.36%	
5) SA Octacosane(S)	9.09	933763	0.283	ppb
Surrogate Spike 30.000	Recovery =		0.94%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	605048894	162.291	ppb
2) HBTM Motor Oil (C24-C40)	10.50	2636862151	960.356	ppb

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

Data File: G:\APOLLO\DATA\161102\1102003.D
Sample : CCV: MO 1000ppb 10/26/16





TPH Extractables
DOC1027

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/02/16
Matrix: Instrument: Apollo
Initial Cal. Date: 10/27/16
Data File: 1102026-27.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C24)	1864090	1655140	11	HATM	
2	HBTM	Motor Oil (C24-C40)	1372860	1383370	0.77	HBTM	
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
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28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			11.0		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161102\1102026.D Vial: 26
Acq On : 11-2-16 17:42:30 Operator: DP
Sample : CCV: DIESEL 400ppb 10/26/16 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 16:55 2016 Quant Results File: DOC1027.RES

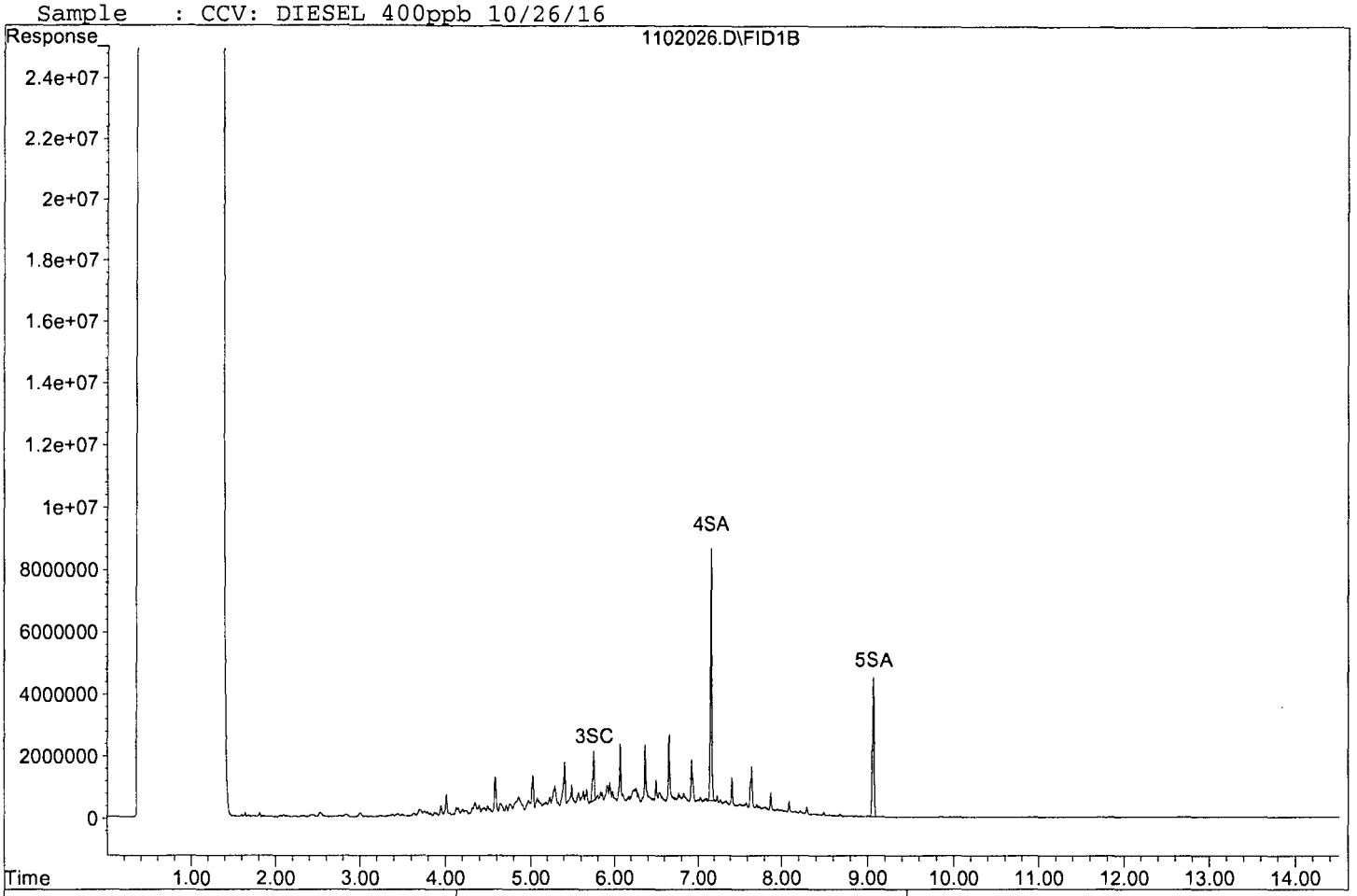
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

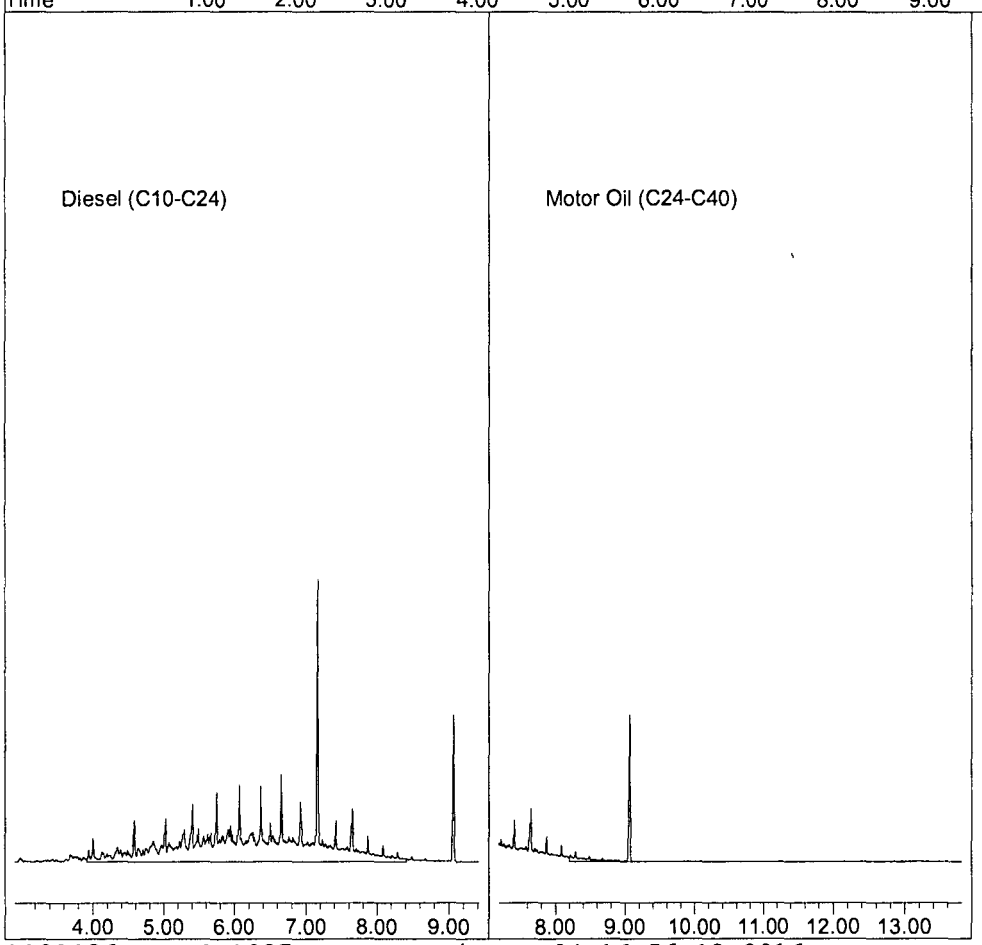
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.75	20312182	16.756	ppb
Surrogate Spike 48.000		Recovery =	34.91%	
4) SA Ortho-Terphenyl(S)	7.16	89209238	19.783	ppb
Surrogate Spike 30.000		Recovery =	65.94%	
5) SA Octacosane(S)	9.07	60202434	18.214	ppb
Surrogate Spike 30.000		Recovery =	60.71%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	1324114183	355.164	ppb
2) HBTM Motor Oil (C24-C40)	10.50	41223421	15.014	ppb

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

Data File: G:\APOLLO\DATA\161102\1102026.D
Sample : CCV: DIESEL 400ppb 10/26/16





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\161102\1102027.D Vial: 27
Acq On : 11-2-16 18:03:42 Operator: DP
Sample : CCV: MO 1000ppb 10/26/16 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 4 16:55 2016 Quant Results File: DOC1027.RES

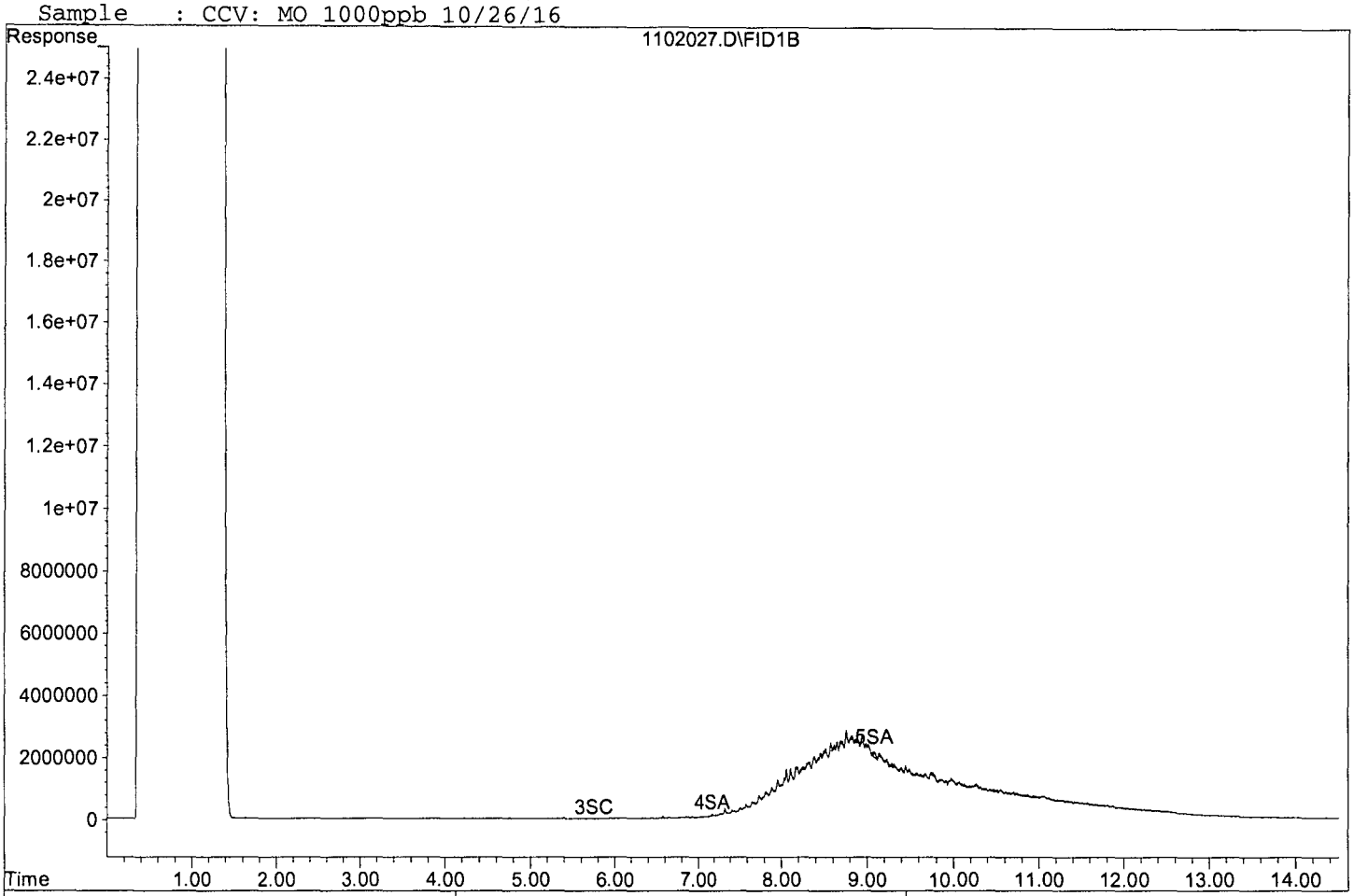
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

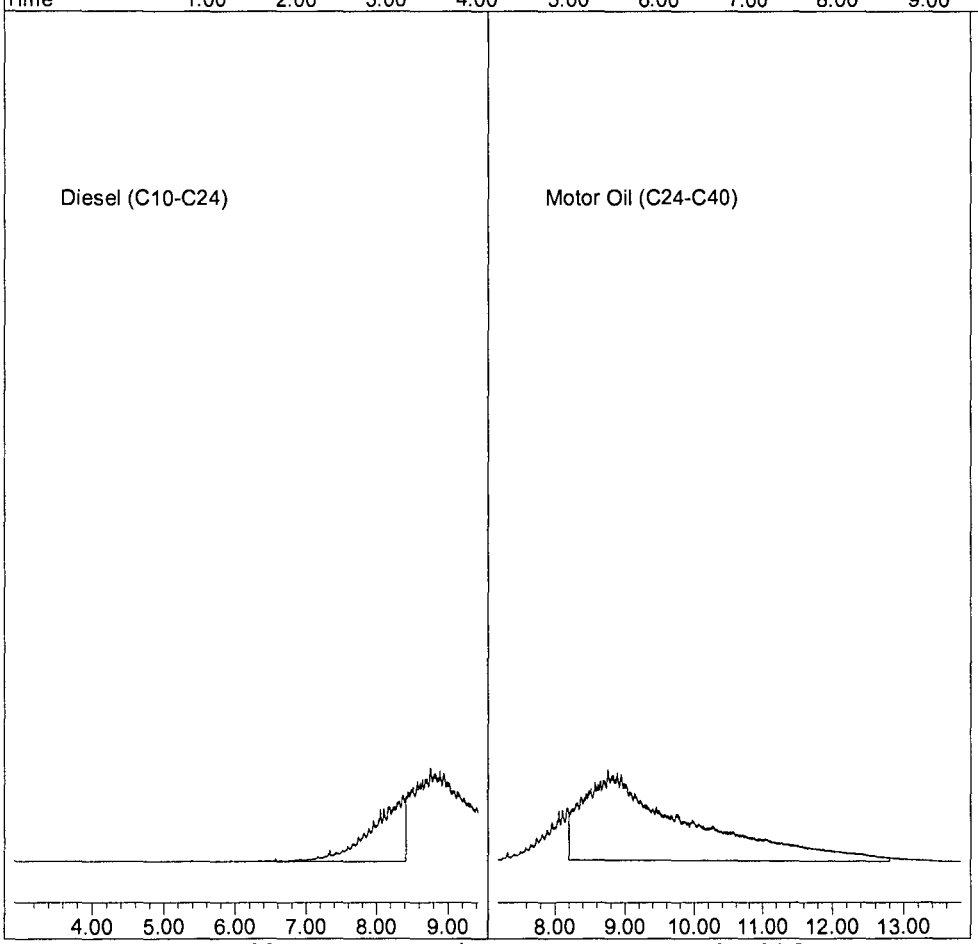
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SC Decanoic Acid(S)	5.75	46393	0.038	ppb
Surrogate Spike 48.000	Recovery =		0.08%	
4) SA Ortho-Terphenyl(S)	7.17	490362	0.109	ppb
Surrogate Spike 30.000	Recovery =		0.36%	
5) SA Octacosane(S)	9.08	3708901	1.122	ppb
Surrogate Spike 30.000	Recovery =		3.74%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	642938165	172.454	ppb
2) HBTM Motor Oil (C24-C40)	10.50	2766749072	1007.661	ppb

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

Data File: G:\APOLLO\DATA\161102\1102027.D
Sample : CCV: MO 1000ppb 10/26/16





ORGANICS

Raw Data

APPL, INC.

Method Blank
EPA 8015B TPH WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161101W-44891 - 213316**
Batch ID: #DOC53-161101A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/01/16	11/02/16
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/01/16	11/02/16
BLANK	SURROGATE: OCTACOSANE (S)	98.9	60-142			%	11/01/16	11/02/16
BLANK	SURROGATE: ORTHO-TERPHEN	75.8	56-125			%	11/01/16	11/02/16

Quant Method: DOC1027.M
Run #: 1102004
Instrument: Apollo
Sequence: 161102
Initials: DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/04/16 4:44:15 PM

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161102\1102Q04.D Vial: 4
Acq On : 11-2-16 10:02:51 Operator: DP
Sample : 161101A BLK 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 4 16:40 2016 Quant Results File: DOC1027.RES

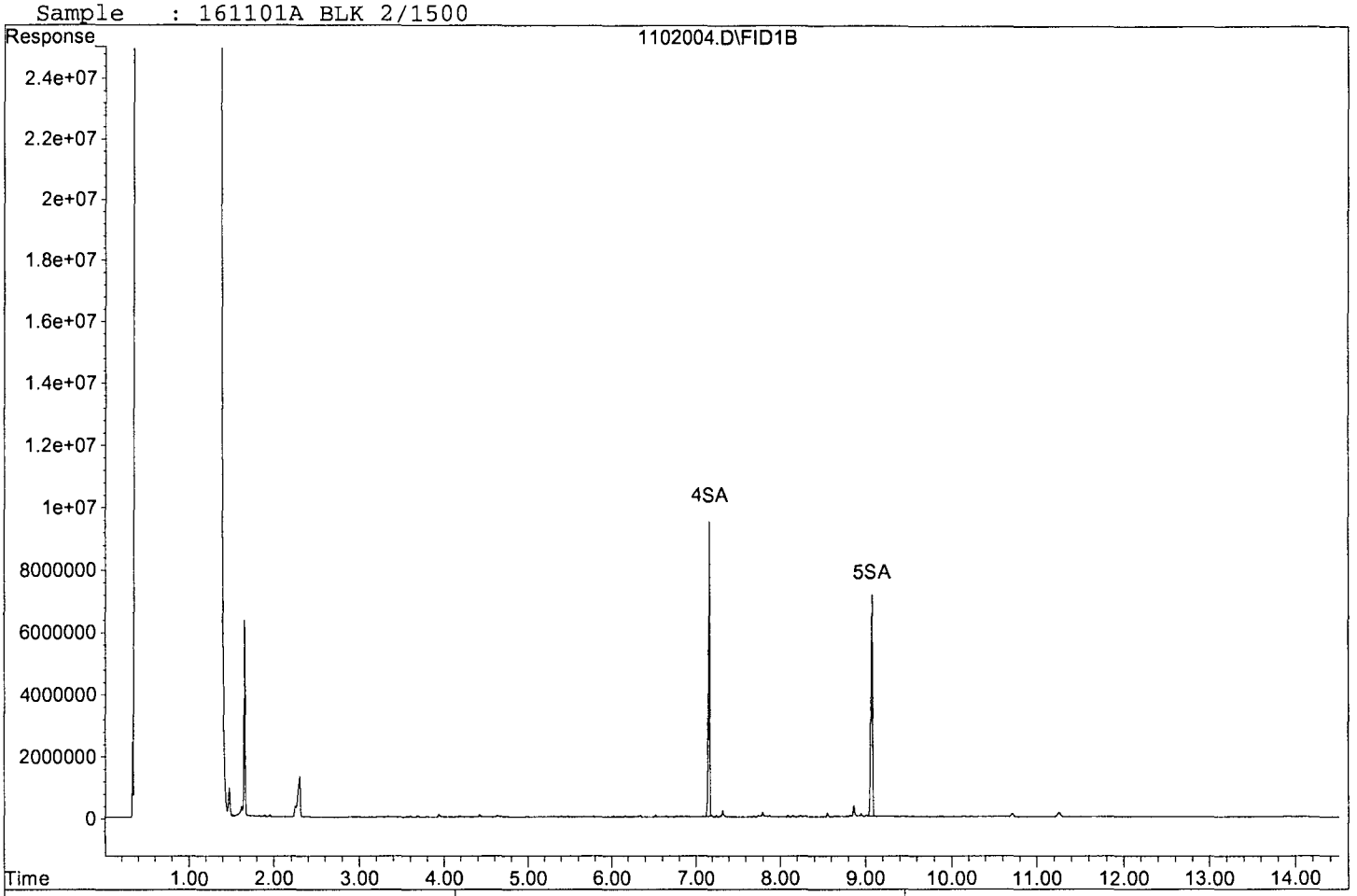
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

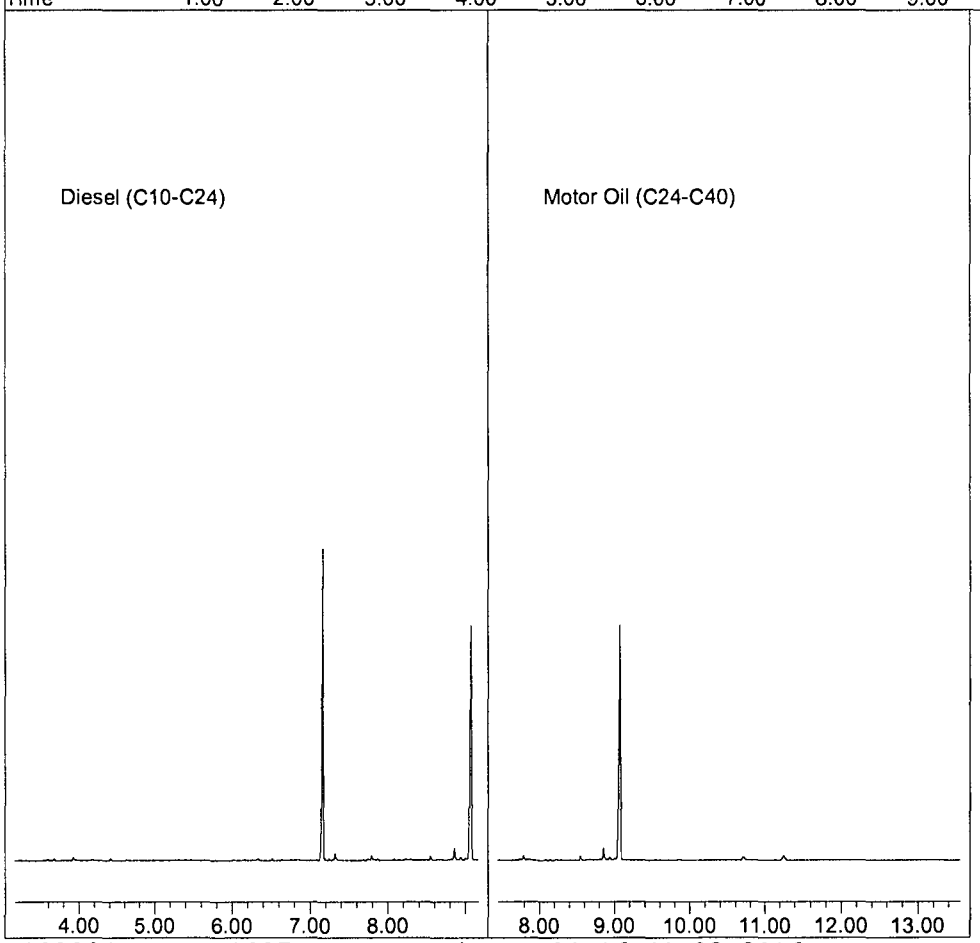
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	102560278	30.325	ppb
Surrogate Spike 40.000		Recovery =	75.81%	
5) SA Octacosane(S)	9.07	98025016	39.543	ppb
Surrogate Spike 40.000		Recovery =	98.86%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\161102\1102004.D
Sample : 161101A BLK 2/1500





Laboratory Control Spike Recovery

EPA 8015B TPH WATER

APPL ID: **161101W-44891 LCS - 213316**
Batch ID: #DOC53-161101A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL (C10-C24)	1330	922	69.2	36-132
OIL (C24-C40)	1330	1090	81.8	41-113
SURROGATE: OCTACOSANE (S)	40.0	39.2	98.0	60-142
SURROGATE: ORTHO-TERPHENYL (S)	40.0	37.5	93.8	56-125

Comments: _____

Primary	SPK
Quant Method :	DOC1027.M
Extraction Date :	11/01/16
Analysis Date :	11/02/16
Instrument :	Apollo
Run :	1102005
Initials :	DPO

Printed: 11/04/16 4:49:09 PM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161102\1102005.D Vial: 5
Acq On : 11-2-16 10:23:30 Operator: DP
Sample : 161101A LCS-1 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 4 16:41 2016 Quant Results File: DOC1027.RES

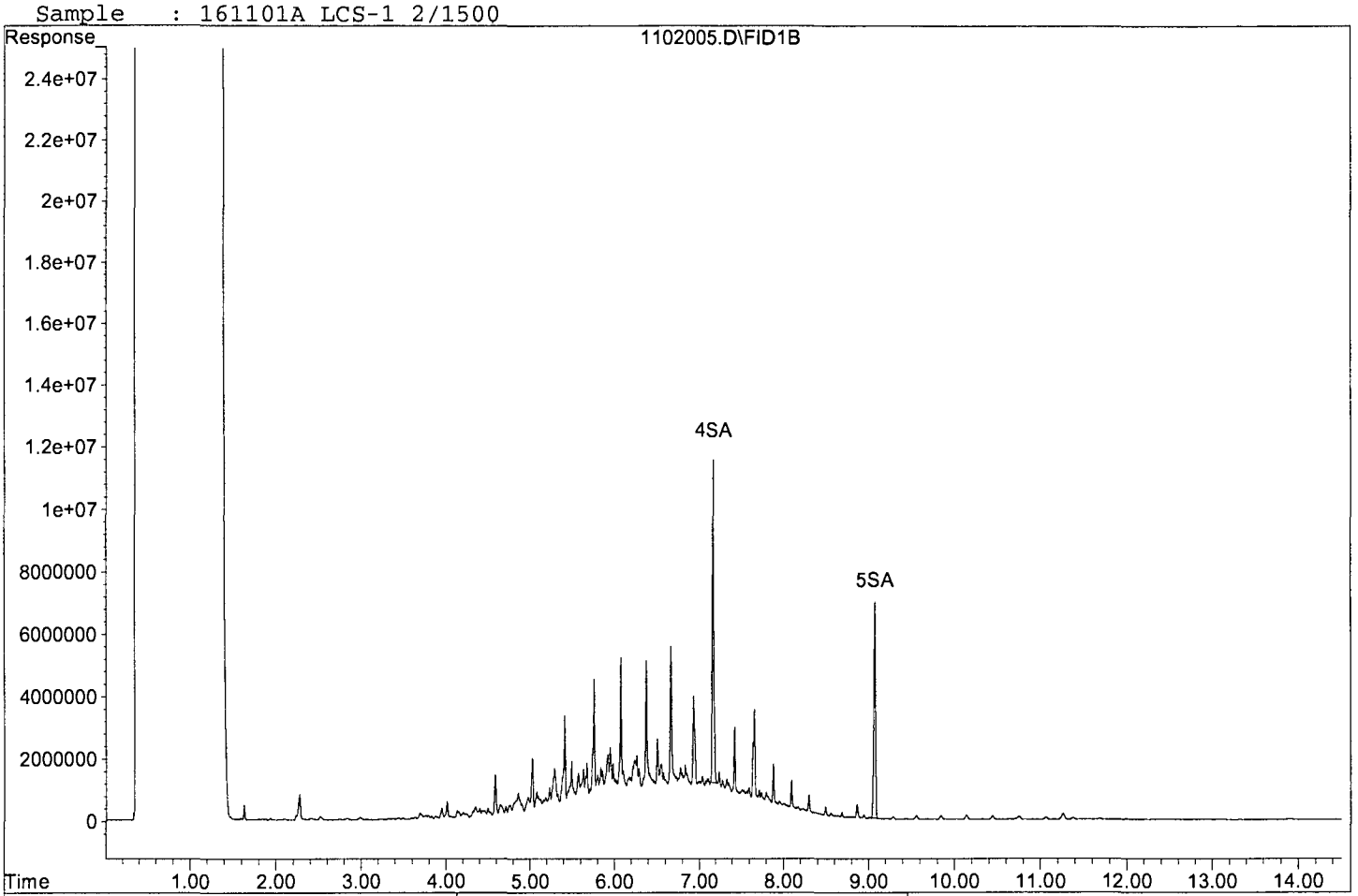
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

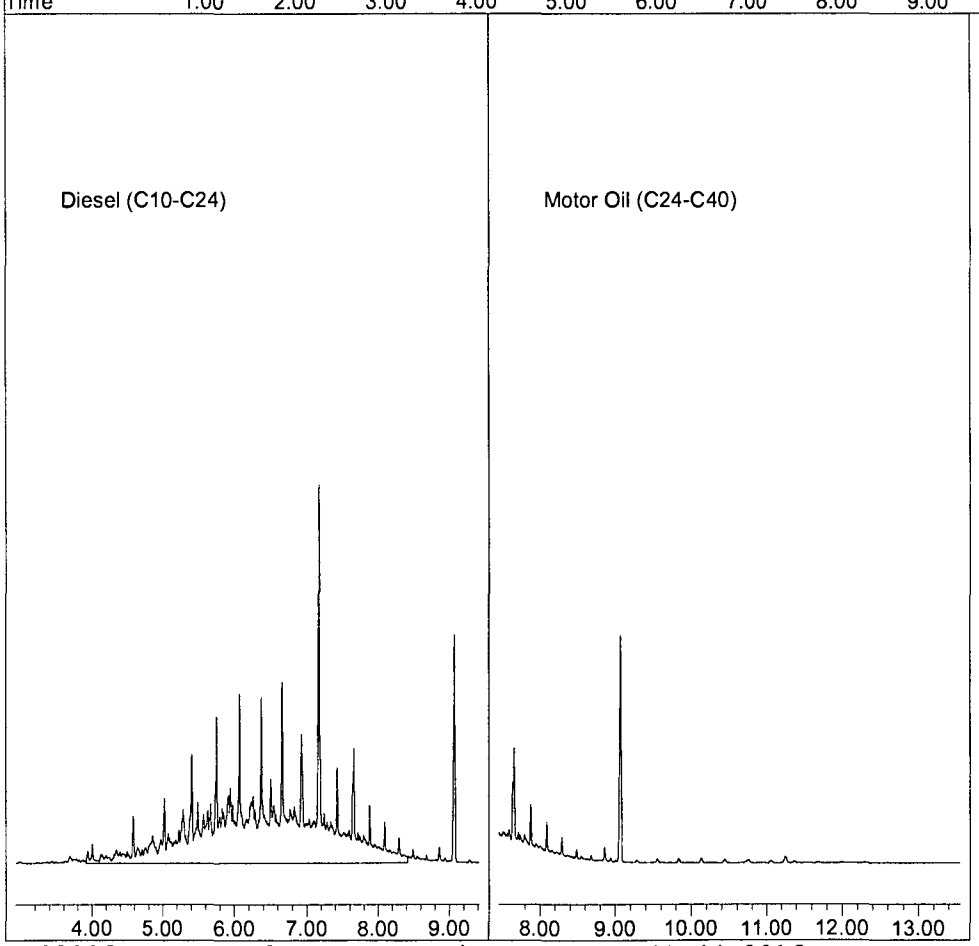
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SA Ortho-Terphenyl(S)	7.17	126743684	37.475	ppb
Surrogate Spike 40.000		Recovery =	93.69%	
5) SA Octacosane(S)	9.07	97105460	39.172	ppb
Surrogate Spike 40.000		Recovery =	97.93%	
Target Compounds				
1) HATM Diesel (C10-C24)	6.17	2577743142	921.895	ppb

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

Data File: G:\APOLLO\DATA\161102\1102005.D
Sample : 161101A LCS-1 2/1500





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\161102\1102006.D Vial: 6
Acq On : 11-2-16 10:44:09 Operator: DP
Sample : 161101A LCS-2 2/1500 Inst : Apollo
Misc : water Multiplr: 1.33
IntFile : events.e
Quant Time: Nov 4 16:42 2016 Quant Results File: DOC1027.RES

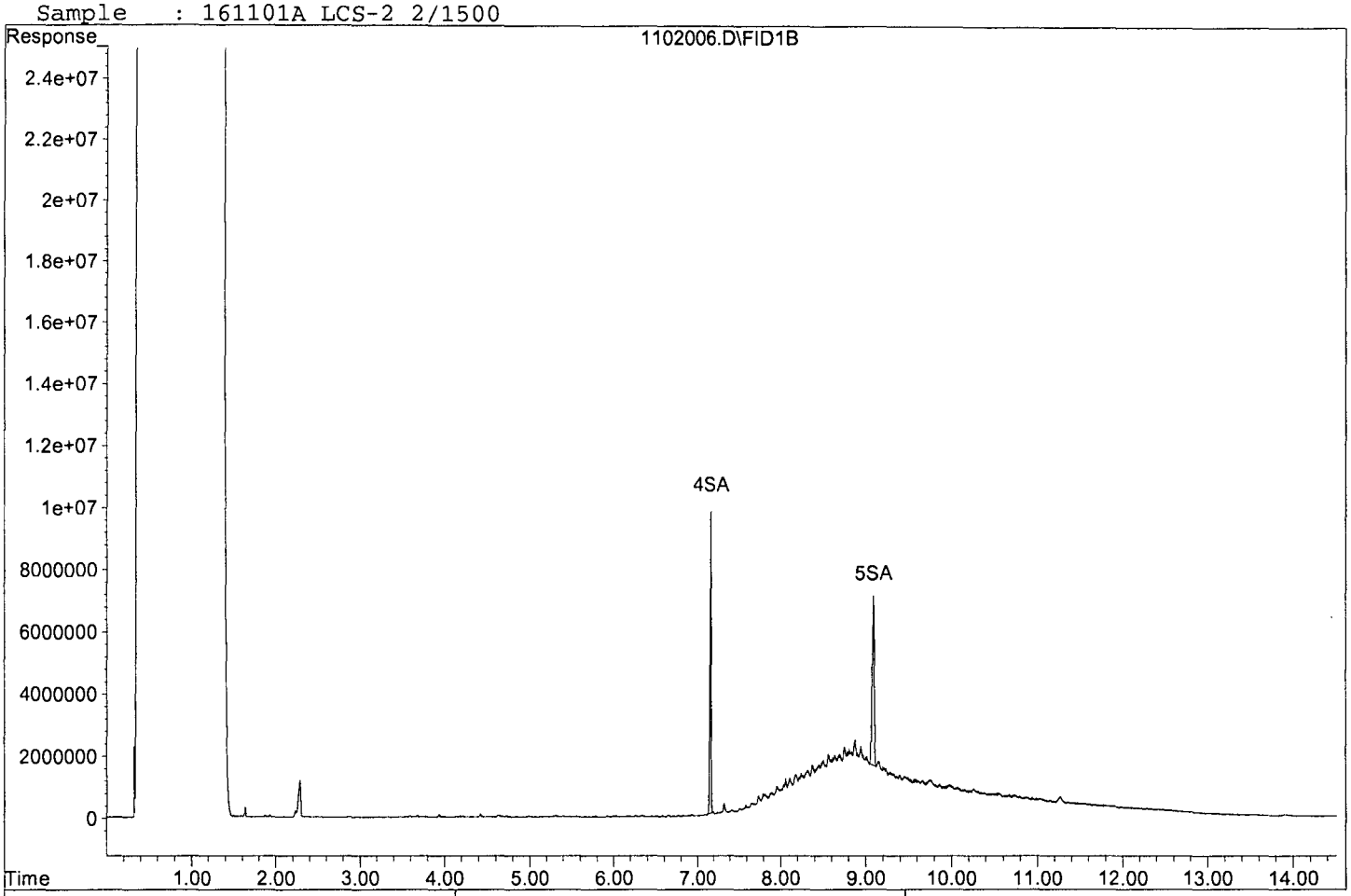
Method : G:\APOLLO\DATA\161031\DOC1027.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 04 15:23:56 2016
Response via : Multiple Level Calibration

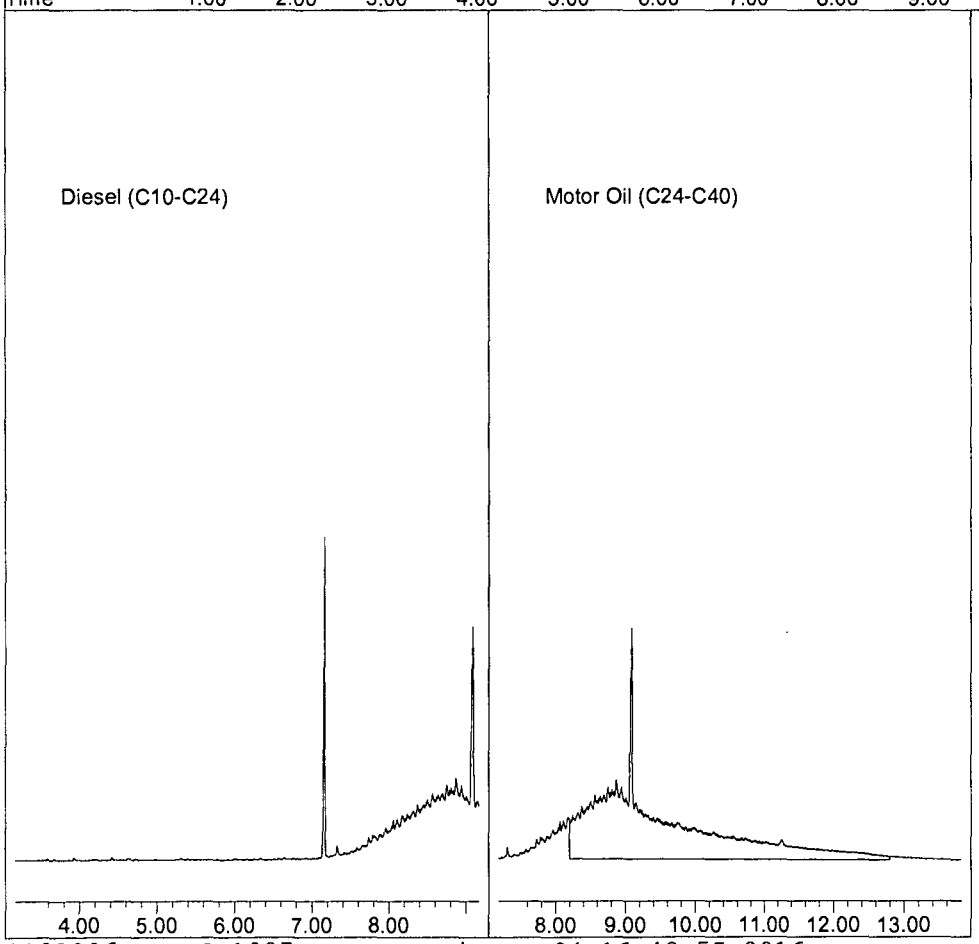
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	7.17	98354925	29.081 ppb
Surrogate Spike 40.000	Recovery =		72.70%
5) SA Octacosane(S)	9.09	91295233	36.828 ppb
Surrogate Spike 40.000	Recovery =		92.07%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	10.50	2252039040	1093.600 ppb

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

Data File: G:\APOLLO\DATA\161102\1102006.D
Sample : 161101A LCS-2 2/1500





DIESEL CURVE		prep:10/27/16 G.A.		ex:4/27/17						
STD	**[µg/mL]**	**LOT #**	**DATE**	**EXP. DATE**	**µL**	**µL**	**µL**	**µL**	**µL**	**µL**
DIESEL	1000		10/26/16	04/26/17	10	100	400	600	800	200
MC	N/A	56098			990	900	600	400	200	NA
				Final VOL.	1000	1000	1000	1000	1000	200
				ppm	10	100	400	600	800	1000

Prep: 10/26/16-D.P. Exp: 4/26/17						
DIESEL CAL STD.						
STD.	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT / LOT#
DIESEL FUEL #2	50,000 ug/mL	O2SI CAT#011598-03 LOT#237562-37103 OP: 10/26/16 EXP: 10/26/17	500 µL	25 mL	1000ug/mL	MC LOT# 56098
O-TERPHENYL OCTACOSANE	600 ug/mL	O2SI CAT#110316-05 LOT#266278-36701 OP: 10/18/16 EXP: 10/18/17	2080 µL		50ug/mL	

MOTOR OIL CURVE		prep: 10/28/16-D.P.		ex:4/26/17						
STD	**[µg/mL]**	**LOT #**	**DATE**	**EXP. DATE**	**µL**	**µL**	**µL**	**µL**	**µL**	**µL**
MOTOR OIL	2000		10/26/16	04/26/17	10	25	125	500	750	200
MC	N/A	56098			990	975	875	500	250	NA
				Final VOL.	1000	1000	1000	1000	1000	200
				ppm	20	50	250	1000	1500	2000

Prep: 10/26/16 -D.P. Ex: 4/26/17						
MOTOR OIL CAL STD						
STD.	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT / LOT#
MOTOR OIL	50,000 ug/mL	O2SI CAT#116390-02 LOT#239390-36901 OP:10/26/16 EXP:10/26/17	1mL	25mL	2000ug/mL	MC LOT# 56098

DIESEL SECOND SOURCE prep: 08/01/16-D.P. ex: 07/6/17						
standard	initial conc.	SOURCE DATE	ALIQUOT	FINAL VOL.	FINAL CONC.	SOLVENT LOT
DIESEL SECOND SOURCE	50,000 ug/mL	O2SI CAT#011598-03-SS LOT#244813-34634 OP: 08/28/15 Exp 03/14/19	200uL	10mL	1000ug/mL	MC #56061

MOTOR OIL SECOND SOURCE prep: 07/6/16-L.H. ex: 07/6/17						
standard	initial conc.	SOURCE DATE	ALIQUOT	FINAL VOL.	FINAL CONC.	SOLVENT LOT
MOTOR OIL SECOND SOURCE	50,000 ug/mL	O2SI CAT#116390-02-SS LOT#244814-34637 OP: 07/06/16 Exp 07/06/17	200uL	10mL	1000ug/mL	MC #56061

Decanoic Acid CCV prep: 9/9/16. ex: 2/10/17					
STD	**[µg/mL]**	**LOT #**	**DATE**	**EXP. DATE**	**µL**
Decanoic Acid STD	60		05/19/16	02/10/17	2000
MC		56061			3000
				Final VOL.	5000

DIESEL CCV 400ug/ml						
Prep: 10/26/16-D.P. Ex: 1/26/17						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000 µg/mL	Diesel Std.	2000µL	5mL	400 µg/ml	MC
	PREP:	10/26/16				56098
	Exp:	04/26/17				

MOTOR OIL CCV 1000ppm						
Prep: 10/26/16-D.P. Ex: 1/26/17						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MO STD.	2000 µg/mL	MO Std.	2500µL	5mL	1000 µg/ml	MC
	PREP:	10/26/16				56098
	Exp:	04/26/17				

Motor Oil Spike
Cat: 116390-02
Lot: 239390-36901
Op: 10/26/2016-D.P.
Exp: 10/26/17

Diesel Fuel #2
Conc. 50000 ug/ml
O2SI
CAT #011598-03
LOT# 237562-37102
OP: 10/25/16 RH
EXP: 10/25/17

THC Surrogate
Cat: 110316-05
Lot: 266278-367
Op: 10/18/16
Exp: 10/18/17

_SEP011LL

Organic Extraction Worksheet

Method	THC Sep Fun Ext 3510C (LOW LEVEL)	Extraction Set	161101A	Extraction Method	SEP011LL	Units	mL

Spiked ID 1	Diesel Spike 10-25-16 EXP 10-25-17		Surrogate ID 1	THC Surrogate 10-27-16 EXP 10-27-17	
Spiked ID 2	Motor Oil Spike 10-25-16 EXP 10-25-17		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:	11/01/16 10:45	
Spiked ID 8			Ext. End Time:	11/01/16 16:10	
			GC Requires Extract By:	11/02/16 0:00	

pH1			Water Bath Temp Criteria	35,35,35 °
pH2				
pH3				

Spiked By: KY **Date** 11/01/16 **Witnessed By:** CFM **Date** 11/01/16

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	161101A Blk				0.1	1 equip	1500 e-wb2	2	7	11/01/16 10:45	
2	161101A LCS-1		0.040	1	0.1	1 equip	1500 e-wb1	2	7	11/01/16 10:45	
3	161101A LCS-2		0.040	2	0.1	1 equip	1500 E-WB3	2	7	11/01/16 10:45	
4	AZ44891	AZ44891W13			0.1	1 equip	1500 E-WB2	2	7	11/01/16 10:45	81287 RUSH 1 WEEK
5	AZ44893	AZ44893W10			0.1	1 equip	1500 E-WB2	2	7	11/01/16 10:45	81287 RUSH 1 WEEK

KY 11/01/16

Solvent and Lot#	
MC	56098
Na2SO4	XK07E
ph-indicator strips	HC574756
Filter Paper	400112

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	RH
Date	11/1/16
Time	4:30
Refrigerator	Hobert

	Technician's Initials
Scanned By	KY
Sample Preparation	KY,DC
Extraction	DC
Concentration	MP

Modified	11/01/16 4:14:42 PM

Reviewed By: KY **Date** 11/01/16

Injection Log

Directory: G:\APOLLO\DATA\161027\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1027002.D	1	DIESEL 10ppb 10/27/16	Mix(A)	10-27-16 17:29:08
2	3	1027003.D	1	DIESEL 100ppb 10/27/16	Mix(A)	10-27-16 17:50:22
3	4	1027004.D	1	DIESEL 400ppb 10/27/16	Mix(A)	10-27-16 18:11:31
4	5	1027005.D	1	DIESEL 600ppb 10/27/16	Mix(A)	10-27-16 18:32:45
5	6	1027006.D	1	DIESEL 800ppb 10/27/16	Mix(A)	10-27-16 18:53:54
6	7	1027007.D	1	DIESEL 1000ppb 10/27/16	Mix(A)	10-27-16 19:15:05
7	9	1027009.D	1	DIESEL-SS 400ppb 8/1/16	Mix(A)	10-27-16 19:57:54
8	2	1028002.D	1	MO 20ppb 10/28/16	Mix(B)	10-28-16 9:07:30
9	3	1028003.D	1	MO 50ppb 10/28/16	Mix(B)	10-28-16 9:28:13
10	4	1028004.D	1	MO 250ppb 10/28/16	Mix(B)	10-28-16 9:49:06
11	5	1028005.D	1	MO 1000ppb 10/28/16	Mix(B)	10-28-16 10:09:58
12	6	1028006.D	1	MO 1500ppb 10/28/16	Mix(B)	10-28-16 10:30:51
13	7	1028007.D	1	MO 2000ppb 10/28/16	Mix(B)	10-28-16 10:51:50
14	8	1028008.D	1	MO SS 1000ppb 7/6/16	Mix(B)	10-28-16 11:12:44
15	2	1102002.D	1	CCV: DIESEL 400ppb 10/26/16	Mix(A)	11-2-16 9:21:57
16	3	1102003.D	1	CCV: MO 1000ppb 10/26/16	Mix(B)	11-2-16 9:42:21
17	4	1102004.D	1.33333	161101A BLK 2/1500	water	11-2-16 10:02:51
18	5	1102005.D	1.33333	161101A LCS-1 2/1500	water	11-2-16 10:23:30
19	6	1102006.D	1.33333	161101A LCS-2 2/1500	water	11-2-16 10:44:09
20	8	1102008.D	1.33333	AZ44893W10 2/1500	water	11-2-16 11:25:41
21	25	1102025.D	1.33333	AZ44891W13 2/1500	water	11-2-16 17:21:47
22	26	1102026.D	1	CCV: DIESEL 400ppb 10/26/16	Mix(A)	11-2-16 17:42:30
23	27	1102027.D	1	CCV: MO 1000ppb 10/26/16	Mix(B)	11-2-16 18:03:42

ORGANICS

APPL, INC.

ORGANICS

QC Summary

APPL, INC.

Method Blank
EPA 8270D SIM

Blank Name/QCG: **161031W-44891 - 213308**
Batch ID: #SIMDO-161031A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/16	11/02/16
BLANK	BENZO(A)ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	10/31/16	11/02/16
BLANK	BENZO(A)PYRENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	BENZO(B)FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	BENZO(GHI)PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	10/31/16	11/02/16
BLANK	BENZO(K)FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	10/31/16	11/02/16
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/16	11/02/16
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/16	11/02/16
BLANK	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	10/31/16	11/02/16
BLANK	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	INDENO(1,2,3-CD)PYRENE	0.10 U	0.2	0.10	0.07	ug/L	10/31/16	11/02/16
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/16	11/02/16
BLANK	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	10/31/16	11/02/16
BLANK	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	10/31/16	11/02/16
BLANK	SURROGATE: 2-FLUORBIPHENY	48.0 #	53-106			%	10/31/16	11/02/16
BLANK	SURROGATE: NITROBENZENE-	56.3	55-111			%	10/31/16	11/02/16
BLANK	SURROGATE: TERPHENYL-D14 (	60.8	58-132			%	10/31/16	11/02/16

= Recovery (or RPD) is outside QC limits.

Quant Method:L1026P.M
Run #:1026L155
Instrument:Linus
Sequence:L161026
Initials:RHA

GC SC-Blank-REG MDLs-DOD
Printed: 11/21/16 4:58:13 PM

8270D-SIM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 11/02/16

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161031A-BLK	Blank	53-106	48.0	#	55-111	56.3	
161031A-LCS	Lab Control Spike	53-106	53.0		55-111	61.2	
AZ44891	ERH103	53-106	54.5		55-111	58.6	
AZ44893	ERH096	53-106	56.5		55-111	61.6	

Comments: Batch: #SIMDO-161031A

= Recovery outside of Control Limits on Sample.

8270D-SIM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 11/02/16

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
161031A-BLK	Blank	58-132	60.8				
161031A-LCS	Lab Control Spike	58-132	62.8				
AZ44891	ERH103	58-132	64.9				
AZ44893	ERH096	58-132	69.1				

Comments: Batch: #SIMDO-161031A

Laboratory Control Spike Recovery
EPA 8270D SIM

APPL ID: **161031W-44891 LCS - 213308**
Batch ID: #SIMDO-161031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1-METHYLNAPHTHALENE	5.00	2.84	56.8	41-115
2-METHYLNAPHTHALENE	5.00	2.91	58.2	39-114
NAPHTHALENE	5.00	2.82	56.4	43-114
SURROGATE: 2-FLUORBIPHENYL (S)	5.00	2.65	53.0	53-106
SURROGATE: NITROBENZENE-D5 (S)	5.00	3.06	61.2	55-111
SURROGATE: TERPHENYL-D14 (S)	5.00	3.14	62.8	58-132

Comments: _____

Primary	SPK
Quant Method :	L1026P.M
Extraction Date :	10/31/16
Analysis Date :	11/02/16
Instrument :	Linus
Run :	1026L156
Initials :	RHA

Printed: 11/21/16 4:58:15 PM
APPL Standard LCS

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 11/02/16

Matrix: WATER Instrument: Linus

Blank ID: 161031A-BLK Time Analyzed: 0119

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161031A-BLK	Blank	1026L155	11/02/16 0119
161031A-LCS	Lab Control Spike	1026L156	11/02/16 0151
AZ44891	ERH103	1026L158	11/02/16 0256
AZ44893	ERH096	1026L159	11/02/16 0328

Comments: Batch: #SIMDO-161031A

Printed: 11/21/16 4:58:16 PM
Form 4, Blank Summary

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: SV TUNE 9/22/16

SDG No: 81287
Date Analyzed: 10/26/16
Instrument: Linus
Time Analyzed: 10:58

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.1 ug/ml PAH 10/26/	1026L003.D	10/26/16 11:23
2		0.2 ug/ml PAH 10/26/	1026L004.D	10/26/16 11:56
3		0.5 ug/ml PAH 10/26/	1026L005.D	10/26/16 12:28
4		1.0 ug/ml PAH 10/26/	1026L006.D	10/26/16 13:01
5		5.0 ug/ml PAH 10/26/	1026L007.D	10/26/16 13:33
6		10.0 ug/ml PAH 10/26	1026L008.D	10/26/16 14:05
7		50.0 ug/ml PAH 10/26	1026L009.D	10/26/16 14:37
8		100.0 ug/ml PAH 10/2	1026L010.D	10/26/16 15:09
9		SS PAH 10/26/16	1026L011.D	10/26/16 15:42
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	31.3
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.4
127	39.5 - 60% of mass 198	50.4
197	0 - 1% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	25.7
365	1 - 100% of mass 198	2.6
441	0.01 - 100% of mass 443	76.7
442	50 - 150% of mass 198	57.8
443	17 - 23% of mass 442	21.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 81287
Matrix: Water
ID: SV Tune 10/19/16

SDG No: 81287
Date Analyzed: 11/01/16
Instrument: Linus
Time Analyzed: 22:21

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		2.5 ug/ml PAH 10/26/	1026L150.D	11/01/16 22:38
2	Blank	161031A BLK 1/1000	1026L155.D	11/02/16 1:19
3	Lab Control Spike	161031A LCS-1 1/1000	1026L156.D	11/02/16 1:51
4	ERH103	AZ44891W17 1/1070	1026L158.D	11/02/16 2:56
5	ERH096	AZ44893W11 1/500	1026L159.D	11/02/16 3:28
6		2.5 ug/ml PAH 10/26/	1026L171.D	11/02/16 9:38
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	31.1
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.3
127	39.5 - 60% of mass 198	50.3
197	0 - 1% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 30% of mass 198	26.3
365	1 - 100% of mass 198	2.6
441	0.01 - 100% of mass 443	77.8
442	50 - 150% of mass 198	62.9
443	17 - 23% of mass 442	21.8

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 81287

Lab File ID (Standard): 1026L007.D Date Analyzed: 10/26/16

Instrument ID: Linus Time Analyzed: 13:33

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

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2942	5.89	1477	7.94	2585	9.87
	UPPER LIMIT	5884	6.39	2954	8.44	5170	10.37
	LOWER LIMIT	1471	5.39	739	7.44	1293	9.37
	SAMPLE NO.						
01	2.5 ug/ml PAH 10/26/16	2768	5.90	1455	7.95	2605	9.89
02	161031A BLK 1/1000	3244	5.90	1706	7.95	2980	9.89
03	161031A LCS-1 1/1000	3110	5.90	1636	7.95	2920	9.89
04	AZ44891W17 1/1070	3138	5.90	1643	7.95	2892	9.89
05	AZ44893W11 1/500	3230	5.90	1701	7.95	2963	9.89
06	2.5 ug/ml PAH 10/26/16	2894	5.90	1534	7.95	2765	9.89
07							
08							
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 = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 81287

Lab File ID (Standard): 1026L007.D Date Analyzed: 10/26/16

Instrument ID: Linus Time Analyzed: 13:33

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

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3262	16.84	2933	20.60		
	UPPER LIMIT	6524	17.34	5866	21.10		
	LOWER LIMIT	1631	16.34	1467	20.10		
	SAMPLE NO.						
01	2.5 ug/ml PAH 10/26/16	3335	16.86	3012	20.62		
02	161031A BLK 1/1000	3887	16.87	3457	20.64		
03	161031A LCS-1 1/1000	3766	16.86	3335	20.62		
04	AZ44891W17 1/1070	3711	16.87	3309	20.64		
05	AZ44893W11 1/500	3760	16.87	3372	20.63		
06	2.5 ug/ml PAH 10/26/16	3564	16.86	3121	20.61		
07							
08							
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 = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

ORGANICS

Sample Data

APPL, INC.

EPA 8270D SIM

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: 60481245 CIV0053 Red Hill Fuel Storage
ARF: 81287

Sample ID: ERH103
APPL ID: AZ44891

Sample Collection Date: 10/25/16
QCG: #SIMDO-161031A-213308

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/16	11/02/16
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	54.5	53-106			%	10/31/16	11/02/16
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	58.6	55-111			%	10/31/16	11/02/16
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	64.9	58-132			%	10/31/16	11/02/16

Quant Method: L1026P.M
Run #: 1026L158
Instrument: Linus
Sequence: L161026
Dilution Factor: 1
Initials: RHA

Printed: 11/21/16 4:58:17 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L158.D Vial: 58
Acq On : 2 Nov 16 2:56 Operator: MA
Sample : AZ44891W17 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Nov 21 17:10 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	5.90	136	3138	2.50000	ppb	0.01
6) Acenaphthene-D10(IS)	7.95	164	1643	2.50000	ppb	0.01
11) Phenanthrene-D10(IS)	9.89	188	2892	2.50000	ppb	0.01
15) Chrysene-D12(IS)	16.87	240	3711	2.50000	ppb	0.03
21) Perylene-D12(IS)	20.64	264	3309	2.50000	ppb	0.04
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.06	82	1116	2.73846	ppb	0.01
Spiked Amount 4.673			Recovery = 58.593%			
7) Surrogate Recovery (FBP)	7.16	172	2889	2.54768	ppb	0.00
Spiked Amount 4.673			Recovery = 54.527%			
17) Surrogate Recovery (TPH)	13.88	244	4141	3.03379	ppb	0.00
Spiked Amount 4.673			Recovery = 64.928%			

Target Compounds Qvalue

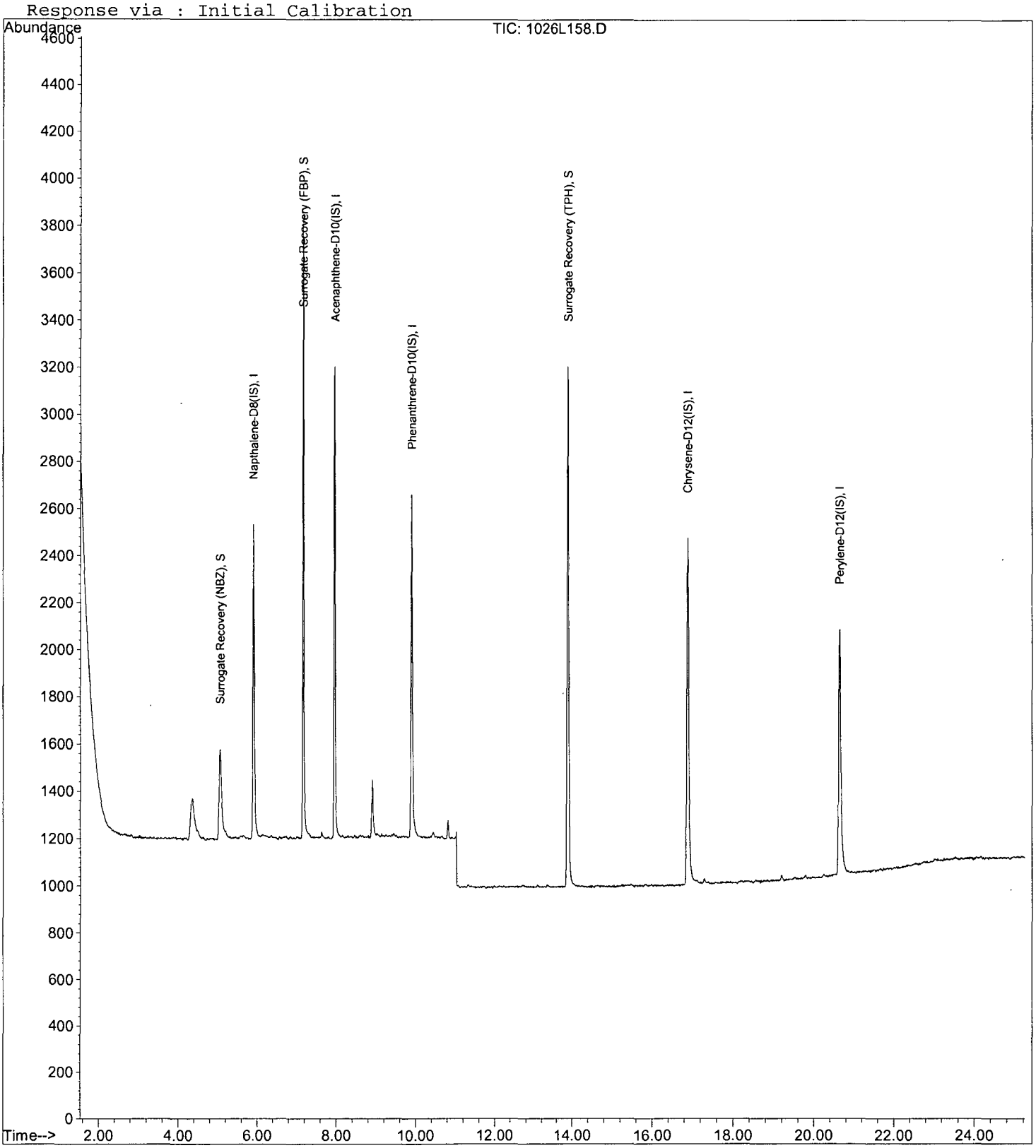
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L158.D Vial: 58
Acq On : 2 Nov 16 2:56 Operator: MA
Sample : AZ44891W17 1/1070 Inst : Linus
Misc : water Multiplr: 0.93

Quant Time: Nov 21 17:10 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



EPA 8270D SIM

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH096

Sample Collection Date: 10/25/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81287

APPL ID: AZ44893

QCG: #SIMDO-161031A-213308

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/16	11/02/16
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	56.5	53-106			%	10/31/16	11/02/16
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	61.6	55-111			%	10/31/16	11/02/16
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	69.1	58-132			%	10/31/16	11/02/16

Quant Method: L1026P.M
Run #: 1026L159
Instrument: Linus
Sequence: L161026
Dilution Factor: 1
Initials: RHA

Printed: 11/21/16 4:58:17 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L159.D Vial: 59
Acq On : 2 Nov 16 3:28 Operator: MA
Sample : AZ44893W11 1/500 Inst : Linus
Misc : water Multiplr: 2.00

Quant Time: Nov 21 17:09 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	5.90	136	3230	2.50000 ppb	0.01
6) Acenaphthene-D10(IS)	7.95	164	1701	2.50000 ppb	0.01
11) Phenanthrene-D10(IS)	9.89	188	2963	2.50000 ppb	0.01
15) Chrysene-D12(IS)	16.87	240	3760	2.50000 ppb	0.03
21) Perylene-D12(IS)	20.63	264	3372	2.50000 ppb	0.03
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.06	82	1207	6.16177 ppb	0.01
Spiked Amount 10.000			Recovery	= 61.620%	
7) Surrogate Recovery (FBP)	0.00	172	0d	0.00000 ppb	
Spiked Amount 10.000			Recovery	= 0.000%	
17) Surrogate Recovery (TPH)	13.88	244	4465	6.90905 ppb	0.00
Spiked Amount 10.000			Recovery	= 69.090%	

Target Compounds	Qvalue

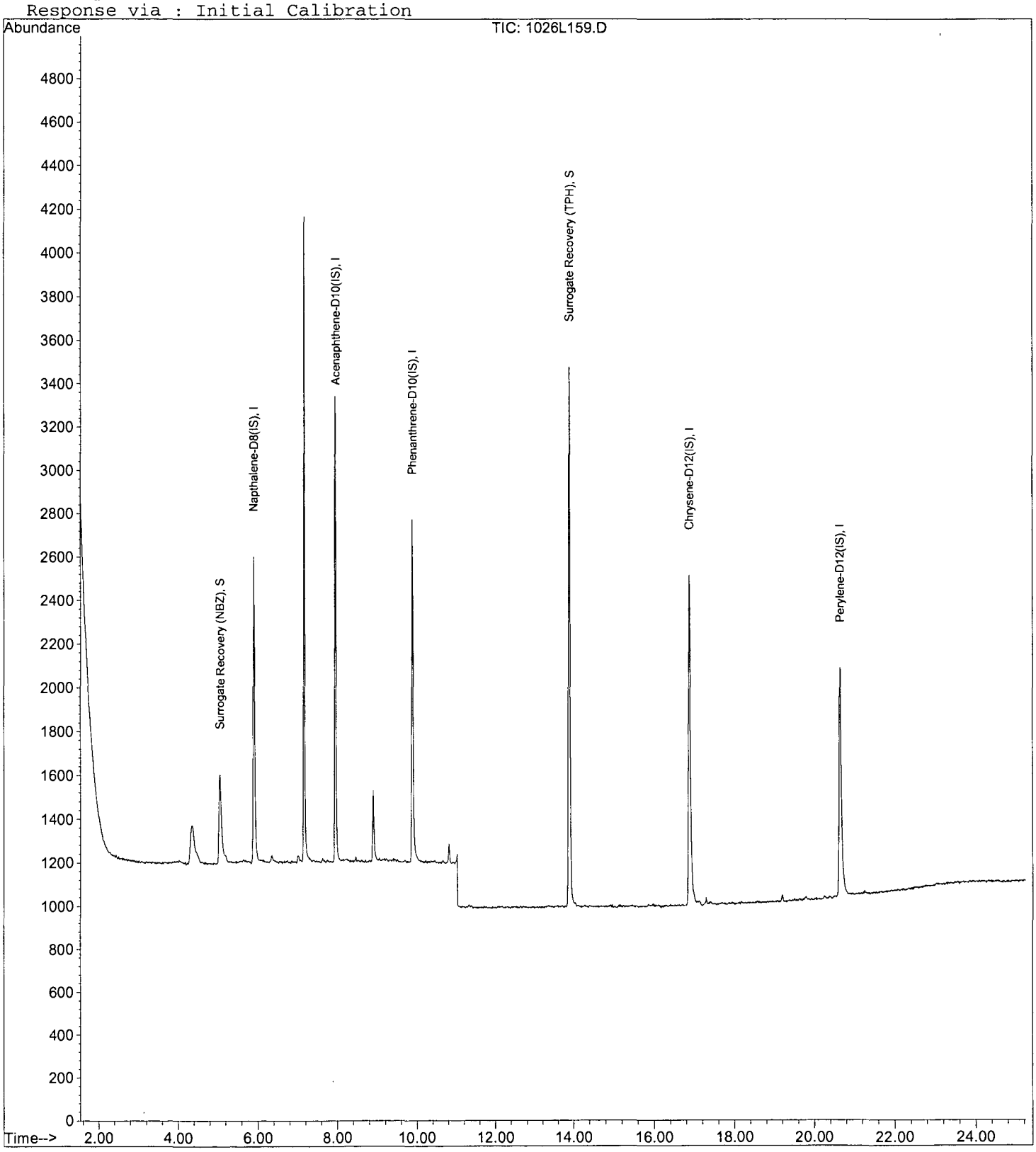
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L159.D Vial: 59
Acq On : 2 Nov 16 3:28 Operator: MA
Sample : AZ44893W11 1/500 Inst : Linus
Misc : water Multiplr: 2.00

Quant Time: Nov 21 17:09 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



ORGANICS

Calibration Data

APPL, INC.

EPA 8270C SIM

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Initial Cal. Date: 10/26/16

Matrix: Instrument: Linus

Initials:

		Compound	1026L003.D 0.1	1026L004.D 0.2	1026L005.D 0.5	1026L006.D 1	1026L007.D 5	1026L008.D 10	1026L009.D 50	1026L010.D 100			Avg	%RSD		
1	I	Napthalene-D8(IS)														
2	SL	Surrogate Recovery (NBZ)	0.0804	0.3248	0.2336	0.2296	0.3042	0.3217	0.3012	0.2990			0.26	31	SL	1.000
3	TM	Naphthalene	1.093	1.058	0.9776	0.9622	1.079	1.065	0.9798	0.9449			1.0	5.8	TM	
4	TM	2-Methylnaphthalene	0.6190	0.6163	0.5906	0.5922	0.7073	0.7051	0.6480	0.6150			0.64	7.3	TM	
5	TM	1-Methylnaphthalene	0.7154	0.6995	0.6590	0.6161	0.6859	0.6794	0.5923	0.5625			0.65	8.4	TM	
6	I	Acenaphthene-D10(IS)														
7	S	Surrogate Recovery (FBP)	1.836	1.693	1.539	1.472	1.693	1.691	1.497	1.479			1.6	8.3	S	
8	TM	Acenaphthylene	2.007	2.013	1.915	1.895	2.275	2.242	2.059	1.996			2.1	6.8	TM	
9	*TM	Acenaphthene	1.353	1.216	1.158	1.178	1.322	1.313	1.191	1.156			1.2	6.5	*TM	
10	TM	Fluorene	1.493	1.372	1.332	1.314	1.566	1.550	1.413	1.365			1.4	6.9	TM	
11	I	Phenanthrene-D10(IS)														
12	TM	Phenanthrene	1.230	1.150	1.056	1.044	1.240	1.222	1.159	1.146			1.2	6.5	TM	
13	TM	Anthracene	0.9570	1.040	0.9985	0.9861	1.219	1.204	1.097	1.057			1.1	9.1	TM	
14	*TM	Fluoranthene	1.467	1.458	1.392	1.359	1.692	1.703	1.689	1.748			1.6	10	*TM	
15	I	Chrysene-D12(IS)														
16	TM	Pyrene	1.451	1.378	1.226	1.218	1.401	1.386	1.296	1.331			1.3	6.3	TM	
17	S	Surrogate Recovery (TPH)	1.024	0.9543	0.8040	0.7782	0.8541	0.8678	0.7977	0.7947			0.86	10	S	
18	TM	Benz (a) anthracene	1.156	1.102	1.027	1.021	1.221	1.256	1.226	1.133			1.1	7.8	TM	
19	TM	Chrysene	1.280	1.279	1.279	1.191	1.301	1.263	1.139	1.149			1.2	5.3	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.079	0.9954	1.025	1.057	1.233	1.254	1.210	1.222			1.1	9.3	TM	
21	I	Perylene-D12(IS)														
22	TM	Benzo (b) fluoranthene	1.137	0.9566	0.9689	0.9943	1.184	1.252	1.308	1.404			1.2	15	TM	
23	TML	Benzo (k) fluoranthene	0.8067	0.8751	0.8849	0.8451	1.200	1.135	1.110				0.98	17	TML	1.000
24	*TM	Benzo (a) pyrene	1.154	1.068	1.067	1.007	1.225	1.226	1.208	1.236			1.1	7.8	*TM	
25	TML	Dibenz (a,h) anthracene	0.6534	0.7507	0.9234	0.8434	1.105	1.128	1.115	1.121			0.96	20	TML	1.00
26	TM	Benzo (g,h,i) perylene	1.033	0.9952	0.9584	0.9260	1.106	1.118	1.083	1.084			1.0	6.9	TM	
27																
28																
29																
30																
31																
32																
33																
34																
35																

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L003.D Vial: 3
Acq On : 26 Oct 16 11:23 Operator: MA
Sample : 0.1 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 28 8:24 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	3110	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1607	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.89	188	2743	2.50000	ppb		0.01
15) Chrysene-D12(IS)	16.86	240	3222	2.50000	ppb		0.02
21) Perylene-D12(IS)	20.61	264	3099	2.50000	ppb		0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.03	82	5	-0.02736	ppb		-0.01
Spiked Amount 5.000			Recovery = -0.540%				
7) Surrogate Recovery (FBP)	7.17	172	59	0.05692	ppb		0.01
Spiked Amount 5.000			Recovery = 1.140%				
17) Surrogate Recovery (TPH)	13.91	244	66	0.05959	ppb		0.03
Spiked Amount 5.000			Recovery = 1.200%				
Target Compounds							Qvalue
3) Naphthalene	5.92	128	136	0.10719	ppb		99
4) 2-Methylnaphthalene	6.74	142	77	0.09722	ppb		97
5) 1-Methylnaphthalene	6.84	142	89	0.10985	ppb		95
8) Acenaphthylene	7.79	152	129	0.09789	ppb		100
9) Acenaphthene	7.98	154	87	0.10949	ppb		98
10) Fluorene	8.61	166	96	0.10475	ppb		97
12) Phenanthrene	9.93	178	135	0.10645	ppb		99
13) Anthracene	10.03	178	105	0.08946	ppb		98
14) Fluoranthene	12.72	202	161	0.09385	ppb		97
16) Pyrene	13.35	202	187	0.10863	ppb		98
18) Benz (a) anthracene	16.84	228	149	0.10115	ppb		92
19) Chrysene	16.93	228	165	0.10363	ppb		98
20) Indeno (1,2,3-cd) pyrene	22.95	276	139	0.09508	ppb	#	95
22) Benzo (b) fluoranthene	19.72	252	141	0.09886	ppb		92
24) Benzo (a) pyrene	20.36	252	143	0.10041	ppb		93
25) Dibenz (a,h) anthracene	23.01	278	81	0.15217	ppb		96
26) Benzo (g,h,i) perylene	23.49	276	128	0.09949	ppb		91

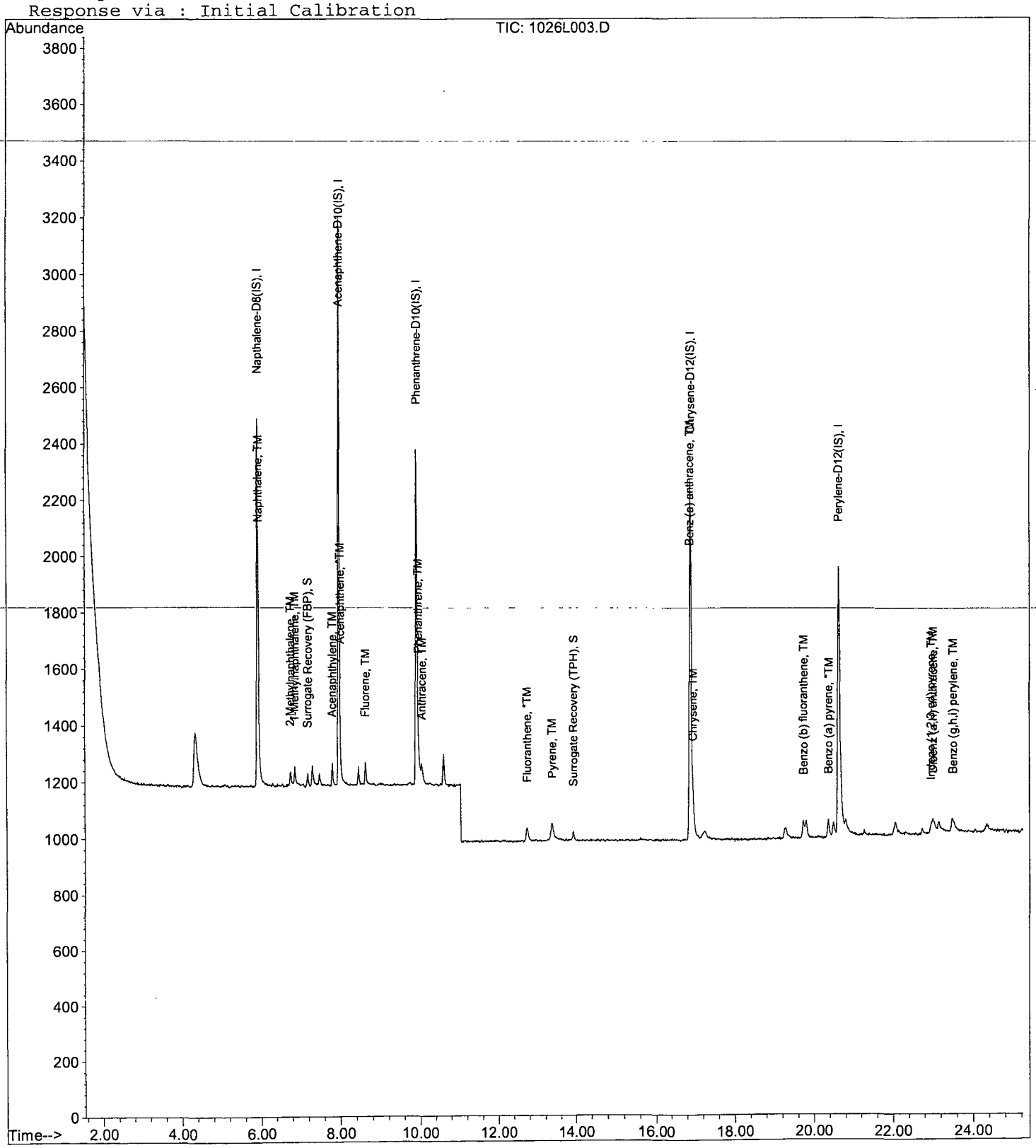
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L003.D Vial: 3
Acq On : 26 Oct 16 11:23 Operator: MA
Sample : 0.1 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 28 8:24 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L004.D Vial: 4
Acq On : 26 Oct 16 11:56 Operator: MA
Sample : 0.2 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	3002	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1521	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.89	188	2597	2.50000	ppb		0.01
15) Chrysene-D12(IS)	16.86	240	3039	2.50000	ppb		0.02
21) Perylene-D12(IS)	20.61	264	2914	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.05	82	39	0.40403	ppb		0.03
Spiked Amount 5.000			Recovery =	8.080%			
7) Surrogate Recovery (FBP)	7.17	172	103	0.09222	ppb		0.01
Spiked Amount 5.000			Recovery =	1.840%			
17) Surrogate Recovery (TPH)	13.91	244	116	0.09317	ppb		0.03
Spiked Amount 5.000			Recovery =	1.860%			
Target Compounds							Qvalue
3) Naphthalene	5.92	128	254	0.19348	ppb		99
4) 2-Methylnaphthalene	6.74	142	148	0.19912	ppb		99
5) 1-Methylnaphthalene	6.86	142	168	0.19556	ppb		96
8) Acenaphthylene	7.79	152	245	0.20066	ppb		99
9) Acenaphthene	7.98	154	148	0.17973	ppb		96
10) Fluorene	8.61	166	167	0.18379	ppb		98
12) Phenanthrene	9.93	178	239	0.18699	ppb		98
13) Anthracene	10.03	178	216	0.21728	ppb		97
14) Fluoranthene	12.71	202	303	0.19878	ppb		99
16) Pyrene	13.34	202	335	0.18993	ppb		98
18) Benz (a) anthracene	16.84	228	268	0.19070	ppb		98
19) Chrysene	16.93	228	311	0.19983	ppb		96
20) Indeno (1,2,3-cd) pyrene	22.95	276	242	0.18458	ppb	#	98
22) Benzo (b) fluoranthene	19.71	252	223	0.16820	ppb		99
23) Benzo (k) fluoranthene	19.78	252	204	0.21695	ppb		100
24) Benzo (a) pyrene	20.36	252	249	0.18518	ppb		95
25) Dibenz (a,h) anthracene	23.00	278	175	0.22977	ppb		98
26) Benzo (g,h,i) perylene	23.48	276	232	0.19276	ppb		94

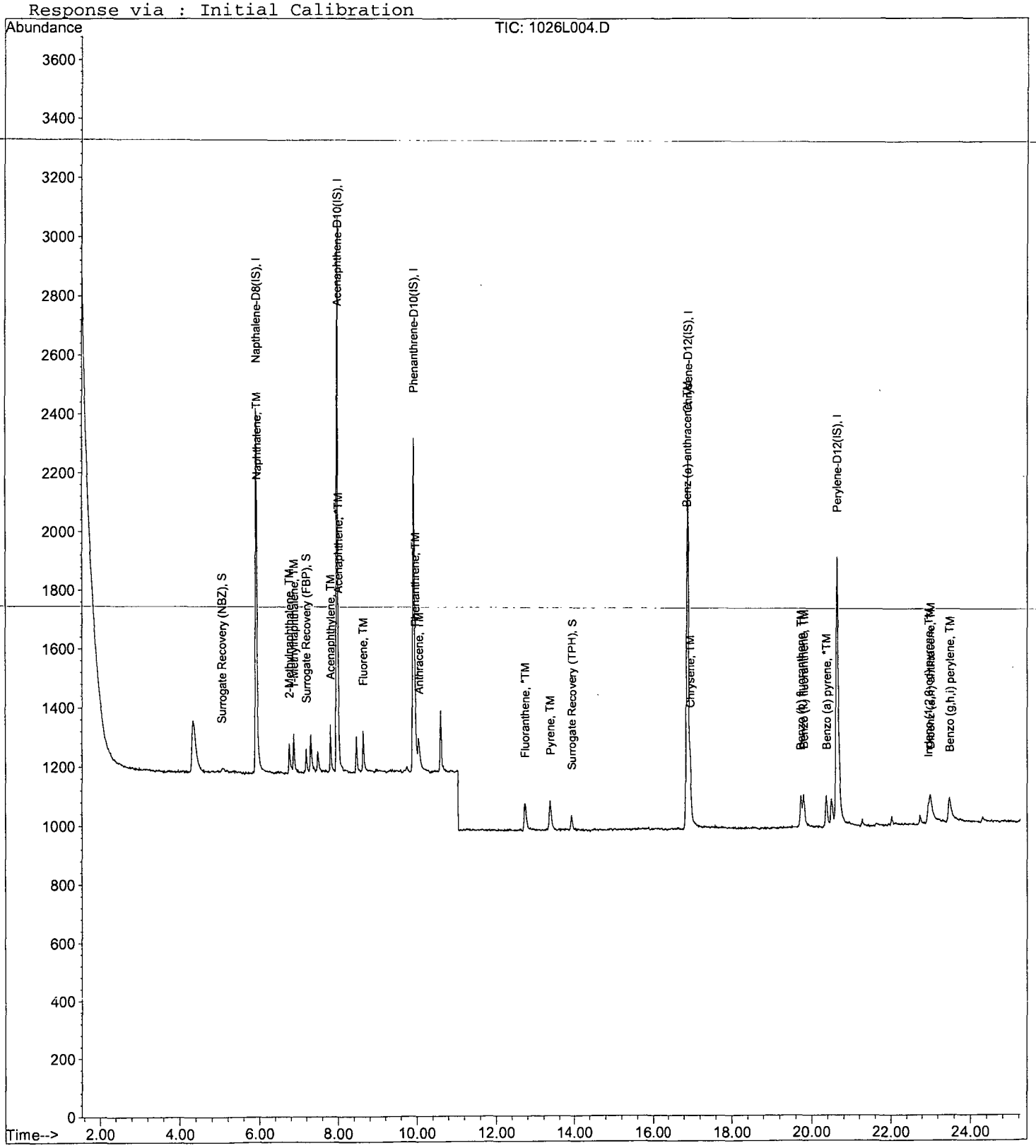
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L004.D Vial: 4
Acq On : 26 Oct 16 11:56 Operator: MA
Sample : 0.2 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



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Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L005.D Vial: 5
Acq On : 26 Oct 16 12:28 Operator: MA
Sample : 0.5 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	2997	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1546	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.89	188	2604	2.50000	ppb		0.01
15) Chrysene-D12(IS)	16.86	240	3072	2.50000	ppb		0.02
21) Perylene-D12(IS)	20.61	264	2859	2.50000	ppb		0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.06	82	70	0.28823	ppb		0.04
Spiked Amount 5.000			Recovery	= 5.760%			
7) Surrogate Recovery (FBP)	7.17	172	238	0.21813	ppb		0.01
Spiked Amount 5.000			Recovery	= 4.360%			
17) Surrogate Recovery (TPH)	13.90	244	247	0.20320	ppb		0.02
Spiked Amount 5.000			Recovery	= 4.060%			
Target Compounds							Qvalue
3) Naphthalene	5.93	128	586	0.45453	ppb		99
4) 2-Methylnaphthalene	6.74	142	354	0.47812	ppb		100
5) 1-Methylnaphthalene	6.84	142	395	0.46573	ppb		97
8) Acenaphthylene	7.79	152	592	0.47623	ppb		100
9) Acenaphthene	7.98	154	358	0.45056	ppb		98
10) Fluorene	8.61	166	412	0.46494	ppb		99
12) Phenanthrene	9.93	178	550	0.44358	ppb		99
13) Anthracene	10.03	178	520	0.50007	ppb		100
14) Fluoranthene	12.71	202	725	0.47580	ppb		97
16) Pyrene	13.34	202	753	0.43324	ppb		98
18) Benz (a) anthracene	16.84	228	631	0.45474	ppb		99
19) Chrysene	16.93	228	786	0.49983	ppb		98
20) Indeno (1,2,3-cd) pyrene	22.94	276	630	0.49442	ppb	#	99
22) Benzo (b) fluoranthene	19.71	252	554	0.46268	ppb		99
23) Benzo (k) fluoranthene	19.78	252	506	0.52618	ppb		100
24) Benzo (a) pyrene	20.36	252	610	0.48017	ppb		96
25) Dibenz (a,h) anthracene	23.00	278	528	0.65763	ppb		99
26) Benzo (g,h,i) perylene	23.47	276	548	0.47262	ppb		96

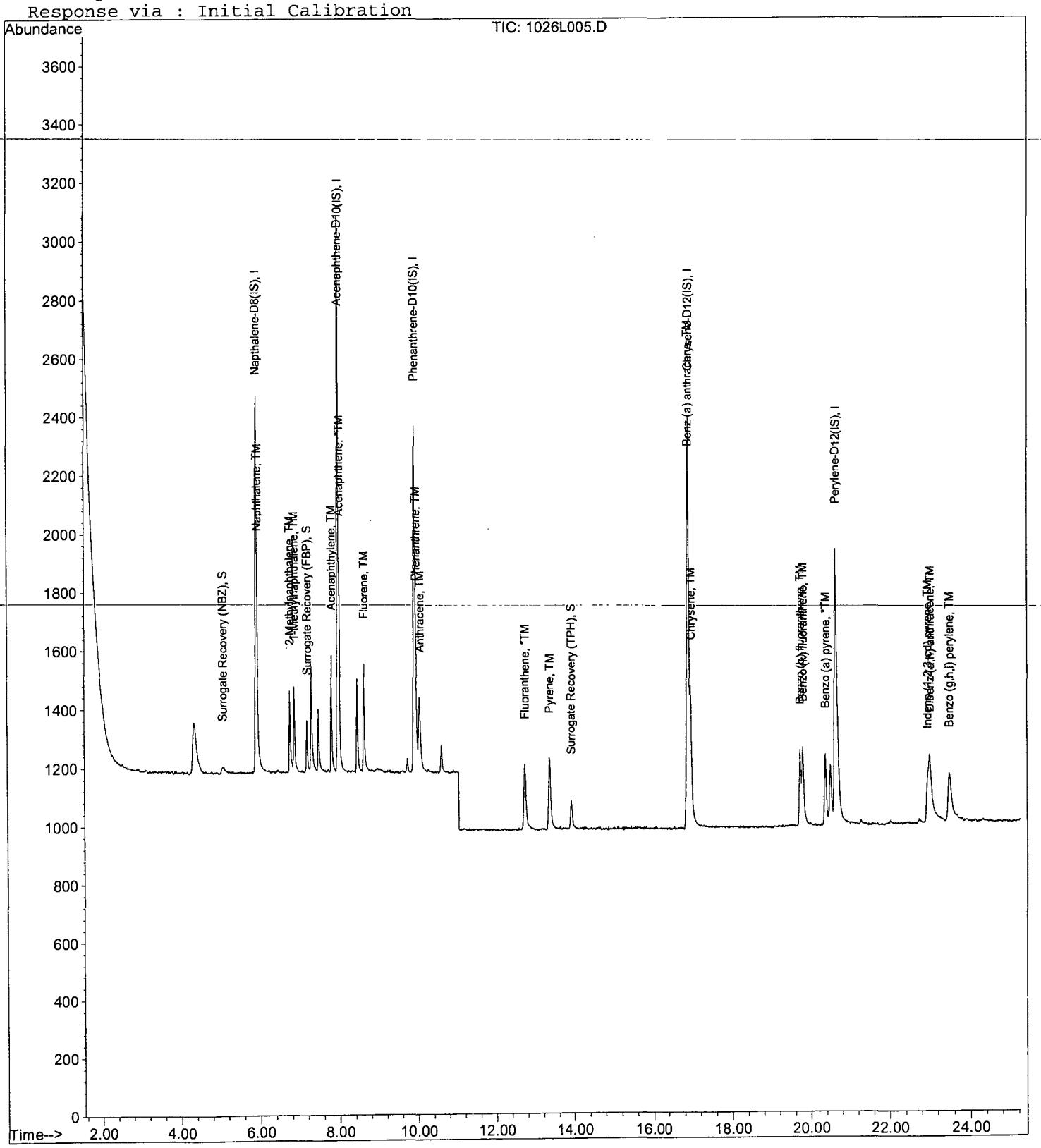
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L005.D Vial: 5
Acq On : 26 Oct 16 12:28 Operator: MA
Sample : 0.5 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L006.D Vial: 6
Acq On : 26 Oct 16 13:01 Operator: MA
Sample : 1.0 ug/ml PAH 10/26/16 (1) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	3027	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1545	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.89	188	2662	2.50000 ppb		0.01
15) Chrysene-D12(IS)	16.85	240	3161	2.50000 ppb		0.01
21) Perylene-D12(IS)	20.61	264	2967	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.05	82	139	0.53919 ppb		0.03
Spiked Amount 5.000			Recovery = 10.780%			
7) Surrogate Recovery (FBP)	7.17	172	455	0.43581 ppb		0.01
Spiked Amount 5.000			Recovery = 8.720%			
17) Surrogate Recovery (TPH)	13.90	244	492	0.41953 ppb		0.02
Spiked Amount 5.000			Recovery = 8.400%			
Target Compounds						Qvalue
3) Naphthalene	5.93	128	1165	0.92265 ppb		99
4) 2-Methylnaphthalene	6.74	142	717	0.97300 ppb		99
5) 1-Methylnaphthalene	6.84	142	746	0.89122 ppb		98
8) Acenaphthylene	7.79	152	1171	0.95780 ppb		100
9) Acenaphthene	7.98	154	728	0.94806 ppb		97
10) Fluorene	8.61	166	812	0.93887 ppb		99
12) Phenanthrene	9.92	178	1112	0.91159 ppb		99
13) Anthracene	10.02	178	1050	0.98771 ppb		99
14) Fluoranthene	12.70	202	1447	0.94417 ppb		97
16) Pyrene	13.33	202	1540	0.90120 ppb		99
18) Benz (a) anthracene	16.83	228	1291	0.93232 ppb		99
19) Chrysene	16.93	228	1506	0.93083 ppb		99
20) Indeno (1,2,3-cd) pyrene	22.94	276	1337	1.02354 ppb	#	100
22) Benzo (b) fluoranthene	19.71	252	1180	0.97384 ppb		99
23) Benzo (k) fluoranthene	19.77	252	1003	0.98779 ppb		98
24) Benzo (a) pyrene	20.35	252	1195	0.91857 ppb		98
25) Dibenz (a,h) anthracene	22.99	278	1001	1.08714 ppb		95
26) Benzo (g,h,i) perylene	23.46	276	1099	0.93031 ppb		96

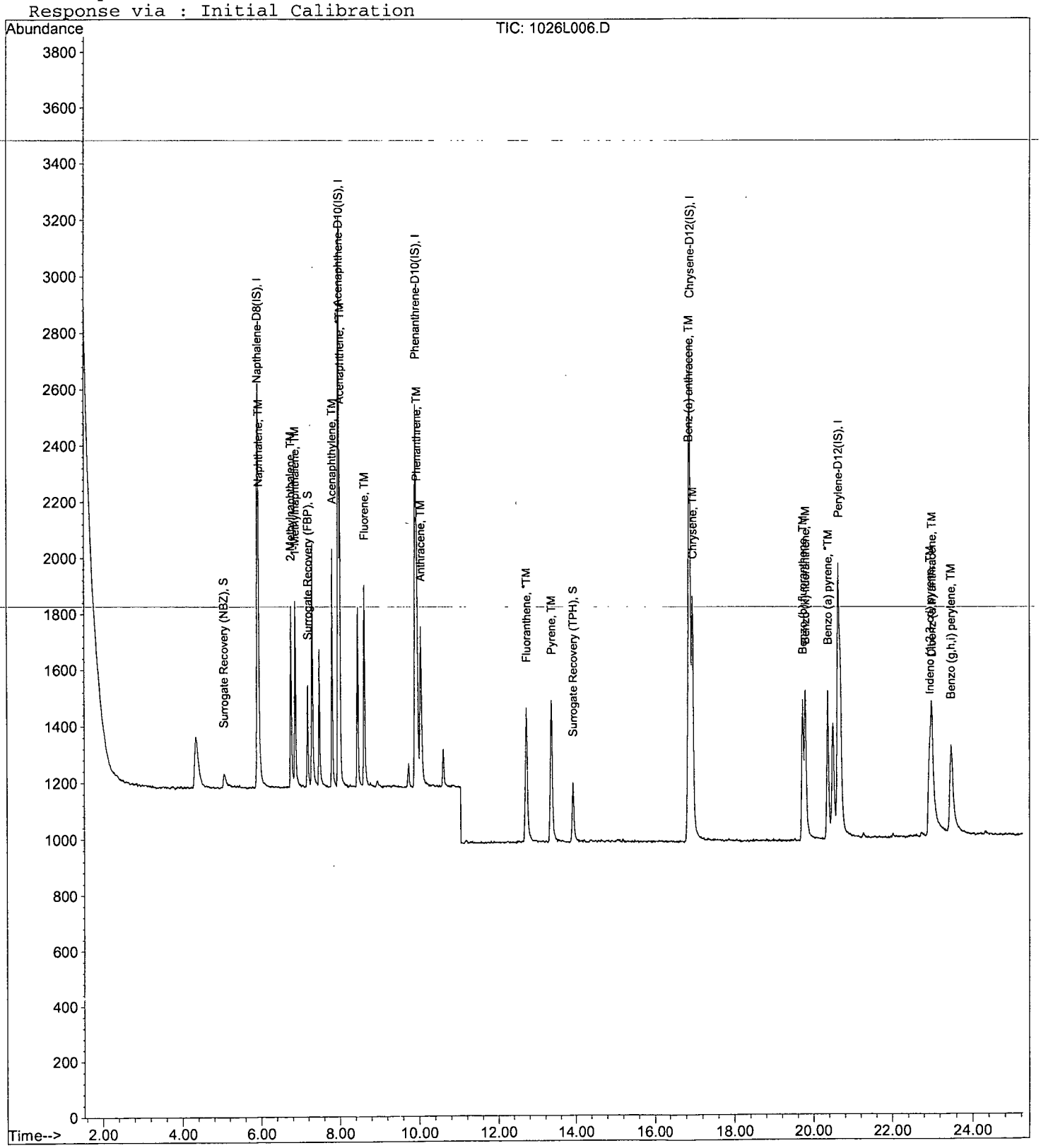
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L006.D Vial: 6
Acq On : 26 Oct 16 13:01 Operator: MA
Sample : 1.0 ug/ml PAH 10/26/16 (1) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L007.D Vial: 7
Acq On : 26 Oct 16 13:33 Operator: MA
Sample : 5.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	2942	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1477	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	2585	2.50000 ppb		0.00
15) Chrysene-D12(IS)	16.84	240	3262	2.50000 ppb		0.00
21) Perylene-D12(IS)	20.60	264	2933	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.05	82	895	3.50342 ppb		0.03
Spiked Amount 5.000			Recovery = 70.060%			
7) Surrogate Recovery (FBP)	7.16	172	2500	2.58785 ppb		0.00
Spiked Amount 5.000			Recovery = 51.760%			
17) Surrogate Recovery (TPH)	13.88	244	2786	2.39859 ppb		0.00
Spiked Amount 5.000			Recovery = 47.980%			
Target Compounds						Qvalue
3) Naphthalene	5.92	128	6347	5.27386 ppb		100
4) 2-Methylnaphthalene	6.74	142	4162	5.85067 ppb		99
5) 1-Methylnaphthalene	6.84	142	4036	5.09968 ppb		97
8) Acenaphthylene	7.79	152	6719	5.80999 ppb		99
9) Acenaphthene	7.98	154	3906	5.39090 ppb		98
10) Fluorene	8.59	166	4625	5.68065 ppb		98
12) Phenanthrene	9.91	178	6410	5.53358 ppb		99
13) Anthracene	10.01	178	6300	6.12160 ppb		100
14) Fluoranthene	12.68	202	8746	5.95997 ppb		96
16) Pyrene	13.31	202	9137	5.31261 ppb		99
18) Benz (a) anthracene	16.82	228	7969	5.67276 ppb		99
19) Chrysene	16.92	228	8489	5.17390 ppb		99
20) Indeno (1,2,3-cd) pyrene	22.90	276	8042	5.93101 ppb	#	98
22) Benzo (b) fluoranthene	19.69	252	6943	5.83458 ppb		100
23) Benzo (k) fluoranthene	19.76	252	7038	7.03310 ppb		98
24) Benzo (a) pyrene	20.34	252	7187	5.70464 ppb		96
25) Dibenz (a,h) anthracene	22.96	278	6484	6.97171 ppb		100
26) Benzo (g,h,i) perylene	23.43	276	6490	5.65605 ppb		98

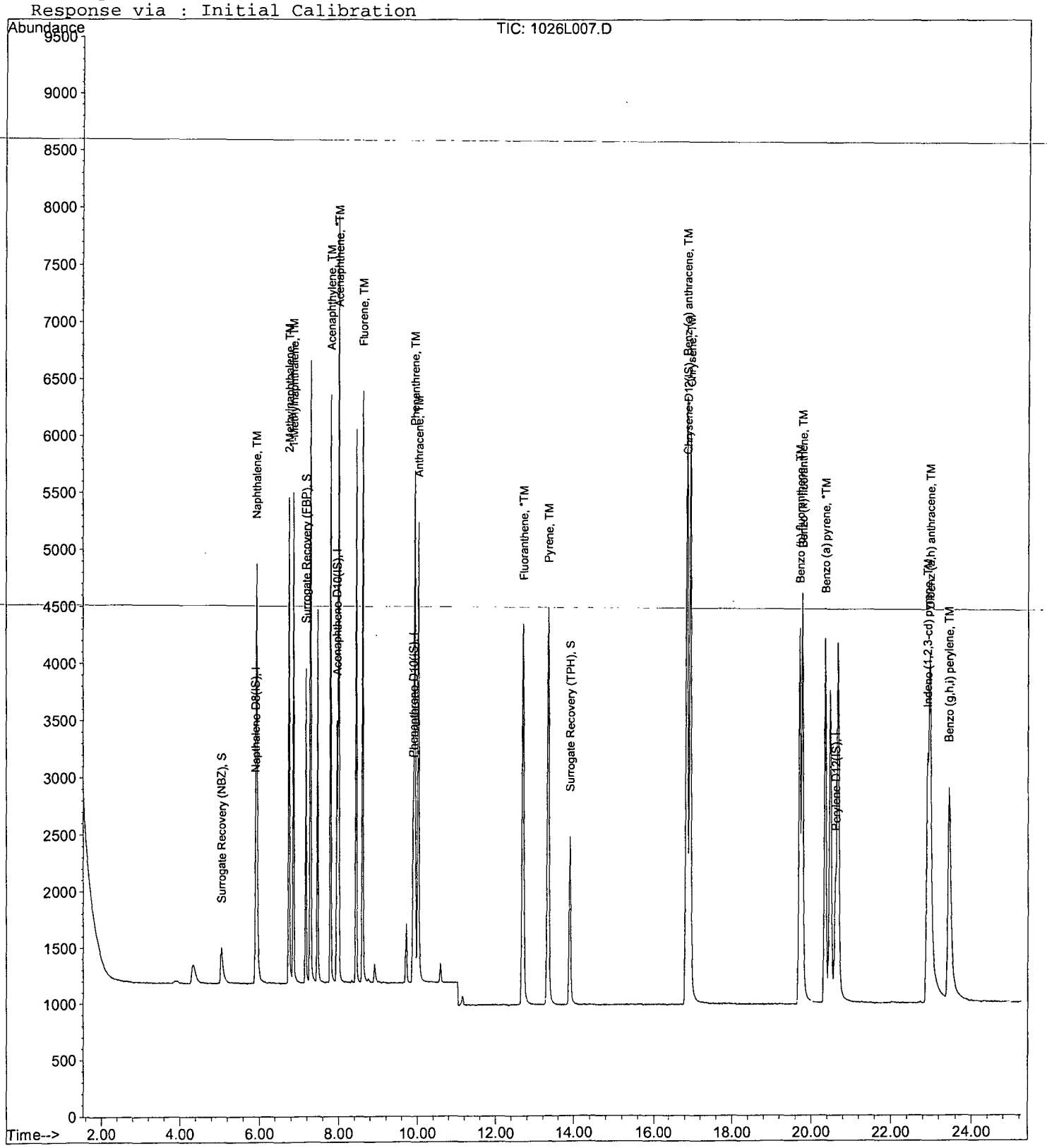
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L007.D Vial: 7
Acq On : 26 Oct 16 13:33 Operator: MA
Sample : 5.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L008.D Vial: 8
Acq On : 26 Oct 16 14:05 Operator: MA
Sample : 10.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	2986	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1505	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	2677	2.50000 ppb		0.00
15) Chrysene-D12(IS)	16.84	240	3400	2.50000 ppb		0.00
21) Perylene-D12(IS)	20.59	264	3039	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.05	82	1921	6.85829 ppb		0.00
Spiked Amount 5.000			Recovery	= 137.160%		
7) Surrogate Recovery (FBP)	7.16	172	5091	5.13577 ppb		0.00
Spiked Amount 5.000			Recovery	= 102.720%		
17) Surrogate Recovery (TPH)	13.88	244	5901	4.91410 ppb		0.00
Spiked Amount 5.000			Recovery	= 98.280%		
Target Compounds						Qvalue
3) Naphthalene	5.93	128	12724	10.30399 ppb		100
4) 2-Methylnaphthalene	6.74	142	8422	11.28079 ppb		99
5) 1-Methylnaphthalene	6.84	142	8115	10.06248 ppb		97
8) Acenaphthylene	7.79	152	13495	11.09277 ppb		99
9) Acenaphthene	7.98	154	7905	10.54234 ppb		99
10) Fluorene	8.58	166	9332	10.95063 ppb		97
12) Phenanthrene	9.91	178	13084	10.67897 ppb		100
13) Anthracene	9.99	178	12890	11.57524 ppb		99
14) Fluoranthene	12.67	202	18238	11.55739 ppb		97
16) Pyrene	13.30	202	18848	10.38432 ppb		100
18) Benz (a) anthracene	16.82	228	17088	11.36461 ppb		99
19) Chrysene	16.91	228	17182	9.97769 ppb		100
20) Indeno (1,2,3-cd) pyrene	22.89	276	17051	11.63162 ppb	#	98
22) Benzo (b) fluoranthene	19.69	252	15215	11.94137 ppb		99
23) Benzo (k) fluoranthene	19.75	252	13796	12.30485 ppb		98
24) Benzo (a) pyrene	20.33	252	14907	11.10660 ppb		99
25) Dibenz (a,h) anthracene	22.95	278	13714	13.19086 ppb		99
26) Benzo (g,h,i) perylene	23.42	276	13588	11.13668 ppb		98

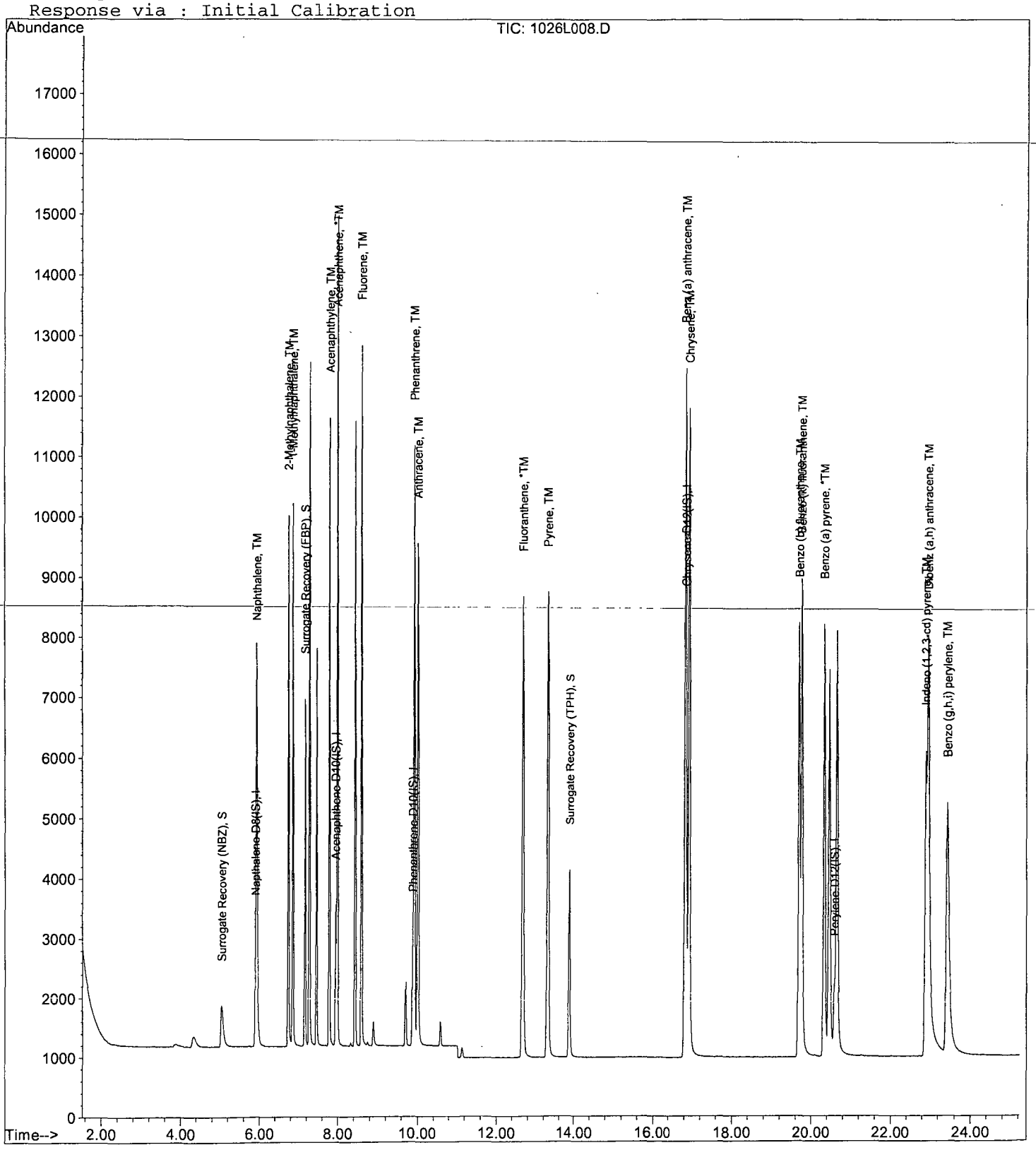
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L008.D Vial: 8
Acq On : 26 Oct 16 14:05 Operator: MA
Sample : 10.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L009.D Vial: 9
Acq On : 26 Oct 16 14:37 Operator: MA
Sample : 50.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	5.89	136	2794	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	7.94	164	1386	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	2434	2.50000	ppb		0.00
15) Chrysene-D12(IS)	16.85	240	3234	2.50000	ppb		0.01
21) Perylene-D12(IS)	20.60	264	2790	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.03	82	8415	30.23463	ppb		-0.01
Spiked Amount 5.000			Recovery = 604.700%				
7) Surrogate Recovery (FBP)	7.16	172	20751	22.62838	ppb		0.00
Spiked Amount 5.000			Recovery = 452.560%				
17) Surrogate Recovery (TPH)	13.87	244	25797	22.65018	ppb		-0.01
Spiked Amount 5.000			Recovery = 453.000%				
Target Compounds							Qvalue
3) Naphthalene	5.93	128	54753	47.14744	ppb		100
4) 2-Methylnaphthalene	6.74	142	36210	50.75083	ppb		99
5) 1-Methylnaphthalene	6.84	142	33098	43.81569	ppb		97
8) Acenaphthylene	7.79	152	57065	50.02321	ppb		100
9) Acenaphthene	7.99	154	33025	47.39617	ppb		96
10) Fluorene	8.59	166	39169	49.13071	ppb		99
12) Phenanthrene	9.92	178	56397	50.05941	ppb		99
13) Anthracene	10.01	178	53407	51.39823	ppb		99
14) Fluoranthene	12.68	202	82212	55.84917	ppb		97
16) Pyrene	13.31	202	83805	48.23348	ppb		99
18) Benz (a) anthracene	16.83	228	79293	54.20887	ppb		99
19) Chrysene	16.93	228	73686	45.00303	ppb		100
20) Indeno (1,2,3-cd) pyrene	22.90	276	78247	54.63168	ppb	#	99
22) Benzo (b) fluoranthene	19.71	252	72967	60.42347	ppb		99
23) Benzo (k) fluoranthene	19.78	252	61939	57.94864	ppb		99
24) Benzo (a) pyrene	20.36	252	67423	53.72649	ppb		96
25) Dibenz (a,h) anthracene	22.96	278	62206	61.88207	ppb		99
26) Benzo (g,h,i) perylene	23.43	276	60431	52.94634	ppb		97

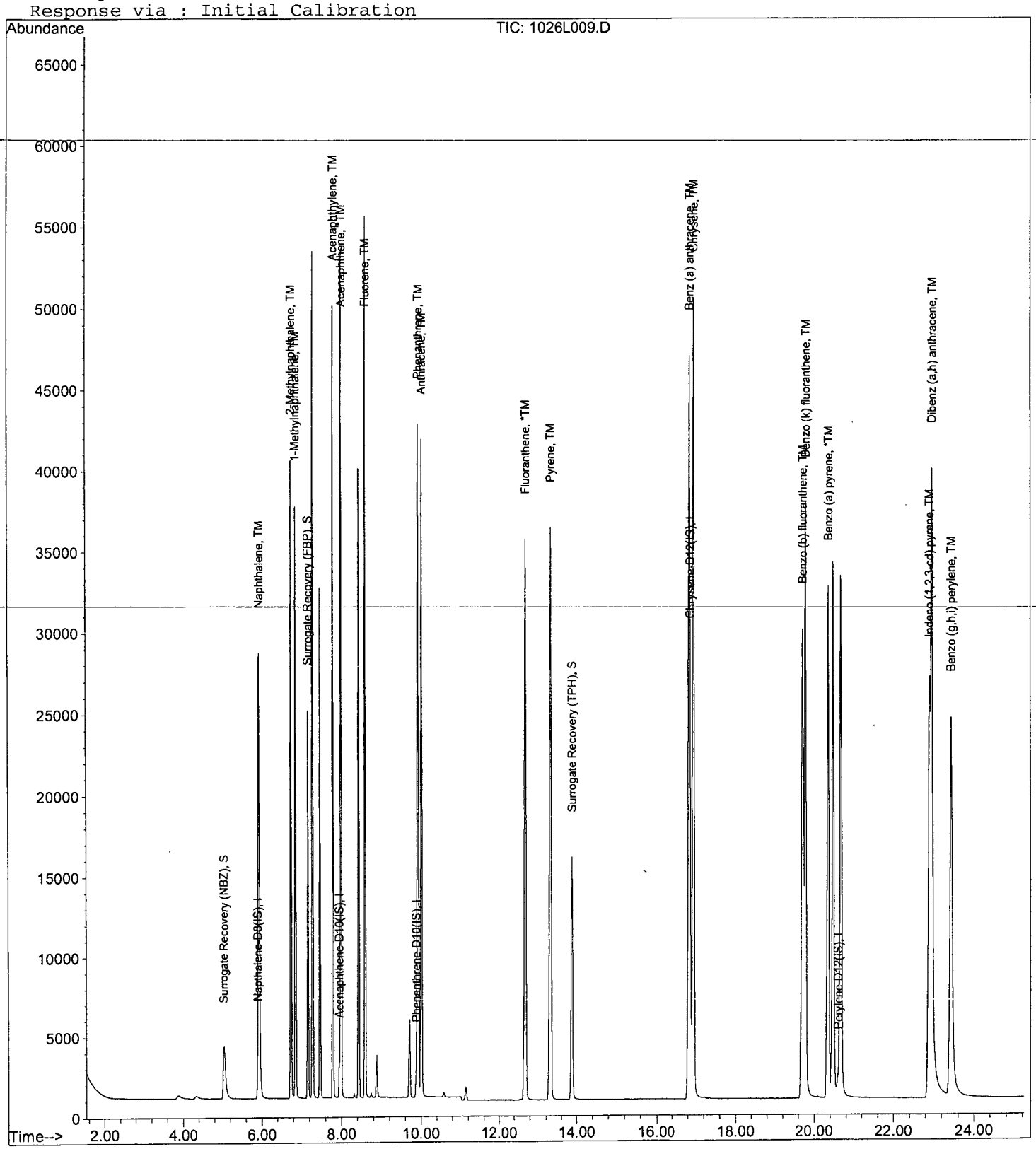
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L009.D Vial: 9
Acq On : 26 Oct 16 14:37 Operator: MA
Sample : 50.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L010.D Vial: 10
Acq On : 26 Oct 16 15:09 Operator: MA
Sample : 100.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 15:50:22 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	5.90	136	2855	2.50000	ppb		0.01
6) Acenaphthene-D10(IS)	7.95	164	1362	2.50000	ppb		0.01
11) Phenanthrene-D10(IS)	9.89	188	2333	2.50000	ppb		0.01
15) Chrysene-D12(IS)	16.88	240	3111	2.50000	ppb		0.04
21) Perylene-D12(IS)	20.62	264	2663	2.50000	ppb		0.02
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.05	82	17071	58.28135	ppb		0.00
Spiked Amount 5.000			Recovery	= 1165.620%			
7) Surrogate Recovery (FBP)	7.16	172	40283	45.31564	ppb		0.00
Spiked Amount 5.000			Recovery	= 906.320%			
17) Surrogate Recovery (TPH)	13.88	244	49449	45.74789	ppb		0.00
Spiked Amount 5.000			Recovery	= 914.960%			
Target Compounds							Qvalue
3) Naphthalene	5.93	128	107908	91.68077	ppb		99
4) 2-Methylnaphthalene	6.74	142	70232	96.12565	ppb		100
5) 1-Methylnaphthalene	6.86	142	64241	84.72330	ppb		99
8) Acenaphthylene	7.79	152	108768	97.01976	ppb		99
9) Acenaphthene	7.99	154	63005	92.70530	ppb		99
10) Fluorene	8.59	166	74351	95.14008	ppb		99
12) Phenanthrene	9.93	178	106925	99.00134	ppb		99
13) Anthracene	10.02	178	98627	98.63251	ppb		98
14) Fluoranthene	12.70	202	163122	113.71087	ppb		97
16) Pyrene	13.34	202	165586	99.57259	ppb		99
18) Benz (a) anthracene	16.85	228	141018	99.02815	ppb		99
19) Chrysene	16.97	228	143007	92.10839	ppb		99
20) Indeno (1,2,3-cd) pyrene	22.94	276	152037	108.90723	ppb	#	98
22) Benzo (b) fluoranthene	19.73	252	149573	126.01447	ppb		99
23) Benzo (k) fluoranthene	19.82	252	80228	76.89275	ppb		98
24) Benzo (a) pyrene	20.39	252	131607	108.71585	ppb		97
25) Dibenz (a,h) anthracene	23.01	278	119414	120.37099	ppb		96
26) Benzo (g,h,i) perylene	23.48	276	115421	105.06387	ppb		98

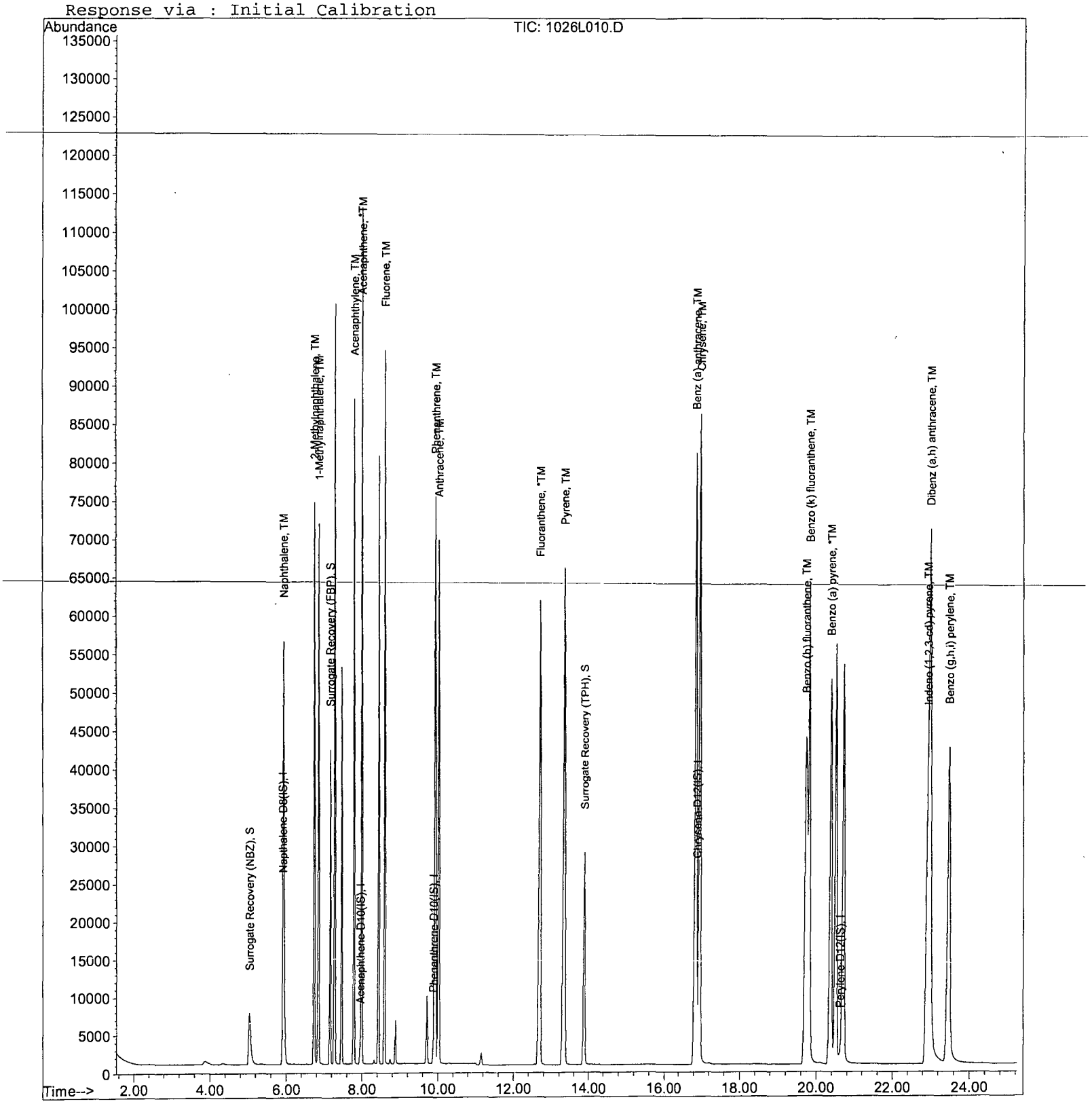
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L010.D Vial: 10
Acq On : 26 Oct 16 15:09 Operator: MA
Sample : 100.0 ug/ml PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 15:51 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 10/26/16
Instrument: Linus
Initial Cal. Date: 10/26/16
Data File: 1026L011.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Naphthalene	1.020	1.149	13	TM	
2	TM	2-Methylnaphthalene	0.6367	0.7311	15	TM	
3	TM	1-Methylnaphthalene	0.6513	0.7303	12	TM	
4	TM	Acenaphthylene	2.050	2.256	10	TM	
5	*TM	Acenaphthene	1.236	1.335	8.0	*TM	
6	TM	Fluorene	1.426	1.572	10	TM	
7	TM	Phenanthrene	1.156	1.229	6.3	TM	
8	TM	Anthracene	1.070	1.196	12	TM	
9	*TM	Fluoranthene	1.564	1.710	9.4	*TM	
10	TM	Pyrene	1.336	1.394	4.4	TM	
11	TM	Benz (a) anthracene	1.143	1.235	8.0	TM	
12	TM	Chrysene	1.235	1.312	6.2	TM	
13	TM	Indeno (1,2,3-cd) pyrene	1.134	1.292	14	TM	
14	TM	Benzo (b) fluoranthene	1.151	1.183	2.8	TM	
15	TML	Benzo (k) fluoranthene	0.9795	1.143	17	TML	2.5
16	*TM	Benzo (a) pyrene	1.149	1.228	6.9	*TM	
17	TML	Dibenz (a,h) anthracene	0.9550	1.177	23	TML	6.9
18	TM	Benzo (g,h,i) perylene	1.038	1.117	7.6	TM	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
		Average			10.3		

EPA 8270C SIM
0

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L011.D Vial: 11
Acq On : 26 Oct 16 15:42 Operator: MA
Sample : SS PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 16:20 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 26 16:16:15 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	5.90	136	2785	2.50000 ppb		0.01
6) Acenaphthene-D10(IS)	7.94	164	1444	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	2515	2.50000 ppb		0.00
15) Chrysene-D12(IS)	16.85	240	3169	2.50000 ppb		0.01
21) Perylene-D12(IS)	20.60	264	2834	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.06	82	1	-0.03779 ppb		0.01
Spiked Amount 5.000			Recovery = -0.760%			
7) Surrogate Recovery (FBP)	7.16	172	7	0.00752 ppb		0.00
Spiked Amount 5.000			Recovery = 0.160%			
17) Surrogate Recovery (TPH)	13.90	244	3	0.00275 ppb		0.02
Spiked Amount 5.000			Recovery = 0.060%			
Target Compounds						Qvalue
3) Naphthalene	5.93	128	6402	5.63457 ppb		100
4) 2-Methylnaphthalene	6.74	142	4072	5.74118 ppb		99
5) 1-Methylnaphthalene	6.84	142	4068	5.60694 ppb		97
8) Acenaphthylene	7.79	152	6514	5.50095 ppb		99
9) Acenaphthene	7.98	154	3856	5.40076 ppb		98
10) Fluorene	8.59	166	4539	5.51180 ppb		100
12) Phenanthrene	9.92	178	6183	5.31717 ppb		99
13) Anthracene	10.01	178	6017	5.59144 ppb		100
14) Fluoranthene	12.68	202	8601	5.46808 ppb		97
16) Pyrene	13.31	202	8838	5.22011 ppb		99
18) Benz (a) anthracene	16.82	228	7826	5.40169 ppb		99
19) Chrysene	16.92	228	8315	5.30991 ppb		99
20) Indeno (1,2,3-cd) pyrene	22.91	276	8191	5.69657 ppb	#	97
22) Benzo (b) fluoranthene	19.69	252	6704	5.14014 ppb		100
23) Benzo (k) fluoranthene	19.76	252	6480	5.12262 ppb		98
24) Benzo (a) pyrene	20.34	252	6962	5.34581 ppb		97
25) Dibenz (a,h) anthracene	22.96	278	6674	5.34490 ppb		99
26) Benzo (g,h,i) perylene	23.44	276	6331	5.38111 ppb		98

Algorithum = $\frac{6402 * 1 * 2.5}{1 * 2785 * 1.02} = \frac{16003}{2840.7} = 5.63417$

RH 10/27/16

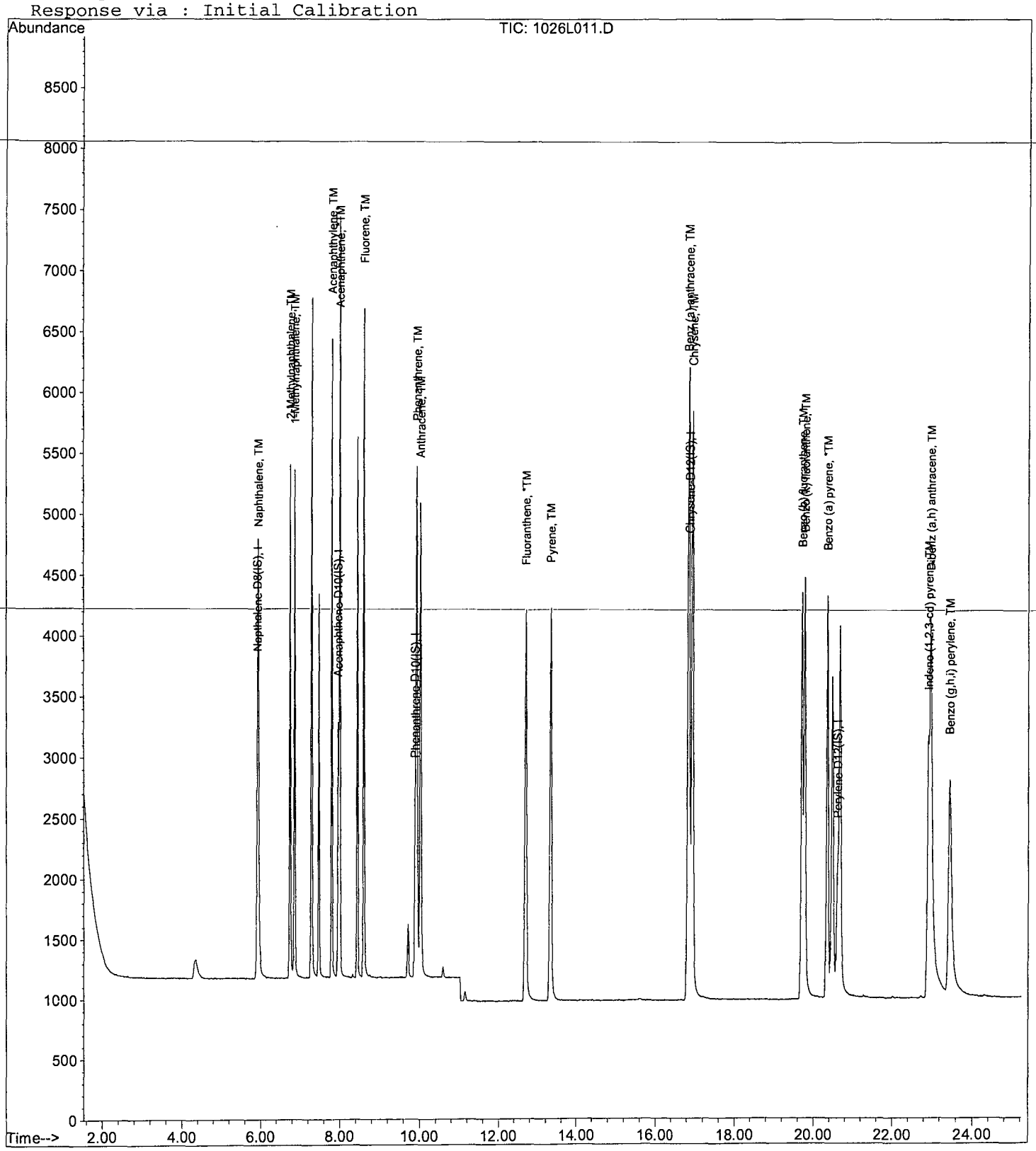
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L011.D Vial: 11
Acq On : 26 Oct 16 15:42 Operator: MA
Sample : SS PAH 10/26/16 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Oct 26 16:20 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



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Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 1 Nov 16 22:38
Instrument: Linus
Initial Cal. Date: 10/26/16
Data File: 1026L150.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	SL	Surrogate Recovery (NBZ)	0.2618	0.3284	25	SL	8.1
3	TM	Naphthalene	1.020	0.9875	3.2	TM	
4	TM	2-Methylnaphthalene	0.6367	0.6530	2.6	TM	
5	TM	1-Methylnaphthalene	0.6513	0.6440	1.1	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.613	1.666	3.3	S	
8	TM	Acenaphthylene	2.050	2.049	0.07	TM	
9	*TM	Acenaphthene	1.236	1.220	1.3	*TM	
10	TM	Fluorene	1.426	1.421	0.34	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.156	1.121	3.0	TM	
13	TM	Anthracene	1.070	1.120	4.7	TM	
14	*TM	Fluoranthene	1.564	1.623	3.8	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.336	1.312	1.8	TM	
17	S	Surrogate Recovery (TPH)	0.8594	0.8995	4.7	S	
18	TM	Benz (a) anthracene	1.143	1.227	7.4	TM	
19	TM	Chrysene	1.235	1.205	2.4	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.134	1.023	9.8	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TM	Benzo (b) fluoranthene	1.151	1.184	2.9	TM	
23	TML	Benzo (k) fluoranthene	0.9795	1.148	17	TML	2.9
24	*TM	Benzo (a) pyrene	1.149	1.143	0.49	*TM	
25	TML	Dibenz (a,h) anthracene	0.9550	0.9358	2.0	TML	15
26	TM	Benzo (g,h,i) perylene	1.038	0.8652	17	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			5.4		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L150.D Vial: 50
Acq On : 1 Nov 16 22:38 Operator: MA
Sample : 2.5 ug/ml PAH 10/26/16 (2) Inst : Linus
Misc : soil Multiplr: 1.00

Quant Time: Nov 2 10:54 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	5.90	136	2768	2.50000 ppb		0.01
6) Acenaphthene-D10(IS)	7.95	164	1455	2.50000 ppb		0.01
11) Phenanthrene-D10(IS)	9.89	188	2605	2.50000 ppb		0.01
15) Chrysene-D12(IS)	16.86	240	3335	2.50000 ppb		0.02
21) Perylene-D12(IS)	20.62	264	3012	2.50000 ppb		0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.05	82	909	2.70256 ppb		0.00
Spiked Amount 5.000			Recovery = 54.060%			
7) Surrogate Recovery (FBP)	7.16	172	2424	2.58279 ppb		0.00
Spiked Amount 5.000			Recovery = 51.660%			
17) Surrogate Recovery (TPH)	13.89	244	3000	2.61686 ppb		0.00
Spiked Amount 5.000			Recovery = 52.340%			
Target Compounds						Qvalue
3) Naphthalene	5.93	128	5467	4.84121 ppb		100
4) 2-Methylnaphthalene	6.74	142	3615	5.12815 ppb		100
5) 1-Methylnaphthalene	6.86	142	3565	4.94383 ppb		99
8) Acenaphthylene	7.79	152	5962	4.99673 ppb		100
9) Acenaphthene	7.99	154	3551	4.93597 ppb		97
10) Fluorene	8.59	166	4135	4.98325 ppb		100
12) Phenanthrene	9.92	178	5842	4.85035 ppb		100
13) Anthracene	10.02	178	5833	5.23319 ppb		100
14) Fluoranthene	12.69	202	8457	5.19078 ppb		97
16) Pyrene	13.32	202	8749	4.91033 ppb		99
18) Benz (a) anthracene	16.84	228	8187	5.36959 ppb		99
19) Chrysene	16.93	228	8038	4.87752 ppb		99
20) Indeno (1,2,3-cd) pyrene	22.92	276	6821	4.50766 ppb	#	99
22) Benzo (b) fluoranthene	19.71	252	7135	5.14730 ppb		99
23) Benzo (k) fluoranthene	19.78	252	6914	5.14279 ppb		98
24) Benzo (a) pyrene	20.36	252	6887	4.97570 ppb		97
25) Dibenz (a,h) anthracene	22.98	278	5637	4.26690 ppb		98
26) Benzo (g,h,i) perylene	23.46	276	5212	4.16820 ppb		99

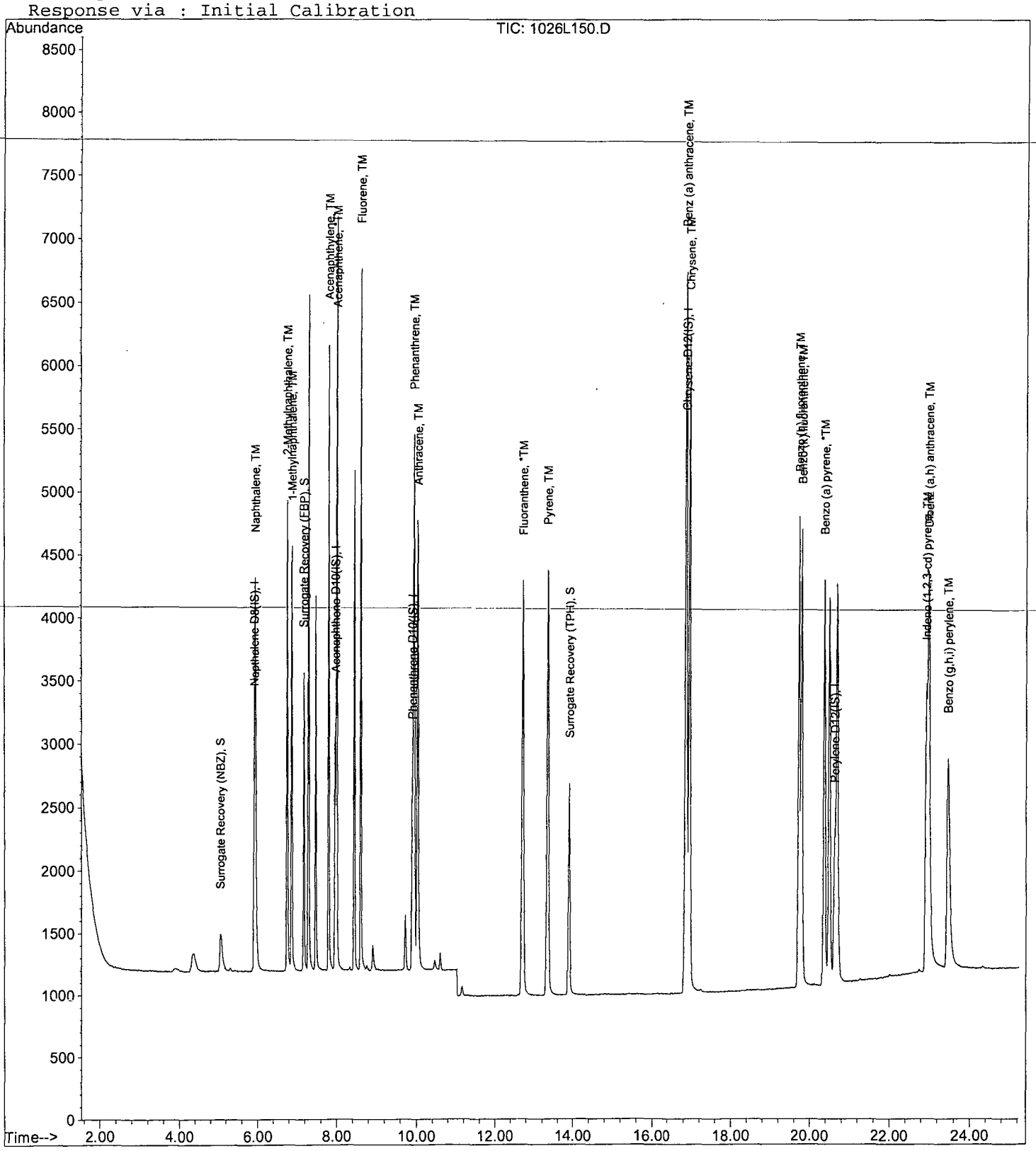
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L150.D Vial: 50
Acq On : 1 Nov 16 22:38 Operator: MA
Sample : 2.5 ug/ml PAH 10/26/16 (2) Inst : Linus
Misc : soil Multiplr: 1.00

Quant Time: Nov 2 10:54 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Form 7

Ending Continuing Calibration

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

SDG No:
Date Analyzed: 2 Nov 16 9:38
Instrument: Linus
Initial Cal. Date: 10/26/16
Data File: 1026L171.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	SL	Surrogate Recovery (NBZ)	0.2618	0.3366	29	SL	11
3	TM	Naphthalene	1.020	1.129	11	TM	
4	TM	2-Methylnaphthalene	0.6367	0.7457	17	TM	
5	TM	1-Methylnaphthalene	0.6513	0.7346	13	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.613	1.692	4.9	S	
8	TM	Acenaphthylene	2.050	2.318	13	TM	
9	*TM	Acenaphthene	1.236	1.377	11	*TM	
10	TM	Fluorene	1.426	1.610	13	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.156	1.269	9.8	TM	
13	TM	Anthracene	1.070	1.257	17	TM	
14	*TM	Fluoranthene	1.564	1.847	18	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.336	1.487	11	TM	
17	S	Surrogate Recovery (TPH)	0.8594	0.9158	6.6	S	
18	TM	Benz (a) anthracene	1.143	1.368	20	TM	
19	TM	Chrysene	1.235	1.377	11	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.134	1.101	3.0	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TM	Benzo (b) fluoranthene	1.151	1.405	22	TM	
23	TML	Benzo (k) fluoranthene	0.9795	1.259	29	TML	13
24	*TM	Benzo (a) pyrene	1.149	1.297	13	*TM	
25	TML	Dibenz (a,h) anthracene	0.9550	1.068	12	TML	2.9
26	TM	Benzo (g,h,i) perylene	1.038	0.9486	8.6	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			13.9		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L171.D Vial: 71
Acq On : 2 Nov 16 9:38 Operator: MA
Sample : 2.5 ug/ml PAH 10/26/16 (1) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Nov 2 10:56 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	5.90	136	2894	2.50000	ppb		0.01
6) Acenaphthene-D10(IS)	7.95	164	1534	2.50000	ppb		0.01
11) Phenanthrene-D10(IS)	9.89	188	2765	2.50000	ppb		0.01
15) Chrysene-D12(IS)	16.86	240	3564	2.50000	ppb		0.02
21) Perylene-D12(IS)	20.61	264	3121	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.06	82	974	2.77075	ppb		0.01
Spiked Amount 5.000			Recovery = 55.420%				
7) Surrogate Recovery (FBP)	7.16	172	2595	2.62260	ppb		0.00
Spiked Amount 5.000			Recovery = 52.460%				
17) Surrogate Recovery (TPH)	13.89	244	3264	2.66420	ppb		0.00
Spiked Amount 5.000			Recovery = 53.280%				
Target Compounds							Qvalue
3) Naphthalene	5.93	128	6537	5.53669	ppb		100
4) 2-Methylnaphthalene	6.74	142	4316	5.85601	ppb		100
5) 1-Methylnaphthalene	6.86	142	4252	5.63981	ppb		100
8) Acenaphthylene	7.79	152	7113	5.65437	ppb		100
9) Acenaphthene	7.99	154	4226	5.57172	ppb		97
10) Fluorene	8.59	166	4940	5.64679	ppb		99
12) Phenanthrene	9.92	178	7018	5.48956	ppb		99
13) Anthracene	10.01	178	6950	5.87451	ppb		100
14) Fluoranthene	12.69	202	10214	5.90643	ppb		96
16) Pyrene	13.32	202	10597	5.56536	ppb		99
18) Benz (a) anthracene	16.83	228	9752	5.98505	ppb		99
19) Chrysene	16.93	228	9812	5.57144	ppb		99
20) Indeno (1,2,3-cd) pyrene	22.92	276	7847	4.85249	ppb	#	95
22) Benzo (b) fluoranthene	19.71	252	8769	6.10516	ppb		99
23) Benzo (k) fluoranthene	19.77	252	7859	5.64370	ppb		99
24) Benzo (a) pyrene	20.36	252	8094	5.64350	ppb		95
25) Dibenz (a,h) anthracene	22.98	278	6665	4.85560	ppb		97
26) Benzo (g,h,i) perylene	23.46	276	5921	4.56984	ppb		99

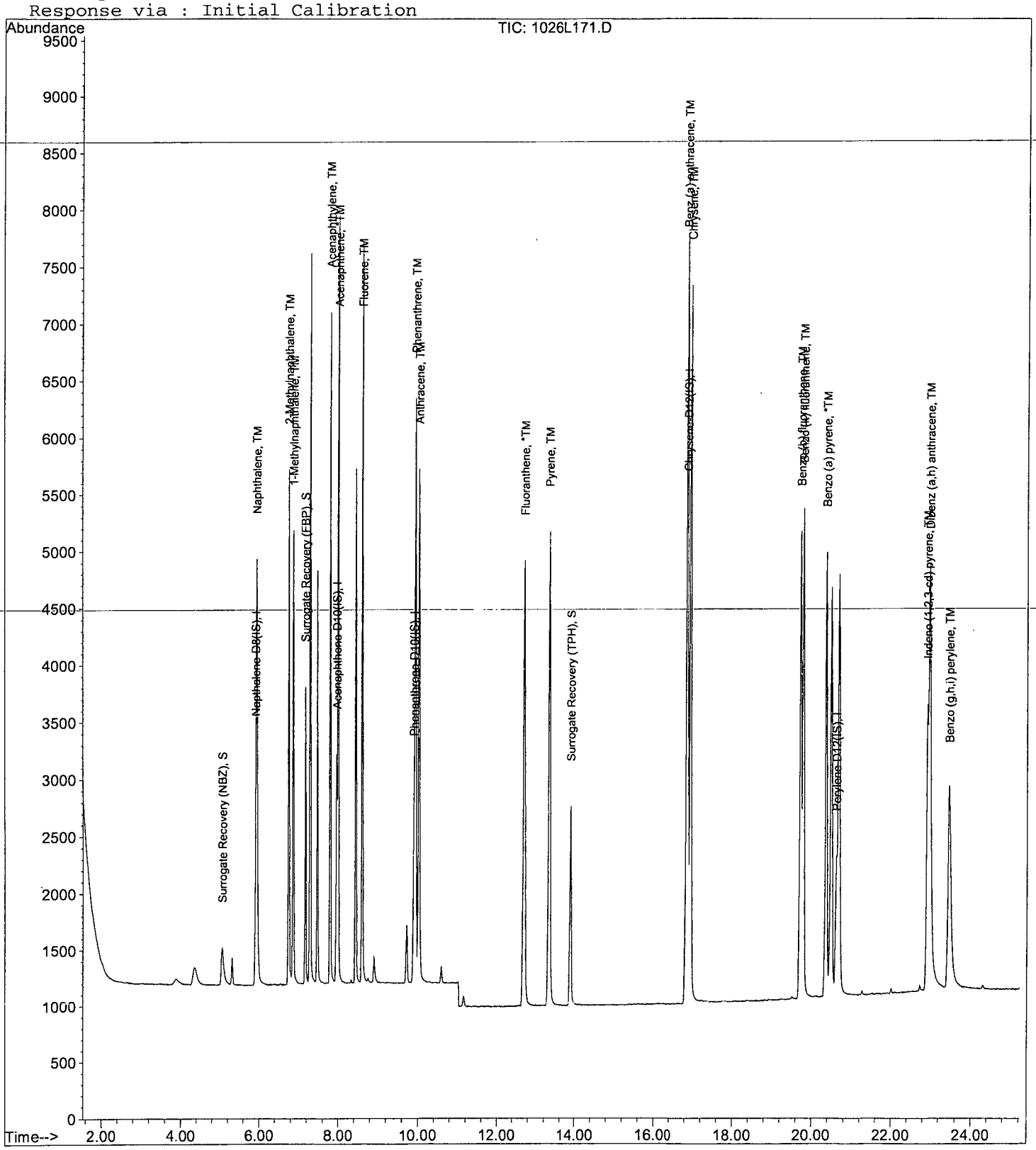
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L171.D Vial: 71
Acq On : 2 Nov 16 9:38 Operator: MA
Sample : 2.5 ug/ml PAH 10/26/16 (1) Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Nov 2 10:56 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



ORGANICS

Raw Data

APPL, INC.

Method Blank
EPA 8270D SIM

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161031W-44891 - 213308**
Batch ID: #SIMDO-161031A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/16	11/02/16
BLANK	BENZO(A)ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	10/31/16	11/02/16
BLANK	BENZO(A)PYRENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	BENZO(B)FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	BENZO(GHI)PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	10/31/16	11/02/16
BLANK	BENZO(K)FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	10/31/16	11/02/16
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/16	11/02/16
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/16	11/02/16
BLANK	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	10/31/16	11/02/16
BLANK	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	10/31/16	11/02/16
BLANK	INDENO(1,2,3-CD)PYRENE	0.10 U	0.2	0.10	0.07	ug/L	10/31/16	11/02/16
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/16	11/02/16
BLANK	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	10/31/16	11/02/16
BLANK	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	10/31/16	11/02/16
BLANK	SURROGATE: 2-FLUORBIPHENY	48.0 #	53-106			%	10/31/16	11/02/16
BLANK	SURROGATE: NITROBENZENE-	56.3	55-111			%	10/31/16	11/02/16
BLANK	SURROGATE: TERPHENYL-D14 (	60.8	58-132			%	10/31/16	11/02/16

= Recovery (or RPD) is outside QC limits.

Quant Method:L1026P.M
Run #:1026L155
Instrument:Linus
Sequence:L161026
Initials:RHA

GC SC-Blank-REG MDLs-DOD
Printed: 11/21/16 4:58:18 PM

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L155.D Vial: 55
Acq On : 2 Nov 16 1:19 Operator: MA
Sample : 161031A BLK 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Nov 21 17:11 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	5.90	136	3244	2.50000 ppb	0.01
6) Acenaphthene-D10(IS)	7.95	164	1706	2.50000 ppb	0.01
11) Phenanthrene-D10(IS)	9.89	188	2980	2.50000 ppb	0.01
15) Chrysene-D12(IS)	16.87	240	3887	2.50000 ppb	0.03
21) Perylene-D12(IS)	20.64	264	3457	2.50000 ppb	0.04
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.05	82	1109	2.81505 ppb	0.00
Spiked Amount 5.000			Recovery = 56.300%		
7) Surrogate Recovery (FBP)	0.00	172	0d	0.00000 ppb	
Spiked Amount 5.000			Recovery = 0.000%		
17) Surrogate Recovery (TPH)	13.89	244	4061	3.03930 ppb	0.01
Spiked Amount 5.000			Recovery = 60.780%		

Target Compounds	Qvalue

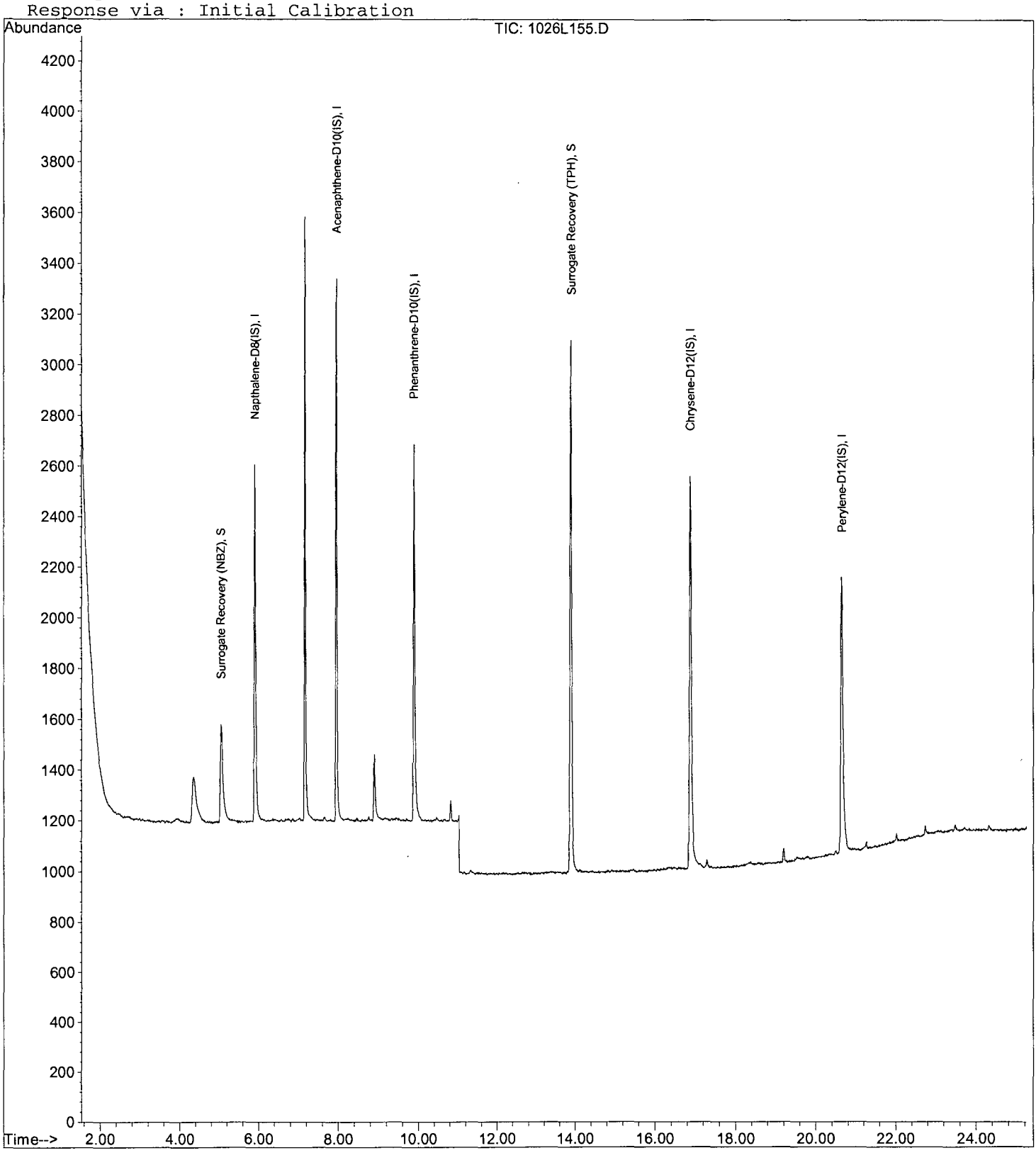
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L161026\1026L155.D Vial: 55
Acq On : 2 Nov 16 1:19 Operator: MA
Sample : 161031A BLK 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Nov 21 17:11 2016 Quant Results File: L1026P.RES

Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8270D SIM

APPL ID: **161031W-44891 LCS - 213308**
Batch ID: #SIMDO-161031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1-METHYLNAPHTHALENE	5.00	2.84	56.8	41-115
2-METHYLNAPHTHALENE	5.00	2.91	58.2	39-114
NAPHTHALENE	5.00	2.82	56.4	43-114
SURROGATE: 2-FLUORBIPHENYL (S)	5.00	2.65	53.0	53-106
SURROGATE: NITROBENZENE-D5 (S)	5.00	3.06	61.2	55-111
SURROGATE: TERPHENYL-D14 (S)	5.00	3.14	62.8	58-132

Comments: _____

Primary	SPK
Quant Method :	L1026P.M
Extraction Date :	10/31/16
Analysis Date :	11/02/16
Instrument :	Linus
Run :	1026L156
Initials :	RHA

Printed: 11/21/16 4:58:19 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L161026\1026L156.D Vial: 56
Acq On : 2 Nov 16 1:51 Operator: MA
Sample : 161031A LCS-1 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Nov 2 15:09 2016 Quant Results File: L1026P.RES

Quant Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration
DataAcq Meth : SIM_ROB

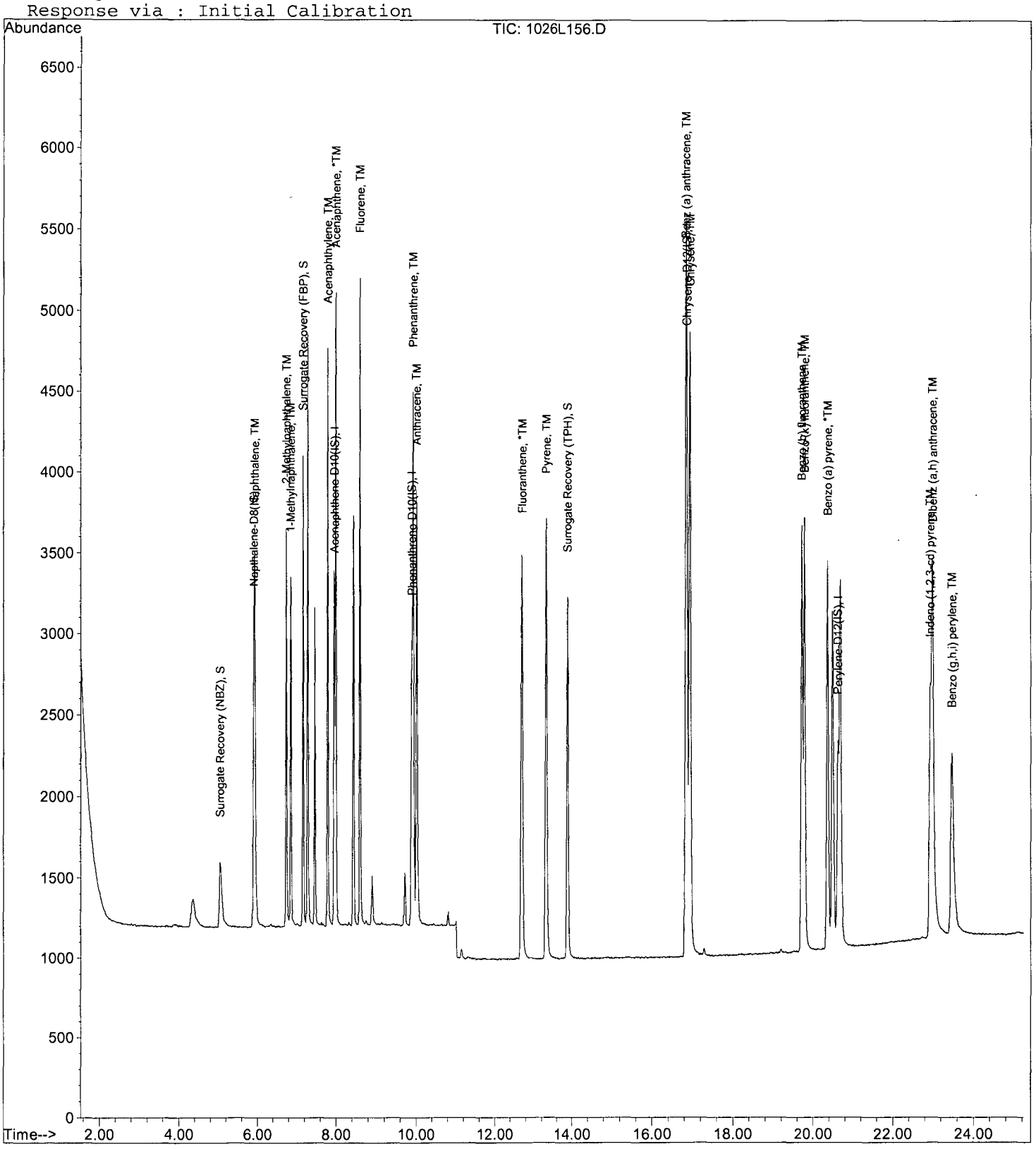
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	5.90	136	3110	2.50000	ppb		0.01
6) Acenaphthene-D10(IS)	7.95	164	1636	2.50000	ppb		0.01
11) Phenanthrene-D10(IS)	9.89	188	2920	2.50000	ppb		0.01
15) Chrysene-D12(IS)	16.86	240	3766	2.50000	ppb		0.02
21) Perylene-D12(IS)	20.62	264	3335	2.50000	ppb		0.02
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.05	82	1153	3.05629	ppb		0.00
Spiked Amount 5.000			Recovery = 61.120%				
7) Surrogate Recovery (FBP)	7.16	172	2792	2.64577	ppb		0.00
Spiked Amount 5.000			Recovery = 52.920%				
17) Surrogate Recovery (TPH)	13.88	244	4065	3.14004	ppb		0.00
Spiked Amount 5.000			Recovery = 62.800%				
Target Compounds							Qvalue
3) Naphthalene	5.93	128	3582	2.82316	ppb		100
4) 2-Methylnaphthalene	6.74	142	2308	2.91403	ppb		99
5) 1-Methylnaphthalene	6.84	142	2298	2.83635	ppb		96
8) Acenaphthylene	7.79	152	4260	3.17529	ppb		100
9) Acenaphthene	7.99	154	2485	3.07205	ppb		98
10) Fluorene	8.59	166	3051	3.27009	ppb		100
12) Phenanthrene	9.92	178	4483	3.32051	ppb		99
13) Anthracene	10.01	178	4236	3.39043	ppb		99
14) Fluoranthene	12.69	202	6605	3.61671	ppb		96
16) Pyrene	13.32	202	6800	3.37969	ppb		99
18) Benz (a) anthracene	16.83	228	6197	3.59926	ppb		99
19) Chrysene	16.93	228	6375	3.42568	ppb		99
20) Indeno (1,2,3-cd) pyrene	22.93	276	5140	3.00803	ppb	#	99
22) Benzo (b) fluoranthene	19.71	252	5440	3.54441	ppb		100
23) Benzo (k) fluoranthene	19.78	252	5247	3.51784	ppb		98
24) Benzo (a) pyrene	20.36	252	5265	3.43543	ppb		97
25) Dibenz (a,h) anthracene	22.99	278	4251	2.93607	ppb		98
26) Benzo (g,h,i) perylene	23.47	276	3882	2.80388	ppb		99

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

Data File : M:\LINUS\DATA\L161026\1026L156.D Vial: 56
Acq On : 2 Nov 16 1:51 Operator: MA
Sample : 161031A LCS-1 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Nov 2 15:09 2016 Quant Results File: L1026P.RES

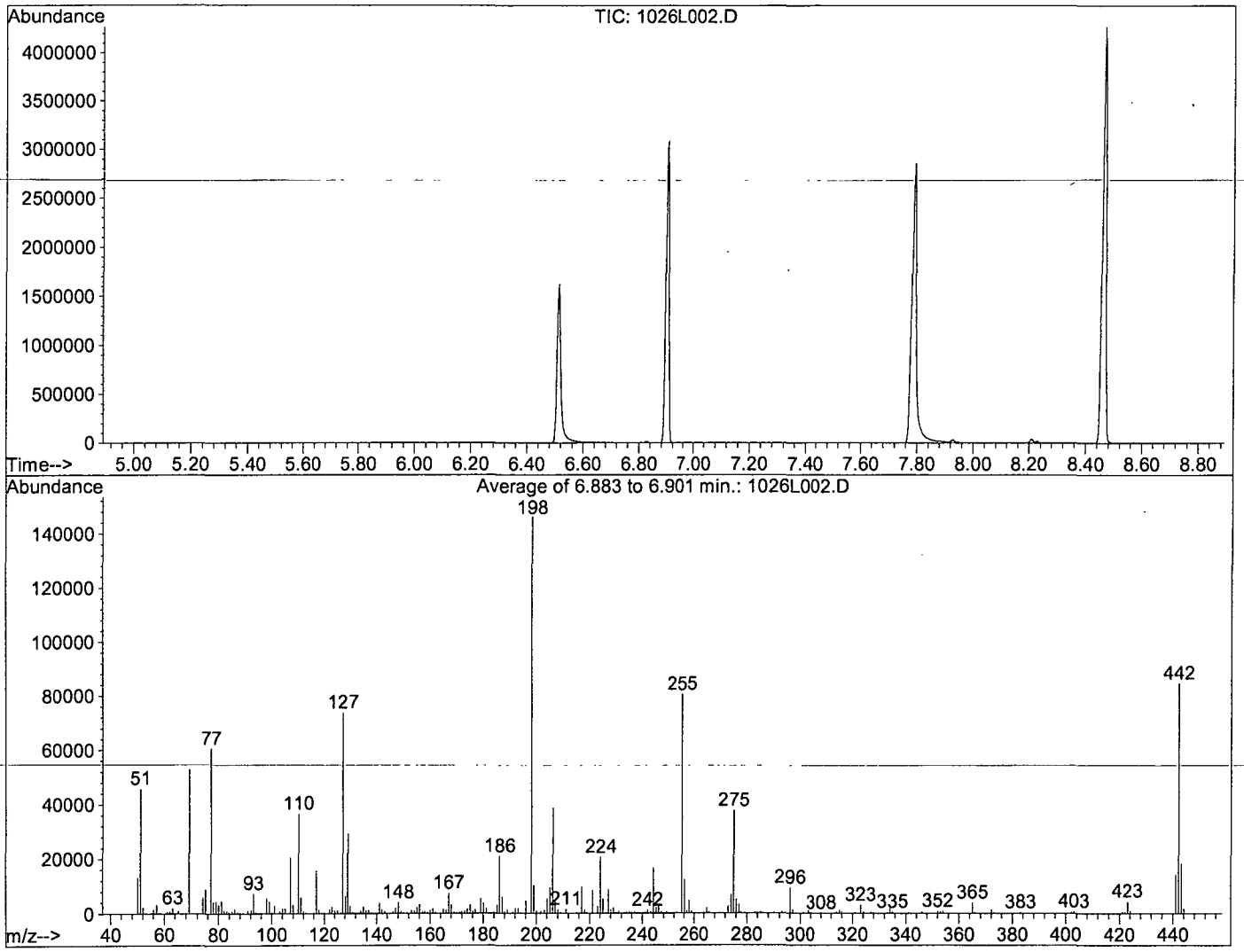
Method : M:\LINUS\DATA\L161026\L1026P.M (RTE Integrator)
Title : EPA 8270
Last Update : Thu Oct 27 13:04:20 2016
Response via : Initial Calibration



DFTPP

Data File : M:\LINUS\DATA\L161026\1026L002.D Vial: 2
Acq On : 26 Oct 16 10:58 Operator: MA
Sample : SV TUNE 9/22/16 Inst : Linus
Misc : water Multiplr: 1.00

Method : M:\LINUS\DATA\L161026\DFTPP2.M (Chemstation Integrator)
Title :



Spectrum Information: Average of 6.883 to 6.901 min.

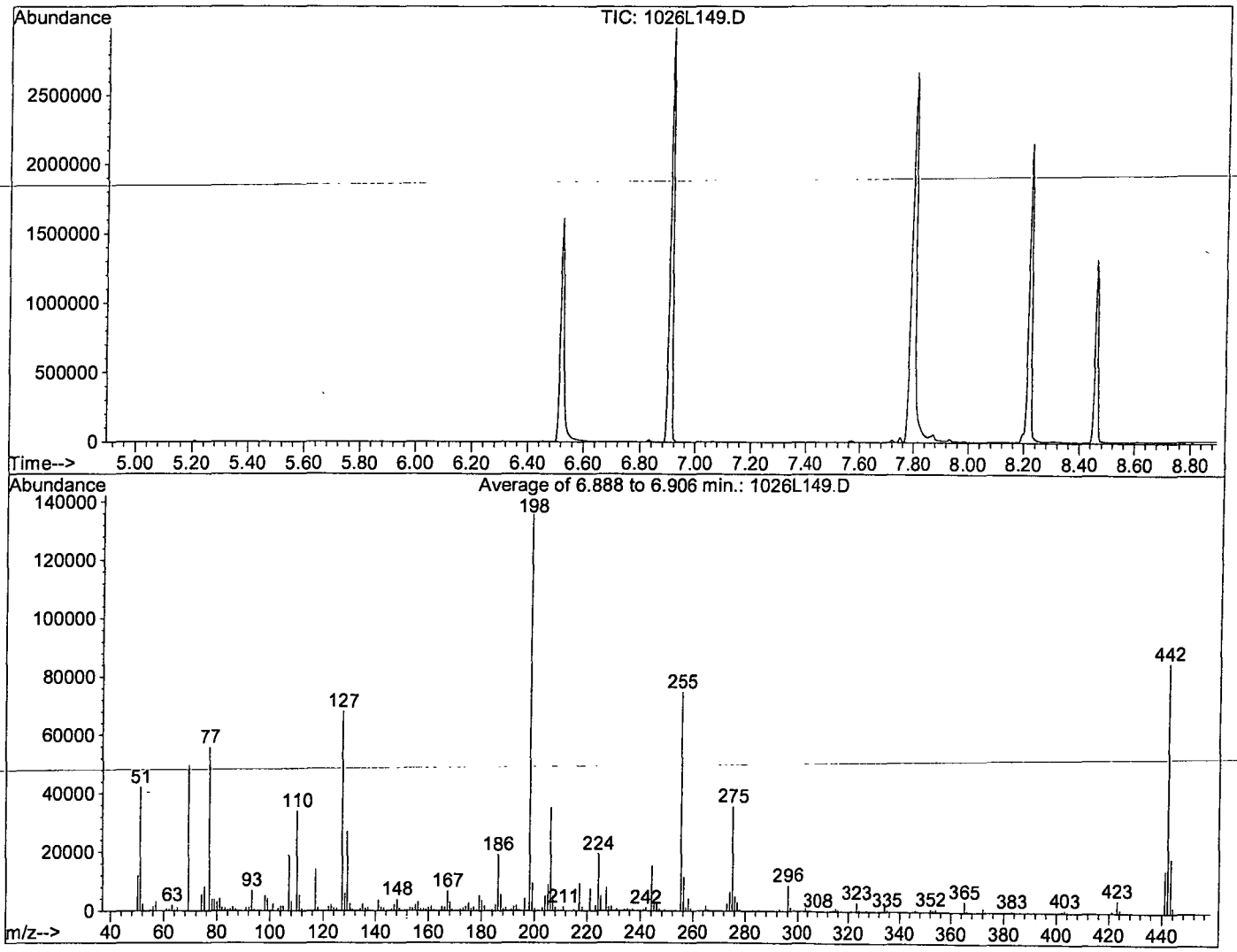
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.3	45754	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	52873	PASS
70	69	0.00	2	0.4	194	PASS
127	198	40	60	50.4	73640	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	146234	PASS
199	198	5	9	6.9	10141	PASS
275	198	10	30	25.7	37577	PASS
365	198	1	100	2.6	3776	PASS
441	443	0.01	100	76.7	13986	PASS
442	198	40	150	57.8	84489	PASS
443	442	17	23	21.6	18242	PASS

1026L002.D DFTPP2.M Wed Oct 26 16:35:21 2016

DFTPP

Data File : M:\LINUS\DATA\L161026\1026L149.D Vial: 49
Acq On : 1 Nov 16 22:21 Operator: MA
Sample : SV Tune 10/19/16 Inst : Linus
Misc : soil Multiplr: 1.00

Method : M:\LINUS\DATA\L161026\DFTPP2.M (Chemstation Integrator)
Title :



Spectrum Information: Average of 6.888 to 6.906 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.1	42154	PASS
68	69	0.00	2	0.0	0	PASS
69	69	100	100	100.0	49775	PASS
70	69	0.00	2	0.3	167	PASS
127	198	40	60	50.3	68100	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	135440	PASS
199	198	5	9	7.0	9460	PASS
275	198	10	30	26.3	35643	PASS
365	198	1	100	2.6	3576	PASS
441	443	0.01	100	77.8	14446	PASS
442	198	40	150	62.9	85158	PASS
443	442	17	23	21.8	18570	PASS

1026L149.D DFTPP2.M Thu Nov 03 17:06:51 2016

8270 PAH SIM Standard Curve

PREP DATE:	10/26/16 RH												
8270 PAH SIM STANDARD CURVE													
Exp.DATE:	**12/20/16**					**0.1**	**0.2**	**0.5**	**1**	**5**	**10**	**50**	**100**
		Conc.		Date									
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL
O2si	8270 PAH SIM S	200	278353-36992	9/12/16	9/12/17	0	0	0	0	5	5	25	50
	5.0ug/mL	5		9/12/16	7/29/17	0	0	10	20	0	0	0	0
	1.0ug/mL	1		9/12/16	7/29/17	10	20	0	0	0	0	0	0
O2SI	BNA SURR.	100/200		10/18/16	1/18/17	0	0	0	0	5	5	25	50
EM Science	Methylene Chloride		56061			90	80	90	80	190	90	50	0
Supelco	SV Internal St	2000	XA14020V-36768	10/10/16	10/10/17	2	2	2	2	4	2	2	2
				Final Vol.		102	102	102	102	204	102	102	102

8270 PAH SIM 2ND SRC

8270 PAH SIM 2ND SRC			Prep: 09/06/16 Exp 01/12/17 RH		
Supplier	**Standard**	**Conc.**	**Prep**	**Exp**	**µL**
O2SI	8270 2ND SRC	VARIOUS	06/03/16	01/21/17	25
	Methylene Chloride				75
o2si	V Internal Standar	2000	10/10/16	10/10/17	2
LOT#	XA10079V-35507			Final Vol.	102

8270 SIM PAH Internal Standard						
PREP DATE:	10/10/16 RH.					
8270 SIM PAH Internal Standard Mix 125ug/ml						
Exp.DATE:	10/10/17					
		Conc.		Date	Exp.	125
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
Supelco	SV Internal	2000	XA14020V-36768	10/10/16	10/10/17	350
EM Science	Methylene Chloride		56061			5250
				Final Vol.		5600

PAH SIM STD prep: 09/12/16-R.H.						
Exp:	19/12/17					
		Conc.				
Supplier	ID #	mg/L	Lot #	Open Date	Exp.Date	µL
o2si	110780-01	200	278353-36992	6/22/16	6/22/17	1000
				Fin Vol.		1000

8270 Surrog Mix 100/200ppm						
Prep: 10/18/16 -RH Ex: 01/18/17						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
8270 Acid Surrog Mix	10000 ug/ml	Restek Cat# 33029 Lot# A0118884-36874 Op: 10/03/16 EX: 10/03/17	2.0 mL	100 mL	200 µg/mL	MC
8270 B/N surrog Mix	5000 µg/mL	Restek Cat# 31086 Lot# A0119223-36869 Op: 10/03/16 EX: 10/03/17	2.0 mL	100 mL	100 ug/mL	MC

SIM SPIKE	
CAT:	110780-01
Lot:	278353-36
OP: 10/21/16-R.H.	
EX: 10/21/17	

Semivolatile (SV) Tuning Solution -G.A.						
PREP DATE:	10/19/16	RH				
Semivolatile (SV) Tune Solution 50ug/ml						
Exp:	01/19/17					
		Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Ultra Scient	Semivolatile	1000	N081628-37012	08/23/16	8/23/17	200
EM Science	Methylene Chloride		55098			3800
				Final Vol.		4000

_SEP004S

Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	161031A	Extraction Method	SEP004S	Units	mL

Spiked ID 1	PAH SIM Spike 10-21-16 exp 10-21-17		Surrogate ID 1	8270 Surrogate 10-31-16 exp 12-23-16	
Spiked ID 2			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:	10/31/16 13:50	
Spiked ID 8			Ext. End Time:	11/01/16 11:45	
			GC Requires Extract By:	**11/02/16 0:00**	

pH1	2	10/31/16 2:00:00 PM	Water Bath Temp Criteria	78 °C
pH2	14	10/31/16 4:00:00 PM		
pH3				

Spiked By: KY **Date** 10/31/16 **Witnessed By:** RP **Date** 10/31/16

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	161031A Blk				0.050	1	1000	1	2/1	10/31/16 13:50	
						equip	e-wb6				
2	161031A LCS-1		0.0250	1	0.050	1	1000	1	2/1	10/31/16 13:50	
						equip	e-wb6				
3	AZ44505	AZ44505W14			0.050	1	1070	1	2/1	10/31/16 13:50	81222 RX
						equip	e-wb6				
4	AZ44891	AZ44891W17			0.050	1	1070	1	2/1	10/31/16 13:50	81287 RUSH 1 WEEK
						equip	e-wb6				
5	AZ44893	AZ44893W11			0.050	1	500	1	2/1	10/31/16 13:50	81287 RUSH 1 WEEK Limited Volume
						equip	e-wb6				

Solvent and Lot#	
1+1 Acid	9-28-16
PH STRIP	HC 574756
MC	56098
A. Na2SO4	9-26-16
10N NaOH	9-2-16
B. Na2SO4	XK07E
FILTER PAPER	400112

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	KY
Sample Preparation	KY,DL,DC
Extraction	KY,DL,DC
Concentration	DC

Modified	11/01/16 11:53:13 AM

Reviewed By: **Date**

Injection Log

Directory: M:\LINUS\DATA\L161026\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1026L002.D	1	SV TUNE 9/22/16	water	26 Oct 16 10:58
2	3	1026L003.D	1	0.1 ug/ml PAH 10/26/16	water	26 Oct 16 11:23
3	4	1026L004.D	1	0.2 ug/ml PAH 10/26/16	water	26 Oct 16 11:56
4	5	1026L005.D	1	0.5 ug/ml PAH 10/26/16	water	26 Oct 16 12:28
5	6	1026L006.D	1	1.0 ug/ml PAH 10/26/16 (1)	water	26 Oct 16 13:01
6	7	1026L007.D	1	5.0 ug/ml PAH 10/26/16	water	26 Oct 16 13:33
7	8	1026L008.D	1	10.0 ug/ml PAH 10/26/16	water	26 Oct 16 14:05
8	9	1026L009.D	1	50.0 ug/ml PAH 10/26/16	water	26 Oct 16 14:37
9	10	1026L010.D	1	100.0 ug/ml PAH 10/26/16	water	26 Oct 16 15:09
10	11	1026L011.D	1	SS PAH 10/26/16	water	26 Oct 16 15:42
11	49	1026L149.D	1	SV Tune 10/19/16	soil	1 Nov 16 22:21
12	50	1026L150.D	1	2.5 ug/ml PAH 10/26/16 (2)	soil	1 Nov 16 22:38
13	55	1026L155.D	1	161031A BLK 1/1000	water	2 Nov 16 1:19
14	56	1026L156.D	1	161031A LCS-1 1/1000	water	2 Nov 16 1:51
15	58	1026L158.D	0.934579	AZ44891W17 1/1070	water	2 Nov 16 2:56
16	59	1026L159.D	2	AZ44893W11 1/500	water	2 Nov 16 3:28
17	71	1026L171.D	1	2.5 ug/ml PAH 10/26/16 (1)	water	2 Nov 16 9:38

ORGANICS

APPL, INC.

ORGANICS

QC Summary

APPL, INC.

Method Blank
EPA 8270D WATER

Blank Name/QCG: **161031W-44891 - 213307**
Batch ID: #87DC5-161031B

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/31/16	11/02/16
BLANK	SURROGATE: 2,4,6-TRIBROMOP	78.9	43-140			%	10/31/16	11/02/16
BLANK	SURROGATE: 2-FLUORBIPHENY	72.0	44-119			%	10/31/16	11/02/16
BLANK	SURROGATE: 2-FLUOROPHENO	50.9	19-119			%	10/31/16	11/02/16
BLANK	SURROGATE: NITROBENZENE-	72.8	44-120			%	10/31/16	11/02/16
BLANK	SURROGATE: PHENOL-D6 (S)	32.7	10-115			%	10/31/16	11/02/16
BLANK	SURROGATE: TERPHENYL-D14 (	69.8	50-134			%	10/31/16	11/02/16

Quant Method:Y1021.M
Run #:1021Y177
Instrument:Yoda
Sequence:Y161021
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 11/02/16 4:14:05 PM

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 11/02/16

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161031B-LCS	Lab Control Spike	43-140	74.5		44-119	66.5	
AZ44891	ERH103	43-140	69.7		44-119	64.6	
AZ44893	ERH096	43-140	66.5		44-119	63.3	
161031B-BLK	Blank	43-140	78.9		44-119	72.0	

Comments: Batch: #87DC5-161031B

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 11/02/16

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161031B-LCS	Lab Control Spike	19-119	47.4		44-120	70.0	
AZ44891	ERH103	19-119	40.4		44-120	64.1	
AZ44893	ERH096	19-119	60.0		44-120	67.9	
161031B-BLK	Blank	19-119	50.9		44-120	72.8	

Comments: Batch: #87DC5-161031B

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 11/02/16

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL-D6 (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161031B-LCS	Lab Control Spike	10-115	29.4		50-134	69.6	
AZ44891	ERH103	10-115	25.5		50-134	63.2	
AZ44893	ERH096	10-115	42.9		50-134	60.6	
161031B-BLK	Blank	10-115	32.7		50-134	69.8	

Comments: Batch: #87DC5-161031B

Laboratory Control Spike Recovery
EPA 8270D WATER

APPL ID: **161031W-44891 LCS - 213307**
Batch ID: #87DC5-161031B

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
PHENOL	50.0	19.2	38.4	10-115
SURROGATE: 2,4,6-TRIBROMOPHENOL	200	149	74.5	43-140
SURROGATE: 2-FLUORBIPHENYL (S)	100	66.5	66.5	44-119
SURROGATE: 2-FLUOROPHENOL (S)	200	94.8	47.4	19-119
SURROGATE: NITROBENZENE-D5 (S)	100	70.0	70.0	44-120
SURROGATE: PHENOL-D6 (S)	200	58.8	29.4	10-115
SURROGATE: TERPHENYL-D14 (S)	100	69.6	69.6	50-134

Comments: _____

Primary	SPK
Quant Method :	Y1021.M
Extraction Date :	10/31/16
Analysis Date :	11/02/16
Instrument :	Yoda
Run :	1021Y173
Initials :	MA

Printed: 11/02/16 4:14:08 PM
APPL Standard LCS

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 11/02/16

Matrix: WATER Instrument: Yoda

Blank ID: 161031B-BLK Time Analyzed: 1508

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161031B-LCS	Lab Control Spike	1021Y173	11/02/16 1311
AZ44891	ERH103	1021Y174	11/02/16 1340
AZ44893	ERH096	1021Y175	11/02/16 1409
161031B-BLK	Blank	1021Y177	11/02/16 1508

Comments: Batch: #87DC5-161031B

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: SV Tune 10/19/16

SDG No: 81287
Date Analyzed: 10/24/16
Instrument: Yoda
Time Analyzed: 9:35

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5ug/ml SVOC 10/20/16	1021Y003.D	10/24/16 9:51
2		10ug/ml SVOC 10/20/1	1021Y004.D	10/24/16 10:21
3		20ug/ml SVOC 10/20/1	1021Y005.D	10/24/16 10:50
4		40ug/ml SVOC 10/20/1	1021Y006.D	10/24/16 11:20
5		50ug/ml SVOC 10/20/1	1021Y007.D	10/24/16 11:49
6		60ug/ml SVOC 10/20/1	1021Y008.D	10/24/16 12:19
7		80ug/ml SVOC 10/20/1	1021Y009.D	10/24/16 12:48
8		100ug/ml SVOC 10/20/	1021Y010.D	10/24/16 13:18
9		SS SVOC 10/20/16	1021Y011.D	10/24/16 13:47
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	45.4
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.4
127	40 - 60% of mass 198	54.9
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 197.95	100.0
199	5 - 9% of mass 198	7.4
275	10 - 30% of mass 198	22.4
365	1 - 100% of mass 198	3.2
441	0.01 - 100% of mass 443	88.7
442	50 - 150% of mass 197.95	88.0
443	17 - 23% of mass 442	19.1

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 81287
Matrix: Water
ID: SV Tune 10/19/16

SDG No: 81287
Date Analyzed: 11/02/16
Instrument: Yoda
Time Analyzed: 11:42

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml SVOC 10/31/1	1021Y171.D	11/02/16 12:00
2	Lab Control Spike	161031B LCS-1 1/1000	1021Y173.D	11/02/16 13:11
3	ERH103	AZ44891W18 1/1070	1021Y174.D	11/02/16 13:40
4	ERH096	AZ44893W09 1/500	1021Y175.D	11/02/16 14:09
5	Blank	161031B BLK 1/1000	1021Y177.D	11/02/16 15:08
6		50ug/ml SVOC 10/31/1	1021Y194.D	11/02/16 22:51
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	44.3
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.2
127	40 - 60% of mass 198	54.9
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 197.95	100.0
199	5 - 9% of mass 198	6.4
275	10 - 30% of mass 198	22.7
365	1 - 100% of mass 198	3.8
441	0.01 - 100% of mass 443	87.3
442	50 - 150% of mass 197.95	93.0
443	17 - 23% of mass 442	19.0

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 81287

Lab File ID (Standard): 1021Y007.D Date Analyzed: 10/24/16

Instrument ID: Yoda Time Analyzed: 11:49

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

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	316560	5.11	1345290	6.55	793448	8.58
	UPPER LIMIT	633120	5.61	2690580	7.05	1586896	9.08
	LOWER LIMIT	158280	4.61	672645	6.05	396724	8.08
	SAMPLE NO.						
01	50ug/ml SVOC 10/31/16	298236	5.07	1255580	6.49	741189	8.50
02	161031B LCS-1 1/1000	289681	5.07	1306020	6.50	776308	8.50
03	AZ44891W18 1/1070	271652	5.07	1303060	6.49	782672	8.50
04	AZ44893W09 1/500	259289	5.07	1205470	6.49	766742	8.50
05	161031B BLK 1/1000	261625	5.07	1174740	6.50	688420	8.50
06	50ug/ml SVOC 10/31/16	287753	5.07	1270090	6.50	755149	8.50
07							
08							
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 = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 81287

Lab File ID (Standard): 1021Y007.D Date Analyzed: 10/24/16

Instrument ID: Yoda Time Analyzed: 11:49

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

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1468740	10.32	1279340	13.42	1312430	15.17
	UPPER LIMIT	2937480	10.82	2558680	13.92	2624860	15.67
	LOWER LIMIT	734370	9.82	639670	12.92	656215	14.67
	SAMPLE NO.						
01	50ug/ml SVOC 10/31/16	1388460	10.23	1242970	13.31	1120930	15.01
02	161031B LCS-1 1/1000	1455040	10.23	1299270	13.31	1474920	15.02
03	AZ44891W18 1/1070	1448810	10.23	1390930	13.31	1471650	15.01
04	AZ44893W09 1/500	1447490	10.23	1366290	13.31	1482180	15.01
05	161031B BLK 1/1000	1310670	10.23	1226460	13.31	1072220	15.01
06	50ug/ml SVOC 10/31/16	1409710	10.23	1233760	13.31	1106960	15.01
07							
08							
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 = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

ORGANICS

Sample Data

APPL, INC.

EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH103

Sample Collection Date: 10/25/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81287

APPL ID: AZ44891

QCG: #87DC5-161031B-213307

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/31/16	11/02/16
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	69.7	43-140			%	10/31/16	11/02/16
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	64.6	44-119			%	10/31/16	11/02/16
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	40.4	19-119			%	10/31/16	11/02/16
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	64.1	44-120			%	10/31/16	11/02/16
EPA 8270D	SURROGATE: PHENOL-D6 (S)	25.5	10-115			%	10/31/16	11/02/16
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	63.2	50-134			%	10/31/16	11/02/16

Quant Method: Y1021.M
Run #: 1021Y174
Instrument: Yoda
Sequence: Y161021
Dilution Factor: 1
Initials: MA

Printed: 11/02/16 4:14:27 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y174.D Vial: 74
Acq On : 2 Nov 16 13:40 Operator: MA
Sample : AZ44891W18 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Nov 2 15:07 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.07	152	271652	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.49	136	1303059	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.50	164	782672	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.23	188	1448808	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.31	240	1390928	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.01	264	1471653	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.55	112	736663	75.58815 ppb	-0.03
Spiked Amount 186.916			Recovery = 40.440%		
5) Phenol-D6 (S)	4.69	99	621384	47.74911 ppb	-0.01
Spiked Amount 186.916			Recovery = 25.546%		
21) Nitrobenzene-D5(S)	5.70	82	861565	59.87543 ppb	0.00
Spiked Amount 93.458			Recovery = 64.066%		
45) 2-Fluorobiphenyl(S)	7.73	172	1606095	60.41685 ppb	0.01
Spiked Amount 93.458			Recovery = 64.646%		
63) 2,4,6-Tribromophenol(S)	9.43	330	497955	130.30214 ppb	0.00
Spiked Amount 186.916			Recovery = 69.712%		
81) Terphenyl-D14(S)	12.08	244	2105375	59.09719 ppb	0.00
Spiked Amount 93.458			Recovery = 63.234%		

Target Compounds	Qvalue

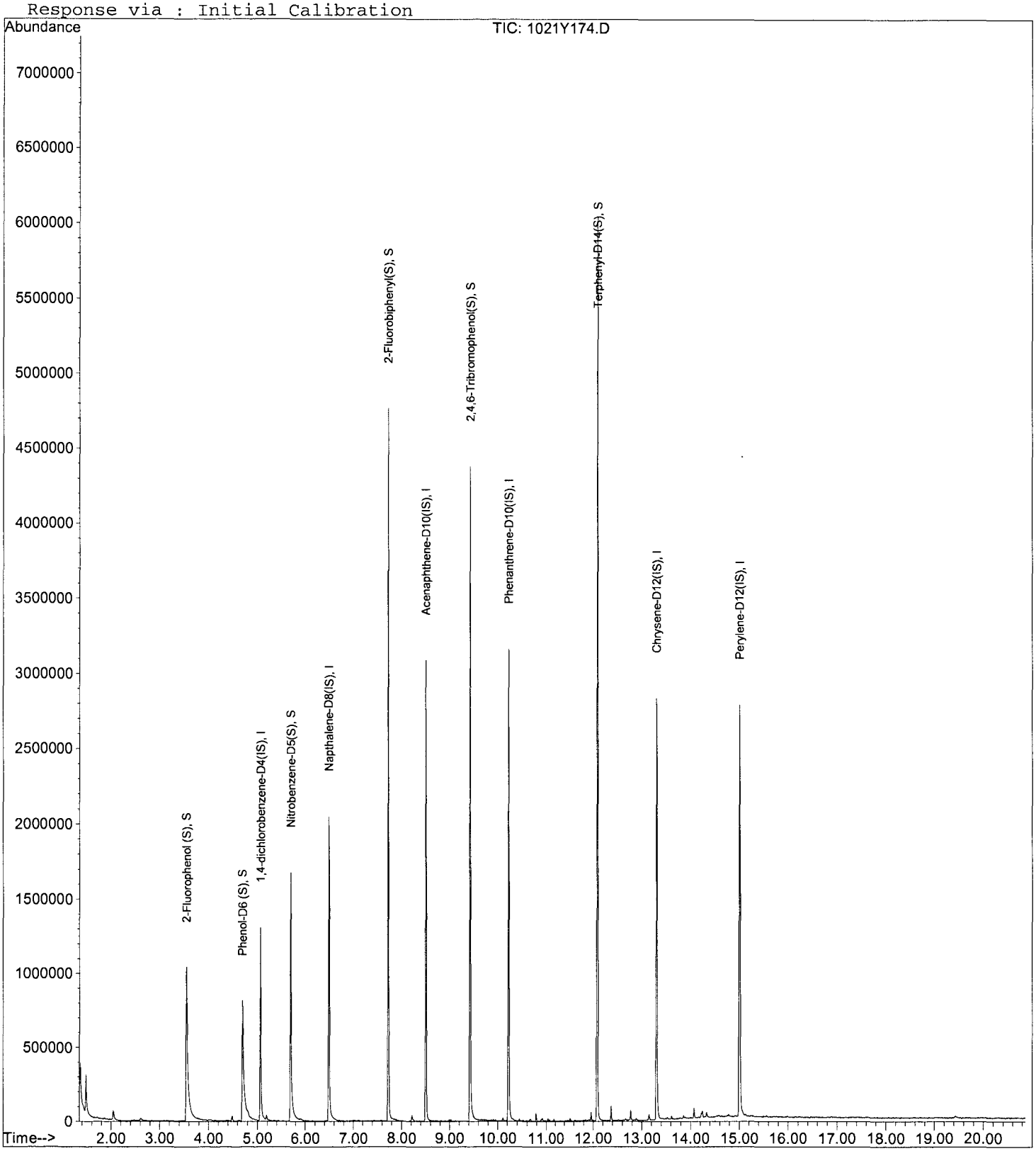
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y174.D Vial: 74
Acq On : 2 Nov 16 13:40 Operator: MA
Sample : AZ44891W18 1/1070 Inst : Yoda
Misc : water Multiplr: 0.93

Quant Time: Nov 2 15:07 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH096

Sample Collection Date: 10/25/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81287

APPL ID: AZ44893

QCG: #87DC5-161031B-213307

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/31/16	11/02/16
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	66.5	43-140			%	10/31/16	11/02/16
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	63.3	44-119			%	10/31/16	11/02/16
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	60.0	19-119			%	10/31/16	11/02/16
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	67.9	44-120			%	10/31/16	11/02/16
EPA 8270D	SURROGATE: PHENOL-D6 (S)	42.9	10-115			%	10/31/16	11/02/16
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	60.6	50-134			%	10/31/16	11/02/16

Quant Method: Y1021.M
Run #: 1021Y175
Instrument: Yoda
Sequence: Y161021
Dilution Factor: 1
Initials: MA

Printed: 11/02/16 4:14:27 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y175.D Vial: 75
Acq On : 2 Nov 16 14:09 Operator: MA
Sample : AZ44893W09 1/500 Inst : Yoda
Misc : water Multiplr: 2.00

Quant Time: Nov 2 15:06 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.07	152	259289	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.49	136	1205474	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.50	164	766742	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.23	188	1447493	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.31	240	1366293	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.01	264	1482183	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.54	112	1042877	239.91684 ppb	-0.04
Spiked Amount 400.000			Recovery =	59.979%	
5) Phenol-D6 (S)	4.69	99	995000	171.42379 ppb	-0.01
Spiked Amount 400.000			Recovery =	42.856%	
21) Nitrobenzene-D5(S)	5.70	82	844362	135.74052 ppb	0.00
Spiked Amount 200.000			Recovery =	67.871%	
45) 2-Fluorobiphenyl(S)	7.73	172	1541031	126.63178 ppb	0.01
Spiked Amount 200.000			Recovery =	63.316%	
63) 2,4,6-Tribromophenol(S)	9.43	330	465329	265.99048 ppb	0.00
Spiked Amount 400.000			Recovery =	66.498%	
81) Terphenyl-D14(S)	12.09	244	1982561	121.23799 ppb	0.00
Spiked Amount 200.000			Recovery =	60.619%	

Target Compounds Qvalue

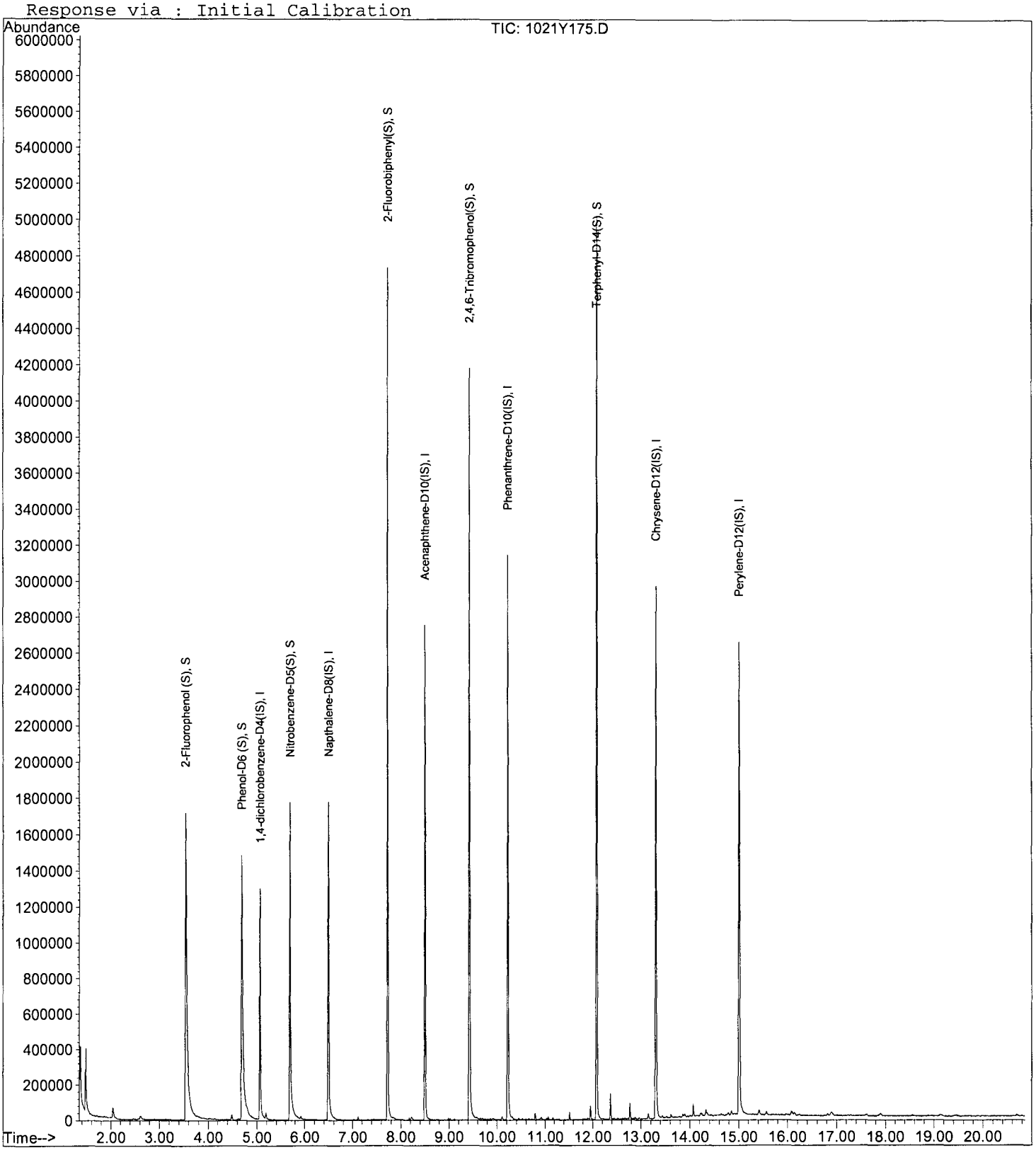
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y175.D Vial: 75
Acq On : 2 Nov 16 14:09 Operator: MA
Sample : AZ44893W09 1/500 Inst : Yoda
Misc : water Multiplr: 2.00

Quant Time: Nov 2 15:06 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



ORGANICS

Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/24/16
Matrix: Instrument: Yoda Initials:

			1021Y003.D	1021Y004.D	1021Y005.D	1021Y006.D	1021Y007.D	1021Y008.D	1021Y009.D	1021Y010.D						
		Compound	5	10	20	40	50	60	80	100			Avg	%RSD		
1	I	1,4-dichlorobenzene-D4(IS)														
2	TM	n-Nitrosodimethylamine	0.5935	0.5913	0.5819	0.6012	0.6630	0.6089	0.6069	0.5272			0.60	6.3	TM	
3	TM	Pyridine	1.111	1.247	1.312	1.225	1.293	1.375	1.308	1.095			1.2	7.9	TM	
4	S	2-Fluorophenol (S)	1.174	1.263	1.376	1.377	1.409	1.411	1.430	1.289			1.3	6.7	S	
5	S	Phenol-D6 (S)	1.783	1.830	1.869	1.820	1.835	1.808	1.791	1.592			1.8	4.7	S	
6	*TM	Phenol	2.058	2.159	2.117	2.015	2.023	1.938	1.938	1.584			2.0	9.0	*TM	
7	TM	Aniline	1.633	1.848	1.840	1.787	1.769	1.732	1.728	1.425			1.7	8.0	TM	
8	TM	Bis (2-chloroethyl) ether	0.9048	0.9643	0.9954	0.9439	0.9271	0.9238	0.9335	0.7764			0.92	7.0	TM	
9	TM	2-Chlorophenol	1.579	1.600	1.564	1.495	1.498	1.460	1.481	1.230			1.5	7.8	TM	
10	TM	1,3-DCB	1.678	1.736	1.645	1.594	1.584	1.583	1.554	1.287			1.6	8.4	TM	
11	*TM	1,4-DCB	1.730	1.765	1.719	1.633	1.607	1.589	1.572	1.311			1.6	8.8	*TM	
12	TM	Benzyl alcohol	0.7093	0.8125	0.8303	0.8353	0.8200	0.8306	0.8317	0.6839			0.79	7.7	TM	
13	TM	1,2-DCB	1.670	1.605	1.592	1.528	1.511	1.468	1.439	1.191			1.5	9.7	TM	
14	TM	2-Methylphenol	1.170	1.234	1.218	1.170	1.137	1.134	1.139	0.9523			1.1	7.5	TM	
15	TM	Bis (2-chloroisopropyl) ether	2.098	2.185	2.083	1.957	1.930	1.877	1.840	1.534			1.9	10	TM	
16	TM	Acetophenone	2.131	2.281	2.158	2.102	2.072	2.029	2.032	1.720			2.1	7.8	TM	
17	TM	3&4-Methylphenol	1.559	1.613	1.571	1.554	1.526	1.501	1.480	1.222			1.5	8.0	TM	
18	**TM	n-Nitrosodi-n-propylamine	1.209	1.207	1.160	1.102	1.077	1.078	1.085	0.8821			1.1	9.4	**TM	
19	TM	Hexachloroethane	0.6827	0.7206	0.6988	0.6599	0.6558	0.6443	0.6541	0.5297			0.66	8.7	TM	
20	I	Napthalene-D8(IS)														
21	S	Nitrobenzene-D5(S)	0.4171	0.4261	0.4116	0.4106	0.4221	0.4093	0.4252	0.3806			0.41	3.5	S	
22	TM	Nitrobenzene	0.4136	0.4442	0.4236	0.4012	0.4081	0.3935	0.4127	0.3464			0.41	7.0	TM	
23	TM	Isophorone	0.6942	0.7339	0.7198	0.6949	0.7011	0.6771	0.6983	0.5958			0.69	6.0	TM	
24	*TM	2-Nitrophenol	0.1839	0.2081	0.2065	0.1981	0.2029	0.1965	0.2033	0.1713			0.20	6.4	*TM	
25	TM	2,4-Dimethylphenol	0.3067	0.3157	0.3250	0.3027	0.3152	0.2957	0.3108	0.2575			0.30	6.8	TM	
26	TMQ	Benzoic acid		0.1387	0.1819	0.2247	0.2326	0.2343	0.2096	0.1902			0.20	17	TMQ	0.998
27	TM	Bis (2-chloroethoxy) methane	0.3849	0.4068	0.3941	0.3829	0.3856	0.3748	0.3859	0.3229			0.38	6.5	TM	
28	*TM	2,4-Dichlorophenol	0.2771	0.3040	0.3023	0.2936	0.2904	0.2865	0.2941	0.2482			0.29	6.2	*TM	
29	TM	1,2,4-Trichlorobenzene	0.3286	0.3466	0.3370	0.3133	0.3180	0.3055	0.3093	0.2602			0.31	8.3	TM	
30	TM	3,4-Dimethylphenol	0.5178	0.4966	0.4846	0.4569	0.4650	0.4500	0.4677	0.3917			0.47	8.0	TM	
31	TM	Naphthalene	1.112	1.113	1.077	1.007	1.030	1.005	1.011	0.8455			1.0	8.3	TM	
32	TM	4-Chloroaniline	0.3433	0.3859	0.3843	0.3604	0.3383	0.3336	0.3093	0.2437			0.34	14	TM	
33	TM	2,6-Dichlorophenol	0.3021	0.3026	0.2966	0.2686	0.2698	0.2588	0.2606	0.2213			0.27	10	TM	
34	TM	Hexachloropropene	0.2189	0.2403	0.2346	0.2314	0.2294	0.2260	0.2288	0.1936			0.23	6.3	TM	
35	*TM	Hexachlorobutadiene	0.2044	0.2036	0.2021	0.1879	0.1889	0.1847	0.1860	0.1568			0.19	8.2	*TM	

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/24/16
Matrix: Instrument: Yoda Initials:

		Compound	5	10	20	40	50	60	80	100			Avg	%RSD		
36	TM	Caprolactum	0.1453	0.1745	0.1722	0.1664	0.1656	0.1644	0.1682	0.1461			0.16	6.8	TM	
37	*TM	4-Chloro-3-methylphenol	0.3059	0.3252	0.3367	0.3316	0.3315	0.3209	0.3338	0.2836			0.32	5.6	*TM	
38	TM	2-Methylnaphthalene	0.7116	0.7329	0.7041	0.6716	0.6765	0.6469	0.6689	0.5506			0.67	8.3	TM	
39	TM	1-Methylnaphthalene	0.7138	0.7271	0.6870	0.6514	0.6593	0.6375	0.6564	0.5531			0.66	8.1	TM	
40	I	Acenaphthene-D10(IS)														
41	**TML	Hexachlorocyclopentadiene		0.0981	0.1554	0.2185	0.2237	0.2382	0.2743				0.20	32	**TML	0.990
42	TM	1,2,4,5-Tetrachlorobenzene	0.5587	0.5795	0.5436	0.5177	0.5083	0.4852	0.4941	0.4095			0.51	10	TM	
43	*TM	2,4,6-Trichlorophenol	0.3347	0.3671	0.3669	0.3412	0.3472	0.3319	0.3359	0.2878			0.34	7.3	*TM	
44	TM	2,4,5-Trichlorophenol	0.3347	0.4000	0.3837	0.3567	0.3582	0.3411	0.3500	0.2964			0.35	8.9	TM	
45	S	2-Fluorobiphenyl(S)	1.420	1.399	1.355	1.252	1.263	1.187	1.203	1.079			1.3	9.2	S	
46	TM	1,1'-Biphenyl	1.594	1.668	1.592	1.492	1.457	1.420	1.416	1.202			1.5	9.8	TM	
47	TM	2-Chloronaphthalene	1.197	1.280	1.204	1.146	1.138	1.083	1.087	0.9188			1.1	9.5	TM	
48	TM	2-Nitroaniline	0.3931	0.4238	0.4125	0.4030	0.4008	0.3912	0.4028	0.3370			0.40	6.5	TM	
49	TM	Dimethyl phthalate	1.417	1.491	1.456	1.359	1.361	1.306	1.336	1.130			1.4	8.1	TM	
50	TM	2,6-DNT	0.2962	0.3324	0.3274	0.3202	0.3165	0.3082	0.3145	0.2673			0.31	6.7	TM	
51	TM	Acenaphthylene	1.913	2.072	1.947	1.827	1.810	1.742	1.743	1.500			1.8	9.4	TM	
52	TM	3-Nitroaniline	0.2823	0.3524	0.3439	0.3401	0.3369	0.3348	0.3292	0.2761			0.32	8.9	TM	
53	*TM	Acenaphthene	1.210	1.238	1.188	1.114	1.103	1.054	1.052	0.8977			1.1	9.9	*TM	
54	**TMQ	2,4-Dinitrophenol	0.0302	0.0704	0.0957	0.1538	0.1581	0.1655	0.1834	0.1665			0.13	43	**TMQ	0.992
55	**TM	4-Nitrophenol			0.1646	0.2448	0.2432	0.2475	0.2639	0.2291			0.23	15	**TM	
56	TM	Dibenzofuran	1.719	1.813	1.724	1.628	1.599	1.521	1.500	1.275			1.6	11	TM	
57	TM	2,4-DNT	0.4225	0.4680	0.4549	0.4431	0.4287	0.4291	0.4328	0.3608			0.43	7.4	TM	
58	TM	2,3,4,6-Tetrachlorophenol	0.2458	0.2843	0.2813	0.2865	0.2856	0.2830	0.2872	0.2473			0.28	6.4	TM	
59	TM	Diethyl phthalate	1.477	1.524	1.459	1.382	1.368	1.312	1.321	1.134			1.4	8.9	TM	
60	TM	4-Chlorophenyl phenyl ether	0.7025	0.7329	0.6478	0.5964	0.5734	0.5636	0.5651	0.4910			0.61	13	TM	
61	TM	Fluorene	1.413	1.472	1.369	1.273	1.228	1.178	1.184	1.031			1.3	11	TM	
62	TM	4-Nitroaniline	0.3256	0.3728	0.3587	0.3149	0.3177	0.3053	0.3011	0.2518			0.32	12	TM	
63	S	2,4,6-Tribromophenol(S)	0.1848	0.1915	0.1892	0.1807	0.1840	0.1753	0.1852	0.1694			0.18	4.0	S	
64	I	Phenanthrene-D10(IS)														
65	TM	4,6-Dinitro-2-methylphenol	0.1054	0.1201	0.1330	0.1372	0.1444	0.1414	0.1411	0.1224			0.13	10	TM	
66	TM	Diphenyl amine	0.5509	0.5641	0.5237	0.4887	0.4779	0.4585	0.4655	0.3839			0.49	12	TM	
67	*TM	n-Nitrosodiphenylamine	0.5509	0.5641	0.5237	0.4887	0.4779	0.4585	0.4655	0.3839			0.49	12	*TM	
68	TM	1,2-Diphenylhydrazine	0.8375	0.8516	0.8115	0.7726	0.7680	0.7385	0.8627	0.7057			0.79	7.1	TM	
69	TM	4-Bromophenyl phenyl ether	0.2046	0.2184	0.1983	0.1947	0.1945	0.1864	0.1877	0.1565			0.19	9.2	TM	
70	TM	Hexachlorobenzene	0.2274	0.2363	0.2138	0.2010	0.1988	0.1931	0.1995	0.1599			0.20	11	TM	

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: _____

Case No: _____ Initial Cal. Date: 10/24/16

Matrix: _____ Instrument: Yoda Initials: _____

		Compound	5	10	20	40	50	60	80	100			Avg	%RSD		
71	TM	Atrazine	0.2251	0.2311	0.2201	0.2139	0.2088	0.2084	0.2101	0.1723			0.21	8.4	TM	
72	*TM	Pentachlorophenol		0.0640	0.0700	0.0795	0.0841	0.0809	0.0943	0.0818			0.08	12	*TM	
73	TM	Phenanthrene	1.146	1.180	1.109	1.043	1.032	0.9747	1.004	0.8209			1.0	11	TM	
74	TM	Anthracene	1.200	1.244	1.170	1.083	1.097	1.055	1.070	0.8663			1.1	11	TM	
75	TM	Carbazol	1.037	1.116	1.036	1.001	0.9867	0.9412	0.9550	0.8002			0.98	9.4	TM	
76	TM	Di-n-butylphthalate	1.359	1.384	1.334	1.283	1.272	1.241	1.238	1.030			1.3	8.7	TM	
77	*TM	Fluoranthene	1.249	1.323	1.218	1.149	1.136	1.117	1.103	0.9120			1.2	11	*TM	
78	I	Chrysene-D12(IS)														
79	TM	Benzidine	0.3462	0.3988	0.4487	0.4308	0.4040	0.4129	0.3861	0.3284			0.39	10	TM	
80	TM	Pyrene	1.421	1.461	1.439	1.389	1.356	1.360	1.340	1.171			1.4	6.6	TM	
81	S	Terphenyl-D14(S)	1.047	1.002	0.9885	0.9550	0.9491	0.9312	0.9105	0.8767			0.96	5.7	S	
82	TM	Butyl benzylphthalate	0.6851	0.6945	0.6814	0.6845	0.6726	0.6569	0.6686	0.5728			0.66	5.8	TM	
83	TM	3,3'-Dichlorobenzidine	0.4153	0.4661	0.4731	0.4460	0.4297	0.4231	0.3908	0.3277			0.42	11	TM	
84	TM	Benz (a) anthracene	1.295	1.375	1.276	1.260	1.293	1.242	1.235	1.048			1.3	7.5	TM	
85	TM	Bis (2-ethylhexyl) phthalate	0.9567	0.9518	0.9579	0.9069	0.9134	0.8876	0.8715	0.7578			0.90	7.4	TM	
86	TM	Chrysene	1.350	1.349	1.311	1.271	1.191	1.234	1.164	1.034			1.2	8.7	TM	
87	*TM	Di-n-octylphthalate	1.650	1.690	1.710	1.649	1.677	1.623	1.617	1.409			1.6	5.8	*TM	
88	I	Perylene-D12(IS)														
89	TM	Benzo (b) fluoranthene	1.300	1.319	1.392	1.319	1.223	1.172	1.179	1.063			1.2	8.5	TM	
90	TM	Benzo (k) fluoranthene	1.425	1.538	1.244	1.217	1.212	1.073	1.178				1.3	12	TM	
91	*TM	Benzo (a) pyrene	1.276	1.355	1.273	1.192	1.171	1.081	1.137	0.9356			1.2	11	*TM	
92	TM	Indeno (1,2,3-cd) pyrene	1.505	1.567	1.450	1.385	1.338	1.232	1.243	1.034			1.3	13	TM	
93	TM	Dibenz (a,h) anthracene	1.249	1.312	1.233	1.165	1.135	1.032	1.051	0.8652			1.1	13	TM	
94	TM	Benzo (g,h,i) perylene	1.237	1.287	1.225	1.176	1.142	1.049	1.079	0.8792			1.1	12	TM	
95																
96																
97																
98																
99																
100																
101																
102																
103																
104																
105																

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y003.D Vial: 3
Acq On : 24 Oct 16 9:51 Operator: MA
Sample : 5ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Sep 30 14:29:21 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	331909	40.00000 ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1427990	40.00000 ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	814957	40.00000 ppb		0.00
64) Phenanthrene-D10(IS)	10.31	188	1475827	40.00000 ppb		0.00
78) Chrysene-D12(IS)	13.41	240	1372518	40.00000 ppb		0.00
88) Perylene-D12(IS)	15.17	264	1287283	40.00000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.66	112	97417	8.05740 ppb		0.05
Spiked Amount 200.000			Recovery	= 4.029%		
5) Phenol-D6 (S)	4.78	99	147971	8.99916 ppb		0.03
Spiked Amount 200.000			Recovery	= 4.500%		
21) Nitrobenzene-D5(S)	5.76	82	74444	4.83179 ppb		0.01
Spiked Amount 100.000			Recovery	= 4.832%		
45) 2-Fluorobiphenyl(S)	7.80	172	144695	5.33447 ppb		0.00
Spiked Amount 100.000			Recovery	= 5.334%		
63) 2,4,6-Tribromophenol(S)	9.52	330	37655	10.10556 ppb		0.01
Spiked Amount 200.000			Recovery	= 5.053%		
81) Terphenyl-D14(S)	12.19	244	179695	5.23685 ppb		0.00
Spiked Amount 100.000			Recovery	= 5.237%		
Target Compounds						Qvalue
2) n-Nitrosodimethylamine	1.90	42	24623	6.00899 ppb		85
3) Pyridine	1.93	79	46102	5.39123 ppb		96
6) Phenol	4.80	94	85398	5.13053 ppb		94
7) Aniline	4.79	66	67750	5.02442 ppb		97
8) Bis (2-chloroethyl) ether	4.84	63	37537	4.82529 ppb		99
9) 2-Chlorophenol	4.92	128	65507	5.22078 ppb		94
10) 1,3-DCB	5.05	146	69623	5.27510 ppb		96
11) 1,4-DCB	5.13	146	71781	5.38066 ppb		94
12) Benzyl alcohol	5.34	108	29426	4.34438 ppb		95
13) 1,2-DCB	5.31	146	69272	5.57407 ppb		98
14) 2-Methylphenol	5.46	107	48525	5.16138 ppb	#	74
15) Bis (2-chloroisopropyl) et	5.43	45	87025	5.15425 ppb	#	91
16) Acetophenone	5.60	105	88420	5.23112 ppb		97
17) 3&4-Methylphenol	5.64	107	129356	10.42296 ppb		96
18) n-Nitrosodi-n-propylamine	5.58	70	50145	5.51813 ppb		90
19) Hexachloroethane	5.67	117	28323	5.28839 ppb		90
22) Nitrobenzene	5.78	77	73835	5.28650 ppb		96
23) Isophorone	6.03	82	123910	5.11565 ppb		98
24) 2-Nitrophenol	6.15	139	32828	4.80250 ppb		94
25) 2,4-Dimethylphenol	6.22	122	54737	5.12902 ppb		92
26) Benzoic acid	6.42	105	13667	8.14689 ppb	#	79
27) Bis (2-chloroethoxy) metha	6.29	93	68699	5.01904 ppb		98
28) 2,4-Dichlorophenol	6.48	162	49457	5.01003 ppb		98
29) 1,2,4-Trichlorobenzene	6.50	180	58650	5.35940 ppb		99
30) 3,4-Dimethylphenol	6.56	107	92435	5.79185 ppb		81
31) Naphthalene	6.57	128	198413	5.47525 ppb		100
32) 4-Chloroaniline	6.68	127	61272	5.43326 ppb		97
33) 2,6-Dichlorophenol	6.67	162	53916	5.69822 ppb		97
34) Hexachloropropene	6.67	213	39070	5.29409 ppb		93
35) Hexachlorobutadiene	6.71	225	36477	5.80351 ppb		98
36) Caprolactum	7.06	55	25929	4.48607 ppb		90
37) 4-Chloro-3-methylphenol	7.28	107	54600	4.88569 ppb		93

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y003.D Vial: 3
Acq On : 24 Oct 16 9:51 Operator: MA
Sample : 5ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Sep 30 14:29:21 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.38	142	127024	5.39597	ppb		99
39)	1-Methylnaphthalene	7.49	142	127421	5.50761	ppb		98
41)	Hexachlorocyclopentadiene	7.55	237	6011	10.32793	ppb		87
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	56919	5.60632	ppb		99
43)	2,4,6-Trichlorophenol	7.74	196	34091	5.13663	ppb		98
44)	2,4,5-Trichlorophenol	7.74	196	34091	4.94552	ppb		95
46)	1,1'-Biphenyl	7.92	154	162413	5.50198	ppb		96
47)	2-Chloronaphthalene	7.94	162	121987	5.39658	ppb		98
48)	2-Nitroaniline	8.10	65	40047	5.11852	ppb		95
49)	Dimethyl phthalate	8.28	163	144300	5.37699	ppb		98
50)	2,6-DNT	8.37	165	30178	4.94251	ppb		84
51)	Acenaphthylene	8.42	152	194841	5.62348	ppb		99
52)	3-Nitroaniline	8.60	138	28753	4.41731	ppb		92
53)	Acenaphthene	8.61	154	123275	5.53224	ppb		98
54)	2,4-Dinitrophenol	8.78	184	3080	9.44834	ppb	#	77
55)	4-Nitrophenol	8.83	65	1775	6.76584	ppb	#	31
56)	Dibenzofuran	8.83	168	175104	5.56704	ppb		98
57)	2,4-DNT	8.85	165	43037	5.23037	ppb		95
58)	2,3,4,6-Tetrachlorophenol	9.00	232	25039	4.56346	ppb		86
59)	Diethyl phthalate	9.10	149	150460	5.62249	ppb		99
60)	4-Chlorophenyl phenyl ethe	9.23	204	71564	6.07133	ppb		95
61)	Fluorene	9.23	166	143923	5.72472	ppb		96
62)	4-Nitroaniline	9.32	138	33167	5.59819	ppb	#	82
65)	4,6-Dinitro-2-methylphenol	9.35	198	19452	5.47116	ppb		95
66)	Diphenyl amine	9.37	169	203275	10.56340	ppb		98
67)	n-Nitrosodiphenylamine	9.37	169	203275	10.56340	ppb		98
68)	1,2-Diphenylhydrazine	9.41	77	154498	5.31509	ppb		95
69)	4-Bromophenyl phenyl ether	9.79	248	37752	5.49821	ppb		89
70)	Hexachlorobenzene	9.88	284	41949	5.82812	ppb		93
71)	Atrazine	10.01	200	20759	2.80562	ppb		97
72)	Pentachlorophenol	10.14	266	9644	9.08048	ppb		90
73)	Phenanthrene	10.34	178	211495	5.53021	ppb		98
74)	Anthracene	10.40	178	221423	5.56630	ppb		96
75)	Carbazol	10.62	167	191316	5.62534	ppb		97
76)	Di-n-butylphthalate	11.01	149	250785	5.56852	ppb		99
77)	Fluoranthene	11.74	202	230437	5.56082	ppb		97
79)	Benzidine	11.94	184	59402	5.44822	ppb	#	90
80)	Pyrene	12.00	202	243742	5.18358	ppb		99
82)	Butyl benzylphthalate	12.75	149	117543	5.27313	ppb		87
83)	3,3'-Dichlorobenzidine	13.38	252	71258	5.71539	ppb	#	99
84)	Benz (a) anthracene	13.40	228	222150	5.14913	ppb		99
85)	Bis (2-ethylhexyl) phthala	13.42	149	164141	5.47974	ppb	#	95
86)	Chrysene	13.44	228	231691	5.55864	ppb		98
87)	Di-n-octylphthalate	14.15	149	283157	5.24476	ppb		99
89)	Benzo (b) fluoranthene	14.66	252	209207	4.90242	ppb		99
90)	Benzo (k) fluoranthene	14.69	252	229325	5.58679	ppb		98
91)	Benzo (a) pyrene	15.09	252	205294	5.21643	ppb		99
92)	Indeno (1,2,3-cd) pyrene	16.91	276	242218	5.41666	ppb		99
93)	Dibenz (a,h) anthracene	16.93	278	200969	5.32959	ppb		98
94)	Benzo (g,h,i) perylene	17.43	276	198975	5.21454	ppb		98

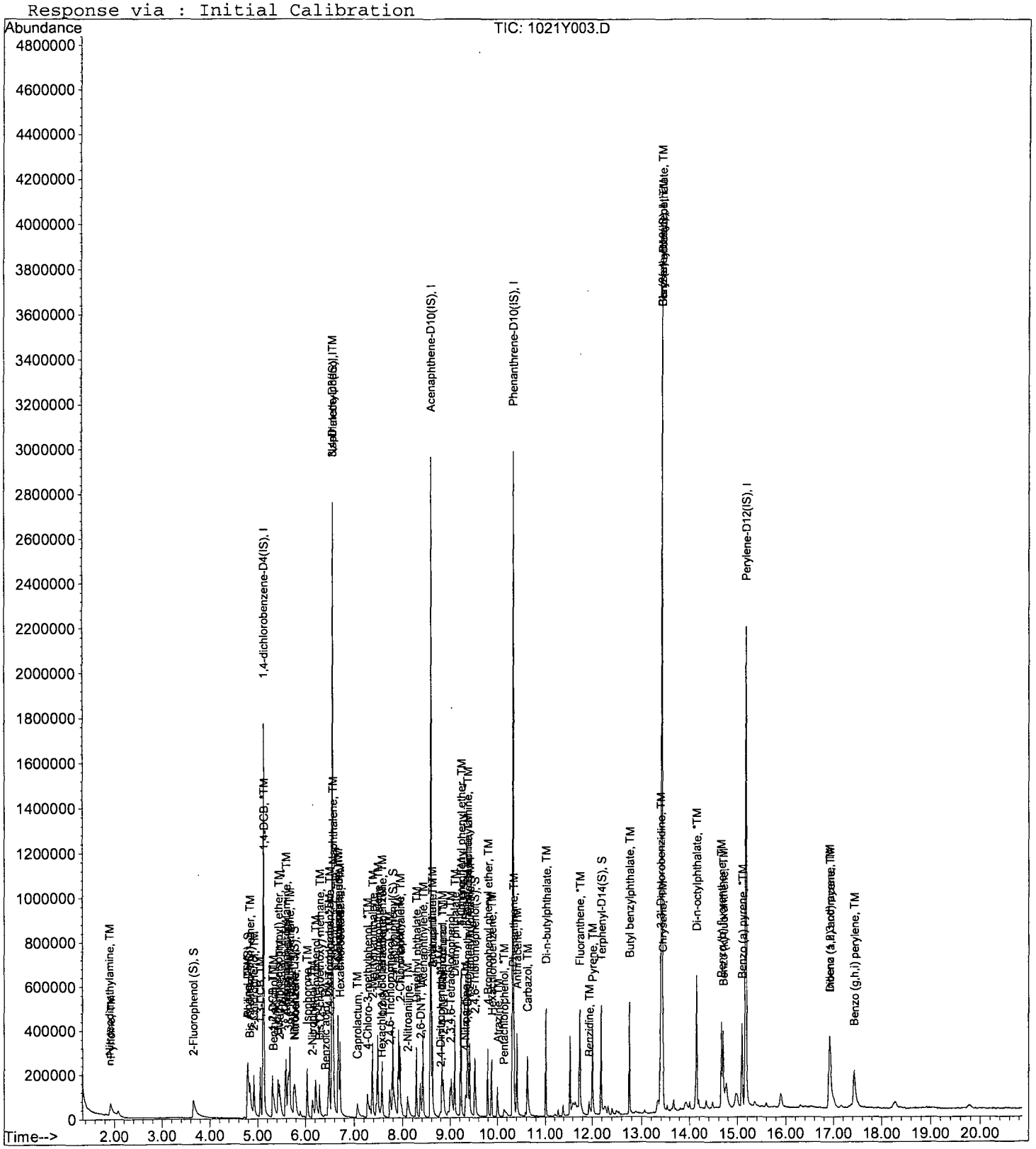
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y003.D Vial: 3
Acq On : 24 Oct 16 9:51 Operator: MA
Sample : 5ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



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Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y004.D Vial: 4
Acq On : 24 Oct 16 10:21 Operator: MA
Sample : 10ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	325880	40.00000	ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1402269	40.00000	ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	795903	40.00000	ppb		0.00
64) Phenanthrene-D10(IS)	10.31	188	1458207	40.00000	ppb		0.00
78) Chrysene-D12(IS)	13.41	240	1363498	40.00000	ppb		0.00
88) Perylene-D12(IS)	15.17	264	1274569	40.00000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol (S)	3.64	112	205734	17.33116	ppb		0.02
Spiked Amount 200.000			Recovery =	8.666%			
5) Phenol-D6 (S)	4.76	99	298114	18.46583	ppb		0.01
Spiked Amount 200.000			Recovery =	9.233%			
21) Nitrobenzene-D5(S)	5.75	82	149369	9.87263	ppb		0.00
Spiked Amount 100.000			Recovery =	9.873%			
45) 2-Fluorobiphenyl(S)	7.80	172	278269	10.50454	ppb		0.00
Spiked Amount 100.000			Recovery =	10.505%			
63) 2,4,6-Tribromophenol(S)	9.51	330	76210	20.94230	ppb		0.00
Spiked Amount 200.000			Recovery =	10.471%			
81) Terphenyl-D14(S)	12.19	244	341445	10.01656	ppb		0.00
Spiked Amount 100.000			Recovery =	10.017%			
Target Compounds							Qvalue
2) n-Nitrosodimethylamine	1.89	42	48175	11.97413	ppb		92
3) Pyridine	1.91	79	101617	12.10307	ppb		98
6) Phenol	4.78	94	175915	10.76413	ppb		89
7) Aniline	4.77	66	150518	11.36911	ppb		89
8) Bis (2-chloroethyl) ether	4.84	63	78558	10.28528	ppb		99
9) 2-Chlorophenol	4.91	128	130319	10.57831	ppb		95
10) 1,3-DCB	5.05	146	141404	10.91191	ppb		98
11) 1,4-DCB	5.13	146	143809	10.97927	ppb		99
12) Benzyl alcohol	5.32	108	66195	9.95366	ppb		96
13) 1,2-DCB	5.30	146	130781	10.71817	ppb		94
14) 2-Methylphenol	5.45	107	100556	10.89355	ppb	#	86
15) Bis (2-chloroisopropyl) et	5.43	45	177990	10.73688	ppb		93
16) Acetophenone	5.59	105	185804	11.19594	ppb		93
17) 3&4-Methylphenol	5.62	107	262840	21.57036	ppb		97
18) n-Nitrosodi-n-propylamine	5.58	70	98345	11.02245	ppb		97
19) Hexachloroethane	5.67	117	58711	11.16517	ppb		89
22) Nitrobenzene	5.77	77	155731	11.35467	ppb		98
23) Isophorone	6.03	82	257284	10.81687	ppb		100
24) 2-Nitrophenol	6.14	139	72951	10.86797	ppb		88
25) 2,4-Dimethylphenol	6.20	122	110664	10.55975	ppb		93
26) Benzoic acid	6.40	105	48623	12.14672	ppb		90
27) Bis (2-chloroethoxy) metha	6.28	93	142621	10.61079	ppb		98
28) 2,4-Dichlorophenol	6.45	162	106584	10.99507	ppb		99
29) 1,2,4-Trichlorobenzene	6.49	180	121508	11.30699	ppb		98
30) 3,4-Dimethylphenol	6.55	107	174096	11.10871	ppb		86
31) Naphthalene	6.57	128	390169	10.96428	ppb		99
32) 4-Chloroaniline	6.66	127	135290	12.21681	ppb		93
33) 2,6-Dichlorophenol	6.66	162	106085	11.41746	ppb		95
34) Hexachloropropene	6.67	213	84236	11.62356	ppb		96
35) Hexachlorobutadiene	6.71	225	71367	11.56280	ppb		99
36) Caprolactum	7.06	55	61161	10.77578	ppb		96
37) 4-Chloro-3-methylphenol	7.26	107	114016	10.38947	ppb		94

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y004.D Vial: 4
Acq On : 24 Oct 16 10:21 Operator: MA
Sample : 10ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	256935	11.11477	ppb		96
39)	1-Methylnaphthalene	7.48	142	254903	11.21995	ppb		97
41)	Hexachlorocyclopentadiene	7.55	237	19512	12.73212	ppb		98
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	115302	11.62872	ppb		99
43)	2,4,6-Trichlorophenol	7.73	196	73034	11.26778	ppb		97
44)	2,4,5-Trichlorophenol	7.82	196	79597	11.82343	ppb		92
46)	1,1'-Biphenyl	7.91	154	331971	11.51523	ppb		94
47)	2-Chloronaphthalene	7.94	162	254634	11.53443	ppb		94
48)	2-Nitroaniline	8.08	65	84318	11.03493	ppb		90
49)	Dimethyl phthalate	8.28	163	296576	11.31576	ppb		99
50)	2,6-DNT	8.36	165	66145	11.09249	ppb		99
51)	Acenaphthylene	8.42	152	412230	12.18257	ppb		99
52)	3-Nitroaniline	8.59	138	70128	11.03167	ppb	#	89
53)	Acenaphthene	8.61	154	246422	11.32348	ppb		99
54)	2,4-Dinitrophenol	8.75	184	14009	13.01575	ppb	#	39
55)	4-Nitrophenol	8.84	65	6476	7.62919	ppb	#	20
56)	Dibenzofuran	8.82	168	360647	11.74047	ppb		97
57)	2,4-DNT	8.85	165	93125	11.58862	ppb		98
58)	2,3,4,6-Tetrachlorophenol	8.99	232	56559	10.55488	ppb		94
59)	Diethyl phthalate	9.10	149	303244	11.60311	ppb		99
60)	4-Chlorophenyl phenyl ethe	9.22	204	145839	12.66886	ppb		95
61)	Fluorene	9.22	166	292855	11.92756	ppb		99
62)	4-Nitroaniline	9.30	138	74176	12.81975	ppb		97
65)	4,6-Dinitro-2-methylphenol	9.33	198	43783	10.55237	ppb		88
66)	Diphenyl amine	9.37	169	411309	21.63237	ppb		99
67)	n-Nitrosodiphenylamine	9.37	169	411309	21.63237	ppb		99
68)	1,2-Diphenylhydrazine	9.40	77	310466	10.80982	ppb		93
69)	4-Bromophenyl phenyl ether	9.79	248	79609	11.73438	ppb		86
70)	Hexachlorobenzene	9.87	284	86132	12.11121	ppb		89
71)	Atrazine	10.00	200	42126	5.76220	ppb		99
72)	Pentachlorophenol	10.14	266	23320	12.99690	ppb		98
73)	Phenanthrene	10.34	178	430267	11.38664	ppb		99
74)	Anthracene	10.41	178	453423	11.53623	ppb		99
75)	Carbazol	10.61	167	406719	12.10342	ppb		99
76)	Di-n-butylphthalate	11.01	149	504475	11.33689	ppb		99
77)	Fluoranthene	11.74	202	482284	11.77892	ppb		98
79)	Benzidine	11.93	184	135953	12.55179	ppb		97
80)	Pyrene	12.00	202	498021	10.66130	ppb		100
82)	Butyl benzylphthalate	12.75	149	236724	10.69000	ppb		89
83)	3,3'-Dichlorobenzidine	13.39	252	158874	12.82711	ppb		99
84)	Benz (a) anthracene	13.40	228	468817	10.93842	ppb		99
85)	Bis (2-ethylhexyl) phthala	13.42	149	324451	10.90325	ppb	#	95
86)	Chrysene	13.44	228	459886	11.10640	ppb		99
87)	Di-n-octylphthalate	14.15	149	576049	10.74042	ppb		92
89)	Benzo (b) fluoranthene	14.66	252	420162	9.94402	ppb		98
90)	Benzo (k) fluoranthene	14.69	252	490019	12.05686	ppb		99
91)	Benzo (a) pyrene	15.08	252	431741	11.07979	ppb		97
92)	Indeno (1,2,3-cd) pyrene	16.90	276	499418	11.27976	ppb		98
93)	Dibenz (a,h) anthracene	16.92	278	417994	11.19555	ppb		96
94)	Benzo (g,h,i) perylene	17.42	276	410127	10.85542	ppb		99

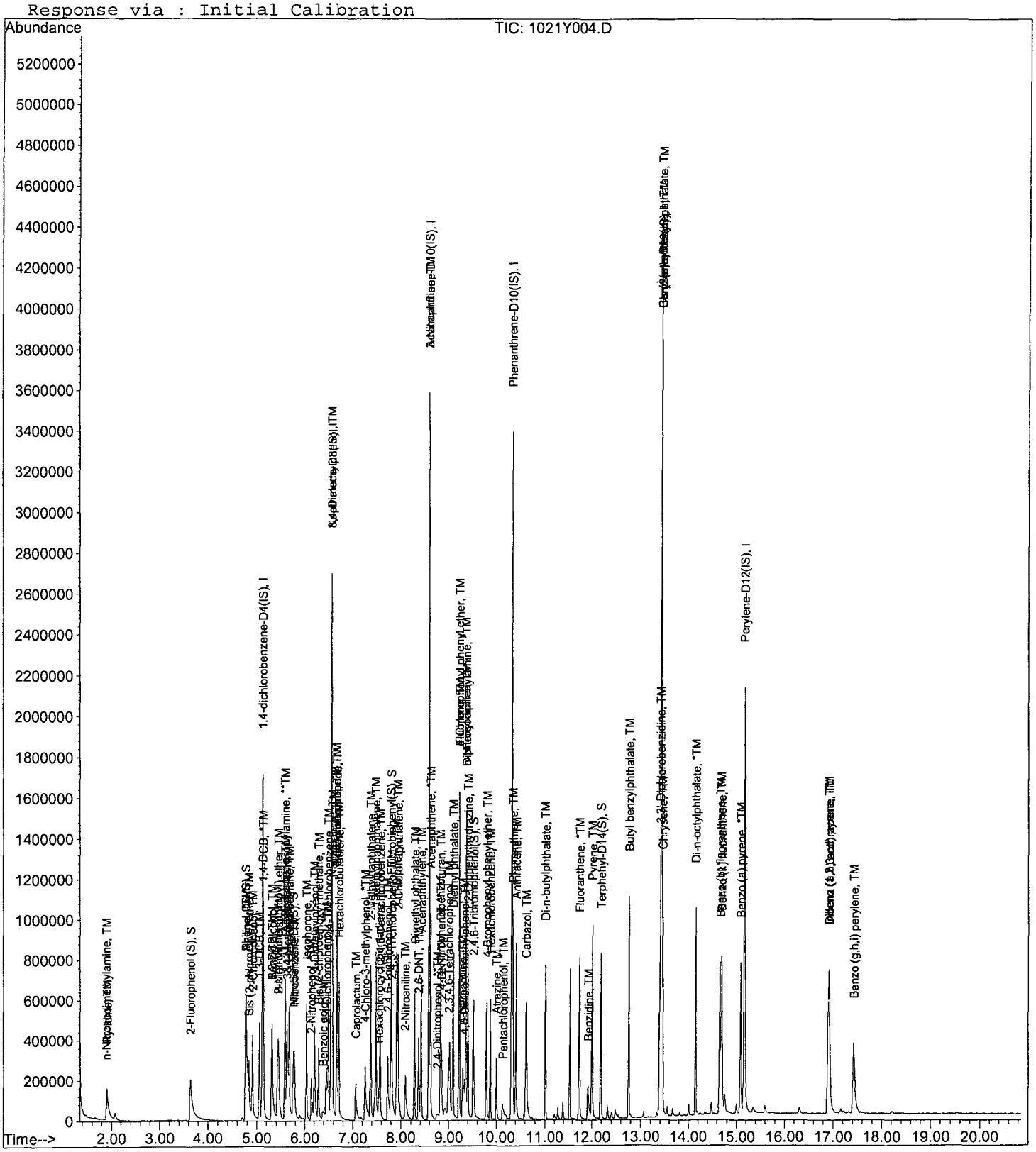
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y004.D Vial: 4
Acq On : 24 Oct 16 10:21 Operator: MA
Sample : 10ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y005.D Vial: 5
Acq On : 24 Oct 16 10:50 Operator: MA
Sample : 20ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:14 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	316715	40.00000	ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1364954	40.00000	ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	788263	40.00000	ppb	0.00
64) Phenanthrene-D10(IS)	10.32	188	1475196	40.00000	ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1330895	40.00000	ppb	0.00
88) Perylene-D12(IS)	15.17	264	1295210	40.00000	ppb	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.63	112	435772	37.77199	ppb	0.00
Spiked Amount 200.000			Recovery =	18.886%		
5) Phenol-D6 (S)	4.75	99	591810	37.71881	ppb	0.00
Spiked Amount 200.000			Recovery =	18.860%		
21) Nitrobenzene-D5(S)	5.75	82	280903	19.07402	ppb	0.00
Spiked Amount 100.000			Recovery =	19.074%		
45) 2-Fluorobiphenyl(S)	7.79	172	534038	20.35510	ppb	0.00
Spiked Amount 100.000			Recovery =	20.355%		
63) 2,4,6-Tribromophenol(S)	9.51	330	149156	41.38492	ppb	0.00
Spiked Amount 200.000			Recovery =	20.693%		
81) Terphenyl-D14(S)	12.19	244	657821	19.77044	ppb	0.00
Spiked Amount 100.000			Recovery =	19.770%		
Target Compounds						Qvalue
2) n-Nitrosodimethylamine	1.89	42	92143	23.56533	ppb	85
3) Pyridine	1.91	79	207802	25.46643	ppb	95
6) Phenol	4.77	94	335191	21.10364	ppb	83
7) Aniline	4.77	66	291369	22.64490	ppb	97
8) Bis (2-chloroethyl) ether	4.83	63	157622	21.23399	ppb	95
9) 2-Chlorophenol	4.90	128	247736	20.69126	ppb	97
10) 1,3-DCB	5.05	146	260530	20.68645	ppb	99
11) 1,4-DCB	5.13	146	272259	21.38744	ppb	98
12) Benzyl alcohol	5.31	108	131486	20.34352	ppb	98
13) 1,2-DCB	5.31	146	252100	21.25876	ppb	97
14) 2-Methylphenol	5.44	107	192953	21.50810	ppb	99
15) Bis (2-chloroisopropyl) et	5.43	45	329890	20.47579	ppb	95
16) Acetophenone	5.59	105	341787	21.19094	ppb	97
17) 3&4-Methylphenol	5.61	107	497668	42.02374	ppb	92
18) n-Nitrosodi-n-propylamine	5.58	70	183770	21.19285	ppb	98
19) Hexachloroethane	5.67	117	110653	21.65201	ppb	98
22) Nitrobenzene	5.77	77	289065	21.65252	ppb	98
23) Isophorone	6.03	82	491236	21.21740	ppb	98
24) 2-Nitrophenol	6.13	139	140942	21.57103	ppb	94
25) 2,4-Dimethylphenol	6.20	122	221774	21.74058	ppb	97
26) Benzoic acid	6.37	105	124131	21.11187	ppb	96
27) Bis (2-chloroethoxy) metha	6.28	93	268992	20.55970	ppb	98
28) 2,4-Dichlorophenol	6.44	162	206302	21.86365	ppb	96
29) 1,2,4-Trichlorobenzene	6.50	180	229962	21.98424	ppb	99
30) 3,4-Dimethylphenol	6.55	107	330720	21.67946	ppb	98
31) Naphthalene	6.58	128	735210	21.22522	ppb	99
32) 4-Chloroaniline	6.66	127	262293	24.33281	ppb	96
33) 2,6-Dichlorophenol	6.66	162	202427	22.38191	ppb	98
34) Hexachloropropene	6.67	213	160139	22.70137	ppb	98
35) Hexachlorobutadiene	6.71	225	137896	22.95254	ppb	99
36) Caprolactum	7.06	55	117540	21.27518	ppb	96
37) 4-Chloro-3-methylphenol	7.26	107	229819	21.51427	ppb	99

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y005.D Vial: 5
Acq On : 24 Oct 16 10:50 Operator: MA
Sample : 20ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:14 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	480523	21.35526	ppb		99
39)	1-Methylnaphthalene	7.49	142	468842	21.20098	ppb		100
41)	Hexachlorocyclopentadiene	7.55	237	61250	20.19267	ppb		97
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	214259	21.81842	ppb		97
43)	2,4,6-Trichlorophenol	7.72	196	144608	22.52655	ppb		95
44)	2,4,5-Trichlorophenol	7.80	196	151227	22.68116	ppb		94
46)	1,1'-Biphenyl	7.92	154	627575	21.97997	ppb		100
47)	2-Chloronaphthalene	7.93	162	474528	21.70353	ppb		93
48)	2-Nitroaniline	8.08	65	162591	21.48496	ppb		98
49)	Dimethyl phthalate	8.28	163	573795	22.10515	ppb		99
50)	2,6-DNT	8.36	165	129051	21.85155	ppb		96
51)	Acenaphthylene	8.42	152	767274	22.89490	ppb		99
52)	3-Nitroaniline	8.57	138	135536	21.52749	ppb	#	93
53)	Acenaphthene	8.62	154	468397	21.73219	ppb		100
54)	2,4-Dinitrophenol	8.73	184	37737	20.69903	ppb		90
55)	4-Nitrophenol	8.89	65	64870m	18.37400	ppb		37
56)	Dibenzofuran	8.83	168	679624	22.33885	ppb		98
57)	2,4-DNT	8.84	165	179277	22.52573	ppb		93
58)	2,3,4,6-Tetrachlorophenol	8.99	232	110887	20.89398	ppb		92
59)	Diethyl phthalate	9.09	149	574869	22.20957	ppb		97
60)	4-Chlorophenyl phenyl ethe	9.22	204	255329	22.39509	ppb		96
61)	Fluorene	9.22	166	539449	22.18392	ppb		99
62)	4-Nitroaniline	9.28	138	141389	24.67294	ppb	#	83
65)	4,6-Dinitro-2-methylphenol	9.33	198	98115	21.55787	ppb		99
66)	Diphenyl amine	9.36	169	772556	40.16384	ppb		98
67)	n-Nitrosodiphenylamine	9.36	169	772556	40.16384	ppb		98
68)	1,2-Diphenylhydrazine	9.40	77	598525	20.59947	ppb	#	88
69)	4-Bromophenyl phenyl ether	9.79	248	146234	21.30668	ppb		91
70)	Hexachlorobenzene	9.87	284	157712	21.92084	ppb		94
71)	Atrazine	10.00	200	81173	10.97537	ppb		98
72)	Pentachlorophenol	10.12	266	51668	20.87821	ppb		92
73)	Phenanthrene	10.34	178	817986	21.39798	ppb		99
74)	Anthracene	10.40	178	863357	21.71302	ppb		100
75)	Carbazol	10.61	167	764473	22.48771	ppb		100
76)	Di-n-butylphthalate	11.01	149	983795	21.85386	ppb		99
77)	Fluoranthene	11.74	202	898312	21.68699	ppb		99
79)	Benzidine	11.92	184	298560	28.23964	ppb		98
80)	Pyrene	12.00	202	957674	21.00347	ppb		99
82)	Butyl benzylphthalate	12.76	149	453461	20.97907	ppb		92
83)	3,3'-Dichlorobenzidine	13.38	252	314808	26.03948	ppb		99
84)	Benz (a) anthracene	13.40	228	848942	20.29270	ppb		98
85)	Bis (2-ethylhexyl) phthala	13.42	149	637448	21.94635	ppb	#	96
86)	Chrysene	13.45	228	872582	21.58937	ppb		99
87)	Di-n-octylphthalate	14.14	149	1137602	21.73015	ppb		98
89)	Benzo (b) fluoranthene	14.66	252	901582	20.99779	ppb		97
90)	Benzo (k) fluoranthene	14.69	252	805767	19.50986	ppb		99
91)	Benzo (a) pyrene	15.09	252	824418	20.81990	ppb		99
92)	Indeno (1,2,3-cd) pyrene	16.90	276	938723	20.86395	ppb		100
93)	Dibenz (a,h) anthracene	16.92	278	798380	21.04302	ppb		97
94)	Benzo (g,h,i) perylene	17.42	276	793320	20.66330	ppb		99

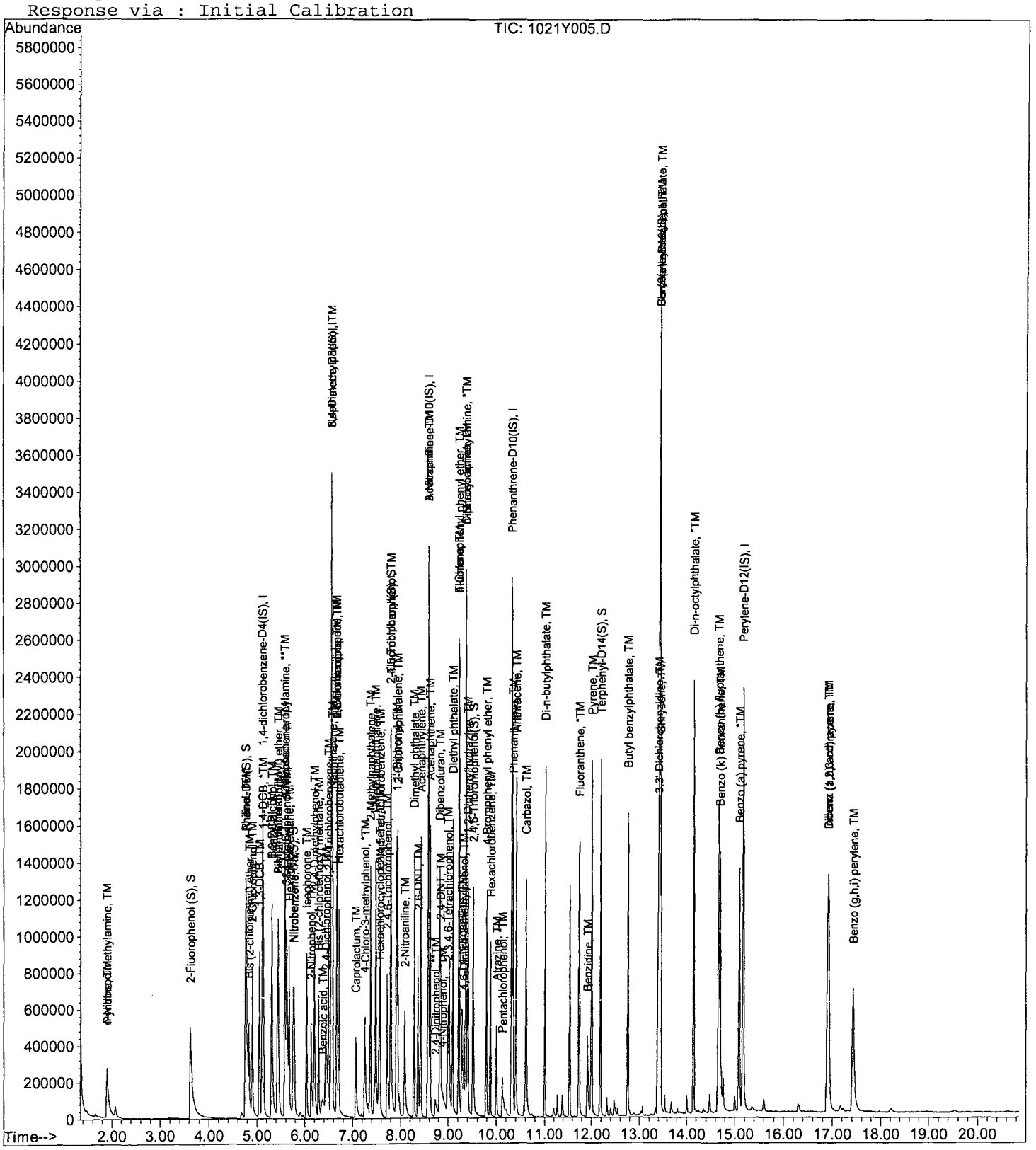
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y005.D Vial: 5
Acq On : 24 Oct 16 10:50 Operator: MA
Sample : 20ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:14 2016 Quant Results File: Y1021.RES

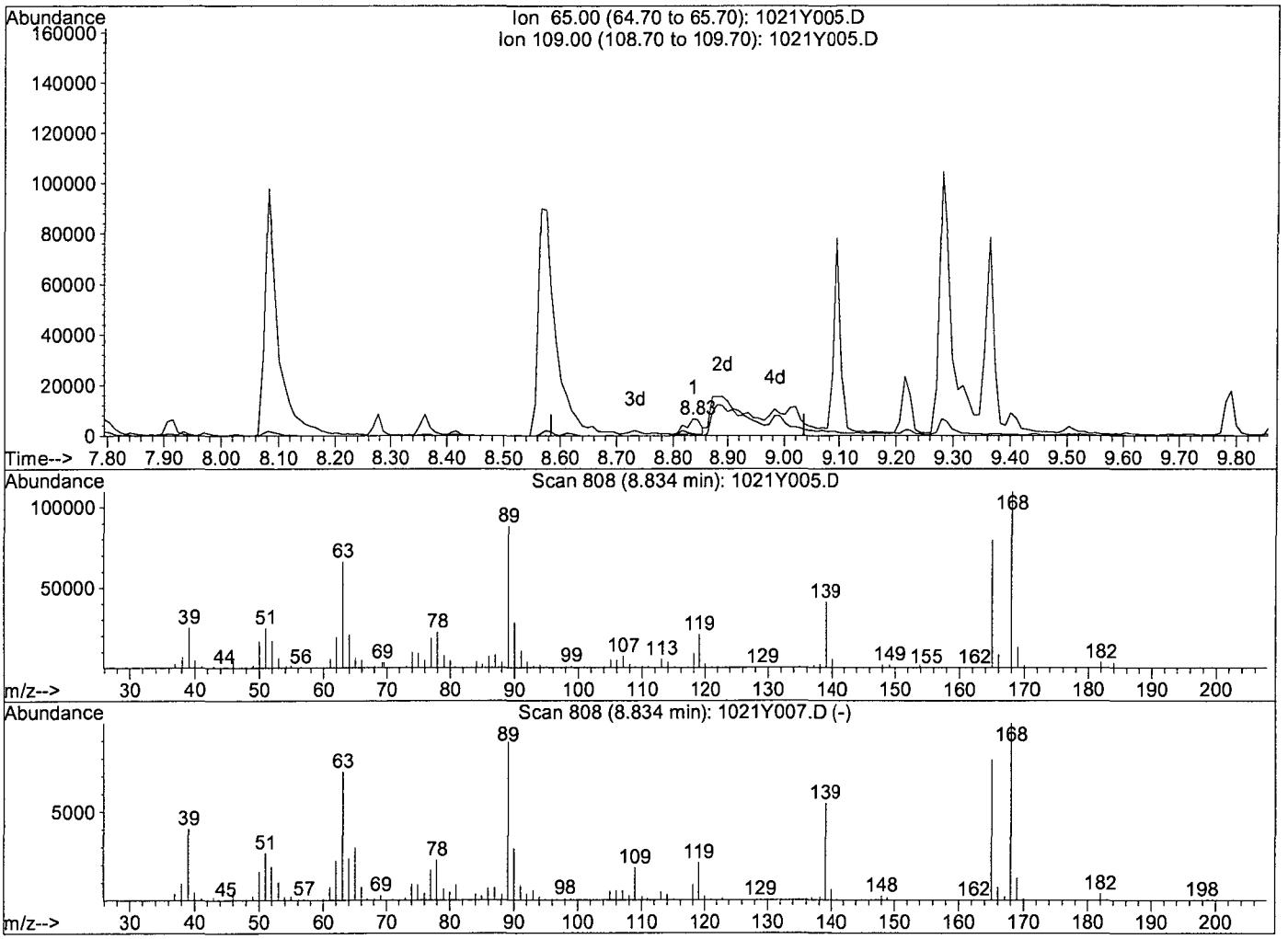
Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y005.D Vial: 5
Acq On : 24 Oct 16 10:50 Operator: MA
Sample : 20ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Oct 24 14:01 2016 Quant Results File: temp.res

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:01:34 2016
Response via : Multiple Level Calibration



TIC: 1021Y005.D

(55) 4-Nitrophenol (**TM)

8.83min 8.5711ppb

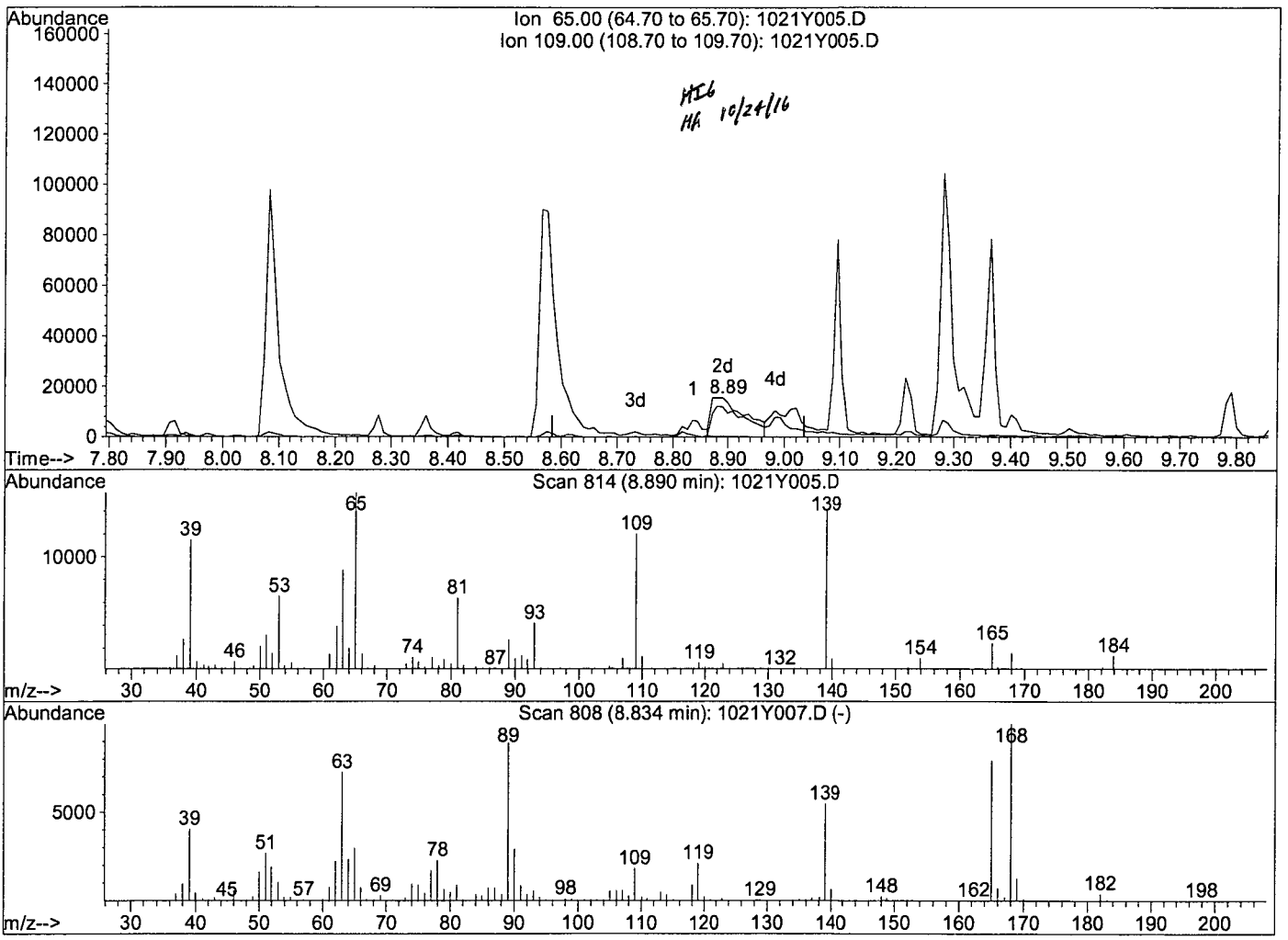
response 11538

Ion	Exp%	Act%
65.00	100	100
109.00	61.10	13.15#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y005.D Vial: 5
Acq On : 24 Oct 16 10:50 Operator: MA
Sample : 20ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Oct 24 14:14 2016 Quant Results File: temp.res

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:01:34 2016
Response via : Multiple Level Calibration



TIC: 1021Y005.D

(55) 4-Nitrophenol (**TM)

8.89min 18.3740ppb m

response 64870

Ion	Exp%	Act%
65.00	100	100
109.00	61.10	76.80
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y006.D Vial: 6
Acq On : 24 Oct 16 11:20 Operator: MA
Sample : 40ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	355261	40.00000 ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1539511	40.00000 ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	891922	40.00000 ppb		0.00
64) Phenanthrene-D10(IS)	10.32	188	1661674	40.00000 ppb		0.00
78) Chrysene-D12(IS)	13.41	240	1438737	40.00000 ppb		0.00
88) Perylene-D12(IS)	15.17	264	1448773	40.00000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.61	112	978306	75.59731 ppb		0.00
Spiked Amount 200.000			Recovery = 37.799%			
5) Phenol-D6 (S)	4.75	99	1292856	73.45932 ppb		0.00
Spiked Amount 200.000			Recovery = 36.730%			
21) Nitrobenzene-D5(S)	5.75	82	632191	38.06004 ppb		0.00
Spiked Amount 100.000			Recovery = 38.060%			
45) 2-Fluorobiphenyl(S)	7.80	172	1116323	37.60410 ppb		0.00
Spiked Amount 100.000			Recovery = 37.604%			
63) 2,4,6-Tribromophenol(S)	9.51	330	322387	79.05388 ppb		0.00
Spiked Amount 200.000			Recovery = 39.527%			
81) Terphenyl-D14(S)	12.19	244	1373922	38.19734 ppb		0.00
Spiked Amount 100.000			Recovery = 38.197%			
Target Compounds						Qvalue
2) n-Nitrosodimethylamine	1.88	42	213588	48.69778 ppb		93
3) Pyridine	1.90	79	435097	47.53632 ppb		99
6) Phenol	4.76	94	715925	40.18404 ppb		81
7) Aniline	4.76	66	634878	43.98843 ppb		99
8) Bis (2-chloroethyl) ether	4.83	63	335337	40.27330 ppb		93
9) 2-Chlorophenol	4.90	128	530971	39.53572 ppb		97
10) 1,3-DCB	5.05	146	566289	40.08551 ppb		96
11) 1,4-DCB	5.13	146	580087	40.62475 ppb		98
12) Benzyl alcohol	5.30	108	296751	40.93170 ppb		99
13) 1,2-DCB	5.30	146	542882	40.81235 ppb		96
14) 2-Methylphenol	5.44	107	415609	41.30062 ppb		96
15) Bis (2-chloroisopropyl) et	5.43	45	695313	38.47450 ppb	#	93
16) Acetophenone	5.58	105	746857	41.28128 ppb		94
17) 3&4-Methylphenol	5.60	107	1104452	83.14247 ppb		94
18) n-Nitrosodi-n-propylamine	5.59	70	391592	40.25962 ppb		96
19) Hexachloroethane	5.67	117	234444	40.89735 ppb		95
22) Nitrobenzene	5.77	77	617706	41.02324 ppb		96
23) Isophorone	6.04	82	1069874	40.97037 ppb		97
24) 2-Nitrophenol	6.13	139	305046	41.39338 ppb		99
25) 2,4-Dimethylphenol	6.20	122	465953	40.49840 ppb		99
26) Benzoic acid	6.37	105	345942	42.42535 ppb		98
27) Bis (2-chloroethoxy) metha	6.28	93	589528	39.95002 ppb		98
28) 2,4-Dichlorophenol	6.43	162	452057	42.47640 ppb		95
29) 1,2,4-Trichlorobenzene	6.50	180	482292	40.87904 ppb		99
30) 3,4-Dimethylphenol	6.54	107	703446	40.88406 ppb		100
31) Naphthalene	6.58	128	1550669	39.69128 ppb		100
32) 4-Chloroaniline	6.65	127	554905	45.64144 ppb		94
33) 2,6-Dichlorophenol	6.66	162	413512	40.53705 ppb		99
34) Hexachloropropene	6.67	213	356185	44.76780 ppb		98
35) Hexachlorobutadiene	6.71	225	289343	42.69994 ppb		96
36) Caprolactum	7.08	55	256143	41.10601 ppb		96
37) 4-Chloro-3-methylphenol	7.25	107	510452	42.36731 ppb		99

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y006.D Vial: 6
Acq On : 24 Oct 16 11:20 Operator: MA
Sample : 40ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	1033957	40.74069	ppb		99
39)	1-Methylnaphthalene	7.48	142	1002828	40.20602	ppb		100
41)	Hexachlorocyclopentadiene	7.55	237	194894	39.94379	ppb		96
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	461720	41.55346	ppb		99
43)	2,4,6-Trichlorophenol	7.72	196	304341	41.89933	ppb		99
44)	2,4,5-Trichlorophenol	7.79	196	318191	42.17626	ppb		98
46)	1,1'-Biphenyl	7.92	154	1330743	41.19077	ppb		99
47)	2-Chloronaphthalene	7.94	162	1022380	41.32617	ppb		94
48)	2-Nitroaniline	8.08	65	359437	41.97639	ppb		96
49)	Dimethyl phthalate	8.28	163	1211750	41.25666	ppb		99
50)	2,6-DNT	8.36	165	285590	42.73741	ppb		97
51)	Acenaphthylene	8.42	152	1629586	42.97440	ppb		99
52)	3-Nitroaniline	8.57	138	303378	42.58602	ppb		96
53)	Acenaphthene	8.62	154	993232	40.72718	ppb		98
54)	2,4-Dinitrophenol	8.71	184	137146	46.31500	ppb		94
55)	4-Nitrophenol	8.84	65	218309	41.91399	ppb		97
56)	Dibenzofuran	8.83	168	1452311	42.18868	ppb		98
57)	2,4-DNT	8.84	165	395235	43.88882	ppb		95
58)	2,3,4,6-Tetrachlorophenol	8.98	232	255496	42.54701	ppb	#	85
59)	Diethyl phthalate	9.10	149	1232666	42.08826	ppb		99
60)	4-Chlorophenyl phenyl ethe	9.23	204	531986	41.23796	ppb		96
61)	Fluorene	9.23	166	1135201	41.25770	ppb		99
62)	4-Nitroaniline	9.29	138	280866	43.31604	ppb		96
65)	4,6-Dinitro-2-methylphenol	9.33	198	228016	42.88766	ppb		97
66)	Diphenyl amine	9.37	169	1623995	74.95384	ppb		100
67)	n-Nitrosodiphenylamine	9.37	169	1623995	74.95384	ppb		100
68)	1,2-Diphenylhydrazine	9.41	77	1283855	39.22777	ppb		96
69)	4-Bromophenyl phenyl ether	9.79	248	323497	41.84480	ppb		95
70)	Hexachlorobenzene	9.88	284	334003	41.21419	ppb		96
71)	Atrazine	10.01	200	177695	21.32979	ppb		98
72)	Pentachlorophenol	10.13	266	132179	39.31456	ppb		98
73)	Phenanthrene	10.35	178	1733705	40.26299	ppb		100
74)	Anthracene	10.40	178	1799537	40.17857	ppb		99
75)	Carbazol	10.61	167	1663343	43.43790	ppb		99
76)	Di-n-butylphthalate	11.01	149	2132740	42.05963	ppb		100
77)	Fluoranthene	11.74	202	1908702	40.90855	ppb		100
79)	Benzidine	11.91	184	619778	54.22831	ppb	#	96
80)	Pyrene	12.00	202	1997687	40.52874	ppb		99
82)	Butyl benzylphthalate	12.76	149	984804	42.14620	ppb		96
83)	3,3'-Dichlorobenzidine	13.38	252	641660	49.09689	ppb		98
84)	Benz (a) anthracene	13.40	228	1812246	40.07204	ppb		100
85)	Bis (2-ethylhexyl) phthala	13.42	149	1304855	41.55680	ppb		99
86)	Chrysene	13.45	228	1828952	41.85992	ppb		99
87)	Di-n-octylphthalate	14.15	149	2372465	41.92128	ppb		99
89)	Benzo (b) fluoranthene	14.66	252	1911128	39.79220	ppb		99
90)	Benzo (k) fluoranthene	14.69	252	1763255	38.16801	ppb		99
91)	Benzo (a) pyrene	15.09	252	1727216	38.99579	ppb		99
92)	Indeno (1,2,3-cd) pyrene	16.90	276	2006664	39.87250	ppb		99
93)	Dibenz (a,h) anthracene	16.93	278	1688443	39.78549	ppb		99
94)	Benzo (g,h,i) perylene	17.42	276	1703405	39.66514	ppb		98

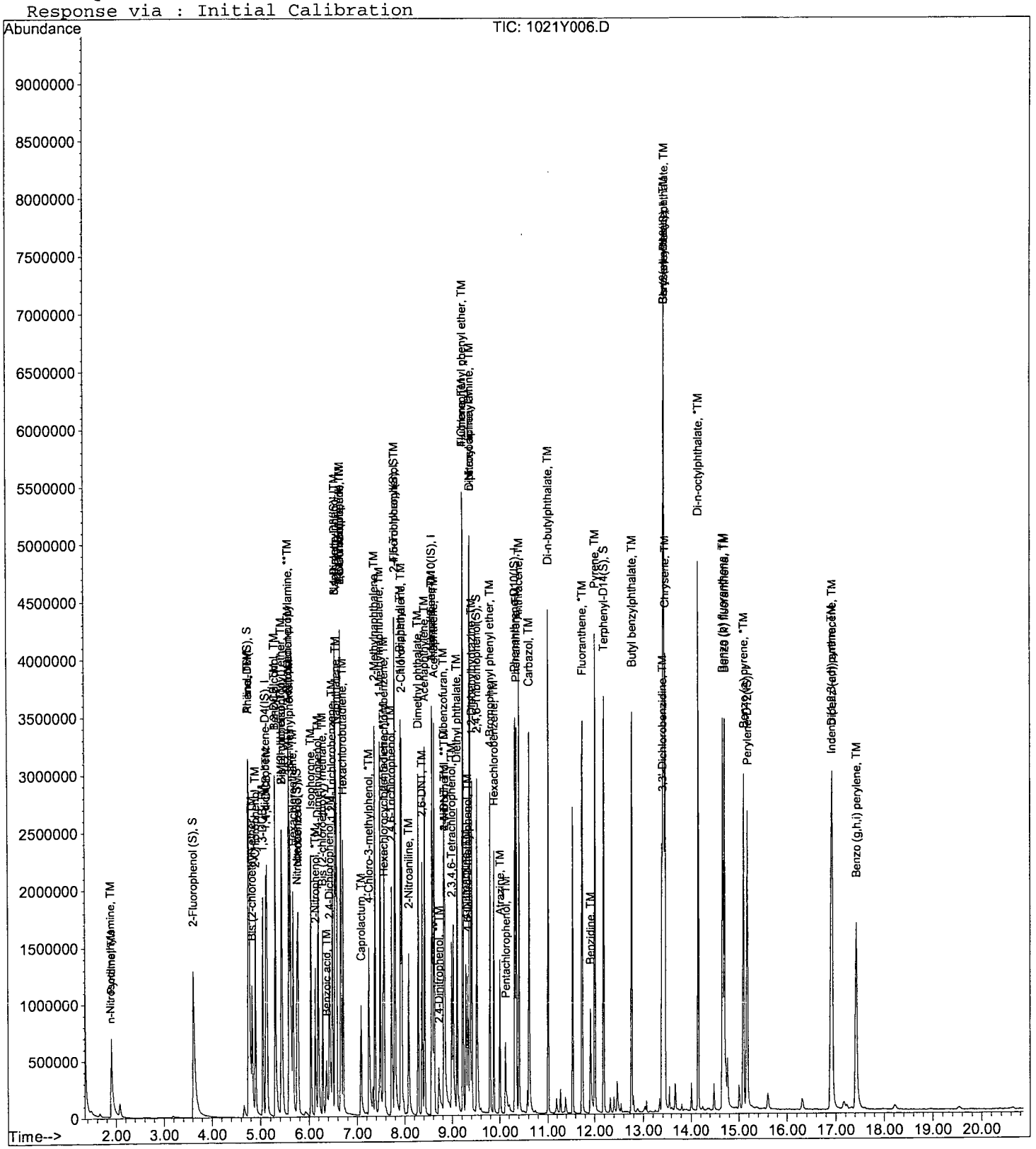
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y006.D Vial: 6
Acq On : 24 Oct 16 11:20 Operator: MA
Sample : 40ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y007.D Vial: 7
Acq On : 24 Oct 16 11:49 Operator: MA
Sample : 50ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	316560	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1345294	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	793448	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.32	188	1468739	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.42	240	1279339	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.17	264	1312429	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.62	112	1114893	96.68438 ppb	0.00
Spiked Amount 200.000			Recovery =	48.342%	
5) Phenol-D6 (S)	4.75	99	1452232	92.60283 ppb	0.00
Spiked Amount 200.000			Recovery =	46.302%	
21) Nitrobenzene-D5(S)	5.75	82	709827	48.90340 ppb	0.00
Spiked Amount 100.000			Recovery =	48.903%	
45) 2-Fluorobiphenyl(S)	7.79	172	1252677	47.43434 ppb	0.00
Spiked Amount 100.000			Recovery =	47.434%	
63) 2,4,6-Tribromophenol(S)	9.51	330	365067	100.62981 ppb	0.00
Spiked Amount 200.000			Recovery =	50.315%	
81) Terphenyl-D14(S)	12.19	244	1517766	47.45387 ppb	0.00
Spiked Amount 100.000			Recovery =	47.454%	
Target Compounds					Qvalue
2) n-Nitrosodimethylamine	1.88	42	262359	67.13049 ppb	100
3) Pyridine	1.90	79	511690	62.73905 ppb	100
6) Phenol	4.77	94	800315	50.41254 ppb	100
7) Aniline	4.76	66	700146	54.44127 ppb	100
8) Bis (2-chloroethyl) ether	4.83	63	366871	49.44708 ppb	100
9) 2-Chlorophenol	4.90	128	592804	49.53607 ppb	100
10) 1,3-DCB	5.05	146	626612	49.77823 ppb	100
11) 1,4-DCB	5.13	146	635981	49.98426 ppb	100
12) Benzyl alcohol	5.30	108	324461	50.22519 ppb	100
13) 1,2-DCB	5.31	146	597733	50.42952 ppb	100
14) 2-Methylphenol	5.44	107	450006	50.18586 ppb	100
15) Bis (2-chloroisopropyl) et	5.43	45	763609	47.41930 ppb	100
16) Acetophenone	5.58	105	819979	50.86394 ppb	100
17) 3&4-Methylphenol	5.61	107	1207780	102.03647 ppb	100
18) n-Nitrosodi-n-propylamine	5.58	70	426201	49.17472 ppb	100
19) Hexachloroethane	5.67	117	259493	50.80111 ppb	100
22) Nitrobenzene	5.77	77	686330	52.16109 ppb	100
23) Isophorone	6.04	82	1178939	51.66473 ppb	100
24) 2-Nitrophenol	6.13	139	341259	52.99261 ppb	100
25) 2,4-Dimethylphenol	6.20	122	530062	52.72153 ppb	100
26) Benzoic acid	6.37	105	391137	52.94695 ppb	100
27) Bis (2-chloroethoxy) metha	6.29	93	648504	50.29107 ppb	100
28) 2,4-Dichlorophenol	6.43	162	488418	52.51843 ppb	100
29) 1,2,4-Trichlorobenzene	6.49	180	534762	51.87006 ppb	100
30) 3,4-Dimethylphenol	6.54	107	781975	52.00938 ppb	100
31) Naphthalene	6.58	128	1732695	50.75324 ppb	100
32) 4-Chloroaniline	6.66	127	568930	53.55070 ppb	100
33) 2,6-Dichlorophenol	6.66	162	453619	50.88864 ppb	100
34) Hexachloropropene	6.67	213	385819	55.49315 ppb	100
35) Hexachlorobutadiene	6.72	225	317725	53.65760 ppb	100
36) Caprolactum	7.09	55	278514	51.14880 ppb	100
37) 4-Chloro-3-methylphenol	7.25	107	557403	52.94328 ppb	100

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y007.D Vial: 7
Acq On : 24 Oct 16 11:49 Operator: MA
Sample : 50ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	2-Methylnaphthalene	7.37	142	1137655	51.29820 ppb	100
39)	1-Methylnaphthalene	7.49	142	1108691	50.86755 ppb	100
41)	Hexachlorocyclopentadiene	7.55	237	221826	48.50898 ppb	100
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	504160	51.00412 ppb	100
43)	2,4,6-Trichlorophenol	7.72	196	344348	53.29084 ppb	100
44)	2,4,5-Trichlorophenol	7.79	196	355228	52.92925 ppb	100
46)	1,1'-Biphenyl	7.92	154	1445557	50.29785 ppb	100
47)	2-Chloronaphthalene	7.94	162	1129106	51.30456 ppb	100
48)	2-Nitroaniline	8.08	65	397563	52.19113 ppb	100
49)	Dimethyl phthalate	8.28	163	1350099	51.67198 ppb	100
50)	2,6-DNT	8.36	165	313888	52.80174 ppb	100
51)	Acenaphthylene	8.42	152	1794919	53.20908 ppb	100
52)	3-Nitroaniline	8.56	138	334165	52.72934 ppb	100
53)	Acenaphthene	8.62	154	1093746	50.41486 ppb	100
54)	2,4-Dinitrophenol	8.71	184	156764	56.40549 ppb	100
55)	4-Nitrophenol	8.83	65	241244	50.50348 ppb	100
56)	Dibenzofuran	8.82	168	1585915	51.78746 ppb	100
57)	2,4-DNT	8.84	165	425155	53.07063 ppb	100
58)	2,3,4,6-Tetrachlorophenol	8.99	232	283244	53.02175 ppb	100
59)	Diethyl phthalate	9.10	149	1356853	52.07830 ppb	100
60)	4-Chlorophenyl phenyl ethe	9.22	204	568725	49.55731 ppb	100
61)	Fluorene	9.22	166	1217544	49.74223 ppb	100
62)	4-Nitroaniline	9.29	138	315126	54.63138 ppb	100
65)	4,6-Dinitro-2-methylphenol	9.33	198	265070	55.93512 ppb	100
66)	Diphenyl amine	9.37	169	1754658	91.62266 ppb	100
67)	n-Nitrosodiphenylamine	9.37	169	1754658	91.62266 ppb	100
68)	1,2-Diphenylhydrazine	9.41	77	1409908	48.73822 ppb	100
69)	4-Bromophenyl phenyl ether	9.79	248	357095	52.25841 ppb	100
70)	Hexachlorobenzene	9.87	284	365059	50.96366 ppb	100
71)	Atrazine	10.00	200	191701	26.03376 ppb	100
72)	Pentachlorophenol	10.12	266	154381	49.90133 ppb	100
73)	Phenanthrene	10.35	178	1894173	49.76817 ppb	100
74)	Anthracene	10.40	178	2013094	50.85094 ppb	100
75)	Carbazol	10.61	167	1811463	53.52019 ppb	100
76)	Di-n-butylphthalate	11.01	149	2335629	52.11138 ppb	100
77)	Fluoranthene	11.74	202	2085538	50.57027 ppb	100
79)	Benzidine	11.92	184	646023	63.56729 ppb	100
80)	Pyrene	12.00	202	2168761	49.48153 ppb	100
82)	Butyl benzylphthalate	12.76	149	1075640	51.76918 ppb	100
83)	3,3'-Dichlorobenzidine	13.38	252	687123	59.12610 ppb	100
84)	Benz (a) anthracene	13.40	228	2068157	51.42847 ppb	100
85)	Bis (2-ethylhexyl) phthala	13.42	149	1460627	52.31364 ppb	100
86)	Chrysene	13.45	228	1904186	49.01187 ppb	100
87)	Di-n-octylphthalate	14.14	149	2681659	53.28857 ppb	100
89)	Benzo (b) fluoranthene	14.65	252	2007063	46.13109 ppb	100
90)	Benzo (k) fluoranthene	14.69	252	1988230	47.50896 ppb	100
91)	Benzo (a) pyrene	15.09	252	1921373	47.88586 ppb	100
92)	Indeno (1,2,3-cd) pyrene	16.91	276	2195319	48.15274 ppb	100
93)	Dibenz (a,h) anthracene	16.93	278	1862332	48.44176 ppb	100
94)	Benzo (g,h,i) perylene	17.42	276	1874064	48.17260 ppb	100

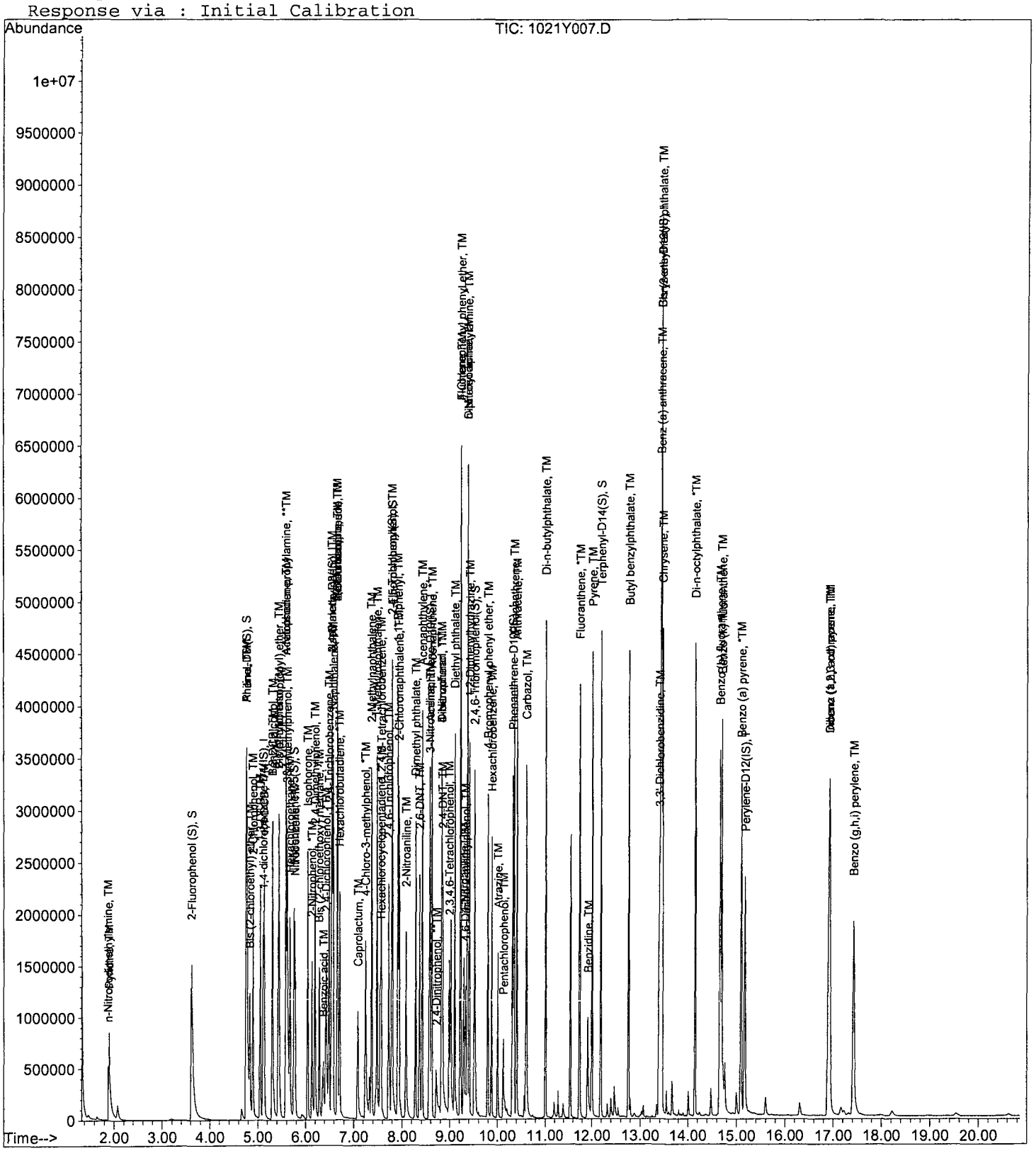
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y007.D Vial: 7
Acq On : 24 Oct 16 11:49 Operator: MA
Sample : 50ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y008.D Vial: 8
Acq On : 24 Oct 16 12:19 Operator: MA
Sample : 60ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	325913	40.00000	ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1411580	40.00000	ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	832595	40.00000	ppb		0.00
64) Phenanthrene-D10(IS)	10.32	188	1550197	40.00000	ppb		0.00
78) Chrysene-D12(IS)	13.41	240	1309075	40.00000	ppb		0.00
88) Perylene-D12(IS)	15.17	264	1429809	40.00000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol (S)	3.61	112	1380020	116.24195	ppb		0.00
Spiked Amount 200.000			Recovery = 58.121%				
5) Phenol-D6 (S)	4.75	99	1767461	109.46932	ppb		0.00
Spiked Amount 200.000			Recovery = 54.735%				
21) Nitrobenzene-D5(S)	5.75	82	866578	56.89917	ppb		0.00
Spiked Amount 100.000			Recovery = 56.899%				
45) 2-Fluorobiphenyl(S)	7.80	172	1482917	53.51251	ppb		0.00
Spiked Amount 100.000			Recovery = 53.513%				
63) 2,4,6-Tribromophenol(S)	9.51	330	437892	115.02858	ppb		0.00
Spiked Amount 200.000			Recovery = 57.515%				
81) Terphenyl-D14(S)	12.19	244	1828425	55.86825	ppb		0.00
Spiked Amount 100.000			Recovery = 55.868%				
Target Compounds							Qvalue
2) n-Nitrosodimethylamine	1.88	42	297688	73.98429	ppb		92
3) Pyridine	1.89	79	672429	80.08143	ppb		89
6) Phenol	4.76	94	947438	57.96726	ppb		86
7) Aniline	4.76	66	846912	63.96351	ppb		92
8) Bis (2-chloroethyl) ether	4.83	63	451641	59.12552	ppb		92
9) 2-Chlorophenol	4.90	128	713649	57.92278	ppb		95
10) 1,3-DCB	5.05	146	773715	59.70024	ppb		98
11) 1,4-DCB	5.13	146	776722	59.29377	ppb		98
12) Benzyl alcohol	5.30	108	406038	61.04923	ppb		95
13) 1,2-DCB	5.30	146	717718	58.81469	ppb		98
14) 2-Methylphenol	5.44	107	554150	60.02674	ppb		96
15) Bis (2-chloroisopropyl) et	5.43	45	917483	55.33966	ppb	#	87
16) Acetophenone	5.58	105	991682	59.74947	ppb		89
17) 3&4-Methylphenol	5.61	107	1467262	120.40087	ppb		94
18) n-Nitrosodi-n-propylamine	5.59	70	527052	59.06568	ppb		97
19) Hexachloroethane	5.67	117	314983	59.89479	ppb		94
22) Nitrobenzene	5.77	77	833091	60.34174	ppb		99
23) Isophorone	6.04	82	1433633	59.87597	ppb		98
24) 2-Nitrophenol	6.14	139	415962	61.55971	ppb		99
25) 2,4-Dimethylphenol	6.19	122	626183	59.35732	ppb		90
26) Benzoic acid	6.39	105	496108	62.62020	ppb		100
27) Bis (2-chloroethoxy) metha	6.28	93	793513	58.64675	ppb		98
28) 2,4-Dichlorophenol	6.42	162	606577	62.16097	ppb		94
29) 1,2,4-Trichlorobenzene	6.49	180	646875	59.79822	ppb		98
30) 3,4-Dimethylphenol	6.54	107	952885	60.40057	ppb		97
31) Naphthalene	6.57	128	2127470	59.39047	ppb		99
32) 4-Chloroaniline	6.66	127	706440	63.37140	ppb	#	93
33) 2,6-Dichlorophenol	6.66	162	548047	58.59480	ppb		99
34) Hexachloropropene	6.67	213	478482	65.58931	ppb		99
35) Hexachlorobutadiene	6.71	225	390990	62.92992	ppb		98
36) Caprolactum	7.09	55	348077	60.92218	ppb		98
37) 4-Chloro-3-methylphenol	7.25	107	679435	61.50369	ppb		96

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y008.D Vial: 8
Acq On : 24 Oct 16 12:19 Operator: MA
Sample : 60ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	1369744	58.86303	ppb		100
39)	1-Methylnaphthalene	7.48	142	1349901	59.02607	ppb		99
41)	Hexachlorocyclopentadiene	7.56	237	297548	59.42229	ppb		99
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	605973	58.42179	ppb		97
43)	2,4,6-Trichlorophenol	7.72	196	414565	61.14097	ppb		99
44)	2,4,5-Trichlorophenol	7.79	196	425948	60.48251	ppb		95
46)	1,1'-Biphenyl	7.92	154	1773472	58.80621	ppb		99
47)	2-Chloronaphthalene	7.94	162	1352053	58.54633	ppb		93
48)	2-Nitroaniline	8.08	65	488531	61.11778	ppb		93
49)	Dimethyl phthalate	8.28	163	1631567	59.50850	ppb		100
50)	2,6-DNT	8.36	165	384947	61.71052	ppb		93
51)	Acenaphthylene	8.42	152	2175897	61.47010	ppb		100
52)	3-Nitroaniline	8.57	138	418113	62.87380	ppb		98
53)	Acenaphthene	8.62	154	1316697	57.83791	ppb		99
54)	2,4-Dinitrophenol	8.72	184	206700	67.75414	ppb		92
55)	4-Nitrophenol	8.83	65	309156	60.25041	ppb		78
56)	Dibenzofuran	8.82	168	1899658	59.11597	ppb		90
57)	2,4-DNT	8.85	165	535908	63.75024	ppb		91
58)	2,3,4,6-Tetrachlorophenol	8.99	232	353459	63.05464	ppb	#	84
59)	Diethyl phthalate	9.11	149	1639135	59.95472	ppb		100
60)	4-Chlorophenyl phenyl ethe	9.22	204	703886	58.45106	ppb		88
61)	Fluorene	9.23	166	1470928	57.26862	ppb		100
62)	4-Nitroaniline	9.29	138	381230	62.98392	ppb		97
65)	4,6-Dinitro-2-methylphenol	9.33	198	328699	65.45585	ppb		96
66)	Diphenyl amine	9.38	169	2132145	105.48358	ppb		100
67)	n-Nitrosodiphenylamine	9.38	169	2132145	105.48358	ppb		100
68)	1,2-Diphenylhydrazine	9.40	77	1717267	56.24377	ppb	#	88
69)	4-Bromophenyl phenyl ether	9.79	248	433409	60.09358	ppb		93
70)	Hexachlorobenzene	9.88	284	449031	59.39250	ppb		95
71)	Atrazine	10.01	200	242321	31.17894	ppb		97
72)	Pentachlorophenol	10.13	266	188090	56.61879	ppb		93
73)	Phenanthrene	10.35	178	2266393	56.41895	ppb		99
74)	Anthracene	10.41	178	2452884	58.70427	ppb		100
75)	Carbazol	10.61	167	2188567	61.26406	ppb		99
76)	Di-n-butylphthalate	11.01	149	2885589	60.99875	ppb		99
77)	Fluoranthene	11.74	202	2596271	59.64649	ppb		99
79)	Benzidine	11.91	184	810775	77.96634	ppb		98
80)	Pyrene	12.00	202	2671201	59.56061	ppb		99
82)	Butyl benzylphthalate	12.76	149	1289861	60.66921	ppb		92
83)	3,3'-Dichlorobenzidine	13.39	252	830747	69.86098	ppb		97
84)	Benz (a) anthracene	13.40	228	2439707	59.28965	ppb		100
85)	Bis (2-ethylhexyl) phthala	13.42	149	1742923	61.00634	ppb	#	98
86)	Chrysene	13.45	228	2422792	60.94374	ppb		100
87)	Di-n-octylphthalate	14.15	149	3186133	61.87504	ppb		98
89)	Benzo (b) fluoranthene	14.66	252	2512575	53.00899	ppb		99
90)	Benzo (k) fluoranthene	14.69	252	2300442	50.45660	ppb		99
91)	Benzo (a) pyrene	15.09	252	2317541	53.01769	ppb		99
92)	Indeno (1,2,3-cd) pyrene	16.90	276	2642907	53.21120	ppb		95
93)	Dibenz (a,h) anthracene	16.93	278	2213798	52.85652	ppb		99
94)	Benzo (g,h,i) perylene	17.43	276	2250676	53.10390	ppb		99

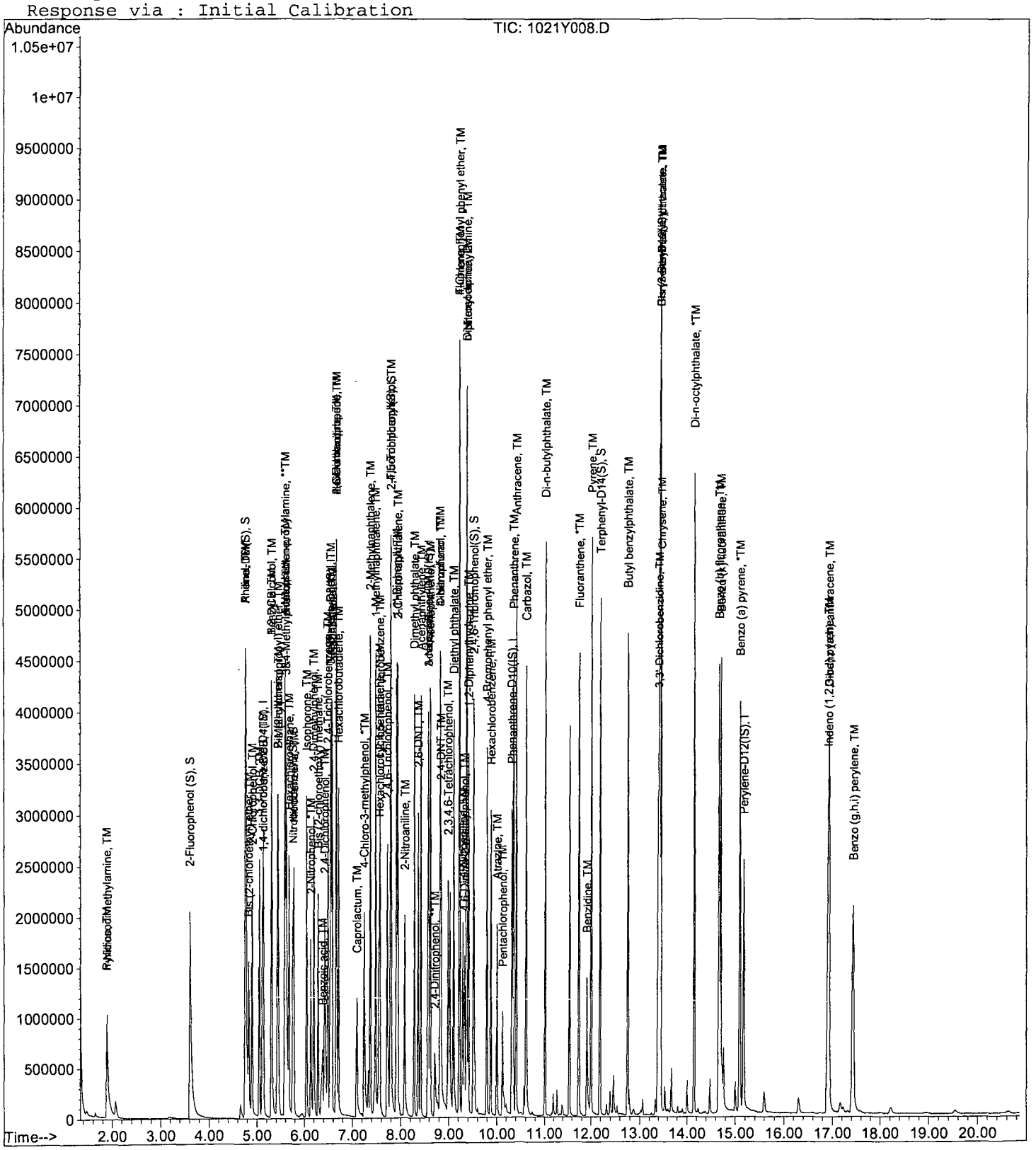
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y008.D Vial: 8
Acq On : 24 Oct 16 12:19 Operator: MA
Sample : 60ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y009.D Vial: 9
Acq On : 24 Oct 16 12:48 Operator: MA
Sample : 80ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	341978	40.00000 ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1452178	40.00000 ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	871064	40.00000 ppb		0.00
64) Phenanthrene-D10(IS)	10.32	188	1605794	40.00000 ppb		0.00
78) Chrysene-D12(IS)	13.42	240	1386963	40.00000 ppb		0.00
88) Perylene-D12(IS)	15.17	264	1428930	40.00000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.61	112	1956571	157.06399 ppb		0.00
Spiked Amount 200.000			Recovery =	78.532%		
5) Phenol-D6 (S)	4.75	99	2450221	144.62766 ppb		0.00
Spiked Amount 200.000			Recovery =	72.314%		
21) Nitrobenzene-D5(S)	5.75	82	1234855	78.81337 ppb		0.00
Spiked Amount 100.000			Recovery =	78.813%		
45) 2-Fluorobiphenyl(S)	7.81	172	2095374	72.27427 ppb		0.01
Spiked Amount 100.000			Recovery =	72.274%		
63) 2,4,6-Tribromophenol(S)	9.52	330	645283	162.02152 ppb		0.01
Spiked Amount 200.000			Recovery =	81.011%		
81) Terphenyl-D14(S)	12.19	244	2525558	72.83581 ppb		0.00
Spiked Amount 100.000			Recovery =	72.836%		
Target Compounds						Qvalue
2) n-Nitrosodimethylamine	1.88	42	415084	98.31453 ppb		94
3) Pyridine	1.90	79	894890	101.56838 ppb		98
6) Phenol	4.77	94	1325517	77.28955 ppb		93
7) Aniline	4.77	66	1181809	85.06380 ppb	#	73
8) Bis (2-chloroethyl) ether	4.83	63	638460	79.65606 ppb		97
9) 2-Chlorophenol	4.90	128	1012798	78.34136 ppb		98
10) 1,3-DCB	5.05	146	1062597	78.13888 ppb		98
11) 1,4-DCB	5.13	146	1074985	78.20767 ppb		99
12) Benzyl alcohol	5.30	108	568820	81.50643 ppb		98
13) 1,2-DCB	5.30	146	984225	76.86522 ppb		98
14) 2-Methylphenol	5.44	107	778729	80.39098 ppb		96
15) Bis (2-chloroisopropyl) et	5.43	45	1258710	72.35486 ppb	#	93
16) Acetophenone	5.59	105	1389763	79.80054 ppb		96
17) 3&4-Methylphenol	5.61	107	2024940	158.35713 ppb		99
18) n-Nitrosodi-n-propylamine	5.60	70	742020	79.25029 ppb		92
19) Hexachloroethane	5.67	117	447367	81.07172 ppb		100
22) Nitrobenzene	5.77	77	1198533	84.38418 ppb		96
23) Isophorone	6.05	82	2028214	82.34059 ppb		97
24) 2-Nitrophenol	6.13	139	590433	84.93744 ppb		99
25) 2,4-Dimethylphenol	6.20	122	902539	83.16195 ppb		95
26) Benzoic acid	6.40	105	608643	73.40196 ppb		99
27) Bis (2-chloroethoxy) metha	6.29	93	1120863	80.52451 ppb		100
28) 2,4-Dichlorophenol	6.42	162	854303	85.09997 ppb		96
29) 1,2,4-Trichlorobenzene	6.50	180	898260	80.71525 ppb		98
30) 3,4-Dimethylphenol	6.54	107	1358342	83.69419 ppb		96
31) Naphthalene	6.58	128	2935085	79.64521 ppb		99
32) 4-Chloroaniline	6.66	127	898261	78.32605 ppb		97
33) 2,6-Dichlorophenol	6.66	162	756737	78.64514 ppb		98
34) Hexachloropropene	6.67	213	664596	88.55454 ppb		100
35) Hexachlorobutadiene	6.72	225	540224	84.51836 ppb		98
36) Caprolactum	7.11	55	488526	83.11386 ppb		98
37) 4-Chloro-3-methylphenol	7.25	107	969408	85.29930 ppb		99

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y009.D Vial: 9
Acq On : 24 Oct 16 12:48 Operator: MA
Sample : 80ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	1942731	81.15244	ppb		100
39)	1-Methylnaphthalene	7.49	142	1906412	81.02973	ppb		99
41)	Hexachlorocyclopentadiene	7.55	237	477855	86.24385	ppb		99
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	860740	79.31901	ppb		98
43)	2,4,6-Trichlorophenol	7.72	196	585194	82.49418	ppb		96
44)	2,4,5-Trichlorophenol	7.79	196	609773	82.76089	ppb		94
46)	1,1'-Biphenyl	7.92	154	2466104	78.16169	ppb		99
47)	2-Chloronaphthalene	7.94	162	1893906	78.38773	ppb		98
48)	2-Nitroaniline	8.08	65	701781	83.91909	ppb		94
49)	Dimethyl phthalate	8.29	163	2327173	81.13094	ppb		99
50)	2,6-DNT	8.37	165	547946	83.96141	ppb		78
51)	Acenaphthylene	8.42	152	3037177	82.01238	ppb		100
52)	3-Nitroaniline	8.57	138	573460	82.42575	ppb		98
53)	Acenaphthene	8.62	154	1832727	76.94994	ppb		99
54)	2,4-Dinitrophenol	8.71	184	319590	93.10437	ppb		93
55)	4-Nitrophenol	8.83	65	459689	82.91367	ppb	#	68
56)	Dibenzofuran	8.83	168	2612464	77.70759	ppb		88
57)	2,4-DNT	8.84	165	753955	85.72762	ppb		94
58)	2,3,4,6-Tetrachlorophenol	8.99	232	500258	85.30132	ppb		92
59)	Diethyl phthalate	9.10	149	2300878	80.44258	ppb		98
60)	4-Chlorophenyl phenyl ethe	9.23	204	984553	78.14710	ppb		100
61)	Fluorene	9.23	166	2063404	76.78799	ppb		100
62)	4-Nitroaniline	9.30	138	524502	82.82730	ppb		99
65)	4,6-Dinitro-2-methylphenol	9.33	198	453050	86.60067	ppb	#	81
66)	Diphenyl amine	9.37	169	2989823	142.79423	ppb		99
67)	n-Nitrosodiphenylamine	9.37	169	2989823	142.79423	ppb		99
68)	1,2-Diphenylhydrazine	9.41	77	2770661	87.60262	ppb		95
69)	4-Bromophenyl phenyl ether	9.79	248	602741	80.67853	ppb		93
70)	Hexachlorobenzene	9.88	284	640833	81.82711	ppb		94
71)	Atrazine	10.01	200	337339	41.90192	ppb		96
72)	Pentachlorophenol	10.13	266	302970	84.50449	ppb		94
73)	Phenanthrene	10.35	178	3225055	77.50398	ppb		99
74)	Anthracene	10.41	178	3434947	79.36148	ppb		100
75)	Carbazol	10.61	167	3067214	82.88713	ppb		98
76)	Di-n-butylphthalate	11.01	149	3974637	81.11123	ppb		99
77)	Fluoranthene	11.74	202	3543685	78.59358	ppb		98
79)	Benzidine	11.92	184	1070979	97.20473	ppb		98
80)	Pyrene	12.01	202	3717236	78.22982	ppb		98
82)	Butyl benzylphthalate	12.76	149	1854602	82.33336	ppb		96
83)	3,3'-Dichlorobenzidine	13.38	252	1084098	86.04667	ppb		100
84)	Benz (a) anthracene	13.40	228	3426255	78.58878	ppb		100
85)	Bis (2-ethylhexyl) phthala	13.42	149	2417405	79.86303	ppb		99
86)	Chrysene	13.45	228	3229024	76.66267	ppb		100
87)	Di-n-octylphthalate	14.16	149	4485412	82.21548	ppb	#	91
89)	Benzo (b) fluoranthene	14.67	252	3368335	71.10708	ppb		97
90)	Benzo (k) fluoranthene	14.70	252	3365934	73.87192	ppb		98
91)	Benzo (a) pyrene	15.09	252	3248767	74.36679	ppb		100
92)	Indeno (1,2,3-cd) pyrene	16.91	276	3552281	71.56415	ppb		98
93)	Dibenz (a,h) anthracene	16.94	278	3004276	71.77406	ppb		99
94)	Benzo (g,h,i) perylene	17.44	276	3083518	72.79927	ppb		95

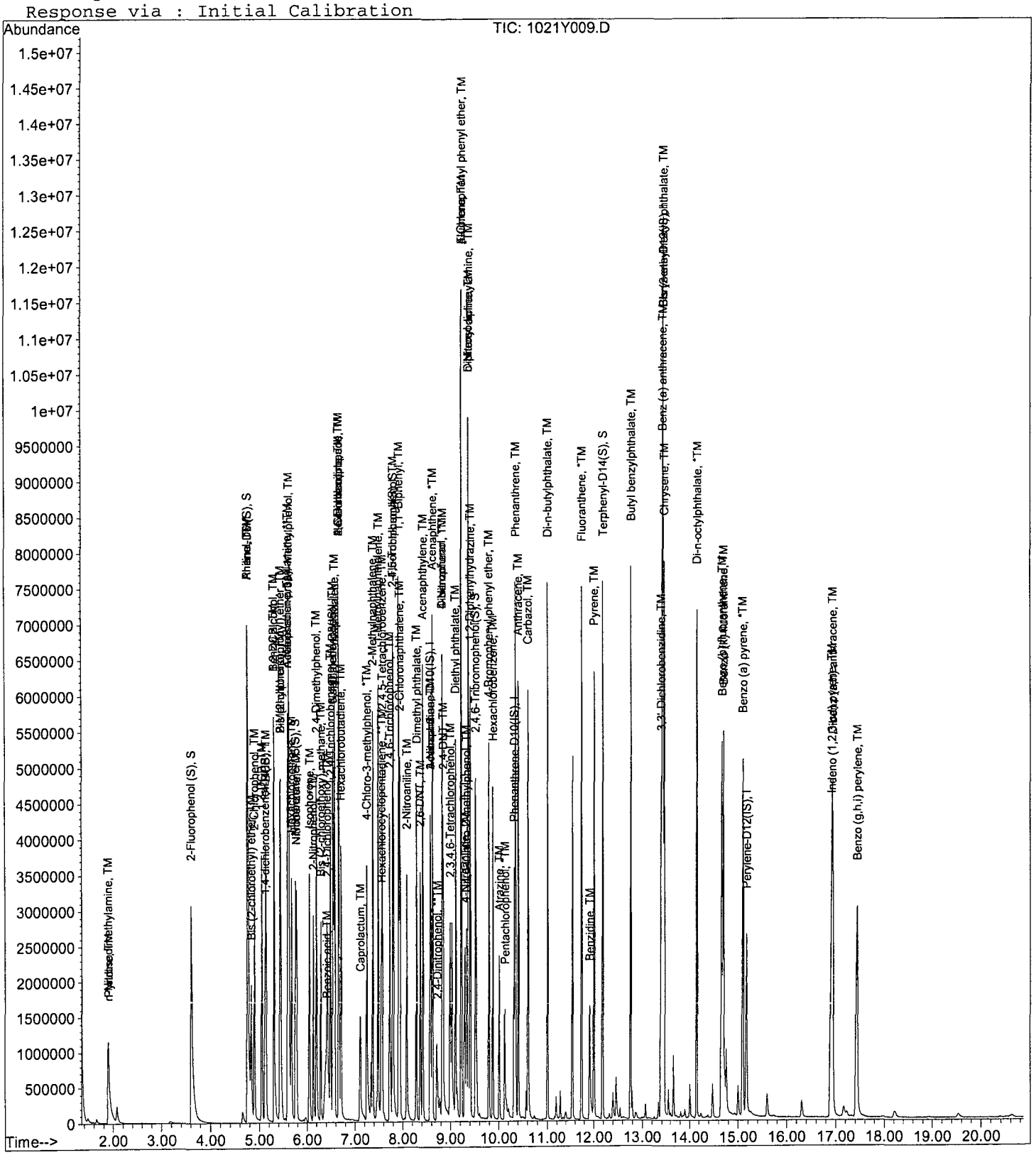
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y009.D Vial: 9
Acq On : 24 Oct 16 12:48 Operator: MA
Sample : 80ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



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Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y010.D Vial: 10
Acq On : 24 Oct 16 13:18 Operator: MA
Sample : 100ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	379158	40.00000 ppb		0.00
20) Napthalene-D8(IS)	6.55	136	1591114	40.00000 ppb		0.00
40) Acenaphthene-D10(IS)	8.58	164	950577	40.00000 ppb		0.00
64) Phenanthrene-D10(IS)	10.32	188	1807389	40.00000 ppb		0.00
78) Chrysene-D12(IS)	13.42	240	1479174	40.00000 ppb		0.00
88) Perylene-D12(IS)	15.17	264	1554764	40.00000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.61	112	2444119	176.96252 ppb		0.00
Spiked Amount 200.000			Recovery =	88.482%		
5) Phenol-D6 (S)	4.76	99	3017690	160.65664 ppb		0.01
Spiked Amount 200.000			Recovery =	80.329%		
21) Nitrobenzene-D5(S)	5.75	82	1513797	88.18001 ppb		0.00
Spiked Amount 100.000			Recovery =	88.180%		
45) 2-Fluorobiphenyl(S)	7.81	172	2564542	81.05779 ppb		0.01
Spiked Amount 100.000			Recovery =	81.058%		
63) 2,4,6-Tribromophenol(S)	9.52	330	805218	185.26728 ppb		0.01
Spiked Amount 200.000			Recovery =	92.634%		
81) Terphenyl-D14(S)	12.19	244	3241805	87.66376 ppb		0.00
Spiked Amount 100.000			Recovery =	87.664%		
Target Compounds						Qvalue
2) n-Nitrosodimethylamine	1.88	42	499752	106.76138 ppb		87
3) Pyridine	1.90	79	1038293	106.28861 ppb		98
6) Phenol	4.77	94	1501728	78.97774 ppb		98
7) Aniline	4.77	66	1350961	87.70377 ppb	#	72
8) Bis (2-chloroethyl) ether	4.83	63	735903	82.81017 ppb		99
9) 2-Chlorophenol	4.90	128	1166275	81.36679 ppb		100
10) 1,3-DCB	5.05	146	1220012	80.91716 ppb		98
11) 1,4-DCB	5.13	146	1242224	81.51262 ppb		99
12) Benzyl alcohol	5.31	108	648255	83.78009 ppb		95
13) 1,2-DCB	5.30	146	1128626	79.49933 ppb		97
14) 2-Methylphenol	5.44	107	902717	84.05248 ppb		98
15) Bis (2-chloroisopropyl) et	5.43	45	1454164	75.39340 ppb		99
16) Acetophenone	5.59	105	1630796	84.45837 ppb		94
17) 3&4-Methylphenol	5.61	107	2316864	163.41952 ppb		95
18) n-Nitrosodi-n-propylamine	5.60	70	836181	80.54962 ppb		99
19) Hexachloroethane	5.67	117	502116	82.07057 ppb		99
22) Nitrobenzene	5.78	77	1377993	88.54756 ppb		95
23) Isophorone	6.05	82	2369778	87.80645 ppb		98
24) 2-Nitrophenol	6.13	139	681462	89.47233 ppb		96
25) 2,4-Dimethylphenol	6.20	122	1024249	86.13562 ppb		92
26) Benzoic acid	6.41	105	756496	82.37656 ppb		99
27) Bis (2-chloroethoxy) metha	6.29	93	1284472	84.22068 ppb		100
28) 2,4-Dichlorophenol	6.42	162	987392	89.76884 ppb		95
29) 1,2,4-Trichlorobenzene	6.50	180	1034963	84.87835 ppb		99
30) 3,4-Dimethylphenol	6.54	107	1558078	87.61812 ppb		97
31) Naphthalene	6.58	128	3363116	83.29125 ppb		100
32) 4-Chloroaniline	6.66	127	969537	77.15900 ppb		98
33) 2,6-Dichlorophenol	6.66	162	880179	83.48654 ppb		99
34) Hexachloropropene	6.67	213	770098	93.65212 ppb		99
35) Hexachlorobutadiene	6.72	225	623692	89.05656 ppb		99
36) Caprolactum	7.13	55	581033	90.22048 ppb		98
37) 4-Chloro-3-methylphenol	7.25	107	1127972	90.58489 ppb		96

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y010.D Vial: 10
Acq On : 24 Oct 16 13:18 Operator: MA
Sample : 100ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Oct 24 14:00:36 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.38	142	2189993	83.49302	ppb		97
39)	1-Methylnaphthalene	7.49	142	2200206	85.35118	ppb		100
41)	Hexachlorocyclopentadiene	7.55	237	563108	92.38737	ppb		99
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	973205	82.18118	ppb		99
43)	2,4,6-Trichlorophenol	7.72	196	683920	88.34694	ppb		99
44)	2,4,5-Trichlorophenol	7.79	196	704323	87.59748	ppb		95
46)	1,1'-Biphenyl	7.92	154	2855682	82.93831	ppb		99
47)	2-Chloronaphthalene	7.94	162	2183392	82.81026	ppb		96
48)	2-Nitroaniline	8.08	65	800896	87.76029	ppb		94
49)	Dimethyl phthalate	8.29	163	2685977	85.80704	ppb		100
50)	2,6-DNT	8.37	165	635330	89.20806	ppb		87
51)	Acenaphthylene	8.42	152	3563509	88.17591	ppb		100
52)	3-Nitroaniline	8.58	138	656215	86.43083	ppb	#	91
53)	Acenaphthene	8.62	154	2133373	82.08051	ppb		99
54)	2,4-Dinitrophenol	8.71	184	395702	103.21025	ppb		92
55)	4-Nitrophenol	8.82	65	544488	89.44310	ppb		79
56)	Dibenzofuran	8.83	168	3030771	82.60932	ppb		87
57)	2,4-DNT	8.84	165	857308	89.32540	ppb		87
58)	2,3,4,6-Tetrachlorophenol	8.99	232	587735	91.83454	ppb		92
59)	Diethyl phthalate	9.11	149	2695951	86.37084	ppb		99
60)	4-Chlorophenyl phenyl ethe	9.23	204	1166737	84.86126	ppb		98
61)	Fluorene	9.23	166	2449594	83.53450	ppb		99
62)	4-Nitroaniline	9.30	138	598498	86.60676	ppb		86
65)	4,6-Dinitro-2-methylphenol	9.34	198	552936	93.77877	ppb		99
66)	Diphenyl amine	9.38	169	3468946	147.19767	ppb		100
67)	n-Nitrosodiphenylamine	9.38	169	3468946	147.19767	ppb		100
68)	1,2-Diphenylhydrazine	9.41	77	3188783	89.57707	ppb		93
69)	4-Bromophenyl phenyl ether	9.80	248	707017	84.08050	ppb	#	81
70)	Hexachlorobenzene	9.88	284	722411	81.95490	ppb	#	86
71)	Atrazine	10.01	200	389283	42.96066	ppb		99
72)	Pentachlorophenol	10.13	266	369790	91.09948	ppb		95
73)	Phenanthrene	10.35	178	3709025	79.19264	ppb		100
74)	Anthracene	10.41	178	3914242	80.34810	ppb		99
75)	Carbazol	10.61	167	3615513	86.80628	ppb		97
76)	Di-n-butylphthalate	11.01	149	4653113	84.36559	ppb		99
77)	Fluoranthene	11.74	202	4120743	81.19806	ppb		98
79)	Benzidine	11.92	184	1214355	103.34697	ppb		99
80)	Pyrene	12.01	202	4331333	85.47112	ppb		98
82)	Butyl benzylphthalate	12.76	149	2118169	88.17213	ppb		91
83)	3,3'-Dichlorobenzidine	13.38	252	1211908	90.19465	ppb		98
84)	Benz (a) anthracene	13.41	228	3876897	83.38169	ppb		100
85)	Bis (2-ethylhexyl) phthala	13.42	149	2802168	86.80329	ppb		100
86)	Chrysene	13.46	228	3823726	85.12263	ppb		100
87)	Di-n-octylphthalate	14.15	149	5210643	89.55466	ppb		94
89)	Benzo (b) fluoranthene	14.67	252	4132299	80.17441	ppb		99
90)	Benzo (k) fluoranthene	14.70	252	3463528	69.86167	ppb		99
91)	Benzo (a) pyrene	15.10	252	3636495	76.50502	ppb		98
92)	Indeno (1,2,3-cd) pyrene	16.92	276	4020345	74.43857	ppb		100
93)	Dibenz (a,h) anthracene	16.95	278	3363134	73.84453	ppb		99
94)	Benzo (g,h,i) perylene	17.45	276	3417555	74.15535	ppb		97

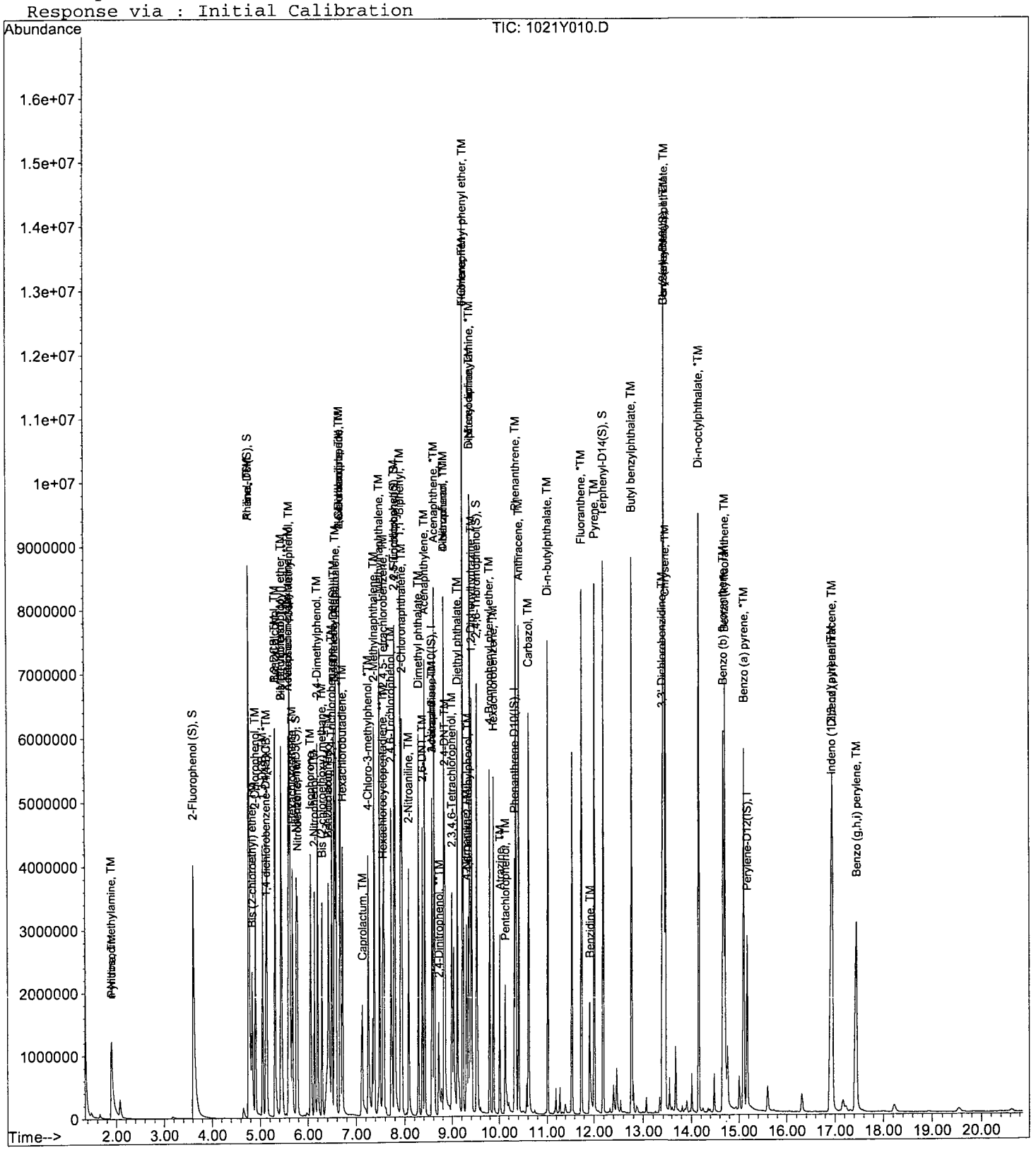
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y010.D Vial: 10
Acq On : 24 Oct 16 13:18 Operator: MA
Sample : 100ug/ml SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 24 14:01 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



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Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Date Analyzed: 10/24/16

Matrix: Instrument: Yoda

Initial Cal. Date: 10/24/16

Data File: 1021Y011.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	n-Nitrosodimethylamine	0.5967	0.6231	4.4	TM	
2	TM	Pyridine	1.246	1.371	10.0	TM	
3	*TM	Phenol	1.979	2.015	1.8	*TM	
4	TM	Aniline	1.720	1.601	6.9	TM	
5	TM	Bis (2-chloroethyl) ether	0.9211	1.042	13	TM	
6	TM	2-Chlorophenol	1.488	1.497	0.56	TM	
7	TM	1,3-DCB	1.582	1.757	11	TM	
8	*TM	1,4-DCB	1.616	1.790	11	*TM	
9	TM	Benzyl alcohol	0.7942	0.9099	15	TM	
10	TM	1,2-DCB	1.500	1.651	10	TM	
11	TM	2-Methylphenol	1.144	1.114	2.7	TM	
12	TM	Bis (2-chloroisopropyl) ether	1.938	2.002	3.3	TM	
13	TM	Acetophenone	2.066	2.157	4.4	TM	
14	TM	3&4-Methylphenol	1.503	1.532	1.9	TM	
15	**TM	n-Nitrosodi-n-propylamine	1.100	1.104	0.38	**TM	
16	TM	Hexachloroethane	0.6557	0.7241	10	TM	
17	TM	Nitrobenzene	0.4054	0.4197	3.5	TM	
18	TM	Isophorone	0.6894	0.7845	14	TM	
19	*TM	2-Nitrophenol	0.1963	0.1993	1.5	*TM	
20	TM	2,4-Dimethylphenol	0.3036	0.3086	1.6	TM	
21	TMQ	Benzoic acid	0.2017	0.2643	31	TMQ	16
22	TM	Bis (2-chloroethoxy) methane	0.3798	0.4156	9.4	TM	
23	*TM	2,4-Dichlorophenol	0.2870	0.2892	0.76	*TM	
24	TM	1,2,4-Trichlorobenzene	0.3148	0.3545	13	TM	
25	TM	3,4-Dimethylphenol	0.4663	0.4469	4.2	TM	
26	TM	Naphthalene	1.025	1.004	2.1	TM	
27	TM	4-Chloroaniline	0.3374	0.3554	5.3	TM	
28	TM	2,6-Dichlorophenol	0.2725	0.2826	3.7	TM	
29	TM	Hexachloropropene	0.2254	0.2348	4.2	TM	
30	*TM	Hexachlorobutadiene	0.1893	0.2129	12	*TM	
31	TM	Caprolactum	0.1628	0.1558	4.3	TM	
32	*TM	4-Chloro-3-methylphenol	0.3211	0.3248	1.1	*TM	
33	TM	2-Methylnaphthalene	0.6704	0.6819	1.7	TM	
34	TM	1-Methylnaphthalene	0.6607	0.6338	4.1	TM	
35	**TML	Hexachlorocyclopentadiene	0.2014	0.2470	23	**TML	2.3
36	TM	1,2,4,5-Tetrachlorobenzene	0.5121	0.5200	1.5	TM	
37	*TM	2,4,6-Trichlorophenol	0.3391	0.3383	0.24	*TM	
38	TM	2,4,5-Trichlorophenol	0.3526	0.3773	7.0	TM	
39	TM	1,1'-Biphenyl	1.480	1.487	0.49	TM	
40	TM	2-Chloronaphthalene	1.132	1.248	10	TM	
		Average			6.7		

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/24/16
Instrument: Yoda
Cal. Date: 10/24/16
Data File: 1021Y011.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	2-Nitroaniline	0.3955	0.4100	3.7	TM	
42	TM	Dimethyl phthalate	1.357	1.351	0.40	TM	
43	TM	2,6-DNT	0.3104	0.3296	6.2	TM	
44	TM	Acenaphthylene	1.819	1.824	0.25	TM	
45	TM	3-Nitroaniline	0.3245	0.3468	6.9	TM	
46	*TM	Acenaphthene	1.107	1.114	0.61	*TM	
47	**TML	2,4-Dinitrophenol	0.1419	0.1447	1.9	**TML	8.3
48	**TM	4-Nitrophenol	0.2322	0.2377	2.4	**TM	
49	TM	Dibenzofuran	1.597	1.588	0.59	TM	
50	TM	2,4-DNT	0.4300	0.4546	5.7	TM	
51	TM	2,3,4,6-Tetrachlorophenol	0.2751	0.2969	7.9	TM	
52	TM	Diethyl phthalate	1.372	1.397	1.8	TM	
53	TM	4-Chlorophenyl phenyl ether	0.6091	0.5987	1.7	TM	
54	TM	Fluorene	1.268	1.210	4.6	TM	
55	TM	4-Nitroaniline	0.3185	0.3283	3.1	TM	
56	TM	4,6-Dinitro-2-methylphenol	0.1306	0.1426	9.2	TM	
57	TM	Diphenyl amine	0.4891	0.5414	11	TM	
58	*TM	n-Nitrosodiphenylamine	0.4891	0.5414	11	*TM	
59	TM	1,2-Diphenylhydrazine	0.7935	0.8164	2.9	TM	
60	TM	4-Bromophenyl phenyl ether	0.1926	0.2010	4.3	TM	
61	TM	Hexachlorobenzene	0.2037	0.2235	9.7	TM	
62	TM	Atrazine	0.2112	0.1939	8.2	TM	
63	*TM	Pentachlorophenol	0.0792	0.0811	2.4	*TM	
64	TM	Phenanthrene	1.039	1.046	0.70	TM	
65	TM	Anthracene	1.098	1.055	3.9	TM	
66	TM	Carbazol	0.9842	0.9773	0.69	TM	
67	TM	Di-n-butylphthalate	1.268	1.299	2.5	TM	
68	*TM	Fluoranthene	1.151	1.162	1.0	*TM	
69	TM	Benzidine	0.3945	0.4450	13	TM	
70	TM	Pyrene	1.367	1.367	0.04	TM	
71	TM	Butyl benzylphthalate	0.6645	0.6965	4.8	TM	
72	TM	3,3'-Dichlorobenzidine	0.4215	0.4773	13	TM	
73	TM	Benz (a) anthracene	1.253	1.243	0.78	TM	
74	TM	Bis (2-ethylhexyl) phthalate	0.9005	0.9219	2.4	TM	
75	TM	Chrysene	1.238	1.208	2.4	TM	
76	*TM	Di-n-octylphthalate	1.628	1.639	0.69	*TM	
77	TM	Benzo (b) fluoranthene	1.246	1.279	2.6	TM	
78	TM	Benzo (k) fluoranthene	1.270	1.136	11	TM	
79	*TM	Benzo (a) pyrene	1.178	1.168	0.85	*TM	
80	TM	Indeno (1,2,3-cd) pyrene	1.344	1.338	0.50	TM	
		Average			4.2		

0
0

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/24/16
Instrument: Yoda
Cal. Date: 10/24/16
Data File: 1021Y011.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	Dibenz (a,h) anthracene	1.130	1.095	3.1	TM	
82	TM	Benzo (g,h,i) perylene	1.134	1.124	0.93	TM	
83							
84							
85							
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108							
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110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			2.0		

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y011.D Vial: 11
Acq On : 24 Oct 16 13:47 Operator: MA
Sample : SS SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 26 11:35 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.11	152	354774	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.55	136	1526673	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.58	164	894462	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.31	188	1653163	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.41	240	1445468	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.17	264	1515423	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	0.00	112	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
5) Phenol-D6 (S)	0.00	99	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
21) Nitrobenzene-D5(S)	5.67	82	81285	5.15909 ppb	-0.08
Spiked Amount 100.000			Recovery =	5.159%	
45) 2-Fluorobiphenyl(S)	7.80	172	1107	0.03899 ppb	0.00
Spiked Amount 100.000			Recovery =	0.039%	
63) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
81) Terphenyl-D14(S)	12.19	244	532	0.01538 ppb	0.00
Spiked Amount 100.000			Recovery =	0.015%	

Algorithm = $\frac{893484 \times 1 \times 40}{1 \times 354774 \times 1.979} = 50.90$ MA 11/1/16

Target Compounds					Qvalue
2) n-Nitrosodimethylamine	1.88	42	276332	52.20965 ppb	88
3) Pyridine	1.89	79	607803	54.99976 ppb	93
6) Phenol	4.77	94	893484	50.90262 ppb	93
7) Aniline	4.77	66	709964	46.53070 ppb	81
8) Bis (2-chloroethyl) ether	4.83	63	461885	56.53494 ppb	97
9) 2-Chlorophenol	4.90	128	663695	50.27811 ppb	94
10) 1,3-DCB	5.05	146	779213	55.51683 ppb	97
11) 1,4-DCB	5.13	146	793648	55.38245 ppb	99
12) Benzyl alcohol	5.30	108	403490	57.28232 ppb	95
13) 1,2-DCB	5.30	146	732311	55.02877 ppb	98
14) 2-Methylphenol	5.44	107	493884	48.66513 ppb	94
15) Bis (2-chloroisopropyl) et	5.43	45	887859	51.65458 ppb #	82
16) Acetophenone	5.58	105	956418	52.20230 ppb	92
17) 3&4-Methylphenol	5.61	107	1358939	101.91536 ppb	99
18) n-Nitrosodi-n-propylamine	5.59	70	489711	50.19018 ppb	95
19) Hexachloroethane	5.67	117	321102	55.21060 ppb	89
22) Nitrobenzene	5.77	77	800926	51.76114 ppb	95
23) Isophorone	6.04	82	1497090	56.89862 ppb	96
24) 2-Nitrophenol	6.14	139	380276	50.74813 ppb	95
25) 2,4-Dimethylphenol	6.19	122	588896	50.81493 ppb	93
26) Benzoic acid	6.39	105	504432	58.04439 ppb	96
27) Bis (2-chloroethoxy) metha	6.28	93	793027	54.71444 ppb	97
28) 2,4-Dichlorophenol	6.42	162	551936	50.38025 ppb	97
29) 1,2,4-Trichlorobenzene	6.49	180	676482	56.30385 ppb	98
30) 3,4-Dimethylphenol	6.54	107	852913	47.92393 ppb	96
31) Naphthalene	6.57	128	1915602	48.96463 ppb	99
32) 4-Chloroaniline	6.66	127	678189	52.66998 ppb	96
33) 2,6-Dichlorophenol	6.67	162	539362	51.85279 ppb	98
34) Hexachloropropene	6.67	213	448127	52.09625 ppb	98
35) Hexachlorobutadiene	6.71	225	406365	56.24727 ppb	97
36) Caprolactum	7.09	55	297411	47.85685 ppb	99
37) 4-Chloro-3-methylphenol	7.24	107	619815	50.56854 ppb	96

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y011.D Vial: 11
Acq On : 24 Oct 16 13:47 Operator: MA
Sample : SS SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 26 11:35 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.37	142	1301275	50.85749	ppb		100
39)	1-Methylnaphthalene	7.48	142	1209599	47.96715	ppb		100
41)	Hexachlorocyclopentadiene	7.55	237	276129	51.15466	ppb		98
42)	1,2,4,5-Tetrachlorobenzene	7.57	216	581387	50.77215	ppb		97
43)	2,4,6-Trichlorophenol	7.72	196	378228	49.88226	ppb		100
44)	2,4,5-Trichlorophenol	7.79	196	421833	53.50133	ppb		95
46)	1,1'-Biphenyl	7.92	154	1663032	50.24257	ppb		99
47)	2-Chloronaphthalene	7.94	162	1395835	55.15231	ppb		95
48)	2-Nitroaniline	8.08	65	458390	51.82635	ppb		88
49)	Dimethyl phthalate	8.28	163	1510989	49.79800	ppb		100
50)	2,6-DNT	8.36	165	368518	53.09960	ppb		94
51)	Acenaphthylene	8.42	152	2038977	50.12392	ppb		100
52)	3-Nitroaniline	8.57	138	387782	53.44593	ppb		96
53)	Acenaphthene	8.61	154	1245493	50.30648	ppb		100
54)	2,4-Dinitrophenol	8.72	184	161732	45.87121	ppb		94
55)	4-Nitrophenol	8.84	65	265737	51.18156	ppb		99
56)	Dibenzofuran	8.82	168	1775478	49.70543	ppb		94
57)	2,4-DNT	8.85	165	508312	52.86723	ppb		90
58)	2,3,4,6-Tetrachlorophenol	8.99	232	331954	53.95879	ppb	#	86
59)	Diethyl phthalate	9.10	149	1562291	50.91593	ppb		97
60)	4-Chlorophenyl phenyl ethe	9.22	204	669352	49.14263	ppb		87
61)	Fluorene	9.22	166	1352418	47.68430	ppb		99
62)	4-Nitroaniline	9.29	138	367074	51.54165	ppb		96
65)	4,6-Dinitro-2-methylphenol	9.33	198	294652	54.58123	ppb		94
66)	Diphenyl amine	9.38	169	2237516	110.68244	ppb		100
67)	n-Nitrosodiphenylamine	9.38	169	2237516	110.68244	ppb		100
68)	1,2-Diphenylhydrazine	9.40	77	1687027	51.44136	ppb	#	88
69)	4-Bromophenyl phenyl ether	9.79	248	415279	52.16416	ppb		91
70)	Hexachlorobenzene	9.88	284	461840	54.85022	ppb		91
71)	Atrazine	10.01	200	200355	22.95112	ppb		96
72)	Pentachlorophenol	10.12	266	167614	51.17771	ppb		96
73)	Phenanthrene	10.34	178	2161757	50.35172	ppb		99
74)	Anthracene	10.41	178	2179643	48.02777	ppb		100
75)	Carbazol	10.61	167	2019608	49.65316	ppb		100
76)	Di-n-butylphthalate	11.01	149	2684423	51.23920	ppb		100
77)	Fluoranthene	11.74	202	2402100	50.50455	ppb		99
79)	Benzidine	11.91	184	804051m	56.40367	ppb		99
80)	Pyrene	12.00	202	2469266	49.98068	ppb		98
82)	Butyl benzylphthalate	12.76	149	1258370	52.40012	ppb		84
83)	3,3'-Dichlorobenzidine	13.38	252	862372	56.62105	ppb	#	97
84)	Benz (a) anthracene	13.40	228	2246582	49.61204	ppb		100
85)	Bis (2-ethylhexyl) phthala	13.42	149	1665672	51.18934	ppb	#	99
86)	Chrysene	13.45	228	2182881	48.78974	ppb		100
87)	Di-n-octylphthalate	14.15	149	2961786	50.34272	ppb		97
89)	Benzo (b) fluoranthene	14.66	252	2422185	51.31799	ppb		98
90)	Benzo (k) fluoranthene	14.70	252	2151706	44.73732	ppb		98
91)	Benzo (a) pyrene	15.09	252	2211678	49.57719	ppb		98
92)	Indeno (1,2,3-cd) pyrene	16.91	276	2533911	49.75039	ppb		98
93)	Dibenz (a,h) anthracene	16.93	278	2074543	48.44306	ppb		98
94)	Benzo (g,h,i) perylene	17.42	276	2128744	49.53612	ppb		100

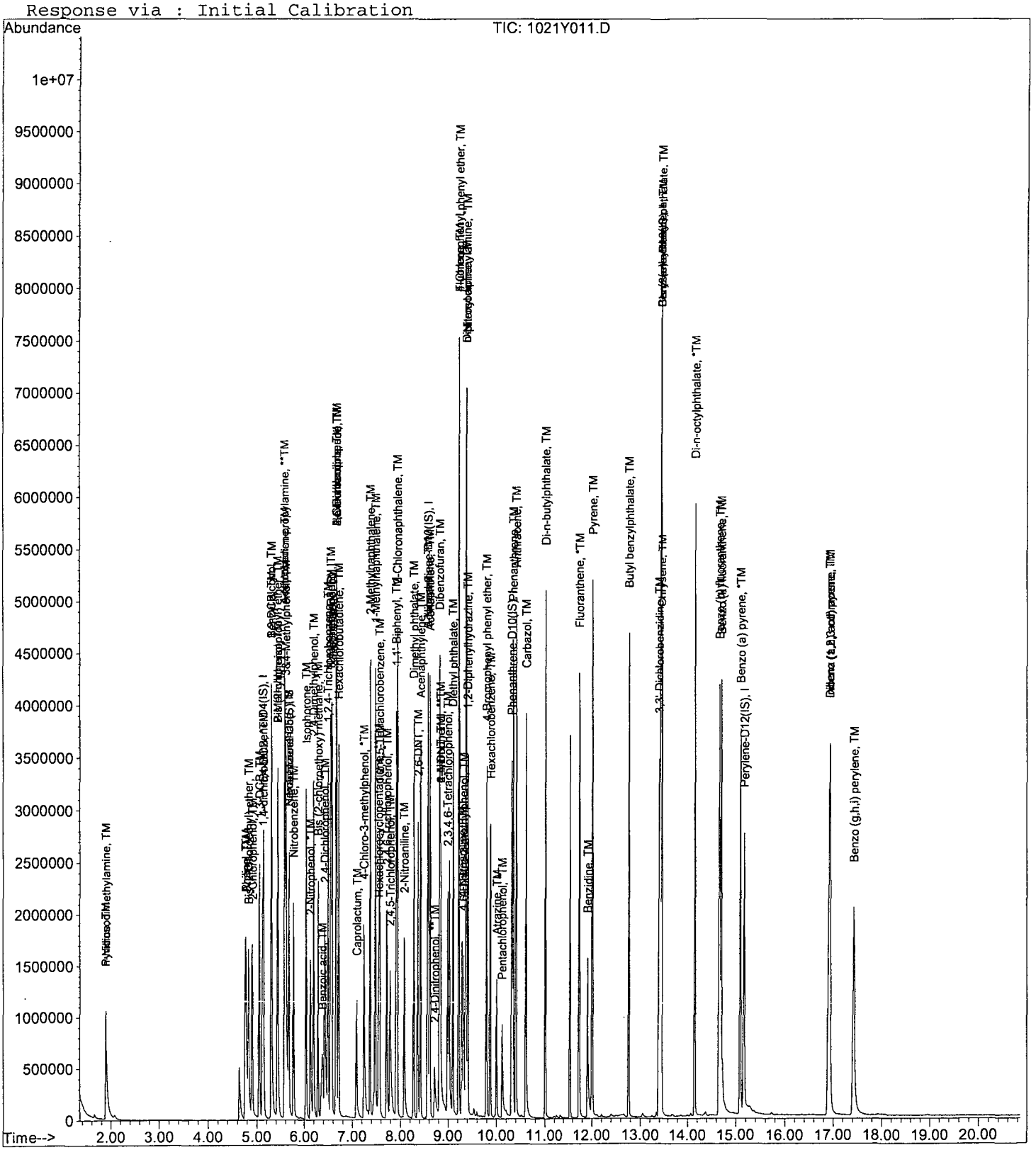
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y011.D Vial: 11
Acq On : 24 Oct 16 13:47 Operator: MA
Sample : SS SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 26 11:35 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Initial Calibration



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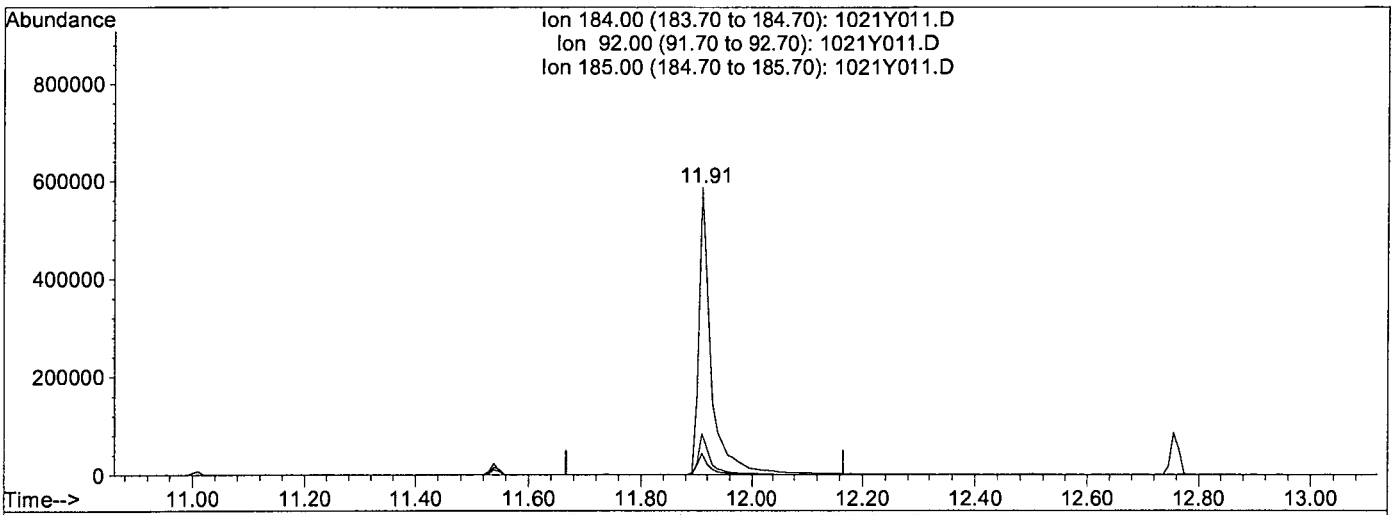
Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y011.D Vial: 11
Acq On : 24 Oct 16 13:47 Operator: MA
Sample : SS SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Oct 25 8:01 2016 Quant Results File: temp.res

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Multiple Level Calibration



TIC: 1021Y011.D

(79) Benzidine (TM)

11.91min 63.2237ppb

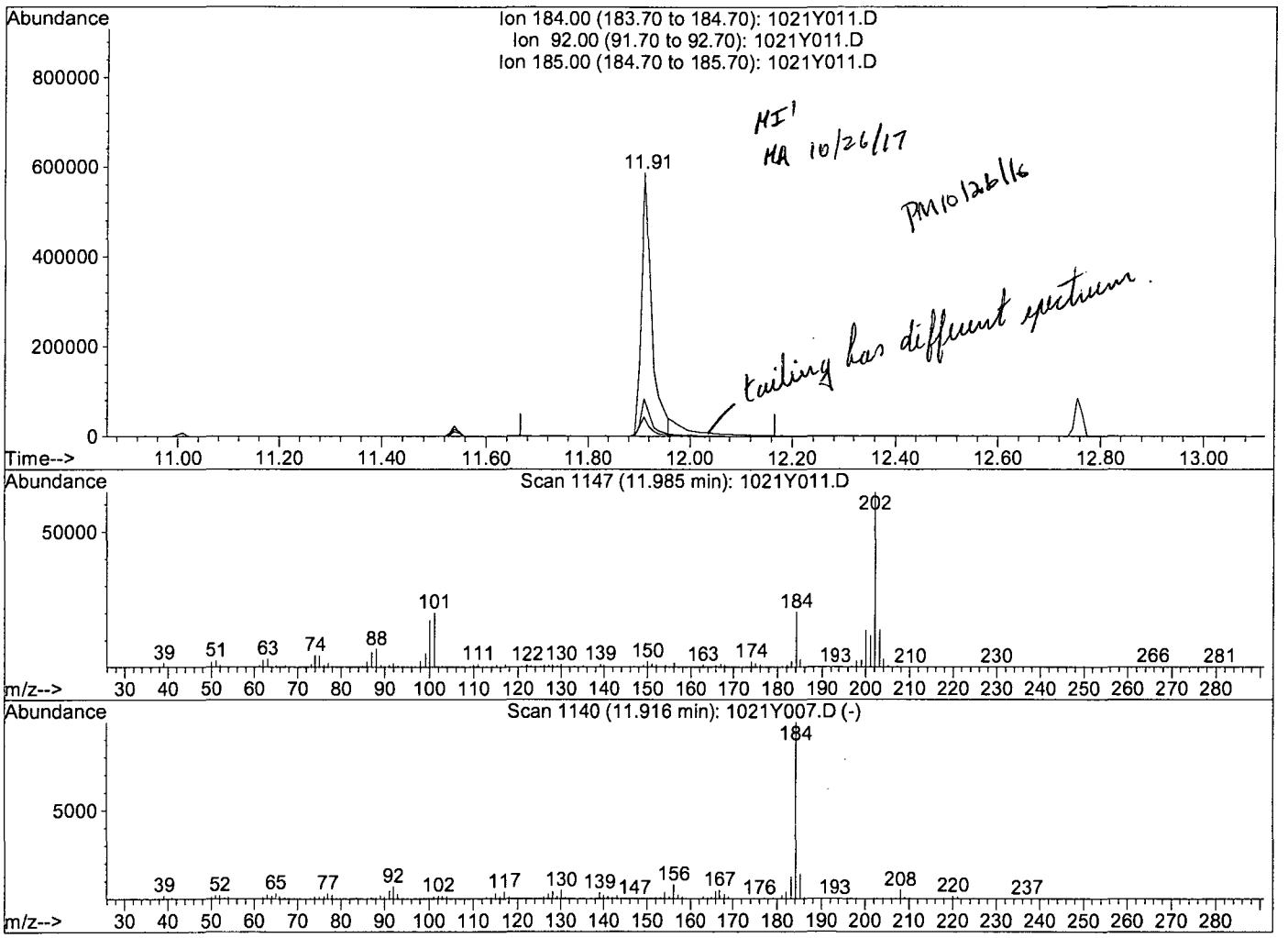
response 901272

Ion	Exp%	Act%
184.00	100	100
92.00	6.80	7.43
185.00	13.80	14.28
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y011.D Vial: 11
Acq On : 24 Oct 16 13:47 Operator: MA
Sample : SS SVOC 10/20/16 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Oct 26 11:35 2016 Quant Results File: temp.res

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Oct 25 08:00:20 2016
Response via : Multiple Level Calibration



TIC: 1021Y011.D

(79) Benzidine (TM)

11.91min 56.4037ppb m

response 804051

Ion	Exp%	Act%
184.00	100	100
92.00	6.80	7.43
185.00	13.80	14.27
0.00	0.00	0.00

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Date Analyzed: 2 Nov 16 12:00

Matrix: Instrument: Yoda

Initial Cal. Date: 10/24/16

Data File: 1021Y171.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	n-Nitrosodimethylamine	0.5967	0.6823	14	TM	
3	TM	Pyridine	1.246	1.232	1.1	TM	
4	S	2-Fluorophenol (S)	1.341	1.303	2.9	S	
5	S	Phenol-D6 (S)	1.791	1.736	3.1	S	
6	*TM	Phenol	1.979	1.904	3.8	*TM	
7	TM	Aniline	1.720	1.741	1.2	TM	
8	TM	Bis (2-chloroethyl) ether	0.9211	0.8590	6.8	TM	
9	TM	2-Chlorophenol	1.488	1.448	2.7	TM	
10	TM	1,3-DCB	1.582	1.543	2.5	TM	
11	*TM	1,4-DCB	1.616	1.545	4.4	*TM	
12	TM	Benzyl alcohol	0.7942	0.8305	4.6	TM	
13	TM	1,2-DCB	1.500	1.456	3.0	TM	
14	TM	2-Methylphenol	1.144	1.114	2.6	TM	
15	TM	Bis (2-chloroisopropyl) ether	1.938	1.749	9.7	TM	
16	TM	Acetophenone	2.066	1.998	3.3	TM	
17	TM	3&4-Methylphenol	1.503	1.454	3.3	TM	
18	**TM	n-Nitrosodi-n-propylamine	1.100	1.051	4.4	**TM	
19	TM	Hexachloroethane	0.6557	0.6428	2.0	TM	
20	I	Napthalene-D8(IS)	ISTD			I	
21	S	Nitrobenzene-D5(S)	0.4128	0.4000	3.1	S	
22	TM	Nitrobenzene	0.4054	0.4041	0.33	TM	
23	TM	Isophorone	0.6894	0.6759	1.9	TM	
24	*TM	2-Nitrophenol	0.1963	0.1986	1.2	*TM	
25	TM	2,4-Dimethylphenol	0.3036	0.3016	0.68	TM	
26	TMQ	Benzoic acid	0.2017	0.2451	22	TMQ	6.4
27	TM	Bis (2-chloroethoxy) methane	0.3798	0.3779	0.48	TM	
28	*TM	2,4-Dichlorophenol	0.2870	0.2909	1.3	*TM	
29	TM	1,2,4-Trichlorobenzene	0.3148	0.3106	1.3	TM	
30	TM	3,4-Dimethylphenol	0.4663	0.4659	0.09	TM	
31	TM	Naphthalene	1.025	0.9779	4.6	TM	
32	TM	4-Chloroaniline	0.3374	0.3412	1.1	TM	
33	TM	2,6-Dichlorophenol	0.2725	0.2634	3.3	TM	
34	TM	Hexachloropropene	0.2254	0.2309	2.5	TM	
35	*TM	Hexachlorobutadiene	0.1893	0.1895	0.09	*TM	
36	TM	Caprolactum	0.1628	0.1578	3.1	TM	
37	*TM	4-Chloro-3-methylphenol	0.3211	0.3294	2.6	*TM	
38	TM	2-Methylnaphthalene	0.6704	0.6592	1.7	TM	
39	TM	1-Methylnaphthalene	0.6607	0.6519	1.3	TM	
40	I	Acenaphthene-D10(IS)	ISTD			I	
		Average			3.5		

0
0

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 16 12:00
Instrument: Yoda
Cal. Date: 10/24/16
Data File: 1021Y171.D

		Compound	MEAN	CCRF	%D		%Drift	
41	**TML	Hexachlorocyclopentadiene	0.2014	0.2232	11	**TML	5.8	
42	TM	1,2,4,5-Tetrachlorobenzene	0.5121	0.4921	3.9	TM		
43	*TM	2,4,6-Trichlorophenol	0.3391	0.3430	1.2	*TM		
44	TM	2,4,5-Trichlorophenol	0.3526	0.3601	2.1	TM		
45	S	2-Fluorobiphenyl(S)	1.270	1.223	3.6	S		
46	TM	1,1'-Biphenyl	1.480	1.430	3.4	TM		
47	TM	2-Chloronaphthalene	1.132	1.103	2.6	TM		
48	TM	2-Nitroaniline	0.3955	0.3955	0.02	TM		
49	TM	Dimethyl phthalate	1.357	1.331	1.9	TM		
50	TM	2,6-DNT	0.3104	0.3137	1.1	TM		
51	TM	Acenaphthylene	1.819	1.789	1.7	TM		
52	TM	3-Nitroaniline	0.3245	0.3322	2.4	TM		
53	*TM	Acenaphthene	1.107	1.061	4.2	*TM		
54	**TML	2,4-Dinitrophenol	0.1419	0.1763	24	**TML	8.6	
55	**TM	4-Nitrophenol	0.2322	0.2623	13	**TM		
56	TM	Dibenzofuran	1.597	1.539	3.7	TM		
57	TM	2,4-DNT	0.4300	0.4380	1.9	TM		
58	TM	2,3,4,6-Tetrachlorophenol	0.2751	0.2893	5.2	TM		
59	TM	Diethyl phthalate	1.372	1.373	0.06	TM		
60	TM	4-Chlorophenyl phenyl ether	0.6091	0.5810	4.6	TM		
61	TM	Fluorene	1.268	1.218	4.0	TM		
62	TM	4-Nitroaniline	0.3185	0.3021	5.2	TM		
63	S	2,4,6-Tribromophenol(S)	0.1825	0.1819	0.35	S		
64	I	Phenanthrene-D10(IS)	ISTD			I		
65	TM	4,6-Dinitro-2-methylphenol	0.1306	0.1420	8.7	TM		
66	TM	Diphenyl amine	0.4891	0.4641	5.1	TM		
67	*TM	n-Nitrosodiphenylamine	0.4891	0.4641	5.1	*TM		
68	TM	1,2-Diphenylhydrazine	0.7935	0.8612	8.5	TM		
69	TM	4-Bromophenyl phenyl ether	0.1926	0.1897	1.5	TM		
70	TM	Hexachlorobenzene	0.2037	0.2006	1.6	TM		
71	TM	Atrazine	0.2112	0.2135	1.1	TM		
72	*TM	Pentachlorophenol	0.0792	0.0994	25	*TM		*NT
73	TM	Phenanthrene	1.039	1.008	3.0	TM		
74	TM	Anthracene	1.098	1.045	4.8	TM		
75	TM	Carbazol	0.9842	0.9514	3.3	TM		
76	TM	Di-n-butylphthalate	1.268	1.258	0.72	TM		
77	*TM	Fluoranthene	1.151	1.108	3.7	*TM		
78	I	Chrysene-D12(IS)	ISTD			I		
79	TM	Benzidine	0.3945	0.3803	3.6	TM		
80	TM	Pyrene	1.367	1.296	5.2	TM		
		Average			4.8			

0
0

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 16 12:00
Instrument: Yoda
Cal. Date: 10/24/16
Data File: 1021Y171.D

		Compound	MEAN	CCRF	%D	%Drift	
81	S	Terphenyl-D14(S)	0.9575	0.9103	4.9	S	
82	TM	Butyl benzylphthalate	0.6645	0.6594	0.78	TM	
83	TM	3,3'-Dichlorobenzidine	0.4215	0.3867	8.3	TM	
84	TM	Benz (a) anthracene	1.253	1.216	3.0	TM	
85	TM	Bis (2-ethylhexyl) phthalate	0.9005	0.8831	1.9	TM	
86	TM	Chrysene	1.238	1.161	6.2	TM	
87	*TM	Di-n-octylphthalate	1.628	1.634	0.34	*TM	
88	I	Perylene-D12(IS)	ISTD			I	
89	TM	Benzo (b) fluoranthene	1.246	1.343	7.8	TM	
90	TM	Benzo (k) fluoranthene	1.270	1.334	5.1	TM	
91	*TM	Benzo (a) pyrene	1.178	1.282	8.9	*TM	
92	TM	Indeno (1,2,3-cd) pyrene	1.344	1.465	9.0	TM	
93	TM	Dibenz (a,h) anthracene	1.130	1.220	7.9	TM	
94	TM	Benzo (g,h,i) perylene	1.134	1.244	9.7	TM	
95							
96							
97							
98							
99							
100							
101							
102							
103							
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105							
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111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			5.7		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y171.D Vial: 71
Acq On : 2 Nov 16 12:00 Operator: MA
Sample : 50ug/ml SVOC 10/31/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 2 12:21 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.07	152	298236	40.00000 ppb		0.00
20) Napthalene-D8(IS)	6.49	136	1255584	40.00000 ppb		0.00
40) Acenaphthene-D10(IS)	8.50	164	741189	40.00000 ppb		0.00
64) Phenanthrene-D10(IS)	10.23	188	1388459	40.00000 ppb		0.00
78) Chrysene-D12(IS)	13.31	240	1242966	40.00000 ppb		0.00
88) Perylene-D12(IS)	15.01	264	1120925	40.00000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.55	112	971406	97.14545 ppb		-0.03
Spiked Amount 200.000			Recovery = 48.573%			
5) Phenol-D6 (S)	4.69	99	1294030	96.91397 ppb		-0.01
Spiked Amount 200.000			Recovery = 48.457%			
21) Nitrobenzene-D5(S)	5.70	82	627725	48.44315 ppb		0.00
Spiked Amount 100.000			Recovery = 48.443%			
45) 2-Fluorobiphenyl(S)	7.73	172	1133523	48.17836 ppb		0.01
Spiked Amount 100.000			Recovery = 48.178%			
63) 2,4,6-Tribromophenol(S)	9.43	330	337043	99.65098 ppb		0.00
Spiked Amount 200.000			Recovery = 49.826%			
81) Terphenyl-D14(S)	12.08	244	1414403	47.53789 ppb		0.00
Spiked Amount 100.000			Recovery = 47.538%			
Target Compounds						Qvalue
2) n-Nitrosodimethylamine	1.84	42	254347	57.16602 ppb		94
3) Pyridine	1.86	79	459204	49.43054 ppb		97
6) Phenol	4.71	94	709927	48.11260 ppb		98
7) Aniline	4.70	66	648912	50.59188 ppb		95
8) Bis (2-chloroethyl) ether	4.78	63	320214	46.62460 ppb		94
9) 2-Chlorophenol	4.84	128	539838	48.64806 ppb		98
10) 1,3-DCB	4.99	146	575227	48.75279 ppb		100
11) 1,4-DCB	5.08	146	576095	47.82225 ppb		97
12) Benzyl alcohol	5.24	108	309613	52.28760 ppb		99
13) 1,2-DCB	5.25	146	542770	48.51788 ppb		99
14) 2-Methylphenol	5.38	107	415413	48.69280 ppb		98
15) Bis (2-chloroisopropyl) et	5.37	45	652153	45.13423 ppb	#	89
16) Acetophenone	5.53	105	744996	48.37128 ppb		98
17) 3&4-Methylphenol	5.55	107	1084460	96.74866 ppb		94
18) n-Nitrosodi-n-propylamine	5.53	70	391862	47.77534 ppb		100
19) Hexachloroethane	5.61	117	239634	49.01394 ppb		99
22) Nitrobenzene	5.72	77	634216	49.83666 ppb		99
23) Isophorone	5.98	82	1060876	49.02512 ppb		97
24) 2-Nitrophenol	6.08	139	311700	50.57760 ppb		96
25) 2,4-Dimethylphenol	6.13	122	473312	49.65929 ppb		92
26) Benzoic acid	6.31	105	384715	53.22017 ppb		97
27) Bis (2-chloroethoxy) metha	6.23	93	593170	49.76149 ppb		98
28) 2,4-Dichlorophenol	6.37	162	456554	50.67153 ppb		96
29) 1,2,4-Trichlorobenzene	6.43	180	487481	49.33325 ppb		98
30) 3,4-Dimethylphenol	6.48	107	731191	49.95498 ppb		96
31) Naphthalene	6.51	128	1534771	47.70029 ppb		100
32) 4-Chloroaniline	6.60	127	535535	50.57088 ppb		98
33) 2,6-Dichlorophenol	6.60	162	413471	48.33226 ppb		99
34) Hexachloropropene	6.61	213	362454	51.23403 ppb		99
35) Hexachlorobutadiene	6.65	225	297364	50.04651 ppb		99
36) Caprolactum	7.02	55	247677	48.45884 ppb		96
37) 4-Chloro-3-methylphenol	7.17	107	516919	51.27918 ppb		96

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

Data File : M:\YODA\DATA\Y161021\1021Y171.D Vial: 71
Acq On : 2 Nov 16 12:00 Operator: MA
Sample : 50ug/ml SVOC 10/31/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 2 12:21 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.30	142	1034539	49.16238	ppb		99
39)	1-Methylnaphthalene	7.41	142	1023173	49.33463	ppb		99
41)	Hexachlorocyclopentadiene	7.48	237	206762	47.11966	ppb		97
42)	1,2,4,5-Tetrachlorobenzene	7.50	216	455934	48.05020	ppb		98
43)	2,4,6-Trichlorophenol	7.65	196	317821	50.58339	ppb		97
44)	2,4,5-Trichlorophenol	7.71	196	333672	51.07128	ppb		95
46)	1,1'-Biphenyl	7.84	154	1324993	48.30785	ppb		99
47)	2-Chloronaphthalene	7.87	162	1021722	48.71866	ppb		98
48)	2-Nitroaniline	8.01	65	366396	49.99184	ppb		96
49)	Dimethyl phthalate	8.20	163	1233104	49.04370	ppb		99
50)	2,6-DNT	8.29	165	290663	50.54233	ppb		98
51)	Acenaphthylene	8.34	152	1657119	49.16085	ppb		100
52)	3-Nitroaniline	8.49	138	307760	51.18846	ppb		92
53)	Acenaphthene	8.54	154	982629	47.89665	ppb		98
54)	2,4-Dinitrophenol	8.63	184	163379	54.31330	ppb		97
55)	4-Nitrophenol	8.74	65	242975	56.47498	ppb	#	72
56)	Dibenzofuran	8.74	168	1425706	48.16720	ppb		85
57)	2,4-DNT	8.76	165	405812	50.93473	ppb		87
58)	2,3,4,6-Tetrachlorophenol	8.91	232	268036	52.57877	ppb		95
59)	Diethyl phthalate	9.02	149	1272049	50.02977	ppb		96
60)	4-Chlorophenyl phenyl ethe	9.14	204	538265	47.69062	ppb		93
61)	Fluorene	9.14	166	1128071	47.99918	ppb		99
62)	4-Nitroaniline	9.21	138	279870	47.42354	ppb		93
65)	4,6-Dinitro-2-methylphenol	9.24	198	246484	54.36324	ppb		96
66)	Diphenyl amine	9.29	169	1611118	94.89046	ppb		98
67)	n-Nitrosodiphenylamine	9.29	169	1611118	94.89046	ppb		98
68)	1,2-Diphenylhydrazine	9.33	77	1494739	54.26732	ppb		97
69)	4-Bromophenyl phenyl ether	9.71	248	329248	49.24226	ppb		93
70)	Hexachlorobenzene	9.79	284	348075	49.22007	ppb		92
71)	Atrazine	9.92	200	185277	25.27015	ppb		97
72)	Pentachlorophenol	10.03	266	172560	62.73260	ppb		98
73)	Phenanthrene	10.25	178	1748737	48.49697	ppb		99
74)	Anthracene	10.32	178	1813775	47.58533	ppb		100
75)	Carbazol	10.51	167	1651275	48.33724	ppb		96
76)	Di-n-butylphthalate	10.91	149	2184203	49.63946	ppb		99
77)	Fluoranthene	11.64	202	1922640	48.13046	ppb		98
79)	Benzidine	11.81	184	590855	48.20076	ppb		99
80)	Pyrene	11.91	202	2013579	47.39715	ppb		99
82)	Butyl benzylphthalate	12.66	149	1024493	49.61147	ppb		98
83)	3,3'-Dichlorobenzidine	13.27	252	600774	45.87157	ppb		98
84)	Benz (a) anthracene	13.30	228	1889446	48.52310	ppb		100
85)	Bis (2-ethylhexyl) phthala	13.32	149	1372003	49.03366	ppb	#	96
86)	Chrysene	13.34	228	1804259	46.89716	ppb		99
87)	Di-n-octylphthalate	14.03	149	2538243	50.17246	ppb		93
89)	Benzo (b) fluoranthene	14.53	252	1882434	53.91870	ppb	#	97
90)	Benzo (k) fluoranthene	14.55	252	1869297	52.54394	ppb		99
91)	Benzo (a) pyrene	14.94	252	1796386	54.43986	ppb		98
92)	Indeno (1,2,3-cd) pyrene	16.68	276	2053009	54.49458	ppb		99
93)	Dibenz (a,h) anthracene	16.70	278	1709502	53.96797	ppb		99
94)	Benzo (g,h,i) perylene	17.17	276	1742931	54.83225	ppb		99

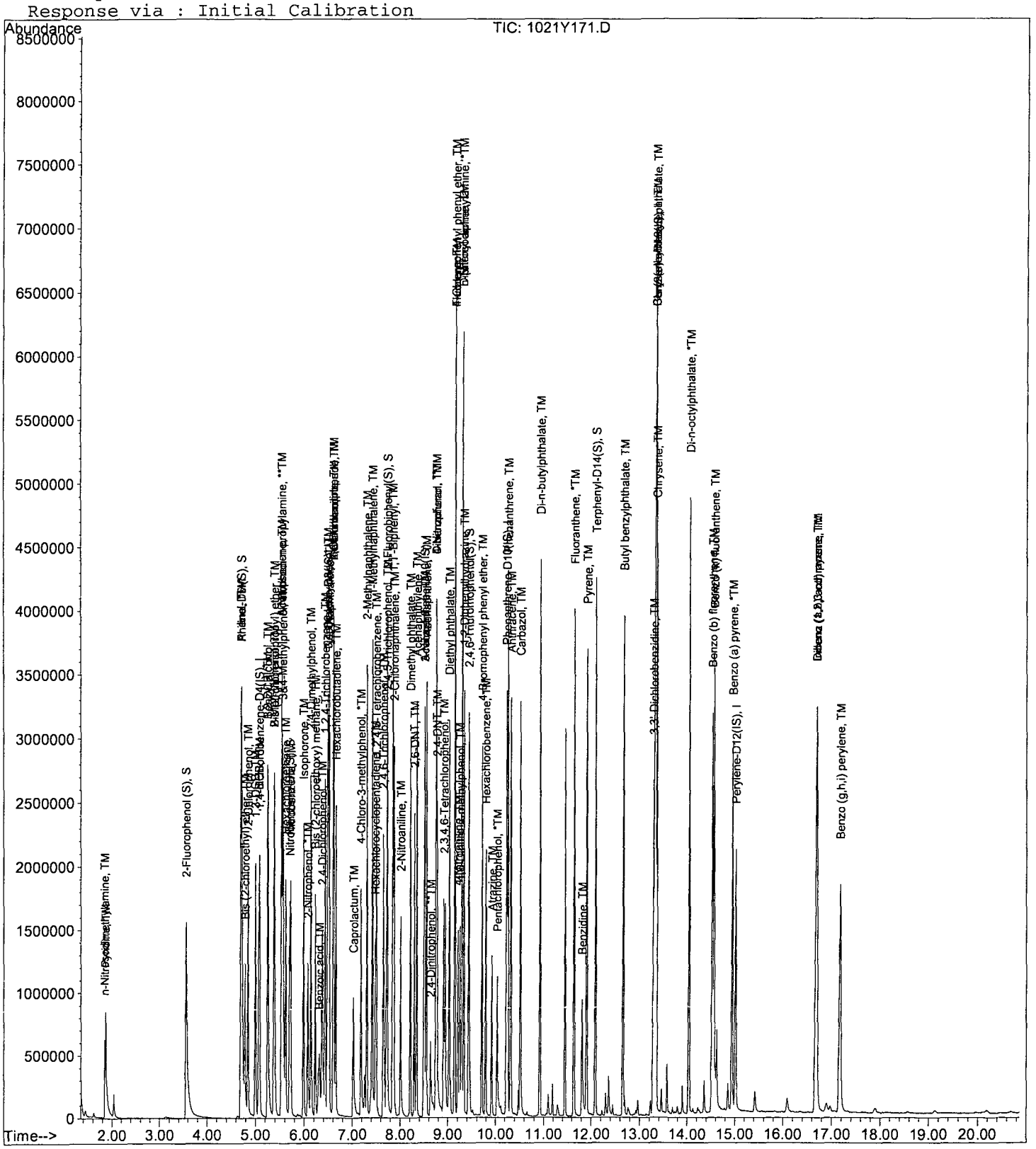
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y171.D Vial: 71
Acq On : 2 Nov 16 12:00 Operator: MA
Sample : 50ug/ml SVOC 10/31/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 2 12:21 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



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Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Date Analyzed: 2 Nov 16 22:51

Matrix: Instrument: Yoda

Initial Cal. Date: 10/24/16

Data File: 1021Y194.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	n-Nitrosodimethylamine	0.5967	0.7375	24	TM	
3	TM	Pyridine	1.246	1.320	5.9	TM	
4	S	2-Fluorophenol (S)	1.341	1.369	2.0	S	
5	S	Phenol-D6 (S)	1.791	1.753	2.1	S	
6	*TM	Phenol	1.979	1.937	2.1	*TM	
7	TM	Aniline	1.720	1.820	5.8	TM	
8	TM	Bis (2-chloroethyl) ether	0.9211	0.8715	5.4	TM	
9	TM	2-Chlorophenol	1.488	1.495	0.43	TM	
10	TM	1,3-DCB	1.582	1.572	0.66	TM	
11	*TM	1,4-DCB	1.616	1.580	2.2	*TM	
12	TM	Benzyl alcohol	0.7942	0.8608	8.4	TM	
13	TM	1,2-DCB	1.500	1.508	0.53	TM	
14	TM	2-Methylphenol	1.144	1.112	2.8	TM	
15	TM	Bis (2-chloroisopropyl) ether	1.938	1.822	6.0	TM	
16	TM	Acetophenone	2.066	2.064	0.07	TM	
17	TM	3&4-Methylphenol	1.503	1.482	1.4	TM	
18	**TM	n-Nitrosodi-n-propylamine	1.100	1.092	0.71	**TM	
19	TM	Hexachloroethane	0.6557	0.6500	0.88	TM	
20	I	Napthalene-D8(IS)	ISTD			I	
21	S	Nitrobenzene-D5(S)	0.4128	0.4089	0.94	S	
22	TM	Nitrobenzene	0.4054	0.3933	3.0	TM	
23	TM	Isophorone	0.6894	0.6647	3.6	TM	
24	*TM	2-Nitrophenol	0.1963	0.1930	1.7	*TM	
25	TM	2,4-Dimethylphenol	0.3036	0.3020	0.55	TM	
26	TMQ	Benzoic acid	0.2017	0.2465	22	TMQ	7.1
27	TM	Bis (2-chloroethoxy) methane	0.3798	0.3626	4.5	TM	
28	*TM	2,4-Dichlorophenol	0.2870	0.2849	0.73	*TM	
29	TM	1,2,4-Trichlorobenzene	0.3148	0.3041	3.4	TM	
30	TM	3,4-Dimethylphenol	0.4663	0.4597	1.4	TM	
31	TM	Naphthalene	1.025	0.9717	5.2	TM	
32	TM	4-Chloroaniline	0.3374	0.3536	4.8	TM	
33	TM	2,6-Dichlorophenol	0.2725	0.2658	2.5	TM	
34	TM	Hexachloropropene	0.2254	0.2260	0.29	TM	
35	*TM	Hexachlorobutadiene	0.1893	0.1858	1.8	*TM	
36	TM	Caprolactum	0.1628	0.1596	2.0	TM	
37	*TM	4-Chloro-3-methylphenol	0.3211	0.3230	0.57	*TM	
38	TM	2-Methylnaphthalene	0.6704	0.6493	3.1	TM	
39	TM	1-Methylnaphthalene	0.6607	0.6315	4.4	TM	
40	I	Acenaphthene-D10(IS)	ISTD			I	
		Average			3.7		

0
0

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 16 22:51
Instrument: Yoda
Cal. Date: 10/24/16
Data File: 1021Y194.D

		Compound	MEAN	CCRF	%D		%Drift
41	**TML	Hexachlorocyclopentadiene	0.2014	0.1946	3.4	**TML	15
42	TM	1,2,4,5-Tetrachlorobenzene	0.5121	0.4898	4.4	TM	
43	*TM	2,4,6-Trichlorophenol	0.3391	0.3373	0.51	*TM	
44	TM	2,4,5-Trichlorophenol	0.3526	0.3511	0.42	TM	
45	S	2-Fluorobiphenyl(S)	1.270	1.199	5.6	S	
46	TM	1,1'-Biphenyl	1.480	1.399	5.5	TM	
47	TM	2-Chloronaphthalene	1.132	1.101	2.7	TM	
48	TM	2-Nitroaniline	0.3955	0.3864	2.3	TM	
49	TM	Dimethyl phthalate	1.357	1.326	2.3	TM	
50	TM	2,6-DNT	0.3104	0.3035	2.2	TM	
51	TM	Acenaphthylene	1.819	1.754	3.6	TM	
52	TM	3-Nitroaniline	0.3245	0.3277	1.0	TM	
53	*TM	Acenaphthene	1.107	1.053	4.9	*TM	
54	**TML	2,4-Dinitrophenol	0.1419	0.1380	2.8	**TML	12
55	**TM	4-Nitrophenol	0.2322	0.2545	9.6	**TM	
56	TM	Dibenzofuran	1.597	1.525	4.5	TM	
57	TM	2,4-DNT	0.4300	0.4324	0.56	TM	
58	TM	2,3,4,6-Tetrachlorophenol	0.2751	0.2927	6.4	TM	
59	TM	Diethyl phthalate	1.372	1.339	2.4	TM	
60	TM	4-Chlorophenyl phenyl ether	0.6091	0.5712	6.2	TM	
61	TM	Fluorene	1.268	1.179	7.0	TM	
62	TM	4-Nitroaniline	0.3185	0.2957	7.2	TM	
63	S	2,4,6-Tribromophenol(S)	0.1825	0.1868	2.3	S	
64	I	Phenanthrene-D10(IS)	ISTD			I	
65	TM	4,6-Dinitro-2-methylphenol	0.1306	0.1225	6.2	TM	
66	TM	Diphenyl amine	0.4891	0.4639	5.2	TM	
67	*TM	n-Nitrosodiphenylamine	0.4891	0.4639	5.2	*TM	
68	TM	1,2-Diphenylhydrazine	0.7935	0.7357	7.3	TM	
69	TM	4-Bromophenyl phenyl ether	0.1926	0.1872	2.8	TM	
70	TM	Hexachlorobenzene	0.2037	0.1968	3.4	TM	
71	TM	Atrazine	0.2112	0.2104	0.41	TM	
72	*TM	Pentachlorophenol	0.0792	0.0879	11	*TM	
73	TM	Phenanthrene	1.039	1.008	3.0	TM	
74	TM	Anthracene	1.098	1.049	4.5	TM	
75	TM	Carbazol	0.9842	0.9525	3.2	TM	
76	TM	Di-n-butylphthalate	1.268	1.229	3.1	TM	
77	*TM	Fluoranthene	1.151	1.104	4.0	*TM	
78	I	Chrysene-D12(IS)	ISTD			I	
79	TM	Benzidine	0.3945	0.4091	3.7	TM	
80	TM	Pyrene	1.367	1.305	4.6	TM	
		Average			4.1		

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 16 22:51
Instrument: Yoda
Cal. Date: 10/24/16
Data File: 1021Y194.D

		Compound	MEAN	CCRF	%D		%Drift
81	S	Terphenyl-D14(S)	0.9575	0.9281	3.1	S	
82	TM	Butyl benzylphthalate	0.6645	0.6490	2.3	TM	
83	TM	3,3'-Dichlorobenzidine	0.4215	0.4097	2.8	TM	
84	TM	Benz (a) anthracene	1.253	1.221	2.6	TM	
85	TM	Bis (2-ethylhexyl) phthalate	0.9005	0.8916	0.98	TM	
86	TM	Chrysene	1.238	1.179	4.8	TM	
87	*TM	Di-n-octylphthalate	1.628	1.632	0.26	*TM	
88	I	Perylene-D12(IS)	ISTD			I	
89	TM	Benzo (b) fluoranthene	1.246	1.509	21	TM	
90	TM	Benzo (k) fluoranthene	1.270	1.146	9.7	TM	
91	*TM	Benzo (a) pyrene	1.178	1.269	7.8	*TM	
92	TM	Indeno (1,2,3-cd) pyrene	1.344	1.398	4.0	TM	
93	TM	Dibenz (a,h) anthracene	1.130	1.182	4.6	TM	
94	TM	Benzo (g,h,i) perylene	1.134	1.168	3.0	TM	
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			5.1		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y194.D Vial: 94
Acq On : 2 Nov 16 22:51 Operator: MA
Sample : 50ug/ml SVOC 10/31/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 3 7:18 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.07	152	287753	40.00000	ppb		0.00
20) Napthalene-D8(IS)	6.50	136	1270092	40.00000	ppb		0.01
40) Acenaphthene-D10(IS)	8.50	164	755149	40.00000	ppb		0.00
64) Phenanthrene-D10(IS)	10.23	188	1409707	40.00000	ppb		0.00
78) Chrysene-D12(IS)	13.31	240	1233755	40.00000	ppb		0.00
88) Perylene-D12(IS)	15.01	264	1106962	40.00000	ppb		0.00
System Monitoring Compounds							
4) 2-Fluorophenol (S)	3.55	112	984500	102.04168	ppb		-0.03
Spiked Amount 200.000			Recovery = 51.021%				
5) Phenol-D6 (S)	4.70	99	1261103	97.88875	ppb		-0.01
Spiked Amount 200.000			Recovery = 48.945%				
21) Nitrobenzene-D5(S)	5.70	82	649243	49.53142	ppb		0.00
Spiked Amount 100.000			Recovery = 49.531%				
45) 2-Fluorobiphenyl(S)	7.73	172	1131629	47.20870	ppb		0.01
Spiked Amount 100.000			Recovery = 47.209%				
63) 2,4,6-Tribromophenol(S)	9.44	330	352625	102.33064	ppb		0.02
Spiked Amount 200.000			Recovery = 51.165%				
81) Terphenyl-D14(S)	12.08	244	1431258	48.46353	ppb		0.00
Spiked Amount 100.000			Recovery = 48.464%				
Target Compounds							Qvalue
2) n-Nitrosodimethylamine	1.85	42	265256	61.78980	ppb		96
3) Pyridine	1.86	79	474804	52.97174	ppb		99
6) Phenol	4.71	94	696585	48.92822	ppb		97
7) Aniline	4.71	66	654466	52.88376	ppb		85
8) Bis (2-chloroethyl) ether	4.78	63	313465	47.30467	ppb		96
9) 2-Chlorophenol	4.84	128	537644	50.21542	ppb		97
10) 1,3-DCB	4.99	146	565428	49.66812	ppb		98
11) 1,4-DCB	5.09	146	568434	48.90533	ppb		98
12) Benzyl alcohol	5.24	108	309631	54.19562	ppb		96
13) 1,2-DCB	5.25	146	542563	50.26624	ppb		99
14) 2-Methylphenol	5.38	107	400143	48.61162	ppb		97
15) Bis (2-chloroisopropyl) et	5.37	45	655374	47.00954	ppb	#	88
16) Acetophenone	5.53	105	742490	49.96483	ppb		97
17) 3&4-Methylphenol	5.55	107	1066488	98.61151	ppb		95
18) n-Nitrosodi-n-propylamine	5.53	70	392897	49.64661	ppb		98
19) Hexachloroethane	5.61	117	233788	49.56026	ppb		99
22) Nitrobenzene	5.72	77	624453	48.50897	ppb		99
23) Isophorone	5.99	82	1055231	48.20723	ppb		97
24) 2-Nitrophenol	6.08	139	306335	49.13926	ppb		99
25) 2,4-Dimethylphenol	6.13	122	479436	49.72723	ppb		92
26) Benzoic acid	6.32	105	391358	53.55820	ppb		98
27) Bis (2-chloroethoxy) metha	6.23	93	575602	47.73612	ppb		99
28) 2,4-Dichlorophenol	6.37	162	452388	49.63563	ppb		96
29) 1,2,4-Trichlorobenzene	6.43	180	482777	48.29912	ppb		98
30) 3,4-Dimethylphenol	6.48	107	729835	49.29277	ppb		96
31) Naphthalene	6.51	128	1542691	47.39876	ppb		99
32) 4-Chloroaniline	6.60	127	561369	52.40487	ppb		98
33) 2,6-Dichlorophenol	6.60	162	421979	48.76334	ppb		98
34) Hexachloropropene	6.61	213	358853	50.14560	ppb		99
35) Hexachlorobutadiene	6.65	225	294996	49.08085	ppb		99
36) Caprolactum	7.03	55	253341	49.00082	ppb		98
37) 4-Chloro-3-methylphenol	7.17	107	512771	50.28664	ppb		97

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

Data File : M:\YODA\DATA\Y161021\1021Y194.D Vial: 94
Acq On : 2 Nov 16 22:51 Operator: MA
Sample : 50ug/ml SVOC 10/31/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 3 7:18 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

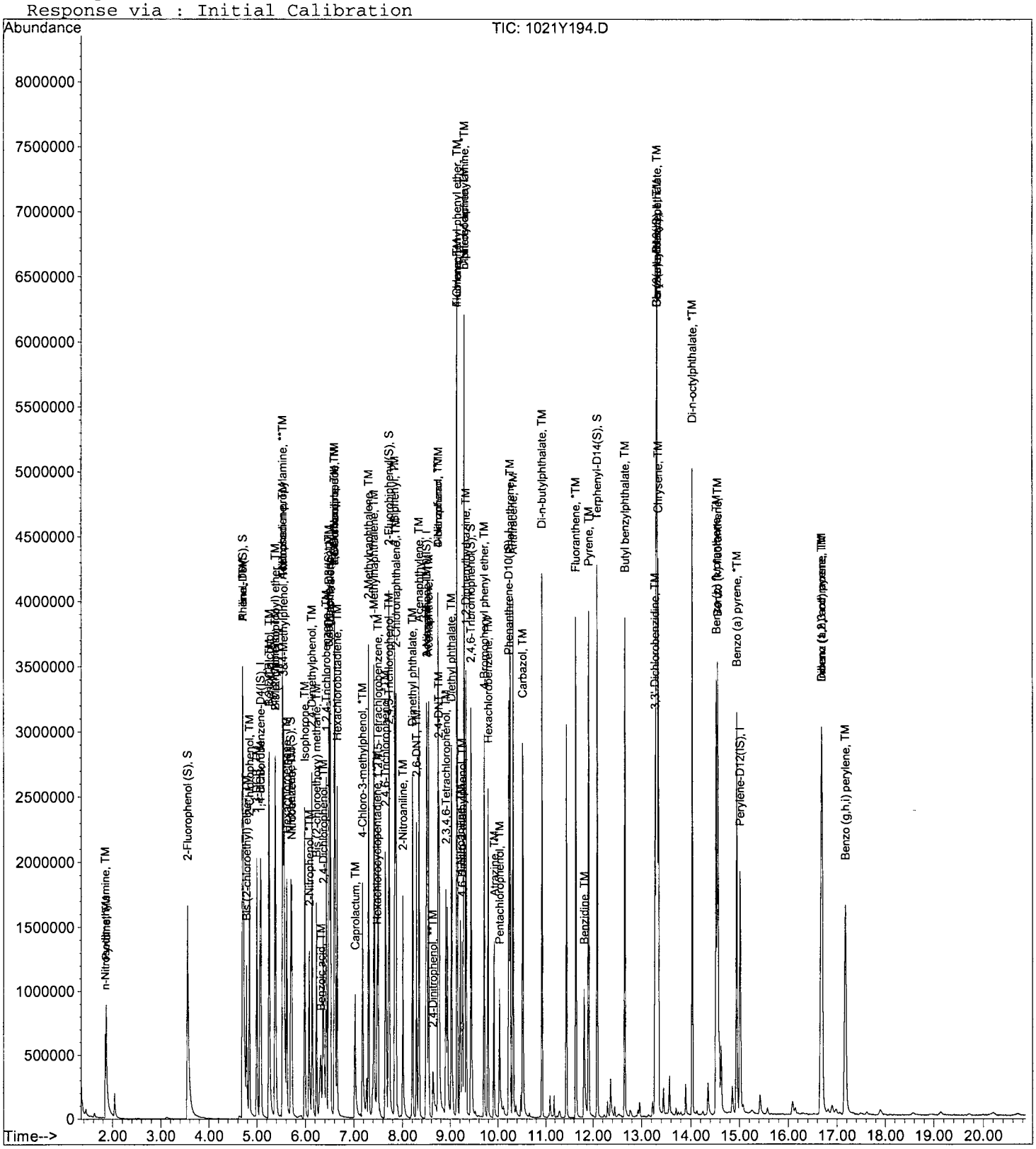
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.30	142	1030846	48.42732	ppb		100
39)	1-Methylnaphthalene	7.42	142	1002616	47.79121	ppb		99
41)	Hexachlorocyclopentadiene	7.48	237	183657	42.27033	ppb		98
42)	1,2,4,5-Tetrachlorobenzene	7.51	216	462304	47.82084	ppb		98
43)	2,4,6-Trichlorophenol	7.65	196	318427	49.74295	ppb		96
44)	2,4,5-Trichlorophenol	7.71	196	331444	49.79244	ppb		96
46)	1,1'-Biphenyl	7.84	154	1320091	47.23939	ppb		99
47)	2-Chloronaphthalene	7.87	162	1039511	48.65058	ppb		96
48)	2-Nitroaniline	8.01	65	364698	48.84027	ppb		98
49)	Dimethyl phthalate	8.20	163	1251377	48.85039	ppb		99
50)	2,6-DNT	8.29	165	286522	48.90123	ppb		96
51)	Acenaphthylene	8.34	152	1655647	48.20918	ppb		100
52)	3-Nitroaniline	8.49	138	309348	50.50141	ppb		96
53)	Acenaphthene	8.55	154	994165	47.56312	ppb		99
54)	2,4-Dinitrophenol	8.64	184	130224	44.08815	ppb		94
55)	4-Nitrophenol	8.74	65	240265	54.81271	ppb	#	68
56)	Dibenzofuran	8.74	168	1439316	47.72808	ppb		84
57)	2,4-DNT	8.76	165	408149	50.28103	ppb		81
58)	2,3,4,6-Tetrachlorophenol	8.91	232	276311	53.20001	ppb		94
59)	Diethyl phthalate	9.02	149	1264358	48.80800	ppb		95
60)	4-Chlorophenyl phenyl ethe	9.14	204	539212	46.89134	ppb		93
61)	Fluorene	9.14	166	1113117	46.48733	ppb		100
62)	4-Nitroaniline	9.21	138	279100	46.41879	ppb		88
65)	4,6-Dinitro-2-methylphenol	9.24	198	215833	46.88551	ppb		83
66)	Diphenyl amine	9.29	169	1635004	94.84582	ppb		99
67)	n-Nitrosodiphenylamine	9.29	169	1635004	94.84582	ppb		99
68)	1,2-Diphenylhydrazine	9.33	77	1296347	46.35520	ppb		93
69)	4-Bromophenyl phenyl ether	9.71	248	329828	48.58549	ppb		99
70)	Hexachlorobenzene	9.79	284	346764	48.29561	ppb		99
71)	Atrazine	9.92	200	185341	24.89786	ppb		97
72)	Pentachlorophenol	10.03	266	154928	55.47372	ppb		95
73)	Phenanthrene	10.26	178	1775898	48.50788	ppb		100
74)	Anthracene	10.32	178	1847605	47.74226	ppb		100
75)	Carbazol	10.52	167	1678480	48.39303	ppb		97
76)	Di-n-butylphthalate	10.92	149	2165555	48.47384	ppb		99
77)	Fluoranthene	11.64	202	1945971	47.98026	ppb		98
79)	Benzidine	11.82	184	630878	51.84999	ppb		99
80)	Pyrene	11.91	202	2012430	47.72376	ppb		99
82)	Butyl benzylphthalate	12.66	149	1000828	48.82732	ppb		98
83)	3,3'-Dichlorobenzidine	13.27	252	631864	48.60561	ppb		98
84)	Benz (a) anthracene	13.30	228	1882525	48.70630	ppb		100
85)	Bis (2-ethylhexyl) phthala	13.32	149	1375074	49.51031	ppb	#	97
86)	Chrysene	13.34	228	1818420	47.61811	ppb		99
87)	Di-n-octylphthalate	14.03	149	2517231	50.12861	ppb		92
89)	Benzo (b) fluoranthene	14.53	252	2088476	60.57494	ppb		98
90)	Benzo (k) fluoranthene	14.55	252	1586384	45.15403	ppb		100
91)	Benzo (a) pyrene	14.94	252	1755983	53.88668	ppb		98
92)	Indeno (1,2,3-cd) pyrene	16.68	276	1933776	51.97715	ppb		99
93)	Dibenz (a,h) anthracene	16.70	278	1636024	52.29980	ppb		99
94)	Benzo (g,h,i) perylene	17.18	276	1616082	51.48292	ppb		96

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

Data File : M:\YODA\DATA\Y161021\1021Y194.D Vial: 94
Acq On : 2 Nov 16 22:51 Operator: MA
Sample : 50ug/ml SVOC 10/31/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 3 7:18 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



277

ORGANICS

Raw Data

APPL, INC.

Method Blank

EPA 8270D WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161031W-44891 - 213307**
Batch ID: #87DC5-161031B

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/31/16	11/02/16
BLANK	SURROGATE: 2,4,6-TRIBROMOP	78.9	43-140			%	10/31/16	11/02/16
BLANK	SURROGATE: 2-FLUORBIPHENY	72.0	44-119			%	10/31/16	11/02/16
BLANK	SURROGATE: 2-FLUOROPHENO	50.9	19-119			%	10/31/16	11/02/16
BLANK	SURROGATE: NITROBENZENE-	72.8	44-120			%	10/31/16	11/02/16
BLANK	SURROGATE: PHENOL-D6 (S)	32.7	10-115			%	10/31/16	11/02/16
BLANK	SURROGATE: TERPHENYL-D14 (	69.8	50-134			%	10/31/16	11/02/16

Quant Method:Y1021.M
Run #:1021Y177
Instrument:Yoda
Sequence:Y161021
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 11/02/16 4:14:32 PM

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y177.D Vial: 77
Acq On : 2 Nov 16 15:08 Operator: MA
Sample : 161031B BLK 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Nov 2 15:09 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.07	152	261625	40.00000 ppb	0.00
20) Napthalene-D8(IS)	6.50	136	1174739	40.00000 ppb	0.00
40) Acenaphthene-D10(IS)	8.50	164	688420	40.00000 ppb	0.00
64) Phenanthrene-D10(IS)	10.23	188	1310668	40.00000 ppb	0.00
78) Chrysene-D12(IS)	13.31	240	1226462	40.00000 ppb	0.00
88) Perylene-D12(IS)	15.01	264	1072221	40.00000 ppb	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (S)	3.54	112	892517	101.74639 ppb	-0.04
Spiked Amount 200.000			Recovery =	50.873%	
5) Phenol-D6 (S)	4.69	99	765698	65.37028 ppb	-0.01
Spiked Amount 200.000			Recovery =	32.685%	
21) Nitrobenzene-D5(S)	5.70	82	882485	72.79049 ppb	0.00
Spiked Amount 100.000			Recovery =	72.790%	
45) 2-Fluorobiphenyl(S)	7.73	172	1573161	71.98969 ppb	0.01
Spiked Amount 100.000			Recovery =	71.990%	
63) 2,4,6-Tribromophenol(S)	9.43	330	495528	157.73932 ppb	0.00
Spiked Amount 200.000			Recovery =	78.870%	
81) Terphenyl-D14(S)	12.08	244	2048225	69.76692 ppb	0.00
Spiked Amount 100.000			Recovery =	69.767%	

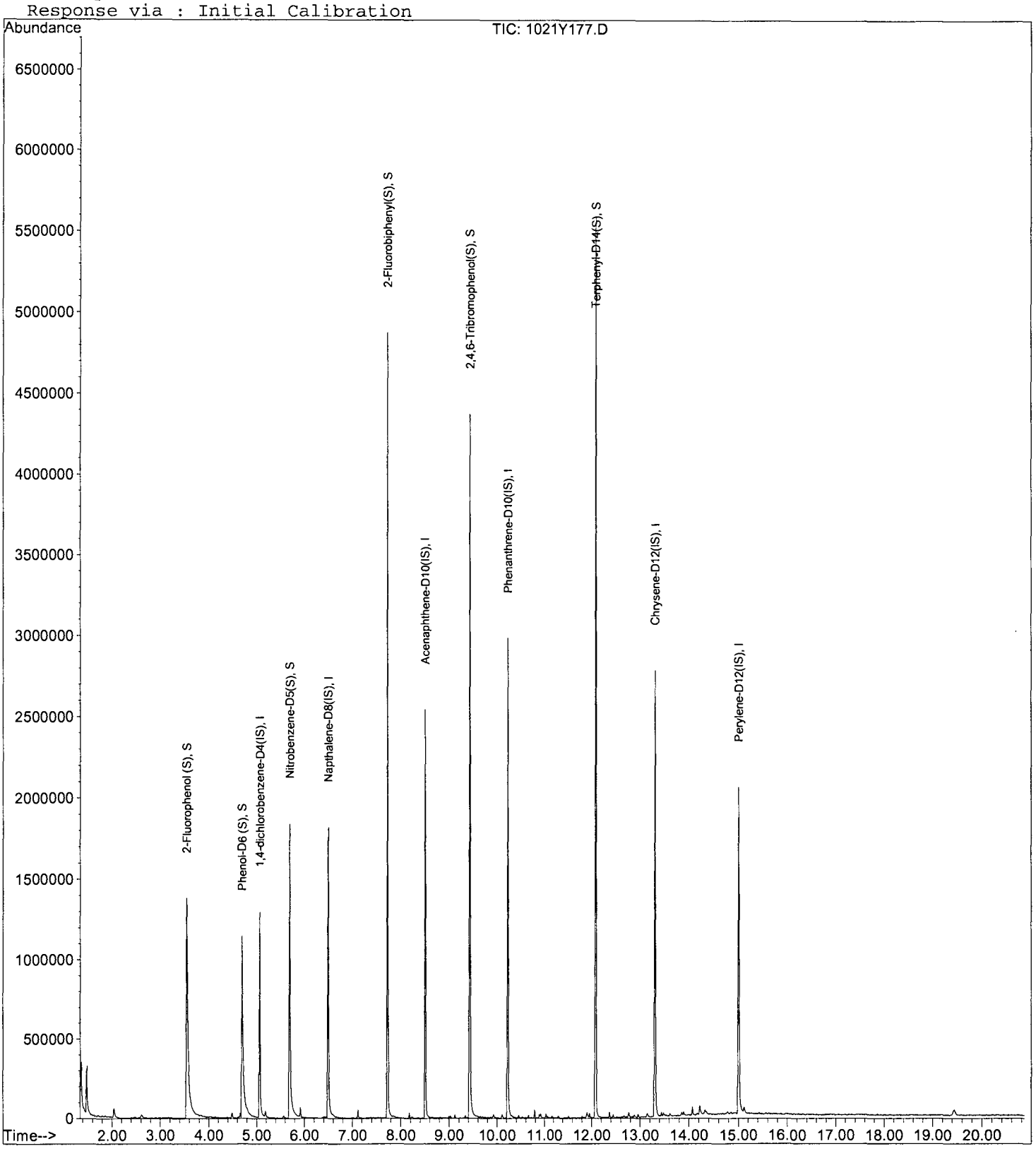
Target Compounds Qvalue

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

Data File : M:\YODA\DATA\Y161021\1021Y177.D Vial: 77
Acq On : 2 Nov 16 15:08 Operator: MA
Sample : 161031B BLK 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Nov 2 15:09 2016 Quant Results File: Y1021.RES

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8270D WATER

APPL ID: **161031W-44891 LCS - 213307**
Batch ID: #87DC5-161031B

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
PHENOL	50.0	19.2	38.4	10-115
SURROGATE: 2,4,6-TRIBROMOPHENOL	200	149	74.5	43-140
SURROGATE: 2-FLUORBIPHENYL (S)	100	66.5	66.5	44-119
SURROGATE: 2-FLUOROPHENOL (S)	200	94.8	47.4	19-119
SURROGATE: NITROBENZENE-D5 (S)	100	70.0	70.0	44-120
SURROGATE: PHENOL-D6 (S)	200	58.8	29.4	10-115
SURROGATE: TERPHENYL-D14 (S)	100	69.6	69.6	50-134

Comments: _____

Primary	SPK
Quant Method :	Y1021.M
Extraction Date :	10/31/16
Analysis Date :	11/02/16
Instrument :	Yoda
Run :	1021Y173
Initials :	MA

Printed: 11/02/16 4:14:33 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y173.D Vial: 73
Acq On : 2 Nov 16 13:11 Operator: MA
Sample : 161031B LCS-1 1/1000 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 2 12:38 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.07	152	289681	40.00000 ppb		0.00
20) Napthalene-D8(IS)	6.50	136	1306020	40.00000 ppb		0.00
40) Acenaphthene-D10(IS)	8.50	164	776308	40.00000 ppb		0.00
64) Phenanthrene-D10(IS)	10.23	188	1455036	40.00000 ppb		0.00
78) Chrysene-D12(IS)	13.31	240	1299267	40.00000 ppb		0.00
88) Perylene-D12(IS)	15.02	264	1474923	40.00000 ppb		0.00
System Monitoring Compounds						
4) 2-Fluorophenol (S)	3.55	112	921054	94.83023 ppb		-0.03
Spiked Amount 200.000			Recovery = 47.415%			
5) Phenol-D6 (S)	4.69	99	762340	58.78016 ppb		-0.01
Spiked Amount 200.000			Recovery = 29.390%			
21) Nitrobenzene-D5(S)	5.70	82	943156	69.97492 ppb		0.00
Spiked Amount 100.000			Recovery = 69.975%			
45) 2-Fluorobiphenyl(S)	7.73	172	1639762	66.54223 ppb		0.01
Spiked Amount 100.000			Recovery = 66.542%			
63) 2,4,6-Tribromophenol(S)	9.44	330	529194	149.38469 ppb		0.02
Spiked Amount 200.000			Recovery = 74.693%			
81) Terphenyl-D14(S)	12.09	244	2163647	69.56872 ppb		0.00
Spiked Amount 100.000			Recovery = 69.569%			
Target Compounds						Qvalue
2) n-Nitrosodimethylamine	1.85	42	109507	25.33922 ppb		98
3) Pyridine	1.87	79	111432	12.34922 ppb		92
6) Phenol	4.71	94	275807	19.24378 ppb	#	53
7) Aniline	4.70	66	345279	27.71438 ppb	#	74
8) Bis (2-chloroethyl) ether	4.78	63	244813	36.69858 ppb		94
9) 2-Chlorophenol	4.84	128	398976	37.01595 ppb		95
10) 1,3-DCB	4.99	146	324794	28.34055 ppb		98
11) 1,4-DCB	5.08	146	339505	29.01497 ppb		98
12) Benzyl alcohol	5.24	108	215682	37.50019 ppb		99
13) 1,2-DCB	5.25	146	334950	30.82521 ppb		99
14) 2-Methylphenol	5.38	107	282801	34.12759 ppb		98
15) Bis (2-chloroisopropyl) et	5.37	45	496495	35.37623 ppb	#	83
16) Acetophenone	5.53	105	592881	39.63156 ppb		99
17) 3&4-Methylphenol	5.55	107	682206	62.65951 ppb		97
18) n-Nitrosodi-n-propylamine	5.53	70	303231	38.06136 ppb		100
19) Hexachloroethane	5.61	117	123689	26.04607 ppb		98
22) Nitrobenzene	5.72	77	496623	37.51755 ppb		97
23) Isophorone	5.98	82	856282	38.04230 ppb		95
24) 2-Nitrophenol	6.08	139	241085	37.60863 ppb		97
25) 2,4-Dimethylphenol	6.13	122	314763	31.74919 ppb		94
26) Benzoic acid	6.28	105	103017	16.97381 ppb		99
27) Bis (2-chloroethoxy) metha	6.23	93	464651	37.47460 ppb		99
28) 2,4-Dichlorophenol	6.37	162	356039	37.98965 ppb		96
29) 1,2,4-Trichlorobenzene	6.43	180	320867	31.21786 ppb		98
30) 3,4-Dimethylphenol	6.48	107	549894	36.11793 ppb		98
31) Naphthalene	6.51	128	1134863	33.90914 ppb		100
32) 4-Chloroaniline	6.60	127	508586	46.17139 ppb		99
33) 2,6-Dichlorophenol	6.60	162	342317	38.46949 ppb		98
34) Hexachloropropene	6.61	213	205771	27.96313 ppb		99
35) Hexachlorobutadiene	6.65	225	166081	26.87208 ppb		98
36) Caprolactum	7.01	55	62811	11.81460 ppb		96
37) 4-Chloro-3-methylphenol	7.16	107	422922	40.33433 ppb		93

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161021\1021Y173.D Vial: 73
Acq On : 2 Nov 16 13:11 Operator: MA
Sample : 161031B LCS-1 1/1000 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 2 12:38 2016 Quant Results File: Y1021.RES

Quant Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	2-Methylnaphthalene	7.30	142	757814	34.62140	ppb		100
39)	1-Methylnaphthalene	7.41	142	759149	35.19052	ppb		99
41)	Hexachlorocyclopentadiene	7.48	237	76956	22.72909	ppb		95
42)	1,2,4,5-Tetrachlorobenzene	7.51	216	342579	34.47060	ppb		97
43)	2,4,6-Trichlorophenol	7.65	196	248695	37.79091	ppb		97
44)	2,4,5-Trichlorophenol	7.71	196	261798	38.25764	ppb		91
46)	1,1'-Biphenyl	7.84	154	1018277	35.44582	ppb		98
47)	2-Chloronaphthalene	7.87	162	802438	36.53162	ppb		96
48)	2-Nitroaniline	8.01	65	311850	40.62459	ppb		95
49)	Dimethyl phthalate	8.20	163	1048343	39.80905	ppb		99
50)	2,6-DNT	8.29	165	240031	39.84995	ppb		99
51)	Acenaphthylene	8.34	152	1304370	36.94548	ppb		99
52)	3-Nitroaniline	8.49	138	258940	41.12008	ppb		92
53)	Acenaphthene	8.54	154	780097	36.30438	ppb		97
54)	2,4-Dinitrophenol	8.64	184	105378	36.26576	ppb	#	51
55)	4-Nitrophenol	8.76	65	84479	18.74727	ppb	#	70
56)	Dibenzofuran	8.74	168	1169533	37.72496	ppb		92
57)	2,4-DNT	8.76	165	343794	41.19859	ppb		87
58)	2,3,4,6-Tetrachlorophenol	8.91	232	215899	40.43550	ppb		96
59)	Diethyl phthalate	9.02	149	1059197	39.77373	ppb		98
60)	4-Chlorophenyl phenyl ethe	9.14	204	436443	36.91979	ppb		92
61)	Fluorene	9.14	166	916425	37.22968	ppb		98
62)	4-Nitroaniline	9.21	138	250556	40.53567	ppb		94
65)	4,6-Dinitro-2-methylphenol	9.24	198	204278	42.99297	ppb		90
66)	Diphenyl amine	9.29	169	1371957	77.10721	ppb		99
67)	n-Nitrosodiphenylamine	9.29	169	1371957	77.10721	ppb		99
68)	1,2-Diphenylhydrazine	9.33	77	1079215	37.38869	ppb		95
69)	4-Bromophenyl phenyl ether	9.71	248	273089	38.97431	ppb		99
70)	Hexachlorobenzene	9.79	284	288202	38.88891	ppb		96
71)	Atrazine	9.92	200	147827	19.23975	ppb		96
72)	Pentachlorophenol	10.03	266	119029	41.29194	ppb		93
73)	Phenanthrene	10.26	178	1466744	38.81537	ppb		100
74)	Anthracene	10.32	178	1541152	38.58286	ppb		99
75)	Carbazol	10.52	167	1392163	38.88766	ppb		97
76)	Di-n-butylphthalate	10.91	149	1837560	39.85060	ppb		99
77)	Fluoranthene	11.64	202	1629592	38.92784	ppb		98
79)	Benzidine	11.82	184	144627	11.28712	ppb		99
80)	Pyrene	11.91	202	1716846	38.66123	ppb		99
82)	Butyl benzylphthalate	12.66	149	875014	40.53675	ppb		97
83)	3,3'-Dichlorobenzidine	13.27	252	560182	40.91876	ppb		98
84)	Benz (a) anthracene	13.29	228	1588485	39.02636	ppb		99
85)	Bis (2-ethylhexyl) phthala	13.32	149	1206338	41.24479	ppb	#	97
86)	Chrysene	13.34	228	1563839	38.88665	ppb		99
87)	Di-n-octylphthalate	14.03	149	2163797	40.91755	ppb	#	91
89)	Benzo (b) fluoranthene	14.53	252	1573687	34.25668	ppb		96
90)	Benzo (k) fluoranthene	14.55	252	1608214	34.35543	ppb		100
91)	Benzo (a) pyrene	14.94	252	1498567	34.51443	ppb		98
92)	Indeno (1,2,3-cd) pyrene	16.68	276	1712176	34.53966	ppb		98
93)	Dibenz (a,h) anthracene	16.70	278	1450795	34.80805	ppb		99
94)	Benzo (g,h,i) perylene	17.17	276	1437793	34.37633	ppb		97

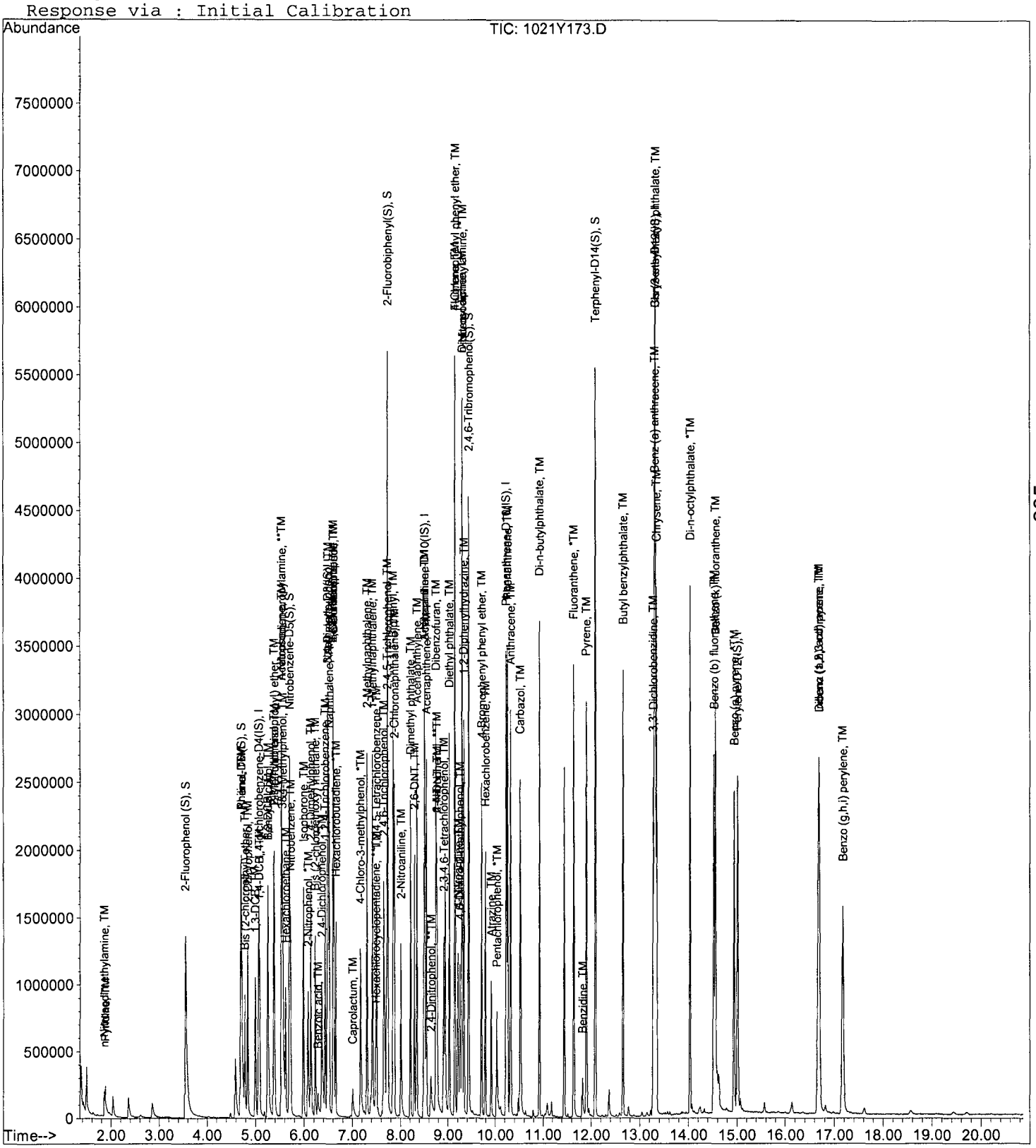
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161021\1021Y173.D Vial: 73
Acq On : 2 Nov 16 13:11 Operator: MA
Sample : 161031B LCS-1 1/1000 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 2 12:38 2016 Quant Results File: Y1021.RES

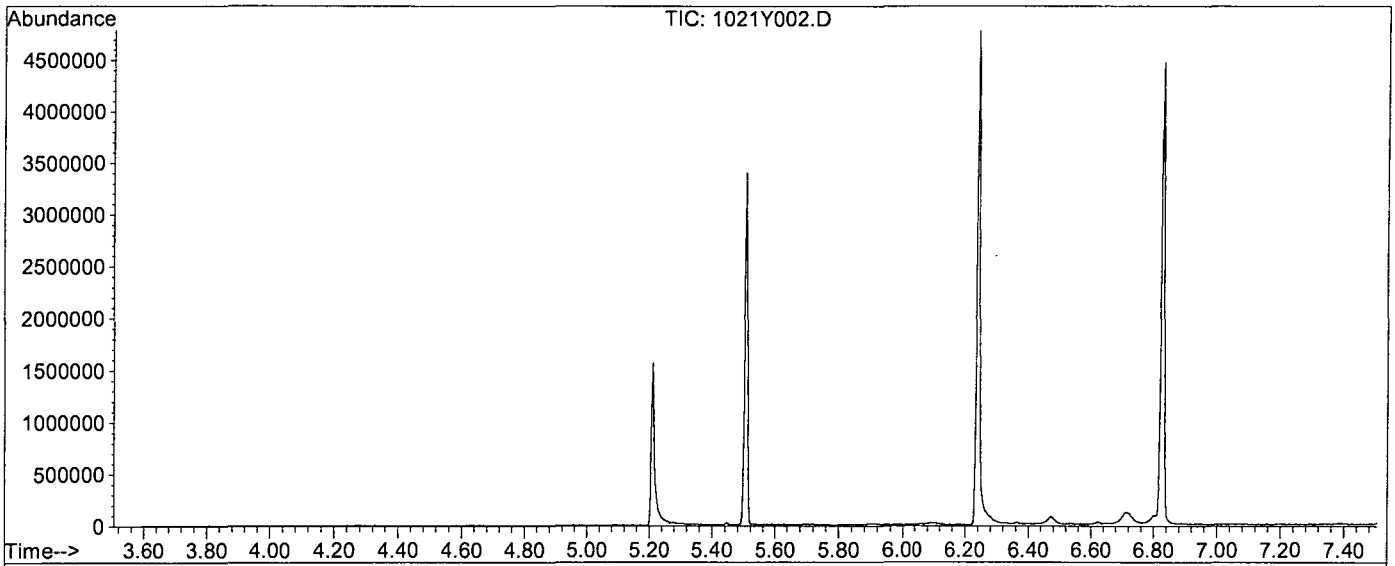
Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 12:21:18 2016
Response via : Initial Calibration

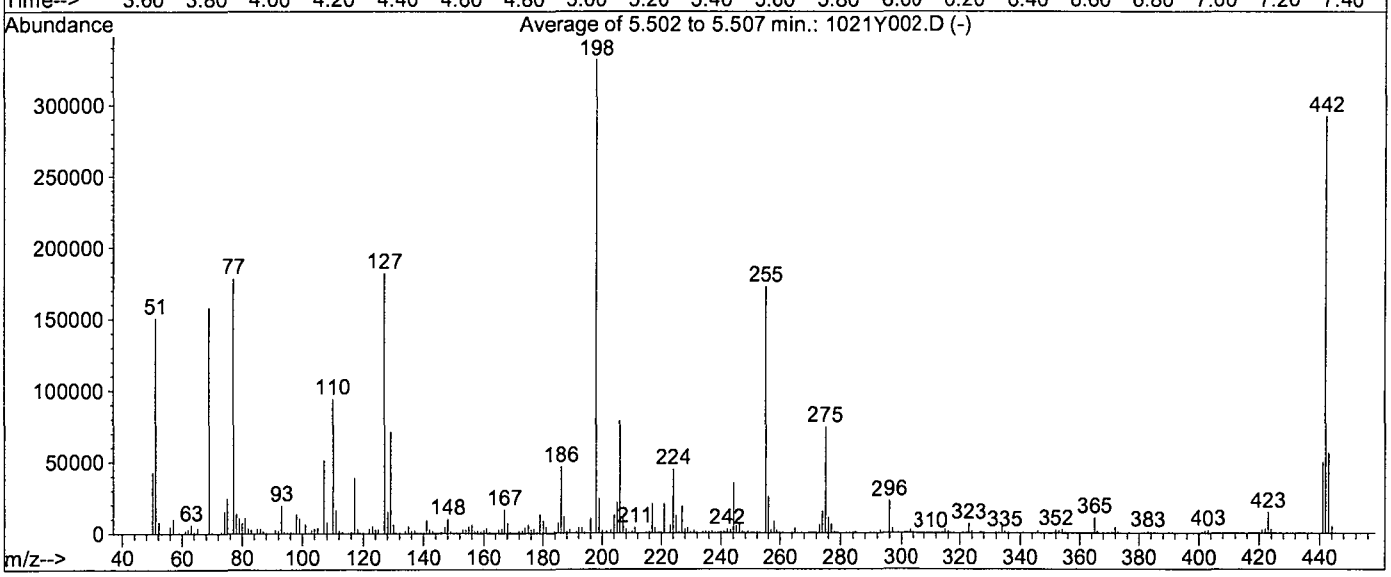


285

Data File : M:\YODA\DATA\Y161021\1021Y002.D Vial: 2
Acq On : 24 Oct 16 9:35 Operator: MA
Sample : SV Tune 10/19/16 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C



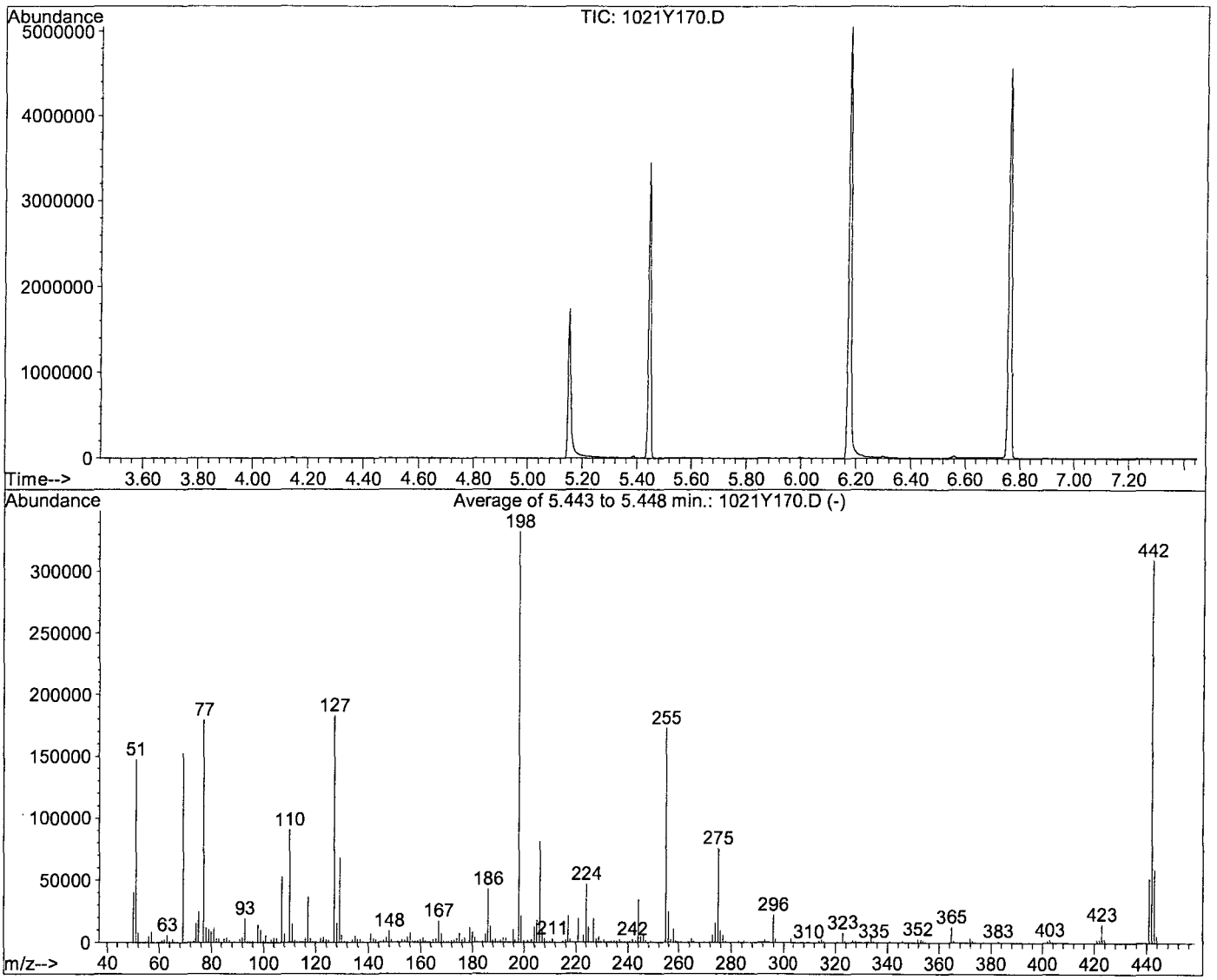


AutoFind: Scans 766, 767, 768; Background Corrected with Scan 758

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.4	150707	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.4	702	PASS
127	198	40	60	54.9	182123	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	331840	PASS
199	198	5	9	7.4	24451	PASS
275	198	10	30	22.4	74253	PASS
365	198	1	100	3.2	10585	PASS
441	443	0.01	100	88.7	49437	PASS
442	198	50	150	88.0	291904	PASS
443	442	17	23	19.1	55752	PASS

Data File : M:\YODA\DATA\Y161021\1021Y170.D Vial: 70
Acq On : 2 Nov 16 11:42 Operator: MA
Sample : SV Tune 10/19/16 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y161021\Y1021.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 743, 744, 745; Background Corrected with Scan 734

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	44.3	147523	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.2	271	PASS
127	198	40	60	54.9	182741	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	332715	PASS
199	198	5	9	6.4	21312	PASS
275	198	10	30	22.7	75387	PASS
365	198	1	100	3.8	12564	PASS
441	443	0.01	100	87.3	51445	PASS
442	198	50	150	93.0	309504	PASS
443	442	17	23	19.0	58899	PASS

Semivolatile (SV) Tuning Solution -G.A.						
PREP DATE:	10/19/16	RH				
Semivolatile (SV) Tune Solution 50ug/ml						
Exp:	01/19/17					
		Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Ultra Scient	Semivolatile	1000	N081628-37012	08/23/16	8/23/17	200
EM Science	Methylene Chloride		55098			3800
				Final Vol.		4000

8270 Surrog Mix 200/400ppm						
Prep: 06/20/16 -LH Ex: 12/20/16						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
8270 Acid Surrog Mix	5000 µg/mL	06/20/16	8.0mL	100 mL	400 µg/mL	MC
8270 B/N surrog Mix	5000 µg/mL	Restek Cat# 31086 Lot# A0119223-36720	4.0 mL	100 mL	200 ug/mL	MC
	PREP:	06/20/16				
	Exp:	12/20/16				

8270 SVOC Stock 10mL						
8270 Stock/Spike Standard						
prep:	10/17/16 RH					
Exp:	10/17/17					
		Conc.				
Supplier	ID #	µg/mL	Lot #	Open Date	Exp.Date	µL
Absolute	10001	2000	53014-3683	10/17/16	10/17/17	1000
Absolute	10002	2000	11114-3624	10/17/16	10/17/17	1000
Absolute	10004	2000	12516-3684	10/17/16	10/17/17	1000
Absolute	10005	2000	10314-3684	10/17/16	10/17/17	1000
Absolute	10006	2000	22416-3684	10/17/16	10/17/17	1000
Absolute	10007	2000	20515-3685	10/17/16	10/17/17	1000
Absolute	10018	2000	30216-3707	10/17/16	10/17/17	1000
Absolute	70023	1000	20915-3685	10/17/16	10/17/17	1000
Absolute	82705	2000	12516-3686	10/17/16	10/17/17	1000
Absolute	94552	2000	42016-3686	10/17/16	10/17/17	1000
				Final Vol.		10000

8270 Full Scan Second Source Stock						
	7/8/16 GA					
8270 Second Source Stock						
Exp:	07/08/17					
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	116070-02	2000	234696-35233	07/08/16	07/08/17	1000
o2si	110391-01	2000	252133-35880	07/08/16	07/08/17	1000
o2si	010337-01	1000	259144-35881	07/08/16	07/08/17	1000
o2si	110396-01	2000	252136-35882	07/08/16	07/08/17	1000
o2si	110397-01	2000	263077-35835	07/08/16	01/08/17	1000
o2si	110393-01	2000	252141-35248	07/08/16	07/08/17	1000
o2si	110394-01	2000	252143-35884	07/08/16	07/08/17	1000
o2si	**110395-01**	2000	252146-35885	07/08/16	07/08/17	1000
o2si	110392-01	2000	243259-35886	07/08/16	07/08/17	1000
Absolute	10006	2000	091115-35856	07/08/16	07/08/17	1000
				Final Vol.		10000

8270 Full Scan Standard Curve													
PREP DATE:	10/20/16 RH												
8270 Standard Curve													
Exp:	2/11/17					**5**	**10**	**20**	**40**	**50**	**60**	**80**	**100**
		Conc.		Date									
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL
Absolute	8270 Stock	200	VAR	10/17/16	10/17/17	5	5	10	20	25	30	40	50
o2si	8270 BN:A	200/400	277272-36400	6/20/16	12/20/16	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		56098			190	90	80	60	50	40	20	0
Supelco	SV Internal	2000	A14020V-3661	10/19/16	10/19/17	4	2	2	2	2	2	2	2
				Final Vol.		204	102	102	102	102	102	102	102

8270 Full Scan Second Source (SS)						
PREP DATE:	10/20/16 RH					
Exp:	1/18/17	Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
o2si	8270 Stock S	200	VAR	07/08/16	07/08/17	25
EM Science	Methylene Chloride		56098			75
Supelco	SV Internal	2000	A14020V-3661	10/19/16	10/19/17	2
				Final Vol.		102

_SEP004

Organic Extraction Worksheet

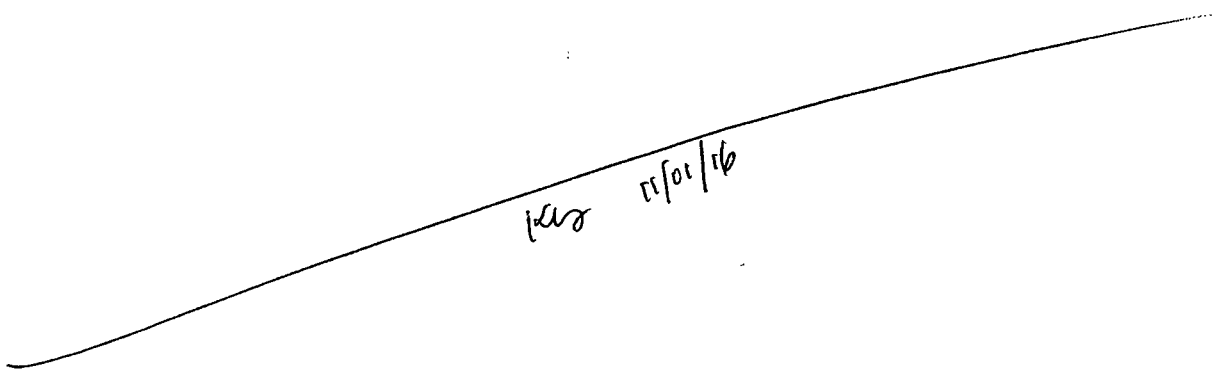
Method	625/8270 Separatory Funnel Extra 3510C	Extraction Set	161031B	Extraction Method	SEP004	Units	mL

Spiked ID 1	8270T Spike 10-28-16 EXP 10-28-17		Surrogate ID 1	8270 Surrogate 10-31-16 EXP 12-23-16	
Spiked ID 2			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:	10/31/16 13:50	
Spiked ID 8			Ext. End Time:	11/01/16 11:45	
			GC Requires Extract By:	11/02/16 0:00	

pH1	2	10/31/16 2:00:00 PM	Water Bath Temp Criteria	76 °C
pH2	14	10/31/16 4:00:00 PM		
pH3				

Spiked By: KY **Date** 10/31/16 **Witnessed By:** RP **Date** 10/31/16

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	161031B Blk				1	1	1000	1	2/1	10/31/16 13:50	
						equip	e-wb6				
2	161031B LCS-1		0.250	1	1	1	1000	1	2/1	10/31/16 13:50	
						equip	e-wb6				
3	AZ44891	AZ44891W18			1	1	1070	1	2/1	10/31/16 13:50	81287 RUSH 1 week
						equip	e-wb6				
4	AZ44893	AZ44893W09			1	1	500	1	2/1	10/31/16 13:50	81287 RUSH 1 week Limited Volume
						equip	e-wb6				
5	AZ44914	AZ44914W05			1	1	1050	1	2/1	10/31/16 13:50	81289
						equip	E-WB6				



Solvent and Lot#	
MC	56098
1+1 Sulfuric Acid	9-28-16
Acidified Na2SO4	9-26-16
B.Na2SO4	XK07E
10N NaOH	9-2-16
ph strips	HC 574567
Filter Paper	400112

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	RH
Date	11/1/16
Time	12:00
Refrigerator	GC-C

	Technician's Initials
Scanned By	KY
Sample Preparation	KY,DL,DC
Extraction	KY,DL,DC
Concentration	DC

Modified	11/01/16 11:54:34 AM

Reviewed By: KY **Date** 11/01/16

Injection Log

Directory: M:\YODA\DATA\Y161021\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1021Y002.D	1	SV Tune 10/19/16		24 Oct 16 9:35
2	3	1021Y003.D	1	5ug/ml SVOC 10/20/16		24 Oct 16 9:51
3	4	1021Y004.D	1	10ug/ml SVOC 10/20/16		24 Oct 16 10:21
4	5	1021Y005.D	1	20ug/ml SVOC 10/20/16		24 Oct 16 10:50
5	6	1021Y006.D	1	40ug/ml SVOC 10/20/16		24 Oct 16 11:20
6	7	1021Y007.D	1	50ug/ml SVOC 10/20/16		24 Oct 16 11:49
7	8	1021Y008.D	1	60ug/ml SVOC 10/20/16		24 Oct 16 12:19
8	9	1021Y009.D	1	80ug/ml SVOC 10/20/16		24 Oct 16 12:48
9	10	1021Y010.D	1	100ug/ml SVOC 10/20/16		24 Oct 16 13:18
10	11	1021Y011.D	1	SS SVOC 10/20/16		24 Oct 16 13:47
11	70	1021Y170.D	1	SV Tune 10/19/16		2 Nov 16 11:42
12	71	1021Y171.D	1	50ug/ml SVOC 10/31/16		2 Nov 16 12:00
13	73	1021Y173.D	1	161031B LCS-1 1/1000		2 Nov 16 13:11
14	74	1021Y174.D	0.934579	AZ44891W18 1/1070	water	2 Nov 16 13:40
15	75	1021Y175.D	2	AZ44893W09 1/500	water	2 Nov 16 14:09
16	77	1021Y177.D	1	161031B BLK 1/1000	water	2 Nov 16 15:08
17	94	1021Y194.D	1	50ug/ml SVOC 10/31/16		2 Nov 16 22:51

ORGANICS

APPL, INC.

ORGANICS

QC Summary

APPL, INC.

Method Blank

EPA 8270D MODIFIED WATER

Blank Name/QCG: **161027W-44579 - 213144**

Batch ID: #87DME-161027A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	10/27/2016	10/27/2016

Quant Method: Y0GLYCOL.
Run #: 1027Y014
Instrument: Yoda
Sequence: Y161027
Initials: DA

GC SC-Blank-REG MDLs-DOD
Printed: 10/28/2016 10:59:07 AM

Laboratory Control Spike Recovery
EPA 8270D MODIFIED WATER

APPL ID: **161027W-44579 LCS - 213144**
Batch ID: #87DME-161027A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2-(2-METHOXYETHOXY)-ETHANOL	500	500	100	30-130

Comments: _____

Primary	SPK
Quant Method :	Y0GLYCOL.M
Extraction Date :	10/27/2016
Analysis Date :	10/28/2016
Instrument :	Yoda
Run :	1027Y015
Initials :	DA

Printed: 10/28/2016 10:59:02 AM
APPL Standard LCS

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 10/27/2016

Matrix: WATER Instrument: Yoda

Blank ID: 161027A-BLK Time Analyzed: 2349

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161027A-BLK	Blank	1027Y014	10/27/2016 2349
161027A-LCS	Lab Control Spike	1027Y015	10/28/2016 0019
AZ44891	ERH103	1027Y032	10/28/2016 0841
AZ44893	ERH096	1027Y033	10/28/2016 0911

Comments: Batch: #87DME-161027A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: ~~1027Y002.D~~ 81287
Matrix: Water np11-2216
ID: SV Tune 10/19/16

SDG No: np11-2216 ~~Yoda~~ 81287
Date Analyzed: 10/27/2016
Instrument: Yoda
Time Analyzed: 18:24

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml DEG 10/27/16	1027Y003.D	10/27/2016 18:40
2		100ug/ml DEG 10/27/1	1027Y004.D	10/27/2016 19:10
3		200ug/ml DEG 10/27/1	1027Y005.D	10/27/2016 19:39
4		400ug/ml DEG 10/27/1	1027Y006.D	10/27/2016 20:09
5		500ug/ml DEG 10/27/1	1027Y007.D	10/27/2016 20:39
6		600ug/ml DEG 10/27/1	1027Y008.D	10/27/2016 21:08
7		800ug/ml DEG 10/27/1	1027Y009.D	10/27/2016 21:38
8		1000ug/ml DEG 10/27/	1027Y010.D	10/27/2016 22:07
9		SS2 DEG 10/27/16	1027Y012.D	10/27/2016 23:07
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	44.8
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.3
127	40 - 60% of mass 198	54.8
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 197.95	100.0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	22.7
365	1 - 100% of mass 198	3.3
441	0.01 - 100% of mass 443	83.5
442	50 - 150% of mass 197.95	94.2
443	17 - 23% of mass 442	19.5

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 81287
Matrix: Water
ID: SV Tune 10/19/16

SDG No: 81287
Date Analyzed: 10/27/2016
Instrument: Yoda
Time Analyzed: 23:33

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS2 DEG 10/27/16	1027Y012.D	10/27/2016 23:07
2	Blank	161027A BLK 2/500	1027Y014.D	10/27/2016 23:49
3	Lab Control Spike	161027A LCS-1 2/500	1027Y015.D	10/28/2016 0:19
4	ERH103	AZ44891W20 2/500	1027Y032.D	10/28/2016 8:41
5	ERH096	AZ44893W09 2/500	1027Y033.D	10/28/2016 9:11
6		500ug/ml DEG 10/27/1	1027Y037.D	10/28/2016 10:51
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	41.4
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.3
127	40 - 60% of mass 198	54.6
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	24.1
365	1 - 100% of mass 198	3.7
441	0.01 - 100% of mass 443	85.6
442	50 - 150% of mass 198	100.8
443	17 - 23% of mass 442	18.9

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 81287

Lab File ID (Standard): 1027Y007.D Date Analyzed: 10/27/16

Instrument ID: Yoda Time Analyzed: 20:39

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

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	308248	5.12	1348650	6.55	765702	8.58
	UPPER LIMIT	616496	5.62	2697300	7.05	1531404	9.08
	LOWER LIMIT	154124	4.62	674325	6.05	382851	8.08
	SAMPLE NO.						
01	SS2 DEG 10/27/16	287842	5.13	1271820	6.55	733959	8.58
02	161027A BLK 2/500	287469	5.13	1297930	6.55	762494	8.57
03	161027A LCS-1 2/500	289042	5.13	1322800	6.55	755323	8.58
04	AZ44891W20 2/500	265324	5.14	1270340	6.55	736759	8.57
05	AZ44893W09 2/500	276024	5.13	1236590	6.55	735382	8.57
06	500ug/ml DEG 10/27/16	278299	5.13	1240490	6.55	731404	8.58
07							
08							
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 = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 81287

Lab File ID (Standard): 1027Y007.D Date Analyzed: 10/27/16

Instrument ID: Yoda Time Analyzed: 20:39

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

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1384410	10.31	1254680	13.41	1397200	15.16
	UPPER LIMIT	2768820	10.81	2509360	13.91	2794400	15.66
	LOWER LIMIT	692205	9.81	627340	12.91	698600	14.66
	SAMPLE NO.						
01	SS2 DEG 10/27/16	1323240	10.31	1205340	13.41	1075090	15.16
02	161027A BLK 2/500	1358370	10.32	1249840	13.41	1500410	15.17
03	161027A LCS-1 2/500	1355110	10.31	1247860	13.41	1578670	15.16
04	AZ44891W20 2/500	1334750	10.31	1214170	13.41	1298300	15.16
05	AZ44893W09 2/500	1337890	10.31	1204100	13.41	1356730	15.16
06	500ug/ml DEG 10/27/16	1287950	10.31	1196770	13.41	1231040	15.16
07							
08							
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 = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

ORGANICS

Sample Data

APPL, INC.

EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH103

Sample Collection Date: 10/25/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81287

APPL ID: AZ44891

QCG: #87DME-161027A-213144

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/27/16	10/28/16

Quant Method: Y0GLYCOL.M
Run #: 1027Y032
Instrument: Yoda
Sequence: Y161027
Dilution Factor: 1
Initials: DA

Printed: 10/28/2016 10:58:54 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y032.D Vial: 32
Acq On : 28 Oct 16 8:41 Operator: MA
Sample : AZ44891W20 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 9:02 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.14	152	265324	40.00	ppb	0.01
3) Napthalene-D8(IS)	6.55	136	1270343	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.57	164	736759	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1334747	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1214166	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1298299	40.00	ppb	0.00

System Monitoring Compounds

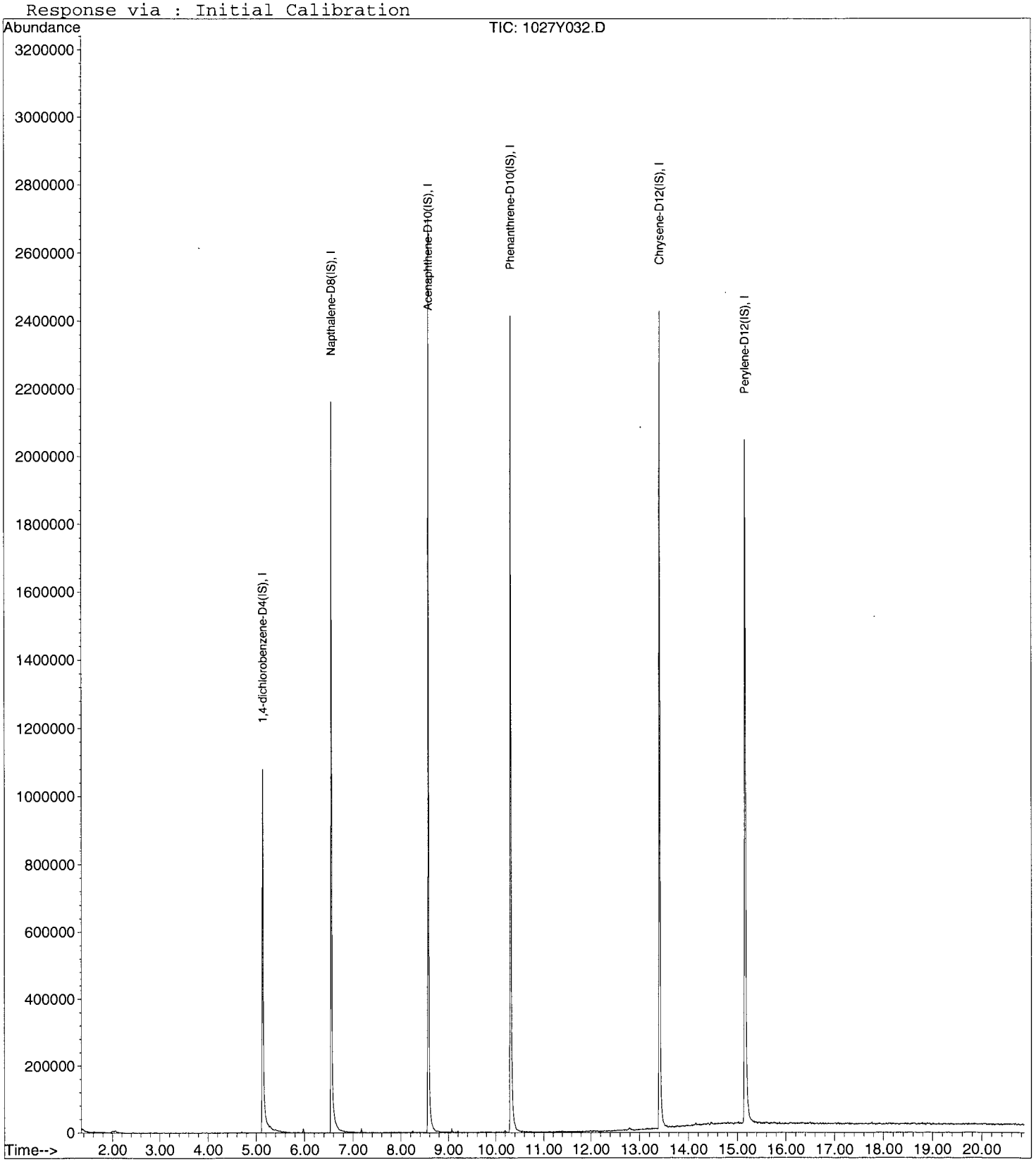
Target Compounds Qvalue

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

Data File : M:\YODA\DATA\Y161027\1027Y032.D Vial: 32
Acq On : 28 Oct 16 8:41 Operator: MA
Sample : AZ44891W20 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 9:02 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH096

Sample Collection Date: 10/25/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81287

APPL ID: AZ44893

QCG: #87DME-161027A-213144

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/27/16	10/28/16

Quant Method:	Y0GLYCOL.M
Run #:	1027Y033
Instrument:	Yoda
Sequence:	Y161027
Dilution Factor:	1
Initials:	DA

Printed: 10/28/2016 10:58:54 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y033.D Vial: 33
Acq On : 28 Oct 16 9:11 Operator: MA
Sample : AZ44893W09 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 9:34 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.13	152	276024	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1236585	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.57	164	735382	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1337894	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1204095	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1356731	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

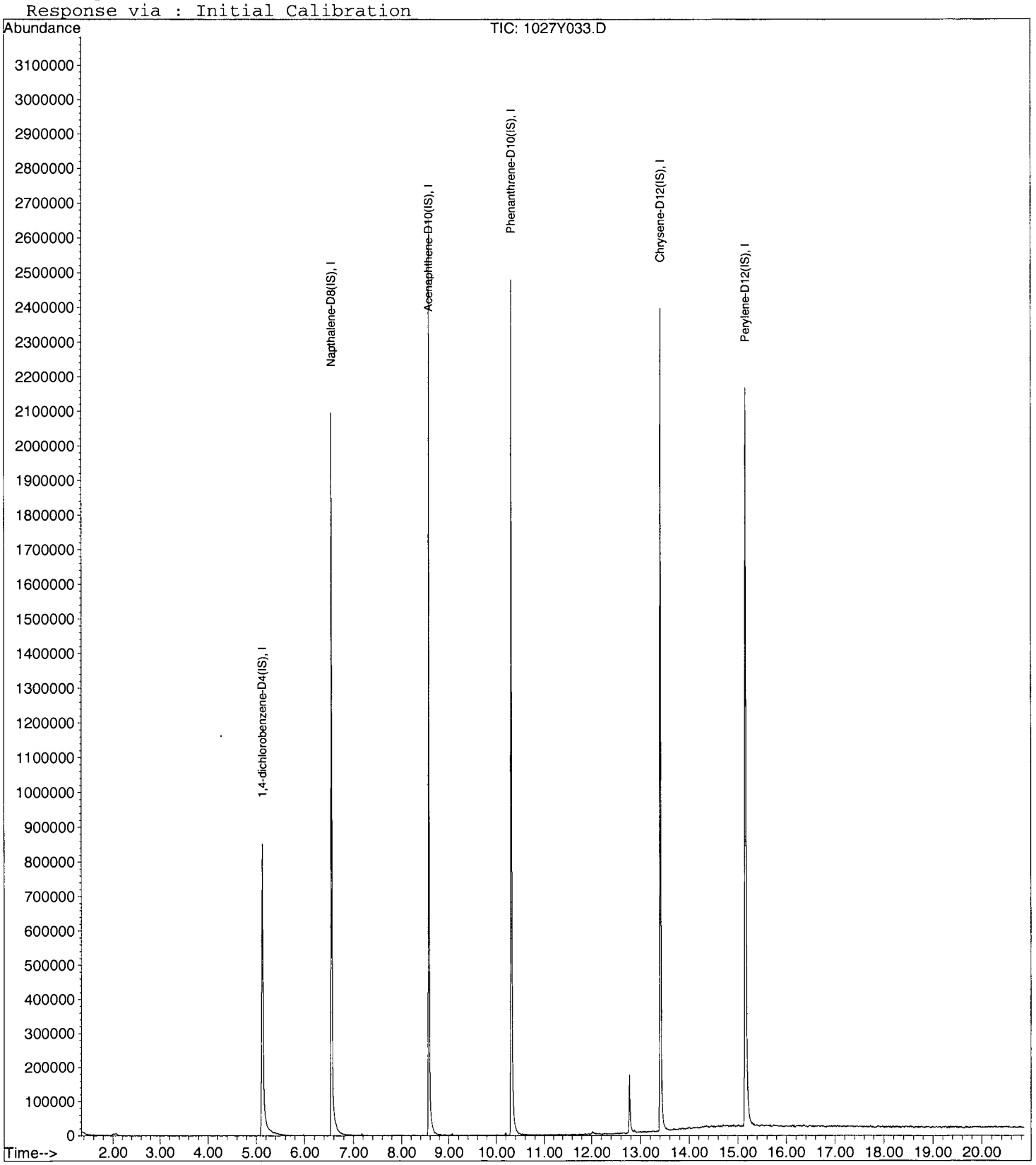
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y033.D Vial: 33
Acq On : 28 Oct 16 9:11 Operator: MA
Sample : AZ44893W09 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 9:34 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



ORGANICS

Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Initial Cal. Date: 10/27/2016

Matrix: Instrument: Yoda Initials:

			1027Y003.D	1027Y004.D	1027Y005.D	1027Y006.D	1027Y007.D	1027Y008.D	1027Y009.D	1027Y010.D						
		Compound	1	2	3	4	5	6	7	8			Avg	%RSD		
1	I	1,4-dichlorobenzene-D4(IS)														
2	TML	2-(2-Methoxyethoxy)ethanol	0.0439	0.0889	0.1458	0.1643	0.1900	0.1994	0.2122	0.2156			0.16	39	TML	0.996
3	I	Napthalene-D8(IS)														
4	I	Acenaphthene-D10(IS)														
5	I	Phenanthrene-D10(IS)														
6	I	Chrysene-D12(IS)														
7	I	Perylene-D12(IS)														
8																
9																
10																
11																
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15																
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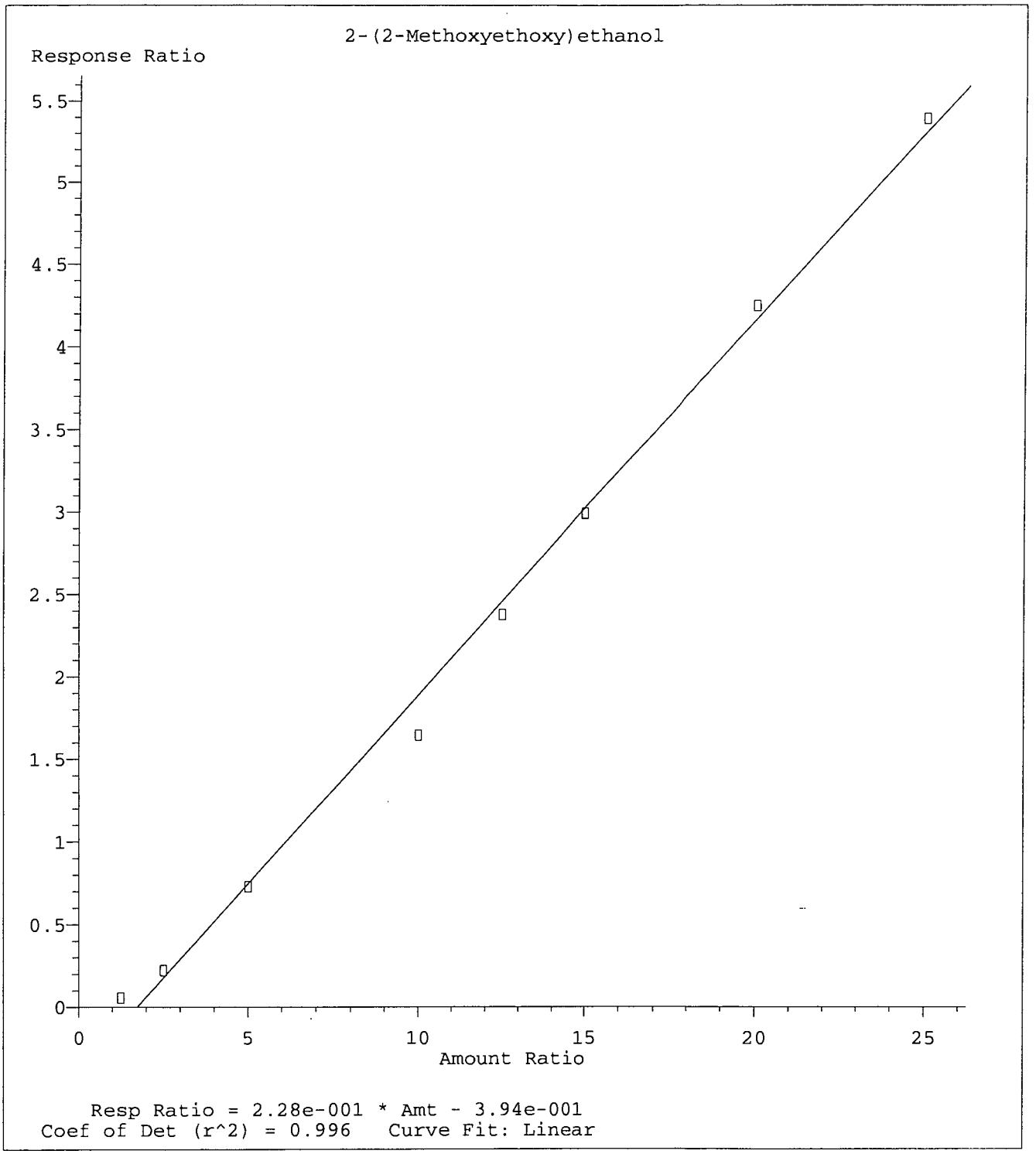


Method Name: M:\YODA\DATA\Y160929\Y0GLYCOL.M
Calibration Table Last Updated: Fri Oct 28 08:26:10 2016

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y003.D Vial: 3
Acq On : 27 Oct 16 18:40 Operator: MA
Sample : 50ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:18 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 21 16:18:29 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.13	152	327778	40.00	ppb	0.02
6) Napthalene-D8(IS)	6.55	136	1437056	40.00	ppb	0.00
8) Acenaphthene-D10(IS)	8.58	164	821152	40.00	ppb	0.00
11) Phenanthrene-D10(IS)	10.31	188	1471944	40.00	ppb	0.00
12) Chrysene-D12(IS)	13.41	240	1333314	40.00	ppb	0.00
15) Perylene-D12(IS)	15.17	264	1192442	40.00	ppb	0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	0.00	112	0	0.00	ppb	
Spiked Amount 200.000			Recovery = 0.000%			
3) Phenol-D6 (S)	4.73	99	359	1095.36	ppb	0.00
Spiked Amount 200.000			Recovery = 547.680%			
7) Nitrobenzene-D5(S)	5.65	82	138	392.26	ppb	-0.04
Spiked Amount 100.000			Recovery = 392.263%			
9) 2-Fluorobiphenyl(S)	0.00	172	0	0.00	ppb	
Spiked Amount 100.000			Recovery = 0.000%			
10) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00	ppb	
Spiked Amount 200.000			Recovery = 0.000%			
13) Terphenyl-D14(S)	12.21	244	152	43.25	ppb	0.00
Spiked Amount 100.000			Recovery = 43.253%			
14) Diethylene Glycol-d6(S)	12.75	TIC	2390	0.00	ppb	-0.02
Spiked Amount 50.000			Recovery = 0.000%			
Target Compounds						Qvalue
5) 2-(2-Methoxyethoxy)ethanol	4.45	45	17975	11.36	ppb	96

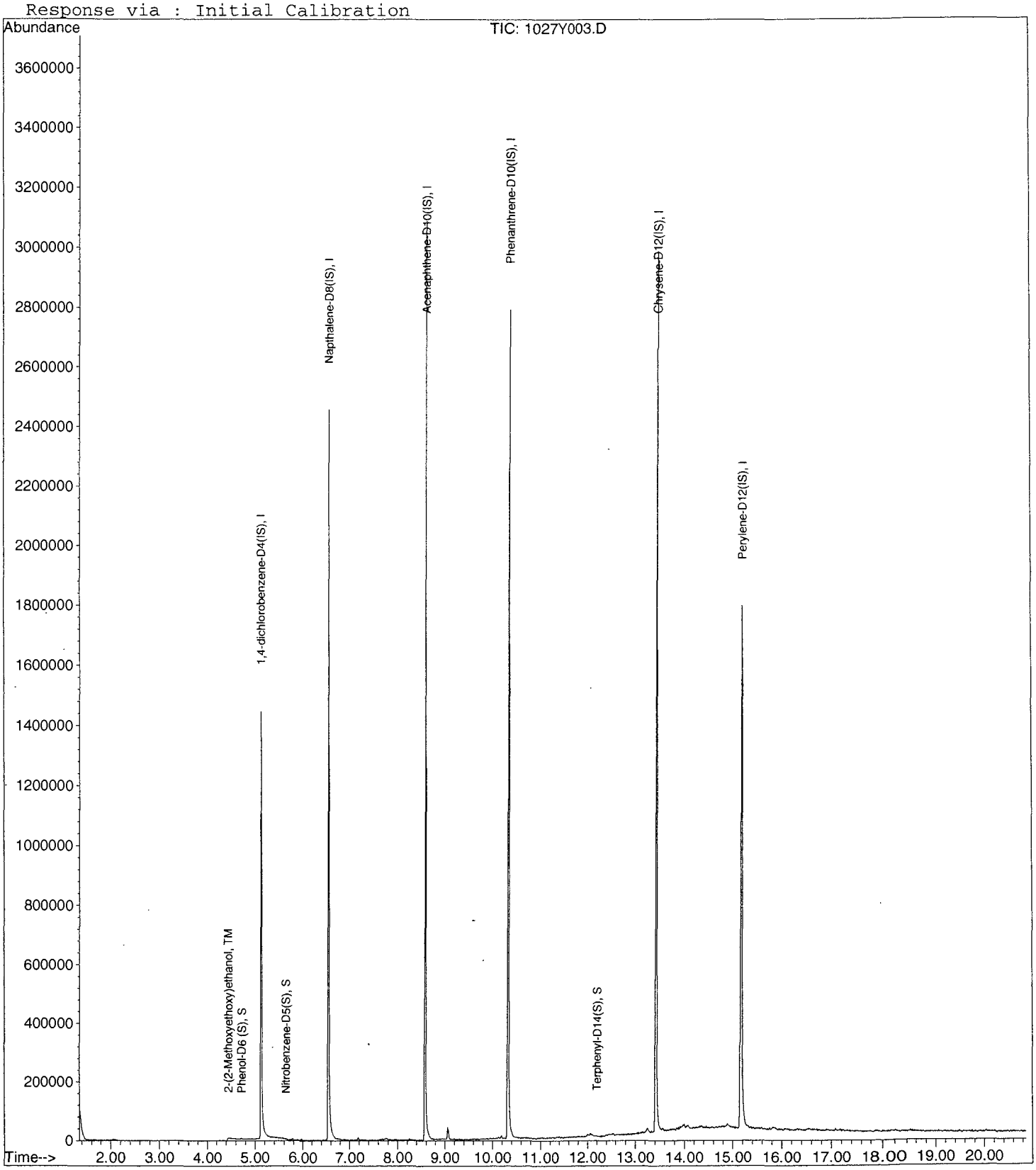
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y003.D Vial: 3
Acq On : 27 Oct 16 18:40 Operator: MA
Sample : 50ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:18 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y004.D Vial: 4
Acq On : 27 Oct 16 19:10 Operator: MA
Sample : 100ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:18 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 21 16:18:29 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	293456	40.00	ppb	0.00
6) Napthalene-D8(IS)	6.55	136	1323096	40.00	ppb	0.00
8) Acenaphthene-D10(IS)	8.58	164	752526	40.00	ppb	0.00
11) Phenanthrene-D10(IS)	10.31	188	1346265	40.00	ppb	0.00
12) Chrysene-D12(IS)	13.41	240	1224496	40.00	ppb	0.00
15) Perylene-D12(IS)	15.16	264	1068147	40.00	ppb	0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	0.00	112	0	0.00	ppb	
Spiked Amount 200.000			Recovery = 0.000%			
3) Phenol-D6 (S)	4.79	99	404	1376.83	ppb	0.05
Spiked Amount 200.000			Recovery = 688.415%			
7) Nitrobenzene-D5(S)	5.60	82	145	447.66	ppb	-0.08
Spiked Amount 100.000			Recovery = 447.660%			
9) 2-Fluorobiphenyl(S)	0.00	172	0	0.00	ppb	
Spiked Amount 100.000			Recovery = 0.000%			
10) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00	ppb	
Spiked Amount 200.000			Recovery = 0.000%			
13) Terphenyl-D14(S)	12.21	244	400	123.94	ppb	0.00
Spiked Amount 100.000			Recovery = 123.939%			
14) Diethylene Glycol-d6(S)	12.75	TIC	8923	0.00	ppb	-0.02
Spiked Amount 50.000			Recovery = 0.000%			
Target Compounds						Qvalue
4) Phenol	4.84	94	149	586.26	ppb #	33
5) 2-(2-Methoxyethoxy)ethanol	4.42	45	65248	46.07	ppb	95

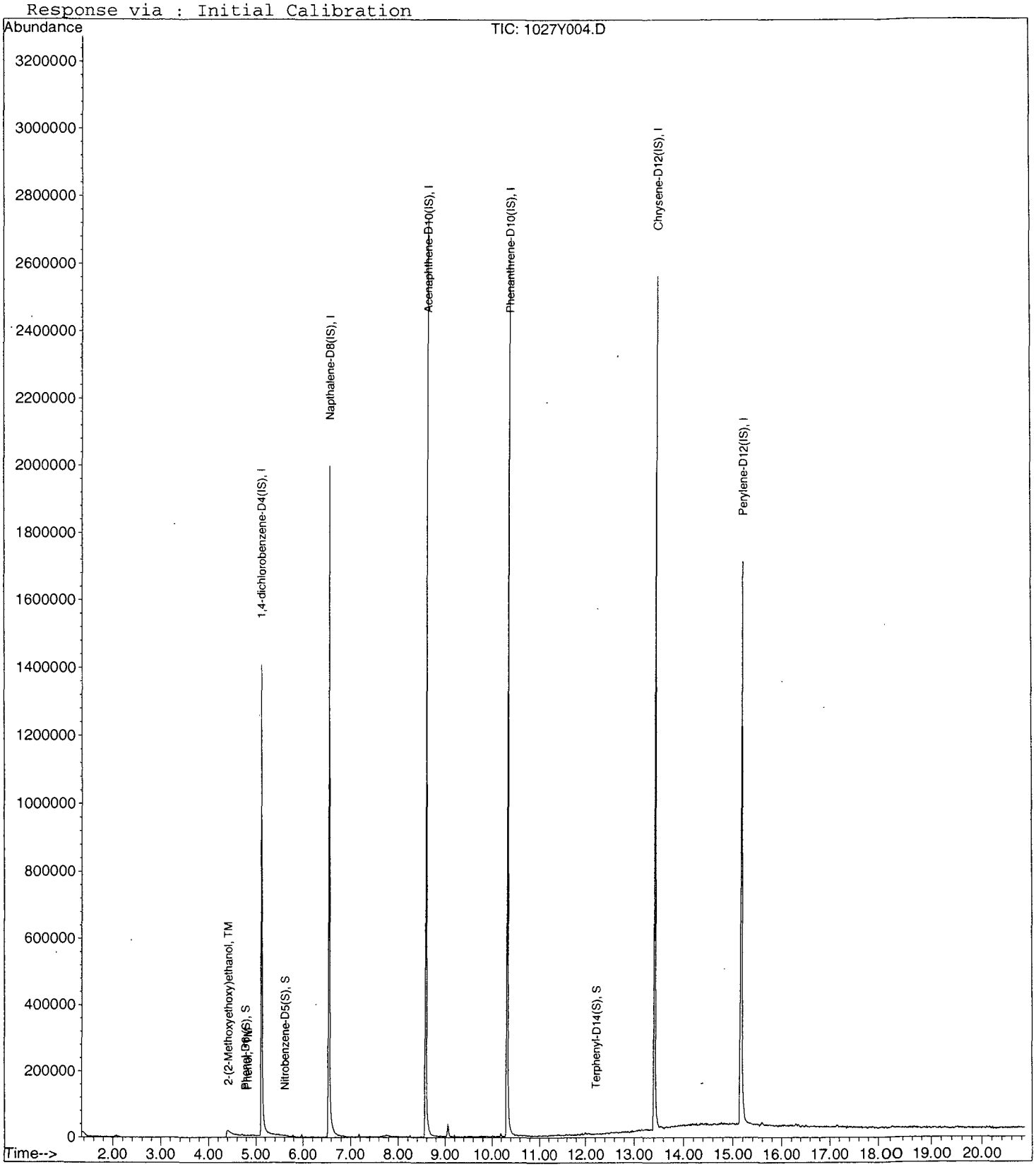
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y004.D Vial: 4
Acq On : 27 Oct 16 19:10 Operator: MA
Sample : 100ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:18 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y005.D Vial: 5
Acq On : 27 Oct 16 19:39 Operator: MA
Sample : 200ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:27 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:21:43 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	307677	40.00	ppb	0.00
6) Napthalene-D8(IS)	6.55	136	1383855	40.00	ppb	0.00
8) Acenaphthene-D10(IS)	8.58	164	770019	40.00	ppb	0.00
11) Phenanthrene-D10(IS)	10.31	188	1403691	40.00	ppb	0.00
12) Chrysene-D12(IS)	13.41	240	1279656	40.00	ppb	0.00
15) Perylene-D12(IS)	15.16	264	1133390	40.00	ppb	0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	0.00	112	0	0.00	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
3) Phenol-D6 (S)	4.86	99	656	367.86	ppb	0.03
Spiked Amount 200.000			Recovery =	183.931%		
7) Nitrobenzene-D5(S)	5.72	82	146	132.48	ppb	0.03
Spiked Amount 100.000			Recovery =	132.483%		
9) 2-Fluorobiphenyl(S)	0.00	172	0	0.00	ppb	
Spiked Amount 100.000			Recovery =	0.000%		
10) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
13) Terphenyl-D14(S)	12.22	244	382	221.73	ppb	0.00
Spiked Amount 100.000			Recovery =	221.733%		
14) Diethylene Glycol-d6(S)	12.74	TIC	2587	0.00	ppb	-0.01
Spiked Amount 50.000			Recovery =	0.000%		
Target Compounds						Qvalue
5) 2-(2-Methoxyethoxy)ethanol	4.34	45	224232m	324.42	ppb	99

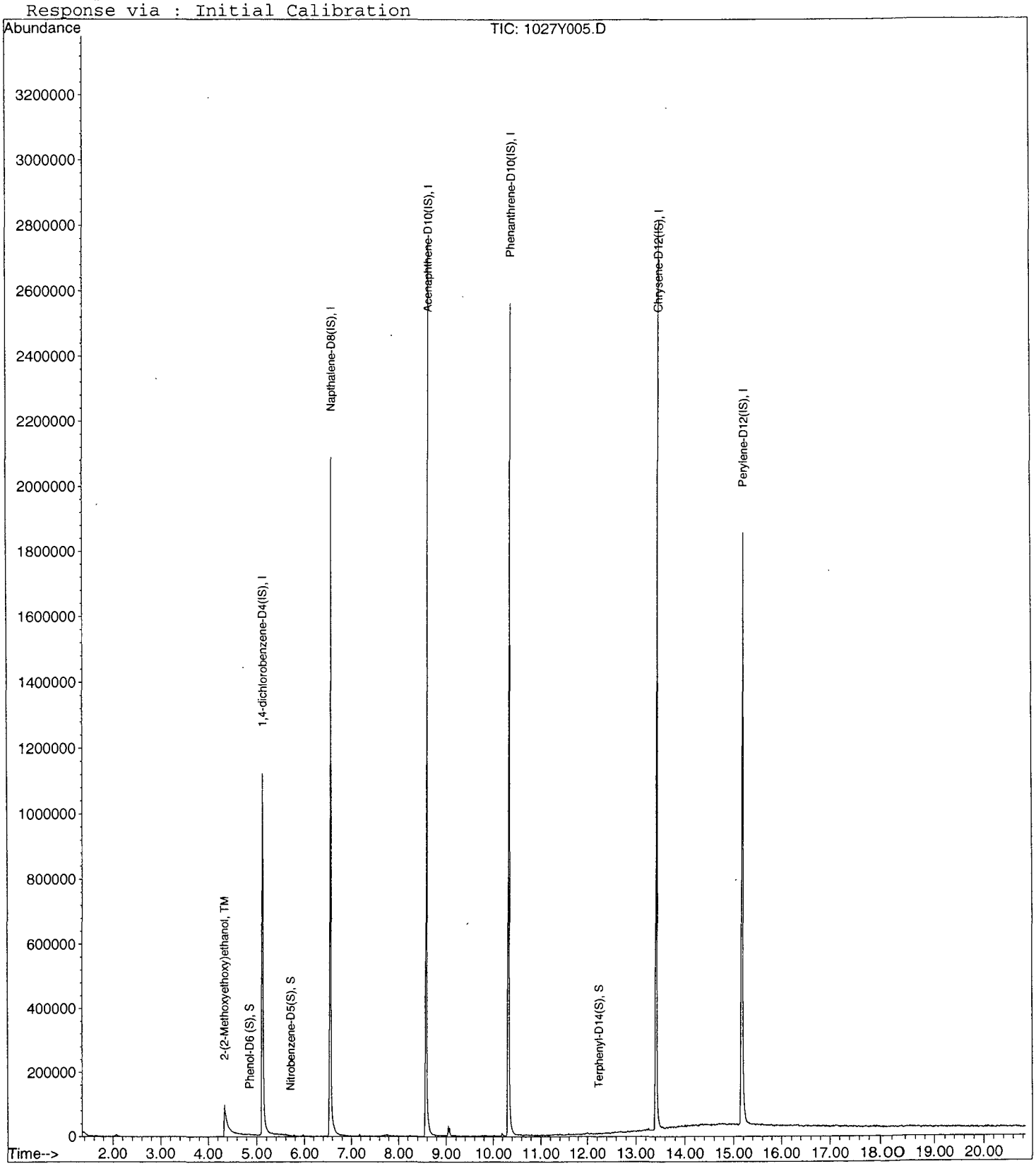
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y005.D Vial: 5
Acq On : 27 Oct 16 19:39 Operator: MA
Sample : 200ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:27 2016 Quant Results File: Y0GLYCOL.RES

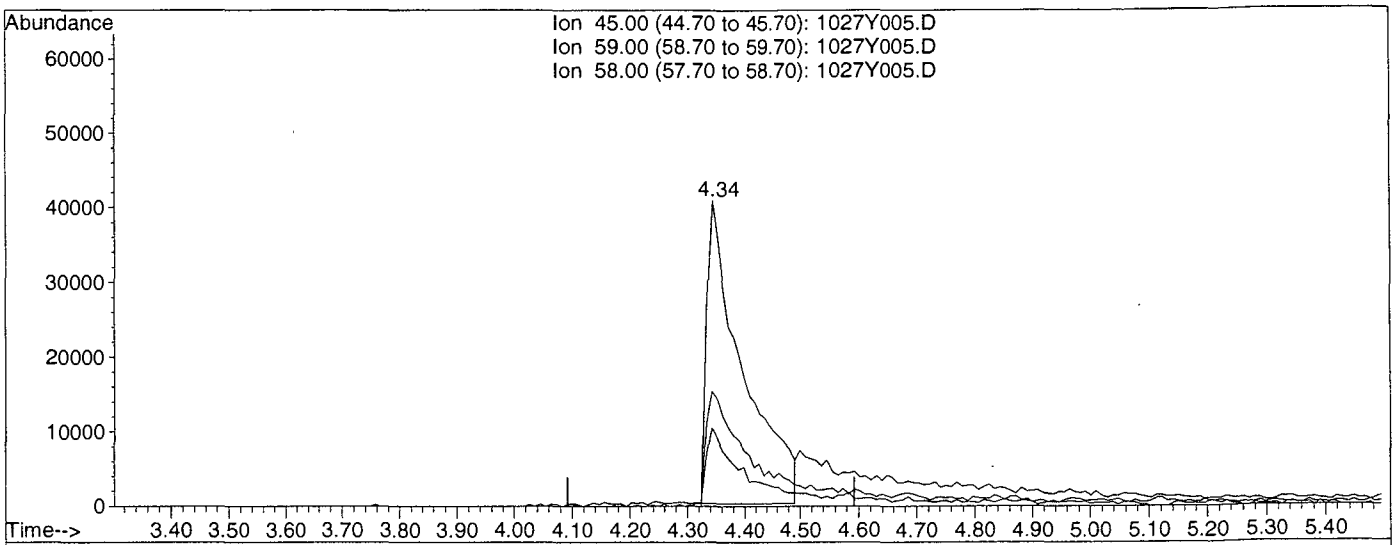
Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration

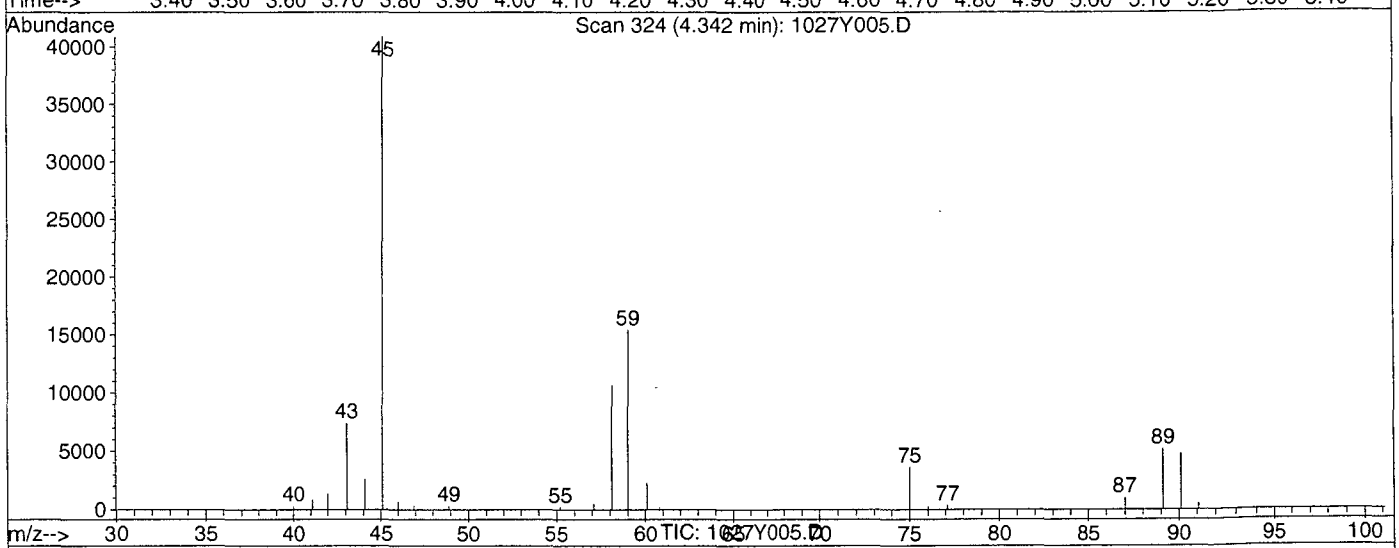


Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y005.D Vial: 5
Acq On : 27 Oct 16 19:39 Operator: MA
Sample : 200ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Oct 28 8:21 2016 Quant Results File: temp.res

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:25:00 2016
Response via : Multiple Level Calibration





(5) 2-(2-Methoxyethoxy)ethanol (TM)

4.34min 254.3455ppb

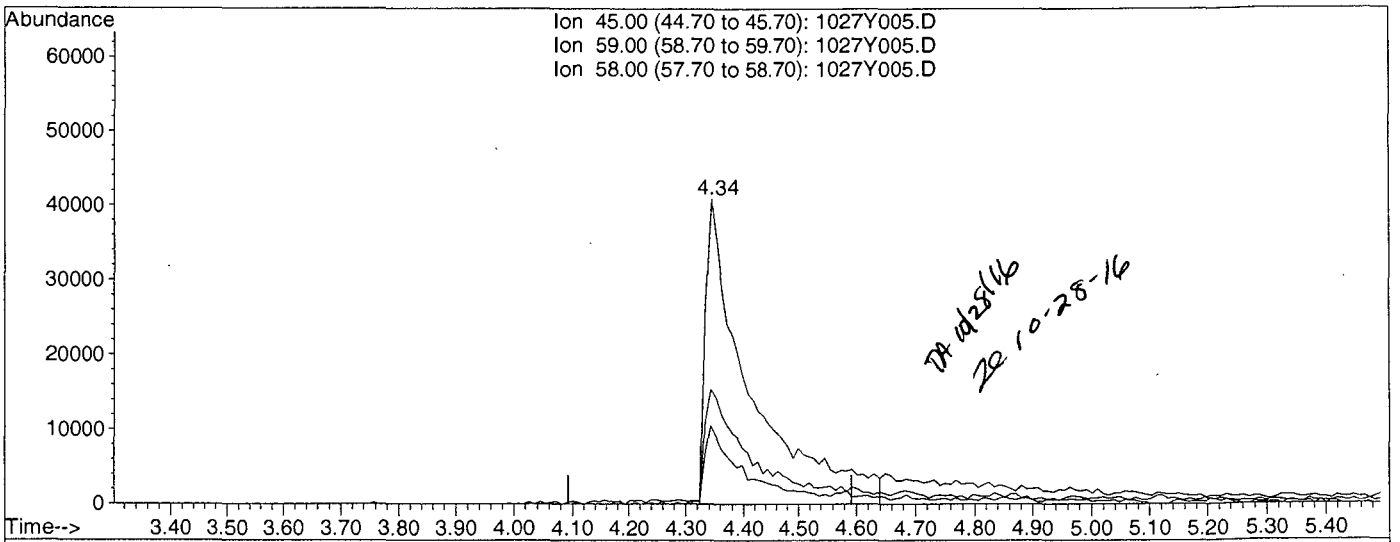
response 175799

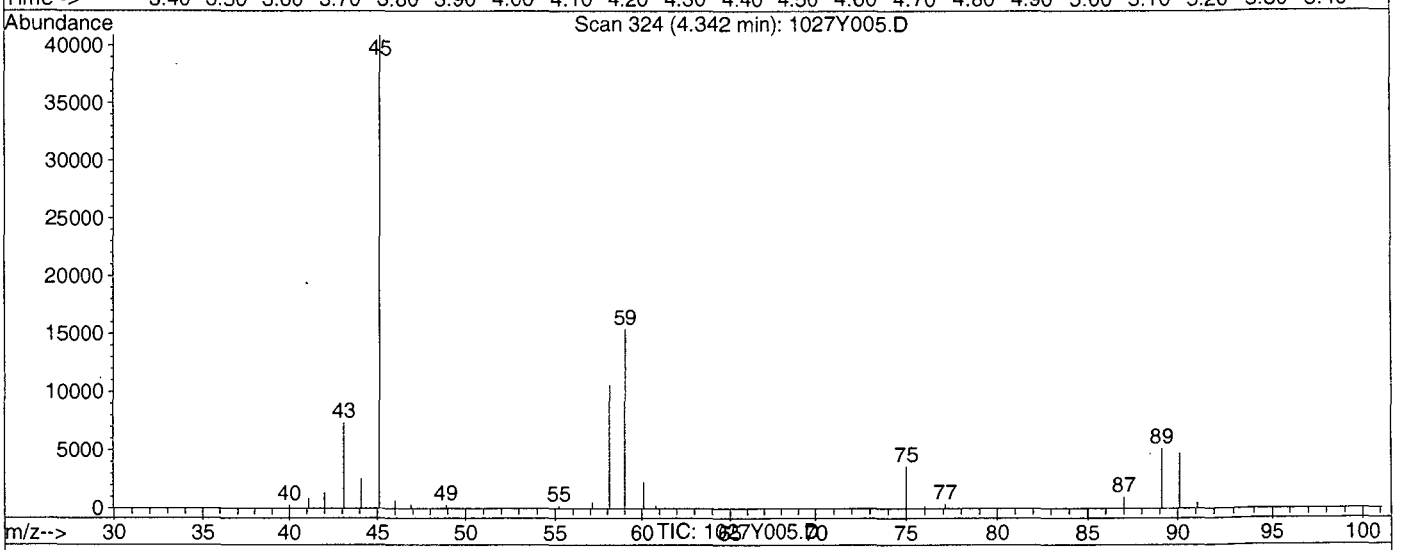
Ion	Exp%	Act%
45.00	100	100
59.00	37.70	38.05
58.00	25.90	25.64
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y005.D Vial: 5
Acq On : 27 Oct 16 19:39 Operator: MA
Sample : 200ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Oct 28 8:27 2016 Quant Results File: temp.res

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:25:00 2016
Response via : Multiple Level Calibration





(5) 2-(2-Methoxyethoxy)ethanol (TM)

4.34min 324.4183ppb m

response 224232

Ion	Exp%	Act%
45.00	100	100
59.00	37.70	37.72
58.00	25.90	25.93
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y006.D Vial: 6
Acq On : 27 Oct 16 20:09 Operator: MA
Sample : 400ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:23 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:22:13 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	294355	40.00 ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1285103	40.00 ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	725616	40.00 ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1305044	40.00 ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1201682	40.00 ppb	0.00
7) Perylene-D12(IS)	15.16	264	1187815	40.00 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.32	45	483744	731.55 ppb	100

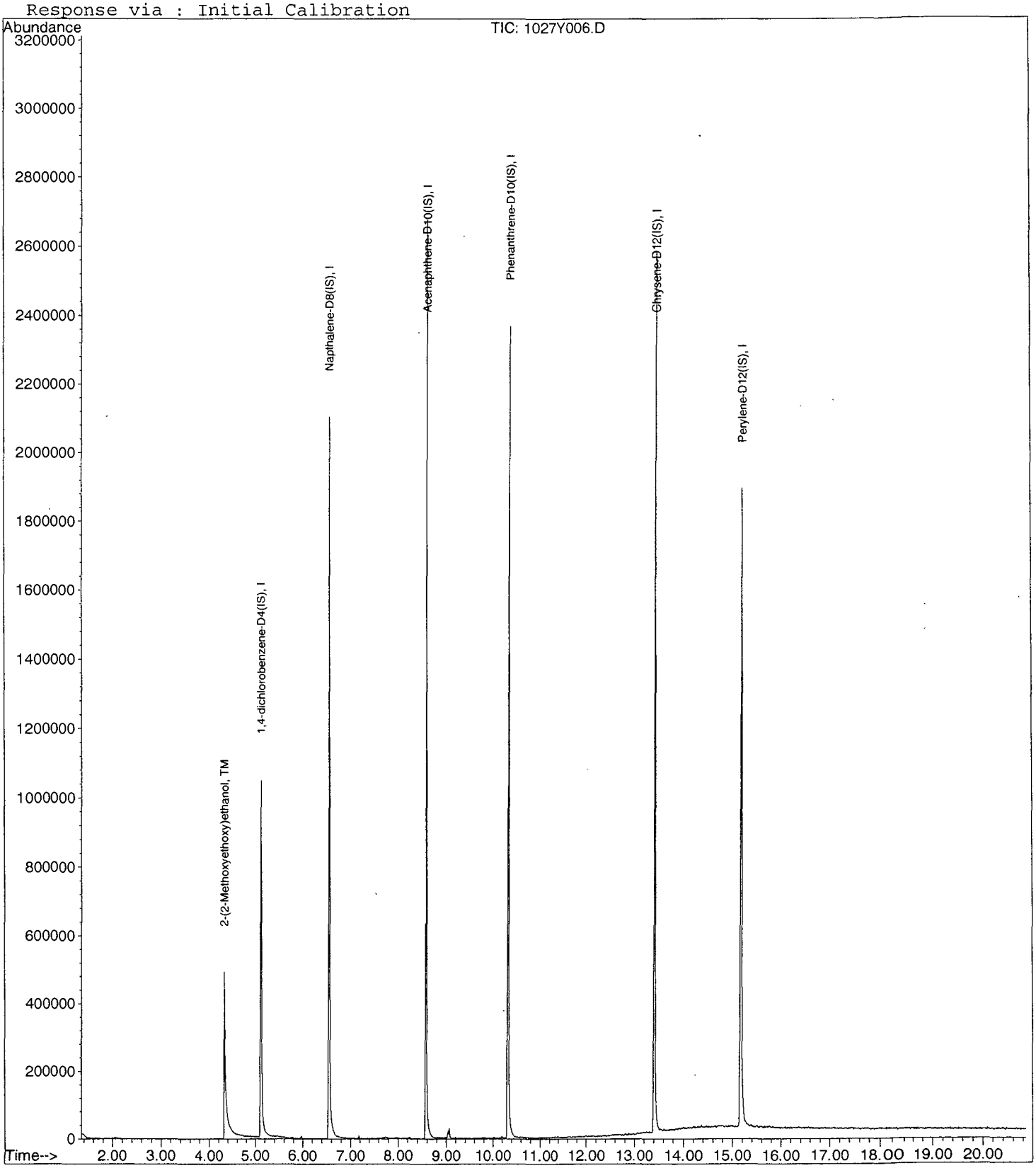
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y006.D Vial: 6
Acq On : 27 Oct 16 20:09 Operator: MA
Sample : 400ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:23 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y007.D Vial: 7
Acq On : 27 Oct 16 20:39 Operator: MA
Sample : 500ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:23 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:22:13 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	308248	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1348651	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	765702	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1384410	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1254676	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1397202	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.33	45	732151	1057.31	ppb	95

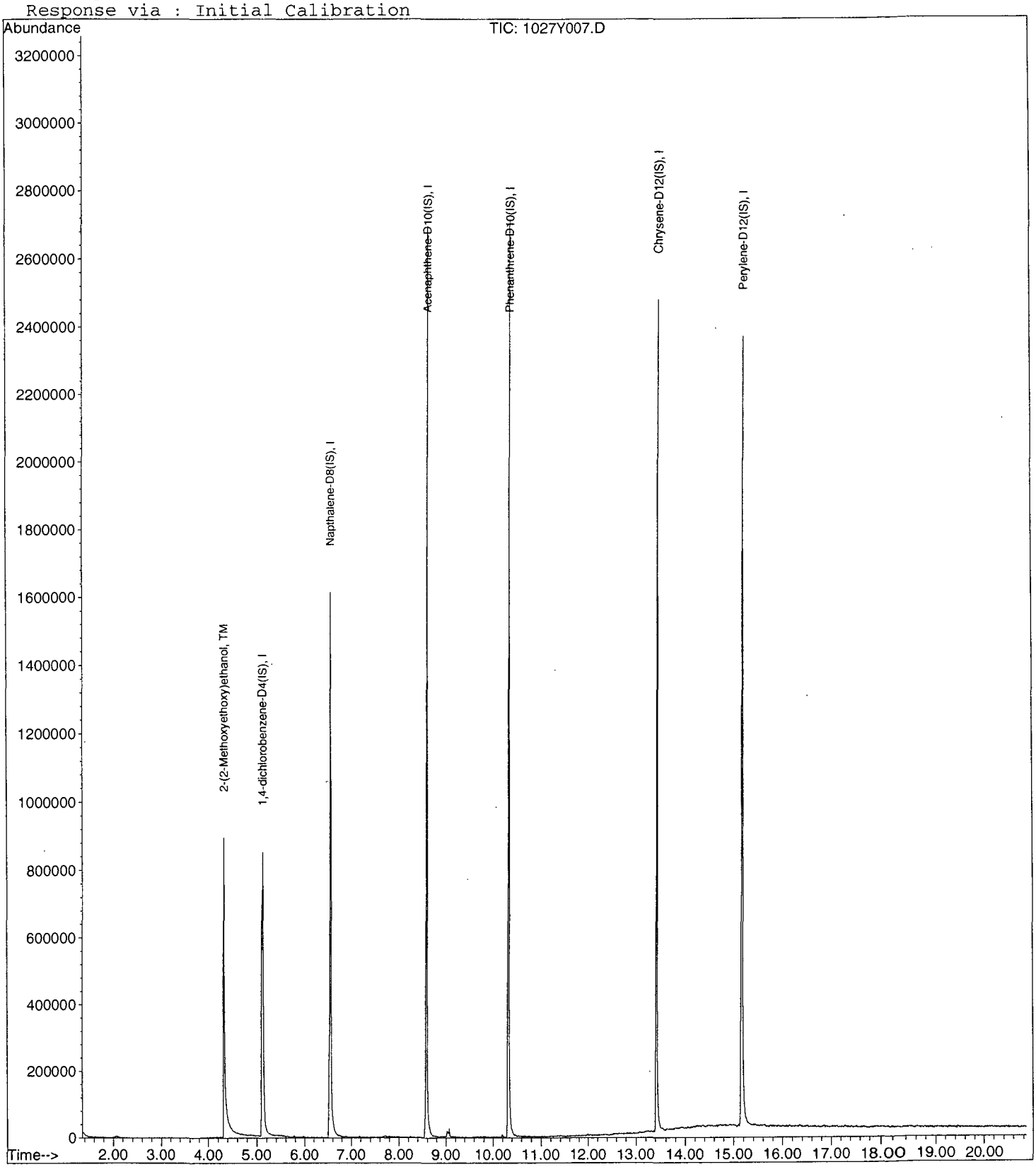
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y007.D Vial: 7
Acq On : 27 Oct 16 20:39 Operator: MA
Sample : 500ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:23 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y008.D Vial: 8
Acq On : 27 Oct 16 21:08 Operator: MA
Sample : 600ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:23 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:22:13 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	307468	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1329951	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	771961	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1375007	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1269842	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1176305	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.33	45	919727	1331.56	ppb	97

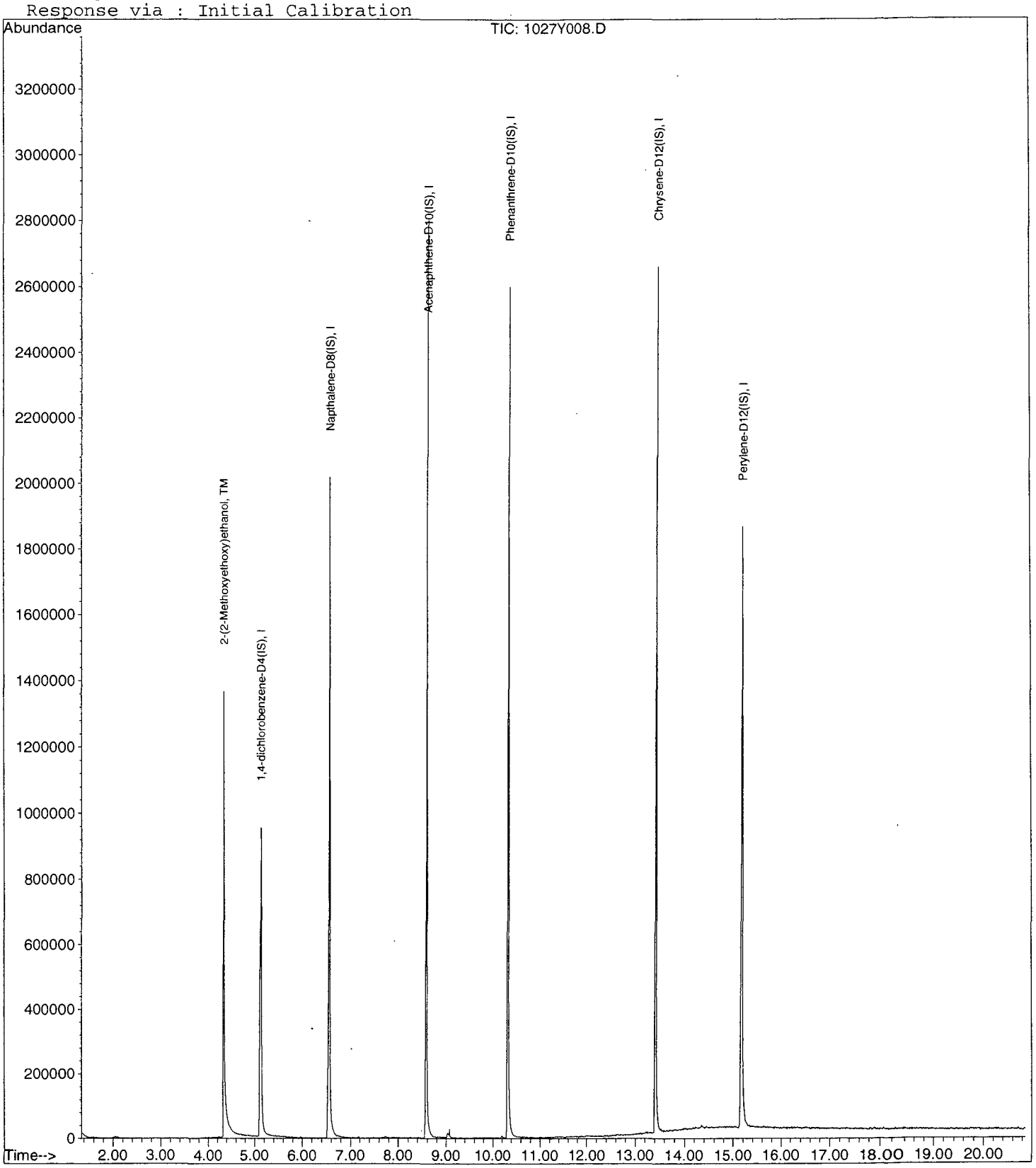
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y008.D Vial: 8
Acq On : 27 Oct 16 21:08 Operator: MA
Sample : 600ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:23 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y009.D Vial: 9
Acq On : 27 Oct 16 21:38 Operator: MA
Sample : 800ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:24 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:22:13 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	283606	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1267339	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.57	164	716538	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1287526	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1196228	40.00	ppb	0.00
7) Perylene-D12(IS)	15.18	264	3605536	40.00	ppb	0.02
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.33	45	1203766	1889.42	ppb	98

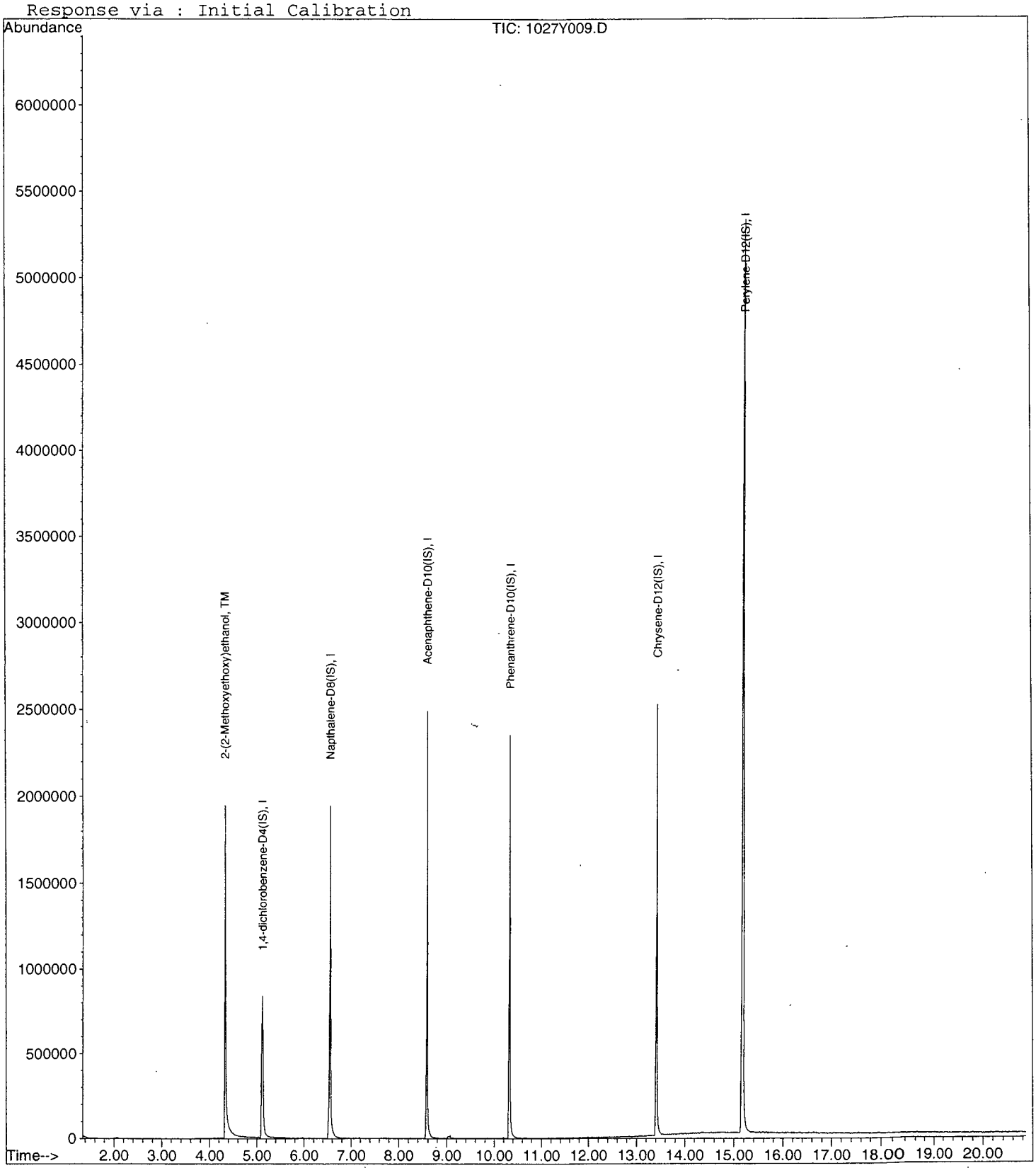
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y009.D Vial: 9
Acq On : 27 Oct 16 21:38 Operator: MA
Sample : 800ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:24 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y010.D Vial: 10
Acq On : 27 Oct 16 22:07 Operator: MA
Sample : 1000ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:24 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:22:13 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.12	152	291465	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1260168	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	721600	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1301310	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1168546	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1521994	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.35	45	1570840	2399.10	ppb	96

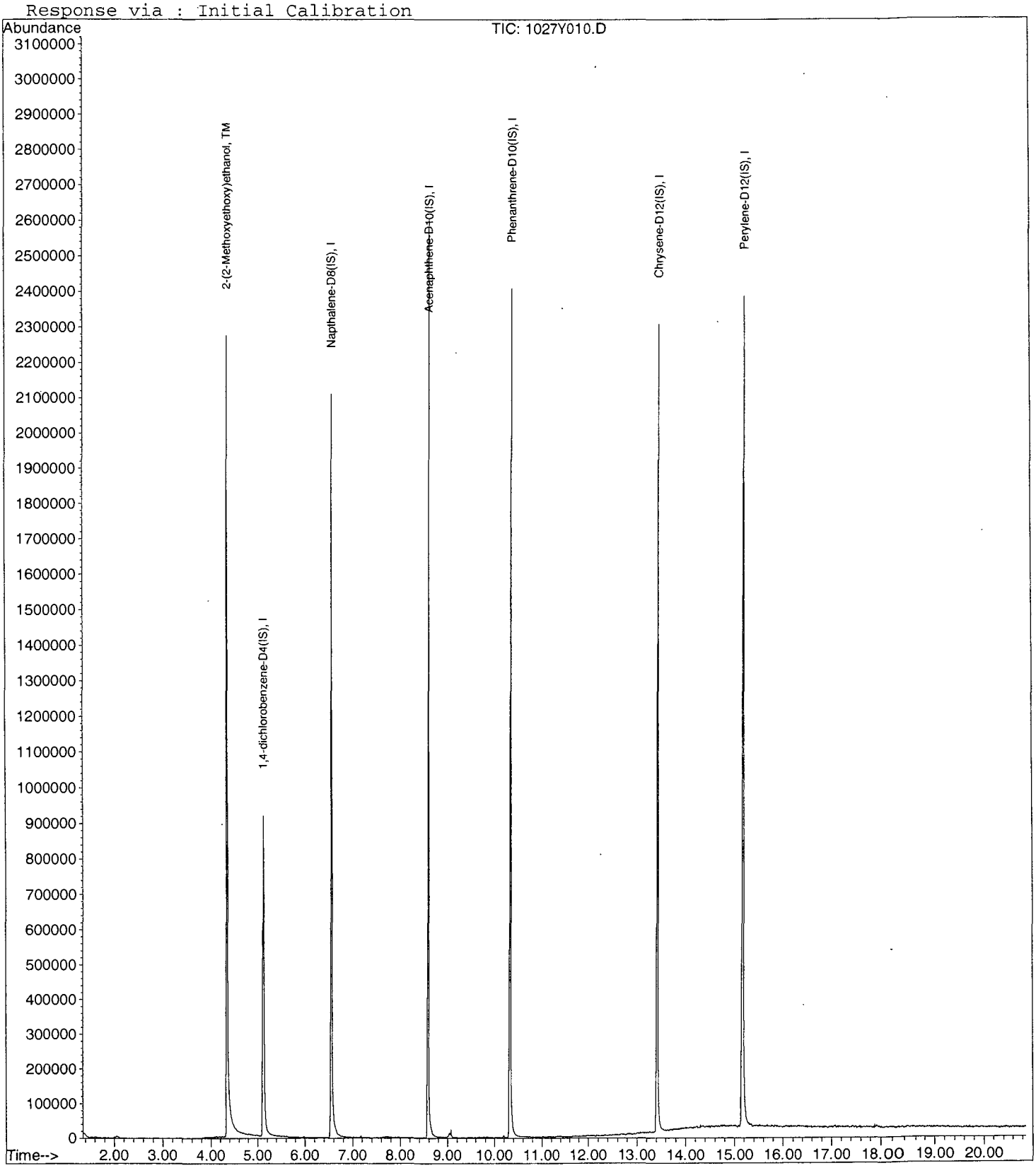
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y010.D Vial: 10
Acq On : 27 Oct 16 22:07 Operator: MA
Sample : 1000ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:24 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 10/27/2016
Instrument: Yoda
Initial Cal. Date: 10/27/2016
Data File: 1027Y012.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TML	2-(2-Methoxyethoxy)ethanol	0.1575	0.2158	37	TML	8.5
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
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28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			37.0		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y012.D Vial: 12
Acq On : 27 Oct 16 23:07 Operator: MA
Sample : SS2 DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:38 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.13	152	287842	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1271816	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	733959	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1323244	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1205335	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1075089	40.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.33	45	776493	542.48	ppb	96

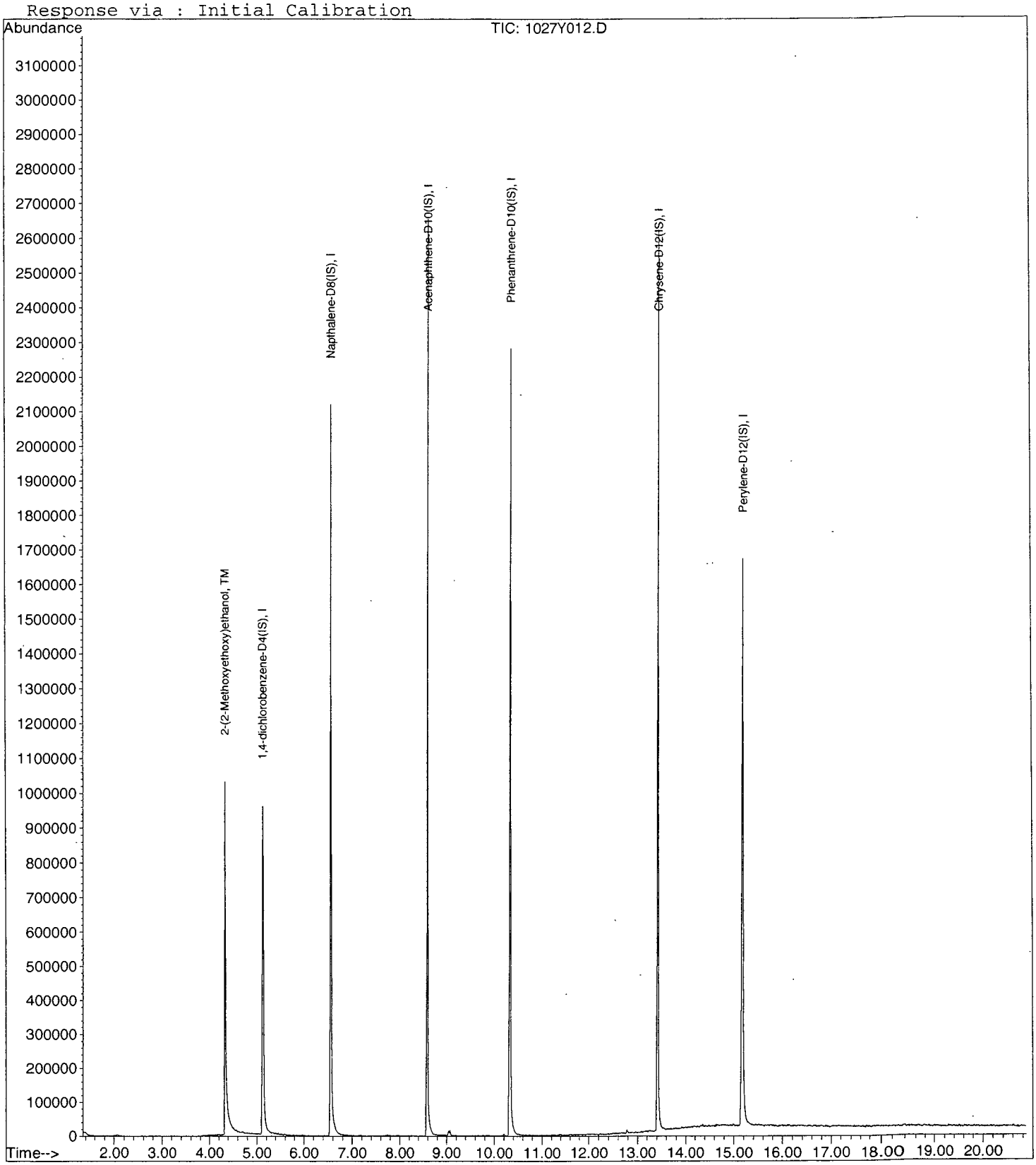
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y012.D Vial: 12
Acq On : 27 Oct 16 23:07 Operator: MA
Sample : SS2 DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:38 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Date Analyzed: 10/28/2016

Matrix: Instrument: Yoda

Initial Cal. Date: 10/27/2016

Data File: 1027Y037.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TML	2-(2-Methoxyethoxy)ethanol	0.1575	0.1452	7.8	TML	22
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
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27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			7.8		

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y037.D Vial: 37
Acq On : 28 Oct 16 10:51 Operator: MA
Sample : 500ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 11:10 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.13	152	278299	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1240492	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	731404	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1287945	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1196766	40.00	ppb	0.00
7) Perylene-D12(IS)	15.16	264	1231043	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.34	45	505144	387.62	ppb	95

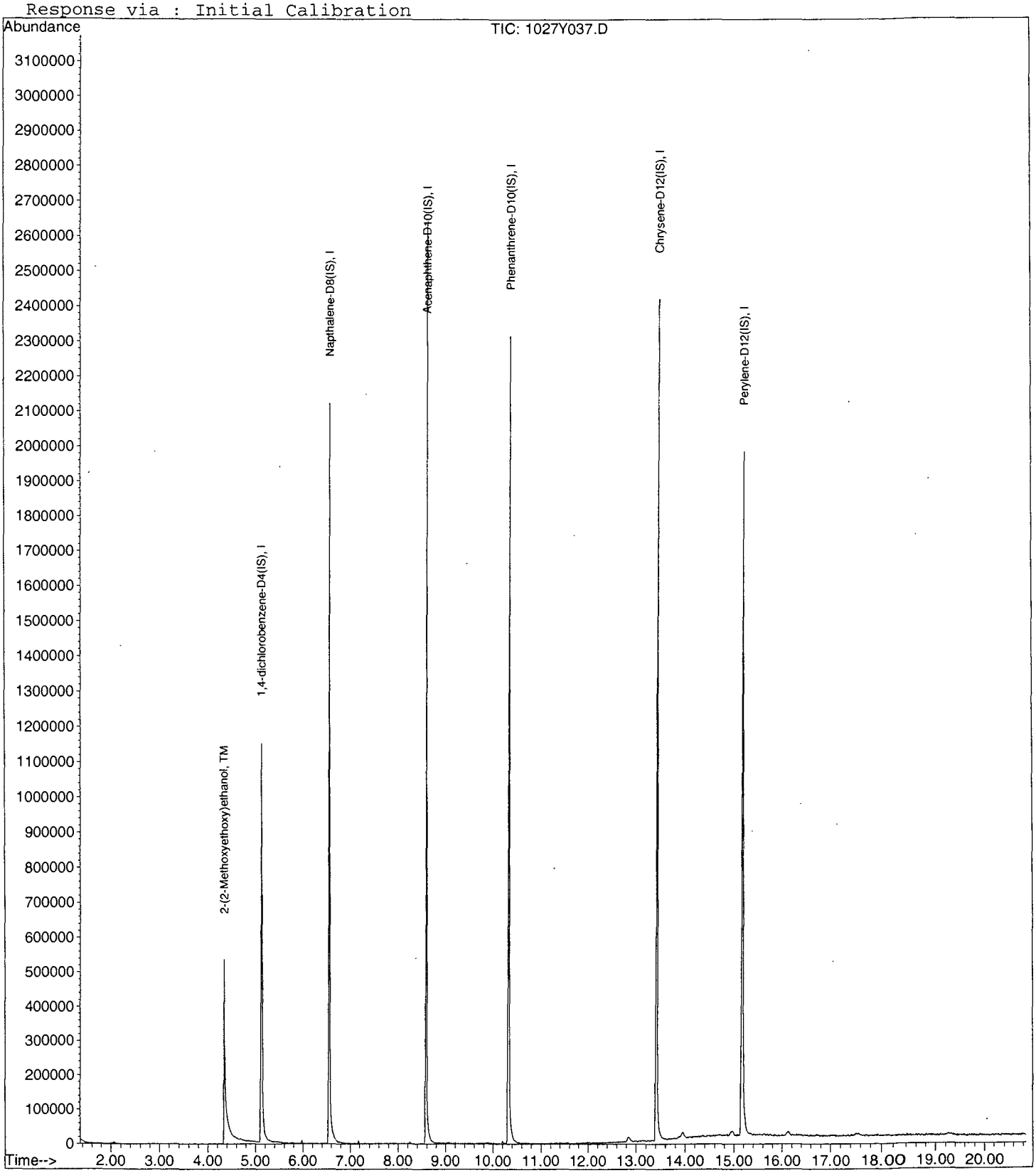
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y037.D Vial: 37
Acq On : 28 Oct 16 10:51 Operator: MA
Sample : 500ug/ml DEG 10/27/16 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 11:10 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



ORGANICS

Raw Data

APPL, INC.

Method Blank

EPA 8270D MODIFIED WATER

Blank Name/QCG: **161027W-44579 - 213144**
Batch ID: #87DME-161027A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	10/27/2016	10/27/2016

Quant Method: Y0GLYCOL.
Run #: 1027Y014
Instrument: Yoda
Sequence: Y161027
Initials: DA

GC SC-Blank-REG MDLs-DOD
Printed: 10/28/2016 10:59:08 AM

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y014.D Vial: 14
Acq On : 27 Oct 16 23:49 Operator: MA
Sample : 161027A BLK 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:40 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.13	152	287469	40.00	ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1297927	40.00	ppb	0.00
4) Acenaphthene-D10(IS)	8.57	164	762494	40.00	ppb	0.00
5) Phenanthrene-D10(IS)	10.32	188	1358368	40.00	ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1249844	40.00	ppb	0.00
7) Perylene-D12(IS)	15.17	264	1500410	40.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

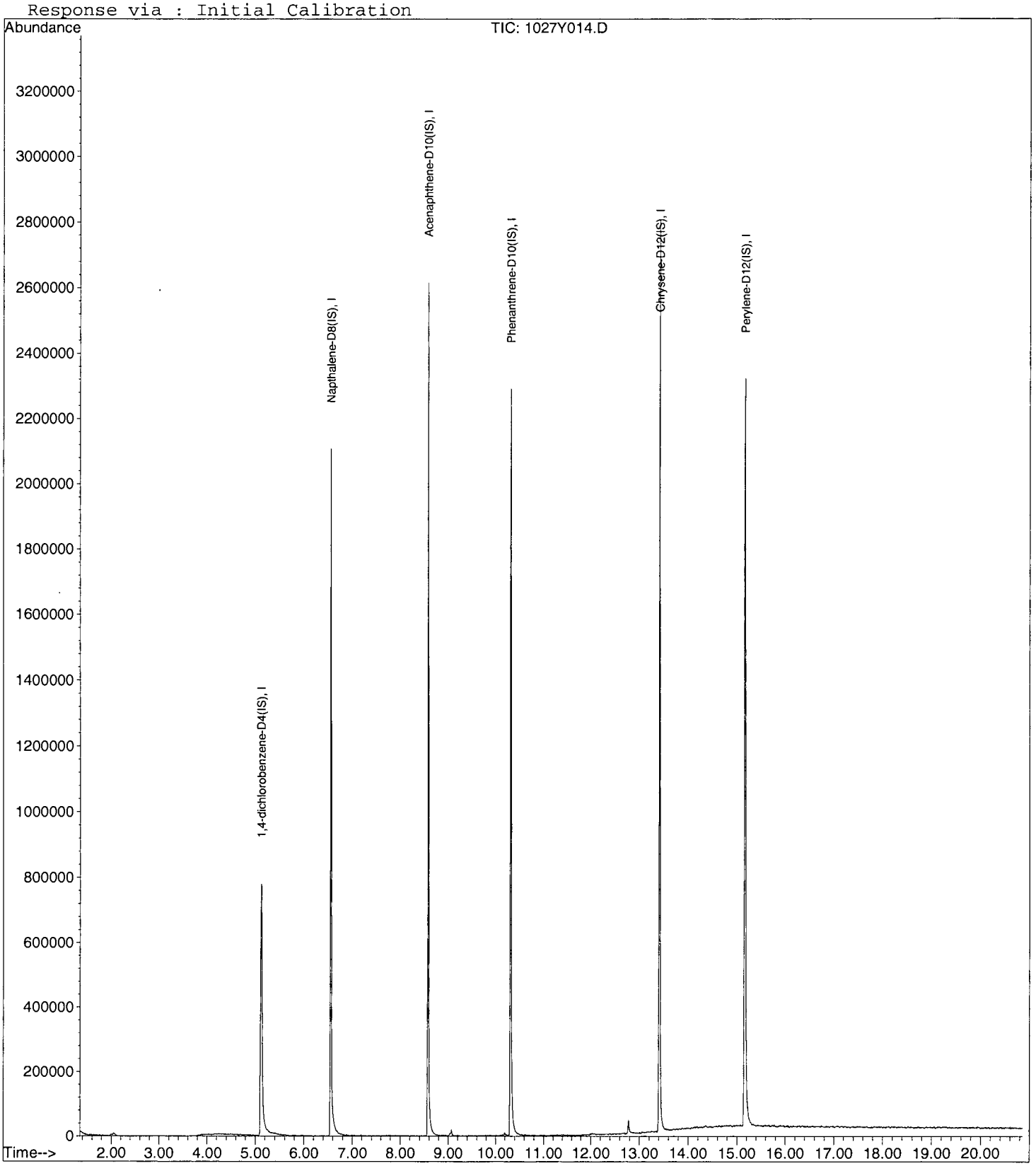
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y161027\1027Y014.D Vial: 14
Acq On : 27 Oct 16 23:49 Operator: MA
Sample : 161027A BLK 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:40 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8270D MODIFIED WATER

APPL ID: **161027W-44579 LCS - 213144**
Batch ID: #87DME-161027A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2-(2-METHOXYETHOXY)-ETHANOL	500	500	100	30-130

Comments: _____

Primary	SPK
Quant Method :	Y0GLYCOL.M
Extraction Date :	10/27/2016
Analysis Date :	10/28/2016
Instrument :	Yoda
Run :	1027Y015
Initials :	DA

Printed: 10/28/2016 10:59:03 AM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y161027\1027Y015.D Vial: 15
Acq On : 28 Oct 16 00:19 Operator: MA
Sample : 161027A LCS-1 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:40 2016 Quant Results File: Y0GLYCOL.RES

Quant Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.13	152	289042	40.00 ppb	0.00
3) Napthalene-D8(IS)	6.55	136	1322799	40.00 ppb	0.00
4) Acenaphthene-D10(IS)	8.58	164	755323	40.00 ppb	0.00
5) Phenanthrene-D10(IS)	10.31	188	1355109	40.00 ppb	0.00
6) Chrysene-D12(IS)	13.41	240	1247856	40.00 ppb	0.00
7) Perylene-D12(IS)	15.16	264	1578669	40.00 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.41	45	710274	500.32 ppb	99

$$\frac{\left[\left(710274/289042\right) + 6.394\right] \times 40.0}{0.228} = 500.2$$

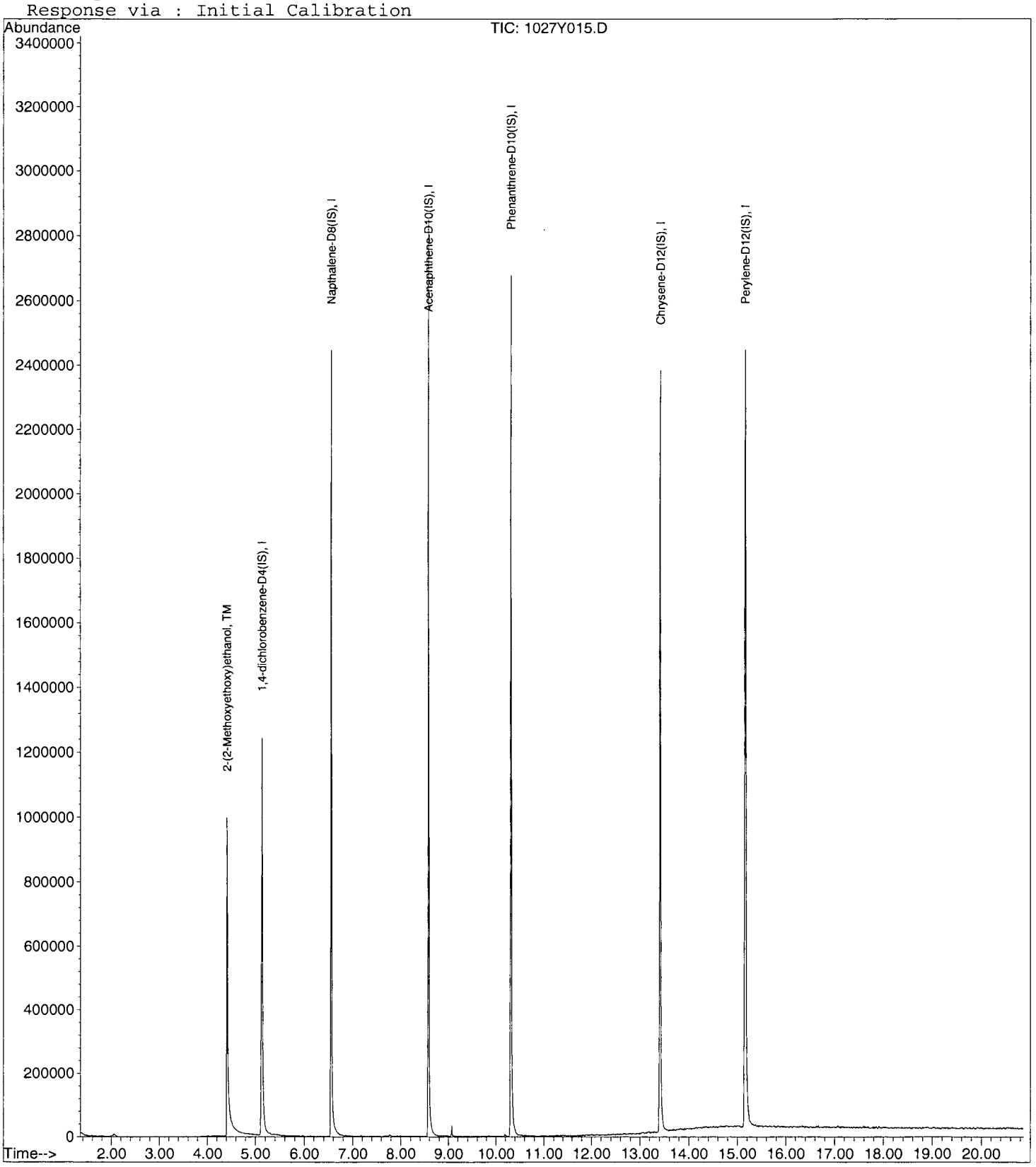
JR 10-28-16

(#) = qualifier out of range (m) = manual integration
1027Y015.D Y0GLYCOL.M Fri Oct 28 10:02:32 2016 Page 1

Data File : M:\YODA\DATA\Y161027\1027Y015.D Vial: 15
Acq On : 28 Oct 16 00:19 Operator: MA
Sample : 161027A LCS-1 2/500 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Oct 28 8:40 2016 Quant Results File: Y0GLYCOL.RES

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Oct 28 08:26:10 2016
Response via : Initial Calibration



_MWE3535

Organic Extraction Worksheet

Method	EPA Method 3535A	Extraction Set	161027A	Extraction Method	MWE3535	Units	mL

Spiked ID 1	DEG W/SURROGATE STD 1000ug/mL10-19-16 exp 10-19-17		Surrogate ID 1		
Spiked ID 2	DEG SS 10-20-16 exp 10-20-17		Surrogate ID 2		
Spiked ID 3	MEE 1154Q ug/mL 9-27-16 exp 9-27-17		Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	10/27/16 11:20	
Spiked ID 8			Ext. End Time:	10/27/16 16:45	
			GC Requires Extract By:	10/26/16 0:00	

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: KY **Date** 10/27/16 **Witnessed By:** CFM **Date** 10/27/16

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	161027A Blk				NA	NA equip	500	2	7	10/27/16 11:20	
2	161027A LCS-1		0.250	1	NA	NA equip	500	2	7	10/27/16 11:20	
3	AZ44505	AZ44505W11			NA	NA equip	500	2	7	10/27/16 11:20	81222 7 DAYS
4	AZ44579 MS-1	AZ44579W34	0.250	1	NA	NA equip	500	2	7	10/27/16 11:20	81236 7 DAYS
5	AZ44579 MSD-1	AZ44579W34	0.250	1	NA	NA equip	500	2	7	10/27/16 11:20	81236 7 DAYS
6	AZ44579	AZ44579W31			NA	NA equip	500	2	7	10/27/16 11:20	81236 7 DAYS
7	AZ44580	AZ44580W10			NA	NA equip	500	2	7	10/27/16 11:20	81236 7 DAYS
8	AZ44581	AZ44581W12			NA	NA equip	500	2	7	10/27/16 11:20	81236 7 DAYS
9	AZ44687	AZ44687W15			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
10	AZ44688	AZ44688W16			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
11	AZ44689	AZ44689W11			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
12	AZ44690	AZ44690W11			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
13	AZ44691	AZ44691W13			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
14	AZ44692	AZ44692W09			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
15	AZ44693	AZ44693W08			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
16	AZ44694	AZ44694W15			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	8088703
PH Strip	HC 574756
DI WATER	10-27-16
Dichloromethane	56098
METHANOL	060316C

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	RH
Date	10/27/16
Time	5:00
Refrigerator	GC-CR Hobert

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	KY,CFM

Modified	10/27/16 11:46:32 AM

Reviewed By: Ky **Date** 10/27/16

Organic Extraction Worksheet

Method	EPA Method 3535A	Extraction Set	161027A	Extraction Method	MWE3535	Units	mL

Spiked ID 1	DEG W/SURROGATE STD 1000ug/mL10-19-16 exp 10-19-17		Surrogate ID 1		
Spiked ID 2	DEG SS 10-20-16 exp 10-20-17		Surrogate ID 2		
Spiked ID 3	MEE 1154Q ug/mL 9-27-16 exp 9-27-17		Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	10/27/16 11:20	
Spiked ID 8			Ext. End Time:	10/27/16 16:45	
			GC Requires Extract By:	**10/26/16 0:00**	

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: KY **Date** 10/27/16 **Witnessed By:** CFM **Date** 10/27/16

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ44695	AZ44695W11			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
18	AZ44696	AZ44696W07			NA	NA equip	500	2	7	10/27/16 11:20	81251 7 DAYS
19	AZ44891	AZ44891W20			NA	NA equip	500	2	7	10/27/16 11:20	81287 7 DAYS
20	AZ44893	AZ44893W09			NA	NA equip	500	2	7	10/27/16 11:20	81287 7 DAYS
21	M STD		1	1	NA	NA equip	500	2	7	10/27/16 11:20	
22	SS		1	2	NA	NA equip	500	2	7	10/27/16 11:20	
23	SS 2		0.087	3	NA	NA equip	500	2	7	10/27/16 11:20	

KY 10/27/16

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	8088703
PH Strip	HC 574756
DI WATER	10-27-16
Dichloromethane	56098
METHANOL	060316C

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	KY,CFM

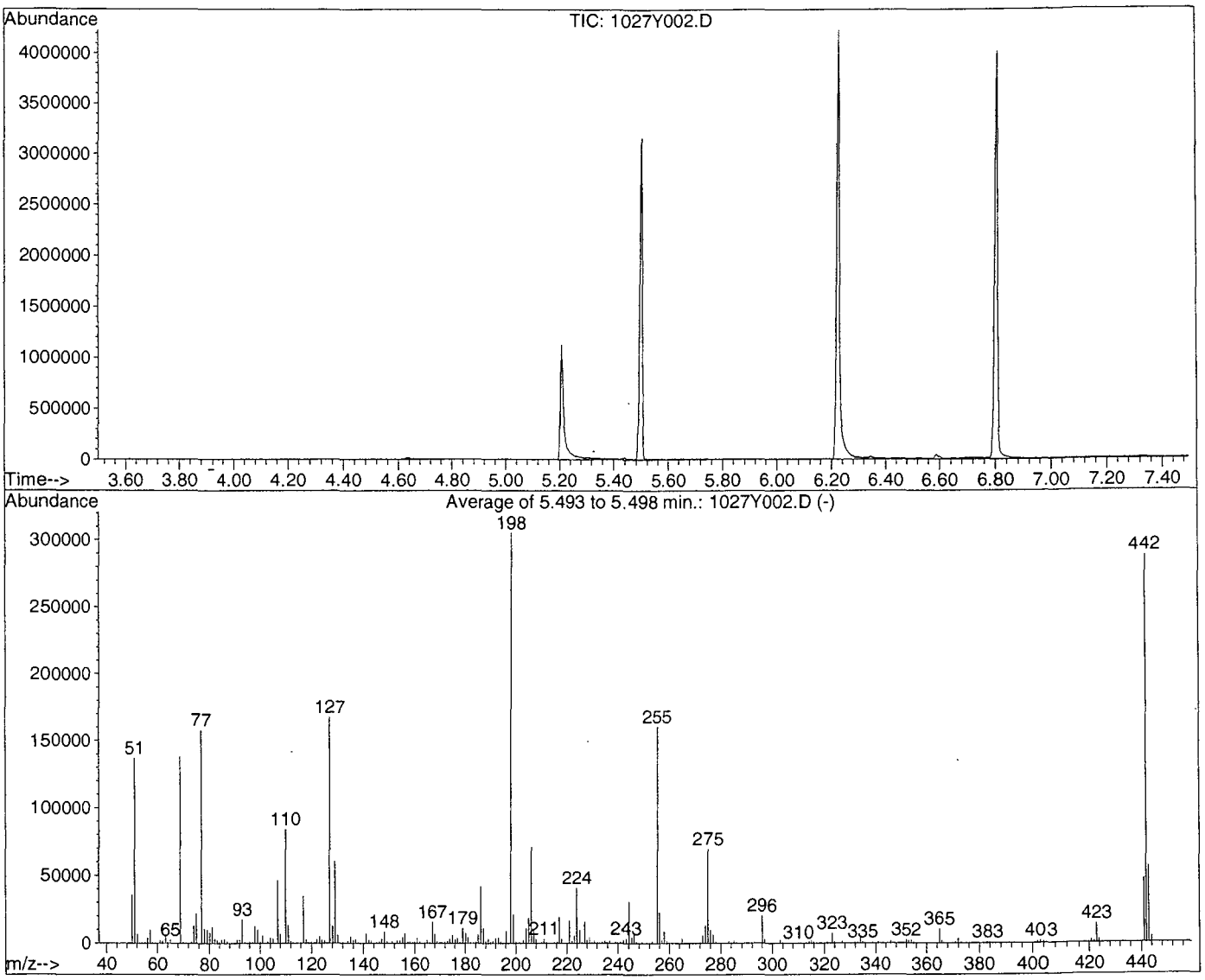
Modified	10/27/16 11:46:32 AM

Reviewed By: KY **Date** 10/27/16

DFTPP

Data File : M:\YODA\DATA\Y161027\1027Y002.D Vial: 2
Acq On : 27 Oct 16 18:24 Operator: MA
Sample : SV Tune 10/19/16 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C



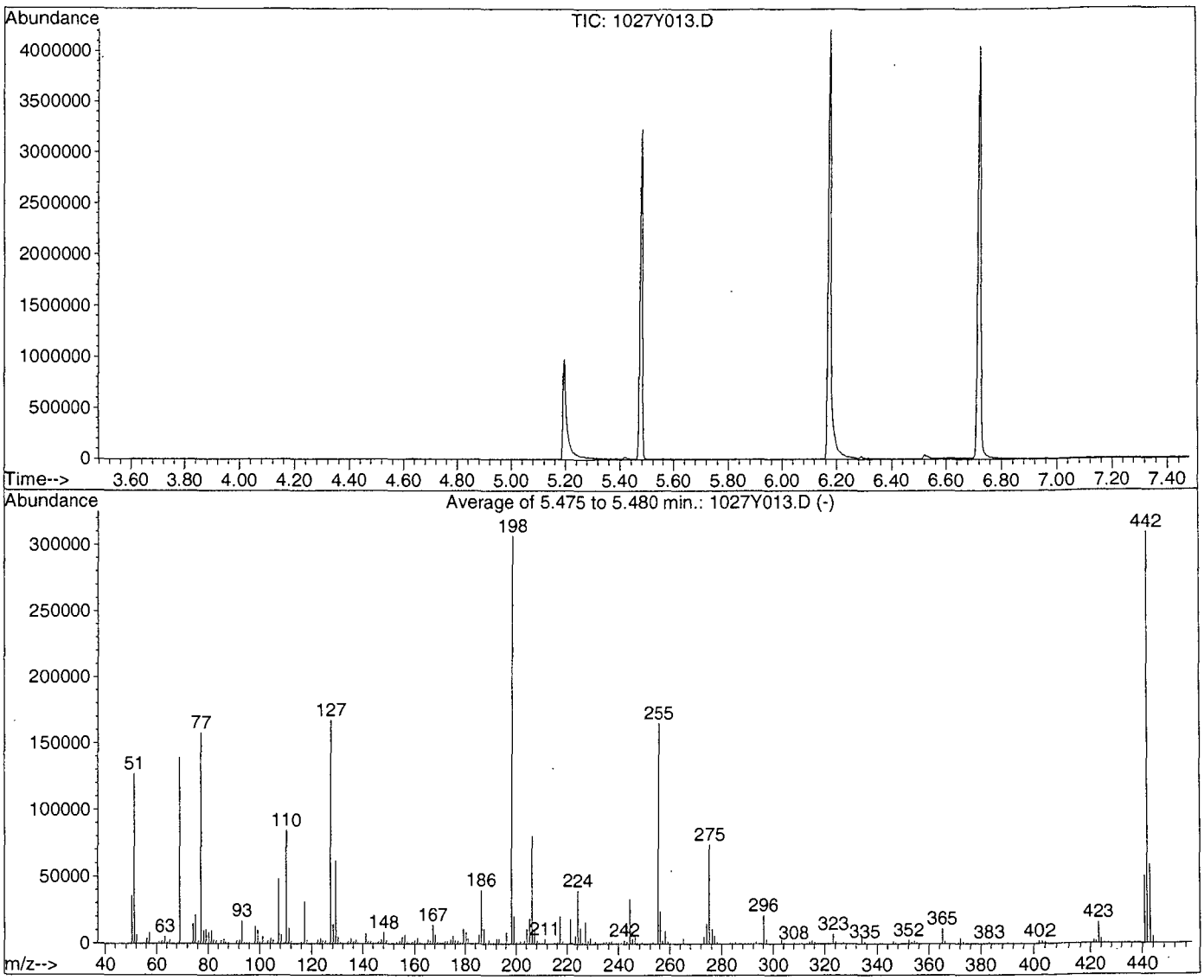
AutoFind: Scans 764, 765, 766; Background Corrected with Scan 755

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	44.8	136893	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	465	PASS
127	198	40	60	54.8	167584	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	305579	PASS
199	198	5	9	6.9	21142	PASS
275	198	10	30	22.7	69317	PASS
365	198	1	100	3.3	10191	PASS
441	443	0.01	100	83.5	46968	PASS
442	198	50	150	94.2	288000	PASS
443	442	17	23	19.5	56235	PASS

Data File : M:\YODA\DATA\Y161027\1027Y013.D
Acq On : 27 Oct 16 23:33
Sample : SV Tune 10/19/16
Misc :

Vial: 13
Operator: MA
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y160929\Y0GLYCOL.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 756, 757, 758; Background Corrected with Scan 747

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.4	127112	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	446	PASS
127	198	40	60	54.6	167619	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	307093	PASS
199	198	5	9	6.6	20361	PASS
275	198	10	30	24.1	74080	PASS
365	198	1	100	3.7	11226	PASS
441	443	0.01	100	85.6	50200	PASS
442	198	50	150	100.8	309461	PASS
443	442	17	23	18.9	58632	PASS

Injection Log

Directory: M:\YODA\DATA\Y161027

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1027Y002.D	1	SV Tune 10/19/16		10/27/2016 18:24
2	3	1027Y003.D	1	50ug/ml DEG 10/27/16		10/27/2016 18:40
3	4	1027Y004.D	1	100ug/ml DEG 10/27/16		10/27/2016 19:10
4	5	1027Y005.D	1	200ug/ml DEG 10/27/16		10/27/2016 19:39
5	6	1027Y006.D	1	400ug/ml DEG 10/27/16		10/27/2016 20:09
6	7	1027Y007.D	1	500ug/ml DEG 10/27/16		10/27/2016 20:39
7	8	1027Y008.D	1	600ug/ml DEG 10/27/16		10/27/2016 21:08
8	9	1027Y009.D	1	800ug/ml DEG 10/27/16		10/27/2016 21:38
9	10	1027Y010.D	1	1000ug/ml DEG 10/27/16		10/27/2016 22:07
10	12	1027Y012.D	1	SS2 DEG 10/27/16		10/27/2016 23:07
11	13	1027Y013.D	1	SV Tune 10/19/16		10/27/2016 23:33
12	14	1027Y014.D	1	161027A BLK 2/500		10/27/2016 23:49
13	15	1027Y015.D	1	161027A LCS-1 2/500		10/28/2016 00:19
14	32	1027Y032.D	1	AZ44891W20 2/500		10/28/2016 08:41
15	33	1027Y033.D	1	AZ44893W09 2/500		10/28/2016 09:11
16	37	1027Y037.D	1	500ug/ml DEG 10/27/16		10/28/2016 10:51

EPA METHOD 8260B
Volatile Organic Compounds

EPA METHOD 8260B
Volatile Organic Compounds
QC Summary

APPL, INC.

Method Blank
EPA 8260B WATER

Blank Name/QCG: **161027W-44891 - 213179**
Batch ID: #86BXD-161027AM

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,2-DCA	0.30 U	1.0	0.30	0.14	ug/L	10/27/16	10/27/16
BLANK	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/27/16	10/27/16
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/27/16	10/27/16
BLANK	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/27/16	10/27/16
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/27/16	10/27/16
BLANK	SURROGATE: 1,2-DICHLOROET	95.9	81-118			%	10/27/16	10/27/16
BLANK	SURROGATE: 4-BROMOFLUORO	93.4	85-114			%	10/27/16	10/27/16
BLANK	SURROGATE: DIBROMOFLUOR	97.7	80-119			%	10/27/16	10/27/16
BLANK	SURROGATE: TOLUENE-D8 (S)	97.7	89-112			%	10/27/16	10/27/16

Quant Method: MALLW.M
Run #: 1027M15
Instrument: MAX
Sequence: M161020
Initials: SV

GC SC-Blank-REG MDLs-DOD
Printed: 11/21/16 5:08:06 PM

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 10/27/16

Matrix: WATER Instrument: MAX

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161027AM-LCS	Lab Control Spike	81-118	98.8		85-114	99.2	
161027AM-BLK	Blank	81-118	95.9		85-114	93.4	
AZ44892	ERH108	81-118	97.4		85-114	95.6	
AZ44891	ERH103	81-118	98.8		85-114	98.9	
AZ44893	ERH096	81-118	90.2		85-114	95.8	

Comments: Batch: #86BXD-161027AM

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 10/27/16

Matrix: WATER Instrument: MAX

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
161027AM-LCS	Lab Control Spike	80-119	96.4		89-112	98.4	
161027AM-BLK	Blank	80-119	97.7		89-112	97.7	
AZ44892	ERH108	80-119	101		89-112	99.6	
AZ44891	ERH103	80-119	100.0		89-112	100.0	
AZ44893	ERH096	80-119	95.1		89-112	98.3	

Comments: Batch: #86BXD-161027AM

Laboratory Control Spike Recovery
EPA 8260B WATER

APPL ID: **161027W-44891 LCS - 213179**
Batch ID: #86BXD-161027AM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,2-DCA	10.00	9.28	92.8	73-128
BENZENE	10.00	8.94	89.4	79-120
ETHYLBENZENE	10.00	9.34	93.4	79-121
TOLUENE	10.00	9.44	94.4	80-121
XYLENES (TOTAL)	30.0	28.3	94.3	79-121
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	24.7	98.8	81-118
SURROGATE: 4-BROMOFLUOROBENZE	25.0	24.8	99.2	85-114
SURROGATE: DIBROMOFLUOROMETH	25.0	24.1	96.4	80-119
SURROGATE: TOLUENE-D8 (S)	25.0	24.6	98.4	89-112

Comments: _____

Primary	SPK
Quant Method :	MALLW.M
Extraction Date :	10/27/16
Analysis Date :	10/27/16
Instrument :	MAX
Run :	1027M06
Initials :	SV

Printed: 11/21/16 5:07:59 PM
APPL Standard LCS

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 10/27/16

Matrix: WATER Instrument: MAX

Blank ID: 161027AM-BLK Time Analyzed: 1342

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161027AM-LCS	Lab Control Spike	1027M06	10/27/16 1019
161027AM-BLK	Blank	1027M15	10/27/16 1342
AZ44892	ERH108	1027M16	10/27/16 1404
AZ44891	ERH103	1027M32	10/27/16 1953
AZ44893	ERH096	1027M33	10/27/16 2014

Comments: Batch: #86BXD-161027AM

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: ~~1020M05.D~~ 81287
Matrix: Water 11-22-16
ID: 5ng- BFB STD 10-12-16

SDG No: 11-22-16 ~~MAX~~ 81287
Date Analyzed: 10/20/16
Instrument: MAX
Time Analyzed: 11:58

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.3ug/L VOC STD 10/2	1020M06.D	10/20/16 12:19
2		0.5ug/L VOC STD 10/2	1020M07.D	10/20/16 12:41
3		1.0ug/L VOC STD 10/2	1020M08.D	10/20/16 13:03
4		2.0ug/L VOC STD 10/2	1020M09.D	10/20/16 13:25
5		5.0ug/L VOC STD 10/2	1020M10.D	10/20/16 13:47
6		10ug/L VOC STD 10/20	1020M11.D	10/20/16 14:09
7		40ug/L VOC STD 10/20	1020M13.D	10/20/16 14:52
8		100ug/L VOC STD 10/2	1020M14.D	10/20/16 15:14
9		(SS) 10ug/L VOC STD	1020M21.D	10/20/16 17:47
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	22.0
75	30 - 60% of mass 95	51.6
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.4
173	0 - 2% of mass 174	0.0
174	50 - 100% of mass 95	87.9
175	5 - 9% of mass 174	7.6
176	95.06 - 101% of mass 174	95.6
177	5 - 9% of mass 176	6.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 81287
Matrix: Water
ID: 5ng- BFB STD 10-12-16

SDG No: 81287
Date Analyzed: 10/27/16
Instrument: MAX
Time Analyzed: 9:36

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Lab Control Spike	161027A CCV/LCS 10ug	1027M06.D	10/27/16 10:19
2	Blank	161027A BLK-1WM	1027M15.D	10/27/16 13:42
3	ERH108	AZ44892W01	1027M16.D	10/27/16 14:04
4	ERH103	AZ44891W01	1027M32.D	10/27/16 19:53
5	ERH096	AZ44893W01	1027M33.D	10/27/16 20:14
6		Ending CCV 8260 10ug	1027M34.D	10/27/16 20:36
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	22.3
75	30 - 60% of mass 95	53.5
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.5
173	0 - 2% of mass 174	0.0
174	50 - 100% of mass 95	93.5
175	5 - 9% of mass 174	7.7
176	95.06 - 101% of mass 174	97.4
177	5 - 9% of mass 176	6.6

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 81287

Lab File ID (Standard): 1020M11.D Date Analyzed: 10/20/16

Instrument ID: MAX Time Analyzed: 14:09

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	346592	5.53	255148	9.16	139924	12.35
	UPPER LIMIT	693184	6.03	510296	9.66	279848	12.85
	LOWER LIMIT	173296	5.03	127574	8.66	69962	11.85
	SAMPLE NO.						
01	0.3ug/L VOC STD 10/20	333677	5.52	241772	9.16	125666	12.35
02	0.5ug/L VOC STD 10/20	335960	5.52	237803	9.16	125548	12.35
03	1.0ug/L VOC STD 10/20	329092	5.53	237074	9.16	124990	12.35
04	2.0ug/L VOC STD 10/20	338019	5.52	242362	9.16	128498	12.35
05	5.0ug/L VOC STD 10/20	344045	5.53	251263	9.16	137533	12.35
06	10ug/L VOC STD 10/20/	346592	5.53	255148	9.16	139924	12.35
07	40ug/L VOC STD 10/20/	338131	5.53	252832	9.16	143737	12.35
08	100ug/L VOC STD 10/2(	379136	5.52	291939	9.16	180096	12.36
09	(SS) 10ug/L VOC STD 1	350330	5.52	257046	9.16	144644	12.35
10	161027A CCV/LCS 10ug	280722	5.53	214560	9.16	121723	12.35
11	161027A BLK-1WM	275623	5.53	213348	9.16	110502	12.35
12	AZ44892W01	266332	5.53	205908	9.16	107674	12.35
13	AZ44891W01	255643	5.53	195879	9.16	102194	12.35
14	AZ44893W01	262083	5.53	192766	9.16	100758	12.35
15	Ending CCV 8260 10ug/	264034	5.53	194323	9.16	112101	12.35
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 = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

EPA METHOD 8260B
Volatile Organic Compounds
Sample Data

APPL, INC.

EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81287

Sample ID: ERH103

APPL ID: AZ44891

Sample Collection Date: 10/25/16

QCG: #86BXD-161027AM-213179

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DCA	0.30 U	1.0	0.30	0.14	ug/L	10/27/16	10/27/16
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/27/16	10/27/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/27/16	10/27/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/27/16	10/27/16
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/27/16	10/27/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	98.8	81-118			%	10/27/16	10/27/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	98.9	85-114			%	10/27/16	10/27/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	100.0	80-119			%	10/27/16	10/27/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	100.0	89-112			%	10/27/16	10/27/16

Quant Method: MALLW.M
Run #: 1027M32
Instrument: MAX
Sequence: M161020
Dilution Factor: 1
Initials: SV

Printed: 11/21/16 5:08:03 PM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1027M32.D Vial: 29
Acq On : 27 Oct 16 19:53 Operator: DG,CM,SV
Sample : AZ44891W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 8:27 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	255643	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	195879	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	102194	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	62005	24.99	ppb	0.00
Spiked Amount 25.000			Recovery = 99.972%			
36) 1,2-DCA-D4(S)	5.15	65	58641	24.69	ppb	0.00
Spiked Amount 25.000			Recovery = 98.752%			
56) Toluene-D8(S)	7.36	98	256794	25.00	ppb	0.00
Spiked Amount 25.000			Recovery = 99.996%			
64) 4-Bromofluorobenzene(S)	10.74	95	92077	24.73	ppb	0.00
Spiked Amount 25.000			Recovery = 98.936%			

Target Compounds Qvalue

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

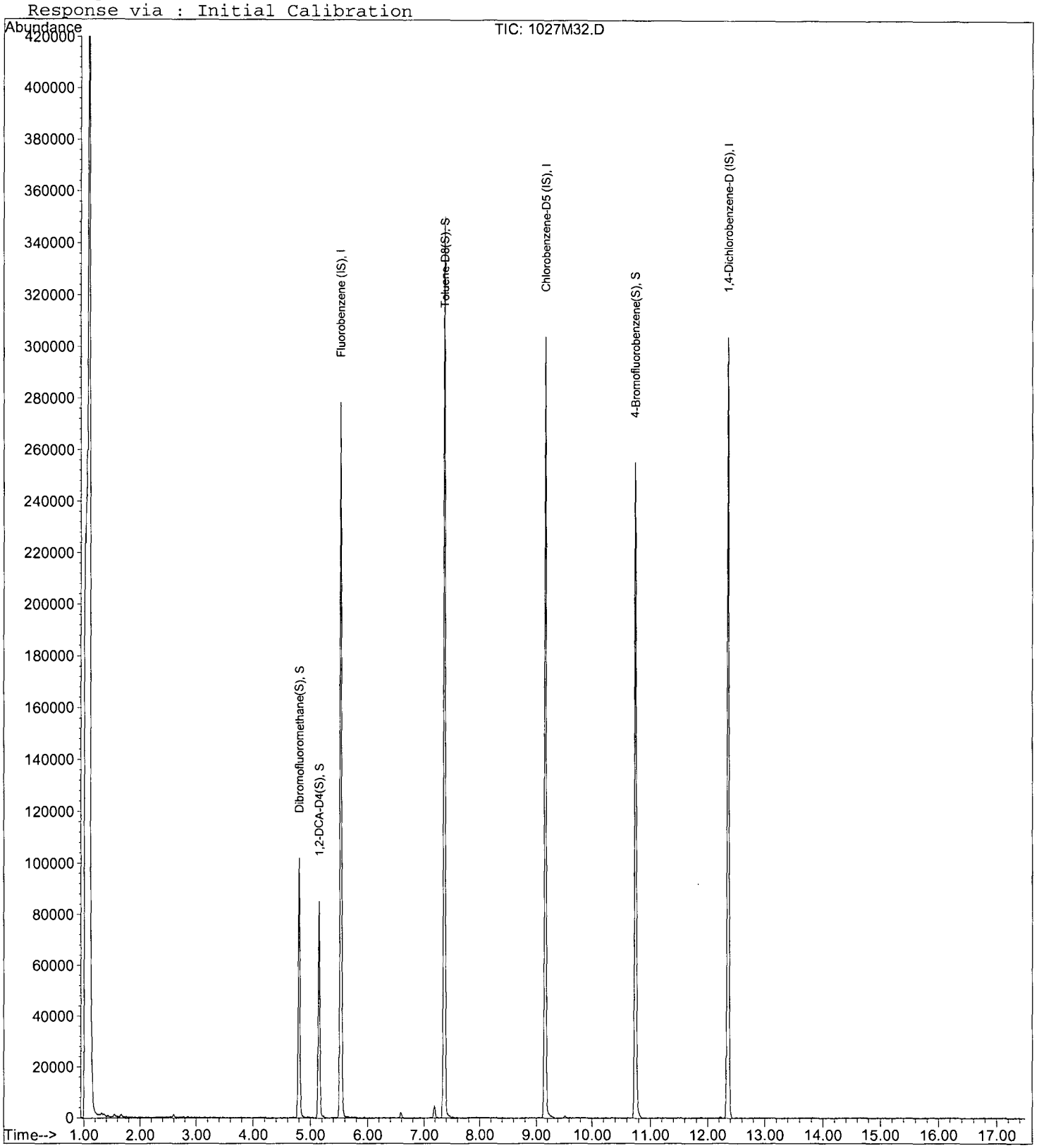
Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M32.D
Acq On : 27 Oct 16 19:53
Sample : AZ44891W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 29
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 31 8:27 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH108

Sample Collection Date: 10/25/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81287

APPL ID: AZ44892

QCG: #86BXD-161027AM-213179

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/27/16	10/27/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/27/16	10/27/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/27/16	10/27/16
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/27/16	10/27/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	97.4	81-118			%	10/27/16	10/27/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	95.6	85-114			%	10/27/16	10/27/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	101	80-119			%	10/27/16	10/27/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.6	89-112			%	10/27/16	10/27/16

Quant Method: MALLW.M
Run #: 1027M16
Instrument: MAX
Sequence: M161020
Dilution Factor: 1
Initials: SV

Printed: 11/21/16 5:08:03 PM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1027M16.D Vial: 13
Acq On : 27 Oct 16 14:04 Operator: DG,CM,SV
Sample : AZ44892W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 7:47 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	266332	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	205908	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	107674	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	65128	25.20	ppb	0.00
Spiked Amount 25.000			Recovery = 100.792%			
36) 1,2-DCA-D4(S)	5.15	65	60247	24.35	ppb	0.00
Spiked Amount 25.000			Recovery = 97.384%			
56) Toluene-D8(S)	7.36	98	268979	24.91	ppb	0.00
Spiked Amount 25.000			Recovery = 99.636%			
64) 4-Bromofluorobenzene(S)	10.74	95	93539	23.90	ppb	0.00
Spiked Amount 25.000			Recovery = 95.612%			

Target Compounds Qvalue

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

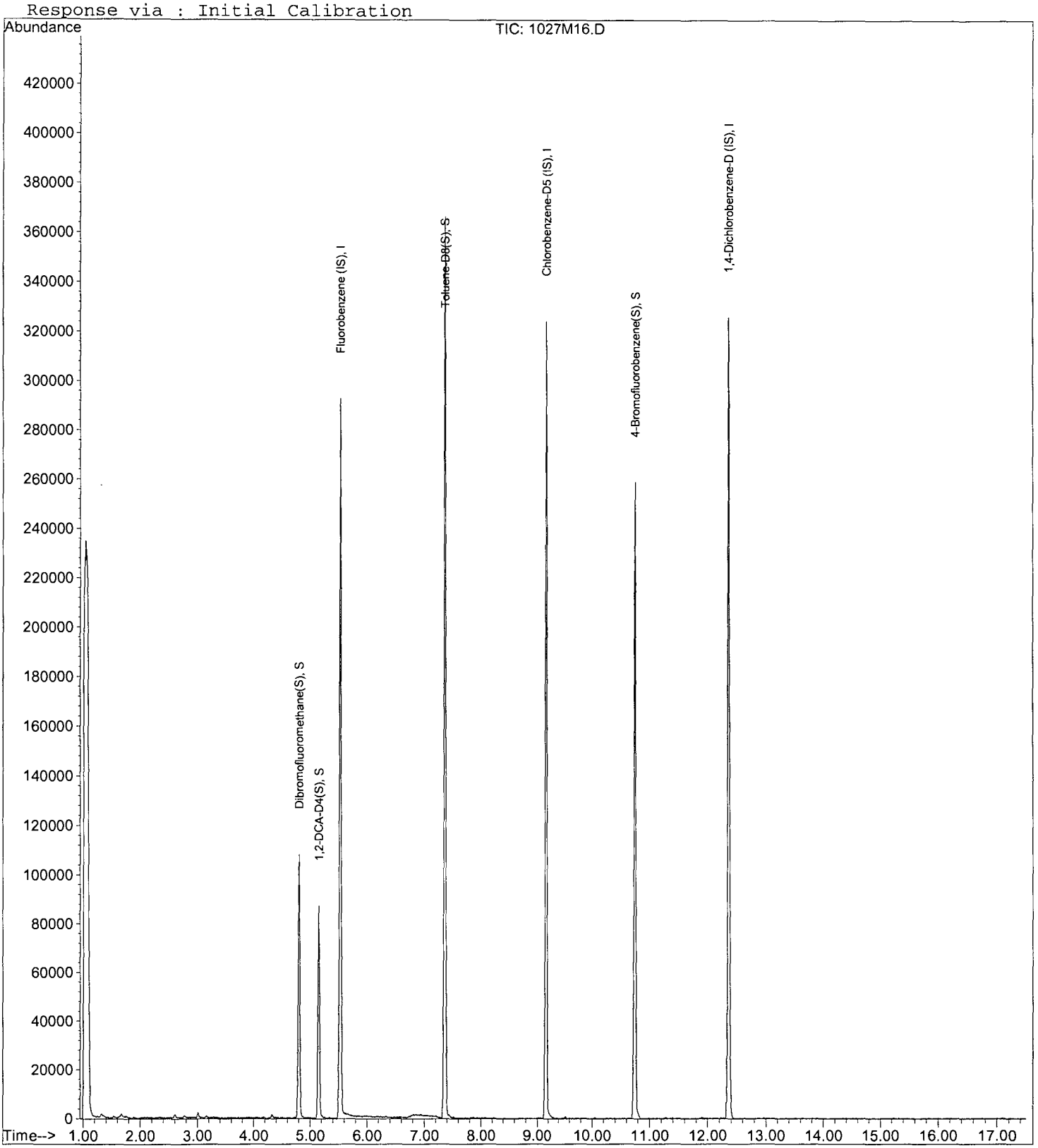
Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M16.D
Acq On : 27 Oct 16 14:04
Sample : AZ44892W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 13
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 31 7:47 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



EPA 8260B WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH096

Sample Collection Date: 10/25/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81287

APPL ID: AZ44893

QCG: #86BXD-161027AM-213179

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/27/16	10/27/16
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/27/16	10/27/16
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/27/16	10/27/16
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/27/16	10/27/16
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	90.2	81-118			%	10/27/16	10/27/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	95.8	85-114			%	10/27/16	10/27/16
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	95.1	80-119			%	10/27/16	10/27/16
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	98.3	89-112			%	10/27/16	10/27/16

Quant Method: MALLW.M
Run #: 1027M33
Instrument: MAX
Sequence: M161020
Dilution Factor: 1
Initials: SV

Printed: 11/21/16 5:08:03 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1027M33.D Vial: 30
Acq On : 27 Oct 16 20:14 Operator: DG,CM,SV
Sample : AZ44893W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 8:28 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	262083	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	192766	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	100758	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.79	111	60489	23.78	ppb	0.00
Spiked Amount 25.000			Recovery = 95.132%			
36) 1,2-DCA-D4(S)	5.15	65	54882	22.54	ppb	0.00
Spiked Amount 25.000			Recovery = 90.152%			
56) Toluene-D8(S)	7.36	98	248457	24.58	ppb	0.00
Spiked Amount 25.000			Recovery = 98.312%			
64) 4-Bromofluorobenzene(S)	10.74	95	87723	23.94	ppb	0.00
Spiked Amount 25.000			Recovery = 95.780%			

Target Compounds Qvalue

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

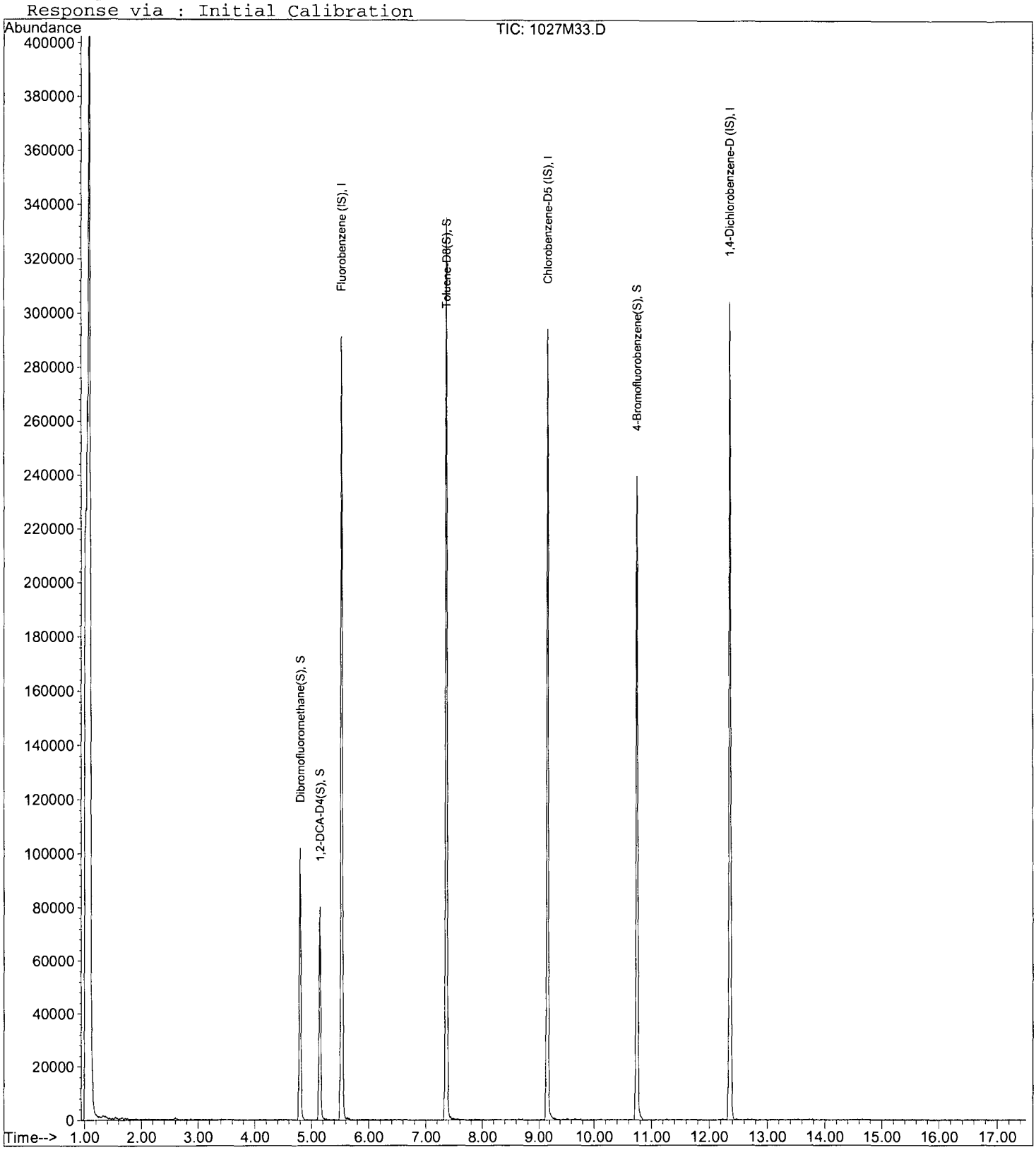
Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M33.D
Acq On : 27 Oct 16 20:14
Sample : AZ44893W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 30
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 31 8:28 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



EPA METHOD 8260B
Volatile Organic Compounds
Calibration Data

APPL, INC.

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/20/16
Matrix: Instrument: MAX Initials:

		Compound	1	2	3	4	5	6	8	9			Avg	%RSD		
			1020M06.D	1020M07.D	1020M08.D	1020M09.D	1020M10.D	1020M11.D	1020M13.D	1020M14.D						
1	I	Fluorobenzene (IS)														
2	TM	Dichlorodifluoromethane		0.1333	0.1539	0.1303	0.1475	0.1423	0.1504	0.1442			0.14	6.1	TM	
3	TM	Freon 114		0.2371	0.2626	0.2179	0.2578	0.2399	0.2560	0.2343			0.24	6.5	TM	
4	TM**	Chloromethane		0.0305	0.0213	0.0256	0.0303	0.0250	0.0257	0.0253			0.03	12	TM**	
5	TM*	Vinyl chloride		0.2270	0.1828	0.1938	0.2131	0.2075	0.2154	0.2148			0.21	7.2	TM*	
6	TM	Bromomethane		0.1650	0.1901	0.1794	0.1793	0.1870	0.1912	0.2283			0.19	10	TM	
7	TM	Chloroethane		0.1121	0.1110	0.0993	0.1133	0.0976	0.1454				0.11	15	TM	
8	TM	Dichlorofluoromethane		0.6193	0.6175	0.5770	0.5944	0.5574	0.5783	0.5656			0.59	4.1	TM	
9	TM	Trichlorofluoromethane		0.3509	0.4390	0.3785	0.4340	0.4283	0.4404	0.4214			0.41	8.4	TM	
10	TM	Acrolein		0.0121	0.0122	0.0110	0.0116	0.0111	0.0113				0.01	4.4	TM	
11	TML	Acetone		0.1533	0.1176	0.0729	0.0678	0.0558	0.0481	0.0459			0.08	50	TML	1.000
12	TM	Freon-113		0.1323	0.1489	0.1174	0.1247	0.1097	0.1167	0.1121			0.12	11	TM	
13	TM*	1,1-DCE		0.4451	0.4250	0.4119	0.4154	0.4023	0.4230	0.4060			0.42	3.4	TM*	
14	TM	t-Butanol	0.0131	0.0117	0.0123	0.0119	0.0120	0.0120	0.0155				0.01	11	TM	
15	TM	Methyl Acetate		0.1530	0.1415	0.1397	0.1379	0.1237	0.1302	0.1287			0.14	7.2	TM	
16	TML	Iodomethane		0.1499	0.1473	0.1605	0.1873	0.2051	0.2341	0.2398			0.19	20	TML	1.000
17	TM	Acrylonitrile		0.0563	0.0649	0.0530	0.0618	0.0562	0.0601	0.0587			0.06	6.8	TM	
18	TML	Methylene chloride			0.3861	0.3154	0.2912	0.2639	0.2650	0.2574			0.30	17	TML	1.000
19	TM	Carbon disulfide		0.8260	0.8228	0.7506	0.7820	0.7443	0.7807	0.7660			0.78	4.1	TM	
20	TM	Methyl t-butyl ether (MtBE)		0.2697	0.2717	0.2720	0.2599	0.2353	0.2579	0.2528			0.26	5.1	TM	
21	TM	Trans-1,2-DCE		0.2630	0.2617	0.2517	0.2731	0.2534	0.2727	0.2592			0.26	3.2	TM	
22	TM	Diisopropyl Ether		0.9236	0.9101	0.8738	0.9200	0.8521	0.8946	0.8626			0.89	3.2	TM	
23	TM**	1,1-DCA		0.5215	0.5372	0.5110	0.5224	0.4892	0.5115	0.4835			0.51	3.7	TM**	
24	TM	Vinyl Acetate		0.1735	0.1546	0.1230	0.1405	0.1295	0.1415	0.1422			0.14	12	TM	
25	TM	Ethyl tert Butyl Ether		0.6449	0.6489	0.5953	0.6437	0.6022	0.6498	0.6328			0.63	3.6	TM	
26	TM	MEK (2-Butanone)			0.0910	0.0793	0.0813	0.0707	0.0707	0.0706			0.08	11	TM	
27	TM	Cis-1,2-DCE		0.3291	0.3110	0.2723	0.2978	0.2866	0.3021	0.2863			0.30	6.2	TM	
28	TM	2,2-Dichloropropane		0.1732	0.1623	0.1572	0.1518	0.1426	0.1597	0.1642			0.16	6.1	TM	
29	TM*	Chloroform		0.5079	0.5138	0.4566	0.4953	0.4558	0.4872	0.4544			0.48	5.3	TM*	
30	TM	Bromochloromethane		0.1124	0.1097	0.1247	0.1241	0.1132	0.1205	0.1110			0.12	5.5	TM	
31	S	Dibromofluoromethane(S)	0.2790	0.2821	0.2231	0.2119	0.2367	0.2399	0.2367	0.2315			0.24	10	S	
32	TM	1,1,1-TCA		0.3811	0.4164	0.3800	0.4098	0.3874	0.4103	0.3978			0.40	3.8	TM	
33	TM	Cyclohexane		0.3094	0.2797	0.2551	0.2669	0.2596	0.2596	0.2484			0.27	7.7	TM	
34	TM	1,1-Dichloropropene		0.3627	0.3696	0.3534	0.3853	0.3750	0.3839	0.3673			0.37	3.1	TM	
35	TM	2,2,4-Trimethylpentane		0.9119	0.9672	0.9319	0.9226	0.8888	0.9213	0.8900			0.92	2.9	TM	

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: _____
Case No: _____ Initial Cal. Date: 10/20/16
Matrix: _____ Instrument: MAX Initials: _____

		Compound	1	2	3	4	5	6	8	9			Avg	%RSD		
36	S	1,2-DCA-D4(S)	0.2686	0.2704	0.2204	0.2059	0.2293	0.2330	0.2164	0.2143			0.23	11	S	
37	TM	Carbon Tetrachloride		0.2950	0.3248	0.2748	0.3155	0.2927	0.3294	0.3242			0.31	6.7	TM	
38	TM	Tert Amyl Methyl Ether		0.5176	0.5493	0.5122	0.5466	0.5336	0.5650	0.5581			0.54	3.7	TM	
39	TM	1,2-DCA		0.3024	0.3403	0.3077	0.3283	0.3027	0.3127	0.3061			0.31	4.6	TM	
40	TM	Benzene		1.272	1.196	1.145	1.176	1.097	1.161	1.103			1.2	5.1	TM	
41	TM	TCE		0.2855	0.3263	0.2809	0.2896	0.2670	0.2862	0.2655			0.29	7.1	TM	
42	TM	2-Pentanone		0.1150	0.1201	0.1123	0.1159	0.1149	0.1277	0.1323			0.12	6.3	TM	
43	TM*	1,2-Dichloropropane		0.3048	0.3012	0.2934	0.3091	0.2799	0.2928	0.2787			0.29	4.0	TM*	
44	TM	Bromodichloromethane		0.3273	0.3352	0.2812	0.3311	0.3102	0.3335	0.3229			0.32	6.0	TM	
45	TM	Methyl Cyclohexane		0.4566	0.4809	0.4625	0.4622	0.4503	0.4735	0.4459			0.46	2.7	TM	
46	TM	Dibromomethane		0.1347	0.1434	0.1224	0.1288	0.1246	0.1280	0.1198			0.13	6.2	TM	
47	TML	MIBK (methyl isobutyl ketone)		0.2978	0.2492	0.2250	0.2115	0.1768	0.1729	0.1682			0.21	22	TML	1.000
48	TM	1-Bromo-2-chloroethane		0.1707	0.1704	0.1477	0.1606	0.1526	0.1530	0.1524			0.16	5.8	TM	
49	TM	2-Chloroethyl vinyl ether													TM	
50	TM	Cis-1,3-Dichloropropene		0.3300	0.3579	0.3254	0.3504	0.3337	0.3910	0.3907			0.35	7.8	TM	
51	TM*	Toluene		1.377	1.312	1.243	1.367	1.259	1.323	1.286			1.3	3.9	TM*	
52	TM	Trans-1,3-Dichloropropene		0.1201	0.1312	0.1146	0.1237	0.1291	0.1583				0.13	12	TM	
53	TM	1,1,2-TCA		0.1676	0.1666	0.1553	0.1668	0.1569	0.1579	0.1554			0.16	3.6	TM	
54	TM	2-Hexanone		0.0640	0.0427	0.0501	0.0580	0.0541	0.0616	0.0597			0.06	13	TM	
55	I	Chlorobenzene-D5 (IS)														
56	S	Toluene-D8(S)	1.467	1.539	1.254	1.156	1.274	1.291	1.281	1.226			1.3	9.7	S	
57	TM	1,2-EDB		0.2504	0.2286	0.2212	0.2335	0.2186	0.2342	0.2302			0.23	4.5	TM	
58	TM	Tetrachloroethene		0.2023	0.2058	0.1885	0.1942	0.1733	0.1823	0.1679			0.19	7.6	TM	
59	TM	1-Chlorohexane		0.5433	0.5298	0.4759	0.5350	0.5003	0.5435	0.5194			0.52	4.8	TM	
60	TM	1,1,1,2-Tetrachloroethane		0.3154	0.3196	0.2971	0.3148	0.3080	0.3489	0.3458			0.32	6.0	TM	
61	TM	m&p-Xylene		0.7816	0.7911	0.7243	0.8185	0.7533	0.7906	0.7806			0.78	3.9	TM	
62	TM	o-Xylene		0.8213	0.7134	0.7157	0.7950	0.7393	0.7724	0.7636			0.76	5.3	TM	
63	TM	Styrene		1.207	1.113	1.142	1.261	1.235	1.288	1.302			1.2	5.9	TM	
64	S	4-Bromofluorobenzene(S)	0.5378	0.5225	0.4311	0.4133	0.4691	0.4771	0.4691	0.4811			0.48	8.7	S	
65	TM	1,3-Dichloropropane		0.5233	0.4998	0.4389	0.4893	0.4464	0.4578	0.4307			0.47	7.4	TM	
66	TM	Dibromochloromethane		0.2820	0.2671	0.2537	0.2669	0.2629	0.2955	0.2889			0.27	5.5	TM	
67	TM**	Chlorobenzene		1.214	1.156	1.069	1.166	1.069	1.091	1.054			1.1	5.5	TM**	
68	TM*	Ethylbenzene		2.075	1.915	1.889	2.062	1.934	2.003	1.936			2.0	3.7	TM*	
69	TM**	Bromoform		0.1348	0.1185	0.1435	0.1586	0.1489	0.1700	0.1775			0.15	14	TM**	
70	I	1,4-Dichlorobenzene-D (IS)														

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/20/16
Matrix: Instrument: MAX Initials:

		Compound	1	2	3	4	5	6	8	9			Avg	%RSD		
71	TM	Isopropylbenzene		3.821	3.750	3.404	3.654	3.479	3.550	3.256			3.6	5.6	TM	
72	TM**	1,1,2,2-Tetrachloroethane		0.5321	0.5248	0.5258	0.5398	0.4970	0.5005	0.4562			0.51	5.6	TM**	
73	TML	1,2,3-Trichloropropane		0.2425	0.1838	0.1806	0.1724	0.1543	0.1518	0.1368			0.17	20	TML	0.998
74	TM	t-1,4-Dichloro-2-Butene			0.0982	0.1150	0.1176	0.1050	0.1139	0.1083			0.11	6.6	TM	
75	TM	Bromobenzene		0.8483	0.9209	0.8027	0.8398	0.7981	0.8044	0.7328			0.82	7.0	TM	
76	TM	n-Propylbenzene		4.368	4.234	4.211	4.472	4.249	4.281	3.994			4.3	3.5	TM	
77	TM	4-Ethyltoluene		3.506	3.518	3.476	3.696	3.460	3.579	3.383			3.5	2.8	TM	
78	TM	2-Chlorotoluene		2.416	2.357	2.331	2.402	2.290	2.255	2.117			2.3	4.4	TM	
79	TM	1,3,5-Trimethylbenzene		3.062	3.008	2.877	3.126	2.916	2.958	2.863			3.0	3.3	TM	
80	TM	4-Chlorotoluene		2.959	2.895	2.741	2.897	2.728	2.741	2.624			2.8	4.3	TM	
81	TM	Tert-Butylbenzene		2.568	2.615	2.884	2.678	2.506	2.601	2.438			2.6	5.5	TM	
82	TM	1,2,4-Trimethylbenzene		2.937	2.925	2.800	3.136	2.959	3.040	2.930			3.0	3.5	TM	
83	TM	Sec-Butylbenzene		3.677	3.701	3.620	3.959	3.790	3.853	3.671			3.8	3.2	TM	
84	TM	p-Isopropyltoluene		3.449	3.445	3.225	3.418	3.260	3.399	3.327			3.4	2.7	TM	
85	TM	Benzyl Chloride		0.2824	0.2934	0.2616	0.3424	0.3326					0.30	11	TM	
86	TM	1,3-DCB		1.764	1.806	1.653	1.726	1.586	1.630	1.526			1.7	6.0	TM	
87	TM	1,4-DCB		1.778	1.808	1.632	1.736	1.610	1.635	1.550			1.7	5.7	TM	
88	TM	n-Butylbenzene		2.981	2.974	2.803	3.064	2.950	3.200	3.058			3.0	4.1	TM	
89	TM	1,2-DCB		1.468	1.474	1.460	1.517	1.418	1.451	1.289			1.4	5.1	TM	
90	TM	Hexachloroethane		0.3572	0.3374	0.3443	0.3866	0.3856	0.4626	0.4894			0.39	15	TM	
91	TM	1,2-Dibromo-3-chloropropane				0.0541	0.0669	0.0636	0.0769	0.0661			0.07	12	TM	
92	TM	1,2,4-Trichlorobenzene		1.087	0.9181	0.9476	1.054	0.9801	1.114	0.9014			1.0	8.5	TM	
93	TM	Hexachlorobutadiene		0.6715	0.6243	0.6291	0.6329	0.5885	0.6178	0.5053			0.61	8.6	TM	
94	TM	Naphthalene		0.5803	0.6863	0.6864	0.7527	0.7295	0.8752	0.6889			0.71	12	TM	
95	TM	1,2,3-Trichlorobenzene		0.8690	0.8177	0.8522	0.9061	0.8445	0.9593	0.7567			0.86	7.5	TM	
96																
97																
98																
99																
100																
101																
102																
103																
104																
105																

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1020M06.D Vial: 5
Acq On : 20 Oct 16 12:19 Operator: DG,CM,SV
Sample : 0.3ug/L VOC STD 10/20/16AA Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 9:06 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 07:54:28 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	333677	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	241772	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	125666	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.80	111	18620	5.83366 ppb	0.00
Spiked Amount 25.000			Recovery = 23.336%		
36) 1,2-DCA-D4(S)	5.14	65	17923	5.94742 ppb	0.00
Spiked Amount 25.000			Recovery = 23.788%		
56) Toluene-D8(S)	7.36	98	70914	5.55540 ppb	0.00
Spiked Amount 25.000			Recovery = 22.220%		
64) 4-Bromofluorobenzene(S)	10.74	95	26006	5.68014 ppb	0.00
Spiked Amount 25.000			Recovery = 22.720%		
Target Compounds					Qvalue
14) t-Butanol	3.17	59	1750	10.78362 ppb	99

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

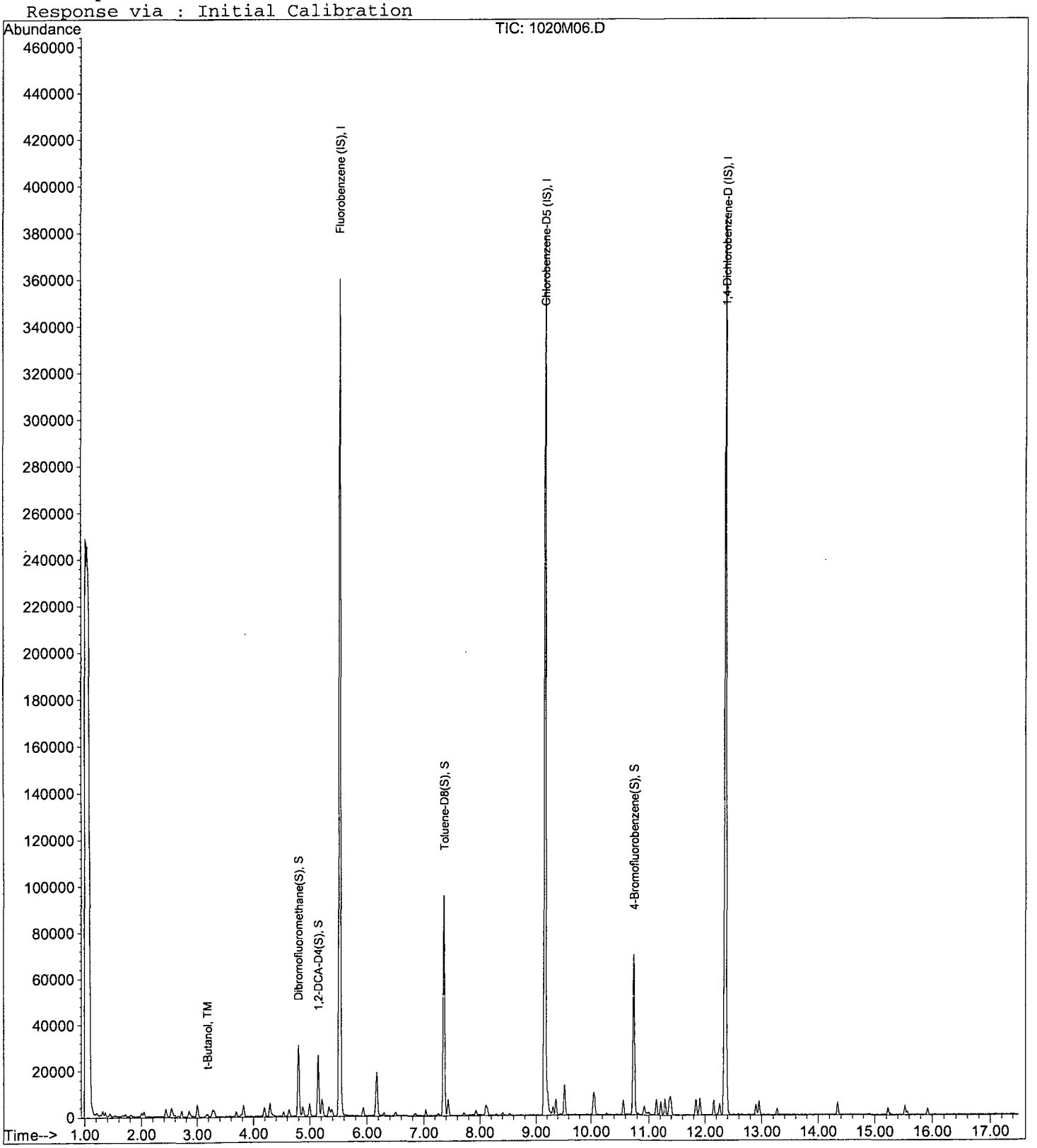
Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M06.D
Acq On : 20 Oct 16 12:19
Sample : 0.3ug/L VOC STD 10/20/16AA
Misc : 1uL-5ppb

Vial: 5
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 21 9:06 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M07.D Vial: 6
Acq On : 20 Oct 16 12:41 Operator: DG,CM,SV
Sample : 0.5ug/L VOC STD 10/20/16AB Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 8:35 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:12 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.52	96	335960	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	237803	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	125548	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.79	111	18957	5.81449 ppb		0.00
Spiked Amount 25.000			Recovery = 23.256%			
36) 1,2-DCA-D4(S)	5.14	65	18170	5.82092 ppb		0.00
Spiked Amount 25.000			Recovery = 23.284%			
56) Toluene-D8(S)	7.36	98	73203	5.86988 ppb		0.00
Spiked Amount 25.000			Recovery = 23.480%			
64) 4-Bromofluorobenzene(S)	10.74	95	24850	5.49841 ppb		0.00
Spiked Amount 25.000			Recovery = 21.992%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	896	0.46581 ppb		88
3) Freon 114	1.31	85	1593	0.48650 ppb		96
4) Chloromethane	1.36	49	205	0.58155 ppb	#	35
5) Vinyl chloride	1.45	62	1525	0.54620 ppb		90
6) Bromomethane	1.72	94	1109	0.43750 ppb		98
7) Chloroethane	1.82	64	753	0.49541 ppb		85
8) Dichlorofluoromethane	2.00	67	4161	0.52743 ppb		98
9) Trichlorofluoromethane	2.04	101	2358	0.42463 ppb		99
10) Acrolein	2.43	56	4066	26.41738 ppb		94
11) Acetone	2.59	43	1030	1.88007 ppb		98
12) Freon-113	2.55	101	889	0.53732 ppb		83
13) 1,1-DCE	2.53	61	2991	0.53196 ppb		97
14) t-Butanol	3.17	59	3915	23.96057 ppb	#	83
15) Methyl Acetate	2.93	43	1028	0.56091 ppb	#	54
16) Iodomethane	2.66	142	1007	1.11270 ppb	#	69
17) Acrylonitrile	3.23	53	378	0.47927 ppb	#	13
18) Methylene chloride	3.00	84	3504	0.41895 ppb	#	75
19) Carbon disulfide	2.72	76	5550	0.52829 ppb		98
20) Methyl t-butyl ether (MtBE	3.30	73	1812	0.51885 ppb		98
21) Trans-1,2-DCE	3.28	96	1767	0.50165 ppb		96
22) Diisopropyl Ether	3.82	45	6206	0.51833 ppb		99
23) 1,1-DCA	3.69	63	3504	0.51038 ppb		96
24) Vinyl Acetate	3.77	43	1166	0.60445 ppb		99
25) Ethyl tert Butyl Ether	4.19	59	4333	0.51093 ppb		95
26) MEK (2-Butanone)	4.33	43	702	0.67596 ppb	#	50
27) Cis-1,2-DCE	4.29	96	2211	0.55235 ppb		93
28) 2,2-Dichloropropane	4.29	77	1164	0.54570 ppb		96
29) Chloroform	4.63	83	3413	0.52738 ppb		82
30) Bromochloromethane	4.53	128	755	0.48212 ppb		100
32) 1,1,1-TCA	4.81	97	2561	0.47933 ppb		90
33) Cyclohexane	4.87	41	2079	0.57645 ppb		71
34) 1,1-Dichloropropene	4.99	75	2437	0.48877 ppb	#	84
35) 2,2,4-Trimethylpentane	5.34	57	6127	0.49457 ppb		96
37) Carbon Tetrachloride	5.00	117	1982	0.47504 ppb		95
38) Tert Amyl Methyl Ether	5.39	73	3478	0.47898 ppb		97
39) 1,2-DCA	5.23	62	2032	0.48107 ppb	#	76
40) Benzene	5.21	78	8548	0.53961 ppb		94
41) TCE	5.94	95	1918	0.49202 ppb		89
42) 2-Pentanone	6.17	43	38622	23.72323 ppb		95

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M07.D Vial: 6
Acq On : 20 Oct 16 12:41 Operator: DG,CM,SV
Sample : 0.5ug/L VOC STD 10/20/16AB Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 8:35 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:12 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	1,2-Dichloropropane	6.18	63	2048	0.51548 ppb	#	66
44)	Bromodichloromethane	6.50	83	2199	0.50442 ppb		86
45)	Methyl Cyclohexane	6.16	83	3068	0.49407 ppb		99
46)	Dibromomethane	6.30	93	905	0.52278 ppb		89
47)	MIBK (methyl isobutyl ket	7.26	43	2001	0.12723 ppb	#	82
48)	1-Bromo-2-chloroethane	6.84	63	1147	0.53951 ppb	#	80
50)	Cis-1,3-Dichloropropene	7.03	75	2217	0.46584 ppb		92
51)	Toluene	7.44	91	9250	0.52105 ppb		94
52)	Trans-1,3-Dichloropropene	7.72	75	807	0.46375 ppb	#	76
53)	1,1,2-TCA	7.93	83	1126	0.52064 ppb		80
54)	2-Hexanone	8.29	58	430	0.57405 ppb	#	48
57)	1,2-EDB	8.54	107	1191	0.54214 ppb		93
58)	Tetrachloroethene	8.11	164	962	0.53864 ppb		96
59)	1-Chlorohexane	9.22	91	2584	0.52138 ppb		95
60)	1,1,1,2-Tetrachloroethane	9.31	131	1500	0.49068 ppb		93
61)	m&p-Xylene	9.52	106	7435	0.99552 ppb		98
62)	o-Xylene	10.04	106	3906	0.54152 ppb		69
63)	Styrene	10.06	104	5741	0.48800 ppb		97
65)	1,3-Dichloropropane	8.13	76	2489	0.55737 ppb		88
66)	Dibromochloromethane	8.40	129	1341	0.51480 ppb		83
67)	Chlorobenzene	9.19	112	5774	0.54330 ppb		88
68)	Ethylbenzene	9.36	91	9871	0.52475 ppb		99
69)	Bromoform	10.26	173	641	0.44846 ppb		99
71)	Isopropylbenzene	10.56	105	9595	0.53272 ppb		99
72)	1,1,2,2-Tetrachloroethane	10.97	83	1336	0.52170 ppb	#	85
73)	1,2,3-Trichloropropane	10.99	110	609	-0.28276 ppb	#	66
74)	t-1,4-Dichloro-2-Butene	11.05	53	101	0.18337 ppb	#	10
75)	Bromobenzene	10.92	156	2130	0.51661 ppb		79
76)	n-Propylbenzene	11.13	91	10968	0.51289 ppb		96
77)	4-Ethyltoluene	11.30	105	8804	0.49852 ppb		100
78)	2-Chlorotoluene	11.21	91	6066	0.52299 ppb		94
79)	1,3,5-Trimethylbenzene	11.39	105	7689	0.51198 ppb		91
80)	4-Chlorotoluene	11.37	91	7430	0.52352 ppb		88
81)	Tert-Butylbenzene	11.84	119	6449	0.48656 ppb		93
82)	1,2,4-Trimethylbenzene	11.91	105	7375	0.49331 ppb		92
83)	Sec-Butylbenzene	12.15	105	9232	0.48711 ppb		97
84)	p-Isopropyltoluene	12.38	119	8660	0.50413 ppb		97
85)	Benzyl Chloride	12.60	91	709	0.46676 ppb	#	62
86)	1,3-DCB	12.26	146	4430	0.51975 ppb		91
87)	1,4-DCB	12.38	146	4465	0.51548 ppb		87
88)	n-Butylbenzene	12.95	91	7484	0.49623 ppb		94
89)	1,2-DCB	12.90	146	3686	0.50829 ppb	#	62
90)	Hexachloroethane	13.26	117	897	0.45251 ppb	#	66
92)	1,2,4-Trichlorobenzene	15.23	180	2729	0.54333 ppb	#	96
93)	Hexachlorobutadiene	15.52	225	1686	0.54665 ppb		86
94)	Naphthalene	15.56	128	1457	0.40624 ppb	#	85
95)	1,2,3-Trichlorobenzene	15.92	180	2182	0.50251 ppb		84

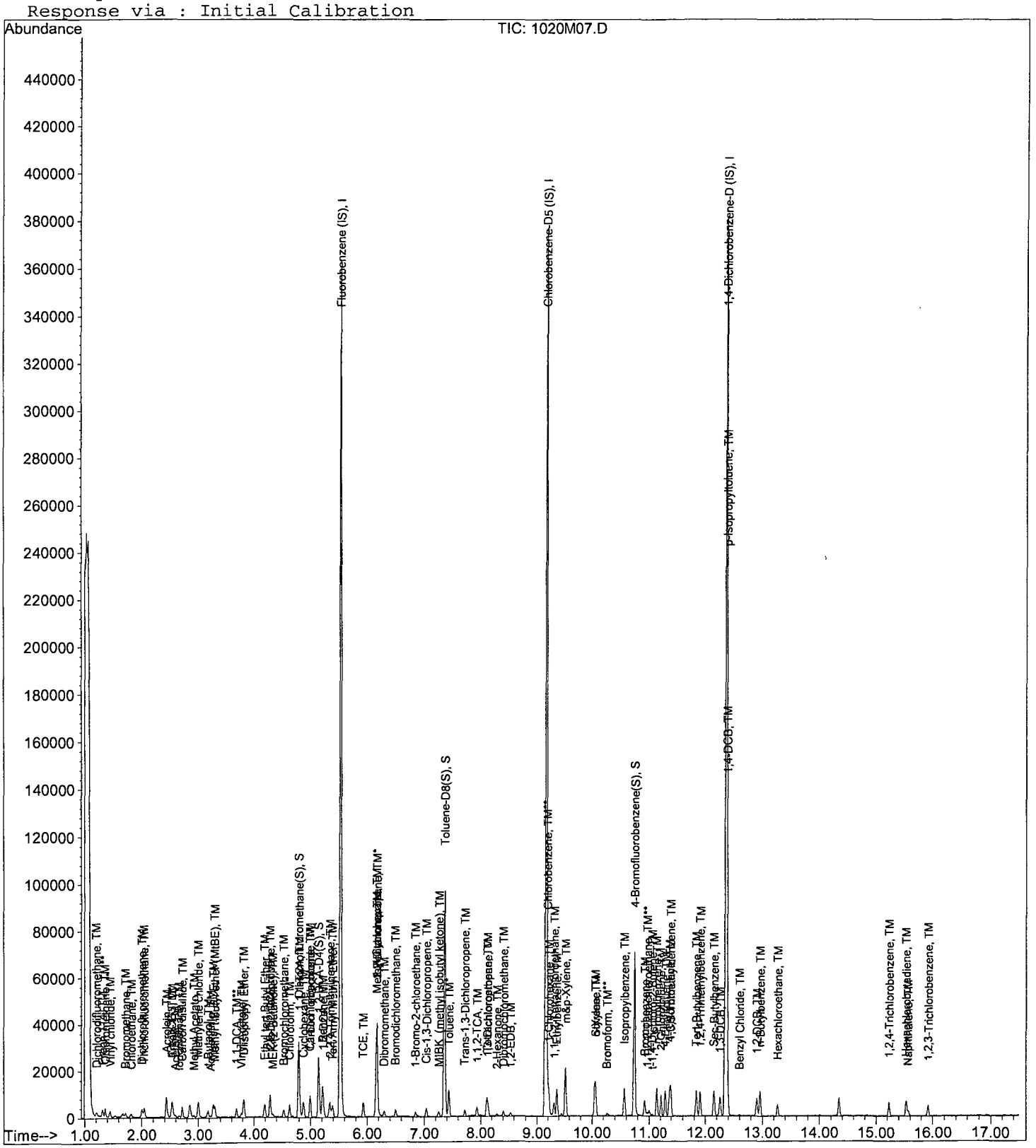
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M07.D Vial: 6
Acq On : 20 Oct 16 12:41 Operator: DG,CM,SV
Sample : 0.5ug/L VOC STD 10/20/16AB Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 8:35 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M08.D Vial: 7
Acq On : 20 Oct 16 13:03 Operator: DG,CM,SV
Sample : 1.0ug/L VOC STD 10/20/16AC Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.53	96	329092	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	237074	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	124990	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	29374	9.19762 ppb		0.00
Spiked Amount 25.000			Recovery = 36.792%			
36) 1,2-DCA-D4(S)	5.15	65	29015	9.48920 ppb		0.00
Spiked Amount 25.000			Recovery = 37.956%			
56) Toluene-D8(S)	7.36	98	118927	9.56564 ppb		0.00
Spiked Amount 25.000			Recovery = 38.264%			
64) 4-Bromofluorobenzene(S)	10.74	95	40878	9.07265 ppb		0.00
Spiked Amount 25.000			Recovery = 36.292%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	2026	1.07525 ppb		89
3) Freon 114	1.31	85	3457	1.07779 ppb		85
4) Chloromethane	1.36	49	280	0.81089 ppb	#	46
5) Vinyl chloride	1.44	62	2406	0.87973 ppb		97
6) Bromomethane	1.72	94	2502	1.00765 ppb		95
7) Chloroethane	1.81	64	1461	0.98127 ppb		98
8) Dichlorofluoromethane	2.01	67	8128	1.05176 ppb		92
9) Trichlorofluoromethane	2.05	101	5779	1.06240 ppb		82
10) Acrolein	2.44	56	8011	53.13484 ppb		100
11) Acetone	2.59	43	1548	3.39195 ppb		97
12) Freon-113	2.55	101	1960	1.20936 ppb		84
13) 1,1-DCE	2.53	61	5595	1.01586 ppb		94
14) t-Butanol	3.18	59	8118	50.72062 ppb		100
15) Methyl Acetate	2.92	43	1863	1.03774 ppb	#	80
16) Iodomethane	2.66	142	1939	1.41271 ppb	#	87
17) Acrylonitrile	3.24	53	854	1.10540 ppb	#	64
18) Methylene chloride	3.01	84	5083	0.90779 ppb		90
19) Carbon disulfide	2.72	76	10831	1.05250 ppb		94
20) Methyl t-butyl ether (MtBE	3.31	73	3577	1.04562 ppb		92
21) Trans-1,2-DCE	3.27	96	3445	0.99844 ppb		98
22) Diisopropyl Ether	3.82	45	11980	1.02146 ppb		98
23) 1,1-DCA	3.69	63	7072	1.05158 ppb		96
24) Vinyl Acetate	3.78	43	2035	1.07696 ppb		95
25) Ethyl tert Butyl Ether	4.19	59	8542	1.02826 ppb		99
26) MEK (2-Butanone)	4.33	43	1198	1.17764 ppb	#	80
27) Cis-1,2-DCE	4.29	96	4094	1.04410 ppb		91
28) 2,2-Dichloropropane	4.28	77	2137	1.02277 ppb		98
29) Chloroform	4.63	83	6764	1.06698 ppb		98
30) Bromochloromethane	4.53	128	1444	0.94133 ppb	#	84
32) 1,1,1-TCA	4.82	97	5482	1.04744 ppb		99
33) Cyclohexane	4.88	41	3682	1.04222 ppb		86
34) 1,1-Dichloropropene	5.00	75	4865	0.99610 ppb		91
35) 2,2,4-Trimethylpentane	5.34	57	12732	1.04918 ppb		97
37) Carbon Tetrachloride	4.99	117	4275	1.04600 ppb		97
38) Tert Amyl Methyl Ether	5.39	73	7231	1.01662 ppb	#	96
39) 1,2-DCA	5.23	62	4480	1.08275 ppb		99
40) Benzene	5.21	78	15738	1.01422 ppb		98
41) TCE	5.93	95	4295	1.12479 ppb		83
42) 2-Pentanone	6.17	43	79037	49.56096 ppb		95

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

Data File : M:\MAX\DATA\M161020\1020M08.D Vial: 7
Acq On : 20 Oct 16 13:03 Operator: DG,CM,SV
Sample : 1.0ug/L VOC STD 10/20/16AC Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	6.17	63	3965	1.01882	ppb	#	88
44)	Bromodichloromethane	6.50	83	4412	1.03316	ppb		96
45)	Methyl Cyclohexane	6.16	83	6330	1.04065	ppb		99
46)	Dibromomethane	6.30	93	1888	1.11338	ppb		97
47)	MIBK (methyl isobutyl ket	7.26	43	3281	0.72709	ppb		90
48)	1-Bromo-2-chloroethane	6.85	63	2243	1.07705	ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	4711	1.01055	ppb		96
51)	Toluene	7.44	91	17276	0.99347	ppb		92
52)	Trans-1,3-Dichloropropene	7.72	75	1727	1.01315	ppb		95
53)	1,1,2-TCA	7.93	83	2193	1.03517	ppb		84
54)	2-Hexanone	8.29	58	562	0.76593	ppb	#	70
57)	1,2-EDB	8.53	107	2168	0.98990	ppb		98
58)	Tetrachloroethene	8.11	164	1952	1.09633	ppb		95
59)	1-Chlorohexane	9.22	91	5024	1.01681	ppb		97
60)	1,1,1,2-Tetrachloroethane	9.31	131	3031	0.99456	ppb		96
61)	m&p-Xylene	9.53	106	15004	2.01516	ppb		90
62)	o-Xylene	10.04	106	6765	0.94076	ppb		85
63)	Styrene	10.07	104	10554	0.89989	ppb		85
65)	1,3-Dichloropropane	8.13	76	4740	1.06471	ppb		93
66)	Dibromochloromethane	8.41	129	2533	0.97540	ppb	#	61
67)	Chlorobenzene	9.19	112	10964	1.03482	ppb		94
68)	Ethylbenzene	9.37	91	18159	0.96832	ppb		100
69)	Bromoform	10.27	173	1124	0.78879	ppb		81
71)	Isopropylbenzene	10.56	105	18748	1.04554	ppb		94
72)	1,1,2,2-Tetrachloroethane	10.97	83	2624	1.02922	ppb	#	92
73)	1,2,3-Trichloropropane	11.01	110	919	0.17396	ppb		96
74)	t-1,4-Dichloro-2-Butene	11.05	53	491	0.89543	ppb	#	60
75)	Bromobenzene	10.92	156	4604	1.12164	ppb		96
76)	n-Propylbenzene	11.13	91	21166	0.99418	ppb		99
77)	4-Ethyltoluene	11.30	105	17589	1.00041	ppb		95
78)	2-Chlorotoluene	11.21	91	11785	1.02059	ppb		97
79)	1,3,5-Trimethylbenzene	11.40	105	15038	1.00579	ppb		93
80)	4-Chlorotoluene	11.37	91	14475	1.02446	ppb		91
81)	Tert-Butylbenzene	11.83	119	13074	0.99081	ppb		88
82)	1,2,4-Trimethylbenzene	11.91	105	14624	0.98257	ppb		99
83)	Sec-Butylbenzene	12.15	105	18504	0.98068	ppb		98
84)	p-Isopropyltoluene	12.38	119	17225	1.00720	ppb		97
85)	Benzyl Chloride	12.60	91	1467	0.97009	ppb	#	87
86)	1,3-DCB	12.26	146	9031	1.06428	ppb		97
87)	1,4-DCB	12.39	146	9037	1.04798	ppb		99
88)	n-Butylbenzene	12.95	91	14869	0.99029	ppb		98
89)	1,2-DCB	12.90	146	7371	1.02098	ppb		98
90)	Hexachloroethane	13.26	117	1687	0.85484	ppb	#	85
91)	1,2-Dibromo-3-chloropropan	14.02	75	208	0.10049	ppb	#	32
92)	1,2,4-Trichlorobenzene	15.23	180	4590	0.91793	ppb		88
93)	Hexachlorobutadiene	15.52	225	3121	1.01643	ppb		93
94)	Naphthalene	15.56	128	3431	0.96091	ppb		93
95)	1,2,3-Trichlorobenzene	15.92	180	4088	0.94567	ppb	#	91

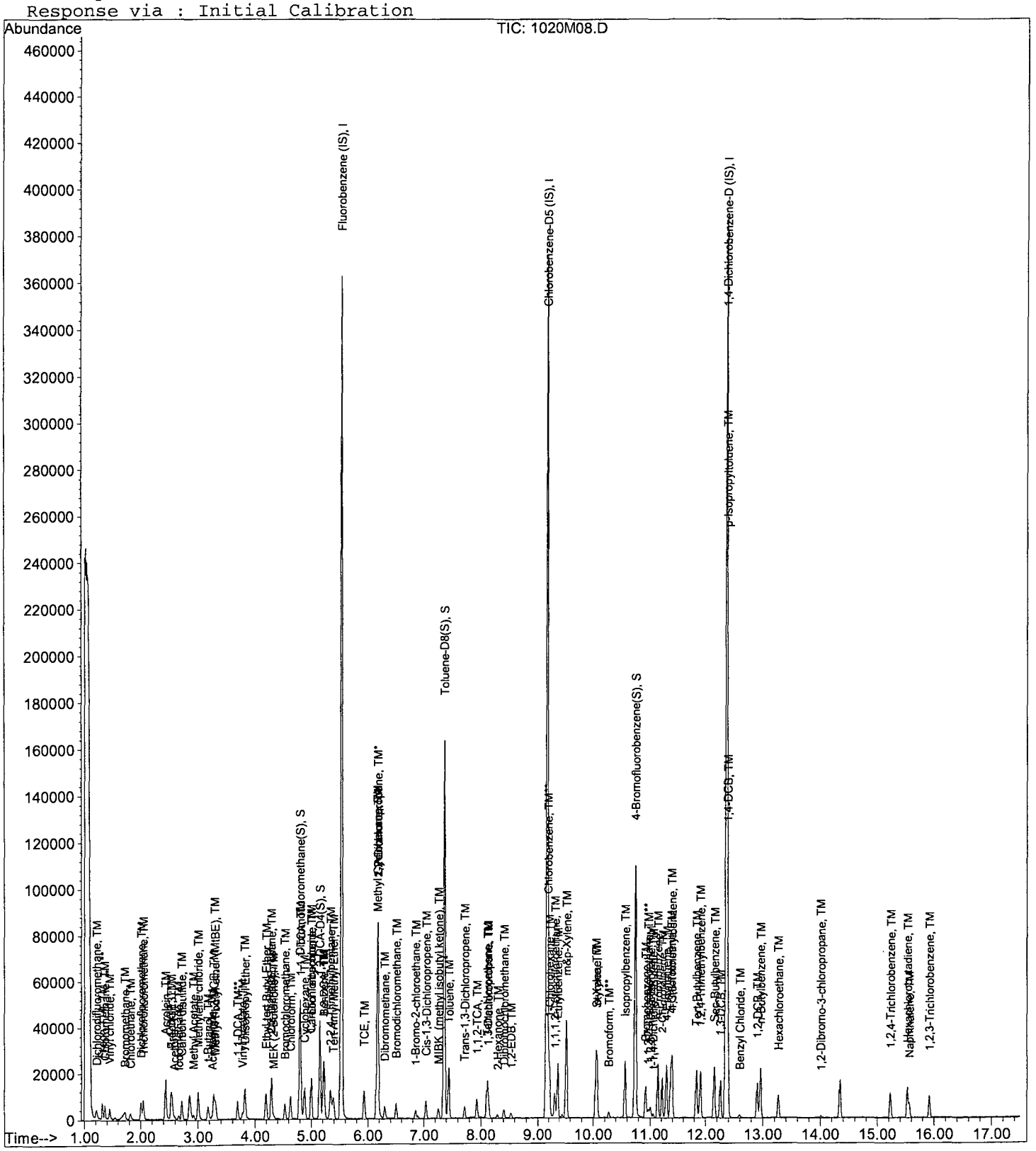
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M08.D Vial: 7
Acq On : 20 Oct 16 13:03 Operator: DG,CM,SV
Sample : 1.0ug/L VOC STD 10/20/16AC Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M09.D Vial: 8
Acq On : 20 Oct 16 13:25 Operator: DG,CM,SV
Sample : 2.0ug/L VOC STD 10/20/16AD Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.52	96	338019	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	242362	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	128498	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	28649	8.73369 ppb		0.00
Spiked Amount 25.000			Recovery = 34.936%			
36) 1,2-DCA-D4(S)	5.14	65	27838	8.86383 ppb		0.00
Spiked Amount 25.000			Recovery = 35.456%			
56) Toluene-D8(S)	7.36	98	112076	8.81791 ppb		0.00
Spiked Amount 25.000			Recovery = 35.272%			
64) 4-Bromofluorobenzene(S)	10.74	95	40068	8.69884 ppb		0.00
Spiked Amount 25.000			Recovery = 34.796%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	3524	1.82089 ppb		99
3) Freon 114	1.31	85	5891	1.78813 ppb	#	74
4) Chloromethane	1.36	49	691	1.94831 ppb	#	79
5) Vinyl chloride	1.45	62	5240	1.86536 ppb		97
6) Bromomethane	1.71	94	4851	1.90208 ppb		98
7) Chloroethane	1.81	64	2685	1.75574 ppb		97
8) Dichlorofluoromethane	2.00	67	15604	1.96583 ppb		98
9) Trichlorofluoromethane	2.04	101	10235	1.83188 ppb		100
10) Acrolein	2.43	56	11134	71.89854 ppb		96
11) Acetone	2.60	43	1970	4.42961 ppb		94
12) Freon-113	2.55	101	3174	1.90671 ppb		95
13) 1,1-DCE	2.52	61	11139	1.96905 ppb		94
14) t-Butanol	3.18	59	12043	73.25655 ppb		96
15) Methyl Acetate	2.93	43	3777	2.04832 ppb		98
16) Iodomethane	2.66	142	4341	2.13309 ppb		91
17) Acrylonitrile	3.24	53	1432	1.80460 ppb		95
18) Methylene chloride	3.00	84	8529	1.86163 ppb		93
19) Carbon disulfide	2.71	76	20296	1.92017 ppb		98
20) Methyl t-butyl ether (MtBE	3.31	73	7354	2.09292 ppb		97
21) Trans-1,2-DCE	3.27	96	6806	1.92044 ppb		97
22) Diisopropyl Ether	3.82	45	23628	1.96141 ppb		98
23) 1,1-DCA	3.69	63	13817	2.00027 ppb		97
24) Vinyl Acetate	3.78	43	3326	1.71369 ppb	#	78
25) Ethyl tert Butyl Ether	4.19	59	16098	1.88665 ppb		99
26) MEK (2-Butanone)	4.33	43	2144	2.05190 ppb		87
27) Cis-1,2-DCE	4.29	96	7363	1.82821 ppb		98
28) 2,2-Dichloropropane	4.29	77	4250	1.98033 ppb		93
29) Chloroform	4.63	83	12347	1.89623 ppb		97
30) Bromochloromethane	4.53	128	3373	2.14077 ppb		84
32) 1,1,1-TCA	4.81	97	10275	1.91139 ppb		96
33) Cyclohexane	4.87	41	6897	1.90069 ppb		90
34) 1,1-Dichloropropene	4.99	75	9557	1.90510 ppb		97
35) 2,2,4-Trimethylpentane	5.34	57	25201	2.02184 ppb		98
37) Carbon Tetrachloride	4.99	117	7430	1.76995 ppb		100
38) Tert Amyl Methyl Ether	5.38	73	13851	1.89590 ppb		96
39) 1,2-DCA	5.23	62	8322	1.95819 ppb		96
40) Benzene	5.21	78	30964	1.94274 ppb		98
41) TCE	5.93	95	7597	1.93698 ppb		93
42) 2-Pentanone	6.17	43	113850	69.50540 ppb		99

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M09.D Vial: 8
Acq On : 20 Oct 16 13:25 Operator: DG,CM,SV
Sample : 2.0ug/L VOC STD 10/20/16AD Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	6.17	63	7934	1.98483	ppb	#	95
44)	Bromodichloromethane	6.50	83	7605	1.73384	ppb		91
45)	Methyl Cyclohexane	6.15	83	12507	2.00185	ppb		93
46)	Dibromomethane	6.30	93	3311	1.90098	ppb		85
47)	MIBK (methyl isobutyl ket	7.26	43	6085	1.92750	ppb		98
48)	1-Bromo-2-chloroethane	6.85	63	3993	1.86673	ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	8799	1.83761	ppb		98
51)	Toluene	7.44	91	33605	1.88145	ppb		97
52)	Trans-1,3-Dichloropropene	7.72	75	3100	1.77059	ppb		91
53)	1,1,2-TCA	7.93	83	4200	1.93018	ppb		94
54)	2-Hexanone	8.29	58	1354	1.79657	ppb		93
57)	1,2-EDB	8.54	107	4288	1.91517	ppb		85
58)	Tetrachloroethene	8.11	164	3654	2.00746	ppb		98
59)	1-Chlorohexane	9.22	91	9227	1.82672	ppb		94
60)	1,1,1,2-Tetrachloroethane	9.31	131	5760	1.84878	ppb		95
61)	m&p-Xylene	9.53	106	28086	3.68988	ppb		98
62)	o-Xylene	10.05	106	13876	1.88754	ppb		90
63)	Styrene	10.06	104	22145	1.84699	ppb		96
65)	1,3-Dichloropropane	8.13	76	8509	1.86962	ppb		92
66)	Dibromochloromethane	8.40	129	4919	1.85286	ppb		82
67)	Chlorobenzene	9.19	112	20733	1.91415	ppb		97
68)	Ethylbenzene	9.36	91	36625	1.91041	ppb		97
69)	Bromoform	10.27	173	2783	1.91042	ppb		98
71)	Isopropylbenzene	10.56	105	34996	1.89838	ppb		98
72)	1,1,2,2-Tetrachloroethane	10.97	83	5405	2.06215	ppb		98
73)	1,2,3-Trichloropropane	11.01	110	1857	1.46990	ppb		90
74)	t-1,4-Dichloro-2-Butene	11.05	53	1182	2.09675	ppb		97
75)	Bromobenzene	10.92	156	8252	1.95549	ppb		98
76)	n-Propylbenzene	11.13	91	43284	1.97758	ppb		100
77)	4-Ethyltoluene	11.30	105	35728	1.97663	ppb		92
78)	2-Chlorotoluene	11.22	91	23958	2.01814	ppb		99
79)	1,3,5-Trimethylbenzene	11.39	105	29575	1.92407	ppb		99
80)	4-Chlorotoluene	11.37	91	28174	1.93957	ppb		99
81)	Tert-Butylbenzene	11.84	119	29651	2.18575	ppb		93
82)	1,2,4-Trimethylbenzene	11.91	105	28786	1.88129	ppb		93
83)	Sec-Butylbenzene	12.15	105	37212	1.91833	ppb		97
84)	p-Isopropyltoluene	12.38	119	33152	1.88558	ppb		97
85)	Benzyl Chloride	12.59	91	2689	1.72963	ppb	#	89
86)	1,3-DCB	12.26	146	16988	1.94734	ppb		95
87)	1,4-DCB	12.39	146	16779	1.89266	ppb		98
88)	n-Butylbenzene	12.96	91	28817	1.86684	ppb		97
89)	1,2-DCB	12.90	146	15004	2.02152	ppb		96
90)	Hexachloroethane	13.27	117	3539	1.74434	ppb		88
91)	1,2-Dibromo-3-chloropropan	14.02	75	556	1.09361	ppb	#	72
92)	1,2,4-Trichlorobenzene	15.23	180	9741	1.89487	ppb		92
93)	Hexachlorobutadiene	15.52	225	6467	2.04864	ppb		92
94)	Naphthalene	15.56	128	7056	1.92220	ppb		99
95)	1,2,3-Trichlorobenzene	15.92	180	8760	1.97111	ppb		92

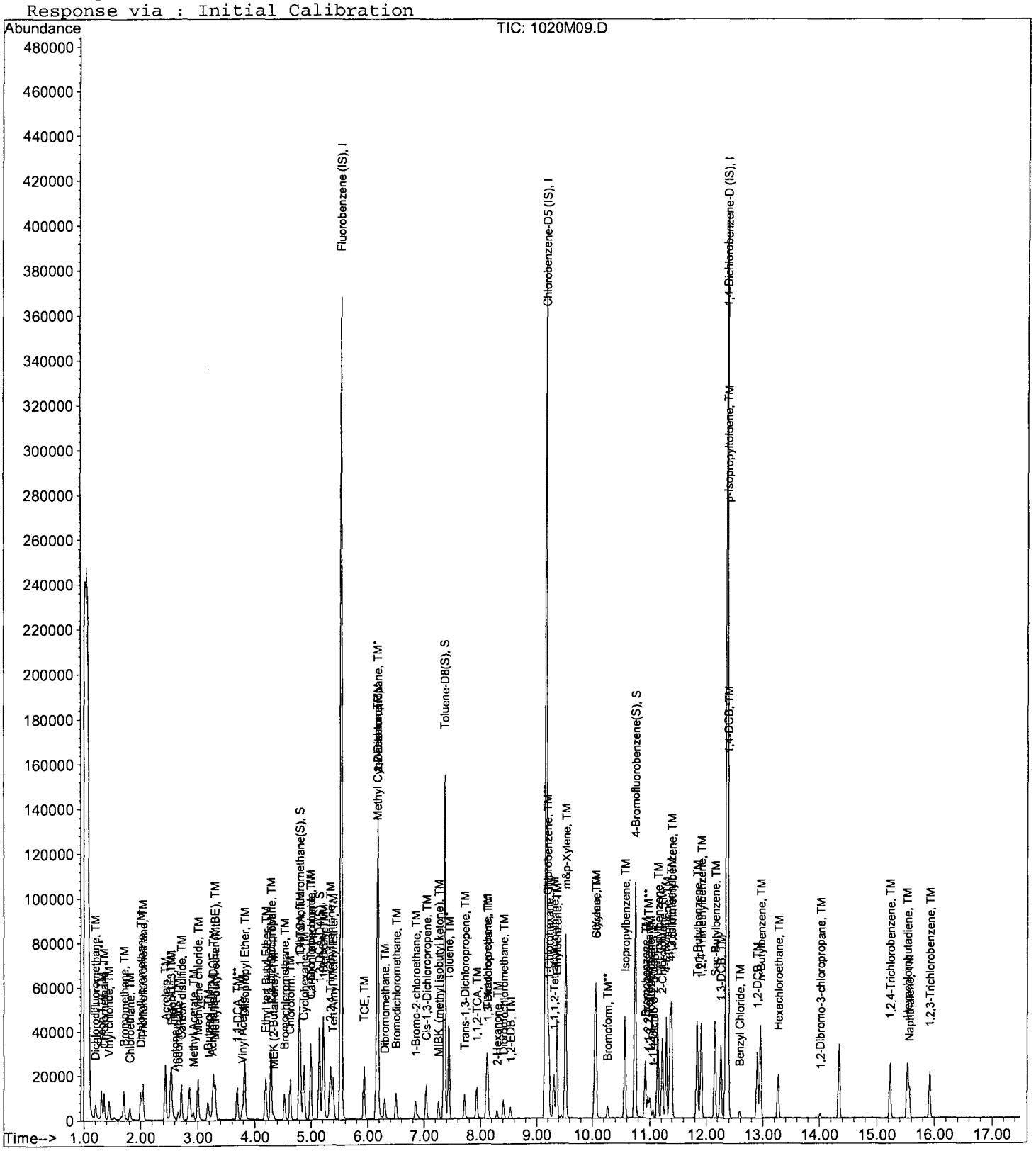
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M09.D Vial: 8
Acq On : 20 Oct 16 13:25 Operator: DG,CM,SV
Sample : 2.0ug/L VOC STD 10/20/16AD Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



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Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M10.D Vial: 9
Acq On : 20 Oct 16 13:47 Operator: DG,CM,SV
Sample : 5.0ug/L VOC STD 10/20/16AE Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.53	96	344045	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	251263	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	137533	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	81437	24.39137 ppb		0.00
Spiked Amount 25.000			Recovery = 97.564%			
36) 1,2-DCA-D4(S)	5.15	65	78880	24.67607 ppb		0.00
Spiked Amount 25.000			Recovery = 98.704%			
56) Toluene-D8(S)	7.36	98	320158	24.29703 ppb		0.00
Spiked Amount 25.000			Recovery = 97.188%			
64) 4-Bromofluorobenzene(S)	10.74	95	117865	24.68224 ppb		0.00
Spiked Amount 25.000			Recovery = 98.728%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	10150	5.15274 ppb		100
3) Freon 114	1.32	85	17741	5.29072 ppb		93
4) Chloromethane	1.36	49	2087	5.78133 ppb	#	87
5) Vinyl chloride	1.45	62	14666	5.12942 ppb		96
6) Bromomethane	1.71	94	12336	4.75223 ppb		86
7) Chloroethane	1.82	64	7795	5.00792 ppb		95
8) Dichlorofluoromethane	2.01	67	40897	5.06207 ppb		98
9) Trichlorofluoromethane	2.05	101	29866	5.25186 ppb		97
10) Acrolein	2.44	56	15963	101.27663 ppb		100
11) Acetone	2.59	43	4666	11.56816 ppb		93
12) Freon-113	2.55	101	8583	5.06573 ppb		96
13) 1,1-DCE	2.53	61	28583	4.96415 ppb		98
14) t-Butanol	3.18	59	16467	98.41292 ppb		99
15) Methyl Acetate	2.92	43	9491	5.05694 ppb		99
16) Iodomethane	2.66	142	12891	4.68550 ppb		98
17) Acrylonitrile	3.24	53	4251	5.26327 ppb	#	82
18) Methylene chloride	3.01	84	20038	5.07886 ppb		94
19) Carbon disulfide	2.72	76	53812	5.00189 ppb		99
20) Methyl t-butyl ether (MtBE	3.31	73	17880	4.99946 ppb		97
21) Trans-1,2-DCE	3.27	96	18794	5.21019 ppb		97
22) Diisopropyl Ether	3.82	45	63304	5.16295 ppb		97
23) 1,1-DCA	3.69	63	35943	5.11229 ppb		97
24) Vinyl Acetate	3.78	43	9670	4.89511 ppb		93
25) Ethyl tert Butyl Ether	4.19	59	44291	5.09988 ppb		97
26) MEK (2-Butanone)	4.34	43	5596	5.26180 ppb		89
27) Cis-1,2-DCE	4.29	96	20488	4.99799 ppb		96
28) 2,2-Dichloropropane	4.29	77	10444	4.78124 ppb		100
29) Chloroform	4.63	83	34081	5.14243 ppb		93
30) Bromochloromethane	4.53	128	8541	5.32583 ppb		97
32) 1,1,1-TCA	4.82	97	28198	5.15361 ppb		95
33) Cyclohexane	4.88	41	18367	4.97295 ppb		90
34) 1,1-Dichloropropene	5.00	75	26515	5.19296 ppb		96
35) 2,2,4-Trimethylpentane	5.34	57	63483	5.00393 ppb		97
37) Carbon Tetrachloride	4.99	117	21712	5.08158 ppb		94
38) Tert Amyl Methyl Ether	5.39	73	37608	5.05756 ppb		98
39) 1,2-DCA	5.23	62	22589	5.22215 ppb		97
40) Benzene	5.21	78	80919	4.98809 ppb		97
41) TCE	5.94	95	19927	4.99172 ppb		98
42) 2-Pentanone	6.17	43	159489	95.66258 ppb		100

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

Data File : M:\MAX\DATA\M161020\1020M10.D Vial: 9
Acq On : 20 Oct 16 13:47 Operator: DG,CM,SV
Sample : 5.0ug/L VOC STD 10/20/16AE Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	6.17	63	21272	5.22835	ppb		99
44)	Bromodichloromethane	6.50	83	22780	5.10257	ppb		98
45)	Methyl Cyclohexane	6.16	83	31801	5.00087	ppb		99
46)	Dibromomethane	6.30	93	8865	5.00061	ppb		97
47)	MIBK (methyl isobutyl ket	7.26	43	14551	5.55798	ppb		91
48)	1-Bromo-2-chloroethane	6.85	63	11053	5.07677	ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	24110	4.94702	ppb		97
51)	Toluene	7.44	91	94078	5.17490	ppb		99
52)	Trans-1,3-Dichloropropene	7.71	75	8509	4.77487	ppb		97
53)	1,1,2-TCA	7.93	83	11478	5.18252	ppb		95
54)	2-Hexanone	8.30	58	3993	5.20537	ppb	#	88
57)	1,2-EDB	8.54	107	11735	5.05558	ppb		98
58)	Tetrachloroethene	8.11	164	9761	5.17261	ppb		98
59)	1-Chlorohexane	9.22	91	26884	5.13383	ppb		97
60)	1,1,1,2-Tetrachloroethane	9.31	131	15819	4.89755	ppb		91
61)	m&p-Xylene	9.53	106	82261	10.42443	ppb		98
62)	o-Xylene	10.04	106	39952	5.24212	ppb		94
63)	Styrene	10.07	104	63352	5.09666	ppb		99
65)	1,3-Dichloropropane	8.13	76	24588	5.21114	ppb		93
66)	Dibromochloromethane	8.41	129	13411	4.87262	ppb		96
67)	Chlorobenzene	9.19	112	58607	5.21915	ppb		96
68)	Ethylbenzene	9.37	91	103604	5.21267	ppb		98
69)	Bromoform	10.27	173	7969	5.27661	ppb		90
71)	Isopropylbenzene	10.56	105	100519	5.09451	ppb		99
72)	1,1,2,2-Tetrachloroethane	10.97	83	14849	5.29310	ppb		98
73)	1,2,3-Trichloropropane	11.00	110	4742	5.12596	ppb		94
74)	t-1,4-Dichloro-2-Butene	11.05	53	3236	5.36324	ppb		95
75)	Bromobenzene	10.92	156	23101	5.11465	ppb		88
76)	n-Propylbenzene	11.13	91	123015	5.25115	ppb		99
77)	4-Ethyltoluene	11.30	105	101654	5.25449	ppb		97
78)	2-Chlorotoluene	11.22	91	66069	5.19981	ppb		99
79)	1,3,5-Trimethylbenzene	11.39	105	85985	5.22646	ppb		96
80)	4-Chlorotoluene	11.37	91	79676	5.12475	ppb		99
81)	Tert-Butylbenzene	11.84	119	73660	5.07320	ppb		96
82)	1,2,4-Trimethylbenzene	11.91	105	86256	5.26689	ppb		97
83)	Sec-Butylbenzene	12.15	105	108895	5.24491	ppb		98
84)	p-Isopropyltoluene	12.37	119	94014	4.99594	ppb		98
85)	Benzyl Chloride	12.59	91	9419	5.66052	ppb		98
86)	1,3-DCB	12.25	146	47463	5.08329	ppb		99
87)	1,4-DCB	12.39	146	47751	5.03244	ppb		98
88)	n-Butylbenzene	12.96	91	84281	5.10127	ppb		99
89)	1,2-DCB	12.90	146	41720	5.25175	ppb		97
90)	Hexachloroethane	13.27	117	10634	4.89707	ppb		93
91)	1,2-Dibromo-3-chloropropan	14.01	75	1840	4.46954	ppb		87
92)	1,2,4-Trichlorobenzene	15.23	180	28981	5.26719	ppb		100
93)	Hexachlorobutadiene	15.53	225	17409	5.15260	ppb		98
94)	Naphthalene	15.56	128	20704	5.26967	ppb		98
95)	1,2,3-Trichlorobenzene	15.92	180	24924	5.23979	ppb		99

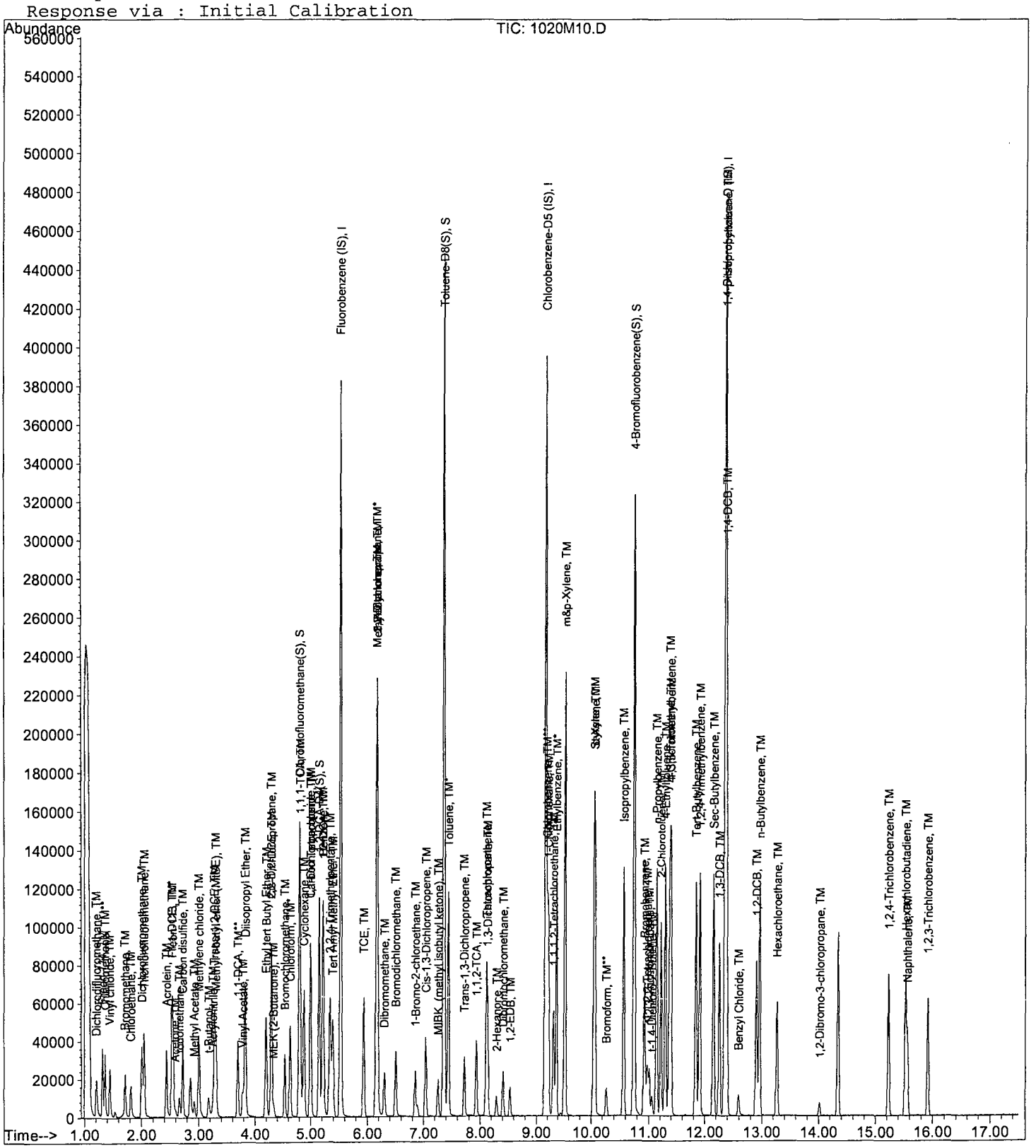
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M10.D Vial: 9
Acq On : 20 Oct 16 13:47 Operator: DG,CM,SV
Sample : 5.0ug/L VOC STD 10/20/16AE Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



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Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M11.D Vial: 10
Acq On : 20 Oct 16 14:09 Operator: DG,CM,SV
Sample : 10ug/L VOC STD 10/20/16AF Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	346592	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	255148	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	139924	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.79	111	83132	24.71606 ppb	0.00
Spiked Amount 25.000			Recovery = 98.864%		
36) 1,2-DCA-D4(S)	5.14	65	80773	25.08257 ppb	0.00
Spiked Amount 25.000			Recovery = 100.332%		
56) Toluene-D8(S)	7.36	98	329318	24.61165 ppb	0.00
Spiked Amount 25.000			Recovery = 98.448%		
64) 4-Bromofluorobenzene(S)	10.74	95	121724	25.10223 ppb	0.00
Spiked Amount 25.000			Recovery = 100.408%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.21	85	19728	9.94151 ppb	100
3) Freon 114	1.31	85	33264	9.84710 ppb	100
4) Chloromethane	1.36	49	3460	9.51433 ppb	100
5) Vinyl chloride	1.45	62	28768	9.98765 ppb	100
6) Bromomethane	1.71	94	25929	9.91529 ppb	100
7) Chloroethane	1.81	64	13535	8.63170 ppb	100
8) Dichlorofluoromethane	2.00	67	77276	9.49463 ppb	100
9) Trichlorofluoromethane	2.04	101	59374	10.36404 ppb	100
10) Acrolein	2.43	56	19248	121.22078 ppb	100
11) Acetone	2.59	43	7739	19.65977 ppb	100
12) Freon-113	2.55	101	15212	8.91223 ppb	100
13) 1,1-DCE	2.53	61	55774	9.61535 ppb	100
14) t-Butanol	3.17	59	20816	123.48995 ppb	100
15) Methyl Acetate	2.92	43	17149	9.07008 ppb	100
16) Iodomethane	2.66	142	28433	9.30465 ppb	100
17) Acrylonitrile	3.24	53	7790	9.57412 ppb	100
18) Methylene chloride	3.00	84	36580	9.68877 ppb	100
19) Carbon disulfide	2.72	76	103181	9.52031 ppb	100
20) Methyl t-butyl ether (MtBE	3.30	73	32616	9.05280 ppb	100
21) Trans-1,2-DCE	3.27	96	35129	9.66712 ppb	100
22) Diisopropyl Ether	3.82	45	118134	9.56398 ppb	100
23) 1,1-DCA	3.69	63	67815	9.57467 ppb	100
24) Vinyl Acetate	3.77	43	17952	9.02081 ppb	100
25) Ethyl tert Butyl Ether	4.19	59	83482	9.54189 ppb	100
26) MEK (2-Butanone)	4.33	43	9806	9.15261 ppb	100
27) Cis-1,2-DCE	4.29	96	39734	9.62177 ppb	100
28) 2,2-Dichloropropane	4.28	77	19776	8.98689 ppb	100
29) Chloroform	4.63	83	63192	9.46487 ppb	100
30) Bromochloromethane	4.53	128	15700	9.71796 ppb	100
32) 1,1,1-TCA	4.81	97	53702	9.74272 ppb	100
33) Cyclohexane	4.87	41	35990	9.67286 ppb	100
34) 1,1-Dichloropropene	5.00	75	51986	10.10663 ppb	100
35) 2,2,4-Trimethylpentane	5.34	57	123220	9.64122 ppb	100
37) Carbon Tetrachloride	4.99	117	40576	9.42681 ppb	100
38) Tert Amyl Methyl Ether	5.38	73	73973	9.87485 ppb	100
39) 1,2-DCA	5.23	62	41959	9.62885 ppb	100
40) Benzene	5.21	78	152136	9.30921 ppb	100
41) TCE	5.93	95	37012	9.20339 ppb	100
42) 2-Pentanone	6.17	43	199077	118.53024 ppb	100

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M11.D Vial: 10
Acq On : 20 Oct 16 14:09 Operator: DG,CM,SV
Sample : 10ug/L VOC STD 10/20/16AF Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	1,2-Dichloropropane	6.17	63	38804	9.46738 ppb	100
44)	Bromodichloromethane	6.50	83	43008	9.56272 ppb	100
45)	Methyl Cyclohexane	6.15	83	62434	9.74591 ppb	100
46)	Dibromomethane	6.30	93	17271	9.67071 ppb	100
47)	MIBK (methyl isobutyl ket	7.26	43	24513	9.80718 ppb	100
48)	1-Bromo-2-chloroethane	6.85	63	21160	9.64761 ppb	100
50)	Cis-1,3-Dichloropropene	7.03	75	46257	9.42152 ppb	100
51)	Toluene	7.44	91	174573	9.53207 ppb	100
52)	Trans-1,3-Dichloropropene	7.71	75	17896	9.96863 ppb	100
53)	1,1,2-TCA	7.93	83	21756	9.75104 ppb	100
54)	2-Hexanone	8.29	58	7497	9.70144 ppb	100
57)	1,2-EDB	8.54	107	22307	9.46380 ppb	100
58)	Tetrachloroethene	8.11	164	17688	9.23061 ppb	100
59)	1-Chlorohexane	9.22	91	51061	9.60226 ppb	100
60)	1,1,1,2-Tetrachloroethane	9.31	131	31437	9.58467 ppb	100
61)	m&p-Xylene	9.53	106	153766	19.18912 ppb	100
62)	o-Xylene	10.05	106	75450	9.74908 ppb	100
63)	Styrene	10.07	104	126018	9.98377 ppb	100
65)	1,3-Dichloropropane	8.13	76	45563	9.50951 ppb	100
66)	Dibromochloromethane	8.41	129	26830	9.59972 ppb	100
67)	Chlorobenzene	9.19	112	109146	9.57181 ppb	100
68)	Ethylbenzene	9.37	91	197373	9.77931 ppb	100
69)	Bromoform	10.27	173	15195	9.90805 ppb	100
71)	Isopropylbenzene	10.56	105	194713	9.69982 ppb	100
72)	1,1,2,2-Tetrachloroethane	10.97	83	27818	9.74662 ppb	100
73)	1,2,3-Trichloropropane	11.01	110	8638	10.10135 ppb	100
74)	t-1,4-Dichloro-2-Butene	11.06	53	5876	9.57228 ppb	100
75)	Bromobenzene	10.92	156	44669	9.72089 ppb	100
76)	n-Propylbenzene	11.13	91	237808	9.97786 ppb	100
77)	4-Ethyltoluene	11.30	105	193627	9.83754 ppb	100
78)	2-Chlorotoluene	11.22	91	128149	9.91334 ppb	100
79)	1,3,5-Trimethylbenzene	11.39	105	163211	9.75101 ppb	100
80)	4-Chlorotoluene	11.37	91	152701	9.65388 ppb	100
81)	Tert-Butylbenzene	11.84	119	140238	9.49360 ppb	100
82)	1,2,4-Trimethylbenzene	11.91	105	165615	9.93983 ppb	100
83)	Sec-Butylbenzene	12.15	105	212122	10.04224 ppb	100
84)	p-Isopropyltoluene	12.38	119	182433	9.52890 ppb	100
85)	Benzyl Chloride	12.59	91	18613	10.99468 ppb	100
86)	1,3-DCB	12.25	146	88772	9.34502 ppb	100
87)	1,4-DCB	12.38	146	90127	9.33610 ppb	100
88)	n-Butylbenzene	12.96	91	165111	9.82288 ppb	100
89)	1,2-DCB	12.90	146	79339	9.81661 ppb	100
90)	Hexachloroethane	13.27	117	21582	9.76891 ppb	100
91)	1,2-Dibromo-3-chloropropan	14.01	75	3561	8.97153 ppb	100
92)	1,2,4-Trichlorobenzene	15.23	180	54853	9.79898 ppb	100
93)	Hexachlorobutadiene	15.53	225	32938	9.58218 ppb	100
94)	Naphthalene	15.56	128	40832	10.21514 ppb	100
95)	1,2,3-Trichlorobenzene	15.92	180	47265	9.76676 ppb	100

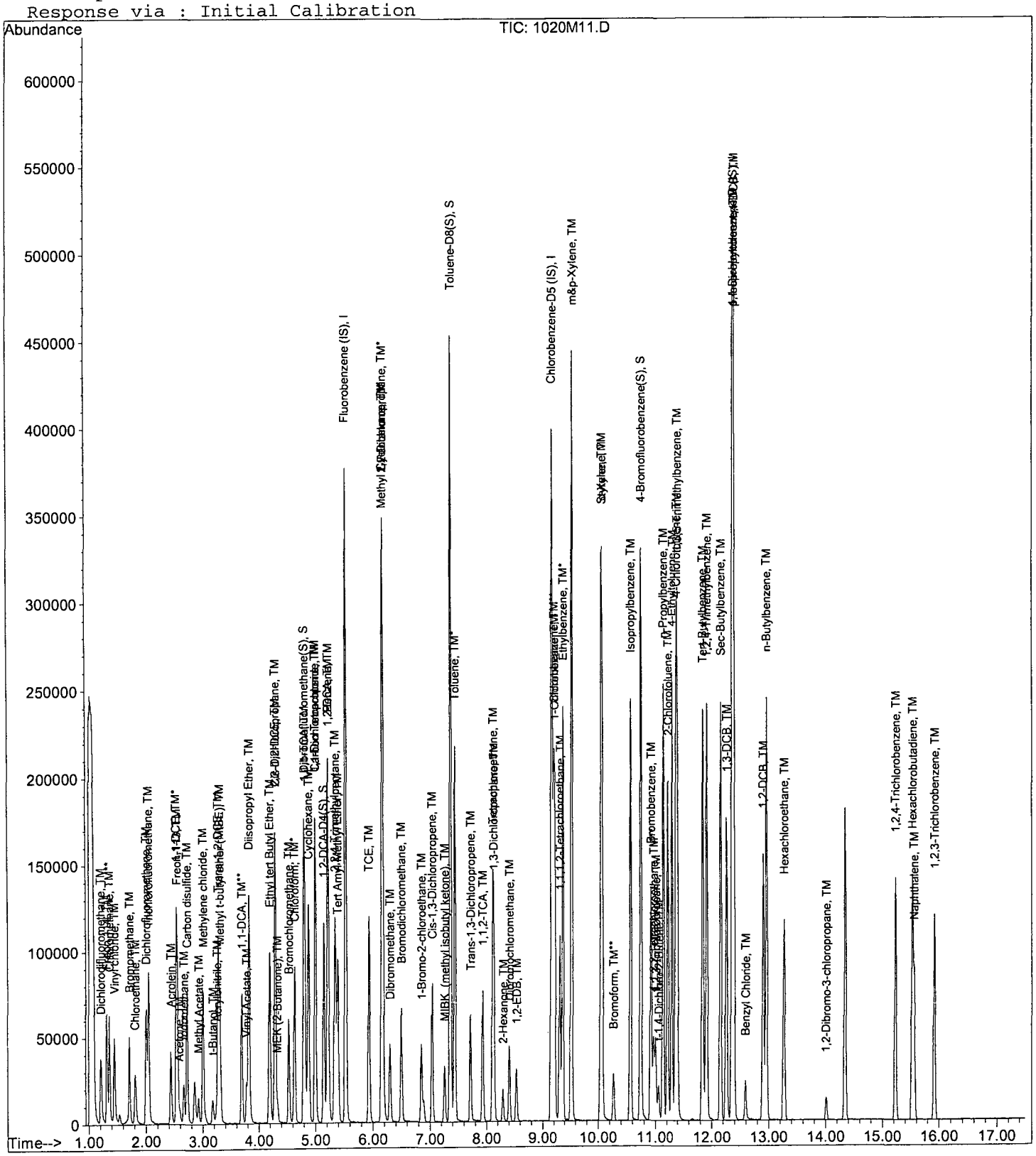
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M11.D Vial: 10
Acq On : 20 Oct 16 14:09 Operator: DG,CM,SV
Sample : 10ug/L VOC STD 10/20/16AF Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M13.D Vial: 12
Acq On : 20 Oct 16 14:52 Operator: DG,CM,SV
Sample : 40ug/L VOC STD 10/20/16AH Inst : MAX
Misc : 10uL-50ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	338131	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	252832	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	143737	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.80	111	160038	48.77168 ppb	0.00
Spiked Amount 25.000			Recovery = 195.088%		
36) 1,2-DCA-D4(S)	5.15	65	146335	46.57873 ppb	0.00
Spiked Amount 25.000			Recovery = 186.316%		
56) Toluene-D8(S)	7.36	98	647863	48.86169 ppb	0.00
Spiked Amount 25.000			Recovery = 195.448%		
64) 4-Bromofluorobenzene(S)	10.74	95	237204	49.36489 ppb	0.00
Spiked Amount 25.000			Recovery = 197.460%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.21	85	81376	42.03385 ppb	99
3) Freon 114	1.32	85	138515	42.03046 ppb	91
4) Chloromethane	1.36	49	13883	39.13080 ppb	92
5) Vinyl chloride	1.45	62	116520	41.46558 ppb	96
6) Bromomethane	1.73	94	103451	40.54972 ppb	95
7) Chloroethane	1.82	64	78648	51.41140 ppb	96
8) Dichlorofluoromethane	2.00	67	312874	39.40363 ppb	98
9) Trichlorofluoromethane	2.04	101	238258	42.62984 ppb	100
10) Acrolein	2.44	56	26640	171.97258 ppb	98
11) Acetone	2.61	43	26018	70.07171 ppb	91
12) Freon-113	2.55	101	63136	37.91496 ppb	97
13) 1,1-DCE	2.53	61	228839	40.43869 ppb	97
14) t-Butanol	3.21	59	36685	223.07783 ppb	94
15) Methyl Acetate	2.93	43	70417	38.17540 ppb	96
16) Iodomethane	2.66	142	126661	39.62656 ppb	95
17) Acrylonitrile	3.25	53	32505	40.94916 ppb	93
18) Methylene chloride	3.01	84	143346	40.72013 ppb	95
19) Carbon disulfide	2.72	76	422355	39.94502 ppb	99
20) Methyl t-butyl ether (MtBE	3.31	73	139520	39.69376 ppb	96
21) Trans-1,2-DCE	3.28	96	147541	41.61766 ppb	97
22) Diisopropyl Ether	3.82	45	483970	40.16202 ppb	98
23) 1,1-DCA	3.69	63	276747	40.05109 ppb	99
24) Vinyl Acetate	3.78	43	76528	39.41729 ppb	97
25) Ethyl tert Butyl Ether	4.19	59	351567	41.18918 ppb	99
26) MEK (2-Butanone)	4.34	43	38242	36.58703 ppb	97
27) Cis-1,2-DCE	4.29	96	163452	40.57108 ppb	98
28) 2,2-Dichloropropane	4.29	77	86384	40.23811 ppb	100
29) Chloroform	4.63	83	263563	40.46417 ppb	100
30) Bromochloromethane	4.53	128	65214	41.37612 ppb	96
32) 1,1,1-TCA	4.82	97	221967	41.27733 ppb	100
33) Cyclohexane	4.88	41	140437	38.68904 ppb	93
34) 1,1-Dichloropropene	5.00	75	207679	41.38529 ppb	96
35) 2,2,4-Trimethylpentane	5.34	57	498412	39.97357 ppb	100
37) Carbon Tetrachloride	5.00	117	178221	42.44122 ppb	97
38) Tert Amyl Methyl Ether	5.39	73	305683	41.82751 ppb	97
39) 1,2-DCA	5.23	62	169163	39.79129 ppb	98
40) Benzene	5.21	78	628298	39.40760 ppb	98
41) TCE	5.94	95	154851	39.46869 ppb	96
42) 2-Pentanone	6.18	43	302330	184.51125 ppb	98

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M13.D Vial: 12
Acq On : 20 Oct 16 14:52 Operator: DG,CM,SV
Sample : 40ug/L VOC STD 10/20/16AH Inst : MAX
Misc : 10uL-50ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

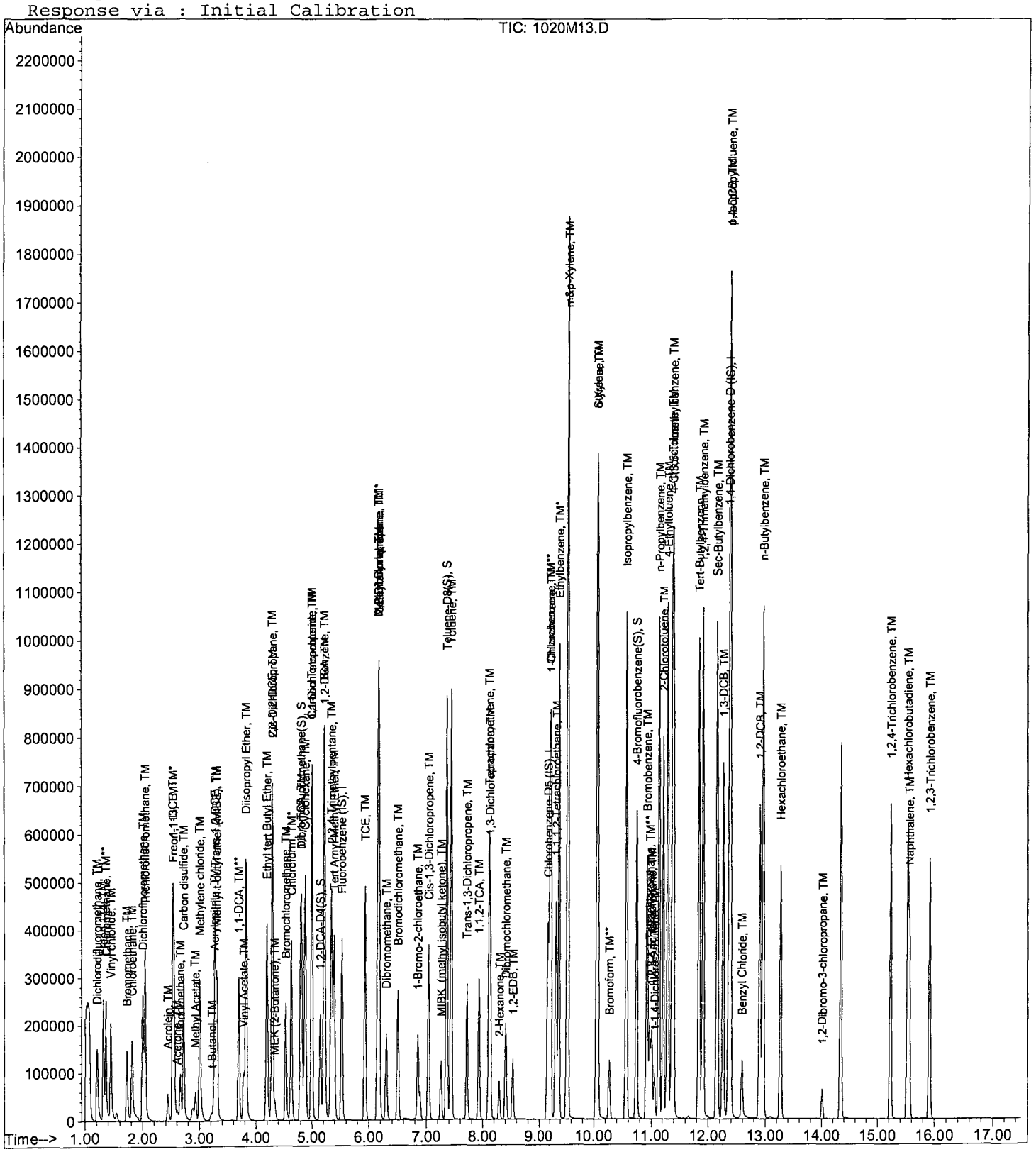
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	6.18	63	158423	39.61914	ppb		99
44)	Bromodichloromethane	6.50	83	180451	41.12681	ppb		99
45)	Methyl Cyclohexane	6.16	83	256175	40.98939	ppb		98
46)	Dibromomethane	6.30	93	69232	39.73576	ppb		95
47)	MIBK (methyl isobutyl ket	7.26	43	93566	40.59266	ppb		98
48)	1-Bromo-2-chloroethane	6.85	63	82784	38.68868	ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	211531	44.16223	ppb		98
51)	Toluene	7.44	91	715934	40.06977	ppb		98
52)	Trans-1,3-Dichloropropene	7.72	75	85624	48.88872	ppb		97
53)	1,1,2-TCA	7.93	83	85440	39.25243	ppb		98
54)	2-Hexanone	8.30	58	33336	44.21766	ppb		95
57)	1,2-EDB	8.54	107	94739	40.56143	ppb		100
58)	Tetrachloroethene	8.11	164	73728	38.82791	ppb		97
59)	1-Chlorohexane	9.22	91	219871	41.72651	ppb		99
60)	1,1,1,2-Tetrachloroethane	9.31	131	141135	43.42413	ppb		97
61)	m&p-Xylene	9.53	106	639638	80.55439	ppb		98
62)	o-Xylene	10.05	106	312443	40.74135	ppb		96
63)	Styrene	10.07	104	521192	41.66963	ppb		100
65)	1,3-Dichloropropane	8.13	76	185203	39.00805	ppb		90
66)	Dibromochloromethane	8.41	129	119552	43.16731	ppb		91
67)	Chlorobenzene	9.19	112	441454	39.06896	ppb		99
68)	Ethylbenzene	9.37	91	810428	40.52239	ppb		98
69)	Bromoform	10.27	173	68785	45.26280	ppb		93
71)	Isopropylbenzene	10.56	105	816467	39.59416	ppb		99
72)	1,1,2,2-Tetrachloroethane	10.97	83	115103	39.25891	ppb		96
73)	1,2,3-Trichloropropane	11.01	110	34915	43.17540	ppb		100
74)	t-1,4-Dichloro-2-Butene	11.05	53	26202	41.55198	ppb	#	77
75)	Bromobenzene	10.92	156	184995	39.19075	ppb		99
76)	n-Propylbenzene	11.14	91	984531	40.21277	ppb		100
77)	4-Ethyltoluene	11.30	105	823037	40.70650	ppb		99
78)	2-Chlorotoluene	11.22	91	518641	39.05666	ppb		100
79)	1,3,5-Trimethylbenzene	11.39	105	680220	39.56153	ppb		98
80)	4-Chlorotoluene	11.37	91	630483	38.80226	ppb		98
81)	Tert-Butylbenzene	11.84	119	598267	39.42612	ppb		97
82)	1,2,4-Trimethylbenzene	11.91	105	699075	40.84385	ppb		99
83)	Sec-Butylbenzene	12.15	105	886221	40.84232	ppb		100
84)	p-Isopropyltoluene	12.38	119	781656	39.74466	ppb		99
85)	Benzyl Chloride	12.59	91	100997	58.07620	ppb		99
86)	1,3-DCB	12.26	146	374899	38.41866	ppb		99
87)	1,4-DCB	12.39	146	376108	37.92686	ppb		99
88)	n-Butylbenzene	12.96	91	735880	42.61805	ppb		100
89)	1,2-DCB	12.90	146	333626	40.18446	ppb		98
90)	Hexachloroethane	13.27	117	106377	46.87331	ppb		95
91)	1,2-Dibromo-3-chloropropan	14.01	75	17677	45.34723	ppb		97
92)	1,2,4-Trichlorobenzene	15.23	180	256082	44.53311	ppb		99
93)	Hexachlorobutadiene	15.53	225	142091	40.23993	ppb		97
94)	Naphthalene	15.56	128	201280	49.01938	ppb		99
95)	1,2,3-Trichlorobenzene	15.92	180	220615	44.37820	ppb		99

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

Data File : M:\MAX\DATA\M161020\1020M13.D Vial: 12
Acq On : 20 Oct 16 14:52 Operator: DG,CM,SV
Sample : 40ug/L VOC STD 10/20/16AH Inst : MAX
Misc : 10uL-50ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M14.D Vial: 13
Acq On : 20 Oct 16 15:14 Operator: DG,CM,SV
Sample : 100ug/L VOC STD 10/20/16AI Inst : MAX
Misc : 20uL-100ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	379136	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	291939	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.36	152	180096	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.80	111	351079	95.42000 ppb	0.00
Spiked Amount 25.000			Recovery = 381.680%		
36) 1,2-DCA-D4(S)	5.14	65	324922	92.23770 ppb	0.00
Spiked Amount 25.000			Recovery = 368.952%		
56) Toluene-D8(S)	7.36	98	1432239	93.54934 ppb	0.00
Spiked Amount 25.000			Recovery = 374.196%		
64) 4-Bromofluorobenzene(S)	10.74	95	561796	101.25460 ppb	0.00
Spiked Amount 25.000			Recovery = 405.020%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.20	85	218624	100.71417 ppb	98
3) Freon 114	1.31	85	355309	96.15314 ppb	95
4) Chloromethane	1.35	49	38424	96.58907 ppb	90
5) Vinyl chloride	1.44	62	325760	103.38915 ppb	98
6) Bromomethane	1.71	94	346301	121.05893 ppb	94
7) Chloroethane	1.79	64	269184	156.93179 ppb	97
8) Dichlorofluoromethane	1.99	67	857818	96.35004 ppb	100
9) Trichlorofluoromethane	2.03	101	639140	101.98872 ppb	99
10) Acrolein	2.44	56	32592	187.64024 ppb	97
11) Acetone	2.60	43	69622	168.54332 ppb	99
12) Freon-113	2.54	101	169984	91.03985 ppb	96
13) 1,1-DCE	2.52	61	615707	97.03559 ppb	97
14) t-Butanol	3.20	59	34353	186.30414 ppb	99
15) Methyl Acetate	2.93	43	195139	94.34962 ppb	96
16) Iodomethane	2.65	142	363691	100.22478 ppb	96
17) Acrylonitrile	3.25	53	89001	99.99532 ppb	94
18) Methylene chloride	3.00	84	390333	99.74282 ppb	97
19) Carbon disulfide	2.71	76	1161611	97.97961 ppb	99
20) Methyl t-butyl ether (MtBE	3.31	73	383360	97.27080 ppb	96
21) Trans-1,2-DCE	3.27	96	393076	98.88523 ppb	98
22) Diisopropyl Ether	3.82	45	1308127	96.81374 ppb	98
23) 1,1-DCA	3.69	63	733147	94.62643 ppb	99
24) Vinyl Acetate	3.78	43	215680	99.07550 ppb	96
25) Ethyl tert Butyl Ether	4.19	59	959599	100.26626 ppb	99
26) MEK (2-Butanone)	4.33	43	107134	91.41212 ppb	96
27) Cis-1,2-DCE	4.29	96	434140	96.10502 ppb	97
28) 2,2-Dichloropropane	4.29	77	249088	103.47777 ppb	99
29) Chloroform	4.63	83	689127	94.35728 ppb	100
30) Bromochloromethane	4.53	128	168364	95.26823 ppb	99
32) 1,1,1-TCA	4.81	97	603350	100.06507 ppb	98
33) Cyclohexane	4.88	41	376665	92.54472 ppb	95
34) 1,1-Dichloropropene	5.00	75	556999	98.99147 ppb	98
35) 2,2,4-Trimethylpentane	5.34	57	1349770	96.54597 ppb	99
37) Carbon Tetrachloride	4.99	117	491735	104.43596 ppb	99
38) Tert Amyl Methyl Ether	5.39	73	846313	103.27892 ppb	94
39) 1,2-DCA	5.23	62	464253	97.39291 ppb	98
40) Benzene	5.21	78	1672342	93.54689 ppb	99
41) TCE	5.93	95	402643	91.52692 ppb	94
42) 2-Pentanone	6.17	43	401229	218.38555 ppb	99

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M14.D Vial: 13
Acq On : 20 Oct 16 15:14 Operator: DG,CM,SV
Sample : 100ug/L VOC STD 10/20/16AI Inst : MAX
Misc : 20uL-100ppb Multiplr: 1.00

Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:35:33 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	1,2-Dichloropropane	6.18	63	422638	94.26387 ppb		99
44)	Bromodichloromethane	6.50	83	489644	99.52591 ppb		100
45)	Methyl Cyclohexane	6.16	83	676221	96.49689 ppb		97
46)	Dibromomethane	6.30	93	181680	92.99759 ppb		93
47)	MIBK (methyl isobutyl ket	7.26	43	255012	99.76036 ppb		98
48)	1-Bromo-2-chloroethane	6.85	63	231104	96.32410 ppb		99
50)	Cis-1,3-Dichloropropene	7.04	75	592576	110.33442 ppb		99
51)	Toluene	7.44	91	1949675	97.31864 ppb		98
52)	Trans-1,3-Dichloropropene	7.72	75	256064	130.39220 ppb		96
53)	1,1,2-TCA	7.93	83	235652	96.55313 ppb		97
54)	2-Hexanone	8.30	58	90538	107.10337 ppb		95
57)	1,2-EDB	8.54	107	268808	99.67048 ppb		100
58)	Tetrachloroethene	8.11	164	196096	89.43762 ppb		98
59)	1-Chlorohexane	9.22	91	606562	99.69176 ppb		97
60)	1,1,1,2-Tetrachloroethane	9.31	131	403846	107.60987 ppb		98
61)	m&p-Xylene	9.53	106	1823147	198.84588 ppb		99
62)	o-Xylene	10.05	106	891668	100.69496 ppb		96
63)	Styrene	10.07	104	1520580	105.28612 ppb		99
65)	1,3-Dichloropropane	8.13	76	502910	91.73527 ppb		92
66)	Dibromochloromethane	8.41	129	337340	105.48868 ppb		91
67)	Chlorobenzene	9.19	112	1231356	94.37782 ppb		99
68)	Ethylbenzene	9.37	91	2260892	97.90398 ppb		98
69)	Bromoform	10.27	173	207303	118.13897 ppb		93
71)	Isopropylbenzene	10.57	105	2345862	90.79448 ppb		98
72)	1,1,2,2-Tetrachloroethane	10.97	83	328615	89.45476 ppb		99
73)	1,2,3-Trichloropropane	11.01	110	98560	98.73618 ppb		98
74)	t-1,4-Dichloro-2-Butene	11.06	53	78023	98.75168 ppb	#	74
75)	Bromobenzene	10.92	156	527929	89.26138 ppb		100
76)	n-Propylbenzene	11.14	91	2877175	93.79191 ppb		100
77)	4-Ethyltoluene	11.31	105	2436851	96.19175 ppb		98
78)	2-Chlorotoluene	11.22	91	1525158	91.66585 ppb		100
79)	1,3,5-Trimethylbenzene	11.40	105	2062233	95.72512 ppb		99
80)	4-Chlorotoluene	11.38	91	1889987	92.83399 ppb		98
81)	Tert-Butylbenzene	11.84	119	1756650	92.39293 ppb		97
82)	1,2,4-Trimethylbenzene	11.91	105	2110427	98.40966 ppb		100
83)	Sec-Butylbenzene	12.16	105	2644527	97.27043 ppb		98
84)	p-Isopropyltoluene	12.38	119	2396738	97.26312 ppb		98
85)	Benzyl Chloride	12.59	91	372606	171.00313 ppb		98
86)	1,3-DCB	12.26	146	1099607	89.93524 ppb		99
87)	1,4-DCB	12.39	146	1116803	89.88255 ppb		98
88)	n-Butylbenzene	12.96	91	2202908	101.82336 ppb		99
89)	1,2-DCB	12.90	146	928272	89.23557 ppb		98
90)	Hexachloroethane	13.27	117	352549	123.98292 ppb		95
91)	1,2-Dibromo-3-chloropropan	14.01	75	47582	98.01760 ppb		91
92)	1,2,4-Trichlorobenzene	15.23	180	649301	90.11862 ppb		99
93)	Hexachlorobutadiene	15.53	225	364027	82.27896 ppb		98
94)	Naphthalene	15.56	128	496256	96.45782 ppb		99
95)	1,2,3-Trichlorobenzene	15.92	180	545084	87.51098 ppb		99

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

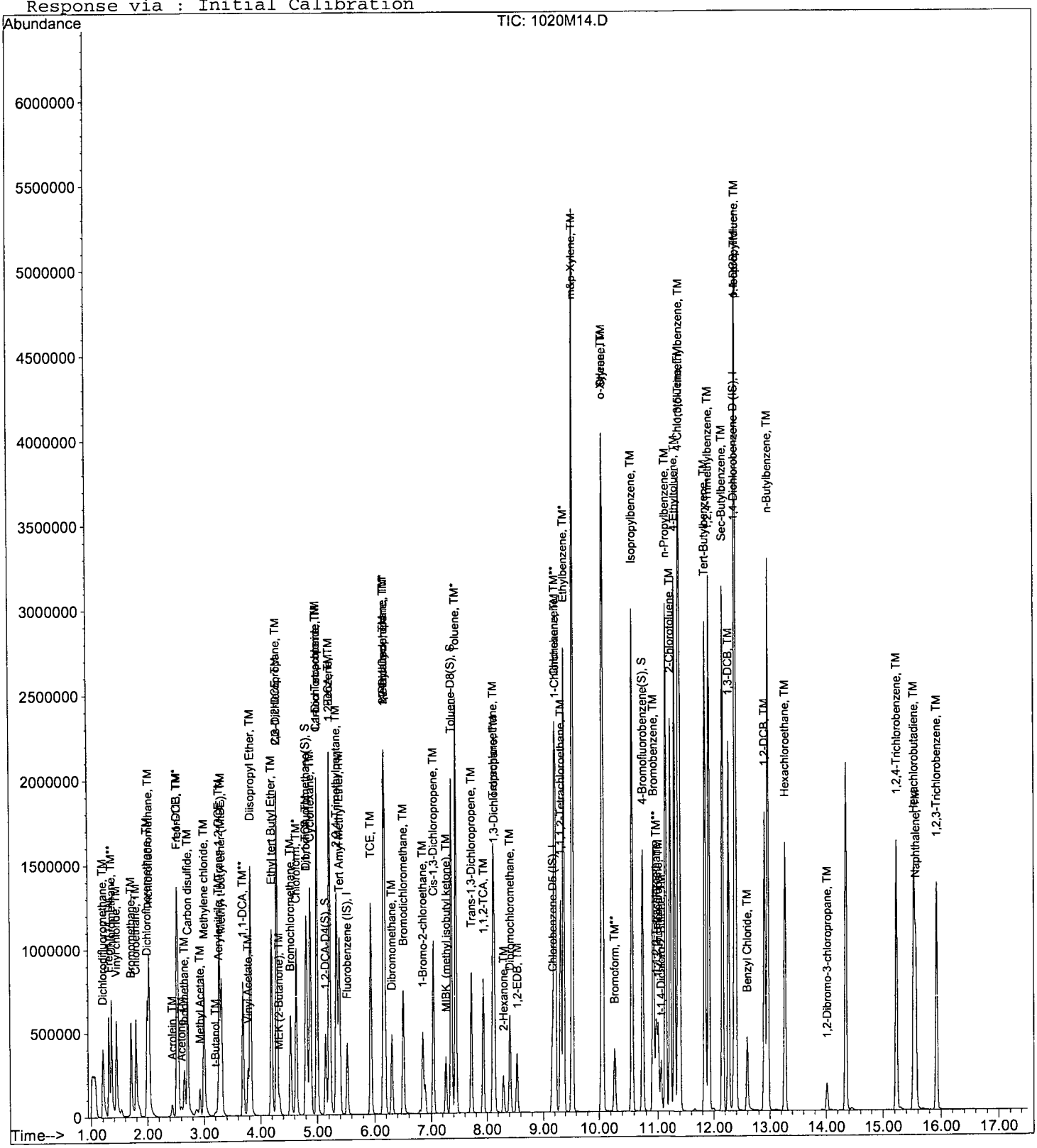
Quantitation Report

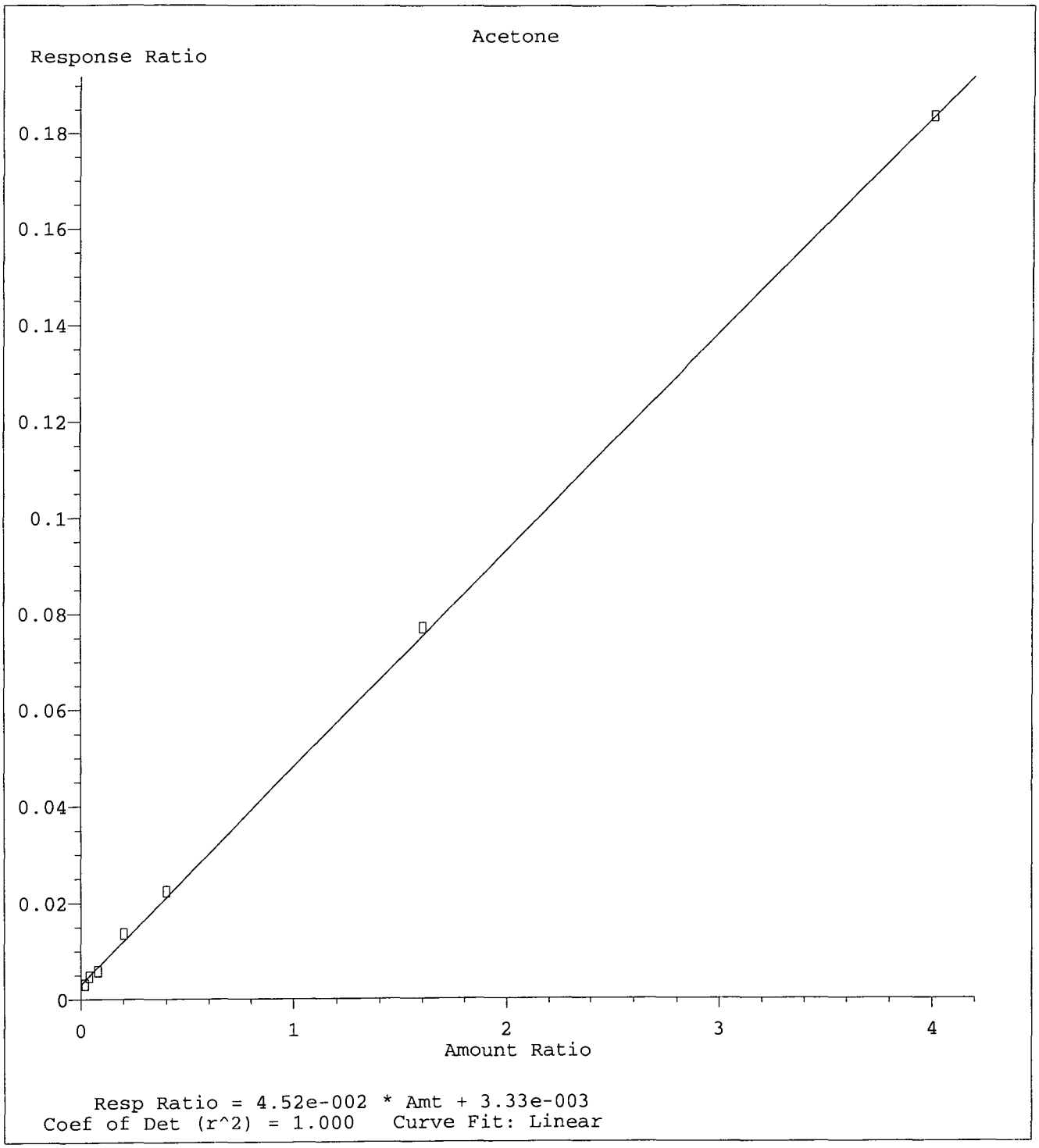
Data File : M:\MAX\DATA\M161020\1020M14.D
Acq On : 20 Oct 16 15:14
Sample : 100ug/L VOC STD 10/20/16AI
Misc : 20uL-100ppb

Vial: 13
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

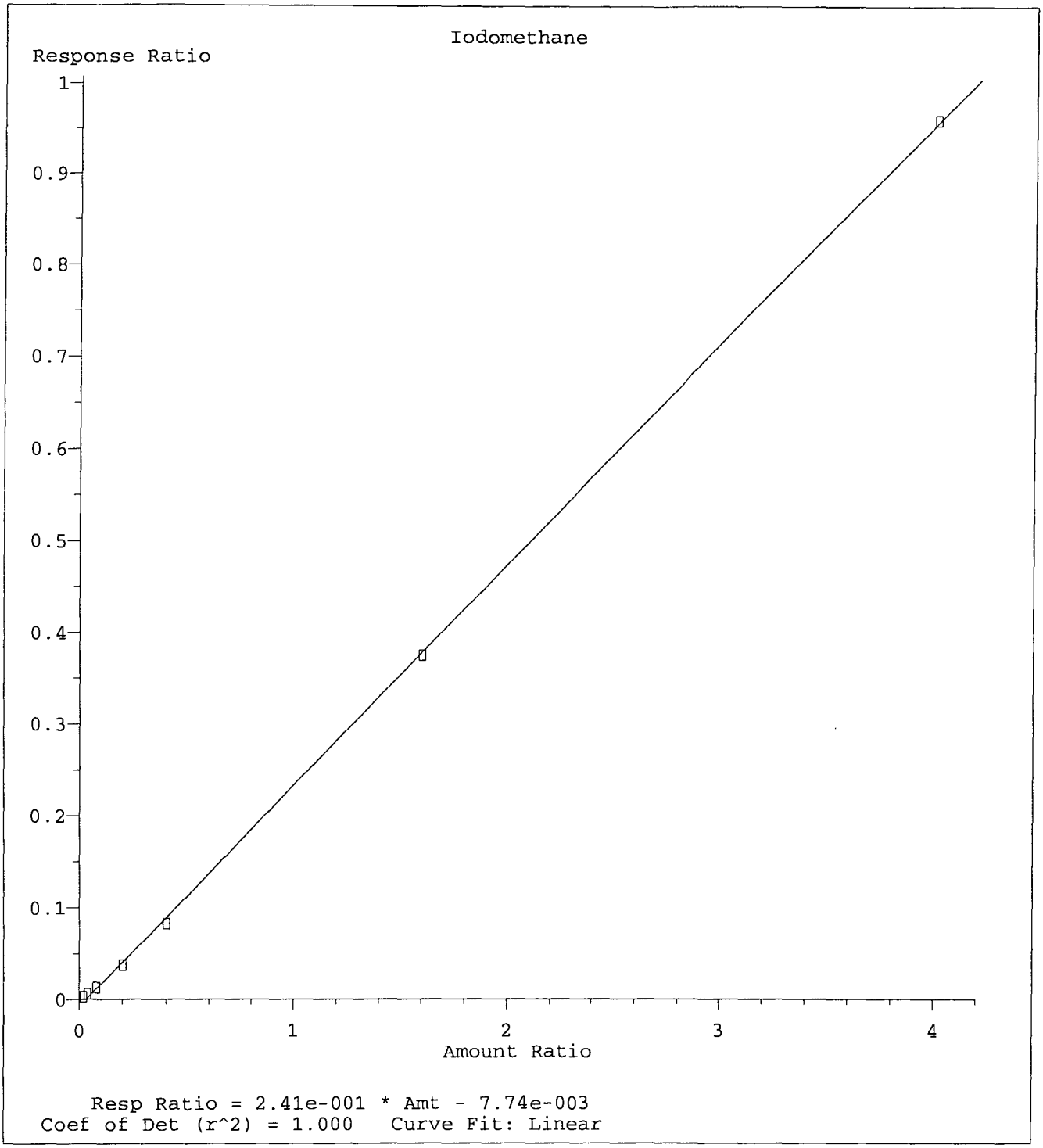
Quant Time: Oct 21 8:36 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration

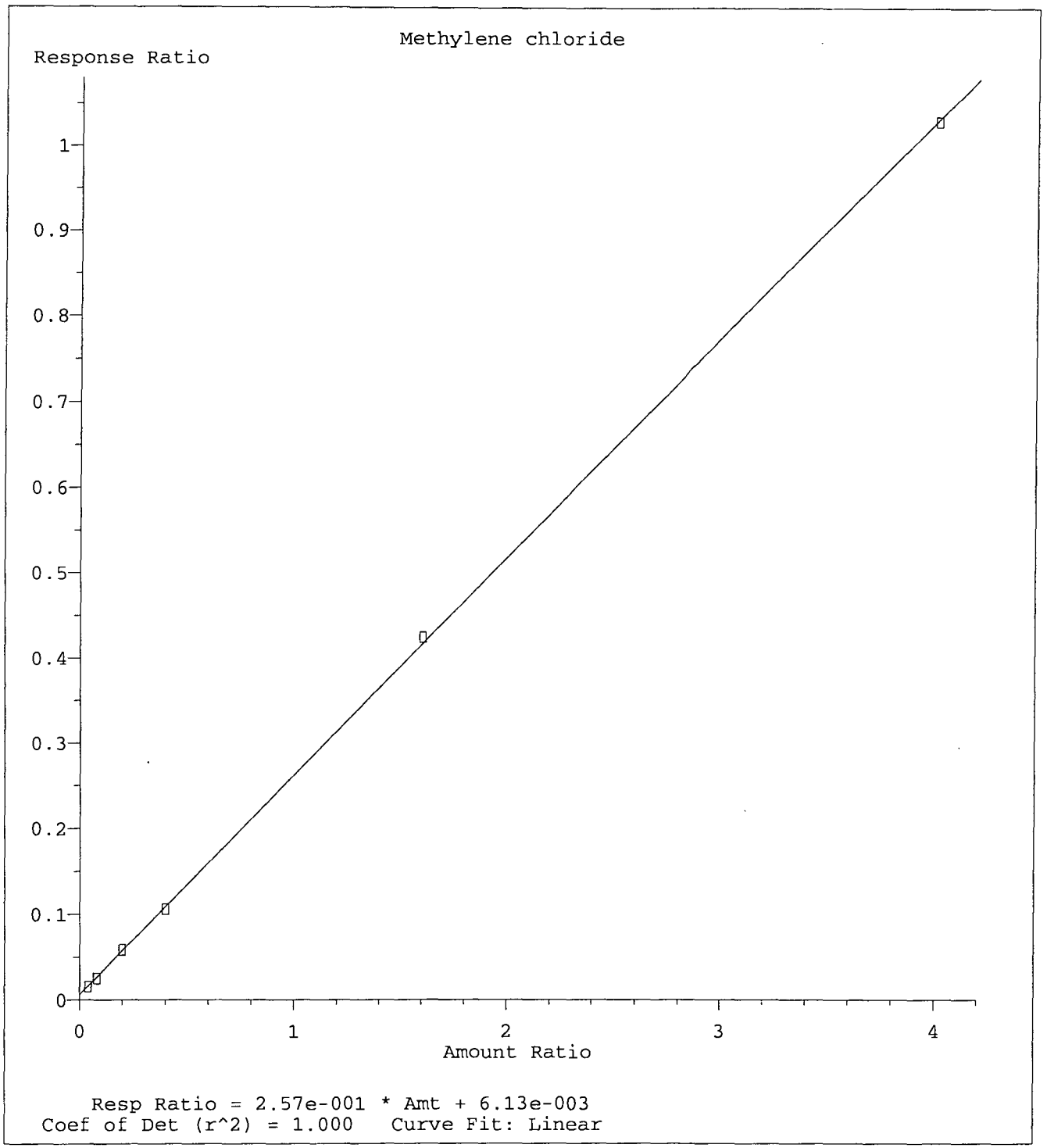




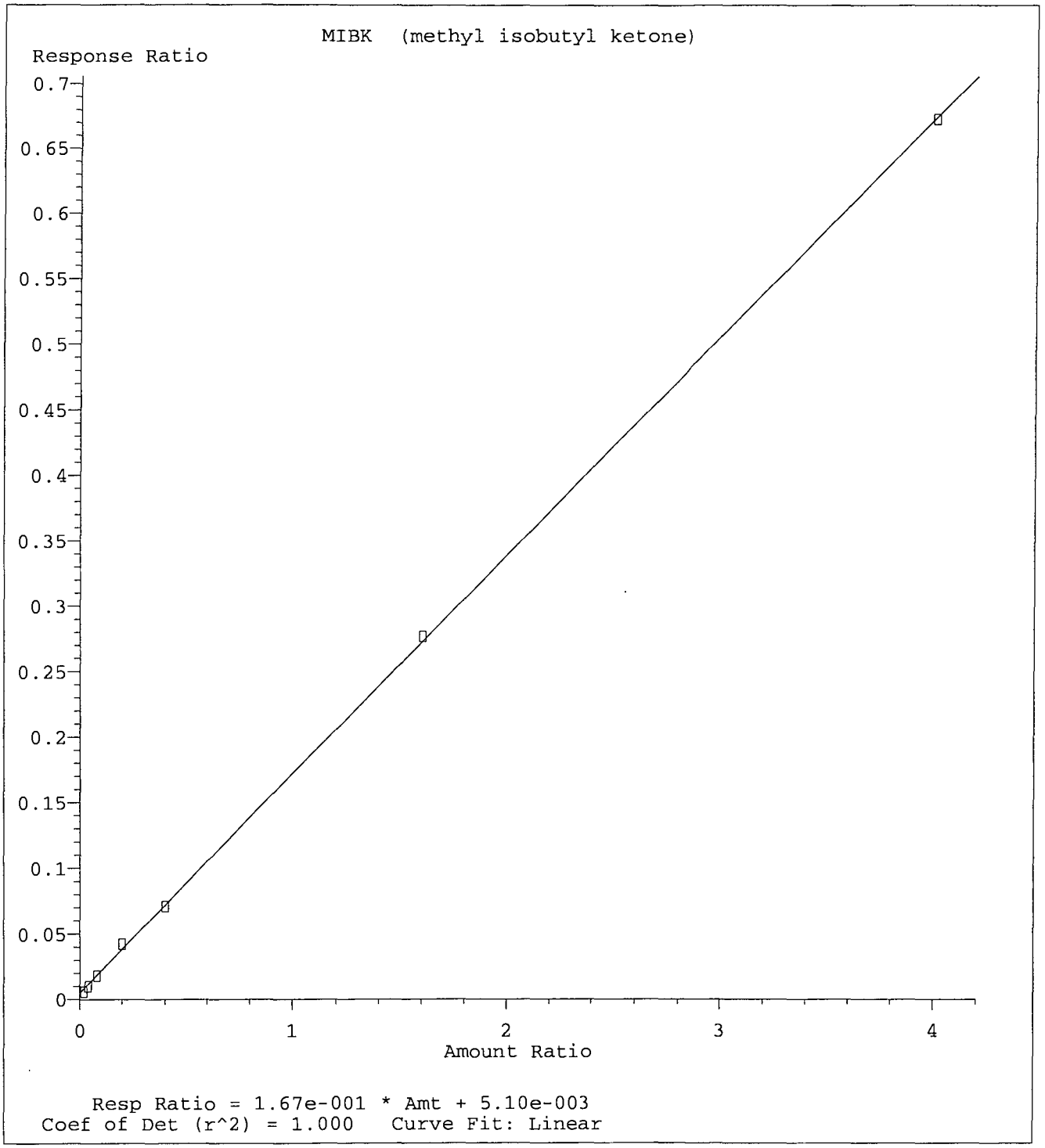
Method Name: M:\MAX\DATA\M161020\MALLW.M
Calibration Table Last Updated: Fri Oct 21 08:51:50 2016



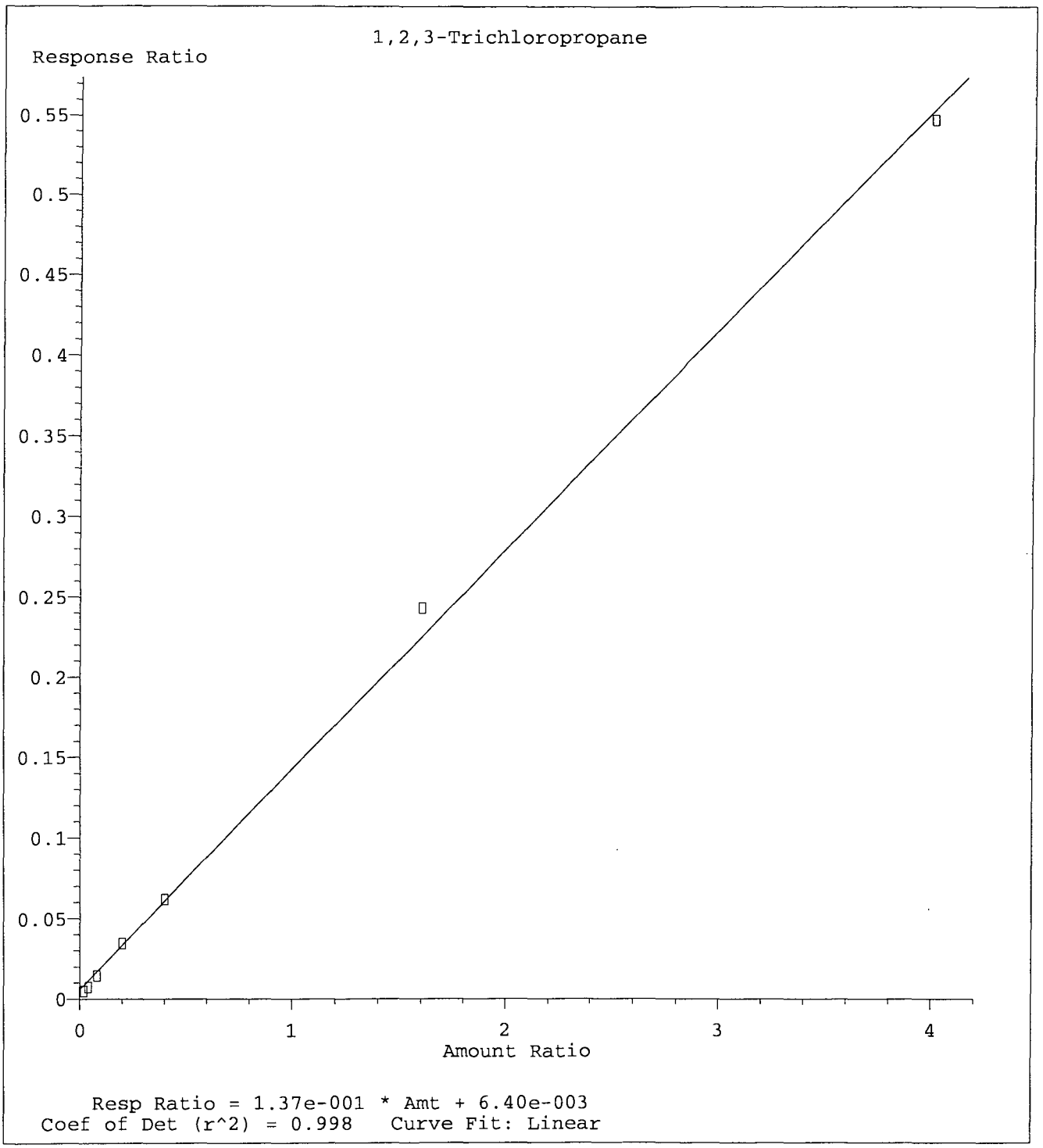
Method Name: M:\MAX\DATA\M161020\MALLW.M
Calibration Table Last Updated: Fri Oct 21 08:51:50 2016



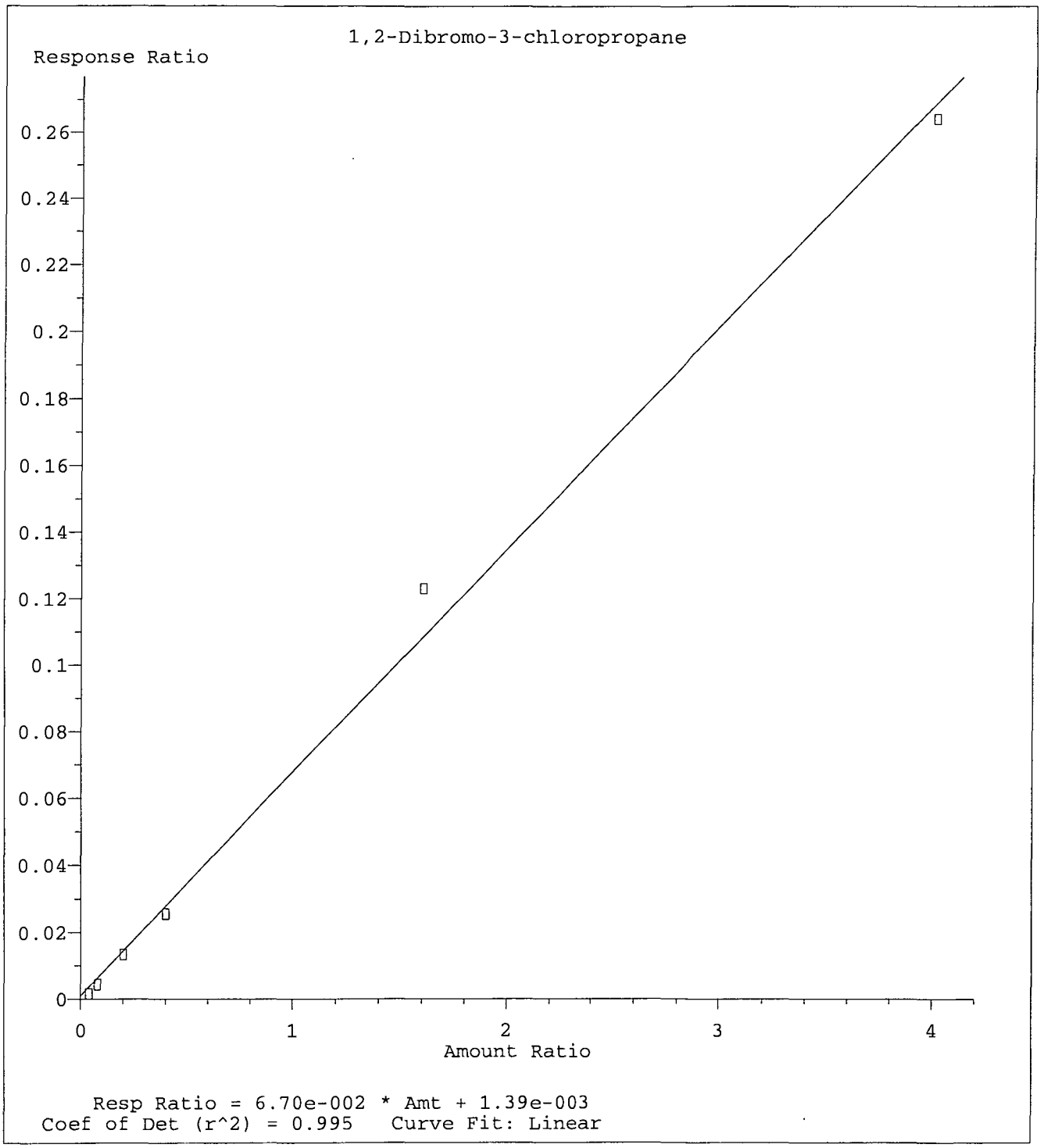
Method Name: M:\MAX\DATA\M161020\MALLW.M
Calibration Table Last Updated: Fri Oct 21 08:51:50 2016



Method Name: M:\MAX\DATA\M161020\MALLW.M
Calibration Table Last Updated: Fri Oct 21 08:51:50 2016



Method Name: M:\MAX\DATA\M161020\MALLW.M
Calibration Table Last Updated: Fri Oct 21 08:51:50 2016



Method Name: M:\MAX\DATA\M161020\MALLW.M
Calibration Table Last Updated: Fri Oct 21 08:51:50 2016

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 10/20/16
Instrument: MAX
Initial Cal. Date: 10/20/16
Data File: 1020M21.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Dichlorodifluoromethane	0.1431	0.1420	0.77	TM	
2	TM	Freon 114	0.2437	0.2694	11	TM	
3	TM**	Chloromethane	0.0262	0.0248	5.6	TM**	
4	TM*	Vinyl chloride	0.2078	0.2017	2.9	TM*	
5	TM	Bromomethane	0.1886	0.1924	2.0	TM	
6	TM	Chloroethane	0.1131	0.1070	5.4	TM	
7	TM	Dichlorofluoromethane	0.5871	0.5679	3.3	TM	
8	TM	Trichlorofluoromethane	0.4132	0.4089	1.0	TM	
9	TM	Acrolein	0.0115	0.0115	0.51	TM	
10	TML	Acetone	0.0802	0.0615	23	TML	18
11	TM	Freon-113	0.1231	0.1218	1.0	TM	
12	TM*	1,1-DCE	0.4184	0.4168	0.38	TM*	
13	TM	t-Butanol	0.0126	0.0128	1.7	TM	
14	TM	Methyl Acetate	0.1364	0.1387	1.7	TM	
15	TML	Iodomethane	0.1892	0.1990	5.2	TML	9.5
16	TM	Acrylonitrile	0.0587	0.0621	5.9	TM	
17	TML	Methylene chloride	0.2965	0.2799	5.6	TML	3.2
18	TM	Carbon disulfide	0.7818	0.7803	0.19	TM	
19	TM	Methyl t-butyl ether (MtBE)	0.2599	0.2630	1.2	TM	
20	TM	Trans-1,2-DCE	0.2621	0.2732	4.2	TM	
21	TM	Diisopropyl Ether	0.8910	0.8992	0.93	TM	
22	TM**	1,1-DCA	0.5109	0.4995	2.2	TM**	
23	TM	Vinyl Acetate	0.1435	0.1529	6.5	TM	
24	TM	Ethyl tert Butyl Ether	0.6311	0.6543	3.7	TM	
25	TM	MEK (2-Butanone)	0.0773	0.0714	7.6	TM	
26	TM	Cis-1,2-DCE	0.2979	0.2969	0.31	TM	
27	TM	2,2-Dichloropropane	0.1587	0.1670	5.2	TM	
28	TM*	Chloroform	0.4816	0.4820	0.09	TM*	
29	TM	Bromochloromethane	0.1165	0.1212	4.0	TM	
30	TM	1,1,1-TCA	0.3976	0.4035	1.5	TM	
31	TM	Cyclohexane	0.2684	0.2688	0.14	TM	
32	TM	1,1-Dichloropropene	0.3710	0.3883	4.7	TM	
33	TM	2,2,4-Trimethylpentane	0.9191	0.9797	6.6	TM	
34	TM	Carbon Tetrachloride	0.3081	0.3106	0.82	TM	
35	TM	Tert Amyl Methyl Ether	0.5403	0.5611	3.8	TM	
36	TM	1,2-DCA	0.3143	0.3100	1.4	TM	
37	TM	Benzene	1.164	1.134	2.6	TM	
38	TM	TCE	0.2859	0.2852	0.23	TM	
39	TM	2-Pentanone	0.1197	0.1205	0.67	TM	
40	TM*	1,2-Dichloropropane	0.2943	0.2993	1.7	TM*	
		Average			3.4		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/20/16
Instrument: MAX
Cal. Date: 10/20/16
Data File: 1020M21.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	Bromodichloromethane	0.3202	0.3272	2.2	TM	
42	TM	Methyl Cyclohexane	0.4617	0.4850	5.1	TM	
43	TM	Dibromomethane	0.1288	0.1326	2.9	TM	
44	TML	MIBK (methyl isobutyl ketone)	0.2145	0.1918	11	TML	7.1
45	TM	1-Bromo-2-chloroethane	0.1582	0.1617	2.2	TM	
46	TM	2-Chloroethyl vinyl ether	0.0000	0.0056	0.00	TM	
47	TM	Cis-1,3-Dichloropropene	0.3541	0.3719	5.0	TM	
48	TM*	Toluene	1.310	1.308	0.15	TM*	
49	TM	Trans-1,3-Dichloropropene	0.1295	0.1422	9.8	TM	
50	TM	1,1,2-TCA	0.1609	0.1630	1.3	TM	
51	TM	2-Hexanone	0.0557	0.0618	11	TM	
52	TM	1,2-EDB	0.2310	0.2388	3.4	TM	
53	TM	Tetrachloroethene	0.1878	0.1878	0.04	TM	
54	TM	1-Chlorohexane	0.5210	0.5550	6.5	TM	
55	TM	1,1,1,2-Tetrachloroethane	0.3214	0.3450	7.4	TM	
56	TM	m&p-Xylene	0.7771	0.8015	3.1	TM	
57	TM	o-Xylene	0.7601	0.7577	0.31	TM	
58	TM	Styrene	1.221	1.315	7.7	TM	
59	TM	1,3-Dichloropropane	0.4695	0.4842	3.1	TM	
60	TM	Dibromochloromethane	0.2738	0.2865	4.6	TM	
61	TM**	Chlorobenzene	1.117	1.116	0.13	TM**	
62	TM*	Ethylbenzene	1.973	2.048	3.8	TM*	
63	TM**	Bromoform	0.1503	0.1579	5.0	TM**	
64	TM	Isopropylbenzene	3.559	3.537	0.62	TM	
65	TM**	1,1,2,2-Tetrachloroethane	0.5109	0.5366	5.0	TM**	
66	TML	1,2,3-Trichloropropane	0.1746	0.1679	3.8	TML	11
67	TM	t-1,4-Dichloro-2-Butene	0.1097	0.1084	1.1	TM	
68	TM	Bromobenzene	0.8210	0.8197	0.15	TM	
69	TM	n-Propylbenzene	4.258	4.486	5.3	TM	
70	TM	4-Ethyltoluene	3.517	3.683	4.7	TM	
71	TM	2-Chlorotoluene	2.310	2.361	2.2	TM	
72	TM	1,3,5-Trimethylbenzene	2.973	3.085	3.8	TM	
73	TM	4-Chlorotoluene	2.798	2.837	1.4	TM	
74	TM	Tert-Butylbenzene	2.613	2.650	1.4	TM	
75	TM	1,2,4-Trimethylbenzene	2.961	3.125	5.5	TM	
76	TM	Sec-Butylbenzene	3.753	3.906	4.1	TM	
77	TM	p-Isopropyltoluene	3.360	3.470	3.3	TM	
78	TM	Benzyl Chloride	0.3025	0.3846	27	TM	nt
79	TM	1,3-DCB	1.670	1.668	0.16	TM	
80	TM	1,4-DCB	1.679	1.723	2.6	TM	
		Average			4.2		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/20/16
Instrument: MAX
Cal. Date: 10/20/16
Data File: 1020M21.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	n-Butylbenzene	3.004	3.281	9.2	TM	
82	TM	1,2-DCB	1.439	1.512	5.0	TM	
83	TM	Hexachloroethane	0.3947	0.4013	1.7	TM	
84	TM	1,2-Dibromo-3-chloropropane	0.0655	0.0672	2.6	TM	
85	TM	1,2,4-Trichlorobenzene	1.000	1.127	13	TM	
86	TM	Hexachlorobutadiene	0.6099	0.6491	6.4	TM	
87	TM	Naphthalene	0.7142	0.8270	16	TM	
88	TM	1,2,3-Trichlorobenzene	0.8579	0.9450	10	TM	
89							
90							
91							
92							
93							
94							
95							
96							
97							
98							
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111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			8.0		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M21.D Vial: 20
Acq On : 20 Oct 16 17:47 Operator: DG,CM,SV
Sample : (SS) 10ug/L VOC STD 10/20/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 10:57 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	350330	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	257046	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	144644	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	4.79	111	83572	24.58176 ppb	0.00
Spiked Amount 25.000			Recovery = 98.328%		
36) 1,2-DCA-D4(S)	5.15	65	79678	24.47854 ppb	0.00
Spiked Amount 25.000			Recovery = 97.916%		
56) Toluene-D8(S)	7.36	98	338817	25.13458 ppb	0.00
Spiked Amount 25.000			Recovery = 100.540%		
64) 4-Bromofluorobenzene(S)	10.74	95	125809	25.75308 ppb	0.00
Spiked Amount 25.000			Recovery = 103.012%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.21	85	19904	9.92318 ppb	96
3) Freon 114	1.31	85	37752	11.05643 ppb	89
4) Chloromethane	1.36	49	3470	9.44001 ppb	96
5) Vinyl chloride	1.45	62	28264	9.70797 ppb	97
6) Bromomethane	1.71	94	26956	10.19803 ppb	93
7) Chloroethane	1.81	64	15000	9.46391 ppb	97
8) Dichlorofluoromethane	2.00	67	79586	9.67411 ppb	99
9) Trichlorofluoromethane	2.04	101	57299	9.89512 ppb	98
10) Acrolein	2.43	56	20104	124.36387 ppb	96
11) Acetone	2.59	43	8616	11.75320 ppb	88
12) Freon-113	2.55	101	17072	9.89522 ppb	97
13) 1,1-DCE	2.53	61	58407	9.96184 ppb	99
14) t-Butanol	3.18	59	22506	127.10276 ppb	97
15) Methyl Acetate	2.92	43	19442	10.17313 ppb	95
16) Iodomethane	2.66	142	27886	9.05210 ppb	96
17) Acrylonitrile	3.24	53	8707	10.58695 ppb	91
18) Methylene chloride	3.00	84	39230	10.31625 ppb	95
19) Carbon disulfide	2.72	76	109342	9.98113 ppb	99
20) Methyl t-butyl ether (MtBE	3.30	73	36848	10.11829 ppb	95
21) Trans-1,2-DCE	3.27	96	38284	10.42293 ppb	92
22) Diisopropyl Ether	3.82	45	126007	10.09252 ppb	99
23) 1,1-DCA	3.69	63	70003	9.77813 ppb	98
24) Vinyl Acetate	3.77	43	21424	10.65061 ppb	97
25) Ethyl tert Butyl Ether	4.19	59	91686	10.36778 ppb	94
26) MEK (2-Butanone)	4.33	43	10007	9.24056 ppb	97
27) Cis-1,2-DCE	4.29	96	41610	9.96854 ppb	92
28) 2,2-Dichloropropane	4.29	77	23408	10.52389 ppb	99
29) Chloroform	4.63	83	67544	10.00877 ppb	99
30) Bromochloromethane	4.53	128	16986	10.40178 ppb	98
32) 1,1,1-TCA	4.81	97	56546	10.15015 ppb	99
33) Cyclohexane	4.87	41	37661	10.01396 ppb	95
34) 1,1-Dichloropropene	4.99	75	54410	10.46501 ppb	97
35) 2,2,4-Trimethylpentane	5.34	57	137289	10.65948 ppb	100
37) Carbon Tetrachloride	4.99	117	43522	10.08192 ppb	97
38) Tert Amyl Methyl Ether	5.39	73	78626	10.38400 ppb	99
39) 1,2-DCA	5.23	62	43440	9.86234 ppb	99
40) Benzene	5.21	78	158902	9.73913 ppb	98
41) TCE	5.93	95	39966	9.97729 ppb	94
42) 2-Pentanone	6.17	43	211122	125.83406 ppb	100

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M21.D
Acq On : 20 Oct 16 17:47
Sample : (SS) 10ug/L VOC STD 10/20/16
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 20
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 24 10:57 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	1,2-Dichloropropane	6.17	63	41937	10.16948 ppb		100
44)	Bromodichloromethane	6.50	83	45853	10.21918 ppb		95
45)	Methyl Cyclohexane	6.15	83	67969	10.50544 ppb		98
46)	Dibromomethane	6.30	93	18579	10.29211 ppb		88
47)	MIBK (methyl isobutyl ket	7.26	43	26882	10.70502 ppb	#	96
48)	1-Bromo-2-chloroethane	6.85	63	22656	10.21947 ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	52120	10.50241 ppb		98
51)	Toluene	7.44	91	183248	9.98541 ppb		99
52)	Trans-1,3-Dichloropropene	7.71	75	19928	10.98208 ppb		94
53)	1,1,2-TCA	7.93	83	22846	10.13032 ppb		94
54)	2-Hexanone	8.30	58	8659	11.08556 ppb		94
57)	1,2-EDB	8.54	107	24556	10.34102 ppb		98
58)	Tetrachloroethene	8.11	164	19312	10.00369 ppb		99
59)	1-Chlorohexane	9.22	91	57062	10.65154 ppb		97
60)	1,1,1,2-Tetrachloroethane	9.31	131	35472	10.73503 ppb		95
61)	m&p-Xylene	9.53	106	164815	20.62640 ppb		98
62)	o-Xylene	10.05	106	77905	9.96864 ppb		94
63)	Styrene	10.06	104	135253	10.77217 ppb		99
65)	1,3-Dichloropropane	8.13	76	49789	10.31480 ppb		96
66)	Dibromochloromethane	8.41	129	29455	10.46112 ppb		98
67)	Chlorobenzene	9.19	112	114723	9.98661 ppb		99
68)	Ethylbenzene	9.37	91	210581	10.37804 ppb		98
69)	Bromoform	10.27	173	16230	10.50479 ppb		92
71)	Isopropylbenzene	10.56	105	204659	9.93807 ppb		98
72)	1,1,2,2-Tetrachloroethane	10.97	83	31049	10.50418 ppb		94
73)	1,2,3-Trichloropropane	11.01	110	9716	11.09412 ppb	#	82
74)	t-1,4-Dichloro-2-Butene	11.06	53	6273	9.88555 ppb	#	80
75)	Bromobenzene	10.92	156	47428	9.98450 ppb		97
76)	n-Propylbenzene	11.13	91	259523	10.53364 ppb		99
77)	4-Ethyltoluene	11.30	105	213067	10.47198 ppb		99
78)	2-Chlorotoluene	11.22	91	136611	10.22309 ppb		100
79)	1,3,5-Trimethylbenzene	11.39	105	178468	10.37616 ppb		98
80)	4-Chlorotoluene	11.37	91	164145	10.14013 ppb		97
81)	Tert-Butylbenzene	11.84	119	153300	10.14003 ppb		97
82)	1,2,4-Trimethylbenzene	11.91	105	180792	10.55333 ppb		98
83)	Sec-Butylbenzene	12.15	105	225993	10.40774 ppb		99
84)	p-Isopropyltoluene	12.37	119	200756	10.32585 ppb		98
85)	Benzyl Chloride	12.59	91	22254	12.71645 ppb		99
86)	1,3-DCB	12.26	146	96483	9.98447 ppb		100
87)	1,4-DCB	12.39	146	99673	10.26313 ppb		98
88)	n-Butylbenzene	12.95	91	189818	10.92054 ppb		99
89)	1,2-DCB	12.90	146	87466	10.50307 ppb		98
90)	Hexachloroethane	13.27	117	23219	10.16692 ppb		96
91)	1,2-Dibromo-3-chloropropan	14.01	75	3888	10.25891 ppb		91
92)	1,2,4-Trichlorobenzene	15.23	180	65191	11.26574 ppb		99
93)	Hexachlorobutadiene	15.53	225	37554	10.64217 ppb		97
94)	Naphthalene	15.56	128	47848	11.57975 ppb		97
95)	1,2,3-Trichlorobenzene	15.92	180	54678	11.01572 ppb		97

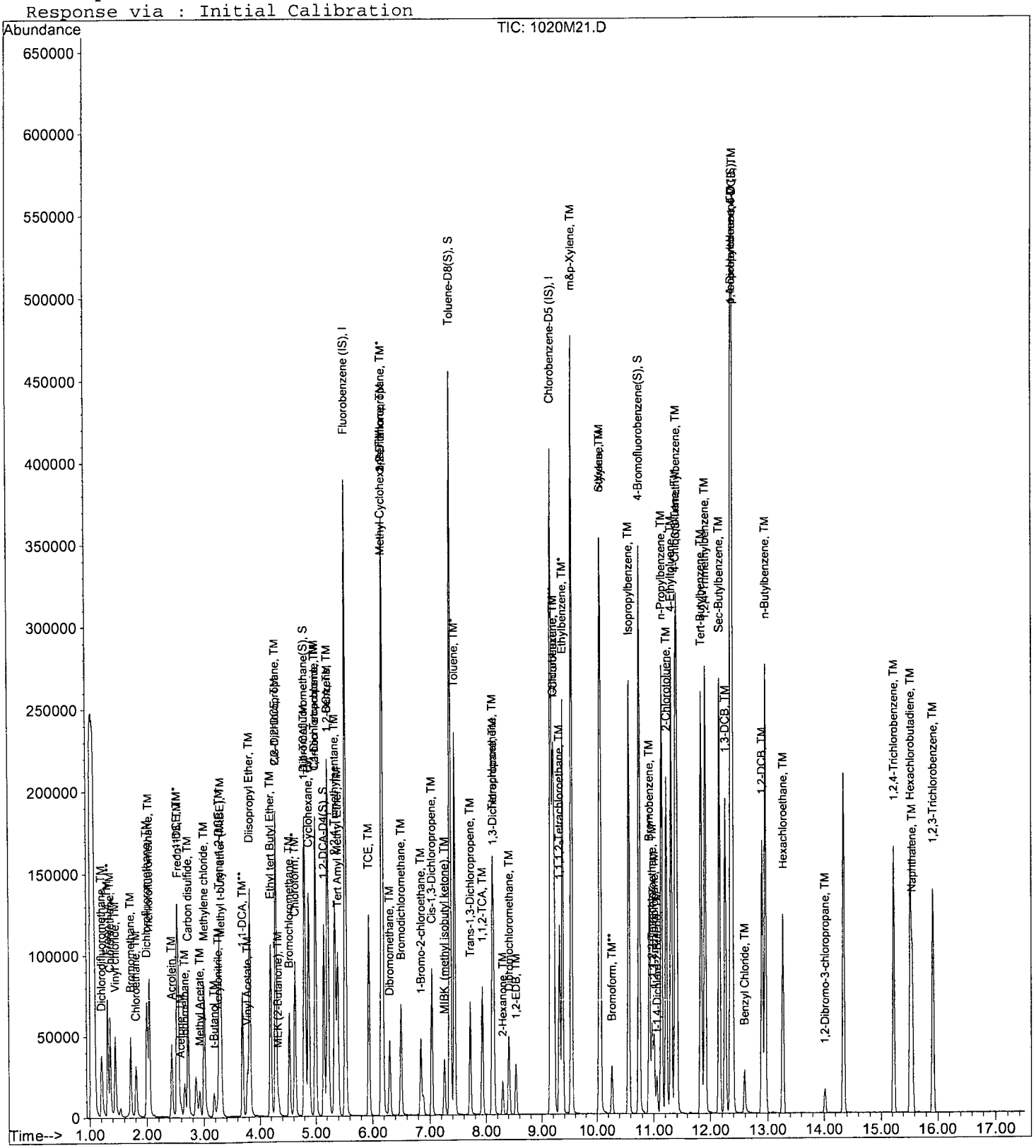
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M21.D Vial: 20
Acq On : 20 Oct 16 17:47 Operator: DG,CM,SV
Sample : (SS) 10ug/L VOC STD 10/20/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 24 10:57 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/27/16
Matrix: Instrument: MAX
Initial Cal. Date: 10/20/16
Data File: 1027M06.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.1431	0.1300	9.2	TM	
3	TM	Freon 114	0.2437	0.2443	0.28	TM	
4	TM**	Chloromethane	0.0262	0.0212	19	TM**	
5	TM*	Vinyl chloride	0.2078	0.1949	6.2	TM*	
6	TM	Bromomethane	0.1886	0.1829	3.0	TM	
7	TM	Chloroethane	0.1131	0.1013	10	TM	
8	TM	Dichlorofluoromethane	0.5871	0.5616	4.3	TM	
9	TM	Trichlorofluoromethane	0.4132	0.4226	2.3	TM	
10	TM	Acrolein	0.0115	0.0094	18	TM	
11	TML	Acetone	0.0802	0.0527	34	TML	1.8
12	TM	Freon-113	0.1231	0.1100	11	TM	
13	TM*	1,1-DCE	0.4184	0.3573	15	TM*	
14	TM	t-Butanol	0.0126	0.0108	14	TM	
15	TM	Methyl Acetate	0.1364	0.1094	20	TM	
16	TML	Iodomethane	0.1892	0.1889	0.13	TML	14
17	TM	Acrylonitrile	0.0587	0.0547	6.8	TM	
18	TML	Methylene chloride	0.2965	0.2518	15	TML	7.8
19	TM	Carbon disulfide	0.7818	0.6204	21	TM	
20	TM	Methyl t-butyl ether (MtBE)	0.2599	0.2382	8.3	TM	
21	TM	Trans-1,2-DCE	0.2621	0.2335	11	TM	
22	TM	Diisopropyl Ether	0.8910	0.8131	8.7	TM	
23	TM**	1,1-DCA	0.5109	0.4613	9.7	TM**	
24	TM	Vinyl Acetate	0.1435	0.1206	16	TM	
25	TM	Ethyl tert Butyl Ether	0.6311	0.5973	5.4	TM	
26	TM	MEK (2-Butanone)	0.0773	0.0735	4.8	TM	
27	TM	Cis-1,2-DCE	0.2979	0.2837	4.8	TM	
28	TM	2,2-Dichloropropane	0.1587	0.1515	4.6	TM	
29	TM*	Chloroform	0.4816	0.4522	6.1	TM*	
30	TM	Bromochloromethane	0.1165	0.1090	6.4	TM	
31	S	Dibromofluoromethane(S)	0.2426	0.2341	3.5	S	
32	TM	1,1,1-TCA	0.3976	0.3688	7.2	TM	
33	TM	Cyclohexane	0.2684	0.2277	15	TM	
34	TM	1,1-Dichloropropene	0.3710	0.3391	8.6	TM	
35	TM	2,2,4-Trimethylpentane	0.9191	0.8426	8.3	TM	
36	S	1,2-DCA-D4(S)	0.2323	0.2291	1.4	S	
37	TM	Carbon Tetrachloride	0.3081	0.2781	9.7	TM	
38	TM	Tert Amyl Methyl Ether	0.5403	0.5264	2.6	TM	
39	TM	1,2-DCA	0.3143	0.2916	7.2	TM	
40	TM	Benzene	1.164	1.041	11	TM	
		Average			9.5		

*NT 11/21/16 AER

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/27/16
Instrument: MAX
Cal. Date: 10/20/16
Data File: 1027M06.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	TCE	0.2859	0.2677	6.3	TM	
42	TM	2-Pentanone	0.1197	0.1130	5.6	TM	
43	TM*	1,2-Dichloropropane	0.2943	0.2746	6.7	TM*	
44	TM	Bromodichloromethane	0.3202	0.3120	2.6	TM	
45	TM	Methyl Cyclohexane	0.4617	0.4322	6.4	TM	
46	TM	Dibromomethane	0.1288	0.1196	7.2	TM	
47	TML	MIBK (methyl isobutyl ketone)	0.2145	0.1837	14	TML	2.2
48	TM	1-Bromo-2-chloroethane	0.1582	0.1483	6.3	TM	
49	TM	2-Chloroethyl vinyl ether	0.0000	0.0009	0.00	TM	
50	TM	Cis-1,3-Dichloropropene	0.3541	0.3344	5.6	TM	
51	TM*	Toluene	1.310	1.237	5.6	TM*	
52	TM	Trans-1,3-Dichloropropene	0.1295	0.1179	9.0	TM	
53	TM	1,1,2-TCA	0.1609	0.1491	7.3	TM	
54	TM	2-Hexanone	0.0557	0.0555	0.37	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	1.311	1.293	1.4	S	
57	TM	1,2-EDB	0.2310	0.2096	9.2	TM	
58	TM	Tetrachloroethene	0.1878	0.1684	10	TM	
59	TM	1-Chlorohexane	0.5210	0.5119	1.7	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.3214	0.3028	5.8	TM	
61	TM	m&p-Xylene	0.7771	0.7365	5.2	TM	
62	TM	o-Xylene	0.7601	0.7087	6.8	TM	
63	TM	Styrene	1.221	1.186	2.9	TM	
64	S	4-Bromofluorobenzene(S)	0.4751	0.4709	0.90	S	
65	TM	1,3-Dichloropropane	0.4695	0.4129	12	TM	
66	TM	Dibromochloromethane	0.2738	0.2542	7.2	TM	
67	TM**	Chlorobenzene	1.117	1.012	9.4	TM**	
68	TM*	Ethylbenzene	1.973	1.842	6.6	TM*	
69	TM**	Bromoform	0.1503	0.1429	4.9	TM**	
70	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
71	TM	Isopropylbenzene	3.559	3.280	7.8	TM	
72	TM**	1,1,2,2-Tetrachloroethane	0.5109	0.4599	10.0	TM**	
73	TML	1,2,3-Trichloropropane	0.1746	0.1449	17	TML	5.9
74	TM	t-1,4-Dichloro-2-Butene	0.1097	0.0933	15	TM	
75	TM	Bromobenzene	0.8210	0.7737	5.8	TM	
76	TM	n-Propylbenzene	4.258	3.960	7.0	TM	
77	TM	4-Ethyltoluene	3.517	3.510	0.18	TM	
78	TM	2-Chlorotoluene	2.310	2.139	7.4	TM	
79	TM	1,3,5-Trimethylbenzene	2.973	2.805	5.6	TM	
80	TM	4-Chlorotoluene	2.798	2.607	6.8	TM	
		Average			6.6		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/27/16
Instrument: MAX
Cal. Date: 10/20/16
Data File: 1027M06.D

		Compound	MEAN	CCRF	%D		%Drift	
81	TM	Tert-Butylbenzene	2.613	2.420	7.4	TM		
82	TM	1,2,4-Trimethylbenzene	2.961	2.785	5.9	TM		
83	TM	Sec-Butylbenzene	3.753	3.534	5.8	TM		
84	TM	p-Isopropyltoluene	3.360	3.109	7.5	TM		
85	TM	Benzyl Chloride	0.3025	0.3152	4.2	TM		
86	TM	1,3-DCB	1.670	1.572	5.9	TM		
87	TM	1,4-DCB	1.679	1.547	7.8	TM		
88	TM	n-Butylbenzene	3.004	2.788	7.2	TM		
89	TM	1,2-DCB	1.439	1.406	2.3	TM		
90	TM	Hexachloroethane	0.3947	0.3777	4.3	TM		
91	TM	1,2-Dibromo-3-chloropropane	0.0655	0.0504	23	TM		* NT 11/21/16 AER
92	TM	1,2,4-Trichlorobenzene	1.000	0.9550	4.5	TM		
93	TM	Hexachlorobutadiene	0.6099	0.6012	1.4	TM		
94	TM	Naphthalene	0.7142	0.6789	4.9	TM		
95	TM	1,2,3-Trichlorobenzene	0.8579	0.7977	7.0	TM		
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			6.6			

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1027M06.D Vial: 3
Acq On : 27 Oct 16 10:19 Operator: DG,CM,SV
Sample : 161027A CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 7:31 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.53	96	280722	25.00	ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	214560	25.00	ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	121723	25.00	ppb		0.00
System Monitoring Compounds							
31) Dibromofluoromethane(S)	4.79	111	65708	24.12	ppb		0.00
Spiked Amount 25.000			Recovery = 96.480%				
36) 1,2-DCA-D4(S)	5.14	65	64302	24.65	ppb		0.00
Spiked Amount 25.000			Recovery = 98.612%				
56) Toluene-D8(S)	7.36	98	277354	24.65	ppb		0.00
Spiked Amount 25.000			Recovery = 98.596%				
64) 4-Bromofluorobenzene(S)	10.74	95	101028	24.78	ppb		0.00
Spiked Amount 25.000			Recovery = 99.100%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.21	85	14600	9.08	ppb		99
3) Freon 114	1.31	85	27436	10.03	ppb		90
4) Chloromethane	1.36	49	2383	8.09	ppb		89
5) Vinyl chloride	1.45	62	21888	9.38	ppb		97
6) Bromomethane	1.71	94	20541	9.70	ppb		97
7) Chloroethane	1.81	64	11380	8.96	ppb		99
8) Dichlorofluoromethane	2.00	67	63058	9.57	ppb		99
9) Trichlorofluoromethane	2.04	101	47454	10.23	ppb		99
10) Acrolein	2.43	56	13227	102.11	ppb		93
11) Acetone	2.59	43	5920	9.82	ppb		100
12) Freon-113	2.55	101	12352	8.93	ppb		97
13) 1,1-DCE	2.53	61	40119	8.54	ppb		96
14) t-Butanol	3.17	59	15186	107.03	ppb		96
15) Methyl Acetate	2.92	43	12281	8.02	ppb		97
16) Iodomethane	2.66	142	21212	8.63	ppb		94
17) Acrylonitrile	3.24	53	6139	9.32	ppb	#	87
18) Methylene chloride	3.00	84	28279	9.22	ppb		97
19) Carbon disulfide	2.72	76	69661	7.94	ppb		98
20) Methyl t-butyl ether (MtBE	3.30	73	26752	9.17	ppb		98
21) Trans-1,2-DCE	3.27	96	26218	8.91	ppb		92
22) Diisopropyl Ether	3.82	45	91303	9.13	ppb		98
23) 1,1-DCA	3.69	63	51794	9.03	ppb		98
24) Vinyl Acetate	3.77	43	13539	8.40	ppb		98
25) Ethyl tert Butyl Ether	4.19	59	67068	9.46	ppb		99
26) MEK (2-Butanone)	4.33	43	8258	9.52	ppb		89
27) Cis-1,2-DCE	4.29	96	31857	9.52	ppb		96
28) 2,2-Dichloropropane	4.28	77	17008	9.54	ppb		97
29) Chloroform	4.63	83	50776	9.39	ppb		99
30) Bromochloromethane	4.53	128	12242	9.36	ppb		93
32) 1,1,1-TCA	4.81	97	41407	9.28	ppb		98
33) Cyclohexane	4.87	41	25563	8.48	ppb		93
34) 1,1-Dichloropropene	4.99	75	38074	9.14	ppb		97
35) 2,2,4-Trimethylpentane	5.34	57	94619	9.17	ppb		98
37) Carbon Tetrachloride	5.00	117	31229	9.03	ppb		99
38) Tert Amyl Methyl Ether	5.39	73	59111	9.74	ppb		96
39) 1,2-DCA	5.22	62	32738	9.28	ppb		97
40) Benzene	5.21	78	116888	8.94	ppb		99
41) TCE	5.93	95	30060	9.37	ppb		96
42) 2-Pentanone	6.17	43	158660	118.01	ppb		97

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1027M06.D Vial: 3
Acq On : 27 Oct 16 10:19 Operator: DG,CM,SV
Sample : 161027A CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 7:31 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	6.17	63	30830	9.33	ppb		98
44)	Bromodichloromethane	6.50	83	35034	9.74	ppb		95
45)	Methyl Cyclohexane	6.16	83	48528	9.36	ppb		93
46)	Dibromomethane	6.30	93	13429	9.28	ppb		93
47)	MIBK (methyl isobutyl ket	7.26	43	20631	10.22	ppb		98
48)	1-Bromo-2-chloroethane	6.84	63	16648	9.37	ppb		95
50)	Cis-1,3-Dichloropropene	7.04	75	37551	9.44	ppb		95
51)	Toluene	7.44	91	138890	9.44	ppb		95
52)	Trans-1,3-Dichloropropene	7.72	75	13238	9.10	ppb		97
53)	1,1,2-TCA	7.93	83	16744	9.27	ppb		93
54)	2-Hexanone	8.29	58	6236	9.96	ppb		97
57)	1,2-EDB	8.54	107	17988	9.08	ppb		98
58)	Tetrachloroethene	8.11	164	14449	8.97	ppb		98
59)	1-Chlorohexane	9.22	91	43935	9.83	ppb		95
60)	1,1,1,2-Tetrachloroethane	9.31	131	25991	9.42	ppb		98
61)	m&p-Xylene	9.53	106	126423	18.95	ppb		96
62)	o-Xylene	10.04	106	60821	9.32	ppb		96
63)	Styrene	10.06	104	101762	9.71	ppb		97
65)	1,3-Dichloropropane	8.13	76	35440	8.80	ppb		98
66)	Dibromochloromethane	8.41	129	21817	9.28	ppb		97
67)	Chlorobenzene	9.19	112	86860	9.06	ppb		99
68)	Ethylbenzene	9.36	91	158127	9.34	ppb		98
69)	Bromoform	10.27	173	12265	9.51	ppb		86
71)	Isopropylbenzene	10.56	105	159703	9.22	ppb		99
72)	1,1,2,2-Tetrachloroethane	10.97	83	22393	9.00	ppb		95
73)	1,2,3-Trichloropropane	11.00	110	7056	9.41	ppb		93
74)	t-1,4-Dichloro-2-Butene	11.05	53	4544	8.51	ppb	#	76
75)	Bromobenzene	10.92	156	37672	9.42	ppb		97
76)	n-Propylbenzene	11.13	91	192798	9.30	ppb		97
77)	4-Ethyltoluene	11.30	105	170911	9.98	ppb		99
78)	2-Chlorotoluene	11.21	91	104122	9.26	ppb		98
79)	1,3,5-Trimethylbenzene	11.39	105	136583	9.44	ppb		99
80)	4-Chlorotoluene	11.37	91	126909	9.32	ppb		99
81)	Tert-Butylbenzene	11.84	119	117848	9.26	ppb		96
82)	1,2,4-Trimethylbenzene	11.91	105	135599	9.41	ppb		99
83)	Sec-Butylbenzene	12.15	105	172045	9.42	ppb		99
84)	p-Isopropyltoluene	12.37	119	151383	9.25	ppb		98
85)	Benzyl Chloride	12.59	91	15349	10.42	ppb		95
86)	1,3-DCB	12.26	146	76531	9.41	ppb		98
87)	1,4-DCB	12.38	146	75328	9.22	ppb		99
88)	n-Butylbenzene	12.95	91	135749	9.28	ppb		98
89)	1,2-DCB	12.90	146	68481	9.77	ppb		94
90)	Hexachloroethane	13.27	117	18389	9.57	ppb		95
91)	1,2-Dibromo-3-chloropropan	14.01	75	2454	7.69	ppb		90
92)	1,2,4-Trichlorobenzene	15.23	180	46496	9.55	ppb		98
93)	Hexachlorobutadiene	15.53	225	29272	9.86	ppb		97
94)	Naphthalene	15.56	128	33056	9.51	ppb		100
95)	1,2,3-Trichlorobenzene	15.92	180	38838	9.30	ppb		95

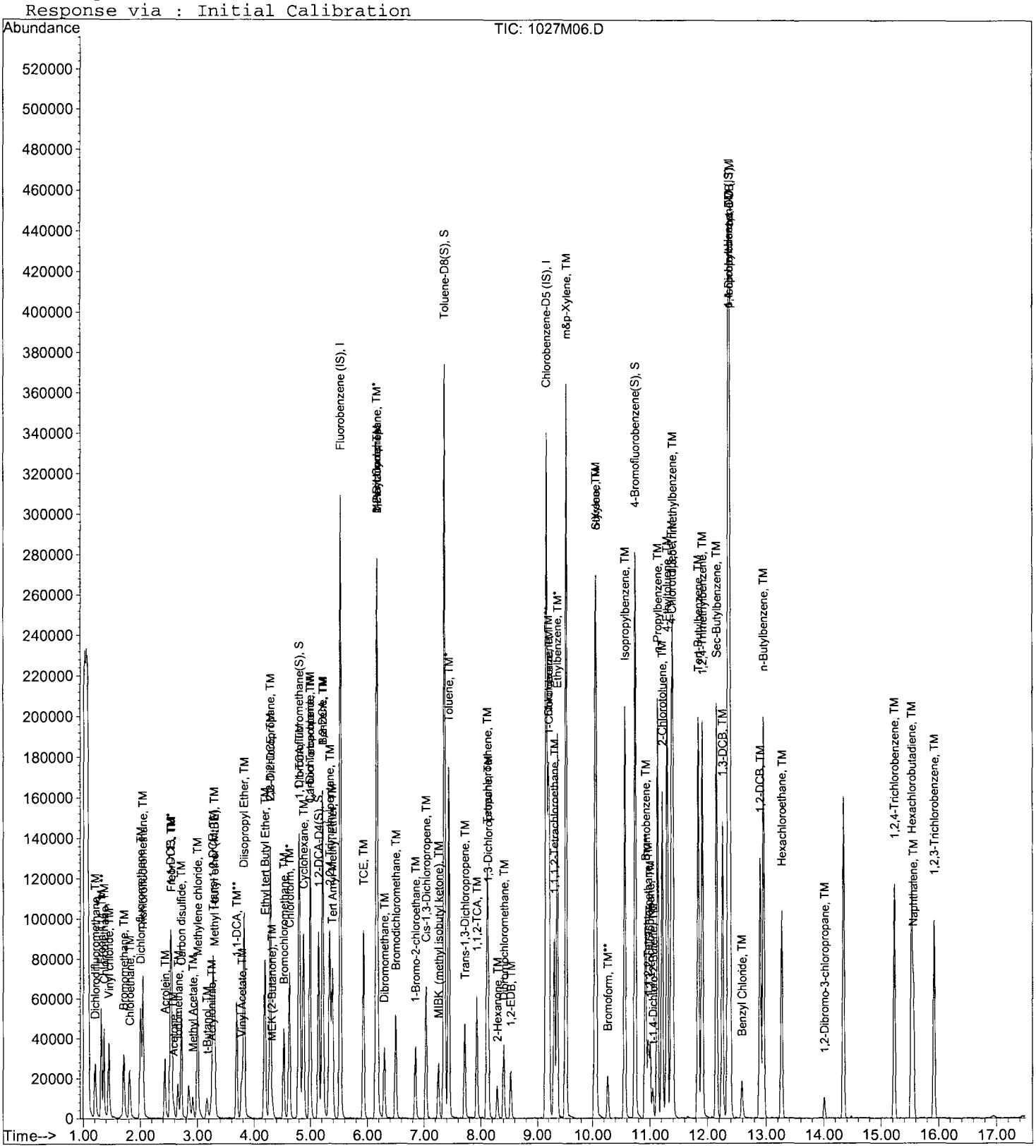
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M06.D Vial: 3
Acq On : 27 Oct 16 10:19 Operator: DG,CM,SV
Sample : 161027A CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 7:31 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/27/16
Matrix: Instrument: MAX
Initial Cal. Date: 10/20/16
Data File: 1027M34.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.1431	0.1040	27	TM	
3	TM	Freon 114	0.2437	0.1988	18	TM	
4	TM**	Chloromethane	0.0262	0.0203	22	TM**	
5	TM*	Vinyl chloride	0.2078	0.1727	17	TM*	
6	TM	Bromomethane	0.1886	0.1676	11	TM	
7	TM	Chloroethane	0.1131	0.0919	19	TM	
8	TM	Dichlorofluoromethane	0.5871	0.5281	10	TM	
9	TM	Trichlorofluoromethane	0.4132	0.4148	0.38	TM	
10	TM	Acrolein	0.0115	0.0084	27	TM	
11	TML	Acetone	0.0802	0.0575	28	TML	8.7
12	TM	Freon-113	0.1231	0.1042	15	TM	
13	TM*	1,1-DCE	0.4184	0.3488	17	TM*	
14	TM	t-Butanol	0.0126	0.0116	8.6	TM	
15	TM	Methyl Acetate	0.1364	0.1178	14	TM	
16	TML	Iodomethane	0.1892	0.1854	2.0	TML	15
17	TM	Acrylonitrile	0.0587	0.0539	8.2	TM	
18	TML	Methylene chloride	0.2965	0.2665	10	TML	2.1
19	TM	Carbon disulfide	0.7818	0.5769	26	TM	
20	TM	Methyl t-butyl ether (MtBE)	0.2599	0.2305	11	TM	
21	TM	Trans-1,2-DCE	0.2621	0.2470	5.8	TM	
22	TM	Diisopropyl Ether	0.8910	0.7885	12	TM	
23	TM**	1,1-DCA	0.5109	0.4672	8.5	TM**	
24	TM	Vinyl Acetate	0.1435	0.0818	43	TM	
25	TM	Ethyl tert Butyl Ether	0.6311	0.5816	7.8	TM	
26	TM	MEK (2-Butanone)	0.0773	0.0709	8.3	TM	
27	TM	Cis-1,2-DCE	0.2979	0.2750	7.7	TM	
28	TM	2,2-Dichloropropane	0.1587	0.1376	13	TM	
29	TM*	Chloroform	0.4816	0.4585	4.8	TM*	
30	TM	Bromochloromethane	0.1165	0.1142	2.0	TM	
31	S	Dibromofluoromethane(S)	0.2426	0.2256	7.0	S	
32	TM	1,1,1-TCA	0.3976	0.3754	5.6	TM	
33	TM	Cyclohexane	0.2684	0.2124	21	TM	
34	TM	1,1-Dichloropropene	0.3710	0.3339	10	TM	
35	TM	2,2,4-Trimethylpentane	0.9191	0.6811	26	TM	
36	S	1,2-DCA-D4(S)	0.2323	0.2213	4.7	S	
37	TM	Carbon Tetrachloride	0.3081	0.2860	7.2	TM	
38	TM	Tert Amyl Methyl Ether	0.5403	0.5359	0.83	TM	
39	TM	1,2-DCA	0.3143	0.2892	8.0	TM	
40	TM	Benzene	1.164	1.018	13	TM	
		Average			13.0		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/27/16
Matrix: 0 Instrument: MAX
Cal. Date: 10/20/16
Data File: 1027M34.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	TCE	0.2859	0.2997	4.8	TM	
42	TM	2-Pentanone	0.1197	0.1030	14	TM	
43	TM*	1,2-Dichloropropane	0.2943	0.2768	5.9	TM*	
44	TM	Bromodichloromethane	0.3202	0.3100	3.2	TM	
45	TM	Methyl Cyclohexane	0.4617	0.4038	13	TM	
46	TM	Dibromomethane	0.1288	0.1233	4.3	TM	
47	TML	MIBK (methyl isobutyl ketone)	0.2145	0.1840	14	TML	2.4
48	TM	1-Bromo-2-chloroethane	0.1582	0.1397	12	TM	
49	TM	Cis-1,3-Dichloropropene	0.3541	0.3364	5.0	TM	
50	TM*	Toluene	1.310	1.269	3.1	TM*	
51	TM	Trans-1,3-Dichloropropene	0.1295	0.1356	4.7	TM	
52	TM	1,1,2-TCA	0.1609	0.1597	0.75	TM	
53	TM	2-Hexanone	0.0557	0.0539	3.4	TM	
54	I	Chlorobenzene-D5 (IS)	ISTD			I	
55	S	Toluene-D8(S)	1.311	1.296	1.1	S	
56	TM	1,2-EDB	0.2310	0.2396	3.7	TM	
57	TM	Tetrachloroethene	0.1878	0.1883	0.31	TM	
58	TM	1-Chlorohexane	0.5210	0.4961	4.8	TM	
59	TM	1,1,1,2-Tetrachloroethane	0.3214	0.3222	0.27	TM	
60	TM	m&p-Xylene	0.7771	0.7496	3.5	TM	
61	TM	o-Xylene	0.7601	0.7414	2.5	TM	
62	TM	Styrene	1.221	1.229	0.64	TM	
63	S	4-Bromofluorobenzene(S)	0.4751	0.4570	3.8	S	
64	TM	1,3-Dichloropropane	0.4695	0.4413	6.0	TM	
65	TM	Dibromochloromethane	0.2738	0.2726	0.44	TM	
66	TM**	Chlorobenzene	1.117	1.089	2.5	TM**	
67	TM*	Ethylbenzene	1.973	1.967	0.30	TM*	
68	TM**	Bromoform	0.1503	0.1591	5.8	TM**	
69	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
70	TM	Isopropylbenzene	3.559	3.330	6.4	TM	
71	TM**	1,1,2,2-Tetrachloroethane	0.5109	0.4382	14	TM**	
72	TML	1,2,3-Trichloropropane	0.1746	0.1532	12	TML	0.18
73	TM	t-1,4-Dichloro-2-Butene	0.1097	0.0887	19	TM	
74	TM	Bromobenzene	0.8210	0.7985	2.7	TM	
75	TM	n-Propylbenzene	4.258	3.988	6.3	TM	
76	TM	4-Ethyltoluene	3.517	3.425	2.6	TM	
77	TM	2-Chlorotoluene	2.310	2.175	5.8	TM	
78	TM	1,3,5-Trimethylbenzene	2.973	2.871	3.4	TM	
79	TM	4-Chlorotoluene	2.798	2.636	5.8	TM	
80	TM	Tert-Butylbenzene	2.613	2.546	2.6	TM	
		Average			5.4		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/27/16
Instrument: MAX
Cal. Date: 10/20/16
Data File: 1027M34.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	1,2,4-Trimethylbenzene	2.961	2.903	2.0	TM	
82	TM	Sec-Butylbenzene	3.753	3.608	3.9	TM	
83	TM	p-Isopropyltoluene	3.360	3.192	5.0	TM	
84	TM	Benzyl Chloride	0.3025	0.2792	7.7	TM	
85	TM	1,3-DCB	1.670	1.600	4.2	TM	
86	TM	1,4-DCB	1.679	1.608	4.2	TM	
87	TM	n-Butylbenzene	3.004	2.735	9.0	TM	
88	TM	1,2-DCB	1.439	1.427	0.86	TM	
89	TM	Hexachloroethane	0.3947	0.4005	1.5	TM	
90	TM	1,2-Dibromo-3-chloropropane	0.0655	0.0613	6.4	TM	
91	TM	1,2,4-Trichlorobenzene	1.000	0.9530	4.7	TM	
92	TM	Hexachlorobutadiene	0.6099	0.5626	7.8	TM	
93	TM	Naphthalene	0.7142	0.6230	13	TM	
94	TM	1,2,3-Trichlorobenzene	0.8579	0.7899	7.9	TM	
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			5.6		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1027M34.D Vial: 31
Acq On : 27 Oct 16 20:36 Operator: DG,CM,SV
Sample : Ending CCV 8260 10ug/L 10/27/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 7:33 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.53	96	264034	25.00	ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	194323	25.00	ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	112101	25.00	ppb		0.00
System Monitoring Compounds							
31) Dibromofluoromethane(S)	4.80	111	59573	23.25	ppb		0.00
Spiked Amount 25.000			Recovery = 93.000%				
36) 1,2-DCA-D4(S)	5.15	65	58426	23.82	ppb		0.00
Spiked Amount 25.000			Recovery = 95.264%				
56) Toluene-D8(S)	7.36	98	251846	24.71	ppb		0.00
Spiked Amount 25.000			Recovery = 98.852%				
64) 4-Bromofluorobenzene(S)	10.74	95	88811	24.05	ppb		0.00
Spiked Amount 25.000			Recovery = 96.192%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.21	85	10982	7.26	ppb		95
3) Freon 114	1.31	85	20997	8.16	ppb		88
4) Chloromethane	1.36	49	2149	7.76	ppb	#	87
5) Vinyl chloride	1.45	62	18240	8.31	ppb		95
6) Bromomethane	1.71	94	17697	8.88	ppb		100
7) Chloroethane	1.82	64	9706	8.13	ppb		94
8) Dichlorofluoromethane	2.01	67	55777	9.00	ppb		96
9) Trichlorofluoromethane	2.05	101	43807	10.04	ppb		98
10) Acrolein	2.44	56	11127	91.33	ppb		99
11) Acetone	2.59	43	6072	10.87	ppb		99
12) Freon-113	2.55	101	11003	8.46	ppb		94
13) 1,1-DCE	2.53	61	36833	8.34	ppb		96
14) t-Butanol	3.18	59	15248	114.26	ppb		97
15) Methyl Acetate	2.93	43	12445	8.64	ppb		92
16) Iodomethane	2.66	142	19585	8.49	ppb		94
17) Acrylonitrile	3.24	53	5692	9.18	ppb		93
18) Methylene chloride	3.00	84	28143	9.79	ppb		87
19) Carbon disulfide	2.72	76	60929	7.38	ppb		99
20) Methyl t-butyl ether (MtBE	3.31	73	24344	8.87	ppb		97
21) Trans-1,2-DCE	3.27	96	26082	9.42	ppb		87
22) Diisopropyl Ether	3.82	45	83273	8.85	ppb		97
23) 1,1-DCA	3.69	63	49344	9.15	ppb		99
24) Vinyl Acetate	3.78	43	8638	5.70	ppb		97
25) Ethyl tert Butyl Ether	4.19	59	61423	9.22	ppb		99
26) MEK (2-Butanone)	4.33	43	7483	9.17	ppb		91
27) Cis-1,2-DCE	4.29	96	29042	9.23	ppb		95
28) 2,2-Dichloropropane	4.29	77	14534	8.67	ppb		99
29) Chloroform	4.63	83	48420	9.52	ppb		97
30) Bromochloromethane	4.53	128	12063	9.80	ppb		92
32) 1,1,1-TCA	4.82	97	39651	9.44	ppb		99
33) Cyclohexane	4.87	41	22431	7.91	ppb		96
34) 1,1-Dichloropropene	5.00	75	35260	9.00	ppb		91
35) 2,2,4-Trimethylpentane	5.34	57	71934	7.41	ppb		96
37) Carbon Tetrachloride	5.00	117	30203	9.28	ppb		99
38) Tert Amyl Methyl Ether	5.39	73	56595	9.92	ppb		96
39) 1,2-DCA	5.23	62	30539	9.20	ppb		98
40) Benzene	5.21	78	107492	8.74	ppb		100
41) TCE	5.94	95	31653	10.48	ppb		93
42) 2-Pentanone	6.17	43	136021	107.57	ppb		99

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

Data File : M:\MAX\DATA\M161020\1027M34.D Vial: 31
Acq On : 27 Oct 16 20:36 Operator: DG,CM,SV
Sample : Ending CCV 8260 10ug/L 10/27/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 7:33 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	6.18	63	29238	9.41	ppb		99
44)	Bromodichloromethane	6.50	83	32736	9.68	ppb		96
45)	Methyl Cyclohexane	6.16	83	42647	8.75	ppb		94
46)	Dibromomethane	6.30	93	13021	9.57	ppb		97
47)	MIBK (methyl isobutyl ket	7.26	43	19432	10.24	ppb		96
48)	1-Bromo-2-chloroethane	6.85	63	14753	8.83	ppb		98
50)	Cis-1,3-Dichloropropene	7.04	75	35526	9.50	ppb		97
51)	Toluene	7.44	91	134035	9.69	ppb		99
52)	Trans-1,3-Dichloropropene	7.72	75	14318	10.47	ppb		99
53)	1,1,2-TCA	7.93	83	16870	9.93	ppb		95
54)	2-Hexanone	8.30	58	5689	9.66	ppb	#	93
57)	1,2-EDB	8.54	107	18623	10.37	ppb		93
58)	Tetrachloroethene	8.11	164	14639	10.03	ppb		98
59)	1-Chlorohexane	9.22	91	38565	9.52	ppb		98
60)	1,1,1,2-Tetrachloroethane	9.31	131	25048	10.03	ppb		99
61)	m&p-Xylene	9.53	106	116536	19.29	ppb		99
62)	o-Xylene	10.05	106	57626	9.75	ppb		100
63)	Styrene	10.06	104	95524	10.06	ppb		98
65)	1,3-Dichloropropane	8.13	76	34303	9.40	ppb		94
66)	Dibromochloromethane	8.41	129	21192	9.96	ppb		94
67)	Chlorobenzene	9.19	112	84653	9.75	ppb		97
68)	Ethylbenzene	9.37	91	152931	9.97	ppb		100
69)	Bromoform	10.27	173	12363	10.58	ppb		81
71)	Isopropylbenzene	10.56	105	149340	9.36	ppb		100
72)	1,1,2,2-Tetrachloroethane	10.97	83	19648	8.58	ppb		97
73)	1,2,3-Trichloropropane	11.00	110	6869	10.02	ppb		96
74)	t-1,4-Dichloro-2-Butene	11.06	53	3976	8.08	ppb	#	70
75)	Bromobenzene	10.92	156	35806	9.73	ppb		99
76)	n-Propylbenzene	11.13	91	178835	9.37	ppb		99
77)	4-Ethyltoluene	11.30	105	153600	9.74	ppb		98
78)	2-Chlorotoluene	11.21	91	97534	9.42	ppb		96
79)	1,3,5-Trimethylbenzene	11.40	105	128727	9.66	ppb		100
80)	4-Chlorotoluene	11.37	91	118201	9.42	ppb		97
81)	Tert-Butylbenzene	11.84	119	114173	9.74	ppb		96
82)	1,2,4-Trimethylbenzene	11.91	105	130160	9.80	ppb		98
83)	Sec-Butylbenzene	12.15	105	161784	9.61	ppb		98
84)	p-Isopropyltoluene	12.37	119	143109	9.50	ppb		99
85)	Benzyl Chloride	12.59	91	12521	9.23	ppb	#	94
86)	1,3-DCB	12.26	146	71744	9.58	ppb		96
87)	1,4-DCB	12.38	146	72086	9.58	ppb		98
88)	n-Butylbenzene	12.95	91	122630	9.10	ppb		99
89)	1,2-DCB	12.90	146	63986	9.91	ppb		99
90)	Hexachloroethane	13.27	117	17959	10.15	ppb		99
91)	1,2-Dibromo-3-chloropropan	14.01	75	2748	9.36	ppb		95
92)	1,2,4-Trichlorobenzene	15.23	180	42731	9.53	ppb		94
93)	Hexachlorobutadiene	15.53	225	25228	9.22	ppb		98
94)	Naphthalene	15.56	128	27936	8.72	ppb		98
95)	1,2,3-Trichlorobenzene	15.92	180	35419	9.21	ppb		95

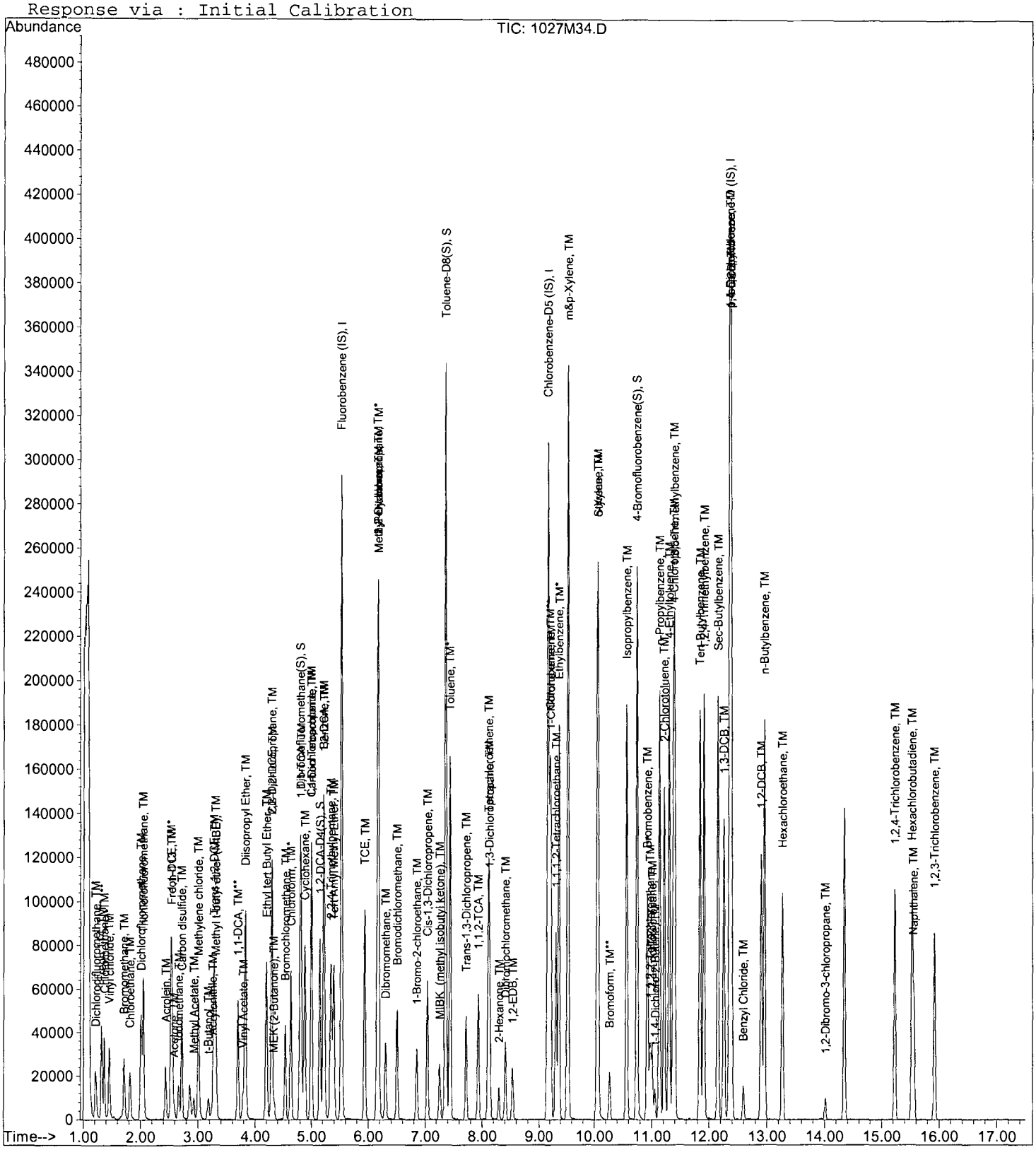
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M34.D Vial: 31
Acq On : 27 Oct 16 20:36 Operator: DG,CM,SV
Sample : Ending CCV 8260 10ug/L 10/27/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 7:33 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



420

EPA METHOD 8260B
Volatile Organic Compounds
Raw Data

APPL, INC.

Method Blank
EPA 8260B WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161027W-44891 - 213179**
Batch ID: #86BXD-161027AM

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,2-DCA	0.30 U	1.0	0.30	0.14	ug/L	10/27/16	10/27/16
BLANK	BENZENE	0.30 U	1.0	0.30	0.16	ug/L	10/27/16	10/27/16
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/27/16	10/27/16
BLANK	TOLUENE	0.30 U	1.0	0.30	0.17	ug/L	10/27/16	10/27/16
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.19	ug/L	10/27/16	10/27/16
BLANK	SURROGATE: 1,2-DICHLOROET	95.9	81-118			%	10/27/16	10/27/16
BLANK	SURROGATE: 4-BROMOFLUORO	93.4	85-114			%	10/27/16	10/27/16
BLANK	SURROGATE: DIBROMOFLUOR	97.7	80-119			%	10/27/16	10/27/16
BLANK	SURROGATE: TOLUENE-D8 (S)	97.7	89-112			%	10/27/16	10/27/16

Quant Method: MALLW.M
Run #: 1027M15
Instrument: MAX
Sequence: M161020
Initials: SV

GC SC-Blank-REG MDLs-DOD
Printed: 11/21/16 5:08:05 PM

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1027M15.D Vial: 12
Acq On : 27 Oct 16 13:42 Operator: DG,CM,SV
Sample : 161027A BLK-1WM Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 7:43 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	275623	25.00	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.16	117	213348	25.00	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	110502	25.00	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	4.80	111	65362	24.44	ppb	0.00
Spiked Amount 25.000			Recovery = 97.748%			
36) 1,2-DCA-D4(S)	5.15	65	61415	23.98	ppb	0.00
Spiked Amount 25.000			Recovery = 95.928%			
56) Toluene-D8(S)	7.36	98	273383	24.43	ppb	0.00
Spiked Amount 25.000			Recovery = 97.736%			
64) 4-Bromofluorobenzene(S)	10.74	95	94638	23.34	ppb	0.00
Spiked Amount 25.000			Recovery = 93.360%			

Target Compounds Qvalue

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

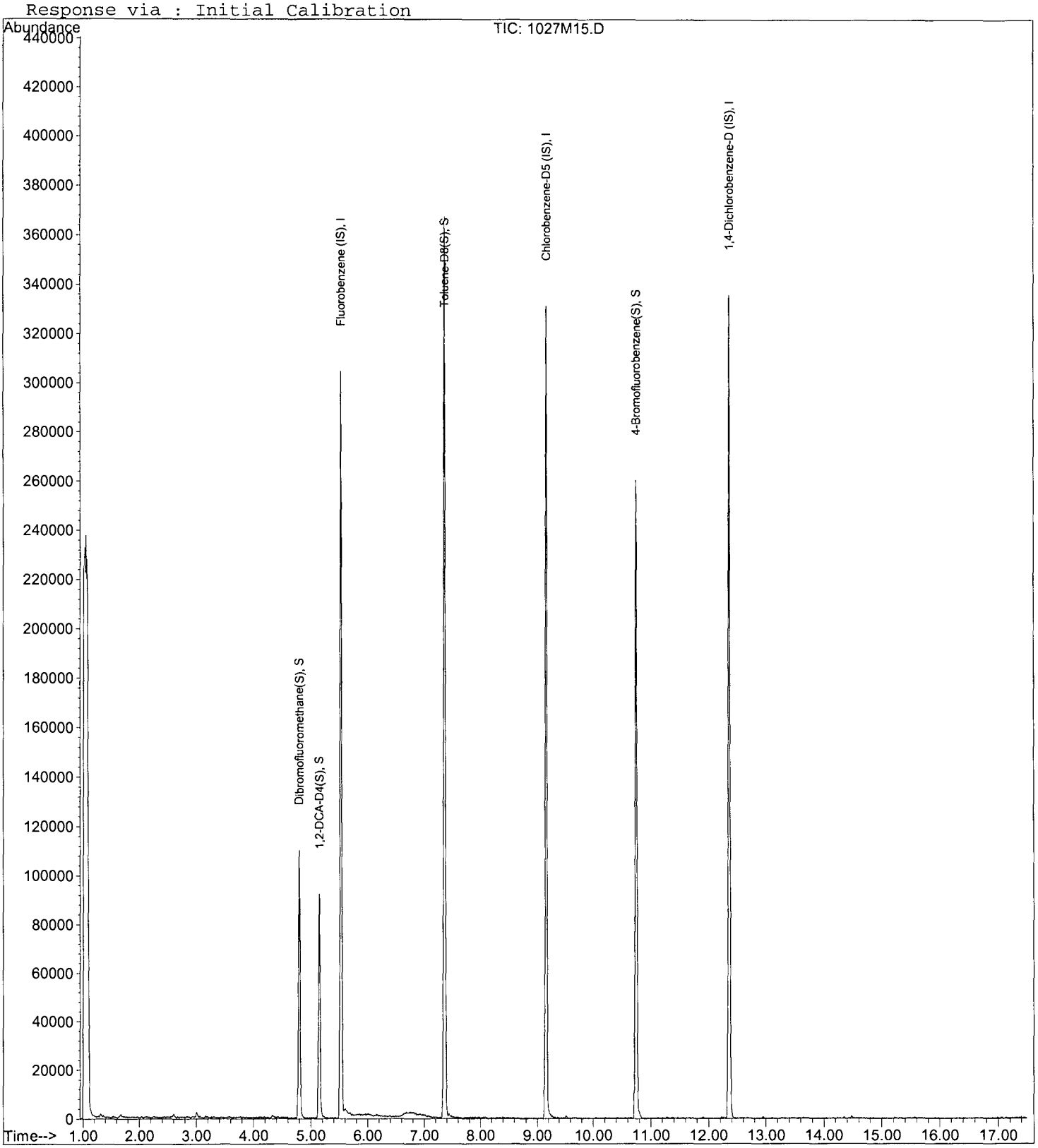
Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M15.D
Acq On : 27 Oct 16 13:42
Sample : 161027A BLK-1WM
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 12
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 31 7:43 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration



Laboratory Control Spike Recovery

EPA 8260B WATER

APPL ID: **161027W-44891 LCS - 213179**
Batch ID: #86BXD-161027AM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,2-DCA	10.00	9.28	92.8	73-128
BENZENE	10.00	8.94	89.4	79-120
ETHYLBENZENE	10.00	9.34	93.4	79-121
TOLUENE	10.00	9.44	94.4	80-121
XYLENES (TOTAL)	30.0	28.3	94.3	79-121
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	24.7	98.8	81-118
SURROGATE: 4-BROMOFLUOROBENZE	25.0	24.8	99.2	85-114
SURROGATE: DIBROMOFLUOROMETH	25.0	24.1	96.4	80-119
SURROGATE: TOLUENE-D8 (S)	25.0	24.6	98.4	89-112

Comments: _____

Primary	SPK
Quant Method :	MALLW.M
Extraction Date :	10/27/16
Analysis Date :	10/27/16
Instrument :	MAX
Run :	1027M06
Initials :	SV

Printed: 11/21/16 5:07:59 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1027M06.D Vial: 3
Acq On : 27 Oct 16 10:19 Operator: DG,CM,SV
Sample : 161027A CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 7:31 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.53	96	280722	25.00	ppb		0.00
55) Chlorobenzene-D5 (IS)	9.16	117	214560	25.00	ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.35	152	121723	25.00	ppb		0.00
System Monitoring Compounds							
31) Dibromofluoromethane(S)	4.79	111	65708	24.12	ppb		0.00
Spiked Amount 25.000			Recovery =	96.480%			
36) 1,2-DCA-D4(S)	5.14	65	64302	24.65	ppb		0.00
Spiked Amount 25.000			Recovery =	98.612%			
56) Toluene-D8(S)	7.36	98	277354	24.65	ppb		0.00
Spiked Amount 25.000			Recovery =	98.596%			
64) 4-Bromofluorobenzene(S)	10.74	95	101028	24.78	ppb		0.00
Spiked Amount 25.000			Recovery =	99.100%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.21	85	14600	9.08	ppb		99
3) Freon 114	1.31	85	27436	10.03	ppb		90
4) Chloromethane	1.36	49	2383	8.09	ppb		89
5) Vinyl chloride	1.45	62	21888	9.38	ppb		97
6) Bromomethane	1.71	94	20541	9.70	ppb		97
7) Chloroethane	1.81	64	11380	8.96	ppb		99
8) Dichlorofluoromethane	2.00	67	63058	9.57	ppb		99
9) Trichlorofluoromethane	2.04	101	47454	10.23	ppb		99
10) Acrolein	2.43	56	13227	102.11	ppb		93
11) Acetone	2.59	43	5920	9.82	ppb		100
12) Freon-113	2.55	101	12352	8.93	ppb		97
13) 1,1-DCE	2.53	61	40119	8.54	ppb		96
14) t-Butanol	3.17	59	15186	107.03	ppb		96
15) Methyl Acetate	2.92	43	12281	8.02	ppb		97
16) Iodomethane	2.66	142	21212	8.63	ppb		94
17) Acrylonitrile	3.24	53	6139	9.32	ppb	#	87
18) Methylene chloride	3.00	84	28279	9.22	ppb		97
19) Carbon disulfide	2.72	76	69661	7.94	ppb		98
20) Methyl t-butyl ether (MtBE	3.30	73	26752	9.17	ppb		98
21) Trans-1,2-DCE	3.27	96	26218	8.91	ppb		92
22) Diisopropyl Ether	3.82	45	91303	9.13	ppb		98
23) 1,1-DCA	3.69	63	51794	9.03	ppb		98
24) Vinyl Acetate	3.77	43	13539	8.40	ppb		98
25) Ethyl tert Butyl Ether	4.19	59	67068	9.46	ppb		99
26) MEK (2-Butanone)	4.33	43	8258	9.52	ppb		89
27) Cis-1,2-DCE	4.29	96	31857	9.52	ppb		96
28) 2,2-Dichloropropane	4.28	77	17008	9.54	ppb		97
29) Chloroform	4.63	83	50776	9.39	ppb		99
30) Bromochloromethane	4.53	128	12242	9.36	ppb		93
32) 1,1,1-TCA	4.81	97	41407	9.28	ppb		98
33) Cyclohexane	4.87	41	25563	8.48	ppb		93
34) 1,1-Dichloropropene	4.99	75	38074	9.14	ppb		97
35) 2,2,4-Trimethylpentane	5.34	57	94619	9.17	ppb		98
37) Carbon Tetrachloride	5.00	117	31229	9.03	ppb		99
38) Tert Amyl Methyl Ether	5.39	73	59111	9.74	ppb		96
39) 1,2-DCA	5.22	62	32738	9.28	ppb		97
40) Benzene	5.21	78	116888	8.94	ppb		99
41) TCE	5.93	95	30060	9.37	ppb		96
42) 2-Pentanone	6.17	43	158660	118.01	ppb		97

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1027M06.D Vial: 3
Acq On : 27 Oct 16 10:19 Operator: DG,CM,SV
Sample : 161027A CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 7:31 2016 Quant Results File: MALLW.RES

Quant Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	6.17	63	30830	9.33	ppb		98
44)	Bromodichloromethane	6.50	83	35034	9.74	ppb		95
45)	Methyl Cyclohexane	6.16	83	48528	9.36	ppb		93
46)	Dibromomethane	6.30	93	13429	9.28	ppb		93
47)	MIBK (methyl isobutyl ket	7.26	43	20631	10.22	ppb		98
48)	1-Bromo-2-chloroethane	6.84	63	16648	9.37	ppb		95
50)	Cis-1,3-Dichloropropene	7.04	75	37551	9.44	ppb		95
51)	Toluene	7.44	91	138890	9.44	ppb		95
52)	Trans-1,3-Dichloropropene	7.72	75	13238	9.10	ppb		97
53)	1,1,2-TCA	7.93	83	16744	9.27	ppb		93
54)	2-Hexanone	8.29	58	6236	9.96	ppb		97
57)	1,2-EDB	8.54	107	17988	9.08	ppb		98
58)	Tetrachloroethene	8.11	164	14449	8.97	ppb		98
59)	1-Chlorohexane	9.22	91	43935	9.83	ppb		95
60)	1,1,1,2-Tetrachloroethane	9.31	131	25991	9.42	ppb		98
61)	m&p-Xylene	9.53	106	126423	18.95	ppb		96
62)	o-Xylene	10.04	106	60821	9.32	ppb		96
63)	Styrene	10.06	104	101762	9.71	ppb		97
65)	1,3-Dichloropropane	8.13	76	35440	8.80	ppb		98
66)	Dibromochloromethane	8.41	129	21817	9.28	ppb		97
67)	Chlorobenzene	9.19	112	86860	9.06	ppb		99
68)	Ethylbenzene	9.36	91	158127	9.34	ppb		98
69)	Bromoform	10.27	173	12265	9.51	ppb		86
71)	Isopropylbenzene	10.56	105	159703	9.22	ppb		99
72)	1,1,2,2-Tetrachloroethane	10.97	83	22393	9.00	ppb		95
73)	1,2,3-Trichloropropane	11.00	110	7056	9.41	ppb		93
74)	t-1,4-Dichloro-2-Butene	11.05	53	4544	8.51	ppb	#	76
75)	Bromobenzene	10.92	156	37672	9.42	ppb		97
76)	n-Propylbenzene	11.13	91	192798	9.30	ppb		97
77)	4-Ethyltoluene	11.30	105	170911	9.98	ppb		99
78)	2-Chlorotoluene	11.21	91	104122	9.26	ppb		98
79)	1,3,5-Trimethylbenzene	11.39	105	136583	9.44	ppb		99
80)	4-Chlorotoluene	11.37	91	126909	9.32	ppb		99
81)	Tert-Butylbenzene	11.84	119	117848	9.26	ppb		96
82)	1,2,4-Trimethylbenzene	11.91	105	135599	9.41	ppb		99
83)	Sec-Butylbenzene	12.15	105	172045	9.42	ppb		99
84)	p-Isopropyltoluene	12.37	119	151383	9.25	ppb		98
85)	Benzyl Chloride	12.59	91	15349	10.42	ppb		95
86)	1,3-DCB	12.26	146	76531	9.41	ppb		98
87)	1,4-DCB	12.38	146	75328	9.22	ppb		99
88)	n-Butylbenzene	12.95	91	135749	9.28	ppb		98
89)	1,2-DCB	12.90	146	68481	9.77	ppb		94
90)	Hexachloroethane	13.27	117	18389	9.57	ppb		95
91)	1,2-Dibromo-3-chloropropan	14.01	75	2454	7.69	ppb		90
92)	1,2,4-Trichlorobenzene	15.23	180	46496	9.55	ppb		98
93)	Hexachlorobutadiene	15.53	225	29272	9.86	ppb		97
94)	Naphthalene	15.56	128	33056	9.51	ppb		100
95)	1,2,3-Trichlorobenzene	15.92	180	38838	9.30	ppb		95

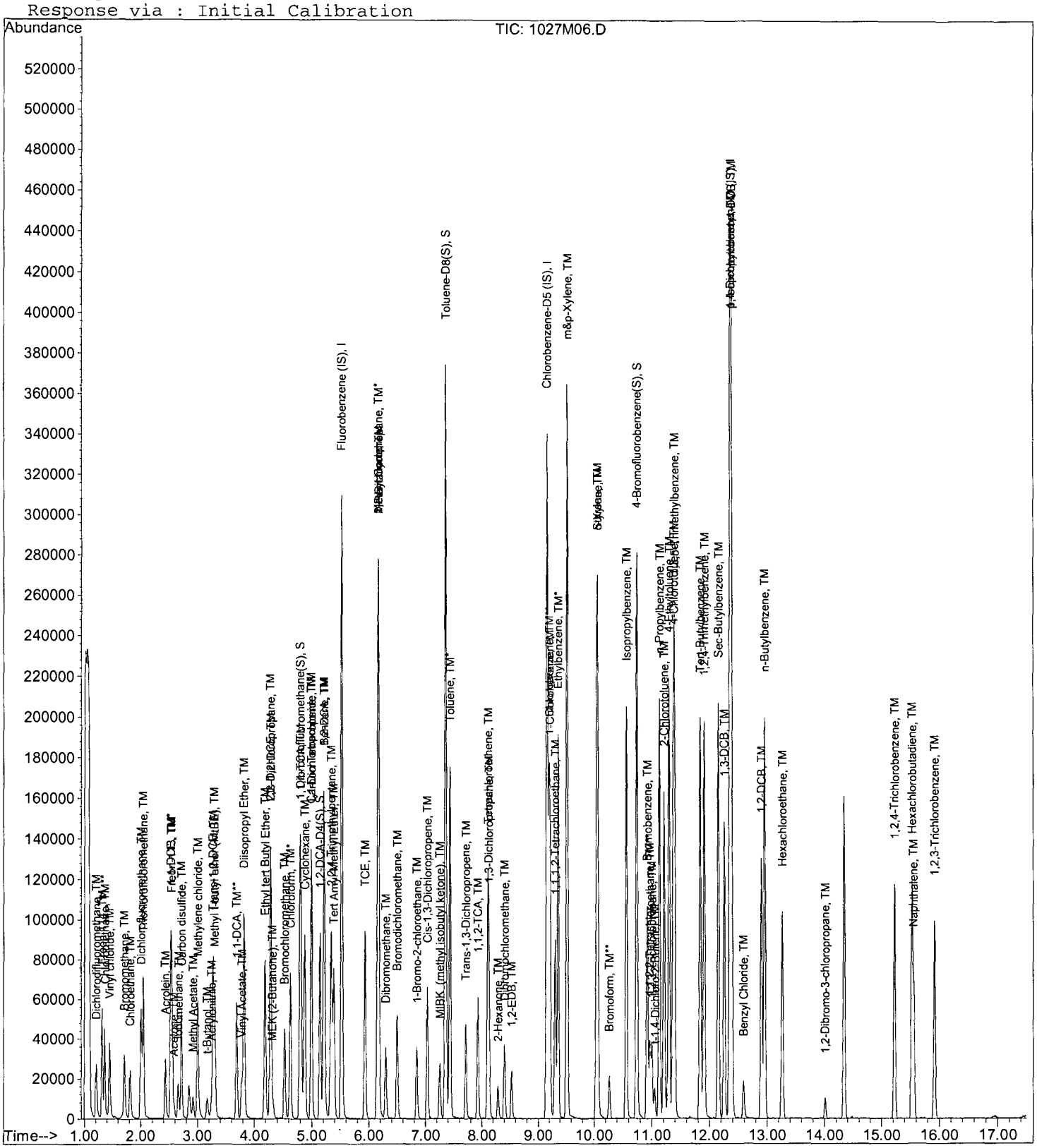
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M06.D Vial: 3
Acq On : 27 Oct 16 10:19 Operator: DG,CM,SV
Sample : 161027A CCV/LCS 10ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 7:31 2016 Quant Results File: MALLW.RES

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 24 09:35:01 2016
Response via : Initial Calibration

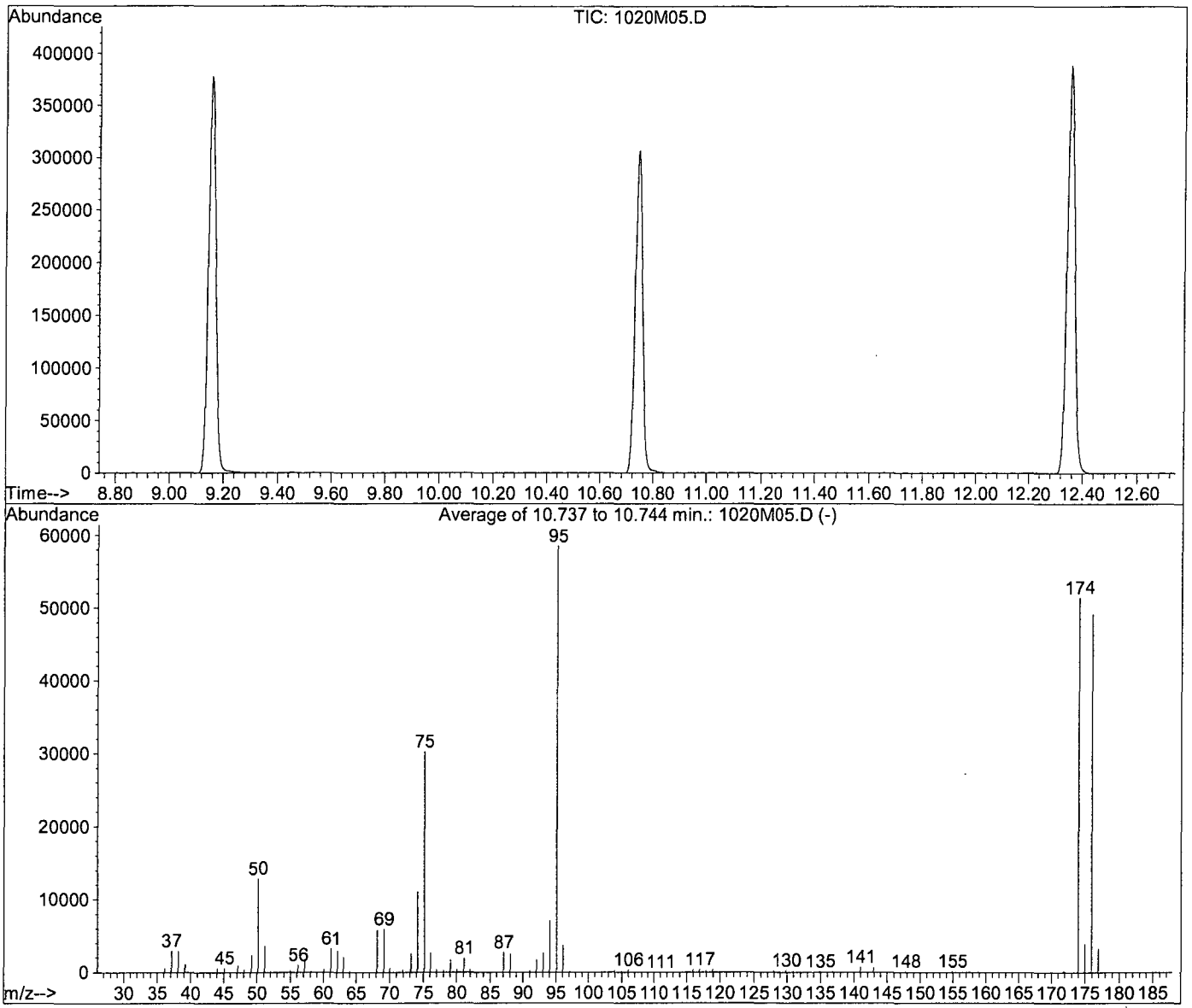


428

Data File : M:\MAX\DATA\M161020\1020M05.D
Acq On : 20 Oct 16 11:58
Sample : 5ng- BFB STD 10-12-16
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 4
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B



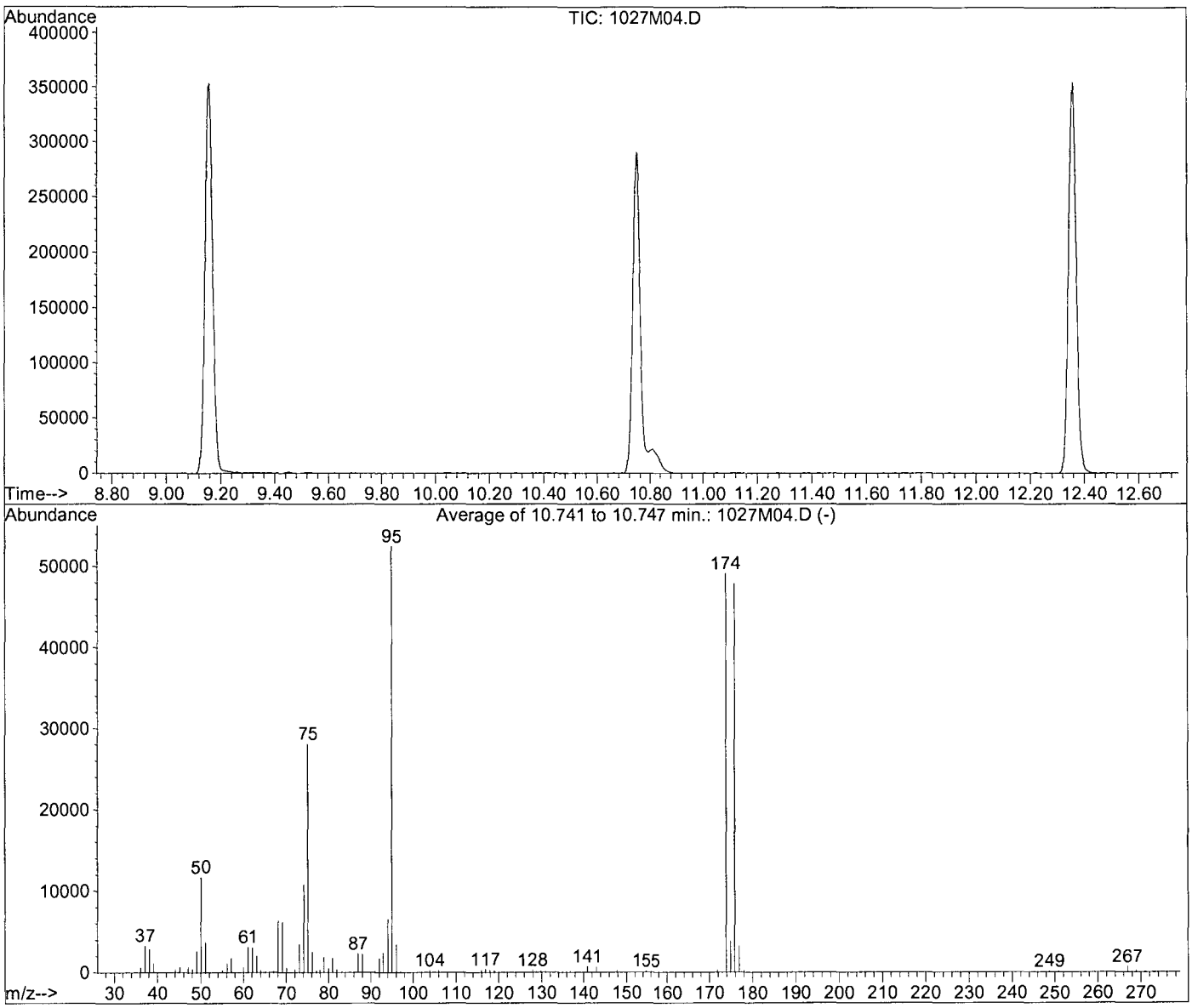
AutoFind: Scans 3053, 3054, 3055; Background Corrected with Scan 3038

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.0	12848	PASS
75	95	30	60	51.6	30219	PASS
95	95	100	100	100.0	58525	PASS
96	95	5	9	6.4	3724	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	87.9	51437	PASS
175	174	5	9	7.6	3910	PASS
176	174	95	101	95.6	49195	PASS
177	176	5	9	6.7	3286	PASS

Data File : M:\MAX\DATA\M161020\1027M04.D
Acq On : 27 Oct 16 9:36
Sample : 5ng- BFB STD 10-12-16
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 1
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Method : M:\MAX\DATA\M161020\MALLW.M (RTE Integrator)
Title : METHOD 8260B



AutoFind: Scans 3054, 3055, 3056; Background Corrected with Scan 3039

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.3	11700	PASS
75	95	30	60	53.5	28048	PASS
95	95	100	100	100.0	52461	PASS
96	95	5	9	6.5	3436	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	93.5	49077	PASS
175	174	5	9	7.7	3788	PASS
176	174	95	101	97.4	47819	PASS
177	176	5	9	6.6	3172	PASS

1027M04.D MALLW.M Wed Nov 02 15:52:59 2016

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-MAX										
Exp Date:	10/21/16	5µg/mL	5µg/mL	5µg/mL	50µg/mL	50µg/mL	50µg/mL	50µg/mL	250µg/mL	
		Vol Std #9	Vol Std #10	Vol Std #12	Vol Std #7	Vol Std #8	Vol Std #1	Vol Std #2	TBA	
		10/17/16L	10/17/16M	10/17/16N	10/17/16H	10/17/16J	10/17/16I	10/17/16K	10/17/16O	Final Vol
	Conc.	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	w/P&T H2O
Date/code	µg/L	ul	ul	ul	ul	ul	ul	ul	ul	mL
10/20/16AA-CM	0.3	3	3	3	n/a	n/a	n/a	n/a	2	50
10/20/16AB-CM	0.5	5	5	5	n/a	n/a	n/a	n/a	5	50
10/20/16AC-CM	1	10	10	10	n/a	n/a	n/a	n/a	10	50
10/20/16AD-CM	2	20	20	20	n/a	n/a	n/a	n/a	15	50
10/20/16AE-CM	5	n/a	n/a	n/a	5	5	5	5	20	50
10/20/16AF-CM	10	n/a	n/a	n/a	10	10	10	10	25	50
10/20/16AG-CM	20	n/a	n/a	n/a	20	20	20	20	30	50
10/20/16AH-CM	40	n/a	n/a	n/a	40	40	40	40	35	50
10/20/16AI-CMN	100	n/a	n/a	n/a	100	100	100	100	40	50

PRIMARY STANDARD

10/08/16K							
50ug/ml Vol Work Std #7							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03	Gas Mix	2000	279822-36651	10/08/16A-CMM	02/19/19	100
02SI	020049-02	HEXACHLOROETHANE	1000	254167-36561	10/08/16B-CMM	12/28/17	200
02SI	020228-02	Benzyl Chloride	1000	279824-36572	10/08/16C-CMM	06/21/17	200
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3500
10/08/16L							
50ug/ml Vol Work Std #1							
Exp:11/08/16					Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	020145-02-02	2-CEVE	2000	254169-35358	10/08/16D-CMM	06/26/18	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1950
10/08/16M							
50ug/ml Vol Work Std #8							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	122039-02	Volatile Mix, 20-29	2000	240422-35671	09/24/16B-CMM	11/19/16	100
02SI	120023-03	VOC'S-54 COMP	2000	253202-35681	09/24/16C-CMM	06/04/17	100
02SI	020232-02	Vinyl Acetate	2000	287418-37044	09/24/16D-CMM	11/27/16	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3700
10/08/16N							
50ug/ml Vol Work Std #2							
Exp:11/08/16							
Supplier	ID #	ID	ug/ml				
02SI	121020-05	HSL'S-Ketone Solution	2000	258036-36078	10/08/16E-CMM	08/17/16	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3900
		10/08/16O					
		5ug/ml Vol Work Std #9					
		SOURCES	**Lot**	**APPL Code**	**APPL Exp Date**	ul	
		50ug/ml Vol Work Std #7		**10/08/16K**	Exp:11/08/16	200	
		50ug/ml Vol Work Std #8		**10/08/16M**	Exp:11/08/16	200	
		J&T Brand		10/07/16	01/27/18	1600	
		10/08/16P					
		5ug/ml Vol Work Std #10					
		SOURCES	**Lot**	**APPL Code**	**APPL Exp Date**	ul	
		50ug/ml Vol Work Std #1		**10/08/16L**	Exp:11/08/16	200	
		J&T Brand		10/07/16	01/27/18	1800	
		10/08/16Q					
		5ug/ml Vol Work Std #12					
		SOURCES	**Lot**	**APPL Code**	**APPL Exp Date**	ul	
		50ug/ml Vol Work Std #2		**10/08/16N**	Exp:11/08/16	200	
		J&T Brand		10/07/16	01/27/18	1800	
10/15/16E							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P							
Exp:11/08/16			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120166-01	Volatile Mix 4-3	2000	275544-36405	10/15/16A-CMM	03/28/17	500
02SI	020229-09-02	Acrolein	10000	287739-37070	10/15/16B-CMM	10/16/16	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3400

SECONDARY SOURCE

10/08/16S							
50ug/ml VOC Std#4							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120296-01-SS	Custom 8260 Solution	2000	258037-36086	09/24/16F-CMM	02/18/17	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1950
10/08/16T							
50ug/ml VOC Std#5							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03-SS	8260 Gases(SS)	2000	279826-36659	10/08/16G-CMM	06/01/19	50
02SI	020145-02-02-SS	2-CEVE (SS)	2000	254171-35393	10/08/16I-CMM	06/21/17	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1900
10/08/16U							

50ug/ml VOC Std#6							
Exp:11/08/16							
	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120023-03-SS	VOC'S 54 COMP.	2000	26589735924	09/24/16J-CMM	11/29/17	50
02SI	020232-02-SS	Vinyl Acetate(SS)	2000	287420-37048	09/24/16H-CMM	11/27/16	50
02SI	020049-02-SS	HEXACHLOROETHANE (SS)	1000	265899-35936	10/08/16H-CMM	11/30/17	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1800
10/15/16F							
250ug/ml TBA/IBA/Acetonitrile/Acrolein/2-P							
Exp:11/08/16			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120166-01-SS	VOC Mix 4-3 (SS)	2000	258040-35710	10/15/16C-CMM	08/22/18	250
02SI	020229-09-SS	Acrolein SOLUTION (SS)	10000	287741-37068	10/15/16D-CMM	10/16/16	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1700
8260 water		spiked with		Total Vol			
CCV/LCS	10ug/L Vol Std	10uL of 50ug/ml Std #7		50mL P&T H2O			
Ending CCV		10uL of 50ug/ml Std #8					
		10uL of 50ug/ml Std #1					
		10uL of 50ug/ml Std #2					
		25uL of 250ug/ml Std TBA					
X4 ketones							
LCS	10ug/L Vol Std	10uL of 50ug/ml Std #7		50mL P&T H2O			
		10uL of 50ug/ml Std #8					
		10uL of 50ug/ml Std #1					
		40uL of 50ug/ml Std #2					
		25uL of 250ug/ml Std TBA					
8260 soil		spiked with		Total Vol			
CCV/LCS	50ug/Kg Vol Std	5uL of 50ug/ml Std #7		5mL P&T H2O			
Ending CCV		5uL of 50ug/ml Std #8					
		5uL of 50ug/ml Std #1					
		5uL of 50ug/ml Std #2					
		5uL of 250ug/ml Std TBA					
Matrix spikes are prepared with same standards as ccv (see above) into the sample.							
8260water		spiked with		Total Vol			
SS	10ug/L STD	10uL of 50ug/ml Std #4		50mL P&T H2O			
		10uL of 50ug/ml Std #5					
		10uL of 50ug/ml Std #6					
		25uL of 250ug/ml Std TBA					
8260 SOIL	50ug/Kg STD	5uL of 50ug/ml Std #4		Total Vol			
SS		5uL of 50ug/ml Std #5		5mL P&T H2O			
		5uL of 50ug/ml Std #6					
		5uL of 250ug/ml Std TBA					

Injection Log

Directory: M:\MAX\DATA\M161020\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	4	1020M05.D	1	5ng- BFB STD 10-12-16	10ml w/IS&S 7/26/16,7/25/1(	20 Oct 16 11:58
2	5	1020M06.D	1	0.3ug/L VOC STD 10/20/16AA	1uL-5ppb	20 Oct 16 12:19
3	6	1020M07.D	1	0.5ug/L VOC STD 10/20/16AB	1uL-5ppb	20 Oct 16 12:41
4	7	1020M08.D	1	1.0ug/L VOC STD 10/20/16AC	2uL-10ppb	20 Oct 16 13:03
5	8	1020M09.D	1	2.0ug/L VOC STD 10/20/16AD	2uL-10ppb	20 Oct 16 13:25
6	9	1020M10.D	1	5.0ug/L VOC STD 10/20/16AE	5uL-25ppb	20 Oct 16 13:47
7	10	1020M11.D	1	10ug/L VOC STD 10/20/16AF	5uL-25ppb	20 Oct 16 14:09
8	12	1020M13.D	1	40ug/L VOC STD 10/20/16AH	10uL-50ppb	20 Oct 16 14:52
9	13	1020M14.D	1	100ug/L VOC STD 10/20/16AI	20uL-100ppb	20 Oct 16 15:14
10	20	1020M21.D	1	(SS) 10ug/L VOC STD 10/20/16	10ml w/IS&S 7/26/16,7/25/1(	20 Oct 16 17:47
11	1	1027M04.D	1	5ng- BFB STD 10-12-16	10ml w/IS&S 7/26/16,7/25/1(	27 Oct 16 9:36
12	3	1027M06.D	1	161027A CCV/LCS 10ug/L	10ml w/IS&S 7/26/16,7/25/1(	27 Oct 16 10:19
13	12	1027M15.D	1	161027A BLK-1WM	10ml w/IS&S 7/26/16,7/25/1(	27 Oct 16 13:42
14	13	1027M16.D	1	AZ44892W01	10ml w/IS&S 7/26/16,7/25/1(	27 Oct 16 14:04
15	29	1027M32.D	1	AZ44891W01	10ml w/IS&S 7/26/16,7/25/1(	27 Oct 16 19:53
16	30	1027M33.D	1	AZ44893W01	10ml w/IS&S 7/26/16,7/25/1(	27 Oct 16 20:14
17	31	1027M34.D	1	Ending CCV 8260 10ug/L 10/27/16	10ml w/IS&S 7/26/16,7/25/1(	27 Oct 16 20:36

EPA METHOD 8260
Gasoline Range Organics (GRO)

APPL, INC.

EPA METHOD 8260
Gasoline Range Organics (GRO)

QC Summary

APPL, INC.

Method Blank

EPA 8260B GRO WATER

Blank Name/QCG: **161027W-44891 - 213183**

Batch ID: #GRO86-161027AM

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/27/16	10/27/16
BLANK	SURROGATE: 4-BROMOFLUORO	93.4	85-114			%	10/27/16	10/27/16

Quant Method: MGAS6825.
Run #: 1027M15
Instrument: MAX
Sequence: M161020
Initials: SV

GC SC-Blank-REG MDLs-DOD
Printed: 11/21/16 5:08:51 PM

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 10/27/16

Matrix: WATER Instrument: MAX

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
161027AM-LCS	Lab Control Spike	85-114	95.6				
161027AM-BLK	Blank	85-114	93.4				
AZ44892	ERH108	85-114	95.6				
AZ44891	ERH103	85-114	98.9				
AZ44893	ERH096	85-114	95.8				

Comments: Batch: #GRO86-161027AM

Laboratory Control Spike Recovery
EPA 8260B GRO WATER

APPL ID: **161027W-44891 LCS - 213183**
Batch ID: #GRO86-161027AM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
GASOLINE RANGE ORGANICS	300	276	92.0	78-122
SURROGATE: 4-BROMOFLUOROBENZE	25.0	23.9	95.6	85-114

Comments: _____

Primary	SPK
Quant Method :	MGAS6825.M
Extraction Date :	10/27/16
Analysis Date :	10/27/16
Instrument :	MAX
Run :	1027M09
Initials :	SV

Printed: 11/02/16 2:34:30 PM
APPL Standard LCS

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 81287

Case No: 81287 Date Analyzed: 10/27/16

Matrix: WATER Instrument: MAX

Blank ID: 161027AM-BLK Time Analyzed: 1342

APPL ID.	Client Sample No.	File ID.	Date Analyzed
161027AM-LCS	Lab Control Spike	1027M09	10/27/16 1131
161027AM-BLK	Blank	1027M15	10/27/16 1342
AZ44892	ERH108	1027M16	10/27/16 1404
AZ44891	ERH103	1027M32	10/27/16 1953
AZ44893	ERH096	1027M33	10/27/16 2014

Comments: Batch: #GRO86-161027AM

Printed: 11/02/16 2:34:26 PM

Form 4, Blank Summary

EPA METHOD 8260
Gasoline Range Organics (GRO)

Sample Data

APPL, INC.

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH103

Sample Collection Date: 10/25/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81287

APPL ID: AZ44891

QCG: #GRO86-161027AM-213183

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/27/16	10/27/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	98.9	85-114			%	10/27/16	10/27/16

Quant Method:	MGAS6825.M
Run #:	1027M32
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/21/16 5:08:48 PM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1027M32.D Vial: 29
Acq On : 27 Oct 16 19:53 Operator: DG,CM,SV
Sample : AZ44891W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:39 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	278440	25.00 ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

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

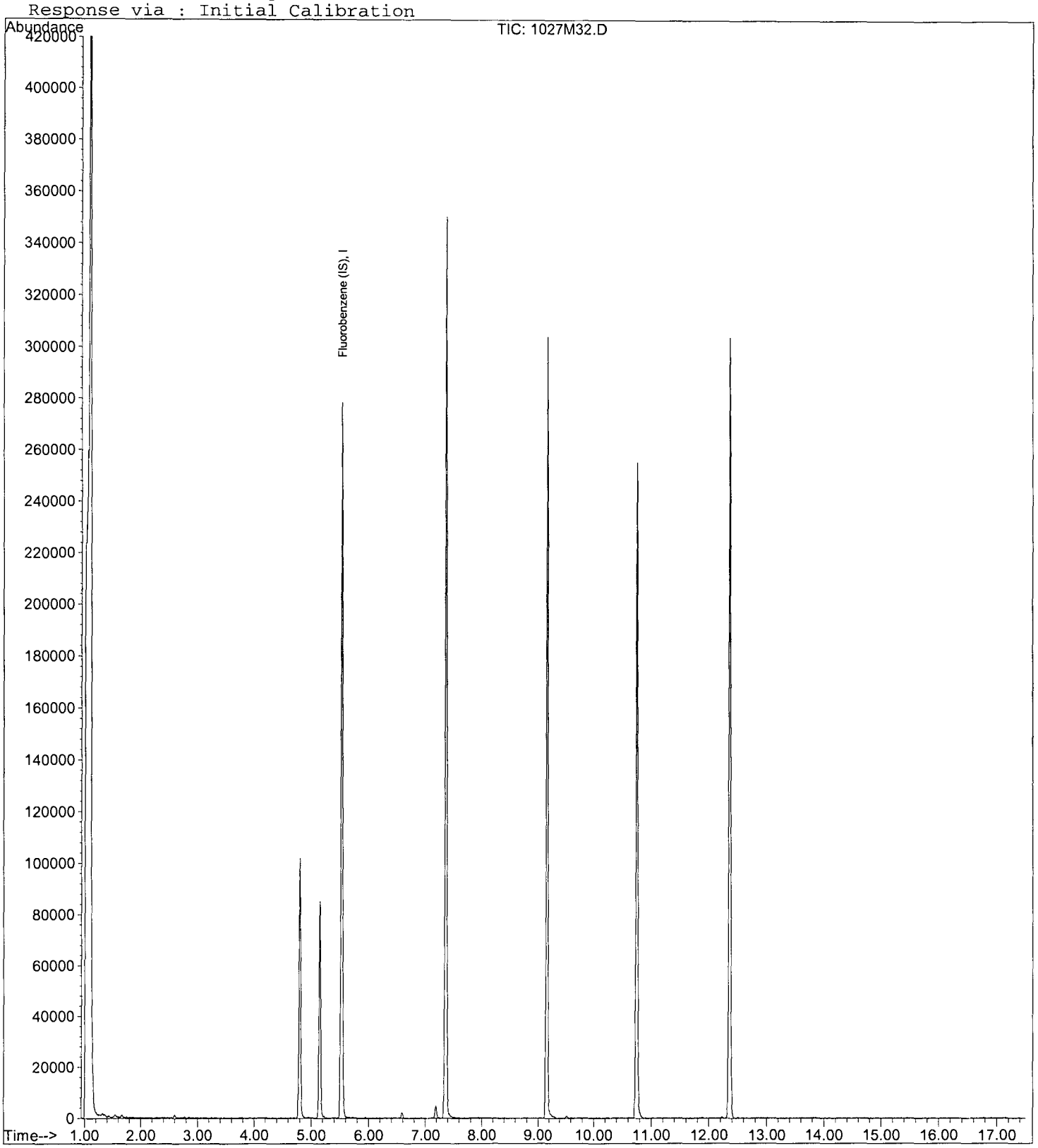
Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M32.D
Acq On : 27 Oct 16 19:53
Sample : AZ44891W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 29
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 31 9:39 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1027M32.D Vial: 29
Acq On : 27 Oct 16 19:53 Operator: DG,CM,SV
Sample : AZ44891W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	255643	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	195879	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	102194	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.80	111	62005	24.99	ppb	0.00
Spiked Amount 25.000			Recovery = 99.972%			
3) 1,2-DCA-D4(S)	5.15	65	58641	24.69	ppb	0.00
Spiked Amount 25.000			Recovery = 98.752%			
5) Toluene-D8(S)	7.36	98	256794	25.00	ppb	0.00
Spiked Amount 25.000			Recovery = 99.996%			
6) 4-Bromofluorobenzene(S)	10.74	95	92077	24.73	ppb	0.00
Spiked Amount 25.000			Recovery = 98.936%			

Target Compounds Qvalue

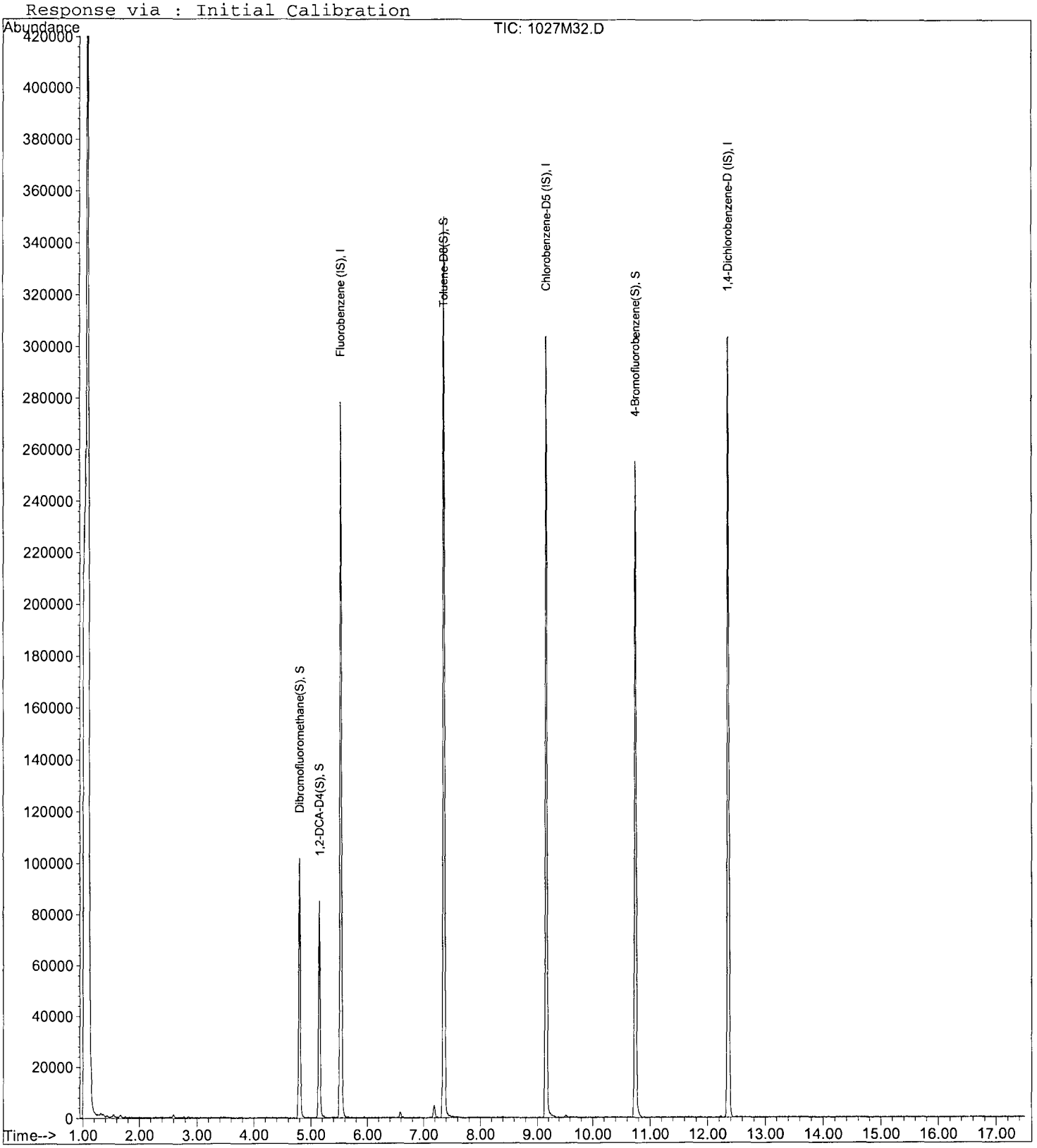
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M32.D Vial: 29
Acq On : 27 Oct 16 19:53 Operator: DG,CM,SV
Sample : AZ44891W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH108

Sample Collection Date: 10/25/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81287

APPL ID: AZ44892

QCG: #GRO86-161027AM-213183

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/27/16	10/27/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	95.6	85-114			%	10/27/16	10/27/16

Quant Method:	MGAS6825.M
Run #:	1027M16
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/21/16 5:08:48 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1027M16.D Vial: 13
Acq On : 27 Oct 16 14:04 Operator: DG,CM,SV
Sample : AZ44892W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:39 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	292734	25.00 ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

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

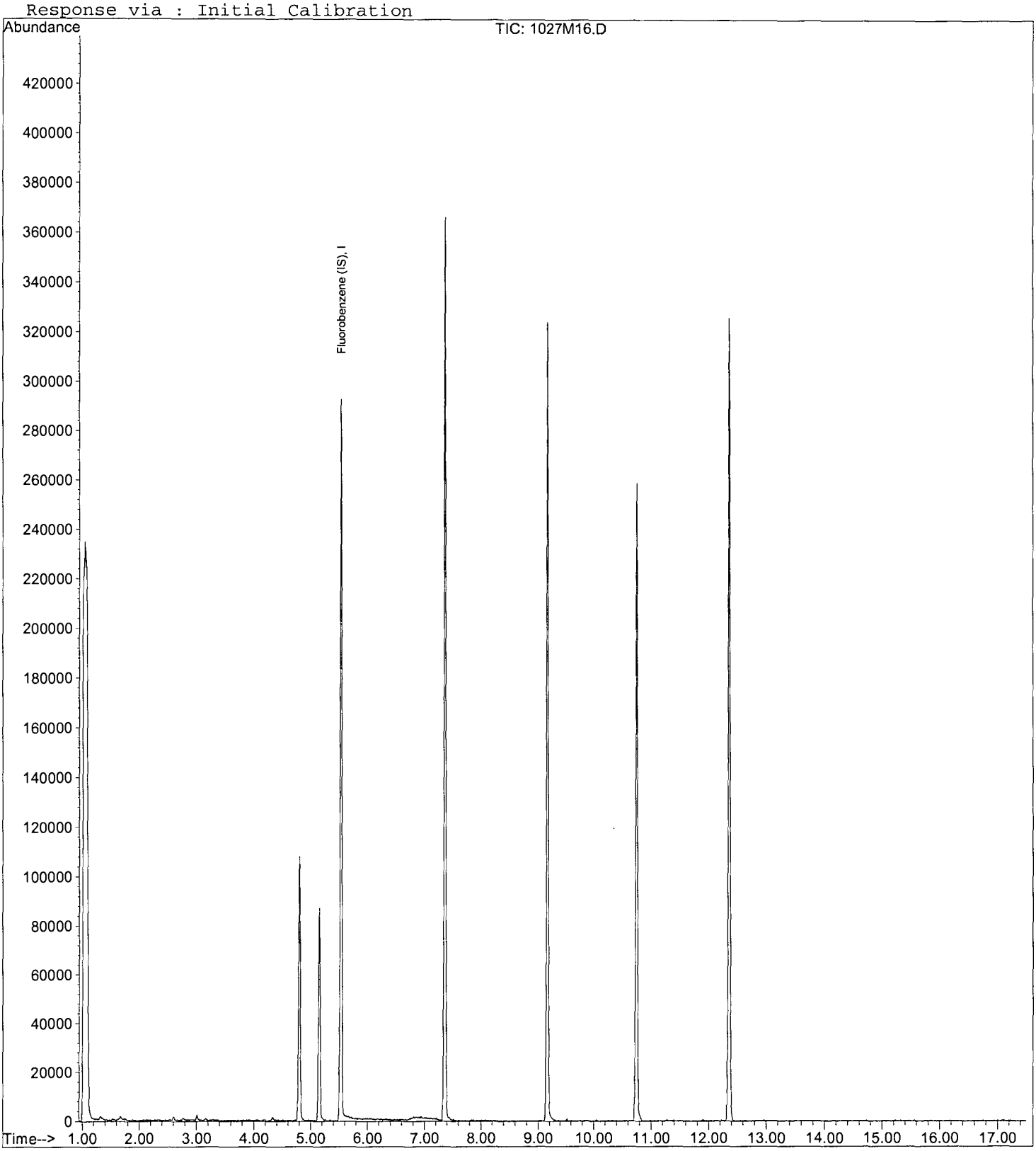
Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M16.D
Acq On : 27 Oct 16 14:04
Sample : AZ44892W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 13
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 31 9:39 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1027M16.D Vial: 13
Acq On : 27 Oct 16 14:04 Operator: DG,CM,SV
Sample : AZ44892W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	266332	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	205908	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	107674	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.80	111	65128	25.20	ppb	0.00
Spiked Amount 25.000			Recovery = 100.792%			
3) 1,2-DCA-D4(S)	5.15	65	60247	24.35	ppb	0.00
Spiked Amount 25.000			Recovery = 97.384%			
5) Toluene-D8(S)	7.36	98	268979	24.91	ppb	0.00
Spiked Amount 25.000			Recovery = 99.636%			
6) 4-Bromofluorobenzene(S)	10.74	95	93539	23.90	ppb	0.00
Spiked Amount 25.000			Recovery = 95.612%			

Target Compounds Qvalue

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

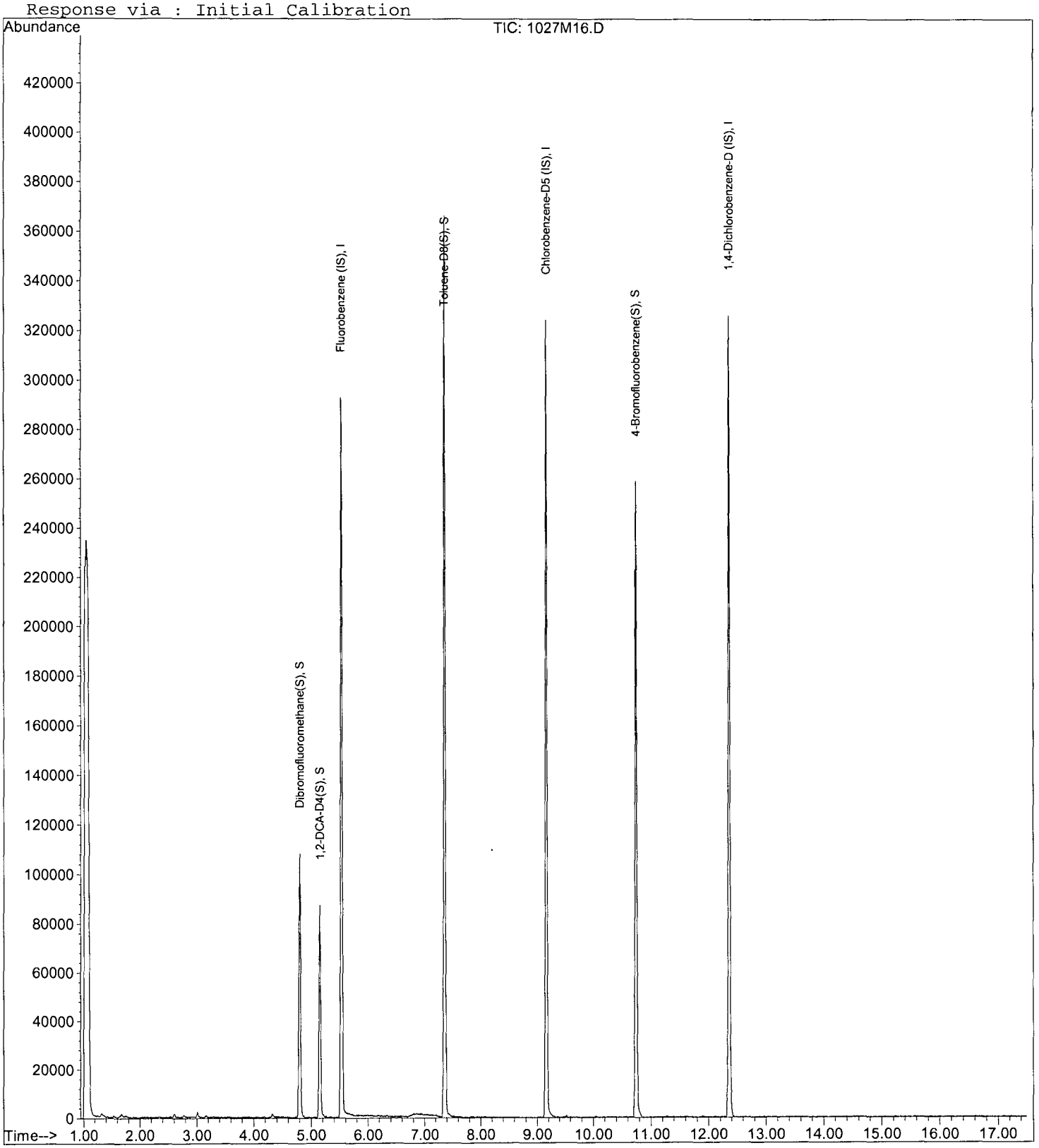
Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M16.D
Acq On : 27 Oct 16 14:04
Sample : AZ44892W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 13
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

ARF: 81287

Sample ID: ERH096

APPL ID: AZ44893

Sample Collection Date: 10/25/16

QCG: #GRO86-161027AM-213183

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/27/16	10/27/16
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	95.8	85-114			%	10/27/16	10/27/16

Quant Method:	MGAS6825.M
Run #:	1027M33
Instrument:	MAX
Sequence:	M161020
Dilution Factor:	1
Initials:	SV

Printed: 11/21/16 5:08:48 PM

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

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1027M33.D Vial: 30
Acq On : 27 Oct 16 20:14 Operator: DG,CM,SV
Sample : AZ44893W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:39 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	291317	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

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

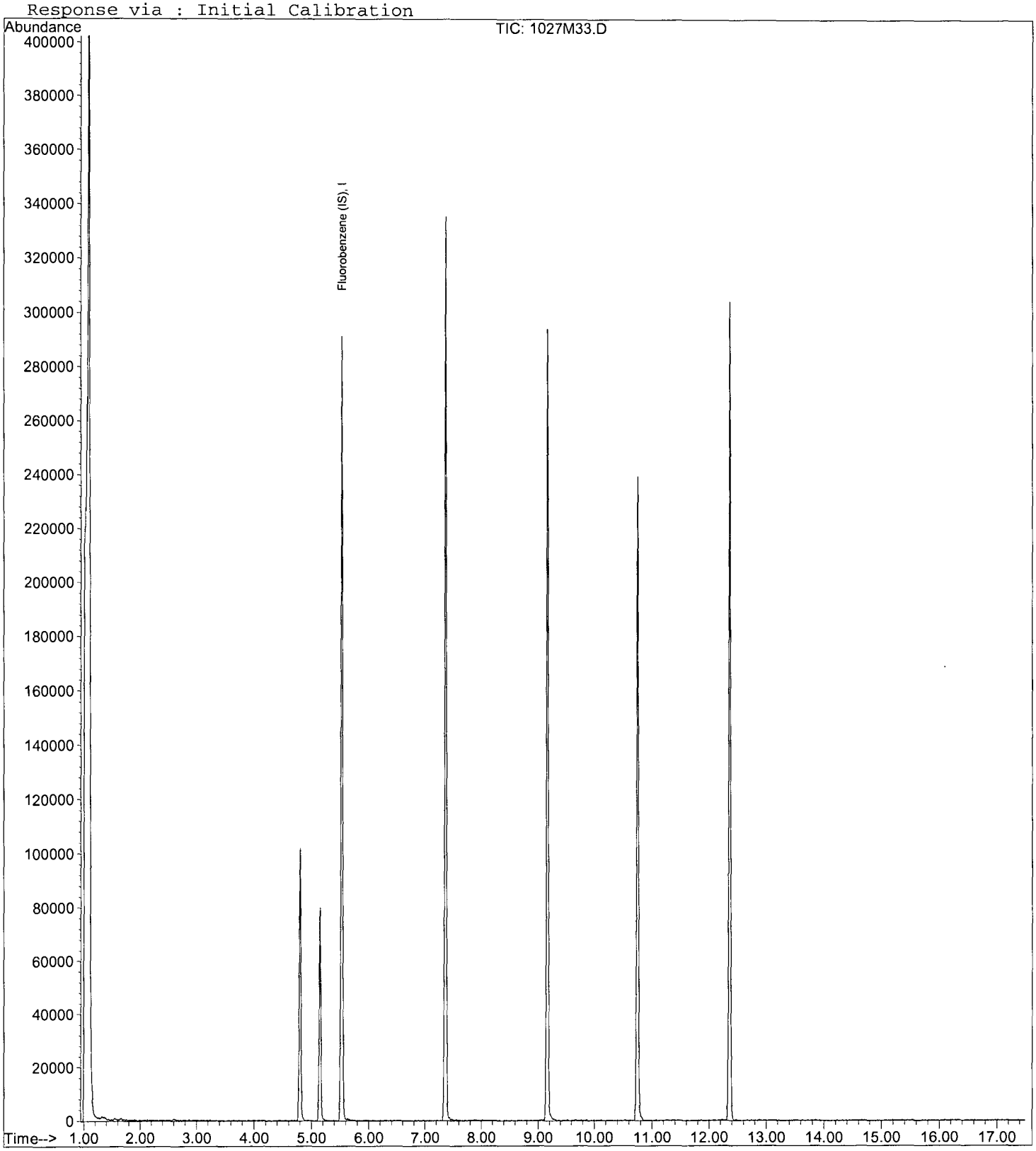
Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M33.D
Acq On : 27 Oct 16 20:14
Sample : AZ44893W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 30
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 31 9:39 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1027M33.D Vial: 30
Acq On : 27 Oct 16 20:14 Operator: DG,CM,SV
Sample : AZ44893W01 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	262083	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	192766	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	100758	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.79	111	60489	23.78	ppb	0.00
Spiked Amount 25.000			Recovery = 95.132%			
3) 1,2-DCA-D4(S)	5.15	65	54882	22.54	ppb	0.00
Spiked Amount 25.000			Recovery = 90.152%			
5) Toluene-D8(S)	7.36	98	248457	24.58	ppb	0.00
Spiked Amount 25.000			Recovery = 98.312%			
6) 4-Bromofluorobenzene(S)	10.74	95	87723	23.94	ppb	0.00
Spiked Amount 25.000			Recovery = 95.780%			

Target Compounds Qvalue

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

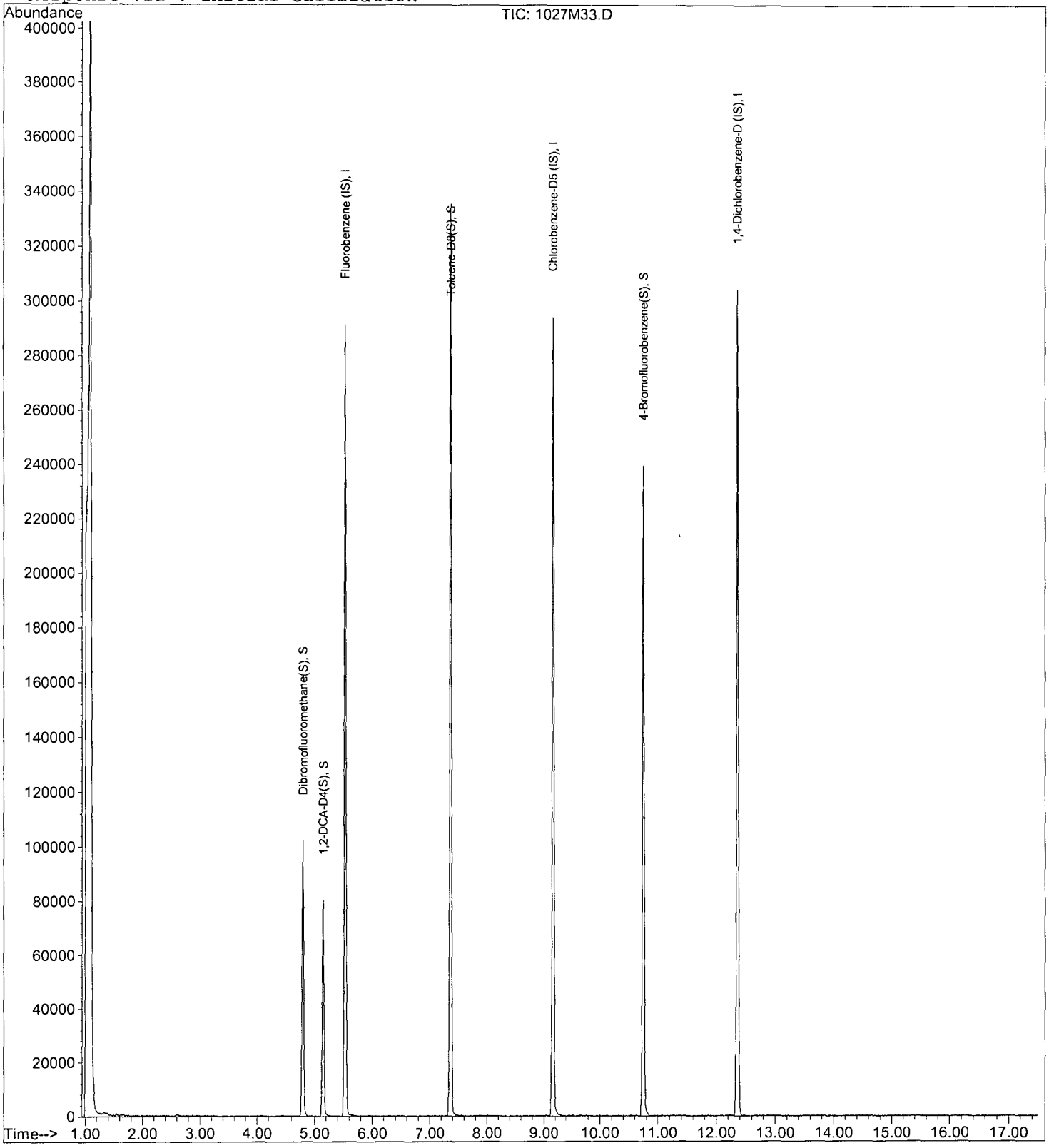
Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M33.D
Acq On : 27 Oct 16 20:14
Sample : AZ44893W01
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 30
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



EPA METHOD 8260
Gasoline Range Organics (GRO)

Calibration Data

APPL, INC.

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

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

SDG No:
Initial Cal. Date: 08/25/16
Instrument: MAX

Initials:

		Compound	1	2	3	4	5	6	7				Avg	%RSD		
			0825M17.D	0825M18.D	0825M19.D	0825M20.D	0825M21.D	0825M22.D	0825M23.D							
1	I	Fluorobenzene (IS)														
2	TMHBL	Gasoline C6-C10	13.9	6.189	3.716	2.101	1.689	1.599	1.516				4.4	103	TMHBL	1.000
3																
4																
5																
6																
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35																

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M17.D Vial: 17
Acq On : 25 Aug 16 18:23 Operator: DG,CM,SV
Sample : 20ug/L GAS STD 08/25/16R Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:53 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	478375	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	5321705m	27.86074	ppb	100

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

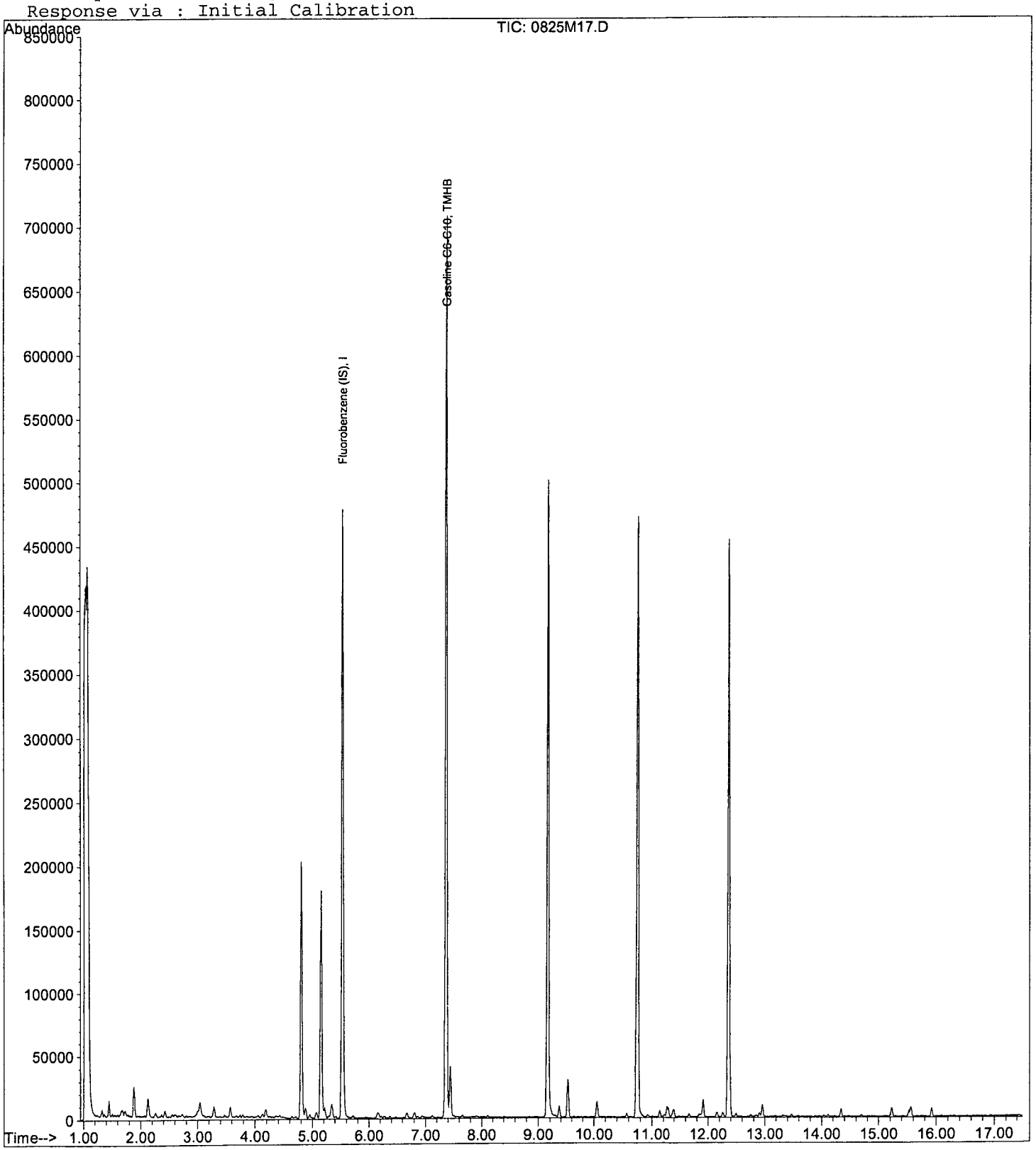
Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M17.D
Acq On : 25 Aug 16 18:23
Sample : 20ug/L GAS STD 08/25/16R
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 17
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Aug 26 12:53 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M18.D Vial: 18
Acq On : 25 Aug 16 18:45 Operator: DG,CM,SV
Sample : 50ug/L GAS STD 08/25/1S Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:48 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	484962	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	6002990m	52.22651	ppb	100

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

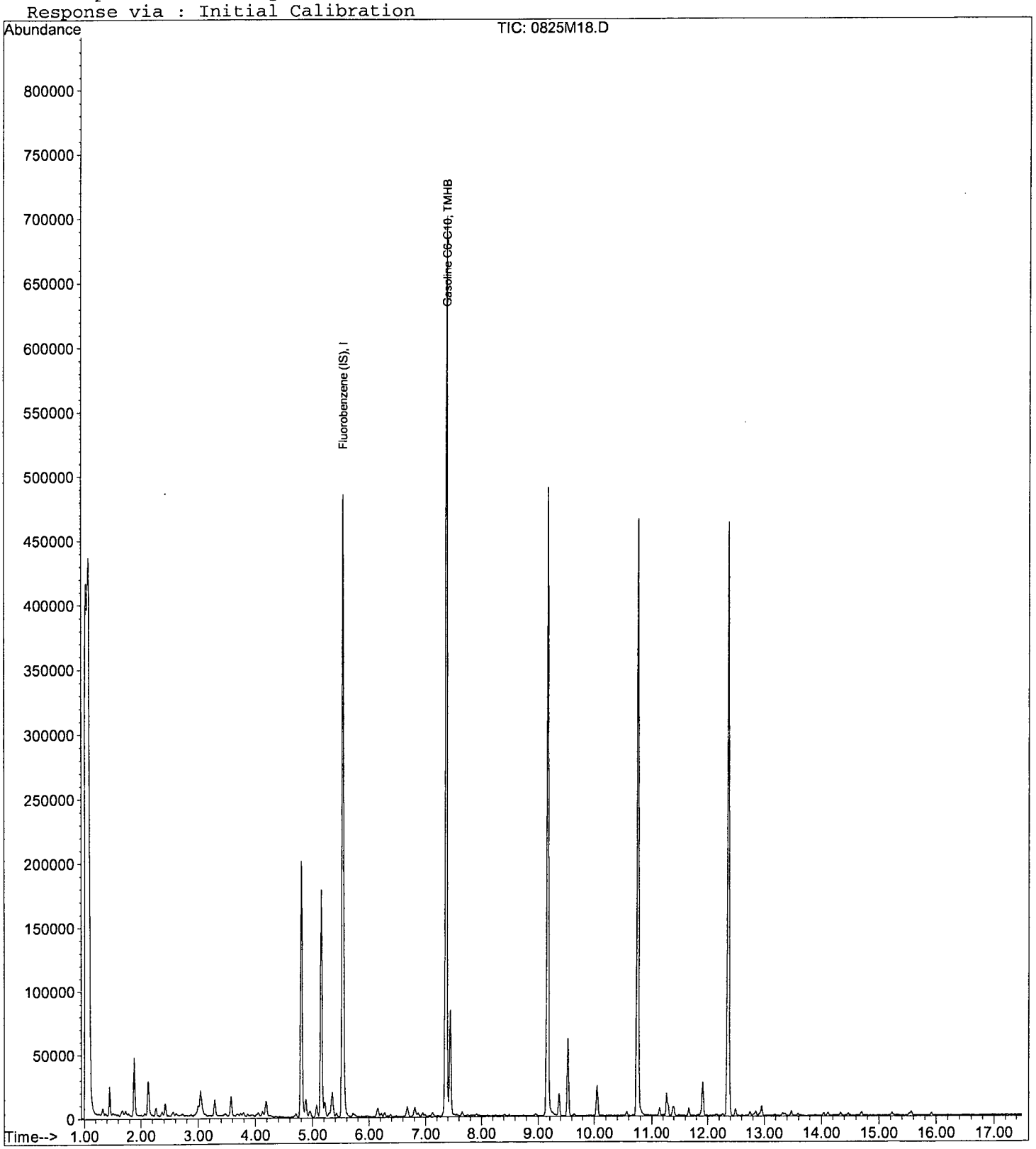
Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M18.D
Acq On : 25 Aug 16 18:45
Sample : 50ug/L GAS STD 08/25/1S
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 18
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Aug 26 12:48 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M19.D Vial: 19
Acq On : 25 Aug 16 19:06 Operator: DG,CM,SV
Sample : 100ug/L GAS STD 08/25/1T Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:49 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	472596	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	7025078m	100.55298	ppb	100

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

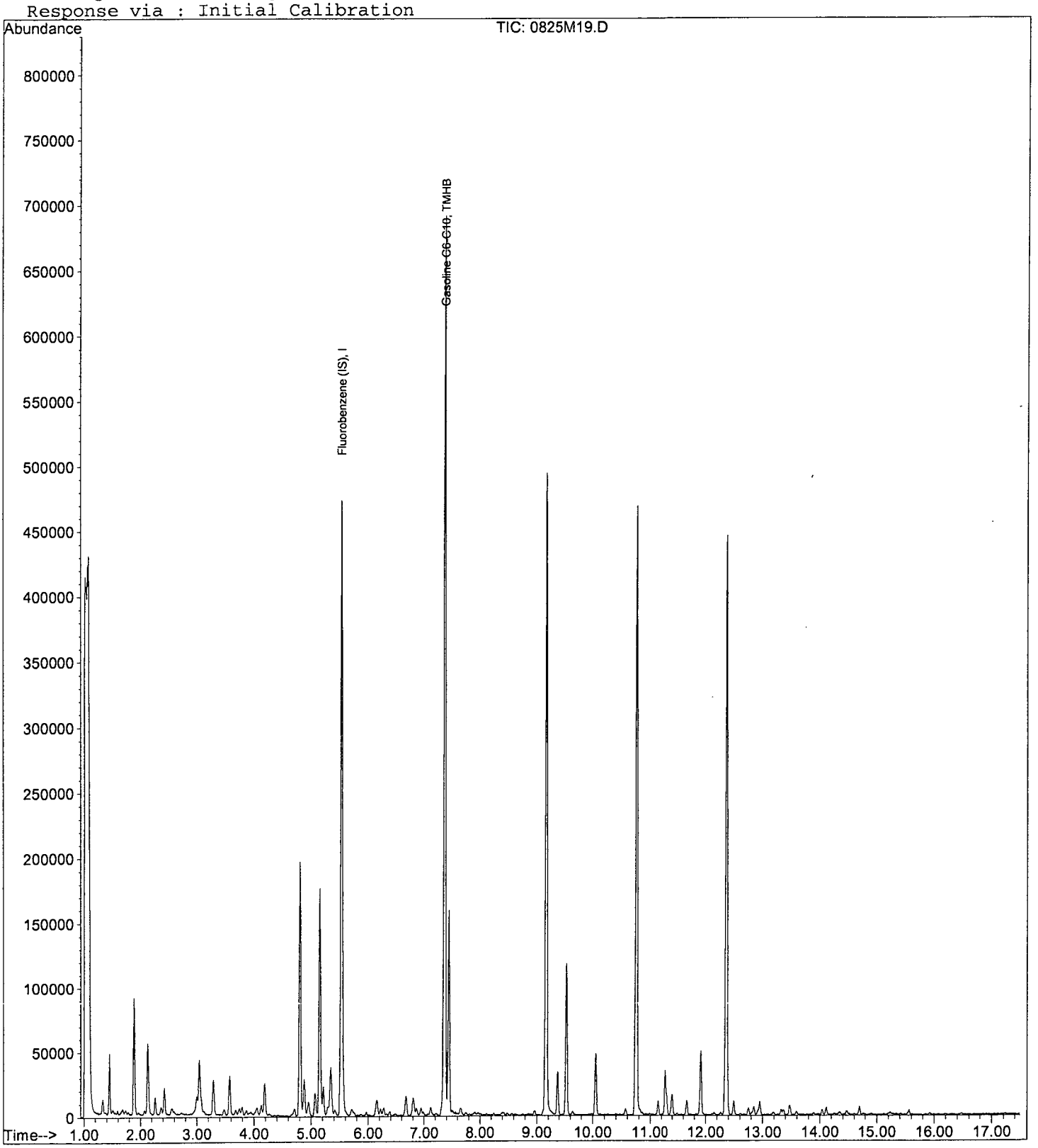
Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M19.D
Acq On : 25 Aug 16 19:06
Sample : 100ug/L GAS STD 08/25/1T
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 19
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Aug 26 12:49 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M20.D Vial: 20
Acq On : 25 Aug 16 19:28 Operator: DG,CM,SV
Sample : 300ug/L GAS STD 08/25/1U Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:50 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	437133	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	11021977m	301.69041	ppb	100

(#) = qualifier out of range (m) = manual integration
0825M20.D MGAS6825.M Fri Aug 26 13:03:23 2016 Page 1

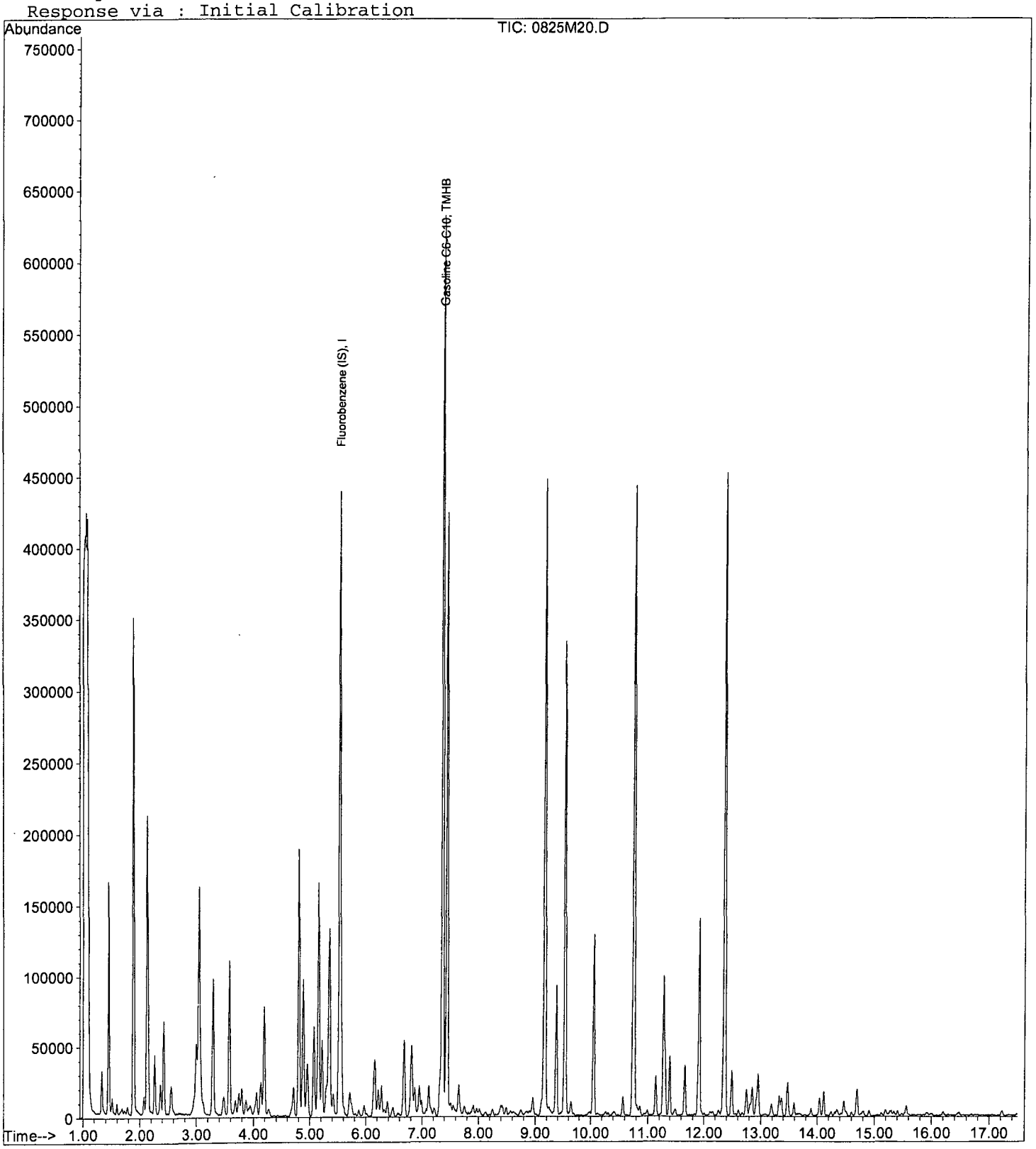
Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M20.D
Acq On : 25 Aug 16 19:28
Sample : 300ug/L GAS STD 08/25/1U
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 20
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Aug 26 12:50 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M21.D Vial: 21
Acq On : 25 Aug 16 19:50 Operator: DG,CM,SV
Sample : 600ug/L GAS STD 08/25/1V Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:56 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	458873	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.44	TIC	18605837m	599.67505	ppb	100

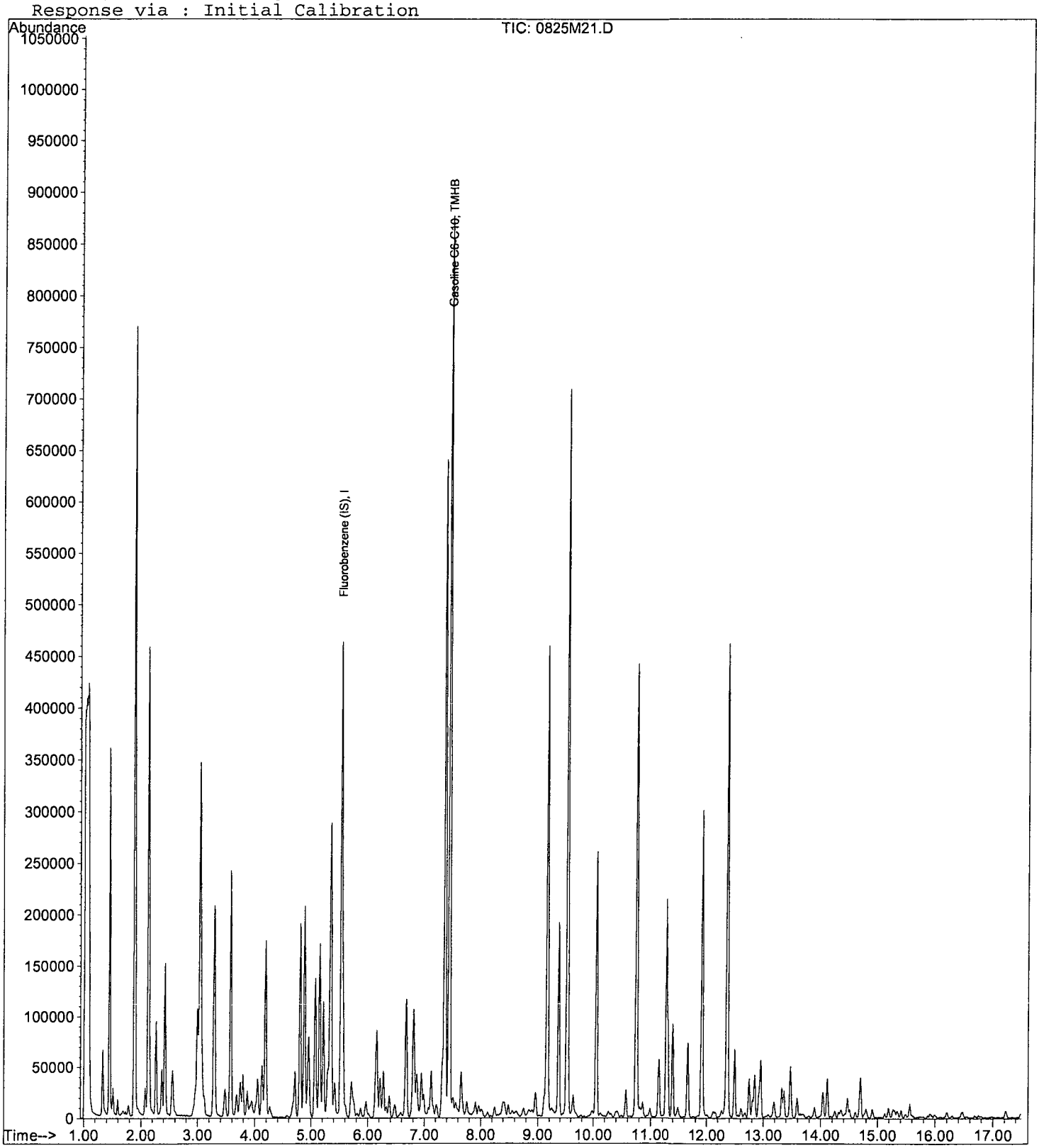
(#) = qualifier out of range (m) = manual integration
0825M21.D MGAS6825.M Fri Aug 26 13:03:26 2016 Page 1

Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M21.D Vial: 21
Acq On : 25 Aug 16 19:50 Operator: DG,CM,SV
Sample : 600ug/L GAS STD 08/25/1V Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:56 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M22.D Vial: 22
Acq On : 25 Aug 16 20:12 Operator: DG,CM,SV
Sample : 800ug/L GAS STD 08/25/1W Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 13:00 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	447661	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.44	TIC	22909499m	806.25064	ppb	100

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

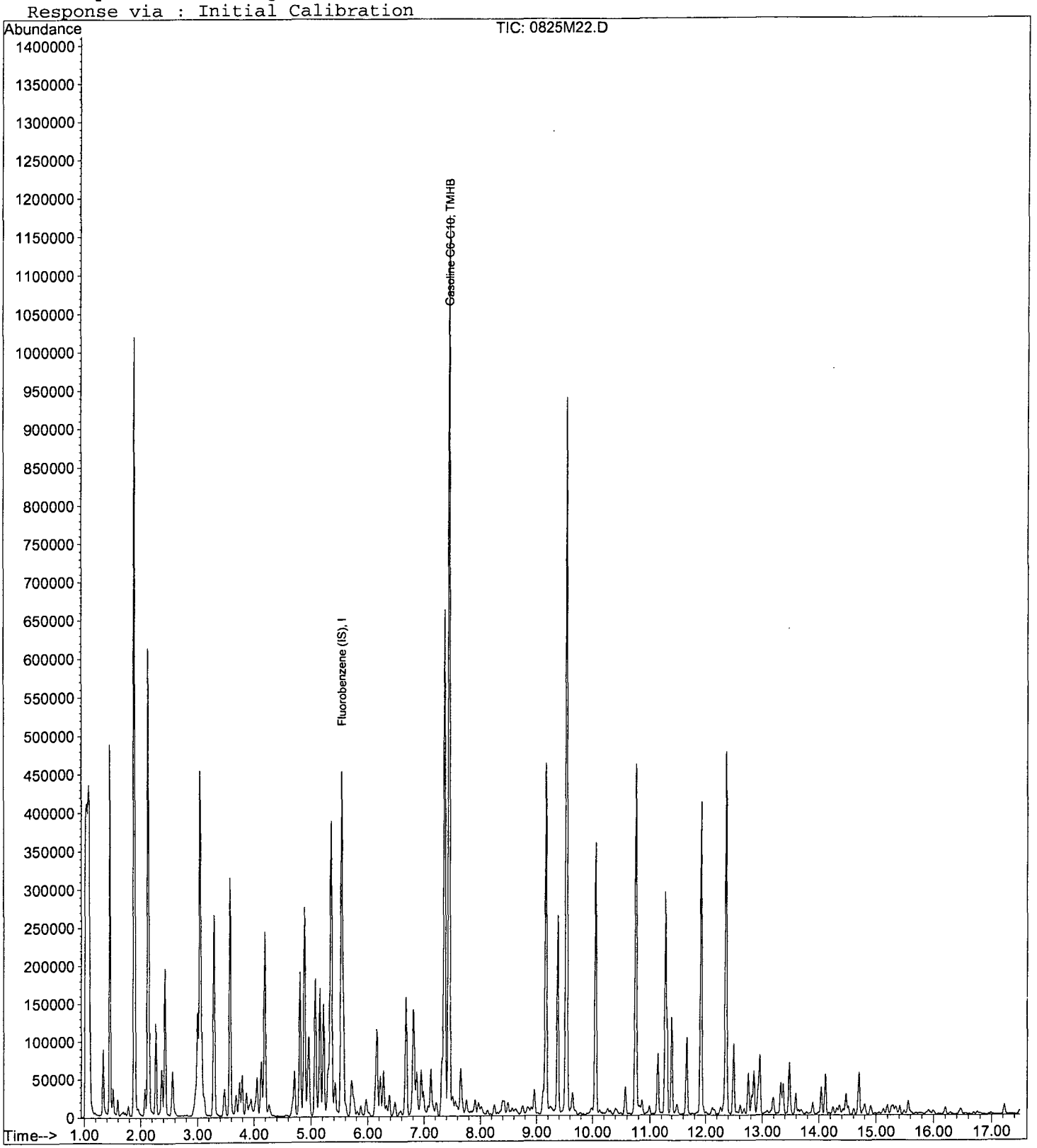
Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M22.D
Acq On : 25 Aug 16 20:12
Sample : 800ug/L GAS STD 08/25/1W
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 22
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Aug 26 13:00 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M23.D Vial: 23
Acq On : 25 Aug 16 20:34 Operator: DG,CM,SV
Sample : 1000ug/L GAS STD 08/25/1X Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 12:58 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 11:54:21 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	457689	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.44	TIC	27762500m	990.53097	ppb	100

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

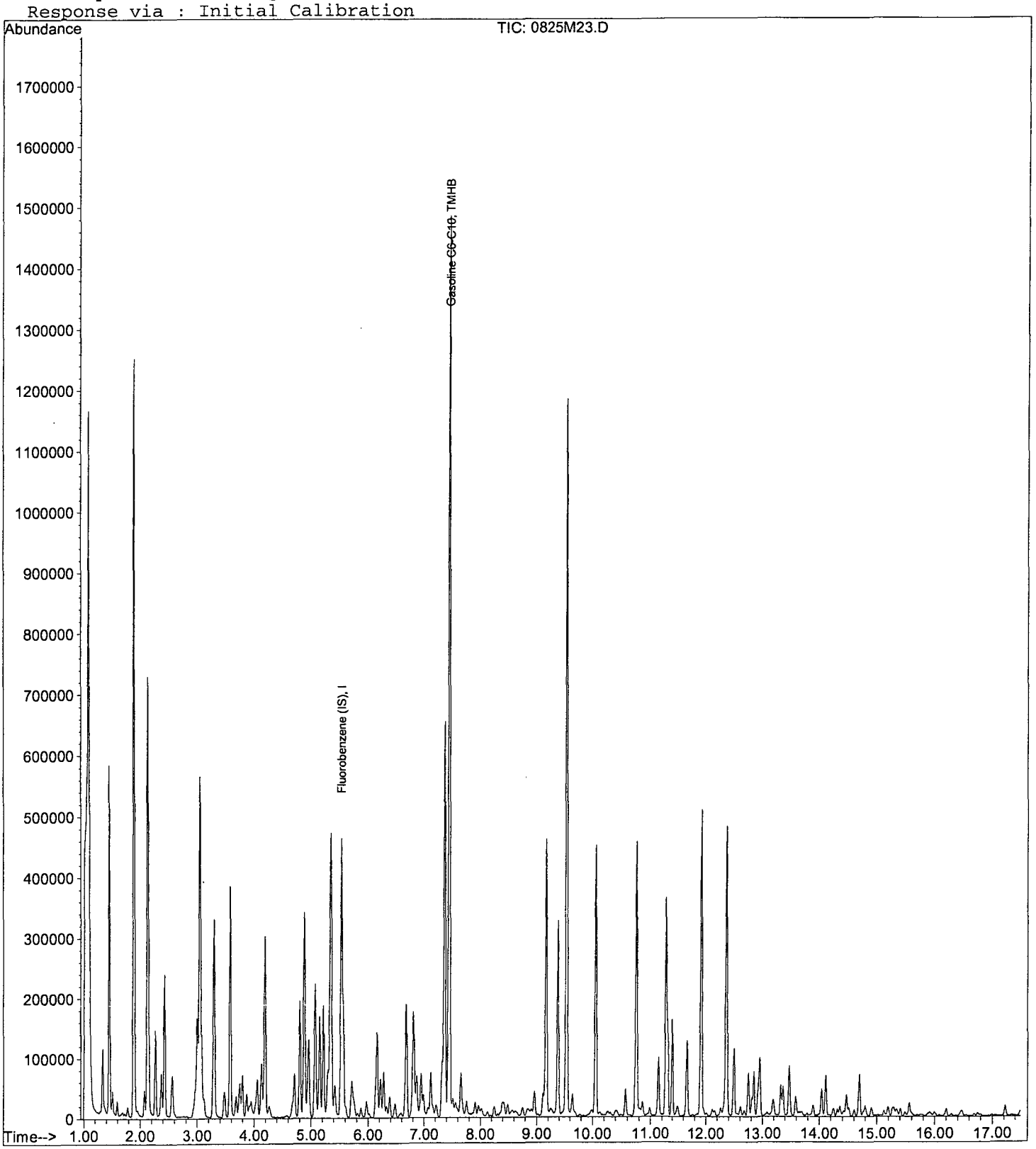
Quantitation Report

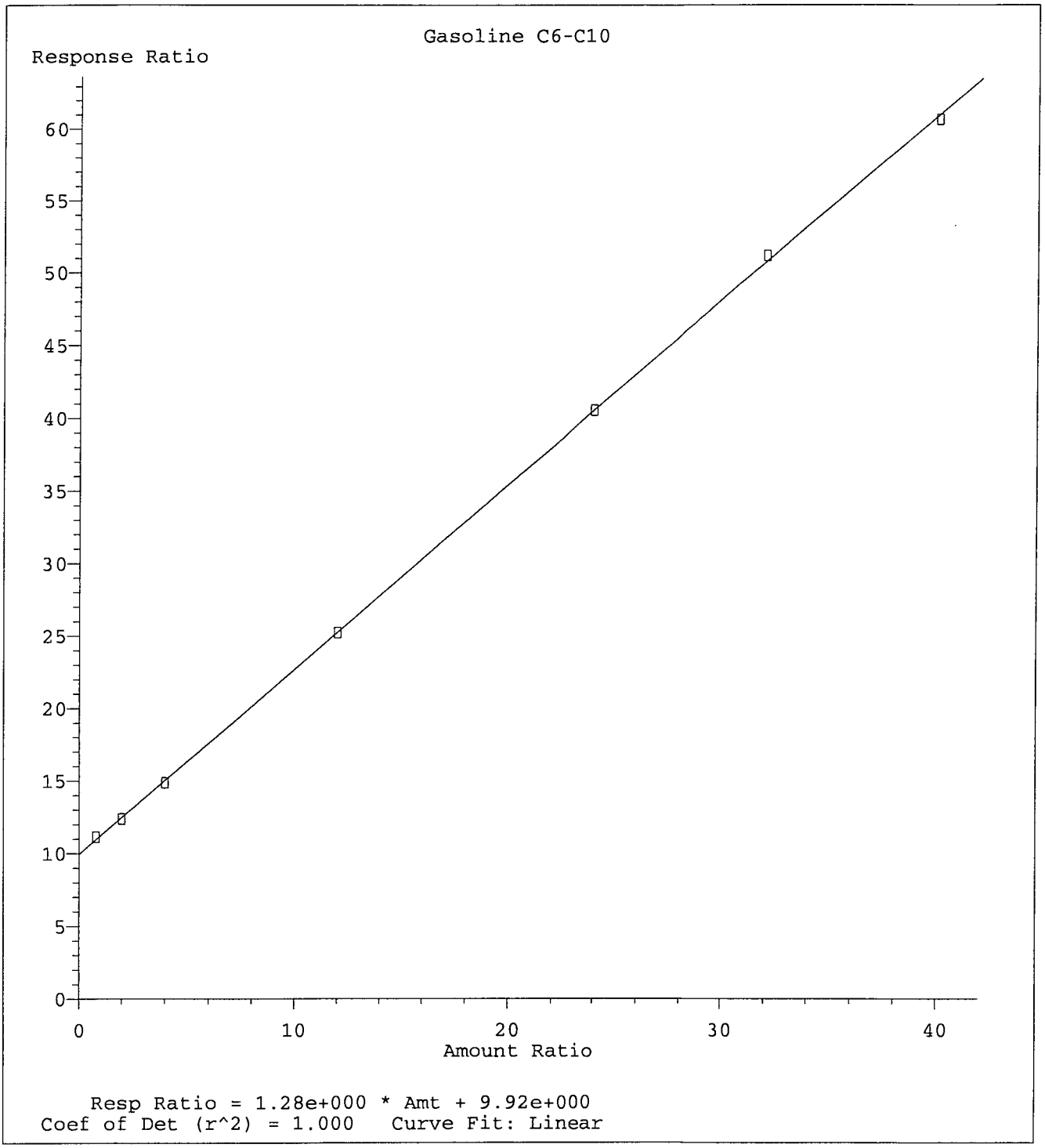
Data File : M:\MAX\DATA\M160825\0825M23.D
Acq On : 25 Aug 16 20:34
Sample : 1000ug/L GAS STD 08/25/1X
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 23
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Aug 26 12:58 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration





Method Name: M:\MAX\DATA\M160825\MGAS6825.M
Calibration Table Last Updated: Fri Aug 26 13:01:44 2016

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 08/25/16
Instrument: MAX
Initial Cal. Date: 08/25/16
Data File: 0825M27.D

		Compound	MEAN	CCRF	%D		%Drift
1	TMHB	Gasoline C6-C10	4.388	2.053	53	TMHBL	3.9
2							
3							
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39							
40							
		Average			53.0		

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M160825\0825M27.D Vial: 27
Acq On : 25 Aug 16 22:01 Operator: DG,CM,SV
Sample : (SS) 300ug/L GAS STD 08/25/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Aug 26 13:10 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	434939	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	10715631m	288.24082	ppb	100

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

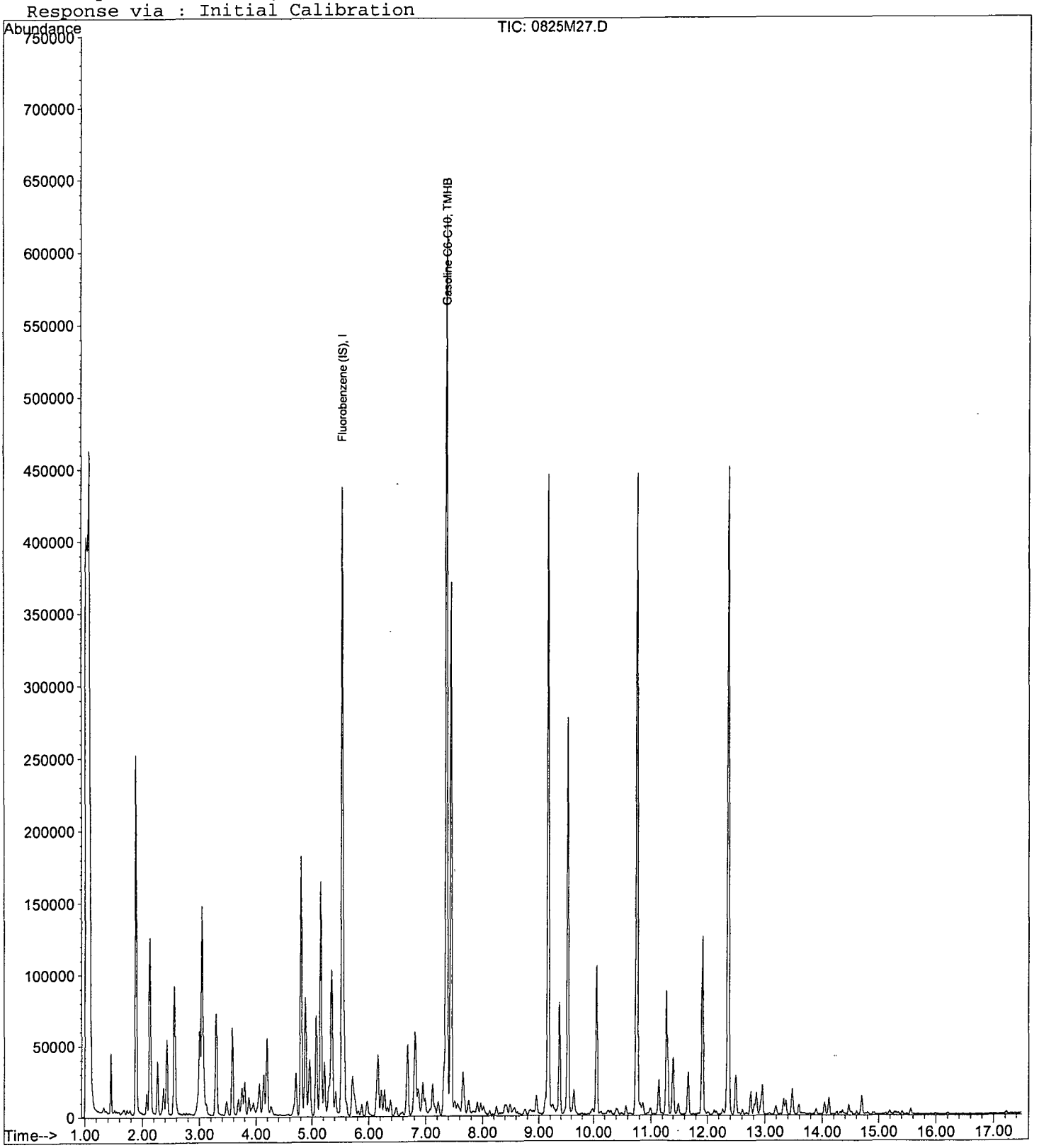
Quantitation Report

Data File : M:\MAX\DATA\M160825\0825M27.D
Acq On : 25 Aug 16 22:01
Sample : (SS) 300ug/L GAS STD 08/25/16
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 27
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Aug 26 13:10 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M160825\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/20/16
Matrix: Instrument: MAX Initials:

		Compound	1020M06.D	1020M07 D	1020M08.D	1020M09.D	1020M10.D	1020M11.D	1020M13 D	1020M14.D			Avg	%RSD		
1	I	Fluorobenzene (IS)														
2	S	Dibromofluoromethane(S)	0.2790	0.2821	0.2231	0.2119	0.2367	0.2399	0.2367	0.2315			0.24	10	S	
3	S	1,2-DCA-D4(S)	0.2686	0.2704	0.2204	0.2059	0.2293	0.2330	0.2164	0.2143			0.23	11	S	
4	I	Chlorobenzene-D5 (IS)														
5	S	Toluene-D8(S)	1.467	1.539	1.254	1.156	1.274	1.291	1.281	1.226			1.3	9.7	S	
6	S	4-Bromofluorobenzene(S)	0.5378	0.5225	0.4311	0.4133	0.4691	0.4771	0.4691	0.4811			0.48	8.7	S	
7	I	1,4-Dichlorobenzene-D (IS)														
8																
9																
10																
11																
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Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M06.D Vial: 5
Acq On : 20 Oct 16 12:19 Operator: DG,CM,SV
Sample : 0.3ug/L VOC STD 10/20/16AA Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	333677	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	241772	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	125666	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	18620	5.75020 ppb	0.00
Spiked Amount 25.000			Recovery = 23.000%		
3) 1,2-DCA-D4(S)	5.14	65	17923	5.78108 ppb	0.00
Spiked Amount 25.000			Recovery = 23.124%		
5) Toluene-D8(S)	7.36	98	70914	5.59298 ppb	0.00
Spiked Amount 25.000			Recovery = 22.372%		
6) 4-Bromofluorobenzene(S)	10.74	95	26006	5.65973 ppb	0.00
Spiked Amount 25.000			Recovery = 22.640%		

Target Compounds Qvalue

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

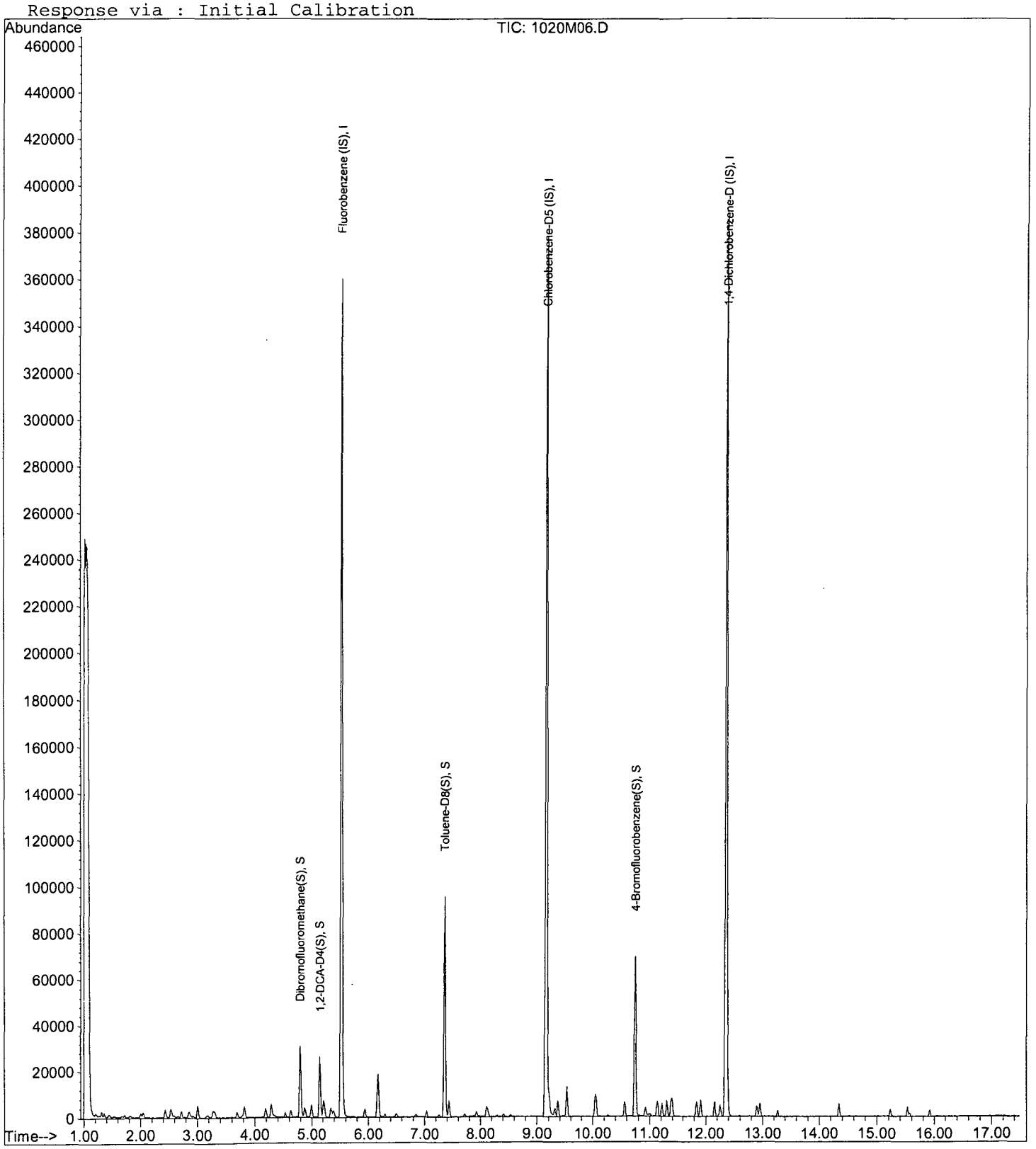
Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M06.D
Acq On : 20 Oct 16 12:19
Sample : 0.3ug/L VOC STD 10/20/16AA
Misc : 1uL-5ppb

Vial: 5
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M07.D Vial: 6
Acq On : 20 Oct 16 12:41 Operator: DG,CM,SV
Sample : 0.5ug/L VOC STD 10/20/16AB Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	335960	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	237803	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	125548	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.79	111	18957	5.81449 ppb	0.00
Spiked Amount 25.000			Recovery =	23.256%	
3) 1,2-DCA-D4(S)	5.14	65	18170	5.82092 ppb	0.00
Spiked Amount 25.000			Recovery =	23.284%	
5) Toluene-D8(S)	7.36	98	73203	5.86988 ppb	0.00
Spiked Amount 25.000			Recovery =	23.480%	
6) 4-Bromofluorobenzene(S)	10.74	95	24850	5.49841 ppb	0.00
Spiked Amount 25.000			Recovery =	21.992%	

Target Compounds Qvalue

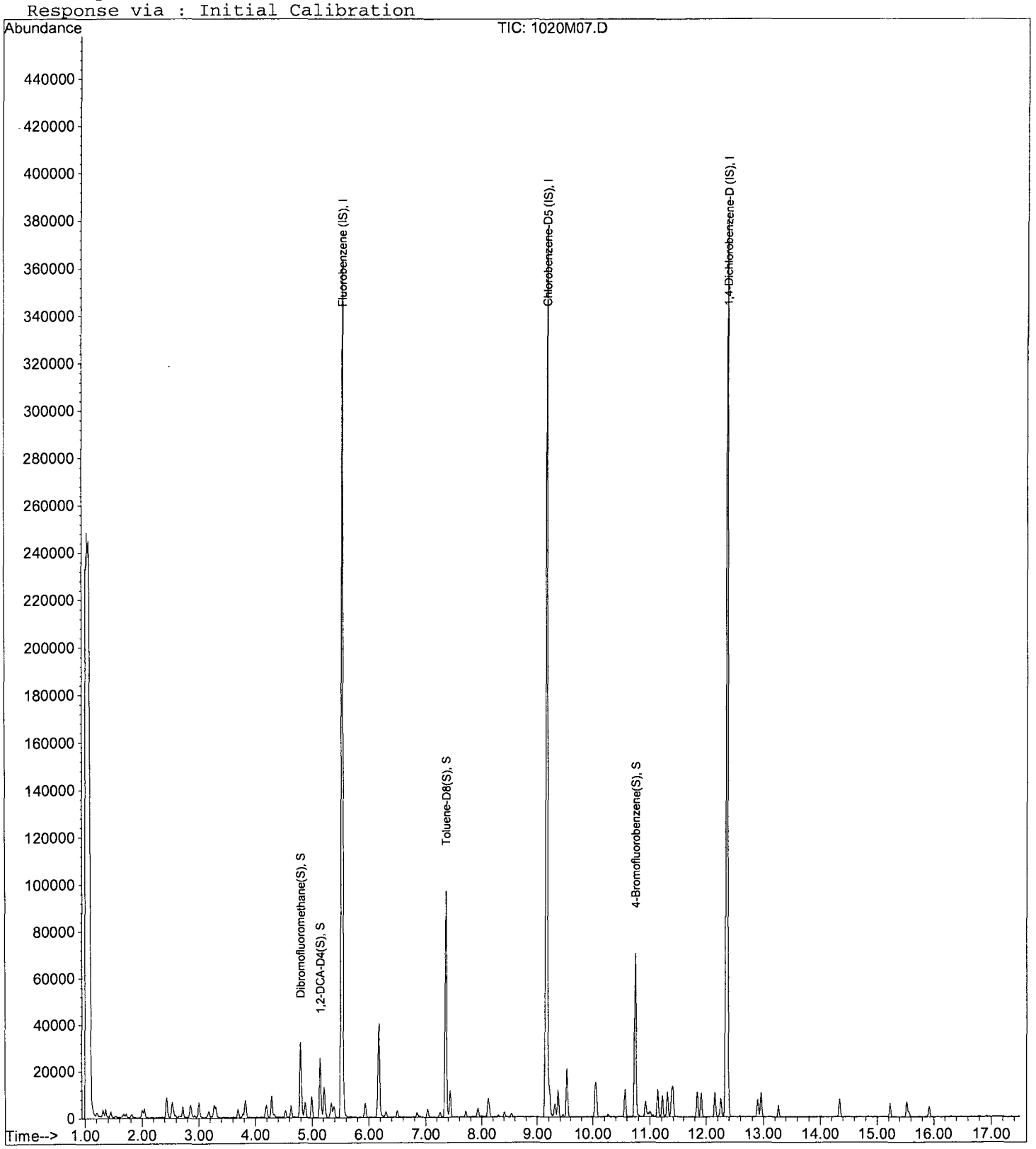
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M07.D Vial: 6
Acq On : 20 Oct 16 12:41 Operator: DG,CM,SV
Sample : 0.5ug/L VOC STD 10/20/16AB Inst : MAX
Misc : 1uL-5ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M08.D Vial: 7
Acq On : 20 Oct 16 13:03 Operator: DG,CM,SV
Sample : 1.0ug/L VOC STD 10/20/16AC Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	329092	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	237074	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	124990	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	29374	9.19762 ppb	0.00
Spiked Amount 25.000			Recovery	= 36.792%	
3) 1,2-DCA-D4(S)	5.15	65	29015	9.48920 ppb	0.00
Spiked Amount 25.000			Recovery	= 37.956%	
5) Toluene-D8(S)	7.36	98	118927	9.56564 ppb	0.00
Spiked Amount 25.000			Recovery	= 38.264%	
6) 4-Bromofluorobenzene(S)	10.74	95	40878	9.07265 ppb	0.00
Spiked Amount 25.000			Recovery	= 36.292%	

Target Compounds Qvalue

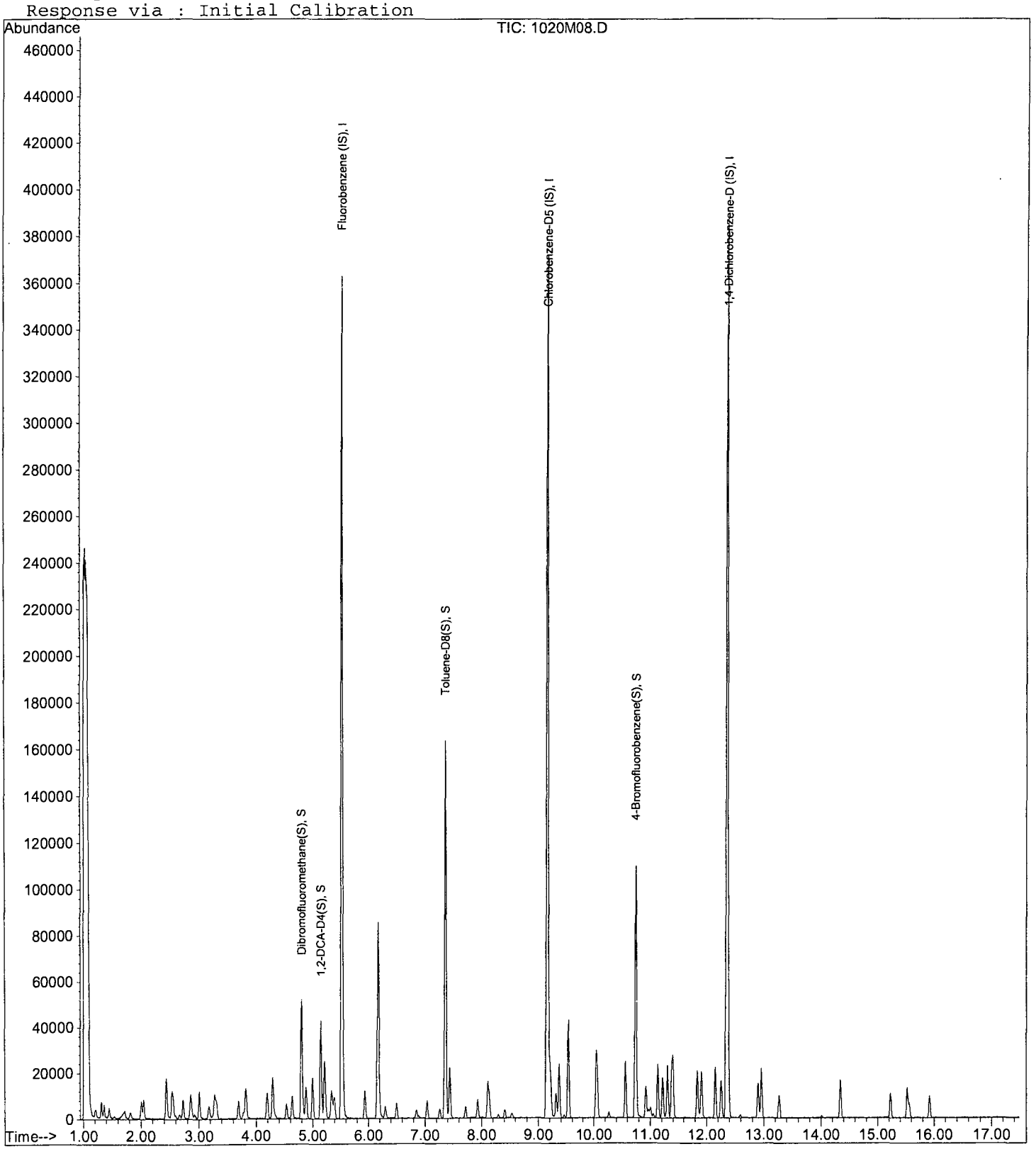
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M08.D Vial: 7
Acq On : 20 Oct 16 13:03 Operator: DG,CM,SV
Sample : 1.0ug/L VOC STD 10/20/16AC Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M09.D Vial: 8
Acq On : 20 Oct 16 13:25 Operator: DG,CM,SV
Sample : 2.0ug/L VOC STD 10/20/16AD Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	338019	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	242362	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	128498	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	28649	8.73369 ppb	0.00
Spiked Amount 25.000			Recovery	= 34.936%	
3) 1,2-DCA-D4(S)	5.14	65	27838	8.86383 ppb	0.00
Spiked Amount 25.000			Recovery	= 35.456%	
5) Toluene-D8(S)	7.36	98	112076	8.81791 ppb	0.00
Spiked Amount 25.000			Recovery	= 35.272%	
6) 4-Bromofluorobenzene(S)	10.74	95	40068	8.69884 ppb	0.00
Spiked Amount 25.000			Recovery	= 34.796%	

Target Compounds Qvalue

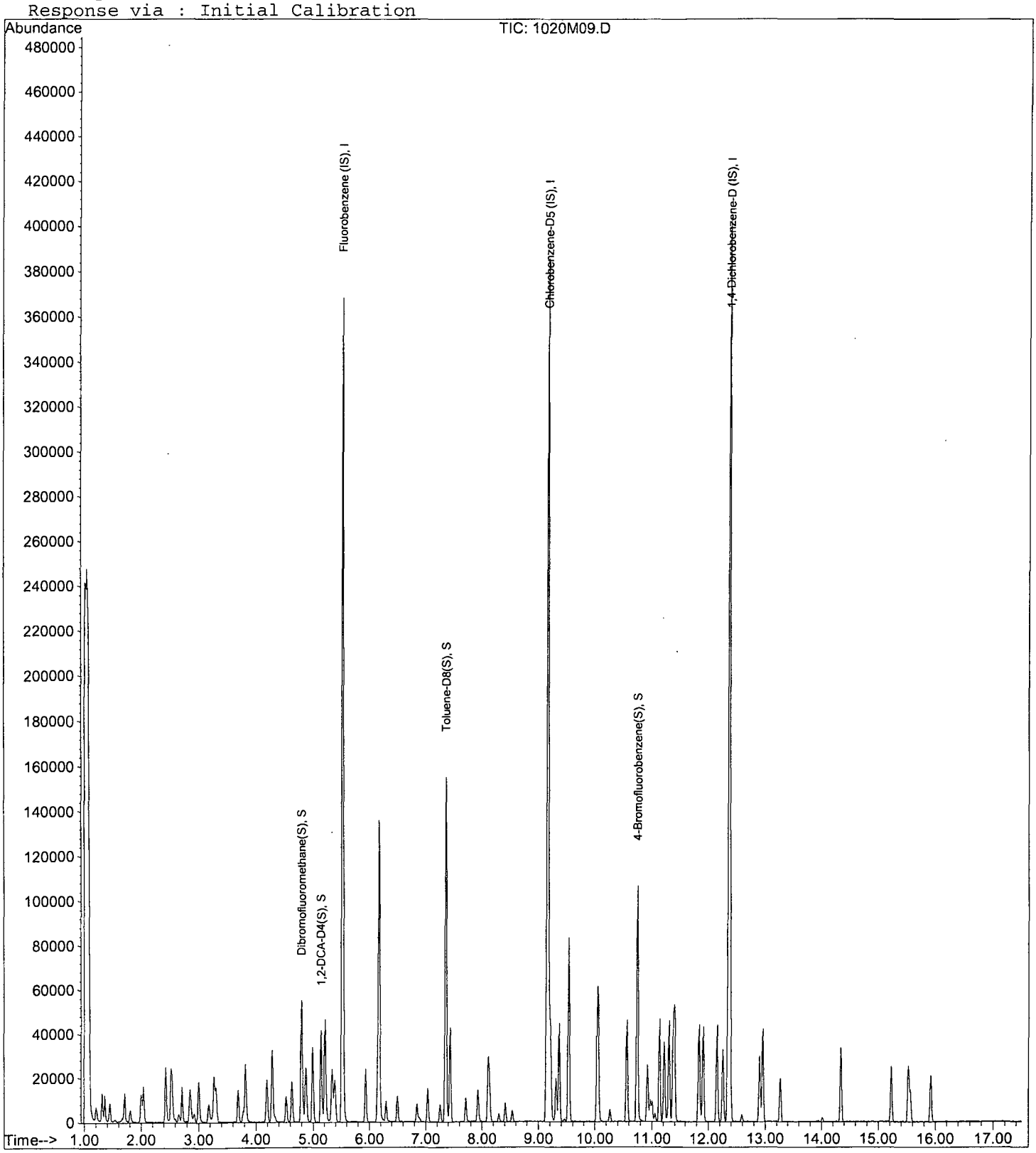
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M09.D Vial: 8
Acq On : 20 Oct 16 13:25 Operator: DG,CM,SV
Sample : 2.0ug/L VOC STD 10/20/16AD Inst : MAX
Misc : 2uL-10ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M10.D Vial: 9
Acq On : 20 Oct 16 13:47 Operator: DG,CM,SV
Sample : 5.0ug/L VOC STD 10/20/16AE Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	344045	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	251263	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	137533	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	81437	24.39137 ppb	0.00
Spiked Amount 25.000			Recovery =	97.564%	
3) 1,2-DCA-D4(S)	5.15	65	78880	24.67607 ppb	0.00
Spiked Amount 25.000			Recovery =	98.704%	
5) Toluene-D8(S)	7.36	98	320158	24.29703 ppb	0.00
Spiked Amount 25.000			Recovery =	97.188%	
6) 4-Bromofluorobenzene(S)	10.74	95	117865	24.68224 ppb	0.00
Spiked Amount 25.000			Recovery =	98.728%	

Target Compounds Qvalue

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

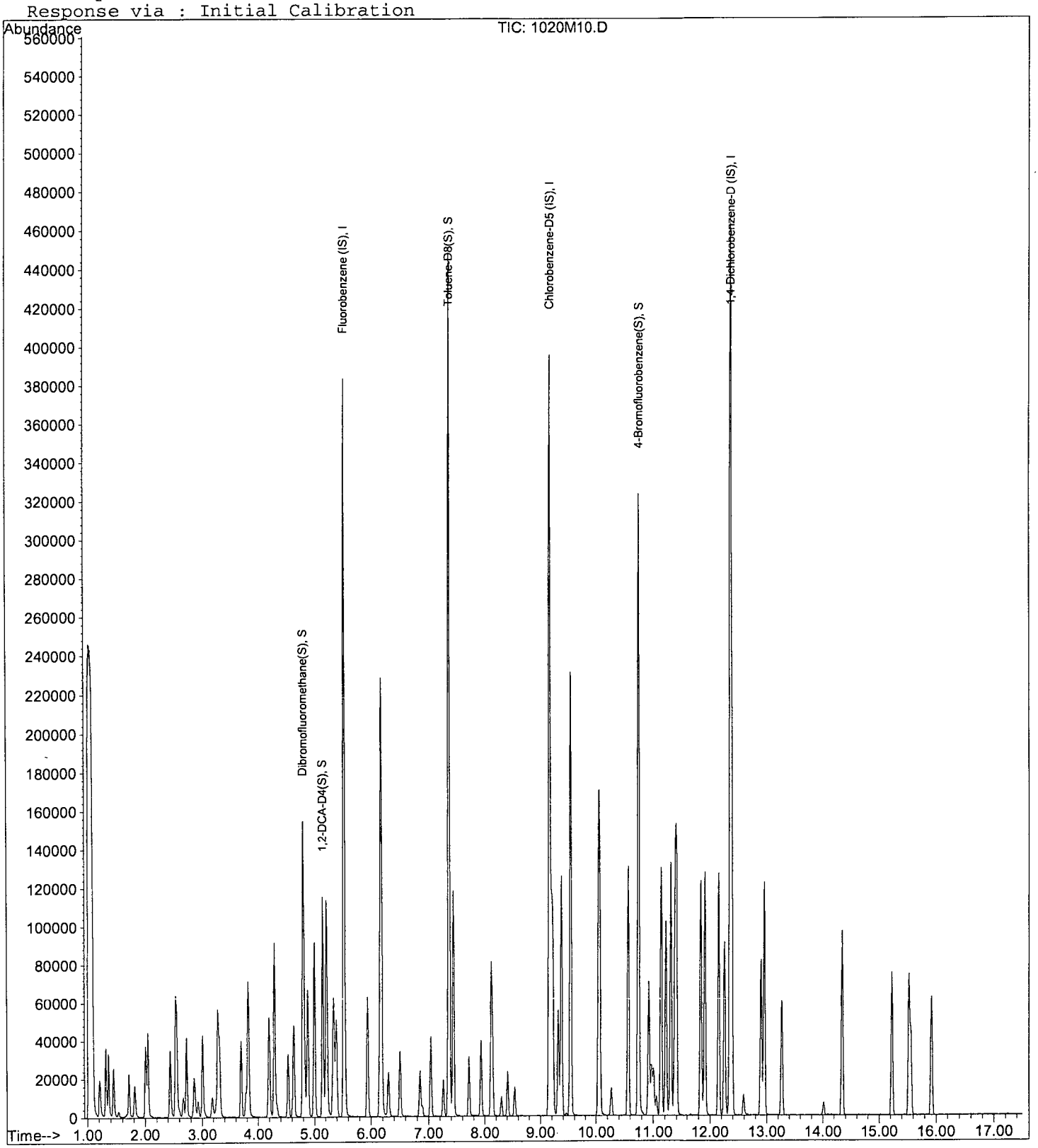
Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M10.D
Acq On : 20 Oct 16 13:47
Sample : 5.0ug/L VOC STD 10/20/16AE
Misc : 5uL-25ppb

Vial: 9
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M11.D Vial: 10
Acq On : 20 Oct 16 14:09 Operator: DG,CM,SV
Sample : 10ug/L VOC STD 10/20/16AF Inst : MAX
Misc : 5uL-25ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	346592	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	255148	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	139924	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.79	111	83132	24.71606 ppb	0.00
Spiked Amount 25.000			Recovery = 98.864%		
3) 1,2-DCA-D4(S)	5.14	65	80773	25.08257 ppb	0.00
Spiked Amount 25.000			Recovery = 100.332%		
5) Toluene-D8(S)	7.36	98	329318	24.61165 ppb	0.00
Spiked Amount 25.000			Recovery = 98.448%		
6) 4-Bromofluorobenzene(S)	10.74	95	121724	25.10223 ppb	0.00
Spiked Amount 25.000			Recovery = 100.408%		

Target Compounds Qvalue

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

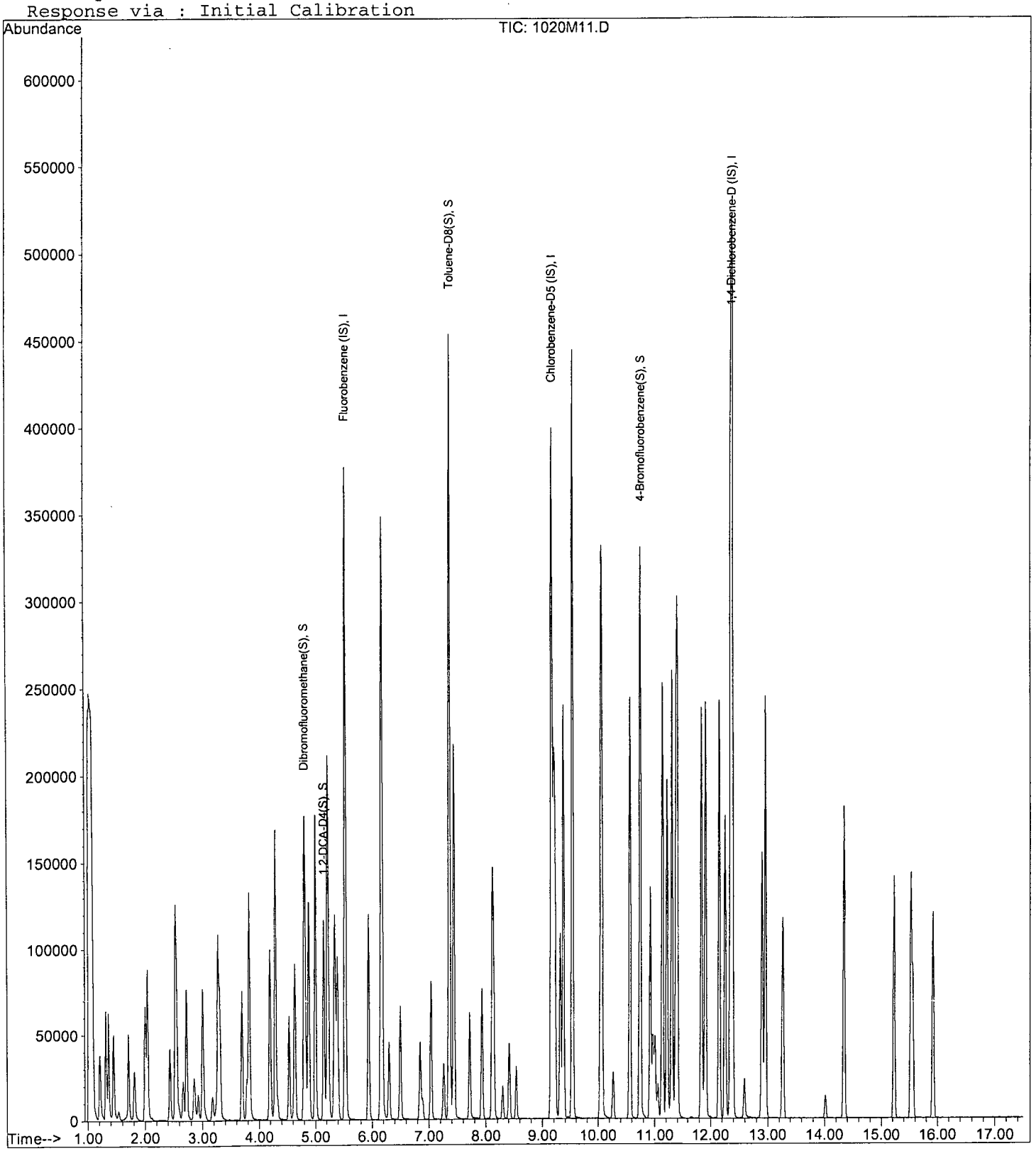
Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M11.D
Acq On : 20 Oct 16 14:09
Sample : 10ug/L VOC STD 10/20/16AF
Misc : 5uL-25ppb

Vial: 10
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M13.D Vial: 12
Acq On : 20 Oct 16 14:52 Operator: DG,CM,SV
Sample : 40ug/L VOC STD 10/20/16AH Inst : MAX
Misc : 10uL-50ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	338131	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	252832	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	143737	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	160038	48.77168 ppb	0.00
Spiked Amount 25.000			Recovery = 195.088%		
3) 1,2-DCA-D4(S)	5.15	65	146335	46.57873 ppb	0.00
Spiked Amount 25.000			Recovery = 186.316%		
5) Toluene-D8(S)	7.36	98	647863	48.86169 ppb	0.00
Spiked Amount 25.000			Recovery = 195.448%		
6) 4-Bromofluorobenzene(S)	10.74	95	237204	49.36489 ppb	0.00
Spiked Amount 25.000			Recovery = 197.460%		

Target Compounds Qvalue

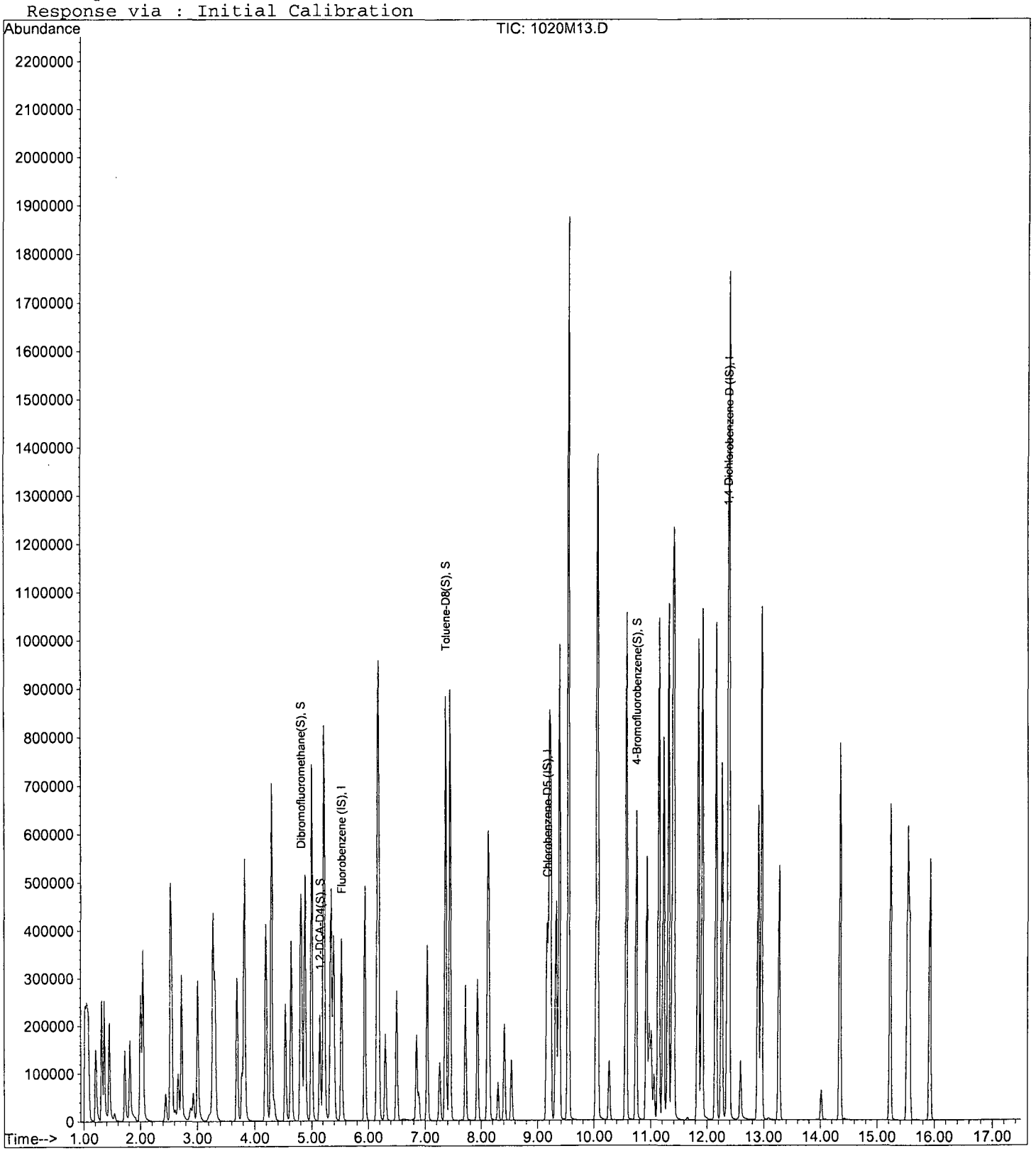
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M13.D Vial: 12
Acq On : 20 Oct 16 14:52 Operator: DG,CM,SV
Sample : 40ug/L VOC STD 10/20/16AH Inst : MAX
Misc : 10uL-50ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1020M14.D Vial: 13
Acq On : 20 Oct 16 15:14 Operator: DG,CM,SV
Sample : 100ug/L VOC STD 10/20/16AI Inst : MAX
Misc : 20uL-100ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.52	96	379136	25.00000 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	291939	25.00000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.36	152	180096	25.00000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	351079	95.42000 ppb	0.00
Spiked Amount 25.000			Recovery = 381.680%		
3) 1,2-DCA-D4(S)	5.14	65	324922	92.23770 ppb	0.00
Spiked Amount 25.000			Recovery = 368.952%		
5) Toluene-D8(S)	7.36	98	1432239	93.54934 ppb	0.00
Spiked Amount 25.000			Recovery = 374.196%		
6) 4-Bromofluorobenzene(S)	10.74	95	561796	101.25460 ppb	0.00
Spiked Amount 25.000			Recovery = 405.020%		

Target Compounds Qvalue

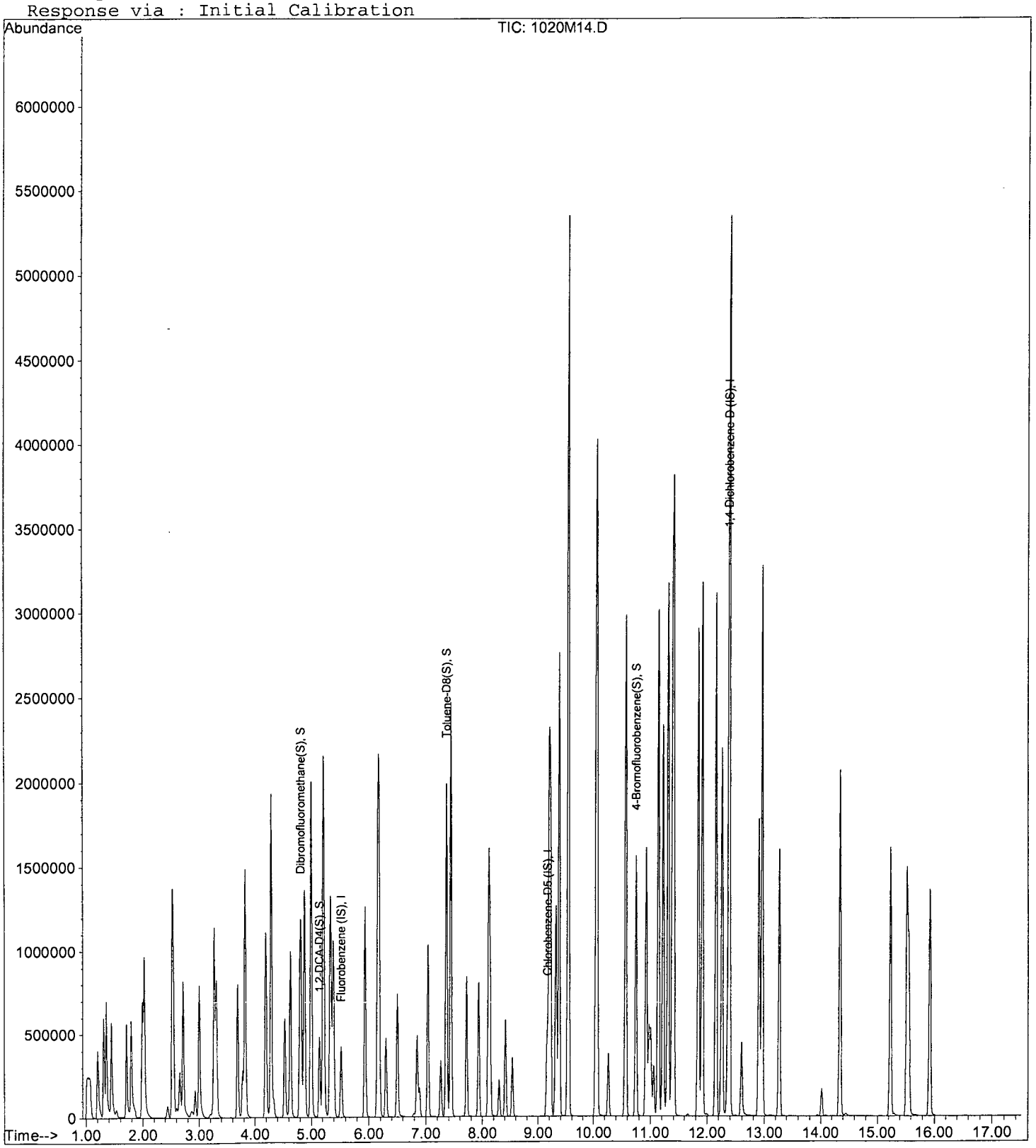
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1020M14.D Vial: 13
Acq On : 20 Oct 16 15:14 Operator: DG,CM,SV
Sample : 100ug/L VOC STD 10/20/16AI Inst : MAX
Misc : 20uL-100ppb Multiplr: 1.00

Quant Time: Oct 21 10:13 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 10/27/16
Instrument: MAX
Initial Cal. Date: 10/20/16
Data File: 1027M09.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	S	Dibromofluoromethane(S)	0.2426	0.2384	1.7	S	
3	S	1,2-DCA-D4(S)	0.2323	0.2210	4.9	S	
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	S	Toluene-D8(S)	1.311	1.314	0.23	S	
6	S	4-Bromofluorobenzene(S)	0.4751	0.4537	4.5	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
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37							
38							
39							
40							
		Average			2.8		

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1027M09.D Vial: 6
Acq On : 27 Oct 16 11:31 Operator: DG,CM,SV
Sample : 161027A CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:36 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	301996	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.36	TIC	7246511m	275.67	ppb	100

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

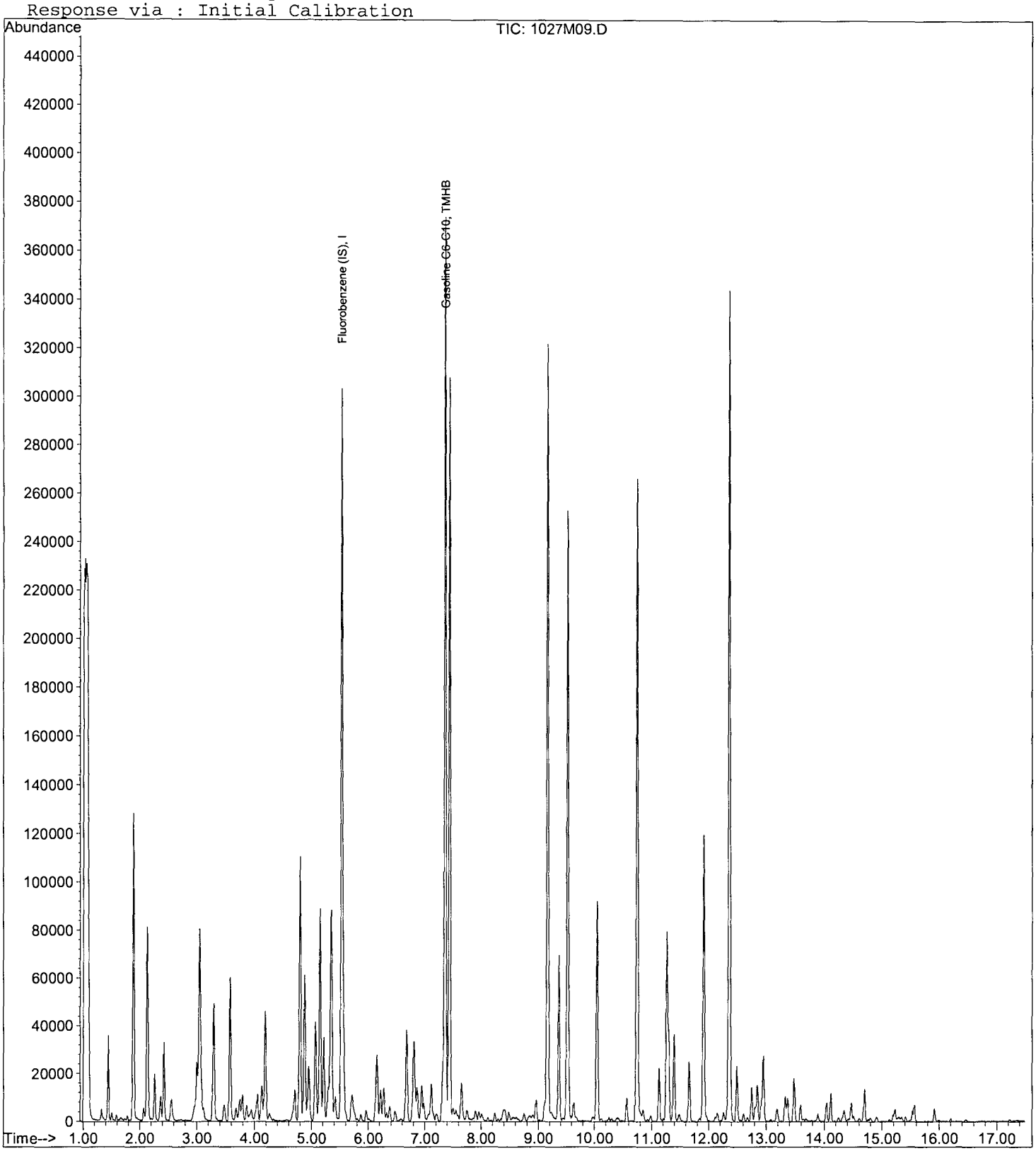
Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M09.D
Acq On : 27 Oct 16 11:31
Sample : 161027A CCV/LCS 300ug/L
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 6
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 31 9:36 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1027M09.D Vial: 6
Acq On : 27 Oct 16 11:31 Operator: DG,CM,SV
Sample : 161027A CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	272453	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	208165	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	113089	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.80	111	64963	24.57	ppb	0.00
Spiked Amount 25.000			Recovery = 98.280%			
3) 1,2-DCA-D4(S)	5.15	65	60209	23.78	ppb	0.00
Spiked Amount 25.000			Recovery = 95.140%			
5) Toluene-D8(S)	7.36	98	273555	25.06	ppb	0.00
Spiked Amount 25.000			Recovery = 100.232%			
6) 4-Bromofluorobenzene(S)	10.74	95	94450	23.87	ppb	0.00
Spiked Amount 25.000			Recovery = 95.496%			

Target Compounds Qvalue

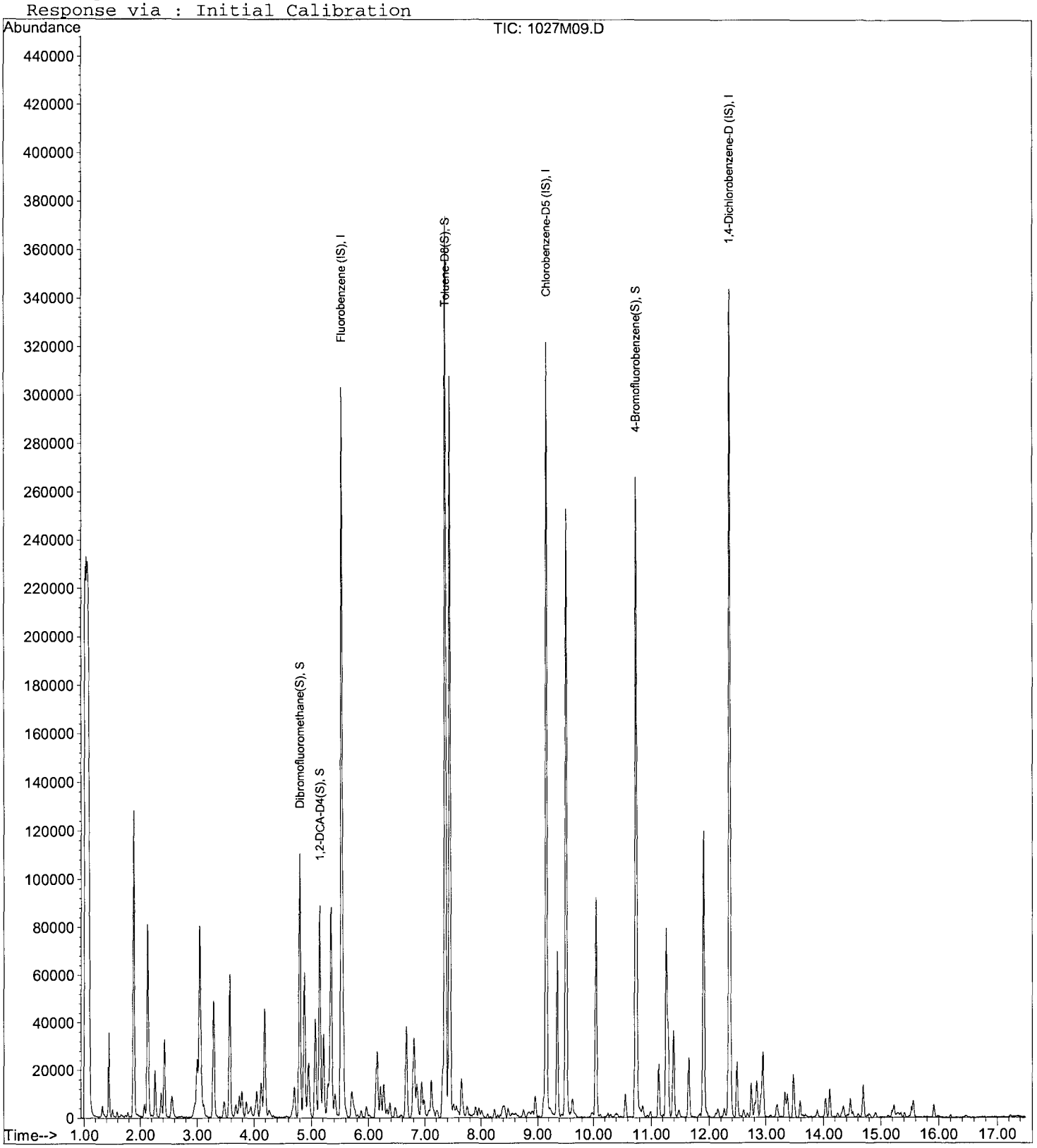
(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M161020\1027M09.D
Acq On : 27 Oct 16 11:31
Sample : 161027A CCV/LCS 300ug/L
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 6
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

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

SDG No:
Date Analyzed: 10/27/16
Instrument: MAX
Initial Cal. Date: 10/20/16
Data File: 1027M35.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	S	Dibromofluoromethane(S)	0.2426	0.2194	9.6	S	
3	S	1,2-DCA-D4(S)	0.2323	0.2080	10	S	
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	S	Toluene-D8(S)	1.311	1.291	1.5	S	
6	S	4-Bromofluorobenzene(S)	0.4751	0.4538	4.5	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
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37							
38							
39							
40							
		Average			6.4		

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1027M35.D Vial: 32
Acq On : 27 Oct 16 20:58 Operator: DG,CM,SV
Sample : Ending CCV GAS 300ug/L 10/27/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:40 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	299909	25.00 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	7.36	TIC	6477303m	228.69 ppb	100

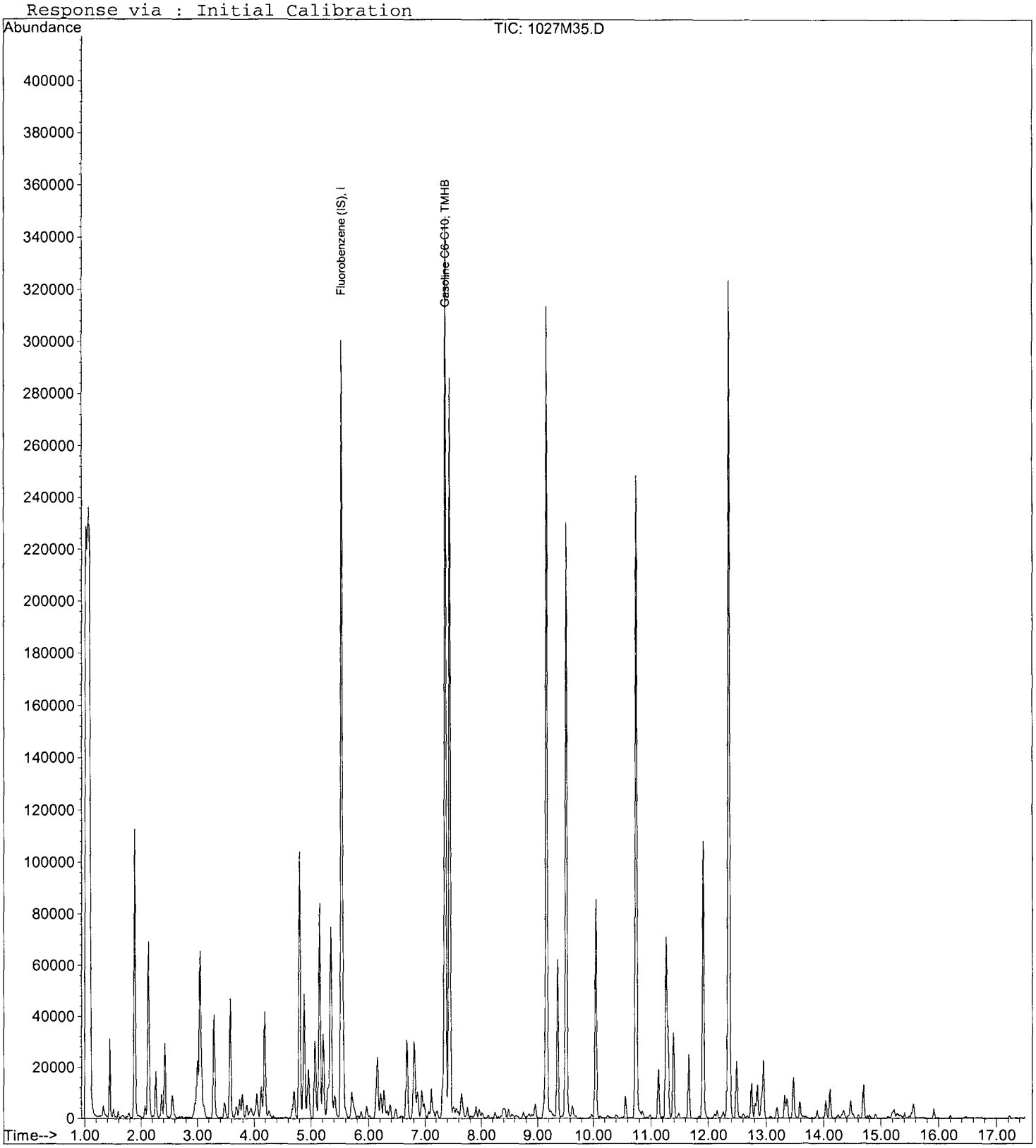
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M35.D Vial: 32
Acq On : 27 Oct 16 20:58 Operator: DG,CM,SV
Sample : Ending CCV GAS 300ug/L 10/27/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:40 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1027M35.D Vial: 32
Acq On : 27 Oct 16 20:58 Operator: DG,CM,SV
Sample : Ending CCV GAS 300ug/L 10/27/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	274958	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	198879	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	106997	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.80	111	60321	22.61	ppb	0.00
Spiked Amount 25.000			Recovery =	90.424%		
3) 1,2-DCA-D4(S)	5.15	65	57196	22.39	ppb	0.00
Spiked Amount 25.000			Recovery =	89.552%		
5) Toluene-D8(S)	7.36	98	256770	24.62	ppb	0.00
Spiked Amount 25.000			Recovery =	98.476%		
6) 4-Bromofluorobenzene(S)	10.74	95	90243	23.88	ppb	0.00
Spiked Amount 25.000			Recovery =	95.504%		

Target Compounds Qvalue

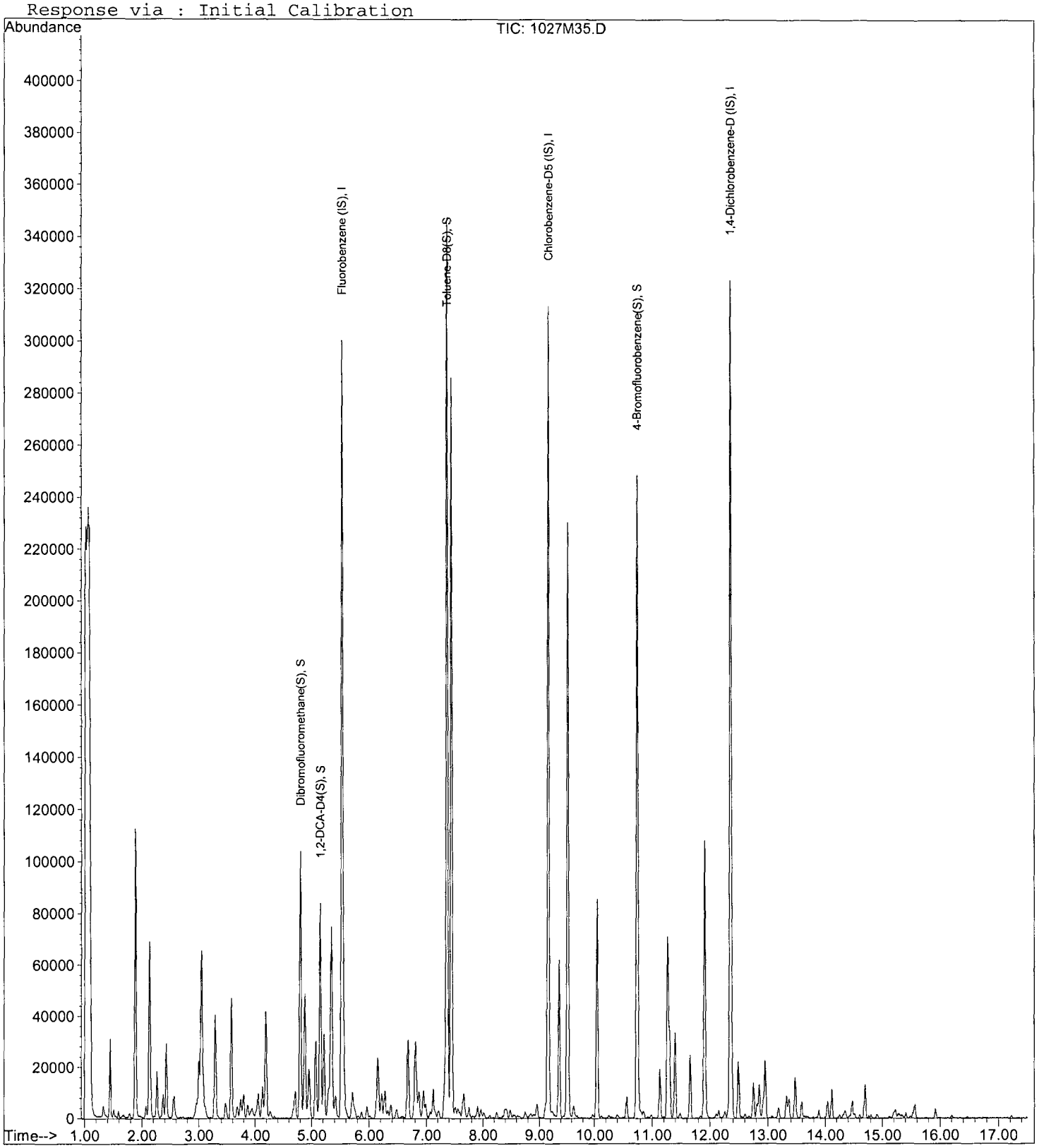
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M35.D Vial: 32
Acq On : 27 Oct 16 20:58 Operator: DG,CM,SV
Sample : Ending CCV GAS 300ug/L 10/27/16 Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



EPA METHOD 8260
Gasoline Range Organics (GRO)

Raw Data

APPL, INC.

Method Blank

EPA 8260B GRO WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161027W-44891 - 213183**
Batch ID: #GRO86-161027AM

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/27/16	10/27/16
BLANK	SURROGATE: 4-BROMOFLUORO	93.4	85-114			%	10/27/16	10/27/16

Quant Method: MGAS6825.
Run #: 1027M15
Instrument: MAX
Sequence: M161020
Initials: SV

GC SC-Blank-REG MDLs-DOD
Printed: 11/21/16 5:08:50 PM

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1027M15.D Vial: 12
Acq On : 27 Oct 16 13:42 Operator: DG,CM,SV
Sample : 161027A BLK-1WM Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:38 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	304442	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

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

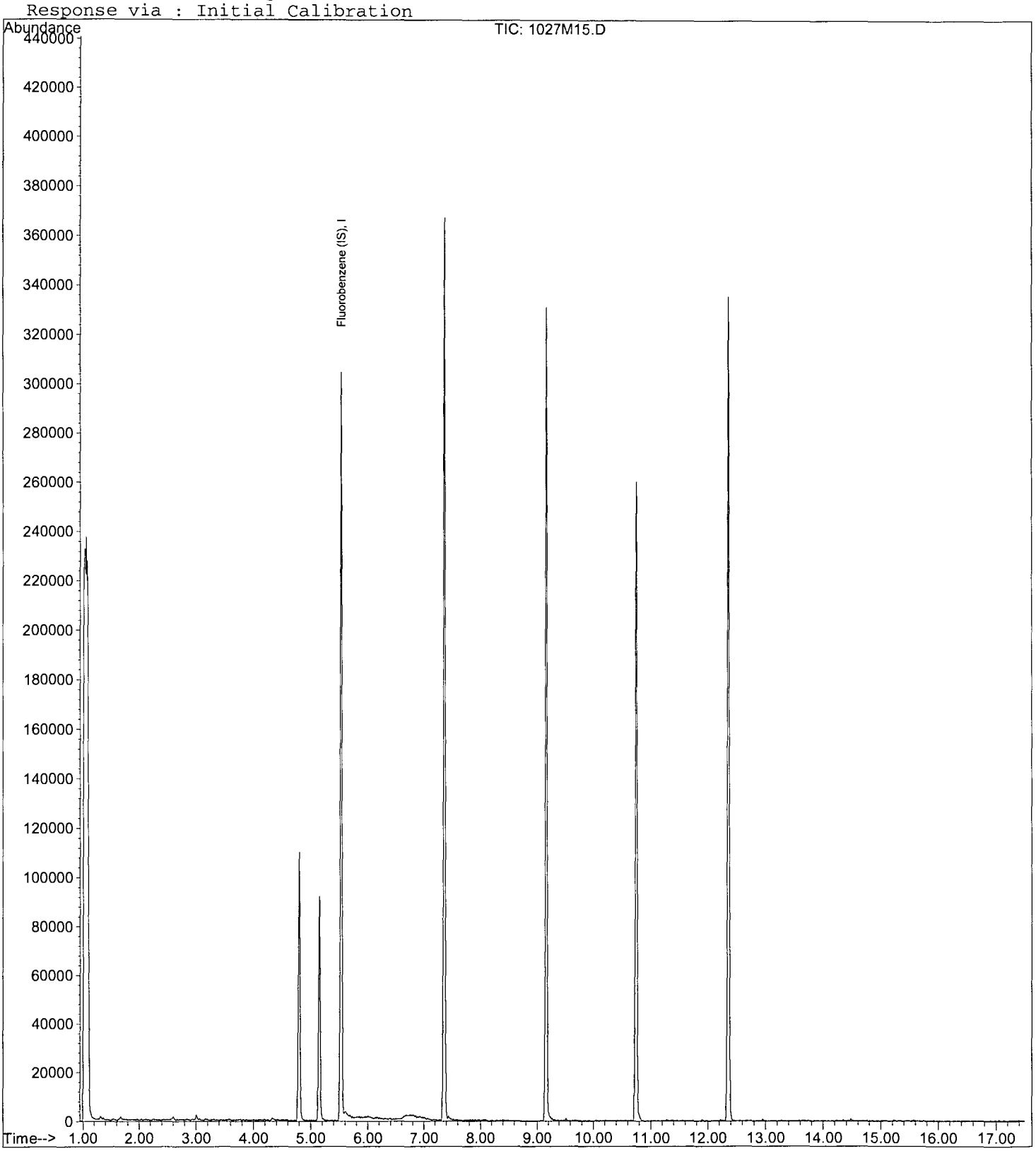
Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M15.D
Acq On : 27 Oct 16 13:42
Sample : 161027A BLK-1WM
Misc : 10ml w/IS&S 7/26/16,7/25/16

Vial: 12
Operator: DG,CM,SV
Inst : MAX
Multiplr: 1.00

Quant Time: Oct 31 9:38 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1027M15.D Vial: 12
Acq On : 27 Oct 16 13:42 Operator: DG,CM,SV
Sample : 161027A BLK-1WM Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	275623	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	213348	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	110502	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.80	111	65362	24.44	ppb	0.00
Spiked Amount 25.000			Recovery = 97.748%			
3) 1,2-DCA-D4(S)	5.15	65	61415	23.98	ppb	0.00
Spiked Amount 25.000			Recovery = 95.928%			
5) Toluene-D8(S)	7.36	98	273383	24.43	ppb	0.00
Spiked Amount 25.000			Recovery = 97.736%			
6) 4-Bromofluorobenzene(S)	10.74	95	94638	23.34	ppb	0.00
Spiked Amount 25.000			Recovery = 93.360%			

Target Compounds Qvalue

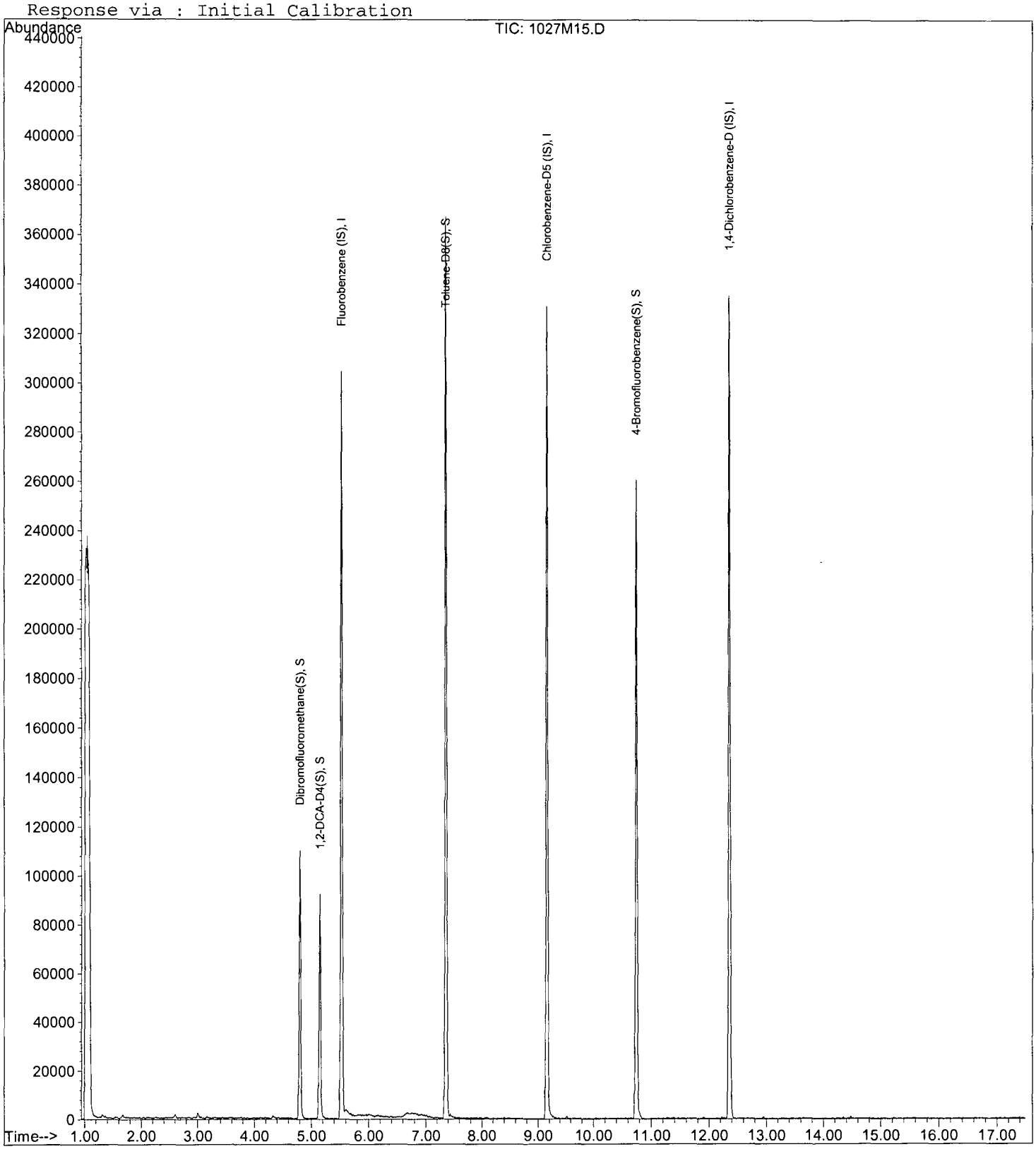
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M15.D Vial: 12
Acq On : 27 Oct 16 13:42 Operator: DG,CM,SV
Sample : 161027A BLK-1WM Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Laboratory Control Spike Recovery

EPA 8260B GRO WATER

APPL ID: **161027W-44891 LCS - 213183**
Batch ID: #GRO86-161027AM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
GASOLINE RANGE ORGANICS	300	276	92.0	78-122
SURROGATE: 4-BROMOFLUOROBENZE	25.0	23.9	95.6	85-114

Comments: _____

Primary	SPK
Quant Method :	MGAS6825.M
Extraction Date :	10/27/16
Analysis Date :	10/27/16
Instrument :	MAX
Run :	1027M09
Initials :	SV

Printed: 11/02/16 2:34:30 PM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M161020\1027M09.D Vial: 6
Acq On : 27 Oct 16 11:31 Operator: DG,CM,SV
Sample : 161027A CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:36 2016 Quant Results File: MGAS6825.RES

Quant Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	TIC	301996	25.00 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	7.36	TIC	7246511m	275.67 ppb	100

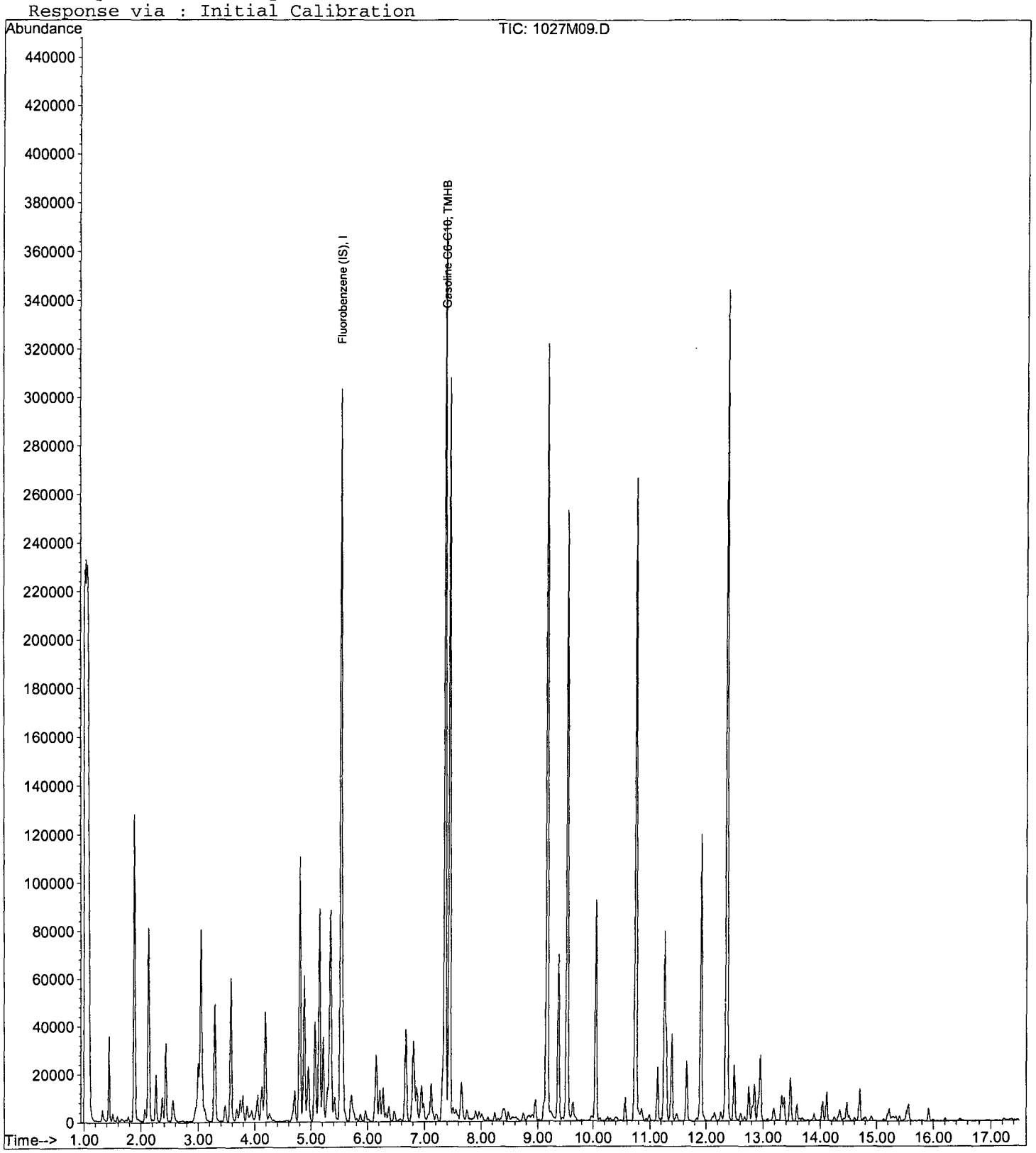
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M09.D Vial: 6
Acq On : 27 Oct 16 11:31 Operator: DG,CM,SV
Sample : 161027A CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:36 2016 Quant Results File: MGAS6825.RES

Method : M:\MAX\DATA\M161020\MGAS6825.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Aug 26 13:01:44 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M161020\1027M09.D Vial: 6
Acq On : 27 Oct 16 11:31 Operator: DG,CM,SV
Sample : 161027A CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Quant Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.53	96	272453	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.16	117	208165	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.35	152	113089	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.80	111	64963	24.57 ppb	0.00
Spiked Amount 25.000			Recovery =	98.280%	
3) 1,2-DCA-D4(S)	5.15	65	60209	23.78 ppb	0.00
Spiked Amount 25.000			Recovery =	95.140%	
5) Toluene-D8(S)	7.36	98	273555	25.06 ppb	0.00
Spiked Amount 25.000			Recovery =	100.232%	
6) 4-Bromofluorobenzene(S)	10.74	95	94450	23.87 ppb	0.00
Spiked Amount 25.000			Recovery =	95.496%	

Target Compounds Qvalue

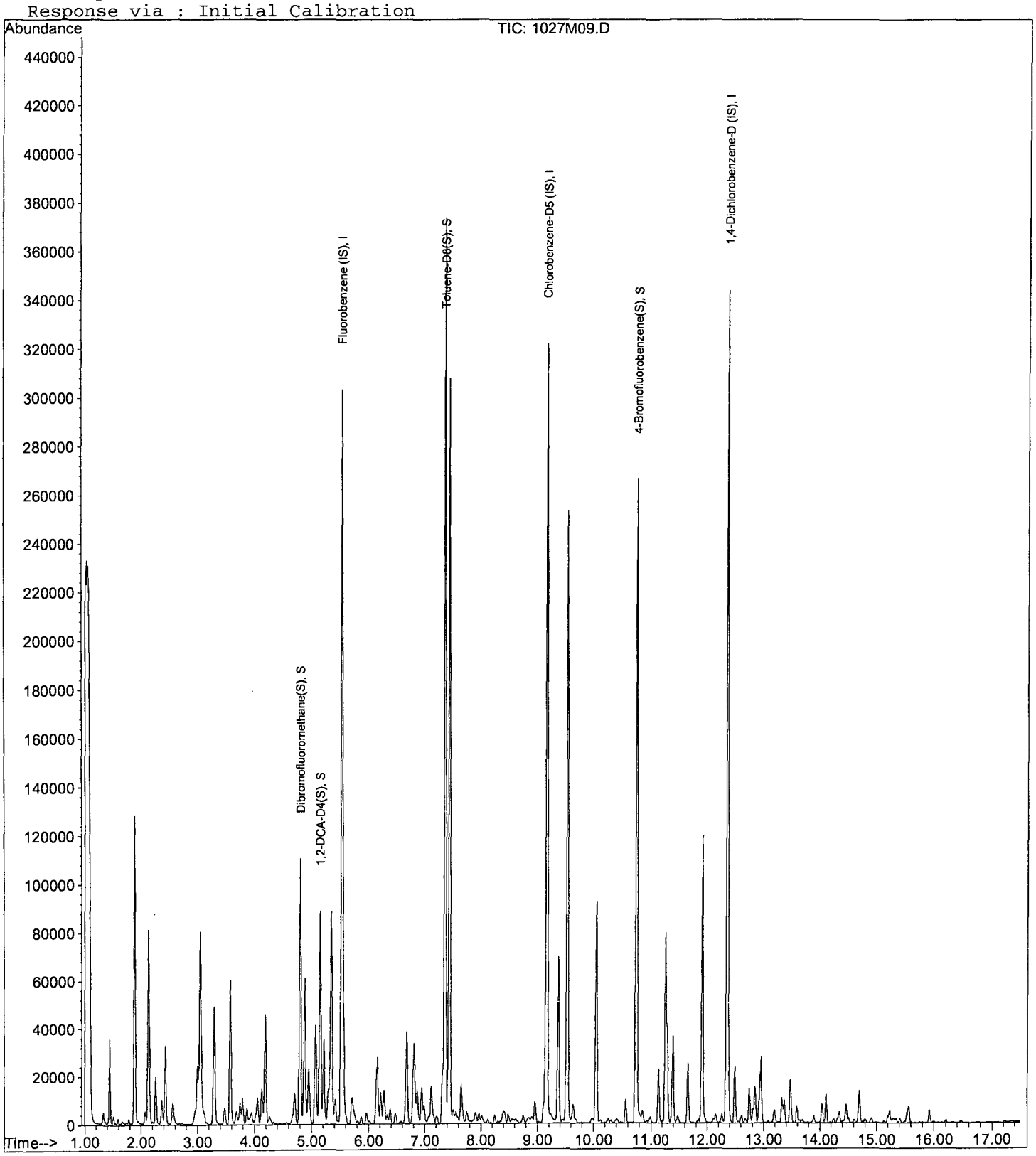
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M161020\1027M09.D Vial: 6
Acq On : 27 Oct 16 11:31 Operator: DG,CM,SV
Sample : 161027A CCV/LCS 300ug/L Inst : MAX
Misc : 10ml w/IS&S 7/26/16,7/25/16 Multiplr: 1.00

Quant Time: Oct 31 9:42 2016 Quant Results File: MSUR1020.RES

Method : M:\MAX\DATA\M161020\MSUR1020.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Oct 21 08:51:50 2016
Response via : Initial Calibration



Gasoline Curve Preparation for 100mL Purge (water)-MAX			
Exp Date:	08/25/16	2000ug/ml	
		08/25/16Q	Final Volume
	Conc.	Exp.03/31/21	w/ P&T H2O
Date/code	µg/L	uL	mL
08/25/16R-CN	20	1	100
08/25/16S-CN	50	2.5	100
08/25/16T-CN	100	5	100
08/25/16U-CN	300	15	100
08/25/16V-CN	600	30	100
08/25/16W-CI	800	40	100
08/25/16X-CN	1000	50	100

Gasoline SECOND SOURCE preparation @300ppb-MAX			
Exp Date:	08/10/16	2000ug/ml	
		07/08/16B	Final Volume
	Conc.	Exp.05-04-18	w/ P&T H2O
Date/code	µg/L	uL	mL
08/09/2016D	300	15	100

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-MAX										
Exp Date:	10/21/16	5µg/mL	5µg/mL	5µg/mL	50µg/mL	50µg/mL	50µg/mL	50µg/mL	250µg/mL	
		Vol Std #9	Vol Std #10	Vol Std #12	Vol Std #7	Vol Std #8	Vol Std #1	Vol Std #2	TBA	
		10/17/16L	10/17/16M	10/17/16N	10/17/16H	10/17/16J	10/17/16I	10/17/16K	10/17/16O	Final Vol
	Conc.	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	11/08/16	w/P&T H2O
Date/code	µg/L	ul	ul	ul	ul	ul	ul	ul	ul	mL
10/20/16AA-CM	0.3	3	3	3	n/a	n/a	n/a	n/a	2	50
10/20/16AB-CM	0.5	5	5	5	n/a	n/a	n/a	n/a	5	50
10/20/16AC-CM	1	10	10	10	n/a	n/a	n/a	n/a	10	50
10/20/16AD-CM	2	20	20	20	n/a	n/a	n/a	n/a	15	50
10/20/16AE-CM	5	n/a	n/a	n/a	5	5	5	5	20	50
10/20/16AF-CM	10	n/a	n/a	n/a	10	10	10	10	25	50
10/20/16AG-CM	20	n/a	n/a	n/a	20	20	20	20	30	50
10/20/16AH-CM	40	n/a	n/a	n/a	40	40	40	40	35	50
10/20/16AI-CMN	100	n/a	n/a	n/a	100	100	100	100	40	50

PRIMARY STANDARD

10/08/16K							
50ug/ml Vol Work Std #7							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03	Gas Mix	2000	279822-36651	10/08/16A-CMM	02/19/19	100
02SI	020049-02	HEXACHLOROETHANE	1000	254167-36561	10/08/16B-CMM	12/28/17	200
02SI	020228-02	Benzyl Chloride	1000	279824-36572	10/08/16C-CMM	06/21/17	200
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3500
10/08/16L							
50ug/ml Vol Work Std #1							
Exp:11/08/16					Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	020145-02-02	2-CEVE	2000	254169-35358	10/08/16D-CMM	06/26/18	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1950
10/08/16M							
50ug/ml Vol Work Std #8							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	122039-02	Volatile Mix, 20-29	2000	240422-35671	09/24/16B-CMM	11/19/16	100
02SI	120023-03	VOC'S-54 COMP	2000	253202-35681	09/24/16C-CMM	06/04/17	100
02SI	020232-02	Vinyl Acetate	2000	287418-37044	09/24/16D-CMM	11/27/16	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3700
10/08/16N							
50ug/ml Vol Work Std #2							
Exp:11/08/16							
Supplier	ID #	ID	ug/ml				
02SI	121020-05	HSL'S-Ketone Solution	2000	258036-36078	10/08/16E-CMM	08/17/16	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3900
		10/08/16O					
		5ug/ml Vol Work Std #9					
		SOURCES	**Lot**	**APPL Code**	**APPL Exp Date**	ul	
		50ug/ml Vol Work Std #7		**10/08/16K**	Exp:11/08/16	200	
		50ug/ml Vol Work Std #8		**10/08/16M**	Exp:11/08/16	200	
		J&T Brand		10/07/16	01/27/18	1600	
		10/08/16P					
		5ug/ml Vol Work Std #10					
		SOURCES	**Lot**	**APPL Code**	**APPL Exp Date**	ul	
		50ug/ml Vol Work Std #1		**10/08/16L**	Exp:11/08/16	200	
		J&T Brand		10/07/16	01/27/18	1800	
		10/08/16Q					
		5ug/ml Vol Work Std #12					
		SOURCES	**Lot**	**APPL Code**	**APPL Exp Date**	ul	
		50ug/ml Vol Work Std #2		**10/08/16N**	Exp:11/08/16	200	
		J&T Brand		10/07/16	01/27/18	1800	
10/15/16E							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P							
Exp:11/08/16			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120166-01	Volatile Mix 4-3	2000	275544-36405	10/15/16A-CMM	03/28/17	500
02SI	020229-09-02	Acrolein	10000	287739-37070	10/15/16B-CMM	10/16/16	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	3400

SECONDARY SOURCE

10/08/16S							
50ug/ml VOC Std#4							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120296-01-SS	Custom 8260 Solution	2000	258037-36086	09/24/16F-CMM	02/18/17	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1950
10/08/16T							
50ug/ml VOC Std#5							
Exp:11/08/16							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03-SS	8260 Gases(SS)	2000	279826-36659	10/08/16G-CMM	06/01/19	50
02SI	020145-02-02-SS	2-CEVE (SS)	2000	254171-35393	10/08/16I-CMM	06/21/17	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1900
10/08/16U							

50ug/ml VOC Std#6							
Exp:11/08/16							
	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120023-03-SS	VOC'S 54 COMP.	2000	26589735924	09/24/16J-CMM	11/29/17	50
02SI	020232-02-SS	Vinyl Acetate(SS)	2000	287420-37048	09/24/16H-CMM	11/27/16	50
02SI	020049-02-SS	HEXACHLOROETHANE (SS)	1000	265899-35936	10/08/16H-CMM	11/30/17	100
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1800
10/15/16F							
250ug/ml TBA/IBA/Acetonitrile/Acrolein/2-P							
Exp:11/08/16			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120166-01-SS	VOC Mix 4-3 (SS)	2000	258040-35710	10/15/16C-CMM	08/22/18	250
02SI	020229-09-SS	Acrolein SOLUTION (SS)	10000	287741-37068	10/15/16D-CMM	10/16/16	50
J&T Brand		Purge & Trap MeOH		55344-00860	10/07/16	01/27/18	1700
8260 water		spiked with		Total Vol			
CCV/LCS	10ug/L Vol Std	10uL of 50ug/ml Std #7		50mL P&T H2O			
Ending CCV		10uL of 50ug/ml Std #8					
		10uL of 50ug/ml Std #1					
		10uL of 50ug/ml Std #2					
		25uL of 250ug/ml Std TBA					
X4 ketones							
LCS	10ug/L Vol Std	10uL of 50ug/ml Std #7		50mL P&T H2O			
		10uL of 50ug/ml Std #8					
		10uL of 50ug/ml Std #1					
		40uL of 50ug/ml Std #2					
		25uL of 250ug/ml Std TBA					
8260 soil		spiked with		Total Vol			
CCV/LCS	50ug/Kg Vol Std	5uL of 50ug/ml Std #7		5mL P&T H2O			
Ending CCV		5uL of 50ug/ml Std #8					
		5uL of 50ug/ml Std #1					
		5uL of 50ug/ml Std #2					
		5uL of 250ug/ml Std TBA					
Matrix spikes are prepared with same standards as ccv (see above) into the sample.							
8260water		spiked with		Total Vol			
SS	10ug/L STD	10uL of 50ug/ml Std #4		50mL P&T H2O			
		10uL of 50ug/ml Std #5					
		10uL of 50ug/ml Std #6					
		25uL of 250ug/ml Std TBA					
8260 SOIL	50ug/Kg STD	5uL of 50ug/ml Std #4		Total Vol			
SS		5uL of 50ug/ml Std #5		5mL P&T H2O			
		5uL of 50ug/ml Std #6					
		5uL of 250ug/ml Std TBA					

Injection Log

Directory: M:\MAX\DATA\M160825\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	17	0825M17.D	1	20ug/L GAS STD 08/25/16R	10ml w/IS&S 7/26/16,7/25/1(	25 Aug 16 18:23
2	18	0825M18.D	1	50ug/L GAS STD 08/25/1S	10ml w/IS&S 7/26/16,7/25/1(	25 Aug 16 18:45
3	19	0825M19.D	1	100ug/L GAS STD 08/25/1T	10ml w/IS&S 7/26/16,7/25/1(	25 Aug 16 19:06
4	20	0825M20.D	1	300ug/L GAS STD 08/25/1U	10ml w/IS&S 7/26/16,7/25/1(	25 Aug 16 19:28
5	21	0825M21.D	1	600ug/L GAS STD 08/25/1V	10ml w/IS&S 7/26/16,7/25/1(	25 Aug 16 19:50
6	22	0825M22.D	1	800ug/L GAS STD 08/25/1W	10ml w/IS&S 7/26/16,7/25/1(	25 Aug 16 20:12
7	23	0825M23.D	1	1000ug/L GAS STD 08/25/1X	10ml w/IS&S 7/26/16,7/25/1(	25 Aug 16 20:34
8	27	0825M27.D	1	(SS) 300ug/L GAS STD 08/25/16	10ml w/IS&S 7/26/16,7/25/1(	25 Aug 16 22:01
9	5	1020M06.D	1	0.3ug/L VOC STD 10/20/16AA	1uL-5ppb	20 Oct 16 12:19
10	6	1020M07.D	1	0.5ug/L VOC STD 10/20/16AB	1uL-5ppb	20 Oct 16 12:41
11	7	1020M08.D	1	1.0ug/L VOC STD 10/20/16AC	2uL-10ppb	20 Oct 16 13:03
12	8	1020M09.D	1	2.0ug/L VOC STD 10/20/16AD	2uL-10ppb	20 Oct 16 13:25
13	9	1020M10.D	1	5.0ug/L VOC STD 10/20/16AE	5uL-25ppb	20 Oct 16 13:47
14	10	1020M11.D	1	10ug/L VOC STD 10/20/16AF	5uL-25ppb	20 Oct 16 14:09
15	12	1020M13.D	1	40ug/L VOC STD 10/20/16AH	10uL-50ppb	20 Oct 16 14:52
16	13	1020M14.D	1	100ug/L VOC STD 10/20/16AI	20uL-100ppb	20 Oct 16 15:14
17	6	1027M09.D	1	161027A CCV/LCS 300ug/L	10ml w/IS&S 7/26/16,7/25/1(	27 Oct 16 11:31
18	12	1027M15.D	1	161027A BLK-1WM	10ml w/IS&S 7/26/16,7/25/1(	27 Oct 16 13:42
19	13	1027M16.D	1	AZ44892W01	10ml w/IS&S 7/26/16,7/25/1(	27 Oct 16 14:04
20	29	1027M32.D	1	AZ44891W01	10ml w/IS&S 7/26/16,7/25/1(	27 Oct 16 19:53
21	30	1027M33.D	1	AZ44893W01	10ml w/IS&S 7/26/16,7/25/1(	27 Oct 16 20:14
22	32	1027M35.D	1	Ending CCV GAS 300ug/L 10/27/16	10ml w/IS&S 7/26/16,7/25/1(	27 Oct 16 20:58

ORGANICS

APPL, INC.

ORGANICS
QC Summary

APPL, INC.

Method Blank
METHANE

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161030W-44891 - 213313**
Batch ID: #RSKME-161030A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/30/16	10/30/16

Quant Method: RSK0901.M
Run #: 1030001
Instrument: Rocky
Sequence: 160901
Initials: SD

GC SC-Blank-REG MDLs-DOD
Printed: 11/02/16 5:48:54 PM

Laboratory Control Spike Recovery
METHANE

APPL ID: **161030W-44891 LCS - 213313**
Batch ID: #RSKME-161030A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
METHANE	320	285	89.0	72-125

Comments: _____

Primary	SPK
Quant Method :	RSK0901.M
Extraction Date :	10/30/16
Analysis Date :	10/30/16
Instrument :	Rocky
Run :	1030000
Initials :	SD

Printed: 11/02/16 5:47:39 PM
APPL Standard LCS

ORGANICS
Sample Data

APPL, INC.

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH103

Sample Collection Date: 10/25/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81287

APPL ID: AZ44891

QCG: #RSKME-161030A-213313

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/30/16	10/30/16

Quant Method:	RSK0901.M
Run #:	1030011
Instrument:	Rocky
Sequence:	160901
Dilution Factor:	1
Initials:	SD

Printed: 11/02/16 5:48:49 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1030011.D Vial: 12
Acq On : 30 Oct 16 10:57 Operator: lac
Sample : AZ44891W06 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 11:00 2016 Quant Results File: RSK0901.RES

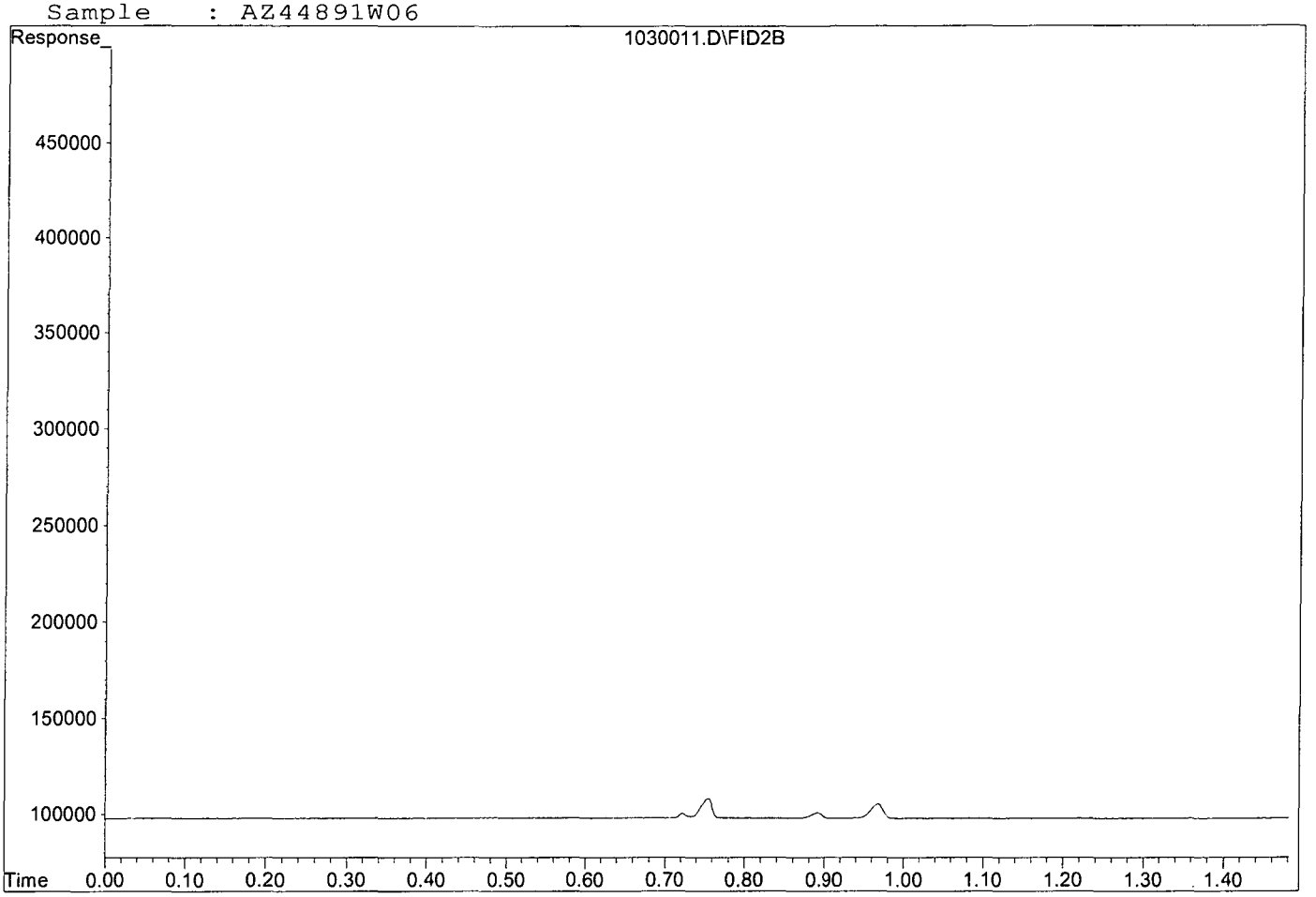
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.75	10423	N.D.	ppb
2) ATM Ethane	0.89	3014	N.D.	ppb
3) ATM Ethene	0.97	7605	N.D.	ppb

Quantitation Report

Data File: G:\ROCKY\DATA\160901R\1030011.D
Sample : AZ44891W06



METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH096

Sample Collection Date: 10/25/16

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 81287

APPL ID: AZ44893

QCG: #RSKME-161030A-213313

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/30/16	10/30/16

Quant Method:	RSK0901.M
Run #:	1030012
Instrument:	Rocky
Sequence:	160901
Dilution Factor:	1
Initials:	SD

Printed: 11/02/16 5:48:49 PM

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

Quantitation Report (Not Reviewed)

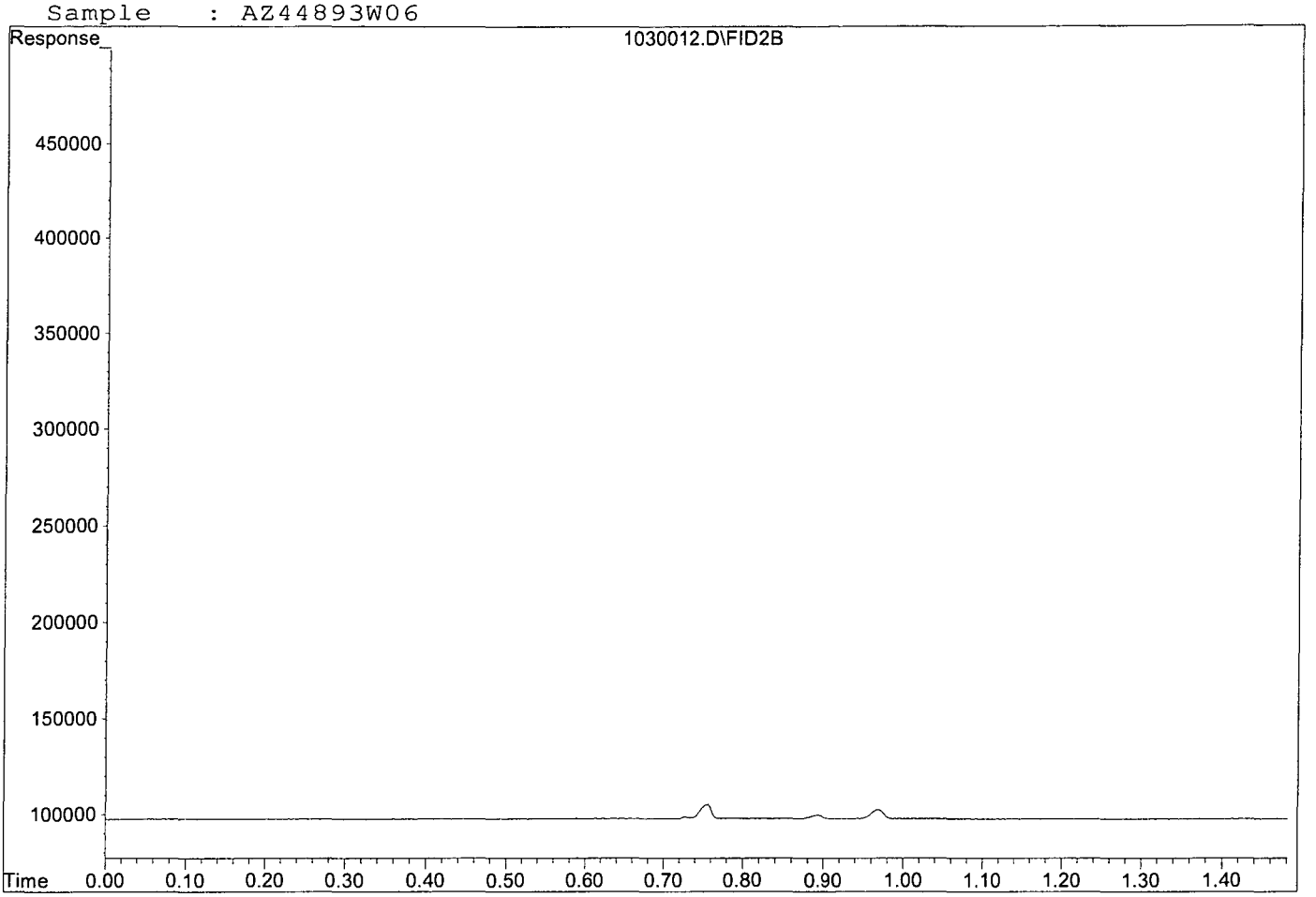
Data File : G:\ROCKY\DATA\160901R\1030012.D Vial: 13
Acq On : 30 Oct 16 11:00 Operator: lac
Sample : AZ44893W06 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 11:06 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.76	7640	N.D.	ppb
2) ATM Ethane	0.89	2277	N.D.	ppb
3) ATM Ethene	0.97	5007	N.D.	ppb

Data File: G:\ROCKY\DATA\160901R\1030012.D
Sample : AZ44893W06



ORGANICS
Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 09/01/16
Matrix: Instrument: 7890 Initials:

			0901000.D	0901001.D	0901002.D	0901003.D	0901004.D	0901005.D	0901006.D	0901007.D	0901008.D	0901009.D				
		Compound	1	2	3	4	5	6	7	8	9	10	Avg	%RSD		
1	ATM	Methane	7448	5672	3042	3435	1074	1006	1184	1314	1084	1089	2635	87	ATM	
2	ATM	Ethane	1509	1521	1416	2554	478	657	816	933	791	798	1147	54	ATM	
3	ATM	Ethene	1826	1525	1280	2301	444	570	693	733	628	626	1063	60	ATM	
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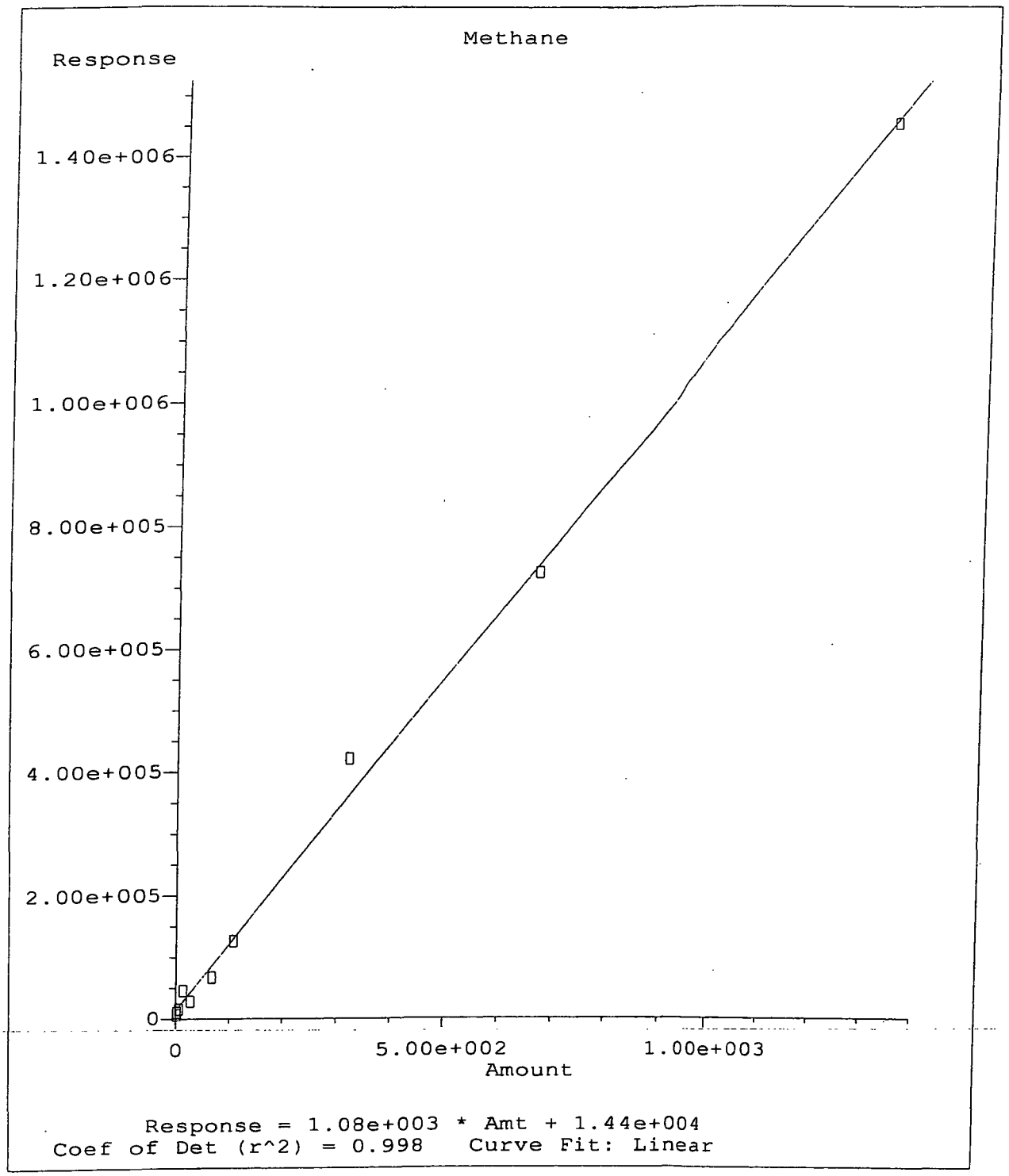
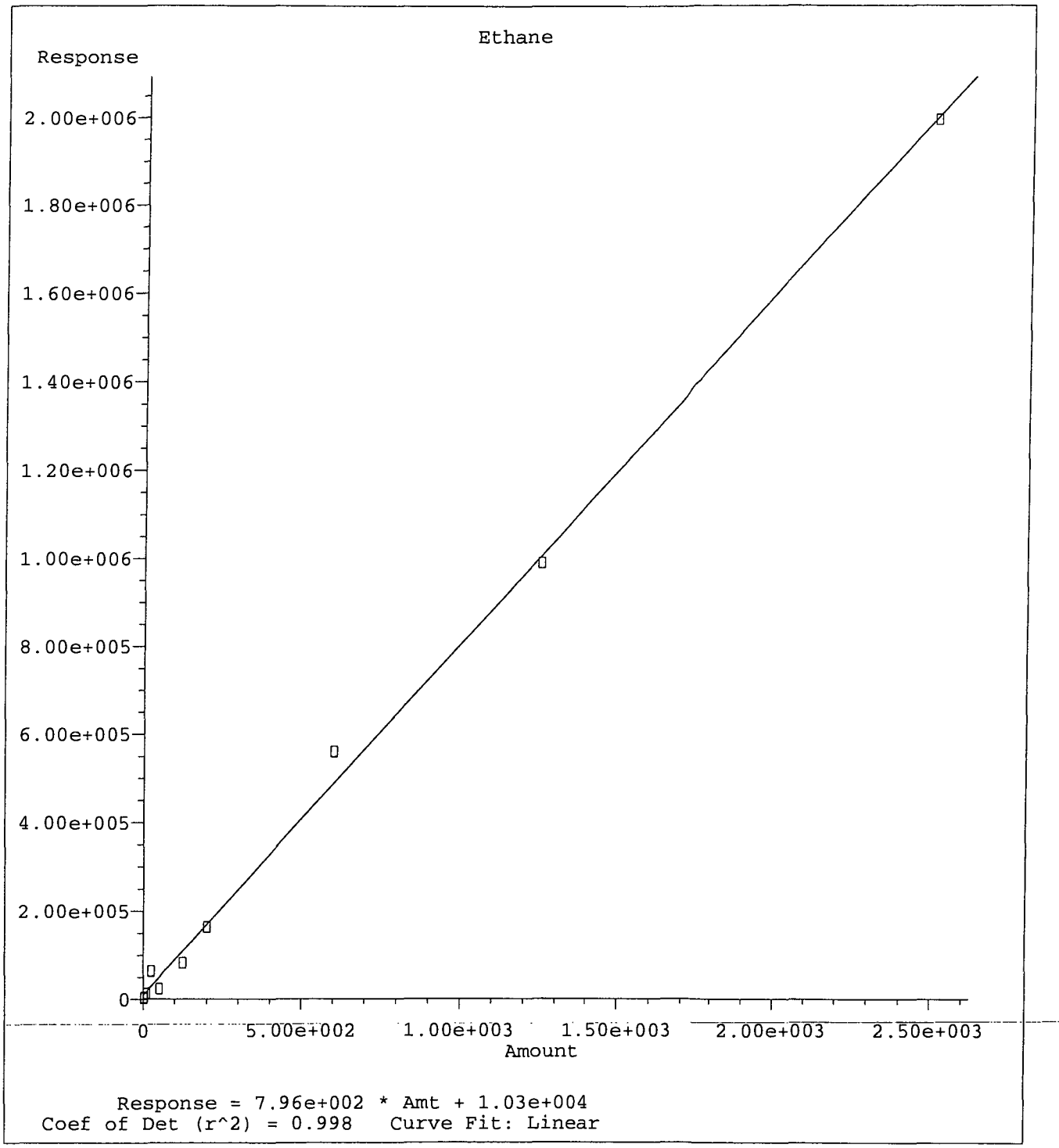
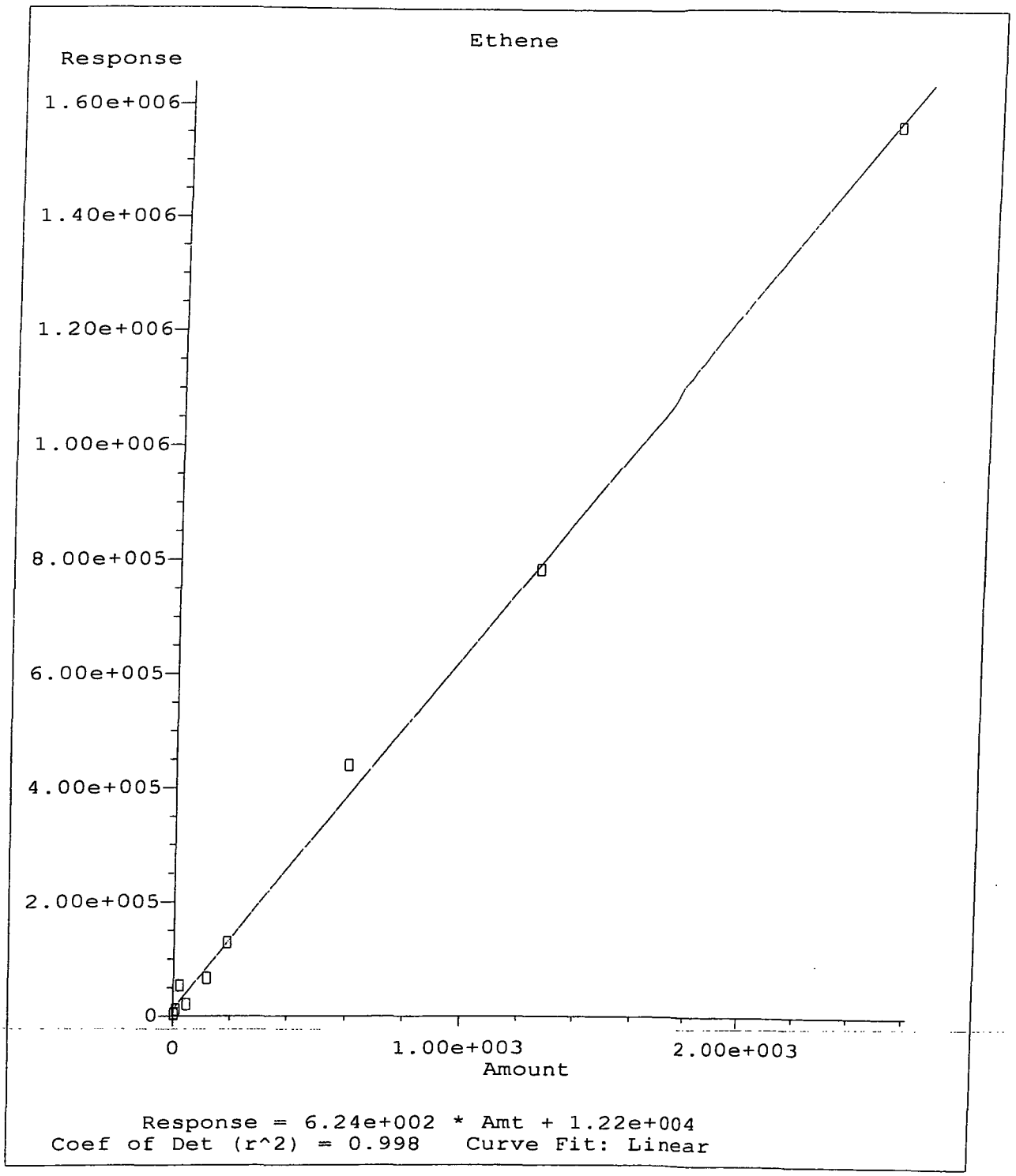
5.7170224



Method Name: G:\ROCKY\DATA\160901R\RSK0901.M
Calibration Table Last Updated: Fri Sep 02 15:25:38 2016



Method Name: G:\ROCKY\DATA\160901R\RSK0901.M
Calibration Table Last Updated: Thu Nov 10 08:49:51 2016



Method Name: G:\ROCKY\DATA\160901R\RSK0901.M
Calibration Table Last Updated: Fri Sep 02 15:25:38 2016

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901000.D Vial: 1
Acq On : 1 Sep 16 11:38 Operator: lac
Sample : RSK Level 1 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

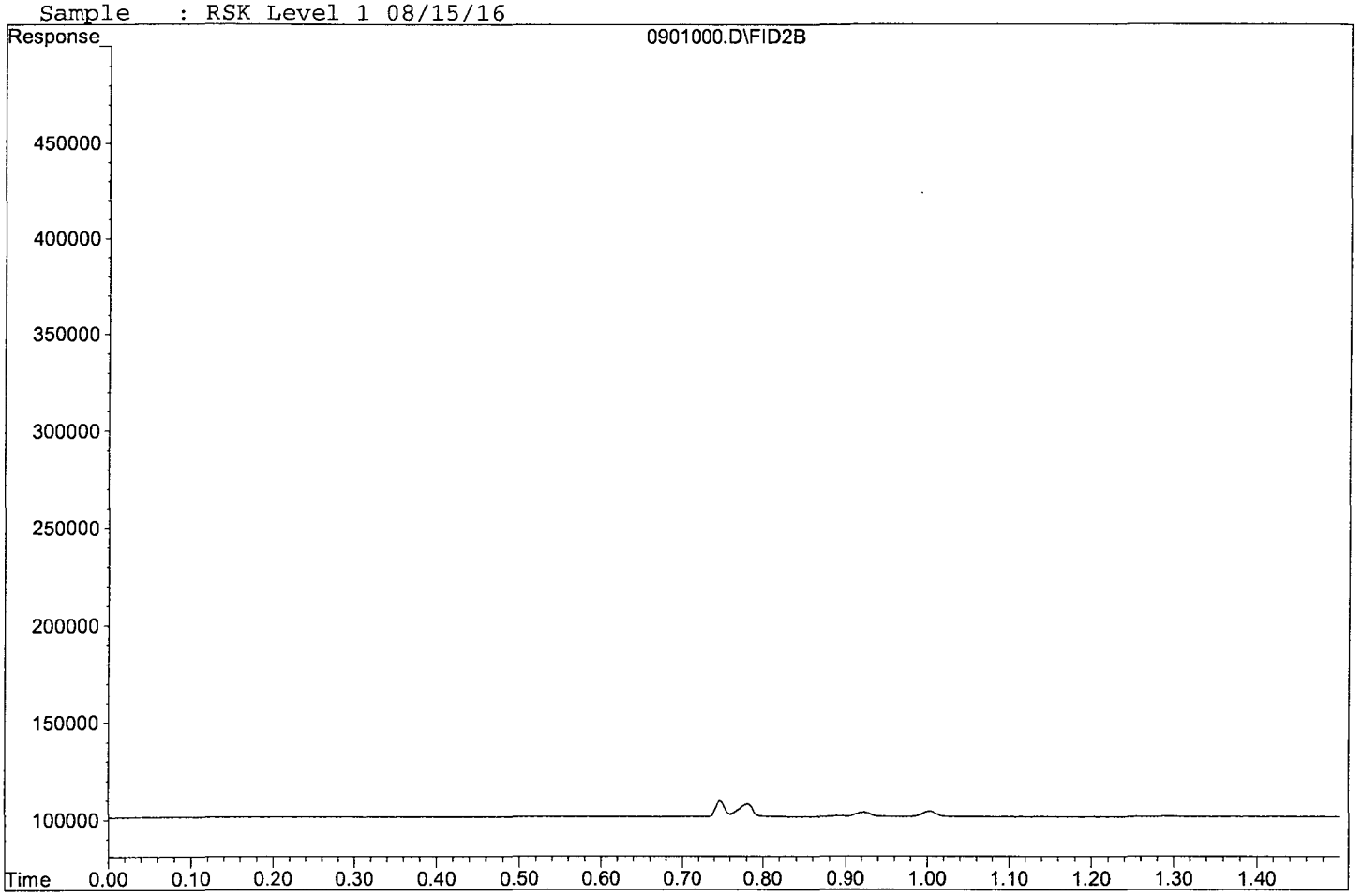
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.78	6703	N.D.	ppb
2) ATM Ethane	0.92	2566	N.D.	ppb
3) ATM Ethene	1.00	2922	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\0901000.D
Sample : RSK Level 1 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901001.D Vial: 2
Acq On : 1 Sep 16 11:41 Operator: lac
Sample : RSK Level 2 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

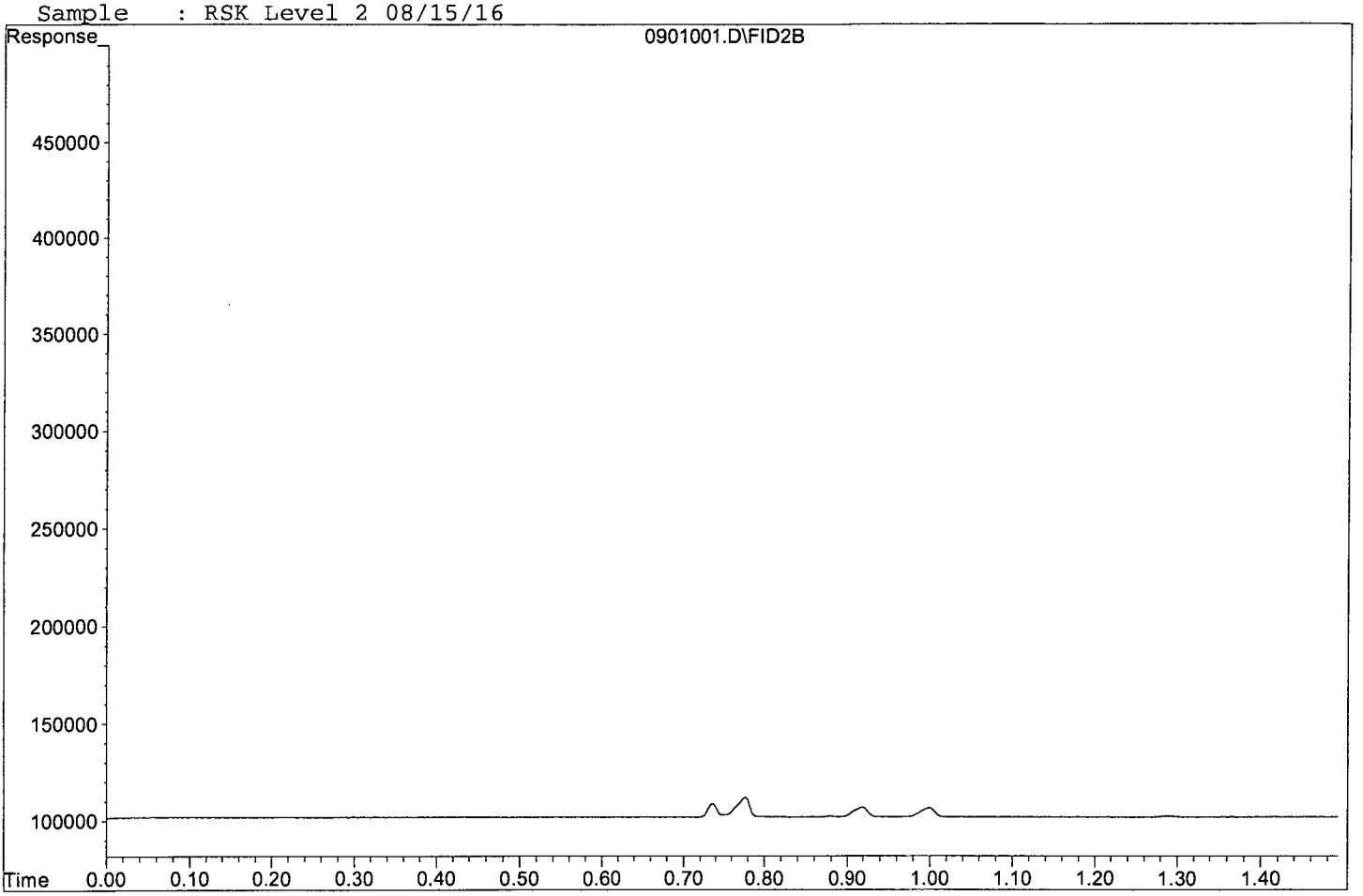
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.79	569	N.D.	ppb
2) ATM Ethane	0.94	352	N.D.	ppb
3) ATM Ethene	1.02	250	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\0901001.D
Sample : RSK Level 2 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901002.D Vial: 3
Acq On : 1 Sep 16 11:44 Operator: lac
Sample : RSK Level 3 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 14 13:31 2016 Quant Results File: RSK0901.RES

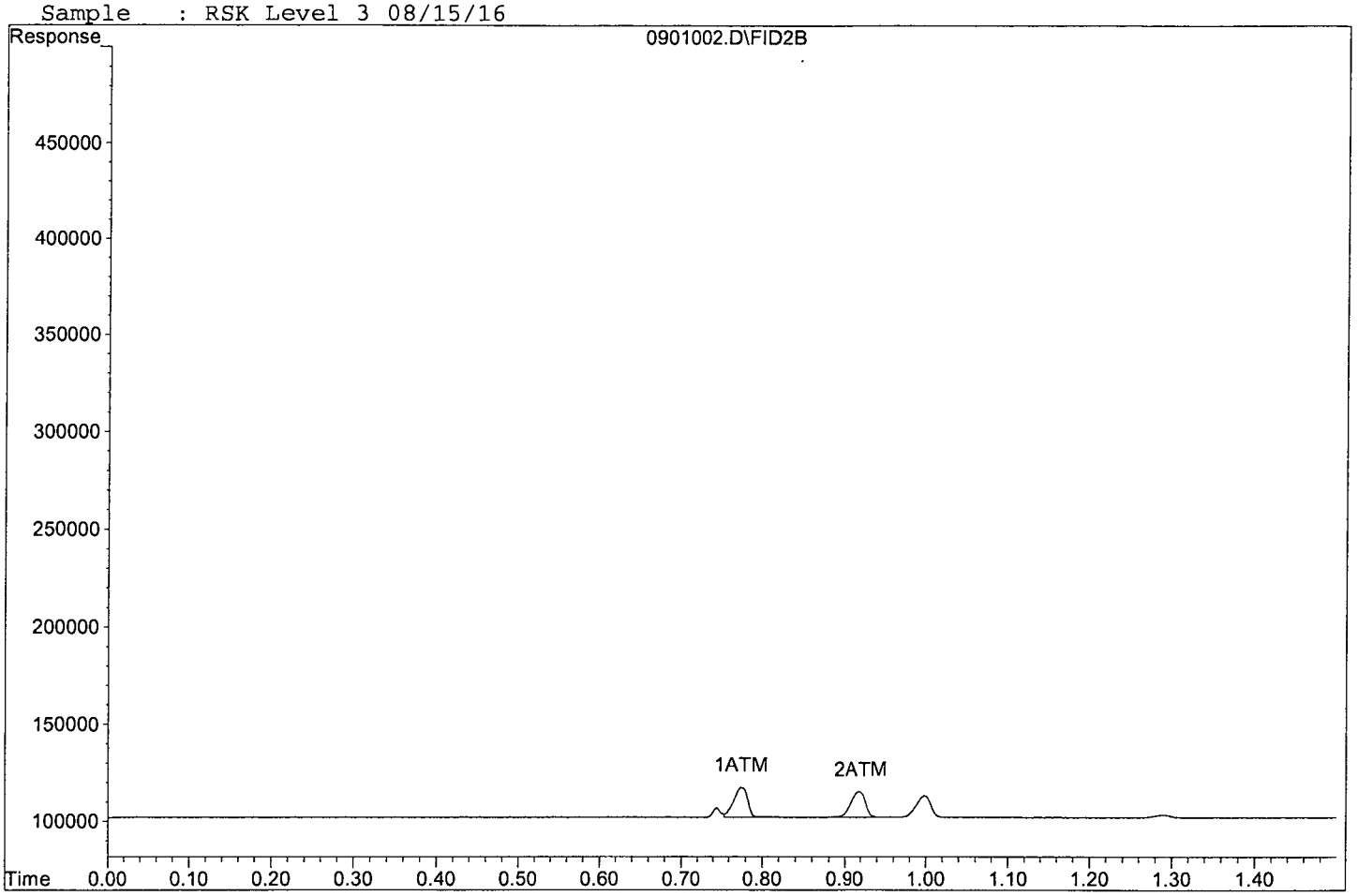
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.77	15515	1.054	ppb
2) ATM Ethane	0.92	13452	3.912	ppb
Target Compounds				
3) ATM Ethene	1.00	11390	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\0901002.D
Sample : RSK Level 3 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901003.D Vial: 4
Acq On : 1 Sep 16 11:46 Operator: lac
Sample : RSK Level 4 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

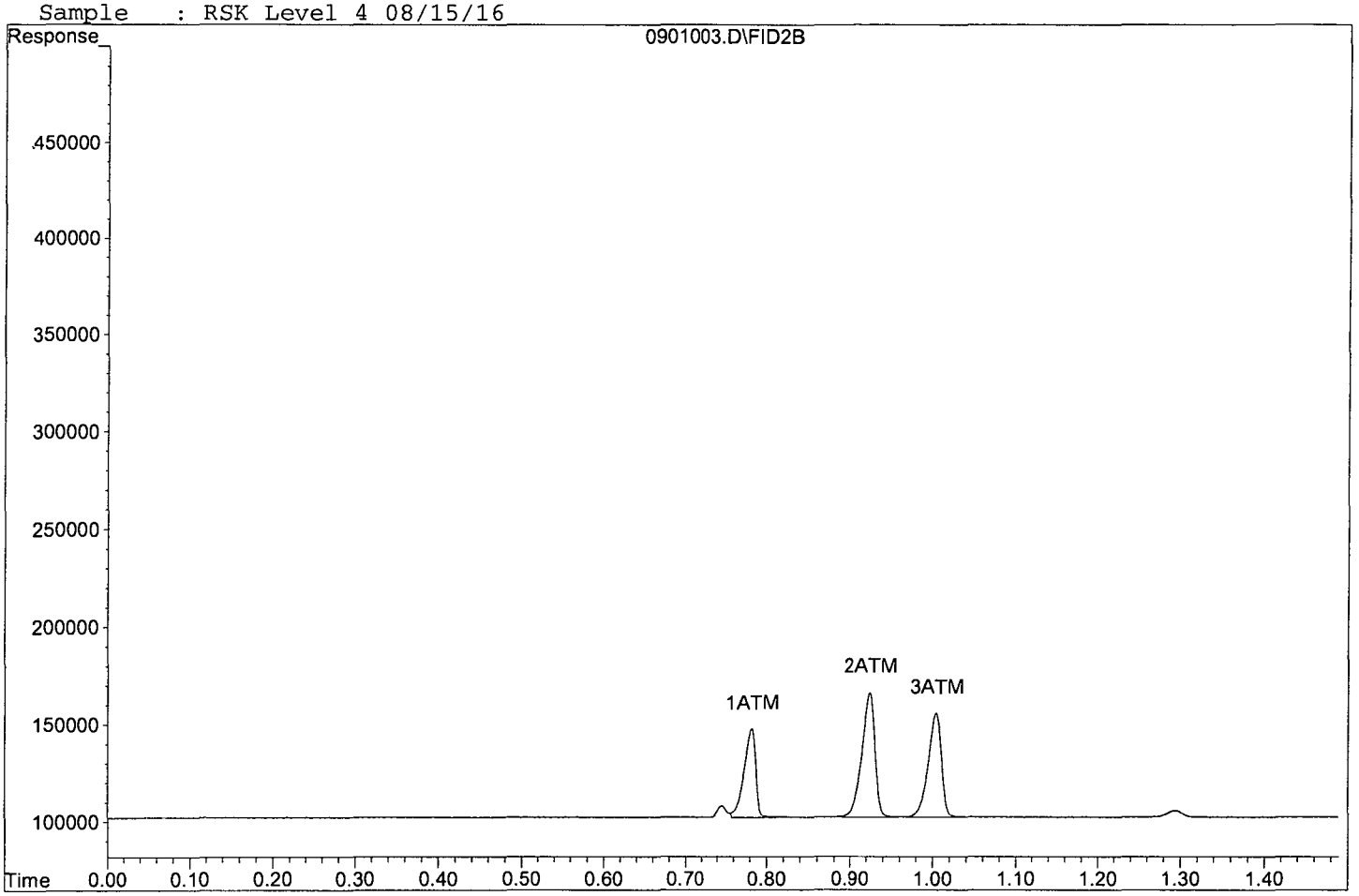
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.78	45792	29.006 ppb
2) ATM Ethane	0.92	63853	67.197 ppb
3) ATM Ethene	1.00	53608	66.354 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\0901003.D
Sample : RSK Level 4 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901004.D Vial: 5
Acq On : 1 Sep 16 11:48 Operator: lac
Sample : RSK Level 5 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

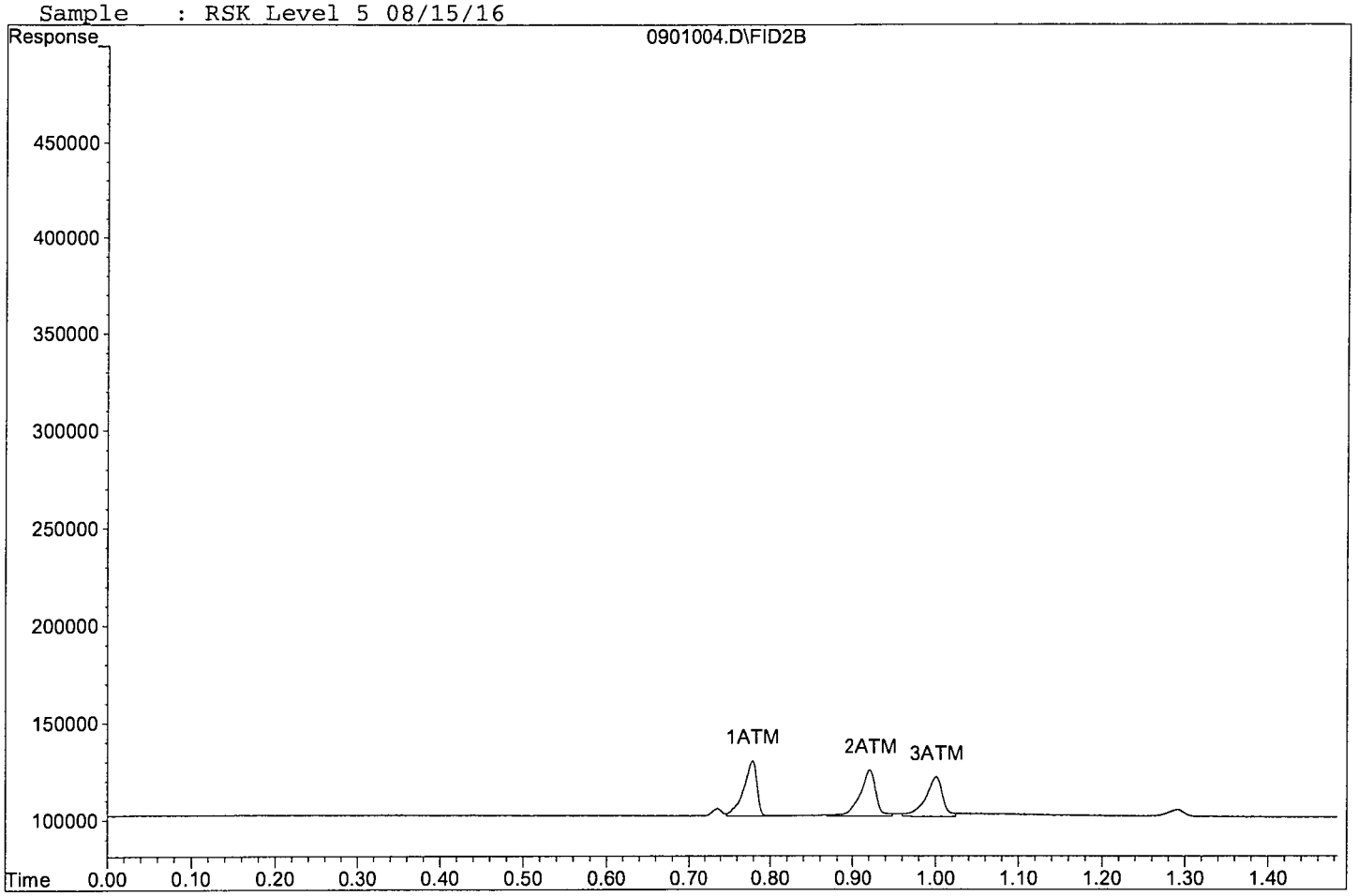
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.78	28664	13.193 ppb
2) ATM Ethane	0.92	23891	17.020 ppb
3) ATM Ethene	1.00	20700	13.631 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\0901004.D
Sample : RSK Level 5 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901005.D Vial: 6
Acq On : 1 Sep 16 11:50 Operator: lac
Sample : RSK Level 6 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

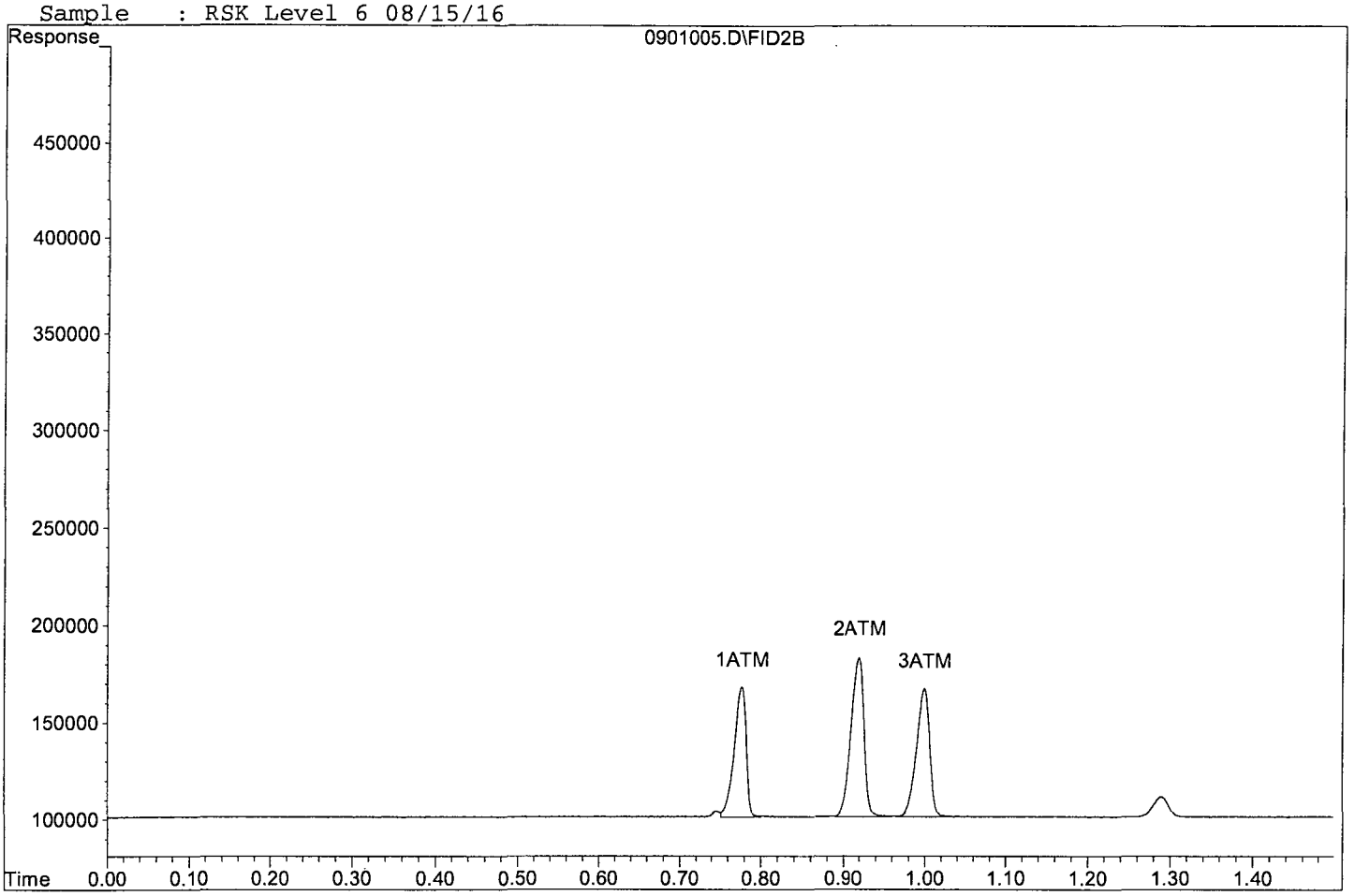
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.78	67137	48.712 ppb
2) ATM Ethane	0.92	82167	90.193 ppb
3) ATM Ethene	1.00	66348	86.764 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\0901005.D
Sample : RSK Level 6 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901006.D Vial: 7
Acq On : 1 Sep 16 11:52 Operator: lac
Sample : RSK Level 7 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

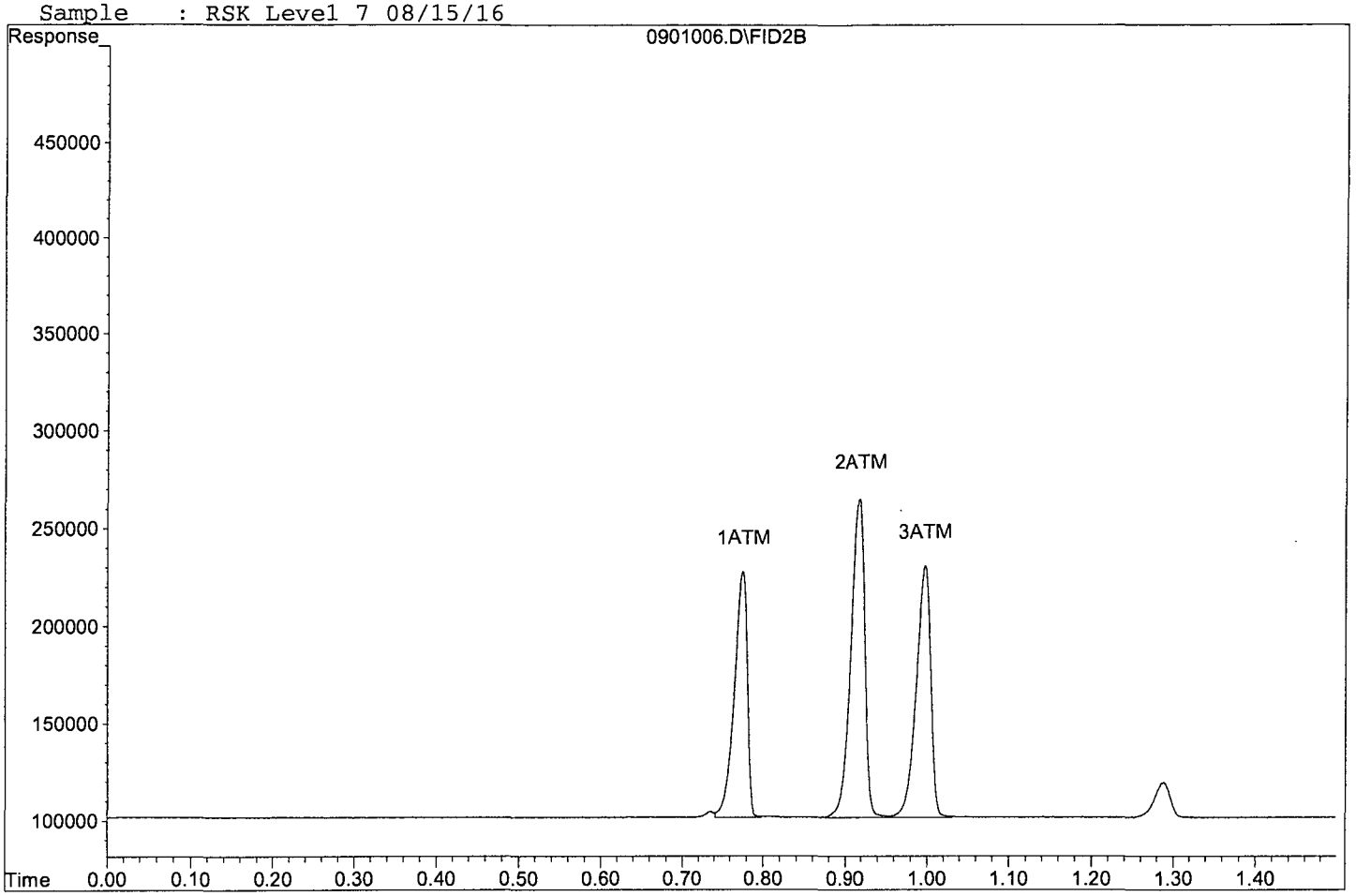
Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.78	126422	103.446 ppb
2) ATM Ethane	0.92	163281	192.041 ppb
3) ATM Ethene	1.00	129200	187.460 ppb

Target Compounds

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

Quantitation Report

Data File: G:\ROCKY\DATA\160901R\0901006.D
Sample : RSK Level 7 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901007.D Vial: 8
Acq On : 1 Sep 16 11:55 Operator: lac
Sample : RSK Level 8 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

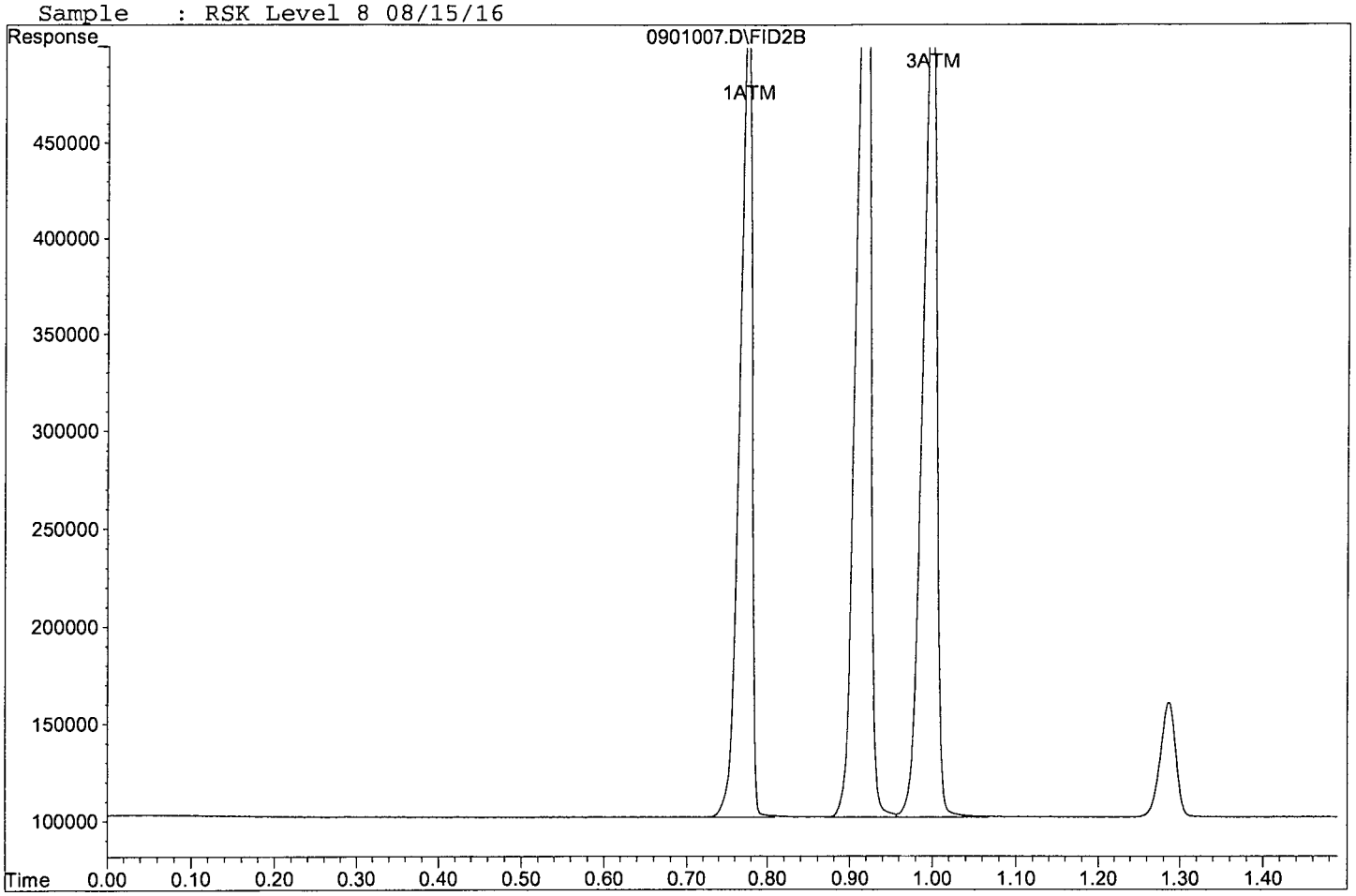
Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.77	421052	375.455 ppb
2) ATM Ethane	0.92	559640	689.720 ppb
3) ATM Ethene	1.00	439383	684.403 ppb

Target Compounds

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

Quantitation Report

Data File: G:\ROCKY\DATA\160901R\0901007.D
Sample : RSK Level 8 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901008.D Vial: 9
Acq On : 1 Sep 16 11:57 Operator: lac
Sample : RSK Level 9 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

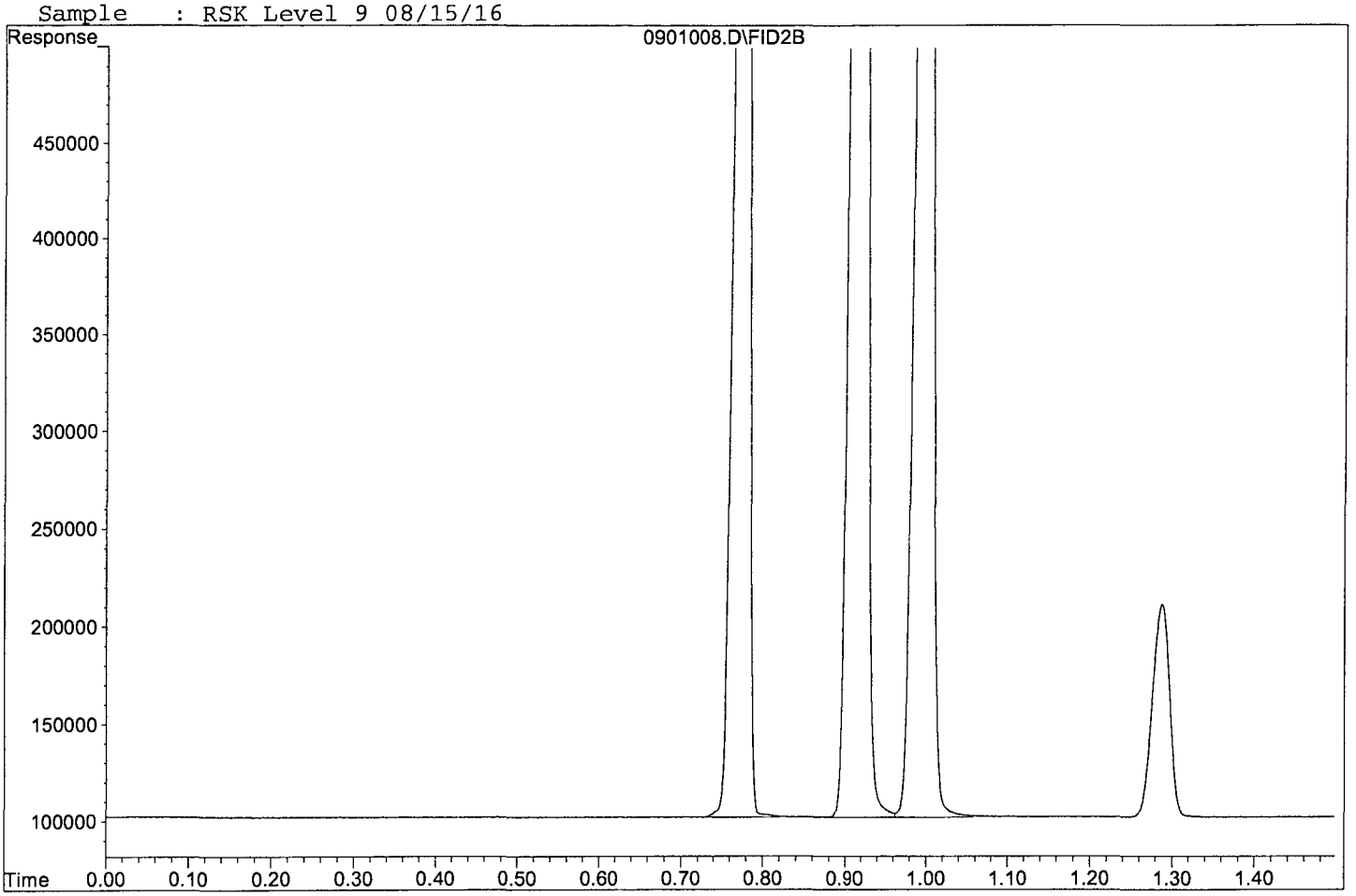
Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.78	723824	654.982	ppb
2) ATM Ethane	0.92	989344	1229.268	ppb
3) ATM Ethene	1.00	783615	1235.897	ppb

Target Compounds

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

Quantitation Report

Data File: G:\ROCKY\DATA\160901R\0901008.D
Sample : RSK Level 9 08/15/16



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901009.D Vial: 10
Acq On : 1 Sep 16 11:59 Operator: lac
Sample : RSK Level 10 08/15/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 9 13:08 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

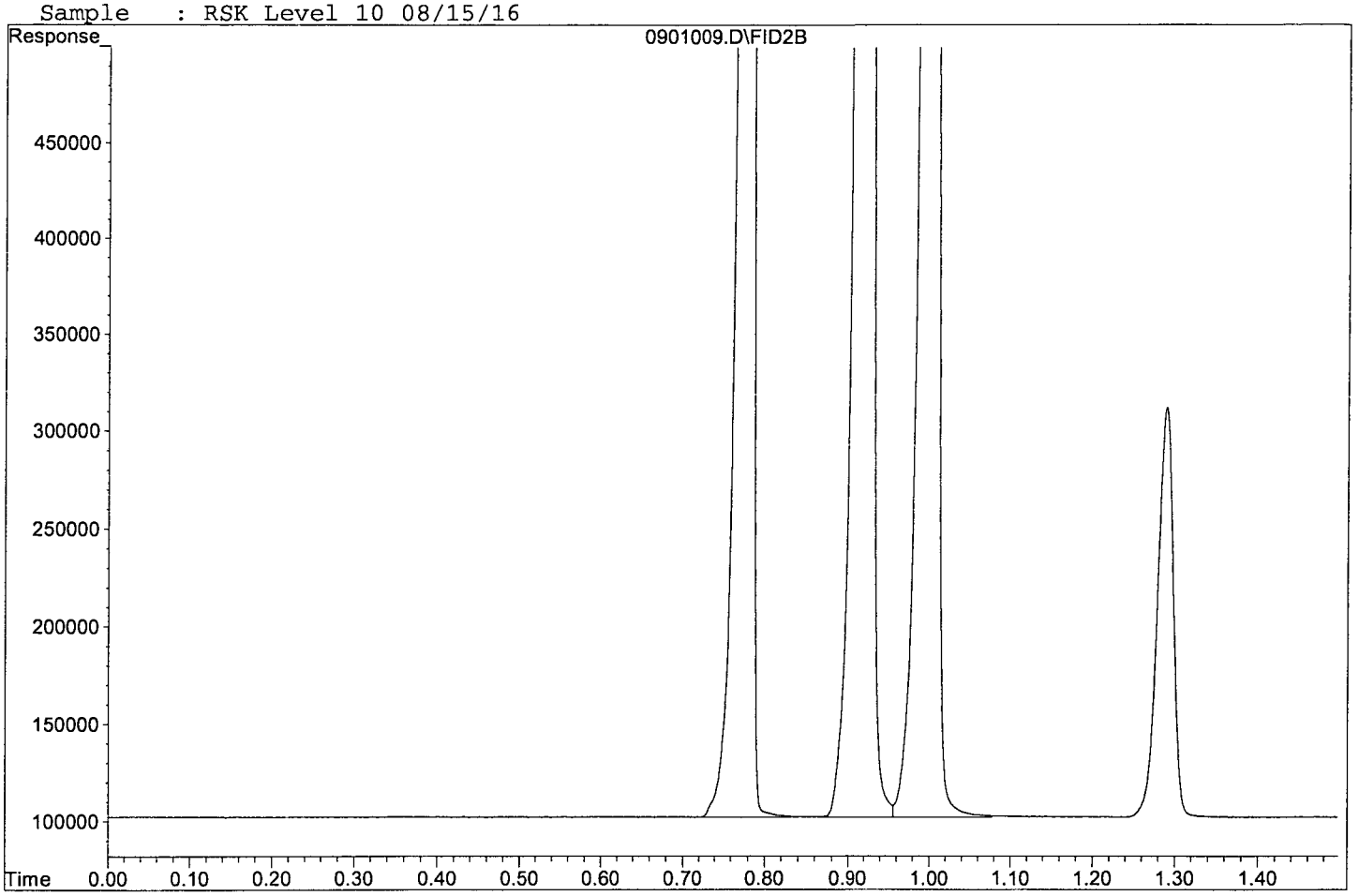
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.78	1454283	1329.358	ppb
2) ATM Ethane	0.92	1994598	2491.490	ppb
3) ATM Ethene	1.00	1562244	2483.337	ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\0901009.D
Sample : RSK Level 10 08/15/16



Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 1 Sep 16 13:11
Instrument: 7890
Initial Cal. Date: 09/01/16
Data File: 0901018.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATML	Methane	2635	1090	59	ATML	19
2	ATML	Ethane	1147	964	16	ATML	11
3	ATML	Ethene	1063	853	20	ATML	20
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
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38							
39							
40							
		Average			31.7		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\0901018.D Vial: 19
Acq On : 1 Sep 16 13:11 Operator: lac
Sample : (SS/LCS) RSK Level 6 09/01/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Sep 1 13:16 2016 Quant Results File: RSK0901.RES

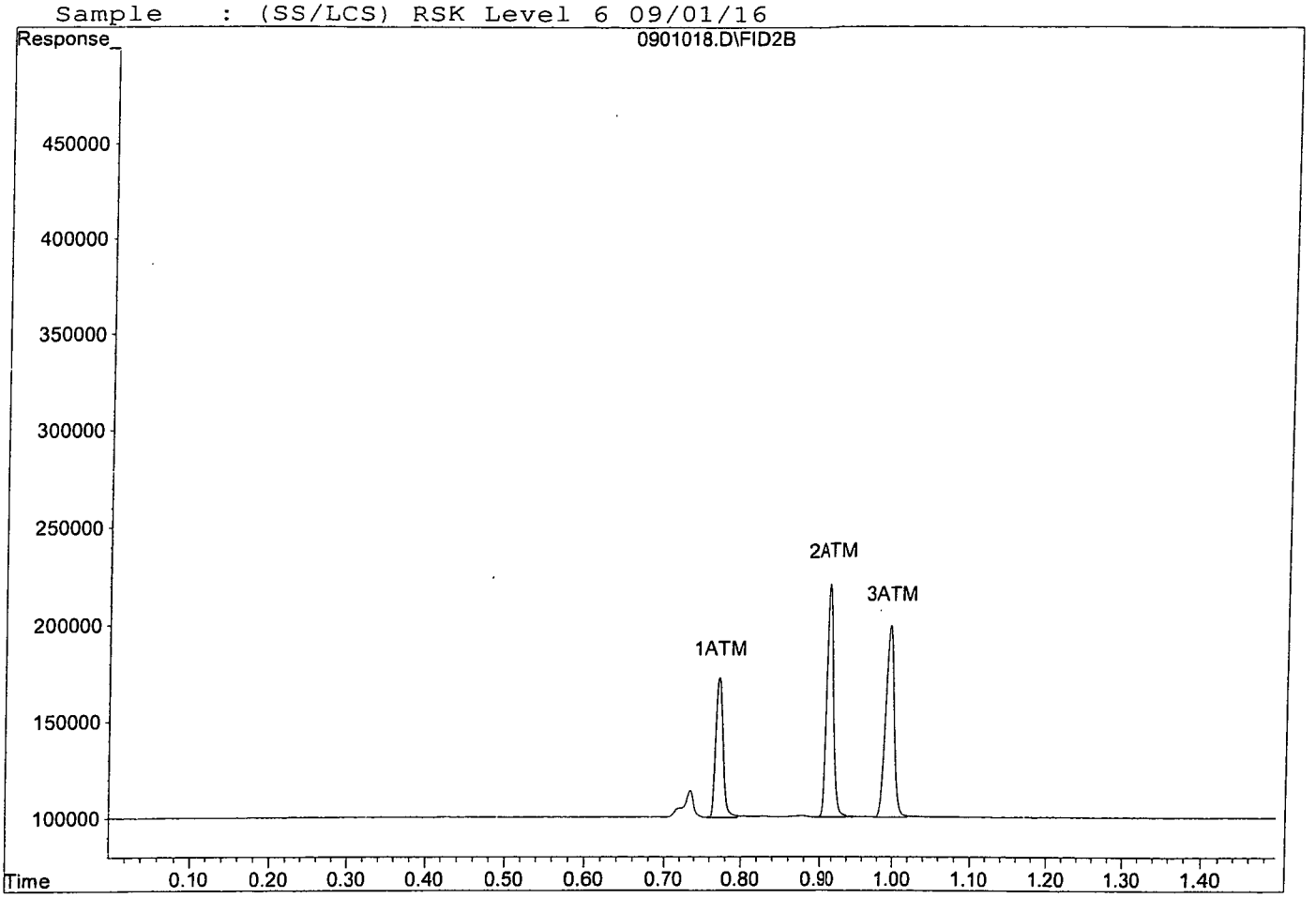
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Sep 01 14:40:19 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.77	72750	53.894	ppb
2) ATM Ethane	0.91	120545	138.382	ppb
3) ATM Ethene	0.99	99349	139.636	ppb

Quantitation Report

Data File: G:\ROCKY\DATA\160901R\0901018.D
Sample : (SS/LCS) RSK Level 6 09/01/16



Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 10/30/16
Instrument: 7890
Initial Cal. Date: 09/01/16
Data File: 1030000.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATML	Methane	2635	1007	62	ATML	11
2	ATML	Ethane	1147	666	42	ATML	18
3	ATML	Ethene	1063	520	51	ATML	20
4							
5							
6							
7							
8							
9							
10							
11							
12							
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38							
39							
40							
		Average			51.7		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1030000.D Vial: 1
Acq On : 30 Oct 16 10:22 Operator: lac
Sample : 161030A CCV/LCS RSK Level 8 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 10:25 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

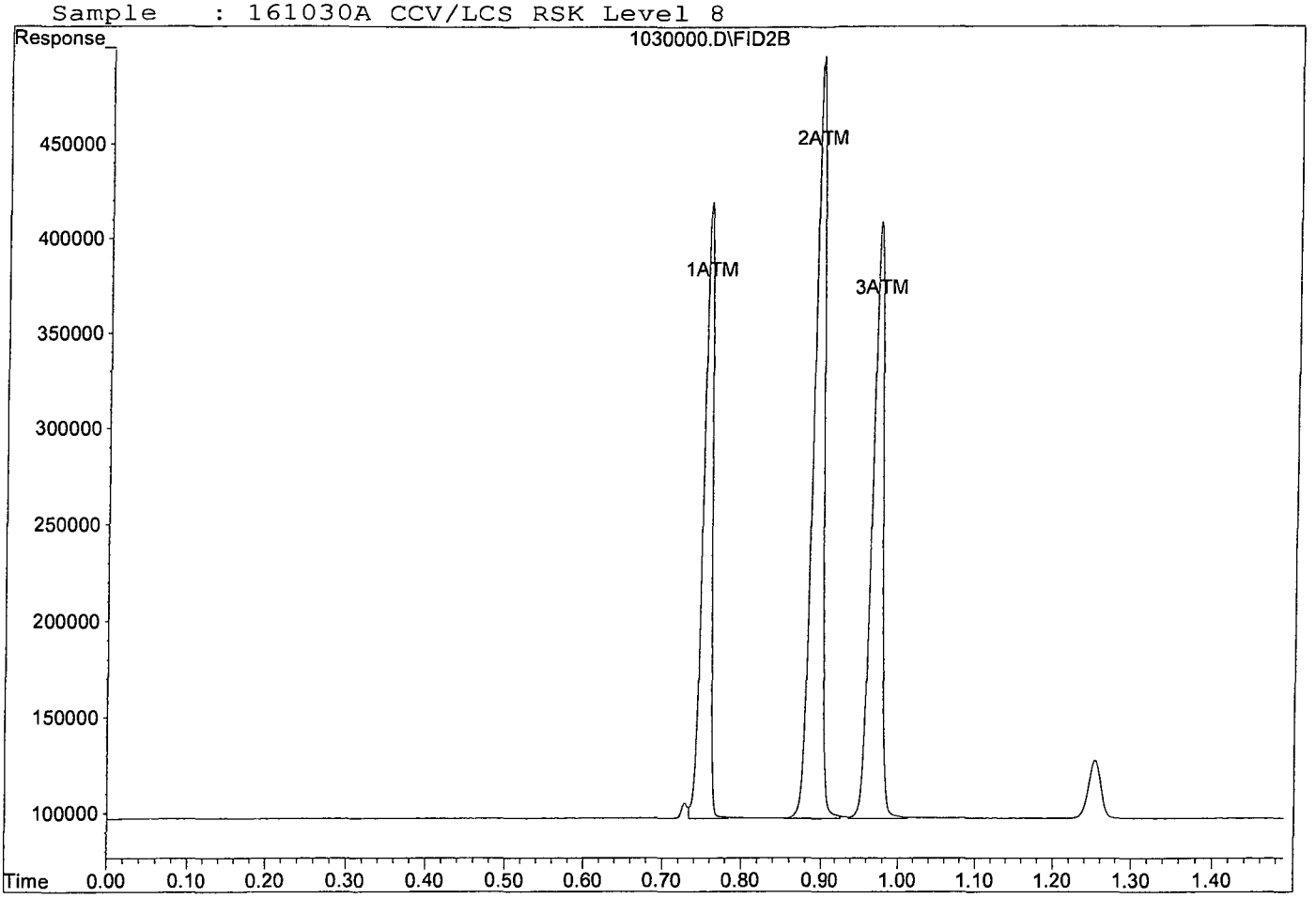
Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.75	322702	284.656 ppb
2) ATM Ethane	0.89	399838	489.069 ppb
3) ATM Ethene	0.97	311660	479.778 ppb

Target Compounds

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

Quantitation Report

Data File: G:\ROCKY\DATA\160901R\1030000.D
Sample : 161030A CCV/LCS RSK Level 8



Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 10/30/16
Instrument: 7890
Initial Cal. Date: 09/01/16
Data File: 1030027.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATML	Methane	2635	1234	53	ATML	9.8
2	ATML	Ethane	1147	877	24	ATML	7.9
3	ATML	Ethene	1063	680	36	ATML	5.7
4							
5							
6							
7							
8							
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35							
36							
37							
38							
39							
40							
		Average			37.7		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1030027.D Vial: 28
Acq On : 30 Oct 16 11:46 Operator: lac
Sample : Ending CCV RSK Level 8 10/30/16 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 11 9:59 2016 Quant Results File: RSK0901.RES

Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 10 13:34:21 2016
Response via : Multiple Level Calibration

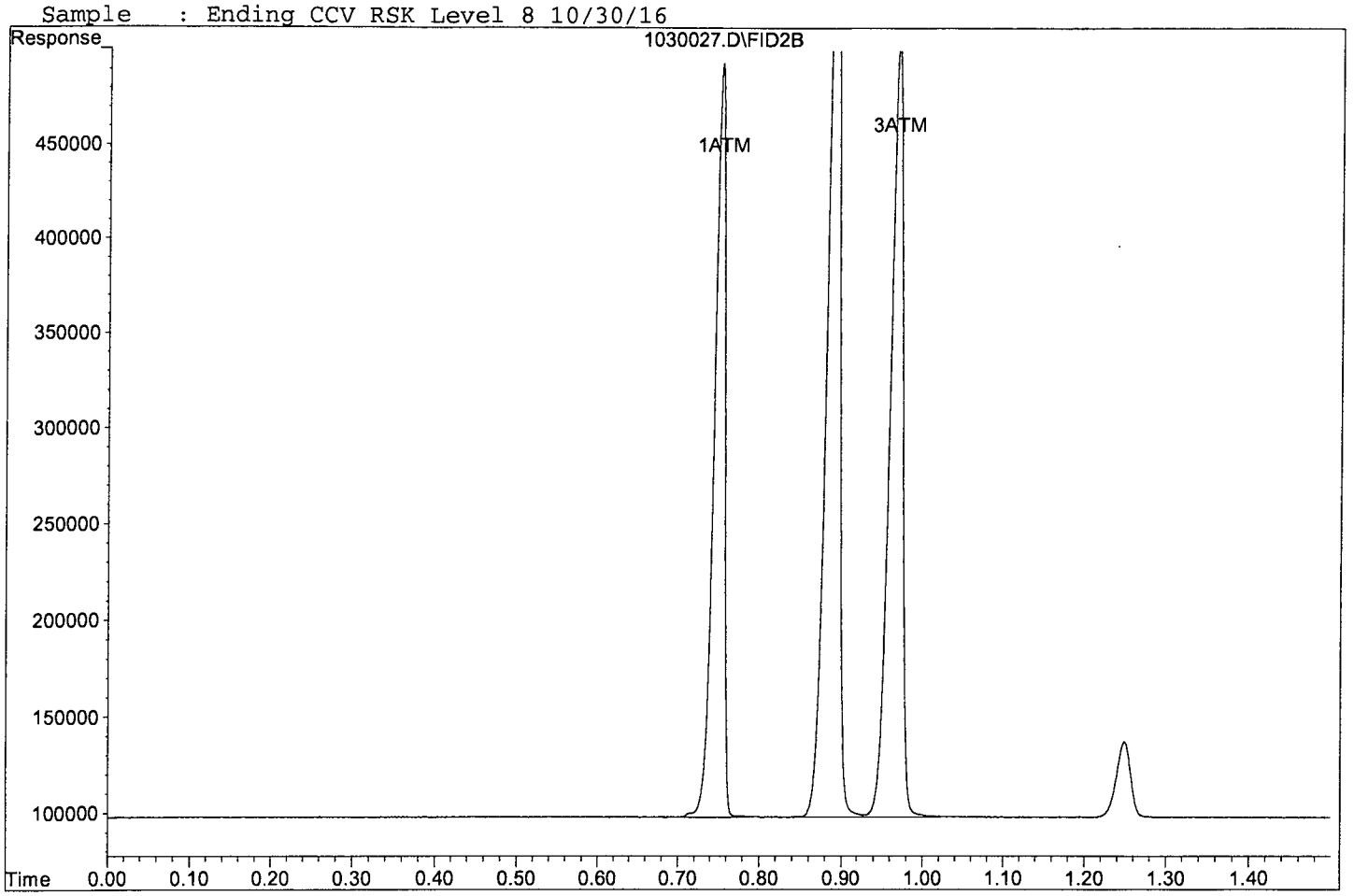
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.75	395503	351.867 ppb
2) ATM Ethane	0.89	525935	647.400 ppb
3) ATM Ethene	0.97	407339	633.065 ppb

Target Compounds

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

Data File: G:\ROCKY\DATA\160901R\1030027.D
Sample : Ending CCV RSK Level 8 10/30/16



ORGANICS
Raw Data

APPL, INC.

Method Blank
METHANE

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **161030W-44891 - 213313**
Batch ID: #RSKME-161030A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/30/16	10/30/16

Quant Method: RSK0901.M
Run #: 1030001
Instrument: Rocky
Sequence: 160901
Initials: SD

GC SC-Blank-REG MDLs-DOD
Printed: 11/02/16 5:48:54 PM

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1030001.D Vial: 2
Acq On : 30 Oct 16 10:26 Operator: lac
Sample : 161030A BLK-RSK Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 10:29 2016 Quant Results File: RSK0901.RES

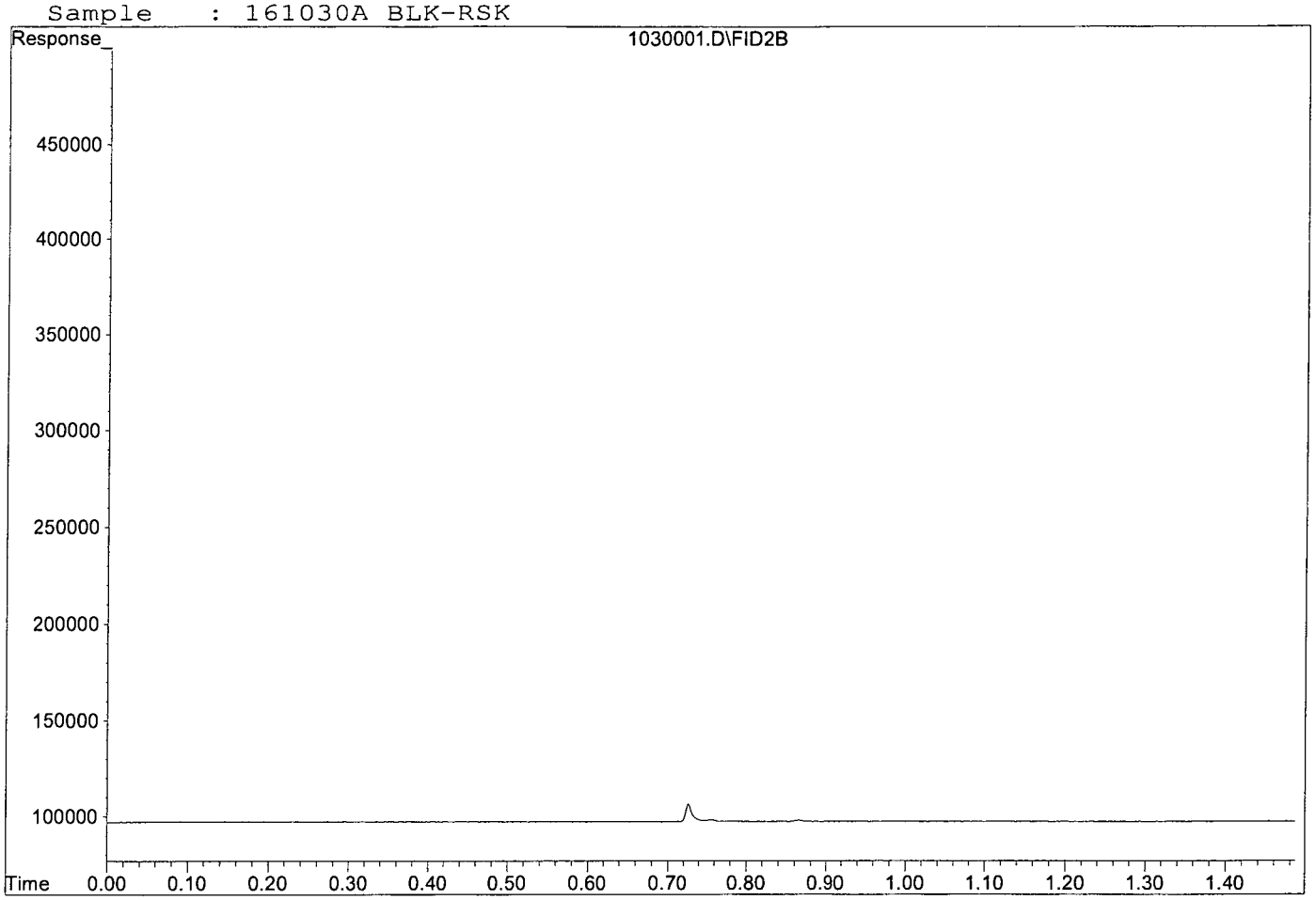
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
Target Compounds				
1) ATM Methane	0.76	1161	N.D.	ppb
2) ATM Ethane	0.89	358	N.D.	ppb
3) ATM Ethene	0.97	268	N.D.	ppb

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

Data File: G:\ROCKY\DATA\160901R\1030001.D
Sample : 161030A BLK-RSK



Laboratory Control Spike Recovery
METHANE

APPL ID: **161030W-44891 LCS - 213313**
Batch ID: #RSKME-161030A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
METHANE	320	285	89.0	72-125

Comments: _____

Primary	SPK
Quant Method :	RSK0901.M
Extraction Date :	10/30/16
Analysis Date :	10/30/16
Instrument :	Rocky
Run :	1030000
Initials :	SD

Printed: 11/02/16 5:47:39 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\160901R\1030000.D Vial: 1
Acq On : 30 Oct 16 10:22 Operator: lac
Sample : 161030A CCV/LCS RSK Level 8 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 30 10:25 2016 Quant Results File: RSK0901.RES

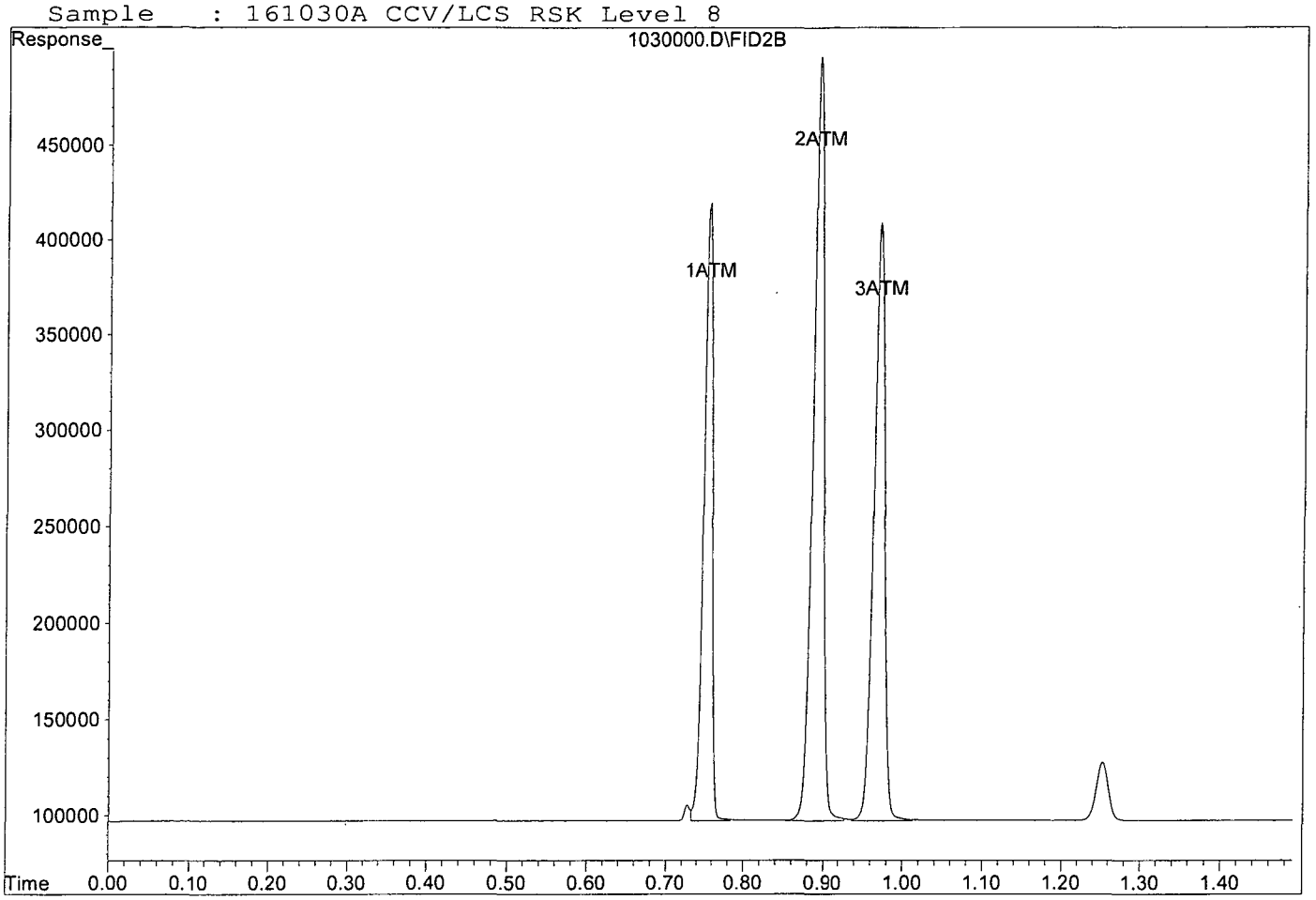
Method : G:\ROCKY\DATA\160901R\RSK0901.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Oct 25 11:36:05 2016
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.75	322702	284.656 ppb
2) ATM Ethane	0.89	399838	489.069 ppb
3) ATM Ethene	0.97	311660	479.778 ppb

Target Compounds

Data File: G:\ROCKY\DATA\160901R\1030000.D
Sample : 161030A CCV/LCS RSK Level 8



Primary Source Stock Standard 10,000ppmV **Manufacturer Exp date 7-8-2017** CM 8/15/16

RSK Gas Mix (Scott Specialty Gas) Cat.# 23452, Lot # 164PLU4SPC05L-34436

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Intermediate Calibration Stock Standard 100ppmV **Expires 8/15/17** CM 8/15/16

Prepared in a 1 L Tedlar bag. Add 990mL Nitrogen and 10mL of 164PLU4SPC05L-34436 standard.

RSK Calibration Curve **Vial expiration date 9/28/16** CM 9/1/16

Analye	Conc Std 1 (ug/L)	Conc Std 2 (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)	Conc Std 8 (ug/L)	Conc Std 9 (ug/L)	Conc Std 10 (ug/L)
Methane (MW 16	0.90	1.80	5.10	13.33	26.70	66.75	106.80	320.4	667.5	1335.0
Ethane (MW 30.0	1.70	3.40	9.50	25.00	50.00	125.00	200.00	600.0	1250.0	2500.0
Ethene (MW 28.(	1.60	3.20	8.90	23.30	46.60	116.50	186.40	599.2	1248.0	2496.0
Stock Source	Intermediate Calib Std 8/15/16	Intermediate Calib Std 8/15/16	Intermediate Calib Std 8/15/16	Intermediate Calib Std 8/15/16	Intermediate Calib Std 8/15/16	Intermediate Calib Std 8/15/16	Primary Source Std #164PLU4SPC05L-34436	Primary Source Std #164PLU4SPC05L-34436	Primary Source Std #164PLU4SPC05L-34436	Primary Source Std #164PLU4SPC05L-34436
Stock Conc (ppı	100 ppmV	100 ppmV	100 ppmV	100 ppmV	100 ppmV	100 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (m	0.135 mL	0.270 mL	0.760 mL	2.0 mL	4.0 mL	10.0 mL	0.160 mL	0.480 mL	1.00 mL	2.00 mL
Final Volume P&T V	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL

Second Source Stock Standard 10,000ppmV **Manufacturer Exp Date 6-19-18** CM 8/15/16

RSK Gas Mix (Scott Specialty Gas) Cat.# 0104E40028`4, Lot # 170PLU5SPC06L-35410

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Intermediate Second Source Standard 100ppmV **Expires 8/15/17** CM 8/15/16

Prepared in a 1 L Tedlar bag. Add 990mL Nitrogen and 10mL of lot# 170PLU5SPC06L-35410 standard.

Second Source / LCS - Level 6 **Expires 10/1/16** CM 9/1/16

10.0mL of Intermediate SS stock 8/15/16 into 10mL P&T water

final conc:66.7ppb Methane, 125.0ppb Ethane, and 116.5 ppb Ethene

CCV/LCS - Level 6 **Expires 10/1/16** CM 9/2/16

10.0mL of Intermediate calib stock 8/15/16 into 10mL P&T water

final conc:66.7ppb Methane, 125.0ppb Ethane, and 116.5 ppb Ethene

CCV/LCS - Level 7 **Expires 10/1/16** CM 9/2/16

0.160mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water

final conc:106.8ppb Methane, 200 ppb Ethane, and 186.4 ppb Ethene

CCV/LCS - Level 8 **Expires 10/1/16** CM 9/2/16

0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water

final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

AZ42293W06/W07 MS/MSD CM 9/2/16

4.0mL of Intermediate calib stock 8/15/16 into 10mL P&T water

final conc:26.7ppb Methane, 50.0ppb Ethane, and 46.6 ppb Ethene

CCV/LCS - Level 8 **Expires 11/22/16** CM 10/22/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

CCV/LCS - Level 8 **Expires 11/25/16** CM 10/25/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

AZ44579 W10 and W11 MS/MSD **Expires 11/25/16** CM 10/25/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL sample AZ44579 water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

CCV/LCS - Level 8 **Expires 11/29/16** CM 10/29/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

AZ44621 W9 and W10 MS/MSD **Expires 11/29/16** CM 10/29/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL sample AZ44621 water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

CCV/LCS - Level 8 **Expires 11/30/16** CM 10/30/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

CCV/LCS - Level 8 **Expires 12/1/16** CM 11/1/16
0.480mL of Primary Source Std #164PLU4SPC05L-34436 into 10mL P&T water
final conc:320.4ppb Methane, 600 ppb Ethane, and 599.2 ppb Ethene

Injection Log

Directory: G:\ROCKY\DATA\160901R\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0901000.D	1	RSK Level 1 / LOD Chk 08/15/16	Methane 0.9, Ethane, 1.7 Etl	1 Sep 16 11:38
2	2	0901001.D	1	RSK Level 2 08/15/16		1 Sep 16 11:41
3	3	0901002.D	1	RSK Level 3 / LOQ Chk 08/15/16	Methane 5.1, Ethane, 9.5 Etl	1 Sep 16 11:44
4	4	0901003.D	1	RSK Level 4 08/15/16		1 Sep 16 11:46
5	5	0901004.D	1	RSK Level 5 08/15/16		1 Sep 16 11:48
6	6	0901005.D	1	RSK Level 6 08/15/16		1 Sep 16 11:50
7	7	0901006.D	1	RSK Level 7 08/15/16		1 Sep 16 11:52
8	8	0901007.D	1	RSK Level 8 08/15/16		1 Sep 16 11:55
9	9	0901008.D	1	RSK Level 9 08/15/16		1 Sep 16 11:57
10	10	0901009.D	1	RSK Level 10 08/15/16		1 Sep 16 11:59
11	19	0901018.D	1	(SS/LCS) RSK Level 6 09/01/16		1 Sep 16 13:11
12	1	1030000.D	1	161030A LCS / CCV RSK Level 8		30 Oct 16 10:22
13	2	1030001.D	1	161030A BLK-RSK		30 Oct 16 10:26
14	12	1030011.D	1	AZ44891W06		30 Oct 16 10:57
15	13	1030012.D	1	AZ44893W06		30 Oct 16 11:00
16	28	1030027.D	1	Ending CCV RSK Level 8 10/30/16		30 Oct 16 11:46

INORGANIC ANALYSIS

APPL, INC.

INORGANIC ANALYSIS
QC Summary

APPL, INC.

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	10/26/16	10/26/16	#300W-161026A-AZ44891
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/26/16	10/26/16	#300W-161026A-AZ44891
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	11/01/16	11/01/16	#300WD-161101A-AZ44891
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	10/26/16	10/26/16	#35FE-161026A-AZ44893

Wetlab SC-Blank-REG MDLs
Printed: 11/02/16 5:26:31 PM

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	18.7	93.5	90-110	11/01/16	11/01/16	#300WD-161101A-AZ44891
EPA 300.0	NITRATE	22.1	20.1	91.0	90-110	10/26/16	10/26/16	#300W-161026A-AZ44891
EPA 300.0	SULFATE	20.0	18.3	91.5	90-110	10/26/16	10/26/16	#300W-161026A-AZ44891

Comments: _____

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
SM3500Fe	FERROUS IRON	3.00	2.92	97.3	80-120	10/26/16	10/26/16	#35FE-161026A-AZ44893

Comments: _____

INORGANIC ANALYSIS
Sample Data

APPL, INC.

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH103

APPL ID: AZ44891

Sample Collection Date: 10/25/16

ARF: 81287

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	50.5	2.0	0.40	0.16	mg/L	2	11/01/16	11/01/16
EPA 300.0	NITRATE	2.2	0.5	0.18	0.04	mg/L	1	10/26/16	10/26/16
EPA 300.0	SULFATE	9.7	1.0	0.20	0.09	mg/L	1	10/26/16	10/26/16
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/26/16	10/26/16

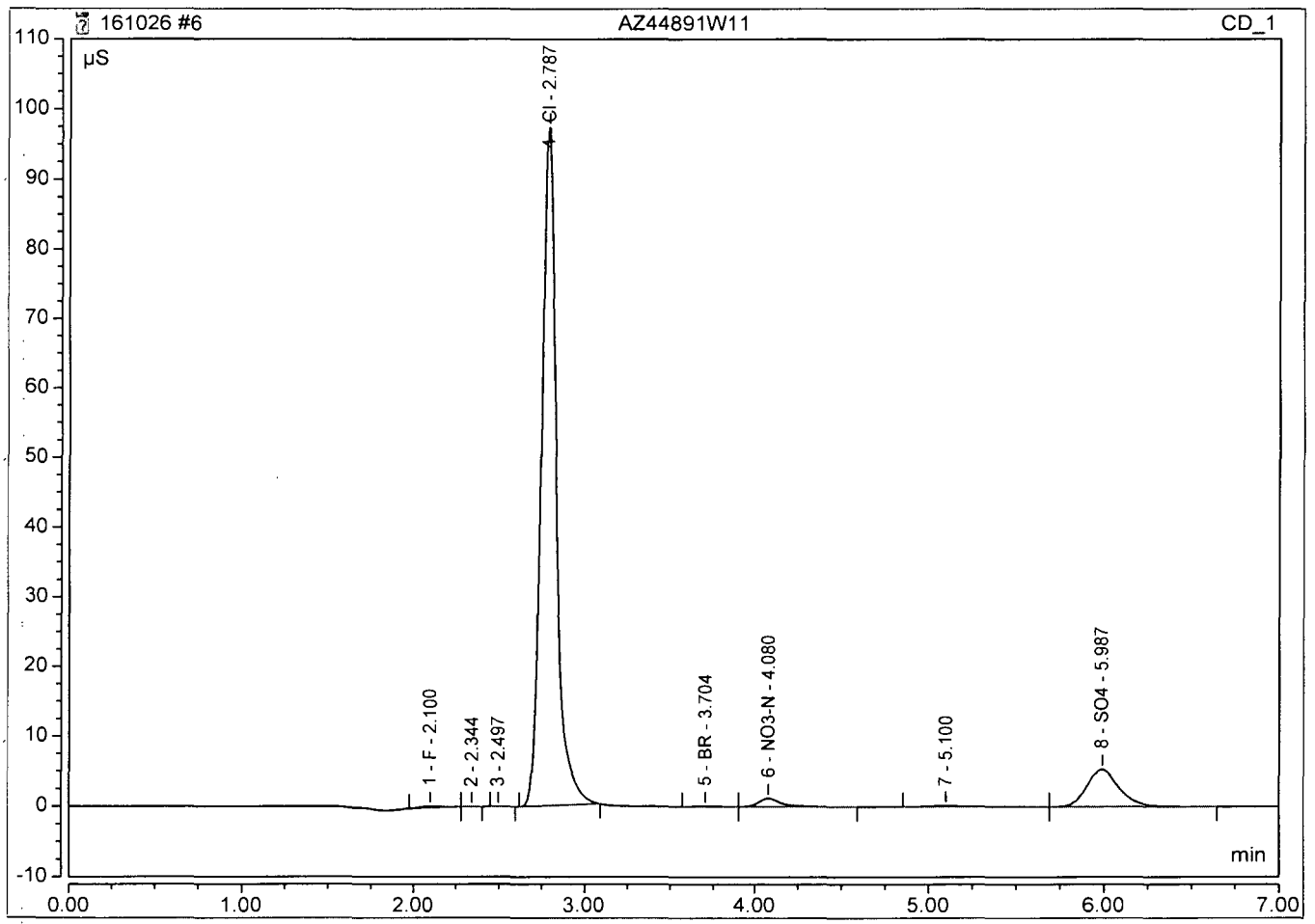
Printed: 11/02/16 5:26:28 PM

APPL-F1-SC-NoMC-REG MDLs

Peak Integration Report

Sample Name:	**AZ44891W11**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**26-Oct-2016 / 12:41**	*Run Time:*	**7.00**

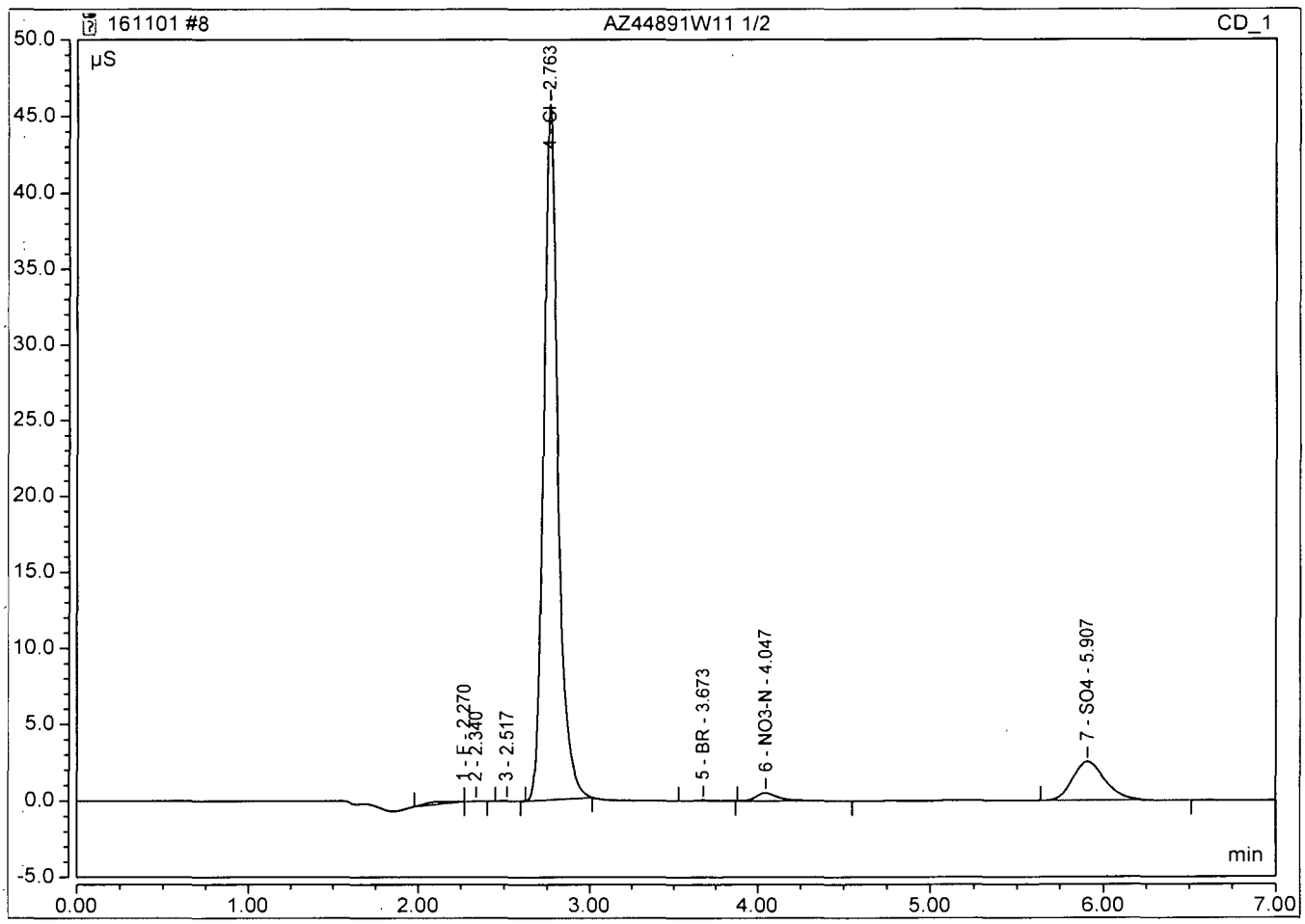
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.027	0.213	0.1592
4	2.79	Cl	BMB	9.811	97.241	54.5448
5	3.70	BR	BMB	0.010	0.084	0.2873
6	4.08	NO3-N	BMB	0.169	1.169	0.5059
8	5.99	SO4	BMB	1.122	5.308	9.6777
TOTAL:				11.14	104.02	65.17



Peak Integration Report

Sample Name:	**AZ44891W11 1/2**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**2.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**01-Nov-2016 / 13:39**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.27	F	BMB	0.027	0.000	0.3153
4	2.76	Cl	BMB	4.489	45.688	50.4789
5	3.67	BR	BMB	0.005	0.043	0.4168
6	4.05	NO3-N	BMB	0.075	0.524	0.5541
7	5.91	SO4	BMB	0.545	2.523	9.9116
TOTAL:				5.14	48.78	61.68



Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Thach

Project: 60481245 CIV0053 Red Hill Fuel Storage

Sample ID: ERH096

Sample Collection Date: 10/25/16

APPL ID: AZ44893

ARF: 81287

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	70.8	2.0	0.40	0.16	mg/L	2	11/01/16	11/01/16
EPA 300.0	NITRATE	2.4	0.5	0.18	0.04	mg/L	1	10/26/16	10/26/16
EPA 300.0	SULFATE	9.5	1.0	0.20	0.09	mg/L	1	10/26/16	10/26/16
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/26/16	10/26/16

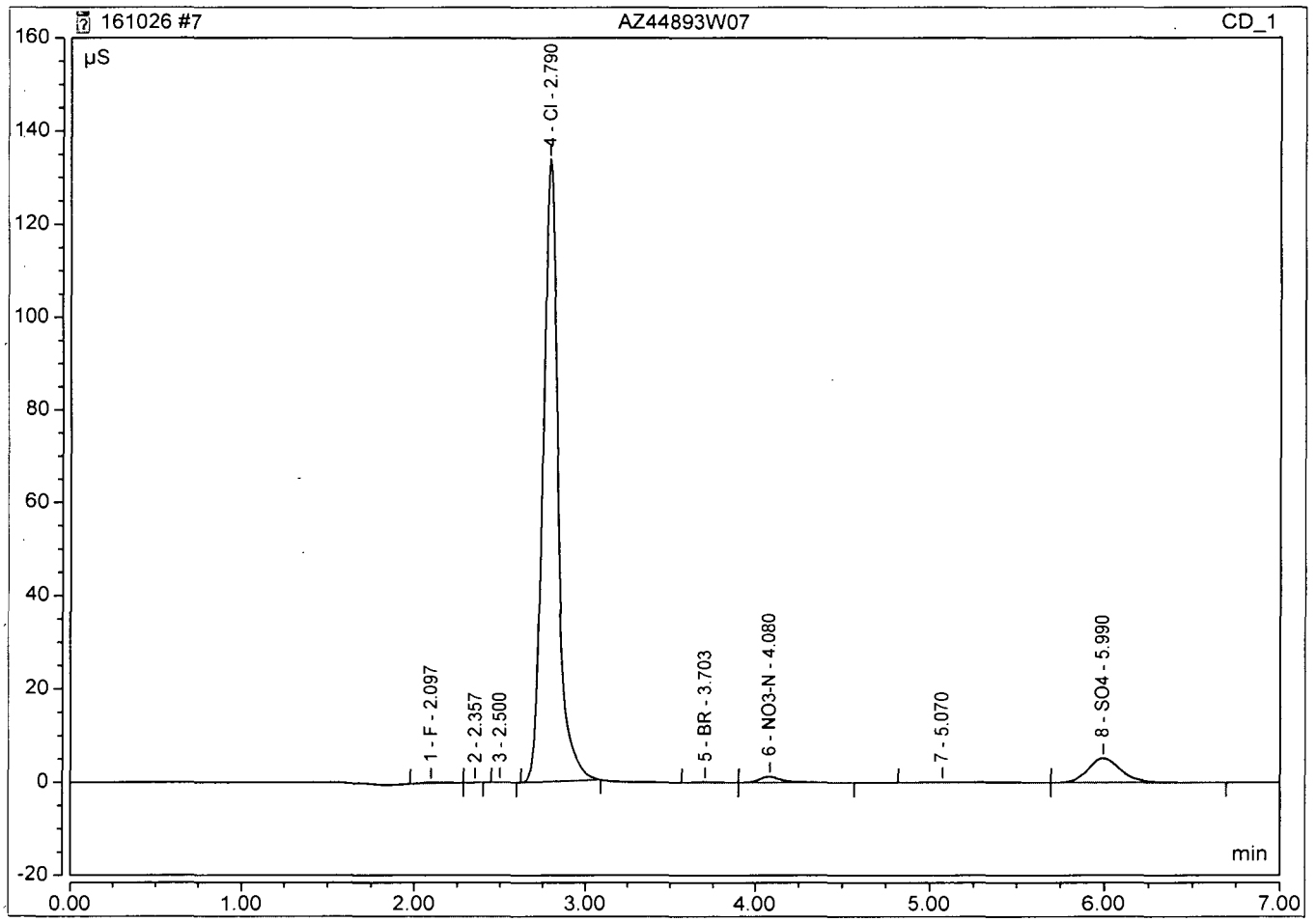
Printed: 11/02/16 5:26:28 PM

APPL-F1-SC-NoMC-REG MDLs

Peak Integration Report

Sample Name:	**AZ44893W07**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**26-Oct-2016 / 12:54**	*Run Time:*	**7.00**

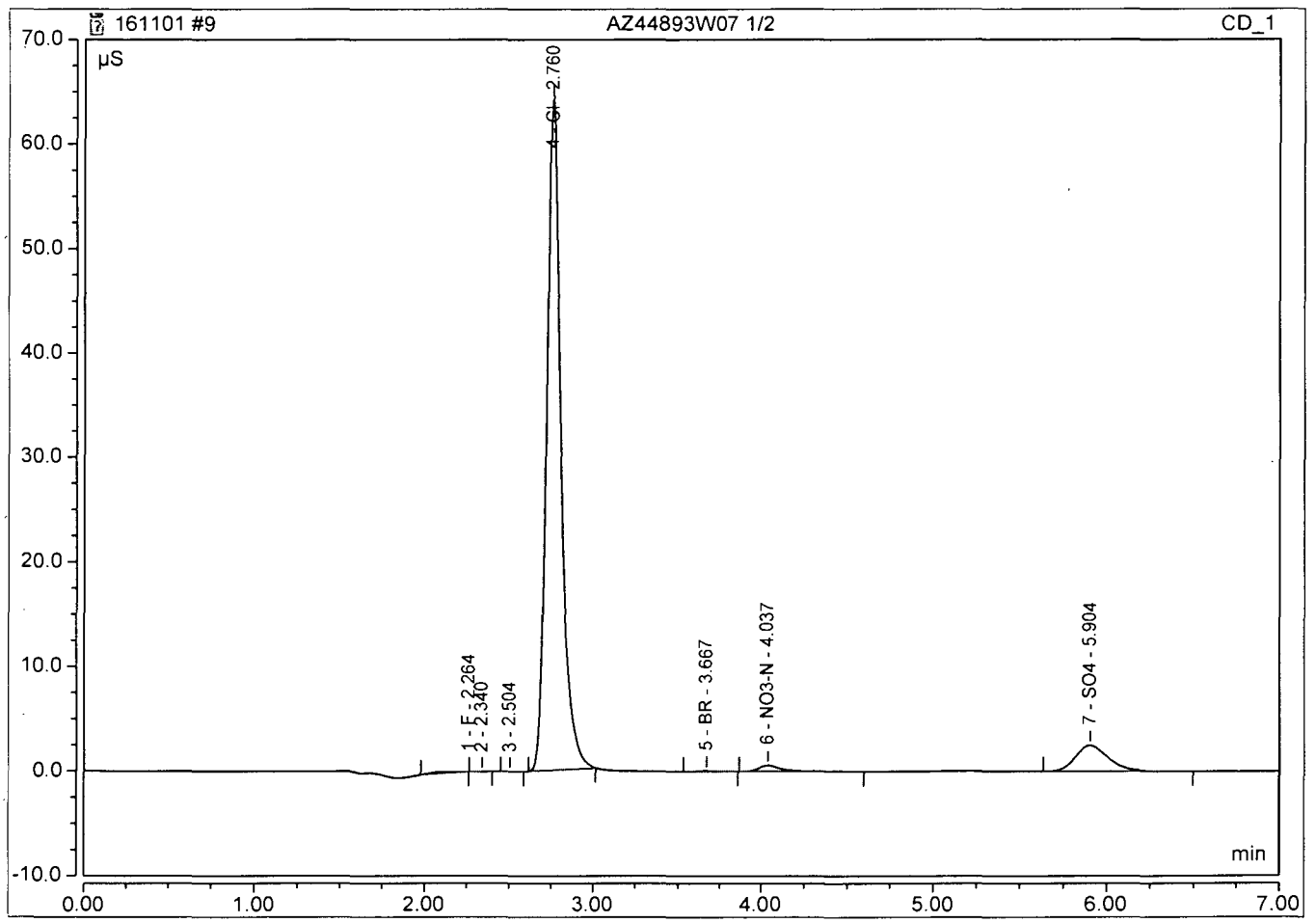
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.027	0.211	0.1569
4	2.79	Cl	BMB	13.744	133.751	76.2026
5	3.70	BR	BMB	0.014	0.113	0.3432
6	4.08	NO3-N	BMB	0.183	1.255	0.5396
8	5.99	SO4	BMB	1.102	5.222	9.5207
TOTAL:				15.07	140.55	86.76



Peak Integration Report

Sample Name:	**AZ44893W07 1/2**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**2.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**01-Nov-2016 / 13:52**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.26	F	BMB	0.025	0.000	0.2956
4	2.76	Cl	BMB	6.336	64.156	70.8163
5	3.67	BR	BMB	0.007	0.057	0.4750
6	4.04	NO3-N	BMB	0.082	0.571	0.5892
7	5.90	SO4	BMB	0.536	2.472	9.7605
TOTAL:				6.99	67.26	81.94



INORGANIC ANALYSIS
Calibration Data

APPL, INC.

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 81287 SDG: 81287

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 05/20/16

Analyte	Calibration Verification									M
	True ICV	Found 12:41	%R(1)	True CCV1	Found 15:56	%R(1)	True CCV1	Found 16:02	%R(1)	
Ferrous Iron	3	3.01396	100	4	3.90310	97.6	4	3.93307	98.3	

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 81287 SDG: 81287

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 05/20/16 12:42	C	CCB 10/26/16 15:57	C	CCB 10/26/16 16:03	C		C		C	
Ferrous Iron	1.000	U	1.000	U	1.000	U					

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No: 81287 SDG: 81287
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 10/20/16

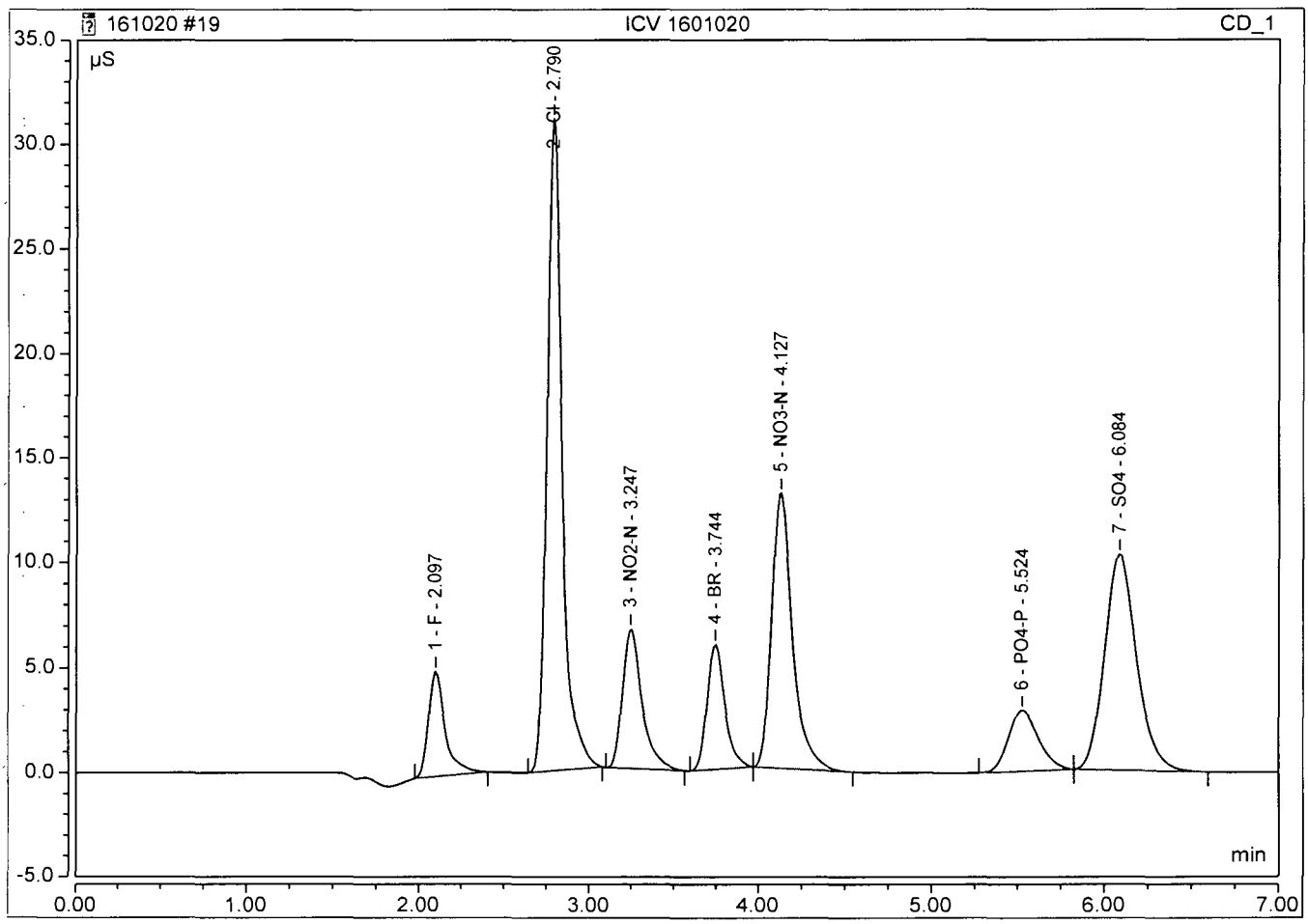
Analyte	Calibration Verification									M
	True ICV	Found 12:37	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
chloride	20	18.2183	91.1							
Nitrate(NO3)	22.1	20.0573	90.8							
sulfate	20	18.4058	92.0							

(1) Control Limits: 90-110

Peak Integration Report

Sample Name:	**ICV 1601020**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 12:37**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.568	5.018	2.5594
2	2.79	Cl	BMB	3.214	31.139	18.2184
3	3.25	NO2-N	BMB	0.894	6.653	2.9873
4	3.74	BR	BMB	0.739	5.970	11.8423
5	4.13	NO3-N	BMB	1.827	13.075	4.5291
6	5.52	PO4-P	BMB	0.590	2.913	4.8011
7	6.08	SO4	BMB	2.187	10.255	18.4058
TOTAL:				10.02	75.02	63.34



Algorithm Check

$y = .412x - .039$

$x = 4.53$ ✓

y: Peak Area
x: Amount

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 81287 SDG: 81287

Preparation Blank Matrix (soil/water): water

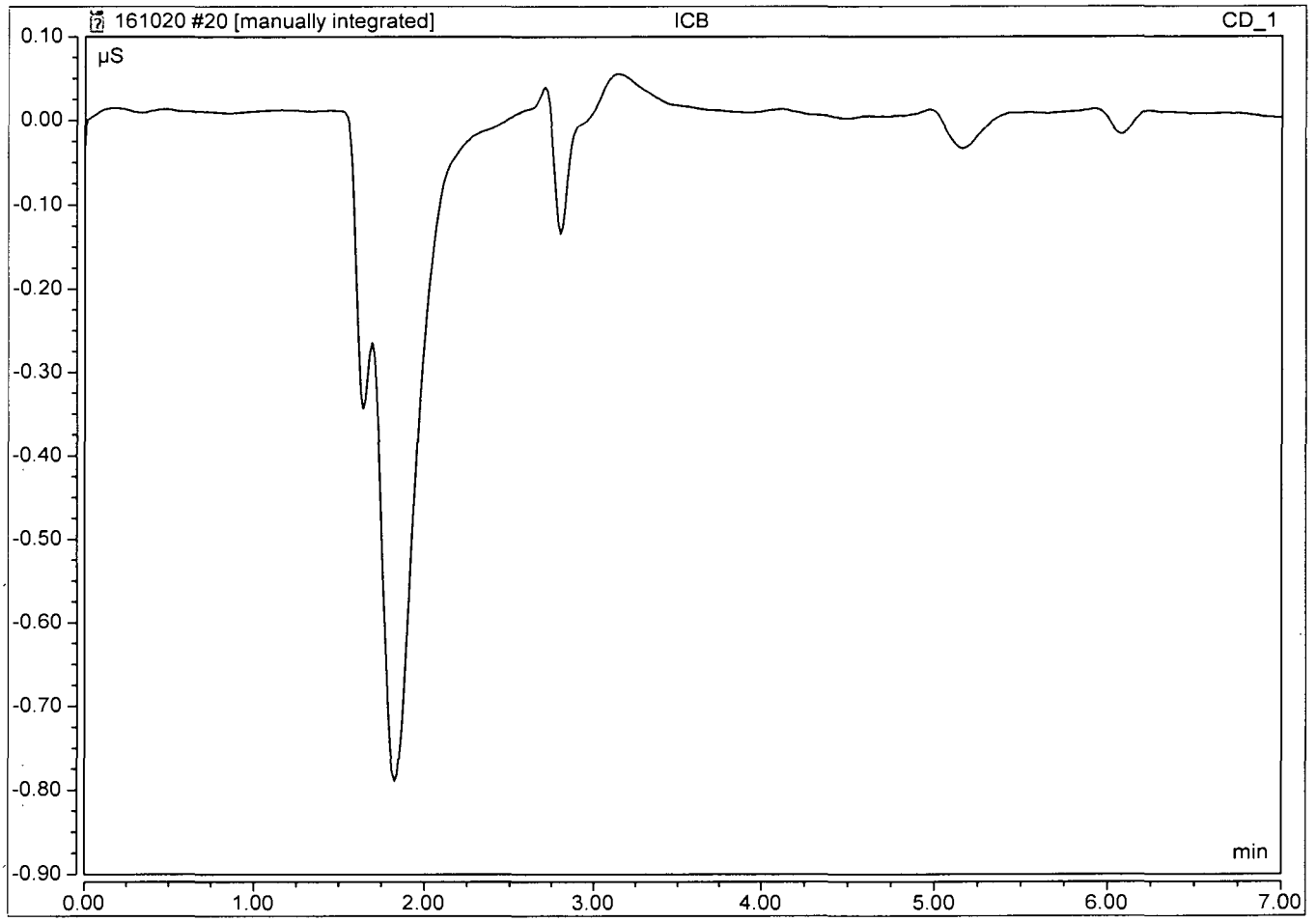
Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 10/20/16 12:50	C		C		C		C		C	
chloride	1.000	U									
Nitrate(NO3)	.500	U									
sulfate	1.000	U									

Peak Integration Report

Sample Name:	**ICB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 12:50**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount n.a.
		TOTAL:		0.00	0.00	0.00



A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No: 81287 SDG: 81287
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 10/26/16

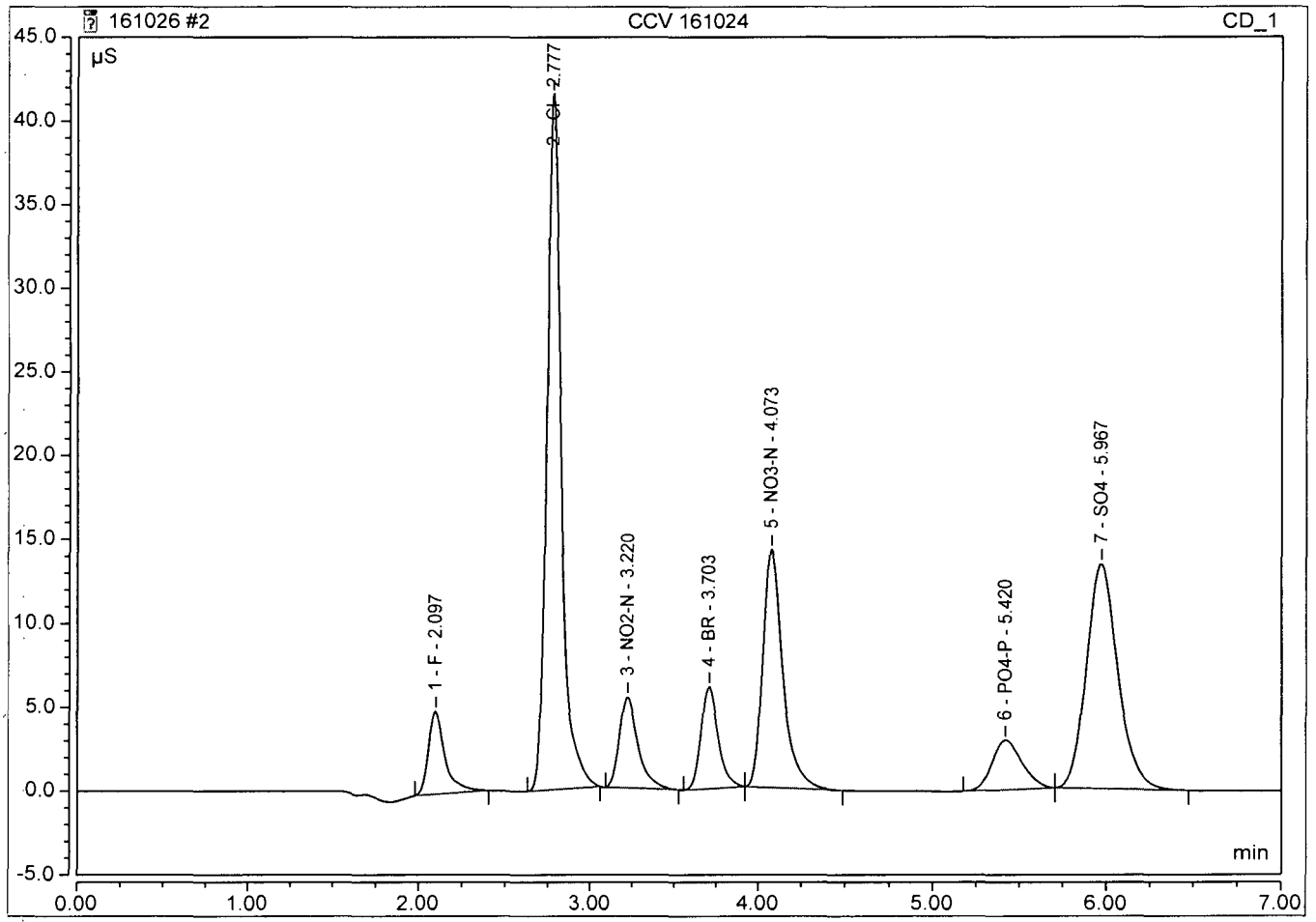
Analyte	Calibration Verification									M
	True CCV1	Found 11:48	%R(1)	True CCV1	Found 15:52	%R(1)	True	Found	%R(1)	
Nitrate(NO3)	22.1	20.9397	94.7	22.1	20.9831	94.9				
sulfate	25	23.3537	93.4	25	23.3467	93.4				

(1) Control Limits: 90-110

Peak Integration Report

Sample Name:	**CCV 161024**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**26-Oct-2016 / 11:48**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.549	4.961	2.4742
2	2.78	Cl	BMB	4.146	41.488	23.3481
3	3.22	NO2-N	BMB	0.698	5.430	2.3373
4	3.70	BR	BMB	0.731	6.084	11.7070
5	4.07	NO3-N	BMB	1.909	14.157	4.7283
6	5.42	PO4-P	BMB	0.585	2.955	4.7616
7	5.97	SO4	BMB	2.792	13.377	23.3537
TOTAL:				11.41	88.45	72.71



Algorithm Check y=Peak Area x=Amount

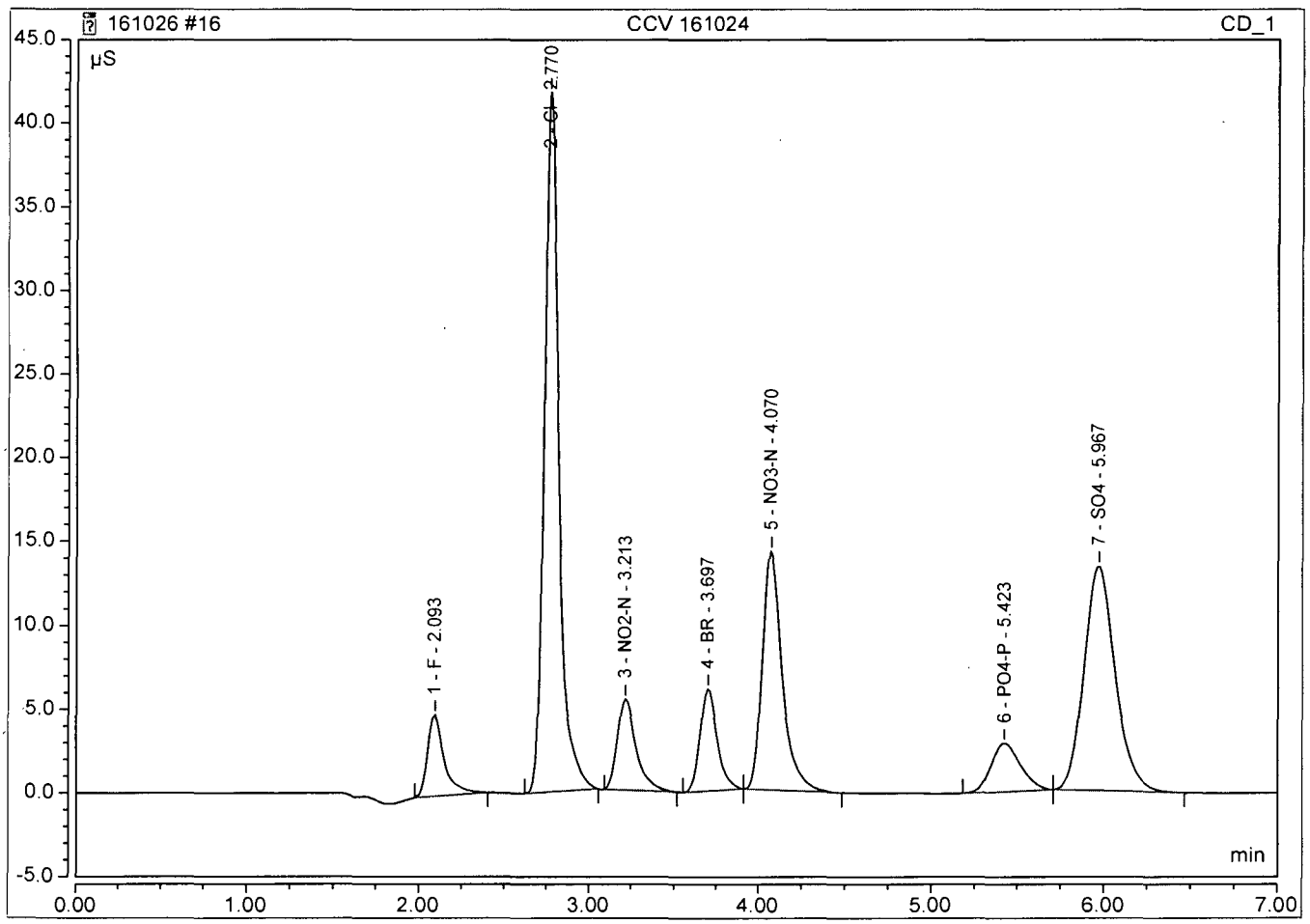
y= .412x-.039

x= 4.73✓ mm 11/2/16

Peak Integration Report

Sample Name:	**CCV 161024**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**26-Oct-2016 / 15:52**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.09	**F**	BMB	0.544	4.869	2.4529
2	2.77	**Cl**	BMB	4.156	41.753	23.4064
3	3.21	**NO2-N**	BMB	0.699	5.431	2.3420
4	3.70	**BR**	BMB	0.733	6.104	11.7483
5	4.07	**NO3-N**	BMB	1.913	14.186	4.7381
6	5.42	**PO4-P**	BMB	0.576	2.900	4.6922
7	5.97	**SO4**	BMB	2.791	13.362	23.3467
TOTAL:				11.41	88.61	72.73



A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 81287 SDG: 81287

Preparation Blank Matrix (soil/water): water

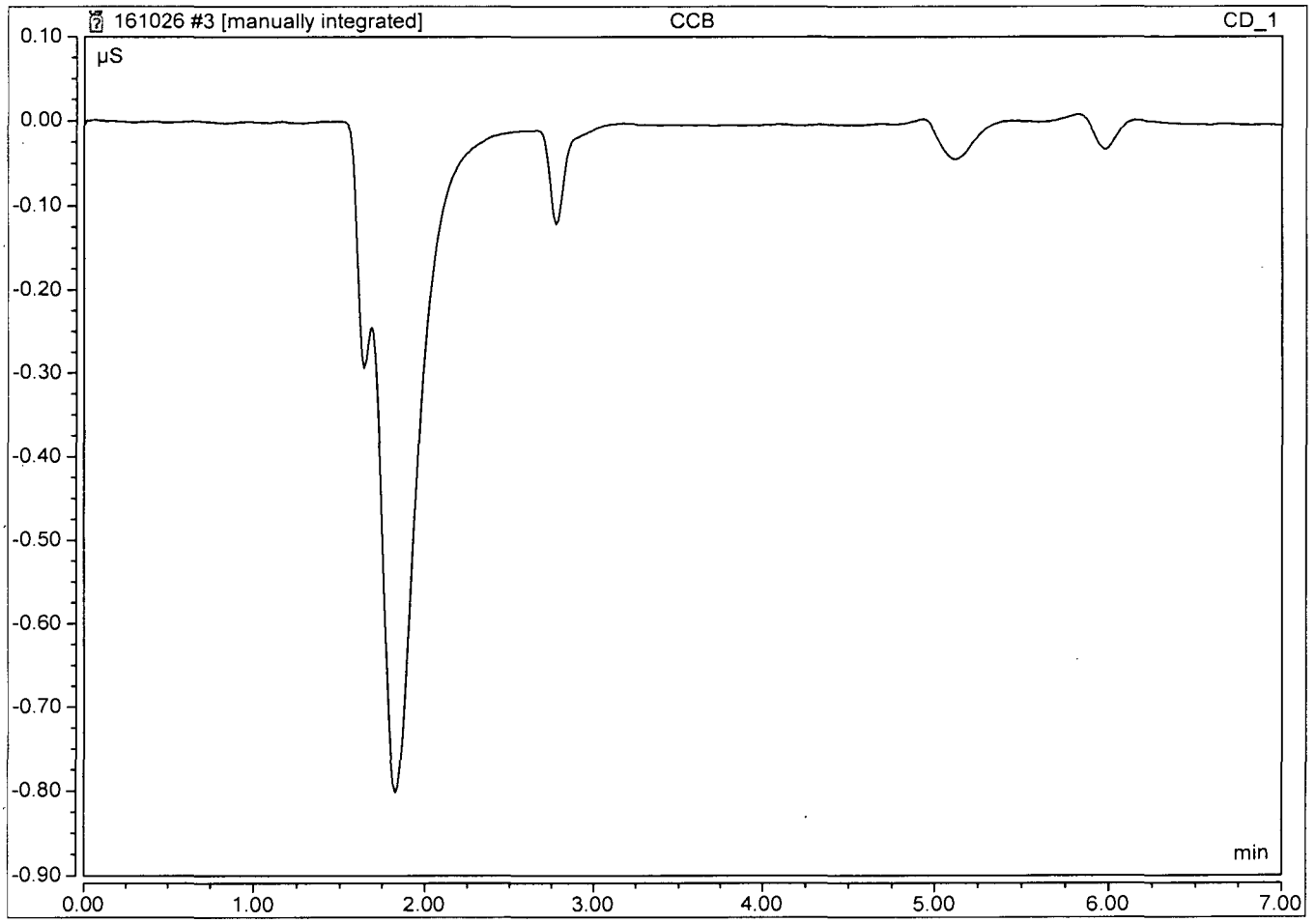
Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 10/26/16 12:02	C	CCB 10/26/16 16:05	C		C		C		C	
Nitrate(NO3)	.500	U	.500	U							
sulfate	1.000	U	1.000	U							

Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**26-Oct-2016 / 12:02**	*Run Time:*	**7.00**

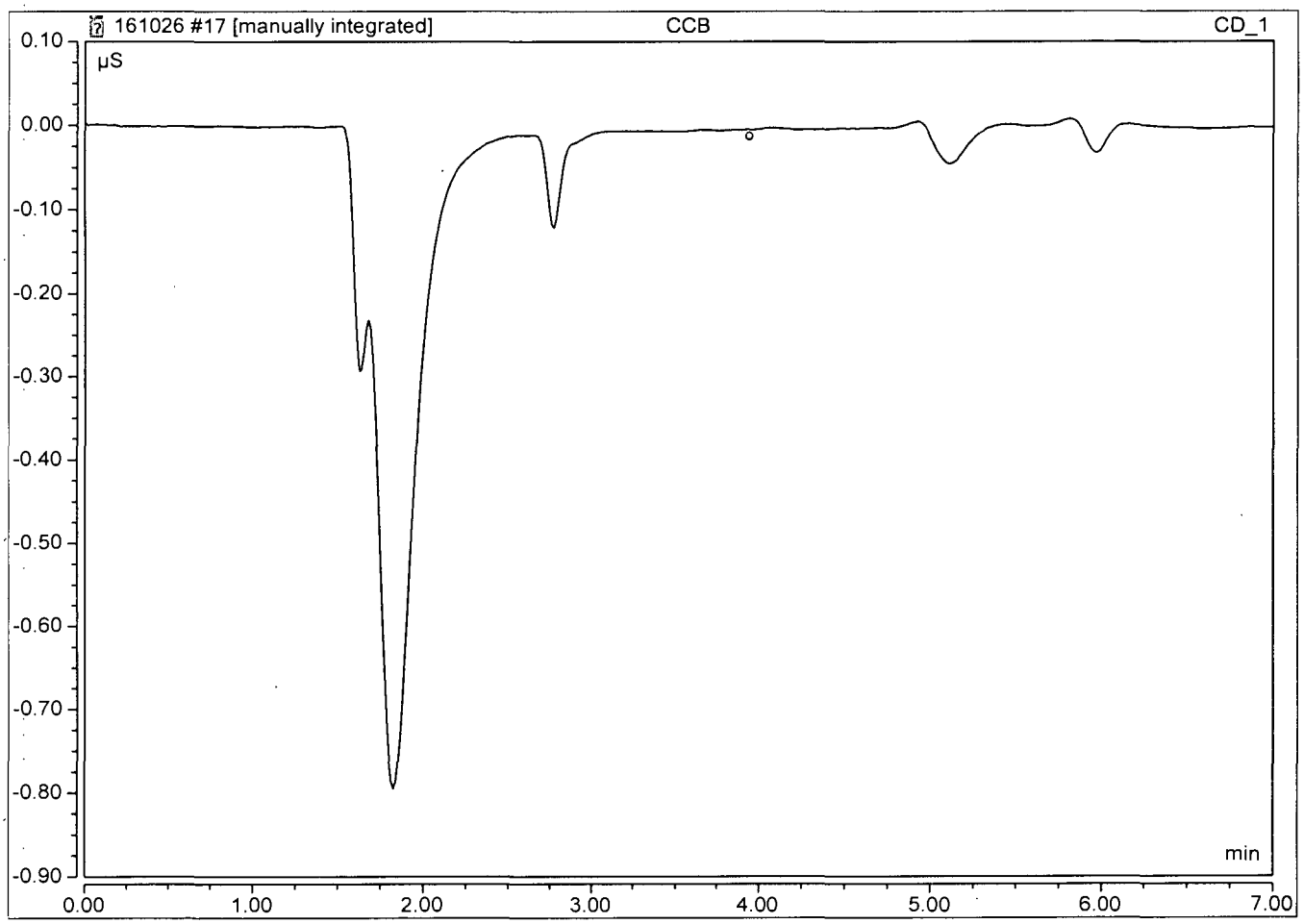
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount n.a.
TOTAL:				0.00	0.00	0.00



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**26-Oct-2016 / 16:05**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount n.a.
		TOTAL:		0.00	0.00	0.00



A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 81287 SDG: 81287

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 11/01/16

Analyte	Calibration Verification									M
	True CCV1	Found 12:33	%R(1)	True CCV1	Found 16:28	%R(1)	True	Found	%R(1)	
chloride	25	23.838	95.4	25	23.8869	95.5				

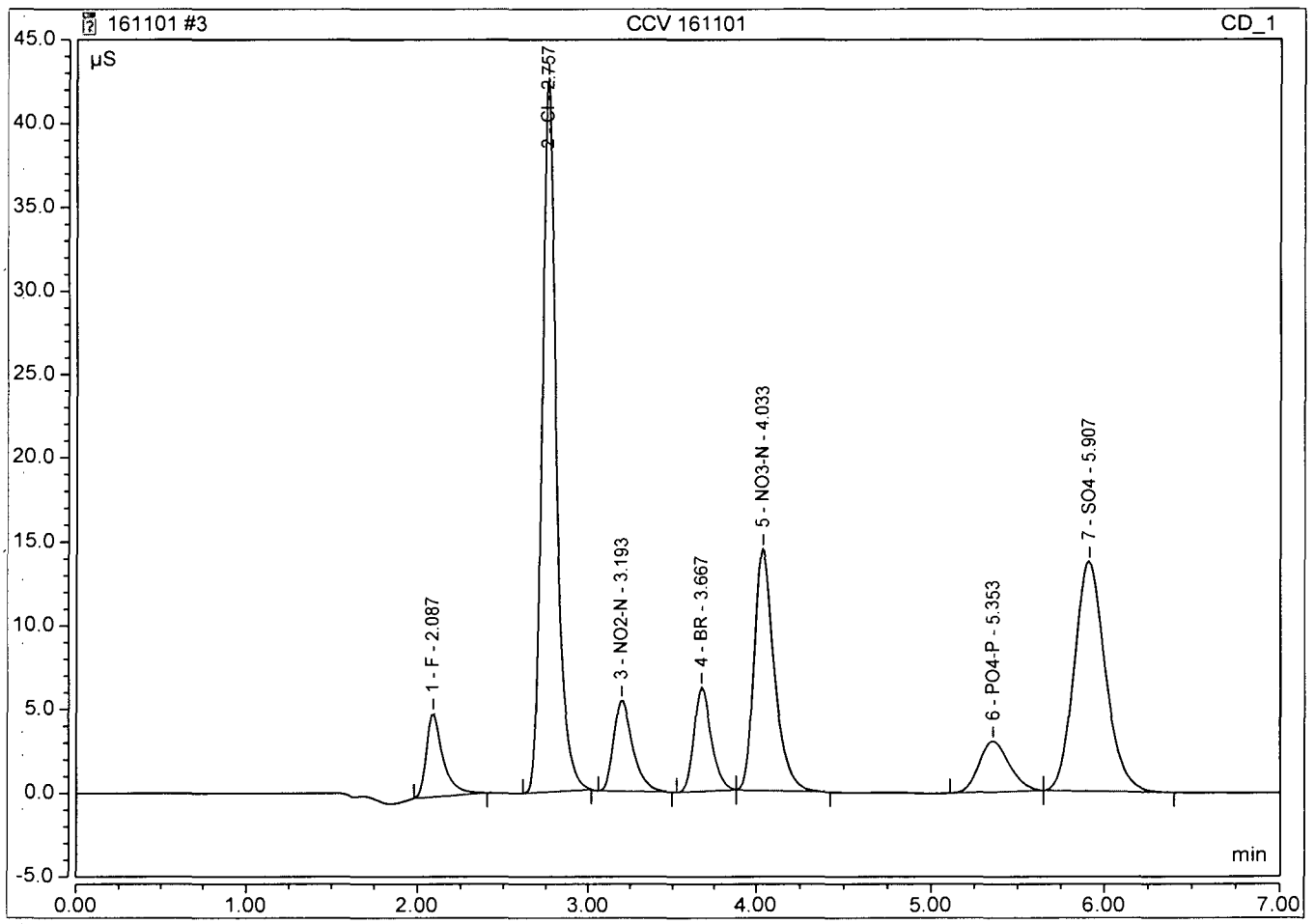
(1) Control Limits: 90-110

ILM02.0

Peak Integration Report

Sample Name:	**CCV 161101**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**01-Nov-2016 / 12:33**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.09	F	BMB	0.558	4.990	2.5148
2	2.76	Cl	BMB	4.235	42.620	23.8380
3	3.19	NO2-N	BMB	0.710	5.416	2.3771
4	3.67	BR	BMB	0.760	6.215	12.1783
5	4.03	NO3-N	BMB	1.951	14.406	4.8312
6	5.35	PO4-P	BMB	0.603	3.031	4.9062
7	5.91	SO4	BMB	2.842	13.701	23.7627
TOTAL:				11.66	90.38	74.41



Algorithm Check y: Peak Area
x: Amount

y = .412x − .039

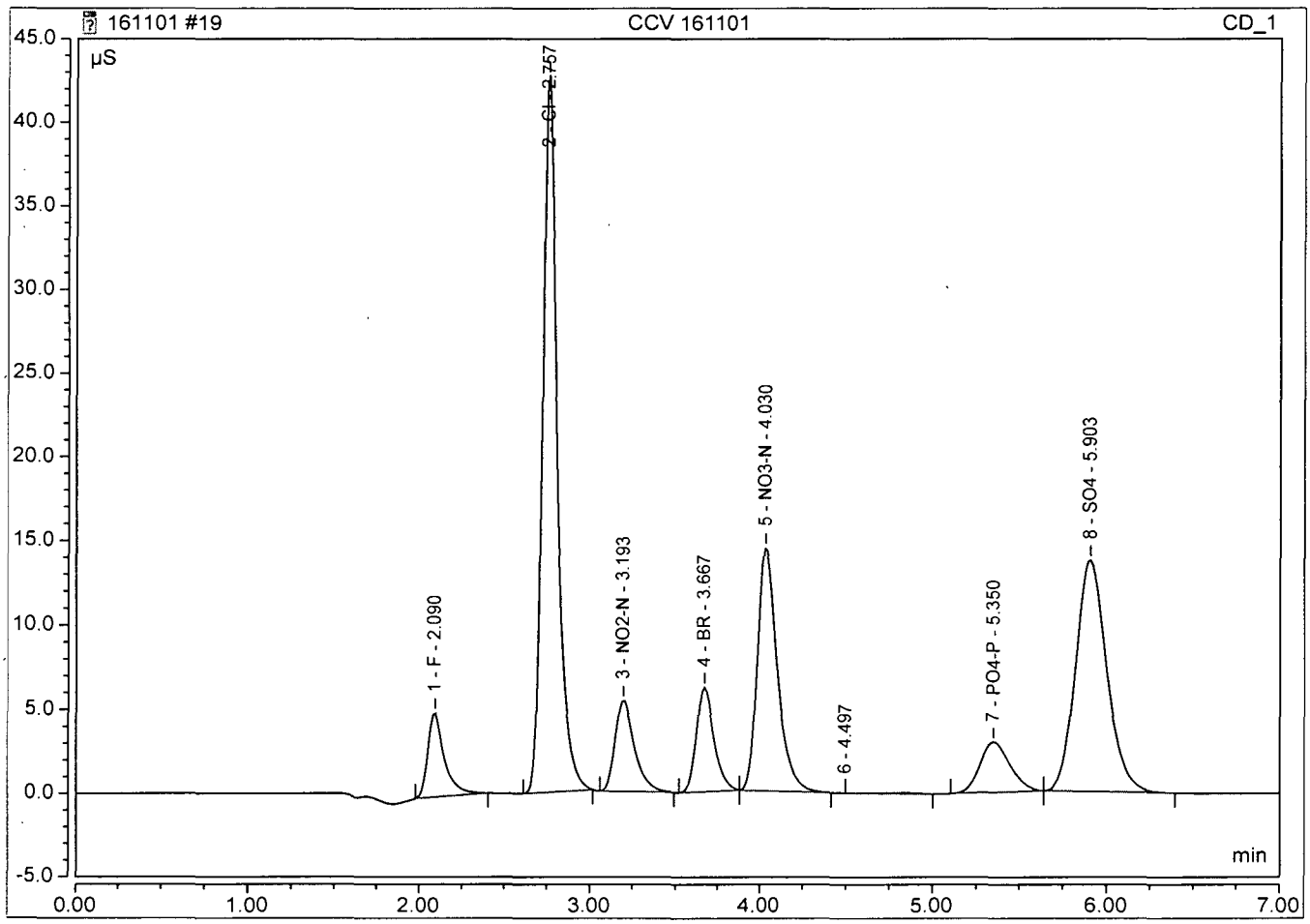
x = 4.83 ✓

MM 11/2/16

Peak Integration Report

Sample Name:	**CCV 161101**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**01-Nov-2016 / 16:28**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.09	F	BMB	0.561	5.030	2.5310
2	2.76	Cl	BMB	4.244	42.700	23.8869
3	3.19	NO2-N	BMB	0.712	5.432	2.3848
4	3.67	BR	BMB	0.762	6.232	12.2009
5	4.03	NO3-N	BMB	1.958	14.425	4.8484
7	5.35	PO4-P	BMB	0.605	3.020	4.9199
8	5.90	SO4	BMB	2.854	13.742	23.8640
TOTAL:				11.70	90.58	74.64



A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 81287 SDG: 81287

Preparation Blank Matrix (soil/water): water

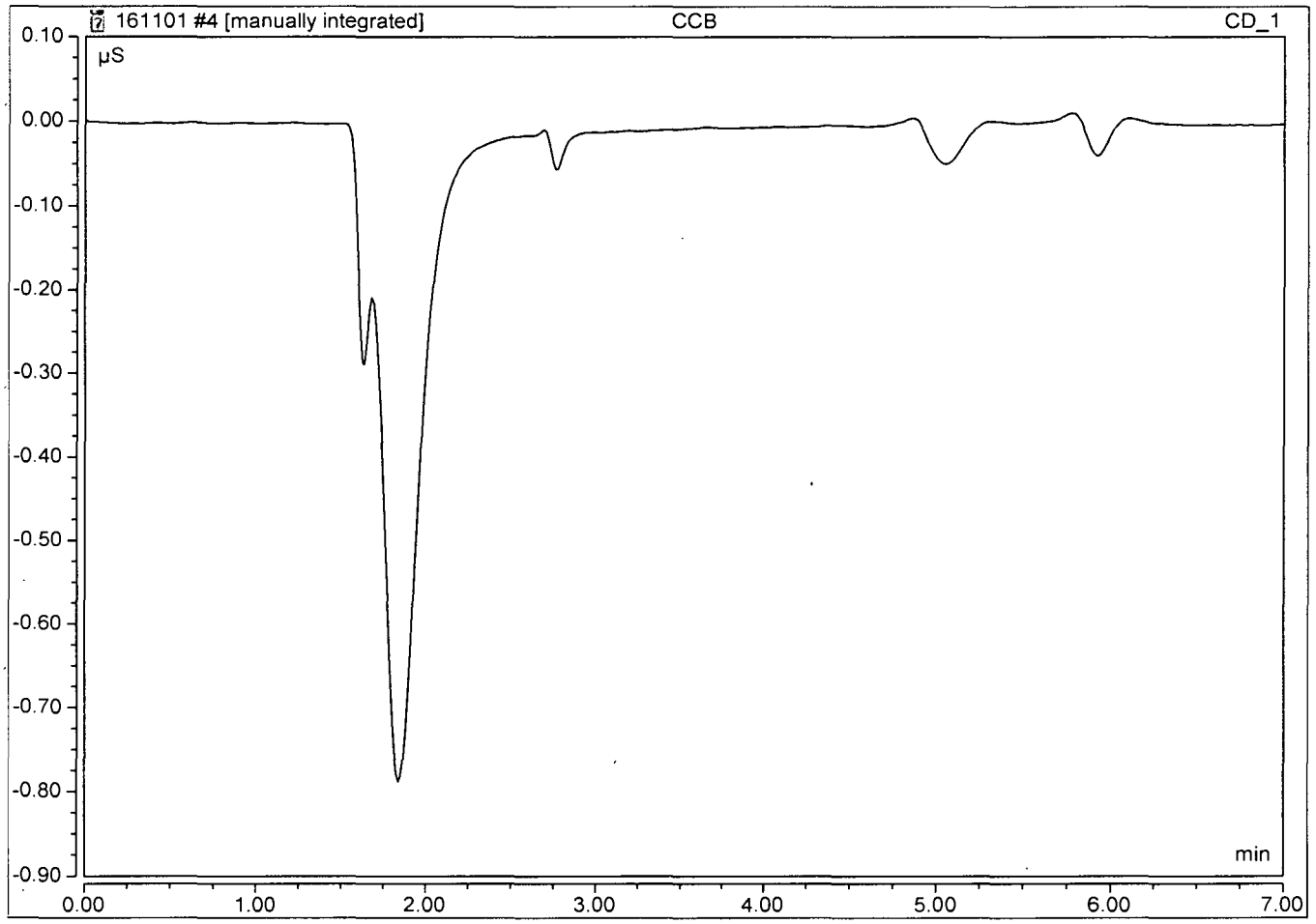
Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 11/01/16 12:46	C	CCB 11/01/16 16:41	C		C		C		C	
chloride	1.000	U	1.000	U							

Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**01-Nov-2016 / 12:46**	*Run Time:*	**7.00**

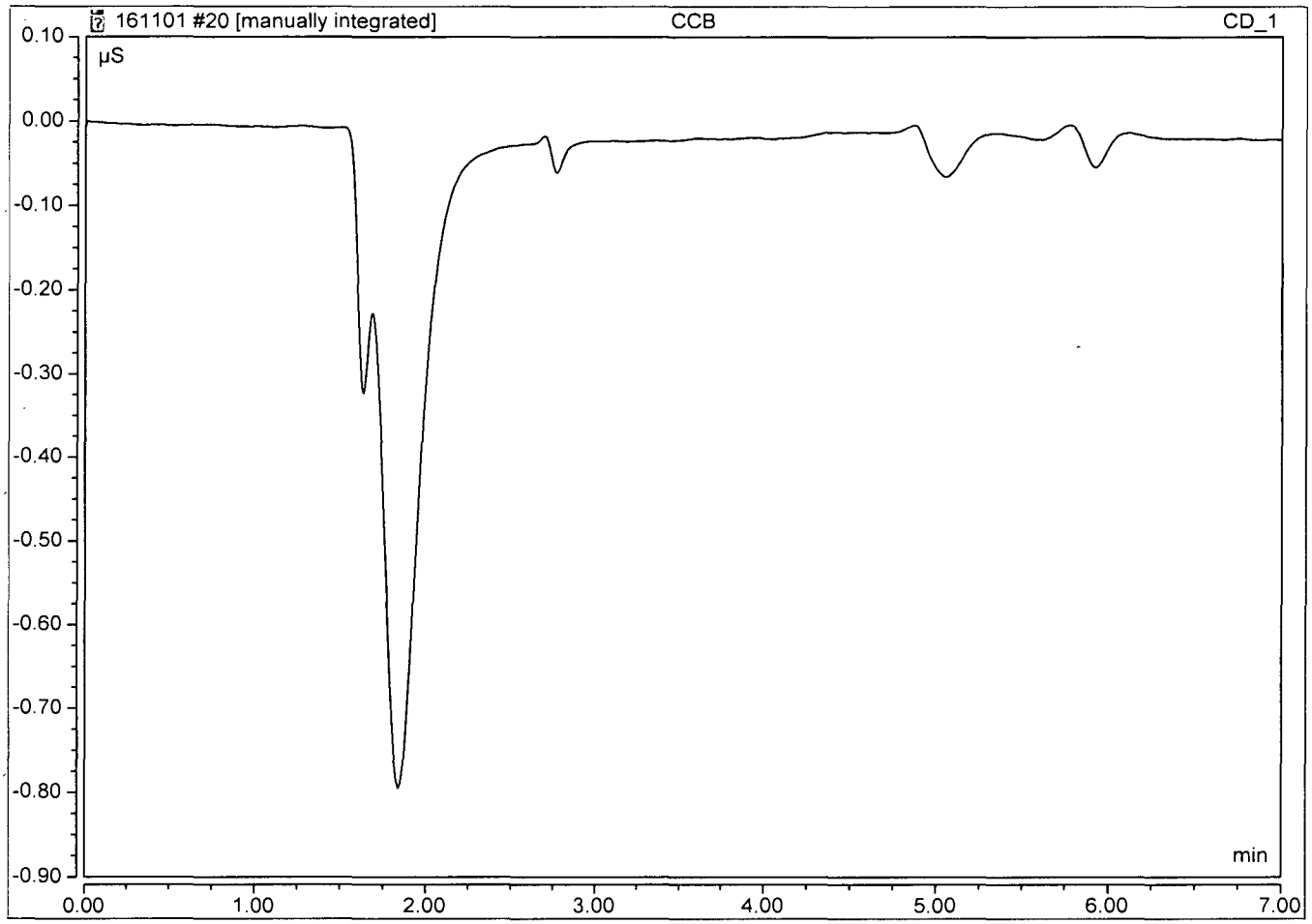
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount n.a.
		TOTAL:		0.00	0.00	0.00



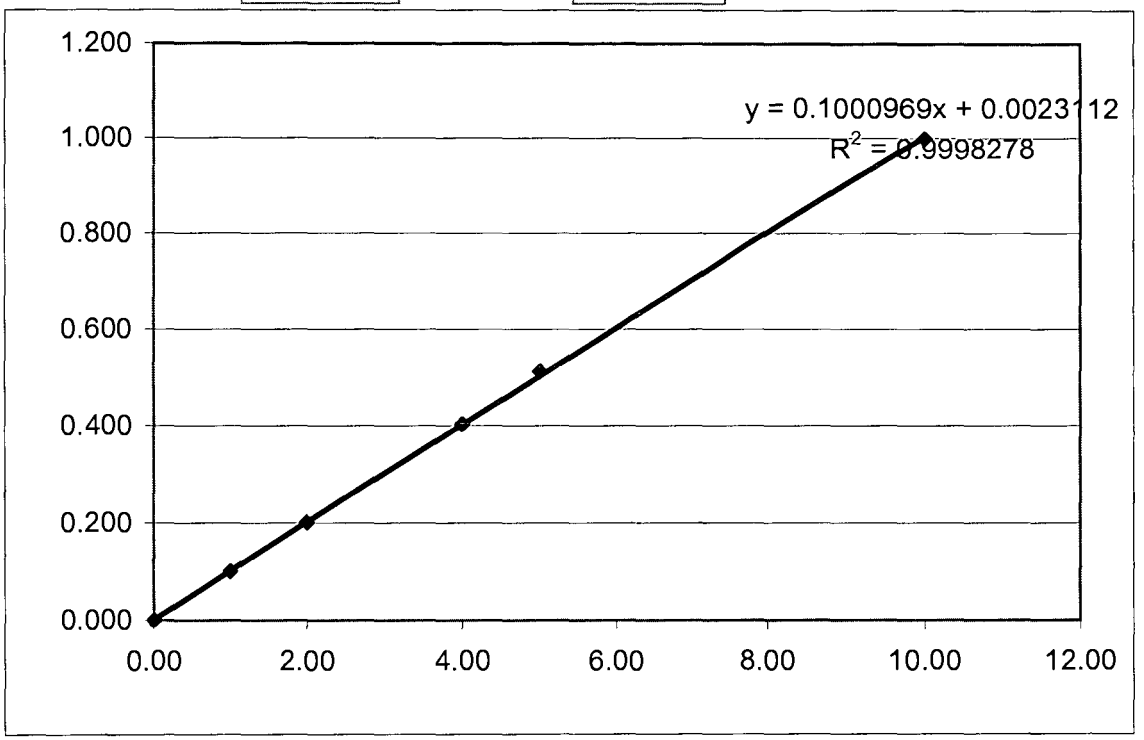
Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**01-Nov-2016 / 16:41**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount n.a.
		TOTAL:		0.00	0.00	0.00



Ferrous Iron **161026A**



X	Y
0.00	0.000
1.00	0.101
2.00	0.201
4.00	0.403
5.00	0.512
10.00	0.999

Algorithm Check

reading (y)=	0.295	10/26/16	15:58
dilution=	1		
result (x)=	2.92 ✓		

MM 11/2/16

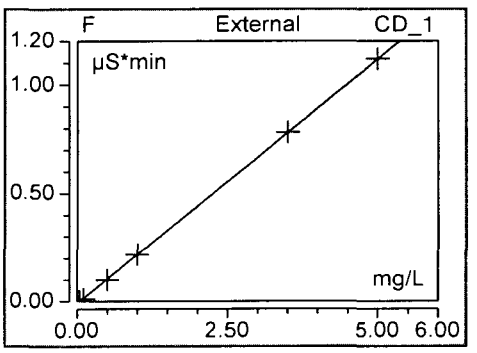
Calibration Batch Report

Sequence:	**161020**	*Injection Volume:*	**25.00**
Instrument Method:	**Program 1**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 12:24**	*Run Time:*	**7**

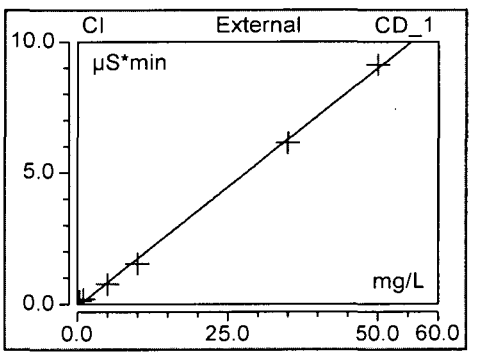
Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
F	Area	WithOffset,	6.000	-0.009	0.225	0.000	99.9840
Cl	Area	in, WithOffse	6.000	-0.094	0.182	0.000	99.8613
NO2-N	Area	in, WithOffse	6.000	-0.007	0.301	0.000	99.9917
BR	Area	in, WithOffse	6.000	-0.008	0.063	0.000	99.9802
NO3-N	Area	in, WithOffse	6.000	-0.039	0.412	0.000	99.9329
PO4-P	Area	in, WithOffse	6.000	-0.008	0.125	0.000	99.9563
SO4	Area	in, WithOffse	6.000	-0.060	0.122	0.000	99.9400
		AVERAGE:		-0.0322	0.2043	0.0000	99.9495

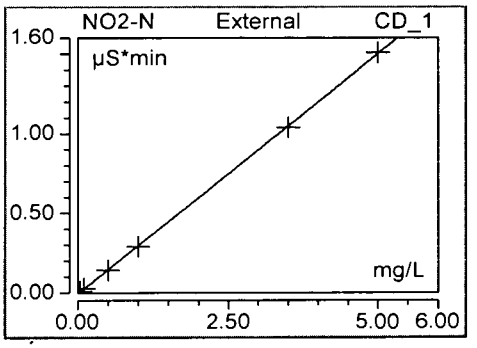
Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	F	F	F	F
ICAL 1 10/20/16	2.123	0.0012	0.022	0.044
ICAL 2 10/20/16	2.107	0.0123	0.139	0.093
ICAL 3 10/20/16	2.100	0.1000	0.922	0.483
ICAL 4 10/20/16	2.104	0.2174	1.958	1.004
ICAL 5 10/20/16	2.097	0.7826	6.953	3.513
ICAL 6 10/20/16	2.103	1.1183	9.996	5.004
Average	2.106			
Rel. Std. Dev.	0.443 %			



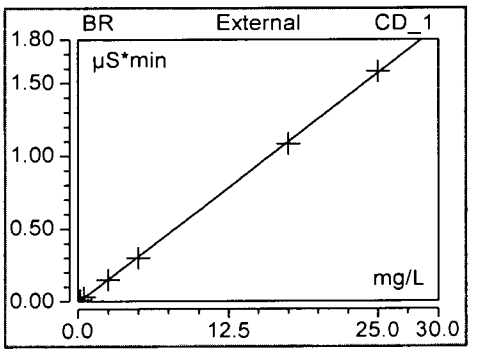
Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	Cl	Cl	Cl	Cl
ICAL 1 10/20/16	2.793	0.1132	1.052	1.143
ICAL 2 10/20/16	2.790	0.1861	1.743	1.544
ICAL 3 10/20/16	2.790	0.7617	7.117	4.714
ICAL 4 10/20/16	2.797	1.5419	14.708	9.010
ICAL 5 10/20/16	2.793	6.1288	59.398	34.268
ICAL 6 10/20/16	2.803	9.1171	87.978	50.723
Average	2.795			
Rel. Std. Dev.	0.179 %			



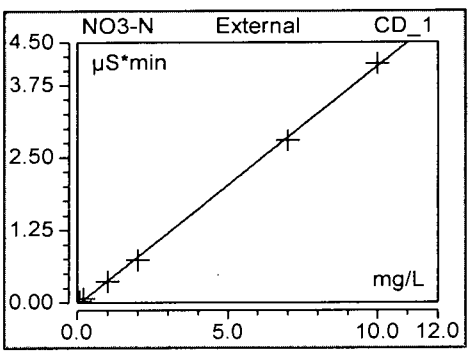
Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	NO2-N	NO2-N	NO2-N	NO2-N
ICAL 1 10/20/16	3.250	0.0095	0.073	0.053
ICAL 2 10/20/16	3.247	0.0276	0.209	0.113
ICAL 3 10/20/16	3.250	0.1420	1.072	0.493
ICAL 4 10/20/16	3.254	0.2907	2.188	0.986
ICAL 5 10/20/16	3.250	1.0405	7.775	3.473
ICAL 6 10/20/16	3.257	1.5072	11.205	5.022
Average	3.251			
Rel. Std. Dev.	0.106 %			



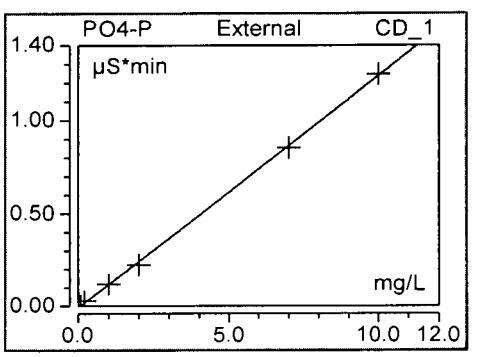
Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	BR	BR	BR	BR
ICAL 1 10/20/16	3.757	0.0109	0.087	0.299
ICAL 2 10/20/16	3.753	0.0293	0.232	0.589
ICAL 3 10/20/16	3.750	0.1485	1.179	2.478
ICAL 4 10/20/16	3.754	0.2993	2.389	4.870
ICAL 5 10/20/16	3.743	1.0832	8.801	17.295
ICAL 6 10/20/16	3.747	1.5800	13.023	25.169
Average	3.751			
Rel. Std. Dev.	0.131 %			



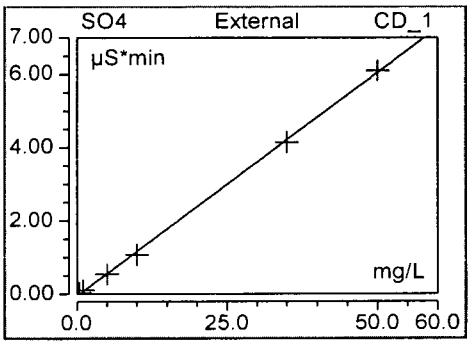
Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	NO3-N	NO3-N	NO3-N	NO3-N
ICAL 1 10/20/16	4.143	0.0290	0.196	0.166
ICAL 2 10/20/16	4.140	0.0717	0.496	0.270
ICAL 3 10/20/16	4.137	0.3656	2.533	0.983
ICAL 4 10/20/16	4.140	0.7330	5.168	1.875
ICAL 5 10/20/16	4.123	2.7923	20.144	6.873
ICAL 6 10/20/16	4.123	4.1278	30.098	10.114
Average	4.135			
Rel. Std. Dev.	0.215 %			



Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	PO4-P	PO4-P	PO4-P	PO4-P
ICAL 1 10/20/16	5.540	0.0032	0.021	0.092
ICAL 2 10/20/16	5.540	0.0284	0.107	0.295
ICAL 3 10/20/16	5.537	0.1191	0.557	1.022
ICAL 4 10/20/16	5.537	0.2251	1.103	1.873
ICAL 5 10/20/16	5.520	0.8544	4.243	6.922
ICAL 6 10/20/16	5.523	1.2473	6.244	10.075
Average	5.533			
Rel. Std. Dev.	0.160 %			



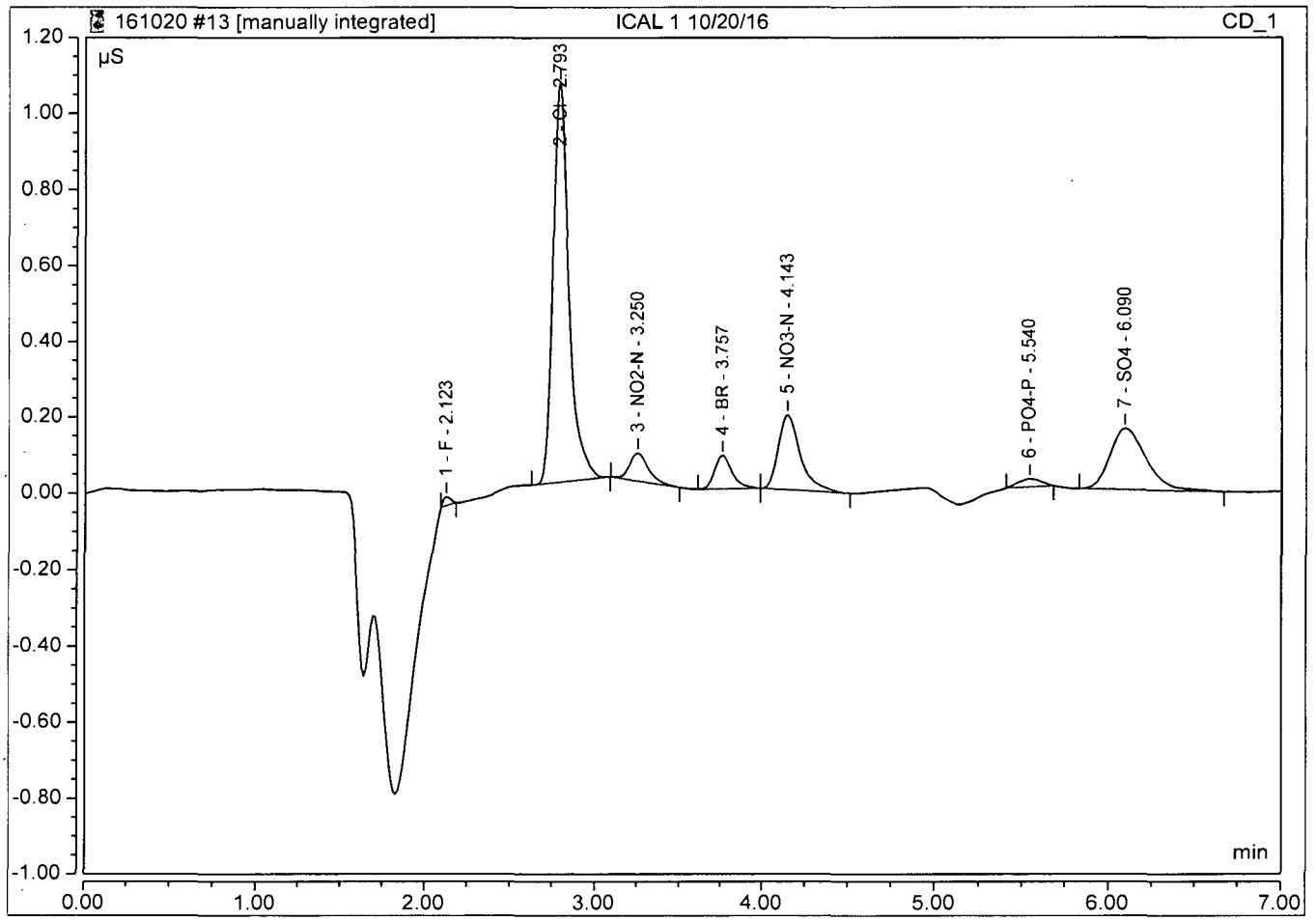
Injection Name	Ret.Time min CD_1	Area µS*min CD_1	Height µS CD_1	Amount mg/L CD_1
	SO4	SO4	SO4	SO4
ICAL 1 10/20/16	6.090	0.0385	0.159	0.808
ICAL 2 10/20/16	6.093	0.1046	0.455	1.350
ICAL 3 10/20/16	6.097	0.5456	2.464	4.961
ICAL 4 10/20/16	6.100	1.0756	4.975	9.302
ICAL 5 10/20/16	6.097	4.1512	19.714	34.487
ICAL 6 10/20/16	6.110	6.1057	29.270	50.492
Average	6.098			
Rel. Std. Dev.	0.113 %			



Peak Integration Report

Sample Name:	**ICAL 1 10/20/16**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 11:19**	*Run Time:*	**7.00**

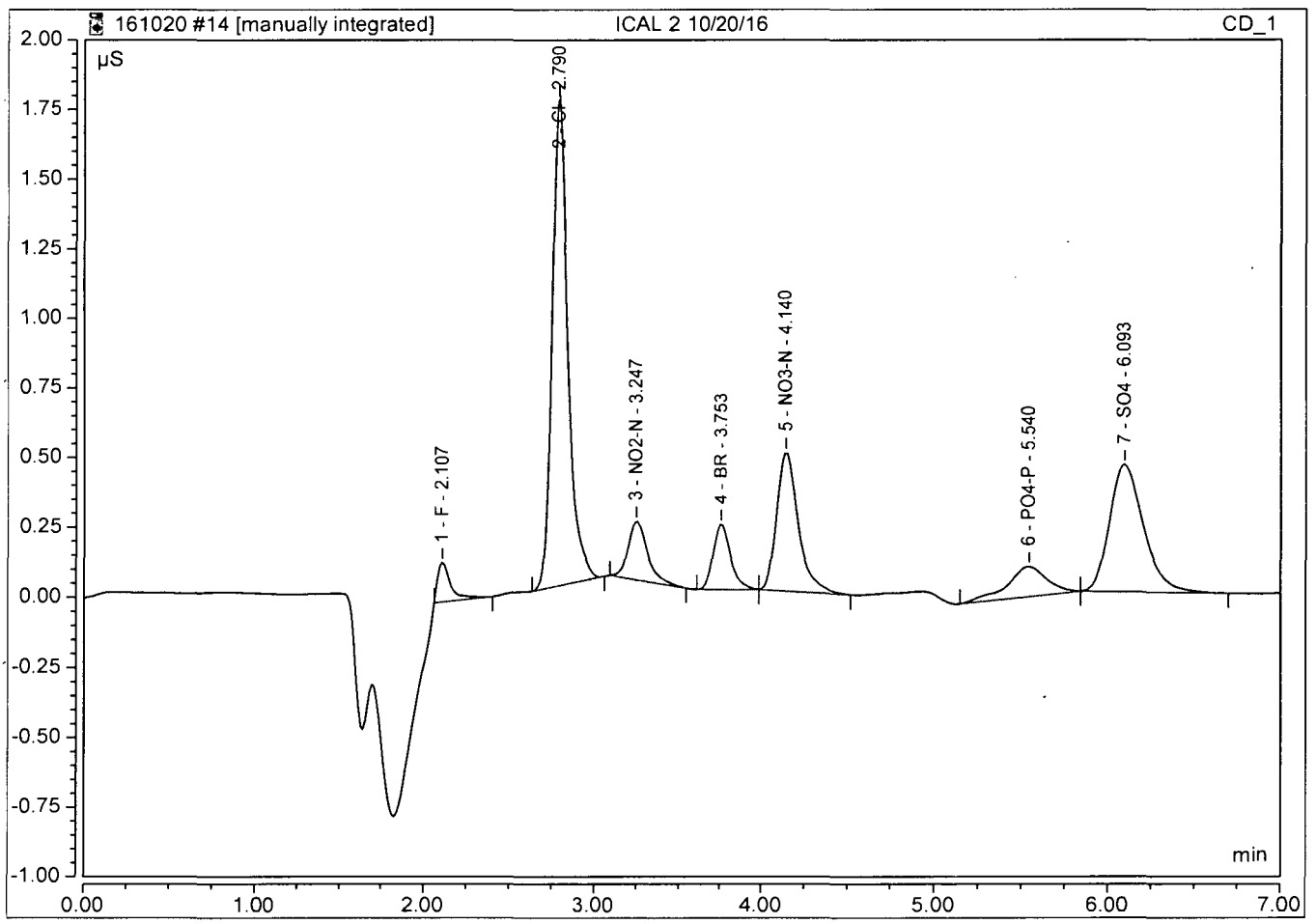
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.12	F	BMB*	0.001	0.022	0.0438
2	2.79	Cl	BMB	0.113	1.052	1.1427
3	3.25	NO2-N	BMB	0.009	0.073	0.0531
4	3.76	BR	BMB	0.011	0.087	0.2985
5	4.14	NO3-N	BMB	0.029	0.196	0.1660
6	5.54	PO4-P	BMB*	0.003	0.021	0.0923
7	6.09	SO4	BMB	0.038	0.159	0.8084
TOTAL:				0.21	1.61	2.60



Peak Integration Report

Sample Name:	**ICAL 2 10/20/16**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 11:32**	*Run Time:*	**7.00**

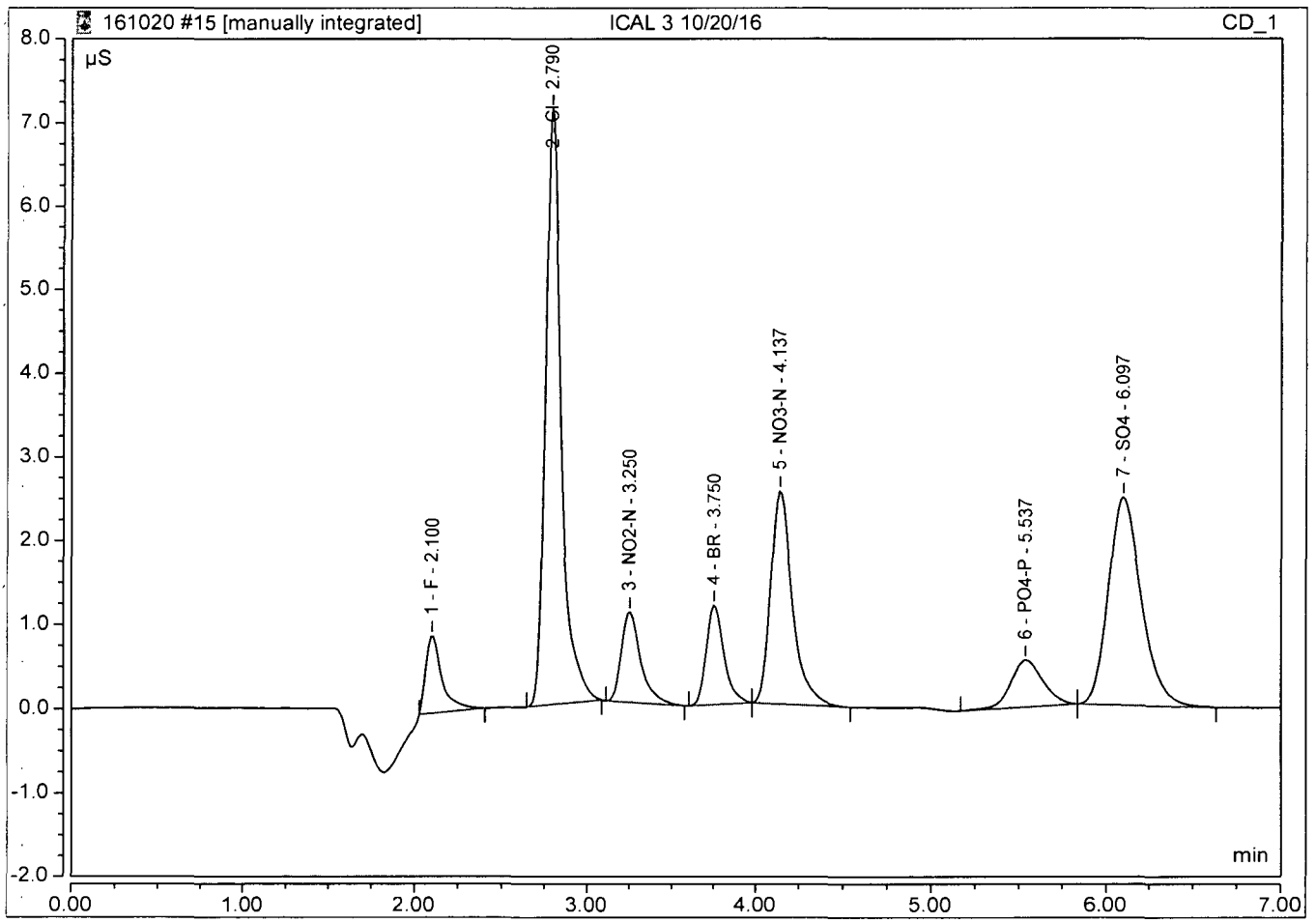
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.11	F	BMB*	0.012	0.139	0.0933
2	2.79	Cl	BMB	0.186	1.743	1.5439
3	3.25	NO2-N	BMB	0.028	0.209	0.1132
4	3.75	BR	BMB	0.029	0.232	0.5894
5	4.14	NO3-N	BMB	0.072	0.496	0.2699
6	5.54	PO4-P	BMB	0.028	0.107	0.2946
7	6.09	SO4	BMB	0.105	0.455	1.3496
TOTAL:				0.46	3.38	4.25



Peak Integration Report

Sample Name:	**ICAL 3 10/20/16**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 11:45**	*Run Time:*	**7.00**

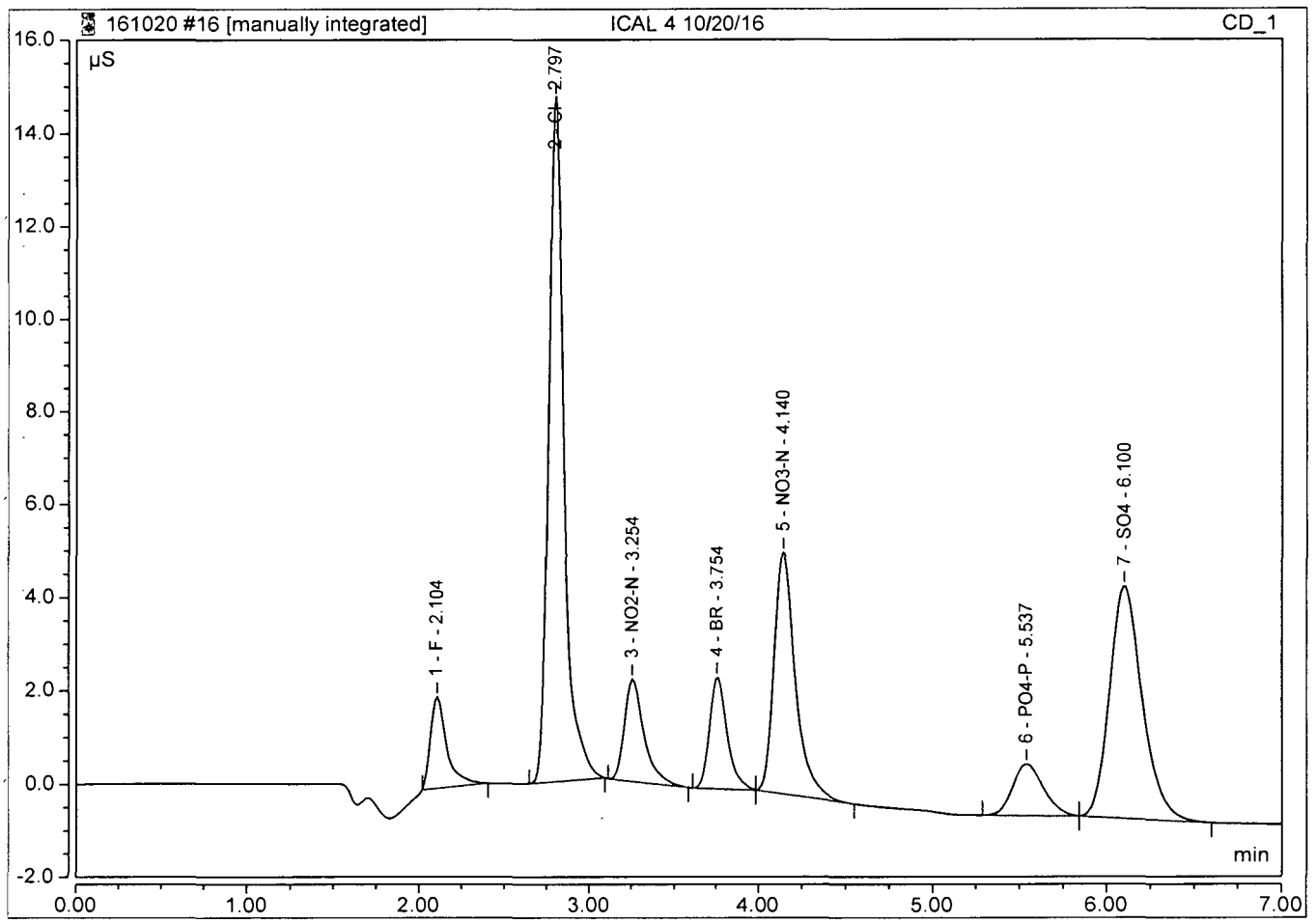
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB*	0.100	0.922	0.4827
2	2.79	Cl	BMB	0.762	7.117	4.7137
3	3.25	NO2-N	BMB	0.142	1.072	0.4926
4	3.75	BR	BMB	0.148	1.179	2.4784
5	4.14	NO3-N	BMB	0.366	2.533	0.9830
6	5.54	PO4-P	BMB	0.119	0.557	1.0221
7	6.10	SO4	BMB	0.546	2.464	4.9609
TOTAL:				2.18	15.84	15.13



Peak Integration Report

Sample Name:	**ICAL 4 10/20/16**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 11:58**	*Run Time:*	**7.00**

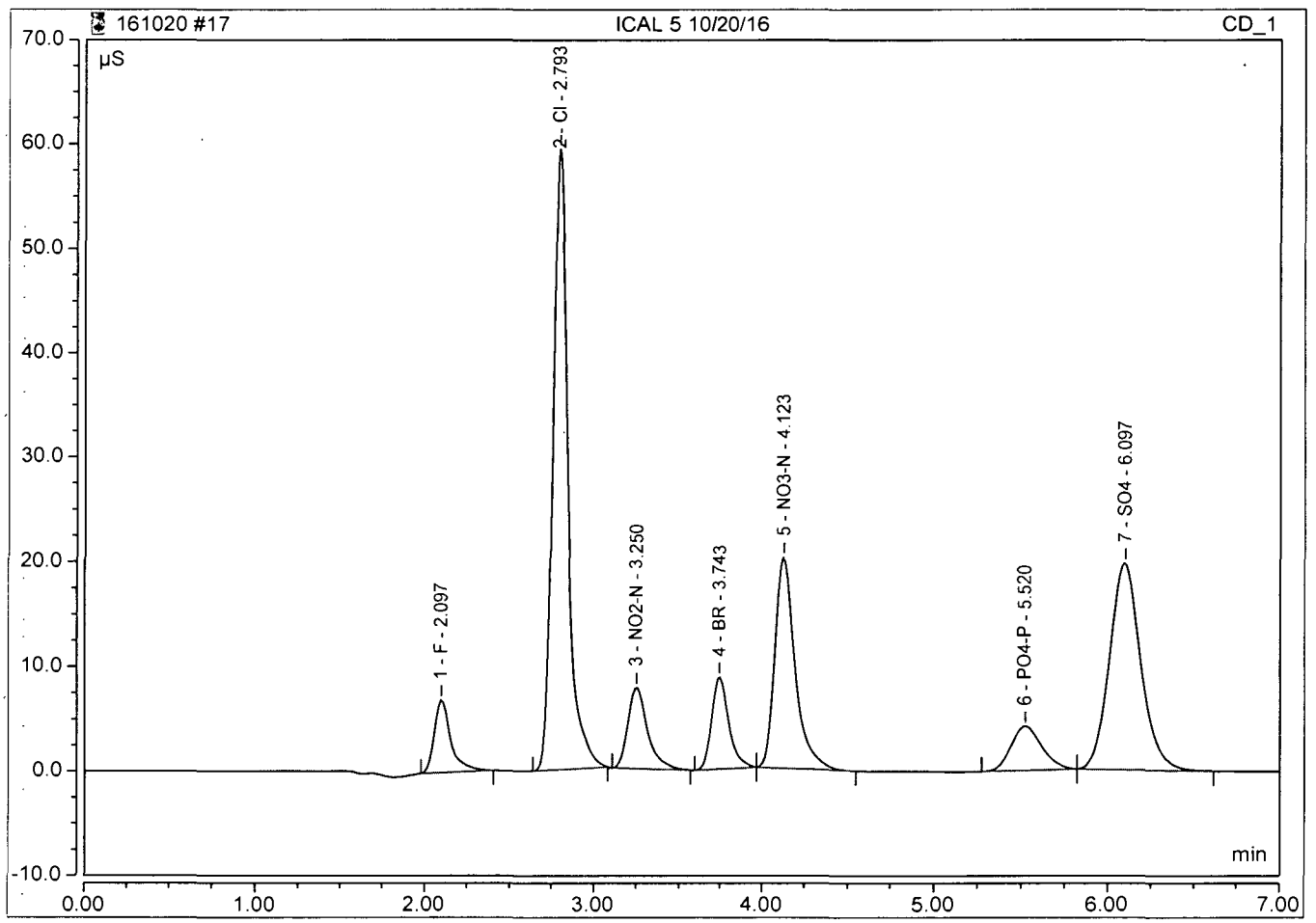
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB*	0.217	1.958	1.0036
2	2.80	Cl	BMB	1.542	14.708	9.0096
3	3.25	NO2-N	BMB	0.291	2.188	0.9859
4	3.75	BR	BMB	0.299	2.389	4.8695
5	4.14	NO3-N	BMB	0.733	5.168	1.8746
6	5.54	PO4-P	BMB	0.225	1.103	1.8731
7	6.10	SO4	BMB	1.076	4.975	9.3015
TOTAL:				4.38	32.49	28.92



Peak Integration Report

Sample Name:	**ICAL 5 10/20/16**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 12:11**	*Run Time:*	**7.00**

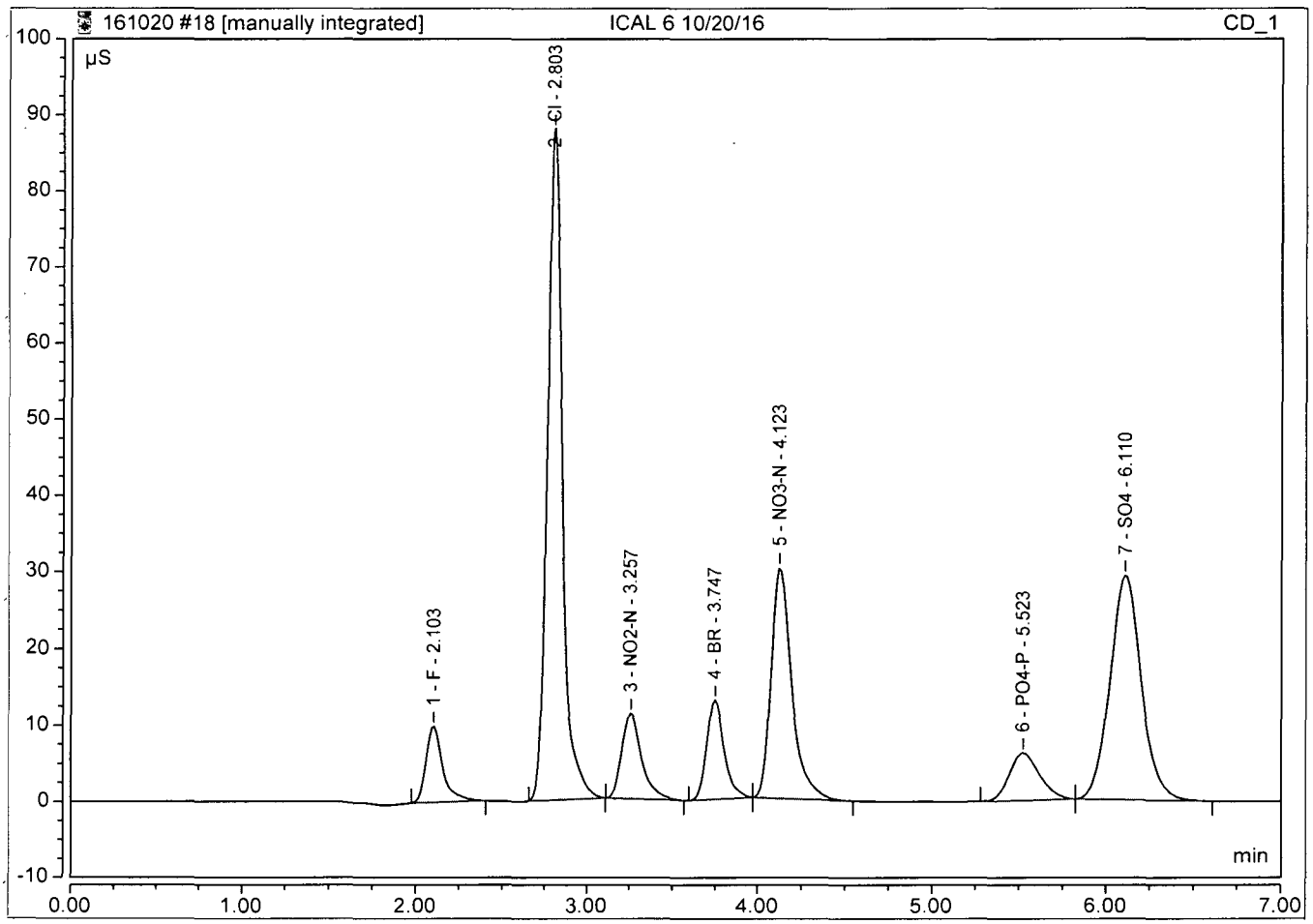
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	0.783	6.953	3.5131
2	2.79	Cl	BMB	6.129	59.398	34.2675
3	3.25	NO2-N	BMB	1.040	7.775	3.4734
4	3.74	BR	BMB	1.083	8.801	17.2948
5	4.12	NO3-N	BMB	2.792	20.144	6.8727
6	5.52	PO4-P	BMB	0.854	4.243	6.9225
7	6.10	SO4	BMB	4.151	19.714	34.4871
TOTAL:				16.83	127.03	106.83



Peak Integration Report

Sample Name:	**ICAL 6 10/20/16**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**20-Oct-2016 / 12:24**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.10	F	BMB	1.118	9.996	5.0036
2	2.80	Cl	BMB*	9.117	87.978	50.7226
3	3.26	NO2-N	BMB	1.507	11.205	5.0218
4	3.75	BR	BMB	1.580	13.023	25.1693
5	4.12	NO3-N	BMB	4.128	30.098	10.1138
6	5.52	PO4-P	BMB	1.247	6.244	10.0755
7	6.11	SO4	BMB	6.106	29.270	50.4924
TOTAL:				24.80	187.81	156.60



INORGANIC ANALYSIS
Raw Data

APPL, INC.

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	10/26/16	10/26/16	#300W-161026A-AZ44891
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/26/16	10/26/16	#300W-161026A-AZ44891
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	11/01/16	11/01/16	#300WD-161101A-AZ44891
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	10/26/16	10/26/16	#35FE-161026A-AZ44893

Wetlab SC-Blank-REG MDLs
Printed: 11/02/16 5:26:31 PM

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
SM3500Fe	FERROUS IRON	3.00	2.92	97.3	80-120	10/26/16	10/26/16	#35FE-161026A-AZ44893

Comments: _____

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

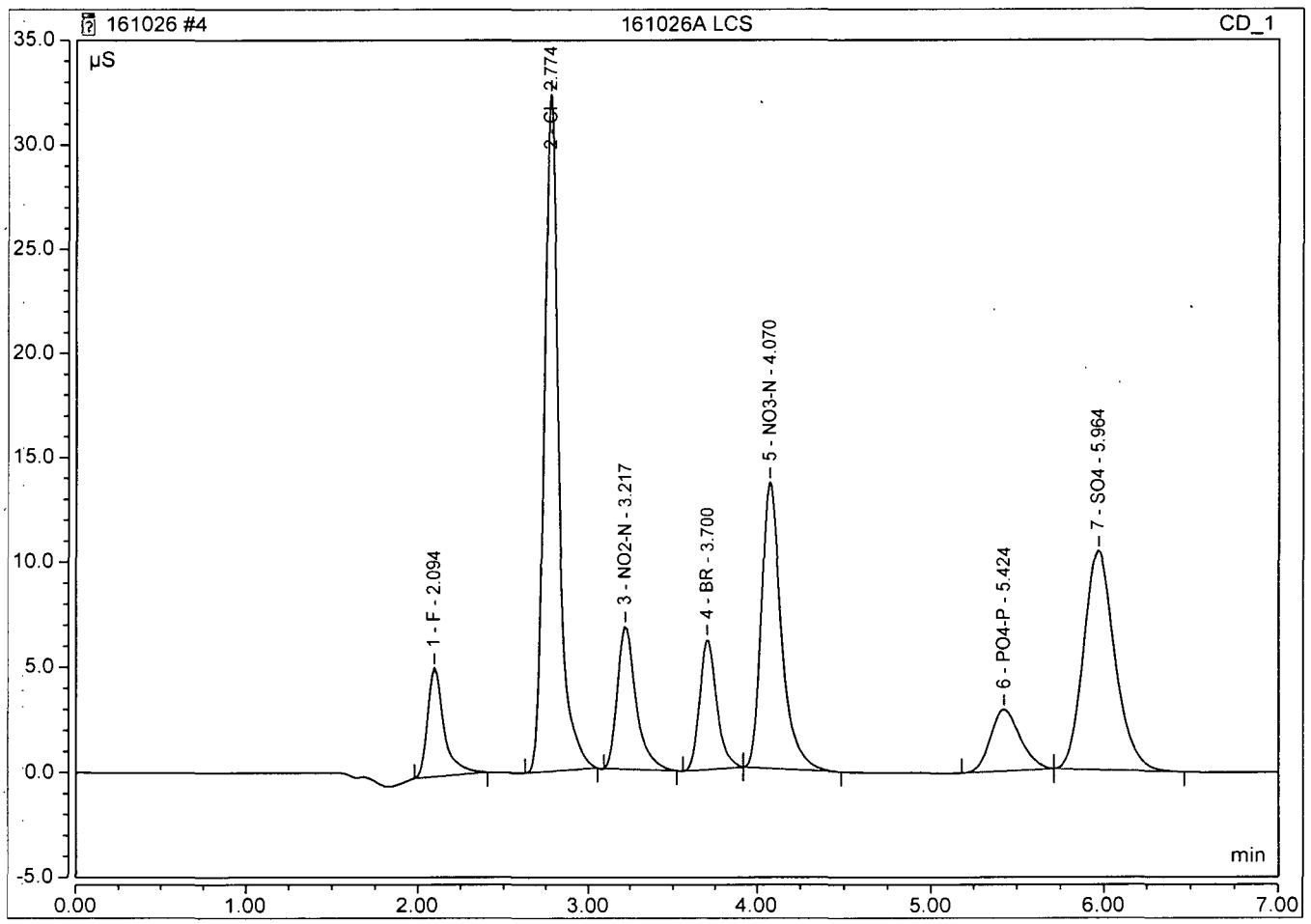
Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	18.7	93.5	90-110	11/01/16	11/01/16	#300WD-161101A-AZ44891
EPA 300.0	NITRATE	22.1	20.1	91.0	90-110	10/26/16	10/26/16	#300W-161026A-AZ44891
EPA 300.0	SULFATE	20.0	18.3	91.5	90-110	10/26/16	10/26/16	#300W-161026A-AZ44891

Comments: _____

Peak Integration Report

Sample Name:	**161026A LCS**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**26-Oct-2016 / 12:15**	*Run Time:*	**7.00**

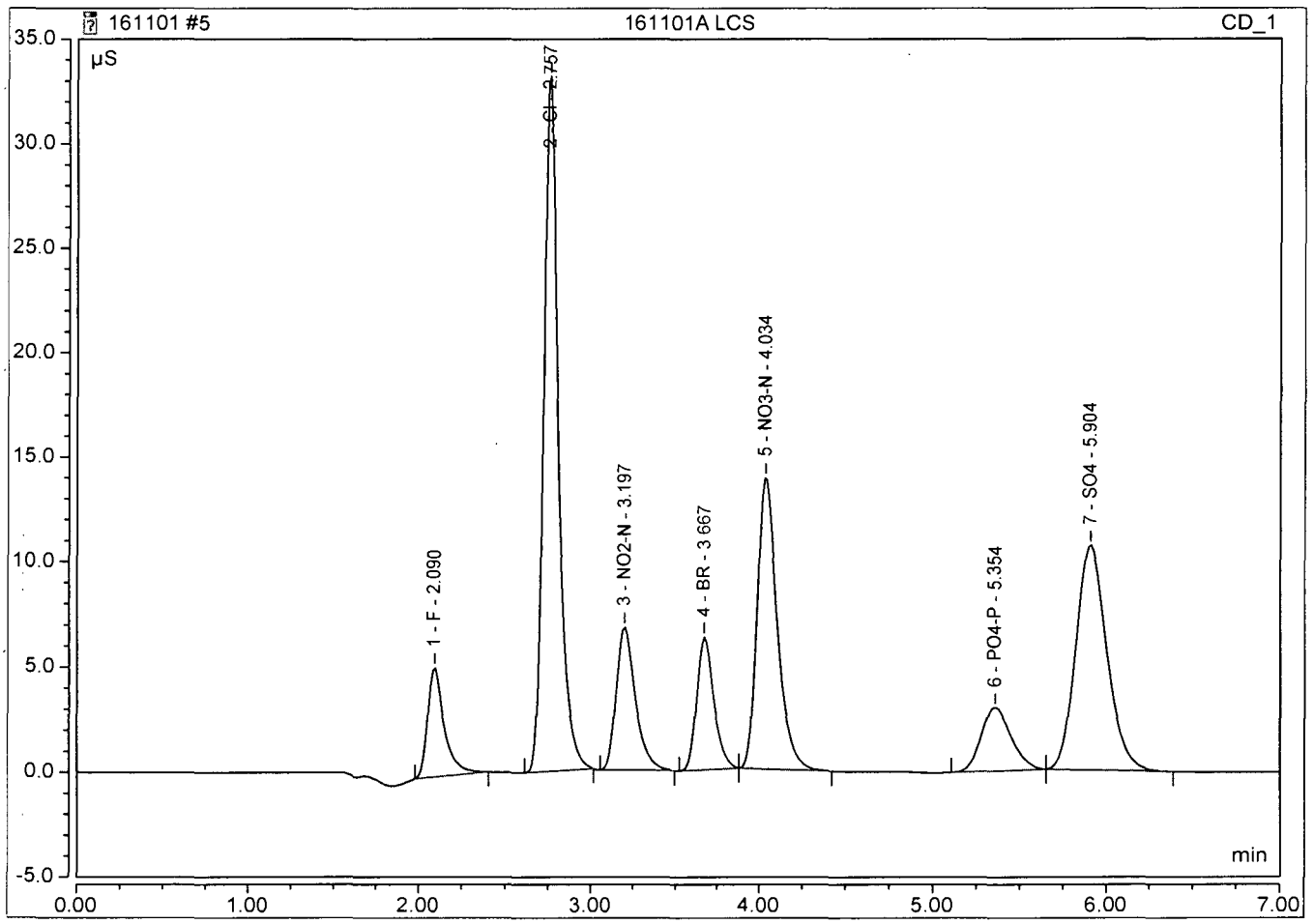
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.09	F	BMB	0.570	5.161	2.5704
2	2.77	Cl	BMB	3.235	32.316	18.3325
3	3.22	NO2-N	BMB	0.880	6.778	2.9396
4	3.70	BR	BMB	0.740	6.166	11.8511
5	4.07	NO3-N	BMB	1.833	13.594	4.5443
6	5.42	PO4-P	BMB	0.581	2.924	4.7249
7	5.96	SO4	BMB	2.175	10.392	18.3009
TOTAL:				10.01	77.33	63.26



Peak Integration Report

Sample Name:	**161101A LCS**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Analytical Processing Method 161020 ND**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**01-Nov-2016 / 12:59**	*Run Time:*	**7.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1	2.09	F	BMB	0.581	5.210	2.6182
2	2.76	Cl	BMB	3.310	33.151	18.7464
3	3.20	NO2-N	BMB	0.897	6.791	2.9974
4	3.67	BR	BMB	0.770	6.296	12.3259
5	4.03	NO3-N	BMB	1.878	13.841	4.6533
6	5.35	PO4-P	BMB	0.601	3.021	4.8928
7	5.90	SO4	BMB	2.217	10.651	18.6510
TOTAL:				10.25	78.96	64.88



SPECTROPHOTOMETRIC ANALYSIS (Ferrous Iron)

Method: SM3500Fe
Analyte: Ferrous Iron
Analyst: MM
Units: mg/L
QCG: 161026A
Notes:
Final Volume: 50mL

Instrument: GENESYS 10UV
Raw Spec: abs. @ 510nm
R-Squared: 0.99983
Reagent (lot#): COLORIZING REAGENT (10/26/16)
BUFFER (05/20/16)

Date	Time	APPL ID	DF	Raw Result	SubSample Amt	Raw BLK	Calc Conc	Result	QC True	QC%
05/20/16	12:37	0 BB 5/20/16	1	0.000						
05/20/16	12:38	1	1	0.101						
05/20/16	12:39	2	1	0.201						
05/20/16	12:39	4	1	0.403						
05/20/16	12:40	5	1	0.512						
05/20/16	12:40	10	1	0.999						
05/20/16	12:41	160520A ICV 3.0	1	0.304	25mL		3.01	3.01	3.000	100.5%
05/20/16	12:42	160520A ICB	1	0.000	25mL		-0.02	-0.02		
10/26/16	15:56	CCV 4.0 161026	1	0.393	25mL		3.90	3.903	4.000	*97.58*
10/26/16	15:57	CCB 161026	1	-0.001	25mL		-0.03	-0.033		
10/26/16	15:58	161026A LCS 3.0	1	0.295	25mL		2.92	2.924	3.000	*97.47*
10/26/16	15:59	AZ44891W12	1	0.013	25mL		0.11	0.107		
10/26/16	16:00	AZ44893W08	1	0.009	25mL		0.07	0.067		
10/26/16	16:01	AZ44893W08 MS	1	0.309	25mL		3.06	3.064	3.000	*102.13*
10/26/16	16:02	CCV 4.0 161026	1	0.396	25mL		3.93	3.933	4.00	*98.33*
10/26/16	16:03	CCB 161026	1	-0.002	25mL		-0.04	-0.043		
10/26/16	16:31	AZ43574W01	1	0.049	25mL		0.47	0.466		
10/26/16	16:32	CCV 4.0 161026	1	0.399	25mL		3.96	3.963	4.00	*99.08*
10/26/16	16:33	CCB 161026	1	0.002	25mL		0.00	-0.003		

Ferrous Iron Standard Prep

Stock Standard Prep:

Prep Date: 5/20/16
Exp Date: 5/20/17
Prep'd By: BB

CCV Stock (200 mg/L): 0.3502 g $Fe(NH_4)2(SO_4)_2*6H_2O$ EMD Lot #2013050298 up to 250 mL with DI

ICV Stock (200 mg/L): 0.3500 g $Fe(NH_4)2(SO_4)_2*6H_2O$ JT Baker Lot #0000068681 up to 250 mL with DI

QC Prep

Prep Date: 10/26/16
Exp Date: 10/27/16
Prep'd By: MM

CCV (4.0 mg/L): 0.5 mL of CCV Stock (prep: 5/20/16) into 25 mL DI then carried through sample prep procedure

LCS (3.0 mg/L): 0.375 mL of ICV Stock (prep: 5/20/16) into 25 mL DI then carried through sample prep procedure

MS/MSD (3.0 mg/L): 0.375 mL of ICV Stock (prep: 5/20/16) into 25 mL sample then carried through sample prep procedure

METHOD 300 / 9056		ANION CAL CURVE							
				ICAL #1	ICAL#2	ICAL #3	ICAL #4	ICAL #5	ICAL #6
ID#	mg/L	Prep Date	EXP. DATE	mL	mL	mL	mL	mL	mL
ANION STOCK	100	08/19/16	08/21/16	0.4	2	10	2	7	10
Brought up w/ Milipore Water to final volume of (mL):				50	100	100	10	10	na
Final Conc F (mg/L):				0.04	0.1	0.5	1	3.5	5
Final Conc Cl (mg/L):				0.4	1	5	10	35	50
Final Conc NO2-N (mg/L):				0.04	0.1	0.5	1	3.5	5
Final Conc Br (mg/L):				0.2	0.5	2.5	5	17.5	25
Final Conc NO3-N (mg/L):				0.08	0.2	1	2	7	10
Final Conc PO4-P (mg/L):				0.08	0.2	1	2	7	10
Final Conc SO4 (mg/L):				0.4	1	5	10	35	50

161026 PW

		CCV				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
O2SI	F-	1,000	1085520-36282	07/24/17	0.125	2.50
O2SI	Cl-	5,000	1069557-34558	01/08/17	0.25	25.0
O2SI	NO2-N	1,000	1088548-36281	09/26/17	0.125	2.5
Ultra Scientific	Br-	1,000	CL-3274-36926	08/31/20	0.625	12.50
O2SI	NO3-N	1,000	1078397-35587	01/30/17	0.25	5.0
O2SI	PO4-P	1,000	1072004-34911	09/03/16	0.25	5.0
Ultra Scientific	SO4	5,000	CP-1469-36296	04/30/18	0.25	25.0
Brought up with milipore water to Final Volume of:					50	

METHOD 300 / 9056		ICV LCS MS				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
CPI	F-	1,000	16B115-36204	09/03/17	0.125	2.50
CPI	Cl-	1,000	16E065-36694	12/06/17	1.00	20.00
CPI	NO2-N	304	15C058-35411	09/24/17	0.50	3.04
CPI	Br-	1,000	15L093-36101	07/21/17	0.63	12.50
CPI	NO3-N	1,000	16E022-36783	12/30/17	0.250	5.00
CPI	PO4-P	1,000	15B116-36258	09/24/17	0.25	5.00
CPI	SO4	1,000	16E104-36693	12/06/17	1.00	20.00
Final Volume of Sample: (mL)					50	

161101 PW

		CCV				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
O2SI	F-	1,000	1085520-36282	07/24/17	0.125	2.50
O2SI	Cl-	5,000	1069557-34558	01/08/17	0.25	25.0
O2SI	NO2-N	1,000	1088548-36281	09/26/17	0.125	2.5
Ultra Scientific	Br-	1,000	CL-3274-36926	08/31/20	0.625	12.50
O2SI	NO3-N	1,000	1078397-35587	01/30/17	0.25	5.0
O2SI	PO4-P	1,000	1072004-34911	09/03/16	0.25	5.0
Ultra Scientific	SO4	5,000	CP-1469-36296	04/30/18	0.25	25.0
Brought up with milipore water to Final Volume of:					50	

METHOD 300 / 9056		ICV LCS MS				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
CPI	F-	1,000	16B115-36204	09/03/17	0.125	2.50
CPI	Cl-	1,000	16E065-36694	12/06/17	1.00	20.00
CPI	NO2-N	304	15C058-35411	09/24/17	0.50	3.04
CPI	Br-	1,000	15L093-36101	07/21/17	0.63	12.50
CPI	NO3-N	1,000	16E022-36783	12/30/17	0.250	5.00
CPI	PO4-P	1,000	15B116-36258	09/24/17	0.25	5.00
CPI	SO4	1,000	16E104-36693	12/06/17	1.00	20.00
Final Volume of Sample: (mL)					50	

SM3500 Injection Log

Directory: I:\Spec Sheets\Ferrous Iron (Fe2)\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	20 May 2016	12:37	0 BB 5/20/16		161026a	1.
2	20 May 2016	12:38	1		161026a	1.
4	20 May 2016	12:39	4		161026a	1.
3	20 May 2016	12:39	2		161026a	1.
6	20 May 2016	12:40	10		161026a	1.
5	20 May 2016	12:40	5		161026a	1.
7	20 May 2016	12:41	160520A ICV 3.0		161026a	1.
8	20 May 2016	12:42	160520A ICB		161026a	1.
9	26 Oct 2016	15:56	CCV 4.0 161026		161026a	1.
10	26 Oct 2016	15:57	CCB 161026		161026a	1.
11	26 Oct 2016	15:58	161026A LCS 3.0		161026a	1.
12	26 Oct 2016	15:59	AZ44891W12		161026a	1.
13	26 Oct 2016	16:00	AZ44893W08		161026a	1.
15	26 Oct 2016	16:02	CCV 4.0 161026		161026a	1.
16	26 Oct 2016	16:03	CCB 161026		161026a	1.

300/9056A Injection Log

Directory: I:\Dionex\Charlie\Anions\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
14	20 Oct 2016	11:19	ICAL 1 10/20/16		161020	1.
15	20 Oct 2016	11:32	ICAL 2 10/20/16		161020	1.
16	20 Oct 2016	11:45	ICAL 3 10/20/16		161020	1.
17	20 Oct 2016	11:58	ICAL 4 10/20/16		161020	1.
18	20 Oct 2016	12:11	ICAL 5 10/20/16		161020	1.
19	20 Oct 2016	12:24	ICAL 6 10/20/16		161020	1.
20	20 Oct 2016	12:37	ICV 1601020		161020	1.
21	20 Oct 2016	12:50	ICB		161020	1.

300/9056A Injection Log

Directory: I:\Dionex\Charlie\Anions\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
2	26 Oct 2016	11:48	CCV 161024		161026	1.
3	26 Oct 2016	12:02	CCB		161026	1.
4	26 Oct 2016	12:15	161026A LCS		161026	1.
6	26 Oct 2016	12:41	AZ44891W11		161026	1.
7	26 Oct 2016	12:54	AZ44893W07		161026	1.
16	26 Oct 2016	15:52	CCV 161024		161026	1.
17	26 Oct 2016	16:05	CCB		161026	1.

300/9056A Injection Log

Directory: I:\Dionex\Charlie\Anions\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
3	01 Nov 2016	12:33	CCV 161101		161101	1.
4	01 Nov 2016	12:46	CCB		161101	1.
5	01 Nov 2016	12:59	161101A LCS		161101	1.
8	01 Nov 2016	13:39	AZ44891W11 1/2		161101	2.
9	01 Nov 2016	13:52	AZ44893W07 1/2		161101	2.
19	01 Nov 2016	16:28	CCV 161101		161101	1.
20	01 Nov 2016	16:41	CCB		161101	1.