# Appendix C:
# Analytical Documentation,
# Second Quarter 2019
# (on CD-ROM at end of document)

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# Appendix C.1:
# Analytical Laboratory Reports

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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

May 30, 2019

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 88687

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

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

Dear Ms. Pascua:

Five water samples were received April 23,2019. Revised written results for the requested analyses are being provided on this May 30, 2019.

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/lac
Enclosure
cc: File

# Data Validation Package
# for
# 60481245 CIV 0053 Red Hill Fuel Storage
# APPL SDG 88687
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LABORATORY NAME: *APPL, Inc.*

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# CASE NARRATIVE

# Case Narrative

ARF: 88687

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

## Sample Receipt Information:

Five water samples were received April 23,2019, at 3.0°C, 3.0°C, 1.5°C, 2.5°C, and 2.5°C. The sample group was assigned Analytical Request Form (ARF) number 88687.

## Sample Preparation and Analysis Information:

For the EPA 8015B analysis, the samples were extracted according to EPA method 3520C. The sample extracts were silica gel cleaned according to APPL's SOP CLN004 and placed on hold.

For the EPA 8270D SIM analysis, the samples were extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the samples were extracted according to EPA method 3520C.

For the APPL SOP ANA2MEE analysis, the samples were extracted according to EPA method 3535.

For the EPA 8260B and Gasoline analyses, the samples were purged according to EPA method 5030B.

For the RSK-175 analysis, the samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed.

For the EPA 9060A, 300.0, 353.2, SM 2320B, and SM 3500FeB analyses, the samples were prepared according to the methods.

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

## Analytical Exceptions, Deviations and Abnormalities.

**EPA 8270D Phenol**: In the MS/MSD perfomed on sample ERH782, the Phenol RPD exceeded the 20% control limit. The client was notified.

**APPL SOP ANA2MEE:** In the 190429A LCSD, 2MEE recovered above the upper control limit and the RPD exceeded the 20% control limit. Corrective action: None, 2MEE was not detected in the associated samples.

**Inorganic Analyses:** For EPA 9060A, the TOC LCS/LCSD for batch 190417A recovered below the 90% control limit, at 84.4% and 83.6% respectively. For SM2320B, the Bicarbonate and Total Alkalinity MSD performed on sample ERH782 recovered below the 90% control limit, at 89.3%. The MS had acceptable recovery. Corrective Action: the client was notified.

**EPA 8015B:** The method blank contained a discrete peak in the TPH-O range which, when analyzed by GC/MS was determined to be a phthalate plasticizer which is not indicative of oil. The samples were re-extracted outside of holding time. Both sets of data are reported.

In the 190502A2 LCS/LCSD re-extract the diesel RPD exceeded the 30% limit.

Manual integrations were performed in accordance with APPL's SOP. Chromatograms of before and after manual integration are enclosed. In datafile 506004 LCS re-extract, the following was manually integrated: Diesel.

| SDG | Received | Client ID | APPL ID | Collected DateTime | Matrix | Method | Method Description |
|---|---|---|---|---|---|---|---|
| 88687 | 04/23/19 | ERH781 | AZ89957 | 04/22/19 8:42:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88687 | 04/23/19 | ERH781 | AZ89957 | 04/22/19 8:42:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88687 | 04/23/19 | ERH781 | AZ89957 | 04/22/19 8:42:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88687 | 04/23/19 | ERH781 | AZ89957 | 04/22/19 8:42:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | SM 2320B | Wetlab 2320B - Water |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | SM3500FeB | Ferrous Iron |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | EPA 353.2 | EPA 353.2 - WATER |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | EPA 8270D | EPA 8270D WATER |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ RE-EXTRACT |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | SW846 9060A | 9060A DOC |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88687 | 04/23/19 | ERH782 | AZ89958 | 04/22/19 9:30:00 AM | WATER | SW846 9060A | 9060A TOC |
| 88687 | 04/23/19 | ERH783 | AZ89959 | 04/22/19 9:30:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88687 | 04/23/19 | ERH783 | AZ89959 | 04/22/19 9:30:00 AM | WATER | EPA 8270D | EPA 8270D WATER |
| 88687 | 04/23/19 | ERH783 | AZ89959 | 04/22/19 9:30:00 AM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88687 | 04/23/19 | ERH783 | AZ89959 | 04/22/19 9:30:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88687 | 04/23/19 | ERH783 | AZ89959 | 04/22/19 9:30:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ RE-EXTRACT |
| 88687 | 04/23/19 | ERH783 | AZ89959 | 04/22/19 9:30:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88687 | 04/23/19 | ERH783 | AZ89959 | 04/22/19 9:30:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88687 | 04/23/19 | ERH783 | AZ89959 | 04/22/19 9:30:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88687 | 04/23/19 | ERH783 | AZ89959 | 04/22/19 9:30:00 AM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88687 | 04/23/19 | ERH794 | AZ89960 | 04/22/19 9:10:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88687 | 04/23/19 | ERH794 | AZ89960 | 04/22/19 9:10:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88687 | 04/23/19 | ERH794 | AZ89960 | 04/22/19 9:10:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88687 | 04/23/19 | ERH794 | AZ89960 | 04/22/19 9:10:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | SM 2320B | Wetlab 2320B - Water |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | SM3500FeB | Ferrous Iron |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | EPA 353.2 | EPA 353.2 - WATER |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | EPA 8270D | EPA 8270D WATER |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ RE-EXTRACT |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | SW846 9060A | 9060A DOC |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88687 | 04/23/19 | ERH795 | AZ89961 | 04/22/19 10:20:00 AM | WATER | SW846 9060A | 9060A TOC |

## 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, e.g. mineral spirits, kerosene, stoddard solvent, white gas |
| T2 M | Is mainly lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas |
| T3 I | Includes higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel |
| T3 M | Is mainly higher boiling hydrocarbons, e.g. asphaltene, waste 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% |

# SAMPLE RECORDS MANAGEMENT

## CHAIN OF CUSTODY,

## ARF, CRF, AND

## CLIENT COMMUNICATION

# APPL - Analysis Request Form 88687

Client: AECOM
Address: 1001 Bishop Street, Suite 1600
Honolulu, HI 96813
Attn: Margie Pascua
Phone: 808-356-5373 Fax: 808-523-8950
Job: 60571032 CV18F0126 Red Hill Fuel Storage
PO #: 18S-22209-HI27 PO# 102604
Chain of Custody (Y/N): Y # 049-052,035
RAD Screen (Y/N): Y pH (Y/N): Y
Turn Around Type: 1 WEEK

Received by: AAR
Date Received: 04/23/19 Time: 09:54
Delivered by: FEDEX
Shuttle Custody Seals (Y/N): Y Time Zone: -10
Chest Temp(s): 3.0,3.0,1.5,2.5,2.5
Color: VOA/C-Black
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Libby Cheesebor
QC Report Type: DVP4DOD/EQUIS/HI
Due Date: 04/30/19

Comments:
***PM: login and F1s to Margie.Pascua@aecom.com***
***AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms (LOQ/LOD database/DL)***
***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; analyze SGC if detections***
***RSK: Methane only; 8011: EDB only; $87DC53W5: report phenol; $87DMEEW5: 2-MEE (LCS Spk 80ppb).***

***FR: HC to LDC, 2 labeled CDs to Margie Pascua.***
***EDD: AECOM EQuIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com***

Sample Distribution:
GC: 3-$87DC53W5, 3-$87DMEEW5, 3-$DOC53W5LIQ, 3-$SIM53LIQ51
Extractions: 3-_LIQ003, 3-_LIQ005, 3-_MWE2MEE
VOA: 5-$86BTOTXDOD5W, 5-$GASBL, 5-$GRO86BW, 4-$RSKMETH
Wetlab: 2-$232W(HCO3,CO3,ALK), 2-$300W(NO3,CL,SO4), 2-$35FE, 2-$35OF, 2-$DOCW53, 2-$TOCW53

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. | ERH781 | LCSD | AZ89957W | 04/22/19 08:42 | $86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH |
| 2. | ERH782 | MS/MSD | AZ89958W | 04/22/19 09:30 | $232W(HCO3,CO3,ALK), $300W(NO3,CL,SO4), $35FE, $35OF, $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $SIM53LIQ51, $TOCW53 |
| 3. | ERH783 | LCSD | AZ89959W | 04/22/19 09:30 | $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51 |

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-REDHILL *Printed 05/03/19 8:43:49 AM* Computer: APPL-LC **# 88687**

## 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, e.g. mineral spirits, kerosene, stoddard solvent, white gas |
| T2 M | Is mainly lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas |
| T3 I | Includes higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel |
| T3 M | Is mainly higher boiling hydrocarbons, e.g. asphaltene, waste 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% |

| | | | |
|---|---|---|---|
| 4. ERH794 | LCSD AZ89960W 04/22/19 09:10 | | $86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH |
| 5. ERH795 | LCSD AZ89961W 04/22/19 10:20 | | $232W(HCO3,CO3,ALK), $300W(NO3,CL,SO4), $35FE, $35OF, $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $TOCW53 |

# APPL Sample Receipt Form

ARF# **88687**

| Sample | Container Type | Count | p |
|---|---|---|---|
| AZ89957 | 13 VOAs - HCL | 4 | NA |
| AZ89958 | 3 PL 250mL | 1 | NA |
| | 10 PL 250mL - H2SO4 | 1 | 1.7 |
| | 13 VOAs - HCL | 8 | NA |
| | 17 Amber Liter | 15 | NA |
| | 32 Clear VOA - H2SO4 | 12 | NA |
| | 38 250mL brn poly, HCl prsvd | 1 | 1.7 |
| | 40 500mL Amber, unprsrvd | 6 | NA |
| AZ89959 | 13 VOAs - HCL | 4 | NA |
| | 17 Amber Liter | 5 | NA |
| | 40 500mL Amber, unprsrvd | 2 | NA |
| AZ89960 | 13 VOAs - HCL | 4 | NA |
| AZ89961 | 3 PL 250mL | 1 | NA |
| | 10 PL 250mL - H2SO4 | 1 | 1.7 |
| | 13 VOAs - HCL | 4 | NA |
| | 17 Amber Liter | 5 | NA |
| | 32 Clear VOA - H2SO4 | 8 | NA |
| | 38 250mL brn poly, HCl prsvd | 1 | 1.7 |
| | 40 500mL Amber, unprsrvd | 2 | NA |

| Sample | Container Type | Count | p |
|---|---|---|---|

Printed 04/23/19 2:12:34 PM

Page 1 of 1

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 049

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com | Email: mary.basano@aecom.com; usapimaging@aecom.com |

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): SM RS GM
Sampler (Signature): SM

Date Shipped: 04/22/19
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Sed. | Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, ~~TICs~~ | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,Na SM4500 Total & Dissolved Silica | 9060A TOC/DOC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH 781 | Trip Blank | 4/22/19 | 0842 | HST | 4 | X | | | X | | | | | | | X | | | | | | |
| ERH 782 | RHMW2254-01 | 4/22/19 | 930 | HST | 8 | X | | | X | | | | | | | X | | | | | | MS/MSD: 8015, 8260, 8270, 5270 SIM soil filter cakes |
| ERH 783 | RHMW2254-01 | 4/22/19 | 930 | HST | 11 | X | | | X | | X | X* | X | X | X | | | | | | | |

SM 4/22/19

Ferrous iron and DOC are field-filtered.

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

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

Shuttle Temperature: 5°

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Sidney M. | 4/22/19 | 2:30 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4-23-19 | 1000 | |

See page 2 for Container Preservative and Sampling Information

88687

APPL LABS

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 051

**Report to:** PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373
Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950
Attn: Margie Pascua
Email: margie.pascua@aecom.com

**Invoice to:** PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249
Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950
Attn: Mary Basano
Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032
Sampler (Print): SM
Purchase Order Number: 102604
Sampler (Signature): SM RS GM

Date Shipped: MM/DD/YY
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Matrix: Sed. | Matrix: Soil | Matrix: | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, ~~TICs~~ | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC, | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH 782 | RHMW2254-01 | 4/22/19 | 0930 | HST | 9 | X | | | | | | X | X* | X | X | X | | | | | | | MS/MSD: 8015, 3260, 8270, 8270 SIM See other coolers |
| | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | Ferrous iron and DOC are field-filtered. |
| | | | | | | | | | | | | | | | | | | | | | | | *Analyze TPH w/SGT only if TPH-d/o detected. |
| | | | | | | | | | | | | | | | | | | | | | | | TPH-d/o & PAHs need liquid-liquid extraction. |

SM 4/22/19

Shuttle Temperature: 3.0, 1.5°, 2.5, 2.5, 3.0

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Sidney M. | 4/22/19 | 230 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4·23·19 | 1000 | [signature] |

See page 2 for Container Preservative and Sampling Information

APPL LABS

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 052

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com | Email: mary.basano@aecom.com; usapimaging@aecom.com |

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): SM RSG
Sampler (Signature): SM

Date Shipped: MM/DD/YY
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Sed. | Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, ~~Pentachl~~ | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride E010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~~ERH 783~~ SM ERH 782 | RHMW2251-01 | 4/22/19 | 0930 | HST | 19 | X | | | | | X | X | X | X | X | | X | X | X | | X | NO3/NO2: SO4, Cl, Br, F, TOC, Ca, Mg, Mn, K, Na, Si See other cycles |
| | | | | | | | | | | | | | | | | | | | | | | Ferrous iron and DOC are field-filtered. |
| | | | | | | | | | | | | | | | | | | | | | | *Analyze TPH w/SGT only if TPH-d/o detected. |
| | | | | | | | | | | | | | | | | | | | | | | TPH-d/o & PAHs need liquid-liquid extraction. |

4/22/19 SM

SM 4/22/19

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Sidney M. | 4/22/19 | 2:30 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4-23-19 | 1000 | |

See page 2 for Container Preservative and Sampling Information

APPL LABS

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 050

**Report to:** PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373
Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950
Attn: Margie Pascua
Email: margie.pascua@aecom.com

**Invoice to:** PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249
Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950
Attn: Mary Basano
Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032
Sampler (Print): SM
Purchase Order Number: 102604
Sampler (Signature): SM RS GM

Date Shipped: MM/DD/YY
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Matrix: Sed. | Matrix: Soil | | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, ~~TICs~~ | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC,DOC | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH782 | RHMW2254-01 | 4/22/19 | 0930 | HST | 8 | X | | | | | | X | X* | X | X | X | | | | | | | MS/MSD: 5015, 8260, 8270, 8270SIM see other coolers |
| | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | Ferrous iron and DOC are field-filtered |
| | | | | | | | | | | | | | | | | | | | | | | | *Analyze TPH w/SGT only if TPH-d/o detected. |
| | | | | | | | | | | | | | | | | | | | | | | | TPH-d/o & PAHs need liquid-liquid extraction. |

SM 4/22/19

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Sidney M | 4/22/19 | 230 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4.23.19 | 1000 | [signature] |

See page 2 for Container Preservative and Sampling Information

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 035

**Report to:** PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373

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

Attn: Margie Pascua

Email: margie.pascua@aecom.com

**Invoice to:** PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249

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

Attn: Mary Basano

Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032

Purchase Order Number: 102604

Sampler (Print): SM

Sampler (Signature): SM RS GM

Date Shipped: 04/22/2019

Carrier: FedEx

Waybill No.:

Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Sed. | Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, TCP | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH 794 | Trip Blank | 4/22/19 | 0900 | HST | 4 | X | | | X | | | | | | | X | | | | | | |
| ERH 795 | RHMW04 | 4/22/19 | 1020 | HST | 4 SM | X | | | X | | X | X* | X | X | X | X | X | X | X | | | X | |
| | | | | | 2 SM | | | | | | | | | | | | | | | | | | |
| | | | | | 21 | | | | | | | | | | | | | | | | | | |

SM 4/22/2019 SM 4/22/2019 SM 4/22/2019

Ferrous iron and DOC are field-filtered.

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

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

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Sidney M. | 4/22/19 | 2:30 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4-23-19 | 1000 | |

See page 2 for Container Preservative and Sampling Information

**COOLER RECEIPT FORM** **ARF: 88687**

1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 04/23/19

**2) Coolers:** Number of Coolers: 5

3) YES Were custody seals present and intact?
How many? 10 Name/Date on seal? see below

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

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

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use R1

8) Cooler temp(s): In °C
1: 3.0°C x2 2: 1.5°C 3: 2.5°C x2 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/broke

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: AZ89957w01-4, AZ89960w01-4

**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

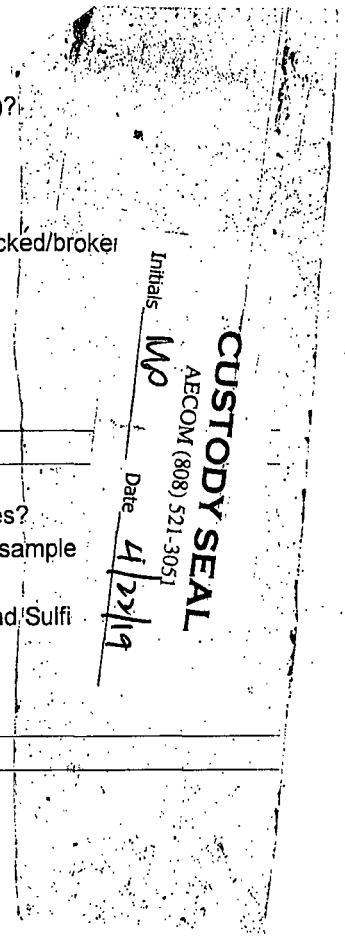
20) Yes Was the pH of acid preserved non-VOA samples < 2?

21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfi

22) NO Were unpreserved VOA Vials received?

23) NA 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:




Personnel receiving samples: ZG Second reviewer: AA
Personnel labeling samples: ZG
Project manager notified: ZG Date/Time of notification 04/23/19
Name of client notified: _____ Date/Time of notification _____

Revision: 22, November 5, 2013

# Sample Receiving Quality Control Sign Off

ARF Number: 88687

**Analysis Request Form:** Reviewers Initials/Date ZG 04/23/19

| | |
|---|---|
| Is the chain of custody attached? | Yes |
| Is the COC number entered correctly? | Yes |
| Is RAD screen performed entered correctly? | Yes |
| Is pH documentation entered correctly? | Yes |
| Turn around time entered correctly? | Yes |
| Date received entered correctly? | Yes |
| Time received entered correctly? | Yes |
| Is Time Zone entered correctly? | Yes |
| Delivered by name entered correctly? | Yes |
| Is shuttle custody seals entered correctly? | Yes |
| Ice chest temp.entered correctly? | Yes |
| Project manager entered correctly? | Yes |
| Client ID's from chain entered correctly? | Yes |
| APPL ID's have correct matrix designation? | Yes |
| Sample date entered correctly? | Yes |
| Sample time entered correctly? | Yes |
| MS/MSD requests indicated? (Initial) ZG | Yes |
| % moisture indicated? | NA |
| Limited volume indicated? | NA |
| Are samples on hold labeled correctly? | NA |
| Are subcontract COCs attached? | NA |
| COC scanned to pdf? | Yes |

Project Manager Initials/Date: DA 4/24/19

| | | | |
|---|---|---|---|
| Client name correct? | (Yes) | No | NA |
| Client address correct? | (Yes) | No | NA |
| Attention name correct? | (Yes) | No | NA |
| Client phone number and fax number correct? | (Yes) | No | NA |
| Project name or number correct? | (Yes) | No | NA |
| PO number correct? | (Yes) | No | NA |
| Correct analyses requested entered on ARF? | (Yes) | No | NA |
| Correct Labworks codes used for each matrix? | (Yes) | No | NA |
| Correct codes used for client/project? | (Yes) | No | NA |
| Correct metals listed? | Yes | No | (NA) |
| Subcontract COCs correct? | Yes | No | (NA) |
| QC report type entered correctly? | (Yes) | No | NA |
| Comments entered correctly? | (Yes) | No | NA |
| Invoicing information entered from chain? | (Yes) | No | NA |
| A special spike, if needed, is entered? | Yes | No | (NA) |
| Are samples on hold labeled correctly? | Yes | No | (NA) |
| Limited volume indicated, if needed? | Yes | No | (NA) |

**Physical Check of Samples** Reviewers Initials/Date ZG 04/23/19

| | |
|---|---|
| APPL ID numbers placed on correct samples? | Yes |
| Color of refrigerator/freezer correct on labels? | Yes |
| Has inventory sheet been completed correctly? | Yes |
| pH's recorded on samples? | Yes |
| pH acceptable? | Yes |
| Stickers placed on samples for VOA,GC, GC/MS? | No |
| Were 'hold', 'composite', or 'limited volume' stickers affixed? | No |
| If water was present in the soil, was the container put in frig? | NA |
| Were USACE, AFCEE, DVP or CLP soils placed in the frig? | NA |
| Were there missing samples? Checked by: _____, _____ | No |

**Communication** Reviewers Initials/Date ZG 04/23/19

| | |
|---|---|
| Sections notified of rush samples or short holding times? | Yes |
| Sections notified if filtering was needed? | No |
| Sections notified to adjust pH? | No |

**Distribution of ARF**

Scanned (initials / date) 4-24-19 Sue

Emailed to Margie & Brent (initials / date) 4-24

Comments:

_____

_____

_____

_____

_____

*Revision 24, April 24 2018*

# SAMPLE RESULTS

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH782**

**APPL ID: AZ89958**

Sample Collection Date: 04/22/19

QCG: #DOC53-190426A-239847

| 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 | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 98.2 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 95.7 | 56-125 | | | % | 04/26/19 | 04/29/19 |

Quant Method: DOC0411.M
Run #: 419052
Instrument: Apollo
Sequence: 190419
Dilution Factor: 1
Initials: BTI

*Printed: 05/08/19 12:31:32 PM*

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

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH782**

**APPL ID: AZ89958**

Sample Collection Date: 04/22/19

QCG: #DOC53-190502A2-240343

| 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 | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 102 | 60-142 | | | % | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 97.9 | 56-125 | | | % | 05/02/19 | 05/06/19 |

Quant Method: DOC0411.M
Run #: 506008
Instrument: Apollo
Sequence: 190506
Dilution Factor: 1
Initials: BTI

*Printed: 05/15/19 4:03:14 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH783**
Sample Collection Date: 04/22/19

ARF: 88687
**APPL ID: AZ89959**
QCG: #DOC53-190426A-239847

| 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 | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 83.0 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 89.7 | 56-125 | | | % | 04/26/19 | 04/29/19 |

Quant Method: DOC0411.M
Run #: 419055
Instrument: Apollo
Sequence: 190419
Dilution Factor: 1
Initials: BTI

*Printed: 05/08/19 12:31:32 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH783**

**APPL ID: AZ89959**

Sample Collection Date: 04/22/19

QCG: #DOC53-190502A2-240343

| 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 | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 101 | 60-142 | | | % | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 97.1 | 56-125 | | | % | 05/02/19 | 05/06/19 |

Quant Method: DOC0411.M
Run #: 506009
Instrument: Apollo
Sequence: 190506
Dilution Factor: 1
Initials: BTI

*Printed: 05/15/19 4:03:14 PM*

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

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH795**

**APPL ID: AZ89961**

Sample Collection Date: 04/22/19

QCG: #DOC53-190426A-239847

| 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 | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 98.6 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 95.8 | 56-125 | | | % | 04/26/19 | 04/29/19 |

Quant Method: DOC0411.M
Run #: 419056
Instrument: Apollo
Sequence: 190419
Dilution Factor: 1
Initials: BTI

*Printed: 05/08/19 12:31:32 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM
1001 Bishop Street, Suite 1600
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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH795**

**APPL ID: AZ89961**

Sample Collection Date: 04/22/19

QCG: #DOC53-190502A2-240343

| 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 | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 98.9 | 60-142 | | | % | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 94.7 | 56-125 | | | % | 05/02/19 | 05/06/19 |

Quant Method: DOC0411.M
Run #: 506010
Instrument: Apollo
Sequence: 190506
Dilution Factor: 1
Initials: BTI

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

# EPA 8270D SIM LIQ-LIQ

AECOM
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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH782**

**APPL ID: AZ89958**

Sample Collection Date: 04/22/19

QCG: #SIM53-190424A-239856

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 71.9 | 39-114 | | | % | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 74.2 | 58-120 | | | % | 04/24/19 | 04/26/19 |

Quant Method: L0326.M
Run #: 0426L007
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH783**
Sample Collection Date: 04/22/19

ARF: 88687
**APPL ID: AZ89959**
QCG: #SIM53-190424A-239856

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/30/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/30/19 |
| 8270D-SIM | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/30/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 83.1 | 39-114 | | | % | 04/24/19 | 04/30/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 96.8 | 58-120 | | | % | 04/24/19 | 04/30/19 |

Quant Method: L0326.M
Run #: 0426L023
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH795**

**APPL ID: AZ89961**

Sample Collection Date: 04/22/19

QCG: #SIM53-190424A-239856

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 90.6 | 39-114 | | | % | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 90.1 | 58-120 | | | % | 04/24/19 | 04/26/19 |

Quant Method: L0326.M
Run #: 0426L011
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH782**

**APPL ID: AZ89958**

Sample Collection Date: 04/22/19

QCG: #87DC5-190424A-239806

| 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 | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 85.3 | 43-140 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 69.2 | 44-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 87.4 | 19-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 81.3 | 44-120 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 82.1 | 10-115 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 71.4 | 50-134 | | | % | 04/24/19 | 04/26/19 |

Quant Method: Y0319NC.M
Run #: 0411Y199
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH783**

**APPL ID: AZ89959**

Sample Collection Date: 04/22/19

QCG: #87DC5-190424A-239806

| 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 | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 83.1 | 43-140 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 69.2 | 44-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 84.6 | 19-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 88.1 | 44-120 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 80.9 | 10-115 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 72.1 | 50-134 | | | % | 04/24/19 | 04/26/19 |

Quant Method: Y0319NC.M
Run #: 0411Y202
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH795**

**APPL ID: AZ89961**

Sample Collection Date: 04/22/19

QCG: #87DC5-190424A-239806

| 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 | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 78.5 | 43-140 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 64.4 | 44-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 72.3 | 19-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 70.2 | 44-120 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 69.2 | 10-115 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 66.0 | 50-134 | | | % | 04/24/19 | 04/26/19 |

Quant Method: Y0319NC.M
Run #: 0411Y203
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH782**
Sample Collection Date: 04/22/19

ARF: 88687
**APPL ID: AZ89958**
QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

| | |
|---|---|
| Quant Method: | YMEE0430.M |
| Run #: | 0430Y016 |
| Instrument: | Yoda |
| Sequence: | Y190430M |
| Dilution Factor: | 1 |
| Initials: | MA |

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

# EPA 8270D MODIFIED WATER

AECOM
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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH783**
Sample Collection Date: 04/22/19

ARF: 88687
**APPL ID: AZ89959**
QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

| | |
|---|---|
| Quant Method: | YMEE0430.M |
| Run #: | 0430Y017 |
| Instrument: | Yoda |
| Sequence: | Y190430M |
| Dilution Factor: | 1 |
| Initials: | MA |

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

# EPA 8270D MODIFIED WATER

AECOM
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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH795**

**APPL ID: AZ89961**

Sample Collection Date: 04/22/19

QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

| | |
|---|---|
| Quant Method: | YMEE0430.M |
| Run #: | 0430Y018 |
| Instrument: | Yoda |
| Sequence: | Y190430M |
| Dilution Factor: | 1 |
| Initials: | MA |

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH781**

**APPL ID: AZ89957**

Sample Collection Date: 04/22/19

QCG: #86BTO-190424AT-239732

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 103 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 94.7 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 104 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 100.0 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method: T0424W.M
Run #: 0424T37
Instrument: Thor
Sequence: T190423
Dilution Factor: 1
Initials: DPO

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH782**

**APPL ID: AZ89958**

Sample Collection Date: 04/22/19

QCG: #86BTO-190424AT-239732

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 99.7 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 94.3 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 103 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 99.2 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method: T0424W.M
Run #: 0424T39
Instrument: Thor
Sequence: T190423
Dilution Factor: 1
Initials: DPO

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH783**

**APPL ID: AZ89959**

Sample Collection Date: 04/22/19

QCG: #86BTO-190423AL-239733

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/24/19 | 04/24/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/24/19 | 04/24/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/24/19 | 04/24/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/24/19 | 04/24/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 113 | 81-118 | | | % | 04/24/19 | 04/24/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 85.7 | 85-114 | | | % | 04/24/19 | 04/24/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 112 | 80-119 | | | % | 04/24/19 | 04/24/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 97.5 | 89-112 | | | % | 04/24/19 | 04/24/19 |

Quant Method: L0423W.M
Run #: 0423L26
Instrument: Loki
Sequence: 190423
Dilution Factor: 1
Initials: DPO

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH794**

**APPL ID: AZ89960**

Sample Collection Date: 04/22/19

QCG: #86BTO-190424AT-239732

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 102 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 97.5 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 105 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 103 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method: T0424W.M
Run #: 0424T38
Instrument: Thor
Sequence: T190423
Dilution Factor: 1
Initials: DPO

*Printed: 04/26/19 9:59:53 AM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH795**

**APPL ID: AZ89961**

Sample Collection Date: 04/22/19

QCG: #86BTO-190424AT-239732

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 108 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 96.3 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 110 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 101 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method: T0424W.M
Run #: 0424T40
Instrument: Thor
Sequence: T190423
Dilution Factor: 1
Initials: DPO

*Printed: 04/26/19 9:59:53 AM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH781**

Sample Collection Date: 04/22/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 88687

**APPL ID: AZ89957**

QCG: #GRO86-190423AM-239658

| 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 | 04/23/19 | 04/23/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 105 | 85-114 | | | % | 04/23/19 | 04/23/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0423M08 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

*Printed: 04/24/19 9:07:14 AM*

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

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH782**

**APPL ID: AZ89958**

Sample Collection Date: 04/22/19

QCG: #GRO86-190423AM-239658

| 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 | 04/23/19 | 04/23/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 102 | 85-114 | | | % | 04/23/19 | 04/23/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0423M10 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH783**

**APPL ID: AZ89959**

Sample Collection Date: 04/22/19

QCG: #GRO86-190423AM-239658

| 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 | 04/23/19 | 04/23/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 101 | 85-114 | | | % | 04/23/19 | 04/23/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0423M11 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH794**

**APPL ID: AZ89960**

Sample Collection Date: 04/22/19

QCG: #GRO86-190423AM-239658

| 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 | 04/23/19 | 04/23/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 101 | 85-114 | | | % | 04/23/19 | 04/23/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0423M09 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH795**

**APPL ID: AZ89961**

Sample Collection Date: 04/22/19

QCG: #GRO86-190423AM-239658

| 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 | 04/23/19 | 04/23/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 107 | 85-114 | | | % | 04/23/19 | 04/23/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0423M12 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH781**
Sample Collection Date: 04/22/19

ARF: 88687
**APPL ID: AZ89957**
QCG: #RSKME-190429A-239793

| 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 | 04/29/19 | 04/29/19 |

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19042903 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

*Printed: 04/29/19 12:10:46 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH783**

**APPL ID: AZ89959**

Sample Collection Date: 04/22/19

QCG: #RSKME-190503A-239958

| 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 | 05/03/19 | 05/03/19 |

Quant Method: RSK0311.M
Run #: 19050303
Instrument: Rocky
Sequence: 190311
Dilution Factor: 1
Initials: CMO

*Printed: 05/03/19 11:52:53 AM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH794**

**APPL ID: AZ89960**

Sample Collection Date: 04/22/19

QCG: #RSKME-190429A-239793

| 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 | 04/29/19 | 04/29/19 |

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19042904 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

*Printed: 04/29/19 12:10:46 PM*

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

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

**Sample ID: ERH795**

**APPL ID: AZ89961**

Sample Collection Date: 04/22/19

QCG: #RSKME-190429A-239793

| 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 | 04/29/19 | 04/29/19 |

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19042905 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

*Printed: 04/29/19 12:10:46 PM*

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

# Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH782**
Sample Collection Date: 04/22/19

**APPL ID: AZ89958**
ARF: 88687

| Method | Analyte | Result | LOQ | LOD | DL | Units | DF | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | NITRATE | 2.6 | 0.5 | 0.18 | 0.04 | mg/L | 1 | 04/24/19 | 04/24/19 |
| EPA 300.0 | SULFATE | 17.1 | 1.0 | 0.20 | 0.09 | mg/L | 1 | 04/24/19 | 04/24/19 |
| EPA 300.0 | CHLORIDE | 108 | 5.0 | 1.00 | 0.40 | mg/L | 5 | 04/24/19 | 04/24/19 |
| EPA 353.2 | NITRATE-NITRITE-N | 0.66 | 0.10 | 0.090 | 0.028 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | BICARBONATE AS CACO3 | 58.7 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | CARBONATE AS CACO3 | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | TOTAL ALKALINITY AS CACO | 58.7 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM3500FeB | FERROUS IRON | 0.32 U | 1.0 | 0.32 | 0.16 | mg/L | 1 | 04/23/19 | 04/23/19 |
| SW846 9060A | DISSOLVED ORGANIC CARB | 0.21 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/03/19 | 05/03/19 |
| SW846 9060A | TOTAL ORGANIC CARBON | 0.30 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/02/19 | 05/02/19 |

J = Estimated value.

*Printed: 05/13/19 5:35:29 PM*

*APPL-F1-SC-NoMC-REG MDLs*

# Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua .

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH795**
Sample Collection Date: 04/22/19

**APPL ID: AZ89961**
ARF: 88687

| Method | Analyte | Result | LOQ | LOD | DL | Units | DF | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | NITRATE | 2.4 | 0.5 | 0.18 | 0.04 | mg/L | 1 | 04/24/19 | 04/24/19 |
| EPA 300.0 | SULFATE | 10.4 | 1.0 | 0.20 | 0.09 | mg/L | 1 | 04/24/19 | 04/24/19 |
| EPA 300.0 | CHLORIDE | 74.1 | 5.0 | 1.00 | 0.40 | mg/L | 5 | 04/24/19 | 04/24/19 |
| EPA 353.2 | NITRATE-NITRITE-N | 0.57 | 0.10 | 0.090 | 0.028 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | BICARBONATE AS CACO3 | 74.2 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | CARBONATE AS CACO3 | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | TOTAL ALKALINITY AS CACO | 74.2 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM3500FeB | FERROUS IRON | 0.32 U | 1.0 | 0.32 | 0.16 | mg/L | 1 | 04/23/19 | 04/23/19 |
| SW846 9060A | DISSOLVED ORGANIC CARB | 0.57 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 04/25/19 | 04/25/19 |
| SW846 9060A | TOTAL ORGANIC CARBON | 0.47 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 04/25/19 | 04/25/19 |

J = Estimated value.

*Printed: 05/13/19 5:35:30 PM*

*APPL-F1-SC-NoMC-REG MDLs*

# QC FORMS

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Apollo

| APPL ID. | Client Sample No. | SURROGATE: OCTACOSANE (S) | | | SURROGATE: ORTHO-TERPHENYL (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190426A-BLK | Blank | 60-142 | 92.6 | | 56-125 | 90.6 | |
| 190426A-LCS | Lab Control Spike | 60-142 | 88.9 | | 56-125 | 88.5 | |
| 190426A-LCSD | Lab Control SpikeD | 60-142 | 86.5 | | 56-125 | 87.9 | |
| AZ89958 | ERH782 | 60-142 | 98.2 | | 56-125 | 95.7 | |
| AZ89958-MS | Matrix Spike | 60-142 | 91.5 | | 56-125 | 90.7 | |
| AZ89958-MSD | Matrix SpikeD | 60-142 | 96.0 | | 56-125 | 88.0 | |
| AZ89959 | ERH783 | 60-142 | 83.0 | | 56-125 | 89.7 | |
| AZ89961 | ERH795 | 60-142 | 98.6 | | 56-125 | 95.8 | |

Comments: Batch: #DOC53-190426A

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Apollo

Blank ID: 190426A-BLK Time Analyzed: 1723

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426A-BLK | Blank | 419049 | 04/29/19 1723 |
| 190426A-LCS | Lab Control Spike | 419050 | 04/29/19 1743 |
| 190426A-LCSD | Lab Control SpikeD | 419051 | 04/29/19 1803 |
| AZ89958 | ERH782 | 419052 | 04/29/19 1823 |
| 190426A-MS | Matrix Spike | 419053 | 04/29/19 1843 |
| 190426A-MSD | Matrix SpikeD | 419054 | 04/29/19 1903 |
| AZ89959 | ERH783 | 419055 | 04/29/19 1923 |
| AZ89961 | ERH795 | 419056 | 04/29/19 1943 |

Comments: Batch: #DOC53-190426A

# Method Blank

## EPA 8015B TPH LIQ-LIQ

Blank Name/QCG: **190426W-89958 - 239847**

Batch ID: #DOC53-190426A

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 | 04/26/19 | 04/29/19 |
| BLANK | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| BLANK | SURROGATE: OCTACOSANE (S) | 92.6 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| BLANK | SURROGATE: ORTHO-TERPHEN | 90.6 | 56-125 | | | % | 04/26/19 | 04/29/19 |

Quant Method:DOC0411.M
Run #:419049
Instrument:Apollo
Sequence:190419
Initials:BTI

*GC SC-Blank-REG MDLs-DOD*
*Printed: 05/08/19 12:31:31 PM*

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Apollo

LCS ID: 190426A-LCS Time Analyzed: 1743

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426A-BLK | Blank | 419049 | 04/29/19 1723 |
| 190426A-LCS | Lab Control Spike | 419050 | 04/29/19 1743 |
| 190426A-LCSD | Lab Control SpikeD | 419051 | 04/29/19 1803 |
| AZ89958 | ERH782 | 419052 | 04/29/19 1823 |
| 190426A-MS | Matrix Spike | 419053 | 04/29/19 1843 |
| 190426A-MSD | Matrix SpikeD | 419054 | 04/29/19 1903 |
| AZ89959 | ERH783 | 419055 | 04/29/19 1923 |
| AZ89961 | ERH795 | 419056 | 04/29/19 1943 |

Comments: Batch: #DOC53-190426A

# Laboratory Control Spike Recoveries

## EPA 8015B TPH LIQ-LIQ

APPL ID: **190426W-89958 LCS - 239847**
Batch ID: #DOC53-190426A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| DIESEL (C10-C24) | 1250 | 1120 | 1070 | 89.6 | 85.6 | 36-132 | 4.6 | 30 |
| OIL (C24-C40) | 1250 | 1250 | 1180 | 100 | 94.4 | 41-113 | 5.8 | 30 |
| SURROGATE: OCTACOSANE (S) | 75.0 | 66.7 | 64.9 | 88.9 | 86.5 | 60-142 | | |
| SURROGATE: ORTHO-TERPHENYL (S) | 75.0 | 66.4 | 65.9 | 88.5 | 87.9 | 56-125 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | DOC0411.M | DOC0411.M |
| Extraction Date : | 04/26/19 | 04/26/19 |
| Analysis Date : | 04/29/19 | 04/29/19 |
| Instrument : | Apollo | Apollo |
| Run : | 419050 | 419051 |
| Initials : | BTI | |



*Printed: 04/30/19 2:42:15 PM*
*APPL Standard LCSD*

# Matrix Spike Recoveries

## EPA 8015B TPH LIQ-LIQ

APPL ID: **190426W-89958 MS - 239847**
Batch ID: #DOC53-190426A
Sample ID: AZ89958
Client ID: ERH782

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| DIESEL (C10-C24) | 1250 | ND | 1160 | 1130 | 92.8 | 90.4 | 36-132 | 2.6 | 30 |
| OIL (C24-C40) | 1250 | ND | 1290 | 1390 | 103 | 111 | 41-113 | 7.5 | 30 |
| SURROGATE: OCTACOSANE (S) | 75.0 | NA | 68.6 | 72.0 | 91.5 | 96.0 | 60-142 | | |
| SURROGATE: ORTHO-TERPHENYL (S) | 75.0 | NA | 68.0 | 66.0 | 90.7 | 88.0 | 56-125 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | DOC0411.M | DOC0411.M |
| Extraction Date : | 04/26/19 | 04/26/19 |
| Analysis Date : | 04/29/19 | 04/29/19 |
| Instrument : | Apollo | Apollo |
| Run : | 419053 | 419054 |
| Initials : | BTI | |

*Printed: 04/30/19 2:42:21 PM*
*APPL MSD SCII*

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 05/06/19

Matrix: WATER Instrument: Apollo

| APPL ID. | Client Sample No. | SURROGATE: OCTACOSANE (S) | | | SURROGATE: ORTHO-TERPHENYL (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190502A2-BLK | Blank | 60-142 | 97.3 | | 56-125 | 93.5 | |
| 190502A2-LCS | Lab Control Spike | 60-142 | 90.7 | | 56-125 | 89.5 | |
| 190502A2-LCSD | Lab Control SpikeD | 60-142 | 91.1 | | 56-125 | 88.8 | |
| AZ89958-MS | Matrix Spike | 60-142 | 93.2 | | 56-125 | 90.0 | |
| AZ89958-MSD | Matrix SpikeD | 60-142 | 83.9 | | 56-125 | 85.3 | |
| AZ89958 | ERH782 | 60-142 | 102 | | 56-125 | 97.9 | |
| AZ89959 | ERH783 | 60-142 | 101 | | 56-125 | 97.1 | |
| AZ89961 | ERH795 | 60-142 | 98.9 | | 56-125 | 94.7 | |

Comments: Batch: #DOC53-190502A2

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 05/06/19

Matrix: WATER Instrument: Apollo

Blank ID: 190502A2-BLK Time Analyzed: 1730

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502A2-BLK | Blank | 506003 | 05/06/19 1730 |
| 190502A2-LCS | Lab Control Spike | 506004 | 05/06/19 1750 |
| 190502A2-LCSD | Lab Control SpikeD | 506005 | 05/06/19 1810 |
| 190502A2-MS | Matrix Spike | 506006 | 05/06/19 1830 |
| 190502A2-MSD | Matrix SpikeD | 506007 | 05/06/19 1850 |
| AZ89958 | ERH782 | 506008 | 05/06/19 1909 |
| AZ89959 | ERH783 | 506009 | 05/06/19 1929 |
| AZ89961 | ERH795 | 506010 | 05/06/19 1949 |

Comments: Batch: #DOC53-190502A2

# Method Blank

## EPA 8015B TPH LIQ-LIQ RE-EXTRACT

Blank Name/QCG: **190502W-89958 - 240343**

Batch ID: #DOC53-190502A2

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 | 05/02/19 | 05/06/19 |
| BLANK | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 05/02/19 | 05/06/19 |
| BLANK | SURROGATE: OCTACOSANE (S) | 97.3 | 60-142 | | | % | 05/02/19 | 05/06/19 |
| BLANK | SURROGATE: ORTHO-TERPHEN | 93.5 | 56-125 | | | % | 05/02/19 | 05/06/19 |

Quant Method:DOC0411.M
Run #:506003
Instrument:Apollo
Sequence:190506
Initials:BTI

*GC SC-Blank-REG MDLs-DOD*
*Printed: 05/15/19 4:02:50 PM*

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 05/06/19

Matrix: WATER Instrument: Apollo

LCS ID: 190502A2-LCS Time Analyzed: 1750

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502A2-BLK | Blank | 506003 | 05/06/19 1730 |
| 190502A2-LCS | Lab Control Spike | 506004 | 05/06/19 1750 |
| 190502A2-LCSD | Lab Control SpikeD | 506005 | 05/06/19 1810 |
| 190502A2-MS | Matrix Spike | 506006 | 05/06/19 1830 |
| 190502A2-MSD | Matrix SpikeD | 506007 | 05/06/19 1850 |
| AZ89958 | ERH782 | 506008 | 05/06/19 1909 |
| AZ89959 | ERH783 | 506009 | 05/06/19 1929 |
| AZ89961 | ERH795 | 506010 | 05/06/19 1949 |

Comments: Batch: #DOC53-190502A2

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

APPL ID: **190502W-89958 LCS - 240343**
Batch ID: #DOC53-190502A2

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| DIESEL (C10-C24) | 1250 | 1480 | 1080 | 118 | 86.4 | 36-132 | 31.3 # | 30 |
| OIL (C24-C40) | 1250 | 1240 | 1310 | 99.2 | 105 | 41-113 | 5.5 | 30 |
| SURROGATE: OCTACOSANE (S) | 75.0 | 68.0 | 68.3 | 90.7 | 91.1 | 60-142 | | |
| SURROGATE: ORTHO-TERPHENYL (S) | 75.0 | 67.1 | 66.6 | 89.5 | 88.8 | 56-125 | | |

# = Recovery is outside QC limits.

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | DOC0411.M | DOC0411.M |
| Extraction Date : | 05/02/19 | 05/02/19 |
| Analysis Date : | 05/06/19 | 05/06/19 |
| Instrument : | Apollo | Apollo |
| Run : | 506004 | 506005 |
| Initials : | BTI | |



*Printed: 05/15/19 4:03:22 PM*
*APPL Standard LCSD*

# Matrix Spike Recoveries

## EPA 8015B TPH LIQ-LIQ RE-EXTRACT

APPL ID: **190502W-89958 MS - 240343**
Batch ID: #DOC53-190502A2
Sample ID: AZ89958
Client ID: ERH782

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| DIESEL (C10-C24) | 1250 | ND | 1100 | 1060 | 88.0 | 84.8 | 36-132 | 3.7 | 30 |
| OIL (C24-C40) | 1250 | ND | 1260 | 1270 | 101 | 102 | 41-113 | 0.79 | 30 |
| SURROGATE: OCTACOSANE (S) | 75.0 | NA | 69.9 | 62.9 | 93.2 | 83.9 | 60-142 | | |
| SURROGATE: ORTHO-TERPHENYL (S) | 75.0 | NA | 67.5 | 64.0 | 90.0 | 85.3 | 56-125 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | DOC0411.M | DOC0411.M |
| Extraction Date : | 05/02/19 | 05/02/19 |
| Analysis Date : | 05/06/19 | 05/06/19 |
| Instrument : | Apollo | Apollo |
| Run : | 506006 | 506007 |
| Initials : | BTI | |

*Printed: 05/15/19 4:03:06 PM*
*APPL MSD SCII*

# 8270D-SIM

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Linus

| APPL ID. | Client Sample No. | SURROGATE: 2-METHYLNAPHTHALENE-D10 (S) | | | SURROGATE: FLUORANTHENE-D10 (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190424A-BLK | Blank | 39-114 | 68.5 | | 58-120 | 68.4 | |
| 190424A-LCS | Lab Control Spike | 39-114 | 68.6 | | 58-120 | 73.0 | |
| 190424A-LCSD | Lab Control SpikeD | 39-114 | 68.6 | | 58-120 | 71.8 | |
| AZ89958 | ERH782 | 39-114 | 71.9 | | 58-120 | 74.2 | |
| AZ89958-MS | Matrix Spike | 39-114 | 66.6 | | 58-120 | 71.0 | |
| AZ89958-MSD | Matrix SpikeD | 39-114 | 72.8 | | 58-120 | 84.2 | |
| AZ89961 | ERH795 | 39-114 | 90.6 | | 58-120 | 90.1 | |
| AZ89959 | ERH783 | 39-114 | 83.1 | | 58-120 | 96.8 | |

Comments: Batch: #SIM53-190424A

# 8270D-SIM

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Linus

Blank ID: 190424A-BLK Time Analyzed: 1545

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 0426L004 | 04/26/19 1545 |
| 190424A-LCS | Lab Control Spike | 0426L005 | 04/26/19 1607 |
| 190424A-LCSD | Lab Control SpikeD | 0426L006 | 04/26/19 1629 |
| AZ89958 | ERH782 | 0426L007 | 04/26/19 1652 |
| 190424A-MS | Matrix Spike | 0426L008 | 04/26/19 1714 |
| 190424A-MSD | Matrix SpikeD | 0426L009 | 04/26/19 1736 |
| AZ89961 | ERH795 | 0426L011 | 04/26/19 1821 |
| AZ89959 | ERH783 | 0426L023 | 04/30/19 1119 |

Comments: Batch: #SIM53-190424A

# Method Blank

## EPA 8270D SIM LIQ-LIQ

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **190424W-89958 - 239856**
Batch ID: #SIM53-190424A

| Sample Type | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| BLANK | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| BLANK | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| BLANK | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: 2-METHYLNAPHT | 68.5 | 39-114 | | | % | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: FLUORANTHENE- | 68.4 | 58-120 | | | % | 04/24/19 | 04/26/19 |

Quant Method:L0326.M
Run #:0426L004
Instrument:Linus
Sequence:L190426
Initials:JPR

*GC SC-Blank-REG MDLs-DOD*
*Printed: 04/30/19 3:48:10 PM*

# 8270D-SIM

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Linus

LCS ID: 190424A-LCS Time Analyzed: 1607

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 0426L004 | 04/26/19 1545 |
| 190424A-LCS | Lab Control Spike | 0426L005 | 04/26/19 1607 |
| 190424A-LCSD | Lab Control SpikeD | 0426L006 | 04/26/19 1629 |
| AZ89958 | ERH782 | 0426L007 | 04/26/19 1652 |
| 190424A-MS | Matrix Spike | 0426L008 | 04/26/19 1714 |
| 190424A-MSD | Matrix SpikeD | 0426L009 | 04/26/19 1736 |
| AZ89961 | ERH795 | 0426L011 | 04/26/19 1821 |
| AZ89959 | ERH783 | 0426L023 | 04/30/19 1119 |

Comments: Batch: #SIM53-190424A

# Laboratory Control Spike Recoveries

## EPA 8270D SIM LIQ-LIQ

APPL ID: **190424W-89958 LCS - 239856**
Batch ID: #SIM53-190424A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1-METHYLNAPHTHALENE | 6.25 | 4.34 | 4.32 | 69.4 | 69.1 | 41-115 | 0.46 | 20 |
| 2-METHYLNAPHTHALENE | 6.25 | 4.83 | 4.81 | 77.3 | 77.0 | 39-114 | 0.41 | 20 |
| NAPHTHALENE | 6.25 | 4.60 | 4.59 | 73.6 | 73.4 | 43-114 | 0.22 | 20 |
| SURROGATE: 2-METHYLNAPHTHALEN | 6.25 | 4.29 | 4.29 | 68.6 | 68.6 | 39-114 | | |
| SURROGATE: FLUORANTHENE-D10 (S) | 6.25 | 4.56 | 4.49 | 73.0 | 71.8 | 58-120 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | L0326.M | L0326.M |
| Extraction Date : | 04/24/19 | 04/24/19 |
| Analysis Date : | 04/26/19 | 04/26/19 |
| Instrument : | Linus | Linus |
| Run : | 0426L005 | 0426L006 |
| Initials : | JPR | |



*Printed: 04/30/19 3:48:17 PM*
*APPL Standard LCSD*

# Matrix Spike Recoveries

## EPA 8270D SIM LIQ-LIQ

APPL ID: **190424W-89958 MS - 239856**
Batch ID: #SIM53-190424A
Sample ID: AZ89958
Client ID: ERH782

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1-METHYLNAPHTHALENE | 6.25 | ND | 4.17 | 4.54 | 66.7 | 72.6 | 41-115 | 8.5 | 20 |
| 2-METHYLNAPHTHALENE | 6.25 | ND | 4.56 | 5.05 | 73.0 | 80.8 | 39-114 | 10.2 | 20 |
| NAPHTHALENE | 6.25 | ND | 4.39 | 4.86 | 70.2 | 77.8 | 43-114 | 10.2 | 20 |
| SURROGATE: 2-METHYLNAPHTHALEN | 6.25 | NA | 4.16 | 4.55 | 66.6 | 72.8 | 39-114 | | |
| SURROGATE: FLUORANTHENE-D10 (S) | 6.25 | NA | 4.44 | 5.26 | 71.0 | 84.2 | 58-120 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | L0326.M | L0326.M |
| Extraction Date : | 04/24/19 | 04/24/19 |
| Analysis Date : | 04/26/19 | 04/26/19 |
| Instrument : | Linus | Linus |
| Run : | 0426L008 | 0426L009 |
| Initials : | JPR | |

*Printed: 04/30/19 3:48:26 PM*
*APPL MSD SCII*

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 0326L002.D

SDG No:
Date Analyzed: 03/26/19
Instrument: Linus
Time Analyzed: 9:39

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 0.5 SIM 03/06/19 | 0326L005.D | 03/26/19 10:39 |
| 2 | | 1 SIM 03/06/19 | 0326L006.D | 03/26/19 11:01 |
| 3 | | 5 SIM 03/06/19 | 0326L007.D | 03/26/19 11:23 |
| 4 | | 10 SIM 03/06/19 | 0326L008.D | 03/26/19 11:45 |
| 5 | | 50 SIM 03/06/19 | 0326L009.D | 03/26/19 12:08 |
| 6 | | 100 SIM 03/06/19 | 0326L010.D | 03/26/19 12:30 |
| 7 | | 0.2 SIM 01/18/19 | 0326L012.D | 03/26/19 15:55 |
| 8 | | 0.1 SIM 01/18/19 | 0326L013.D | 03/26/19 17:05 |
| 9 | | SS SIM 03/06/19 | 0326L014.D | 03/26/19 17:27 |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
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| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 51 | 9.95 - 80% of mass 198 | 45.8 |
| 68 | 0 - 2.05% of mass 69 | 0.0 |
| 70 | 0 - 2% of mass 69 | 0.4 |
| 127 | 10 - 80% of mass 198 | 61.0 |
| 197 | 0 - 2% of mass 198 | 0.0 |
| 198 | 100 - 100% of mass 198 | 100.0 |
| 199 | 5 - 9% of mass 198 | 6.0 |
| 275 | 10 - 60% of mass 198 | 18.6 |
| 365 | 1 - 100% of mass 198 | 2.2 |
| 441 | 0.01 - 24% of mass 442 | 14.3 |
| 442 | 50 - 150% of mass 198 | 78.8 |
| 443 | 15 - 24% of mass 442 | 19.8 |

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 88687
Matrix: Water
ID: 0426L002.D

SDG No: 88687
Date Analyzed: 04/26/19
Instrument: Linus
Time Analyzed: 14:15

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 5 SIM 03/06/19 | 0426L003.D | 04/26/19 14:31 |
| 2 | Blank | 190424A BLK 1/800 | 0426L004.D | 04/26/19 15:45 |
| 3 | Lab Control Spike | 190424A LCS-2 1/800 | 0426L005.D | 04/26/19 16:07 |
| 4 | Lab Control SpikeD | 190424A LCSD-2 1/800 | 0426L006.D | 04/26/19 16:29 |
| 5 | ERH782 | AZ89958W30 1/800 | 0426L007.D | 04/26/19 16:52 |
| 6 | | AZ89958W33 MS-2 1/80 | 0426L008.D | 04/26/19 17:14 |
| 7 | | AZ89958W36 MSD-2 1/8 | 0426L009.D | 04/26/19 17:36 |
| 8 | ERH795 | AZ89961W14 1/800 | 0426L011.D | 04/26/19 18:21 |
| 9 | | 5 SIM 03/06/19 | 0426L020.D | 04/26/19 21:43 |
| 10 | | | | |
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| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 51 | 9.95 - 80% of mass 198 | 55.2 |
| 68 | 0 - 2.05% of mass 69 | 0.0 |
| 70 | 0 - 2% of mass 69 | 0.6 |
| 127 | 10 - 80% of mass 198 | 63.7 |
| 197 | 0 - 2% of mass 198 | 0.0 |
| 198 | 100 - 100% of mass 198 | 100.0 |
| 199 | 5 - 9% of mass 198 | 6.6 |
| 275 | 10 - 60% of mass 198 | 21.6 |
| 365 | 1 - 100% of mass 198 | 2.7 |
| 441 | 0.01 - 24% of mass 442 | 16.7 |
| 442 | 50 - 150% of mass 198 | 74.2 |
| 443 | 15 - 24% of mass 442 | 18.4 |

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 88687
Matrix: Water
ID: 0426L021.D

SDG No: 88687
Date Analyzed: 04/30/19
Instrument: Linus
Time Analyzed: 10:41

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 5 SIM 03/06/19 | 0426L022.D | 04/30/19 10:57 |
| 2 | ERH783 | AZ89959W07 1/800 | 0426L023.D | 04/30/19 11:19 |
| 3 | | 5 SIM 03/06/19 | 0426L028.D | 04/30/19 16:35 |
| 4 | | | | |
| 5 | | | | |
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| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 51 | 9.95 - 80% of mass 198 | 62.4 |
| 68 | 0 - 2.05% of mass 69 | 0.0 |
| 70 | 0 - 2% of mass 69 | 0.6 |
| 127 | 10 - 80% of mass 198 | 66.4 |
| 197 | 0 - 2% of mass 198 | 0.0 |
| 198 | 100 - 100% of mass 198 | 100.0 |
| 199 | 5 - 9% of mass 198 | 6.8 |
| 275 | 10 - 60% of mass 198 | 20.1 |
| 365 | 1 - 100% of mass 198 | 2.7 |
| 441 | 0.01 - 24% of mass 442 | 17.7 |
| 442 | 50 - 150% of mass 198 | 61.8 |
| 443 | 15 - 24% of mass 442 | 20.2 |

# INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 88687

Lab File ID (Standard): 0426L003.D Date Analyzed: 04/26/19

Instrument ID: Linus Time Analyzed: 14:31

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 | 48849 | 3.94 | 20245 | 5.96 | 34785 | 7.69 |
| | UPPER LIMIT | 97698 | 4.11 | 40490 | 6.13 | 69570 | 7.86 |
| | LOWER LIMIT | 24425 | 3.77 | 10123 | 5.79 | 17393 | 7.52 |
| | SAMPLE NO. | | | | | | |
| 01 | 190424A BLK 1/800 | 61581 | 3.92 | 27671 | 5.96 | 51116 | 7.70 |
| 02 | 190424A LCS-2 1/800 | 61600 | 3.92 | 26296 | 5.96 | 49643 | 7.69 |
| 03 | 190424A LCSD-2 1/800 | 61904 | 3.94 | 27133 | 5.96 | 50790 | 7.69 |
| 04 | AZ89958W30 1/800 | 58370 | 3.92 | 25961 | 5.96 | 47827 | 7.70 |
| 05 | AZ89958W33 MS-2 1/8( | 62418 | 3.94 | 26764 | 5.96 | 50768 | 7.69 |
| 06 | AZ89958W36 MSD-2 1/ | 58680 | 3.94 | 25083 | 5.96 | 44186 | 7.69 |
| 07 | AZ89961W14 1/800 | 47171 | 3.94 | 20307 | 5.96 | 38282 | 7.70 |
| 08 | 5 SIM 03/06/19 | 50811 | 3.94 | 20724 | 5.96 | 34168 | 7.70 |
| 09 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
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| 21 | | | | | | | |
| 22 | | | | | | | |

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

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

# INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 88687

Lab File ID (Standard): 0426L003.D Date Analyzed: 04/26/19

Instrument ID: Linus Time Analyzed: 14:31

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

| | | Chrysene-D12(IS) | | Perylene-D12(IS) | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| | 12 HOUR STD | 49781 | 10.78 | 44763 | 13.17 | | |
| | UPPER LIMIT | 99562 | 10.95 | 89526 | 13.34 | | |
| | LOWER LIMIT | 24891 | 10.61 | 22382 | 13.00 | | |
| | SAMPLE NO. | | | | | | |
| 01 | 190424A BLK 1/800 | 74152 | 10.80 | 72779 | 13.18 | | |
| 02 | 190424A LCS-2 1/800 | 71987 | 10.78 | 68680 | 13.16 | | |
| 03 | 190424A LCSD-2 1/800 | 73769 | 10.78 | 73093 | 13.16 | | |
| 04 | AZ89958W30 1/800 | 70314 | 10.80 | 70202 | 13.18 | | |
| 05 | AZ89958W33 MS-2 1/80 | 72806 | 10.78 | 69971 | 13.16 | | |
| 06 | AZ89958W36 MSD-2 1/ | 63853 | 10.78 | 60946 | 13.17 | | |
| 07 | AZ89961W14 1/800 | 56190 | 10.80 | 55428 | 13.20 | | |
| 08 | 5 SIM 03/06/19 | 53412 | 10.79 | 50142 | 13.17 | | |
| 09 | | | | | | | |
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

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

# INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 88687

Lab File ID (Standard): 0426L022.D Date Analyzed: 04/30/19

Instrument ID: Linus Time Analyzed: 10:57

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 | 53936 | 3.94 | 20646 | 5.96 | 35467 | 7.69 |
| | UPPER LIMIT | 107872 | 4.11 | 41292 | 6.13 | 70934 | 7.86 |
| | LOWER LIMIT | 26968 | 3.77 | 10323 | 5.79 | 17734 | 7.52 |
| | SAMPLE NO. | | | | | | |
| 01 | AZ89959W07 1/800 | 49061 | 3.94 | 20970 | 5.96 | 35160 | 7.70 |
| 02 | 5 SIM 03/06/19 | 57622 | 3.94 | 22676 | 5.96 | 37749 | 7.69 |
| 03 | | | | | | | |
| 04 | | | | | | | |
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 88687

Lab File ID (Standard): 0426L022.D Date Analyzed: 04/30/19

Instrument ID: Linus Time Analyzed: 10:57

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

| | | Chrysene-D12(IS) | | Perylene-D12(IS) | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| | 12 HOUR STD | 53547 | 10.78 | 48683 | 13.17 | | |
| | UPPER LIMIT | 107094 | 10.95 | 97366 | 13.34 | | |
| | LOWER LIMIT | 26774 | 10.61 | 24342 | 13.00 | | |
| | SAMPLE NO. | | | | | | |
| 01 | AZ89959W07 1/800 | 49151 | 10.82 | 49682 | 13.20 | | |
| 02 | 5 SIM 03/06/19 | 54658 | 10.78 | 52173 | 13.17 | | |
| 03 | | | | | | | |
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

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

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/26/19

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 |
| 190424A-BLK | Blank | 43-140 | 74.6 | | 44-119 | 62.7 | |
| 190424A-LCS | Lab Control Spike | 43-140 | 82.4 | | 44-119 | 65.6 | |
| 190424A-LCSD | Lab Control SpikeD | 43-140 | 80.8 | | 44-119 | 66.3 | |
| AZ89958 | ERH782 | 43-140 | 85.3 | | 44-119 | 69.2 | |
| AZ89958-MS | Matrix Spike | 43-140 | 74.8 | | 44-119 | 59.3 | |
| AZ89958-MSD | Matrix SpikeD | 43-140 | 83.2 | | 44-119 | 67.2 | |
| AZ89959 | ERH783 | 43-140 | 83.1 | | 44-119 | 69.2 | |
| AZ89961 | ERH795 | 43-140 | 78.5 | | 44-119 | 64.4 | |

Comments: Batch: #87DC5-190424A

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Yoda

| APPL ID. | Client Sample No. | SURROGATE: 2-FLUOROPHENOL (S) | | | SURROGATE: NITROBENZENE-D5 (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190424A-BLK | Blank | 19-119 | 81.3 | | 44-120 | 75.2 | |
| 190424A-LCS | Lab Control Spike | 19-119 | 76.8 | | 44-120 | 71.5 | |
| 190424A-LCSD | Lab Control SpikeD | 19-119 | 84.0 | | 44-120 | 76.1 | |
| AZ89958 | ERH782 | 19-119 | 87.4 | | 44-120 | 81.3 | |
| AZ89958-MS | Matrix Spike | 19-119 | 64.0 | | 44-120 | 65.3 | |
| AZ89958-MSD | Matrix SpikeD | 19-119 | 76.0 | | 44-120 | 77.2 | |
| AZ89959 | ERH783 | 19-119 | 84.6 | | 44-120 | 88.1 | |
| AZ89961 | ERH795 | 19-119 | 72.3 | | 44-120 | 70.2 | |

Comments: Batch: #87DC5-190424A

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Yoda

| APPL ID. | Client Sample No. | SURROGATE: PHENOL-D6 (S) | | | SURROGATE: TERPHENYL-D14 (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190424A-BLK | Blank | 10-115 | 75.4 | | 50-134 | 60.2 | |
| 190424A-LCS | Lab Control Spike | 10-115 | 70.4 | | 50-134 | 69.4 | |
| 190424A-LCSD | Lab Control SpikeD | 10-115 | 76.8 | | 50-134 | 69.3 | |
| AZ89958 | ERH782 | 10-115 | 82.1 | | 50-134 | 71.4 | |
| AZ89958-MS | Matrix Spike | 10-115 | 25.5 | | 50-134 | 61.0 | |
| AZ89958-MSD | Matrix SpikeD | 10-115 | 73.6 | | 50-134 | 71.4 | |
| AZ89959 | ERH783 | 10-115 | 80.9 | | 50-134 | 72.1 | |
| AZ89961 | ERH795 | 10-115 | 69.2 | | 50-134 | 66.0 | |

Comments: Batch: #87DC5-190424A

# EPA 8270D

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Yoda

Blank ID: 190424A-BLK Time Analyzed: 1746

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 0411Y196 | 04/26/19 1746 |
| 190424A-LCS | Lab Control Spike | 0411Y197 | 04/26/19 1813 |
| 190424A-LCSD | Lab Control SpikeD | 0411Y198 | 04/26/19 1841 |
| AZ89958 | ERH782 | 0411Y199 | 04/26/19 1909 |
| 190424A-MS | Matrix Spike | 0411Y200 | 04/26/19 1937 |
| 190424A-MSD | Matrix SpikeD | 0411Y201 | 04/26/19 2005 |
| AZ89959 | ERH783 | 0411Y202 | 04/26/19 2033 |
| AZ89961 | ERH795 | 0411Y203 | 04/26/19 2101 |

Comments: Batch: #87DC5-190424A

*Printed: 04/29/19 3:55:02 PM*
*Form 4, Blank Summary*

# Method Blank
## EPA 8270D WATER

Blank Name/QCG: **190424W-90051 - 239806**
Batch ID: #87DC5-190424A

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 | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: 2,4,6-TRIBROMOP | 74.6 | 43-140 | | | % | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: 2-FLUORBIPHENY | 62.7 | 44-119 | | | % | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: 2-FLUOROPHENO | 81.3 | 19-119 | | | % | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: NITROBENZENE- | 75.2 | 44-120 | | | % | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: PHENOL-D6 (S) | 75.4 | 10-115 | | | % | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: TERPHENYL-D14 ( | 60.2 | 50-134 | | | % | 04/24/19 | 04/26/19 |

Quant Method:Y0319NC.M
Run #:0411Y196
Instrument:Yoda
Sequence:Y190411
Initials:JPR

*GC SC-Blank-REG MDLs-DOD*
*Printed: 04/29/19 3:54:39 PM*

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Yoda

LCS ID: 190424A-LCS Time Analyzed: 1813

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 0411Y196 | 04/26/19 1746 |
| 190424A-LCS | Lab Control Spike | 0411Y197 | 04/26/19 1813 |
| 190424A-LCSD | Lab Control SpikeD | 0411Y198 | 04/26/19 1841 |
| AZ89958 | ERH782 | 0411Y199 | 04/26/19 1909 |
| 190424A-MS | Matrix Spike | 0411Y200 | 04/26/19 1937 |
| 190424A-MSD | Matrix SpikeD | 0411Y201 | 04/26/19 2005 |
| AZ89959 | ERH783 | 0411Y202 | 04/26/19 2033 |
| AZ89961 | ERH795 | 0411Y203 | 04/26/19 2101 |

Comments: Batch: #87DC5-190424A

*Printed: 04/29/19 3:55:03 PM*
*Form 4, LCS Summary*

# Laboratory Control Spike Recoveries
## EPA 8270D WATER

APPL ID: **190424W-90051 LCS - 239806**
Batch ID: #87DC5-190424A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| PHENOL | 62.5 | 48.6 | 52.4 | 77.8 | 83.8 | 10-115 | 7.5 | 20 |
| SURROGATE: 2,4,6-TRIBROMOPHENOL | 250 | 206 | 202 | 82.4 | 80.8 | 43-140 | | |
| SURROGATE: 2-FLUORBIPHENYL (S) | 125 | 82.0 | 82.9 | 65.6 | 66.3 | 44-119 | | |
| SURROGATE: 2-FLUOROPHENOL (S) | 250 | 192 | 210 | 76.8 | 84.0 | 19-119 | | |
| SURROGATE: NITROBENZENE-D5 (S) | 125 | 89.4 | 95.1 | 71.5 | 76.1 | 44-120 | | |
| SURROGATE: PHENOL-D6 (S) | 250 | 176 | 192 | 70.4 | 76.8 | 10-115 | | |
| SURROGATE: TERPHENYL-D14 (S) | 125 | 86.8 | 86.6 | 69.4 | 69.3 | 50-134 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | Y0319NC.M | Y0319NC.M |
| Extraction Date : | 04/24/19 | 04/24/19 |
| Analysis Date : | 04/26/19 | 04/26/19 |
| Instrument : | Yoda | Yoda |
| Run : | 0411Y197 | 0411Y198 |
| Initials : | JPR | |



*Printed: 04/29/19 3:54:46 PM*
*APPL Standard LCSD*

# Matrix Spike Recoveries

## EPA 8270D WATER

APPL ID: **190424W-89958 MS - 239806**
Batch ID: #87DC5-190424A
Sample ID: AZ89958
Client ID: ERH782

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| PHENOL | 62.5 | ND | 39.7 | 53.2 | 63.5 | 85.1 | 10-115 | 29.1 # | 20 |
| SURROGATE: 2,4,6-TRIBROMOPHENOL | 250 | NA | 187 | 208 | 74.8 | 83.2 | 43-140 | | |
| SURROGATE: 2-FLUORBIPHENYL (S) | 125 | NA | 74.1 | 84.0 | 59.3 | 67.2 | 44-119 | | |
| SURROGATE: 2-FLUOROPHENOL (S) | 250 | NA | 160 | 190 | 64.0 | 76.0 | 19-119 | | |
| SURROGATE: NITROBENZENE-D5 (S) | 125 | NA | 81.6 | 96.5 | 65.3 | 77.2 | 44-120 | | |
| SURROGATE: PHENOL-D6 (S) | 250 | NA | 63.7 | 184 | 25.5 | 73.6 | 10-115 | | |
| SURROGATE: TERPHENYL-D14 (S) | 125 | NA | 76.2 | 89.3 | 61.0 | 71.4 | 50-134 | | |

# = Recovery is outside QC limits.

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | Y0319NC.M | Y0319NC.M |
| Extraction Date : | 04/24/19 | 04/24/19 |
| Analysis Date : | 04/26/19 | 04/26/19 |
| Instrument : | Yoda | Yoda |
| Run : | 0411Y200 | 0411Y201 |
| Initials : | JPR | |

*Printed: 04/29/19 3:54:55 PM*
*APPL MSD SCII*

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 0319Y002.D

SDG No:
Date Analyzed: 03/19/19
Instrument: Yoda
Time Analyzed: 18:15

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 50ug/mL 8270 03/13/1 | 0319Y003.D | 03/19/19 18:31 |
| 2 | | 4ug/mL 8270 03/13/19 | 0319Y004.D | 03/19/19 18:58 |
| 3 | | 5ug/mL 8270 03/13/19 | 0319Y005.D | 03/19/19 19:26 |
| 4 | | 10ug/mL 8270 03/13/1 | 0319Y006.D | 03/19/19 19:54 |
| 5 | | 20ug/mL 8270 03/13/1 | 0319Y007.D | 03/19/19 20:22 |
| 6 | | 40ug/mL 8270 03/13/1 | 0319Y008.D | 03/19/19 20:49 |
| 7 | | 60ug/mL 8270 03/13/1 | 0319Y009.D | 03/19/19 21:17 |
| 8 | | 80ug/mL 8270 03/13/1 | 0319Y010.D | 03/19/19 21:44 |
| 9 | | 100ug/mL 8270 03/13/ | 0319Y011.D | 03/19/19 22:11 |
| 10 | | SS-8270 03/13/19 | 0319Y012.D | 03/19/19 22:39 |
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| m/e | | |
|---|---|---|
| 51 | 9.95 - 80.04% of mass 198 | 47.2 |
| 68 | 0 - 2% of mass 69 | 0.0 |
| 70 | 0 - 2% of mass 69 | 0.6 |
| 127 | 10 - 80% of mass 198 | 58.4 |
| 197 | 0 - 2% of mass 198 | 0.0 |
| 198 | 100 - 100% of mass 198.05 | 100.0 |
| 199 | 5 - 9% of mass 198 | 6.7 |
| 275 | 10 - 60% of mass 198 | 23.1 |
| 365 | 1 - 100% of mass 198 | 2.4 |
| 441 | 0.01 - 24% of mass 442 | 16.3 |
| 442 | 50 - 150% of mass 198.05 | 69.9 |
| 443 | 15 - 24% of mass 442 | 19.7 |

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 88687
Matrix: Water
ID: 0411Y194.D

SDG No: 88687
Date Analyzed: 04/26/19
Instrument: Yoda
Time Analyzed: 17:03

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 50ug/ml 8270 3/13/19 | 0411Y195.D | 04/26/19 17:18 |
| 2 | Blank | 190424A BLK 1/800 | 0411Y196.D | 04/26/19 17:46 |
| 3 | Lab Control Spike | 190424A LCS-1 1/800 | 0411Y197.D | 04/26/19 18:13 |
| 4 | Lab Control SpikeD | 190424A LCSD-1 1/800 | 0411Y198.D | 04/26/19 18:41 |
| 5 | ERH782 | AZ89958W30 1/800 | 0411Y199.D | 04/26/19 19:09 |
| 6 | | AZ89958W28 MS-1 1/80 | 0411Y200.D | 04/26/19 19:37 |
| 7 | | AZ89958W34 MSD-1 1/8 | 0411Y201.D | 04/26/19 20:05 |
| 8 | ERH783 | AZ89959W07 1/800 | 0411Y202.D | 04/26/19 20:33 |
| 9 | ERH795 | AZ89961W14 1/800 | 0411Y203.D | 04/26/19 21:01 |
| 10 | | 50ug/ml 8270 3/13/19 | 0411Y212.D | 04/27/19 1:12 |
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| m/e | | |
|---|---|---|
| 51 | 10 - 80% of mass 198 | 49.9 |
| 68 | 0 - 2% of mass 69 | 0.0 |
| 70 | 0 - 2% of mass 69 | 0.3 |
| 127 | 10 - 80% of mass 198 | 60.5 |
| 197 | 0 - 2% of mass 198 | 0.0 |
| 198 | 100 - 100% of mass 198 | 100.0 |
| 199 | 5 - 9% of mass 198 | 6.3 |
| 275 | 10 - 60% of mass 198 | 23.2 |
| 365 | 1 - 100% of mass 198 | 2.5 |
| 441 | 0.01 - 24% of mass 442 | 16.7 |
| 442 | 50 - 150% of mass 198 | 65.1 |
| 443 | 17 - 23% of mass 442 | 20.0 |

# INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 88687

Lab File ID (Standard): 0411Y195.D Date Analyzed: 04/26/19

Instrument ID: Yoda Time Analyzed: 17:18

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 | 198066 | 5.28 | 854755 | 6.74 | 463907 | 8.77 |
| | UPPER LIMIT | 396132 | 5.45 | 1709510 | 6.91 | 927814 | 8.94 |
| | LOWER LIMIT | 99033 | 5.11 | 427378 | 6.57 | 231954 | 8.60 |
| | SAMPLE NO. | | | | | | |
| 01 | 50ug/ml 8270 3/13/19 | 198066 | 5.28 | 854755 | 6.74 | 463907 | 8.77 |
| 02 | 190424A BLK 1/800 | 156918 | 5.28 | 730248 | 6.74 | 463695 | 8.77 |
| 03 | 190424A LCS-1 1/800 | 165950 | 5.28 | 746399 | 6.74 | 433513 | 8.77 |
| 04 | 190424A LCSD-1 1/800 | 155619 | 5.28 | 700505 | 6.74 | 423707 | 8.78 |
| 05 | AZ89958W30 1/800 | 153767 | 5.28 | 688686 | 6.74 | 421225 | 8.77 |
| 06 | AZ89958W28 MS-1 1/80 | 186949 | 5.28 | 825353 | 6.74 | 478252 | 8.78 |
| 07 | AZ89958W34 MSD-1 1/ | 160044 | 5.28 | 712652 | 6.74 | 431893 | 8.78 |
| 08 | AZ89959W07 1/800 | 147168 | 5.28 | 669492 | 6.74 | 437684 | 8.78 |
| 09 | AZ89961W14 1/800 | 188577 | 5.28 | 825646 | 6.74 | 477760 | 8.77 |
| 10 | 50ug/ml 8270 3/13/19 | 172038 | 5.28 | 762569 | 6.74 | 411365 | 8.77 |
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 88687

Lab File ID (Standard): 0411Y195.D Date Analyzed: 04/26/19

Instrument ID: Yoda Time Analyzed: 17:18

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 | 776149 | 10.53 | 676093 | 13.64 | 642988 | 15.49 |
| | UPPER LIMIT | 1552298 | 10.70 | 1352186 | 13.81 | 1285976 | 15.66 |
| | LOWER LIMIT | 388075 | 10.36 | 338047 | 13.47 | 321494 | 15.32 |
| | SAMPLE NO. | | | | | | |
| 01 | 50ug/ml 8270 3/13/19 | 776149 | 10.53 | 676093 | 13.64 | 642988 | 15.49 |
| 02 | 190424A BLK 1/800 | 781468 | 10.53 | 762900 | 13.64 | 695198 | 15.48 |
| 03 | 190424A LCS-1 1/800 | 741316 | 10.53 | 641284 | 13.64 | 492206 | 15.49 |
| 04 | 190424A LCSD-1 1/800 | 708836 | 10.53 | 626419 | 13.64 | 542737 | 15.48 |
| 05 | AZ89958W30 1/800 | 719888 | 10.53 | 622136 | 13.64 | 582956 | 15.49 |
| 06 | AZ89958W28 MS-1 1/8( | 782042 | 10.53 | 685624 | 13.64 | 513274 | 15.48 |
| 07 | AZ89958W34 MSD-1 1/ | 729278 | 10.53 | 634339 | 13.64 | 601146 | 15.48 |
| 08 | AZ89959W07 1/800 | 745190 | 10.53 | 649177 | 13.64 | 611437 | 15.48 |
| 09 | AZ89961W14 1/800 | 811658 | 10.53 | 696634 | 13.64 | 660531 | 15.48 |
| 10 | 50ug/ml 8270 3/13/19 | 684409 | 10.53 | 609183 | 13.64 | 569428 | 15.49 |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

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

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

# EPA 8270D

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Yoda

Blank ID: 190429A-BLK Time Analyzed: 1413

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-BLK | Blank | 0430Y013 | 04/30/19 1413 |
| 190429A-LCS | Lab Control Spike | 0430Y014 | 04/30/19 1437 |
| 190429A-LCSD | Lab Control SpikeD | 0430Y015 | 04/30/19 1501 |
| AZ89958 | ERH782 | 0430Y016 | 04/30/19 1524 |
| AZ89959 | ERH783 | 0430Y017 | 04/30/19 1548 |
| AZ89961 | ERH795 | 0430Y018 | 04/30/19 1611 |
| 190429A-MS | Matrix Spike | 0430Y019 | 04/30/19 1635 |
| 190429A-MSD | Matrix SpikeD | 0430Y020 | 04/30/19 1659 |

Comments: Batch: #87DME-190429A

# Method Blank
## EPA 8270D MODIFIED WATER

Blank Name/QCG: **190429W-89958 - 239869**
Batch ID: #87DME-190429A

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 | 04/29/19 | 04/30/19 |

Quant Method:YMEE0430.M
Run #:0430Y013
Instrument:Yoda
Sequence:Y190430M
Initials:MA

*GC SC-Blank-REG MDLs-DOD*
*Printed: 05/01/19 9:30:03 AM*

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Yoda

LCS ID: 190429A-LCS Time Analyzed: 1437

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-BLK | Blank | 0430Y013 | 04/30/19 1413 |
| 190429A-LCS | Lab Control Spike | 0430Y014 | 04/30/19 1437 |
| 190429A-LCSD | Lab Control SpikeD | 0430Y015 | 04/30/19 1501 |
| AZ89958 | ERH782 | 0430Y016 | 04/30/19 1524 |
| AZ89959 | ERH783 | 0430Y017 | 04/30/19 1548 |
| AZ89961 | ERH795 | 0430Y018 | 04/30/19 1611 |
| 190429A-MS | Matrix Spike | 0430Y019 | 04/30/19 1635 |
| 190429A-MSD | Matrix SpikeD | 0430Y020 | 04/30/19 1659 |

Comments: Batch: #87DME-190429A

# Laboratory Control Spike Recoveries

## EPA 8270D MODIFIED WATER

APPL ID: **190429W-89958 LCS - 239869**
Batch ID: #87DME-190429A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2-(2-METHOXYETHOXY)-ETHANOL | 80.0 | 93.3 | 124 | 117 | 155 # | 30-130 | 28.3 # | 20 |

# = Recovery is outside QC limits.

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | YMEE0430.M | YMEE0430.M |
| Extraction Date : | 04/29/19 | 04/29/19 |
| Analysis Date : | 04/30/19 | 04/30/19 |
| Instrument : | Yoda | Yoda |
| Run : | 0430Y014 | 0430Y015 |
| Initials : | MA | |



*Printed: 05/01/19 9:30:11 AM*
*APPL Standard LCSD*

# Matrix Spike Recoveries

## EPA 8270D MODIFIED WATER

APPL ID: **190429W-89958 MS - 239869**
Batch ID: #87DME-190429A
Sample ID: AZ89958
Client ID: ERH782

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2-(2-METHOXYETHOXY)-ETHANOL | 80.0 | ND | 83.2 | 92.0 | 104 | 115 | 30-130 | 10.0 | 20 |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | YMEE0430.M | YMEE0430.M |
| Extraction Date : | 04/29/19 | 04/29/19 |
| Analysis Date : | 04/30/19 | 04/30/19 |
| Instrument : | Yoda | Yoda |
| Run : | 0430Y019 | 0430Y020 |
| Initials : | MA | |

*Printed: 05/01/19 9:30:21 AM*
*APPL MSD SCII*

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/23/19

Matrix: WATER Instrument: Loki

| APPL ID. | Client Sample No. | SURROGATE: 1,2-DICHLOROETHANE-D4 (S) | | | SURROGATE: 4-BROMOFLUOROBENZENE (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190423AL-LCS | Lab Control Spike | 81-118 | 94.4 | | 85-114 | 92.4 | |
| 190423AL-LCSD | Lab Control SpikeD | 81-118 | 90.8 | | 85-114 | 89.6 | |
| 190423AL-BLK | Blank | 81-118 | 106 | | 85-114 | 85.3 | |
| AZ89959 | ERH783 | 81-118 | 113 | | 85-114 | 85.7 | |

Comments: Batch: #86BTO-190423AL

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/23/19

Matrix: WATER Instrument: Loki

| APPL ID. | Client Sample No. | SURROGATE: DIBROMOFLUOROMETHANE (S) | | | SURROGATE: TOLUENE-D8 (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190423AL-LCS | Lab Control Spike | 80-119 | 94.8 | | 89-112 | 102 | |
| 190423AL-LCSD | Lab Control SpikeD | 80-119 | 90.8 | | 89-112 | 97.6 | |
| 190423AL-BLK | Blank | 80-119 | 103 | | 89-112 | 97.1 | |
| AZ89959 | ERH783 | 80-119 | 112 | | 89-112 | 97.5 | |

Comments: Batch: #86BTO-190423AL

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Loki

| APPL ID. | Client Sample No. | SURROGATE: 1,2-DICHLOROETHANE-D4 (S) | | | SURROGATE: 4-BROMOFLUOROBENZENE (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| AZ89958-MS | Matrix Spike | 81-118 | 99.2 | | 85-114 | 94.4 | |
| AZ89958-MSD | Matrix SpikeD | 81-118 | 97.6 | | 85-114 | 89.2 | |
| 190424AT-LCS | Lab Control Spike | 81-118 | 98.4 | | 85-114 | 103 | |
| 190424AT-LCSD | Lab Control SpikeD | 81-118 | 96.4 | | 85-114 | 100 | |
| 190424AT-BLK | Blank | 81-118 | 105 | | 85-114 | 101 | |
| AZ89957 | ERH781 | 81-118 | 103 | | 85-114 | 94.7 | |
| AZ89960 | ERH794 | 81-118 | 102 | | 85-114 | 97.5 | |
| AZ89958 | ERH782 | 81-118 | 99.7 | | 85-114 | 94.3 | |
| AZ89961 | ERH795 | 81-118 | 108 | | 85-114 | 96.3 | |

Comments: Batch: #86BTO-190424AT

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Loki

| APPL ID. | Client Sample No. | SURROGATE: DIBROMOFLUOROMETHANE (S) | | | SURROGATE: TOLUENE-D8 (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| AZ89958-MS | Matrix Spike | 80-119 | 99.6 | | 89-112 | 99.6 | |
| AZ89958-MSD | Matrix SpikeD | 80-119 | 94.8 | | 89-112 | 95.6 | |
| 190424AT-LCS | Lab Control Spike | 80-119 | 99.2 | | 89-112 | 101 | |
| 190424AT-LCSD | Lab Control SpikeD | 80-119 | 96.4 | | 89-112 | 98.4 | |
| 190424AT-BLK | Blank | 80-119 | 107 | | 89-112 | 103 | |
| AZ89957 | ERH781 | 80-119 | 104 | | 89-112 | 100.0 | |
| AZ89960 | ERH794 | 80-119 | 105 | | 89-112 | 103 | |
| AZ89958 | ERH782 | 80-119 | 103 | | 89-112 | 99.2 | |
| AZ89961 | ERH795 | 80-119 | 110 | | 89-112 | 101 | |

Comments: Batch: #86BTO-190424AT

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Loki

Blank ID: 190423AL-BLK Time Analyzed: 0058

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190423AL-LCS | Lab Control Spike | 0423L17 | 04/23/19 2332 |
| 190423AL-LCSD | Lab Control SpikeD | 0423L18 | 04/24/19 0001 |
| 190423AL-BLK | Blank | 0423L20 | 04/24/19 0058 |
| AZ89959 | ERH783 | 0423L26 | 04/24/19 0349 |

Comments: Batch: #86BTO-190423AL

*Printed: 04/26/19 9:59:56 AM*
*Form 4, Blank Summary*

# Method Blank
## EPA 8260B BTEX WATER

Blank Name/QCG: **190423W-89959 - 239733**
Batch ID: #86BTO-190423AL

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 | 0.15 | ug/L | 04/24/19 | 04/24/19 |
| BLANK | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/24/19 | 04/24/19 |
| BLANK | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/24/19 | 04/24/19 |
| BLANK | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/24/19 | 04/24/19 |
| BLANK | SURROGATE: 1,2-DICHLOROET | 106 | 81-118 | | | % | 04/24/19 | 04/24/19 |
| BLANK | SURROGATE: 4-BROMOFLUORO | 85.3 | 85-114 | | | % | 04/24/19 | 04/24/19 |
| BLANK | SURROGATE: DIBROMOFLUOR | 103 | 80-119 | | | % | 04/24/19 | 04/24/19 |
| BLANK | SURROGATE: TOLUENE-D8 (S) | 97.1 | 89-112 | | | % | 04/24/19 | 04/24/19 |

Quant Method:L0423W.M
Run #:0423L20
Instrument:Loki
Sequence:190423
Initials:DPO

*GC SC-Blank-REG MDLs-DOD*
*Printed: 04/26/19 10:00:04 AM*

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/25/19

Matrix: WATER Instrument: Loki

Blank ID: 190424AT-BLK Time Analyzed: 0257

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424AT-MS | Matrix Spike | 0423L36 | 04/24/19 0834 |
| 190424AT-MSD | Matrix SpikeD | 0423L37 | 04/24/19 0903 |
| 190424AT-LCS | Lab Control Spike | 0424T32 | 04/25/19 0132 |
| 190424AT-LCSD | Lab Control SpikeD | 0424T33 | 04/25/19 0200 |
| 190424AT-BLK | Blank | 0424T35 | 04/25/19 0257 |
| AZ89957 | ERH781 | 0424T37 | 04/25/19 0354 |
| AZ89960 | ERH794 | 0424T38 | 04/25/19 0423 |
| AZ89958 | ERH782 | 0424T39 | 04/25/19 0451 |
| AZ89961 | ERH795 | 0424T40 | 04/25/19 0520 |

Comments: Batch: #86BTO-190424AT

*Printed: 04/26/19 9:59:56 AM*
*Form 4, Blank Summary*

# Method Blank
## EPA 8260B BTEX WATER

Blank Name/QCG: **190424W-89958 - 239732**
Batch ID: #86BTO-190424AT

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 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| BLANK | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| BLANK | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| BLANK | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| BLANK | SURROGATE: 1,2-DICHLOROET | 105 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| BLANK | SURROGATE: 4-BROMOFLUORO | 101 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| BLANK | SURROGATE: DIBROMOFLUOR | 107 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| BLANK | SURROGATE: TOLUENE-D8 (S) | 103 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method:T0424W.M
Run #:0424T35
Instrument:Thor
Sequence:T190423
Initials:DPO

*GC SC-Blank-REG MDLs-DOD*
*Printed: 04/26/19 10:00:04 AM*

# EPA 8260B

Form 4

## LCS Summary

| | | | |
|---|---|---|---|
| Lab Name: | APPL, Inc. | SDG No: | 88687 |
| Case No: | 88687 | Date Analyzed: | 04/23/19 |
| Matrix: | WATER | Instrument: | Loki |
| LCS ID: | 190423AL-LCS | Time Analyzed: | 2332 |

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190423AL-LCS | Lab Control Spike | 0423L17 | 04/23/19 2332 |
| 190423AL-LCSD | Lab Control SpikeD | 0423L18 | 04/24/19 0001 |
| 190423AL-BLK | Blank | 0423L20 | 04/24/19 0058 |
| AZ89959 | ERH783 | 0423L26 | 04/24/19 0349 |

Comments: Batch: #86BTO-190423AL

*Printed: 04/26/19 9:59:55 AM*
*Form 4, LCS Summary*

# Laboratory Control Spike Recoveries
## EPA 8260B BTEX WATER

APPL ID: **190423W-89959 LCS - 239733**
Batch ID: #86BTO-190423AL

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| BENZENE | 10.00 | 9.46 | 8.70 | 94.6 | 87.0 | 79-120 | 8.4 | 20 |
| ETHYLBENZENE | 10.00 | 9.42 | 9.07 | 94.2 | 90.7 | 79-121 | 3.8 | 20 |
| TOLUENE | 10.00 | 9.86 | 9.41 | 98.6 | 94.1 | 80-121 | 4.7 | 20 |
| XYLENES (TOTAL) | 30.0 | 26.5 | 25.1 | 88.3 | 83.7 | 79-121 | 5.4 | 20 |
| SURROGATE: 1,2-DICHLOROETHANE-D | 25.0 | 23.6 | 22.7 | 94.4 | 90.8 | 81-118 | | |
| SURROGATE: 4-BROMOFLUOROBENZE | 25.0 | 23.1 | 22.4 | 92.4 | 89.6 | 85-114 | | |
| SURROGATE: DIBROMOFLUOROMETH | 25.0 | 23.7 | 22.7 | 94.8 | 90.8 | 80-119 | | |
| SURROGATE: TOLUENE-D8 (S) | 25.0 | 25.4 | 24.4 | 102 | 97.6 | 89-112 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | L0423W.M | L0423W.M |
| Extraction Date : | 04/23/19 | 04/24/19 |
| Analysis Date : | 04/23/19 | 04/24/19 |
| Instrument : | Loki | Loki |
| Run : | 0423L17 | 0423L18 |
| Initials : | DPO | |



*Printed: 04/26/19 10:00:00 AM*
*APPL Standard LCSD*

# EPA 8260B

Form 4

## LCS Summary

| | | | |
|---|---|---|---|
| Lab Name: | APPL, Inc. | SDG No: | 88687 |
| Case No: | 88687 | Date Analyzed: | 04/25/19 |
| Matrix: | WATER | Instrument: | Loki |
| LCS ID: | 190424AT-LCS | Time Analyzed: | 0132 |

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424AT-MS | Matrix Spike | 0423L36 | 04/24/19 0834 |
| 190424AT-MSD | Matrix SpikeD | 0423L37 | 04/24/19 0903 |
| 190424AT-LCS | Lab Control Spike | 0424T32 | 04/25/19 0132 |
| 190424AT-LCSD | Lab Control SpikeD | 0424T33 | 04/25/19 0200 |
| 190424AT-BLK | Blank | 0424T35 | 04/25/19 0257 |
| AZ89957 | ERH781 | 0424T37 | 04/25/19 0354 |
| AZ89960 | ERH794 | 0424T38 | 04/25/19 0423 |
| AZ89958 | ERH782 | 0424T39 | 04/25/19 0451 |
| AZ89961 | ERH795 | 0424T40 | 04/25/19 0520 |

Comments: Batch: #86BTO-190424AT

# Laboratory Control Spike Recoveries

## EPA 8260B BTEX WATER

APPL ID: **190425W-89958 LCS - 239732**
Batch ID: #86BTO-190424AT

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| BENZENE | 10.00 | 10.1 | 10.2 | 101 | 102 | 79-120 | 0.99 | 20 |
| ETHYLBENZENE | 10.00 | 10.2 | 10.2 | 102 | 102 | 79-121 | 0.0 | 20 |
| TOLUENE | 10.00 | 10.3 | 10.1 | 103 | 101 | 80-121 | 2.0 | 20 |
| XYLENES (TOTAL) | 30.0 | 31.7 | 31.3 | 106 | 104 | 79-121 | 1.3 | 20 |
| SURROGATE: 1,2-DICHLOROETHANE-D | 25.0 | 24.6 | 24.1 | 98.4 | 96.4 | 81-118 | | |
| SURROGATE: 4-BROMOFLUOROBENZE | 25.0 | 25.8 | 25.0 | 103 | 100 | 85-114 | | |
| SURROGATE: DIBROMOFLUOROMETH | 25.0 | 24.8 | 24.1 | 99.2 | 96.4 | 80-119 | | |
| SURROGATE: TOLUENE-D8 (S) | 25.0 | 25.3 | 24.6 | 101 | 98.4 | 89-112 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | T0424W.M | T0424W.M |
| Extraction Date : | 04/25/19 | 04/25/19 |
| Analysis Date : | 04/25/19 | 04/25/19 |
| Instrument : | Thor | Thor |
| Run : | 0424T32 | 0424T33 |
| Initials : | DPO | |

# Matrix Spike Recoveries

## EPA 8260B BTEX WATER

APPL ID: **190424W-89958 MS - 239732**
Batch ID: #86BTO-190424AT
Sample ID: AZ89958
Client ID: ERH782

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| BENZENE | 10.00 | ND | 8.70 | 8.66 | 87.0 | 86.6 | 79-120 | 0.46 | 20 |
| ETHYLBENZENE | 10.00 | ND | 8.50 | 8.32 | 85.0 | 83.2 | 79-121 | 2.1 | 20 |
| TOLUENE | 10.00 | ND | 9.10 | 9.05 | 91.0 | 90.5 | 80-121 | 0.55 | 20 |
| XYLENES (TOTAL) | 30.0 | ND | 24.3 | 23.7 | 81.0 | 79.0 | 79-121 | 2.5 | 20 |
| SURROGATE: 1,2-DICHLOROETHANE-D | 25.0 | NA | 24.8 | 24.4 | 99.2 | 97.6 | 81-118 | | |
| SURROGATE: 4-BROMOFLUOROBENZE | 25.0 | NA | 23.6 | 22.3 | 94.4 | 89.2 | 85-114 | | |
| SURROGATE: DIBROMOFLUOROMETH | 25.0 | NA | 24.9 | 23.7 | 99.6 | 94.8 | 80-119 | | |
| SURROGATE: TOLUENE-D8 (S) | 25.0 | NA | 24.9 | 23.9 | 99.6 | 95.6 | 89-112 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | L0423W.M | L0423W.M |
| Extraction Date : | 04/24/19 | 04/24/19 |
| Analysis Date : | 04/24/19 | 04/24/19 |
| Instrument : | Loki | Loki |
| Run : | 0423L36 | 0423L37 |
| Initials : | DPO | |

*Printed: 04/26/19 9:59:58 AM*
*APPL MSD SCII*

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 0423L01.D

SDG No:
Date Analyzed: 04/23/19
Instrument: Loki
Time Analyzed: 16:08

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 0.3ug/L VOC STD 04/2 | 0423L04.D | 04/23/19 17:21 |
| 2 | | 0.5ug/L VOC STD 04/2 | 0423L05.D | 04/23/19 17:49 |
| 3 | | 1.0ug/L VOC STD 04/2 | 0423L06.D | 04/23/19 18:18 |
| 4 | | 2.0ug/L VOC STD 04/2 | 0423L07.D | 04/23/19 18:46 |
| 5 | | 5.0ug/L VOC STD 04/2 | 0423L08.D | 04/23/19 19:15 |
| 6 | | 10ug/L VOC STD 04/23 | 0423L09.D | 04/23/19 19:44 |
| 7 | | 20ug/L VOC STD 04/23 | 0423L10.D | 04/23/19 20:12 |
| 8 | | 40ug/L VOC STD 04/23 | 0423L11.D | 04/23/19 20:41 |
| 9 | | 100ug/L VOC STD 04/2 | 0423L12.D | 04/23/19 21:09 |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 50 | 15 - 40% of mass 95 | 17.7 |
| 75 | 30 - 60% of mass 95 | 51.7 |
| 95 | 100 - 100% of mass 95 | 100.0 |
| 96 | 5 - 9% of mass 95 | 7.0 |
| 173 | 0 - 2% of mass 174 | 1.8 |
| 174 | 50 - 100% of mass 95 | 80.6 |
| 175 | 5 - 9% of mass 174 | 8.7 |
| 176 | 94.95 - 101% of mass 174 | 95.0 |
| 177 | 5 - 9% of mass 176 | 7.3 |

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 88687
Matrix: Water
ID: 0423L14.D

SDG No: 88687
Date Analyzed: 04/23/19
Instrument: Loki
Time Analyzed: 22:07

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | (SS)10ug/L VOC STD 0 | 0423L15.D | 04/23/19 22:35 |
| 2 | Lab Control Spike | 190423A LCS 10ug/L | 0423L17.D | 04/23/19 23:32 |
| 3 | Lab Control SpikeD | 190423A LCSD 10ug/L | 0423L18.D | 04/24/19 0:01 |
| 4 | Blank | 190423A blk | 0423L20.D | 04/24/19 0:58 |
| 5 | ERH783 | AZ89959W02 | 0423L26.D | 04/24/19 3:49 |
| 6 | | AZ89958W06 MS 10ug/L | 0423L36.D | 04/24/19 8:34 |
| 7 | | AZ89958W07 MSD 10ug/ | 0423L37.D | 04/24/19 9:03 |
| 8 | | Ending CCV 10ug/L | 0423L38.D | 04/24/19 9:31 |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 50 | 15 - 40% of mass 95 | 15.6 |
| 75 | 30 - 60% of mass 95 | 45.0 |
| 95 | 100 - 100% of mass 95 | 100.0 |
| 96 | 5 - 9% of mass 95 | 5.9 |
| 173 | 0 - 2% of mass 174 | 1.5 |
| 174 | 50 - 100% of mass 95 | 90.7 |
| 175 | 5 - 9% of mass 174 | 7.5 |
| 176 | 94.95 - 101% of mass 174 | 98.8 |
| 177 | 5 - 9% of mass 176 | 6.0 |

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 88687

Lab File ID (Standard): 0423L09.D Date Analyzed: 04/23/19

Instrument ID: Loki Time Analyzed: 19:44

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 | 428928 | 6.02 | 351424 | 9.51 | 205184 | 12.07 |
| | UPPER LIMIT | 857856 | 6.19 | 702848 | 9.68 | 410368 | 12.24 |
| | LOWER LIMIT | 214464 | 5.85 | 175712 | 9.34 | 102592 | 11.90 |
| | SAMPLE NO. | | | | | | |
| 01 | (SS)10ug/L VOC STD 0 | 444224 | 6.02 | 385024 | 9.51 | 218816 | 12.07 |
| 02 | 190423A LCS 10ug/L (4 | 486784 | 6.02 | 405888 | 9.51 | 226432 | 12.07 |
| 03 | 190423A LCSD 10ug/L | 525952 | 6.02 | 440384 | 9.52 | 246464 | 12.07 |
| 04 | 190423A blk | 442432 | 6.02 | 383360 | 9.51 | 186048 | 12.07 |
| 05 | AZ89959W02 | 400000 | 6.02 | 355840 | 9.52 | 164032 | 12.07 |
| 06 | AZ89958W06 MS 10ug/ | 473280 | 6.02 | 388544 | 9.51 | 225216 | 12.07 |
| 07 | AZ89958W07 MSD 10u | 486592 | 6.02 | 406016 | 9.52 | 227136 | 12.07 |
| 08 | Ending CCV 10ug/L | 456192 | 6.02 | 369152 | 9.51 | 206720 | 12.07 |
| 09 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
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| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

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

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

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 0424T17.D

SDG No:
Date Analyzed: 04/24/19
Instrument: Thor
Time Analyzed: 18:24

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 0.3ug/L VOC STD 04/2 | 0424T19.D | 04/24/19 19:21 |
| 2 | | 0.5ug/L VOC STD 04/2 | 0424T20.D | 04/24/19 19:50 |
| 3 | | 1.0ug/L VOC STD 04/2 | 0424T21.D | 04/24/19 20:18 |
| 4 | | 2.0ug/L VOC STD 04/2 | 0424T22.D | 04/24/19 20:47 |
| 5 | | 5.0ug/L VOC STD 04/2 | 0424T23.D | 04/24/19 21:15 |
| 6 | | 10ug/L VOC STD 04/24 | 0424T24.D | 04/24/19 21:44 |
| 7 | | 20ug/L VOC STD 04/24 | 0424T25.D | 04/24/19 22:12 |
| 8 | | 40ug/L VOC STD 04/24 | 0424T26.D | 04/24/19 22:41 |
| 9 | | 100ug/L VOC STD 04/2 | 0424T27.D | 04/24/19 23:09 |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
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| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 50 | 15 - 40% of mass 95 | 18.1 |
| 75 | 30 - 60% of mass 95 | 51.9 |
| 95 | 100 - 100% of mass 95 | 100.0 |
| 96 | 5 - 9% of mass 95 | 7.0 |
| 173 | 0 - 2% of mass 174 | 1.8 |
| 174 | 50 - 100.05% of mass 95 | 98.4 |
| 175 | 5 - 9% of mass 174 | 8.0 |
| 176 | 95 - 101% of mass 174 | 98.4 |
| 177 | 5 - 9% of mass 176 | 6.5 |

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 88687
Matrix: Water
ID: 0424T29.D

SDG No: 88687
Date Analyzed: 04/25/19
Instrument: Thor
Time Analyzed: 0:06

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | (SS)10ug/L VOC STD 0 | 0424T30.D | 04/25/19 0:34 |
| 2 | Lab Control Spike | 190424A LCS 10ug/L | 0424T32.D | 04/25/19 1:32 |
| 3 | Lab Control SpikeD | 190424A LCSD 10ug/L | 0424T33.D | 04/25/19 2:00 |
| 4 | Blank | 190424A blk | 0424T35.D | 04/25/19 2:57 |
| 5 | ERH781 | AZ89957W04 | 0424T37.D | 04/25/19 3:54 |
| 6 | ERH794 | AZ89960W03 | 0424T38.D | 04/25/19 4:23 |
| 7 | ERH782 | AZ89958W08 | 0424T39.D | 04/25/19 4:51 |
| 8 | ERH795 | AZ89961W03 | 0424T40.D | 04/25/19 5:20 |
| 9 | | Ending CCV 10ug/L | 0424T54.D | 04/25/19 11:59 |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 50 | 15 - 40% of mass 95 | 19.6 |
| 75 | 30 - 60% of mass 95 | 51.9 |
| 95 | 100 - 100% of mass 95 | 100.0 |
| 96 | 5 - 9% of mass 95 | 6.6 |
| 173 | 0 - 2% of mass 174 | 1.8 |
| 174 | 50 - 100.05% of mass 95 | 97.8 |
| 175 | 5 - 9% of mass 174 | 8.3 |
| 176 | 95 - 101% of mass 174 | 95.5 |
| 177 | 5 - 9% of mass 176 | 7.0 |

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 88687

Lab File ID (Standard): 0424T24.D Date Analyzed: 04/24/19

Instrument ID: Thor Time Analyzed: 21:44

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 | 374150 | 5.81 | 374464 | 9.05 | 237248 | 11.37 |
| | UPPER LIMIT | 748300 | 5.98 | 748928 | 9.22 | 474496 | 11.54 |
| | LOWER LIMIT | 187075 | 5.64 | 187232 | 8.88 | 118624 | 11.20 |
| | SAMPLE NO. | | | | | | |
| 01 | (SS)10ug/L VOC STD 0 | 377280 | 5.81 | 373696 | 9.05 | 232384 | 11.37 |
| 02 | 190424A LCS 10ug/L | 373824 | 5.81 | 371520 | 9.05 | 229632 | 11.37 |
| 03 | 190424A LCSD 10ug/L | 381696 | 5.81 | 381120 | 9.05 | 243008 | 11.37 |
| 04 | 190424A blk | 358848 | 5.81 | 358656 | 9.05 | 202112 | 11.37 |
| 05 | AZ89957W04 | 364992 | 5.81 | 369984 | 9.05 | 205184 | 11.37 |
| 06 | AZ89960W03 | 364288 | 5.81 | 360960 | 9.05 | 204864 | 11.37 |
| 07 | AZ89958W08 | 352256 | 5.81 | 349632 | 9.05 | 200320 | 11.37 |
| 08 | AZ89961W03 | 346176 | 5.81 | 359872 | 9.05 | 198464 | 11.37 |
| 09 | Ending CCV 10ug/L | 366848 | 5.81 | 372544 | 9.05 | 224896 | 11.37 |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
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| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

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

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

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/23/19

Matrix: WATER Instrument: Max

| APPL ID. | Client Sample No. | SURROGATE: 4-BROMOFLUOROBENZENE (S) | | | | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190423AM-LCS | Lab Control Spike | 85-114 | 105 | | | | |
| 190423AM-LCSD | Lab Control SpikeD | 85-114 | 102 | | | | |
| 190423AM-BLK | Blank | 85-114 | 107 | | | | |
| AZ89957 | ERH781 | 85-114 | 105 | | | | |
| AZ89960 | ERH794 | 85-114 | 101 | | | | |
| AZ89958 | ERH782 | 85-114 | 102 | | | | |
| AZ89959 | ERH783 | 85-114 | 101 | | | | |
| AZ89961 | ERH795 | 85-114 | 107 | | | | |
| AZ89958-MS | Matrix Spike | 85-114 | 103 | | | | |
| AZ89958-MSD | Matrix SpikeD | 85-114 | 104 | | | | |

Comments: Batch: #GRO86-190423AM

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/23/19

Matrix: WATER Instrument: Max

Blank ID: 190423AM-BLK Time Analyzed: 1531

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190423AM-LCS | Lab Control Spike | 0423M04 | 04/23/19 1405 |
| 190423AM-LCSD | Lab Control SpikeD | 0423M05 | 04/23/19 1434 |
| 190423AM-BLK | Blank | 0423M07 | 04/23/19 1531 |
| AZ89957 | ERH781 | 0423M08 | 04/23/19 1559 |
| AZ89960 | ERH794 | 0423M09 | 04/23/19 1627 |
| AZ89958 | ERH782 | 0423M10 | 04/23/19 1656 |
| AZ89959 | ERH783 | 0423M11 | 04/23/19 1724 |
| AZ89961 | ERH795 | 0423M12 | 04/23/19 1753 |
| 190423AM-MS | Matrix Spike | 0423M13 | 04/23/19 1821 |
| 190423AM-MSD | Matrix SpikeD | 0423M14 | 04/23/19 1850 |

Comments: Batch: #GRO86-190423AM

*Printed: 04/24/19 9:07:04 AM*
*Form 4, Blank Summary*

# Method Blank
## EPA 8260B GRO WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **190423W-89958 - 239658**
Batch ID: #GRO86-190423AM

| 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 | 04/23/19 | 04/23/19 |
| BLANK | SURROGATE: 4-BROMOFLUORO | 107 | 85-114 | | | % | 04/23/19 | 04/23/19 |

Quant Method: MSUR324.M
Run #: 0423M07
Instrument: Max
Sequence: M190401
Initials: DG

*GC SC-Blank-REG MDLs-DOD*
*Printed: 04/24/19 9:07:16 AM*

# EPA 8260B

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/23/19

Matrix: WATER Instrument: Max

LCS ID: 190423AM-LCS Time Analyzed: 1405

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190423AM-LCS | Lab Control Spike | 0423M04 | 04/23/19 1405 |
| 190423AM-LCSD | Lab Control SpikeD | 0423M05 | 04/23/19 1434 |
| 190423AM-BLK | Blank | 0423M07 | 04/23/19 1531 |
| AZ89957 | ERH781 | 0423M08 | 04/23/19 1559 |
| AZ89960 | ERH794 | 0423M09 | 04/23/19 1627 |
| AZ89958 | ERH782 | 0423M10 | 04/23/19 1656 |
| AZ89959 | ERH783 | 0423M11 | 04/23/19 1724 |
| AZ89961 | ERH795 | 0423M12 | 04/23/19 1753 |
| 190423AM-MS | Matrix Spike | 0423M13 | 04/23/19 1821 |
| 190423AM-MSD | Matrix SpikeD | 0423M14 | 04/23/19 1850 |

Comments: Batch: #GRO86-190423AM

*Printed: 04/24/19 9:07:01 AM*
*Form 4, LCS Summary*

# Laboratory Control Spike Recoveries

## EPA 8260B GRO WATER

APPL ID: **190423W-89958 LCS - 239658**
Batch ID: #GRO86-190423AM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| GASOLINE RANGE ORGANICS | 300 | 318 | 302 | 106 | 101 | 78-122 | 5.2 | 20 |
| SURROGATE: 4-BROMOFLUOROBENZE | 25.0 | 26.3 | 25.6 | 105 | 102 | 85-114 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | MSUR324.M | MSUR324.M |
| Extraction Date : | 04/23/19 | 04/23/19 |
| Analysis Date : | 04/23/19 | 04/23/19 |
| Instrument : | Max | Max |
| Run : | 0423M04 | 0423M05 |
| Initials : | DG | |



*Printed: 04/24/19 9:07:11 AM*
*APPL Standard LCSD*

# Matrix Spike Recoveries
## EPA 8260B GRO WATER

APPL ID: **190423W-89958 MS - 239658**
Batch ID: #GRO86-190423AM
Sample ID: AZ89958
Client ID: ERH782

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| GASOLINE RANGE ORGANICS | 300 | ND | 277 | 285 | 92.3 | 95.0 | 78-122 | 2.8 | 20 |
| SURROGATE: 4-BROMOFLUOROBENZE | 25.0 | NA | 25.8 | 25.9 | 103 | 104 | 85-114 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | MSUR324.M | MSUR324.M |
| Extraction Date : | 04/23/19 | 04/23/19 |
| Analysis Date : | 04/23/19 | 04/23/19 |
| Instrument : | Max | Max |
| Run : | 0423M13 | 0423M14 |
| Initials : | DG | |

*Printed: 04/24/19 9:07:08 AM*
*APPL MSD SCII*

# RSK 175

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Rocky

Blank ID: 190429A-BLK Time Analyzed: 1112

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-LCS | Lab Control Spike | 19042900 | 04/29/19 1103 |
| 190429A-LCSD | Lab Control SpikeD | 19042901 | 04/29/19 1107 |
| 190429A-BLK | Blank | 19042902 | 04/29/19 1112 |
| AZ89957 | ERH781 | 19042903 | 04/29/19 1114 |
| AZ89960 | ERH794 | 19042904 | 04/29/19 1117 |
| AZ89961 | ERH795 | 19042905 | 04/29/19 1121 |

Comments: Batch: #RSKME-190429A

*Printed: 04/29/19 12:10:38 PM*
*Form 4, Blank Summary*

# Method Blank
## METHANE

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **190429W-90051 - 239793**
Batch ID: #RSKME-190429A

| 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 | 04/29/19 | 04/29/19 |

Quant Method: RSK0311.M
Run #: 19042902
Instrument: Rocky
Sequence: 190311
Initials: CMO

*GC SC-Blank-REG MDLs-DOD*
*Printed: 04/29/19 12:10:49 PM*

# RSK 175

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 05/03/19

Matrix: WATER Instrument: Rocky

Blank ID: 190503A-BLK Time Analyzed: 1039

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190503A-LCS | Lab Control Spike | 19050300 | 05/03/19 1033 |
| 190503A-LCSD | Lab Control SpikeD | 19050301 | 05/03/19 1036 |
| 190503A-BLK | Blank | 19050302 | 05/03/19 1039 |
| AZ89959 | ERH783 | 19050303 | 05/03/19 1041 |
| 190503A-MS | Matrix Spike | 19050304 | 05/03/19 1044 |
| 190503A-MSD | Matrix SpikeD | 19050306 | 05/03/19 1049 |

Comments: Batch: #RSKME-190503A

*Printed: 05/03/19 11:52:21 AM*
*Form 4, Blank Summary*

# Method Blank
## METHANE

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **190503W-89959 - 239958**
Batch ID: #RSKME-190503A

| 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 | 05/03/19 | 05/03/19 |

Quant Method:RSK0311.M
Run #:19050302
Instrument:Rocky
Sequence:190311
Initials:CMO

*GC SC-Blank-REG MDLs-DOD*
*Printed: 05/03/19 11:53:08 AM*

# RSK 175

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Rocky

LCS ID: 190429A-LCS Time Analyzed: 1103

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-LCS | Lab Control Spike | 19042900 | 04/29/19 1103 |
| 190429A-LCSD | Lab Control SpikeD | 19042901 | 04/29/19 1107 |
| 190429A-BLK | Blank | 19042902 | 04/29/19 1112 |
| AZ89957 | ERH781 | 19042903 | 04/29/19 1114 |
| AZ89960 | ERH794 | 19042904 | 04/29/19 1117 |
| AZ89961 | ERH795 | 19042905 | 04/29/19 1121 |

Comments: Batch: #RSKME-190429A

# Laboratory Control Spike Recoveries
## METHANE

APPL ID: **190429W-90051 LCS - 239793**
Batch ID: #RSKME-190429A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| METHANE | 83.4 | 84.9 | 82.4 | 102 | 98.8 | 72-125 | 3.0 | 30 |

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | RSK0311.M | RSK0311.M |
| Extraction Date : | 04/29/19 | 04/29/19 |
| Analysis Date : | 04/29/19 | 04/29/19 |
| Instrument : | Rocky | Rocky |
| Run : | 19042900 | 19042901 |
| Initials : | CMO | |



*Printed: 04/29/19 12:10:41 PM*
*APPL Standard LCSD*

# RSK 175

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 05/03/19

Matrix: WATER Instrument: Rocky

LCS ID: 190503A-LCS Time Analyzed: 1033

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190503A-LCS | Lab Control Spike | 19050300 | 05/03/19 1033 |
| 190503A-LCSD | Lab Control SpikeD | 19050301 | 05/03/19 1036 |
| 190503A-BLK | Blank | 19050302 | 05/03/19 1039 |
| AZ89959 | ERH783 | 19050303 | 05/03/19 1041 |
| 190503A-MS | Matrix Spike | 19050304 | 05/03/19 1044 |
| 190503A-MSD | Matrix SpikeD | 19050306 | 05/03/19 1049 |

Comments: Batch: #RSKME-190503A

*Printed: 05/03/19 11:52:11 AM*
*Form 4, LCS Summary*

# Laboratory Control Spike Recoveries
## METHANE

APPL ID: **190503W-89959 LCS - 239958**
Batch ID: #RSKME-190503A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| METHANE | 83.4 | 69.1 | 78.4 | 82.9 | 94.0 | 72-125 | 12.6 | 30 |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | RSK0311.M | RSK0311.M |
| Extraction Date : | 05/03/19 | 05/03/19 |
| Analysis Date : | 05/03/19 | 05/03/19 |
| Instrument : | Rocky | Rocky |
| Run : | 19050300 | 19050301 |
| Initials : | CMO | |

# Matrix Spike Recoveries

## METHANE

APPL ID: **190503W-89959 MS - 239958**
Batch ID: #RSKME-190503A
Sample ID: AZ89959
Client ID: ERH783

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| METHANE | 83.4 | ND | 81.5 | 80.0 | 97.7 | 95.9 | 72-125 | 1.9 | 30 |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | RSK0311.M | RSK0311.M |
| Extraction Date : | 05/03/19 | 05/03/19 |
| Analysis Date : | 05/03/19 | 05/03/19 |
| Instrument : | Rocky | Rocky |
| Run : | 19050304 | 19050306 |
| Initials : | CMO | |

*Printed: 05/03/19 11:52:28 AM*
*APPL MSD SCII*

# EPA 300.0

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Charlie

Blank ID: 190424A-BLK Time Analyzed: 1149

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 10 | 04/24/19 1149 |
| 190424A-LCS | Lab Control Spike | 11 | 04/24/19 1157 |
| 190424A-LCSD | Lab Control SpikeD | 12 | 04/24/19 1204 |
| AZ89958 | ERH782 | 13 | 04/24/19 1212 |
| 190424A-MS | Matrix Spike | 14 | 04/24/19 1219 |
| 190424A-MSD | Matrix SpikeD | 15 | 04/24/19 1226 |
| AZ89961 | ERH795 | 16 | 04/24/19 1234 |
| AZ89958 | ERH782 | 17 | 04/24/19 1241 |
| AZ89961 | ERH795 | 18 | 04/24/19 1249 |

Comments: Batch: #300W-190424A

# EPA 353.2

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/24/19

Matrix: WATER Instrument: EVE

Blank ID: 190424A-BLK Time Analyzed: 1537

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 12 | 04/24/19 1537 |
| 190424A-LCS | Lab Control Spike | 13 | 04/24/19 1539 |
| 190424A-LCSD | Lab Control SpikeD | 14 | 04/24/19 1541 |
| AZ89958 | ERH782 | 16 | 04/24/19 1552 |
| 190424A-MS | Matrix Spike | 19 | 04/24/19 1556 |
| 190424A-MSD | Matrix SpikeD | 20 | 04/24/19 1557 |
| AZ89961 | ERH795 | 21 | 04/24/19 1558 |

Comments: Batch: #35OF-190424A

# SM 2320B

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Tiamo

Blank ID: 190424A-BLK Time Analyzed: 1727

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 1 | 04/24/19 1727 |
| 190424A-LCS | Lab Control Spike | 2 | 04/24/19 1730 |
| AZ89961 | ERH795 | 20 | 04/24/19 2126 |
| 190424A-LCSD | Lab Control SpikeD | 3 | 04/24/19 1740 |
| 190424A-DUP | Duplicate | 4 | 04/24/19 1755 |
| AZ89958 | ERH782 | 4 | 04/24/19 1750 |
| 190424A-MS | Matrix Spike | 6 | 04/24/19 1801 |
| 190424A-MSD | Matrix SpikeD | 7 | 04/24/19 1814 |

Comments: Batch: #232W-190424A

# SM3500FeB

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/23/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190423A-BLK Time Analyzed: 1611

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190423A-BLK | Blank | 24 | 04/23/19 1611 |
| 190423A-LCS | Lab Control Spike | 25 | 04/23/19 1612 |
| 190423A-LCSD | Lab Control SpikeD | 26 | 04/23/19 1613 |
| AZ89958 | ERH782 | 27 | 04/23/19 1614 |
| AZ89961 | ERH795 | 30 | 04/23/19 1617 |

Comments: Batch: #35FE-190423A

# SW846 9060A

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190417A-BLK Time Analyzed: 1739

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190417A-BLK | Blank | 22 | 04/24/19 1739 |
| 190417A-LCS | Lab Control Spike | 23 | 04/24/19 1813 |
| 190417A-LCSD | Lab Control SpikeD | 24 | 04/24/19 1848 |
| AZ89961 | ERH795 | 36 | 04/25/19 0140 |

Comments: Batch: #DOCW5-190417A

# SW846 9060A

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 05/03/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190502B-BLK Time Analyzed: 0446

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502B-BLK | Blank | 24 | 05/03/19 0446 |
| 190502B-LCS | Lab Control Spike | 25 | 05/03/19 0520 |
| 190502B-LCSD | Lab Control SpikeD | 26 | 05/03/19 0555 |
| AZ89958 | ERH782 | 27 | 05/03/19 0630 |

Comments: Batch: #DOCW5-190502B

# SW846 9060A

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190417A-BLK Time Analyzed: 1739

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190417A-BLK | Blank | 22 | 04/24/19 1739 |
| 190417A-LCS | Lab Control Spike | 23 | 04/24/19 1813 |
| 190417A-LCSD | Lab Control SpikeD | 24 | 04/24/19 1848 |
| AZ89961 | ERH795 | 35 | 04/25/19 0109 |

Comments: Batch: #TOCW5-190417A

# SW846 9060A

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190502A-BLK Time Analyzed: 1740

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502A-BLK | Blank | 4 | 05/02/19 1740 |
| 190502A-LCS | Lab Control Spike | 5 | 05/02/19 1814 |
| 190502A-LCSD | Lab Control SpikeD | 6 | 05/02/19 1849 |
| AZ89958 | ERH782 | 7 | 05/02/19 1924 |

Comments: Batch: #TOCW5-190502A

# WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Analyte | Result | LOQ | LOD | DL | Units | Prep Date | Analysis Date | QC Group |
|---|---|---|---|---|---|---|---|---|---|
| SM 2320B | BICARBONATE AS | 2.9 | 2.0 | 1.70 | 0.85 | mg/L | 04/24/19 | 04/24/19 | #232W-190424A-AZ89958 |
| SM 2320B | CARBONATE AS C | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 04/24/19 | 04/24/19 | #232W-190424A-AZ89958 |
| SM 2320B | TOTAL ALKALINITY | 2.9 | 2.0 | 1.70 | 0.85 | mg/L | 04/24/19 | 04/24/19 | #232W-190424A-AZ89958 |
| EPA 300.0 | CHLORIDE | 0.27 J | 1.0 | 0.20 | 0.08 | mg/L | 04/24/19 | 04/24/19 | #300W-190424A-AZ89958 |
| EPA 300.0 | NITRATE | 0.18 U | 0.5 | 0.18 | 0.04 | mg/L | 04/24/19 | 04/24/19 | #300W-190424A-AZ89958 |
| EPA 300.0 | SULFATE | 0.19 J | 1.0 | 0.20 | 0.09 | mg/L | 04/24/19 | 04/24/19 | #300W-190424A-AZ89958 |
| SM3500Fe | FERROUS IRON | 0.32 U | 1.0 | 0.32 | 0.16 | mg/L | 04/23/19 | 04/23/19 | #35FE-190423A-AZ89958 |
| EPA 353.2 | NITRATE-NITRITE- | 0.090 U | 0.10 | 0.090 | 0.028 | mg/L | 04/24/19 | 04/24/19 | #35OF-190424A-AZ89958 |
| SW846 90 | DISSOLVED ORGA | 0.350 U | 0.93 | 0.350 | 0.130 | mg/L | 05/03/19 | 05/03/19 | #DOCW5-190502B-AZ89958 |
| SW846 90 | TOTAL ORGANIC C | 0.350 U | 0.93 | 0.350 | 0.130 | mg/L | 05/02/19 | 05/02/19 | #TOCW5-190502A-AZ89958 |
| SW846 90 | DISSOLVED ORGA | 0.27 J | 0.93 | 0.350 | 0.130 | mg/L | 04/24/19 | 04/24/19 | #DOCW5-190417A-AZ89961 |
| SW846 90 | TOTAL ORGANIC C | 0.27 J | 0.93 | 0.350 | 0.130 | mg/L | 04/24/19 | 04/24/19 | #TOCW5-190417A-AZ89961 |

J = Estimated value.

*Wetlab SC-Blank-REG MDLs*
*Printed: 05/13/19 5:35:34 PM*

# EPA 300.0

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Charlie

LCS ID: 190424A-LCS Time Analyzed: 1157

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 10 | 04/24/19 1149 |
| 190424A-LCS | Lab Control Spike | 11 | 04/24/19 1157 |
| 190424A-LCSD | Lab Control SpikeD | 12 | 04/24/19 1204 |
| AZ89958 | ERH782 | 13 | 04/24/19 1212 |
| 190424A-MS | Matrix Spike | 14 | 04/24/19 1219 |
| 190424A-MSD | Matrix SpikeD | 15 | 04/24/19 1226 |
| AZ89961 | ERH795 | 16 | 04/24/19 1234 |
| AZ89958 | ERH782 | 17 | 04/24/19 1241 |
| AZ89961 | ERH795 | 18 | 04/24/19 1249 |

Comments: Batch: #300W-190424A

# EPA 353.2

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/24/19

Matrix: WATER Instrument: EVE

LCS ID: 190424A-LCS Time Analyzed: 1539

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 12 | 04/24/19 1537 |
| 190424A-LCS | Lab Control Spike | 13 | 04/24/19 1539 |
| 190424A-LCSD | Lab Control SpikeD | 14 | 04/24/19 1541 |
| AZ89958 | ERH782 | 16 | 04/24/19 1552 |
| 190424A-MS | Matrix Spike | 19 | 04/24/19 1556 |
| 190424A-MSD | Matrix SpikeD | 20 | 04/24/19 1557 |
| AZ89961 | ERH795 | 21 | 04/24/19 1558 |

Comments: Batch: #35OF-190424A

# SM 2320B

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Tiamo

LCS ID: 190424A-LCS Time Analyzed: 1730

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 1 | 04/24/19 1727 |
| 190424A-LCS | Lab Control Spike | 2 | 04/24/19 1730 |
| AZ89961 | ERH795 | 20 | 04/24/19 2126 |
| 190424A-LCSD | Lab Control SpikeD | 3 | 04/24/19 1740 |
| 190424A-DUP | Duplicate | 4 | 04/24/19 1755 |
| AZ89958 | ERH782 | 4 | 04/24/19 1750 |
| 190424A-MS | Matrix Spike | 6 | 04/24/19 1801 |
| 190424A-MSD | Matrix SpikeD | 7 | 04/24/19 1814 |

Comments: Batch: #232W-190424A

# SM3500FeB

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/23/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190423A-LCS Time Analyzed: 1612

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190423A-BLK | Blank | 24 | 04/23/19 1611 |
| 190423A-LCS | Lab Control Spike | 25 | 04/23/19 1612 |
| 190423A-LCSD | Lab Control SpikeD | 26 | 04/23/19 1613 |
| AZ89958 | ERH782 | 27 | 04/23/19 1614 |
| AZ89961 | ERH795 | 30 | 04/23/19 1617 |

Comments: Batch: #35FE-190423A

# SW846 9060A

Form 4

## LCS Summary

| | | | |
|---|---|---|---|
| Lab Name: | APPL, Inc. | SDG No: | 88687 |
| Case No: | 88687 | Date Analyzed: | 05/03/19 |
| Matrix: | WATER | Instrument: | Manual Spec |
| LCS ID: | 190502B-LCS | Time Analyzed: | 0520 |

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502B-BLK | Blank | 24 | 05/03/19 0446 |
| 190502B-LCS | Lab Control Spike | 25 | 05/03/19 0520 |
| 190502B-LCSD | Lab Control SpikeD | 26 | 05/03/19 0555 |
| AZ89958 | ERH782 | 27 | 05/03/19 0630 |

Comments: Batch: #DOCW5-190502B

# SW846 9060A

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190502A-LCS Time Analyzed: 1814

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502A-BLK | Blank | 4 | 05/02/19 1740 |
| 190502A-LCS | Lab Control Spike | 5 | 05/02/19 1814 |
| 190502A-LCSD | Lab Control SpikeD | 6 | 05/02/19 1849 |
| AZ89958 | ERH782 | 7 | 05/02/19 1924 |

Comments: Batch: #TOCW5-190502A

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Compound Name | Spike Lvl mg/L | SPK Res mg/L | DUP Res mg/L | SPK % Recov | DUP % Recov | RPD | RPD Max | QC Limits | Extract Date-Spk | Analysis Date-Spk | Extract Date-Dup | Analysis Date-Dup | QC Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 25.0 | 24.9 | 25.0 | 99.6 | 100 | 0.40 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | #300W-190424A-AZ89958 |
| EPA 300.0 | NITRATE | 22.1 | 22.6 | 22.6 | 102 | 102 | 0.0 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | #300W-190424A-AZ89958 |
| EPA 300.0 | SULFATE | 25.0 | 24.7 | 24.7 | 98.8 | 98.8 | 0.0 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | #300W-190424A-AZ89958 |
| EPA 353.2 | NITRATE-NITRITE-N | 3.00 | 2.90 | 3.02 | 96.7 | 101 | 4.1 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | #35OF-190424A-AZ89958 |
| SM 2320B | BICARBONATE AS CACO3 | 250 | 233 | 229 | 93.2 | 91.6 | 1.7 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | #232W-190424A-AZ89958 |
| SM 2320B | TOTAL ALKALINITY AS CA | 250 | 233 | 229 | 93.2 | 91.6 | 1.7 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | #232W-190424A-AZ89958 |
| SM3500Fe | FERROUS IRON | 3.00 | 3.03 | 3.09 | 101 | 103 | 2.0 | 20 | 80-120 | 04/23/19 | 04/23/19 | 04/23/19 | 04/23/19 | #35FE-190423A-AZ89958 |
| SW846 906 | DISSOLVED ORGANIC CA | 2.5 | 2.46 | 2.45 | 98.4 | 98.0 | 0.41 | 20 | 90-110 | 05/03/19 | 05/03/19 | 05/03/19 | 05/03/19 | #DOCW5-190502B-AZ899 |
| SW846 906 | TOTAL ORGANIC CARBON | | 2.43 | 2.37 | NA | NA | | 20 | 90-110 | 05/02/19 | 05/02/19 | 05/02/19 | 05/02/19 | #TOCW5-190502A-AZ8995 |

Comments: _____

# SW846 9060A

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190417A-LCS Time Analyzed: 1813

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190417A-BLK | Blank | 22 | 04/24/19 1739 |
| 190417A-LCS | Lab Control Spike | 23 | 04/24/19 1813 |
| 190417A-LCSD | Lab Control SpikeD | 24 | 04/24/19 1848 |
| AZ89961 | ERH795 | 36 | 04/25/19 0140 |

Comments: Batch: #DOCW5-190417A

# SW846 9060A

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88687

Case No: 88687 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190417A-LCS Time Analyzed: 1813

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190417A-BLK | Blank | 22 | 04/24/19 1739 |
| 190417A-LCS | Lab Control Spike | 23 | 04/24/19 1813 |
| 190417A-LCSD | Lab Control SpikeD | 24 | 04/24/19 1848 |
| AZ89961 | ERH795 | 35 | 04/25/19 0109 |

Comments: Batch: #TOCW5-190417A

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Compound Name | Spike Lvl mg/L | SPK Res mg/L | DUP Res mg/L | SPK % Recov | DUP % Recov | RPD | RPD Max | QC Limits | Extract Date-Spk | Analysis Date-Spk | Extract Date-Dup | Analysis Date-Dup | QC Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW846 906 | DISSOLVED ORGANIC CA | 2.50 | 2.11 | 2.09 | 84.4 # | 83.6 # | 0.95 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | #DOCW5-190417A-AZ899 |
| SW846 906 | TOTAL ORGANIC CARBON | | 2.11 | 2.09 | NA | NA | | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | #TOCW5-190417A-AZ8996 |

# = Recovery is outside QC limits.

Comments: _____

# WETLAB

## Sample/Sample Duplicate Results

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Sample ID: AZ89958
Client ID: ERH782

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88687

| Method | Analyte | Sample ID | Sample Result | Sample Dup Result | RPD | RPD Max | MDL | PQL | Units | Sample Extract Date | Sample Analysis Date | Sample Dup Extract Date | Sample Dup Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SM 2320B | BICARBONATE A | AZ89958 | 58.7 | 61.2 | 4.2 | 20 | 0.85 | 2.0 | mg/L | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 |
| SM 2320B | CARBONATE AS | AZ89958 | Not detected | Not detected | 0.0 | 20 | 0.85 | 2.0 | mg/L | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 |
| SM 2320B | TOTAL ALKALINIT | AZ89958 | 58.7 | 61.2 | 4.2 | 20 | 0.85 | 2.0 | mg/L | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 |

*Printed: 05/07/19 11:17:25 AM*

*Dup-SCII (NoMC)*

# Matrix Spike Recoveries

## WETLAB

APPL ID: **190424W-89958 MS - 239920**

Sample ID: AZ89958

Client ID: ERH782

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Compound Name | Spike Lvl mg/L | Matrix Res mg/L | SPK Res mg/L | DUP Res mg/L | SPK % Recovery | DUP % Recovery | RPD | RPD Max | Recovery Limits | Extract Date-Spk | Analysis Date-Spk | Extract Date-Dup | Analysis Date-Dup | QC Group | QC Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 25.0 | 108 | 155 | 155 | 188 # | 188 # | 0.0 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | 239920 | AZ89958 |
| EPA 300.0 | NITRATE | 22.1 | 2.6 | 25.5 | 25.5 | 104 | 104 | 0.0 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | 239920 | AZ89958 |
| EPA 300.0 | SULFATE | 25.0 | 17.1 | 44.0 | 44.0 | 108 | 108 | 0.0 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | 239920 | AZ89958 |
| EPA 353.2 | NITRATE-NITRITE-N | 3.23 | 0.66 | 3.86 | 3.99 | 99.1 | 103 | 3.3 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | 239882 | AZ89958 |
| SM 2320B | BICARBONATE AS CA | 250 | 58.7 | 286 | 282 | 90.9 | 89.3 # | 1.4 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | 239829 | AZ89958 |
| SM 2320B | TOTAL ALKALINITY AS | 250 | 58.7 | 286 | 282 | 90.9 | 89.3 # | 1.4 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | 239829 | AZ89958 |

# = Recovery is outside QC limits.

Comments: _____

# ORGANICS
# Calibration Data

TPH Extractables
TPHD0411

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 04/11/19
Matrix: Water Instrument: Apollo
Initials: DP

411002.D 411003.D 411004 D 411005.D 411006 D 411007.D

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | | | | | Avg | %RSD | Type | r^2 | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C28) | 2837152 | 2034725 | 1979181 | 1939051 | 1931316 | 1928839 | | | | | 2108377 | 17 | HATM | | |
| 2 | HBTM | Motor Oil (C18-C36) | 1663438 | 1313229 | 1317092 | 1314473 | 1324143 | 1347438 | | | | | 1379969 | 10 | HBTM | | |
| 3 | SA | Ortho-Terphenyl(S) | 2331995 | 1997948 | 2029193 | 1934422 | 1946955 | 1901973 | | | | | 2023748 | 7.8 | SA | | |
| 4 | SA | Octacosane(S) | 2126705 | 1844471 | 1831603 | 1894540 | 1808281 | 1847266 | | | | | 1892144 | 6.3 | SA | | |
| 5 | | | | | | | | | | | | | | | | | |
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1.177002

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\190411\411002.D Vial: 2
Acq On : 4-11-19 12:41:17 Operator: DP
Sample : Diesel / Motor Oil - 1 1/15/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 18:03 2019 Quant Results File: TPHD0411.RES

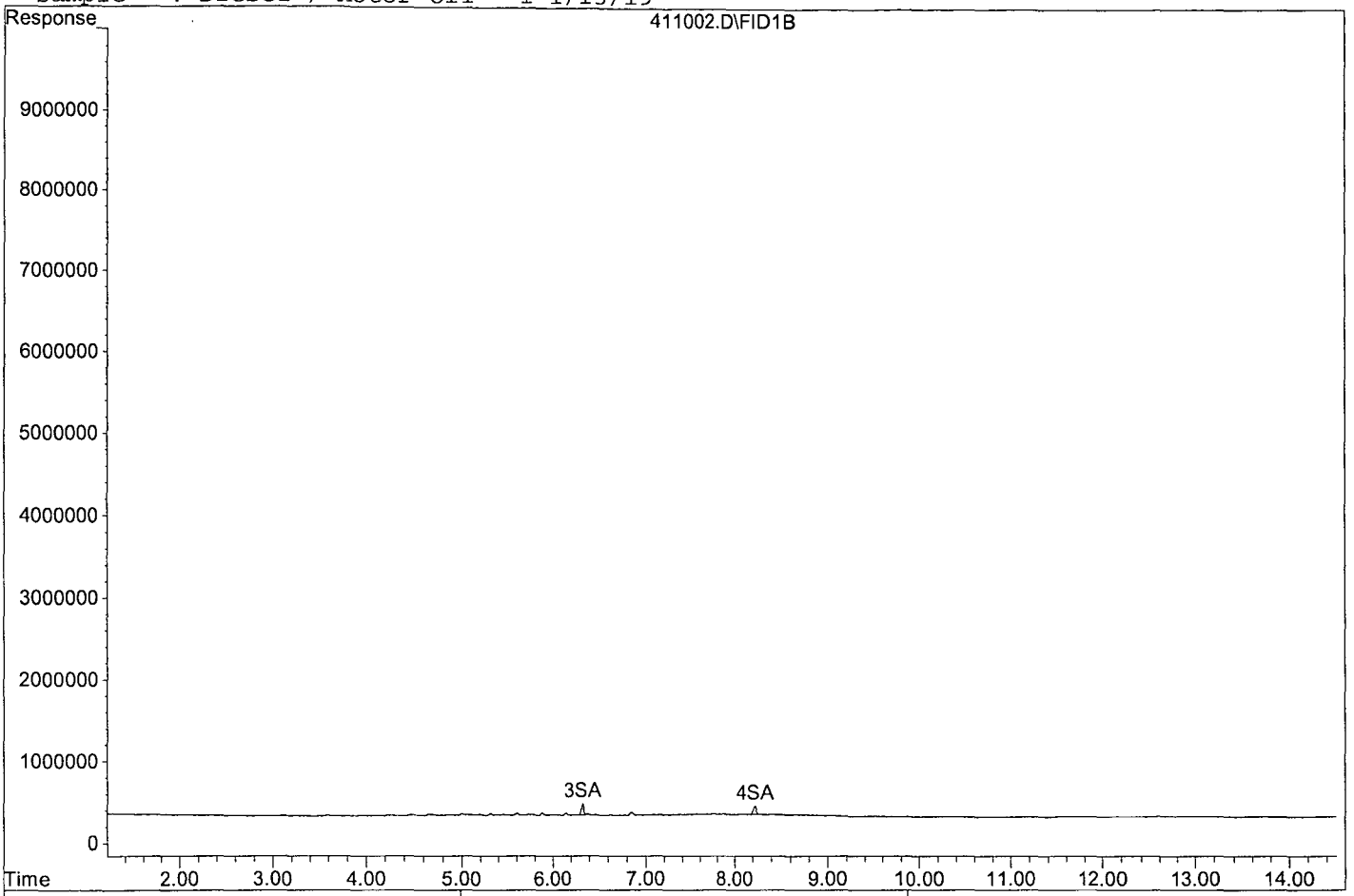
Method : G:\APOLLO\DATA\190411\TPHD0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 18:01:54 2019
Response via : Multiple Level Calibration

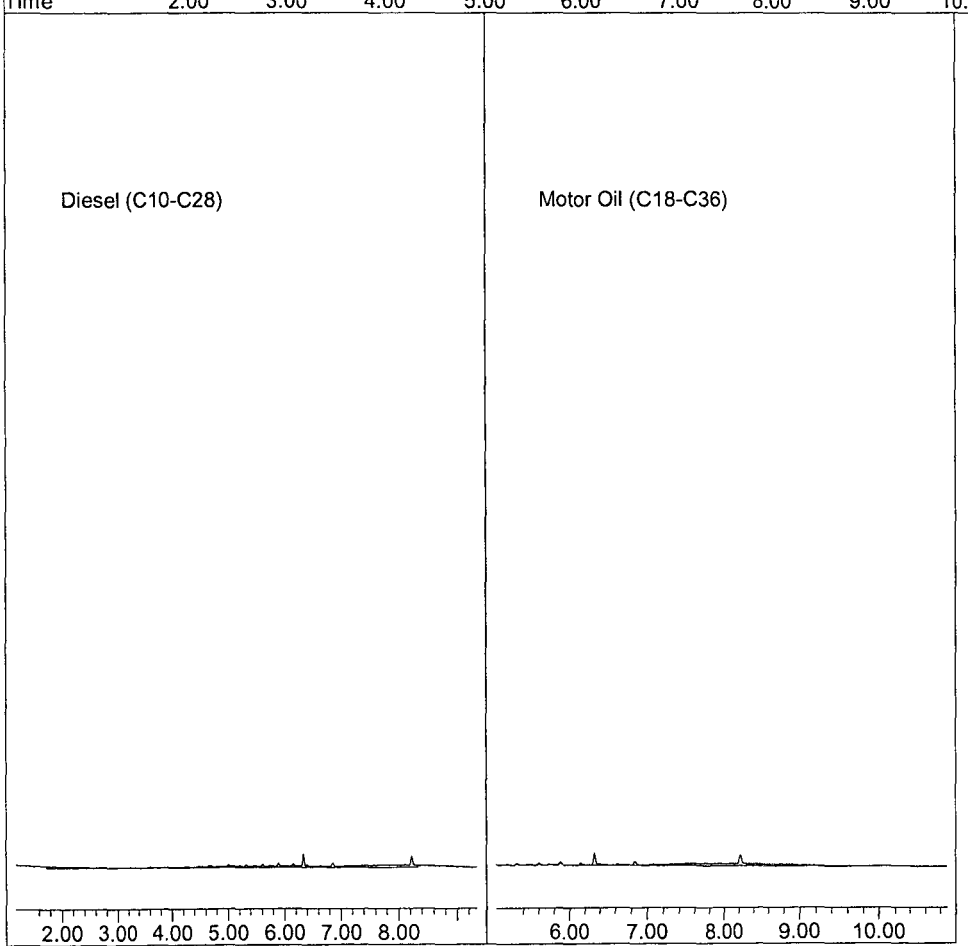
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SA Ortho-Terphenyl(S) | 6.33 | 2331995 | 0.576 ppb |
| Surrogate Spike 30.000 | Recovery = | | 1.92% |
| 4) SA Octacosane(S) | 8.23 | 2126705 | 0.562 ppb |
| Surrogate Spike 30.000 | Recovery = | | 1.87% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C28) | 5.03 | 56743040 | 13.457 ppb |
| 2) HBTM Motor Oil (C18-C36) | 7.96 | 33268761 | 12.054 ppb |

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

Data File: G:\APOLLO\DATA\190411\411002.D
Sample : Diesel / Motor Oil - 1 1/15/19



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\190411\411003.D Vial: 3
Acq On : 4-11-19 13:00:16 Operator: DP
Sample : Diesel / Motor Oil - 2 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 18:03 2019 Quant Results File: TPHD0411.RES

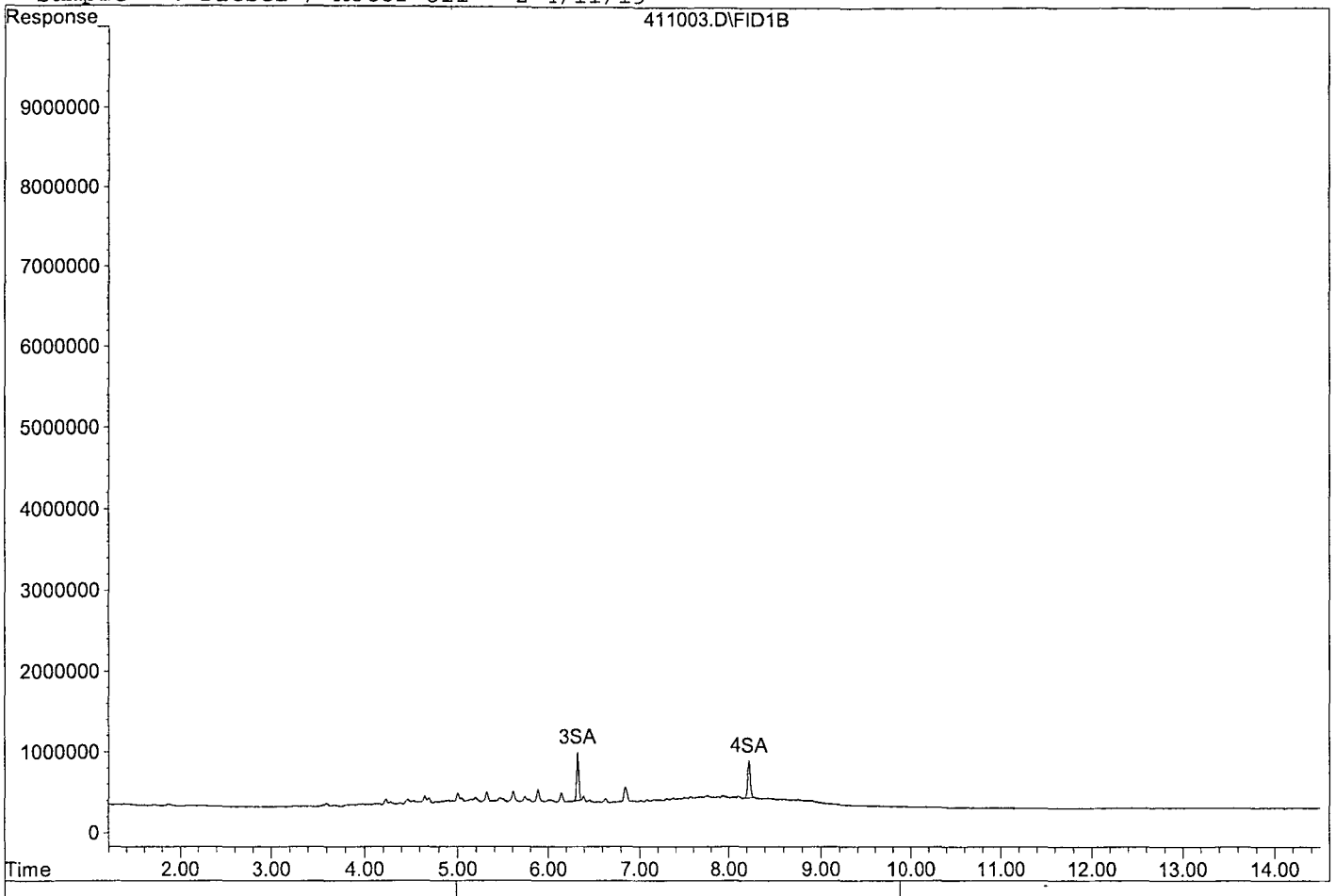
Method : G:\APOLLO\DATA\190411\TPHD0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 18:01:54 2019
Response via : Multiple Level Calibration

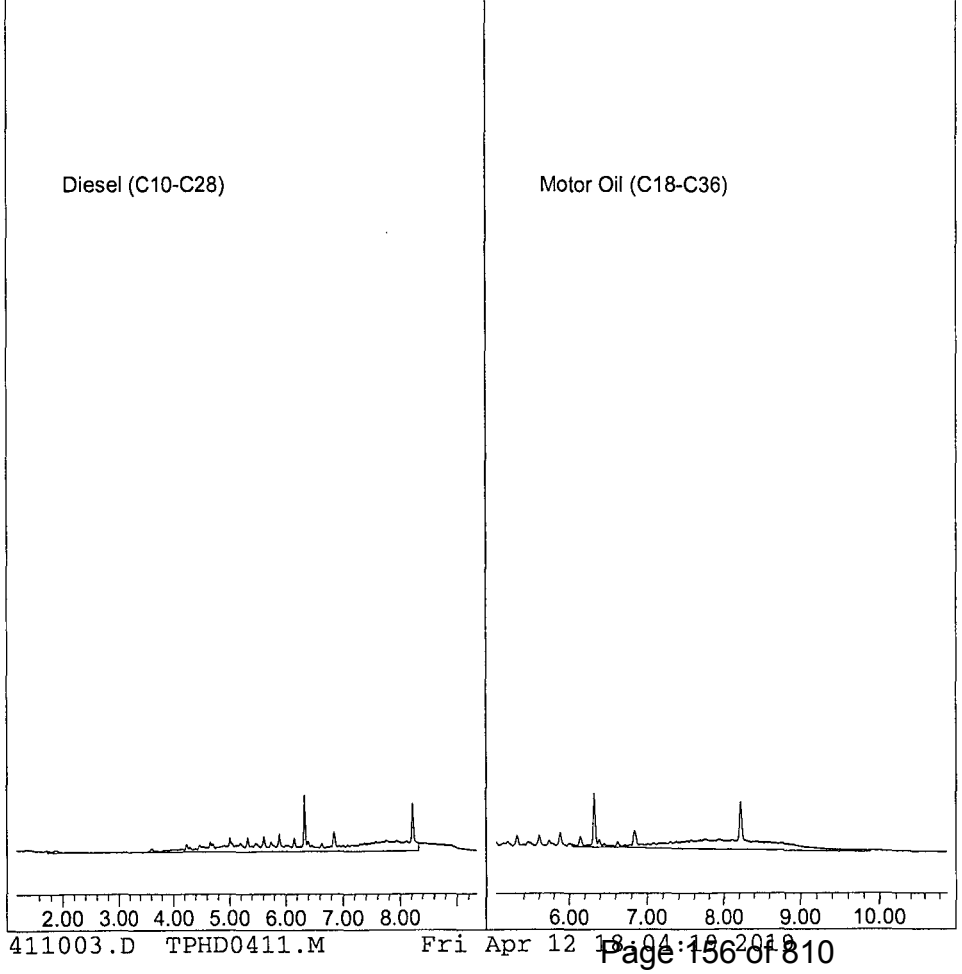
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SA Ortho-Terphenyl(S) | 6.33 | 9989738 | 2.468 ppb |
| Surrogate Spike 30.000 | Recovery = | | 8.23% |
| 4) SA Octacosane(S) | 8.22 | 9222354 | 2.437 ppb |
| Surrogate Spike 30.000 | Recovery = | | 8.12% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C28) | 5.03 | 203472522 | 48.253 ppb |
| 2) HBTM Motor Oil (C18-C36) | 7.96 | 131322878 | 47.582 ppb |

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

Data File: G:\APOLLO\DATA\190411\411003.D
Sample : Diesel / Motor Oil - 2 4/11/19



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\190411\411004.D Vial: 4
Acq On : 4-11-19 13:19:58 Operator: DP
Sample : Diesel / Motor Oil - 3 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 18:03 2019 Quant Results File: TPHD0411.RES

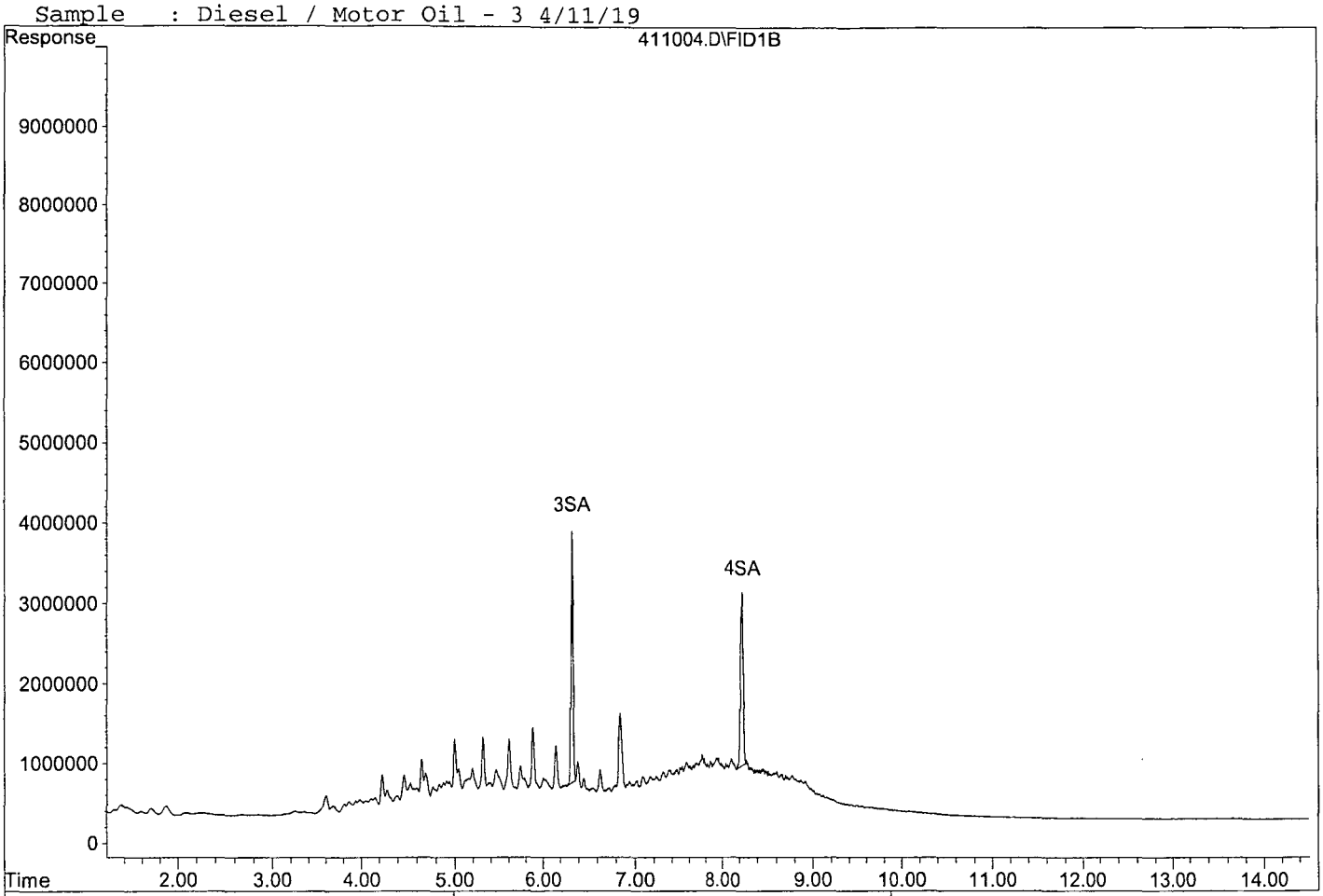
Method : G:\APOLLO\DATA\190411\TPHD0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 18:01:54 2019
Response via : Multiple Level Calibration

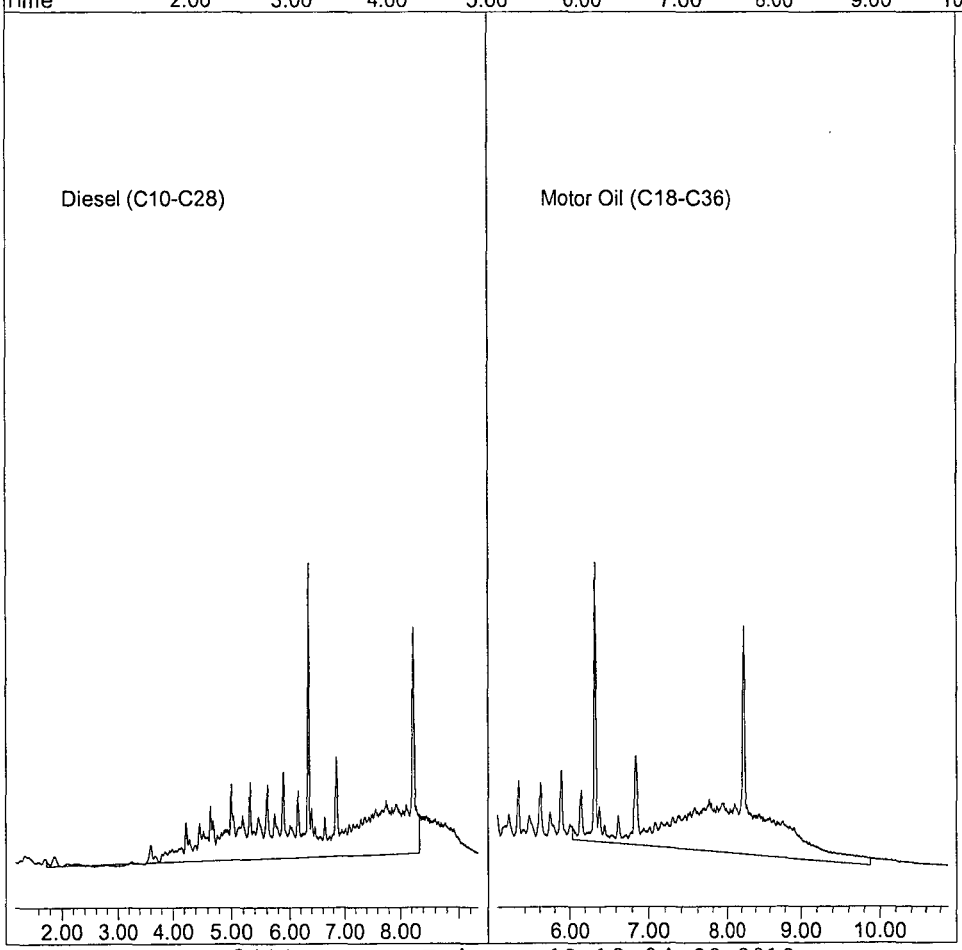
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SA Ortho-Terphenyl(S) | 6.33 | 50729819 | 12.534 ppb |
| Surrogate Spike 30.000 | Recovery = | | 41.78% |
| 4) SA Octacosane(S) | 8.23 | 45790065 | 12.100 ppb |
| Surrogate Spike 30.000 | Recovery = | | 40.33% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C28) | 5.03 | 989590312 | 234.681 ppb |
| 2) HBTM Motor Oil (C18-C36) | 7.96 | 658546116 | 238.609 ppb |

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

Data File: G:\APOLLO\DATA\190411\411004.D
Sample : Diesel / Motor Oil - 3 4/11/19



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\190411\411005.D Vial: 5
Acq On : 4-11-19 13:39:40 Operator: DP
Sample : Diesel / Motor Oil - 4 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 18:03 2019 Quant Results File: TPHD0411.RES

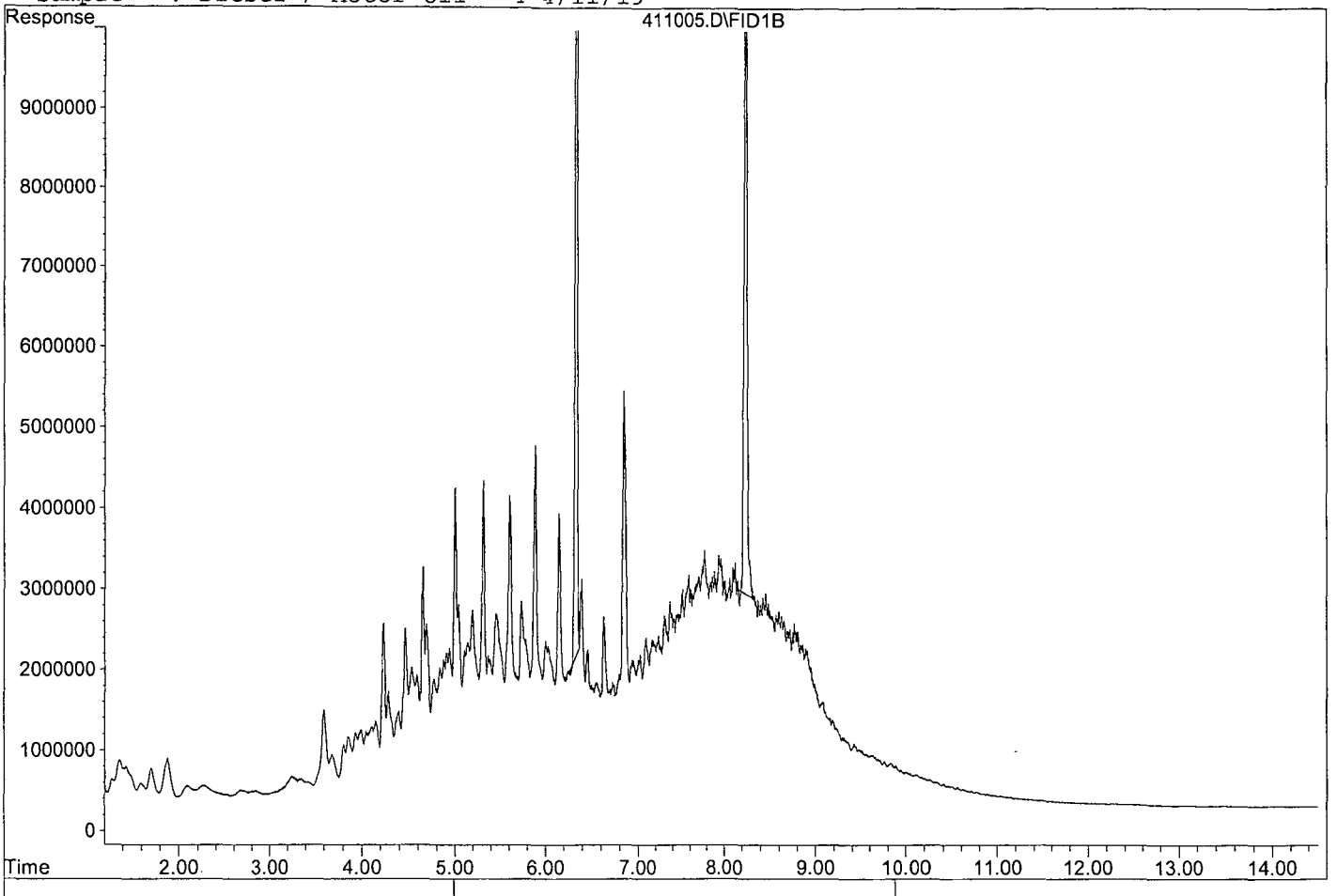
Method : G:\APOLLO\DATA\190411\TPHD0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 18:01:54 2019
Response via : Multiple Level Calibration

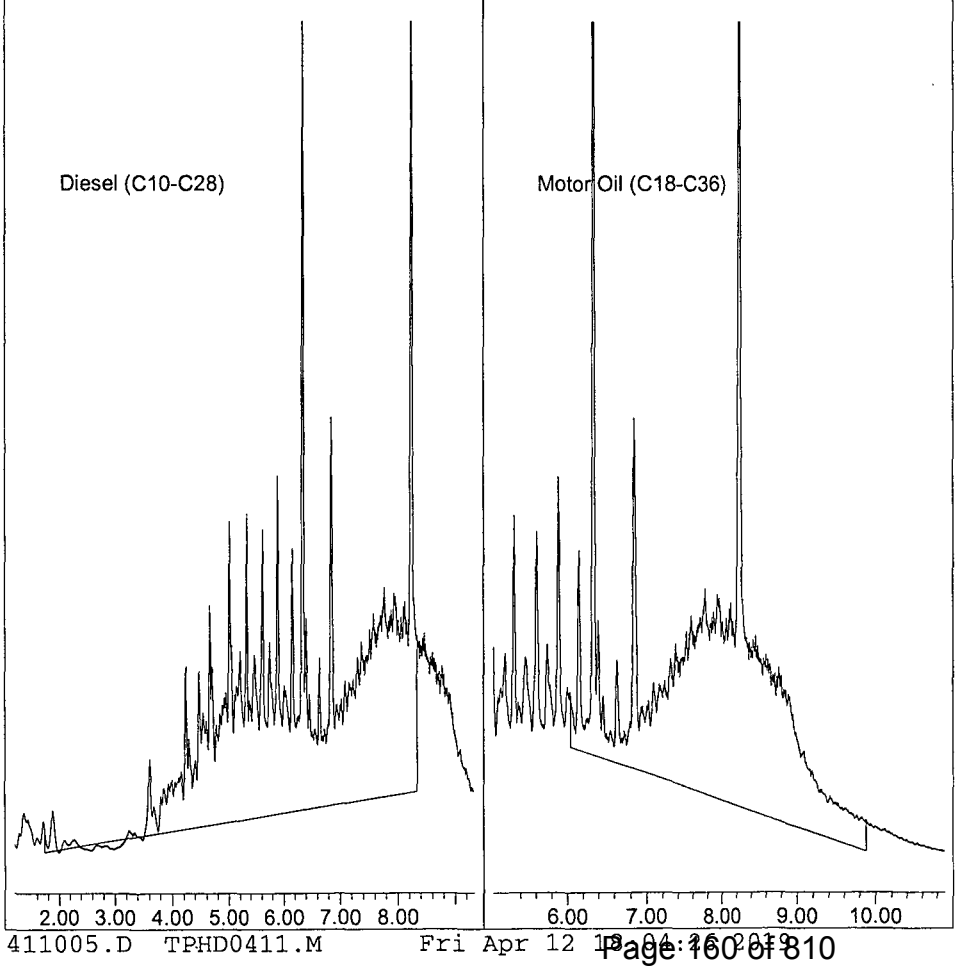
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SA Ortho-Terphenyl(S) | 6.34 | 193442220 | 47.793 ppb |
| Surrogate Spike 30.000 | Recovery = | | 159.31% |
| 4) SA Octacosane(S) | 8.24 | 189453974 | 50.063 ppb |
| Surrogate Spike 30.000 | Recovery = | | 166.88% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C28) | 5.03 | 3878102978 | 919.689 ppb |
| 2) HBTM Motor Oil (C18-C36) | 7.96 | 2628945142 | 952.538 ppb |

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

Data File: G:\APOLLO\DATA\190411\411005.D
Sample : Diesel / Motor Oil - 4 4/11/19



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\190411\411006.D Vial: 6
Acq On : 4-11-19 13:59:26 Operator: DP
Sample : Diesel / Motor Oil - 5 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 18:03 2019 Quant Results File: TPHD0411.RES

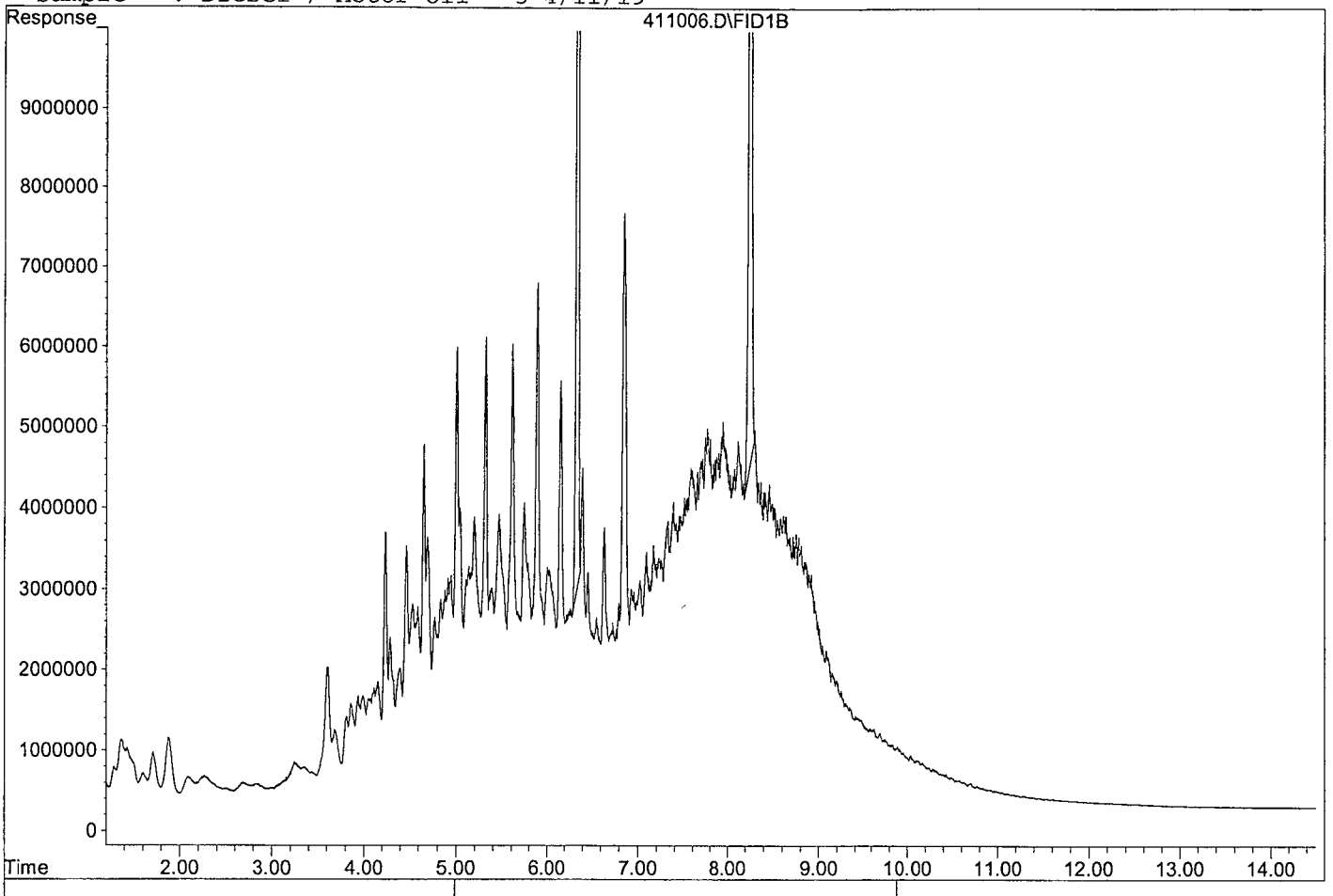
Method : G:\APOLLO\DATA\190411\TPHD0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 18:01:54 2019
Response via : Multiple Level Calibration

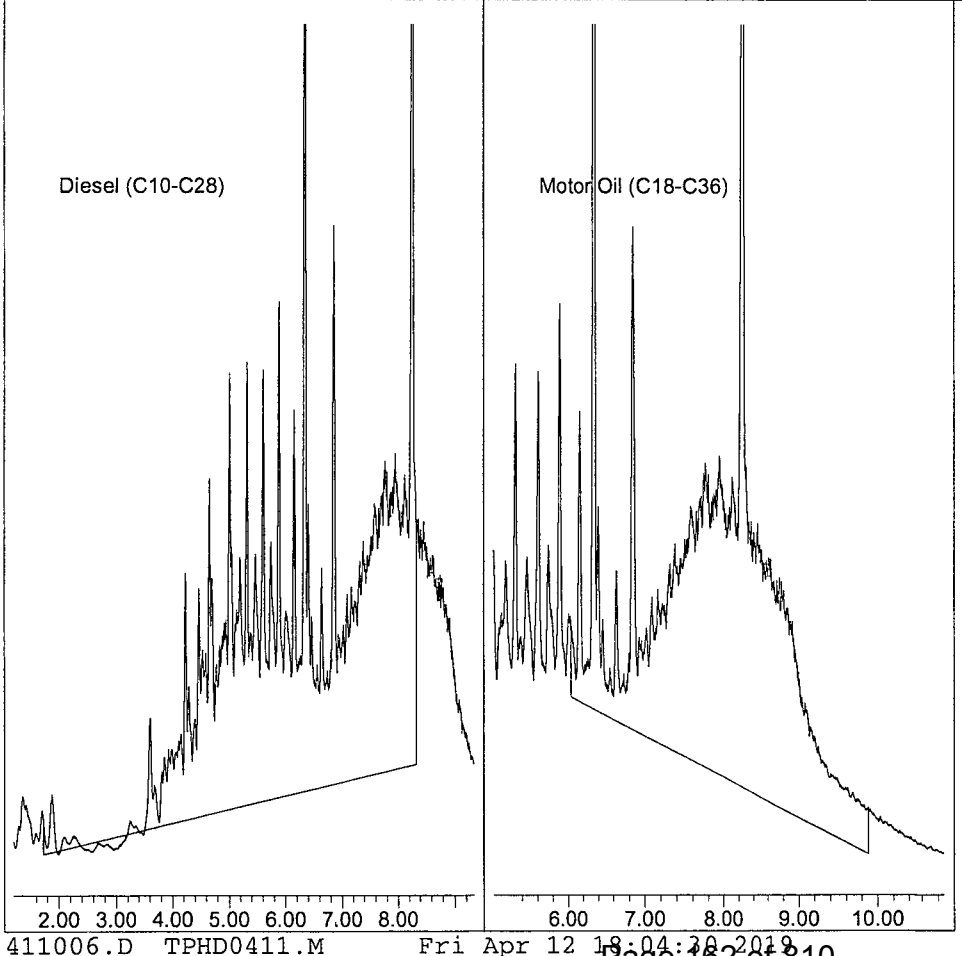
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 3) SA Ortho-Terphenyl(S) | 6.35 | 292043263 | 72.154 | ppb |
| Surrogate Spike 30.000 | | Recovery = | 240.51% | |
| 4) SA Octacosane(S) | 8.25 | 271242076 | 71.676 | ppb |
| Surrogate Spike 30.000 | | Recovery = | 238.92% | |
| Target Compounds | | | | |
| 1) HATM Diesel (C10-C28) | 5.03 | 5793946857 | 1374.030 | ppb |
| 2) HBTM Motor Oil (C18-C36) | 7.96 | 3972428738 | 1439.318 | ppb |

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

Data File: G:\APOLLO\DATA\190411\411006.D
Sample : Diesel / Motor Oil - 5 4/11/19



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\190411\411007.D Vial: 7
Acq On : 4-11-19 14:19:10 Operator: DP
Sample : Diesel / Motor Oil - 6 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 18:03 2019 Quant Results File: TPHD0411.RES

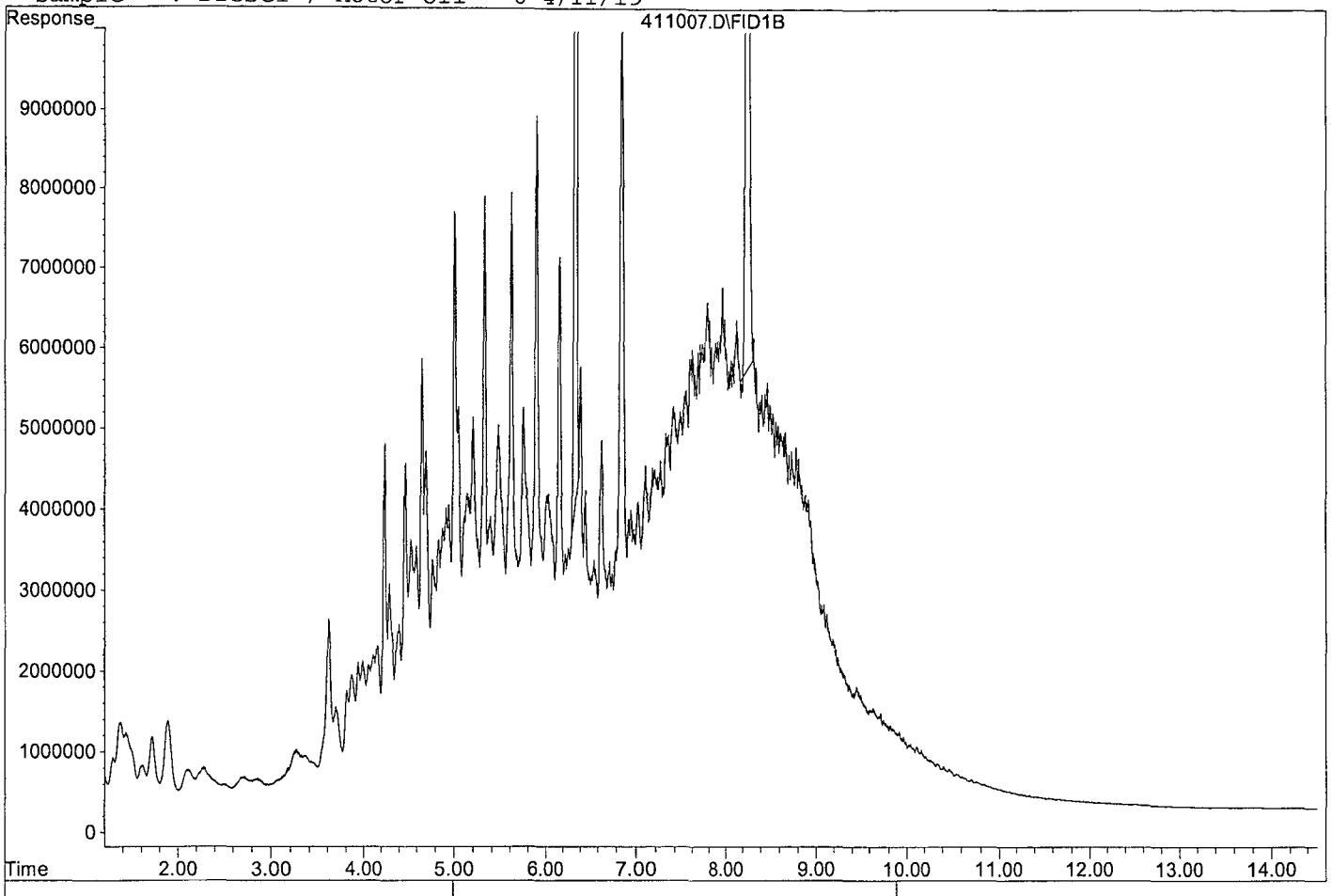
Method : G:\APOLLO\DATA\190411\TPHD0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 18:01:54 2019
Response via : Multiple Level Calibration

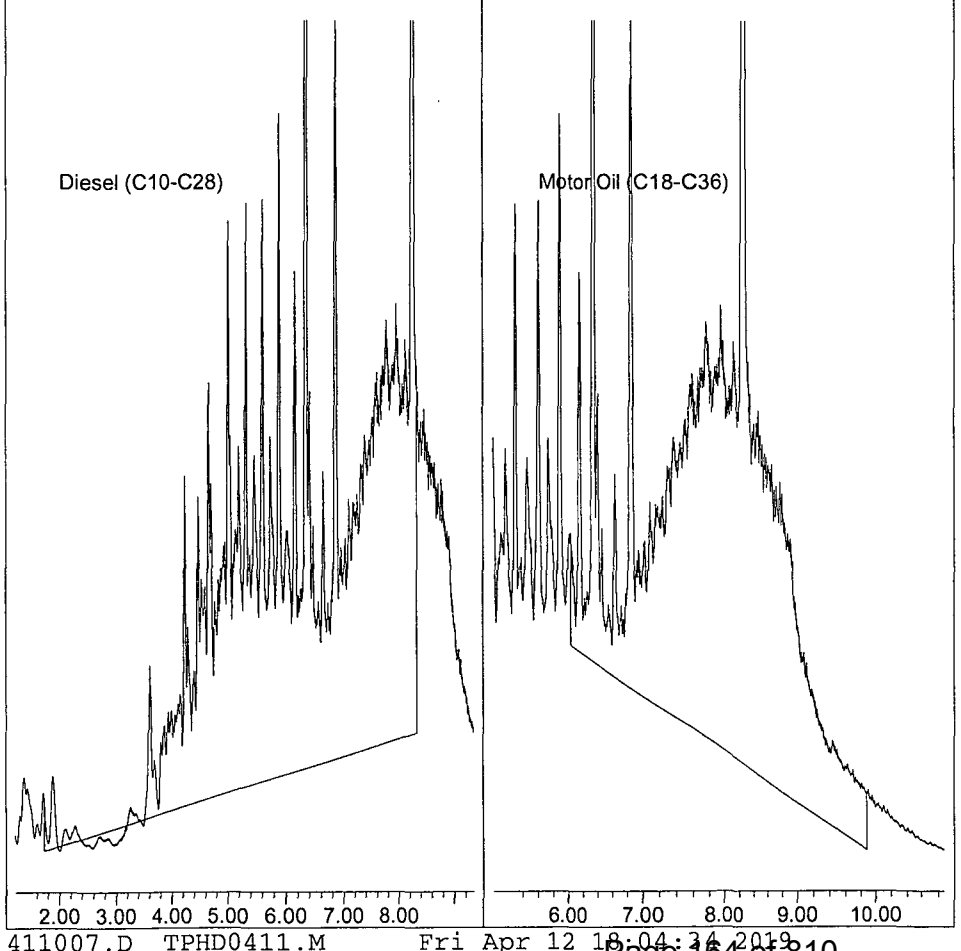
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SA Ortho-Terphenyl(S) | 6.35 | 380394582 | 93.983 ppb |
| Surrogate Spike 30.000 | Recovery = | | 313.28% |
| 4) SA Octacosane(S) | 8.25 | 369453158 | 97.628 ppb |
| Surrogate Spike 30.000 | Recovery = | | 325.43% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C28) | 5.03 | 7715354225 | 1829.690 ppb |
| 2) HBTM Motor Oil (C18-C36) | 7.96 | 5389753285 | 1952.853 ppb |

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

Data File: G:\APOLLO\DATA\190411\411007.D
Sample : Diesel / Motor Oil - 6 4/11/19



TPH Extractables
TPHD0411

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 04/11/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 411008.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C28) | 2108380 | 1828340 | 13 | HATM | |
| 2 | HBTM | Motor Oil (C18-C36) | 1379970 | 1286200 | 6.8 | HBTM | |
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| | | Average | | | 9.9 | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411008.D Vial: 8
Acq On : 4-11-19 14:39:01 Operator: DP
Sample : Diesel / Motor Oil - 2nd Source 1/15/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 18:03 2019 Quant Results File: TPHD0411.RES

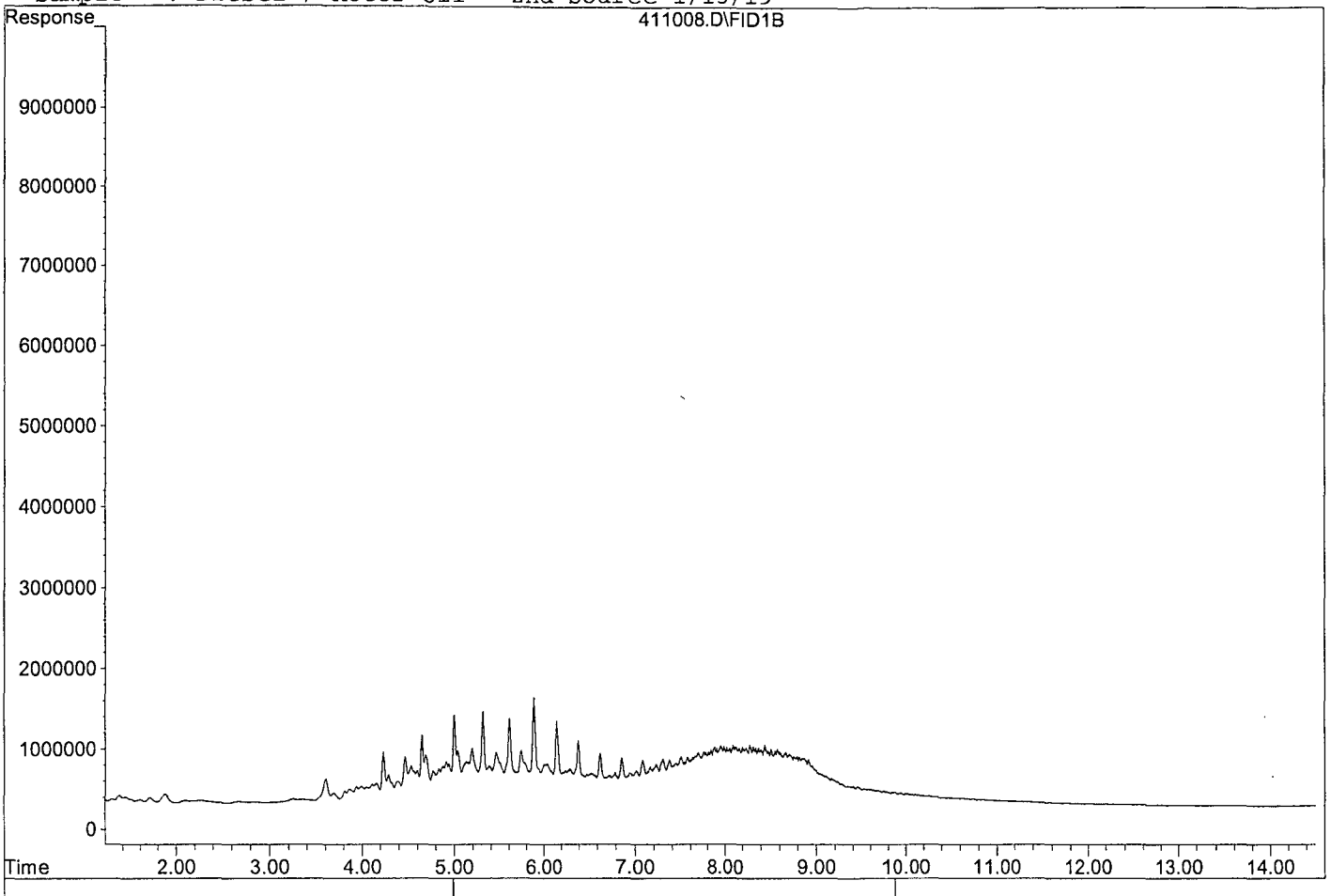
Method : G:\APOLLO\DATA\190411\TPHD0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 18:01:54 2019
Response via : Multiple Level Calibration

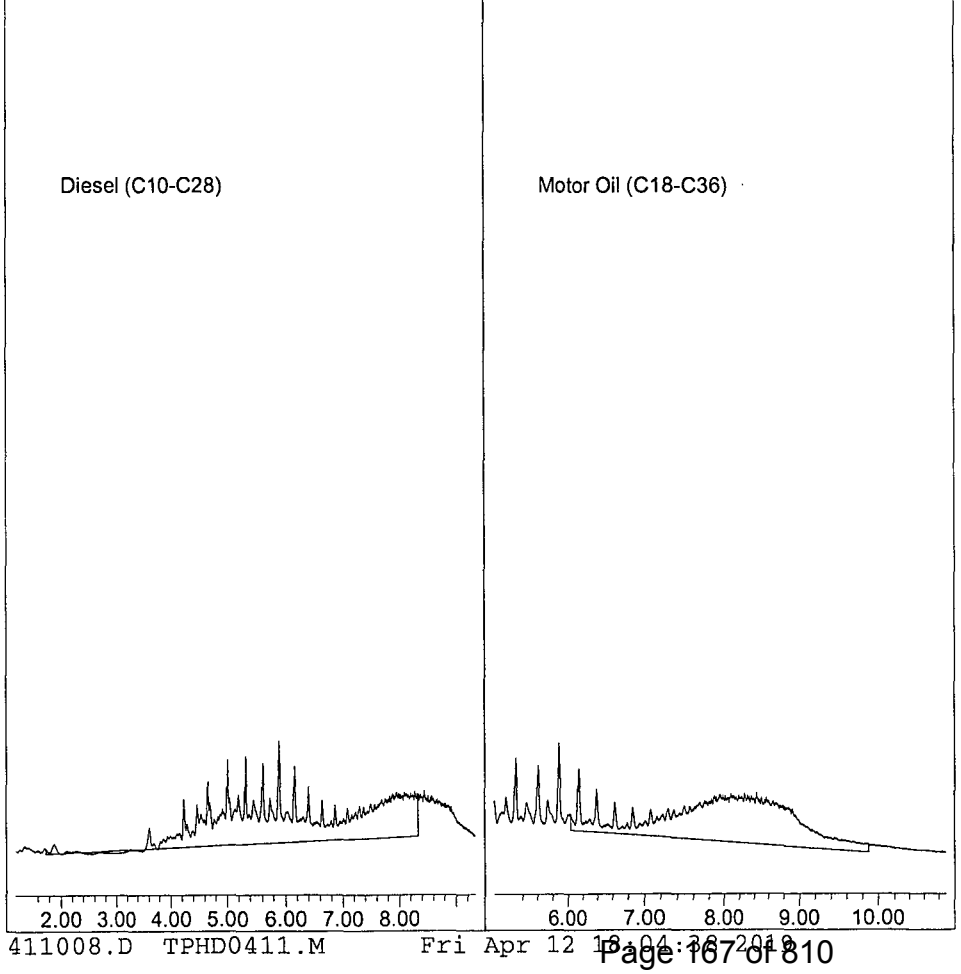
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C28) | 5.03 | 914167577 | 216.794 ppb |
| 2) HBTM Motor Oil (C18-C36) | 7.96 | 643100074 | 233.013 ppb |

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

Data File: G:\APOLLO\DATA\190411\411008.D
Sample : Diesel / Motor Oil - 2nd Source 1/15/19



TPH Extractables
DOC0411

Form 7

# Continuing Calibration

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

SDG No:
Date Analyzed: 04/29/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 419048.D

| | | Compound | MEAN | CCRF | %D | %Drift | | |
|---|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1196390 | 0.32 | HATM | | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1033720 | 8.6 | HBTM | | |
| 3 | SCL | Decanoic Acid(S) | 438835 | 156063 | 64 | SCL | 62 | *NT |
| 4 | SA | Ortho-Terphenyl(S) | 2023750 | 2174580 | 7.5 | SA | | |
| 5 | SA | Octacosane(S) | 1892140 | 1924300 | 1.7 | SA | | |
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| | | Average | | | 16.4 | | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419048.D Vial: 48
Acq On : 4-29-19 17:02:59 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 30 11:55 2019 Quant Results File: DOC0411.RES

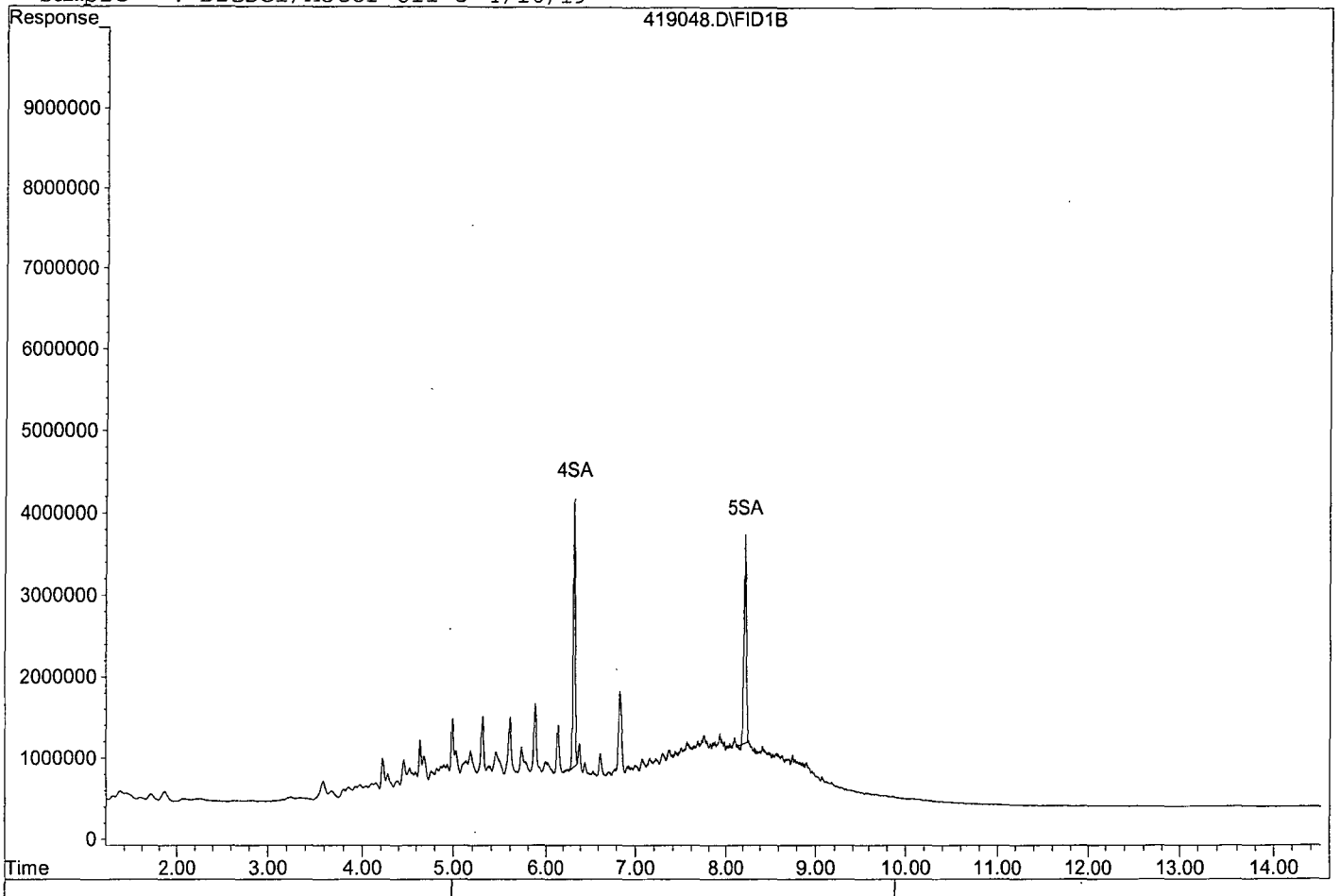
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

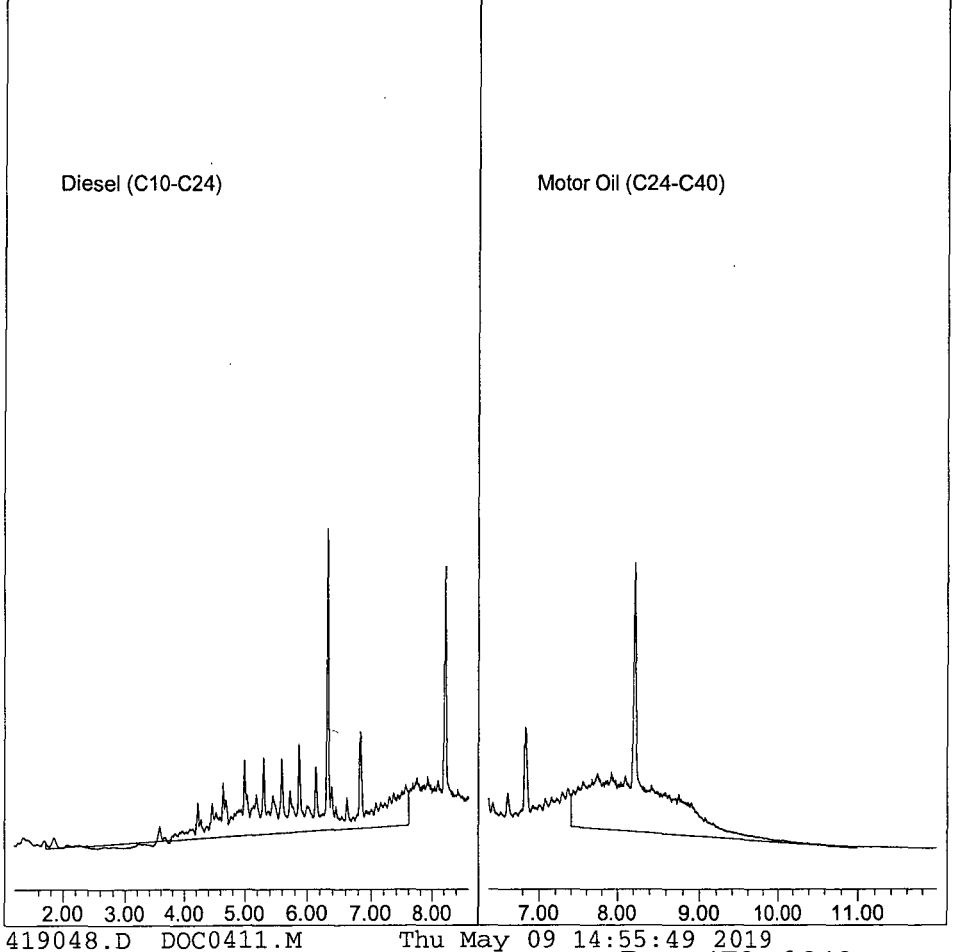
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 54364392 | 13.432 ppb |
| Surrogate Spike 30.000 | Recovery = | | 44.77% |
| 5) SA Octacosane(S) | 8.22 | 48107479 | 12.712 ppb |
| Surrogate Spike 30.000 | Recovery = | | 42.37% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 598195091 | 250.791 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 516860794 | 271.529 ppb |

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

Data File: G:\APOLLO\DATA\190419\419048.D
Sample : Diesel/Motor Oil 3 4/16/19



TPH Extractables
DOC0411

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/30/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 419072.D

| | | Compound | MEAN | CCRF | %D | %Drift | | |
|---|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1290500 | 8.2 | HATM | | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1047300 | 10 | HBTM | | |
| 3 | SCL | Decanoic Acid(S) | 438835 | 162486 | 63 | SCL | 61 | *NT |
| 4 | SA | Ortho-Terphenyl(S) | 2023750 | 2206830 | 9.0 | SA | | |
| 5 | SA | Octacosane(S) | 1892140 | 1987990 | 5.1 | SA | | |
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| 39 | | | | | | | | |
| 40 | | | | | | | | |
| | | Average | | | 19.1 | | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419072.D Vial: 72
Acq On : 4-30-19 1:02:05 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 30 11:55 2019 Quant Results File: DOC0411.RES

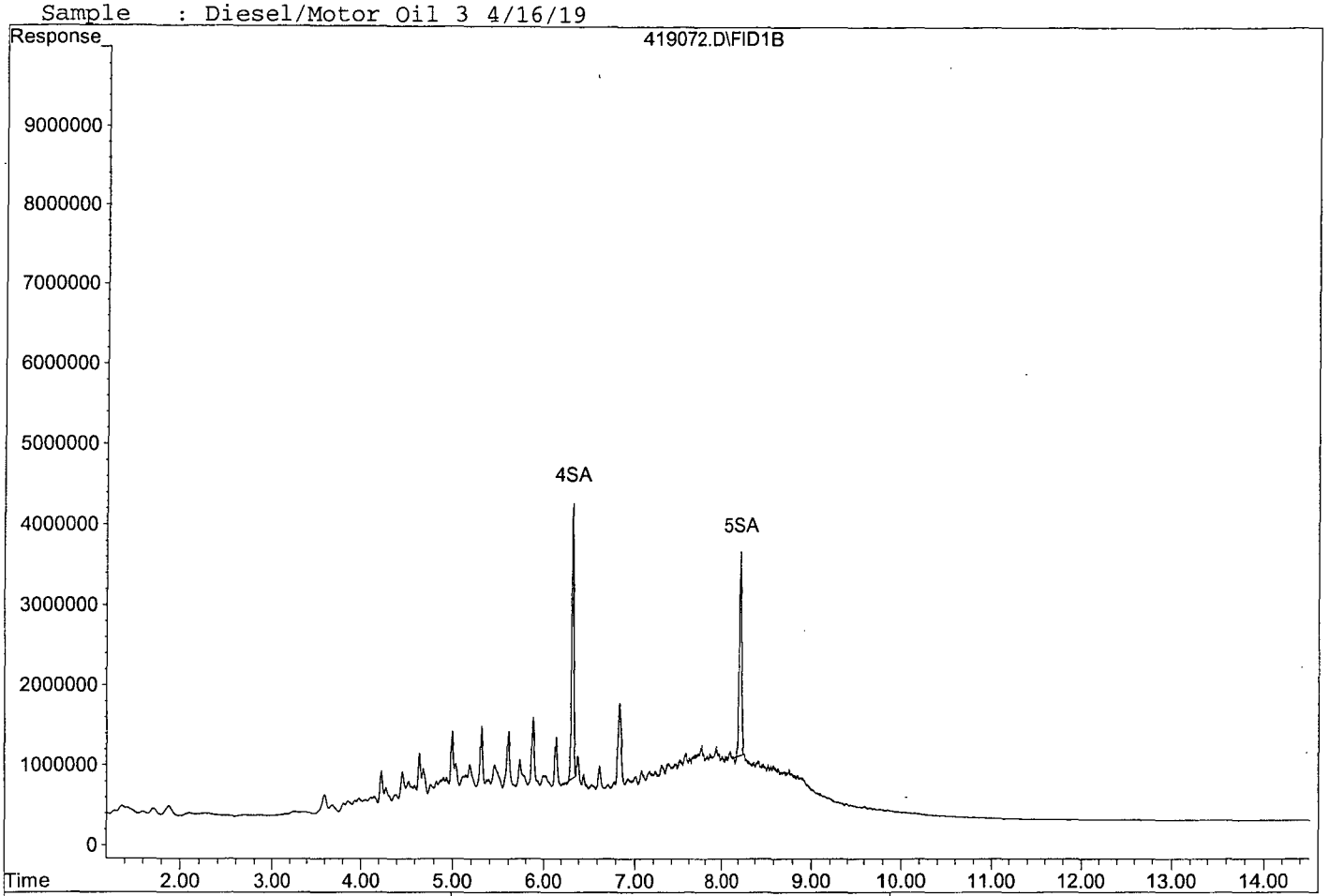
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

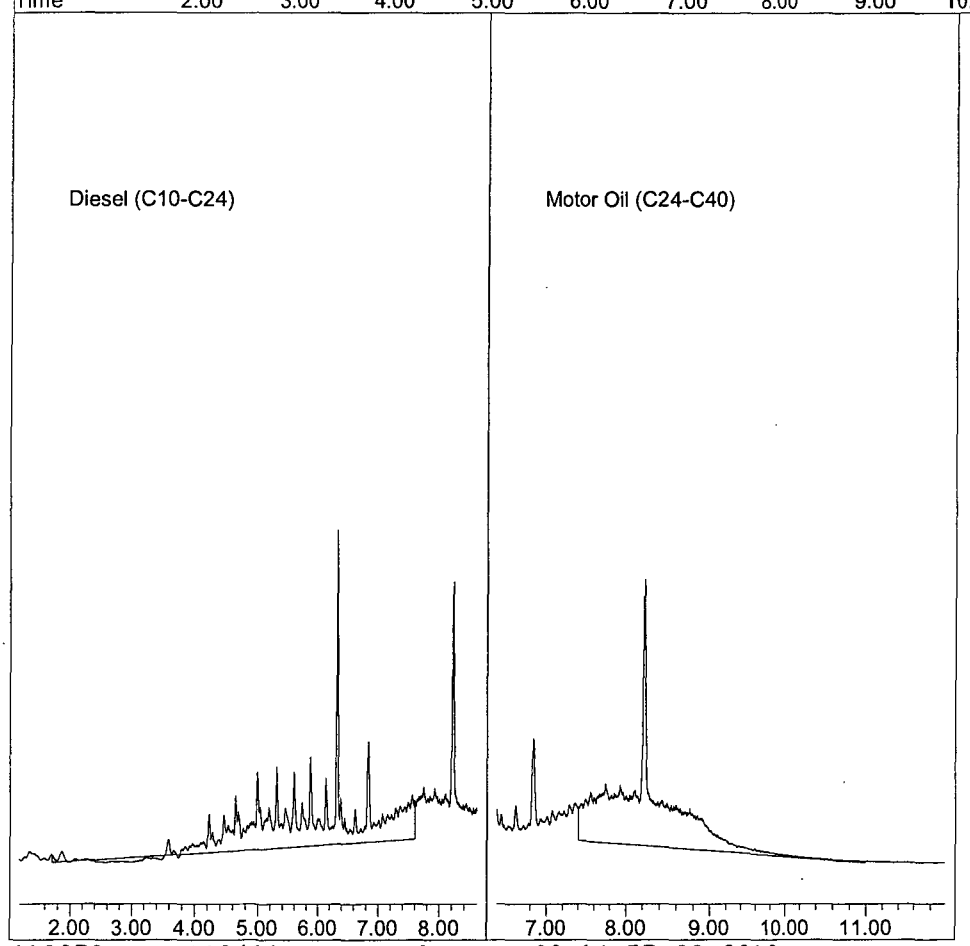
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 55170675 | 13.631 ppb |
| Surrogate Spike 30.000 | Recovery = | | 45.44% |
| 5) SA Octacosane(S) | 8.22 | 49699754 | 13.133 ppb |
| Surrogate Spike 30.000 | Recovery = | | 43.78% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 645250913 | 270.519 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 523649904 | 275.096 ppb |

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

Data File: G:\APOLLO\DATA\190419\419072.D
Sample : Diesel/Motor Oil 3 4/16/19



TPH Extractables
DOC0411

Form 7

# Continuing Calibration

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

SDG No:
Date Analyzed: 05/06/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 506002.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1189150 | 0.29 | HATM | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1039930 | 9.3 | HBTM | |
| 3 | SA | Ortho-Terphenyl(S) | 2023750 | 2093620 | 3.5 | SA | |
| 4 | SA | Octacosane(S) | 1892140 | 1954310 | 3.3 | SA | |
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| 40 | | | | | | | |
| | | Average | | | 4.1 | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506002.D Vial: 2
Acq On : 5-6-19 17:10:08 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: May 15 15:39 2019 Quant Results File: DOC0411.RES

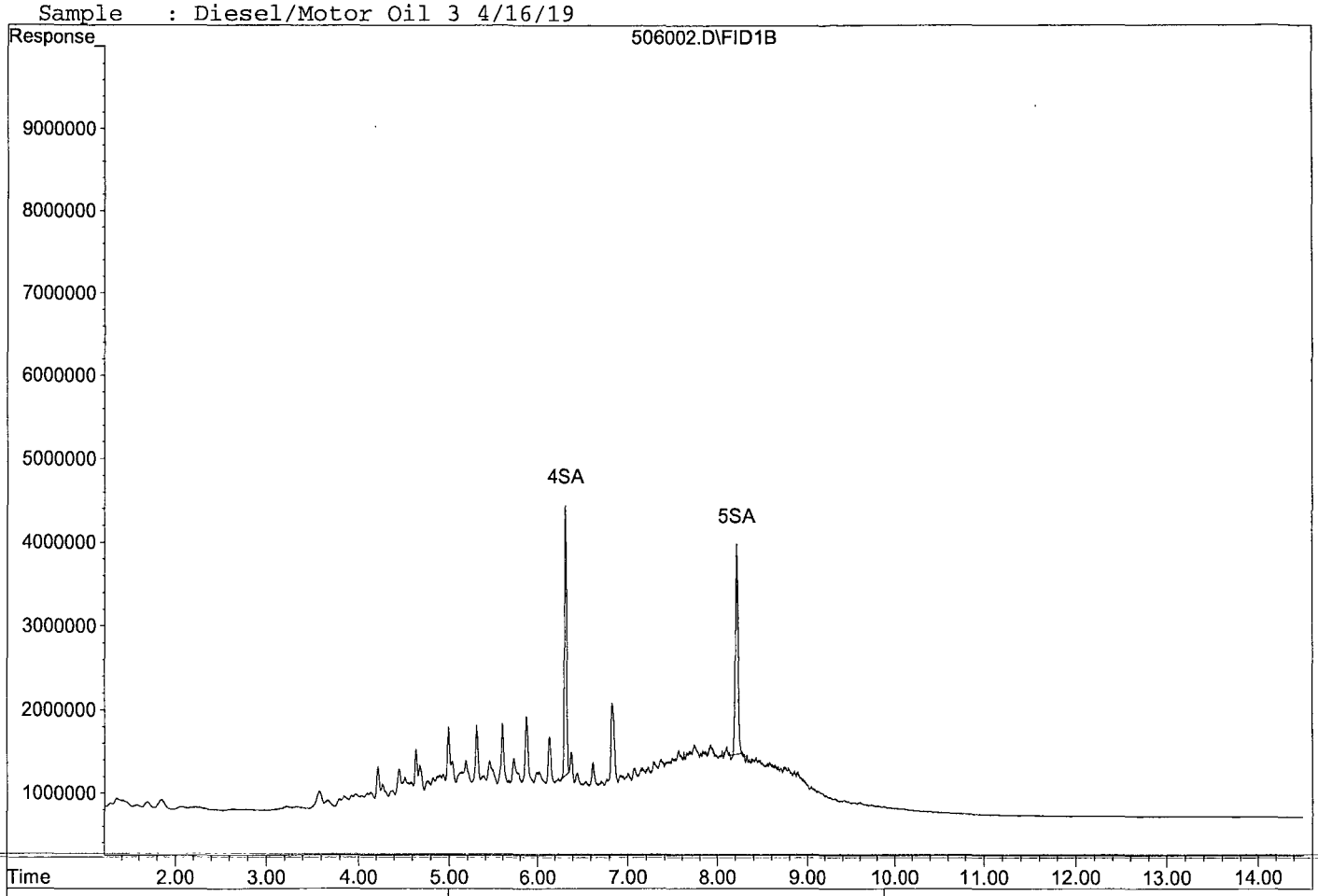
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

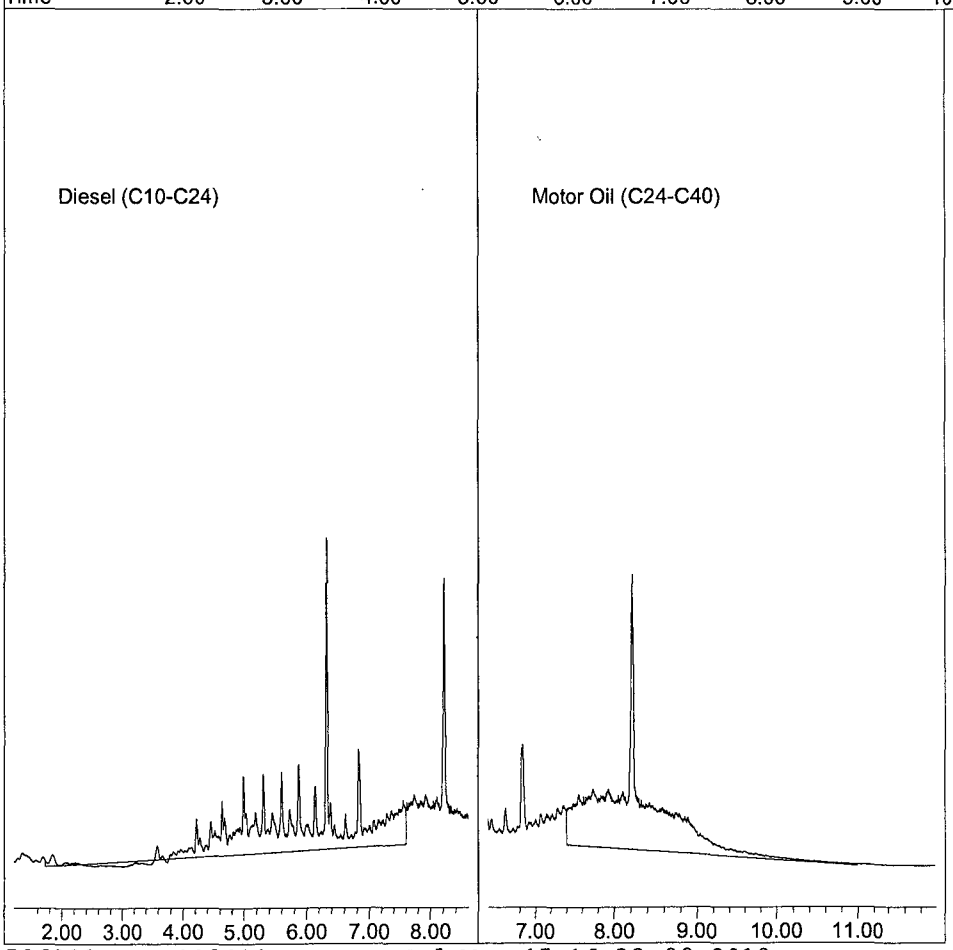
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 52340610 | 12.932 ppb |
| Surrogate Spike 30.000 | Recovery = | | 43.11% |
| 5) SA Octacosane(S) | 8.22 | 48857718 | 12.911 ppb |
| Surrogate Spike 30.000 | Recovery = | | 43.04% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 594574599 | 249.273 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 519962705 | 273.159 ppb |

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

Data File: G:\APOLLO\DATA\190506\506002.D
Sample : Diesel/Motor Oil 3 4/16/19




506002.D DOC0411.M Wed May 15 16:32:00 2019

TPH Extractables
DOC0411

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 05/06/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 506016.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1231640 | 3.3 | HATM | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1057410 | 11 | HBTM | |
| 3 | SA | Ortho-Terphenyl(S) | 2023750 | 2197200 | 8.6 | SA | |
| 4 | SA | Octacosane(S) | 1892140 | 2145190 | 13 | SA | |
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| 40 | | | | | | | |
| | | Average | | | 9.0 | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506016.D Vial: 16
Acq On : 5-6-19 21:49:32 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: May 8 8:26 2019 Quant Results File: DOC0411.RES

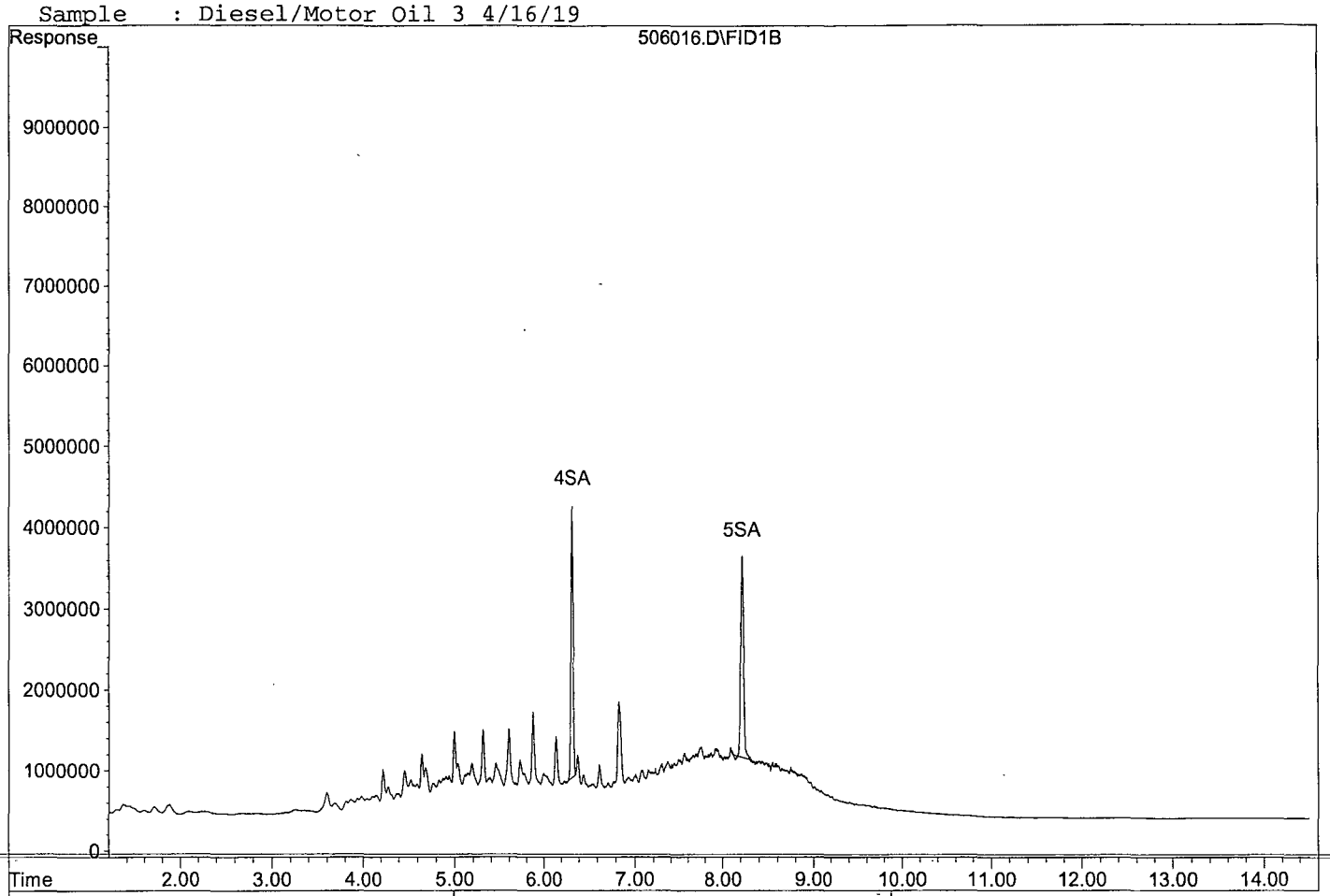
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

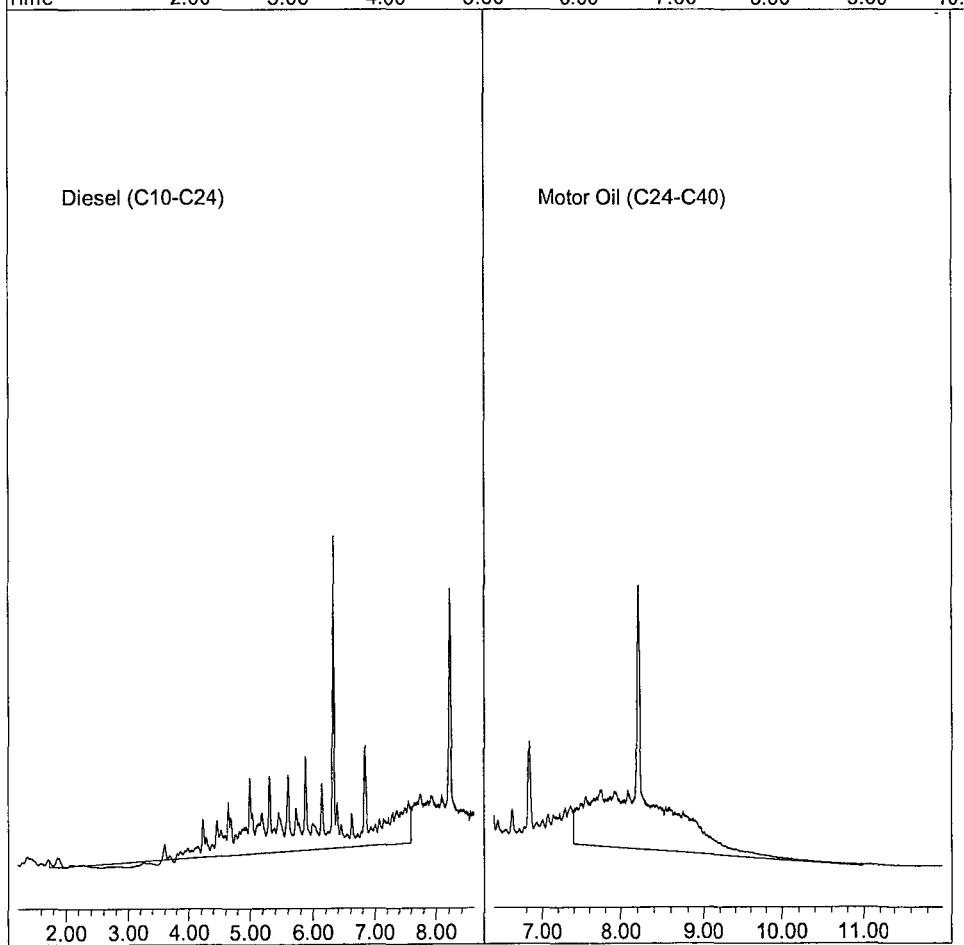
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 54930035 | 13.571 ppb |
| Surrogate Spike 30.000 | Recovery = | | 45.24% |
| 5) SA Octacosane(S) | 8.22 | 53629644 | 14.172 ppb |
| Surrogate Spike 30.000 | Recovery = | | 47.24% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 615821869 | 258.181 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 528706645 | 277.752 ppb |

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

Data File: G:\APOLLO\DATA\190506\506016.D
Sample : Diesel/Motor Oil 3 4/16/19




506016.D DOC0411.M Wed May 15 16:33:03 2019

# ORGANICS
# Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419052.D Vial: 52
Acq On : 4-29-19 18:23:18 Operator: DP
Sample : AZ89958W29 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:06 2019 Quant Results File: DOC0411.RES

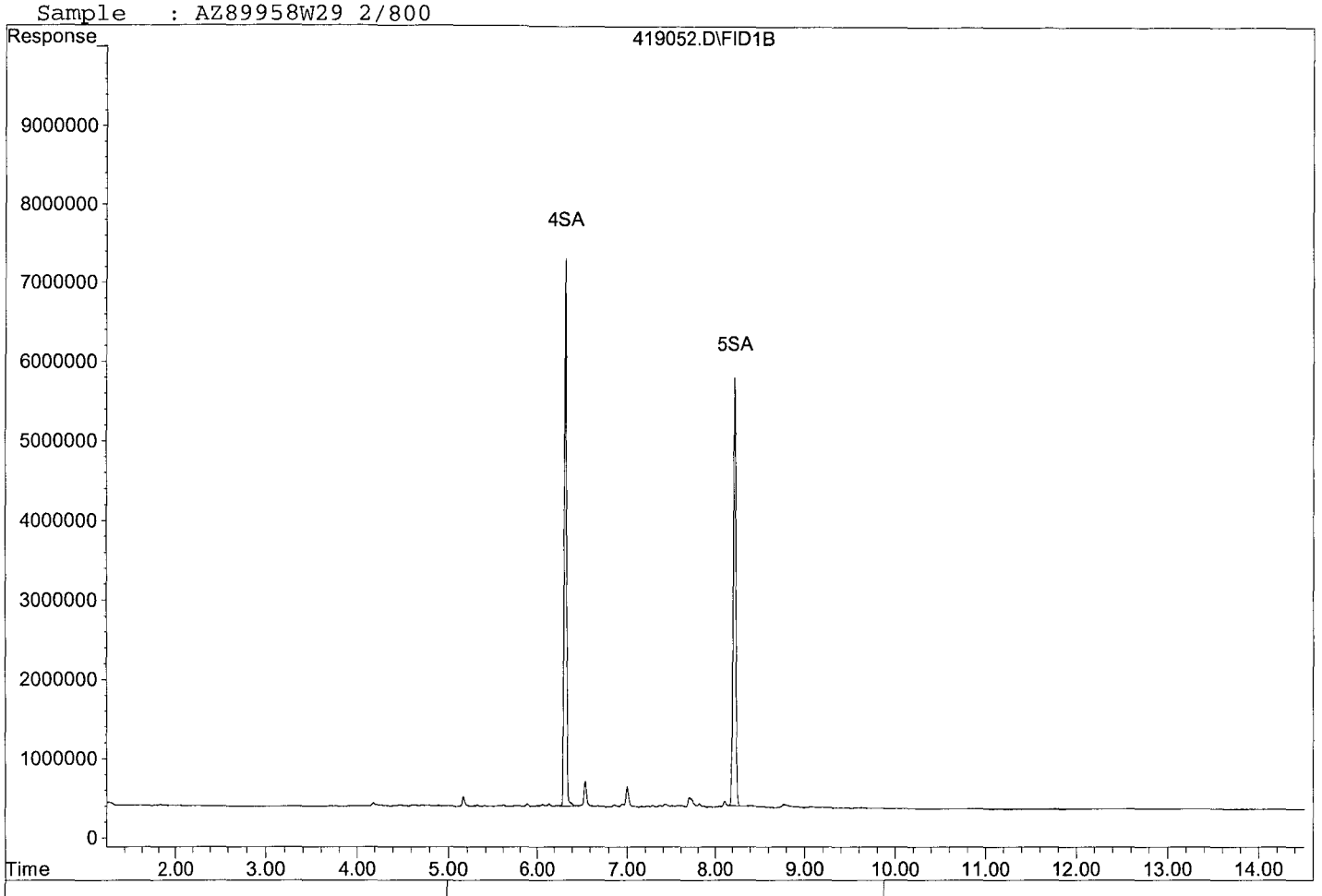
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

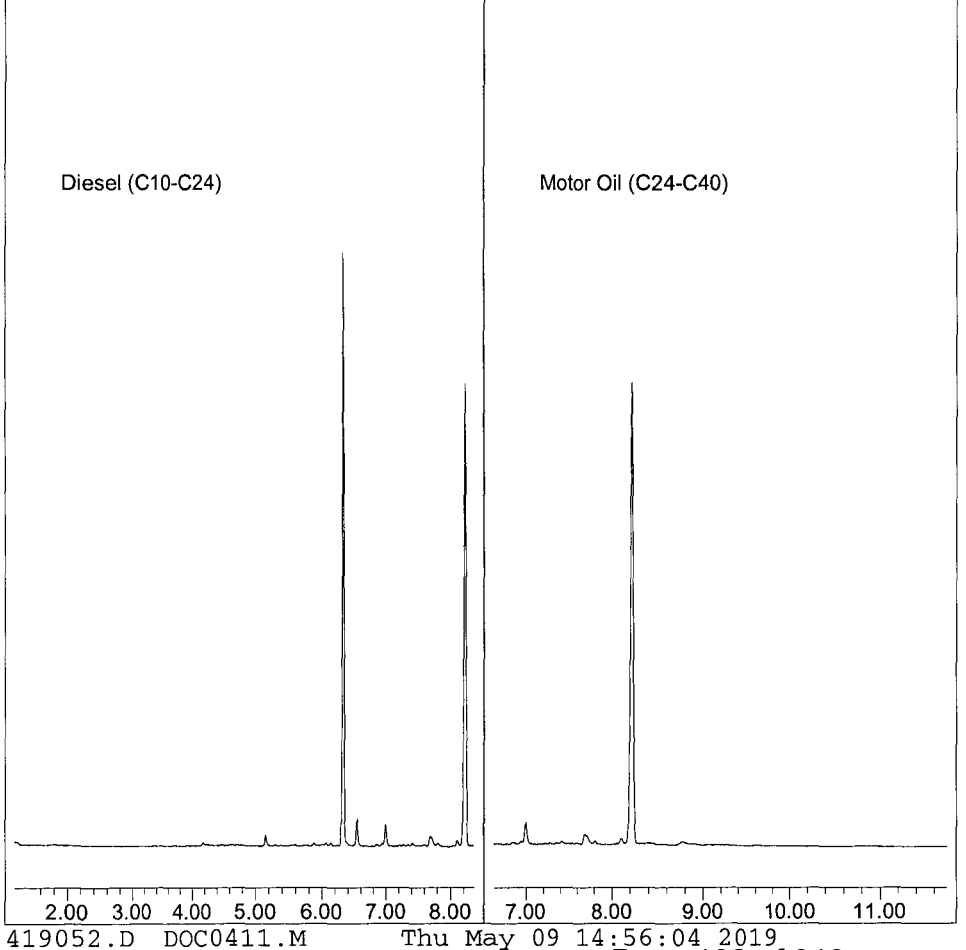
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 116249127 | 71.803 ppb |
| Surrogate Spike 75.000 | Recovery = | | 95.74% |
| 5) SA Octacosane(S) | 8.22 | 111524207 | 73.676 ppb |
| Surrogate Spike 75.000 | Recovery = | | 98.23% |
| Target Compounds | | | |

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

Data File: G:\APOLLO\DATA\190419\419052.D
Sample : AZ89958W29 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506008.D Vial: 8
Acq On : 5-6-19 19:09:45 Operator: DP
Sample : AZ89958W40 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:45 2019 Quant Results File: DOC0411.RES

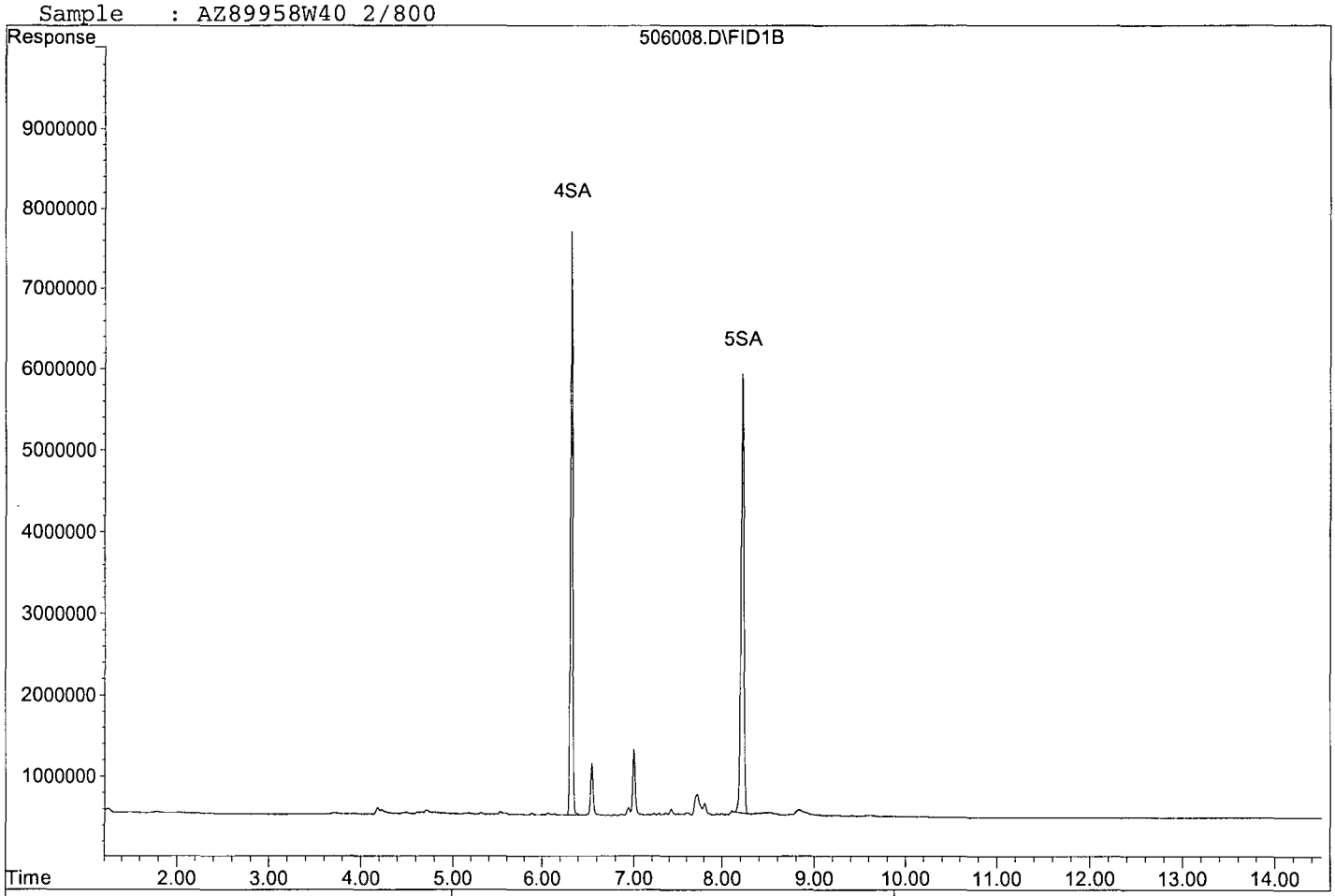
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

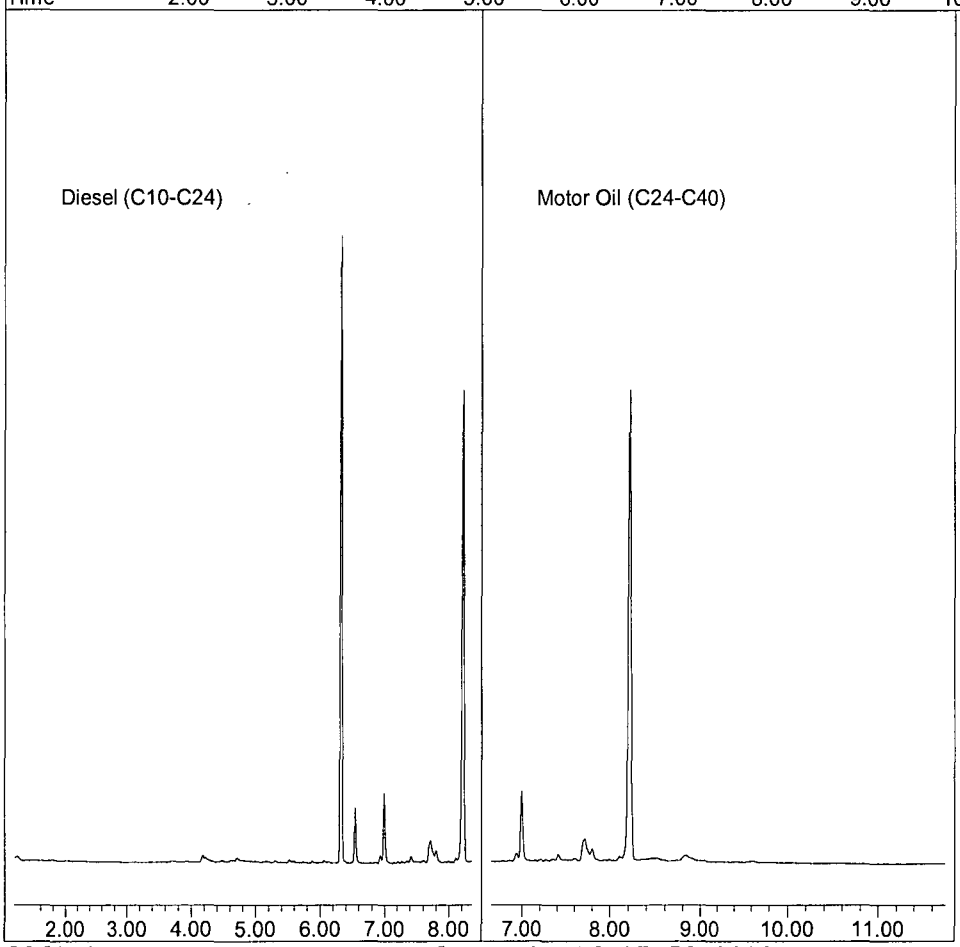
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 118923359 | 73.455 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 97.94% | |
| 5) SA Octacosane(S) | 8.22 | 115492123 | 76.297 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 101.73% | |
| Target Compounds | | | | |

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

Data File: G:\APOLLO\DATA\190506\506008.D
Sample : AZ89958W40 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419055.D Vial: 55
Acq On : 4-29-19 19:23:42 Operator: DP
Sample : AZ89959W10 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 14:07 2019 Quant Results File: DOC0411.RES

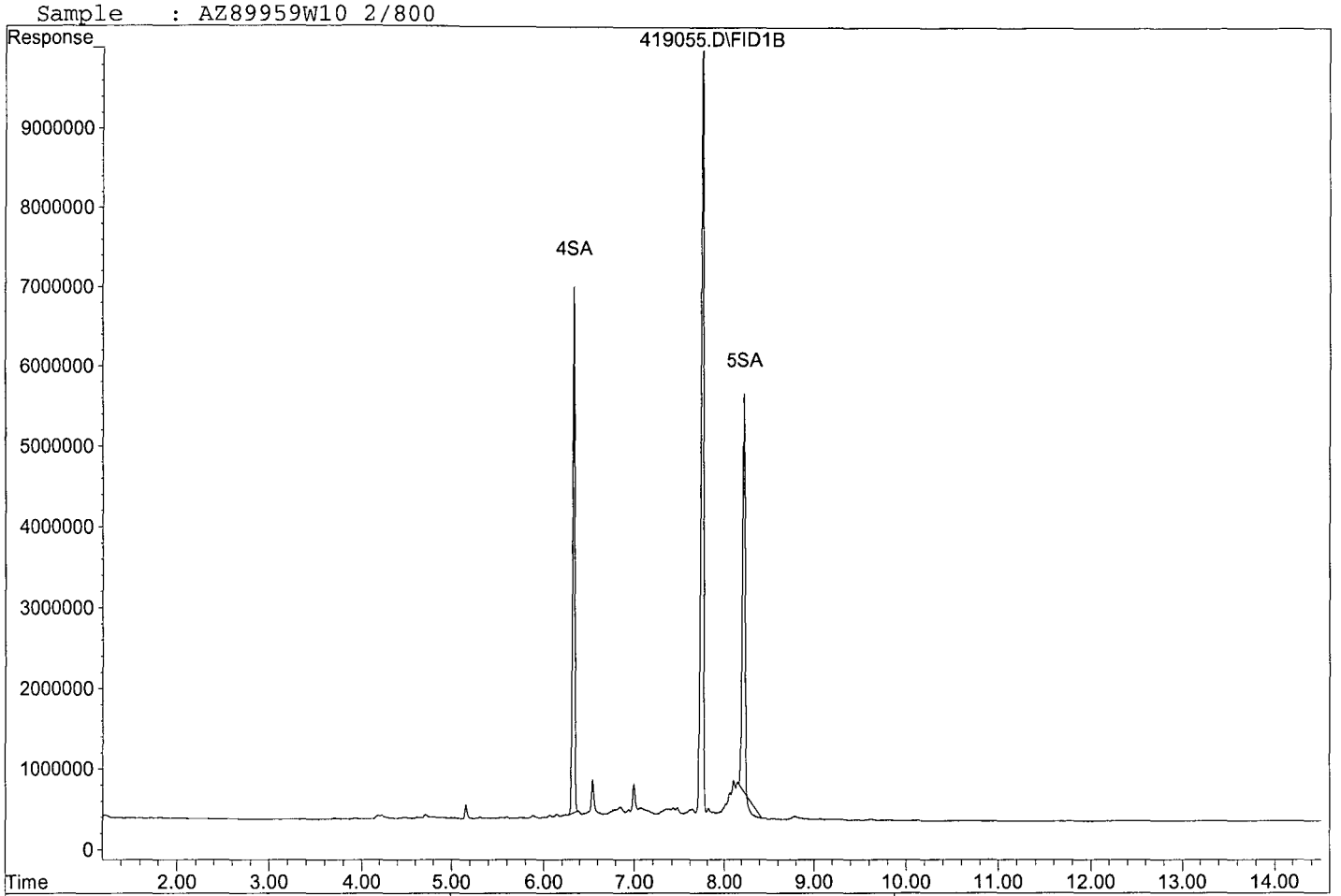
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

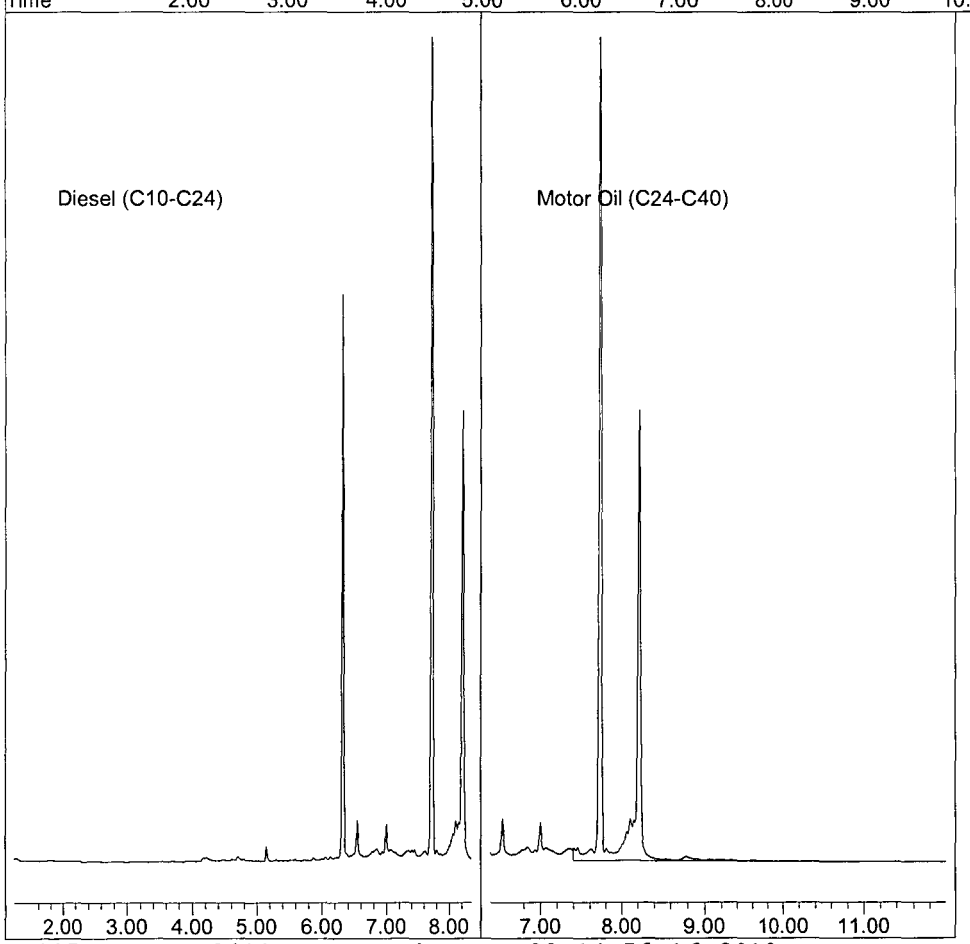
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 108949730 | 67.295 ppb |
| Surrogate Spike 75.000 | Recovery = | | 89.73% |
| 5) SA Octacosane(S) | 8.22 | 94190022 | 62.224 ppb |
| Surrogate Spike 75.000 | Recovery = | | 82.97% |
| Target Compounds | | | |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 325835248 | 427.938 ppb |

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

Data File: G:\APOLLO\DATA\190419\419055.D
Sample : AZ89959W10 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506009.D Vial: 9
Acq On : 5-6-19 19:29:52 Operator: DP
Sample : AZ89959W08 2/790 Inst : Apollo
Misc : water Multiplr: 2.53
IntFile : events.e
Quant Time: May 15 15:46 2019 Quant Results File: DOC0411.RES

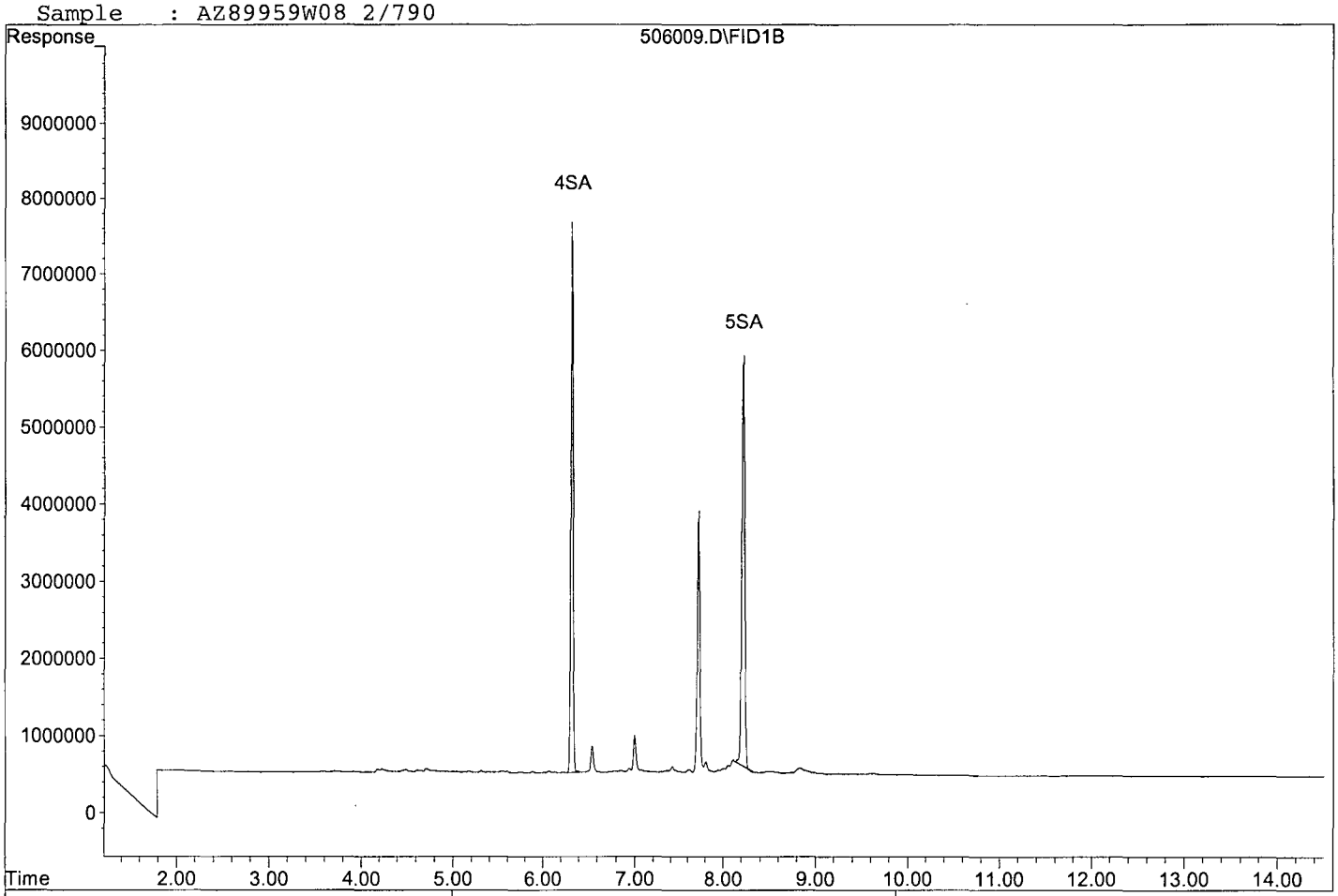
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

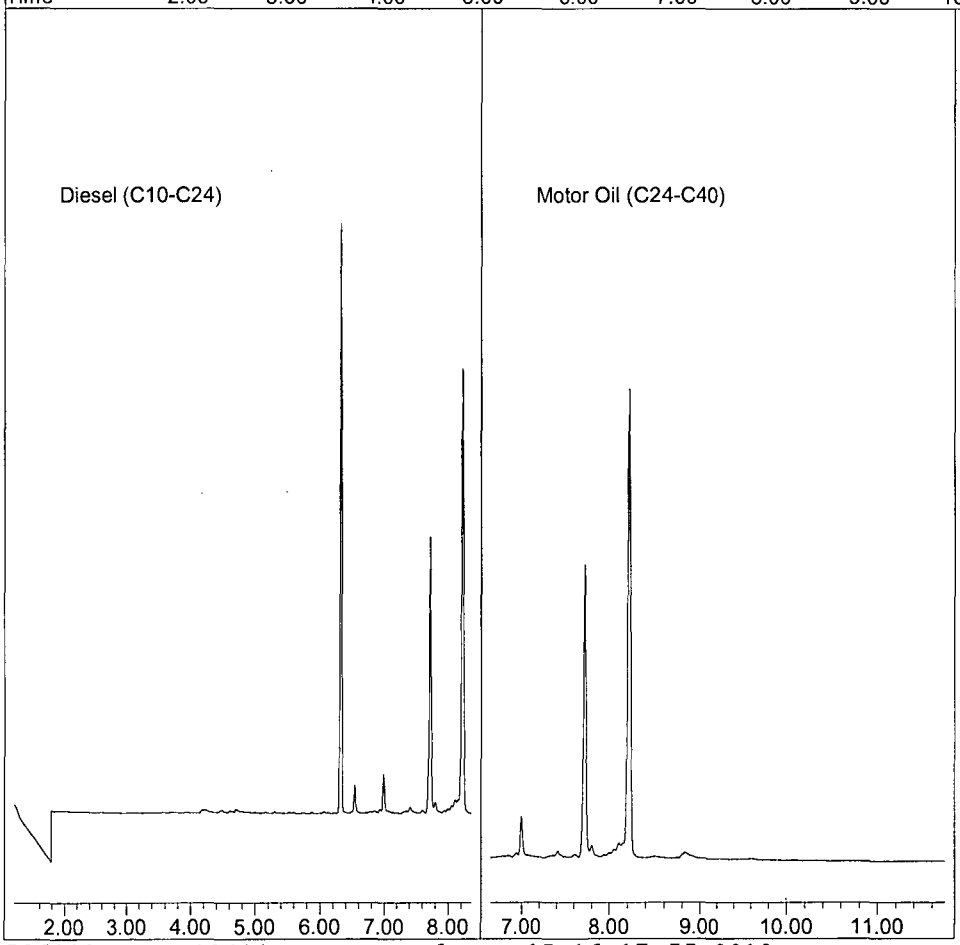
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 117920656 | 73.758 | ppb |
| Surrogate Spike 75.949 | | Recovery = | 97.11% | |
| 5) SA Octacosane(S) | 8.22 | 114962619 | 76.909 | ppb |
| Surrogate Spike 75.949 | | Recovery = | 101.26% | |
| Target Compounds | | | | |

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

Data File: G:\APOLLO\DATA\190506\506009.D
Sample : AZ89959W08 2/790



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419056.D Vial: 56
Acq On : 4-29-19 19:43:49 Operator: DP
Sample : AZ89961W13 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 14:08 2019 Quant Results File: DOC0411.RES

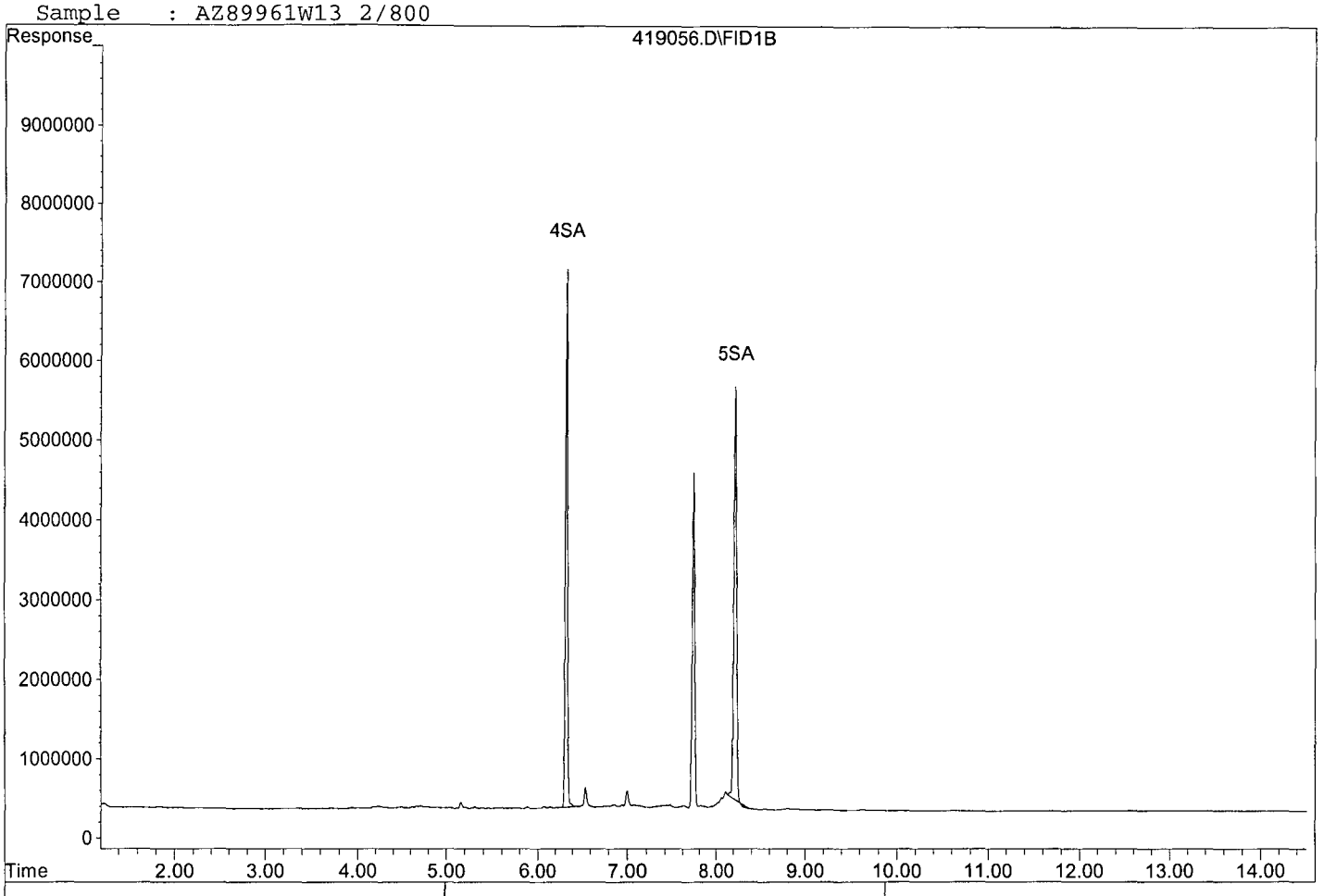
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

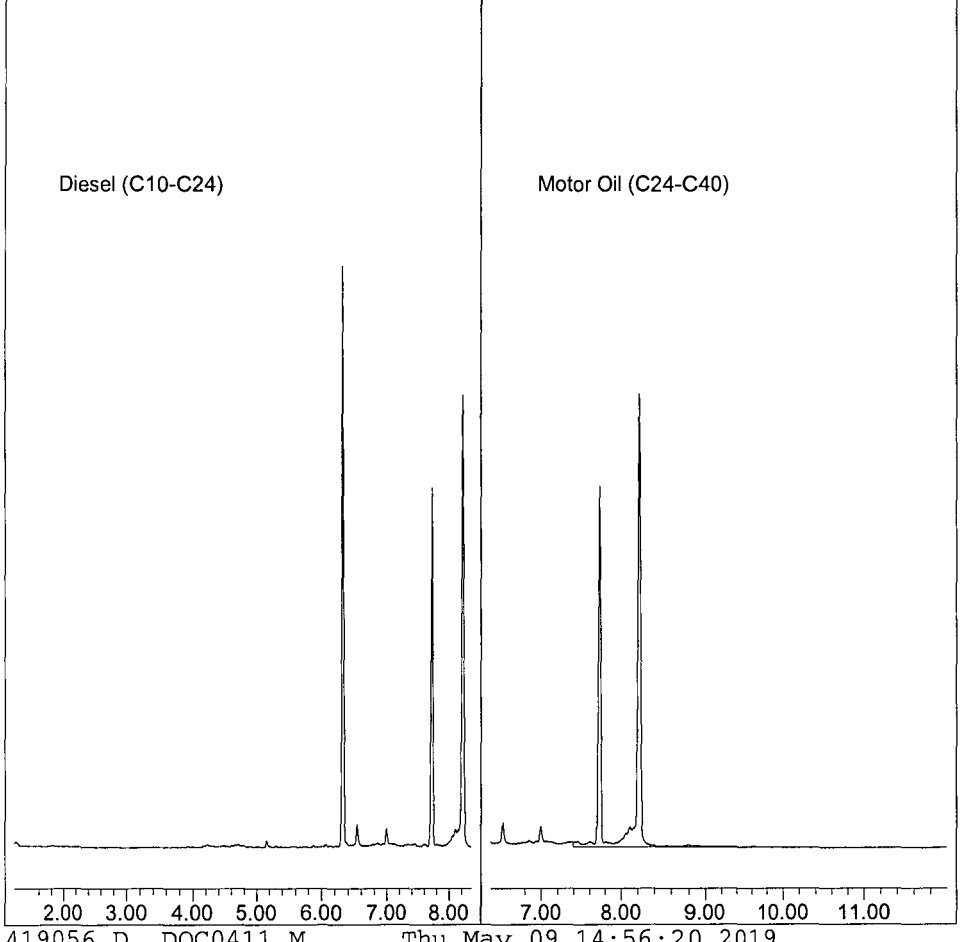
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 116278278 | 71.821 ppb |
| Surrogate Spike 75.000 | | Recovery = | 95.76% |
| 5) SA Octacosane(S) | 8.22 | 111917980 | 73.936 ppb |
| Surrogate Spike 75.000 | | Recovery = | 98.58% |
| Target Compounds | | | |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 134396266 | 176.510 ppb |

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

Data File: G:\APOLLO\DATA\190419\419056.D
Sample : AZ89961W13 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506010.D Vial: 10
Acq On : 5-6-19 19:49:52 Operator: DP
Sample : AZ89961W21 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:48 2019 Quant Results File: DOC0411.RES

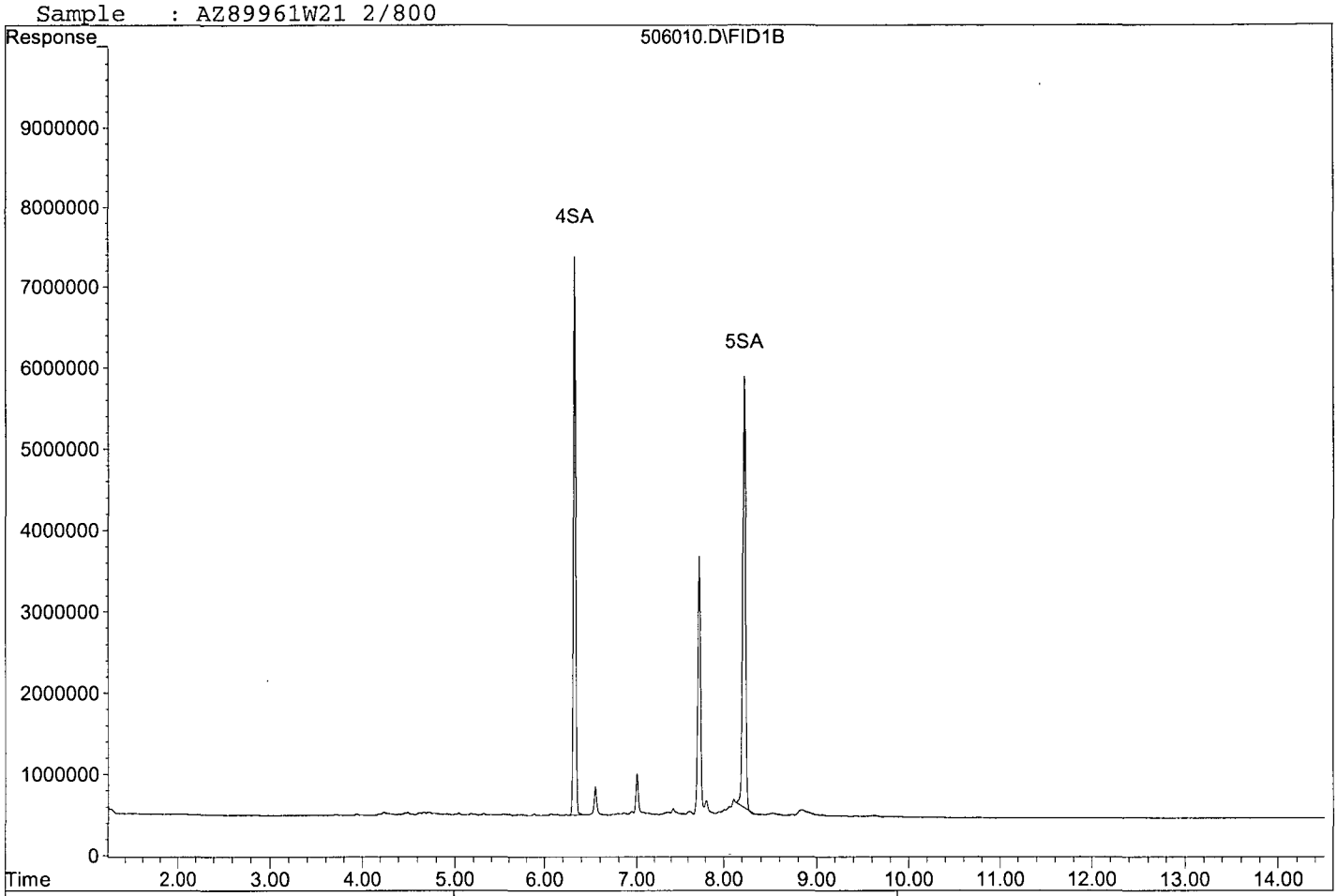
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

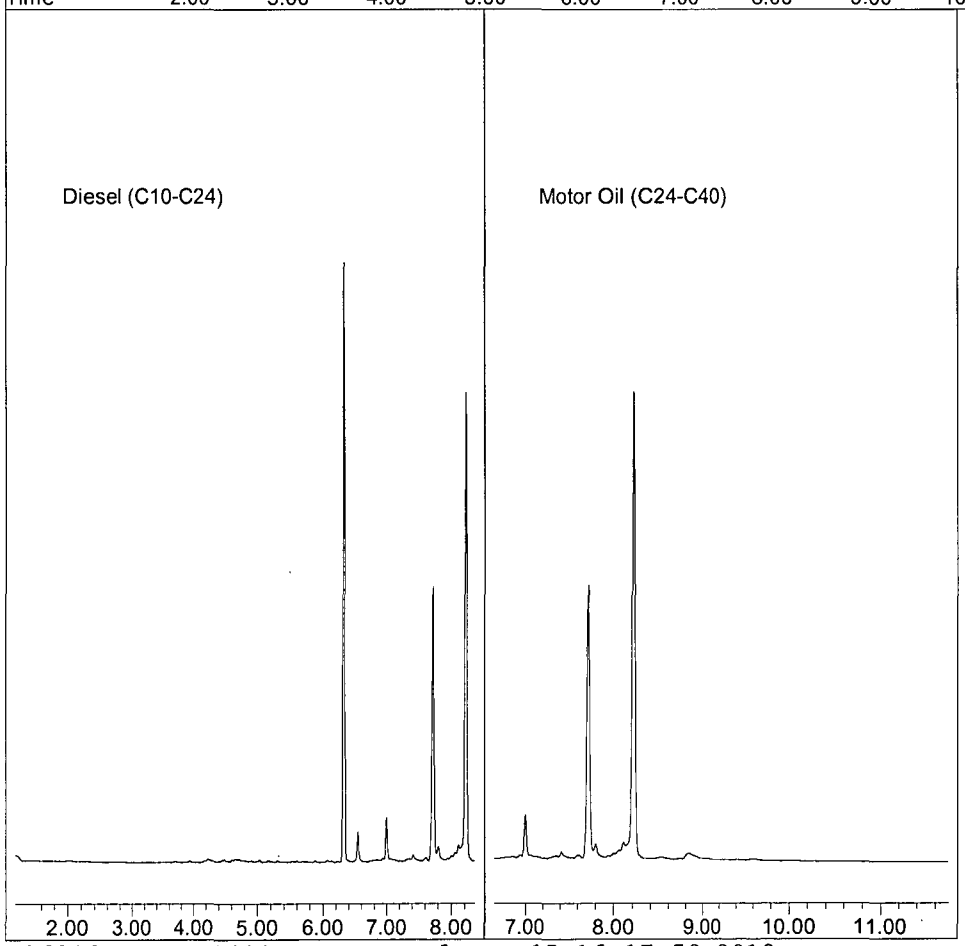
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 114997198 | 71.030 ppb |
| Surrogate Spike 75.000 | | Recovery = | 94.71% |
| 5) SA Octacosane(S) | 8.22 | 112299595 | 74.188 ppb |
| Surrogate Spike 75.000 | | Recovery = | 98.92% |
| Target Compounds | | | |

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

Data File: G:\APOLLO\DATA\190506\506010.D
Sample : AZ89961W21 2/800




506010.D DOC0411.M Wed May 15 16:17:58 2019 Page 2

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419049.D Vial: 49
Acq On : 4-29-19 17:23:01 Operator: DP
Sample : 190426A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 8 13:37 2019 Quant Results File: DOC0411.RES

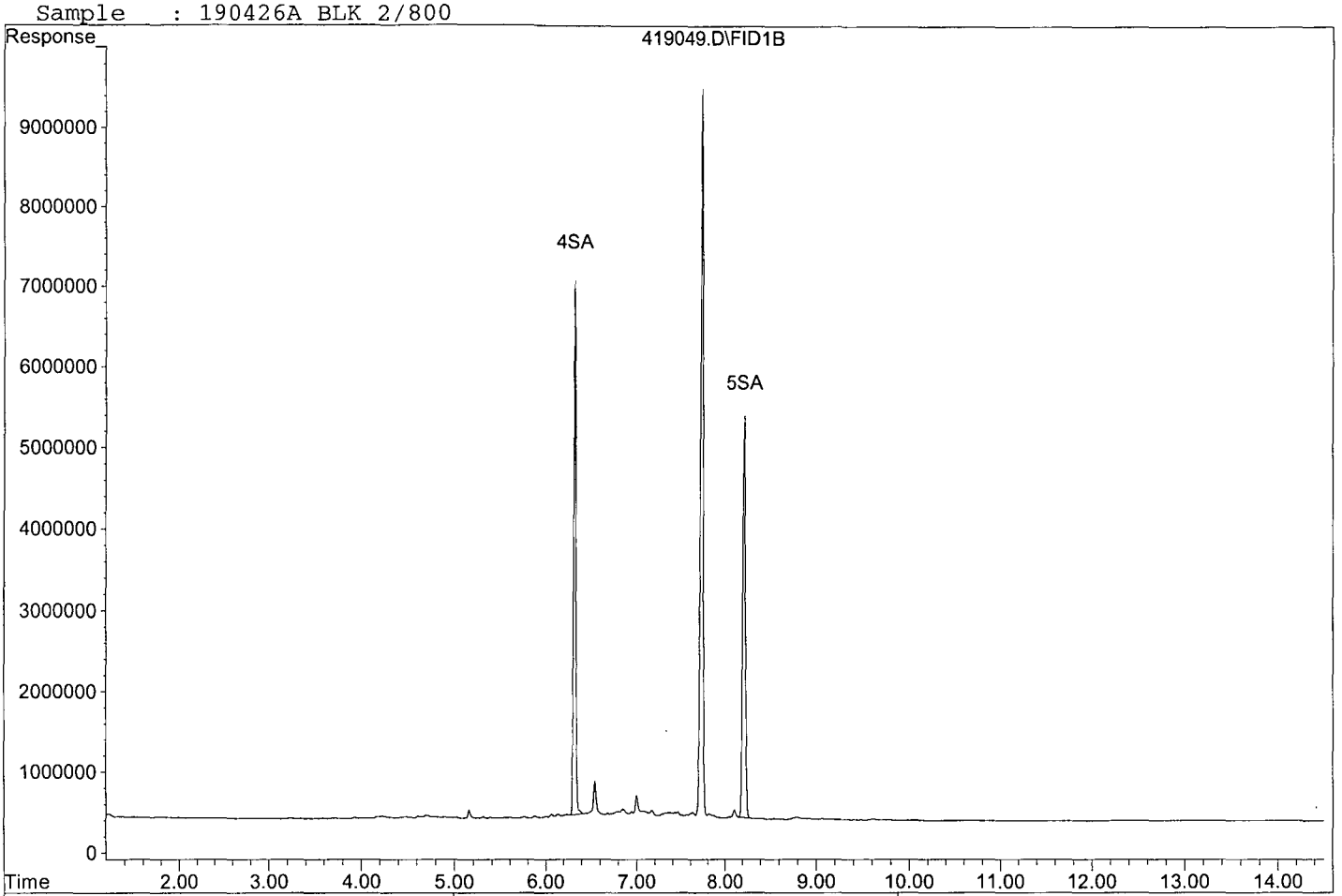
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

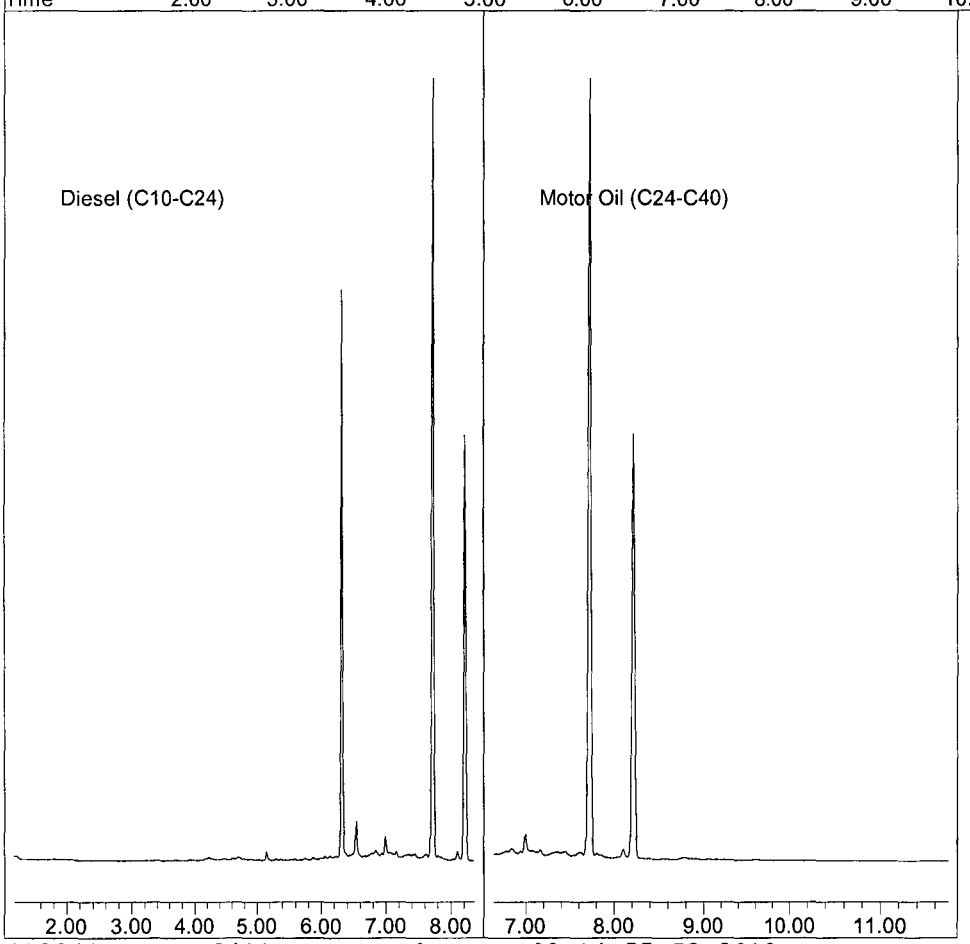
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 110002294 | 67.945 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 90.59% | |
| 5) SA Octacosane(S) | 8.22 | 105116559 | 69.443 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 92.59% | |
| Target Compounds | | | | |

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

Data File: G:\APOLLO\DATA\190419\419049.D
Sample : 190426A BLK 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419050.D Vial: 50
Acq On : 4-29-19 17:43:06 Operator: DP
Sample : 190426A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:04 2019 Quant Results File: DOC0411.RES

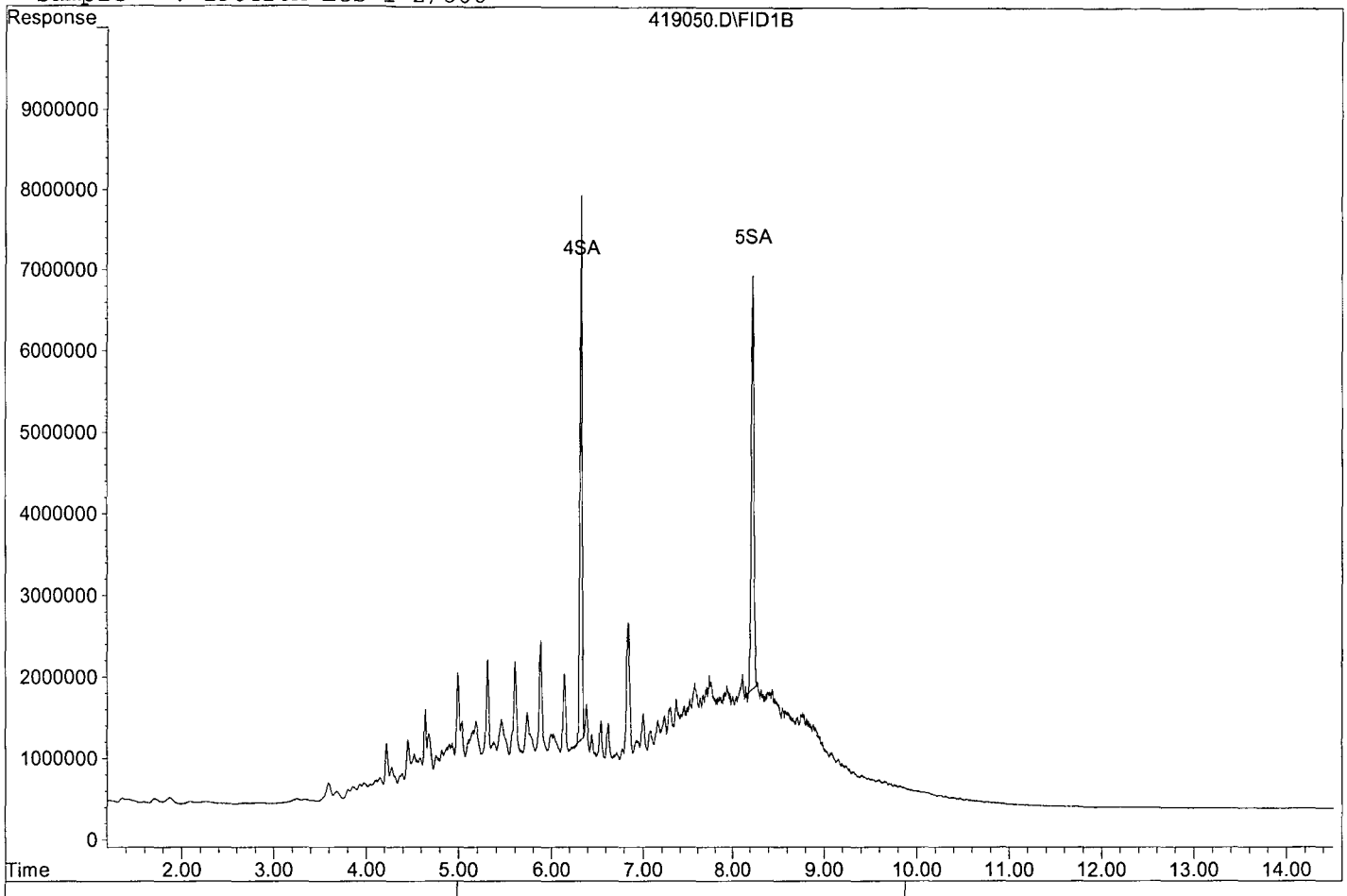
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

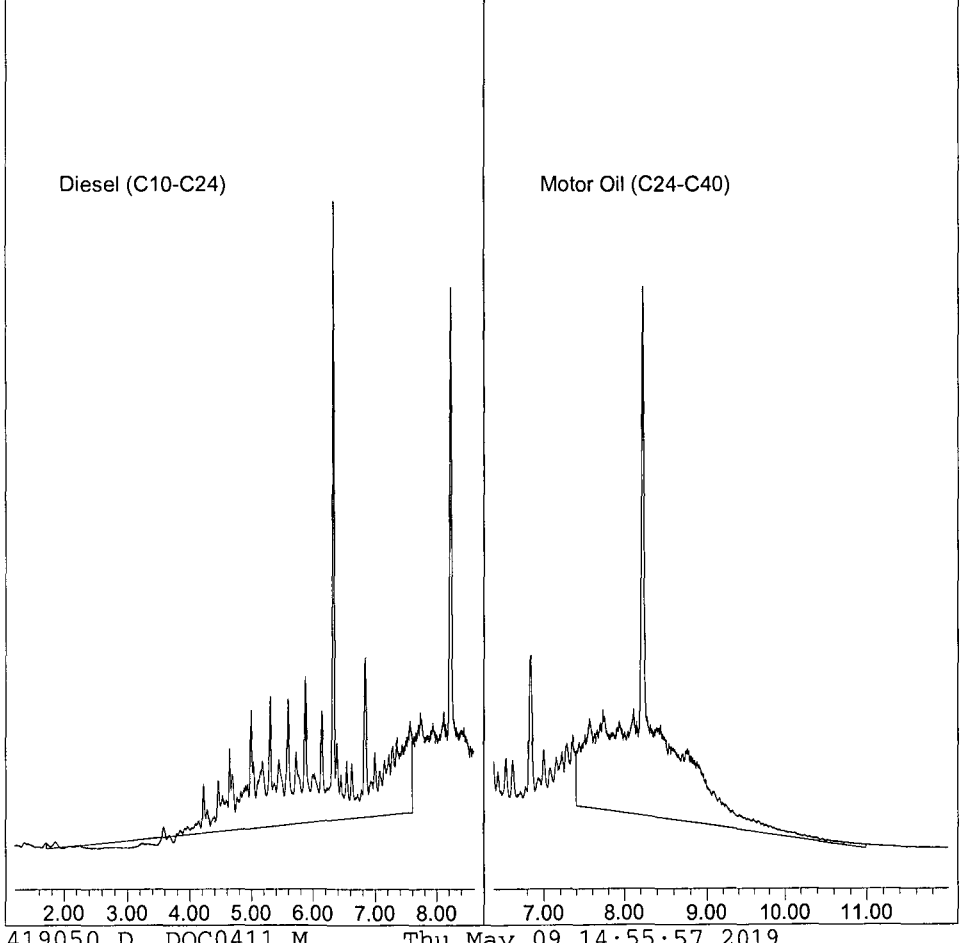
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 107443194 | 66.364 ppb |
| Surrogate Spike 75.000 | | Recovery = | 88.49% |
| 5) SA Octacosane(S) | 8.23 | 101025878 | 66.740 ppb |
| Surrogate Spike 75.000 | | Recovery = | 88.99% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1068693657 | 1120.112 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 954916564 | 1254.146 ppb |

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

Data File: G:\APOLLO\DATA\190419\419050.D
Sample : 190426A LCS-1 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419051.D Vial: 51
Acq On : 4-29-19 18:03:12 Operator: DP
Sample : 190426A LCSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:05 2019 Quant Results File: DOC0411.RES

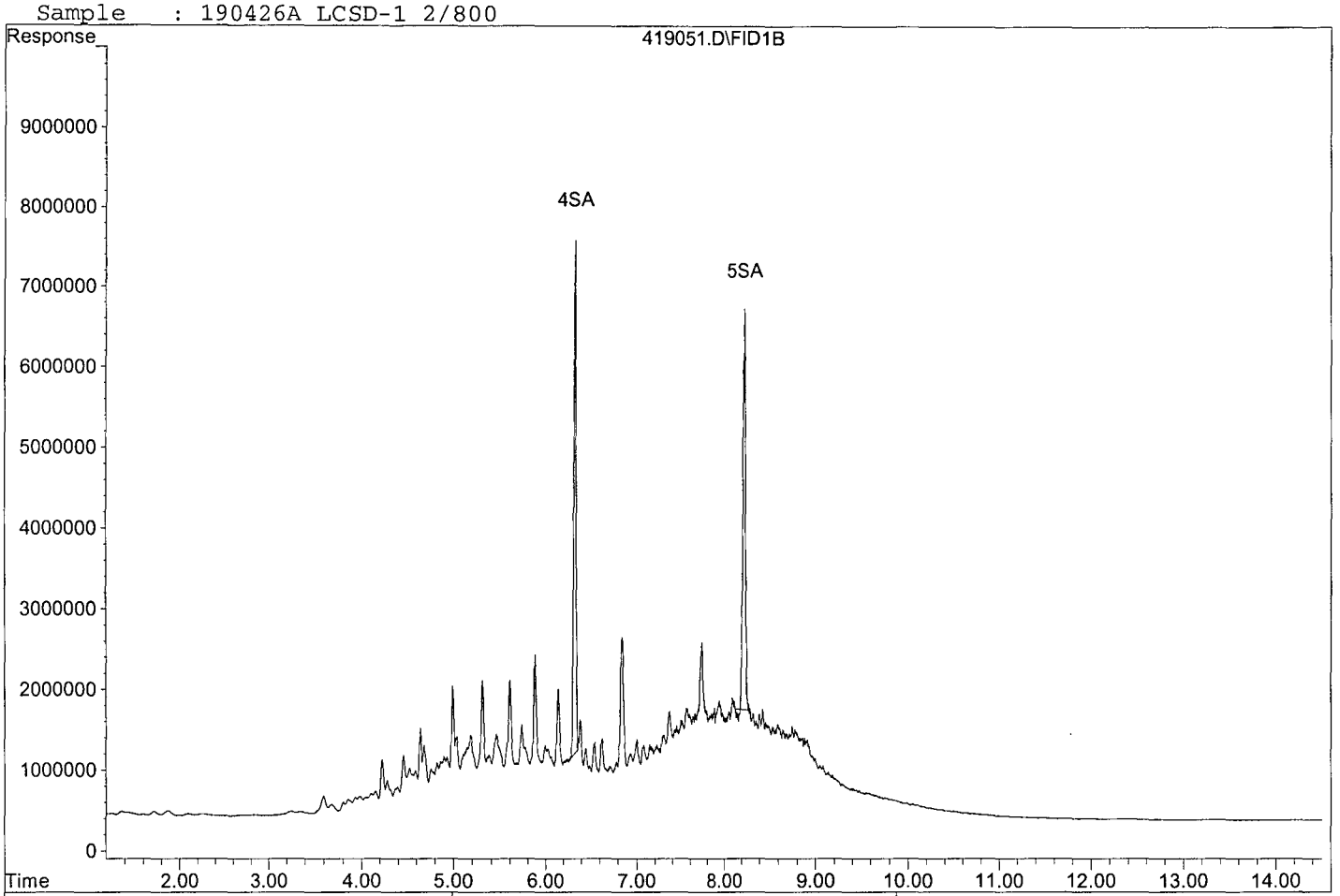
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

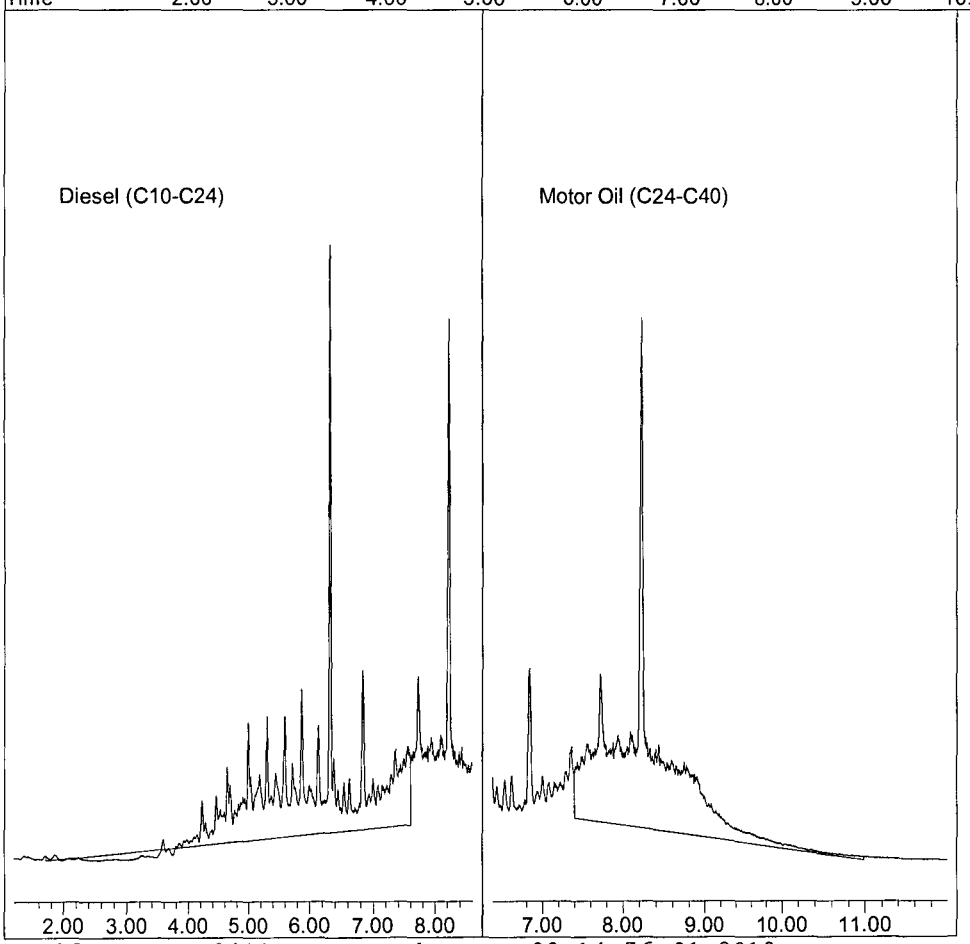
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 106639193 | 65.867 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 87.82% | |
| 5) SA Octacosane(S) | 8.23 | 98198519 | 64.873 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 86.50% | |
| Target Compounds | | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1025097325 | 1074.419 | ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 901976261 | 1184.617 | ppb |

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

Data File: G:\APOLLO\DATA\190419\419051.D
Sample : 190426A LCSD-1 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419053.D Vial: 53
Acq On : 4-29-19 18:43:27 Operator: DP
Sample : AZ89958W32 MS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:13 2019 Quant Results File: DOC0411.RES

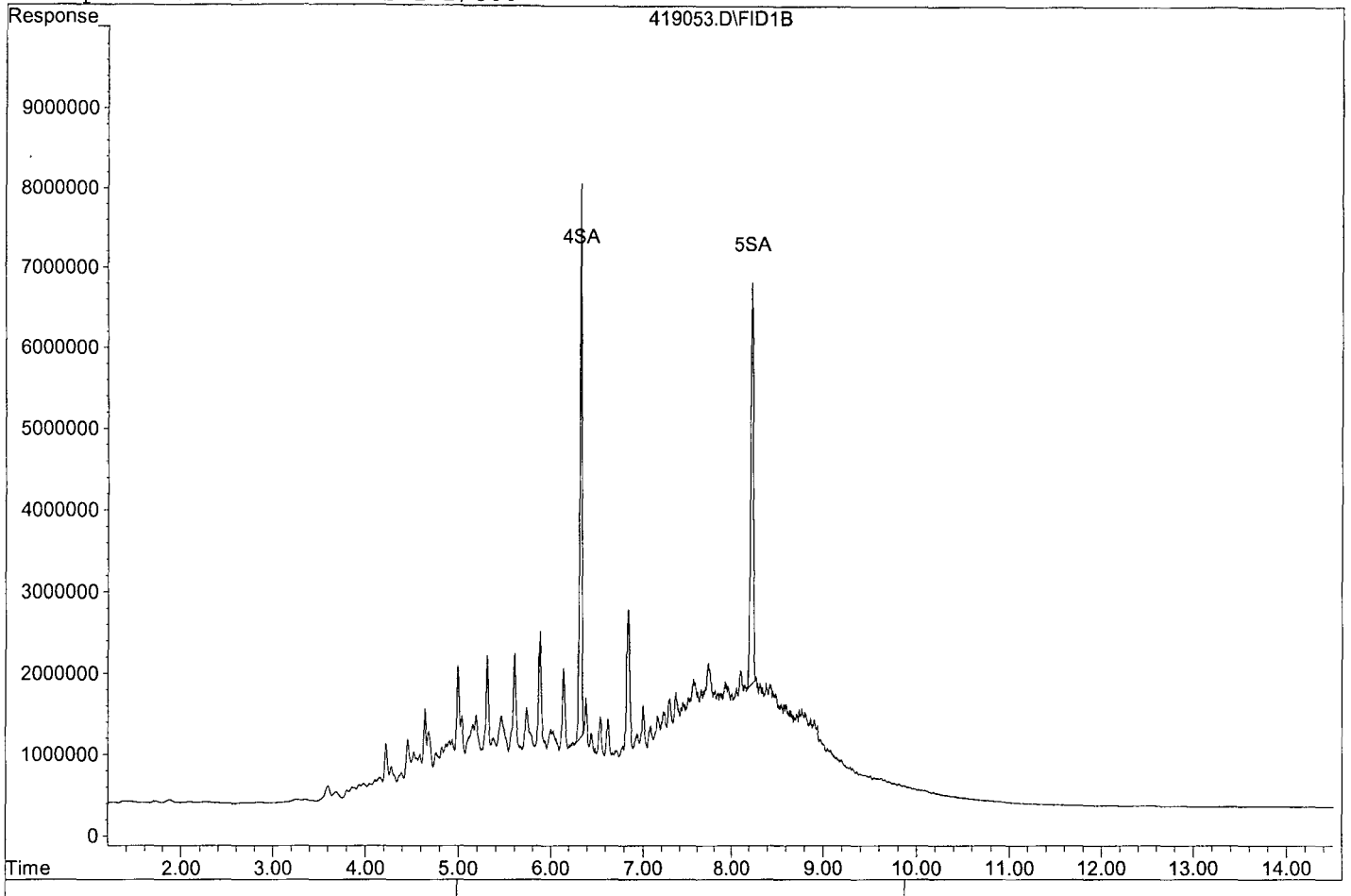
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

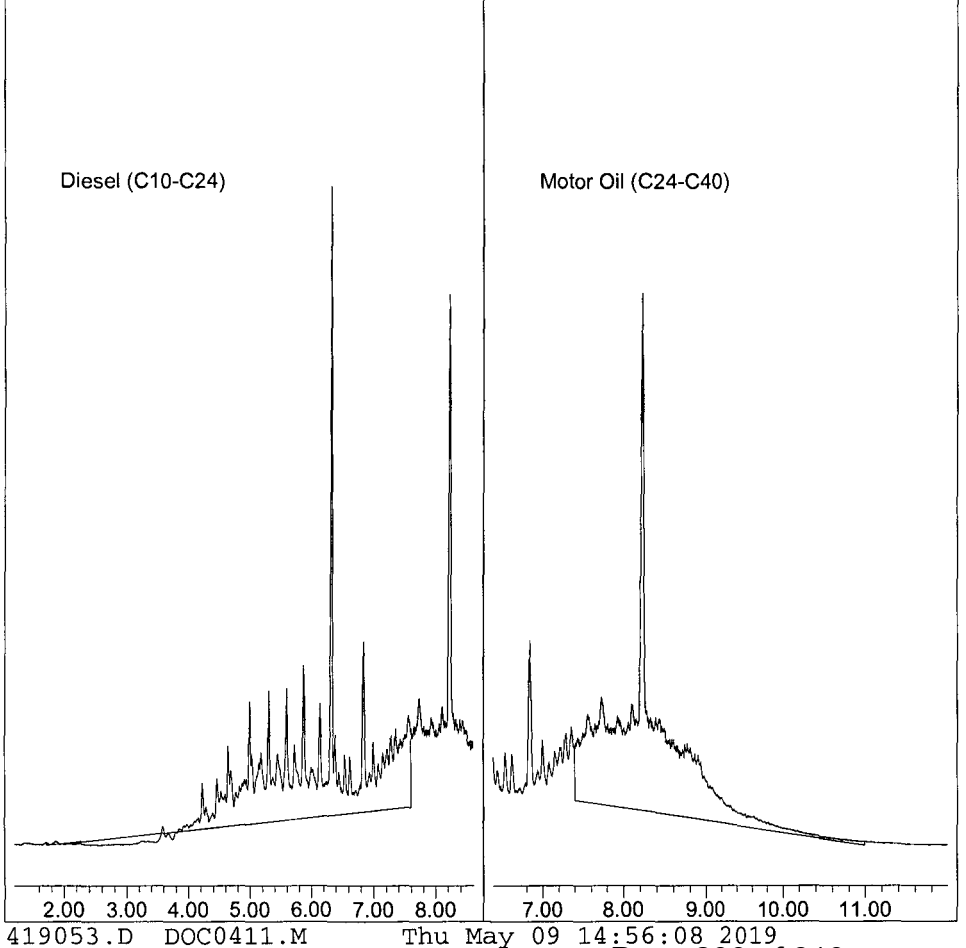
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 110148709 | 68.035 ppb |
| Surrogate Spike 75.000 | | Recovery = | 90.71% |
| 5) SA Octacosane(S) | 8.23 | 103898468 | 68.638 ppb |
| Surrogate Spike 75.000 | | Recovery = | 91.52% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1105779712 | 1158.983 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 979352303 | 1286.239 ppb |

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

Data File: G:\APOLLO\DATA\190419\419053.D
Sample : AZ89958W32 MS-1 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419054.D Vial: 54
Acq On : 4-29-19 19:03:30 Operator: DP
Sample : AZ89958W42 MSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:18 2019 Quant Results File: DOC0411.RES

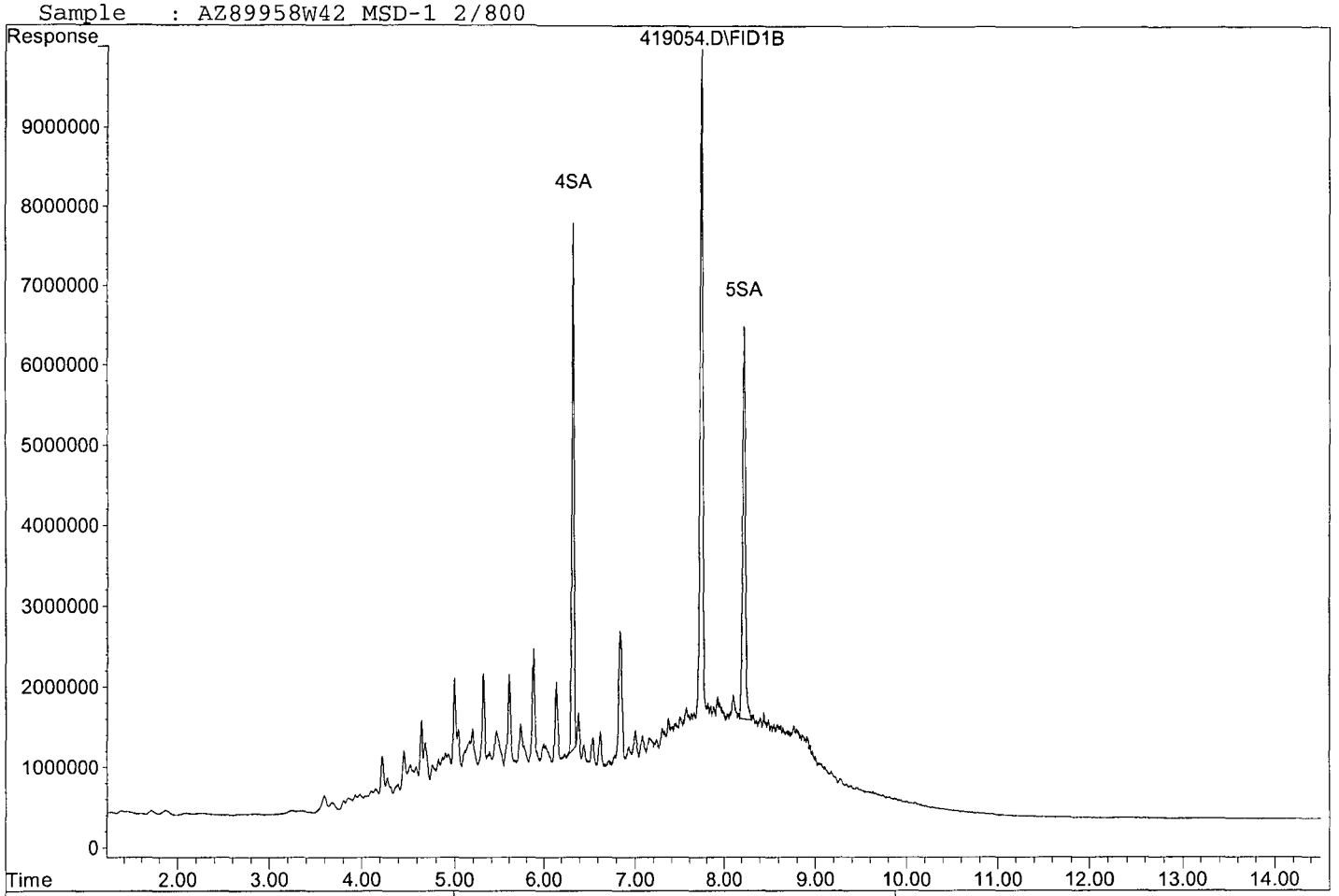
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

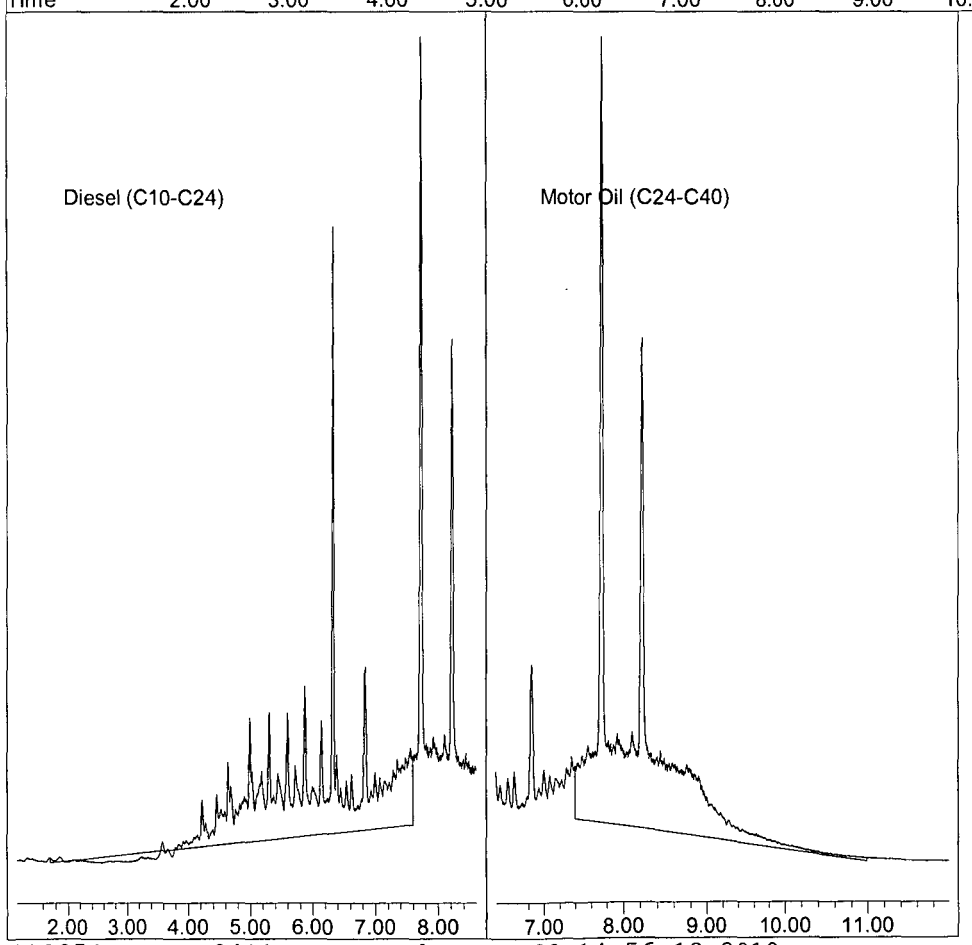
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 106838846 | 65.991 ppb |
| Surrogate Spike 75.000 | | Recovery = | 87.99% |
| 5) SA Octacosane(S) | 8.22 | 109026969 | 72.026 ppb |
| Surrogate Spike 75.000 | | Recovery = | 96.03% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1077293681 | 1129.126 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 1056174394 | 1387.134 ppb |

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

Data File: G:\APOLLO\DATA\190419\419054.D
Sample : AZ89958W42 MSD-1 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506003.D Vial: 3
Acq On : 5-6-19 17:30:03 Operator: DP
Sample : 190502A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:32 2019 Quant Results File: DOC0411.RES

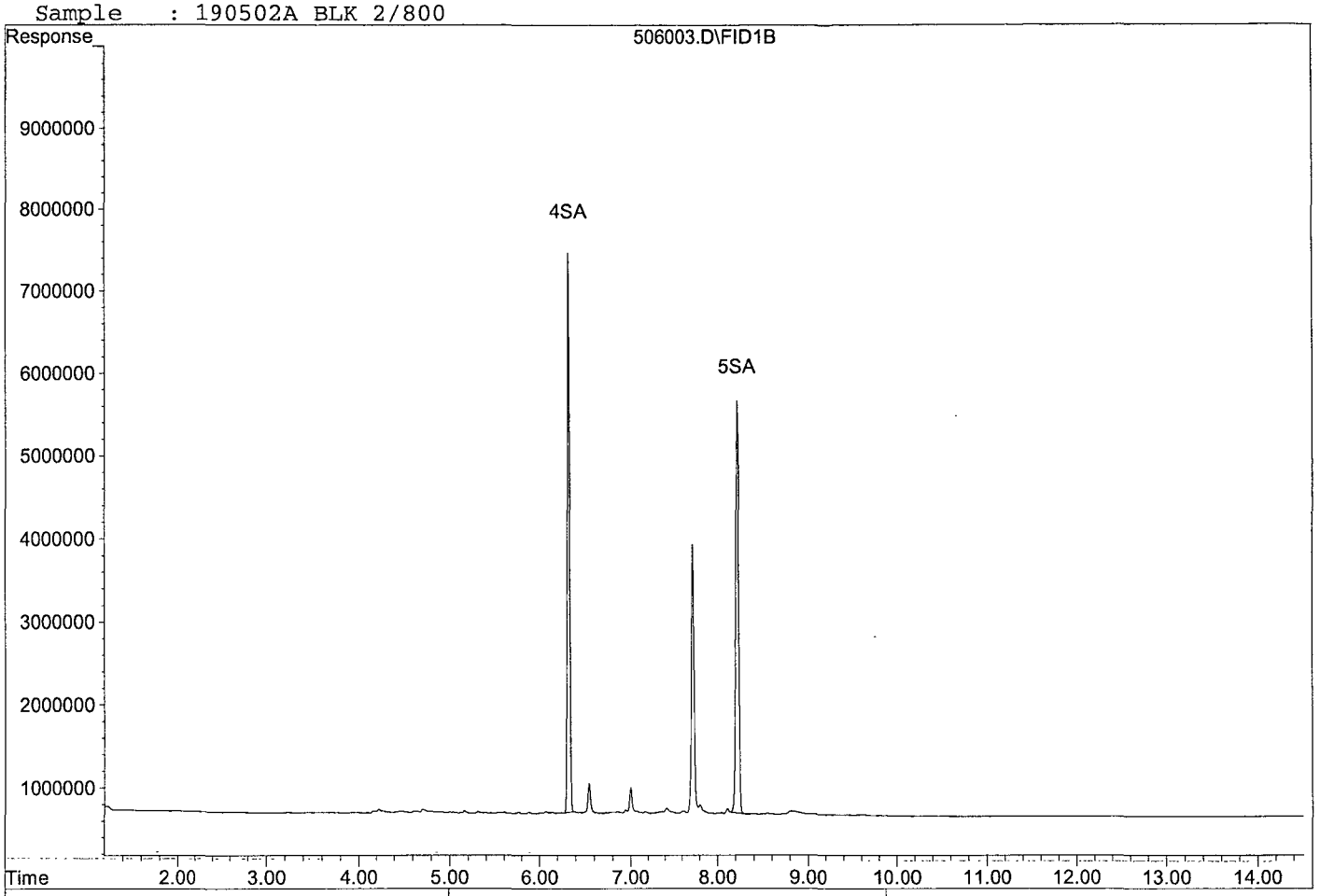
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

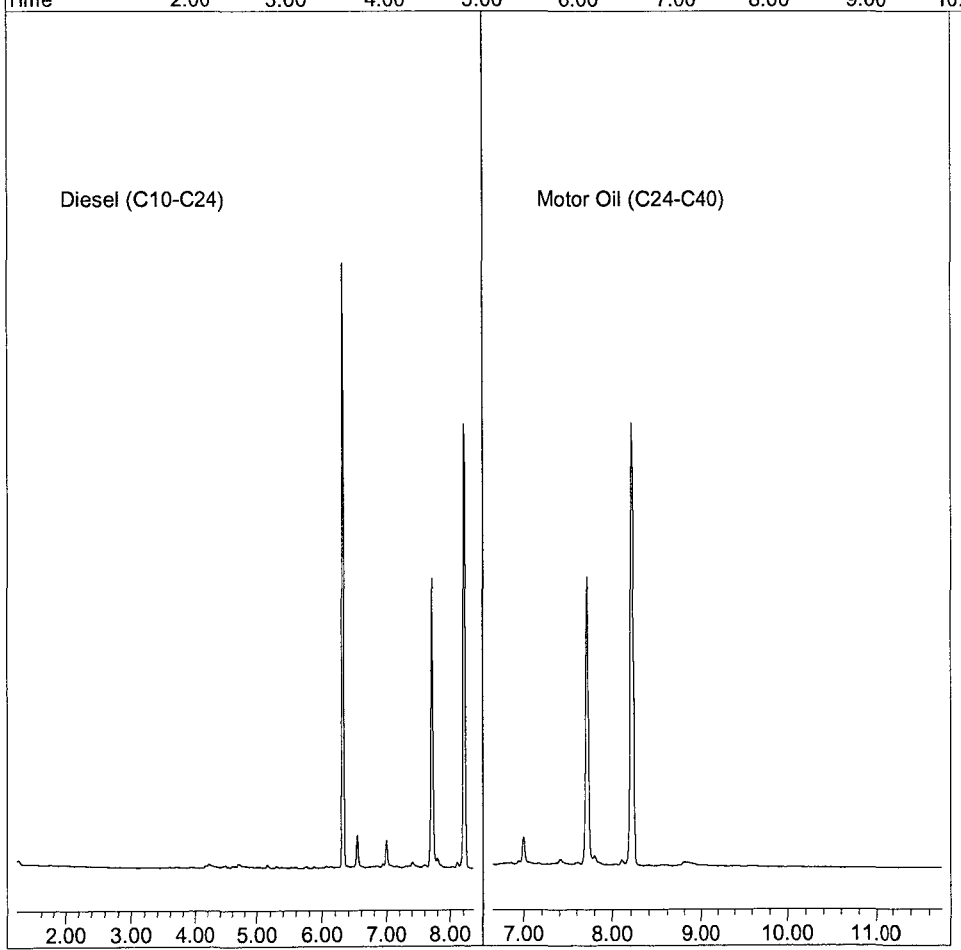
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 113486320 | 70.097 ppb |
| Surrogate Spike 75.000 | | Recovery = | 93.46% |
| 5) SA Octacosane(S) | 8.22 | 110426276 | 72.950 ppb |
| Surrogate Spike 75.000 | | Recovery = | 97.27% |
| Target Compounds | | | |

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

Data File: G:\APOLLO\DATA\190506\506003.D
Sample : 190502A BLK 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506004.D Vial: 4
Acq On : 5-6-19 17:50:07 Operator: DP
Sample : 190502A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:42 2019 Quant Results File: DOC0411.RES

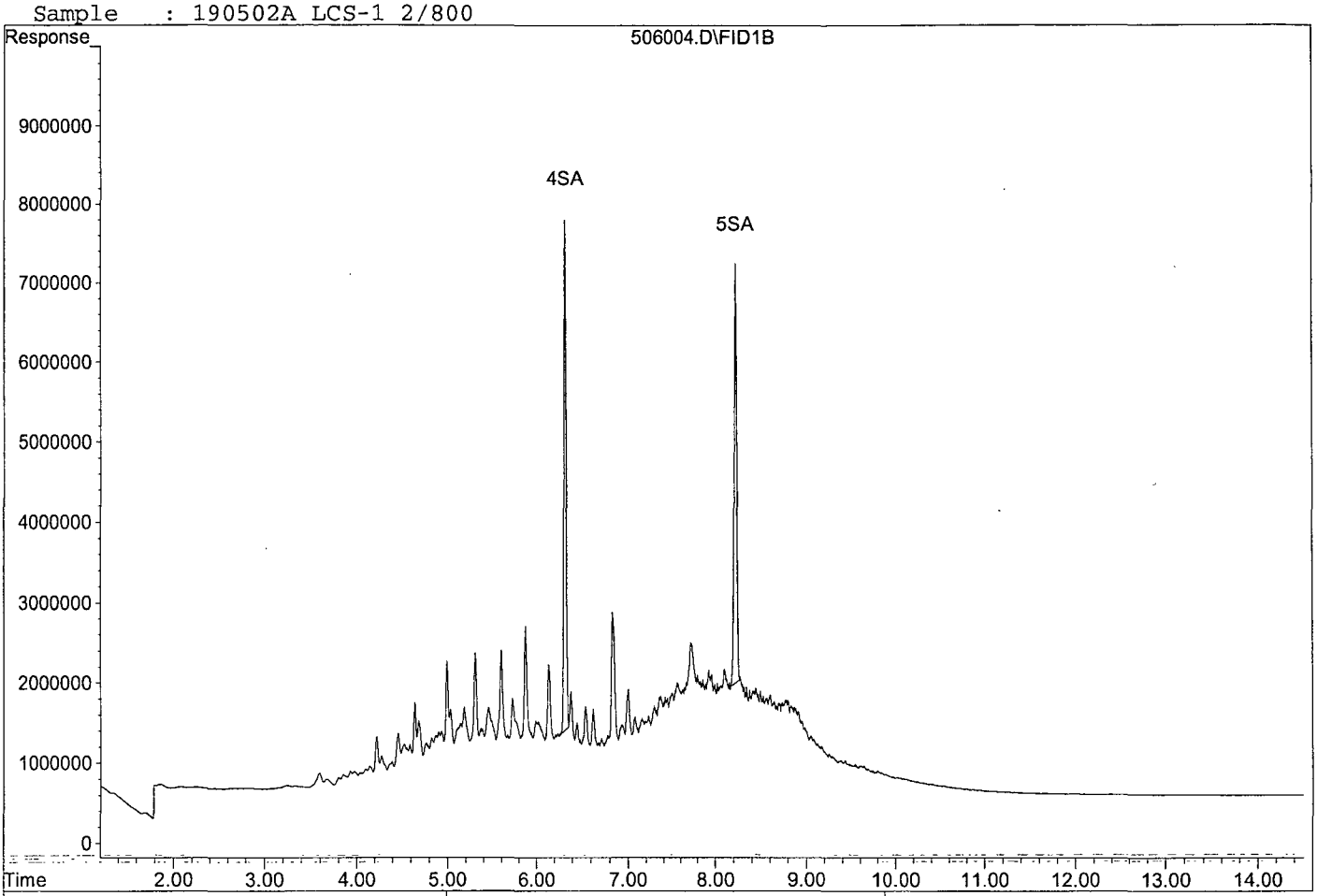
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

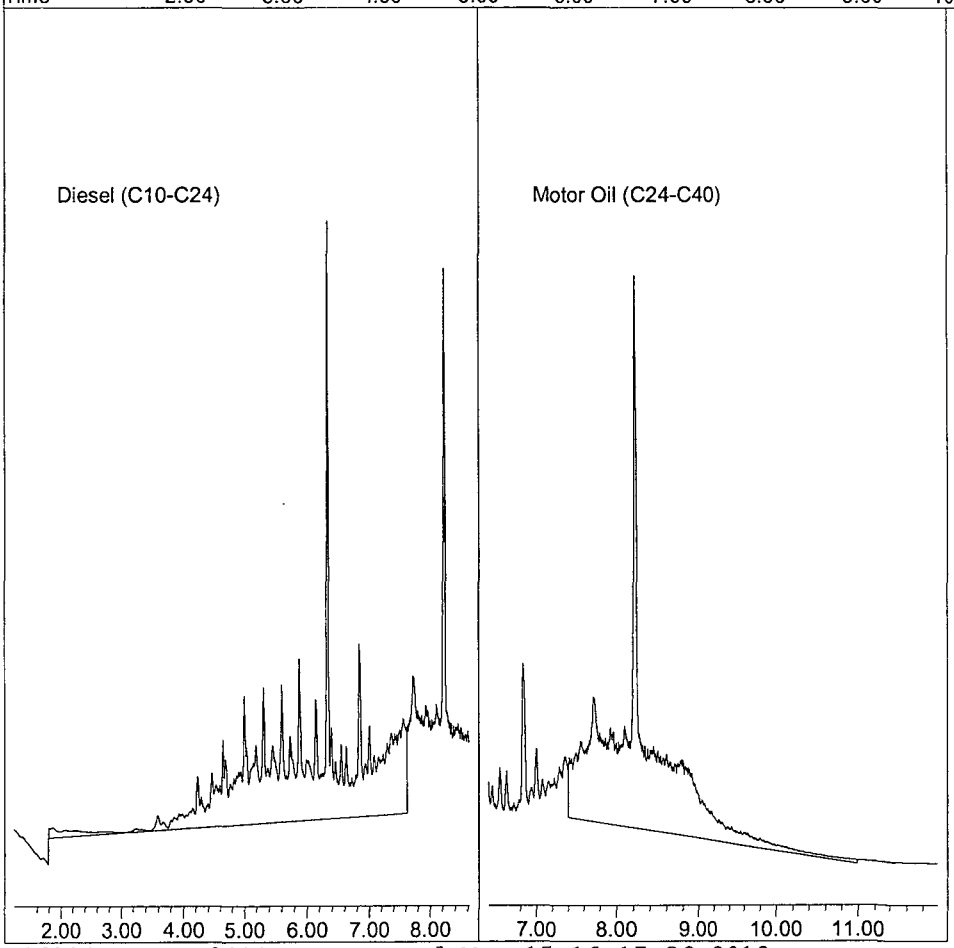
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 108692501 | 67.136 ppb |
| Surrogate Spike 75.000 | | Recovery = | 89.51% |
| 5) SA Octacosane(S) | 8.22 | 102955317 | 68.015 ppb |
| Surrogate Spike 75.000 | | Recovery = | 90.69% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1416561534 | 1484.718 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 944760089 | 1240.807 ppb |

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

Data File: G:\APOLLO\DATA\190506\506004.D
Sample : 190502A LCS-1 2/800

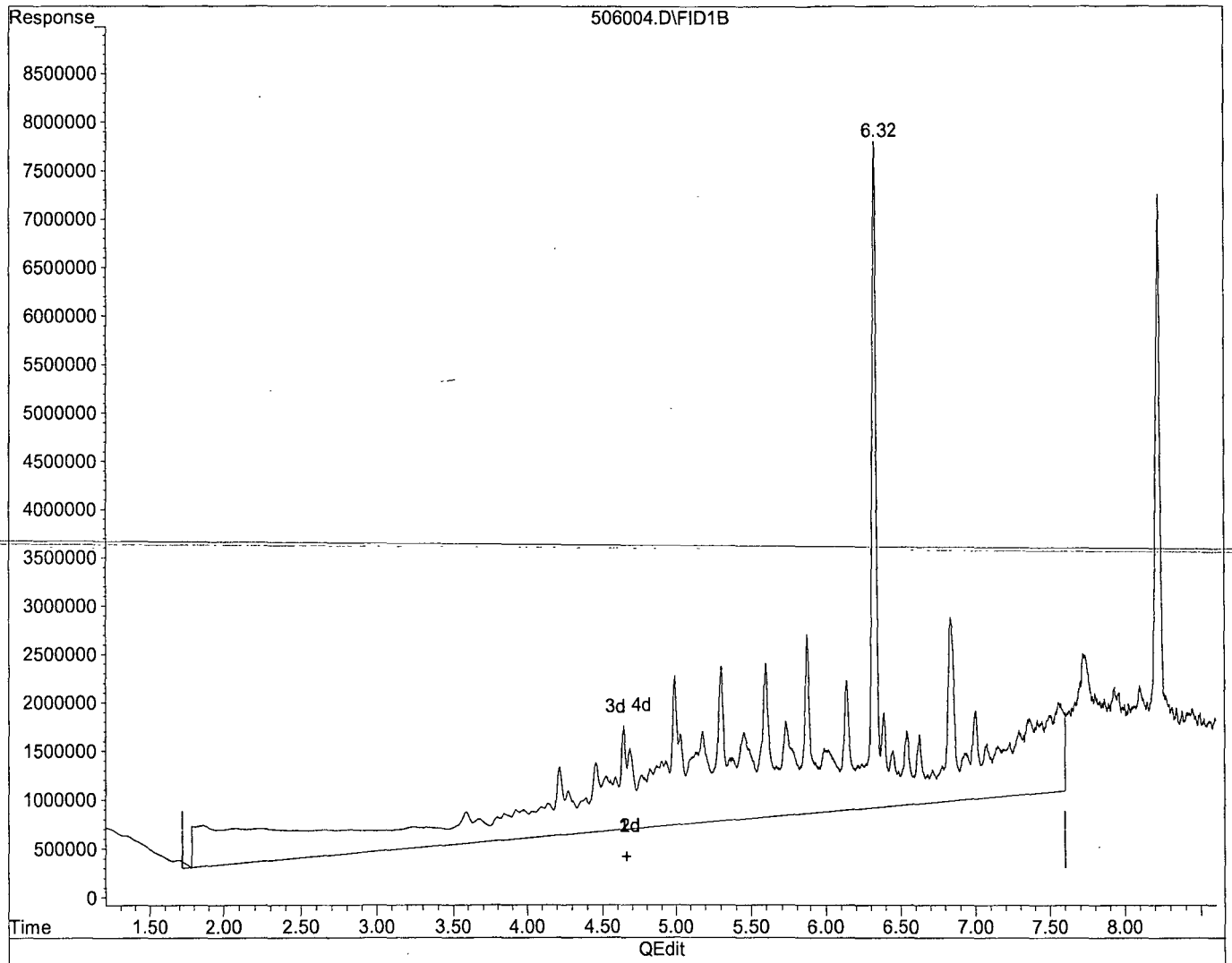


Quantitation Report

Data File : G:\APOLLO\DATA\190506\506004.D  Vial: 4
Acq On : 5-6-19 17:50:07  Operator: DP
Sample : 190502A LCS-1 2/800  Inst : Apollo
Misc : water  Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:33 2019  Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration




(1) Diesel (C10-C24) (HATM)

4.66min 1678.079ppb m

response 1601046609

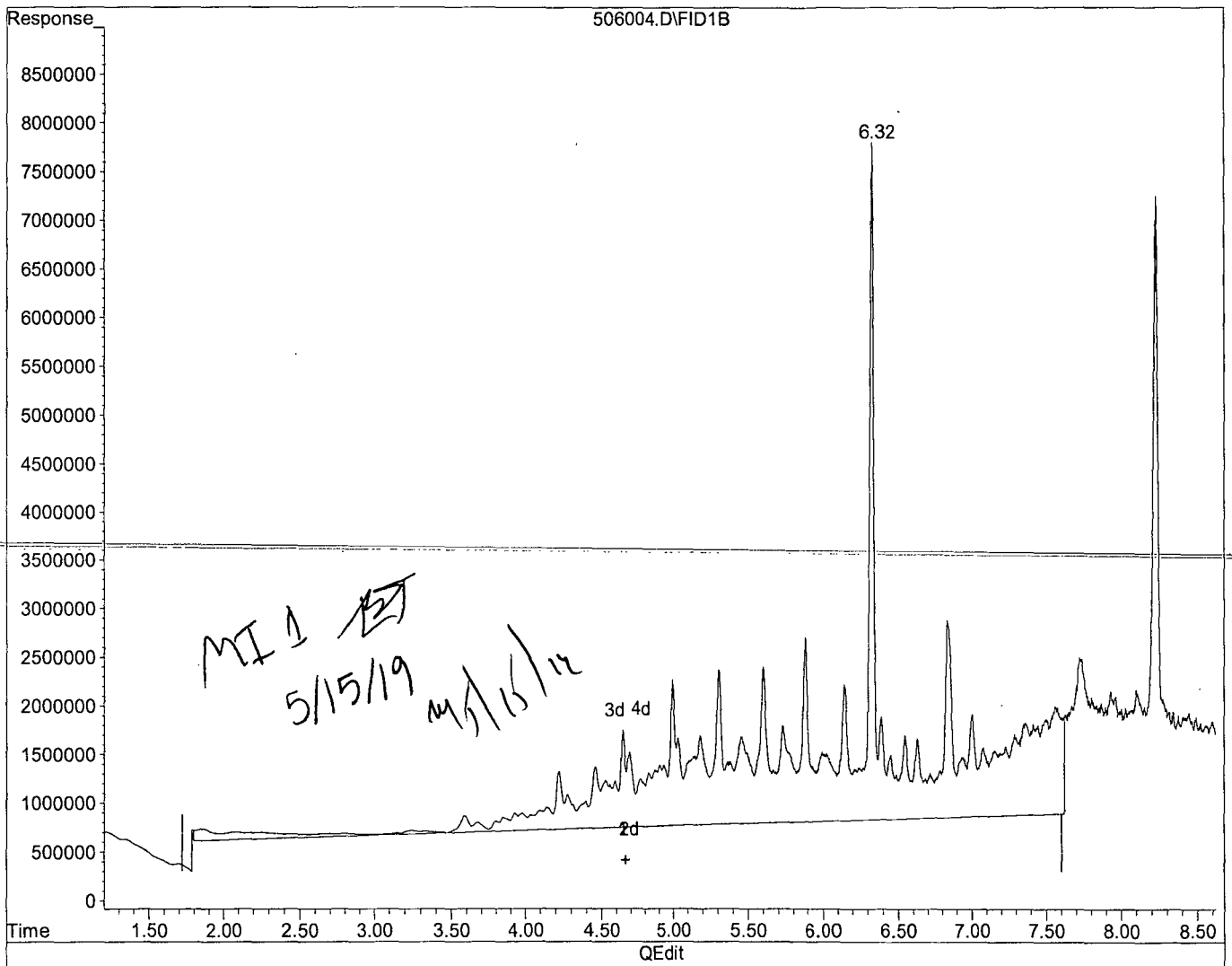
(+) = Expected Retention Time

506004.D DOC0411.M Wed May 15 15:41:43 2019

Quantitation Report

Data File : G:\APOLLO\DATA\190506\506004.D Vial: 4
Acq On : 5-6-19 17:50:07 Operator: DP
Sample : 190502A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:42 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration




(1) Diesel (C10-C24) (HATM)

4.66min 1484.718ppb m

response 1416561534

(+) = Expected Retention Time

506004.D DOC0411.M Wed May 15 15:42:32 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506005.D Vial: 5
Acq On : 5-6-19 18:10:08 Operator: DP
Sample : 190502A LCSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:42 2019 Quant Results File: DOC0411.RES

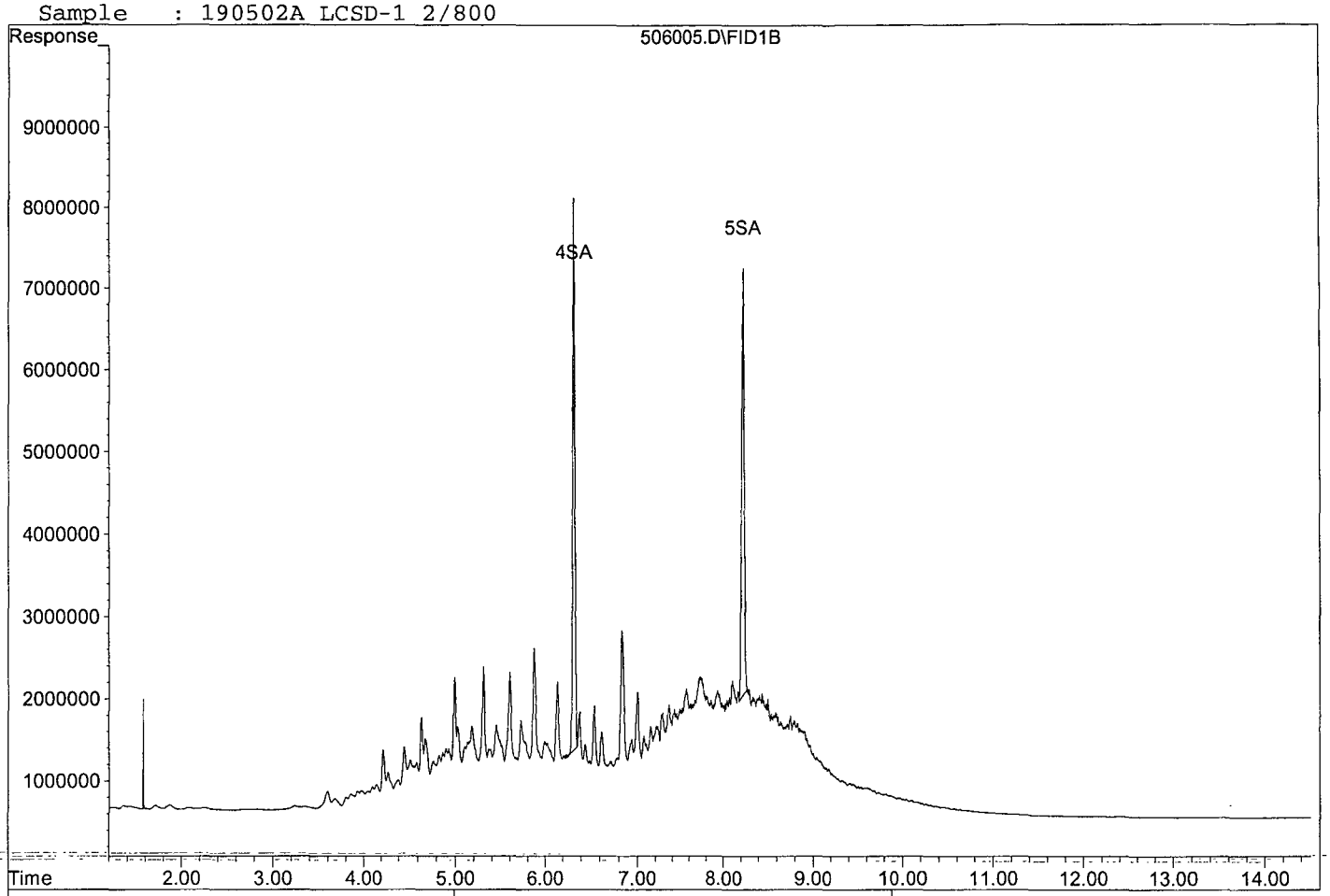
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

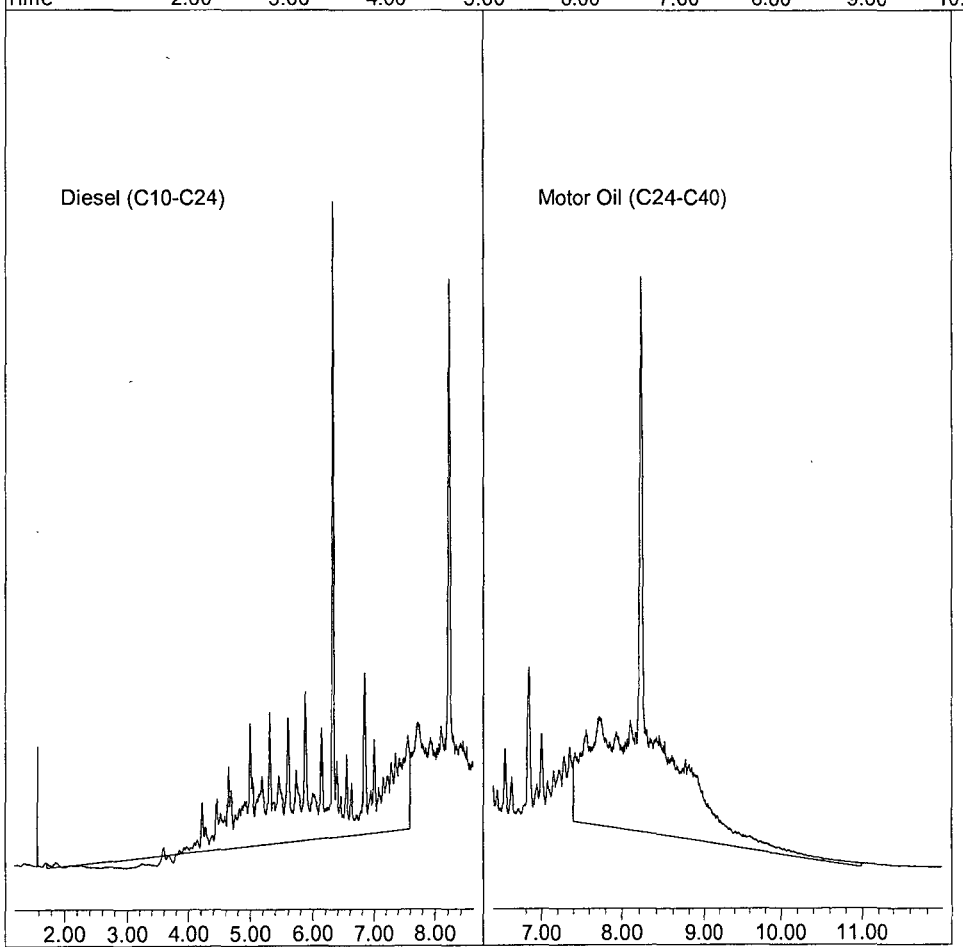
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 107765211 | 66.563 ppb |
| Surrogate Spike 75.000 | | Recovery = | 88.75% |
| 5) SA Octacosane(S) | 8.23 | 103354341 | 68.279 ppb |
| Surrogate Spike 75.000 | | Recovery = | 91.04% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1030429392 | 1080.007 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 1000358478 | 1313.828 ppb |

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

Data File: G:\APOLLO\DATA\190506\506005.D
Sample : 190502A LCSD-1 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506006.D Vial: 6
Acq On : 5-6-19 18:30:17 Operator: DP
Sample : AZ89958W39 MS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:43 2019 Quant Results File: DOC0411.RES

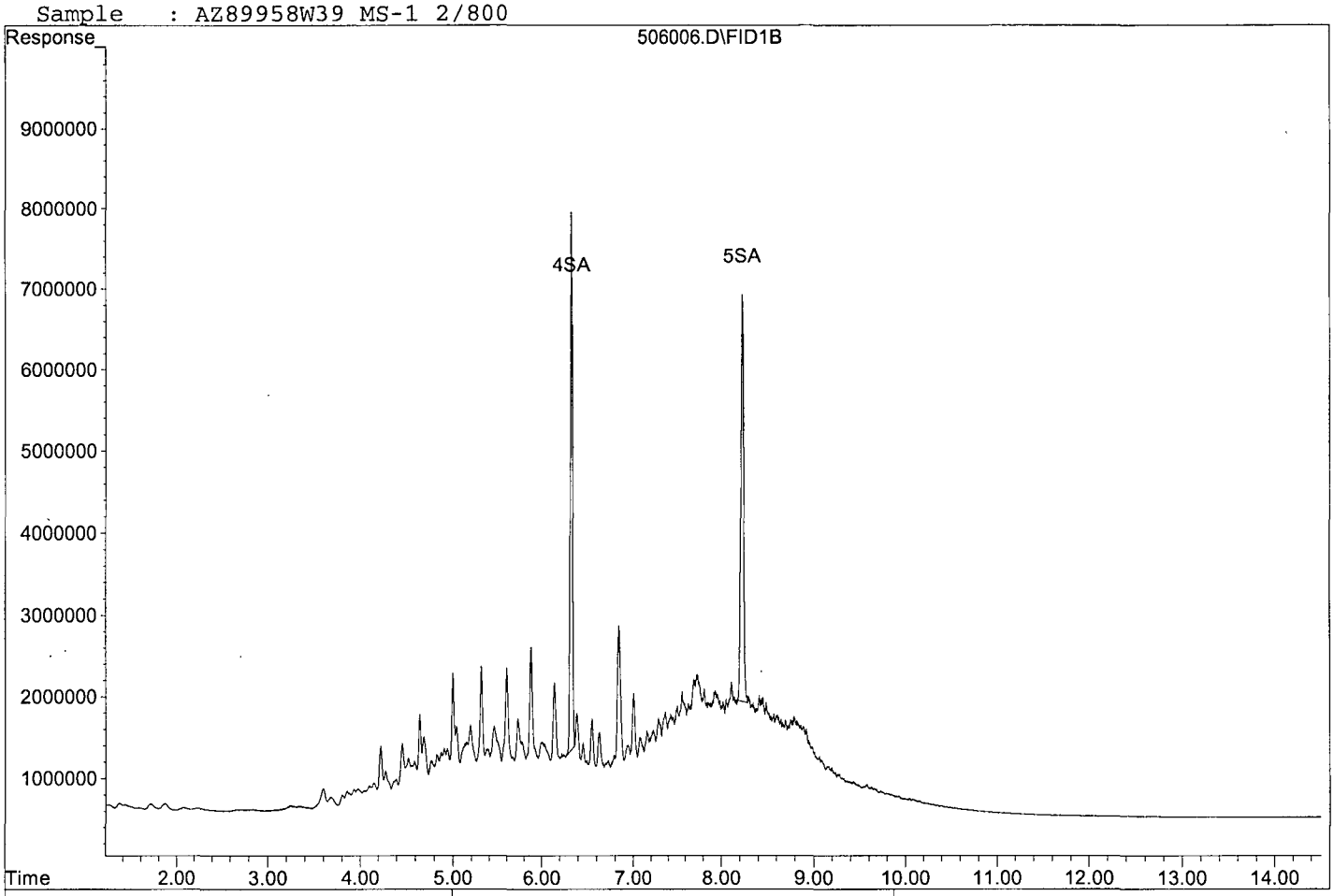
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

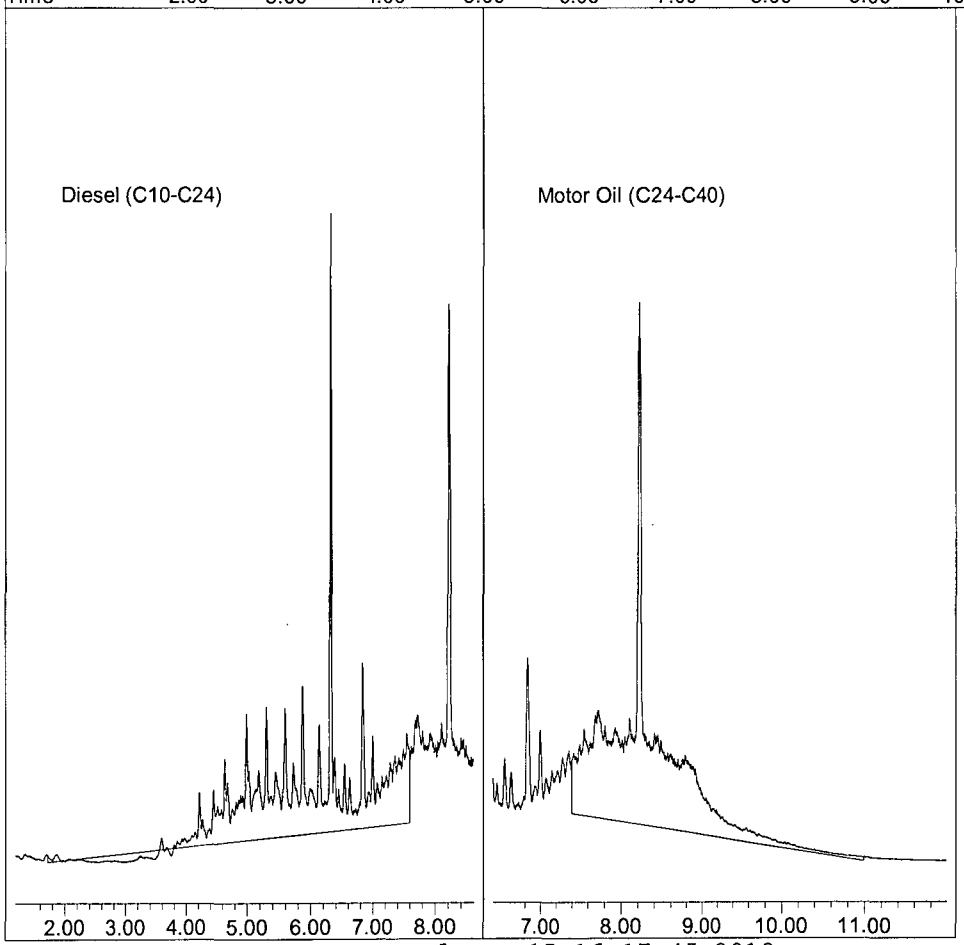
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 109300211 | 67.511 ppb |
| Surrogate Spike 75.000 | | Recovery = | 90.01% |
| 5) SA Octacosane(S) | 8.22 | 105867096 | 69.939 ppb |
| Surrogate Spike 75.000 | | Recovery = | 93.25% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1046532075 | 1096.885 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 956388095 | 1256.079 ppb |

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

Data File: G:\APOLLO\DATA\190506\506006.D
Sample : AZ89958W39 MS-1 2/800




506006.D DOC0411.M Wed May 15 16:17:45 2019 Page 2

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506007.D Vial: 7
Acq On : 5-6-19 18:50:16 Operator: DP
Sample : AZ89958W38 MSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:43 2019 Quant Results File: DOC0411.RES

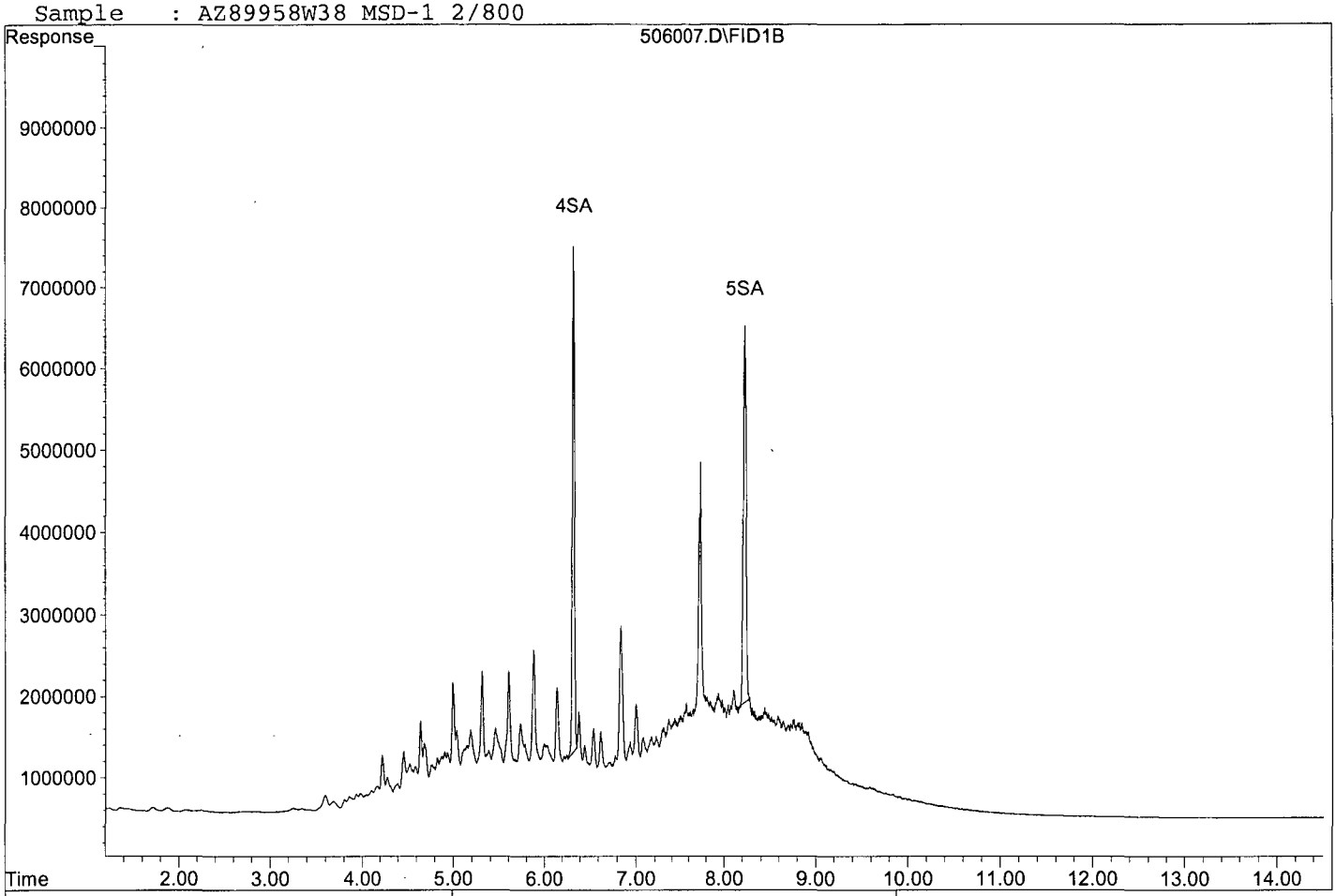
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

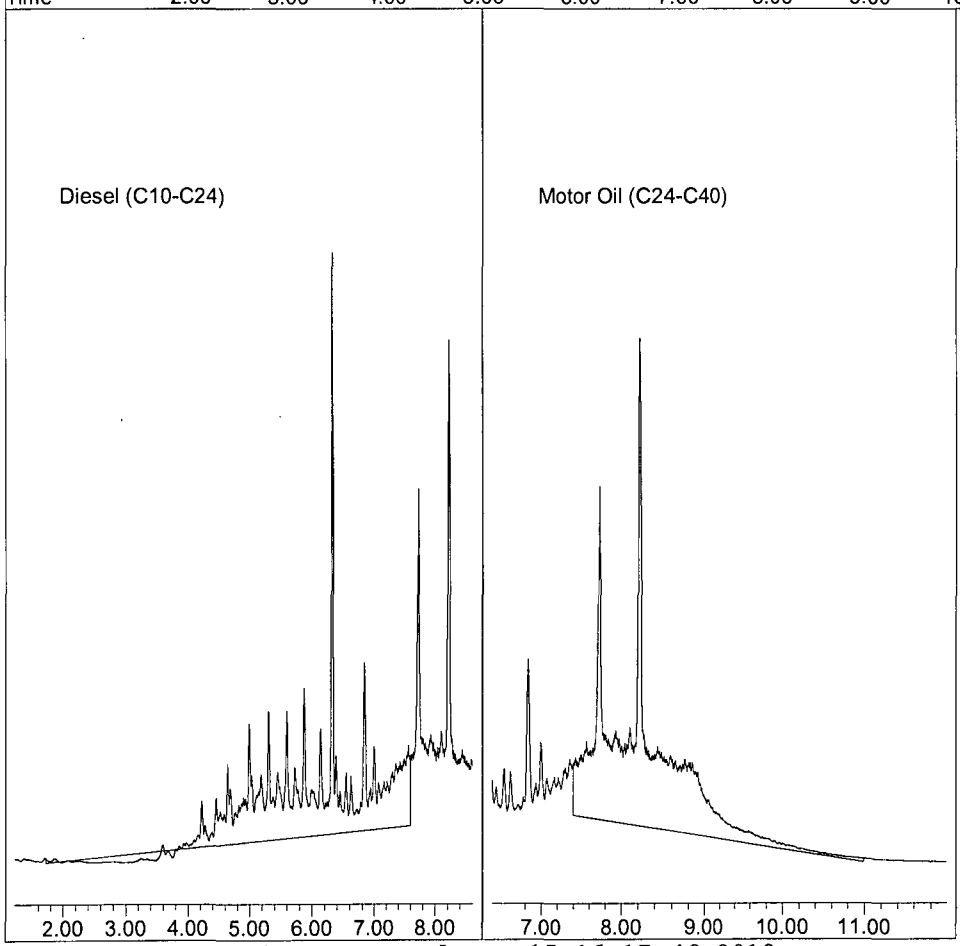
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 103540562 | 63.953 ppb |
| Surrogate Spike 75.000 | Recovery = | | 85.27% |
| 5) SA Octacosane(S) | 8.22 | 95229081 | 62.911 ppb |
| Surrogate Spike 75.000 | Recovery = | | 83.88% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1015939672 | 1064.820 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 963645512 | 1265.610 ppb |

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

Data File: G:\APOLLO\DATA\190506\506007.D
Sample : AZ89958W38 MSD-1 2/800



**Diesel / Motor Oil Calibration Curve**

**Prepared: 04/11/19**

**Expires: 10/11/19**

**Prepared By (Initials): BT**

**Methylene Chloride Lot No. 57278**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference to APPL Prep Date | Exp. Date | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 1 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 5uL | 1mL | MC | 10 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil -2 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 25uL | 1mL | MC | 50 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 3 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 125uL | 1mL | MC | 250 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 4 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 500uL | 1mL | MC | 1000 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 5 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 750uL | 1mL | MC | 1500 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 6 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 100uL | 100uL | N/A | 2,000 |

**Diesel / Motor Oil Second Source (SS)**

**Prepared: 01/15/19**

**Expires: 01/15/20**

**Prepared By (Initials): DP**

**Methylene Chloride Lot No. 56278**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Diesel Fuel #2 | O2SI | G34-011598-03 | 50,000 | **G34-319187-38958** | **08/02/19** | **09/29/21** | 50uL | 10mL | MC | 250 |
| Motor Oil Second Source | O2SI | 116390-02-SS | 50,000 | **301142-37652** | **07/13/19** | **03/05/22** | 50uL | | | |

**Diesel / Motor Oil Calibration Standard**

**Prepared: 01/15/19** **Prepared By (Initials): DP**

**Expires: 01/15/20**

**Methylene Chloride Lot No. 56278**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Diesel Fuel #2 | Restek | 31258 | 50,000 | **A0135614-39409** | **01/15/20** | **03/31/25** | 400uL | 10mL | MC | 2000 |
| Motor Oil | Restek | 31464 | 50,000 | **A0135245-39351** | **01/15/20** | **03/31/25** | 400uL | | | 2000 |
| THC Surrogate | Phenova | ALO-130161 | 600 | **CL12572-39691** | **08/13/19** | **06/30/23** | 1666uL | | | 100 |

**Diesel / Motor Oil CCV**

**Prepared: 04/16/19**

**Expires: 10/16/19**

**Prepared By (Initials): BT**

**Methylene Chloride Lot No. 58059**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference to APPL Prep Date | Exp. Date | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Diesel / Motor Oil STD | APPL | Diesel / Motor Oil CCV | 2,000 | Prepared 01/15/19 | 01/15/20 | N/A | 1250uL | 10mL | MC | 250 |

**Diesel Spike**

**Prepared: 04/26/19** **Prepared By (Initials): DP**

**Expires: 04/25/20**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| (QAU Label) | Supplier | No. | (ug/mL) | Number | (1 yr.) | (Manufacturer) | From | Volume | Solvent | Conc. (ug/mL) |
| Diesel Fuel #2 | Restek | 31258 | 50,000 | **A0135614-39408** | **04/26/20** | **03/31/25** | N/A | N/A | N/A | 50,000 |

**Motor Oil Spike**

**Prepared:** 04/08/19 **Prepared By (Initials):** DP

**Expires:** 04/07/20

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Motor Oil Composite | Restek | 31464 | 50,000 | **A0141636-40470** | **04/09/20** | **10/20/25** | N/A | N/A | N/A | 50,000 |

**THC Surrogate**

**Prepared: 04/17/19** **Prepared By (Initials): BT**

**Expires: 04/16/20**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| O-terphenyl / Octacosane Mix | Phenova | ALO-130161 | 600 | **CL13256-40363** | **04/17/20** | **02/28/24** | N/A | N/A | N/A | 600 |

# Organic Extraction Worksheet

| Method | Continuous Liq/Liq TPH-Diesel/MO 3520C | Extraction Set | 190426A | Extraction Method | LIQ005 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | Diesel Spike 4-26-19 EXP 4-26-20 | | Surrogate ID 1 | THC Surrogate 4-17-19 EXP 4-17-20 | |
| Spiked ID 2 | Motor Oil Spike 4-8-19 EXP 4-8-20 | | 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 04/26/19 13:00 | |
| Spiked ID 8 | | | Ext. End Time: | 04/27/19 10:13 ,04/29/19 14:35 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 4/26/19 10:15:00 AM | Water Bath Temp Criteria | 35,35,35 ° |
| pH2 | | | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/26/19 **Witnessed By:** DL **Date** 04/26/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190426A Blk | | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | |
| | | | | | | equip | E-HP51 E-WB1 | | | | |
| 2 | 190426A LCS-1 | | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | |
| | | | | | | equip | E-HP50 E-WB2 | | | | |
| 3 | 190426A LCSD-1 | | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | |
| | | | | | | equip | E-HP49 E-WB3 | | | | |
| 4 | AZ89958 MS-1 | AZ89958W32 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP48 E-WB1 | | | | |
| 5 | AZ89958 MSD-1 | AZ89958W42 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP47 E-WB2 | | | | |
| 6 | AZ89958 | AZ89958W29 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP25 E-WB3 | | | | |
| 7 | AZ89959 | AZ89959W10 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP26 E-WB1 | | | | |
| 8 | AZ89961 | AZ89961W13 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP27 E-WB2 | | | | |
| 9 | AZ90051 MS-1 | AZ90051W26 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP28 E-WB3 | | | | |
| 10 | AZ90051 MSD-1 | AZ90051W31 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP29 E-WB1 | | | | |
| 11 | AZ90051 | AZ90051W29 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP30 E-WB2 | | | | |
| 12 | AZ90052 | AZ90052W09 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP17 E-WB3 | | | | |
| 13 | AZ90054 | AZ90054W19 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP16 E-WB1 | | | | |
| 14 | AZ90056 | AZ90056W20 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP15 E-WB2 | | | | |
| 15 | AZ90058 | AZ90058W19 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP14 E-WB3 | | | | |
| 16 | AZ90060 | AZ90060W21 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP13 E-WB1 | | | | |

| Solvent and Lot# | |
|---|---|
| 1+1 HCL | 3-1-19 |
| PH Strips | HC 863463 |
| Dicholormethane (DCM) | 58240 |
| Filter Paper | 400148 |
| B. Sodium Sulfate | 18D105205 |
| | |
| | |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | SS |
| Date | 4/29/19 |
| Time | 15:10 |
| Refrigerator | Hobart 1 |

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

| Modified | 04/30/19 12:53:34 PM |
|---|---|

**Reviewed By:** Ky **Date** 4/30/19

# Organic Extraction Worksheet

| Method | Continuous Liq/Liq TPH-Diesel/MO 3520C | Extraction Set | 190426A | Extraction Method | LIQ005 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | Diesel Spike 4-26-19 EXP 4-26-20 | | Surrogate ID 1 | THC Surrogate 4-17-19 EXP 4-17-20 | |
| Spiked ID 2 | Motor Oil Spike 4-8-19 EXP 4-8-20 | | 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 04/26/19 13:00 | |
| Spiked ID 8 | | | Ext. End Time: | 04/27/19 10:13 , 04/29/19 14:35 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 4/26/19 10:15:00 AM | Water Bath Temp Criteria | 35,35,35 ° |
| pH2 | | | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/26/19 **Witnessed By:** DL **Date** 04/26/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | AZ90100 | AZ90100W20 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP12 E-WB2 | | | | |
| 18 | AZ90102 | AZ90102W18 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP11 E-WB3 | | | | |
| 19 | AZ90103 | AZ90103W09 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP10 E-WB1 | | | | |
| 20 | AZ90105 | AZ90105W22 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP9 E-WB2 | | | | |
| 21 | AZ90107 | AZ90107W19 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP7 E-WB3 | | | | |
| 22 | AZ90109 | AZ90109W22 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP6 E-WB1 | | | | |

KY 4/30/19

| Solvent and Lot# | |
|---|---|
| 1+1 HCL | 3-1-19 |
| PH Strips | HC 863463 |
| Dicholormethane (DCM) | 58240 |
| Filter Paper | 400148 |
| B. Sodium Sulfate | 18D105205 |
| | |
| | |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | |
| Date | |
| Time | |
| Refrigerator | |

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

| Modified | 04/30/19 12:53:34 PM |
|---|---|

**Reviewed By:** Ky **Date** 4/30/19

# Organic Extraction Worksheet

| Method | Continuous Liq/Liq TPH- 3520C w/SGC | Extraction Set | 190502A | Extraction Method | LIQ005SGC | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | Diesel Spike 4-26-19 exp 4-26-20 | | Surrogate ID 1 | THC Surrogate 4-17-19 exp 4-17-20 | |
| Spiked ID 2 | Motor Oil Spike 4-8-19 exp 4-8-20 | | 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 05/02/19 14:00 | |
| Spiked ID 8 | | | Ext. End Time: | 05/03/19 8:30 , 05/03/19 11:55 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 5/02/19 11:19:00 AM | Water Bath Temp Criteria | 35,35,35 ° |
| pH2 | | | | |
| pH3 | | | | |

**Spiked By:** DL **Date** 05/02/19 **Witnessed By:** YL **Date** 05/02/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190502A Blk | | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | |
| | | | | | | equip | e-hp51 e-wb1 | | | | |
| 2 | 190502A LCS-1 | | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | |
| | | | | | | equip | E-HP50 E-WB2 | | | | |
| 3 | 190502A LCSD-1 | | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | |
| | | | | | | equip | E-HP49 E-WB3 | | | | |
| 4 | AZ89958 MS-1 | AZ89958W39 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88687 |
| | | | | | | equip | E-HP47 E-WB1 | | | | |
| 5 | AZ89958 MSD-1 | AZ89958W38 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88687 |
| | | | | | | equip | E-HP25 E-WB2 | | | | |
| 6 | AZ89958 | AZ89958W40 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88687 |
| | | | | | | equip | E-HP48 E-WB3 | | | | |
| 7 | AZ89959 | AZ89959W08 | | | 0.100 | 1 | 790 | 2 | 2 | 05/02/19 11:30 | 88687 |
| | | | | | | equip | E-HP26 E-WB1 | | | | |
| 8 | AZ89961 | AZ89961W21 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88687 |
| | | | | | | equip | E-HP27 E-WB2 | | | | |
| 9 | AZ90051 MS-1 | AZ90051W32 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88701 |
| | | | | | | equip | E-HP29 E-WB3 | | | | |
| 10 | AZ90051 MSD-1 | AZ90051W28 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88701 |
| | | | | | | equip | E-HP30 E-WB1 | | | | |
| 11 | AZ90051 | AZ90051W34 | | | 0.100 | 1 | 810 | 2 | 2 | 05/02/19 11:30 | 88701 |
| | | | | | | equip | E-HP28 E-WB2 | | | | |
| 12 | AZ90052 | AZ90052W08 | | | 0.100 | 1 | 790 | 2 | 2 | 05/02/19 11:30 | 88701 |
| | | | | | | equip | E-HP17 E-WB3 | | | | |
| 13 | AZ90213 | AZ90213W18 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88736 |
| | | | | | | equip | E-HP16 E-WB1 | | | | |
| 14 | AZ90215 | AZ90215W21 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88736 |
| | | | | | | equip | E-HP15 E-WB2 | | | | |
| 15 | AZ90447 | AZ90447W11 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88764 |
| | | | | | | equip | E-HP14 E-WB3 | | | | |
| 16 | AZ90448 | AZ90448W08 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88764 |
| | | | | | | equip | E-HP13 E-WB1 | | | | |

| Solvent and Lot# | |
|---|---|
| 1+1 HCL (5mLs) | 3-1-19 |
| PH Strips | HC 601354 |
| Filter Paper | 400148 |
| B. Sodium Sulfate | 18D105205 |
| | |
| | |
| | |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | BT |
| Date | 5/3/19 |
| Time | 13:08 |
| Refrigerator | Hibard |

| | Technician's Initials |
|---|---|
| Scanned By | DL,FM |
| Sample Preparation | DL |
| Extraction | DL |
| Concentration | DL |

| Modified | 05/06/19 9:28:41 AM |
|---|---|

**Reviewed By:** Ky **Date** 5/6/19

# Organic Extraction Worksheet

| Method | Continuous Liq/Liq TPH- 3520C w/SGC | Extraction Set | 190502A | Extraction Method | LIQ005SGC | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | Diesel Spike 4-26-19 exp 4-26-20 | | Surrogate ID 1 | THC Surrogate 4-17-19 exp 4-17-20 | |
| Spiked ID 2 | Motor Oil Spike 4-8-19 exp 4-8-20 | | 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 05/02/19 14:00 | |
| Spiked ID 8 | | | Ext. End Time: | 05/03/19 8:30 ,05/03/19 11:55 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 5/02/19 11:19:00 AM | Water Bath Temp Criteria | 35,35,35 ° |
| pH2 | | | | |
| pH3 | | | | |

**Spiked By:** DL **Date** 05/02/19 **Witnessed By:** YL **Date** 05/02/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | AZ90450 | AZ90450W21 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88764 |
| | | | | | | equip | E-HP12 E-WB2 | | | | |

KY 5/6/19

| Solvent and Lot# | |
|---|---|
| 1+1 HCL (5mLs) | 3-1-19 |
| PH Strips | HC 601354 |
| Filter Paper | 400148 |
| B. Sodium Sulfate | 18D105205 |
| | |
| | |
| | |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | |
| Date | |
| Time | |
| Refrigerator | |

| | Technician's Initials |
|---|---|
| Scanned By | DL,FM |
| Sample Preparation | DL |
| Extraction | DL |
| Concentration | DL |

| Modified | 05/06/19 9:28:41 AM |
|---|---|

**Reviewed By:** KY **Date** 5/6/19

# Injection Log

Directory: G:\APOLLO\DATA\190411\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 2 | 411002.D | 1 | Diesel / Motor Oil - 1 1/15/19 | water | 4-11-19 12:41:17 |
| 2 | 3 | 411003.D | 1 | Diesel / Motor Oil - 2 4/11/19 | water | 4-11-19 13:00:16 |
| 3 | 4 | 411004.D | 1 | Diesel / Motor Oil - 3 4/11/19 | water | 4-11-19 13:19:58 |
| 4 | 5 | 411005.D | 1 | Diesel / Motor Oil - 4 4/11/19 | water | 4-11-19 13:39:40 |
| 5 | 6 | 411006.D | 1 | Diesel / Motor Oil - 5 4/11/19 | water | 4-11-19 13:59:26 |
| 6 | 7 | 411007.D | 1 | Diesel / Motor Oil - 6 4/11/19 | water | 4-11-19 14:19:10 |
| 7 | 8 | 411008.D | 1 | Diesel / Motor Oil - 2nd Source 1/15/19 | water | 4-11-19 14:39:01 |
| 8 | 48 | 419048.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 4-29-19 17:02:59 |
| 9 | 49 | 419049.D | 2.5 | 190426A BLK 2/800 | water | 4-29-19 17:23:01 |
| 10 | 50 | 419050.D | 2.5 | 190426A LCS-1 2/800 | water | 4-29-19 17:43:06 |
| 11 | 51 | 419051.D | 2.5 | 190426A LCSD-1 2/800 | water | 4-29-19 18:03:12 |
| 12 | 52 | 419052.D | 2.5 | AZ89958W29 2/800 | water | 4-29-19 18:23:18 |
| 13 | 53 | 419053.D | 2.5 | AZ89958W32 MS-1 2/800 | water | 4-29-19 18:43:27 |
| 14 | 54 | 419054.D | 2.5 | AZ89958W42 MSD-1 2/800 | water | 4-29-19 19:03:30 |
| 15 | 55 | 419055.D | 2.5 | AZ89959W10 2/800 | water | 4-29-19 19:23:42 |
| 16 | 56 | 419056.D | 2.5 | AZ89961W13 2/800 | water | 4-29-19 19:43:49 |
| 17 | 63 | 419063.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 4-29-19 22:03:37 |

# Injection Log

Directory: G:\APOLLO\DATA\190411\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 2 | 411002.D | 1 | Diesel / Motor Oil - 1 1/15/19 | water | 4-11-19 12:41:17 |
| 2 | 3 | 411003.D | 1 | Diesel / Motor Oil - 2 4/11/19 | water | 4-11-19 13:00:16 |
| 3 | 4 | 411004.D | 1 | Diesel / Motor Oil - 3 4/11/19 | water | 4-11-19 13:19:58 |
| 4 | 5 | 411005.D | 1 | Diesel / Motor Oil - 4 4/11/19 | water | 4-11-19 13:39:40 |
| 5 | 6 | 411006.D | 1 | Diesel / Motor Oil - 5 4/11/19 | water | 4-11-19 13:59:26 |
| 6 | 7 | 411007.D | 1 | Diesel / Motor Oil - 6 4/11/19 | water | 4-11-19 14:19:10 |
| 7 | 8 | 411008.D | 1 | Diesel / Motor Oil - 2nd Source 1/15/19 | water | 4-11-19 14:39:01 |
| 8 | 2 | 506002.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 5-6-19 17:10:08 |
| 9 | 3 | 506003.D | 2.5 | 190502A BLK 2/800 | water | 5-6-19 17:30:03 |
| 10 | 4 | 506004.D | 2.5 | 190502A LCS-1 2/800 | water | 5-6-19 17:50:07 |
| 11 | 5 | 506005.D | 2.5 | 190502A LCSD-1 2/800 | water | 5-6-19 18:10:08 |
| 12 | 6 | 506006.D | 2.5 | AZ89958W39 MS-1 2/800 | water | 5-6-19 18:30:17 |
| 13 | 7 | 506007.D | 2.5 | AZ89958W38 MSD-1 2/800 | water | 5-6-19 18:50:16 |
| 14 | 8 | 506008.D | 2.5 | AZ89958W40 2/800 | water | 5-6-19 19:09:45 |
| 15 | 9 | 506009.D | 2.53165 | AZ89959W08 2/790 | water | 5-6-19 19:29:52 |
| 16 | 10 | 506010.D | 2.5 | AZ89961W21 2/800 | water | 5-6-19 19:49:52 |
| 17 | 16 | 506016.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 5-6-19 21:49:32 |

# ORGANICS
# Calibration Data

PAH by GCMS SIM
EPA 8270 SIM

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/26/19
Matrix: Instrument: Linus
Initials: MA/JH

| | | | 0326L013.D | 0326L012.D | 0326L005.D | 0326L006.D | 0326L007.D | 0326L008 D | 0326L009.D | 0326L010.D | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Compound | 0.1 | 0.2 | 0.5 | 1 | 5 | 10 | 50 | 100 | | | Avg | %RSD | Type | r^2 | Q | MRF |
| 1 | I | Napthalene-D8(IS) | | | | | | | | | | | | | | | | |
| 2 | S | Surrogate Recovery (NBZ) | | 0.3927 | 0.5340 | 0.4444 | 0.4714 | 0.4510 | 0.4089 | 0.4199 | | | 0.45 | 11 | S | | | |
| 3 | TM | Naphthalene | 1.529 | 1.407 | 1.448 | 1.163 | 1.400 | 1.287 | 1.154 | 1.122 | | | 1.3 | 12 | TM | | | 0.700 |
| 4 | S | 2-Methylnaphthalene-D10 (2M | 1.387 | 1.168 | 1.650 | 1.306 | 1.518 | 1.400 | 1.203 | 1.197 | | | 1.4 | 13 | S | | | |
| 5 | TM | 2-Methylnaphthalene | 0.7306 | 0.7642 | 0.8355 | 0.6668 | 0.8429 | 0.7635 | 0.6758 | 0.6477 | | | 0.74 | 10 | TM | | | 0.400 |
| 6 | TM | 1-Methylnaphthalene | 0.9900 | 0.8580 | 0.9185 | 0.7134 | 0.8390 | 0.7536 | 0.6593 | | | | 0.82 | 14 | TM | | | |
| 7 | I | Acenaphthene-D10(IS) | | | | | | | | | | | | | | | | |
| 8 | S | Surrogate Recovery (FBP) | 1.722 | 1.658 | 2.258 | 1.803 | 2.110 | 1.951 | 1.630 | 1.592 | | | 1.8 | 13 | S | | | |
| 9 | TM | Acenaphthylene | 5.900 | 5.710 | 6.401 | 5.037 | 6.465 | 5.885 | 4.974 | 4.865 | | | 5.7 | 11 | TM | | | 0.900 |
| 10 | *TM | Acenaphthene | 1.794 | 1.633 | 1.703 | 1.318 | 1.581 | 1.463 | 1.266 | 1.170 | | | 1.5 | 15 | *TM | | | 0.900 |
| 11 | TM | Fluorene | 2.218 | 1.880 | 2.093 | 1.632 | 2.029 | 1.885 | 1.631 | 1.570 | | | 1.9 | 13 | TM | | | 0.900 |
| 12 | I | Phenanthrene-D10(IS) | | | | | | | | | | | | | | | | |
| 13 | TM | Phenanthrene | 1.607 | 1.544 | 1.673 | 1.305 | 1.635 | 1.484 | 1.218 | 1.160 | | | 1.5 | 14 | TM | | | 0.700 |
| 14 | TM | Anthracene | 1.486 | 1.420 | 1.591 | 1.220 | 1.624 | 1.473 | 1.238 | 1.116 | | | 1.4 | 13 | TM | | | 0.700 |
| 15 | S | Fluoranthene-D10 (FRT) | 1.901 | 1.831 | 2.624 | 2.092 | 2.484 | 2.311 | 1.987 | 1.872 | | | 2.1 | 14 | S | | | |
| 16 | *TM | Fluoranthene | 2.537 | 2.471 | 2.787 | 2.228 | 2.784 | 2.506 | 2.112 | 1.908 | | | 2.4 | 13 | *TM | | | 0.600 |
| 17 | I | Chrysene-D12(IS) | | | | | | | | | | | | | | | | |
| 18 | TM | Pyrene | 1.899 | 1.728 | 1.916 | 1.501 | 1.868 | 1.718 | 1.481 | 1.425 | | | 1.7 | 12 | TM | | | 0.600 |
| 19 | S | Surrogate Recovery (TPH) | 0.8126 | 0.7648 | 1.100 | 0.8569 | 0.9951 | 0.9476 | 0.8279 | 0.7820 | | | 0.89 | 13 | S | | | |
| 20 | TM | Benz (a) anthracene | 1.413 | 1.328 | 1.559 | 1.165 | 1.523 | 1.457 | 1.326 | 1.311 | | | 1.4 | 9.3 | TM | | | 0.800 |
| 21 | TM | Chrysene | 1.693 | 1.584 | 1.532 | 1.291 | 1.505 | 1.343 | 1.166 | 1.155 | | | 1.4 | 14 | TM | | | 0.700 |
| 22 | TM | Indeno (1,2,3-cd) pyrene | 1.684 | 1.533 | 1.535 | 1.269 | 1.597 | 1.490 | 1.366 | 1.338 | | | 1.5 | 9.5 | TM | | | 0.500 |
| 23 | I | Perylene-D12(IS) | | | | | | | | | | | | | | | | |
| 24 | TM | Benzo (b) fluoranthene | 1.158 | 1.272 | 1.365 | 1.090 | 1.474 | 1.408 | 1.281 | 1.294 | | | 1.3 | 9.8 | TM | | | 0.700 |
| 25 | TM | Benzo (k) fluoranthene | 1.676 | 1.496 | 1.659 | 1.361 | 1.632 | 1.459 | 1.255 | 1.199 | | | 1.5 | 13 | TM | | | 0.700 |
| 26 | *TM | Benzo (a) pyrene | 1.243 | 1.369 | 1.446 | 1.176 | 1.471 | 1.369 | 1.224 | 1.197 | | | 1.3 | 8.8 | *TM | | | 0.700 |
| 27 | TM | Dibenz (a,h) anthracene | 1.391 | 1.269 | 1.295 | 1.077 | 1.349 | 1.244 | 1.099 | 1.054 | | | 1.2 | 11 | TM | | | 0.400 |
| 28 | TM | Benzo (g,h,i) perylene | 1.468 | 1.326 | 1.320 | 1.090 | 1.361 | 1.265 | 1.118 | 1.085 | | | 1.3 | 11 | TM | | | 0.500 |
| 29 | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | |
| 33 | | | | | | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | | |

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L005.D Vial: 5
Acq On : 26 Mar 19 10:39 Operator: MA
Sample : 0.5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:52 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:51:40 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 29983 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 14175 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 23888 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 35718 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 34636 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.14 | 82 | 1601 | 0.30171 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery | = 6.040% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.75 | 152 | 4947 | 0.35041 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery | = 7.000% | | |
| 8) Surrogate Recovery (FBP) | 5.23 | 172 | 3201 | 0.31519 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery | = 6.300% | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 6268 | 0.36113 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 7.220% | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 3930 | 0.33442 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 6.680% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 8684 | 0.57398 ppb | | 98 |
| 5) 2-Methylnaphthalene | 4.78 | 142 | 5010 | 0.55092 ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.89 | 142 | 5508 | 0.59694 ppb | | 95 |
| 9) Acenaphthylene | 5.82 | 152 | 18147 | 0.56976 ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 4827 | 0.52888 ppb | | 97 |
| 11) Fluorene | 6.63 | 166 | 5934 | 0.55241 ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 7991 | 0.59247 ppb | | 99 |
| 14) Anthracene | 7.80 | 178 | 7601 | 0.57039 ppb | | 99 |
| 16) Fluoranthene | 9.11 | 202 | 13317 | 0.62414 ppb | # | 89 |
| 18) Pyrene | 9.37 | 202 | 13684 | 0.61385 ppb | | 98 |
| 20) Benz (a) anthracene | 10.78 | 228 | 11134 | 0.56445 ppb | | 99 |
| 21) Chrysene | 10.84 | 228 | 10947 | 0.57620 ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.70 | 276 | 10967 | 0.55654 ppb | # | 98 |
| 24) Benzo (b) fluoranthene | 12.50 | 252 | 9458 | 0.50818 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.54 | 252 | 11491 | 0.59936 ppb | | 96 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 10016 | 0.55876 ppb | | 99 |
| 27) Dibenz (a,h) anthracene | 14.72 | 278 | 8973 | 0.54057 ppb | | 99 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 9141 | 0.54410 ppb | | 98 |

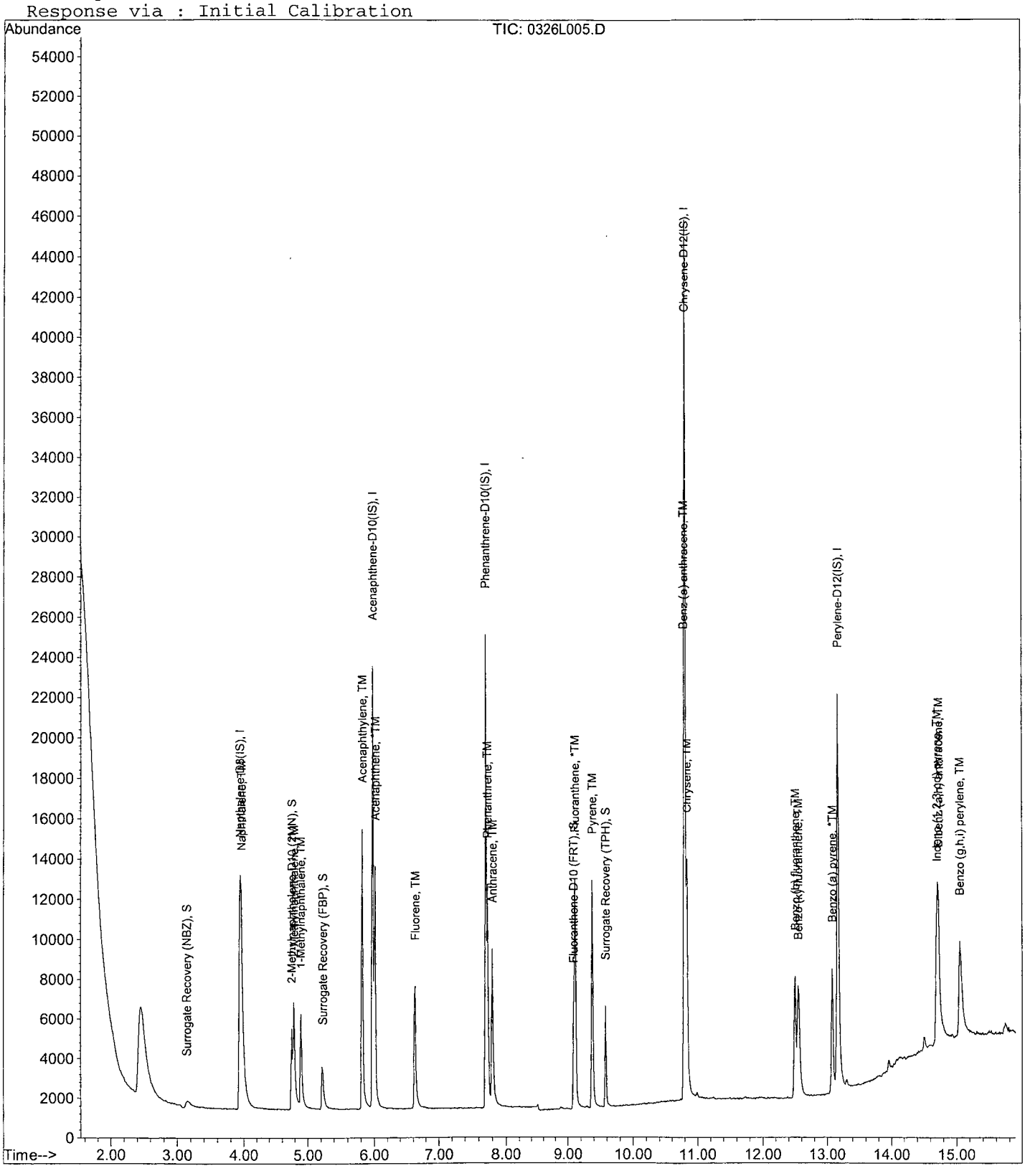
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L005.D Vial: 5
Acq On : 26 Mar 19 10:39 Operator: MA
Sample : 0.5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:52 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L006.D Vial: 6
Acq On : 26 Mar 19 11:01 Operator: MA
Sample : 1 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:52 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:51:40 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 35893 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 17165 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 29866 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 43804 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 41942 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.15 | 82 | 3190 | 0.50218 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery | = 10.040% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.74 | 152 | 9372 | 0.55454 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery | = 11.100% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 6188 | 0.50317 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 10.060% | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 12497 | 0.57589 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 11.520% | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 7507 | 0.52088 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 10.420% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 16693 | 0.92168 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.78 | 142 | 9573 | 0.87935 ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.89 | 142 | 10243 | 0.92731 ppb | | 95 |
| 9) Acenaphthylene | 5.82 | 152 | 34586 | 0.89675 ppb | | 99 |
| 10) Acenaphthene | 6.01 | 154 | 9052 | 0.81904 ppb | | 96 |
| 11) Fluorene | 6.62 | 166 | 11205 | 0.86141 ppb | | 93 |
| 13) Phenanthrene | 7.73 | 178 | 15588 | 0.92440 ppb | | 98 |
| 14) Anthracene | 7.80 | 178 | 14573 | 0.87468 ppb | | 99 |
| 16) Fluoranthene | 9.11 | 202 | 26618 | 0.99782 ppb | # | 93 |
| 18) Pyrene | 9.37 | 202 | 26304 | 0.96215 ppb | | 95 |
| 20) Benz (a) anthracene | 10.78 | 228 | 20420 | 0.84412 ppb | | 98 |
| 21) Chrysene | 10.84 | 228 | 22628 | 0.97118 ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 22236 | 0.92011 ppb | | 98 |
| 24) Benzo (b) fluoranthene | 12.49 | 252 | 18288 | 0.81146 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.54 | 252 | 22834 | 0.98354 ppb | | 98 |
| 26) Benzo (a) pyrene | 13.07 | 252 | 19723 | 0.90862 ppb | # | 95 |
| 27) Dibenz (a,h) anthracene | 14.71 | 278 | 18076 | 0.89928 ppb | | 98 |
| 28) Benzo (g,h,i) perylene | 15.03 | 276 | 18288 | 0.89893 ppb | | 98 |

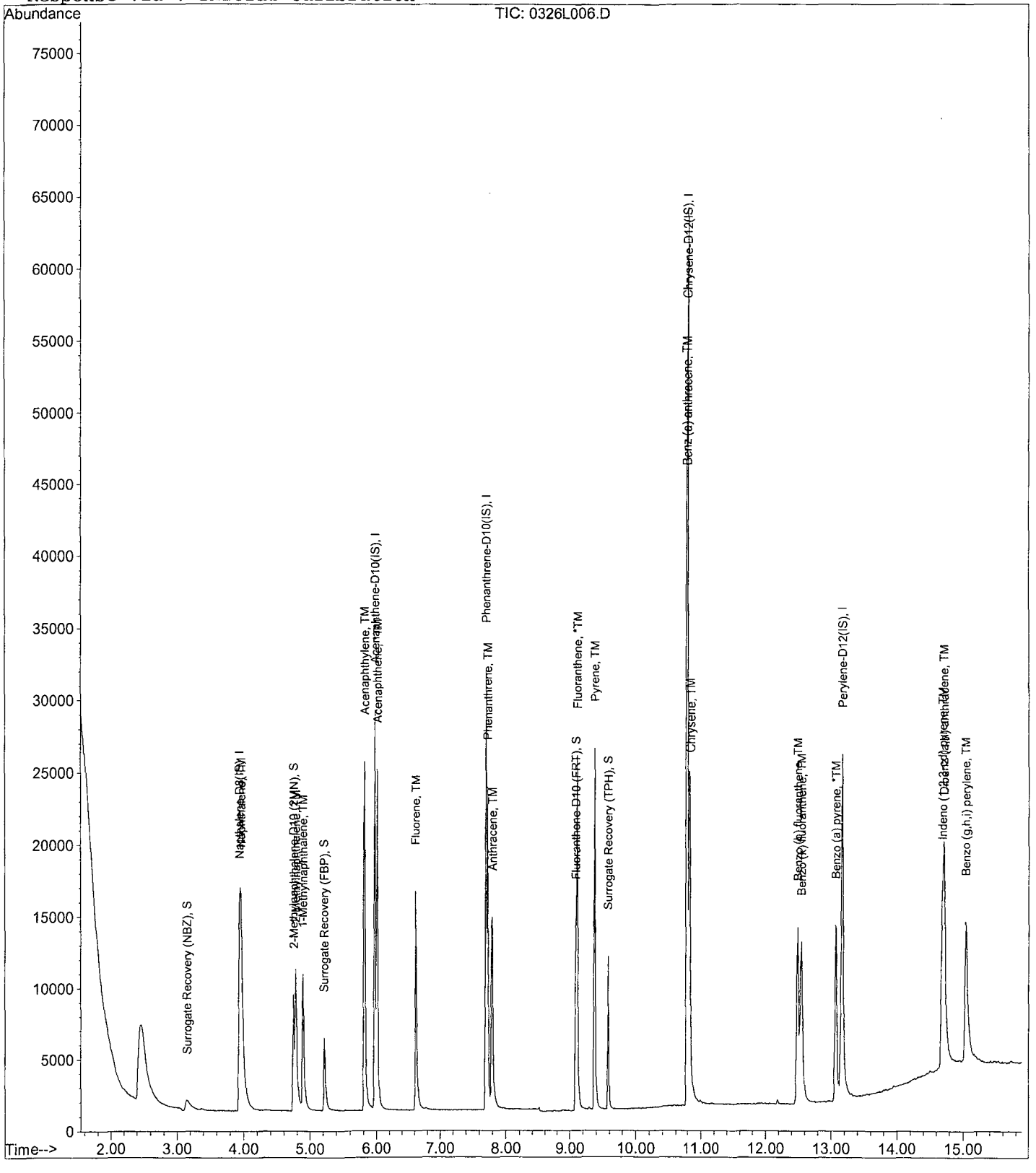
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L006.D Vial: 6
Acq On : 26 Mar 19 11:01 Operator: MA
Sample : 1 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:52 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L007.D Vial: 7
Acq On : 26 Mar 19 11:23 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:55 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 31036 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 14429 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 24630 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 36703 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 35401 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.13 | 82 | 14629 | 2.66335 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 53.260% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 47125 | 3.22473 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 64.500% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 30446 | 2.94510 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 58.900% | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 61183 | 3.41884 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 68.380% | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 36522 | 3.02438 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 60.480% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 86912 | 5.54970 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 52323 | 5.55839 ppb | | 100 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 52078 | 5.45251 ppb | | 100 |
| 9) Acenaphthylene | 5.81 | 152 | 186553 | 5.75411 ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 45619 | 4.91037 ppb | | 100 |
| 11) Fluorene | 6.62 | 166 | 58567 | 5.35620 ppb | | 100 |
| 13) Phenanthrene | 7.73 | 178 | 80559 | 5.79291 ppb | | 100 |
| 14) Anthracene | 7.79 | 178 | 80019 | 5.82381 ppb | | 100 |
| 16) Fluoranthene | 9.11 | 202 | 137128 | 6.23327 ppb | | 100 |
| 18) Pyrene | 9.36 | 202 | 137146 | 5.98710 ppb | | 100 |
| 20) Benz (a) anthracene | 10.78 | 228 | 111765 | 5.51397 ppb | | 100 |
| 21) Chrysene | 10.83 | 228 | 110485 | 5.65939 ppb | | 100 |
| 22) Indeno (1,2,3-cd) pyrene | 14.66 | 276 | 117203 | 5.78805 ppb | # | 100 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 104380 | 5.48718 ppb | | 100 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 115527 | 5.89556 ppb | # | 82 |
| 26) Benzo (a) pyrene | 13.07 | 252 | 104139 | 5.68402 ppb | | 100 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 95496 | 5.62874 ppb | | 100 |
| 28) Benzo (g,h,i) perylene | 15.01 | 276 | 96360 | 5.61166 ppb | | 100 |

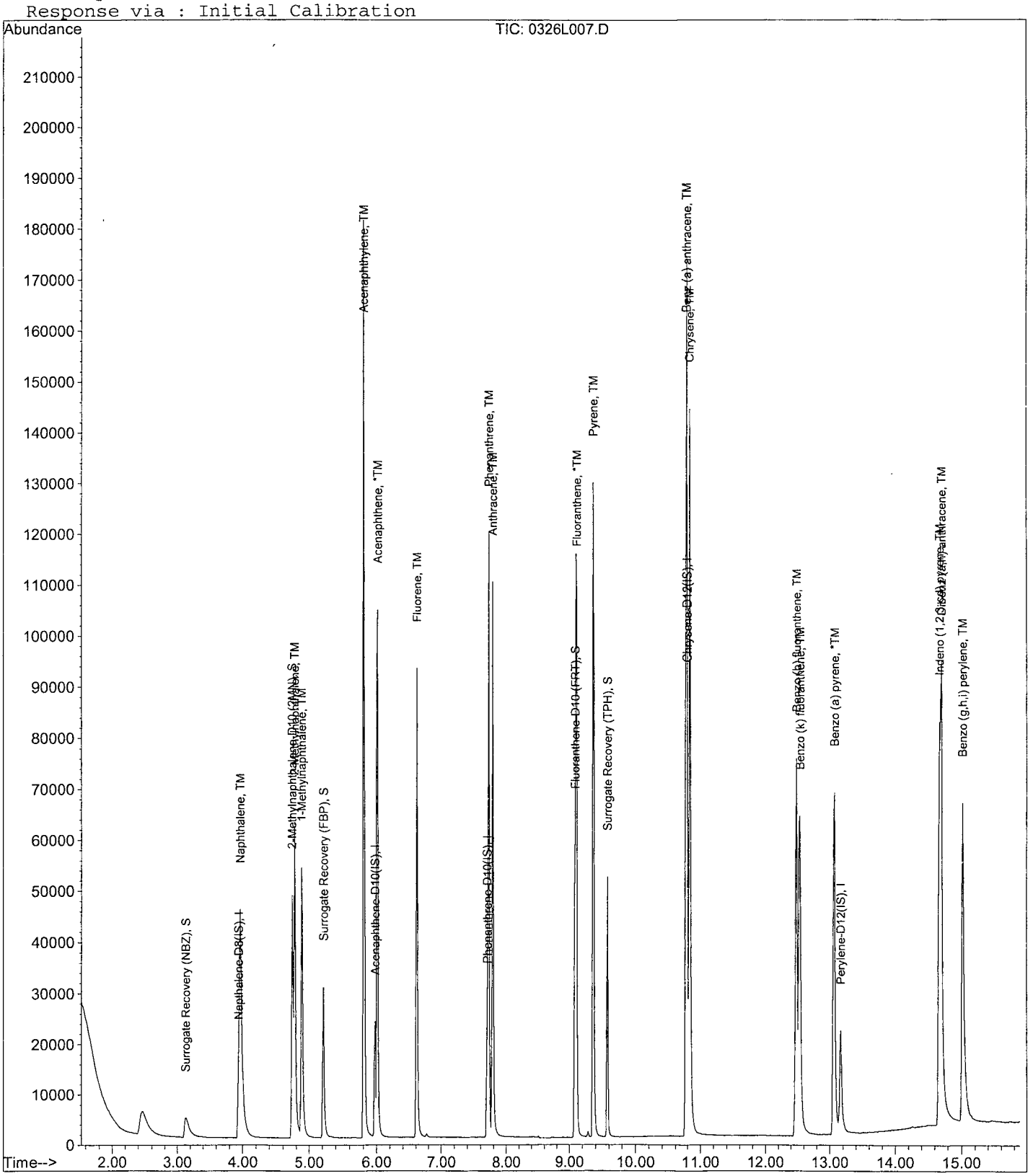
(#) = qualifier out of range (m) = manual integration
0326L007.D L0326.M Wed Mar 27 09:48:48 2019 Page 1

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L007.D Vial: 7
Acq On : 26 Mar 19 11:23 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:55 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L008.D Vial: 8
Acq On : 26 Mar 19 11:45 Operator: MA
Sample : 10 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 12:03 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 35838 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 16640 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 28622 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 41948 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 40987 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.13 | 82 | 32326 | 5.09668 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 101.940% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 100381 | 5.94861 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 118.980% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 64921 | 5.44551 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 108.920% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 132302 | 6.36178 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 127.240% | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 79496 | 5.75993 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 115.200% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 184477 | 10.20127 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 109454 | 10.06955 ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 108031 | 9.79519 ppb | | 98 |
| 9) Acenaphthylene | 5.81 | 152 | 391698 | 10.47636 ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 97387 | 9.08975 ppb | | 99 |
| 11) Fluorene | 6.62 | 166 | 125480 | 9.95086 ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 169913 | 10.51414 ppb | | 100 |
| 14) Anthracene | 7.79 | 178 | 168680 | 10.56433 ppb | | 100 |
| 16) Fluoranthene | 9.10 | 202 | 286894 | 11.22214 ppb | # | 86 |
| 18) Pyrene | 9.36 | 202 | 288195 | 11.00804 ppb | | 99 |
| 20) Benz (a) anthracene | 10.78 | 228 | 244430 | 10.55125 ppb | | 100 |
| 21) Chrysene | 10.83 | 228 | 225305 | 10.09781 ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.66 | 276 | 249983 | 10.80176 ppb | | 99 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 230916 | 10.48469 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 239205 | 10.54342 ppb | # | 81 |
| 26) Benzo (a) pyrene | 13.05 | 252 | 224453 | 10.58124 ppb | # | 96 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 203908 | 10.38077 ppb | | 96 |
| 28) Benzo (g,h,i) perylene | 15.01 | 276 | 207384 | 10.43132 ppb | | 94 |

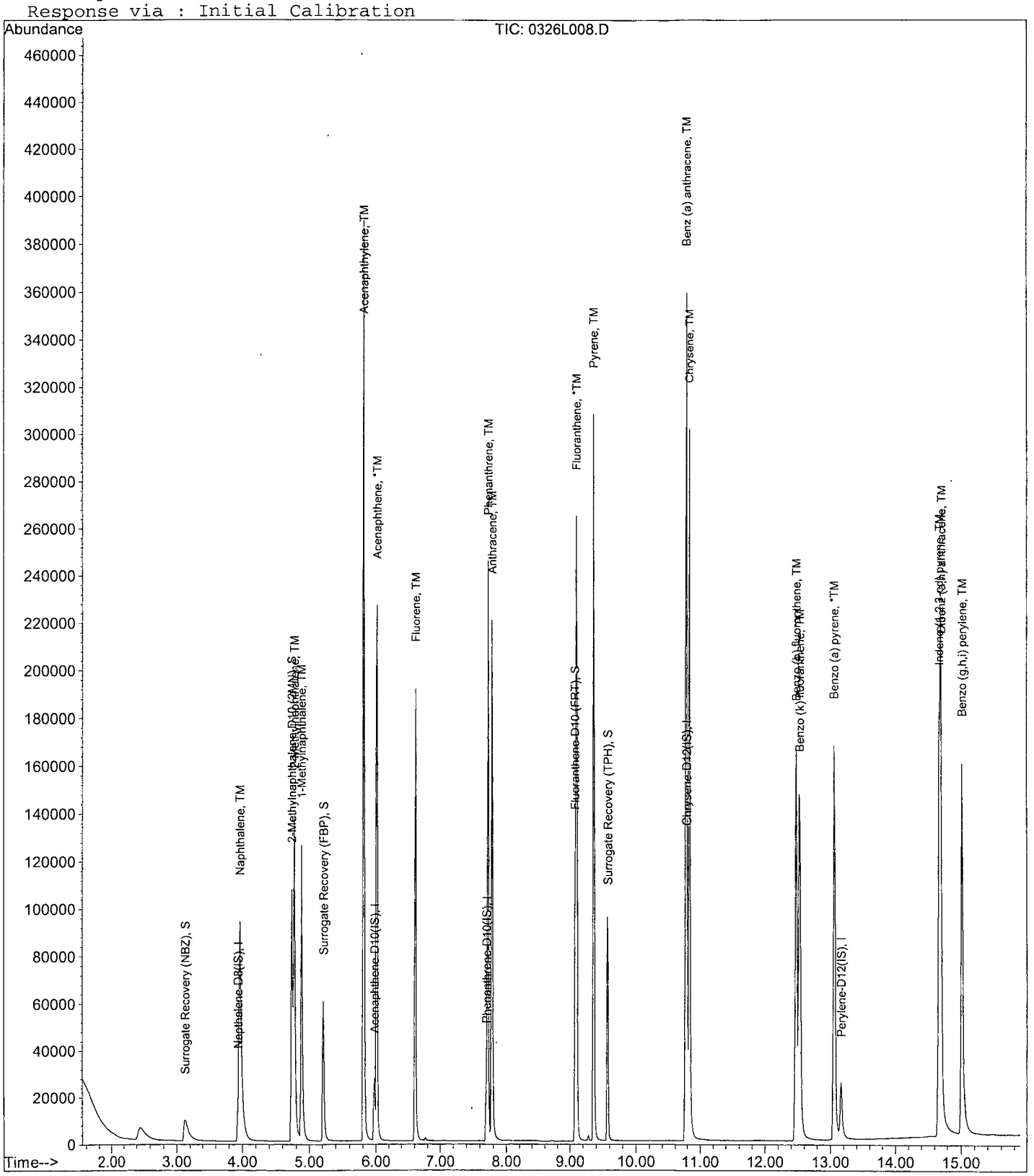
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L008.D Vial: 8
Acq On : 26 Mar 19 11:45 Operator: MA
Sample : 10 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 12:03 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L009.D Vial: 9
Acq On : 26 Mar 19 12:08 Operator: MA
Sample : 50 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 12:40 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 34439 | 2.50000 | ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 16178 | 2.50000 | ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 28297 | 2.50000 | ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.80 | 240 | 40379 | 2.50000 | ppb | | 0.01 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 41022 | 2.50000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.12 | 82 | 140833 | 21.64154 | ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery = 432.840% | | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 414181 | 23.25797 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 465.160% | | | | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 263684 | 21.46228 | ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery = 429.240% | | | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 562390 | 24.48515 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 489.700% | | | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 334289 | 23.27858 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 465.580% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 794731 | 44.68961 | ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 465489 | 44.02234 | ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 454120 | 41.81636 | ppb | | 98 |
| 9) Acenaphthylene | 5.81 | 152 | 1609229 | 43.19390 | ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 409705 | 39.67961 | ppb | | 97 |
| 11) Fluorene | 6.62 | 166 | 527629 | 42.63457 | ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 689088 | 41.97703 | ppb | | 99 |
| 14) Anthracene | 7.79 | 178 | 700455 | 43.39211 | ppb | | 99 |
| 16) Fluoranthene | 9.11 | 202 | 1195144 | 44.94761 | ppb | # | 89 |
| 18) Pyrene | 9.37 | 202 | 1195645 | 45.32840 | ppb | | 94 |
| 20) Benz (a) anthracene | 10.79 | 228 | 1070977 | 46.57534 | ppb | | 99 |
| 21) Chrysene | 10.84 | 228 | 941256 | 42.83259 | ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 1103036 | 48.39365 | ppb | | 100 |
| 24) Benzo (b) fluoranthene | 12.50 | 252 | 1050669 | 47.36694 | ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.55 | 252 | 1029810 | 43.39875 | ppb | # | 85 |
| 26) Benzo (a) pyrene | 13.09 | 252 | 1003811 | 46.19453 | ppb | # | 97 |
| 27) Dibenz (a,h) anthracene | 14.72 | 278 | 901711 | 45.25262 | ppb | | 96 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 917218 | 45.43228 | ppb | | 95 |

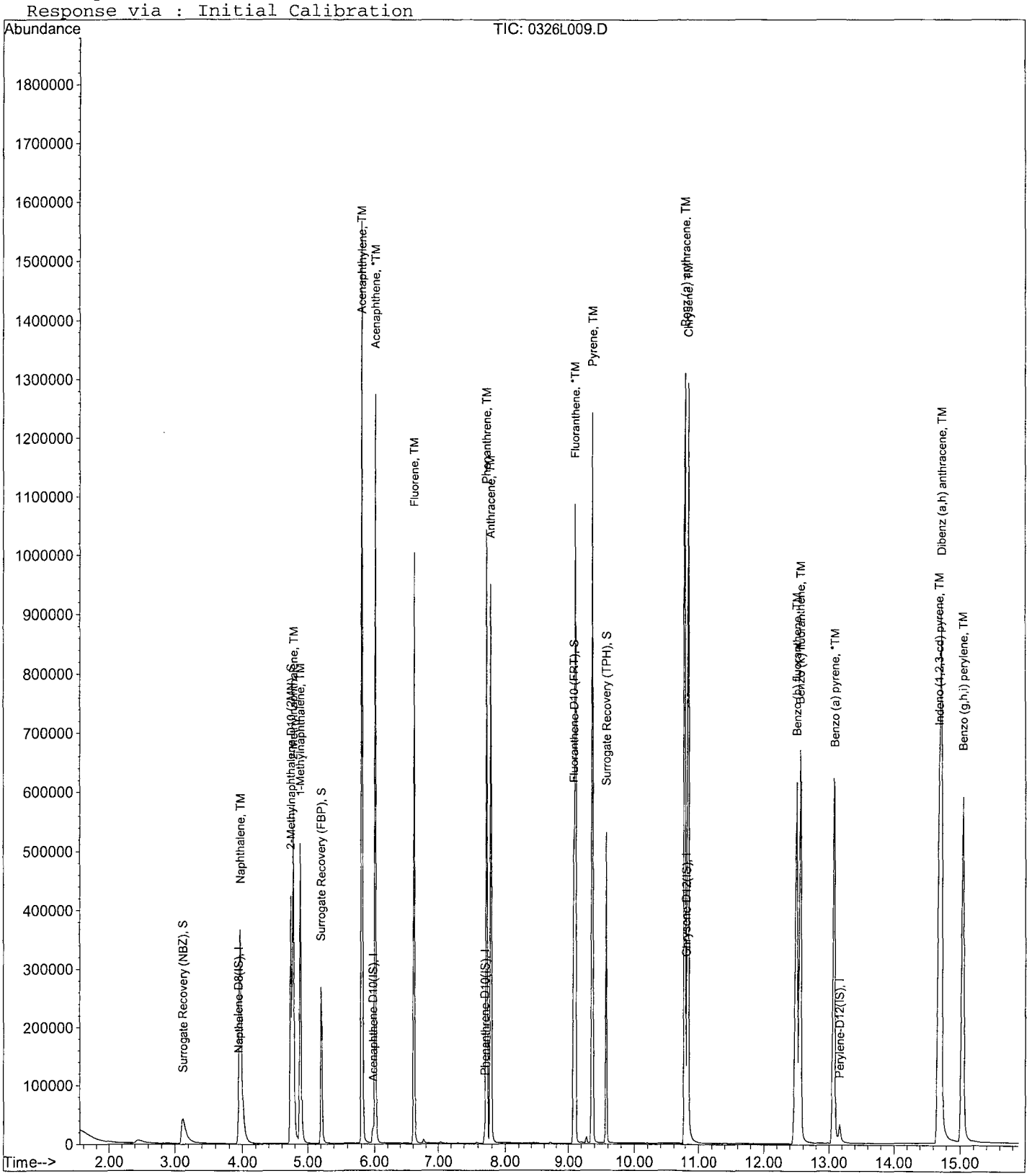
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L009.D Vial: 9
Acq On : 26 Mar 19 12:08 Operator: MA
Sample : 50 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 12:40 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L010.D Vial: 10
Acq On : 26 Mar 19 12:30 Operator: MA
Sample : 100 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 13:47 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 32479 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 15565 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 27637 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.82 | 240 | 38239 | 2.50000 ppb | | 0.02 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 38545 | 2.50000 ppb | | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 272771 | 44.44570 ppb | | -0.02 |
| Spiked Amount 5.000 | | | Recovery = 888.920% | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 777276 | 46.28122 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 925.620% | | | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 495434 | 41.91347 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery = 838.260% | | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 1034959 | 46.13577 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 922.720% | | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 598059 | 43.97719 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 879.540% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 1458290 | 86.95172 ppb | | 99 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 841432 | 84.37826 ppb | | 100 |
| 6) 1-Methylnaphthalene | 4.89 | 142 | 836950 | 81.71899 ppb | | 93 |
| 9) Acenaphthylene | 5.81 | 152 | 3029044 | 84.50567 ppb | | 99 |
| 10) Acenaphthene | 6.01 | 154 | 728333 | 73.31651 ppb | | 92 |
| 11) Fluorene | 6.62 | 166 | 977411 | 82.08923 ppb | | 98 |
| 13) Phenanthrene | 7.74 | 178 | 1281823 | 79.94928 ppb | | 99 |
| 14) Anthracene | 7.80 | 178 | 1233503 | 78.23844 ppb | | 99 |
| 16) Fluoranthene | 9.12 | 202 | 2109540 | 81.23134 ppb | # | 89 |
| 18) Pyrene | 9.38 | 202 | 2180307 | 87.28404 ppb | | 96 |
| 20) Benz (a) anthracene | 10.80 | 228 | 2005960 | 92.11857 ppb | | 98 |
| 21) Chrysene | 10.86 | 228 | 1765953 | 84.85838 ppb | # | 96 |
| 22) Indeno (1,2,3-cd) pyrene | 14.73 | 276 | 2046970 | 94.83293 ppb | # | 92 |
| 24) Benzo (b) fluoranthene | 12.52 | 252 | 1994752 | 95.70774 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.59 | 252 | 1848388 | 82.90143 ppb | # | 85 |
| 26) Benzo (a) pyrene | 13.11 | 252 | 1845710 | 90.39635 ppb | | 98 |
| 27) Dibenz (a,h) anthracene | 14.75 | 278 | 1624819 | 86.78209 ppb | | 100 |
| 28) Benzo (g,h,i) perylene | 15.08 | 276 | 1672824 | 88.18424 ppb | # | 87 |

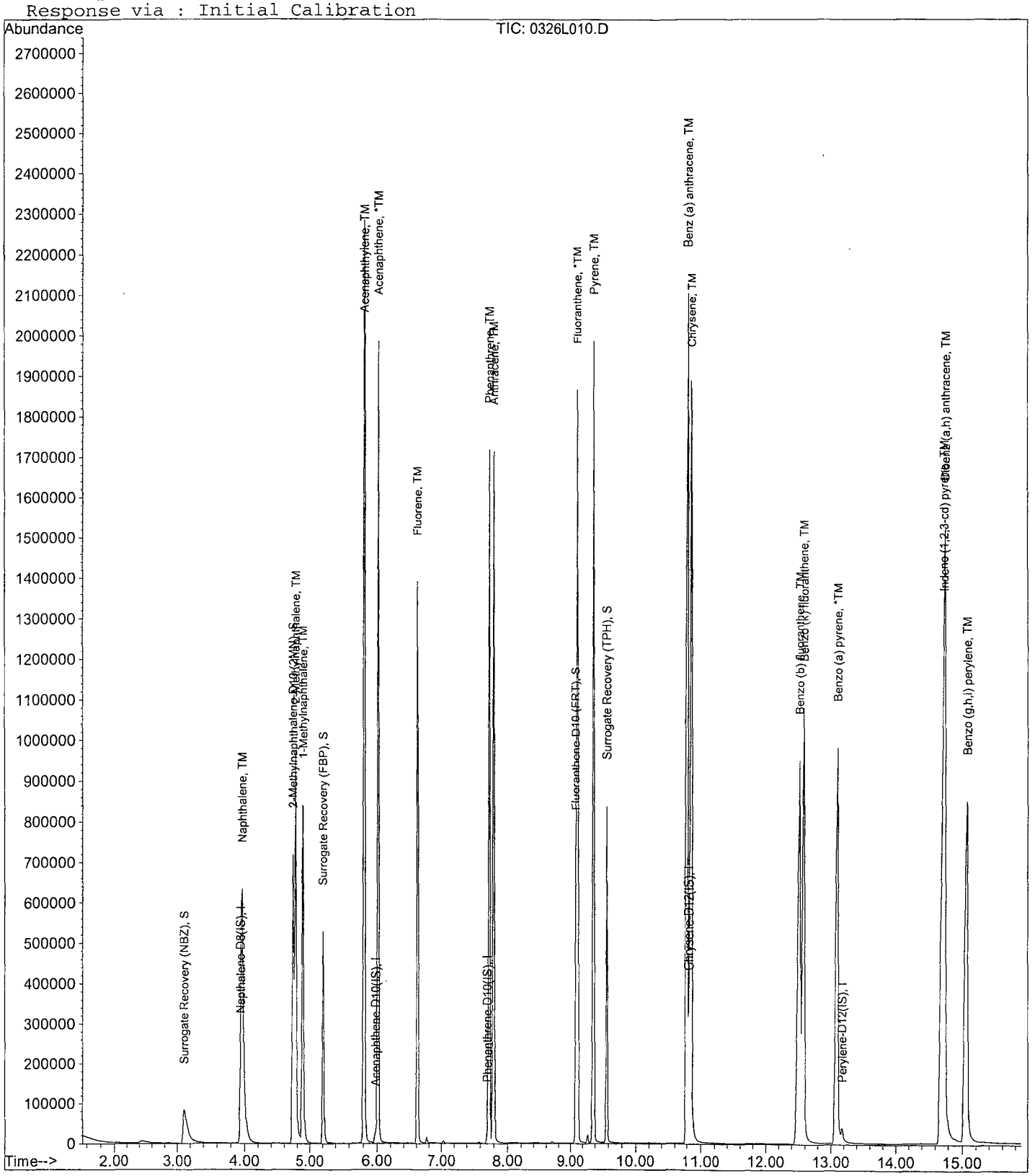
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L010.D Vial: 10
Acq On : 26 Mar 19 12:30 Operator: MA
Sample : 100 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 13:47 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L012.D Vial: 12
Acq On : 26 Mar 19 15:55 Operator: MA
Sample : 0.2 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 16:21 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 48893 | 2.50000 | ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 22990 | 2.50000 | ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 39076 | 2.50000 | ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 57596 | 2.50000 | ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 55456 | 2.50000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.16 | 82 | 768 | 0.08673 | ppb | | 0.04 |
| Spiked Amount 5.000 | | | Recovery = 1.740% | | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.76 | 152 | 2284 | 0.08927 | ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = 1.780% | | | | |
| 8) Surrogate Recovery (FBP) | 5.23 | 172 | 1525 | 0.08934 | ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = 1.780% | | | | |
| 15) Fluoranthene-D10 (FRT) | 9.10 | 212 | 2862 | 0.08813 | ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = 1.760% | | | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 1762 | 0.08457 | ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = 1.700% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 5503 | 0.21825 | ppb | | 98 |
| 5) 2-Methylnaphthalene | 4.78 | 142 | 2989 | 0.19863 | ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.89 | 142 | 3356 | 0.21862 | ppb | | 97 |
| 9) Acenaphthylene | 5.82 | 152 | 10502 | 0.19841 | ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 3004 | 0.20647 | ppb | | 96 |
| 11) Fluorene | 6.63 | 166 | 3457 | 0.19696 | ppb | | 96 |
| 13) Phenanthrene | 7.73 | 178 | 4828 | 0.20973 | ppb | | 97 |
| 14) Anthracene | 7.80 | 178 | 4438 | 0.19743 | ppb | | 98 |
| 16) Fluoranthene | 9.12 | 202 | 7726 | 0.20526 | ppb | # | 95 |
| 18) Pyrene | 9.38 | 202 | 7961 | 0.20588 | ppb | | 93 |
| 20) Benz (a) anthracene | 10.78 | 228 | 6119 | 0.18540 | ppb | | 97 |
| 21) Chrysene | 10.84 | 228 | 7299 | 0.22752 | ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.70 | 276 | 7062 | 0.17330 | ppb | # | 92 |
| 24) Benzo (b) fluoranthene | 12.51 | 252 | 5643 | 0.19039 | ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.55 | 252 | 6638 | 0.19712 | ppb | # | 84 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 6073 | 0.18974 | ppb | # | 94 |
| 27) Dibenz (a,h) anthracene | 14.72 | 278 | 5632 | 0.16786 | ppb | # | 91 |
| 28) Benzo (g,h,i) perylene | 15.05 | 276 | 5883 | 0.17144 | ppb | | 99 |

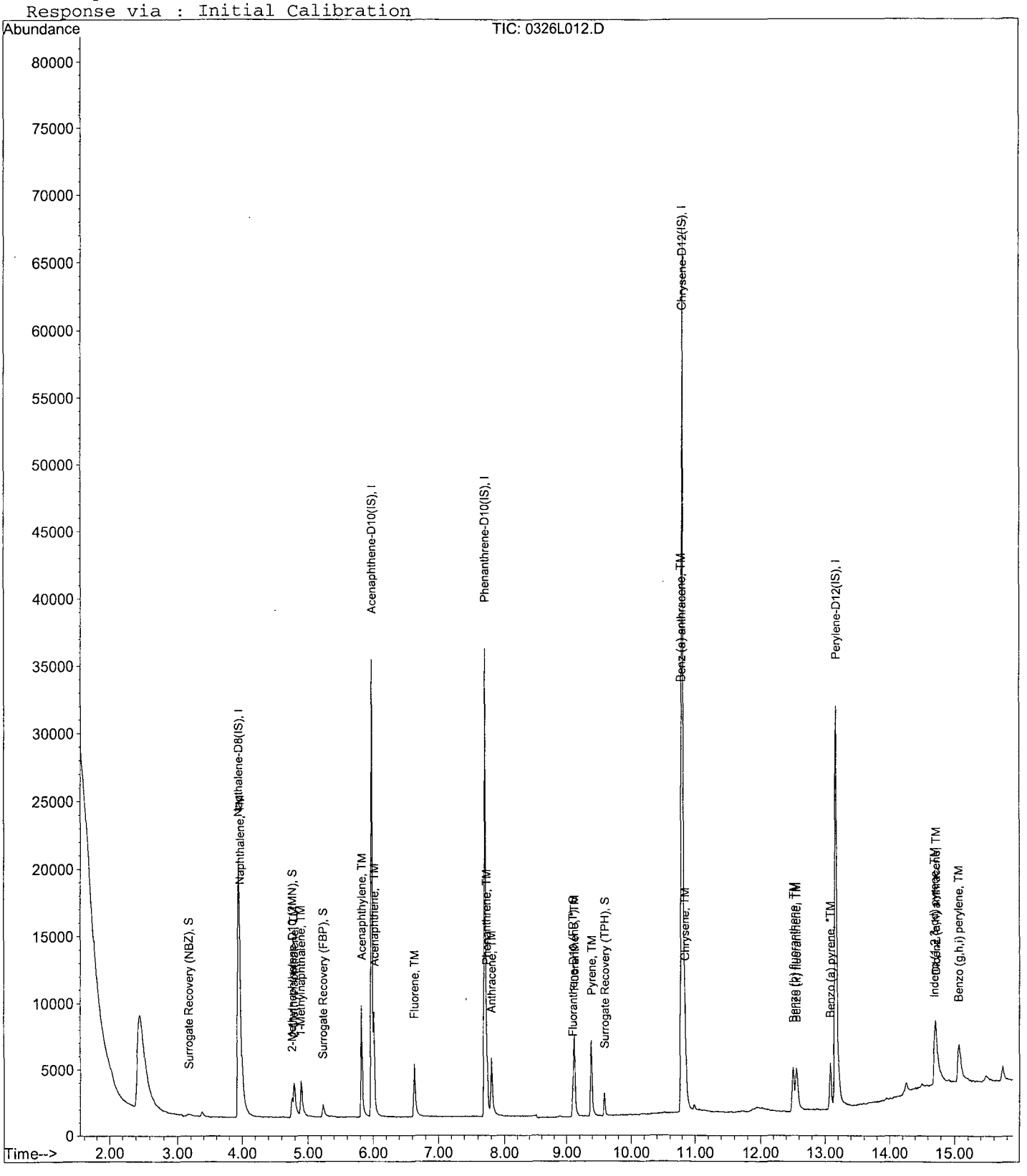
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L012.D Vial: 12
Acq On : 26 Mar 19 15:55 Operator: MA
Sample : 0.2 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 16:21 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L013.D Vial: 13
Acq On : 26 Mar 19 17:05 Operator: MA
Sample : 0.1 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 17:22 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.95 | 136 | 33055 | 2.50000 ppb | | 0.01 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 15242 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 26118 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 37102 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 35689 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.16 | 82 | 174 | 0.02974 ppb | | 0.04 |
| Spiked Amount 5.000 | | | Recovery = | 0.600% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.77 | 152 | 917 | 0.05892 ppb | | 0.04 |
| Spiked Amount 5.000 | | | Recovery = | 1.180% | | |
| 8) Surrogate Recovery (FBP) | 5.24 | 172 | 525 | 0.04808 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = | 0.960% | | |
| 15) Fluoranthene-D10 (FRT) | 9.11 | 212 | 993 | 0.05233 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = | 1.040% | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 603 | 0.04940 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = | 0.980% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.97 | 128 | 2021 | 0.12117 ppb | | 98 |
| 5) 2-Methylnaphthalene | 4.79 | 142 | 966 | 0.09635 ppb | | 93 |
| 6) 1-Methylnaphthalene | 4.90 | 142 | 1309 | 0.12868 ppb | | 97 |
| 9) Acenaphthylene | 5.83 | 152 | 3597 | 0.10503 ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 1094 | 0.11148 ppb | | 97 |
| 11) Fluorene | 6.64 | 166 | 1352 | 0.11705 ppb | | 98 |
| 13) Phenanthrene | 7.74 | 178 | 1679 | 0.11386 ppb | | 98 |
| 14) Anthracene | 7.81 | 178 | 1552 | 0.10652 ppb | | 99 |
| 16) Fluoranthene | 9.13 | 202 | 2650 | 0.11360 ppb | # | 94 |
| 18) Pyrene | 9.39 | 202 | 2818 | 0.12170 ppb | # | 94 |
| 20) Benz (a) anthracene | 10.79 | 228 | 2097 | 0.10234 ppb | | 97 |
| 21) Chrysene | 10.84 | 228 | 2513 | 0.12734 ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.73 | 276 | 2499 | 0.12209 ppb | # | 81 |
| 24) Benzo (b) fluoranthene | 12.52 | 252 | 1653 | 0.08620 ppb | | 97 |
| 25) Benzo (k) fluoranthene | 12.58 | 252 | 2393 | 0.12113 ppb | # | 82 |
| 26) Benzo (a) pyrene | 13.09 | 252 | 1774 | 0.09605 ppb | | 98 |
| 27) Dibenz (a,h) anthracene | 14.74 | 278 | 1986 | 0.11611 ppb | # | 91 |
| 28) Benzo (g,h,i) perylene | 15.09 | 276 | 2096 | 0.12108 ppb | | 92 |

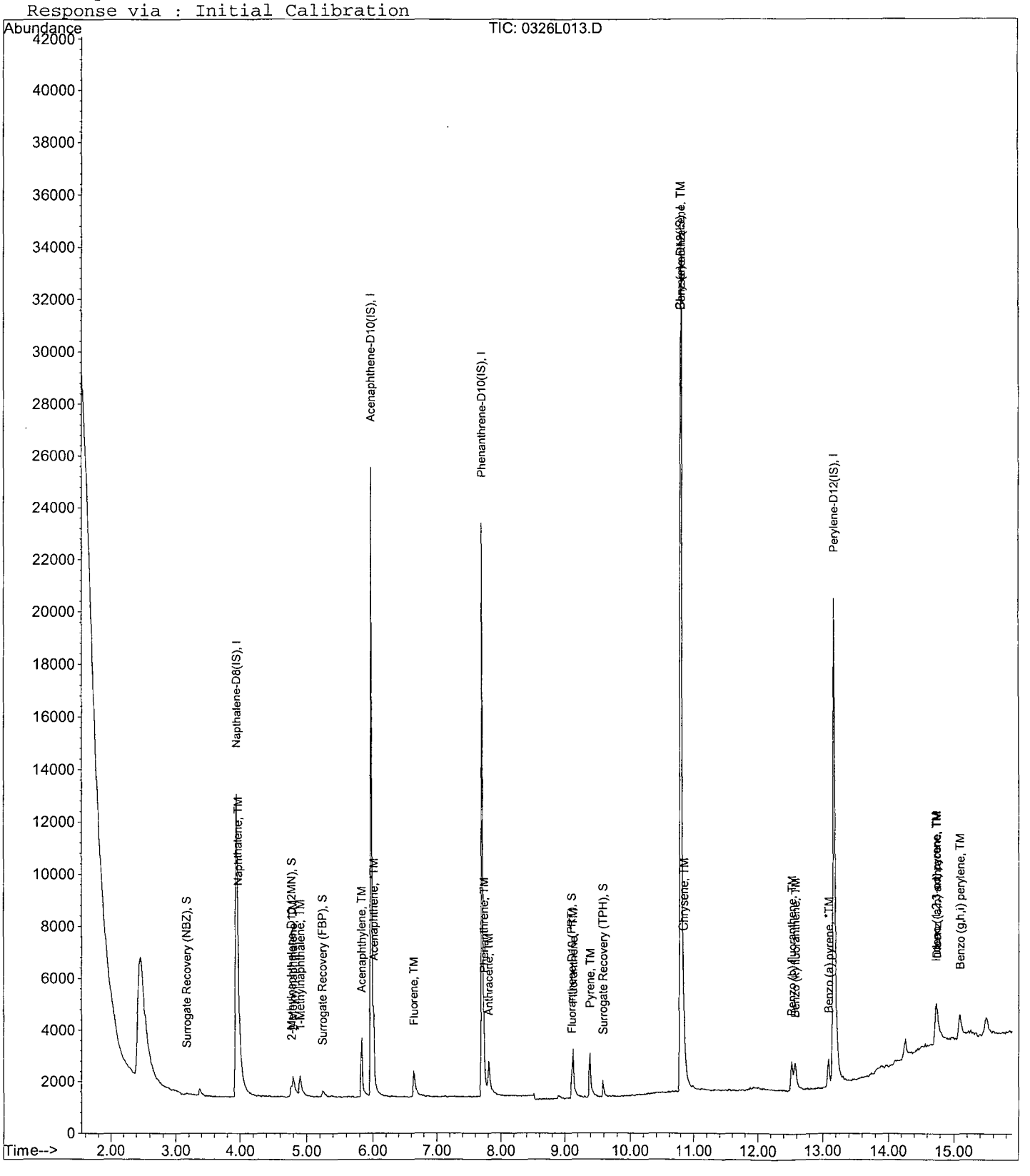
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L013.D Vial: 13
Acq On : 26 Mar 19 17:05 Operator: MA
Sample : 0.1 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 17:22 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 03/26/19
Instrument: Linus
Initial Cal. Date: 03/26/19
Data File: 0326L014.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | TM | Naphthalene | 1.314 | 1.344 | 2.3 | TM | |
| 2 | TM | 2-Methylnaphthalene | 0.7409 | 0.8066 | 8.9 | TM | |
| 3 | TM | 1-Methylnaphthalene | 0.8188 | 0.8287 | 1.2 | TM | |
| 4 | TM | Acenaphthylene | 5.655 | 5.927 | 4.8 | TM | |
| 5 | *TM | Acenaphthene | 1.491 | 1.500 | 0.63 | *TM | |
| 6 | TM | Fluorene | 1.867 | 1.894 | 1.4 | TM | |
| 7 | TM | Phenanthrene | 1.453 | 1.496 | 2.9 | TM | |
| 8 | TM | Anthracene | 1.396 | 1.451 | 4.0 | TM | |
| 9 | *TM | Fluoranthene | 2.417 | 2.498 | 3.4 | *TM | |
| 10 | TM | Pyrene | 1.692 | 1.717 | 1.5 | TM | |
| 11 | TM | Benz (a) anthracene | 1.385 | 1.403 | 1.3 | TM | |
| 12 | TM | Chrysene | 1.409 | 1.442 | 2.3 | TM | |
| 13 | TM | Indeno (1,2,3-cd) pyrene | 1.476 | 1.465 | 0.75 | TM | |
| 14 | TM | Benzo (b) fluoranthene | 1.293 | 1.413 | 9.3 | TM | |
| 15 | TM | Benzo (k) fluoranthene | 1.467 | 1.533 | 4.5 | TM | |
| 16 | *TM | Benzo (a) pyrene | 1.312 | 1.326 | 1.1 | *TM | |
| 17 | TM | Dibenz (a,h) anthracene | 1.222 | 1.285 | 5.1 | TM | |
| 18 | TM | Benzo (g,h,i) perylene | 1.254 | 1.309 | 4.4 | TM | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |
| 25 | | | | | | | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| | | Average | | | 3.3 | | |

PAH by GCMS SIM
EPA 8270 SIM

Form 7

Second Source Calibration

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L014.D Vial: 14
Acq On : 26 Mar 19 17:27 Operator: MA
Sample : SS SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 27 9:04 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 37593 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 17018 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 29145 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 42587 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 40320 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.15 | 82 | 89 | 0.01327 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery | = 0.260% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.74 | 152 | 61 | 0.00300 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery | = 0.060% | | |
| 8) Surrogate Recovery (FBP) | 5.26 | 172 | 21 | 0.00168 ppb | | 0.05 |
| Spiked Amount 5.000 | | | Recovery | = 0.040% | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 62 | 0.00249 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 0.040% | | |
| 19) Surrogate Recovery (TPH) | 9.60 | 244 | 51 | 0.00338 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery | = 0.060% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 101084 | 5.11703 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 60648 | 5.44385 ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 62305 | 5.06007 ppb | | 99 |
| 9) Acenaphthylene | 5.81 | 152 | 201720 | 5.24063 ppb | | 99 |
| 10) Acenaphthene | 6.01 | 154 | 51069 | 5.03134 ppb | | 100 |
| 11) Fluorene | 6.62 | 166 | 64459 | 5.07138 ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 87187 | 5.14639 ppb | | 100 |
| 14) Anthracene | 7.79 | 178 | 84584 | 5.19763 ppb | | 100 |
| 16) Fluoranthene | 9.11 | 202 | 145598 | 5.16794 ppb | | 98 |
| 18) Pyrene | 9.36 | 202 | 146253 | 5.07448 ppb | | 99 |
| 20) Benz (a) anthracene | 10.78 | 228 | 119541 | 5.06587 ppb | | 98 |
| 21) Chrysene | 10.83 | 228 | 122783 | 5.11679 ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.66 | 276 | 124805 | 4.96230 ppb | | 98 |
| 24) Benzo (b) fluoranthene | 12.47 | 252 | 113984 | 5.46678 ppb | # | 96 |
| 25) Benzo (k) fluoranthene | 12.52 | 252 | 123617 | 5.22426 ppb | # | 84 |
| 26) Benzo (a) pyrene | 13.05 | 252 | 106932 | 5.05468 ppb | # | 94 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 103583 | 5.25425 ppb | | 99 |
| 28) Benzo (g,h,i) perylene | 15.01 | 276 | 105592 | 5.22057 ppb | | 99 |

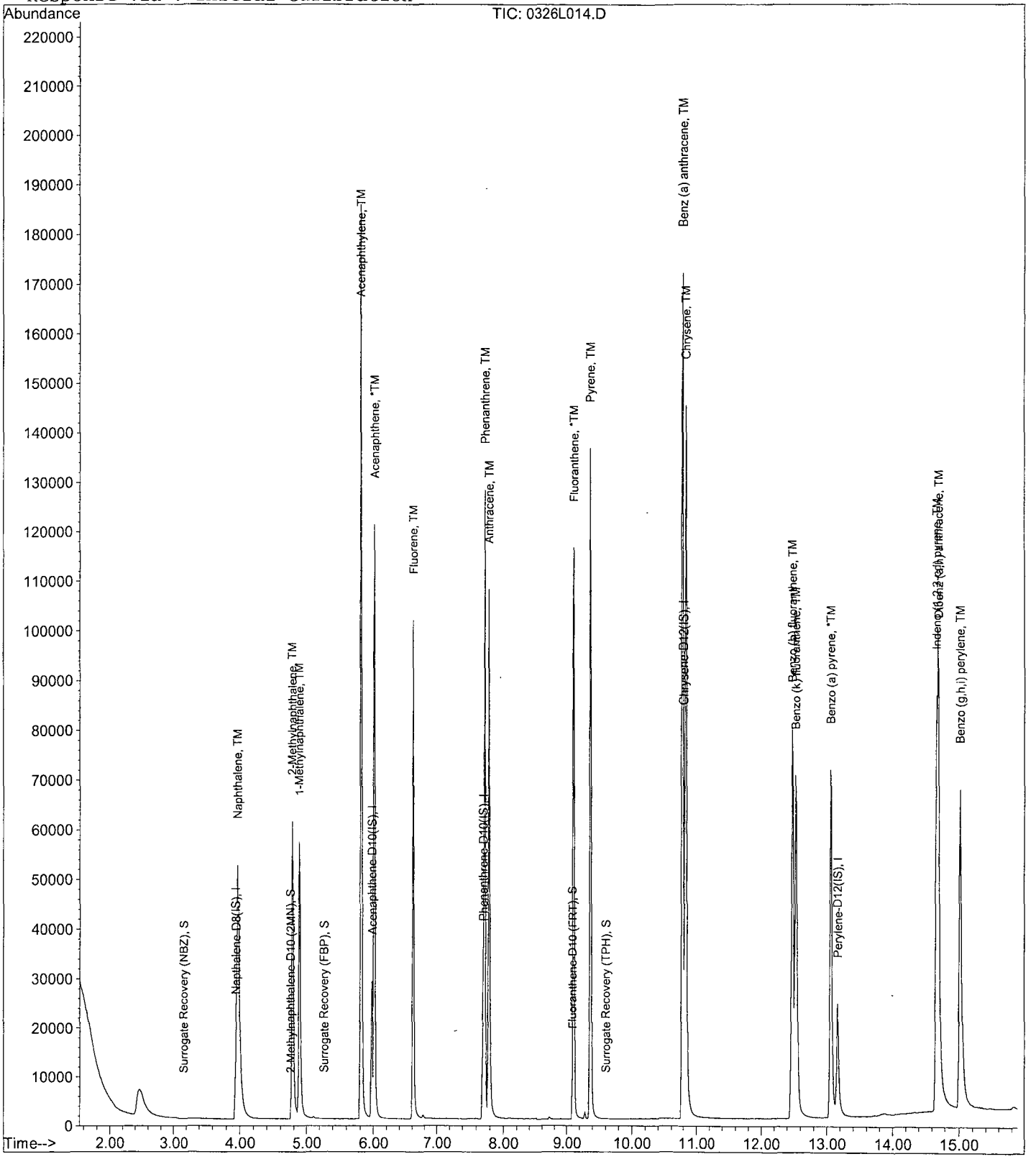
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L014.D Vial: 14
Acq On : 26 Mar 19 17:27 Operator: MA
Sample : SS SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 27 9:04 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/26/19
Instrument: Linus
Initial Cal. Date: 03/26/19
Data File: 0426L003.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 1 | I | Napthalene-D8(IS) | ISTD | | | I | |
| 2 | S | Surrogate Recovery (NBZ) | 0.4460 | 0.4406 | 1.2 | S | |
| 3 | TM | Naphthalene | 1.314 | 1.225 | 6.8 | TM | |
| 4 | S | 2-Methylnaphthalene-D10 (2MN) | 1.354 | 1.236 | 8.7 | S | |
| 5 | TM | 2-Methylnaphthalene | 0.7409 | 0.6982 | 5.8 | TM | |
| 6 | TM | 1-Methylnaphthalene | 0.8188 | 0.7382 | 9.9 | TM | |
| 7 | I | Acenaphthene-D10(IS) | ISTD | | | I | |
| 8 | S | Surrogate Recovery (FBP) | 1.840 | 1.901 | 3.3 | S | |
| 9 | TM | Acenaphthylene | 5.655 | 5.185 | 8.3 | TM | |
| 10 | *TM | Acenaphthene | 1.491 | 1.502 | 0.70 | *TM | |
| 11 | TM | Fluorene | 1.867 | 1.903 | 1.9 | TM | |
| 12 | I | Phenanthrene-D10(IS) | ISTD | | | I | |
| 13 | TM | Phenanthrene | 1.453 | 1.435 | 1.3 | TM | |
| 14 | TM | Anthracene | 1.396 | 1.418 | 1.6 | TM | |
| 15 | S | Fluoranthene-D10 (FRT) | 2.138 | 2.150 | 0.56 | S | |
| 16 | *TM | Fluoranthene | 2.417 | 2.385 | 1.3 | *TM | |
| 17 | I | Chrysene-D12(IS) | ISTD | | | I | |
| 18 | TM | Pyrene | 1.692 | 1.666 | 1.5 | TM | |
| 19 | S | Surrogate Recovery (TPH) | 0.8859 | 0.8756 | 1.2 | S | |
| 20 | TM | Benz (a) anthracene | 1.385 | 1.360 | 1.8 | TM | |
| 21 | TM | Chrysene | 1.409 | 1.364 | 3.1 | TM | |
| 22 | TM | Indeno (1,2,3-cd) pyrene | 1.476 | 1.496 | 1.3 | TM | |
| 23 | I | Perylene-D12(IS) | ISTD | | | I | |
| 24 | TM | Benzo (b) fluoranthene | 1.293 | 1.245 | 3.7 | TM | |
| 25 | TM | Benzo (k) fluoranthene | 1.467 | 1.779 | 21 | TM | *NT |
| 26 | *TM | Benzo (a) pyrene | 1.312 | 1.322 | 0.80 | *TM | |
| 27 | TM | Dibenz (a,h) anthracene | 1.222 | 1.373 | 12 | TM | |
| 28 | TM | Benzo (g,h,i) perylene | 1.254 | 1.338 | 6.7 | TM | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 4.5 | | |

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L003.D Vial: 3
Acq On : 26 Apr 19 14:31 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 26 14:50 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 48849 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 20245 | 2.50000 ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 34785 | 2.50000 ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.78 | 240 | 49781 | 2.50000 ppb | | -0.01 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 44763 | 2.50000 ppb | | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.13 | 82 | 21522 | 2.46943 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 49.380% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 60391 | 2.28337 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 45.660% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 38480 | 2.58189 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 51.640% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 74783 | 2.51398 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 50.280% | | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 43590 | 2.47107 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 49.420% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 119673 | 4.66212 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 68212 | 4.71196 ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 72118 | 4.50743 ppb | | 94 |
| 9) Acenaphthylene | 5.81 | 152 | 209953 | 4.58508 ppb | | 100 |
| 10) Acenaphthene | 6.00 | 154 | 60800 | 5.03525 ppb | | 98 |
| 11) Fluorene | 6.60 | 166 | 77042 | 5.09519 ppb | | 93 |
| 13) Phenanthrene | 7.71 | 178 | 99832 | 4.93734 ppb | | 98 |
| 14) Anthracene | 7.79 | 178 | 98649 | 5.07904 ppb | | 99 |
| 16) Fluoranthene | 9.10 | 202 | 165920 | 4.93438 ppb | # | 89 |
| 18) Pyrene | 9.36 | 202 | 165882 | 4.92379 ppb | | 100 |
| 20) Benz (a) anthracene | 10.77 | 228 | 135401 | 4.90877 ppb | | 97 |
| 21) Chrysene | 10.82 | 228 | 135847 | 4.84309 ppb | # | 95 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 148900 | 5.06476 ppb | # | 82 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 111470 | 4.81556 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 159254 | 6.06231 ppb | | 99 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 118369 | 5.03994 ppb | # | 96 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 122926 | 5.61652 ppb | # | 93 |
| 28) Benzo (g,h,i) perylene | 15.03 | 276 | 119820 | 5.33602 ppb | | 96 |

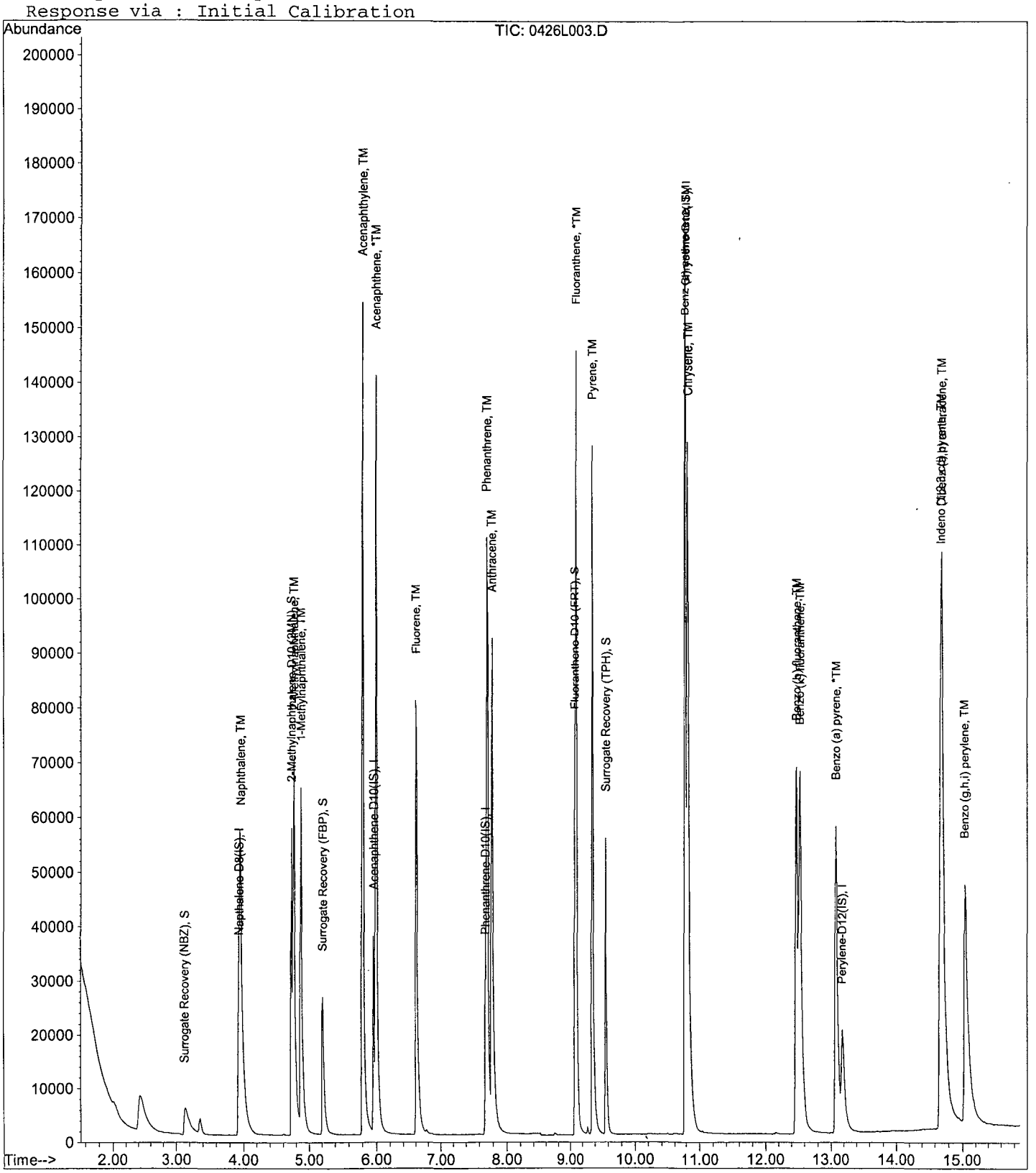
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L003.D Vial: 3
Acq On : 26 Apr 19 14:31 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 26 14:50 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

# Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/26/19
Instrument: Linus
Initial Cal. Date: 03/26/19
Data File: 0426L020.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | Napthalene-D8(IS) | ISTD | | | I | |
| 2 | S | Surrogate Recovery (NBZ) | 0.4460 | 0.4621 | 3.6 | S | |
| 3 | TM | Naphthalene | 1.314 | 1.435 | 9.3 | TM | |
| 4 | S | 2-Methylnaphthalene-D10 (2MN) | 1.354 | 1.218 | 10 | S | |
| 5 | TM | 2-Methylnaphthalene | 0.7409 | 0.8233 | 11 | TM | |
| 6 | TM | 1-Methylnaphthalene | 0.8188 | 0.8586 | 4.9 | TM | |
| 7 | I | Acenaphthene-D10(IS) | ISTD | | | I | |
| 8 | S | Surrogate Recovery (FBP) | 1.840 | 1.935 | 5.1 | S | |
| 9 | TM | Acenaphthylene | 5.655 | 6.783 | 20 | TM | |
| 10 | *TM | Acenaphthene | 1.491 | 1.740 | 17 | *TM | |
| 11 | TM | Fluorene | 1.867 | 2.174 | 16 | TM | |
| 12 | I | Phenanthrene-D10(IS) | ISTD | | | I | |
| 13 | TM | Phenanthrene | 1.453 | 1.679 | 16 | TM | |
| 14 | TM | Anthracene | 1.396 | 1.791 | 28 | TM | |
| 15 | S | Fluoranthene-D10 (FRT) | 2.138 | 2.323 | 8.6 | S | |
| 16 | *TM | Fluoranthene | 2.417 | 2.950 | 22 | *TM | |
| 17 | I | Chrysene-D12(IS) | ISTD | | | I | |
| 18 | TM | Pyrene | 1.692 | 1.874 | 11 | TM | |
| 19 | S | Surrogate Recovery (TPH) | 0.8859 | 0.8338 | 5.9 | S | |
| 20 | TM | Benz (a) anthracene | 1.385 | 1.439 | 3.9 | TM | |
| 21 | TM | Chrysene | 1.409 | 1.616 | 15 | TM | |
| 22 | TM | Indeno (1,2,3-cd) pyrene | 1.476 | 1.663 | 13 | TM | |
| 23 | I | Perylene-D12(IS) | ISTD | | | I | |
| 24 | TM | Benzo (b) fluoranthene | 1.293 | 1.311 | 1.4 | TM | |
| 25 | TM | Benzo (k) fluoranthene | 1.467 | 1.944 | 33 | TM | |
| 26 | *TM | Benzo (a) pyrene | 1.312 | 1.515 | 16 | *TM | |
| 27 | TM | Dibenz (a,h) anthracene | 1.222 | 1.455 | 19 | TM | |
| 28 | TM | Benzo (g,h,i) perylene | 1.254 | 1.408 | 12 | TM | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 13.1 | | |

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L020.D Vial: 20
Acq On : 26 Apr 19 21:43 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 29 8:46 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 50811 | 2.50000 | ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 20724 | 2.50000 | ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 34168 | 2.50000 | ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 53412 | 2.50000 | ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 50142 | 2.50000 | ppb | | 0.01 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.15 | 82 | 23480 | 2.59006 | ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery | = 51.800% | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 61864 | 2.24875 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 44.980% | | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 40094 | 2.62801 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 52.560% | | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 79363 | 2.71612 | ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 54.320% | | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 44533 | 2.35290 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 47.060% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 145856 | 5.46272 | ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 83669 | 5.55653 | ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 87257 | 5.24304 | ppb | | 97 |
| 9) Acenaphthylene | 5.81 | 152 | 281149 | 5.99799 | ppb | | 99 |
| 10) Acenaphthene | 6.00 | 154 | 72126 | 5.83517 | ppb | | 91 |
| 11) Fluorene | 6.62 | 166 | 90110 | 5.82170 | ppb | | 98 |
| 13) Phenanthrene | 7.73 | 178 | 114720 | 5.77610 | ppb | | 99 |
| 14) Anthracene | 7.79 | 178 | 122423 | 6.41689 | ppb | | 99 |
| 16) Fluoranthene | 9.10 | 202 | 201579 | 6.10311 | ppb | # | 84 |
| 18) Pyrene | 9.36 | 202 | 200163 | 5.53744 | ppb | | 96 |
| 20) Benz (a) anthracene | 10.78 | 228 | 153766 | 5.19560 | ppb | | 100 |
| 21) Chrysene | 10.83 | 228 | 172595 | 5.73490 | ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.69 | 276 | 177616 | 5.63081 | ppb | # | 83 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 131487 | 5.07095 | ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 194962 | 6.62545 | ppb | | 99 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 151959 | 5.77605 | ppb | # | 95 |
| 27) Dibenz (a,h) anthracene | 14.71 | 278 | 145864 | 5.94962 | ppb | | 95 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 141222 | 5.61446 | ppb | | 92 |

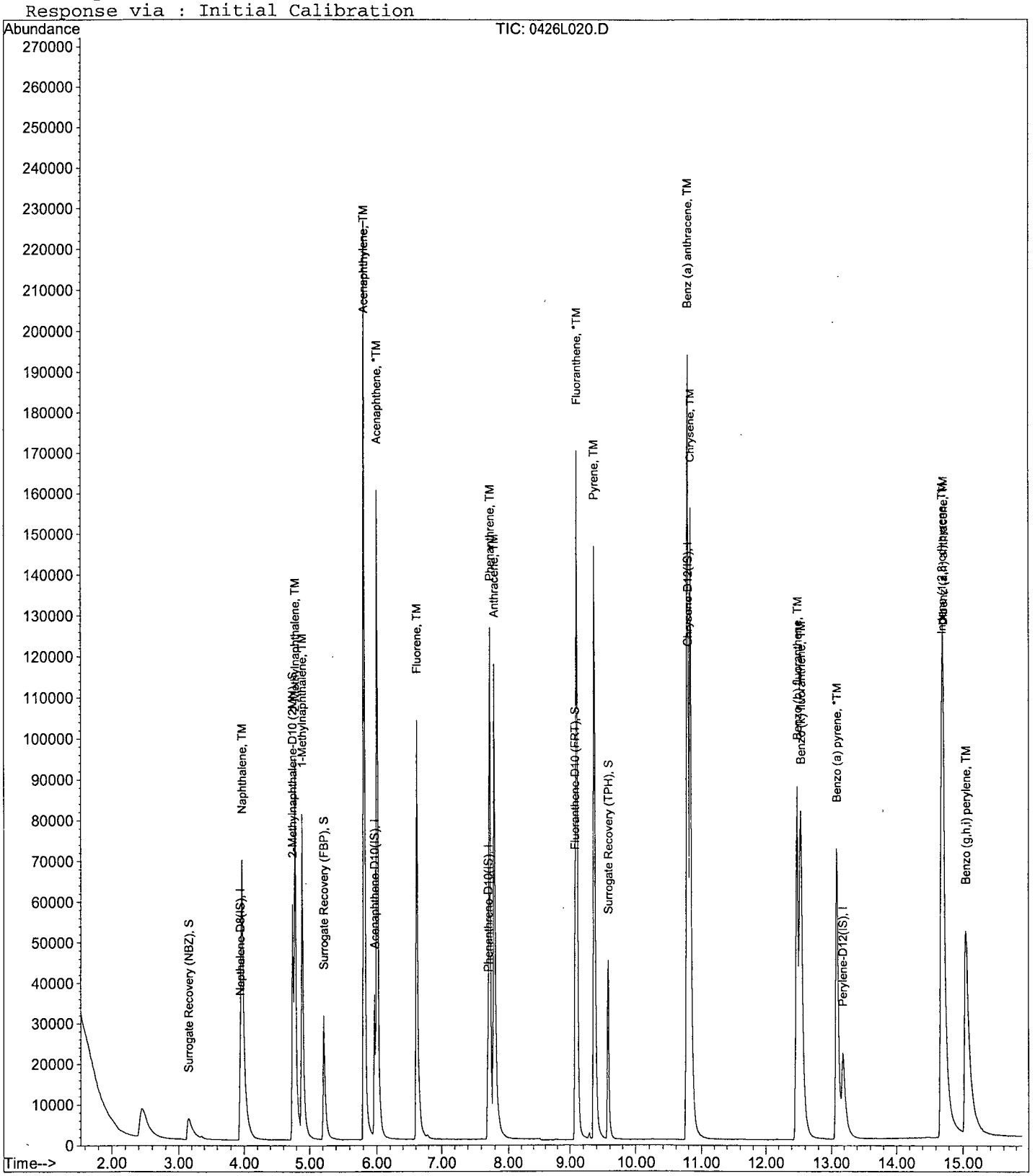
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L020.D Vial: 20
Acq On : 26 Apr 19 21:43 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 29 8:46 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/30/19
Instrument: Linus
Initial Cal. Date: 03/26/19
Data File: 0426L022.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | Napthalene-D8(IS) | ISTD | | | I | |
| 2 | S | Surrogate Recovery (NBZ) | 0.4460 | 0.4647 | 4.2 | S | |
| 3 | TM | Naphthalene | 1.314 | 1.223 | 6.9 | TM | |
| 4 | S | 2-Methylnaphthalene-D10 (2MN) | 1.354 | 1.285 | 5.1 | S | |
| 5 | TM | 2-Methylnaphthalene | 0.7409 | 0.6993 | 5.6 | TM | |
| 6 | TM | 1-Methylnaphthalene | 0.8188 | 0.7439 | 9.2 | TM | |
| 7 | I | Acenaphthene-D10(IS) | ISTD | | | I | |
| 8 | S | Surrogate Recovery (FBP) | 1.840 | 2.114 | 15 | S | |
| 9 | TM | Acenaphthylene | 5.655 | 6.242 | 10 | TM | |
| 10 | *TM | Acenaphthene | 1.491 | 1.576 | 5.7 | *TM | |
| 11 | TM | Fluorene | 1.867 | 1.924 | 3.0 | TM | |
| 12 | I | Phenanthrene-D10(IS) | ISTD | | | I | |
| 13 | TM | Phenanthrene | 1.453 | 1.493 | 2.8 | TM | |
| 14 | TM | Anthracene | 1.396 | 1.528 | 9.4 | TM | |
| 15 | S | Fluoranthene-D10 (FRT) | 2.138 | 2.393 | 12 | S | |
| 16 | *TM | Fluoranthene | 2.417 | 2.526 | 4.5 | *TM | |
| 17 | I | Chrysene-D12(IS) | ISTD | | | I | |
| 18 | TM | Pyrene | 1.692 | 1.670 | 1.3 | TM | |
| 19 | S | Surrogate Recovery (TPH) | 0.8859 | 0.8958 | 1.1 | S | |
| 20 | TM | Benz (a) anthracene | 1.385 | 1.315 | 5.1 | TM | |
| 21 | TM | Chrysene | 1.409 | 1.379 | 2.1 | TM | |
| 22 | TM | Indeno (1,2,3-cd) pyrene | 1.476 | 1.447 | 2.0 | TM | |
| 23 | I | Perylene-D12(IS) | ISTD | | | I | |
| 24 | TM | Benzo (b) fluoranthene | 1.293 | 1.233 | 4.6 | TM | |
| 25 | TM | Benzo (k) fluoranthene | 1.467 | 1.707 | 16 | TM | |
| 26 | *TM | Benzo (a) pyrene | 1.312 | 1.325 | 1.0 | *TM | |
| 27 | TM | Dibenz (a,h) anthracene | 1.222 | 1.298 | 6.2 | TM | |
| 28 | TM | Benzo (g,h,i) perylene | 1.254 | 1.267 | 1.0 | TM | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 5.8 | | |

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L022.D Vial: 22
Acq On : 30 Apr 19 10:57 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 30 11:38 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 53936 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 20646 | 2.50000 ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 35467 | 2.50000 ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.78 | 240 | 53547 | 2.50000 ppb | | -0.01 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 48683 | 2.50000 ppb | | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.14 | 82 | 25063 | 2.60450 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = 52.100% | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 69316 | 2.37364 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 47.480% | | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 43651 | 2.87196 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 57.440% | | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 84890 | 2.79887 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery = 55.980% | | | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 47966 | 2.52790 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery = 50.560% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 131976 | 4.65649 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 75431 | 4.71919 ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 80244 | 4.54229 ppb | | 97 |
| 9) Acenaphthylene | 5.81 | 152 | 257727 | 5.51908 ppb | | 100 |
| 10) Acenaphthene | 6.00 | 154 | 65071 | 5.28429 ppb | | 96 |
| 11) Fluorene | 6.62 | 166 | 79437 | 5.15155 ppb | | 98 |
| 13) Phenanthrene | 7.71 | 178 | 105928 | 5.13808 ppb | | 97 |
| 14) Anthracene | 7.79 | 178 | 108373 | 5.47240 ppb | | 99 |
| 16) Fluoranthene | 9.10 | 202 | 179159 | 5.22565 ppb | # | 84 |
| 18) Pyrene | 9.36 | 202 | 178856 | 4.93551 ppb | | 98 |
| 20) Benz (a) anthracene | 10.77 | 228 | 140824 | 4.74631 ppb | | 97 |
| 21) Chrysene | 10.83 | 228 | 147706 | 4.89552 ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.67 | 276 | 154972 | 4.90056 ppb | # | 76 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 120074 | 4.76958 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.52 | 252 | 166225 | 5.81817 ppb | | 97 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 129048 | 5.05220 ppb | # | 96 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 126357 | 5.30841 ppb | # | 90 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 123386 | 5.05238 ppb | | 97 |

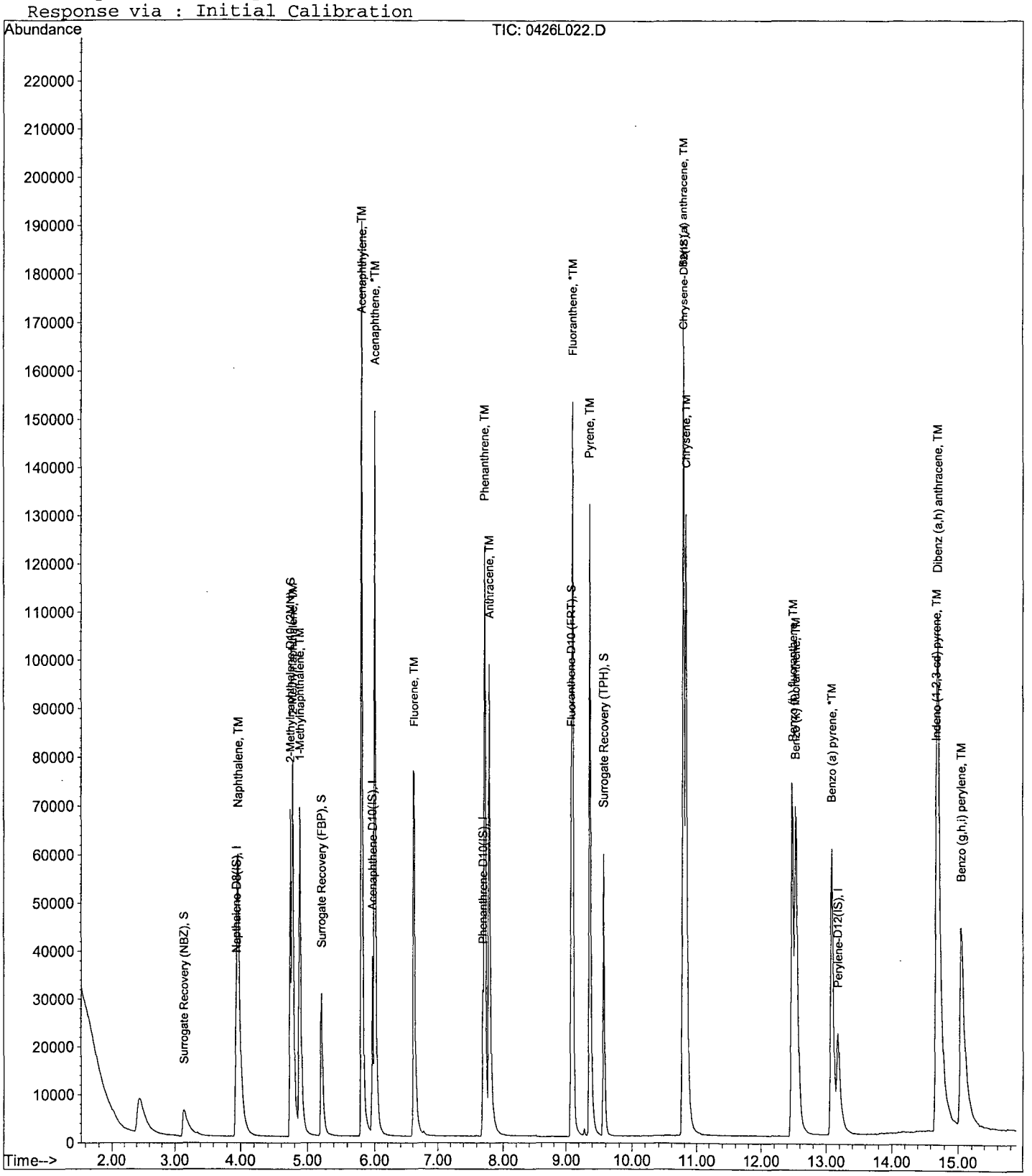
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L022.D Vial: 22
Acq On : 30 Apr 19 10:57 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 30 11:38 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

## Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 04/30/19
Matrix: Instrument: Linus
Initial Cal. Date: 03/26/19
Data File: 0426L028.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | Napthalene-D8(IS) | ISTD | | | I | |
| 2 | S | Surrogate Recovery (NBZ) | 0.4460 | 0.4365 | 2.1 | S | |
| 3 | TM | Naphthalene | 1.314 | 1.444 | 9.9 | TM | |
| 4 | S | 2-Methylnaphthalene-D10 (2MN) | 1.354 | 1.190 | 12 | S | |
| 5 | TM | 2-Methylnaphthalene | 0.7409 | 0.7744 | 4.5 | TM | |
| 6 | TM | 1-Methylnaphthalene | 0.8188 | 0.8208 | 0.24 | TM | |
| 7 | I | Acenaphthene-D10(IS) | ISTD | | | I | |
| 8 | S | Surrogate Recovery (FBP) | 1.840 | 1.969 | 7.0 | S | |
| 9 | TM | Acenaphthylene | 5.655 | 6.908 | 22 | TM | |
| 10 | *TM | Acenaphthene | 1.491 | 1.777 | 19 | *TM | |
| 11 | TM | Fluorene | 1.867 | 2.209 | 18 | TM | |
| 12 | I | Phenanthrene-D10(IS) | ISTD | | | I | |
| 13 | TM | Phenanthrene | 1.453 | 1.693 | 17 | TM | |
| 14 | TM | Anthracene | 1.396 | 1.744 | 25 | TM | |
| 15 | S | Fluoranthene-D10 (FRT) | 2.138 | 2.148 | 0.47 | S | |
| 16 | *TM | Fluoranthene | 2.417 | 2.798 | 16 | *TM | |
| 17 | I | Chrysene-D12(IS) | ISTD | | | I | |
| 18 | TM | Pyrene | 1.692 | 2.042 | 21 | TM | |
| 19 | S | Surrogate Recovery (TPH) | 0.8859 | 0.8766 | 1.0 | S | |
| 20 | TM | Benz (a) anthracene | 1.385 | 1.503 | 8.5 | TM | |
| 21 | TM | Chrysene | 1.409 | 1.579 | 12 | TM | |
| 22 | TM | Indeno (1,2,3-cd) pyrene | 1.476 | 1.701 | 15 | TM | |
| 23 | I | Perylene-D12(IS) | ISTD | | | I | |
| 24 | TM | Benzo (b) fluoranthene | 1.293 | 1.430 | 11 | TM | |
| 25 | TM | Benzo (k) fluoranthene | 1.467 | 1.897 | 29 | TM | |
| 26 | *TM | Benzo (a) pyrene | 1.312 | 1.535 | 17 | *TM | |
| 27 | TM | Dibenz (a,h) anthracene | 1.222 | 1.461 | 20 | TM | |
| 28 | TM | Benzo (g,h,i) perylene | 1.254 | 1.425 | 14 | TM | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 13.1 | | |

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L028.D Vial: 28
Acq On : 30 Apr 19 16:35 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 1 8:57 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 57622 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 22676 | 2.50000 ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 37749 | 2.50000 ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.78 | 240 | 54658 | 2.50000 ppb | | -0.01 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 52173 | 2.50000 ppb | | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.15 | 82 | 25154 | 2.44675 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery | = 48.940% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 68593 | 2.19863 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 43.980% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 44639 | 2.67404 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 53.480% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 81080 | 2.51165 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 50.240% | | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 47915 | 2.47388 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 49.480% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 166364 | 5.49432 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 89240 | 5.22598 ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 94590 | 5.01184 ppb | | 97 |
| 9) Acenaphthylene | 5.81 | 152 | 313290 | 6.10834 ppb | | 99 |
| 10) Acenaphthene | 6.00 | 154 | 80587 | 5.95845 ppb | | 94 |
| 11) Fluorene | 6.62 | 166 | 100182 | 5.91526 ppb | | 98 |
| 13) Phenanthrene | 7.73 | 178 | 127841 | 5.82612 ppb | | 99 |
| 14) Anthracene | 7.79 | 178 | 131675 | 6.24711 ppb | | 100 |
| 16) Fluoranthene | 9.10 | 202 | 211254 | 5.78929 ppb | # | 84 |
| 18) Pyrene | 9.36 | 202 | 223236 | 6.03496 ppb | | 99 |
| 20) Benz (a) anthracene | 10.77 | 228 | 164270 | 5.42399 ppb | | 98 |
| 21) Chrysene | 10.82 | 228 | 172569 | 5.60332 ppb | # | 96 |
| 22) Indeno (1,2,3-cd) pyrene | 14.67 | 276 | 185905 | 5.75924 ppb | # | 83 |
| 24) Benzo (b) fluoranthene | 12.47 | 252 | 149165 | 5.52878 ppb | | 97 |
| 25) Benzo (k) fluoranthene | 12.52 | 252 | 197930 | 6.46447 ppb | | 98 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 160152 | 5.85050 ppb | # | 95 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 152436 | 5.97564 ppb | # | 92 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 148740 | 5.68316 ppb | | 97 |

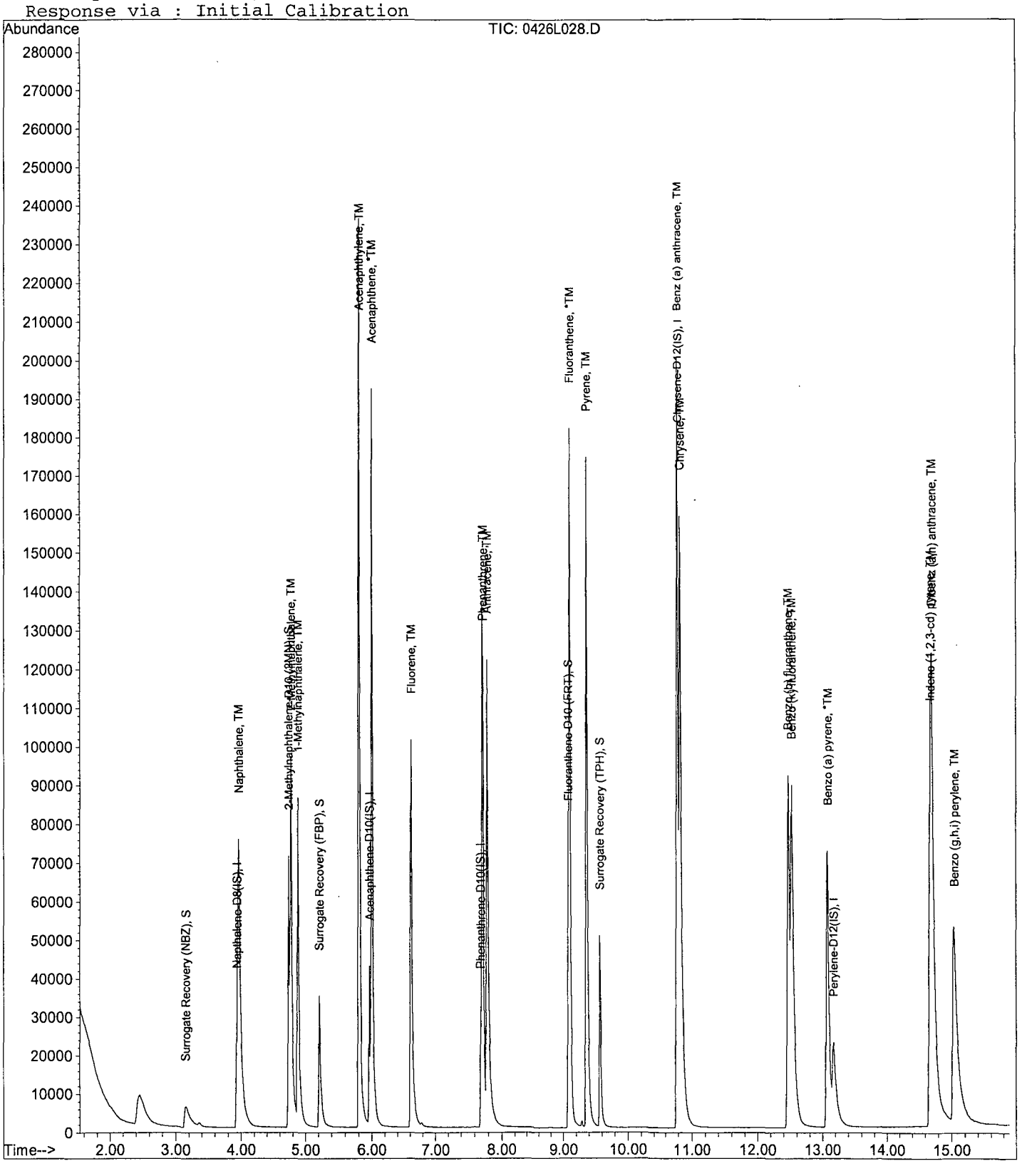
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L028.D Vial: 28
Acq On : 30 Apr 19 16:35 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 1 8:57 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



# ORGANICS
# Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L007.D Vial: 7
Acq On : 26 Apr 19 16:52 Operator: MA
Sample : AZ89958W30 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:17 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.92 | 136 | 58370 | 2.50000 ppb | -0.01 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 25961 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 47827 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.80 | 240 | 70314 | 2.50000 ppb | 0.01 |
| 23) Perylene-D12(IS) | 13.18 | 264 | 70202 | 2.50000 ppb | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 725842 | 87.12296 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1393.968% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 113610 | 4.49363 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 71.904% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1130960 | 73.97010 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1183.520% | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 151772 | 4.63852 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 74.224% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1306043 | 65.52192 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1048.352% | |

Target Compounds Qvalue

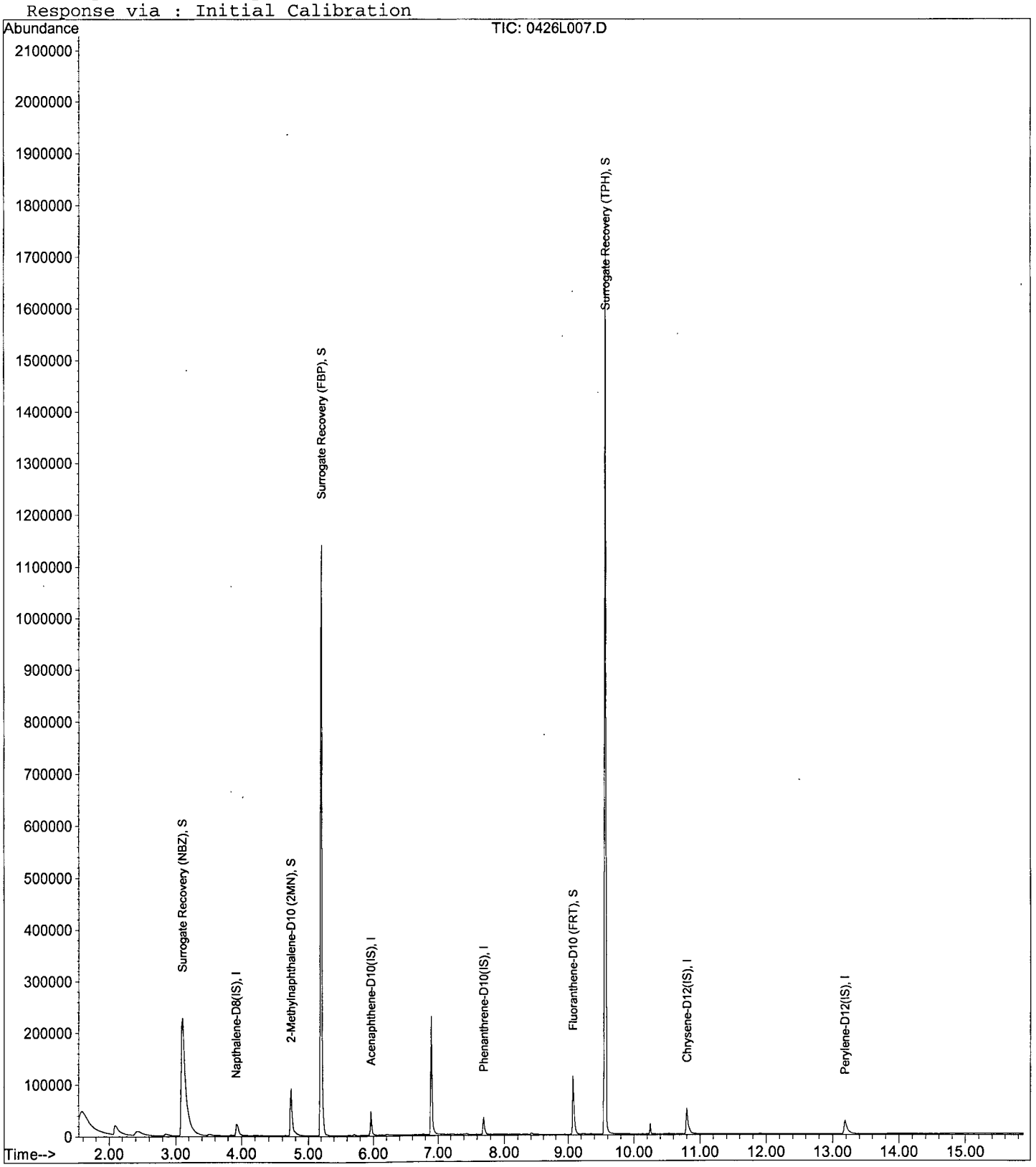
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L007.D Vial: 7
Acq On : 26 Apr 19 16:52 Operator: MA
Sample : AZ89958W30 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:17 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L011.D Vial: 11
Acq On : 26 Apr 19 18:21 Operator: MA
Sample : AZ89961W14 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:18 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 47171 | 2.50000 ppb | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 20307 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 38282 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.80 | 240 | 56190 | 2.50000 ppb | 0.01 |
| 23) Perylene-D12(IS) | 13.20 | 264 | 55428 | 2.50000 ppb | 0.03 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 760248 | 112.91729 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1806.672% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 115721 | 5.66379 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 90.624% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1173890 | 98.15491 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1570.480% | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 147494 | 5.63171 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 90.112% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1375873 | 86.37544 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1382.000% | |

Target Compounds Qvalue

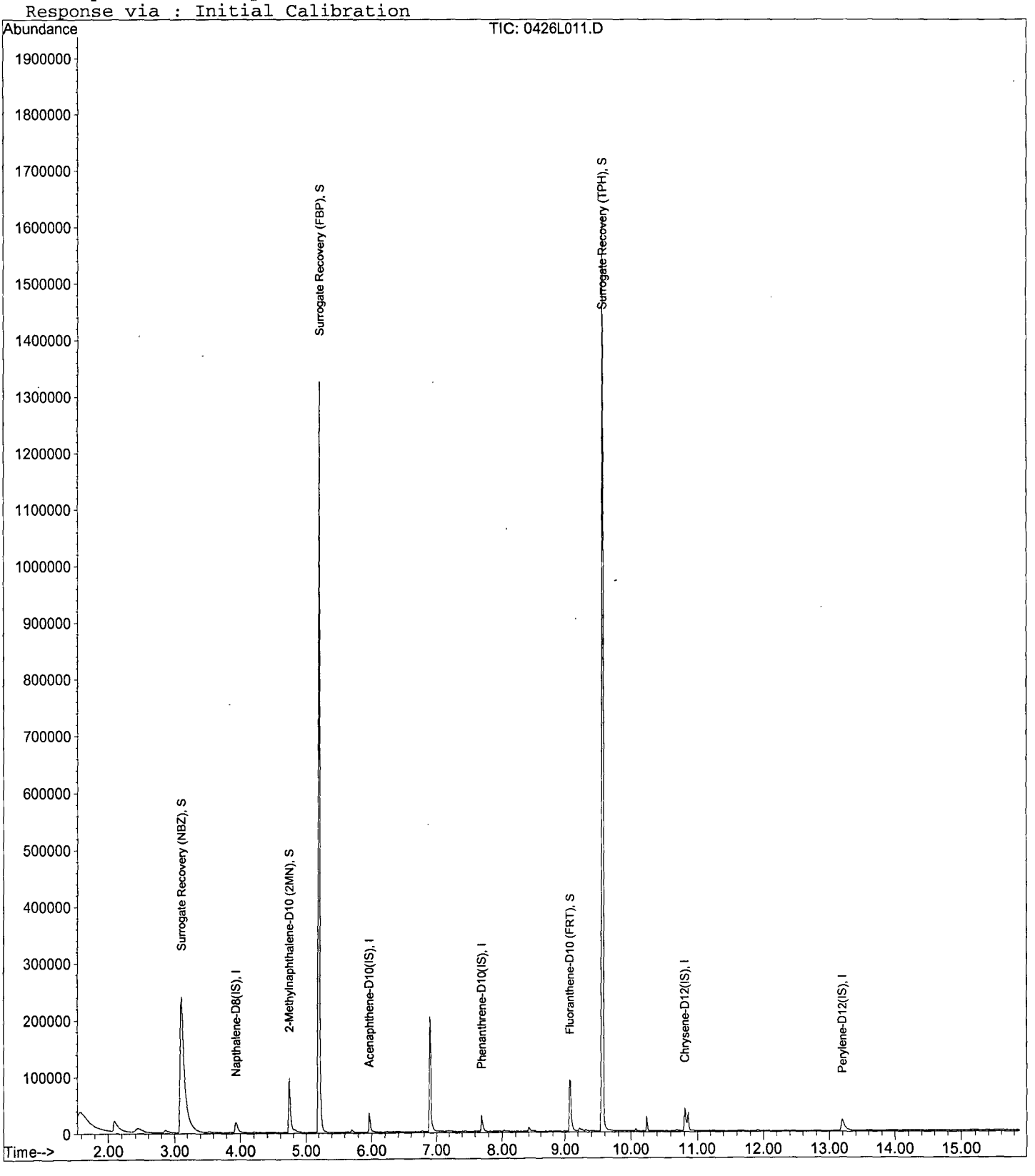
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L011.D Vial: 11
Acq On : 26 Apr 19 18:21 Operator: MA
Sample : AZ89961W14 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:18 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L023.D Vial: 23
Acq On : 30 Apr 19 11:19 Operator: MA
Sample : AZ89959W07 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 11:40 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 49061 | 2.50000 ppb | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 20970 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 35160 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.82 | 240 | 49151 | 2.50000 ppb | 0.02 |
| 23) Perylene-D12(IS) | 13.20 | 264 | 49682 | 2.50000 ppb | 0.03 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 740751 | 105.78305 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1692.528% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 110335 | 5.19215 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 83.072% | |
| 8) Surrogate Recovery (FBP) | 5.19 | 172 | 1089194 | 88.19363 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1411.104% | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 145474 | 6.04780 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 96.768% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1237153 | 88.78958 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1420.640% | |

Target Compounds Qvalue

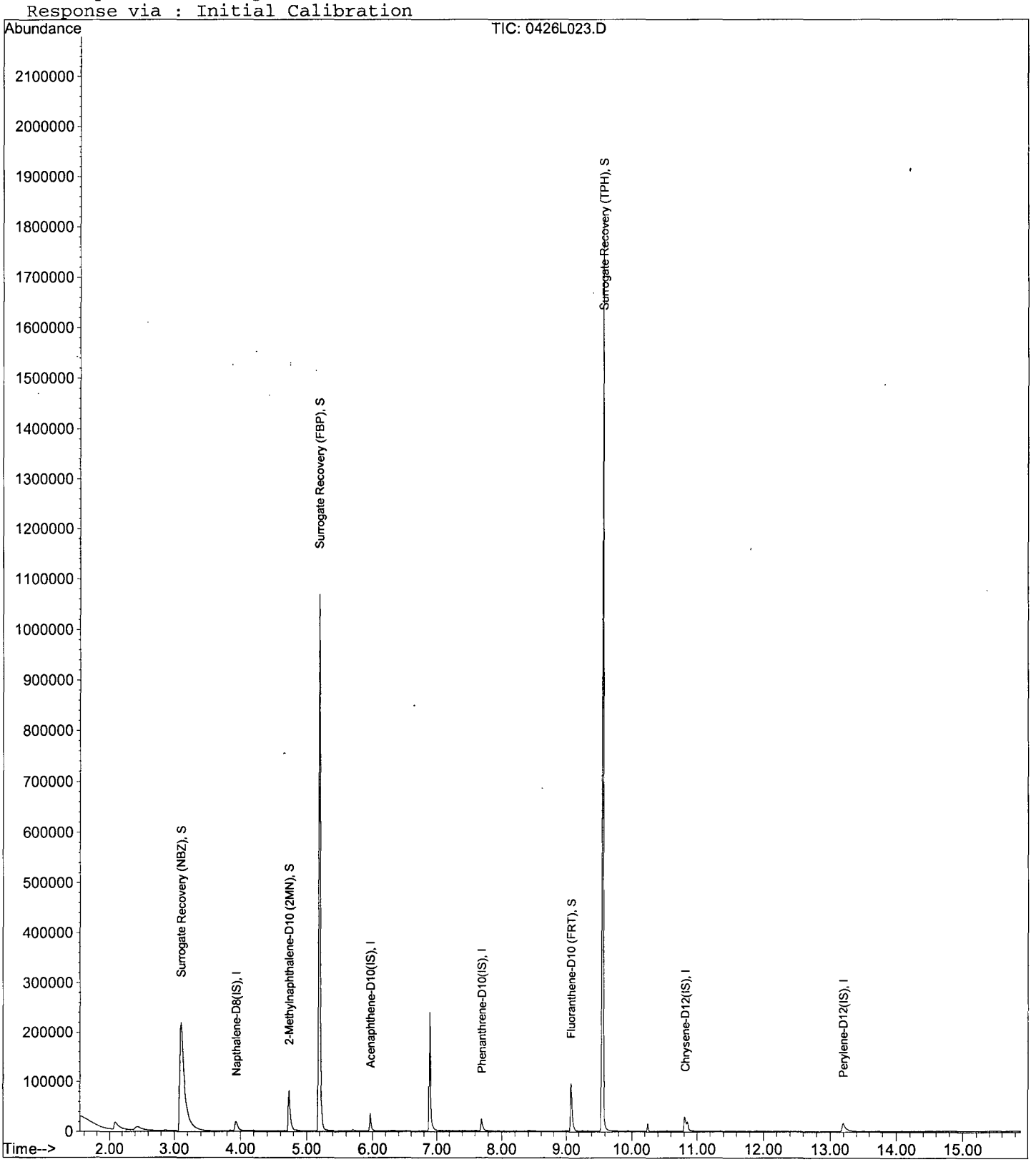
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L023.D Vial: 23
Acq On : 30 Apr 19 11:19 Operator: MA
Sample : AZ89959W07 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 11:40 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L004.D Vial: 4
Acq On : 26 Apr 19 15:45 Operator: MA
Sample : 190424A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:17 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.92 | 136 | 61581 | 2.50000 ppb | -0.01 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 27671 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 51116 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.80 | 240 | 74152 | 2.50000 ppb | 0.01 |
| 23) Perylene-D12(IS) | 13.18 | 264 | 72779 | 2.50000 ppb | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.09 | 82 | 725628 | 82.55579 ppb | -0.04 |
| Spiked Amount 6.250 | | | Recovery | = 1320.896% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 114213 | 4.28193 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 68.512% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1109405 | 68.07626 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1089.216% | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 149516 | 4.27555 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 68.416% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1299739 | 61.83071 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 989.296% | |

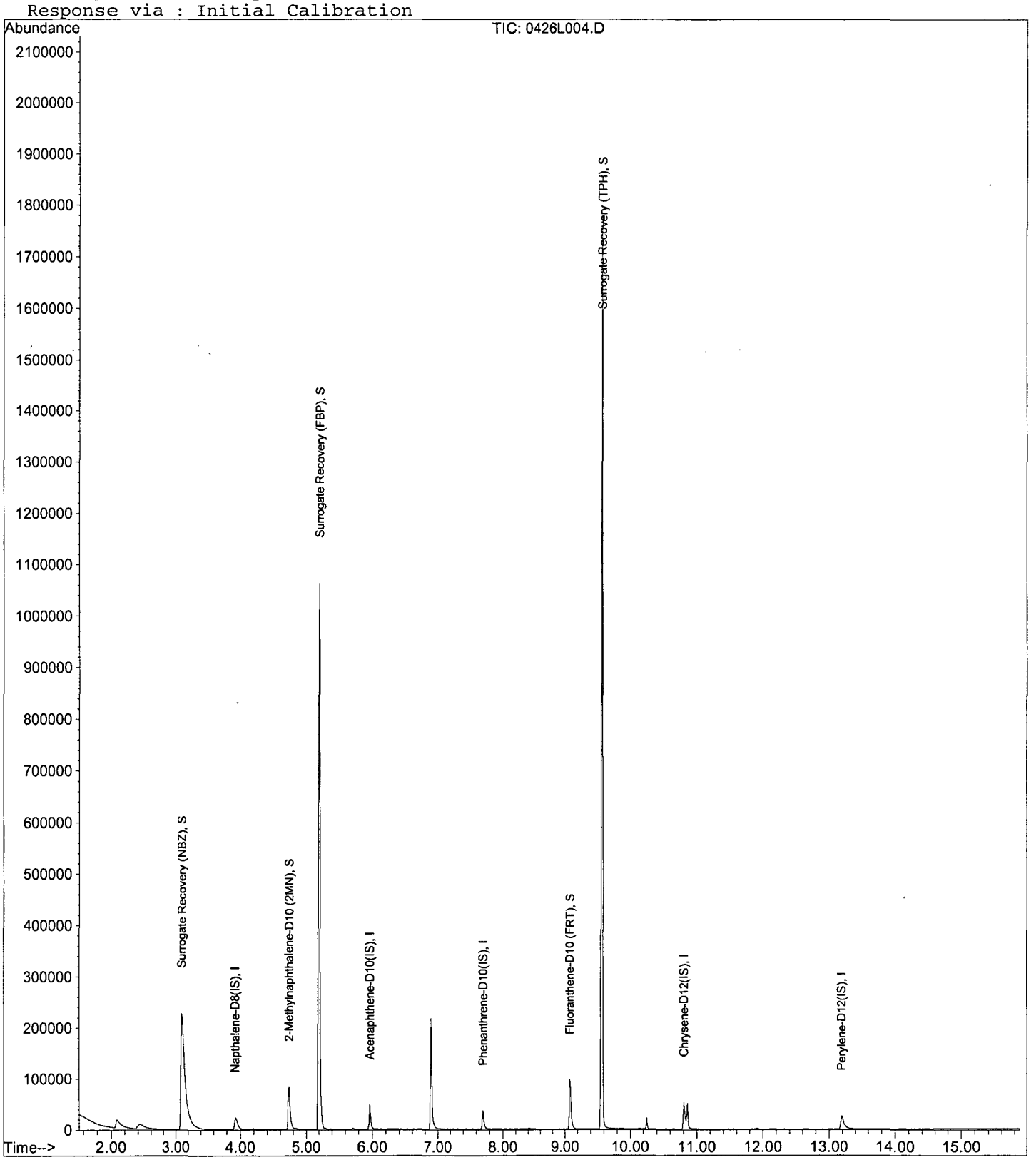
Target Compounds Qvalue

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

Data File : M:\LINUS\DATA\L190426\0426L004.D Vial: 4
Acq On : 26 Apr 19 15:45 Operator: MA
Sample : 190424A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:17 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L005.D Vial: 5
Acq On : 26 Apr 19 16:07 Operator: MA
Sample : 190424A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.92 | 136 | 61600 | 2.50000 | ppb | | -0.01 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 26296 | 2.50000 | ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 49643 | 2.50000 | ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.78 | 240 | 71987 | 2.50000 | ppb | | -0.01 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 68680 | 2.50000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 0.00 | 82 | 0 | 0.00000 | ppb | | |
| Spiked Amount 6.250 | | | Recovery | = | 0.000% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 114360 | 4.28611 | ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = | 68.576% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 68 | 0.00439 | ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = | 0.064% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 154945 | 4.56226 | ppb | | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = | 72.992% | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 427 | 0.02092 | ppb | | 0.01 |
| Spiked Amount 6.250 | | | Recovery | = | 0.336% | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.95 | 128 | 119158 | 4.60145 | ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 70469 | 4.82530 | ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 70028 | 4.33852 | ppb | | 95 |
| 9) Acenaphthylene | 5.81 | 152 | 236354 | 4.96736 | ppb | | 99 |
| 10) Acenaphthene | 6.00 | 154 | 62571 | 4.98687 | ppb | | 100 |
| 11) Fluorene | 6.60 | 166 | 81645 | 5.19638 | ppb | | 97 |
| 13) Phenanthrene | 7.71 | 178 | 107061 | 4.63765 | ppb | | 98 |
| 14) Anthracene | 7.79 | 178 | 100226 | 4.51974 | ppb | | 100 |
| 16) Fluoranthene | 9.10 | 202 | 172578 | 4.49535 | ppb | # | 91 |
| 18) Pyrene | 9.36 | 202 | 178576 | 4.58187 | ppb | | 95 |
| 20) Benz (a) anthracene | 10.77 | 228 | 133526 | 4.18443 | ppb | | 98 |
| 21) Chrysene | 10.82 | 228 | 153531 | 4.73138 | ppb | # | 97 |
| 22) Indeno (1,2,3-cd) pyrene | 14.67 | 276 | 157926 | 4.64341 | ppb | # | 82 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 124752 | 4.39072 | ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.52 | 252 | 162449 | 5.03807 | ppb | | 98 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 125100 | 4.33954 | ppb | | 97 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 130275 | 4.84935 | ppb | # | 92 |
| 28) Benzo (g,h,i) perylene | 15.03 | 276 | 128476 | 4.66133 | ppb | | 95 |

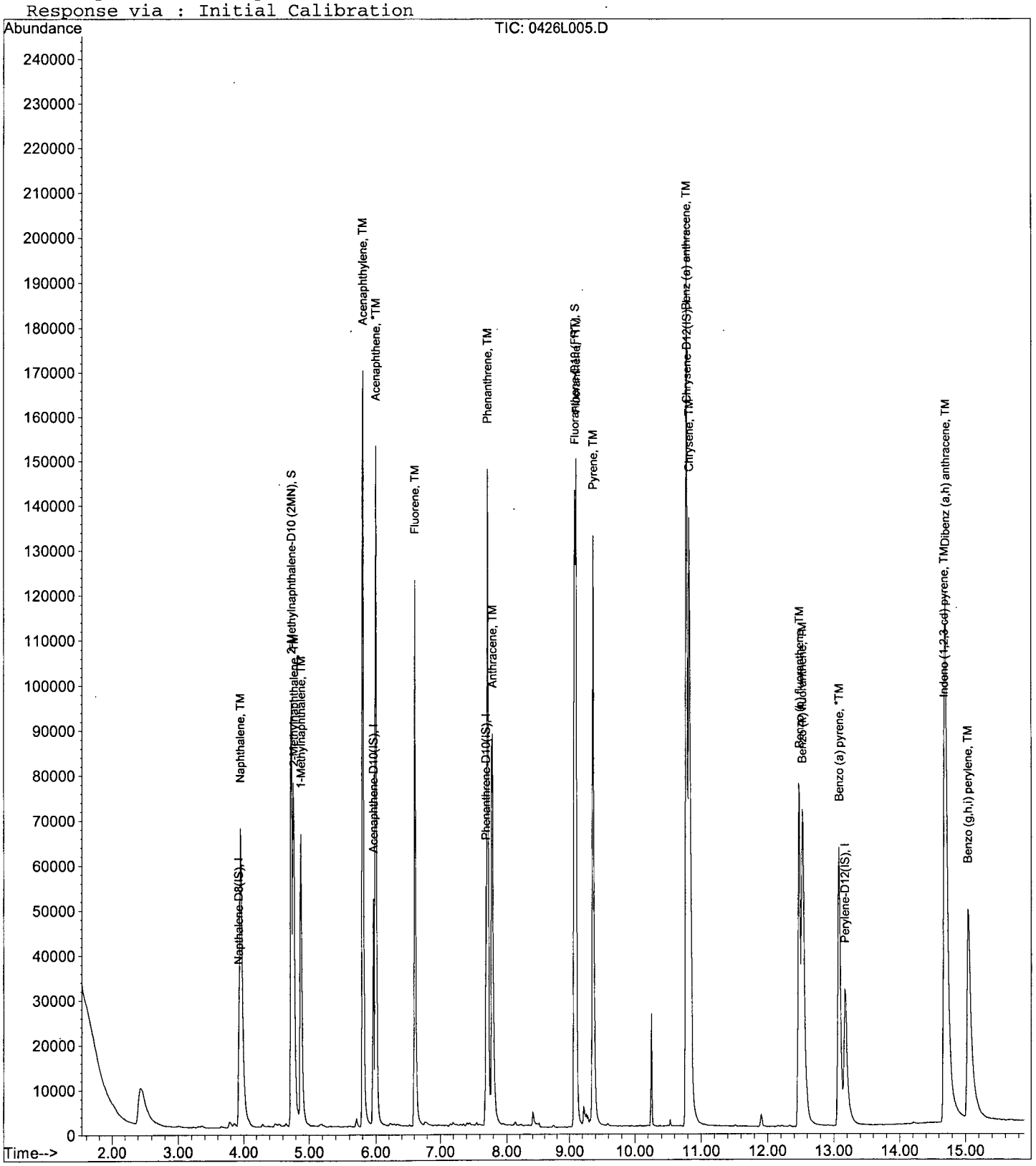
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L005.D Vial: 5
Acq On : 26 Apr 19 16:07 Operator: MA
Sample : 190424A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L006.D Vial: 6
Acq On : 26 Apr 19 16:29 Operator: MA
Sample : 190424A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 61904 | 2.50000 | ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 27133 | 2.50000 | ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 50790 | 2.50000 | ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.78 | 240 | 73769 | 2.50000 | ppb | | -0.01 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 73093 | 2.50000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 0.00 | 82 | 0 | 0.00000 | ppb | | |
| Spiked Amount 6.250 | | | Recovery | = | 0.000% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 115101 | 4.29270 | ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = | 68.688% | | |
| 8) Surrogate Recovery (FBP) | 5.23 | 172 | 61 | 0.00382 | ppb | | 0.01 |
| Spiked Amount 6.250 | | | Recovery | = | 0.064% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 156005 | 4.48974 | ppb | | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = | 71.840% | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 265 | 0.01267 | ppb | | 0.01 |
| Spiked Amount 6.250 | | | Recovery | = | 0.208% | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 119326 | 4.58531 | ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 70567 | 4.80828 | ppb | | 97 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 70112 | 4.32239 | ppb | | 97 |
| 9) Acenaphthylene | 5.81 | 152 | 236980 | 4.82688 | ppb | | 99 |
| 10) Acenaphthene | 6.00 | 154 | 62873 | 4.85637 | ppb | | 100 |
| 11) Fluorene | 6.60 | 166 | 83195 | 5.13169 | ppb | | 96 |
| 13) Phenanthrene | 7.71 | 178 | 105658 | 4.47352 | ppb | | 98 |
| 14) Anthracene | 7.79 | 178 | 100191 | 4.41613 | ppb | | 100 |
| 16) Fluoranthene | 9.10 | 202 | 174429 | 4.44095 | ppb | # | 92 |
| 18) Pyrene | 9.36 | 202 | 175430 | 4.39242 | ppb | | 98 |
| 20) Benz (a) anthracene | 10.77 | 228 | 132176 | 4.04206 | ppb | | 98 |
| 21) Chrysene | 10.82 | 228 | 152369 | 4.58215 | ppb | | 97 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 156504 | 4.49045 | ppb | # | 81 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 122959 | 4.06633 | ppb | | 98 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 163967 | 4.77813 | ppb | | 99 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 126932 | 4.13725 | ppb | | 97 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 129586 | 4.53247 | ppb | # | 93 |
| 28) Benzo (g,h,i) perylene | 15.03 | 276 | 127250 | 4.33810 | ppb | | 95 |

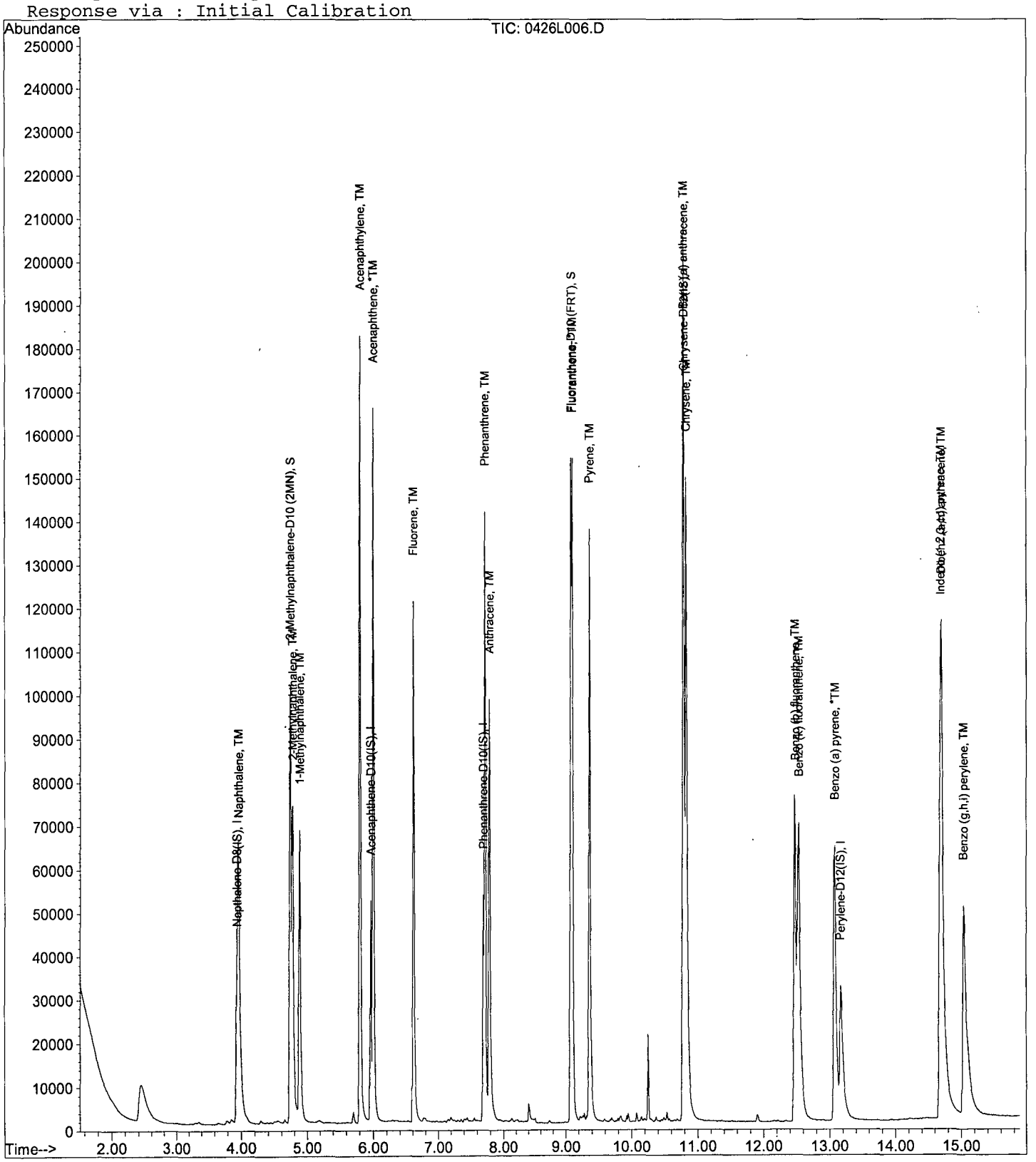
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L006.D Vial: 6
Acq On : 26 Apr 19 16:29 Operator: MA
Sample : 190424A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L008.D Vial: 8
Acq On : 26 Apr 19 17:14 Operator: MA
Sample : AZ89958W33 MS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 62418 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 26764 | 2.50000 ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 50768 | 2.50000 ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.78 | 240 | 72806 | 2.50000 ppb | | -0.01 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 69971 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.14 | 82 | 101 | 0.01134 ppb | | 0.01 |
| Spiked Amount 6.250 | | | Recovery | = 0.176% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 112555 | 4.16318 ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 66.608% | | |
| 8) Surrogate Recovery (FBP) | 5.23 | 172 | 109 | 0.00692 ppb | | 0.01 |
| Spiked Amount 6.250 | | | Recovery | = 0.112% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 154307 | 4.44280 ppb | | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 71.088% | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 535 | 0.02592 ppb | | 0.01 |
| Spiked Amount 6.250 | | | Recovery | = 0.416% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 115172 | 4.38924 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 67532 | 4.56359 ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 68177 | 4.16849 ppb | | 96 |
| 9) Acenaphthylene | 5.81 | 152 | 225401 | 4.65433 ppb | | 99 |
| 10) Acenaphthene | 6.00 | 154 | 60442 | 4.73296 ppb | | 99 |
| 11) Fluorene | 6.60 | 166 | 80183 | 5.01409 ppb | | 94 |
| 13) Phenanthrene | 7.71 | 178 | 103406 | 4.38007 ppb | | 98 |
| 14) Anthracene | 7.79 | 178 | 98817 | 4.35745 ppb | | 99 |
| 16) Fluoranthene | 9.10 | 202 | 173668 | 4.42349 ppb | # | 92 |
| 18) Pyrene | 9.36 | 202 | 176840 | 4.48629 ppb | | 96 |
| 20) Benz (a) anthracene | 10.77 | 228 | 132962 | 4.11988 ppb | | 98 |
| 21) Chrysene | 10.82 | 228 | 151095 | 4.60394 ppb | # | 96 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 156034 | 4.53618 ppb | # | 84 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 123538 | 4.26777 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.52 | 252 | 161208 | 4.90734 ppb | | 98 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 123726 | 4.21269 ppb | | 97 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 128132 | 4.68158 ppb | # | 94 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 126116 | 4.49128 ppb | | 99 |

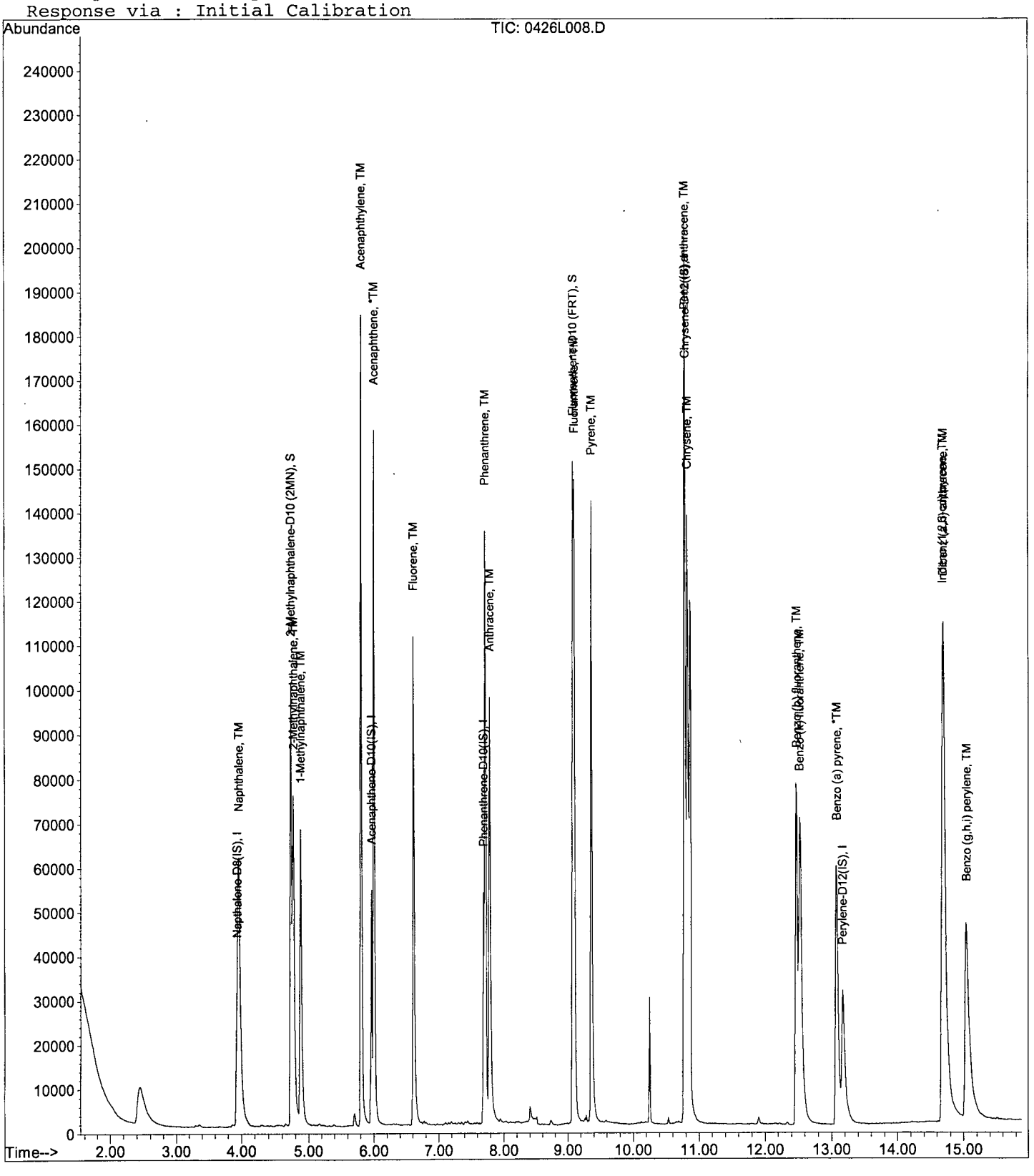
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L008.D Vial: 8
Acq On : 26 Apr 19 17:14 Operator: MA
Sample : AZ89958W33 MS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L009.D Vial: 9
Acq On : 26 Apr 19 17:36 Operator: MA
Sample : AZ89958W36 MSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 58680 | 2.50000 | ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 25083 | 2.50000 | ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 44186 | 2.50000 | ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.78 | 240 | 63853 | 2.50000 | ppb | | -0.01 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 60946 | 2.50000 | ppb | | 0.01 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 0.00 | 82 | 0 | 0.00000 | ppb | | |
| Spiked Amount 6.250 | | | Recovery | = | 0.000% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 115581 | 4.54744 | ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = | 72.752% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 164 | 0.01110 | ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = | 0.176% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 159128 | 5.26408 | ppb | | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = | 84.224% | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 872 | 0.04817 | ppb | | 0.01 |
| Spiked Amount 6.250 | | | Recovery | = | 0.768% | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 119860 | 4.85889 | ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 70206 | 5.04650 | ppb | | 97 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 69757 | 4.53679 | ppb | | 96 |
| 9) Acenaphthylene | 5.81 | 152 | 234612 | 5.16920 | ppb | | 99 |
| 10) Acenaphthene | 6.00 | 154 | 62462 | 5.21893 | ppb | | 99 |
| 11) Fluorene | 6.60 | 166 | 82920 | 5.53274 | ppb | | 96 |
| 13) Phenanthrene | 7.71 | 178 | 109195 | 5.31426 | ppb | | 98 |
| 14) Anthracene | 7.79 | 178 | 101585 | 5.14678 | ppb | | 99 |
| 16) Fluoranthene | 9.10 | 202 | 179048 | 5.23987 | ppb | # | 91 |
| 18) Pyrene | 9.36 | 202 | 182942 | 5.29183 | ppb | | 98 |
| 20) Benz (a) anthracene | 10.77 | 228 | 150204 | 5.30670 | ppb | | 98 |
| 21) Chrysene | 10.83 | 228 | 144709 | 5.02760 | ppb | | 100 |
| 22) Indeno (1,2,3-cd) pyrene | 14.67 | 276 | 161695 | 5.35986 | ppb | # | 84 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 127158 | 5.04332 | ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.52 | 252 | 169600 | 5.92731 | ppb | | 99 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 128249 | 5.01332 | ppb | # | 96 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 133475 | 5.59896 | ppb | # | 90 |
| 28) Benzo (g,h,i) perylene | 15.03 | 276 | 131205 | 5.36442 | ppb | | 95 |

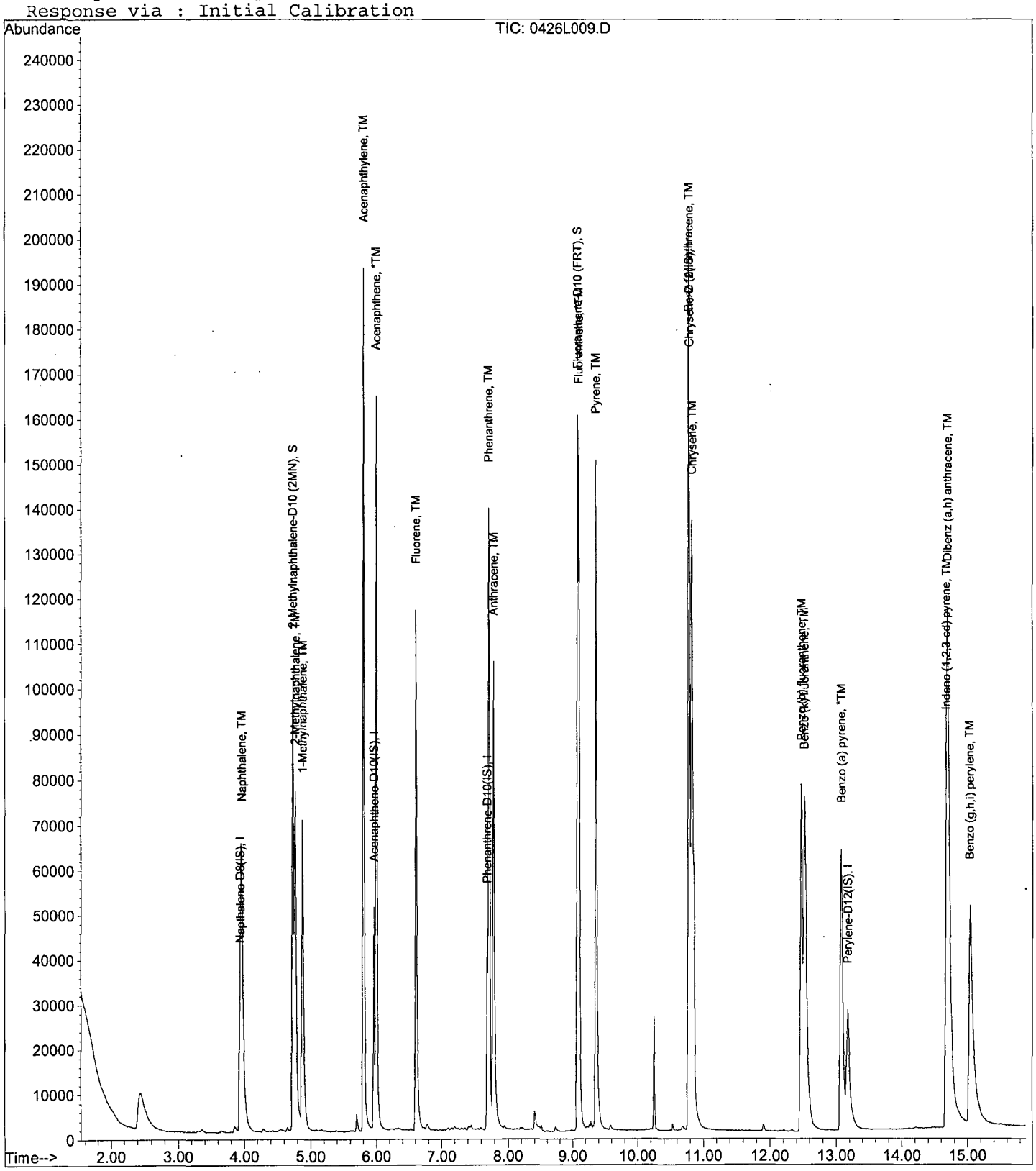
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L009.D Vial: 9
Acq On : 26 Apr 19 17:36 Operator: MA
Sample : AZ89958W36 MSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

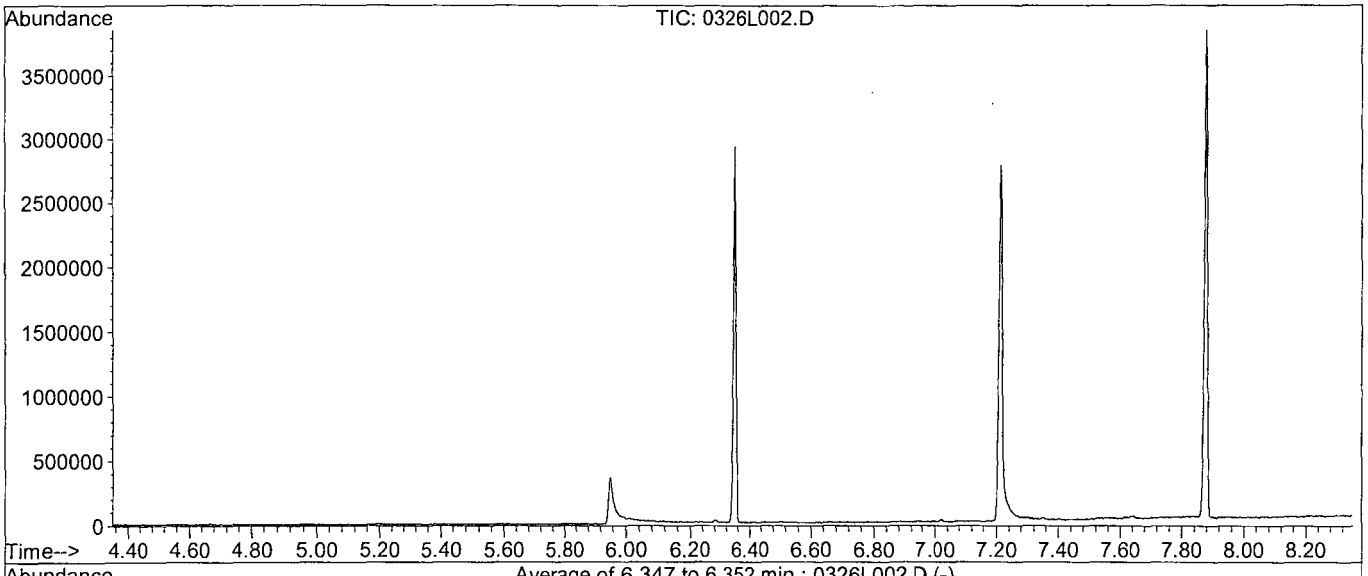
Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

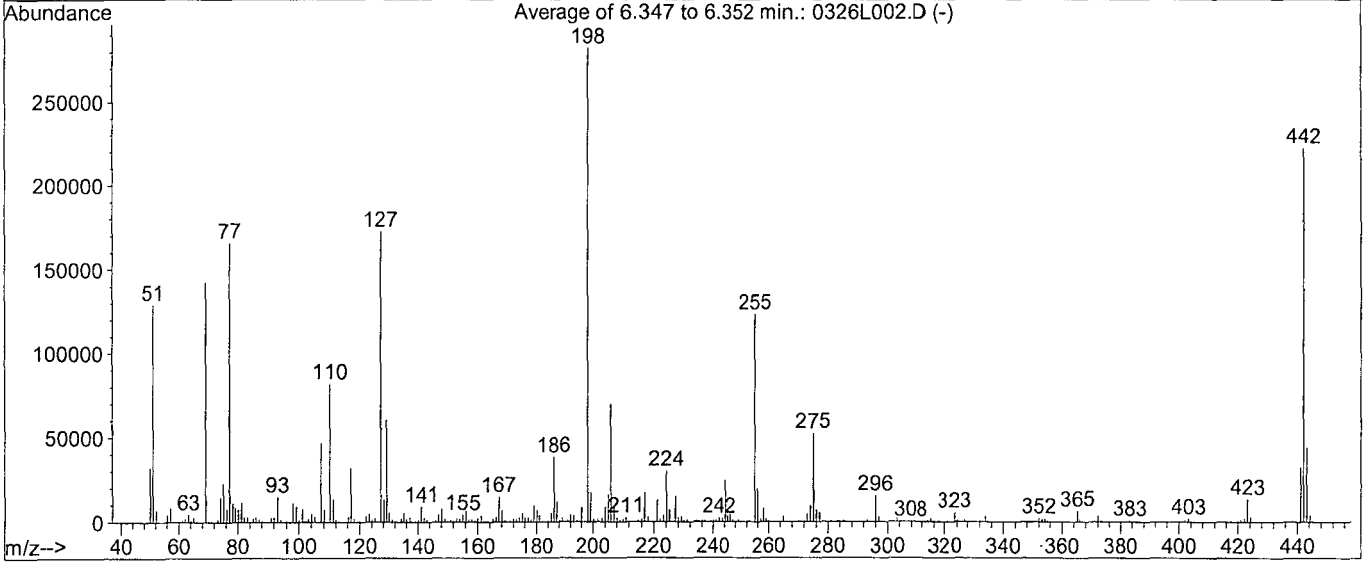
Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L190326\0326L002.D  Vial: 2
Acq On : 26 Mar 19 9:39  Operator: MA
Sample : SV Tune 10/11/18  Inst : Linus
Misc :  Multiplr: 1.00

Method : M:\LINUS\DATA\L190326\L0122.M (RTE Integrator)
Title : EPA 8270




AutoFind: Scans 1511, 1512, 1513; Background Corrected with Scan 1501

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 45.8 | 129276 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.4 | 622 | PASS |
| 127 | 198 | 10 | 80 | 61.0 | 172437 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 282517 | PASS |
| 199 | 198 | 5 | 9 | 6.0 | 17040 | PASS |
| 275 | 198 | 10 | 60 | 18.6 | 52443 | PASS |
| 365 | 198 | 1 | 100 | 2.2 | 6254 | PASS |
| 441 | 442 | 0.01 | 24 | 14.3 | 31867 | PASS |
| 442 | 198 | 50 | 150 | 78.8 | 222613 | PASS |
| 443 | 442 | 15 | 24 | 19.8 | 44029 | PASS |

0326L002.D L0122.M Tue Mar 26 09:50:20 2019

| | |
|---|---|
| Data File Name: | **0326L002.D** |
| Data File Path: | **M:\LINUS\DATA\L190326** |
| Operator: | **MA** |
| Date Acquired: | **26 Mar 2019 09:39** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV Tune 10/11/18** |
| Vial Number: | **2** |
| Instrument Name: | **Linus** |

| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.88 | 26061300 |
| 2) | DDD | 7.65 | 254374 |
| 3) | DDE | 7.70 | 0 |

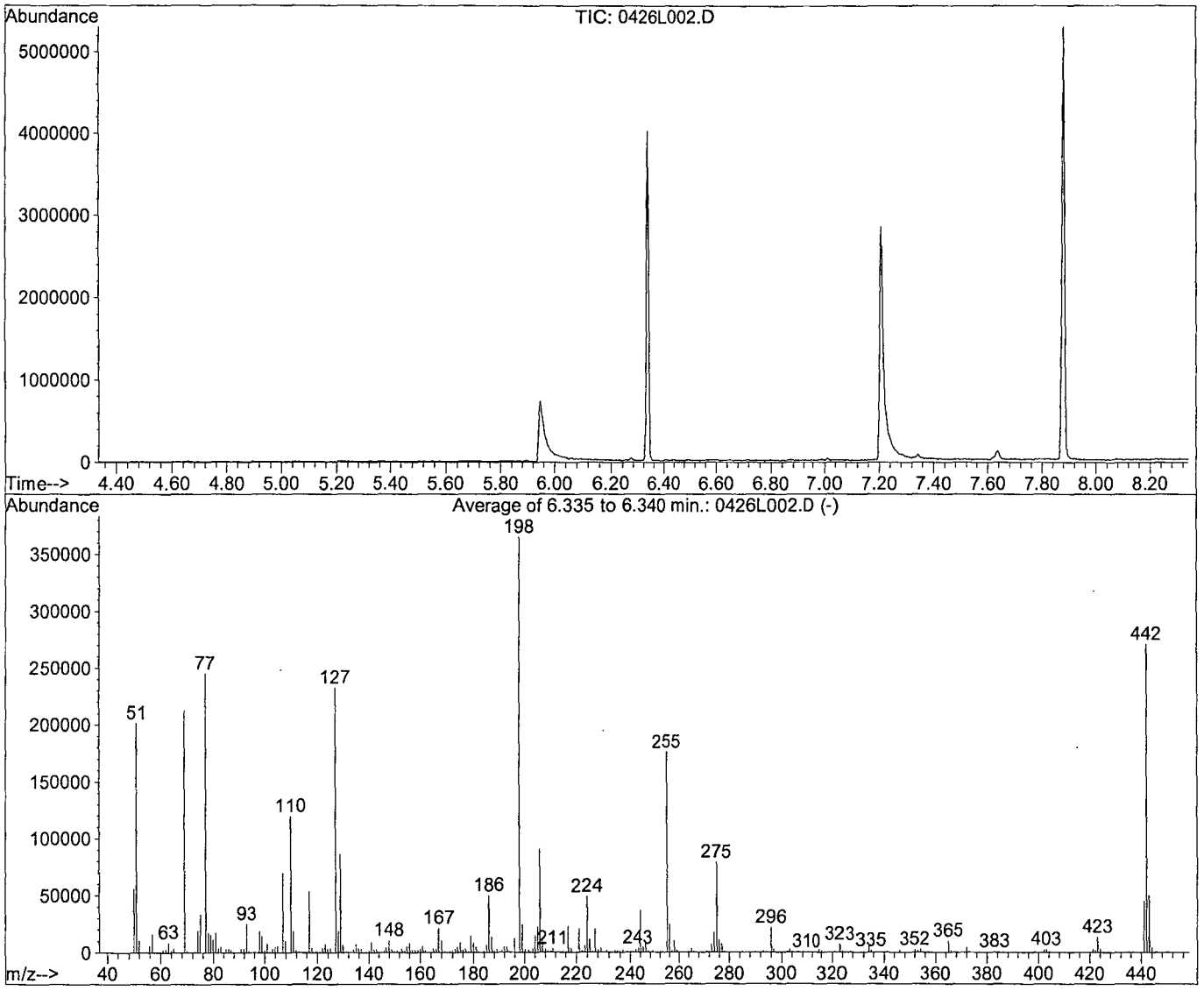
Breakdown **0.97**

DFTPP

Data File : M:\LINUS\DATA\L190426\0426L002.D
Acq On : 26 Apr 19 14:15
Sample : SV Tune 10/11/18
Misc :

Vial: 2
Operator: MA
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270




AutoFind: Scans 1506, 1507, 1508; Background Corrected with Scan 1497

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 55.2 | 201498 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.6 | 1295 | PASS |
| 127 | 198 | 10 | 80 | 63.7 | 232811 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 365355 | PASS |
| 199 | 198 | 5 | 9 | 6.6 | 23994 | PASS |
| 275 | 198 | 10 | 60 | 21.6 | 78763 | PASS |
| 365 | 198 | 1 | 100 | 2.7 | 9938 | PASS |
| 441 | 442 | 0.01 | 24 | 16.7 | 45291 | PASS |
| 442 | 198 | 50 | 150 | 74.2 | 271168 | PASS |
| 443 | 442 | 15 | 24 | 18.4 | 49955 | PASS |

0426L002.D L0326.M Fri Apr 26 14:50:49 2019

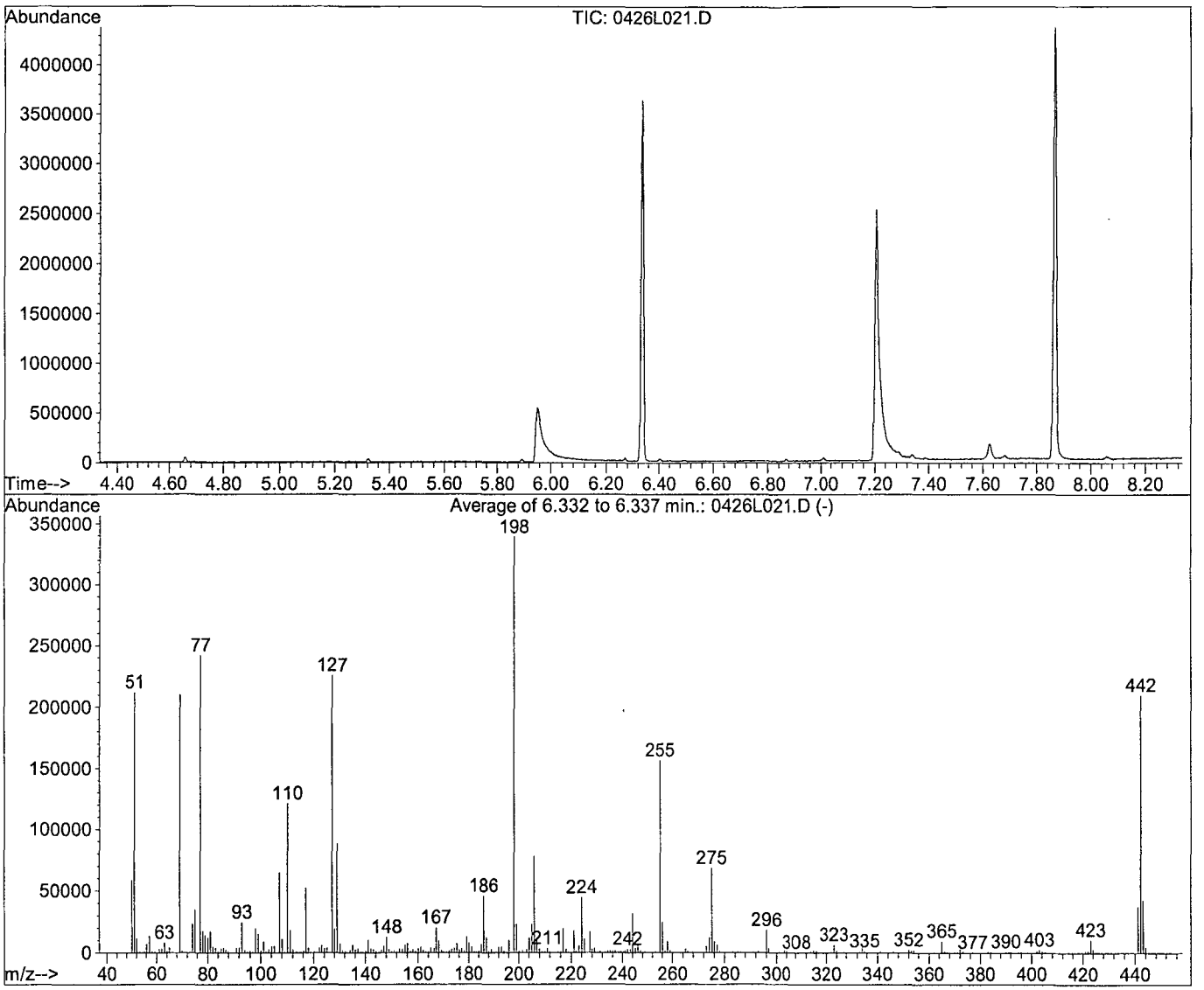
| | |
|---|---|
| Data File Name: | **0426L002.D** |
| Data File Path: | **M:\LINUS\DATA\L190426** |
| Operator: | **MA** |
| Date Acquired: | **26 Apr 2019 14:15** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV Tune 10/11/18** |
| Vial Number: | **2** |
| Instrument Name: | **Linus** |

| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.88 | 36076400 |
| 2) | DDD | 7.65 | 1238690 |
| 3) | DDE | 7.70 | 0 |

Breakdown **3.32**

Data File : M:\LINUS\DATA\L190426\0426L021.D  Vial: 21
Acq On : 30 Apr 19 10:41  Operator: MA
Sample : SV Tune 10/11/18  Inst : Linus
Misc :  Multiplr: 1.00

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270




AutoFind: Scans 1505, 1506, 1507; Background Corrected with Scan 1497

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 62.4 | 211861 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.6 | 1350 | PASS |
| 127 | 198 | 10 | 80 | 66.4 | 225515 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 339541 | PASS |
| 199 | 198 | 5 | 9 | 6.8 | 23136 | PASS |
| 275 | 198 | 10 | 60 | 20.1 | 68136 | PASS |
| 365 | 198 | 1 | 100 | 2.7 | 9309 | PASS |
| 441 | 442 | 0.01 | 24 | 17.7 | 37176 | PASS |
| 442 | 198 | 50 | 150 | 61.8 | 209707 | PASS |
| 443 | 442 | 15 | 24 | 20.2 | 42355 | PASS |

| | |
|---|---|
| Data File Name: | **0426L021.D** |
| Data File Path: | **M:\LINUS\DATA\L190426** |
| Operator: | **MA** |
| Date Acquired: | **30 Apr 2019 10:41** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV Tune 10/11/18** |
| Vial Number: | **21** |
| Instrument Name: | **Linus** |

| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.88 | 32400500 |
| 2) | DDD | 7.65 | 1890920 |
| 3) | DDE | 7.70 | 253764 |

Breakdown **6.21**

| | | | |
|---|---|---|---|
| **Name of Final Standard** | **Semivolatile (SV) Tuning Solution** | **Prep'd By (Initials)** | **GA** |
| **Prep Date** | **10/11/18** | | |
| **Exp Date** | **09/30/19** | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Semivolatile GC/MS Tuning Standard | Ultra Scientific | GCM-150-1 | 1,000 ug/mL | CR3789-38879 | **09/30/19** | 1,250 uL | 25 mL | **MC #56258** | 50 ug/mL |

| | |
|---|---|
| Name of Final Standard | SIM Curve |
| Prep Date | 03/06/19 |
| Exp Date | 06/01/19 |

Prep'd By (Initials): GA

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 1.0 ug/mL SIM | Phenova | 1.0 ug/mL SIM | 1.0 ug/mL | 03/06/19 | 06/01/19 | 10 uL | 100uL | MC 56258 90uL | 0.1 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 1.0 ug/mL SIM | Phenova | 1.0 ug/mL SIM | 1.0 ug/mL | 03/06/19 | 06/01/19 | 20 uL | 100uL | MC 56258 80uL | 0.2 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 5.0 ug/mL SIM | Phenova | 5.0 ug/mL SIM | 5.0 ug/mL | 03/06/19 | 06/01/19 | 10 uL | 100uL | MC 56258 90uL | 0.5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 5.0 ug/mL SIM | APPL | 5.0 ug/mL SIM | 5.0 ug/mL | 03/06/19 | 06/01/19 | 20 uL | 100uL | MC 56258 80 uL | 1.0 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | 12/28/18 | 12/28/19 | 5 uL | 200uL | MC 56258 190 uL | 5.0 ug/mL |
| Sim 2S Surrogate | Restek | SIM 2S SURR | 100 ug/mL | 06/07/18 | 06/01/19 | 5 uL | * | * | 2.5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 4 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | 12/28/18 | 12/28/19 | 5 uL | 100 uL | MC 56258 90 uL | 10 ug/mL |
| Sim 2S Surrogate | APPL | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 5 uL | * | * | 5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | 12/28/18 | 12/28/19 | 25 uL | 100uL | MC 56258 50 uL | 50 ug/mL |
| Sim 2S Surrogate | Restek | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 25 uL | * | * | 25 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | 12/28/18 | 12/28/19 | 50 uL | 100uL | na | 100 ug/mL |
| Sim 2S Surrogate | Restek | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 50 uL | * | * | 50 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |

| | |
|---|---|
| Name of Final Standard | 8270 PAH SIM Second Source |
| Prep Date | 03/06/19 |
| Exp Date | 11/06/19 |

Prep'd By (Initials): GA

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| PAH SIM SS Stock | Phenova | AL0-130490 | 200 ug/mL | 12/28/18 | 12/28/19 | 5 uL | 200uL | MC 56258 195uL | 5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 4 uL | * | * | 2.5ug/mL |

Name of Final Standard: **SIM Curve** Prep'd By (Initials): GA

Prep Date: 01/18/19

Exp Date: 06/01/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 1.0 ug/mL SIM | Phenova | 1.0 ug/mL SIM | 1.0 ug/mL | 01/18/19 | 06/01/19 | 10 uL | 100uL | MC 56258 90uL | 0.1 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 1.0 ug/mL SIM | Phenova | 1.0 ug/mL SIM | 1.0 ug/mL | 01/18/19 | 06/01/19 | 20 uL | 100uL | MC 56258 80uL | 0.2 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 5.0 ug/mL SIM | Phenova | 5.0 ug/mL SIM | 5.0 ug/mL | 01/18/19 | 06/01/19 | 10 uL | 100uL | MC 56258 90uL | 0.5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 5.0 ug/mL SIM | APPL | 5.0 ug/mL SIM | 5.0 ug/mL | 01/18/19 | 06/01/19 | 20 uL | 100uL | MC 56258 80 uL | 1.0 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | CL13117-40078 | 12/28/19 | 5 uL | 200uL | MC 56258 190 uL | 5.0 ug/mL |
| SIM 2S SURROGATE | Restek | SIM 2S SURR | 100 ug/mL | 06/07/18 | 06/01/19 | 5 uL | * | * | 5.0 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 4 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | CL13117-40078 | 12/28/19 | 5 uL | 100 uL | MC 56258 90 uL | 10 ug/mL |
| SIM 2S SURROGATE | APPL | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 5 uL | * | * | 10 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 | CL13117-40078 | 12/28/19 | 25 uL | 100uL | MC 56258 50 uL | 50 ug/mL |
| SIM 2S SURROGATE | Restek | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 25 uL | * | * | 50 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | CL13117-40078 | 12/28/19 | 50 uL | 100uL | na | 100 ug/mL |
| SIM 2S SURROGATE | Restek | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 50 uL | * | * | 100 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |

Name of Final Standard: **8270 PAH SIM Second Source** Prep'd By (Initials): GA

Prep Date: 01/18/19

Exp Date: 06/01/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| PAH SIM SS Stock | Phenova | AL0-130490 | 200 ug/mL | CL13121 - 40082 | 12/28/19 | 5 uL | 200uL | MC 56258 195uL | 5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 4 uL | * | * | 2.5ug/mL |

**Name of Final Standard** **SIM 2S Surrogate** **Prep'd By (Initials)** **GA**

**Prep Date** **06/07/18**
**Exp Date** **06/01/19**

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| SIM Surrogate Mix | Restek | 33913 | 2000 ug/mL | **A0131716-38553 & 38554** | **06/01/19 06/07/19** | 250 uL | 5 mL | **Acetone #030817A** | 100 ug/mL |
| 8270 B/N surrog mix | Restek | 31086 | 5000 ug/mL | **A0135243-39162** | **06/04/19** | 100 uL | * | * | * |

**Name of Final Standard** 8270 SIM PAH Internal Standard **Prep'd By (Initials)** GA

**Prep Date** 11/06/18

**Exp Date** 11/06/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| SV Internal Standard | Restek | 31206 | 2000 ug/mL | **A0130603-38560** | **11/06/19** | 350 uL | 5,600 uL | **MC 56258 5,250 uL** | 125 ug/mL |

**Name of Final Standard** PAH SIM Spike (Ampules) **Prep'd By (Initials)** OA

**Prep Date** 12/17/18

**Exp Date** 12/17/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 8270D PAH SIM | O2SI | 110780-01 | 200 ug/mL | **353450-39730** | **12/17/19** | 1 mL | 1 mL | **NA** | 200ug/mL |

**Name of Final Standard** **SIM Surrogate** **Prep'd By (Initials)** **GA**

**Prep Date** **01/24/19**

**Exp Date** **06/07/19**

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Sim Surrogate Deuterated | Restek | 33913 | 2000 ug/mL | **A0131716 - 38554 A0137718 - 39318** | **06/07/19 01/24/20** | 1250 uL | 25 mL | **Acetone #101717I** | 100 ug/mL |

**Name of Final Standard** PAH SIM Spike (Ampules) **Prep'd By (Initials)** OA

**Prep Date** 02/22/19
**Exp Date** 02/22/20

| Initial Standard Information | | | | | | Final Standard | | |
|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Standard Conc (range) |
| 8270D PAH SIM | O2SI | 110780-01 | 200 ug/mL | **355613-39771** | **02/22/20** | 1 mL | 1 mL | 200ug/mL |

# Organic Extraction Worksheet

| Method | Continuous Liquid/Liquid SVOC 3520C | Extraction Set | 190424A | Extraction Method | LIQ003 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | 8270T Spike 4-12-19 EXP 10-20-19 | | Surrogate ID 1 | 8270 Surrogate 4-10-19 EXP 3-15-20 | |
| Spiked ID 2 | Sim Spike 3-20-19 EXP 3-20-20 | | Surrogate ID 2 | SIM Surrogate 3-25-19 EXP 3-25-20 | |
| 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: | yes | |
| Spiked ID 7 | | | Ext. Start Time: | 04/24/19 14:25, 04/25/19 11:20 | |
| Spiked ID 8 | | | Ext. End Time: | 04/25/19 9:30, 04/26/19 17:30, 4/26/19 14:30 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 04/24/19 1:05:00 PM | Water Bath Temp Criteria | 75,70 °C |
| pH2 | 14 | 4/24/19 11:10:00 AM | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/24/19 **Witnessed By:** DL **Date** 04/24/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190424A Blk | | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP51 e-wb6 | | | | |
| 2 | 190424A LCS-1 | | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP50 E-WB6 | | | | |
| 3 | 190424A LCS-2 | | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP49 E-WB6 | | | | |
| 4 | 190424A LCSD-1 | | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP48 E-WB6 | | | | |
| 5 | 190424A LCSD-2 | | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP47 E-WB6 | | | | |
| 6 | AZ89958 MS-1 | AZ89958W28 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP25 E-WB6 | | | | |
| 7 | AZ89958 MSD-1 | AZ89958W34 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP26 E-WB6 | | | | |
| 8 | AZ89958 MS-2 | AZ89958W33 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP27 E-WB6 | | | | |
| 9 | AZ89958 MSD-2 | AZ89958W36 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP28 E-WB6 | | | | |
| 10 | AZ89958 | AZ89958W30 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP29 E-WB6 | | | | |
| 11 | AZ89959 | AZ89959W07 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP30 E-WB5 | | | | |
| 12 | AZ89961 | AZ89961W14 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP17 E-WB5 | | | | |
| 13 | AZ90051 MS-1 | AZ90051W39 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP10 E-WB5 | | | | |
| 14 | AZ90051 MSD-1 | AZ90051W40 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP9 E-WB5 | | | | |
| 15 | AZ90051 MS-2 | AZ90051W38 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP7 E-WB5 | | | | |
| 16 | AZ90051 MSD-2 | AZ90051W36 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP6 E-WB5 | | | | |

| Solvent and Lot# | |
|---|---|
| PH Strips | HC 863463 |
| Dichloromethane (DCM) | 58240 |
| 1+1 H2SO4 | 4-22-19 |
| 10N NaOH | 4-22-19 |
| Filter Paper | 400148 |
| Acidified Na2SO4 | 2-28-19 |
| B. Na2SO4 | 18D105205 |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | SS |
| Date | 4/26/19 |
| Time | 1100 |
| Refrigerator | GC-C |

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

| Modified | 04/30/19 12:47:43 PM |
|---|---|

**Reviewed By:** KS **Date** 4/30/19

# Organic Extraction Worksheet

| Method | Continuous Liquid/Liquid SVOC 3520C | Extraction Set | 190424A | Extraction Method | LIQ003 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | 8270T Spike 4-12-19 EXP 10-20-19 | | Surrogate ID 1 | 8270 Surrogate 4-10-19 EXP 3-15-20 | |
| Spiked ID 2 | Sim Spike 3-20-19 EXP 3-20-20 | | Surrogate ID 2 | SIM Surrogate 3-25-19 EXP 3-25-20 | |
| 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: | yes | |
| Spiked ID 7 | | | Ext. Start Time: | 04/24/19 14:25 , 04/25/19 11:20 | |
| Spiked ID 8 | | | Ext. End Time: | 04/25/19 9:30 , 04/26/19 17:30 , 4/26/19 14:20 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 04/24/19 1:05:00 PM | Water Bath Temp Criteria | 75,70 °C |
| pH2 | 14 | 4/24/19 11:10:00 AM | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/24/19 **Witnessed By:** DL **Date** 04/24/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | AZ90051 | AZ90051W37 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP11 E-WB5 | | | | |
| 18 | AZ90052 | AZ90052W11 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP13 E-WB5 | | | | |
| 19 | AZ90054 | AZ90054W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP16 E-WB5 | | | | |
| 20 | AZ90056 | AZ90056W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP15 E-WB5 | | | | |
| 21 | AZ90058 | AZ90058W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP14 E-WB5 | | | | |
| 22 | AZ90060 | AZ90060W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP12 E-WB5 | | | | |

KY 4/30/19

| Solvent and Lot# | |
|---|---|
| PH Strips | HC 863463 |
| Dichloromethane (DCM) | 58240 |
| 1+1 H2SO4 | 4-22-19 |
| 10N NaOH | 4-22-19 |
| Filter Paper | 400148 |
| Acidified Na2SO4 | 2-28-19 |
| B. Na2SO4 | 18D105205 |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | |
| Date | |
| Time | |
| Refrigerator | |

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

| Modified | 04/30/19 12:47:43 PM |
|---|---|

**Reviewed By:** KY **Date** 4/30/19

# Injection Log

Directory: M:\LINUS\DATA\L190326\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 2 | 0326L002.D | 1 | SV Tune 10/11/18 | | 26 Mar 19 9:39 |
| 2 | 5 | 0326L005.D | 1 | 0.5 SIM 03/06/19 | | 26 Mar 19 10:39 |
| 3 | 6 | 0326L006.D | 1 | 1 SIM 03/06/19 | | 26 Mar 19 11:01 |
| 4 | 7 | 0326L007.D | 1 | 5 SIM 03/06/19 | | 26 Mar 19 11:23 |
| 5 | 8 | 0326L008.D | 1 | 10 SIM 03/06/19 | | 26 Mar 19 11:45 |
| 6 | 9 | 0326L009.D | 1 | 50 SIM 03/06/19 | | 26 Mar 19 12:08 |
| 7 | 10 | 0326L010.D | 1 | 100 SIM 03/06/19 | | 26 Mar 19 12:30 |
| 8 | 12 | 0326L012.D | 1 | 0.2 SIM 01/18/19 | | 26 Mar 19 15:55 |
| 9 | 13 | 0326L013.D | 1 | 0.1 SIM 01/18/19 | | 26 Mar 19 17:05 |
| 10 | 14 | 0326L014.D | 1 | SS SIM 03/06/19 | | 26 Mar 19 17:27 |
| 11 | 2 | 0426L002.D | 1 | SV Tune 10/11/18 | | 26 Apr 19 14:15 |
| 12 | 3 | 0426L003.D | 1 | 5 SIM 03/06/19 | | 26 Apr 19 14:31 |
| 13 | 4 | 0426L004.D | 1.25 | 190424A BLK 1/800 | | 26 Apr 19 15:45 |
| 14 | 5 | 0426L005.D | 1.25 | 190424A LCS-2 1/800 | | 26 Apr 19 16:07 |
| 15 | 6 | 0426L006.D | 1.25 | 190424A LCSD-2 1/800 | | 26 Apr 19 16:29 |
| 16 | 7 | 0426L007.D | 1.25 | AZ89958W30 1/800 | | 26 Apr 19 16:52 |
| 17 | 8 | 0426L008.D | 1.25 | AZ89958W33 MS-2 1/800 | | 26 Apr 19 17:14 |
| 18 | 9 | 0426L009.D | 1.25 | AZ89958W36 MSD-2 1/800 | | 26 Apr 19 17:36 |
| 19 | 11 | 0426L011.D | 1.25 | AZ89961W14 1/800 | | 26 Apr 19 18:21 |
| 20 | 20 | 0426L020.D | 1 | 5 SIM 03/06/19 | | 26 Apr 19 21:43 |
| 21 | 21 | 0426L021.D | 1 | SV Tune 10/11/18 | | 30 Apr 19 10:41 |
| 22 | 22 | 0426L022.D | 1 | 5 SIM 03/06/19 | | 30 Apr 19 10:57 |
| 23 | 23 | 0426L023.D | 1.25 | AZ89959W07 1/800 | | 30 Apr 19 11:19 |
| 24 | 28 | 0426L028.D | 1 | 5 SIM 03/06/19 | | 30 Apr 19 16:35 |

# ORGANICS
# Calibration Data

Semi-Volatile Analysis by GC-MS
EPA 8270

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/19/19
Matrix: Instrument: Yoda
Initials: MA/JMP

| | | Compound | 4 | 5 | 10 | 20 | 40 | 50 | 60 | 80 | 100 | | Avg | %RSD | Type | r^2 | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0319Y004.D | 0319Y005.D | 0319Y006.D | 0319Y007.D | 0319Y008.D | 0319Y003.D | 0319Y009.D | 0319Y010.D | 0319Y011.D | | | | | | | |
| 1 | I | 1,4-dichlorobenzene-D4(IS) | ISTD | | | | | | | | | | | | | | | |
| 2 | | 1,4-Dioxane | | 0.2083 | 0.2289 | 0.2577 | 0.2765 | 0.3092 | 0.3137 | 0.3004 | 0.2718 | | 0.27 | 14 | | | | |
| 3 | TM | n-Nitrosodimethylamine | | 0.6432 | 0.5399 | 0.5100 | 0.4462 | 0.5113 | 0.4873 | 0.4661 | 0.4623 | | 0.51 | 12 | TM | | | |
| 4 | TM | Pyridine | | 1.255 | 1.395 | 1.213 | 1.241 | 1.247 | 1.229 | 1.101 | 1.098 | | 1.2 | 7.7 | TM | | | |
| 5 | S | 2-Fluorophenol (S) | | 1.375 | 1.526 | 1.553 | 1.455 | 1.536 | 1.549 | 1.482 | 1.487 | | 1.5 | 4.0 | S | | | |
| 6 | S | Phenol-D6 (S) | | 1.849 | 2.006 | 2.053 | 1.890 | 2.013 | 2.009 | 1.900 | 1.917 | | 2.0 | 3.8 | S | | | |
| 7 | *TM | Phenol | | 2.418 | 2.403 | 2.277 | 2.046 | 2.081 | 2.107 | 2.009 | 1.961 | | 2.2 | 8.3 | *TM | | | 0.800 |
| 8 | TM | Aniline | | 2.284 | 2.346 | 2.196 | 2.060 | 2.006 | 2.081 | 1.961 | 1.933 | | 2.1 | 7.2 | TM | | | |
| 9 | TM | Bis (2-chloroethyl) ether | | 1.068 | 1.038 | 0.9839 | 0.9400 | 0.9369 | 0.9481 | 0.8915 | 0.8834 | | 0.96 | 6.8 | TM | | | 0.700 |
| 10 | TM | 2-Chlorophenol | | 1.699 | 1.735 | 1.606 | 1.517 | 1.552 | 1.559 | 1.477 | 1.441 | | 1.6 | 6.5 | TM | | | 0.800 |
| 11 | TM | 1,3-DCB | | 1.869 | 1.829 | 1.683 | 1.591 | 1.607 | 1.620 | 1.523 | 1.490 | | 1.7 | 8.2 | TM | | | |
| 12 | *TM | 1,4-DCB | | 1.996 | 1.861 | 1.738 | 1.623 | 1.664 | 1.647 | 1.546 | 1.513 | | 1.7 | 9.5 | *TM | | | |
| 13 | TM | Benzyl alcohol | | 0.9401 | 0.9733 | 0.9065 | 0.8909 | 0.9247 | 0.9210 | 0.8902 | 0.8725 | | 0.91 | 3.5 | TM | | | |
| 14 | TM | 1,2-DCB | | 1.824 | 1.731 | 1.617 | 1.495 | 1.541 | 1.517 | 1.451 | 1.417 | | 1.6 | 9.0 | TM | | | |
| 15 | TM | 2-Methylphenol | | 1.623 | 1.481 | 1.389 | 1.309 | 1.330 | 1.329 | 1.261 | 1.243 | | 1.4 | 9.2 | TM | | | 0.700 |
| 16 | TM | Bis (2-chloroisopropyl) ether | | 1.614 | 1.589 | 1.448 | 1.349 | 1.383 | 1.381 | 1.296 | 1.267 | | 1.4 | 9.0 | TM | | | 0.010 |
| 17 | TM | Acetophenone | | 2.397 | 2.321 | 2.123 | 2.020 | 2.056 | 2.039 | 1.942 | 1.896 | | 2.1 | 8.4 | TM | | | 0.010 |
| 18 | TM | 3&4-Methylphenol | | 1.847 | 1.780 | 1.676 | 1.580 | 1.620 | 1.613 | 1.541 | 1.506 | | 1.6 | 7.1 | TM | | | 0.600 |
| 19 | **TM | n-Nitrosodi-n-propylamine | | 1.325 | 1.288 | 1.159 | 1.114 | 1.129 | 1.116 | 1.050 | 1.037 | | 1.2 | 9.0 | **TM | | | 0.500 |
| 20 | TM | Hexachloroethane | | 0.7326 | 0.7189 | 0.6438 | 0.6187 | 0.6212 | 0.6148 | 0.5862 | 0.5788 | | 0.64 | 8.9 | TM | | | 0.300 |
| 21 | I | Napthalene-D8(IS) | ISTD | | | | | | | | | | | | | | | |
| 22 | S | Nitrobenzene-D5(S) | | 0.4036 | 0.4481 | 0.4428 | 0.4092 | 0.4401 | 0.4199 | 0.4120 | 0.4051 | | 0.42 | 4.3 | S | | | |
| 23 | TM | Nitrobenzene | | 0.4636 | 0.4541 | 0.4209 | 0.3913 | 0.4042 | 0.3893 | 0.3799 | 0.3626 | | 0.41 | 8.7 | TM | | | 0.200 |
| 24 | TM | Isophorone | | 0.7995 | 0.7871 | 0.7264 | 0.6740 | 0.7092 | 0.6839 | 0.6638 | 0.6355 | | 0.71 | 8.2 | TM | | | 0.400 |
| 25 | *TM | 2-Nitrophenol | | 0.2130 | 0.2243 | 0.2061 | 0.2032 | 0.2140 | 0.2031 | 0.1972 | 0.1946 | | 0.21 | 4.7 | *TM | | | 0.100 |
| 26 | TM | 2,4-Dimethylphenol | | 0.3719 | 0.3513 | 0.3249 | 0.3195 | 0.3247 | 0.3133 | 0.3054 | 0.2986 | | 0.33 | 7.4 | TM | | | 0.200 |
| 27 | TM | Benzoic acid | | | 0.1610 | 0.2025 | 0.2286 | 0.2242 | 0.2467 | 0.2499 | 0.2474 | | 0.22 | 14 | TM | | | |
| 28 | TM | Bis (2-chloroethoxy) methane | | 0.4841 | 0.4859 | 0.4404 | 0.4136 | 0.4319 | 0.4182 | 0.4019 | 0.3931 | | 0.43 | 8.1 | TM | | | 0.300 |
| 29 | *TM | 2,4-Dichlorophenol | | 0.2934 | 0.2985 | 0.2811 | 0.2683 | 0.2800 | 0.2689 | 0.2659 | 0.2569 | | 0.28 | 5.2 | *TM | | | 0.200 |
| 30 | TM | 1,2,4-Trichlorobenzene | | 0.3367 | 0.3392 | 0.3144 | 0.2936 | 0.3050 | 0.2892 | 0.2812 | 0.2699 | | 0.30 | 8.3 | TM | | | |
| 31 | TM | 3,4-Dimethylphenol | | 0.5587 | 0.5474 | 0.4891 | 0.4564 | 0.4760 | 0.4559 | 0.4449 | 0.4308 | | 0.48 | 9.8 | TM | | | |
| 32 | TM | Naphthalene | | 1.237 | 1.222 | 1.100 | 1.039 | 1.078 | 1.023 | 0.9927 | 0.9676 | | 1.1 | 9.3 | TM | | | 0.700 |
| 33 | TM | 4-Chloroaniline | | 0.4513 | 0.4768 | 0.4305 | 0.3918 | 0.3933 | 0.3784 | 0.3518 | 0.3185 | | 0.40 | 13 | TM | | | 0.010 |
| 34 | TM | 2,6-Dichlorophenol | | 0.3085 | 0.3065 | 0.2861 | 0.2670 | 0.2807 | 0.2665 | 0.2580 | 0.2515 | | 0.28 | 7.7 | TM | | | |
| 35 | TM | Hexachloropropene | | 0.1687 | 0.1744 | 0.1722 | 0.1660 | 0.1739 | 0.1681 | 0.1639 | 0.1625 | | 0.17 | 2.7 | TM | | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/19/19
Matrix: Instrument: Yoda Initials:

| | | Compound | 4 | 5 | 10 | 20 | 40 | 50 | 60 | 80 | 100 | | Avg | %RSD | Type | | Q | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | *TM | Hexachlorobutadiene | | 0.1694 | 0.1661 | 0.1534 | 0.1428 | 0.1491 | 0.1420 | 0.1371 | 0.1317 | | 0.15 | 9.0 | *TM | | | 0.010 |
| 37 | TM | Caprolactum | | 0.1478 | 0.1541 | 0.1397 | 0.1352 | 0.1418 | 0.1370 | 0.1308 | 0.1287 | | 0.14 | 6.1 | TM | | | 0.010 |
| 38 | *TM | 4-Chloro-3-methylphenol | | 0.3629 | 0.3613 | 0.3391 | 0.3259 | 0.3411 | 0.3277 | 0.3136 | 0.3108 | | 0.34 | 5.9 | *TM | | | 0.200 |
| 39 | TM | 2-Methylnaphthalene | | 0.7804 | 0.7657 | 0.7030 | 0.6569 | 0.6856 | 0.6652 | 0.6437 | 0.6212 | | 0.69 | 8.2 | TM | | | 0.400 |
| 40 | TM | 1-Methylnaphthalene | | 0.8230 | 0.8014 | 0.7233 | 0.6897 | 0.6992 | 0.6841 | 0.6613 | 0.6407 | | 0.72 | 9.1 | TM | | | |
| 41 | I | Acenaphthene-D10(IS) | ISTD | | | | | | | | | | | | | | | |
| 42 | **TMQ | Hexachlorocyclopentadiene | | | | 0.0301 | 0.0672 | 0.0885 | 0.1000 | 0.1257 | 0.1432 | | 0.09 | 44 | **TMQ | 0.999 | | 0.050 |
| 43 | TM | 1,2,4,5-Tetrachlorobenzene | | 0.5827 | 0.5952 | 0.5304 | 0.5097 | 0.5190 | 0.4978 | 0.4794 | 0.4637 | | 0.52 | 8.9 | TM | | | 0.010 |
| 44 | *TM | 2,4,6-Trichlorophenol | | 0.3548 | 0.3607 | 0.3334 | 0.3325 | 0.3415 | 0.3279 | 0.3212 | 0.3146 | | 0.34 | 4.7 | *TM | | | 0.200 |
| 45 | TM | 2,4,5-Trichlorophenol | | 0.3961 | 0.4059 | 0.3592 | 0.3559 | 0.3567 | 0.3419 | 0.3391 | 0.3327 | | 0.36 | 7.4 | TM | | | 0.200 |
| 46 | S | 2-Fluorobiphenyl(S) | | 1.491 | 1.616 | 1.556 | 1.423 | 1.484 | 1.458 | 1.405 | 1.382 | | 1.5 | 5.3 | S | | | |
| 47 | TM | 1,1'-Biphenyl | | 1.864 | 1.851 | 1.700 | 1.616 | 1.634 | 1.564 | 1.518 | 1.480 | | 1.7 | 8.7 | TM | | | 0.010 |
| 48 | TM | 2-Chloronaphthalene | | 1.393 | 1.437 | 1.279 | 1.200 | 1.220 | 1.182 | 1.129 | 1.109 | | 1.2 | 9.5 | TM | | | 0.800 |
| 49 | TM | 2-Nitroaniline | | 0.4278 | 0.4515 | 0.4195 | 0.4009 | 0.4153 | 0.3909 | 0.3810 | 0.3738 | | 0.41 | 6.4 | TM | | | 0.010 |
| 50 | TM | Dimethyl phthalate | | 1.618 | 1.625 | 1.487 | 1.404 | 1.413 | 1.384 | 1.328 | 1.306 | | 1.4 | 8.4 | TM | | | 0.010 |
| 51 | TM | 2,6-DNT | | 0.3572 | 0.3611 | 0.3439 | 0.3373 | 0.3359 | 0.3312 | 0.3188 | 0.3185 | | 0.34 | 4.7 | TM | | | 0.200 |
| 52 | TM | Acenaphthylene | | 2.241 | 2.183 | 2.017 | 1.915 | 1.932 | 1.881 | 1.811 | 1.765 | | 2.0 | 8.6 | TM | | | 0.900 |
| 53 | TM | 3-Nitroaniline | | 0.3751 | 0.4164 | 0.3837 | 0.3767 | 0.3749 | 0.3636 | 0.3469 | 0.3348 | | 0.37 | 6.6 | TM | | | 0.010 |
| 54 | *TM | Acenaphthene | | 1.477 | 1.436 | 1.295 | 1.236 | 1.235 | 1.192 | 1.154 | 1.118 | | 1.3 | 10 | *TM | | | 0.900 |
| 55 | **TML | 2,4-Dinitrophenol | | | 0.0629 | 0.0984 | 0.1325 | 0.1407 | 0.1477 | 0.1554 | 0.1622 | | 0.13 | 28 | **TML | 0.998 | | 0.010 |
| 56 | **TMQ | 4-Nitrophenol | | | | 0.0399 | 0.2038 | 0.2264 | 0.2092 | 0.2146 | 0.2178 | | 0.19 | 39 | **TMQ | 0.993 | | 0.010 |
| 57 | TM | Dibenzofuran | | 2.010 | 1.948 | 1.757 | 1.676 | 1.685 | 1.610 | 1.564 | 1.514 | | 1.7 | 10 | TM | | | 0.800 |
| 58 | TM | 2,4-DNT | | 0.4665 | 0.4994 | 0.4758 | 0.4552 | 0.4666 | 0.4495 | 0.4242 | 0.4174 | | 0.46 | 5.9 | TM | | | 0.200 |
| 59 | TM | 2,3,4,6-Tetrachlorophenol | | 0.1873 | 0.2274 | 0.2275 | 0.2353 | 0.2494 | 0.2360 | 0.2358 | 0.2348 | | 0.23 | 8.0 | TM | | | 0.010 |
| 60 | TM | Diethyl phthalate | | 1.622 | 1.615 | 1.470 | 1.404 | 1.397 | 1.359 | 1.303 | 1.243 | | 1.4 | 9.6 | TM | | | 0.010 |
| 61 | TM | 4-Chlorophenyl phenyl ether | | 0.7793 | 0.7448 | 0.6754 | 0.6269 | 0.6475 | 0.6168 | 0.5875 | 0.5816 | | 0.66 | 11 | TM | | | 0.400 |
| 62 | TM | Fluorene | | 1.649 | 1.624 | 1.484 | 1.408 | 1.404 | 1.348 | 1.297 | 1.268 | | 1.4 | 9.9 | TM | | | 0.900 |
| 63 | TM | 4-Nitroaniline | | 0.4183 | 0.4299 | 0.3988 | 0.3690 | 0.3701 | 0.3531 | 0.3384 | 0.3290 | | 0.38 | 9.8 | TM | | | 0.010 |
| 64 | S | 2,4,6-Tribromophenol(S) | | 0.1108 | 0.1312 | 0.1374 | 0.1314 | 0.1423 | 0.1391 | 0.1326 | 0.1359 | | 0.13 | 7.3 | S | | | |
| 65 | I | Phenanthrene-D10(IS) | ISTD | | | | | | | | | | | | | | | |
| 66 | TM | 4,6-Dinitro-2-methylphenol | | 0.1114 | 0.1353 | 0.1511 | 0.1561 | 0.1630 | 0.1612 | 0.1567 | 0.1592 | | 0.15 | 12 | TM | | | 0.010 |
| 67 | TM | Diphenyl amine | | 0.7664 | 0.7653 | 0.6881 | 0.6527 | 0.6549 | 0.6478 | 0.6004 | 0.5930 | | 0.67 | 9.8 | TM | | | |
| 68 | *TM | n-Nitrosodiphenylamine | | 0.7664 | 0.7653 | 0.6881 | 0.6527 | 0.6549 | 0.6478 | 0.6004 | 0.5930 | | 0.67 | 9.8 | *TM | | | 0.010 |
| 69 | TM | 1,2-Diphenylhydrazine | | 1.063 | 1.009 | 0.9258 | 0.8681 | 0.8924 | 0.8755 | 0.9545 | 0.9253 | | 0.94 | 7.2 | TM | | | |
| 70 | TM | 4-Bromophenyl phenyl ether | | 0.2299 | 0.2348 | 0.2119 | 0.2034 | 0.2080 | 0.2040 | 0.1924 | 0.1907 | | 0.21 | 7.6 | TM | | | 0.100 |

Semi-Volatile Analysis by GC-MS
EPA 8270

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/19/19
Matrix: Instrument: Yoda Initials:

| | | Compound | 4 | 5 | 10 | 20 | 40 | 50 | 60 | 80 | 100 | | Avg | %RSD | Type | | Q | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | TM | Hexachlorobenzene | | 0.2203 | 0.2151 | 0.1979 | 0.1863 | 0.1927 | 0.1876 | 0.1800 | 0.1758 | | 0.19 | 8.2 | TM | | | 0.100 |
| 72 | TM | Atrazine | | 0.2516 | 0.2617 | 0.2290 | 0.2249 | 0.2273 | 0.2233 | 0.2103 | 0.2067 | | 0.23 | 8.2 | TM | | | 0.010 |
| 73 | *TML | Pentachlorophenol | | | 0.0405 | 0.0499 | 0.0629 | 0.0766 | 0.0666 | 0.0749 | 0.0786 | | 0.06 | 22 | *TML | 0.992 | | 0.050 |
| 74 | TM | Phenanthrene | | 1.407 | 1.374 | 1.246 | 1.173 | 1.199 | 1.179 | 1.110 | 1.091 | | 1.2 | 9.4 | TM | | | 0.700 |
| 75 | TM | Anthracene | | 1.450 | 1.477 | 1.323 | 1.248 | 1.258 | 1.248 | 1.175 | 1.149 | | 1.3 | 9.2 | TM | | | 0.700 |
| 76 | TM | Carbazol | | 1.339 | 1.327 | 1.220 | 1.149 | 1.156 | 1.154 | 1.094 | 1.073 | | 1.2 | 8.3 | TM | | | 0.010 |
| 77 | TM | Di-n-butylphthalate | | 1.692 | 1.656 | 1.541 | 1.434 | 1.489 | 1.439 | 1.338 | 1.322 | | 1.5 | 9.1 | TM | | | 0.010 |
| 78 | *TM | Fluoranthene | | 1.452 | 1.418 | 1.303 | 1.222 | 1.251 | 1.241 | 1.173 | 1.163 | | 1.3 | 8.4 | *TM | | | 0.600 |
| 79 | I | Chrysene-D12(IS) | ISTD | | | | | | | | | | | | | | | |
| 80 | TM | Benzidine | | | 0.3883 | 0.3450 | 0.3138 | 0.2584 | 0.2922 | 0.2852 | 0.2777 | | 0.31 | 14 | TM | | | |
| 81 | TM | Pyrene | | 1.688 | 1.628 | 1.498 | 1.401 | 1.432 | 1.421 | 1.381 | 1.349 | | 1.5 | 8.3 | TM | | | 0.600 |
| 82 | S | Terphenyl-D14(S) | | 0.9769 | 1.028 | 1.015 | 0.9194 | 1.003 | 0.9914 | 0.9548 | 0.9326 | | 0.98 | 4.0 | S | | | |
| 83 | TM | Butyl benzylphthalate | | 0.8445 | 0.8254 | 0.7609 | 0.7102 | 0.7295 | 0.7236 | 0.6958 | 0.6822 | | 0.75 | 8.0 | TM | | | 0.010 |
| 84 | TM | 3,3'-Dichlorobenzidine | | 0.4221 | 0.4411 | 0.3868 | 0.3566 | 0.3523 | 0.3532 | 0.3364 | 0.3177 | | 0.37 | 11 | TM | | | 0.010 |
| 85 | TM | Benz (a) anthracene | | 1.494 | 1.457 | 1.322 | 1.242 | 1.268 | 1.253 | 1.228 | 1.169 | | 1.3 | 8.8 | TM | | | 0.800 |
| 86 | TM | Bis (2-ethylhexyl) phthalate | | 1.282 | 1.208 | 1.089 | 1.013 | 1.026 | 1.009 | 0.9879 | 0.9390 | | 1.1 | 11 | TM | | | 0.010 |
| 87 | TM | Chrysene | | 1.439 | 1.441 | 1.255 | 1.188 | 1.232 | 1.198 | 1.174 | 1.132 | | 1.3 | 9.4 | TM | | | 0.700 |
| 88 | *TM | Di-n-octylphthalate | | 2.085 | 2.047 | 1.847 | 1.759 | 1.816 | 1.786 | 1.722 | 1.688 | | 1.8 | 7.9 | *TM | | | 0.010 |
| 89 | I | Perylene-D12(IS) | ISTD | | | | | | | | | | | | | | | |
| 90 | TM | Benzo (b) fluoranthene | | 1.414 | 1.260 | 1.197 | 1.198 | 1.062 | 1.197 | 1.065 | 1.130 | | 1.2 | 9.6 | TM | | | 0.700 |
| 91 | TM | Benzo (k) fluoranthene | | 1.414 | 1.260 | 1.197 | 1.198 | 1.062 | 1.197 | 1.065 | 1.130 | | 1.2 | 9.6 | TM | | | 0.700 |
| 92 | *TM | Benzo (a) pyrene | 1.251 | 1.297 | 1.304 | 1.187 | 1.138 | 1.172 | 1.144 | 1.099 | 1.079 | | 1.2 | 6.9 | *TM | | | 0.700 |
| 93 | TM | Indeno (1,2,3-cd) pyrene | | 1.420 | 1.445 | 1.291 | 1.214 | 1.272 | 1.218 | 1.182 | 1.164 | | 1.3 | 8.3 | TM | | | 0.500 |
| 94 | TM | Dibenz (a,h) anthracene | 1.172 | 1.224 | 1.230 | 1.116 | 1.072 | 1.115 | 1.074 | 1.043 | 1.019 | | 1.1 | 6.8 | TM | | | 0.400 |
| 95 | TM | Benzo (g,h,i) perylene | | 1.143 | 1.124 | 1.035 | 0.9798 | 1.010 | 0.9780 | 0.9425 | 0.9325 | | 1.0 | 7.7 | TM | | | 0.500 |
| 96 | | | | | | | | | | | | | | | | | | |
| 97 | | | | | | | | | | | | | | | | | | |
| 98 | | | | | | | | | | | | | | | | | | |
| 99 | | | | | | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | | | | | | |
| 101 | | | | | | | | | | | | | | | | | | |
| 102 | | | | | | | | | | | | | | | | | | |
| 103 | | | | | | | | | | | | | | | | | | |
| 104 | | | | | | | | | | | | | | | | | | |
| 105 | | | | | | | | | | | | | | | | | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y003.D Vial: 3
Acq On : 19 Mar 19 18:31 Operator: MA
Sample : 50ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:46 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Mar 20 09:42:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 114637 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 472309 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 256108 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.60 | 188 | 425827 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 388787 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 380454 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 440131 | 102.72345 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 51.362% | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 576782 | 102.96746 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 51.484% | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 259817 | 52.06712 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 52.067% | |
| 46) 2-Fluorobiphenyl(S) | 8.08 | 172 | 475108 | 50.24297 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 50.243% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 91088 | 107.31607 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 53.658% | |
| 82) Terphenyl-D14(S) | 12.46 | 244 | 487603 | 51.30654 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 51.307% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 4430 | 5.70818 | 100 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 73272 | 50.29680 ppb | 100 |
| 4) Pyridine | 1.95 | 79 | 178684 | 51.00094 ppb | 100 |
| 7) Phenol | 5.03 | 94 | 298210 | 48.11297 ppb | 100 |
| 8) Aniline | 5.03 | 93 | 287448 | 47.57204 ppb | 100 |
| 9) Bis (2-chloroethyl) ether | 5.10 | 63 | 134256 | 48.73577 ppb | 100 |
| 10) 2-Chlorophenol | 5.17 | 128 | 222358 | 49.31260 ppb | 100 |
| 11) 1,3-DCB | 5.33 | 146 | 230327 | 48.65913 ppb | 100 |
| 12) 1,4-DCB | 5.42 | 146 | 238399 | 48.97673 ppb | 100 |
| 13) Benzyl alcohol | 5.57 | 108 | 132506 | 50.53539 ppb | 100 |
| 14) 1,2-DCB | 5.59 | 146 | 220888 | 48.96362 ppb | 100 |
| 15) 2-Methylphenol | 5.71 | 107 | 190581 | 48.51630 ppb | 100 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 198207 | 48.84754 ppb | 100 |
| 17) Acetophenone | 5.87 | 105 | 294577 | 48.96670 ppb | 100 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 464156 | 98.43562 ppb | 100 |
| 19) n-Nitrosodi-n-propylamine | 5.87 | 70 | 161718 | 48.97969 ppb | 100 |
| 20) Hexachloroethane | 5.96 | 117 | 89016 | 48.57976 ppb | 100 |
| 23) Nitrobenzene | 6.06 | 77 | 238631 | 49.50538 ppb | 100 |
| 24) Isophorone | 6.32 | 82 | 418697 | 49.94868 ppb | 100 |
| 25) 2-Nitrophenol | 6.41 | 139 | 126352 | 51.70904 ppb | 100 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 191726 | 49.77633 ppb | 100 |
| 27) Benzoic acid | 6.61 | 105 | 132350 | 50.34444 ppb | 100 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 254996 | 49.79802 ppb | 100 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 165330 | 50.62002 ppb | 100 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 180070 | 50.22423 ppb | 100 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 280998 | 49.33330 ppb | 100 |
| 32) Naphthalene | 6.86 | 128 | 636316 | 49.78667 ppb | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 232189 | 49.27866 ppb | 100 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 165733 | 50.46907 ppb | 100 |
| 35) Hexachloropropene | 6.95 | 213 | 102692 | 51.54934 ppb | 100 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 88022 | 50.04871 ppb | 100 |
| 37) Caprolactum | 7.37 | 55 | 83739 | 50.88266 ppb | 100 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y003.D Vial: 3
Acq On : 19 Mar 19 18:31 Operator: MA
Sample : 50ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:46 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Mar 20 09:42:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | Qvalue |
|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.51 | 107 | 201357 | 50.85987 | ppb | 100 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 404769 | 49.66629 | ppb | 100 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 412817 | 48.87466 | ppb | 100 |
| 42) | Hexachlorocyclopentadiene | 7.82 | 237 | 28347 | 50.32166 | ppb | 100 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 166150 | 49.69069 | ppb | 100 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 109340 | 50.84958 | ppb | 100 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 114208 | 49.41944 | ppb | 100 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 523036 | 49.40623 | ppb | 100 |
| 48) | 2-Chloronaphthalene | 8.21 | 162 | 390686 | 49.06511 | ppb | 100 |
| 49) | 2-Nitroaniline | 8.35 | 65 | 132948 | 50.94556 | ppb | 100 |
| 50) | Dimethyl phthalate | 8.54 | 163 | 452410 | 48.88515 | ppb | 100 |
| 51) | 2,6-DNT | 8.63 | 165 | 107526 | 49.68734 | ppb | 100 |
| 52) | Acenaphthylene | 8.70 | 152 | 618641 | 49.08888 | ppb | 100 |
| 53) | 3-Nitroaniline | 8.84 | 138 | 120032 | 50.46037 | ppb | 100 |
| 54) | Acenaphthene | 8.90 | 154 | 395327 | 48.70090 | ppb | 100 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 45050 | 48.81434 | ppb | 96 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 72463 | 52.83268 | ppb | 100 |
| 57) | Dibenzofuran | 9.10 | 168 | 539583 | 48.98033 | ppb | 100 |
| 58) | 2,4-DNT | 9.11 | 165 | 149368 | 51.06896 | ppb | 100 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.25 | 232 | 79846 | 54.41028 | ppb | 100 |
| 60) | Diethyl phthalate | 9.36 | 149 | 447162 | 48.96183 | ppb | 100 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 207297 | 49.24255 | ppb | 100 |
| 62) | Fluorene | 9.50 | 166 | 449417 | 48.90581 | ppb | 100 |
| 63) | 4-Nitroaniline | 9.55 | 138 | 118496 | 49.24349 | ppb | 100 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 86742 | 54.59940 | ppb | 100 |
| 67) | Diphenyl amine | 9.64 | 169 | 697220 | 97.59456 | ppb | 100 |
| 68) | n-Nitrosodiphenylamine | 9.64 | 169 | 697220 | 97.59456 | ppb | 100 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 474998 | 47.50747 | ppb | 100 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 110691 | 49.65994 | ppb | 100 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 102559 | 49.54057 | ppb | 100 |
| 72) | Atrazine | 10.26 | 200 | 60502 | 24.78178 | ppb | 100 |
| 73) | Pentachlorophenol | 10.40 | 266 | 40781 | 53.51964 | ppb | 100 |
| 74) | Phenanthrene | 10.63 | 178 | 638282 | 49.05585 | ppb | 100 |
| 75) | Anthracene | 10.68 | 178 | 669670 | 48.72190 | ppb | 100 |
| 76) | Carbazol | 10.88 | 167 | 615499 | 48.62748 | ppb | 100 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 792368 | 49.99257 | ppb | 100 |
| 78) | Fluoranthene | 12.02 | 202 | 666118 | 48.96306 | ppb | 100 |
| 80) | Benzidine | 12.19 | 184 | 125559 | 40.87845 | ppb | 100 |
| 81) | Pyrene | 12.28 | 202 | 695754 | 48.54023 | ppb | 100 |
| 83) | Butyl benzylphthalate | 13.01 | 149 | 354521 | 48.86000 | ppb | 100 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 171204 | 47.50798 | ppb | 100 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 616195 | 48.61545 | ppb | 100 |
| 86) | Bis (2-ethylhexyl) phthala | 13.66 | 149 | 498649 | 47.98090 | ppb | 100 |
| 87) | Chrysene | 13.73 | 228 | 598755 | 48.99615 | ppb | 100 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 882741 | 49.26053 | ppb | 100 |
| 90) | Benzo (b) fluoranthene | 15.04 | 252 | 505099 | 44.60811 | ppb | 100 |
| 91) | Benzo (k) fluoranthene | 15.04 | 252 | 505099 | 44.60811 | ppb | 100 |
| 92) | Benzo (a) pyrene | 15.46 | 252 | 557254 | 49.41467 | ppb | 100 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.47 | 276 | 605012 | 49.86727 | ppb | 100 |
| 94) | Dibenz (a,h) anthracene | 17.49 | 278 | 530453 | 49.86829 | ppb | 100 |
| 95) | Benzo (g,h,i) perylene | 18.05 | 276 | 480148 | 49.59085 | ppb | 100 |

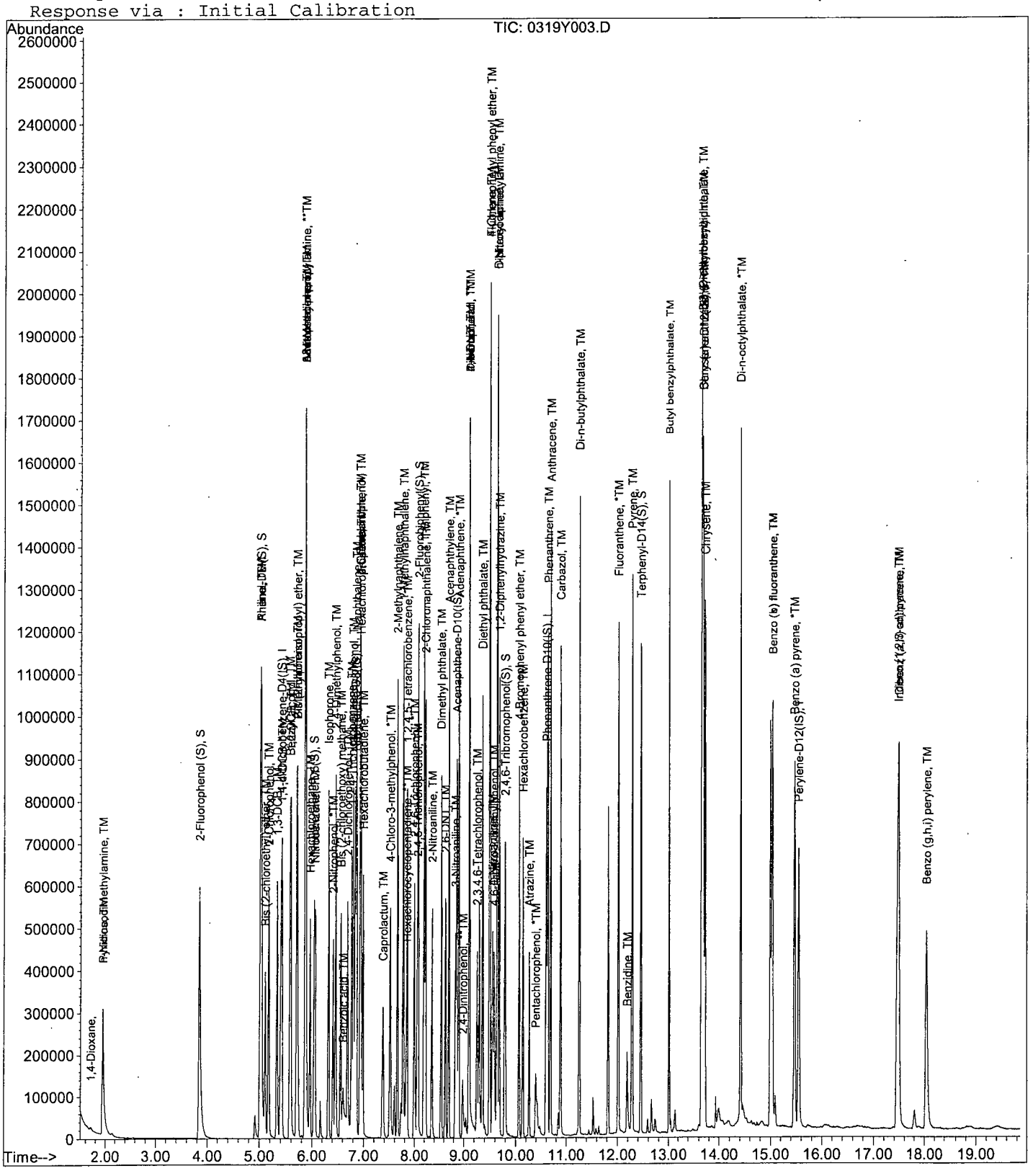
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y003.D Vial: 3
Acq On : 19 Mar 19 18:31 Operator: MA
Sample : 50ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:46 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y004.D Vial: 4
Acq On : 19 Mar 19 18:58 Operator: MA
Sample : 4ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 19 20:40 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 20:39:51 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 114954 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.83 | 136 | 490093 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 262404 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 432886 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 405658 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 394479 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 0.00 | 112 | 0d | 0.00000 ppb | |
| Spiked Amount 200.000 | | | Recovery = | 0.000% | |
| 6) Phenol-D6 (S) | 0.00 | 99 | 0d | 0.00000 ppb | |
| Spiked Amount 200.000 | | | Recovery = | 0.000% | |
| 22) Nitrobenzene-D5(S) | 0.00 | 82 | 0d | 0.00000 ppb | |
| Spiked Amount 100.000 | | | Recovery = | 0.000% | |
| 46) 2-Fluorobiphenyl(S) | 0.00 | 172 | 0d | 0.00000 ppb | |
| Spiked Amount 100.000 | | | Recovery = | 0.000% | |
| 64) 2,4,6-Tribromophenol(S) | 0.00 | 330 | 0d | 0.00000 ppb | |
| Spiked Amount 200.000 | | | Recovery = | 0.000% | |
| 82) Terphenyl-D14(S) | 0.00 | 244 | 0d | 0.00000 ppb | |
| Spiked Amount 100.000 | | | Recovery = | 0.000% | |
| **Target Compounds** | | | | | Qvalue |
| 92) Benzo (a) pyrene | 15.47 | 252 | 49367 | 4.21111 ppb | 97 |
| 94) Dibenz (a,h) anthracene | 17.49 | 278 | 46216 | 4.19356 ppb | 97 |

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

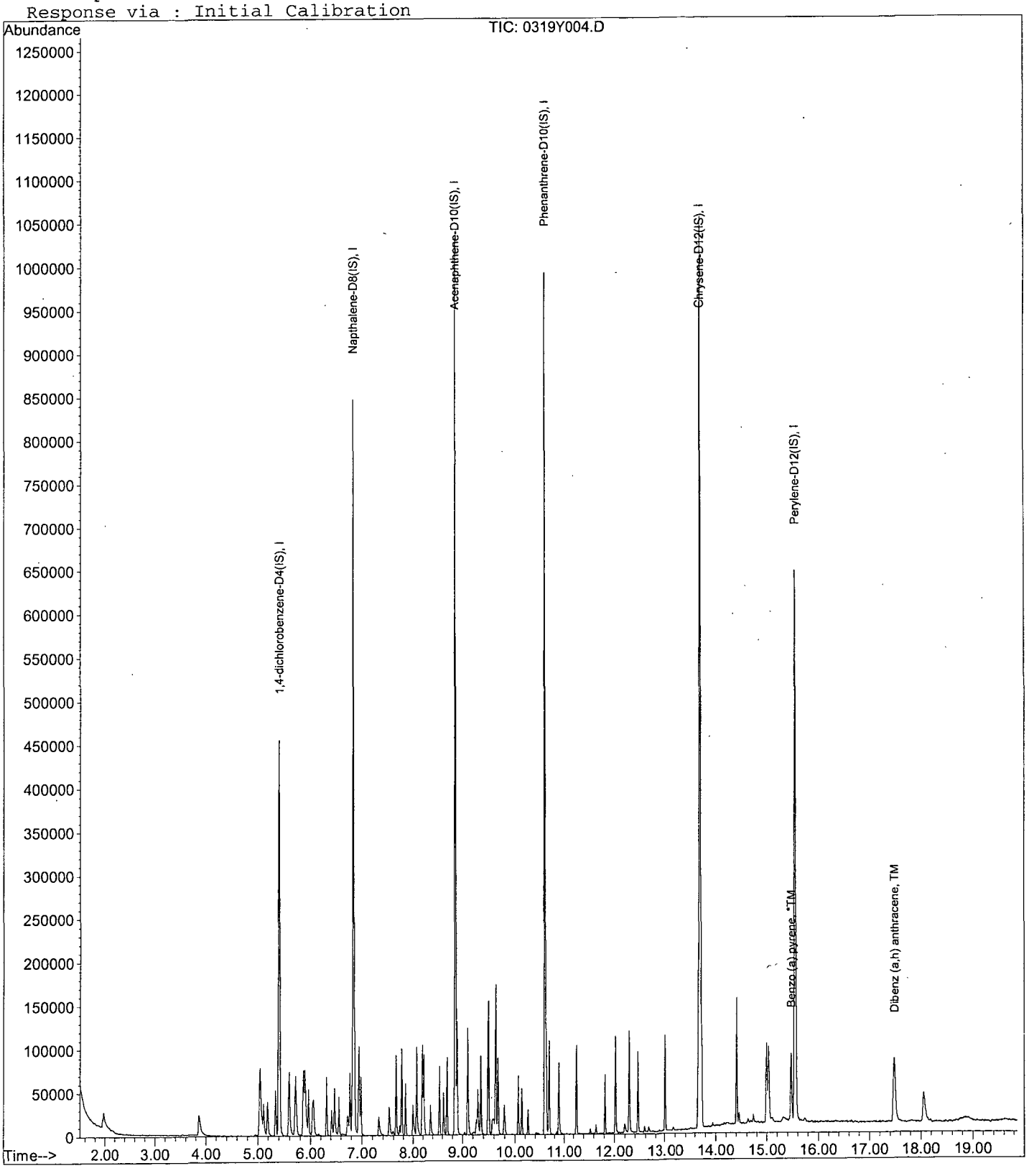
Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y004.D
Acq On : 19 Mar 19 18:58
Sample : 4ug/mL 8270 03/13/19
Misc :

Vial: 4
Operator: MA
Inst : Yoda
Multiplr: 1.00

Quant Time: Mar 19 20:40 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y005.D Vial: 5
Acq On : 19 Mar 19 19:26 Operator: MA
Sample : 5ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 115611 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 503407 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.85 | 164 | 266346 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.60 | 188 | 439621 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 399547 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 399700 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.86 | 112 | 39728 | 9.19412 ppb | 0.02 |
| Spiked Amount 200.000 | | | Recovery = | 4.597% | |
| 6) Phenol-D6 (S) | 5.03 | 99 | 53431 | 9.45817 ppb | 0.02 |
| Spiked Amount 200.000 | | | Recovery = | 4.729% | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 25398 | 4.77532 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 4.775% | |
| 46) 2-Fluorobiphenyl(S) | 8.07 | 172 | 49637 | 5.04737 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 5.047% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 7376 | 8.35606 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 4.178% | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 48790 | 4.99552 ppb | -0.01 |
| Spiked Amount 100.000 | | | Recovery = | 4.996% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.72 | 58 | 301 | 0.38458 | # 1 |
| 3) n-Nitrosodimethylamine | 1.95 | 42 | 9295 | 6.32670 ppb | 67 |
| 4) Pyridine | 1.98 | 79 | 18131 | 5.13145 ppb | 98 |
| 7) Phenol | 5.05 | 94 | 34943 | 5.59018 ppb | 97 |
| 8) Aniline | 5.04 | 93 | 33010 | 5.41706 ppb | 90 |
| 9) Bis (2-chloroethyl) ether | 5.10 | 63 | 15432 | 5.55472 ppb | 98 |
| 10) 2-Chlorophenol | 5.19 | 128 | 24557 | 5.40015 ppb | 97 |
| 11) 1,3-DCB | 5.34 | 146 | 27006 | 5.65725 ppb | 98 |
| 12) 1,4-DCB | 5.42 | 146 | 28848 | 5.87661 ppb | 99 |
| 13) Benzyl alcohol | 5.58 | 108 | 13586 | 5.13780 ppb | 98 |
| 14) 1,2-DCB | 5.59 | 146 | 26355 | 5.79282 ppb | 98 |
| 15) 2-Methylphenol | 5.71 | 107 | 23457 | 5.92115 ppb | 96 |
| 16) Bis (2-chloroisopropyl) et | 5.71 | 45 | 23325 | 5.69995 ppb | 91 |
| 17) Acetophenone | 5.86 | 105 | 34635 | 5.70877 ppb | 78 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 53388 | 11.22684 ppb | 97 |
| 19) n-Nitrosodi-n-propylamine | 5.86 | 70 | 19145 | 5.74961 ppb | 96 |
| 20) Hexachloroethane | 5.96 | 117 | 10587 | 5.72909 ppb | 94 |
| 23) Nitrobenzene | 6.06 | 77 | 29173 | 5.67824 ppb | 94 |
| 24) Isophorone | 6.32 | 82 | 50308 | 5.63078 ppb | 96 |
| 25) 2-Nitrophenol | 6.42 | 139 | 13403 | 5.14628 ppb | 98 |
| 26) 2,4-Dimethylphenol | 6.47 | 122 | 23401 | 5.70011 ppb | 96 |
| 27) Benzoic acid | 6.63 | 105 | 6735 | 2.38744 ppb | 94 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 30463 | 5.58160 ppb | 96 |
| 29) 2,4-Dichlorophenol | 6.73 | 162 | 18460 | 5.30285 ppb | 96 |
| 30) 1,2,4-Trichlorobenzene | 6.77 | 180 | 21184 | 5.54354 ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.81 | 107 | 35156 | 5.79086 ppb | 100 |
| 32) Naphthalene | 6.86 | 128 | 77852 | 5.71501 ppb | 98 |
| 33) 4-Chloroaniline | 6.93 | 127 | 28396 | 5.65433 ppb | 97 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 19414 | 5.54675 ppb | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 10616 | 4.99982 ppb | 98 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 10662 | 5.68784 ppb | 94 |
| 37) Caprolactum | 7.32 | 55 | 9298 | 5.30076 ppb | 98 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y005.D Vial: 5
Acq On : 19 Mar 19 19:26 Operator: MA
Sample : 5ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.51 | 107 | 22835 | 5.41149 | ppb | | 95 |
| 39) | 2-Methylnaphthalene | 7.66 | 142 | 49109 | 5.65357 | ppb | | 94 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 51788 | 5.75258 | ppb | | 100 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 19399 | 5.57867 | ppb | | 97 |
| 44) | 2,4,6-Trichlorophenol | 8.00 | 196 | 11813 | 5.28257 | ppb | | 89 |
| 45) | 2,4,5-Trichlorophenol | 8.07 | 196 | 13189 | 5.48770 | ppb | | 93 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 62061 | 5.63697 | ppb | | 100 |
| 48) | 2-Chloronaphthalene | 8.21 | 162 | 46372 | 5.59987 | ppb | | 99 |
| 49) | 2-Nitroaniline | 8.35 | 65 | 14244 | 5.24848 | ppb | | 91 |
| 50) | Dimethyl phthalate | 8.54 | 163 | 53870 | 5.59717 | ppb | | 99 |
| 51) | 2,6-DNT | 8.63 | 165 | 11891 | 5.28357 | ppb | | 97 |
| 52) | Acenaphthylene | 8.70 | 152 | 74622 | 5.69362 | ppb | | 98 |
| 53) | 3-Nitroaniline | 8.84 | 138 | 12488 | 5.04805 | ppb | # | 88 |
| 54) | Acenaphthene | 8.89 | 154 | 49162 | 5.82354 | ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 9.05 | 184 | 114 | 7.13477 | ppb | # | 33 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 1432 | 17.24815 | ppb | # | 26 |
| 57) | Dibenzofuran | 9.10 | 168 | 66911 | 5.84034 | ppb | | 94 |
| 58) | 2,4-DNT | 9.10 | 165 | 15531 | 5.10594 | ppb | | 82 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 6236 | 4.08612 | ppb | | 95 |
| 60) | Diethyl phthalate | 9.36 | 149 | 53987 | 5.68406 | ppb | | 98 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.49 | 204 | 25947 | 5.92668 | ppb | | 94 |
| 62) | Fluorene | 9.49 | 166 | 54887 | 5.74325 | ppb | | 97 |
| 63) | 4-Nitroaniline | 9.57 | 138 | 13928 | 5.56559 | ppb | | 86 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.60 | 198 | 6121 | 3.73195 | ppb | | 87 |
| 67) | Diphenyl amine | 9.63 | 169 | 84233 | 11.42070 | ppb | | 98 |
| 68) | n-Nitrosodiphenylamine | 9.63 | 169 | 84233 | 11.42070 | ppb | | 98 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 58429 | 5.66048 | ppb | | 95 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 12632 | 5.48935 | ppb | | 97 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 12105 | 5.66379 | ppb | | 92 |
| 72) | Atrazine | 10.26 | 200 | 6913 | 2.74274 | ppb | | 94 |
| 73) | Pentachlorophenol | 10.43 | 266 | 696 | 7.10872 | ppb | # | 57 |
| 74) | Phenanthrene | 10.62 | 178 | 77308 | 5.75516 | ppb | | 98 |
| 75) | Anthracene | 10.68 | 178 | 79708 | 5.61720 | ppb | | 99 |
| 76) | Carbazol | 10.89 | 167 | 73559 | 5.62918 | ppb | | 98 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 92978 | 5.68216 | ppb | | 99 |
| 78) | Fluoranthene | 12.02 | 202 | 79788 | 5.68080 | ppb | | 98 |
| 80) | Benzidine | 12.20 | 184 | 18852 | 5.94895 | ppb | | 96 |
| 81) | Pyrene | 12.28 | 202 | 84308 | 5.72346 | ppb | | 100 |
| 83) | Butyl benzylphthalate | 13.01 | 149 | 42179 | 5.65655 | ppb | | 94 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 21081 | 5.69230 | ppb | | 97 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 74607 | 5.72769 | ppb | | 98 |
| 86) | Bis (2-ethylhexyl) phthala | 13.66 | 149 | 64037 | 5.99582 | ppb | | 98 |
| 87) | Chrysene | 13.72 | 228 | 71859 | 5.72187 | ppb | | 97 |
| 88) | Di-n-octylphthalate | 14.41 | 149 | 104149 | 5.65542 | ppb | # | 94 |
| 90) | Benzo (b) fluoranthene | 15.03 | 252 | 70654 | 5.93939 | ppb | # | 94 |
| 91) | Benzo (k) fluoranthene | 15.03 | 252 | 70654 | 5.93939 | ppb | # | 94 |
| 92) | Benzo (a) pyrene | 15.46 | 252 | 64822 | 5.47133 | ppb | | 99 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.47 | 276 | 70934 | 5.56511 | ppb | | 97 |
| 94) | Dibenz (a,h) anthracene | 17.49 | 278 | 61171 | 5.47383 | ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 18.05 | 276 | 57086 | 5.61208 | ppb | | 98 |

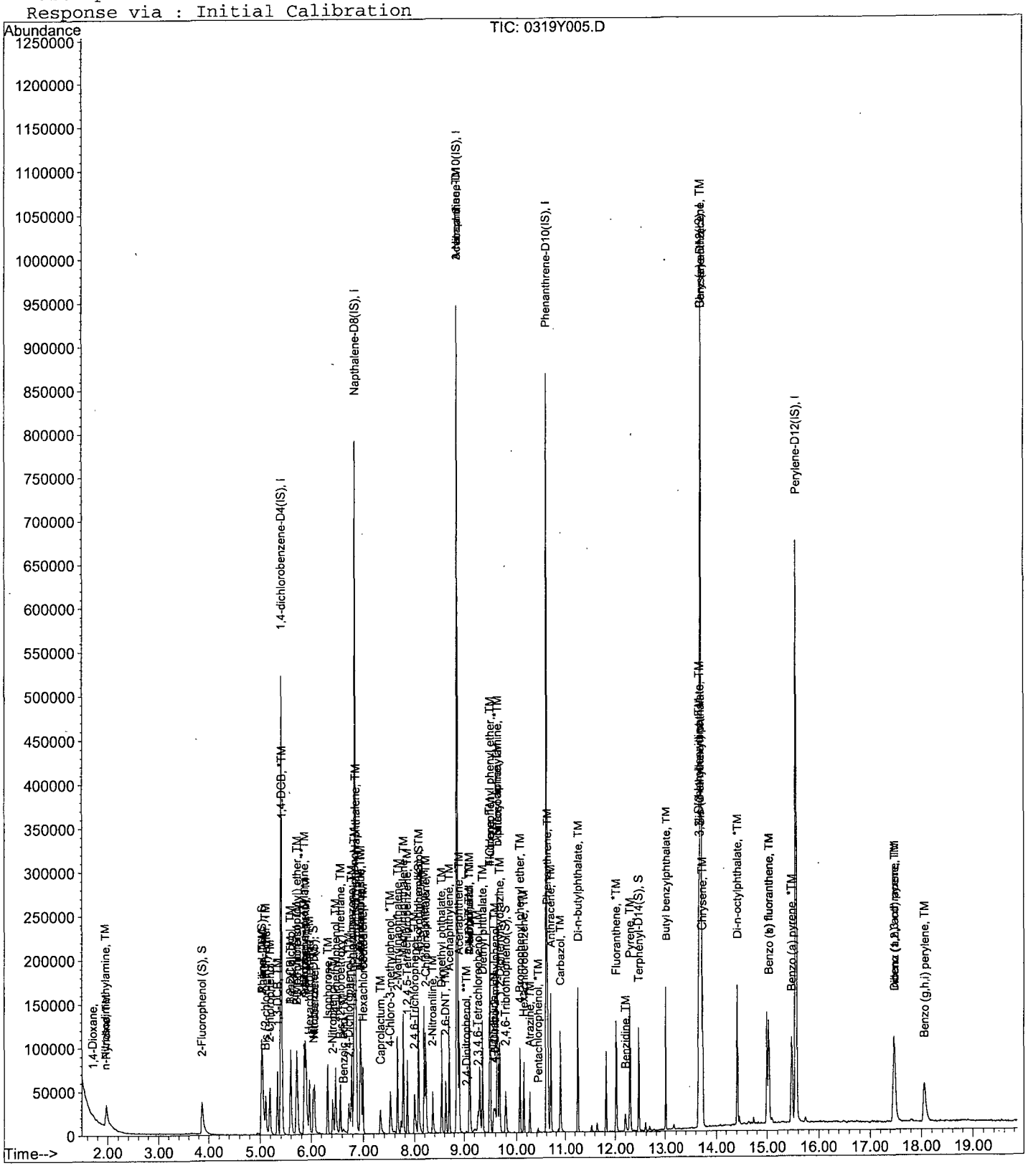
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y005.D  Vial: 5
Acq On : 19 Mar 19 19:26  Operator: MA
Sample : 5ug/mL 8270 03/13/19  Inst : Yoda
Misc :  Multiplr: 1.00

Quant Time: Mar 20 9:19 2019  Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y006.D Vial: 6
Acq On : 19 Mar 19 19:54 Operator: MA
Sample : 10ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:17 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 121984 | 40.00000 ppb | | 0.00 |
| 21) Napthalene-D8(IS) | 6.83 | 136 | 512288 | 40.00000 ppb | | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 269599 | 40.00000 ppb | | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 449398 | 40.00000 ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 410594 | 40.00000 ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 404320 | 40.00000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.85 | 112 | 93067 | 20.41293 ppb | | 0.01 |
| Spiked Amount 200.000 | | | Recovery = | 10.207% | | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 122377 | 20.53100 ppb | | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 10.266% | | |
| 22) Nitrobenzene-D5(S) | 6.04 | 82 | 57383 | 10.60208 ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 10.602% | | |
| 46) 2-Fluorobiphenyl(S) | 8.07 | 172 | 108893 | 10.93926 ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 10.939% | | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 17684 | 19.79197 ppb | | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 9.896% | | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 105565 | 10.51781 ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 10.518% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 698 | 0.84522 | # | 3 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 16466 | 10.62215 ppb | | 92 |
| 4) Pyridine | 1.96 | 79 | 42557 | 11.41525 ppb | | 95 |
| 7) Phenol | 5.03 | 94 | 73295 | 11.11313 ppb | | 86 |
| 8) Aniline | 5.03 | 93 | 71536 | 11.12600 ppb | | 91 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 31653 | 10.79819 ppb | | 96 |
| 10) 2-Chlorophenol | 5.18 | 128 | 52907 | 11.02656 ppb | | 97 |
| 11) 1,3-DCB | 5.33 | 146 | 55787 | 11.07578 ppb | | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 56752 | 10.95692 ppb | | 96 |
| 13) Benzyl alcohol | 5.57 | 108 | 29683 | 10.63873 ppb | | 98 |
| 14) 1,2-DCB | 5.59 | 146 | 52788 | 10.99660 ppb | | 98 |
| 15) 2-Methylphenol | 5.70 | 107 | 45159 | 10.80374 ppb | | 93 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 48455 | 11.22236 ppb | | 96 |
| 17) Acetophenone | 5.86 | 105 | 70767 | 11.05490 ppb | | 79 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 108589 | 21.64194 ppb | | 99 |
| 19) n-Nitrosodi-n-propylamine | 5.85 | 70 | 39282 | 11.18081 ppb | | 94 |
| 20) Hexachloroethane | 5.96 | 117 | 21924 | 11.24421 ppb | | 98 |
| 23) Nitrobenzene | 6.05 | 77 | 58158 | 11.12364 ppb | | 95 |
| 24) Isophorone | 6.31 | 82 | 100807 | 11.08733 ppb | | 100 |
| 25) 2-Nitrophenol | 6.42 | 139 | 28728 | 10.83931 ppb | | 96 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 44991 | 10.76910 ppb | | 99 |
| 27) Benzoic acid | 6.60 | 105 | 20618 | 7.18201 ppb | | 90 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 62236 | 11.20553 ppb | | 98 |
| 29) 2,4-Dichlorophenol | 6.71 | 162 | 38227 | 10.79078 ppb | | 94 |
| 30) 1,2,4-Trichlorobenzene | 6.77 | 180 | 43440 | 11.17053 ppb | | 97 |
| 31) 3,4-Dimethylphenol | 6.81 | 107 | 70107 | 11.34776 ppb | | 98 |
| 32) Naphthalene | 6.86 | 128 | 156443 | 11.28518 ppb | | 99 |
| 33) 4-Chloroaniline | 6.94 | 127 | 61067 | 11.94912 ppb | | 99 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 39255 | 11.02106 ppb | # | 95 |
| 35) Hexachloropropene | 6.95 | 213 | 22334 | 10.33630 ppb | | 98 |
| 36) Hexachlorobutadiene | 6.98 | 225 | 21272 | 11.15121 ppb | | 98 |
| 37) Caprolactum | 7.33 | 55 | 19734 | 11.05527 ppb | | 98 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y006.D Vial: 6
Acq On : 19 Mar 19 19:54 Operator: MA
Sample : 10ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:17 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

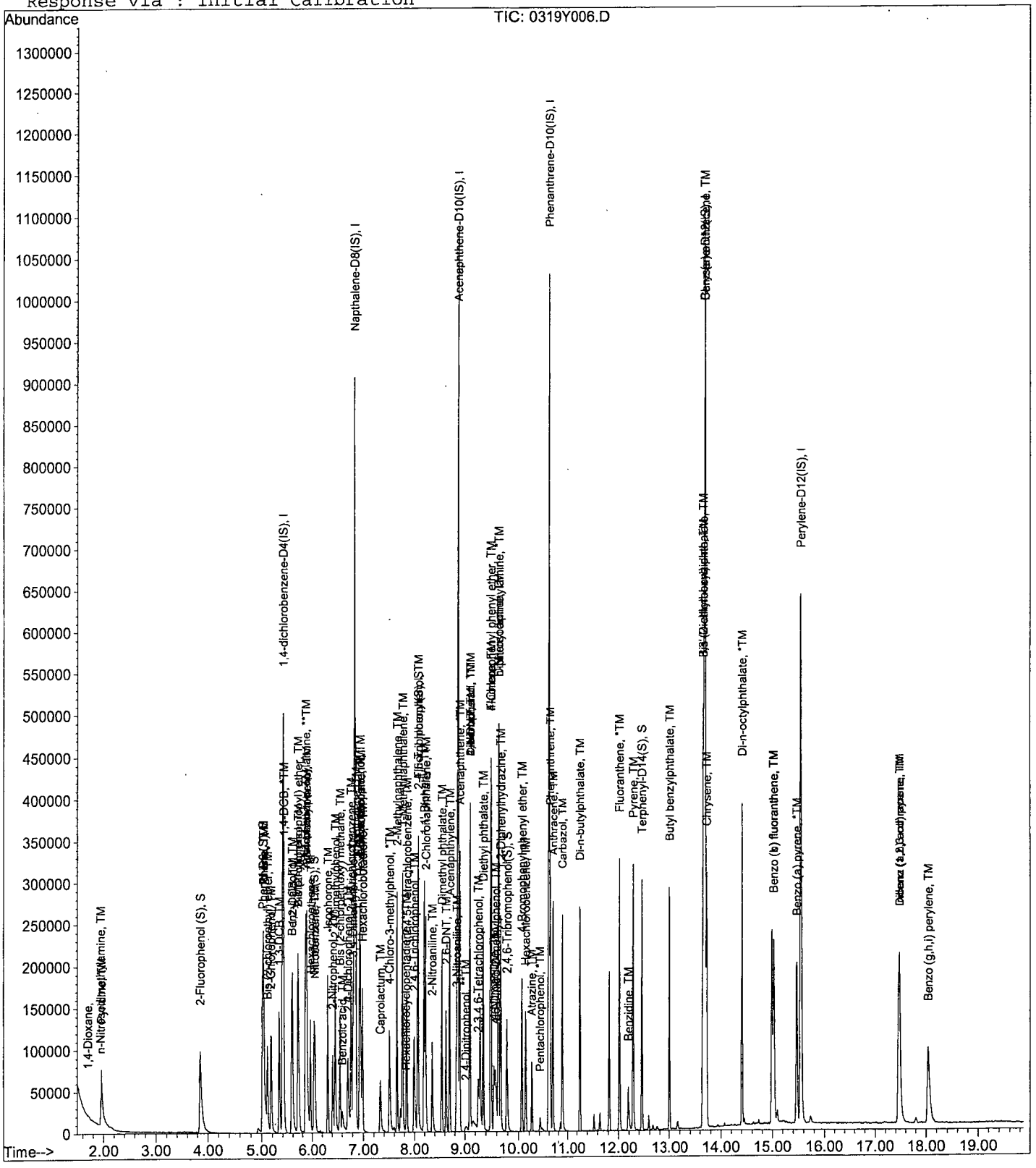
| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.50 | 107 | 46274 | 10.77600 ppb | | 96 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 98063 | 11.09358 ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.76 | 142 | 102639 | 11.20342 ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.82 | 237 | 696 | 15.95530 ppb | # | 86 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.85 | 216 | 40116 | 11.39717 ppb | | 99 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 24311 | 10.74029 ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 8.06 | 196 | 27355 | 11.24457 ppb | | 97 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 124754 | 11.19462 ppb | | 97 |
| 48) | 2-Chloronaphthalene | 8.22 | 162 | 96857 | 11.55529 ppb | | 93 |
| 49) | 2-Nitroaniline | 8.35 | 65 | 30428 | 11.07651 ppb | | 88 |
| 50) | Dimethyl phthalate | 8.54 | 163 | 109505 | 11.24045 ppb | | 98 |
| 51) | 2,6-DNT | 8.63 | 165 | 24341 | 10.68503 ppb | | 88 |
| 52) | Acenaphthylene | 8.70 | 152 | 147145 | 11.09161 ppb | | 100 |
| 53) | 3-Nitroaniline | 8.83 | 138 | 28068 | 11.20907 ppb | | 90 |
| 54) | Acenaphthene | 8.89 | 154 | 96774 | 11.32515 ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 9.02 | 184 | 4240 | 10.29161 ppb | # | 33 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 2643 | 17.74907 ppb | # | 57 |
| 57) | Dibenzofuran | 9.10 | 168 | 131289 | 11.32131 ppb | | 90 |
| 58) | 2,4-DNT | 9.10 | 165 | 33662 | 10.93312 ppb | # | 71 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 15327 | 9.92179 ppb | | 94 |
| 60) | Diethyl phthalate | 9.35 | 149 | 108817 | 11.31864 ppb | | 98 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.49 | 204 | 50202 | 11.32853 ppb | | 91 |
| 62) | Fluorene | 9.50 | 166 | 109490 | 11.31854 ppb | | 97 |
| 63) | 4-Nitroaniline | 9.55 | 138 | 28975 | 11.43862 ppb | | 96 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 15197 | 9.06397 ppb | | 93 |
| 67) | Diphenyl amine | 9.64 | 169 | 171955 | 22.80723 ppb | | 98 |
| 68) | n-Nitrosodiphenylamine | 9.64 | 169 | 171955 | 22.80723 ppb | | 98 |
| 69) | 1,2-Diphenylhydrazine | 9.67 | 77 | 113332 | 10.74050 ppb | | 96 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 26382 | 11.21511 ppb | | 88 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 24168 | 11.06191 ppb | # | 85 |
| 72) | Atrazine | 10.26 | 200 | 14699 | 5.70496 ppb | | 97 |
| 73) | Pentachlorophenol | 10.42 | 266 | 4554 | 11.29771 ppb | | 96 |
| 74) | Phenanthrene | 10.62 | 178 | 154357 | 11.24104 ppb | | 99 |
| 75) | Anthracene | 10.69 | 178 | 165890 | 11.43630 ppb | | 99 |
| 76) | Carbazol | 10.88 | 167 | 149122 | 11.16344 ppb | | 98 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 186080 | 11.12450 ppb | | 99 |
| 78) | Fluoranthene | 12.01 | 202 | 159257 | 11.09221 ppb | | 97 |
| 80) | Benzidine | 12.19 | 184 | 39860 | 12.23984 ppb | | 99 |
| 81) | Pyrene | 12.28 | 202 | 167082 | 11.03761 ppb | | 98 |
| 83) | Butyl benzylphthalate | 13.01 | 149 | 84725 | 11.05662 ppb | | 94 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 45275 | 11.89626 ppb | # | 97 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 149542 | 11.17168 ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.66 | 149 | 124012 | 11.29890 ppb | # | 97 |
| 87) | Chrysene | 13.72 | 228 | 147918 | 11.46127 ppb | | 97 |
| 88) | Di-n-octylphthalate | 14.41 | 149 | 210080 | 11.10068 ppb | | 97 |
| 90) | Benzo (b) fluoranthene | 15.03 | 252 | 127409 | 10.58801 ppb | | 100 |
| 91) | Benzo (k) fluoranthene | 15.03 | 252 | 127409 | 10.58801 ppb | | 100 |
| 92) | Benzo (a) pyrene | 15.47 | 252 | 131774 | 10.99536 ppb | | 99 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.46 | 276 | 146088 | 11.33034 ppb | | 98 |
| 94) | Dibenz (a,h) anthracene | 17.48 | 278 | 124313 | 10.99692 ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 18.04 | 276 | 113616 | 11.04188 ppb | | 99 |

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

Data File : M:\YODA\DATA\Y190319\0319Y006.D Vial: 6
Acq On : 19 Mar 19 19:54 Operator: MA
Sample : 10ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:17 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y007.D Vial: 7
Acq On : 19 Mar 19 20:22 Operator: MA
Sample : 20ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 118806 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 501030 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 264687 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 443329 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 402412 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 394461 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 184447 | 41.53801 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 20.769% | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 243905 | 42.01414 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 21.007% | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 110927 | 20.95539 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 20.955% | |
| 46) 2-Fluorobiphenyl(S) | 8.07 | 172 | 205898 | 21.06811 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 21.068% | |
| 64) 2,4,6-Tribromophenol(S) | 9.78 | 330 | 36355 | 41.44368 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 20.722% | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 204305 | 20.76951 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 20.770% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 1531 | 1.90351 | # 1 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 30296 | 20.06661 ppb | 87 |
| 4) Pyridine | 1.96 | 79 | 72084 | 19.85262 ppb | 93 |
| 7) Phenol | 5.03 | 94 | 135235 | 21.05307 ppb | 90 |
| 8) Aniline | 5.04 | 93 | 130467 | 20.83433 ppb | 83 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 58445 | 20.47142 ppb | 98 |
| 10) 2-Chlorophenol | 5.17 | 128 | 95389 | 20.41220 ppb | 98 |
| 11) 1,3-DCB | 5.33 | 146 | 99950 | 20.37458 ppb | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 103214 | 20.46023 ppb | 98 |
| 13) Benzyl alcohol | 5.57 | 108 | 53846 | 19.81527 ppb | 99 |
| 14) 1,2-DCB | 5.59 | 146 | 96064 | 20.54700 ppb | 98 |
| 15) 2-Methylphenol | 5.70 | 107 | 82532 | 20.27295 ppb | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 86001 | 20.45096 ppb | 96 |
| 17) Acetophenone | 5.86 | 105 | 126134 | 20.23115 ppb | 85 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 199094 | 40.74112 ppb | 98 |
| 19) n-Nitrosodi-n-propylamine | 5.86 | 70 | 68841 | 20.11830 ppb | 98 |
| 20) Hexachloroethane | 5.96 | 117 | 38241 | 20.13738 ppb | 95 |
| 23) Nitrobenzene | 6.05 | 77 | 105433 | 20.61886 ppb | 93 |
| 24) Isophorone | 6.32 | 82 | 181974 | 20.46426 ppb | 96 |
| 25) 2-Nitrophenol | 6.41 | 139 | 51636 | 19.92046 ppb | 96 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 81380 | 19.91691 ppb | 98 |
| 27) Benzoic acid | 6.61 | 105 | 50723 | 18.06571 ppb | 94 |
| 28) Bis (2-chloroethoxy) metha | 6.55 | 93 | 110336 | 20.31227 ppb | 98 |
| 29) 2,4-Dichlorophenol | 6.70 | 162 | 70409 | 20.32176 ppb | 98 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 78773 | 20.71151 ppb | 95 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 122536 | 20.27977 ppb | 99 |
| 32) Naphthalene | 6.86 | 128 | 275604 | 20.32770 ppb | 99 |
| 33) 4-Chloroaniline | 6.93 | 127 | 107839 | 21.57524 ppb | 98 |
| 34) 2,6-Dichlorophenol | 6.93 | 162 | 71676 | 20.57560 ppb | 93 |
| 35) Hexachloropropene | 6.95 | 213 | 43151 | 20.41925 ppb | 96 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 38425 | 20.59577 ppb | 100 |
| 37) Caprolactum | 7.34 | 55 | 35007 | 20.05208 ppb | 96 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y007.D Vial: 7
Acq On : 19 Mar 19 20:22 Operator: MA
Sample : 20ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|
| 38) 4-Chloro-3-methylphenol | 7.50 | 107 | 84939 | 20.22452 ppb | | 96 |
| 39) 2-Methylnaphthalene | 7.65 | 142 | 176107 | 20.37012 ppb | | 100 |
| 40) 1-Methylnaphthalene | 7.76 | 142 | 181203 | 20.22340 ppb | | 99 |
| 42) Hexachlorocyclopentadiene | 7.83 | 237 | 3981 | 20.96140 ppb | | 89 |
| 43) 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 70192 | 20.31201 ppb | | 99 |
| 44) 2,4,6-Trichlorophenol | 7.99 | 196 | 44129 | 19.85742 ppb | | 98 |
| 45) 2,4,5-Trichlorophenol | 8.06 | 196 | 47541 | 19.90491 ppb | | 92 |
| 47) 1,1'-Biphenyl | 8.19 | 154 | 225012 | 20.56583 ppb | | 99 |
| 48) 2-Chloronaphthalene | 8.22 | 162 | 169311 | 20.57409 ppb | | 97 |
| 49) 2-Nitroaniline | 8.35 | 65 | 55513 | 20.58305 ppb | | 88 |
| 50) Dimethyl phthalate | 8.54 | 163 | 196774 | 20.57326 ppb | | 99 |
| 51) 2,6-DNT | 8.62 | 165 | 45513 | 20.34971 ppb | | 86 |
| 52) Acenaphthylene | 8.70 | 152 | 266936 | 20.49472 ppb | | 100 |
| 53) 3-Nitroaniline | 8.83 | 138 | 50779 | 20.65514 ppb | # | 84 |
| 54) Acenaphthene | 8.89 | 154 | 171432 | 20.43445 ppb | | 99 |
| 55) 2,4-Dinitrophenol | 8.99 | 184 | 13024 | 17.19958 ppb | # | 52 |
| 56) 4-Nitrophenol | 9.10 | 65 | 5285 | 18.90553 ppb | # | 65 |
| 57) Dibenzofuran | 9.10 | 168 | 232569 | 20.42706 ppb | | 91 |
| 58) 2,4-DNT | 9.10 | 165 | 62972 | 20.83231 ppb | # | 75 |
| 59) 2,3,4,6-Tetrachlorophenol | 9.25 | 232 | 30114 | 19.85577 ppb | | 99 |
| 60) Diethyl phthalate | 9.36 | 149 | 194484 | 20.60474 ppb | | 98 |
| 61) 4-Chlorophenyl phenyl ethe | 9.49 | 204 | 89386 | 20.54507 ppb | | 89 |
| 62) Fluorene | 9.50 | 166 | 196332 | 20.67248 ppb | | 98 |
| 63) 4-Nitroaniline | 9.55 | 138 | 52779 | 21.22251 ppb | | 95 |
| 66) 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 33489 | 20.24732 ppb | | 94 |
| 67) Diphenyl amine | 9.64 | 169 | 305041 | 41.01295 ppb | | 98 |
| 68) n-Nitrosodiphenylamine | 9.64 | 169 | 305041 | 41.01295 ppb | | 98 |
| 69) 1,2-Diphenylhydrazine | 9.67 | 77 | 205211 | 19.71414 ppb | | 93 |
| 70) 4-Bromophenyl phenyl ether | 10.06 | 248 | 46973 | 20.24181 ppb | | 94 |
| 71) Hexachlorobenzene | 10.14 | 284 | 43877 | 20.35782 ppb | | 93 |
| 72) Atrazine | 10.26 | 200 | 25376 | 9.98374 ppb | | 97 |
| 73) Pentachlorophenol | 10.41 | 266 | 11068 | 18.56422 ppb | | 94 |
| 74) Phenanthrene | 10.62 | 178 | 276104 | 20.38252 ppb | | 99 |
| 75) Anthracene | 10.68 | 178 | 293214 | 20.49062 ppb | | 99 |
| 76) Carbazol | 10.88 | 167 | 270495 | 20.52677 ppb | | 100 |
| 77) Di-n-butylphthalate | 11.26 | 149 | 341694 | 20.70728 ppb | | 99 |
| 78) Fluoranthene | 12.01 | 202 | 288849 | 20.39367 ppb | # | 95 |
| 80) Benzidine | 12.19 | 184 | 69416 | 21.74901 ppb | | 98 |
| 81) Pyrene | 12.28 | 202 | 301452 | 20.31913 ppb | | 99 |
| 83) Butyl benzylphthalate | 13.01 | 149 | 153106 | 20.38659 ppb | | 90 |
| 84) 3,3'-Dichlorobenzidine | 13.65 | 252 | 77820 | 20.86338 ppb | # | 96 |
| 85) Benz (a) anthracene | 13.68 | 228 | 266081 | 20.28200 ppb | | 98 |
| 86) Bis (2-ethylhexyl) phthala | 13.66 | 149 | 219023 | 20.36123 ppb | | 98 |
| 87) Chrysene | 13.72 | 228 | 252603 | 19.97064 ppb | | 99 |
| 88) Di-n-octylphthalate | 14.41 | 149 | 371572 | 20.03317 ppb | # | 94 |
| 90) Benzo (b) fluoranthene | 15.03 | 252 | 236137 | 20.11405 ppb | | 99 |
| 91) Benzo (k) fluoranthene | 15.03 | 252 | 236137 | 20.11405 ppb | | 99 |
| 92) Benzo (a) pyrene | 15.47 | 252 | 234062 | 20.01851 ppb | | 99 |
| 93) Indeno (1,2,3-cd) pyrene | 17.46 | 276 | 254606 | 20.24037 ppb | | 98 |
| 94) Dibenz (a,h) anthracene | 17.48 | 278 | 220046 | 19.95212 ppb | | 97 |
| 95) Benzo (g,h,i) perylene | 18.04 | 276 | 204083 | 20.32972 ppb | | 98 |

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

Quantitation Report

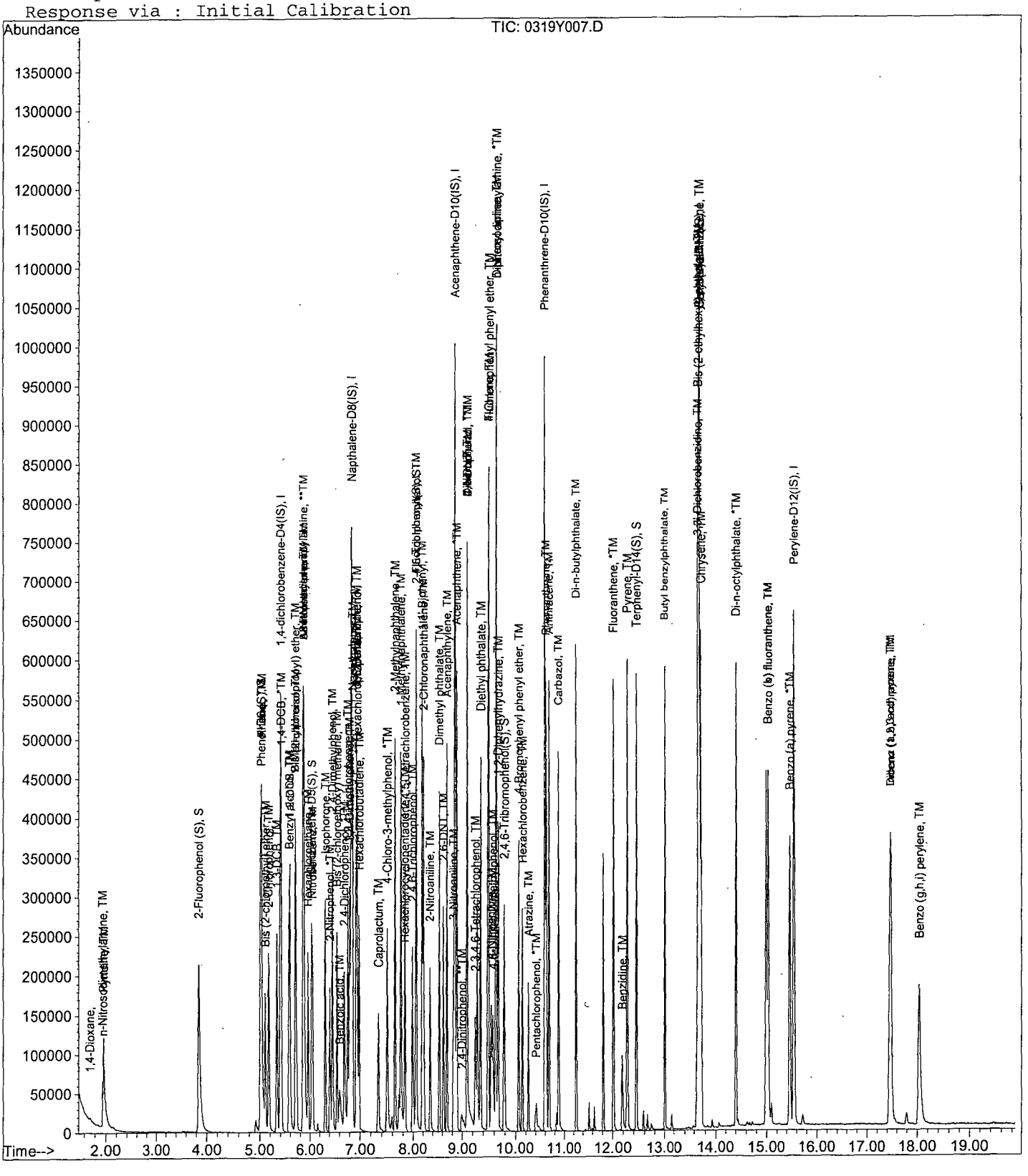
Data File : M:\YODA\DATA\Y190319\0319Y007.D
Acq On : 19 Mar 19 20:22
Sample : 20ug/mL 8270 03/13/19
Misc :

Vial: 7
Operator: MA
Inst : Yoda
Multiplr: 1.00

Quant Time: Mar 20 9:19 2019

Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y008.D Vial: 8
Acq On : 19 Mar 19 20:49 Operator: MA
Sample : 40ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 120598 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 508253 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.85 | 164 | 266643 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 448301 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 408816 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 402433 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 350844 | 77.83705 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 38.919% | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 455781 | 77.34446 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 38.672% | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 208001 | 38.73536 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 38.735% | |
| 46) 2-Fluorobiphenyl(S) | 8.07 | 172 | 379372 | 38.53374 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 38.534% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 70048 | 79.26698 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 39.634% | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 375873 | 37.61243 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 37.612% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 3334 | 4.08361 | 70 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 53816 | 35.11547 ppb | 99 |
| 4) Pyridine | 1.96 | 79 | 149718 | 40.62106 ppb | 94 |
| 7) Phenol | 5.03 | 94 | 246766 | 37.84513 ppb | 93 |
| 8) Aniline | 5.03 | 93 | 248414 | 39.07988 ppb | 97 |
| 9) Bis (2-chloroethyl) ether | 5.10 | 63 | 113368 | 39.11914 ppb | 97 |
| 10) 2-Chlorophenol | 5.17 | 128 | 182996 | 38.57726 ppb | 98 |
| 11) 1,3-DCB | 5.34 | 146 | 191910 | 38.53912 ppb | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 195735 | 38.22422 ppb | 98 |
| 13) Benzyl alcohol | 5.57 | 108 | 107441 | 38.95066 ppb | 97 |
| 14) 1,2-DCB | 5.59 | 146 | 180303 | 37.99173 ppb | 98 |
| 15) 2-Methylphenol | 5.70 | 107 | 157863 | 38.20086 ppb | 97 |
| 16) Bis (2-chloroisopropyl) et | 5.71 | 45 | 162678 | 38.10985 ppb | 95 |
| 17) Acetophenone | 5.87 | 105 | 243630 | 38.49616 ppb | 96 |
| 18) 3&4-Methylphenol | 5.87 | 107 | 381090 | 76.82465 ppb | 98 |
| 19) n-Nitrosodi-n-propylamine | 5.86 | 70 | 134357 | 38.68144 ppb | 96 |
| 20) Hexachloroethane | 5.96 | 117 | 74608 | 38.70414 ppb | 97 |
| 23) Nitrobenzene | 6.06 | 77 | 198863 | 38.33767 ppb | 99 |
| 24) Isophorone | 6.32 | 82 | 342537 | 37.97327 ppb | 98 |
| 25) 2-Nitrophenol | 6.41 | 139 | 103270 | 39.27397 ppb | 99 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 162398 | 39.18039 ppb | 95 |
| 27) Benzoic acid | 6.60 | 105 | 116208 | 40.80091 ppb | 97 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 210236 | 38.15330 ppb | 99 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 136350 | 38.79467 ppb | 97 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 149205 | 38.67244 ppb | 98 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 231946 | 37.84165 ppb | 100 |
| 32) Naphthalene | 6.86 | 128 | 528234 | 38.40722 ppb | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 199123 | 39.27218 ppb | 100 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 135706 | 38.40269 ppb | 99 |
| 35) Hexachloropropene | 6.95 | 213 | 84365 | 39.35456 ppb | 99 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 72578 | 38.34890 ppb | 97 |
| 37) Caprolactum | 7.36 | 55 | 68694 | 38.78887 ppb | 99 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y008.D Vial: 8
Acq On : 19 Mar 19 20:49 Operator: MA
Sample : 40ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.50 | 107 | 165627 | 38.87639 | ppb | | 94 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 333856 | 38.06799 | ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 350525 | 38.56483 | ppb | | 98 |
| 42) | Hexachlorocyclopentadiene | 7.82 | 237 | 17908 | 38.38937 | ppb | | 96 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 135909 | 39.04054 | ppb | | 100 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 88646 | 39.59683 | ppb | | 97 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 94897 | 39.44090 | ppb | | 98 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 430945 | 39.09893 | ppb | | 98 |
| 48) | 2-Chloronaphthalene | 8.21 | 162 | 320001 | 38.60017 | ppb | | 99 |
| 49) | 2-Nitroaniline | 8.34 | 65 | 106898 | 39.34478 | ppb | | 88 |
| 50) | Dimethyl phthalate | 8.54 | 163 | 374261 | 38.84296 | ppb | | 99 |
| 51) | 2,6-DNT | 8.63 | 165 | 89947 | 39.92197 | ppb | | 94 |
| 52) | Acenaphthylene | 8.70 | 152 | 510591 | 38.91442 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.83 | 138 | 100451 | 40.56025 | ppb | | 86 |
| 54) | Acenaphthene | 8.90 | 154 | 329590 | 38.99847 | ppb | | 98 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 35320 | 34.37892 | ppb | | 89 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 54344 | 41.65344 | ppb | | 98 |
| 57) | Dibenzofuran | 9.10 | 168 | 447008 | 38.97371 | ppb | | 95 |
| 58) | 2,4-DNT | 9.10 | 165 | 121371 | 39.85725 | ppb | # | 63 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.25 | 232 | 62752 | 41.07223 | ppb | | 95 |
| 60) | Diethyl phthalate | 9.36 | 149 | 374381 | 39.37309 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 167169 | 38.14137 | ppb | | 99 |
| 62) | Fluorene | 9.50 | 166 | 375496 | 39.24725 | ppb | | 99 |
| 63) | 4-Nitroaniline | 9.55 | 138 | 98403 | 39.27774 | ppb | | 93 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 69984 | 41.84279 | ppb | | 97 |
| 67) | Diphenyl amine | 9.63 | 169 | 585175 | 77.80455 | ppb | | 98 |
| 68) | n-Nitrosodiphenylamine | 9.63 | 169 | 585175 | 77.80455 | ppb | | 98 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 389175 | 36.97247 | ppb | | 98 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 91164 | 38.84908 | ppb | | 98 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 83502 | 38.31313 | ppb | | 95 |
| 72) | Atrazine | 10.26 | 200 | 50408 | 19.61218 | ppb | | 98 |
| 73) | Pentachlorophenol | 10.40 | 266 | 28214 | 37.16629 | ppb | | 95 |
| 74) | Phenanthrene | 10.63 | 178 | 525732 | 38.38010 | ppb | | 100 |
| 75) | Anthracene | 10.68 | 178 | 559632 | 38.67492 | ppb | | 99 |
| 76) | Carbazol | 10.88 | 167 | 515005 | 38.64820 | ppb | | 99 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 642809 | 38.52335 | ppb | | 100 |
| 78) | Fluoranthene | 12.01 | 202 | 547930 | 38.25656 | ppb | # | 94 |
| 80) | Benzidine | 12.18 | 184 | 128293 | 39.56635 | ppb | | 99 |
| 81) | Pyrene | 12.28 | 202 | 572657 | 37.99483 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 13.01 | 149 | 290328 | 38.05260 | ppb | | 95 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 145766 | 38.46739 | ppb | # | 96 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 507691 | 38.09250 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.66 | 149 | 413948 | 37.87940 | ppb | | 99 |
| 87) | Chrysene | 13.72 | 228 | 485669 | 37.79523 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 718957 | 38.15510 | ppb | | 99 |
| 90) | Benzo (b) fluoranthene | 15.03 | 252 | 482020 | 40.24491 | ppb | | 97 |
| 91) | Benzo (k) fluoranthene | 15.03 | 252 | 482020 | 40.24491 | ppb | | 97 |
| 92) | Benzo (a) pyrene | 15.46 | 252 | 458006 | 38.39569 | ppb | | 98 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.46 | 276 | 488450 | 38.06101 | ppb | | 98 |
| 94) | Dibenz (a,h) anthracene | 17.48 | 278 | 431503 | 38.35040 | ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 18.04 | 276 | 394295 | 38.49960 | ppb | | 99 |

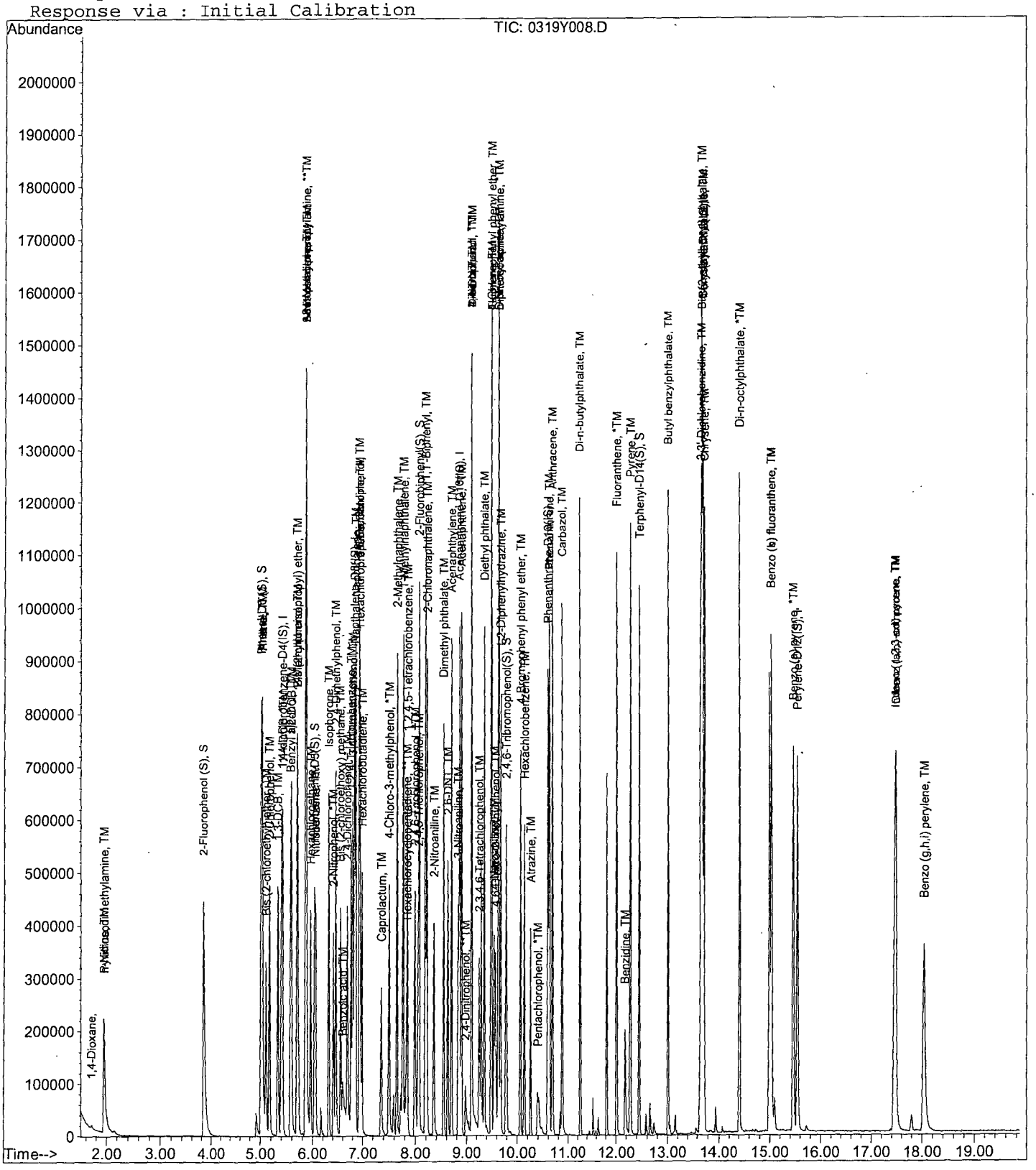
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y008.D Vial: 8
Acq On : 19 Mar 19 20:49 Operator: MA
Sample : 40ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y009.D Vial: 9
Acq On : 19 Mar 19 21:17 Operator: MA
Sample : 60ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 119422 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 509759 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 274152 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 446170 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 403300 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 398594 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 554819 | 124.30237 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 62.151% | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 719608 | 123.31751 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 61.659% | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 321087 | 59.61836 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 59.618% | |
| 46) 2-Fluorobiphenyl(S) | 8.08 | 172 | 599687 | 59.24331 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 59.243% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 114414 | 125.92573 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 62.963% | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 599770 | 60.83796 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 60.838% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 5619 | 6.95014 | 81 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 87300 | 57.52505 ppb | 97 |
| 4) Pyridine | 1.95 | 79 | 220241 | 60.34360 ppb | 99 |
| 7) Phenol | 5.03 | 94 | 377378 | 58.44629 ppb | 98 |
| 8) Aniline | 5.03 | 93 | 372737 | 59.21550 ppb | 99 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 169839 | 59.18233 ppb | 94 |
| 10) 2-Chlorophenol | 5.17 | 128 | 279330 | 59.46524 ppb | 99 |
| 11) 1,3-DCB | 5.33 | 146 | 290271 | 58.86587 ppb | 98 |
| 12) 1,4-DCB | 5.42 | 146 | 295031 | 58.18265 ppb | 99 |
| 13) Benzyl alcohol | 5.57 | 108 | 164974 | 60.39709 ppb | 99 |
| 14) 1,2-DCB | 5.59 | 146 | 271735 | 57.82124 ppb | 98 |
| 15) 2-Methylphenol | 5.70 | 107 | 238089 | 58.18189 ppb | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 247456 | 58.54127 ppb | 93 |
| 17) Acetophenone | 5.87 | 105 | 365171 | 58.26916 ppb | 97 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 577737 | 117.61399 ppb | 99 |
| 19) n-Nitrosodi-n-propylamine | 5.87 | 70 | 199853 | 58.10437 ppb | 98 |
| 20) Hexachloroethane | 5.96 | 117 | 110136 | 57.69751 ppb | 98 |
| 23) Nitrobenzene | 6.06 | 77 | 297656 | 57.21389 ppb | 96 |
| 24) Isophorone | 6.32 | 82 | 522924 | 57.79950 ppb | 99 |
| 25) 2-Nitrophenol | 6.41 | 139 | 155294 | 58.88441 ppb | 98 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 239596 | 57.63452 ppb | 98 |
| 27) Benzoic acid | 6.62 | 105 | 188602 | 66.02299 ppb | 96 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 319808 | 57.86678 ppb | 99 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 205603 | 58.32590 ppb | 97 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 221096 | 57.13656 ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 348609 | 56.70702 ppb | 97 |
| 32) Naphthalene | 6.86 | 128 | 782266 | 56.70953 ppb | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 289331 | 56.89493 ppb | 99 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 203765 | 57.49197 ppb | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 128538 | 59.78323 ppb | 98 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 108569 | 57.19641 ppb | 97 |
| 37) Caprolactum | 7.37 | 55 | 104723 | 58.95836 ppb | 99 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y009.D Vial: 9
Acq On : 19 Mar 19 21:17 Operator: MA
Sample : 60ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.50 | 107 | 250598 | 58.64722 ppb | | 95 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 508641 | 57.82653 ppb | | 99 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 523067 | 57.37792 ppb | | 100 |
| 42) | Hexachlorocyclopentadiene | 7.83 | 237 | 41106 | 59.83288 ppb | | 99 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 204706 | 57.19222 ppb | | 98 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 134842 | 58.58213 ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 140586 | 56.82967 ppb | | 97 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 643208 | 56.75881 ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.22 | 162 | 486021 | 57.02059 ppb | | 98 |
| 49) | 2-Nitroaniline | 8.35 | 65 | 160739 | 57.54102 ppb | | 97 |
| 50) | Dimethyl phthalate | 8.54 | 163 | 568962 | 57.43277 ppb | | 99 |
| 51) | 2,6-DNT | 8.63 | 165 | 136200 | 58.79510 ppb | | 95 |
| 52) | Acenaphthylene | 8.70 | 152 | 773677 | 57.35032 ppb | | 99 |
| 53) | 3-Nitroaniline | 8.84 | 138 | 149508 | 58.71506 ppb | | 99 |
| 54) | Acenaphthene | 8.90 | 154 | 490001 | 56.39093 ppb | | 98 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 60741 | 52.76357 ppb | | 97 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 86024 | 57.49889 ppb | | 98 |
| 57) | Dibenzofuran | 9.10 | 168 | 661897 | 56.12878 ppb | | 99 |
| 58) | 2,4-DNT | 9.11 | 165 | 184830 | 59.03420 ppb | | 98 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 97056 | 61.78484 ppb | | 99 |
| 60) | Diethyl phthalate | 9.36 | 149 | 558668 | 57.14501 ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 253625 | 56.28224 ppb | | 98 |
| 62) | Fluorene | 9.50 | 166 | 554278 | 56.34694 ppb | | 100 |
| 63) | 4-Nitroaniline | 9.55 | 138 | 145202 | 56.37019 ppb | | 98 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 107862 | 64.79772 ppb | | 95 |
| 67) | Diphenyl amine | 9.65 | 169 | 867131 | 115.84393 ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.65 | 169 | 867131 | 115.84393 ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 585945 | 55.93193 ppb | | 98 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 136546 | 58.46632 ppb | | 98 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 125566 | 57.88847 ppb | | 98 |
| 72) | Atrazine | 10.26 | 200 | 74712 | 29.20694 ppb | | 98 |
| 73) | Pentachlorophenol | 10.39 | 266 | 44547 | 55.24805 ppb | | 97 |
| 74) | Phenanthrene | 10.63 | 178 | 788815 | 57.86103 ppb | | 100 |
| 75) | Anthracene | 10.69 | 178 | 835558 | 58.01934 ppb | | 100 |
| 76) | Carbazol | 10.88 | 167 | 772017 | 58.21221 ppb | | 99 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 963212 | 58.00071 ppb | | 100 |
| 78) | Fluoranthene | 12.01 | 202 | 830711 | 58.27740 ppb | # | 93 |
| 80) | Benzidine | 12.18 | 184 | 176783 | 55.26666 ppb | | 97 |
| 81) | Pyrene | 12.28 | 202 | 859734 | 57.82208 ppb | | 100 |
| 83) | Butyl benzylphthalate | 13.02 | 149 | 437718 | 58.15532 ppb | | 96 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 213681 | 57.16130 ppb | # | 96 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 757726 | 57.63043 ppb | | 100 |
| 86) | Bis (2-ethylhexyl) phthala | 13.67 | 149 | 610683 | 56.64646 ppb | | 99 |
| 87) | Chrysene | 13.72 | 228 | 724548 | 57.15621 ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 1080420 | 58.12218 ppb | | 99 |
| 90) | Benzo (b) fluoranthene | 15.04 | 252 | 715694 | 60.33039 ppb | | 99 |
| 91) | Benzo (k) fluoranthene | 15.04 | 252 | 715694 | 60.33039 ppb | | 99 |
| 92) | Benzo (a) pyrene | 15.47 | 252 | 683990 | 57.89271 ppb | | 98 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.47 | 276 | 728010 | 57.27438 ppb | | 98 |
| 94) | Dibenz (a,h) anthracene | 17.49 | 278 | 642062 | 57.61372 ppb | | 99 |
| 95) | Benzo (g,h,i) perylene | 18.05 | 276 | 584721 | 57.64299 ppb | | 99 |

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

Quantitation Report

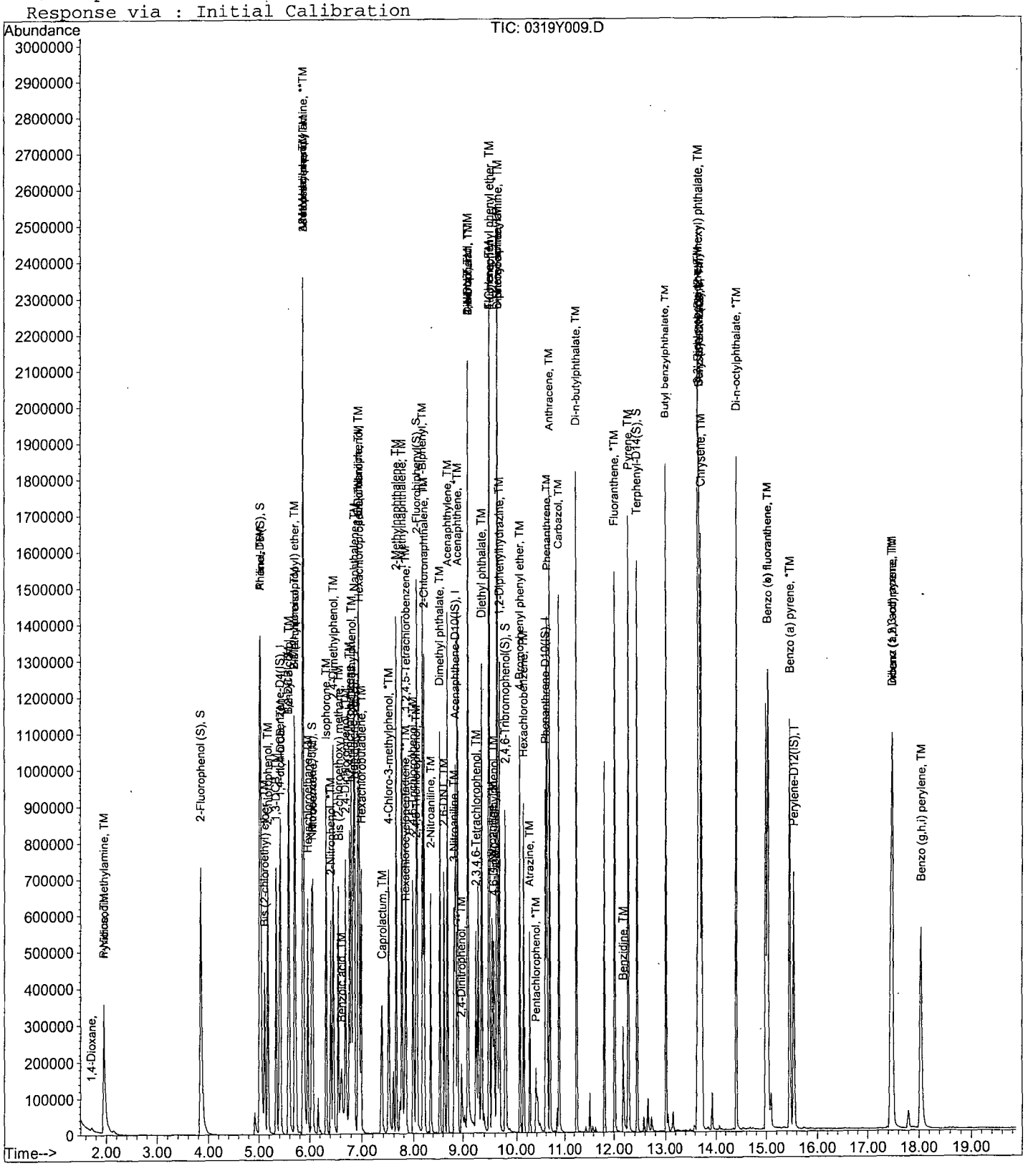
Data File : M:\YODA\DATA\Y190319\0319Y009.D
Acq On : 19 Mar 19 21:17
Sample : 60ug/mL 8270 03/13/19
Misc :

Vial: 9
Operator: MA
Inst : Yoda
Multiplr: 1.00

Quant Time: Mar 20 9:19 2019

Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y010.D Vial: 10
Acq On : 19 Mar 19 21:44 Operator: MA
Sample : 80ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 124639 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 522881 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 282109 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.60 | 188 | 471351 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 412376 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 411654 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 738693 | 158.57052 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 79.286% | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 947457 | 155.56742 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 77.784% | |
| 22) Nitrobenzene-D5(S) | 6.04 | 82 | 430884 | 77.99732 ppb | 0.01 |
| Spiked Amount 100.000 | | | Recovery = | 77.997% | |
| 46) 2-Fluorobiphenyl(S) | 8.08 | 172 | 792997 | 76.13085 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 76.131% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 149661 | 160.07313 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 80.037% | |
| 82) Terphenyl-D14(S) | 12.46 | 244 | 787455 | 78.11789 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 78.118% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 7489 | 8.87541 | 91 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 116191 | 73.35769 ppb | 100 |
| 4) Pyridine | 1.95 | 79 | 274406 | 72.03723 ppb | 95 |
| 7) Phenol | 5.03 | 94 | 500767 | 74.30987 ppb | 88 |
| 8) Aniline | 5.04 | 93 | 488876 | 74.41526 ppb | 86 |
| 9) Bis (2-chloroethyl) ether | 5.12 | 63 | 222242 | 74.20123 ppb | 98 |
| 10) 2-Chlorophenol | 5.17 | 128 | 368198 | 75.10302 ppb | 99 |
| 11) 1,3-DCB | 5.34 | 146 | 379628 | 73.76470 ppb | 98 |
| 12) 1,4-DCB | 5.42 | 146 | 385398 | 72.82252 ppb | 99 |
| 13) Benzyl alcohol | 5.58 | 108 | 221913 | 77.84194 ppb | 91 |
| 14) 1,2-DCB | 5.59 | 146 | 361603 | 73.72321 ppb | 99 |
| 15) 2-Methylphenol | 5.71 | 107 | 314233 | 73.57507 ppb | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.71 | 45 | 323030 | 73.22129 ppb | 96 |
| 17) Acetophenone | 5.87 | 105 | 483988 | 73.99586 ppb | 97 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 768184 | 149.83886 ppb | 98 |
| 19) n-Nitrosodi-n-propylamine | 5.87 | 70 | 261635 | 72.88269 ppb | 95 |
| 20) Hexachloroethane | 5.96 | 117 | 146122 | 73.34555 ppb | 97 |
| 23) Nitrobenzene | 6.06 | 77 | 397299 | 74.45028 ppb | 95 |
| 24) Isophorone | 6.33 | 82 | 694207 | 74.80602 ppb | 97 |
| 25) 2-Nitrophenol | 6.42 | 139 | 206201 | 76.22518 ppb | 97 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 319334 | 74.88767 ppb | 99 |
| 27) Benzoic acid | 6.64 | 105 | 261327 | 89.18570 ppb | 98 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 420280 | 74.13799 ppb | 98 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 278019 | 76.88976 ppb | 96 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 294061 | 74.08541 ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.81 | 107 | 465258 | 73.78263 ppb | 99 |
| 32) Naphthalene | 6.86 | 128 | 1038095 | 73.36699 ppb | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 367949 | 70.53883 ppb | 98 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 269825 | 74.22015 ppb | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 171358 | 77.69879 ppb | 99 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 143366 | 73.63278 ppb | 99 |
| 37) Caprolactum | 7.39 | 55 | 136816 | 75.09349 ppb | 94 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y010.D Vial: 10
Acq On : 19 Mar 19 21:44 Operator: MA
Sample : 80ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.50 | 107 | 327934 | 74.82010 | ppb | | 96 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 673129 | 74.60640 | ppb | | 98 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 691557 | 73.95670 | ppb | | 100 |
| 42) | Hexachlorocyclopentadiene | 7.83 | 237 | 70940 | 80.93094 | ppb | | 99 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 270466 | 73.43339 | ppb | | 100 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 181249 | 76.52267 | ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 191311 | 75.15320 | ppb | | 96 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 856636 | 73.46029 | ppb | | 100 |
| 48) | 2-Chloronaphthalene | 8.23 | 162 | 636805 | 72.60351 | ppb | | 95 |
| 49) | 2-Nitroaniline | 8.36 | 65 | 214971 | 74.78434 | ppb | | 99 |
| 50) | Dimethyl phthalate | 8.55 | 163 | 749146 | 73.48817 | ppb | | 99 |
| 51) | 2,6-DNT | 8.63 | 165 | 179882 | 75.46163 | ppb | | 92 |
| 52) | Acenaphthylene | 8.70 | 152 | 1021819 | 73.60792 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.84 | 138 | 195736 | 74.70167 | ppb | | 97 |
| 54) | Acenaphthene | 8.90 | 154 | 651107 | 72.81806 | ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 87654 | 71.15902 | ppb | | 95 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 121095 | 77.09489 | ppb | | 94 |
| 57) | Dibenzofuran | 9.10 | 168 | 882579 | 72.73162 | ppb | | 98 |
| 58) | 2,4-DNT | 9.11 | 165 | 239317 | 74.28125 | ppb | | 91 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 133018 | 82.28950 | ppb | | 99 |
| 60) | Diethyl phthalate | 9.37 | 149 | 735163 | 73.07732 | ppb | | 98 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 331462 | 71.48049 | ppb | | 99 |
| 62) | Fluorene | 9.51 | 166 | 731875 | 72.30262 | ppb | | 99 |
| 63) | 4-Nitroaniline | 9.56 | 138 | 190904 | 72.02220 | ppb | | 96 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.59 | 198 | 147764 | 84.02641 | ppb | | 89 |
| 67) | Diphenyl amine | 9.65 | 169 | 1131969 | 143.14595 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.65 | 169 | 1131969 | 143.14595 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 899802 | 81.30286 | ppb | | 97 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 181349 | 73.50178 | ppb | | 99 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 169696 | 74.05384 | ppb | | 96 |
| 72) | Atrazine | 10.27 | 200 | 99114 | 36.67639 | ppb | | 95 |
| 73) | Pentachlorophenol | 10.39 | 266 | 70646 | 79.76194 | ppb | | 98 |
| 74) | Phenanthrene | 10.63 | 178 | 1046291 | 72.64729 | ppb | | 100 |
| 75) | Anthracene | 10.69 | 178 | 1107324 | 72.78248 | ppb | | 100 |
| 76) | Carbazol | 10.88 | 167 | 1031382 | 73.61438 | ppb | | 100 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 1261013 | 71.87650 | ppb | | 99 |
| 78) | Fluoranthene | 12.02 | 202 | 1105666 | 73.42266 | ppb | | 99 |
| 80) | Benzidine | 12.18 | 184 | 235199 | 71.91062 | ppb | | 98 |
| 81) | Pyrene | 12.28 | 202 | 1139228 | 74.93335 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 13.02 | 149 | 573895 | 74.56968 | ppb | | 99 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 277452 | 72.58701 | ppb | # | 96 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 1012545 | 75.31628 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.67 | 149 | 814809 | 73.91756 | ppb | | 99 |
| 87) | Chrysene | 13.73 | 228 | 967964 | 74.67760 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 1420300 | 74.72471 | ppb | | 98 |
| 90) | Benzo (b) fluoranthene | 15.04 | 252 | 876462 | 71.53857 | ppb | | 97 |
| 91) | Benzo (k) fluoranthene | 15.04 | 252 | 876462 | 71.53857 | ppb | | 97 |
| 92) | Benzo (a) pyrene | 15.48 | 252 | 904838 | 74.15550 | ppb | | 98 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.48 | 276 | 972746 | 74.10046 | ppb | | 96 |
| 94) | Dibenz (a,h) anthracene | 17.50 | 278 | 858807 | 74.61788 | ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 18.06 | 276 | 775963 | 74.06913 | ppb | | 99 |

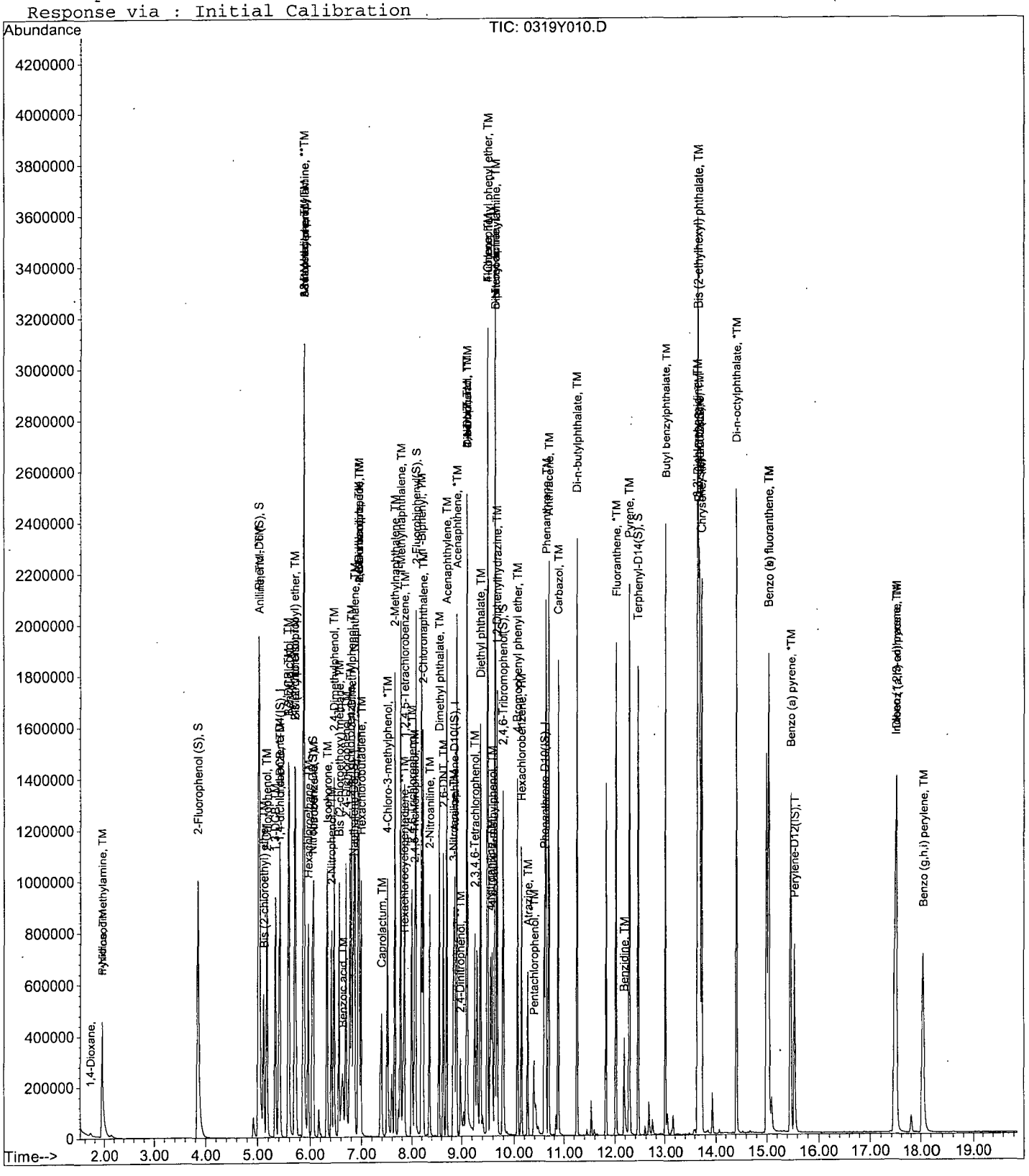
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y010.D Vial: 10
Acq On : 19 Mar 19 21:44 Operator: MA
Sample : 80ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y011.D Vial: 11
Acq On : 19 Mar 19 22:11 Operator: MA
Sample : 100ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 128999 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 546463 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 293849 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.60 | 188 | 490122 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.70 | 240 | 432203 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 424247 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 958858 | 198.87509 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery | = 99.438% | |
| 6) Phenol-D6 (S) | 5.02 | 99 | 1236542 | 196.17137 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery | = 98.086% | |
| 22) Nitrobenzene-D5(S) | 6.04 | 82 | 553462 | 95.86260 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery | = 95.863% | |
| 46) 2-Fluorobiphenyl(S) | 8.08 | 172 | 1015497 | 93.59670 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery | = 93.597% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 199616 | 204.97357 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery | = 102.487% | |
| 82) Terphenyl-D14(S) | 12.46 | 244 | 1007645 | 95.37573 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery | = 95.376% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 8764 | 10.03540 | 79 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 149106 | 90.95695 ppb | 96 |
| 4) Pyridine | 1.95 | 79 | 353962 | 89.78167 ppb | 96 |
| 7) Phenol | 5.03 | 94 | 632343 | 90.66321 ppb | 92 |
| 8) Aniline | 5.04 | 93 | 623311 | 91.67179 ppb | 97 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 284907 | 91.90851 ppb | 99 |
| 10) 2-Chlorophenol | 5.18 | 128 | 464858 | 91.61443 ppb | 94 |
| 11) 1,3-DCB | 5.34 | 146 | 480677 | 90.24254 ppb | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 487952 | 89.08426 ppb | 99 |
| 13) Benzyl alcohol | 5.58 | 108 | 281389 | 95.36865 ppb | 95 |
| 14) 1,2-DCB | 5.59 | 146 | 456948 | 90.01328 ppb | 99 |
| 15) 2-Methylphenol | 5.71 | 107 | 400929 | 90.70140 ppb | 99 |
| 16) Bis (2-chloroisopropyl) et | 5.71 | 45 | 408465 | 89.45755 ppb | 93 |
| 17) Acetophenone | 5.87 | 105 | 611533 | 90.33590 ppb | 88 |
| 18) 3&4-Methylphenol | 5.89 | 107 | 971454 | 183.08343 ppb | 100 |
| 19) n-Nitrosodi-n-propylamine | 5.88 | 70 | 334389 | 90.00116 ppb | 99 |
| 20) Hexachloroethane | 5.96 | 117 | 186656 | 90.52483 ppb | 95 |
| 23) Nitrobenzene | 6.06 | 77 | 495416 | 88.83027 ppb | 94 |
| 24) Isophorone | 6.33 | 82 | 868215 | 89.51935 ppb | 99 |
| 25) 2-Nitrophenol | 6.41 | 139 | 265905 | 94.05379 ppb | 94 |
| 26) 2,4-Dimethylphenol | 6.47 | 122 | 407998 | 91.55147 ppb | 95 |
| 27) Benzoic acid | 6.66 | 105 | 338030 | 110.38455 ppb | 97 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 537091 | 90.65506 ppb | 99 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 350974 | 92.87762 ppb | 99 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 368788 | 88.90253 ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 588474 | 89.29551 ppb | 100 |
| 32) Naphthalene | 6.87 | 128 | 1321905 | 89.39350 ppb | 99 |
| 33) 4-Chloroaniline | 6.94 | 127 | 435084 | 79.80973 ppb | 96 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 343607 | 90.43650 ppb | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 221953 | 96.29705 ppb | 98 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 179910 | 88.41428 ppb | 97 |
| 37) Caprolactum | 7.40 | 55 | 175756 | 92.30339 ppb | 99 |

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

Data File : M:\YODA\DATA\Y190319\0319Y011.D Vial: 11
Acq On : 19 Mar 19 22:11 Operator: MA
Sample : 100ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.51 | 107 | 424655 | 92.70650 | ppb | | 99 |
| 39) | 2-Methylnaphthalene | 7.66 | 142 | 848678 | 90.00421 | ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 875232 | 89.56016 | ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.83 | 237 | 105184 | 99.60718 | ppb | | 97 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 340674 | 88.79992 | ppb | | 97 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 231114 | 93.67710 | ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 244412 | 92.17705 | ppb | | 99 |
| 47) | 1,1'-Biphenyl | 8.20 | 154 | 1087136 | 89.50203 | ppb | | 98 |
| 48) | 2-Chloronaphthalene | 8.22 | 162 | 814565 | 89.15991 | ppb | | 97 |
| 49) | 2-Nitroaniline | 8.35 | 65 | 274610 | 91.71489 | ppb | | 94 |
| 50) | Dimethyl phthalate | 8.55 | 163 | 959118 | 90.32661 | ppb | | 99 |
| 51) | 2,6-DNT | 8.63 | 165 | 233972 | 94.23128 | ppb | | 82 |
| 52) | Acenaphthylene | 8.70 | 152 | 1296743 | 89.68034 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.84 | 138 | 245951 | 90.11579 | ppb | | 92 |
| 54) | Acenaphthene | 8.90 | 154 | 821465 | 88.19999 | ppb | | 98 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 119143 | 90.70931 | ppb | | 96 |
| 56) | 4-Nitrophenol | 9.07 | 65 | 159994 | 102.32682 | ppb | # | 76 |
| 57) | Dibenzofuran | 9.11 | 168 | 1112137 | 87.98744 | ppb | | 93 |
| 58) | 2,4-DNT | 9.11 | 165 | 306608 | 91.36542 | ppb | | 79 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 172487 | 102.44319 | ppb | | 96 |
| 60) | Diethyl phthalate | 9.37 | 149 | 913366 | 87.16387 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 427282 | 88.46288 | ppb | | 95 |
| 62) | Fluorene | 9.51 | 166 | 931717 | 88.36777 | ppb | | 99 |
| 63) | 4-Nitroaniline | 9.57 | 138 | 241665 | 87.53018 | ppb | | 93 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.60 | 198 | 195017 | 106.64976 | ppb | # | 79 |
| 67) | Diphenyl amine | 9.65 | 169 | 1453305 | 176.74271 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.65 | 169 | 1453305 | 176.74271 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 1133772 | 98.52009 | ppb | | 94 |
| 70) | 4-Bromophenyl phenyl ether | 10.07 | 248 | 233692 | 91.08917 | ppb | | 86 |
| 71) | Hexachlorobenzene | 10.15 | 284 | 215413 | 90.40410 | ppb | | 86 |
| 72) | Atrazine | 10.27 | 200 | 126617 | 45.05924 | ppb | | 97 |
| 73) | Pentachlorophenol | 10.39 | 266 | 96308 | 102.60104 | ppb | | 98 |
| 74) | Phenanthrene | 10.63 | 178 | 1336863 | 89.26765 | ppb | | 99 |
| 75) | Anthracene | 10.69 | 178 | 1408486 | 89.03175 | ppb | | 99 |
| 76) | Carbazol | 10.89 | 167 | 1314585 | 90.23438 | ppb | | 97 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 1619389 | 88.76847 | ppb | | 100 |
| 78) | Fluoranthene | 12.02 | 202 | 1425227 | 91.01866 | ppb | | 97 |
| 80) | Benzidine | 12.19 | 184 | 300037 | 87.52618 | ppb | | 98 |
| 81) | Pyrene | 12.29 | 202 | 1457256 | 91.45468 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 13.01 | 149 | 737088 | 91.38077 | ppb | | 96 |
| 84) | 3,3'-Dichlorobenzidine | 13.66 | 252 | 343274 | 85.68751 | ppb | | 99 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 1263351 | 89.66112 | ppb | | 98 |
| 86) | Bis (2-ethylhexyl) phthala | 13.66 | 149 | 1014608 | 87.82046 | ppb | | 98 |
| 87) | Chrysene | 13.73 | 228 | 1222782 | 90.00896 | ppb | | 98 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 1823445 | 91.53399 | ppb | | 96 |
| 90) | Benzo (b) fluoranthene | 15.05 | 252 | 1198995 | 94.95943 | ppb | | 99 |
| 91) | Benzo (k) fluoranthene | 15.05 | 252 | 1198995 | 94.95943 | ppb | | 99 |
| 92) | Benzo (a) pyrene | 15.47 | 252 | 1144046 | 90.97657 | ppb | | 100 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.49 | 276 | 1234147 | 91.22249 | ppb | | 97 |
| 94) | Dibenz (a,h) anthracene | 17.52 | 278 | 1080909 | 91.12762 | ppb | | 96 |
| 95) | Benzo (g,h,i) perylene | 18.07 | 276 | 989000 | 91.60224 | ppb | | 99 |

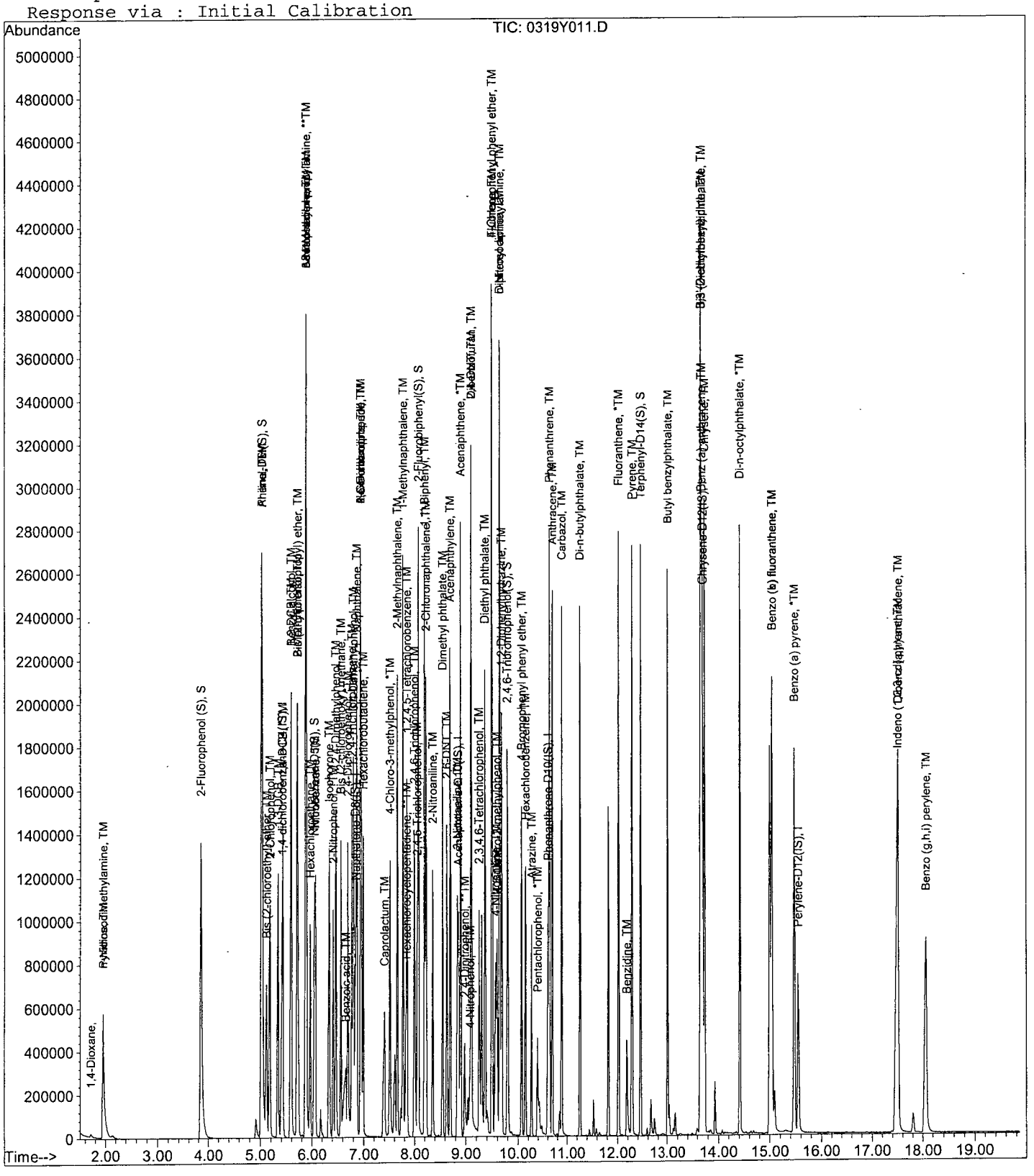
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y011.D Vial: 11
Acq On : 19 Mar 19 22:11 Operator: MA
Sample : 100ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 03/19/19
Matrix: Instrument: Yoda
Initial Cal. Date: 03/19/19
Data File: 0319Y012.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | | 1,4-Dioxane | 0.2708 | 0.2758 | 1.8 | | |
| 2 | TM | n-Nitrosodimethylamine | 0.5083 | 0.4536 | 11 | TM | |
| 3 | TM | Pyridine | 1.222 | 1.245 | 1.9 | TM | |
| 4 | *TM | Phenol | 2.163 | 2.182 | 0.89 | *TM | |
| 5 | TM | Aniline | 2.108 | 2.063 | 2.2 | TM | |
| 6 | TM | Bis (2-chloroethyl) ether | 0.9612 | 0.9227 | 4.0 | TM | |
| 7 | TM | 2-Chlorophenol | 1.573 | 1.558 | 1.00 | TM | |
| 8 | TM | 1,3-DCB | 1.652 | 1.633 | 1.2 | TM | |
| 9 | *TM | 1,4-DCB | 1.698 | 1.688 | 0.62 | *TM | |
| 10 | TM | Benzyl alcohol | 0.9149 | 0.9011 | 1.5 | TM | |
| 11 | TM | 1,2-DCB | 1.574 | 1.577 | 0.17 | TM | |
| 12 | TM | 2-Methylphenol | 1.371 | 1.313 | 4.2 | TM | |
| 13 | TM | Bis (2-chloroisopropyl) ether | 1.416 | 1.347 | 4.8 | TM | |
| 14 | TM | Acetophenone | 2.099 | 2.045 | 2.6 | TM | |
| 15 | TM | 3&4-Methylphenol | 1.645 | 1.624 | 1.3 | TM | |
| 16 | **TM | n-Nitrosodi-n-propylamine | 1.152 | 1.099 | 4.6 | **TM | |
| 17 | TM | Hexachloroethane | 0.6394 | 0.6376 | 0.27 | TM | |
| 18 | TM | Nitrobenzene | 0.4082 | 0.3946 | 3.3 | TM | |
| 19 | TM | Isophorone | 0.7099 | 0.7016 | 1.2 | TM | |
| 20 | *TM | 2-Nitrophenol | 0.2069 | 0.2042 | 1.3 | *TM | |
| 21 | TM | 2,4-Dimethylphenol | 0.3262 | 0.3125 | 4.2 | TM | |
| 22 | TM | Benzoic acid | 0.2229 | 0.2510 | 13 | TM | |
| 23 | TM | Bis (2-chloroethoxy) methane | 0.4337 | 0.4143 | 4.5 | TM | |
| 24 | *TM | 2,4-Dichlorophenol | 0.2766 | 0.2784 | 0.65 | *TM | |
| 25 | TM | 1,2,4-Trichlorobenzene | 0.3036 | 0.2987 | 1.6 | TM | |
| 26 | TM | 3,4-Dimethylphenol | 0.4824 | 0.4656 | 3.5 | TM | |
| 27 | TM | Naphthalene | 1.082 | 1.057 | 2.3 | TM | |
| 28 | TM | 4-Chloroaniline | 0.3990 | 0.3874 | 2.9 | TM | |
| 29 | TM | 2,6-Dichlorophenol | 0.2781 | 0.2704 | 2.8 | TM | |
| 30 | TM | Hexachloropropene | 0.1687 | 0.1705 | 1.1 | TM | |
| 31 | *TM | Hexachlorobutadiene | 0.1489 | 0.1463 | 1.8 | *TM | |
| 32 | TM | Caprolactum | 0.1394 | 0.1341 | 3.8 | TM | |
| 33 | *TM | 4-Chloro-3-methylphenol | 0.3353 | 0.3256 | 2.9 | *TM | |
| 34 | TM | 2-Methylnaphthalene | 0.6902 | 0.6654 | 3.6 | TM | |
| 35 | TM | 1-Methylnaphthalene | 0.7153 | 0.6853 | 4.2 | TM | |
| 36 | **TMQ | Hexachlorocyclopentadiene | 0.0924 | 0.0990 | 7.1 | **TMQ | 7.2 |
| 37 | TM | 1,2,4,5-Tetrachlorobenzene | 0.5222 | 0.4998 | 4.3 | TM | |
| 38 | *TM | 2,4,6-Trichlorophenol | 0.3358 | 0.3306 | 1.5 | *TM | |
| 39 | TM | 2,4,5-Trichlorophenol | 0.3609 | 0.3495 | 3.2 | TM | |
| 40 | TM | 1,1'-Biphenyl | 1.653 | 1.591 | 3.7 | TM | |
| | | Average | | | 3.1 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

# Second Source Calibration

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

SDG No:
Date Analyzed: 03/19/19
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0319Y012.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | TM | 2-Chloronaphthalene | 1.244 | 1.232 | 0.90 | TM | |
| 42 | TM | 2-Nitroaniline | 0.4076 | 0.3927 | 3.6 | TM | |
| 43 | TM | Dimethyl phthalate | 1.445 | 1.387 | 4.1 | TM | |
| 44 | TM | 2,6-DNT | 0.3380 | 0.3438 | 1.7 | TM | |
| 45 | TM | Acenaphthylene | 1.968 | 1.931 | 1.9 | TM | |
| 46 | TM | 3-Nitroaniline | 0.3715 | 0.3753 | 1.0 | TM | |
| 47 | *TM | Acenaphthene | 1.268 | 1.234 | 2.7 | *TM | |
| 48 | **TML | 2,4-Dinitrophenol | 0.1285 | 0.1399 | 8.8 | **TML | 2.8 |
| 49 | **TMQ | 4-Nitrophenol | 0.1853 | 0.2146 | 16 | **TMQ | 1.4 |
| 50 | TM | Dibenzofuran | 1.721 | 1.642 | 4.6 | TM | |
| 51 | TM | 2,4-DNT | 0.4568 | 0.4638 | 1.5 | TM | |
| 52 | TM | 2,3,4,6-Tetrachlorophenol | 0.2292 | 0.2538 | 11 | TM | |
| 53 | TM | Diethyl phthalate | 1.426 | 1.368 | 4.1 | TM | |
| 54 | TM | 4-Chlorophenyl phenyl ether | 0.6575 | 0.6283 | 4.4 | TM | |
| 55 | TM | Fluorene | 1.435 | 1.405 | 2.1 | TM | |
| 56 | TM | 4-Nitroaniline | 0.3758 | 0.3660 | 2.6 | TM | |
| 57 | TM | 4,6-Dinitro-2-methylphenol | 0.1492 | 0.1589 | 6.5 | TM | |
| 58 | TM | Diphenyl amine | 0.6711 | 0.6712 | 0.01 | TM | |
| 59 | *TM | n-Nitrosodiphenylamine | 0.6711 | 0.6712 | 0.01 | *TM | |
| 60 | TM | 1,2-Diphenylhydrazine | 0.9392 | 0.9000 | 4.2 | TM | |
| 61 | TM | 4-Bromophenyl phenyl ether | 0.2094 | 0.2004 | 4.3 | TM | |
| 62 | TM | Hexachlorobenzene | 0.1945 | 0.1915 | 1.5 | TM | |
| 63 | TM | Atrazine | 0.2293 | 0.2249 | 1.9 | TM | |
| 64 | *TML | Pentachlorophenol | 0.0643 | 0.0638 | 0.80 | *TML | 8.4 |
| 65 | TM | Phenanthrene | 1.222 | 1.192 | 2.5 | TM | |
| 66 | TM | Anthracene | 1.291 | 1.238 | 4.1 | TM | |
| 67 | TM | Carbazol | 1.189 | 1.175 | 1.2 | TM | |
| 68 | TM | Di-n-butylphthalate | 1.489 | 1.422 | 4.5 | TM | |
| 69 | *TM | Fluoranthene | 1.278 | 1.252 | 2.0 | *TM | |
| 70 | TM | Benzidine | 0.3087 | 0.4238 | 37 | TM | * |
| 71 | TM | Pyrene | 1.475 | 1.477 | 0.19 | TM | |
| 72 | TM | Butyl benzylphthalate | 0.7465 | 0.7432 | 0.45 | TM | |
| 73 | TM | 3,3'-Dichlorobenzidine | 0.3708 | 0.4245 | 14 | TM | |
| 74 | TM | Benz (a) anthracene | 1.304 | 1.287 | 1.3 | TM | |
| 75 | TM | Bis (2-ethylhexyl) phthalate | 1.069 | 1.047 | 2.1 | TM | |
| 76 | TM | Chrysene | 1.257 | 1.249 | 0.66 | TM | |
| 77 | *TM | Di-n-octylphthalate | 1.844 | 1.830 | 0.75 | *TM | |
| 78 | TM | Benzo (b) fluoranthene | 1.190 | 1.224 | 2.8 | TM | |
| 79 | TM | Benzo (k) fluoranthene | 1.190 | 1.224 | 2.8 | TM | |
| 80 | *TM | Benzo (a) pyrene | 1.186 | 1.173 | 1.1 | *TM | |
| | | Average | | | 4.2 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 03/19/19
Matrix: 0 Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0319Y012.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 81 | TM | Indeno (1,2,3-cd) pyrene | 1.276 | 1.260 | 1.2 | TM | |
| 82 | TM | Dibenz (a,h) anthracene | 1.118 | 1.109 | 0.80 | TM | |
| 83 | TM | Benzo (g,h,i) perylene | 1.018 | 1.004 | 1.4 | TM | |
| 84 | | | | | | | |
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| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 1.1 | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y012.D Vial: 12
Acq On : 19 Mar 19 22:39 Operator: MA
Sample : SS-8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:51 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Mar 20 09:42:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 119662 | 40.00000 ppb | | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 503749 | 40.00000 ppb | | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 265971 | 40.00000 ppb | | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 441976 | 40.00000 ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 392951 | 40.00000 ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 389935 | 40.00000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 0.00 | 112 | 0 | 0.00000 ppb | | |
| Spiked Amount 200.000 | | | Recovery | = 0.000% | | |
| 6) Phenol-D6 (S) | 0.00 | 99 | 0 | 0.00000 ppb | | |
| Spiked Amount 200.000 | | | Recovery | = 0.000% | | |
| 22) Nitrobenzene-D5(S) | 5.96 | 82 | 20266 | 3.80782 ppb | | -0.07 |
| Spiked Amount 100.000 | | | Recovery | = 3.808% | | |
| 46) 2-Fluorobiphenyl(S) | 0.00 | 172 | 0 | 0.00000 ppb | | |
| Spiked Amount 100.000 | | | Recovery | = 0.000% | | |
| 64) 2,4,6-Tribromophenol(S) | 0.00 | 330 | 0 | 0.00000 ppb | | |
| Spiked Amount 200.000 | | | Recovery | = 0.000% | | |
| 82) Terphenyl-D14(S) | 12.46 | 244 | 154 | 0.01603 ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery | = 0.016% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 4125 | 5.09198 | | 81 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 67841 | 44.61317 ppb | | 100 |
| 4) Pyridine | 1.95 | 79 | 186260 | 50.93082 ppb | | 99 |
| 7) Phenol | 5.03 | 94 | 326371 | 50.44522 ppb | | 99 |
| 8) Aniline | 5.03 | 93 | 308538 | 48.91811 ppb | # | 95 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 138021 | 47.99852 ppb | | 100 |
| 10) 2-Chlorophenol | 5.17 | 128 | 232989 | 49.50044 ppb | | 99 |
| 11) 1,3-DCB | 5.33 | 146 | 244193 | 49.42211 ppb | | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 252474 | 49.69018 ppb | | 99 |
| 13) Benzyl alcohol | 5.57 | 108 | 134784 | 49.24555 ppb | | 98 |
| 14) 1,2-DCB | 5.59 | 146 | 235856 | 50.08606 ppb | | 99 |
| 15) 2-Methylphenol | 5.70 | 107 | 196356 | 47.88735 ppb | | 99 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 201555 | 47.58672 ppb | | 89 |
| 17) Acetophenone | 5.87 | 105 | 305876 | 48.70976 ppb | | 91 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 485858 | 98.71116 ppb | | 100 |
| 19) n-Nitrosodi-n-propylamine | 5.86 | 70 | 164419 | 47.70657 ppb | | 97 |
| 20) Hexachloroethane | 5.96 | 117 | 95375 | 49.86438 ppb | | 97 |
| 23) Nitrobenzene | 6.05 | 77 | 248485 | 48.33233 ppb | | 93 |
| 24) Isophorone | 6.32 | 82 | 441766 | 49.41155 ppb | | 100 |
| 25) 2-Nitrophenol | 6.41 | 139 | 128567 | 49.33168 ppb | | 97 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 196783 | 47.90065 ppb | | 98 |
| 27) Benzoic acid | 6.61 | 105 | 158025 | 56.29546 ppb | | 98 |
| 28) Bis (2-chloroethoxy) metha | 6.55 | 93 | 260894 | 47.76995 ppb | | 98 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 175316 | 50.32737 ppb | | 95 |
| 30) 1,2,4-Trichlorobenzene | 6.77 | 180 | 188098 | 49.18901 ppb | | 96 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 293191 | 48.26136 ppb | | 97 |
| 32) Naphthalene | 6.86 | 128 | 665697 | 48.83474 ppb | | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 243911 | 48.53563 ppb | | 100 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 170257 | 48.61086 ppb | | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 107365 | 50.53139 ppb | | 100 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 92116 | 49.10760 ppb | | 98 |
| 37) Caprolactum | 7.37 | 55 | 84463 | 48.11944 ppb | | 95 |

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

Data File : M:\YODA\DATA\Y190319\0319Y012.D
Acq On : 19 Mar 19 22:39
Sample : SS-8270 03/13/19
Misc :

Vial: 12
Operator: MA
Inst : Yoda
Multiplr: 1.00

Quant Time: Mar 20 9:51 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Mar 20 09:42:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 38) 4-Chloro-3-methylphenol | 7.50 | 107 | 205002 | 48.54881 | ppb | | 95 |
| 39) 2-Methylnaphthalene | 7.65 | 142 | 418993 | 48.20291 | ppb | | 100 |
| 40) 1-Methylnaphthalene | 7.77 | 142 | 431516 | 47.89996 | ppb | | 99 |
| 42) Hexachlorocyclopentadiene | 7.83 | 237 | 32915 | 53.59927 | ppb | | 97 |
| 43) 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 166181 | 47.85694 | ppb | | 98 |
| 44) 2,4,6-Trichlorophenol | 7.99 | 196 | 109924 | 49.22545 | ppb | | 96 |
| 45) 2,4,5-Trichlorophenol | 8.05 | 196 | 116191 | 48.41308 | ppb | | 95 |
| 47) 1,1'-Biphenyl | 8.19 | 154 | 529104 | 48.12603 | ppb | | 99 |
| 48) 2-Chloronaphthalene | 8.22 | 162 | 409749 | 49.55092 | ppb | | 98 |
| 49) 2-Nitroaniline | 8.34 | 65 | 130571 | 48.17926 | ppb | | 89 |
| 50) Dimethyl phthalate | 8.54 | 163 | 461073 | 47.97371 | ppb | | 100 |
| 51) 2,6-DNT | 8.63 | 165 | 114309 | 50.86295 | ppb | | 96 |
| 52) Acenaphthylene | 8.70 | 152 | 641976 | 49.05147 | ppb | | 99 |
| 53) 3-Nitroaniline | 8.83 | 138 | 124765 | 50.50507 | ppb | | 89 |
| 54) Acenaphthene | 8.89 | 154 | 410164 | 48.65494 | ppb | | 99 |
| 55) 2,4-Dinitrophenol | 8.98 | 184 | 46512 | 48.57875 | ppb | | 100 |
| 56) 4-Nitrophenol | 9.10 | 65 | 71354 | 50.68015 | ppb | | 100 |
| 57) Dibenzofuran | 9.10 | 168 | 545810 | 47.70829 | ppb | | 98 |
| 58) 2,4-DNT | 9.11 | 165 | 154197 | 50.76498 | ppb | | 96 |
| 59) 2,3,4,6-Tetrachlorophenol | 9.25 | 232 | 84375 | 55.36438 | ppb | | 99 |
| 60) Diethyl phthalate | 9.36 | 149 | 454872 | 47.95908 | ppb | | 99 |
| 61) 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 208880 | 47.77858 | ppb | | 97 |
| 62) Fluorene | 9.50 | 166 | 467270 | 48.96296 | ppb | | 97 |
| 63) 4-Nitroaniline | 9.55 | 138 | 121690 | 48.69551 | ppb | | 94 |
| 66) 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 87770 | 53.22786 | ppb | | 97 |
| 67) Diphenyl amine | 9.64 | 169 | 741606 | 100.01462 | ppb | | 98 |
| 68) n-Nitrosodiphenylamine | 9.64 | 169 | 741606 | 100.01462 | ppb | | 98 |
| 69) 1,2-Diphenylhydrazine | 9.68 | 77 | 497223 | 47.91327 | ppb | | 99 |
| 70) 4-Bromophenyl phenyl ether | 10.06 | 248 | 110718 | 47.85713 | ppb | | 95 |
| 71) Hexachlorobenzene | 10.14 | 284 | 105782 | 49.23042 | ppb | | 96 |
| 72) Atrazine | 10.26 | 200 | 62133 | 24.51996 | ppb | | 98 |
| 73) Pentachlorophenol | 10.39 | 266 | 35240 | 45.78765 | ppb | | 95 |
| 74) Phenanthrene | 10.63 | 178 | 658612 | 48.76883 | ppb | | 100 |
| 75) Anthracene | 10.68 | 178 | 683995 | 47.94582 | ppb | | 99 |
| 76) Carbazol | 10.88 | 167 | 649223 | 49.41773 | ppb | | 98 |
| 77) Di-n-butylphthalate | 11.26 | 149 | 785841 | 47.76918 | ppb | | 100 |
| 78) Fluoranthene | 12.01 | 202 | 691935 | 49.00238 | ppb | # | 94 |
| 80) Benzidine | 12.18 | 184 | 208143 | 68.64547 | ppb | | 98 |
| 81) Pyrene | 12.28 | 202 | 725716 | 50.09405 | ppb | | 99 |
| 83) Butyl benzylphthalate | 13.01 | 149 | 365037 | 49.77620 | ppb | | 94 |
| 84) 3,3'-Dichlorobenzidine | 13.65 | 252 | 208493 | 57.24235 | ppb | # | 94 |
| 85) Benz (a) anthracene | 13.68 | 228 | 632354 | 49.36166 | ppb | | 99 |
| 86) Bis (2-ethylhexyl) phthala | 13.66 | 149 | 514327 | 48.96504 | ppb | | 99 |
| 87) Chrysene | 13.72 | 228 | 613494 | 49.67026 | ppb | | 99 |
| 88) Di-n-octylphthalate | 14.42 | 149 | 898831 | 49.62690 | ppb | | 99 |
| 90) Benzo (b) fluoranthene | 15.03 | 252 | 596428 | 51.39316 | ppb | | 97 |
| 91) Benzo (k) fluoranthene | 15.03 | 252 | 596428 | 51.39316 | ppb | | 97 |
| 92) Benzo (a) pyrene | 15.47 | 252 | 571604 | 49.45474 | ppb | | 99 |
| 93) Indeno (1,2,3-cd) pyrene | 17.46 | 276 | 613999 | 49.37752 | ppb | | 99 |
| 94) Dibenz (a,h) anthracene | 17.49 | 278 | 540732 | 49.59861 | ppb | | 98 |
| 95) Benzo (g,h,i) perylene | 18.04 | 276 | 489260 | 49.30331 | ppb | | 98 |

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

Quantitation Report

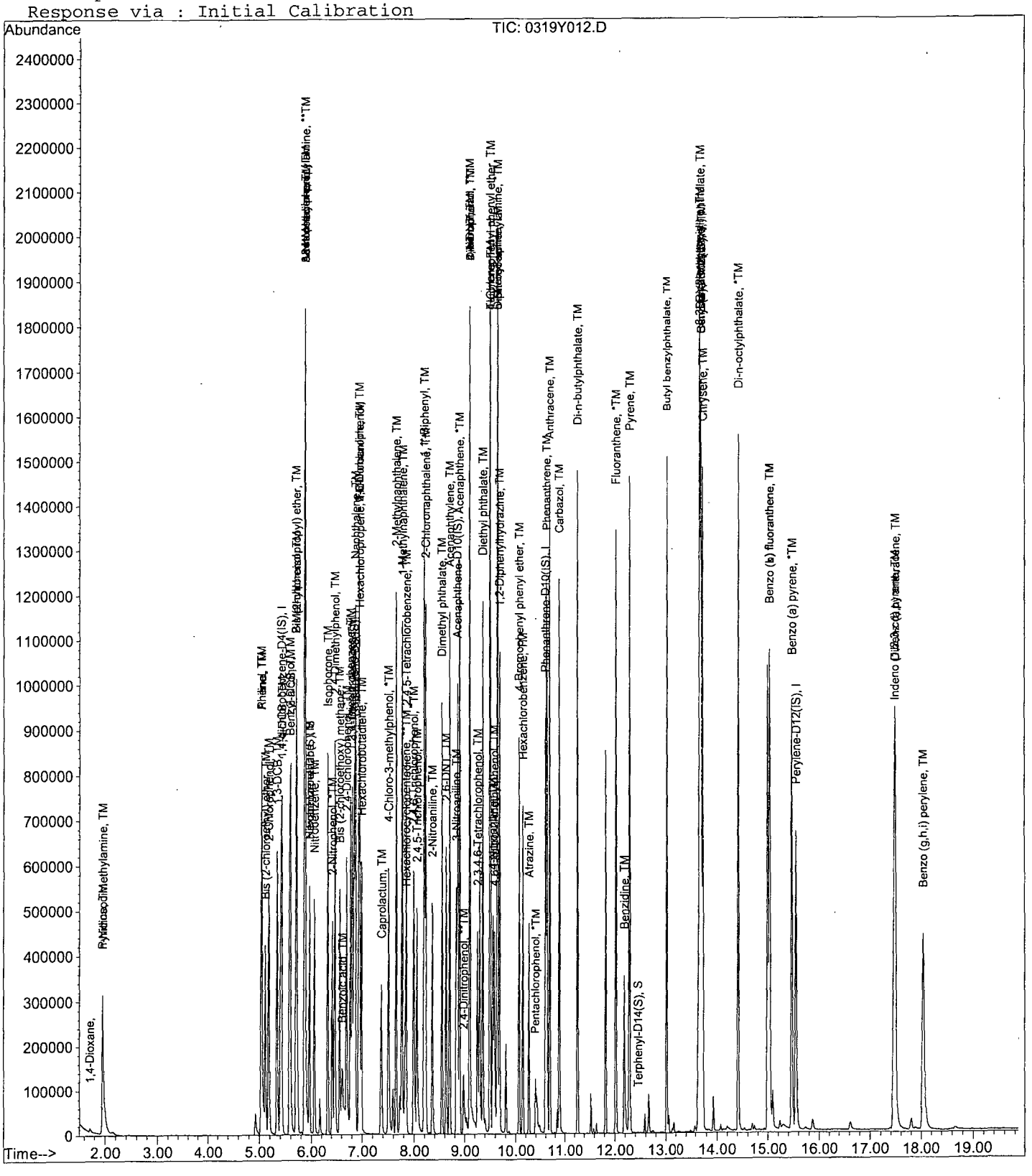
Data File : M:\YODA\DATA\Y190319\0319Y012.D
Acq On : 19 Mar 19 22:39
Sample : SS-8270 03/13/19
Misc :

Vial: 12
Operator: MA
Inst : Yoda
Multiplr: 1.00

Quant Time: Mar 20 9:51 2019

Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/26/19
Instrument: Yoda
Initial Cal. Date: 03/19/19
Data File: 0411Y195.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-dichlorobenzene-D4(IS) | ISTD | | | I | |
| 2 | | 1,4-Dioxane | 0.2708 | 0.2679 | 1.1 | | |
| 3 | TM | n-Nitrosodimethylamine | 0.5083 | 0.5181 | 1.9 | TM | |
| 4 | S | 2-Fluorophenol (S) | 1.495 | 1.568 | 4.9 | S | |
| 5 | S | Phenol-D6 (S) | 1.955 | 2.079 | 6.4 | S | |
| 6 | *TM | Phenol | 2.163 | 2.185 | 1.0 | *TM | |
| 7 | TM | Aniline | 2.108 | 2.306 | 9.4 | TM | |
| 8 | TM | Bis (2-chloroethyl) ether | 0.9612 | 0.9507 | 1.1 | TM | |
| 9 | TM | 2-Chlorophenol | 1.573 | 1.585 | 0.74 | TM | |
| 10 | TM | 1,3-DCB | 1.652 | 1.615 | 2.2 | TM | |
| 11 | *TM | 1,4-DCB | 1.698 | 1.670 | 1.7 | *TM | |
| 12 | TM | Benzyl alcohol | 0.9149 | 0.9732 | 6.4 | TM | |
| 13 | TM | 1,2-DCB | 1.574 | 1.540 | 2.2 | TM | |
| 14 | TM | 2-Methylphenol | 1.371 | 1.387 | 1.2 | TM | |
| 15 | TM | Bis (2-chloroisopropyl) ether | 1.416 | 1.381 | 2.5 | TM | |
| 16 | TM | Acetophenone | 2.099 | 2.121 | 1.0 | TM | |
| 17 | TM | 3&4-Methylphenol | 1.645 | 1.691 | 2.8 | TM | |
| 18 | **TM | n-Nitrosodi-n-propylamine | 1.152 | 1.156 | 0.34 | **TM | |
| 19 | TM | Hexachloroethane | 0.6394 | 0.6201 | 3.0 | TM | |
| 20 | I | Napthalene-D8(IS) | ISTD | | | I | |
| 21 | S | Nitrobenzene-D5(S) | 0.4226 | 0.4356 | 3.1 | S | |
| 22 | TM | Nitrobenzene | 0.4082 | 0.3965 | 2.9 | TM | |
| 23 | TM | Isophorone | 0.7099 | 0.6945 | 2.2 | TM | |
| 24 | *TM | 2-Nitrophenol | 0.2069 | 0.2095 | 1.2 | *TM | |
| 25 | TM | 2,4-Dimethylphenol | 0.3262 | 0.3299 | 1.1 | TM | |
| 26 | TM | Benzoic acid | 0.2242 | 0.2340 | 4.4 | TM | |
| 27 | TM | Bis (2-chloroethoxy) methane | 0.4337 | 0.4223 | 2.6 | TM | |
| 28 | *TM | 2,4-Dichlorophenol | 0.2766 | 0.2833 | 2.4 | *TM | |
| 29 | TM | 1,2,4-Trichlorobenzene | 0.3036 | 0.2993 | 1.4 | TM | |
| 30 | TM | 3,4-Dimethylphenol | 0.4824 | 0.4821 | 0.07 | TM | |
| 31 | TM | Naphthalene | 1.082 | 1.063 | 1.8 | TM | |
| 32 | TM | 4-Chloroaniline | 0.3990 | 0.4184 | 4.9 | TM | |
| 33 | TM | 2,6-Dichlorophenol | 0.2781 | 0.2787 | 0.22 | TM | |
| 34 | TM | Hexachloropropene | 0.1687 | 0.1704 | 1.0 | TM | |
| 35 | *TM | Hexachlorobutadiene | 0.1489 | 0.1486 | 0.20 | *TM | |
| 36 | TM | Caprolactum | 0.1394 | 0.1314 | 5.7 | TM | |
| 37 | *TM | 4-Chloro-3-methylphenol | 0.3353 | 0.3411 | 1.7 | *TM | |
| 38 | TM | 2-Methylnaphthalene | 0.6902 | 0.6837 | 0.94 | TM | |
| 39 | TM | 1-Methylnaphthalene | 0.7153 | 0.7043 | 1.5 | TM | |
| 40 | I | Acenaphthene-D10(IS) | ISTD | | | I | |
| | | Average | | | 2.4 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/26/19
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0411Y195.D

| | | Compound | MEAN | CCRF | %D | | %Drift | |
|---|---|---|---|---|---|---|---|---|
| 41 | **TMQ | Hexachlorocyclopentadiene | 0.0924 | 0.0792 | 14 | **TMQ | 5.5 | |
| 42 | TM | 1,2,4,5-Tetrachlorobenzene | 0.5222 | 0.5114 | 2.1 | TM | | |
| 43 | *TM | 2,4,6-Trichlorophenol | 0.3358 | 0.3397 | 1.2 | *TM | | |
| 44 | TM | 2,4,5-Trichlorophenol | 0.3609 | 0.3604 | 0.15 | TM | | |
| 45 | S | 2-Fluorobiphenyl(S) | 1.477 | 1.481 | 0.27 | S | | |
| 46 | TM | 1,1'-Biphenyl | 1.653 | 1.603 | 3.1 | TM | | |
| 47 | TM | 2-Chloronaphthalene | 1.244 | 1.215 | 2.3 | TM | | |
| 48 | TM | 2-Nitroaniline | 0.4076 | 0.4042 | 0.84 | TM | | |
| 49 | TM | Dimethyl phthalate | 1.445 | 1.426 | 1.4 | TM | | |
| 50 | TM | 2,6-DNT | 0.3380 | 0.3480 | 3.0 | TM | | |
| 51 | TM | Acenaphthylene | 1.968 | 1.919 | 2.5 | TM | | |
| 52 | TM | 3-Nitroaniline | 0.3715 | 0.3876 | 4.3 | TM | | |
| 53 | *TM | Acenaphthene | 1.268 | 1.221 | 3.7 | *TM | | |
| 54 | **TML | 2,4-Dinitrophenol | 0.1301 | 0.1001 | 23 | **TML | 34 | *NT |
| 55 | **TMQ | 4-Nitrophenol | 0.1853 | 0.2469 | 33 | **TMQ | 13 | |
| 56 | TM | Dibenzofuran | 1.721 | 1.686 | 2.0 | TM | | |
| 57 | TM | 2,4-DNT | 0.4568 | 0.4587 | 0.41 | TM | | |
| 58 | TM | 2,3,4,6-Tetrachlorophenol | 0.2292 | 0.2596 | 13 | TM | | |
| 59 | TM | Diethyl phthalate | 1.426 | 1.383 | 3.1 | TM | | |
| 60 | TM | 4-Chlorophenyl phenyl ether | 0.6575 | 0.6486 | 1.3 | TM | | |
| 61 | TM | Fluorene | 1.435 | 1.395 | 2.8 | TM | | |
| 62 | TM | 4-Nitroaniline | 0.3758 | 0.3454 | 8.1 | TM | | |
| 63 | S | 2,4,6-Tribromophenol(S) | 0.1326 | 0.1486 | 12 | S | | |
| 64 | I | Phenanthrene-D10(IS) | ISTD | | | I | | |
| 65 | TM | 4,6-Dinitro-2-methylphenol | 0.1492 | 0.1471 | 1.4 | TM | | |
| 66 | TM | Diphenyl amine | 0.6711 | 0.6564 | 2.2 | TM | | |
| 67 | *TM | n-Nitrosodiphenylamine | 0.6711 | 0.6564 | 2.2 | *TM | | |
| 68 | TM | 1,2-Diphenylhydrazine | 0.9392 | 1.026 | 9.3 | TM | | |
| 69 | TM | 4-Bromophenyl phenyl ether | 0.2094 | 0.2085 | 0.40 | TM | | |
| 70 | TM | Hexachlorobenzene | 0.1945 | 0.1960 | 0.77 | TM | | |
| 71 | TM | Atrazine | 0.2293 | 0.2209 | 3.7 | TM | | |
| 72 | *TML | Pentachlorophenol | 0.0578 | 0.0787 | 36 | *TML | 9.1 | |
| 73 | TM | Phenanthrene | 1.222 | 1.168 | 4.4 | TM | | |
| 74 | TM | Anthracene | 1.291 | 1.243 | 3.7 | TM | | |
| 75 | TM | Carbazol | 1.189 | 1.151 | 3.2 | TM | | |
| 76 | TM | Di-n-butylphthalate | 1.489 | 1.454 | 2.3 | TM | | |
| 77 | *TM | Fluoranthene | 1.278 | 1.263 | 1.1 | *TM | | |
| 78 | I | Chrysene-D12(IS) | ISTD | | | I | | |
| 79 | TM | Benzidine | 0.3173 | 0.3473 | 9.5 | TM | | |
| 80 | TM | Pyrene | 1.475 | 1.481 | 0.45 | TM | | |
| | | Average | | | 5.7 | | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/26/19
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0411Y195.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 81 | S | Terphenyl-D14(S) | 0.9778 | 1.027 | 5.0 | S | |
| 82 | TM | Butyl benzylphthalate | 0.7465 | 0.7285 | 2.4 | TM | |
| 83 | TM | 3,3'-Dichlorobenzidine | 0.3708 | 0.3631 | 2.1 | TM | |
| 84 | TM | Benz (a) anthracene | 1.304 | 1.276 | 2.2 | TM | |
| 85 | TM | Bis (2-ethylhexyl) phthalate | 1.069 | 1.021 | 4.5 | TM | |
| 86 | TM | Chrysene | 1.257 | 1.218 | 3.1 | TM | |
| 87 | *TM | Di-n-octylphthalate | 1.844 | 1.745 | 5.3 | *TM | |
| 88 | I | Perylene-D12(IS) | ISTD | | | I | |
| 89 | TM | Benzo (b) fluoranthene | 1.190 | 1.366 | 15 | TM | |
| 90 | TM | Benzo (k) fluoranthene | 1.190 | 1.147 | 3.7 | TM | |
| 91 | *TM | Benzo (a) pyrene | 1.186 | 1.174 | 0.98 | *TM | |
| 92 | TM | Indeno (1,2,3-cd) pyrene | 1.276 | 1.225 | 4.0 | TM | |
| 93 | TM | Dibenz (a,h) anthracene | 1.118 | 1.060 | 5.2 | TM | |
| 94 | TM | Benzo (g,h,i) perylene | 1.018 | 0.9792 | 3.8 | TM | |
| 95 | | | | | | | |
| 96 | | | | | | | |
| 97 | | | | | | | |
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| 113 | | | | | | | |
| 114 | | | | | | | |
| 115 | | | | | | | |
| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 4.4 | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y195.D Vial: 95
Acq On : 26 Apr 19 17:18 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Apr 26 17:24 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 198066 | 40.00000 ppb | | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 854755 | 40.00000 ppb | | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.77 | 164 | 463907 | 40.00000 ppb | | -0.02 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 776149 | 40.00000 ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 676093 | 40.00000 ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.49 | 264 | 642988 | 40.00000 ppb | | 0.02 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.68 | 112 | 776312 | 104.86699 ppb | | -0.11 |
| Spiked Amount 200.000 | | | Recovery | = 52.434% | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1029552 | 106.37791 ppb | | -0.05 |
| Spiked Amount 200.000 | | | Recovery | = 53.189% | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 465381 | 51.53344 ppb | | -0.04 |
| Spiked Amount 100.000 | | | Recovery | = 51.533% | | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 858712 | 50.13289 ppb | | -0.03 |
| Spiked Amount 100.000 | | | Recovery | = 50.133% | | |
| 64) 2,4,6-Tribromophenol(S) | 9.72 | 330 | 172348 | 112.09908 ppb | | 0.00 |
| Spiked Amount 200.000 | | | Recovery | = 56.049% | | |
| 82) Terphenyl-D14(S) | 12.40 | 244 | 867655 | 52.49993 ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery | = 52.500% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 128267 | 50.96032 ppb | | 93 |
| 7) Phenol | 4.90 | 94 | 540999 | 50.51860 ppb | | 86 |
| 8) Aniline | 4.91 | 93 | 570915 | 54.68633 ppb | # | 89 |
| 9) Bis (2-chloroethyl) ether | 5.00 | 63 | 235387 | 49.45515 ppb | | 98 |
| 10) 2-Chlorophenol | 5.04 | 128 | 392440 | 50.37247 ppb | | 99 |
| 11) 1,3-DCB | 5.21 | 146 | 399790 | 48.88395 ppb | | 99 |
| 12) 1,4-DCB | 5.30 | 146 | 413350 | 49.14940 ppb | | 97 |
| 13) Benzyl alcohol | 5.46 | 108 | 240952 | 53.18700 ppb | | 97 |
| 14) 1,2-DCB | 5.47 | 146 | 381262 | 48.91474 ppb | | 99 |
| 15) 2-Methylphenol | 5.59 | 107 | 343442 | 50.60301 ppb | | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 341904 | 48.76887 ppb | | 86 |
| 17) Acetophenone | 5.76 | 105 | 525099 | 50.51939 ppb | | 91 |
| 18) 3&4-Methylphenol | 5.78 | 107 | 837529 | 102.80236 ppb | | 98 |
| 19) n-Nitrosodi-n-propylamine | 5.76 | 70 | 286211 | 50.17171 ppb | | 96 |
| 20) Hexachloroethane | 5.85 | 117 | 153535 | 48.49641 ppb | | 94 |
| 23) Nitrobenzene | 5.95 | 77 | 423589 | 48.55732 ppb | | 93 |
| 24) Isophorone | 6.23 | 82 | 741995 | 48.91136 ppb | | 96 |
| 25) 2-Nitrophenol | 6.31 | 139 | 223794 | 50.60779 ppb | | 99 |
| 26) 2,4-Dimethylphenol | 6.36 | 122 | 352511 | 50.57071 ppb | | 99 |
| 27) Benzoic acid | 6.54 | 105 | 250014 | 52.19591 ppb | | 98 |
| 28) Bis (2-chloroethoxy) metha | 6.46 | 93 | 451189 | 48.68798 ppb | | 98 |
| 29) 2,4-Dichlorophenol | 6.59 | 162 | 302678 | 51.20780 ppb | | 97 |
| 30) 1,2,4-Trichlorobenzene | 6.68 | 180 | 319775 | 49.28344 ppb | | 98 |
| 31) 3,4-Dimethylphenol | 6.71 | 107 | 515057 | 49.96625 ppb | | 97 |
| 32) Naphthalene | 6.77 | 128 | 1135825 | 49.10619 ppb | | 99 |
| 33) 4-Chloroaniline | 6.84 | 127 | 447082 | 52.43111 ppb | | 98 |
| 34) 2,6-Dichlorophenol | 6.84 | 162 | 297789 | 50.10828 ppb | | 96 |
| 35) Hexachloropropene | 6.85 | 213 | 182092 | 50.50821 ppb | | 99 |
| 36) Hexachlorobutadiene | 6.89 | 225 | 158819 | 49.89864 ppb | | 99 |
| 37) Caprolactum | 7.29 | 55 | 140409 | 47.14347 ppb | | 96 |
| 38) 4-Chloro-3-methylphenol | 7.41 | 107 | 364474 | 50.86975 ppb | | 96 |
| 39) 2-Methylnaphthalene | 7.56 | 142 | 730540 | 49.53167 ppb | | 98 |

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

Data File : M:\YODA\DATA\Y190411\0411Y195.D Vial: 95
Acq On : 26 Apr 19 17:18 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Apr 26 17:24 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 40) | 1-Methylnaphthalene | 7.68 | 142 | 752537 | 49.23100 | ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.73 | 237 | 45907 | 47.27284 | ppb | | 97 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.75 | 216 | 296546 | 48.96198 | ppb | | 98 |
| 44) | 2,4,6-Trichlorophenol | 7.90 | 196 | 197007 | 50.58039 | ppb | | 98 |
| 45) | 2,4,5-Trichlorophenol | 7.96 | 196 | 208985 | 49.92392 | ppb | | 94 |
| 47) | 1,1'-Biphenyl | 8.11 | 154 | 929378 | 48.46572 | ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.13 | 162 | 704725 | 48.86038 | ppb | | 98 |
| 49) | 2-Nitroaniline | 8.26 | 65 | 234371 | 49.58161 | ppb | | 86 |
| 50) | Dimethyl phthalate | 8.47 | 163 | 826702 | 49.31579 | ppb | | 99 |
| 51) | 2,6-DNT | 8.55 | 165 | 201778 | 51.47523 | ppb | | 84 |
| 52) | Acenaphthylene | 8.62 | 152 | 1112814 | 48.74827 | ppb | | 100 |
| 53) | 3-Nitroaniline | 8.76 | 138 | 224754 | 52.16186 | ppb | | 95 |
| 54) | Acenaphthene | 8.82 | 154 | 708295 | 48.17114 | ppb | | 98 |
| 55) | 2,4-Dinitrophenol | 8.90 | 184 | 58073 | 32.87689 | ppb | | 97 |
| 56) | 4-Nitrophenol | 8.98 | 65 | 143164 | 56.70184 | ppb | # | 73 |
| 57) | Dibenzofuran | 9.02 | 168 | 977855 | 49.00384 | ppb | | 100 |
| 58) | 2,4-DNT | 9.03 | 165 | 265994 | 50.20691 | ppb | | 94 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.17 | 232 | 150529 | 56.62917 | ppb | | 97 |
| 60) | Diethyl phthalate | 9.29 | 149 | 801834 | 48.46960 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.42 | 204 | 376138 | 49.32726 | ppb | | 90 |
| 62) | Fluorene | 9.42 | 166 | 808898 | 48.59560 | ppb | | 99 |
| 63) | 4-Nitroaniline | 9.49 | 138 | 200271 | 45.94682 | ppb | | 90 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.52 | 198 | 142742 | 49.29448 | ppb | | 93 |
| 67) | Diphenyl amine | 9.57 | 169 | 1273690 | 97.81548 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.57 | 169 | 1273690 | 97.81548 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.61 | 77 | 995681 | 54.63594 | ppb | | 97 |
| 70) | 4-Bromophenyl phenyl ether | 9.99 | 248 | 202314 | 49.79755 | ppb | | 99 |
| 71) | Hexachlorobenzene | 10.07 | 284 | 190110 | 50.38256 | ppb | | 95 |
| 72) | Atrazine | 10.19 | 200 | 107150 | 24.07926 | ppb | | 98 |
| 73) | Pentachlorophenol | 10.32 | 266 | 76394 | 54.55426 | ppb | | 97 |
| 74) | Phenanthrene | 10.56 | 178 | 1133474 | 47.79449 | ppb | | 99 |
| 75) | Anthracene | 10.61 | 178 | 1206013 | 48.13971 | ppb | | 99 |
| 76) | Carbazol | 10.82 | 167 | 1116520 | 48.39594 | ppb | | 97 |
| 77) | Di-n-butylphthalate | 11.20 | 149 | 1410513 | 48.82517 | ppb | | 99 |
| 78) | Fluoranthene | 11.96 | 202 | 1225613 | 49.42639 | ppb | | 99 |
| 80) | Benzidine | 12.12 | 184 | 293506 | 54.73454 | ppb | | 99 |
| 81) | Pyrene | 12.22 | 202 | 1251894 | 50.22489 | ppb | | 100 |
| 83) | Butyl benzylphthalate | 12.96 | 149 | 615632 | 48.79081 | ppb | | 99 |
| 84) | 3,3'-Dichlorobenzidine | 13.59 | 252 | 306879 | 48.96944 | ppb | # | 95 |
| 85) | Benz (a) anthracene | 13.63 | 228 | 1078031 | 48.90944 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.62 | 149 | 862789 | 47.74010 | ppb | | 98 |
| 87) | Chrysene | 13.68 | 228 | 1029169 | 48.42892 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.36 | 149 | 1474901 | 47.32972 | ppb | | 94 |
| 90) | Benzo (b) fluoranthene | 14.94 | 252 | 1097987 | 57.37647 | ppb | | 99 |
| 91) | Benzo (k) fluoranthene | 14.98 | 252 | 921695 | 48.16415 | ppb | | 98 |
| 92) | Benzo (a) pyrene | 15.40 | 252 | 943614 | 49.51039 | ppb | | 99 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.39 | 276 | 984309 | 48.00455 | ppb | | 99 |
| 94) | Dibenz (a,h) anthracene | 17.41 | 278 | 851772 | 47.38056 | ppb | | 99 |
| 95) | Benzo (g,h,i) perylene | 17.96 | 276 | 787011 | 48.09573 | ppb | | 98 |

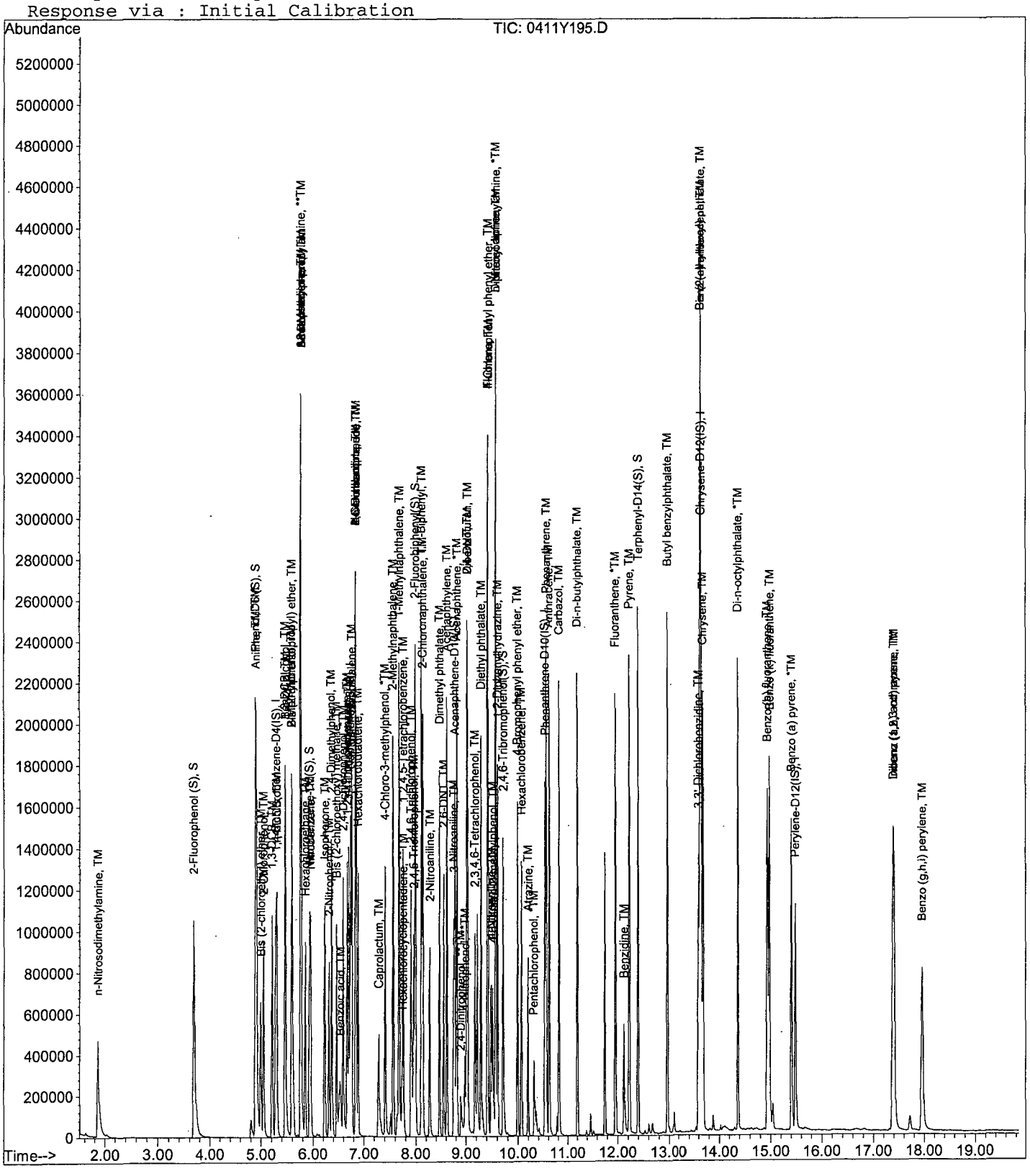
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y195.D Vial: 95
Acq On : 26 Apr 19 17:18 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Apr 26 17:24 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

# Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 04/27/19
Matrix: Instrument: Yoda
Initial Cal. Date: 03/19/19
Data File: 0411Y212.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-dichlorobenzene-D4(IS) | ISTD | | | I | |
| 2 | | 1,4-Dioxane | 0.2708 | 0.2501 | 7.6 | | |
| 3 | TM | n-Nitrosodimethylamine | 0.5083 | 0.5037 | 0.92 | TM | |
| 4 | S | 2-Fluorophenol (S) | 1.495 | 1.560 | 4.4 | S | |
| 5 | S | Phenol-D6 (S) | 1.955 | 2.124 | 8.7 | S | |
| 6 | *TM | Phenol | 2.163 | 2.217 | 2.5 | *TM | |
| 7 | TM | Aniline | 2.108 | 2.265 | 7.4 | TM | |
| 8 | TM | Bis (2-chloroethyl) ether | 0.9612 | 0.9642 | 0.31 | TM | |
| 9 | TM | 2-Chlorophenol | 1.573 | 1.609 | 2.3 | TM | |
| 10 | TM | 1,3-DCB | 1.652 | 1.610 | 2.5 | TM | |
| 11 | *TM | 1,4-DCB | 1.698 | 1.634 | 3.8 | *TM | |
| 12 | TM | Benzyl alcohol | 0.9149 | 0.9845 | 7.6 | TM | |
| 13 | TM | 1,2-DCB | 1.574 | 1.550 | 1.5 | TM | |
| 14 | TM | 2-Methylphenol | 1.371 | 1.403 | 2.3 | TM | |
| 15 | TM | Bis (2-chloroisopropyl) ether | 1.416 | 1.411 | 0.35 | TM | |
| 16 | TM | Acetophenone | 2.099 | 2.156 | 2.7 | TM | |
| 17 | TM | 3&4-Methylphenol | 1.645 | 1.740 | 5.8 | TM | |
| 18 | **TM | n-Nitrosodi-n-propylamine | 1.152 | 1.196 | 3.8 | **TM | |
| 19 | TM | Hexachloroethane | 0.6394 | 0.6160 | 3.7 | TM | |
| 20 | I | Napthalene-D8(IS) | ISTD | | | I | |
| 21 | S | Nitrobenzene-D5(S) | 0.4226 | 0.4327 | 2.4 | S | |
| 22 | TM | Nitrobenzene | 0.4082 | 0.3929 | 3.8 | TM | |
| 23 | TM | Isophorone | 0.7099 | 0.6873 | 3.2 | TM | |
| 24 | *TM | 2-Nitrophenol | 0.2069 | 0.2073 | 0.17 | *TM | |
| 25 | TM | 2,4-Dimethylphenol | 0.3262 | 0.3288 | 0.79 | TM | |
| 26 | TM | Benzoic acid | 0.2242 | 0.2600 | 16 | TM | |
| 27 | TM | Bis (2-chloroethoxy) methane | 0.4337 | 0.4195 | 3.3 | TM | |
| 28 | *TM | 2,4-Dichlorophenol | 0.2766 | 0.2809 | 1.5 | *TM | |
| 29 | TM | 1,2,4-Trichlorobenzene | 0.3036 | 0.2900 | 4.5 | TM | |
| 30 | TM | 3,4-Dimethylphenol | 0.4824 | 0.4805 | 0.39 | TM | |
| 31 | TM | Naphthalene | 1.082 | 1.043 | 3.7 | TM | |
| 32 | TM | 4-Chloroaniline | 0.3990 | 0.4254 | 6.6 | TM | |
| 33 | TM | 2,6-Dichlorophenol | 0.2781 | 0.2744 | 1.3 | TM | |
| 34 | TM | Hexachloropropene | 0.1687 | 0.1610 | 4.5 | TM | |
| 35 | *TM | Hexachlorobutadiene | 0.1489 | 0.1477 | 0.86 | *TM | |
| 36 | TM | Caprolactum | 0.1394 | 0.1330 | 4.6 | TM | |
| 37 | *TM | 4-Chloro-3-methylphenol | 0.3353 | 0.3452 | 2.9 | *TM | |
| 38 | TM | 2-Methylnaphthalene | 0.6902 | 0.6753 | 2.2 | TM | |
| 39 | TM | 1-Methylnaphthalene | 0.7153 | 0.7013 | 2.0 | TM | |
| 40 | I | Acenaphthene-D10(IS) | ISTD | | | I | |
| | | Average | | | 3.6 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

# Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/27/19
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0411Y212.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | **TMQ | Hexachlorocyclopentadiene | 0.0924 | 0.0565 | 39 | **TMQ | 21 |
| 42 | TM | 1,2,4,5-Tetrachlorobenzene | 0.5222 | 0.5161 | 1.2 | TM | |
| 43 | *TM | 2,4,6-Trichlorophenol | 0.3358 | 0.3387 | 0.86 | *TM | |
| 44 | TM | 2,4,5-Trichlorophenol | 0.3609 | 0.3633 | 0.64 | TM | |
| 45 | S | 2-Fluorobiphenyl(S) | 1.477 | 1.474 | 0.21 | S | |
| 46 | TM | 1,1'-Biphenyl | 1.653 | 1.603 | 3.1 | TM | |
| 47 | TM | 2-Chloronaphthalene | 1.244 | 1.190 | 4.3 | TM | |
| 48 | TM | 2-Nitroaniline | 0.4076 | 0.4066 | 0.23 | TM | |
| 49 | TM | Dimethyl phthalate | 1.445 | 1.431 | 1.0 | TM | |
| 50 | TM | 2,6-DNT | 0.3380 | 0.3371 | 0.27 | TM | |
| 51 | TM | Acenaphthylene | 1.968 | 1.900 | 3.5 | TM | |
| 52 | TM | 3-Nitroaniline | 0.3715 | 0.3856 | 3.8 | TM | |
| 53 | *TM | Acenaphthene | 1.268 | 1.224 | 3.4 | *TM | |
| 54 | **TML | 2,4-Dinitrophenol | 0.1301 | 0.1160 | 11 | **TML | 26 |
| 55 | **TMQ | 4-Nitrophenol | 0.1853 | 0.2466 | 33 | **TMQ | 13 |
| 56 | TM | Dibenzofuran | 1.721 | 1.663 | 3.4 | TM | |
| 57 | TM | 2,4-DNT | 0.4568 | 0.4617 | 1.1 | TM | |
| 58 | TM | 2,3,4,6-Tetrachlorophenol | 0.2292 | 0.2597 | 13 | TM | |
| 59 | TM | Diethyl phthalate | 1.426 | 1.383 | 3.1 | TM | |
| 60 | TM | 4-Chlorophenyl phenyl ether | 0.6575 | 0.6386 | 2.9 | TM | |
| 61 | TM | Fluorene | 1.435 | 1.397 | 2.7 | TM | |
| 62 | TM | 4-Nitroaniline | 0.3758 | 0.3576 | 4.9 | TM | |
| 63 | S | 2,4,6-Tribromophenol(S) | 0.1326 | 0.1490 | 12 | S | |
| 64 | I | Phenanthrene-D10(IS) | ISTD | | | I | |
| 65 | TM | 4,6-Dinitro-2-methylphenol | 0.1492 | 0.1527 | 2.3 | TM | |
| 66 | TM | Diphenyl amine | 0.6711 | 0.6652 | 0.88 | TM | |
| 67 | *TM | n-Nitrosodiphenylamine | 0.6711 | 0.6652 | 0.88 | *TM | |
| 68 | TM | 1,2-Diphenylhydrazine | 0.9392 | 0.8830 | 6.0 | TM | |
| 69 | TM | 4-Bromophenyl phenyl ether | 0.2094 | 0.2081 | 0.63 | TM | |
| 70 | TM | Hexachlorobenzene | 0.1945 | 0.1926 | 0.98 | TM | |
| 71 | TM | Atrazine | 0.2293 | 0.2015 | 12 | TM | |
| 72 | *TML | Pentachlorophenol | 0.0578 | 0.0719 | 24 | *TML | 0.78 |
| 73 | TM | Phenanthrene | 1.222 | 1.190 | 2.6 | TM | |
| 74 | TM | Anthracene | 1.291 | 1.244 | 3.7 | TM | |
| 75 | TM | Carbazol | 1.189 | 1.153 | 3.0 | TM | |
| 76 | TM | Di-n-butylphthalate | 1.489 | 1.451 | 2.5 | TM | |
| 77 | *TM | Fluoranthene | 1.278 | 1.249 | 2.3 | *TM | |
| 78 | I | Chrysene-D12(IS) | ISTD | | | I | |
| 79 | TM | Benzidine | 0.3173 | 0.2390 | 25 | TM | |
| 80 | TM | Pyrene | 1.475 | 1.464 | 0.71 | TM | |
| | | Average | | | 6.2 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/27/19
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0411Y212.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 81 | S | Terphenyl-D14(S) | 0.9778 | 1.010 | 3.3 | S | |
| 82 | TM | Butyl benzylphthalate | 0.7465 | 0.7298 | 2.2 | TM | |
| 83 | TM | 3,3'-Dichlorobenzidine | 0.3708 | 0.3920 | 5.7 | TM | |
| 84 | TM | Benz (a) anthracene | 1.304 | 1.249 | 4.3 | TM | |
| 85 | TM | Bis (2-ethylhexyl) phthalate | 1.069 | 1.009 | 5.6 | TM | |
| 86 | TM | Chrysene | 1.257 | 1.214 | 3.4 | TM | |
| 87 | *TM | Di-n-octylphthalate | 1.844 | 1.763 | 4.4 | *TM | |
| 88 | I | Perylene-D12(IS) | ISTD | | | I | |
| 89 | TM | Benzo (b) fluoranthene | 1.190 | 1.214 | 2.0 | TM | |
| 90 | TM | Benzo (k) fluoranthene | 1.190 | 1.268 | 6.5 | TM | |
| 91 | *TM | Benzo (a) pyrene | 1.186 | 1.191 | 0.43 | *TM | |
| 92 | TM | Indeno (1,2,3-cd) pyrene | 1.276 | 1.245 | 2.4 | TM | |
| 93 | TM | Dibenz (a,h) anthracene | 1.118 | 1.068 | 4.5 | TM | |
| 94 | TM | Benzo (g,h,i) perylene | 1.018 | 0.9785 | 3.9 | TM | |
| 95 | | | | | | | |
| 96 | | | | | | | |
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| 114 | | | | | | | |
| 115 | | | | | | | |
| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 3.7 | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y212.D Vial: 12
Acq On : 27 Apr 19 1:12 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Apr 29 8:22 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 172038 | 40.00000 ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 762569 | 40.00000 ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.77 | 164 | 411365 | 40.00000 ppb | -0.02 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 684409 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 609183 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.49 | 264 | 569428 | 40.00000 ppb | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.68 | 112 | 671002 | 104.35466 ppb | -0.11 |
| Spiked Amount 200.000 | | | Recovery = | 52.178% | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 913448 | 108.66071 ppb | -0.06 |
| Spiked Amount 200.000 | | | Recovery = | 54.331% | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 412415 | 51.18910 ppb | -0.04 |
| Spiked Amount 100.000 | | | Recovery = | 51.189% | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 757835 | 49.89459 ppb | -0.03 |
| Spiked Amount 100.000 | | | Recovery = | 49.895% | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 153208 | 112.37788 ppb | -0.01 |
| Spiked Amount 200.000 | | | Recovery = | 56.189% | |
| 82) Terphenyl-D14(S) | 12.40 | 244 | 768966 | 51.63896 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 51.639% | |
| **Target Compounds** | | | | | Qvalue |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 108310 | 49.54174 ppb | 91 |
| 7) Phenol | 4.90 | 94 | 476829 | 51.26288 ppb | 87 |
| 8) Aniline | 4.91 | 93 | 487170 | 53.72463 ppb | 86 |
| 9) Bis (2-chloroethyl) ether | 4.99 | 63 | 207344 | 50.15405 ppb | 93 |
| 10) 2-Chlorophenol | 5.04 | 128 | 345986 | 51.12862 ppb | 97 |
| 11) 1,3-DCB | 5.21 | 146 | 346289 | 48.74820 ppb | 98 |
| 12) 1,4-DCB | 5.30 | 146 | 351435 | 48.10950 ppb | 98 |
| 13) Benzyl alcohol | 5.46 | 108 | 211711 | 53.80268 ppb | 96 |
| 14) 1,2-DCB | 5.47 | 146 | 333289 | 49.22920 ppb | 98 |
| 15) 2-Methylphenol | 5.59 | 107 | 301633 | 51.16669 ppb | 99 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 303418 | 49.82708 ppb | 85 |
| 17) Acetophenone | 5.76 | 105 | 463696 | 51.36127 ppb | 96 |
| 18) 3&4-Methylphenol | 5.77 | 107 | 748514 | 105.77638 ppb | 97 |
| 19) n-Nitrosodi-n-propylamine | 5.76 | 70 | 257219 | 51.91121 ppb | 96 |
| 20) Hexachloroethane | 5.85 | 117 | 132463 | 48.17063 ppb | 93 |
| 23) Nitrobenzene | 5.95 | 77 | 374481 | 48.11742 ppb | 95 |
| 24) Isophorone | 6.22 | 82 | 655186 | 48.41009 ppb | 100 |
| 25) 2-Nitrophenol | 6.31 | 139 | 197601 | 50.08649 ppb | 98 |
| 26) 2,4-Dimethylphenol | 6.36 | 122 | 313413 | 50.39714 ppb | 98 |
| 27) Benzoic acid | 6.55 | 105 | 247839 | 57.99684 ppb | 99 |
| 28) Bis (2-chloroethoxy) metha | 6.46 | 93 | 399869 | 48.36637 ppb | 99 |
| 29) 2,4-Dichlorophenol | 6.59 | 162 | 267737 | 50.77222 ppb | 95 |
| 30) 1,2,4-Trichlorobenzene | 6.68 | 180 | 276476 | 47.76133 ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.70 | 107 | 458044 | 49.80709 ppb | 99 |
| 32) Naphthalene | 6.77 | 128 | 994065 | 48.17282 ppb | 99 |
| 33) 4-Chloroaniline | 6.84 | 127 | 405526 | 53.30686 ppb | 97 |
| 34) 2,6-Dichlorophenol | 6.84 | 162 | 261547 | 49.33023 ppb | 97 |
| 35) Hexachloropropene | 6.85 | 213 | 153514 | 47.72892 ppb | 98 |
| 36) Hexachlorobutadiene | 6.89 | 225 | 140763 | 49.57209 ppb | 99 |
| 37) Caprolactum | 7.28 | 55 | 126795 | 47.71899 ppb | 98 |
| 38) 4-Chloro-3-methylphenol | 7.41 | 107 | 329021 | 51.47297 ppb | 96 |
| 39) 2-Methylnaphthalene | 7.56 | 142 | 643687 | 48.91885 ppb | 98 |

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

Data File : M:\YODA\DATA\Y190411\0411Y212.D Vial: 12
Acq On : 27 Apr 19 1:12 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Apr 29 8:22 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

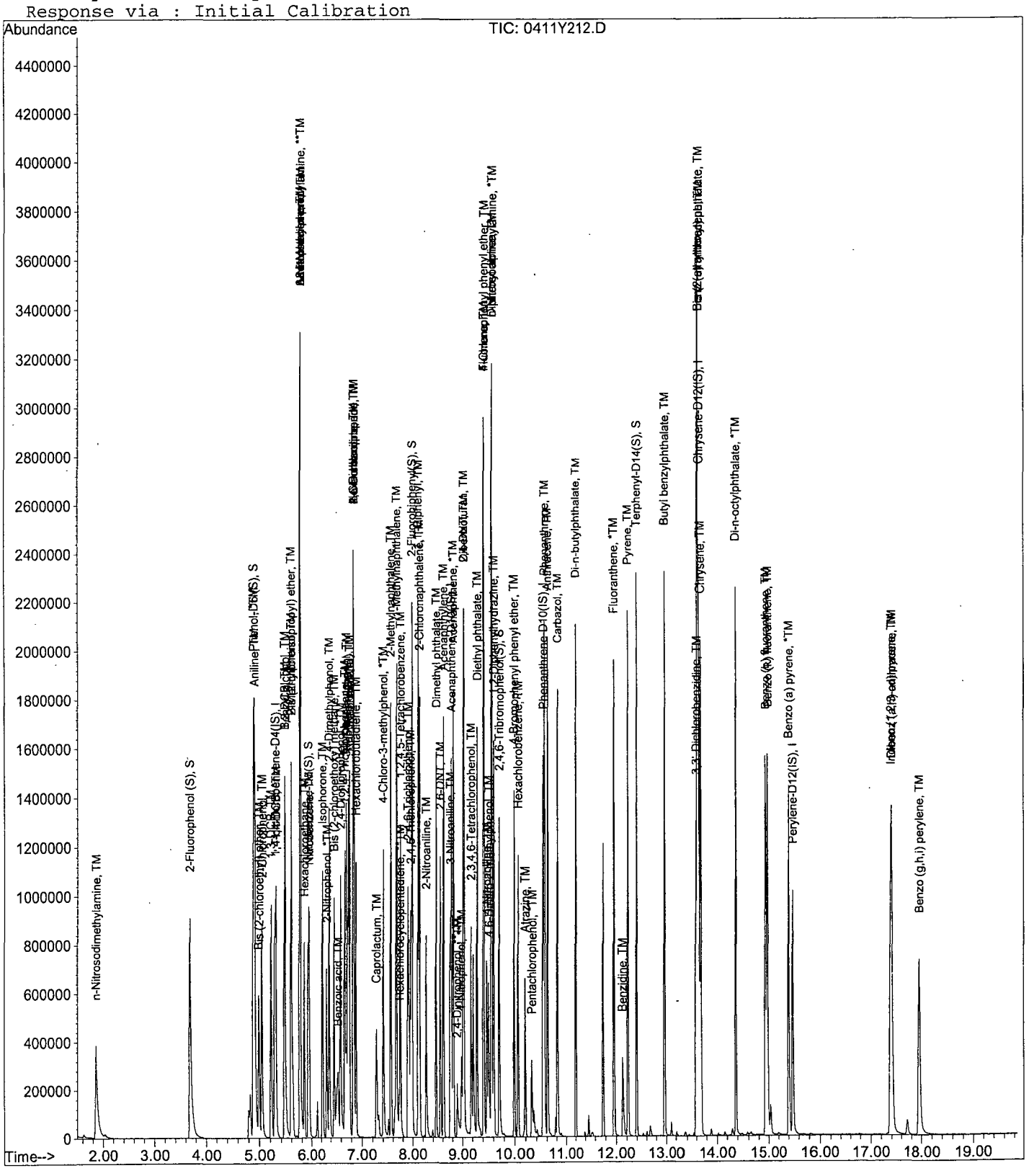
| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 40) | 1-Methylnaphthalene | 7.68 | 142 | 668468 | 49.01781 | ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.74 | 237 | 29034 | 39.39398 | ppb | | 97 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.75 | 216 | 265398 | 49.41606 | ppb | | 98 |
| 44) | 2,4,6-Trichlorophenol | 7.90 | 196 | 174182 | 50.43214 | ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 7.96 | 196 | 186793 | 50.32198 | ppb | | 94 |
| 47) | 1,1'-Biphenyl | 8.11 | 154 | 824101 | 48.46479 | ppb | | 98 |
| 48) | 2-Chloronaphthalene | 8.13 | 162 | 612080 | 47.85738 | ppb | | 98 |
| 49) | 2-Nitroaniline | 8.26 | 65 | 209093 | 49.88384 | ppb | | 87 |
| 50) | Dimethyl phthalate | 8.47 | 163 | 735586 | 49.48505 | ppb | | 99 |
| 51) | 2,6-DNT | 8.55 | 165 | 173319 | 49.86252 | ppb | | 85 |
| 52) | Acenaphthylene | 8.62 | 152 | 977158 | 48.27308 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.76 | 138 | 198285 | 51.89662 | ppb | | 94 |
| 54) | Acenaphthene | 8.82 | 154 | 629440 | 48.27593 | ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.90 | 184 | 59651 | 36.96763 | ppb | | 92 |
| 56) | 4-Nitrophenol | 8.98 | 65 | 126813 | 56.65103 | ppb | # | 74 |
| 57) | Dibenzofuran | 9.02 | 168 | 855052 | 48.32277 | ppb | | 98 |
| 58) | 2,4-DNT | 9.03 | 165 | 237393 | 50.53162 | ppb | | 90 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.17 | 232 | 133523 | 56.64736 | ppb | | 97 |
| 60) | Diethyl phthalate | 9.29 | 149 | 711042 | 48.47121 | ppb | | 98 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.42 | 204 | 328387 | 48.56566 | ppb | | 89 |
| 62) | Fluorene | 9.42 | 166 | 718316 | 48.66562 | ppb | | 98 |
| 63) | 4-Nitroaniline | 9.48 | 138 | 183864 | 47.57049 | ppb | | 97 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.52 | 198 | 130652 | 51.16724 | ppb | | 90 |
| 67) | Diphenyl amine | 9.57 | 169 | 1138099 | 99.11817 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.57 | 169 | 1138099 | 99.11817 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.61 | 77 | 755385 | 47.00628 | ppb | | 98 |
| 70) | 4-Bromophenyl phenyl ether | 9.99 | 248 | 177991 | 49.68319 | ppb | | 99 |
| 71) | Hexachlorobenzene | 10.07 | 284 | 164738 | 49.51063 | ppb | | 96 |
| 72) | Atrazine | 10.20 | 200 | 86180 | 21.96275 | ppb | | 98 |
| 73) | Pentachlorophenol | 10.32 | 266 | 61547 | 50.39007 | ppb | | 99 |
| 74) | Phenanthrene | 10.56 | 178 | 1018161 | 48.68690 | ppb | | 100 |
| 75) | Anthracene | 10.61 | 178 | 1064012 | 48.16453 | ppb | | 99 |
| 76) | Carbazol | 10.82 | 167 | 986352 | 48.48460 | ppb | | 97 |
| 77) | Di-n-butylphthalate | 11.20 | 149 | 1241452 | 48.73332 | ppb | | 99 |
| 78) | Fluoranthene | 11.96 | 202 | 1068240 | 48.85440 | ppb | | 99 |
| 80) | Benzidine | 12.12 | 184 | 181976 | 37.66320 | ppb | | 99 |
| 81) | Pyrene | 12.22 | 202 | 1115007 | 49.64639 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 12.96 | 149 | 555724 | 48.88039 | ppb | | 99 |
| 84) | 3,3'-Dichlorobenzidine | 13.59 | 252 | 298530 | 52.86943 | ppb | # | 97 |
| 85) | Benz (a) anthracene | 13.63 | 228 | 950764 | 47.87324 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.62 | 149 | 768620 | 47.20077 | ppb | | 97 |
| 87) | Chrysene | 13.67 | 228 | 924660 | 48.29018 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.36 | 149 | 1342564 | 47.81506 | ppb | | 96 |
| 90) | Benzo (b) fluoranthene | 14.93 | 252 | 863909 | 50.97634 | ppb | | 97 |
| 91) | Benzo (k) fluoranthene | 14.98 | 252 | 902341 | 53.24408 | ppb | | 97 |
| 92) | Benzo (a) pyrene | 15.40 | 252 | 847542 | 50.21428 | ppb | | 98 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.38 | 276 | 886337 | 48.81057 | ppb | | 97 |
| 94) | Dibenz (a,h) anthracene | 17.40 | 278 | 760294 | 47.75539 | ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 17.96 | 276 | 696506 | 48.06341 | ppb | | 98 |

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

Data File : M:\YODA\DATA\Y190411\0411Y212.D Vial: 12
Acq On : 27 Apr 19 1:12 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Apr 29 8:22 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



# ORGANICS
# Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y199.D Vial: 99
Acq On : 26 Apr 19 19:09 Operator: MA
Sample : AZ89958W30 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 10:13 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 153767 | 40.0000 | ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 688686 | 40.0000 | ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.77 | 164 | 421225 | 40.0000 | ppb | -0.02 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 719888 | 40.0000 | ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 622136 | 40.0000 | ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.49 | 264 | 582956 | 40.0000 | ppb | 0.02 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.71 | 112 | 1004595 | 218.4994 | ppb | -0.09 |
| Spiked Amount 250.000 | | | Recovery = 87.400% | | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1234464 | 205.3707 | ppb | -0.05 |
| Spiked Amount 250.000 | | | Recovery = 82.148% | | | |
| 22) Nitrobenzene-D5(S) | 5.92 | 82 | 591848 | 101.6766 | ppb | -0.05 |
| Spiked Amount 125.000 | | | Recovery = 81.342% | | | |
| 46) 2-Fluorobiphenyl(S) | 7.98 | 172 | 1075548 | 86.4434 | ppb | -0.03 |
| Spiked Amount 125.000 | | | Recovery = 69.154% | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 238035 | 213.1392 | ppb | -0.01 |
| Spiked Amount 250.000 | | | Recovery = 85.256% | | | |
| 82) Terphenyl-D14(S) | 12.39 | 244 | 1085934 | 89.2578 | ppb | 0.00 |
| Spiked Amount 125.000 | | | Recovery = 71.406% | | | |

| Target Compounds | Qvalue |
|---|---|

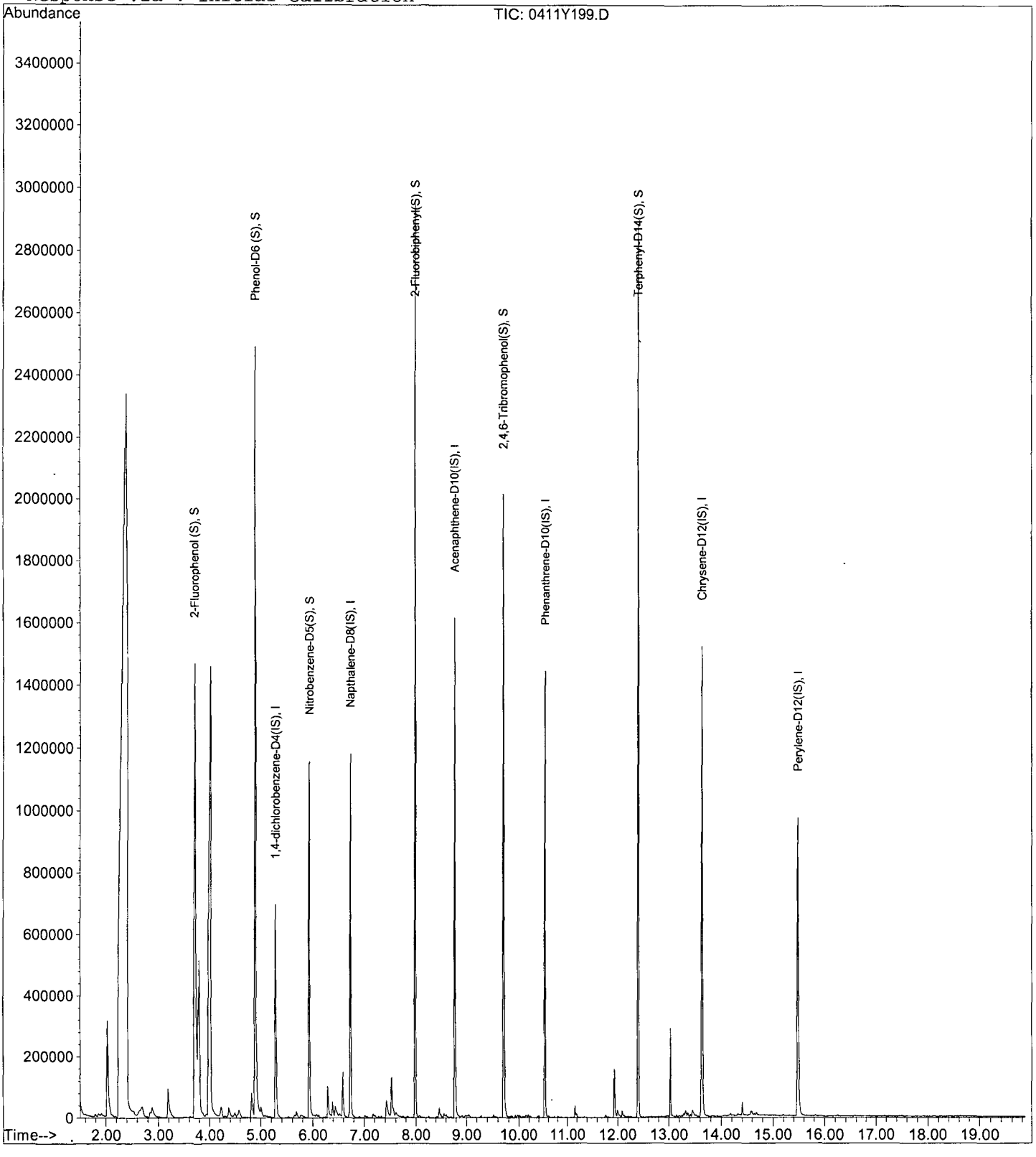
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y199.D  Vial: 99
Acq On : 26 Apr 19 19:09  Operator: MA
Sample : AZ89958W30 1/800  Inst : Yoda
Misc :  Multiplr: 1.25

Quant Time: Apr 29 10:13 2019  Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y202.D Vial: 2
Acq On : 26 Apr 19 20:33 Operator: MA
Sample : AZ89959W07 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 13:18 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 147168 | 40.0000 ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 669492 | 40.0000 ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.78 | 164 | 437684 | 40.0000 ppb | -0.01 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 745190 | 40.0000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 649177 | 40.0000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 611437 | 40.0000 ppb | 0.01 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.68 | 112 | 930337 | 211.4216 ppb | -0.11 |
| Spiked Amount 250.000 | | | Recovery = | 84.569% | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1163034 | 202.1632 ppb | -0.06 |
| Spiked Amount 250.000 | | | Recovery = | 80.865% | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 623049 | 110.1055 ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery = | 88.084% | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 1118944 | 86.5493 ppb | -0.03 |
| Spiked Amount 125.000 | | | Recovery = | 69.239% | |
| 64) 2,4,6-Tribromophenol(S) | 9.72 | 330 | 240959 | 207.6439 ppb | 0.00 |
| Spiked Amount 250.000 | | | Recovery = | 83.058% | |
| 82) Terphenyl-D14(S) | 12.40 | 244 | 1143844 | 90.1015 ppb | 0.00 |
| Spiked Amount 125.000 | | | Recovery = | 72.081% | |
| **Target Compounds** | | | | | Qvalue |
| 26) 2,4-Dimethylphenol | 6.39 | 122 | 10297 | 2.3575 ppb | 91 |
| 31) 3,4-Dimethylphenol | 6.59 | 107 | 31023 | 4.8030 ppb | 94 |
| 86) Bis (2-ethylhexyl) phthala | 13.62 | 149 | 121129 | 8.7253 ppb | 100 |

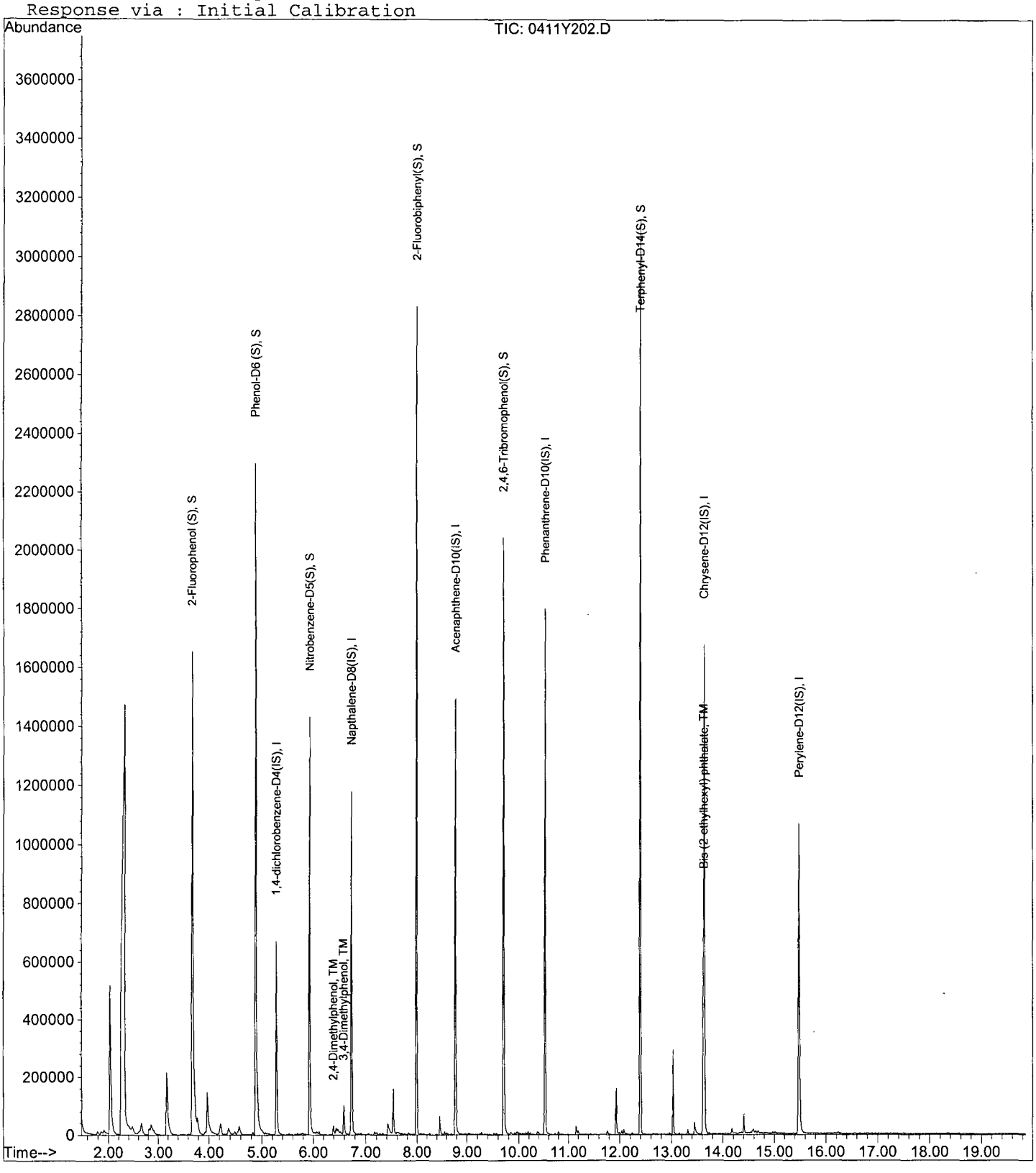
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y202.D  Vial: 2
Acq On : 26 Apr 19 20:33  Operator: MA
Sample : AZ89959W07 1/800  Inst : Yoda
Misc :  Multiplr: 1.25

Quant Time: Apr 29 13:18 2019  Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y203.D
Acq On : 26 Apr 19 21:01
Sample : AZ89961W14 1/800
Misc :

Vial: 3
Operator: MA
Inst : Yoda
Multiplr: 1.25

Quant Time: Apr 29 13:11 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 188577 | 40.0000 | ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 825646 | 40.0000 | ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.77 | 164 | 477760 | 40.0000 | ppb | -0.02 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 811658 | 40.0000 | ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 696634 | 40.0000 | ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 660531 | 40.0000 | ppb | 0.02 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.69 | 112 | 1019260 | 180.7668 | ppb | -0.10 |
| Spiked Amount 250.000 | | | Recovery = | 72.307% | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1274667 | 172.9144 | ppb | -0.05 |
| Spiked Amount 250.000 | | | Recovery = | 69.166% | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 611934 | 87.6886 | ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery = | 70.151% | | |
| 46) 2-Fluorobiphenyl(S) | 7.98 | 172 | 1135908 | 80.4914 | ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery = | 64.393% | | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 248637 | 196.2875 | ppb | -0.01 |
| Spiked Amount 250.000 | | | Recovery = | 78.515% | | |
| 82) Terphenyl-D14(S) | 12.40 | 244 | 1123764 | 82.4895 | ppb | 0.00 |
| Spiked Amount 125.000 | | | Recovery = | 65.991% | | |
| **Target Compounds** | | | | | | Qvalue |
| 26) 2,4-Dimethylphenol | 6.39 | 122 | 13174 | 2.4457 | ppb | 94 |
| 31) 3,4-Dimethylphenol | 6.59 | 107 | 36953 | 4.6390 | ppb | 86 |
| 50) Dimethyl phthalate | 8.47 | 163 | 40355 | 2.9219 | ppb | 98 |
| 86) Bis (2-ethylhexyl) phthala | 13.62 | 149 | 216957 | 14.5634 | ppb | 98 |

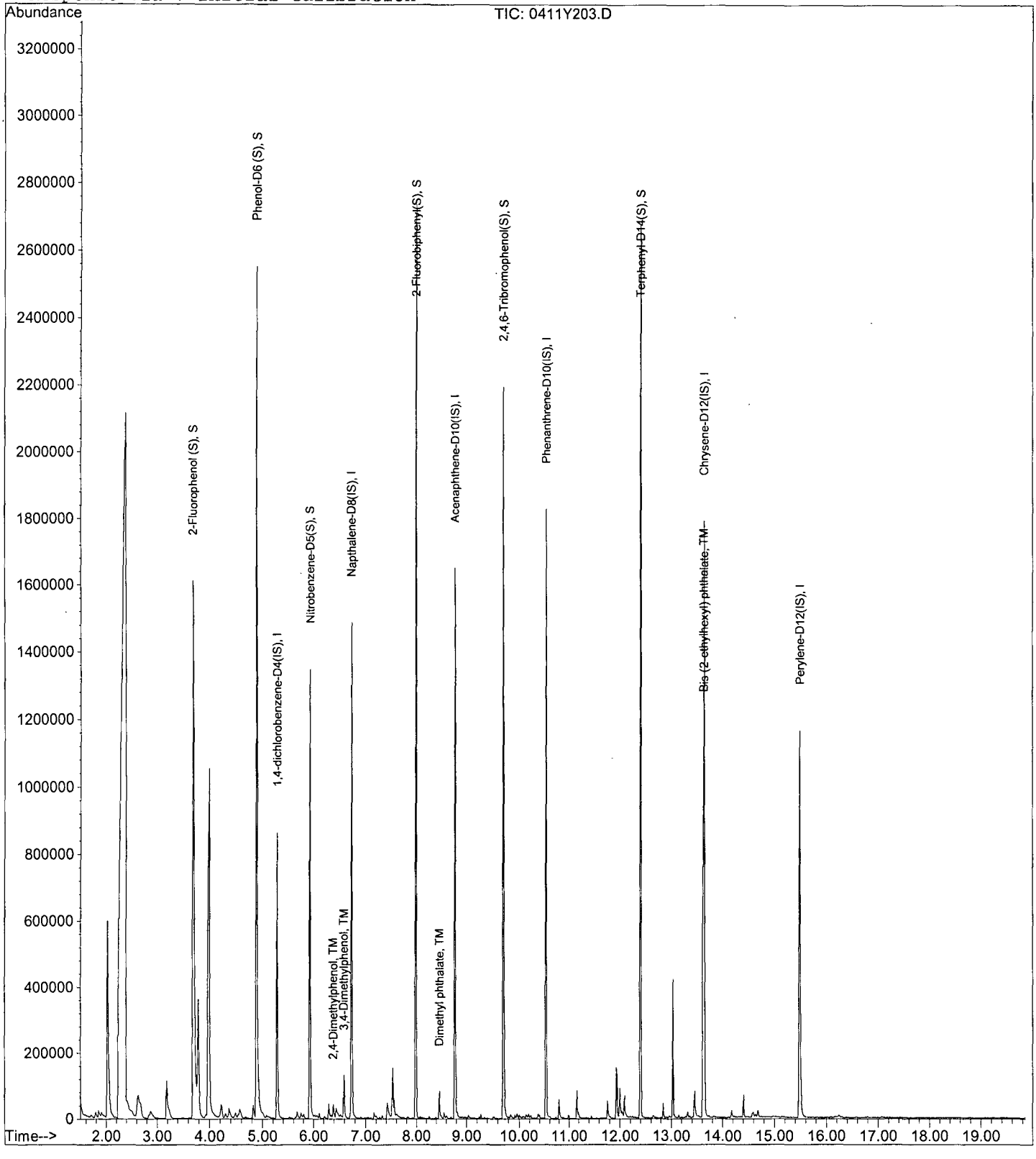
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y203.D Vial: 3
Acq On : 26 Apr 19 21:01 Operator: MA
Sample : AZ89961W14 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 13:11 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y196.D Vial: 96
Acq On : 26 Apr 19 17:46 Operator: MA
Sample : 190424A BLK 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: May 6 15:49 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 156918 | 40.00000 ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 730248 | 40.00000 ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.77 | 164 | 463695 | 40.00000 ppb | -0.02 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 781468 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 762900 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 695198 | 40.00000 ppb | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.68 | 112 | 953562 | 203.23505 ppb | -0.11 |
| Spiked Amount 250.000 | | | Recovery = | 81.294% | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1156335 | 188.50984 ppb | -0.05 |
| Spiked Amount 250.000 | | | Recovery = | 75.404% | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 579911 | 93.95571 ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery = | 75.165% | |
| 46) 2-Fluorobiphenyl(S) | 7.98 | 172 | 1073107 | 78.34779 ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery = | 62.678% | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 229267 | 186.48585 ppb | -0.02 |
| Spiked Amount 250.000 | | | Recovery = | 74.594% | |
| 82) Terphenyl-D14(S) | 12.39 | 244 | 1121804 | 75.19302 ppb | 0.00 |
| Spiked Amount 125.000 | | | Recovery = | 60.154% | |

Target Compounds Qvalue

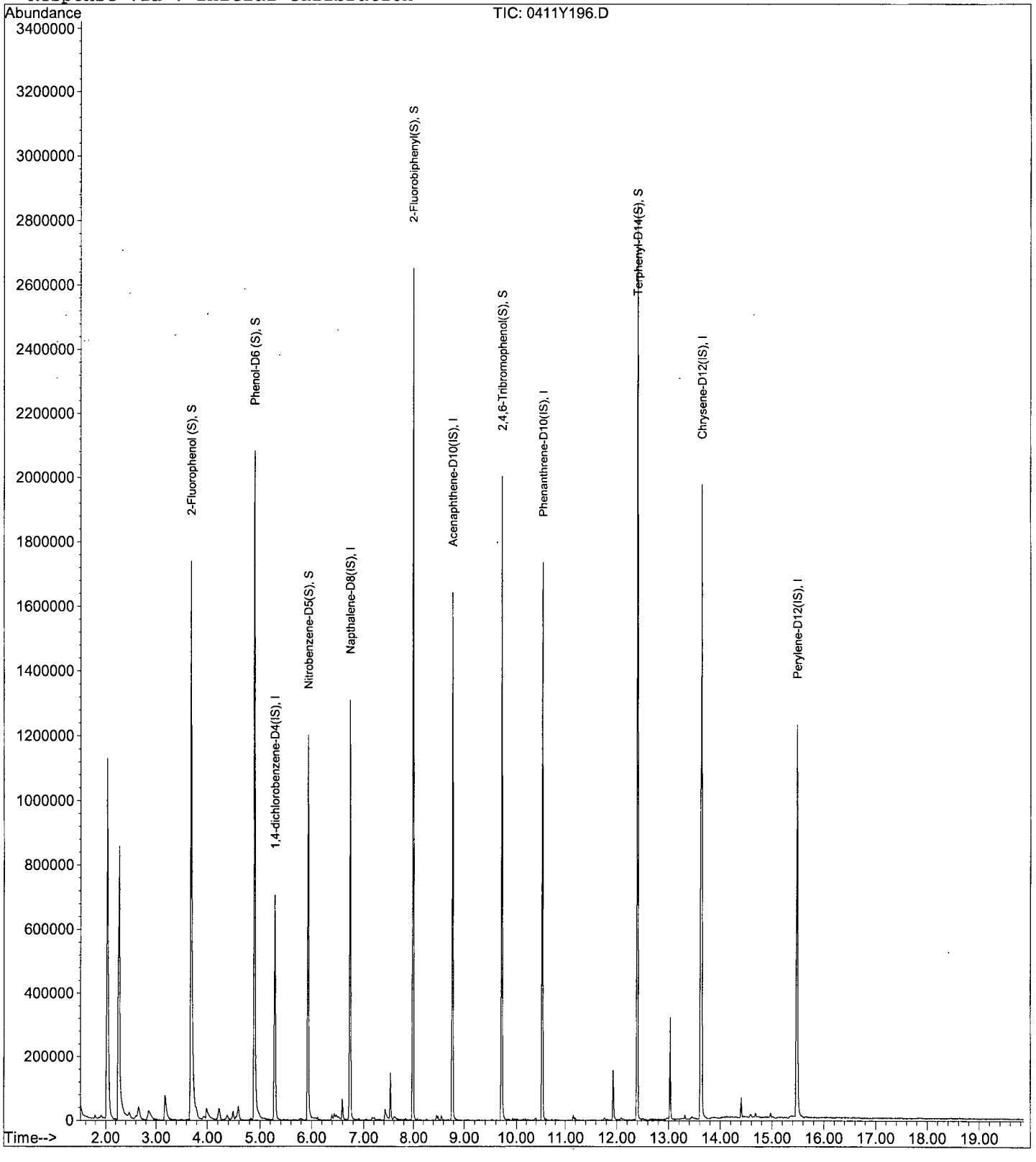
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y196.D Vial: 96
Acq On : 26 Apr 19 17:46 Operator: MA
Sample : 190424A BLK 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: May 6 15:49 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon May 06 14:42:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y197.D Vial: 97
Acq On : 26 Apr 19 18:13 Operator: MA
Sample : 190424A LCS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 165950 | 40.0000 | ppb | | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 746399 | 40.0000 | ppb | | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.77 | 164 | 433513 | 40.0000 | ppb | | -0.02 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 741316 | 40.0000 | ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 641284 | 40.0000 | ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.49 | 264 | 492206 | 40.0000 | ppb | | 0.02 |
| **System Monitoring Compounds** | | | | | | | |
| 5) 2-Fluorophenol (S) | 3.69 | 112 | 951775 | 191.8136 | ppb | | -0.10 |
| Spiked Amount 250.000 | | | Recovery = | 76.726% | | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1139938 | 175.7224 | ppb | | -0.05 |
| Spiked Amount 250.000 | | | Recovery = | 70.289% | | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 563951 | 89.3928 | ppb | | -0.04 |
| Spiked Amount 125.000 | | | Recovery = | 71.514% | | | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 1050416 | 82.0305 | ppb | | -0.02 |
| Spiked Amount 125.000 | | | Recovery = | 65.624% | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 236232 | 205.5291 | ppb | | -0.01 |
| Spiked Amount 250.000 | | | Recovery = | 82.212% | | | |
| 82) Terphenyl-D14(S) | 12.39 | 244 | 1088462 | 86.7943 | ppb | | 0.00 |
| Spiked Amount 125.000 | | | Recovery = | 69.435% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.62 | 58 | 6785 | 7.5492 | | | 57 |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 80842 | 47.9178 | ppb | | 94 |
| 4) Pyridine | 1.90 | 79 | 66907 | 16.4900 | ppb | | 93 |
| 7) Phenol | 4.91 | 94 | 349146 | 48.6412 | ppb | # | 61 |
| 8) Aniline | 4.93 | 93 | 57616 | 8.2337 | ppb | # | 96 |
| 9) Bis (2-chloroethyl) ether | 4.99 | 63 | 160568 | 50.3304 | ppb | | 93 |
| 10) 2-Chlorophenol | 5.05 | 128 | 264809 | 50.7102 | ppb | | 94 |
| 11) 1,3-DCB | 5.21 | 146 | 246025 | 44.8804 | ppb | | 100 |
| 12) 1,4-DCB | 5.30 | 146 | 255268 | 45.2834 | ppb | | 99 |
| 13) Benzyl alcohol | 5.46 | 108 | 113606 | 37.4127 | ppb | | 99 |
| 14) 1,2-DCB | 5.47 | 146 | 244960 | 46.8872 | ppb | | 99 |
| 15) 2-Methylphenol | 5.59 | 107 | 230746 | 50.7224 | ppb | | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 231895 | 49.3483 | ppb | | 94 |
| 17) Acetophenone | 5.76 | 105 | 361193 | 51.8440 | ppb | | 93 |
| 18) 3&4-Methylphenol | 5.77 | 107 | 564144 | 103.3085 | ppb | | 97 |
| 19) n-Nitrosodi-n-propylamine | 5.76 | 70 | 198910 | 52.0202 | ppb | | 95 |
| 20) Hexachloroethane | 5.85 | 117 | 82892 | 39.0623 | ppb | | 92 |
| 23) Nitrobenzene | 5.95 | 77 | 299358 | 49.1226 | ppb | | 94 |
| 24) Isophorone | 6.22 | 82 | 522726 | 49.3246 | ppb | | 99 |
| 25) 2-Nitrophenol | 6.31 | 139 | 154365 | 49.9687 | ppb | | 98 |
| 26) 2,4-Dimethylphenol | 6.36 | 122 | 246659 | 50.6529 | ppb | | 98 |
| 27) Benzoic acid | 6.55 | 105 | 205531 | 61.4229 | ppb | | 99 |
| 28) Bis (2-chloroethoxy) metha | 6.46 | 93 | 148184 | 22.8900 | ppb | | 98 |
| 29) 2,4-Dichlorophenol | 6.59 | 162 | 214128 | 51.8572 | ppb | | 97 |
| 30) 1,2,4-Trichlorobenzene | 6.68 | 180 | 198400 | 43.7702 | ppb | | 98 |
| 31) 3,4-Dimethylphenol | 6.70 | 107 | 314711 | 43.7033 | ppb | | 99 |
| 32) Naphthalene | 6.77 | 128 | 762730 | 47.2037 | ppb | | 99 |
| 33) 4-Chloroaniline | 6.84 | 127 | 14786 | 2.4822 | ppb | # | 49 |
| 34) 2,6-Dichlorophenol | 6.84 | 162 | 203645 | 49.0518 | ppb | | 99 |
| 35) Hexachloropropene | 6.85 | 213 | 70752 | 28.0925 | ppb | | 97 |
| 36) Hexachlorobutadiene | 6.89 | 225 | 82288 | 37.0087 | ppb | | 99 |
| 37) Caprolactum | 7.27 | 55 | 83419 | 40.0933 | ppb | | 95 |

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

Data File : M:\YODA\DATA\Y190411\0411Y197.D
Acq On : 26 Apr 19 18:13
Sample : 190424A LCS-1 1/800
Misc :

Vial: 97
Operator: MA
Inst : Yoda
Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.42 | 107 | 260512 | 52.0477 | ppb | | 95 |
| 39) | 2-Methylnaphthalene | 7.57 | 142 | 478634 | 46.4540 | ppb | | 99 |
| 40) | 1-Methylnaphthalene | 7.68 | 142 | 497073 | 46.5491 | ppb | | 98 |
| 42) | Hexachlorocyclopentadiene | 7.73 | 237 | 1599 | 20.5237 | ppb | # | 88 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.75 | 216 | 190545 | 42.0827 | ppb | | 97 |
| 44) | 2,4,6-Trichlorophenol | 7.90 | 196 | 144783 | 49.7229 | ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 7.96 | 196 | 153263 | 48.9745 | ppb | | 99 |
| 47) | 1,1'-Biphenyl | 8.11 | 154 | 624951 | 43.5940 | ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.13 | 162 | 474067 | 43.9659 | ppb | | 97 |
| 49) | 2-Nitroaniline | 8.27 | 65 | 72890 | 20.6264 | ppb | | 97 |
| 50) | Dimethyl phthalate | 8.47 | 163 | 602246 | 48.0562 | ppb | | 99 |
| 51) | 2,6-DNT | 8.55 | 165 | 139356 | 47.5542 | ppb | | 86 |
| 52) | Acenaphthylene | 8.62 | 152 | 651659 | 38.1853 | ppb | | 100 |
| 53) | 3-Nitroaniline | 8.76 | 138 | 11303 | 3.5090 | ppb | # | 80 |
| 54) | Acenaphthene | 8.82 | 154 | 476381 | 43.3377 | ppb | | 98 |
| 55) | 2,4-Dinitrophenol | 8.89 | 184 | 62757 | 46.1467 | ppb | | 95 |
| 56) | 4-Nitrophenol | 8.98 | 65 | 113373 | 62.1270 | ppb | # | 76 |
| 57) | Dibenzofuran | 9.02 | 168 | 666160 | 44.6553 | ppb | | 91 |
| 58) | 2,4-DNT | 9.02 | 165 | 189528 | 47.8524 | ppb | # | 73 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.17 | 232 | 110960 | 55.8374 | ppb | | 99 |
| 60) | Diethyl phthalate | 9.29 | 149 | 587568 | 47.5097 | ppb | | 97 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.41 | 204 | 254939 | 44.7213 | ppb | | 87 |
| 62) | Fluorene | 9.42 | 166 | 558342 | 44.8686 | ppb | | 100 |
| 63) | 4-Nitroaniline | 9.48 | 138 | 26086 | 8.0054 | ppb | | 95 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.51 | 198 | 112165 | 50.6939 | ppb | | 98 |
| 67) | Diphenyl amine | 9.56 | 169 | 226142 | 22.7288 | ppb | | 98 |
| 68) | n-Nitrosodiphenylamine | 9.56 | 169 | 226142 | 22.7288 | ppb | | 98 |
| 69) | 1,2-Diphenylhydrazine | 9.60 | 77 | 226370 | 16.2566 | ppb | | 91 |
| 70) | 4-Bromophenyl phenyl ether | 9.99 | 248 | 142864 | 46.0211 | ppb | | 96 |
| 71) | Hexachlorobenzene | 10.06 | 284 | 132785 | 46.0549 | ppb | | 95 |
| 72) | Atrazine | 10.31 | 200 | 13111 | 3.8560 | ppb | # | 33 |
| 73) | Pentachlorophenol | 10.31 | 266 | 66810 | 63.1078 | ppb | | 98 |
| 74) | Phenanthrene | 10.56 | 178 | 801651 | 44.2388 | ppb | | 100 |
| 75) | Anthracene | 10.61 | 178 | 782714 | 40.8890 | ppb | | 99 |
| 76) | Carbazol | 10.82 | 167 | 284625 | 16.1461 | ppb | | 98 |
| 77) | Di-n-butylphthalate | 11.20 | 149 | 999538 | 45.2812 | ppb | | 99 |
| 78) | Fluoranthene | 11.96 | 202 | 826824 | 43.6385 | ppb | | 99 |
| 81) | Pyrene | 12.22 | 202 | 845747 | 44.7155 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 12.96 | 149 | 427657 | 44.6661 | ppb | | 97 |
| 85) | Benz (a) anthracene | 13.62 | 228 | 730421 | 43.6718 | ppb | | 98 |
| 86) | Bis (2-ethylhexyl) phthala | 13.61 | 149 | 629983 | 45.9382 | ppb | # | 95 |
| 87) | Chrysene | 13.67 | 228 | 716334 | 44.4222 | ppb | | 98 |
| 88) | Di-n-octylphthalate | 14.36 | 149 | 1101691 | 46.5905 | ppb | | 97 |
| 90) | Benzo (b) fluoranthene | 14.93 | 252 | 675903 | 57.6749 | ppb | | 98 |
| 91) | Benzo (k) fluoranthene | 14.97 | 252 | 672940 | 57.4221 | ppb | | 97 |
| 92) | Benzo (a) pyrene | 15.40 | 252 | 555555 | 47.5987 | ppb | | 97 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.38 | 276 | 614800 | 48.9611 | ppb | | 97 |
| 94) | Dibenz (a,h) anthracene | 17.40 | 278 | 571331 | 51.8956 | ppb | | 99 |
| 95) | Benzo (g,h,i) perylene | 17.96 | 276 | 506746 | 50.5687 | ppb | | 98 |

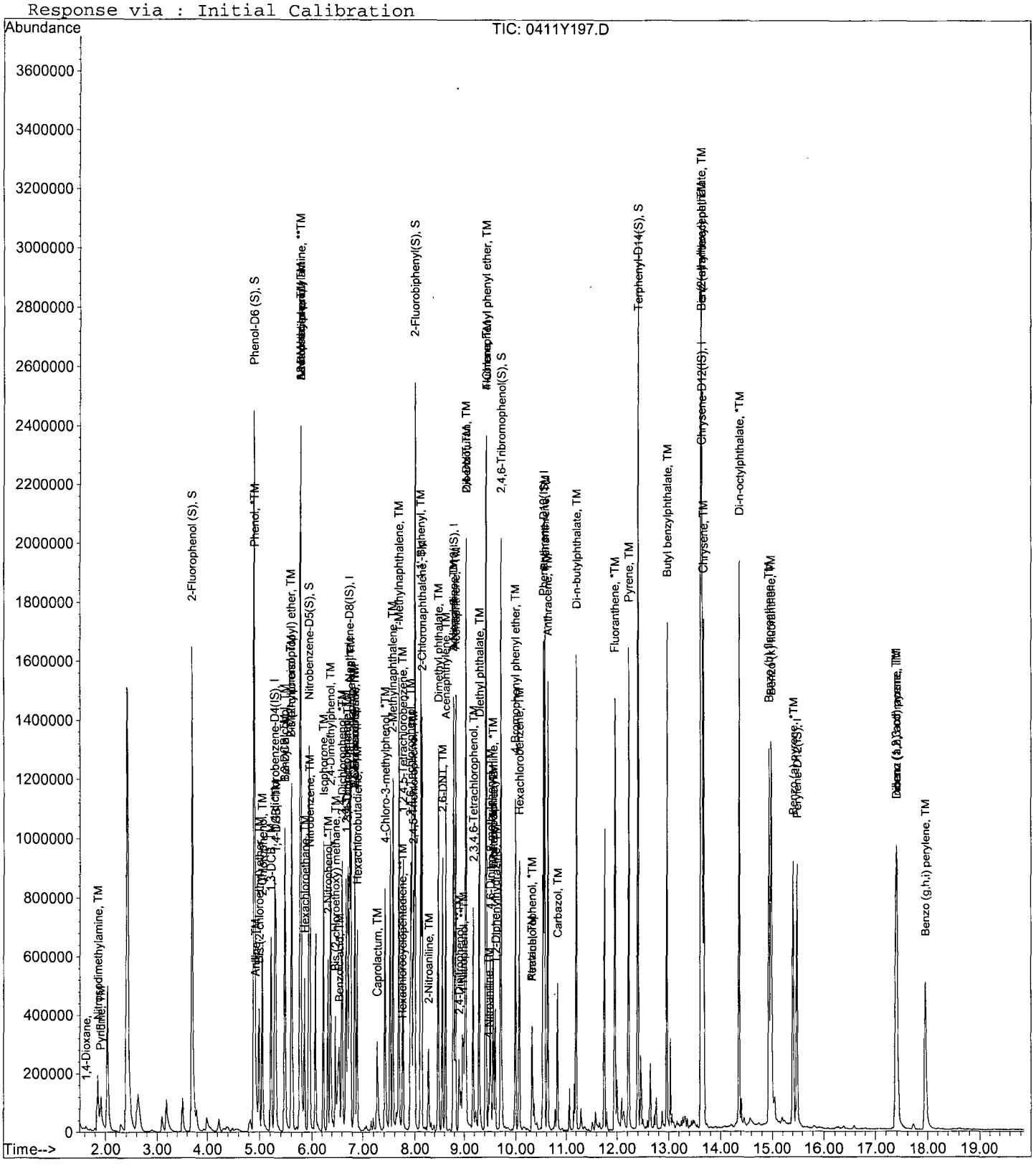
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y197.D Vial: 97
Acq On : 26 Apr 19 18:13 Operator: MA
Sample : 190424A LCS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y198.D Vial: 98
Acq On : 26 Apr 19 18:41 Operator: MA
Sample : 190424A LCSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 155619 | 40.0000 | ppb | | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 700505 | 40.0000 | ppb | | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.78 | 164 | 423707 | 40.0000 | ppb | | -0.01 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 708836 | 40.0000 | ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 626419 | 40.0000 | ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 542737 | 40.0000 | ppb | | 0.02 |
| **System Monitoring Compounds** | | | | | | | |
| 5) 2-Fluorophenol (S) | 3.68 | 112 | 978638 | 210.3206 | ppb | | -0.11 |
| Spiked Amount 250.000 | | | Recovery = | 84.128% | | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1167251 | 191.8778 | ppb | | -0.05 |
| Spiked Amount 250.000 | | | Recovery = | 76.751% | | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 562891 | 95.0704 | ppb | | -0.04 |
| Spiked Amount 125.000 | | | Recovery = | 76.056% | | | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 1037411 | 82.8898 | ppb | | -0.03 |
| Spiked Amount 125.000 | | | Recovery = | 66.312% | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.72 | 330 | 226642 | 201.7491 | ppb | | 0.00 |
| Spiked Amount 250.000 | | | Recovery = | 80.700% | | | |
| 82) Terphenyl-D14(S) | 12.39 | 244 | 1061317 | 86.6380 | ppb | | 0.00 |
| Spiked Amount 125.000 | | | Recovery = | 69.310% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.61 | 58 | 4498 | 5.3369 | | | 93 |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 85665 | 54.1474 | ppb | | 92 |
| 4) Pyridine | 1.90 | 79 | 74979 | 19.7063 | ppb | | 93 |
| 7) Phenol | 4.91 | 94 | 352403 | 52.3542 | ppb | # | 63 |
| 8) Aniline | 4.93 | 93 | 64751 | 9.8676 | ppb | | 94 |
| 9) Bis (2-chloroethyl) ether | 4.99 | 63 | 162617 | 54.3566 | ppb | | 96 |
| 10) 2-Chlorophenol | 5.05 | 128 | 275314 | 56.2219 | ppb | | 95 |
| 11) 1,3-DCB | 5.22 | 146 | 254872 | 49.5808 | ppb | | 98 |
| 12) 1,4-DCB | 5.30 | 146 | 261415 | 49.4525 | ppb | | 99 |
| 13) Benzyl alcohol | 5.46 | 108 | 144164 | 50.6278 | ppb | | 99 |
| 14) 1,2-DCB | 5.48 | 146 | 253856 | 51.8157 | ppb | | 97 |
| 15) 2-Methylphenol | 5.59 | 107 | 234407 | 54.9479 | ppb | | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 233902 | 53.0799 | ppb | | 97 |
| 17) Acetophenone | 5.76 | 105 | 362437 | 55.4762 | ppb | | 87 |
| 18) 3&4-Methylphenol | 5.77 | 107 | 575418 | 112.3683 | ppb | | 97 |
| 19) n-Nitrosodi-n-propylamine | 5.76 | 70 | 197490 | 55.0776 | ppb | | 96 |
| 20) Hexachloroethane | 5.85 | 117 | 87818 | 44.1309 | ppb | | 100 |
| 23) Nitrobenzene | 5.95 | 77 | 299297 | 52.3303 | ppb | | 94 |
| 24) Isophorone | 6.22 | 82 | 514605 | 51.7396 | ppb | | 100 |
| 25) 2-Nitrophenol | 6.31 | 139 | 155006 | 53.4636 | ppb | | 94 |
| 26) 2,4-Dimethylphenol | 6.37 | 122 | 251965 | 55.1324 | ppb | | 96 |
| 27) Benzoic acid | 6.53 | 105 | 187634 | 59.7481 | ppb | | 96 |
| 28) Bis (2-chloroethoxy) metha | 6.46 | 93 | 276991 | 45.5900 | ppb | | 99 |
| 29) 2,4-Dichlorophenol | 6.60 | 162 | 211415 | 54.5546 | ppb | | 95 |
| 30) 1,2,4-Trichlorobenzene | 6.67 | 180 | 202257 | 47.5445 | ppb | | 98 |
| 31) 3,4-Dimethylphenol | 6.71 | 107 | 349137 | 51.6604 | ppb | | 97 |
| 32) Naphthalene | 6.77 | 128 | 764675 | 50.4246 | ppb | | 100 |
| 33) 4-Chloroaniline | 6.84 | 127 | 13604 | 2.4334 | ppb | # | 67 |
| 34) 2,6-Dichlorophenol | 6.84 | 162 | 205497 | 52.7408 | ppb | | 97 |
| 35) Hexachloropropene | 6.85 | 213 | 73152 | 30.9484 | ppb | | 97 |
| 36) Hexachlorobutadiene | 6.89 | 225 | 81534 | 39.0720 | ppb | | 95 |
| 37) Caprolactum | 7.27 | 55 | 96857 | 49.6019 | ppb | | 99 |

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

Data File : M:\YODA\DATA\Y190411\0411Y198.D
Acq On : 26 Apr 19 18:41
Sample : 190424A LCSD-1 1/800
Misc :

Vial: 98
Operator: MA
Inst : Yoda
Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.42 | 107 | 259346 | 55.2094 | ppb | | 98 |
| 39) | 2-Methylnaphthalene | 7.57 | 142 | 477235 | 49.3528 | ppb | | 98 |
| 40) | 1-Methylnaphthalene | 7.68 | 142 | 499450 | 49.8360 | ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.73 | 237 | 1127 | 19.9853 | ppb | | 97 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.76 | 216 | 191138 | 43.1906 | ppb | | 98 |
| 44) | 2,4,6-Trichlorophenol | 7.91 | 196 | 145581 | 51.1541 | ppb | | 98 |
| 45) | 2,4,5-Trichlorophenol | 7.96 | 196 | 150435 | 49.1833 | ppb | | 90 |
| 47) | 1,1'-Biphenyl | 8.10 | 154 | 622136 | 44.4020 | ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.13 | 162 | 468885 | 44.4917 | ppb | | 99 |
| 49) | 2-Nitroaniline | 8.27 | 65 | 98480 | 28.5128 | ppb | | 98 |
| 50) | Dimethyl phthalate | 8.47 | 163 | 597381 | 48.7712 | ppb | | 99 |
| 51) | 2,6-DNT | 8.55 | 165 | 138194 | 48.2491 | ppb | # | 81 |
| 52) | Acenaphthylene | 8.61 | 152 | 729504 | 43.7361 | ppb | | 100 |
| 53) | 3-Nitroaniline | 8.77 | 138 | 7364 | 2.3390 | ppb | # | 25 |
| 54) | Acenaphthene | 8.82 | 154 | 483321 | 44.9867 | ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.89 | 184 | 71538 | 52.3562 | ppb | | 99 |
| 56) | 4-Nitrophenol | 8.98 | 65 | 111323 | 62.3461 | ppb | | 82 |
| 57) | Dibenzofuran | 9.02 | 168 | 666116 | 45.6858 | ppb | | 92 |
| 58) | 2,4-DNT | 9.03 | 165 | 187109 | 48.3350 | ppb | | 94 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.17 | 232 | 106549 | 54.8586 | ppb | | 97 |
| 60) | Diethyl phthalate | 9.29 | 149 | 573352 | 47.4331 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.42 | 204 | 258125 | 46.3282 | ppb | | 98 |
| 62) | Fluorene | 9.42 | 166 | 560222 | 46.0616 | ppb | | 99 |
| 63) | 4-Nitroaniline | 9.48 | 138 | 33787 | 10.6087 | ppb | | 98 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.51 | 198 | 108354 | 51.2154 | ppb | | 83 |
| 67) | Diphenyl amine | 9.56 | 169 | 365615 | 38.4306 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.56 | 169 | 365615 | 38.4306 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.61 | 77 | 396353 | 29.7680 | ppb | | 99 |
| 70) | 4-Bromophenyl phenyl ether | 9.99 | 248 | 137791 | 46.4208 | ppb | | 96 |
| 71) | Hexachlorobenzene | 10.06 | 284 | 131424 | 47.6716 | ppb | | 99 |
| 73) | Pentachlorophenol | 10.31 | 266 | 64538 | 63.6739 | ppb | | 99 |
| 74) | Phenanthrene | 10.55 | 178 | 783244 | 45.2036 | ppb | | 99 |
| 75) | Anthracene | 10.62 | 178 | 814511 | 44.4998 | ppb | | 99 |
| 76) | Carbazol | 10.81 | 167 | 541591 | 32.1309 | ppb | | 98 |
| 77) | Di-n-butylphthalate | 11.20 | 149 | 990441 | 46.9250 | ppb | | 99 |
| 78) | Fluoranthene | 11.96 | 202 | 836205 | 46.1559 | ppb | | 99 |
| 81) | Pyrene | 12.23 | 202 | 859229 | 46.5063 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 12.96 | 149 | 446892 | 47.7827 | ppb | | 97 |
| 85) | Benz (a) anthracene | 13.63 | 228 | 735376 | 45.0114 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.62 | 149 | 630168 | 47.0421 | ppb | | 99 |
| 87) | Chrysene | 13.67 | 228 | 725283 | 46.0444 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.37 | 149 | 1074952 | 46.5384 | ppb | | 96 |
| 90) | Benzo (b) fluoranthene | 14.94 | 252 | 749168 | 57.9748 | ppb | | 98 |
| 91) | Benzo (k) fluoranthene | 14.97 | 252 | 638051 | 49.3760 | ppb | | 97 |
| 92) | Benzo (a) pyrene | 15.40 | 252 | 599089 | 46.5497 | ppb | | 99 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.38 | 276 | 651390 | 47.0452 | ppb | | 97 |
| 94) | Dibenz (a,h) anthracene | 17.40 | 278 | 588155 | 48.4498 | ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 17.95 | 276 | 537908 | 48.6807 | ppb | | 100 |

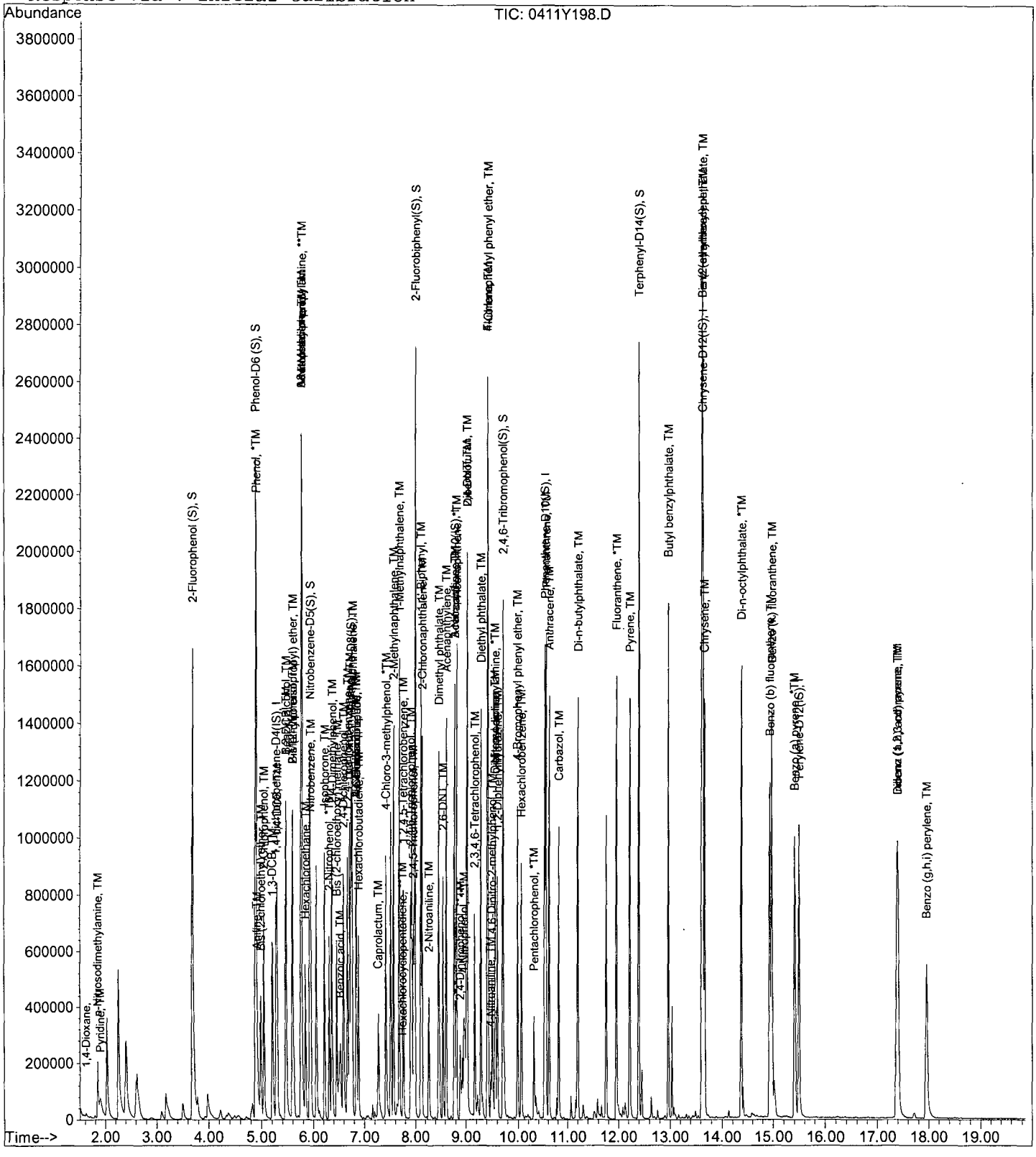
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y198.D Vial: 98
Acq On : 26 Apr 19 18:41 Operator: MA
Sample : 190424A LCSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y200.D Vial: 100
Acq On : 26 Apr 19 19:37 Operator: MA
Sample : AZ89958W28 MS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 186949 | 40.0000 | ppb | | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 825353 | 40.0000 | ppb | | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.78 | 164 | 478252 | 40.0000 | ppb | | -0.01 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 782042 | 40.0000 | ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 685624 | 40.0000 | ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 513274 | 40.0000 | ppb | | 0.02 |
| **System Monitoring Compounds** | | | | | | | |
| 5) 2-Fluorophenol (S) | 3.68 | 112 | 894368 | 159.9984 | ppb | | -0.11 |
| Spiked Amount 250.000 | | | Recovery = 63.999% | | | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 465770 | 63.7340 | ppb | | -0.05 |
| Spiked Amount 250.000 | | | Recovery = 25.494% | | | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 569545 | 81.6433 | ppb | | -0.04 |
| Spiked Amount 125.000 | | | Recovery = 65.314% | | | | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 1046416 | 74.0736 | ppb | | -0.03 |
| Spiked Amount 125.000 | | | Recovery = 59.259% | | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.72 | 330 | 237259 | 187.1124 | ppb | | 0.00 |
| Spiked Amount 250.000 | | | Recovery = 74.845% | | | | |
| 82) Terphenyl-D14(S) | 12.40 | 244 | 1022279 | 76.2450 | ppb | | 0.00 |
| Spiked Amount 125.000 | | | Recovery = 60.996% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.61 | 58 | 5079 | 5.0163 | | | 90 |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 90088 | 47.4003 | ppb | | 100 |
| 4) Pyridine | 1.90 | 79 | 75446 | 16.5059 | ppb | | 96 |
| 7) Phenol | 4.91 | 94 | 320850 | 39.6784 | ppb | # | 65 |
| 8) Aniline | 4.93 | 93 | 34932 | 4.4313 | ppb | # | 37 |
| 9) Bis (2-chloroethyl) ether | 4.99 | 63 | 162897 | 45.3251 | ppb | | 99 |
| 10) 2-Chlorophenol | 5.05 | 128 | 269405 | 45.7955 | ppb | | 96 |
| 11) 1,3-DCB | 5.22 | 146 | 230266 | 37.2873 | ppb | | 99 |
| 12) 1,4-DCB | 5.30 | 146 | 241105 | 37.9667 | ppb | | 97 |
| 13) Benzyl alcohol | 5.47 | 108 | 43287 | 12.6540 | ppb | | 91 |
| 14) 1,2-DCB | 5.48 | 146 | 233396 | 39.6558 | ppb | | 99 |
| 15) 2-Methylphenol | 5.60 | 107 | 212479 | 41.4606 | ppb | | 95 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 235749 | 44.5333 | ppb | | 96 |
| 17) Acetophenone | 5.75 | 105 | 372259 | 47.4306 | ppb | | 84 |
| 18) 3&4-Methylphenol | 5.77 | 107 | 537307 | 87.3419 | ppb | | 99 |
| 19) n-Nitrosodi-n-propylamine | 5.75 | 70 | 216513 | 50.2636 | ppb | | 95 |
| 20) Hexachloroethane | 5.85 | 117 | 80719 | 33.7656 | ppb | | 97 |
| 23) Nitrobenzene | 5.95 | 77 | 301516 | 44.7437 | ppb | | 92 |
| 24) Isophorone | 6.22 | 82 | 538538 | 45.9555 | ppb | | 99 |
| 25) 2-Nitrophenol | 6.31 | 139 | 152088 | 44.5221 | ppb | | 91 |
| 26) 2,4-Dimethylphenol | 6.37 | 122 | 240994 | 44.7553 | ppb | | 96 |
| 27) Benzoic acid | 6.54 | 105 | 202720 | 54.7874 | ppb | | 98 |
| 28) Bis (2-chloroethoxy) metha | 6.47 | 93 | 7427 | 1.0375 | ppb | | 96 |
| 29) 2,4-Dichlorophenol | 6.60 | 162 | 213606 | 46.7822 | ppb | | 94 |
| 30) 1,2,4-Trichlorobenzene | 6.67 | 180 | 193341 | 38.5738 | ppb | | 99 |
| 31) 3,4-Dimethylphenol | 6.71 | 107 | 293641 | 36.8765 | ppb | | 99 |
| 32) Naphthalene | 6.77 | 128 | 751981 | 42.0866 | ppb | | 100 |
| 33) 4-Chloroaniline | 6.84 | 127 | 10566 | 1.6041 | ppb | # | 52 |
| 34) 2,6-Dichlorophenol | 6.84 | 162 | 204237 | 44.4884 | ppb | | 97 |
| 35) Hexachloropropene | 6.86 | 213 | 59023 | 21.1936 | ppb | | 99 |
| 36) Hexachlorobutadiene | 6.90 | 225 | 75044 | 30.5221 | ppb | | 97 |
| 37) Caprolactum | 7.28 | 55 | 92938 | 40.3954 | ppb | | 97 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y200.D Vial: 100
Acq On : 26 Apr 19 19:37 Operator: MA
Sample : AZ89958W28 MS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.43 | 107 | 256275 | 46.3032 | ppb | | 100 |
| 39) | 2-Methylnaphthalene | 7.56 | 142 | 470233 | 41.2728 | ppb | | 99 |
| 40) | 1-Methylnaphthalene | 7.68 | 142 | 493632 | 41.8048 | ppb | | 98 |
| 42) | Hexachlorocyclopentadiene | 7.73 | 237 | 3852 | 22.7626 | ppb | | 95 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.76 | 216 | 188446 | 37.7258 | ppb | | 99 |
| 44) | 2,4,6-Trichlorophenol | 7.91 | 196 | 143998 | 44.8271 | ppb | | 98 |
| 45) | 2,4,5-Trichlorophenol | 7.96 | 196 | 150682 | 43.6455 | ppb | | 92 |
| 47) | 1,1'-Biphenyl | 8.11 | 154 | 620649 | 39.2439 | ppb | | 97 |
| 48) | 2-Chloronaphthalene | 8.14 | 162 | 470412 | 39.5457 | ppb | | 96 |
| 49) | 2-Nitroaniline | 8.27 | 65 | 79779 | 20.4640 | ppb | | 92 |
| 50) | Dimethyl phthalate | 8.47 | 163 | 548804 | 39.6952 | ppb | | 100 |
| 51) | 2,6-DNT | 8.56 | 165 | 139174 | 43.0494 | ppb | | 98 |
| 52) | Acenaphthylene | 8.61 | 152 | 199940 | 10.6199 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.76 | 138 | 14109 | 3.9703 | ppb | # | 76 |
| 54) | Acenaphthene | 8.82 | 154 | 454260 | 37.4595 | ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.89 | 184 | 69124 | 46.0876 | ppb | | 84 |
| 56) | 4-Nitrophenol | 8.99 | 65 | 114364 | 58.1439 | ppb | # | 70 |
| 57) | Dibenzofuran | 9.02 | 168 | 670672 | 40.7521 | ppb | | 93 |
| 58) | 2,4-DNT | 9.03 | 165 | 192616 | 44.0827 | ppb | | 96 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.18 | 232 | 109187 | 49.8052 | ppb | | 94 |
| 60) | Diethyl phthalate | 9.29 | 149 | 506529 | 37.1256 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.42 | 204 | 259971 | 41.3379 | ppb | | 98 |
| 62) | Fluorene | 9.42 | 166 | 565630 | 41.2021 | ppb | | 100 |
| 63) | 4-Nitroaniline | 9.48 | 138 | 42745 | 11.8907 | ppb | | 97 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.51 | 198 | 106325 | 45.5519 | ppb | | 82 |
| 67) | Diphenyl amine | 9.57 | 169 | 213533 | 20.3439 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.57 | 169 | 213533 | 20.3439 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.61 | 77 | 134884 | 9.1821 | ppb | | 98 |
| 70) | 4-Bromophenyl phenyl ether | 10.00 | 248 | 139622 | 42.6345 | ppb | | 86 |
| 71) | Hexachlorobenzene | 10.06 | 284 | 131974 | 43.3899 | ppb | | 95 |
| 72) | Atrazine | 10.31 | 200 | 12332 | 3.4380 | ppb | # | 33 |
| 73) | Pentachlorophenol | 10.31 | 266 | 64938 | 58.7677 | ppb | | 98 |
| 74) | Phenanthrene | 10.55 | 178 | 777045 | 40.6478 | ppb | | 100 |
| 75) | Anthracene | 10.62 | 178 | 728511 | 36.0755 | ppb | | 99 |
| 76) | Carbazol | 10.81 | 167 | 164638 | 8.8531 | ppb | | 100 |
| 77) | Di-n-butylphthalate | 11.20 | 149 | 878275 | 37.7157 | ppb | | 99 |
| 78) | Fluoranthene | 11.96 | 202 | 803337 | 40.1910 | ppb | | 97 |
| 81) | Pyrene | 12.22 | 202 | 712736 | 35.2461 | ppb | | 98 |
| 83) | Butyl benzylphthalate | 12.96 | 149 | 189573 | 18.5193 | ppb | | 98 |
| 85) | Benz (a) anthracene | 13.63 | 228 | 707720 | 39.5780 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.62 | 149 | 715297 | 48.7860 | ppb | | 98 |
| 87) | Chrysene | 13.67 | 228 | 703316 | 40.7943 | ppb | | 98 |
| 88) | Di-n-octylphthalate | 14.37 | 149 | 937204 | 37.0711 | ppb | | 98 |
| 90) | Benzo (b) fluoranthene | 14.94 | 252 | 691757 | 56.6049 | ppb | | 100 |
| 91) | Benzo (k) fluoranthene | 14.97 | 252 | 594397 | 48.6381 | ppb | | 98 |
| 92) | Benzo (a) pyrene | 15.40 | 252 | 375705 | 30.8683 | ppb | | 99 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.38 | 276 | 537053 | 41.0140 | ppb | | 99 |
| 94) | Dibenz (a,h) anthracene | 17.40 | 278 | 567550 | 49.4361 | ppb | | 99 |
| 95) | Benzo (g,h,i) perylene | 17.95 | 276 | 421460 | 40.3316 | ppb | | 97 |

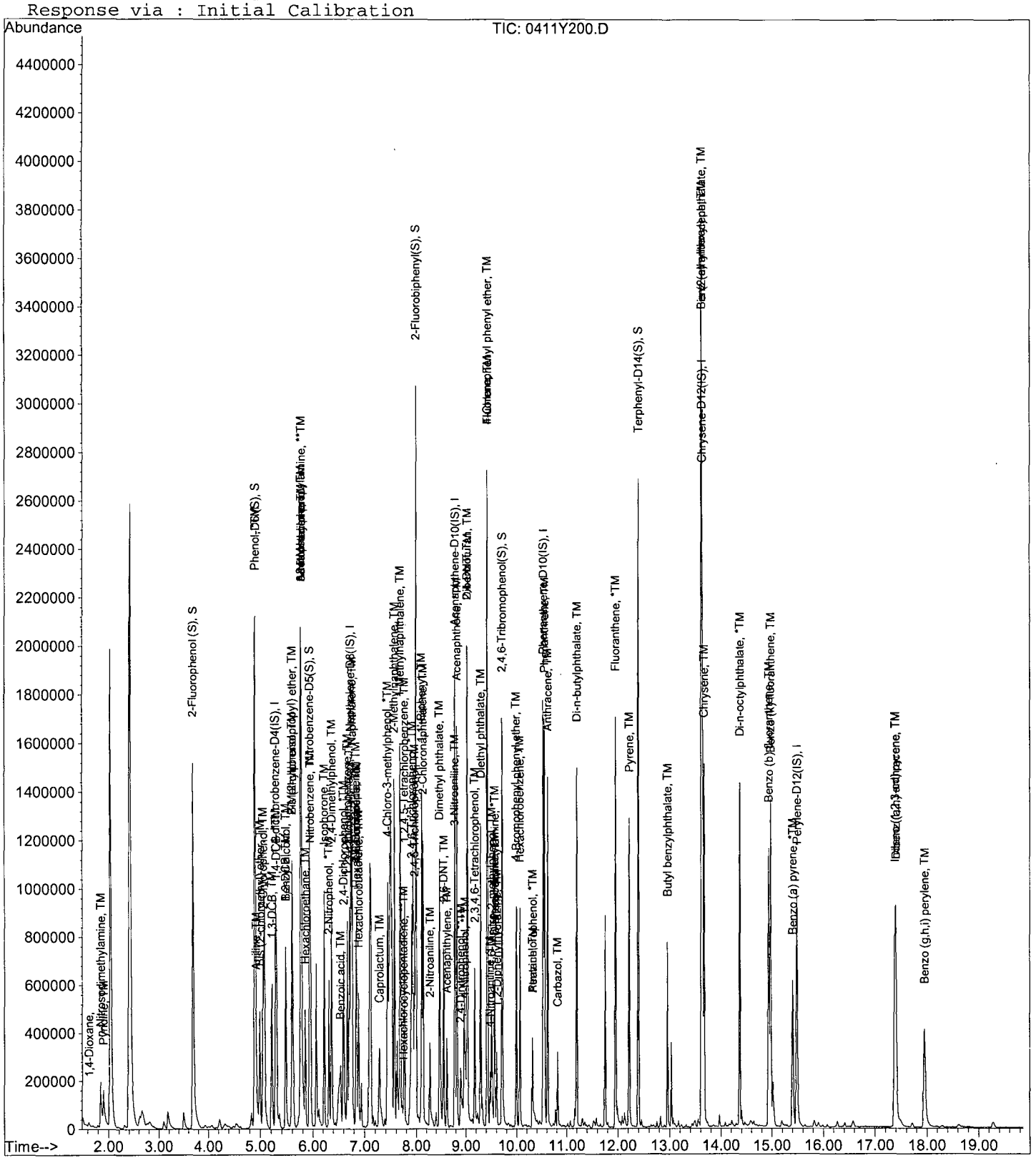
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y200.D Vial: 100
Acq On : 26 Apr 19 19:37 Operator: MA
Sample : AZ89958W28 MS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y201.D Vial: 1
Acq On : 26 Apr 19 20:05 Operator: MA
Sample : AZ89958W34 MSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 160044 | 40.0000 | ppb | | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 712652 | 40.0000 | ppb | | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.78 | 164 | 431893 | 40.0000 | ppb | | -0.01 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 729278 | 40.0000 | ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 634339 | 40.0000 | ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 601146 | 40.0000 | ppb | | 0.02 |
| **System Monitoring Compounds** | | | | | | | |
| 5) 2-Fluorophenol (S) | 3.68 | 112 | 910762 | 190.3215 | ppb | | -0.11 |
| Spiked Amount 250.000 | | | Recovery = 76.129% | | | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1151016 | 183.9777 | ppb | | -0.05 |
| Spiked Amount 250.000 | | | Recovery = 73.591% | | | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 581392 | 96.5214 | ppb | | -0.04 |
| Spiked Amount 125.000 | | | Recovery = 77.217% | | | | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 1072048 | 84.0338 | ppb | | -0.03 |
| Spiked Amount 125.000 | | | Recovery = 67.227% | | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.72 | 330 | 238682 | 208.4396 | ppb | | 0.00 |
| Spiked Amount 250.000 | | | Recovery = 83.376% | | | | |
| 82) Terphenyl-D14(S) | 12.40 | 244 | 1107734 | 89.2981 | ppb | | 0.00 |
| Spiked Amount 125.000 | | | Recovery = 71.438% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.61 | 58 | 4669 | 5.3866 | | | 91 |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 85873 | 52.7782 | ppb | | 93 |
| 4) Pyridine | 1.86 | 79 | 142406 | 36.3929 | ppb | | 97 |
| 7) Phenol | 4.91 | 94 | 368467 | 53.2272 | ppb | | 84 |
| 8) Aniline | 4.91 | 93 | 305448 | 45.2611 | ppb | # | 76 |
| 9) Bis (2-chloroethyl) ether | 4.99 | 63 | 169713 | 55.1601 | ppb | | 95 |
| 10) 2-Chlorophenol | 5.05 | 128 | 272491 | 54.1069 | ppb | | 96 |
| 11) 1,3-DCB | 5.22 | 146 | 259850 | 49.1516 | ppb | | 98 |
| 12) 1,4-DCB | 5.30 | 146 | 271975 | 50.0276 | ppb | | 98 |
| 13) Benzyl alcohol | 5.47 | 108 | 173760 | 59.3342 | ppb | | 91 |
| 14) 1,2-DCB | 5.48 | 146 | 255931 | 50.7948 | ppb | | 98 |
| 15) 2-Methylphenol | 5.60 | 107 | 238579 | 54.3796 | ppb | | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 245194 | 54.1039 | ppb | | 95 |
| 17) Acetophenone | 5.75 | 105 | 379654 | 56.5048 | ppb | | 88 |
| 18) 3&4-Methylphenol | 5.77 | 107 | 593276 | 112.6524 | ppb | | 99 |
| 19) n-Nitrosodi-n-propylamine | 5.75 | 70 | 215381 | 58.4064 | ppb | | 97 |
| 20) Hexachloroethane | 5.85 | 117 | 89830 | 43.8939 | ppb | | 99 |
| 23) Nitrobenzene | 5.96 | 77 | 313797 | 53.9303 | ppb | | 99 |
| 24) Isophorone | 6.22 | 82 | 553044 | 54.6566 | ppb | | 98 |
| 25) 2-Nitrophenol | 6.31 | 139 | 158726 | 53.8135 | ppb | | 92 |
| 26) 2,4-Dimethylphenol | 6.37 | 122 | 235556 | 50.6634 | ppb | | 97 |
| 27) Benzoic acid | 6.53 | 105 | 200415 | 62.7302 | ppb | | 98 |
| 28) Bis (2-chloroethoxy) metha | 6.47 | 93 | 333793 | 54.0026 | ppb | | 100 |
| 29) 2,4-Dichlorophenol | 6.60 | 162 | 216439 | 54.8991 | ppb | | 96 |
| 30) 1,2,4-Trichlorobenzene | 6.67 | 180 | 205679 | 47.5248 | ppb | | 99 |
| 31) 3,4-Dimethylphenol | 6.71 | 107 | 368530 | 53.6005 | ppb | | 99 |
| 32) Naphthalene | 6.77 | 128 | 792940 | 51.3972 | ppb | | 99 |
| 33) 4-Chloroaniline | 6.84 | 127 | 127249 | 22.3733 | ppb | | 98 |
| 34) 2,6-Dichlorophenol | 6.84 | 162 | 211215 | 53.2844 | ppb | | 95 |
| 35) Hexachloropropene | 6.86 | 213 | 72983 | 30.3506 | ppb | | 98 |
| 36) Hexachlorobutadiene | 6.89 | 225 | 88269 | 41.5785 | ppb | | 99 |
| 37) Caprolactum | 7.27 | 55 | 107831 | 54.2806 | ppb | | 99 |

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

Data File : M:\YODA\DATA\Y190411\0411Y201.D Vial: 1
Acq On : 26 Apr 19 20:05 Operator: MA
Sample : AZ89958W34 MSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.42 | 107 | 271614 | 56.8355 | ppb | | 98 |
| 39) | 2-Methylnaphthalene | 7.56 | 142 | 499794 | 50.8047 | ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.68 | 142 | 526716 | 51.6608 | ppb | | 98 |
| 42) | Hexachlorocyclopentadiene | 7.73 | 237 | 4693 | 24.1669 | ppb | | 97 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.76 | 216 | 200313 | 44.4059 | ppb | | 98 |
| 44) | 2,4,6-Trichlorophenol | 7.91 | 196 | 147546 | 50.8619 | ppb | | 96 |
| 45) | 2,4,5-Trichlorophenol | 7.96 | 196 | 157346 | 50.4678 | ppb | | 92 |
| 47) | 1,1'-Biphenyl | 8.10 | 154 | 657308 | 46.0231 | ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.13 | 162 | 488356 | 45.4609 | ppb | | 100 |
| 49) | 2-Nitroaniline | 8.27 | 65 | 168623 | 47.8959 | ppb | | 98 |
| 50) | Dimethyl phthalate | 8.47 | 163 | 631211 | 50.5564 | ppb | | 100 |
| 51) | 2,6-DNT | 8.56 | 165 | 148712 | 50.9372 | ppb | | 93 |
| 52) | Acenaphthylene | 8.61 | 152 | 787025 | 46.2903 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.75 | 138 | 128416 | 40.0156 | ppb | | 92 |
| 54) | Acenaphthene | 8.82 | 154 | 515788 | 47.0987 | ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.89 | 184 | 60828 | 45.1347 | ppb | | 90 |
| 56) | 4-Nitrophenol | 8.99 | 65 | 114976 | 62.9755 | ppb | # | 70 |
| 57) | Dibenzofuran | 9.02 | 168 | 701877 | 47.2260 | ppb | | 94 |
| 58) | 2,4-DNT | 9.03 | 165 | 199869 | 50.6526 | ppb | | 95 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.17 | 232 | 112054 | 56.5994 | ppb | | 95 |
| 60) | Diethyl phthalate | 9.29 | 149 | 608500 | 49.3867 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.42 | 204 | 277671 | 48.8917 | ppb | | 98 |
| 62) | Fluorene | 9.42 | 166 | 590412 | 47.6237 | ppb | | 98 |
| 63) | 4-Nitroaniline | 9.49 | 138 | 140129 | 43.1648 | ppb | | 90 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.51 | 198 | 114172 | 52.4527 | ppb | | 93 |
| 67) | Diphenyl amine | 9.57 | 169 | 929290 | 94.9417 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.57 | 169 | 929290 | 94.9417 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.61 | 77 | 611319 | 44.6260 | ppb | | 97 |
| 70) | 4-Bromophenyl phenyl ether | 10.00 | 248 | 148429 | 48.6030 | ppb | | 83 |
| 71) | Hexachlorobenzene | 10.06 | 284 | 137049 | 48.3185 | ppb | | 96 |
| 72) | Atrazine | 10.19 | 200 | 76833 | 22.9700 | ppb | | 99 |
| 73) | Pentachlorophenol | 10.31 | 266 | 59812 | 58.1424 | ppb | | 98 |
| 74) | Phenanthrene | 10.55 | 178 | 825741 | 46.3204 | ppb | | 99 |
| 75) | Anthracene | 10.62 | 178 | 884364 | 46.9618 | ppb | | 99 |
| 76) | Carbazol | 10.81 | 167 | 813704 | 46.9214 | ppb | | 98 |
| 77) | Di-n-butylphthalate | 11.20 | 149 | 1063417 | 48.9702 | ppb | | 99 |
| 78) | Fluoranthene | 11.96 | 202 | 880761 | 47.2526 | ppb | | 98 |
| 81) | Pyrene | 12.23 | 202 | 946693 | 50.6006 | ppb | | 98 |
| 83) | Butyl benzylphthalate | 12.97 | 149 | 464245 | 49.0184 | ppb | | 85 |
| 84) | 3,3'-Dichlorobenzidine | 13.59 | 252 | 115319 | 24.5162 | ppb | # | 97 |
| 85) | Benz (a) anthracene | 13.63 | 228 | 782322 | 47.2870 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.62 | 149 | 1274132 | 93.9265 | ppb | | 97 |
| 87) | Chrysene | 13.67 | 228 | 772091 | 48.4040 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.37 | 149 | 1124384 | 48.0707 | ppb | | 96 |
| 90) | Benzo (b) fluoranthene | 14.94 | 252 | 766909 | 53.5813 | ppb | | 99 |
| 91) | Benzo (k) fluoranthene | 14.97 | 252 | 686875 | 47.9896 | ppb | | 99 |
| 92) | Benzo (a) pyrene | 15.40 | 252 | 660509 | 46.3355 | ppb | | 100 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.38 | 276 | 702300 | 45.7938 | ppb | | 99 |
| 94) | Dibenz (a,h) anthracene | 17.40 | 278 | 627321 | 46.6551 | ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 17.95 | 276 | 584049 | 47.7208 | ppb | | 98 |

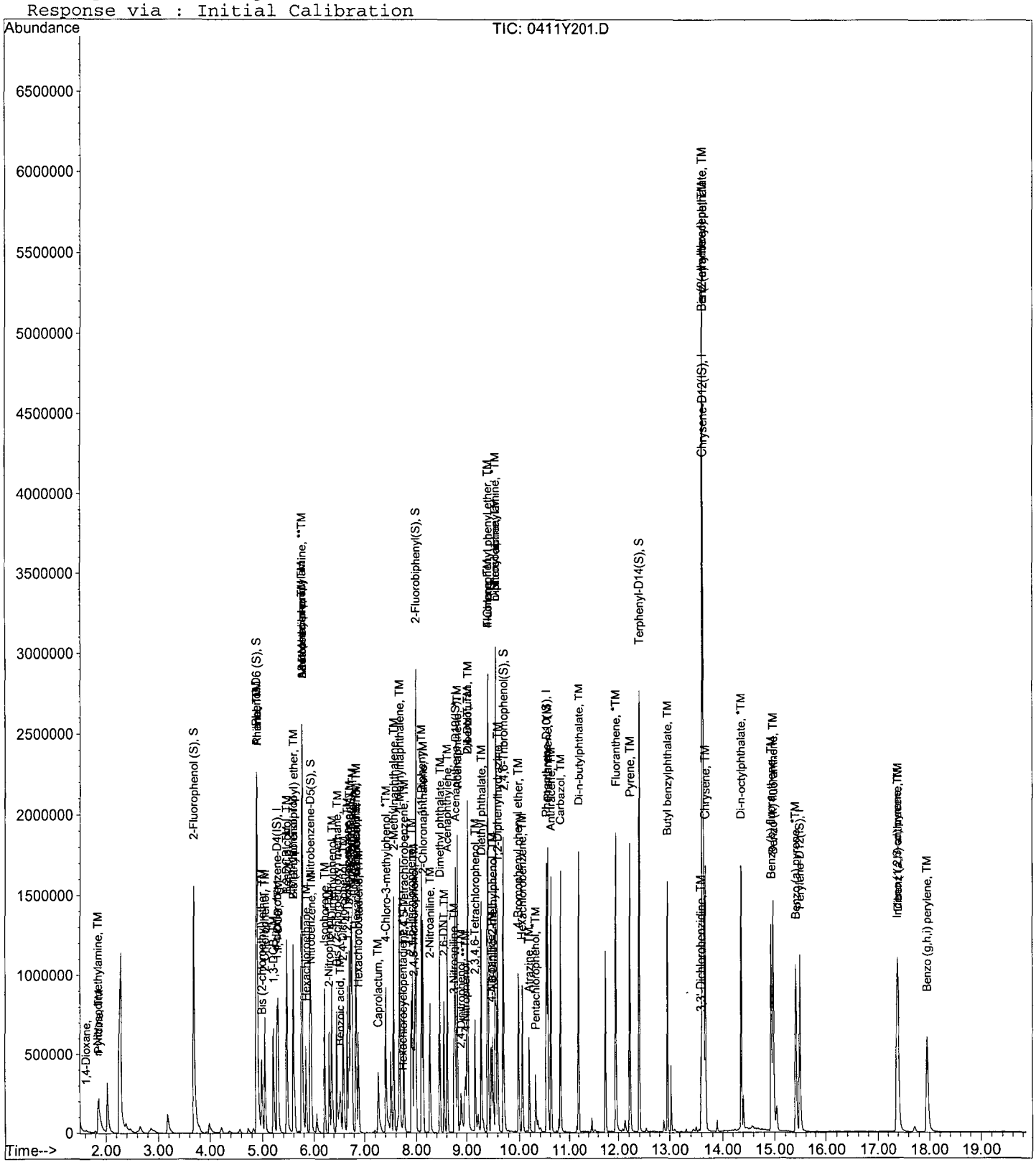
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y201.D Vial: 1
Acq On : 26 Apr 19 20:05 Operator: MA
Sample : AZ89958W34 MSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

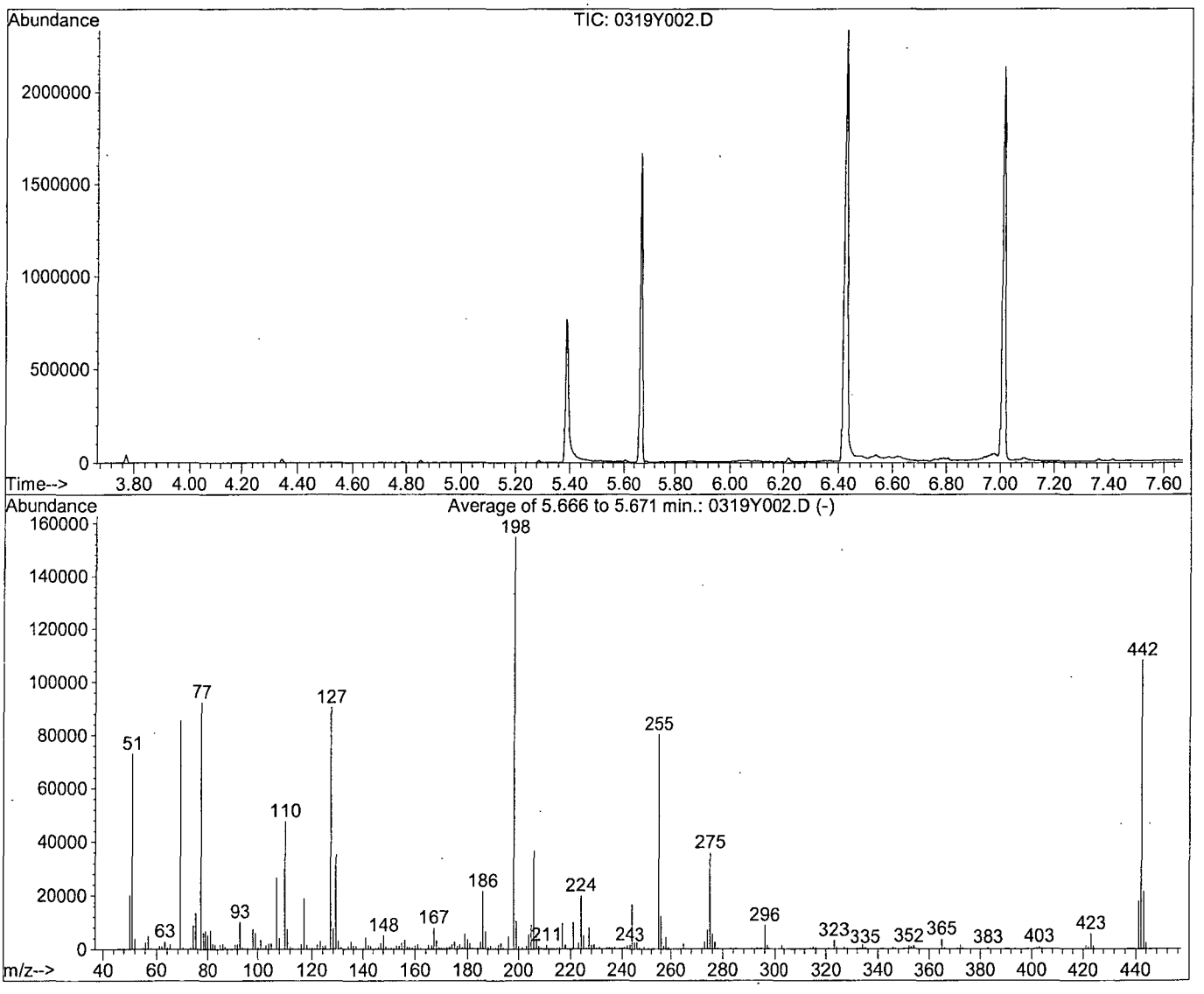
Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y190319\0319Y002.D
Acq On : 19 Mar 19 18:15
Sample : SV Tune 11/10/18
Misc :

Vial: 2
Operator: MA
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C




AutoFind: Scans 833, 834, 835; Background Corrected with Scan 824

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 47.2 | 73142 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.6 | 492 | PASS |
| 127 | 198 | 10 | 80 | 58.4 | 90499 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 154987 | PASS |
| 199 | 198 | 5 | 9 | 6.7 | 10387 | PASS |
| 275 | 198 | 10 | 60 | 23.1 | 35872 | PASS |
| 365 | 198 | 1 | 100 | 2.4 | 3731 | PASS |
| 441 | 442 | 0.01 | 24 | 16.3 | 17617 | PASS |
| 442 | 198 | 50 | 150 | 69.9 | 108320 | PASS |
| 443 | 442 | 15 | 24 | 19.7 | 21288 | PASS |

| | |
|---|---|
| Data File Name: | **0319Y002.D** |
| Data File Path: | **M:\YODA\DATA\Y190319** |
| Operator: | **MA** |
| Date Acquired: | **19 Mar 2019 18:15** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV Tune 11/10/18** |
| Vial Number: | **2** |
| Instrument Name: | **Yoda** |

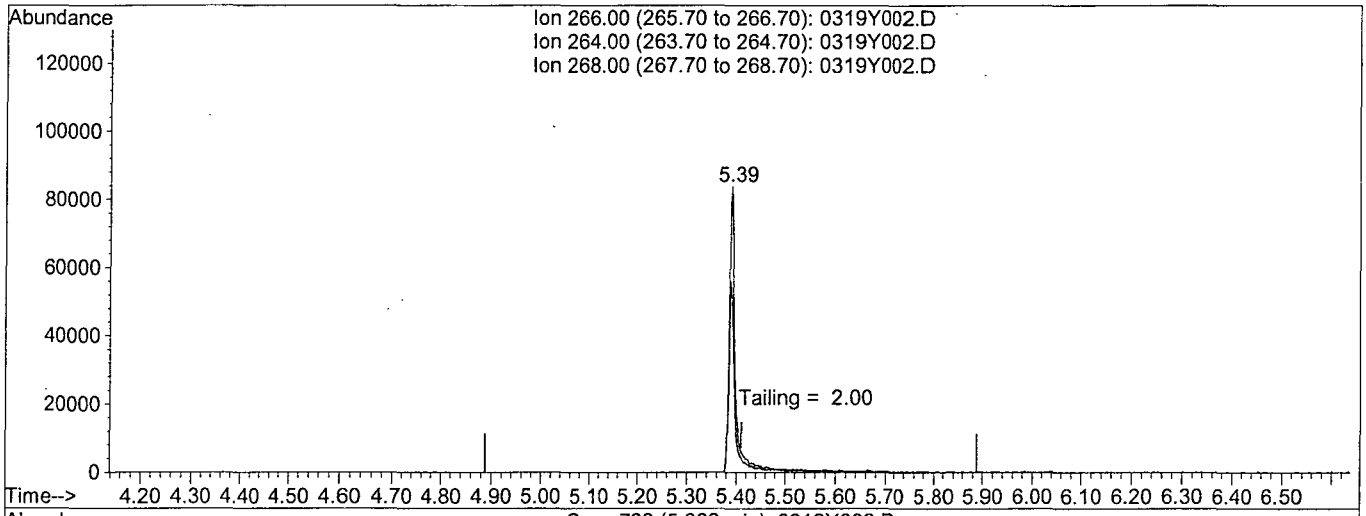
| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.01 | 15502300 |
| 2) | DDD | 6.80 | 149561 |
| 3) | DDE | 6.95 | 46466 |

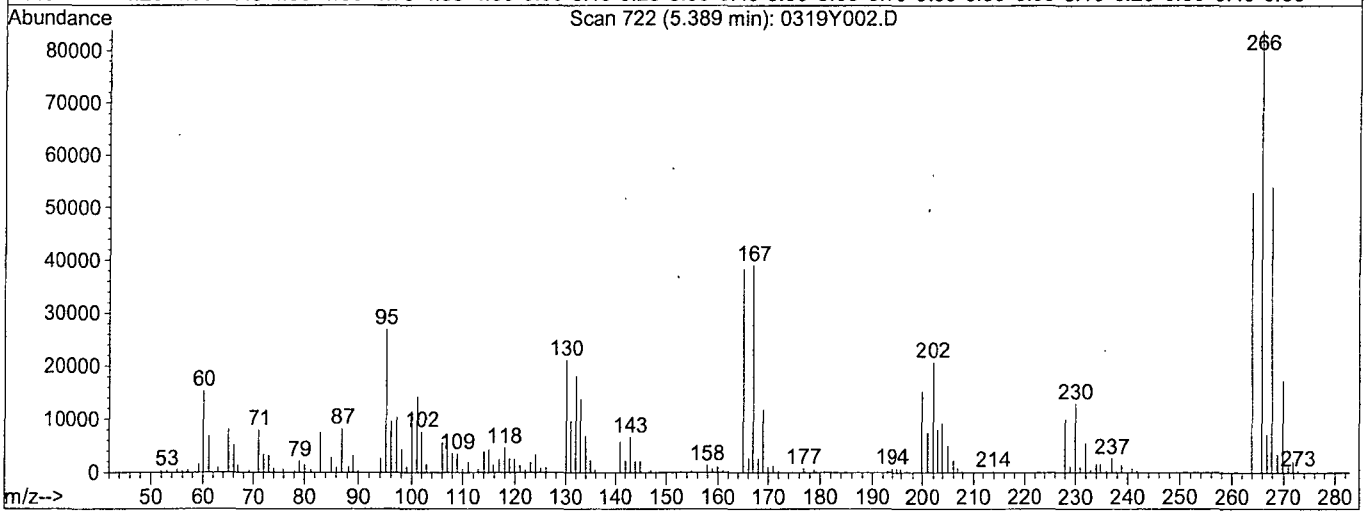
Breakdown **1.25**

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y002.D Vial: 2
Acq On : 19 Mar 19 18:15 Operator: MA
Sample : SV Tune 11/10/18 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Mar 19 19:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190319\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Wed Mar 20 00:14:48 2019
Response via : Single Level Calibration




TIC: 0319Y002.D

(5) Pentachlorophenol

5.39min 0.0000

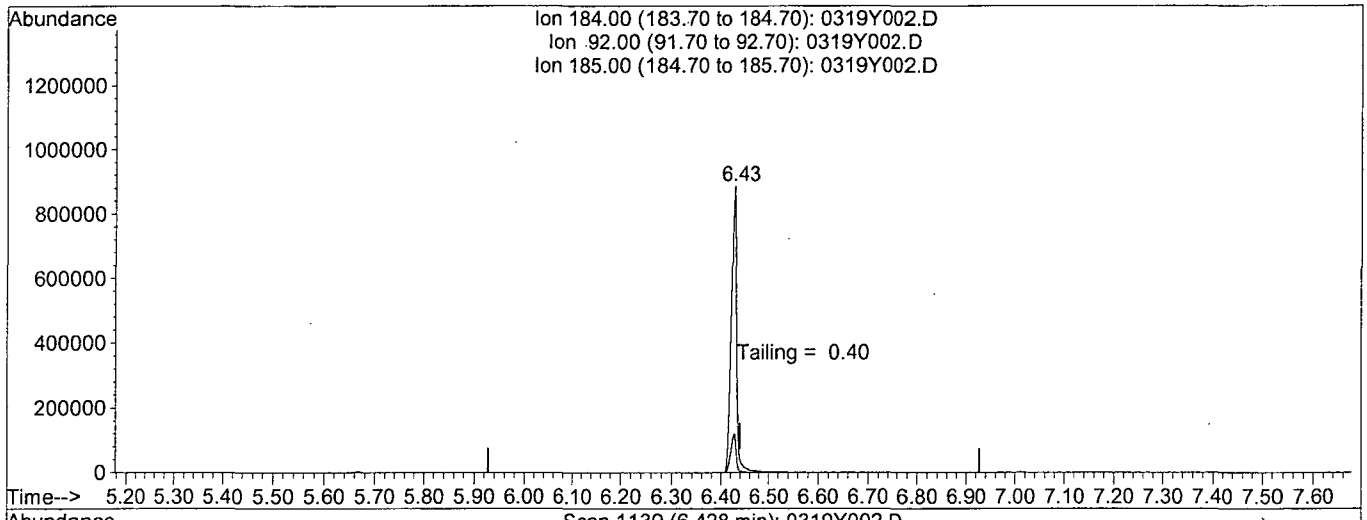
response 676097

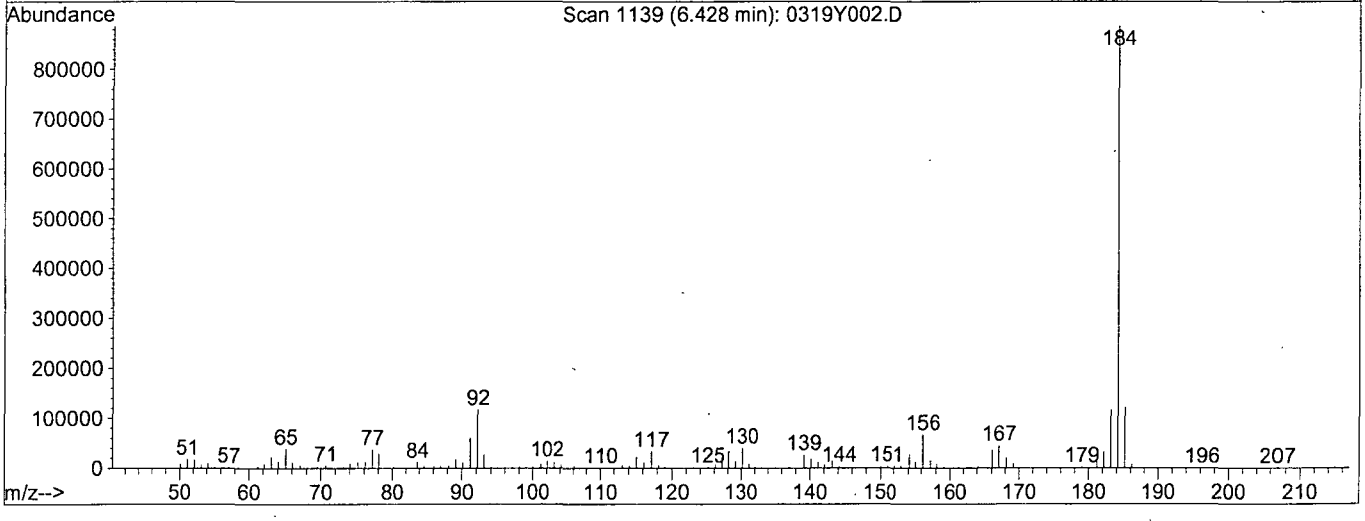
| Ion | Exp% | Act% |
|---|---|---|
| 266.00 | 100 | 100 |
| 264.00 | 63.10 | 59.85 |
| 268.00 | 64.40 | 64.59 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y002.D Vial: 2
Acq On : 19 Mar 19 18:15 Operator: MA
Sample : SV Tune 11/10/18 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Mar 19 19:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190319\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Wed Mar 20 00:14:48 2019
Response via : Single Level Calibration




TIC: 0319Y002.D

(6) Benzidine

6.43min 0.0000

response 6732623

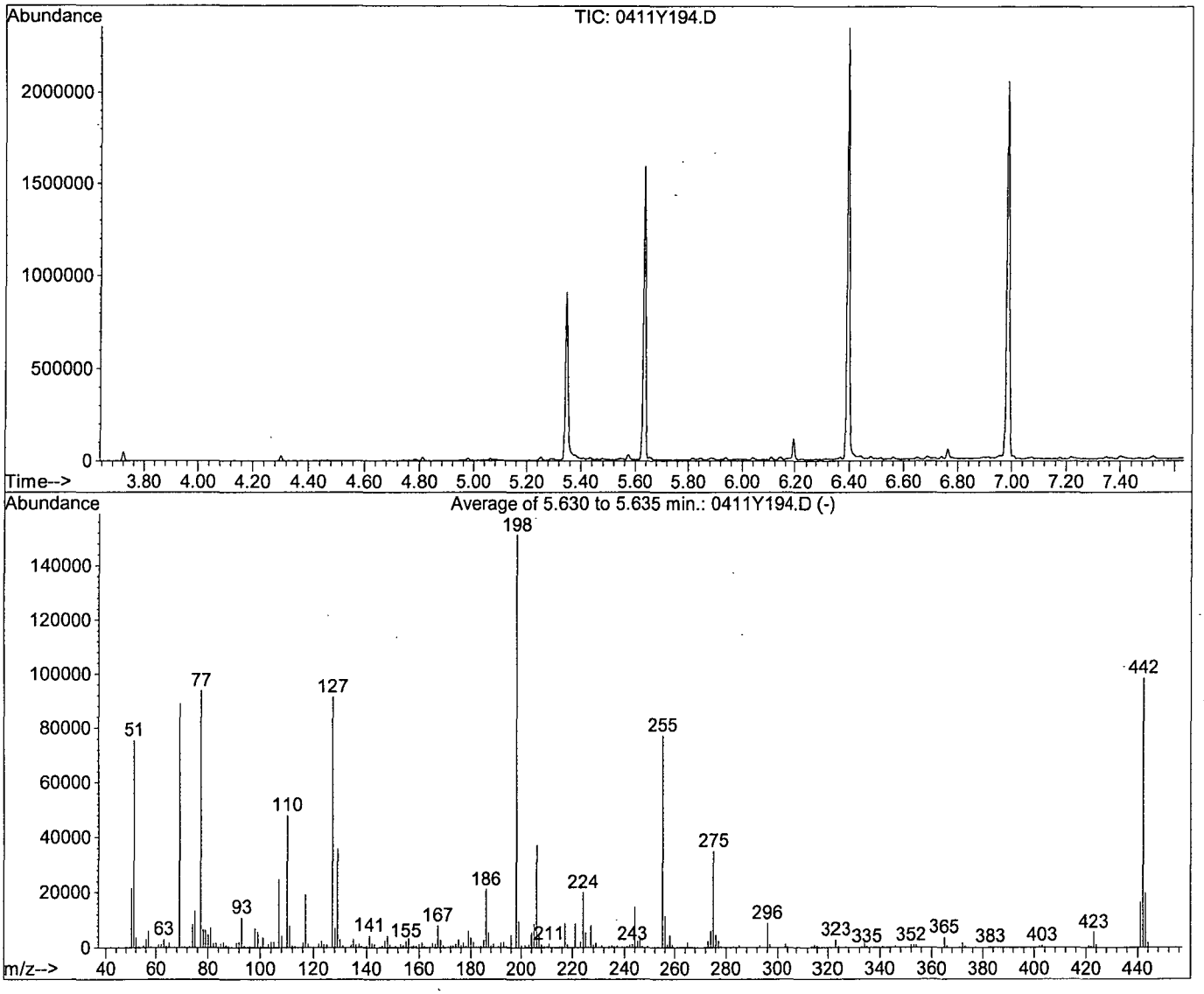
| Ion | Exp% | Act% |
|---|---|---|
| 184.00 | 100 | 100 |
| 92.00 | 13.20 | 13.26 |
| 185.00 | 13.60 | 13.98 |
| 0.00 | 0.00 | 0.00 |

DFTPP

Data File : M:\YODA\DATA\Y190411\0411Y194.D
Acq On : 26 Apr 19 17:03
Sample : SV TUNE 10/11/18
Misc :

Vial: 94
Operator: MA
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C




AutoFind: Scans 819, 820, 821; Background Corrected with Scan 812

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 49.9 | 75560 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.3 | 272 | PASS |
| 127 | 198 | 10 | 80 | 60.5 | 91643 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 151403 | PASS |
| 199 | 198 | 5 | 9 | 6.3 | 9568 | PASS |
| 275 | 198 | 10 | 60 | 23.2 | 35051 | PASS |
| 365 | 198 | 1 | 100 | 2.5 | 3766 | PASS |
| 441 | 442 | 0.01 | 24 | 16.7 | 16471 | PASS |
| 442 | 198 | 50 | 150 | 65.1 | 98613 | PASS |
| 443 | 442 | 15 | 24 | 20.0 | 19727 | PASS |

| | |
|---|---|
| Data File Name: | **0411Y194.D** |
| Data File Path: | **M:\YODA\DATA\Y190411** |
| Operator: | **MA** |
| Date Acquired: | **26 Apr 2019 17:03** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV TUNE 10/11/18** |
| Vial Number: | **94** |
| Instrument Name: | **Yoda** |

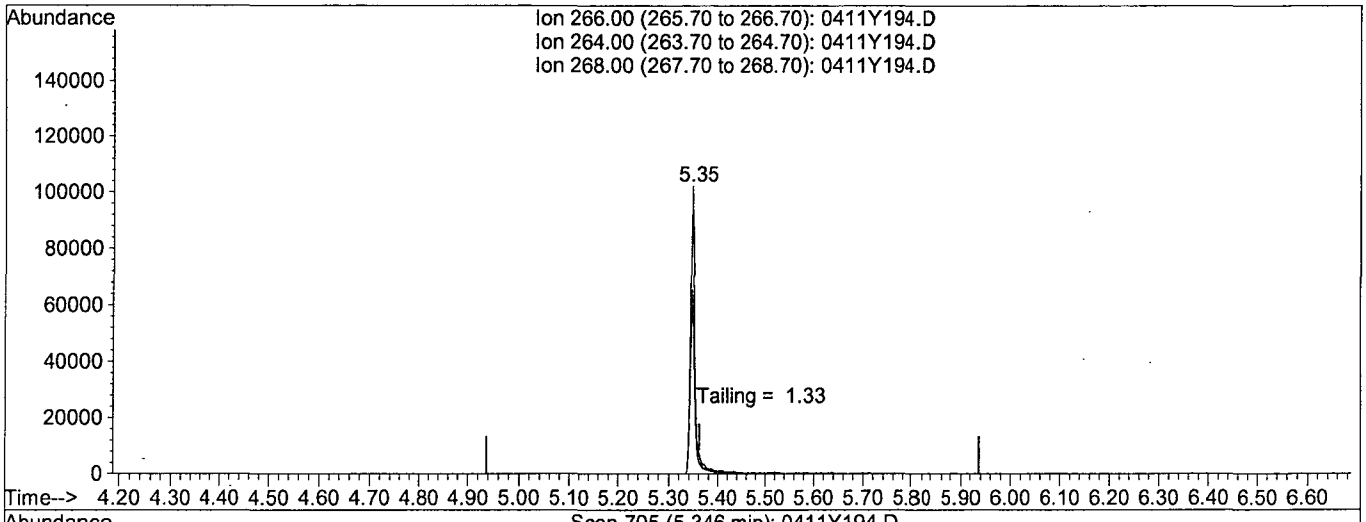
| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.08 | 14939900 |
| 2) | DDD | 6.75 | 114696 |
| 3) | DDE | 6.86 | 0 |

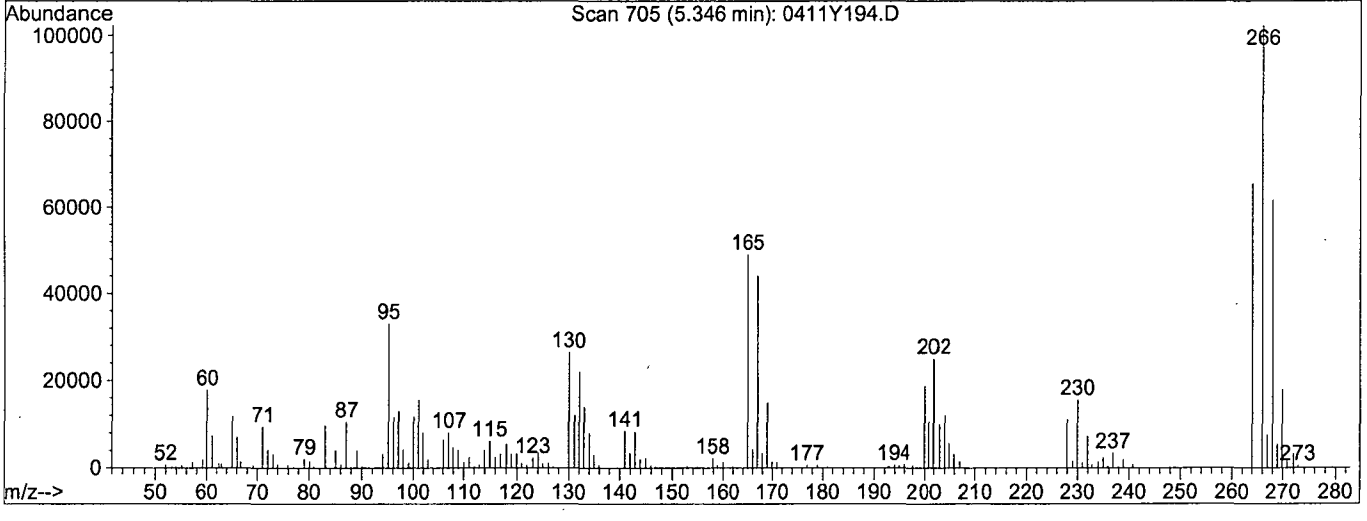
Breakdown **0.76**

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y194.D Vial: 94
Acq On : 26 Apr 19 17:03 Operator: MA
Sample : SV TUNE 10/11/18 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Apr 26 16:57 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190411\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 22 13:05:57 2019
Response via : Single Level Calibration




TIC: 0411Y194.D

(5) Pentachlorophenol

5.35min 0.0000

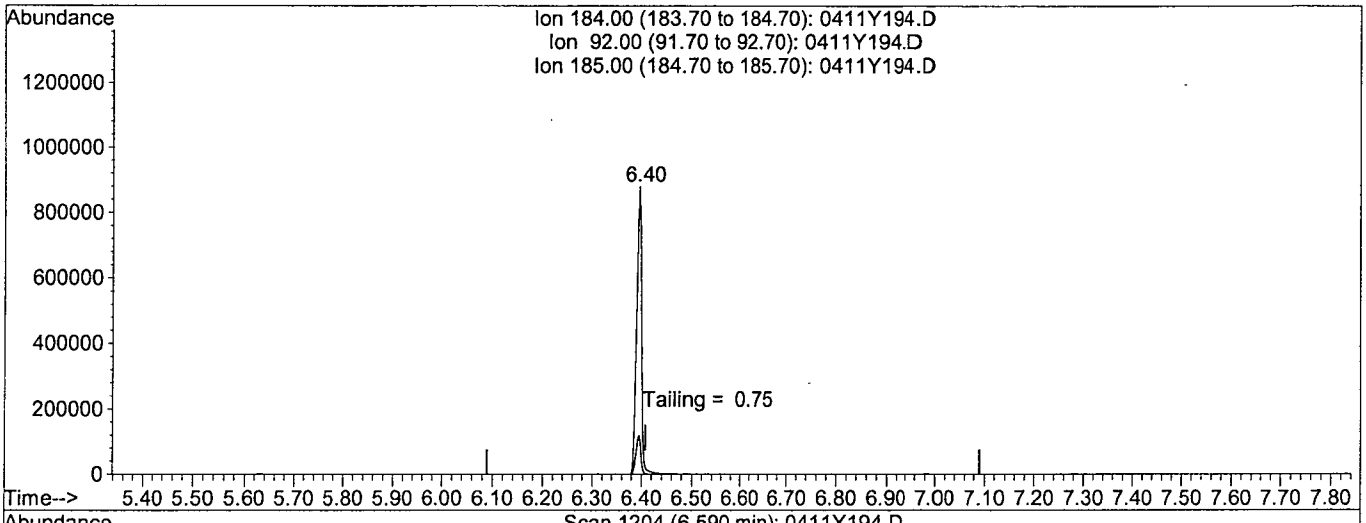
response 676111

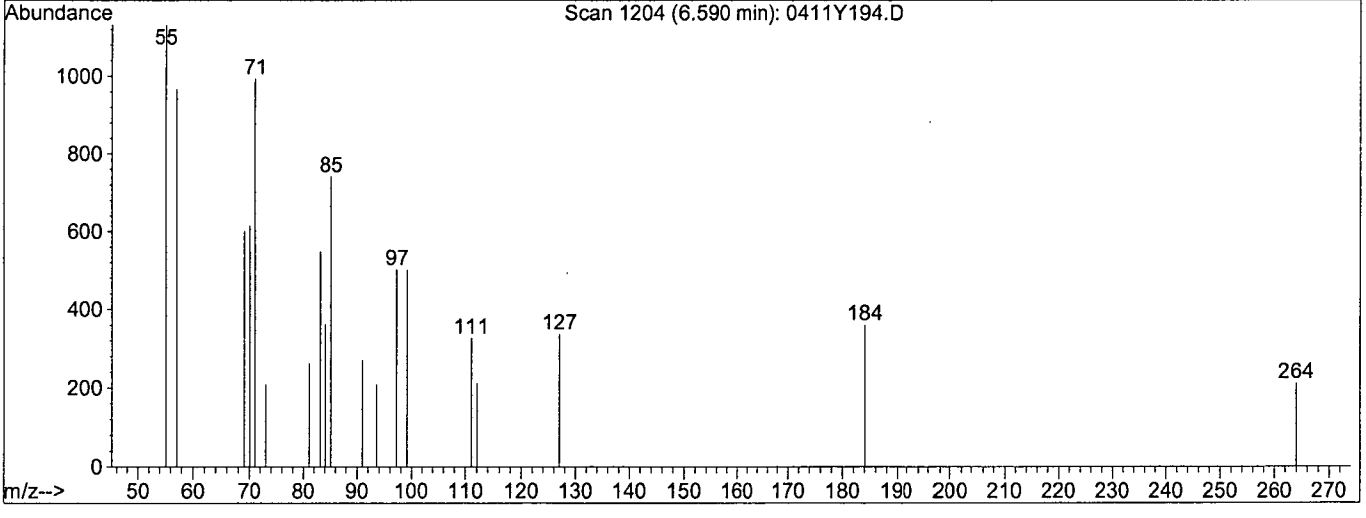
| Ion | Exp% | Act% |
|---|---|---|
| 266.00 | 100 | 100 |
| 264.00 | 61.20 | 58.82 |
| 268.00 | 65.20 | 61.30 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y194.D Vial: 94
Acq On : 26 Apr 19 17:03 Operator: MA
Sample : SV TUNE 10/11/18 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Apr 26 16:57 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190411\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 22 13:05:57 2019
Response via : Single Level Calibration




TIC: 0411Y194.D

(6) Benzidine

6.59min 0.0000

response 0

| Ion | Exp% | Act% |
|---|---|---|
| 184.00 | 100 | 0.00 |
| 92.00 | 13.60 | 0.00# |
| 185.00 | 14.10 | 0.00# |
| 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Name of Final Standard** | 8270 Full Scan Standard Curve | **Prep'd By (Initials)** | **GA** |
| **Prep Date** | 03/13/19 | | |
| **Exp Date** | 09/13/19 | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | 03/05/19 | 10/20/19 | 4 uL | 200uL | MC 56258 192uL | 4 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | 10/17/18 | 09/27/19 | 4 uL | " | " | " |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | 02/09/19 | 02/09/20 | 4 uL | " | " | " |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | 03/05/19 | 10/20/19 | 5 uL | 200uL | MC 56258 190uL | 5 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | 10/17/18 | 09/27/19 | 5 uL | " | " | " |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | 02/09/19 | 02/09/20 | 4 uL | " | " | " |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | 03/05/19 | 10/20/19 | 5 uL | 100uL | MC 56258 90uL | 10 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | 10/17/18 | 09/27/19 | 5 uL | " | " | " |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | 02/09/19 | 02/09/20 | 2 uL | " | " | " |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | 03/05/19 | 10/20/19 | 10 uL | 100uL | MC 56258 80uL | 20 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | 10/17/18 | 09/27/19 | 10 uL | " | " | " |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | 02/09/19 | 02/09/20 | 2 uL | " | " | " |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | 03/05/19 | 10/20/19 | 20 uL | 100uL | MC 56258 60uL | 40 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | 10/17/18 | 09/27/19 | 20 uL | " | " | " |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | 02/09/19 | 02/09/20 | 2 uL | " | " | " |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | 03/05/19 | 10/20/19 | 50 uL | 200 uL | MC 56258 100uL | 50 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | 10/17/18 | 09/27/19 | 50 uL | " | " | " |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | 02/09/19 | 02/09/20 | 4 uL | " | " | " |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | 03/05/19 | 10/20/19 | 30 uL | 100uL | MC 56258 40uL | 60 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | 10/17/18 | 09/27/19 | 30 uL | " | " | " |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | 02/09/19 | 02/09/20 | 2 uL | " | " | " |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | 03/05/19 | 10/20/19 | 40 uL | 100uL | MC 56258 20uL | 80 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | 10/17/18 | 09/27/19 | 40 uL | " | " | " |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | 02/09/19 | 02/09/20 | 2 uL | " | " | " |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | 03/05/19 | 10/20/19 | 50 uL | 100uL | na | 100 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | 10/17/18 | 09/27/19 | 50 uL | " | " | " |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | 02/09/19 | 02/09/20 | 2 uL | " | " | " |

| | | | |
|---|---|---|---|
| **Name of Final Standard** | 8270 Full Scan Second Source | **Prep'd By (Initials)** | **GA** |
| **Prep Date** | **03/13/19** | | |
| **Exp Date** | **09/13/19** | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 8270 SS Stock | o2si | 8270 SS Stock | 200 ug/mL | **03/05/19** | **01/08/20** | 50 uL | 200uL | **MC 56258 150uL** | 50 ug/mL |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | **01/16/19** | **01/16/20** | 4 uL | * | * | * |

| Name of Final Standard | 8270 Full Scan Spike | Prep'd By (Initials) | GA |
|---|---|---|---|
| Prep Date | 03/05/19 | | |
| Exp Date | 10/20/19 | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 10001 | Absolute | 10001 | 2000 | 051018-39827<br>051018-39828 | 03/05/20 | 2.0 mL | 20 mL | NA | 200 ug/mL |
| 10002 | Absolute | 10002 | 2000 | 051018-39832<br>051018-39833 | 03/05/20 | 2.0 mL | * | * | 200 ug/mL |
| 10004 | Absolute | 10004 | 2000 | 031618-39836<br>031618-39839 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10005 | Absolute | 10005 | 2000 | 032018-40011<br>032018-40012 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10006 | Absolute | 10006 | 2000 | 071318-39842<br>071318-39843 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10007 | Absolute | 10007 | 2000 | 080116-40016<br>080116-40017 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10018 | Absolute | 10018 | 2000 | 062718-39847<br>062718-39848 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 70023 | Absolute | 70023 | 1000 | 091217-39852<br>091217-39853 | 01/30/20 | 2.0 mL | * | * | 100 ug/mL |
| 82705 | Absolute | 82705 | 2000 | 081418-40020<br>081418-40021 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 94552 | Absolute | 94552 | various | 102017-40026<br>102017-40027 | 10/20/19 | 2.0 mL | * | * | various |

| Name of Final Standard | 8270 SS STOCK | Prep'd By (Initials) | GA |
|---|---|---|---|
| Prep Date | 03/05/19 | | |
| Exp Date | 01/08/20 | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 10001 | Absolute | 10001 | 2000 | 031618-39202 | 03/05/20 | 1.0 mL | 10 mL | NA | 200 ug/mL |
| 10002 | Absolute | 10002 | 2000 | G34-020217-38182 | 02/02/20 | 1.0 mL | * | * | 200 ug/mL |
| 10004 | Absolute | 10004 | 2000 | 010815-38625 | 01/08/20 | 1.0 mL | * | * | 200 ug/mL |
| 10005 | Absolute | 10005 | 2000 | 041317-37804 | 03/05/20 | 1.0 mL | * | * | 200 ug/mL |
| 10006 | Absolute | 10006 | 2000 | 011718-38827 | 03/05/20 | 1.0 mL | * | * | 200 ug/mL |
| 10007 | Absolute | 10007 | 2000 | 020515-38627 | 02/05/20 | 1.0 mL | * | * | 200 ug/mL |
| 10018 | Absolute | 10018 | 2000 | G34-030216-38195 | 03/05/20 | 1.0 mL | * | * | 200 ug/mL |
| 70023 | Absolute | 70023 | 1000 | 013118-38830 | 03/05/20 | 1.0 mL | * | * | 100 ug/mL |
| 82705 | Absolute | 82705 | 2000 | 090617-38832 | 03/05/20 | 1.0 mL | * | * | 200 ug/mL |
| 94552 | Absolute | 94552 | various | 013118-40453 | 01/31/20 | 1.0 mL | * | * | various |

| | | | |
|---|---|---|---|
| **Name of Final Standard** | 8270 Internal Standard (Ampule) | **Prep'd By (Initials)** | **GA** |
| **Prep Date** | **02/09/19** | | |
| **Exp Date** | **02/09/20** | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc.(range) |
| Semivolatile Internal Standard | Restek | 31206 | 2mg/mL | **A0138585-39540** | **01/16/20** | 1 mL | 1 mL | NA | 2mg/mL |

| | |
|---|---|
| **Name of Final Standard** | **8270 Surrogate 200/400 ppm** |
| **Prep Date** | **10/17/18** |
| **Exp Date** | **09/27/19** |

**Prep'd By (Initials)** GA

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc. (range) |
| 8270 Acid Surrogate Mix | Restek | 33029 | 10,000 ug/mL | **A0136352-39395** | **10/17/19** | 200 uL | 5 mL | **MC 56258** | 400 ug/mL |
| 8270 B/N Surrogate Mix | Restek | 31086 | 5000 ug/mL | **A0135243-39166** | **09/27/19** | 200 uL | | | 200 ug/mL |

| | | | |
|---|---|---|---|
| **Name of Final Standard** | 8270 Full Scan Spike | **Prep'd By (Initials)** | **GA** |
| **Prep Date** | **01/30/19** | | |
| **Exp Date** | **10/20/19** | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 10001 | Absolute | 10001 | 2000 | 051018-39825<br>051018-39826 | 01/30/20 | 2.0 mL | 20 mL | **NA** | 200 ug/mL |
| 10002 | Absolute | 10002 | 2000 | 051018-39830<br>051018-39831 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10004 | Absolute | 10004 | 2000 | 031618-39834<br>031618-39835 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10005 | Absolute | 10005 | 2000 | 032018-39611<br>032018-40010 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10006 | Absolute | 10006 | 2000 | 071318-39840<br>071318-39841 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10007 | Absolute | 10007 | 2000 | 080116-39616<br>080116-40015 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10018 | Absolute | 10018 | 2000 | 062718-39845<br>062718-39846 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 70023 | Absolute | 70023 | 1000 | 091217-39850<br>091217-39851 | 01/30/20 | 2.0 mL | * | * | 100 ug/mL |
| 82705 | Absolute | 82705 | 2000 | 081418-39620<br>081418-39621 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 94552 | Absolute | 94552 | various | 102017-40025<br>102017-40225 | 10/20/19 | 2.0 mL | * | * | various |

| | | | |
|---|---|---|---|
| **Name of Final Standard** | 8270 Surrogate 100/200 ppm | **Prep'd By (Initials)** | **GA** |
| **Prep Date** | **01/30/19** | | |
| **Exp Date** | **12/06/19** | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 8270 Acid Surrogate Mix | Restek | 33029 | 10,000 ug/mL | **A0132399 -39396** | **01/30/20** | 5.0 mL | 250 mL | **Acetone #101717I** | 200 ug/mL |
| 8270 B/N Surrogate Mix | Restek | 31086 | 5000 ug/mL | **A0140132 - 39546 & 39547** | **12/06/19 01/30/20** | 5.0 mL | 250 mL | * | 100 ug/mL |

# Organic Extraction Worksheet

| Method | Continuous Liquid/Liquid SVOC 3520C | Extraction Set | 190424A | Extraction Method | LIQ003 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | 8270T Spike 4-12-19 EXP 10-20-19 | | Surrogate ID 1 | 8270 Surrogate 4-10-19 EXP 3-15-20 | |
| Spiked ID 2 | Sim Spike 3-20-19 EXP 3-20-20 | | Surrogate ID 2 | SIM Surrogate 3-25-19 EXP 3-25-20 | |
| 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: | yes | |
| Spiked ID 7 | | | Ext. Start Time: | 04/24/19 14:25, 04/25/19 11:20 | |
| Spiked ID 8 | | | Ext. End Time: | 04/25/19 9:30, 04/26/19 17:30, 4/26/19 14:30 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 04/24/19 1:05:00 PM | Water Bath Temp Criteria | 75,70 °C |
| pH2 | 14 | 4/24/19 11:10:00 AM | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/24/19 **Witnessed By:** DL **Date** 04/24/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190424A Blk | | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP51 e-wb6 | | | | |
| 2 | 190424A LCS-1 | | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP50 E-WB6 | | | | |
| 3 | 190424A LCS-2 | | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP49 E-WB6 | | | | |
| 4 | 190424A LCSD-1 | | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP48 E-WB6 | | | | |
| 5 | 190424A LCSD-2 | | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP47 E-WB6 | | | | |
| 6 | AZ89958 MS-1 | AZ89958W28 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP25 E-WB6 | | | | |
| 7 | AZ89958 MSD-1 | AZ89958W34 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP26 E-WB6 | | | | |
| 8 | AZ89958 MS-2 | AZ89958W33 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP27 E-WB6 | | | | |
| 9 | AZ89958 MSD-2 | AZ89958W36 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP28 E-WB6 | | | | |
| 10 | AZ89958 | AZ89958W30 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP29 E-WB6 | | | | |
| 11 | AZ89959 | AZ89959W07 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP30 E-WB5 | | | | |
| 12 | AZ89961 | AZ89961W14 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP17 E-WB5 | | | | |
| 13 | AZ90051 MS-1 | AZ90051W39 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP10 E-WB5 | | | | |
| 14 | AZ90051 MSD-1 | AZ90051W40 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP9 E-WB5 | | | | |
| 15 | AZ90051 MS-2 | AZ90051W38 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP7 E-WB5 | | | | |
| 16 | AZ90051 MSD-2 | AZ90051W36 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP6 E-WB5 | | | | |

| Solvent and Lot# | |
|---|---|
| PH Strips | HC 863463 |
| Dichloromethane (DCM) | 58240 |
| 1+1 H2SO4 | 4-22-19 |
| 10N NaOH | 4-22-19 |
| Filter Paper | 400148 |
| Acidified Na2SO4 | 2-28-19 |
| B. Na2SO4 | 18D105205 |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | SS |
| Date | 4/26/19 |
| Time | 1100 |
| Refrigerator | GC-C |

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

| Modified | 04/30/19 12:47:43 PM |
|---|---|

**Reviewed By:** KS **Date** 4/30/19

# Organic Extraction Worksheet

| Method | Continuous Liquid/Liquid SVOC 3520C | Extraction Set | 190424A | Extraction Method | LIQ003 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | 8270T Spike 4-12-19 EXP 10-20-19 | | Surrogate ID 1 | 8270 Surrogate 4-10-19 EXP 3-15-20 | |
| Spiked ID 2 | Sim Spike 3-20-19 EXP 3-20-20 | | Surrogate ID 2 | SIM Surrogate 3-25-19 EXP 3-25-20 | |
| 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: | yes | |
| Spiked ID 7 | | | Ext. Start Time: | 04/24/19 14:25 , 04/25/19 11:20 | |
| Spiked ID 8 | | | Ext. End Time: | 04/25/19 9:30 , 04/26/19 17:30 , 4/26/19 14:20 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 04/24/19 1:05:00 PM | Water Bath Temp Criteria | 75,70 °C |
| pH2 | 14 | 4/24/19 11:10:00 AM | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/24/19 **Witnessed By:** DL **Date** 04/24/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | AZ90051 | AZ90051W37 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP11 E-WB5 | | | | |
| 18 | AZ90052 | AZ90052W11 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP13 E-WB5 | | | | |
| 19 | AZ90054 | AZ90054W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP16 E-WB5 | | | | |
| 20 | AZ90056 | AZ90056W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP15 E-WB5 | | | | |
| 21 | AZ90058 | AZ90058W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP14 E-WB5 | | | | |
| 22 | AZ90060 | AZ90060W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP12 E-WB5 | | | | |

KY 4/30/19

| Solvent and Lot# | |
|---|---|
| PH Strips | HC 863463 |
| Dichloromethane (DCM) | 58240 |
| 1+1 H2SO4 | 4-22-19 |
| 10N NaOH | 4-22-19 |
| Filter Paper | 400148 |
| Acidified Na2SO4 | 2-28-19 |
| B. Na2SO4 | 18D105205 |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | |
| Date | |
| Time | |
| Refrigerator | |

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

| Modified | 04/30/19 12:47:43 PM |
|---|---|

**Reviewed By:** KY **Date** 4/30/19

# Injection Log

Directory: M:\YODA\DATA\Y190319\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 2 | 0319Y002.D | 1 | SV Tune 11/10/18 | | 19 Mar 19 18:15 |
| 2 | 3 | 0319Y003.D | 1 | 50ug/mL 8270 03/13/19 | | 19 Mar 19 18:31 |
| 3 | 4 | 0319Y004.D | 1 | 4ug/mL 8270 03/13/19 | | 19 Mar 19 18:58 |
| 4 | 5 | 0319Y005.D | 1 | 5ug/mL 8270 03/13/19 | | 19 Mar 19 19:26 |
| 5 | 6 | 0319Y006.D | 1 | 10ug/mL 8270 03/13/19 | | 19 Mar 19 19:54 |
| 6 | 7 | 0319Y007.D | 1 | 20ug/mL 8270 03/13/19 | | 19 Mar 19 20:22 |
| 7 | 8 | 0319Y008.D | 1 | 40ug/mL 8270 03/13/19 | | 19 Mar 19 20:49 |
| 8 | 9 | 0319Y009.D | 1 | 60ug/mL 8270 03/13/19 | | 19 Mar 19 21:17 |
| 9 | 10 | 0319Y010.D | 1 | 80ug/mL 8270 03/13/19 | | 19 Mar 19 21:44 |
| 10 | 11 | 0319Y011.D | 1 | 100ug/mL 8270 03/13/19 | | 19 Mar 19 22:11 |
| 11 | 12 | 0319Y012.D | 1 | SS-8270 03/13/19 | | 19 Mar 19 22:39 |
| 12 | 94 | 0411Y194.D | 1 | SV TUNE 10/11/18 | | 26 Apr 19 17:03 |
| 13 | 95 | 0411Y195.D | 1 | 50ug/ml 8270 3/13/19 | | 26 Apr 19 17:18 |
| 14 | 96 | 0411Y196.D | 1.25 | 190424A BLK 1/800 | | 26 Apr 19 17:46 |
| 15 | 97 | 0411Y197.D | 1.25 | 190424A LCS-1 1/800 | | 26 Apr 19 18:13 |
| 16 | 98 | 0411Y198.D | 1.25 | 190424A LCSD-1 1/800 | | 26 Apr 19 18:41 |
| 17 | 99 | 0411Y199.D | 1.25 | AZ89958W30 1/800 | | 26 Apr 19 19:09 |
| 18 | 100 | 0411Y200.D | 1.25 | AZ89958W28 MS-1 1/800 | | 26 Apr 19 19:37 |
| 19 | 1 | 0411Y201.D | 1.25 | AZ89958W34 MSD-1 1/800 | | 26 Apr 19 20:05 |
| 20 | 2 | 0411Y202.D | 1.25 | AZ89959W07 1/800 | | 26 Apr 19 20:33 |
| 21 | 3 | 0411Y203.D | 1.25 | AZ89961W14 1/800 | | 26 Apr 19 21:01 |
| 22 | 12 | 0411Y212.D | 1 | 50ug/ml 8270 3/13/19 | | 27 Apr 19 1:12 |

# ORGANICS
# Calibration Data

2MEE
EPA 8270

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 04/30/19
Matrix: Instrument: Yoda
Initials: MAK

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | Avg | %RSD | Type | r^2 | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0430Y003.D | 0430Y004.D | 0430Y005.D | 0430Y006.D | 0430Y007.D | 0430Y008.D | 0430Y009.D | 0430Y010.D | | | | | | | | |
| 1 | I | 1,4-dichlorobenzene-D4(IS) | | | | | | | | | | | | | | | | |
| 2 | TML | 2-(2-Methoxyethoxy)ethanol | 0.0855 | 0.1071 | 0.1202 | 0.1690 | 0.1716 | 0.1510 | 0.1681 | 0.1572 | | | 0.14 | 23 | TML | 0.992 | | |
| 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 | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | |
| 33 | | | | | | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y003.D Vial: 3
Acq On : 30 Apr 19 9:27 Operator: MA
Sample : 50ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 12:16 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 184530 | 40.00000 ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 792854 | 40.00000 ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 436769 | 40.00000 ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 740242 | 40.00000 ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 652884 | 40.00000 ppb | 0.01 |
| 7) Perylene-D12(IS) | 15.14 | 264 | 661360 | 40.00000 ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.31 | 45 | 19721 | 51.20047 ppb | 92 |

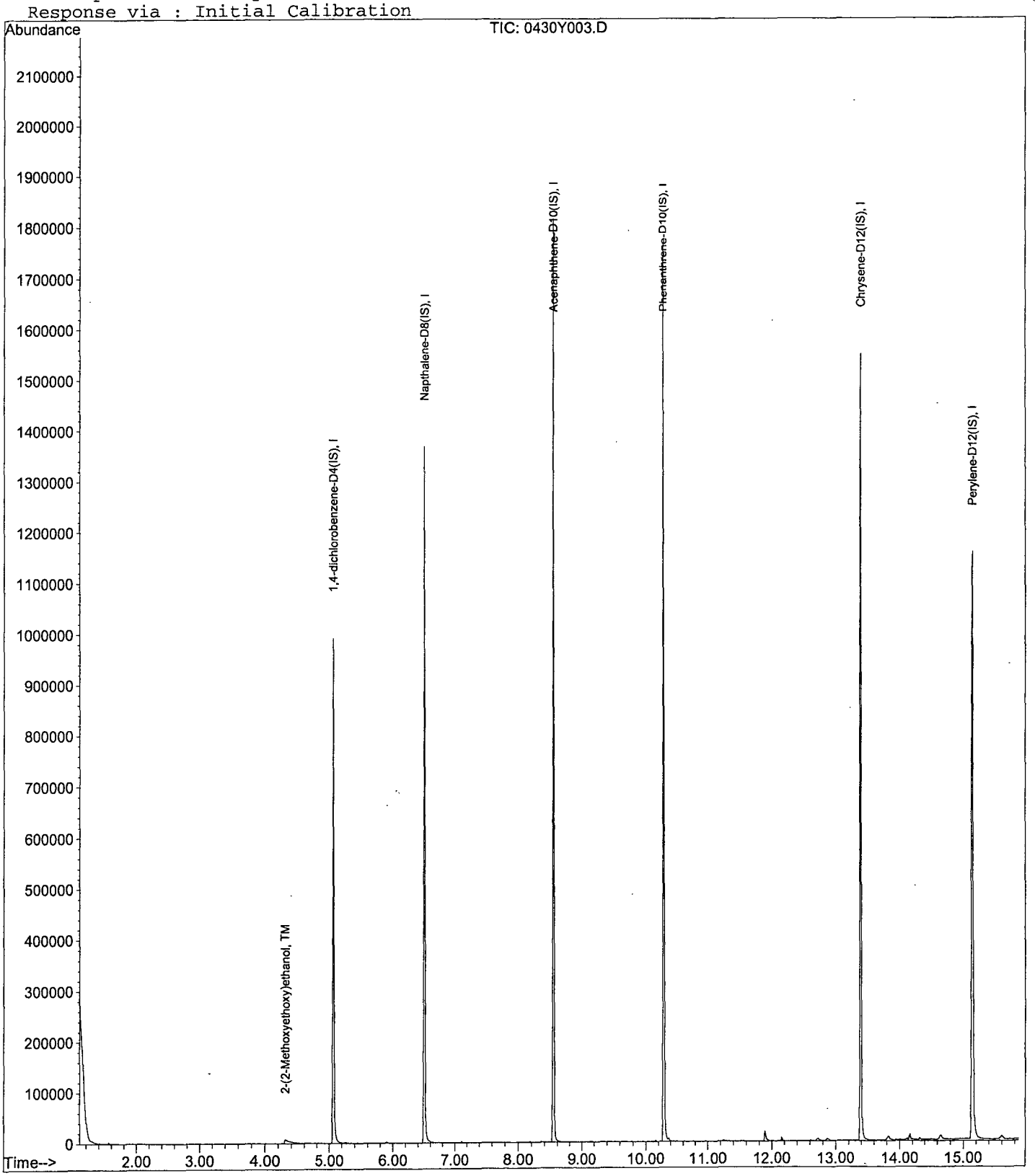
(#) = qualifier out of range (m) = manual integration
0430Y003.D YMEE0430.M Wed May 01 09:22:16 2019 Page 1

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y003.D Vial: 3
Acq On : 30 Apr 19 9:27 Operator: MA
Sample : 50ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 12:16 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y004.D Vial: 4
Acq On : 30 Apr 19 9:50 Operator: MA
Sample : 100ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:44:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 187806 | 40.00000 ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 863865 | 40.00000 ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 468856 | 40.00000 ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 791427 | 40.00000 ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.38 | 240 | 668649 | 40.00000 ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 626815 | 40.00000 ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.27 | 45 | 50283 | 84.61640 ppb | 97 |

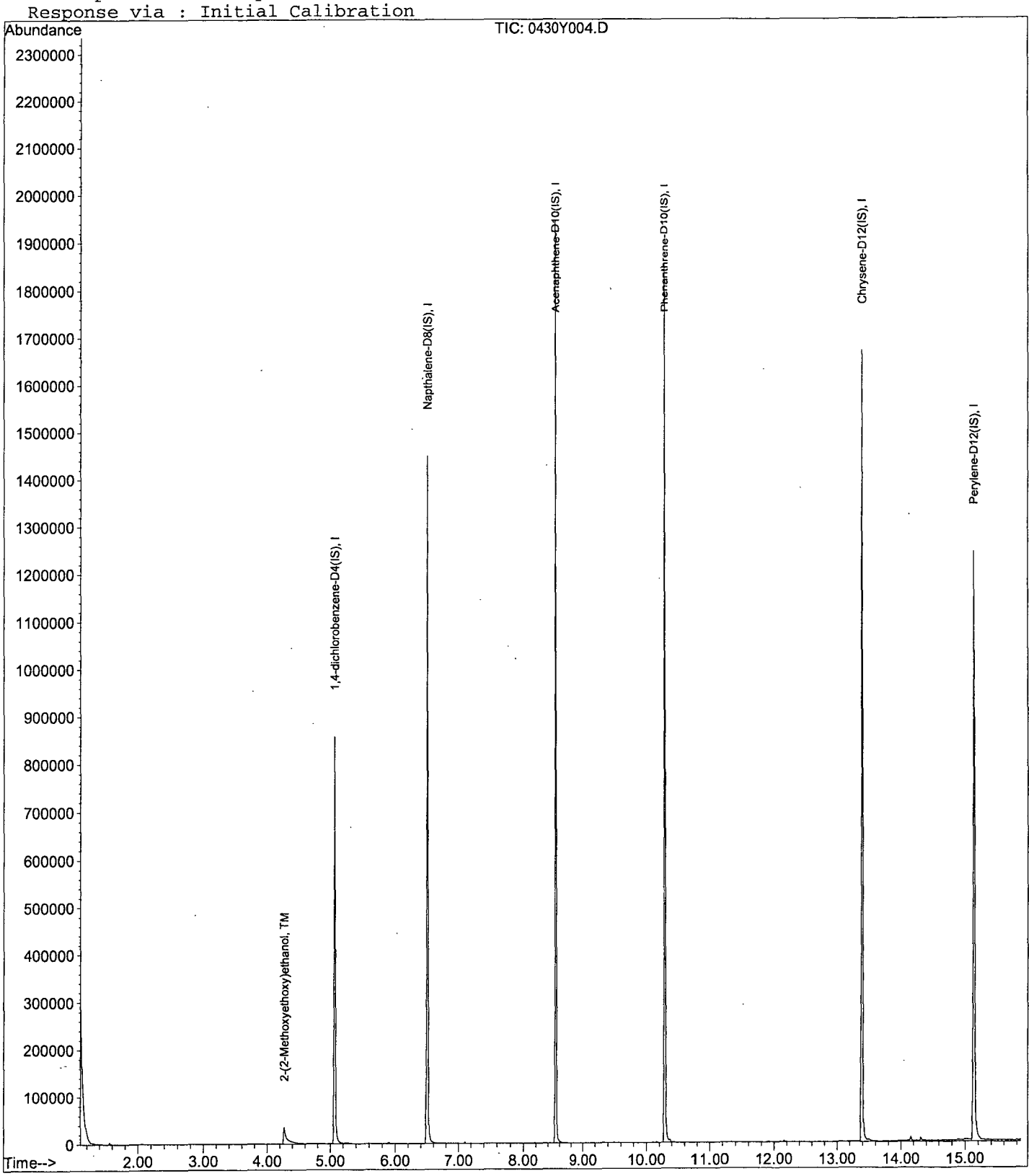
(#) = qualifier out of range (m) = manual integration
0430Y004.D YMEE0430.M Wed May 01 09:22:20 2019 Page 1

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y004.D Vial: 4
Acq On : 30 Apr 19 9:50 Operator: MA
Sample : 100ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y005.D Vial: 5
Acq On : 30 Apr 19 10:13 Operator: MA
Sample : 200ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:44:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 198152 | 40.00000 ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 841205 | 40.00000 ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 466203 | 40.00000 ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 786056 | 40.00000 ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.38 | 240 | 706531 | 40.00000 ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 682388 | 40.00000 ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.25 | 45 | 119065 | 189.90155 ppb | 99 |

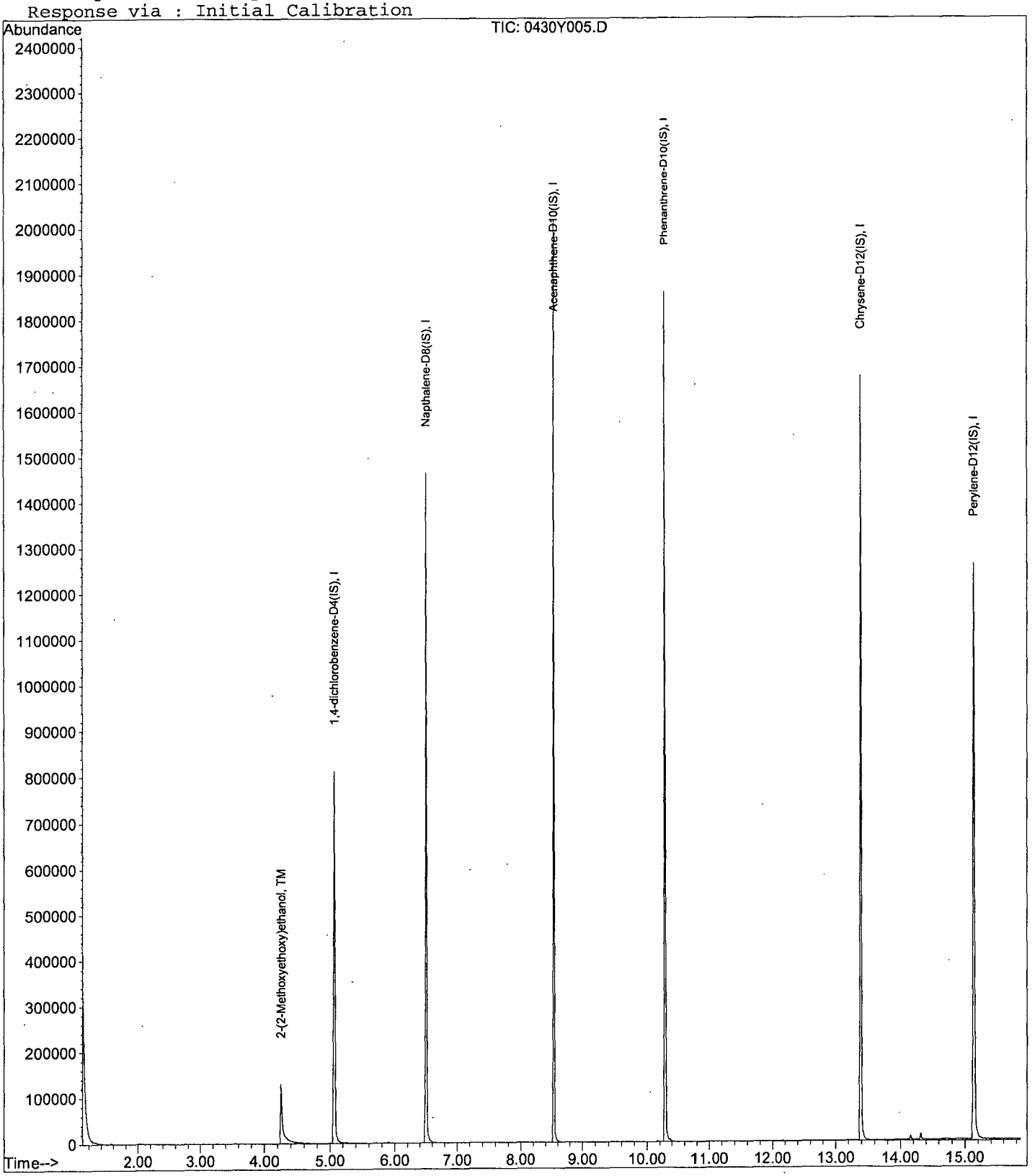
(#) = qualifier out of range (m) = manual integration
0430Y005.D YMEE0430.M Wed May 01 09:22:23 2019 Page 1

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y005.D Vial: 5
Acq On : 30 Apr 19 10:13 Operator: MA
Sample : 200ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y006.D Vial: 6
Acq On : 30 Apr 19 10:37 Operator: MA
Sample : 400ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:44:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 181654 | 40.00000 ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 797784 | 40.00000 ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 446801 | 40.00000 ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 742976 | 40.00000 ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.38 | 240 | 658989 | 40.00000 ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 628149 | 40.00000 ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.25 | 45 | 307070 | 534.23860 ppb | 99 |

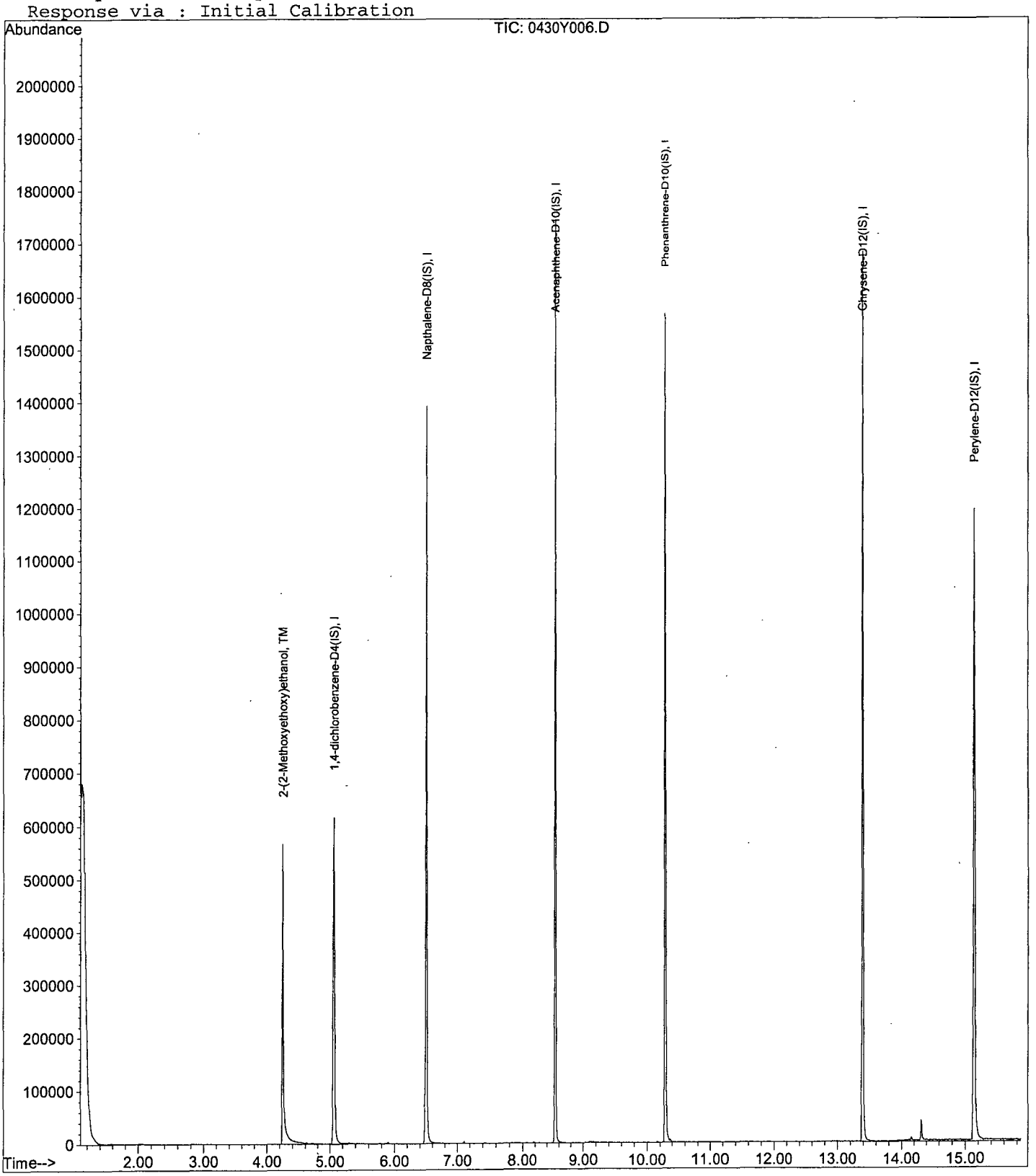
(#) = qualifier out of range (m) = manual integration
0430Y006.D YMEE0430.M Wed May 01 09:22:27 2019 Page 1

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y006.D Vial: 6
Acq On : 30 Apr 19 10:37 Operator: MA
Sample : 400ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y007.D Vial: 7
Acq On : 30 Apr 19 11:00 Operator: MA
Sample : 500ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:44:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 165959 | 40.00000 ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 714594 | 40.00000 ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 398927 | 40.00000 ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 678369 | 40.00000 ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.38 | 240 | 607331 | 40.00000 ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.14 | 264 | 593257 | 40.00000 ppb | 0.00 |
| System Monitoring Compounds | | | | | |
| Target Compounds | | | | | Qvalue |
| 2) 2-(2-Methoxyethoxy)ethanol | 4.25 | 45 | 356062 | 678.05928 ppb | 100 |

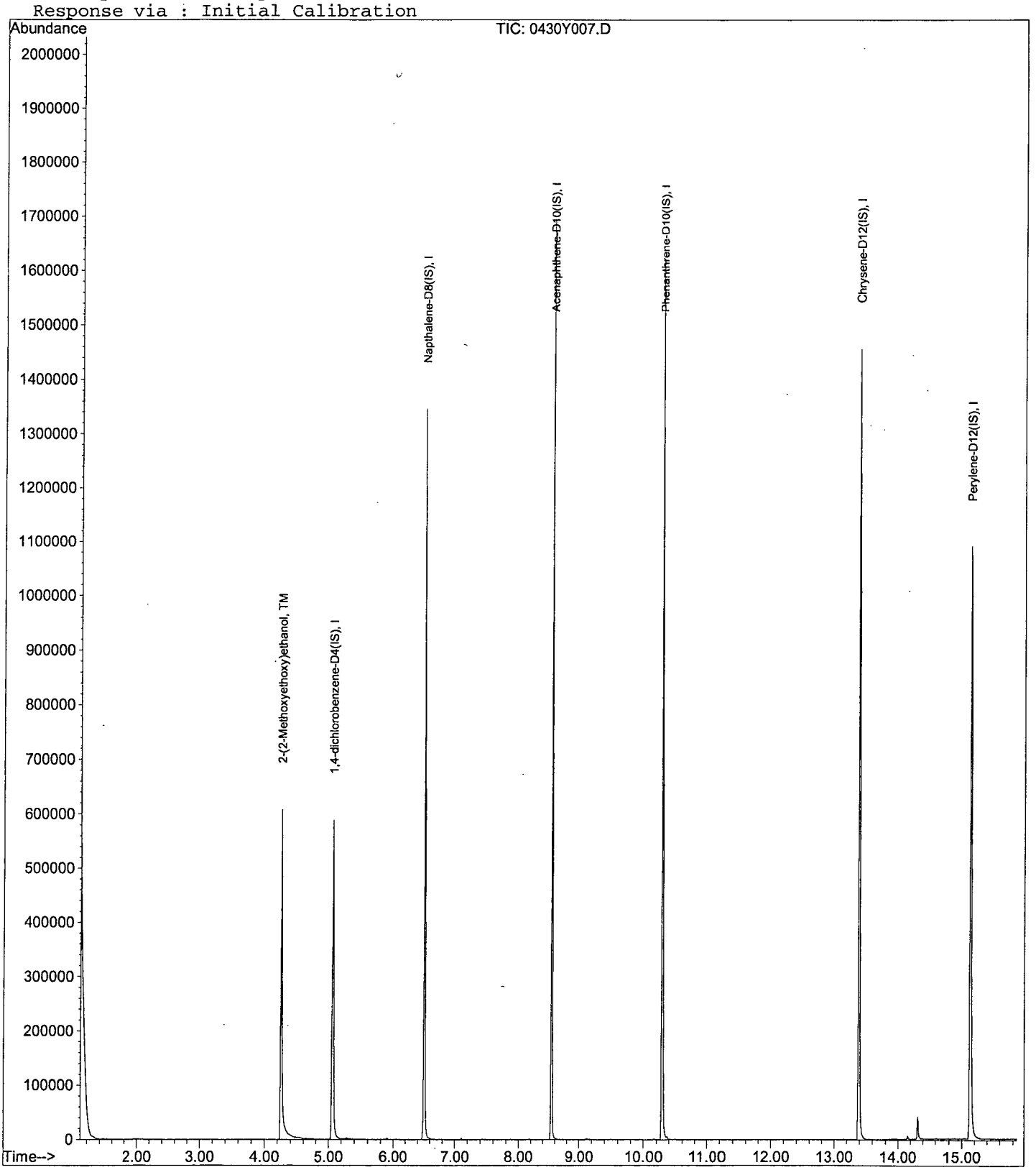
(#) = qualifier out of range (m) = manual integration
0430Y007.D YMEE0430.M Wed May 01 09:22:31 2019 Page 1

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y007.D Vial: 7
Acq On : 30 Apr 19 11:00 Operator: MA
Sample : 500ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y008.D Vial: 8
Acq On : 30 Apr 19 11:23 Operator: MA
Sample : 600ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:44:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 192050 | 40.00000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 832030 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 456909 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 771492 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.38 | 240 | 686371 | 40.00000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 672431 | 40.00000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.26 | 45 | 435053 | 715.93023 | ppb | 98 |

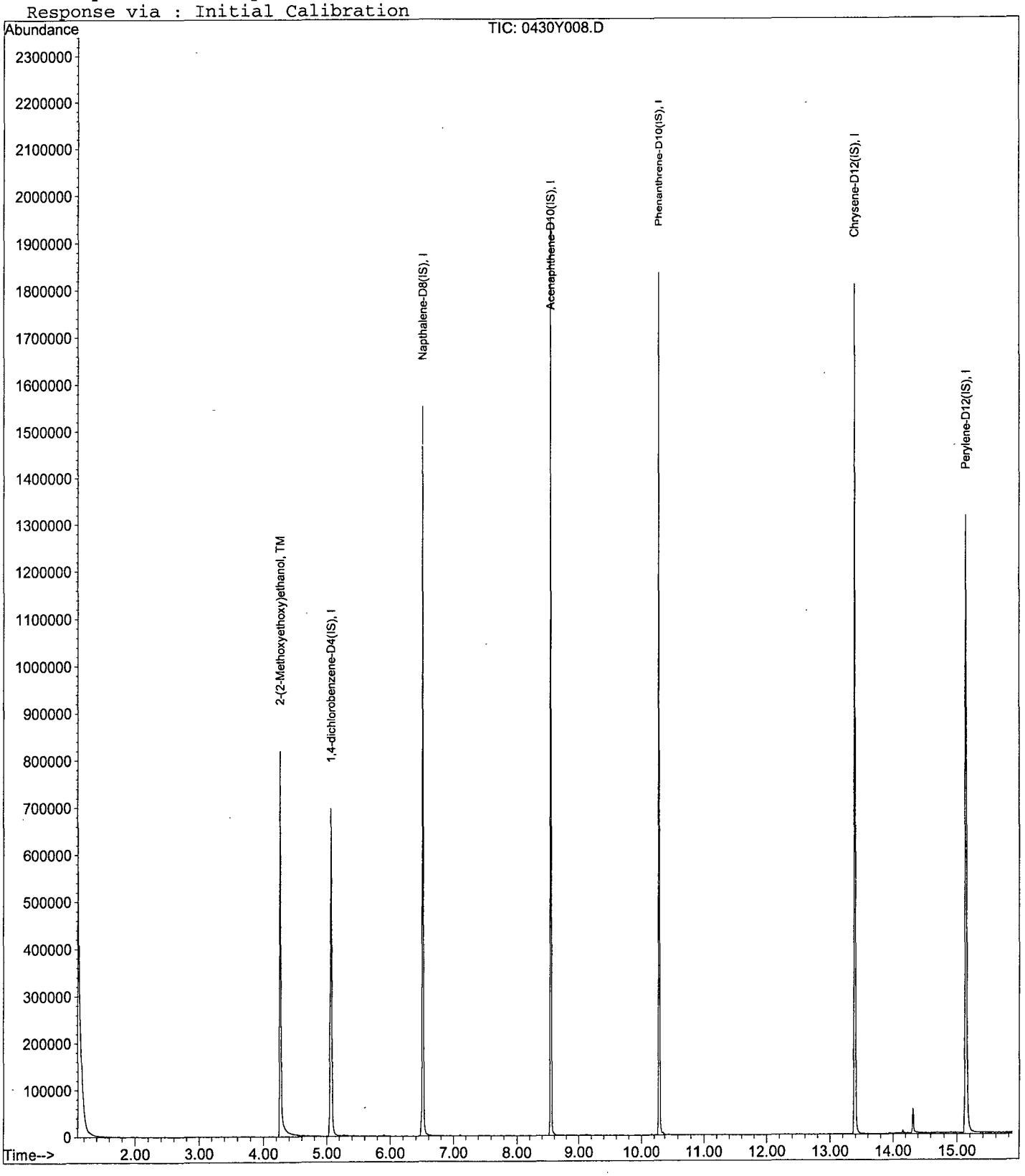
(#) = qualifier out of range (m) = manual integration
0430Y008.D YMEE0430.M Wed May 01 09:22:35 2019 Page 1

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y008.D Vial: 8
Acq On : 30 Apr 19 11:23 Operator: MA
Sample : 600ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y009.D Vial: 9
Acq On : 30 Apr 19 11:47 Operator: MA
Sample : 800ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:48 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:44:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 177494 | 40.00000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 809241 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 446680 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 765580 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.38 | 240 | 677822 | 40.00000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 648459 | 40.00000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.26 | 45 | 596711 | 1062.48599 | ppb | 99 |

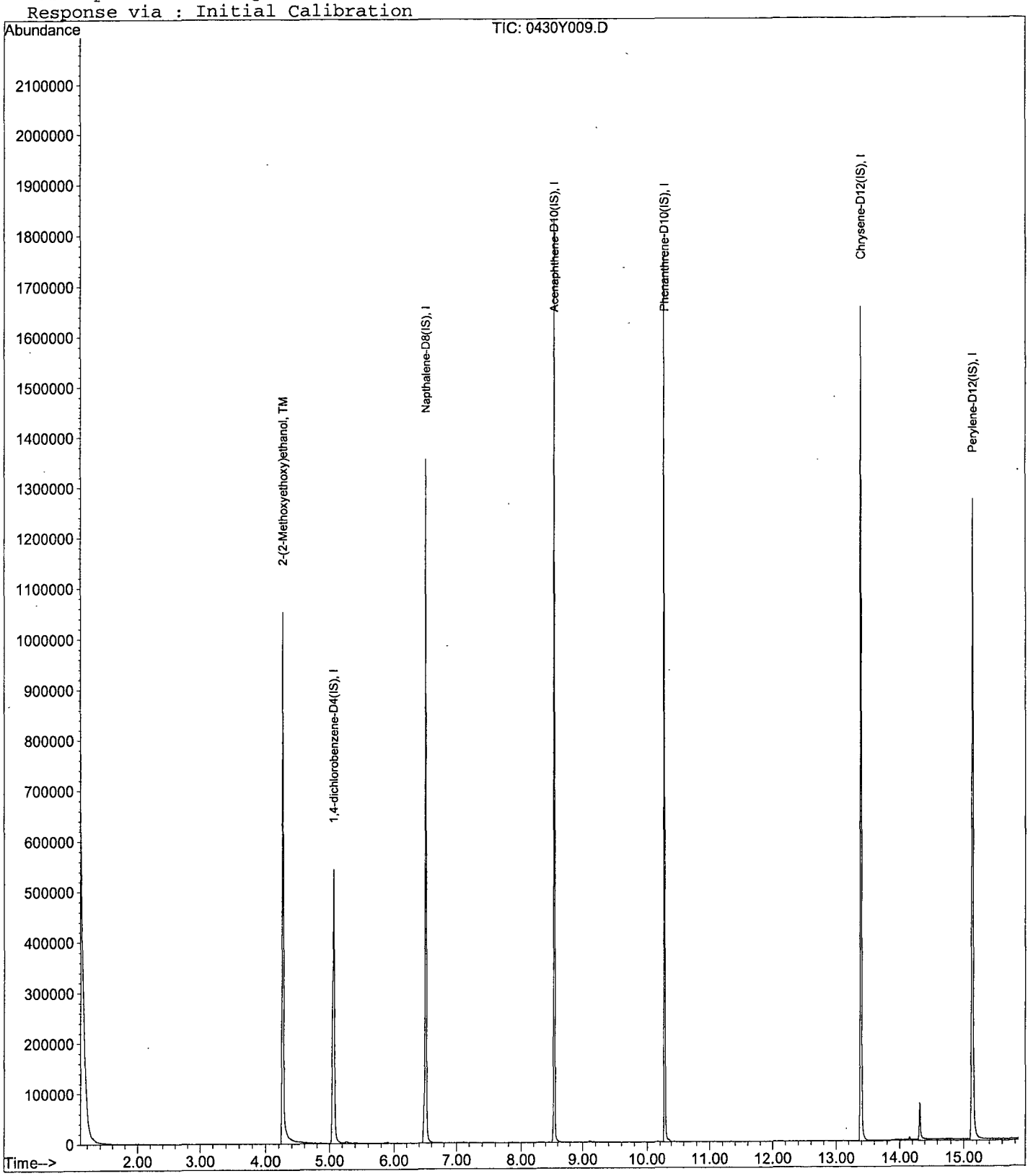
(#) = qualifier out of range (m) = manual integration
0430Y009.D YMEE0430.M Wed May 01 09:22:39 2019 Page 1

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y009.D Vial: 9
Acq On : 30 Apr 19 11:47 Operator: MA
Sample : 800ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:48 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y010.D Vial: 10
Acq On : 30 Apr 19 12:10 Operator: MA
Sample : 1000ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 12:15 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:49:24 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 194543 | 40.00000 ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 824746 | 40.00000 ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 455154 | 40.00000 ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.29 | 188 | 763926 | 40.00000 ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 675051 | 40.00000 ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 668405 | 40.00000 ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.29 | 45 | 764768 | 949.70790 ppb | 98 |

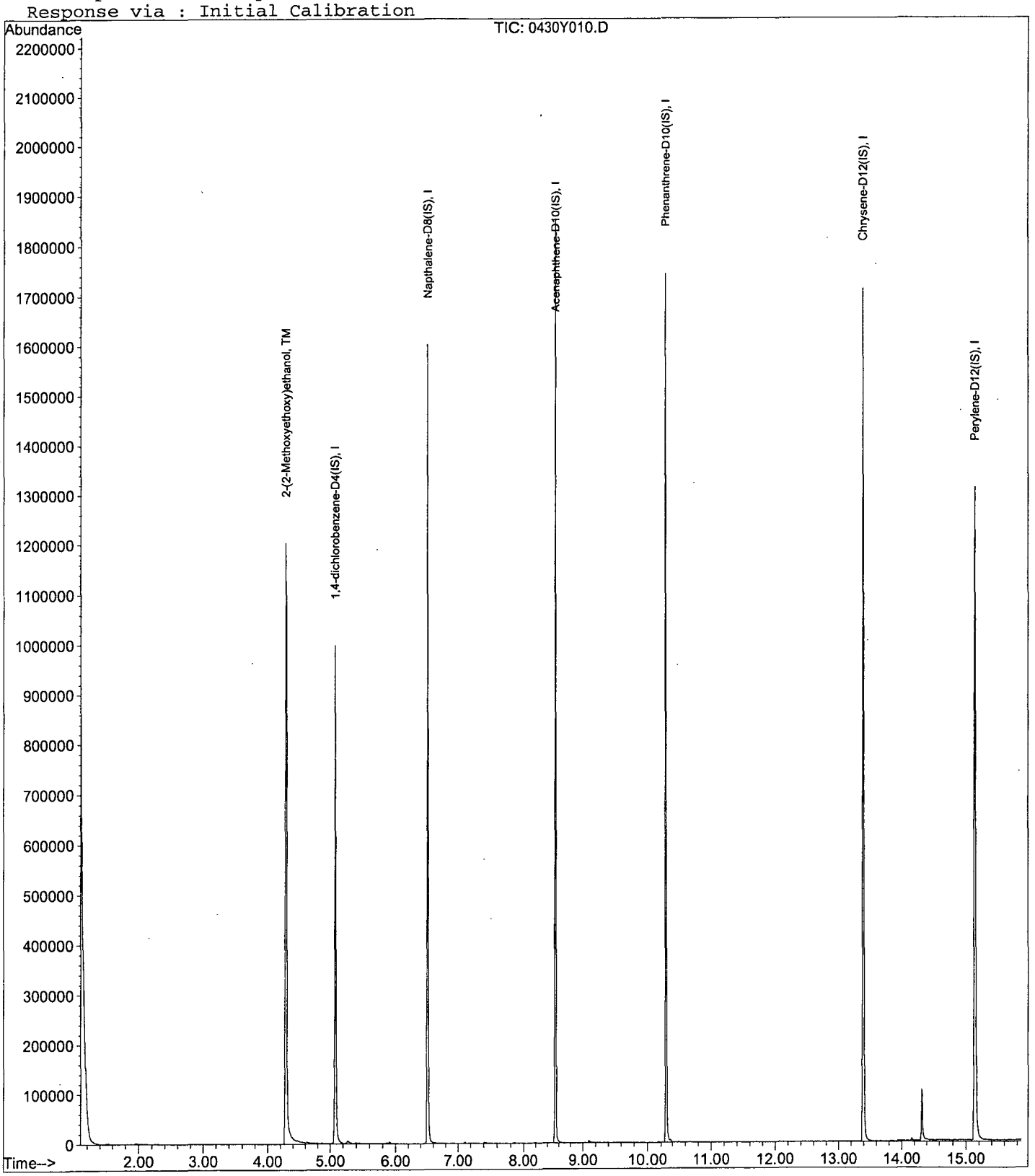
(#) = qualifier out of range (m) = manual integration
0430Y010.D YMEE0430.M Wed May 01 09:22:42 2019 Page 1

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y010.D Vial: 10
Acq On : 30 Apr 19 12:10 Operator: MA
Sample : 1000ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 12:15 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

# Second Source Calibration

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

SDG No:
Date Analyzed: 04/30/19
Instrument: Yoda
Initial Cal. Date: 04/30/19
Data File: 0430Y011.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | TML | 2-(2-Methoxyethoxy)ethanol | 0.1412 | 0.1842 | 30 | TML | 16 |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
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| 9 | | | | | | | |
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| 26 | | | | | | | |
| 27 | | | | | | | |
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| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 30.0 | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y011.D Vial: 11
Acq On : 30 Apr 19 13:30 Operator: MA
Sample : SS ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 13:31 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 176322 | 40.00000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 756659 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 427777 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 702800 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 636036 | 40.00000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.14 | 264 | 617157 | 40.00000 | ppb | 0.00 |

System Monitoring Compounds

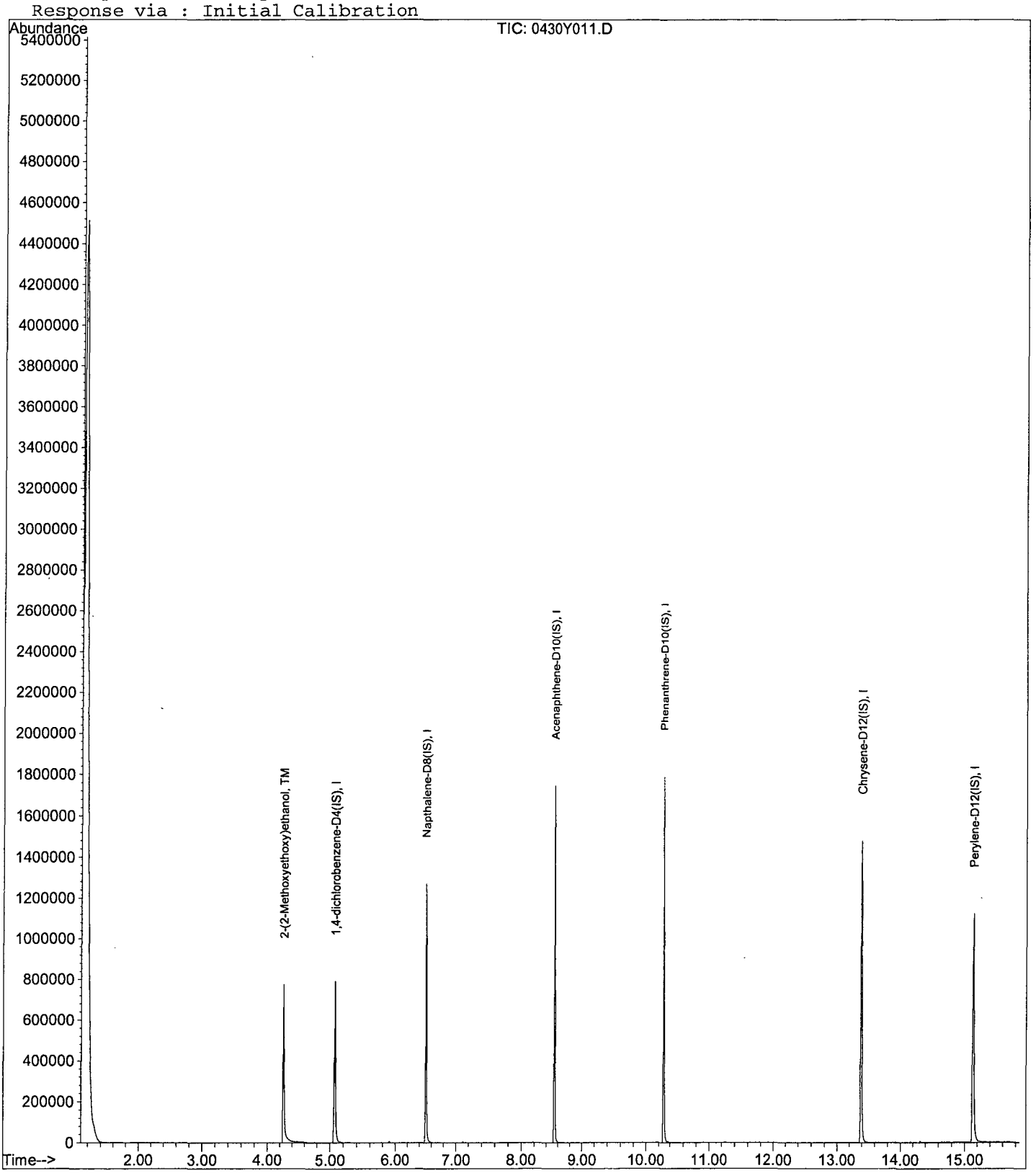
| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.26 | 45 | 406011 | 577.68332 | ppb | 99 |

(#) = qualifier out of range (m) = manual integration
0430Y011.D YMEE0430.M Wed May 01 09:22:46 2019 Page 1

Data File : M:\YODA\DATA\Y190430M\0430Y011.D Vial: 11
Acq On : 30 Apr 19 13:30 Operator: MA
Sample : SS ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 13:31 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

# Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/30/19
Instrument: Yoda
Initial Cal. Date: 04/30/19
Data File: 0430Y037.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-dichlorobenzene-D4(IS) | ISTD | | | I | |
| 2 | TML | 2-(2-Methoxyethoxy)ethanol | 0.1412 | 0.1831 | 30 | TML | 15 |
| 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 | | | | | | | |
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| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 30.0 | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y037.D Vial: 37
Acq On : 30 Apr 19 23:38 Operator: MA
Sample : 500ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:39 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 148022 | 40.00000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 650008 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 364717 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 610351 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 544837 | 40.00000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 526754 | 40.00000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.28 | 45 | 338753 | 574.29385 | ppb | 97 |

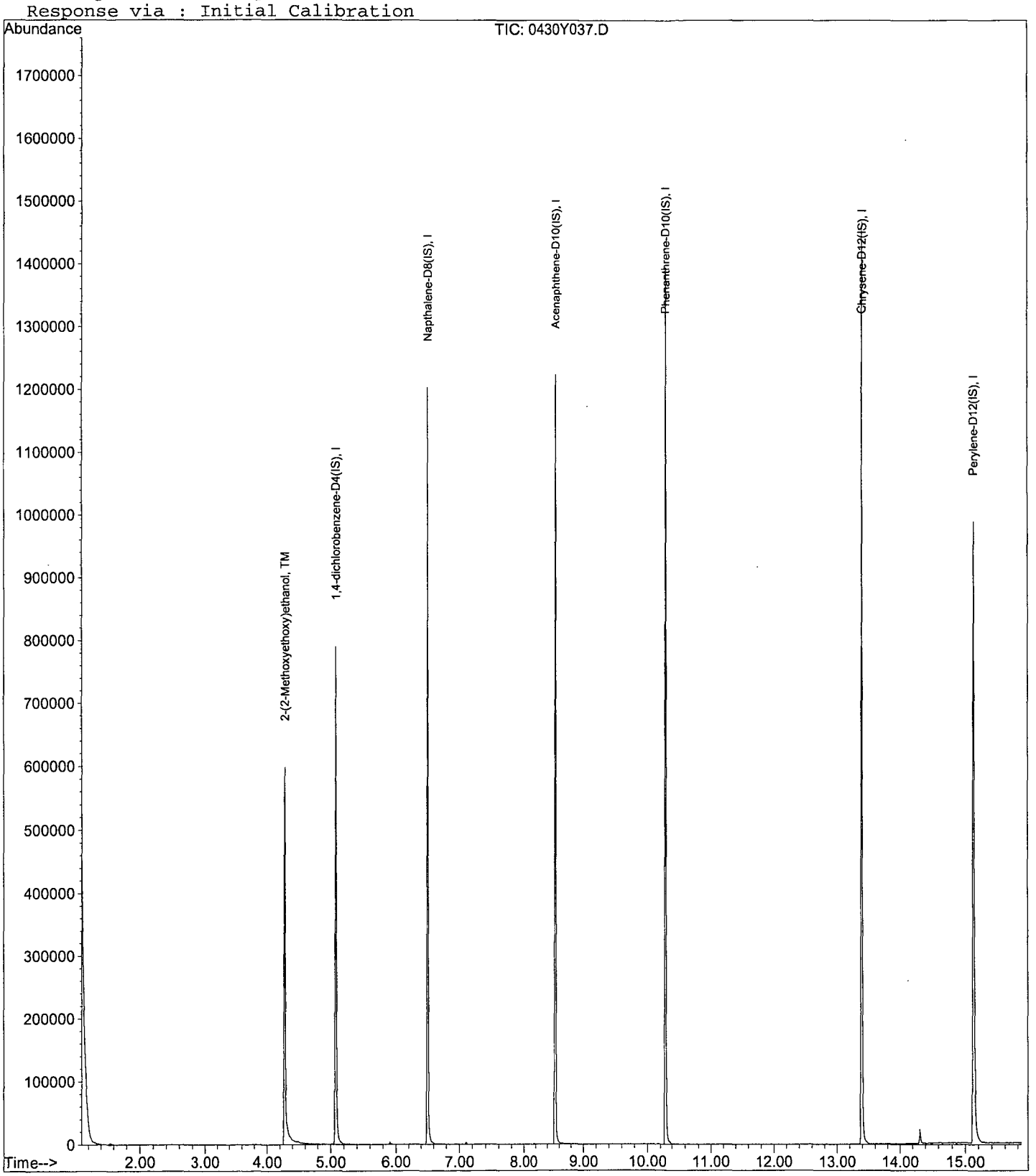
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y037.D Vial: 37
Acq On : 30 Apr 19 23:38 Operator: MA
Sample : 500ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:39 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



# ORGANICS
# Raw Data

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y016.D Vial: 16
Acq On : 30 Apr 19 15:24 Operator: MA
Sample : AZ89958W24 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 127841 | 40.0000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 583686 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 357283 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 610524 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.38 | 240 | 517750 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 500221 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

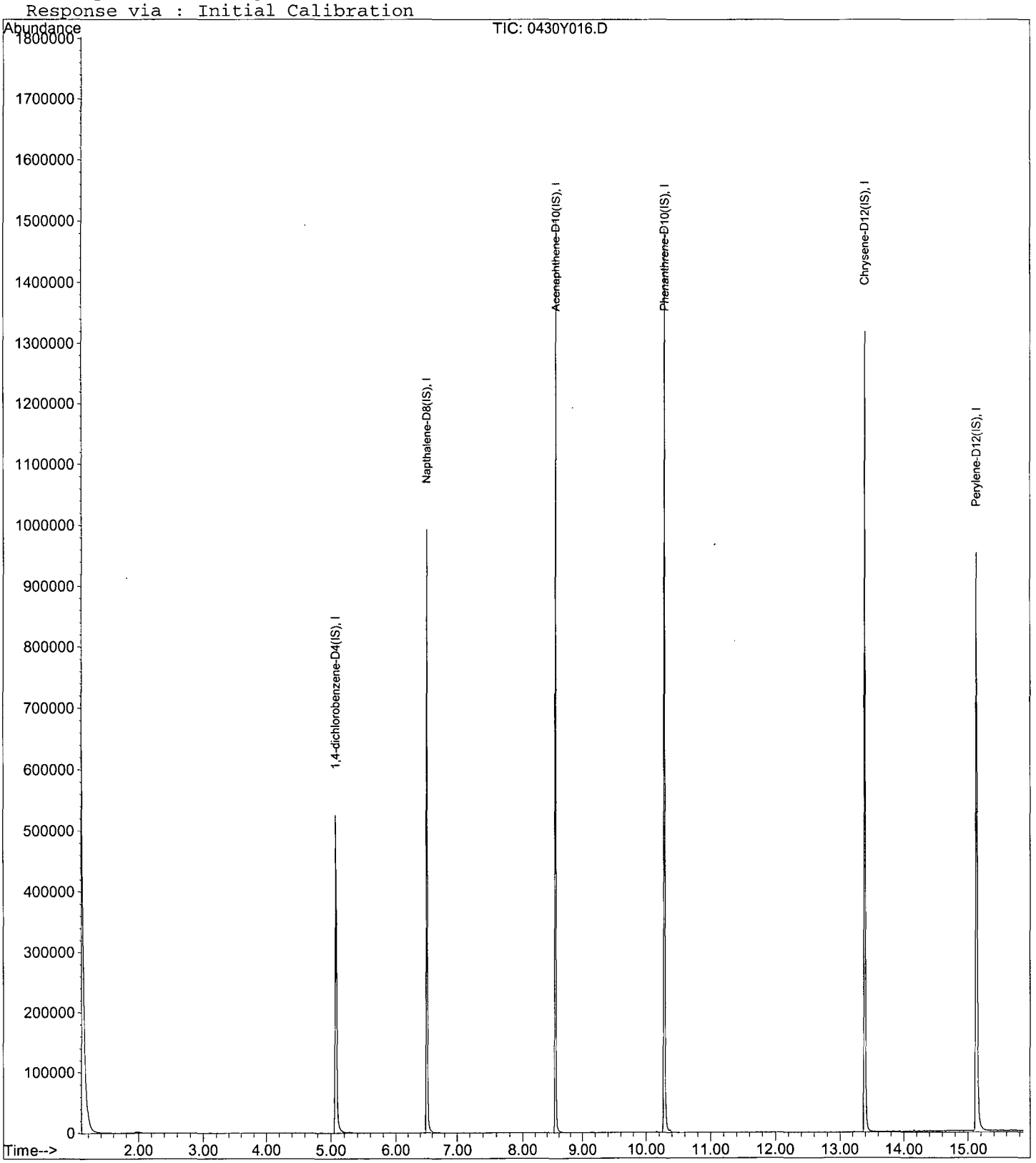
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y016.D Vial: 16
Acq On : 30 Apr 19 15:24 Operator: MA
Sample : AZ89958W24 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y017.D Vial: 17
Acq On : 30 Apr 19 15:48 Operator: MA
Sample : AZ89959W06 2/480 Inst : Yoda
Misc : soil Multiplr: 1.04

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 141695 | 40.0000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 648715 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 405253 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 711933 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 613669 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.14 | 264 | 748939 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

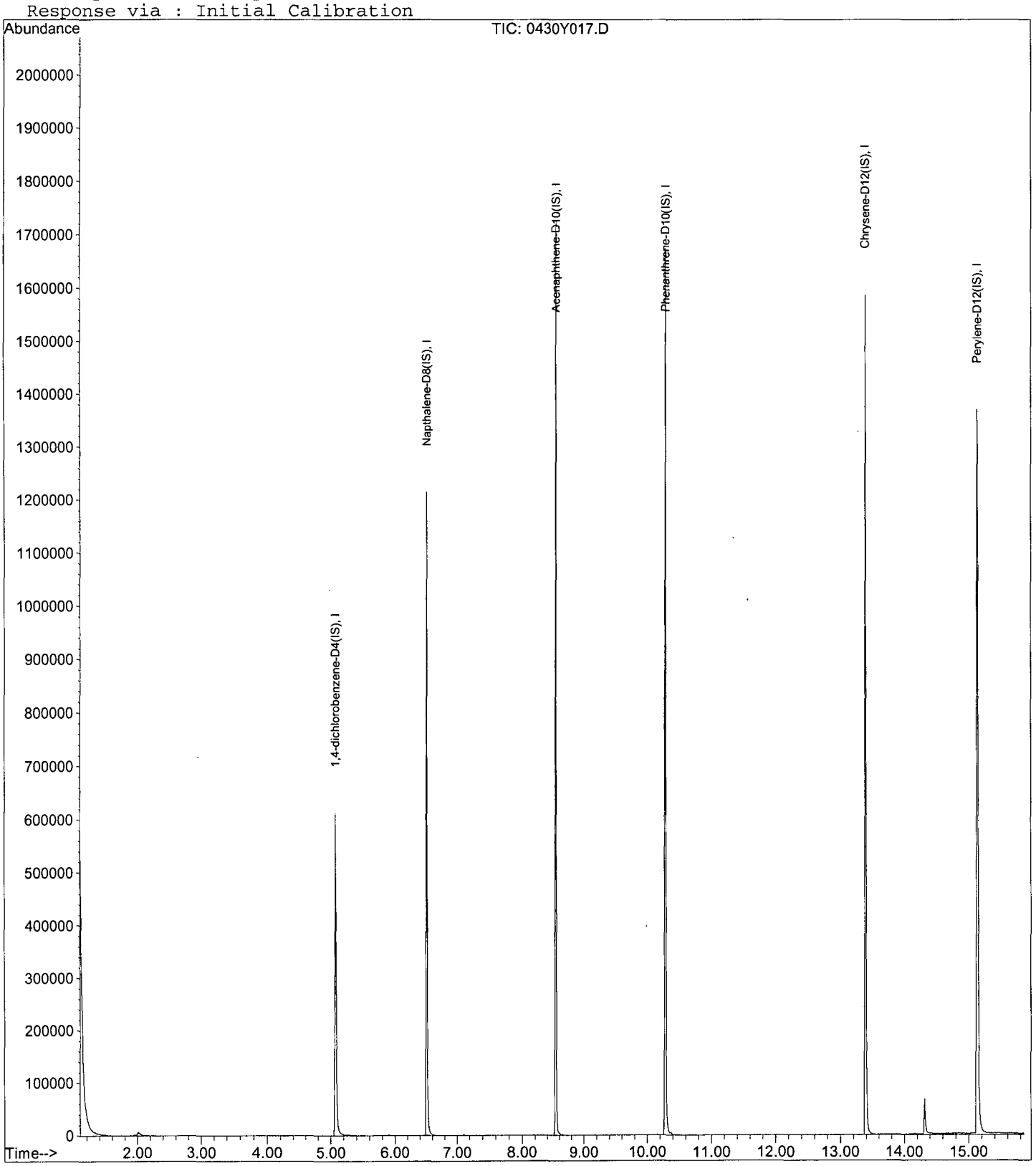
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y017.D Vial: 17
Acq On : 30 Apr 19 15:48 Operator: MA
Sample : AZ89959W06 2/480 Inst : Yoda
Misc : soil Multiplr: 1.04

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y018.D Vial: 18
Acq On : 30 Apr 19 16:11 Operator: MA
Sample : AZ89961W22 2/510 Inst : Yoda
Misc : soil Multiplr: 0.98

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 171139 | 40.0000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 757111 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 431252 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 730858 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 642301 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 614582 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

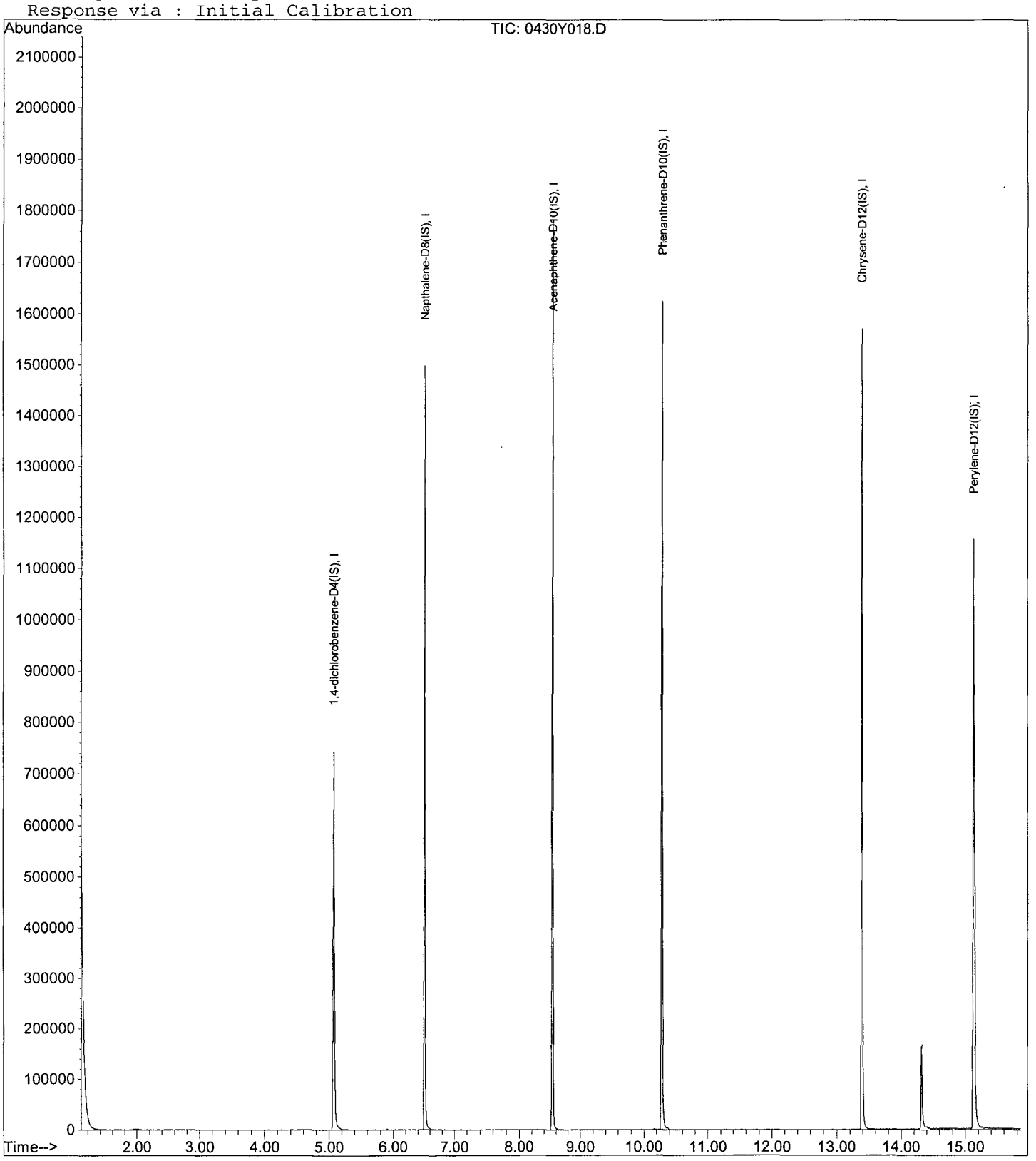
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y018.D Vial: 18
Acq On : 30 Apr 19 16:11 Operator: MA
Sample : AZ89961W22 2/510 Inst : Yoda
Misc : soil Multiplr: 0.98

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y013.D Vial: 13
Acq On : 30 Apr 19 14:13 Operator: MA
Sample : 190429A BLK 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 15:16 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 144443 | 40.0000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 680229 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 444226 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 771508 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 661861 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.14 | 264 | 641475 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

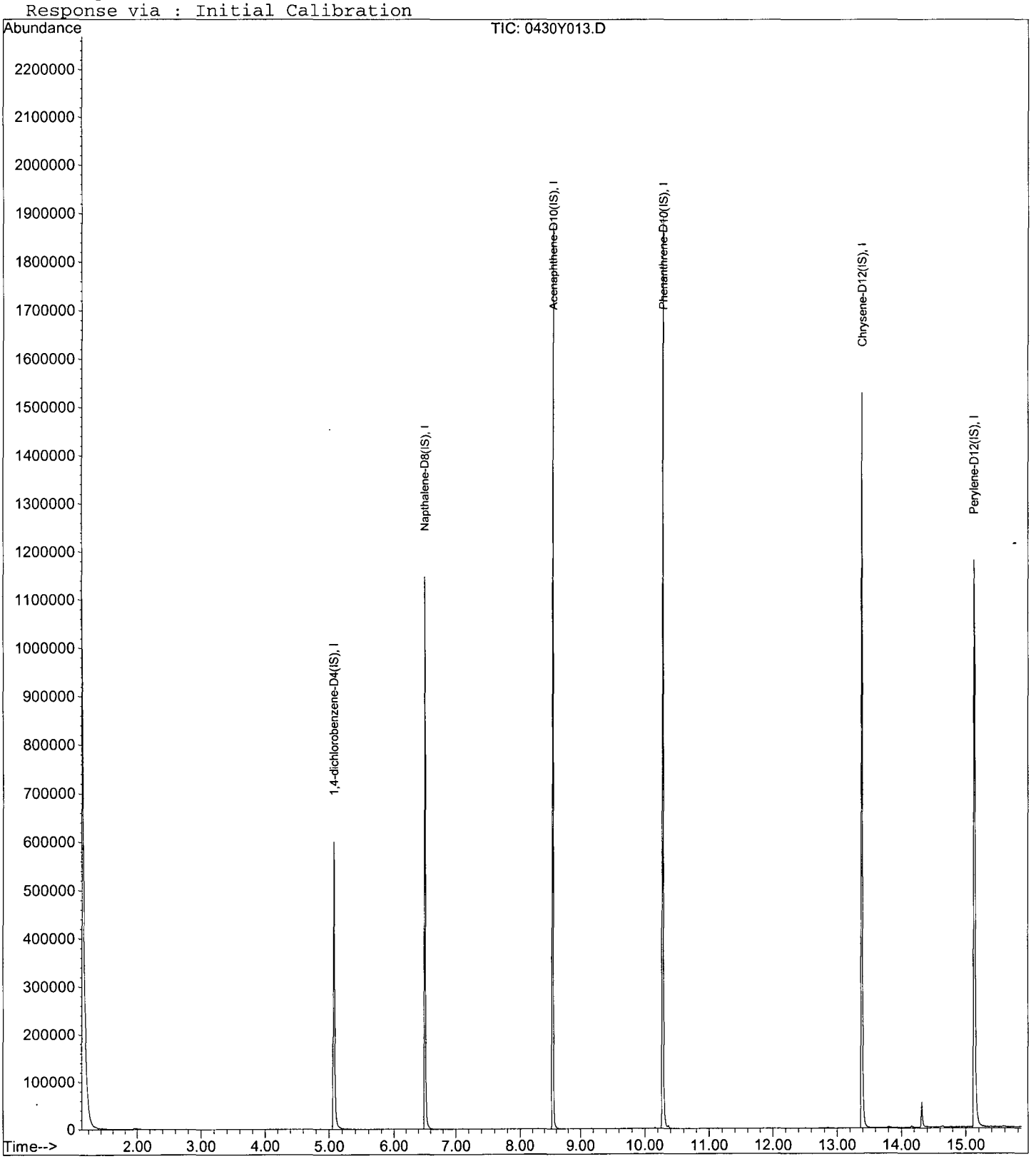
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y013.D Vial: 13
Acq On : 30 Apr 19 14:13 Operator: MA
Sample : 190429A BLK 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 15:16 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y014.D Vial: 14
Acq On : 30 Apr 19 14:37 Operator: MA
Sample : 190429A LCS-1 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 15:16 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 137259 | 40.0000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 622694 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 381830 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.29 | 188 | 657938 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 540582 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 562285 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.34 | 45 | 38771 | 93.3025 | ppb | 98 |

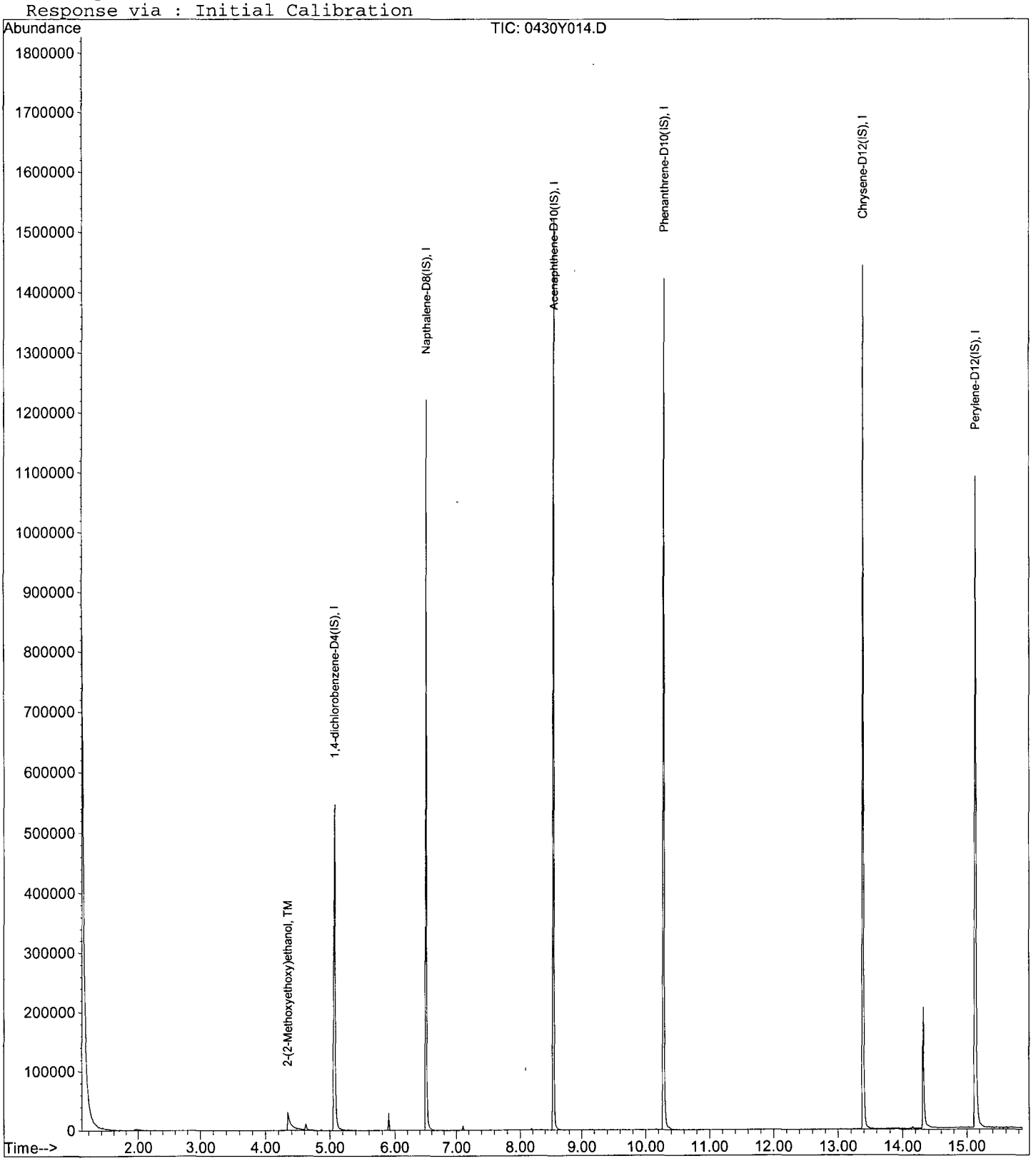
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y014.D Vial: 14
Acq On : 30 Apr 19 14:37 Operator: MA
Sample : 190429A LCS-1 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 15:16 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y015.D Vial: 15
Acq On : 30 Apr 19 15:01 Operator: MA
Sample : 190429A LCSD-1 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 15:16 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 114459 | 40.0000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 589204 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 427518 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 743005 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 629015 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 587575 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.34 | 45 | 47160 | 124.3667 | ppb | 97 |

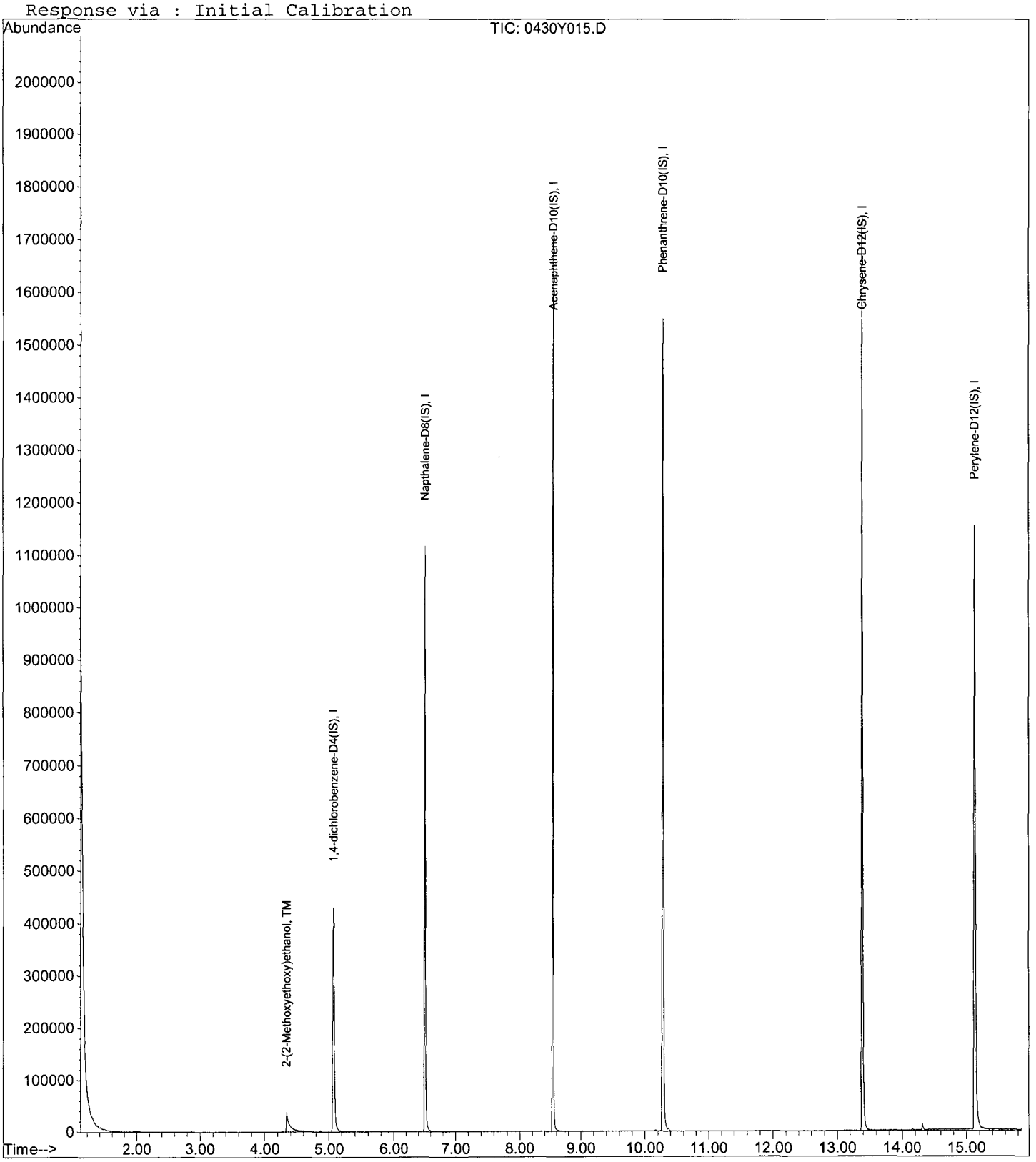
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y015.D Vial: 15
Acq On : 30 Apr 19 15:01 Operator: MA
Sample : 190429A LCSD-1 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 15:16 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y019.D Vial: 19
Acq On : 30 Apr 19 16:35 Operator: MA
Sample : AZ89958W23 MS-1 2/510 Inst : Yoda
Misc : soil Multiplr: 0.98

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 142268 | 40.0000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 661057 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 389690 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 667623 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 582781 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 693933 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.35 | 45 | 35178 | 83.1984 | ppb | 99 |

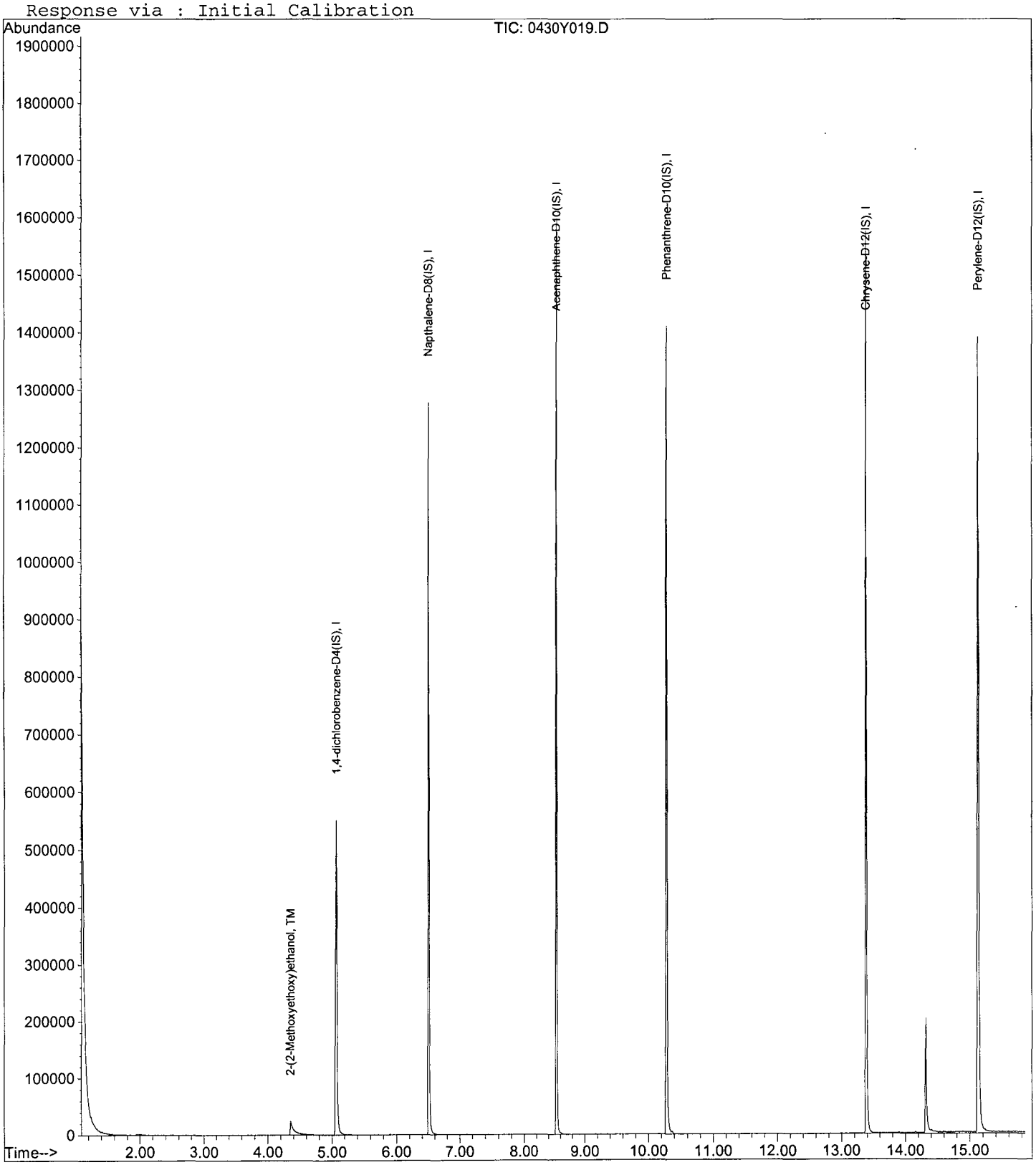
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y019.D Vial: 19
Acq On : 30 Apr 19 16:35 Operator: MA
Sample : AZ89958W23 MS-1 2/510 Inst : Yoda
Misc : soil Multiplr: 0.98

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y020.D Vial: 20
Acq On : 30 Apr 19 16:59 Operator: MA
Sample : AZ89958W22 MSD-1 2/510 Inst : Yoda
Misc : soil Multiplr: 0.98

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 152595 | 40.0000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 682237 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 419331 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.29 | 188 | 716458 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 616299 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 579003 | 40.0000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 2-(2-Methoxyethoxy)ethanol | 4.33 | 45 | 43425 | 91.9690 | ppb | 96 |

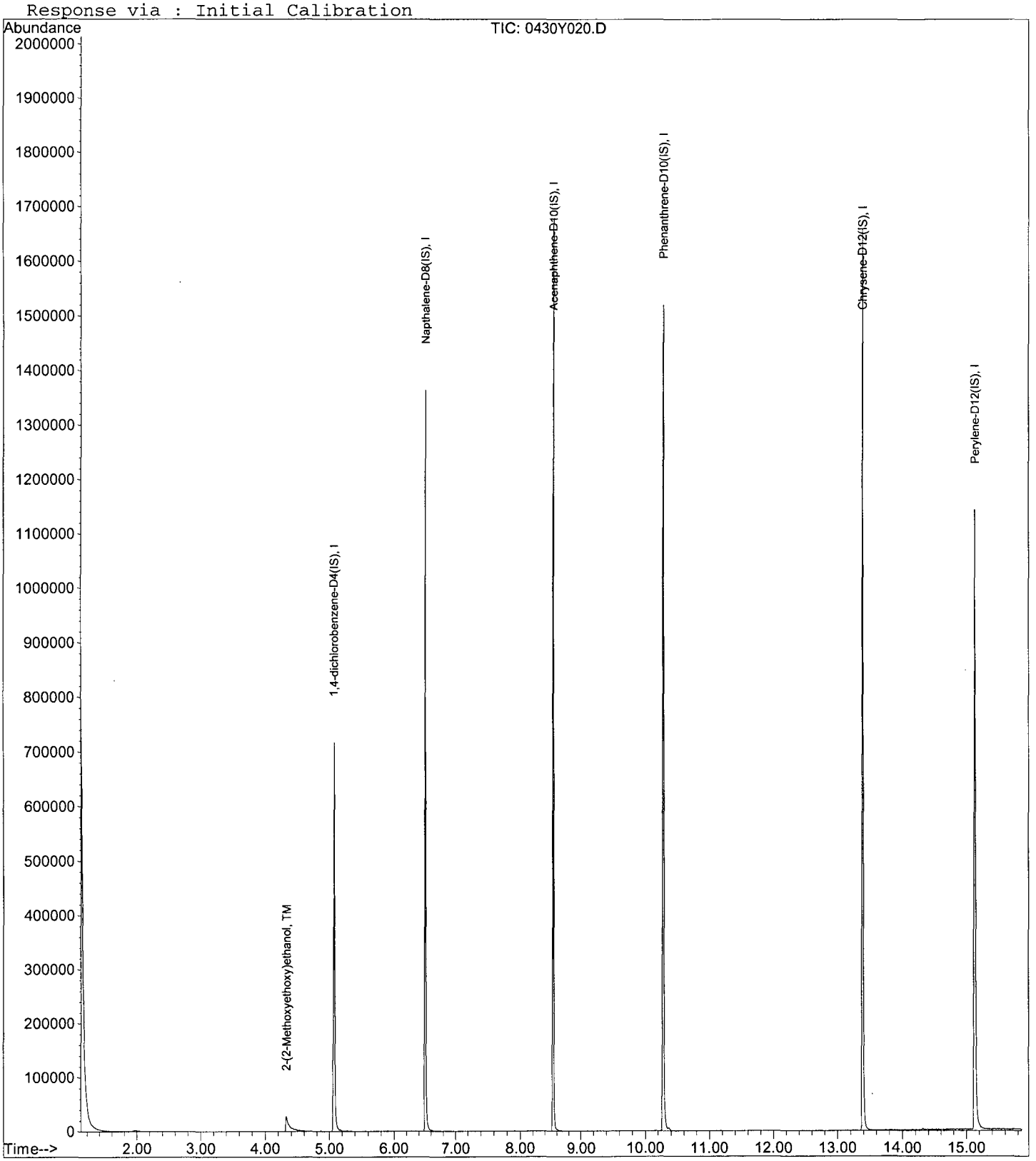
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y020.D Vial: 20
Acq On : 30 Apr 19 16:59 Operator: MA
Sample : AZ89958W22 MSD-1 2/510 Inst : Yoda
Misc : soil Multiplr: 0.98

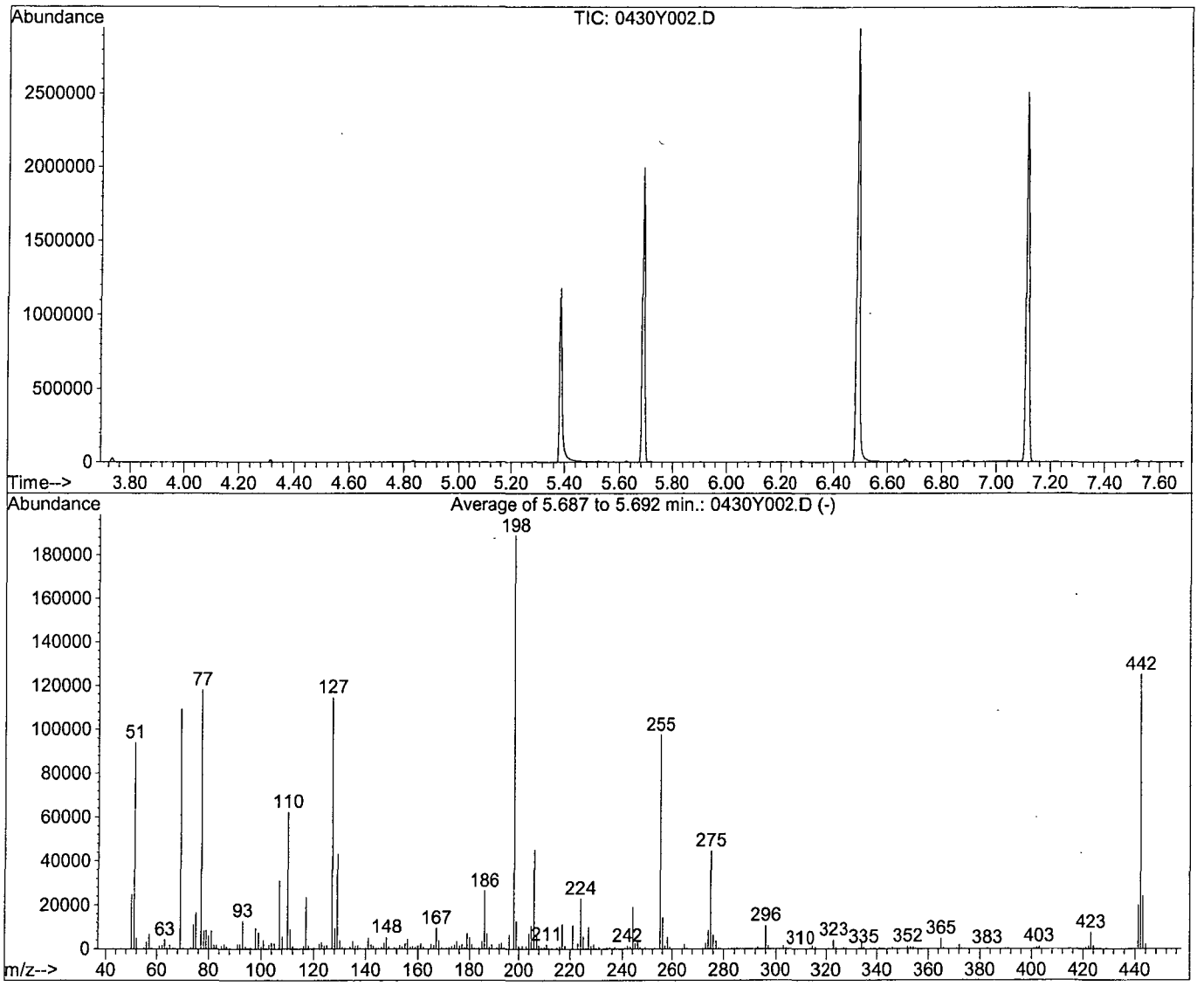
Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y190430M\0430Y002.D  Vial: 2
Acq On : 30 Apr 19 9:12  Operator: MA
Sample : SV Tune 03/07/18  Inst : Yoda
Misc :  Multiplr: 1.00

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C




AutoFind: Scans 841, 842, 843; Background Corrected with Scan 833

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 49.7 | 93941 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.3 | 275 | PASS |
| 127 | 198 | 10 | 80 | 60.7 | 114675 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 189013 | PASS |
| 199 | 198 | 5 | 9 | 6.7 | 12705 | PASS |
| 275 | 198 | 10 | 60 | 23.7 | 44776 | PASS |
| 365 | 198 | 1 | 100 | 2.5 | 4785 | PASS |
| 441 | 442 | 0.01 | 24 | 16.0 | 20059 | PASS |
| 442 | 198 | 50 | 150 | 66.3 | 125365 | PASS |
| 443 | 442 | 15 | 24 | 19.3 | 24168 | PASS |

| | |
|---|---|
| Data File Name: | **0430Y002.D** |
| Data File Path: | **M:\YODA\DATA\Y190430M** |
| Operator: | **MA** |
| Date Acquired: | **30 Apr 2019 09:12** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV Tune 03/07/18** |
| Vial Number: | **2** |
| Instrument Name: | **Yoda** |

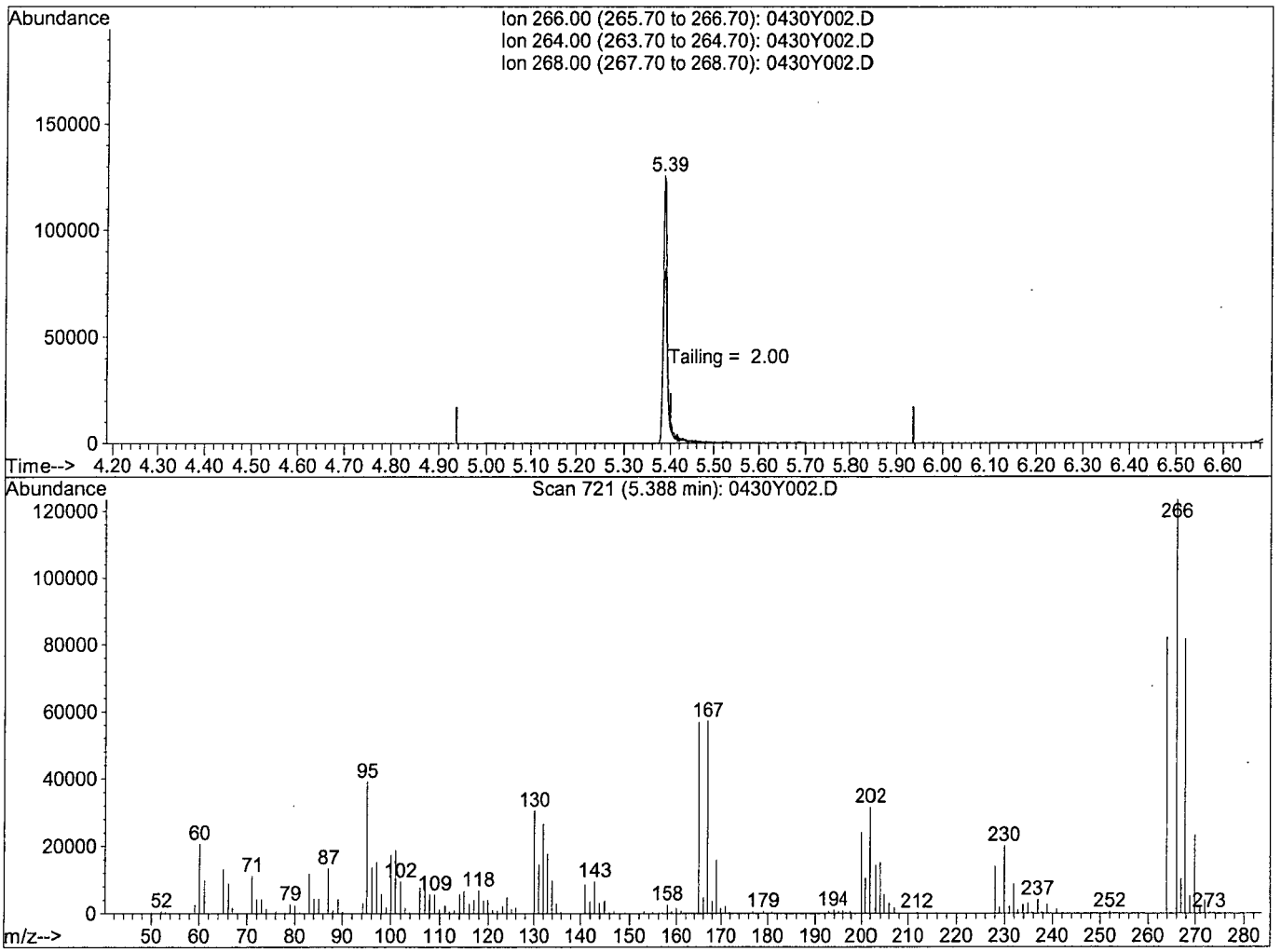
| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.08 | 19086100 |
| 2) | DDD | 6.75 | 104656 |
| 3) | DDE | 6.86 | 0 |

Breakdown **0.55**

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y002.D Vial: 2
Acq On : 30 Apr 19 9:12 Operator: MA
Sample : SV Tune 03/07/18 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Apr 30 9:33 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190430M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 22 13:05:57 2019
Response via : Single Level Calibration




TIC: 0430Y002.D

(5) Pentachlorophenol

5.39min 0.0000

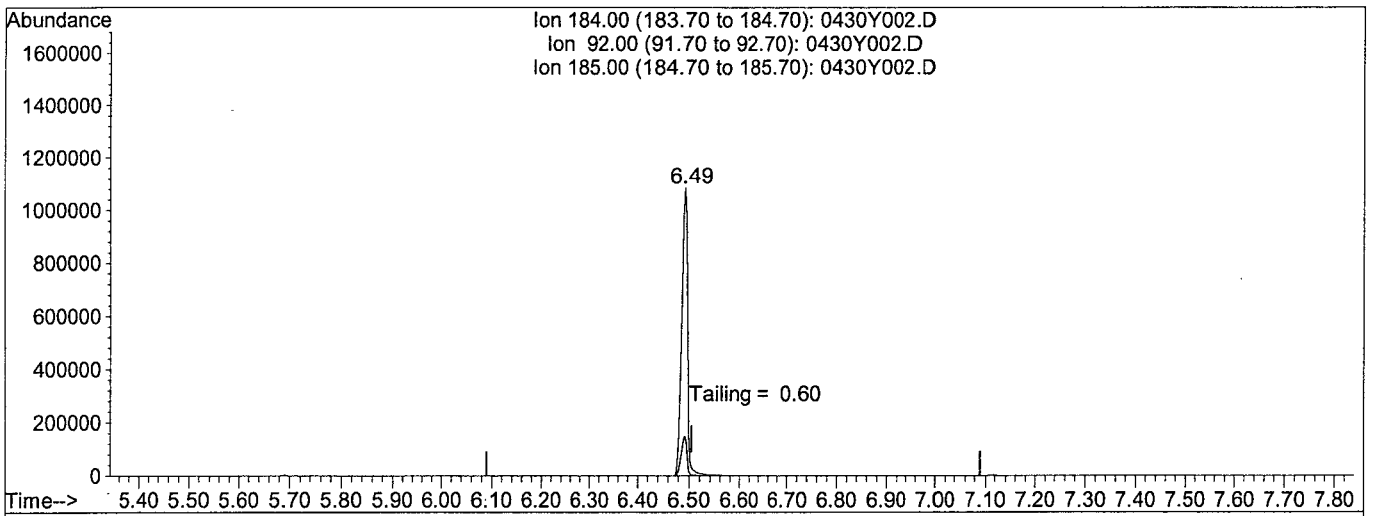
response 830307

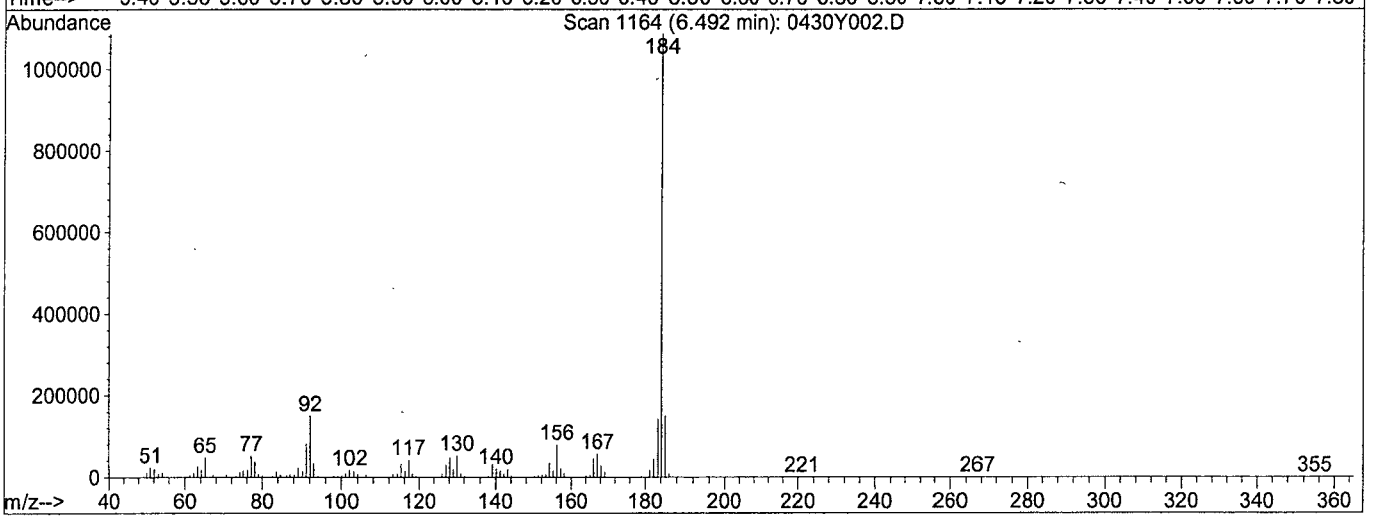
| Ion | Exp% | Act% |
|---|---|---|
| 266.00 | 100 | 100 |
| 264.00 | 61.20 | 61.48 |
| 268.00 | 65.20 | 62.81 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y002.D Vial: 2
Acq On : 30 Apr 19 9:12 Operator: MA
Sample : SV Tune 03/07/18 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Apr 30 9:33 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190430M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 22 13:05:57 2019
Response via : Single Level Calibration




TIC: 0430Y002.D

(6) Benzidine

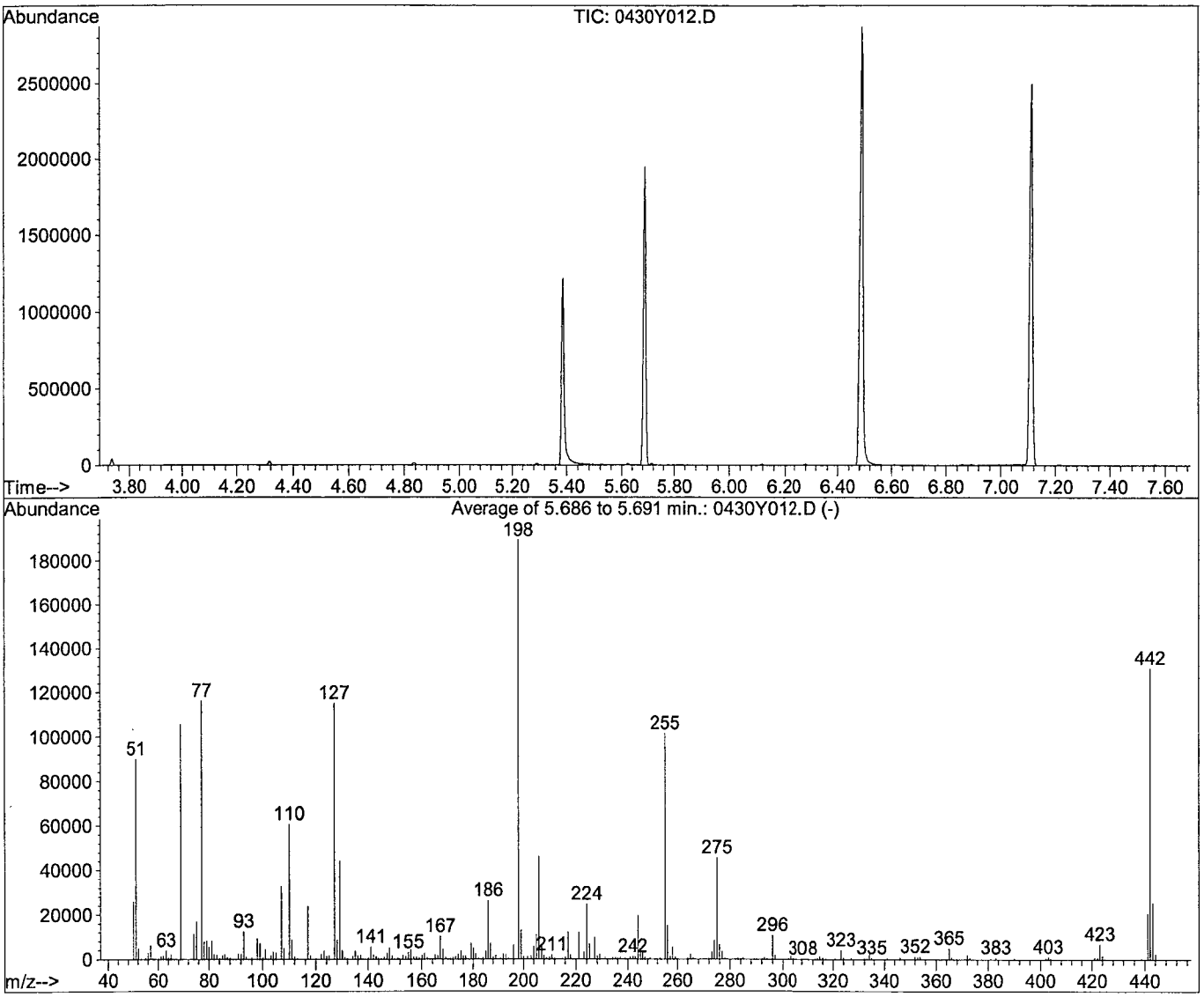
6.49min 0.0000

response 8412205

| Ion | Exp% | Act% |
|---|---|---|
| 184.00 | 100 | 100 |
| 92.00 | 13.60 | 13.24 |
| 185.00 | 14.10 | 13.47 |
| 0.00 | 0.00 | 0.00 |

Data File : M:\YODA\DATA\Y190430M\0430Y012.D Vial: 12
Acq On : 30 Apr 19 13:58 Operator: MA
Sample : SV Tune 03/07/18 Inst : Yoda
Misc : soil Multiplr: 1.00

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C




AutoFind: Scans 841, 842, 843; Background Corrected with Scan 833

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 47.4 | 89739 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.2 | 195 | PASS |
| 127 | 198 | 10 | 80 | 60.8 | 115021 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 189312 | PASS |
| 199 | 198 | 5 | 9 | 6.9 | 12995 | PASS |
| 275 | 198 | 10 | 60 | 24.1 | 45557 | PASS |
| 365 | 198 | 1 | 100 | 2.6 | 4955 | PASS |
| 441 | 442 | 0.01 | 24 | 15.7 | 20524 | PASS |
| 442 | 198 | 50 | 150 | 69.2 | 131056 | PASS |
| 443 | 442 | 15 | 24 | 19.4 | 25461 | PASS |

| | |
|---|---|
| Data File Name: | **0430Y012.D** |
| Data File Path: | **M:\YODA\DATA\Y190430M** |
| Operator: | **MA** |
| Date Acquired: | **30 Apr 2019 13:58** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV Tune 03/07/18** |
| Vial Number: | **12** |
| Instrument Name: | **Yoda** |

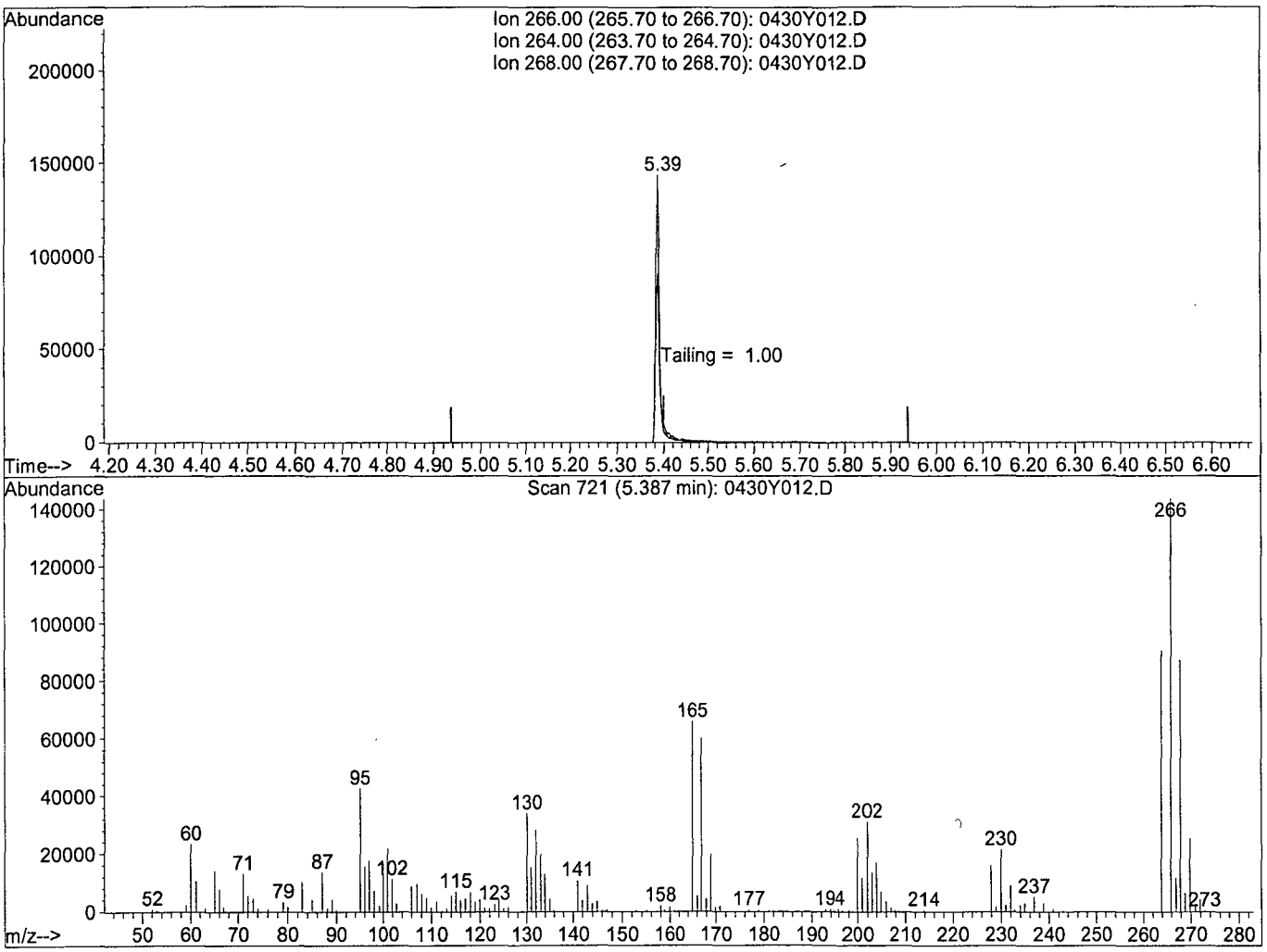
| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.08 | 18965500 |
| 2) | DDD | 6.75 | 0 |
| 3) | DDE | 6.86 | 0 |

Breakdown **0.00**

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y012.D Vial: 12
Acq On : 30 Apr 19 13:58 Operator: MA
Sample : SV Tune 03/07/18 Inst : Yoda
Misc : soil Multiplr: 1.00
Quant Time: Apr 30 15:14 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190430M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 22 13:05:57 2019
Response via : Single Level Calibration




TIC: 0430Y012.D

(5) Pentachlorophenol

5.39min 0.0000

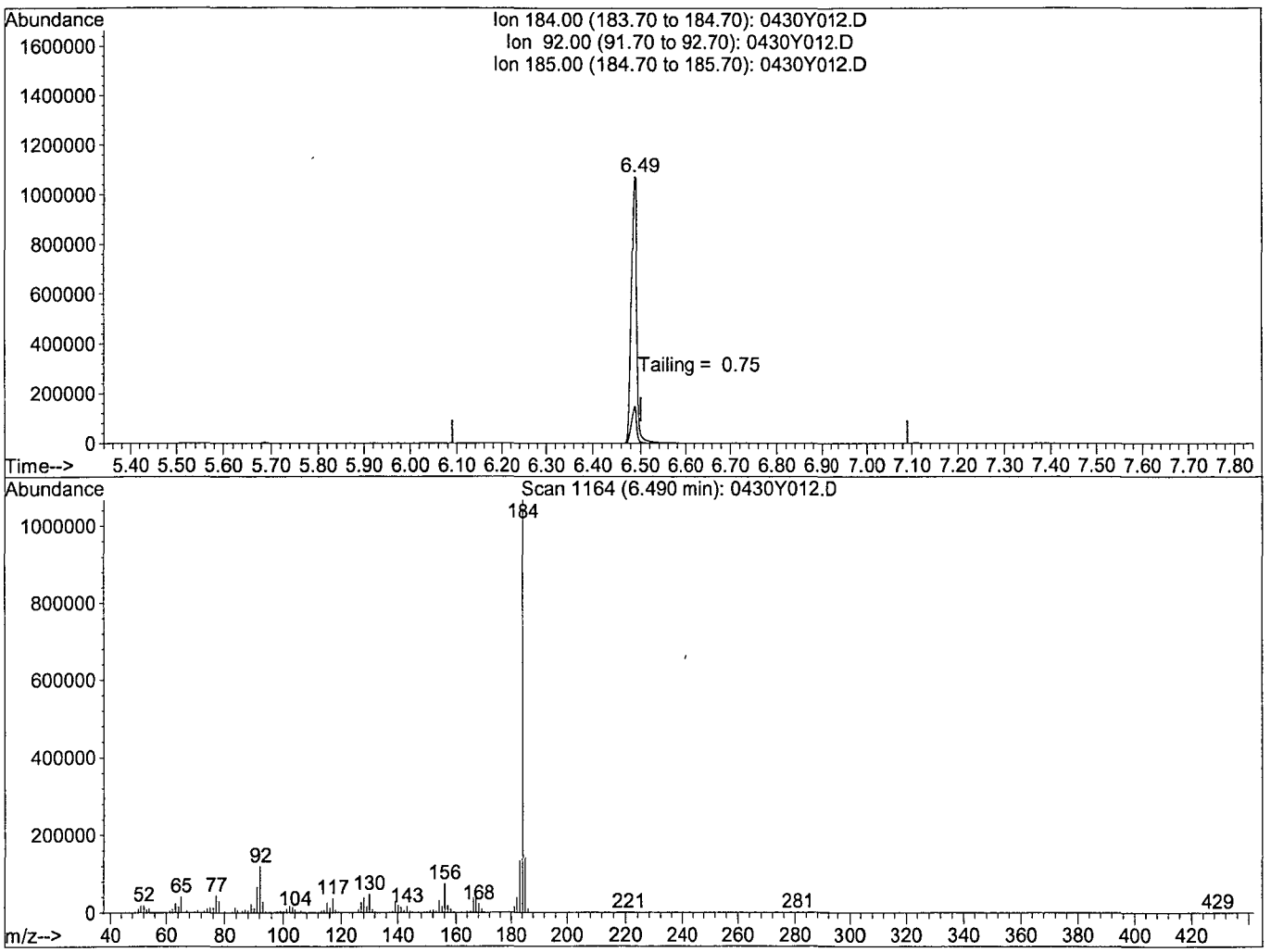
response 903595

| Ion | Exp% | Act% |
|---|---|---|
| 266.00 | 100 | 100 |
| 264.00 | 61.20 | 63.20 |
| 268.00 | 65.20 | 62.05 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y012.D Vial: 12
Acq On : 30 Apr 19 13:58 Operator: MA
Sample : SV Tune 03/07/18 Inst : Yoda
Misc : soil Multiplr: 1.00
Quant Time: Apr 30 15:14 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190430M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 22 13:05:57 2019
Response via : Single Level Calibration




TIC: 0430Y012.D

(6) Benzidine

6.49min 0.0000

response 8376584

| Ion | Exp% | Act% |
|---|---|---|
| 184.00 | 100 | 100 |
| 92.00 | 13.60 | 12.73 |
| 185.00 | 14.10 | 13.75 |
| 0.00 | 0.00 | 0.00 |

# Organic Extraction Worksheet

| Method | Solid Phase Extraction of 2MEE in Water | Extraction Set | 190429A | Extraction Method | MWE2MEE | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | Diethylene Glycol 1-31-19 EXP 1-31-20 | | Surrogate ID 1 | | |
| Spiked ID 2 | 2MEE SS 10320ug/mL 8-3-18 exp 8-3-19 | | 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 04/29/19 10:50 | |
| Spiked ID 8 | | | Ext. End Time: | 04/29/19 16:40 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | | | Water Bath Temp Criteria | |
| pH2 | | | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190429A Blk | | | | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | |
| 2 | 190429A LCS-1 | | 0.040 | 1 | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | |
| 3 | 190429A LCSD-1 | | 0.040 | 1 | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | |
| 4 | AZ89958 MS-1 | AZ89958W23 | 0.040 | 1 | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88687 |
| 5 | AZ89958 MSD-1 | AZ89958W22 | 0.040 | 1 | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88687 |
| 6 | AZ89958 | AZ89958W24 | | | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88687 |
| 7 | AZ89959 | AZ89959W06 | | | NA | NA equip | 480 | 2 | 7 | 04/29/19 10:50 | 88687 |
| 8 | AZ89961 | AZ89961W22 | | | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88687 |
| 9 | AZ90051 MS-1 | AZ90051W21 | 0.040 | 1 | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 10 | AZ90051 MSD-1 | AZ90051W25 | 0.040 | 1 | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 11 | AZ90051 | AZ90051W22 | | | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 12 | AZ90052 | AZ90052W05 | | | NA | NA equip | 505 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 13 | AZ90054 | AZ90054W16 | | | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 14 | AZ90056 | AZ90056W16 | | | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 15 | AZ90058 | AZ90058W17 | | | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 16 | AZ90060 | AZ90060W17 | | | NA | NA equip | 505 | 2 | 7 | 04/29/19 10:50 | 88701 |

| Solvent and Lot# | |
|---|---|
| ENVI-Carb Plus 400MG/1ML | . |
| Reverible Tube Lot: | 11225702 |
| PH Strip | HC 863463 |
| Di Water | 4-29-19 |
| Dichloromethane | 58240 |
| Methanol | 58179 |
| | |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | SS |
| Date | 4/30/19 |
| Time | 11:30 |
| Refrigerator | 6C-C |

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

| Modified | 04/29/19 2:46:49 PM |
|---|---|

**Reviewed By:** KW **Date** 4/30/19

# Organic Extraction Worksheet

| Method | Solid Phase Extraction of 2MEE in Water | Extraction Set | 190429A | Extraction Method | MWE2MEE | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | Diethylene Glycol 1-31-19 EXP 1-31-20 | | Surrogate ID 1 | | |
| Spiked ID 2 | 2MEE SS 10320ug/mL 8-3-18 exp 8-3-19 | | 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 04/29/19 10:50 | |
| Spiked ID 8 | | | Ext. End Time: | 04/29/19 16:40 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | | | Water Bath Temp Criteria | |
| pH2 | | | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | AZ90100 | AZ90100W17 | | | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88714 |
| 18 | AZ90102 | AZ90102W16 | | | NA | NA equip | 395 | 2 | 7 | 04/29/19 10:50 | 88714 |
| 19 | AZ90103 | AZ90103W04 | | | NA | NA equip | 250 | 2 | 7 | 04/29/19 10:50 | 88714 |
| 20 | AZ90105 | AZ90105W16 | | | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88714 |
| 21 | AZ90107 | AZ90107W16 | | | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88714 |
| 22 | AZ90109 | AZ90109W17 | | | NA | NA equip | 505 | 2 | 7 | 04/29/19 10:50 | 88714 |
| 23 | AZ90213 | AZ90213W15 | | | NA | NA equip | 505 | 2 | 7 | 04/29/19 10:50 | 88736 |
| 24 | AZ90215 | AZ90215W16 | | | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88736 |
| 25 | M STD | | 1 | 1 | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | |
| 26 | SS | | 0.097 | 2 | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | |

KY 4/30/19

| Solvent and Lot# | |
|---|---|
| ENVI-Carb Plus 400MG/1ML | |
| Reverible Tube Lot: | 11225702 |
| PH Strip | HC 863463 |
| Di Water | 4-29-19 |
| Dichloromethane | 58240 |
| Methanol | 58179 |
| | |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | |
| Date | |
| Time | |
| Refrigerator | |

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

| Modified | 04/29/19 2:46:49 PM |
|---|---|

**Reviewed By:** KY **Date** 4/30/19

**Name of Final Standard** MEE Curve **Prep'd By (Initials)** SS

**Prep Date** 04/30/19

**Exp Date** 10/30/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 5 uL | 200uL | Methanol 195uL Lot# 208858 | 50 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 4 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 5 uL | 100uL | Methanol 95uL Lot# 208858 | 100 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 2 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 10 uL | 100uL | Methanol 90uL Lot# 208858 | 200 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 2 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 20 uL | 100uL | Methanol 80 uL Lot# 208858 | 400 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 2 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 50 uL | 200 uL | Methanol 150 uL | 500 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 4 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 30 uL | 100uL | Methanol 70 uL Lot# 208858 | 600 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 2 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 40 uL | 100uL | Methanol 60 uL Lot# 208858 | 800 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 2 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 50 uL | 100uL | Methanol 50uL Lot# 208858 | 1000 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 2 uL | " | " | " |

**Name of Final Standard** MEE Second Source **Prep'd By (Initials)** SS

**Prep Date** 04/30/19

**Exp Date** 08/03/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| MEE SS | APPL | | 2000 ug/mL | 04/29/19 | 08/03/19 | 50 uL | 200uL | Methanol 150uL Lot# 208858 | 500 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 4 uL | " | " | " |

| | |
|---|---|
| **Name of Final Standard** | **2MEE Second Source Stock** |
| **Prep Date** | **08/03/18** |
| **Exp Date** | **08/03/19** |

**Prep'd By (Initials)** GA

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Methoxyethanol-Neat | Chem Service | N-12404-1G | Neat 99.5% | **7079100 - 39417** | **08/03/19** | 0.1035g | 10 mL | **MC #56258** | 10320 ug/mL |

Given to Extraction to do **MEE SS** (used for ICAL SS)

0.097ml were spiked in 500ml of water and extracted on 04/29/19 . Final concentration is 2000ug/L

# Injection Log

Directory: M:\YODA\DATA\Y190430M\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 2 | 0430Y002.D | 1 | SV Tune 03/07/18 | | 30 Apr 19 9:12 |
| 2 | 3 | 0430Y003.D | 1 | 50ug/ml MEE 04/30/19 | soil | 30 Apr 19 9:27 |
| 3 | 4 | 0430Y004.D | 1 | 100ug/ml MEE 04/30/19 | soil | 30 Apr 19 9:50 |
| 4 | 5 | 0430Y005.D | 1 | 200ug/ml MEE 04/30/19 | soil | 30 Apr 19 10:13 |
| 5 | 6 | 0430Y006.D | 1 | 400ug/ml MEE 04/30/19 | soil | 30 Apr 19 10:37 |
| 6 | 7 | 0430Y007.D | 1 | 500ug/ml MEE 04/30/19 | soil | 30 Apr 19 11:00 |
| 7 | 8 | 0430Y008.D | 1 | 600ug/ml MEE 04/30/19 | soil | 30 Apr 19 11:23 |
| 8 | 9 | 0430Y009.D | 1 | 800ug/ml MEE 04/30/19 | soil | 30 Apr 19 11:47 |
| 9 | 10 | 0430Y010.D | 1 | 1000ug/ml MEE 04/30/19 | soil | 30 Apr 19 12:10 |
| 10 | 11 | 0430Y011.D | 1 | SS ug/ml MEE 04/30/19 | soil | 30 Apr 19 13:30 |
| 11 | 12 | 0430Y012.D | 1 | SV Tune 03/07/18 | soil | 30 Apr 19 13:58 |
| 12 | 13 | 0430Y013.D | 1 | 190429A BLK 2/500 | soil | 30 Apr 19 14:13 |
| 13 | 14 | 0430Y014.D | 1 | 190429A LCS-1 2/500 | soil | 30 Apr 19 14:37 |
| 14 | 15 | 0430Y015.D | 1 | 190429A LCSD-1 2/500 | soil | 30 Apr 19 15:01 |
| 15 | 16 | 0430Y016.D | 1 | AZ89958W24 2/500 | soil | 30 Apr 19 15:24 |
| 16 | 17 | 0430Y017.D | 1.04167 | AZ89959W06 2/480 | soil | 30 Apr 19 15:48 |
| 17 | 18 | 0430Y018.D | 0.98039 | AZ89961W22 2/510 | soil | 30 Apr 19 16:11 |
| 18 | 19 | 0430Y019.D | 0.98039 | AZ89958W23 MS-1 2/510 | soil | 30 Apr 19 16:35 |
| 19 | 20 | 0430Y020.D | 0.98039 | AZ89958W22 MSD-1 2/510 | soil | 30 Apr 19 16:59 |
| 36 | 37 | 0430Y037.D | 1 | 500ug/ml MEE 04/30/19 | soil | 30 Apr 19 23:38 |

# ORGANICS
# Calibration Data

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/24/19
Matrix: Instrument: Max
Initials: DG 4/8

| | | Compound | 0324M05.D | 0324M06 D | 0324M07.D | 0324M08.D | 0324M09 D | 0324M10.D | 0324M11.D | 0324M12.D | 0324M13.D | | Avg | %RSD | Type | r^2 | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | | | | | | | | | | | | | | | | |
| 2 | S | Dibromofluoromethane(S) | 0.2250 | 0.2190 | 0.1683 | 0.1791 | 0.1920 | 0.1877 | 0.1903 | 0.1887 | 0.1712 | | 0.19 | 10 | S | | | |
| 3 | S | 1,2-DCA-D4(S) | 0.2745 | 0.2518 | 0.1982 | 0.2074 | 0.2233 | 0.2148 | 0.2139 | 0.2111 | 0.1879 | | 0.22 | 12 | S | | | |
| 4 | I | Chlorobenzene-D5 (IS) | | | | | | | | | | | | | | | | |
| 5 | S | Toluene-D8(S) | 1.394 | 1.286 | 1.018 | 1.062 | 1.091 | 1.071 | 1.080 | 1.053 | 0.9367 | | 1.1 | 13 | S | | | |
| 6 | S | 4-Bromofluorobenzene(S) | 0.5102 | 0.4809 | 0.3610 | 0.3788 | 0.3957 | 0.3966 | 0.4009 | 0.3904 | 0.3516 | | 0.41 | 13 | S | | | |
| 7 | I | 1,4-Dichlorobenzene-D (IS) | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | |

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M05.D Vial: 3
Acq On : 24 Mar 19 12:56 Operator: PM,DG,SV,CMM,KV
Sample : 0.3ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 567297 | 25.0000 ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 414490 | 25.0000 ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 209079 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 25529 | 5.8825 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 23.532% | |
| 3) 1,2-DCA-D4(S) | 4.95 | 65 | 31146 | 6.2296 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 24.920% | |
| 5) Toluene-D8(S) | 7.13 | 98 | 115538 | 6.2779 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 25.112% | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 42297 | 6.2630 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 25.052% | |

Target Compounds Qvalue

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

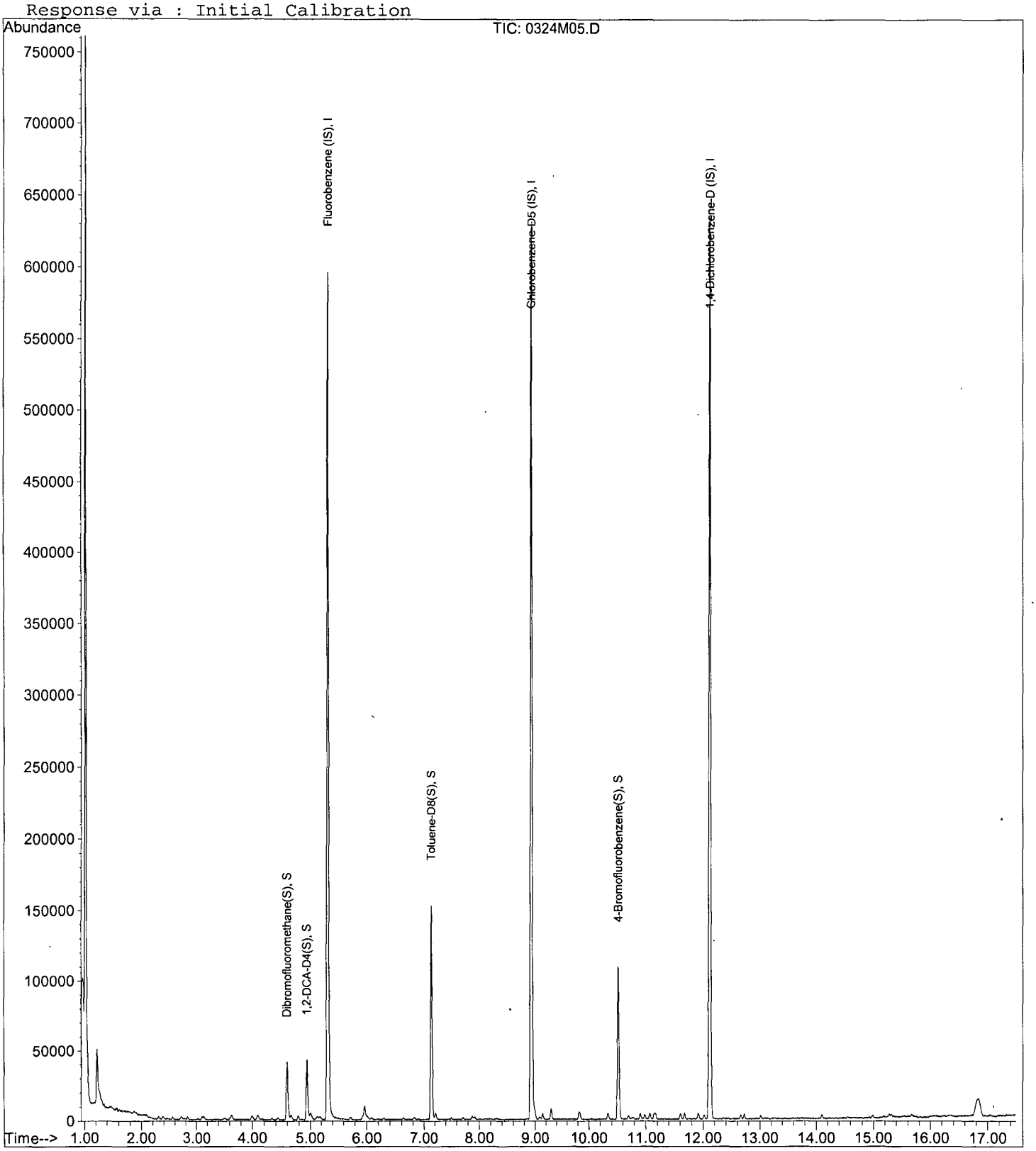
Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M05.D
Acq On : 24 Mar 19 12:56
Sample : 0.3ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 3
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M06.D Vial: 4
Acq On : 24 Mar 19 13:25 Operator: PM,DG,SV,CMM,KV
Sample : 0.5ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 548649 | 25.0000 ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 408005 | 25.0000 ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 207647 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 24026 | 5.7244 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 22.896% | |
| 3) 1,2-DCA-D4(S) | 4.95 | 65 | 27628 | 5.7138 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 22.856% | |
| 5) Toluene-D8(S) | 7.13 | 98 | 104917 | 5.7914 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 23.164% | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 39240 | 5.9027 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 23.612% | |

Target Compounds Qvalue

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

Quantitation Report

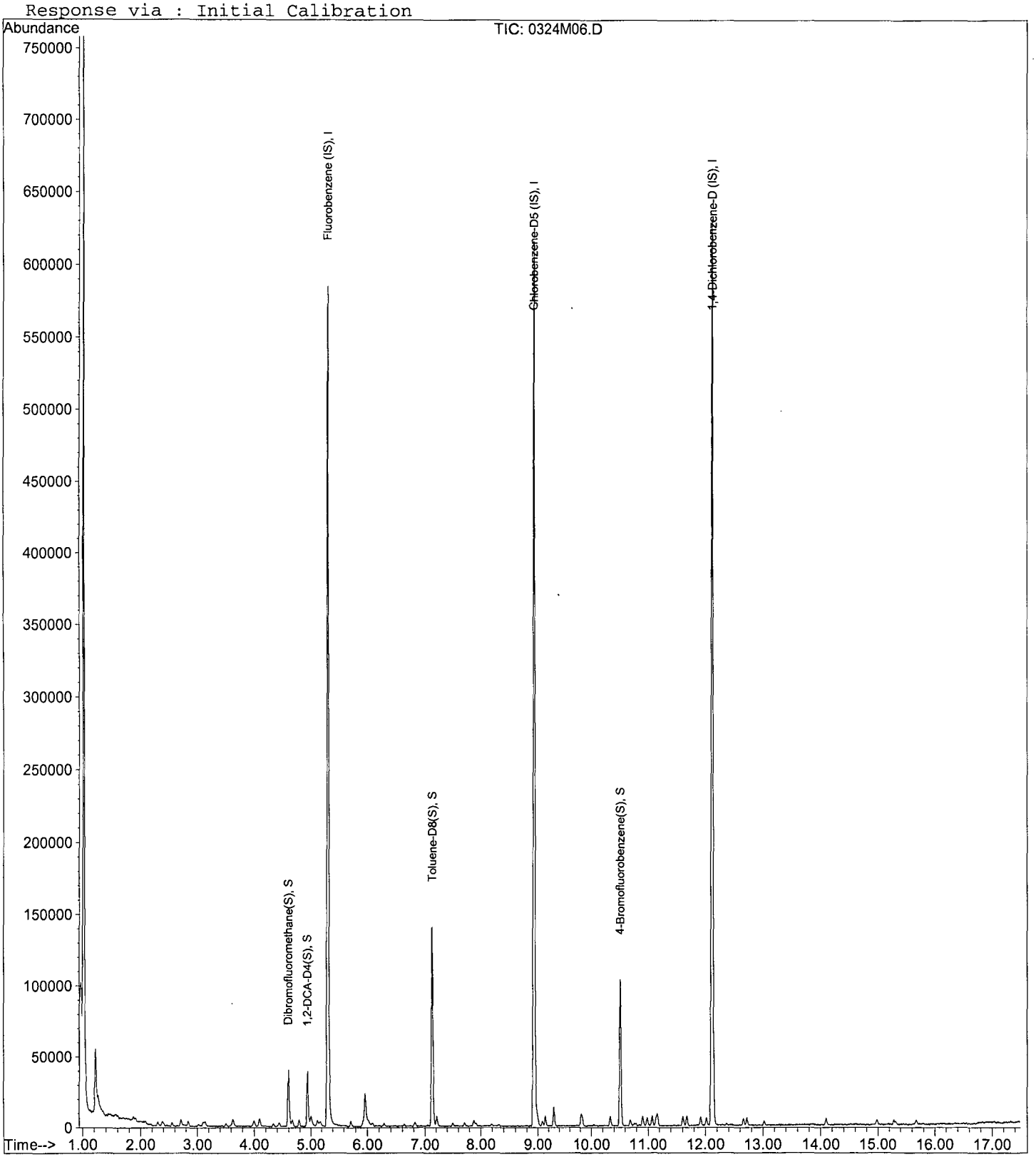
Data File : M:\MAX\DATA\M190324\0324M06.D
Acq On : 24 Mar 19 13:25
Sample : 0.5ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 4
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 7:59 2019

Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M07.D Vial: 5
Acq On : 24 Mar 19 13:54 Operator: PM,DG,SV,CMM,KV
Sample : 1.0ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.32 | 96 | 562637 | 25.0000 ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 415204 | 25.0000 ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 206662 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 37879 | 8.8006 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 35.204% | |
| 3) 1,2-DCA-D4(S) | 4.95 | 65 | 44603 | 8.9951 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 35.980% | |
| 5) Toluene-D8(S) | 7.14 | 98 | 169003 | 9.1672 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 36.668% | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 59950 | 8.8617 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 35.448% | |

Target Compounds Qvalue

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

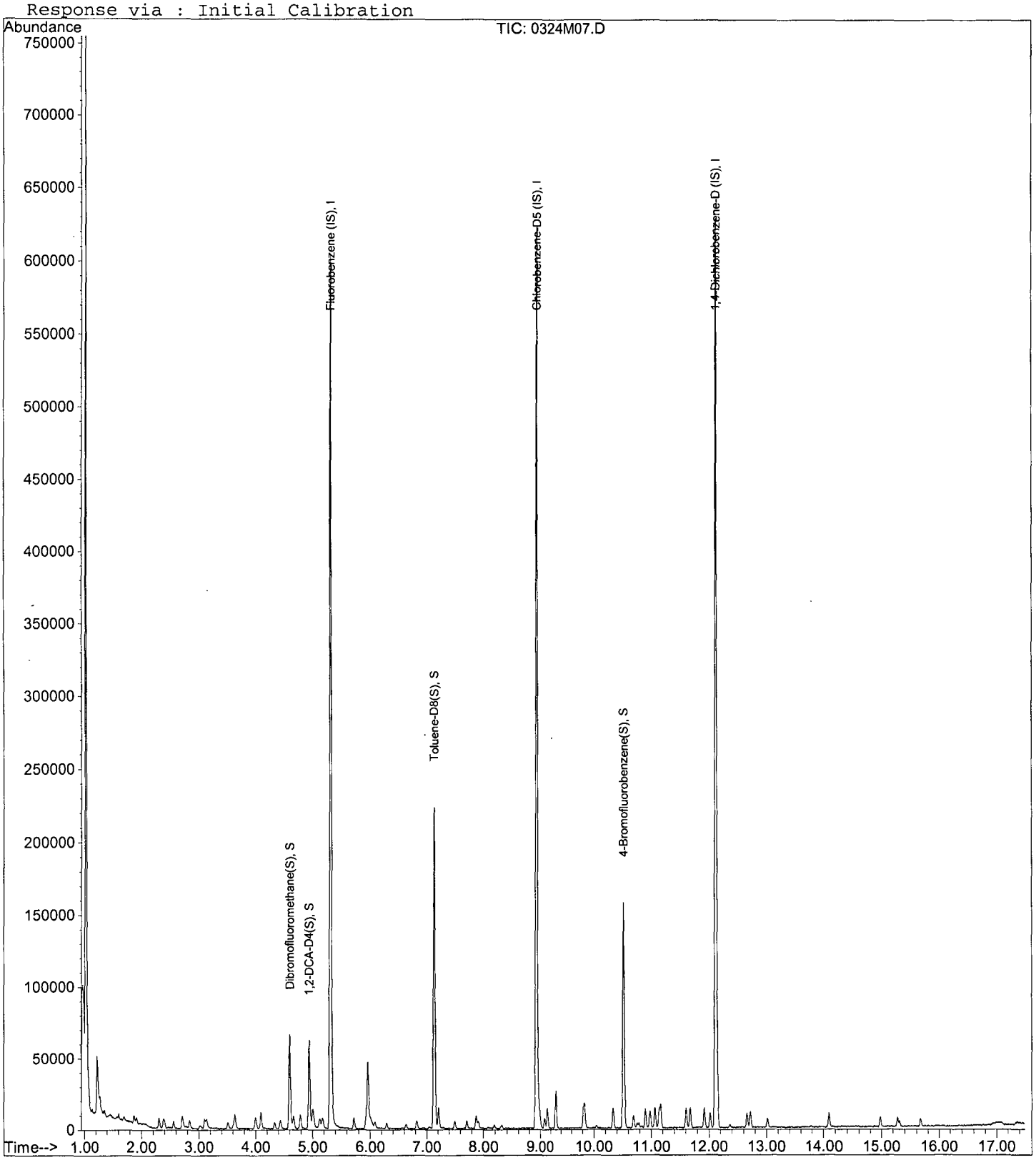
Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M07.D
Acq On : 24 Mar 19 13:54
Sample : 1.0ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 5
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M08.D Vial: 6
Acq On : 24 Mar 19 14:22 Operator: PM,DG,SV,CMM,KV
Sample : 2.0ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.32 | 96 | 588239 | 25.0000 ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 428656 | 25.0000 ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 210603 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 42136 | 9.3635 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 37.456% | |
| 3) 1,2-DCA-D4(S) | 4.95 | 65 | 48794 | 9.4120 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 37.648% | |
| 5) Toluene-D8(S) | 7.14 | 98 | 182083 | 9.5667 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 38.268% | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 64942 | 9.2983 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 37.192% | |

Target Compounds Qvalue

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

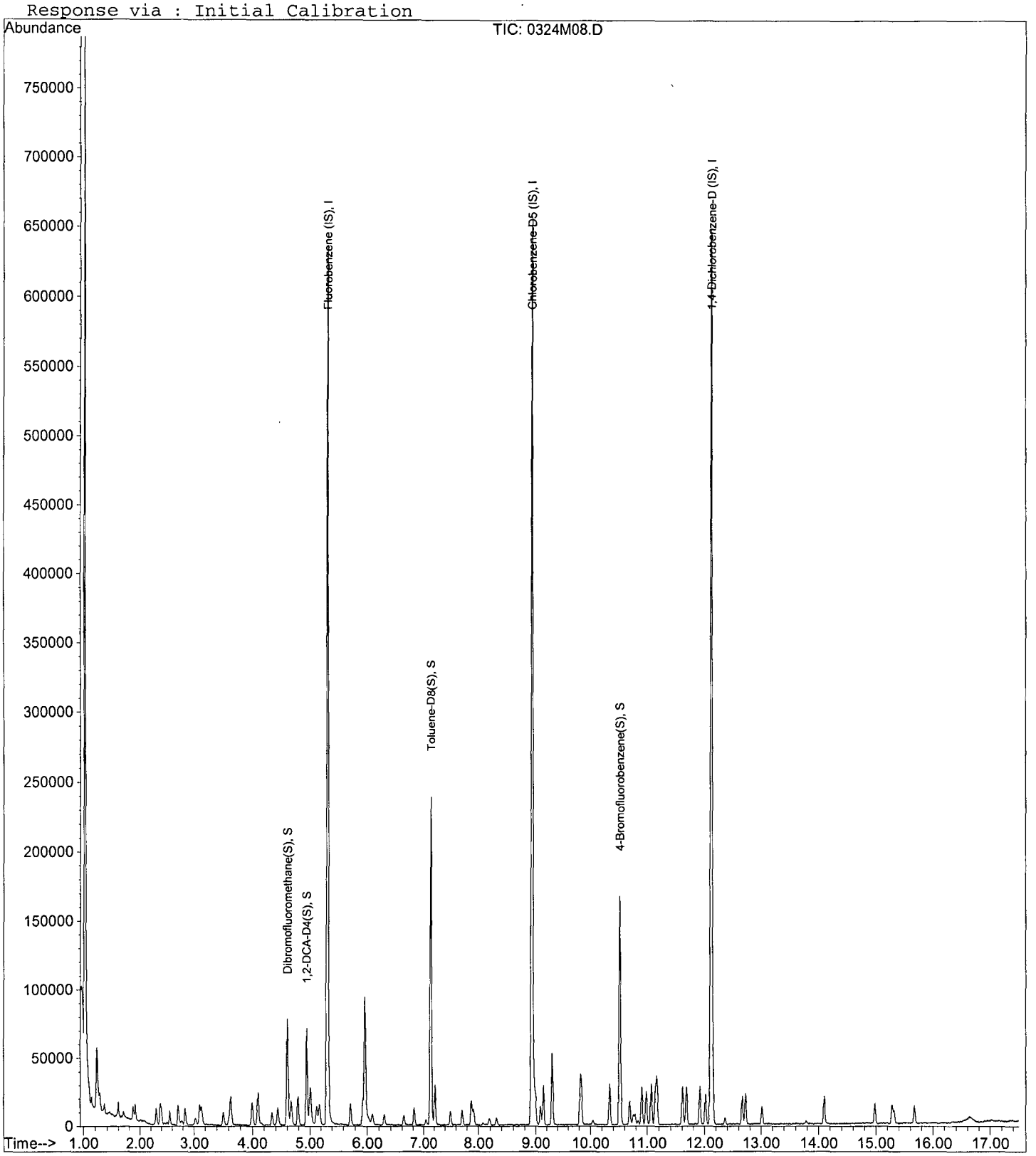
Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M08.D
Acq On : 24 Mar 19 14:22
Sample : 2.0ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 6
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M09.D Vial: 7
Acq On : 24 Mar 19 14:51 Operator: PM,DG,SV,CMM,KV
Sample : 5.0ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.32 | 96 | 551421 | 25.0000 ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 414802 | 25.0000 ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 211221 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 105862 | 25.0956 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 100.384% | | |
| 3) 1,2-DCA-D4(S) | 4.95 | 65 | 123145 | 25.3397 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 101.360% | | |
| 5) Toluene-D8(S) | 7.13 | 98 | 452516 | 24.5695 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 98.276% | | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 164122 | 24.2837 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 97.136% | | |

Target Compounds Qvalue

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

Quantitation Report

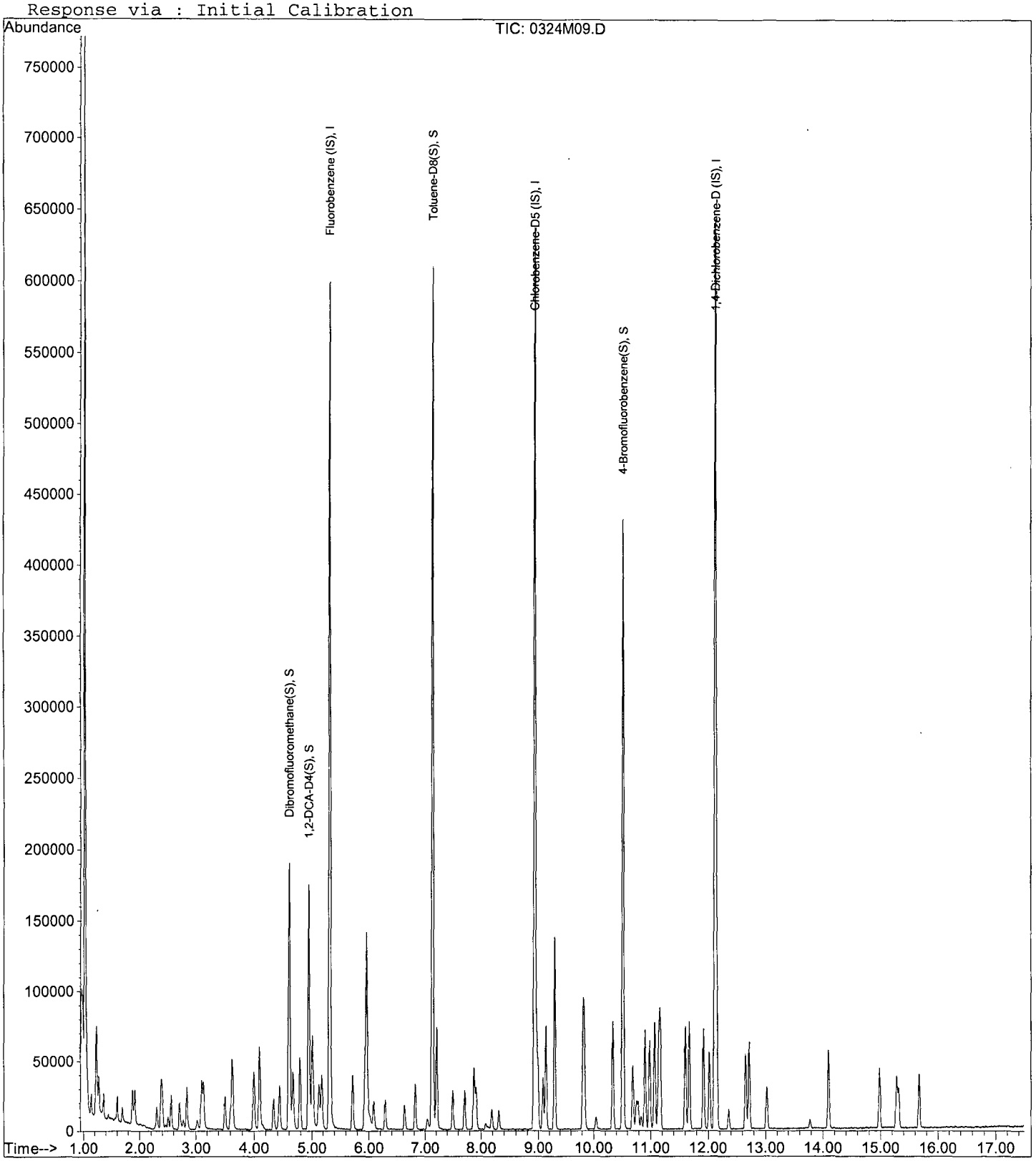
Data File : M:\MAX\DATA\M190324\0324M09.D
Acq On : 24 Mar 19 14:51
Sample : 5.0ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 7
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 7:59 2019

Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M10.D Vial: 8
Acq On : 24 Mar 19 15:19 Operator: PM,DG,SV,CMM,KV
Sample : 10ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 8:00 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.32 | 96 | 563465 | 25.0000 | ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 422362 | 25.0000 | ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 217007 | 25.0000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 105764 | 24.5364 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 98.144% | | | |
| 3) 1,2-DCA-D4(S) | 4.95 | 65 | 121024 | 24.3710 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 97.484% | | | |
| 5) Toluene-D8(S) | 7.14 | 98 | 452289 | 24.1176 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 96.472% | | | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 167493 | 24.3388 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 97.356% | | | |

Target Compounds Qvalue

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

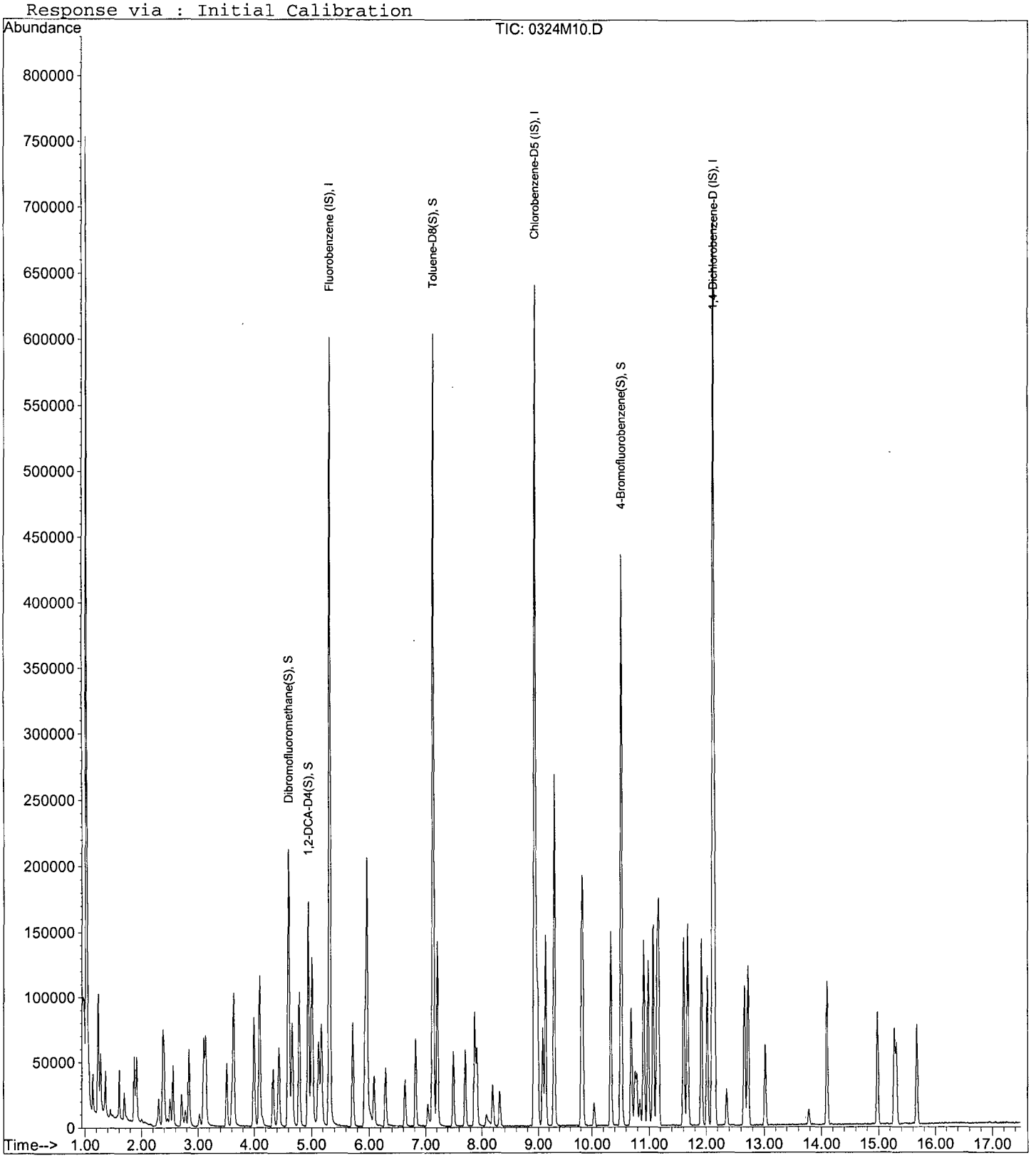
Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M10.D
Acq On : 24 Mar 19 15:19
Sample : 10ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 8
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:00 2019 Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M11.D Vial: 9
Acq On : 24 Mar 19 15:48 Operator: PM,DG,SV,CMM,KV
Sample : 20ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 8:00 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 554172 | 25.0000 ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 421724 | 25.0000 ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 222616 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 210921 | 49.7525 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 199.012% | | |
| 3) 1,2-DCA-D4(S) | 4.94 | 65 | 237117 | 48.5497 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 194.200% | | |
| 5) Toluene-D8(S) | 7.14 | 98 | 910661 | 48.6330 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 194.532% | | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 338144 | 49.2109 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 196.844% | | |

Target Compounds Qvalue

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

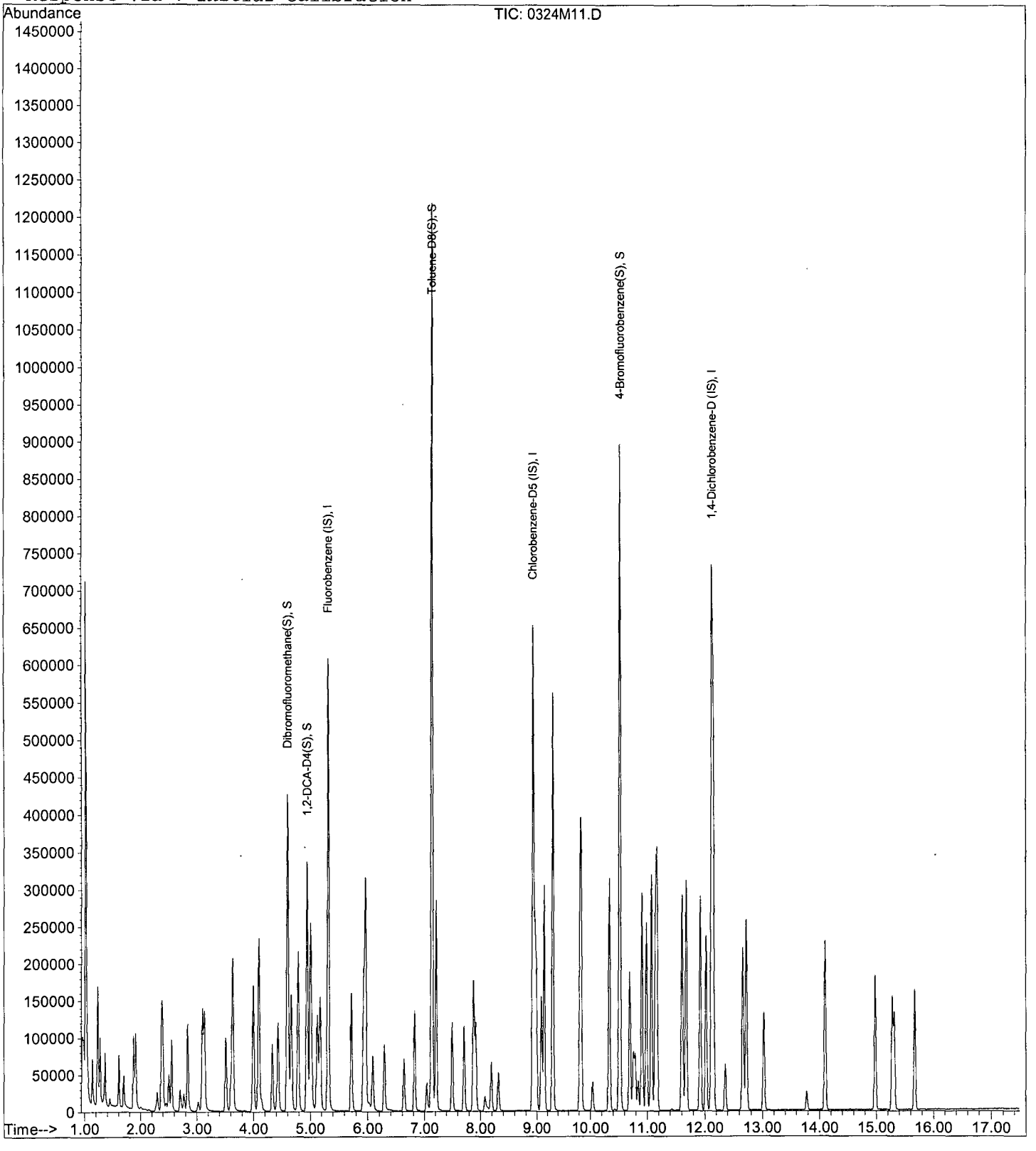
Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M11.D
Acq On : 24 Mar 19 15:48
Sample : 20ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 9
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:00 2019 Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M12.D Vial: 10
Acq On : 24 Mar 19 16:17 Operator: PM,DG,SV,CMM,KV
Sample : 40ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 8:00 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 561800 | 25.0000 ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 434917 | 25.0000 ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 228943 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 212017 | 49.3320 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 197.328% | |
| 3) 1,2-DCA-D4(S) | 4.94 | 65 | 237213 | 47.9099 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 191.640% | |
| 5) Toluene-D8(S) | 7.14 | 98 | 916073 | 47.4380 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 189.752% | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 339596 | 47.9230 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 191.692% | |

Target Compounds Qvalue

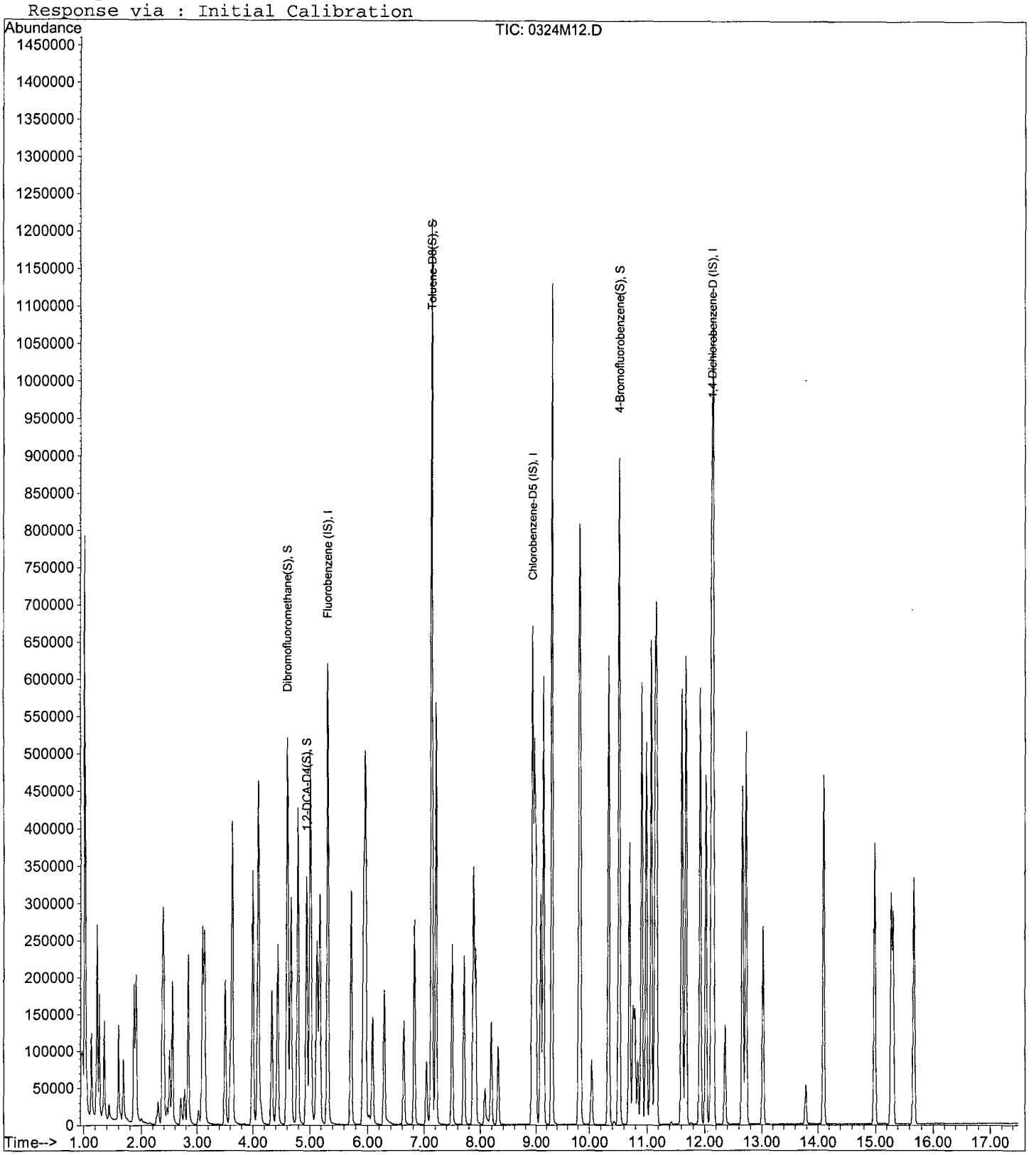
(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M190324\0324M12.D
Acq On : 24 Mar 19 16:17
Sample : 40ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 10
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:00 2019 Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M13.D Vial: 11
Acq On : 24 Mar 19 16:45 Operator: PM,DG,SV,CMM,KV
Sample : 100ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 8:00 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 562288 | 25.0000 ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 441644 | 25.0000 ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 234726 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 385089 | 89.5246 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 358.100% | |
| 3) 1,2-DCA-D4(S) | 4.94 | 65 | 422708 | 85.3002 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 341.200% | |
| 5) Toluene-D8(S) | 7.14 | 98 | 1654770 | 84.3855 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 337.540% | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 621203 | 86.3275 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 345.312% | |

Target Compounds Qvalue

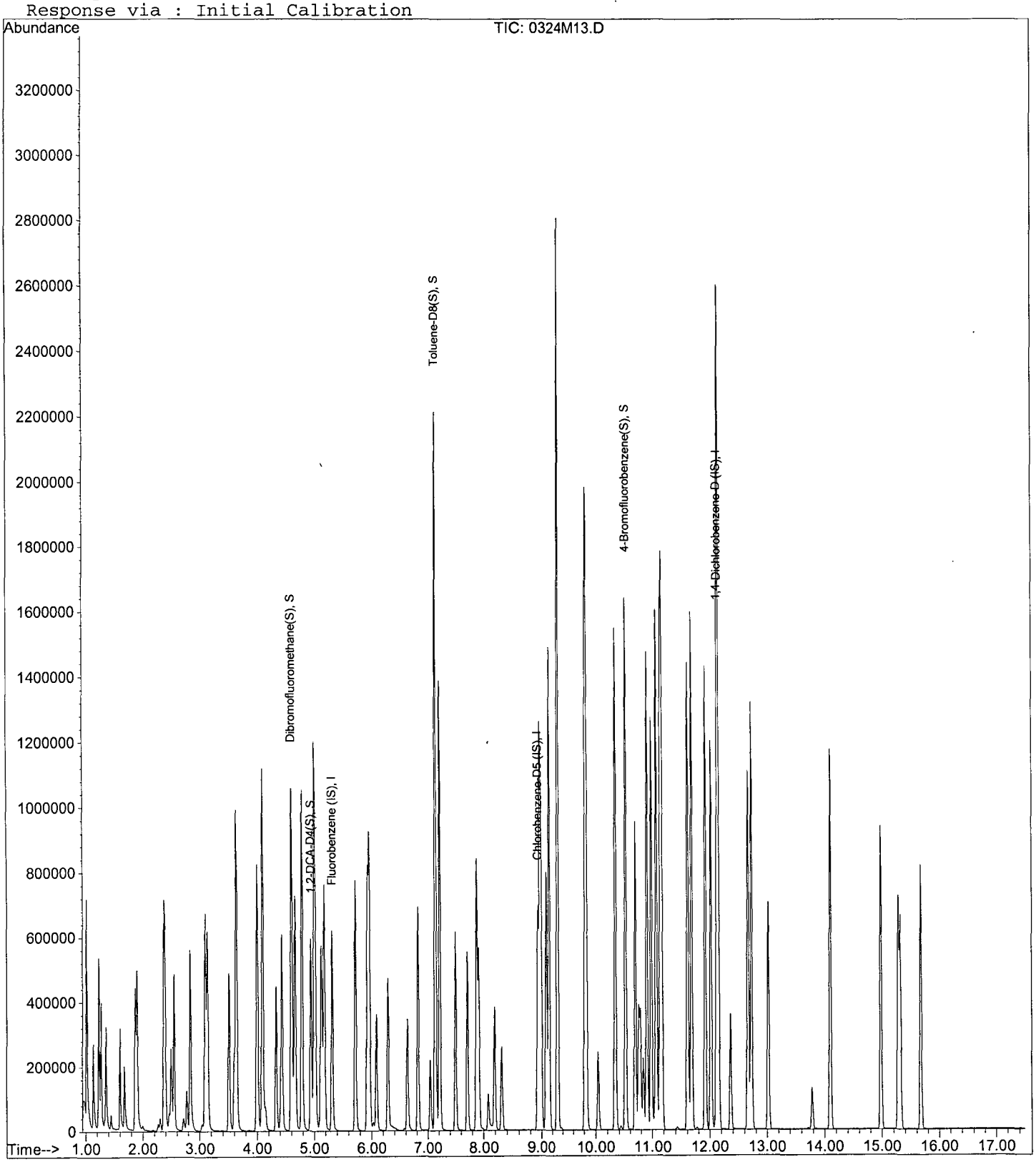
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M13.D Vial: 11
Acq On : 24 Mar 19 16:45 Operator: PM,DG,SV,CMM,KV
Sample : 100ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 8:00 2019 Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 04/01/19
Matrix: Instrument: Max

Initials: DG/LP

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | Avg | %RSD | Type | r^2 | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0401M04.D | 0401M05 D | 0401M06.D | 0401M07.D | 0401M08.D | 0401M09 D | 0401M10.D | | | | | | | | | |
| 1 | I | Fluorobenzene (IS) | | | | | | | | | | | | | | | | |
| 2 | TMHBL | Gasoline C6-C10 | 11.0 | 4.649 | 2.597 | 1.206 | 0.8368 | 0.7215 | 0.6807 | | | | 3.1 | 122 | TMHBL | 0.999 | | |
| 3 | TMHB | Chlorobenzene-D5 (IS) | | | | | | | | | | | | | | | | |
| 4 | TMHB | 1,4-Dichlorobenzene (IS) | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
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| 34 | | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | | |

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M04.D Vial: 3
Acq On : 1 Apr 19 10:31 Operator: PM,DG,SV,CMM,KV
Sample : 20ug/L GAS STD 4/01/19 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 1 15:17 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 598255 | 25.0000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 338283m | 25.0000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 187311m | 25.0000 | ppb | 0.00 |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Gasoline C6-C10 | 8.80 | TIC | 5271420m | 26.5912 | ppb | 100 |

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

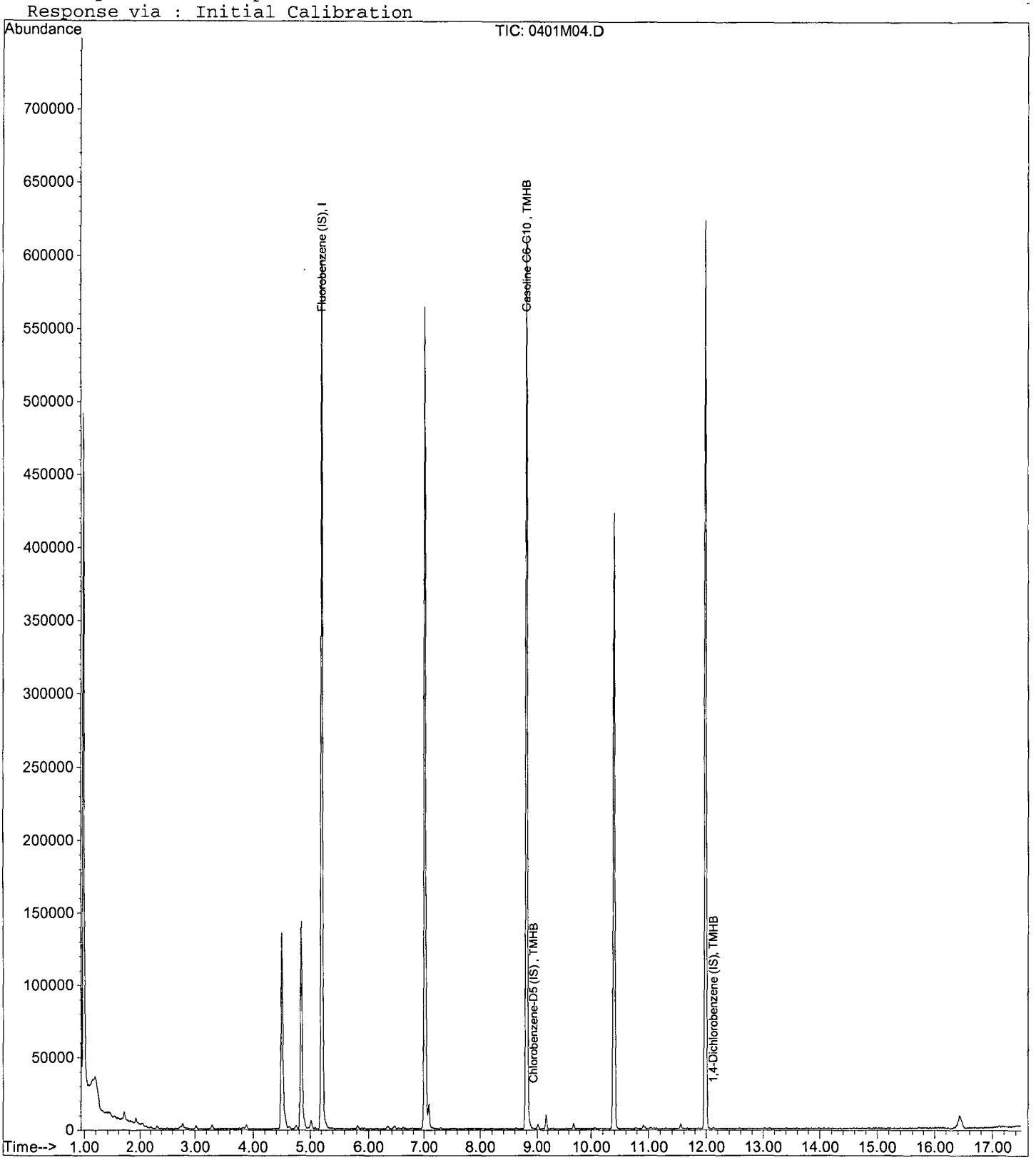
Quantitation Report

Data File : M:\MAX\DATA\M190401\0401M04.D
Acq On : 1 Apr 19 10:31
Sample : 20ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 3
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:17 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M05.D Vial: 4
Acq On : 1 Apr 19 11:00 Operator: PM,DG,SV,CMM,KV
Sample : 50ug/L GAS STD 4/01/19 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 1 15:17 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 587568 | 25.0000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 330094m | 25.0000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 190101m | 25.0000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) Gasoline C6-C10 | 8.80 | TIC | 5463157m | 51.9143 | ppb | 100 |

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

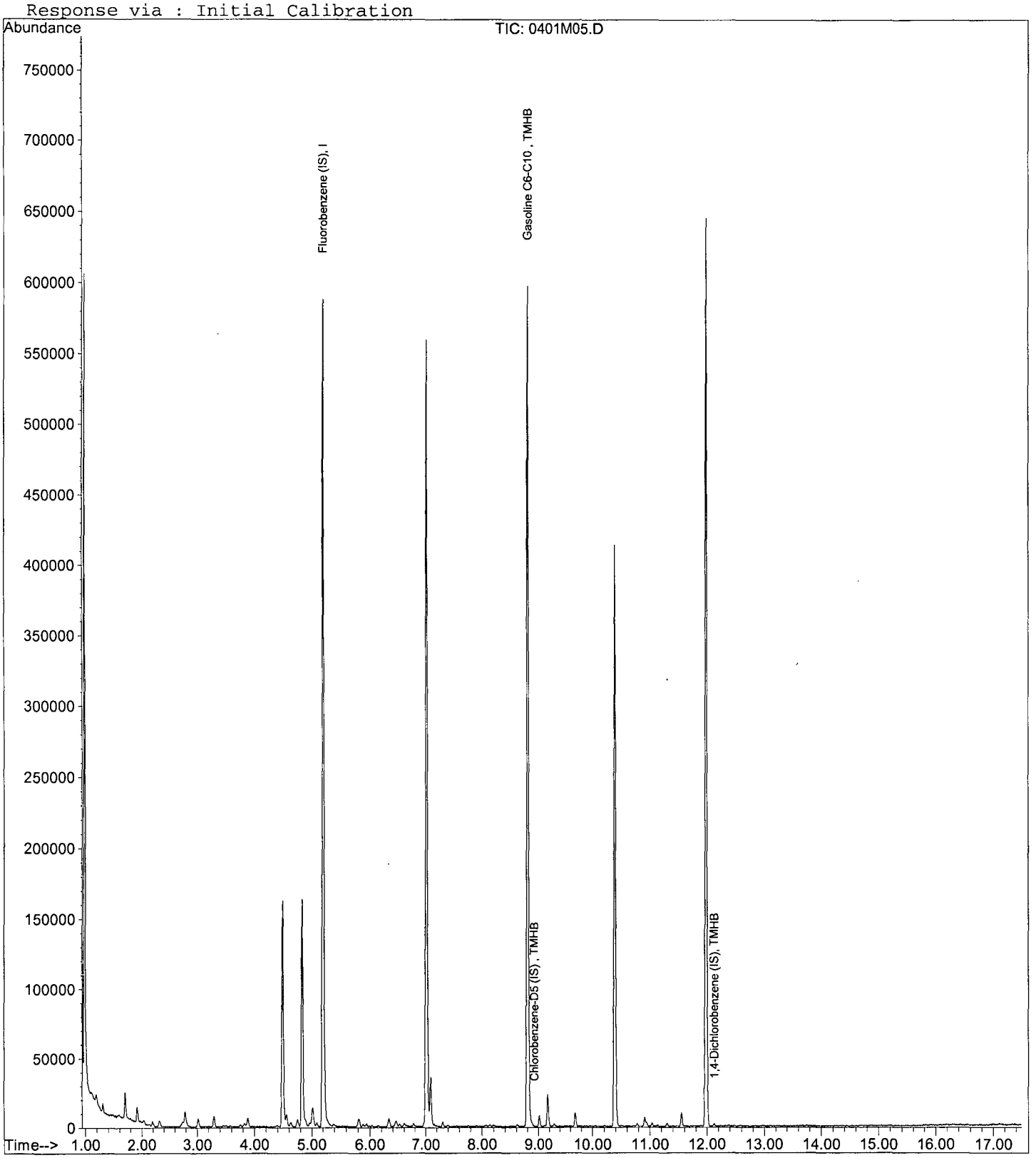
Quantitation Report

Data File : M:\MAX\DATA\M190401\0401M05.D
Acq On : 1 Apr 19 11:00
Sample : 50ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 4
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:17 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M06.D Vial: 5
Acq On : 1 Apr 19 11:28 Operator: PM,DG,SV,CMM,KV
Sample : 100ug/L GAS STD 4/01/19 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 575257 | 25.0000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 323893m | 25.0000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 181396m | 25.0000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) Gasoline C6-C10 | 8.80 | TIC | 5976508m | 108.7113 | ppb | 100 |

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

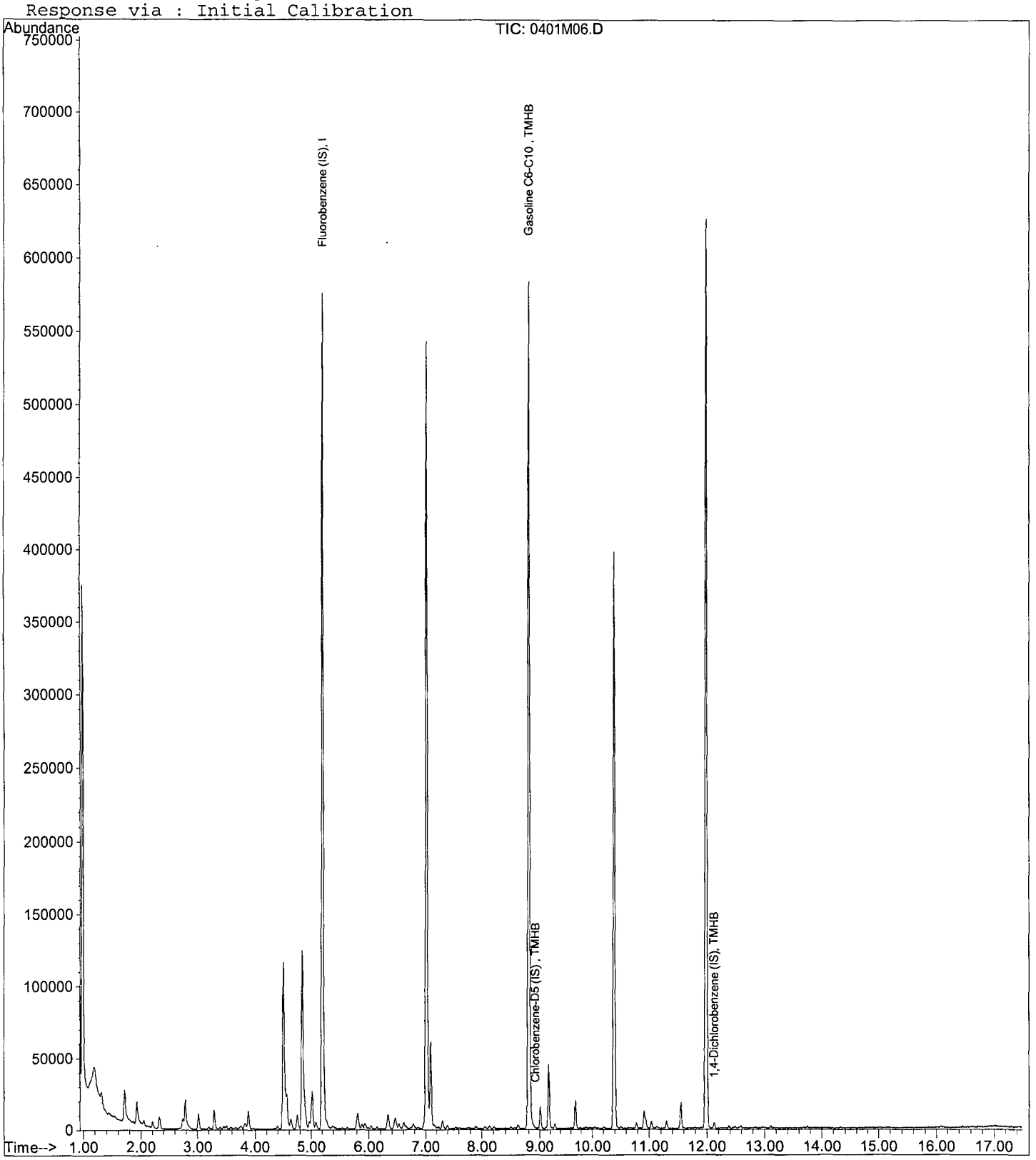
Quantitation Report

Data File : M:\MAX\DATA\M190401\0401M06.D
Acq On : 1 Apr 19 11:28
Sample : 100ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 5
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M07.D Vial: 6
Acq On : 1 Apr 19 11:57 Operator: PM,DG,SV,CMM,KV
Sample : 300ug/L GAS STD 4/01/19 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 573184 | 25.0000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 333476m | 25.0000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 189443m | 25.0000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) Gasoline C6-C10 | 8.80 | TIC | 8295201m | 321.1916 | ppb | 100 |

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

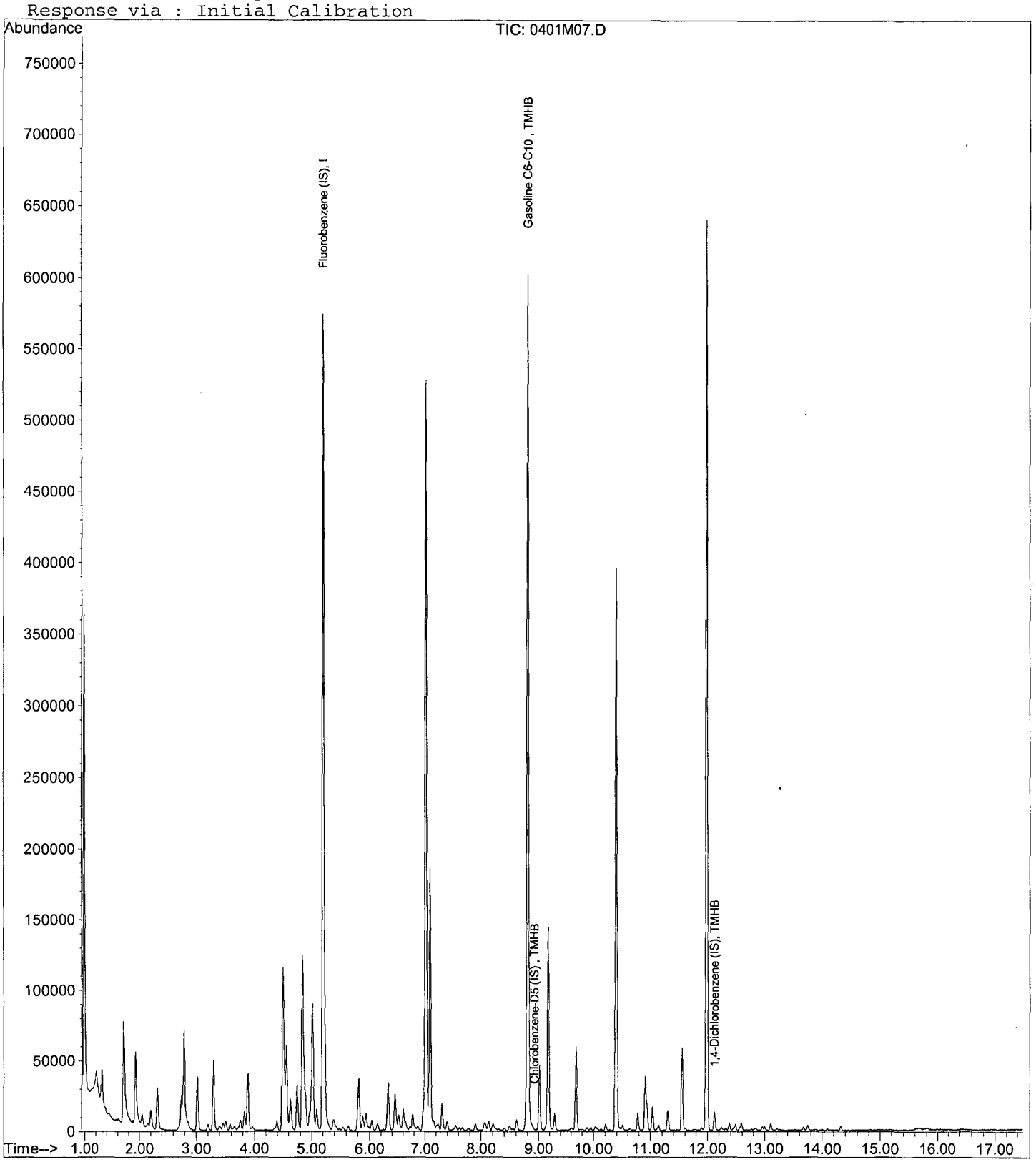
Quantitation Report

Data File : M:\MAX\DATA\M190401\0401M07.D
Acq On : 1 Apr 19 11:57
Sample : 300ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 6
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M08.D Vial: 7
Acq On : 1 Apr 19 12:25 Operator: PM,DG,SV,CMM,KV
Sample : 600ug/L GAS STD 4/01/19 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 576087 | 25.0000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 330146m | 25.0000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 190295m | 25.0000 | ppb | 0.00 |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Gasoline C6-C10 | 8.80 | TIC | 11569749m | 613.2094 | ppb | 100 |

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

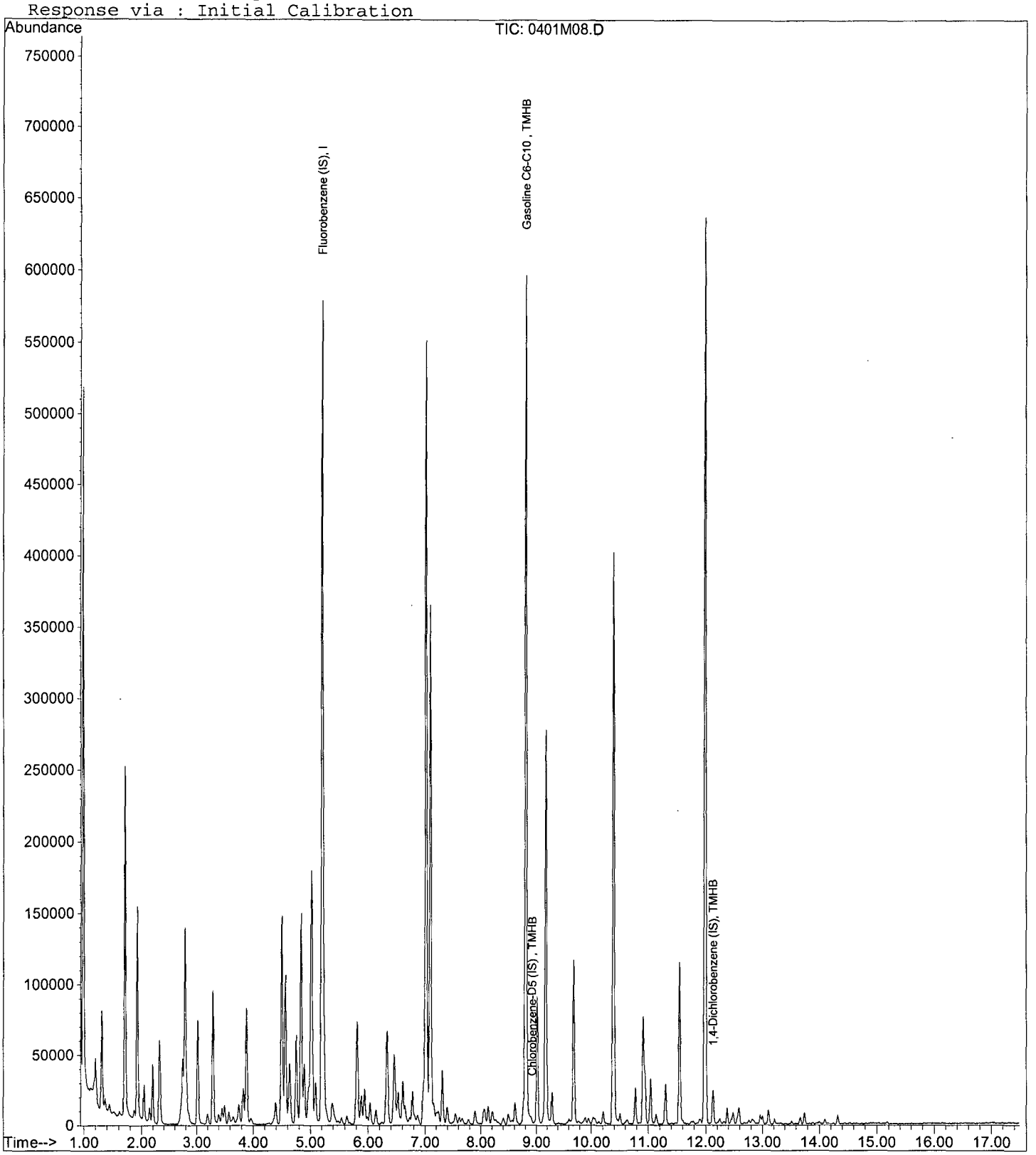
Quantitation Report

Data File : M:\MAX\DATA\M190401\0401M08.D
Acq On : 1 Apr 19 12:25
Sample : 600ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 7
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M09.D Vial: 8
Acq On : 1 Apr 19 12:54 Operator: PM,DG,SV,CMM,KV
Sample : 800ug/L GAS STD 4/01/19 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 579649 | 25.0000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 326637m | 25.0000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 190935m | 25.0000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) Gasoline C6-C10 | 8.80 | TIC | 13383194m | 769.6013 | ppb | 100 |

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

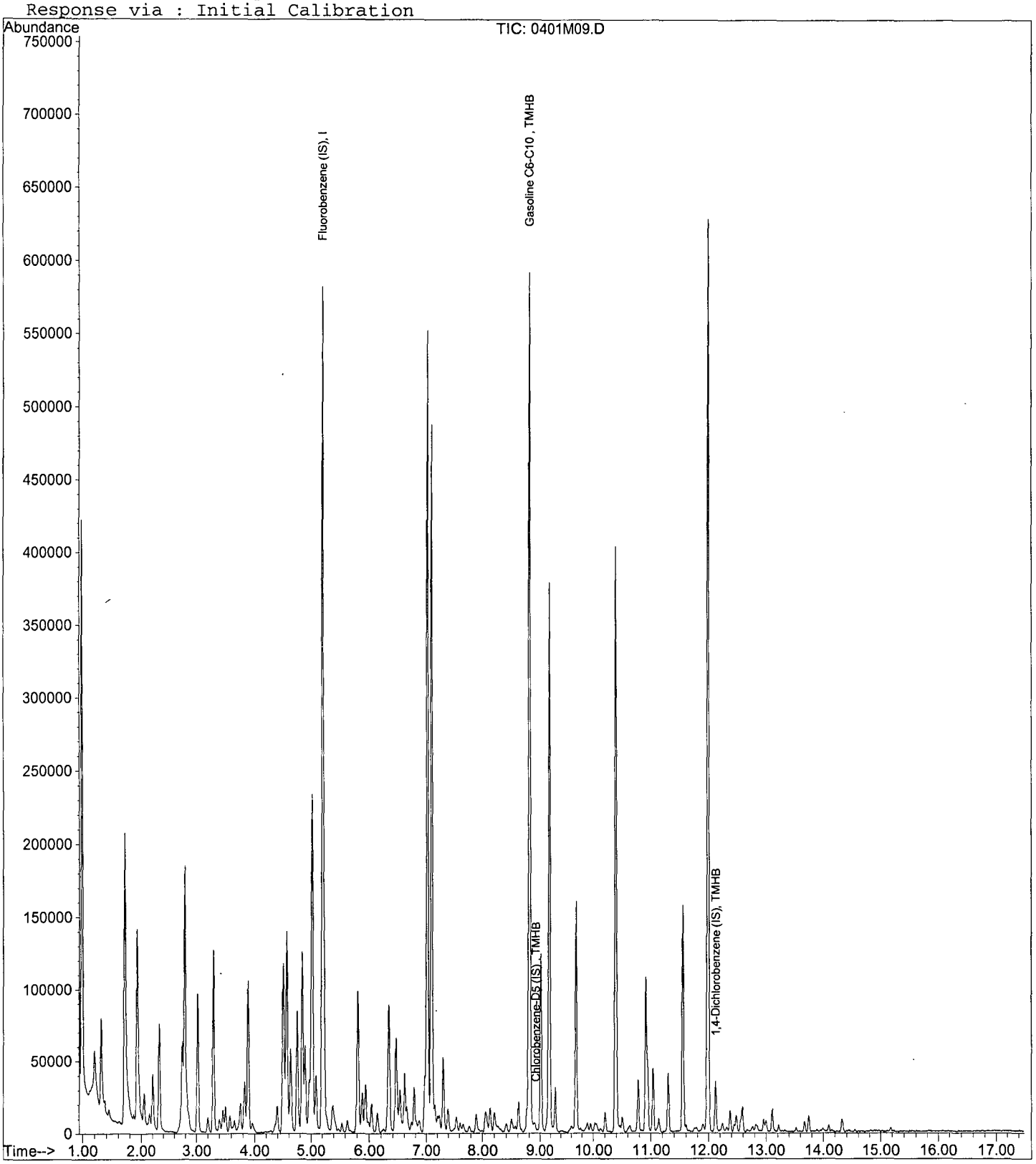
Quantitation Report

Data File : M:\MAX\DATA\M190401\0401M09.D
Acq On : 1 Apr 19 12:54
Sample : 800ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 8
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M10.D Vial: 9
Acq On : 1 Apr 19 13:22 Operator: PM,DG,SV,CMM,KV
Sample : 1000ug/L GAS STD 4/01/19 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 1 15:19 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 582261 | 25.0000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 329343m | 25.0000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 190806m | 25.0000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Gasoline C6-C10 | 7.10 | TIC | 15853101m | 984.9694 | ppb | 100 |

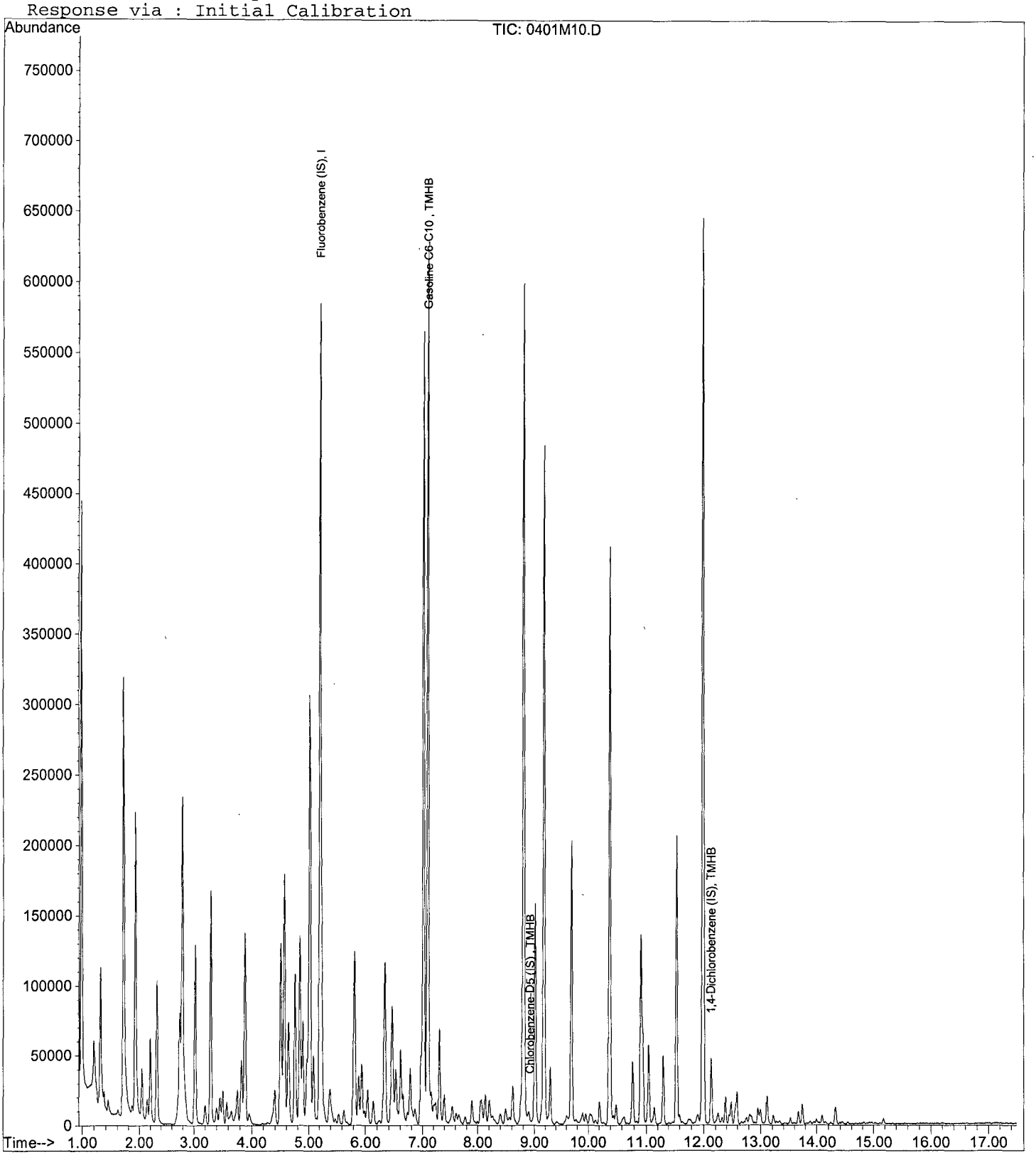
(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M190401\0401M10.D
Acq On : 1 Apr 19 13:22
Sample : 1000ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 9
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:19 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 1 Apr 19 14:19
Instrument: Max
Initial Cal. Date: 04/01/19
Data File: 0401M12.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | TMHB | Gasoline C6-C10 | 3.101 | 1.185 | 62 | TMHBL | 1.3 |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
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| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 62.0 | | |

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M12.D Vial: 11
Acq On : 1 Apr 19 14:19 Operator: PM,DG,SV,CMM,KV
Sample : (SS)300ug/L GAS STD 4/01/19 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 2 8:08 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 565675 | 25.0000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1215857m | 25.0000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1225243m | 25.0000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Gasoline C6-C10 | 8.81 | TIC | 8042743m | 304.0471 | ppb | 100 |

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

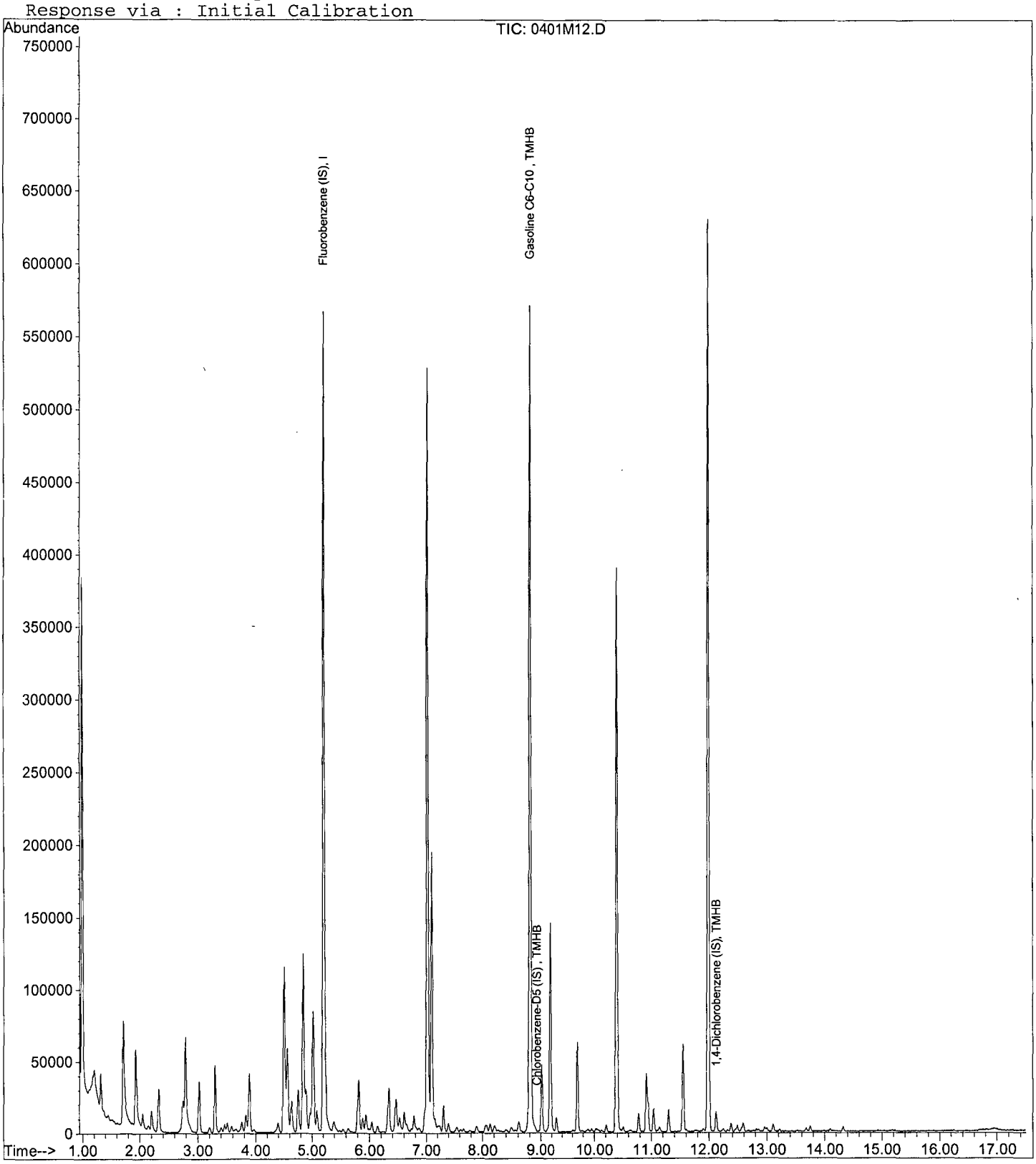
Quantitation Report

Data File : M:\MAX\DATA\M190401\0401M12.D
Acq On : 1 Apr 19 14:19
Sample : (SS)300ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 11
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:08 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/23/19
Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0423M03.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | |
| 2 | TMHB | Gasoline C6-C10 | 3.101 | 1.170 | 62 | TMHBL | 1.7 |
| 3 | TMHB | Chlorobenzene-D5 (IS) | ISTD | | | TMHB | |
| 4 | TMHB | 1,4-Dichlorobenzene (IS) | ISTD | | | TMHB | |
| 5 | | | | | | | |
| 6 | | | | | | | |
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| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 62.0 | | |

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/23/19
Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0423M03.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | |
| 2 | S | Dibromofluoromethane(S) | 0.1912 | 0.1962 | 2.6 | S | |
| 3 | S | 1,2-DCA-D4(S) | 0.2203 | 0.2051 | 6.9 | S | |
| 4 | I | Chlorobenzene-D5 (IS) | ISTD | | | I | |
| 5 | S | Toluene-D8(S) | 1.110 | 1.076 | 3.0 | S | |
| 6 | S | 4-Bromofluorobenzene(S) | 0.4073 | 0.4206 | 3.3 | S | |
| 7 | I | 1,4-Dichlorobenzene-D (IS) | ISTD | | | I | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
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| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 4.0 | | |

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0423M03.D Vial: 2
Acq On : 23 Apr 19 13:37 Operator: PM,DG,SV,CMM,KV
Sample : 190423A CCV 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:46 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 809455 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1804608m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1898295m | 25.000 ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Gasoline C6-C10 | 8.80 | TIC | 11369112m | 294.802 ppb | 100 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0423M03.D Vial: 2
Acq On : 23 Apr 19 13:37 Operator: PM,DG,SV,CMM,KV
Sample : 190423A CCV 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:52 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 776811 | 25.000 ppb | -0.12 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 609315 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 331442 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 152409 | 25.647 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 102.588% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 159293 | 23.267 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 93.068% | | |
| 5) Toluene-D8(S) | 7.02 | 98 | 655818 | 24.241 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 96.964% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 256293 | 25.816 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 103.264% | | |

Target Compounds Qvalue

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

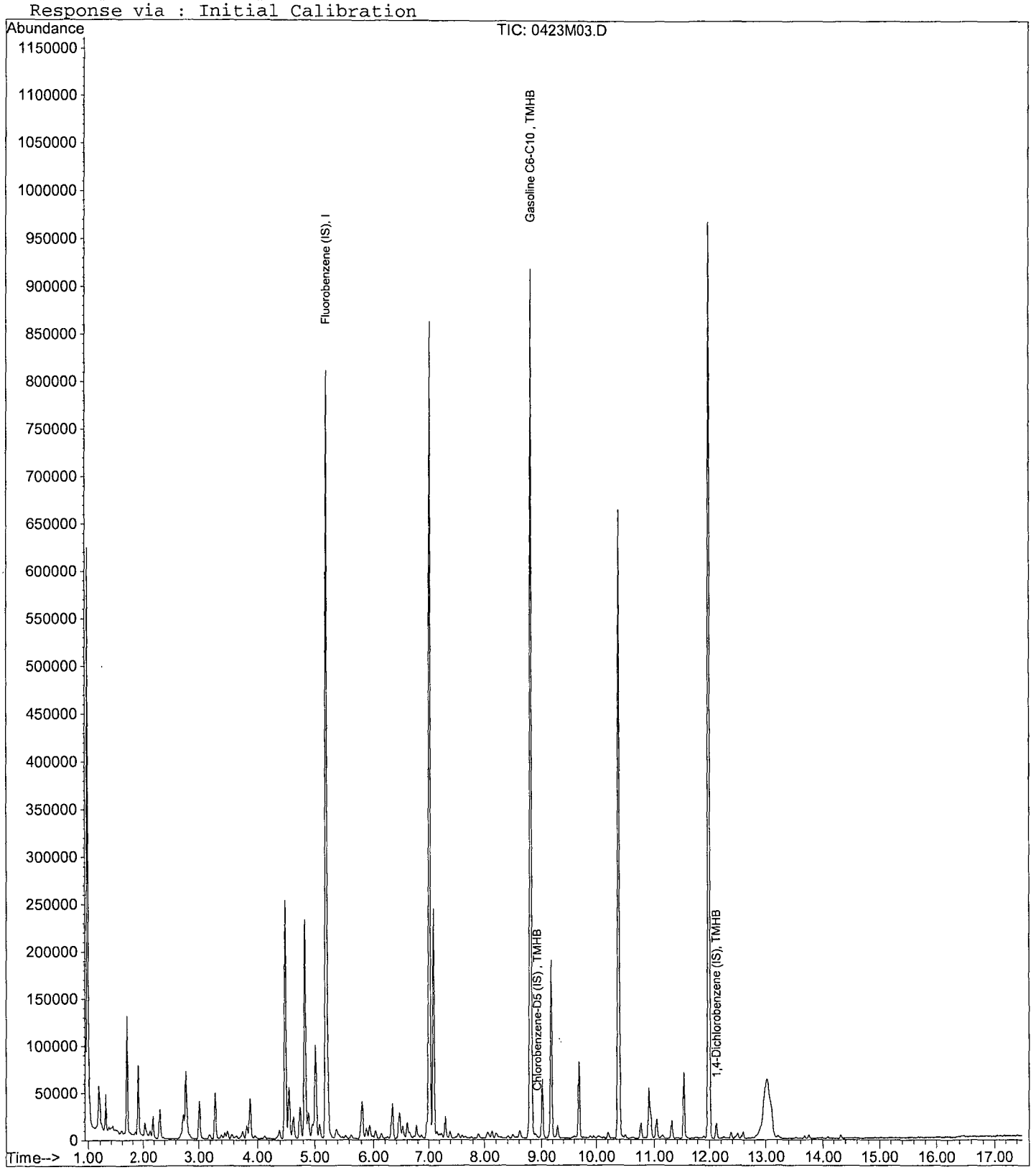
Quantitation Report

Data File : M:\MAX\DATA\M190401\0423M03.D
Acq On : 23 Apr 19 13:37
Sample : 190423A CCV 300ug/L
Misc : IS,Surr 03/24/19

Vial: 2
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 24 8:46 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/23/19
Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0423M15.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | |
| 2 | TMHB | Gasoline C6-C10 | 3.101 | 1.167 | 62 | TMHBL | 2.5 |
| 3 | TMHB | Chlorobenzene-D5 (IS) | ISTD | | | TMHB | |
| 4 | TMHB | 1,4-Dichlorobenzene (IS) | ISTD | | | TMHB | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
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| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 62.0 | | |

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

## Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/23/19
Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0423M15.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | |
| 2 | S | Dibromofluoromethane(S) | 0.1912 | 0.2136 | 12 | S | |
| 3 | S | 1,2-DCA-D4(S) | 0.2203 | 0.2270 | 3.0 | S | |
| 4 | I | Chlorobenzene-D5 (IS) | ISTD | | | I | |
| 5 | S | Toluene-D8(S) | 1.110 | 1.169 | 5.3 | S | |
| 6 | S | 4-Bromofluorobenzene(S) | 0.4073 | 0.4313 | 5.9 | S | |
| 7 | I | 1,4-Dichlorobenzene-D (IS) | ISTD | | | I | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
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| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 6.6 | | |

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0423M15.D Vial: 14
Acq On : 23 Apr 19 19:18 Operator: PM,DG,SV,CMM,KV
Sample : Ending CCV 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:58 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 753492 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1625495m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1619278m | 25.000 ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Gasoline C6-C10 | 7.02 | TIC | 10552656m | 292.638 ppb | 100 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0423M15.D Vial: 14
Acq On : 23 Apr 19 19:18 Operator: PM,DG,SV,CMM,KV
Sample : Ending CCV 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:52 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 711121 | 25.000 ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 545870 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 280745 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 151927 | 27.927 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 111.708% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 161428 | 25.757 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 103.028% | | |
| 5) Toluene-D8(S) | 7.02 | 98 | 637867 | 26.317 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 105.268% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 235428 | 26.470 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 105.880% | | |

Target Compounds Qvalue

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

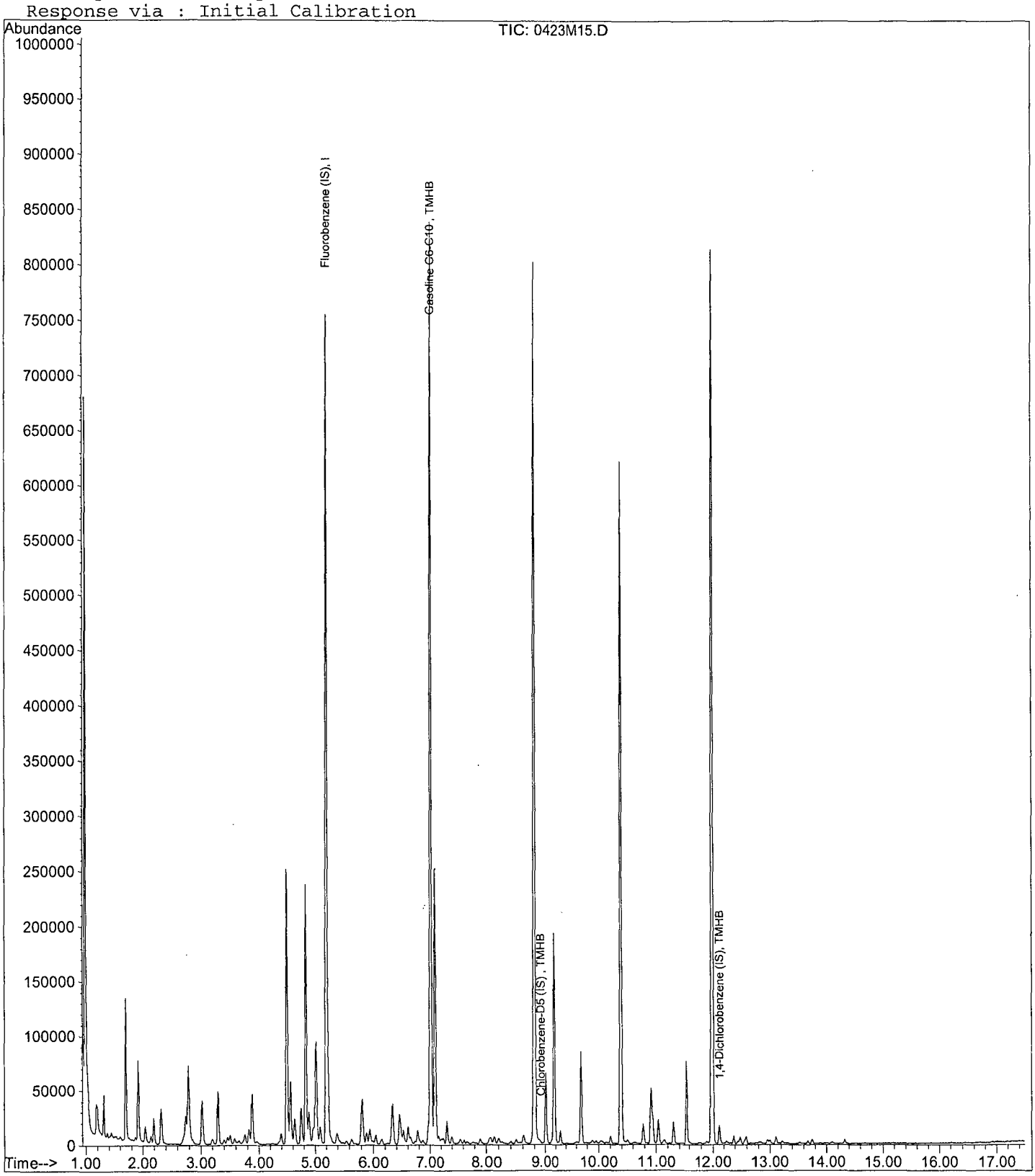
Quantitation Report

Data File : M:\MAX\DATA\M190401\0423M15.D
Acq On : 23 Apr 19 19:18
Sample : Ending CCV 300ug/L
Misc : IS,Surr 03/24/19

Vial: 14
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 24 8:58 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



# ORGANICS
# Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0423M08.D Vial: 7
Acq On : 23 Apr 19 15:59 Operator: PM,DG,SV,CMM,KV
Sample : AZ89957W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:49 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 757131 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 741505m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 785876m | 25.000 ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0423M08.D Vial: 7
Acq On : 23 Apr 19 15:59 Operator: PM,DG,SV,CMM,KV
Sample : AZ89957W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:52 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 702871 | 25.000 ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 541767 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 285732 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 145510 | 27.062 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 108.248% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 151899 | 24.522 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 98.088% | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 611851 | 25.435 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 101.740% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 230994 | 26.168 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 104.672% | | |
| **Target Compounds** | | | | | Qvalue |

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

Quantitation Report

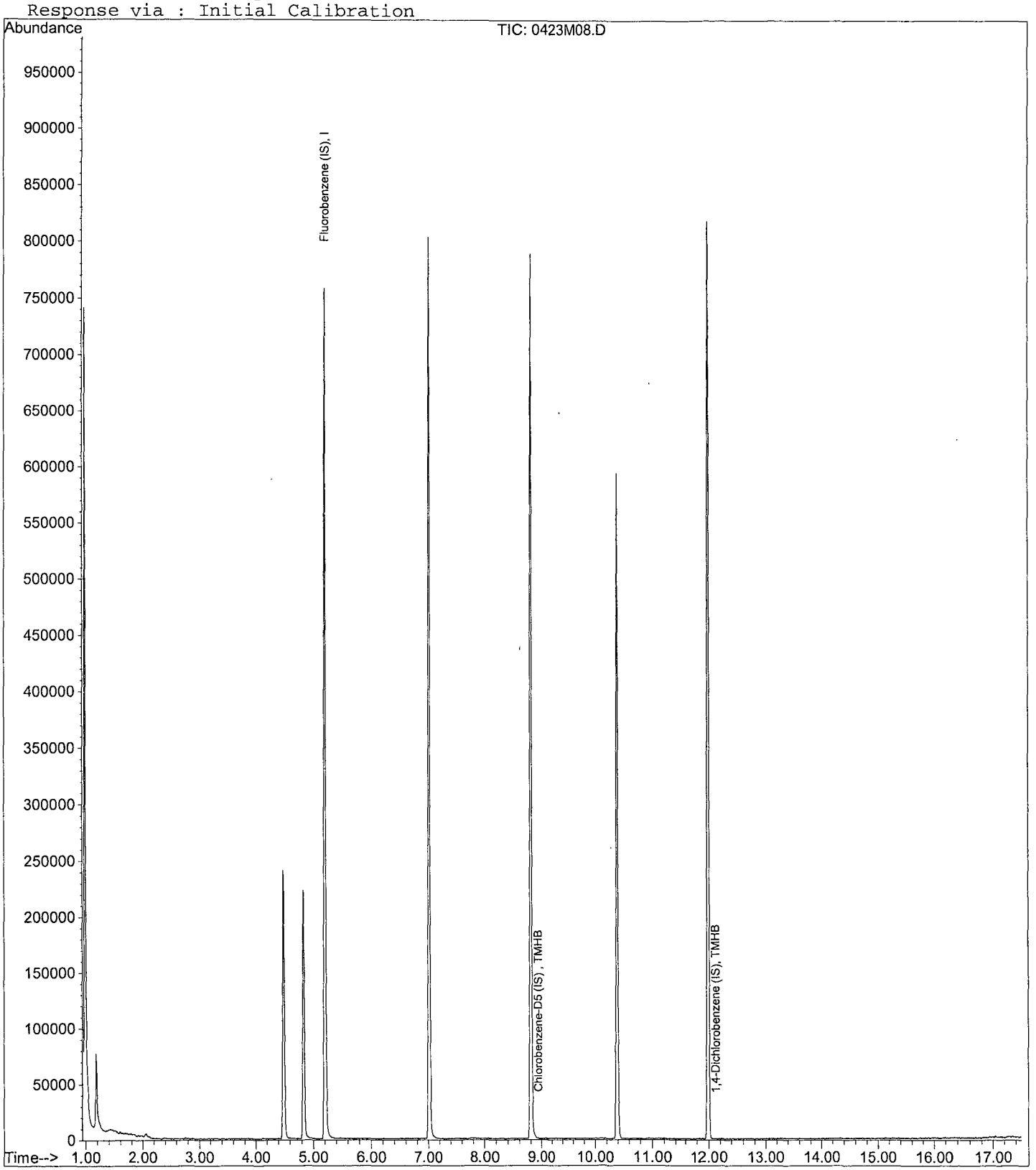
Data File : M:\MAX\DATA\M190401\0423M08.D
Acq On : 23 Apr 19 15:59
Sample : AZ89957W01
Misc : IS,Surr 03/24/19

Vial: 7
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 24 8:49 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0423M10.D Vial: 9
Acq On : 23 Apr 19 16:56 Operator: PM,DG,SV,CMM,KV
Sample : AZ89958W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:49 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 793087 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 773698m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 782433m | 25.000 ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0423M10.D Vial: 9
Acq On : 23 Apr 19 16:56 Operator: PM,DG,SV,CMM,KV
Sample : AZ89958W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:52 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 743645 | 25.000 ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 558445 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 282299 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 150688 | 26.488 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 105.952% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 163225 | 24.905 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 99.620% | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 648612 | 26.158 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 104.632% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 231147 | 25.404 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 101.616% | | |

Target Compounds Qvalue

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

Quantitation Report

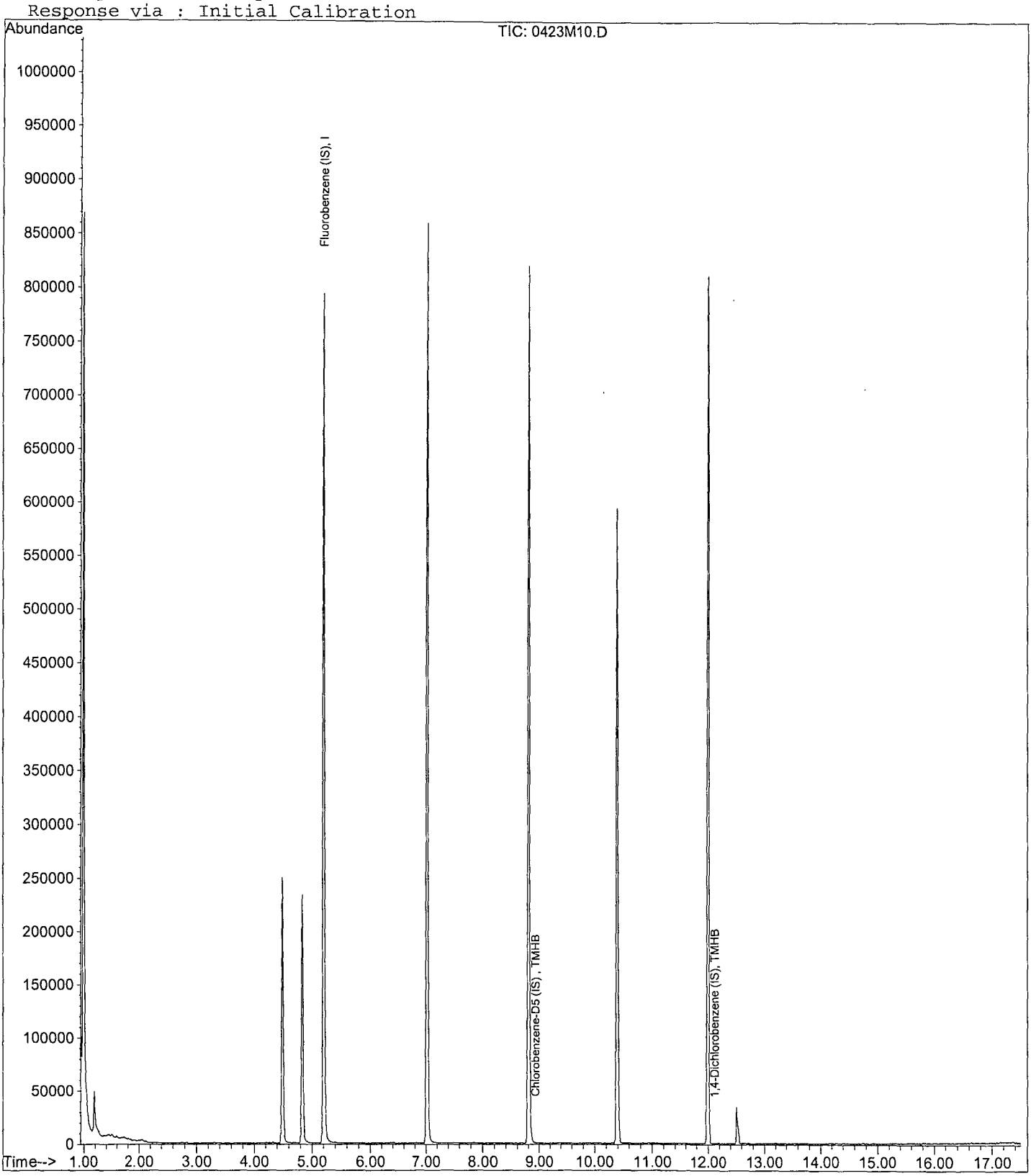
Data File : M:\MAX\DATA\M190401\0423M10.D
Acq On : 23 Apr 19 16:56
Sample : AZ89958W01
Misc : IS,Surr 03/24/19

Vial: 9
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 24 8:49 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0423M11.D Vial: 10
Acq On : 23 Apr 19 17:24 Operator: PM,DG,SV,CMM,KV
Sample : AZ89959W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:49 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 747838 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 733495m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 800819m | 25.000 ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0423M11.D Vial: 10
Acq On : 23 Apr 19 17:24 Operator: PM,DG,SV,CMM,KV
Sample : AZ89959W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:52 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 696506 | 25.000 ppb | -0.12 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 538928 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 290366 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 139113 | 26.109 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 104.436% | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 149150 | 24.298 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 97.192% | |
| 5) Toluene-D8(S) | 7.01 | 98 | 589655 | 24.642 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 98.568% | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 222781 | 25.371 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 101.484% | |

Target Compounds Qvalue

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

Quantitation Report

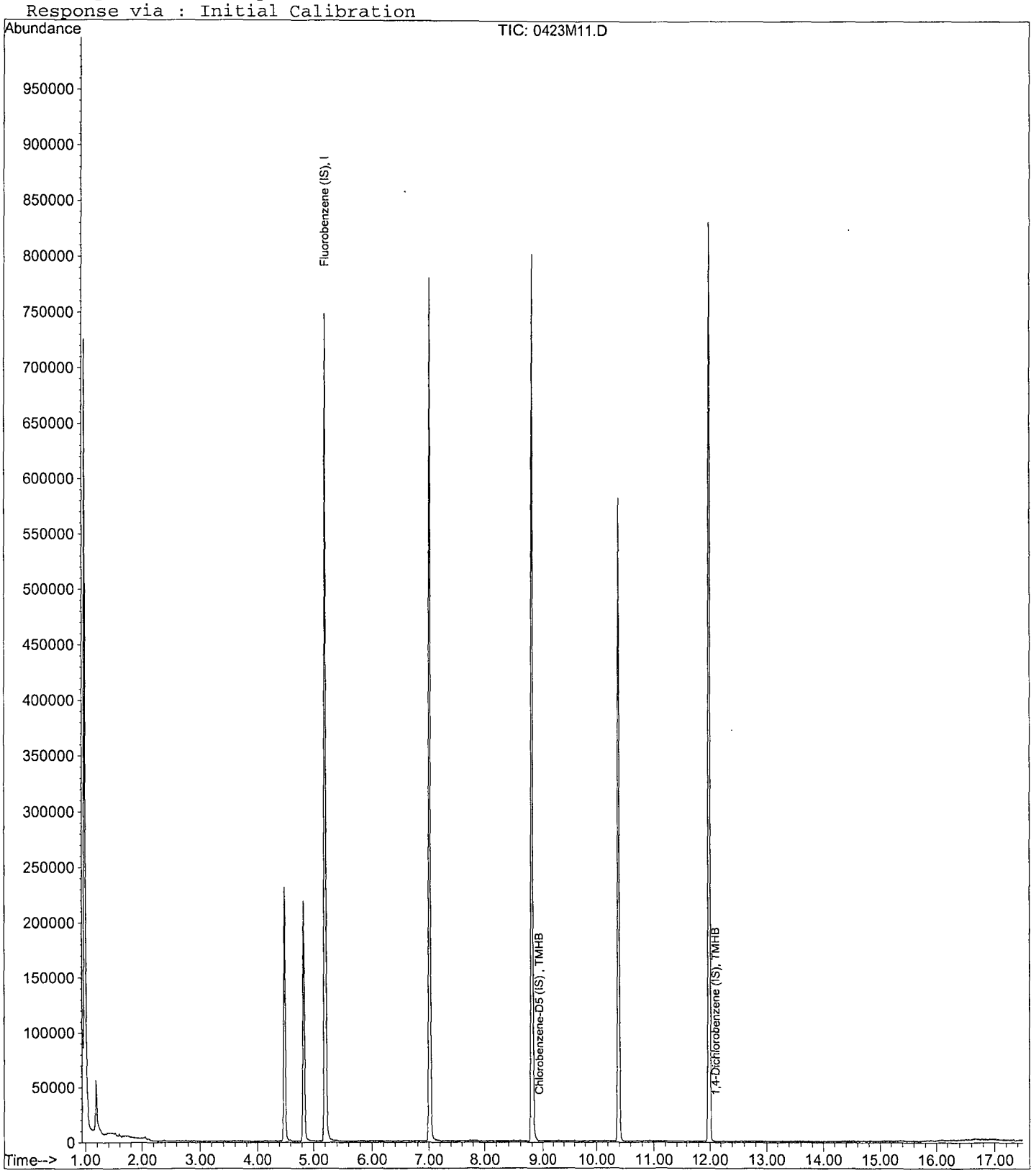
Data File : M:\MAX\DATA\M190401\0423M11.D
Acq On : 23 Apr 19 17:24
Sample : AZ89959W01
Misc : IS,Surr 03/24/19

Vial: 10
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 24 8:49 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0423M09.D Vial: 8
Acq On : 23 Apr 19 16:27 Operator: PM,DG,SV,CMM,KV
Sample : AZ89960W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:49 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 808189 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 801969m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 811659m | 25.000 ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0423M09.D Vial: 8
Acq On : 23 Apr 19 16:27 Operator: PM,DG,SV,CMM,KV
Sample : AZ89960W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:52 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 764433 | 25.000 ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 579302 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 286425 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 157945 | 27.009 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 108.036% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 166019 | 24.643 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 98.572% | | |
| 5) Toluene-D8(S) | 7.02 | 98 | 663455 | 25.793 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 103.172% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 239227 | 25.345 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 101.380% | | |

Target Compounds Qvalue

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

Quantitation Report

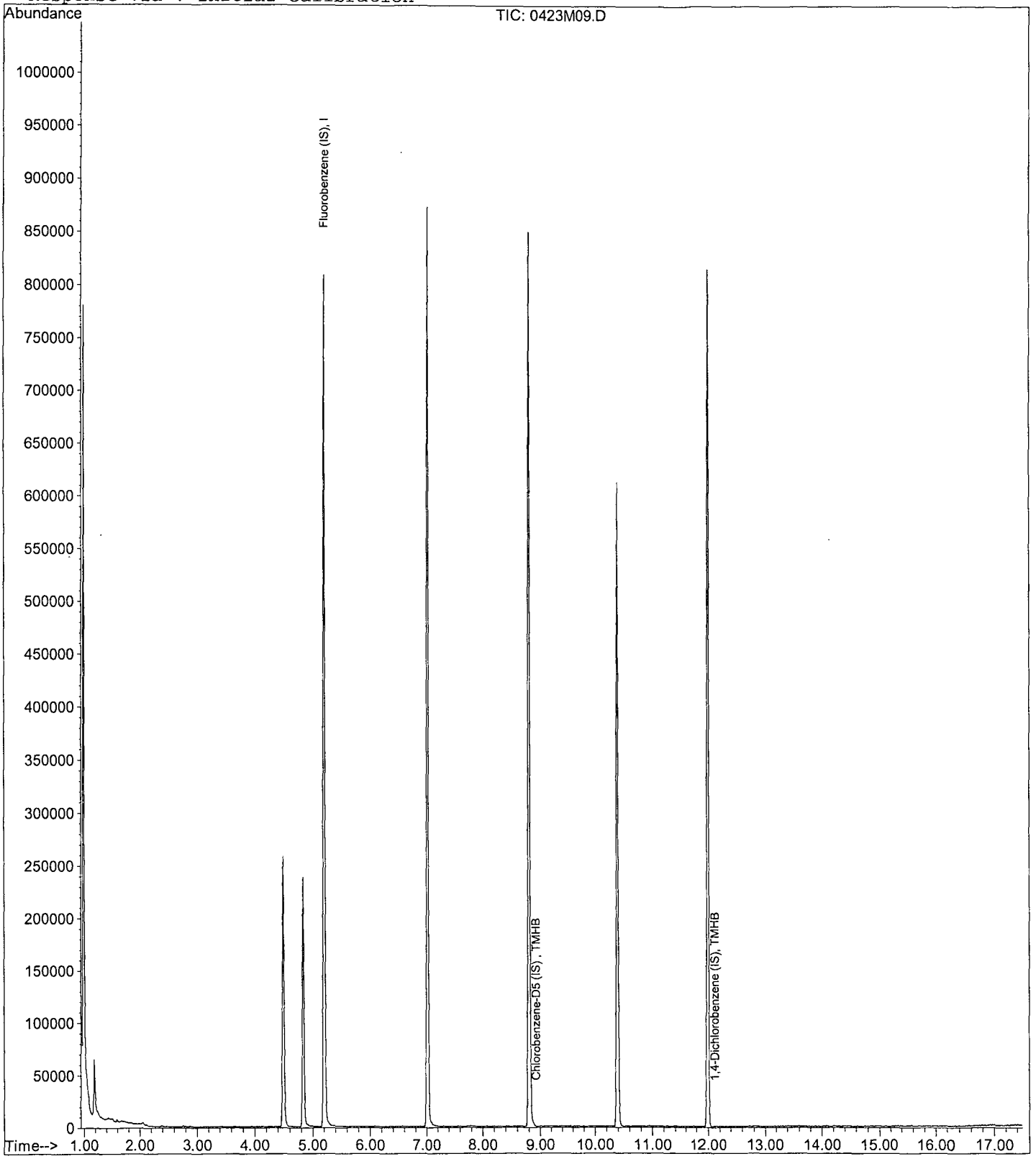
Data File : M:\MAX\DATA\M190401\0423M09.D
Acq On : 23 Apr 19 16:27
Sample : AZ89960W01
Misc : IS,Surr 03/24/19

Vial: 8
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 24 8:49 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0423M12.D Vial: 11
Acq On : 23 Apr 19 17:53 Operator: PM,DG,SV,CMM,KV
Sample : AZ89961W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:49 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 760879 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 751626m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 764895m | 25.000 ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0423M12.D Vial: 11
Acq On : 23 Apr 19 17:53 Operator: PM,DG,SV,CMM,KV
Sample : AZ89961W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:52 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 709248 | 25.000 ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 534600 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 277264 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 146890 | 27.073 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 108.292% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 159885 | 25.579 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 102.316% | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 625936 | 26.370 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 105.480% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 233071 | 26.758 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 107.032% | | |

Target Compounds Qvalue

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

Quantitation Report

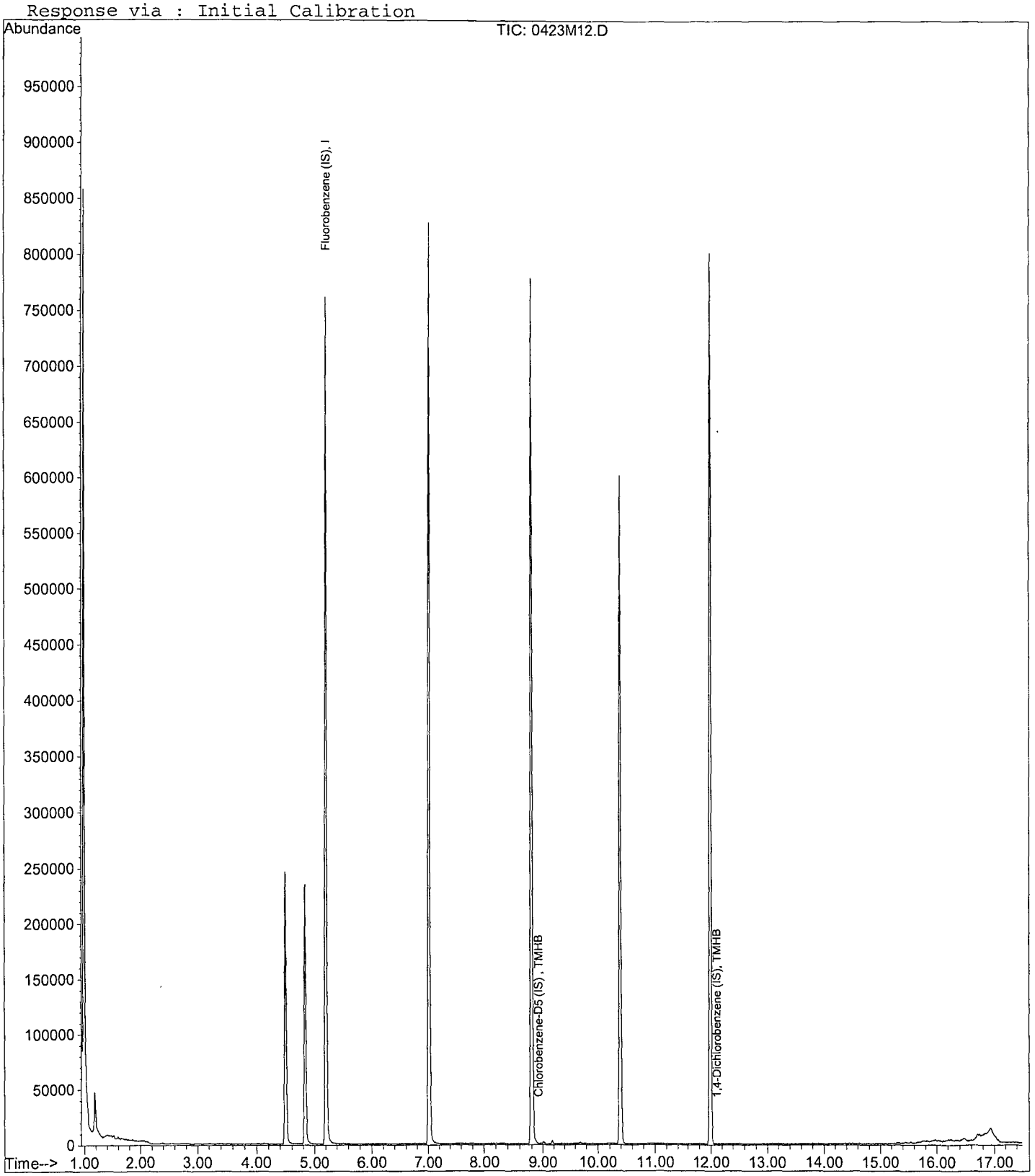
Data File : M:\MAX\DATA\M190401\0423M12.D
Acq On : 23 Apr 19 17:53
Sample : AZ89961W01
Misc : IS,Surr 03/24/19

Vial: 11
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 24 8:49 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0423M07.D Vial: 6
Acq On : 23 Apr 19 15:31 Operator: PM,DG,SV,CMM,KV
Sample : 190423A blk Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:48 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 751245 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 755261m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 838568m | 25.000 ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0423M07.D Vial: 6
Acq On : 23 Apr 19 15:31 Operator: PM,DG,SV,CMM,KV
Sample : 190423A blk Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:52 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 708149 | 25.000 ppb | -0.12 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 557163 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 306670 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 149076 | 27.518 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 110.072% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 159698 | 25.588 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 102.352% | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 636231 | 25.718 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 102.872% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 242960 | 26.763 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 107.052% | | |

Target Compounds Qvalue

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

Quantitation Report

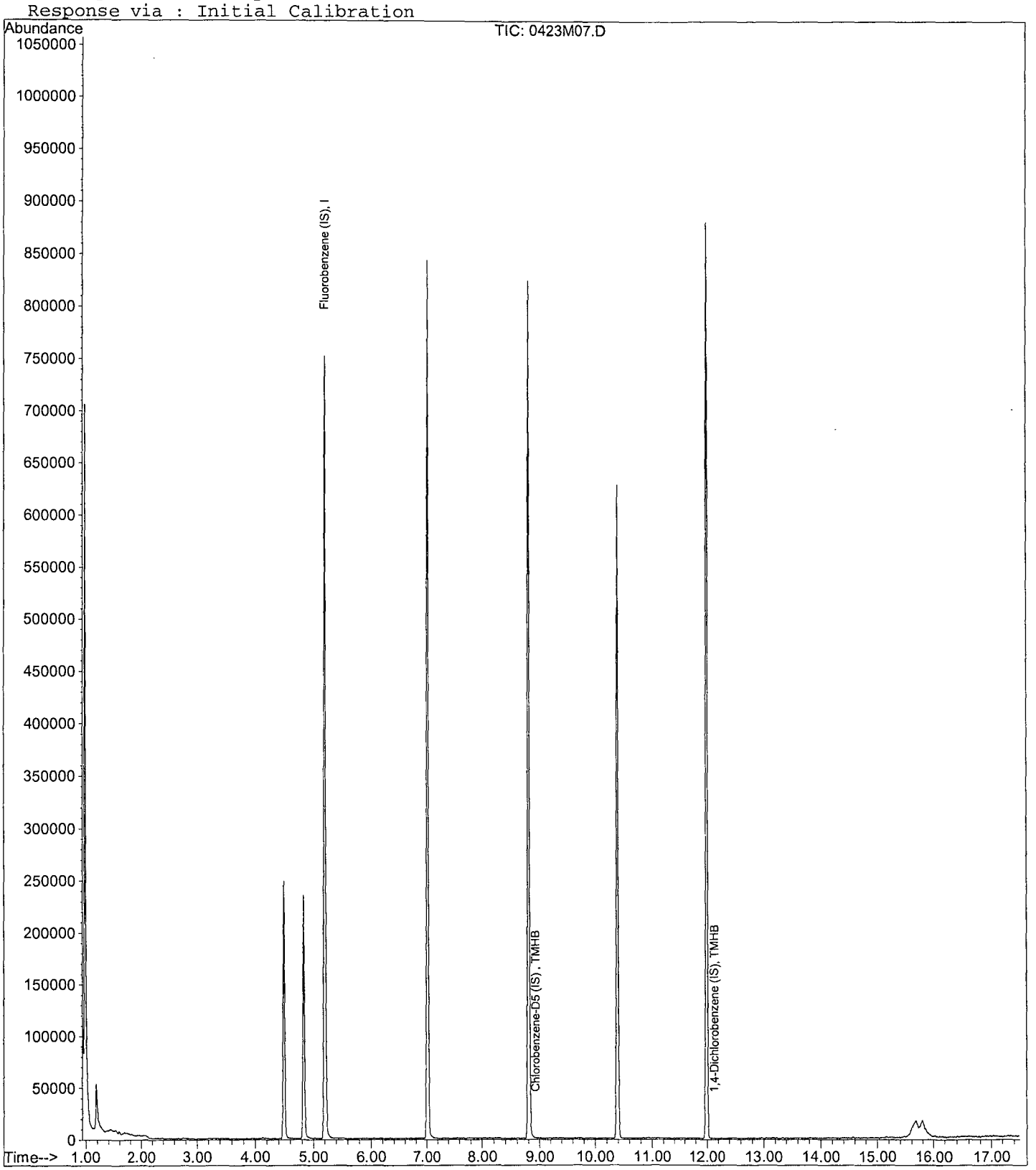
Data File : M:\MAX\DATA\M190401\0423M07.D
Acq On : 23 Apr 19 15:31
Sample : 190423A blk
Misc : IS,Surr 03/24/19

Vial: 6
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 24 8:48 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0423M04.D Vial: 3
Acq On : 23 Apr 19 14:05 Operator: PM,DG,SV,CMM,KV
Sample : 190423A LCS 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:48 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 782519 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1732095m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1846752m | 25.000 ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Gasoline C6-C10 | 7.02 | TIC | 11325508m | 317.719 ppb | 100 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0423M04.D Vial: 3
Acq On : 23 Apr 19 14:05 Operator: PM,DG,SV,CMM,KV
Sample : 190423A LCS 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:52 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 741872 | 25.000 ppb | -0.12 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 582778 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 319930 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 149580 | 26.356 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 105.424% | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 159850 | 24.448 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 97.792% | |
| 5) Toluene-D8(S) | 7.02 | 98 | 645539 | 24.947 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 99.788% | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 249814 | 26.309 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 105.236% | |

Target Compounds Qvalue

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

Quantitation Report

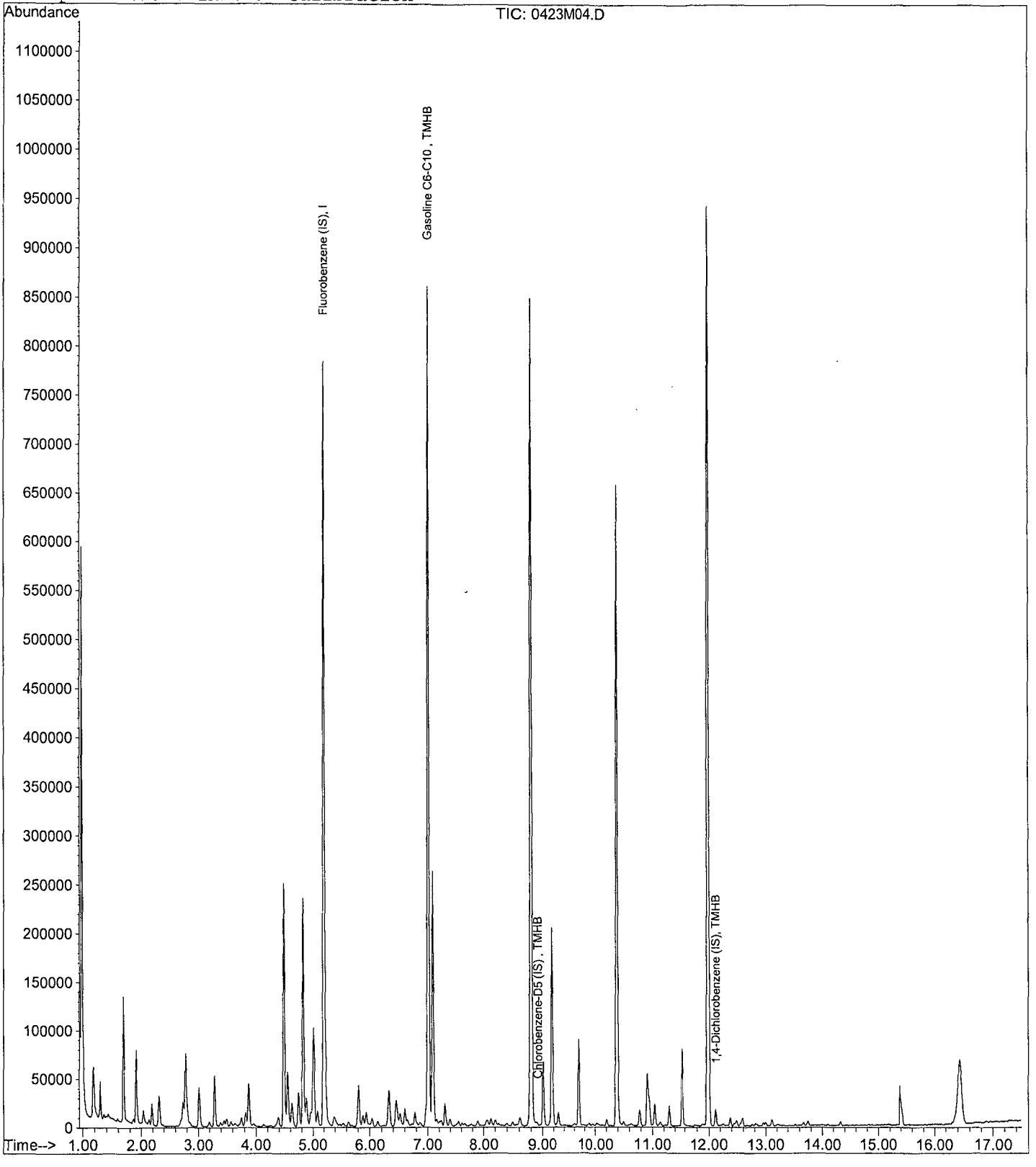
Data File : M:\MAX\DATA\M190401\0423M04.D
Acq On : 23 Apr 19 14:05
Sample : 190423A LCS 300ug/L
Misc : IS,Surr 03/24/19

Vial: 3
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 24 8:48 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0423M05.D Vial: 4
Acq On : 23 Apr 19 14:34 Operator: PM,DG,SV,CMM,KV
Sample : 190423A LCSD 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:48 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 826022 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1746615m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1775814m | 25.000 ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Gasoline C6-C10 | 7.01 | TIC | 11707246m | 301.641 ppb | 100 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0423M05.D Vial: 4
Acq On : 23 Apr 19 14:34 Operator: PM,DG,SV,CMM,KV
Sample : 190423A LCSD 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:52 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 779174 | 25.000 ppb | -0.12 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 595641 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 308732 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 163048 | 27.354 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery | = 109.416% | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 170553 | 24.837 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery | = 99.348% | |
| 5) Toluene-D8(S) | 7.01 | 98 | 675104 | 25.526 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery | = 102.104% | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 248162 | 25.570 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery | = 102.280% | |

Target Compounds Qvalue

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

Quantitation Report

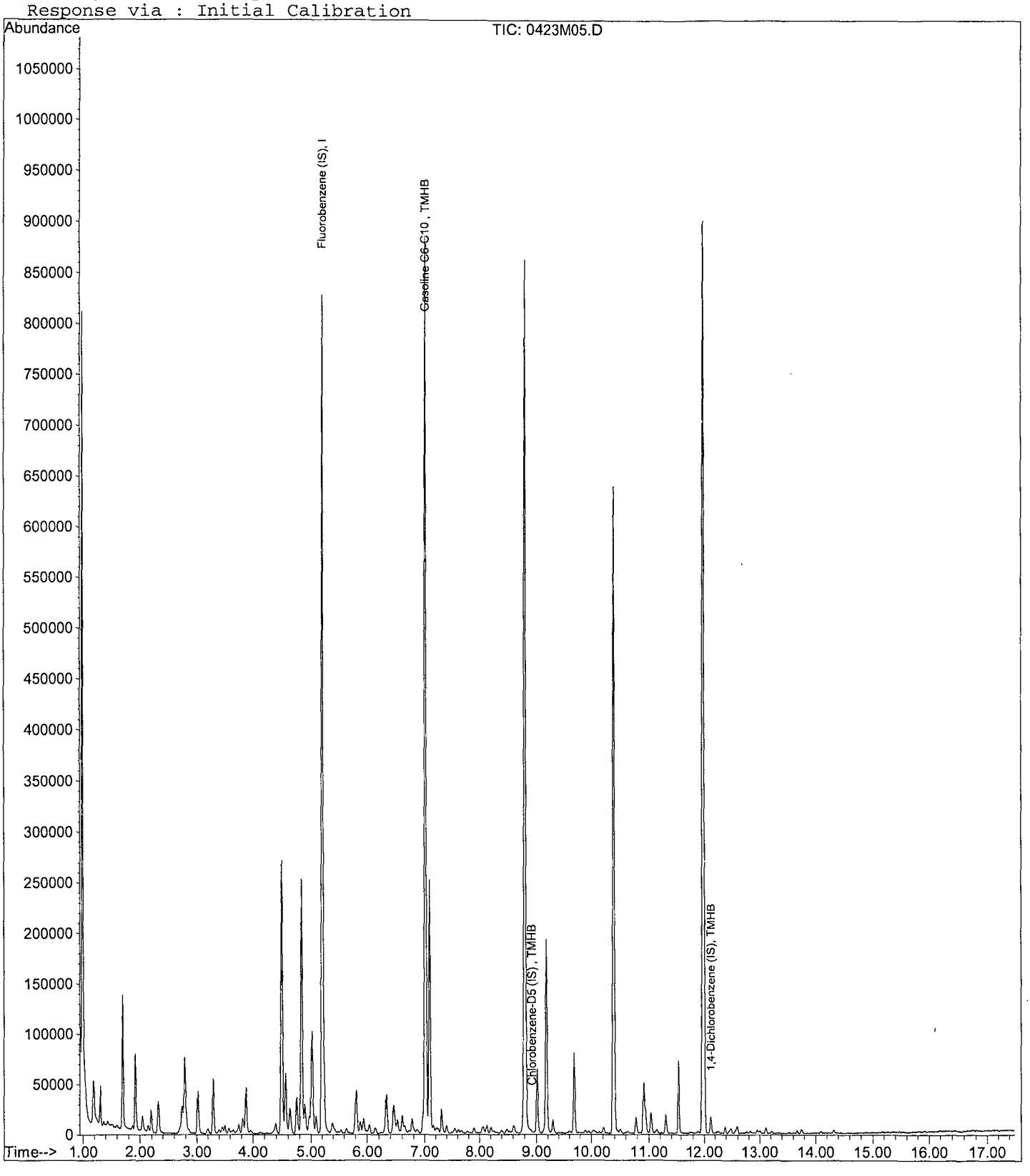
Data File : M:\MAX\DATA\M190401\0423M05.D
Acq On : 23 Apr 19 14:34
Sample : 190423A LCSD 300ug/L
Misc : IS,Surr 03/24/19

Vial: 4
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 24 8:48 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0423M13.D Vial: 12
Acq On : 23 Apr 19 18:21 Operator: PM,DG,SV,CMM,KV
Sample : AZ89958W02 MS 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:50 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 741283 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1588457m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1637169m | 25.000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| **Target Compounds** | | | | | Qvalue |
| 2) Gasoline C6-C10 | 7.01 | TIC | 10166478m | 277.085 ppb | 100 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0423M13.D Vial: 12
Acq On : 23 Apr 19 18:21 Operator: PM,DG,SV,CMM,KV
Sample : AZ89958W02 MS 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:52 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 698498 | 25.000 ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 532415 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 285722 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 140027 | 26.205 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 104.820% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 150113 | 24.385 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 97.540% | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 600805 | 25.415 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 101.660% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 223635 | 25.780 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 103.120% | | |

Target Compounds Qvalue

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

Quantitation Report

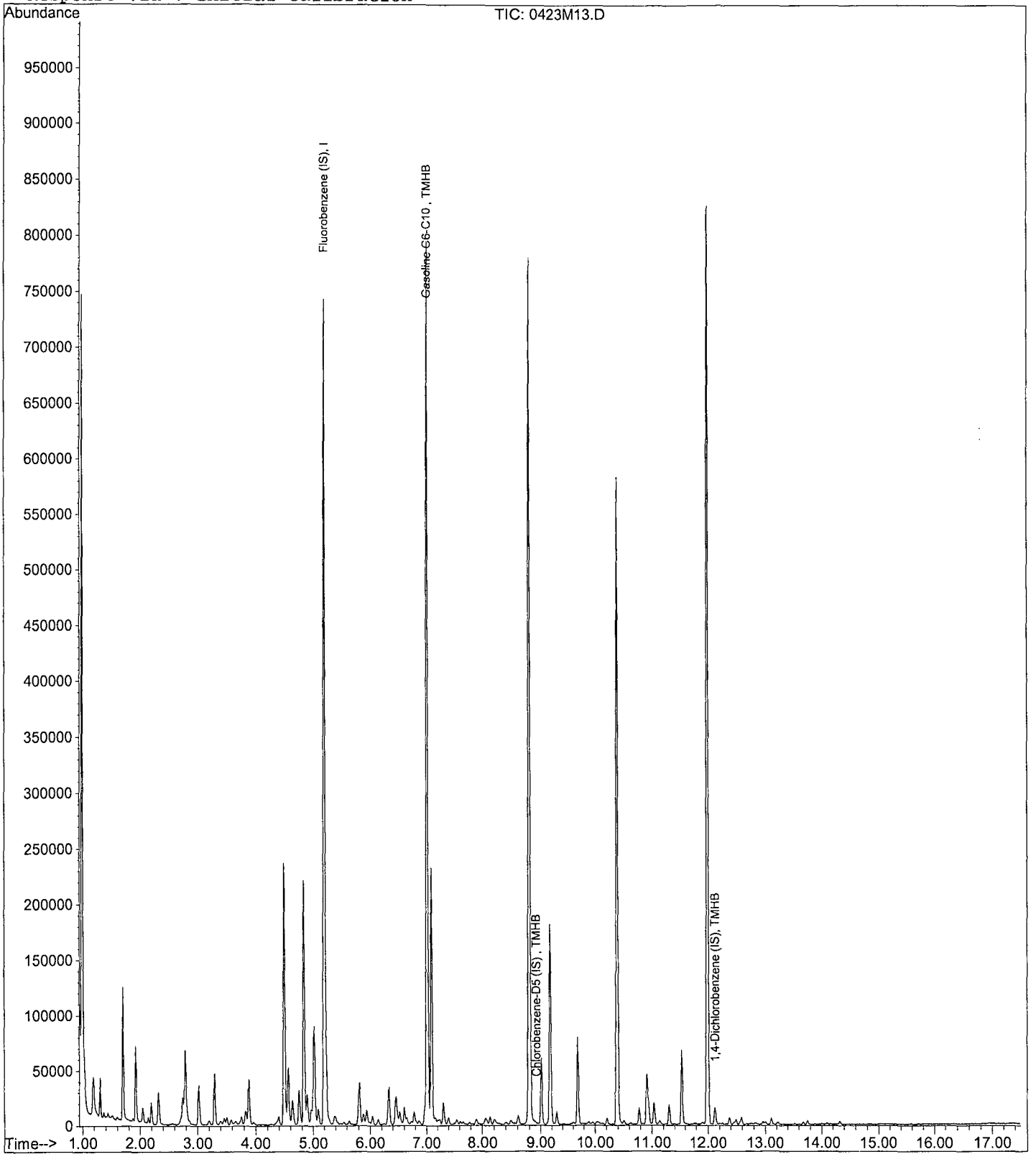
Data File : M:\MAX\DATA\M190401\0423M13.D
Acq On : 23 Apr 19 18:21
Sample : AZ89958W02 MS 300ug/L
Misc : IS,Surr 03/24/19

Vial: 12
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 24 8:50 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0423M14.D Vial: 13
Acq On : 23 Apr 19 18:50 Operator: PM,DG,SV,CMM,KV
Sample : AZ89958W03 MSD 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:50 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 754919 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1625146m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1665655m | 25.000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Gasoline C6-C10 | 7.01 | TIC | 10467194m | 285.155 | ppb | 100 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0423M14.D Vial: 13
Acq On : 23 Apr 19 18:50 Operator: PM,DG,SV,CMM,KV
Sample : AZ89958W03 MSD 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 24 8:52 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 701660 | 25.000 ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 545200 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 288555 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 142761 | 26.596 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 106.384% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 152441 | 24.652 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 98.608% | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 612354 | 25.296 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 101.184% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 230031 | 25.895 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 103.580% | | |

Target Compounds Qvalue

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

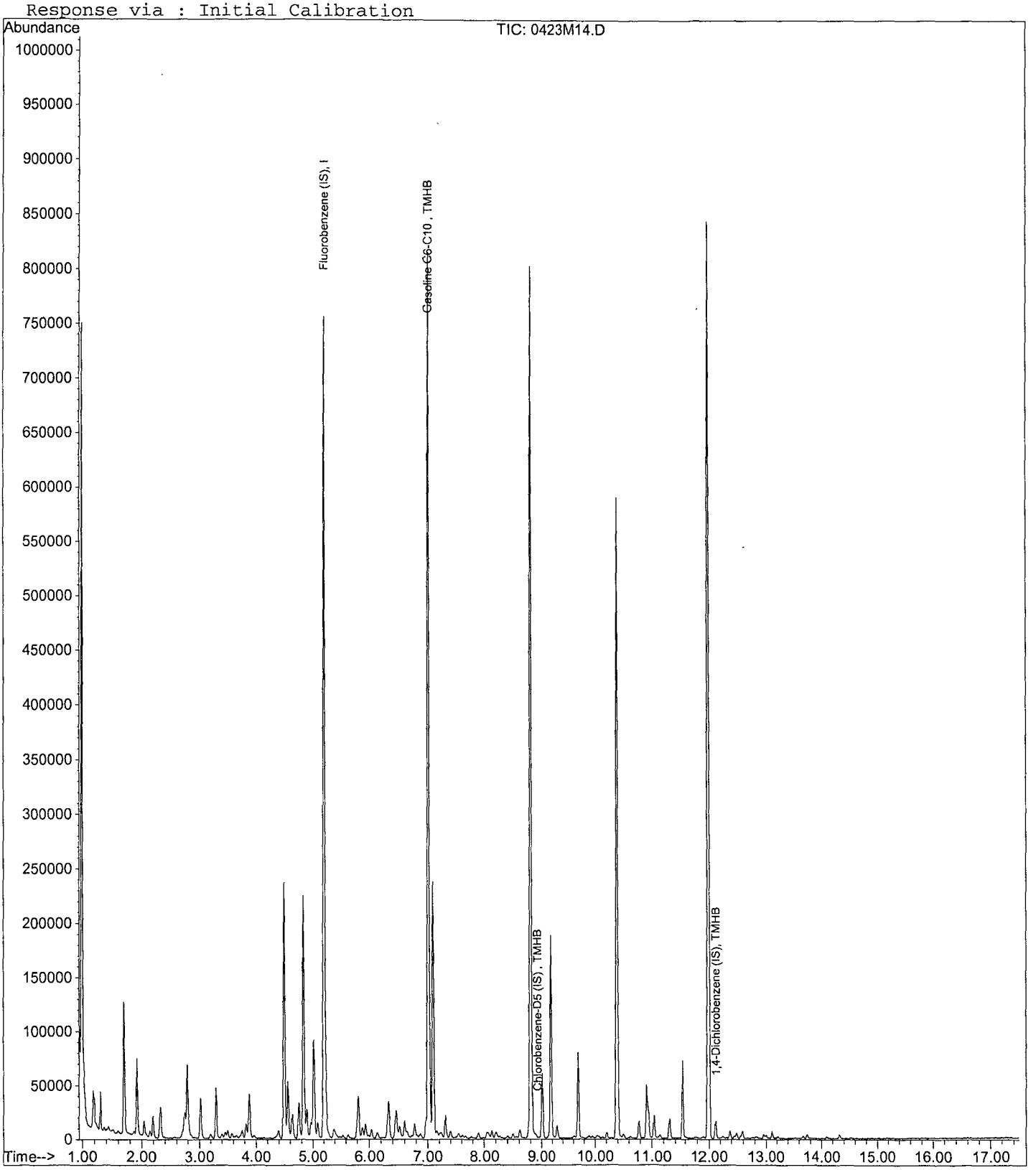
Quantitation Report

Data File : M:\MAX\DATA\M190401\0423M14.D
Acq On : 23 Apr 19 18:50
Sample : AZ89958W03 MSD 300ug/L
Misc : IS,Surr 03/24/19

Vial: 13
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 24 8:50 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



# Max 8260 Standard Prep

**Max 8260 Water Calibration Curve**

***0.3ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 9 | O2SI | 0.3ug/L | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 3uL | 50mL | P&T Water | 0.3 |
| VOA STD. 10 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 3uL | | | 0.3 |
| VOA STD. 12 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 3uL | | | 0.3 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 2uL | | | 10 |

***0.5ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 9 | O2SI | 0.5ug/L | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 5uL | 50mL | P&T Water | 0.5 |
| VOA STD. 10 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 5uL | | | 0.5 |
| VOA STD. 12 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 5uL | | | 0.5 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 5uL | | | 25 |

***1.0ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 9 | O2SI | 1.0ug/L | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | 50mL | P&T Water | 1 |
| VOA STD. 10 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 1 |
| VOA STD. 12 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 1 |
| VOA STD TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 10uL | | | 50 |

***2.0ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 9 | O2SI | 2.0ug/L | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 20uL | 50mL | P&T Water | 2 |
| VOA STD. 10 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 20uL | | | 2 |
| VOA STD. 12 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 20uL | | | 2 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 15uL | | | 75 |

***5ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 5ug/L | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 5uL | 50mL | P&T Water | 5 |
| VOA STD. 8 | Phenova | | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 5uL | | | 5 |
| VOA STD. 1 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 5uL | | | 5 |
| VOA STD. 2 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 5uL | | | 5 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 20uL | | | 100 |

***10ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 10ug/L | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD. 8 | Phenova | | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 10uL | | | 10 |
| VOA STD. 1 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 10 |
| VOA STD. 2 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 10 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 25uL | | | 125 |

***20ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 20ug/L | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 20uL | 50mL | P&T Water | 20 |
| VOA STD. 8 | Phenova | | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 20uL | | | 20 |
| VOA STD. 1 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 20uL | | | 20 |
| VOA STD. 2 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 20uL | | | 20 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 30uL | | | 150 |

***40ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 40ug/L | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 40uL | 50mL | P&T Water | 40 |
| VOA STD. 8 | Phenova | | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 40uL | | | 40 |
| VOA STD. 1 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 40uL | | | 40 |
| VOA STD. 2 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 40uL | | | 40 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 35uL | | | 175 |

***100ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 100ug/L | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 100uL | 50mL | P&T Water | 100 |
| VOA STD. 8 | Phenova | | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 100uL | | | 100 |
| VOA STD. 1 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 100uL | | | 100 |
| VOA STD. 2 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 100uL | | | 100 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 40uL | | | 200 |

**Max 8260 Water Second Source (SS)**

**Prepared: 03/24/19**

**Prepared By (Initials): DG**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 4 | Phenova | 8260 Water SS | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD. 5 | O2SI | 8260 Water SS | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 10 |
| VOA STD. 6 | Various | 8260 Water SS | 50 | Prepared 03/21/19 | 03/13/19 | N/A | 10uL | | | 10 |
| Voa STD. TBA | Various | 8260 Water SS | 250 | Prepared 03/21/19 | 03/13/19 | N/A | 25uL | | | 250 |

**8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)**

**Prepared: 03/24/19**

**Prepared By (Initials): DG**

**Expires: 03/25/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | CCV/ LCS | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD. 8 | Phenova | CCV/ LCS | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 10uL | | | 10 |
| VOA STD. 1 | O2SI | CCV/ LCS | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 10 |
| VOA STD. 2 | O2SI | CCV/ LCS | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 10 |
| VOA STD. TBA | Various | CCV/ LCS | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 25uL | | | 125 |

***LCS (X4 Ketones)***

**Prepared: 03/24/19**

**Prepared By (Initials): DG**

**Expires: 03/25/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | LCS X4 Ketones | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD. 8 | Phenova | LCS X4 Ketones | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 10uL | | | 10 |
| VOA STD. 1 | O2SI | LCS X4 Ketones | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 10 |
| VOA STD. 2 | O2SI | LCS X4 Ketones | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 40uL | | | 40 |
| VOA STD. TBA | Various | LCS X4 Ketones | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 25uL | | | 125 |

**Max 8260 Water Surrogate**

**Prepared:** 03/24/19
**Expires:** 03/23/20
**Methanol Lot No:** 58019

**Prepared By (Initials):** DG

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 8260 Surrogate Solution | O2SI | 120002-01 | 2,000 | **348756-39342** | **03/24/20** | **02/10/22** | 375uL | 15mL | Methanol | 50 |

**Max 8260 Water Internal Standard**

**Prepared:** 03/24/19
**Expires:** 03/23/20
**Methanol Lot No:** 58019

**Prepared By (Initials):** DG

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Internal Standard Solution | O2SI | 120004-02 | 2,000 | **326533-38436** | **03/24/20** | **04/27/21** | 375uL | 15mL | Methanol | 50 |

**Max 8260 Water Surrogate**

**Prepared:** 03/24/19
**Expires:** 03/23/20
**Methanol Lot No:** 58019

**Prepared By (Initials):** DG

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 8260 Surrogate Solution | O2SI | 120002-01 | 2,000 | **348756-39342** | **03/24/20** | **02/10/22** | 375uL | 15mL | Methanol | 50 |

**Max 8260 Water Internal Standard**

**Prepared:** 03/24/19
**Expires:** 03/23/20
**Methanol Lot No:** 58019

**Prepared By (Initials):** DG

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Internal Standard Solution | O2SI | 120004-02 | 2,000 | **326533-38436** | **03/24/20** | **04/27/21** | 375uL | 15mL | Methanol | 50 |

**Primary Standards**

*VOA STD 7*

**Prepared: 03/21/19 D**
**Expires: 05/20/19**
**Methanol Lot No. 907702-202404**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| VOA Gasses STD | Phenova | ALO-101206 | 2,000 | **CL12965-40268** | **03/21/20** | **10/31/23** | 100uL | 4mL | Methanol | 50 |
| Hexachloroethane | Absolute | 70199 | 1,000 | **091818-40040** | **03/05/20** | **09/18/23** | 200uL | | | 50 |
| Benzyl Chloride | O2SI | 020228-02 | 1,000 | **120418-40033** | **12/04/19** | **12/04/19** | 200uL | | | 50 |

*VOA STD 8*

**Prepared: 03/21/19 E**
**Expires: 03/27/19**
**Methanol Lot No. 907702-202404**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| VOA Additions STD | Phenova | ALO-130175 | 2,000 | **CL12622-40170** | **03/05/20** | **06/30/20** | 100uL | 4mL | Methanol | 50 |
| 502.2 Cal. Std. | Phenova | ALO-101200 | 2,000 | **CL12489** | **03/05/20** | **05/31/23** | 100uL | | | 50 |
| Vinyl Acetate | Phenova | ALO-101228 | 2,000 | **CL13319-40461** | **03/27/19** | **03/27/19** | 100uL | | | 50 |

*VOA STD TBA*

**Prepared: 03/21/19 F**
**Expires: 03/27/19**
**Methanol Lot No. 907702-202404**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Custom VOC Mix | Phenova | ALO-130176 | 2,000 | **CL12929-40193** | **03/1620** | **11/30/20** | 500uL | 4mL | Methanol | 250 |
| Acrolein | Phenova | ALO-130549 | 10,000 | **CL13322-40462** | **03/27/19** | **03/27/19** | 100uL | | | 250 |

*VOA STD 1*

**Prepared: 03/21/19 G**
**Expires: 05/20/19**
**Methanol Lot No. 907702-202404**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 2-CEVE | O2SI | 020145-02 | 2,000 | **071018-40345** | **03/05/20** | **07/10/21** | 50 | 2mL | Methanol | 50 |

*VOA STD 2*

**Prepared: 03/21/19 H**
**Expires: 05/20/19**
**Methanol Lot No. 907702-202404**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Ketones Std. | Phenova | AL0-109211 | 2,000 | **CL12729-40178** | **03/05/20** | **08/31/28** | 100 | 4mL | Methanol | 50 |

*VOA STD 9*

**Prepared: 03/21/19 I**
**Expires: 05/20/19**
**Methanol Lot No. 907702-202404**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| VOA STD. 7 | | VOA STD. 9 | 50 | Prepared 03/21/19 | **03/05/20** | N/A | 200uL | 2mL | Methanol | 5 |
| VOA STD. 8 | | | 50 | Prepared 03/21/19 | **03/05/20** | N/A | 200uL | | | 5 |

*VOA STD. 10*

**Prepared: 03/21/19 J**
**Expires: 05/20/19**
**Methanol Lot No. 907702-202404**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| VOA STD. 1 | | VOA STD. 10 | 50 | Prepared 03/21/19 | **03/05/20** | N/A | 200uL | 2mL | Methanol | 5 |

*VOA STD. 12*

**Prepared: 03/21/19 K**
**Expires: 05/20/19**
**Methanol Lot No. 907702-202404**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| VOA STD. 2 | | VOA STD. 12 | 50 | Prepared 03/21/19 | **03/05/20** | N/A | 200uL | 2mL | Methanol | 5 |

## Second Source (SS) Standards

*VOA STD. 3*

**Prepared: 03/21/19 L**
**Expires: 05/20/19**
**Methanol Lot No. 907702-202404**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Ketones Standard | Phenova | ALO-101211 | 2,000 | **CL12730-40182** | **03/05/20** | **08/31/28** | 50uL | 2mL | Methanol | 50 |

*VOA STD. 5*

**Prepared: 03/21/19 M**
**Expires: 05/20/19**
**Methanol Lot No. 907702-202404**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 8260 Gases (SS) | Phenova | ALO-101206 | 2,000 | **CL12966-** | **03/05/20** | **10/31/23** | 50uL | 2mL | Methanol | 50 |
| 2-CEVE (SS) | Absolute | 82408 | 2,000 | **112917-40209** | **03/05/20** | **11/29/20** | 50uL | | | 50 |

*VOA STD. 6*

**Prepared: 03/21/19 N**
**Expires: 03/13/19**
**Methanol Lot No. 907702-202404**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 502.2 Calibration STD. (54-compounds) | Phenova | ALO-101200 | 2,000 | **CL12489** | **03/05/20** | **05/31/23** | 50uL | 2mL | Methanol | 50 |
| Vinyl Acetate | Phenova | ALO-101228 | 2,000 | **CL13271** | **03/13/19** | **03/13/19** | 50uL | | | 50 |
| Hexachloroethane | Accustan | AS-E0011 | 1,000 | **218051281-40277** | **03/05/20** | **05/14/28** | 100uL | | | 50 |
| Benzyl Chloride | Accustan | M-8010-01 | 200 | **214101335-04** | **03/05/20** | **10/18/20** | 500uL | | | 50 |

*VOA STD. TBA*

**Prepared: 03/21/19 O**
**Expires: 03/13/19**
**Methanol Lot No. 907702-202404**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Custom VOA Mix (4-3) | Phenova | ALO-130176 | 2,000 | **CL12228-39308** | **01/31/20** | **01/31/20** | 250uL | 2mL | Methanol | 250 |
| Acrolein | Phenova | ALO-101224 | 10,000 | **CL13274** | **03/13/19** | **03/13/19** | 50uL | | | 250 |

*VOA STD. 0*

**Prepared: 03/21/19 P**
**Expires: 05/20/19**
**Methanol Lot No. 907702-202404**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| VOA Addition STD. | Phenova | ALO-130175 | 2,000 | **CL12744** | **03/05/20** | **08/30/20** | 50uL | 2mL | Methanol | 50 |

## BFB Tune

**Prepared: 03/11/19**
**Expires: 12/12/19**
**Methanol Lot No. 202404-00945**
**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 4-Bromofluorobenzene | O2SI | 020135-03 | 2,500 | **342387-39075** | **12/12/19** | **01/19/21** | 20uL | 2mL | Methanol | 25 |

# Injection Log

Directory: M:\MAX\DATA\M190324\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 3 | 0324M05.D | 1 | 0.3ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 12:56 |
| 2 | 4 | 0324M06.D | 1 | 0.5ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 13:25 |
| 3 | 5 | 0324M07.D | 1 | 1.0ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 13:54 |
| 4 | 6 | 0324M08.D | 1 | 2.0ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 14:22 |
| 5 | 7 | 0324M09.D | 1 | 5.0ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 14:51 |
| 6 | 8 | 0324M10.D | 1 | 10ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 15:19 |
| 7 | 9 | 0324M11.D | 1 | 20ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 15:48 |
| 8 | 10 | 0324M12.D | 1 | 40ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 16:17 |
| 9 | 11 | 0324M13.D | 1 | 100ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 16:45 |
| 10 | 3 | 0401M04.D | 1 | 20ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 10:31 |
| 11 | 4 | 0401M05.D | 1 | 50ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 11:00 |
| 12 | 5 | 0401M06.D | 1 | 100ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 11:28 |
| 13 | 6 | 0401M07.D | 1 | 300ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 11:57 |
| 14 | 7 | 0401M08.D | 1 | 600ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 12:25 |
| 15 | 8 | 0401M09.D | 1 | 800ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 12:54 |
| 16 | 9 | 0401M10.D | 1 | 1000ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 13:22 |
| 17 | 11 | 0401M12.D | 1 | (SS)300ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 14:19 |
| 18 | 2 | 0423M03.D | 1 | 190423A CCV 300ug/L | IS,Surr 03/24/19 | 23 Apr 19 13:37 |
| 19 | 3 | 0423M04.D | 1 | 190423A LCS 300ug/L | IS,Surr 03/24/19 | 23 Apr 19 14:05 |
| 20 | 4 | 0423M05.D | 1 | 190423A LCSD 300ug/L | IS,Surr 03/24/19 | 23 Apr 19 14:34 |
| 21 | 6 | 0423M07.D | 1 | 190423A blk | IS,Surr 03/24/19 | 23 Apr 19 15:31 |
| 22 | 7 | 0423M08.D | 1 | AZ89957W01 | IS,Surr 03/24/19 | 23 Apr 19 15:59 |
| 23 | 8 | 0423M09.D | 1 | AZ89960W01 | IS,Surr 03/24/19 | 23 Apr 19 16:27 |
| 24 | 9 | 0423M10.D | 1 | AZ89958W01 | IS,Surr 03/24/19 | 23 Apr 19 16:56 |
| 25 | 10 | 0423M11.D | 1 | AZ89959W01 | IS,Surr 03/24/19 | 23 Apr 19 17:24 |
| 26 | 11 | 0423M12.D | 1 | AZ89961W01 | IS,Surr 03/24/19 | 23 Apr 19 17:53 |
| 27 | 12 | 0423M13.D | 1 | AZ89958W02 MS 300ug/L | IS,Surr 03/24/19 | 23 Apr 19 18:21 |
| 28 | 13 | 0423M14.D | 1 | AZ89958W03 MSD 300ug/L | IS,Surr 03/24/19 | 23 Apr 19 18:50 |
| 29 | 14 | 0423M15.D | 1 | Ending CCV 300ug/L | IS,Surr 03/24/19 | 23 Apr 19 19:18 |

# ORGANICS
# Calibration Data

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 04/23/19
Matrix: Instrument: Loki
Initials: DG/LP

| | | | 0423L04.D | 0423L05.D | 0423L06.D | 0423L07.D | 0423L08.D | 0423L09.D | 0423L10 D | 0423L11.D | 0423L12.D | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | Avg | %RSD | Type | r^2 | Q | MRF |
| 1 | I | Fluorobenzene (IS) | | | | | | | | | | | | | | | | |
| 2 | TM | Chlorotrifluoroethene | | | | | | | | | | | | | TM | | | |
| 3 | TM | Dichlorodifluoromethane | | 0.2404 | 0.2560 | 0.2809 | 0.1901 | 0.2291 | 0.2368 | 0.2481 | 0.2058 | | 0.24 | 12 | TM | | | |
| 4 | TM | Freon 114 | | 0.2211 | 0.2146 | 0.2608 | 0.2058 | 0.2211 | 0.1987 | 0.2122 | 0.1606 | | 0.21 | 13 | TM | | | |
| 5 | TM** | Chloromethane | | 0.3887 | 0.3226 | 0.3463 | 0.2476 | 0.2966 | 0.2799 | 0.2921 | | | 0.31 | 15 | TM** | | | |
| 6 | TM* | Vinyl chloride | | 0.3374 | 0.3062 | 0.3601 | 0.2366 | 0.2890 | 0.2837 | 0.2832 | 0.2486 | | 0.29 | 14 | TM* | | | |
| 7 | TM | 2-Chloro-1,1,1-trifluoroethane | | | | | | | | | | | | | TM | | | |
| 8 | TML | Bromomethane | | 0.2312 | 0.2294 | 0.2200 | 0.1422 | 0.1770 | 0.1566 | 0.1672 | | | 0.19 | 20 | TML | 0.998 | | |
| 9 | TML | Chloroethane | | 0.1778 | 0.1635 | 0.1766 | 0.1183 | 0.1353 | 0.1291 | 0.1307 | | | 0.15 | 17 | TML | 0.999 | | |
| 10 | TM | Dichlorofluoromethane | | 0.4837 | 0.3958 | 0.4621 | 0.4000 | 0.4015 | 0.3685 | 0.3758 | 0.3057 | | 0.40 | 14 | TM | | | |
| 11 | TM | Trichlorofluoromethane | | 0.3956 | 0.3608 | 0.3811 | 0.2486 | 0.3165 | 0.3160 | 0.3259 | 0.2866 | | 0.33 | 15 | TM | | | |
| 12 | TM | Acrolein | | 0.0462 | 0.0421 | 0.0473 | 0.0428 | 0.0437 | 0.0397 | 0.0396 | 0.0296 | | 0.04 | 13 | TM | | | |
| 13 | TML | Acetone | | | 0.1761 | 0.1499 | 0.1063 | 0.0850 | 0.0674 | 0.0626 | 0.0503 | | 0.10 | 48 | TML | 0.993 | | |
| 14 | TM | Freon-113 | | 0.1970 | 0.2078 | 0.2366 | 0.1838 | 0.2010 | 0.1824 | 0.1867 | 0.1480 | | 0.19 | 13 | TM | | | |
| 15 | TM* | 1,1-DCE | | 0.2417 | 0.2101 | 0.2061 | 0.1813 | 0.1842 | 0.1679 | 0.1736 | | | 0.19 | 13 | TM* | | | |
| 16 | TM | t-Butanol | 0.0194 | 0.0177 | 0.0160 | 0.0178 | 0.0157 | 0.0160 | 0.0148 | 0.0148 | 0.0114 | | 0.02 | 14 | TM | | | |
| 17 | TM | 2-Propanol | | | | | | | | | | | | | TM | | | |
| 18 | TM | Acetonitrile | | 0.0377 | 0.0343 | 0.0371 | 0.0334 | 0.0328 | 0.0297 | 0.0307 | 0.0227 | | 0.03 | 15 | TM | | | |
| 19 | TML | Methyl Acetate | | 0.3222 | 0.4458 | 0.3544 | 0.2156 | 0.1852 | 0.1634 | 0.1612 | | | 0.26 | 42 | TML | 0.998 | | |
| 20 | TM | Iodomethane | | | 0.2567 | 0.3272 | 0.2581 | 0.2854 | 0.2695 | 0.2943 | 0.2476 | | 0.28 | 10.0 | TM | | | |
| 21 | TM | Acrylonitrile | | 0.0916 | 0.0771 | 0.0873 | 0.0742 | 0.0712 | 0.0632 | 0.0657 | | | 0.08 | 14 | TM | | | |
| 22 | TML | Methylene chloride | | 0.6102 | 0.3919 | 0.3618 | 0.2597 | 0.2615 | 0.2273 | 0.2257 | | | 0.33 | 41 | TML | 0.999 | | |
| 23 | TM | Carbon disulfide | | 0.8486 | 0.7784 | 0.7667 | 0.6505 | 0.6713 | 0.5938 | 0.6106 | | | 0.70 | 14 | TM | | | |
| 24 | TM | Methyl t-butyl ether (MtBE) | | 0.5221 | 0.4797 | 0.5338 | 0.4703 | 0.4842 | 0.4560 | 0.4898 | 0.4275 | | 0.48 | 7.1 | TM | | | |
| 25 | TM | Trans-1,2-DCE | | 0.2319 | 0.2185 | 0.2366 | 0.1887 | 0.2035 | 0.1786 | 0.1907 | 0.1540 | | 0.20 | 14 | TM | | | |
| 26 | TM | Diisopropyl Ether | | 0.5136 | 0.4681 | 0.5116 | 0.4402 | 0.4733 | 0.4445 | 0.5087 | 0.4683 | | 0.48 | 6.2 | TM | | | |
| 27 | TM** | 2,2-Dichloro-1,1,1-trifluoroethane | | | | | | | | | | | | | TM** | | | |
| 28 | TM** | 1,1-DCA | | 0.3862 | 0.4084 | 0.4204 | 0.3632 | 0.3794 | 0.3483 | 0.3497 | 0.2845 | | 0.37 | 12 | TM** | | | |
| 29 | TM | Vinyl Acetate | | 0.6550 | 0.5480 | 0.6352 | 0.5390 | 0.5403 | 0.4993 | 0.5425 | 0.4496 | | 0.55 | 12 | TM | | | |
| 30 | TM | Ethyl tert Butyl Ether | | 0.4123 | 0.4257 | 0.4528 | 0.3979 | 0.4195 | 0.4092 | 0.4650 | 0.4251 | | 0.43 | 5.3 | TM | | | |
| 31 | TML | MEK (2-Butanone) | | 0.1235 | 0.0983 | 0.1025 | 0.0807 | 0.0872 | 0.0752 | 0.0784 | | | 0.09 | 19 | TML | 0.999 | | |
| 32 | TM | Cis-1,2-DCE | | 0.2501 | 0.2098 | 0.2345 | 0.2011 | 0.2115 | 0.2009 | 0.2195 | 0.1845 | | 0.21 | 9.7 | TM | | | |
| 33 | TM | 2,2-Dichloropropane | | 0.3799 | 0.3110 | 0.3413 | 0.2845 | 0.2884 | 0.2636 | 0.2714 | | | 0.31 | 14 | TM | | | |
| 34 | TM | 2-Methylpentane | | | | | | | | | | | | | TM | | | |
| 35 | TM | 3-Methylpentane | | | | | | | | | | | | | TM | | | |

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 04/23/19
Matrix: Instrument: Loki Initials:

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | Avg | %RSD | Type | | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | TM* | Chloroform | | 0.4456 | 0.4017 | 0.4239 | 0.4030 | 0.4010 | 0.3609 | 0.3725 | 0.3008 | | 0.39 | 11 | TM* | | | |
| 37 | TM | Bromochloromethane | | 0.1545 | 0.1438 | 0.1545 | 0.1341 | 0.1312 | 0.1182 | 0.1230 | 0.0986 | | 0.13 | 14 | TM | | | |
| 38 | S | Dibromofluoromethane(S) | 0.5019 | 0.5339 | 0.4329 | 0.4981 | 0.4768 | 0.4779 | 0.4426 | 0.4524 | 0.3706 | | 0.47 | 10 | S | | | |
| 39 | TM | 1,1,1-TCA | | 0.3897 | 0.3451 | 0.3712 | 0.3058 | 0.3207 | 0.2975 | 0.2961 | 0.2398 | | 0.32 | 15 | TM | | | |
| 40 | TM | Cyclohexane | | 0.1223 | 0.1191 | 0.1331 | 0.1123 | 0.1264 | 0.1156 | 0.1294 | 0.1126 | | 0.12 | 6.4 | TM | | | |
| 41 | TM | 1,1-Dichloropropene | | 0.2201 | 0.1942 | 0.2220 | 0.1962 | 0.2114 | 0.2003 | 0.2248 | 0.1996 | | 0.21 | 6.0 | TM | | | |
| 42 | TM | 2,2,4-Trimethylpentane | | 0.3932 | 0.3866 | 0.4139 | 0.3759 | 0.4106 | 0.3952 | 0.4524 | 0.4024 | | 0.40 | 5.7 | TM | | | |
| 43 | S | 1,2-DCA-D4(S) | 0.5027 | 0.5608 | 0.4596 | 0.5151 | 0.5015 | 0.4904 | 0.4615 | 0.4744 | 0.3808 | | 0.48 | 10 | S | | | |
| 44 | TM | Carbon Tetrachloride | | 0.2917 | 0.2896 | 0.3307 | 0.2839 | 0.2912 | 0.2631 | 0.2805 | 0.2208 | | 0.28 | 11 | TM | | | |
| 45 | TM | Tert Amyl Methyl Ether | | 0.4129 | 0.3711 | 0.4554 | 0.4099 | 0.4498 | 0.4450 | 0.5140 | 0.4614 | | 0.44 | 9.7 | TM | | | |
| 46 | TM | Methylcyclopentane | | | | | | | | | | | | | TM | | | |
| 47 | TM | 1,2-DCA | | 0.2836 | 0.3218 | 0.3197 | 0.2973 | 0.2942 | 0.2741 | 0.2718 | 0.2189 | | 0.29 | 11 | TM | | | |
| 48 | TM | Benzene | | 0.9200 | 0.7801 | 0.8583 | 0.7551 | 0.8087 | 0.7575 | 0.8014 | 0.6700 | | 0.79 | 9.4 | TM | | | |
| 49 | TM | TCE | | 0.2640 | 0.2204 | 0.2205 | 0.2058 | 0.2224 | 0.2033 | 0.2112 | 0.1765 | | 0.22 | 11 | TM | | | |
| 50 | TM | 2-Pentanone | | 0.1164 | 0.1071 | 0.1268 | 0.1154 | 0.1260 | 0.1200 | 0.1275 | 0.1006 | | 0.12 | 8.3 | TM | | | |
| 51 | TM* | 1,2-Dichloropropane | | 0.2706 | 0.2306 | 0.2552 | 0.2190 | 0.2289 | 0.2169 | 0.2222 | 0.1845 | | 0.23 | 11 | TM* | | | |
| 52 | TM | Bromodichloromethane | | 0.3378 | 0.3250 | 0.3681 | 0.3237 | 0.3190 | 0.2930 | 0.2989 | 0.2468 | | 0.31 | 11 | TM | | | |
| 53 | TM | Methyl Cyclohexane | | 0.2286 | 0.2105 | 0.2194 | 0.2156 | 0.2202 | 0.2059 | 0.2422 | 0.2260 | | 0.22 | 5.1 | TM | | | |
| 54 | TM | Dibromomethane | | 0.1901 | 0.1577 | 0.1713 | 0.1563 | 0.1610 | 0.1493 | 0.1510 | 0.1216 | | 0.16 | 12 | TM | | | |
| 55 | TM | 2-Chloroethyl vinyl ether | | | | | | | | | | | | | TM | | | |
| 56 | TML | MIBK (methyl isobutyl ketone) | | 0.1792 | 0.1903 | 0.1635 | 0.1367 | 0.1367 | 0.1281 | 0.1429 | | | 0.15 | 16 | TML | 0.997 | | |
| 57 | TM | 1-Bromo-2-chloroethane | | 0.3399 | 0.3360 | 0.3886 | 0.3471 | 0.3437 | 0.3113 | 0.3226 | 0.2625 | | 0.33 | 11 | TM | | | |
| 58 | TM | Cis-1,3-Dichloropropene | | 0.3182 | 0.2869 | 0.3458 | 0.2752 | 0.2981 | 0.2739 | 0.3002 | 0.2669 | | 0.30 | 8.9 | TM | | | |
| 59 | TM* | Toluene | | 0.8035 | 0.7700 | 0.7770 | 0.7766 | 0.8254 | 0.8281 | 0.8706 | 0.7485 | | 0.80 | 5.0 | TM* | | | |
| 60 | TM | Trans-1,3-Dichloropropene | | 0.2528 | 0.2523 | 0.2991 | 0.2672 | 0.2964 | 0.2773 | 0.2947 | 0.2525 | | 0.27 | 7.6 | TM | | | |
| 61 | TM | 1,1,2-TCA | | 0.1946 | 0.1935 | 0.2221 | 0.1816 | 0.1950 | 0.1762 | 0.1790 | 0.1456 | | 0.19 | 12 | TM | | | |
| 62 | TM | 2-Hexanone | | | 0.1003 | 0.1224 | 0.0958 | 0.0974 | 0.0885 | 0.0938 | 0.0864 | | 0.10 | 12 | TM | | | |
| 63 | I | Chlorobenzene-D5 (IS) | | | | | | | | | | | | | | | | |
| 64 | S | Toluene-D8(S) | 1.571 | 1.674 | 1.454 | 1.555 | 1.673 | 1.807 | 1.860 | 2.040 | 1.738 | | 1.7 | 10 | S | | | |
| 65 | TM | 1,2-EDB | | 0.2899 | 0.2403 | 0.2899 | 0.2500 | 0.2726 | 0.2550 | 0.2718 | 0.2175 | | 0.26 | 9.6 | TM | | | |
| 66 | TM | Tetrachloroethene | | 0.3229 | 0.2819 | 0.3105 | 0.2702 | 0.2900 | 0.2717 | 0.2910 | 0.2386 | | 0.28 | 9.1 | TM | | | |
| 67 | TM | 1-Chlorohexane | | 0.2364 | 0.2330 | 0.2592 | 0.2169 | 0.2504 | 0.2531 | 0.2935 | 0.2743 | | 0.25 | 9.6 | TM | | | |
| 68 | TM | 1,1,1,2-Tetrachloroethane | | 0.3193 | 0.2920 | 0.3479 | 0.2899 | 0.3122 | 0.2872 | 0.3028 | 0.2422 | | 0.30 | 10 | TM | | | |
| 69 | TML | m&p-Xylene | | 0.5656 | 0.5721 | 0.6298 | 0.5916 | 0.6886 | 0.7404 | 0.8894 | 0.7907 | | 0.68 | 17 | TML | 0.997 | | |
| 70 | TM | o-Xylene | | 0.2635 | 0.2945 | 0.3407 | 0.2815 | 0.3380 | 0.3429 | 0.4116 | 0.3750 | | 0.33 | 15 | TM | | | |

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 04/23/19
Matrix: Instrument: Loki Initials:

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | Avg | %RSD | Type | | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | TML | Styrene | | 0.4973 | 0.4656 | 0.5419 | 0.4979 | 0.5721 | 0.6266 | 0.7645 | 0.6912 | | 0.58 | 18 | TML | 0.997 | | |
| 72 | SL | 4-Bromofluorobenzene(S) | 0.4893 | 0.5506 | 0.4691 | 0.5014 | 0.5708 | 0.6465 | 0.6848 | 0.7610 | 0.6514 | | 0.59 | 17 | SL | 0.990 | | |
| 73 | TM | 1,3-Dichloropropane | | 0.4021 | 0.3901 | 0.4377 | 0.4041 | 0.4480 | 0.4138 | 0.4395 | 0.3607 | | 0.41 | 7.1 | TM | | | |
| 74 | TM | Dibromochloromethane | | 0.3593 | 0.3277 | 0.3103 | 0.3029 | 0.3206 | 0.3035 | 0.3158 | 0.2563 | | 0.31 | 9.3 | TM | | | |
| 75 | TM** | Chlorobenzene | | 0.7368 | 0.6718 | 0.7477 | 0.6793 | 0.7261 | 0.6929 | 0.7464 | 0.6223 | | 0.70 | 6.3 | TM** | | | |
| 76 | TM* | Ethylbenzene | | 0.9212 | 0.8042 | 0.9080 | 0.8326 | 0.9601 | 0.9575 | 1.131 | 1.0000 | | 0.94 | 11 | TM* | | | |
| 77 | TM**L | Bromoform | | 0.1329 | 0.2286 | 0.2603 | 0.2258 | 0.2259 | 0.2159 | 0.2262 | | | 0.22 | 18 | TM**L | 0.999 | | |
| 78 | I | 1,4-Dichlorobenzene-D (IS) | | | | | | | | | | | | | | | | |
| 79 | TM | Isopropylbenzene | | 1.567 | 1.368 | 1.487 | 1.249 | 1.371 | 1.317 | 1.558 | 1.438 | | 1.4 | 8.0 | TM | | | |
| 80 | TM**L | 1,1,2,2-Tetrachloroethane | | 0.8841 | 0.7700 | 0.8647 | 0.6964 | 0.6698 | 0.5807 | 0.6090 | | | 0.72 | 16 | TM**L | 0.998 | | |
| 81 | TM | 1,2,3-Trichloropropane | | 0.2131 | 0.1800 | 0.2224 | 0.1888 | 0.1956 | 0.1704 | 0.1771 | 0.1418 | | 0.19 | 14 | TM | | | |
| 82 | TM | t-1,4-Dichloro-2-Butene | | | 0.1030 | 0.1345 | 0.1264 | 0.1170 | 0.1106 | 0.1114 | 0.0989 | | 0.11 | 11 | TM | | | |
| 83 | TM | Bromobenzene | | 0.6418 | 0.5319 | 0.5952 | 0.5280 | 0.5331 | 0.4946 | 0.5191 | 0.4366 | | 0.54 | 12 | TM | | | |
| 84 | TM | n-Propylbenzene | | 1.676 | 1.688 | 1.860 | 1.613 | 1.723 | 1.745 | 2.019 | 1.859 | | 1.8 | 7.4 | TM | | | |
| 85 | TM | 4-Ethyltoluene | | 1.325 | 1.355 | 1.484 | 1.341 | 1.543 | 1.570 | 1.860 | 1.686 | | 1.5 | 12 | TM | | | |
| 86 | TM | 2-Chlorotoluene | | 1.206 | 1.314 | 1.417 | 1.241 | 1.162 | 1.327 | 1.509 | 1.306 | | 1.3 | 8.6 | TM | | | |
| 87 | TM | 1,3,5-Trimethylbenzene | | 1.154 | 1.107 | 1.255 | 1.124 | 1.302 | 1.370 | 1.582 | 1.382 | | 1.3 | 13 | TM | | | |
| 88 | TM | 4-Chlorotoluene | | 1.337 | 1.159 | 1.359 | 1.217 | 1.410 | 1.418 | 1.573 | 1.348 | | 1.4 | 9.4 | TM | | | |
| 89 | TM | Tert-Butylbenzene | | 1.117 | 1.068 | 1.118 | 1.101 | 1.039 | 1.157 | 1.159 | 1.241 | | 1.1 | 5.5 | TM | | | |
| 90 | TM | 1,2,4-Trimethylbenzene | | 1.407 | 1.069 | 1.261 | 1.050 | 1.237 | 1.242 | 1.500 | 1.387 | | 1.3 | 12 | TM | | | |
| 91 | TM | Sec-Butylbenzene | | 1.435 | 1.407 | 1.602 | 1.336 | 1.563 | 1.513 | 1.805 | 1.644 | | 1.5 | 9.7 | TM | | | |
| 92 | TM | p-Isopropyltoluene | | 1.459 | 1.224 | 1.338 | 1.140 | 1.325 | 1.320 | 1.580 | 1.468 | | 1.4 | 10 | TM | | | |
| 93 | TML | Benzyl Chloride | | 0.2257 | 0.2108 | 0.1960 | 0.1649 | 0.0935 | 0.1491 | 0.1580 | 0.1492 | | 0.17 | 25 | TML | 0.998 | | |
| 94 | TM | 1,3-DCB | | 1.025 | 0.8779 | 1.056 | 0.9237 | 1.040 | 0.9070 | 0.9892 | 0.8439 | | 0.96 | 8.4 | TM | | | |
| 95 | TM | 1,4-DCB | | 1.179 | 1.170 | 1.237 | 1.022 | 1.106 | 0.9937 | 1.044 | 0.8709 | | 1.1 | 11 | TM | | | |
| 96 | TM | n-Butylbenzene | | 1.309 | 1.158 | 1.309 | 1.092 | 1.193 | 1.141 | 1.364 | 1.279 | | 1.2 | 7.9 | TM | | | |
| 97 | TM | 1,2-DCB | | 1.160 | 1.025 | 1.219 | 0.9543 | 0.9882 | 0.8670 | 0.9615 | 0.8368 | | 1.0 | 13 | TM | | | |
| 98 | TML | Hexachloroethane | | 0.3089 | 0.2981 | 0.2409 | 0.1728 | 0.1128 | 0.1825 | 0.1929 | 0.1687 | | 0.21 | 32 | TML | 0.995 | | |
| 99 | TML | 1,2-Dibromo-3-chloropropane | | 0.1309 | 0.0819 | 0.1373 | 0.1121 | 0.1130 | 0.0971 | 0.1034 | 0.0883 | | 0.11 | 18 | TML | 0.996 | | |
| 100 | TM | 1,2,4-Trichlorobenzene | | 0.6753 | 0.6161 | 0.6143 | 0.5237 | 0.5204 | 0.5016 | 0.5752 | 0.5526 | | 0.57 | 10 | TM | | | |
| 101 | TML | Hexachlorobutadiene | | 0.4422 | 0.3333 | 0.4251 | 0.3666 | 0.3505 | 0.2889 | 0.3106 | 0.2786 | | 0.35 | 17 | TML | 0.998 | | |
| 102 | TM | Naphthalene | | 1.531 | 1.222 | 1.356 | 1.072 | 1.068 | 1.035 | 1.234 | 1.294 | | 1.2 | 14 | TM | | | |
| 103 | TM | 1,2,3-Trichlorobenzene | | 0.6689 | 0.6184 | 0.6710 | 0.5265 | 0.5594 | 0.5363 | 0.6234 | 0.5887 | | 0.60 | 9.3 | TM | | | |
| 104 | | | | | | | | | | | | | | | | | | |
| 105 | | | | | | | | | | | | | | | | | | |

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L04.D
Acq On : 23 Apr 19 17:21
Sample : 0.3ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 3
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 444864 | 25.0000 ppb | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.51 | 117 | 385600 | 25.0000 ppb | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 167168 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 44652 | 5.3938 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 21.576% | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 44727 | 5.2043 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 20.816% | |
| 64) Toluene-D8(S) | 7.91 | 98 | 121126 | 4.5981 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 18.392% | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 37736 | 4.9923 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 19.968% | |
| **Target Compounds** | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 0.99 | 85 | 972 | 0.2316 ppb # | 63 |
| 4) Freon 114 | 1.09 | 85 | 1373 | 0.3642 ppb # | 70 |
| 5) Chloromethane | 1.12 | 50 | 1720 | 0.3113 ppb # | 62 |
| 6) Vinyl chloride | 1.20 | 62 | 1510 | 0.2895 ppb # | 78 |
| 8) Bromomethane | 1.45 | 94 | 1265 | 0.3389 ppb # | 80 |
| 9) Chloroethane | 1.53 | 64 | 993 | 0.2556 ppb # | 81 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 2452 | 0.3452 ppb | 95 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 1746 | 0.2984 ppb | 96 |
| 12) Acrolein | 2.09 | 56 | 7980 | 10.8374 ppb # | 99 |
| 13) Acetone | 2.24 | 43 | 3472 | -2.1578 ppb | 97 |
| 14) Freon-113 | 2.20 | 101 | 970 | 0.2826 ppb # | 60 |
| 15) 1,1-DCE | 2.18 | 96 | 1345 | 0.3876 ppb | 94 |
| 16) t-Butanol | 2.88 | 59 | 3452 | 12.1631 ppb # | 78 |
| 18) Acetonitrile | 2.51 | 41 | 8438 | 14.6762 ppb # | 79 |
| 19) Methyl Acetate | 2.59 | 43 | 1534 | -1.1737 ppb | 98 |
| 20) Iodomethane | 2.30 | 142 | 1357 | 0.2753 ppb | 94 |
| 21) Acrylonitrile | 2.97 | 52 | 738 | 0.5476 ppb # | 56 |
| 22) Methylene chloride | 2.67 | 84 | 3475 | -0.1907 ppb | 91 |
| 23) Carbon disulfide | 2.36 | 76 | 4670 | 0.3734 ppb # | 91 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 2355 | 0.2740 ppb | 91 |
| 25) Trans-1,2-DCE | 3.00 | 96 | 1436 | 0.4029 ppb | 82 |
| 26) Diisopropyl Ether | 3.73 | 45 | 2563 | 0.3010 ppb | 97 |
| 28) 1,1-DCA | 3.54 | 63 | 2059 | 0.3148 ppb # | 85 |
| 29) Vinyl Acetate | 3.75 | 43 | 3295 | 0.3360 ppb # | 65 |
| 30) Ethyl tert Butyl Ether | 4.31 | 59 | 2289 | 0.3020 ppb # | 71 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 914 | 0.2401 ppb # | 48 |
| 32) Cis-1,2-DCE | 4.45 | 96 | 1232 | 0.3235 ppb # | 50 |
| 33) 2,2-Dichloropropane | 4.42 | 77 | 1671 | 0.3072 ppb # | 85 |
| 36) Chloroform | 4.93 | 83 | 2313 | 0.3344 ppb # | 72 |
| 37) Bromochloromethane | 4.78 | 128 | 760 | 0.3230 ppb | 80 |
| 39) 1,1,1-TCA | 5.14 | 97 | 2023 | 0.3545 ppb # | 70 |
| 40) Cyclohexane | 5.20 | 41 | 909 | 0.4210 ppb | 72 |
| 41) 1,1-Dichloropropene | 5.37 | 75 | 1277 | 0.3440 ppb # | 81 |
| 42) 2,2,4-Trimethylpentane | 5.80 | 57 | 2079 | 0.2893 ppb | 87 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 1306 | 0.2608 ppb # | 55 |
| 45) Tert Amyl Methyl Ether | 5.86 | 73 | 2291 | 0.2926 ppb # | 89 |
| 47) 1,2-DCA | 5.68 | 62 | 1437 | 0.2832 ppb # | 69 |
| 48) Benzene | 5.64 | 78 | 4997 | 0.3537 ppb # | 94 |
| 49) TCE | 6.47 | 130 | 1292 | 0.3369 ppb # | 70 |

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

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L04.D Vial: 3
Acq On : 23 Apr 19 17:21 Operator: PM,DG,SV,CMM,KV
Sample : 0.3ug/L VOC STD 04/23/19 Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.75 | 43 | 23173 | 11.0862 ppb | | 90 |
| 51) | 1,2-Dichloropropane | 6.73 | 63 | 1298 | 0.3192 ppb | # | 85 |
| 52) | Bromodichloromethane | 7.09 | 83 | 1752 | 0.3135 ppb | # | 80 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 1206 | 0.3066 ppb | | 77 |
| 54) | Dibromomethane | 6.86 | 93 | 661 | 0.2362 ppb | # | 59 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 1196 | 0.5497 ppb | # | 70 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 1698 | 0.2879 ppb | | 93 |
| 58) | Cis-1,3-Dichloropropene | 7.63 | 75 | 1614 | 0.3068 ppb | # | 82 |
| 59) | Toluene | 7.99 | 91 | 4379 | 0.3076 ppb | | 94 |
| 60) | Trans-1,3-Dichloropropene | 8.27 | 75 | 1656 | 0.3396 ppb | # | 83 |
| 61) | 1,1,2-TCA | 8.45 | 83 | 1119 | 0.3382 ppb | | 79 |
| 62) | 2-Hexanone | 8.79 | 43 | 784 | 0.4505 ppb | # | 37 |
| 65) | 1,2-EDB | 8.99 | 107 | 1116 | 0.2774 ppb | | 96 |
| 66) | Tetrachloroethene | 8.60 | 166 | 1487 | 0.3387 ppb | | 80 |
| 67) | 1-Chlorohexane | 9.51 | 91 | 2547 | 0.6550 ppb | # | 1 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.64 | 131 | 1289 | 0.2793 ppb | # | 60 |
| 69) | m&p-Xylene | 9.82 | 91 | 5543 | 1.1484 ppb | | 94 |
| 70) | o-Xylene | 10.24 | 106 | 1433 | 0.2807 ppb | # | 57 |
| 71) | Styrene | 10.26 | 104 | 2184 | 0.7894 ppb | | 98 |
| 73) | 1,3-Dichloropropane | 8.63 | 76 | 1721 | 0.2708 ppb | | 97 |
| 74) | Dibromochloromethane | 8.88 | 129 | 1250 | 0.2597 ppb | | 81 |
| 75) | Chlorobenzene | 9.54 | 112 | 3316 | 0.3059 ppb | | 85 |
| 76) | Ethylbenzene | 9.69 | 91 | 3658 | 0.2525 ppb | | 92 |
| 77) | Bromoform | 10.44 | 173 | 1158 | 0.3759 ppb | | 85 |
| 79) | Isopropylbenzene | 10.66 | 105 | 3218 | 0.3390 ppb | | 94 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.98 | 83 | 1848 | -0.0899 ppb | # | 86 |
| 81) | 1,2,3-Trichloropropane | 11.01 | 110 | 321 | 0.2579 ppb | # | 12 |
| 82) | t-1,4-Dichloro-2-Butene | 11.06 | 53 | 102 | 0.1332 ppb | # | 1 |
| 83) | Bromobenzene | 10.96 | 156 | 982 | 0.2745 ppb | | 71 |
| 84) | n-Propylbenzene | 11.11 | 91 | 3400 | 0.2868 ppb | | 89 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 3356 | 0.3301 ppb | | 99 |
| 86) | 2-Chlorotoluene | 11.30 | 91 | 2764 | 0.3155 ppb | | 97 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 2359 | 0.2747 ppb | # | 54 |
| 88) | 4-Chlorotoluene | 11.30 | 91 | 2764 | 0.3056 ppb | | 88 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 2613 | 0.3473 ppb | | 92 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 3123 | 0.3680 ppb | | 100 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 3543 | 0.3445 ppb | | 96 |
| 92) | p-Isopropyltoluene | 12.07 | 119 | 2957 | 0.3259 ppb | # | 85 |
| 93) | Benzyl Chloride | 12.26 | 91 | 532 | 0.6185 ppb | # | 65 |
| 94) | 1,3-DCB | 12.00 | 146 | 2034 | 0.3176 ppb | | 90 |
| 95) | 1,4-DCB | 12.10 | 146 | 2723 | 0.3778 ppb | | 82 |
| 96) | n-Butylbenzene | 12.50 | 91 | 2939 | 0.3571 ppb | # | 87 |
| 97) | 1,2-DCB | 12.49 | 146 | 2289 | 0.3418 ppb | | 89 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.33 | 75 | 44 | -1.6146 ppb | # | 56 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 1666 | 0.4353 ppb | # | 92 |
| 101) | Hexachlorobutadiene | 14.45 | 225 | 955 | -0.9003 ppb | | 89 |
| 102) | Naphthalene | 14.51 | 128 | 3778 | 0.4606 ppb | # | 88 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 1521 | 0.3797 ppb | # | 89 |

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

Quantitation Report

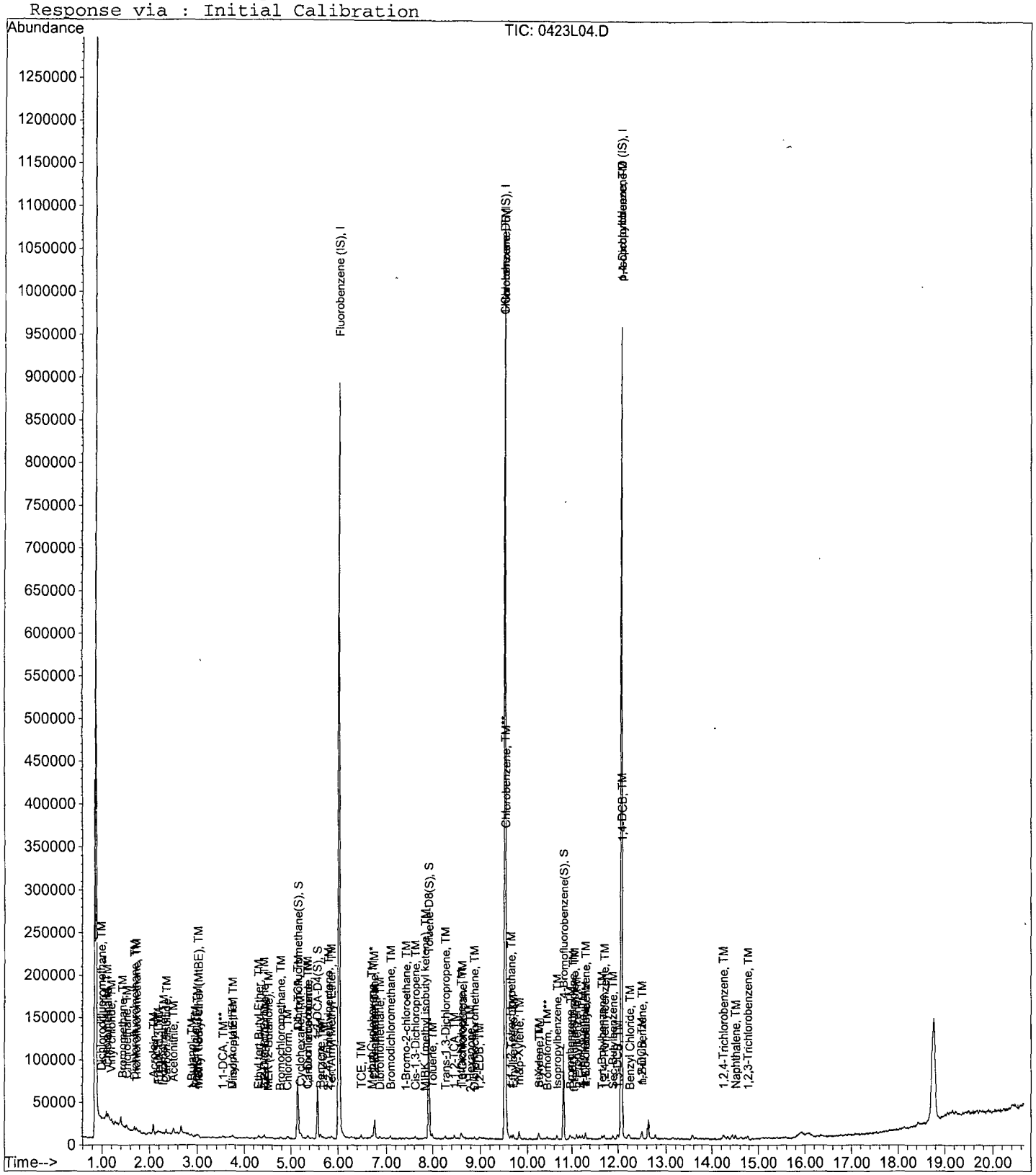
Data File : M:\LOKI\DATA\190423\0423L04.D
Acq On : 23 Apr 19 17:21
Sample : 0.3ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 3
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019

Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L05.D Vial: 4
Acq On : 23 Apr 19 17:49 Operator: PM,DG,SV,CMM,KV
Sample : 0.5ug/L VOC STD 04/23/19 Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 411200 | 25.0000 | ppb | | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.51 | 117 | 347648 | 25.0000 | ppb | | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 162368 | 25.0000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 43904 | 5.7376 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 22.952% | | | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 46122 | 5.8059 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 23.224% | | | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 116414 | 4.9016 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 19.608% | | | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 38285 | 5.4406 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 21.764% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 1977 | 0.5095 | ppb | | 94 |
| 4) Freon 114 | 1.09 | 85 | 1818 | 0.5218 | ppb | | 85 |
| 5) Chloromethane | 1.12 | 50 | 3197 | 0.6259 | ppb | | 90 |
| 6) Vinyl chloride | 1.20 | 62 | 2775 | 0.5756 | ppb | | 100 |
| 8) Bromomethane | 1.44 | 94 | 1901 | 0.6093 | ppb | | 92 |
| 9) Chloroethane | 1.52 | 64 | 1462 | 0.5109 | ppb | | 96 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 3978 | 0.6059 | ppb | | 96 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 3253 | 0.6014 | ppb | | 85 |
| 12) Acrolein | 2.09 | 56 | 19001 | 27.9172 | ppb | # | 98 |
| 13) Acetone | 2.24 | 43 | 2606 | -2.9132 | ppb | | 95 |
| 14) Freon-113 | 2.19 | 101 | 1620 | 0.5105 | ppb | | 89 |
| 15) 1,1-DCE | 2.18 | 96 | 1988 | 0.6198 | ppb | # | 83 |
| 16) t-Butanol | 2.89 | 59 | 7277 | 27.7397 | ppb | # | 75 |
| 18) Acetonitrile | 2.52 | 41 | 15503 | 29.1718 | ppb | # | 74 |
| 19) Methyl Acetate | 2.60 | 43 | 2650 | -0.6875 | ppb | | 94 |
| 20) Iodomethane | 2.30 | 142 | 2394 | 0.5255 | ppb | | 95 |
| 21) Acrylonitrile | 2.96 | 52 | 753 | 0.6045 | ppb | | 87 |
| 22) Methylene chloride | 2.67 | 84 | 5018 | 0.3090 | ppb | | 89 |
| 23) Carbon disulfide | 2.36 | 76 | 6979 | 0.6037 | ppb | # | 84 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 4294 | 0.5406 | ppb | # | 76 |
| 25) Trans-1,2-DCE | 3.00 | 96 | 1907 | 0.5788 | ppb | # | 89 |
| 26) Diisopropyl Ether | 3.74 | 45 | 4224 | 0.5366 | ppb | | 92 |
| 28) 1,1-DCA | 3.54 | 63 | 3176 | 0.5254 | ppb | | 90 |
| 29) Vinyl Acetate | 3.69 | 43 | 5387 | 0.5943 | ppb | # | 65 |
| 30) Ethyl tert Butyl Ether | 4.32 | 59 | 3391 | 0.4840 | ppb | # | 80 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 1016 | 0.3752 | ppb | # | 48 |
| 32) Cis-1,2-DCE | 4.44 | 96 | 2057 | 0.5844 | ppb | | 78 |
| 33) 2,2-Dichloropropane | 4.42 | 77 | 3124 | 0.6213 | ppb | # | 80 |
| 36) Chloroform | 4.94 | 83 | 3665 | 0.5733 | ppb | | 85 |
| 37) Bromochloromethane | 4.77 | 128 | 1271 | 0.5843 | ppb | | 91 |
| 39) 1,1,1-TCA | 5.14 | 97 | 3205 | 0.6076 | ppb | | 98 |
| 40) Cyclohexane | 5.19 | 41 | 1006 | 0.5040 | ppb | # | 72 |
| 41) 1,1-Dichloropropene | 5.38 | 75 | 1810 | 0.5276 | ppb | # | 87 |
| 42) 2,2,4-Trimethylpentane | 5.80 | 57 | 3234 | 0.4869 | ppb | | 88 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 2399 | 0.5182 | ppb | | 91 |
| 45) Tert Amyl Methyl Ether | 5.87 | 73 | 3396 | 0.4693 | ppb | # | 90 |
| 47) 1,2-DCA | 5.67 | 62 | 2332 | 0.4972 | ppb | | 98 |
| 48) Benzene | 5.63 | 78 | 7566 | 0.5794 | ppb | | 94 |
| 49) TCE | 6.49 | 130 | 2171 | 0.6124 | ppb | # | 80 |

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

Data File : M:\LOKI\DATA\190423\0423L05.D
Acq On : 23 Apr 19 17:49
Sample : 0.5ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 4
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019

Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.76 | 43 | 47853 | 24.7677 | ppb | | 99 |
| 51) | 1,2-Dichloropropane | 6.73 | 63 | 2225 | 0.5920 | ppb | # | 85 |
| 52) | Bromodichloromethane | 7.08 | 83 | 2778 | 0.5378 | ppb | # | 91 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 1880 | 0.5171 | ppb | | 96 |
| 54) | Dibromomethane | 6.87 | 93 | 1563 | 0.6042 | ppb | # | 75 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 1474 | 0.7095 | ppb | # | 71 |
| 57) | 1-Bromo-2-chloroethane | 7.43 | 63 | 2795 | 0.5127 | ppb | | 93 |
| 58) | Cis-1,3-Dichloropropene | 7.62 | 75 | 2617 | 0.5382 | ppb | | 92 |
| 59) | Toluene | 7.99 | 91 | 6608 | 0.5022 | ppb | | 91 |
| 60) | Trans-1,3-Dichloropropene | 8.27 | 75 | 2079 | 0.4612 | ppb | | 99 |
| 61) | 1,1,2-TCA | 8.45 | 83 | 1600 | 0.5232 | ppb | | 78 |
| 62) | 2-Hexanone | 8.78 | 43 | 1193 | 0.7416 | ppb | # | 76 |
| 65) | 1,2-EDB | 8.98 | 107 | 2016 | 0.5557 | ppb | # | 80 |
| 66) | Tetrachloroethene | 8.60 | 166 | 2245 | 0.5672 | ppb | | 85 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 1644 | 0.4689 | ppb | | 92 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.64 | 131 | 2220 | 0.5336 | ppb | # | 64 |
| 69) | m&p-Xylene | 9.82 | 91 | 7865 | 1.4046 | ppb | | 98 |
| 70) | o-Xylene | 10.25 | 106 | 1832 | 0.3981 | ppb | | 88 |
| 71) | Styrene | 10.26 | 104 | 3458 | 0.9416 | ppb | | 99 |
| 73) | 1,3-Dichloropropane | 8.63 | 76 | 2796 | 0.4880 | ppb | | 99 |
| 74) | Dibromochloromethane | 8.87 | 129 | 2498 | 0.5757 | ppb | # | 72 |
| 75) | Chlorobenzene | 9.54 | 112 | 5123 | 0.5241 | ppb | | 94 |
| 76) | Ethylbenzene | 9.69 | 91 | 6405 | 0.4904 | ppb | | 90 |
| 77) | Bromoform | 10.44 | 173 | 924 | 0.3375 | ppb | | 90 |
| 79) | Isopropylbenzene | 10.66 | 105 | 5089 | 0.5520 | ppb | | 100 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.98 | 83 | 2871 | 0.1881 | ppb | | 95 |
| 81) | 1,2,3-Trichloropropane | 11.01 | 110 | 692 | 0.5724 | ppb | # | 67 |
| 82) | t-1,4-Dichloro-2-Butene | 11.04 | 53 | 162 | 0.2177 | ppb | # | 23 |
| 83) | Bromobenzene | 10.96 | 156 | 2084 | 0.5997 | ppb | | 76 |
| 84) | n-Propylbenzene | 11.11 | 91 | 5441 | 0.4726 | ppb | | 89 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 4303 | 0.4357 | ppb | | 91 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 3917 | 0.4603 | ppb | | 86 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 3746 | 0.4490 | ppb | | 99 |
| 88) | 4-Chlorotoluene | 11.30 | 91 | 4343 | 0.4944 | ppb | | 95 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 3628 | 0.4965 | ppb | # | 80 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 4570 | 0.5545 | ppb | | 92 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 4659 | 0.4664 | ppb | | 92 |
| 92) | p-Isopropyltoluene | 12.06 | 119 | 4737 | 0.5376 | ppb | # | 90 |
| 93) | Benzyl Chloride | 12.24 | 91 | 733 | 0.8403 | ppb | # | 65 |
| 94) | 1,3-DCB | 11.99 | 146 | 3329 | 0.5351 | ppb | | 91 |
| 95) | 1,4-DCB | 12.09 | 146 | 3830 | 0.5471 | ppb | | 93 |
| 96) | n-Butylbenzene | 12.51 | 91 | 4251 | 0.5318 | ppb | # | 80 |
| 97) | 1,2-DCB | 12.49 | 146 | 3767 | 0.5791 | ppb | | 96 |
| 98) | Hexachloroethane | 12.78 | 117 | 1003 | 0.3900 | ppb | # | 80 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.33 | 75 | 425 | -0.9507 | ppb | # | 66 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 2193 | 0.5899 | ppb | | 86 |
| 101) | Hexachlorobutadiene | 14.46 | 225 | 1436 | -0.6189 | ppb | | 95 |
| 102) | Naphthalene | 14.51 | 128 | 4973 | 0.6242 | ppb | | 95 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 2172 | 0.5582 | ppb | | 92 |

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

Quantitation Report

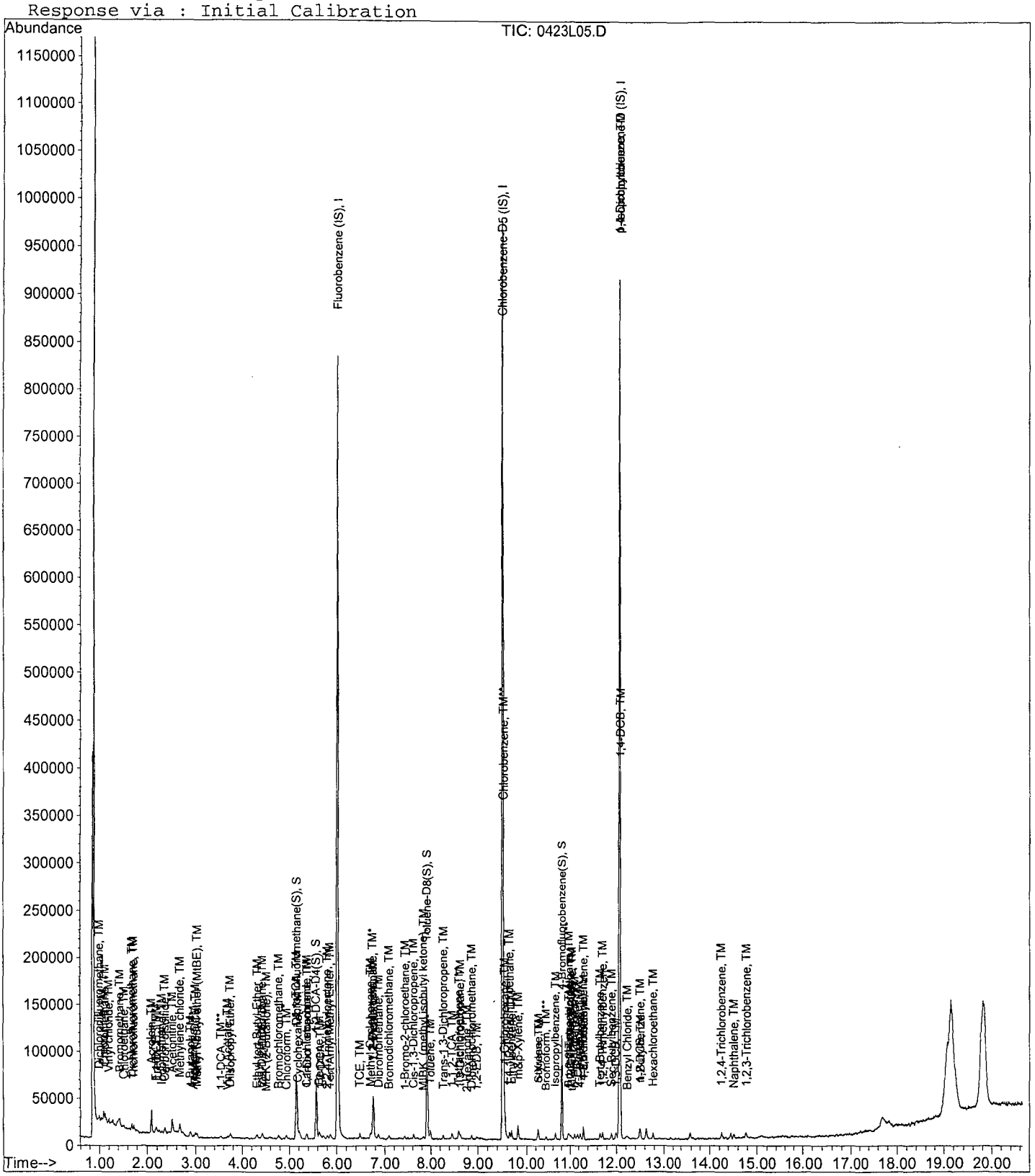
Data File : M:\LOKI\DATA\190423\0423L05.D
Acq On : 23 Apr 19 17:49
Sample : 0.5ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 4
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019

Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L06.D Vial: 5
Acq On : 23 Apr 19 18:18 Operator: PM,DG,SV,CMM,KV
Sample : 1.0ug/L VOC STD 04/23/19 Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 417024 | 25.0000 ppb | | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.51 | 117 | 348928 | 25.0000 ppb | | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 169344 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 72214 | 9.3055 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 37.220% | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 76660 | 9.5154 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 38.060% | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 202878 | 8.5109 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 34.044% | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 65470 | 8.2742 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 33.096% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 4270 | 1.0851 ppb | | 97 |
| 4) Freon 114 | 1.09 | 85 | 3579 | 1.0128 ppb | | 80 |
| 5) Chloromethane | 1.12 | 50 | 5381 | 1.0388 ppb | | 100 |
| 6) Vinyl chloride | 1.20 | 62 | 5107 | 1.0445 ppb | # | 79 |
| 8) Bromomethane | 1.44 | 94 | 3826 | 1.3010 ppb | | 98 |
| 9) Chloroethane | 1.52 | 64 | 2727 | 1.0867 ppb | | 85 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 6602 | 0.9916 ppb | | 96 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 6018 | 1.0970 ppb | | 84 |
| 12) Acrolein | 2.09 | 56 | 35139 | 50.9069 ppb | # | 93 |
| 13) Acetone | 2.25 | 43 | 2938 | -2.5489 ppb | | 92 |
| 14) Freon-113 | 2.20 | 101 | 3467 | 1.0774 ppb | | 86 |
| 15) 1,1-DCE | 2.18 | 96 | 3505 | 1.0776 ppb | # | 74 |
| 16) t-Butanol | 2.90 | 59 | 13349 | 50.1753 ppb | | 99 |
| 18) Acetonitrile | 2.51 | 41 | 28590 | 53.0462 ppb | | 94 |
| 19) Methyl Acetate | 2.60 | 43 | 7436 | 1.1604 ppb | | 87 |
| 20) Iodomethane | 2.30 | 142 | 4282 | 0.9268 ppb | | 92 |
| 21) Acrylonitrile | 2.96 | 52 | 1286 | 1.0179 ppb | | 95 |
| 22) Methylene chloride | 2.67 | 84 | 6537 | 0.7040 ppb | | 100 |
| 23) Carbon disulfide | 2.36 | 76 | 12985 | 1.1076 ppb | | 99 |
| 24) Methyl t-butyl ether (MtBE | 3.02 | 73 | 8002 | 0.9933 ppb | | 95 |
| 25) Trans-1,2-DCE | 2.99 | 96 | 3645 | 1.0908 ppb | | 83 |
| 26) Diisopropyl Ether | 3.74 | 45 | 7809 | 0.9783 ppb | # | 89 |
| 28) 1,1-DCA | 3.54 | 63 | 6813 | 1.1114 ppb | | 93 |
| 29) Vinyl Acetate | 3.69 | 43 | 9141 | 0.9943 ppb | # | 65 |
| 30) Ethyl tert Butyl Ether | 4.32 | 59 | 7101 | 0.9995 ppb | | 90 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 1639 | 0.8487 ppb | # | 81 |
| 32) Cis-1,2-DCE | 4.45 | 96 | 3500 | 0.9805 ppb | | 86 |
| 33) 2,2-Dichloropropane | 4.42 | 77 | 5187 | 1.0172 ppb | # | 86 |
| 36) Chloroform | 4.93 | 83 | 6700 | 1.0334 ppb | | 87 |
| 37) Bromochloromethane | 4.77 | 128 | 2399 | 1.0875 ppb | | 91 |
| 39) 1,1,1-TCA | 5.14 | 97 | 5756 | 1.0759 ppb | | 93 |
| 40) Cyclohexane | 5.21 | 41 | 1987 | 0.9816 ppb | | 88 |
| 41) 1,1-Dichloropropene | 5.38 | 75 | 3240 | 0.9312 ppb | | 92 |
| 42) 2,2,4-Trimethylpentane | 5.81 | 57 | 6449 | 0.9575 ppb | # | 84 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 4831 | 1.0291 ppb | | 90 |
| 45) Tert Amyl Methyl Ether | 5.86 | 73 | 6191 | 0.8436 ppb | # | 92 |
| 47) 1,2-DCA | 5.67 | 62 | 5368 | 1.1284 ppb | | 91 |
| 48) Benzene | 5.64 | 78 | 13012 | 0.9826 ppb | | 93 |
| 49) TCE | 6.48 | 130 | 3676 | 1.0225 ppb | | 89 |

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

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L06.D
Acq On : 23 Apr 19 18:18
Sample : 1.0ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 5
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.76 | 43 | 89310 | 45.5794 ppb | | 97 |
| 51) | 1,2-Dichloropropane | 6.74 | 63 | 3847 | 1.0093 ppb | # | 95 |
| 52) | Bromodichloromethane | 7.08 | 83 | 5421 | 1.0349 ppb | | 90 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 3511 | 0.9522 ppb | | 84 |
| 54) | Dibromomethane | 6.87 | 93 | 2631 | 1.0028 ppb | | 83 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 3175 | 1.4279 ppb | # | 89 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 5604 | 1.0135 ppb | | 99 |
| 58) | Cis-1,3-Dichloropropene | 7.63 | 75 | 4786 | 0.9705 ppb | | 87 |
| 59) | Toluene | 7.99 | 91 | 12844 | 0.9625 ppb | | 94 |
| 60) | Trans-1,3-Dichloropropene | 8.26 | 75 | 4209 | 0.9207 ppb | | 84 |
| 61) | 1,1,2-TCA | 8.45 | 83 | 3227 | 1.0404 ppb | | 96 |
| 62) | 2-Hexanone | 8.78 | 43 | 1673 | 1.0254 ppb | | 94 |
| 65) | 1,2-EDB | 8.99 | 107 | 3354 | 0.9212 ppb | | 89 |
| 66) | Tetrachloroethene | 8.60 | 166 | 3935 | 0.9906 ppb | | 92 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 3252 | 0.9242 ppb | | 95 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.65 | 131 | 4076 | 0.9762 ppb | | 99 |
| 69) | m&p-Xylene | 9.82 | 91 | 15969 | 2.1234 ppb | | 99 |
| 70) | o-Xylene | 10.24 | 106 | 4110 | 0.8898 ppb | | 91 |
| 71) | Styrene | 10.26 | 104 | 6499 | 1.2501 ppb | | 98 |
| 73) | 1,3-Dichloropropane | 8.64 | 76 | 5444 | 0.9467 ppb | | 100 |
| 74) | Dibromochloromethane | 8.88 | 129 | 4574 | 1.0502 ppb | | 90 |
| 75) | Chlorobenzene | 9.54 | 112 | 9376 | 0.9557 ppb | | 92 |
| 76) | Ethylbenzene | 9.69 | 91 | 11225 | 0.8562 ppb | | 96 |
| 77) | Bromoform | 10.44 | 173 | 3191 | 1.0595 ppb | | 96 |
| 79) | Isopropylbenzene | 10.66 | 105 | 9268 | 0.9639 ppb | | 100 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.98 | 83 | 5216 | 0.7384 ppb | # | 94 |
| 81) | 1,2,3-Trichloropropane | 11.02 | 110 | 1219 | 0.9668 ppb | | 94 |
| 82) | t-1,4-Dichloro-2-Butene | 11.05 | 53 | 698 | 0.8995 ppb | # | 70 |
| 83) | Bromobenzene | 10.96 | 156 | 3603 | 0.9941 ppb | | 85 |
| 84) | n-Propylbenzene | 11.11 | 91 | 11435 | 0.9523 ppb | | 95 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 9176 | 0.8909 ppb | | 100 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 8902 | 1.0031 ppb | | 97 |
| 87) | 1,3,5-Trimethylbenzene | 11.30 | 105 | 7497 | 0.8617 ppb | | 82 |
| 88) | 4-Chlorotoluene | 11.30 | 91 | 7848 | 0.8566 ppb | | 97 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 7232 | 0.9490 ppb | # | 86 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 7241 | 0.8424 ppb | | 93 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 9528 | 0.9145 ppb | | 97 |
| 92) | p-Isopropyltoluene | 12.06 | 119 | 8289 | 0.9019 ppb | | 94 |
| 93) | Benzyl Chloride | 12.25 | 91 | 1428 | 1.4925 ppb | # | 86 |
| 94) | 1,3-DCB | 11.99 | 146 | 5947 | 0.9165 ppb | | 86 |
| 95) | 1,4-DCB | 12.09 | 146 | 7926 | 1.0855 ppb | # | 84 |
| 96) | n-Butylbenzene | 12.51 | 91 | 7846 | 0.9411 ppb | | 93 |
| 97) | 1,2-DCB | 12.49 | 146 | 6945 | 1.0237 ppb | | 92 |
| 98) | Hexachloroethane | 12.78 | 117 | 2019 | 1.2317 ppb | | 84 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.33 | 75 | 555 | -0.7647 ppb | # | 55 |
| 100) | 1,2,4-Trichlorobenzene | 14.26 | 180 | 4173 | 1.0763 ppb | | 89 |
| 101) | Hexachlorobutadiene | 14.46 | 225 | 2258 | -0.2154 ppb | | 79 |
| 102) | Naphthalene | 14.51 | 128 | 8279 | 0.9964 ppb | | 95 |
| 103) | 1,2,3-Trichlorobenzene | 14.77 | 180 | 4189 | 1.0323 ppb | | 97 |

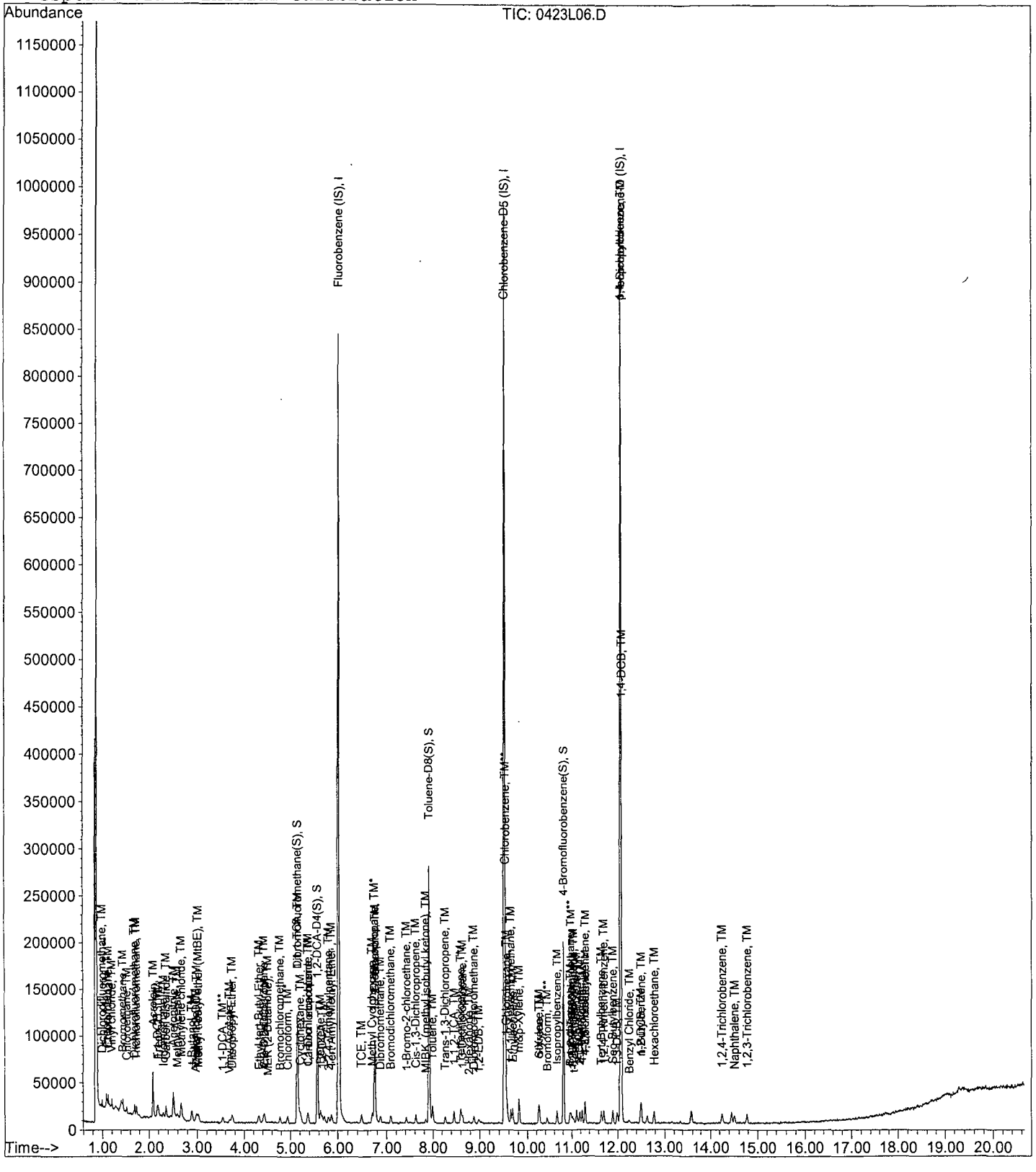
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\190423\0423L06.D Vial: 5
Acq On : 23 Apr 19 18:18 Operator: PM,DG,SV,CMM,KV
Sample : 1.0ug/L VOC STD 04/23/19 Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L07.D Vial: 6
Acq On : 23 Apr 19 18:46 Operator: PM,DG,SV,CMM,KV
Sample : 2.0ug/L VOC STD 04/23/19 Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 387392 | 25.0000 ppb | | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.52 | 117 | 331968 | 25.0000 ppb | | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 159744 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 77184 | 10.7067 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 42.828% | | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 79820 | 10.6654 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 42.660% | | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 206428 | 9.1022 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 36.408% | | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 66575 | 8.7464 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 34.984% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 8703 | 2.3809 ppb | | 89 |
| 4) Freon 114 | 1.09 | 85 | 8081 | 2.4618 ppb | | 94 |
| 5) Chloromethane | 1.12 | 50 | 10733 | 2.2305 ppb | | 97 |
| 6) Vinyl chloride | 1.20 | 62 | 11160 | 2.4572 ppb | | 88 |
| 8) Bromomethane | 1.44 | 94 | 6819 | 2.5817 ppb | | 99 |
| 9) Chloroethane | 1.52 | 64 | 5474 | 2.5514 ppb | | 99 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 14322 | 2.3156 ppb | | 95 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 11812 | 2.3178 ppb | | 96 |
| 12) Acrolein | 2.09 | 56 | 54938 | 85.6782 ppb | # | 100 |
| 14) Freon-113 | 2.20 | 101 | 7331 | 2.4524 ppb | | 97 |
| 15) 1,1-DCE | 2.18 | 96 | 6388 | 2.1142 ppb | | 98 |
| 16) t-Butanol | 2.90 | 59 | 20673 | 83.6480 ppb | | 99 |
| 18) Acetonitrile | 2.52 | 41 | 43170 | 86.2249 ppb | | 97 |
| 19) Methyl Acetate | 2.60 | 43 | 10984 | 2.8681 ppb | | 97 |
| 20) Iodomethane | 2.30 | 142 | 10141 | 2.3629 ppb | # | 93 |
| 21) Acrylonitrile | 2.97 | 52 | 2704 | 2.3041 ppb | | 93 |
| 22) Methylene chloride | 2.67 | 84 | 11213 | 2.2138 ppb | | 94 |
| 23) Carbon disulfide | 2.36 | 76 | 23761 | 2.1817 ppb | | 93 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 16543 | 2.2107 ppb | | 95 |
| 25) Trans-1,2-DCE | 3.00 | 96 | 7334 | 2.3627 ppb | | 95 |
| 26) Diisopropyl Ether | 3.75 | 45 | 15855 | 2.1381 ppb | # | 88 |
| 28) 1,1-DCA | 3.55 | 63 | 13029 | 2.2879 ppb | # | 95 |
| 29) Vinyl Acetate | 3.69 | 43 | 19686 | 2.3052 ppb | # | 79 |
| 30) Ethyl tert Butyl Ether | 4.32 | 59 | 14033 | 2.1262 ppb | | 97 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 3178 | 2.2354 ppb | | 87 |
| 32) Cis-1,2-DCE | 4.44 | 96 | 7267 | 2.1916 ppb | | 88 |
| 33) 2,2-Dichloropropane | 4.43 | 77 | 10576 | 2.2326 ppb | | 97 |
| 36) Chloroform | 4.94 | 83 | 13138 | 2.1814 ppb | | 96 |
| 37) Bromochloromethane | 4.78 | 128 | 4788 | 2.3365 ppb | | 86 |
| 39) 1,1,1-TCA | 5.14 | 97 | 11504 | 2.3148 ppb | | 95 |
| 40) Cyclohexane | 5.21 | 41 | 4124 | 2.1932 ppb | | 94 |
| 41) 1,1-Dichloropropene | 5.38 | 75 | 6880 | 2.1286 ppb | | 84 |
| 42) 2,2,4-Trimethylpentane | 5.81 | 57 | 12828 | 2.0502 ppb | | 93 |
| 44) Carbon Tetrachloride | 5.37 | 117 | 10248 | 2.3499 ppb | | 92 |
| 45) Tert Amyl Methyl Ether | 5.87 | 73 | 14112 | 2.0701 ppb | # | 94 |
| 47) 1,2-DCA | 5.67 | 62 | 9909 | 2.2423 ppb | | 93 |
| 48) Benzene | 5.63 | 78 | 26600 | 2.1623 ppb | | 96 |
| 49) TCE | 6.48 | 130 | 6833 | 2.0461 ppb | | 96 |
| 50) 2-Pentanone | 6.76 | 43 | 147388 | 80.9731 ppb | | 97 |

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

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L07.D
Acq On : 23 Apr 19 18:46
Sample : 2.0ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 6
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 51) | 1,2-Dichloropropane | 6.73 | 63 | 7910 | 2.2340 | ppb | # | 95 |
| 52) | Bromodichloromethane | 7.09 | 83 | 11407 | 2.3442 | ppb | # | 95 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 6801 | 1.9855 | ppb | | 91 |
| 54) | Dibromomethane | 6.87 | 93 | 5308 | 2.1780 | ppb | # | 72 |
| 56) | MIBK (methyl isobutyl ket | 7.84 | 43 | 5068 | 2.4032 | ppb | # | 92 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 12044 | 2.3449 | ppb | | 95 |
| 58) | Cis-1,3-Dichloropropene | 7.62 | 75 | 10717 | 2.3393 | ppb | | 94 |
| 59) | Toluene | 7.99 | 91 | 24080 | 1.9426 | ppb | | 94 |
| 60) | Trans-1,3-Dichloropropene | 8.27 | 75 | 9268 | 2.1825 | ppb | | 98 |
| 61) | 1,1,2-TCA | 8.46 | 83 | 6882 | 2.3886 | ppb | | 87 |
| 62) | 2-Hexanone | 8.77 | 43 | 3793 | 2.5027 | ppb | | 98 |
| 65) | 1,2-EDB | 8.98 | 107 | 7698 | 2.2223 | ppb | | 90 |
| 66) | Tetrachloroethene | 8.60 | 166 | 8247 | 2.1821 | ppb | | 93 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 6883 | 2.0560 | ppb | | 97 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.64 | 131 | 9238 | 2.3254 | ppb | | 91 |
| 69) | m&p-Xylene | 9.82 | 91 | 33450 | 3.8317 | ppb | | 94 |
| 70) | o-Xylene | 10.25 | 106 | 9047 | 2.0586 | ppb | | 73 |
| 71) | Styrene | 10.26 | 104 | 14391 | 2.1290 | ppb | | 91 |
| 73) | 1,3-Dichloropropane | 8.63 | 76 | 11623 | 2.1246 | ppb | | 91 |
| 74) | Dibromochloromethane | 8.88 | 129 | 8242 | 1.9891 | ppb | | 82 |
| 75) | Chlorobenzene | 9.54 | 112 | 19858 | 2.1275 | ppb | | 93 |
| 76) | Ethylbenzene | 9.69 | 91 | 24114 | 1.9333 | ppb | | 94 |
| 77) | Bromoform | 10.44 | 173 | 6913 | 2.3592 | ppb | | 99 |
| 79) | Isopropylbenzene | 10.66 | 105 | 18999 | 2.0948 | ppb | | 90 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.98 | 83 | 11051 | 2.3482 | ppb | # | 93 |
| 81) | 1,2,3-Trichloropropane | 11.02 | 110 | 2842 | 2.3895 | ppb | | 99 |
| 82) | t-1,4-Dichloro-2-Butene | 11.04 | 53 | 1719 | 2.3485 | ppb | | 96 |
| 83) | Bromobenzene | 10.96 | 156 | 7607 | 2.2250 | ppb | | 96 |
| 84) | n-Propylbenzene | 11.11 | 91 | 23770 | 2.0984 | ppb | | 100 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 18971 | 1.9526 | ppb | | 96 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 18106 | 2.1628 | ppb | | 99 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 16042 | 1.9546 | ppb | | 98 |
| 88) | 4-Chlorotoluene | 11.31 | 91 | 17369 | 2.0097 | ppb | | 84 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 14292 | 1.9880 | ppb | | 95 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 16112 | 1.9870 | ppb | | 93 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 20476 | 2.0835 | ppb | | 96 |
| 92) | p-Isopropyltoluene | 12.07 | 119 | 17102 | 1.9727 | ppb | | 94 |
| 93) | Benzyl Chloride | 12.25 | 91 | 2505 | 2.6991 | ppb | # | 85 |
| 94) | 1,3-DCB | 11.99 | 146 | 13495 | 2.2048 | ppb | | 96 |
| 95) | 1,4-DCB | 12.09 | 146 | 15807 | 2.2950 | ppb | | 97 |
| 96) | n-Butylbenzene | 12.51 | 91 | 16732 | 2.1277 | ppb | | 93 |
| 97) | 1,2-DCB | 12.49 | 146 | 15582 | 2.4349 | ppb | | 93 |
| 98) | Hexachloroethane | 12.78 | 117 | 3078 | 2.3078 | ppb | # | 73 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.34 | 75 | 1755 | 1.4090 | ppb | # | 73 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 7850 | 2.1463 | ppb | | 83 |
| 101) | Hexachlorobutadiene | 14.45 | 225 | 5433 | 1.6427 | ppb | # | 76 |
| 102) | Naphthalene | 14.51 | 128 | 17330 | 2.2110 | ppb | | 96 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 8575 | 2.2401 | ppb | | 94 |

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

Quantitation Report

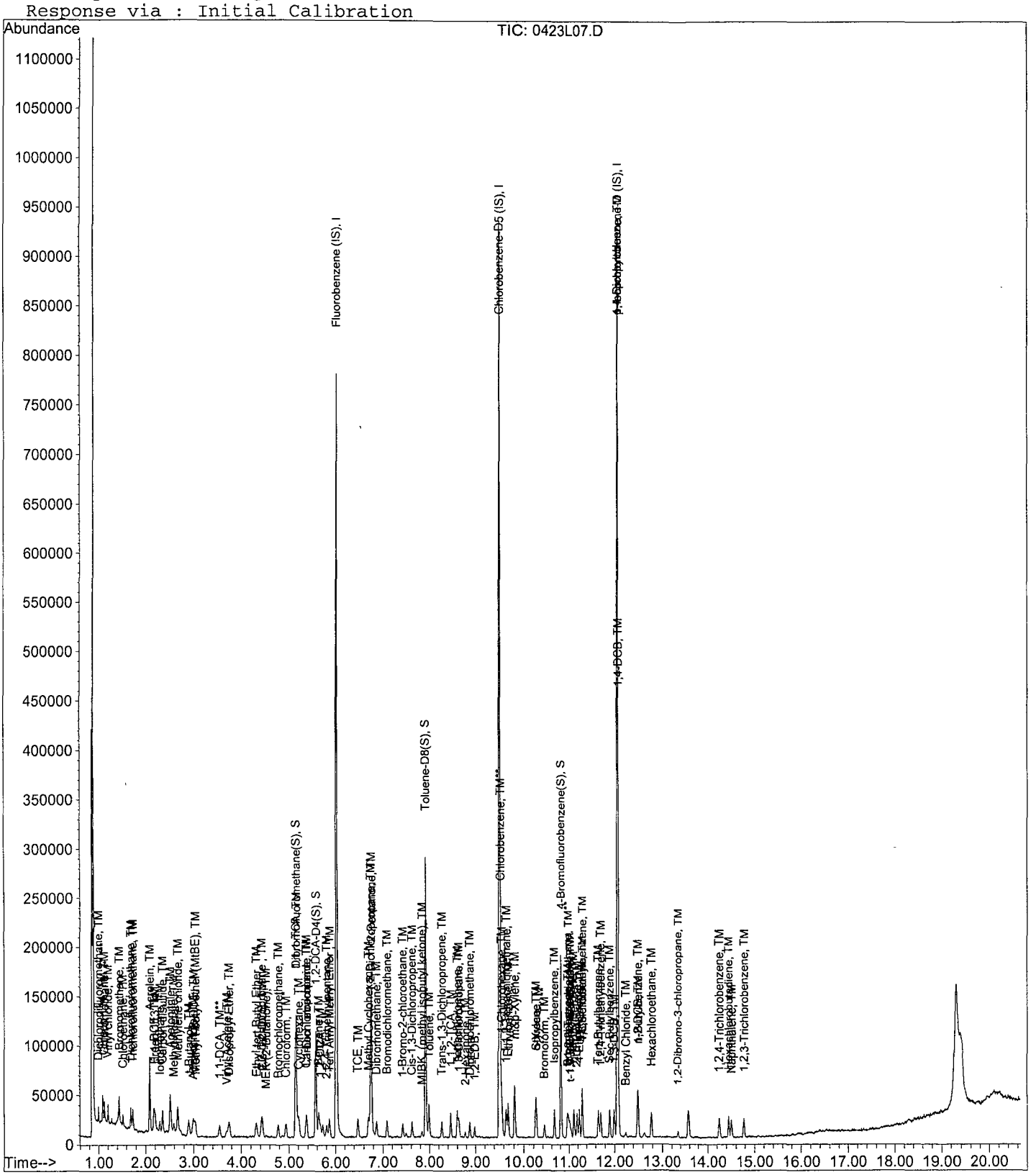
Data File : M:\LOKI\DATA\190423\0423L07.D
Acq On : 23 Apr 19 18:46
Sample : 2.0ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 6
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019

Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L08.D
Acq On : 23 Apr 19 19:15
Sample : 5.0ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 7
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 427648 | 25.0000 ppb | | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.51 | 117 | 358976 | 25.0000 ppb | | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 193344 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 203897 | 25.6214 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 102.484% | | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 214477 | 25.9605 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 103.840% | | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 600628 | 24.4915 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 97.968% | | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 204888 | 22.2813 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 89.124% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 16262 | 4.0300 ppb | | 98 |
| 4) Freon 114 | 1.09 | 85 | 17604 | 4.8581 ppb | | 90 |
| 5) Chloromethane | 1.12 | 50 | 21176 | 3.9865 ppb | | 98 |
| 6) Vinyl chloride | 1.20 | 62 | 20240 | 4.0369 ppb | | 95 |
| 8) Bromomethane | 1.44 | 94 | 12160 | 4.2278 ppb | | 89 |
| 9) Chloroethane | 1.52 | 64 | 10119 | 4.3906 ppb | | 86 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 34213 | 5.0108 ppb | | 98 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 21264 | 3.7798 ppb | | 94 |
| 12) Acrolein | 2.09 | 56 | 73217 | 103.4364 ppb | # | 94 |
| 13) Acetone | 2.25 | 43 | 9203 | 4.9039 ppb | # | 81 |
| 14) Freon-113 | 2.20 | 101 | 15721 | 4.7640 ppb | | 92 |
| 15) 1,1-DCE | 2.18 | 96 | 15510 | 4.6499 ppb | | 98 |
| 16) t-Butanol | 2.90 | 59 | 26866 | 98.4734 ppb | | 95 |
| 18) Acetonitrile | 2.52 | 41 | 57158 | 103.4170 ppb | | 99 |
| 19) Methyl Acetate | 2.59 | 43 | 18443 | 5.2656 ppb | | 91 |
| 20) Iodomethane | 2.30 | 142 | 22077 | 4.6597 ppb | | 99 |
| 21) Acrylonitrile | 2.97 | 52 | 6343 | 4.8961 ppb | | 86 |
| 22) Methylene chloride | 2.67 | 84 | 22210 | 4.8296 ppb | | 98 |
| 23) Carbon disulfide | 2.36 | 76 | 55634 | 4.6275 ppb | | 100 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 40225 | 4.8694 ppb | | 95 |
| 25) Trans-1,2-DCE | 2.99 | 96 | 16141 | 4.7105 ppb | | 86 |
| 26) Diisopropyl Ether | 3.74 | 45 | 37654 | 4.5998 ppb | | 96 |
| 28) 1,1-DCA | 3.54 | 63 | 31066 | 4.9417 ppb | | 99 |
| 29) Vinyl Acetate | 3.69 | 43 | 46097 | 4.8898 ppb | | 93 |
| 30) Ethyl tert Butyl Ether | 4.32 | 59 | 34029 | 4.6706 ppb | | 94 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 6900 | 4.8089 ppb | # | 80 |
| 32) Cis-1,2-DCE | 4.44 | 96 | 17197 | 4.6980 ppb | | 95 |
| 33) 2,2-Dichloropropane | 4.43 | 77 | 24330 | 4.6526 ppb | | 94 |
| 36) Chloroform | 4.93 | 83 | 34469 | 5.1844 ppb | | 91 |
| 37) Bromochloromethane | 4.77 | 128 | 11467 | 5.0690 ppb | | 92 |
| 39) 1,1,1-TCA | 5.14 | 97 | 26152 | 4.7668 ppb | | 98 |
| 40) Cyclohexane | 5.20 | 41 | 9602 | 4.6259 ppb | | 96 |
| 41) 1,1-Dichloropropene | 5.38 | 75 | 16781 | 4.7031 ppb | | 99 |
| 42) 2,2,4-Trimethylpentane | 5.81 | 57 | 32151 | 4.6548 ppb | | 97 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 24283 | 5.0440 ppb | | 98 |
| 45) Tert Amyl Methyl Ether | 5.87 | 73 | 35062 | 4.6590 ppb | | 99 |
| 47) 1,2-DCA | 5.67 | 62 | 25427 | 5.2123 ppb | | 98 |
| 48) Benzene | 5.64 | 78 | 64581 | 4.7557 ppb | | 94 |
| 49) TCE | 6.48 | 130 | 17599 | 4.7738 ppb | | 97 |

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

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L08.D
Acq On : 23 Apr 19 19:15
Sample : 5.0ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 7
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.76 | 43 | 197408 | 98.2444 | ppb | | 98 |
| 51) | 1,2-Dichloropropane | 6.73 | 63 | 18732 | 4.7925 | ppb | | 100 |
| 52) | Bromodichloromethane | 7.09 | 83 | 27685 | 5.1539 | ppb | | 90 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 18439 | 4.8764 | ppb | | 97 |
| 54) | Dibromomethane | 6.87 | 93 | 13367 | 4.9684 | ppb | | 86 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 11692 | 4.9457 | ppb | | 96 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 29691 | 5.2365 | ppb | | 93 |
| 58) | Cis-1,3-Dichloropropene | 7.62 | 75 | 23534 | 4.6535 | ppb | | 97 |
| 59) | Toluene | 7.99 | 91 | 66418 | 4.8537 | ppb | | 99 |
| 60) | Trans-1,3-Dichloropropene | 8.26 | 75 | 22857 | 4.8759 | ppb | | 96 |
| 61) | 1,1,2-TCA | 8.46 | 83 | 15534 | 4.8839 | ppb | | 92 |
| 62) | 2-Hexanone | 8.78 | 43 | 8194 | 4.8976 | ppb | | 99 |
| 65) | 1,2-EDB | 8.98 | 107 | 17952 | 4.7926 | ppb | | 89 |
| 66) | Tetrachloroethene | 8.60 | 166 | 19402 | 4.7474 | ppb | | 96 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 15574 | 4.3021 | ppb | | 95 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.64 | 131 | 20810 | 4.8442 | ppb | | 94 |
| 69) | m&p-Xylene | 9.82 | 91 | 84944 | 8.0519 | ppb | | 98 |
| 70) | o-Xylene | 10.25 | 106 | 20208 | 4.2523 | ppb | | 91 |
| 71) | Styrene | 10.26 | 104 | 35748 | 4.1278 | ppb | | 97 |
| 73) | 1,3-Dichloropropane | 8.63 | 76 | 29010 | 4.9038 | ppb | | 87 |
| 74) | Dibromochloromethane | 8.88 | 129 | 21744 | 4.8529 | ppb | | 98 |
| 75) | Chlorobenzene | 9.54 | 112 | 48770 | 4.8319 | ppb | | 98 |
| 76) | Ethylbenzene | 9.69 | 91 | 59779 | 4.4322 | ppb | | 94 |
| 77) | Bromoform | 10.44 | 173 | 16213 | 5.0681 | ppb | | 97 |
| 79) | Isopropylbenzene | 10.66 | 105 | 48295 | 4.3995 | ppb | | 96 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.99 | 83 | 26927 | 5.2882 | ppb | | 89 |
| 81) | 1,2,3-Trichloropropane | 11.01 | 110 | 7300 | 5.0712 | ppb | | 96 |
| 82) | t-1,4-Dichloro-2-Butene | 11.05 | 53 | 4887 | 5.5163 | ppb | | 83 |
| 83) | Bromobenzene | 10.96 | 156 | 20419 | 4.9346 | ppb | | 92 |
| 84) | n-Propylbenzene | 11.11 | 91 | 62374 | 4.5495 | ppb | | 96 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 51871 | 4.4110 | ppb | | 99 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 47974 | 4.7346 | ppb | | 97 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 43459 | 4.3749 | ppb | | 96 |
| 88) | 4-Chlorotoluene | 11.30 | 91 | 47047 | 4.4976 | ppb | | 97 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 42558 | 4.8911 | ppb | | 94 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 40615 | 4.1385 | ppb | | 94 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 51661 | 4.3431 | ppb | | 95 |
| 92) | p-Isopropyltoluene | 12.06 | 119 | 44071 | 4.2000 | ppb | | 98 |
| 93) | Benzyl Chloride | 12.24 | 91 | 6376 | 5.5783 | ppb | # | 87 |
| 94) | 1,3-DCB | 11.99 | 146 | 35719 | 4.8215 | ppb | | 94 |
| 95) | 1,4-DCB | 12.09 | 146 | 39519 | 4.7406 | ppb | | 96 |
| 96) | n-Butylbenzene | 12.51 | 91 | 42218 | 4.4355 | ppb | | 95 |
| 97) | 1,2-DCB | 12.49 | 146 | 36900 | 4.7640 | ppb | | 100 |
| 98) | Hexachloroethane | 12.78 | 117 | 6681 | 4.5472 | ppb | | 91 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.34 | 75 | 4335 | 4.6334 | ppb | | 90 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 20252 | 4.5750 | ppb | | 97 |
| 101) | Hexachlorobutadiene | 14.45 | 225 | 14175 | 5.1747 | ppb | | 94 |
| 102) | Naphthalene | 14.51 | 128 | 41440 | 4.3682 | ppb | | 98 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 20359 | 4.3943 | ppb | | 97 |

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

Quantitation Report

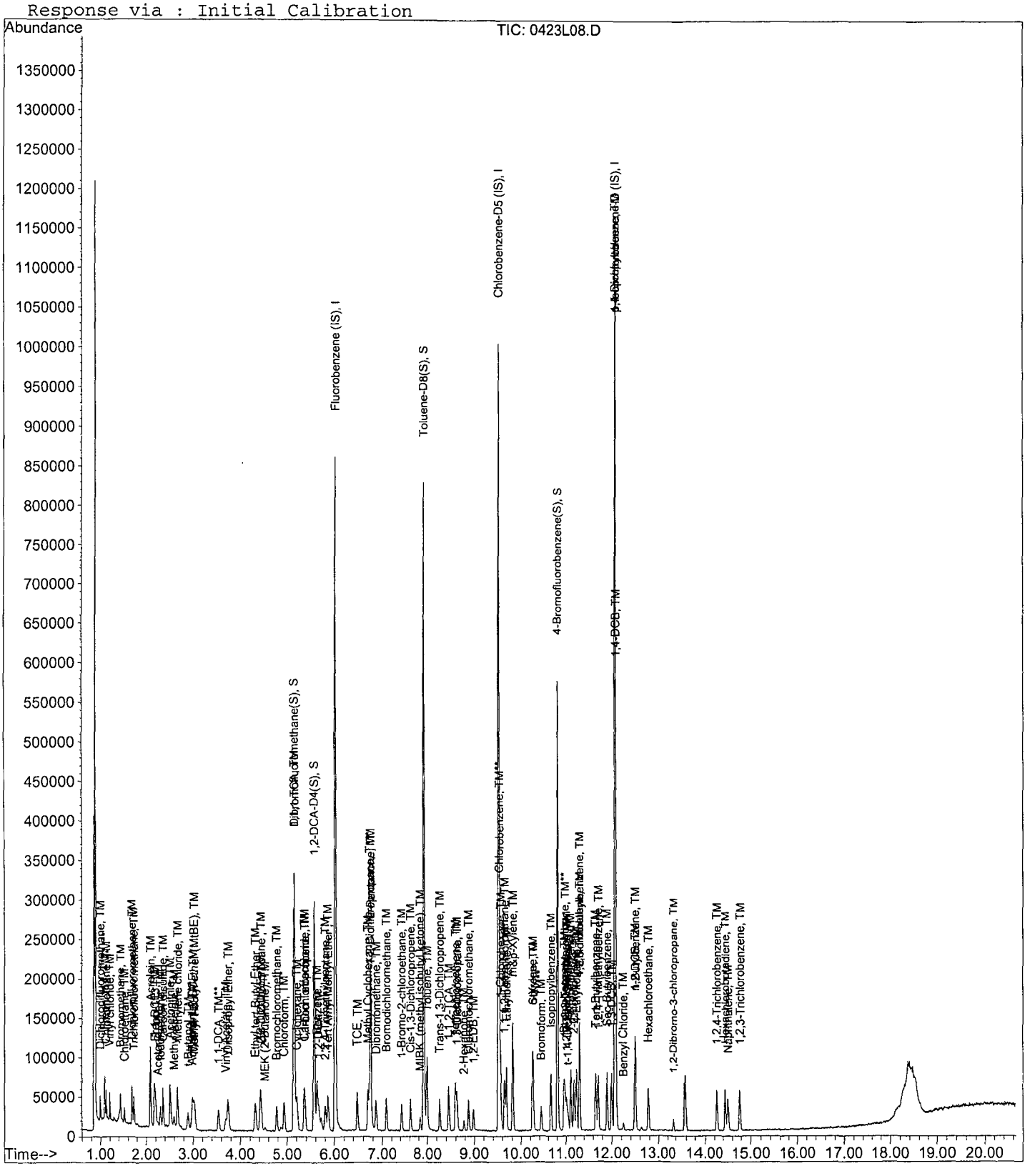
Data File : M:\LOKI\DATA\190423\0423L08.D
Acq On : 23 Apr 19 19:15
Sample : 5.0ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 7
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019

Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L09.D
Acq On : 23 Apr 19 19:44
Sample : 10ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 8
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 428928 | 25.0000 ppb | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.51 | 117 | 351424 | 25.0000 ppb | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 205184 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 204994 | 25.6824 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 102.728% | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 210328 | 25.3823 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 101.528% | |
| 64) Toluene-D8(S) | 7.92 | 98 | 634971 | 26.4483 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 105.792% | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 227196 | 25.0506 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 100.204% | |
| **Target Compounds** | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 19650 | 4.8551 ppb | 100 |
| 4) Freon 114 | 1.09 | 85 | 37929 | 10.4359 ppb | 100 |
| 5) Chloromethane | 1.12 | 50 | 25440 | 4.7749 ppb | 100 |
| 6) Vinyl chloride | 1.20 | 62 | 24792 | 4.9300 ppb | 100 |
| 8) Bromomethane | 1.44 | 94 | 15188 | 5.2877 ppb | 100 |
| 9) Chloroethane | 1.52 | 64 | 11605 | 5.0455 ppb | 100 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 68893 | 10.0599 ppb | 100 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 27150 | 4.8117 ppb | 100 |
| 12) Acrolein | 2.09 | 56 | 93732 | 132.0236 ppb | 100 |
| 13) Acetone | 2.24 | 43 | 14580 | 11.3252 ppb | 100 |
| 14) Freon-113 | 2.20 | 101 | 34489 | 10.4201 ppb | 100 |
| 15) 1,1-DCE | 2.18 | 96 | 31605 | 9.4470 ppb | 100 |
| 16) t-Butanol | 2.88 | 59 | 34233 | 125.1017 ppb | 100 |
| 18) Acetonitrile | 2.51 | 41 | 70399 | 126.9940 ppb | 100 |
| 19) Methyl Acetate | 2.59 | 43 | 31777 | 10.2897 ppb | 100 |
| 20) Iodomethane | 2.30 | 142 | 48959 | 10.3028 ppb | 100 |
| 21) Acrylonitrile | 2.97 | 52 | 12222 | 9.4058 ppb | 100 |
| 22) Methylene chloride | 2.67 | 84 | 44874 | 10.8239 ppb | 100 |
| 23) Carbon disulfide | 2.36 | 76 | 115168 | 9.5507 ppb | 100 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 83074 | 10.0264 ppb | 100 |
| 25) Trans-1,2-DCE | 2.99 | 96 | 34923 | 10.1614 ppb | 100 |
| 26) Diisopropyl Ether | 3.74 | 45 | 81198 | 9.8895 ppb | 100 |
| 28) 1,1-DCA | 3.54 | 63 | 65090 | 10.3230 ppb | 100 |
| 29) Vinyl Acetate | 3.69 | 43 | 92695 | 9.8033 ppb | 100 |
| 30) Ethyl tert Butyl Ether | 4.31 | 59 | 71969 | 9.8485 ppb | 100 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 14968 | 10.8967 ppb | 100 |
| 32) Cis-1,2-DCE | 4.44 | 96 | 36285 | 9.8831 ppb | 100 |
| 33) 2,2-Dichloropropane | 4.42 | 77 | 49481 | 9.4340 ppb | 100 |
| 36) Chloroform | 4.93 | 83 | 68794 | 10.3163 ppb | 100 |
| 37) Bromochloromethane | 4.78 | 128 | 22517 | 9.9240 ppb | 100 |
| 39) 1,1,1-TCA | 5.14 | 97 | 55027 | 10.0000 ppb | 100 |
| 40) Cyclohexane | 5.21 | 41 | 21686 | 10.4163 ppb | 100 |
| 41) 1,1-Dichloropropene | 5.38 | 75 | 36266 | 10.1337 ppb | 100 |
| 42) 2,2,4-Trimethylpentane | 5.81 | 57 | 70439 | 10.1677 ppb | 100 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 49960 | 10.3466 ppb | 100 |
| 45) Tert Amyl Methyl Ether | 5.87 | 73 | 77171 | 10.2238 ppb | 100 |
| 47) 1,2-DCA | 5.67 | 62 | 50484 | 10.3179 ppb | 100 |
| 48) Benzene | 5.64 | 78 | 138744 | 10.1864 ppb | 100 |
| 49) TCE | 6.48 | 130 | 38165 | 10.3215 ppb | 100 |

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

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L09.D
Acq On : 23 Apr 19 19:44
Sample : 10ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 8
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc | Unit | Qvalue |
|---|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.75 | 43 | 270173 | 134.0562 | ppb | 100 |
| 51) | 1,2-Dichloropropane | 6.74 | 63 | 39270 | 10.0171 | ppb | 100 |
| 52) | Bromodichloromethane | 7.09 | 83 | 54734 | 10.1591 | ppb | 100 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 37777 | 9.9608 | ppb | 100 |
| 54) | Dibromomethane | 6.87 | 93 | 27617 | 10.2344 | ppb | 100 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 23455 | 9.8216 | ppb | 100 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 58970 | 10.3693 | ppb | 100 |
| 58) | Cis-1,3-Dichloropropene | 7.62 | 75 | 51147 | 10.0834 | ppb | 100 |
| 59) | Toluene | 7.99 | 91 | 141616 | 10.3181 | ppb | 100 |
| 60) | Trans-1,3-Dichloropropene | 8.27 | 75 | 50860 | 10.8171 | ppb | 100 |
| 61) | 1,1,2-TCA | 8.45 | 83 | 33454 | 10.4866 | ppb | 100 |
| 62) | 2-Hexanone | 8.77 | 43 | 16705 | 9.9549 | ppb | 100 |
| 65) | 1,2-EDB | 8.98 | 107 | 38313 | 10.4482 | ppb | 100 |
| 66) | Tetrachloroethene | 8.60 | 166 | 40772 | 10.1908 | ppb | 100 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 35204 | 9.9336 | ppb | 100 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.64 | 131 | 43891 | 10.4367 | ppb | 100 |
| 69) | m&p-Xylene | 9.82 | 91 | 193590 | 17.8127 | ppb | 100 |
| 70) | o-Xylene | 10.25 | 106 | 47514 | 10.2132 | ppb | 100 |
| 71) | Styrene | 10.27 | 104 | 80423 | 8.7225 | ppb | 100 |
| 73) | 1,3-Dichloropropane | 8.64 | 76 | 62981 | 10.8750 | ppb | 100 |
| 74) | Dibromochloromethane | 8.88 | 129 | 45065 | 10.2738 | ppb | 100 |
| 75) | Chlorobenzene | 9.54 | 112 | 102073 | 10.3303 | ppb | 100 |
| 76) | Ethylbenzene | 9.69 | 91 | 134959 | 10.2213 | ppb | 100 |
| 77) | Bromoform | 10.44 | 173 | 31748 | 10.0957 | ppb | 100 |
| 79) | Isopropylbenzene | 10.66 | 105 | 112524 | 9.6589 | ppb | 100 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.98 | 83 | 54969 | 10.6838 | ppb | 100 |
| 81) | 1,2,3-Trichloropropane | 11.02 | 110 | 16050 | 10.5062 | ppb | 100 |
| 82) | t-1,4-Dichloro-2-Butene | 11.05 | 53 | 9604 | 10.2152 | ppb | 100 |
| 83) | Bromobenzene | 10.96 | 156 | 43756 | 9.9643 | ppb | 100 |
| 84) | n-Propylbenzene | 11.11 | 91 | 141398 | 9.7182 | ppb | 100 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 126622 | 10.1463 | ppb | 100 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 95330 | 8.8654 | ppb | 100 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 106900 | 10.1403 | ppb | 100 |
| 88) | 4-Chlorotoluene | 11.30 | 91 | 115734 | 10.4256 | ppb | 100 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 85312 | 9.2390 | ppb | 100 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 101495 | 9.7451 | ppb | 100 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 128269 | 10.1613 | ppb | 100 |
| 92) | p-Isopropyltoluene | 12.06 | 119 | 108770 | 9.7678 | ppb | 100 |
| 93) | Benzyl Chloride | 12.25 | 91 | 7672 | 6.3130 | ppb | 100 |
| 94) | 1,3-DCB | 11.99 | 146 | 85389 | 10.8611 | ppb | 100 |
| 95) | 1,4-DCB | 12.09 | 146 | 90773 | 10.2606 | ppb | 100 |
| 96) | n-Butylbenzene | 12.51 | 91 | 97900 | 9.6921 | ppb | 100 |
| 97) | 1,2-DCB | 12.49 | 146 | 81102 | 9.8665 | ppb | 100 |
| 98) | Hexachloroethane | 12.78 | 117 | 9261 | 6.0972 | ppb | 100 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.34 | 75 | 9278 | 11.0614 | ppb | 100 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 42707 | 9.0910 | ppb | 100 |
| 101) | Hexachlorobutadiene | 14.45 | 225 | 28763 | 11.1836 | ppb | 100 |
| 102) | Naphthalene | 14.51 | 128 | 87671 | 8.7082 | ppb | 100 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 45914 | 9.3382 | ppb | 100 |

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

Quantitation Report

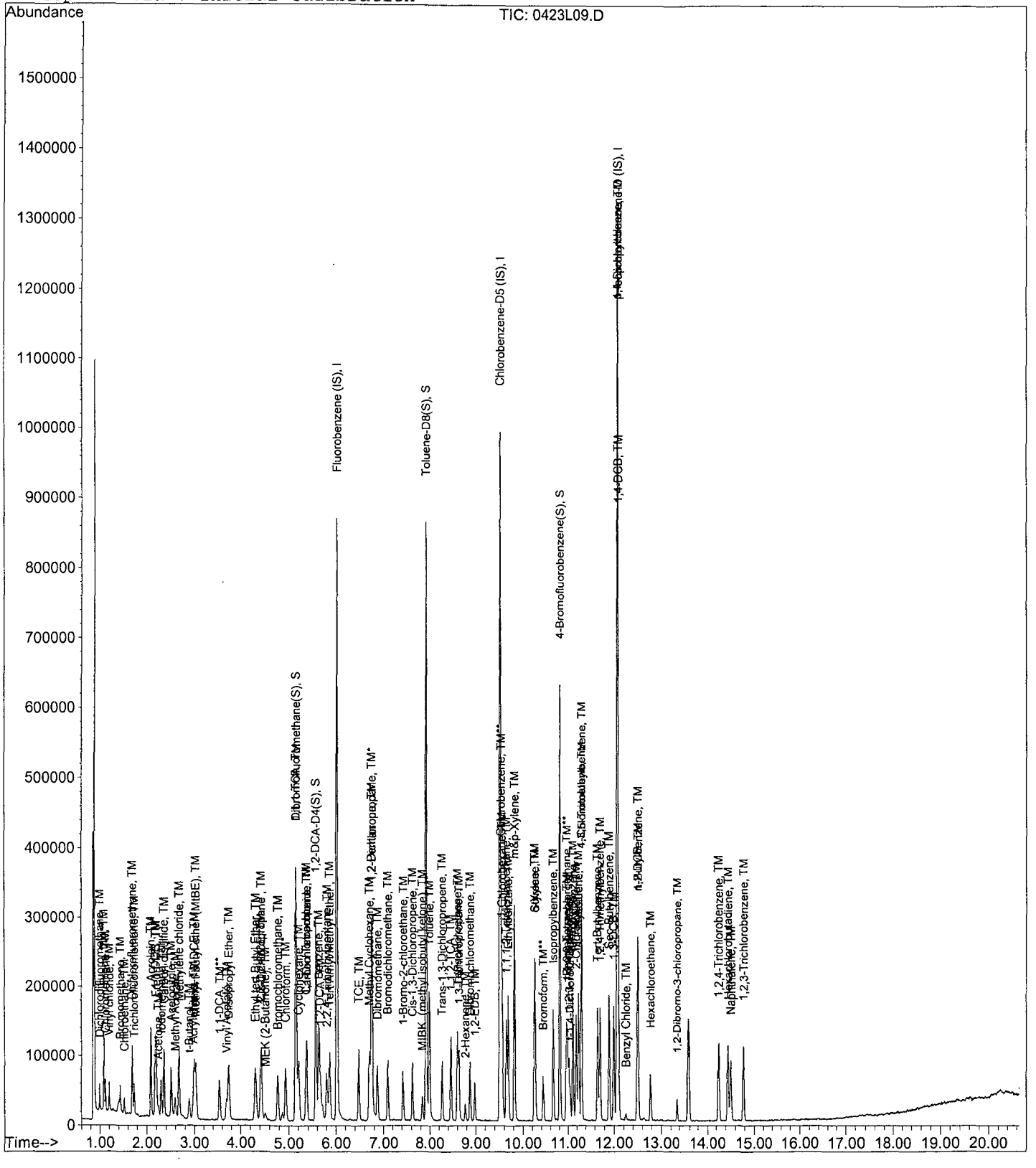
Data File : M:\LOKI\DATA\190423\0423L09.D
Acq On : 23 Apr 19 19:44
Sample : 10ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 8
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019

Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L10.D Vial: 9
Acq On : 23 Apr 19 20:12 Operator: PM,DG,SV,CMM,KV
Sample : 20ug/L VOC STD 04/23/19 Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 471616 | 25.0000 ppb | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.51 | 117 | 381312 | 25.0000 ppb | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 240320 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 417499 | 47.5714 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 190.284% | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 435264 | 47.7730 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 191.092% | |
| 64) Toluene-D8(S) | 7.92 | 98 | 1418791 | 54.4645 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 217.860% | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 522208 | 51.4836 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 205.936% | |
| **Target Compounds** | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 89333 | 20.0745 ppb | 99 |
| 4) Freon 114 | 1.09 | 85 | 74952 | 18.7559 ppb | 97 |
| 5) Chloromethane | 1.12 | 50 | 105600 | 18.0262 ppb | 100 |
| 6) Vinyl chloride | 1.20 | 62 | 107032 | 19.3574 ppb | 100 |
| 8) Bromomethane | 1.43 | 94 | 59069 | 18.9400 ppb | 97 |
| 9) Chloroethane | 1.52 | 64 | 48696 | 19.7485 ppb | 91 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 139044 | 18.4658 ppb | 100 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 119211 | 19.2149 ppb | 96 |
| 12) Acrolein | 2.09 | 56 | 112290 | 143.8469 ppb | 99 |
| 13) Acetone | 2.24 | 43 | 25440 | 21.5972 ppb | 97 |
| 14) Freon-113 | 2.20 | 101 | 68821 | 18.9107 ppb | 94 |
| 15) 1,1-DCE | 2.18 | 96 | 63332 | 17.2170 ppb | 96 |
| 16) t-Butanol | 2.89 | 59 | 41945 | 139.4101 ppb | 97 |
| 18) Acetonitrile | 2.51 | 41 | 83925 | 137.6905 ppb | 93 |
| 19) Methyl Acetate | 2.59 | 43 | 61658 | 19.4837 ppb | 97 |
| 20) Iodomethane | 2.30 | 142 | 101695 | 19.4634 ppb | 99 |
| 21) Acrylonitrile | 2.96 | 52 | 23835 | 16.6826 ppb | 97 |
| 22) Methylene chloride | 2.67 | 84 | 85761 | 19.6105 ppb | 99 |
| 23) Carbon disulfide | 2.36 | 76 | 224039 | 16.8976 ppb | 98 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 172044 | 18.8849 ppb | 95 |
| 25) Trans-1,2-DCE | 2.99 | 96 | 67383 | 17.8315 ppb | 93 |
| 26) Diisopropyl Ether | 3.74 | 45 | 167715 | 18.5780 ppb | 98 |
| 28) 1,1-DCA | 3.54 | 63 | 131394 | 18.9523 ppb | 100 |
| 29) Vinyl Acetate | 3.69 | 43 | 188391 | 18.1206 ppb | 96 |
| 30) Ethyl tert Butyl Ether | 4.32 | 59 | 154382 | 19.2140 ppb | 98 |
| 31) MEK (2-Butanone) | 4.51 | 43 | 28357 | 19.0837 ppb | 97 |
| 32) Cis-1,2-DCE | 4.44 | 96 | 75797 | 18.7765 ppb | 95 |
| 33) 2,2-Dichloropropane | 4.42 | 77 | 99441 | 17.2433 ppb | 96 |
| 36) Chloroform | 4.93 | 83 | 136156 | 18.5697 ppb | 93 |
| 37) Bromochloromethane | 4.77 | 128 | 44592 | 17.8743 ppb | 93 |
| 39) 1,1,1-TCA | 5.14 | 97 | 112232 | 18.5497 ppb | 97 |
| 40) Cyclohexane | 5.20 | 41 | 43598 | 19.0457 ppb | 84 |
| 41) 1,1-Dichloropropene | 5.38 | 75 | 75587 | 19.2093 ppb | 99 |
| 42) 2,2,4-Trimethylpentane | 5.81 | 57 | 149102 | 19.5744 ppb | 96 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 99250 | 18.6941 ppb | 98 |
| 45) Tert Amyl Methyl Ether | 5.87 | 73 | 167902 | 20.2307 ppb | 99 |
| 47) 1,2-DCA | 5.67 | 62 | 103407 | 19.2214 ppb | 99 |
| 48) Benzene | 5.64 | 78 | 285812 | 19.0846 ppb | 96 |
| 49) TCE | 6.48 | 130 | 76705 | 18.8668 ppb | 99 |

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

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L10.D
Acq On : 23 Apr 19 20:12
Sample : 20ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 9
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019

Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.76 | 43 | 339434 | 153.1780 ppb | 99 |
| 51) | 1,2-Dichloropropane | 6.74 | 63 | 81831 | 18.9843 ppb | 99 |
| 52) | Bromodichloromethane | 7.09 | 83 | 110528 | 18.6580 ppb | 95 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 77686 | 18.6297 ppb | 98 |
| 54) | Dibromomethane | 6.87 | 93 | 56328 | 18.9847 ppb | 93 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 48340 | 18.3484 ppb | 95 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 117467 | 18.7858 ppb | 99 |
| 58) | Cis-1,3-Dichloropropene | 7.62 | 75 | 103339 | 18.5288 ppb | 99 |
| 59) | Toluene | 7.99 | 91 | 312440 | 20.7038 ppb | 97 |
| 60) | Trans-1,3-Dichloropropene | 8.26 | 75 | 104640 | 20.2408 ppb | 100 |
| 61) | 1,1,2-TCA | 8.46 | 83 | 66476 | 18.9517 ppb | 93 |
| 62) | 2-Hexanone | 8.78 | 43 | 33408 | 18.1065 ppb | 95 |
| 65) | 1,2-EDB | 8.98 | 107 | 77779 | 19.5483 ppb | 90 |
| 66) | Tetrachloroethene | 8.60 | 166 | 82876 | 19.0909 ppb | 97 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 77213 | 20.0797 ppb | 99 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.65 | 131 | 87599 | 19.1972 ppb | 99 |
| 69) | m&p-Xylene | 9.82 | 91 | 451713 | 37.4980 ppb | 98 |
| 70) | o-Xylene | 10.25 | 106 | 104610 | 20.7235 ppb | 97 |
| 71) | Styrene | 10.26 | 104 | 191138 | 18.4054 ppb | 99 |
| 73) | 1,3-Dichloropropane | 8.63 | 76 | 126230 | 20.0879 ppb | 91 |
| 74) | Dibromochloromethane | 8.88 | 129 | 92597 | 19.4554 ppb | 96 |
| 75) | Chlorobenzene | 9.54 | 112 | 211369 | 19.7149 ppb | 97 |
| 76) | Ethylbenzene | 9.69 | 91 | 292099 | 20.3885 ppb | 98 |
| 77) | Bromoform | 10.44 | 173 | 65847 | 19.2598 ppb | 99 |
| 79) | Isopropylbenzene | 10.66 | 105 | 253281 | 18.5627 ppb | 100 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.99 | 83 | 111651 | 18.9343 ppb | 97 |
| 81) | 1,2,3-Trichloropropane | 11.02 | 110 | 32757 | 18.3075 ppb | 79 |
| 82) | t-1,4-Dichloro-2-Butene | 11.05 | 53 | 21257 | 19.3041 ppb | 98 |
| 83) | Bromobenzene | 10.96 | 156 | 95098 | 18.4898 ppb | 95 |
| 84) | n-Propylbenzene | 11.11 | 91 | 335461 | 19.6852 ppb | 99 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 301829 | 20.6496 ppb | 99 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 255217 | 20.2643 ppb | 99 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 263297 | 21.3242 ppb | 99 |
| 88) | 4-Chlorotoluene | 11.31 | 91 | 272603 | 20.9664 ppb | 97 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 222400 | 20.5638 ppb | 98 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 238689 | 19.5671 ppb | 95 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 290818 | 19.6699 ppb | 97 |
| 92) | p-Isopropyltoluene | 12.07 | 119 | 253838 | 19.4624 ppb | 98 |
| 93) | Benzyl Chloride | 12.25 | 91 | 28659 | 19.9400 ppb | 94 |
| 94) | 1,3-DCB | 11.99 | 146 | 174381 | 18.9377 ppb | 95 |
| 95) | 1,4-DCB | 12.09 | 146 | 191040 | 18.4372 ppb | 97 |
| 96) | n-Butylbenzene | 12.51 | 91 | 219399 | 18.5449 ppb | 99 |
| 97) | 1,2-DCB | 12.49 | 146 | 166690 | 17.3139 ppb | 97 |
| 98) | Hexachloroethane | 12.78 | 117 | 35096 | 20.8792 ppb | 91 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.34 | 75 | 18676 | 20.2241 ppb | 91 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 96430 | 17.5258 ppb | 99 |
| 101) | Hexachlorobutadiene | 14.45 | 225 | 55548 | 19.3577 ppb | 91 |
| 102) | Naphthalene | 14.51 | 128 | 199066 | 16.8819 ppb | 98 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 103104 | 17.9039 ppb | 98 |

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

Quantitation Report

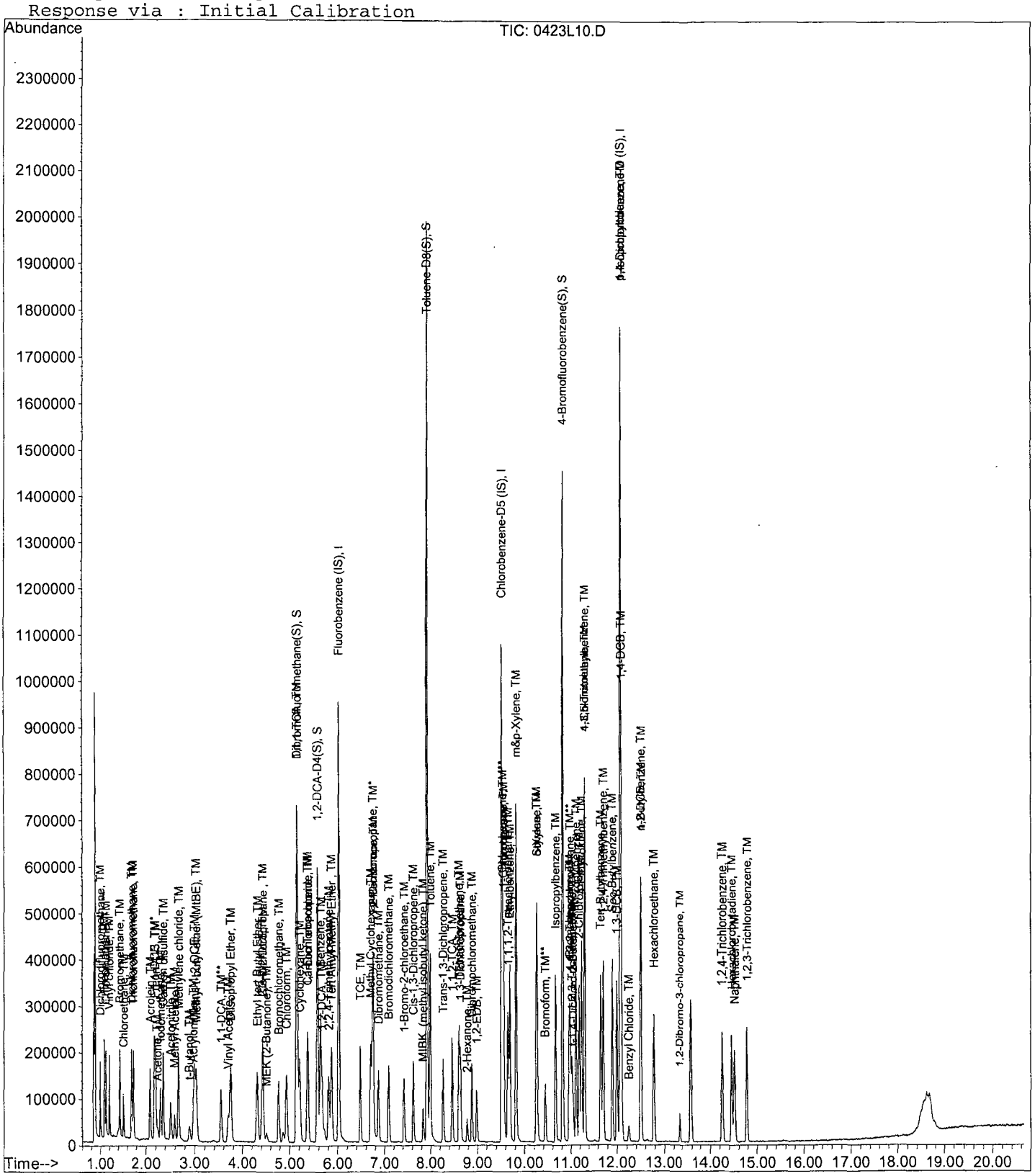
Data File : M:\LOKI\DATA\190423\0423L10.D
Acq On : 23 Apr 19 20:12
Sample : 20ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 9
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019

Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L11.D Vial: 10
Acq On : 23 Apr 19 20:41 Operator: PM,DG,SV,CMM,KV
Sample : 40ug/L VOC STD 04/23/19 Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 471616 | 25.0000 ppb | | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.51 | 117 | 370880 | 25.0000 ppb | | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 236800 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 426683 | 48.6178 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 194.472% | | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 447460 | 49.1115 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 196.448% | | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 1513267 | 59.7252 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 238.900% | | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 564481 | 57.0591 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 228.236% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 186995 | 42.0207 ppb | | 98 |
| 4) Freon 114 | 1.09 | 85 | 160097 | 40.0625 ppb | | 97 |
| 5) Chloromethane | 1.12 | 50 | 220390 | 37.6213 ppb | | 98 |
| 6) Vinyl chloride | 1.20 | 62 | 213696 | 38.6482 ppb | | 100 |
| 8) Bromomethane | 1.44 | 94 | 126143 | 40.5526 ppb | | 94 |
| 9) Chloroethane | 1.52 | 64 | 98600 | 40.1664 ppb | | 99 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 283560 | 37.6583 ppb | | 99 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 245916 | 39.6377 ppb | | 96 |
| 12) Acrolein | 2.09 | 56 | 130868 | 167.6459 ppb | # | 98 |
| 13) Acetone | 2.25 | 43 | 47218 | 45.3727 ppb | | 97 |
| 14) Freon-113 | 2.20 | 101 | 140885 | 38.7125 ppb | | 94 |
| 15) 1,1-DCE | 2.18 | 96 | 130969 | 35.6043 ppb | | 97 |
| 16) t-Butanol | 2.91 | 59 | 48763 | 162.0707 ppb | | 97 |
| 18) Acetonitrile | 2.53 | 41 | 101471 | 166.4772 ppb | | 98 |
| 19) Methyl Acetate | 2.60 | 43 | 121628 | 40.1199 ppb | | 98 |
| 20) Iodomethane | 2.30 | 142 | 222060 | 42.5001 ppb | | 96 |
| 21) Acrylonitrile | 2.97 | 52 | 49558 | 34.6867 ppb | | 89 |
| 22) Methylene chloride | 2.67 | 84 | 170315 | 40.0092 ppb | | 96 |
| 23) Carbon disulfide | 2.36 | 76 | 460712 | 34.7480 ppb | | 99 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 369589 | 40.5689 ppb | | 93 |
| 25) Trans-1,2-DCE | 3.00 | 96 | 143869 | 38.0720 ppb | | 97 |
| 26) Diisopropyl Ether | 3.74 | 45 | 383882 | 42.5231 ppb | | 96 |
| 28) 1,1-DCA | 3.54 | 63 | 263874 | 38.0612 ppb | | 98 |
| 29) Vinyl Acetate | 3.69 | 43 | 409381 | 39.3767 ppb | | 96 |
| 30) Ethyl tert Butyl Ether | 4.32 | 59 | 350856 | 43.6668 ppb | | 98 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 59123 | 40.2514 ppb | | 99 |
| 32) Cis-1,2-DCE | 4.44 | 96 | 165652 | 41.0355 ppb | | 94 |
| 33) 2,2-Dichloropropane | 4.42 | 77 | 204798 | 35.5125 ppb | | 99 |
| 36) Chloroform | 4.93 | 83 | 281052 | 38.3315 ppb | | 93 |
| 37) Bromochloromethane | 4.77 | 128 | 92838 | 37.2133 ppb | | 96 |
| 39) 1,1,1-TCA | 5.14 | 97 | 223429 | 36.9282 ppb | | 96 |
| 40) Cyclohexane | 5.21 | 41 | 97677 | 42.6699 ppb | | 78 |
| 41) 1,1-Dichloropropene | 5.38 | 75 | 169656 | 43.1154 ppb | | 99 |
| 42) 2,2,4-Trimethylpentane | 5.81 | 57 | 341376 | 44.8164 ppb | | 92 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 211676 | 39.8698 ppb | | 99 |
| 45) Tert Amyl Methyl Ether | 5.87 | 73 | 387822 | 46.7292 ppb | | 96 |
| 47) 1,2-DCA | 5.67 | 62 | 205080 | 38.1205 ppb | | 95 |
| 48) Benzene | 5.63 | 78 | 604689 | 40.3771 ppb | | 96 |
| 49) TCE | 6.48 | 130 | 159399 | 39.2066 ppb | | 97 |

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

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L11.D
Acq On : 23 Apr 19 20:41
Sample : 40ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 10
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.76 | 43 | 420868 | 189.9271 | ppb | | 99 |
| 51) | 1,2-Dichloropropane | 6.74 | 63 | 167682 | 38.9013 | ppb | | 99 |
| 52) | Bromodichloromethane | 7.09 | 83 | 225545 | 38.0738 | ppb | | 93 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 182738 | 43.8219 | ppb | | 99 |
| 54) | Dibromomethane | 6.87 | 93 | 113944 | 38.4035 | ppb | | 94 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 107833 | 40.8437 | ppb | | 95 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 243441 | 38.9321 | ppb | | 95 |
| 58) | Cis-1,3-Dichloropropene | 7.62 | 75 | 226500 | 40.6118 | ppb | | 97 |
| 59) | Toluene | 7.99 | 91 | 656957 | 43.5332 | ppb | | 97 |
| 60) | Trans-1,3-Dichloropropene | 8.27 | 75 | 222380 | 43.0156 | ppb | | 96 |
| 61) | 1,1,2-TCA | 8.46 | 83 | 135107 | 38.5177 | ppb | | 94 |
| 62) | 2-Hexanone | 8.78 | 43 | 70806 | 38.3756 | ppb | | 92 |
| 65) | 1,2-EDB | 8.98 | 107 | 161263 | 41.6705 | ppb | | 92 |
| 66) | Tetrachloroethene | 8.60 | 166 | 172688 | 40.8984 | ppb | | 97 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 174163 | 46.5661 | ppb | | 96 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.64 | 131 | 179656 | 40.4787 | ppb | | 98 |
| 69) | m&p-Xylene | 9.82 | 91 | 1055517 | 89.1017 | ppb | | 98 |
| 70) | o-Xylene | 10.25 | 106 | 244267 | 49.7511 | ppb | | 100 |
| 71) | Styrene | 10.27 | 104 | 453673 | 44.0677 | ppb | | 98 |
| 73) | 1,3-Dichloropropane | 8.63 | 76 | 260804 | 42.6710 | ppb | | 91 |
| 74) | Dibromochloromethane | 8.88 | 129 | 187382 | 40.4779 | ppb | | 98 |
| 75) | Chlorobenzene | 9.54 | 112 | 442946 | 42.4768 | ppb | | 97 |
| 76) | Ethylbenzene | 9.69 | 91 | 670978 | 48.1516 | ppb | | 98 |
| 77) | Bromoform | 10.44 | 173 | 134231 | 40.3203 | ppb | | 99 |
| 79) | Isopropylbenzene | 10.66 | 105 | 590123 | 43.8923 | ppb | | 98 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.99 | 83 | 230739 | 40.3189 | ppb | | 93 |
| 81) | 1,2,3-Trichloropropane | 11.02 | 110 | 67084 | 38.0498 | ppb | | 88 |
| 82) | t-1,4-Dichloro-2-Butene | 11.05 | 53 | 42216 | 38.9074 | ppb | | 93 |
| 83) | Bromobenzene | 10.96 | 156 | 196661 | 38.8050 | ppb | | 99 |
| 84) | n-Propylbenzene | 11.11 | 91 | 764808 | 45.5469 | ppb | | 99 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 704703 | 48.9288 | ppb | | 100 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 571568 | 46.0572 | ppb | | 97 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 599508 | 49.2755 | ppb | | 99 |
| 88) | 4-Chlorotoluene | 11.31 | 91 | 595991 | 46.5202 | ppb | | 96 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 439290 | 41.2219 | ppb | | 97 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 568255 | 47.2764 | ppb | | 97 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 683938 | 46.9469 | ppb | | 98 |
| 92) | p-Isopropyltoluene | 12.07 | 119 | 598627 | 46.5806 | ppb | | 97 |
| 93) | Benzyl Chloride | 12.25 | 91 | 59871 | 42.1761 | ppb | # | 89 |
| 94) | 1,3-DCB | 11.99 | 146 | 374769 | 41.3047 | ppb | | 98 |
| 95) | 1,4-DCB | 12.09 | 146 | 395645 | 38.7511 | ppb | | 98 |
| 96) | n-Butylbenzene | 12.51 | 91 | 516750 | 44.3279 | ppb | | 98 |
| 97) | 1,2-DCB | 12.49 | 146 | 364277 | 38.3994 | ppb | | 97 |
| 98) | Hexachloroethane | 12.78 | 117 | 73080 | 44.6962 | ppb | | 90 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.34 | 75 | 39186 | 44.9723 | ppb | # | 80 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 217928 | 40.1963 | ppb | | 99 |
| 101) | Hexachlorobutadiene | 14.45 | 225 | 117690 | 43.2490 | ppb | | 87 |
| 102) | Naphthalene | 14.51 | 128 | 467716 | 40.2545 | ppb | | 98 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 236176 | 41.6213 | ppb | | 98 |

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

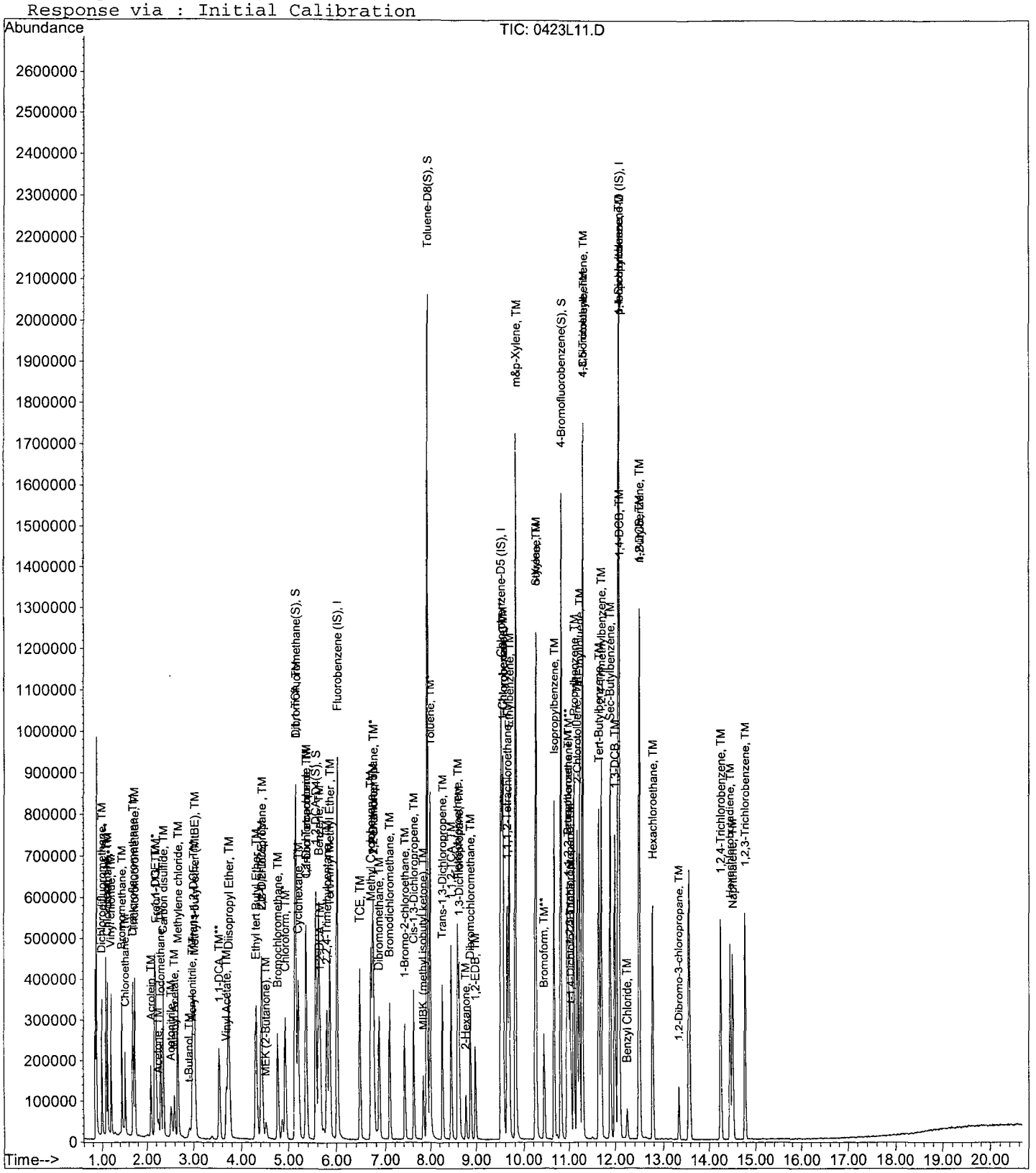
Quantitation Report

Data File : M:\LOKI\DATA\190423\0423L11.D
Acq On : 23 Apr 19 20:41
Sample : 40ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 10
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L12.D Vial: 11
Acq On : 23 Apr 19 21:09 Operator: PM,DG,SV,CMM,KV
Sample : 100ug/L VOC STD 04/23/19 Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 538624 | 25.0000 ppb | | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.52 | 117 | 434048 | 25.0000 ppb | | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 273216 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 798423 | 79.6574 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 318.628% | | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 820456 | 78.8474 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 315.388% | | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 3016723 | 101.7357 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 406.944% | | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 1130913 | 96.6720 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 386.688% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 443043 | 87.1729 ppb | | 100 |
| 4) Freon 114 | 1.09 | 85 | 346000 | 75.8113 ppb | | 94 |
| 5) Chloromethane | 1.12 | 50 | 541809 | 80.9824 ppb | | 98 |
| 6) Vinyl chloride | 1.20 | 62 | 535616 | 84.8183 ppb | | 99 |
| 8) Bromomethane | 1.43 | 94 | 274468 | 77.3436 ppb | | 95 |
| 9) Chloroethane | 1.51 | 64 | 228096 | 81.5387 ppb | | 94 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 658654 | 76.5907 ppb | | 100 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 617426 | 87.1383 ppb | | 95 |
| 12) Acrolein | 2.09 | 56 | 143484 | 160.9407 ppb | # | 97 |
| 13) Acetone | 2.25 | 43 | 108444 | 97.4860 ppb | | 96 |
| 14) Freon-113 | 2.20 | 101 | 318867 | 76.7183 ppb | | 95 |
| 15) 1,1-DCE | 2.18 | 96 | 296825 | 70.6541 ppb | | 96 |
| 16) t-Butanol | 2.90 | 59 | 55220 | 160.6990 ppb | | 100 |
| 18) Acetonitrile | 2.52 | 41 | 110137 | 158.2154 ppb | | 92 |
| 19) Methyl Acetate | 2.60 | 43 | 282996 | 83.5333 ppb | | 100 |
| 20) Iodomethane | 2.30 | 142 | 533387 | 89.3850 ppb | | 97 |
| 21) Acrylonitrile | 2.97 | 52 | 115817 | 70.9781 ppb | | 90 |
| 22) Methylene chloride | 2.67 | 84 | 383307 | 79.8895 ppb | | 98 |
| 23) Carbon disulfide | 2.36 | 76 | 1060955 | 70.0648 ppb | | 100 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 920961 | 88.5152 ppb | | 92 |
| 25) Trans-1,2-DCE | 3.00 | 96 | 331696 | 76.8566 ppb | | 94 |
| 26) Diisopropyl Ether | 3.75 | 45 | 1008869 | 97.8509 ppb | | 99 |
| 28) 1,1-DCA | 3.55 | 63 | 612930 | 77.4104 ppb | | 98 |
| 29) Vinyl Acetate | 3.69 | 43 | 968621 | 81.5772 ppb | | 95 |
| 30) Ethyl tert Butyl Ether | 4.32 | 59 | 915792 | 99.7980 ppb | | 97 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 143488 | 86.0148 ppb | | 91 |
| 32) Cis-1,2-DCE | 4.44 | 96 | 397503 | 86.2196 ppb | | 96 |
| 33) 2,2-Dichloropropane | 4.42 | 77 | 470779 | 71.4784 ppb | | 99 |
| 36) Chloroform | 4.93 | 83 | 648154 | 77.4016 ppb | | 97 |
| 37) Bromochloromethane | 4.77 | 128 | 212366 | 74.5350 ppb | | 95 |
| 39) 1,1,1-TCA | 5.14 | 97 | 516582 | 74.7586 ppb | | 98 |
| 40) Cyclohexane | 5.21 | 41 | 242568 | 92.7825 ppb | | 74 |
| 41) 1,1-Dichloropropene | 5.38 | 75 | 430101 | 95.7055 ppb | | 96 |
| 42) 2,2,4-Trimethylpentane | 5.81 | 57 | 867060 | 99.6680 ppb | | 88 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 475731 | 78.4580 ppb | | 100 |
| 45) Tert Amyl Methyl Ether | 5.87 | 73 | 994094 | 104.8784 ppb | | 93 |
| 47) 1,2-DCA | 5.67 | 62 | 471699 | 76.7721 ppb | | 97 |
| 48) Benzene | 5.64 | 78 | 1443457 | 84.3937 ppb | | 96 |
| 49) TCE | 6.48 | 130 | 380338 | 81.9118 ppb | | 99 |

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

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L12.D
Acq On : 23 Apr 19 21:09
Sample : 100ug/L VOC STD 04/23/19
Misc : ISS 3/5/19, 2/11/19

Vial: 11
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.76 | 43 | 487820 | 192.7540 | ppb | | 100 |
| 51) | 1,2-Dichloropropane | 6.74 | 63 | 397590 | 80.7637 | ppb | | 100 |
| 52) | Bromodichloromethane | 7.09 | 83 | 531661 | 78.5834 | ppb | | 93 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 486970 | 102.2509 | ppb | | 90 |
| 54) | Dibromomethane | 6.87 | 93 | 262063 | 77.3372 | ppb | | 95 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 275642 | 91.3289 | ppb | | 96 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 565510 | 79.1875 | ppb | | 96 |
| 58) | Cis-1,3-Dichloropropene | 7.62 | 75 | 575000 | 90.2723 | ppb | | 96 |
| 59) | Toluene | 7.99 | 91 | 1612664 | 93.5687 | ppb | | 98 |
| 60) | Trans-1,3-Dichloropropene | 8.27 | 75 | 543921 | 92.1232 | ppb | | 97 |
| 61) | 1,1,2-TCA | 8.46 | 83 | 313671 | 78.2997 | ppb | | 97 |
| 62) | 2-Hexanone | 8.78 | 43 | 186174 | 88.3501 | ppb | # | 87 |
| 65) | 1,2-EDB | 8.98 | 107 | 377547 | 83.3606 | ppb | | 91 |
| 66) | Tetrachloroethene | 8.60 | 166 | 414269 | 83.8345 | ppb | | 96 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 476233 | 108.8001 | ppb | | 91 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.64 | 131 | 420502 | 80.9560 | ppb | | 99 |
| 69) | m&p-Xylene | 9.82 | 91 | 2745511 | 197.1759 | ppb | | 98 |
| 70) | o-Xylene | 10.25 | 106 | 651045 | 113.3037 | ppb | | 97 |
| 71) | Styrene | 10.26 | 104 | 1199977 | 98.8559 | ppb | | 100 |
| 73) | 1,3-Dichloropropane | 8.63 | 76 | 626212 | 87.5459 | ppb | | 91 |
| 74) | Dibromochloromethane | 8.88 | 129 | 444901 | 82.1200 | ppb | | 100 |
| 75) | Chlorobenzene | 9.54 | 112 | 1080371 | 88.5257 | ppb | | 97 |
| 76) | Ethylbenzene | 9.69 | 91 | 1736145 | 106.4595 | ppb | | 98 |
| 77) | Bromoform | 10.44 | 173 | 314278 | 80.6223 | ppb | | 100 |
| 79) | Isopropylbenzene | 10.66 | 105 | 1572041 | 101.3411 | ppb | | 98 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.99 | 83 | 531171 | 80.9957 | ppb | | 97 |
| 81) | 1,2,3-Trichloropropane | 11.02 | 110 | 155019 | 76.2069 | ppb | | 85 |
| 82) | t-1,4-Dichloro-2-Butene | 11.05 | 53 | 108108 | 86.3551 | ppb | | 99 |
| 83) | Bromobenzene | 10.96 | 156 | 477104 | 81.5939 | ppb | | 99 |
| 84) | n-Propylbenzene | 11.11 | 91 | 2031833 | 104.8744 | ppb | | 100 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 1842651 | 110.8861 | ppb | | 99 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 1427242 | 99.6789 | ppb | | 98 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 1510246 | 107.5868 | ppb | | 99 |
| 88) | 4-Chlorotoluene | 11.31 | 91 | 1472784 | 99.6360 | ppb | | 96 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 1356375 | 110.3143 | ppb | | 97 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 1515298 | 109.2635 | ppb | | 95 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 1796797 | 106.8968 | ppb | | 98 |
| 92) | p-Isopropyltoluene | 12.06 | 119 | 1604668 | 108.2205 | ppb | | 97 |
| 93) | Benzyl Chloride | 12.25 | 91 | 163100 | 99.4608 | ppb | # | 92 |
| 94) | 1,3-DCB | 11.99 | 146 | 922251 | 88.0968 | ppb | | 99 |
| 95) | 1,4-DCB | 12.09 | 146 | 951781 | 80.7962 | ppb | | 98 |
| 96) | n-Butylbenzene | 12.51 | 91 | 1398298 | 103.9615 | ppb | | 97 |
| 97) | 1,2-DCB | 12.49 | 146 | 914479 | 83.5492 | ppb | | 98 |
| 98) | Hexachloroethane | 12.78 | 117 | 184384 | 98.3507 | ppb | | 91 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.34 | 75 | 96511 | 97.9152 | ppb | # | 83 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 603884 | 96.5389 | ppb | | 99 |
| 101) | Hexachlorobutadiene | 14.45 | 225 | 304459 | 98.7267 | ppb | | 90 |
| 102) | Naphthalene | 14.51 | 128 | 1414024 | 105.4787 | ppb | | 97 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 643416 | 98.2761 | ppb | | 98 |

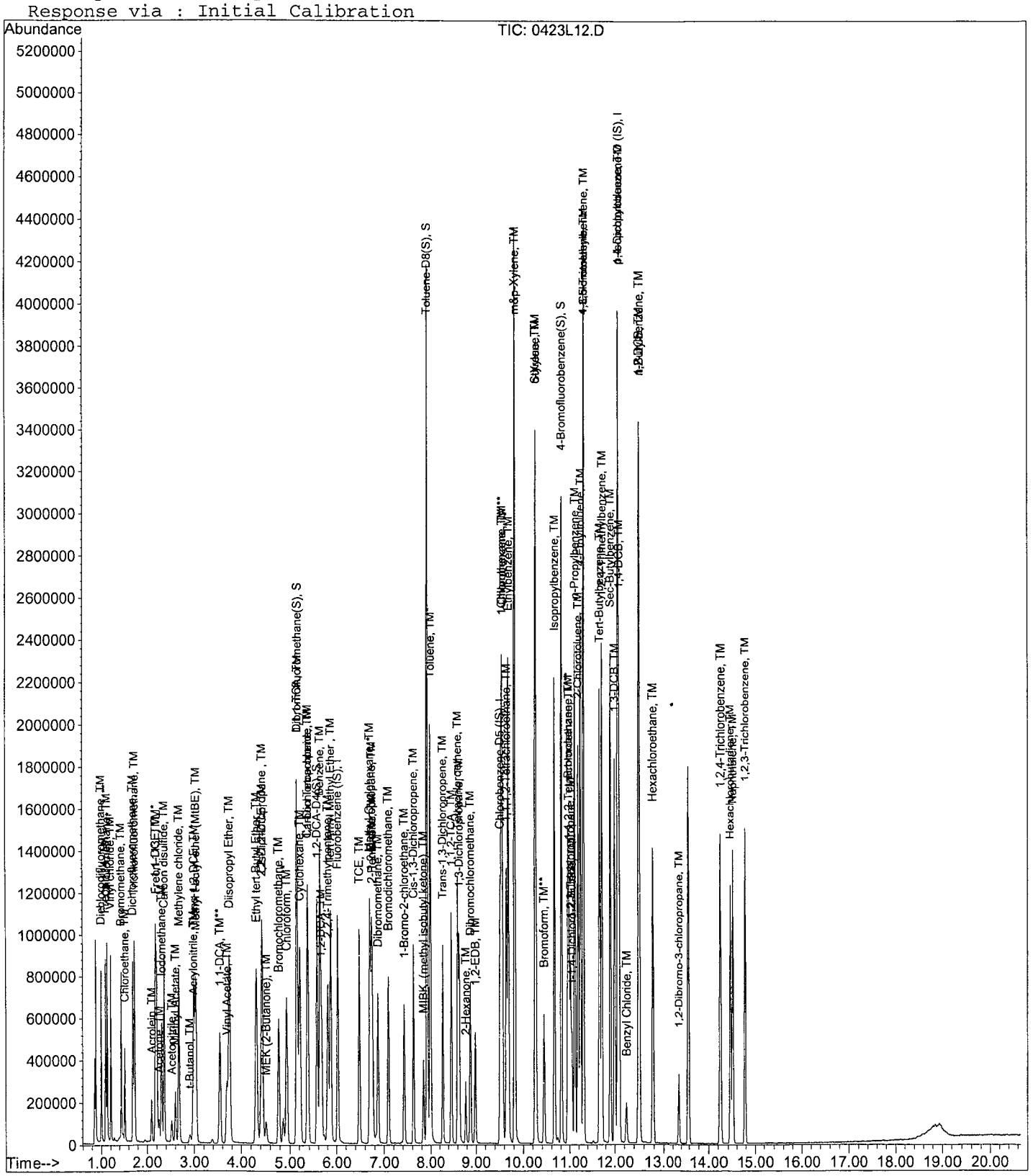
(#) = qualifier out of range (m) = manual integration

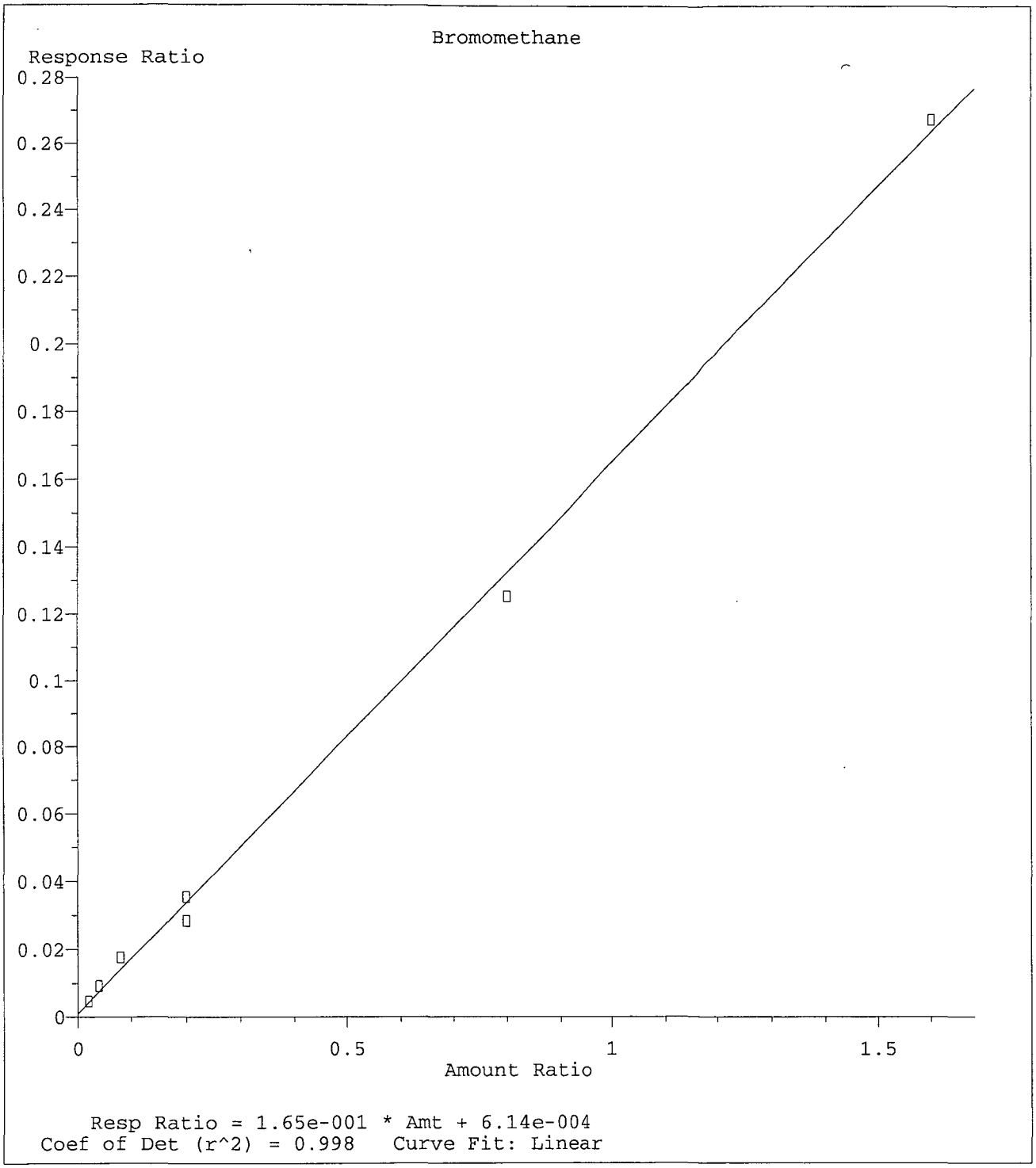
Quantitation Report

Data File : M:\LOKI\DATA\190423\0423L12.D Vial: 11
Acq On : 23 Apr 19 21:09 Operator: PM,DG,SV,CMM,KV
Sample : 100ug/L VOC STD 04/23/19 Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

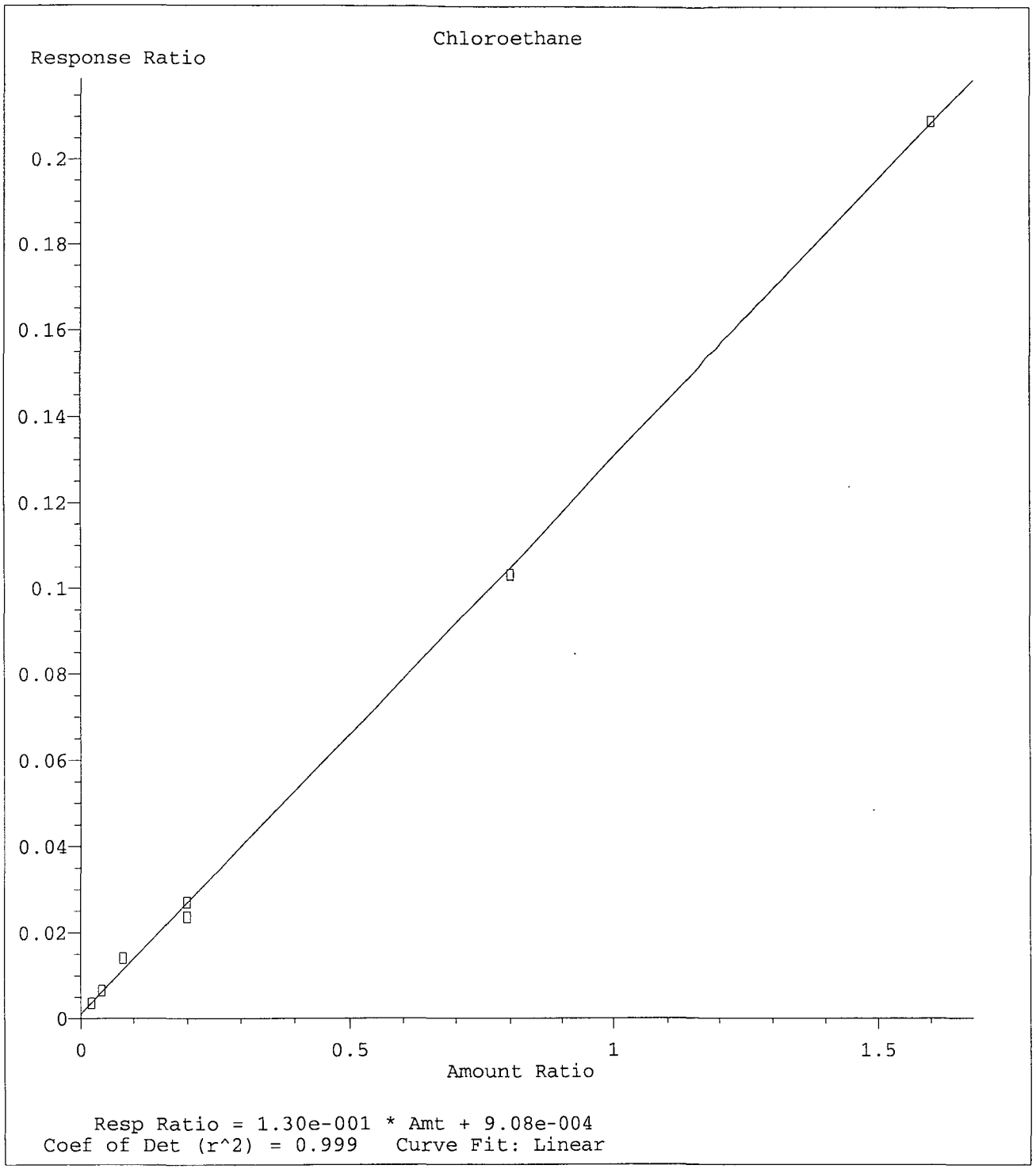
Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration

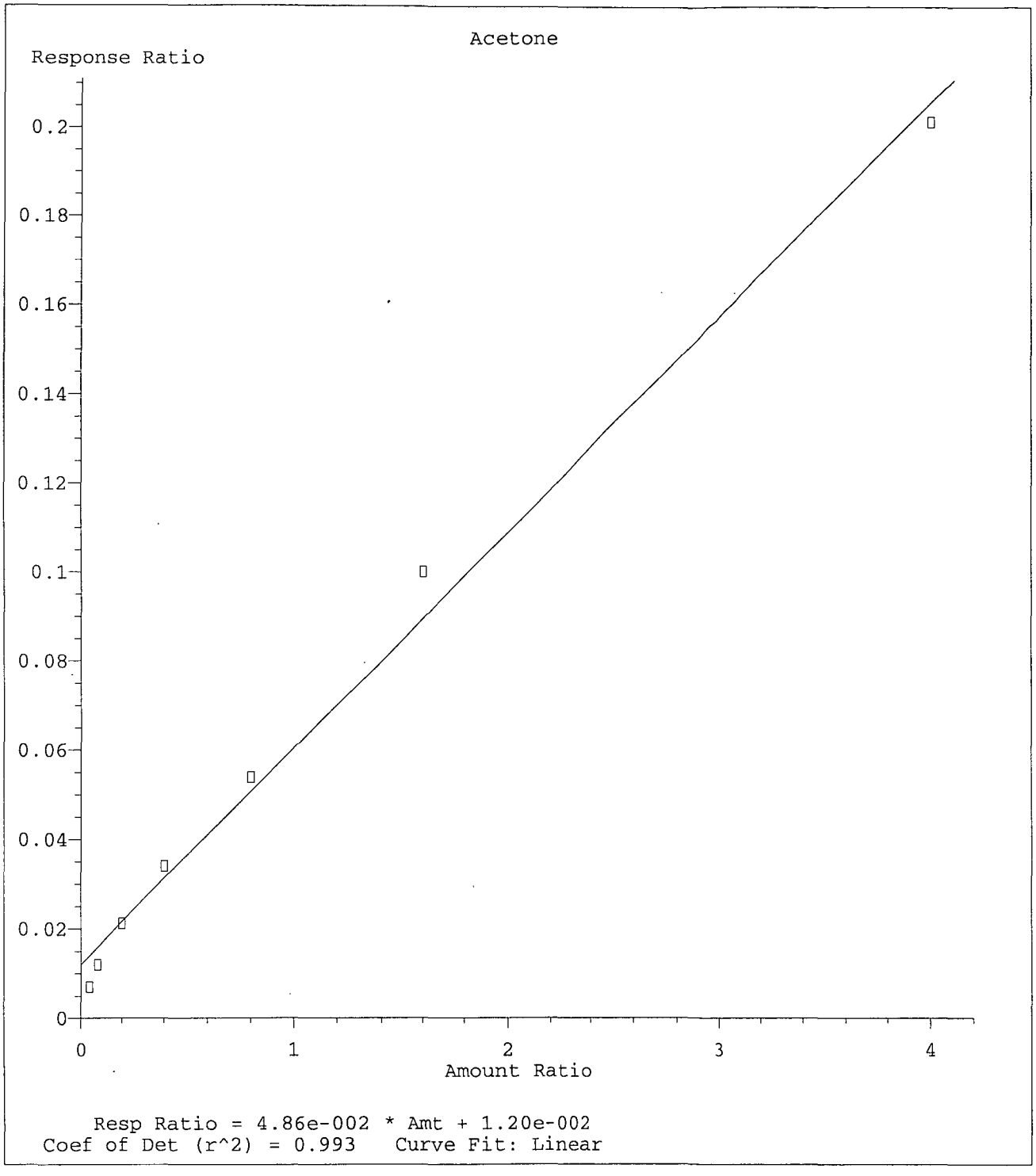




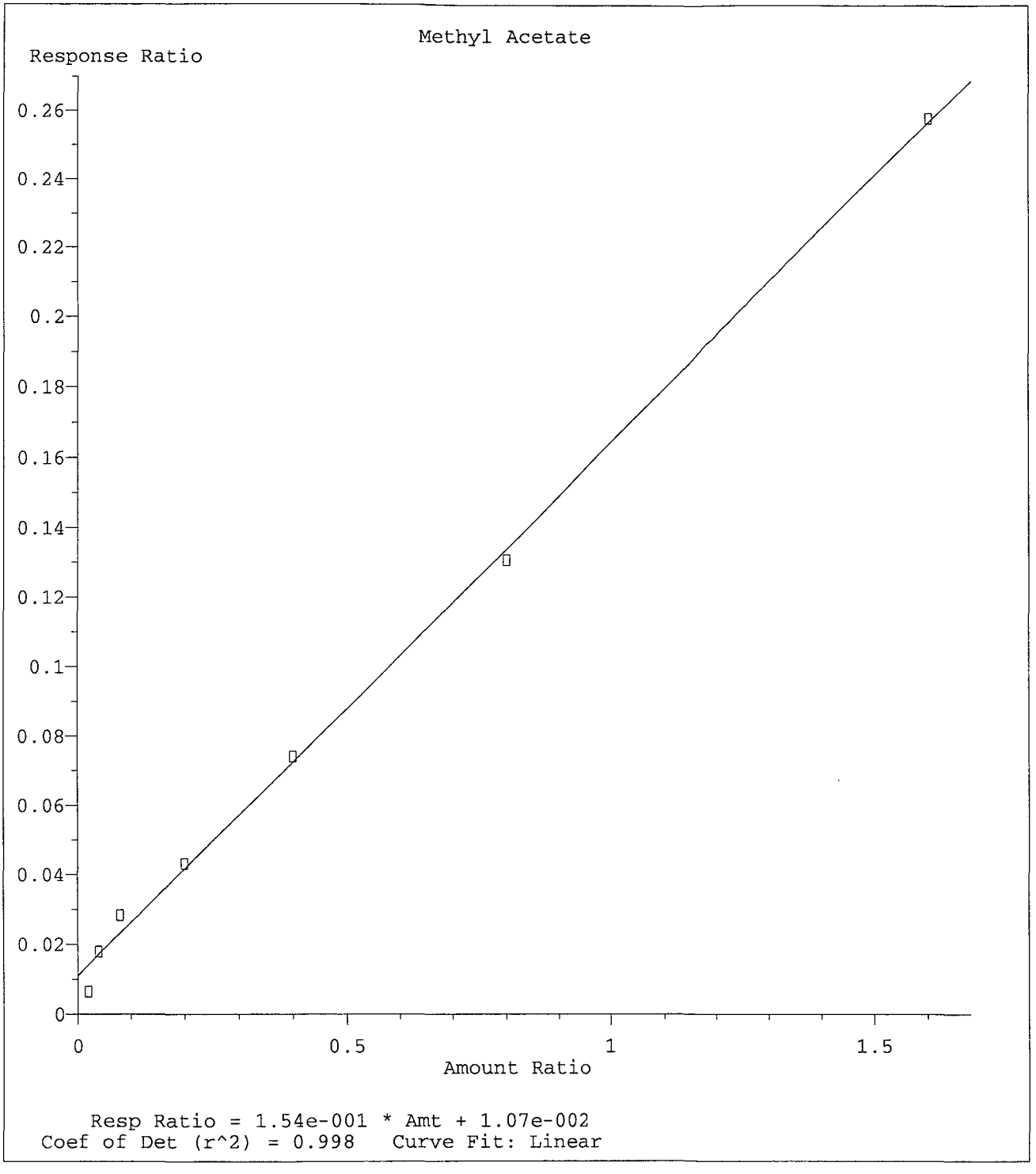

Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019



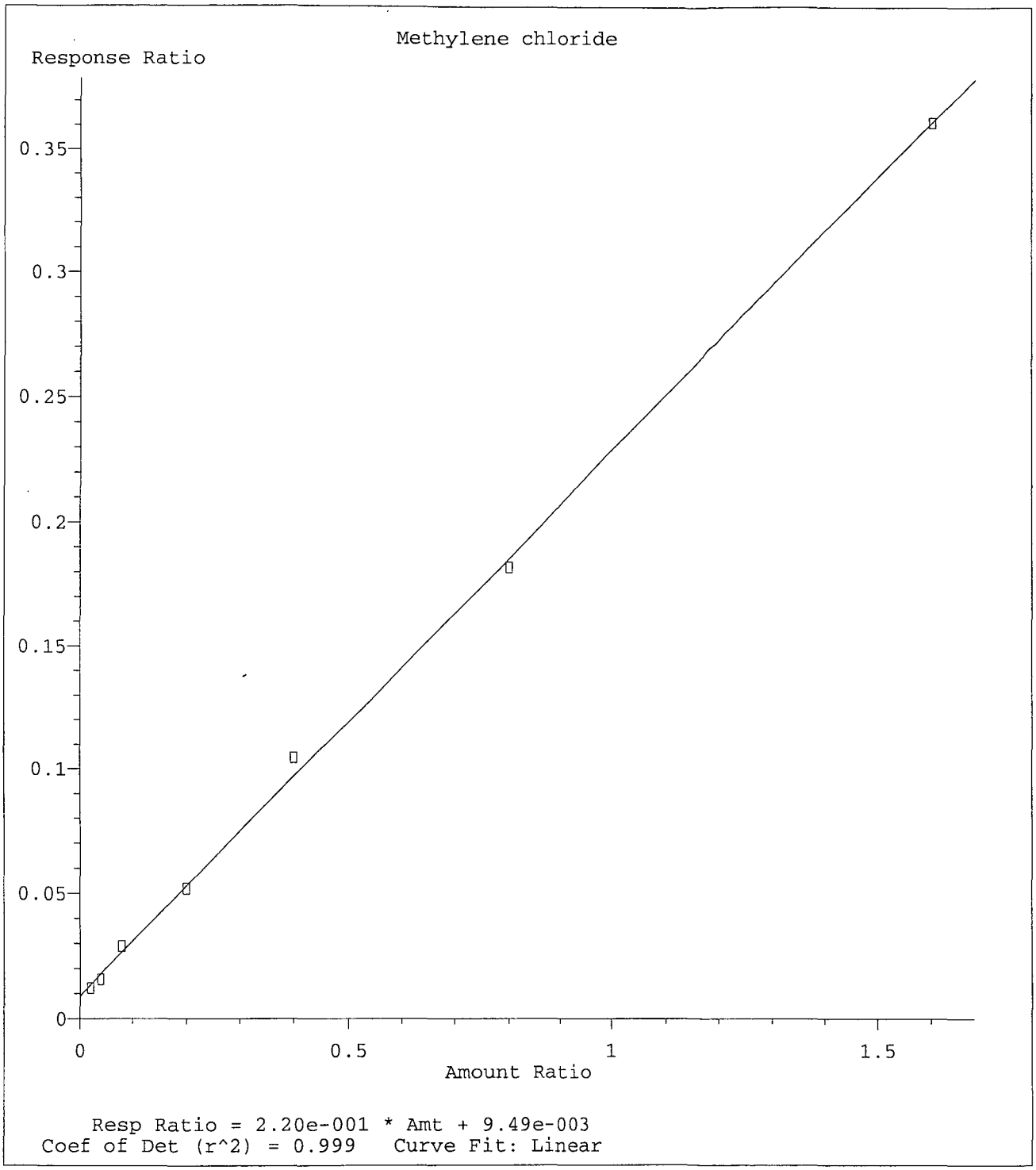

Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019



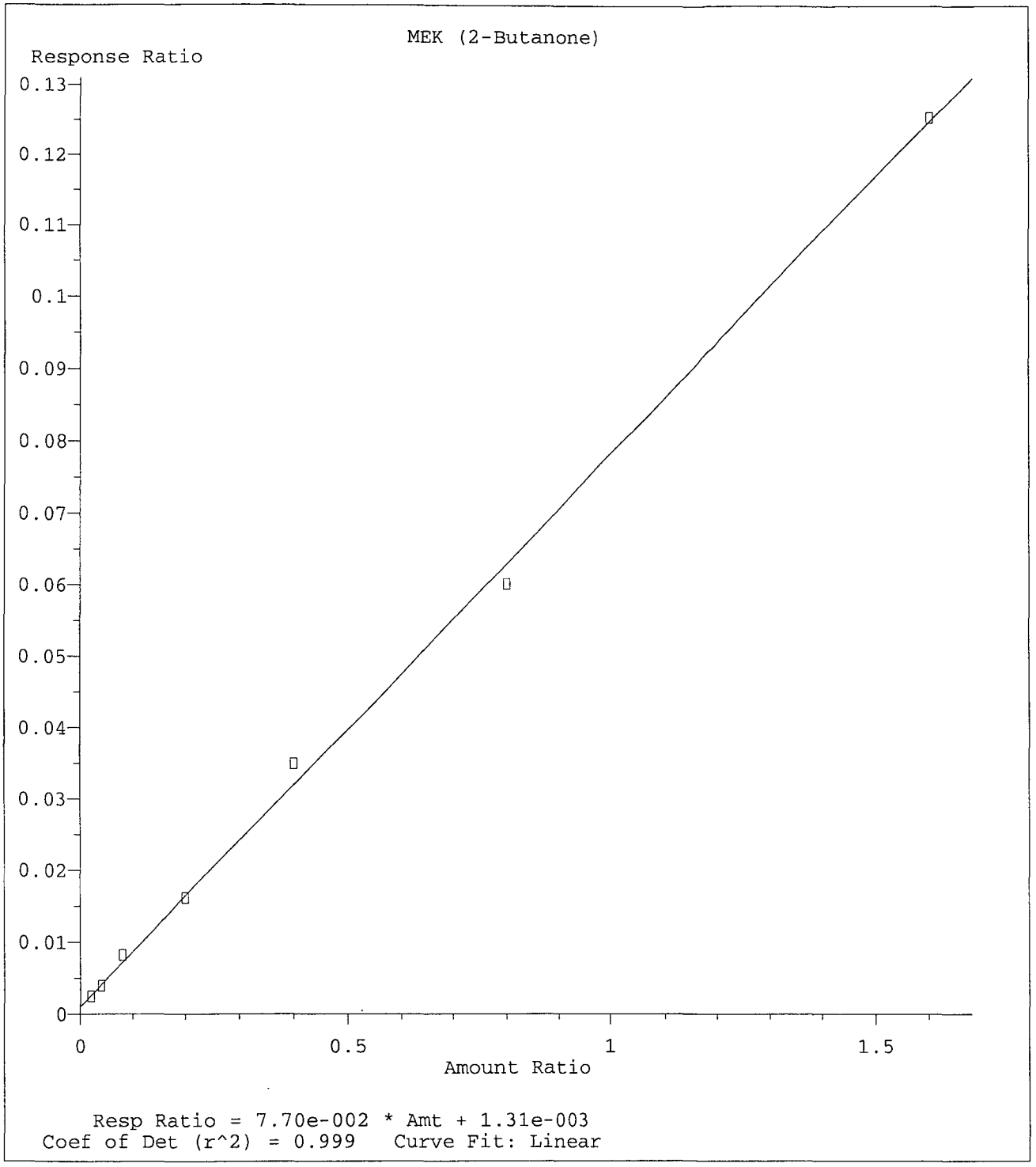

Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019



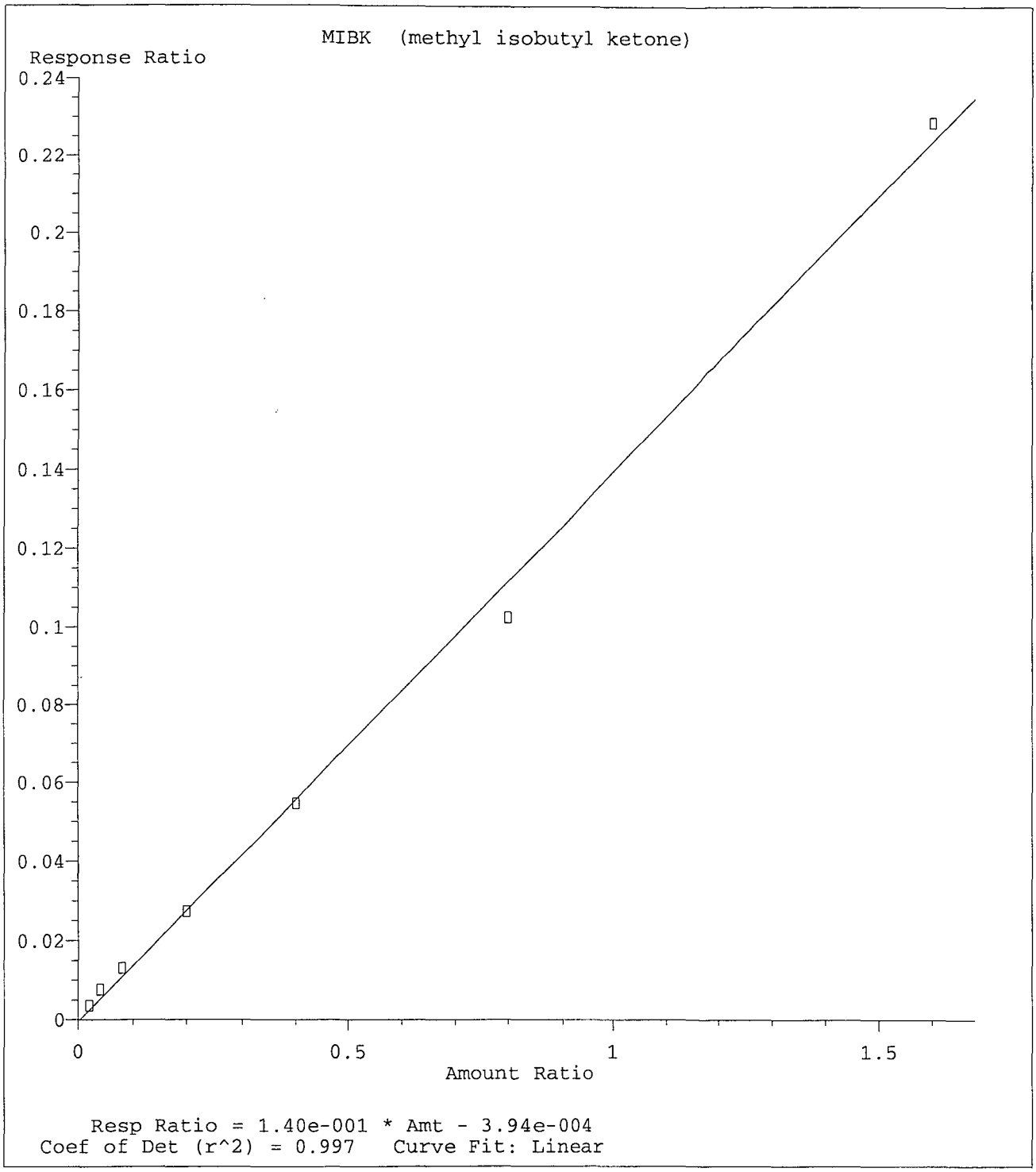

Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019



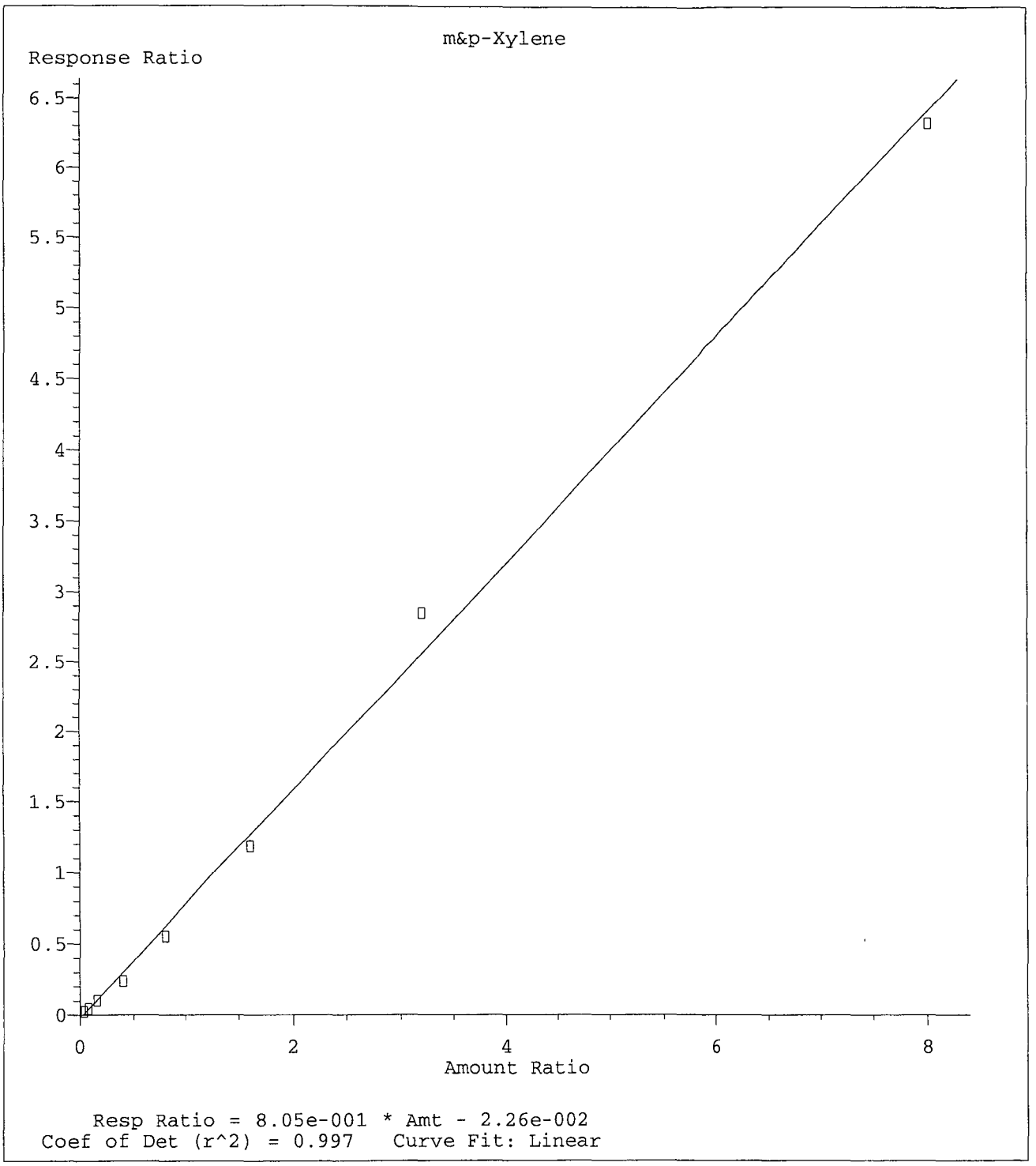

Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019



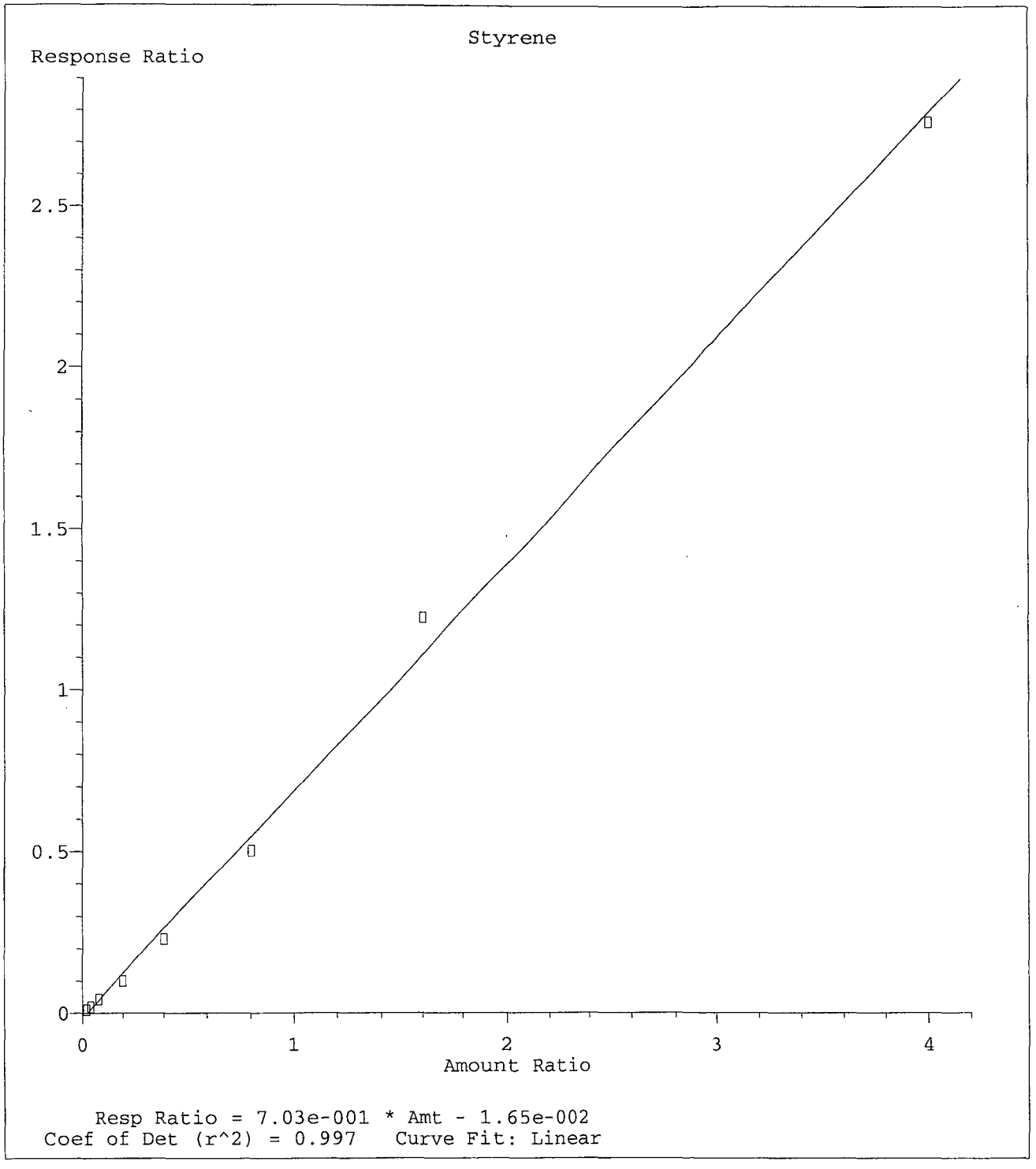

Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019



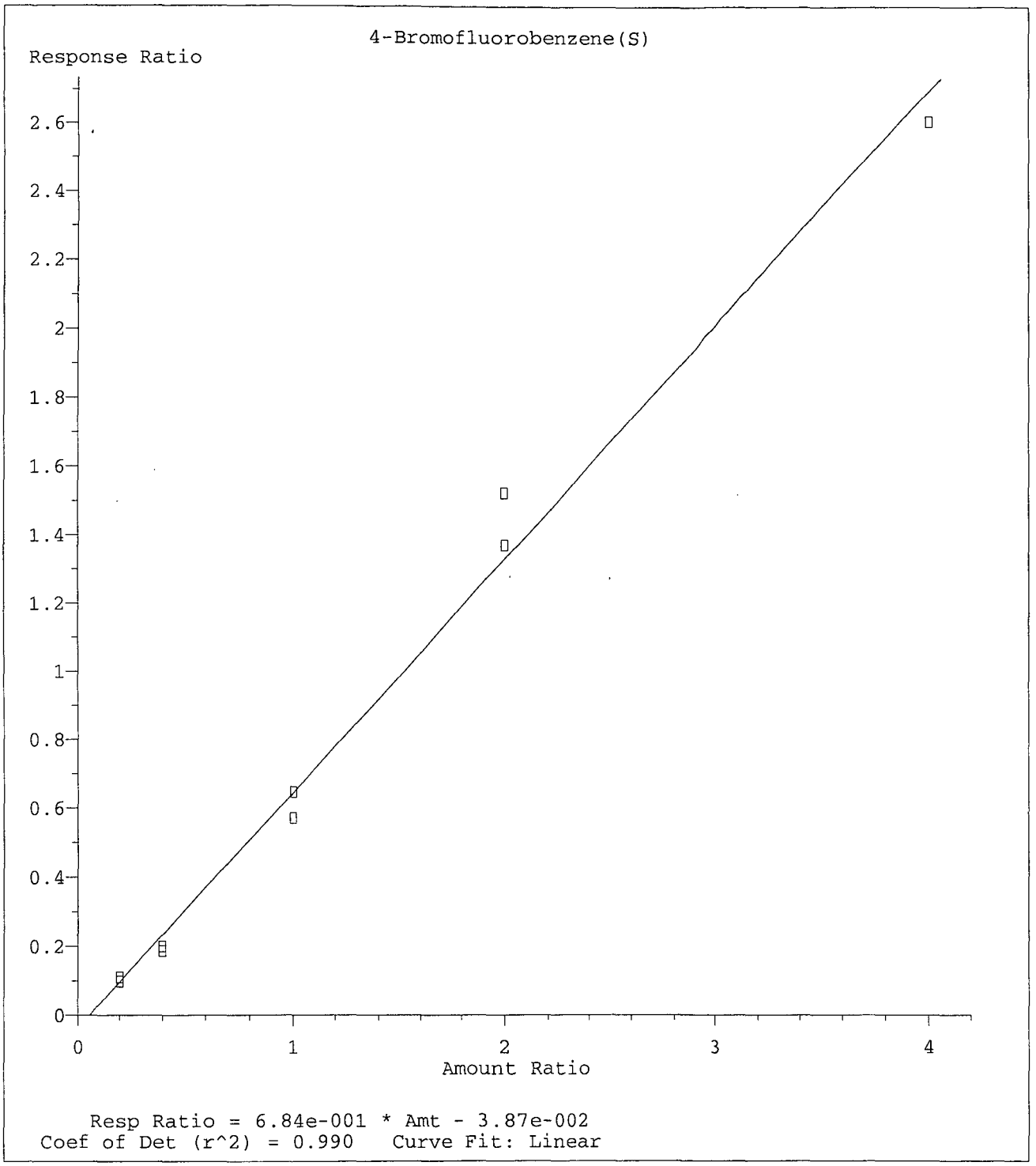

Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019



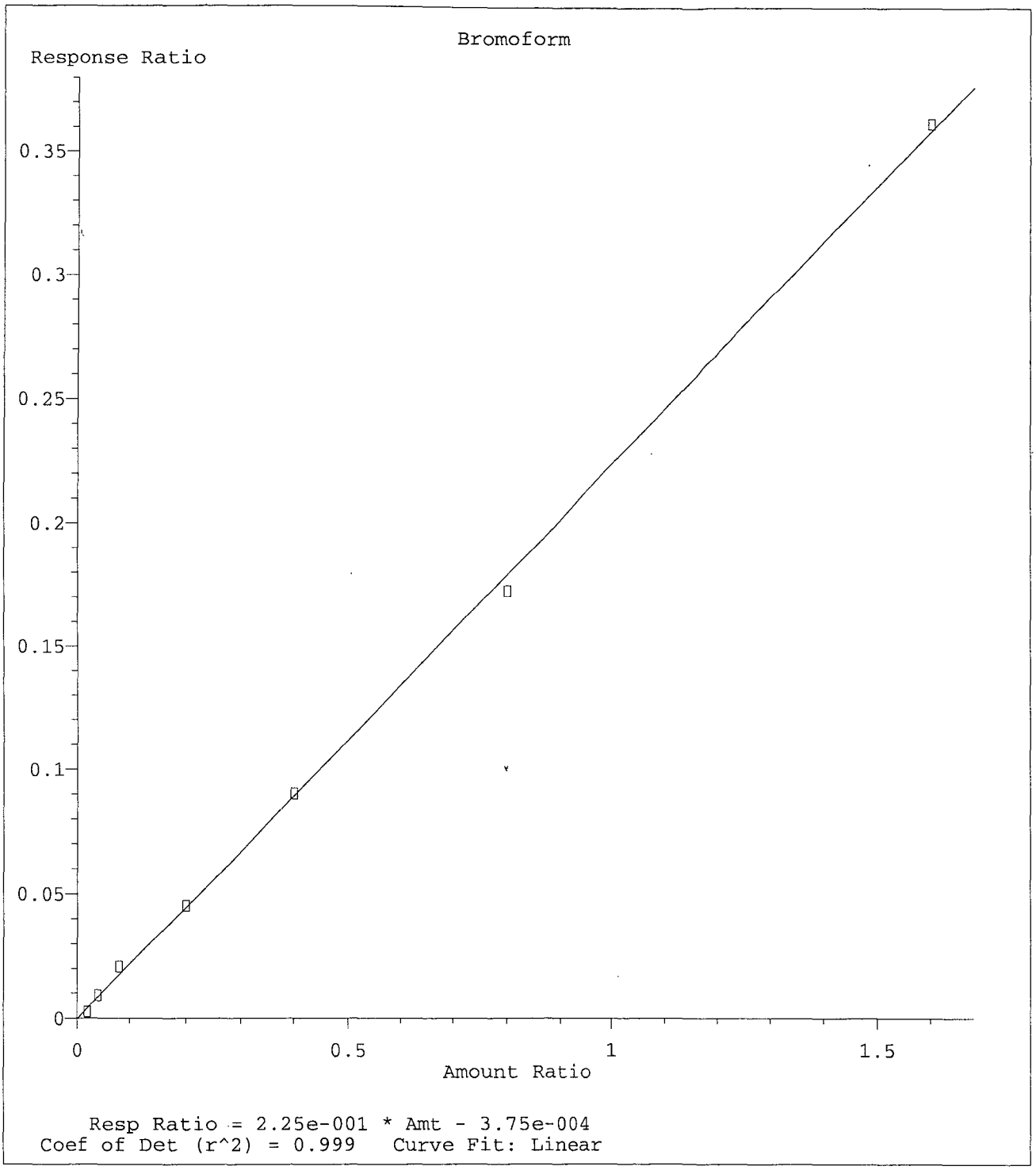

Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019



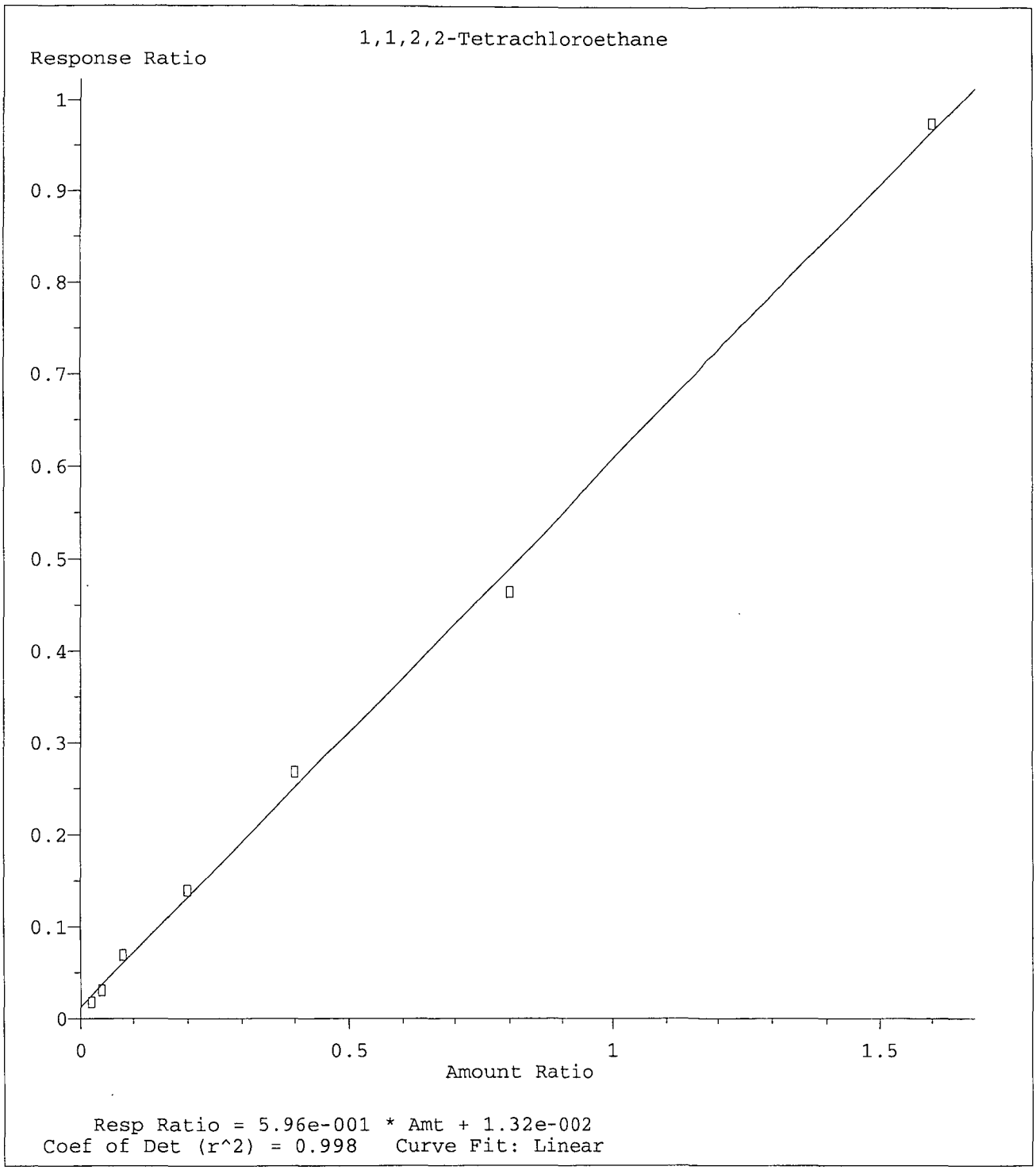

Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019



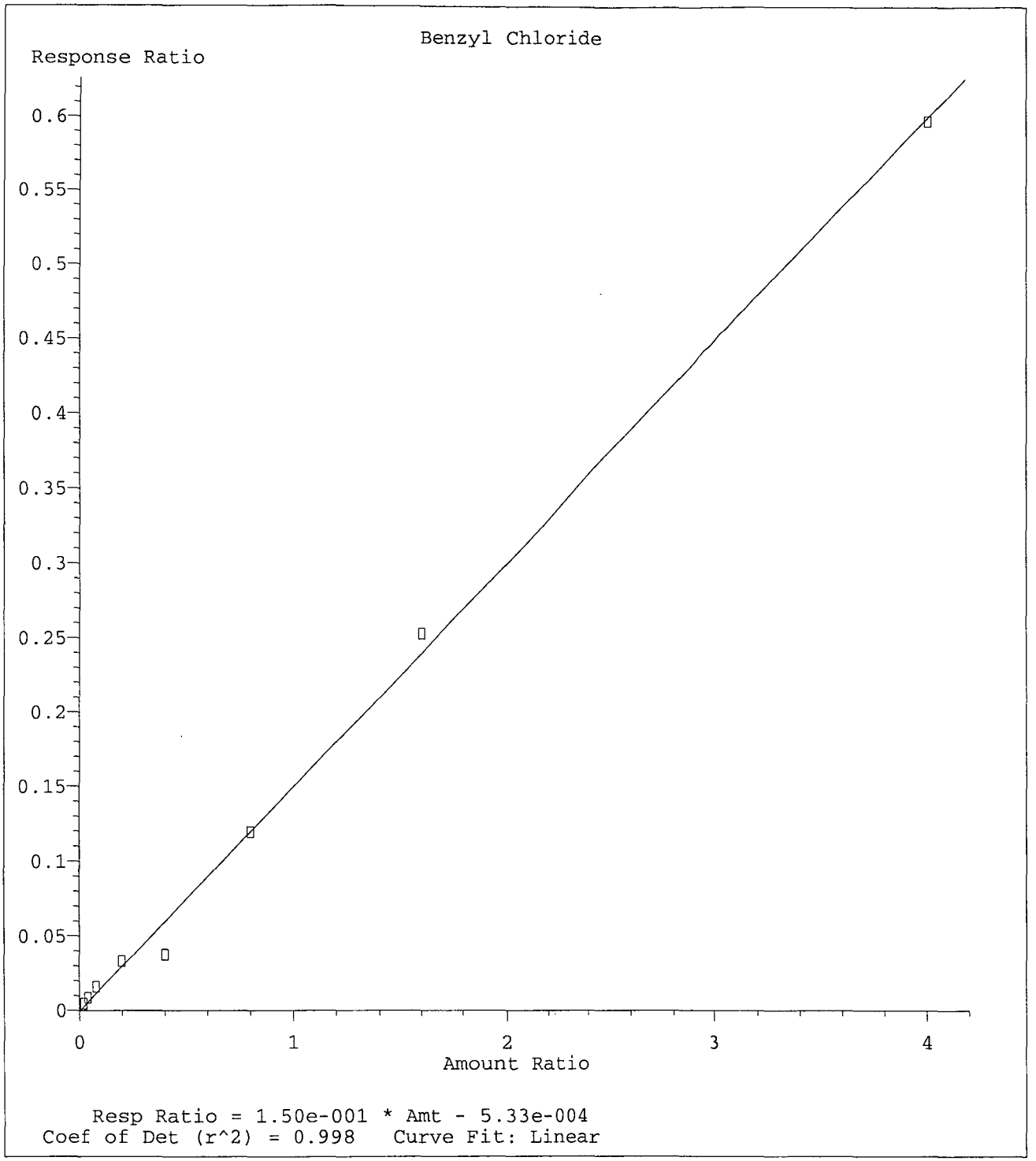

Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019



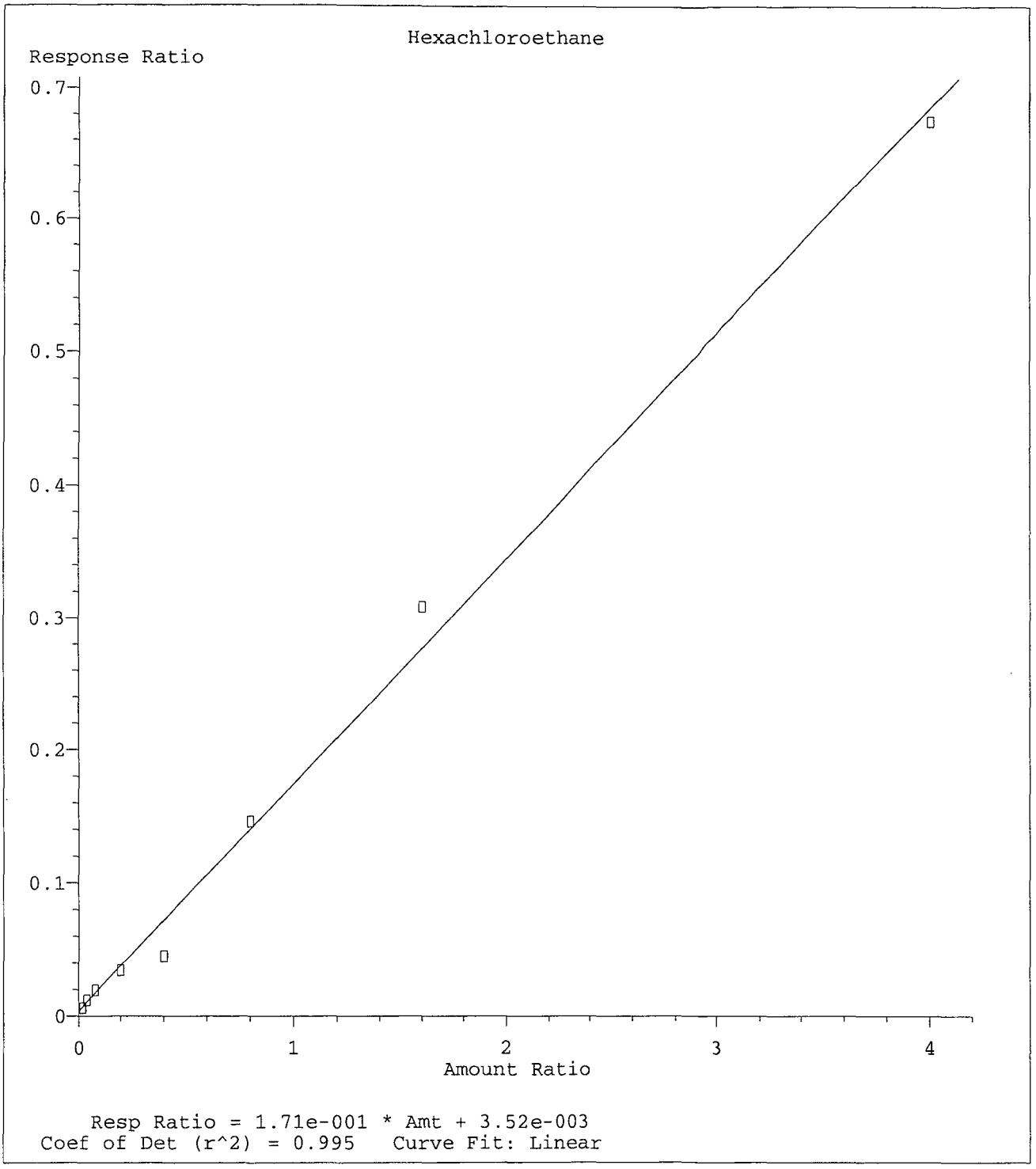

Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019



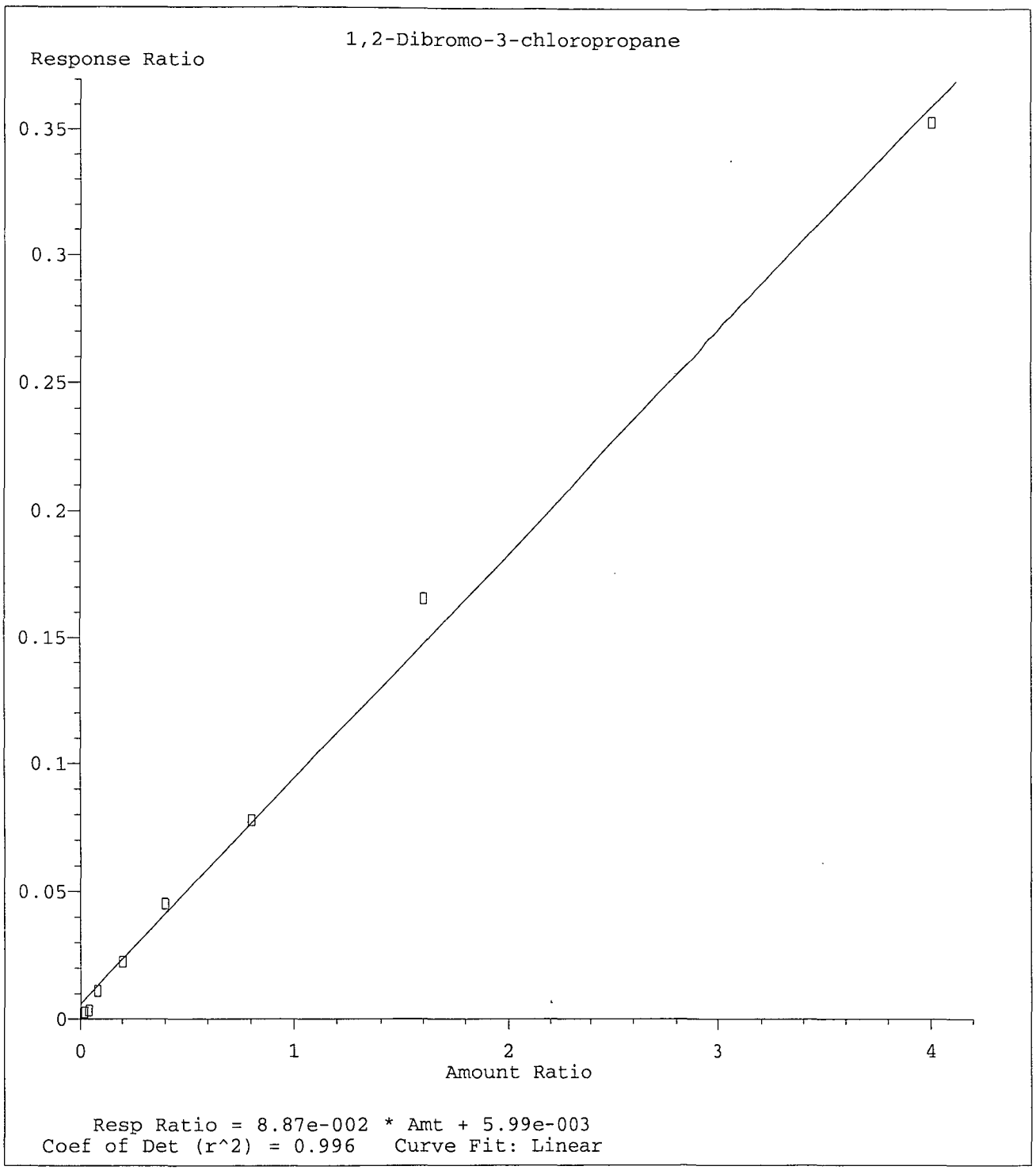

Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019



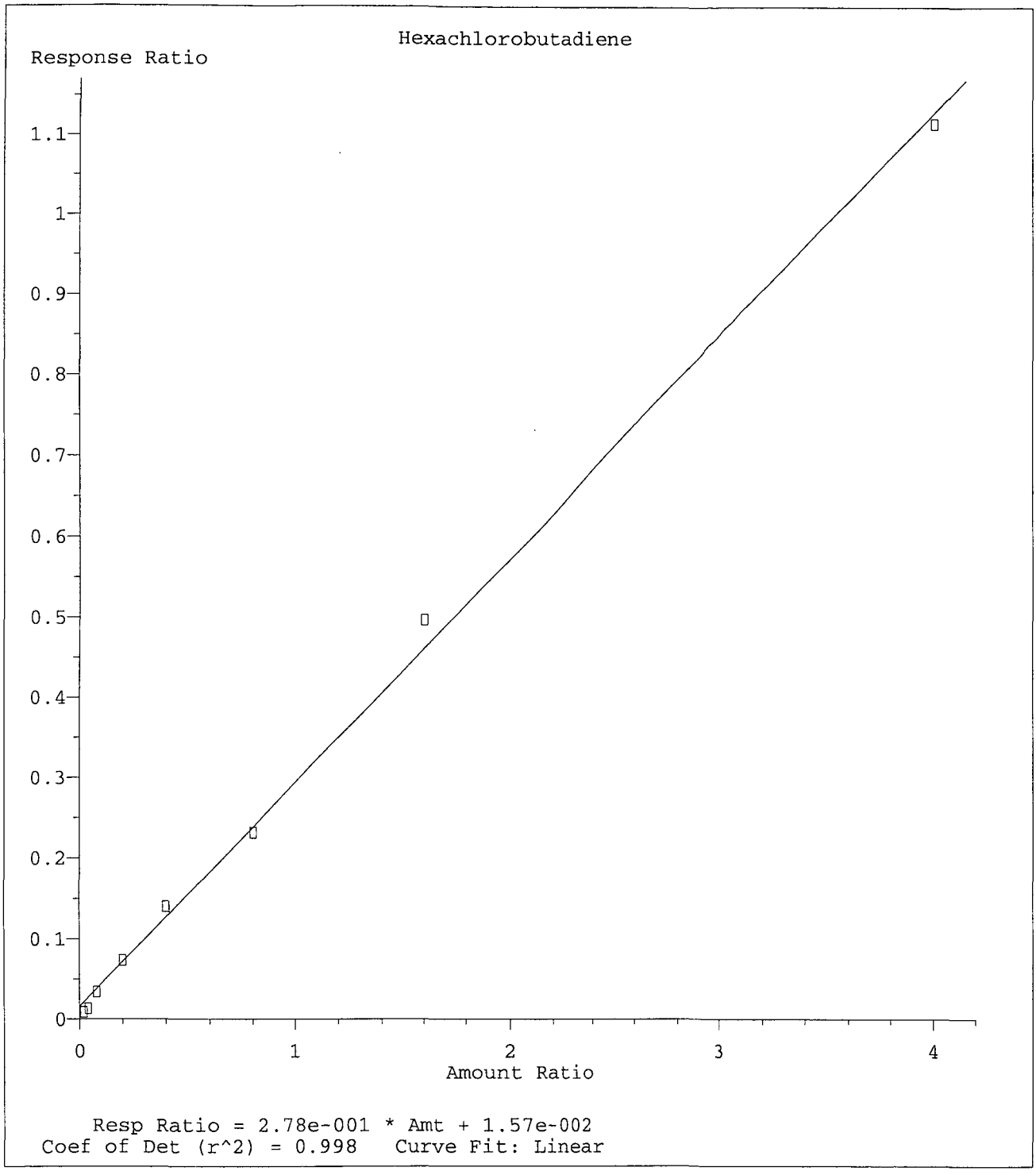

Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019




Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019




Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019




Method Name: M:\LOKI\DATA\190423\L0423W.M
Calibration Table Last Updated: Wed Apr 24 08:19:06 2019

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 04/23/19
Instrument: Loki
Initial Cal. Date: 04/23/19
Data File: 0423L15.D

| | | Compound | MEAN | CCRF | %D | | %Drift | |
|---|---|---|---|---|---|---|---|---|
| 1 | TM | Dichlorodifluoromethane | 0.2359 | 0.2684 | 14 | TM | | |
| 2 | TM | Freon 114 | 0.2118 | 0.2345 | 11 | TM | | |
| 3 | TM** | Chloromethane | 0.3105 | 0.3403 | 9.6 | TM** | | |
| 4 | TM* | Vinyl chloride | 0.2931 | 0.3451 | 18 | TM* | | |
| 5 | TML | Bromomethane | 0.1891 | 0.1981 | 4.8 | TML | 19 | |
| 6 | TML | Chloroethane | 0.1473 | 0.1553 | 5.4 | TML | 18 | |
| 7 | TM | Dichlorofluoromethane | 0.3991 | 0.4322 | 8.3 | TM | | |
| 8 | TM | Trichlorofluoromethane | 0.3289 | 0.3587 | 9.1 | TM | | |
| 9 | TM | Acrolein | 0.0414 | 0.0402 | 2.8 | TM | | |
| 10 | TML | Acetone | 0.0997 | 0.0757 | 24 | TML | 5.8 | |
| 11 | TM | Freon-113 | 0.1929 | 0.1993 | 3.3 | TM | | |
| 12 | TM* | 1,1-DCE | 0.1950 | 0.1932 | 0.92 | TM* | | |
| 13 | TM | t-Butanol | 0.0159 | 0.0146 | 8.5 | TM | | |
| 14 | TM | 2-Propanol | 0.0000 | 0.0079 | 0.00 | TM | | |
| 15 | TM | Acetonitrile | 0.0323 | 0.0327 | 1.4 | TM | | |
| 16 | TML | Methyl Acetate | 0.2640 | 0.1994 | 24 | TML | 12 | |
| 17 | TM | Iodomethane | 0.2770 | 0.3524 | 27 | TM | | *NT |
| 18 | TM | Acrylonitrile | 0.0757 | 0.0719 | 5.1 | TM | | |
| 19 | TML | Methylene chloride | 0.3340 | 0.2460 | 26 | TML | 1.2 | |
| 20 | TM | Carbon disulfide | 0.7028 | 0.7014 | 0.20 | TM | | |
| 21 | TM | Methyl t-butyl ether (MtBE) | 0.4829 | 0.5008 | 3.7 | TM | | |
| 22 | TM | Trans-1,2-DCE | 0.2003 | 0.2067 | 3.2 | TM | | |
| 23 | TM | Diisopropyl Ether | 0.4785 | 0.4931 | 3.0 | TM | | |
| 24 | TM** | 2,2-Dichloro-1,1,1-trifluoroethane | 0.0000 | 0.0140 | 0.00 | TM** | | |
| 25 | TM** | 1,1-DCA | 0.3675 | 0.3892 | 5.9 | TM** | | |
| 26 | TM | Vinyl Acetate | 0.5511 | 0.5390 | 2.2 | TM | | |
| 27 | TM | Ethyl tert Butyl Ether | 0.4259 | 0.4564 | 7.1 | TM | | |
| 28 | TML | MEK (2-Butanone) | 0.0923 | 0.0898 | 2.6 | TML | 12 | |
| 29 | TM | Cis-1,2-DCE | 0.2140 | 0.2288 | 6.9 | TM | | |
| 30 | TM | 2,2-Dichloropropane | 0.3057 | 0.2782 | 9.0 | TM | | |
| 31 | TM | 2-Methylpentane | 0.0000 | 0.0005 | 0.00 | TM | | |
| 32 | TM | 3-Methylpentane | 0.0000 | 0.1205 | 0.00 | TM | | |
| 33 | TM* | Chloroform | 0.3887 | 0.4044 | 4.1 | TM* | | |
| 34 | TM | Bromochloromethane | 0.1322 | 0.1306 | 1.2 | TM | | |
| 35 | TM | 1,1,1-TCA | 0.3207 | 0.3301 | 2.9 | TM | | |
| 36 | TM | Cyclohexane | 0.1213 | 0.1289 | 6.2 | TM | | |
| 37 | TM | 1,1-Dichloropropene | 0.2086 | 0.2224 | 6.6 | TM | | |
| 38 | TM | 2,2,4-Trimethylpentane | 0.4038 | 0.4224 | 4.6 | TM | | |
| 39 | TM | Carbon Tetrachloride | 0.2814 | 0.3092 | 9.9 | TM | | |
| 40 | TM | Tert Amyl Methyl Ether | 0.4399 | 0.4616 | 4.9 | TM | | |
| | | Average | | | 7.2 | | | |

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 04/23/19
Instrument: Loki
Cal. Date: 04/23/19
Data File: 0423L15.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | TM | Methylcyclopentane | 0.0000 | 0.0467 | 0.00 | TM | |
| 42 | TM | 1,2-DCA | 0.2852 | 0.3035 | 6.4 | TM | |
| 43 | TM | Benzene | 0.7939 | 0.8461 | 6.6 | TM | |
| 44 | TM | TCE | 0.2155 | 0.2259 | 4.8 | TM | |
| 45 | TM | 2-Pentanone | 0.1175 | 0.1212 | 3.1 | TM | |
| 46 | TM* | 1,2-Dichloropropane | 0.2285 | 0.2420 | 5.9 | TM* | |
| 47 | TM | Bromodichloromethane | 0.3140 | 0.3317 | 5.6 | TM | |
| 48 | TM | Methyl Cyclohexane | 0.2210 | 0.2271 | 2.7 | TM | |
| 49 | TM | Dibromomethane | 0.1573 | 0.1627 | 3.5 | TM | |
| 50 | TML | MIBK (methyl isobutyl ketone) | 0.1539 | 0.1431 | 7.0 | TML | 2.8 |
| 51 | TM | 1-Bromo-2-chloroethane | 0.3315 | 0.3591 | 8.3 | TM | |
| 52 | TM | Cis-1,3-Dichloropropene | 0.2956 | 0.3050 | 3.2 | TM | |
| 53 | TM* | Toluene | 0.8000 | 0.8835 | 10 | TM* | |
| 54 | TM | Trans-1,3-Dichloropropene | 0.2740 | 0.2906 | 6.0 | TM | |
| 55 | TM | 1,1,2-TCA | 0.1859 | 0.2004 | 7.8 | TM | |
| 56 | TM | 2-Hexanone | 0.0978 | 0.0948 | 3.1 | TM | |
| 57 | TM | 1,2-EDB | 0:2609 | 0.2579 | 1.1 | TM | |
| 58 | TM | Tetrachloroethene | 0.2846 | 0.2777 | 2.4 | TM | |
| 59 | TM | 1-Chlorohexane | 0.2521 | 0.2550 | 1.1 | TM | |
| 60 | TM | 1,1,1,2-Tetrachloroethane | 0.2992 | 0.3040 | 1.6 | TM | |
| 61 | TML | m&p-Xylene | 0.6835 | 0.6946 | 1.6 | TML | 10 |
| 62 | TM | o-Xylene | 0.3310 | 0.3350 | 1.2 | TM | |
| 63 | TML | Styrene | 0.5821 | 0.5753 | 1.2 | TML | 12 |
| 64 | TM | 1,3-Dichloropropane | 0.4120 | 0.4220 | 2.4 | TM | |
| 65 | TM | Dibromochloromethane | 0.3120 | 0.2980 | 4.5 | TM | |
| 66 | TM** | Chlorobenzene | 0.7029 | 0.7166 | 1.9 | TM** | |
| 67 | TM* | Ethylbenzene | 0.9393 | 0.9398 | 0.06 | TM* | |
| 68 | TM**L | Bromoform | 0.2165 | 0.2253 | 4.0 | TM**L | 0.69 |
| 69 | TM | Isopropylbenzene | 1.419 | 1.401 | 1.3 | TM | |
| 70 | TM**L | 1,1,2,2-Tetrachloroethane | 0.7250 | 0.6360 | 12 | TM**L | 1.2 |
| 71 | TM | 1,2,3-Trichloropropane | 0.1861 | 0.1878 | 0.91 | TM | |
| 72 | TM | t-1,4-Dichloro-2-Butene | 0.1146 | 0.1092 | 4.7 | TM | |
| 73 | TM | Bromobenzene | 0.5350 | 0.5446 | 1.8 | TM | |
| 74 | TM | n-Propylbenzene | 1.773 | 1.814 | 2.3 | TM | |
| 75 | TM | 4-Ethyltoluene | 1.521 | 1.612 | 6.0 | TM | |
| 76 | TM | 2-Chlorotoluene | 1.310 | 1.237 | 5.6 | TM | |
| 77 | TM | 1,3,5-Trimethylbenzene | 1.284 | 1.317 | 2.6 | TM | |
| 78 | TM | 4-Chlorotoluene | 1.353 | 1.430 | 5.7 | TM | |
| 79 | TM | Tert-Butylbenzene | 1.125 | 1.205 | 7.1 | TM | |
| 80 | TM | 1,2,4-Trimethylbenzene | 1.269 | 1.253 | 1.3 | TM | |
| | | Average | | | 4.0 | | |

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 04/23/19
Instrument: Loki
Cal. Date: 04/23/19
Data File: 0423L15.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 81 | TM | Sec-Butylbenzene | 1.538 | 1.563 | 1.6 | TM | |
| 82 | TM | p-Isopropyltoluene | 1.357 | 1.384 | 2.0 | TM | |
| 83 | TML | Benzyl Chloride | 0.1684 | 0.1588 | 5.7 | TML | 6.6 |
| 84 | TM | 1,3-DCB | 0.9579 | 1.024 | 6.9 | TM | |
| 85 | TM | 1,4-DCB | 1.078 | 1.081 | 0.32 | TM | |
| 86 | TM | n-Butylbenzene | 1.231 | 1.214 | 1.3 | TM | |
| 87 | TM | 1,2-DCB | 1.002 | 0.9795 | 2.2 | TM | |
| 88 | TML | Hexachloroethane | 0.2097 | 0.2085 | 0.58 | TML | 17 |
| 89 | TML | 1,2-Dibromo-3-chloropropane | 0.1080 | 0.1041 | 3.6 | TML | 0.57 |
| 90 | TM | 1,2,4-Trichlorobenzene | 0.5724 | 0.5579 | 2.5 | TM | |
| 91 | TML | Hexachlorobutadiene | 0.3495 | 0.3315 | 5.2 | TML | 5.0 |
| 92 | TM | Naphthalene | 1.227 | 1.061 | 14 | TM | |
| 93 | TM | 1,2,3-Trichlorobenzene | 0.5991 | 0.5774 | 3.6 | TM | |
| 94 | | | | | | | |
| 95 | | | | | | | |
| 96 | | | | | | | |
| 97 | | | | | | | |
| 98 | | | | | | | |
| 99 | | | | | | | |
| 100 | | | | | | | |
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| 115 | | | | | | | |
| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 3.8 | | |

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L15.D Vial: 14
Acq On : 23 Apr 19 22:35 Operator: PM,DG,SV,CMM,KV
Sample : (SS)10ug/L VOC STD 04/19/23 Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 444224 | 25.0000 ppb | | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.51 | 117 | 385024 | 25.0000 ppb | | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 218816 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 215061 | 26.0159 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 104.064% | | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 220929 | 25.7436 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 102.976% | | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 688078 | 26.1593 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 104.636% | | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 248261 | 24.9881 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 99.952% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 47693 | 11.3782 ppb | | 99 |
| 4) Freon 114 | 1.09 | 85 | 41663 | 11.0686 ppb | | 96 |
| 5) Chloromethane | 1.12 | 50 | 60472 | 10.9593 ppb | | 99 |
| 6) Vinyl chloride | 1.20 | 62 | 61312 | 11.7724 ppb | | 99 |
| 8) Bromomethane | 1.45 | 94 | 35197 | 11.9473 ppb | | 92 |
| 9) Chloroethane | 1.52 | 64 | 27600 | 11.8135 ppb | | 97 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 76805 | 10.8291 ppb | | 97 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 63737 | 10.9069 ppb | | 95 |
| 12) Acrolein | 2.09 | 56 | 89295 | 121.4432 ppb | # | 94 |
| 13) Acetone | 2.25 | 43 | 13458 | 9.4221 ppb | | 94 |
| 14) Freon-113 | 2.20 | 101 | 35412 | 10.3306 ppb | | 94 |
| 15) 1,1-DCE | 2.18 | 96 | 34328 | 9.9076 ppb | | 94 |
| 16) t-Butanol | 2.92 | 59 | 32427 | 114.4214 ppb | | 99 |
| 18) Acetonitrile | 2.53 | 41 | 72737 | 126.6936 ppb | | 94 |
| 19) Methyl Acetate | 2.60 | 43 | 35433 | 11.2113 ppb | | 100 |
| 20) Iodomethane | 2.30 | 142 | 62623 | 12.7245 ppb | | 98 |
| 21) Acrylonitrile | 2.97 | 52 | 12773 | 9.4914 ppb | | 99 |
| 22) Methylene chloride | 2.67 | 84 | 43718 | 10.1179 ppb | | 87 |
| 23) Carbon disulfide | 2.36 | 76 | 124630 | 9.9795 ppb | | 97 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 88990 | 10.3705 ppb | | 96 |
| 25) Trans-1,2-DCE | 2.99 | 96 | 36720 | 10.3164 ppb | | 98 |
| 26) Diisopropyl Ether | 3.74 | 45 | 87623 | 10.3046 ppb | | 98 |
| 28) 1,1-DCA | 3.54 | 63 | 69160 | 10.5908 ppb | | 97 |
| 29) Vinyl Acetate | 3.69 | 43 | 95775 | 9.7803 ppb | | 96 |
| 30) Ethyl tert Butyl Ether | 4.32 | 59 | 81090 | 10.7146 ppb | | 99 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 15963 | 11.2336 ppb | | 95 |
| 32) Cis-1,2-DCE | 4.44 | 96 | 40663 | 10.6942 ppb | | 93 |
| 33) 2,2-Dichloropropane | 4.42 | 77 | 49437 | 9.1011 ppb | | 97 |
| 36) Chloroform | 4.93 | 83 | 71864 | 10.4056 ppb | | 97 |
| 37) Bromochloromethane | 4.77 | 128 | 23209 | 9.8768 ppb | | 88 |
| 39) 1,1,1-TCA | 5.14 | 97 | 58650 | 10.2914 ppb | | 100 |
| 40) Cyclohexane | 5.20 | 41 | 22908 | 10.6244 ppb | | 93 |
| 41) 1,1-Dichloropropene | 5.38 | 75 | 39514 | 10.6611 ppb | | 99 |
| 42) 2,2,4-Trimethylpentane | 5.81 | 57 | 75053 | 10.4606 ppb | # | 87 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 54941 | 10.9864 ppb | | 92 |
| 45) Tert Amyl Methyl Ether | 5.87 | 73 | 82027 | 10.4930 ppb | | 97 |
| 47) 1,2-DCA | 5.67 | 62 | 53932 | 10.6431 ppb | | 95 |
| 48) Benzene | 5.63 | 78 | 150337 | 10.6575 ppb | | 97 |
| 49) TCE | 6.48 | 130 | 40132 | 10.4798 ppb | | 99 |

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

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L15.D Vial: 14
Acq On : 23 Apr 19 22:35 Operator: PM,DG,SV,CMM,KV
Sample : (SS)10ug/L VOC STD 04/19/23 Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.76 | 43 | 269118 | 128.9348 | ppb | | 99 |
| 51) | 1,2-Dichloropropane | 6.74 | 63 | 43003 | 10.5916 | ppb | | 98 |
| 52) | Bromodichloromethane | 7.09 | 83 | 58940 | 10.5631 | ppb | | 93 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 40353 | 10.2736 | ppb | | 97 |
| 54) | Dibromomethane | 6.87 | 93 | 28918 | 10.3475 | ppb | | 93 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 25433 | 10.2799 | ppb | | 96 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 63813 | 10.8345 | ppb | | 97 |
| 58) | Cis-1,3-Dichloropropene | 7.62 | 75 | 54191 | 10.3157 | ppb | | 98 |
| 59) | Toluene | 7.99 | 91 | 156988 | 11.0443 | ppb | | 99 |
| 60) | Trans-1,3-Dichloropropene | 8.27 | 75 | 51639 | 10.6046 | ppb | | 98 |
| 61) | 1,1,2-TCA | 8.46 | 83 | 35611 | 10.7784 | ppb | | 88 |
| 62) | 2-Hexanone | 8.77 | 43 | 16845 | 9.6926 | ppb | | 99 |
| 65) | 1,2-EDB | 8.98 | 107 | 39723 | 9.8874 | ppb | | 95 |
| 66) | Tetrachloroethene | 8.60 | 166 | 42762 | 9.7555 | ppb | | 97 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 39268 | 10.1134 | ppb | | 98 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.64 | 131 | 46824 | 10.1625 | ppb | | 96 |
| 69) | m&p-Xylene | 9.82 | 91 | 213952 | 17.9622 | ppb | | 100 |
| 70) | o-Xylene | 10.25 | 106 | 51589 | 10.1214 | ppb | | 99 |
| 71) | Styrene | 10.26 | 104 | 88603 | 8.7678 | ppb | | 99 |
| 73) | 1,3-Dichloropropane | 8.63 | 76 | 64998 | 10.2439 | ppb | | 91 |
| 74) | Dibromochloromethane | 8.88 | 129 | 45892 | 9.5493 | ppb | | 90 |
| 75) | Chlorobenzene | 9.54 | 112 | 110360 | 10.1943 | ppb | | 98 |
| 76) | Ethylbenzene | 9.69 | 91 | 144745 | 10.0058 | ppb | | 97 |
| 77) | Bromoform | 10.44 | 173 | 34691 | 10.0690 | ppb | | 99 |
| 79) | Isopropylbenzene | 10.66 | 105 | 122623 | 9.8701 | ppb | | 99 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.98 | 83 | 55669 | 10.1179 | ppb | | 96 |
| 81) | 1,2,3-Trichloropropane | 11.02 | 110 | 16440 | 10.0911 | ppb | | 86 |
| 82) | t-1,4-Dichloro-2-Butene | 11.05 | 53 | 9555 | 9.5299 | ppb | | 79 |
| 83) | Bromobenzene | 10.96 | 156 | 47665 | 10.1782 | ppb | | 99 |
| 84) | n-Propylbenzene | 11.11 | 91 | 158800 | 10.2343 | ppb | | 99 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 141096 | 10.6017 | ppb | | 98 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 108266 | 9.4411 | ppb | | 100 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 115310 | 10.2566 | ppb | | 99 |
| 88) | 4-Chlorotoluene | 11.31 | 91 | 125136 | 10.5703 | ppb | | 94 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 105427 | 10.7061 | ppb | | 96 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 109650 | 9.8722 | ppb | | 94 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 136781 | 10.1606 | ppb | | 95 |
| 92) | p-Isopropyltoluene | 12.07 | 119 | 121098 | 10.1974 | ppb | | 96 |
| 93) | Benzyl Chloride | 12.25 | 91 | 13901 | 10.6639 | ppb | # | 89 |
| 94) | 1,3-DCB | 11.99 | 146 | 89615 | 10.6886 | ppb | | 95 |
| 95) | 1,4-DCB | 12.09 | 146 | 94645 | 10.0318 | ppb | | 97 |
| 96) | n-Butylbenzene | 12.51 | 91 | 106287 | 9.8669 | ppb | | 98 |
| 97) | 1,2-DCB | 12.49 | 146 | 85730 | 9.7798 | ppb | | 98 |
| 98) | Hexachloroethane | 12.78 | 117 | 18248 | 11.7020 | ppb | | 82 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.34 | 75 | 9115 | 10.0570 | ppb | # | 81 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 48829 | 9.7466 | ppb | | 97 |
| 101) | Hexachlorobutadiene | 14.45 | 225 | 29013 | 10.5015 | ppb | | 89 |
| 102) | Naphthalene | 14.51 | 128 | 92850 | 8.6480 | ppb | | 96 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 50536 | 9.6379 | ppb | | 99 |

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

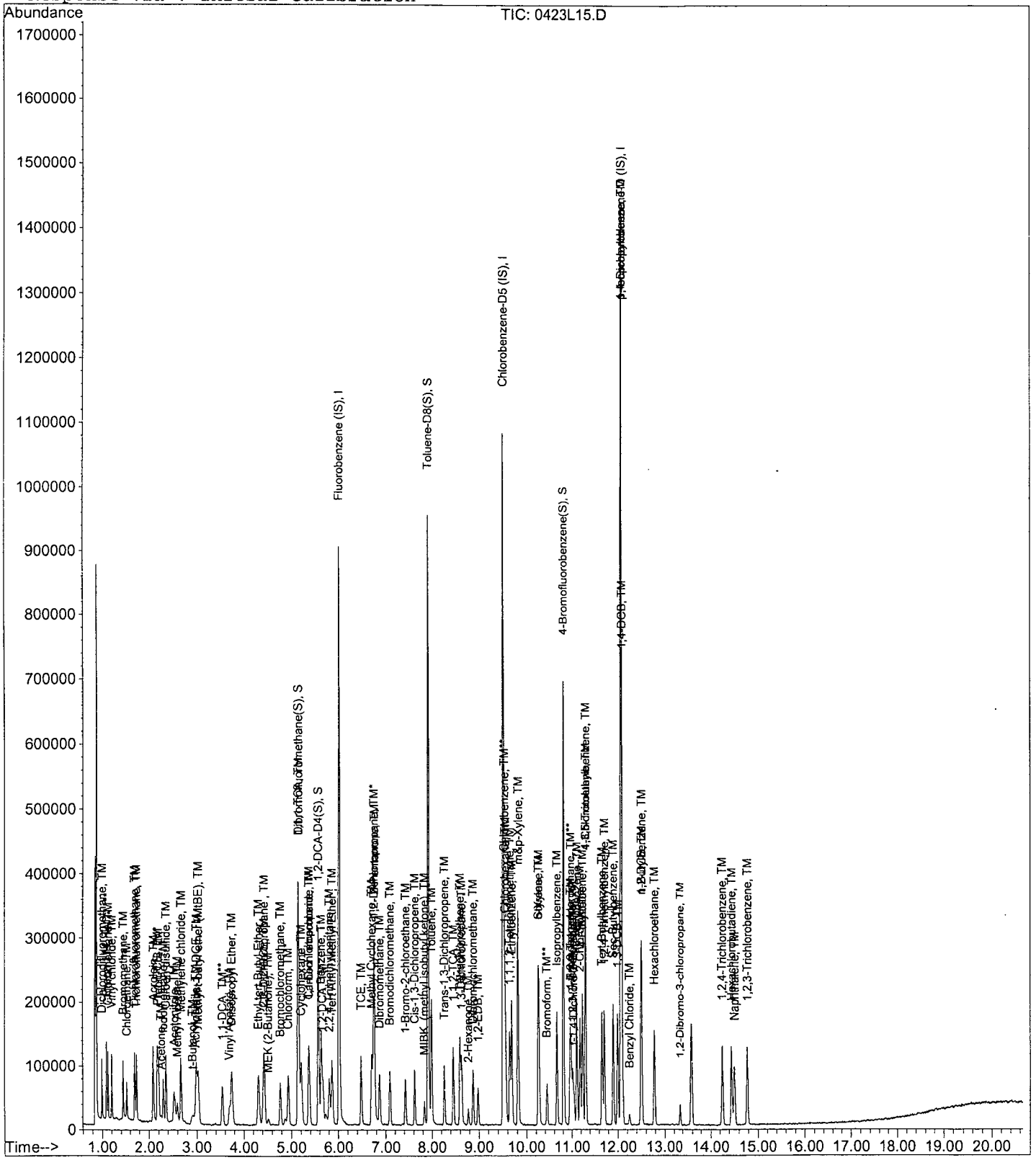
Data File : M:\LOKI\DATA\190423\0423L15.D
Acq On : 23 Apr 19 22:35
Sample : (SS)10ug/L VOC STD 04/19/23
Misc : ISS 3/5/19, 2/11/19

Vial: 14
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019

Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 04/24/19
Matrix: Instrument: Loki
Initial Cal. Date: 04/23/19
Data File: 0423L38.D

| | | Compound | MEAN | CCRF | %D | | %Drift | |
|---|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | | |
| 2 | TM | Dichlorodifluoromethane | 0.2359 | 0.5231 | 122 | TM | | * |
| 3 | TM | Freon 114 | 0.2118 | 0.2125 | 0.33 | TM | | |
| 4 | TM** | Chloromethane | 0.3105 | 0.6274 | 102 | TM** | | * |
| 5 | TM* | Vinyl chloride | 0.2931 | 0.6548 | 123 | TM* | | * |
| 6 | TM | 2-Chloro-1,1,1-trifluoroethane | 0.0000 | 0.0001 | 0.00 | TM | | |
| 7 | TML | Bromomethane | 0.1891 | 0.4341 | 130 | TML | 162 | * |
| 8 | TML | Chloroethane | 0.1473 | 0.2783 | 89 | TML | 111 | * |
| 9 | TM | Dichlorofluoromethane | 0.3991 | 0.4224 | 5.8 | TM | | |
| 10 | TM | Trichlorofluoromethane | 0.3289 | 0.7303 | 122 | TM | | * |
| 11 | TM | Acrolein | 0.0414 | 0.0377 | 8.8 | TM | | |
| 12 | TML | Acetone | 0.0997 | 0.0818 | 18 | TML | 6.7 | |
| 13 | TM | Freon-113 | 0.1929 | 0.1940 | 0.58 | TM | | |
| 14 | TM* | 1,1-DCE | 0.1950 | 0.1917 | 1.7 | TM* | | |
| 15 | TM | t-Butanol | 0.0159 | 0.0156 | 1.9 | TM | | |
| 16 | TM | 2-Propanol | 0.0000 | 0.0013 | 0.00 | TM | | |
| 17 | TM | Acetonitrile | 0.0323 | 0.0329 | 1.9 | TM | | |
| 18 | TML | Methyl Acetate | 0.2640 | 0.1908 | 28 | TML | 6.5 | |
| 19 | TM | Iodomethane | 0.2770 | 0.2509 | 9.4 | TM | | |
| 20 | TM | Acrylonitrile | 0.0757 | 0.0741 | 2.1 | TM | | |
| 21 | TML | Methylene chloride | 0.3340 | 0.2516 | 25 | TML | 3.7 | |
| 22 | TM | Carbon disulfide | 0.7028 | 0.6872 | 2.2 | TM | | |
| 23 | TM | Methyl t-butyl ether (MtBE) | 0.4829 | 0.4695 | 2.8 | TM | | |
| 24 | TM | Trans-1,2-DCE | 0.2003 | 0.1977 | 1.3 | TM | | |
| 25 | TM | Diisopropyl Ether | 0.4785 | 0.4527 | 5.4 | TM | | |
| 26 | TM** | 2,2-Dichloro-1,1,1-trifluoroethane | 0.0000 | 0.0144 | 0.00 | TM** | | |
| 27 | TM** | 1,1-DCA | 0.3675 | 0.3809 | 3.6 | TM** | | |
| 28 | TM | Vinyl Acetate | 0.5511 | 0.4571 | 17 | TM | | |
| 29 | TM | Ethyl tert Butyl Ether | 0.4259 | 0.4107 | 3.6 | TM | | |
| 30 | TML | MEK (2-Butanone) | 0.0923 | 0.0870 | 5.6 | TML | 8.7 | |
| 31 | TM | Cis-1,2-DCE | 0.2140 | 0.2286 | 6.8 | TM | | |
| 32 | TM | 2,2-Dichloropropane | 0.3057 | 0.2123 | 31 | TM | | |
| 33 | TM | 2-Methylpentane | 0.0000 | 0.0009 | 0.00 | TM | | |
| 34 | TM | 3-Methylpentane | 0.0000 | 0.1082 | 0.00 | TM | | |
| 35 | TM* | Chloroform | 0.3887 | 0.3976 | 2.3 | TM* | | |
| 36 | TM | Bromochloromethane | 0.1322 | 0.1371 | 3.7 | TM | | |
| 37 | S | Dibromofluoromethane(S) | 0.4652 | 0.4691 | 0.83 | S | | |
| 38 | TM | 1,1,1-TCA | 0.3207 | 0.3121 | 2.7 | TM | | |
| 39 | TM | Cyclohexane | 0.1213 | 0.1248 | 2.8 | TM | | |
| 40 | TM | 1,1-Dichloropropene | 0.2086 | 0.2133 | 2.3 | TM | | |
| | | Average | | | 22.7 | | | |

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/24/19
Instrument: Loki
Cal. Date: 04/23/19
Data File: 0423L38.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | TM | 2,2,4-Trimethylpentane | 0.4038 | 0.3658 | 9.4 | TM | |
| 42 | S | 1,2-DCA-D4(S) | 0.4830 | 0.5000 | 3.5 | S | |
| 43 | TM | Carbon Tetrachloride | 0.2814 | 0.2870 | 2.0 | TM | |
| 44 | TM | Tert Amyl Methyl Ether | 0.4399 | 0.4283 | 2.6 | TM | |
| 45 | TM | Methylcyclopentane | 0.0000 | 0.0475 | 0.00 | TM | |
| 46 | TM | 1,2-DCA | 0.2852 | 0.3027 | 6.1 | TM | |
| 47 | TM | Benzene | 0.7939 | 0.7942 | 0.04 | TM | |
| 48 | TM | TCE | 0.2155 | 0.2321 | 7.7 | TM | |
| 49 | TM | 2-Pentanone | 0.1175 | 0.1263 | 7.5 | TM | |
| 50 | TM* | 1,2-Dichloropropane | 0.2285 | 0.2249 | 1.6 | TM* | |
| 51 | TM | Bromodichloromethane | 0.3140 | 0.3175 | 1.1 | TM | |
| 52 | TM | Methyl Cyclohexane | 0.2210 | 0.2204 | 0.30 | TM | |
| 53 | TM | Dibromomethane | 0.1573 | 0.1560 | 0.84 | TM | |
| 54 | TM | 2-Chloroethyl vinyl ether | 0.0000 | 0.0003 | 0.00 | TM | |
| 55 | TML | MIBK (methyl isobutyl ketone) | 0.1539 | 0.1374 | 11 | TML | 1.3 |
| 56 | TM | 1-Bromo-2-chloroethane | 0.3315 | 0.3419 | 3.2 | TM | |
| 57 | TM | Cis-1,3-Dichloropropene | 0.2956 | 0.2869 | 2.9 | TM | |
| 58 | TM* | Toluene | 0.8000 | 0.8432 | 5.4 | TM* | |
| 59 | TM | Trans-1,3-Dichloropropene | 0.2740 | 0.2665 | 2.8 | TM | |
| 60 | TM | 1,1,2-TCA | 0.1859 | 0.1923 | 3.4 | TM | |
| 61 | TM | 2-Hexanone | 0.0978 | 0.0926 | 5.3 | TM | |
| 62 | I | Chlorobenzene-D5 (IS) | ISTD | | | I | |
| 63 | S | Toluene-D8(S) | 1.708 | 1.819 | 6.5 | S | |
| 64 | TM | 1,2-EDB | 0.2609 | 0.2720 | 4.3 | TM | |
| 65 | TM | Tetrachloroethene | 0.2846 | 0.2937 | 3.2 | TM | |
| 66 | TM | 1-Chlorohexane | 0.2521 | 0.2401 | 4.8 | TM | |
| 67 | TM | 1,1,1,2-Tetrachloroethane | 0.2992 | 0.3014 | 0.76 | TM | |
| 68 | TML | m&p-Xylene | 0.6835 | 0.6952 | 1.7 | TML | 10 |
| 69 | TM | o-Xylene | 0.3310 | 0.3335 | 0.78 | TM | |
| 70 | TML | Styrene | 0.5821 | 0.5677 | 2.5 | TML | 13 |
| 71 | SL | 4-Bromofluorobenzene(S) | 0.5916 | 0.6402 | 8.2 | SL | 0.71 |
| 72 | TM | 1,3-Dichloropropane | 0.4120 | 0.4360 | 5.8 | TM | |
| 73 | TM | Dibromochloromethane | 0.3120 | 0.3194 | 2.4 | TM | |
| 74 | TM** | Chlorobenzene | 0.7029 | 0.7085 | 0.79 | TM** | |
| 75 | TM* | Ethylbenzene | 0.9393 | 0.9560 | 1.8 | TM* | |
| 76 | TM**L | Bromoform | 0.2165 | 0.2356 | 8.8 | TM**L | 5.3 |
| 77 | I | 1,4-Dichlorobenzene-D (IS) | ISTD | | | I | |
| 78 | TM | Isopropylbenzene | 1.419 | 1.433 | 0.97 | TM | |
| 79 | TM**L | 1,1,2,2-Tetrachloroethane | 0.7250 | 0.6610 | 8.8 | TM**L | 5.4 |
| 80 | TM | 1,2,3-Trichloropropane | 0.1861 | 0.2027 | 8.9 | TM | |
| | | Average | | | 3.9 | | |

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/24/19
Instrument: Loki
Cal. Date: 04/23/19
Data File: 0423L38.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 81 | TM | t-1,4-Dichloro-2-Butene | 0.1146 | 0.1154 | 0.71 | TM | |
| 82 | TM | Bromobenzene | 0.5350 | 0.5432 | 1.5 | TM | |
| 83 | TM | n-Propylbenzene | 1.773 | 1.844 | 4.0 | TM | |
| 84 | TM | 4-Ethyltoluene | 1.521 | 1.578 | 3.8 | TM | |
| 85 | TM | 2-Chlorotoluene | 1.310 | 1.253 | 4.3 | TM | |
| 86 | TM | 1,3,5-Trimethylbenzene | 1.284 | 1.375 | 7.0 | TM | |
| 87 | TM | 4-Chlorotoluene | 1.353 | 1.478 | 9.3 | TM | |
| 88 | TM | Tert-Butylbenzene | 1.125 | 1.264 | 12 | TM | |
| 89 | TM | 1,2,4-Trimethylbenzene | 1.269 | 1.209 | 4.7 | TM | |
| 90 | TM | Sec-Butylbenzene | 1.538 | 1.572 | 2.2 | TM | |
| 91 | TM | p-Isopropyltoluene | 1.357 | 1.386 | 2.1 | TM | |
| 92 | TML | Benzyl Chloride | 0.1684 | 0.1201 | 29 | TML | 19 |
| 93 | TM | 1,3-DCB | 0.9579 | 1.037 | 8.3 | TM | |
| 94 | TM | 1,4-DCB | 1.078 | 1.116 | 3.6 | TM | |
| 95 | TM | n-Butylbenzene | 1.231 | 1.174 | 4.6 | TM | |
| 96 | TM | 1,2-DCB | 1.002 | 0.9748 | 2.7 | TM | |
| 97 | TML | Hexachloroethane | 0.2097 | 0.2247 | 7.1 | TML | 26 |
| 98 | TML | 1,2-Dibromo-3-chloropropane | 0.1080 | 0.1171 | 8.4 | TML | 15 |
| 99 | TM | 1,2,4-Trichlorobenzene | 0.5724 | 0.5471 | 4.4 | TM | |
| 100 | TML | Hexachlorobutadiene | 0.3495 | 0.3236 | 7.4 | TML | 2.2 |
| 101 | TM | Naphthalene | 1.227 | 1.064 | 13 | TM | |
| 102 | TM | 1,2,3-Trichlorobenzene | 0.5991 | 0.5576 | 6.9 | TM | |
| 103 | | | | | | | |
| 104 | | | | | | | |
| 105 | | | | | | | |
| 106 | | | | | | | |
| 107 | | | | | | | |
| 108 | | | | | | | |
| 109 | | | | | | | |
| 110 | | | | | | | |
| 111 | | | | | | | |
| 112 | | | | | | | |
| 113 | | | | | | | |
| 114 | | | | | | | |
| 115 | | | | | | | |
| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 6.7 | | |

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L38.D Vial: 37
Acq On : 24 Apr 19 9:31 Operator: PM,DG,SV,CMM,KV
Sample : Ending CCV 10ug/L Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 26 10:33 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 456192 | 25.0000 ppb | | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.51 | 117 | 369152 | 25.0000 ppb | | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 206720 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 213990 | 25.2072 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 100.828% | | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 228090 | 25.8807 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 103.524% | | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 671426 | 26.6237 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 106.496% | | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 236345 | 24.8216 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 99.288% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 47723 | 11.0867 ppb | | 99 |
| 4) Freon 114 | 1.09 | 85 | 38782 | 10.0329 ppb | | 97 |
| 5) Chloromethane | 1.12 | 50 | 57240 | 10.1014 ppb | | 98 |
| 6) Vinyl chloride | 1.20 | 62 | 59744 | 11.1704 ppb | | 99 |
| 8) Bromomethane | 1.44 | 94 | 39605 | 13.0998 ppb | | 88 |
| 9) Chloroethane | 1.52 | 64 | 25395 | 10.5663 ppb | | 99 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 77084 | 10.5833 ppb | | 98 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 66634 | 11.1035 ppb | | 94 |
| 12) Acrolein | 2.09 | 56 | 86094 | 114.0179 ppb | # | 99 |
| 13) Acetone | 2.24 | 43 | 14925 | 10.6686 ppb | | 98 |
| 14) Freon-113 | 2.20 | 101 | 35407 | 10.0581 ppb | | 96 |
| 15) 1,1-DCE | 2.18 | 96 | 34976 | 9.8298 ppb | | 96 |
| 16) t-Butanol | 2.88 | 59 | 35684 | 122.6107 ppb | | 97 |
| 18) Acetonitrile | 2.51 | 41 | 75092 | 127.3642 ppb | | 88 |
| 19) Methyl Acetate | 2.59 | 43 | 34817 | 10.6526 ppb | | 98 |
| 20) Iodomethane | 2.30 | 142 | 45786 | 9.0593 ppb | | 96 |
| 21) Acrylonitrile | 2.97 | 52 | 13529 | 9.7894 ppb | | 81 |
| 22) Methylene chloride | 2.67 | 84 | 45912 | 10.3713 ppb | | 100 |
| 23) Carbon disulfide | 2.36 | 76 | 125404 | 9.7781 ppb | | 97 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 85676 | 9.7224 ppb | | 96 |
| 25) Trans-1,2-DCE | 2.99 | 96 | 36068 | 9.8674 ppb | | 90 |
| 26) Diisopropyl Ether | 3.74 | 45 | 82610 | 9.4602 ppb | | 99 |
| 28) 1,1-DCA | 3.54 | 63 | 69509 | 10.3650 ppb | | 99 |
| 29) Vinyl Acetate | 3.74 | 43 | 83410 | 8.2941 ppb | # | 67 |
| 30) Ethyl tert Butyl Ether | 4.31 | 59 | 74939 | 9.6421 ppb | | 98 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 15884 | 10.8715 ppb | | 93 |
| 32) Cis-1,2-DCE | 4.43 | 96 | 41722 | 10.6849 ppb | | 91 |
| 33) 2,2-Dichloropropane | 4.42 | 77 | 38748 | 6.9462 ppb | | 96 |
| 36) Chloroform | 4.93 | 83 | 72546 | 10.2288 ppb | | 90 |
| 37) Bromochloromethane | 4.77 | 128 | 25016 | 10.3665 ppb | | 91 |
| 39) 1,1,1-TCA | 5.14 | 97 | 56959 | 9.7325 ppb | | 99 |
| 40) Cyclohexane | 5.20 | 41 | 22770 | 10.2833 ppb | | 88 |
| 41) 1,1-Dichloropropene | 5.37 | 75 | 38925 | 10.2266 ppb | | 93 |
| 42) 2,2,4-Trimethylpentane | 5.81 | 57 | 66752 | 9.0596 ppb | | 97 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 52362 | 10.1960 ppb | | 98 |
| 45) Tert Amyl Methyl Ether | 5.87 | 73 | 78156 | 9.7355 ppb | | 98 |
| 47) 1,2-DCA | 5.67 | 62 | 55229 | 10.6131 ppb | | 98 |
| 48) Benzene | 5.64 | 78 | 144915 | 10.0036 ppb | | 97 |
| 49) TCE | 6.48 | 130 | 42350 | 10.7688 ppb | | 93 |

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

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L38.D Vial: 37
Acq On : 24 Apr 19 9:31 Operator: PM,DG,SV,CMM,KV
Sample : Ending CCV 10ug/L Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 26 10:33 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.75 | 43 | 288119 | 134.4169 | ppb | | 100 |
| 51) | 1,2-Dichloropropane | 6.73 | 63 | 41036 | 9.8420 | ppb | | 100 |
| 52) | Bromodichloromethane | 7.09 | 83 | 57943 | 10.1120 | ppb | | 98 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 40214 | 9.9697 | ppb | | 99 |
| 54) | Dibromomethane | 6.87 | 93 | 28458 | 9.9157 | ppb | | 89 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 25077 | 9.8729 | ppb | | 97 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 62392 | 10.3153 | ppb | | 94 |
| 58) | Cis-1,3-Dichloropropene | 7.62 | 75 | 52360 | 9.7056 | ppb | | 95 |
| 59) | Toluene | 7.99 | 91 | 153872 | 10.5411 | ppb | | 97 |
| 60) | Trans-1,3-Dichloropropene | 8.26 | 75 | 48621 | 9.7229 | ppb | | 96 |
| 61) | 1,1,2-TCA | 8.45 | 83 | 35095 | 10.3435 | ppb | | 94 |
| 62) | 2-Hexanone | 8.78 | 43 | 16903 | 9.4709 | ppb | | 98 |
| 65) | 1,2-EDB | 8.98 | 107 | 40166 | 10.4275 | ppb | | 84 |
| 66) | Tetrachloroethene | 8.60 | 166 | 43362 | 10.3177 | ppb | | 97 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 35455 | 9.5240 | ppb | | 100 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.64 | 131 | 44511 | 10.0758 | ppb | | 97 |
| 69) | m&p-Xylene | 9.82 | 91 | 205317 | 17.9777 | ppb | | 95 |
| 70) | o-Xylene | 10.25 | 106 | 49249 | 10.0777 | ppb | | 98 |
| 71) | Styrene | 10.26 | 104 | 83828 | 8.6597 | ppb | | 99 |
| 73) | 1,3-Dichloropropane | 8.63 | 76 | 64378 | 10.5824 | ppb | | 89 |
| 74) | Dibromochloromethane | 8.88 | 129 | 47164 | 10.2360 | ppb | | 94 |
| 75) | Chlorobenzene | 9.54 | 112 | 104611 | 10.0787 | ppb | | 95 |
| 76) | Ethylbenzene | 9.69 | 91 | 141170 | 10.1783 | ppb | | 98 |
| 77) | Bromoform | 10.44 | 173 | 34782 | 10.5276 | ppb | | 92 |
| 79) | Isopropylbenzene | 10.66 | 105 | 118503 | 10.0966 | ppb | | 96 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.98 | 83 | 54659 | 10.5374 | ppb | | 98 |
| 81) | 1,2,3-Trichloropropane | 11.02 | 110 | 16760 | 10.8895 | ppb | | 89 |
| 82) | t-1,4-Dichloro-2-Butene | 11.05 | 53 | 9539 | 10.0706 | ppb | | 99 |
| 83) | Bromobenzene | 10.96 | 156 | 44916 | 10.1524 | ppb | | 98 |
| 84) | n-Propylbenzene | 11.11 | 91 | 152475 | 10.4017 | ppb | | 99 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 130452 | 10.3755 | ppb | | 96 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 103643 | 9.5669 | ppb | | 98 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 113693 | 10.7046 | ppb | | 100 |
| 88) | 4-Chlorotoluene | 11.30 | 91 | 122226 | 10.9286 | ppb | | 97 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 104506 | 11.2335 | ppb | | 95 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 99960 | 9.5264 | ppb | | 95 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 129999 | 10.2218 | ppb | | 98 |
| 92) | p-Isopropyltoluene | 12.07 | 119 | 114592 | 10.2141 | ppb | | 96 |
| 93) | Benzyl Chloride | 12.24 | 91 | 9934 | 8.0882 | ppb | # | 92 |
| 94) | 1,3-DCB | 11.99 | 146 | 85774 | 10.8291 | ppb | | 97 |
| 95) | 1,4-DCB | 12.09 | 146 | 92314 | 10.3573 | ppb | | 98 |
| 96) | n-Butylbenzene | 12.51 | 91 | 97035 | 9.5351 | ppb | | 96 |
| 97) | 1,2-DCB | 12.49 | 146 | 80601 | 9.7327 | ppb | | 99 |
| 98) | Hexachloroethane | 12.78 | 117 | 18576 | 12.6494 | ppb | | 93 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.34 | 75 | 9684 | 11.5205 | ppb | # | 88 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 45242 | 9.5590 | ppb | | 98 |
| 101) | Hexachlorobutadiene | 14.45 | 225 | 26758 | 10.2184 | ppb | | 93 |
| 102) | Naphthalene | 14.51 | 128 | 88012 | 8.6771 | ppb | | 97 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 46107 | 9.3078 | ppb | | 99 |

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

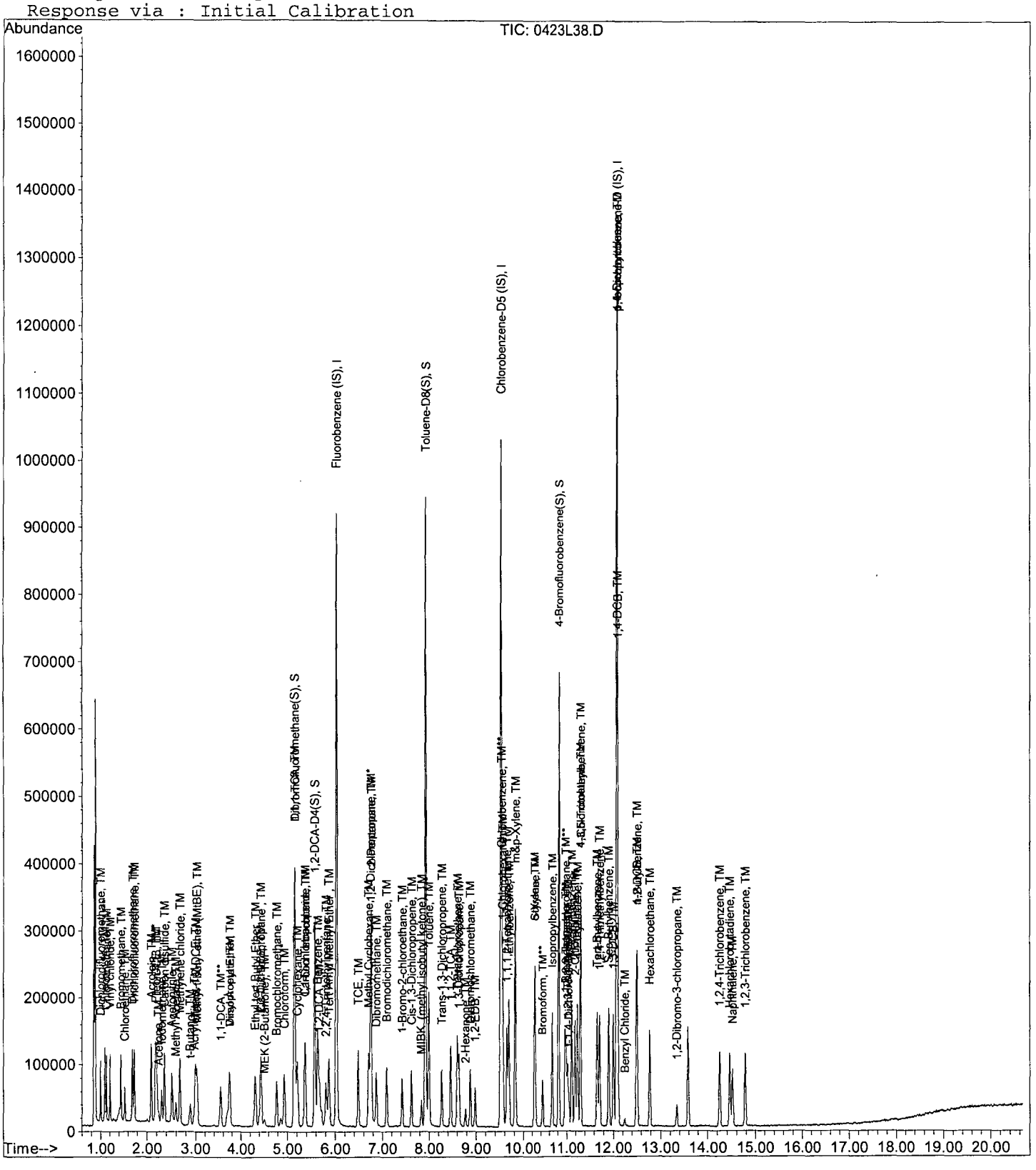
Quantitation Report

Data File : M:\LOKI\DATA\190423\0423L38.D
Acq On : 24 Apr 19 9:31
Sample : Ending CCV 10ug/L
Misc : ISS 3/5/19, 2/11/19

Vial: 37
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 26 10:33 2019 Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 04/24/19
Matrix: Instrument: Thor
Initials: D.P. / ZP

| | | | 0424T19.D | 0424T20.D | 0424T21.D | 0424T22.D | 0424T23.D | 0424T24 D | 0424T25.D | 0424T26.D | 0424T27.D | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | Avg | %RSD | Type | r^2 | Q | MRF |
| 1 | I | Fluorobenzene (IS) | | | | | | | | | | | | | | | | |
| 2 | TM | Freon 1113 | | | | | | | | | | | | | TM | | | |
| 3 | TM | Dichlorodifluoromethane | | 0.2497 | 0.2605 | 0.2531 | 0.2199 | 0.2564 | 0.2584 | 0.2473 | 0.2310 | | 0.25 | 5.8 | TM | | | |
| 4 | TM | Freon 114 | | 0.1554 | 0.1703 | 0.1569 | 0.1245 | 0.1414 | 0.1521 | 0.1530 | 0.1503 | | 0.15 | 8.8 | TM | | | |
| 5 | TM**L | Chloromethane | | 0.5354 | 0.3966 | 0.2309 | 0.2445 | 0.2288 | 0.2222 | 0.2108 | 0.1901 | | 0.28 | 43 | TM**L | 0.998 | | |
| 6 | TM* | Vinyl chloride | | 0.2597 | 0.2745 | 0.2381 | 0.2409 | 0.2449 | 0.2573 | 0.2368 | 0.2124 | | 0.25 | 7.6 | TM* | | | |
| 7 | TM | 2-Chloro-1,1,1-trifluoroethane | | | | | | | | | | | | | TM | | | |
| 8 | TM | Bromomethane | | | 0.3843 | 0.3408 | 0.2910 | 0.3219 | 0.4173 | 0.3803 | 0.3204 | | 0.35 | 13 | TM | | | |
| 9 | TML | Chloroethane | | 0.3027 | 0.1601 | 0.1933 | 0.1901 | 0.1737 | 0.1748 | 0.1663 | 0.1677 | | 0.19 | 24 | TML | 1.000 | | |
| 10 | TM | Dichlorofluoromethane | | 0.6621 | 0.5334 | 0.4954 | 0.4589 | 0.4503 | 0.4593 | 0.4686 | 0.4284 | | 0.49 | 15 | TM | | | |
| 11 | TM | Trichlorofluoromethane | | 0.5186 | 0.4703 | 0.4266 | 0.4364 | 0.4452 | 0.4448 | 0.4529 | 0.4118 | | 0.45 | 7.2 | TM | | | |
| 12 | TM | Acrolein | | 0.0510 | 0.0454 | 0.0431 | 0.0490 | 0.0455 | 0.0481 | 0.0468 | 0.0385 | | 0.05 | 8.4 | TM | | | |
| 13 | TML | Acetone | | 0.5578 | 0.3513 | 0.2535 | 0.1410 | 0.1066 | 0.1002 | 0.0916 | 0.0819 | | 0.21 | 80 | TML | 0.999 | | |
| 14 | TM | Freon-113 | | 0.2008 | 0.2554 | 0.2294 | 0.2154 | 0.2080 | 0.2174 | 0.2161 | 0.1968 | | 0.22 | 8.5 | TM | | | |
| 15 | TM* | 1,1-DCE | | 0.3357 | 0.3202 | 0.3080 | 0.2855 | 0.2822 | 0.2914 | 0.2915 | 0.2700 | | 0.30 | 7.3 | TM* | | | |
| 16 | TM | 2-Propanol | | | | | | | | | | | | | TM | | | |
| 17 | TM | Acetonitrile | | 0.0206 | 0.0184 | 0.0178 | 0.0178 | 0.0189 | 0.0188 | 0.0178 | 0.0123 | | 0.02 | 14 | TM | | | |
| 18 | TMQ | t-Butanol | 0.0328 | 0.0252 | 0.0227 | 0.0213 | 0.0231 | 0.0238 | 0.0279 | | | | 0.03 | 16 | TMQ | 0.996 | | |
| 19 | TML | Methyl Acetate | | 0.4655 | 0.4334 | 0.3112 | 0.2255 | 0.2464 | 0.2362 | 0.2260 | 0.1950 | | 0.29 | 35 | TML | 0.996 | | |
| 20 | TML | Iodomethane | | 0.0795 | 0.0168 | 0.0278 | 0.0404 | 0.0602 | 0.1091 | 0.1622 | 0.1969 | | 0.09 | 75 | TML | 0.990 | | |
| 21 | TML | Acrylonitrile | | 0.2978 | 0.1620 | 0.1225 | 0.1325 | 0.0756 | 0.0836 | 0.0740 | 0.0831 | | 0.13 | 58 | TML | 0.996 | | |
| 22 | TML | Methylene chloride | | 0.4522 | 0.3899 | 0.3017 | 0.2629 | 0.2510 | 0.2622 | 0.2485 | 0.2280 | | 0.30 | 27 | TML | 0.999 | | |
| 23 | TML | Carbon disulfide | | 0.8907 | 0.7940 | 0.6593 | 0.6258 | 0.6172 | 0.6383 | 0.6298 | 0.5763 | | 0.68 | 16 | TML | 0.999 | | |
| 24 | TML | Methyl t-butyl ether (MtBE) | | 0.7482 | 0.6700 | 0.5949 | 0.5991 | 0.4601 | 0.4839 | 0.4624 | 0.5681 | | 0.57 | 18 | TML | 0.994 | | |
| 25 | TML | Trans-1,2-DCE | | 0.3090 | 0.2832 | 0.2356 | 0.2247 | 0.1823 | 0.1886 | 0.1680 | 0.2057 | | 0.22 | 22 | TML | 0.994 | | |
| 26 | TML | Hexane | | 0.2135 | 0.2667 | 0.1389 | 0.1210 | 0.0958 | 0.1024 | 0.0948 | 0.1164 | | 0.14 | 44 | TML | 0.993 | | |
| 27 | TM | Diisopropyl Ether | | 0.2234 | 0.1976 | 0.1874 | 0.1869 | 0.1794 | 0.1972 | 0.1888 | 0.1975 | | 0.19 | 6.8 | TM | | | |
| 28 | TM**L | 1,1-DCA | | 0.5115 | 0.4554 | 0.3821 | 0.0094 | 0.3190 | 0.3393 | 0.3300 | 0.3123 | | 0.33 | 45 | TM**L | 0.996 | | |
| 29 | TML | Vinyl Acetate | | 0.2447 | 0.1537 | 0.1888 | 0.1578 | 0.1590 | 0.1681 | 0.1649 | 0.1741 | | 0.18 | 17 | TML | 1.000 | | |
| 30 | TM | Ethyl tert Butyl Ether | | 0.2734 | 0.2376 | 0.2309 | 0.2303 | 0.2019 | 0.2428 | 0.2446 | 0.3002 | | 0.25 | 12 | TM | | | |
| 31 | TML | MEK (2-Butanone) | | 0.1543 | 0.1336 | 0.1094 | 0.1215 | 0.1004 | 0.1078 | 0.1001 | 0.0940 | | 0.12 | 18 | TML | 0.999 | | |
| 32 | TM | Cis-1,2-DCE | | 0.3400 | 0.3308 | 0.2763 | 0.3010 | 0.2649 | 0.2889 | 0.2805 | 0.2810 | | 0.30 | 9.1 | TM | | | |
| 33 | TM | 2,2-Dichloropropane | | 0.2807 | 0.2969 | 0.2897 | 0.2650 | 0.2478 | 0.2545 | 0.2539 | 0.2498 | | 0.27 | 7.2 | TM | | | |
| 34 | TM* | Chloroform | | 0.5598 | 0.4697 | 0.4253 | 0.4373 | 0.3759 | 0.4030 | 0.3817 | 0.3696 | | 0.43 | 15 | TM* | | | |
| 35 | TML | Bromochloromethane | | 0.0464 | 0.1520 | 0.1470 | 0.1309 | 0.1258 | 0.1239 | 0.1149 | 0.1078 | | 0.12 | 28 | TML | 0.999 | | |

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 04/24/19
Matrix: Instrument: Thor Initials:

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | Avg | %RSD | Type | | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | S | Dibromofluoromethane(S) | 0.6585 | 0.5946 | 0.4920 | 0.4627 | 0.5377 | 0.5067 | 0.5273 | 0.5061 | 0.4746 | | 0.53 | 12 | S | | | |
| 37 | TM | 1,1,1-TCA | | 0.3480 | 0.4008 | 0.3455 | 0.3341 | 0.3152 | 0.3401 | 0.3299 | 0.3256 | | 0.34 | 7.6 | TM | | | |
| 38 | TML | Cyclohexane | | 0.3090 | 0.1952 | 0.1645 | 0.1404 | 0.1346 | 0.1490 | 0.1447 | 0.1439 | | 0.17 | 34 | TML | 1.000 | | |
| 39 | TM | 1,1-Dichloropropene | | 0.2088 | 0.2884 | 0.2297 | 0.2225 | 0.2251 | 0.2375 | 0.2297 | 0.2320 | | 0.23 | 10 | TM | | | |
| 40 | TM | 2,2,4-Trimethylpentane | | 0.4104 | 0.4536 | 0.4445 | 0.3783 | 0.3895 | 0.4367 | 0.4484 | 0.4564 | | 0.43 | 7.1 | TM | | | |
| 41 | S | 1,2-DCA-D4(S) | 0.7472 | 0.6790 | 0.5832 | 0.5469 | 0.6176 | 0.5771 | 0.5896 | 0.5645 | 0.5244 | | 0.60 | 12 | S | | | |
| 42 | TM | Carbon Tetrachloride | | 0.3004 | 0.2450 | 0.2791 | 0.2854 | 0.2738 | 0.3017 | 0.2908 | 0.2951 | | 0.28 | 6.5 | TM | | | |
| 43 | TML | Tert Amyl Methyl Ether | | 0.2061 | 0.1599 | 0.1596 | 0.1653 | 0.1691 | 0.2197 | 0.2255 | 0.2852 | | 0.20 | 22 | TML | 0.993 | | |
| 44 | TM | 1,2-DCA | | 0.4462 | 0.3998 | 0.3512 | 0.3283 | 0.3142 | 0.3321 | 0.3096 | 0.2984 | | 0.35 | 15 | TM | | | |
| 45 | TM | Benzene | | 0.9111 | 0.8420 | 0.7803 | 0.7938 | 0.7442 | 0.7938 | 0.7677 | 0.7596 | | 0.80 | 6.7 | TM | | | |
| 46 | TM | TCE | | 0.2239 | 0.2100 | 0.2002 | 0.2231 | 0.2018 | 0.2084 | 0.2048 | 0.2036 | | 0.21 | 4.4 | TM | | | |
| 47 | TM | 2-Pentanone | | 0.1567 | 0.1586 | 0.1525 | 0.1659 | 0.1595 | 0.1702 | 0.1680 | 0.1438 | | 0.16 | 5.5 | TM | | | |
| 48 | TM* | 1,2-Dichloropropane | | 0.2860 | 0.2202 | 0.2249 | 0.2128 | 0.2002 | 0.2094 | 0.2008 | 0.1914 | | 0.22 | 14 | TM* | | | |
| 49 | TM | Bromodichloromethane | | 0.3480 | 0.3406 | 0.3238 | 0.3138 | 0.3082 | 0.3140 | 0.3068 | 0.3000 | | 0.32 | 5.3 | TM | | | |
| 50 | TM | Methyl Cyclohexane | | 0.2399 | 0.2749 | 0.2574 | 0.2128 | 0.2219 | 0.2527 | 0.2538 | 0.2758 | | 0.25 | 9.1 | TM | | | |
| 51 | TML | Dibromomethane | | 0.2395 | 0.2303 | 0.1799 | 0.1743 | 0.1698 | 0.1775 | 0.1650 | 0.1577 | | 0.19 | 16 | TML | 0.999 | | |
| 52 | TM | MIBK (methyl isobutyl ketone) | | 0.1019 | 0.0784 | 0.0602 | 0.0852 | 0.0800 | 0.0729 | 0.0799 | 0.0782 | | 0.08 | 15 | TM | | | |
| 53 | TM | 1-Bromo-2-chloroethane | | 0.3773 | 0.3700 | 0.3226 | 0.3555 | 0.3030 | 0.3083 | 0.3009 | 0.2993 | | 0.33 | 9.9 | TM | | | |
| 54 | TML | 2-Chloroethyl vinyl ether | | 0.0204 | 0.0144 | 0.0145 | 0.0189 | 0.0187 | 0.0138 | 0.0123 | 0.0112 | | 0.02 | 22 | TML | 0.995 | | |
| 55 | TM | Cis-1,3-Dichloropropene | | 0.3476 | 0.2934 | 0.2812 | 0.3178 | 0.2993 | 0.3037 | 0.2987 | 0.3104 | | 0.31 | 6.5 | TM | | | |
| 56 | TM*L | Toluene | | 0.0410 | 0.9590 | 0.8099 | 0.9013 | 0.8318 | 0.9251 | 0.8969 | 0.8994 | | 0.78 | 39 | TM*L | 1.000 | | |
| 57 | TM | Trans-1,3-Dichloropropene | | 0.3189 | 0.3113 | 0.2734 | 0.3135 | 0.2873 | 0.3082 | 0.3015 | 0.3072 | | 0.30 | 5.0 | TM | | | |
| 58 | TML | 1,1,2-TCA | | 0.2715 | 0.2423 | 0.2120 | 0.1971 | 0.1785 | 0.1963 | 0.1842 | 0.1815 | | 0.21 | 16 | TML | 1.000 | | |
| 59 | TML | 2-Hexanone | | 0.1035 | 0.0857 | 0.0628 | 0.0761 | 0.0589 | 0.0666 | 0.0702 | 0.0785 | | 0.08 | 19 | TML | 0.997 | | |
| 60 | I | Chlorobenzene-D5 (IS) | | | | | | | | | | | | | | | | |
| 61 | S | Toluene-D8(S) | 2.051 | 1.835 | 1.583 | 1.542 | 1.785 | 1.711 | 1.829 | 1.815 | 1.775 | | 1.8 | 8.5 | S | | | |
| 62 | TM | 1,2-EDB | | 0.2784 | 0.2707 | 0.2242 | 0.2614 | 0.2299 | 0.2399 | 0.2430 | 0.2388 | | 0.25 | 7.9 | TM | | | |
| 63 | TM | Tetrachloroethene | | 0.2400 | 0.2469 | 0.2200 | 0.2124 | 0.2041 | 0.2127 | 0.2078 | 0.2086 | | 0.22 | 7.2 | TM | | | |
| 64 | TM | 1-Chlorohexane | | 0.2496 | 0.2417 | 0.2373 | 0.2030 | 0.1967 | 0.2224 | 0.2342 | 0.2509 | | 0.23 | 8.9 | TM | | | |
| 65 | TM | 1,1,1,2-Tetrachloroethane | | 0.2768 | 0.3079 | 0.2609 | 0.2538 | 0.2503 | 0.2580 | 0.2466 | 0.2475 | | 0.26 | 7.9 | TM | | | |
| 66 | TM | m&p-Xylene | | 0.3549 | 0.3069 | 0.3148 | 0.3225 | 0.3255 | 0.3638 | 0.3850 | 0.4077 | | 0.35 | 10 | TM | | | |
| 67 | TM | o-Xylene | | 0.2768 | 0.2969 | 0.2766 | 0.3117 | 0.3027 | 0.3529 | 0.3634 | 0.3970 | | 0.32 | 14 | TM | | | |
| 68 | TM | Styrene | | 0.5075 | 0.4938 | 0.4697 | 0.4982 | 0.4918 | 0.5911 | 0.6428 | | | 0.53 | 12 | TM | | | |
| 69 | S | 4-Bromofluorobenzene(S) | 0.6992 | 0.6401 | 0.5321 | 0.5363 | 0.6306 | 0.6134 | 0.6819 | 0.7041 | 0.7128 | | 0.64 | 11 | S | | | |
| 70 | TM | 1,3-Dichloropropane | | 0.4223 | 0.3941 | 0.3626 | 0.3677 | 0.3334 | 0.3511 | 0.3490 | 0.3367 | | 0.36 | 8.3 | TM | | | |

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 04/24/19
Matrix: Instrument: Thor Initials:

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | Avg | %RSD | Type | | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | TM | Dibromochloromethane | | 0.2750 | 0.2920 | 0.2662 | 0.2669 | 0.2530 | 0.2601 | 0.2648 | 0.2734 | | 0.27 | 4.3 | TM | | | |
| 72 | TM** | Chlorobenzene | | 0.7367 | 0.7303 | 0.6168 | 0.6610 | 0.5979 | 0.6290 | 0.6189 | 0.6194 | | 0.65 | 8.3 | TM** | | | |
| 73 | TM* | Ethylbenzene | | 1.052 | 0.8421 | 0.8178 | 0.8717 | 0.8151 | 0.9210 | 0.9466 | 0.9896 | | 0.91 | 9.4 | TM* | | | |
| 74 | TM**L | Bromoform | | 0.1076 | 0.1368 | 0.2084 | 0.2142 | 0.2024 | 0.2030 | 0.2131 | 0.2378 | | 0.19 | 23 | TM**L | 0.998 | | |
| 75 | I | 1,4-Dichlorobenzene-D (IS) | | | | | | | | | | | | | | | | |
| 76 | TM | Isopropylbenzene | | 1.400 | 1.318 | 1.292 | 1.278 | 1.207 | 1.331 | 1.376 | 1.279 | | 1.3 | 4.6 | TM | | | |
| 77 | TM**L | 1,1,2,2-Tetrachloroethane | | 0.7588 | 0.6612 | 0.6035 | 0.5905 | 0.5076 | 0.5230 | 0.5070 | 0.4564 | | 0.58 | 17 | TM**L | 0.998 | | |
| 78 | TML | 1,2,3-Trichloropropane | | 0.2575 | 0.1263 | 0.1905 | 0.1909 | 0.1632 | 0.1698 | 0.1615 | 0.1464 | | 0.18 | 22 | TML | 0.998 | | |
| 79 | TM | t-1,4-Dichloro-2-Butene | | 0.1319 | 0.1397 | 0.1121 | 0.1175 | 0.1013 | 0.1165 | 0.1064 | 0.0913 | | 0.11 | 14 | TM | | | |
| 80 | TM | Bromobenzene | | 0.5640 | 0.5266 | 0.4306 | 0.5107 | 0.4504 | 0.4612 | 0.4527 | 0.4198 | | 0.48 | 11 | TM | | | |
| 81 | TM | n-Propylbenzene | | 1.717 | 1.588 | 1.433 | 1.583 | 1.426 | 1.600 | 1.676 | 1.516 | | 1.6 | 6.7 | TM | | | |
| 82 | TM | 4-Ethyltoluene | | 1.284 | 1.242 | 1.233 | 1.318 | 1.308 | 1.500 | 1.570 | 1.456 | | 1.4 | 9.3 | TM | | | |
| 83 | TM | 2-Chlorotoluene | | 1.195 | 1.036 | 0.9641 | 0.9968 | 0.9449 | 1.023 | 1.048 | 0.9390 | | 1.0 | 8.1 | TM | | | |
| 84 | TM | 1,3,5-Trimethylbenzene | | 1.120 | 1.015 | 1.041 | 1.171 | 1.115 | 1.289 | 1.361 | 1.244 | | 1.2 | 10 | TM | | | |
| 85 | TM | 4-Chlorotoluene | | 1.314 | 1.092 | 1.031 | 1.189 | 1.107 | 1.237 | 1.265 | 1.147 | | 1.2 | 8.2 | TM | | | |
| 86 | TM | Tert-Butylbenzene | | 1.141 | 1.027 | 0.9098 | 0.9947 | 0.9019 | 1.021 | 1.065 | 1.042 | | 1.0 | 7.8 | TM | | | |
| 87 | TM | 1,2,4-Trimethylbenzene | | 1.173 | 1.014 | 0.8720 | 1.117 | 1.028 | 1.208 | 1.310 | 1.260 | | 1.1 | 13 | TM | | | |
| 88 | TM | Sec-Butylbenzene | | 1.344 | 1.363 | 1.247 | 1.374 | 1.322 | 1.486 | 1.556 | 1.486 | | 1.4 | 7.3 | TM | | | |
| 89 | TM | p-Isopropyltoluene | | 1.243 | 1.203 | 1.151 | 1.262 | 1.176 | 1.341 | 1.427 | 1.388 | | 1.3 | 7.9 | TM | | | |
| 90 | TM | Benzyl Chloride | | 0.1340 | 0.1352 | 0.1015 | 0.1174 | 0.1007 | 0.1067 | 0.1125 | 0.1002 | | 0.11 | 13 | TM | | | |
| 91 | TM | 1,3-DCB | | 0.8935 | 0.8159 | 0.8321 | 0.8921 | 0.8146 | 0.8698 | 0.8757 | 0.8355 | | 0.85 | 3.9 | TM | | | |
| 92 | TM | 1,4-DCB | | 1.118 | 1.143 | 0.9290 | 0.9719 | 0.8649 | 0.9032 | 0.9116 | 0.8656 | | 0.96 | 11 | TM | | | |
| 93 | TM | n-Butylbenzene | | 1.125 | 1.015 | 0.9254 | 0.9535 | 0.9622 | 1.089 | 1.202 | 1.146 | | 1.1 | 9.7 | TM | | | |
| 94 | TM | 1,2-DCB | | 1.031 | 0.8939 | 0.8843 | 0.8736 | 0.7954 | 0.8471 | 0.8607 | 0.8460 | | 0.88 | 7.8 | TM | | | |
| 95 | TML | Hexachloroethane | | 0.1483 | 0.2125 | 0.2209 | 0.2730 | 0.2613 | 0.2659 | 0.2680 | 0.2444 | | 0.24 | 18 | TML | 0.998 | | |
| 96 | TML | 1,2-Dibromo-3-chloropropane | | 0.0935 | 0.1762 | 0.1528 | 0.1345 | 0.1128 | 0.1229 | 0.1301 | 0.1241 | | 0.13 | 19 | TML | 0.999 | | |
| 97 | TM | 1,2,4-Trichlorobenzene | | 0.5930 | 0.5156 | 0.5567 | 0.5835 | 0.4946 | 0.5563 | 0.5992 | 0.6010 | | 0.56 | 7.1 | TM | | | |
| 98 | TM | Hexachlorobutadiene | | 0.2063 | 0.3137 | 0.3083 | 0.2714 | 0.2616 | 0.2816 | 0.2858 | 0.2754 | | 0.28 | 12 | TM | | | |
| 99 | TM | Naphthalene | | 1.309 | 1.147 | 1.148 | 1.063 | 1.015 | 1.186 | 1.380 | 1.470 | | 1.2 | 13 | TM | | | |
| 100 | TM | 1,2,3-Trichlorobenzene | | 0.5682 | 0.6502 | 0.5581 | 0.6164 | 0.5478 | 0.5824 | 0.6407 | 0.6334 | | 0.60 | 6.7 | TM | | | |
| 101 | | | | | | | | | | | | | | | | | | |
| 102 | | | | | | | | | | | | | | | | | | |
| 103 | | | | | | | | | | | | | | | | | | |
| 104 | | | | | | | | | | | | | | | | | | |
| 105 | | | | | | | | | | | | | | | | | | |

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T190423\0424T19.D Vial: 16
Acq On : 24 Apr 19 19:21 Operator: DG,SV, CMM.PM,KV
Sample : 0.3ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:45 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 342528 | 25.0000 ppb | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 338240 | 25.0000 ppb | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 189184 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 45111 | 6.2252 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 24.900% | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 51189 | 6.1931 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 24.772% | |
| 61) Toluene-D8(S) | 7.58 | 98 | 138722 | 5.7946 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 23.180% | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 47300 | 5.4717 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 21.888% | |
| **Target Compounds** | | | | | Qvalue |
| 18) t-Butanol | 2.75 | 59 | 4494 | 3.5747 ppb | # 69 |

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

Quantitation Report

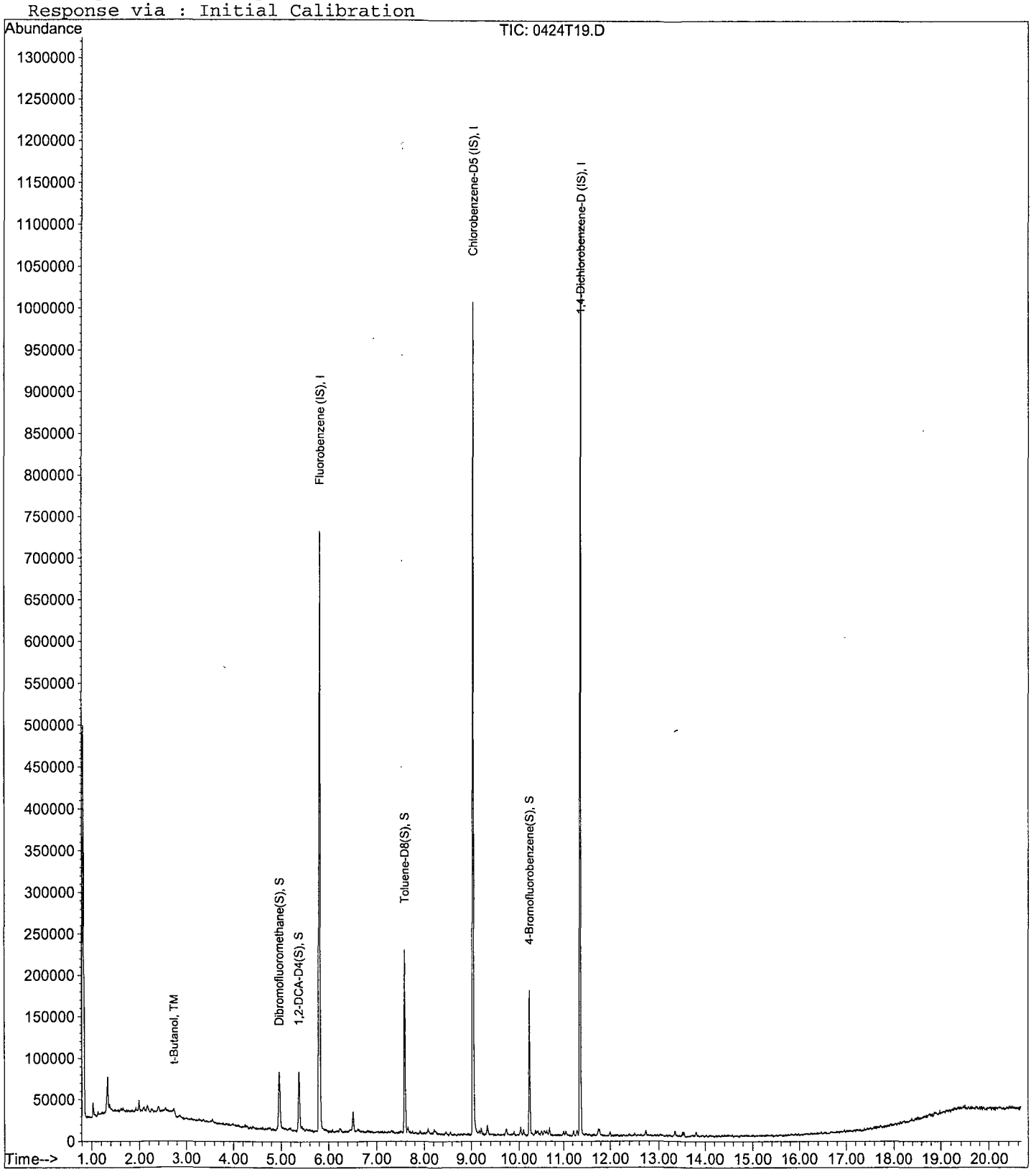
Data File : M:\THOR\DATA\T190423\0424T19.D
Acq On : 24 Apr 19 19:21
Sample : 0.3ug/L VOC STD 04/24/19
Misc : IS &S 4/2/19

Vial: 16
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 25 10:45 2019

Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T20.D Vial: 17
Acq On : 24 Apr 19 19:50 Operator: DG,SV, CMM.PM,KV
Sample : 0.5ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 348416 | 25.0000 ppb | | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 342144 | 25.0000 ppb | | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 191488 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 36) Dibromofluoromethane(S) | 4.97 | 111 | 41435 | 5.6213 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 22.484% | | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 47313 | 5.6274 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 22.508% | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 125550 | 5.1845 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 20.740% | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 43801 | 5.0091 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 20.036% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 0.96 | 85 | 1740 | 0.5054 ppb | # | 71 |
| 4) Freon 114 | 1.05 | 135 | 1083 | 0.5164 ppb | | 86 |
| 5) Chloromethane | 1.08 | 50 | 3731 | -0.3855 ppb | | 94 |
| 6) Vinyl chloride | 1.16 | 62 | 1810 | 0.5288 ppb | # | 67 |
| 8) Bromomethane | 1.38 | 94 | 3213 | 0.6571 ppb | # | 65 |
| 9) Chloroethane | 1.46 | 64 | 2109 | 0.5268 ppb | | 89 |
| 10) Dichlorofluoromethane | 1.62 | 67 | 4614 | 0.6694 ppb | # | 66 |
| 11) Trichlorofluoromethane | 1.66 | 101 | 3614 | 0.5752 ppb | | 94 |
| 12) Acrolein | 2.00 | 56 | 17770 | 27.7693 ppb | # | 80 |
| 13) Acetone | 2.14 | 43 | 3887 | -0.5574 ppb | | 99 |
| 14) Freon-113 | 2.11 | 101 | 1399 | 0.4617 ppb | | 87 |
| 15) 1,1-DCE | 2.08 | 61 | 2339 | 0.5631 ppb | | 87 |
| 17) Acetonitrile | 2.39 | 41 | 7169 | 28.8978 ppb | # | 94 |
| 18) t-Butanol | 2.74 | 59 | 8783 | 27.1422 ppb | | 97 |
| 19) Methyl Acetate | 2.47 | 43 | 3244 | -0.9712 ppb | | 87 |
| 20) Iodomethane | 2.20 | 142 | 554 | 4.1775 ppb | # | 30 |
| 21) Acrylonitrile | 2.83 | 52 | 2075 | 1.1827 ppb | | 81 |
| 22) Methylene chloride | 2.55 | 84 | 3151 | -0.3063 ppb | | 98 |
| 23) Carbon disulfide | 2.26 | 76 | 6207 | -0.1517 ppb | # | 92 |
| 24) Methyl t-butyl ether (MtBE | 2.89 | 73 | 5214 | 1.8189 ppb | # | 76 |
| 25) Trans-1,2-DCE | 2.85 | 96 | 2153 | 1.4915 ppb | | 80 |
| 26) Hexane | 2.89 | 57 | 1488 | 1.6964 ppb | # | 99 |
| 27) Diisopropyl Ether | 3.56 | 45 | 1557 | 0.5736 ppb | | 91 |
| 28) 1,1-DCA | 3.37 | 63 | 3564 | 0.9858 ppb | # | 71 |
| 29) Vinyl Acetate | 3.56 | 87 | 1705 | 1.1298 ppb | # | 39 |
| 30) Ethyl tert Butyl Ether | 4.11 | 59 | 1905 | 0.5575 ppb | # | 38 |
| 31) MEK (2-Butanone) | 4.35 | 43 | 1075 | -0.3211 ppb | # | 46 |
| 32) Cis-1,2-DCE | 4.24 | 61 | 2369 | 0.5754 ppb | # | 44 |
| 33) 2,2-Dichloropropane | 4.25 | 77 | 1956 | 0.5251 ppb | # | 1 |
| 34) Chloroform | 4.74 | 83 | 3901 | 0.6543 ppb | | 96 |
| 35) Bromochloromethane | 4.58 | 128 | 323 | -0.9826 ppb | | 73 |
| 37) 1,1,1-TCA | 4.95 | 97 | 2425 | 0.5082 ppb | | 88 |
| 38) Cyclohexane | 5.01 | 41 | 2153 | 0.8663 ppb | # | 11 |
| 39) 1,1-Dichloropropene | 5.19 | 75 | 1455 | 0.4458 ppb | | 94 |
| 40) 2,2,4-Trimethylpentane | 5.60 | 57 | 2860 | 0.4804 ppb | # | 46 |
| 42) Carbon Tetrachloride | 5.18 | 117 | 2093 | 0.5290 ppb | # | 86 |
| 43) Tert Amyl Methyl Ether | 5.66 | 73 | 1436 | 2.8872 ppb | # | 72 |
| 44) 1,2-DCA | 5.47 | 62 | 3109 | 0.6420 ppb | | 99 |
| 45) Benzene | 5.44 | 78 | 6349 | 0.5701 ppb | # | 88 |

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T20.D
Acq On : 24 Apr 19 19:50
Sample : 0.5ug/L VOC STD 04/24/19
Misc : IS &S 4/2/19

Vial: 17
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 46) | TCE | 6.24 | 95 | 1560 | 0.5344 ppb | | 86 |
| 47) | 2-Pentanone | 6.51 | 43 | 54605 | 24.5796 ppb | | 100 |
| 48) | 1,2-Dichloropropane | 6.49 | 63 | 1993 | 0.6553 ppb | # | 71 |
| 49) | Bromodichloromethane | 6.82 | 83 | 2425 | 0.5448 ppb | # | 94 |
| 50) | Methyl Cyclohexane | 6.45 | 83 | 1672 | 0.4825 ppb | # | 52 |
| 51) | Dibromomethane | 6.61 | 93 | 1669 | -0.1063 ppb | # | 78 |
| 52) | MIBK (methyl isobutyl ket | 7.52 | 58 | 710 | 0.6402 ppb | # | 47 |
| 53) | 1-Bromo-2-chloroethane | 7.13 | 63 | 2629 | 0.5723 ppb | | 98 |
| 54) | 2-Chloroethyl vinyl ether | 7.12 | 107 | 142 | -1.9545 ppb | # | 34 |
| 55) | Cis-1,3-Dichloropropene | 7.31 | 75 | 2422 | 0.5670 ppb | # | 76 |
| 56) | Toluene | 7.52 | 91 | 286 | 0.1852 ppb | | 94 |
| 57) | Trans-1,3-Dichloropropene | 7.92 | 75 | 2222 | 0.5268 ppb | | 87 |
| 58) | 1,1,2-TCA | 8.08 | 83 | 1892 | 0.2731 ppb | | 83 |
| 59) | 2-Hexanone | 8.38 | 58 | 721 | 1.8395 ppb | # | 78 |
| 62) | 1,2-EDB | 8.56 | 107 | 1905 | 0.5606 ppb | # | 77 |
| 63) | Tetrachloroethene | 8.22 | 164 | 1642 | 0.5478 ppb | # | 79 |
| 64) | 1-Chlorohexane | 9.10 | 91 | 1708 | 0.5439 ppb | | 83 |
| 65) | 1,1,1,2-Tetrachloroethane | 9.18 | 131 | 1894 | 0.5268 ppb | # | 66 |
| 66) | m&p-Xylene | 9.33 | 106 | 4857 | 1.0209 ppb | | 81 |
| 67) | o-Xylene | 9.72 | 106 | 1894 | 0.4295 ppb | | 92 |
| 68) | Styrene | 9.73 | 104 | 3473 | 0.4808 ppb | # | 76 |
| 70) | 1,3-Dichloropropane | 8.25 | 76 | 2890 | 0.5791 ppb | | 88 |
| 71) | Dibromochloromethane | 8.47 | 129 | 1882 | 0.5114 ppb | | 93 |
| 72) | Chlorobenzene | 9.07 | 112 | 5041 | 0.5656 ppb | | 89 |
| 73) | Ethylbenzene | 9.21 | 91 | 7197 | 0.5798 ppb | | 97 |
| 74) | Bromoform | 9.89 | 173 | 736 | 1.4269 ppb | | 90 |
| 76) | Isopropylbenzene | 10.10 | 105 | 5360 | 0.5342 ppb | # | 88 |
| 77) | 1,1,2,2-Tetrachloroethane | 10.39 | 83 | 2906 | -0.5828 ppb | # | 90 |
| 78) | 1,2,3-Trichloropropane | 10.43 | 110 | 986 | -0.4514 ppb | # | 42 |
| 79) | t-1,4-Dichloro-2-Butene | 10.45 | 53 | 505 | 0.5754 ppb | | 90 |
| 80) | Bromobenzene | 10.36 | 156 | 2160 | 0.5912 ppb | | 74 |
| 81) | n-Propylbenzene | 10.51 | 91 | 6576 | 0.5477 ppb | | 93 |
| 82) | 4-Ethyltoluene | 10.62 | 105 | 4917 | 0.4707 ppb | | 95 |
| 83) | 2-Chlorotoluene | 10.56 | 91 | 4578 | 0.5869 ppb | | 99 |
| 84) | 1,3,5-Trimethylbenzene | 10.69 | 105 | 4291 | 0.4789 ppb | | 87 |
| 85) | 4-Chlorotoluene | 10.68 | 91 | 5032 | 0.5602 ppb | | 86 |
| 86) | Tert-Butylbenzene | 11.00 | 119 | 4371 | 0.5635 ppb | | 85 |
| 87) | 1,2,4-Trimethylbenzene | 11.05 | 105 | 4493 | 0.5224 ppb | | 99 |
| 88) | Sec-Butylbenzene | 11.22 | 105 | 5146 | 0.4809 ppb | # | 87 |
| 89) | p-Isopropyltoluene | 11.37 | 119 | 4760 | 0.4879 ppb | # | 89 |
| 90) | Benzyl Chloride | 11.53 | 91 | 513 | 0.5901 ppb | # | 48 |
| 91) | 1,3-DCB | 11.29 | 146 | 3422 | 0.5234 ppb | | 89 |
| 92) | 1,4-DCB | 11.39 | 146 | 4281 | 0.5802 ppb | | 87 |
| 93) | n-Butylbenzene | 11.78 | 91 | 4308 | 0.5346 ppb | # | 89 |
| 94) | 1,2-DCB | 11.75 | 146 | 3948 | 0.5864 ppb | | 93 |
| 95) | Hexachloroethane | 12.00 | 117 | 568 | -0.3363 ppb | # | 75 |
| 96) | 1,2-Dibromo-3-chloropropan | 12.52 | 157 | 358 | 0.1892 ppb | # | 70 |
| 97) | 1,2,4-Trichlorobenzene | 13.34 | 180 | 2271 | 0.5271 ppb | # | 68 |
| 98) | Hexachlorobutadiene | 13.53 | 225 | 790 | 0.3743 ppb | # | 60 |
| 99) | Naphthalene | 13.57 | 128 | 5012 | 0.5387 ppb | | 97 |
| 100) | 1,2,3-Trichlorobenzene | 13.82 | 180 | 2176 | 0.4738 ppb | | 82 |

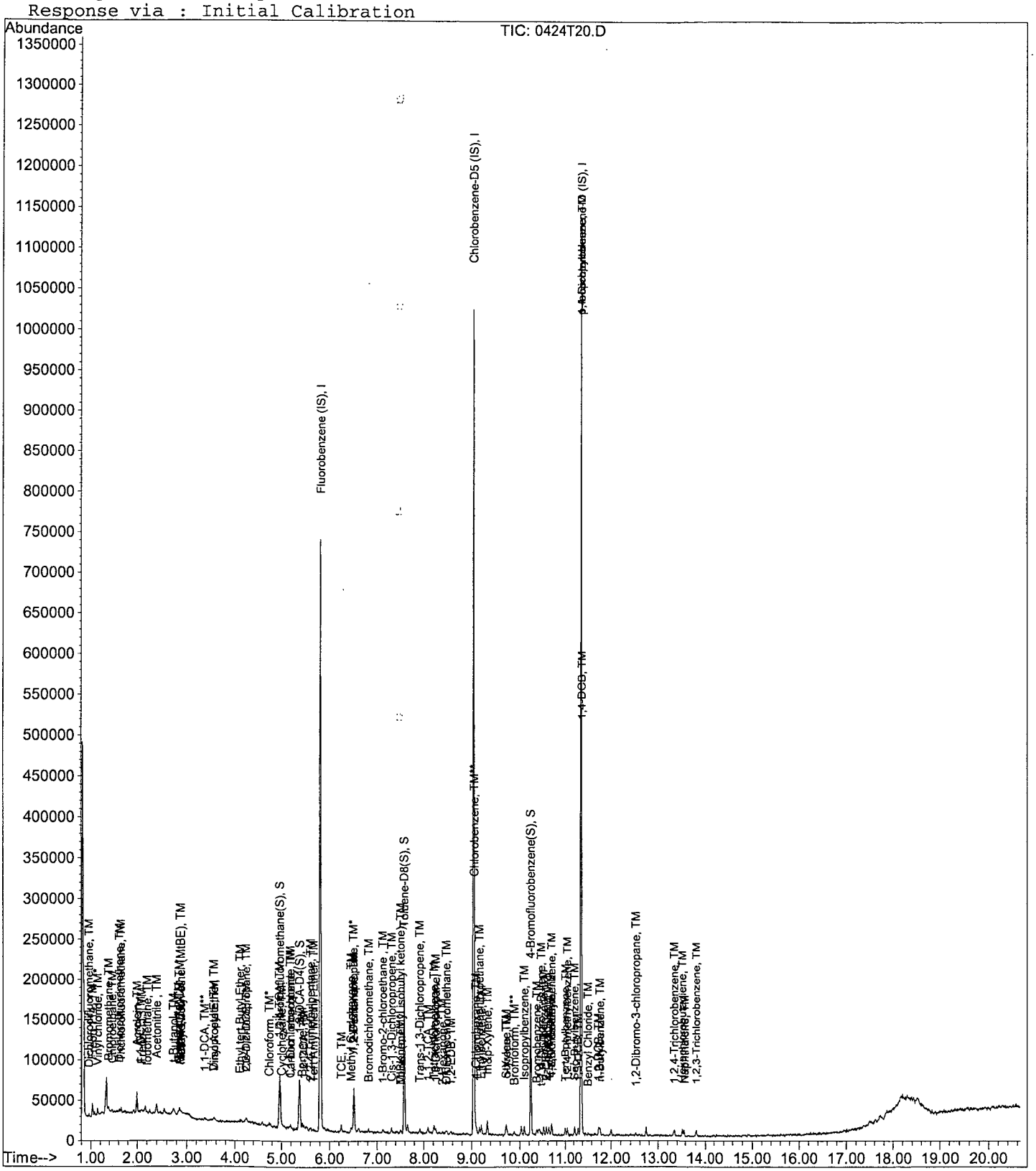
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T190423\0424T20.D Vial: 17
Acq On : 24 Apr 19 19:50 Operator: DG,SV, CMM.PM,KV
Sample : 0.5ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T21.D Vial: 18
Acq On : 24 Apr 19 20:18 Operator: DG,SV, CMM.PM,KV
Sample : 1.0ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 348736 | 25.0000 ppb | | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 350080 | 25.0000 ppb | | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 199296 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 68626 | 9.3016 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 37.208% | | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 81347 | 9.6665 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 38.668% | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 221715 | 8.9481 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 35.792% | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 74508 | 8.3277 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 33.312% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 0.96 | 85 | 3634 | 1.0545 ppb | | 99 |
| 4) Freon 114 | 1.05 | 135 | 2375 | 1.1315 ppb | | 81 |
| 5) Chloromethane | 1.08 | 50 | 5533 | 0.2955 ppb | | 94 |
| 6) Vinyl chloride | 1.16 | 62 | 3829 | 1.1177 ppb | | 93 |
| 8) Bromomethane | 1.38 | 94 | 5361 | 1.0954 ppb | # | 79 |
| 9) Chloroethane | 1.46 | 64 | 2233 | 0.5792 ppb | | 99 |
| 10) Dichlorofluoromethane | 1.62 | 67 | 7441 | 1.0786 ppb | | 94 |
| 11) Trichlorofluoromethane | 1.66 | 101 | 6561 | 1.0433 ppb | | 96 |
| 12) Acrolein | 2.00 | 56 | 31647 | 49.4097 ppb | | 91 |
| 13) Acetone | 2.14 | 43 | 4901 | 0.3545 ppb | | 96 |
| 14) Freon-113 | 2.11 | 101 | 3563 | 1.1749 ppb | | 90 |
| 15) 1,1-DCE | 2.08 | 61 | 4467 | 1.0744 ppb | | 95 |
| 17) Acetonitrile | 2.39 | 41 | 12853 | 51.7621 ppb | | 94 |
| 18) t-Butanol | 2.74 | 59 | 15838 | 54.9022 ppb | | 92 |
| 20) Iodomethane | 2.20 | 142 | 235 | 4.0628 ppb | # | 3 |
| 21) Acrylonitrile | 2.82 | 52 | 2260 | 1.3443 ppb | | 88 |
| 22) Methylene chloride | 2.56 | 84 | 5439 | 0.4128 ppb | | 89 |
| 23) Carbon disulfide | 2.26 | 76 | 11076 | 0.4514 ppb | | 96 |
| 24) Methyl t-butyl ether (MtBE | 2.89 | 73 | 9346 | 2.3472 ppb | | 96 |
| 25) Trans-1,2-DCE | 2.85 | 96 | 3950 | 2.1278 ppb | # | 70 |
| 26) Hexane | 2.88 | 57 | 3720 | 3.0961 ppb | # | 80 |
| 27) Diisopropyl Ether | 3.56 | 45 | 2757 | 1.0147 ppb | # | 91 |
| 28) 1,1-DCA | 3.38 | 63 | 6353 | 1.6181 ppb | | 99 |
| 29) Vinyl Acetate | 3.56 | 87 | 2144 | 1.3104 ppb | # | 58 |
| 30) Ethyl tert Butyl Ether | 4.13 | 59 | 3314 | 0.9689 ppb | # | 86 |
| 31) MEK (2-Butanone) | 4.33 | 43 | 1864 | 0.2811 ppb | # | 86 |
| 32) Cis-1,2-DCE | 4.26 | 61 | 4614 | 1.1196 ppb | # | 77 |
| 33) 2,2-Dichloropropane | 4.24 | 77 | 4141 | 1.1107 ppb | # | 55 |
| 34) Chloroform | 4.75 | 83 | 6552 | 1.0979 ppb | | 93 |
| 35) Bromochloromethane | 4.58 | 128 | 2121 | 0.2150 ppb | # | 67 |
| 37) 1,1,1-TCA | 4.95 | 97 | 5591 | 1.1706 ppb | | 92 |
| 38) Cyclohexane | 5.01 | 41 | 2723 | 1.1498 ppb | # | 59 |
| 39) 1,1-Dichloropropene | 5.18 | 75 | 4023 | 1.2314 ppb | # | 84 |
| 40) 2,2,4-Trimethylpentane | 5.60 | 57 | 6327 | 1.0617 ppb | # | 60 |
| 42) Carbon Tetrachloride | 5.17 | 117 | 3417 | 0.8628 ppb | | 76 |
| 43) Tert Amyl Methyl Ether | 5.67 | 73 | 2231 | 3.0872 ppb | # | 64 |
| 44) 1,2-DCA | 5.47 | 62 | 5577 | 1.1506 ppb | | 98 |
| 45) Benzene | 5.43 | 78 | 11745 | 1.0537 ppb | | 97 |
| 46) TCE | 6.24 | 95 | 2929 | 1.0024 ppb | | 83 |

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T21.D Vial: 18
Acq On : 24 Apr 19 20:18 Operator: DG,SV, CMM.PM,KV
Sample : 1.0ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 47) | 2-Pentanone | 6.51 | 43 | 110620 | 49.7482 | ppb | | 97 |
| 48) | 1,2-Dichloropropane | 6.49 | 63 | 3072 | 1.0092 | ppb | # | 79 |
| 49) | Bromodichloromethane | 6.82 | 83 | 4751 | 1.0664 | ppb | # | 96 |
| 50) | Methyl Cyclohexane | 6.45 | 83 | 3834 | 1.1054 | ppb | # | 73 |
| 51) | Dibromomethane | 6.61 | 93 | 3212 | 0.5955 | ppb | | 96 |
| 52) | MIBK (methyl isobutyl ket | 7.52 | 58 | 1093 | 0.9847 | ppb | # | 78 |
| 53) | 1-Bromo-2-chloroethane | 7.12 | 63 | 5161 | 1.1225 | ppb | # | 75 |
| 54) | 2-Chloroethyl vinyl ether | 7.12 | 107 | 201 | -1.5714 | ppb | # | 86 |
| 55) | Cis-1,3-Dichloropropene | 7.32 | 75 | 4093 | 0.9573 | ppb | # | 91 |
| 56) | Toluene | 7.65 | 91 | 13377 | 1.2262 | ppb | | 99 |
| 57) | Trans-1,3-Dichloropropene | 7.91 | 75 | 4343 | 1.0287 | ppb | | 89 |
| 58) | 1,1,2-TCA | 8.09 | 83 | 3380 | 0.8614 | ppb | | 76 |
| 59) | 2-Hexanone | 8.39 | 58 | 1196 | 2.2741 | ppb | # | 27 |
| 62) | 1,2-EDB | 8.56 | 107 | 3791 | 1.0903 | ppb | # | 72 |
| 63) | Tetrachloroethene | 8.21 | 164 | 3457 | 1.1271 | ppb | # | 89 |
| 64) | 1-Chlorohexane | 9.10 | 91 | 3385 | 1.0534 | ppb | | 88 |
| 65) | 1,1,1,2-Tetrachloroethane | 9.17 | 131 | 4312 | 1.1721 | ppb | | 86 |
| 66) | m&p-Xylene | 9.33 | 106 | 8594 | 1.7654 | ppb | | 84 |
| 67) | o-Xylene | 9.72 | 106 | 4157 | 0.9212 | ppb | | 77 |
| 68) | Styrene | 9.74 | 104 | 6915 | 0.9355 | ppb | | 97 |
| 70) | 1,3-Dichloropropane | 8.25 | 76 | 5519 | 1.0809 | ppb | | 92 |
| 71) | Dibromochloromethane | 8.46 | 129 | 4089 | 1.0859 | ppb | | 92 |
| 72) | Chlorobenzene | 9.07 | 112 | 10226 | 1.1213 | ppb | | 97 |
| 73) | Ethylbenzene | 9.21 | 91 | 11792 | 0.9285 | ppb | | 98 |
| 74) | Bromoform | 9.89 | 173 | 1916 | 1.7770 | ppb | | 90 |
| 76) | Isopropylbenzene | 10.10 | 105 | 10503 | 1.0057 | ppb | # | 86 |
| 78) | 1,2,3-Trichloropropane | 10.42 | 110 | 1007 | -0.4678 | ppb | | 89 |
| 79) | t-1,4-Dichloro-2-Butene | 10.46 | 53 | 1114 | 1.2196 | ppb | # | 68 |
| 80) | Bromobenzene | 10.36 | 156 | 4198 | 1.1040 | ppb | | 93 |
| 81) | n-Propylbenzene | 10.50 | 91 | 12663 | 1.0134 | ppb | | 98 |
| 82) | 4-Ethyltoluene | 10.62 | 105 | 9903 | 0.9109 | ppb | | 96 |
| 83) | 2-Chlorotoluene | 10.56 | 91 | 8255 | 1.0169 | ppb | | 95 |
| 84) | 1,3,5-Trimethylbenzene | 10.69 | 105 | 8093 | 0.8679 | ppb | | 100 |
| 85) | 4-Chlorotoluene | 10.68 | 91 | 8705 | 0.9311 | ppb | | 98 |
| 86) | Tert-Butylbenzene | 11.00 | 119 | 8187 | 1.0140 | ppb | | 82 |
| 87) | 1,2,4-Trimethylbenzene | 11.05 | 105 | 8087 | 0.9034 | ppb | | 92 |
| 88) | Sec-Butylbenzene | 11.22 | 105 | 10863 | 0.9753 | ppb | | 95 |
| 89) | p-Isopropyltoluene | 11.37 | 119 | 9593 | 0.9447 | ppb | # | 88 |
| 90) | Benzyl Chloride | 11.53 | 91 | 1078 | 1.1914 | ppb | # | 63 |
| 91) | 1,3-DCB | 11.30 | 146 | 6504 | 0.9558 | ppb | # | 78 |
| 92) | 1,4-DCB | 11.39 | 146 | 9113 | 1.1866 | ppb | | 95 |
| 93) | n-Butylbenzene | 11.78 | 91 | 8090 | 0.9646 | ppb | | 95 |
| 94) | 1,2-DCB | 11.75 | 146 | 7126 | 1.0170 | ppb | | 86 |
| 95) | Hexachloroethane | 12.00 | 117 | 1694 | 0.2258 | ppb | # | 61 |
| 96) | 1,2-Dibromo-3-chloropropan | 12.51 | 157 | 1405 | 1.2296 | ppb | # | 77 |
| 97) | 1,2,4-Trichlorobenzene | 13.34 | 180 | 4110 | 0.9166 | ppb | # | 73 |
| 98) | Hexachlorobutadiene | 13.53 | 225 | 2501 | 1.1387 | ppb | # | 81 |
| 99) | Naphthalene | 13.57 | 128 | 9141 | 0.9440 | ppb | | 93 |
| 100) | 1,2,3-Trichlorobenzene | 13.81 | 180 | 5183 | 1.0842 | ppb | # | 92 |

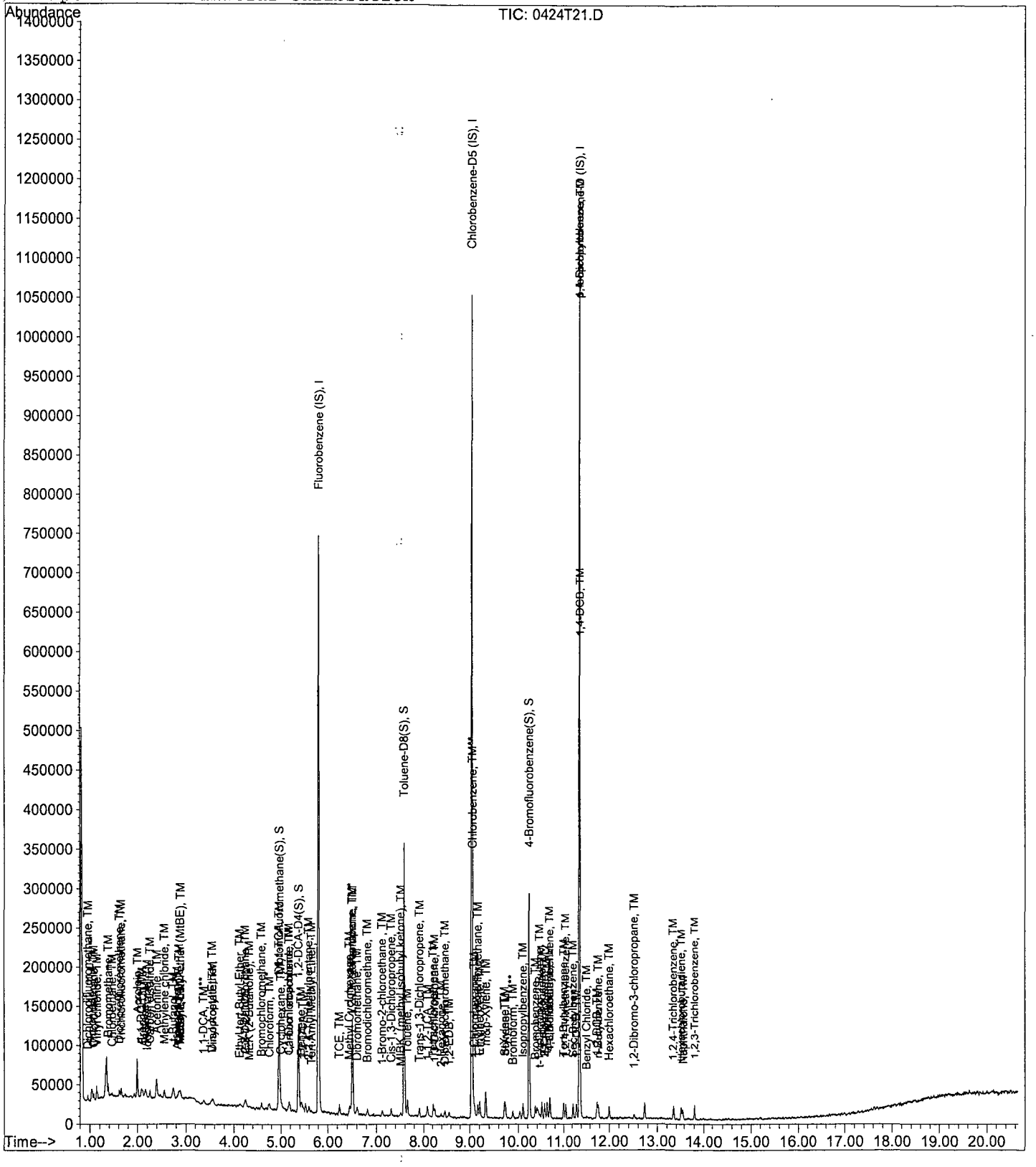
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T190423\0424T21.D Vial: 18
Acq On : 24 Apr 19 20:18 Operator: DG,SV, CMM.PM,KV
Sample : 1.0ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T22.D Vial: 19
Acq On : 24 Apr 19 20:47 Operator: DG,SV, CMM.PM,KV
Sample : 2.0ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 362880 | 25.0000 ppb | | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 357120 | 25.0000 ppb | | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 207488 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 67165 | 8.7487 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 34.996% | | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 79389 | 9.0662 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 36.264% | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 220214 | 8.7123 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 34.848% | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 76603 | 8.3930 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 33.572% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 0.96 | 85 | 7349 | 2.0495 ppb | | 99 |
| 4) Freon 114 | 1.05 | 135 | 4554 | 2.0851 ppb | | 93 |
| 5) Chloromethane | 1.08 | 50 | 6704 | 0.6399 ppb | # | 85 |
| 6) Vinyl chloride | 1.16 | 62 | 6913 | 1.9393 ppb | | 96 |
| 8) Bromomethane | 1.38 | 94 | 9893 | 1.9426 ppb | | 99 |
| 9) Chloroethane | 1.46 | 64 | 5612 | 1.9362 ppb | | 85 |
| 10) Dichlorofluoromethane | 1.62 | 67 | 14383 | 2.0036 ppb | | 100 |
| 11) Trichlorofluoromethane | 1.65 | 101 | 12385 | 1.8927 ppb | | 99 |
| 12) Acrolein | 2.00 | 56 | 46877 | 70.3352 ppb | | 92 |
| 13) Acetone | 2.14 | 43 | 7360 | 2.3148 ppb | # | 78 |
| 14) Freon-113 | 2.10 | 101 | 6661 | 2.1108 ppb | | 96 |
| 15) 1,1-DCE | 2.08 | 61 | 8941 | 2.0667 ppb | | 90 |
| 17) Acetonitrile | 2.39 | 41 | 19368 | 74.9594 ppb | | 95 |
| 18) t-Butanol | 2.74 | 59 | 23151 | 74.7272 ppb | # | 88 |
| 19) Methyl Acetate | 2.47 | 43 | 9035 | 1.0293 ppb | | 95 |
| 20) Iodomethane | 2.20 | 142 | 807 | 4.2569 ppb | | 89 |
| 21) Acrylonitrile | 2.83 | 52 | 3555 | 2.3655 ppb | | 83 |
| 22) Methylene chloride | 2.55 | 84 | 8758 | 1.3498 ppb | | 94 |
| 23) Carbon disulfide | 2.26 | 76 | 19139 | 1.3588 ppb | | 100 |
| 24) Methyl t-butyl ether (MtBE | 2.88 | 73 | 17270 | 3.2752 ppb | | 96 |
| 25) Trans-1,2-DCE | 2.85 | 96 | 6840 | 3.0578 ppb | | 83 |
| 26) Hexane | 2.88 | 57 | 4032 | 3.1933 ppb | # | 90 |
| 27) Diisopropyl Ether | 3.56 | 45 | 5439 | 1.9237 ppb | | 95 |
| 28) 1,1-DCA | 3.38 | 63 | 11093 | 2.5960 ppb | | 93 |
| 29) Vinyl Acetate | 3.57 | 87 | 5481 | 2.5999 ppb | # | 81 |
| 30) Ethyl tert Butyl Ether | 4.12 | 59 | 6703 | 1.8833 ppb | | 97 |
| 31) MEK (2-Butanone) | 4.34 | 43 | 3175 | 1.1884 ppb | # | 79 |
| 32) Cis-1,2-DCE | 4.25 | 61 | 8022 | 1.8708 ppb | | 92 |
| 33) 2,2-Dichloropropane | 4.23 | 77 | 8409 | 2.1675 ppb | | 98 |
| 34) Chloroform | 4.75 | 83 | 12347 | 1.9884 ppb | | 91 |
| 35) Bromochloromethane | 4.59 | 128 | 4267 | 1.5338 ppb | | 91 |
| 37) 1,1,1-TCA | 4.95 | 97 | 10029 | 2.0180 ppb | | 93 |
| 38) Cyclohexane | 5.02 | 41 | 4776 | 2.0814 ppb | # | 69 |
| 39) 1,1-Dichloropropene | 5.19 | 75 | 6667 | 1.9612 ppb | # | 81 |
| 40) 2,2,4-Trimethylpentane | 5.60 | 57 | 12904 | 2.0809 ppb | # | 59 |
| 42) Carbon Tetrachloride | 5.17 | 117 | 8102 | 1.9661 ppb | # | 85 |
| 43) Tert Amyl Methyl Ether | 5.66 | 73 | 4633 | 3.6469 ppb | # | 84 |
| 44) 1,2-DCA | 5.47 | 62 | 10196 | 2.0215 ppb | | 100 |
| 45) Benzene | 5.44 | 78 | 22651 | 1.9529 ppb | | 98 |

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T22.D Vial: 19
Acq On : 24 Apr 19 20:47 Operator: DG,SV, CMM.PM,KV
Sample : 2.0ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 46) | TCE | 6.25 | 95 | 5813 | 1.9118 | ppb | | 89 |
| 47) | 2-Pentanone | 6.51 | 43 | 166058 | 71.7691 | ppb | | 95 |
| 48) | 1,2-Dichloropropane | 6.48 | 63 | 6529 | 2.0613 | ppb | # | 91 |
| 49) | Bromodichloromethane | 6.82 | 83 | 9400 | 2.0276 | ppb | | 83 |
| 50) | Methyl Cyclohexane | 6.45 | 83 | 7473 | 2.0706 | ppb | | 74 |
| 51) | Dibromomethane | 6.60 | 93 | 5224 | 1.4187 | ppb | | 89 |
| 52) | MIBK (methyl isobutyl ket | 7.52 | 58 | 1747 | 1.5126 | ppb | | 87 |
| 53) | 1-Bromo-2-chloroethane | 7.12 | 63 | 9364 | 1.9573 | ppb | | 95 |
| 54) | 2-Chloroethyl vinyl ether | 7.12 | 107 | 422 | -0.2403 | ppb | # | 56 |
| 55) | Cis-1,3-Dichloropropene | 7.31 | 75 | 8162 | 1.8345 | ppb | | 96 |
| 56) | Toluene | 7.65 | 91 | 23511 | 1.9592 | ppb | | 96 |
| 57) | Trans-1,3-Dichloropropene | 7.91 | 75 | 7937 | 1.8067 | ppb | | 95 |
| 58) | 1,1,2-TCA | 8.08 | 83 | 6154 | 1.8645 | ppb | | 98 |
| 59) | 2-Hexanone | 8.38 | 58 | 1824 | 2.7844 | ppb | # | 73 |
| 62) | 1,2-EDB | 8.56 | 107 | 6406 | 1.8061 | ppb | | 99 |
| 63) | Tetrachloroethene | 8.21 | 164 | 6285 | 2.0087 | ppb | | 86 |
| 64) | 1-Chlorohexane | 9.10 | 91 | 6780 | 2.0683 | ppb | | 90 |
| 65) | 1,1,1,2-Tetrachloroethane | 9.17 | 131 | 7455 | 1.9865 | ppb | | 82 |
| 66) | m&p-Xylene | 9.33 | 106 | 17985 | 3.6218 | ppb | | 99 |
| 67) | o-Xylene | 9.72 | 106 | 7902 | 1.7166 | ppb | | 74 |
| 68) | Styrene | 9.73 | 104 | 13420 | 1.7798 | ppb | | 92 |
| 70) | 1,3-Dichloropropane | 8.25 | 76 | 10359 | 1.9889 | ppb | | 92 |
| 71) | Dibromochloromethane | 8.47 | 129 | 7605 | 1.9798 | ppb | | 95 |
| 72) | Chlorobenzene | 9.07 | 112 | 17622 | 1.8942 | ppb | # | 86 |
| 73) | Ethylbenzene | 9.21 | 91 | 23363 | 1.8033 | ppb | | 98 |
| 74) | Bromoform | 9.89 | 173 | 5955 | 2.9577 | ppb | | 99 |
| 76) | Isopropylbenzene | 10.10 | 105 | 21443 | 1.9723 | ppb | # | 88 |
| 77) | 1,1,2,2-Tetrachloroethane | 10.39 | 83 | 10018 | 1.2301 | ppb | # | 87 |
| 78) | 1,2,3-Trichloropropane | 10.42 | 110 | 3162 | 1.2697 | ppb | | 89 |
| 79) | t-1,4-Dichloro-2-Butene | 10.45 | 53 | 1860 | 1.9559 | ppb | | 84 |
| 80) | Bromobenzene | 10.36 | 156 | 7147 | 1.8053 | ppb | | 89 |
| 81) | n-Propylbenzene | 10.50 | 91 | 23789 | 1.8286 | ppb | | 96 |
| 82) | 4-Ethyltoluene | 10.62 | 105 | 20461 | 1.8077 | ppb | | 100 |
| 83) | 2-Chlorotoluene | 10.56 | 91 | 16003 | 1.8934 | ppb | | 97 |
| 84) | 1,3,5-Trimethylbenzene | 10.69 | 105 | 17274 | 1.7794 | ppb | | 97 |
| 85) | 4-Chlorotoluene | 10.68 | 91 | 17112 | 1.7581 | ppb | | 85 |
| 86) | Tert-Butylbenzene | 11.00 | 119 | 15102 | 1.7967 | ppb | | 97 |
| 87) | 1,2,4-Trimethylbenzene | 11.05 | 105 | 14475 | 1.5532 | ppb | | 86 |
| 88) | Sec-Butylbenzene | 11.22 | 105 | 20695 | 1.7847 | ppb | | 95 |
| 89) | p-Isopropyltoluene | 11.37 | 119 | 19098 | 1.8065 | ppb | | 95 |
| 90) | Benzyl Chloride | 11.53 | 91 | 1684 | 1.7876 | ppb | # | 70 |
| 91) | 1,3-DCB | 11.30 | 146 | 13812 | 1.9495 | ppb | | 98 |
| 92) | 1,4-DCB | 11.39 | 146 | 15421 | 1.9287 | ppb | | 85 |
| 93) | n-Butylbenzene | 11.77 | 91 | 15361 | 1.7592 | ppb | | 95 |
| 94) | 1,2-DCB | 11.74 | 146 | 14678 | 2.0120 | ppb | | 96 |
| 95) | Hexachloroethane | 12.00 | 117 | 3667 | 1.1577 | ppb | | 82 |
| 96) | 1,2-Dibromo-3-chloropropan | 12.51 | 157 | 2536 | 2.2685 | ppb | # | 63 |
| 97) | 1,2,4-Trichlorobenzene | 13.34 | 180 | 9240 | 1.9793 | ppb | | 84 |
| 98) | Hexachlorobutadiene | 13.53 | 225 | 5118 | 2.2382 | ppb | | 98 |
| 99) | Naphthalene | 13.57 | 128 | 19059 | 1.8906 | ppb | | 95 |
| 100) | 1,2,3-Trichlorobenzene | 13.81 | 180 | 9264 | 1.8615 | ppb | | 94 |

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

Quantitation Report

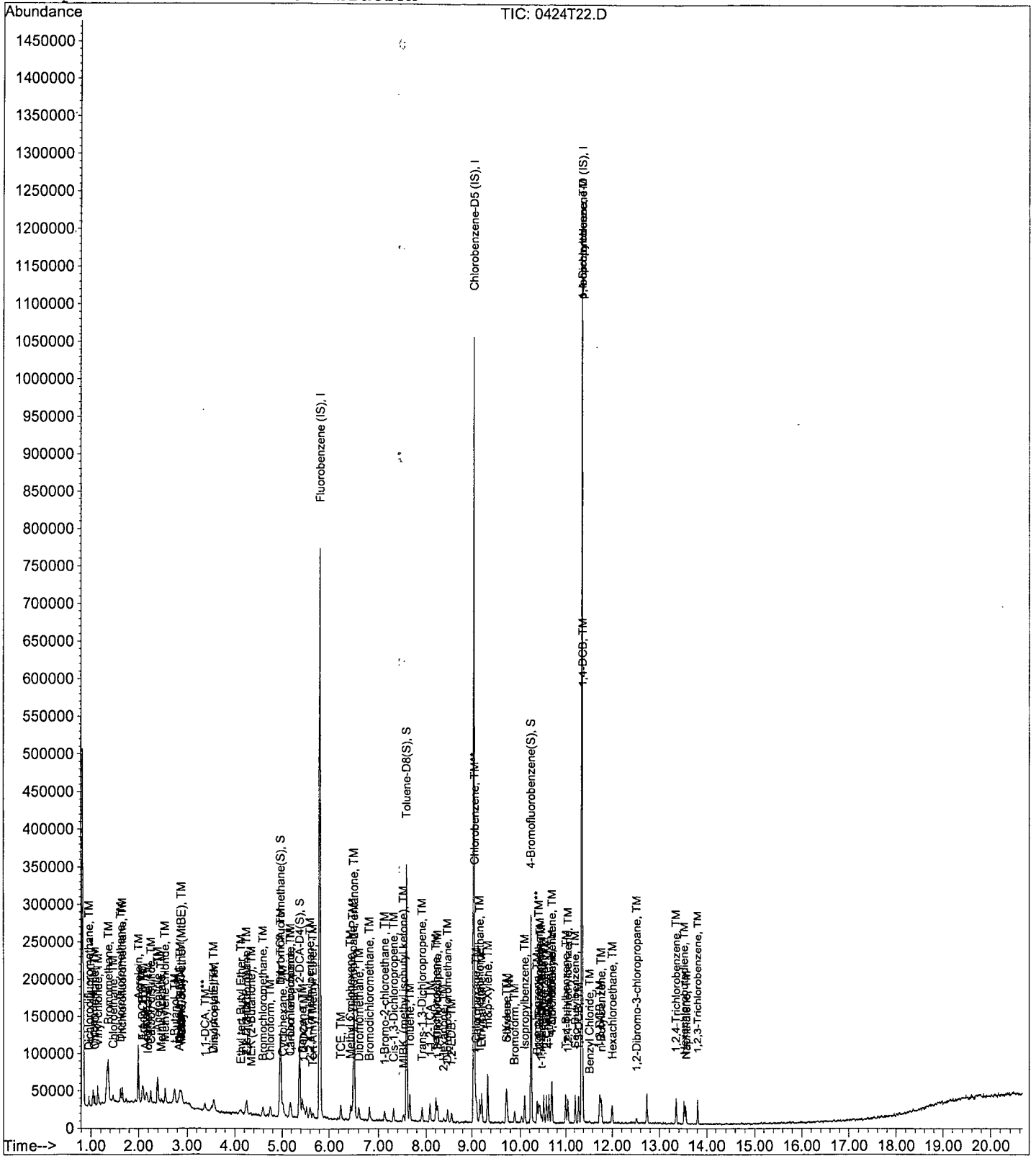
Data File : M:\THOR\DATA\T190423\0424T22.D
Acq On : 24 Apr 19 20:47
Sample : 2.0ug/L VOC STD 04/24/19
Misc : IS &S 4/2/19

Vial: 19
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 25 10:44 2019

Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T23.D Vial: 20
Acq On : 24 Apr 19 21:15 Operator: DG,SV, CMM.PM,KV
Sample : 5.0ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 352832 | 25.0000 ppb | | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 353920 | 25.0000 ppb | | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 212288 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 36) Dibromofluoromethane(S) | 4.97 | 111 | 189710 | 25.4149 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 101.660% | | |
| 41) 1,2-DCA-D4(S) | 5.37 | 65 | 217906 | 25.5934 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 102.372% | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 631810 | 25.2223 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 100.888% | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 223183 | 24.6742 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 98.696% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 0.96 | 85 | 15517 | 4.4506 ppb | | 93 |
| 4) Freon 114 | 1.05 | 135 | 8788 | 4.1382 ppb | | 77 |
| 5) Chloromethane | 1.08 | 50 | 17252 | 4.6566 ppb | | 96 |
| 6) Vinyl chloride | 1.16 | 62 | 17000 | 4.9049 ppb | | 97 |
| 8) Bromomethane | 1.38 | 94 | 20537 | 4.1475 ppb | | 97 |
| 9) Chloroethane | 1.46 | 64 | 13412 | 5.3124 ppb | | 97 |
| 10) Dichlorofluoromethane | 1.62 | 67 | 32381 | 4.6392 ppb | | 95 |
| 11) Trichlorofluoromethane | 1.66 | 101 | 30793 | 4.8397 ppb | | 91 |
| 12) Acrolein | 2.00 | 56 | 69152 | 106.7119 ppb | | 96 |
| 13) Acetone | 2.14 | 43 | 9947 | 4.8042 ppb | | 93 |
| 14) Freon-113 | 2.10 | 101 | 15200 | 4.9538 ppb | | 89 |
| 15) 1,1-DCE | 2.08 | 61 | 20144 | 4.7888 ppb | | 91 |
| 17) Acetonitrile | 2.39 | 41 | 25216 | 100.3720 ppb | | 94 |
| 18) t-Butanol | 2.75 | 59 | 32532 | 100.1607 ppb | | 94 |
| 19) Methyl Acetate | 2.47 | 43 | 15913 | 3.6222 ppb | | 90 |
| 20) Iodomethane | 2.20 | 142 | 2850 | 4.9900 ppb | | 86 |
| 21) Acrylonitrile | 2.82 | 52 | 9347 | 7.5067 ppb | | 86 |
| 22) Methylene chloride | 2.55 | 84 | 18549 | 4.4705 ppb | | 97 |
| 23) Carbon disulfide | 2.26 | 76 | 44162 | 4.4908 ppb | | 99 |
| 24) Methyl t-butyl ether (MtBE | 2.89 | 73 | 42279 | 6.4995 ppb | # | 94 |
| 25) Trans-1,2-DCE | 2.85 | 96 | 15859 | 6.2841 ppb | | 97 |
| 26) Hexane | 2.88 | 57 | 8541 | 6.0591 ppb | # | 95 |
| 27) Diisopropyl Ether | 3.56 | 45 | 13363 | 4.8610 ppb | | 91 |
| 28) 1,1-DCA | 3.37 | 63 | 25427 | 5.8810 ppb | # | 91 |
| 29) Vinyl Acetate | 3.56 | 87 | 11135 | 4.9689 ppb | | 94 |
| 30) Ethyl tert Butyl Ether | 4.12 | 59 | 16252 | 4.6962 ppb | # | 84 |
| 31) MEK (2-Butanone) | 4.33 | 43 | 8573 | 5.3321 ppb | # | 75 |
| 32) Cis-1,2-DCE | 4.25 | 61 | 21238 | 5.0938 ppb | | 93 |
| 33) 2,2-Dichloropropane | 4.24 | 77 | 18703 | 4.9581 ppb | | 91 |
| 34) Chloroform | 4.75 | 83 | 30856 | 5.1106 ppb | | 92 |
| 35) Bromochloromethane | 4.59 | 128 | 9235 | 4.8829 ppb | | 96 |
| 37) 1,1,1-TCA | 4.95 | 97 | 23577 | 4.8791 ppb | | 95 |
| 38) Cyclohexane | 5.01 | 41 | 9906 | 4.6770 ppb | | 73 |
| 39) 1,1-Dichloropropene | 5.19 | 75 | 15704 | 4.7510 ppb | # | 86 |
| 40) 2,2,4-Trimethylpentane | 5.60 | 57 | 26693 | 4.4272 ppb | | 97 |
| 42) Carbon Tetrachloride | 5.17 | 117 | 20142 | 5.0270 ppb | | 98 |
| 43) Tert Amyl Methyl Ether | 5.66 | 73 | 11664 | 5.4299 ppb | # | 96 |
| 44) 1,2-DCA | 5.47 | 62 | 23168 | 4.7243 ppb | | 95 |
| 45) Benzene | 5.44 | 78 | 56017 | 4.9671 ppb | | 95 |

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T23.D Vial: 20
Acq On : 24 Apr 19 21:15 Operator: DG,SV, CMM.PM,KV
Sample : 5.0ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 46) | TCE | 6.24 | 95 | 15742 | 5.3247 ppb | | 94 |
| 47) | 2-Pentanone | 6.51 | 43 | 234184 | 104.0950 ppb | | 98 |
| 48) | 1,2-Dichloropropane | 6.48 | 63 | 15016 | 4.8758 ppb | | 99 |
| 49) | Bromodichloromethane | 6.82 | 83 | 22142 | 4.9121 ppb | | 92 |
| 50) | Methyl Cyclohexane | 6.45 | 83 | 15019 | 4.2798 ppb | | 94 |
| 51) | Dibromomethane | 6.61 | 93 | 12302 | 4.6686 ppb | | 96 |
| 52) | MIBK (methyl isobutyl ket | 7.51 | 58 | 6011 | 5.3526 ppb | | 81 |
| 53) | 1-Bromo-2-chloroethane | 7.12 | 63 | 25084 | 5.3924 ppb | | 92 |
| 54) | 2-Chloroethyl vinyl ether | 7.12 | 107 | 1334 | 5.7005 ppb | # | 1 |
| 55) | Cis-1,3-Dichloropropene | 7.31 | 75 | 22428 | 5.1846 ppb | | 98 |
| 56) | Toluene | 7.65 | 91 | 63602 | 5.1614 ppb | | 97 |
| 57) | Trans-1,3-Dichloropropene | 7.91 | 75 | 22120 | 5.1785 ppb | | 91 |
| 58) | 1,1,2-TCA | 8.09 | 83 | 13912 | 4.9665 ppb | | 91 |
| 59) | 2-Hexanone | 8.38 | 58 | 5367 | 6.0389 ppb | | 98 |
| 62) | 1,2-EDB | 8.56 | 107 | 18503 | 5.2639 ppb | | 90 |
| 63) | Tetrachloroethene | 8.21 | 164 | 15033 | 4.8480 ppb | # | 91 |
| 64) | 1-Chlorohexane | 9.10 | 91 | 14370 | 4.4234 ppb | | 93 |
| 65) | 1,1,1,2-Tetrachloroethane | 9.17 | 131 | 17963 | 4.8297 ppb | | 99 |
| 66) | m&p-Xylene | 9.33 | 106 | 45656 | 9.2772 ppb | | 98 |
| 67) | o-Xylene | 9.72 | 106 | 22065 | 4.8368 ppb | | 85 |
| 68) | Styrene | 9.73 | 104 | 35265 | 4.7192 ppb | | 99 |
| 70) | 1,3-Dichloropropane | 8.25 | 76 | 26024 | 5.0416 ppb | | 97 |
| 71) | Dibromochloromethane | 8.47 | 129 | 18890 | 4.9621 ppb | | 89 |
| 72) | Chlorobenzene | 9.08 | 112 | 46789 | 5.0749 ppb | | 95 |
| 73) | Ethylbenzene | 9.21 | 91 | 61700 | 4.8055 ppb | | 99 |
| 74) | Bromoform | 9.89 | 173 | 15161 | 5.7153 ppb | | 93 |
| 76) | Isopropylbenzene | 10.10 | 105 | 54247 | 4.8767 ppb | | 91 |
| 77) | 1,1,2,2-Tetrachloroethane | 10.39 | 83 | 25072 | 5.0537 ppb | | 95 |
| 78) | 1,2,3-Trichloropropane | 10.42 | 110 | 8105 | 5.1826 ppb | | 82 |
| 79) | t-1,4-Dichloro-2-Butene | 10.45 | 53 | 4988 | 5.1266 ppb | | 85 |
| 80) | Bromobenzene | 10.36 | 156 | 21681 | 5.3528 ppb | | 100 |
| 81) | n-Propylbenzene | 10.50 | 91 | 67206 | 5.0490 ppb | | 99 |
| 82) | 4-Ethyltoluene | 10.62 | 105 | 55951 | 4.8313 ppb | | 96 |
| 83) | 2-Chlorotoluene | 10.56 | 91 | 42321 | 4.8941 ppb | | 92 |
| 84) | 1,3,5-Trimethylbenzene | 10.69 | 105 | 49728 | 5.0066 ppb | | 97 |
| 85) | 4-Chlorotoluene | 10.67 | 91 | 50471 | 5.0682 ppb | | 98 |
| 86) | Tert-Butylbenzene | 11.00 | 119 | 42231 | 4.9106 ppb | | 93 |
| 87) | 1,2,4-Trimethylbenzene | 11.05 | 105 | 47442 | 4.9755 ppb | | 95 |
| 88) | Sec-Butylbenzene | 11.22 | 105 | 58342 | 4.9176 ppb | | 99 |
| 89) | p-Isopropyltoluene | 11.37 | 119 | 53572 | 4.9529 ppb | | 92 |
| 90) | Benzyl Chloride | 11.53 | 91 | 4983 | 5.1701 ppb | | 98 |
| 91) | 1,3-DCB | 11.30 | 146 | 37876 | 5.2252 ppb | | 96 |
| 92) | 1,4-DCB | 11.39 | 146 | 41264 | 5.0441 ppb | | 93 |
| 93) | n-Butylbenzene | 11.77 | 91 | 40484 | 4.5315 ppb | | 96 |
| 94) | 1,2-DCB | 11.75 | 146 | 37092 | 4.9695 ppb | | 98 |
| 95) | Hexachloroethane | 12.00 | 117 | 11592 | 4.9093 ppb | | 95 |
| 96) | 1,2-Dibromo-3-chloropropan | 12.51 | 157 | 5709 | 5.2151 ppb | | 90 |
| 97) | 1,2,4-Trichlorobenzene | 13.34 | 180 | 24776 | 5.1874 ppb | | 86 |
| 98) | Hexachlorobutadiene | 13.53 | 225 | 11525 | 4.9260 ppb | | 96 |
| 99) | Naphthalene | 13.57 | 128 | 45114 | 4.3740 ppb | | 100 |
| 100) | 1,2,3-Trichlorobenzene | 13.81 | 180 | 26171 | 5.1397 ppb | | 90 |

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

Quantitation Report

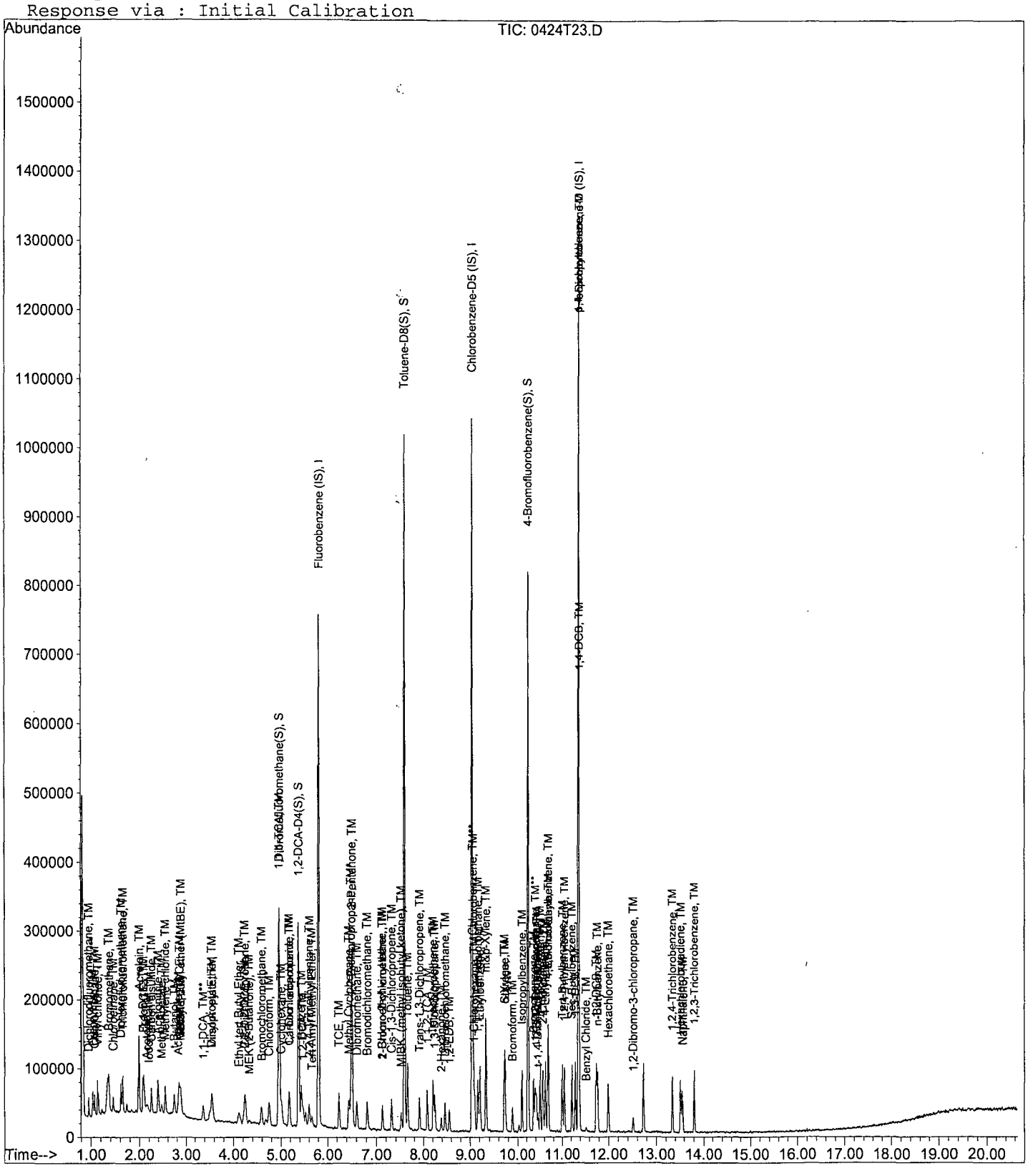
Data File : M:\THOR\DATA\T190423\0424T23.D
Acq On : 24 Apr 19 21:15
Sample : 5.0ug/L VOC STD 04/24/19
Misc : IS &S 4/2/19

Vial: 20
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 25 10:44 2019

Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T24.D Vial: 21
Acq On : 24 Apr 19 21:44 Operator: DG,SV, CMM.PM,KV
Sample : 10ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 374150 | 25.0000 ppb | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 374464 | 25.0000 ppb | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 237248 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 189563 | 23.9482 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 95.792% | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 215922 | 23.9154 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 95.660% | |
| 61) Toluene-D8(S) | 7.59 | 98 | 640527 | 24.1674 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 96.668% | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 229698 | 24.0013 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 96.004% | |
| **Target Compounds** | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 0.96 | 85 | 38378 | 10.3804 ppb | 100 |
| 4) Freon 114 | 1.05 | 135 | 21156 | 9.3947 ppb | 100 |
| 5) Chloromethane | 1.08 | 50 | 34248 | 10.2866 ppb | 100 |
| 6) Vinyl chloride | 1.16 | 62 | 36656 | 9.9735 ppb | 100 |
| 8) Bromomethane | 1.37 | 94 | 48226 | 9.1844 ppb | 100 |
| 9) Chloroethane | 1.46 | 64 | 26000 | 10.0260 ppb | 100 |
| 10) Dichlorofluoromethane | 1.62 | 67 | 67399 | 9.1060 ppb | 100 |
| 11) Trichlorofluoromethane | 1.65 | 101 | 66622 | 9.8744 ppb | 100 |
| 12) Acrolein | 2.00 | 56 | 85117 | 123.8644 ppb | 100 |
| 13) Acetone | 2.14 | 43 | 15950 | 9.3483 ppb | 100 |
| 14) Freon-113 | 2.10 | 101 | 31123 | 9.5654 ppb | 100 |
| 15) 1,1-DCE | 2.08 | 61 | 42231 | 9.4675 ppb | 100 |
| 17) Acetonitrile | 2.40 | 41 | 35297 | 132.4940 ppb | 99 |
| 18) t-Butanol | 2.75 | 59 | 44477 | 120.5411 ppb | 100 |
| 19) Methyl Acetate | 2.47 | 43 | 36880 | 10.4847 ppb | 100 |
| 20) Iodomethane | 2.20 | 142 | 9009 | 6.9940 ppb | 100 |
| 21) Acrylonitrile | 2.83 | 52 | 11321 | 8.6666 ppb | 100 |
| 22) Methylene chloride | 2.55 | 84 | 37560 | 9.7179 ppb | 100 |
| 23) Carbon disulfide | 2.26 | 76 | 92363 | 9.7538 ppb | 100 |
| 24) Methyl t-butyl ether (MtBE | 2.89 | 73 | 68853 | 9.3650 ppb | 100 |
| 25) Trans-1,2-DCE | 2.85 | 96 | 27282 | 9.7417 ppb | 100 |
| 26) Hexane | 2.89 | 57 | 14331 | 9.1437 ppb | 100 |
| 27) Diisopropyl Ether | 3.56 | 45 | 26890 | 9.2243 ppb | 100 |
| 28) 1,1-DCA | 3.38 | 63 | 47739 | 10.2768 ppb | 100 |
| 29) Vinyl Acetate | 3.56 | 87 | 23793 | 9.5810 ppb | 100 |
| 30) Ethyl tert Butyl Ether | 4.12 | 59 | 30218 | 8.2344 ppb | 100 |
| 31) MEK (2-Butanone) | 4.33 | 43 | 15023 | 9.5574 ppb | 100 |
| 32) Cis-1,2-DCE | 4.25 | 61 | 39650 | 8.9680 ppb | 100 |
| 33) 2,2-Dichloropropane | 4.23 | 77 | 37087 | 9.2715 ppb | 100 |
| 34) Chloroform | 4.75 | 83 | 56263 | 8.7878 ppb | 100 |
| 35) Bromochloromethane | 4.59 | 128 | 18829 | 10.4937 ppb | 100 |
| 37) 1,1,1-TCA | 4.95 | 97 | 47169 | 9.2051 ppb | 100 |
| 38) Cyclohexane | 5.02 | 41 | 20145 | 9.1612 ppb | 100 |
| 39) 1,1-Dichloropropene | 5.19 | 75 | 33693 | 9.6125 ppb | 100 |
| 40) 2,2,4-Trimethylpentane | 5.60 | 57 | 58295 | 9.1176 ppb | 100 |
| 42) Carbon Tetrachloride | 5.17 | 117 | 40974 | 9.6435 ppb | 100 |
| 43) Tert Amyl Methyl Ether | 5.66 | 73 | 25311 | 8.4694 ppb | 100 |
| 44) 1,2-DCA | 5.47 | 62 | 47030 | 9.0437 ppb | 100 |
| 45) Benzene | 5.44 | 78 | 111375 | 9.3132 ppb | 100 |

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T24.D Vial: 21
Acq On : 24 Apr 19 21:44 Operator: DG,SV, CMM.PM,KV
Sample : 10ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 46) | TCE | 6.24 | 95 | 30206 | 9.6350 ppb | 100 |
| 47) | 2-Pentanone | 6.51 | 43 | 298319 | 125.0477 ppb | 100 |
| 48) | 1,2-Dichloropropane | 6.48 | 63 | 29958 | 9.1733 ppb | 100 |
| 49) | Bromodichloromethane | 6.82 | 83 | 46121 | 9.6488 ppb | 100 |
| 50) | Methyl Cyclohexane | 6.45 | 83 | 33211 | 8.9246 ppb | 100 |
| 51) | Dibromomethane | 6.61 | 93 | 25408 | 9.9143 ppb | 100 |
| 52) | MIBK (methyl isobutyl ket | 7.52 | 58 | 11967 | 10.0491 ppb | 100 |
| 53) | 1-Bromo-2-chloroethane | 7.12 | 63 | 45350 | 9.1936 ppb | 100 |
| 54) | 2-Chloroethyl vinyl ether | 7.13 | 107 | 2795 | 14.0729 ppb | 100 |
| 55) | Cis-1,3-Dichloropropene | 7.31 | 75 | 44796 | 9.7652 ppb | 100 |
| 56) | Toluene | 7.65 | 91 | 124486 | 9.3892 ppb | 100 |
| 57) | Trans-1,3-Dichloropropene | 7.91 | 75 | 43003 | 9.4939 ppb | 100 |
| 58) | 1,1,2-TCA | 8.09 | 83 | 26719 | 9.3815 ppb | 100 |
| 59) | 2-Hexanone | 8.38 | 58 | 8819 | 8.7102 ppb | 100 |
| 62) | 1,2-EDB | 8.56 | 107 | 34442 | 9.2609 ppb | 100 |
| 63) | Tetrachloroethene | 8.21 | 164 | 30564 | 9.3159 ppb | 100 |
| 64) | 1-Chlorohexane | 9.10 | 91 | 29460 | 8.5709 ppb | 100 |
| 65) | 1,1,1,2-Tetrachloroethane | 9.17 | 131 | 37489 | 9.5266 ppb | 100 |
| 66) | m&p-Xylene | 9.33 | 106 | 97514 | 18.7275 ppb | 100 |
| 67) | o-Xylene | 9.72 | 106 | 45336 | 9.3927 ppb | 100 |
| 68) | Styrene | 9.73 | 104 | 73663 | 9.3168 ppb | 100 |
| 70) | 1,3-Dichloropropane | 8.25 | 76 | 49945 | 9.1449 ppb | 100 |
| 71) | Dibromochloromethane | 8.47 | 129 | 37889 | 9.4067 ppb | 100 |
| 72) | Chlorobenzene | 9.07 | 112 | 89564 | 9.1815 ppb | 100 |
| 73) | Ethylbenzene | 9.21 | 91 | 122096 | 8.9878 ppb | 100 |
| 74) | Bromoform | 9.89 | 173 | 30318 | 9.7340 ppb | 100 |
| 76) | Isopropylbenzene | 10.10 | 105 | 114532 | 9.2129 ppb | 100 |
| 77) | 1,1,2,2-Tetrachloroethane | 10.39 | 83 | 48174 | 9.7057 ppb | 100 |
| 78) | 1,2,3-Trichloropropane | 10.42 | 110 | 15484 | 9.8026 ppb | 100 |
| 79) | t-1,4-Dichloro-2-Butene | 10.45 | 53 | 9614 | 8.8416 ppb | 100 |
| 80) | Bromobenzene | 10.36 | 156 | 42742 | 9.4423 ppb | 100 |
| 81) | n-Propylbenzene | 10.50 | 91 | 135335 | 9.0978 ppb | 100 |
| 82) | 4-Ethyltoluene | 10.62 | 105 | 124134 | 9.5911 ppb | 100 |
| 83) | 2-Chlorotoluene | 10.56 | 91 | 89666 | 9.2782 ppb | 100 |
| 84) | 1,3,5-Trimethylbenzene | 10.69 | 105 | 105860 | 9.5366 ppb | 100 |
| 85) | 4-Chlorotoluene | 10.68 | 91 | 105100 | 9.4436 ppb | 100 |
| 86) | Tert-Butylbenzene | 11.00 | 119 | 85585 | 8.9047 ppb | 100 |
| 87) | 1,2,4-Trimethylbenzene | 11.05 | 105 | 97544 | 9.1537 ppb | 100 |
| 88) | Sec-Butylbenzene | 11.22 | 105 | 125490 | 9.4647 ppb | 100 |
| 89) | p-Isopropyltoluene | 11.37 | 119 | 111641 | 9.2356 ppb | 100 |
| 90) | Benzyl Chloride | 11.53 | 91 | 9552 | 8.8680 ppb | 100 |
| 91) | 1,3-DCB | 11.30 | 146 | 77301 | 9.5421 ppb | 100 |
| 92) | 1,4-DCB | 11.39 | 146 | 82074 | 8.9773 ppb | 100 |
| 93) | n-Butylbenzene | 11.78 | 91 | 91309 | 9.1453 ppb | 100 |
| 94) | 1,2-DCB | 11.75 | 146 | 75484 | 9.0492 ppb | 100 |
| 95) | Hexachloroethane | 12.00 | 117 | 24800 | 9.9810 ppb | 100 |
| 96) | 1,2-Dibromo-3-chloropropan | 12.52 | 157 | 10709 | 8.8798 ppb | 100 |
| 97) | 1,2,4-Trichlorobenzene | 13.34 | 180 | 46935 | 8.7930 ppb | 100 |
| 98) | Hexachlorobutadiene | 13.53 | 225 | 24822 | 9.4933 ppb | 100 |
| 99) | Naphthalene | 13.57 | 128 | 96281 | 8.3529 ppb | 100 |
| 100) | 1,2,3-Trichlorobenzene | 13.81 | 180 | 51987 | 9.1356 ppb | 100 |

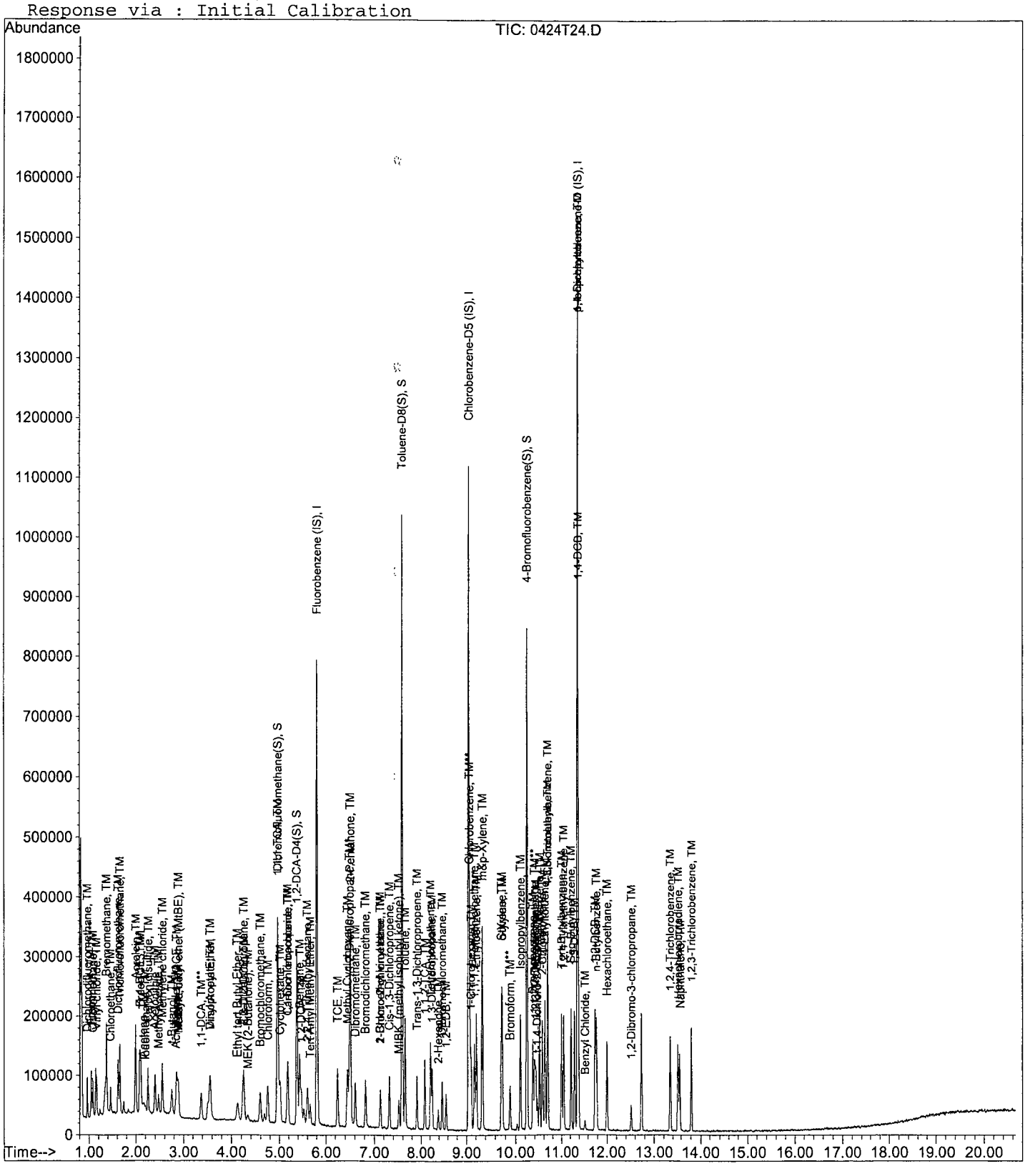
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T190423\0424T24.D Vial: 21
Acq On : 24 Apr 19 21:44 Operator: DG,SV, CMM.PM,KV
Sample : 10ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T25.D Vial: 22
Acq On : 24 Apr 19 22:12 Operator: DG,SV, CMM.PM,KV
Sample : 20ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 366464 | 25.0000 ppb | | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 372480 | 25.0000 ppb | | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 244672 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 386443 | 49.8448 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 199.380% | | | |
| 41) 1,2-DCA-D4(S) | 5.37 | 65 | 432106 | 48.8636 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 195.456% | | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 1362418 | 51.6786 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 206.716% | | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 507979 | 53.3618 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 213.448% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 0.96 | 85 | 75744 | 20.9168 ppb | | 95 |
| 4) Freon 114 | 1.05 | 135 | 44581 | 20.2122 ppb | | 94 |
| 5) Chloromethane | 1.08 | 50 | 65143 | 21.6715 ppb | | 97 |
| 6) Vinyl chloride | 1.16 | 62 | 75432 | 20.9542 ppb | | 99 |
| 8) Bromomethane | 1.37 | 94 | 122330 | 23.7857 ppb | | 99 |
| 9) Chloroethane | 1.46 | 64 | 51254 | 20.5632 ppb | | 94 |
| 10) Dichlorofluoromethane | 1.62 | 67 | 136589 | 18.8409 ppb | | 99 |
| 11) Trichlorofluoromethane | 1.65 | 101 | 130388 | 19.7308 ppb | | 98 |
| 12) Acrolein | 2.00 | 56 | 105738 | 157.0999 ppb | | 95 |
| 13) Acetone | 2.14 | 43 | 29384 | 21.1672 ppb | # | 82 |
| 14) Freon-113 | 2.10 | 101 | 63724 | 19.9958 ppb | | 90 |
| 15) 1,1-DCE | 2.08 | 61 | 85425 | 19.5526 ppb | | 96 |
| 17) Acetonitrile | 2.40 | 41 | 41347 | 158.4590 ppb | | 95 |
| 18) t-Butanol | 2.75 | 59 | 61369 | 152.3531 ppb | | 94 |
| 19) Methyl Acetate | 2.47 | 43 | 69357 | 22.1242 ppb | | 98 |
| 20) Iodomethane | 2.20 | 142 | 31983 | 14.9087 ppb | # | 90 |
| 21) Acrylonitrile | 2.83 | 52 | 24512 | 19.9468 ppb | | 90 |
| 22) Methylene chloride | 2.55 | 84 | 76861 | 21.7179 ppb | | 94 |
| 23) Carbon disulfide | 2.25 | 76 | 187133 | 21.1617 ppb | | 96 |
| 24) Methyl t-butyl ether (MtBE | 2.89 | 73 | 141875 | 18.4313 ppb | | 98 |
| 25) Trans-1,2-DCE | 2.85 | 96 | 55278 | 19.3749 ppb | | 96 |
| 26) Hexane | 2.88 | 57 | 30016 | 18.6858 ppb | # | 87 |
| 27) Diisopropyl Ether | 3.56 | 45 | 57813 | 20.2480 ppb | | 99 |
| 28) 1,1-DCA | 3.37 | 63 | 99474 | 21.6646 ppb | | 93 |
| 29) Vinyl Acetate | 3.56 | 87 | 49290 | 19.7902 ppb | | 96 |
| 30) Ethyl tert Butyl Ether | 4.12 | 59 | 71178 | 19.8028 ppb | | 100 |
| 31) MEK (2-Butanone) | 4.33 | 43 | 31610 | 21.8444 ppb | | 100 |
| 32) Cis-1,2-DCE | 4.25 | 61 | 84709 | 19.5612 ppb | | 98 |
| 33) 2,2-Dichloropropane | 4.23 | 77 | 74616 | 19.0447 ppb | | 98 |
| 34) Chloroform | 4.75 | 83 | 118147 | 18.8406 ppb | | 100 |
| 35) Bromochloromethane | 4.59 | 128 | 36333 | 21.8358 ppb | | 90 |
| 37) 1,1,1-TCA | 4.95 | 97 | 99698 | 19.8642 ppb | | 94 |
| 38) Cyclohexane | 5.01 | 41 | 43673 | 20.5310 ppb | | 93 |
| 39) 1,1-Dichloropropene | 5.18 | 75 | 69625 | 20.2805 ppb | | 95 |
| 40) 2,2,4-Trimethylpentane | 5.60 | 57 | 128020 | 20.4429 ppb | | 95 |
| 42) Carbon Tetrachloride | 5.17 | 117 | 88457 | 21.2556 ppb | | 95 |
| 43) Tert Amyl Methyl Ether | 5.66 | 73 | 64424 | 17.9726 ppb | # | 96 |
| 44) 1,2-DCA | 5.47 | 62 | 97352 | 19.1130 ppb | | 95 |
| 45) Benzene | 5.44 | 78 | 232732 | 19.8692 ppb | | 99 |

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T25.D Vial: 22
Acq On : 24 Apr 19 22:12 Operator: DG,SV, CMM.PM,KV
Sample : 20ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 46) | TCE | 6.24 | 95 | 61110 | 19.9014 | ppb | | 94 |
| 47) | 2-Pentanone | 6.51 | 43 | 374308 | 160.1911 | ppb | | 96 |
| 48) | 1,2-Dichloropropane | 6.48 | 63 | 61389 | 19.1919 | ppb | # | 95 |
| 49) | Bromodichloromethane | 6.82 | 83 | 92061 | 19.6636 | ppb | | 87 |
| 50) | Methyl Cyclohexane | 6.45 | 83 | 74070 | 20.3220 | ppb | | 92 |
| 51) | Dibromomethane | 6.61 | 93 | 52024 | 21.6710 | ppb | | 98 |
| 52) | MIBK (methyl isobutyl ket | 7.52 | 58 | 21378 | 18.3283 | ppb | # | 71 |
| 53) | 1-Bromo-2-chloroethane | 7.12 | 63 | 90374 | 18.7055 | ppb | | 100 |
| 54) | 2-Chloroethyl vinyl ether | 7.13 | 107 | 4055 | 22.2309 | ppb | | 89 |
| 55) | Cis-1,3-Dichloropropene | 7.31 | 75 | 89036 | 19.8163 | ppb | | 96 |
| 56) | Toluene | 7.65 | 91 | 271223 | 20.6869 | ppb | | 98 |
| 57) | Trans-1,3-Dichloropropene | 7.91 | 75 | 90343 | 20.3635 | ppb | | 98 |
| 58) | 1,1,2-TCA | 8.09 | 83 | 57535 | 21.1963 | ppb | | 99 |
| 59) | 2-Hexanone | 8.38 | 58 | 19536 | 18.2131 | ppb | | 88 |
| 62) | 1,2-EDB | 8.56 | 107 | 71474 | 19.3205 | ppb | | 95 |
| 63) | Tetrachloroethene | 8.21 | 164 | 63368 | 19.4173 | ppb | | 93 |
| 64) | 1-Chlorohexane | 9.10 | 91 | 66265 | 19.3813 | ppb | | 95 |
| 65) | 1,1,1,2-Tetrachloroethane | 9.17 | 131 | 76867 | 19.6373 | ppb | | 93 |
| 66) | m&p-Xylene | 9.33 | 106 | 216832 | 41.8643 | ppb | | 100 |
| 67) | o-Xylene | 9.72 | 106 | 105154 | 21.9018 | ppb | | 93 |
| 68) | Styrene | 9.73 | 104 | 176147 | 22.3975 | ppb | | 95 |
| 70) | 1,3-Dichloropropane | 8.25 | 76 | 104625 | 19.2589 | ppb | | 97 |
| 71) | Dibromochloromethane | 8.47 | 129 | 77494 | 19.3419 | ppb | | 99 |
| 72) | Chlorobenzene | 9.07 | 112 | 187433 | 19.3167 | ppb | | 94 |
| 73) | Ethylbenzene | 9.21 | 91 | 274434 | 20.3094 | ppb | | 98 |
| 74) | Bromoform | 9.89 | 173 | 60478 | 18.3141 | ppb | | 96 |
| 76) | Isopropylbenzene | 10.10 | 105 | 260624 | 20.3284 | ppb | | 96 |
| 77) | 1,1,2,2-Tetrachloroethane | 10.39 | 83 | 102370 | 21.4984 | ppb | | 94 |
| 78) | 1,2,3-Trichloropropane | 10.42 | 110 | 33229 | 21.8355 | ppb | | 98 |
| 79) | t-1,4-Dichloro-2-Butene | 10.45 | 53 | 22807 | 20.3382 | ppb | | 90 |
| 80) | Bromobenzene | 10.36 | 156 | 90266 | 19.3360 | ppb | | 98 |
| 81) | n-Propylbenzene | 10.50 | 91 | 313213 | 20.4165 | ppb | | 100 |
| 82) | 4-Ethyltoluene | 10.62 | 105 | 293593 | 21.9959 | ppb | | 98 |
| 83) | 2-Chlorotoluene | 10.56 | 91 | 200317 | 20.0990 | ppb | | 100 |
| 84) | 1,3,5-Trimethylbenzene | 10.69 | 105 | 252391 | 22.0472 | ppb | | 97 |
| 85) | 4-Chlorotoluene | 10.68 | 91 | 242119 | 21.0952 | ppb | | 100 |
| 86) | Tert-Butylbenzene | 11.00 | 119 | 199820 | 20.1595 | ppb | | 99 |
| 87) | 1,2,4-Trimethylbenzene | 11.05 | 105 | 236482 | 21.5186 | ppb | | 99 |
| 88) | Sec-Butylbenzene | 11.22 | 105 | 290871 | 21.2724 | ppb | | 99 |
| 89) | p-Isopropyltoluene | 11.37 | 119 | 262499 | 21.0566 | ppb | | 99 |
| 90) | Benzyl Chloride | 11.53 | 91 | 20881 | 18.7975 | ppb | | 95 |
| 91) | 1,3-DCB | 11.30 | 146 | 170255 | 20.3788 | ppb | | 97 |
| 92) | 1,4-DCB | 11.39 | 146 | 176792 | 18.7508 | ppb | | 94 |
| 93) | n-Butylbenzene | 11.77 | 91 | 213063 | 20.6924 | ppb | | 99 |
| 94) | 1,2-DCB | 11.75 | 146 | 165810 | 19.2745 | ppb | | 97 |
| 95) | Hexachloroethane | 12.00 | 117 | 52044 | 20.9699 | ppb | | 92 |
| 96) | 1,2-Dibromo-3-chloropropan | 12.51 | 157 | 24049 | 19.5555 | ppb | | 94 |
| 97) | 1,2,4-Trichlorobenzene | 13.34 | 180 | 108888 | 19.7804 | ppb | | 95 |
| 98) | Hexachlorobutadiene | 13.53 | 225 | 55114 | 20.4390 | ppb | | 97 |
| 99) | Naphthalene | 13.57 | 128 | 232183 | 19.5318 | ppb | | 96 |
| 100) | 1,2,3-Trichlorobenzene | 13.81 | 180 | 113991 | 19.4237 | ppb | | 92 |

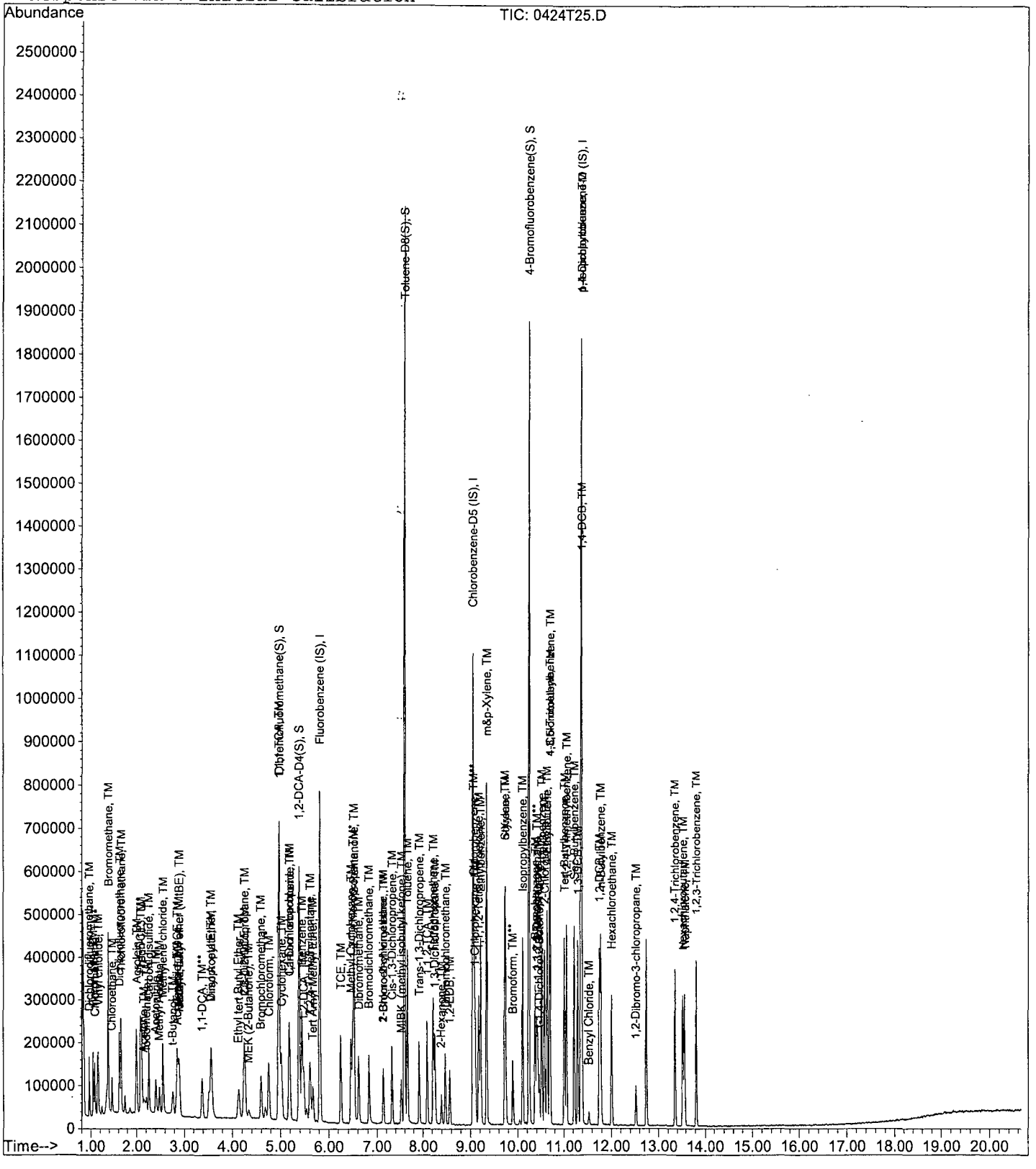
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T190423\0424T25.D Vial: 22
Acq On : 24 Apr 19 22:12 Operator: DG,SV, CMM.PM,KV
Sample : 20ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T26.D Vial: 23
Acq On : 24 Apr 19 22:41 Operator: DG,SV, CMM.PM,KV
Sample : 40ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 377856 | 25.0000 ppb | | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 375360 | 25.0000 ppb | | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 252352 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 382493 | 47.8479 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 191.392% | | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 426614 | 46.7881 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 187.152% | | |
| 61) Toluene-D8(S) | 7.58 | 98 | 1362740 | 51.2942 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 205.176% | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 528554 | 55.0971 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 220.388% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 0.96 | 85 | 149504 | 40.0409 ppb | | 96 |
| 4) Freon 114 | 1.05 | 135 | 92493 | 40.6702 ppb | | 95 |
| 5) Chloromethane | 1.08 | 50 | 127454 | 42.7375 ppb | | 96 |
| 6) Vinyl chloride | 1.16 | 62 | 143149 | 38.5664 ppb | | 98 |
| 8) Bromomethane | 1.37 | 94 | 229923 | 43.3582 ppb | | 95 |
| 9) Chloroethane | 1.45 | 64 | 100556 | 39.4696 ppb | | 97 |
| 10) Dichlorofluoromethane | 1.62 | 67 | 281858 | 37.7070 ppb | | 97 |
| 11) Trichlorofluoromethane | 1.65 | 101 | 273813 | 40.1852 ppb | | 98 |
| 12) Acrolein | 2.00 | 56 | 123893 | 178.5239 ppb | | 97 |
| 13) Acetone | 2.14 | 43 | 55352 | 42.0360 ppb | | 91 |
| 14) Freon-113 | 2.10 | 101 | 130638 | 39.7567 ppb | | 90 |
| 15) 1,1-DCE | 2.08 | 61 | 176208 | 39.1157 ppb | | 98 |
| 17) Acetonitrile | 2.40 | 41 | 47087 | 175.0165 ppb | | 98 |
| 18) t-Butanol | 2.76 | 59 | 68097 | 159.8919 ppb | | 96 |
| 19) Methyl Acetate | 2.47 | 43 | 136642 | 44.2462 ppb | | 98 |
| 20) Iodomethane | 2.20 | 142 | 98283 | 36.5544 ppb | | 98 |
| 21) Acrylonitrile | 2.83 | 52 | 44732 | 35.8049 ppb | | 100 |
| 22) Methylene chloride | 2.55 | 84 | 150252 | 42.3389 ppb | | 90 |
| 23) Carbon disulfide | 2.25 | 76 | 380782 | 42.6597 ppb | | 98 |
| 24) Methyl t-butyl ether (MtBE | 2.89 | 73 | 279580 | 34.1770 ppb | | 96 |
| 25) Trans-1,2-DCE | 2.85 | 96 | 101561 | 33.9549 ppb | | 93 |
| 26) Hexane | 2.89 | 57 | 57337 | 33.9683 ppb | # | 85 |
| 27) Diisopropyl Ether | 3.56 | 45 | 114151 | 38.7741 ppb | | 99 |
| 28) 1,1-DCA | 3.37 | 63 | 199480 | 41.9689 ppb | | 94 |
| 29) Vinyl Acetate | 3.56 | 87 | 99718 | 38.4212 ppb | | 97 |
| 30) Ethyl tert Butyl Ether | 4.12 | 59 | 147856 | 39.8956 ppb | | 92 |
| 31) MEK (2-Butanone) | 4.33 | 43 | 61491 | 42.2265 ppb | | 99 |
| 32) Cis-1,2-DCE | 4.25 | 61 | 169571 | 37.9771 ppb | | 96 |
| 33) 2,2-Dichloropropane | 4.23 | 77 | 153474 | 37.9912 ppb | | 96 |
| 34) Chloroform | 4.75 | 83 | 230778 | 35.6921 ppb | | 96 |
| 35) Bromochloromethane | 4.59 | 128 | 69465 | 41.5126 ppb | | 95 |
| 37) 1,1,1-TCA | 4.95 | 97 | 199476 | 38.5462 ppb | | 98 |
| 38) Cyclohexane | 5.02 | 41 | 87462 | 40.0740 ppb | | 96 |
| 39) 1,1-Dichloropropene | 5.18 | 75 | 138841 | 39.2226 ppb | | 97 |
| 40) 2,2,4-Trimethylpentane | 5.60 | 57 | 271081 | 41.9826 ppb | | 95 |
| 42) Carbon Tetrachloride | 5.17 | 117 | 175803 | 40.9707 ppb | | 93 |
| 43) Tert Amyl Methyl Ether | 5.66 | 73 | 136318 | 34.2258 ppb | # | 92 |
| 44) 1,2-DCA | 5.47 | 62 | 187182 | 35.6413 ppb | | 97 |
| 45) Benzene | 5.43 | 78 | 464153 | 38.4317 ppb | | 98 |

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T26.D Vial: 23
Acq On : 24 Apr 19 22:41 Operator: DG,SV, CMM.PM,KV
Sample : 40ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 46) | TCE | 6.24 | 95 | 123818 | 39.1075 ppb | | 95 |
| 47) | 2-Pentanone | 6.51 | 43 | 444265 | 184.3980 ppb | | 98 |
| 48) | 1,2-Dichloropropane | 6.49 | 63 | 121415 | 36.8134 ppb | # | 94 |
| 49) | Bromodichloromethane | 6.82 | 83 | 185454 | 38.4175 ppb | | 93 |
| 50) | Methyl Cyclohexane | 6.45 | 83 | 153455 | 40.8328 ppb | | 93 |
| 51) | Dibromomethane | 6.61 | 93 | 99759 | 41.0477 ppb | | 95 |
| 52) | MIBK (methyl isobutyl ket | 7.52 | 58 | 48312 | 40.1711 ppb | | 85 |
| 53) | 1-Bromo-2-chloroethane | 7.12 | 63 | 181924 | 36.5191 ppb | | 97 |
| 54) | 2-Chloroethyl vinyl ether | 7.12 | 107 | 7436 | 41.7792 ppb | | 89 |
| 55) | Cis-1,3-Dichloropropene | 7.31 | 75 | 180585 | 38.9802 ppb | | 96 |
| 56) | Toluene | 7.65 | 91 | 542263 | 39.9603 ppb | | 98 |
| 57) | Trans-1,3-Dichloropropene | 7.91 | 75 | 182287 | 39.8492 ppb | | 96 |
| 58) | 1,1,2-TCA | 8.09 | 83 | 111374 | 40.2120 ppb | | 94 |
| 59) | 2-Hexanone | 8.38 | 58 | 42438 | 37.0675 ppb | | 88 |
| 62) | 1,2-EDB | 8.56 | 107 | 145952 | 39.1504 ppb | | 94 |
| 63) | Tetrachloroethene | 8.21 | 164 | 124816 | 37.9529 ppb | | 93 |
| 64) | 1-Chlorohexane | 9.10 | 91 | 140671 | 40.8281 ppb | | 97 |
| 65) | 1,1,1,2-Tetrachloroethane | 9.17 | 131 | 148129 | 37.5524 ppb | | 99 |
| 66) | m&p-Xylene | 9.33 | 106 | 462457 | 88.6027 ppb | | 97 |
| 67) | o-Xylene | 9.72 | 106 | 218266 | 45.1124 ppb | | 92 |
| 68) | Styrene | 9.74 | 104 | 386028 | 48.7078 ppb | | 92 |
| 70) | 1,3-Dichloropropane | 8.25 | 76 | 209611 | 38.2882 ppb | | 99 |
| 71) | Dibromochloromethane | 8.47 | 129 | 159016 | 39.3847 ppb | | 99 |
| 72) | Chlorobenzene | 9.07 | 112 | 371679 | 38.0110 ppb | | 95 |
| 73) | Ethylbenzene | 9.21 | 91 | 568478 | 41.7472 ppb | | 98 |
| 74) | Bromoform | 9.89 | 173 | 127955 | 37.1308 ppb | | 98 |
| 76) | Isopropylbenzene | 10.10 | 105 | 555715 | 42.0261 ppb | | 98 |
| 77) | 1,1,2,2-Tetrachloroethane | 10.39 | 83 | 204688 | 43.0048 ppb | | 94 |
| 78) | 1,2,3-Trichloropropane | 10.42 | 110 | 65217 | 42.7519 ppb | | 98 |
| 79) | t-1,4-Dichloro-2-Butene | 10.45 | 53 | 42950 | 37.1352 ppb | | 94 |
| 80) | Bromobenzene | 10.36 | 156 | 182793 | 37.9648 ppb | | 99 |
| 81) | n-Propylbenzene | 10.50 | 91 | 676830 | 42.7759 ppb | | 100 |
| 82) | 4-Ethyltoluene | 10.62 | 105 | 633716 | 46.0330 ppb | | 97 |
| 83) | 2-Chlorotoluene | 10.56 | 91 | 423059 | 41.1561 ppb | | 97 |
| 84) | 1,3,5-Trimethylbenzene | 10.69 | 105 | 549444 | 46.5352 ppb | | 99 |
| 85) | 4-Chlorotoluene | 10.68 | 91 | 510692 | 43.1411 ppb | | 95 |
| 86) | Tert-Butylbenzene | 11.00 | 119 | 429812 | 42.0434 ppb | | 98 |
| 87) | 1,2,4-Trimethylbenzene | 11.05 | 105 | 528826 | 46.6559 ppb | | 98 |
| 88) | Sec-Butylbenzene | 11.22 | 105 | 628064 | 44.5345 ppb | | 98 |
| 89) | p-Isopropyltoluene | 11.37 | 119 | 575999 | 44.7981 ppb | | 98 |
| 90) | Benzyl Chloride | 11.53 | 91 | 45425 | 39.6480 ppb | | 97 |
| 91) | 1,3-DCB | 11.30 | 146 | 353557 | 41.0314 ppb | | 99 |
| 92) | 1,4-DCB | 11.39 | 146 | 368053 | 37.8481 ppb | | 96 |
| 93) | n-Butylbenzene | 11.77 | 91 | 485178 | 45.6858 ppb | | 98 |
| 94) | 1,2-DCB | 11.74 | 146 | 347521 | 39.1679 ppb | | 96 |
| 95) | Hexachloroethane | 12.00 | 117 | 108204 | 42.9190 ppb | | 95 |
| 96) | 1,2-Dibromo-3-chloropropan | 12.51 | 157 | 52539 | 41.6304 ppb | | 91 |
| 97) | 1,2,4-Trichlorobenzene | 13.34 | 180 | 241922 | 42.6097 ppb | | 94 |
| 98) | Hexachlorobutadiene | 13.53 | 225 | 115415 | 41.4990 ppb | | 95 |
| 99) | Naphthalene | 13.57 | 128 | 557082 | 45.4369 ppb | | 96 |
| 100) | 1,2,3-Trichlorobenzene | 13.81 | 180 | 258697 | 42.7396 ppb | | 93 |

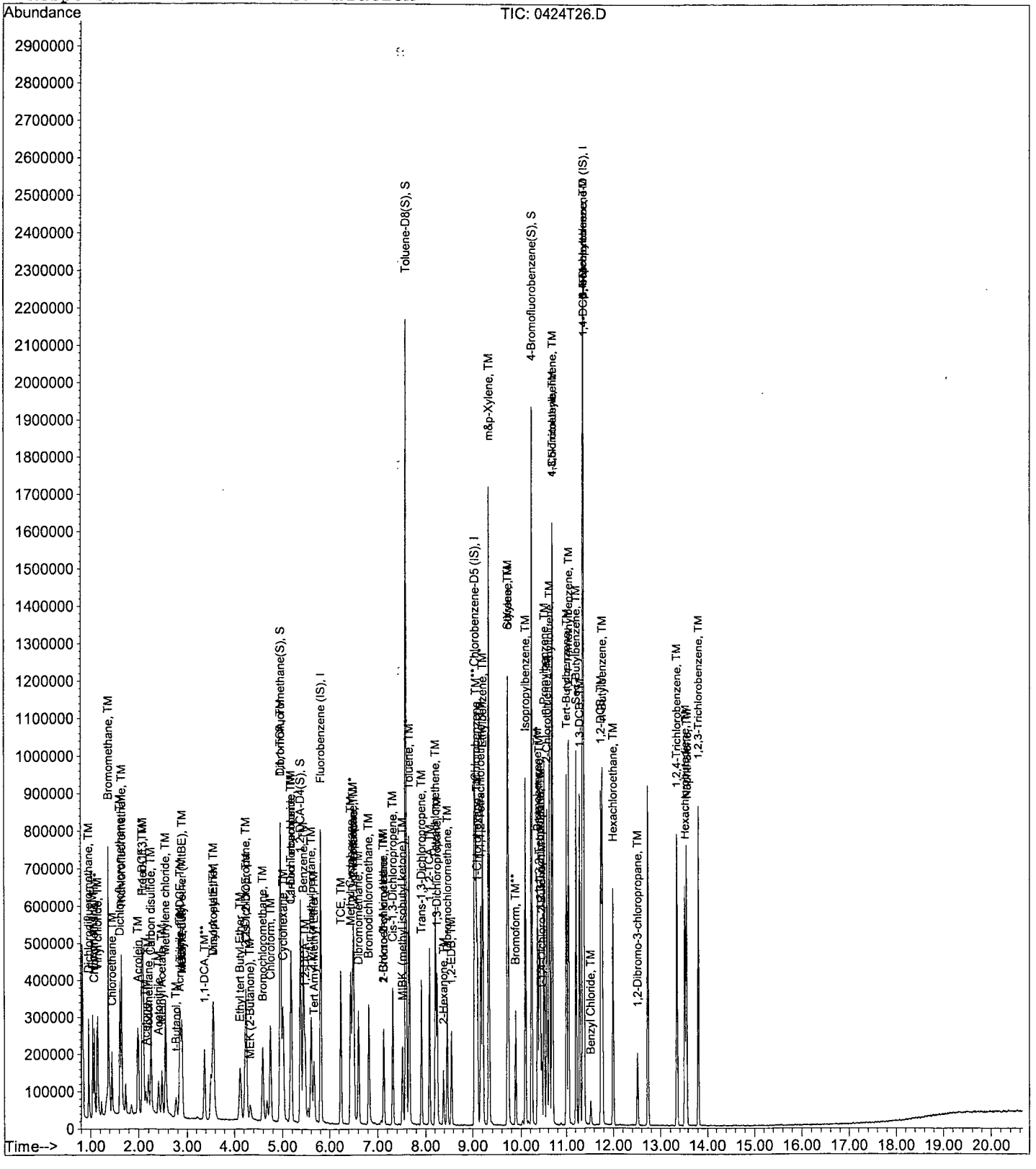
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T190423\0424T26.D Vial: 23
Acq On : 24 Apr 19 22:41 Operator: DG,SV, CMM.PM,KV
Sample : 40ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T27.D Vial: 24
Acq On : 24 Apr 19 23:09 Operator: DG,SV, CMM.PM,KV
Sample : 100ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 395776 | 25.0000 ppb | | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 393472 | 25.0000 ppb | | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 307392 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 751312 | 89.7298 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 358.920% | | | |
| 41) 1,2-DCA-D4(S) | 5.37 | 65 | 830167 | 86.9245 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 347.700% | | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 2793500 | 100.3085 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 401.236% | | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 1121815 | 111.5565 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 446.224% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 0.96 | 85 | 365632 | 93.4915 ppb | | 95 |
| 4) Freon 114 | 1.05 | 135 | 237866 | 99.8567 ppb | | 96 |
| 5) Chloromethane | 1.08 | 50 | 300939 | 98.5979 ppb | | 95 |
| 6) Vinyl chloride | 1.16 | 62 | 336192 | 86.4738 ppb | | 97 |
| 8) Bromomethane | 1.37 | 94 | 507227 | 91.3204 ppb | | 95 |
| 9) Chloroethane | 1.44 | 64 | 265541 | 100.0866 ppb | | 96 |
| 10) Dichlorofluoromethane | 1.61 | 67 | 678184 | 86.6196 ppb | | 98 |
| 11) Trichlorofluoromethane | 1.65 | 101 | 652037 | 91.3611 ppb | | 99 |
| 12) Acrolein | 2.00 | 56 | 137012 | 188.4886 ppb | | 91 |
| 13) Acetone | 2.15 | 43 | 129651 | 99.0326 ppb | # | 89 |
| 14) Freon-113 | 2.10 | 101 | 311575 | 90.5274 ppb | | 93 |
| 15) 1,1-DCE | 2.08 | 61 | 427492 | 90.6004 ppb | | 97 |
| 17) Acetonitrile | 2.40 | 41 | 43817 | 155.4882 ppb | | 96 |
| 18) t-Butanol | 2.80 | 59 | 144553 | 248.2542 ppb | | 98 |
| 19) Methyl Acetate | 2.47 | 43 | 308790 | 97.9697 ppb | | 97 |
| 20) Iodomethane | 2.20 | 142 | 312856 | 102.9796 ppb | | 95 |
| 21) Acrylonitrile | 2.83 | 52 | 131519 | 101.6825 ppb | | 90 |
| 22) Methylene chloride | 2.55 | 84 | 360997 | 98.7984 ppb | | 91 |
| 23) Carbon disulfide | 2.25 | 76 | 912385 | 98.7754 ppb | | 98 |
| 24) Methyl t-butyl ether (MtBE | 2.89 | 73 | 899415 | 102.5859 ppb | | 98 |
| 25) Trans-1,2-DCE | 2.85 | 96 | 325721 | 102.4673 ppb | | 97 |
| 26) Hexane | 2.89 | 57 | 184285 | 102.6574 ppb | # | 81 |
| 27) Diisopropyl Ether | 3.56 | 45 | 312640 | 101.3874 ppb | | 94 |
| 28) 1,1-DCA | 3.37 | 63 | 494389 | 99.0651 ppb | | 96 |
| 29) Vinyl Acetate | 3.56 | 87 | 275642 | 100.6987 ppb | | 96 |
| 30) Ethyl tert Butyl Ether | 4.12 | 59 | 475272 | 122.4348 ppb | | 92 |
| 31) MEK (2-Butanone) | 4.33 | 43 | 148817 | 99.0654 ppb | | 98 |
| 32) Cis-1,2-DCE | 4.25 | 61 | 444840 | 95.1155 ppb | | 96 |
| 33) 2,2-Dichloropropane | 4.23 | 77 | 395457 | 93.4596 ppb | | 96 |
| 34) Chloroform | 4.75 | 83 | 585136 | 86.3995 ppb | | 100 |
| 35) Bromochloromethane | 4.59 | 128 | 170707 | 99.0089 ppb | | 87 |
| 37) 1,1,1-TCA | 4.95 | 97 | 515393 | 95.0837 ppb | | 96 |
| 38) Cyclohexane | 5.01 | 41 | 227798 | 99.9593 ppb | | 98 |
| 39) 1,1-Dichloropropene | 5.18 | 75 | 367226 | 99.0441 ppb | | 98 |
| 40) 2,2,4-Trimethylpentane | 5.60 | 57 | 722461 | 106.8222 ppb | | 95 |
| 42) Carbon Tetrachloride | 5.17 | 117 | 467135 | 103.9361 ppb | | 91 |
| 43) Tert Amyl Methyl Ether | 5.66 | 73 | 451561 | 102.7810 ppb | # | 92 |
| 44) 1,2-DCA | 5.47 | 62 | 472378 | 85.8728 ppb | | 99 |
| 45) Benzene | 5.44 | 78 | 1202568 | 95.0638 ppb | | 98 |

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T27.D Vial: 24
Acq On : 24 Apr 19 23:09 Operator: DG,SV, CMM.PM,KV
Sample : 100ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 46) | TCE | 6.24 | 95 | 322285 | 97.1837 ppb | | 98 |
| 47) | 2-Pentanone | 6.51 | 43 | 512126 | 202.9401 ppb | | 96 |
| 48) | 1,2-Dichloropropane | 6.48 | 63 | 302971 | 87.7023 ppb | # | 95 |
| 49) | Bromodichloromethane | 6.82 | 83 | 474948 | 93.9324 ppb | | 90 |
| 50) | Methyl Cyclohexane | 6.45 | 83 | 436544 | 110.9004 ppb | | 88 |
| 51) | Dibromomethane | 6.61 | 93 | 249686 | 99.2906 ppb | | 92 |
| 52) | MIBK (methyl isobutyl ket | 7.52 | 58 | 123752 | 98.2400 ppb | # | 82 |
| 53) | 1-Bromo-2-chloroethane | 7.12 | 63 | 473820 | 90.8072 ppb | | 99 |
| 54) | 2-Chloroethyl vinyl ether | 7.12 | 107 | 17678 | 98.4826 ppb | # | 69 |
| 55) | Cis-1,3-Dichloropropene | 7.31 | 75 | 491440 | 101.2767 ppb | | 97 |
| 56) | Toluene | 7.65 | 91 | 1423870 | 99.9317 ppb | | 99 |
| 57) | Trans-1,3-Dichloropropene | 7.91 | 75 | 486271 | 101.4890 ppb | | 94 |
| 58) | 1,1,2-TCA | 8.09 | 83 | 287339 | 99.7447 ppb | | 98 |
| 59) | 2-Hexanone | 8.39 | 58 | 124343 | 101.5723 ppb | | 85 |
| 62) | 1,2-EDB | 8.56 | 107 | 375831 | 96.1728 ppb | | 94 |
| 63) | Tetrachloroethene | 8.21 | 164 | 328256 | 95.2185 ppb | | 91 |
| 64) | 1-Chlorohexane | 9.10 | 91 | 394832 | 109.3203 ppb | | 90 |
| 65) | 1,1,1,2-Tetrachloroethane | 9.17 | 131 | 389465 | 94.1889 ppb | | 95 |
| 66) | m&p-Xylene | 9.33 | 106 | 1283191 | 234.5314 ppb | | 100 |
| 67) | o-Xylene | 9.72 | 106 | 624830 | 123.1985 ppb | | 95 |
| 68) | Styrene | 9.73 | 104 | 1113278 | 134.0038 ppb | | 96 |
| 70) | 1,3-Dichloropropane | 8.25 | 76 | 529913 | 92.3400 ppb | | 97 |
| 71) | Dibromochloromethane | 8.47 | 129 | 430280 | 101.6652 ppb | | 100 |
| 72) | Chlorobenzene | 9.08 | 112 | 974943 | 95.1163 ppb | | 97 |
| 73) | Ethylbenzene | 9.21 | 91 | 1557503 | 109.1130 ppb | | 100 |
| 74) | Bromoform | 9.89 | 173 | 374210 | 101.4441 ppb | | 96 |
| 76) | Isopropylbenzene | 10.10 | 105 | 1572122 | 97.6039 ppb | | 98 |
| 77) | 1,1,2,2-Tetrachloroethane | 10.40 | 83 | 561151 | 98.5556 ppb | | 92 |
| 78) | 1,2,3-Trichloropropane | 10.42 | 110 | 180046 | 98.5768 ppb | | 92 |
| 79) | t-1,4-Dichloro-2-Butene | 10.46 | 53 | 112265 | 79.6858 ppb | | 100 |
| 80) | Bromobenzene | 10.36 | 156 | 516229 | 88.0192 ppb | | 99 |
| 81) | n-Propylbenzene | 10.50 | 91 | 1864039 | 96.7139 ppb | | 98 |
| 82) | 4-Ethyltoluene | 10.62 | 105 | 1790844 | 106.7938 ppb | | 97 |
| 83) | 2-Chlorotoluene | 10.56 | 91 | 1154622 | 92.2119 ppb | | 96 |
| 84) | 1,3,5-Trimethylbenzene | 10.69 | 105 | 1530000 | 106.3809 ppb | | 99 |
| 85) | 4-Chlorotoluene | 10.68 | 91 | 1410432 | 97.8134 ppb | | 95 |
| 86) | Tert-Butylbenzene | 11.00 | 119 | 1281473 | 102.9064 ppb | | 96 |
| 87) | 1,2,4-Trimethylbenzene | 11.05 | 105 | 1549657 | 112.2390 ppb | | 96 |
| 88) | Sec-Butylbenzene | 11.22 | 105 | 1827115 | 106.3587 ppb | | 99 |
| 89) | p-Isopropyltoluene | 11.37 | 119 | 1706174 | 108.9369 ppb | | 97 |
| 90) | Benzyl Chloride | 11.53 | 91 | 123196 | 88.2748 ppb | | 99 |
| 91) | 1,3-DCB | 11.30 | 146 | 1027345 | 97.8785 ppb | | 97 |
| 92) | 1,4-DCB | 11.39 | 146 | 1064268 | 89.8460 ppb | | 95 |
| 93) | n-Butylbenzene | 11.77 | 91 | 1408804 | 108.9043 ppb | | 98 |
| 94) | 1,2-DCB | 11.75 | 146 | 1040265 | 96.2514 ppb | | 98 |
| 95) | Hexachloroethane | 12.00 | 117 | 300520 | 98.6736 ppb | | 93 |
| 96) | 1,2-Dibromo-3-chloropropan | 12.52 | 157 | 152613 | 99.5319 ppb | # | 88 |
| 97) | 1,2,4-Trichlorobenzene | 13.34 | 180 | 738926 | 106.8437 ppb | | 95 |
| 98) | Hexachlorobutadiene | 13.53 | 225 | 338641 | 99.9607 ppb | | 97 |
| 99) | Naphthalene | 13.57 | 128 | 1807938 | 121.0564 ppb | | 96 |
| 100) | 1,2,3-Trichlorobenzene | 13.81 | 180 | 778824 | 105.6313 ppb | | 93 |

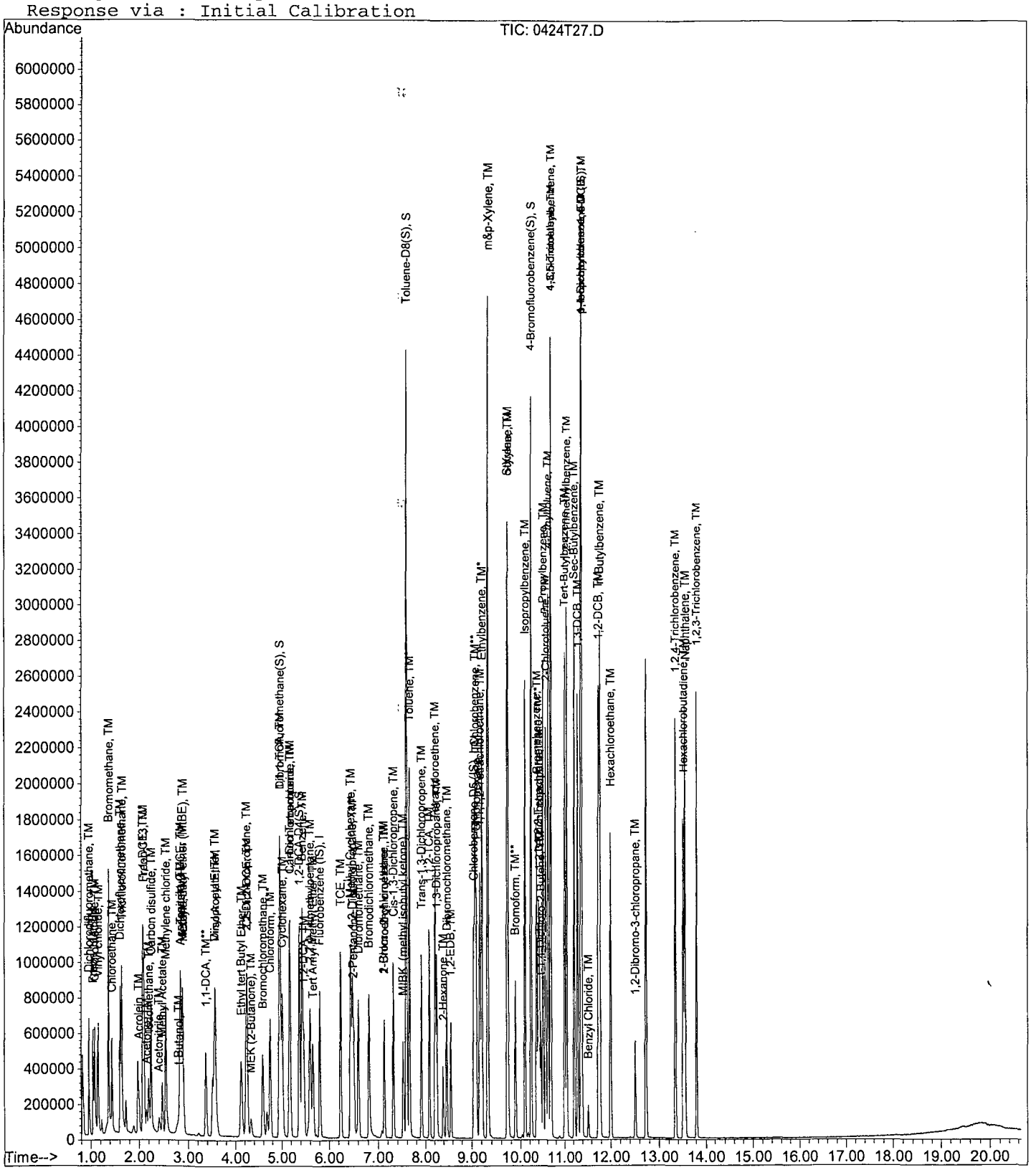
(#) = qualifier out of range (m) = manual integration

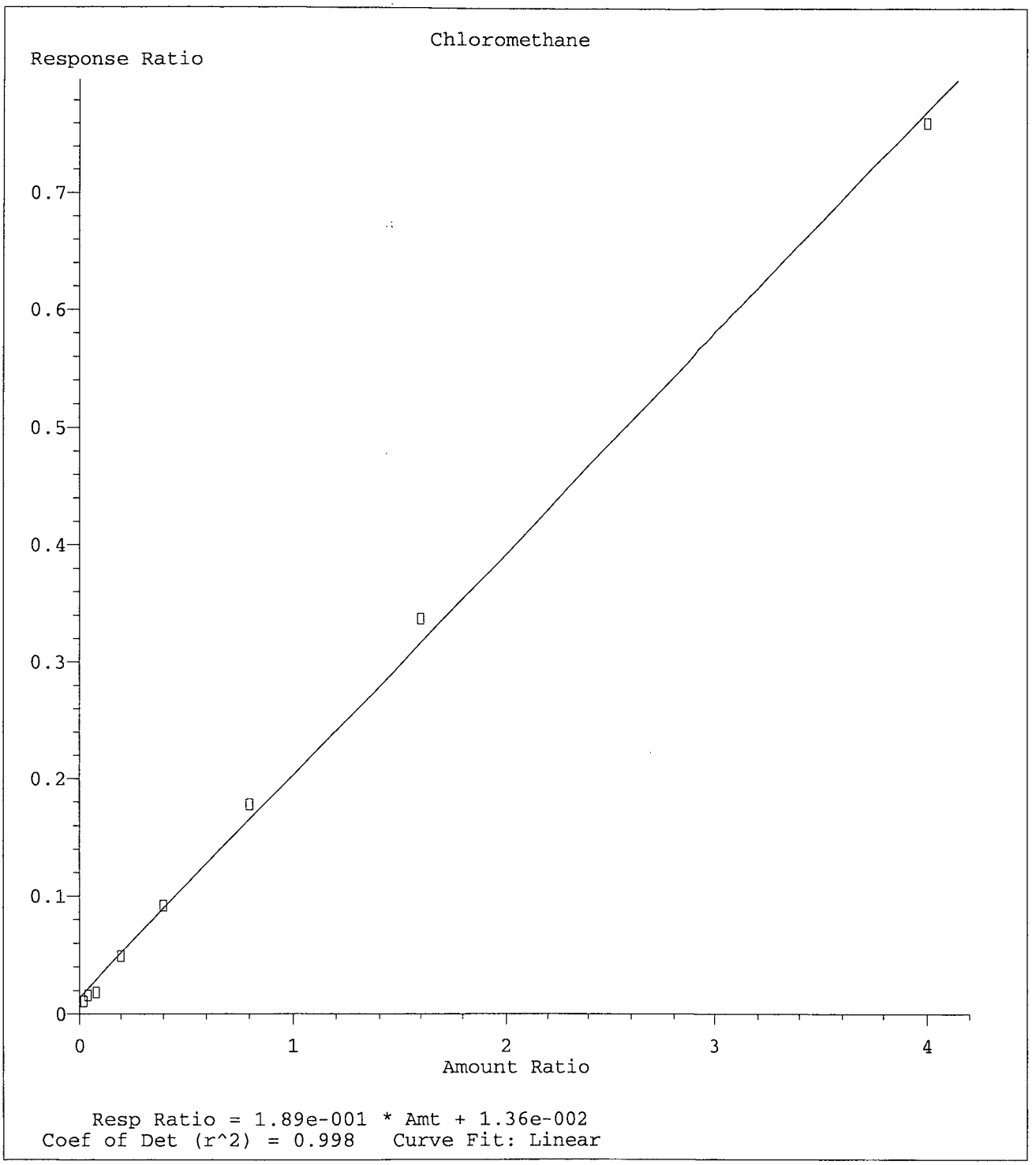
Quantitation Report

Data File : M:\THOR\DATA\T190423\0424T27.D Vial: 24
Acq On : 24 Apr 19 23:09 Operator: DG,SV, CMM.PM,KV
Sample : 100ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

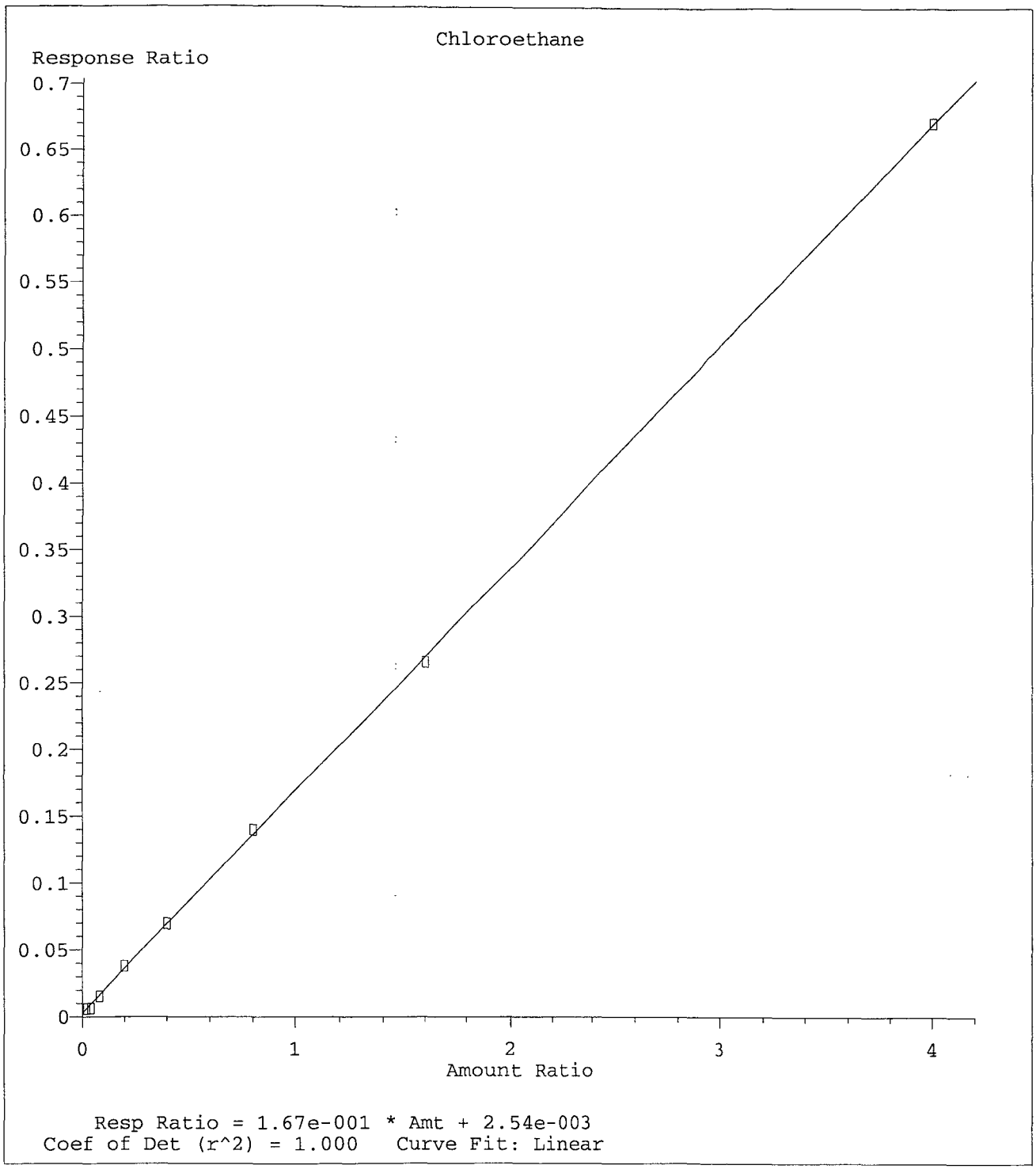
Quant Time: Apr 25 10:44 2019 Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration

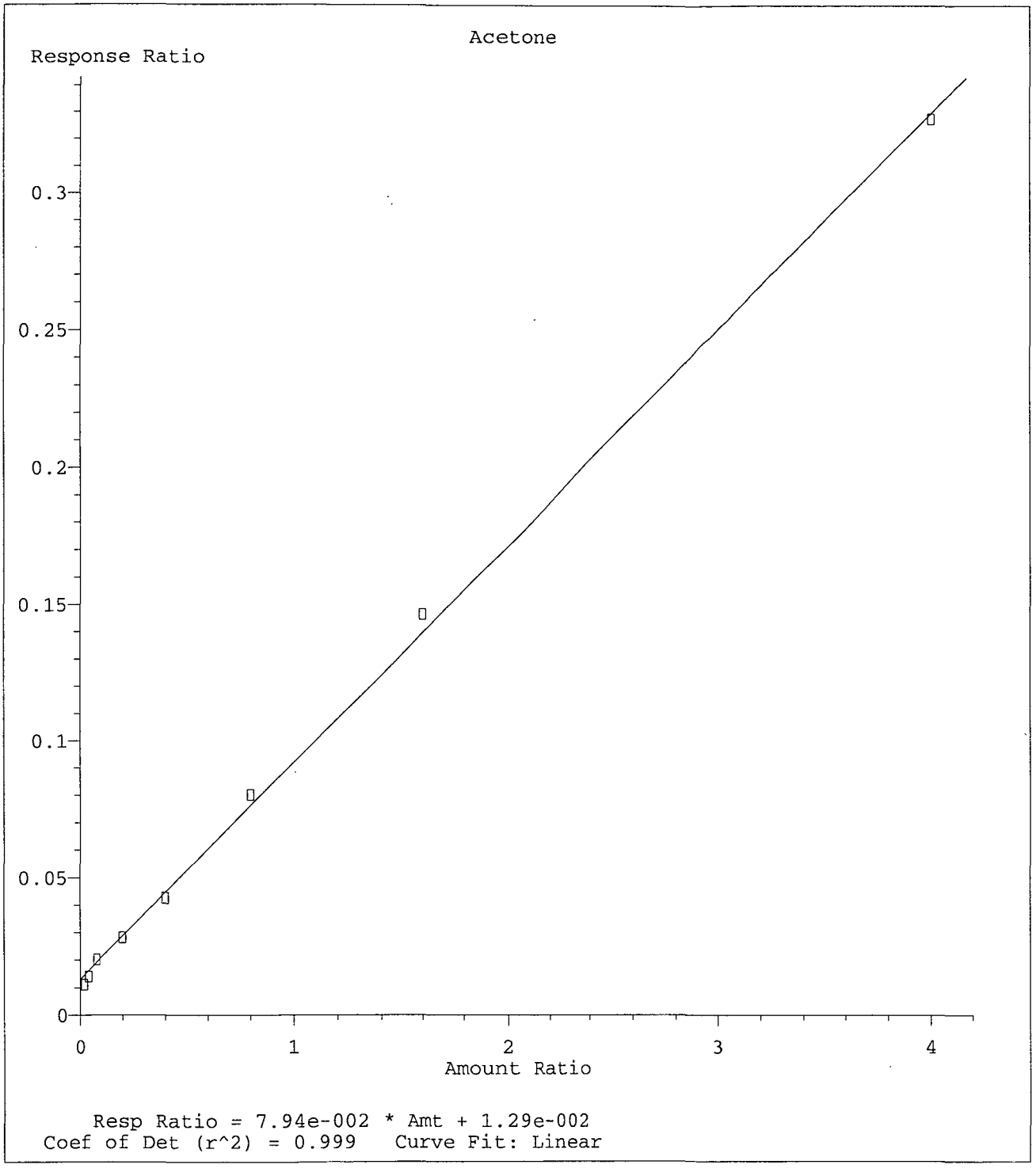




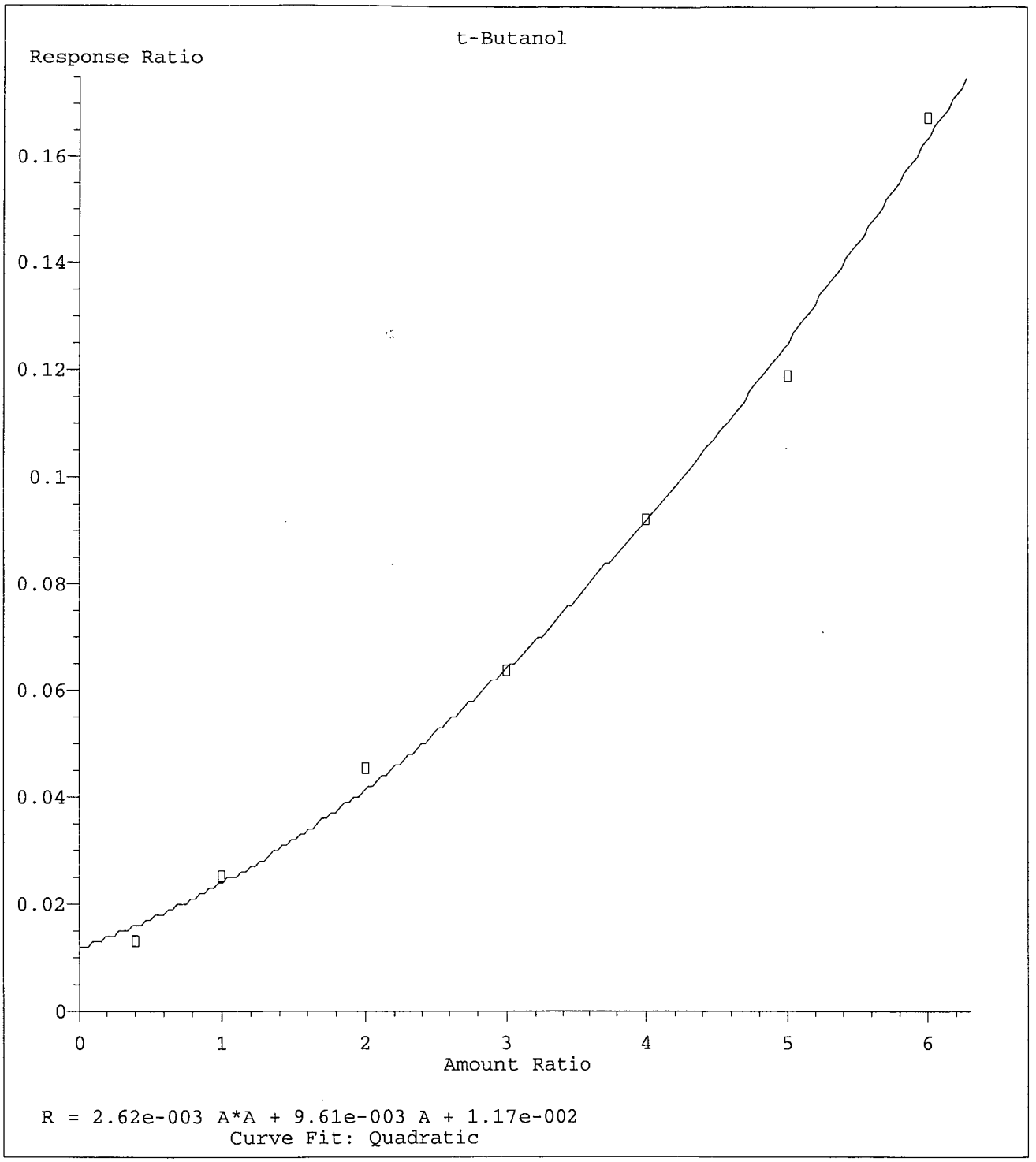

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



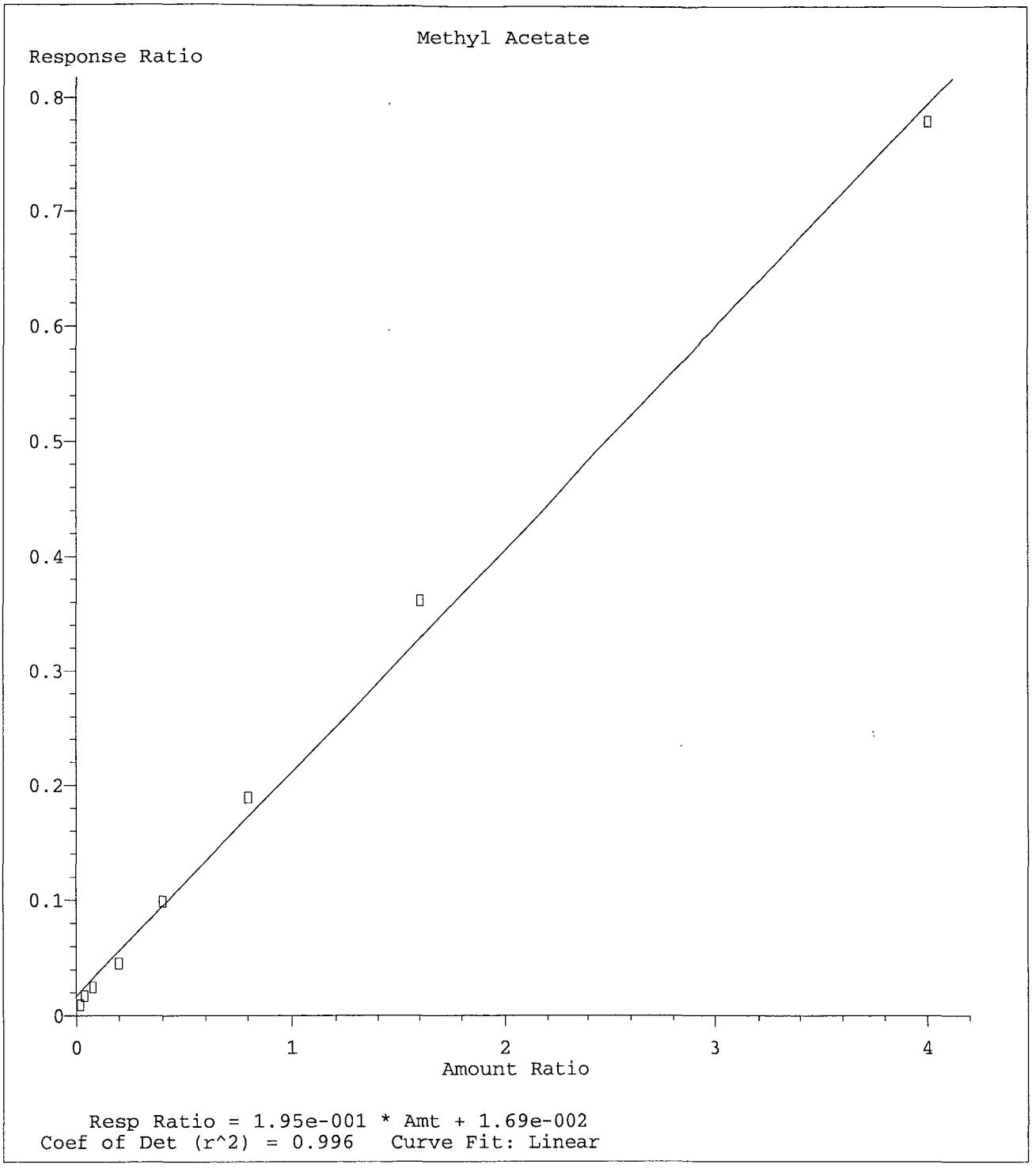

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



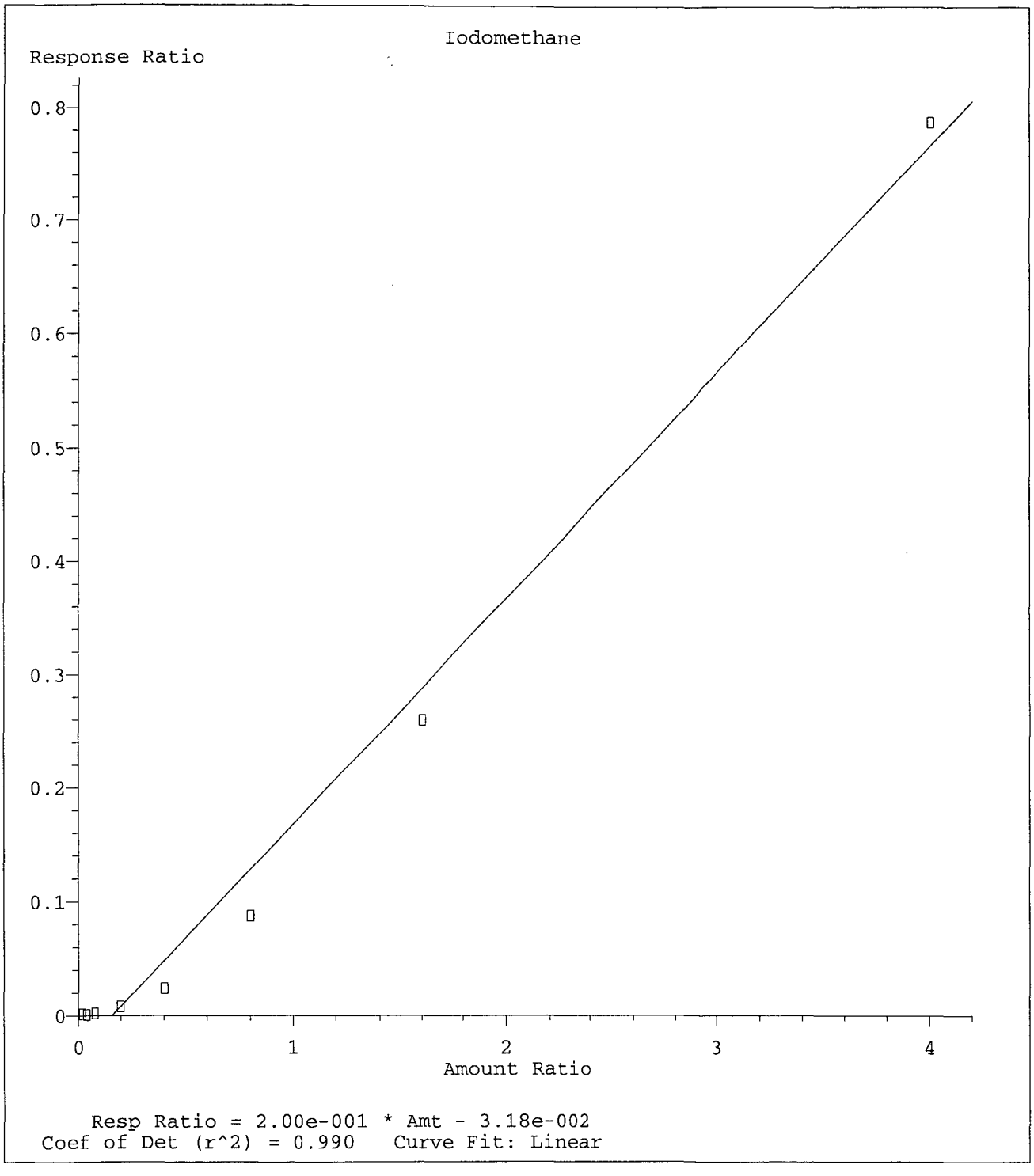

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



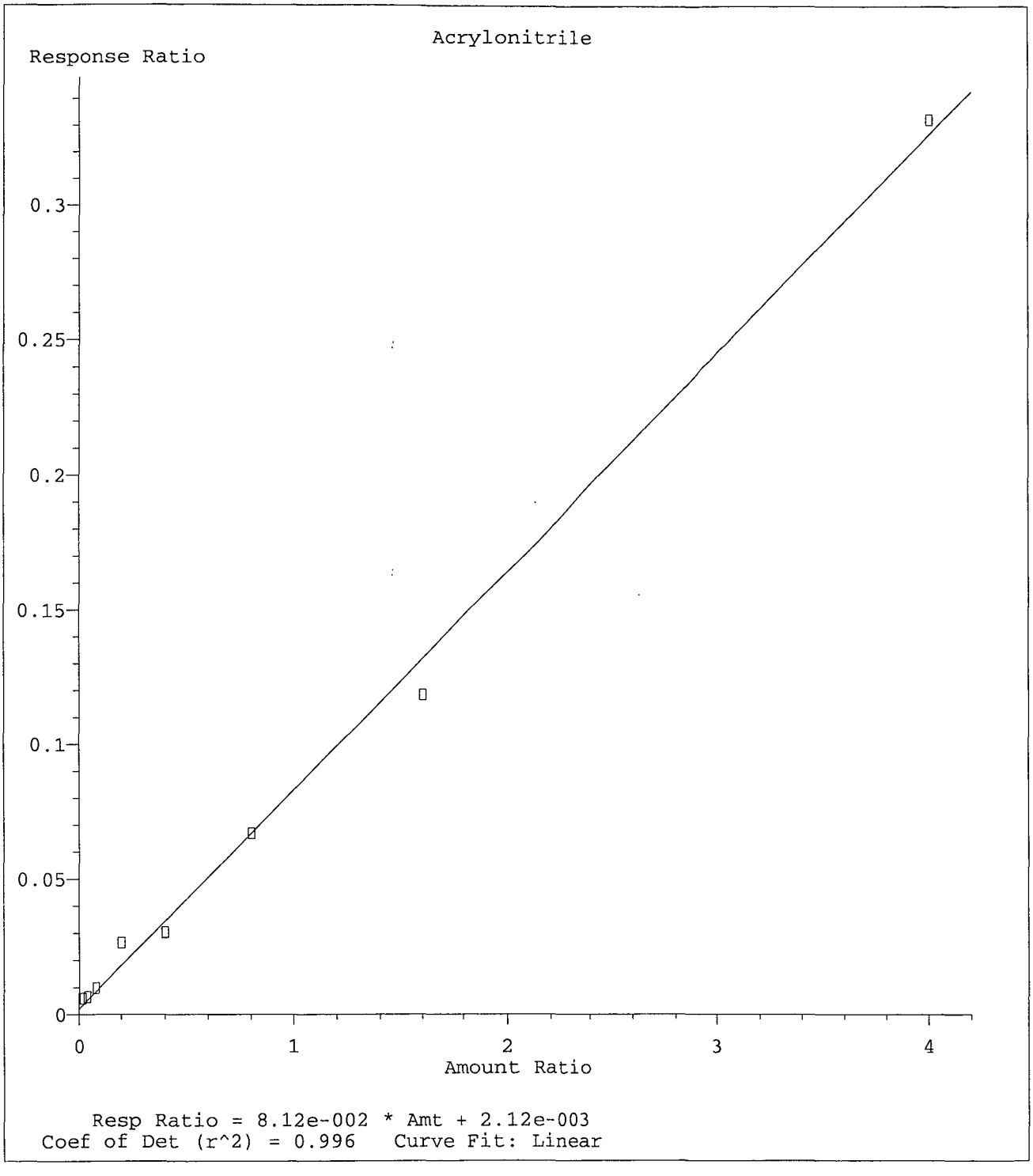

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



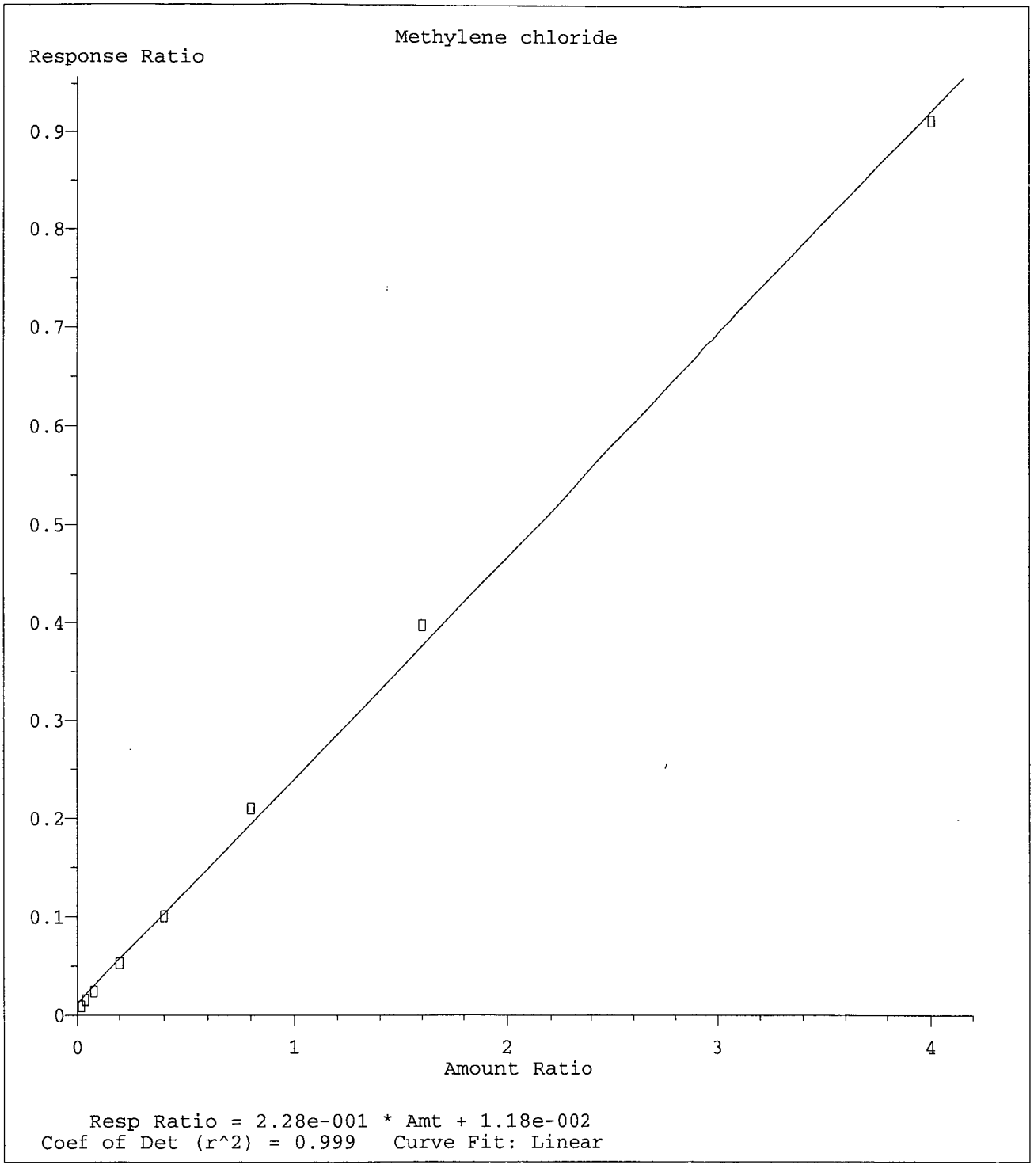

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



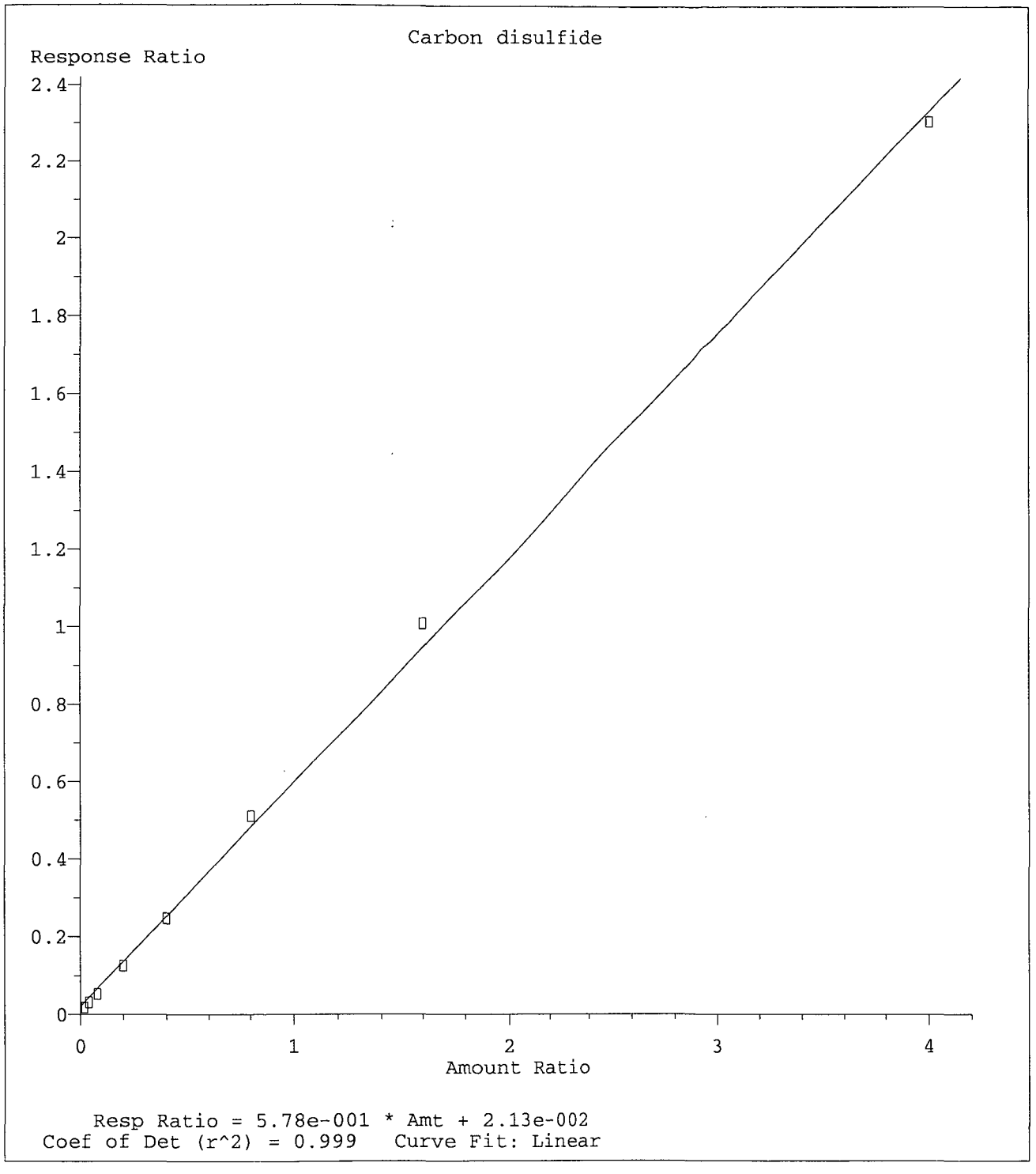

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



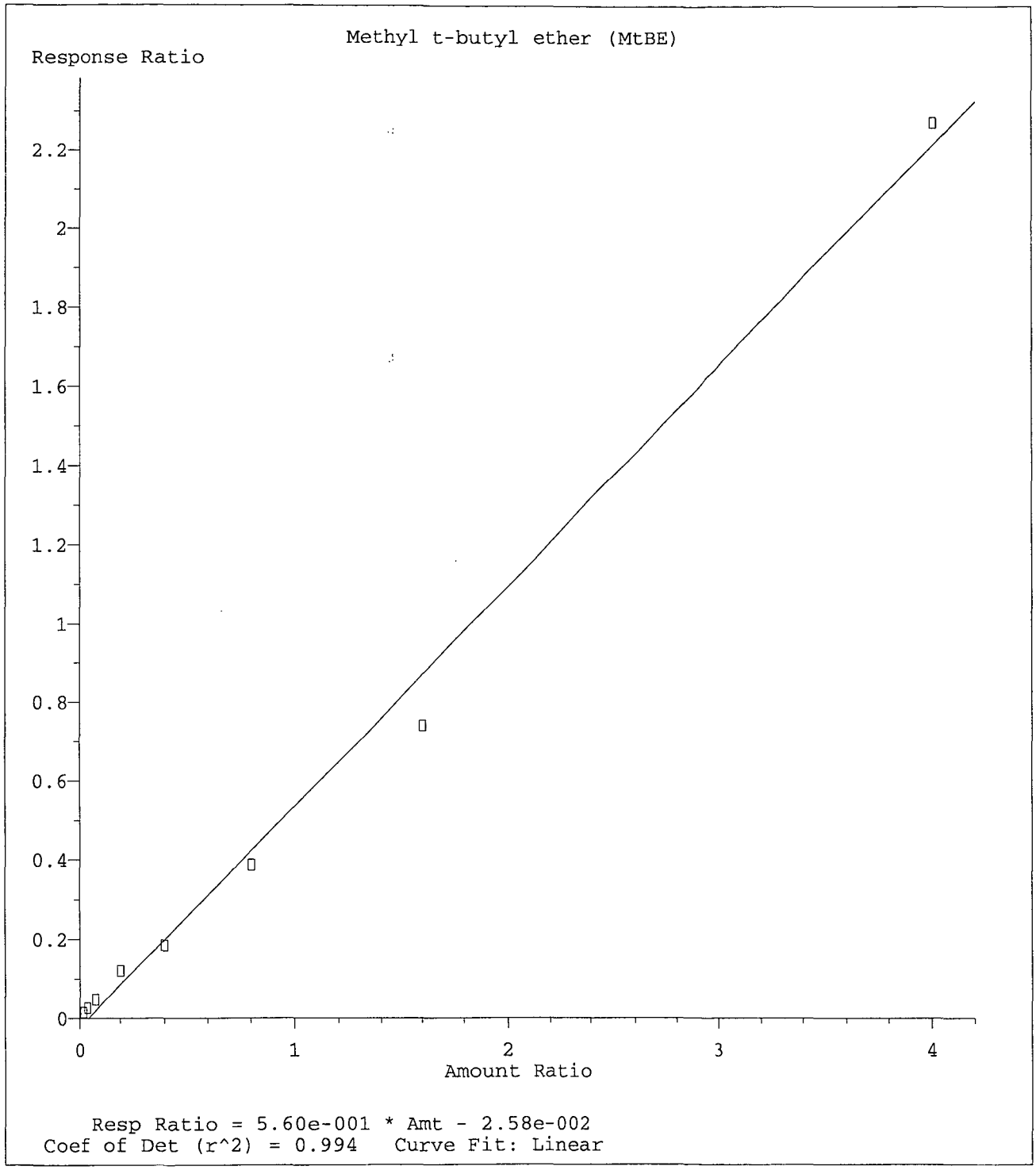

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



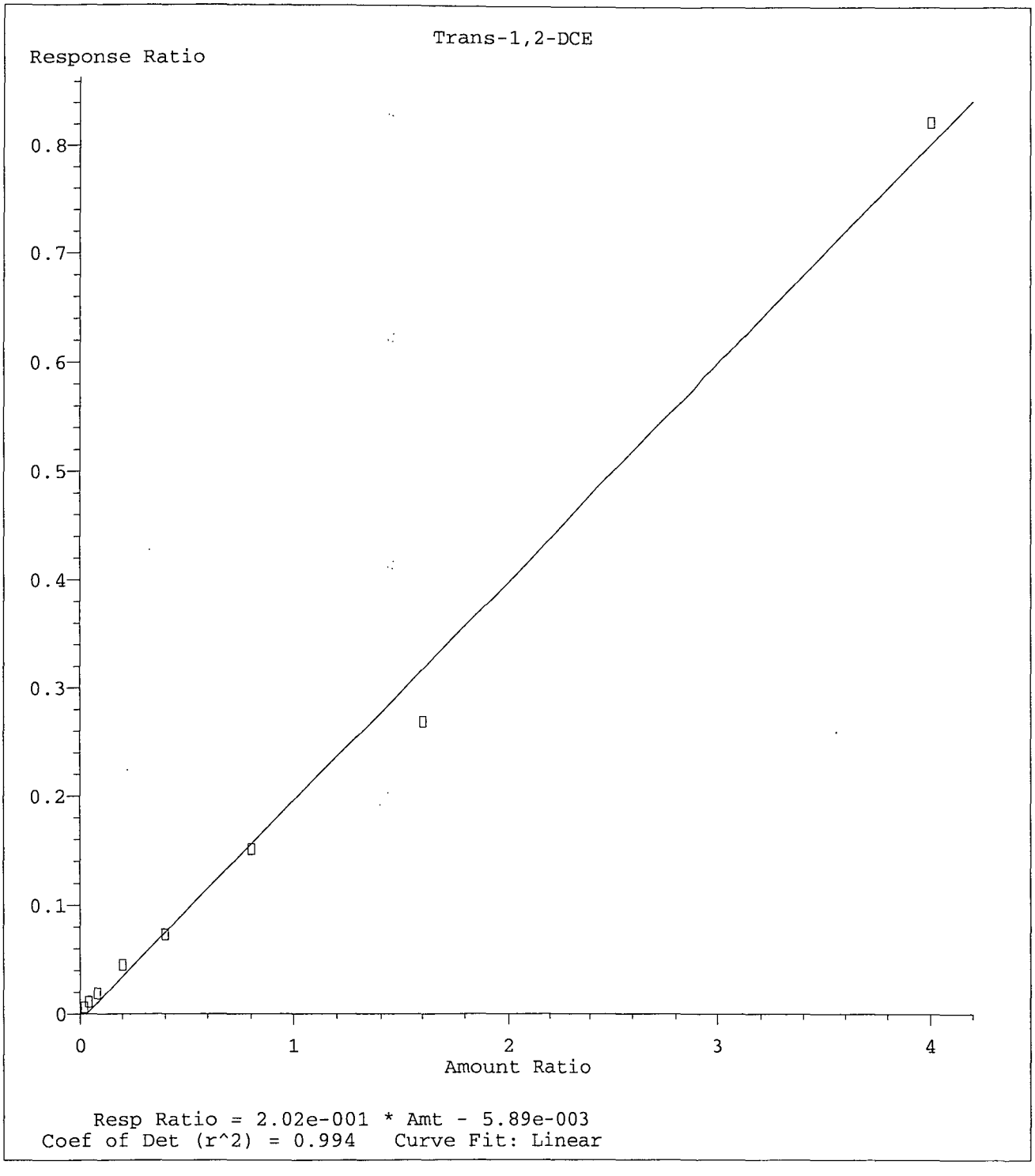

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



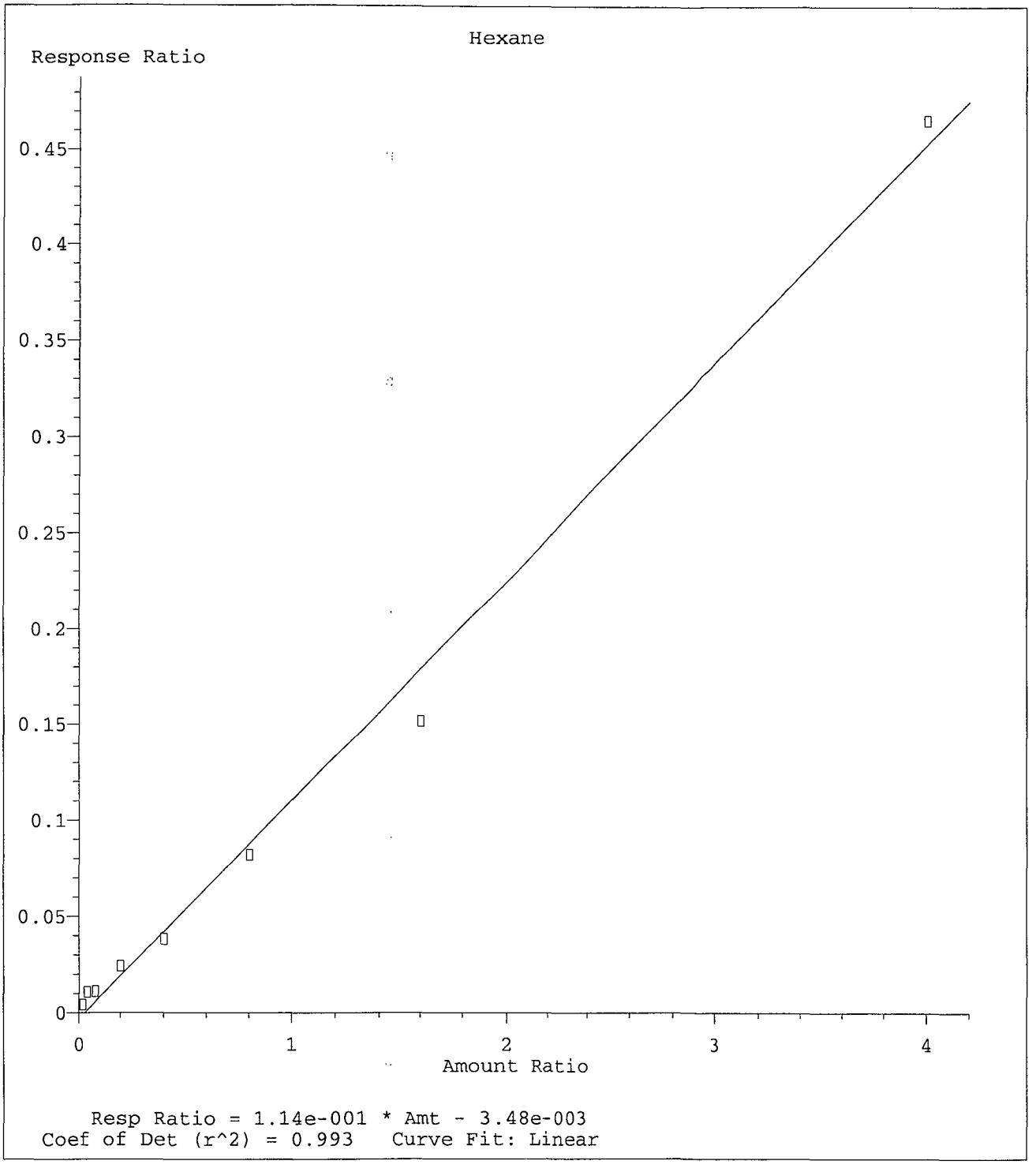

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



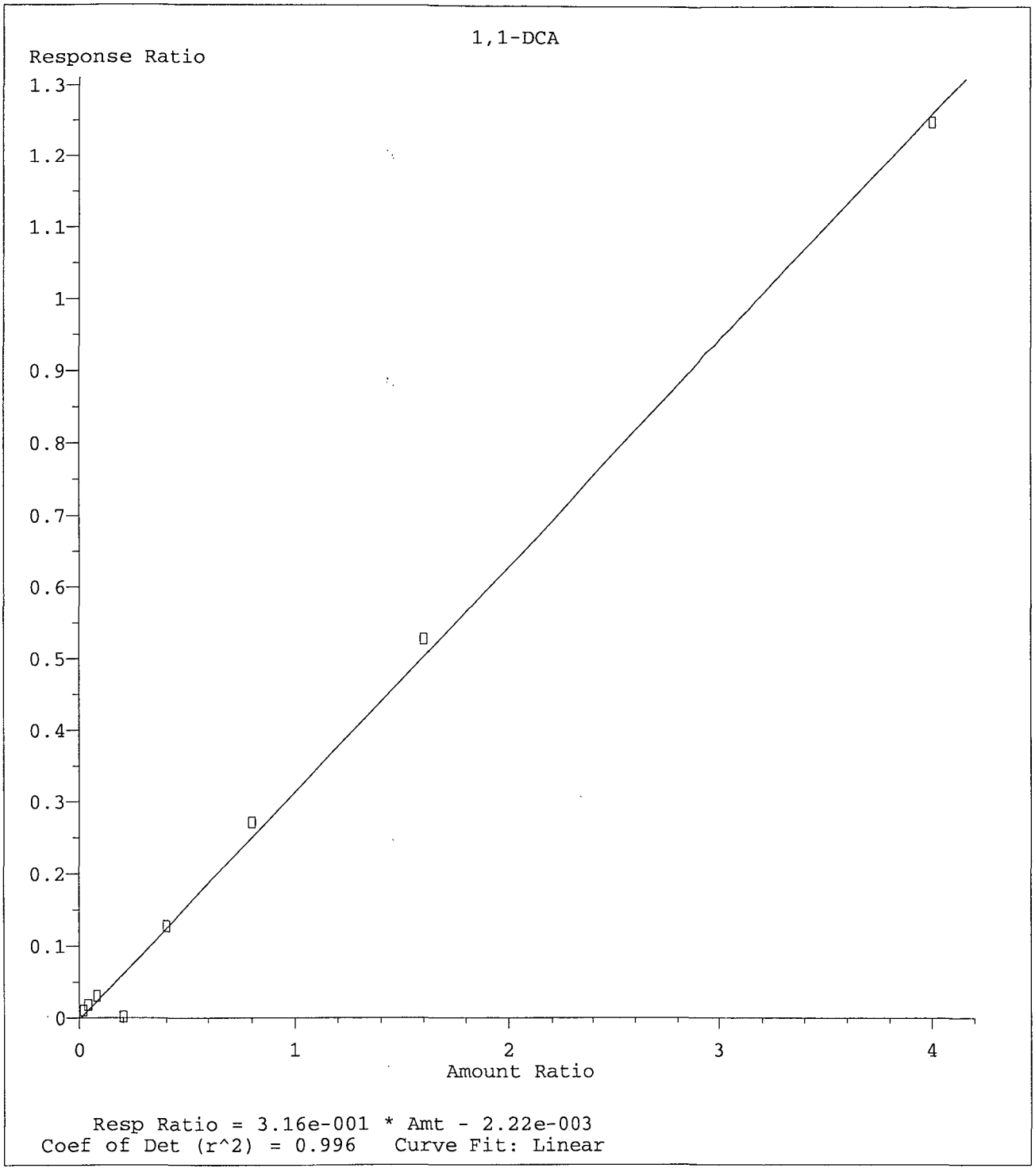

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



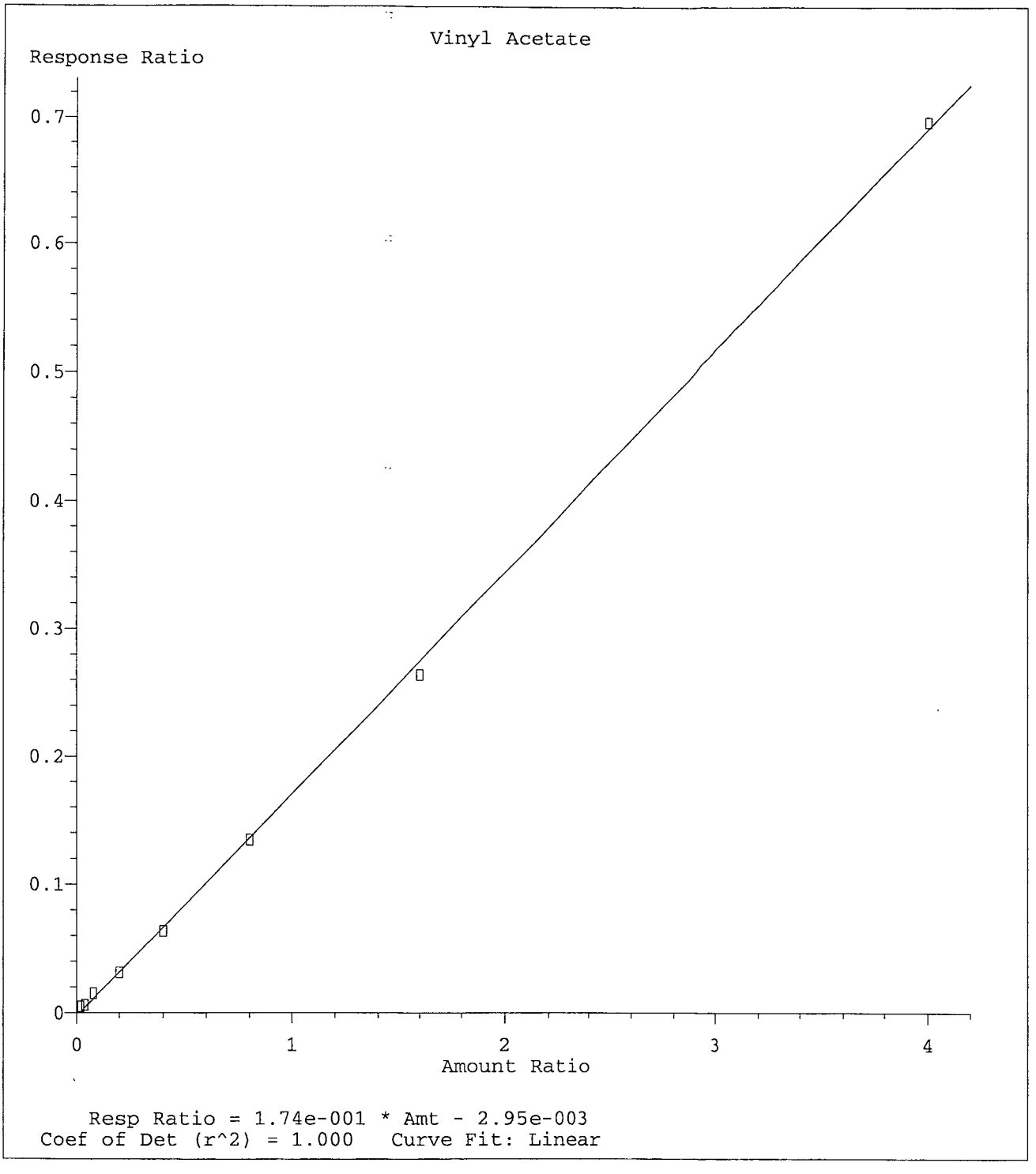

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



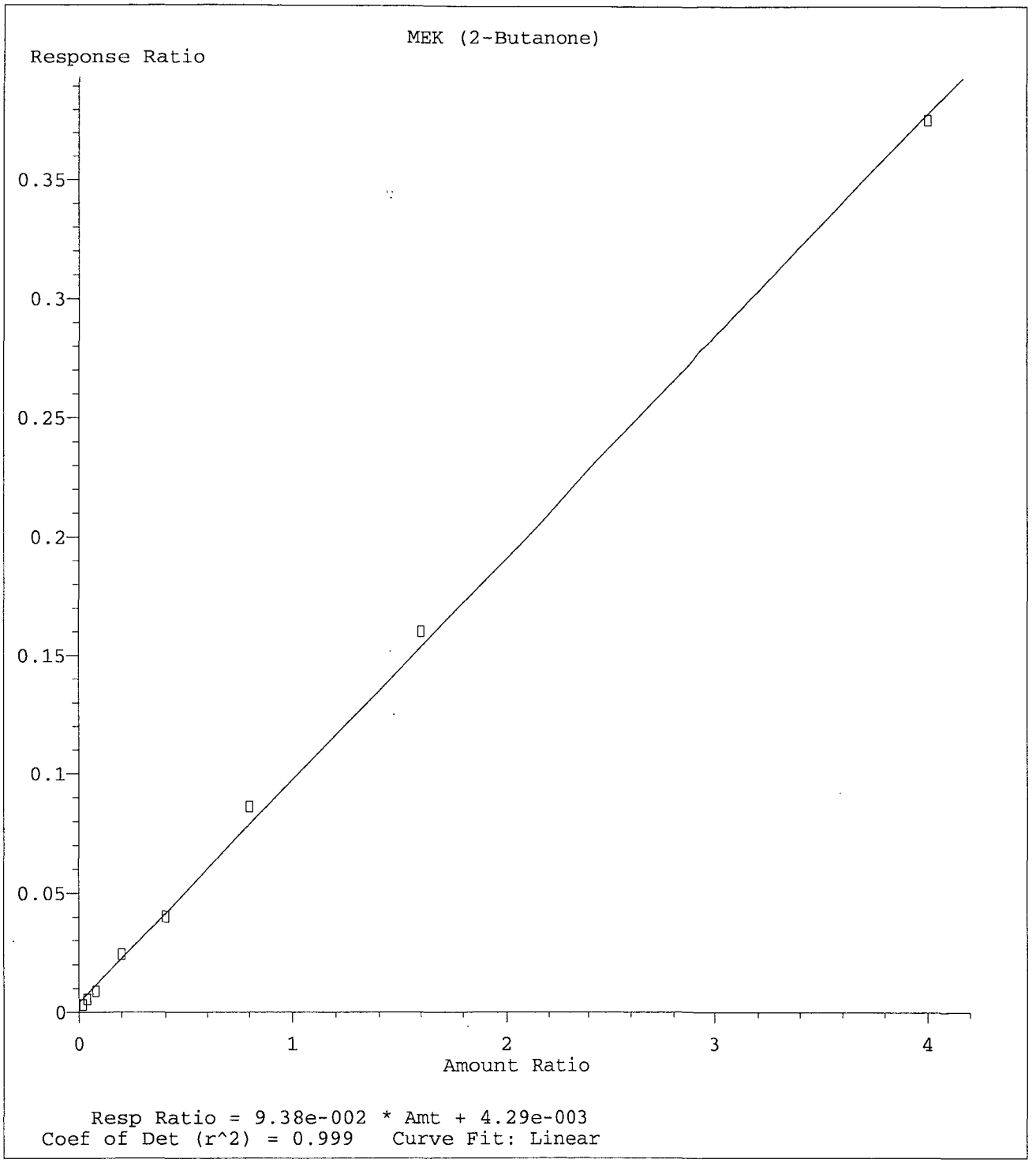

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



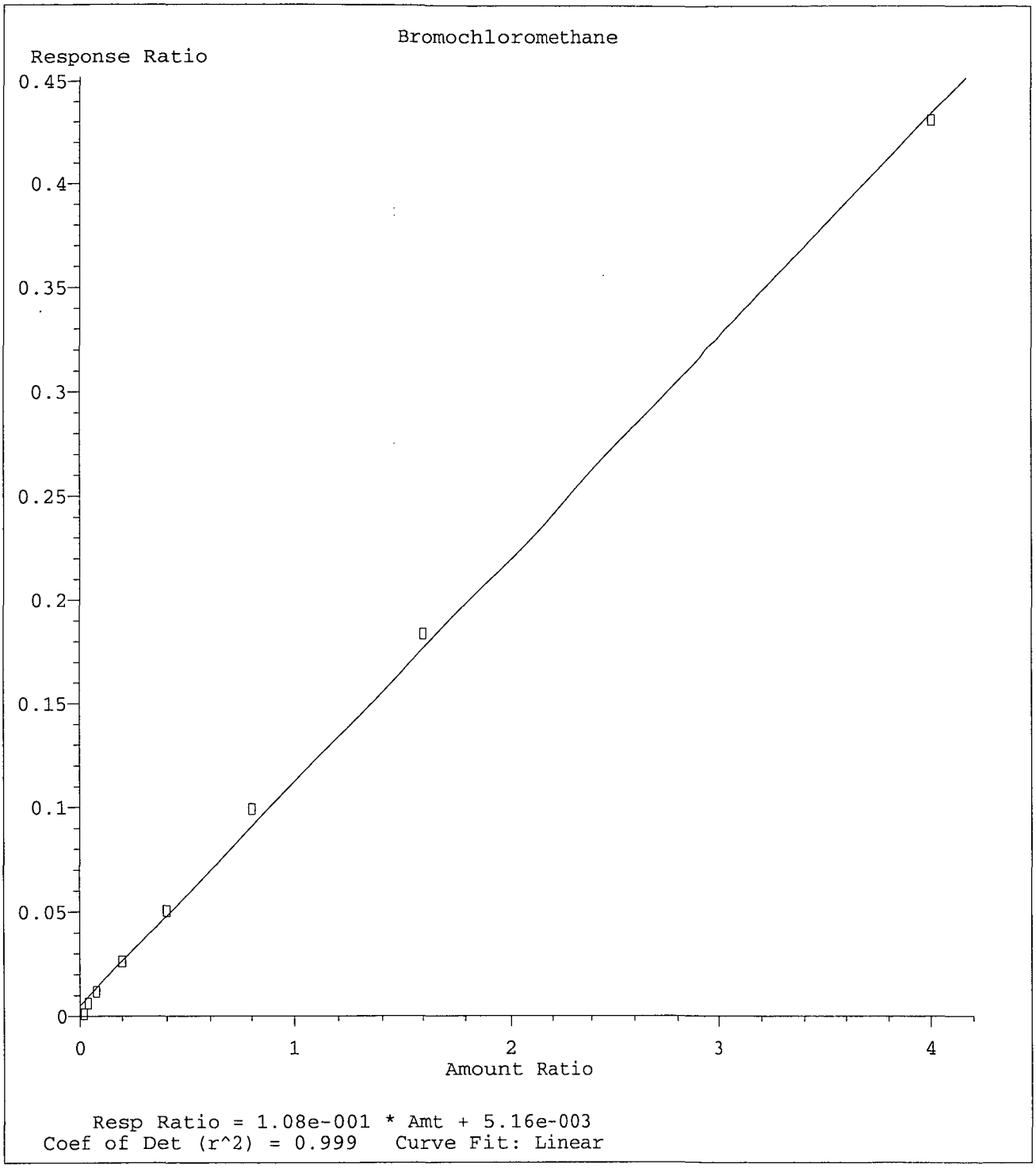

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



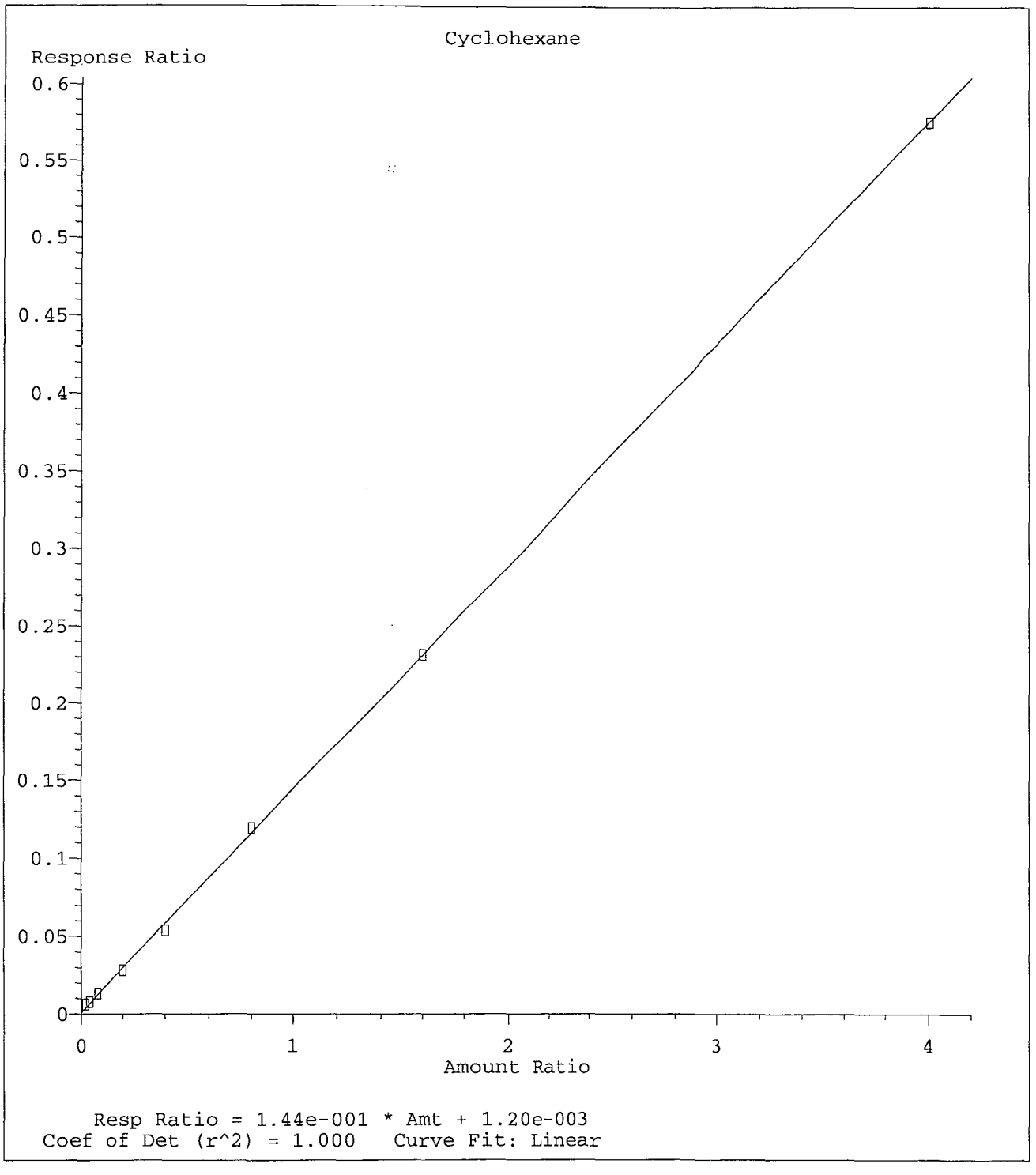

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



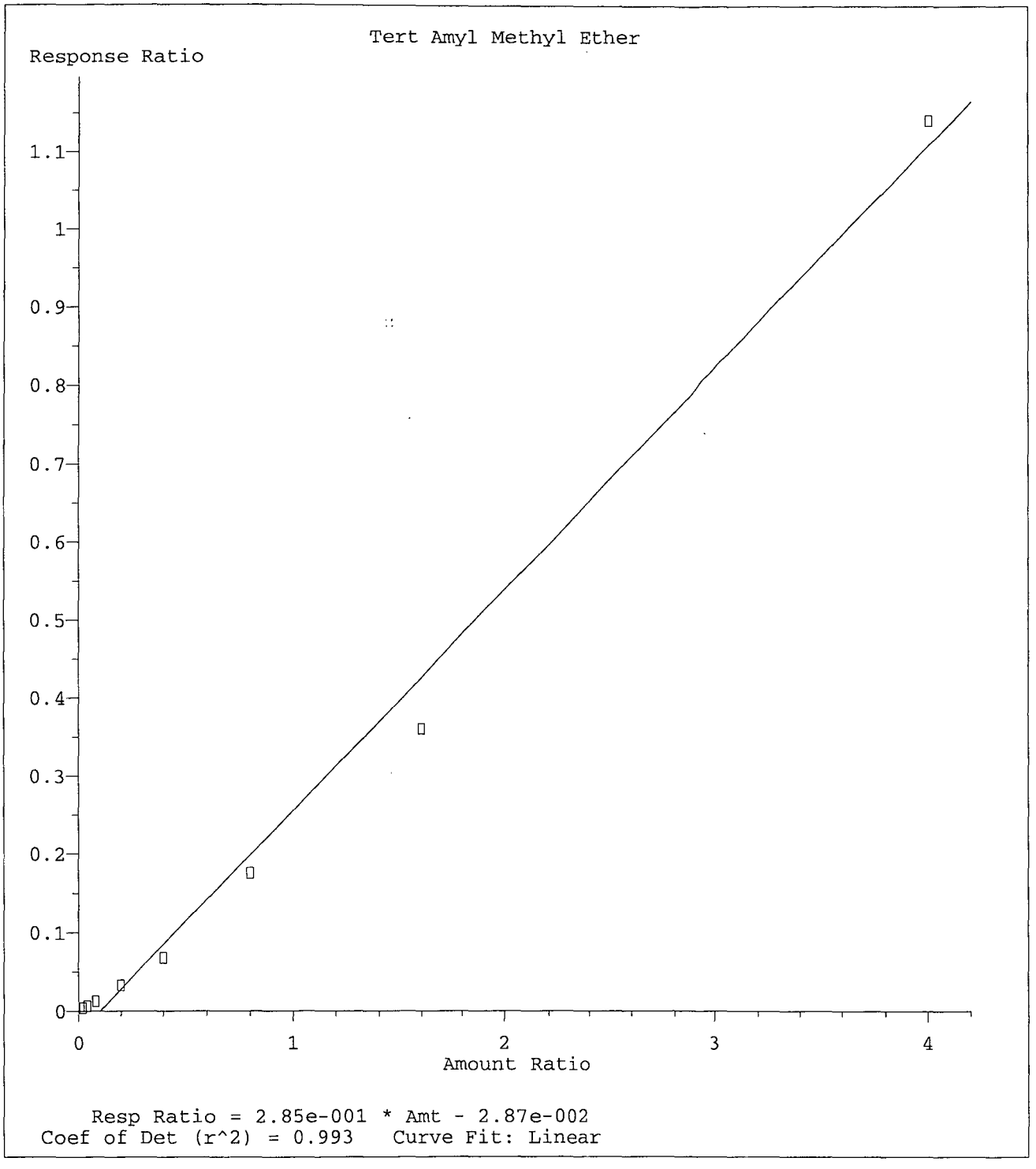

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



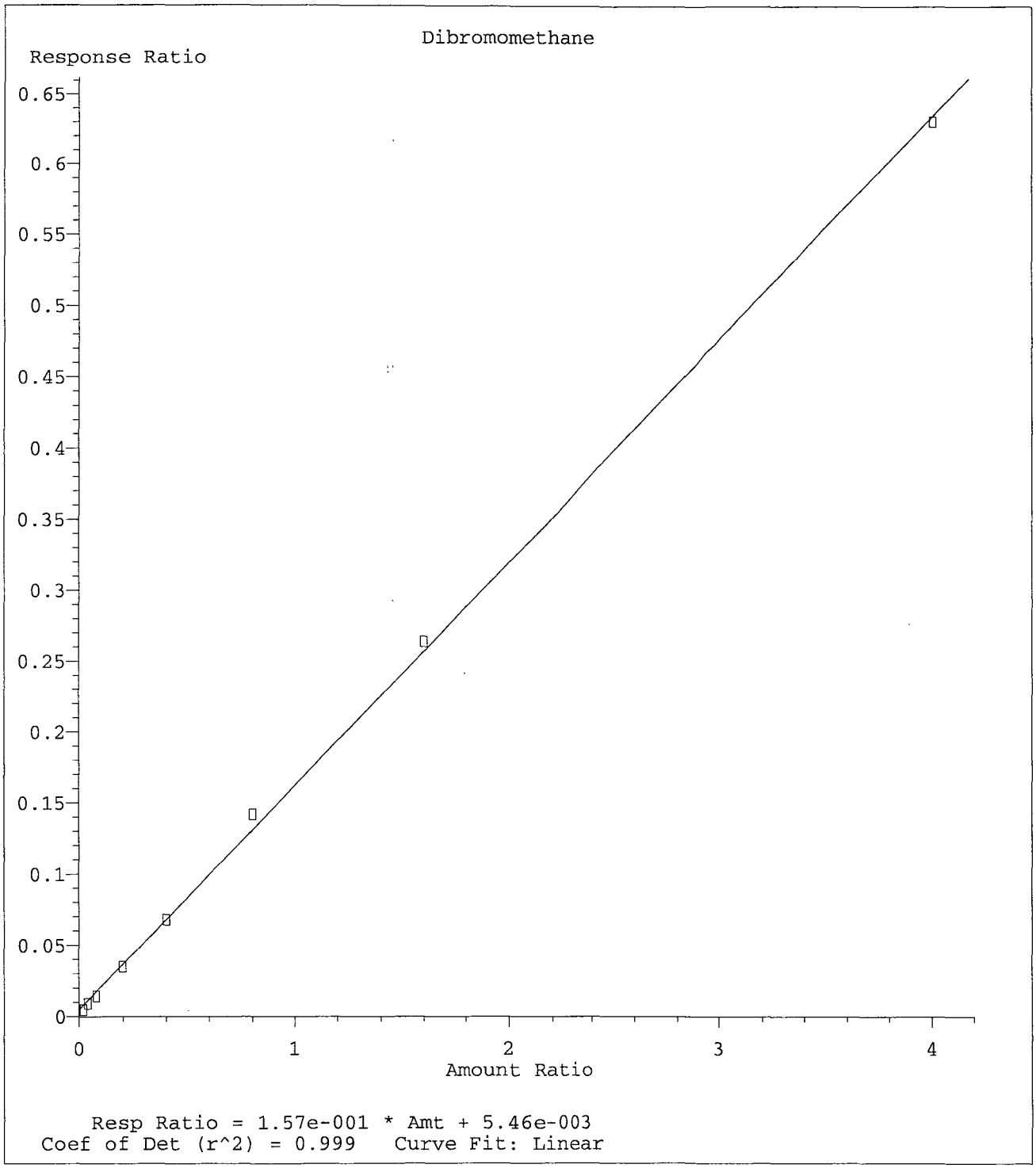

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



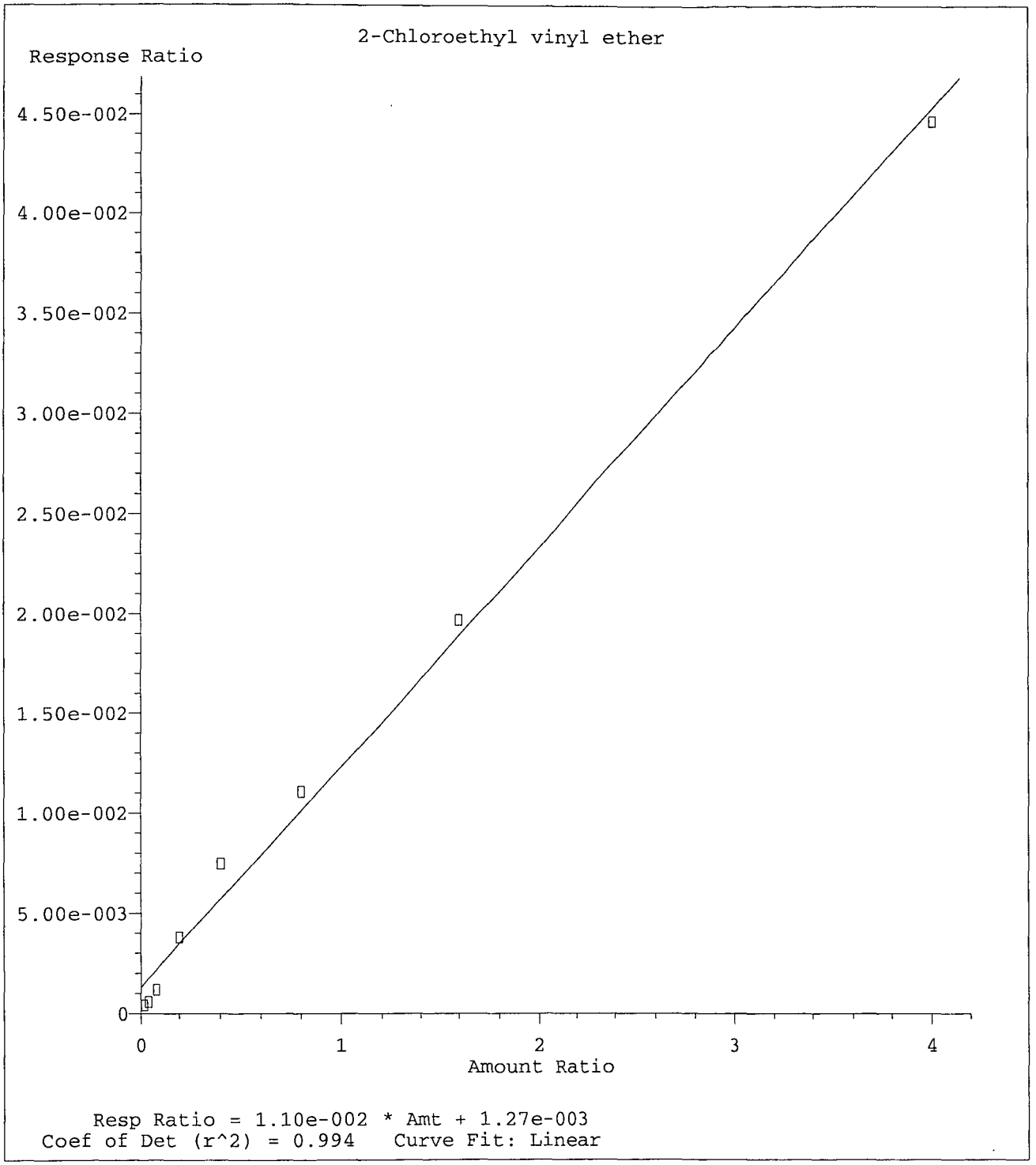

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



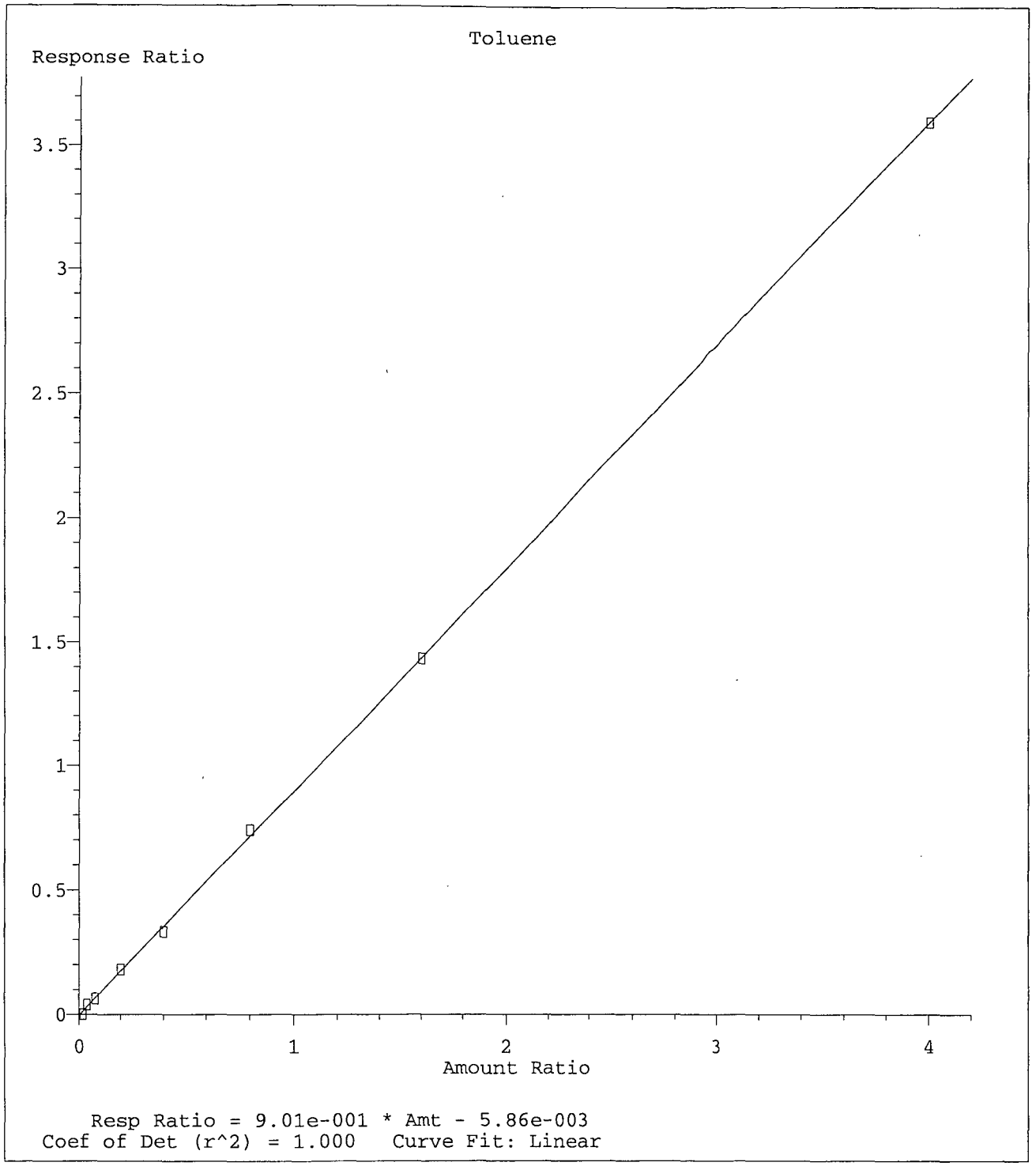

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



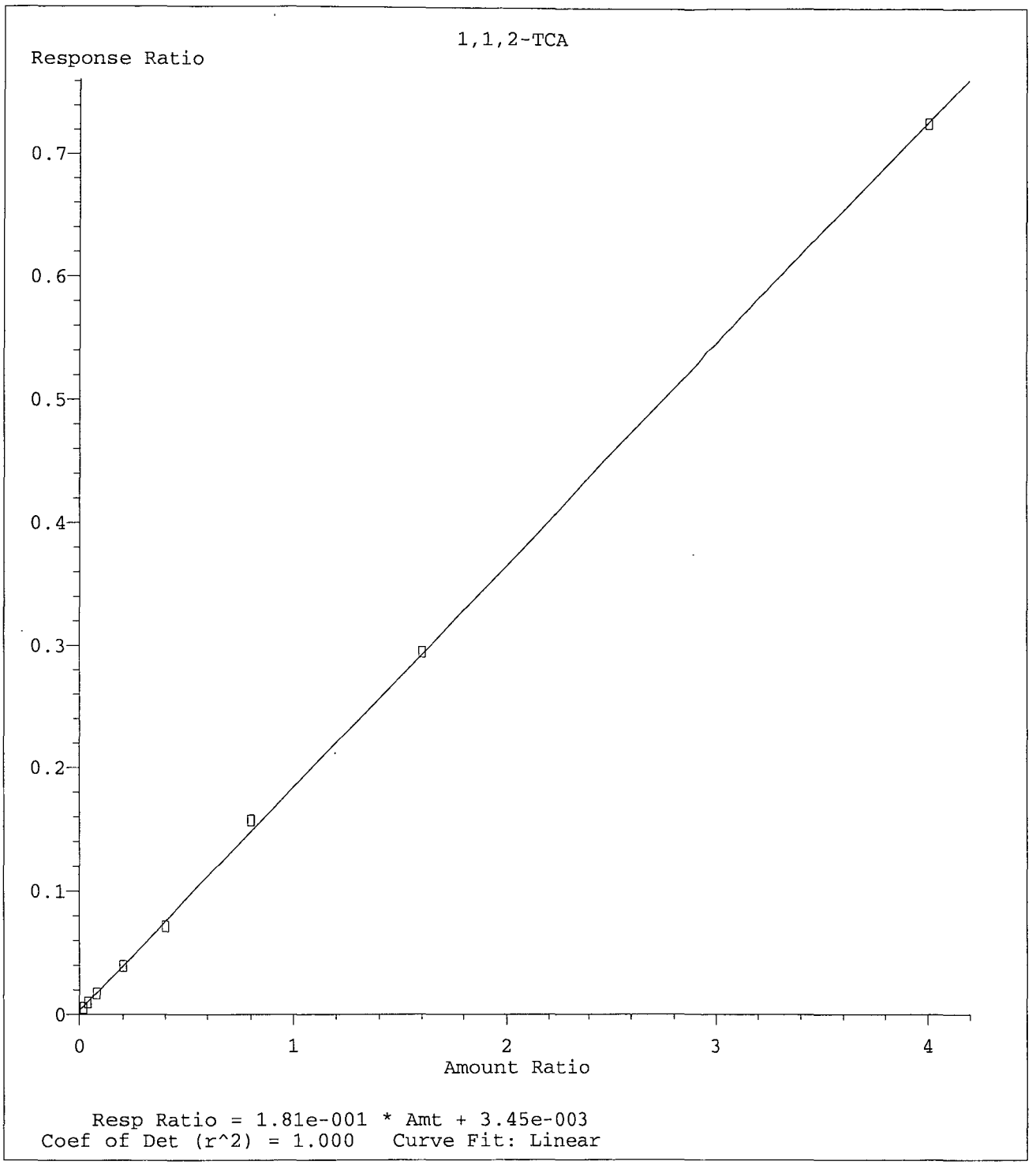

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



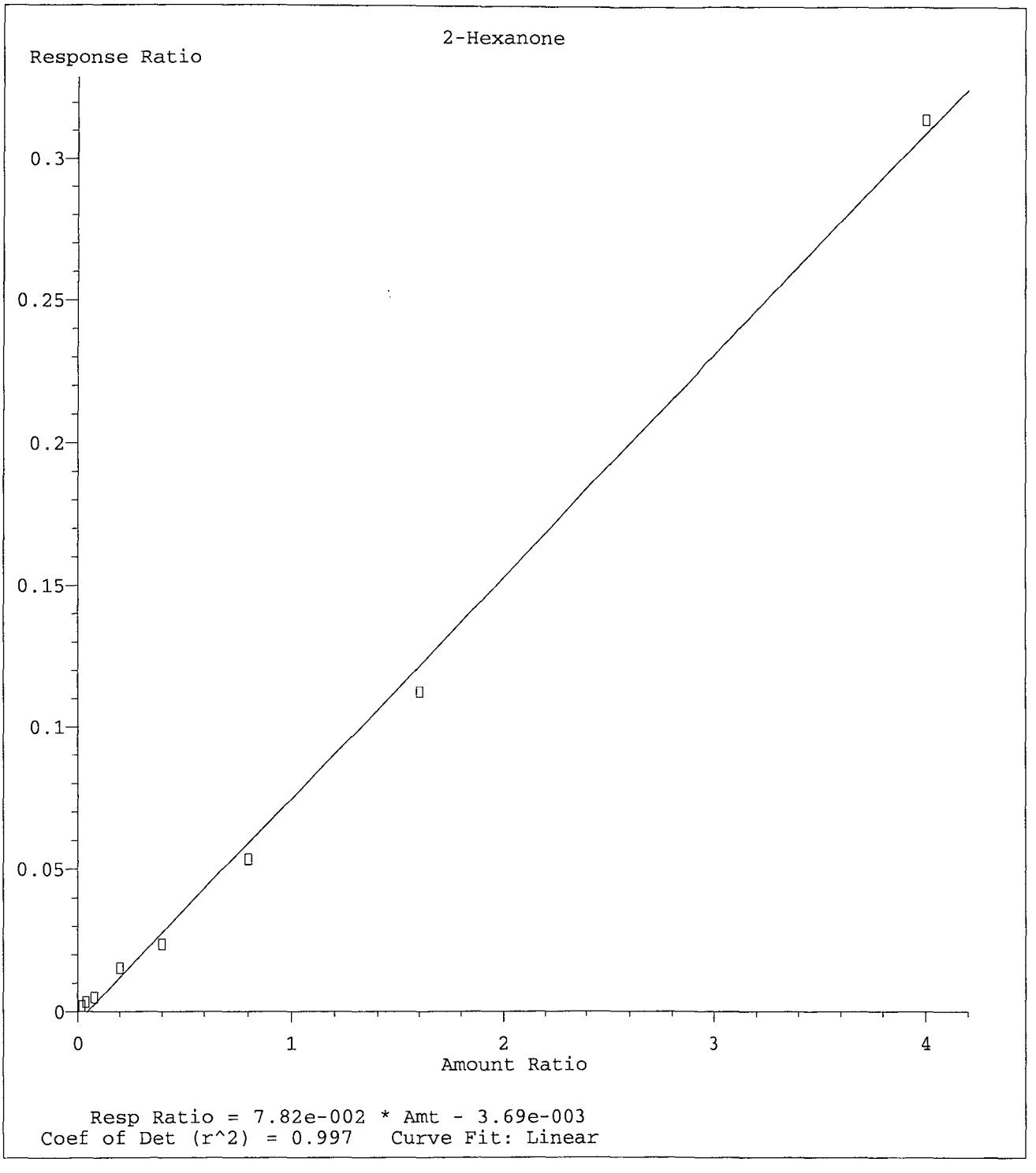

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



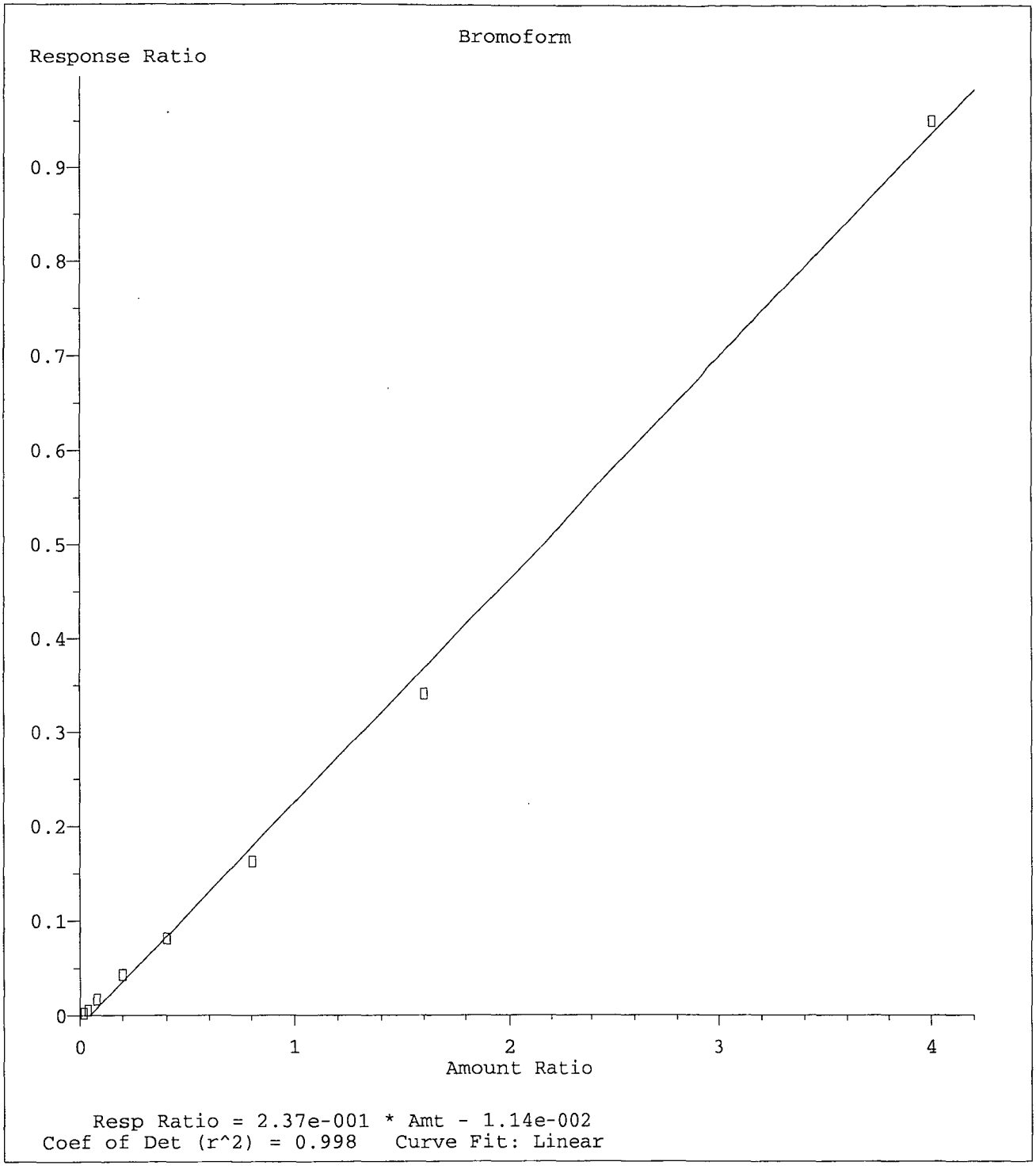

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



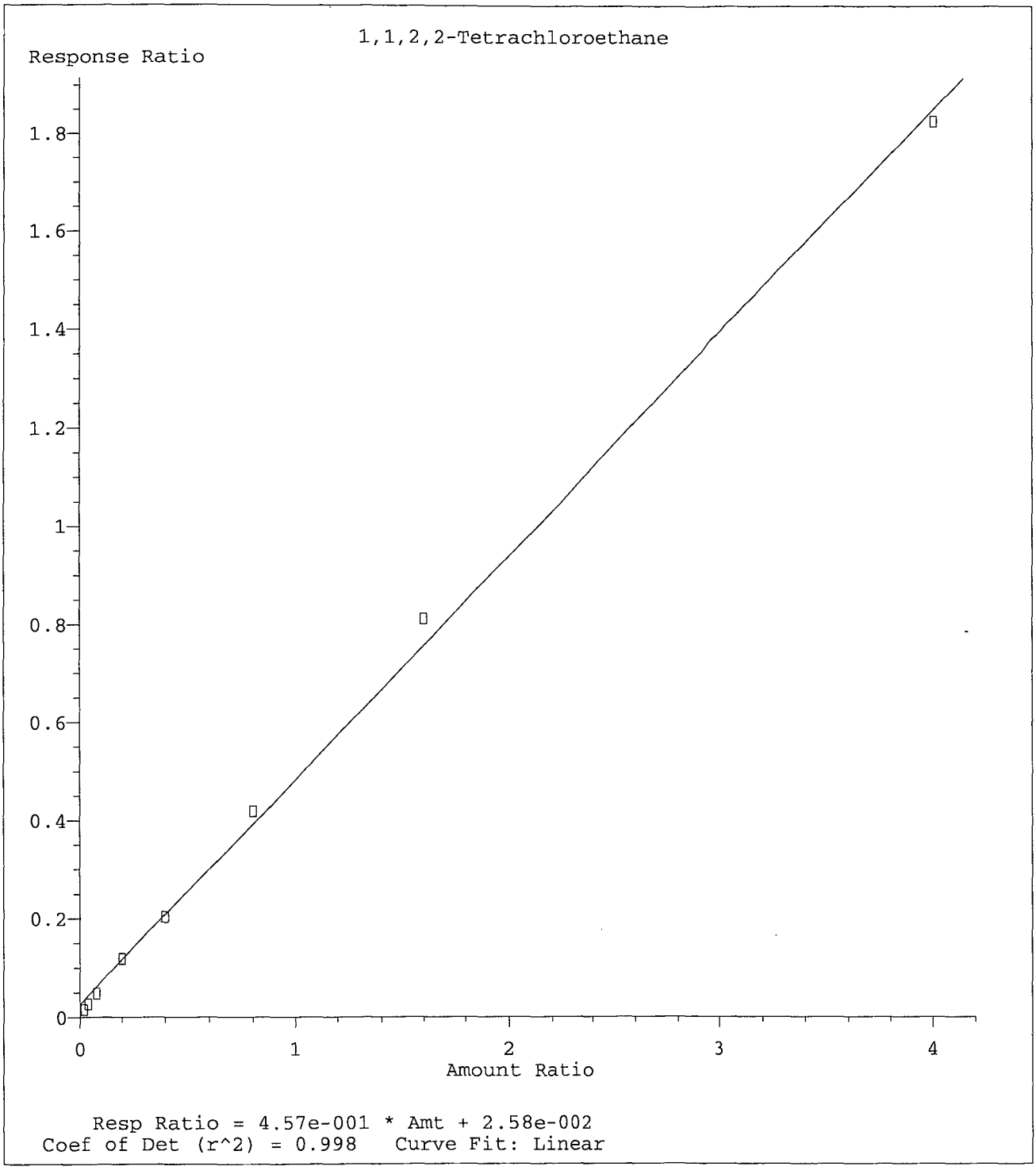

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



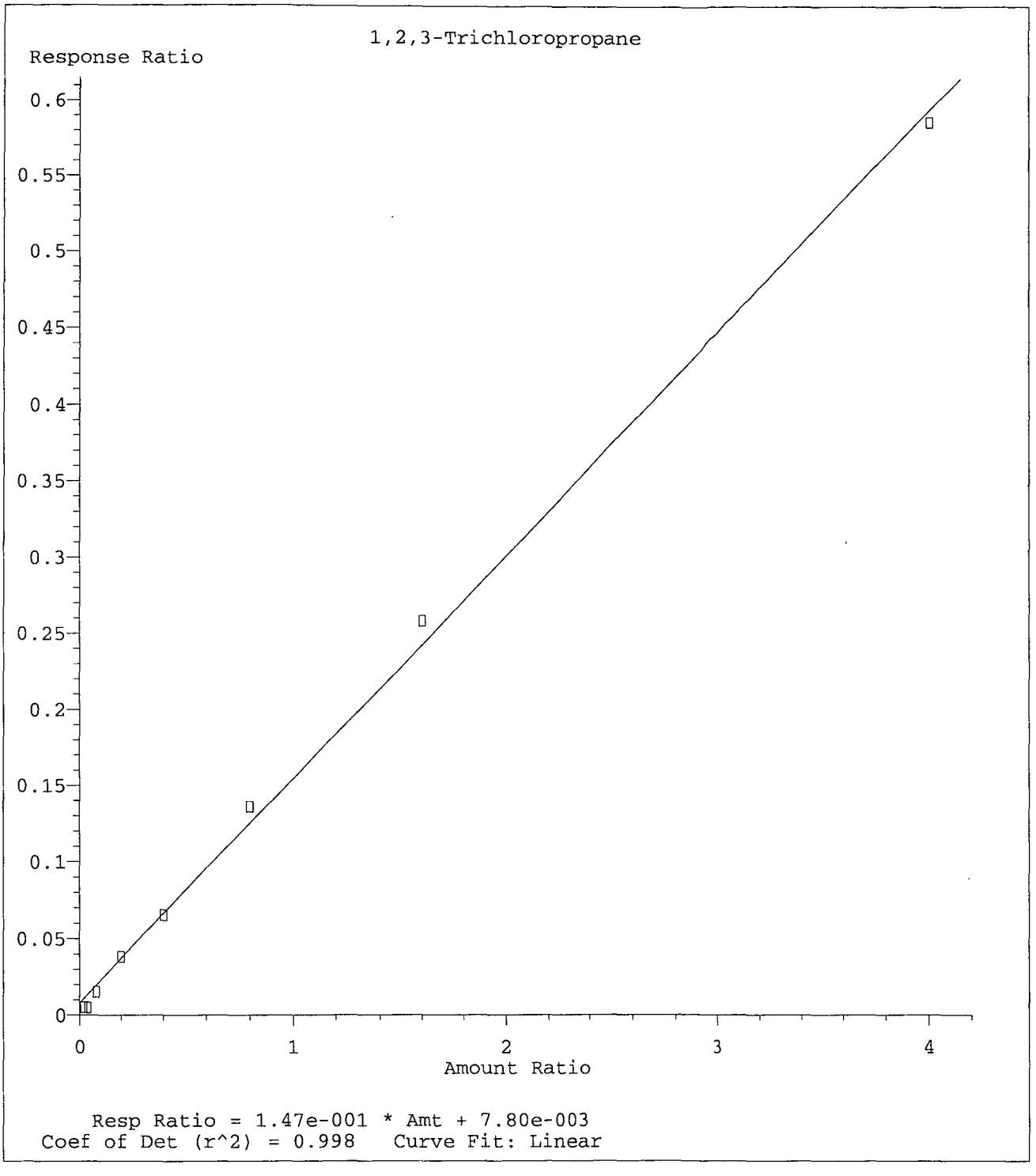

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



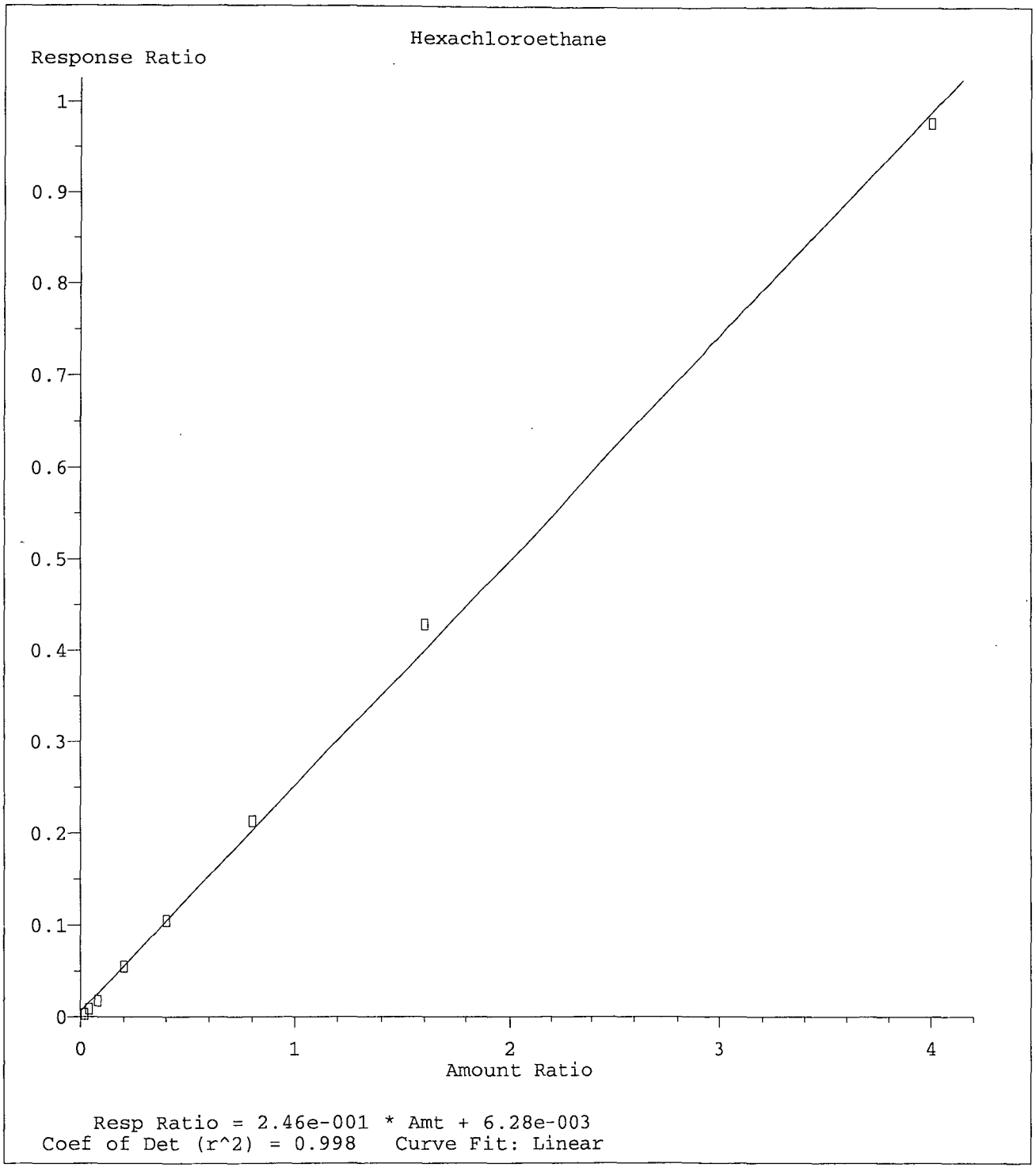

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019



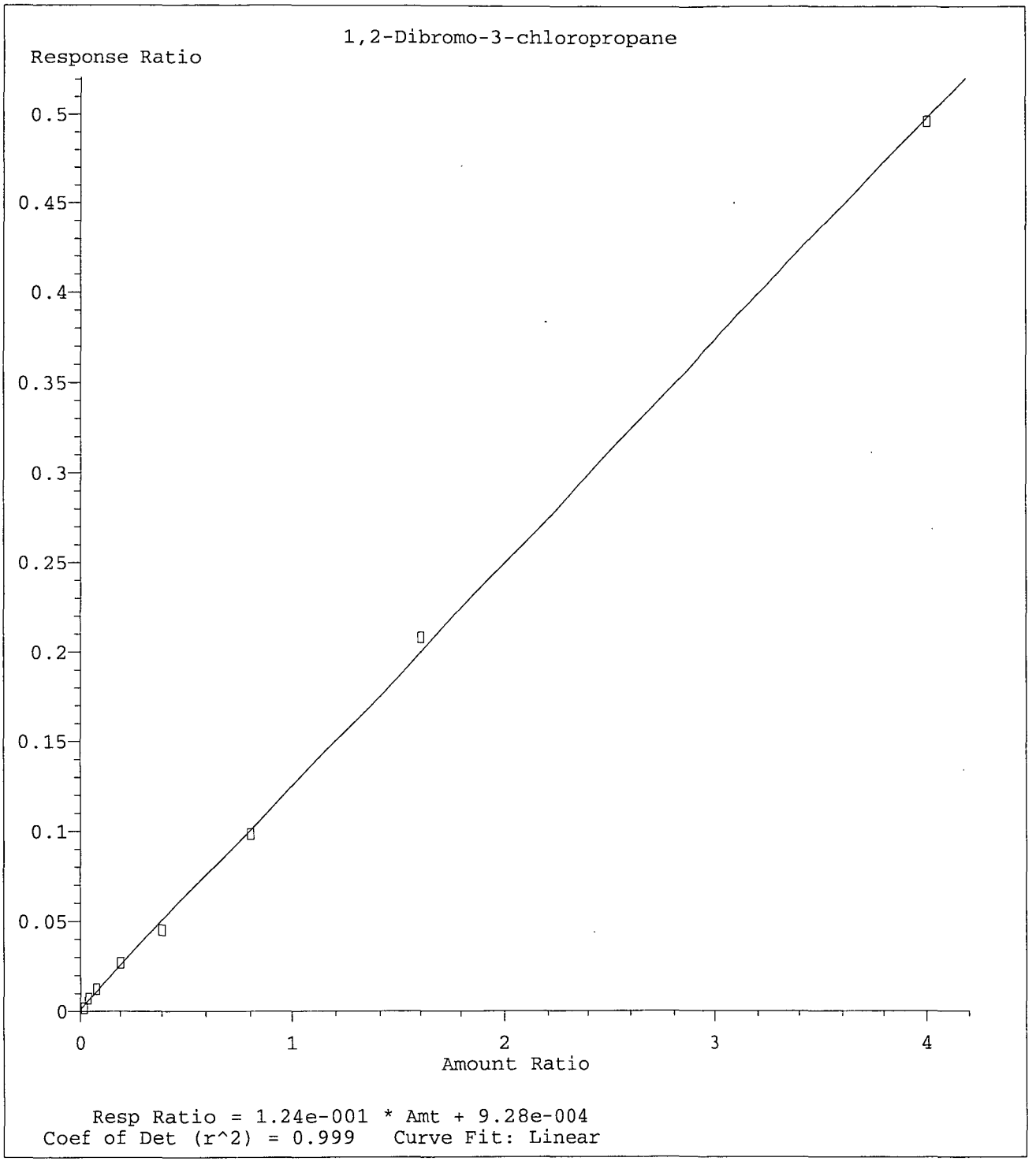

Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019




Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019




Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019




Method Name: M:\THOR\DATA\T190423\T0424W.M
Calibration Table Last Updated: Thu Apr 25 10:43:03 2019

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 04/25/19
Matrix: Instrument: Thor
Initial Cal. Date: 04/24/19
Data File: 0424T30.D

| | | Compound | MEAN | CCRF | %D | | %Drift | |
|---|---|---|---|---|---|---|---|---|
| 1 | TM | Freon 1113 | 0.0000 | 0.0006 | 0.00 | TM | | |
| 2 | TM | Dichlorodifluoromethane | 0.2470 | 0.2666 | 7.9 | TM | | |
| 3 | TM | Freon 114 | 0.1505 | 0.1521 | 1.1 | TM | | |
| 4 | TM**L | Chloromethane | 0.2824 | 0.2331 | 17 | TM**L | 5.1 | |
| 5 | TM* | Vinyl chloride | 0.2456 | 0.2591 | 5.5 | TM* | | |
| 6 | TM | 2-Chloro-1,1,1-trifluoroethane | 0.0000 | 0.0004 | 0.00 | TM | | |
| 7 | TM | Bromomethane | 0.3509 | 0.2959 | 16 | TM | | |
| 8 | TML | Chloroethane | 0.1911 | 0.1775 | 7.1 | TML | 2.5 | |
| 9 | TM | Dichlorofluoromethane | 0.4946 | 0.4648 | 6.0 | TM | | |
| 10 | TM | Trichlorofluoromethane | 0.4508 | 0.4540 | 0.71 | TM | | |
| 11 | TM | Acrolein | 0.0459 | 0.0429 | 6.6 | TM | | |
| 12 | TML | Acetone | 0.2105 | 0.1206 | 43 | TML | 11 | |
| 13 | TM | Freon-113 | 0.2174 | 0.2207 | 1.5 | TM | | |
| 14 | TM* | 1,1-DCE | 0.2980 | 0.2946 | 1.2 | TM* | | |
| 15 | TM | 2-Propanol | 0.0000 | 0.0047 | 0.00 | TM | | |
| 16 | TM | Acetonitrile | 0.0178 | 0.0185 | 4.1 | TM | | |
| 17 | TMQ | t-Butanol | 0.0252 | 0.0243 | 3.7 | TMQ | 2.0 | |
| 18 | TML | Methyl Acetate | 0.2924 | 0.2329 | 20 | TML | 2.1 | |
| 19 | TML | Iodomethane | 0.0866 | 0.0501 | 42 | TML | 35 | * NT |
| 20 | TML | Acrylonitrile | 0.1289 | 0.0873 | 32 | TML | 0.99 | |
| 21 | TML | Methylene chloride | 0.2995 | 0.2976 | 0.65 | TML | 18 | |
| 22 | TML | Carbon disulfide | 0.6789 | 0.6563 | 3.3 | TML | 4.3 | |
| 23 | TML | Methyl t-butyl ether (MtBE) | 0.5734 | 0.4878 | 15 | TML | 1.4 | |
| 24 | TML | Trans-1,2-DCE | 0.2246 | 0.2003 | 11 | TML | 6.3 | |
| 25 | TML | Hexane | 0.1437 | 0.0995 | 31 | TML | 5.3 | |
| 26 | TM | Diisopropyl Ether | 0.1948 | 0.1917 | 1.6 | TM | | |
| 27 | TM**L | 1,1-DCA | 0.3324 | 0.3523 | 6.0 | TM**L | 13 | |
| 28 | TML | Vinyl Acetate | 0.1764 | 0.1724 | 2.3 | TML | 3.5 | |
| 29 | TM | Ethyl tert Butyl Ether | 0.2452 | 0.2239 | 8.7 | TM | | |
| 30 | TML | MEK (2-Butanone) | 0.1151 | 0.1045 | 9.3 | TML | 0.06 | |
| 31 | TM | Cis-1,2-DCE | 0.2954 | 0.2876 | 2.7 | TM | | |
| 32 | TM | 2,2-Dichloropropane | 0.2673 | 0.2639 | 1.3 | TM | | |
| 33 | TM* | Chloroform | 0.4278 | 0.4101 | 4.1 | TM* | | |
| 34 | TML | Bromochloromethane | 0.1186 | 0.1140 | 3.9 | TML | 6.1 | |
| 35 | TM | 1,1,1-TCA | 0.3424 | 0.3483 | 1.7 | TM | | |
| 36 | TML | Cyclohexane | 0.1727 | 0.1533 | 11 | TML | 4.6 | |
| 37 | TM | 1,1-Dichloropropene | 0.2342 | 0.2453 | 4.8 | TM | | |
| 38 | TM | 2,2,4-Trimethylpentane | 0.4272 | 0.4339 | 1.6 | TM | | |
| 39 | TM | Carbon Tetrachloride | 0.2839 | 0.2940 | 3.6 | TM | | |
| 40 | TML | Tert Amyl Methyl Ether | 0.1988 | 0.1882 | 5.3 | TML | 8.6 | |
| | | Average | | | 8.6 | | | |

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 04/25/19
Matrix: 0 Instrument: Thor
Cal. Date: 04/24/19
Data File: 0424T30.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | TM | 1,2-DCA | 0.3475 | 0.3213 | 7.5 | TM | |
| 42 | TM | Benzene | 0.7991 | 0.7666 | 4.1 | TM | |
| 43 | TM | TCE | 0.2095 | 0.2326 | 11 | TM | |
| 44 | TM | 2-Pentanone | 0.1594 | 0.1599 | 0.29 | TM | |
| 45 | TM* | 1,2-Dichloropropane | 0.2182 | 0.2088 | 4.3 | TM* | |
| 46 | TM | Bromodichloromethane | 0.3194 | 0.3116 | 2.4 | TM | |
| 47 | TM | Methyl Cyclohexane | 0.2486 | 0.2513 | 1.1 | TM | |
| 48 | TML | Dibromomethane | 0.1868 | 0.1764 | 5.5 | TML | 3.4 |
| 49 | TM | MIBK (methyl isobutyl ketone) | 0.0796 | 0.0751 | 5.6 | TM | |
| 50 | TM | 1-Bromo-2-chloroethane | 0.3296 | 0.3165 | 4.0 | TM | |
| 51 | TML | 2-Chloroethyl vinyl ether | 0.0155 | 0.0159 | 2.4 | TML | 15 |
| 52 | TM | Cis-1,3-Dichloropropene | 0.3065 | 0.3016 | 1.6 | TM | |
| 53 | TM*L | Toluene | 0.7831 | 0.8985 | 15 | TM*L | 1.3 |
| 54 | TM | Trans-1,3-Dichloropropene | 0.3027 | 0.2977 | 1.7 | TM | |
| 55 | TML | 1,1,2-TCA | 0.2079 | 0.1867 | 10 | TML | 1.7 |
| 56 | TML | 2-Hexanone | 0.0753 | 0.0703 | 6.7 | TML | 1.6 |
| 57 | TM | 1,2-EDB | 0.2483 | 0.2410 | 2.9 | TM | |
| 58 | TM | Tetrachloroethene | 0.2190 | 0.2219 | 1.3 | TM | |
| 59 | TM | 1-Chlorohexane | 0.2295 | 0.2275 | 0.87 | TM | |
| 60 | TM | 1,1,1,2-Tetrachloroethane | 0.2627 | 0.2541 | 3.3 | TM | |
| 61 | TM | m&p-Xylene | 0.3476 | 0.3513 | 1.1 | TM | |
| 62 | TM | o-Xylene | 0.3222 | 0.3362 | 4.3 | TM | |
| 63 | TM | Styrene | 0.5279 | 0.5488 | 4.0 | TM | |
| 64 | TM | 1,3-Dichloropropane | 0.3646 | 0.3408 | 6.5 | TM | |
| 65 | TM | Dibromochloromethane | 0.2689 | 0.2727 | 1.4 | TM | |
| 66 | TM** | Chlorobenzene | 0.6513 | 0.6456 | 0.87 | TM** | |
| 67 | TM* | Ethylbenzene | 0.9069 | 0.9034 | 0.39 | TM* | |
| 68 | TM**L | Bromoform | 0.1904 | 0.2031 | 6.7 | TM**L | 2.4 |
| 69 | TM | Isopropylbenzene | 1.310 | 1.346 | 2.8 | TM | |
| 70 | TM**L | 1,1,2,2-Tetrachloroethane | 0.5760 | 0.5468 | 5.1 | TM**L | 5.6 |
| 71 | TML | 1,2,3-Trichloropropane | 0.1758 | 0.1712 | 2.6 | TML | 3.5 |
| 72 | TM | t-1,4-Dichloro-2-Butene | 0.1146 | 0.1134 | 1.0 | TM | |
| 73 | TM | Bromobenzene | 0.4770 | 0.4996 | 4.7 | TM | |
| 74 | TM | n-Propylbenzene | 1.568 | 1.604 | 2.4 | TM | |
| 75 | TM | 4-Ethyltoluene | 1.364 | 1.453 | 6.5 | TM | |
| 76 | TM | 2-Chlorotoluene | 1.018 | 1.056 | 3.7 | TM | |
| 77 | TM | 1,3,5-Trimethylbenzene | 1.170 | 1.250 | 6.8 | TM | |
| 78 | TM | 4-Chlorotoluene | 1.173 | 1.252 | 6.8 | TM | |
| 79 | TM | Tert-Butylbenzene | 1.013 | 1.030 | 1.7 | TM | |
| 80 | TM | 1,2,4-Trimethylbenzene | 1.123 | 1.176 | 4.7 | TM | |
| | | Average | | | 4.1 | | |

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 04/25/19
Instrument: Thor
Cal. Date: 04/24/19
Data File: 0424T30.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 81 | TM | Sec-Butylbenzene | 1.397 | 1.506 | 7.8 | TM | |
| 82 | TM | p-Isopropyltoluene | 1.274 | 1.367 | 7.3 | TM | |
| 83 | TM | Benzyl Chloride | 0.1135 | 0.1061 | 6.6 | TM | |
| 84 | TM | 1,3-DCB | 0.8536 | 0.8731 | 2.3 | TM | |
| 85 | TM | 1,4-DCB | 0.9634 | 0.9360 | 2.8 | TM | |
| 86 | TM | n-Butylbenzene | 1.052 | 1.109 | 5.4 | TM | |
| 87 | TM | 1,2-DCB | 0.8790 | 0.8820 | 0.34 | TM | |
| 88 | TML | Hexachloroethane | 0.2368 | 0.2541 | 7.3 | TML | 3.1 |
| 89 | TML | 1,2-Dibromo-3-chloropropane | 0.1309 | 0.1224 | 6.5 | TML | 3.5 |
| 90 | TM | 1,2,4-Trichlorobenzene | 0.5625 | 0.5864 | 4.3 | TM | |
| 91 | TM | Hexachlorobutadiene | 0.2755 | 0.3107 | 13 | TM | |
| 92 | TM | Naphthalene | 1.215 | 1.116 | 8.1 | TM | |
| 93 | TM | 1,2,3-Trichlorobenzene | 0.5996 | 0.5871 | 2.1 | TM | |
| 94 | | | | | | | |
| 95 | | | | | | | |
| 96 | | | | | | | |
| 97 | | | | | | | |
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| 115 | | | | | | | |
| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 5.7 | | |

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T30.D Vial: 27
Acq On : 25 Apr 19 00:34 Operator: DG,SV, CMM.PM,KV
Sample : (SS)10ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:43 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 377280 | 25.0000 ppb | | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 373696 | 25.0000 ppb | | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 232384 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 198562 | 24.8770 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 99.508% | | | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 224706 | 24.6818 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 98.728% | | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 679277 | 25.6822 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 102.728% | | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 245236 | 25.6775 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 102.712% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 0.96 | 85 | 40227 | 10.7902 ppb | | 94 |
| 4) Freon 114 | 1.05 | 135 | 22960 | 10.1112 ppb | | 93 |
| 5) Chloromethane | 1.08 | 50 | 35177 | 10.5115 ppb | | 95 |
| 6) Vinyl chloride | 1.16 | 62 | 39096 | 10.5491 ppb | | 99 |
| 8) Bromomethane | 1.38 | 94 | 44656 | 8.4339 ppb | | 91 |
| 9) Chloroethane | 1.46 | 64 | 26786 | 10.2516 ppb | | 93 |
| 10) Dichlorofluoromethane | 1.62 | 67 | 70139 | 9.3975 ppb | | 97 |
| 11) Trichlorofluoromethane | 1.66 | 101 | 68515 | 10.0707 ppb | | 96 |
| 12) Acrolein | 2.00 | 56 | 80908 | 116.7626 ppb | | 91 |
| 13) Acetone | 2.14 | 43 | 18199 | 11.1131 ppb | | 94 |
| 14) Freon-113 | 2.10 | 101 | 33305 | 10.1511 ppb | | 93 |
| 15) 1,1-DCE | 2.08 | 61 | 44461 | 9.8848 ppb | | 97 |
| 17) Acetonitrile | 2.39 | 41 | 34957 | 130.1292 ppb | | 94 |
| 18) t-Butanol | 2.75 | 59 | 45863 | 122.4578 ppb | | 97 |
| 19) Methyl Acetate | 2.47 | 43 | 35150 | 9.7912 ppb | | 95 |
| 20) Iodomethane | 2.20 | 142 | 7562 | 6.4886 ppb | | 87 |
| 21) Acrylonitrile | 2.83 | 52 | 13171 | 10.0993 ppb | | 95 |
| 22) Methylene chloride | 2.55 | 84 | 44909 | 11.7641 ppb | | 92 |
| 23) Carbon disulfide | 2.25 | 76 | 99044 | 10.4311 ppb | | 99 |
| 24) Methyl t-butyl ether (MtBE | 2.88 | 73 | 73620 | 9.8608 ppb | | 99 |
| 25) Trans-1,2-DCE | 2.85 | 96 | 30234 | 10.6342 ppb | | 96 |
| 26) Hexane | 2.88 | 57 | 15012 | 9.4692 ppb | # | 97 |
| 27) Diisopropyl Ether | 3.56 | 45 | 28924 | 9.8397 ppb | | 96 |
| 28) 1,1-DCA | 3.37 | 63 | 53172 | 11.3330 ppb | # | 90 |
| 29) Vinyl Acetate | 3.55 | 87 | 26018 | 10.3541 ppb | | 94 |
| 30) Ethyl tert Butyl Ether | 4.12 | 59 | 33789 | 9.1311 ppb | | 88 |
| 31) MEK (2-Butanone) | 4.33 | 43 | 15767 | 9.9942 ppb | # | 86 |
| 32) Cis-1,2-DCE | 4.25 | 61 | 43398 | 9.7343 ppb | | 95 |
| 33) 2,2-Dichloropropane | 4.23 | 77 | 39828 | 9.8741 ppb | # | 86 |
| 34) Chloroform | 4.75 | 83 | 61884 | 9.5856 ppb | | 93 |
| 35) Bromochloromethane | 4.59 | 128 | 17199 | 9.3930 ppb | | 84 |
| 37) 1,1,1-TCA | 4.95 | 97 | 52566 | 10.1732 ppb | | 94 |
| 38) Cyclohexane | 5.01 | 41 | 23128 | 10.4594 ppb | | 80 |
| 39) 1,1-Dichloropropene | 5.19 | 75 | 37024 | 10.4752 ppb | | 97 |
| 40) 2,2,4-Trimethylpentane | 5.60 | 57 | 65482 | 10.1567 ppb | | 95 |
| 42) Carbon Tetrachloride | 5.17 | 117 | 44375 | 10.3573 ppb | | 91 |
| 43) Tert Amyl Methyl Ether | 5.66 | 73 | 28407 | 9.1412 ppb | | 99 |
| 44) 1,2-DCA | 5.47 | 62 | 48484 | 9.2459 ppb | | 98 |
| 45) Benzene | 5.44 | 78 | 115693 | 9.5940 ppb | | 97 |

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T30.D Vial: 27
Acq On : 25 Apr 19 00:34 Operator: DG,SV, CMM.PM,KV
Sample : (SS)10ug/L VOC STD 04/24/19 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 10:43 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 46) | TCE | 6.25 | 95 | 35106 | 11.1050 ppb | | 95 |
| 47) | 2-Pentanone | 6.51 | 43 | 301567 | 125.3605 ppb | | 100 |
| 48) | 1,2-Dichloropropane | 6.48 | 63 | 31511 | 9.5688 ppb | # | 92 |
| 49) | Bromodichloromethane | 6.82 | 83 | 47027 | 9.7567 ppb | | 94 |
| 50) | Methyl Cyclohexane | 6.45 | 83 | 37925 | 10.1069 ppb | | 92 |
| 51) | Dibromomethane | 6.61 | 93 | 26625 | 10.3370 ppb | | 93 |
| 52) | MIBK (methyl isobutyl ket | 7.51 | 58 | 11331 | 9.4360 ppb | # | 84 |
| 53) | 1-Bromo-2-chloroethane | 7.12 | 63 | 47767 | 9.6033 ppb | | 97 |
| 54) | 2-Chloroethyl vinyl ether | 7.13 | 107 | 2398 | 11.5444 ppb | # | 61 |
| 55) | Cis-1,3-Dichloropropene | 7.31 | 75 | 45509 | 9.8383 ppb | | 97 |
| 56) | Toluene | 7.65 | 91 | 135602 | 10.1298 ppb | | 97 |
| 57) | Trans-1,3-Dichloropropene | 7.91 | 75 | 44920 | 9.8348 ppb | | 91 |
| 58) | 1,1,2-TCA | 8.09 | 83 | 28176 | 9.8328 ppb | | 99 |
| 59) | 2-Hexanone | 8.38 | 58 | 10603 | 10.1587 ppb | | 81 |
| 62) | 1,2-EDB | 8.56 | 107 | 36029 | 9.7075 ppb | | 92 |
| 63) | Tetrachloroethene | 8.21 | 164 | 33162 | 10.1285 ppb | | 91 |
| 64) | 1-Chlorohexane | 9.10 | 91 | 34002 | 9.9126 ppb | | 96 |
| 65) | 1,1,1,2-Tetrachloroethane | 9.17 | 131 | 37975 | 9.6700 ppb | | 99 |
| 66) | m&p-Xylene | 9.33 | 106 | 105038 | 20.2140 ppb | | 96 |
| 67) | o-Xylene | 9.72 | 106 | 50257 | 10.4336 ppb | | 96 |
| 68) | Styrene | 9.73 | 104 | 82035 | 10.3970 ppb | | 98 |
| 70) | 1,3-Dichloropropane | 8.25 | 76 | 50943 | 9.3468 ppb | | 98 |
| 71) | Dibromochloromethane | 8.47 | 129 | 40766 | 10.1418 ppb | | 98 |
| 72) | Chlorobenzene | 9.07 | 112 | 96499 | 9.9127 ppb | | 98 |
| 73) | Ethylbenzene | 9.21 | 91 | 135033 | 9.9605 ppb | | 100 |
| 74) | Bromoform | 9.89 | 173 | 30365 | 9.7648 ppb | | 98 |
| 76) | Isopropylbenzene | 10.10 | 105 | 125121 | 10.2754 ppb | | 98 |
| 77) | 1,1,2,2-Tetrachloroethane | 10.39 | 83 | 50826 | 10.5634 ppb | | 95 |
| 78) | 1,2,3-Trichloropropane | 10.42 | 110 | 15916 | 10.3527 ppb | | 99 |
| 79) | t-1,4-Dichloro-2-Butene | 10.46 | 53 | 10541 | 9.8970 ppb | | 88 |
| 80) | Bromobenzene | 10.36 | 156 | 46442 | 10.4745 ppb | | 95 |
| 81) | n-Propylbenzene | 10.50 | 91 | 149137 | 10.2354 ppb | | 100 |
| 82) | 4-Ethyltoluene | 10.62 | 105 | 135054 | 10.6533 ppb | | 98 |
| 83) | 2-Chlorotoluene | 10.56 | 91 | 98199 | 10.3739 ppb | | 99 |
| 84) | 1,3,5-Trimethylbenzene | 10.69 | 105 | 116171 | 10.6845 ppb | | 99 |
| 85) | 4-Chlorotoluene | 10.68 | 91 | 116418 | 10.6795 ppb | | 100 |
| 86) | Tert-Butylbenzene | 11.00 | 119 | 95715 | 10.1672 ppb | | 97 |
| 87) | 1,2,4-Trimethylbenzene | 11.05 | 105 | 109321 | 10.4737 ppb | | 100 |
| 88) | Sec-Butylbenzene | 11.22 | 105 | 139986 | 10.7790 ppb | | 97 |
| 89) | p-Isopropyltoluene | 11.37 | 119 | 127096 | 10.7342 ppb | | 98 |
| 90) | Benzyl Chloride | 11.53 | 91 | 9858 | 9.3436 ppb | | 93 |
| 91) | 1,3-DCB | 11.30 | 146 | 81160 | 10.2282 ppb | | 95 |
| 92) | 1,4-DCB | 11.39 | 146 | 87009 | 9.7162 ppb | | 93 |
| 93) | n-Butylbenzene | 11.77 | 91 | 103106 | 10.5430 ppb | | 98 |
| 94) | 1,2-DCB | 11.75 | 146 | 81987 | 10.0345 ppb | | 96 |
| 95) | Hexachloroethane | 12.00 | 117 | 23617 | 9.6861 ppb | | 95 |
| 96) | 1,2-Dibromo-3-chloropropan | 12.51 | 157 | 11375 | 9.6452 ppb | | 91 |
| 97) | 1,2,4-Trichlorobenzene | 13.34 | 180 | 54507 | 10.4252 ppb | | 91 |
| 98) | Hexachlorobutadiene | 13.53 | 225 | 28882 | 11.2773 ppb | | 88 |
| 99) | Naphthalene | 13.57 | 128 | 103741 | 9.1884 ppb | | 96 |
| 100) | 1,2,3-Trichlorobenzene | 13.81 | 180 | 54577 | 9.7915 ppb | | 94 |

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

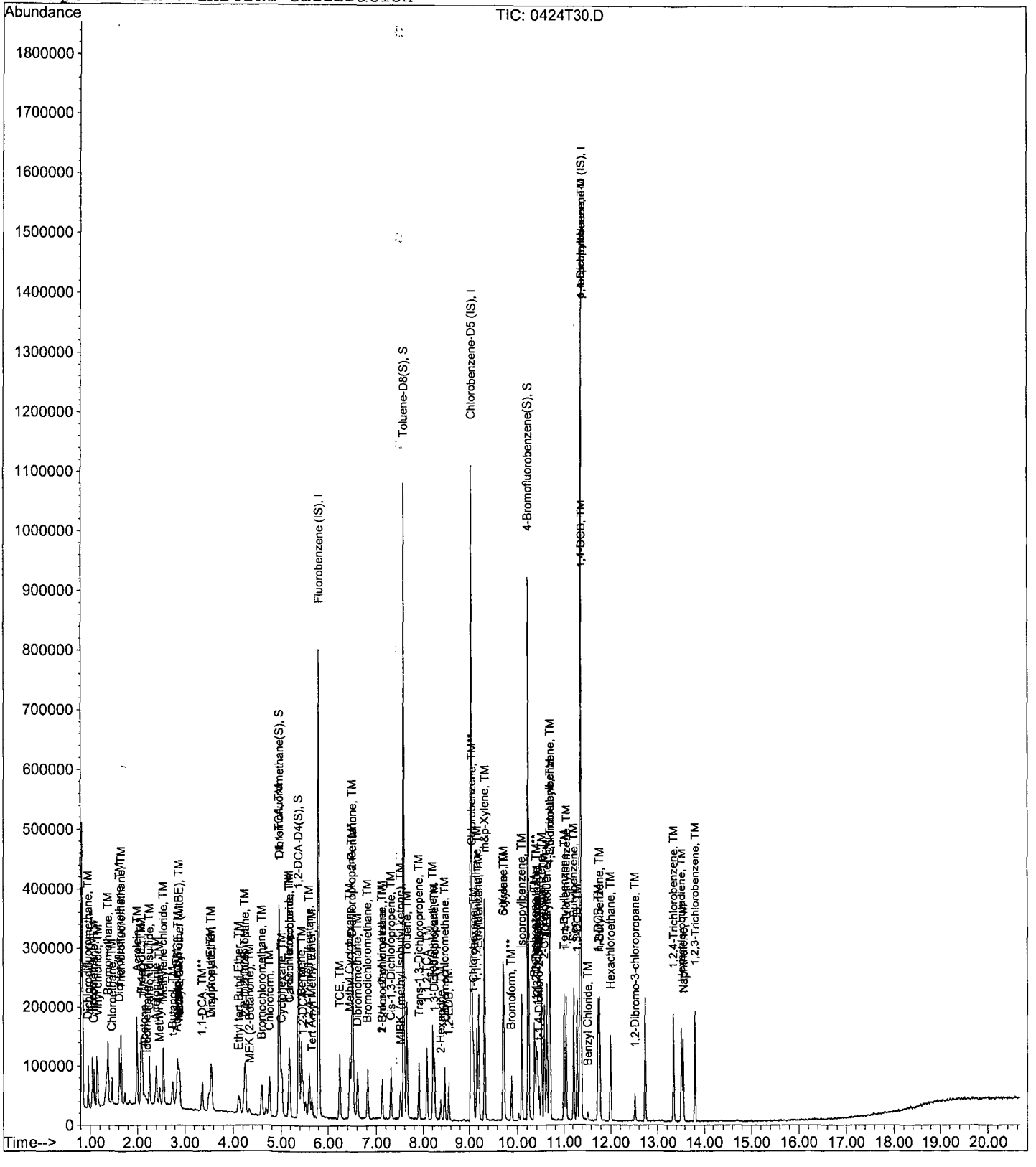
Quantitation Report

Data File : M:\THOR\DATA\T190423\0424T30.D
Acq On : 25 Apr 19 00:34
Sample : (SS)10ug/L VOC STD 04/24/19
Misc : IS &S 4/2/19

Vial: 27
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 25 10:43 2019 Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 04/25/19
Matrix: Instrument: Thor
Initial Cal. Date: 04/24/19
Data File: 0424T54.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | |
| 2 | TM | Freon 1113 | 0.0000 | 0.0005 | 0.00 | TM | |
| 3 | TM | Dichlorodifluoromethane | 0.2470 | 0.2718 | 10 | TM | |
| 4 | TM | Freon 114 | 0.1505 | 0.1442 | 4.1 | TM | |
| 5 | TM**L | Chloromethane | 0.2824 | 0.2381 | 16 | TM**L | 7.7 |
| 6 | TM* | Vinyl chloride | 0.2456 | 0.2526 | 2.9 | TM* | |
| 7 | TM | 2-Chloro-1,1,1-trifluoroethane | 0.0000 | 0.0004 | 0.00 | TM | |
| 8 | TM | Bromomethane | 0.3509 | 0.2563 | 27 | TM | |
| 9 | TML | Chloroethane | 0.1911 | 0.1675 | 12 | TML | 3.5 |
| 10 | TM | Dichlorofluoromethane | 0.4946 | 0.4527 | 8.5 | TM | |
| 11 | TM | Trichlorofluoromethane | 0.4508 | 0.4360 | 3.3 | TM | |
| 12 | TM | Acrolein | 0.0459 | 0.0365 | 20 | TM | |
| 13 | TML | Acetone | 0.2105 | 0.1162 | 45 | TML | 5.6 |
| 14 | TM | Freon-113 | 0.2174 | 0.2120 | 2.5 | TM | |
| 15 | TM* | 1,1-DCE | 0.2980 | 0.2907 | 2.5 | TM* | |
| 16 | TM | 2-Propanol | 0.0000 | 0.0051 | 0.00 | TM | |
| 17 | TM | Acetonitrile | 0.0178 | 0.0169 | 4.9 | TM | |
| 18 | TMQ | t-Butanol | 0.0252 | 0.0246 | 2.7 | TMQ | 1.3 |
| 19 | TML | Methyl Acetate | 0.2924 | 0.2289 | 22 | TML | 4.2 |
| 20 | TML | Iodomethane | 0.0866 | 0.0834 | 3.7 | TML | 18 |
| 21 | TML | Acrylonitrile | 0.1289 | 0.0904 | 30 | TML | 4.8 |
| 22 | TML | Methylene chloride | 0.2995 | 0.2940 | 1.9 | TML | 16 |
| 23 | TML | Carbon disulfide | 0.6789 | 0.6063 | 11 | TML | 4.3 |
| 24 | TML | Methyl t-butyl ether (MtBE) | 0.5734 | 0.5649 | 1.5 | TML | 12 |
| 25 | TML | Trans-1,2-DCE | 0.2246 | 0.2089 | 7.0 | TML | 11 |
| 26 | TML | Hexane | 0.1437 | 0.1197 | 17 | TML | 12 |
| 27 | TM | Diisopropyl Ether | 0.1948 | 0.1849 | 5.1 | TM | |
| 28 | TM**L | 1,1-DCA | 0.3324 | 0.3418 | 2.8 | TM**L | 10 |
| 29 | TML | Vinyl Acetate | 0.1764 | 0.1700 | 3.6 | TML | 2.2 |
| 30 | TM | Ethyl tert Butyl Ether | 0.2452 | 0.2188 | 11 | TM | |
| 31 | TML | MEK (2-Butanone) | 0.1151 | 0.1076 | 6.5 | TML | 3.3 |
| 32 | TM | Cis-1,2-DCE | 0.2954 | 0.2808 | 5.0 | TM | |
| 33 | TM | 2,2-Dichloropropane | 0.2673 | 0.1935 | 28 | TM | |
| 34 | TM* | Chloroform | 0.4278 | 0.3981 | 6.9 | TM* | |
| 35 | TML | Bromochloromethane | 0.1186 | 0.1242 | 4.7 | TML | 3.4 |
| 36 | S | Dibromofluoromethane(S) | 0.5289 | 0.5167 | 2.3 | S | |
| 37 | TM | 1,1,1-TCA | 0.3424 | 0.3579 | 4.5 | TM | |
| 38 | TML | Cyclohexane | 0.1727 | 0.1523 | 12 | TML | 3.9 |
| 39 | TM | 1,1-Dichloropropene | 0.2342 | 0.2336 | 0.26 | TM | |
| 40 | TM | 2,2,4-Trimethylpentane | 0.4272 | 0.3634 | 15 | TM | |
| | | Average | | | 9.3 | | |

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/25/19
Instrument: Thor
Cal. Date: 04/24/19
Data File: 0424T54.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | S | 1,2-DCA-D4(S) | 0.6033 | 0.5901 | 2.2 | S | |
| 42 | TM | Carbon Tetrachloride | 0.2839 | 0.2796 | 1.5 | TM | |
| 43 | TML | Tert Amyl Methyl Ether | 0.1988 | 0.1785 | 10 | TML | 12 |
| 44 | TM | 1,2-DCA | 0.3475 | 0.3329 | 4.2 | TM | |
| 45 | TM | Benzene | 0.7991 | 0.7802 | 2.4 | TM | |
| 46 | TM | TCE | 0.2095 | 0.2304 | 10.0 | TM | |
| 47 | TM | 2-Pentanone | 0.1594 | 0.1634 | 2.5 | TM | |
| 48 | TM* | 1,2-Dichloropropane | 0.2182 | 0.2011 | 7.8 | TM* | |
| 49 | TM | Bromodichloromethane | 0.3194 | 0.3219 | 0.79 | TM | |
| 50 | TM | Methyl Cyclohexane | 0.2486 | 0.2347 | 5.6 | TM | |
| 51 | TML | Dibromomethane | 0.1868 | 0.1768 | 5.3 | TML | 3.6 |
| 52 | TM | MIBK (methyl isobutyl ketone) | 0.0796 | 0.0787 | 1.1 | TM | |
| 53 | TM | 1-Bromo-2-chloroethane | 0.3296 | 0.3149 | 4.5 | TM | |
| 54 | TML | 2-Chloroethyl vinyl ether | 0.0155 | 0.0101 | 35 | TML | 37 |
| 55 | TM | Cis-1,3-Dichloropropene | 0.3065 | 0.2765 | 9.8 | TM | |
| 56 | TM*L | Toluene | 0.7831 | 0.8845 | 13 | TM*L | 0.26 |
| 57 | TM | Trans-1,3-Dichloropropene | 0.3027 | 0.2811 | 7.1 | TM | |
| 58 | TML | 1,1,2-TCA | 0.2079 | 0.1890 | 9.1 | TML | 0.41 |
| 59 | TML | 2-Hexanone | 0.0753 | 0.0683 | 9.4 | TML | 0.98 |
| 60 | I | Chlorobenzene-D5 (IS) | ISTD | | | I | |
| 61 | S | Toluene-D8(S) | 1.769 | 1.742 | 1.6 | S | |
| 62 | TM | 1,2-EDB | 0.2483 | 0.2459 | 0.97 | TM | |
| 63 | TM | Tetrachloroethene | 0.2190 | 0.2108 | 3.8 | TM | |
| 64 | TM | 1-Chlorohexane | 0.2295 | 0.1951 | 15 | TM | |
| 65 | TM | 1,1,1,2-Tetrachloroethane | 0.2627 | 0.2502 | 4.8 | TM | |
| 66 | TM | m&p-Xylene | 0.3476 | 0.3305 | 4.9 | TM | |
| 67 | TM | o-Xylene | 0.3222 | 0.3217 | 0.16 | TM | |
| 68 | TM | Styrene | 0.5279 | 0.5096 | 3.5 | TM | |
| 69 | S | 4-Bromofluorobenzene(S) | 0.6389 | 0.6180 | 3.3 | S | |
| 70 | TM | 1,3-Dichloropropane | 0.3646 | 0.3407 | 6.6 | TM | |
| 71 | TM | Dibromochloromethane | 0.2689 | 0.2683 | 0.21 | TM | |
| 72 | TM** | Chlorobenzene | 0.6513 | 0.6291 | 3.4 | TM** | |
| 73 | TM* | Ethylbenzene | 0.9069 | 0.8664 | 4.5 | TM* | |
| 74 | TM**L | Bromoform | 0.1904 | 0.2038 | 7.0 | TM**L | 2.1 |
| 75 | I | 1,4-Dichlorobenzene-D4(IS) | ISTD | | | I | |
| 76 | TM | Isopropylbenzene | 1.310 | 1.313 | 0.22 | TM | |
| 77 | TM**L | 1,1,2,2-Tetrachloroethane | 0.5760 | 0.5164 | 10 | TM**L | 1.0 |
| 78 | TML | 1,2,3-Trichloropropane | 0.1758 | 0.1660 | 5.5 | TML | 0.03 |
| 79 | TM | t-1,4-Dichloro-2-Butene | 0.1146 | 0.0879 | 23 | TM | |
| 80 | TM | Bromobenzene | 0.4770 | 0.4823 | 1.1 | TM | |
| | | Average | | | 6.3 | | |

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/25/19
Instrument: Thor
Cal. Date: 04/24/19
Data File: 0424T54.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 81 | TM | n-Propylbenzene | 1.568 | 1.539 | 1.8 | TM | |
| 82 | TM | 4-Ethyltoluene | 1.364 | 1.388 | 1.8 | TM | |
| 83 | TM | 2-Chlorotoluene | 1.018 | 1.043 | 2.4 | TM | |
| 84 | TM | 1,3,5-Trimethylbenzene | 1.170 | 1.237 | 5.8 | TM | |
| 85 | TM | 4-Chlorotoluene | 1.173 | 1.245 | 6.2 | TM | |
| 86 | TM | Tert-Butylbenzene | 1.013 | 1.001 | 1.2 | TM | |
| 87 | TM | 1,2,4-Trimethylbenzene | 1.123 | 1.108 | 1.3 | TM | |
| 88 | TM | Sec-Butylbenzene | 1.397 | 1.448 | 3.6 | TM | |
| 89 | TM | p-Isopropyltoluene | 1.274 | 1.273 | 0.07 | TM | |
| 90 | TM | Benzyl Chloride | 0.1135 | 0.0623 | 45 | TM | |
| 91 | TM | 1,3-DCB | 0.8536 | 0.8836 | 3.5 | TM | |
| 92 | TM | 1,4-DCB | 0.9634 | 0.9309 | 3.4 | TM | |
| 93 | TM | n-Butylbenzene | 1.052 | 0.9819 | 6.7 | TM | |
| 94 | TM | 1,2-DCB | 0.8790 | 0.8956 | 1.9 | TM | |
| 95 | TML | Hexachloroethane | 0.2368 | 0.2419 | 2.1 | TML | 8.1 |
| 96 | TML | 1,2-Dibromo-3-chloropropane | 0.1309 | 0.1299 | 0.75 | TML | 2.5 |
| 97 | TM | 1,2,4-Trichlorobenzene | 0.5625 | 0.5576 | 0.87 | TM | |
| 98 | TM | Hexachlorobutadiene | 0.2755 | 0.2823 | 2.5 | TM | |
| 99 | TM | Naphthalene | 1.215 | 1.129 | 7.1 | TM | |
| 100 | TM | 1,2,3-Trichlorobenzene | 0.5996 | 0.5916 | 1.3 | TM | |
| 101 | | | | | | | |
| 102 | | | | | | | |
| 103 | | | | | | | |
| 104 | | | | | | | |
| 105 | | | | | | | |
| 106 | | | | | | | |
| 107 | | | | | | | |
| 108 | | | | | | | |
| 109 | | | | | | | |
| 110 | | | | | | | |
| 111 | | | | | | | |
| 112 | | | | | | | |
| 113 | | | | | | | |
| 114 | | | | | | | |
| 115 | | | | | | | |
| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 5.0 | | |

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T54.D Vial: 51
Acq On : 25 Apr 19 11:59 Operator: DG,SV, CMM.PM,KV
Sample : Ending CCV 10ug/L Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 12:26 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 366848 | 25.0000 ppb | | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 372544 | 25.0000 ppb | | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 224896 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 189560 | 24.4245 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.700% | | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 216467 | 24.4530 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.812% | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 648948 | 24.6113 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.444% | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 230249 | 24.1829 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 96.732% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 0.96 | 85 | 39880 | 11.0014 ppb | | 98 |
| 4) Freon 114 | 1.05 | 135 | 21164 | 9.5853 ppb | | 100 |
| 5) Chloromethane | 1.08 | 50 | 34934 | 10.7741 ppb | | 97 |
| 6) Vinyl chloride | 1.16 | 62 | 37064 | 10.2852 ppb | | 99 |
| 8) Bromomethane | 1.38 | 94 | 37613 | 7.3058 ppb | | 92 |
| 9) Chloroethane | 1.46 | 64 | 24579 | 9.6531 ppb | | 100 |
| 10) Dichlorofluoromethane | 1.62 | 67 | 66433 | 9.1541 ppb | | 93 |
| 11) Trichlorofluoromethane | 1.66 | 101 | 63985 | 9.6723 ppb | | 99 |
| 12) Acrolein | 2.00 | 56 | 66985 | 99.4186 ppb | | 95 |
| 13) Acetone | 2.14 | 43 | 17047 | 10.5565 ppb | # | 86 |
| 14) Freon-113 | 2.10 | 101 | 31112 | 9.7523 ppb | | 95 |
| 15) 1,1-DCE | 2.08 | 61 | 42663 | 9.7548 ppb | | 99 |
| 17) Acetonitrile | 2.39 | 41 | 31042 | 118.8414 ppb | # | 87 |
| 18) t-Butanol | 2.74 | 59 | 45054 | 123.3430 ppb | | 94 |
| 19) Methyl Acetate | 2.47 | 43 | 33586 | 9.5841 ppb | | 99 |
| 20) Iodomethane | 2.20 | 142 | 12236 | 8.1557 ppb | | 97 |
| 21) Acrylonitrile | 2.82 | 52 | 13260 | 10.4797 ppb | | 96 |
| 22) Methylene chloride | 2.55 | 84 | 43139 | 11.6061 ppb | | 91 |
| 23) Carbon disulfide | 2.26 | 76 | 88963 | 9.5655 ppb | | 97 |
| 24) Methyl t-butyl ether (MtBE | 2.88 | 73 | 82896 | 11.2371 ppb | | 97 |
| 25) Trans-1,2-DCE | 2.85 | 96 | 30658 | 11.0588 ppb | | 98 |
| 26) Hexane | 2.88 | 57 | 17564 | 11.2391 ppb | # | 90 |
| 27) Diisopropyl Ether | 3.56 | 45 | 27128 | 9.4912 ppb | | 98 |
| 28) 1,1-DCA | 3.37 | 63 | 50160 | 11.0003 ppb | | 95 |
| 29) Vinyl Acetate | 3.56 | 87 | 24952 | 10.2181 ppb | | 99 |
| 30) Ethyl tert Butyl Ether | 4.12 | 59 | 32103 | 8.9222 ppb | | 97 |
| 31) MEK (2-Butanone) | 4.33 | 43 | 15789 | 10.3269 ppb | | 90 |
| 32) Cis-1,2-DCE | 4.25 | 61 | 41199 | 9.5038 ppb | | 94 |
| 33) 2,2-Dichloropropane | 4.23 | 77 | 28393 | 7.2393 ppb | | 100 |
| 34) Chloroform | 4.75 | 83 | 58415 | 9.3056 ppb | | 98 |
| 35) Bromochloromethane | 4.59 | 128 | 18218 | 10.3395 ppb | | 92 |
| 37) 1,1,1-TCA | 4.95 | 97 | 52516 | 10.4526 ppb | | 96 |
| 38) Cyclohexane | 5.02 | 41 | 22342 | 10.3899 ppb | | 76 |
| 39) 1,1-Dichloropropene | 5.18 | 75 | 34279 | 9.9744 ppb | | 97 |
| 40) 2,2,4-Trimethylpentane | 5.60 | 57 | 53332 | 8.5074 ppb | | 96 |
| 42) Carbon Tetrachloride | 5.17 | 117 | 41029 | 9.8487 ppb | # | 89 |
| 43) Tert Amyl Methyl Ether | 5.66 | 73 | 26191 | 8.7985 ppb | # | 97 |
| 44) 1,2-DCA | 5.47 | 62 | 48853 | 9.5812 ppb | | 98 |
| 45) Benzene | 5.44 | 78 | 114488 | 9.7640 ppb | | 96 |

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T54.D Vial: 51
Acq On : 25 Apr 19 11:59 Operator: DG,SV, CMM.PM,KV
Sample : Ending CCV 10ug/L Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 12:26 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 46) | TCE | 6.24 | 95 | 33812 | 10.9999 ppb | | 95 |
| 47) | 2-Pentanone | 6.51 | 43 | 299746 | 128.1468 ppb | | 98 |
| 48) | 1,2-Dichloropropane | 6.48 | 63 | 29510 | 9.2160 ppb | # | 91 |
| 49) | Bromodichloromethane | 6.82 | 83 | 47236 | 10.0787 ppb | | 98 |
| 50) | Methyl Cyclohexane | 6.45 | 83 | 34445 | 9.4405 ppb | | 95 |
| 51) | Dibromomethane | 6.61 | 93 | 25938 | 10.3583 ppb | | 93 |
| 52) | MIBK (methyl isobutyl ket | 7.52 | 58 | 11542 | 9.8851 ppb | # | 94 |
| 53) | 1-Bromo-2-chloroethane | 7.12 | 63 | 46203 | 9.5530 ppb | | 96 |
| 54) | 2-Chloroethyl vinyl ether | 7.13 | 107 | 1476 | 6.2511 ppb | # | 1 |
| 55) | Cis-1,3-Dichloropropene | 7.31 | 75 | 40567 | 9.0194 ppb | | 90 |
| 56) | Toluene | 7.65 | 91 | 129797 | 9.9744 ppb | | 99 |
| 57) | Trans-1,3-Dichloropropene | 7.91 | 75 | 41252 | 9.2886 ppb | | 89 |
| 58) | 1,1,2-TCA | 8.09 | 83 | 27732 | 9.9589 ppb | | 99 |
| 59) | 2-Hexanone | 8.38 | 58 | 10015 | 9.9019 ppb | | 92 |
| 62) | 1,2-EDB | 8.56 | 107 | 36643 | 9.9035 ppb | | 90 |
| 63) | Tetrachloroethene | 8.21 | 164 | 31414 | 9.6243 ppb | | 85 |
| 64) | 1-Chlorohexane | 9.10 | 91 | 29074 | 8.5022 ppb | | 96 |
| 65) | 1,1,1,2-Tetrachloroethane | 9.17 | 131 | 37290 | 9.5249 ppb | | 95 |
| 66) | m&p-Xylene | 9.33 | 106 | 98490 | 19.0125 ppb | | 96 |
| 67) | o-Xylene | 9.72 | 106 | 47941 | 9.9836 ppb | | 88 |
| 68) | Styrene | 9.74 | 104 | 75938 | 9.6540 ppb | | 96 |
| 70) | 1,3-Dichloropropane | 8.25 | 76 | 50767 | 9.3434 ppb | | 100 |
| 71) | Dibromochloromethane | 8.47 | 129 | 39987 | 9.9788 ppb | | 94 |
| 72) | Chlorobenzene | 9.07 | 112 | 93754 | 9.6606 ppb | | 96 |
| 73) | Ethylbenzene | 9.21 | 91 | 129116 | 9.5535 ppb | | 97 |
| 74) | Bromoform | 9.89 | 173 | 30367 | 9.7919 ppb | | 99 |
| 76) | Isopropylbenzene | 10.10 | 105 | 118104 | 10.0220 ppb | | 98 |
| 77) | 1,1,2,2-Tetrachloroethane | 10.39 | 83 | 46452 | 9.8971 ppb | | 93 |
| 78) | 1,2,3-Trichloropropane | 10.42 | 110 | 14934 | 9.9969 ppb | | 88 |
| 79) | t-1,4-Dichloro-2-Butene | 10.45 | 53 | 7911 | 7.6750 ppb | | 93 |
| 80) | Bromobenzene | 10.36 | 156 | 43384 | 10.1106 ppb | | 100 |
| 81) | n-Propylbenzene | 10.50 | 91 | 138458 | 9.8189 ppb | | 98 |
| 82) | 4-Ethyltoluene | 10.62 | 105 | 124899 | 10.1802 ppb | | 100 |
| 83) | 2-Chlorotoluene | 10.56 | 91 | 93821 | 10.2414 ppb | | 100 |
| 84) | 1,3,5-Trimethylbenzene | 10.69 | 105 | 111322 | 10.5795 ppb | | 96 |
| 85) | 4-Chlorotoluene | 10.68 | 91 | 112039 | 10.6200 ppb | | 97 |
| 86) | Tert-Butylbenzene | 11.00 | 119 | 90035 | 9.8822 ppb | | 97 |
| 87) | 1,2,4-Trimethylbenzene | 11.05 | 105 | 99714 | 9.8713 ppb | | 94 |
| 88) | Sec-Butylbenzene | 11.22 | 105 | 130260 | 10.3640 ppb | | 98 |
| 89) | p-Isopropyltoluene | 11.37 | 119 | 114511 | 9.9933 ppb | | 97 |
| 90) | Benzyl Chloride | 11.53 | 91 | 5601 | 5.4855 ppb | | 97 |
| 91) | 1,3-DCB | 11.30 | 146 | 79486 | 10.3508 ppb | | 98 |
| 92) | 1,4-DCB | 11.39 | 146 | 83740 | 9.6625 ppb | | 93 |
| 93) | n-Butylbenzene | 11.78 | 91 | 88328 | 9.3326 ppb | | 99 |
| 94) | 1,2-DCB | 11.75 | 146 | 80570 | 10.1894 ppb | | 98 |
| 95) | Hexachloroethane | 12.00 | 117 | 21758 | 9.1902 ppb | | 93 |
| 96) | 1,2-Dibromo-3-chloropropan | 12.51 | 157 | 11684 | 10.2485 ppb | | 97 |
| 97) | 1,2,4-Trichlorobenzene | 13.34 | 180 | 50157 | 9.9127 ppb | | 91 |
| 98) | Hexachlorobutadiene | 13.53 | 225 | 25397 | 10.2467 ppb | | 96 |
| 99) | Naphthalene | 13.57 | 128 | 101521 | 9.2912 ppb | | 97 |
| 100) | 1,2,3-Trichlorobenzene | 13.81 | 180 | 53221 | 9.8661 ppb | | 86 |

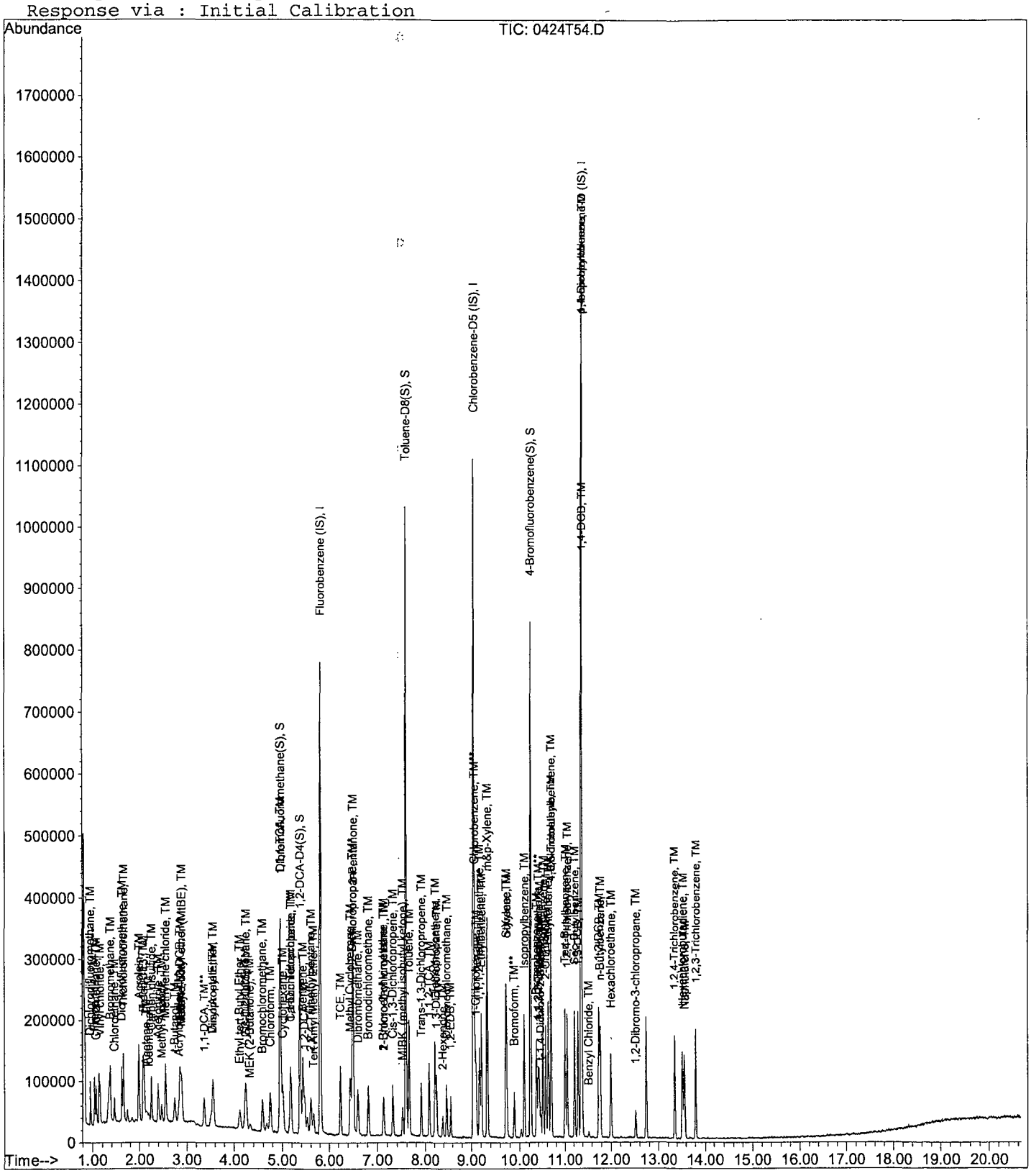
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T190423\0424T54.D Vial: 51
Acq On : 25 Apr 19 11:59 Operator: DG,SV, CMM.PM,KV
Sample : Ending CCV 10ug/L Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 12:26 2019 Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



# ORGANICS
# Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T190423\0424T37.D Vial: 34
Acq On : 25 Apr 19 3:54 Operator: DG,SV, CMM.PM,KV
Sample : AZ89957W04 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 11:29 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 364992 | 25.0000 ppb | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 369984 | 25.0000 ppb | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 205184 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 201024 | 26.0334 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 104.132% | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 227135 | 25.7886 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 103.156% | |
| 61) Toluene-D8(S) | 7.59 | 98 | 656398 | 25.0661 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 100.264% | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 223749 | 23.6628 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery | = 94.652% | |

Target Compounds Qvalue

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

Quantitation Report

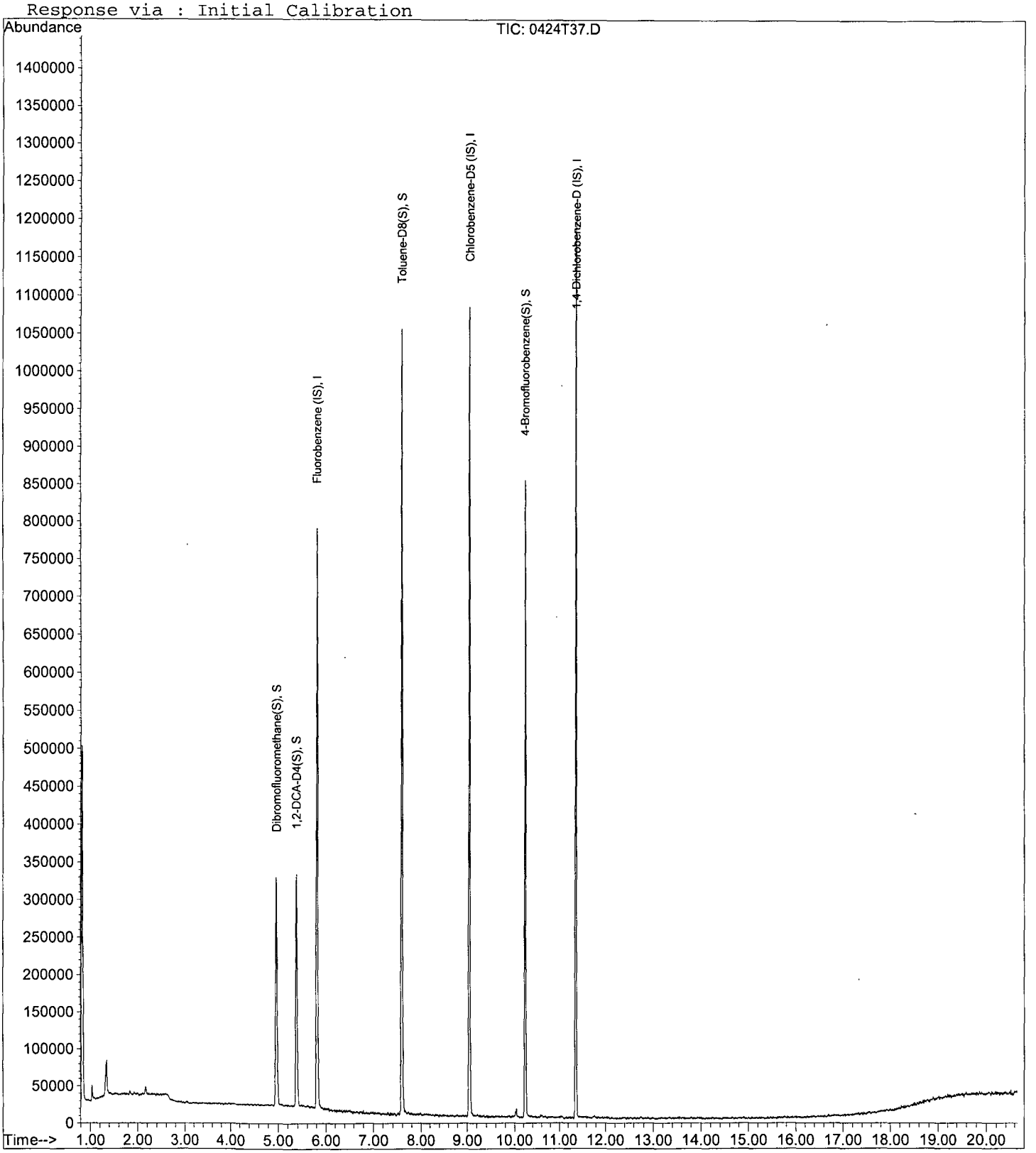
Data File : M:\THOR\DATA\T190423\0424T37.D
Acq On : 25 Apr 19 3:54
Sample : AZ89957W04
Misc : IS &S 4/2/19

Vial: 34
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 25 11:29 2019

Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T190423\0424T39.D Vial: 36
Acq On : 25 Apr 19 4:51 Operator: DG,SV, CMM.PM,KV
Sample : AZ89958W08 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 11:30 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 352256 | 25.0000 ppb | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 349632 | 25.0000 ppb | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 200320 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 191311 | 25.6713 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 102.684% | | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 211882 | 24.9265 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 99.708% | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 613823 | 24.8048 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 99.220% | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 210646 | 23.5738 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 94.296% | | |

Target Compounds Qvalue

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

Quantitation Report

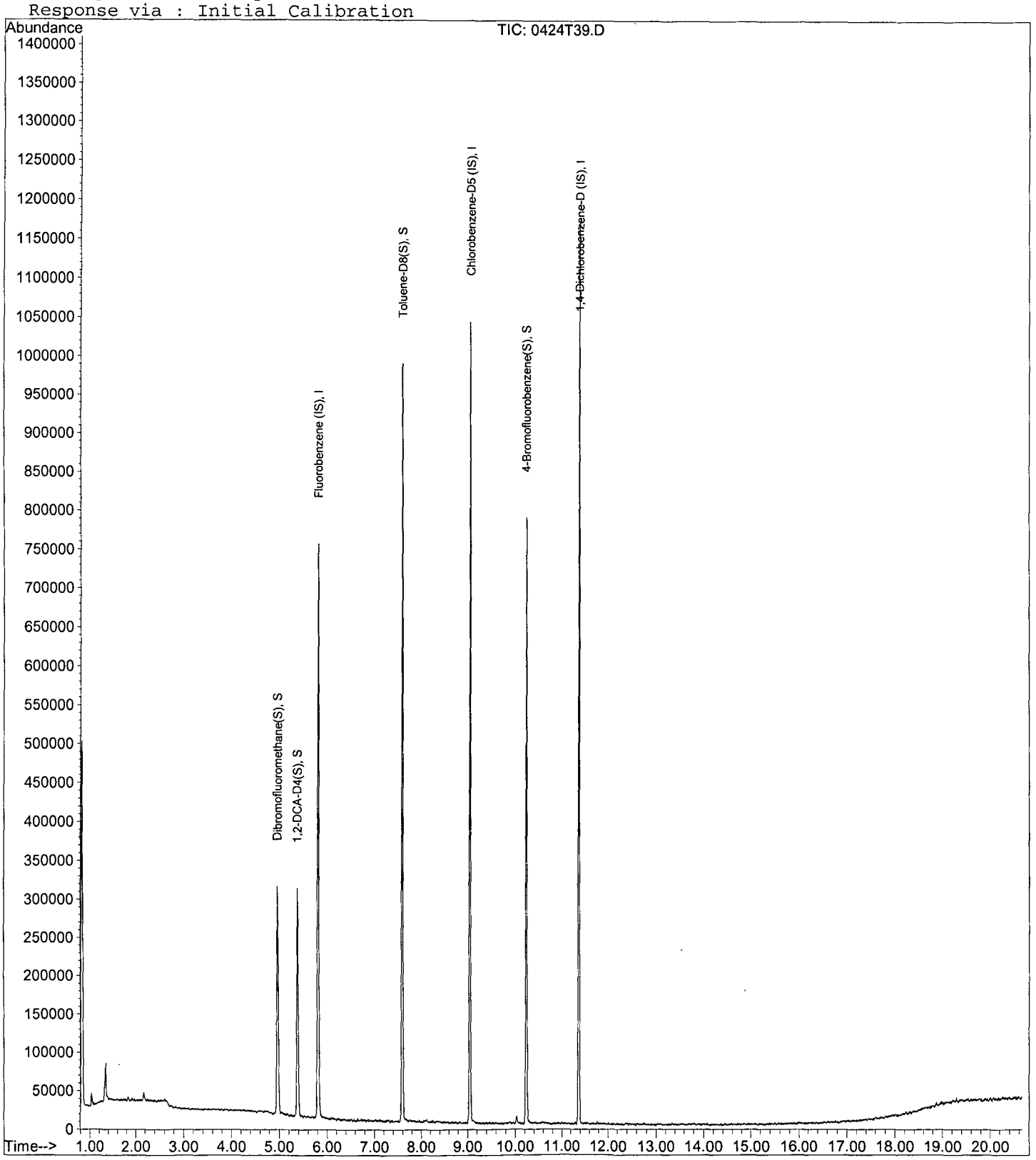
Data File : M:\THOR\DATA\T190423\0424T39.D
Acq On : 25 Apr 19 4:51
Sample : AZ89958W08
Misc : IS &S 4/2/19

Vial: 36
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 25 11:30 2019

Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\190423\0423L26.D Vial: 25
Acq On : 24 Apr 19 3:49 Operator: PM,DG,SV,CMM,KV
Sample : AZ89959W02 Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 30 7:52 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 400000 | 25.000 | ppb | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.52 | 117 | 355840 | 25.000 | ppb | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 164032 | 25.000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 208847 | 28.057 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 112.228% | | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 218719 | 28.304 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 113.216% | | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 592714 | 24.382 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 97.528% | | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 194673 | 21.416 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 85.664% | | | |

Target Compounds Qvalue

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

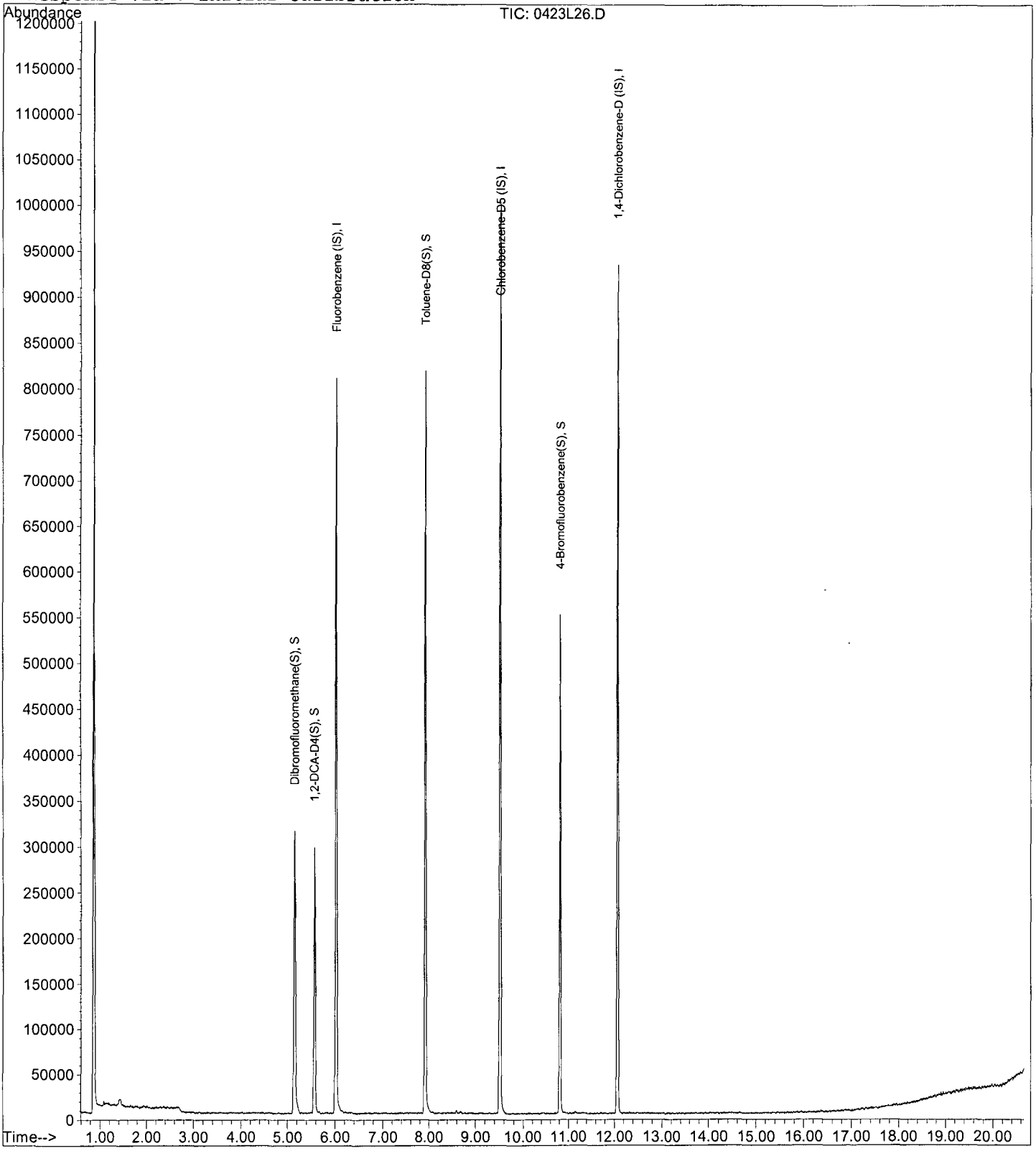
Quantitation Report

Data File : M:\LOKI\DATA\190423\0423L26.D
Acq On : 24 Apr 19 3:49
Sample : AZ89959W02
Misc : ISS 3/5/19, 2/11/19

Vial: 25
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 30 7:52 2019 Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T190423\0424T38.D Vial: 35
Acq On : 25 Apr 19 4:23 Operator: DG,SV, CMM.PM,KV
Sample : AZ89960W03 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 11:29 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 364288 | 25.0000 ppb | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 360960 | 25.0000 ppb | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 204864 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 201902 | 26.1976 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 104.792% | | |
| 41) 1,2-DCA-D4(S) | 5.37 | 65 | 223725 | 25.4505 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 101.800% | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 656028 | 25.6783 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 102.712% | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 224785 | 24.3666 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 97.468% | | |

Target Compounds Qvalue

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

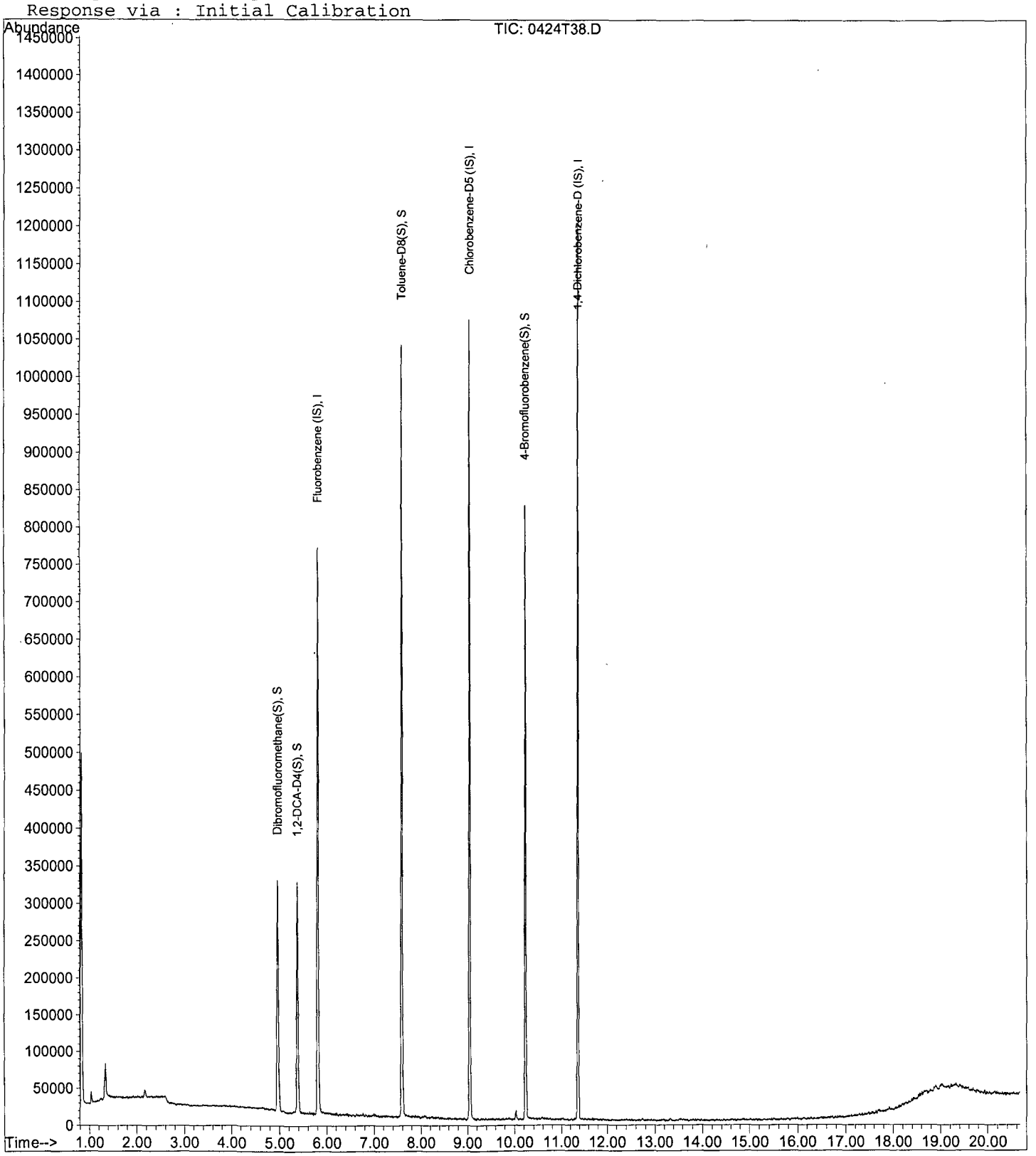
Quantitation Report

Data File : M:\THOR\DATA\T190423\0424T38.D
Acq On : 25 Apr 19 4:23
Sample : AZ89960W03
Misc : IS &S 4/2/19

Vial: 35
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 25 11:29 2019 Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T190423\0424T40.D Vial: 37
Acq On : 25 Apr 19 5:20 Operator: DG,SV, CMM.PM,KV
Sample : AZ89961W03 Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 11:31 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 346176 | 25.0000 ppb | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 359872 | 25.0000 ppb | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 198464 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 200764 | 27.4129 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 109.652% | | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 226076 | 27.0635 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 108.252% | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 643437 | 25.2616 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 101.048% | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 221338 | 24.0655 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 96.264% | | |

Target Compounds Qvalue

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

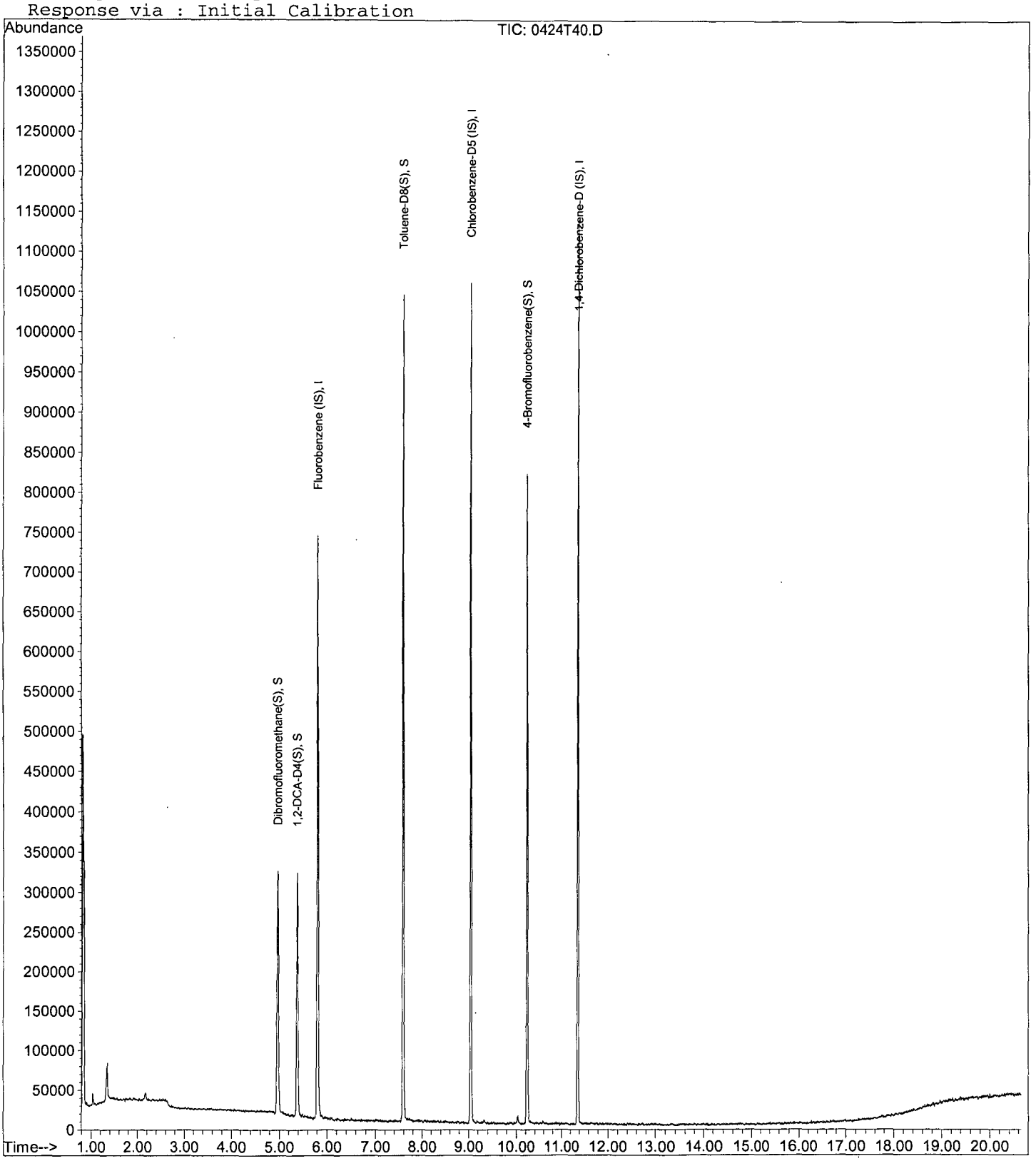
Quantitation Report

Data File : M:\THOR\DATA\T190423\0424T40.D
Acq On : 25 Apr 19 5:20
Sample : AZ89961W03
Misc : IS &S 4/2/19

Vial: 37
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 25 11:31 2019 Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\190423\0423L20.D Vial: 19
Acq On : 24 Apr 19 00:58 Operator: PM,DG,SV,CMM,KV
Sample : 190423A blk Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 26 9:57 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 442432 | 25.0000 ppb | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.51 | 117 | 383360 | 25.0000 ppb | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 186048 | 25.0000 ppb | 0.00 |
| System Monitoring Compounds | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 212159 | 25.7688 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 103.076% | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 226295 | 26.4756 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 105.904% | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 635948 | 24.2823 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 97.128% | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 208747 | 21.3221 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 85.288% | | |

Target Compounds Qvalue

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

Quantitation Report

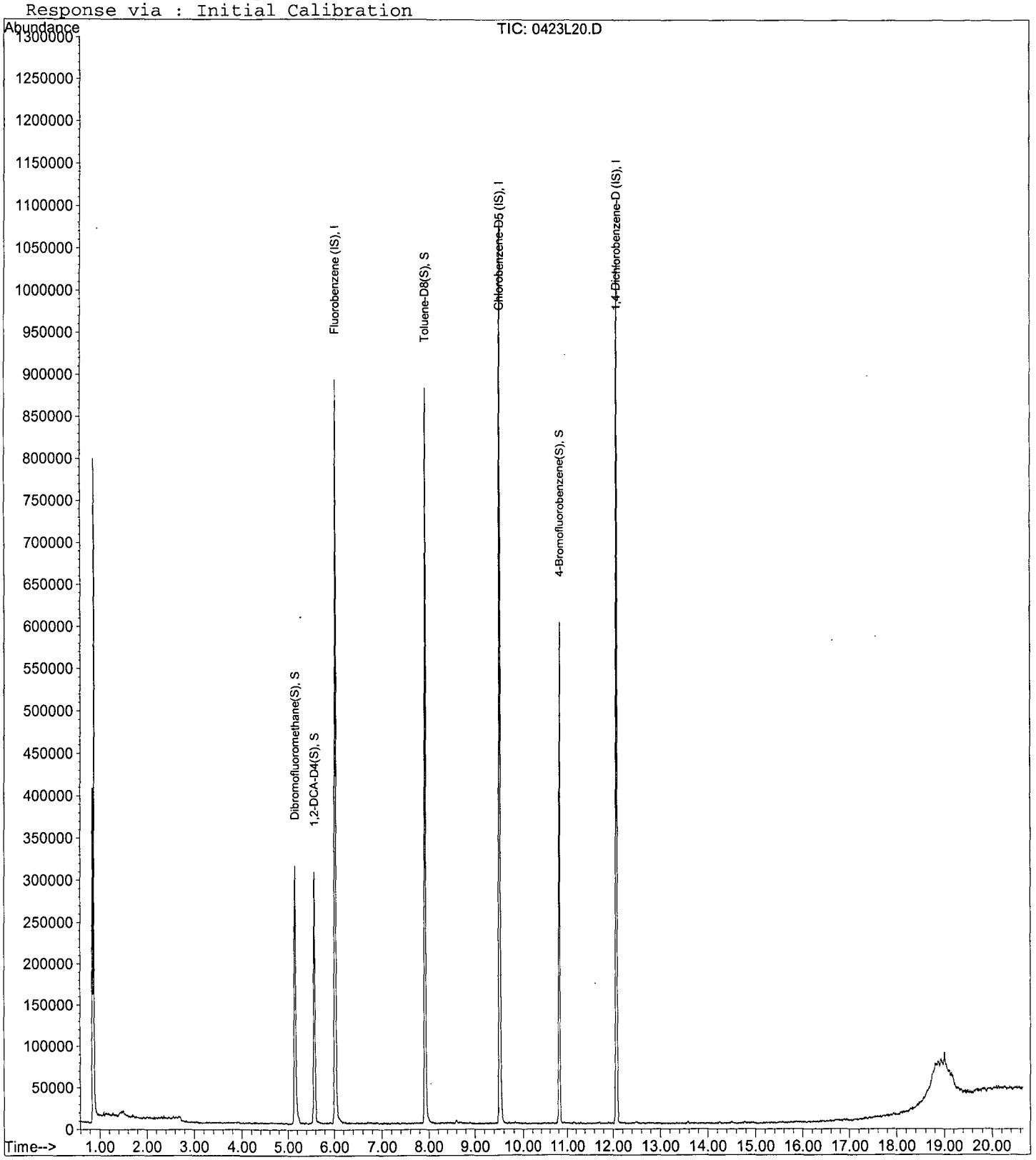
Data File : M:\LOKI\DATA\190423\0423L20.D
Acq On : 24 Apr 19 00:58
Sample : 190423A blk
Misc : ISS 3/5/19, 2/11/19

Vial: 19
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 26 9:57 2019

Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T190423\0424T35.D Vial: 32
Acq On : 25 Apr 19 2:57 Operator: DG,SV, CMM.PM,KV
Sample : 190424A blk Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 11:28 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 358848 | 25.0000 ppb | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 358656 | 25.0000 ppb | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 202112 | 25.0000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 36) Dibromofluoromethane(S) | 4.97 | 111 | 203001 | 26.7395 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 106.956% | | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 226418 | 26.1473 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 104.588% | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 655328 | 25.8157 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 103.264% | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 231211 | 25.2242 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 100.896% | | |

Target Compounds Qvalue

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

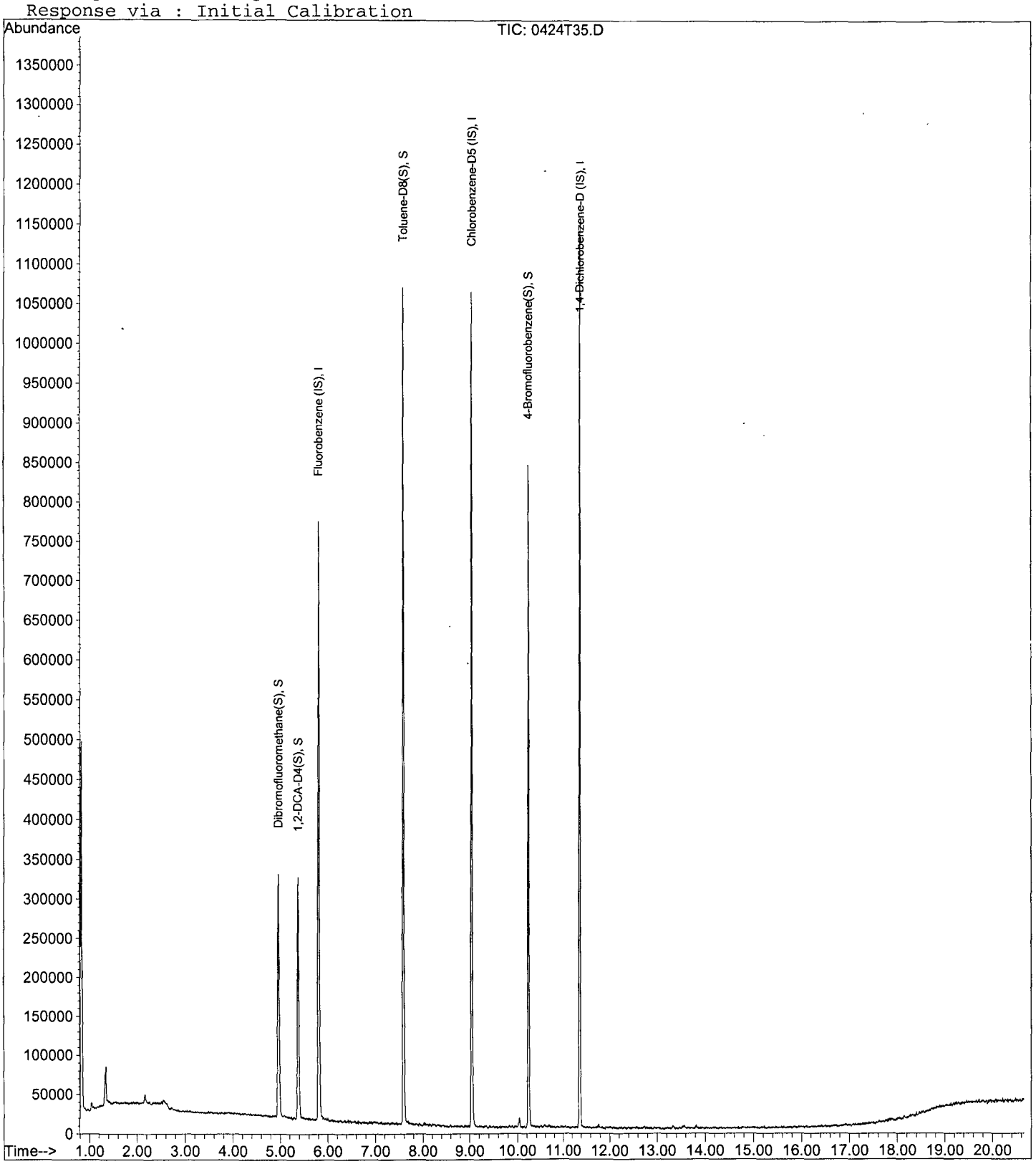
Quantitation Report

Data File : M:\THOR\DATA\T190423\0424T35.D
Acq On : 25 Apr 19 2:57
Sample : 190424A blk
Misc : IS &S 4/2/19

Vial: 32
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 25 11:28 2019 Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L17.D Vial: 16
Acq On : 23 Apr 19 23:32 Operator: PM,DG,SV,CMM,KV
Sample : 190423A LCS 10ug/L (4X Ketones) Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 486784 | 25.0000 ppb | | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.51 | 117 | 405888 | 25.0000 ppb | | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 226432 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 214896 | 23.7231 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 94.892% | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 222341 | 23.6429 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 94.572% | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 704878 | 25.4205 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 101.680% | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 240893 | 23.1127 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 92.452% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 48125 | 10.4775 ppb | | 98 |
| 4) Freon 114 | 1.09 | 85 | 37288 | 9.0402 ppb | | 93 |
| 5) Chloromethane | 1.12 | 50 | 56888 | 9.4084 ppb | | 98 |
| 6) Vinyl chloride | 1.20 | 62 | 55744 | 9.7675 ppb | | 99 |
| 8) Bromomethane | 1.44 | 94 | 35415 | 10.9626 ppb | | 95 |
| 9) Chloroethane | 1.52 | 64 | 26088 | 10.1660 ppb | | 98 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 72888 | 9.3783 ppb | | 100 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 64513 | 10.0744 ppb | | 95 |
| 12) Acrolein | 2.09 | 56 | 89457 | 111.0263 ppb | # | 100 |
| 13) Acetone | 2.25 | 43 | 45328 | 41.7674 ppb | | 96 |
| 14) Freon-113 | 2.20 | 101 | 35648 | 9.4902 ppb | | 94 |
| 15) 1,1-DCE | 2.18 | 96 | 33899 | 8.9284 ppb | | 96 |
| 16) t-Butanol | 2.90 | 59 | 35465 | 114.2000 ppb | | 97 |
| 18) Acetonitrile | 2.52 | 41 | 70003 | 111.2709 ppb | | 96 |
| 19) Methyl Acetate | 2.60 | 43 | 33429 | 9.4114 ppb | | 97 |
| 20) Iodomethane | 2.30 | 142 | 57358 | 10.6357 ppb | | 96 |
| 21) Acrylonitrile | 2.97 | 52 | 12614 | 8.5537 ppb | | 91 |
| 22) Methylene chloride | 2.67 | 84 | 43970 | 9.1978 ppb | | 95 |
| 23) Carbon disulfide | 2.36 | 76 | 121347 | 8.8671 ppb | | 99 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 86586 | 9.2082 ppb | | 93 |
| 25) Trans-1,2-DCE | 3.00 | 96 | 35648 | 9.1396 ppb | | 95 |
| 26) Diisopropyl Ether | 3.74 | 45 | 85178 | 9.1413 ppb | | 98 |
| 28) 1,1-DCA | 3.54 | 63 | 69959 | 9.7765 ppb | | 97 |
| 29) Vinyl Acetate | 3.69 | 43 | 93333 | 8.6976 ppb | | 98 |
| 30) Ethyl tert Butyl Ether | 4.32 | 59 | 78873 | 9.5105 ppb | | 100 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 57492 | 37.8967 ppb | | 96 |
| 32) Cis-1,2-DCE | 4.44 | 96 | 40207 | 9.6498 ppb | | 94 |
| 33) 2,2-Dichloropropane | 4.43 | 77 | 50452 | 8.4759 ppb | | 97 |
| 36) Chloroform | 4.93 | 83 | 71014 | 9.3835 ppb | | 94 |
| 37) Bromochloromethane | 4.78 | 128 | 22712 | 8.8202 ppb | | 100 |
| 39) 1,1,1-TCA | 5.14 | 97 | 57328 | 9.1799 ppb | | 99 |
| 40) Cyclohexane | 5.21 | 41 | 23895 | 10.1132 ppb | | 97 |
| 41) 1,1-Dichloropropene | 5.38 | 75 | 38642 | 9.5143 ppb | | 95 |
| 42) 2,2,4-Trimethylpentane | 5.81 | 57 | 73853 | 9.3934 ppb | | 98 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 52449 | 9.5711 ppb | | 97 |
| 45) Tert Amyl Methyl Ether | 5.87 | 73 | 80569 | 9.4054 ppb | | 98 |
| 47) 1,2-DCA | 5.67 | 62 | 50878 | 9.1626 ppb | | 100 |
| 48) Benzene | 5.64 | 78 | 146179 | 9.4567 ppb | | 97 |
| 49) TCE | 6.48 | 130 | 40416 | 9.6312 ppb | | 99 |

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

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L17.D
Acq On : 23 Apr 19 23:32
Sample : 190423A LCS 10ug/L (4X Ketones)
Misc : ISS 3/5/19, 2/11/19

Vial: 16
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.76 | 43 | 274384 | 119.9643 | ppb | | 97 |
| 51) | 1,2-Dichloropropane | 6.74 | 63 | 41325 | 9.2884 | ppb | | 99 |
| 52) | Bromodichloromethane | 7.09 | 83 | 56259 | 9.2010 | ppb | | 95 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 40083 | 9.3127 | ppb | | 98 |
| 54) | Dibromomethane | 6.87 | 93 | 27402 | 8.9478 | ppb | | 94 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 107348 | 39.3955 | ppb | | 97 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 59365 | 9.1981 | ppb | | 98 |
| 58) | Cis-1,3-Dichloropropene | 7.62 | 75 | 54044 | 9.3882 | ppb | | 97 |
| 59) | Toluene | 7.99 | 91 | 153550 | 9.8579 | ppb | | 97 |
| 60) | Trans-1,3-Dichloropropene | 8.27 | 75 | 49588 | 9.2931 | ppb | | 92 |
| 61) | 1,1,2-TCA | 8.46 | 83 | 34372 | 9.4938 | ppb | | 95 |
| 62) | 2-Hexanone | 8.78 | 43 | 67203 | 35.2879 | ppb | # | 88 |
| 65) | 1,2-EDB | 8.98 | 107 | 39942 | 9.4309 | ppb | | 92 |
| 66) | Tetrachloroethene | 8.60 | 166 | 43119 | 9.3313 | ppb | | 96 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 38724 | 9.4607 | ppb | | 98 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.64 | 131 | 43746 | 9.0064 | ppb | | 98 |
| 69) | m&p-Xylene | 9.82 | 91 | 211667 | 16.9001 | ppb | | 99 |
| 70) | o-Xylene | 10.25 | 106 | 51345 | 9.5557 | ppb | | 92 |
| 71) | Styrene | 10.26 | 104 | 85450 | 8.0712 | ppb | | 98 |
| 73) | 1,3-Dichloropropane | 8.63 | 76 | 62260 | 9.3080 | ppb | | 99 |
| 74) | Dibromochloromethane | 8.88 | 129 | 46481 | 9.1747 | ppb | | 96 |
| 75) | Chlorobenzene | 9.54 | 112 | 107325 | 9.4044 | ppb | | 96 |
| 76) | Ethylbenzene | 9.69 | 91 | 143681 | 9.4217 | ppb | | 97 |
| 77) | Bromoform | 10.44 | 173 | 34013 | 9.3677 | ppb | | 94 |
| 79) | Isopropylbenzene | 10.66 | 105 | 119469 | 9.2928 | ppb | | 99 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.99 | 83 | 54693 | 9.5782 | ppb | | 97 |
| 81) | 1,2,3-Trichloropropane | 11.02 | 110 | 16448 | 9.7564 | ppb | | 81 |
| 82) | t-1,4-Dichloro-2-Butene | 11.05 | 53 | 9992 | 9.6305 | ppb | | 84 |
| 83) | Bromobenzene | 10.96 | 156 | 46371 | 9.5688 | ppb | | 99 |
| 84) | n-Propylbenzene | 11.11 | 91 | 150703 | 9.3858 | ppb | | 99 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 135188 | 9.8161 | ppb | | 98 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 117941 | 9.9389 | ppb | | 95 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 111788 | 9.6089 | ppb | | 99 |
| 88) | 4-Chlorotoluene | 11.31 | 91 | 120936 | 9.8719 | ppb | | 96 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 104932 | 10.2974 | ppb | | 99 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 101511 | 8.8320 | ppb | | 94 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 131941 | 9.4714 | ppb | | 100 |
| 92) | p-Isopropyltoluene | 12.07 | 119 | 115597 | 9.4067 | ppb | | 97 |
| 93) | Benzyl Chloride | 12.25 | 91 | 13151 | 9.7568 | ppb | # | 90 |
| 94) | 1,3-DCB | 11.99 | 146 | 84815 | 9.7758 | ppb | | 99 |
| 95) | 1,4-DCB | 12.09 | 146 | 89775 | 9.1955 | ppb | | 95 |
| 96) | n-Butylbenzene | 12.51 | 91 | 97055 | 8.7068 | ppb | | 99 |
| 97) | 1,2-DCB | 12.49 | 146 | 83442 | 9.1986 | ppb | | 95 |
| 98) | Hexachloroethane | 12.78 | 117 | 18048 | 11.1617 | ppb | | 90 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.34 | 75 | 9427 | 10.0505 | ppb | # | 89 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 47517 | 9.1657 | ppb | | 96 |
| 101) | Hexachlorobutadiene | 14.45 | 225 | 26717 | 9.1895 | ppb | | 90 |
| 102) | Naphthalene | 14.51 | 128 | 93195 | 8.3882 | ppb | | 98 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 48573 | 8.9520 | ppb | | 96 |

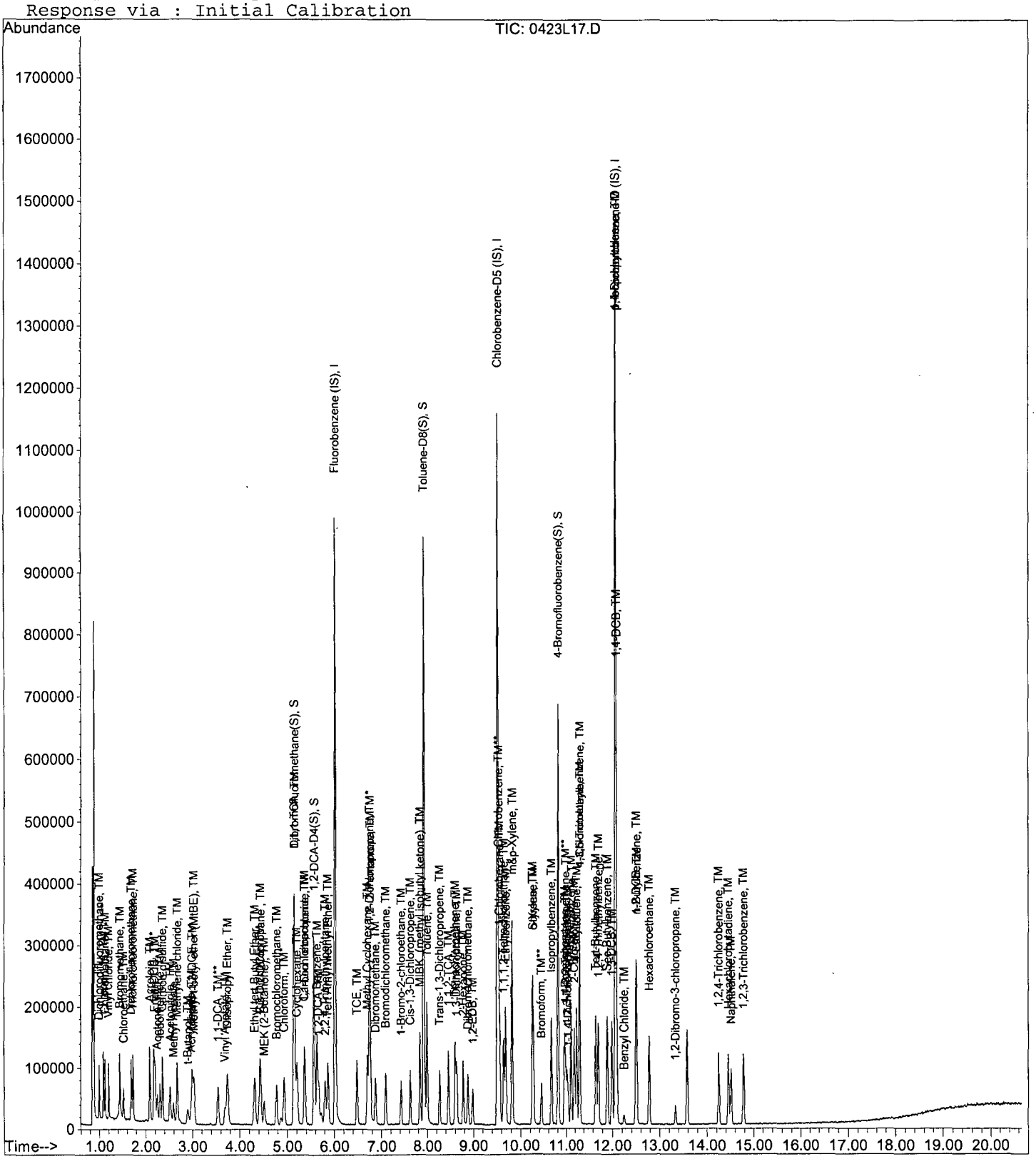
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\190423\0423L17.D Vial: 16
Acq On : 23 Apr 19 23:32 Operator: PM,DG,SV,CMM,KV
Sample : 190423A LCS 10ug/L (4X Ketones) Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424t32.D Vial: 29
Acq On : 25 Apr 19 1:32 Operator: DG,SV, CMM.PM,KV
Sample : 190424A LCS 10ug/L Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 11:07 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 373824 | 25.0000 ppb | | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 371520 | 25.0000 ppb | | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 229632 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 195948 | 24.7765 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 99.104% | | | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 221934 | 24.6027 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 98.412% | | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 664879 | 25.2850 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 101.140% | | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 245028 | 25.8060 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 103.224% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 0.96 | 85 | 40272 | 10.9022 ppb | | 93 |
| 4) Freon 114 | 1.05 | 135 | 25571 | 11.3651 ppb | | 98 |
| 5) Chloromethane | 1.08 | 50 | 35801 | 10.8457 ppb | | 91 |
| 6) Vinyl chloride | 1.16 | 62 | 41704 | 11.3568 ppb | | 97 |
| 8) Bromomethane | 1.38 | 94 | 45774 | 8.7250 ppb | | 99 |
| 9) Chloroethane | 1.46 | 64 | 25739 | 9.9305 ppb | | 94 |
| 10) Dichlorofluoromethane | 1.62 | 67 | 74590 | 10.0863 ppb | | 96 |
| 11) Trichlorofluoromethane | 1.65 | 101 | 70857 | 10.5112 ppb | | 99 |
| 12) Acrolein | 2.00 | 56 | 91363 | 133.0697 ppb | | 100 |
| 13) Acetone | 2.14 | 43 | 15217 | 8.7429 ppb | # | 79 |
| 14) Freon-113 | 2.10 | 101 | 37633 | 11.5763 ppb | | 94 |
| 15) 1,1-DCE | 2.08 | 61 | 47662 | 10.6944 ppb | | 97 |
| 17) Acetonitrile | 2.40 | 41 | 35677 | 134.0372 ppb | | 98 |
| 18) t-Butanol | 2.75 | 59 | 38482 | 108.6899 ppb | | 97 |
| 19) Methyl Acetate | 2.47 | 43 | 38532 | 11.0629 ppb | | 98 |
| 20) Iodomethane | 2.20 | 142 | 11517 | 7.8369 ppb | # | 95 |
| 21) Acrylonitrile | 2.83 | 52 | 13149 | 10.1806 ppb | | 100 |
| 22) Methylene chloride | 2.55 | 84 | 48264 | 12.8698 ppb | | 86 |
| 23) Carbon disulfide | 2.25 | 76 | 101237 | 10.7898 ppb | | 98 |
| 24) Methyl t-butyl ether (MtBE | 2.89 | 73 | 70121 | 9.5235 ppb | | 93 |
| 25) Trans-1,2-DCE | 2.85 | 96 | 29243 | 10.3981 ppb | | 98 |
| 26) Hexane | 2.89 | 57 | 15451 | 9.8067 ppb | # | 85 |
| 27) Diisopropyl Ether | 3.56 | 45 | 28655 | 9.8383 ppb | | 98 |
| 28) 1,1-DCA | 3.37 | 63 | 53077 | 11.4160 ppb | # | 91 |
| 29) Vinyl Acetate | 3.56 | 87 | 26170 | 10.5044 ppb | | 91 |
| 30) Ethyl tert Butyl Ether | 4.12 | 59 | 36941 | 10.0752 ppb | | 93 |
| 31) MEK (2-Butanone) | 4.34 | 43 | 16091 | 10.3281 ppb | # | 89 |
| 32) Cis-1,2-DCE | 4.25 | 61 | 44010 | 9.9628 ppb | | 98 |
| 33) 2,2-Dichloropropane | 4.23 | 77 | 39597 | 9.9076 ppb | | 95 |
| 34) Chloroform | 4.75 | 83 | 62430 | 9.7596 ppb | | 99 |
| 35) Bromochloromethane | 4.59 | 128 | 19525 | 10.9364 ppb | | 90 |
| 37) 1,1,1-TCA | 4.95 | 97 | 51670 | 10.0923 ppb | | 95 |
| 38) Cyclohexane | 5.01 | 41 | 24062 | 10.9929 ppb | | 91 |
| 39) 1,1-Dichloropropene | 5.18 | 75 | 35991 | 10.2771 ppb | | 96 |
| 40) 2,2,4-Trimethylpentane | 5.60 | 57 | 66628 | 10.4300 ppb | | 93 |
| 42) Carbon Tetrachloride | 5.17 | 117 | 44075 | 10.3824 ppb | # | 86 |
| 43) Tert Amyl Methyl Ether | 5.67 | 73 | 29567 | 9.4750 ppb | | 95 |
| 44) 1,2-DCA | 5.47 | 62 | 49725 | 9.5702 ppb | | 97 |
| 45) Benzene | 5.44 | 78 | 120828 | 10.1124 ppb | | 98 |

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424t32.D Vial: 29
Acq On : 25 Apr 19 1:32 Operator: DG,SV, CMM.PM,KV
Sample : 190424A LCS 10ug/L Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 11:07 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 46) | TCE | 6.24 | 95 | 33729 | 10.7681 | ppb | | 97 |
| 47) | 2-Pentanone | 6.51 | 43 | 313829 | 131.6638 | ppb | | 97 |
| 48) | 1,2-Dichloropropane | 6.48 | 63 | 32368 | 9.9199 | ppb | # | 90 |
| 49) | Bromodichloromethane | 6.82 | 83 | 48714 | 10.2001 | ppb | | 92 |
| 50) | Methyl Cyclohexane | 6.45 | 83 | 38351 | 10.3149 | ppb | | 82 |
| 51) | Dibromomethane | 6.61 | 93 | 26536 | 10.4028 | ppb | | 91 |
| 52) | MIBK (methyl isobutyl ket | 7.52 | 58 | 10258 | 8.6215 | ppb | # | 77 |
| 53) | 1-Bromo-2-chloroethane | 7.13 | 63 | 49815 | 10.1076 | ppb | | 100 |
| 54) | 2-Chloroethyl vinyl ether | 7.13 | 107 | 2113 | 9.9476 | ppb | | 96 |
| 55) | Cis-1,3-Dichloropropene | 7.31 | 75 | 46065 | 10.0506 | ppb | | 96 |
| 56) | Toluene | 7.65 | 91 | 136302 | 10.2738 | ppb | | 99 |
| 57) | Trans-1,3-Dichloropropene | 7.91 | 75 | 44924 | 9.9266 | ppb | | 94 |
| 58) | 1,1,2-TCA | 8.09 | 83 | 29160 | 10.2915 | ppb | | 90 |
| 59) | 2-Hexanone | 8.38 | 58 | 10228 | 9.9212 | ppb | | 78 |
| 62) | 1,2-EDB | 8.56 | 107 | 37384 | 10.1316 | ppb | | 90 |
| 63) | Tetrachloroethene | 8.21 | 164 | 34428 | 10.5768 | ppb | | 96 |
| 64) | 1-Chlorohexane | 9.10 | 91 | 32505 | 9.5317 | ppb | | 94 |
| 65) | 1,1,1,2-Tetrachloroethane | 9.17 | 131 | 39248 | 10.0527 | ppb | | 97 |
| 66) | m&p-Xylene | 9.33 | 106 | 109185 | 21.1351 | ppb | | 96 |
| 67) | o-Xylene | 9.72 | 106 | 50602 | 10.5668 | ppb | | 98 |
| 68) | Styrene | 9.73 | 104 | 81491 | 10.3885 | ppb | | 100 |
| 70) | 1,3-Dichloropropane | 8.25 | 76 | 53674 | 9.9056 | ppb | | 99 |
| 71) | Dibromochloromethane | 8.47 | 129 | 40657 | 10.1739 | ppb | | 99 |
| 72) | Chlorobenzene | 9.07 | 112 | 99388 | 10.2693 | ppb | | 93 |
| 73) | Ethylbenzene | 9.21 | 91 | 137061 | 10.1694 | ppb | | 97 |
| 74) | Bromoform | 9.89 | 173 | 30550 | 9.8675 | ppb | | 98 |
| 76) | Isopropylbenzene | 10.10 | 105 | 125629 | 10.4407 | ppb | | 99 |
| 77) | 1,1,2,2-Tetrachloroethane | 10.39 | 83 | 51865 | 10.9547 | ppb | | 93 |
| 78) | 1,2,3-Trichloropropane | 10.42 | 110 | 17396 | 11.5921 | ppb | | 90 |
| 79) | t-1,4-Dichloro-2-Butene | 10.45 | 53 | 9873 | 9.3809 | ppb | | 96 |
| 80) | Bromobenzene | 10.36 | 156 | 46328 | 10.5740 | ppb | | 97 |
| 81) | n-Propylbenzene | 10.50 | 91 | 150958 | 10.4846 | ppb | | 99 |
| 82) | 4-Ethyltoluene | 10.62 | 105 | 140500 | 11.2157 | ppb | | 99 |
| 83) | 2-Chlorotoluene | 10.56 | 91 | 101015 | 10.7992 | ppb | | 98 |
| 84) | 1,3,5-Trimethylbenzene | 10.69 | 105 | 119399 | 11.1130 | ppb | | 95 |
| 85) | 4-Chlorotoluene | 10.68 | 91 | 117186 | 10.8788 | ppb | | 99 |
| 86) | Tert-Butylbenzene | 11.00 | 119 | 99089 | 10.6517 | ppb | | 99 |
| 87) | 1,2,4-Trimethylbenzene | 11.05 | 105 | 110665 | 10.7295 | ppb | | 99 |
| 88) | Sec-Butylbenzene | 11.22 | 105 | 142804 | 11.1278 | ppb | | 97 |
| 89) | p-Isopropyltoluene | 11.37 | 119 | 129593 | 11.0763 | ppb | | 97 |
| 90) | Benzyl Chloride | 11.53 | 91 | 9691 | 9.2954 | ppb | # | 95 |
| 91) | 1,3-DCB | 11.30 | 146 | 83795 | 10.6868 | ppb | | 96 |
| 92) | 1,4-DCB | 11.39 | 146 | 87475 | 9.8854 | ppb | | 96 |
| 93) | n-Butylbenzene | 11.77 | 91 | 103735 | 10.7345 | ppb | | 97 |
| 94) | 1,2-DCB | 11.74 | 146 | 84986 | 10.5262 | ppb | | 98 |
| 95) | Hexachloroethane | 12.00 | 117 | 23741 | 9.8647 | ppb | | 91 |
| 96) | 1,2-Dibromo-3-chloropropan | 12.51 | 157 | 10723 | 9.1927 | ppb | | 99 |
| 97) | 1,2,4-Trichlorobenzene | 13.34 | 180 | 54643 | 10.5765 | ppb | | 99 |
| 98) | Hexachlorobutadiene | 13.53 | 225 | 29139 | 11.5140 | ppb | | 97 |
| 99) | Naphthalene | 13.57 | 128 | 113202 | 10.1465 | ppb | | 92 |
| 100) | 1,2,3-Trichlorobenzene | 13.81 | 180 | 59504 | 10.8034 | ppb | | 96 |

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

Quantitation Report

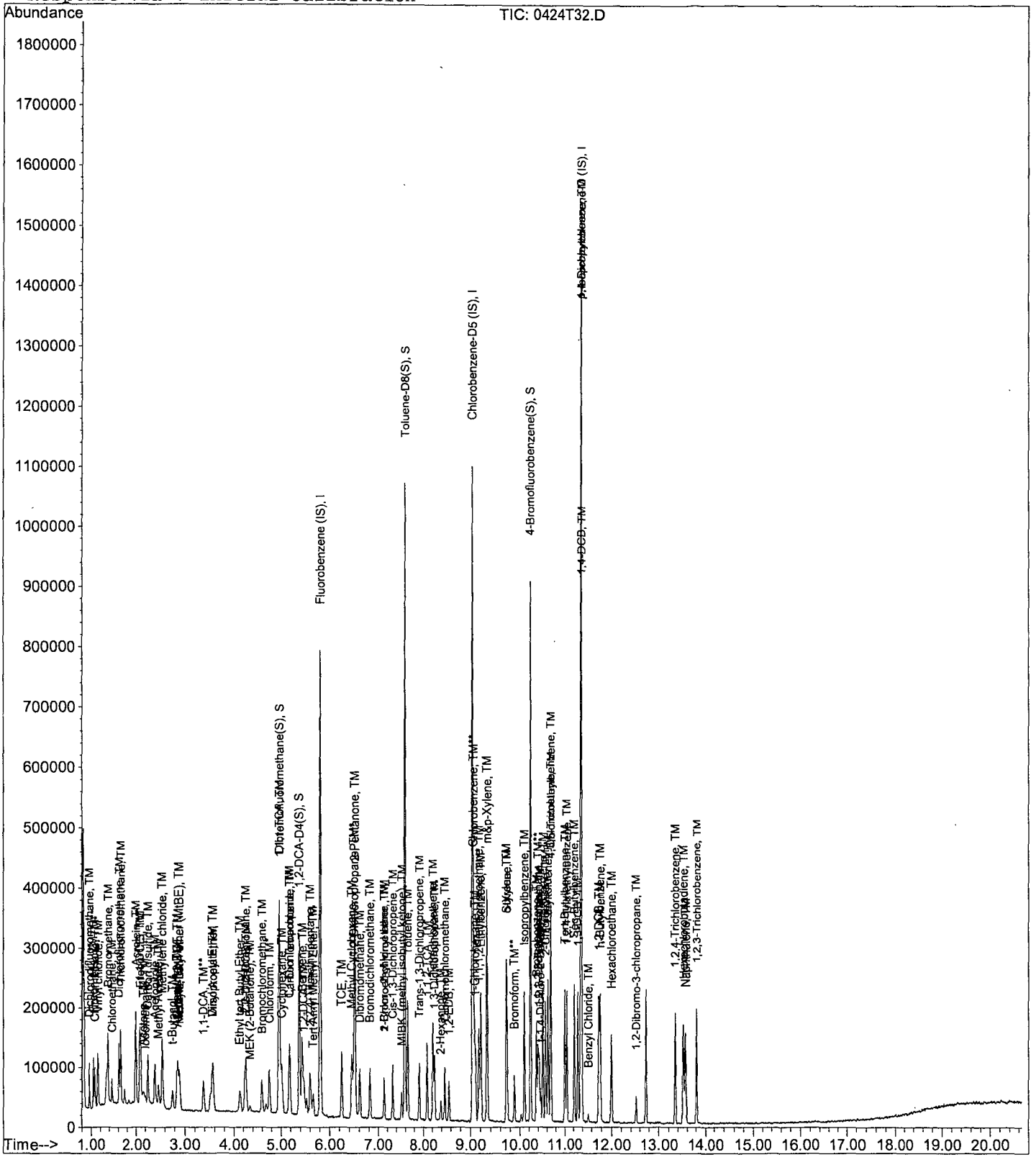
Data File : M:\THOR\DATA\T190423\0424t32.D
Acq On : 25 Apr 19 1:32
Sample : 190424A LCS 10ug/L
Misc : IS &S 4/2/19

Vial: 29
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 25 11:07 2019

Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L18.D Vial: 17
Acq On : 24 Apr 19 00:01 Operator: PM,DG,SV,CMM,KV
Sample : 190423A LCSD 10ug/L (4X Ketones) Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 525952 | 25.0000 | ppb | | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.52 | 117 | 440384 | 25.0000 | ppb | | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 246464 | 25.0000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 221796 | 22.6614 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 90.644% | | | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 230246 | 22.6602 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 90.640% | | | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 735287 | 24.4400 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 97.760% | | | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 252271 | 22.3576 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 89.432% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 49455 | 9.9652 | ppb | | 97 |
| 4) Freon 114 | 1.09 | 85 | 39321 | 8.8231 | ppb | | 96 |
| 5) Chloromethane | 1.12 | 50 | 59504 | 9.1081 | ppb | | 98 |
| 6) Vinyl chloride | 1.20 | 62 | 59584 | 9.6629 | ppb | | 96 |
| 8) Bromomethane | 1.44 | 94 | 36095 | 10.3357 | ppb | | 89 |
| 9) Chloroethane | 1.52 | 64 | 28168 | 10.1590 | ppb | | 95 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 75152 | 8.9495 | ppb | | 98 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 66387 | 9.5950 | ppb | | 96 |
| 12) Acrolein | 2.09 | 56 | 95241 | 109.4021 | ppb | | 98 |
| 13) Acetone | 2.25 | 43 | 48504 | 41.3061 | ppb | | 90 |
| 14) Freon-113 | 2.20 | 101 | 34915 | 8.6028 | ppb | | 97 |
| 15) 1,1-DCE | 2.18 | 96 | 33088 | 8.0658 | ppb | | 95 |
| 16) t-Butanol | 2.91 | 59 | 36993 | 110.2493 | ppb | | 100 |
| 18) Acetonitrile | 2.53 | 41 | 75477 | 111.0375 | ppb | | 95 |
| 19) Methyl Acetate | 2.60 | 43 | 36659 | 9.5781 | ppb | | 100 |
| 20) Iodomethane | 2.31 | 142 | 56211 | 9.6468 | ppb | | 95 |
| 21) Acrylonitrile | 2.97 | 52 | 13321 | 8.3604 | ppb | | 89 |
| 22) Methylene chloride | 2.67 | 84 | 44797 | 8.6114 | ppb | | 100 |
| 23) Carbon disulfide | 2.36 | 76 | 125664 | 8.4987 | ppb | | 99 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 91364 | 8.9927 | ppb | | 92 |
| 25) Trans-1,2-DCE | 3.00 | 96 | 35972 | 8.5358 | ppb | | 95 |
| 26) Diisopropyl Ether | 3.74 | 45 | 87263 | 8.6676 | ppb | | 96 |
| 28) 1,1-DCA | 3.54 | 63 | 68286 | 8.8320 | ppb | | 97 |
| 29) Vinyl Acetate | 3.69 | 43 | 95883 | 8.2698 | ppb | | 97 |
| 30) Ethyl tert Butyl Ether | 4.32 | 59 | 79398 | 8.8608 | ppb | | 94 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 56727 | 34.5708 | ppb | | 94 |
| 32) Cis-1,2-DCE | 4.44 | 96 | 41203 | 9.1524 | ppb | | 90 |
| 33) 2,2-Dichloropropane | 4.43 | 77 | 48779 | 7.5846 | ppb | | 97 |
| 36) Chloroform | 4.93 | 83 | 72875 | 8.9123 | ppb | | 90 |
| 37) Bromochloromethane | 4.78 | 128 | 23376 | 8.4020 | ppb | | 97 |
| 39) 1,1,1-TCA | 5.14 | 97 | 57196 | 8.4767 | ppb | | 97 |
| 40) Cyclohexane | 5.20 | 41 | 23345 | 9.1446 | ppb | | 89 |
| 41) 1,1-Dichloropropene | 5.38 | 75 | 39734 | 9.0546 | ppb | | 98 |
| 42) 2,2,4-Trimethylpentane | 5.81 | 57 | 78371 | 9.2258 | ppb | # | 86 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 51975 | 8.7783 | ppb | | 98 |
| 45) Tert Amyl Methyl Ether | 5.87 | 73 | 82728 | 8.9382 | ppb | | 97 |
| 47) 1,2-DCA | 5.67 | 62 | 52205 | 8.7014 | ppb | | 100 |
| 48) Benzene | 5.64 | 78 | 145311 | 8.7005 | ppb | | 98 |
| 49) TCE | 6.48 | 130 | 40818 | 9.0026 | ppb | | 95 |

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

Data File : M:\LOKI\DATA\190423\0423L18.D Vial: 17
Acq On : 24 Apr 19 00:01 Operator: PM,DG,SV,CMM,KV
Sample : 190423A LCSD 10ug/L (4X Ketones) Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.76 | 43 | 293379 | 118.7169 | ppb | | 98 |
| 51) | 1,2-Dichloropropane | 6.74 | 63 | 40099 | 8.3417 | ppb | | 98 |
| 52) | Bromodichloromethane | 7.09 | 83 | 57726 | 8.7379 | ppb | | 95 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 44293 | 9.5244 | ppb | | 88 |
| 54) | Dibromomethane | 6.87 | 93 | 28331 | 8.5622 | ppb | | 90 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 111434 | 37.8523 | ppb | | 98 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 63072 | 9.0447 | ppb | | 94 |
| 58) | Cis-1,3-Dichloropropene | 7.62 | 75 | 53359 | 8.5789 | ppb | | 95 |
| 59) | Toluene | 7.99 | 91 | 158297 | 9.4059 | ppb | | 100 |
| 60) | Trans-1,3-Dichloropropene | 8.26 | 75 | 51968 | 9.0138 | ppb | | 99 |
| 61) | 1,1,2-TCA | 8.46 | 83 | 34268 | 8.7602 | ppb | | 98 |
| 62) | 2-Hexanone | 8.78 | 43 | 70328 | 34.1787 | ppb | # | 91 |
| 65) | 1,2-EDB | 8.98 | 107 | 40425 | 8.7972 | ppb | | 95 |
| 66) | Tetrachloroethene | 8.60 | 166 | 44352 | 8.8463 | ppb | | 97 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 40756 | 9.1771 | ppb | | 97 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.64 | 131 | 46778 | 8.8762 | ppb | | 95 |
| 69) | m&p-Xylene | 9.82 | 91 | 217737 | 16.0594 | ppb | | 98 |
| 70) | o-Xylene | 10.25 | 106 | 52750 | 9.0482 | ppb | | 96 |
| 71) | Styrene | 10.26 | 104 | 89288 | 7.7948 | ppb | | 96 |
| 73) | 1,3-Dichloropropane | 8.63 | 76 | 64387 | 8.8719 | ppb | | 89 |
| 74) | Dibromochloromethane | 8.88 | 129 | 48000 | 8.7324 | ppb | | 96 |
| 75) | Chlorobenzene | 9.54 | 112 | 108735 | 8.7816 | ppb | | 98 |
| 76) | Ethylbenzene | 9.69 | 91 | 150073 | 9.0700 | ppb | | 98 |
| 77) | Bromoform | 10.44 | 173 | 33700 | 8.5580 | ppb | | 100 |
| 79) | Isopropylbenzene | 10.66 | 105 | 123863 | 8.8515 | ppb | | 97 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.98 | 83 | 56810 | 9.1150 | ppb | | 100 |
| 81) | 1,2,3-Trichloropropane | 11.02 | 110 | 17265 | 9.4087 | ppb | | 87 |
| 82) | t-1,4-Dichloro-2-Butene | 11.05 | 53 | 10138 | 8.9771 | ppb | | 91 |
| 83) | Bromobenzene | 10.96 | 156 | 46106 | 8.7409 | ppb | | 100 |
| 84) | n-Propylbenzene | 11.11 | 91 | 159877 | 9.1479 | ppb | | 98 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 139696 | 9.3190 | ppb | | 100 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 121909 | 9.4383 | ppb | | 99 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 119259 | 9.4179 | ppb | | 98 |
| 88) | 4-Chlorotoluene | 11.31 | 91 | 125782 | 9.4330 | ppb | | 96 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 109199 | 9.8452 | ppb | | 99 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 104927 | 8.3872 | ppb | | 90 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 142603 | 9.4047 | ppb | | 99 |
| 92) | p-Isopropyltoluene | 12.07 | 119 | 123876 | 9.2611 | ppb | | 96 |
| 93) | Benzyl Chloride | 12.25 | 91 | 13486 | 9.1973 | ppb | # | 86 |
| 94) | 1,3-DCB | 11.99 | 146 | 88736 | 9.3964 | ppb | | 97 |
| 95) | 1,4-DCB | 12.09 | 146 | 94251 | 8.8694 | ppb | | 95 |
| 96) | n-Butylbenzene | 12.51 | 91 | 105550 | 8.6993 | ppb | | 97 |
| 97) | 1,2-DCB | 12.49 | 146 | 85129 | 8.6218 | ppb | | 97 |
| 98) | Hexachloroethane | 12.78 | 117 | 19200 | 10.8974 | ppb | | 91 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.34 | 75 | 10170 | 9.9464 | ppb | | 96 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 49091 | 8.6997 | ppb | | 99 |
| 101) | Hexachlorobutadiene | 14.45 | 225 | 29511 | 9.3464 | ppb | | 92 |
| 102) | Naphthalene | 14.51 | 128 | 92597 | 7.6570 | ppb | | 97 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 49913 | 8.4513 | ppb | | 96 |

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

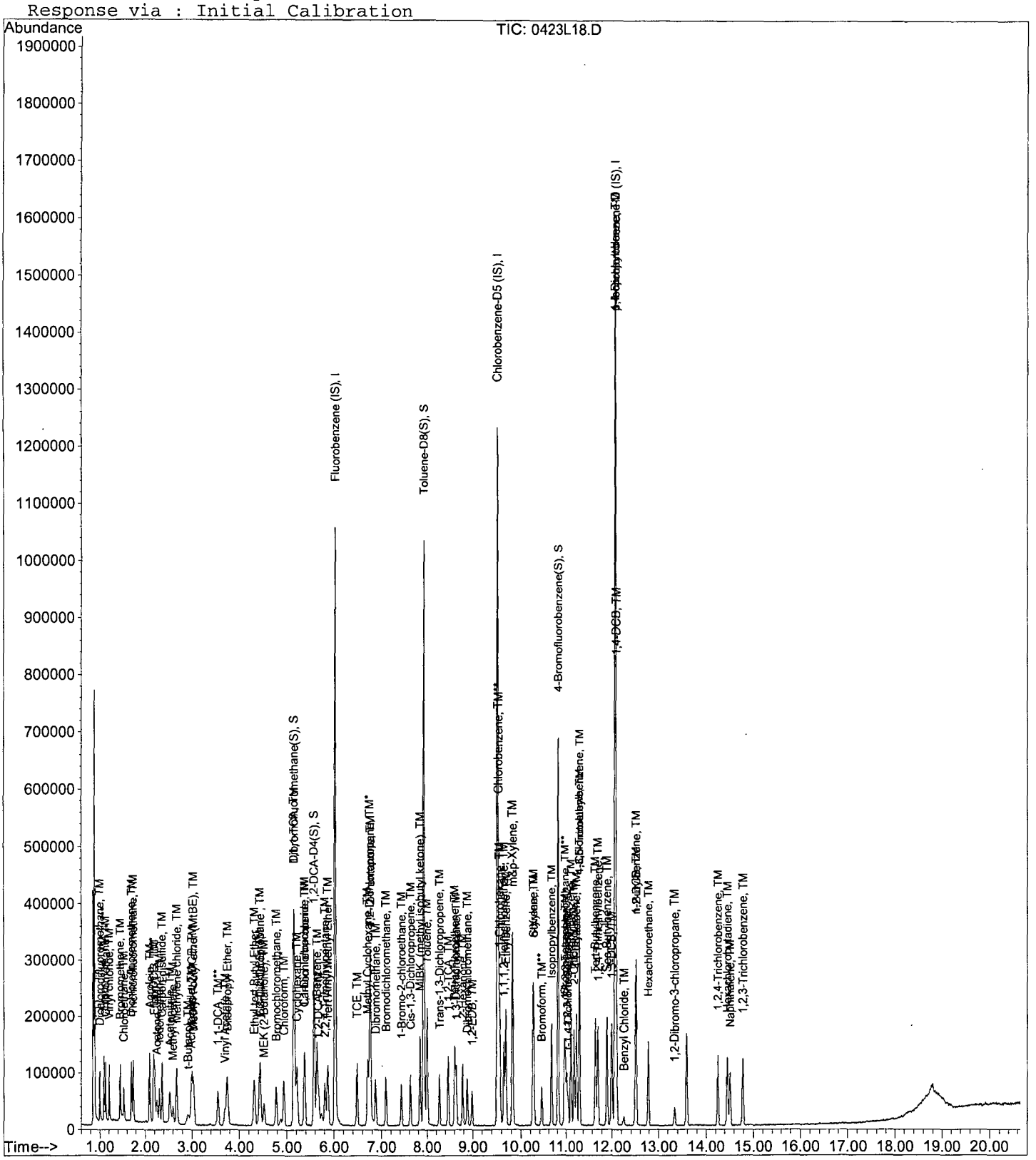
Quantitation Report

Data File : M:\LOKI\DATA\190423\0423L18.D
Acq On : 24 Apr 19 00:01
Sample : 190423A LCSD 10ug/L (4X Ketones)
Misc : ISS 3/5/19, 2/11/19

Vial: 17
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 24 8:19 2019 Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T33.D Vial: 30
Acq On : 25 Apr 19 2:00 Operator: DG,SV, CMM.PM,KV
Sample : 190424A LCSD 10ug/L Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 11:07 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.81 | 96 | 381696 | 25.0000 ppb | | 0.00 |
| 60) Chlorobenzene-D5 (IS) | 9.05 | 117 | 381120 | 25.0000 ppb | | 0.00 |
| 75) 1,4-Dichlorobenzene-D (IS) | 11.37 | 152 | 243008 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 36) Dibromofluoromethane(S) | 4.96 | 111 | 194771 | 24.1197 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 96.480% | | | |
| 41) 1,2-DCA-D4(S) | 5.38 | 65 | 221549 | 24.0535 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 96.216% | | | |
| 61) Toluene-D8(S) | 7.59 | 98 | 664096 | 24.6191 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 98.476% | | | |
| 69) 4-Bromofluorobenzene(S) | 10.23 | 95 | 243094 | 24.9574 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 99.828% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 0.96 | 85 | 40544 | 10.7495 ppb | | 100 |
| 4) Freon 114 | 1.05 | 135 | 25265 | 10.9975 ppb | | 97 |
| 5) Chloromethane | 1.08 | 50 | 35484 | 10.4752 ppb | | 89 |
| 6) Vinyl chloride | 1.16 | 62 | 41128 | 10.9690 ppb | | 96 |
| 8) Bromomethane | 1.37 | 94 | 49470 | 9.2350 ppb | | 94 |
| 9) Chloroethane | 1.46 | 64 | 29693 | 11.2690 ppb | | 98 |
| 10) Dichlorofluoromethane | 1.62 | 67 | 73052 | 9.6746 ppb | | 99 |
| 11) Trichlorofluoromethane | 1.66 | 101 | 74801 | 10.8675 ppb | | 95 |
| 12) Acrolein | 2.00 | 56 | 82795 | 118.1034 ppb | | 93 |
| 13) Acetone | 2.14 | 43 | 17479 | 10.3438 ppb | # | 89 |
| 14) Freon-113 | 2.10 | 101 | 35601 | 10.7254 ppb | | 94 |
| 15) 1,1-DCE | 2.08 | 61 | 49518 | 10.8817 ppb | | 97 |
| 17) Acetonitrile | 2.40 | 41 | 35579 | 130.9123 ppb | | 97 |
| 18) t-Butanol | 2.75 | 59 | 36202 | 102.3051 ppb | | 96 |
| 19) Methyl Acetate | 2.47 | 43 | 37673 | 10.5012 ppb | | 97 |
| 20) Iodomethane | 2.20 | 142 | 11859 | 7.8695 ppb | # | 37 |
| 21) Acrylonitrile | 2.83 | 52 | 10976 | 8.2040 ppb | | 98 |
| 22) Methylene chloride | 2.55 | 84 | 48619 | 12.6796 ppb | | 92 |
| 23) Carbon disulfide | 2.25 | 76 | 103702 | 10.8275 ppb | | 98 |
| 24) Methyl t-butyl ether (MtBE | 2.89 | 73 | 70044 | 9.3418 ppb | | 96 |
| 25) Trans-1,2-DCE | 2.85 | 96 | 28034 | 9.8071 ppb | | 96 |
| 26) Hexane | 2.88 | 57 | 14649 | 9.1603 ppb | | 99 |
| 27) Diisopropyl Ether | 3.56 | 45 | 30117 | 10.1270 ppb | | 96 |
| 28) 1,1-DCA | 3.37 | 63 | 54633 | 11.5070 ppb | | 96 |
| 29) Vinyl Acetate | 3.56 | 87 | 24775 | 9.7704 ppb | | 89 |
| 30) Ethyl tert Butyl Ether | 4.12 | 59 | 34732 | 9.2774 ppb | # | 84 |
| 31) MEK (2-Butanone) | 4.34 | 43 | 18225 | 11.5815 ppb | # | 89 |
| 32) Cis-1,2-DCE | 4.25 | 61 | 44836 | 9.9405 ppb | | 96 |
| 33) 2,2-Dichloropropane | 4.24 | 77 | 39418 | 9.6594 ppb | | 96 |
| 34) Chloroform | 4.75 | 83 | 61995 | 9.4917 ppb | | 97 |
| 35) Bromochloromethane | 4.59 | 128 | 18288 | 9.9333 ppb | | 91 |
| 37) 1,1,1-TCA | 4.95 | 97 | 53695 | 10.2715 ppb | | 97 |
| 38) Cyclohexane | 5.02 | 41 | 22734 | 10.1564 ppb | | 87 |
| 39) 1,1-Dichloropropene | 5.19 | 75 | 36372 | 10.1717 ppb | | 93 |
| 40) 2,2,4-Trimethylpentane | 5.60 | 57 | 66652 | 10.2186 ppb | | 93 |
| 42) Carbon Tetrachloride | 5.17 | 117 | 44775 | 10.3298 ppb | | 96 |
| 43) Tert Amyl Methyl Ether | 5.66 | 73 | 29563 | 9.3308 ppb | | 95 |
| 44) 1,2-DCA | 5.47 | 62 | 51037 | 9.6202 ppb | | 98 |
| 45) Benzene | 5.44 | 78 | 124972 | 10.2435 ppb | | 96 |

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T190423\0424T33.D Vial: 30
Acq On : 25 Apr 19 2:00 Operator: DG,SV, CMM.PM,KV
Sample : 190424A LCSD 10ug/L Inst : Thor
Misc : IS &S 4/2/19 Multiplr: 1.00

Quant Time: Apr 25 11:07 2019 Quant Results File: T0424W.RES

Quant Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration
DataAcq Meth : T8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 46) | TCE | 6.25 | 95 | 34139 | 10.6742 | ppb | | 94 |
| 47) | 2-Pentanone | 6.51 | 43 | 307124 | 126.1934 | ppb | | 98 |
| 48) | 1,2-Dichloropropane | 6.48 | 63 | 31754 | 9.5310 | ppb | # | 90 |
| 49) | Bromodichloromethane | 6.82 | 83 | 48947 | 10.0375 | ppb | | 97 |
| 50) | Methyl Cyclohexane | 6.45 | 83 | 38358 | 10.1040 | ppb | | 94 |
| 51) | Dibromomethane | 6.61 | 93 | 27006 | 10.3658 | ppb | | 94 |
| 52) | MIBK (methyl isobutyl ket | 7.52 | 58 | 12976 | 10.6809 | ppb | | 99 |
| 53) | 1-Bromo-2-chloroethane | 7.12 | 63 | 48481 | 9.6341 | ppb | | 95 |
| 54) | 2-Chloroethyl vinyl ether | 7.13 | 107 | 2171 | 10.0279 | ppb | # | 80 |
| 55) | Cis-1,3-Dichloropropene | 7.31 | 75 | 45710 | 9.7675 | ppb | | 94 |
| 56) | Toluene | 7.65 | 91 | 136307 | 10.0657 | ppb | | 100 |
| 57) | Trans-1,3-Dichloropropene | 7.91 | 75 | 43832 | 9.4856 | ppb | | 95 |
| 58) | 1,1,2-TCA | 8.09 | 83 | 29212 | 10.0882 | ppb | | 97 |
| 59) | 2-Hexanone | 8.38 | 58 | 11013 | 10.3981 | ppb | | 79 |
| 62) | 1,2-EDB | 8.56 | 107 | 37952 | 10.0264 | ppb | | 89 |
| 63) | Tetrachloroethene | 8.21 | 164 | 34400 | 10.3019 | ppb | | 95 |
| 64) | 1-Chlorohexane | 9.10 | 91 | 33366 | 9.5377 | ppb | | 97 |
| 65) | 1,1,1,2-Tetrachloroethane | 9.17 | 131 | 38908 | 9.7145 | ppb | | 92 |
| 66) | m&p-Xylene | 9.33 | 106 | 109264 | 20.6176 | ppb | | 96 |
| 67) | o-Xylene | 9.72 | 106 | 52292 | 10.6446 | ppb | | 95 |
| 68) | Styrene | 9.74 | 104 | 83743 | 10.4067 | ppb | | 95 |
| 70) | 1,3-Dichloropropane | 8.25 | 76 | 55579 | 9.9988 | ppb | | 93 |
| 71) | Dibromochloromethane | 8.47 | 129 | 40073 | 9.7752 | ppb | | 99 |
| 72) | Chlorobenzene | 9.07 | 112 | 96883 | 9.7583 | ppb | | 93 |
| 73) | Ethylbenzene | 9.21 | 91 | 140982 | 10.1968 | ppb | | 98 |
| 74) | Bromoform | 9.89 | 173 | 31598 | 9.9390 | ppb | | 100 |
| 76) | Isopropylbenzene | 10.10 | 105 | 130265 | 10.2301 | ppb | | 94 |
| 77) | 1,1,2,2-Tetrachloroethane | 10.39 | 83 | 49723 | 9.7912 | ppb | | 92 |
| 78) | 1,2,3-Trichloropropane | 10.42 | 110 | 16093 | 9.9662 | ppb | | 96 |
| 79) | t-1,4-Dichloro-2-Butene | 10.45 | 53 | 10468 | 9.3988 | ppb | | 99 |
| 80) | Bromobenzene | 10.36 | 156 | 46813 | 10.0966 | ppb | | 95 |
| 81) | n-Propylbenzene | 10.50 | 91 | 155592 | 10.2116 | ppb | | 100 |
| 82) | 4-Ethyltoluene | 10.62 | 105 | 140911 | 10.6293 | ppb | | 96 |
| 83) | 2-Chlorotoluene | 10.56 | 91 | 100403 | 10.1430 | ppb | | 99 |
| 84) | 1,3,5-Trimethylbenzene | 10.69 | 105 | 121000 | 10.6422 | ppb | | 97 |
| 85) | 4-Chlorotoluene | 10.68 | 91 | 119371 | 10.4717 | ppb | | 100 |
| 86) | Tert-Butylbenzene | 11.00 | 119 | 101672 | 10.3278 | ppb | | 95 |
| 87) | 1,2,4-Trimethylbenzene | 11.05 | 105 | 113978 | 10.4424 | ppb | | 100 |
| 88) | Sec-Butylbenzene | 11.22 | 105 | 141192 | 10.3965 | ppb | | 99 |
| 89) | p-Isopropyltoluene | 11.37 | 119 | 127162 | 10.2702 | ppb | | 98 |
| 90) | Benzyl Chloride | 11.53 | 91 | 8600 | 7.7949 | ppb | | 93 |
| 91) | 1,3-DCB | 11.30 | 146 | 86386 | 10.4109 | ppb | | 97 |
| 92) | 1,4-DCB | 11.39 | 146 | 93208 | 9.9534 | ppb | | 96 |
| 93) | n-Butylbenzene | 11.77 | 91 | 104446 | 10.2131 | ppb | | 99 |
| 94) | 1,2-DCB | 11.74 | 146 | 83480 | 9.7705 | ppb | | 96 |
| 95) | Hexachloroethane | 12.00 | 117 | 24259 | 9.5031 | ppb | | 91 |
| 96) | 1,2-Dibromo-3-chloropropan | 12.51 | 157 | 12526 | 10.1667 | ppb | | 93 |
| 97) | 1,2,4-Trichlorobenzene | 13.34 | 180 | 54494 | 9.9671 | ppb | | 96 |
| 98) | Hexachlorobutadiene | 13.53 | 225 | 28735 | 10.7293 | ppb | | 98 |
| 99) | Naphthalene | 13.57 | 128 | 110562 | 9.3644 | ppb | | 92 |
| 100) | 1,2,3-Trichlorobenzene | 13.81 | 180 | 55931 | 9.5957 | ppb | | 89 |

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

Quantitation Report

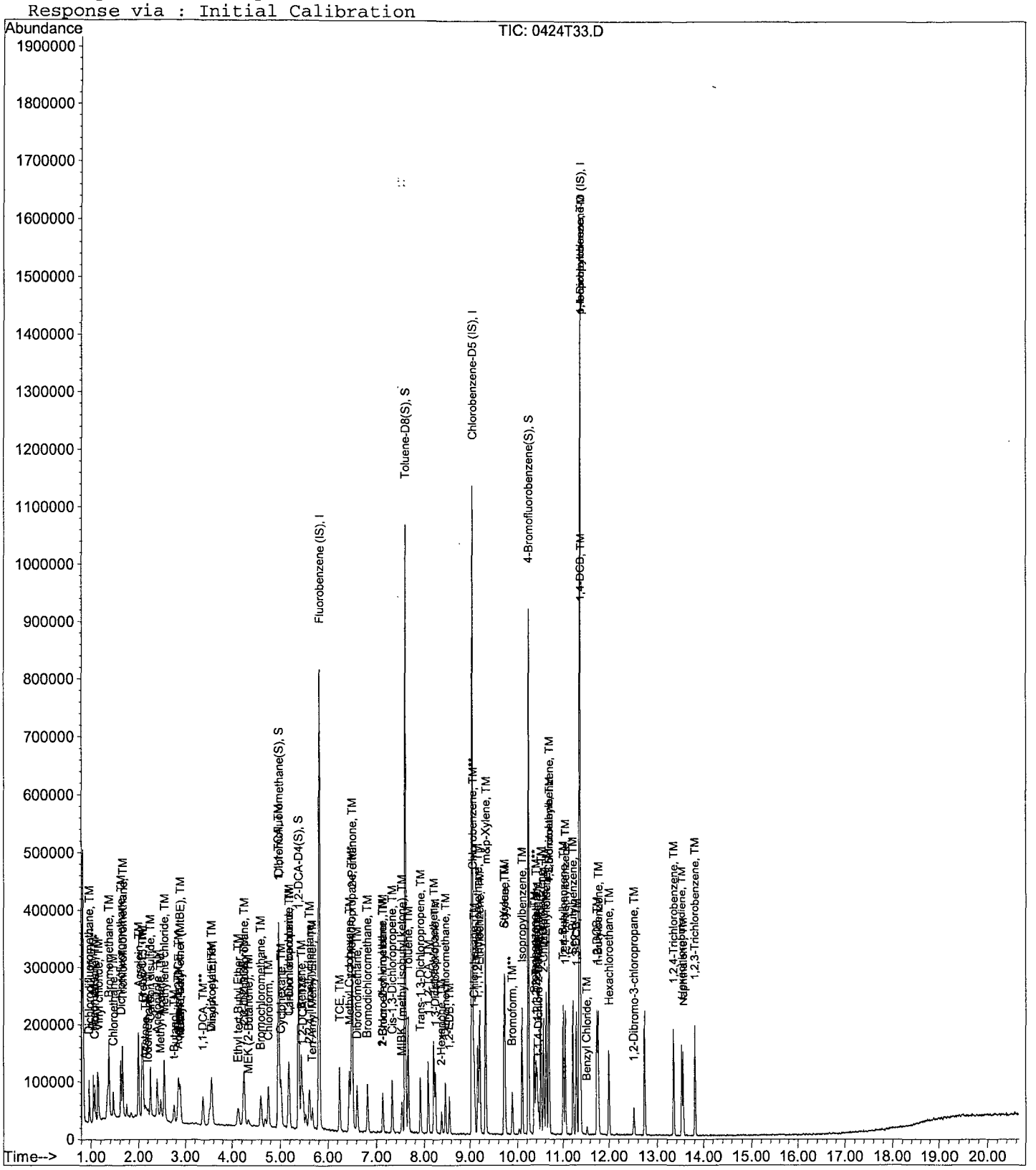
Data File : M:\THOR\DATA\T190423\0424T33.D
Acq On : 25 Apr 19 2:00
Sample : 190424A LCSD 10ug/L
Misc : IS &S 4/2/19

Vial: 30
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 25 11:07 2019

Quant Results File: T0424W.RES

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 25 10:43:03 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L36.D Vial: 35
Acq On : 24 Apr 19 8:34 Operator: PM,DG,SV,CMM,KV
Sample : AZ89958W06 MS 10ug/L Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 25 18:17 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 473280 | 25.0000 ppb | | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.51 | 117 | 388544 | 25.0000 ppb | | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 225216 | 25.0000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 219460 | 24.9182 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 99.672% | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 226659 | 24.7898 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 99.160% | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 660755 | 24.8929 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 99.572% | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 235716 | 23.5941 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 94.376% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 47015 | 10.5279 ppb | | 99 |
| 4) Freon 114 | 1.09 | 85 | 36327 | 9.0585 ppb | | 91 |
| 5) Chloromethane | 1.12 | 50 | 56109 | 9.5443 ppb | | 100 |
| 6) Vinyl chloride | 1.20 | 62 | 57080 | 10.2870 ppb | | 100 |
| 8) Bromomethane | 1.44 | 94 | 36865 | 11.7436 ppb | | 92 |
| 9) Chloroethane | 1.52 | 64 | 25083 | 10.0513 ppb | | 97 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 69420 | 9.1869 ppb | | 100 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 62751 | 10.0789 ppb | | 95 |
| 12) Acrolein | 2.09 | 56 | 90747 | 115.8410 ppb | # | 96 |
| 13) Acetone | 2.24 | 43 | 12970 | 7.9336 ppb | | 89 |
| 14) Freon-113 | 2.20 | 101 | 32163 | 8.8067 ppb | | 98 |
| 15) 1,1-DCE | 2.18 | 96 | 31304 | 8.4802 ppb | | 96 |
| 16) t-Butanol | 2.89 | 59 | 34889 | 115.5508 ppb | | 99 |
| 18) Acetonitrile | 2.51 | 41 | 73678 | 120.4539 ppb | | 96 |
| 19) Methyl Acetate | 2.59 | 43 | 32049 | 9.2562 ppb | | 92 |
| 20) Iodomethane | 2.30 | 142 | 38572 | 7.3563 ppb | | 94 |
| 21) Acrylonitrile | 2.97 | 52 | 12228 | 8.5285 ppb | | 91 |
| 22) Methylene chloride | 2.67 | 84 | 41402 | 8.8737 ppb | | 95 |
| 23) Carbon disulfide | 2.36 | 76 | 113163 | 8.5050 ppb | | 100 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 79197 | 8.6627 ppb | | 94 |
| 25) Trans-1,2-DCE | 3.00 | 96 | 33360 | 8.7970 ppb | | 97 |
| 26) Diisopropyl Ether | 3.74 | 45 | 77308 | 8.5334 ppb | | 100 |
| 28) 1,1-DCA | 3.54 | 63 | 62700 | 9.0121 ppb | | 97 |
| 29) Vinyl Acetate | 3.74 | 43 | 84368 | 8.0865 ppb | # | 68 |
| 30) Ethyl tert Butyl Ether | 4.31 | 59 | 69864 | 8.6645 ppb | | 96 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 14863 | 9.7636 ppb | | 99 |
| 32) Cis-1,2-DCE | 4.44 | 96 | 41899 | 10.3428 ppb | | 89 |
| 33) 2,2-Dichloropropane | 4.42 | 77 | 37126 | 6.4151 ppb | | 98 |
| 36) Chloroform | 4.93 | 83 | 66805 | 9.0792 ppb | | 91 |
| 37) Bromochloromethane | 4.77 | 128 | 20383 | 8.1416 ppb | | 99 |
| 39) 1,1,1-TCA | 5.14 | 97 | 52188 | 8.5953 ppb | | 98 |
| 40) Cyclohexane | 5.21 | 41 | 19793 | 8.6161 ppb | | 90 |
| 41) 1,1-Dichloropropene | 5.38 | 75 | 35279 | 8.9341 ppb | | 96 |
| 42) 2,2,4-Trimethylpentane | 5.81 | 57 | 61303 | 8.0197 ppb | | 96 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 48917 | 9.1813 ppb | | 99 |
| 45) Tert Amyl Methyl Ether | 5.87 | 73 | 70682 | 8.4866 ppb | | 98 |
| 47) 1,2-DCA | 5.67 | 62 | 47960 | 8.8835 ppb | | 99 |
| 48) Benzene | 5.64 | 78 | 130714 | 8.6975 ppb | | 97 |
| 49) TCE | 6.48 | 130 | 37464 | 9.1824 ppb | | 96 |

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

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L36.D
Acq On : 24 Apr 19 8:34
Sample : AZ89958W06 MS 10ug/L
Misc : ISS 3/5/19, 2/11/19

Vial: 35
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 25 18:17 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.76 | 43 | 269139 | 121.0286 | ppb | | 98 |
| 51) | 1,2-Dichloropropane | 6.74 | 63 | 37152 | 8.5888 | ppb | | 99 |
| 52) | Bromodichloromethane | 7.09 | 83 | 53998 | 9.0832 | ppb | | 92 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 36404 | 8.6992 | ppb | | 90 |
| 54) | Dibromomethane | 6.87 | 93 | 27441 | 9.2162 | ppb | | 98 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 26190 | 9.9383 | ppb | | 97 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 56442 | 8.9947 | ppb | | 95 |
| 58) | Cis-1,3-Dichloropropene | 7.62 | 75 | 45723 | 8.1694 | ppb | | 95 |
| 59) | Toluene | 7.99 | 91 | 137861 | 9.1032 | ppb | | 100 |
| 60) | Trans-1,3-Dichloropropene | 8.27 | 75 | 44461 | 8.5700 | ppb | | 97 |
| 61) | 1,1,2-TCA | 8.46 | 83 | 30887 | 8.7746 | ppb | | 96 |
| 62) | 2-Hexanone | 8.78 | 43 | 15984 | 8.6326 | ppb | # | 98 |
| 65) | 1,2-EDB | 8.98 | 107 | 34972 | 8.6260 | ppb | | 93 |
| 66) | Tetrachloroethene | 8.60 | 166 | 40066 | 9.0576 | ppb | | 94 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 34545 | 8.8164 | ppb | | 98 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.64 | 131 | 40408 | 8.6905 | ppb | | 91 |
| 69) | m&p-Xylene | 9.82 | 91 | 183761 | 15.3923 | ppb | | 96 |
| 70) | o-Xylene | 10.25 | 106 | 45905 | 8.9246 | ppb | | 93 |
| 71) | Styrene | 10.26 | 104 | 72663 | 7.2354 | ppb | | 98 |
| 73) | 1,3-Dichloropropane | 8.63 | 76 | 58222 | 9.0928 | ppb | | 96 |
| 74) | Dibromochloromethane | 8.88 | 129 | 44519 | 9.1797 | ppb | | 93 |
| 75) | Chlorobenzene | 9.54 | 112 | 96869 | 8.8670 | ppb | | 97 |
| 76) | Ethylbenzene | 9.69 | 91 | 124080 | 8.4996 | ppb | | 99 |
| 77) | Bromoform | 10.44 | 173 | 32125 | 9.2432 | ppb | | 95 |
| 79) | Isopropylbenzene | 10.66 | 105 | 107630 | 8.4171 | ppb | | 100 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.99 | 83 | 54637 | 9.6225 | ppb | | 90 |
| 81) | 1,2,3-Trichloropropane | 11.01 | 110 | 15757 | 9.3970 | ppb | | 83 |
| 82) | t-1,4-Dichloro-2-Butene | 11.05 | 53 | 8880 | 8.6050 | ppb | | 98 |
| 83) | Bromobenzene | 10.96 | 156 | 40203 | 8.3408 | ppb | | 92 |
| 84) | n-Propylbenzene | 11.11 | 91 | 133211 | 8.3412 | ppb | | 99 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 115336 | 8.4199 | ppb | | 99 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 103581 | 8.7759 | ppb | | 95 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 98402 | 8.5040 | ppb | | 99 |
| 88) | 4-Chlorotoluene | 11.31 | 91 | 109130 | 8.9563 | ppb | | 97 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 91727 | 9.0502 | ppb | | 97 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 90608 | 7.9259 | ppb | | 99 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 116364 | 8.3983 | ppb | | 98 |
| 92) | p-Isopropyltoluene | 12.06 | 119 | 100245 | 8.2015 | ppb | | 97 |
| 93) | Benzyl Chloride | 12.25 | 91 | 9598 | 7.1829 | ppb | # | 89 |
| 94) | 1,3-DCB | 11.99 | 146 | 77470 | 8.9774 | ppb | | 98 |
| 95) | 1,4-DCB | 12.09 | 146 | 82673 | 8.5138 | ppb | | 97 |
| 96) | n-Butylbenzene | 12.51 | 91 | 86866 | 7.8348 | ppb | | 98 |
| 97) | 1,2-DCB | 12.49 | 146 | 73091 | 8.1010 | ppb | | 97 |
| 98) | Hexachloroethane | 12.78 | 117 | 18064 | 11.2352 | ppb | | 88 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.34 | 75 | 8570 | 9.0409 | ppb | # | 88 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 39806 | 7.7198 | ppb | | 96 |
| 101) | Hexachlorobutadiene | 14.45 | 225 | 25294 | 8.6790 | ppb | # | 85 |
| 102) | Naphthalene | 14.51 | 128 | 76331 | 6.9074 | ppb | | 99 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 41036 | 7.6037 | ppb | | 96 |

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

Quantitation Report

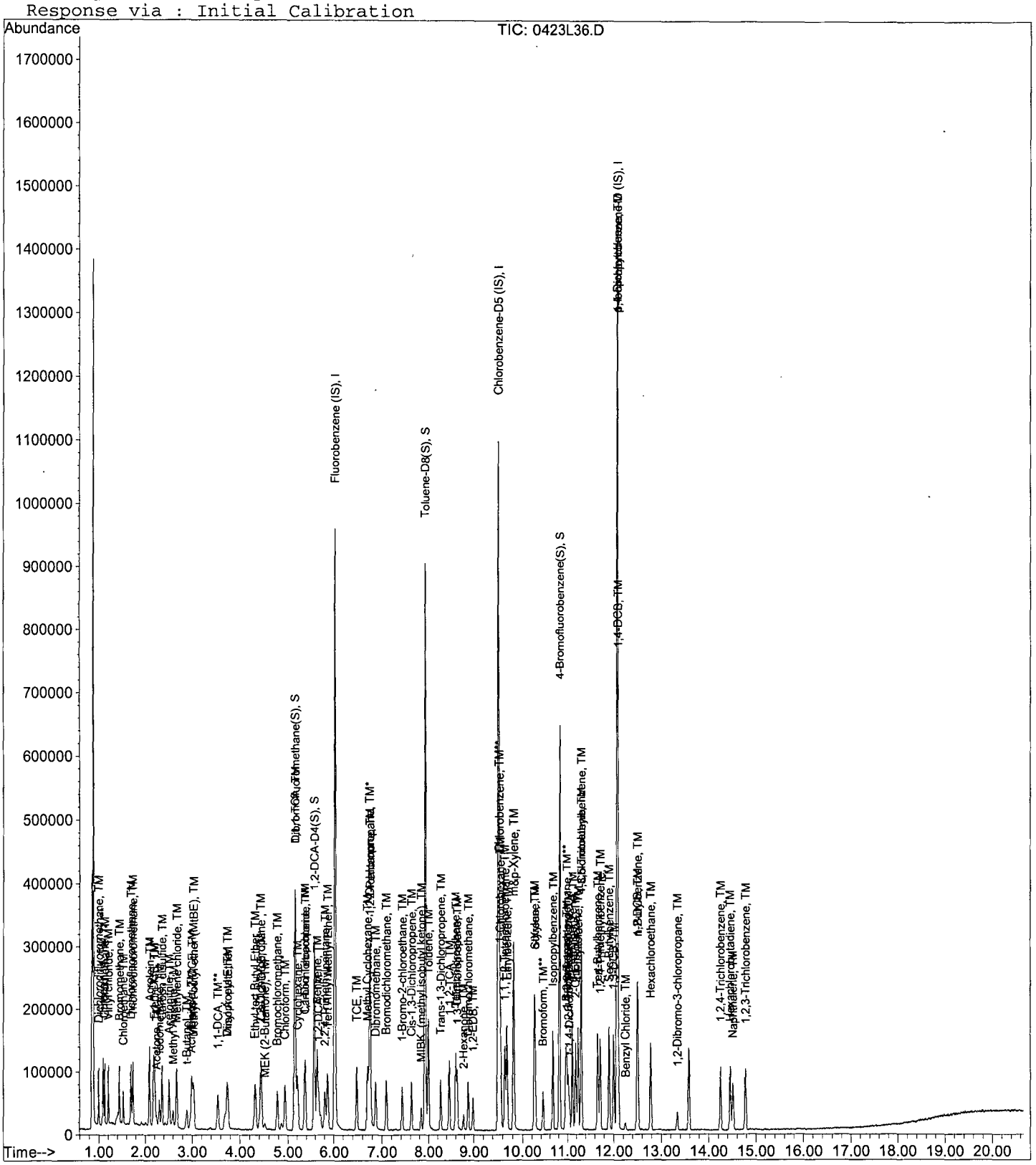
Data File : M:\LOKI\DATA\190423\0423L36.D
Acq On : 24 Apr 19 8:34
Sample : AZ89958W06 MS 10ug/L
Misc : ISS 3/5/19, 2/11/19

Vial: 35
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 25 18:17 2019

Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L37.D Vial: 36
Acq On : 24 Apr 19 9:03 Operator: PM,DG,SV,CMM,KV
Sample : AZ89958W07 MSD 10ug/L Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 25 18:17 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 6.02 | 96 | 486592 | 25.0000 | ppb | | 0.00 |
| 63) Chlorobenzene-D5 (IS) | 9.52 | 117 | 406016 | 25.0000 | ppb | | 0.00 |
| 78) 1,4-Dichlorobenzene-D (IS) | 12.07 | 152 | 227136 | 25.0000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 38) Dibromofluoromethane(S) | 5.15 | 111 | 214290 | 23.6655 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 94.660% | | | | |
| 43) 1,2-DCA-D4(S) | 5.57 | 65 | 228951 | 24.3554 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 97.420% | | | | |
| 64) Toluene-D8(S) | 7.92 | 98 | 663382 | 23.9164 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 95.664% | | | | |
| 72) 4-Bromofluorobenzene(S) | 10.81 | 95 | 231878 | 22.2941 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 89.176% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 1.00 | 85 | 47132 | 10.2653 | ppb | | 96 |
| 4) Freon 114 | 1.09 | 85 | 35885 | 8.7034 | ppb | | 88 |
| 5) Chloromethane | 1.12 | 50 | 55737 | 9.2216 | ppb | | 98 |
| 6) Vinyl chloride | 1.20 | 62 | 54488 | 9.5512 | ppb | | 100 |
| 8) Bromomethane | 1.44 | 94 | 36222 | 11.2190 | ppb | | 93 |
| 9) Chloroethane | 1.52 | 64 | 25629 | 9.9881 | ppb | | 96 |
| 10) Dichlorofluoromethane | 1.69 | 67 | 71794 | 9.2412 | ppb | | 98 |
| 11) Trichlorofluoromethane | 1.73 | 101 | 62671 | 9.7906 | ppb | | 92 |
| 12) Acrolein | 2.09 | 56 | 95459 | 118.5223 | ppb | # | 97 |
| 13) Acetone | 2.25 | 43 | 14068 | 8.7094 | ppb | | 93 |
| 14) Freon-113 | 2.20 | 101 | 34922 | 9.3006 | ppb | | 95 |
| 15) 1,1-DCE | 2.18 | 96 | 32280 | 8.5053 | ppb | | 98 |
| 16) t-Butanol | 2.90 | 59 | 37261 | 120.0306 | ppb | | 93 |
| 18) Acetonitrile | 2.52 | 41 | 77270 | 122.8704 | ppb | | 91 |
| 19) Methyl Acetate | 2.60 | 43 | 29772 | 8.1962 | ppb | | 95 |
| 20) Iodomethane | 2.30 | 142 | 39220 | 7.2753 | ppb | | 91 |
| 21) Acrylonitrile | 2.97 | 52 | 12361 | 8.3854 | ppb | | 97 |
| 22) Methylene chloride | 2.67 | 84 | 42230 | 8.7950 | ppb | | 98 |
| 23) Carbon disulfide | 2.36 | 76 | 116988 | 8.5520 | ppb | | 98 |
| 24) Methyl t-butyl ether (MtBE | 3.03 | 73 | 81105 | 8.6287 | ppb | | 96 |
| 25) Trans-1,2-DCE | 3.00 | 96 | 34431 | 8.8310 | ppb | | 89 |
| 26) Diisopropyl Ether | 3.74 | 45 | 78041 | 8.3786 | ppb | | 99 |
| 28) 1,1-DCA | 3.54 | 63 | 64134 | 8.9660 | ppb | | 99 |
| 29) Vinyl Acetate | 3.69 | 43 | 84363 | 7.8648 | ppb | | 92 |
| 30) Ethyl tert Butyl Ether | 4.32 | 59 | 74111 | 8.9398 | ppb | | 98 |
| 31) MEK (2-Butanone) | 4.52 | 43 | 15644 | 10.0056 | ppb | | 92 |
| 32) Cis-1,2-DCE | 4.44 | 96 | 40335 | 9.6843 | ppb | | 93 |
| 33) 2,2-Dichloropropane | 4.42 | 77 | 37820 | 6.3562 | ppb | | 96 |
| 36) Chloroform | 4.93 | 83 | 68110 | 9.0033 | ppb | | 95 |
| 37) Bromochloromethane | 4.77 | 128 | 20721 | 8.0502 | ppb | | 93 |
| 39) 1,1,1-TCA | 5.14 | 97 | 56428 | 9.0394 | ppb | | 94 |
| 40) Cyclohexane | 5.21 | 41 | 21112 | 8.9389 | ppb | | 88 |
| 41) 1,1-Dichloropropene | 5.37 | 75 | 35200 | 8.6702 | ppb | | 99 |
| 42) 2,2,4-Trimethylpentane | 5.81 | 57 | 63036 | 8.0208 | ppb | | 99 |
| 44) Carbon Tetrachloride | 5.36 | 117 | 50322 | 9.1866 | ppb | | 94 |
| 45) Tert Amyl Methyl Ether | 5.87 | 73 | 74002 | 8.6422 | ppb | | 97 |
| 47) 1,2-DCA | 5.67 | 62 | 50801 | 9.1523 | ppb | | 98 |
| 48) Benzene | 5.64 | 78 | 133829 | 8.6612 | ppb | | 96 |
| 49) TCE | 6.48 | 130 | 37606 | 8.9651 | ppb | | 98 |

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

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\190423\0423L37.D Vial: 36
Acq On : 24 Apr 19 9:03 Operator: PM,DG,SV,CMM,KV
Sample : AZ89958W07 MSD 10ug/L Inst : Loki
Misc : ISS 3/5/19, 2/11/19 Multiplr: 1.00

Quant Time: Apr 25 18:17 2019 Quant Results File: L0423W.RES

Quant Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration
DataAcq Meth : L8260

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 50) | 2-Pentanone | 6.76 | 43 | 285330 | 124.7993 | ppb | | 99 |
| 51) | 1,2-Dichloropropane | 6.74 | 63 | 39987 | 8.9913 | ppb | | 97 |
| 52) | Bromodichloromethane | 7.09 | 83 | 55849 | 9.1376 | ppb | # | 93 |
| 53) | Methyl Cyclohexane | 6.70 | 83 | 35960 | 8.3581 | ppb | | 98 |
| 54) | Dibromomethane | 6.87 | 93 | 26138 | 8.5384 | ppb | | 95 |
| 56) | MIBK (methyl isobutyl ket | 7.83 | 43 | 27996 | 10.3302 | ppb | | 94 |
| 57) | 1-Bromo-2-chloroethane | 7.42 | 63 | 57623 | 8.9317 | ppb | | 94 |
| 58) | Cis-1,3-Dichloropropene | 7.62 | 75 | 46461 | 8.0741 | ppb | | 98 |
| 59) | Toluene | 7.99 | 91 | 140879 | 9.0480 | ppb | | 95 |
| 60) | Trans-1,3-Dichloropropene | 8.26 | 75 | 44890 | 8.4160 | ppb | | 100 |
| 61) | 1,1,2-TCA | 8.45 | 83 | 32439 | 8.9634 | ppb | | 97 |
| 62) | 2-Hexanone | 8.78 | 43 | 17261 | 9.0672 | ppb | | 94 |
| 65) | 1,2-EDB | 8.98 | 107 | 38609 | 9.1132 | ppb | | 91 |
| 66) | Tetrachloroethene | 8.60 | 166 | 40901 | 8.8485 | ppb | | 96 |
| 67) | 1-Chlorohexane | 9.56 | 91 | 34155 | 8.3418 | ppb | | 97 |
| 68) | 1,1,1,2-Tetrachloroethane | 9.65 | 131 | 43473 | 8.9474 | ppb | | 97 |
| 69) | m&p-Xylene | 9.82 | 91 | 188953 | 15.1573 | ppb | | 100 |
| 70) | o-Xylene | 10.25 | 106 | 45736 | 8.5091 | ppb | | 99 |
| 71) | Styrene | 10.26 | 104 | 75795 | 7.2236 | ppb | | 100 |
| 73) | 1,3-Dichloropropane | 8.63 | 76 | 58213 | 8.7002 | ppb | | 89 |
| 74) | Dibromochloromethane | 8.88 | 129 | 42146 | 8.3164 | ppb | | 90 |
| 75) | Chlorobenzene | 9.54 | 112 | 98456 | 8.6245 | ppb | | 98 |
| 76) | Ethylbenzene | 9.69 | 91 | 126962 | 8.3227 | ppb | | 97 |
| 77) | Bromoform | 10.44 | 173 | 33146 | 9.1271 | ppb | | 90 |
| 79) | Isopropylbenzene | 10.66 | 105 | 109686 | 8.5054 | ppb | | 97 |
| 80) | 1,1,2,2-Tetrachloroethane | 10.99 | 83 | 55288 | 9.6567 | ppb | | 97 |
| 81) | 1,2,3-Trichloropropane | 11.02 | 110 | 16367 | 9.6783 | ppb | | 84 |
| 82) | t-1,4-Dichloro-2-Butene | 11.05 | 53 | 8608 | 8.2709 | ppb | | 98 |
| 83) | Bromobenzene | 10.96 | 156 | 41750 | 8.5886 | ppb | | 98 |
| 84) | n-Propylbenzene | 11.11 | 91 | 139757 | 8.6771 | ppb | | 96 |
| 85) | 4-Ethyltoluene | 11.24 | 105 | 117967 | 8.5392 | ppb | | 95 |
| 86) | 2-Chlorotoluene | 11.18 | 91 | 107551 | 9.0352 | ppb | | 94 |
| 87) | 1,3,5-Trimethylbenzene | 11.31 | 105 | 100918 | 8.6477 | ppb | | 96 |
| 88) | 4-Chlorotoluene | 11.30 | 91 | 109648 | 8.9227 | ppb | | 95 |
| 89) | Tert-Butylbenzene | 11.66 | 119 | 96207 | 9.4119 | ppb | | 94 |
| 90) | 1,2,4-Trimethylbenzene | 11.71 | 105 | 94648 | 8.2093 | ppb | | 95 |
| 91) | Sec-Butylbenzene | 11.90 | 105 | 122518 | 8.7677 | ppb | | 99 |
| 92) | p-Isopropyltoluene | 12.07 | 119 | 104722 | 8.4954 | ppb | | 98 |
| 93) | Benzyl Chloride | 12.25 | 91 | 9040 | 6.7140 | ppb | # | 92 |
| 94) | 1,3-DCB | 11.99 | 146 | 76778 | 8.8220 | ppb | | 99 |
| 95) | 1,4-DCB | 12.09 | 146 | 84635 | 8.6422 | ppb | | 100 |
| 96) | n-Butylbenzene | 12.51 | 91 | 91316 | 8.1666 | ppb | | 98 |
| 97) | 1,2-DCB | 12.49 | 146 | 74261 | 8.1611 | ppb | | 97 |
| 98) | Hexachloroethane | 12.78 | 117 | 16488 | 10.1194 | ppb | | 83 |
| 99) | 1,2-Dibromo-3-chloropropan | 13.34 | 75 | 9062 | 9.5610 | ppb | | 90 |
| 100) | 1,2,4-Trichlorobenzene | 14.25 | 180 | 42379 | 8.1493 | ppb | | 98 |
| 101) | Hexachlorobutadiene | 14.45 | 225 | 25393 | 8.6328 | ppb | | 87 |
| 102) | Naphthalene | 14.51 | 128 | 86733 | 7.7824 | ppb | | 99 |
| 103) | 1,2,3-Trichlorobenzene | 14.78 | 180 | 43712 | 8.0311 | ppb | | 97 |

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

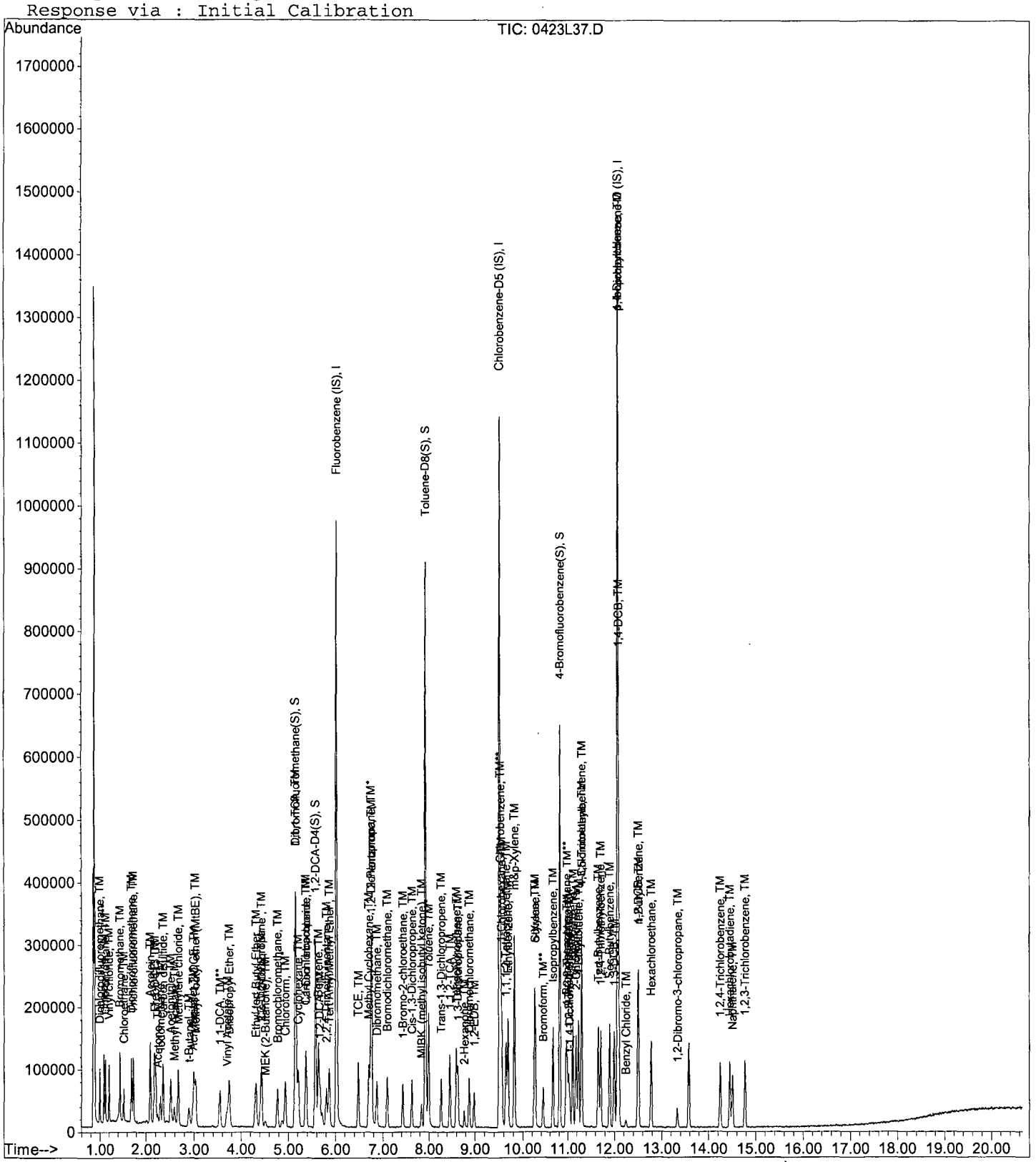
Quantitation Report

Data File : M:\LOKI\DATA\190423\0423L37.D
Acq On : 24 Apr 19 9:03
Sample : AZ89958W07 MSD 10ug/L
Misc : ISS 3/5/19, 2/11/19

Vial: 36
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Quant Time: Apr 25 18:17 2019 Quant Results File: L0423W.RES

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Apr 24 08:19:06 2019
Response via : Initial Calibration

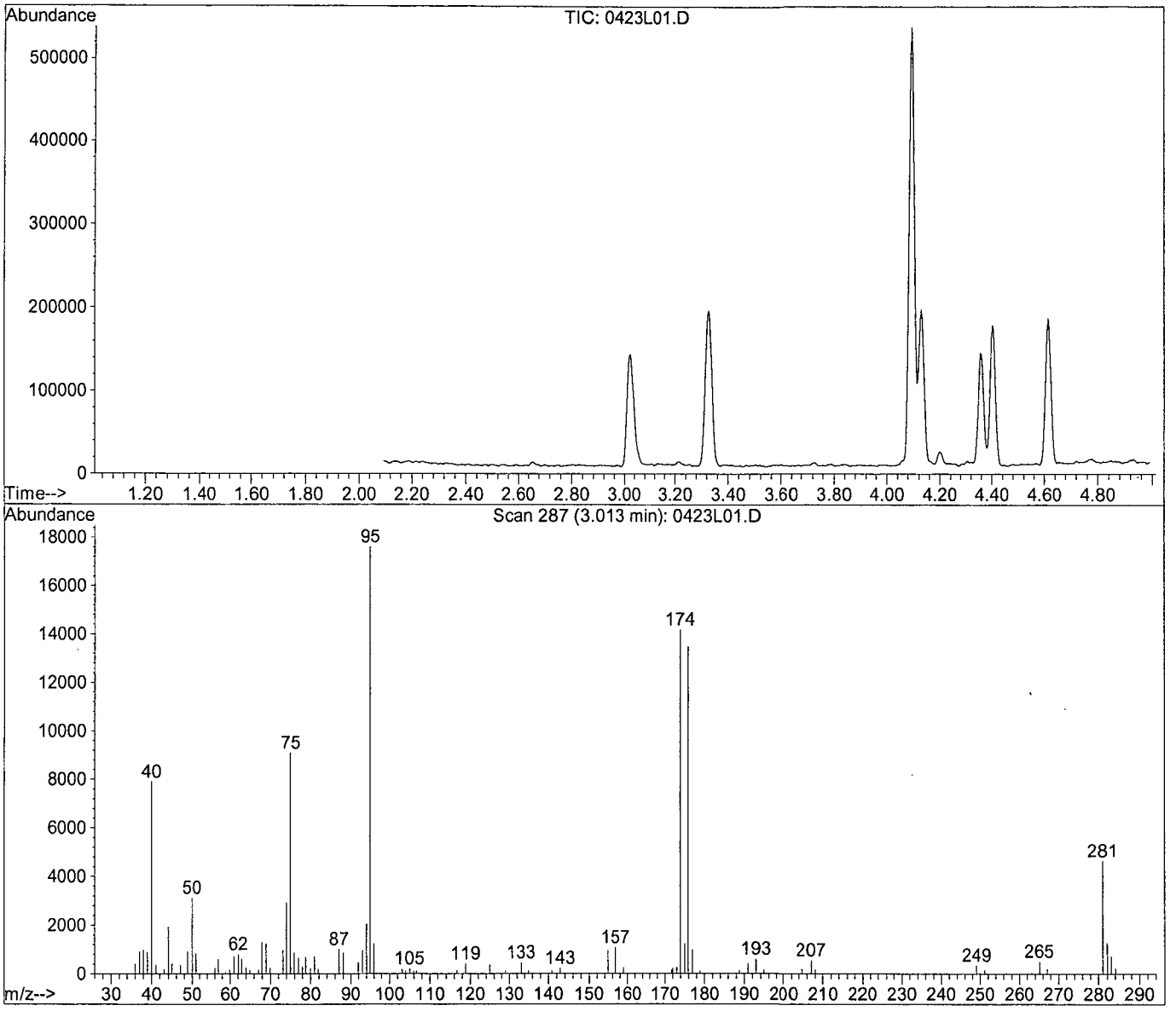


BFB

Data File : M:\LOKI\DATA\190423\0423L01.D
Acq On : 23 Apr 19 16:08
Sample : 25ug/L BFB STD 3/11/19
Misc : 1ul

Vial: 1
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B



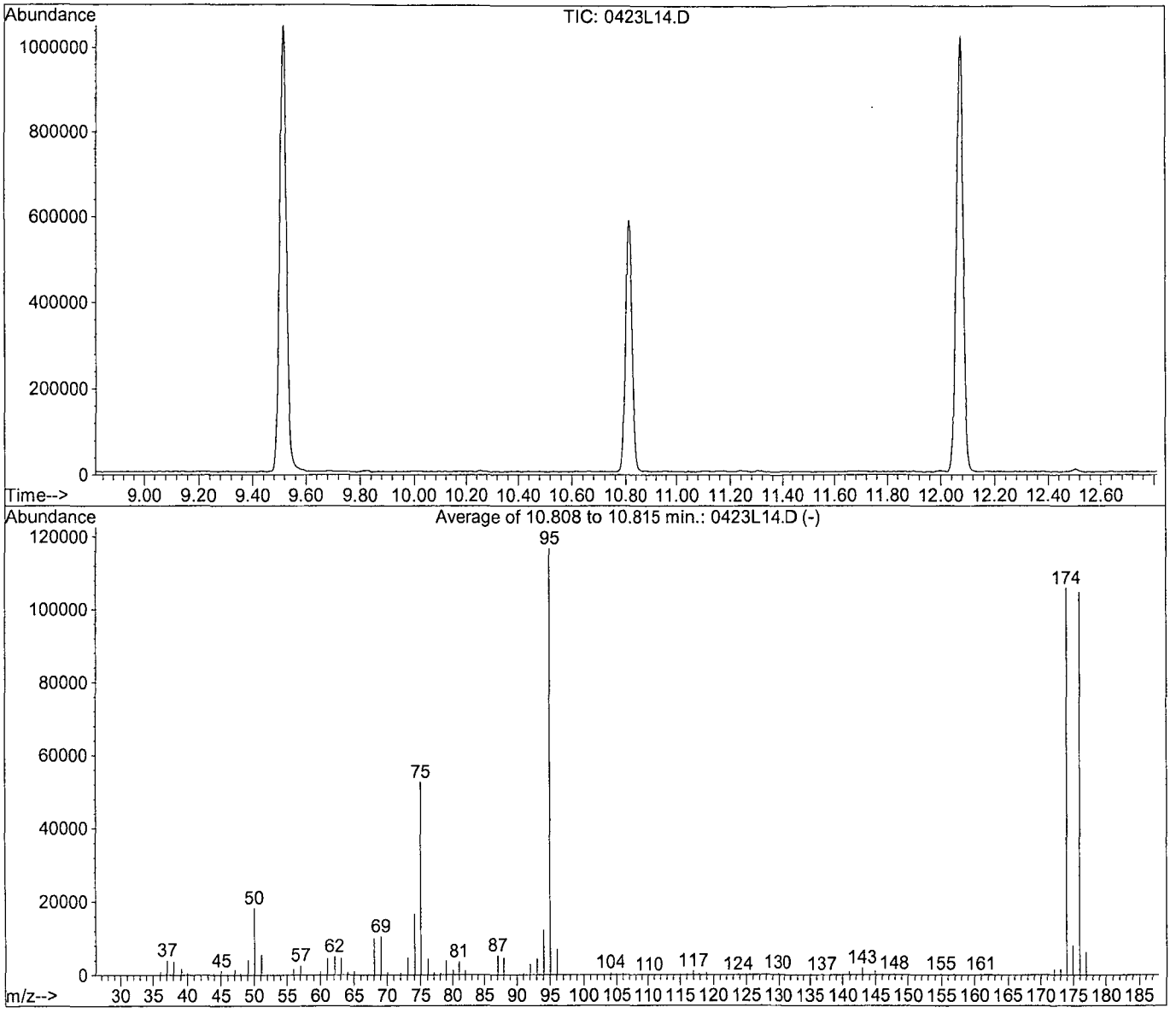

Spectrum Information: Scan 287

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 17.7 | 3122 | PASS |
| 75 | 95 | 30 | 60 | 51.7 | 9101 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 17616 | PASS |
| 96 | 95 | 5 | 9 | 7.0 | 1228 | PASS |
| 173 | 174 | 0.00 | 2 | 1.8 | 259 | PASS |
| 174 | 95 | 50 | 100 | 80.6 | 14201 | PASS |
| 175 | 174 | 5 | 9 | 8.7 | 1236 | PASS |
| 176 | 174 | 95 | 101 | 95.0 | 13498 | PASS |
| 177 | 176 | 5 | 9 | 7.3 | 980 | PASS |

Data File : M:\LOKI\DATA\190423\0423114.D
Acq On : 23 Apr 19 22:07
Sample : 25ug/L BFB STD 3/11/19
Misc : ISS 3/5/19, 2/11/19

Vial: 13
Operator: PM,DG,SV,CMM,KV
Inst : Loki
Multiplr: 1.00

Method : M:\LOKI\DATA\190423\L0423W.M (RTE Integrator)
Title : METHOD 8260B



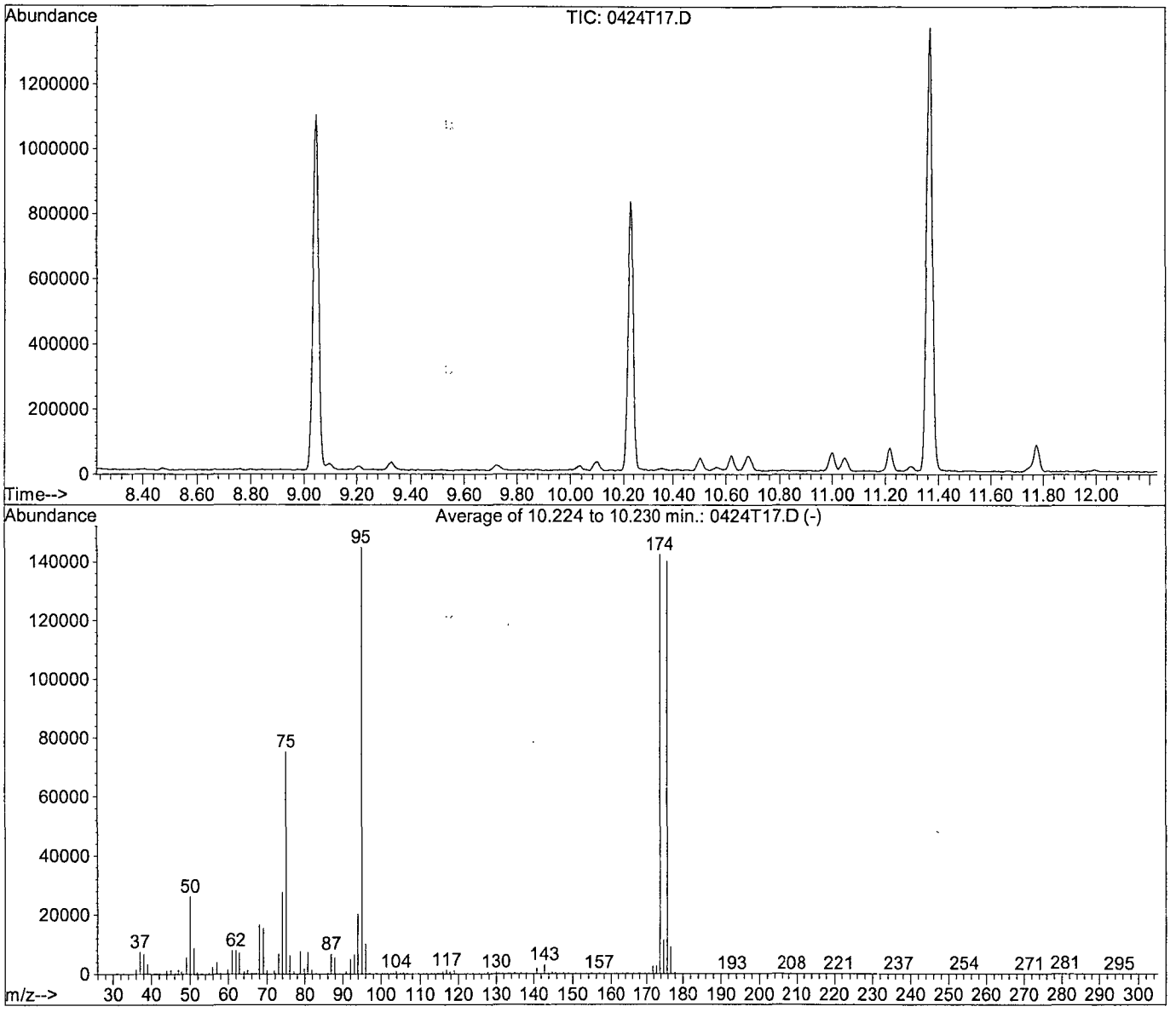

AutoFind: Scans 3178, 3179, 3180; Background Corrected with Scan 3162

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 15.6 | 18269 | PASS |
| 75 | 95 | 30 | 60 | 45.0 | 52592 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 116773 | PASS |
| 96 | 95 | 5 | 9 | 5.9 | 6944 | PASS |
| 173 | 174 | 0.00 | 2 | 1.5 | 1609 | PASS |
| 174 | 95 | 50 | 100 | 90.7 | 105888 | PASS |
| 175 | 174 | 5 | 9 | 7.5 | 7987 | PASS |
| 176 | 174 | 95 | 101 | 98.8 | 104619 | PASS |
| 177 | 176 | 5 | 9 | 6.0 | 6260 | PASS |

Data File : M:\THOR\DATA\T190423\0424T17.D
Acq On : 24 Apr 19 18:24
Sample : 25ug/L of BFB 03/11/19
Misc : IS &S 4/2/19

Vial: 14
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B



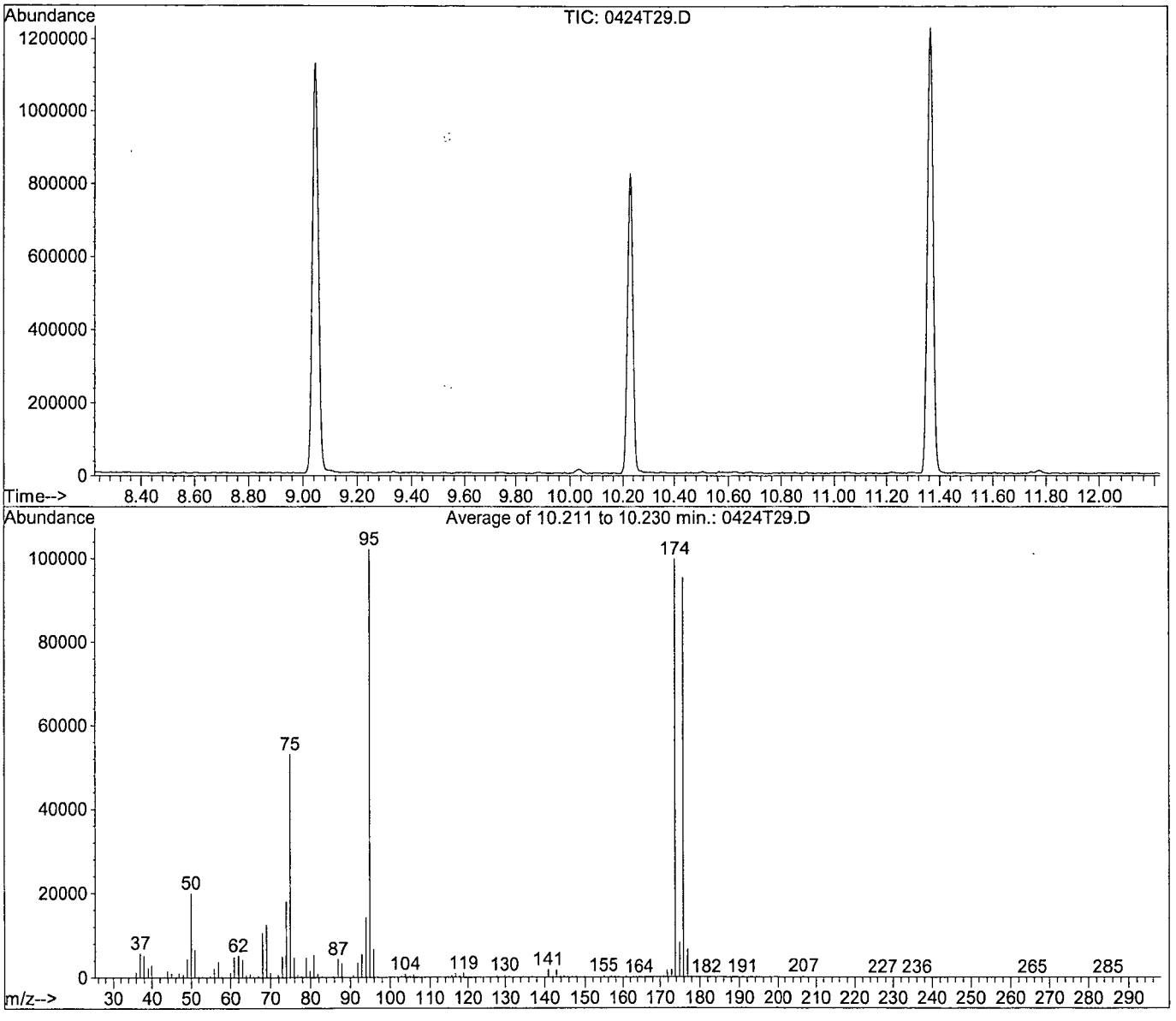

Spectrum Information: Average of 10.224 to 10.230 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.1 | 26267 | PASS |
| 75 | 95 | 30 | 60 | 51.9 | 75267 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 144896 | PASS |
| 96 | 95 | 5 | 9 | 7.0 | 10144 | PASS |
| 173 | 174 | 0.00 | 2 | 1.8 | 2526 | PASS |
| 174 | 95 | 50 | 100 | 98.4 | 142592 | PASS |
| 175 | 174 | 5 | 9 | 8.0 | 11342 | PASS |
| 176 | 174 | 95 | 101 | 98.4 | 140245 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 9069 | PASS |

Data File : M:\THOR\DATA\T190423\0424T29.D
Acq On : 25 Apr 19 00:06
Sample : 25ug/L of BFB 03/11/19
Misc : IS &S 4/2/19

Vial: 26
Operator: DG,SV, CMM.PM,KV
Inst : Thor
Multiplr: 1.00

Method : M:\THOR\DATA\T190423\T0424W.M (RTE Integrator)
Title : METHOD 8260B




Spectrum Information: Average of 10.211 to 10.230 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 19.6 | 20022 | PASS |
| 75 | 95 | 30 | 60 | 51.9 | 53050 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 102251 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 6715 | PASS |
| 173 | 174 | 0.00 | 2 | 1.8 | 1790 | PASS |
| 174 | 95 | 50 | 100 | 97.8 | 99952 | PASS |
| 175 | 174 | 5 | 9 | 8.3 | 8266 | PASS |
| 176 | 174 | 95 | 101 | 95.5 | 95443 | PASS |
| 177 | 176 | 5 | 9 | 7.0 | 6644 | PASS |

# Loki 8260 Standard Prep

**Loki 8260 Water Calibration Curve**

***0.3ug/L***

**Prepared: 04/23/19**

**Expires: 05/23/19**

**Prepared By (Initials): PC**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 9 | O2SI | 0.3ug/L | 5 | Prepared 04/19/19 | 06/18/19 | N/A | 3uL | 50mL | P&T Water | 0.3 |
| VOA STD. 10 | O2SI | | 5 | Prepared 04/19/19 | 06/18/19 | N/A | 3uL | | | 0.3 |
| VOA STD. 12 | O2SI | | 5 | Prepared 04/19/19 | 06/18/19 | N/A | 3uL | | | 0.3 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 2uL | | | 10 |

***0.5ug/L***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 9 | O2SI | 0.5ug/L | 5 | Prepared 04/19/19 | 06/18/19 | N/A | 5uL | 50mL | P&T Water | 0.5 |
| VOA STD. 10 | O2SI | | 5 | Prepared 04/19/19 | 06/18/19 | N/A | 5uL | | | 0.5 |
| VOA STD. 12 | O2SI | | 5 | Prepared 04/19/19 | 06/18/19 | N/A | 5uL | | | 0.5 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 5uL | | | 25 |

***1.0ug/L***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 9 | O2SI | 1.0ug/L | 5 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | 50mL | P&T Water | 1 |
| VOA STD. 10 | O2SI | | 5 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | | | 1 |
| VOA STD. 12 | O2SI | | 5 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | | | 1 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 10uL | | | 50 |

***2.0ug/L***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 9 | O2SI | 2.0ug/L | 5 | Prepared 04/19/19 | 06/18/19 | N/A | 20uL | 50mL | P&T Water | 2 |
| VOA STD. 10 | O2SI | | 5 | Prepared 04/19/19 | 06/18/19 | N/A | 20uL | | | 2 |
| VOA STD. 12 | O2SI | | 5 | Prepared 04/19/19 | 06/18/19 | N/A | 20uL | | | 2 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 15uL | | | 75 |

***5ug/L***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 5ug/L | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 5uL | 50mL | P&T Water | 5 |
| VOA STD. 8 | Phenova | | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 5uL | | | 5 |
| VOA STD. 1 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 5uL | | | 5 |
| VOA STD. 2 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 5uL | | | 5 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 20uL | | | 100 |

***10ug/L***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 10ug/L | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD. 8 | Phenova | | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 10uL | | | 10 |
| VOA STD. 1 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | | | 10 |
| VOA STD. 2 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | | | 10 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 25uL | | | 125 |

***20ug/L***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 20ug/L | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 20uL | 50mL | P&T Water | 20 |
| VOA STD. 8 | Phenova | | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 20uL | | | 20 |
| VOA STD. 1 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 20uL | | | 20 |
| VOA STD. 2 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 20uL | | | 20 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 30uL | | | 150 |

***40ug/L***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 40ug/L | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 40uL | 50mL | P&T Water | 40 |
| VOA STD. 8 | Phenova | | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 40uL | | | 40 |
| VOA STD. 1 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 40uL | | | 40 |
| VOA STD. 2 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 40uL | | | 40 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 35uL | | | 175 |

***100ug/L***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 100ug/L | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 100uL | 50mL | P&T Water | 100 |
| VOA STD. 8 | Phenova | | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 100uL | | | 100 |
| VOA STD. 1 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 100uL | | | 100 |
| VOA STD. 2 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 100uL | | | 100 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 40uL | | | 200 |

**Loki 8260 Water Second Source (SS)**

**Prepared: 04/23/19**

**Prepared By (Initials): PC**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 4 | Phenova | 8260 Water SS | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD. 5 | O2SI | 8260 Water SS | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | | | 10 |
| VOA STD. 6 | Various | 8260 Water SS | 50 | Prepared 04/19/19 | 04/24/19 | N/A | 10uL | | | 10 |
| Voa STD. TBA | Various | 8260 Water SS | 250 | Prepared 04/19/19 | 04/24/19 | N/A | 25uL | | | 250 |

**8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)**

**Prepared: 04/23/19**

**Prepared By (Initials): PC**

**Expires: 04/24/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | CCV/ LCS | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD. 8 | Phenova | CCV/ LCS | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 10uL | | | 10 |
| VOA STD. 1 | O2SI | CCV/ LCS | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | | | 10 |
| VOA STD. 2 | O2SI | CCV/ LCS | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | | | 10 |
| VOA STD. TBA | Various | CCV/ LCS | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 25uL | | | 125 |

***LCS (X4 Ketones)***

**Prepared: 04/23/19**

**Prepared By (Initials): PC**

**Expires: 04/24/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | LCS X4 Ketones | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD. 8 | Phenova | LCS X4 Ketones | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 10uL | | | 10 |
| VOA STD. 1 | O2SI | LCS X4 Ketones | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | | | 10 |
| VOA STD. 2 | O2SI | LCS X4 Ketones | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 40uL | | | 40 |
| VOA STD. TBA | Various | LCS X4 Ketones | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 25uL | | | 125 |

**Loki 8260 Water Surrogate**

**Prepared:** 02/11/19 **Prepared By (Initials):** PC

**Expires:** 07/28/19

**Methanol Lot No:** 202404-9077

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 8260 Surrogate Solution | O2SI | 120002-01 | 2,000 | **384756-39333** | **07/28/19** | **02/10/22** | 375uL | 15mL | Methanol | 50 |

**Loki 8260 Water Internal Standard**

**Prepared:** 03/21/19 **Prepared By (Initials):** DG

**Expires:** 03/06/20

**Methanol Lot No:** 202404-9077

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Internal Standard Solution | O2SI | 120004-02 | 2,000 | **326533-38436** | **03/06/20** | **04/27/21** | 375uL | 15mL | Methanol | 50 |

**Thor 8260 Soil Calibration Curve**

***2ug/kg***

**Prepared: 04/23/19**

**Expires: 05/23/19**

**Prepared By (Initials): PC**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mg) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/kg) |
| VOA STD. 7 | Various | 2ug/kg | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 1uL | 25mL | P&T Water | 2 |
| VOA STD. 8 | Phenova | | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 1uL | | | 2 |
| VOA STD. 1 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 1uL | | | 2 |
| VOA STD. 2 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 1uL | | | 2 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 5uL | | | 50 |

***5ug/kg***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mg) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/kg) |
| VOA STD. 7 | Various | 5ug/kg | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 2.5uL | 25mL | P&T Water | 5 |
| VOA STD. 8 | Phenova | | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 2.5uL | | | 5 |
| VOA STD. 1 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 2.5uL | | | 5 |
| VOA STD. 2 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 2.5uL | | | 5 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 10uL | | | 125 |

***10ug/kg***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mg) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/kg) |
| VOA STD. 7 | Various | 10ug/kg | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 5uL | 25mL | P&T Water | 10 |
| VOA STD. 8 | Phenova | | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 5uL | | | 10 |
| VOA STD. 1 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 5uL | | | 10 |
| VOA STD. 2 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 5uL | | | 10 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 15uL | | | 150 |

***20ug/kg***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mg) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/kg) |
| VOA STD. 7 | Various | 20ug/kg | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | 25mL | P&T Water | 20 |
| VOA STD. 8 | Phenova | | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 10uL | | | 20 |
| VOA STD. 1 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | | | 20 |
| VOA STD. 2 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | | | 20 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 20uL | | | 200 |

***50ug/kg***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mg) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/kg) |
| VOA STD. 7 | Various | 50ug/kg | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 25uL | 25mL | P&T Water | 50 |
| VOA STD. 8 | Phenova | | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 25uL | | | 50 |
| VOA STD. 1 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 25uL | | | 50 |
| VOA STD. 2 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 25uL | | | 50 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 25uL | | | 250 |

***100ug/kg***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mg) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/kg) |
| VOA STD. 7 | Various | 100ug/kg | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 50uL | 25mL | P&T Water | 100 |
| VOA STD. 8 | Phenova | | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 50uL | | | 100 |
| VOA STD. 1 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 50uL | | | 100 |
| VOA STD. 2 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 50uL | | | 100 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 30uL | | | 300 |

***150ug/kg***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mg) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/kg) |
| VOA STD. 7 | Various | 150ug/kg | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 75uL | 25mL | P&T Water | 150 |
| VOA STD. 8 | Phenova | | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 75uL | | | 150 |
| VOA STD. 1 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 75uL | | | 150 |
| VOA STD. 2 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 75uL | | | 150 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 35uL | | | 350 |

***200ug/kg***

**Prepared: 04/23/19**

**Expires: 05/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mg) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/kg) |
| VOA STD. 7 | Various | 200ug/kg | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 100uL | 25mL | P&T Water | 200 |
| VOA STD. 8 | Phenova | | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 100uL | | | 200 |
| VOA STD. 1 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 100uL | | | 200 |
| VOA STD. 2 | O2SI | | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 100uL | | | 200 |
| VOA STD. TBA | Various | | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 40uL | | | 400 |

**Thor 8260 Soil Second Source (SS)**

**Prepared: 04/23/19**

**Expires: 05/23/19**

**Prepared By (Initials): PC**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mg) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/kg) |
| VOA STD. 4 | Phenova | 8260 Water SS | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD. 5 | O2SI | 8260 Water SS | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | | | 10 |
| VOA STD. 6 | Various | 8260 Water SS | 50 | Prepared 04/19/19 | 04/24/19 | N/A | 10uL | | | 10 |
| Voa STD. TBA | Various | 8260 Water SS | 250 | Prepared 04/19/19 | 04/24/19 | N/A | 25uL | | | 250 |

**8260 Soil Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)**

**Prepared: 04/23/19**

**Expires: 04/24/19**

**Prepared By (Initials): PC**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mg) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/kg) |
| VOA STD. 7 | Various | CCV/ LCS | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD. 8 | Phenova | CCV/ LCS | 50 | Prepared 04/19/19 | 05/08/19 | N/A | 10uL | | | 10 |
| VOA STD. 1 | O2SI | CCV/ LCS | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | | | 10 |
| VOA STD. 2 | O2SI | CCV/ LCS | 50 | Prepared 04/19/19 | 06/18/19 | N/A | 10uL | | | 10 |
| VOA STD. TBA | Various | CCV/ LCS | 250 | Prepared 04/19/19 | 05/08/19 | N/A | 25uL | | | 125 |

**Thor 8260 Soil Surrogate**

**Prepared: 01/08/19**

**Expires: 04/02/19**

**Methanol Lot No: 707404-00946**

**Prepared By (Initials): CMM**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 8260 Surrogate Solution | O2SI | 120002-01 | 2,000 | 348756-39337 | 01/08/20 | 04/02/19 | 375uL | 15mL | Methanol | 50 |

**Thor 8260 Soil Internal Standard**

**Prepared: 01/08/19**

**Expires: 01/08/20**

**Methanol Lot No: 707404-00946**

**Prepared By (Initials): CMM**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Internal Standard Solution | O2SI | 120004-02 | 2,000 | 326533-38443 | 01/08/20 | 02/10/22 | 375uL | 15mL | Methanol | 50 |

# Primary and Secondary Working Standards

**Primary Standards**

*VOA STD 7*

**Prepared: 04/19/19 N**
**Expires: 06/18/19**
**Prepared By (Initials): PC**
**Methanol Lot No. 907702-202404**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| VOA Gasses STD | Phenova | ALO-101206 | 2,000 | **CL13248-40496** | **03/21/20** | **02/29/24** | 100uL | 4mL | Methanol | 50 |
| Hexachloroethane | Absolute | 70199 | 1,000 | **218051281-40279** | **03/05/20** | **05/14/28** | 200uL | | | 50 |
| Benzyl Chloride | O2SI | 020228-02 | 1,000 | **120418-40032** | **12/04/19** | **12/04/19** | 200uL | | | 50 |

*VOA STD 8*

**Prepared: 04/19/19 O**
**Expires: 05/08/19**
**Prepared By (Initials): PC**
**Methanol Lot No. 907702-202404**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| VOA Additions STD | Phenova | ALO-130175 | 2,000 | **CL12622-40168** | **03/05/20** | **06/30/20** | 100uL | 4mL | Methanol | 50 |
| 502.2 Cal. Std. | Phenova | ALO-101200 | 2,000 | **CL12489-39976** | **03/05/20** | **05/31/23** | 100uL | | | 50 |
| Vinyl Acetate | Phenova | ALO-101228 | 2,000 | **CL13499-40665** | **05/08/19** | **05/08/19** | 100uL | | | 50 |

*VOA STD TBA*

**Prepared: 04/19/19 P**
**Expires: 05/08/19**
**Prepared By (Initials): PC**
**Methanol Lot No. 907702-202404**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Custom VOC Mix | Phenova | ALO-130176 | 2,000 | **CL12929-40194** | **03/1620** | **11/30/20** | 500uL | 4mL | Methanol | 250 |
| Acrolein | Phenova | ALO-130549 | 10,000 | **CL13304-40666** | **05/08/19** | **05/08/19** | 100uL | | | 250 |

*VOA STD 1*

**Prepared: 04/19/19 Q**
**Expires: 06/18/19**
**Prepared By (Initials): PC**
**Methanol Lot No. 907702-202404**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 2-CEVE | O2SI | 020145-02 | 2,000 | **071018-40688** | **03/05/20** | **07/10/21** | 50 | 2mL | Methanol | 50 |

*VOA STD 2*

**Prepared: 04/19/19 R**
**Expires: 06/18/19**
**Prepared By (Initials): PC**
**Methanol Lot No. 907702-202404**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Ketones Std. | Phenova | ALO-109211 | 2,000 | **CL12729-40604** | **03/05/20** | **08/31/28** | 100 | 4mL | Methanol | 50 |

*VOA STD 9*

**Prepared: 04/19/19 S**
**Expires: 06/18/19**
**Prepared By (Initials): PC**
**Methanol Lot No. 907702-202404**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| VOA STD. 7 | | VOA STD. 9 | 50 | Prepared 04/19/19 | **03/05/20** | N/A | 200uL | 2mL | Methanol | 5 |
| VOA STD. 8 | | | 50 | Prepared 04/19/19 | **03/05/20** | N/A | 200uL | | | 5 |

*VOA STD. 10*

**Prepared: 04/19/19 T**
**Expires: 06/18/19**
**Prepared By (Initials): PC**
**Methanol Lot No. 907702-202404**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| VOA STD. 1 | | VOA STD. 10 | 50 | Prepared 04/19/19 | **03/05/20** | N/A | 200uL | 2mL | Methanol | 5 |

*VOA STD. 12*

**Prepared: 04/19/19 U**
**Expires: 06/18/19**
**Prepared By (Initials): PC**
**Methanol Lot No. 907702-202404**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| VOA STD. 2 | | VOA STD. 12 | 50 | Prepared 04/19/19 | **03/05/20** | N/A | 200uL | 2mL | Methanol | 5 |

## Second Source (SS) Standards

*VOA STD. 3*

**Prepared: 04/19/19 V**
**Expires: 06/18/19**
**Methanol Lot No. 907702-202404**

**Prepared By (Initials): PC**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Ketones Standard | Phenova | ALO-101211 | 2,000 | CL10955-38858 | 03/05/20 | 08/31/23 | 50uL | 2mL | Methanol | 50 |

*VOA STD. 5*

**Prepared: 04/19/19 W**
**Expires: 06/18/19**
**Methanol Lot No. 907702-202404**

**Prepared By (Initials): PC**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 8260 Gases (SS) | Phenova | ALO-101206 | 2,000 | CL12966-40487 | 03/05/20 | 10/31/23 | 50uL | 2mL | Methanol | 50 |
| 2-CEVE (SS) | Absolute | 82408 | 2,000 | 112917-40208 | 03/05/20 | 11/29/20 | 50uL | | | 50 |

*VOA STD. 6*

**Prepared: 04/19/19 X**
**Expires: 04/24/19**
**Methanol Lot No. 907702-202404**

**Prepared By (Initials): PC**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 502.2 Calibration STD. (54-compounds) | Phenova | ALO-101200 | 2,000 | CL12490-40598 | 03/05/20 | 05/31/23 | 50uL | 2mL | Methanol | 50 |
| Vinyl Acetate | Phenova | ALO-101228 | 2,000 | CL13455-40583 | 04/24/19 | 04/24/19 | 50uL | | | 50 |
| Hexachloroethane | Accustan | AS-E0011 | 1,000 | 218051281-40277 | 03/05/20 | 05/14/28 | 100uL | | | 50 |
| Benzyl Chloride | Accustan | M-8010-01 | 200 | 214101335-04 | 03/05/20 | 10/18/20 | 500uL | | | 50 |

*VOA STD. TBA*

**Prepared: 04/19/19 Y**
**Expires: 04/24/19**
**Methanol Lot No. 907702-202404**

**Prepared By (Initials): PC**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Custom VOA Mix (4-3) | Phenova | ALO-130176 | 2,000 | CL12929-40187 | 01/31/20 | 11/30/20 | 250uL | 2mL | Methanol | 250 |
| Acrolein | Phenova | ALO-101224 | 10,000 | CL13322-40462 | 04/24/19 | 04/24/19 | 50uL | | | 250 |

*VOA STD. 0*

**Prepared: 04/19/19 Z**
**Expires: 06/18/19**
**Methanol Lot No. 907702-202404**

**Prepared By (Initials): PC**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| VOA Addition STD. | Phenova | ALO-130175 | 2,000 | CL12744-40173 | 03/05/20 | 08/31/20 | 50uL | 2mL | Methanol | 50 |

## BFB Tune

**Prepared: 03/11/19**
**Expires: 12/12/19**
**Methanol Lot No. 202404-00945**

**Prepared By (Initials): DG**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 4-Bromofluorobenzene | O2SI | 020135-03 | 2,500 | 342387-39075 | 12/12/19 | 01/19/21 | 20uL | 2mL | Methanol | 25 |

# Injection Log

Directory: M:\LOKI\DATA\190423\

| Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|
| 1 | 0423L01.D | 1 | 25ug/L BFB STD 3/11/19 | 1ul | 23 Apr 19 16:08 |
| 3 | 0423L04.D | 1 | 0.3ug/L VOC STD 04/23/19 | ISS 3/5/19, 2/11/19 | 23 Apr 19 17:21 |
| 4 | 0423L05.D | 1 | 0.5ug/L VOC STD 04/23/19 | ISS 3/5/19, 2/11/19 | 23 Apr 19 17:49 |
| 5 | 0423L06.D | 1 | 1.0ug/L VOC STD 04/23/19 | ISS 3/5/19, 2/11/19 | 23 Apr 19 18:18 |
| 6 | 0423L07.D | 1 | 2.0ug/L VOC STD 04/23/19 | ISS 3/5/19, 2/11/19 | 23 Apr 19 18:46 |
| 7 | 0423L08.D | 1 | 5.0ug/L VOC STD 04/23/19 | ISS 3/5/19, 2/11/19 | 23 Apr 19 19:15 |
| 8 | 0423L09.D | 1 | 10ug/L VOC STD 04/23/19 | ISS 3/5/19, 2/11/19 | 23 Apr 19 19:44 |
| 9 | 0423L10.D | 1 | 20ug/L VOC STD 04/23/19 | ISS 3/5/19, 2/11/19 | 23 Apr 19 20:12 |
| 10 | 0423L11.D | 1 | 40ug/L VOC STD 04/23/19 | ISS 3/5/19, 2/11/19 | 23 Apr 19 20:41 |
| 11 | 0423L12.D | 1 | 100ug/L VOC STD 04/23/19 | ISS 3/5/19, 2/11/19 | 23 Apr 19 21:09 |
| 13 | 0423L14.D | 1 | 25ug/L BFB STD 3/11/19 | ISS 3/5/19, 2/11/19 | 23 Apr 19 22:07 |
| 14 | 0423L15.D | 1 | (SS)10ug/L VOC STD 04/19/23 | ISS 3/5/19, 2/11/19 | 23 Apr 19 22:35 |
| 16 | 0423L17.D | 1 | 190423A LCS 10ug/L (4X Ketones) | ISS 3/5/19, 2/11/19 | 23 Apr 19 23:32 |
| 17 | 0423L18.D | 1 | 190423A LCSD 10ug/L (4X Ketones) | ISS 3/5/19, 2/11/19 | 24 Apr 19 00:01 |
| 19 | 0423L20.D | 1 | 190423A blk | ISS 3/5/19, 2/11/19 | 24 Apr 19 00:58 |
| 25 | 0423L26.D | 1 | AZ89959W02 | ISS 3/5/19, 2/11/19 | 24 Apr 19 3:49 |
| 35 | 0423L36.D | 1 | AZ89958W06 MS 10ug/L | ISS 3/5/19, 2/11/19 | 24 Apr 19 8:34 |
| 36 | 0423L37.D | 1 | AZ89958W07 MSD 10ug/L | ISS 3/5/19, 2/11/19 | 24 Apr 19 9:03 |
| 37 | 0423L38.D | 1 | Ending CCV 10ug/L | ISS 3/5/19, 2/11/19 | 24 Apr 19 9:31 |

# Injection Log

Directory: M:\THOR\DATA\T190423\

| Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|
| 14 | 0424T17.D | 1 | 25ug/L of BFB 03/11/19 | IS &S 4/2/19 | 24 Apr 19 18:24 |
| 16 | 0424T19.D | 1 | 0.3ug/L VOC STD 04/24/19 | IS &S 4/2/19 | 24 Apr 19 19:21 |
| 17 | 0424T20.D | 1 | 0.5ug/L VOC STD 04/24/19 | IS &S 4/2/19 | 24 Apr 19 19:50 |
| 18 | 0424T21.D | 1 | 1.0ug/L VOC STD 04/24/19 | IS &S 4/2/19 | 24 Apr 19 20:18 |
| 19 | 0424T22.D | 1 | 2.0ug/L VOC STD 04/24/19 | IS &S 4/2/19 | 24 Apr 19 20:47 |
| 20 | 0424T23.D | 1 | 5.0ug/L VOC STD 04/24/19 | IS &S 4/2/19 | 24 Apr 19 21:15 |
| 21 | 0424T24.D | 1 | 10ug/L VOC STD 04/24/19 | IS &S 4/2/19 | 24 Apr 19 21:44 |
| 22 | 0424T25.D | 1 | 20ug/L VOC STD 04/24/19 | IS &S 4/2/19 | 24 Apr 19 22:12 |
| 23 | 0424T26.D | 1 | 40ug/L VOC STD 04/24/19 | IS &S 4/2/19 | 24 Apr 19 22:41 |
| 24 | 0424T27.D | 1 | 100ug/L VOC STD 04/24/19 | IS &S 4/2/19 | 24 Apr 19 23:09 |
| 26 | 0424T29.D | 1 | 25ug/L of BFB 03/11/19 | IS &S 4/2/19 | 25 Apr 19 00:06 |
| 27 | 0424T30.D | 1 | (SS)10ug/L VOC STD 04/24/19 | IS &S 4/2/19 | 25 Apr 19 00:34 |
| 29 | 0424T32.D | 1 | 190424A LCS 10ug/L | IS &S 4/2/19 | 25 Apr 19 1:32 |
| 30 | 0424T33.D | 1 | 190424A LCSD 10ug/L | IS &S 4/2/19 | 25 Apr 19 2:00 |
| 32 | 0424T35.D | 1 | 190424A blk | IS &S 4/2/19 | 25 Apr 19 2:57 |
| 34 | 0424T37.D | 1 | AZ89957W04 | IS &S 4/2/19 | 25 Apr 19 3:54 |
| 35 | 0424T38.D | 1 | AZ89960W03 | IS &S 4/2/19 | 25 Apr 19 4:23 |
| 36 | 0424T39.D | 1 | AZ89958W08 | IS &S 4/2/19 | 25 Apr 19 4:51 |
| 37 | 0424T40.D | 1 | AZ89961W03 | IS &S 4/2/19 | 25 Apr 19 5:20 |
| 51 | 0424T54.D | 1 | Ending CCV 10ug/L | IS &S 4/2/19 | 25 Apr 19 11:59 |

# ORGANICS
# Calibration Data

APPL, INC.

RSK 175

## Form 6
## Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:
SDG No:
Initial Cal. Date: 03/11/19
Instrument: 7890
Initials: CMO/LP

| | | | 19031100.D | 19031101.D | 19031103.D | 19031104.D | 19031105.D | 19031106.D | 19031107.D | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | Avg | %RSD | Type | r^2 | Q |
| 1 | ATML | Methane | 17670 | 8968 | 6066 | 11811 | 14125 | 14507 | 13183 | | | | 12333 | 31 | ATM | 0.999 | |
| 2 | ATML | Ethane | 14730 | 8189 | 5526 | 9883 | 12114 | 11368 | 10522 | | | | 10333 | 28 | ATM | 0.999 | |
| 3 | ATML | Ethene | 12553 | 7178 | 4798 | 8331 | 10165 | 9095 | 8863 | | | | 8712 | 28 | ATM | 1.000 | |
| 4 | | | | | | | | | | | | | | | | | |
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| 34 | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | |

2.487833

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031100.D Vial: 1
Acq On : 11 Mar 19 10:21 Operator: cmm
Sample : RSK Std 1 03/11/19 Inst : 7890
Misc : 125uL from RSK Std 3 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:49 2019 Quant Results File: RSK0311.RES

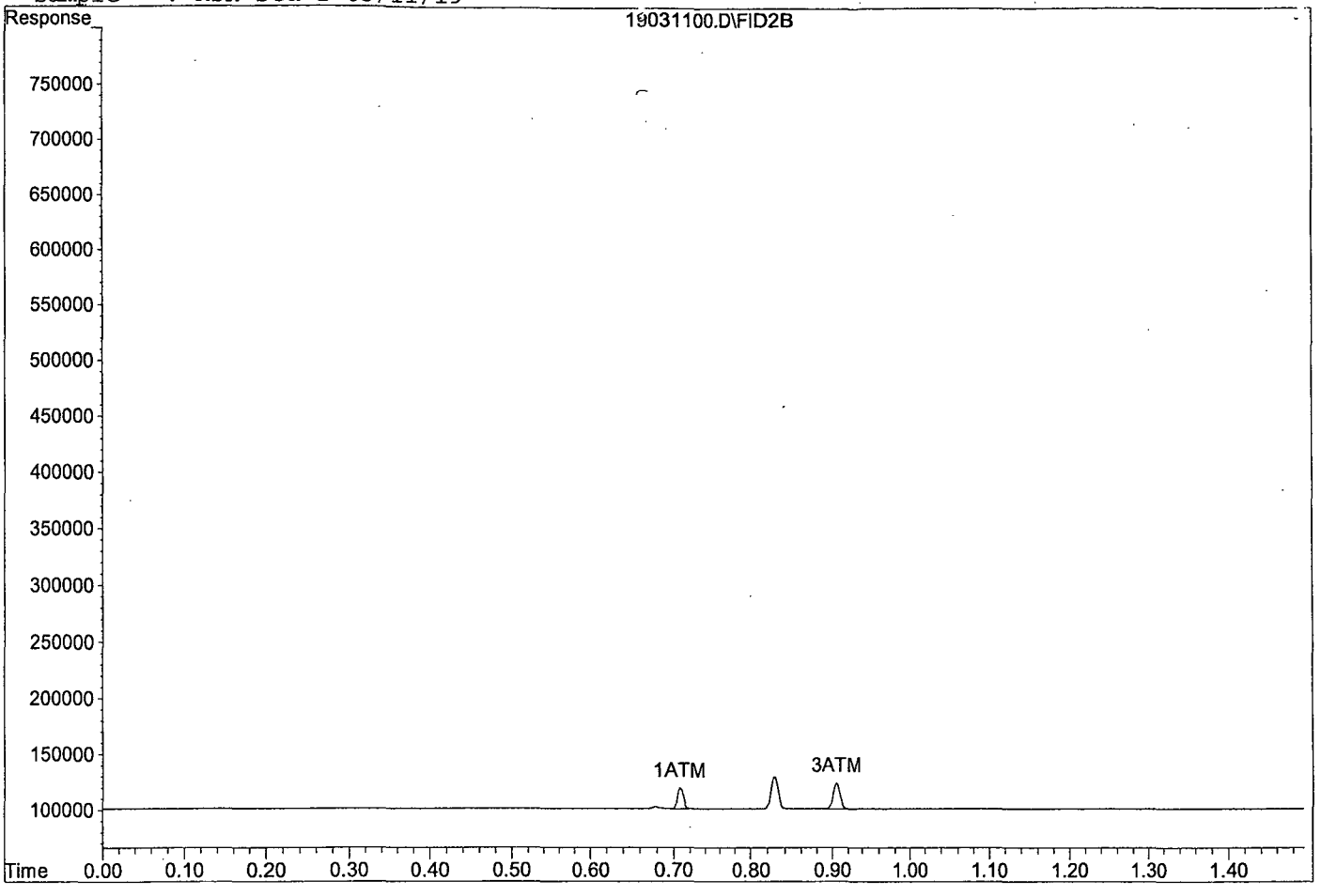
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:48:58 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| Target Compounds | | | | |
| 1) ATM Methane | 0.71 | 18377 | 0.442 | ppb |
| 3) ATM Ethene | 0.91 | 22909 | 1.995 | ppb |
| Target Compounds | | | | |
| 2) ATM Ethane | 0.83 | 28797 | N.D. | ppb |

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

Data File: G:\ROCKY\DATA\190311RS\19031100.D
Sample : RSK Std 1 03/11/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031101.D Vial: 2
Acq On : 11 Mar 19 10:23 Operator: cmm
Sample : RSK Std 2 03/11/19 Inst : 7890
Misc : 250uL from RSK Std 3 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:49 2019 Quant Results File: RSK0311.RES

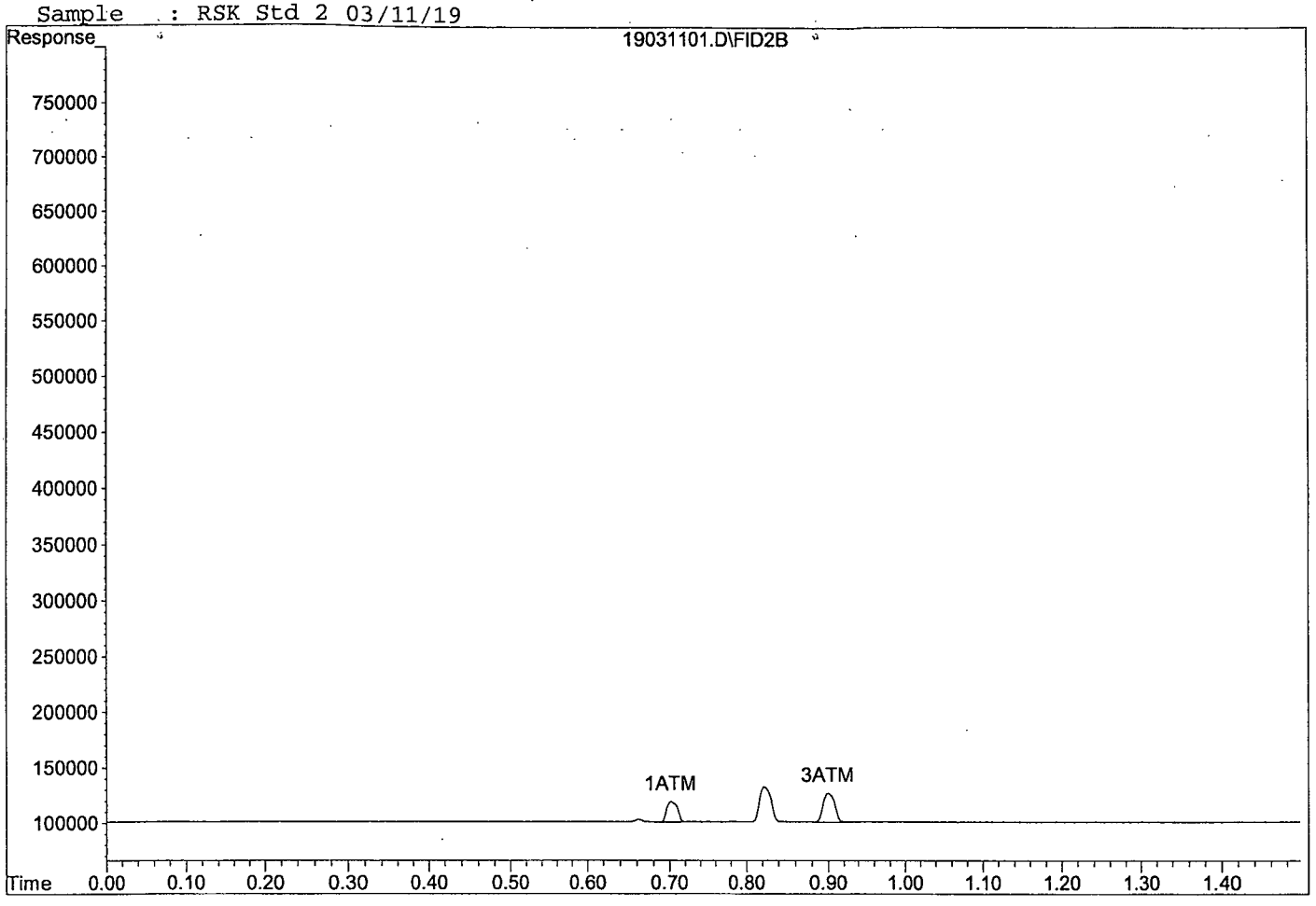
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:49:30 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| Target Compounds | | | | |
| 1) ATM Methane | 0.70 | 18654 | 0.484 | ppb |
| 3) ATM Ethene | 0.90 | 26201 | 2.738 | ppb |
| Target Compounds | | | | |
| 2) ATM Ethane | 0.82 | 31979 | N.D. | ppb |

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

Data File: G:\ROCKY\DATA\190311RS\19031101.D
Sample : RSK Std 2 03/11/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031103.D Vial: 4
Acq On : 11 Mar 19 10:28 Operator: cmm
Sample : RSK Std 3 03/11/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:50 2019 Quant Results File: RSK0311.RES

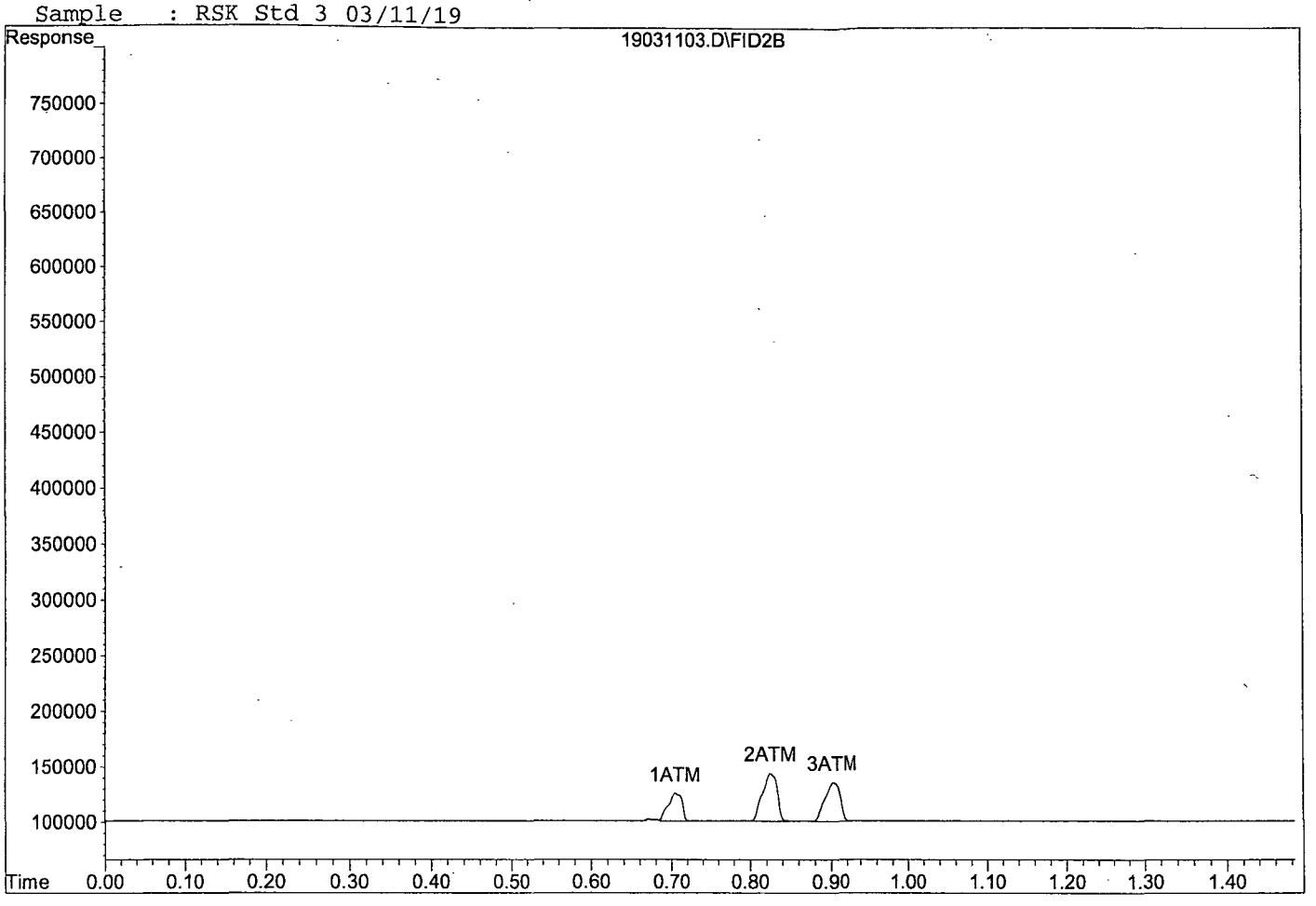
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:49:59 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.70 | 25296 | 1.488 ppb |
| 2) ATM Ethane | 0.83 | 43104 | 2.024 ppb |
| 3) ATM Ethene | 0.90 | 35029 | 4.730 ppb |

Target Compounds

Data File: G:\ROCKY\DATA\190311RS\19031103.D
Sample : RSK Std 3 03/11/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031104.D Vial: 5
Acq On : 11 Mar 19 10:31 Operator: cmm
Sample : RSK Std 4 03/11/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:50 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:50:29 2019
Response via : Multiple Level Calibration

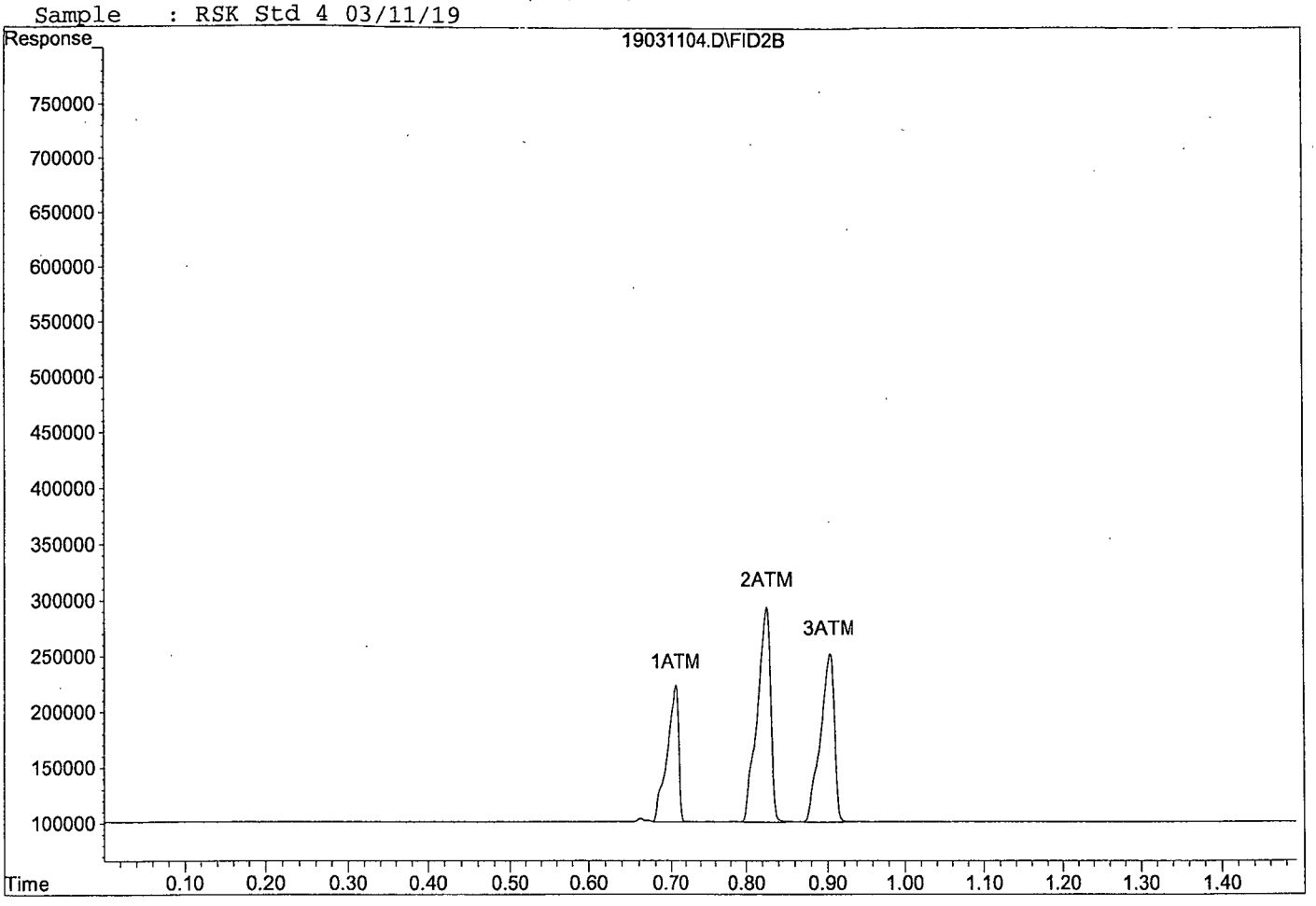
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.71 | 123132 | 16.291 ppb |
| 2) ATM Ethane | 0.83 | 193161 | 30.521 ppb |
| 3) ATM Ethene | 0.90 | 151872 | 31.095 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19031104.D
Sample : RSK Std 4 03/11/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031105.D Vial: 6
Acq On : 11 Mar 19 10:33 Operator: cmm
Sample : RSK Std 5 03/11/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:51 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:51:01 2019
Response via : Multiple Level Calibration

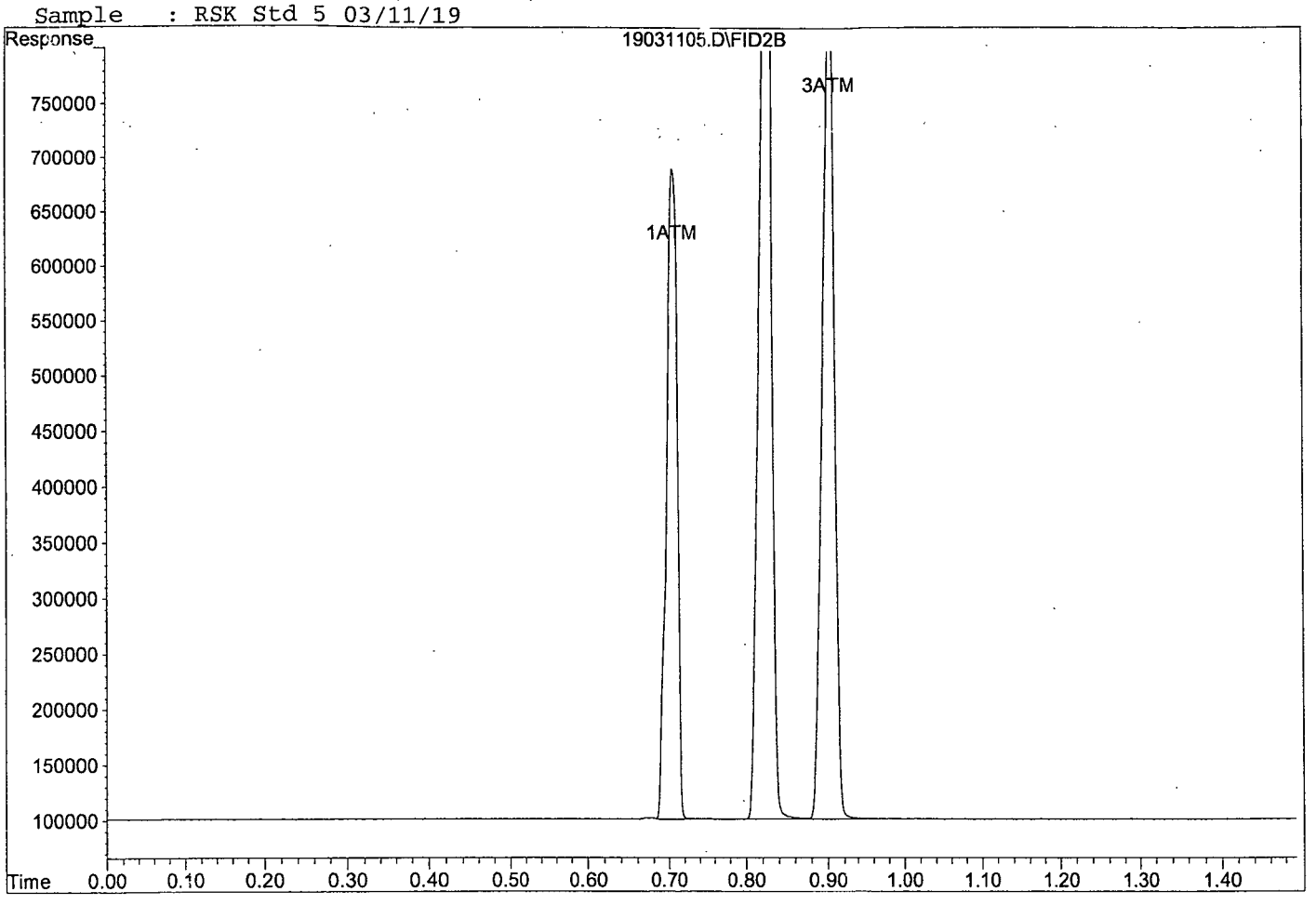
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| Target Compounds | | | | |
| 1) ATM Methane | 0.70 | 588996 | 86.775 | ppb |
| 2) ATM Ethane | 0.83 | 946997 | 173.678 | ppb |
| 3) ATM Ethene | 0.90 | 741247 | 164.087 | ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19031105.D
Sample : RSK Std 5 03/11/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031106.D Vial: 7
Acq On : 11 Mar 19 10:35 Operator: cmm
Sample : RSK Std 6 03/11/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:51 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:51:33 2019
Response via : Multiple Level Calibration

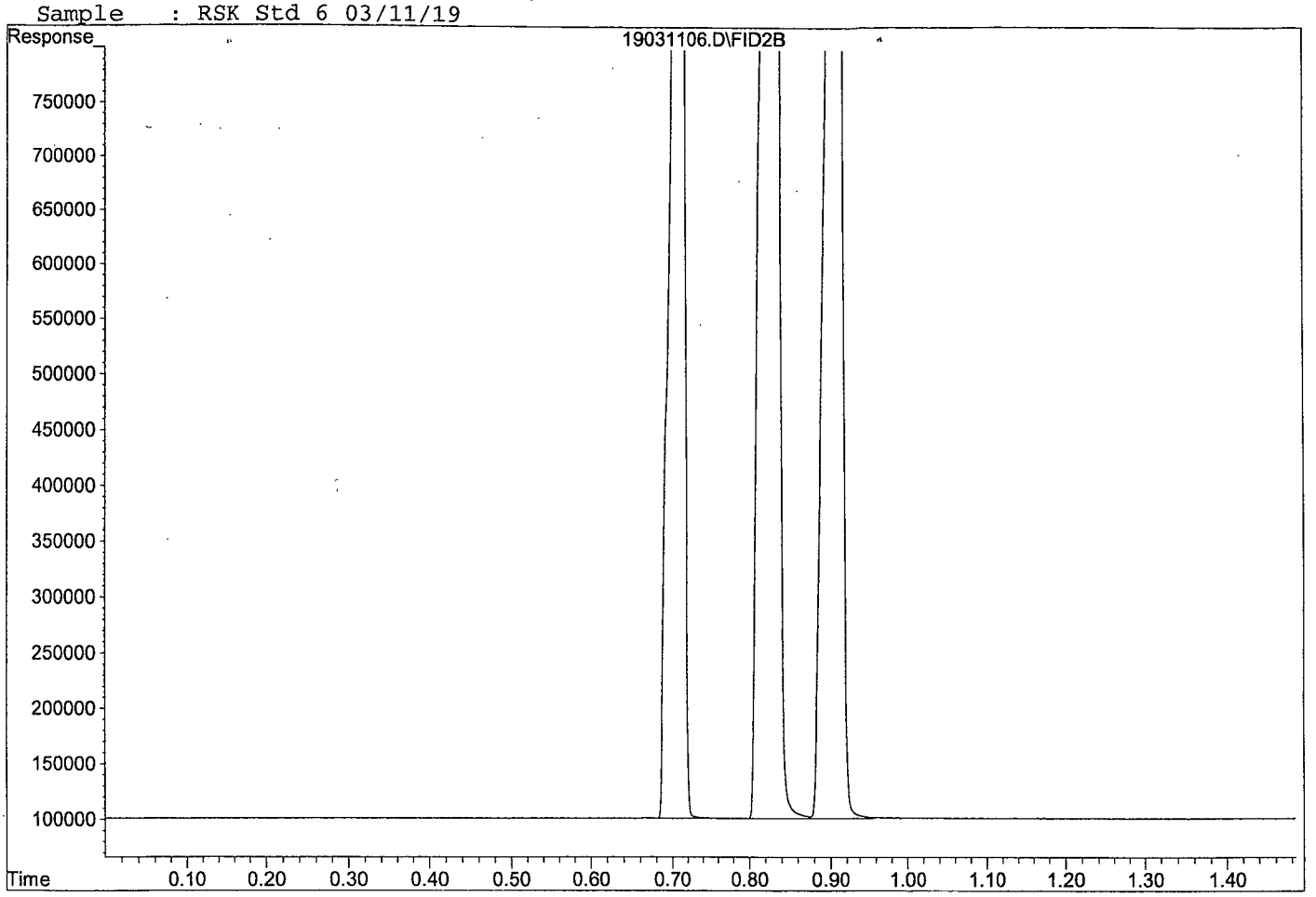
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.71 | 1512363 | 226.478 ppb |
| 2) ATM Ethane | 0.83 | 2221790 | 415.768 ppb |
| 3) ATM Ethene | 0.91 | 1658041 | 370.960 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19031106.D
Sample : RSK Std 6 03/11/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031107.D Vial: 8
Acq On : 11 Mar 19 10:37 Operator: cmm
Sample : RSK Std 7 03/11/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:52 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:52:05 2019
Response via : Multiple Level Calibration

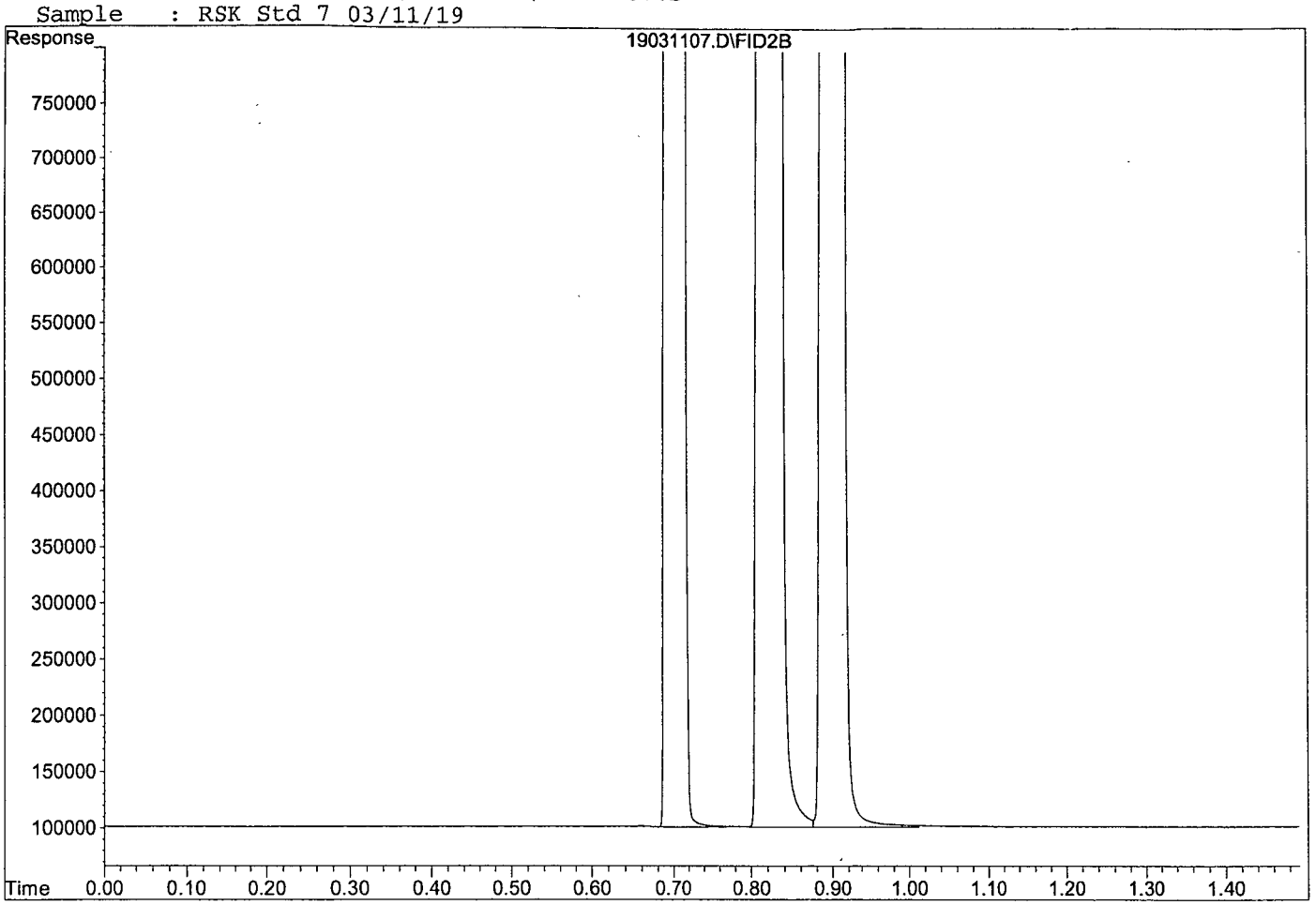
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

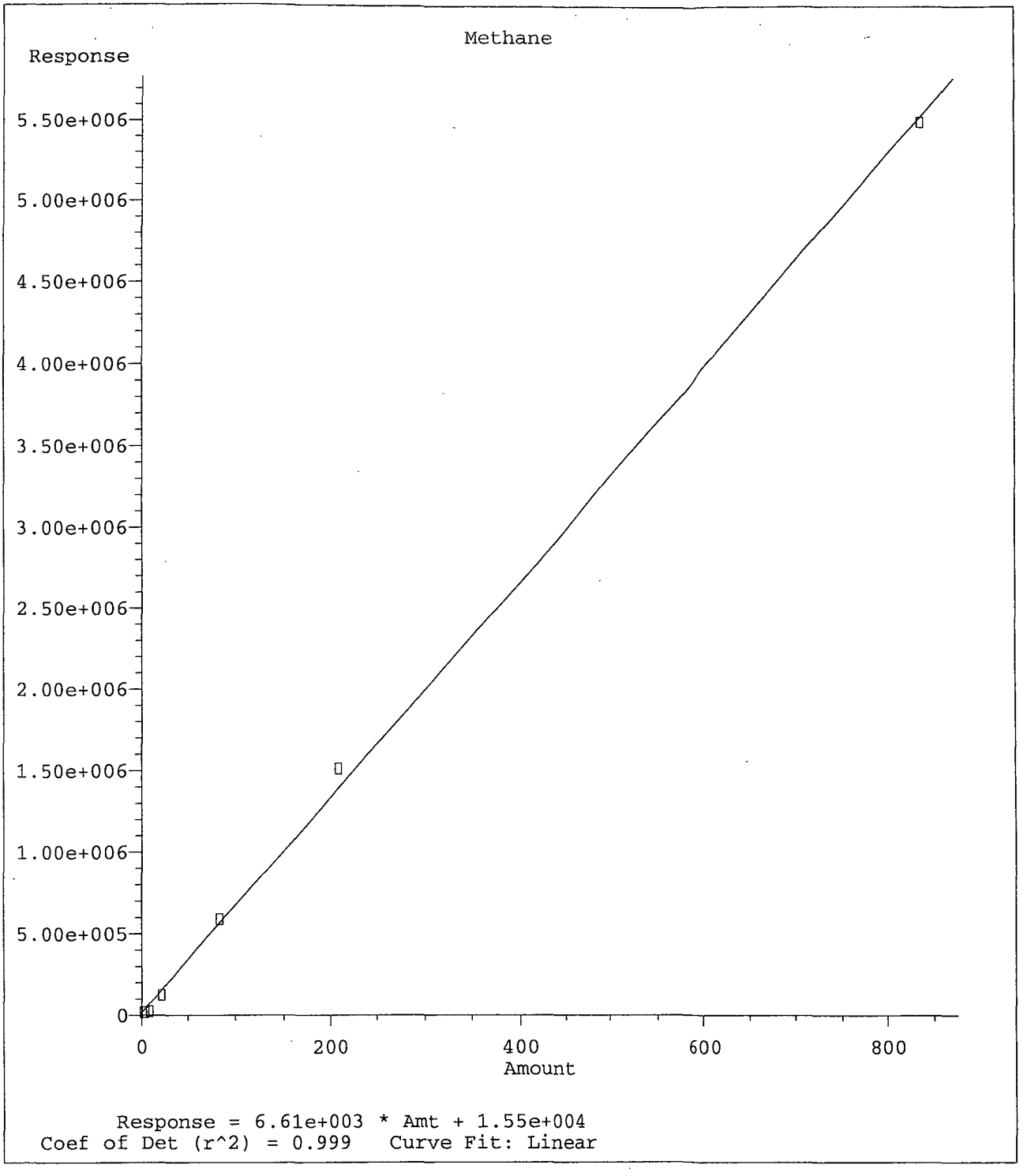
| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| Target Compounds | | | | |
| 1) ATM Methane | 0.71 | 5497199 | 829.373 | ppb |
| 2) ATM Ethane | 0.83 | 8225741 | 1555.950 | ppb |
| 3) ATM Ethene | 0.91 | 6463235 | 1455.245 | ppb |

Target Compounds

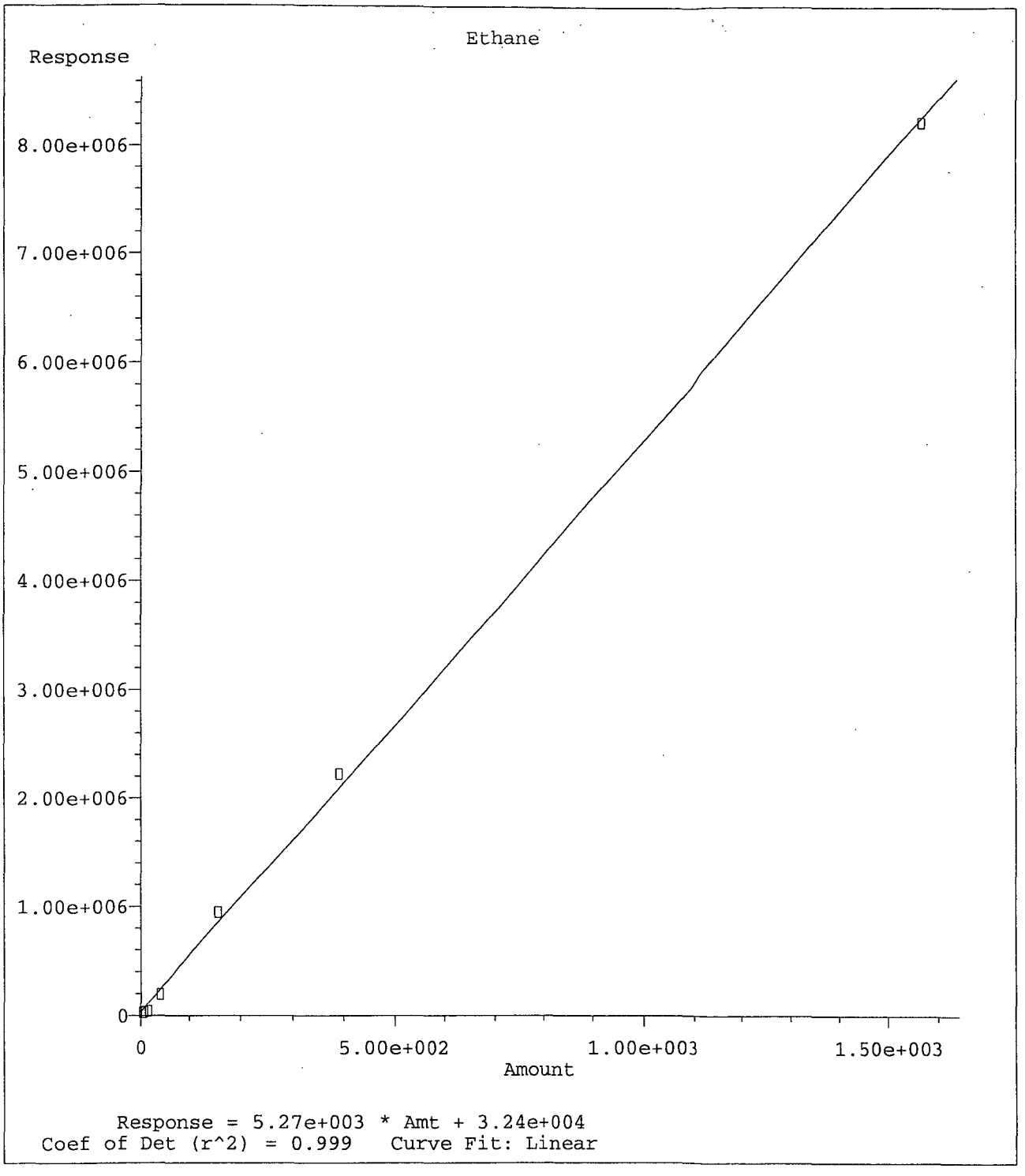
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\190311RS\19031107.D
Sample : RSK Std 7 03/11/19

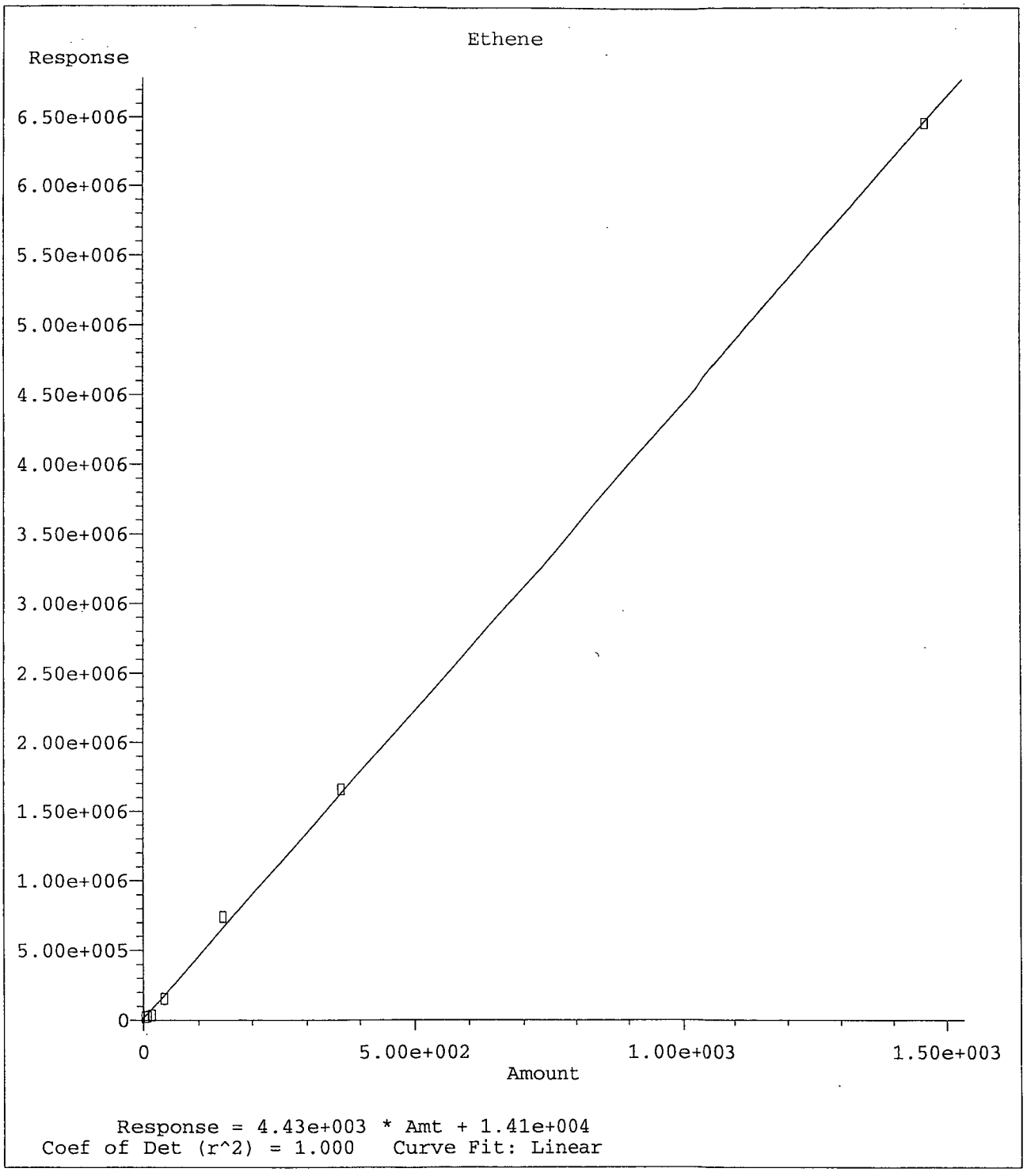





Method Name: G:\ROCKY\DATA\190311RS\RSK0311.M
Calibration Table Last Updated: Mon Mar 11 10:52:05 2019




Method Name: G:\ROCKY\DATA\190311RS\RSK0311.M
Calibration Table Last Updated: Mon Mar 11 10:52:05 2019




Method Name: G:\ROCKY\DATA\190311RS\RSK0311.M
Calibration Table Last Updated: Mon Mar 11 10:52:05 2019

Form 7

# Second Source Calibration

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

SDG No:
Date Analyzed: 03/11/19
Instrument: 7890
Initial Cal. Date: 03/11/19
Data File: 19031108.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | ATML | Methane | 12333 | 15569 | 26 | ATML | 15 |
| 2 | ATML | Ethane | 10333 | 12628 | 22 | ATML | 16 |
| 3 | ATML | Ethene | 8712 | 10096 | 16 | ATML | 12 |
| 4 | | | | | | | |
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| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 21.3 | | |

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031108.D Vial: 9
Acq On : 11 Mar 19 10:48 Operator: cmm
Sample : SS RSK Std 5 03/11/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:59 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:59:14 2019
Response via : Multiple Level Calibration

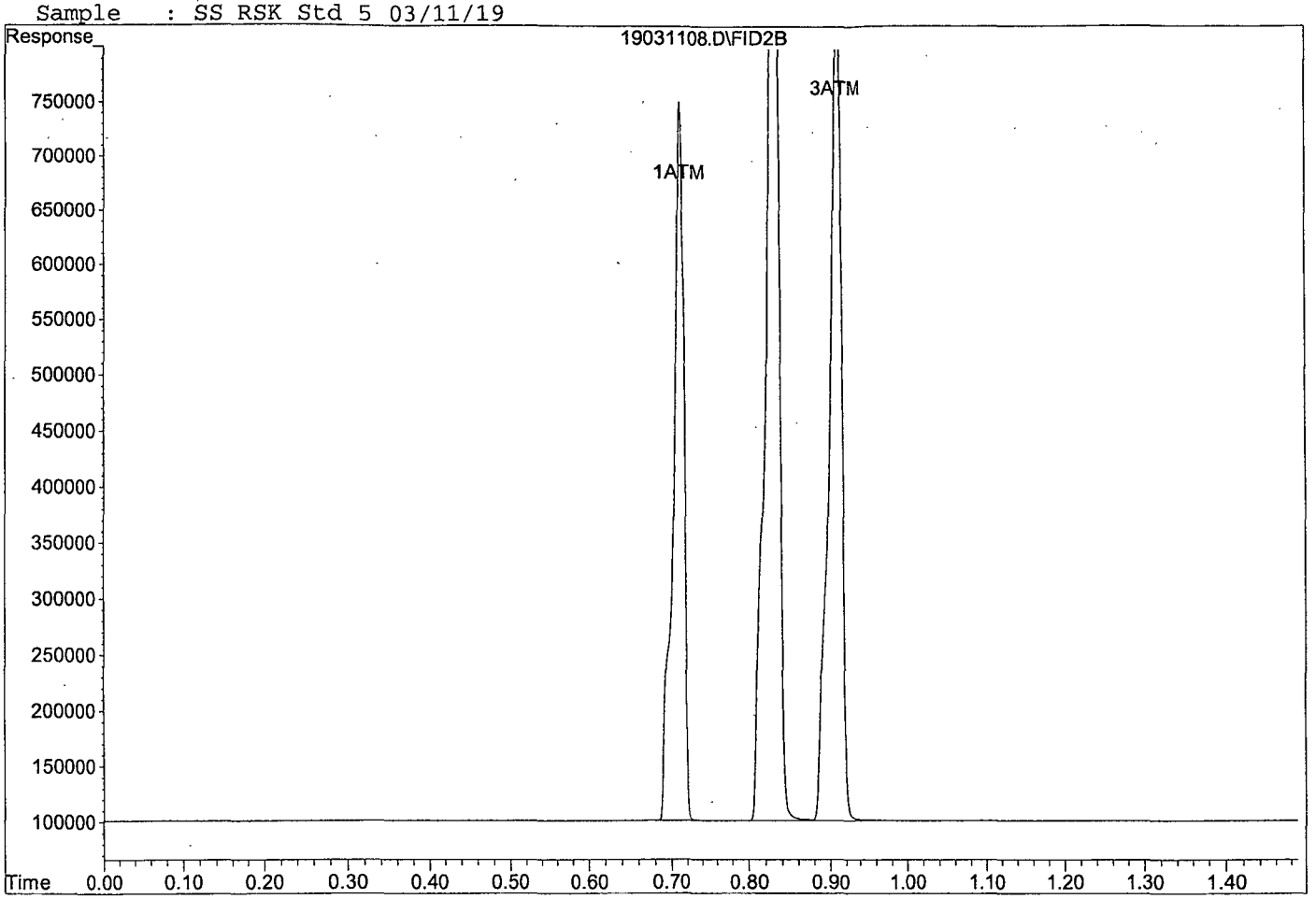
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.71 | 649223 | 95.887 ppb |
| 2) ATM Ethane | 0.83 | 987165 | 181.306 ppb |
| 3) ATM Ethene | 0.91 | 736184 | 162.944 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19031108.D
Sample : SS RSK Std 5 03/11/19



Form 7

# Continuing Calibration

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

SDG No:
Date Analyzed: 04/29/19
Instrument: 7890
Initial Cal. Date: 03/11/19
Data File: 19042900.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | ATML | Methane | 12333 | 13829 | 12 | ATML | 1.8 |
| 2 | ATML | Ethane | 10333 | 11634 | 13 | ATML | 6.5 |
| 3 | ATML | Ethene | 8712 | 9351 | 7.3 | ATML | 3.3 |
| 4 | | | | | | | |
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| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 10.8 | | |

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042900.D Vial: 1
Acq On : 29 Apr 19 11:03 Operator: cmm
Sample : 190429A LCS/CCV RSK Std 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:07 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

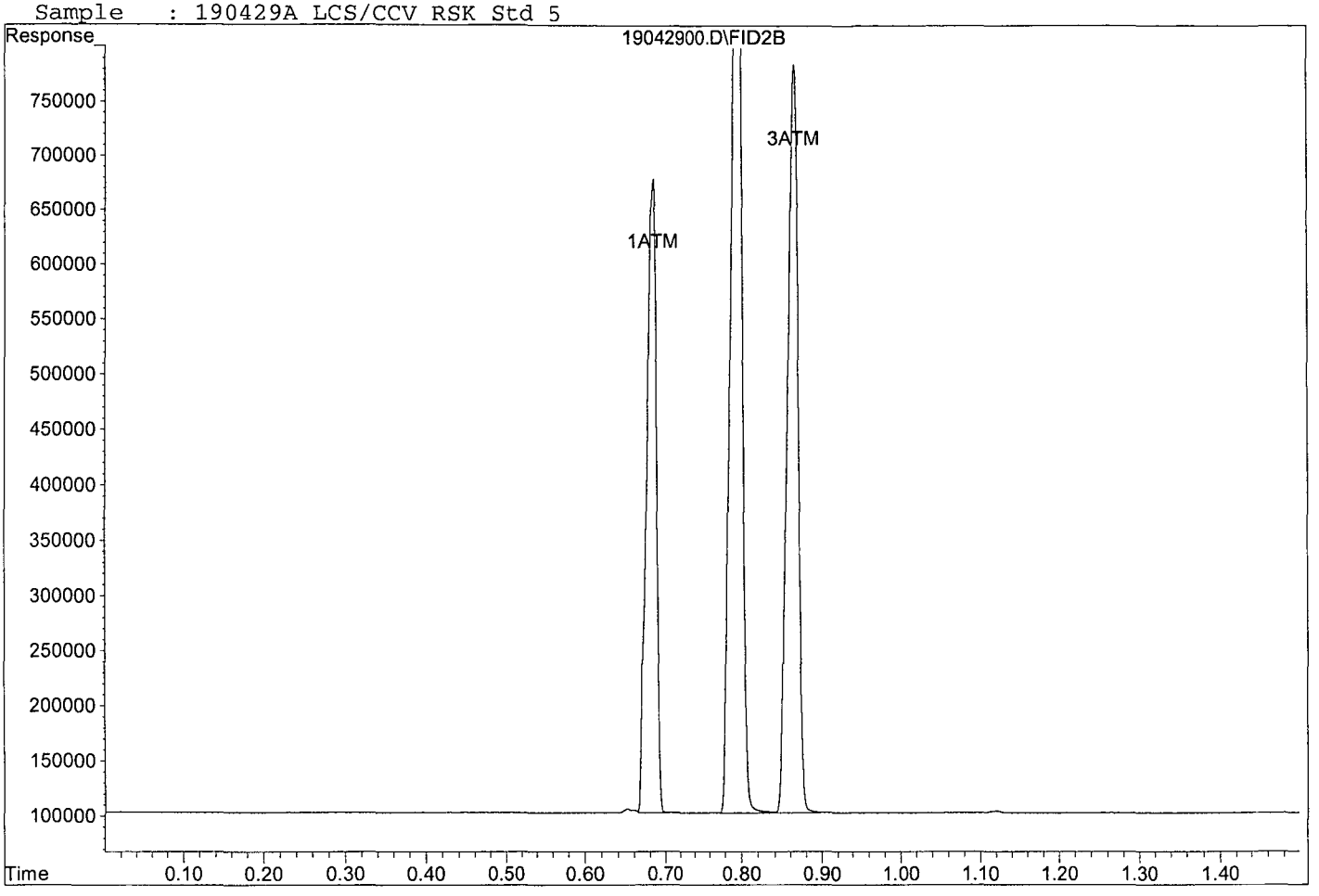
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.68 | 576667 | 84.909 ppb |
| 2) ATM Ethane | 0.80 | 909493 | 166.556 ppb |
| 3) ATM Ethene | 0.86 | 681904 | 150.696 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19042900.D
Sample : 190429A LCS/CCV RSK Std 5



Form 7

# Continuing Calibration

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

SDG No:
Date Analyzed: 3 May 19 10:33
Instrument: 7890
Initial Cal. Date: 03/11/19
Data File: 19050300.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | ATML | Methane | 12333 | 11331 | 8.1 | ATML | 17 |
| 2 | ATML | Ethane | 10333 | 9563 | 7.5 | ATML | 13 |
| 3 | ATML | Ethene | 8712 | 7866 | 9.7 | ATML | 13 |
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| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 8.4 | | |

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19050300.D Vial: 1
Acq On : 3 May 19 10:33 Operator: cmm
Sample : 190503A LCS/CCV RSK Std 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 3 10:36 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

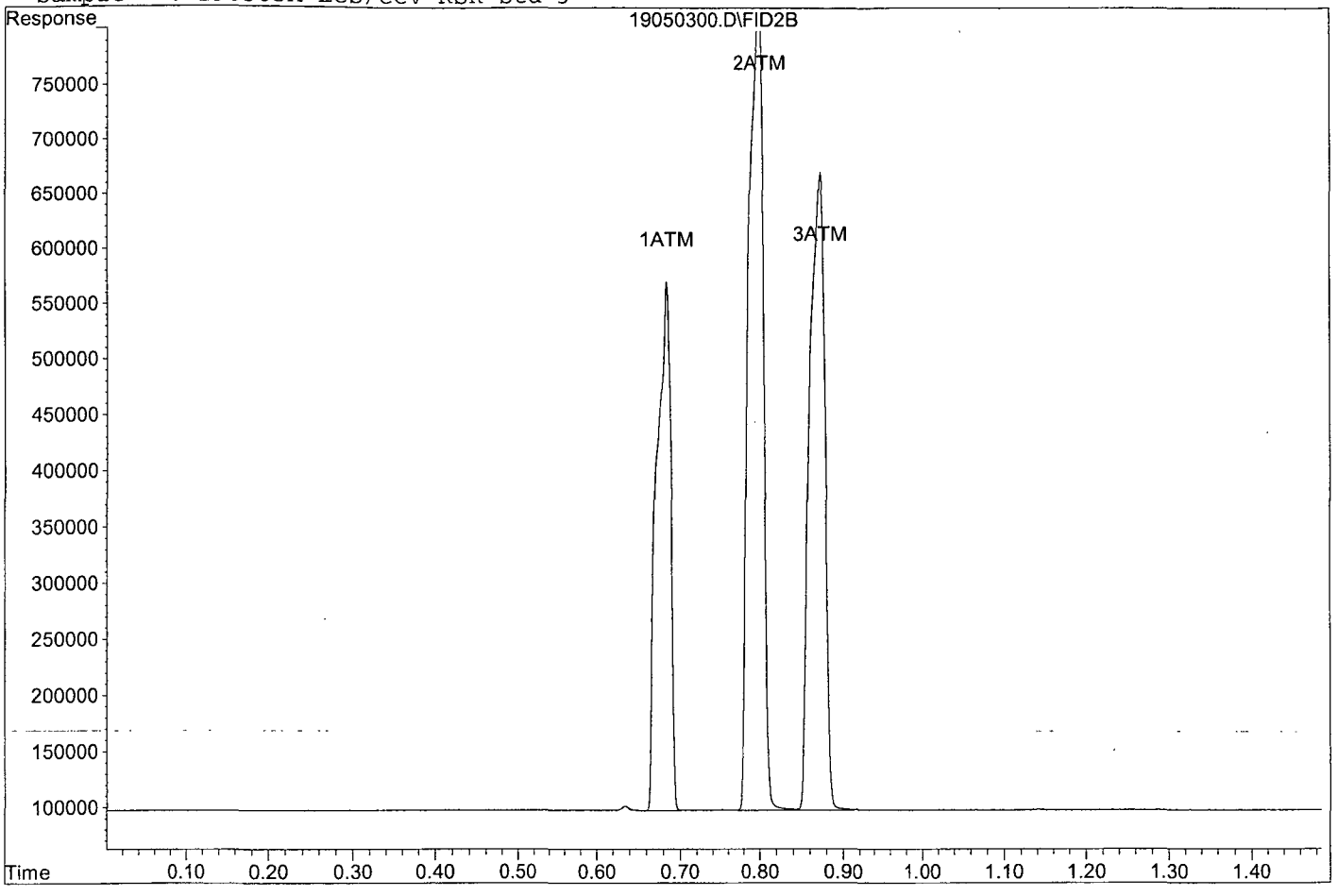
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.68 | 472503 | 69.150 ppb |
| 2) ATM Ethane | 0.80 | 747558 | 135.804 ppb |
| 3) ATM Ethene | 0.87 | 573589 | 126.255 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19050300.D
Sample : 190503A LCS/CCV RSK Std 5



Form 7

# Ending Calibration

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

SDG No:
Date Analyzed: 04/29/19
Instrument: 7890
Initial Cal. Date: 03/11/19
Data File: 19042918.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | ATML | Methane | 12333 | 10517 | 15 | ATML | 23 |
| 2 | ATML | Ethane | 10333 | 8572 | 17 | ATML | 23 |
| 3 | ATML | Ethene | 8712 | 6817 | 22 | ATML | 25 |
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| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 18.0 | | |

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042918.D Vial: 19
Acq On : 29 Apr 19 11:54 Operator: cmm
Sample : Ending CCV RSK Std 5 04/29/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:56 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

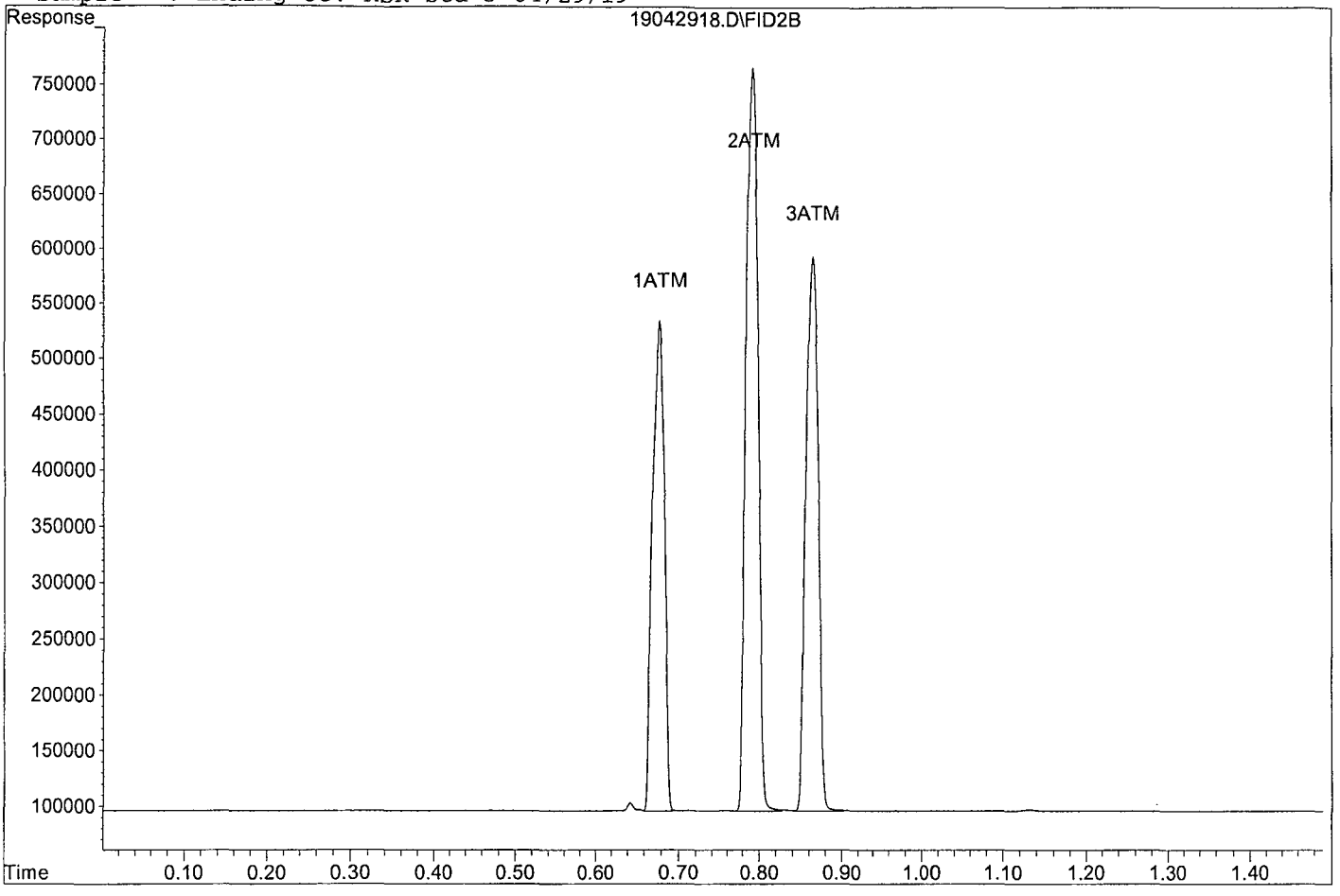
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.68 | 438547 | 64.012 ppb |
| 2) ATM Ethane | 0.79 | 670103 | 121.095 ppb |
| 3) ATM Ethene | 0.86 | 497073 | 108.989 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19042918.D
Sample : Ending CCV RSK Std 5 04/29/19



Form 7

# Ending Calibration

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

SDG No:
Date Analyzed: 3 May 19 11:36
Instrument: 7890
Initial Cal. Date: 03/11/19
Data File: 19050326.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | ATML | Methane | 12333 | 12299 | 0.28 | ATML | 9.8 |
| 2 | ATML | Ethane | 10333 | 10297 | 0.35 | ATML | 6.2 |
| 3 | ATML | Ethene | 8712 | 8355 | 4.1 | ATML | 7.9 |
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| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 1.6 | | |

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19050326.D Vial: 27
Acq On : 3 May 19 11:36 Operator: cmm
Sample : Ending CCV RSK Std 5 05/03/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 3 11:38 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri May 03 11:06:47 2019
Response via : Multiple Level Calibration

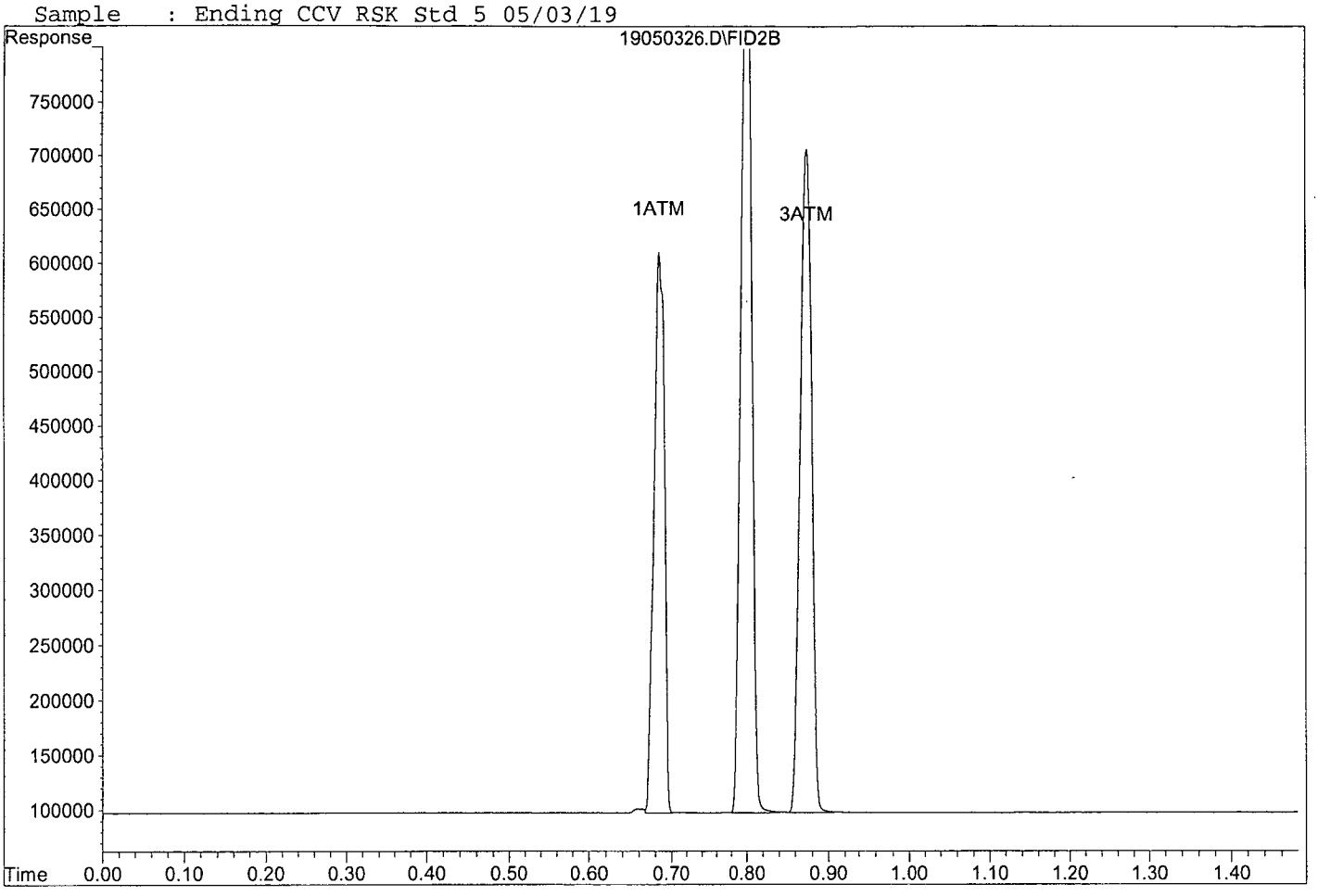
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.69 | 512865 | 75.256 ppb |
| 2) ATM Ethane | 0.80 | 804929 | 146.699 ppb |
| 3) ATM Ethene | 0.87 | 609221 | 134.295 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19050326.D
Sample : Ending CCV RSK Std 5 05/03/19



# ORGANICS
# Raw Data

APPL, INC.

Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042903.D Vial: 4
Acq On : 29 Apr 19 11:14 Operator: cmm
Sample : AZ89957W03 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:18 2019 Quant Results File: RSK0311.RES

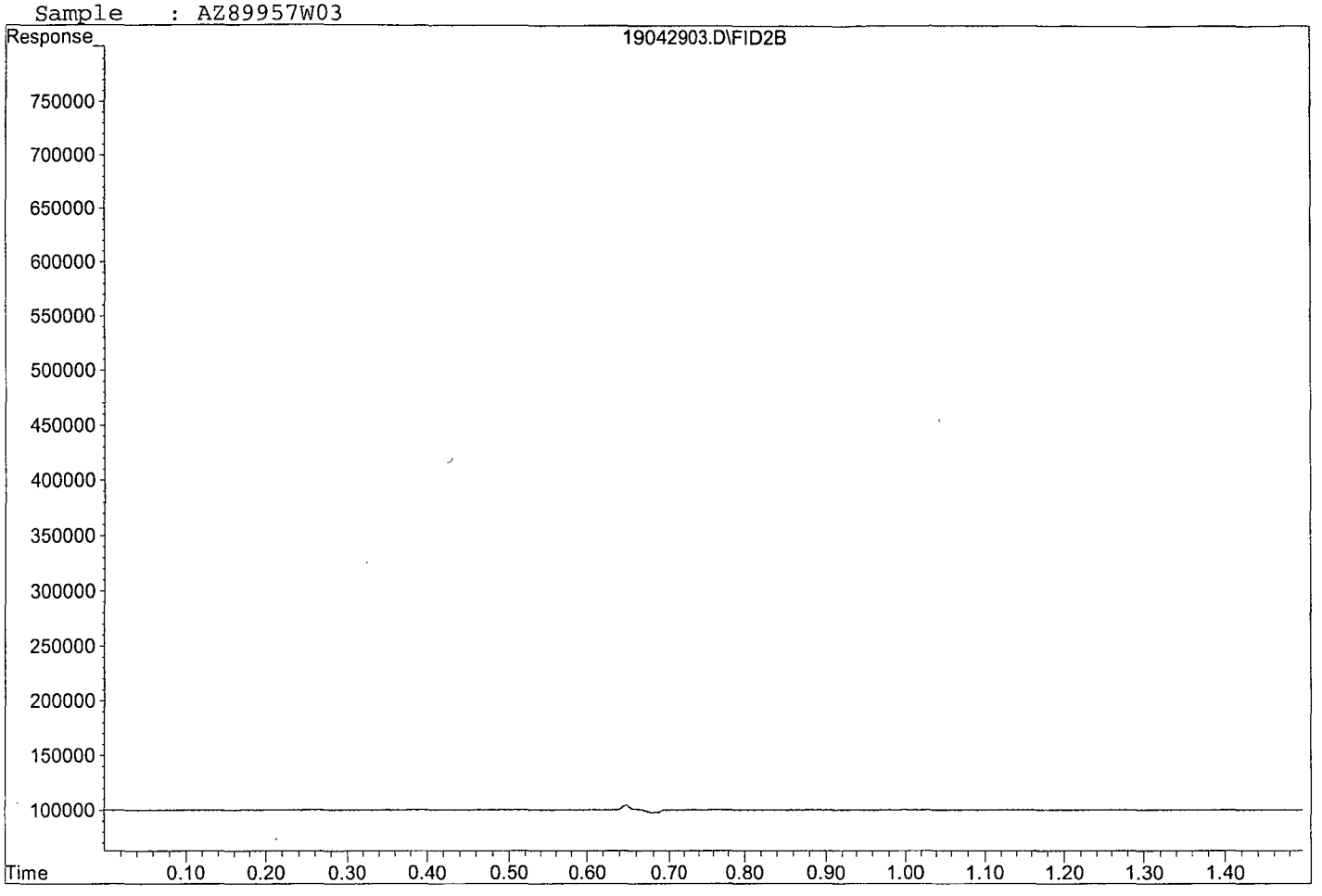
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042903.D
Sample : AZ89957W03



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19050303.D Vial: 4
Acq On : 3 May 19 10:41 Operator: cmm
Sample : AZ89959W03 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 3 10:45 2019 Quant Results File: RSK0311.RES

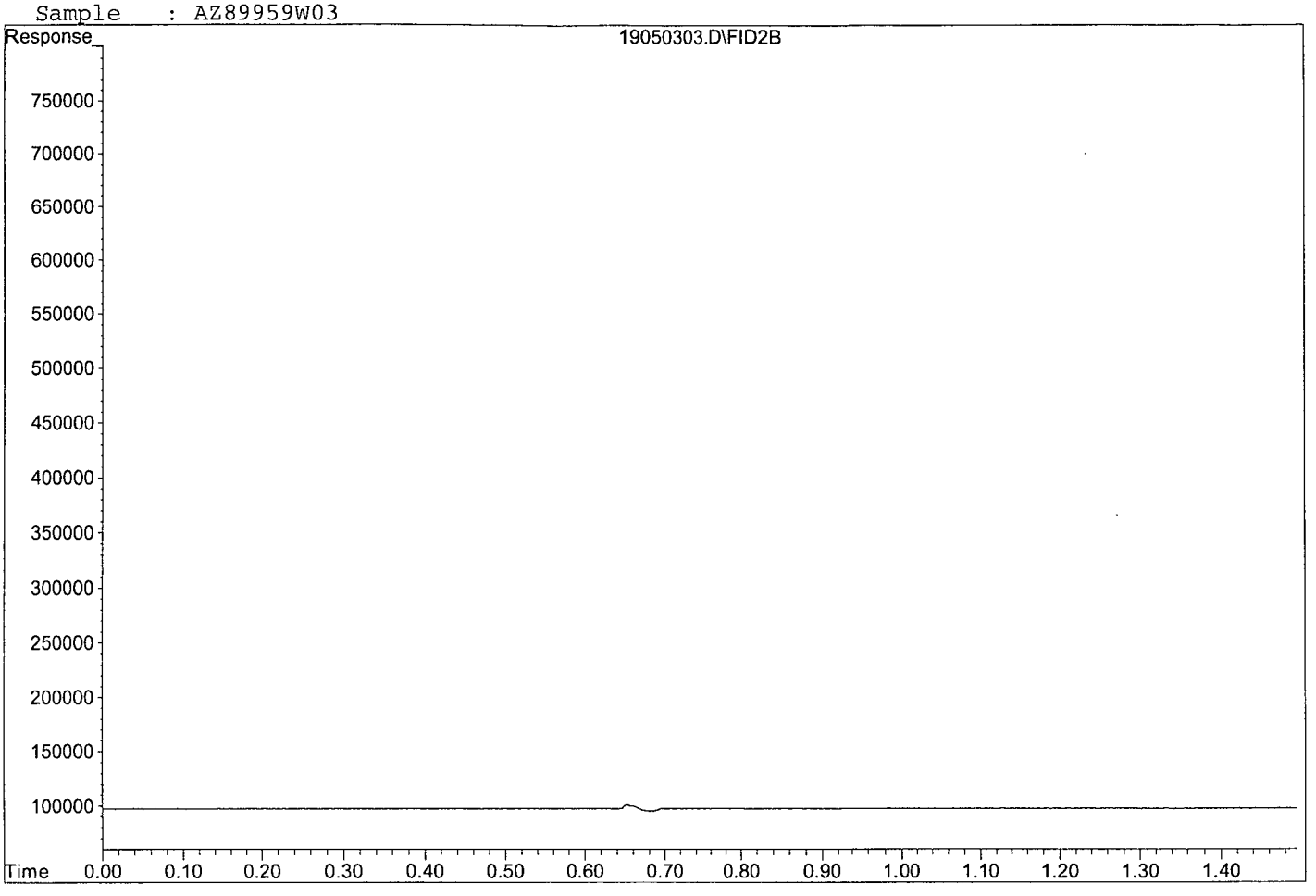
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19050303.D
Sample : AZ89959W03



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042904.D Vial: 5
Acq On : 29 Apr 19 11:17 Operator: cmm
Sample : AZ89960W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:21 2019 Quant Results File: RSK0311.RES

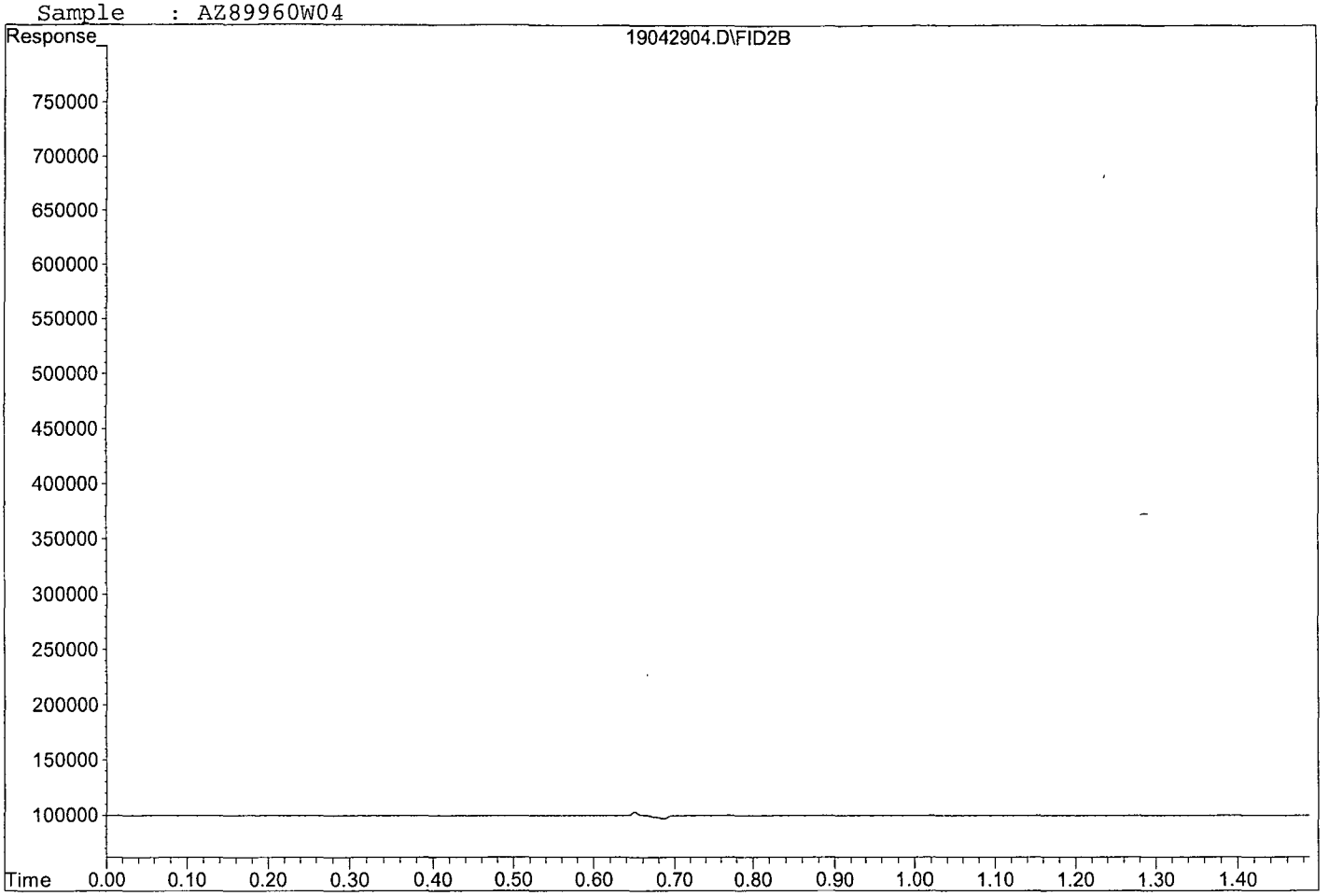
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| \Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042904.D
Sample : AZ89960W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042905.D Vial: 6
Acq On : 29 Apr 19 11:21 Operator: cmm
Sample : AZ89961W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:24 2019 Quant Results File: RSK0311.RES

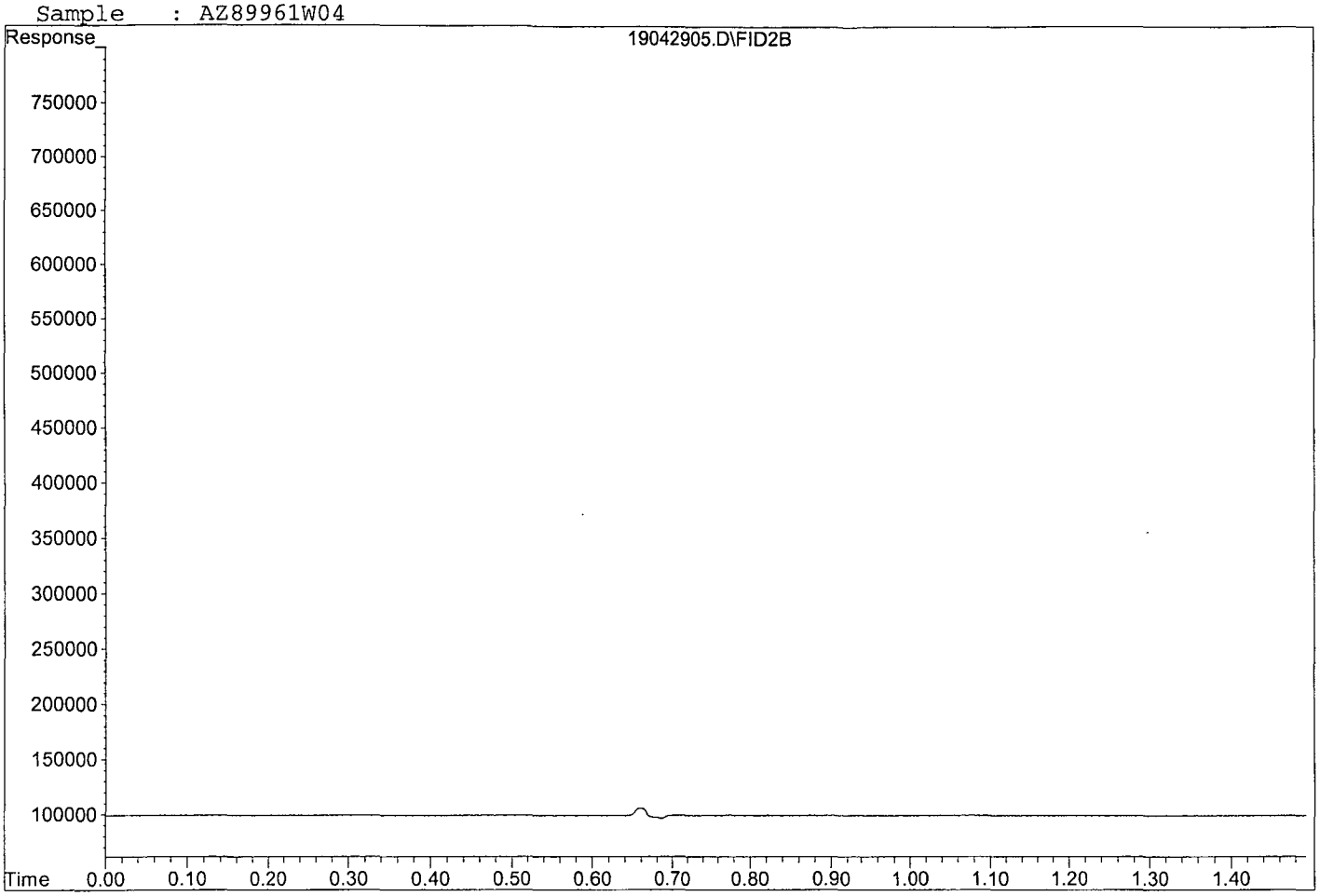
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042905.D
Sample : AZ89961W04



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19050304.D Vial: 5
Acq On : 3 May 19 10:44 Operator: cmm
Sample : AZ89959W04 MS RSK Std 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 3 10:47 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

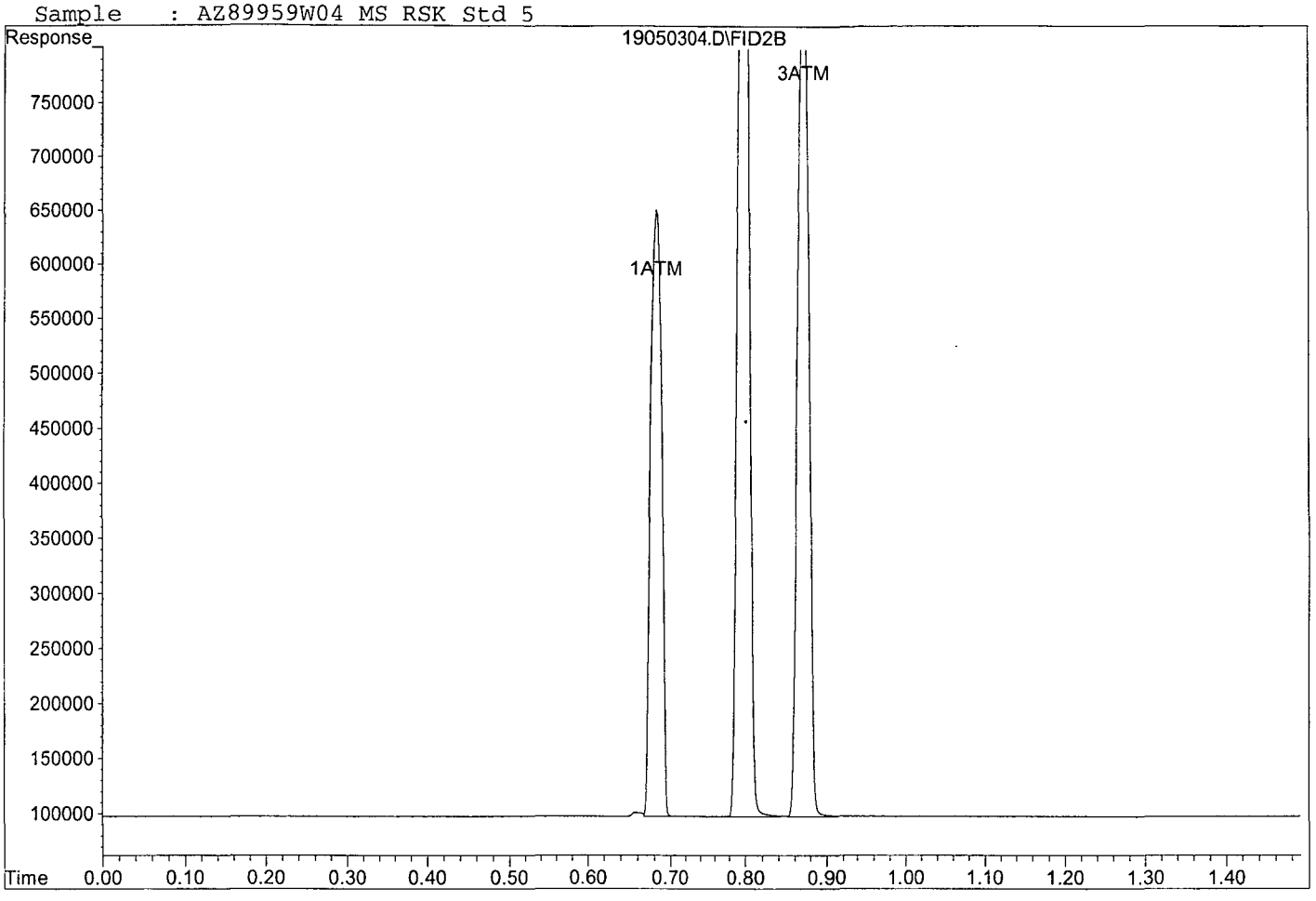
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.68 | 554075 | 81.491 ppb |
| 2) ATM Ethane | 0.80 | 953887 | 174.987 ppb |
| 3) ATM Ethene | 0.87 | 755811 | 167.373 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19050304.D
Sample : AZ89959W04 MS RSK Std 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19050306.D Vial: 7
Acq On : 3 May 19 10:49 Operator: cmm
Sample : AZ89959W04 MSD RSK Std 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 3 10:52 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

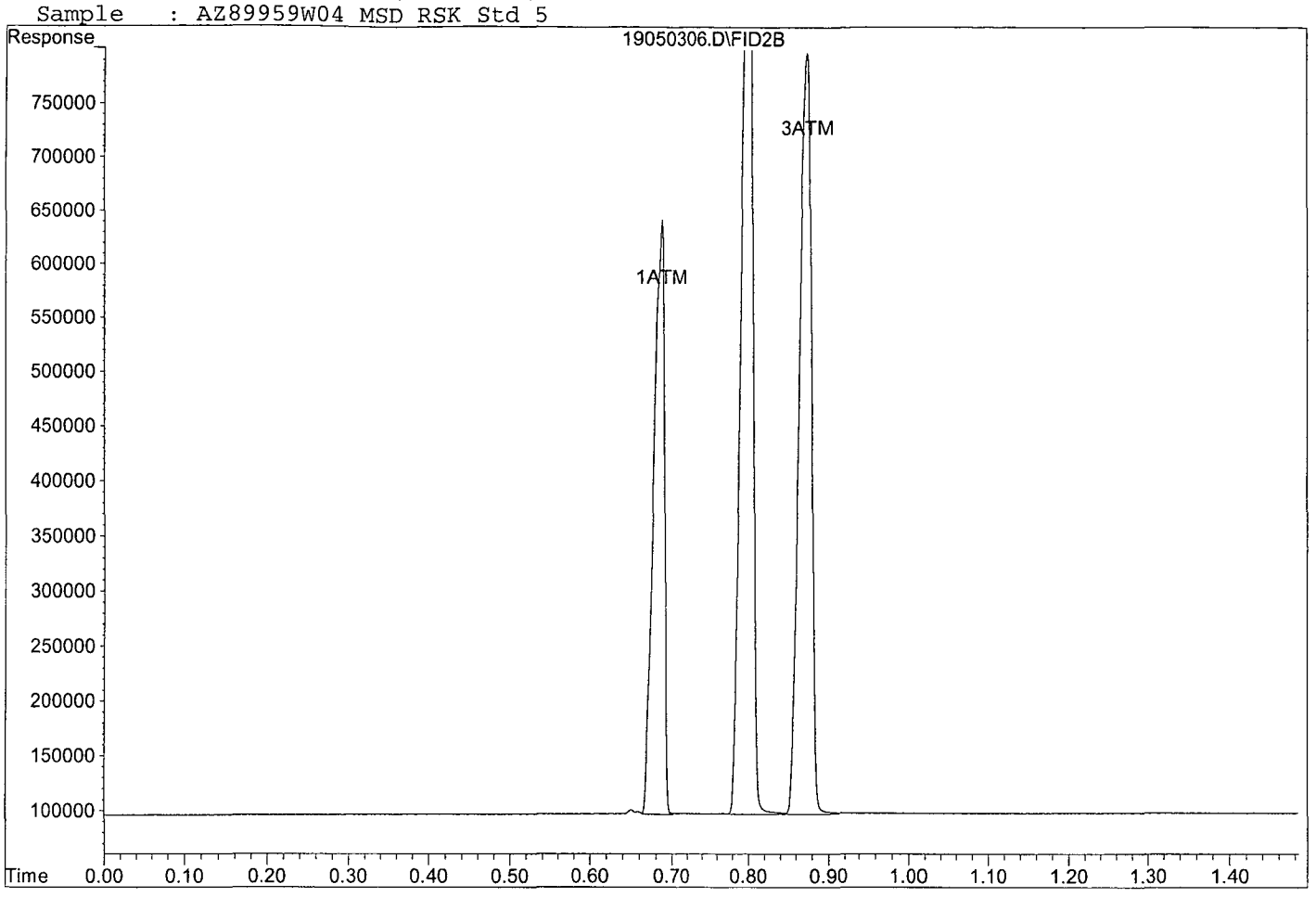
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.69 | 544236 | 80.003 ppb |
| 2) ATM Ethane | 0.80 | 887541 | 162.387 ppb |
| 3) ATM Ethene | 0.87 | 700099 | 154.802 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19050306.D
Sample : AZ89959W04 MSD RSK Std 5



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042902.D Vial: 3
Acq On : 29 Apr 19 11:12 Operator: cmm
Sample : 190429A Blk Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:15 2019 Quant Results File: RSK0311.RES

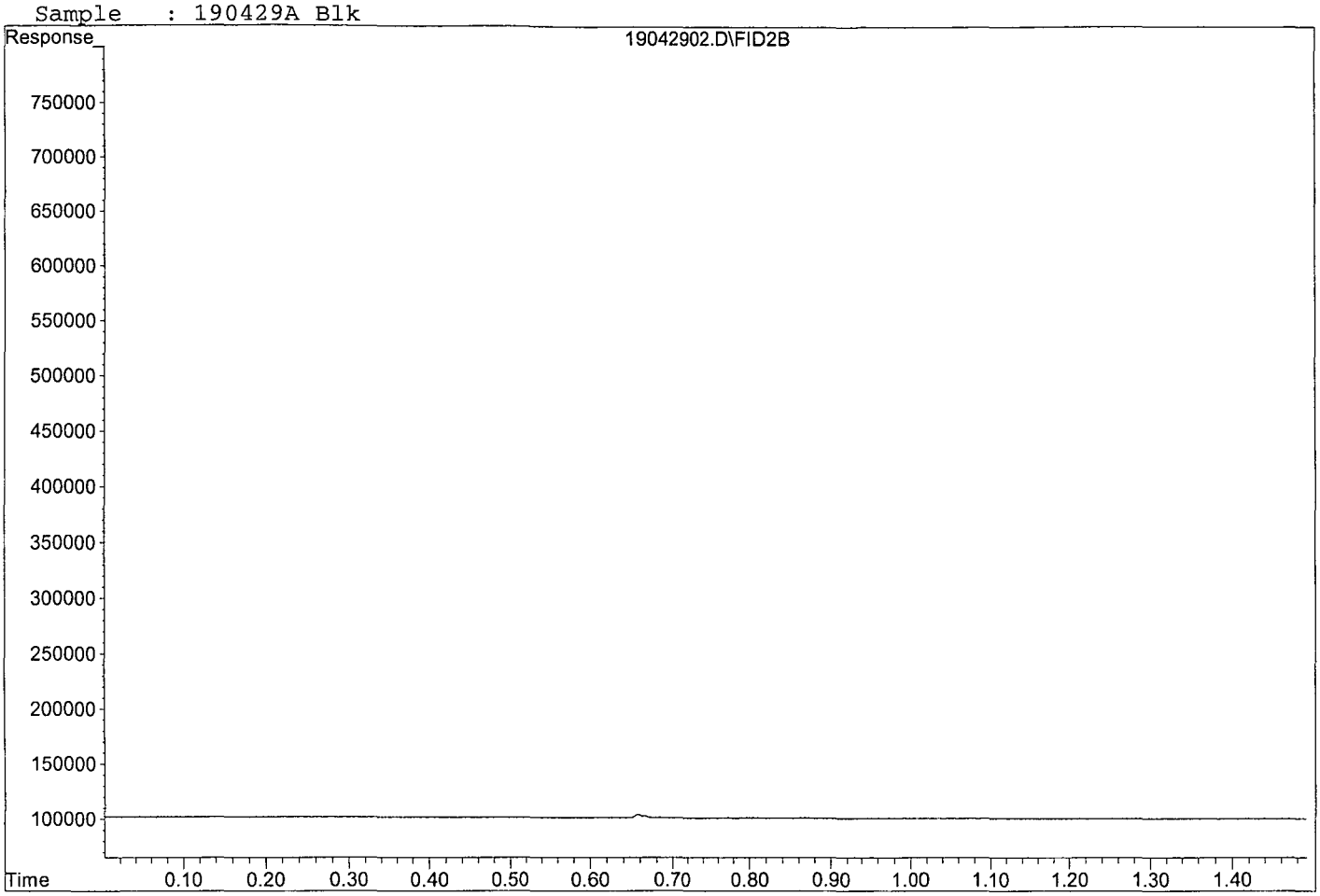
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042902.D
Sample : 190429A Blk



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19050302.D Vial: 3
Acq On : 3 May 19 10:39 Operator: cmm
Sample : 190503A Blk Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 3 10:43 2019 Quant Results File: RSK0311.RES

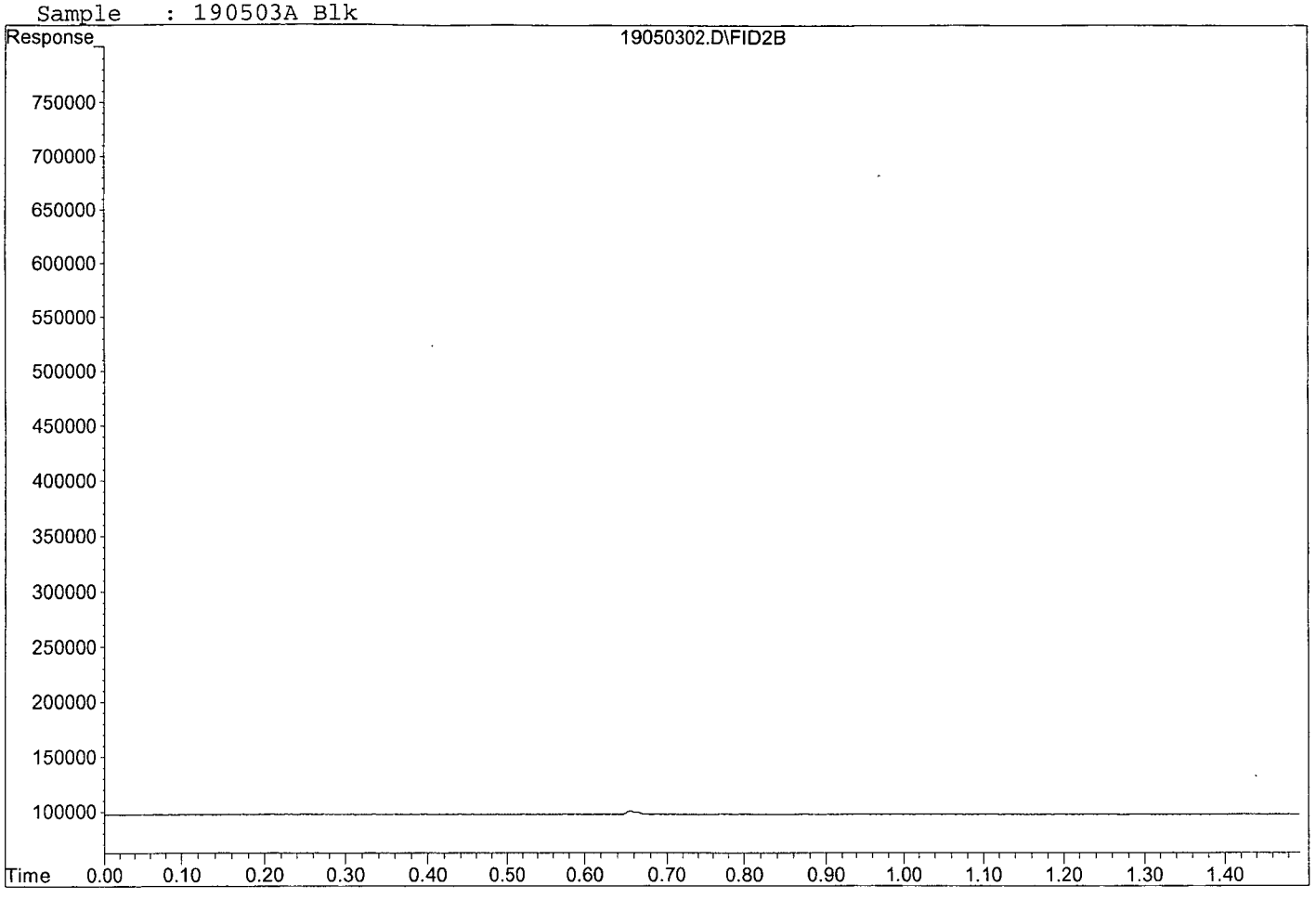
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19050302.D
Sample : 190503A Blk



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042900.D Vial: 1
Acq On : 29 Apr 19 11:03 Operator: cmm
Sample : 190429A LCS/CCV RSK Std 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:07 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

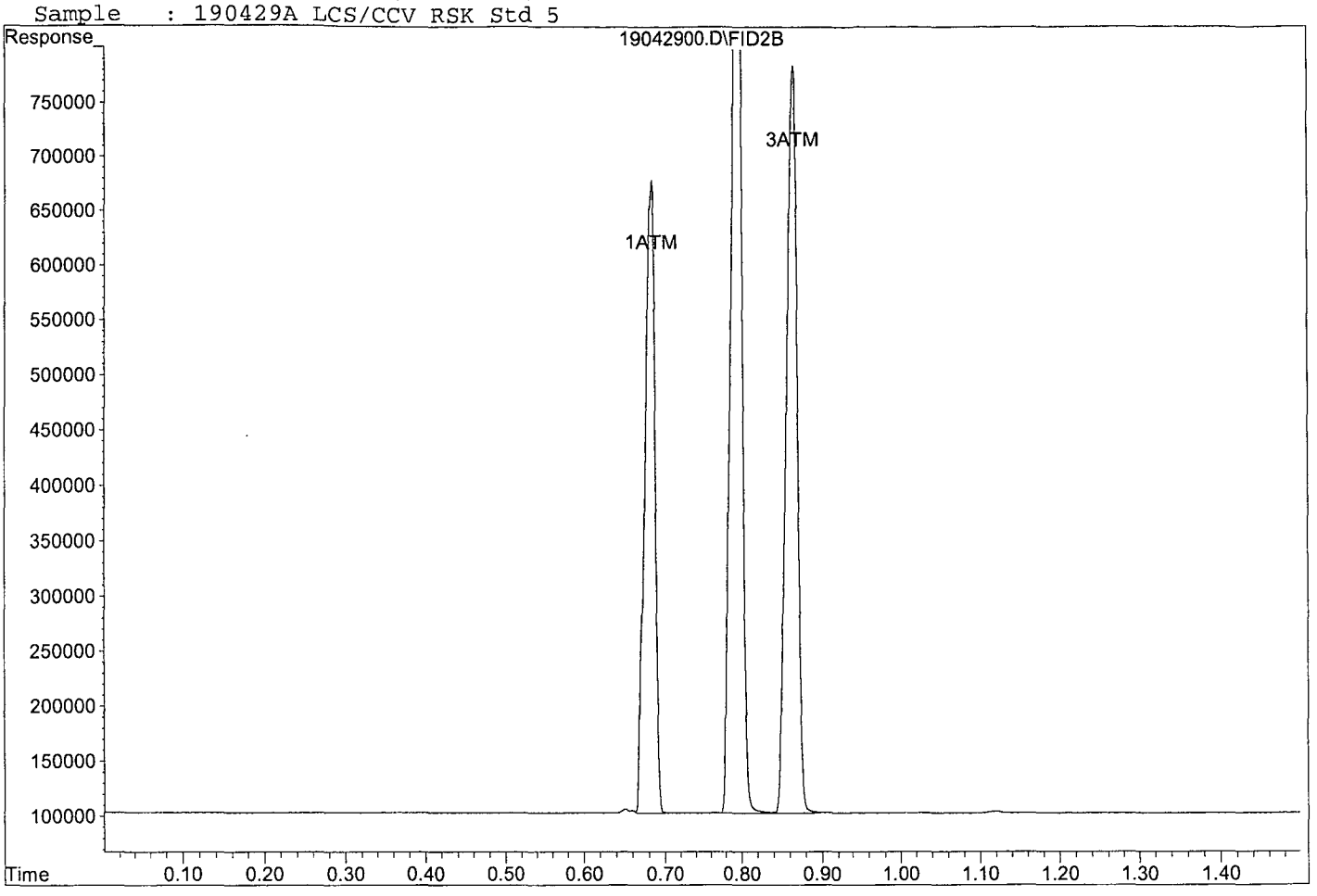
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.68 | 576667 | 84.909 ppb |
| 2) ATM Ethane | 0.80 | 909493 | 166.556 ppb |
| 3) ATM Ethene | 0.86 | 681904 | 150.696 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19042900.D
Sample : 190429A LCS/CCV RSK Std 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19050300.D Vial: 1
Acq On : 3 May 19 10:33 Operator: cmm
Sample : 190503A LCS/CCV RSK Std 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 3 10:36 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

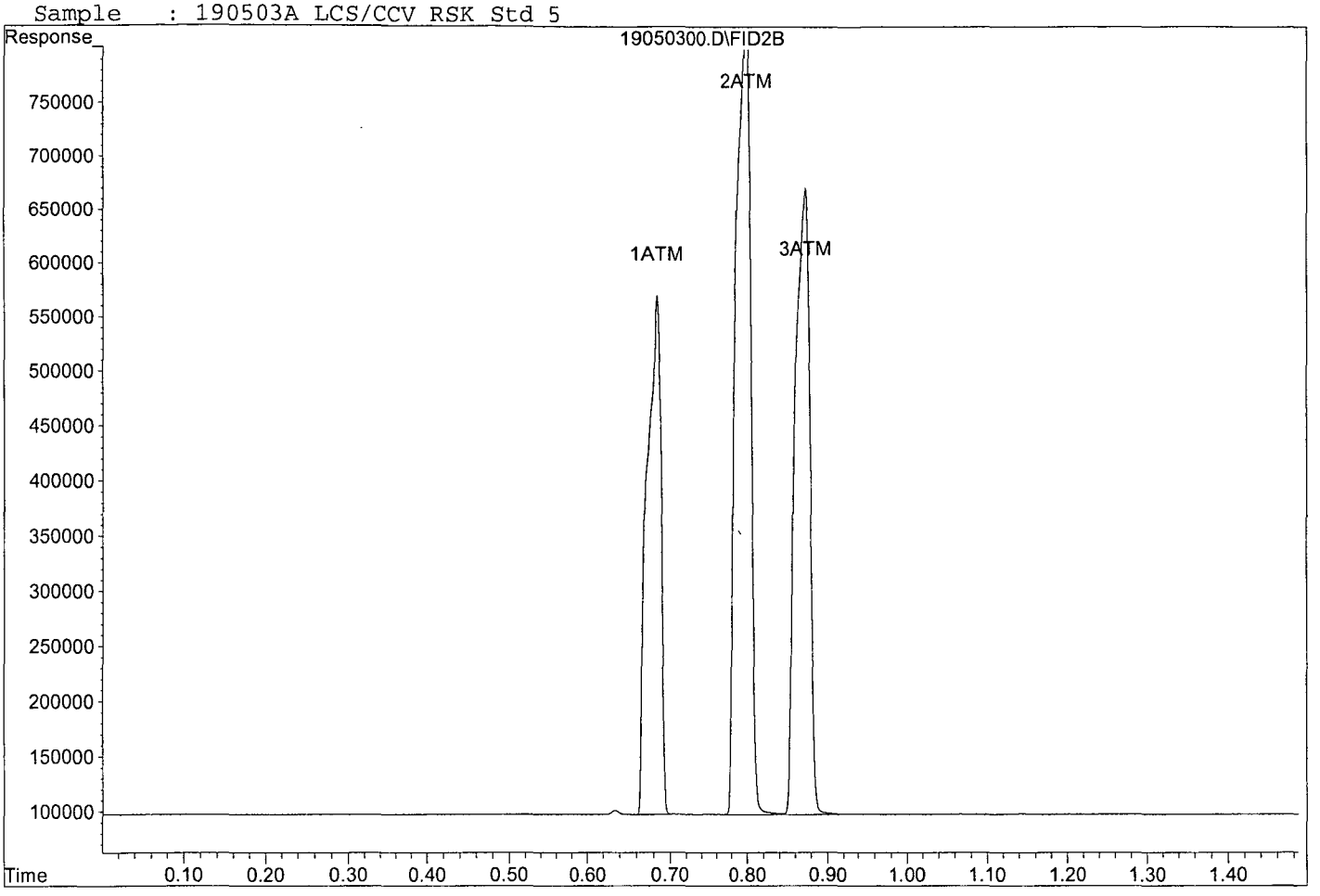
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.68 | 472503 | 69.150 ppb |
| 2) ATM Ethane | 0.80 | 747558 | 135.804 ppb |
| 3) ATM Ethene | 0.87 | 573589 | 126.255 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19050300.D
Sample : 190503A LCS/CCV RSK Std 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042901.D Vial: 2
Acq On : 29 Apr 19 11:07 Operator: cmm
Sample : 190429A LCSD RSK Std 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:12 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

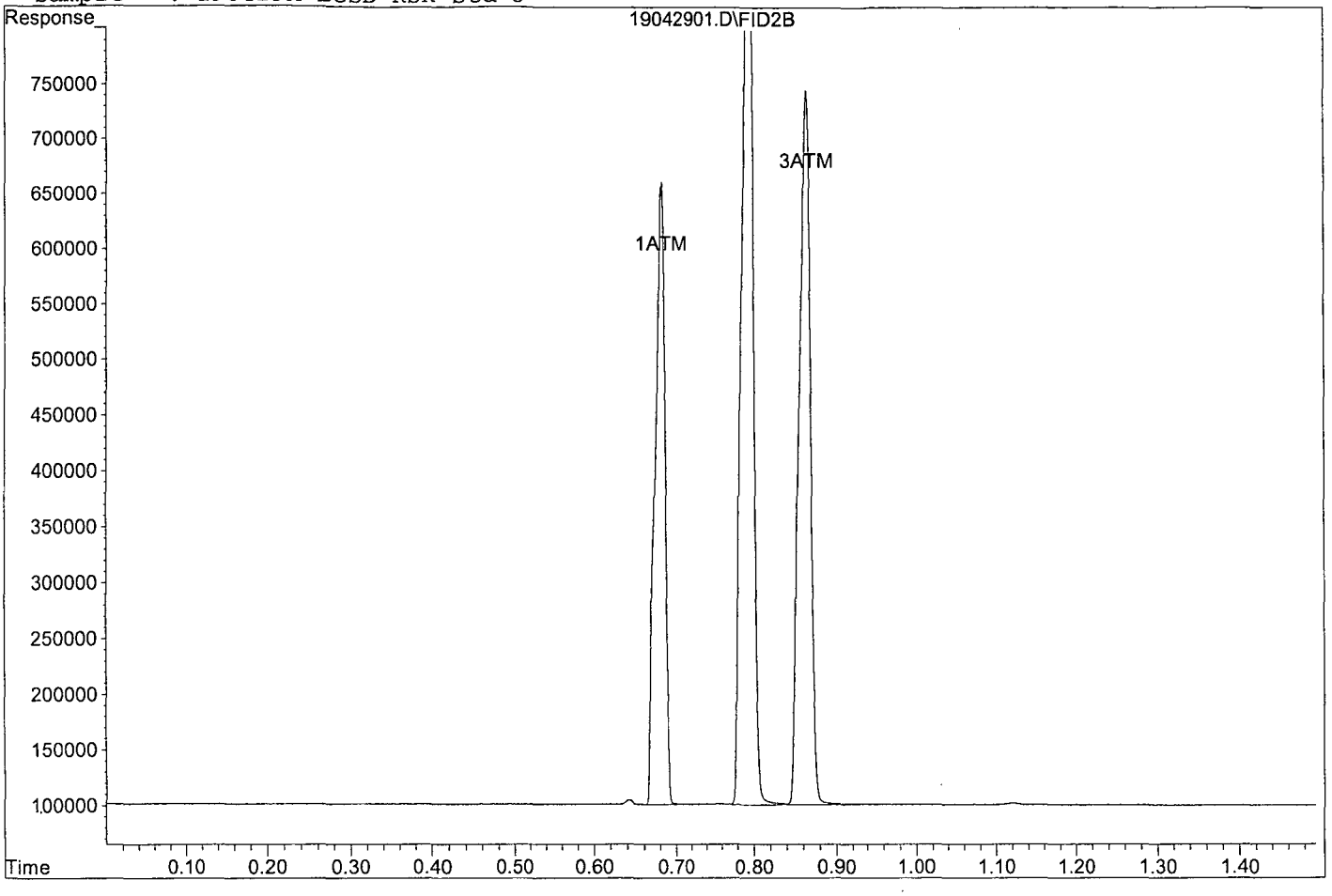
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.68 | 560268 | 82.428 ppb |
| 2) ATM Ethane | 0.79 | 865912 | 158.280 ppb |
| 3) ATM Ethene | 0.86 | 644404 | 142.234 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19042901.D
Sample : 190429A LCSD RSK Std 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19050301.D Vial: 2
Acq On : 3 May 19 10:36 Operator: cmm
Sample : 190503A LCSD RSK Std 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 3 10:38 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

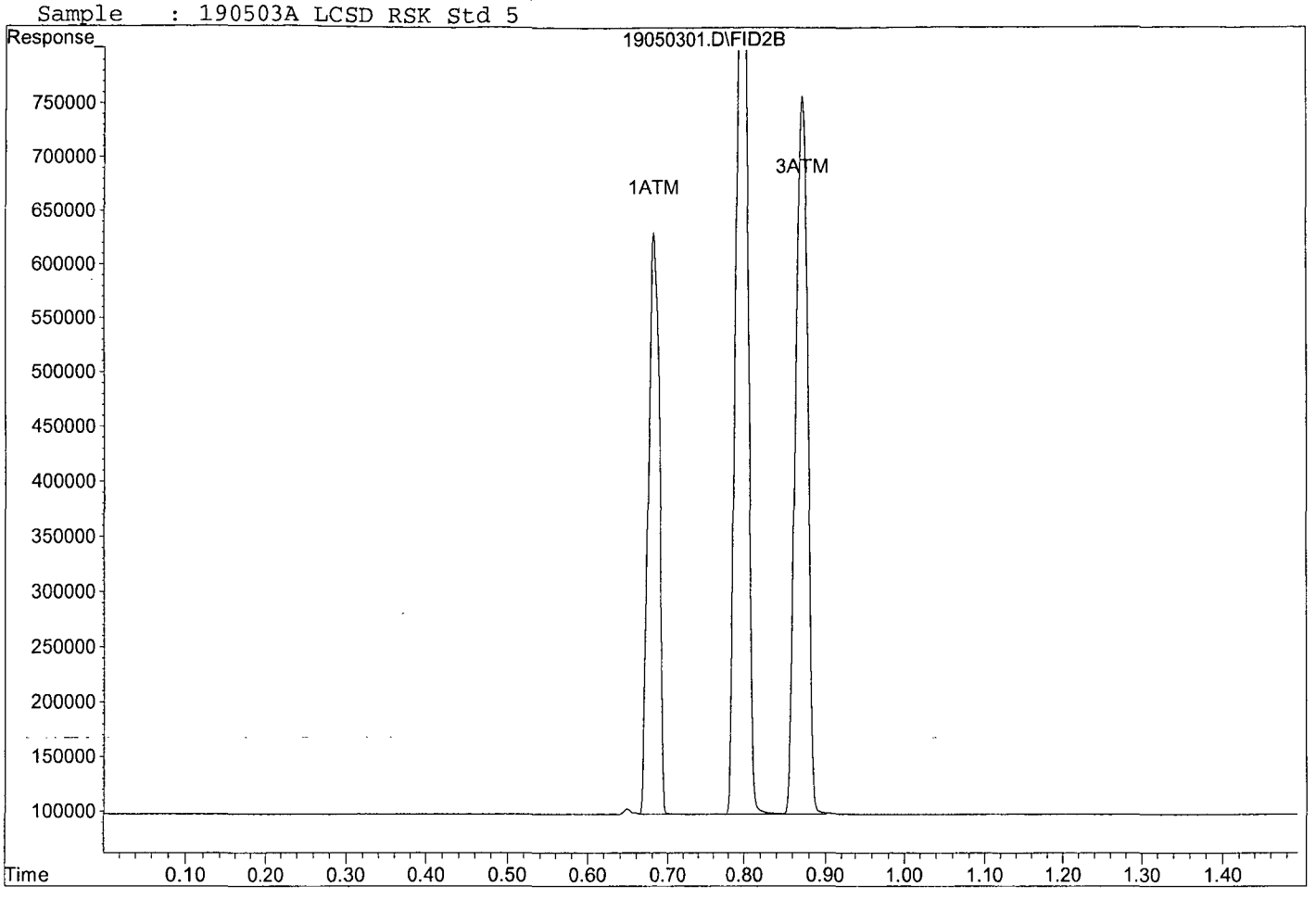
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.68 | 533347 | 78.355 ppb |
| 2) ATM Ethane | 0.80 | 860868 | 157.322 ppb |
| 3) ATM Ethene | 0.87 | 660243 | 145.808 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19050301.D
Sample : 190503A LCSD RSK Std 5



**Primary Source Stock Standard 10,000ppmV** **Manufacturer Exp Date 9-21-21**

RSK Gas Mix (Scott Specialty Gas) Cat.# 0104E40028`4, Lot # 160-401303031-39773

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

**RSK Calibration Curve (prepared in 1.0 L Tedlar Bags at room temp)** **Expires 04/11/19** **CMM 03/11/19**

| Analye | Conc Std 1 (1/2 = LOD) (ug/L) | Conc Std 2 (LOQ Chk) (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) |
|---|---|---|---|---|---|---|---|
| Methane (MW 16.04) | 2.08 | 4.16 | 8.34 | 20.85 | 83.40 | 208.5 | 834.0 |
| Ethane (MW 30.07) | 3.91 | 7.81 | 15.6 | 39.09 | 156.35 | 390.9 | 1563.5 |
| Ethene (MW 28.05) | 3.65 | 7.30 | 14.6 | 36.46 | 145.84 | 364.6 | 1458.4 |
| Stock Source | RSK Tank Lot #170PLU5SPC06L-35410 | RSK Tank Lot #170PLU5SPC06L-35410 | RSK Tank Lot #170PLU5SPC06L-35410 | RSK Tank Lot #170PLU5SPC06L-35410 | RSK Tank Lot #170PLU5SPC06L-35410 | RSK Tank Lot #170PLU5SPC06L-35410 | RSK Tank Lot #170PLU5SPC06L-35410 |
| Stock Conc (ppmv) | 10,000 ppmV | 10,000 ppmV | 10,000 ppmV | 10,000 ppmV | 10,000 ppmV | 10,000 ppmV | 10,000 ppmV |
| Stock Aliquot (mL) | 0.010 | 0.020 | 0.040 | 0.100 | 0.400 | 1.00 | 4.00 |
| Final Volume P&T Water | 32 mL | 32 mL | 32 mL | 32 mL | 32 mL | 32 mL | 32 mL |

**Second Source Stock Standard 10,000ppmV** **Manufacturer Exp date 9-21-2021**

RSK Gas Mix (Scott Specialty Gas) Cat.# 23452, Lot # 160-401303032-1-39774

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

**Second Source** **Expires 03/12/19** **CMM 03/11/19**

2.0mL of SS from tank into 980 mL Nitrogen

final conc: 13.3ug/L Methane, 25.0 ug/L Ethane, and 23.3 ug/L Ethene

**CCV/LCS/LCSD** **CMM 04/29/19**

Spike 0.400mL of 10,000ppmV into 32mL DI water, with 8mL Nitrogen headspace

final conc: 83.40ug/L Methane, 156.35ug/L Ethane, and 145.84ug/L Ethene

**CCV/LCS/LCSD** **CMM 05/03/19**

Spike 0.400mL of 10,000ppmV into 32mL DI water, with 8mL Nitrogen headspace

final conc: 83.40ug/L Methane, 156.35ug/L Ethane, and 145.84ug/L Ethene

**AZ89959W04** **CMM 05/03/19**

Spike 0.400mL of 10,000ppmV into 32mL DI water, with 8mL Nitrogen headspace

final conc: 83.40ug/L Methane, 156.35ug/L Ethane, and 145.84ug/L Ethene

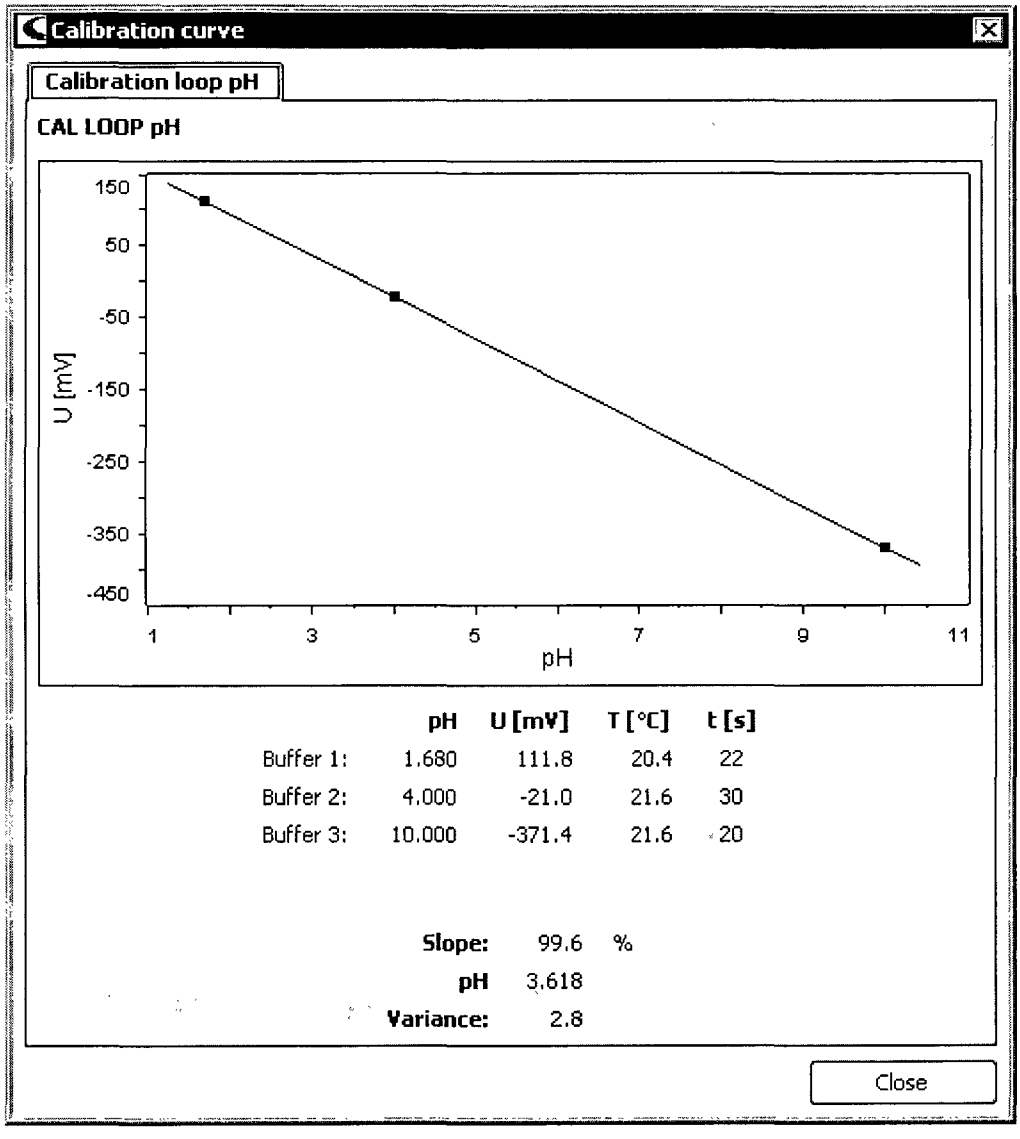
# Injection Log

Directory: G:\ROCKY\DATA\190311RS\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 19031100.D | 1 | RSK Std 1 03/11/19 | 125uL from RSK Std 3 | 11 Mar 19 10:21 |
| 2 | 2 | 19031101.D | 1 | RSK Std 2 03/11/19 | 250uL from RSK Std 3 | 11 Mar 19 10:23 |
| 3 | 4 | 19031103.D | 1 | RSK Std 3 03/11/19 | | 11 Mar 19 10:28 |
| 4 | 5 | 19031104.D | 1 | RSK Std 4 03/11/19 | | 11 Mar 19 10:31 |
| 5 | 6 | 19031105.D | 1 | RSK Std 5 03/11/19 | | 11 Mar 19 10:33 |
| 6 | 7 | 19031106.D | 1 | RSK Std 6 03/11/19 | | 11 Mar 19 10:35 |
| 7 | 8 | 19031107.D | 1 | RSK Std 7 03/11/19 | | 11 Mar 19 10:37 |
| 8 | 9 | 19031108.D | 1 | SS RSK Std 5 03/11/19 | | 11 Mar 19 10:48 |
| 9 | 1 | 19042900.D | 1 | 190429A LCS/CCV RSK Std 5 | | 29 Apr 19 11:03 |
| 10 | 2 | 19042901.D | 1 | 190429A LCSD RSK Std 5 | | 29 Apr 19 11:07 |
| 11 | 3 | 19042902.D | 1 | 190429A Blk | | 29 Apr 19 11:12 |
| 12 | 4 | 19042903.D | 1 | AZ89957W03 | | 29 Apr 19 11:14 |
| 13 | 5 | 19042904.D | 1 | AZ89960W04 | | 29 Apr 19 11:17 |
| 14 | 6 | 19042905.D | 1 | AZ89961W04 | | 29 Apr 19 11:21 |
| 15 | 19 | 19042918.D | 1 | Ending CCV RSK Std 5 04/29/19 | | 29 Apr 19 11:54 |
| 16 | 1 | 19050300.D | 1 | 190503A LCS/CCV RSK Std 5 | | 3 May 19 10:33 |
| 17 | 2 | 19050301.D | 1 | 190503A LCSD RSK Std 5 | | 3 May 19 10:36 |
| 18 | 3 | 19050302.D | 1 | 190503A Blk | | 3 May 19 10:39 |
| 19 | 4 | 19050303.D | 1 | AZ89959W03 | | 3 May 19 10:41 |
| 20 | 5 | 19050304.D | 1 | AZ89959W04 MS RSK Std 5 | | 3 May 19 10:44 |
| 21 | 7 | 19050306.D | 1 | AZ89959W04 MSD RSK Std 5 | | 3 May 19 10:49 |
| 22 | 27 | 19050326.D | 1 | Ending CCV RSK Std 5 05/03/19 | | 3 May 19 11:36 |

# INORGANIC ANALYSIS
## Calibration Data

Calibration 190424:



Ferrous Iron

Method SM3500Fe | Units mg/L | Instrument: Genisis Spectrometer
Analyte Fe2+ | QCG: 190423A | Wavelength: 510 nm
Analyist FJR | Final Volume: 50mL

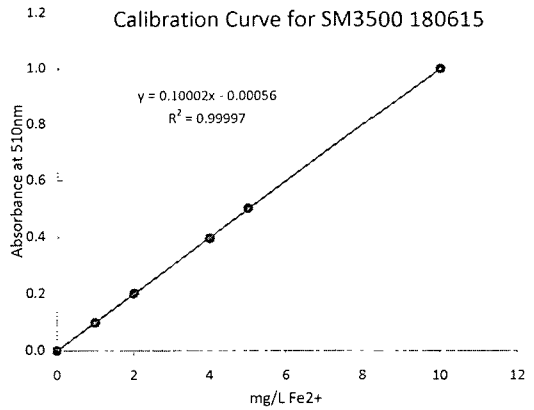
| Date | Time | Appl ID | [Fe2+] | Absorbance | % Recovery |
|---|---|---|---|---|---|
| 06/15/18 | 12:27 | ICB | 0.00 | 0.000 | |
| 06/15/18 | 12:27 | Ical 1 | 1.00 | 0.099 | 98.7% |
| 06/15/18 | 12:28 | Ical 2 | 2.00 | 0.201 | 100.4% |
| 06/15/18 | 12:28 | Ical 3 | 4.00 | 0.396 | 98.9% |
| 06/15/18 | 12:29 | Ical 4 | 5.00 | 0.501 | 100.1% |
| 06/15/18 | 12:30 | Ical 5 | 10.00 | 1.000 | 100.0% |
| 06/15/18 | 12:31 | ICV | 3.00 | 0.316 | 105.2% |
| 06/15/18 | 12:32 | ICB | 0.00 | 0.000 | |

| | |
|---|---|
| Slope | 0.100015306 |
| Intercept | 0.000258661 |
| Coefficient of Determination | 0.999973247 |

| Algortithm Check: | Appl ID | Absorbance | Result |
|---|---|---|---|
| | 190423A LCS | 0.303 | 3.03 |

Result = (Absorbance-Raw Blk-Intercept)/ Slope

| Test: | FJR | 04/23/19 | 3.03 |
|---|---|---|---|




| Date | Time | Appl ID | DF | Raw Result | SubSample Amount | Raw BLK | Calc Conc | Result | QC True | % Recovery |
|---|---|---|---|---|---|---|---|---|---|---|
| 04/23/19 | 16:10 | CCV 4.0 190423 | 1 | 0.390 | 25mL | | 3.90 | 3.90 | 4.00 | 97.4% |
| 04/23/19 | 16:11 | CCB 190423 | 1 | 0.000 | 25mL | | 0.00 | 0.00 | | |
| 04/23/19 | 16:12 | 190423A LCS | 1 | 0.303 | 25mL | | 3.03 | 3.03 | 3.00 | 100.9% |
| 04/23/19 | 16:13 | 190423A LCSD | 1 | 0.309 | 25mL | | 3.09 | 3.09 | 3.00 | 102.9% |
| 04/23/19 | 16:14 | AZ89958W21 | 1 | 0.008 | 25mL | | 0.08 | 0.08 | | |
| 04/23/19 | 16:15 | AZ89958W21 ms | 1 | 0.309 | 25mL | | 3.09 | 3.09 | | |
| 04/23/19 | 16:16 | AZ89958W21 msd | 1 | 0.311 | 25mL | | 3.11 | 3.11 | | |
| 04/23/19 | 16:17 | AZ89961W17 | 1 | 0.005 | 25mL | | 0.05 | 0.05 | | |
| 04/23/19 | 16:18 | CCV 4.0 190423 | 1 | 0.391 | 25mL | | 3.91 | 3.91 | 4.00 | 97.7% |
| 04/23/19 | 16:19 | CCB 190423 | 1 | -0.001 | 25mL | | -0.01 | -0.01 | | |

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 88687 SDG: 88687

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: o2si

Analysis Date: 04/24/19

| Analyte | Calibration Verification | | | | | | | | | M |
|---|---|---|---|---|---|---|---|---|---|---|
| | True ICV | Found 15:32 | %R(1) | True CCV1 | Found 16:02 | %R(1) | True | Found | %R(1) | |
| TOXN | 3 | 2.9397 | 98.0 | 3 | 2.9511 | 98.4 | | | | |

(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.: 88687 SDG: 88687

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

| Analyte | Calibration Blanks | | | | | | | | | | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ICB 04/24/19 15:35 | C | CCB 04/24/19 16:03 | C | | C | | C | | C | |
| TOXN | .100 | U | .100 | U | | | | | | | |

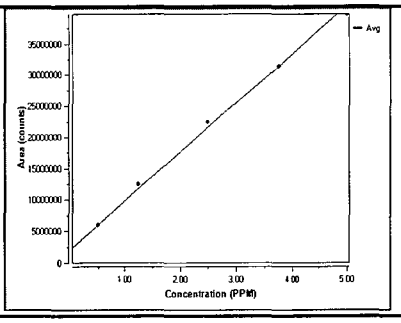
TOTAL ORGANIC CARBON

Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: DOC | QCG: 190417

Analyist: AR | Final Volume: 40mL

| Date | Time | Appl ID | [TOC] | Raw | % Recovery |
|---|---|---|---|---|---|
| 02/23/19 | 12:37 | QC blank | 0.00 | 2073066.000 | |
| 02/23/19 | 13:11 | Ical 1 | 0.50 | 6066781.000 | |
| 02/23/19 | 13:43 | Ical 2 | 1.25 | 12451764.000 | |
| 02/23/19 | 14:15 | Ical 3 | 2.50 | 22465756.000 | |
| 02/23/19 | 14:48 | Ical 4 | 3.75 | 31457150.000 | |
| 02/23/19 | 15:21 | Ical 5 | 5.00 | 39864495.000 | |
| 02/23/19 | 15:56 | ICB | 0.25 | 1917909.000 | |
| 02/23/19 | 16:30 | ICV | 2.97 | 23239734.000 | 118.9% |
| R^2= | 0.9984 | | | | |




| Date | Time | Appl ID | DF | Raw Result | SubSample Amount | Calc Conc | Result | QC True | % Recovery |
|---|---|---|---|---|---|---|---|---|---|
| 2019-04-24 | 04:30 PM | CCV | 1 | 22166673 | 40mL | 2.835 | 2.84 | 2.50 | 113.4% |
| 2019-04-24 | 05:05 PM | CCB | 1 | 1782898 | 40mL | 0.228 | 0.23 | | |
| 2019-04-24 | 05:39 PM | 190417A BLK | 1 | 2107669 | 40mL | 0.27 | 0.27 | | |
| 2019-04-24 | 06:13 PM | 190417A LCS | 1 | 16506365 | 40mL | 2.111 | 2.11 | 2.50 | 84.4% |
| 2019-04-24 | 06:48 PM | 190417A LCSD | 1 | 16327006 | 40mL | 2.088 | 2.09 | 2.50 | 83.5% |
| 2019-04-24 | 07:24 PM | AZ89503W06 DF80 | 80 | 29356185 | 40mL | 3.704 | 296.32 | | |
| 2019-04-24 | 07:59 PM | AZ89504W04 DF40 | 40 | 28903476 | 40mL | 3.646 | 145.84 | | |
| 2019-04-24 | 08:33 PM | AZ89505W04 DF160 | 160 | 35679936 | 40mL | 4.513 | 722.08 | | |
| 2019-04-24 | 09:08 PM | AZ89506W04 DF40 | 40 | 27210233 | 40mL | 3.43 | 137.20 | | |
| 2019-04-24 | 09:41 PM | AZ89507W04 DF40 | 40 | 25581832 | 40mL | 3.221 | 128.84 | | |
| 2019-04-24 | 10:13 PM | AZ89507W04 DUP DF40 | 40 | 26377241 | 40mL | 3.373 | 134.92 | | |
| 2019-04-24 | 10:49 PM | AZ89507W04 MS DF40 | 40 | 29503736 | 40mL | 3.774 | 150.96 | | |
| 2019-04-24 | 11:28 PM | AZ89507W04 MSD DF4C | 40 | 32872120 | 40mL | 4.204 | 168.16 | | |
| 2019-04-25 | 12:05 AM | AZ89800W01 DF2 | 2 | 64624375 | 40mL | 8.214 | 16.43 | | |
| 2019-04-25 | 12:38 AM | AZ89958W12 | 1 | 4105523 | 40mL | 0.475 | 0.48 | | |
| 2019-04-25 | 01:09 AM | AZ89961W08 | 1 | 4045904 | 40mL | 0.467 | 0.47 | | |
| 2019-04-25 | 01:40 AM | AZ89961W07 | 1 | 4451714 | 40mL | 0.569 | 0.57 | | |
| 2019-04-25 | 02:15 AM | AZ89961W12 MS | 1 | 22863032 | 40mL | 2.924 | 2.92 | | |
| 2019-04-25 | 02:50 AM | AZ89961W05 MSD | 1 | 23609553 | 40mL | 3.019 | 3.02 | | |
| 2019-04-25 | 03:25 AM | CCV | 1 | 17790652 | 40mL | 2.275 | 2.28 | 2.50 | 91.0% |
| 2019-04-25 | 04:00 AM | CCB | 1 | 1958099 | 40mL | 0.251 | 0.25 | | |
| | | | 1 | | 40mL | | #VALUE! | | |
| | | | 1 | | 40mL | | #VALUE! | | |
| | | | 1 | | 40mL | | #VALUE! | | |
| | | | 1 | | 40mL | | #VALUE! | | |
| | | | 1 | | 40mL | | #VALUE! | | |
| | | | 1 | | 40mL | | #VALUE! | | |
| | | | 1 | | 40mL | | #VALUE! | | |
| | | | 1 | | 40mL | | #VALUE! | | |
| | | | 1 | | 40mL | | #VALUE! | | |
| | | | 1 | | 40mL | | #VALUE! | | |
| | | | 1 | | 40mL | | #VALUE! | | |

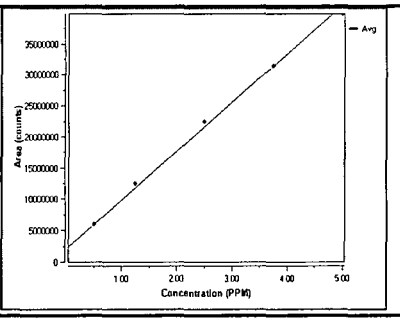
TOTAL ORGANIC CARBON

Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: TOC | QCG: 190502A

Analyist: AR | Final Volume: 40mL

| Date | Time | Appl ID | [TOC] | Raw | % Recovery |
|---|---|---|---|---|---|
| 02/23/19 | 12:37 | QC blank | 0.00 | 2073066.000 | |
| 02/23/19 | 13:11 | Ical 1 | 0.50 | 6066781.000 | |
| 02/23/19 | 13:43 | Ical 2 | 1.25 | 12451764.000 | |
| 02/23/19 | 14:15 | Ical 3 | 2.50 | 22465756.000 | |
| 02/23/19 | 14:48 | Ical 4 | 3.75 | 31457150.000 | |
| 02/23/19 | 15:21 | Ical 5 | 5.00 | 39864495.000 | |
| 02/23/19 | 15:56 | ICB | 0.25 | 1917909.000 | |
| 02/23/19 | 16:30 | ICV | 2.97 | 23239734.000 | 118.9% |
| R^2= | 0.9984 | | | | |




| Date | Time | Appl ID | DF | Raw Result | SubSample Amount | Calc Conc | Result | QC True | % Recovery |
|---|---|---|---|---|---|---|---|---|---|
| 2019-05-02 | 04:32 PM | CCV | 1 | 21675369 | 40mL | 2.422 | 2.42 | 2.50 | 96.9% |
| 2019-05-02 | 05:07 PM | CCB | 1 | 727823 | 40mL | 0 | 0.00 | | |
| 2019-05-02 | 05:40 PM | 190502A BLK | 1 | 927374 | 40mL | 0 | 0.00 | | |
| 2019-05-02 | 06:14 PM | 190502A LCS | 1 | 21760887 | 40mL | 2.433 | 2.43 | 2.50 | 97.3% |
| 2019-05-02 | 06:49 PM | 190502A LCSD | 1 | 21292907 | 40mL | 2.373 | 2.37 | 2.50 | 94.9% |
| 2019-05-02 | 07:24 PM | AZ89958W12 | 1 | 2719364 | 40mL | 0.298 | 0.30 | | |
| 2019-05-02 | 07:55 PM | AZ89958W09 DUP | 1 | 2096550 | 40mL | 0 | 0.00 | | |
| 2019-05-02 | 08:29 PM | AZ89958W14 MS | 1 | 22354778 | 40mL | 2.508 | 2.51 | | |
| 2019-05-02 | 09:04 PM | AZ89958W11 MSD | 1 | 22821834 | 40mL | 2.568 | 2.57 | | |
| 2019-05-02 | 09:39 PM | AZ90051W13 | 1 | 2446110 | 40mL | 0.263 | 0.26 | | |
| 2019-05-02 | 10:10 PM | AZ90051W13 DUP | 1 | 3624059 | 40mL | 0.113 | 0.11 | | |
| 2019-05-02 | 10:45 PM | AZ90051W16 MS | 1 | 23433442 | 40mL | 2.646 | 2.65 | | |
| 2019-05-02 | 11:20 PM | AZ90051W16 MSD | 1 | 23412687 | 40mL | 2.644 | 2.64 | | |
| 2019-05-02 | 11:55 PM | AZ90054W09 | 1 | 4072622 | 40mL | 0.471 | 0.47 | | |
| 2019-05-03 | 12:27 AM | AZ90058W05 | 1 | 4372254 | 40mL | 0.509 | 0.51 | | |
| 2019-05-03 | 12:58 AM | AZ90060W12 | 1 | 7550103 | 40mL | 0.915 | 0.92 | | |
| 2019-05-03 | 01:30 AM | AZ90100W09 | 1 | 8006133 | 40mL | 0.974 | 0.97 | | |
| 2019-05-03 | 02:02 AM | AZ90105W08 | 1 | 12129049 | 40mL | 1.501 | 1.50 | | |
| 2019-05-03 | 02:33 AM | AZ90109W09 | 1 | 2449956 | 40mL | 0.263 | 0.26 | | |
| 2019-05-03 | 03:05 AM | AZ90213W12 | 1 | 16936404 | 40mL | 2.115 | 2.12 | | |
| 2019-05-03 | 03:38 AM | CCV | 1 | 21447087 | 40mL | 2.392 | 2.39 | 2.50 | 95.7% |
| 2019-05-03 | 04:13 AM | CCB | 1 | 882391 | 40mL | 0 | 0.00 | | |
| 2019-05-03 | 04:46 AM | 190502B BLK | 1 | 797351 | 40mL | 0 | 0.00 | | |
| 2019-05-03 | 05:20 AM | 190502B LCS | 1 | 21956853 | 40mL | 2.458 | 2.46 | 2.50 | 98.3% |
| 2019-05-03 | 05:55 AM | 190502B LCSD | 1 | 21901664 | 40mL | 2.45 | 2.45 | 2.50 | 98.0% |
| 2019-05-03 | 06:30 AM | AZ89958W43 | 1 | 2048429 | 40mL | 0.212 | 0.21 | | |
| 2019-05-03 | 07:01 AM | AZ89958W17 DUP | 1 | 5821945 | 40mL | 0.394 | 0.39 | | |
| 2019-05-03 | 07:36 AM | AZ89958W10 MS | 1 | 21950218 | 40mL | 2.457 | 2.46 | | |
| 2019-05-03 | 08:12 AM | AZ89958W18 MSD | 1 | 22462368 | 40mL | 2.523 | 2.52 | | |
| 2019-05-03 | 08:47 AM | AZ90051W09 | 1 | 2995627 | 40mL | 0.333 | 0.33 | | |
| 2019-05-03 | 09:18 AM | AZ90051W09 DUP | 1 | 3326206 | 40mL | 0.075 | 0.08 | | |
| 2019-05-03 | 09:53 AM | AZ90051W10 MS | 1 | 23819230 | 40mL | 2.696 | 2.70 | | |
| 2019-05-03 | 10:29 AM | AZ90051W10 MSD | 1 | 23878289 | 40mL | 2.704 | 2.70 | | |
| 2019-05-03 | 11:04 AM | AZ90056W08 | 1 | 4065043 | 40mL | 0.47 | 0.47 | | |
| 2019-05-03 | 11:36 AM | AZ90102W10 | 1 | 27567265 | 40mL | 3.475 | 3.48 | | |
| 2019-05-03 | 12:08 PM | AZ90107W10 | 1 | 3202077 | 40mL | 0.359 | 0.36 | | |
| 2019-05-03 | 12:39 PM | AZ90215W06 | 1 | 4079275 | 40mL | 0.472 | 0.47 | | |
| 2019-05-03 | 01:11 PM | CCV | 1 | 21730719 | 40mL | 2.428 | 2.43 | 2.50 | 97.1% |
| 2019-05-03 | 01:46 PM | CCB | 1 | 969840 | 40mL | 0 | 0.00 | | |

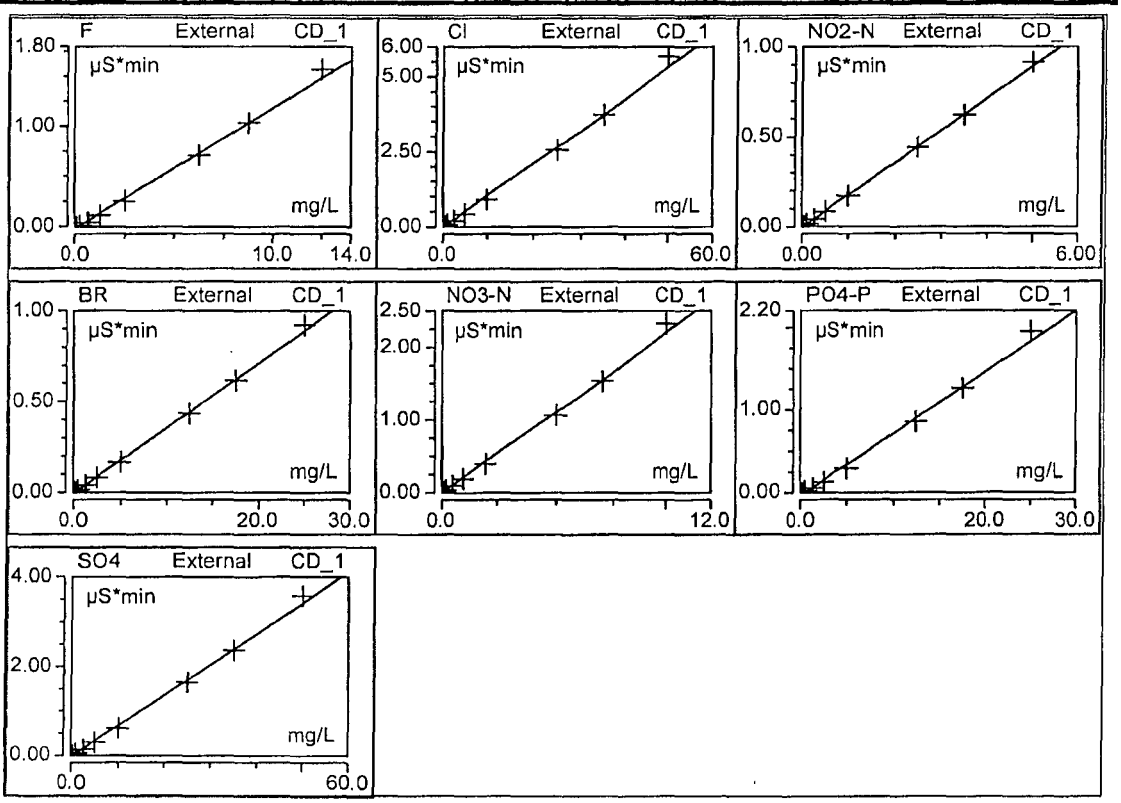
## Calibration Batch Report

| | | | |
|---|---|---|---|
| *Sequence:* | 190401 | *Injection Volume:* | 25.00 |
| *Instrument Method:* | Anions IM | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:26 | *Run Time:* | 5 |

Calibration Summary

| Peak Name | Eval.Type | Cal.Type | Points | Offset (C0) | Slope (C1) | Curve (C2) | Coeff.Det. % |
|---|---|---|---|---|---|---|---|
| F | Area | Lin, WithOffset, 1/A | 8.000 | -0.017 | 0.120 | 0.000 | 99.4806 |
| Cl | Area | Lin, WithOffset, 1/A | 8.000 | -0.028 | 0.107 | 0.000 | 99.4166 |
| NO2-N | Area | Lin, WithOffset, 1/A | 8.000 | -0.001 | 0.179 | 0.000 | 99.9419 |
| BR | Area | Lin, WithOffset, 1/A | 8.000 | -0.002 | 0.036 | 0.000 | 99.8824 |
| NO3-N | Area | Lin, WithOffset, 1/A | 8.000 | -0.007 | 0.222 | 0.000 | 99.7096 |
| PO4-P | Area | Lin, WithOffset, 1/A | 7.000 | -0.032 | 0.075 | 0.000 | 99.3402 |
| SO4 | Area | Lin, WithOffset, 1/A | 8.000 | -0.012 | 0.069 | 0.000 | 99.7352 |

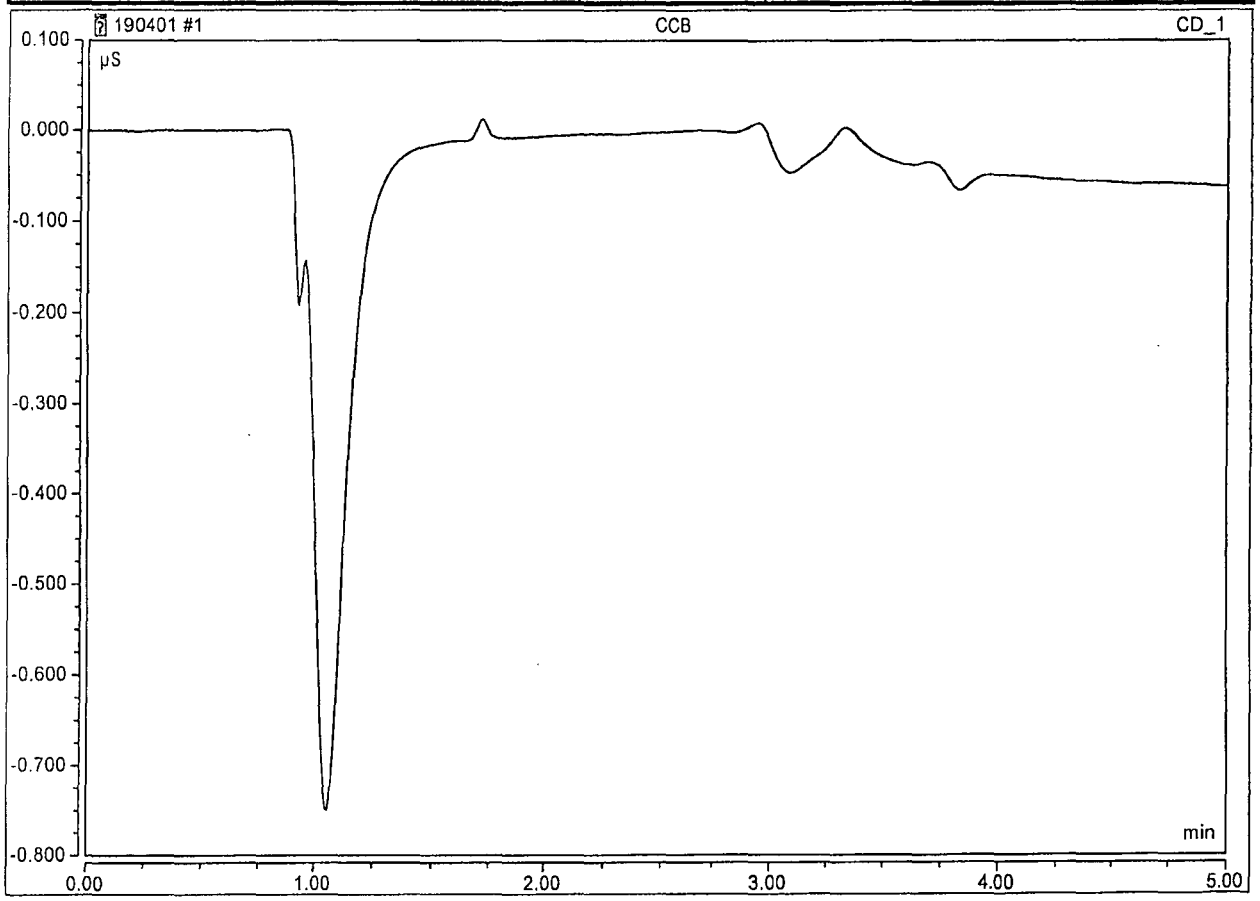
| Injection Name | Amount mg/L CD_1 F | Amount mg/L CD_1 Cl | Amount mg/L CD_1 NO2-N | Amount mg/L CD_1 BR | Amount mg/L CD_1 NO3-N | Amount mg/L CD_1 PO4-P | Amount mg/L CD_1 SO4 |
|---|---|---|---|---|---|---|---|
| i cal 1 | 0.152 | 0.5642 | 0.0447 | 0.2325 | 0.1005 | 0.4778 | 0.4991 |
| i cal 2 | 0.223 | 1.0054 | 0.1008 | 0.5019 | 0.2020 | 0.6726 | 1.0108 |
| i cal 3 | 0.498 | 2.1345 | 0.2378 | 1.1759 | 0.4556 | 1.1460 | 2.2782 |
| i cal 4 | 1.078 | 4.1718 | 0.4757 | 2.3481 | 0.8983 | 2.1327 | 4.5095 |
| i cal 5 | 2.245 | 8.6460 | 0.9640 | 4.7379 | 1.8243 | 4.3601 | 9.1640 |
| i cal 6 | 6.079 | 24.1535 | 2.4749 | 12.2599 | 4.8399 | 11.9336 | 24.2601 |
| i cal 7 | 8.756 | 35.0732 | 3.4778 | 17.3494 | 6.9503 | 17.3831 | 34.7622 |
| i cal 8 | 13.194 | 53.1515 | 5.1141 | 25.8443 | 10.5090 | 26.6219 | 52.4162 |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | CCB | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Unknown | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 18:27 | *Run Time:* | 5.00 |

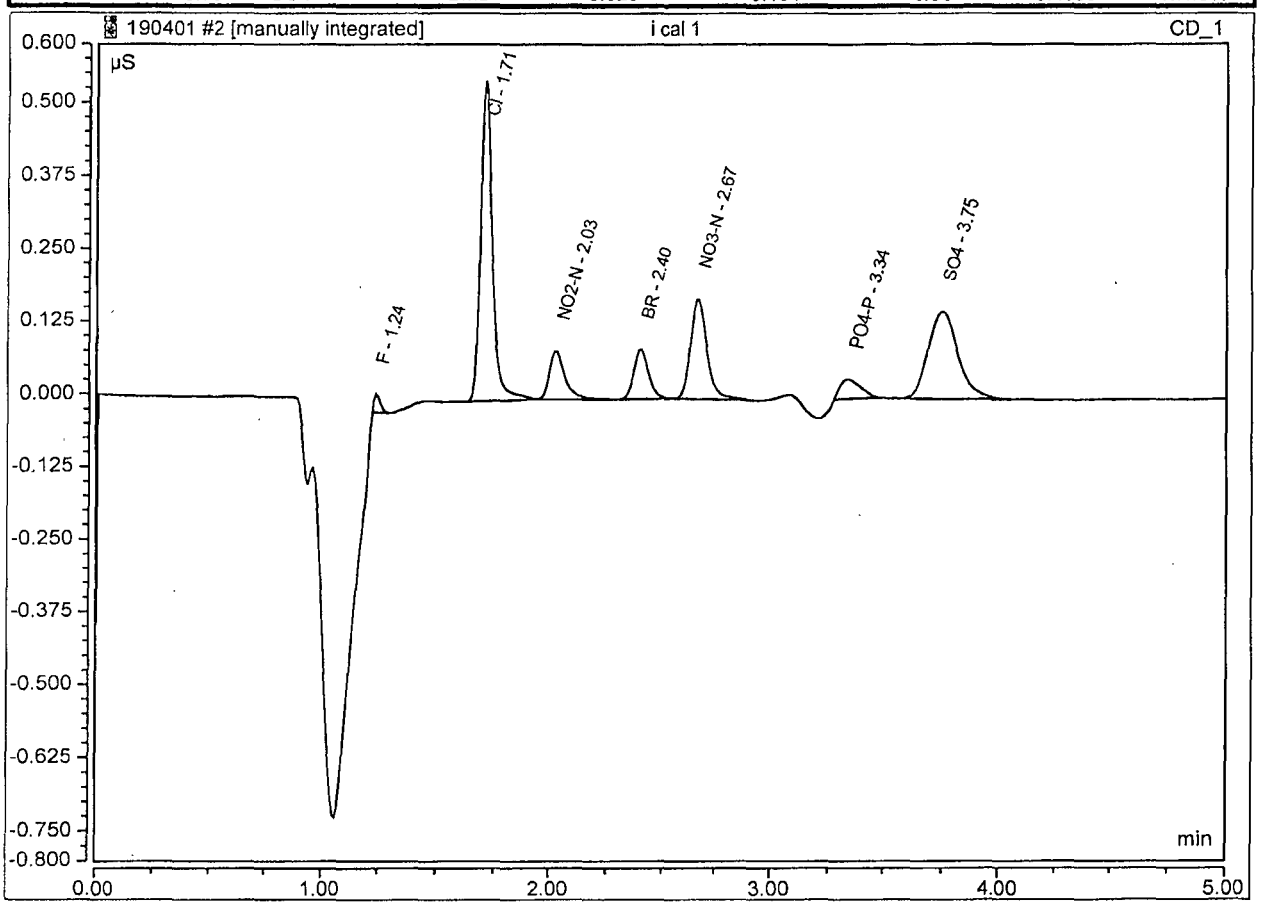
| No. | Time (min) | Peak Name | Peak Type | Area (µS*min) | Height (µS) | Amount | Amount | Recovery |
|---|---|---|---|---|---|---|---|---|
| | min | | | µS*min | µS | n.a. | n.a. | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 1 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 18:34 | *Run Time:* | 5.00 |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | F | BMB* | 0.001 | 0.032 | 0.15 | 0.1000 | 152.1% |
| 2 | 1.71 | Cl | BMB | 0.033 | 0.547 | 0.56 | 0.4000 | 141.1% |
| 3 | 2.03 | NO2-N | BMB | 0.007 | 0.084 | 0.04 | 0.0400 | 111.8% |
| 4 | 2.40 | BR | BMB | 0.007 | 0.086 | 0.23 | 0.2000 | 116.3% |
| 5 | 2.67 | NO3-N | BMB | 0.016 | 0.173 | 0.10 | 0.0800 | 125.7% |
| 6 | 3.34 | PO4-P | BMB* | 0.004 | 0.034 | 0.48 | 0.2000 | 238.9% |
| 7 | 3.75 | SO4 | BMB | 0.023 | 0.151 | 0.50 | 0.4000 | 124.8% |

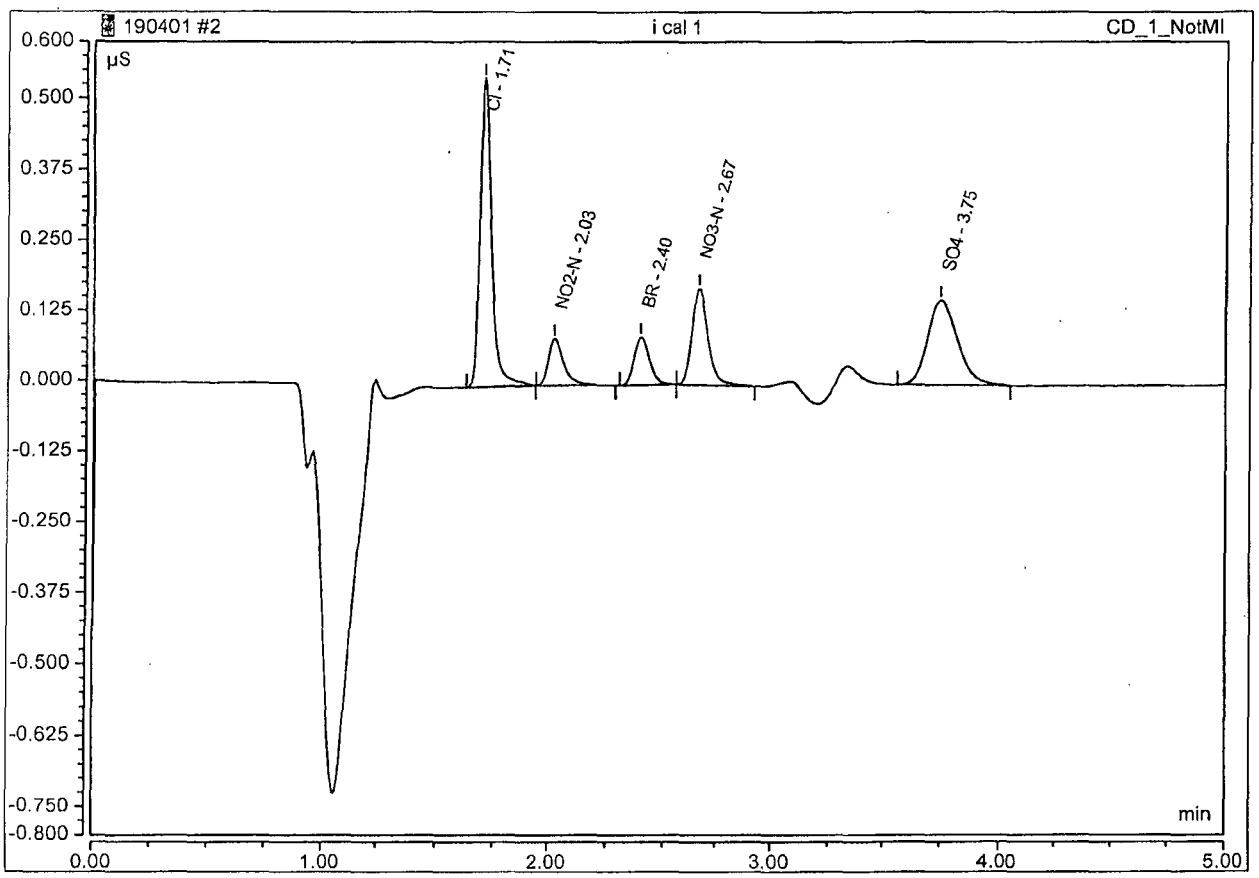



F mi1 HH 190405

## Not Manipulated Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **I cal 1** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Calibration Standard** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **01-Apr-2019 / 18:34** | *Run Time:* | **5.00** |

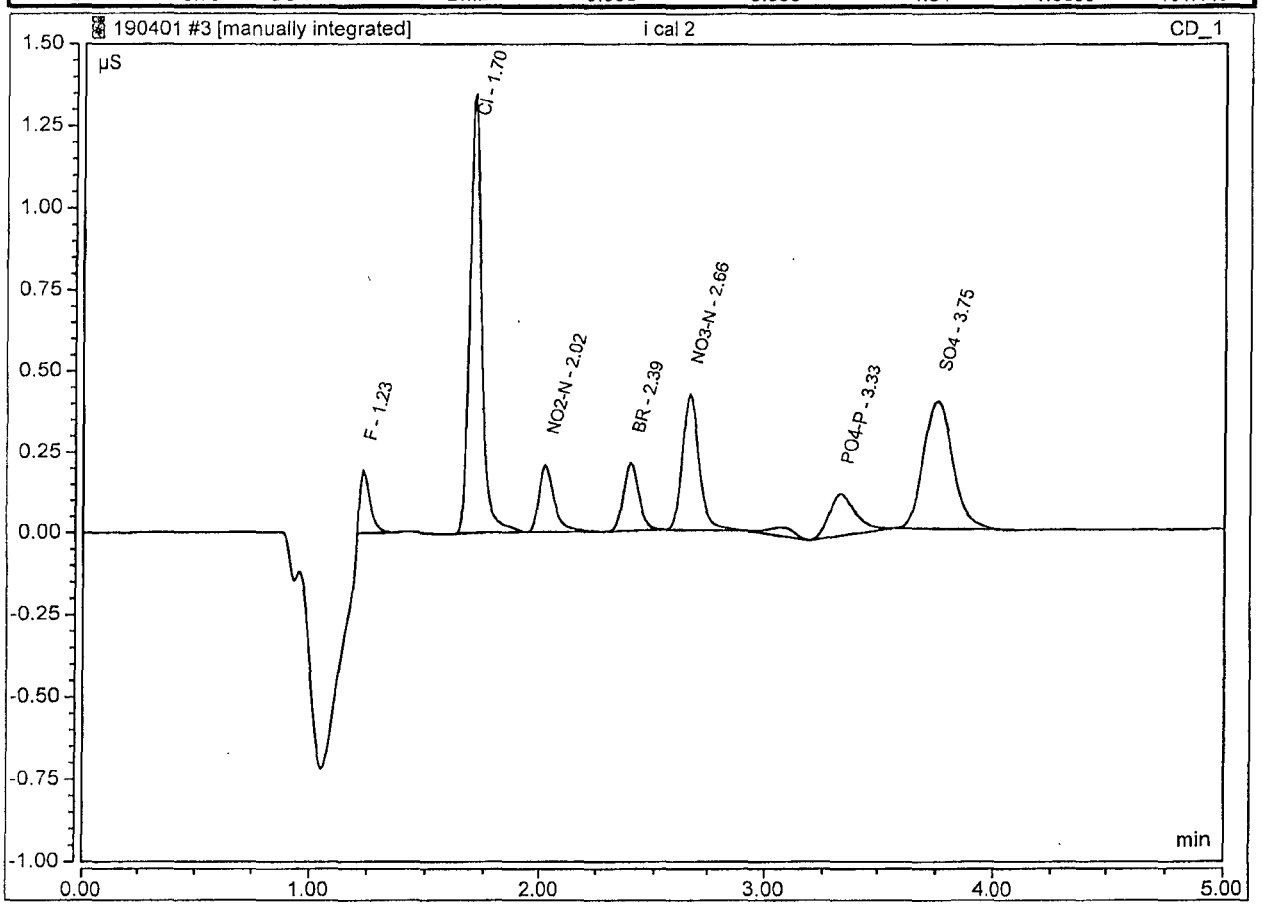
| No. | Time min | Peak Name | Peak Type | Area µS*min | Height µS | Ammount mg/L |
|---|---|---|---|---|---|---|
| 1 | n.a. | F | BMB* | n.a. | n.a. | n.a. |
| 2 | 1.71 | Cl | BMB | 0.033 | 0.547 | 0.5642 |
| 3 | 2.03 | NO2-N | BMB | 0.007 | 0.084 | 0.0447 |
| 4 | 2.40 | BR | BMB | 0.007 | 0.086 | 0.2325 |
| 5 | 2.67 | NO3-N | BMB | 0.016 | 0.173 | 0.1005 |
| 6 | n.a. | PO4-P | BMB* | n.a. | n.a. | n.a. |
| 7 | 3.75 | SO4 | BMB | 0.023 | 0.151 | 0.4991 |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **i cal 2** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Calibration Standard** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **01-Apr-2019 / 18:42** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB* | 0.010 | 0.194 | 0.22 | 0.2500 | 89.3% |
| 2 | 1.70 | Cl | BMB | 0.080 | 1.346 | 1.01 | 1.0000 | 100.5% |
| 3 | 2.02 | NO2-N | BMB | 0.017 | 0.208 | 0.10 | 0.1000 | 100.8% |
| 4 | 2.39 | BR | BMB | 0.016 | 0.211 | 0.50 | 0.5000 | 100.4% |
| 5 | 2.66 | NO3-N | BMB | 0.038 | 0.421 | 0.20 | 0.2000 | 101.0% |
| 7 | 3.33 | PO4-P | BMB | 0.018 | 0.129 | 0.67 | 0.5000 | 134.5% |
| 8 | 3.75 | SO4 | BMB | 0.058 | 0.395 | 1.01 | 1.0000 | 101.1% |

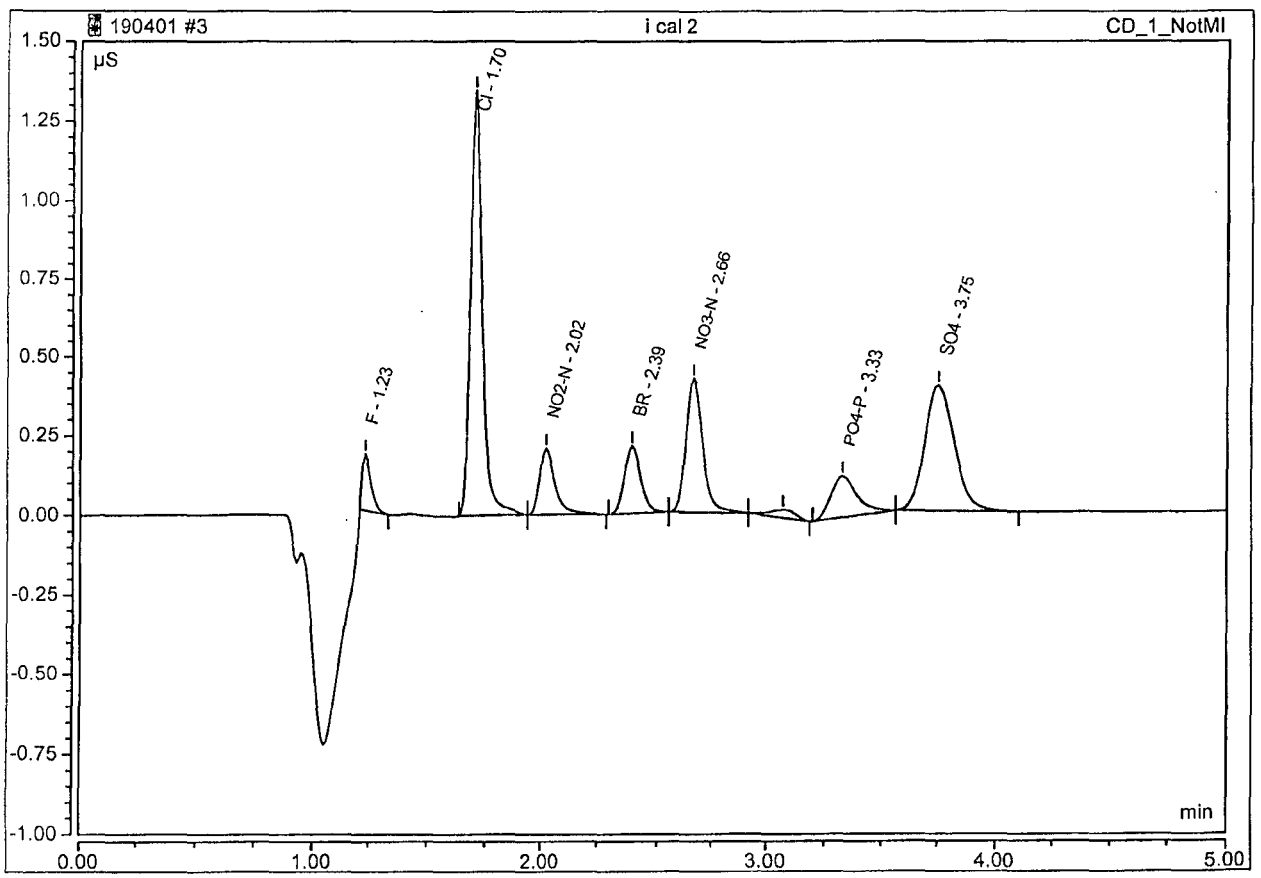



F mi1 HH 190405

## Not Manipulated Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 2 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 18:42 | *Run Time:* | 5.00 |

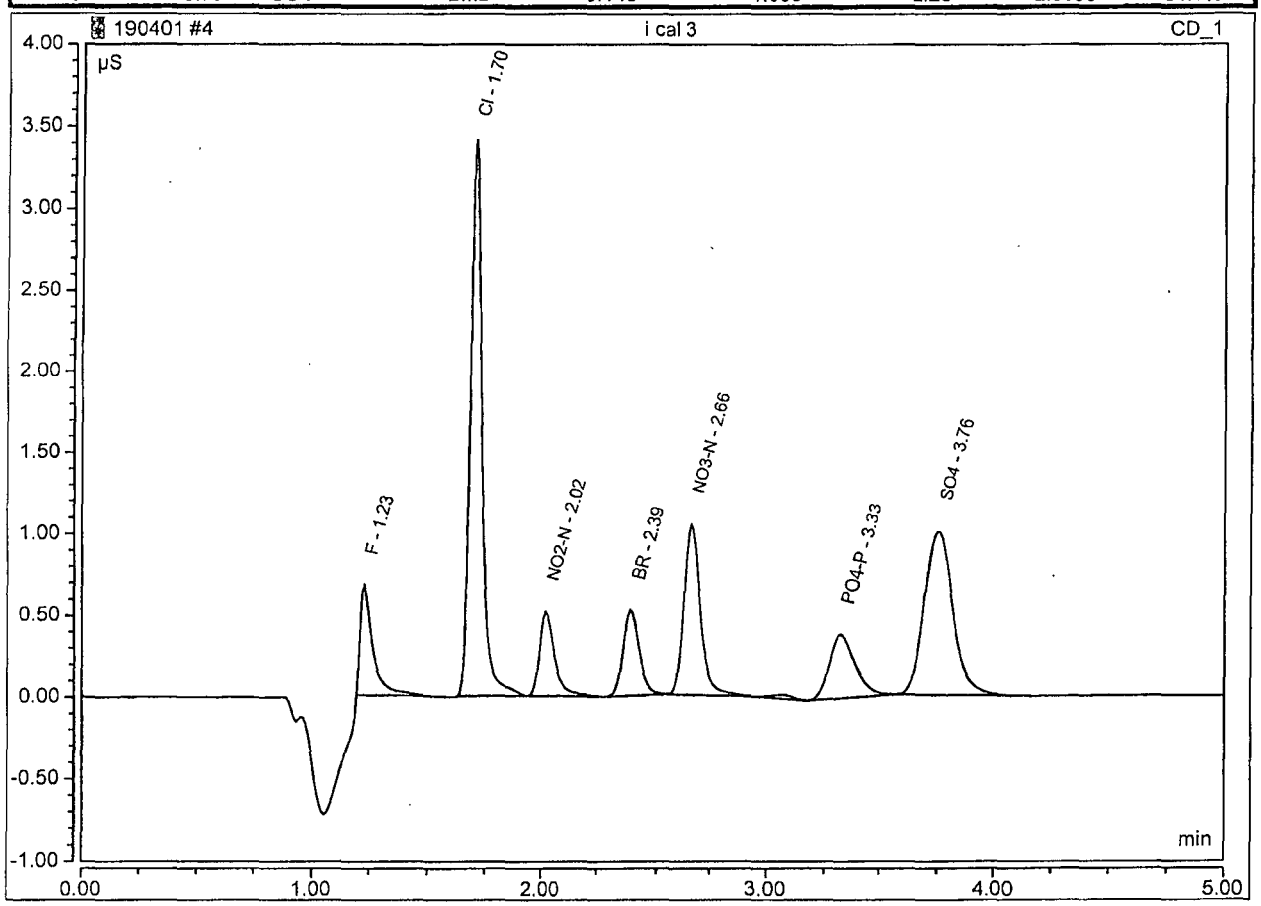
| No. | Time min | Peak Name | Peak Type | Area µS*min | Height µS | Ammount mg/L |
|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB* | 0.008 | 0.177 | 0.3039 |
| 2 | 1.70 | Cl | BMB | 0.080 | 1.346 | 1.0054 |
| 3 | 2.02 | NO2-N | BMB | 0.017 | 0.208 | 0.1008 |
| 4 | 2.39 | BR | BMB | 0.016 | 0.211 | 0.5019 |
| 5 | 2.66 | NO3-N | BMB | 0.038 | 0.421 | 0.2020 |
| 7 | 3.33 | PO4-P | BMB | 0.018 | 0.129 | 0.6726 |
| 8 | 3.75 | SO4 | BMB | 0.058 | 0.395 | 1.0108 |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 3 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 18:49 | *Run Time:* | 5.00 |

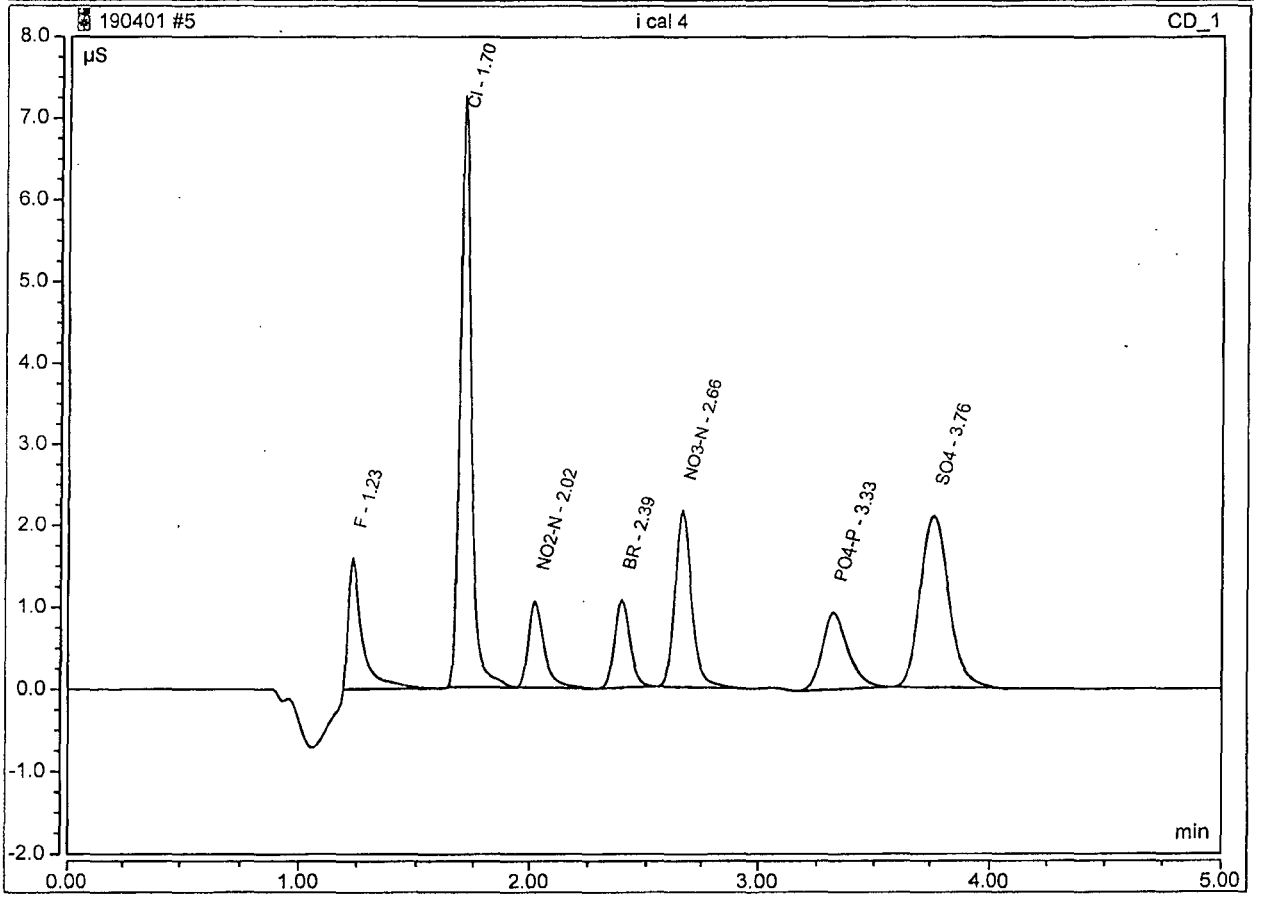
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB | 0.043 | 0.673 | 0.50 | 0.6250 | 79.7% |
| 2 | 1.70 | Cl | BMB | 0.201 | 3.411 | 2.13 | 2.5000 | 85.4% |
| 3 | 2.02 | NO2-N | BMB | 0.041 | 0.518 | 0.24 | 0.2500 | 95.1% |
| 4 | 2.39 | BR | BMB | 0.040 | 0.524 | 1.18 | 1.2500 | 94.1% |
| 5 | 2.66 | NO3-N | BMB | 0.094 | 1.046 | 0.46 | 0.5000 | 91.1% |
| 7 | 3.33 | PO4-P | BMB | 0.053 | 0.392 | 1.15 | 1.2500 | 91.7% |
| 8 | 3.76 | SO4 | BMB | 0.145 | 1.005 | 2.28 | 2.5000 | 91.1% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 4 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 18:56 | *Run Time:* | 5.00 |

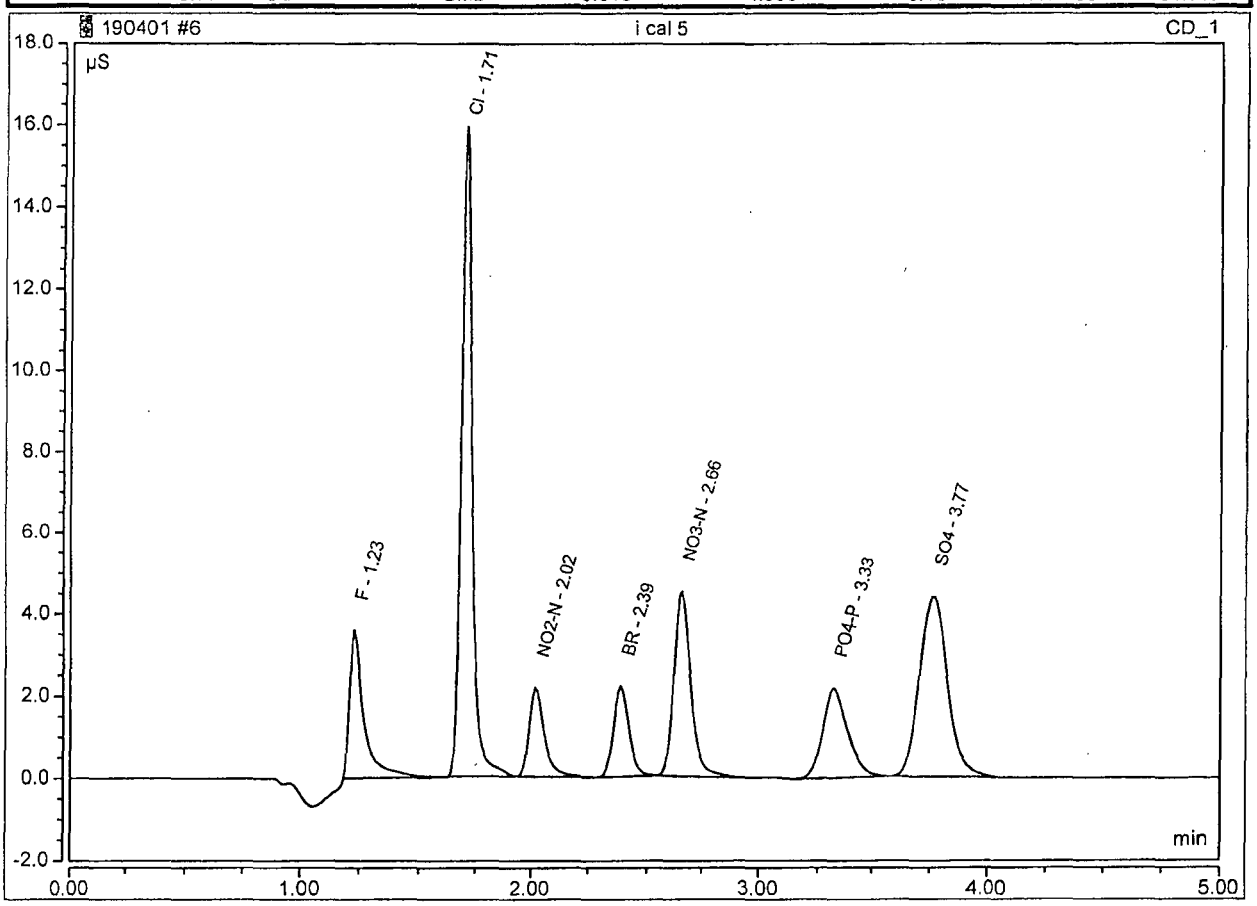
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB | 0.112 | 1.593 | 1.08 | 1.2500 | 86.2% |
| 2 | 1.70 | Cl | BMB | 0.420 | 7.239 | 4.17 | 5.0000 | 83.4% |
| 3 | 2.02 | NO2-N | BMB | 0.084 | 1.054 | 0.48 | 0.5000 | 95.1% |
| 4 | 2.39 | BR | BMB | 0.082 | 1.069 | 2.35 | 2.5000 | 93.9% |
| 5 | 2.66 | NO3-N | BMB | 0.193 | 2.151 | 0.90 | 1.0000 | 89.8% |
| 6 | 3.33 | PO4-P | BMB | 0.127 | 0.939 | 2.13 | 2.5000 | 85.3% |
| 7 | 3.76 | SO4 | BMB | 0.298 | 2.093 | 4.51 | 5.0000 | 90.2% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 5 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:04 | *Run Time:* | 5.00 |

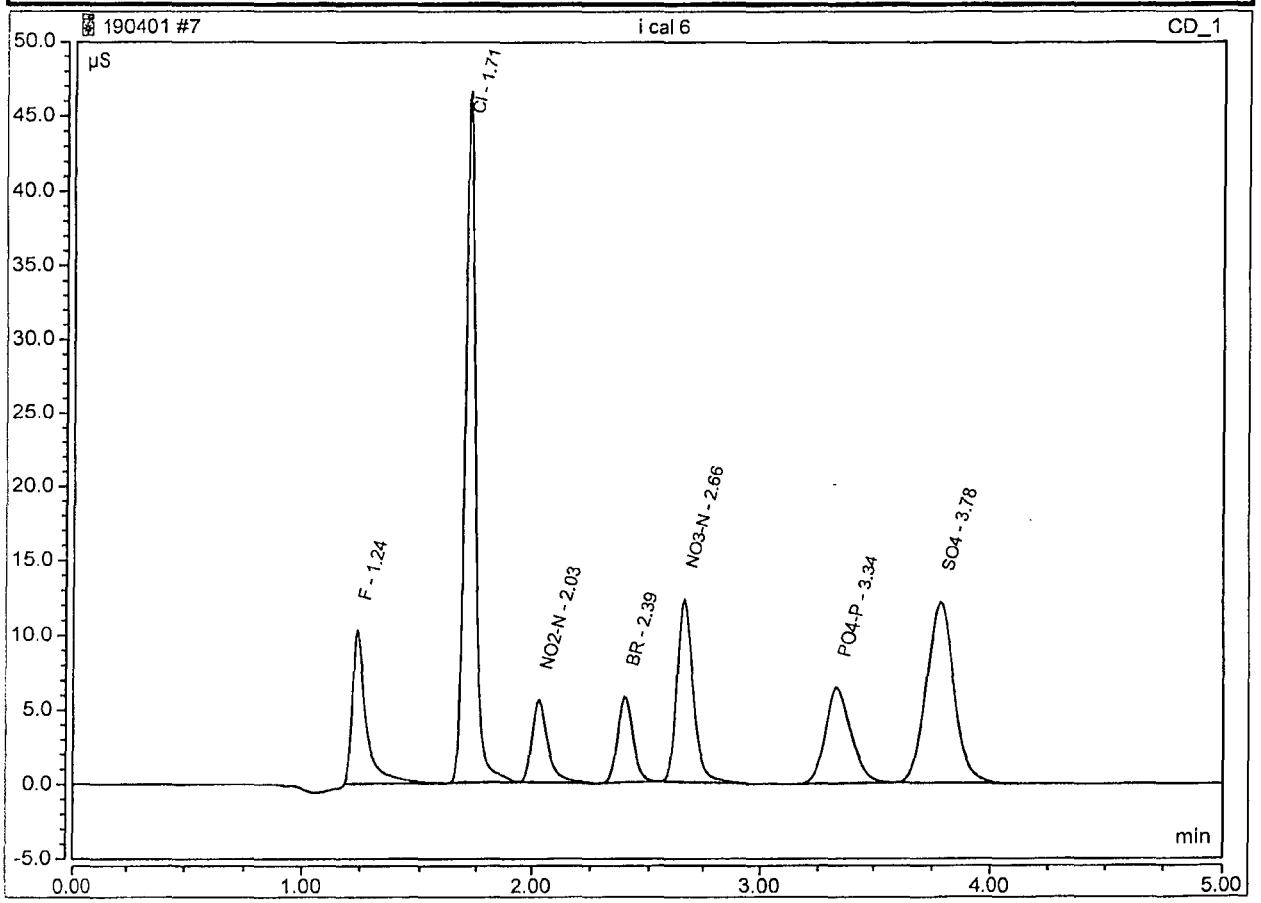
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB | 0.253 | 3.584 | 2.24 | 2.5000 | 89.8% |
| 2 | 1.71 | Cl | BMB | 0.900 | 15.899 | 8.65 | 10.0000 | 86.5% |
| 3 | 2.02 | NO2-N | BMB | 0.171 | 2.155 | 0.96 | 1.0000 | 96.4% |
| 4 | 2.39 | BR | BMB | 0.167 | 2.196 | 4.74 | 5.0000 | 94.8% |
| 5 | 2.66 | NO3-N | BMB | 0.398 | 4.491 | 1.82 | 2.0000 | 91.2% |
| 6 | 3.33 | PO4-P | BMB | 0.293 | 2.182 | 4.36 | 5.0000 | 87.2% |
| 7 | 3.77 | SO4 | BMB | 0.618 | 4.399 | 9.16 | 10.0000 | 91.6% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **i cal 6** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Calibration Standard** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **01-Apr-2019 / 19:11** | *Run Time:* | **5.00** |

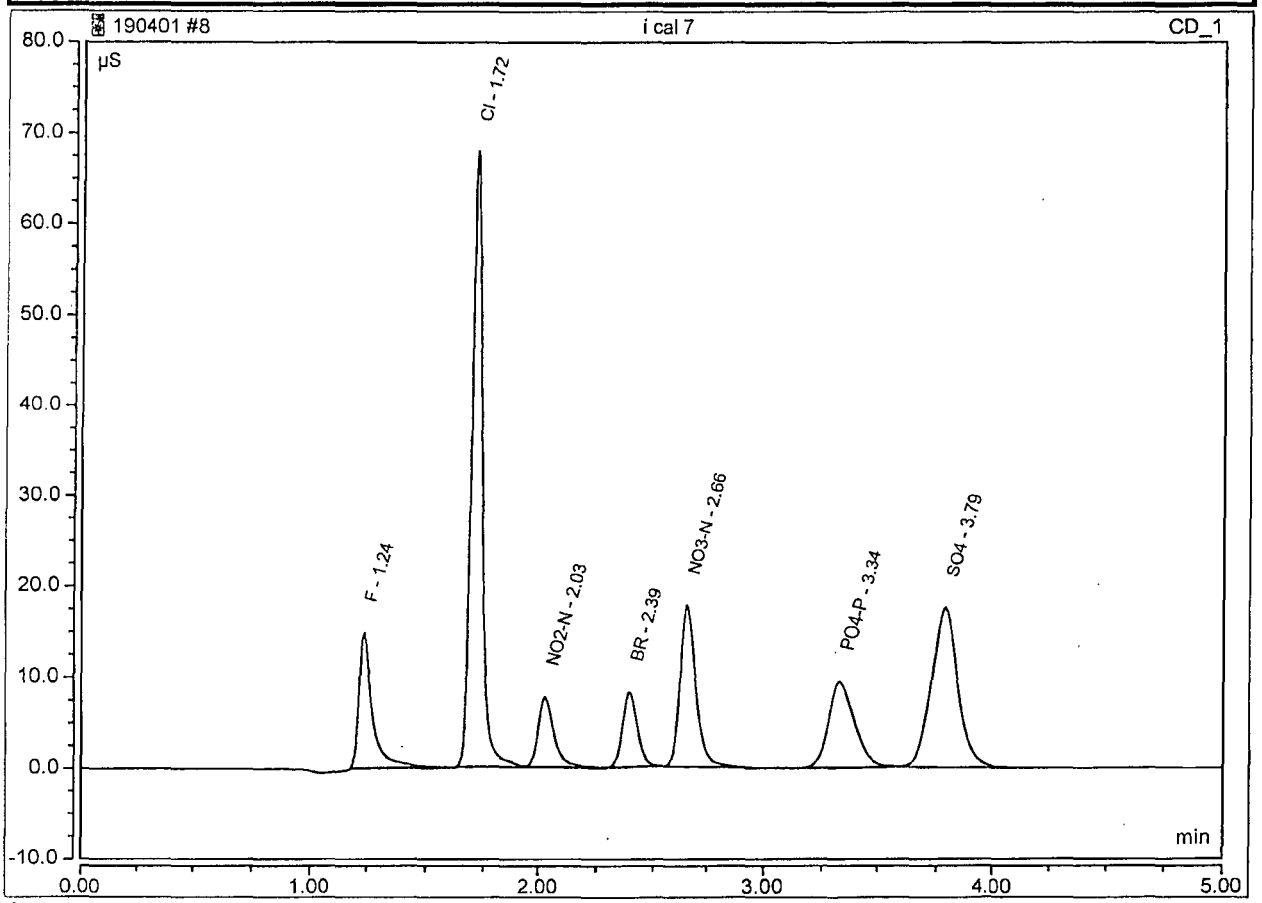
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | F | BMB | 0.715 | 10.279 | 6.08 | 6.2500 | 97.3% |
| 2 | 1.71 | Cl | BMB | 2.565 | 46.518 | 24.15 | 25.0000 | 96.6% |
| 3 | 2.03 | NO2-N | BMB | 0.441 | 5.520 | 2.47 | 2.5000 | 99.0% |
| 4 | 2.39 | BR | BMB | 0.436 | 5.795 | 12.26 | 12.5000 | 98.1% |
| 5 | 2.66 | NO3-N | BMB | 1.067 | 12.256 | 4.84 | 5.0000 | 96.8% |
| 6 | 3.34 | PO4-P | BMB | 0.857 | 6.441 | 11.93 | 12.5000 | 95.5% |
| 7 | 3.78 | SO4 | BMB | 1.654 | 12.099 | 24.26 | 25.0000 | 97.0% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 7 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:19 | *Run Time:* | 5.00 |

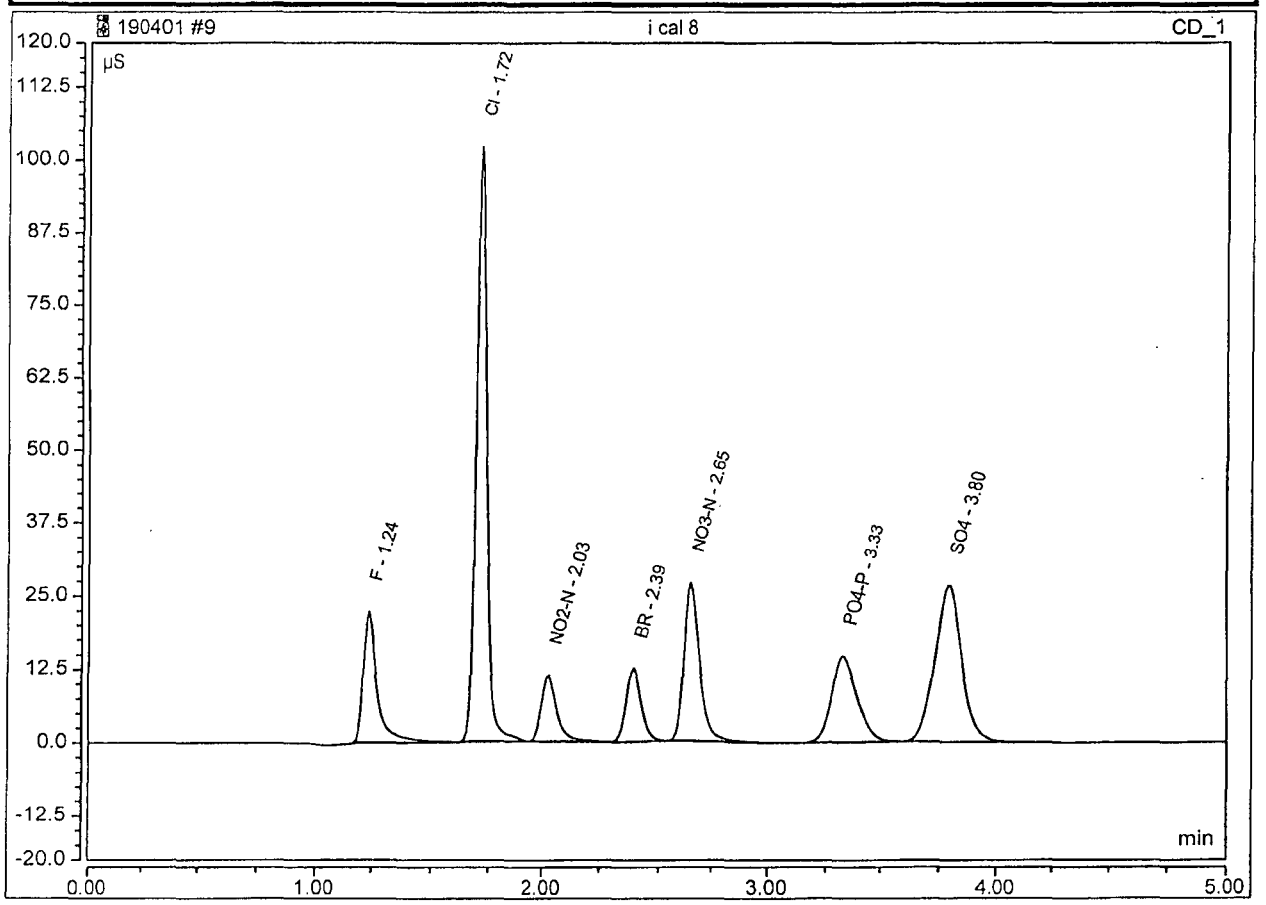
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | F | BMB | 1.037 | 14.883 | 8.76 | 8.7500 | 100.1% |
| 2 | 1.72 | Cl | BMB | 3.736 | 67.756 | 35.07 | 35.0000 | 100.2% |
| 3 | 2.03 | NO2-N | BMB | 0.621 | 7.719 | 3.48 | 3.5000 | 99.4% |
| 4 | 2.39 | BR | BMB | 0.618 | 8.268 | 17.35 | 17.5000 | 99.1% |
| 5 | 2.66 | NO3-N | BMB | 1.534 | 17.727 | 6.95 | 7.0000 | 99.3% |
| 6 | 3.34 | PO4-P | BMB | 1.263 | 9.506 | 17.38 | 17.5000 | 99.3% |
| 7 | 3.79 | SO4 | BMB | 2.375 | 17.528 | 34.76 | 35.0000 | 99.3% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 8 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:26 | *Run Time:* | 5.00 |

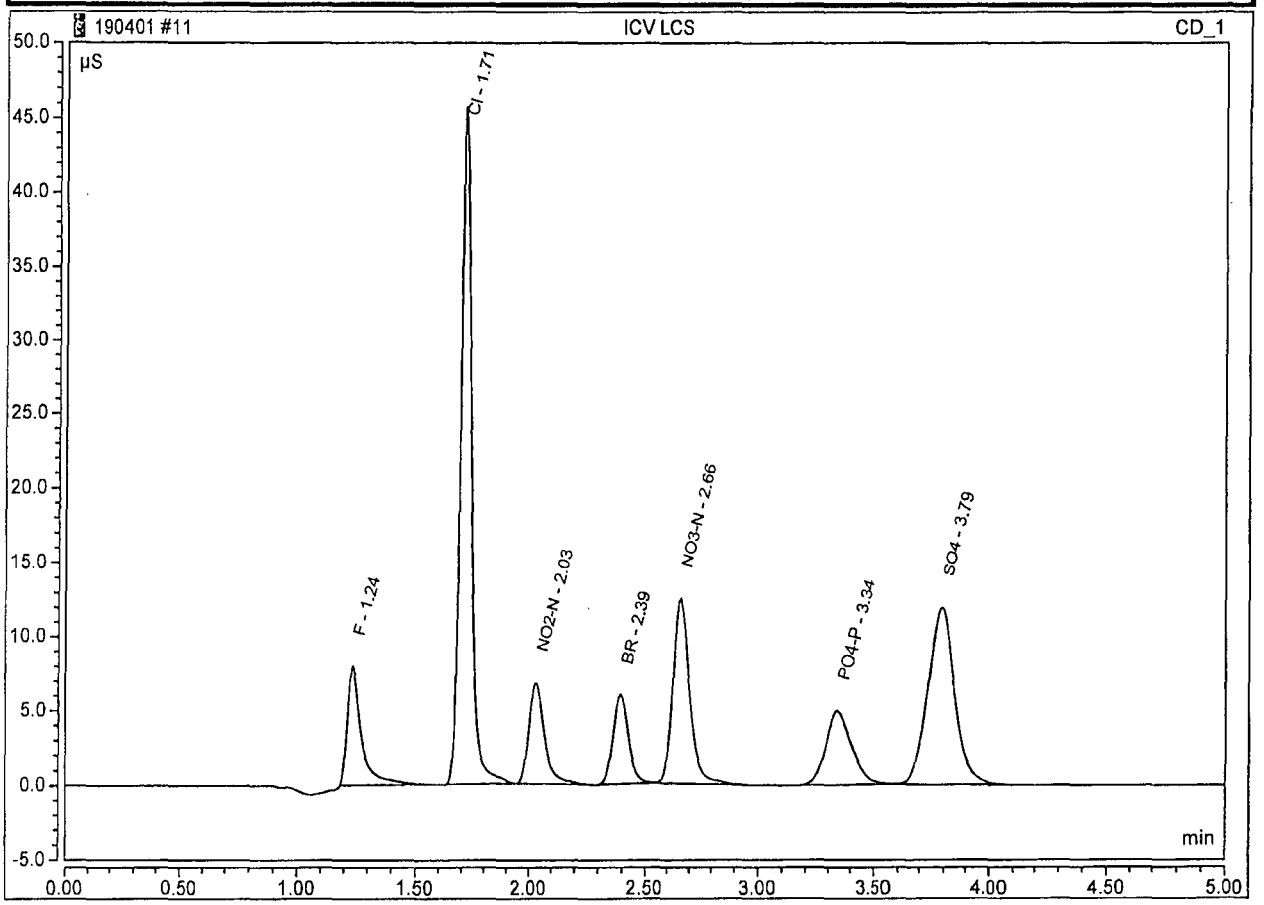
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | F | BMB | 1.571 | 22.280 | 13.19 | 12.5000 | 105.5% |
| 2 | 1.72 | Cl | BMB | 5.677 | 102.036 | 53.15 | 50.0000 | 106.3% |
| 3 | 2.03 | NO2-N | BMB | 0.913 | 11.224 | 5.11 | 5.0000 | 102.3% |
| 4 | 2.39 | BR | BMB | 0.921 | 12.428 | 25.84 | 25.0000 | 103.4% |
| 5 | 2.65 | NO3-N | BMB | 2.324 | 26.884 | 10.51 | 10.0000 | 105.1% |
| 6 | 3.33 | PO4-P | BMB | 1.951 | 14.669 | 26.62 | 25.0000 | 106.5% |
| 7 | 3.80 | SO4 | BMB | 3.588 | 26.635 | 52.42 | 50.0000 | 104.8% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | ICV LCS | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Check Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:41 | *Run Time:* | 5.00 |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | F | BMB | 0.555 | 8.015 | 4.75 | 5.0000 | 95.0% |
| 2 | 1.71 | Cl | BMB | 2.510 | 45.585 | 23.64 | 25.0000 | 94.6% |
| 3 | 2.03 | NO2-N | BMB | 0.545 | 6.798 | 3.06 | 3.0400 | 100.6% |
| 4 | 2.39 | BR | BMB | 0.450 | 5.995 | 12.66 | 12.5000 | 101.3% |
| 5 | 2.66 | NO3-N | BMB | 1.085 | 12.464 | 4.92 | 5.0000 | 98.5% |
| 6 | 3.34 | PO4-P | BMB | 0.666 | 4.985 | 9.37 | 10.0000 | 93.7% |
| 7 | 3.79 | SO4 | BMB | 1.623 | 11.942 | 23.81 | 25.0000 | 95.2% |



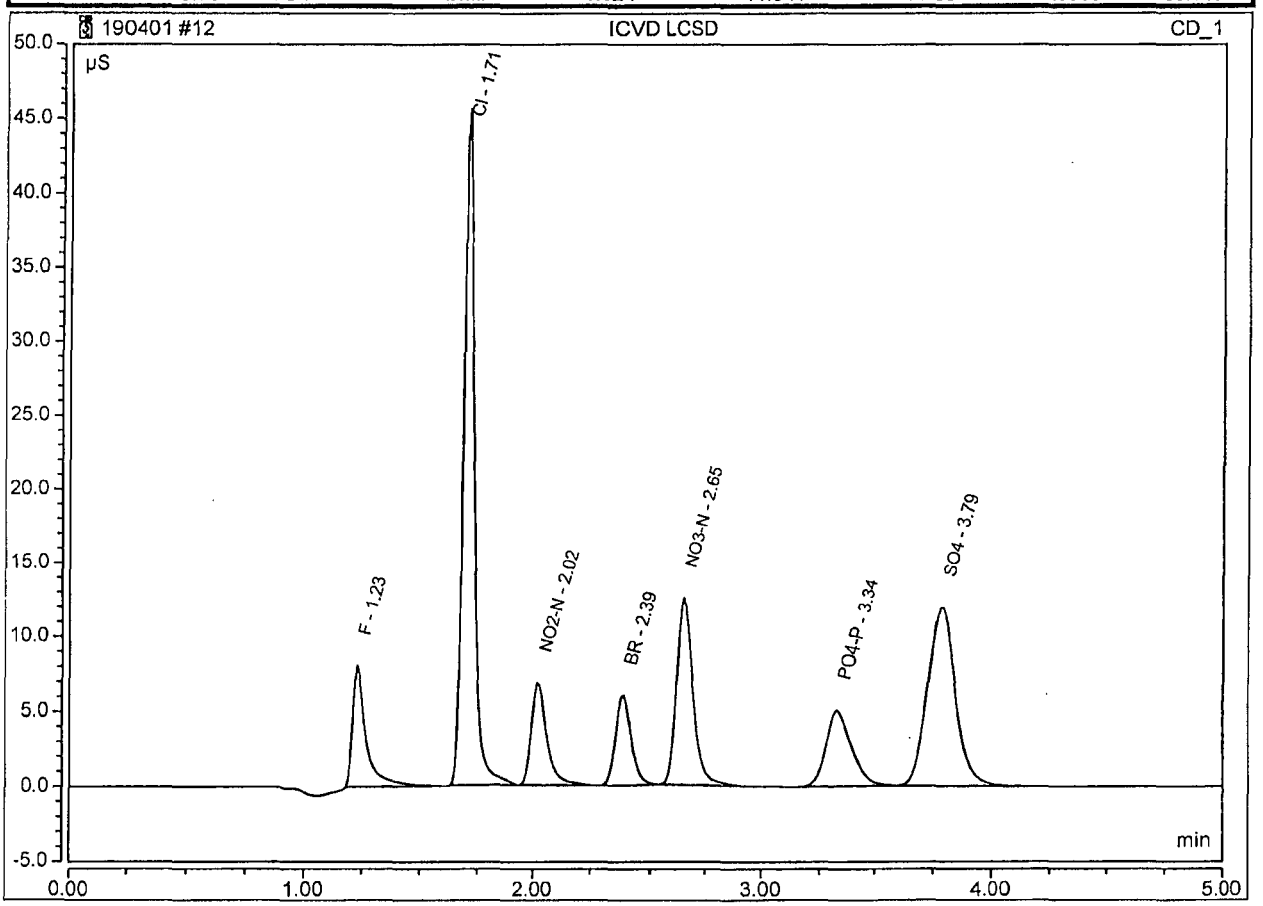

Algortith Check:
y = Peak Area
x = mg/L S04

y = 0.0687 x + -0.0115
y = 1.6231 therefor x = 23.8071 190406 HH

## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | ICVD LCSD | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Check Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:48 | *Run Time:* | 5.00 |

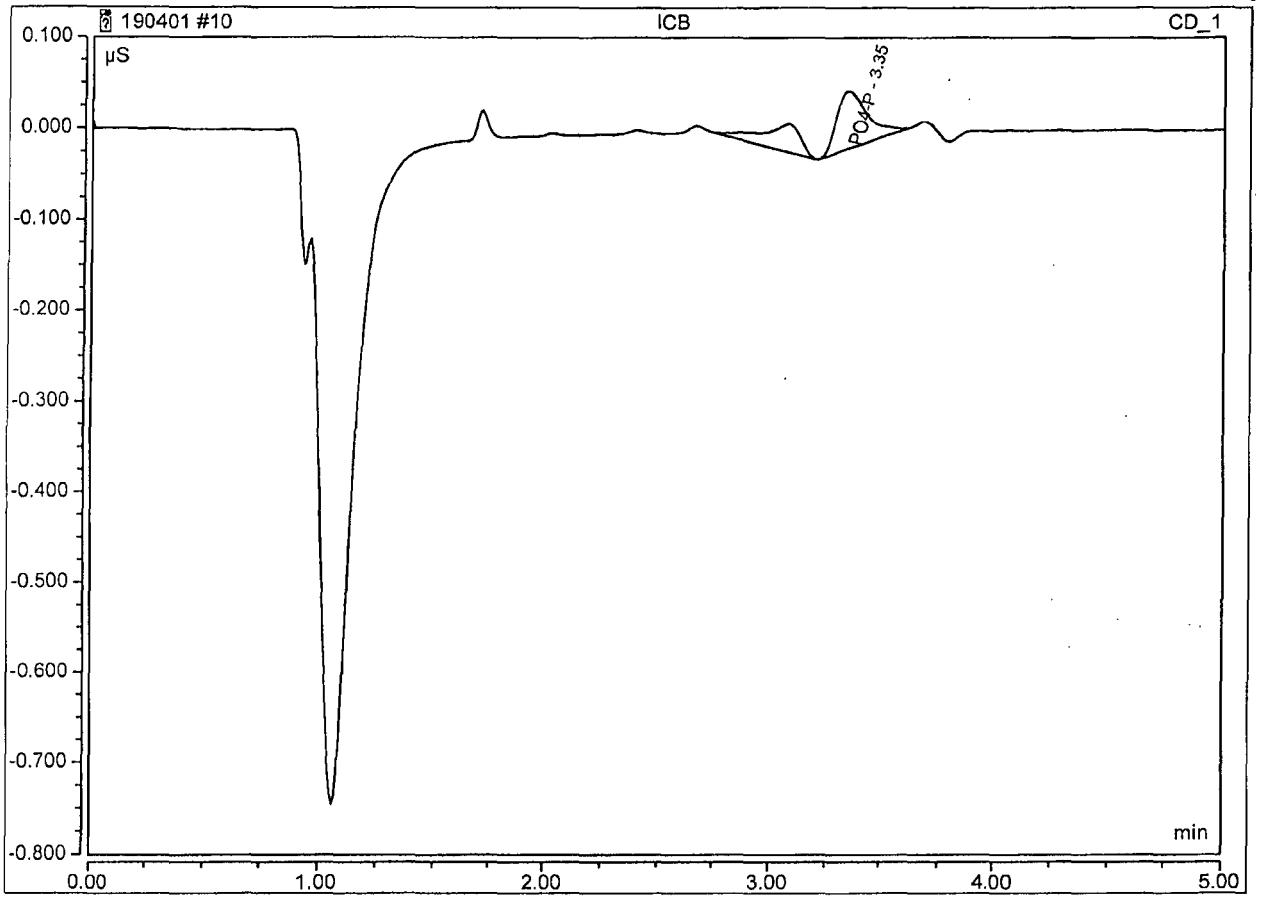
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB | 0.558 | 8.048 | 4.78 | 5.0000 | 95.6% |
| 2 | 1.71 | Cl | BMB | 2.509 | 45.546 | 23.64 | 25.0000 | 94.6% |
| 3 | 2.02 | NO2-N | BMB | 0.545 | 6.797 | 3.06 | 3.0400 | 100.6% |
| 4 | 2.39 | BR | BMB | 0.450 | 5.991 | 12.66 | 12.5000 | 101.3% |
| 5 | 2.65 | NO3-N | BMB | 1.085 | 12.462 | 4.92 | 5.0000 | 98.5% |
| 6 | 3.34 | PO4-P | BMB | 0.676 | 5.055 | 9.50 | 10.0000 | 95.0% |
| 7 | 3.79 | SO4 | BMB | 1.624 | 11.941 | 23.83 | 25.0000 | 95.3% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | ICB | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Unknown | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:33 | *Run Time:* | 5.00 |

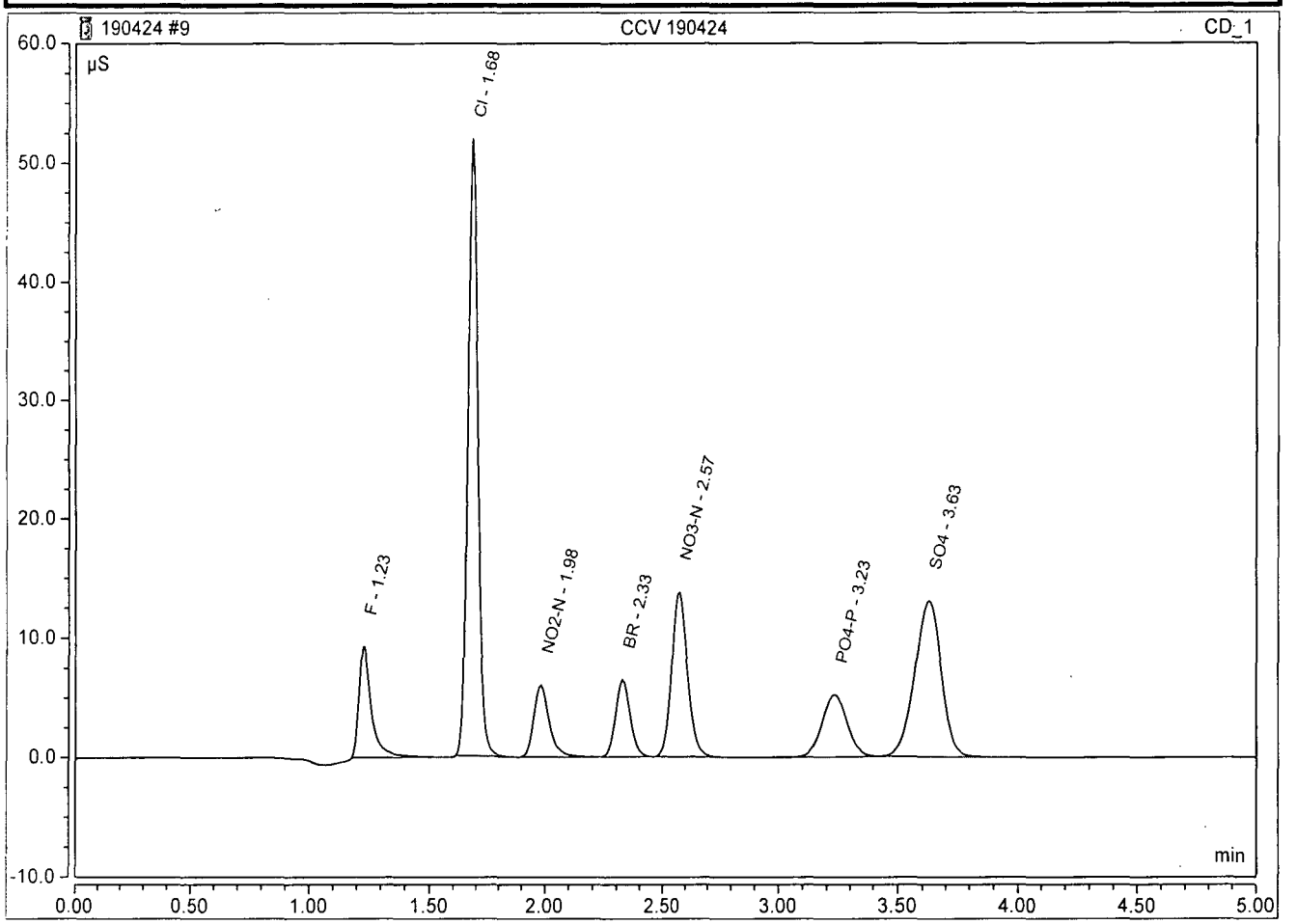
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 2 | 3.35 | PO4-P | BMB | 0.010 | 0.062 | 0.56 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCV 190424** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Check Standard** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 11:42** | *Run Time:* | **5.00** |

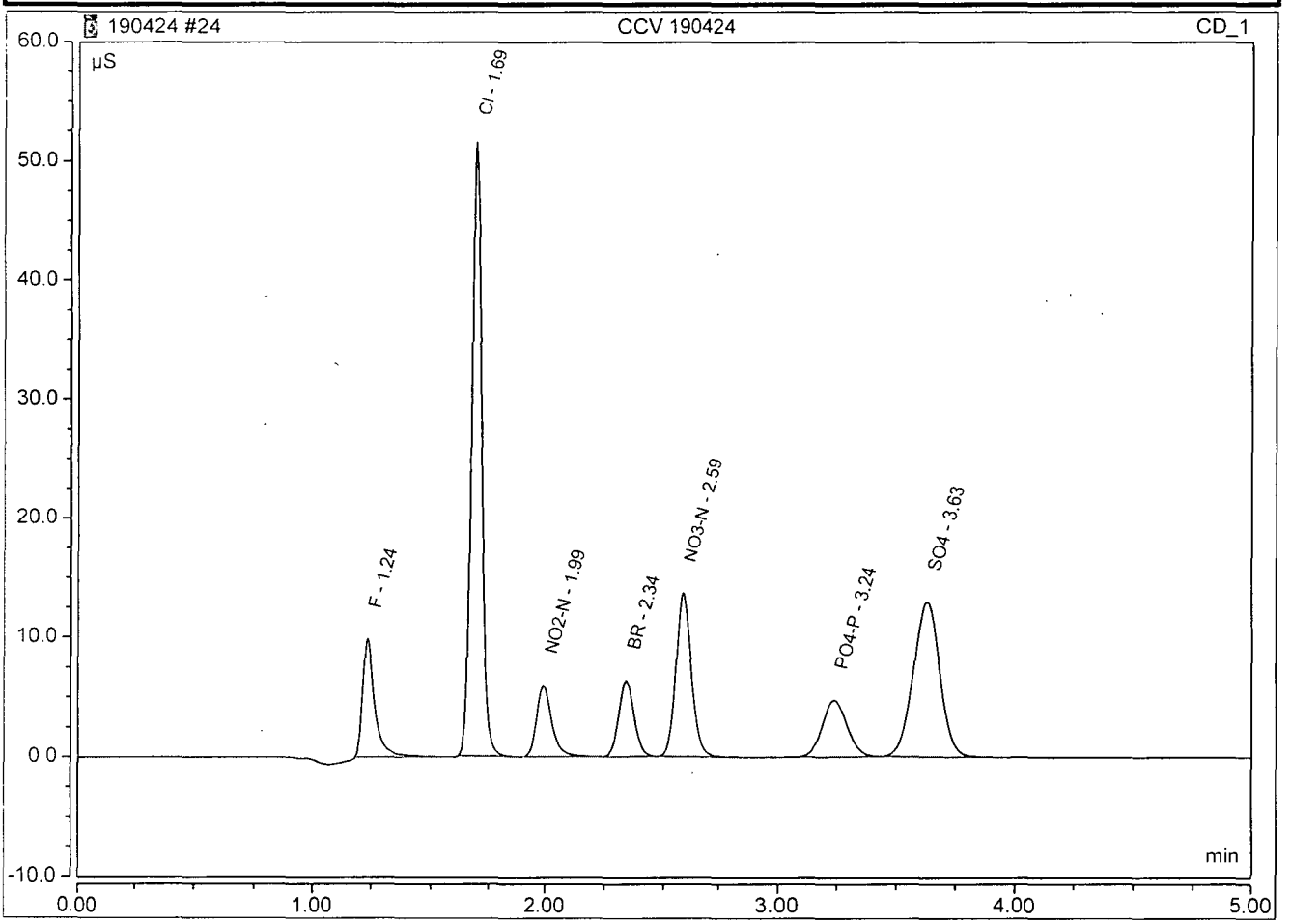
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB | 0.562 | 9.274 | 4.81 | 5.0000 | 96.2% |
| 2 | 1.68 | Cl | BMB | 2.674 | 51.872 | 25.17 | 25.0000 | 100.7% |
| 3 | 1.98 | NO2-N | BMB | 0.454 | 6.009 | 2.54 | 2.5000 | 101.8% |
| 4 | 2.33 | BR | BMB | 0.466 | 6.446 | 13.10 | 12.5000 | 104.8% |
| 5 | 2.57 | NO3-N | BMB | 1.121 | 13.787 | 5.09 | 5.0000 | 101.7% |
| 6 | 3.23 | PO4-P | BMB | 0.640 | 5.184 | 9.03 | 10.0000 | 90.3% |
| 7 | 3.63 | SO4 | BMB | 1.688 | 13.040 | 24.75 | 25.0000 | 99.0% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCV 190424** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Check Standard** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 13:33** | *Run Time:* | **5.00** |

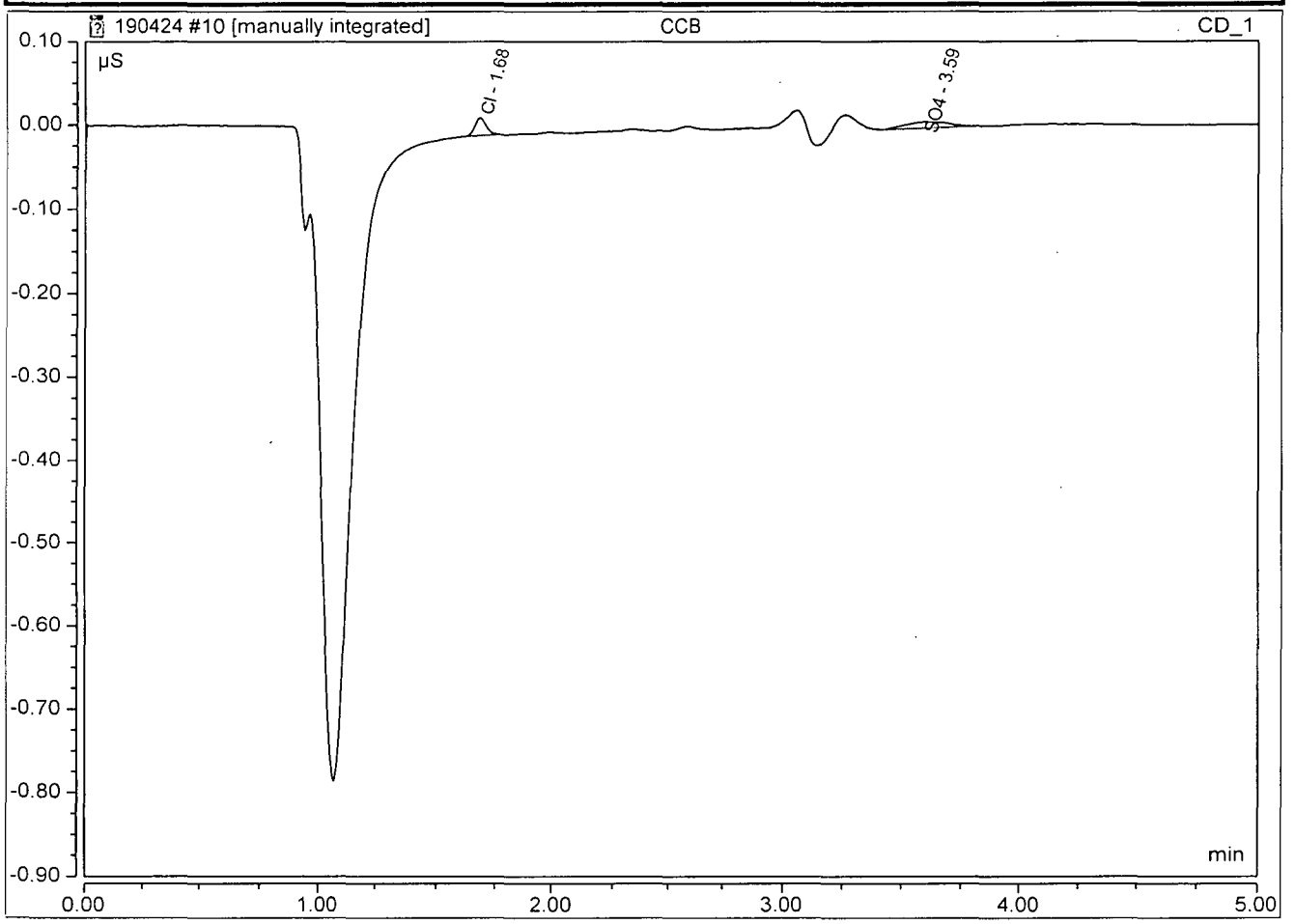
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | F | BMB | 0.587 | 9.843 | 5.02 | 5.0000 | 100.4% |
| 2 | 1.69 | Cl | BMB | 2.679 | 51.486 | 25.22 | 25.0000 | 100.9% |
| 3 | 1.99 | NO2-N | BMB | 0.455 | 5.975 | 2.55 | 2.5000 | 102.0% |
| 4 | 2.34 | BR | BMB | 0.465 | 6.377 | 13.08 | 12.5000 | 104.7% |
| 5 | 2.59 | NO3-N | BMB | 1.119 | 13.653 | 5.08 | 5.0000 | 101.6% |
| 6 | 3.24 | PO4-P | BMB | 0.589 | 4.729 | 8.34 | 10.0000 | 83.4% |
| 7 | 3.63 | SO4 | BMB | 1.692 | 12.969 | 24.81 | 25.0000 | 99.2% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCB** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 11:49** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.68 | Cl | BMB* | 0.001 | 0.021 | 0.27 | | |
| 2 | 3.59 | SO4 | BMB* | 0.002 | 0.007 | 0.19 | | |

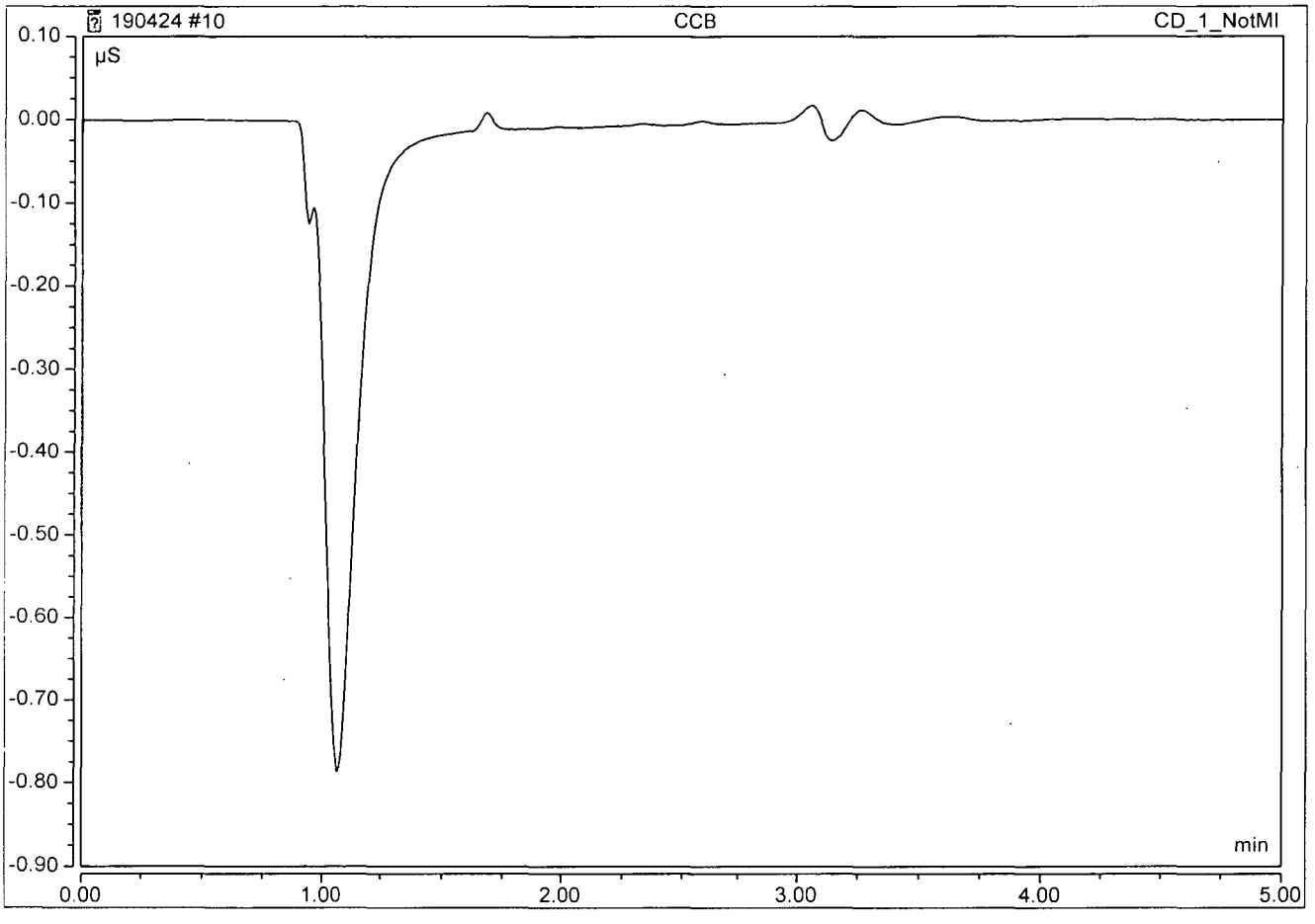



Cl SO4 MI5 190502 TH

## Not Manipulated Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCB** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 11:49** | *Run Time:* | **5.00** |

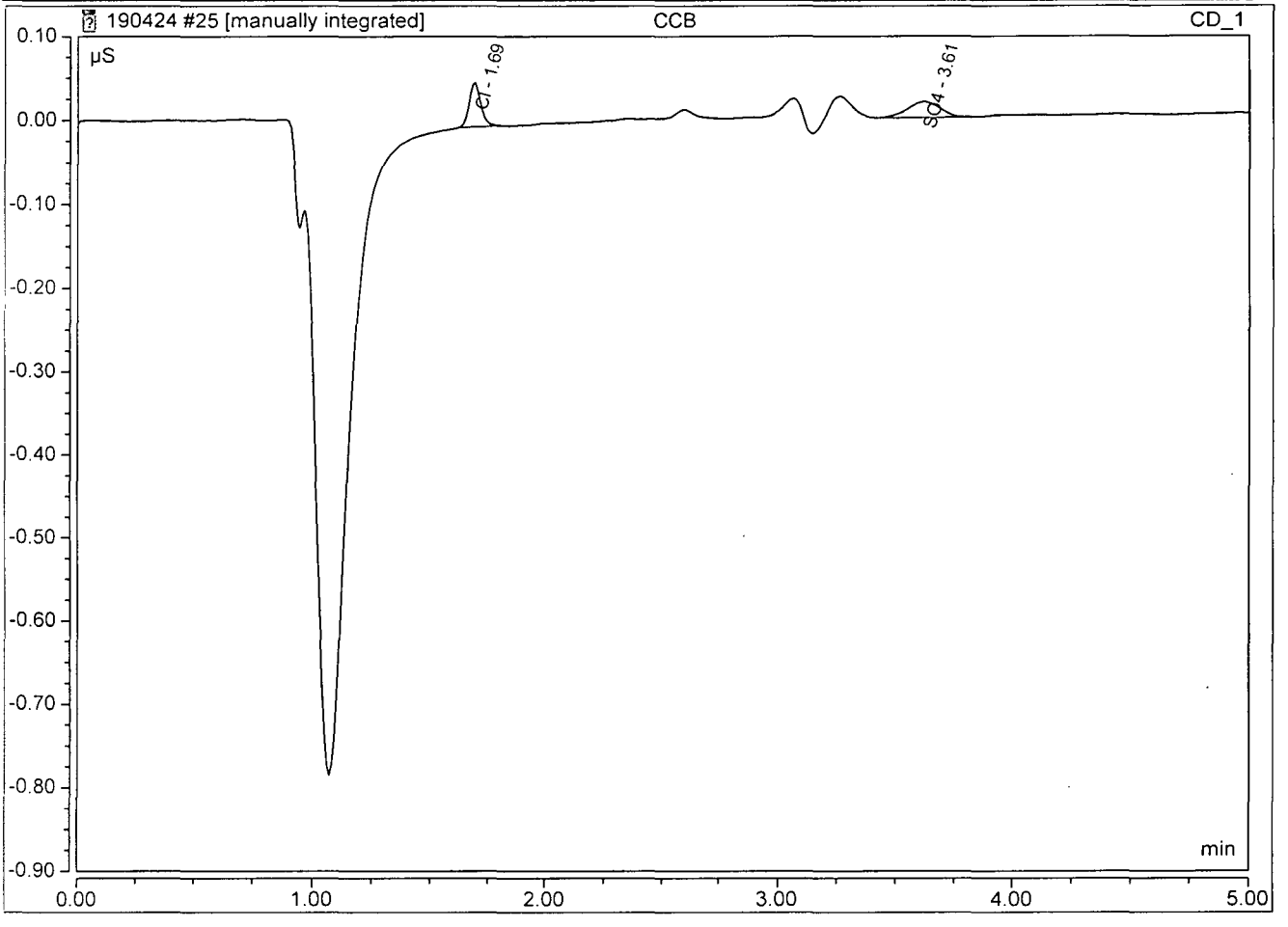
| No. | Time min | Peak Name | Peak Type | Area µS*min | Height µS | Ammount mg/L |
|---|---|---|---|---|---|---|
| 1 | n.a. | **Cl** | BMB* | n.a. | n.a. | n.a. |
| 2 | n.a. | **SO4** | BMB* | n.a. | n.a. | n.a. |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCB** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 13:40** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.69 | Cl | BMB* | 0.003 | 0.052 | 0.29 | | |
| 2 | 3.61 | SO4 | BMB | 0.003 | 0.019 | 0.21 | | |

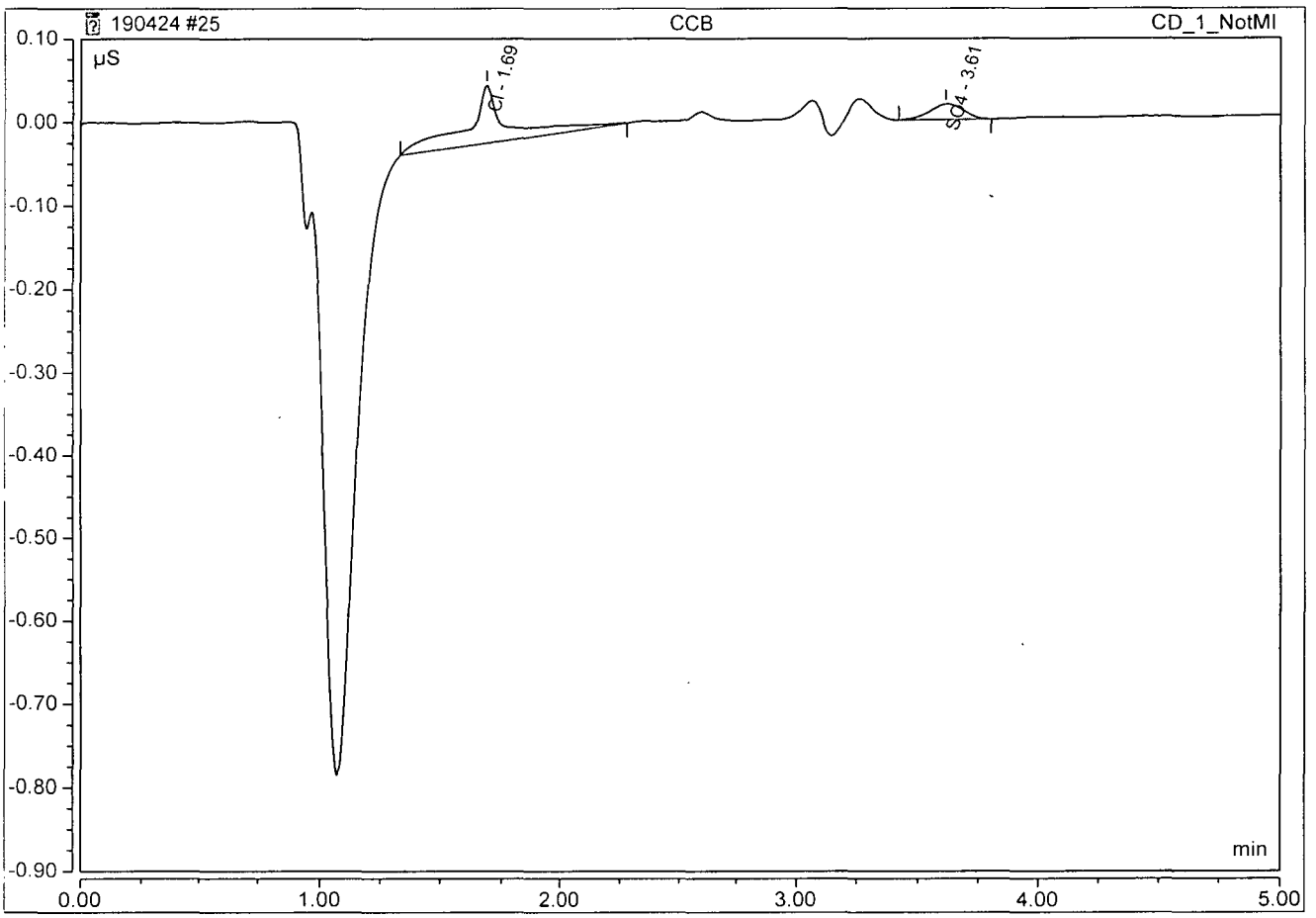



Cl MI5 190502 TH

## Not Manipulated Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCB** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 13:40** | *Run Time:* | **5.00** |

| No. | Time min | Peak Name | Peak Type | Area µS*min | Height µS | Ammount mg/L |
|---|---|---|---|---|---|---|
| 1 | 1.69 | Cl | BMB* | 0.013 | 0.069 | 0.3821 |
| 2 | 3.61 | SO4 | BMB | 0.003 | 0.019 | 0.2110 |



# INORGANIC ANALYSIS
## Raw Data

# Metrohm 814/809 Titrando Data

| Sample ID | Analysis Date/Time | Method | Titration Volume (to 8.3) | Titration Volume (total) | OH | CO3 | HCO3 | Total Alk | Unit | Sample Vol | N | Batch | Initials |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AZ89961W15 | 2019-04-24 21:26:20 UTC-7 | Alkalinity | 0.000 | 1.836 | 0.00 | 0.00 | 74.17 | 74.17 | mg/L | 25 mL | 0.0202 | 190424A | AR |
| AZ89958W19 MSD | 2019-04-24 18:14:09 UTC-7 | Alkalinity | 0.000 | 6.986 | 0.00 | 0.00 | 282.23 | 282.23 | mg/L | 25 mL | 0.0202 | 190424A | AR |
| AZ89958W19 MS | 2019-04-24 18:01:36 UTC-7 | Alkalinity | 0.000 | 7.070 | 0.00 | 0.00 | 285.63 | 285.63 | mg/L | 25 mL | 0.0202 | 190424A | AR |
| AZ89958W19 | 2019-04-24 17:50:08 UTC-7 | Alkalinity | 0.000 | 1.452 | 0.00 | 0.00 | 58.66 | 58.66 | mg/L | 25 mL | 0.0202 | 190424A | AR |
| 190424A LCSD | 2019-04-24 17:40:25 UTC-7 | Alkalinity | 0.000 | 5.672 | 0.00 | 0.00 | 229.15 | 229.15 | mg/L | 25 mL | 0.0202 | 190424A | AR |
| 190424A LCS | 2019-04-24 17:30:49 UTC-7 | Alkalinity | 0.000 | 5.760 | 0.00 | 0.00 | 232.70 | 232.70 | mg/L | 25 mL | 0.0202 | 190424A | AR |
| 190424A BLK | 2019-04-24 17:27:49 UTC-7 | Alkalinity | 0.000 | 0.072 | 0.00 | 0.00 | 2.91 | 2.91 | mg/L | 25 mL | 0.0202 | 190424A | AR |

Sample Results Summary

| Spl # | Vial # | Sample ID | Num Rep | Act Rep | Method | Type | Dil | Customer ID | Mode | Avg. Area (cts) | Avg. Mass (ug) | Avg. Conc (PPM) | Std. Dev | % RSD | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,675,369 | 4.843 | 2.422 | 885,314 | 4.08 | |
| 2 | 2 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 727,823 | 0.000 | 0.000 | 79,089 | 10.87 | |
| 3 | 3 | 190502A BLK | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 927,374 | 0.000 | 0.000 | 130,387 | 14.06 | |
| 4 | 4 | 190502A LCS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,760,887 | 4.865 | 2.433 | 173,533 | 0.80 | |
| 5 | 5 | 190502A LCSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,292,907 | 4.745 | 2.373 | 166,010 | 0.78 | |
| 6 | 6 | AZ89958W12 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 2,719,364 | 0.595 | 0.298 | 82,200 | 3.02 | Pass |
| 7 | 7 | AZ89958W09 DUP | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 2,096,550 | 0.000 | 0.000 | 79,249 | 3.78 | |
| 8 | 8 | AZ89958W14 MS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 22,354,778 | 5.017 | 2.508 | 153,482 | 0.69 | |
| 9 | 9 | AZ89958W11 MSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 22,821,834 | 5.136 | 2.568 | 138,263 | 0.61 | |
| 21 | 21 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,447,087 | 4.785 | 2.392 | 314,866 | 1.47 | |
| 22 | 22 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 882,391 | 0.000 | 0.000 | 102,678 | 11.64 | |
| 23 | 23 | 190502B BLK | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 797,351 | 0.000 | 0.000 | 132,774 | 16.65 | |
| 24 | 24 | 190502B LCS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,956,853 | 4.915 | 2.458 | 166,059 | 0.76 | |
| 25 | 25 | 190502B LCSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,901,664 | 4.901 | 2.451 | 140,053 | 0.64 | |
| 26 | 26 | AZ89958W43 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 2,048,429 | 0.424 | 0.212 | 154,000 | 7.52 | Pass |
| 27 | 27 | AZ89958W17 DUP | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 5,821,945 | 0.788 | 0.394 | 55,453 | 0.95 | |
| 28 | 28 | AZ89958W10 MS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,950,218 | 4.913 | 2.457 | 218,780 | 1.00 | |
| 29 | 29 | AZ89958W18 MSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 22,462,368 | 5.044 | 2.523 | 190,356 | 0.85 | |
| 38 | 38 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,730,719 | 4.857 | 2.428 | 335,238 | 1.54 | |
| 39 | 39 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 969,840 | 0.000 | 0.000 | 46,958 | 4.84 | |
| 1 | 1 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 14,459,254 | 2.997 | 1.498 | 3,621,084 | 25.04 | |
| 2 | 2 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 1,098,638 | 0.000 | 0.000 | 198,500 | 18.07 | |
| 3 | 3 | 190506A LCS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 16,930,646 | 3.630 | 1.815 | 220,409 | 1.30 | |
| 4 | 4 | 190506A LCSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 15,054,308 | 3.150 | 1.575 | 90,796 | 0.60 | |
| 5 | 5 | AZ90450W12 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 3,760,945 | 0.862 | 0.431 | 120,116 | 3.19 | Pass |
| 6 | 6 | AZ90450W12 DUP | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 6,818,047 | 1.644 | 0.822 | 90,106 | 1.32 | Pass |
| 7 | 7 | AZ90450W06 MS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 22,977,982 | 5.777 | 2.888 | 111,329 | 0.48 | Pass |
| 8 | 8 | AZ90450W06 MSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 24,398,748 | 6.140 | 3.070 | 140,787 | 0.58 | Pass |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 9 | AZ90450W08 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 3,929,475 | 0.905 | 0.453 | 50,653 | 1.29 | Pass |
| 10 | 10 | AZ90450W08 DUP | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 4,185,052 | 0.970 | 0.485 | 73,104 | 1.75 | Pass |
| 11 | 11 | AZ90450W05 MS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 23,601,949 | 5.936 | 2.968 | 96,794 | 0.41 | Pass |
| 12 | 12 | AZ90450W05 MSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 23,716,487 | 5.966 | 2.983 | 59,931 | 0.25 | Pass |
| 13 | 13 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 17,219,976 | 3.704 | 1.852 | 151,450 | 0.88 | |
| 14 | 14 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 1,015,119 | 0.000 | 0.000 | 216,501 | 21.33 | |

Sample Results Summary

| Spl # | Vial # | Sample ID | Num Rep | Act Rep | Method | Type | Dil | Customer ID | Mode | Avg. Area (cts) | Avg. Mass (ug) | Avg. Conc (PPM) | Std. Dev | % RSD | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 22,166,673 | 5.669 | 2.835 | 322,904 | 1.46 | |
| 2 | 2 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 1,782,898 | 0.456 | 0.228 | 39,282 | 2.20 | |
| 3 | 3 | 190417A BLK | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 2,107,669 | 0.539 | 0.270 | 75,430 | 3.58 | |
| 4 | 4 | 190417A LCS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 16,506,365 | 4.222 | 2.111 | 328,687 | 1.99 | |
| 5 | 5 | 190417A LCSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 16,327,006 | 4.176 | 2.088 | 219,245 | 1.34 | |
| 16 | 16 | AZ89961W08 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 4,045,904 | 0.935 | 0.467 | 50,706 | 1.25 | Pass |
| 17 | 17 | AZ89961W07 DUP | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 4,451,714 | 1.139 | 0.569 | 57,886 | 1.30 | |
| 20 | 20 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 17,790,652 | 4.550 | 2.275 | 163,664 | 0.92 | |
| 21 | 21 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 1,958,099 | 0.501 | 0.251 | 189,806 | 9.69 | |
| 1 | 1 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,675,369 | 4.843 | 2.422 | 885,314 | 4.08 | |
| 2 | 2 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 727,823 | 0.000 | 0.000 | 79,089 | 10.87 | |
| 3 | 3 | 190502A BLK | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 927,374 | 0.000 | 0.000 | 130,387 | 14.06 | |
| 4 | 4 | 190502A LCS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,760,887 | 4.865 | 2.433 | 173,533 | 0.80 | |
| 5 | 5 | 190502A LCSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,292,907 | 4.745 | 2.373 | 166,010 | 0.78 | |
| 6 | 6 | AZ89958W12 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 2,719,364 | 0.595 | 0.298 | 82,200 | 3.02 | Pass |
| 7 | 7 | AZ89958W09 DUP | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 2,096,550 | 0.000 | 0.000 | 79,249 | 3.78 | |
| 8 | 8 | AZ89958W14 MS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 22,354,778 | 5.017 | 2.508 | 153,482 | 0.69 | |
| 9 | 9 | AZ89958W11 MSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 22,821,834 | 5.136 | 2.568 | 138,263 | 0.61 | |
| 21 | 21 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,447,087 | 4.785 | 2.392 | 314,866 | 1.47 | |
| 22 | 22 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 882,391 | 0.000 | 0.000 | 102,678 | 11.64 | |
| 23 | 23 | 190502B BLK | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 797,351 | 0.000 | 0.000 | 132,774 | 16.65 | |
| 24 | 24 | 190502B LCS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,956,853 | 4.915 | 2.458 | 166,059 | 0.76 | |
| 25 | 25 | 190502B LCSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,901,664 | 4.901 | 2.451 | 140,053 | 0.64 | |
| 26 | 26 | AZ89958W43 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 2,048,429 | 0.424 | 0.212 | 154,000 | 7.52 | Pass |
| 27 | 27 | AZ89958W17 DUP | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 5,821,945 | 0.788 | 0.394 | 55,453 | 0.95 | |
| 28 | 28 | AZ89958W10 MS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,950,218 | 4.913 | 2.457 | 218,780 | 1.00 | |
| 29 | 29 | AZ89958W18 MSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 22,462,368 | 5.044 | 2.523 | 190,356 | 0.85 | |
| 38 | 38 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,730,719 | 4.857 | 2.428 | 335,238 | 1.54 | |

# AQ2 Report

| | |
|---|---|
| **Serial Number:** | 190170 |
| **Software Version:** | 2.1.0 |
| **Report Requested By:** | Eve V |
| **Date & Time:** | 2019-04-25 09:18:46 |
| **Tray Number:** | 4 |
| **Tray Name:** | 190424A NO2 NO3 TOXN |

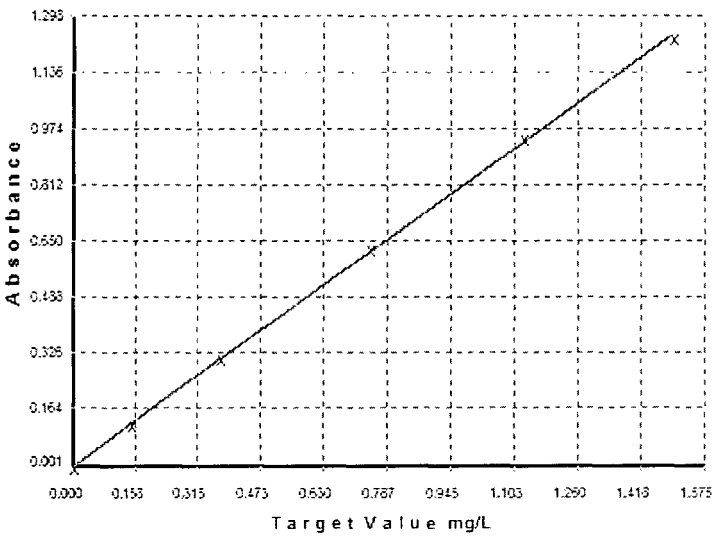
## Nitrite-N

### Calibration Chart

| Type | Absorbance | Calc mg/L | Target mg/L | % Error |
|---|---|---|---|---|
| S1 | 0.0015 | -0.0053 | 0.0000 | |
| S90 | 0.1265 | 0.1456 | 0.1500 | -2.93 |
| S91 | 0.3189 | 0.3779 | 0.3750 | 0.78 |
| S92 | 0.6328 | 0.7568 | 0.7500 | 0.91 |
| S93 | 0.9500 | 1.1396 | 1.1250 | 1.30 |
| S94 | 1 2365 | 1.4854 | 1.5000 | -0.98 |
| S0 | 0 0095 | 0.0044 | 0.0000 | |

| | |
|---|---|
| Polynomial Order: | 1 |
| Correlation Coefficient. | 0.9998 |
| Carryover(%): | 0.7 |
| Calibration equation: | y = bx + a |
| y =: | Concentration mg/L |
| x =: | Measured absorbance |
| a =: | -7.057582E-003 |
| b =: | 1.207005E+000 |
| Date & Time: | 2019-04-24 14:30:46 |

### Calibration Graph




## Reagents

| Name | Batch | Prepared By | Expiry Date |
|---|---|---|---|
| Sulfa-NEDD | | Joel | |
| NO2 Buffer | | Joel | |

| Cup | Type | ID | Result | Units | QC Pro | Raw Data | Auto Dil. | Man Dil. | User | Time/Date |
|---|---|---|---|---|---|---|---|---|---|---|
| | S1 | Standard 1 | 0.0015 | | | 0.001467 | | | Ev | 2019-04-24 14:23:01 |
| | S90 | Standard 90 | 0.1265 | | | 0.126486 | | | Ev | 2019-04-24 14:24:18 |
| | S91 | Standard 91 | 0.3189 | | | 0.318946 | | | Ev | 2019-04-24 14:25:36 |
| | S92 | Standard 92 | 0.6328 | | | 0 632850 | | | Ev | 2019-04-24 14:26:53 |
| | S93 | Standard 93 | 0.9500 | | | 0.950015 | | | Ev | 2019-04-24 14:28:11 |
| | S94 | Standard 94 | 1.2365 | | | 1.236456 | | | Ev | 2019-04-24 14:29:28 |
| | S0 | Standard 0 | 0.0095 | | | 0.009519 | | | Ev | 2019-04-24 14.30:46 |
| | CCV | CCV .75 | 0.7390 | mg/L | | 0.618065 | | | Ev | 2019-04-24 14.32:03 |
| | CCB | CCB | 0.0002 | mg/L | | 0.006007 | | | Ev | 2019-04-24 14:33:20 |
| 3 | U1 | ICV NO2 | 0.7269 | mg/L | | 0.608121 | | | Ev | 2019-04-24 14:34:38 |
| 4 | U2 | ICV NO3 TOXN | 0.0012 | mg/L | | 0.006818 | | | Ev | 2019-04-24 14:35:56 |
| 5 | U3 | ICB NO2 NO3 TOXN | -0.0051 | mg/L | | 0.001628 | | | Ev | 2019-04-24 14.37:14 |
| 6 | U4 | 190424A BLK NO2 NO3 TOXN | -0.0054 | mg/L | | 0.001414 | | | Ev | 2019-04-24 14:38:32 |
| 7 | U5 | 190424A LCS NO2 | 0.7297 | mg/L | | 0.610396 | | | Ev | 2019-04-24 14:39:47 |
| 8 | U6 | 190424A LCSD NO2 | 0.7420 | mg/L | | 0.620615 | | | Ev | 2019-04-24 14:41:02 |
| 9 | U7 | 190424A LCS NO3 TOXN | 0.0009 | mg/L | | 0.006602 | | | Ev | 2019-04-24 14:42:20 |
| 10 | U8 | 190424A LCSD NO3 TOXN | -0.0051 | mg/L | | 0.001641 | | | Ev | 2019-04-24 14:43:39 |
| 11 | U9 | 1 ppm NO2 | 0 9614 | mg/L | | 0.802330 | | | Ev | 2019-04-24 14:44:57 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 12 | U10 | 1 ppm NO3 | 0.0014 | mg/L | 0.007048 | | Ev | 2019-04-24 14:46:15 |
| | CCV | CCV .75 | 0.7207 | mg/L | 0.602966 | | Ev | 2019-04-24 14:47:34 |
| | CCB | CCB | -0.0001 | mg/L | 0.005805 | | Ev | 2019-04-24 14:50.12 |
| 15 | U13 | AZ89834W01 | 0.7191 | mg/L | 0.601634 | | Ev | 2019-04-24 14:52:26 |
| 16 | U14 | AZ89836W01 | 0.0004 | mg/L | 0.006169 | | Ev | 2019-04-24 14:54:43 |
| 21 | U19 | AZ89043W01 | -0.0049 | mg/L | 0.001802 | | Ev | 2019-04-24 14:57:01 |
| 22 | U20 | AZ89044W01 | -0.0055 | mg/L | 0.001320 | | Ev | 2019-04-24 14:59:19 |
| 23 | U21 | AZ89045W01 | -0.0056 | mg/L | 0.001200 | | Ev | 2019-04-24 15:01:37 |
| | CCV | CCV .75 | 0.6924 | mg/L | 0.579485 | | Ev | 2019-04-24 15:03:50 |
| | CCB | CCB | -0.0009 | mg/L | 0.005131 | | Ev | 2019-04-24 15:06:04 |

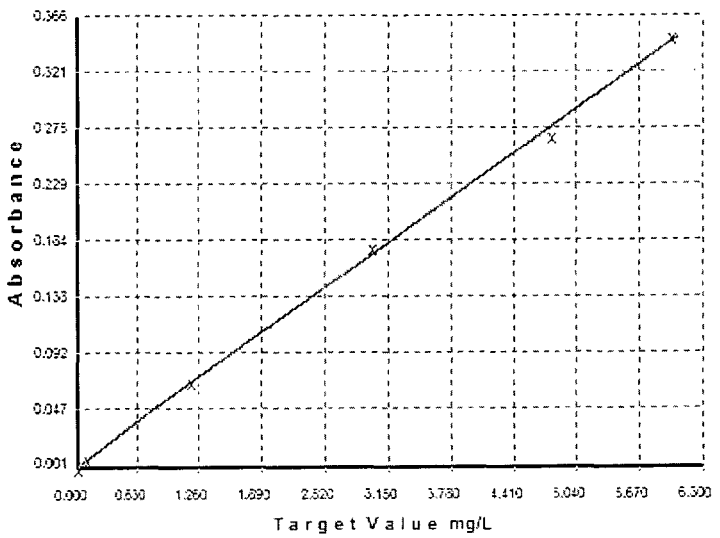
## TOXN

### Calibration Chart

| Type | Absorbance | Calc mg/L | Target mg/L | % Error |
|---|---|---|---|---|
| S1 | 0.0009 | -0.0214 | 0.0000 | |
| S90 | 0.0075 | 0.0941 | 0.1000 | -5.89 |
| S91 | 0.0713 | 1.2102 | 1.2000 | 0.85 |
| S92 | 0.1791 | 3.0964 | 3.0000 | 3.21 |
| S93 | 0.2682 | 4.6538 | 4.8000 | -3.04 |
| S94 | 0.3490 | 6.0668 | 6.0000 | 1.11 |
| S0 | 0.0023 | 0.0039 | 0.0000 | |

| | |
|---|---|
| Polynomial Order: | 1 |
| Correlation Coefficient: | 0.9994 |
| Carryover(%): | 0.4 |
| Calibration equation: | y = bx + a |
| y =: | Concentration mg/L |
| x =: | Measured absorbance |
| a =: | -3.698912E-002 |
| b =: | 1.749100E+001 |
| Date & Time: | 2019-04-24 15:24:13 |

### Calibration Graph




### Reagents

| Name | Batch | Prepared By | Expiry Date |
|---|---|---|---|
| NO3 W Buffer | Algorithm check | Joel | |
| Sulfa-NEDD | | Joel | |

y = 17.49100 x 0.170186 - 0.03698912 EV 5/7/19

y = 2.94

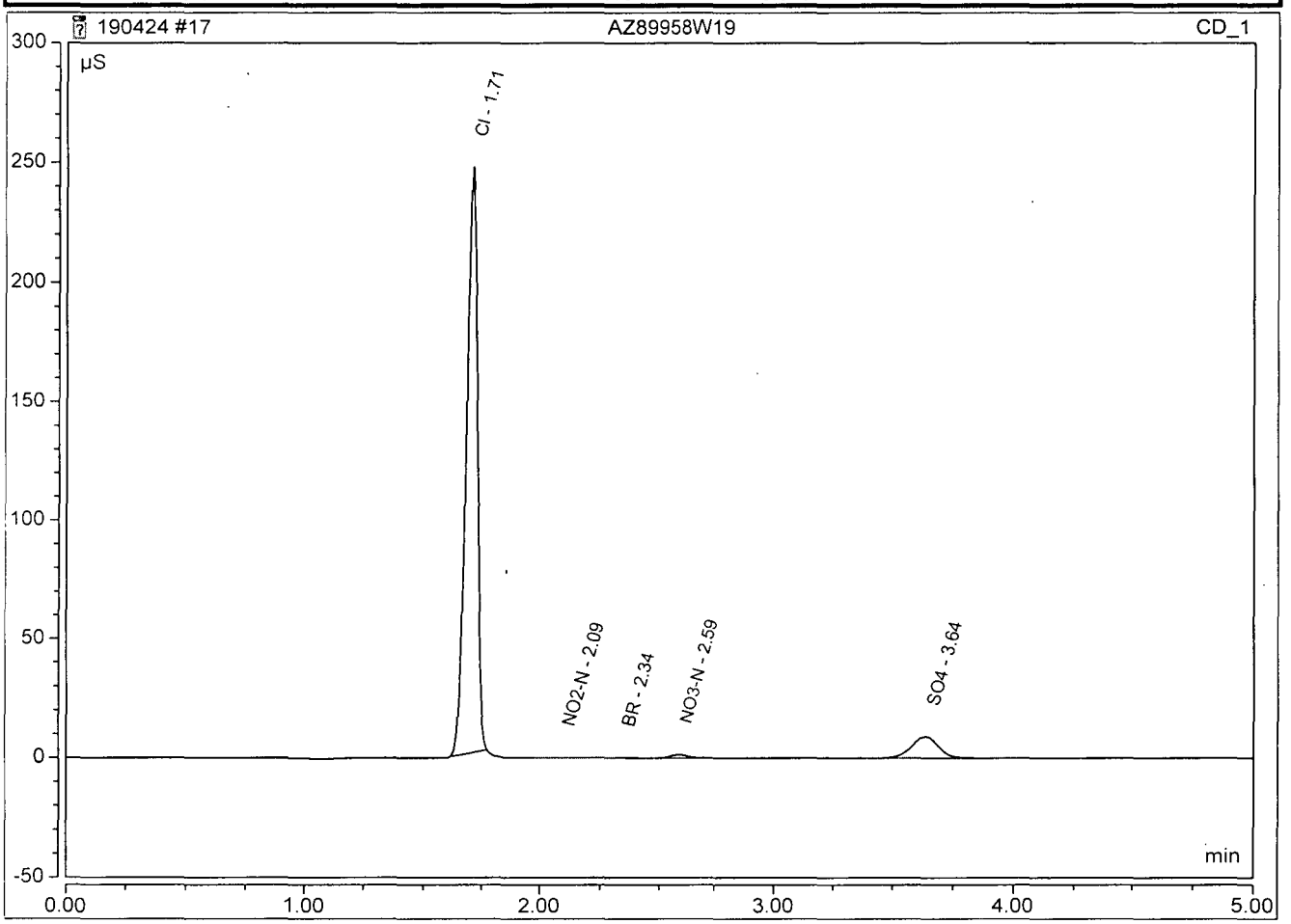
| Cup | Type | ID | Result | Units | QC Pro | Raw Data | Auto Dil. | Man Dil. | User | Time/Date |
|---|---|---|---|---|---|---|---|---|---|---|
| | S1 | Standard 1 | 0.0009 | | | 0.000893 | | | Ev | 2019-04-24 15:11:03 |
| | S90 | Standard 90 | 0.0075 | | | 0.007495 | | | Ev | 2019-04-24 15:13:15 |
| | S91 | Standard 91 | 0.0713 | | | 0.071305 | | | Ev | 2019-04-24 15:15:27 |
| | S92 | Standard 92 | 0.1791 | | | 0.179145 | | | Ev | 2019-04-24 15:17:38 |
| | S93 | Standard 93 | 0.2682 | | | 0.268186 | | | Ev | 2019-04-24 15:19:50 |
| | S94 | Standard 94 | 0.3490 | | | 0.348965 | | | Ev | 2019-04-24 15:22:02 |
| | S0 | Standard 0 | 0.0023 | | | 0.002337 | | | Ev | 2019-04-24 15:24:13 |
| | CCV | CCV | 3.0456 | mg/L | | 0.176238 | | | Ev | 2019-04-24 15:28:25 |
| | CCB | CCB | -0.0095 | mg/L | | 0.001574 | | | Ev | 2019-04-24 15:30:37 |
| 4 | U2 | ✓ICV NO3 TOXN | 2.9397 | mg/L | | 0.170186 | | | Ev | 2019-04-24 15:32:49 |
| 5 | U3 | ICB NO2 NO3 TOXN | 0.0006 | mg/L | | 0.002149 | | | Ev | 2019-04-24 15:35:01 |
| 6 | U4 | 190424A BLK NO2 NO3 TOXN | -0.0155 | mg/L | | 0.001227 | | | Ev | 2019-04-24 15:37.14 |
| 9 | U7 | 190424A LCS NO3 TOXN | 2.8961 | mg/L | | 0.167690 | | | Ev | 2019-04-24 15:39:26 |
| 10 | U8 | 190424A LCSD NO3 TOXN | 3.0246 | mg/L | | 0.175040 | | | Ev | 2019-04-24 15:41:38 |
| 12 | U10 | 1 ppm NO3 | 0.9724 | mg/L | | 0.057710 | | | Ev | 2019-04-24 15:43:50 |
| 13 | U11 | AZ89660W01 | 16.2785 | mg/L | | 0.932795 | | | Ev | 2019-04-24 15:46:01 |
| 14 | U12 | AZ89661W01 | 14.9175 | mg/L | | 0.854984 | | | Ev | 2019-04-24 15:48:13 |
| 16 | U14 | AZ89836W01 | 25.8912 | mg/L | | 1.482373 | | | Ev | 2019-04-24 15:50:25 |
| 17 | U15 | AZ89958W20 | 0.6628 | mg/L | | 0.040007 | | | Ev | 2019-04-24 15:52:38 |
| | CCV | CCV | 2.9812 | mg/L | | 0.172557 | | | Ev | 2019-04-24 15:54:51 |
| | CCB | CCB | -0.0029 | mg/L | | 0.001949 | | | Ev | 2019-04-24 15:55:29 |
| 18 | U16 | AZ89958W20 MS | 3 8582 | mg/L | | 0.222697 | | | Ev | 2019-04-24 15:56:34 |
| 19 | U17 | AZ89958W20 MSD | 3 9893 | mg/L | | 0.230189 | | | Ev | 2019-04-24 15:57:30 |
| 20 | U18 | AZ89961W16 | 0.5711 | mg/L | | 0.034768 | | | Ev | 2019-04-24 15:58:26 |
| 21 | U19 | AZ89043W01 | -0.0095 | mg/L | | 0.001574 | | | Ev | 2019-04-24 15:59:22 |
| 22 | U20 | AZ89044W01 | -0.0188 | mg/L | | 0.001040 | | | Ev | 2019-04-24 16:00:18 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 23 | U21 | AZ89045W01 | 0.0079 | mg/L | 0.002564 | | Ev | 2019-04-24 16:01:15 |
| | CCV | CCV | 2.9511 | mg/L | 0.170836 | | Ev | 2019-04-24 16:02:11 |
| | CCB | CCB | -0.0230 | mg/L | 0.000800 | | Ev | 2019-04-24 16:03:07 |
| | CCV | CCV | 2.9446 | mg/L | 0.170462 | | | 2019-04-24 16:22:46 |
| | CCB | CCB | -0.0045 | mg/L | 0.001855 | | | 2019-04-24 16:23:43 |
| 13 | U11 | AZ89660W01 | 16.4311 | mg/L | 0.096055 | x 10.000 | Ev | 2019-04-24 16:24:40 |
| 14 | U12 | AZ89661W01 | 14.7187 | mg/L | 0.086265 | x 10.000 | Ev | 2019-04-24 16:25:36 |
| 16 | U14 | AZ89836W01 | 24.8779 | mg/L | 0.144347 | x 10.000 | Ev | 2019-04-24 16:26:32 |
| | CCV | CCV | 3.0543 | mg/L | 0.176738 | | | 2019-04-24 16:27:28 |
| | CCB | CCB | -0.0197 | mg/L | 0.000987 | | | 2019-04-24 16:28:25 |

## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ89958W19** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 12:41** | *Run Time:* | **5.00** |

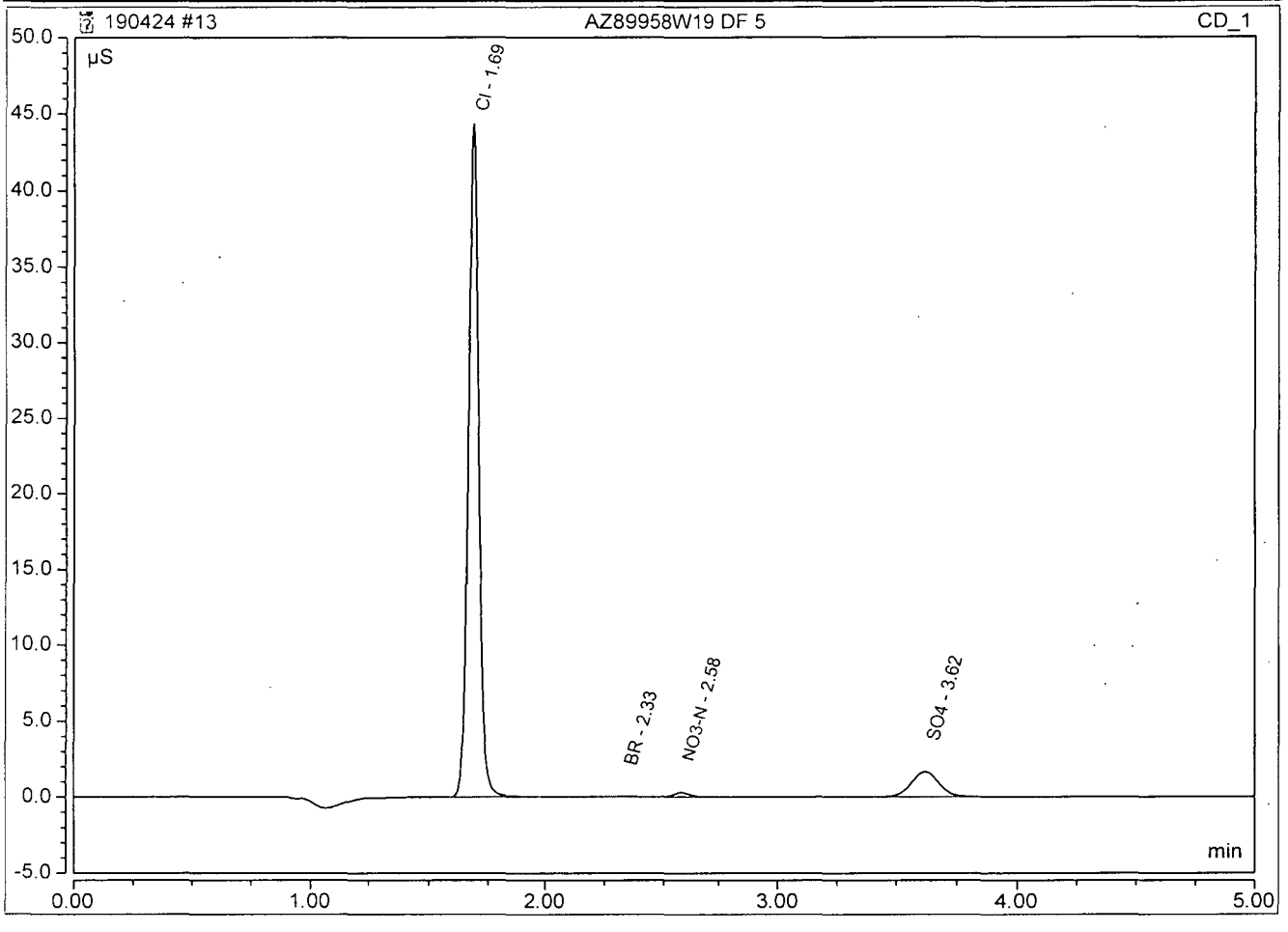
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.71 | Cl | BMB | 13.587 | 245.721 | 126.86 | | |
| 2 | 2.09 | NO2-N | BMB | 0.010 | 0.069 | 0.07 | | |
| 3 | 2.34 | BR | BMB | 0.013 | 0.174 | 0.40 | | |
| 4 | 2.59 | NO3-N | BMB | 0.124 | 1.412 | 0.59 | | |
| 5 | 3.64 | SO4 | BMB | 1.164 | 9.016 | 17.11 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ89958W19 DF 5** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **5.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 12:12** | *Run Time:* | **5.00** |

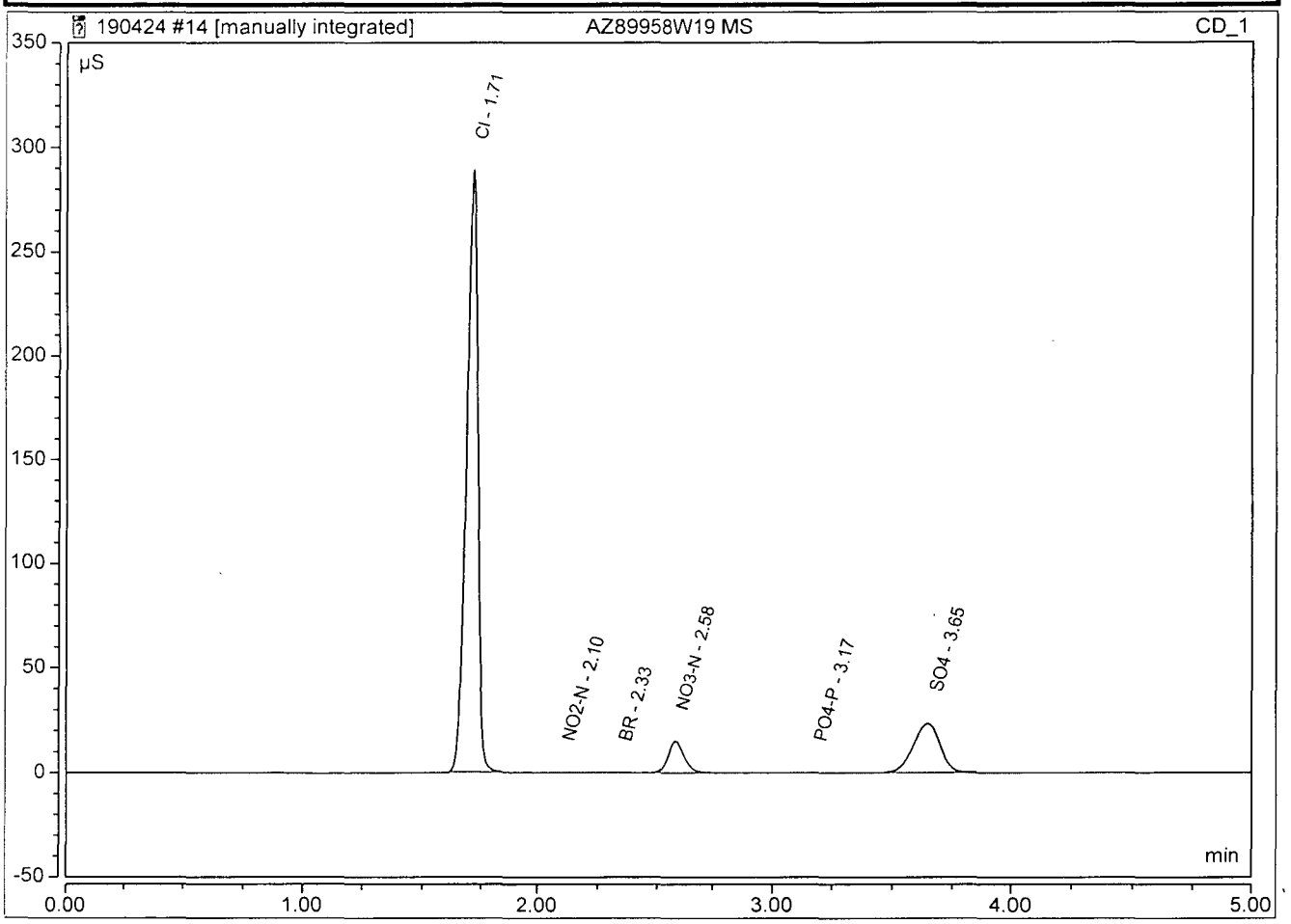
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.69 | **Cl** | BMB | 2.299 | 44.343 | 108.40 | | |
| 2 | 2.33 | **BR** | BMB | 0.003 | 0.038 | 0.62 | | |
| 3 | 2.58 | **NO3-N** | BMB | 0.025 | 0.297 | 0.72 | | |
| 4 | 3.62 | **SO4** | BMB | 0.219 | 1.647 | 16.78 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ89958W19 MS** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 12:19** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.71 | **Cl** | BMB* | 16.585 | 288.616 | 154.79 | | |
| 2 | 2.10 | **NO2-N** | BMB | 0.010 | 0.069 | 0.06 | | |
| 3 | 2.33 | **BR** | BMB | 0.012 | 0.166 | 0.38 | | |
| 4 | 2.58 | **NO3-N** | BMB | 1.269 | 14.912 | 5.75 | | |
| 5 | 3.17 | **PO4-P** | BMB | 0.020 | 0.095 | 0.70 | | |
| 6 | 3.65 | **SO4** | BMB | 3.011 | 23.492 | 44.02 | | |

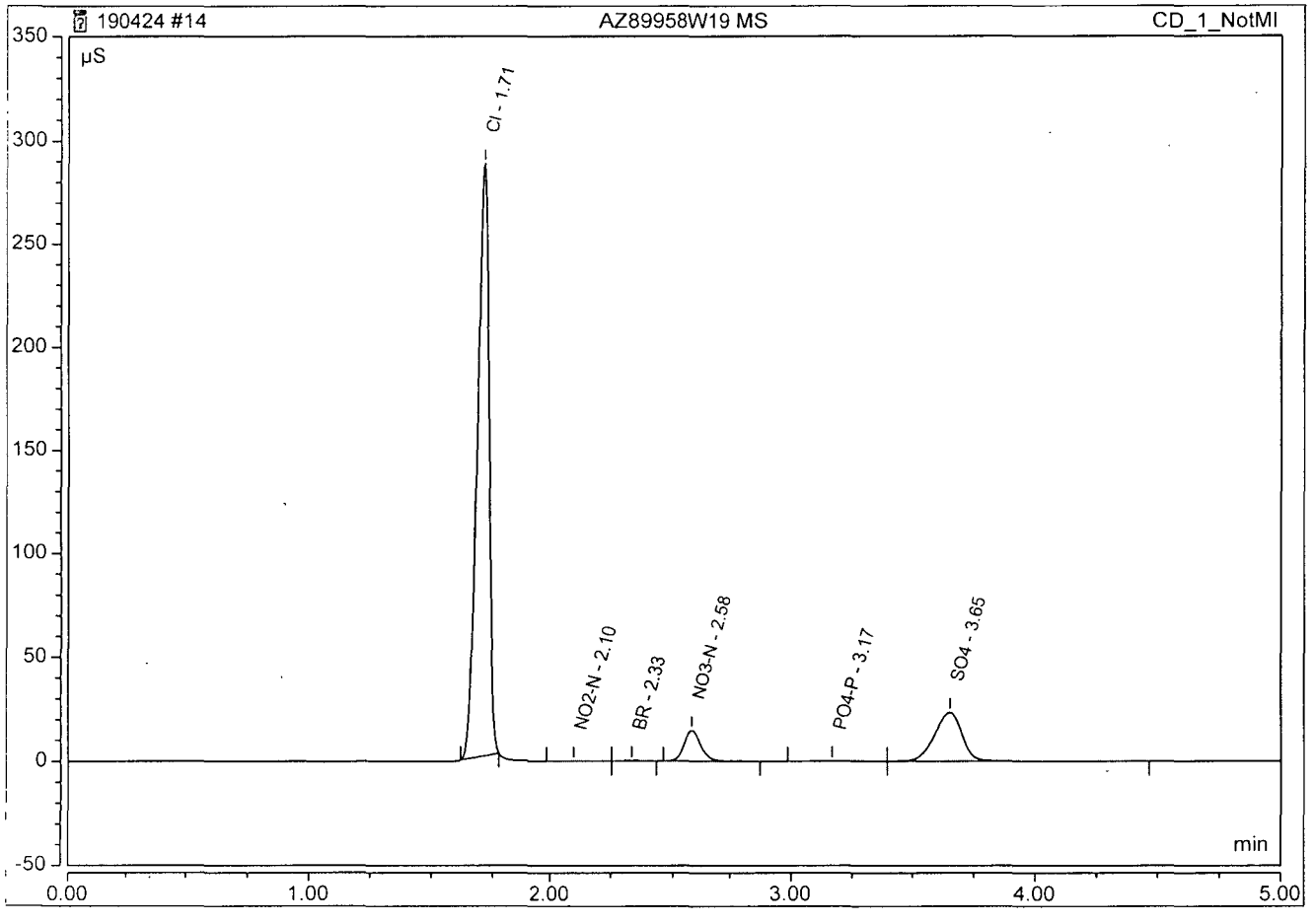



Cl MI1 190502 TH

## Not Manipulated Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ89958W19 MS** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 12:19** | *Run Time:* | **5.00** |

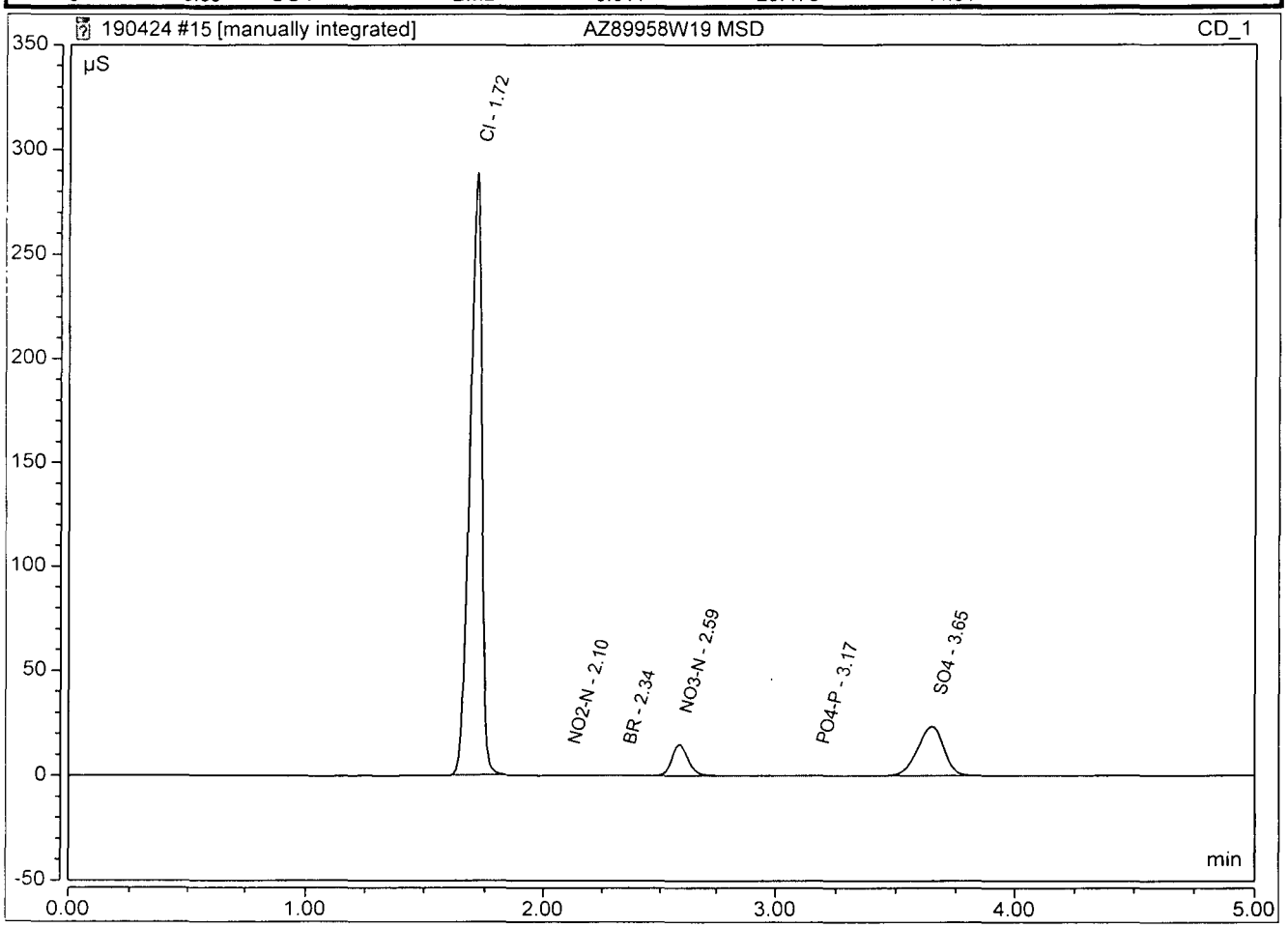
| No. | Time min | Peak Name | Peak Type | Area µS*min | Height µS | Ammount mg/L |
|---|---|---|---|---|---|---|
| 1 | 1.71 | **Cl** | BMB* | 16.230 | 286.437 | 151.4875 |
| 2 | 2.10 | **NO2-N** | BMB | 0.010 | 0.069 | 0.0642 |
| 3 | 2.33 | **BR** | BMB | 0.012 | 0.166 | 0.3793 |
| 4 | 2.58 | **NO3-N** | BMB | 1.269 | 14.912 | 5.7520 |
| 5 | 3.17 | **PO4-P** | BMB | 0.020 | 0.095 | 0.7041 |
| 6 | 3.65 | **SO4** | BMB | 3.011 | 23.492 | 44.0210 |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ89958W19 MSD** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 12:26** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.72 | **Cl** | BMB* | 16.576 | 288.457 | 154.71 | | |
| 2 | 2.10 | **NO2-N** | BMB | 0.011 | 0.074 | 0.07 | | |
| 3 | 2.34 | **BR** | BMB | 0.012 | 0.165 | 0.38 | | |
| 4 | 2.59 | **NO3-N** | BMB | 1.270 | 14.912 | 5.76 | | |
| 5 | 3.17 | **PO4-P** | BMB | 0.019 | 0.094 | 0.69 | | |
| 6 | 3.65 | **SO4** | BMB | 3.011 | 23.478 | 44.01 | | |

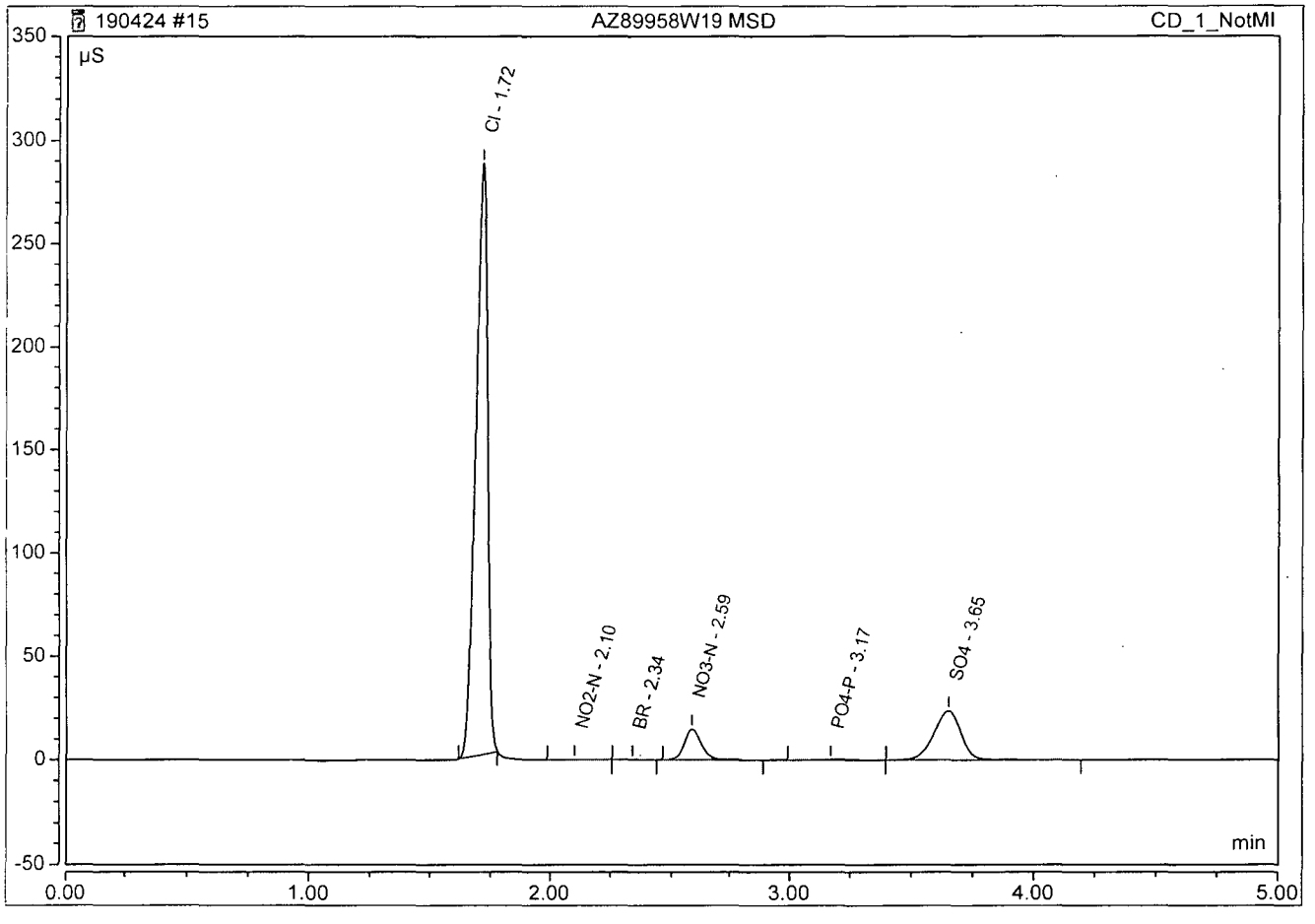



Cl MI1 190502 TH

## Not Manipulated Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ89958W19 MSD** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 12:26** | *Run Time:* | **5.00** |

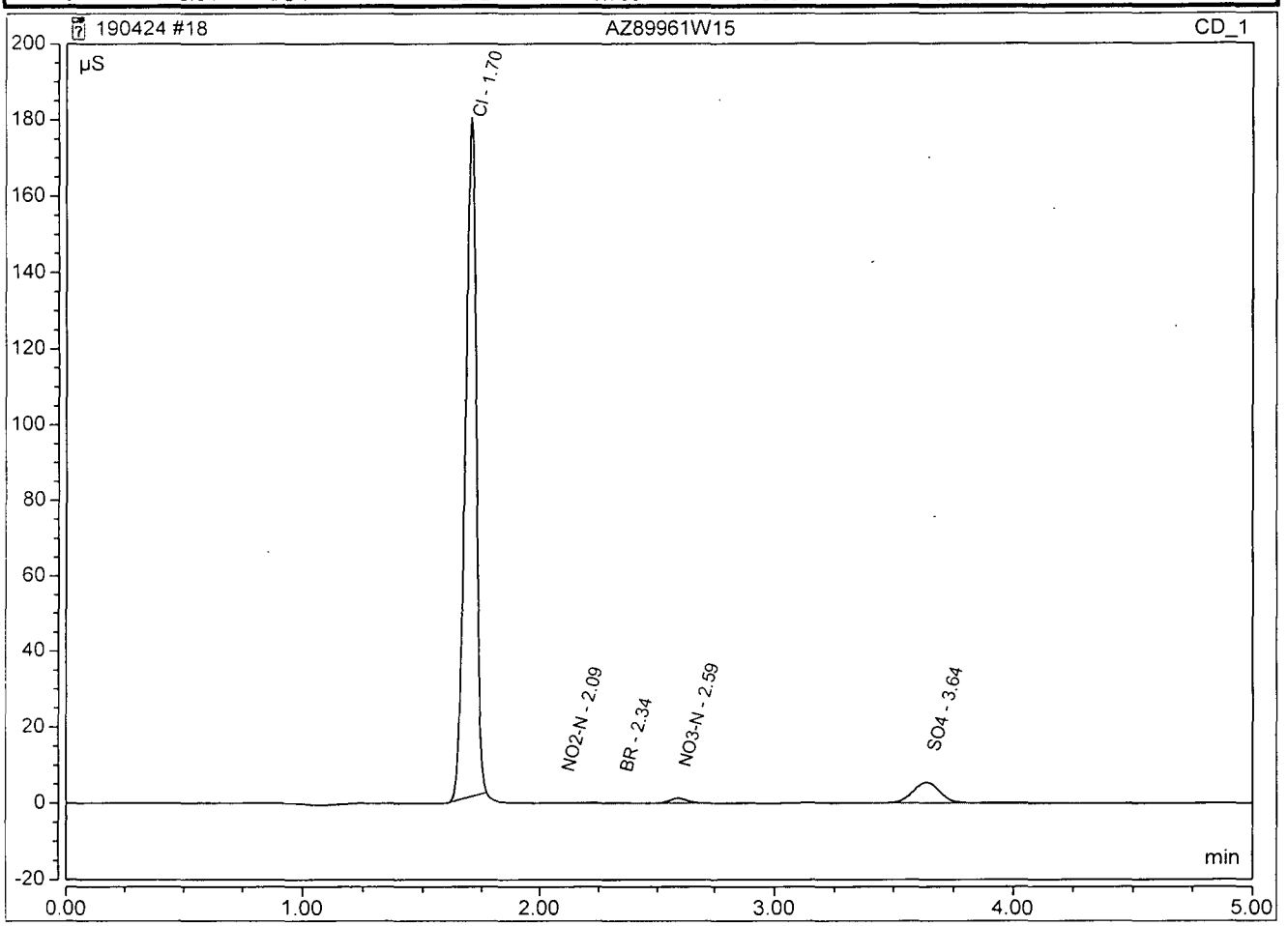
| No. | Time min | Peak Name | Peak Type | Area µS*min | Height µS | Ammount mg/L |
|---|---|---|---|---|---|---|
| 1 | 1.72 | Cl | BMB* | 16.222 | 286.212 | 151.4113 |
| 2 | 2.10 | NO2-N | BMB | 0.011 | 0.074 | 0.0675 |
| 3 | 2.34 | BR | BMB | 0.012 | 0.165 | 0.3770 |
| 4 | 2.59 | NO3-N | BMB | 1.270 | 14.912 | 5.7570 |
| 5 | 3.17 | PO4-P | BMB | 0.019 | 0.094 | 0.6923 |
| 6 | 3.65 | SO4 | BMB | 3.011 | 23.478 | 44.0146 |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ89961W15** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 12:49** | *Run Time:* | **5.00** |

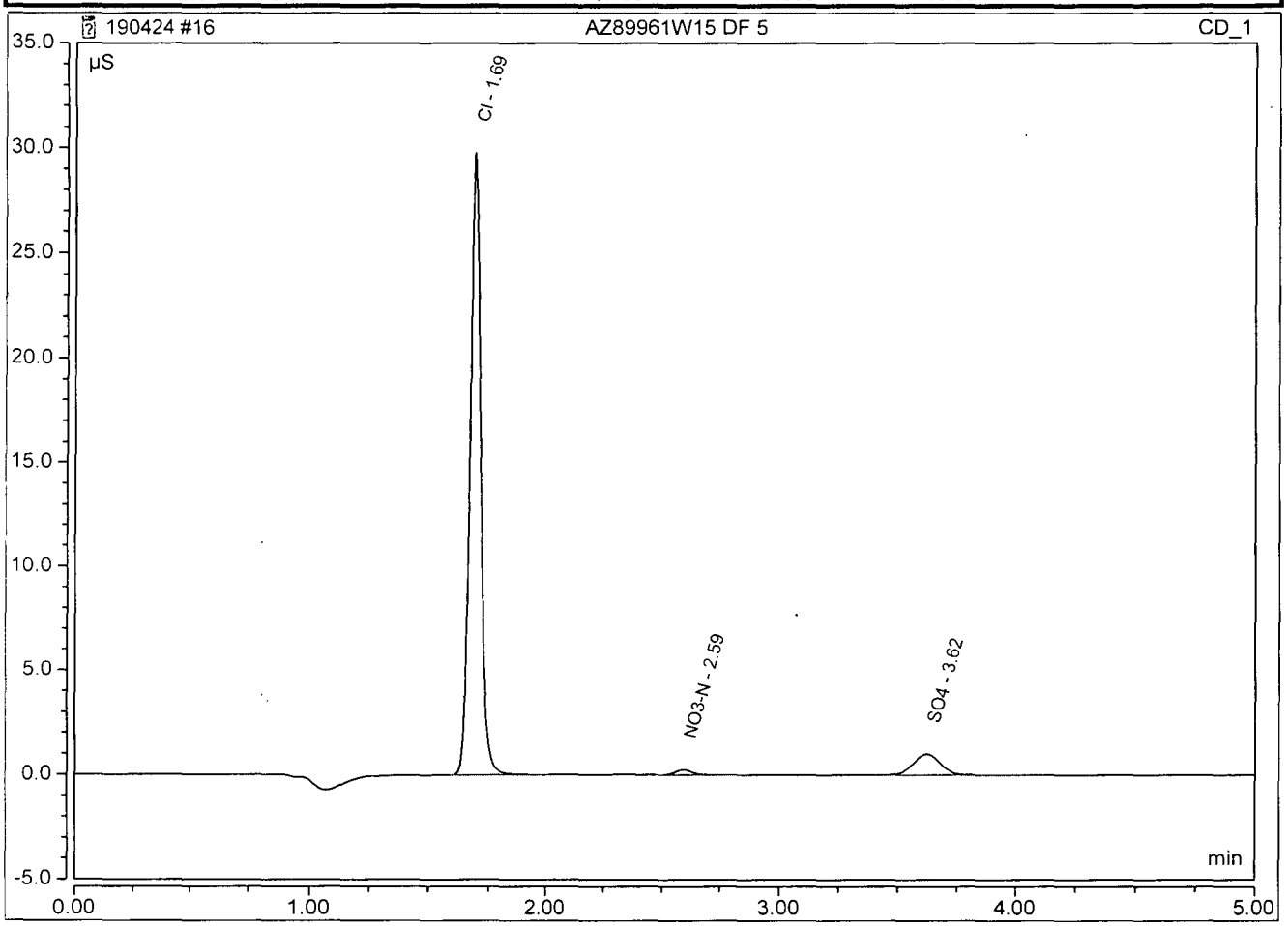
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.70 | Cl | BMB | 9.541 | 178.819 | 89.16 | | |
| 2 | 2.09 | NO2-N | BMB | 0.007 | 0.046 | 0.05 | | |
| 3 | 2.34 | BR | BMB | 0.009 | 0.124 | 0.30 | | |
| 4 | 2.59 | NO3-N | BMB | 0.112 | 1.247 | 0.53 | | |
| 5 | 3.64 | SO4 | BMB | 0.705 | 5.437 | 10.43 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ89961W15 DF 5** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **5.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 12:34** | *Run Time:* | **5.00** |

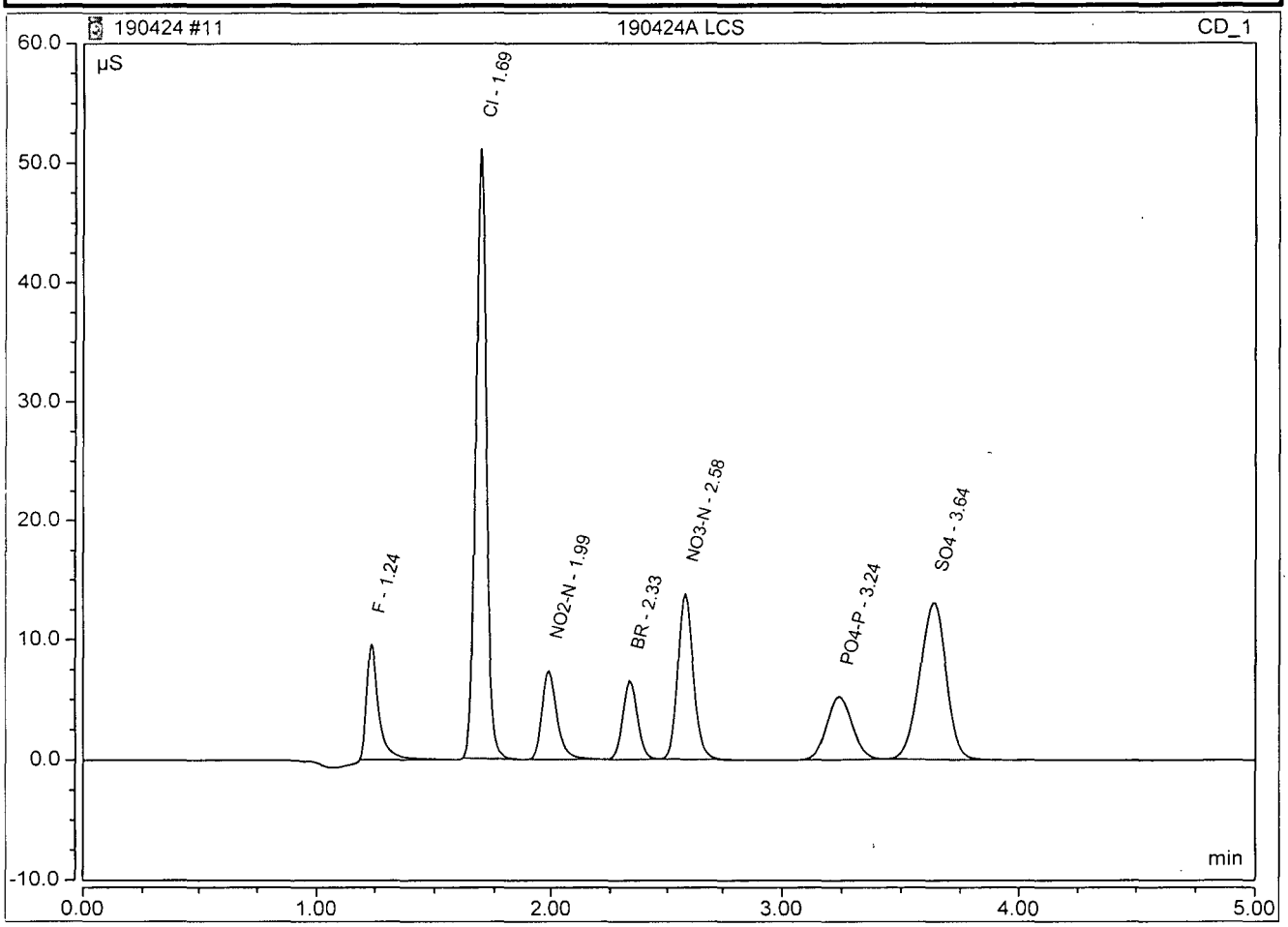
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.69 | **Cl** | BMB | 1.562 | 29.768 | 74.08 | | |
| 2 | 2.59 | **NO3-N** | BMB | 0.023 | 0.263 | 0.67 | | |
| 3 | 3.62 | **SO4** | BMB | 0.135 | 1.008 | 10.68 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **190424A LCS** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Check Standard** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 11:57** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | **F** | BMB | 0.575 | 9.564 | 4.92 | 5.0000 | 98.5% |
| 2 | 1.69 | **Cl** | BMB | 2.639 | 51.067 | 24.85 | 25.0000 | 99.4% |
| 3 | 1.99 | **NO2-N** | BMB | 0.559 | 7.371 | 3.14 | 3.0400 | 103.1% |
| 4 | 2.33 | **BR** | BMB | 0.474 | 6.544 | 13.32 | 12.5000 | 106.6% |
| 5 | 2.58 | **NO3-N** | BMB | 1.126 | 13.805 | 5.11 | 5.0000 | 102.1% |
| 6 | 3.24 | **PO4-P** | BMB | 0.644 | 5.210 | 9.08 | 10.0000 | 90.8% |
| 7 | 3.64 | **SO4** | BMB | 1.683 | 13.048 | 24.67 | 25.0000 | 98.7% |



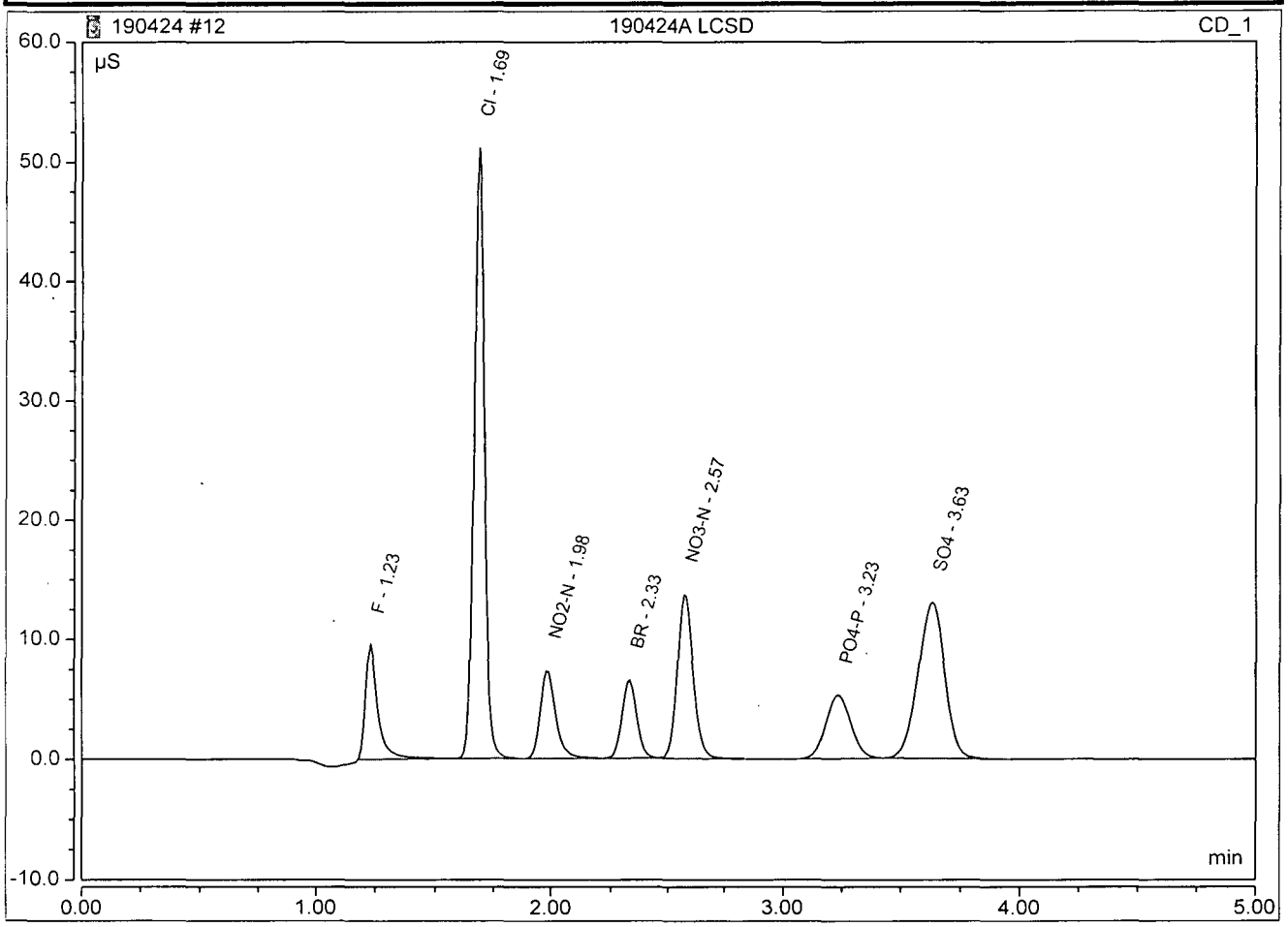

Algortith Check:
y = Peak Area
x = mg/L S04

y = 0.0687 x + -0.0115
y = 1.6827 therefor x = 24.67 190502 TH

## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **190424A LCSD** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Check Standard** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **24-Apr-2019 / 12:04** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB | 0.585 | 9.597 | 5.00 | 5.0000 | 100.0% |
| 2 | 1.69 | Cl | BMB | 2.657 | 51.116 | 25.01 | 25.0000 | 100.1% |
| 3 | 1.98 | NO2-N | BMB | 0.560 | 7.366 | 3.14 | 3.0400 | 103.4% |
| 4 | 2.33 | BR | BMB | 0.474 | 6.538 | 13.33 | 12.5000 | 106.7% |
| 5 | 2.57 | NO3-N | BMB | 1.127 | 13.792 | 5.11 | 5.0000 | 102.3% |
| 6 | 3.23 | PO4-P | BMB | 0.656 | 5.304 | 9.24 | 10.0000 | 92.4% |
| 7 | 3.63 | SO4 | BMB | 1.682 | 13.034 | 24.66 | 25.0000 | 98.6% |



# Nitrite

**High Point @ 1.5 mg/L**

0.075 mL NO2 O2Si lot 142626-24 - 38408 exp: 4/20/19*
50 mL DI Water

**CCV @ 0.75 mg/L**

0.0375 mL NO2 O2Si lot 142626-24-38408 exp: 4/20/19*
50 mL DI Water

*Nitrite lot 142626-24 – 38408 (O2SI) expiration date was extended to 10/20/19 by in-house re-certification against Nitrite lot M2-NOX660562-39802 (Inorganic Ventures). SD 04/25/19

**ICV/LCS @ 0.73 mg/L**

0.12mL NO2 Inorganic Ventures lot M2-NOX660562-39802 exp: 10/23/19
50 mL DI Water

**1 mg/L NO2**

400 uL of High point and 200 uL of DI made directly into a sample cup

Prep 04/23/19
Exp 04/30/19
EV

# Nitrate/TOXN

**High Point @ 6 mg/L**

0.300 mL NO3 O2Si lot 880117-39577 exp: 2/21/20
50 mL DI Water

**CCV @ 3.0 mg/L**

0.150 mL NO3 O2Si lot 880117-39577 exp: 2/21/20
50 mL DI Water

**ICV/LCS @ 3.0 mg/L**

0.150 mL NO3 Inorganic Ventures lot N2-NOX667147-39510 exp: 10/23/19
50 mL DI Water

**1 mg/L NO3**

100 uL of High point and 500 uL of DI made directly into a sample cup

**MS @ 2.5 mg/L NO3 and 0.73 mg/L NO2**

0.125 mL NO3 Inorganic Ventures lot N2-NOX667147-39510 exp: 10/23/19
and 0.12mL NO2 Inorganic Ventures lot M2-NOX660562-39802 exp: 10/23/19
Final volume 50 mL of sample

Prep 04/23/19
Exp 04/30/19
EV

**Tiamo Alkalinity Standard Prep**

**Prep Date:**

**Exp Date:**

**Prep'd By (Initials): AR**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Unit | Conc | Lot Number - QA Number | Prep/Opened | Exp. Date | Aliquot from Stock | Final Volume | Solvent | Final Standard Conc |
| Sulfuric Acid (H2SO4) | J.T.Baker | NA | NA | **167828** | **NA** | **NA** | PURCHASED | NA | NA | NA |
| 0.10N Sulfuric Acid (H2SO4) | J.T.Baker | Normality | 0.1N | **167828** | **02/18/19** | **02/18/20** | 3ml | 1L | DI | 0.10N |
| 0.02N Sulfuric Acid (H2SO4) | J.T.Baker | Normality | 0.02N | **167828** | **01/22/19** | **01/22/20** | 200mL | 1L | DI | 0.02N |
| Inorganic Spike(NaHCO3) | BDH | NA | NA | **1575C510** | **10/18/18** | **08/14/20** | PURCHASED | NA | NA | NA |
| Inorganic Spike Solution | BDH | Milligrams/Liters | 250mg/L | **1575C510** | **01/29/19** | **01/29/20** | 3.5g | 500mL | DI | 250mg/L |
| Standarizing Solution(NaCO3) | J.T.Baker | Normality | 1N | **178494** | **07/25/17** | **07/25/19** | PURCHASED | NA | NA | NA |

## Anion Chromatography Working Standard

Prep Date: 04/01/19
Exp Date: 04/02/19
Prep'd By (Initials): TH

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date | Aliquot from Stock | Final Volume | Solvent | Final Standard Conc (ug/mL) |
| Ion Chromatography Standard Fluoride 1000µg/mL in H2O | o2si | O2SI-062002-01-01 | 1000 | 142626-24-38407 | 04/20/19 | 312.5 µL | 25 mL | Millipore Water | 12.5 |
| Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O | o2si | O2SI-062004-01-01 | 1000 | 142626-24-38408 | 04/20/19 | 125 µL | 25 mL | Millipore Water | 5 |
| Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O | o2si | 062001-08-03 | 5000 | 10084781-1-39578 | 02/21/20 | 250 µL | 25 mL | Millipore Water | 50 |
| Ortho-Phosphate as P Standard | Ultra Scientific | ICC-005A | 1000 | G34-CP-3323-39057 | 08/31/23 | 625 µL | 25 mL | Millipore Water | 25 |
| Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O | o2si | 062003-01-03 | 1000 | 880117-4-39577 | 02/21/20 | 250 µL | 25 mL | Millipore Water | 10 |
| Bromide Standard | Ultra Scientific | ICC-001 | 1000 | CR-5372-39521 | 12/31/21 | 625 µL | 25 mL | Millipore Water | 25 |
| Sulfate Standard | Agilent | ICC-006 | 1000 | CS-0688-40047 | 03/31/22 | 1250 µL | 25 mL | Millipore Water | 50 |

## Anion Chromatography Calibration Curve

Prep Date: 04/01/19
Exp Date: 04/02/19
Prep'd By (Initials): TH

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. Range (ug/mL) | Reference To APPL Prep Date | Exp. Date | Aliquot from Stock | Final Volume | Solvent | Final Conc. Range (µg/mL) |
| Ical2 | Varries | ICal1 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 400 µL | 1000 µL | Millipore Water | 0.08-0.40 |
| Anion Chromatography Working Standard | Varries | ICal2 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 20 µL | 1000 µL | Millipore Water | 0.1-1.0 |
| Anion Chromatography Working Standard | Varries | ICal3 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 50 µL | 1000 µL | Millipore Water | 0.25-2.5 |
| Anion Chromatography Working Standard | Varries | ICal4 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 100 µL | 1000 µL | Millipore Water | 0.5-5.0 |
| Anion Chromatography Working Standard | Varries | ICal5 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 200 µL | 1000 µL | Millipore Water | 1.0-10.0 |
| Anion Chromatography Working Standard | Varries | ICal6 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 500 µL | 1000 µL | Millipore Water | 2.5-25.0 |
| Anion Chromatography Working Standard | Varries | ICal7 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 700 µL | 1000 µL | Millipore Water | 3.5-35.0 |
| Anion Chromatography Working Standard | Varries | ICal8 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 1000 µL | 1000 µL | Millipore Water | 5.0-50.0 |

## Anion Chromatography LCS/ICV

Prep Date: See injection Log
Exp Date: 24 hours after prep
Prep'd By (Initials): TH

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. Range (ug/mL) | Lot Number - QA Number | Exp. Date | Aliquot from Stock | Final Volume | Solvent | Final Standard Conc (ug/mL) |
| Flouride | Inorganic Ventures | ICF1 | 993-999 | K-F652018-39801 | 10/23/19 | 62.5 µL | 25 mL | Millipore Water | 5 |
| Nitrite | Inorganic Ventures | ICNO21 | 993-1001 | M2-NOX660562-39802 | 10/23/19 | 250 µL | 25 mL | Millipore Water | 3.04 |
| Chloride | Inorganic Ventures | ICCL1 | 995-1001 | NaCL664868-39904 | 11/26/19 | 500 µL | 25 mL | Millipore Water | 20 |
| O-Phosphate as P | Inorganic Ventures | IPPO41 | 1001-1009 | M2-POX655826-39803 | 10/23/19 | 125 µL | 25 mL | Millipore Water | 10 |
| Nitrate as N | Inorganic Ventures | ICNNO31 | 994-1002 | N2-NOX667147-39510 | 10/23/19 | 125 µL | 25 mL | Millipore Water | 5 |
| Ion Chromatography Bromide Standard | CPI International | 4400-IC8M | 1000 | 161681-8-39539 | 02/06/20 | 312.5 µL | 25 mL | Millipore Water | 12.5 |
| Sulfate | Inorganic Ventures | ICSO41 | 998-1006 | K2-SOX01111-38875 | 08/13/19 | 500 µL | 25 mL | Millipore Water | 20 |

## Anion Chromatography CCV

Prep Date: See injection Log
Exp Date: 24 hours after prep
Prep'd By (Initials): TH

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date | Aliquot from Stock | Final Volume | Solvent | Final Standard Conc (ug/mL) |
| Ion Chromatography Standard Fluoride 1000µg/mL in H2O | o2si | O2SI-062002-01-01 | 1000 | 142626-24-38407 | 04/20/19 | 125 µL | 25 mL | Millipore Water | 5 |
| Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O | o2si | O2SI-062004-01-01 | 1000 | 142626-24-38408 | 04/20/19 | 62.5 µL | 25 mL | Millipore Water | 2.5 |
| Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O | o2si | 062001-08-03 | 5000 | 10084781-1-39578 | 02/21/20 | 125 µL | 25 mL | Millipore Water | 25 |
| Ortho-Phosphate as P Standard | Ultra Scientific | ICC-005A | 1000 | G34-CP-3323-39057 | 08/31/23 | 250 µL | 25 mL | Millipore Water | 10 |
| Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O | o2si | 062003-01-03 | 1000 | 880117-4-39577 | 02/21/20 | 125 µL | 25 mL | Millipore Water | 5 |
| Bromide Standard | Ultra Scientific | ICC-001 | 1000 | CR-5372-39521 | 12/31/21 | 312.5 µL | 25 mL | Millipore Water | 12.5 |
| Sulfate Standard | Agilent | ICC-006 | 1000 | CS-0688-40047 | 03/31/22 | 625 µL | 25 mL | Millipore Water | 25 |

**Name of Final Standard** CCV (TOC) **Prep'd By (Initials)** AR
**Prep Date** 05/02/19
**Exp Date** 05/30/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 100 uL | 40 mL | **DI Water** | 2.5 ppm |

**Name of Final Standard** TOC_LCS/LCSD **Prep'd By (Initials)** AR
**Prep Date** 05/02/19
**Exp Date** 05/30/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | ULTRA Scientific | IQC-106-5 | 1000 mg/L | **CR-0328-37639** | **02/28/19** | 100 uL | 40 mL | **DI Water** | 2.5 ppm |

**Name of Final Standard** TOC_MS/MSD **Prep'd By (Initials)** AR
**Prep Date** 05/02/19
**Exp Date** 05/30/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | ULTRA Scientific | IQC-106-5 | 1000 mg/L | **CR-0328-37639** | **02/28/19** | 100 uL | 40 mL | **sample** | 2.5 ppm |

**Name of Final Standard** CCV (TOC) **Prep'd By (Initials)** AR
**Prep Date** 04/17/19
**Exp Date** 05/15/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 100 uL | 40 mL | **DI Water** | 2.5 ppm |

**Name of Final Standard** TOC LCS/LCSD **Prep'd By (Initials)** AR
**Prep Date** 04/17/19
**Exp Date** 05/15/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | ULTRA Scientific | IQC-106-5 | 1000 mg/L | **CR-0328-37639** | ***02/28/2019** | 100 uL | 40 mL | **DI Water** | 2.5 ppm |

**Name of Final Standard** TOC MS/MSD **Prep'd By (Initials)** AR
**Prep Date** 04/17/19
**Exp Date** 05/15/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | ULTRA Scientific | IQC-106-5 | 1000 mg/L | **CR-0328-37639** | ***02/28/2019** | 100 uL | 40 mL | **sample** | 2.5 ppm |

*APPL re-certified TOC Lot CR-0328-37639 and extended the expiration date for 6 months to 8/28/19 per verification with a second source Lot CR-5157-40233 injected on 2/28/19

## Standard Prep

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Ferrous Iron Standards | | Prep'd By (Initials) | | HH | | |
| Prep Date | 06/15/18 | | | | | | |
| Exp Date | 06/15/19 | | | | | | |
| Stock Label | Supplier | Batch Number | Exp Date | Aliquot from Stock | Final Volume | Solvent | Ferrous Iron Concentration |
| Ferrous Ammonium Sulfate | J.T.Baker | 0000184592 | 08/21/20 | 0 351 | 250mL | 5ml H2SO4 (0000167828) Diluted with water | 200ug/L |
| Ferrous Sulfate | Mallinckrodt | Lot 5056 KDRX | NA | 0.249 | 250mL | 5ml H2SO4 (0000167828) Diluted with water | 200ug/L |
| Ferrous Iron CCV/LCS/MS/ICV | | | Prep'd By (Initials) | | HH | | |
| Prep Date | See Injection Log | | | | | | |
| Exp Date | 24 Hours | | | | | | |
| Initial Standard Information | Supplier | Batch Number | Exp Date | Final Standard Information | | | |
| Ferrous Iron CCV | J.T.Baker | 0000184592 | 06/14/19 | 500uL | 25mL | Deionized water | 4mg/L |
| Ferrous Iron ICV/LCS | Mallinckrodt | Lot 5056 KDRX | 06/14/19 | 375uL | 25mL | Deionized water | 3mg/L |
| | Ferrous Iron Calibration Curve | | Prep'd By (Initials) | | HH | | |
| Prep Date | 06/15/18 | | | | | | |
| Exp Date | 06/16/18 | | | | | | |
| Final Standard Information | | | | | | | |
| Point Label | Supplier | Batch Number | Exp Date | Aliquot from Stock (mL) | Final Volume | Solvent | Ferrous Iron Concentration |
| CCB | J.T.Baker | 0000184592 | 06/14/19 | 0 | 25mL | Deionized water | 0mg/L |
| Ical 1 | J T.Baker | 0000184592 | 06/14/19 | 0.125 | 25mL | Deionized water | 1mg/L |
| Ical 2 | J.T.Baker | 0000184592 | 06/14/19 | 0 25 | 25mL | Deionized water | 2mg/L |
| Ical 3 | J.T.Baker | 0000184592 | 06/14/19 | 0.5 | 25mL | Deionized water | 4mg/L |
| Ical 4 | J.T.Baker | 0000184592 | 06/14/19 | 0 625 | 25mL | Deionized water | 5mg/L |
| Ical 5 | J T.Baker | 0000184592 | 06/14/19 | 1.25 | 25mL | Deionized water | 10mg/L |
| ICV | Mallinckrodt | Lot 5056 KDRX | 06/14/19 | 0.375 | 25mL | Deionized water | 3mg/L |

## Reagent Prep

| Reagent | Chemical Lot # | Chemical | Chemical Expiration Date | Amount | Date Prep | Final Volumne |
|---|---|---|---|---|---|---|
| Colorizer | 0747C107 | 1,10-phenanthroline | na | 0.2158 | 04/05/19 | 200mL |
| | | 10% HCL conc | na | enough to dissolve | 01/15/19 | |
| Buffer | Z288018 | Ammonia Acetate | na | 249.2 | 02/09/19 | |
| | 2018071399 | Glacial Acetic Acid | 06/27/20 | 700mL | | |

# EPA 353.2 Injection Log

Directory: I:\EVE\Export\2019\

| RunID | Injected | | Sample Name | Misc Info | FileName | Multiplier |
|---|---|---|---|---|---|---|
| 1 | 24 Apr 2019 | 15:11 | Standard 1 TOXN/NO3 | | 190424A NO | 1. |
| 2 | 24 Apr 2019 | 15:13 | Standard 90 TOXN/NO3 | | 190424A NO | 1. |
| 3 | 24 Apr 2019 | 15:15 | Standard 91 TOXN/NO3 | | 190424A NO | 1. |
| 4 | 24 Apr 2019 | 15:17 | Standard 92 TOXN/NO3 | | 190424A NO | 1. |
| 5 | 24 Apr 2019 | 15:19 | Standard 93 TOXN/NO3 | | 190424A NO | 1. |
| 6 | 24 Apr 2019 | 15:22 | Standard 94 TOXN/NO3 | | 190424A NO | 1. |
| 7 | 24 Apr 2019 | 15:24 | Standard 0 TOXN/NO3 | | 190424A NO | 1. |
| 10 | 24 Apr 2019 | 15:32 | ICV NO3 TOXN | | 190424A NO | 1. |
| 11 | 24 Apr 2019 | 15:35 | ICB NO2 NO3 TOXN | | 190424A NO | 1. |
| 12 | 24 Apr 2019 | 15:37 | 190424A BLK NO2 NO3 TOXN | | 190424A NO | 1. |
| 13 | 24 Apr 2019 | 15:39 | 190424A LCS NO3 TOXN | | 190424A NO | 1. |
| 14 | 24 Apr 2019 | 15:41 | 190424A LCSD NO3 TOXN | | 190424A NO | 1. |
| 16 | 24 Apr 2019 | 15:52 | AZ89958W20 TOXN/NO3 | | 190424A NO | 1. |
| 19 | 24 Apr 2019 | 15:56 | AZ89958W20 MS TOXN/NO3 | | 190424A NO | 1. |
| 20 | 24 Apr 2019 | 15:57 | AZ89958W20 MSD TOXN/NO3 | | 190424A NO | 1. |
| 21 | 24 Apr 2019 | 15:58 | AZ89961W16 TOXN/NO3 | | 190424A NO | 1. |
| 25 | 24 Apr 2019 | 16:02 | CCV TOXN/NO3 | | 190424A NO | 1. |
| 26 | 24 Apr 2019 | 16:03 | CCB TOXN/NO3 | | 190424A NO | 1. |

# EPA 300.0 Injection Log

Directory: I:\Dionex\Charlie\

| RunID | Injected | | Sample Name | Misc Info | FileName | Multiplier |
|---|---|---|---|---|---|---|
| 1 | 01 Apr 2019 | 18:27 | CCB | | Anions | 1. |
| 2 | 01 Apr 2019 | 18:34 | i cal 1 | | Anions | 1. |
| 3 | 01 Apr 2019 | 18:42 | i cal 2 | | Anions | 1. |
| 4 | 01 Apr 2019 | 18:49 | i cal 3 | | Anions | 1. |
| 5 | 01 Apr 2019 | 18:56 | i cal 4 | | Anions | 1. |
| 6 | 01 Apr 2019 | 19:04 | i cal 5 | | Anions | 1. |
| 7 | 01 Apr 2019 | 19:11 | i cal 6 | | Anions | 1. |
| 8 | 01 Apr 2019 | 19:19 | i cal 7 | | Anions | 1. |
| 9 | 01 Apr 2019 | 19:26 | i cal 8 | | Anions | 1. |
| 10 | 01 Apr 2019 | 19:33 | ICB | | Anions | 1. |
| 11 | 01 Apr 2019 | 19:41 | ICV LCS | | Anions | 1. |
| 12 | 01 Apr 2019 | 19:48 | ICVD LCSD | | Anions | 1. |

# EPA 300.0 Injection Log

Directory: I:\Dionex\Charlie\

| RunID | Injected | | Sample Name | Misc Info | FileName | Multiplier |
|---|---|---|---|---|---|---|
| 9 | 24 Apr 2019 | 11:42 | CCV 190424 | | Anions | 1. |
| 10 | 24 Apr 2019 | 11:49 | CCB | | Anions | 1. |
| 11 | 24 Apr 2019 | 11:57 | 190424A LCS | | Anions | 1. |
| 12 | 24 Apr 2019 | 12:04 | 190424A LCSD | | Anions | 1. |
| 13 | 24 Apr 2019 | 12:12 | AZ89958W19 DF 5 | | Anions | 5. |
| 14 | 24 Apr 2019 | 12:19 | AZ89958W19 MS | | Anions | 1. |
| 15 | 24 Apr 2019 | 12:26 | AZ89958W19 MSD | | Anions | 1. |
| 16 | 24 Apr 2019 | 12:34 | AZ89961W15 DF 5 | | Anions | 5. |
| 17 | 24 Apr 2019 | 12:41 | AZ89958W19 | | Anions | 1. |
| 18 | 24 Apr 2019 | 12:49 | AZ89961W15 | | Anions | 1. |
| 24 | 24 Apr 2019 | 13:33 | CCV 190424 | | Anions | 1. |
| 25 | 24 Apr 2019 | 13:40 | CCB | | Anions | 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

May 30, 2019

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 88701

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

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

Dear Ms. Pascua:

Eleven water samples were received April 24,2019. Revised written results for the requested analyses are being provided on this May 30, 2019.

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, Laboratory Director
APPL, Inc.

PM/lac
Enclosure
cc: File

# Data Validation Package
# for
# 60481245 CIV 0053 Red Hill Fuel Storage
# APPL SDG 88701
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LABORATORY NAME: *APPL, Inc.*


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# CASE NARRATIVE

# Case Narrative

ARF: 88701

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

## Sample Receipt Information:

Eleven water samples were received April 24, 2019, at 3.0°C, 4.5°C, 2.5°C, 4.5°C, 1.0°C, 2.0°C, 4.5°C, and 1.5°C. The sample group was assigned Analytical Request Form (ARF) number 88701.

## Sample Preparation and Analysis Information:

For the EPA 8015B analysis, the samples were extracted according to EPA method 3520C. The sample extracts were silica gel cleaned according to APPL's SOP CLN004 and placed on hold.

For the EPA 8270D SIM analysis, the samples were extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the samples were extracted according to EPA method 3520C.

For the APPL SOP ANA2MEE analysis, the samples were extracted according to EPA method 3535.

For the EPA 8260B analysis, the samples were purged according to EPA method 5030B.

For the RSK-175 analysis, the samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed.

For the EPA 9060A, 300.0, 353.2, SM 2320B, and SM 3500FeB analyses, the samples were prepared according to the methods.

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

## Analytical Exceptions, Deviations and Abnormalities.

**EPA 8015B:** The method blank contained a discrete peak in the TPH-O range which, when analyzed by GC/MS was determined to by a phthalate plasticizer which is not indicative of oil. The samples were re-extracted outside of holding time. Both sets of data are reported.

In the MS/MSD performed on sample ERH785, oil was outside the upper control criterion. Corrective action: the client was notified.

The In the 190502A2 LCS/LCSD re-extract, the diesel RPD exceeded the 30% limit.

Manual integrations were performed in accordance with APPL's SOP. Chromatograms of before and after manual integration are enclosed. In datafile 506004 LCS re-extract, the following was manually integrated: Diesel.

**EPA 8270D Phenol:** In the MS/MSD performed on sample ERH785, the RPD exceeded the 20% limit. Corrective action: the client was notified.

**EPA 8260B:** In the MS/MSD performed on sample ERH 785, 3 compounds recovered outside their control limits. Four RPD exceeded the 20% limit. Corrective action: the client was notified

**EPA 8260B GRO:** In the MS/MSD performed on sample ERH 785, the RPD exceeded the 20% limit. Corrective action: the client was notified.

**Inorganic Analyses:** Nitrate was analyzed twenty-three days after collection.

| SDG | Received | Client ID | APPL ID | Collected DateTime | Matrix | Method | Method Description |
|---|---|---|---|---|---|---|---|
| 88701 | 04/24/19 | ERH784 | AZ90050 | 04/23/19 7:50:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88701 | 04/24/19 | ERH784 | AZ90050 | 04/23/19 7:50:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88701 | 04/24/19 | ERH784 | AZ90050 | 04/23/19 7:50:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88701 | 04/24/19 | ERH784 | AZ90050 | 04/23/19 7:50:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | SM 2320B | Wetlab 2320B - Water |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | SM3500FeB | Ferrous Iron |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | EPA 353.2 | EPA 353.2 - WATER |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | EPA 8270D | EPA 8270D WATER |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ RE-EXTRACT |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | SW846 9060A | 9060A DOC |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88701 | 04/24/19 | ERH785 | AZ90051 | 04/23/19 8:40:00 AM | WATER | SW846 9060A | 9060A TOC |
| 88701 | 04/24/19 | ERH786 | AZ90052 | 04/23/19 8:40:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88701 | 04/24/19 | ERH786 | AZ90052 | 04/23/19 8:40:00 AM | WATER | EPA 8270D | EPA 8270D WATER |
| 88701 | 04/24/19 | ERH786 | AZ90052 | 04/23/19 8:40:00 AM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88701 | 04/24/19 | ERH786 | AZ90052 | 04/23/19 8:40:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88701 | 04/24/19 | ERH786 | AZ90052 | 04/23/19 8:40:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ RE-EXTRACT |
| 88701 | 04/24/19 | ERH786 | AZ90052 | 04/23/19 8:40:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88701 | 04/24/19 | ERH786 | AZ90052 | 04/23/19 8:40:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88701 | 04/24/19 | ERH786 | AZ90052 | 04/23/19 8:40:00 AM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88701 | 04/24/19 | ERH796 | AZ90053 | 04/22/19 1:00:00 PM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88701 | 04/24/19 | ERH796 | AZ90053 | 04/22/19 1:00:00 PM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88701 | 04/24/19 | ERH796 | AZ90053 | 04/22/19 1:00:00 PM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88701 | 04/24/19 | ERH796 | AZ90053 | 04/22/19 1:00:00 PM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | SM 2320B | Wetlab 2320B - Water |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | SM3500FeB | Ferrous Iron |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | EPA 353.2 | EPA 353.2 - WATER |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | EPA 8270D | EPA 8270D WATER |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | SW846 9060A | 9060A DOC |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88701 | 04/24/19 | ERH797 | AZ90054 | 04/22/19 1:40:00 PM | WATER | SW846 9060A | 9060A TOC |
| 88701 | 04/24/19 | ERH798 | AZ90055 | 04/22/19 12:00:00 PM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88701 | 04/24/19 | ERH798 | AZ90055 | 04/22/19 12:00:00 PM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88701 | 04/24/19 | ERH798 | AZ90055 | 04/22/19 12:00:00 PM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88701 | 04/24/19 | ERH798 | AZ90055 | 04/22/19 12:00:00 PM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | SM 2320B | Wetlab 2320B - Water |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | SM3500FeB | Ferrous Iron |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | EPA 353.2 | EPA 353.2 - WATER |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | EPA 8270D | EPA 8270D WATER |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | SW846 9060A | 9060A DOC |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88701 | 04/24/19 | ERH799 | AZ90056 | 04/22/19 1:35:00 PM | WATER | SW846 9060A | 9060A TOC |
| 88701 | 04/24/19 | ERH800 | AZ90057 | 04/22/19 3:25:00 PM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88701 | 04/24/19 | ERH800 | AZ90057 | 04/22/19 3:25:00 PM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88701 | 04/24/19 | ERH800 | AZ90057 | 04/22/19 3:25:00 PM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88701 | 04/24/19 | ERH800 | AZ90057 | 04/22/19 3:25:00 PM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | SM 2320B | Wetlab 2320B - Water |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | SM3500FeB | Ferrous Iron |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | EPA 353.2 | EPA 353.2 - WATER |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | EPA 8270D | EPA 8270D WATER |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | SW846 9060A | 9060A DOC |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88701 | 04/24/19 | ERH801 | AZ90058 | 04/22/19 4:45:00 PM | WATER | SW846 9060A | 9060A TOC |
| 88701 | 04/24/19 | ERH802 | AZ90059 | 04/23/19 9:45:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88701 | 04/24/19 | ERH802 | AZ90059 | 04/23/19 9:45:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88701 | 04/24/19 | ERH802 | AZ90059 | 04/23/19 9:45:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88701 | 04/24/19 | ERH802 | AZ90059 | 04/23/19 9:45:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | SM 2320B | Wetlab 2320B - Water |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | SM3500FeB | Ferrous Iron |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | EPA 353.2 | EPA 353.2 - WATER |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | EPA 8270D | EPA 8270D WATER |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | SW846 9060A | 9060A DOC |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88701 | 04/24/19 | ERH803 | AZ90060 | 04/23/19 10:45:00 AM | WATER | SW846 9060A | 9060A TOC |

**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, e.g. mineral spirits, kerosene, stoddard solvent, white gas |
| T2 M | Is mainly lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas |
| T3 I | Includes higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel |
| T3 M | Is mainly higher boiling hydrocarbons, e.g. asphaltene, waste 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% |

# SAMPLE RECORDS MANAGEMENT

## CHAIN OF CUSTODY,

## ARF, CRF, AND

## CLIENT COMMUNICATION

# APPL - Analysis Request Form 88701

Client: **AECOM**
Address: **1001 Bishop Street, Suite 1600**
**Honolulu, HI 96813**
Attn: **Margie Pascua**
Phone: **808-356-5373** Fax: **808-523-8950**
Job: **60571032 CV18F0126 Red Hill Fuel Storage**
PO #: **18S-22209-HI27 PO# 102604**
Chain of Custody (Y/N): **Y** # **036-039, 045-048**
RAD Screen (Y/N): **Y** pH (Y/N): **Y**
Turn Around Type: **1 WEEK**

Received by: **AAR**
Date Received: **04/24/19** Time: **10:00**
Delivered by: **FEDEX**
Shuttle Custody Seals (Y/N): **Y** Time Zone: **-10**
Chest Temp(s): **SEE CRF**
Color: **VOA/F-Pink**
Samples Chilled until Placed in Refrig/Freezer: **Y**
Project Manager: **Libby Cheesebor**
QC Report Type: **DVP4DOD/EQUIS/HI**
Due Date: **05/01/19**

Comments:
***PM: login and F1s to Margie.Pascua@aecom.com***
***AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms (LOQ/LOD database/DL)***
***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; analyze SGC if detections***
***RSK: Methane only; 8011: EDB only; $87DC53W5: report phenol; $87DMEEW5: 2-MEE (LCS Spk 80ppb).***

***FR: HC to LDC, 2 labeled CDs to Margie Pascua.***
***EDD: AECOM EQuIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com***

Sample Distribution:
**GC: 6-$87DC53W5, 6-$87DMEEW5, 6-$DOC53W5LIQ, 6-$SIM53LIQ51**
**Extractions: 6-_LIQ003, 6-_LIQ005, 6-_MWE2MEE**
**VOA: 11-$86BTOTXDOD5W, 11-$GASBL, 11-$GRO86BW, 10-$RSKMETH**
**Wetlab: 5-$232W(HCO3,CO3,ALK), 5-$300W(NO3,CL,SO4), 5-$35FE, 5-$35OF, 5-$DOCW53,5-$TOCW53**

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. | ERH784 | LCSD | AZ90050W | 04/23/19 07:50 | $86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH |
| 2. | ERH785 | MS/MSD | AZ90051W | 04/23/19 08:40 | $232W(HCO3,CO3,ALK), $300W(NO3,CL,SO4), $35FE, $35OF, $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $TOCW53 |
| 3. | ERH786 | LCSD | AZ90052W | 04/23/19 08:40 | $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $GASBL, $GRO86BW, $SIM53LIQ51 |

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-REDHILL *Printed 05/03/19 8:47:59 AM* Computer: APPL-LC **# 88701**

| | | | | | |
|---|---|---|---|---|---|
| 4. | ERH796 | LCSD AZ90053W | 04/22/19 | 13:00 | $86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH |
| 5. | ERH797 | LCSD AZ90054W | 04/22/19 | 13:40 | $232W(HCO3,CO3,ALK), $300W(NO3,CL,SO4), $35FE, $35OF, $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $TOCW53 |
| 6. | ERH798 | LCSD AZ90055W | 04/22/19 | 12:00 | $86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH |
| 7. | ERH799 | LCSD AZ90056W | 04/22/19 | 13:35 | $232W(HCO3,CO3,ALK), $300W(NO3,CL,SO4), $35FE, $35OF, $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $TOCW53 |
| 8. | ERH800 | LCSD AZ90057W | 04/22/19 | 15:25 | $86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH |
| 9. | ERH801 | LCSD AZ90058W | 04/22/19 | 16:45 | $232W(HCO3,CO3,ALK), $300W(NO3,CL,SO4), $35FE, $35OF, $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $TOCW53 |
| 10. | ERH802 | LCSD AZ90059W | 04/23/19 | 09:45 | $86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH |
| 11. | ERH803 | LCSD AZ90060W | 04/23/19 | 10:45 | $232W(HCO3,CO3,ALK), $300W(NO3,CL,SO4), $35FE, $35OF, $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $TOCW53 |

# APPL Sample Receipt Form

ARF# **88701**

| Sample | Container Type | Count | p |
|---|---|---|---|
| AZ90050 | [13] VOAs - HCL | 4 | NA |
| AZ90051 | [3] PL 250mL | 1 | NA |
| | [10] PL 250mL - H2SO4 | 1 | 1.7 |
| | [13] VOAs - HCL | 8 | NA |
| | [17] Amber Liter | 15 | NA |
| | [32] Clear VOA - H2SO4 | 8 | NA |
| | [38] 250mL brn poly, HCl prsvd | 1 | 1.7 |
| | [40] 500mL Amber, unprsrvd | 6 | NA |
| AZ90052 | [13] VOAs - HCL | 4 | NA |
| | [17] Amber Liter | 5 | NA |
| | [40] 500mL Amber, unprsrvd | 2 | NA |
| AZ90053 | [13] VOAs - HCL | 4 | NA |
| AZ90054 | [3] PL 250mL | 1 | NA |
| | [10] PL 250mL - H2SO4 | 1 | 1.7 |
| | [13] VOAs - HCL | 4 | NA |
| | [17] Amber Liter | 5 | NA |
| | [32] Clear VOA - H2SO4 | 8 | NA |
| | [38] 250mL brn poly, HCl prsvd | 1 | 1.7 |
| | [40] 500mL Amber, unprsrvd | 2 | NA |
| AZ90055 | [13] VOAs - HCL | 4 | NA |
| AZ90056 | [3] PL 250mL | 1 | NA |
| | [10] PL 250mL - H2SO4 | 1 | 1.7 |
| | [13] VOAs - HCL | 4 | NA |
| | [17] Amber Liter | 5 | NA |
| | [32] Clear VOA - H2SO4 | 8 | NA |
| | [38] 250mL brn poly, HCl prsvd | 1 | 1.7 |
| | [40] 500mL Amber, unprsrvd | 2 | NA |
| AZ90057 | [13] VOAs - HCL | 4 | NA |
| AZ90058 | [3] PL 250mL | 1 | NA |
| | [10] PL 250mL - H2SO4 | 1 | 1.7 |
| | [13] VOAs - HCL | 4 | NA |
| | [17] Amber Liter | 5 | NA |
| | [32] Clear VOA - H2SO4 | 8 | NA |
| | [38] 250mL brn poly, HCl prsvd | 1 | 1.7 |
| | [40] 500mL Amber, unprsrvd | 2 | NA |
| AZ90059 | [13] VOAs - HCL | 4 | NA |
| AZ90060 | [3] PL 250mL | 1 | NA |
| | [10] PL 250mL - H2SO4 | 1 | 1.7 |
| | [13] VOAs - HCL | 4 | NA |
| | [17] Amber Liter | 5 | NA |
| | [32] Clear VOA - H2SO4 | 8 | NA |
| | [38] 250mL brn poly, HCl prsvd | 1 | 1.7 |
| | [40] 500mL Amber, unprsrvd | 2 | NA |

| Sample | Container Type | Count | p |
|---|---|---|---|

88701

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

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

# CHAIN OF CUSTODY RECORD

36 37 38 39

C.O.C. 045 46 47 48

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com AMANDA'S COPY | Email: mary.basano@aecom.com; usapimaging@aecom.com |

| Project Name/Number | Sampler (Print) | Purchase Order Number | Sampler (Signature) |
|---|---|---|---|
| CV18F0126 / 60571032 | MP for KL, DH, MM | 102604 | |

Date Shipped: 04/22/19
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Sed. | Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, ~~TICs~~ | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 3010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC, DOC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH784 | Trip Blank | 04/23/19 | 0750 | HST | 4 | X | | | X | | | | | | | X | | | | | | |
| ERH785 | RHMW2254-01 | 04/23/19 | 0840 | HST | ~~16~~ 40 | X | | | X | | X | X* | X | X | X | X | X | X | X | | X | MS/MSD: 505, 8260, 8270, 537 see other coolers |
| ERH786 | RHMW2204-01 | 04/23/19 | 0840 | HST | 11 | X | | | X | | X | X* | X | X | X | | | | | | | |
| ERH796 | RT Trip Blank | 4/22 | 1300 | | 4 | X | | | X | | | | | | X | | | | | | | |
| ERH797 | RHMW05 | 4/22 | 1340 | | 22 | X | | | X | | X | X* | X | X | X | X | X | X | X | | X | |
| ERH798 | Trip Blank | 4/22 | 1200 | | 4 | X | | | X | | | | | | X | | | | | | | |
| ERH799 | RHMW06 | 4/22 | 1335 | | 22 | X | | | X | | X | X* | X | X | X | X | X | X | X | | X | |
| ERH800 | Trip Blank MP 04/22/19 | 4/22 | 1525 | | 4 | X | | | X | | | | | | X | | | | | | | Ferrous iron and DOC are field-filtered. |
| ERH801 | RHMW07 | 4/22 | 1645 | | 22 | X | | | X | | X | X | X | X | X | X | X | X | X | | X | *Analyze TPH w/SGT only if TPH-d/o detected. |
| | | | | | | | | | | | | | | | | | | | | | | TPH-d/o & PAHs need liquid-liquid extraction. |

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Margie Pascua | 04/23/19 | 1500 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4-24-19 | 1000 | |

See page 2 for Container Preservative and Sampling Information

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 039

**Report to:** PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373
Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950
Attn: Margie Pascua
Email: margie.pascua@aecom.com Amanda's Copy

**Invoice to:** PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249
Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950
Attn: Mary Basano
Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032
Sampler (Print): MP for GM, RS, TV
Purchase Order Number: 102604
Sampler (Signature):

Date Shipped: 4/23/19
Carrier: FedEx
Waybill No.:
Comments:

Analysis Requested/Method Number

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Matrix: Sed. | Matrix: Soil | | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, ~~TICs~~ | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC, DOC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH802 | Trip Blank | 04/23/19 | 0945 | HST | 4 | X | | | | X | | | | | | | X | | | | | |
| ERH803 | RHMW08 | 04/23/19 | 1045 | HST | 22 | X | | | | X | | X | X* | X | X | X | X | X | X | X | | X |

MP 4/23/19

Ferrous iron and DOC are field-filtered.
*Analyze TPH w/SGT only if TPH-d/o detected.
TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Margie Pascua | 04/23/19 | 1500 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date 4-24-19 | Time 1000 | Received at lab by: |

See page 2 for Container Preservative and Sampling Information

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 037

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com | Email: mary.basano@aecom.com; usapimaging@aecom.com |

| Project Name/Number | Sampler (Print) | Purchase Order Number | Sampler (Signature) |
|---|---|---|---|
| CV18F0126 / 60571032 | MP for GM, RS, TV | 102604 | |

Date Shipped: 04/23/19
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Matrix: Sed. | Matrix: Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, [illegible] | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 3010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC, DOC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH 798 | Trip Blank | 04/22/19 | 1200 | HST | 4 | X | | | X | | | | | | | X | | | | | |
| ERH 799 | RHMW 06 | 04/22/19 | 1335 | HST | 22 | X | | | X | | X | X* | X | X | X | X | X | X | X | | X |

MP 04/23/19

Ferrous iron and DOC are field-filtered.

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

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

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Margie Pascua | 04/23/19 | 1500 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4-24-19 | 1000 | |

See page 2 for Container Preservative and Sampling Information

APPL LABS

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 038

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com | Email: mary.basano@aecom.com; usapimaging@aecom.com |

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): MP for GM, RG, TV
Sampler (Signature):
Date Shipped: 04/23/19
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Sed. | Soil | 8260C BTEX, TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenols-TICs | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH600 | Trip Blank | 4/22/19 | 1525 | HST | 4 | X | | | X | | | | | | | X | | | | | |
| ERH601 | RHMW07 | 4/22/19 | 1645 | HST | 22 | X | | | X | | X | X* | X | X | X | X | X | X | X | | X |

MP 4/23/19

Ferrous iron and DOC are field-filtered.
*Analyze TPH w/SGT only if TPH-d/o detected.
TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature: 4.5°

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Margie Pascua | 04/23/19 | 1500 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4-24-19 | 1000 | |

See page 2 for Container Preservative and Sampling Information

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 039

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com | Email: mary.basano@aecom.com; usapimaging@aecom.com |

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): MP for GM, RS, TV
Sampler (Signature):

Date Shipped: 4/23/19
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Matrix: Sed. | Matrix: Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, ~~Hex~~ | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC, ~~DOC~~ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH802 | Trip Blank | 04/23/19 | 0945 | HST | 4 | X | | | X | | | | | | | X | | | | | |
| ERH803 | RHMW08 | 04/23/19 | 1045 | HST | 22 | X | | | X | | X | X* | X | X | X | X | X | X | X | | X |

MP 4/23/19

Ferrous iron and DOC are field-filtered.
*Analyze TPH w/SGT only if TPH-d/o detected.
TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Margie Pascua | 04/23/19 | 1500 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4-24-19 | 1000 | |

See page 2 for Container Preservative and Sampling Information

88701

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 036

**Report to:** PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373
Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950
Attn: Margie Pascua
Email: margie.pascua@aecom.com

**Invoice to:** PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249
Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950
Attn: Mary Basano
Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): MP for ~~GM, RS, TV~~ KL, MM, DM — MP 04/23/19
Sampler (Signature): [signature]

Date Shipped: 4/23/19
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Matrix: Sed. | Matrix: Soil | | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, ~~TICs~~ MS | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC, DOC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH796 | Trip Blank | 04/22/19 | 1300 | HST | 4 | X | | | | X | | | | | | | X | | | | | | |
| ERH797 | RHMW05 | 04/22/19 | 1340 | HST | 22 | X | | | | X | | X | X* | X | X | X | X | X | X | X | | X | |

MP 04/23/19

Ferrous iron and DOC are field-filtered.
*Analyze TPH w/SGT only if TPH-d/o detected.
TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature: 3.0, 4.5, 2.5, 4.5, 1.0, 2.0, 4.5, 1.5

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Margie Pascua | 04/23/19 | 1500 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4-24-19 | 1000 | [signature] |

See page 2 for Container Preservative and Sampling Information

APPL LABS

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 045

**Report to:** PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373

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

Attn: Margie Pascua

Email: margie.pascua@aecom.com

**Invoice to:** PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249

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

Attn: Mary Basano

Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032

Purchase Order Number: 102604

Sampler (Print): MP for KL, DH, MM

Sampler (Signature):

Date Shipped: 04/22/19

Carrier: FedEx

Waybill No.:

Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Matrix: Sed. | Matrix: Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, ~~Hex~~ SIM | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH784 | Trip Blank | 04/23/19 | 0750 | HST | 4 | X | | | X | | | | | | | X | | | | | | |
| ERH785 | RHMW2254-01 | 04/23/19 | 0840 | HST | 16 | X | | | X | | | | | | | X | | | | | X | MS/MSD: 8015, 8260, 8270, 8270 SIM See other coolers |
| ERH786 | RHMW2254-01 | 04/23/19 | 0840 | HST | 11 | X | | | X | | X | X* | X | X | X | | | | | | | |

MP 04/22/19

Ferrous iron and DOC are field-filtered.

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

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

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Margie Pascua | 04/23/19 | 1500 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4-24-19 | 1000 | |

See page 2 for Container Preservative and Sampling Information

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 047

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com | Email: mary.basano@aecom.com; usapimaging@aecom.com |

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): MP for KL, DM, MM
Sampler (Signature):

Date Shipped: 4/23/19
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Matrix: Sed. | Matrix: Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, TICs | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 3010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH785 | RHMW2254-01 | 4/23/19 | 0840 | HST | 8 | X | | | | | X | X* | X | X | X | | | | | | | MS/MSD: 8015, 8260, 8270, 8270 SIM see other codes. |
| | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | |

MP 04/23/19

Ferrous iron and DOC are field-filtered.
*Analyze TPH w/SGT only if TPH-d/o detected.
TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Margie Pascua | 04/23/19 | 1500 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4-24-19 | 1000 | |

See page 2 for Container Preservative and Sampling Information

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 046

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com | Email: mary.basano@aecom.com; usapimaging@aecom.com |

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): MP for KL, DH, MM
Sampler (Signature):

Date Shipped: 4/23/19
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Sed. | Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, TICs | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 8010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC, DOC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH785 | RHMW2254-01 | 4/23/19 | 0940 | HST | 8 | X | | | | | X | X* | X | X | X | | | | | | | MS/MSD: 8015, 8260, 8270, 8270 SIM 622 other orders |
| | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | Ferrous iron and DOC are field-filtered. |
| | | | | | | | | | | | | | | | | | | | | | | *Analyze TPH w/SGT only if TPH-d/o detected. |
| | | | | | | | | | | | | | | | | | | | | | | TPH-d/o & PAHs need liquid-liquid extraction |

MP 04/23/19

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Margie Pascua | 04/23/19 | 1900 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4-24-19 | 1000 | |

See page 2 for Container Preservative and Sampling Information

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 048

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com | Email: mary.basano@aecom.com; usapimaging@aecom.com |

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): MP for KL, DM, MM
Sampler (Signature):

Date Shipped: 4/23/19
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Sed. | Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT* | 8270DSIM PAHs short list | 8270D Phenol, [illegible] | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC, DOC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH1785 | RHMW2254-01 | 04/23/19 | 0840 | HST | 8 | X | | | | | X | X | X | X | X | | X | X | Y | | X | MS/MSD: BTEX, 8260, 8270, 8270SIM See other notes |
| | | | | | | | | | | | | | | | | | | | | | | |
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MP 4/23/19

Ferrous iron and DOC are field-filtered.
*Analyze TPH w/SGT only if TPH-d/o detected.
TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Margie Pascua | 04/23/19 | 1500 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4.24.19 | 1000 | |

See page 2 for Container Preservative and Sampling Information

**COOLER RECEIPT FORM** **ARF: 88701**

1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 04/24/19

2) Coolers: Number of Coolers: 8

3) YES Were custody seals present and intact?
How many? 16 Name/Date on seal? SEE BELOW

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

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

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use R1

8) Cooler temp(s): In °C

| | | | | | |
|---|---|---|---|---|---|
| 1: 3.0°C | 2: 4.5°C | 3: 2.5°C | 4: 4.5°C | 5: 1.0°C | 6: 2.0°C |
| 7: 4.5°C | 8: 1.5°C | 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

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) NA Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea:
Smaller than a pea:

**Preservation Hold time:**

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

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

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 >

22) NO Were unpreserved VOA Vials received?

23) NA 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:

CUSTODY SEAL
APPL, Inc.
(559) 275-2175
Date 4/24/19
Initials MP

Personnel receiving samples: ZG Second reviewer:
Personnel labeling samples: ZG
Project manager notified: ZG Date/Time of notification 04/24/19
Name of client notified: Date/Time of notification

Revision: 22, November 5, 2013

# SAMPLE RESULTS

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH785**

**APPL ID: AZ90051**

Sample Collection Date: 04/23/19

QCG: #DOC53-190426A2-240138

| 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 | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 72.5 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 95.2 | 56-125 | | | % | 04/26/19 | 04/29/19 |

| | |
|---|---|
| Quant Method: | DOC0411.M |
| Run #: | 419057 |
| Instrument: | Apollo |
| Sequence: | 190419 |
| Dilution Factor: | 1 |
| Initials: | BTI |

*Printed: 05/16/19 2:41:05 PM*

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

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH785**

**APPL ID: AZ90051**

Sample Collection Date: 04/23/19

QCG: #DOC53-190502A2-240343

| 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 | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 105 | 60-142 | | | % | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 97.3 | 56-125 | | | % | 05/02/19 | 05/06/19 |

Quant Method: DOC0411.M
Run #: 506013
Instrument: Apollo
Sequence: 190506
Dilution Factor: 1
Initials: BTI

*Printed: 05/15/19 4:03:15 PM*

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

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH786**

**APPL ID: AZ90052**

Sample Collection Date: 04/23/19

QCG: #DOC53-190426A2-240138

| 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 | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 99.9 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 93.3 | 56-125 | | | % | 04/26/19 | 04/29/19 |

Quant Method: DOC0411.M
Run #: 419060
Instrument: Apollo
Sequence: 190419
Dilution Factor: 1
Initials: BTI

*Printed: 05/16/19 2:41:05 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH786**

**APPL ID: AZ90052**

Sample Collection Date: 04/23/19

QCG: #DOC53-190502A2-240343

| 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 | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 103 | 60-142 | | | % | 05/02/19 | 05/06/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 98.5 | 56-125 | | | % | 05/02/19 | 05/06/19 |

Quant Method: DOC0411.M
Run #: 506014
Instrument: Apollo
Sequence: 190506
Dilution Factor: 1
Initials: BTI

*Printed: 05/15/19 4:03:15 PM*

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

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH797**
Sample Collection Date: 04/22/19

ARF: 88701
**APPL ID: AZ90054**
QCG: #DOC53-190426A2-240138

| 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 | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 98.8 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 104 | 56-125 | | | % | 04/26/19 | 04/29/19 |

Quant Method: DOC0411.M
Run #: 419061
Instrument: Apollo
Sequence: 190419
Dilution Factor: 1
Initials: BTI

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

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH799**

**APPL ID: AZ90056**

Sample Collection Date: 04/22/19

QCG: #DOC53-190426A2-240138

| 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 | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 96.5 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 92.4 | 56-125 | | | % | 04/26/19 | 04/29/19 |

Quant Method: DOC0411.M
Run #: 419062
Instrument: Apollo
Sequence: 190419
Dilution Factor: 1
Initials: BTI

*Printed: 05/16/19 2:41:05 PM*

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

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH801**

**APPL ID: AZ90058**

Sample Collection Date: 04/22/19

QCG: #DOC53-190426A2-240138

| 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 | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 95.1 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 91.5 | 56-125 | | | % | 04/26/19 | 04/29/19 |

| | |
|---|---|
| Quant Method: | DOC0411.M |
| Run #: | 419064 |
| Instrument: | Apollo |
| Sequence: | 190419 |
| Dilution Factor: | 1 |
| Initials: | BTI |

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

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH803**
Sample Collection Date: 04/23/19

ARF: 88701
**APPL ID: AZ90060**
QCG: #DOC53-190426A2-240138

| 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 | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 96.7 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 91.9 | 56-125 | | | % | 04/26/19 | 04/29/19 |

Quant Method: DOC0411.M
Run #: 419065
Instrument: Apollo
Sequence: 190419
Dilution Factor: 1
Initials: BTI

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

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH785**

**APPL ID: AZ90051**

Sample Collection Date: 04/23/19

QCG: #SIM53-190424A-239856

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 87.7 | 39-114 | | | % | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 92.1 | 58-120 | | | % | 04/24/19 | 04/26/19 |

Quant Method: L0326.M
Run #: 0426L012
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

*Printed: 04/30/19 3:45:37 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH786**

**APPL ID: AZ90052**

Sample Collection Date: 04/23/19

QCG: #SIM53-190424A-239856

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 87.3 | 39-114 | | | % | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 93.7 | 58-120 | | | % | 04/24/19 | 04/26/19 |

Quant Method: L0326.M
Run #: 0426L015
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

*Printed: 04/30/19 3:45:37 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH797**

**APPL ID: AZ90054**

Sample Collection Date: 04/22/19

QCG: #SIM53-190424A-239856

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 89.4 | 39-114 | | | % | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 91.5 | 58-120 | | | % | 04/24/19 | 04/26/19 |

Quant Method: L0326.M
Run #: 0426L016
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

*Printed: 04/30/19 3:45:37 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH799**

**APPL ID: AZ90056**

Sample Collection Date: 04/22/19

QCG: #SIM53-190424A-239856

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 85.3 | 39-114 | | | % | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 88.3 | 58-120 | | | % | 04/24/19 | 04/26/19 |

Quant Method: L0326.M
Run #: 0426L017
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

*Printed: 04/30/19 3:45:37 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH801**
Sample Collection Date: 04/22/19

ARF: 88701
**APPL ID: AZ90058**
QCG: #SIM53-190424A-239856

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 85.0 | 39-114 | | | % | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 93.9 | 58-120 | | | % | 04/24/19 | 04/26/19 |

Quant Method: L0326.M
Run #: 0426L018
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH803**
Sample Collection Date: 04/23/19

ARF: 88701
**APPL ID: AZ90060**
QCG: #SIM53-190424A-239856

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 96.2 | 39-114 | | | % | 04/24/19 | 04/26/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 97.0 | 58-120 | | | % | 04/24/19 | 04/26/19 |

Quant Method: L0326.M
Run #: 0426L019
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH785**

**APPL ID: AZ90051**

Sample Collection Date: 04/23/19

QCG: #87DC5-190424A-239806

| 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 | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 86.7 | 43-140 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 69.6 | 44-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 83.9 | 19-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 80.4 | 44-120 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 80.7 | 10-115 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 75.7 | 50-134 | | | % | 04/24/19 | 04/26/19 |

Quant Method: Y0319NC.M
Run #: 0411Y204
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
ARF: 88701
**Sample ID: ERH786**
**APPL ID: AZ90052**
Sample Collection Date: 04/23/19
QCG: #87DC5-190424A-239806

| 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 | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 75.5 | 43-140 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 61.5 | 44-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 71.7 | 19-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 67.9 | 44-120 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 68.2 | 10-115 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 63.5 | 50-134 | | | % | 04/24/19 | 04/26/19 |

Quant Method: Y0319NC.M
Run #: 0411Y207
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH797**

**APPL ID: AZ90054**

Sample Collection Date: 04/22/19

QCG: #87DC5-190424A-239806

| 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 | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 80.6 | 43-140 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 65.7 | 44-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 80.1 | 19-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 73.2 | 44-120 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 76.5 | 10-115 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 68.4 | 50-134 | | | % | 04/24/19 | 04/26/19 |

Quant Method: Y0319NC.M
Run #: 0411Y208
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH799**

**APPL ID: AZ90056**

Sample Collection Date: 04/22/19

QCG: #87DC5-190424A-239806

| 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 | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 79.4 | 43-140 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 66.2 | 44-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 81.8 | 19-119 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 75.8 | 44-120 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 77.0 | 10-115 | | | % | 04/24/19 | 04/26/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 69.5 | 50-134 | | | % | 04/24/19 | 04/26/19 |

Quant Method: Y0319NC.M
Run #: 0411Y209
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH801**
Sample Collection Date: 04/22/19

ARF: 88701
**APPL ID: AZ90058**
QCG: #87DC5-190424A-239806

| 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 | 04/24/19 | 04/27/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 76.8 | 43-140 | | | % | 04/24/19 | 04/27/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 63.6 | 44-119 | | | % | 04/24/19 | 04/27/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 68.2 | 19-119 | | | % | 04/24/19 | 04/27/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 71.5 | 44-120 | | | % | 04/24/19 | 04/27/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 65.1 | 10-115 | | | % | 04/24/19 | 04/27/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 66.1 | 50-134 | | | % | 04/24/19 | 04/27/19 |

Quant Method: Y0319NC.M
Run #: 0411Y210
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH803**

**APPL ID: AZ90060**

Sample Collection Date: 04/23/19

QCG: #87DC5-190424A-239806

| 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 | 04/24/19 | 04/27/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 109 | 43-140 | | | % | 04/24/19 | 04/27/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 87.3 | 44-119 | | | % | 04/24/19 | 04/27/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 93.3 | 19-119 | | | % | 04/24/19 | 04/27/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 90.4 | 44-120 | | | % | 04/24/19 | 04/27/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 88.3 | 10-115 | | | % | 04/24/19 | 04/27/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 90.9 | 50-134 | | | % | 04/24/19 | 04/27/19 |

Quant Method: Y0319NC.M
Run #: 0411Y211
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH785**

**APPL ID: AZ90051**

Sample Collection Date: 04/23/19

QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

Quant Method: YMEE0430.M
Run #: 0430Y021
Instrument: Yoda
Sequence: Y190430M
Dilution Factor: 1
Initials: MA

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

# EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH786**

**APPL ID: AZ90052**

Sample Collection Date: 04/23/19

QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

| | |
|---|---|
| Quant Method: | YMEE0430.M |
| Run #: | 0430Y024 |
| Instrument: | Yoda |
| Sequence: | Y190430M |
| Dilution Factor: | 1 |
| Initials: | MA |

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

# EPA 8270D MODIFIED WATER

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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH797**
Sample Collection Date: 04/22/19

ARF: 88701
**APPL ID: AZ90054**
QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

| | |
|---|---|
| Quant Method: | YMEE0430.M |
| Run #: | 0430Y025 |
| Instrument: | Yoda |
| Sequence: | Y190430M |
| Dilution Factor: | 1 |
| Initials: | MA |

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# EPA 8270D MODIFIED WATER

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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH799**
Sample Collection Date: 04/22/19

ARF: 88701
**APPL ID: AZ90056**
QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

Quant Method: YMEE0430.M
Run #: 0430Y026
Instrument: Yoda
Sequence: Y190430M
Dilution Factor: 1
Initials: MA

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

# EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH801**
Sample Collection Date: 04/22/19

ARF: 88701
**APPL ID: AZ90058**
QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

| | |
|---|---|
| Quant Method: | YMEE0430.M |
| Run #: | 0430Y027 |
| Instrument: | Yoda |
| Sequence: | Y190430M |
| Dilution Factor: | 1 |
| Initials: | MA |

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

# EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH803**

**APPL ID: AZ90060**

Sample Collection Date: 04/23/19

QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

| | |
|---|---|
| Quant Method: | YMEE0430.M |
| Run #: | 0430Y028 |
| Instrument: | Yoda |
| Sequence: | Y190430M |
| Dilution Factor: | 1 |
| Initials: | MA |

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH784**

**APPL ID: AZ90050**

Sample Collection Date: 04/23/19

QCG: #86BTO-190425AM-239745

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 92.4 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 101 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 102 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 98.4 | 89-112 | | | % | 04/25/19 | 04/25/19 |

| | |
|---|---|
| Quant Method: | M0324.M |
| Run #: | 0425M14 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH785**

**APPL ID: AZ90051**

Sample Collection Date: 04/23/19

QCG: #86BTO-190425AM-239745

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 92.7 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 99.5 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 101 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 96.5 | 89-112 | | | % | 04/25/19 | 04/25/19 |

| | |
|---|---|
| Quant Method: | M0324.M |
| Run #: | 0425M17 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH786**

**APPL ID: AZ90052**

Sample Collection Date: 04/23/19

QCG: #86BTO-190425AM-239745

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 90.6 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 98.4 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 97.8 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 96.9 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method: M0324.M
Run #: 0425M18
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DG

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH796**

**APPL ID: AZ90053**

Sample Collection Date: 04/22/19

QCG: #86BTO-190425AM-239745

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 93.7 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 99.4 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 102 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 99.8 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method: M0324.M
Run #: 0425M12
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DG

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH797**

**APPL ID: AZ90054**

Sample Collection Date: 04/22/19

QCG: #86BTO-190425AM-239745

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 92.1 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 97.2 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 99.4 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 96.9 | 89-112 | | | % | 04/25/19 | 04/25/19 |

| | |
|---|---|
| Quant Method: | M0324.M |
| Run #: | 0425M19 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH798**

**APPL ID: AZ90055**

Sample Collection Date: 04/22/19

QCG: #86BTO-190425AM-239745

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 93.7 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 96.4 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 102 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 99.5 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method: M0324.M
Run #: 0425M15
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DG

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH799**

**APPL ID: AZ90056**

Sample Collection Date: 04/22/19

QCG: #86BTO-190425AM-239745

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 91.1 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 97.1 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 94.8 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 97.9 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method: M0324.M
Run #: 0425M20
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DG

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

# EPA 8260B BTEX WATER

AECOM
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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH800**

**APPL ID: AZ90057**

Sample Collection Date: 04/22/19

QCG: #86BTO-190425AM-239745

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 93.5 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 98.0 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 99.5 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 97.2 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method: M0324.M
Run #: 0425M16
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DG

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH801**

**APPL ID: AZ90058**

Sample Collection Date: 04/22/19

QCG: #86BTO-190425AM-239745

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 93.3 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 99.0 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 98.9 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 97.7 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method: M0324.M
Run #: 0425M21
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DG

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH802**

**APPL ID: AZ90059**

Sample Collection Date: 04/23/19

QCG: #86BTO-190425AM-239745

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 93.1 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 100 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 101 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 98.6 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method: M0324.M
Run #: 0425M13
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DG

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH803**

**APPL ID: AZ90060**

Sample Collection Date: 04/23/19

QCG: #86BTO-190425AM-239745

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 91.1 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 95.4 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 97.1 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 96.6 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method: M0324.M
Run #: 0425M22
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DG

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

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH784**

**APPL ID: AZ90050**

Sample Collection Date: 04/23/19

QCG: #GRO86-190425AM-239739

| 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 | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 101 | 85-114 | | | % | 04/25/19 | 04/25/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0425M14 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH785**

**APPL ID: AZ90051**

Sample Collection Date: 04/23/19

QCG: #GRO86-190425AM-239739

| 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 | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 99.5 | 85-114 | | | % | 04/25/19 | 04/25/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0425M17 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH786**

**APPL ID: AZ90052**

Sample Collection Date: 04/23/19

QCG: #GRO86-190425AM-239739

| 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 | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 98.4 | 85-114 | | | % | 04/25/19 | 04/25/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0425M18 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH796**

**APPL ID: AZ90053**

Sample Collection Date: 04/22/19

QCG: #GRO86-190425AM-239739

| 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 | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 99.4 | 85-114 | | | % | 04/25/19 | 04/25/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0425M12 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B GRO WATER

AECOM
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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH797**

**APPL ID: AZ90054**

Sample Collection Date: 04/22/19

QCG: #GRO86-190425AM-239739

| 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 | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 97.2 | 85-114 | | | % | 04/25/19 | 04/25/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0425M19 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH798**

Sample Collection Date: 04/22/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 88701

**APPL ID: AZ90055**

QCG: #GRO86-190425AM-239739

| 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 | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 96.4 | 85-114 | | | % | 04/25/19 | 04/25/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0425M15 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH799**

Sample Collection Date: 04/22/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 88701

**APPL ID: AZ90056**

QCG: #GRO86-190425AM-239739

| 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 | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 97.1 | 85-114 | | | % | 04/25/19 | 04/25/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0425M20 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH800**

**APPL ID: AZ90057**

Sample Collection Date: 04/22/19

QCG: #GRO86-190425AM-239739

| 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 | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 98.0 | 85-114 | | | % | 04/25/19 | 04/25/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0425M16 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B GRO WATER

AECOM
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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH801**

**APPL ID: AZ90058**

Sample Collection Date: 04/22/19

QCG: #GRO86-190425AM-239739

| 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 | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 99.0 | 85-114 | | | % | 04/25/19 | 04/25/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0425M21 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH802**

Sample Collection Date: 04/23/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 88701

**APPL ID: AZ90059**

QCG: #GRO86-190425AM-239739

| 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 | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 100 | 85-114 | | | % | 04/25/19 | 04/25/19 |

Quant Method: MSUR324.M
Run #: 0425M13
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DG

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# EPA 8260B GRO WATER

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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH803**

**APPL ID: AZ90060**

Sample Collection Date: 04/23/19

QCG: #GRO86-190425AM-239739

| 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 | 04/25/19 | 04/25/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 95.4 | 85-114 | | | % | 04/25/19 | 04/25/19 |

| | |
|---|---|
| Quant Method: | MSUR324.M |
| Run #: | 0425M22 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DG |

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

# METHANE

AECOM
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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH784**

**APPL ID: AZ90050**

Sample Collection Date: 04/23/19

QCG: #RSKME-190429A-239793

| 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 | 04/29/19 | 04/29/19 |

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19042906 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

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

# METHANE

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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH785**

**APPL ID: AZ90051**

Sample Collection Date: 04/23/19

QCG: #RSKME-190429A-239793

| 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 | 04/29/19 | 04/29/19 |

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19042907 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

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

# METHANE

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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH796**

**APPL ID: AZ90053**

Sample Collection Date: 04/22/19

QCG: #RSKME-190429A-239793

| 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 | 04/29/19 | 04/29/19 |

Quant Method: RSK0311.M
Run #: 19042910
Instrument: Rocky
Sequence: 190311
Dilution Factor: 1
Initials: CMO

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# METHANE

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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH797**
Sample Collection Date: 04/22/19

ARF: 88701
**APPL ID: AZ90054**
QCG: #RSKME-190429A-239793

| 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 | 04/29/19 | 04/29/19 |

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19042911 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

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# METHANE

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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH798**
Sample Collection Date: 04/22/19

ARF: 88701
**APPL ID: AZ90055**
QCG: #RSKME-190429A-239793

| 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 | 04/29/19 | 04/29/19 |

Quant Method: RSK0311.M
Run #: 19042912
Instrument: Rocky
Sequence: 190311
Dilution Factor: 1
Initials: CMO

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# METHANE

AECOM
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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88701

**Sample ID: ERH799**

**APPL ID: AZ90056**

Sample Collection Date: 04/22/19

QCG: #RSKME-190429A-239793

| 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 | 04/29/19 | 04/29/19 |

Quant Method: RSK0311.M
Run #: 19042913
Instrument: Rocky
Sequence: 190311
Dilution Factor: 1
Initials: CMO

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# METHANE

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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH800**
Sample Collection Date: 04/22/19

ARF: 88701
**APPL ID: AZ90057**
QCG: #RSKME-190429A-239793

| 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 | 04/29/19 | 04/29/19 |

Quant Method: RSK0311.M
Run #: 19042914
Instrument: Rocky
Sequence: 190311
Dilution Factor: 1
Initials: CMO

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# METHANE

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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH801**
Sample Collection Date: 04/22/19

ARF: 88701
**APPL ID: AZ90058**
QCG: #RSKME-190429A-239793

| 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 | 04/29/19 | 04/29/19 |

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19042915 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

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# METHANE

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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH802**
Sample Collection Date: 04/23/19

ARF: 88701
**APPL ID: AZ90059**
QCG: #RSKME-190429A-239793

| 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 | 04/29/19 | 04/29/19 |

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19042916 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

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# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH803**
Sample Collection Date: 04/23/19

ARF: 88701
**APPL ID: AZ90060**
QCG: #RSKME-190429A-239793

| 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 | 04/29/19 | 04/29/19 |

Quant Method: RSK0311.M
Run #: 19042917
Instrument: Rocky
Sequence: 190311
Dilution Factor: 1
Initials: CMO

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# Wet Lab Analysis

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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH785

**APPL ID: AZ90051**

Sample Collection Date: 04/23/19

ARF: 88701

| Method | Analyte | Result | LOQ | LOD | DL | Units | DF | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 104 | 5.0 | 1.00 | 0.40 | mg/L | 5 | 05/08/19 | 05/08/19 |
| EPA 300.0 | SULFATE | 17.1 | 5.0 | 1.00 | 0.45 | mg/L | 5 | 05/08/19 | 05/08/19 |
| EPA 300.0 | NITRATE | 2.5 | 0.5 | 0.18 | 0.04 | mg/L | 1 | 05/07/19 | 05/07/19 |
| EPA 353.2 | NITRATE-NITRITE-N | 0.62 | 0.10 | 0.090 | 0.028 | mg/L | 1 | 05/01/19 | 05/01/19 |
| SM 2320B | BICARBONATE AS CACO3 | 67.7 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM 2320B | CARBONATE AS CACO3 | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM 2320B | TOTAL ALKALINITY AS CACO | 67.7 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM3500FeB | FERROUS IRON | 0.32 U | 1.0 | 0.32 | 0.16 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SW846 9060A | DISSOLVED ORGANIC CARB | 0.33 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/03/19 | 05/03/19 |
| SW846 9060A | TOTAL ORGANIC CARBON | 0.26 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/02/19 | 05/02/19 |

J = Estimated value.

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*APPL-F1-SC-NoMC-REG MDLs*

# Wet Lab Analysis

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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH797

**APPL ID: AZ90054**

Sample Collection Date: 04/22/19

ARF: 88701

| Method | Analyte | Result | LOQ | LOD | DL | Units | DF | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 139 | 5.0 | 1.00 | 0.40 | mg/L | 5 | 05/08/19 | 05/08/19 |
| EPA 300.0 | SULFATE | 36.5 | 5.0 | 1.00 | 0.45 | mg/L | 5 | 05/08/19 | 05/08/19 |
| EPA 300.0 | NITRATE | 3.5 | 0.5 | 0.18 | 0.04 | mg/L | 1 | 05/07/19 | 05/07/19 |
| EPA 353.2 | NITRATE-NITRITE-N | 0.82 | 0.10 | 0.090 | 0.028 | mg/L | 1 | 05/01/19 | 05/01/19 |
| SM 2320B | BICARBONATE AS CACO3 | 91.5 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | CARBONATE AS CACO3 | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | TOTAL ALKALINITY AS CACO | 91.5 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM3500FeB | FERROUS IRON | 0.32 U | 1.0 | 0.32 | 0.16 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SW846 9060A | DISSOLVED ORGANIC CARB | 0.72 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SW846 9060A | TOTAL ORGANIC CARBON | 0.47 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/02/19 | 05/02/19 |

J = Estimated value.

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*APPL-F1-SC-NoMC-REG MDLs*

# Wet Lab Analysis

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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH799

**APPL ID: AZ90056**

Sample Collection Date: 04/22/19

ARF: 88701

| Method | Analyte | Result | LOQ | LOD | DL | Units | DF | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 403 | 20.0 | 4.00 | 1.60 | mg/L | 20 | 05/08/19 | 05/08/19 |
| EPA 300.0 | SULFATE | 91.8 | 20.0 | 4.00 | 1.80 | mg/L | 20 | 05/08/19 | 05/08/19 |
| EPA 300.0 | NITRATE | 2.3 | 0.5 | 0.18 | 0.04 | mg/L | 1 | 05/07/19 | 05/07/19 |
| EPA 353.2 | NITRATE-NITRITE-N | 0.59 | 0.10 | 0.090 | 0.028 | mg/L | 1 | 05/01/19 | 05/01/19 |
| SM 2320B | BICARBONATE AS CACO3 | 105 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | CARBONATE AS CACO3 | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | TOTAL ALKALINITY AS CACO | 105 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM3500FeB | FERROUS IRON | 0.32 U | 1.0 | 0.32 | 0.16 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SW846 9060A | DISSOLVED ORGANIC CARB | 0.47 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/03/19 | 05/03/19 |
| SW846 9060A | TOTAL ORGANIC CARBON | 0.45 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 04/30/19 | 04/30/19 |

J = Estimated value.

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*APPL-F1-SC-NoMC-REG MDLs*

# Wet Lab Analysis

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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH801
Sample Collection Date: 04/22/19

**APPL ID: AZ90058**
ARF: 88701

| Method | Analyte | Result | LOQ | LOD | DL | Units | DF | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 396 | 20.0 | 4.00 | 1.60 | mg/L | 20 | 05/08/19 | 05/08/19 |
| EPA 300.0 | SULFATE | 69.3 | 20.0 | 4.00 | 1.80 | mg/L | 20 | 05/08/19 | 05/08/19 |
| EPA 300.0 | NITRATE | 4.4 | 0.5 | 0.18 | 0.04 | mg/L | 1 | 05/07/19 | 05/07/19 |
| EPA 353.2 | NITRATE-NITRITE-N | 1.1 | 0.10 | 0.090 | 0.028 | mg/L | 1 | 05/01/19 | 05/01/19 |
| SM 2320B | BICARBONATE AS CACO3 | 135 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | CARBONATE AS CACO3 | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | TOTAL ALKALINITY AS CACO | 135 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM3500FeB | FERROUS IRON | 0.32 U | 1.0 | 0.32 | 0.16 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SW846 9060A | DISSOLVED ORGANIC CARB | 0.89 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SW846 9060A | TOTAL ORGANIC CARBON | 0.51 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/03/19 | 05/03/19 |

J = Estimated value.

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*APPL-F1-SC-NoMC-REG MDLs*

# Wet Lab Analysis

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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH803
Sample Collection Date: 04/23/19

**APPL ID: AZ90060**
ARF: 88701

| Method | Analyte | Result | LOQ | LOD | DL | Units | DF | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 151 | 5.0 | 1.00 | 0.40 | mg/L | 5 | 05/08/19 | 05/08/19 |
| EPA 300.0 | SULFATE | 46.5 | 5.0 | 1.00 | 0.45 | mg/L | 5 | 05/08/19 | 05/08/19 |
| EPA 300.0 | NITRATE | 5.0 | 0.5 | 0.18 | 0.04 | mg/L | 1 | 05/07/19 | 05/07/19 |
| EPA 353.2 | NITRATE-NITRITE-N | 1.2 | 0.10 | 0.090 | 0.028 | mg/L | 1 | 05/01/19 | 05/01/19 |
| SM 2320B | BICARBONATE AS CACO3 | 92.8 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | CARBONATE AS CACO3 | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM 2320B | TOTAL ALKALINITY AS CACO | 92.8 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SM3500FeB | FERROUS IRON | 0.32 U | 1.0 | 0.32 | 0.16 | mg/L | 1 | 04/24/19 | 04/24/19 |
| SW846 9060A | DISSOLVED ORGANIC CARB | 0.350 U | 0.93 | 0.350 | 0.130 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SW846 9060A | TOTAL ORGANIC CARBON | 0.92 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/03/19 | 05/03/19 |

J = Estimated value.

*Printed: 05/16/19 3:26:29 PM*

*APPL-F1-SC-NoMC-REG MDLs*

# EPA 300.0

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 05/07/19

Matrix: WATER Instrument: Charlie

Blank ID: 190506A1-BLK Time Analyzed: 0916

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| AZ90051 | ERH785 | 10 | 05/07/19 1129 |
| AZ90054 | ERH797 | 11 | 05/07/19 1136 |
| AZ90056 | ERH799 | 12 | 05/07/19 1143 |
| AZ90058 | ERH801 | 13 | 05/07/19 1151 |
| AZ90060 | ERH803 | 14 | 05/07/19 1158 |
| 190506A1-BLK | Blank | 2 | 05/07/19 0916 |
| 190506A1-LCS | Lab Control Spike | 3 | 05/07/19 0924 |
| 190506A1-LCSD | Lab Control SpikeD | 4 | 05/07/19 0931 |

Comments: Batch: #300W-190506A1

# EPA 300.0

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 05/08/19

Matrix: WATER Instrument: Charlie

Blank ID: 190508A-BLK Time Analyzed: 0831

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| AZ90060 | ERH803 | 10 | 05/08/19 0946 |
| 190508A-BLK | Blank | 3 | 05/08/19 0831 |
| 190508A-LCS | Lab Control Spike | 4 | 05/08/19 0838 |
| 190508A-LCSD | Lab Control SpikeD | 5 | 05/08/19 0845 |
| AZ90051 | ERH785 | 6 | 05/08/19 0916 |
| AZ90054 | ERH797 | 7 | 05/08/19 0924 |
| AZ90056 | ERH799 | 8 | 05/08/19 0931 |
| AZ90058 | ERH801 | 9 | 05/08/19 0938 |

Comments: Batch: #300WD-190508A

# QC FORMS

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Apollo

| APPL ID. | Client Sample No. | SURROGATE: OCTACOSANE (S) | | | SURROGATE: ORTHO-TERPHENYL (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190426A2-BLK | Blank | 60-142 | 92.6 | | 56-125 | 90.6 | |
| 190426A2-LCS | Lab Control Spike | 60-142 | 88.9 | | 56-125 | 88.5 | |
| 190426A2-LCSD | Lab Control SpikeD | 60-142 | 86.5 | | 56-125 | 87.9 | |
| AZ90051 | ERH785 | 60-142 | 72.5 | | 56-125 | 95.2 | |
| AZ90051-MS | Matrix Spike | 60-142 | 90.3 | | 56-125 | 88.4 | |
| AZ90051-MSD | Matrix SpikeD | 60-142 | 91.9 | | 56-125 | 88.5 | |
| AZ90052 | ERH786 | 60-142 | 99.9 | | 56-125 | 93.3 | |
| AZ90054 | ERH797 | 60-142 | 98.8 | | 56-125 | 104 | |
| AZ90056 | ERH799 | 60-142 | 96.5 | | 56-125 | 92.4 | |
| AZ90058 | ERH801 | 60-142 | 95.1 | | 56-125 | 91.5 | |
| AZ90060 | ERH803 | 60-142 | 96.7 | | 56-125 | 91.9 | |

Comments: Batch: #DOC53-190426A2

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Apollo

Blank ID: 190426A2-BLK Time Analyzed: 1723

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426A2-BLK | Blank | 419049 | 04/29/19 1723 |
| 190426A2-LCS | Lab Control Spike | 419050 | 04/29/19 1743 |
| 190426A2-LCSD | Lab Control SpikeD | 419051 | 04/29/19 1803 |
| AZ90051 | ERH785 | 419057 | 04/29/19 2003 |
| 190426A2-MS | Matrix Spike | 419058 | 04/29/19 2023 |
| 190426A2-MSD | Matrix SpikeD | 419059 | 04/29/19 2044 |
| AZ90052 | ERH786 | 419060 | 04/29/19 2104 |
| AZ90054 | ERH797 | 419061 | 04/29/19 2123 |
| AZ90056 | ERH799 | 419062 | 04/29/19 2143 |
| AZ90058 | ERH801 | 419064 | 04/29/19 2223 |
| AZ90060 | ERH803 | 419065 | 04/29/19 2243 |

Comments: Batch: #DOC53-190426A2

# Method Blank

## EPA 8015B TPH LIQ-LIQ

Blank Name/QCG: **190426W-90051 - 240138**
Batch ID: #DOC53-190426A2

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 | 04/26/19 | 04/29/19 |
| BLANK | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| BLANK | SURROGATE: OCTACOSANE (S) | 92.6 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| BLANK | SURROGATE: ORTHO-TERPHEN | 90.6 | 56-125 | | | % | 04/26/19 | 04/29/19 |

Quant Method: DOC0411.M
Run #: 419049
Instrument: Apollo
Sequence: 190419
Initials: BTI

*GC SC-Blank-REG MDLs-DOD*
*Printed: 05/16/19 2:41:08 PM*

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Apollo

LCS ID: 190426A2-LCS Time Analyzed: 1743

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426A2-BLK | Blank | 419049 | 04/29/19 1723 |
| 190426A2-LCS | Lab Control Spike | 419050 | 04/29/19 1743 |
| 190426A2-LCSD | Lab Control SpikeD | 419051 | 04/29/19 1803 |
| AZ90051 | ERH785 | 419057 | 04/29/19 2003 |
| 190426A2-MS | Matrix Spike | 419058 | 04/29/19 2023 |
| 190426A2-MSD | Matrix SpikeD | 419059 | 04/29/19 2044 |
| AZ90052 | ERH786 | 419060 | 04/29/19 2104 |
| AZ90054 | ERH797 | 419061 | 04/29/19 2123 |
| AZ90056 | ERH799 | 419062 | 04/29/19 2143 |
| AZ90058 | ERH801 | 419064 | 04/29/19 2223 |
| AZ90060 | ERH803 | 419065 | 04/29/19 2243 |

Comments: Batch: #DOC53-190426A2

# Laboratory Control Spike Recoveries

## EPA 8015B TPH LIQ-LIQ

APPL ID: **190426W-90051 LCS - 240138**
Batch ID: #DOC53-190426A2

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| DIESEL (C10-C24) | 1250 | 1120 | 1070 | 89.6 | 85.6 | 36-132 | 4.6 | 30 |
| OIL (C24-C40) | 1250 | 1250 | 1180 | 100 | 94.4 | 41-113 | 5.8 | 30 |
| SURROGATE: OCTACOSANE (S) | 75.0 | 66.7 | 64.9 | 88.9 | 86.5 | 60-142 | | |
| SURROGATE: ORTHO-TERPHENYL (S) | 75.0 | 66.4 | 65.9 | 88.5 | 87.9 | 56-125 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | DOC0411.M | DOC0411.M |
| Extraction Date : | 04/26/19 | 04/26/19 |
| Analysis Date : | 04/29/19 | 04/29/19 |
| Instrument : | Apollo | Apollo |
| Run : | 419050 | 419051 |
| Initials : | BTI | |



*Printed: 05/16/19 2:41:01 PM*
*APPL Standard LCSD*

# Matrix Spike Recoveries

## EPA 8015B TPH LIQ-LIQ

APPL ID: **190426W-90051 MS - 240138**
Batch ID: #DOC53-190426A2
Sample ID: AZ90051
Client ID: ERH785

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| DIESEL (C10-C24) | 1250 | ND | 1100 | 1090 | 88.0 | 87.2 | 36-132 | 0.91 | 30 |
| OIL (C24-C40) | 1250 | ND | 1420 | 1200 | 114 # | 96.0 | 41-113 | 16.8 | 30 |
| SURROGATE: OCTACOSANE (S) | 75.0 | NA | 67.7 | 68.9 | 90.3 | 91.9 | 60-142 | | |
| SURROGATE: ORTHO-TERPHENYL (S) | 75.0 | NA | 66.3 | 66.4 | 88.4 | 88.5 | 56-125 | | |

# = Recovery is outside QC limits.

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | DOC0411.M | DOC0411.M |
| Extraction Date : | 04/26/19 | 04/26/19 |
| Analysis Date : | 04/29/19 | 04/29/19 |
| Instrument : | Apollo | Apollo |
| Run : | 419058 | 419059 |
| Initials : | BTI | |

*Printed: 05/16/19 2:40:57 PM*
*APPL MSD SCII*

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 05/06/19

Matrix: WATER Instrument: Apollo

| APPL ID. | Client Sample No. | SURROGATE: OCTACOSANE (S) | | | SURROGATE: ORTHO-TERPHENYL (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190502A2-BLK | Blank | 60-142 | 97.3 | | 56-125 | 93.5 | |
| 190502A2-LCS | Lab Control Spike | 60-142 | 90.7 | | 56-125 | 89.5 | |
| 190502A2-LCSD | Lab Control SpikeD | 60-142 | 91.1 | | 56-125 | 88.8 | |
| AZ90051-MS | Matrix Spike | 60-142 | 91.1 | | 56-125 | 90.8 | |
| AZ90051-MSD | Matrix SpikeD | 60-142 | 96.7 | | 56-125 | 87.6 | |
| AZ90051 | ERH785 | 60-142 | 105 | | 56-125 | 97.3 | |
| AZ90052 | ERH786 | 60-142 | 103 | | 56-125 | 98.5 | |

Comments: Batch: #DOC53-190502A2

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 05/06/19

Matrix: WATER Instrument: Apollo

Blank ID: 190502A2-BLK Time Analyzed: 1730

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502A2-BLK | Blank | 506003 | 05/06/19 1730 |
| 190502A2-LCS | Lab Control Spike | 506004 | 05/06/19 1750 |
| 190502A2-LCSD | Lab Control SpikeD | 506005 | 05/06/19 1810 |
| 190502A2-MS | Matrix Spike | 506011 | 05/06/19 2009 |
| 190502A2-MSD | Matrix SpikeD | 506012 | 05/06/19 2029 |
| AZ90051 | ERH785 | 506013 | 05/06/19 2049 |
| AZ90052 | ERH786 | 506014 | 05/06/19 2109 |

Comments: Batch: #DOC53-190502A2

# Method Blank

## EPA 8015B TPH LIQ-LIQ RE-EXTRACT

Blank Name/QCG: **190502W-89958 - 240343**
Batch ID: #DOC53-190502A2

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 | 05/02/19 | 05/06/19 |
| BLANK | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 05/02/19 | 05/06/19 |
| BLANK | SURROGATE: OCTACOSANE (S) | 97.3 | 60-142 | | | % | 05/02/19 | 05/06/19 |
| BLANK | SURROGATE: ORTHO-TERPHEN | 93.5 | 56-125 | | | % | 05/02/19 | 05/06/19 |

Quant Method: DOC0411.M
Run #: 506003
Instrument: Apollo
Sequence: 190506
Initials: BTI

*GC SC-Blank-REG MDLs-DOD*
*Printed: 05/15/19 4:03:20 PM*

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 05/06/19

Matrix: WATER Instrument: Apollo

LCS ID: 190502A2-LCS Time Analyzed: 1750

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502A2-BLK | Blank | 506003 | 05/06/19 1730 |
| 190502A2-LCS | Lab Control Spike | 506004 | 05/06/19 1750 |
| 190502A2-LCSD | Lab Control SpikeD | 506005 | 05/06/19 1810 |
| 190502A2-MS | Matrix Spike | 506011 | 05/06/19 2009 |
| 190502A2-MSD | Matrix SpikeD | 506012 | 05/06/19 2029 |
| AZ90051 | ERH785 | 506013 | 05/06/19 2049 |
| AZ90052 | ERH786 | 506014 | 05/06/19 2109 |

Comments: Batch: #DOC53-190502A2

*Printed: 05/16/19 2:51:06 PM*
*Form 4, LCS Summary*

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

APPL ID: **190502W-89958 LCS - 240343**
Batch ID: #DOC53-190502A2

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| DIESEL (C10-C24) | 1250 | 1480 | 1080 | 118 | 86.4 | 36-132 | 31.3 # | 30 |
| OIL (C24-C40) | 1250 | 1240 | 1310 | 99.2 | 105 | 41-113 | 5.5 | 30 |
| SURROGATE: OCTACOSANE (S) | 75.0 | 68.0 | 68.3 | 90.7 | 91.1 | 60-142 | | |
| SURROGATE: ORTHO-TERPHENYL (S) | 75.0 | 67.1 | 66.6 | 89.5 | 88.8 | 56-125 | | |

# = Recovery is outside QC limits.

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | DOC0411.M | DOC0411.M |
| Extraction Date : | 05/02/19 | 05/02/19 |
| Analysis Date : | 05/06/19 | 05/06/19 |
| Instrument : | Apollo | Apollo |
| Run : | 506004 | 506005 |
| Initials : | BTI | |

# Matrix Spike Recoveries

## EPA 8015B TPH LIQ-LIQ RE-EXTRACT

APPL ID: **190502W-90051 MS - 240343**
Batch ID: #DOC53-190502A2
Sample ID: AZ90051
Client ID: ERH785

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| DIESEL (C10-C24) | 1250 | ND | 1100 | 1110 | 88.0 | 88.8 | 36-132 | 0.90 | 30 |
| OIL (C24-C40) | 1250 | ND | 1360 | 1290 | 109 | 103 | 41-113 | 5.3 | 30 |
| SURROGATE: OCTACOSANE (S) | 75.0 | NA | 68.3 | 72.5 | 91.1 | 96.7 | 60-142 | | |
| SURROGATE: ORTHO-TERPHENYL (S) | 75.0 | NA | 68.1 | 65.7 | 90.8 | 87.6 | 56-125 | | |

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | DOC0411.M | DOC0411.M |
| Extraction Date : | 05/02/19 | 05/02/19 |
| Analysis Date : | 05/06/19 | 05/06/19 |
| Instrument : | Apollo | Apollo |
| Run : | 506011 | 506012 |
| Initials : | BTI | |

*Printed: 05/15/19 4:03:29 PM*
*APPL MSD SCII*

# 8270D-SIM

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Linus

| APPL ID. | Client Sample No. | SURROGATE: 2-METHYLNAPHTHALENE-D10 (S) | | | SURROGATE: FLUORANTHENE-D10 (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190424A-BLK | Blank | 39-114 | 68.5 | | 58-120 | 68.4 | |
| 190424A-LCS | Lab Control Spike | 39-114 | 68.6 | | 58-120 | 73.0 | |
| 190424A-LCSD | Lab Control SpikeD | 39-114 | 68.6 | | 58-120 | 71.8 | |
| AZ90051 | ERH785 | 39-114 | 87.7 | | 58-120 | 92.1 | |
| AZ90051-MS | Matrix Spike | 39-114 | 87.0 | | 58-120 | 90.7 | |
| AZ90051-MSD | Matrix SpikeD | 39-114 | 94.7 | | 58-120 | 93.4 | |
| AZ90052 | ERH786 | 39-114 | 87.3 | | 58-120 | 93.7 | |
| AZ90054 | ERH797 | 39-114 | 89.4 | | 58-120 | 91.5 | |
| AZ90056 | ERH799 | 39-114 | 85.3 | | 58-120 | 88.3 | |
| AZ90058 | ERH801 | 39-114 | 85.0 | | 58-120 | 93.9 | |
| AZ90060 | ERH803 | 39-114 | 96.2 | | 58-120 | 97.0 | |

Comments: Batch: #SIM53-190424A

# 8270D-SIM

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Linus

Blank ID: 190424A-BLK Time Analyzed: 1545

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 0426L004 | 04/26/19 1545 |
| 190424A-LCS | Lab Control Spike | 0426L005 | 04/26/19 1607 |
| 190424A-LCSD | Lab Control SpikeD | 0426L006 | 04/26/19 1629 |
| AZ90051 | ERH785 | 0426L012 | 04/26/19 1844 |
| 190424A-MS | Matrix Spike | 0426L013 | 04/26/19 1906 |
| 190424A-MSD | Matrix SpikeD | 0426L014 | 04/26/19 1929 |
| AZ90052 | ERH786 | 0426L015 | 04/26/19 1951 |
| AZ90054 | ERH797 | 0426L016 | 04/26/19 2014 |
| AZ90056 | ERH799 | 0426L017 | 04/26/19 2036 |
| AZ90058 | ERH801 | 0426L018 | 04/26/19 2058 |
| AZ90060 | ERH803 | 0426L019 | 04/26/19 2121 |

Comments: Batch: #SIM53-190424A

*Printed: 04/30/19 3:46:00 PM*

*Form 4, Blank Summary*

# Method Blank
## EPA 8270D SIM LIQ-LIQ

Blank Name/QCG: **190424W-89958 - 239856**
Batch ID: #SIM53-190424A

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 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| BLANK | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| BLANK | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: 2-METHYLNAPHT | 68.5 | 39-114 | | | % | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: FLUORANTHENE- | 68.4 | 58-120 | | | % | 04/24/19 | 04/26/19 |

Quant Method:L0326.M
Run #:0426L004
Instrument:Linus
Sequence:L190426
Initials:JPR

*GC SC-Blank-REG MDLs-DOD*
*Printed: 04/30/19 3:45:36 PM*

# 8270D-SIM

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Linus

LCS ID: 190424A-LCS Time Analyzed: 1607

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 0426L004 | 04/26/19 1545 |
| 190424A-LCS | Lab Control Spike | 0426L005 | 04/26/19 1607 |
| 190424A-LCSD | Lab Control SpikeD | 0426L006 | 04/26/19 1629 |
| AZ90051 | ERH785 | 0426L012 | 04/26/19 1844 |
| 190424A-MS | Matrix Spike | 0426L013 | 04/26/19 1906 |
| 190424A-MSD | Matrix SpikeD | 0426L014 | 04/26/19 1929 |
| AZ90052 | ERH786 | 0426L015 | 04/26/19 1951 |
| AZ90054 | ERH797 | 0426L016 | 04/26/19 2014 |
| AZ90056 | ERH799 | 0426L017 | 04/26/19 2036 |
| AZ90058 | ERH801 | 0426L018 | 04/26/19 2058 |
| AZ90060 | ERH803 | 0426L019 | 04/26/19 2121 |

Comments: Batch: #SIM53-190424A

# Laboratory Control Spike Recoveries

## EPA 8270D SIM LIQ-LIQ

APPL ID: **190424W-89958 LCS - 239856**
Batch ID: #SIM53-190424A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1-METHYLNAPHTHALENE | 6.25 | 4.34 | 4.32 | 69.4 | 69.1 | 41-115 | 0.46 | 20 |
| 2-METHYLNAPHTHALENE | 6.25 | 4.83 | 4.81 | 77.3 | 77.0 | 39-114 | 0.41 | 20 |
| NAPHTHALENE | 6.25 | 4.60 | 4.59 | 73.6 | 73.4 | 43-114 | 0.22 | 20 |
| SURROGATE: 2-METHYLNAPHTHALEN | 6.25 | 4.29 | 4.29 | 68.6 | 68.6 | 39-114 | | |
| SURROGATE: FLUORANTHENE-D10 (S) | 6.25 | 4.56 | 4.49 | 73.0 | 71.8 | 58-120 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | L0326.M | L0326.M |
| Extraction Date : | 04/24/19 | 04/24/19 |
| Analysis Date : | 04/26/19 | 04/26/19 |
| Instrument : | Linus | Linus |
| Run : | 0426L005 | 0426L006 |
| Initials : | JPR | |



*Printed: 04/30/19 3:45:43 PM*
*APPL Standard LCSD*

# Matrix Spike Recoveries

## EPA 8270D SIM LIQ-LIQ

APPL ID: **190424W-90051 MS - 239856**
Batch ID: #SIM53-190424A
Sample ID: AZ90051
Client ID: ERH785

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1-METHYLNAPHTHALENE | 6.25 | ND | 5.50 | 6.10 | 88.0 | 97.6 | 41-115 | 10.3 | 20 |
| 2-METHYLNAPHTHALENE | 6.25 | ND | 6.09 | 6.60 | 97.4 | 106 | 39-114 | 8.0 | 20 |
| NAPHTHALENE | 6.25 | ND | 5.90 | 6.37 | 94.4 | 102 | 43-114 | 7.7 | 20 |
| SURROGATE: 2-METHYLNAPHTHALEN | 6.25 | NA | 5.44 | 5.92 | 87.0 | 94.7 | 39-114 | | |
| SURROGATE: FLUORANTHENE-D10 (S) | 6.25 | NA | 5.67 | 5.84 | 90.7 | 93.4 | 58-120 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | L0326.M | L0326.M |
| Extraction Date : | 04/24/19 | 04/24/19 |
| Analysis Date : | 04/26/19 | 04/26/19 |
| Instrument : | Linus | Linus |
| Run : | 0426L013 | 0426L014 |
| Initials : | JPR | |

*Printed: 04/30/19 3:45:53 PM*
*APPL MSD SCII*

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 0326L002.D

SDG No:
Date Analyzed: 03/26/19
Instrument: Linus
Time Analyzed: 9:39

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 0.5 SIM 03/06/19 | 0326L005.D | 03/26/19 10:39 |
| 2 | | 1 SIM 03/06/19 | 0326L006.D | 03/26/19 11:01 |
| 3 | | 5 SIM 03/06/19 | 0326L007.D | 03/26/19 11:23 |
| 4 | | 10 SIM 03/06/19 | 0326L008.D | 03/26/19 11:45 |
| 5 | | 50 SIM 03/06/19 | 0326L009.D | 03/26/19 12:08 |
| 6 | | 100 SIM 03/06/19 | 0326L010.D | 03/26/19 12:30 |
| 7 | | 0.2 SIM 01/18/19 | 0326L012.D | 03/26/19 15:55 |
| 8 | | 0.1 SIM 01/18/19 | 0326L013.D | 03/26/19 17:05 |
| 9 | | SS SIM 03/06/19 | 0326L014.D | 03/26/19 17:27 |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 51 | 9.95 - 80% of mass 198 | 45.8 |
| 68 | 0 - 2.05% of mass 69 | 0.0 |
| 70 | 0 - 2% of mass 69 | 0.4 |
| 127 | 10 - 80% of mass 198 | 61.0 |
| 197 | 0 - 2% of mass 198 | 0.0 |
| 198 | 100 - 100% of mass 198 | 100.0 |
| 199 | 5 - 9% of mass 198 | 6.0 |
| 275 | 10 - 60% of mass 198 | 18.6 |
| 365 | 1 - 100% of mass 198 | 2.2 |
| 441 | 0.01 - 24% of mass 442 | 14.3 |
| 442 | 50 - 150% of mass 198 | 78.8 |
| 443 | 15 - 24% of mass 442 | 19.8 |

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 88701
Matrix: Water
ID: 0426L002.D

SDG No: 88701
Date Analyzed: 04/26/19
Instrument: Linus
Time Analyzed: 14:15

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 5 SIM 03/06/19 | 0426L003.D | 04/26/19 14:31 |
| 2 | Blank | 190424A BLK 1/800 | 0426L004.D | 04/26/19 15:45 |
| 3 | Lab Control Spike | 190424A LCS-2 1/800 | 0426L005.D | 04/26/19 16:07 |
| 4 | Lab Control SpikeD | 190424A LCSD-2 1/800 | 0426L006.D | 04/26/19 16:29 |
| 5 | ERH785 | AZ90051W37 1/800 | 0426L012.D | 04/26/19 18:44 |
| 6 | | AZ90051W38 MS-2 1/80 | 0426L013.D | 04/26/19 19:06 |
| 7 | | AZ90051W36 MSD-2 1/8 | 0426L014.D | 04/26/19 19:29 |
| 8 | ERH786 | AZ90052W11 1/800 | 0426L015.D | 04/26/19 19:51 |
| 9 | ERH797 | AZ90054W22 1/800 | 0426L016.D | 04/26/19 20:14 |
| 10 | ERH799 | AZ90056W22 1/800 | 0426L017.D | 04/26/19 20:36 |
| 11 | ERH801 | AZ90058W22 1/800 | 0426L018.D | 04/26/19 20:58 |
| 12 | ERH803 | AZ90060W22 1/800 | 0426L019.D | 04/26/19 21:21 |
| 13 | | 5 SIM 03/06/19 | 0426L020.D | 04/26/19 21:43 |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 51 | 9.95 - 80% of mass 198 | 55.2 |
| 68 | 0 - 2.05% of mass 69 | 0.0 |
| 70 | 0 - 2% of mass 69 | 0.6 |
| 127 | 10 - 80% of mass 198 | 63.7 |
| 197 | 0 - 2% of mass 198 | 0.0 |
| 198 | 100 - 100% of mass 198 | 100.0 |
| 199 | 5 - 9% of mass 198 | 6.6 |
| 275 | 10 - 60% of mass 198 | 21.6 |
| 365 | 1 - 100% of mass 198 | 2.7 |
| 441 | 0.01 - 24% of mass 442 | 16.7 |
| 442 | 50 - 150% of mass 198 | 74.2 |
| 443 | 15 - 24% of mass 442 | 18.4 |

# INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 88701

Lab File ID (Standard): 0426L003.D Date Analyzed: 04/26/19

Instrument ID: Linus Time Analyzed: 14:31

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 | 48849 | 3.94 | 20245 | 5.96 | 34785 | 7.69 |
| | UPPER LIMIT | 97698 | 4.11 | 40490 | 6.13 | 69570 | 7.86 |
| | LOWER LIMIT | 24425 | 3.77 | 10123 | 5.79 | 17393 | 7.52 |
| | SAMPLE NO. | | | | | | |
| 01 | 190424A BLK 1/800 | 61581 | 3.92 | 27671 | 5.96 | 51116 | 7.70 |
| 02 | 190424A LCS-2 1/800 | 61600 | 3.92 | 26296 | 5.96 | 49643 | 7.69 |
| 03 | 190424A LCSD-2 1/800 | 61904 | 3.94 | 27133 | 5.96 | 50790 | 7.69 |
| 04 | AZ90051W37 1/800 | 46898 | 3.94 | 20972 | 5.96 | 38792 | 7.70 |
| 05 | AZ90051W38 MS-2 1/8( | 50394 | 3.94 | 21769 | 5.96 | 39937 | 7.69 |
| 06 | AZ90051W36 MSD-2 1/ | 43526 | 3.94 | 19312 | 5.96 | 37941 | 7.69 |
| 07 | AZ90052W11 1/800 | 47262 | 3.94 | 21024 | 5.96 | 36499 | 7.70 |
| 08 | AZ90054W22 1/800 | 44195 | 3.94 | 19448 | 5.96 | 35944 | 7.70 |
| 09 | AZ90056W22 1/800 | 47278 | 3.94 | 20437 | 5.96 | 37697 | 7.70 |
| 10 | AZ90058W22 1/800 | 46113 | 3.94 | 20001 | 5.96 | 35683 | 7.70 |
| 11 | AZ90060W22 1/800 | 42355 | 3.94 | 19313 | 5.96 | 35424 | 7.70 |
| 12 | 5 SIM 03/06/19 | 50811 | 3.94 | 20724 | 5.96 | 34168 | 7.70 |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

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

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

# INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 88701

Lab File ID (Standard): 0426L003.D Date Analyzed: 04/26/19

Instrument ID: Linus Time Analyzed: 14:31

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

| | | Chrysene-D12(IS) | | Perylene-D12(IS) | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| | 12 HOUR STD | 49781 | 10.78 | 44763 | 13.17 | | |
| | UPPER LIMIT | 99562 | 10.95 | 89526 | 13.34 | | |
| | LOWER LIMIT | 24891 | 10.61 | 22382 | 13.00 | | |
| | SAMPLE NO. | | | | | | |
| 01 | 190424A BLK 1/800 | 74152 | 10.80 | 72779 | 13.18 | | |
| 02 | 190424A LCS-2 1/800 | 71987 | 10.78 | 68680 | 13.16 | | |
| 03 | 190424A LCSD-2 1/800 | 73769 | 10.78 | 73093 | 13.16 | | |
| 04 | AZ90051W37 1/800 | 57477 | 10.82 | 55635 | 13.20 | | |
| 05 | AZ90051W38 MS-2 1/8( | 59814 | 10.79 | 56078 | 13.17 | | |
| 06 | AZ90051W36 MSD-2 1/ | 56419 | 10.79 | 54157 | 13.19 | | |
| 07 | AZ90052W11 1/800 | 54398 | 10.82 | 53093 | 13.20 | | |
| 08 | AZ90054W22 1/800 | 53237 | 10.82 | 52214 | 13.20 | | |
| 09 | AZ90056W22 1/800 | 53172 | 10.82 | 53230 | 13.20 | | |
| 10 | AZ90058W22 1/800 | 53926 | 10.82 | 52452 | 13.20 | | |
| 11 | AZ90060W22 1/800 | 53302 | 10.82 | 52649 | 13.20 | | |
| 12 | 5 SIM 03/06/19 | 53412 | 10.79 | 50142 | 13.17 | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

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

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

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/26/19

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 |
| 190424A-BLK | Blank | 43-140 | 74.6 | | 44-119 | 62.7 | |
| 190424A-LCS | Lab Control Spike | 43-140 | 82.4 | | 44-119 | 65.6 | |
| 190424A-LCSD | Lab Control SpikeD | 43-140 | 80.8 | | 44-119 | 66.3 | |
| AZ90051 | ERH785 | 43-140 | 86.7 | | 44-119 | 69.6 | |
| AZ90051-MS | Matrix Spike | 43-140 | 91.6 | | 44-119 | 73.9 | |
| AZ90051-MSD | Matrix SpikeD | 43-140 | 80.0 | | 44-119 | 64.1 | |
| AZ90052 | ERH786 | 43-140 | 75.5 | | 44-119 | 61.5 | |
| AZ90054 | ERH797 | 43-140 | 80.6 | | 44-119 | 65.7 | |
| AZ90056 | ERH799 | 43-140 | 79.4 | | 44-119 | 66.2 | |
| AZ90058 | ERH801 | 43-140 | 76.8 | | 44-119 | 63.6 | |
| AZ90060 | ERH803 | 43-140 | 109 | | 44-119 | 87.3 | |

Comments: Batch: #87DC5-190424A

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Yoda

| APPL ID. | Client Sample No. | SURROGATE: 2-FLUOROPHENOL (S) | | | SURROGATE: NITROBENZENE-D5 (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190424A-BLK | Blank | 19-119 | 81.3 | | 44-120 | 75.2 | |
| 190424A-LCS | Lab Control Spike | 19-119 | 76.8 | | 44-120 | 71.5 | |
| 190424A-LCSD | Lab Control SpikeD | 19-119 | 84.0 | | 44-120 | 76.1 | |
| AZ90051 | ERH785 | 19-119 | 83.9 | | 44-120 | 80.4 | |
| AZ90051-MS | Matrix Spike | 19-119 | 107 | | 44-120 | 93.6 | |
| AZ90051-MSD | Matrix SpikeD | 19-119 | 74.8 | | 44-120 | 69.4 | |
| AZ90052 | ERH786 | 19-119 | 71.7 | | 44-120 | 67.9 | |
| AZ90054 | ERH797 | 19-119 | 80.1 | | 44-120 | 73.2 | |
| AZ90056 | ERH799 | 19-119 | 81.8 | | 44-120 | 75.8 | |
| AZ90058 | ERH801 | 19-119 | 68.2 | | 44-120 | 71.5 | |
| AZ90060 | ERH803 | 19-119 | 93.3 | | 44-120 | 90.4 | |

Comments: Batch: #87DC5-190424A

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Yoda

| APPL ID. | Client Sample No. | SURROGATE: PHENOL-D6 (S) | | | SURROGATE: TERPHENYL-D14 (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190424A-BLK | Blank | 10-115 | 75.4 | | 50-134 | 60.2 | |
| 190424A-LCS | Lab Control Spike | 10-115 | 70.4 | | 50-134 | 69.4 | |
| 190424A-LCSD | Lab Control SpikeD | 10-115 | 76.8 | | 50-134 | 69.3 | |
| AZ90051 | ERH785 | 10-115 | 80.7 | | 50-134 | 75.7 | |
| AZ90051-MS | Matrix Spike | 10-115 | 102 | | 50-134 | 77.0 | |
| AZ90051-MSD | Matrix SpikeD | 10-115 | 71.2 | | 50-134 | 65.7 | |
| AZ90052 | ERH786 | 10-115 | 68.2 | | 50-134 | 63.5 | |
| AZ90054 | ERH797 | 10-115 | 76.5 | | 50-134 | 68.4 | |
| AZ90056 | ERH799 | 10-115 | 77.0 | | 50-134 | 69.5 | |
| AZ90058 | ERH801 | 10-115 | 65.1 | | 50-134 | 66.1 | |
| AZ90060 | ERH803 | 10-115 | 88.3 | | 50-134 | 90.9 | |

Comments: Batch: #87DC5-190424A

# EPA 8270D

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Yoda

Blank ID: 190424A-BLK Time Analyzed: 1746

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 0411Y196 | 04/26/19 1746 |
| 190424A-LCS | Lab Control Spike | 0411Y197 | 04/26/19 1813 |
| 190424A-LCSD | Lab Control SpikeD | 0411Y198 | 04/26/19 1841 |
| AZ90051 | ERH785 | 0411Y204 | 04/26/19 2129 |
| 190424A-MS | Matrix Spike | 0411Y205 | 04/26/19 2157 |
| 190424A-MSD | Matrix SpikeD | 0411Y206 | 04/26/19 2225 |
| AZ90052 | ERH786 | 0411Y207 | 04/26/19 2253 |
| AZ90054 | ERH797 | 0411Y208 | 04/26/19 2321 |
| AZ90056 | ERH799 | 0411Y209 | 04/26/19 2349 |
| AZ90058 | ERH801 | 0411Y210 | 04/27/19 0017 |
| AZ90060 | ERH803 | 0411Y211 | 04/27/19 0045 |

Comments: Batch: #87DC5-190424A

# Method Blank
## EPA 8270D WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **190424W-90051 - 239806**
Batch ID: #87DC5-190424A

| 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 | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: 2,4,6-TRIBROMOP | 74.6 | 43-140 | | | % | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: 2-FLUORBIPHENY | 62.7 | 44-119 | | | % | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: 2-FLUOROPHENO | 81.3 | 19-119 | | | % | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: NITROBENZENE- | 75.2 | 44-120 | | | % | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: PHENOL-D6 (S) | 75.4 | 10-115 | | | % | 04/24/19 | 04/26/19 |
| BLANK | SURROGATE: TERPHENYL-D14 ( | 60.2 | 50-134 | | | % | 04/24/19 | 04/26/19 |

Quant Method:Y0319NC.M
Run #:0411Y196
Instrument:Yoda
Sequence:Y190411
Initials:JPR

*GC SC-Blank-REG MDLs-DOD*
*Printed: 04/29/19 4:08:55 PM*

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Yoda

LCS ID: 190424A-LCS Time Analyzed: 1813

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 0411Y196 | 04/26/19 1746 |
| 190424A-LCS | Lab Control Spike | 0411Y197 | 04/26/19 1813 |
| 190424A-LCSD | Lab Control SpikeD | 0411Y198 | 04/26/19 1841 |
| AZ90051 | ERH785 | 0411Y204 | 04/26/19 2129 |
| 190424A-MS | Matrix Spike | 0411Y205 | 04/26/19 2157 |
| 190424A-MSD | Matrix SpikeD | 0411Y206 | 04/26/19 2225 |
| AZ90052 | ERH786 | 0411Y207 | 04/26/19 2253 |
| AZ90054 | ERH797 | 0411Y208 | 04/26/19 2321 |
| AZ90056 | ERH799 | 0411Y209 | 04/26/19 2349 |
| AZ90058 | ERH801 | 0411Y210 | 04/27/19 0017 |
| AZ90060 | ERH803 | 0411Y211 | 04/27/19 0045 |

Comments: Batch: #87DC5-190424A

# Laboratory Control Spike Recoveries

## EPA 8270D WATER

APPL ID: **190424W-90051 LCS - 239806**
Batch ID: #87DC5-190424A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| PHENOL | 62.5 | 48.6 | 52.4 | 77.8 | 83.8 | 10-115 | 7.5 | 20 |
| SURROGATE: 2,4,6-TRIBROMOPHENOL | 250 | 206 | 202 | 82.4 | 80.8 | 43-140 | | |
| SURROGATE: 2-FLUORBIPHENYL (S) | 125 | 82.0 | 82.9 | 65.6 | 66.3 | 44-119 | | |
| SURROGATE: 2-FLUOROPHENOL (S) | 250 | 192 | 210 | 76.8 | 84.0 | 19-119 | | |
| SURROGATE: NITROBENZENE-D5 (S) | 125 | 89.4 | 95.1 | 71.5 | 76.1 | 44-120 | | |
| SURROGATE: PHENOL-D6 (S) | 250 | 176 | 192 | 70.4 | 76.8 | 10-115 | | |
| SURROGATE: TERPHENYL-D14 (S) | 125 | 86.8 | 86.6 | 69.4 | 69.3 | 50-134 | | |

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | Y0319NC.M | Y0319NC.M |
| Extraction Date : | 04/24/19 | 04/24/19 |
| Analysis Date : | 04/26/19 | 04/26/19 |
| Instrument : | Yoda | Yoda |
| Run : | 0411Y197 | 0411Y198 |
| Initials : | JPR | |

# Matrix Spike Recoveries

## EPA 8270D WATER

APPL ID: **190424W-90051 MS - 239806**
Batch ID: #87DC5-190424A
Sample ID: AZ90051
Client ID: ERH785

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| PHENOL | 62.5 | ND | 71.2 | 50.2 | 114 | 80.3 | 10-115 | 34.6 # | 20 |
| SURROGATE: 2,4,6-TRIBROMOPHENOL | 250 | NA | 229 | 200 | 91.6 | 80.0 | 43-140 | | |
| SURROGATE: 2-FLUORBIPHENYL (S) | 125 | NA | 92.4 | 80.1 | 73.9 | 64.1 | 44-119 | | |
| SURROGATE: 2-FLUOROPHENOL (S) | 250 | NA | 267 | 187 | 107 | 74.8 | 19-119 | | |
| SURROGATE: NITROBENZENE-D5 (S) | 125 | NA | 117 | 86.7 | 93.6 | 69.4 | 44-120 | | |
| SURROGATE: PHENOL-D6 (S) | 250 | NA | 254 | 178 | 102 | 71.2 | 10-115 | | |
| SURROGATE: TERPHENYL-D14 (S) | 125 | NA | 96.2 | 82.1 | 77.0 | 65.7 | 50-134 | | |

# = Recovery is outside QC limits.

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | Y0319NC.M | Y0319NC.M |
| Extraction Date : | 04/24/19 | 04/24/19 |
| Analysis Date : | 04/26/19 | 04/26/19 |
| Instrument : | Yoda | Yoda |
| Run : | 0411Y205 | 0411Y206 |
| Initials : | JPR | |

*Printed: 04/29/19 4:09:11 PM*
*APPL MSD SCII*

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 0319Y002.D

SDG No:
Date Analyzed: 03/19/19
Instrument: Yoda
Time Analyzed: 18:15

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 50ug/mL 8270 03/13/1 | 0319Y003.D | 03/19/19 18:31 |
| 2 | | 4ug/mL 8270 03/13/19 | 0319Y004.D | 03/19/19 18:58 |
| 3 | | 5ug/mL 8270 03/13/19 | 0319Y005.D | 03/19/19 19:26 |
| 4 | | 10ug/mL 8270 03/13/1 | 0319Y006.D | 03/19/19 19:54 |
| 5 | | 20ug/mL 8270 03/13/1 | 0319Y007.D | 03/19/19 20:22 |
| 6 | | 40ug/mL 8270 03/13/1 | 0319Y008.D | 03/19/19 20:49 |
| 7 | | 60ug/mL 8270 03/13/1 | 0319Y009.D | 03/19/19 21:17 |
| 8 | | 80ug/mL 8270 03/13/1 | 0319Y010.D | 03/19/19 21:44 |
| 9 | | 100ug/mL 8270 03/13/ | 0319Y011.D | 03/19/19 22:11 |
| 10 | | SS-8270 03/13/19 | 0319Y012.D | 03/19/19 22:39 |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 51 | 9.95 - 80.04% of mass 198 | 47.2 |
| 68 | 0 - 2% of mass 69 | 0.0 |
| 70 | 0 - 2% of mass 69 | 0.6 |
| 127 | 10 - 80% of mass 198 | 58.4 |
| 197 | 0 - 2% of mass 198 | 0.0 |
| 198 | 100 - 100% of mass 198.05 | 100.0 |
| 199 | 5 - 9% of mass 198 | 6.7 |
| 275 | 10 - 60% of mass 198 | 23.1 |
| 365 | 1 - 100% of mass 198 | 2.4 |
| 441 | 0.01 - 24% of mass 442 | 16.3 |
| 442 | 50 - 150% of mass 198.05 | 69.9 |
| 443 | 15 - 24% of mass 442 | 19.7 |

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 88701
Matrix: Water
ID: 0411Y194.D

SDG No: 88701
Date Analyzed: 04/26/19
Instrument: Yoda
Time Analyzed: 17:03

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 50ug/ml 8270 3/13/19 | 0411Y195.D | 04/26/19 17:18 |
| 2 | Blank | 190424A BLK 1/800 | 0411Y196.D | 04/26/19 17:46 |
| 3 | Lab Control Spike | 190424A LCS-1 1/800 | 0411Y197.D | 04/26/19 18:13 |
| 4 | Lab Control SpikeD | 190424A LCSD-1 1/800 | 0411Y198.D | 04/26/19 18:41 |
| 5 | ERH785 | AZ90051W37 1/800 | 0411Y204.D | 04/26/19 21:29 |
| 6 | | AZ90051W39 MS-1 1/80 | 0411Y205.D | 04/26/19 21:57 |
| 7 | | AZ90051W40 MSD-1 1/8 | 0411Y206.D | 04/26/19 22:25 |
| 8 | ERH786 | AZ90052W11 1/800 | 0411Y207.D | 04/26/19 22:53 |
| 9 | ERH797 | AZ90054W22 1/800 | 0411Y208.D | 04/26/19 23:21 |
| 10 | ERH799 | AZ90056W22 1/800 | 0411Y209.D | 04/26/19 23:49 |
| 11 | ERH801 | AZ90058W22 1/800 | 0411Y210.D | 04/27/19 0:17 |
| 12 | ERH803 | AZ90060W22 1/800 | 0411Y211.D | 04/27/19 0:45 |
| 13 | | 50ug/ml 8270 3/13/19 | 0411Y212.D | 04/27/19 1:12 |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 51 | 10 - 80% of mass 198 | 49.9 |
| 68 | 0 - 2% of mass 69 | 0.0 |
| 70 | 0 - 2% of mass 69 | 0.3 |
| 127 | 10 - 80% of mass 198 | 60.5 |
| 197 | 0 - 2% of mass 198 | 0.0 |
| 198 | 100 - 100% of mass 198 | 100.0 |
| 199 | 5 - 9% of mass 198 | 6.3 |
| 275 | 10 - 60% of mass 198 | 23.2 |
| 365 | 1 - 100% of mass 198 | 2.5 |
| 441 | 0.01 - 24% of mass 442 | 16.7 |
| 442 | 50 - 150% of mass 198 | 65.1 |
| 443 | 17 - 23% of mass 442 | 20.0 |

# INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 88701

Lab File ID (Standard): 0411Y195.D Date Analyzed: 04/26/19

Instrument ID: Yoda Time Analyzed: 17:18

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 | 198066 | 5.28 | 854755 | 6.74 | 463907 | 8.77 |
| | UPPER LIMIT | 396132 | 5.45 | 1709510 | 6.91 | 927814 | 8.94 |
| | LOWER LIMIT | 99033 | 5.11 | 427378 | 6.57 | 231954 | 8.60 |
| | SAMPLE NO. | | | | | | |
| 01 | 50ug/ml 8270 3/13/19 | 198066 | 5.28 | 854755 | 6.74 | 463907 | 8.77 |
| 02 | 190424A BLK 1/800 | 156918 | 5.28 | 730248 | 6.74 | 463695 | 8.77 |
| 03 | 190424A LCS-1 1/800 | 165950 | 5.28 | 746399 | 6.74 | 433513 | 8.77 |
| 04 | 190424A LCSD-1 1/800 | 155619 | 5.28 | 700505 | 6.74 | 423707 | 8.78 |
| 05 | AZ90051W37 1/800 | 165799 | 5.28 | 731764 | 6.74 | 444129 | 8.77 |
| 06 | AZ90051W39 MS-1 1/8( | 130899 | 5.28 | 623251 | 6.74 | 420381 | 8.78 |
| 07 | AZ90051W40 MSD-1 1/ | 180514 | 5.28 | 795566 | 6.74 | 465174 | 8.78 |
| 08 | AZ90052W11 1/800 | 183225 | 5.28 | 814756 | 6.74 | 469745 | 8.77 |
| 09 | AZ90054W22 1/800 | 160242 | 5.28 | 733344 | 6.74 | 435297 | 8.78 |
| 10 | AZ90056W22 1/800 | 169817 | 5.28 | 751024 | 6.74 | 462889 | 8.78 |
| 11 | AZ90058W22 1/800 | 167578 | 5.28 | 758107 | 6.74 | 451799 | 8.78 |
| 12 | AZ90060W22 1/800 | 153337 | 5.28 | 659093 | 6.74 | 360567 | 8.77 |
| 13 | 50ug/ml 8270 3/13/19 | 172038 | 5.28 | 762569 | 6.74 | 411365 | 8.77 |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

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

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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 88701

Lab File ID (Standard): 0411Y195.D Date Analyzed: 04/26/19

Instrument ID: Yoda Time Analyzed: 17:18

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 | 776149 | 10.53 | 676093 | 13.64 | 642988 | 15.49 |
| | UPPER LIMIT | 1552298 | 10.70 | 1352186 | 13.81 | 1285976 | 15.66 |
| | LOWER LIMIT | 388075 | 10.36 | 338047 | 13.47 | 321494 | 15.32 |
| | SAMPLE NO. | | | | | | |
| 01 | 50ug/ml 8270 3/13/19 | 776149 | 10.53 | 676093 | 13.64 | 642988 | 15.49 |
| 02 | 190424A BLK 1/800 | 781468 | 10.53 | 762900 | 13.64 | 695198 | 15.48 |
| 03 | 190424A LCS-1 1/800 | 741316 | 10.53 | 641284 | 13.64 | 492206 | 15.49 |
| 04 | 190424A LCSD-1 1/800 | 708836 | 10.53 | 626419 | 13.64 | 542737 | 15.48 |
| 05 | AZ90051W37 1/800 | 750664 | 10.53 | 643056 | 13.64 | 606037 | 15.48 |
| 06 | AZ90051W39 MS-1 1/8( | 725758 | 10.53 | 632704 | 13.64 | 601862 | 15.48 |
| 07 | AZ90051W40 MSD-1 1/ | 775680 | 10.53 | 690164 | 13.64 | 657908 | 15.48 |
| 08 | AZ90052W11 1/800 | 807393 | 10.53 | 700169 | 13.64 | 657852 | 15.48 |
| 09 | AZ90054W22 1/800 | 743716 | 10.53 | 643010 | 13.64 | 614118 | 15.48 |
| 10 | AZ90056W22 1/800 | 783005 | 10.53 | 666589 | 13.64 | 643072 | 15.48 |
| 11 | AZ90058W22 1/800 | 766615 | 10.53 | 673211 | 13.64 | 627494 | 15.48 |
| 12 | AZ90060W22 1/800 | 603056 | 10.53 | 524020 | 13.64 | 486077 | 15.47 |
| 13 | 50ug/ml 8270 3/13/19 | 684409 | 10.53 | 609183 | 13.64 | 569428 | 15.49 |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

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

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

# EPA 8270D

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Yoda

Blank ID: 190429A-BLK Time Analyzed: 1413

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-BLK | Blank | 0430Y013 | 04/30/19 1413 |
| 190429A-LCS | Lab Control Spike | 0430Y014 | 04/30/19 1437 |
| 190429A-LCSD | Lab Control SpikeD | 0430Y015 | 04/30/19 1501 |
| AZ90051 | ERH785 | 0430Y021 | 04/30/19 1722 |
| 190429A-MS | Matrix Spike | 0430Y022 | 04/30/19 1746 |
| 190429A-MSD | Matrix SpikeD | 0430Y023 | 04/30/19 1809 |
| AZ90052 | ERH786 | 0430Y024 | 04/30/19 1833 |
| AZ90054 | ERH797 | 0430Y025 | 04/30/19 1857 |
| AZ90056 | ERH799 | 0430Y026 | 04/30/19 1920 |
| AZ90058 | ERH801 | 0430Y027 | 04/30/19 1944 |
| AZ90060 | ERH803 | 0430Y028 | 04/30/19 2007 |

Comments: Batch: #87DME-190429A

# Method Blank
## EPA 8270D MODIFIED WATER

Blank Name/QCG: **190429W-89958 - 239869**
Batch ID: #87DME-190429A

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 | 04/29/19 | 04/30/19 |

Quant Method:YMEE0430.M
Run #:0430Y013
Instrument:Yoda
Sequence:Y190430M
Initials:MA

*GC SC-Blank-REG MDLs-DOD*
*Printed: 05/01/19 9:33:12 AM*

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Yoda

LCS ID: 190429A-LCS Time Analyzed: 1437

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-BLK | Blank | 0430Y013 | 04/30/19 1413 |
| 190429A-LCS | Lab Control Spike | 0430Y014 | 04/30/19 1437 |
| 190429A-LCSD | Lab Control SpikeD | 0430Y015 | 04/30/19 1501 |
| AZ90051 | ERH785 | 0430Y021 | 04/30/19 1722 |
| 190429A-MS | Matrix Spike | 0430Y022 | 04/30/19 1746 |
| 190429A-MSD | Matrix SpikeD | 0430Y023 | 04/30/19 1809 |
| AZ90052 | ERH786 | 0430Y024 | 04/30/19 1833 |
| AZ90054 | ERH797 | 0430Y025 | 04/30/19 1857 |
| AZ90056 | ERH799 | 0430Y026 | 04/30/19 1920 |
| AZ90058 | ERH801 | 0430Y027 | 04/30/19 1944 |
| AZ90060 | ERH803 | 0430Y028 | 04/30/19 2007 |

Comments: Batch: #87DME-190429A

# Laboratory Control Spike Recoveries

## EPA 8270D MODIFIED WATER

APPL ID: **190429W-89958 LCS - 239869**
Batch ID: #87DME-190429A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2-(2-METHOXYETHOXY)-ETHANOL | 80.0 | 93.3 | 124 | 117 | 155 # | 30-130 | 28.3 # | 20 |

# = Recovery is outside QC limits.

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | YMEE0430.M | YMEE0430.M |
| Extraction Date : | 04/29/19 | 04/29/19 |
| Analysis Date : | 04/30/19 | 04/30/19 |
| Instrument : | Yoda | Yoda |
| Run : | 0430Y014 | 0430Y015 |
| Initials : | MA | |



*Printed: 05/01/19 9:33:21 AM*
*APPL Standard LCSD*

# Matrix Spike Recoveries

## EPA 8270D MODIFIED WATER

APPL ID: **190429W-90051 MS - 239869**
Batch ID: #87DME-190429A
Sample ID: AZ90051
Client ID: ERH785

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2-(2-METHOXYETHOXY)-ETHANOL | 80.0 | ND | 71.9 | 86.1 | 89.9 | 108 | 30-130 | 18.0 | 20 |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | YMEE0430.M | YMEE0430.M |
| Extraction Date : | 04/29/19 | 04/29/19 |
| Analysis Date : | 04/30/19 | 04/30/19 |
| Instrument : | Yoda | Yoda |
| Run : | 0430Y022 | 0430Y023 |
| Initials : | MA | |

*Printed: 05/01/19 9:33:31 AM*
*APPL MSD SCII*

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/25/19

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 |
| 190425AM-LCS | Lab Control Spike | 81-118 | 95.6 | | 85-114 | 103 | |
| 190425AM-LCSD | Lab Control SpikeD | 81-118 | 97.2 | | 85-114 | 104 | |
| 190425AM-BLK | Blank | 81-118 | 93.7 | | 85-114 | 99.9 | |
| AZ90053 | ERH796 | 81-118 | 93.7 | | 85-114 | 99.4 | |
| AZ90059 | ERH802 | 81-118 | 93.1 | | 85-114 | 100 | |
| AZ90050 | ERH784 | 81-118 | 92.4 | | 85-114 | 101 | |
| AZ90055 | ERH798 | 81-118 | 93.7 | | 85-114 | 96.4 | |
| AZ90057 | ERH800 | 81-118 | 93.5 | | 85-114 | 98.0 | |
| AZ90051 | ERH785 | 81-118 | 92.7 | | 85-114 | 99.5 | |
| AZ90052 | ERH786 | 81-118 | 90.6 | | 85-114 | 98.4 | |
| AZ90054 | ERH797 | 81-118 | 92.1 | | 85-114 | 97.2 | |
| AZ90056 | ERH799 | 81-118 | 91.1 | | 85-114 | 97.1 | |
| AZ90058 | ERH801 | 81-118 | 93.3 | | 85-114 | 99.0 | |
| AZ90060 | ERH803 | 81-118 | 91.1 | | 85-114 | 95.4 | |
| AZ90051-MS | Matrix Spike | 81-118 | 96.0 | | 85-114 | 100 | |
| AZ90051-MSD | Matrix SpikeD | 81-118 | 90.0 | | 85-114 | 96.4 | |

Comments: Batch: #86BTO-190425AM

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/25/19

Matrix: WATER Instrument: Max

| APPL ID. | Client Sample No. | SURROGATE: DIBROMOFLUOROMETHANE (S) | | | SURROGATE: TOLUENE-D8 (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190425AM-LCS | Lab Control Spike | 80-119 | 106 | | 89-112 | 96.0 | |
| 190425AM-LCSD | Lab Control SpikeD | 80-119 | 105 | | 89-112 | 98.0 | |
| 190425AM-BLK | Blank | 80-119 | 102 | | 89-112 | 97.3 | |
| AZ90053 | ERH796 | 80-119 | 102 | | 89-112 | 99.8 | |
| AZ90059 | ERH802 | 80-119 | 101 | | 89-112 | 98.6 | |
| AZ90050 | ERH784 | 80-119 | 102 | | 89-112 | 98.4 | |
| AZ90055 | ERH798 | 80-119 | 102 | | 89-112 | 99.5 | |
| AZ90057 | ERH800 | 80-119 | 99.5 | | 89-112 | 97.2 | |
| AZ90051 | ERH785 | 80-119 | 101 | | 89-112 | 96.5 | |
| AZ90052 | ERH786 | 80-119 | 97.8 | | 89-112 | 96.9 | |
| AZ90054 | ERH797 | 80-119 | 99.4 | | 89-112 | 96.9 | |
| AZ90056 | ERH799 | 80-119 | 94.8 | | 89-112 | 97.9 | |
| AZ90058 | ERH801 | 80-119 | 98.9 | | 89-112 | 97.7 | |
| AZ90060 | ERH803 | 80-119 | 97.1 | | 89-112 | 96.6 | |
| AZ90051-MS | Matrix Spike | 80-119 | 104 | | 89-112 | 98.4 | |
| AZ90051-MSD | Matrix SpikeD | 80-119 | 94.8 | | 89-112 | 95.6 | |

Comments: Batch: #86BTO-190425AM

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/25/19

Matrix: WATER Instrument: Max

Blank ID: 190425AM-BLK Time Analyzed: 1708

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190425AM-LCS | Lab Control Spike | 0425M04 | 04/25/19 1417 |
| 190425AM-LCSD | Lab Control SpikeD | 0425M05 | 04/25/19 1446 |
| 190425AM-BLK | Blank | 0425M10 | 04/25/19 1708 |
| AZ90053 | ERH796 | 0425M12 | 04/25/19 1805 |
| AZ90059 | ERH802 | 0425M13 | 04/25/19 1834 |
| AZ90050 | ERH784 | 0425M14 | 04/25/19 1902 |
| AZ90055 | ERH798 | 0425M15 | 04/25/19 1931 |
| AZ90057 | ERH800 | 0425M16 | 04/25/19 1959 |
| AZ90051 | ERH785 | 0425M17 | 04/25/19 2028 |
| AZ90052 | ERH786 | 0425M18 | 04/25/19 2056 |
| AZ90054 | ERH797 | 0425M19 | 04/25/19 2125 |
| AZ90056 | ERH799 | 0425M20 | 04/25/19 2153 |
| AZ90058 | ERH801 | 0425M21 | 04/25/19 2222 |
| AZ90060 | ERH803 | 0425M22 | 04/25/19 2250 |
| 190425AM-MS | Matrix Spike | 0425M23 | 04/25/19 2319 |
| 190425AM-MSD | Matrix SpikeD | 0425M24 | 04/25/19 2347 |

Comments: Batch: #86BTO-190425AM

# Method Blank
## EPA 8260B BTEX WATER

Blank Name/QCG: **190425W-90051 - 239745**
Batch ID: #86BTO-190425AM

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 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| BLANK | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/25/19 | 04/25/19 |
| BLANK | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| BLANK | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/25/19 | 04/25/19 |
| BLANK | SURROGATE: 1,2-DICHLOROET | 93.7 | 81-118 | | | % | 04/25/19 | 04/25/19 |
| BLANK | SURROGATE: 4-BROMOFLUORO | 99.9 | 85-114 | | | % | 04/25/19 | 04/25/19 |
| BLANK | SURROGATE: DIBROMOFLUOR | 102 | 80-119 | | | % | 04/25/19 | 04/25/19 |
| BLANK | SURROGATE: TOLUENE-D8 (S) | 97.3 | 89-112 | | | % | 04/25/19 | 04/25/19 |

Quant Method: M0324.M
Run #: 0425M10
Instrument: Max
Sequence: M190401
Initials: DG

*GC SC-Blank-REG MDLs-DOD*
*Printed: 04/26/19 12:52:51 PM*

# EPA 8260B

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/25/19

Matrix: WATER Instrument: Max

LCS ID: 190425AM-LCS Time Analyzed: 1417

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190425AM-LCS | Lab Control Spike | 0425M04 | 04/25/19 1417 |
| 190425AM-LCSD | Lab Control SpikeD | 0425M05 | 04/25/19 1446 |
| 190425AM-BLK | Blank | 0425M10 | 04/25/19 1708 |
| AZ90053 | ERH796 | 0425M12 | 04/25/19 1805 |
| AZ90059 | ERH802 | 0425M13 | 04/25/19 1834 |
| AZ90050 | ERH784 | 0425M14 | 04/25/19 1902 |
| AZ90055 | ERH798 | 0425M15 | 04/25/19 1931 |
| AZ90057 | ERH800 | 0425M16 | 04/25/19 1959 |
| AZ90051 | ERH785 | 0425M17 | 04/25/19 2028 |
| AZ90052 | ERH786 | 0425M18 | 04/25/19 2056 |
| AZ90054 | ERH797 | 0425M19 | 04/25/19 2125 |
| AZ90056 | ERH799 | 0425M20 | 04/25/19 2153 |
| AZ90058 | ERH801 | 0425M21 | 04/25/19 2222 |
| AZ90060 | ERH803 | 0425M22 | 04/25/19 2250 |
| 190425AM-MS | Matrix Spike | 0425M23 | 04/25/19 2319 |
| 190425AM-MSD | Matrix SpikeD | 0425M24 | 04/25/19 2347 |

Comments: Batch: #86BTO-190425AM

*Printed: 04/26/19 12:52:32 PM*

*Form 4, LCS Summary*

# Laboratory Control Spike Recoveries
## EPA 8260B BTEX WATER

APPL ID: **190425W-90051 LCS - 239745**
Batch ID: #86BTO-190425AM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| BENZENE | 10.00 | 9.99 | 10.0 | 99.9 | 100 | 79-120 | 0.10 | 20 |
| ETHYLBENZENE | 10.00 | 10.1 | 10.0 | 101 | 100 | 79-121 | 1.00 | 20 |
| TOLUENE | 10.00 | 10.2 | 10.2 | 102 | 102 | 80-121 | 0.0 | 20 |
| XYLENES (TOTAL) | 30.0 | 30.5 | 30.5 | 102 | 102 | 79-121 | 0.0 | 20 |
| SURROGATE: 1,2-DICHLOROETHANE-D | 25.0 | 23.9 | 24.3 | 95.6 | 97.2 | 81-118 | | |
| SURROGATE: 4-BROMOFLUOROBENZE | 25.0 | 25.7 | 25.9 | 103 | 104 | 85-114 | | |
| SURROGATE: DIBROMOFLUOROMETH | 25.0 | 26.4 | 26.2 | 106 | 105 | 80-119 | | |
| SURROGATE: TOLUENE-D8 (S) | 25.0 | 24.0 | 24.5 | 96.0 | 98.0 | 89-112 | | |

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | M0324.M | M0324.M |
| Extraction Date : | 04/25/19 | 04/25/19 |
| Analysis Date : | 04/25/19 | 04/25/19 |
| Instrument : | Max | Max |
| Run : | 0425M04 | 0425M05 |
| Initials : | DG | |



*Printed: 04/26/19 12:52:46 PM*
*APPL Standard LCSD*

# Matrix Spike Recoveries

## EPA 8260B BTEX WATER

APPL ID: **190425W-90051 MS - 239745**
Batch ID: #86BTO-190425AM
Sample ID: AZ90051
Client ID: ERH785

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| BENZENE | 10.00 | ND | 12.0 | 8.39 | 120 | 83.9 | 79-120 | 35.4 # | 20 |
| ETHYLBENZENE | 10.00 | ND | 12.5 | 8.85 | 125 # | 88.5 | 79-121 | 34.2 # | 20 |
| TOLUENE | 10.00 | ND | 15.7 | 11.4 | 157 # | 114 | 80-121 | 31.7 # | 20 |
| XYLENES (TOTAL) | 30.0 | ND | 39.7 | 28.6 | 132 # | 95.3 | 79-121 | 32.5 # | 20 |
| SURROGATE: 1,2-DICHLOROETHANE-D | 25.0 | NA | 24.0 | 22.5 | 96.0 | 90.0 | 81-118 | | |
| SURROGATE: 4-BROMOFLUOROBENZE | 25.0 | NA | 25.0 | 24.1 | 100 | 96.4 | 85-114 | | |
| SURROGATE: DIBROMOFLUOROMETH | 25.0 | NA | 25.9 | 23.7 | 104 | 94.8 | 80-119 | | |
| SURROGATE: TOLUENE-D8 (S) | 25.0 | NA | 24.6 | 23.9 | 98.4 | 95.6 | 89-112 | | |

# = Recovery is outside QC limits.

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | M0324.M | M0324.M |
| Extraction Date : | 04/25/19 | 04/25/19 |
| Analysis Date : | 04/25/19 | 04/25/19 |
| Instrument : | Max | Max |
| Run : | 0425M23 | 0425M24 |
| Initials : | DG | |

*Printed: 04/26/19 12:52:40 PM*
*APPL MSD SCII*

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 0324M01.D

SDG No:
Date Analyzed: 03/24/19
Instrument: Max
Time Analyzed: 10:39

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 0.3ug/L VOC STD 3/24 | 0324M05.D | 03/24/19 12:56 |
| 2 | | 0.5ug/L VOC STD 3/24 | 0324M06.D | 03/24/19 13:25 |
| 3 | | 1.0ug/L VOC STD 3/24 | 0324M07.D | 03/24/19 13:54 |
| 4 | | 2.0ug/L VOC STD 3/24 | 0324M08.D | 03/24/19 14:22 |
| 5 | | 5.0ug/L VOC STD 3/24 | 0324M09.D | 03/24/19 14:51 |
| 6 | | 10ug/L VOC STD 3/24/ | 0324M10.D | 03/24/19 15:19 |
| 7 | | 20ug/L VOC STD 3/24/ | 0324M11.D | 03/24/19 15:48 |
| 8 | | 40ug/L VOC STD 3/24/ | 0324M12.D | 03/24/19 16:17 |
| 9 | | 100ug/L VOC STD 3/24 | 0324M13.D | 03/24/19 16:45 |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 50 | 15 - 40% of mass 95 | 18.1 |
| 75 | 30 - 60% of mass 95 | 49.1 |
| 95 | 100 - 100% of mass 95 | 100.0 |
| 96 | 5 - 9% of mass 95 | 6.9 |
| 173 | 0 - 2% of mass 174 | 0.4 |
| 174 | 50 - 100% of mass 95 | 92.4 |
| 175 | 5 - 9% of mass 174 | 7.8 |
| 176 | 95.06 - 101% of mass 174 | 96.4 |
| 177 | 5 - 9% of mass 176 | 7.4 |

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 0324M15.D

SDG No:
Date Analyzed: 03/24/19
Instrument: Max
Time Analyzed: 17:43

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | (SS)10ug/L VOC STD 3 | 0324M16.D | 03/24/19 18:11 |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 50 | 15 - 40% of mass 95 | 18.7 |
| 75 | 30 - 60% of mass 95 | 48.5 |
| 95 | 100 - 100% of mass 95 | 100.0 |
| 96 | 5 - 9% of mass 95 | 6.7 |
| 173 | 0 - 2% of mass 174 | 0.0 |
| 174 | 50 - 100% of mass 95 | 88.8 |
| 175 | 5 - 9% of mass 174 | 8.1 |
| 176 | 95.06 - 101% of mass 174 | 98.3 |
| 177 | 5 - 9% of mass 176 | 6.7 |

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 88701
Matrix: Water
ID: 0425M01.D

SDG No: 88701
Date Analyzed: 04/25/19
Instrument: Max
Time Analyzed: 12:55

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 190425A CCV 10ug/L | 0425M03.D | 04/25/19 13:49 |
| 2 | Lab Control Spike | 190425A LCS 10ug/L | 0425M04.D | 04/25/19 14:17 |
| 3 | Lab Control SpikeD | 190425A LCSD 10ug/L | 0425M05.D | 04/25/19 14:46 |
| 4 | Blank | 190425A blk | 0425M10.D | 04/25/19 17:08 |
| 5 | ERH796 | AZ90053W01 | 0425M12.D | 04/25/19 18:05 |
| 6 | ERH802 | AZ90059W01 | 0425M13.D | 04/25/19 18:34 |
| 7 | ERH784 | AZ90050W01 | 0425M14.D | 04/25/19 19:02 |
| 8 | ERH798 | AZ90055W01 | 0425M15.D | 04/25/19 19:31 |
| 9 | ERH800 | AZ90057W01 | 0425M16.D | 04/25/19 19:59 |
| 10 | ERH785 | AZ90051W01 | 0425M17.D | 04/25/19 20:28 |
| 11 | ERH786 | AZ90052W01 | 0425M18.D | 04/25/19 20:56 |
| 12 | ERH797 | AZ90054W01 | 0425M19.D | 04/25/19 21:25 |
| 13 | ERH799 | AZ90056W01 | 0425M20.D | 04/25/19 21:53 |
| 14 | ERH801 | AZ90058W01 | 0425M21.D | 04/25/19 22:22 |
| 15 | ERH803 | AZ90060W01 | 0425M22.D | 04/25/19 22:50 |
| 16 | | AZ90051W04 MS 10ug/L | 0425M23.D | 04/25/19 23:19 |
| 17 | | AZ90051W05 MSD 10ug/ | 0425M24.D | 04/25/19 23:47 |
| 18 | | Ending CCV 10ug/L | 0425M27.D | 04/26/19 1:13 |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 50 | 15 - 40% of mass 95 | 16.1 |
| 75 | 30 - 60% of mass 95 | 47.8 |
| 95 | 100 - 100% of mass 95 | 100.0 |
| 96 | 5 - 9% of mass 95 | 8.4 |
| 173 | 0 - 2% of mass 174 | 0.3 |
| 174 | 50 - 100% of mass 95 | 98.4 |
| 175 | 5 - 9% of mass 174 | 7.7 |
| 176 | 95.06 - 101% of mass 174 | 95.8 |
| 177 | 5 - 9% of mass 176 | 8.3 |

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 88701

Lab File ID (Standard): 0425M03.D Date Analyzed: 04/25/19

Instrument ID: Max Time Analyzed: 13:49

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 | 775435 | 5.20 | 610368 | 8.80 | 335796 | 11.99 |
| | UPPER LIMIT | 1550870 | 5.37 | 1220736 | 8.97 | 671592 | 12.16 |
| | LOWER LIMIT | 387718 | 5.03 | 305184 | 8.63 | 167898 | 11.82 |
| | SAMPLE NO. | | | | | | |
| 01 | 190425A LCS 10ug/L | 729105 | 5.20 | 584018 | 8.80 | 329157 | 11.99 |
| 02 | 190425A LCSD 10ug/L | 726393 | 5.20 | 574203 | 8.80 | 317313 | 11.99 |
| 03 | 190425A blk | 724713 | 5.21 | 561675 | 8.80 | 294075 | 11.99 |
| 04 | AZ90053W01 | 748240 | 5.21 | 561096 | 8.80 | 287803 | 11.99 |
| 05 | AZ90059W01 | 705837 | 5.20 | 541846 | 8.80 | 286214 | 11.99 |
| 06 | AZ90050W01 | 698522 | 5.20 | 538780 | 8.80 | 279935 | 11.99 |
| 07 | AZ90055W01 | 783726 | 5.21 | 585818 | 8.80 | 284947 | 11.99 |
| 08 | AZ90057W01 | 744311 | 5.21 | 558880 | 8.80 | 286784 | 11.99 |
| 09 | AZ90051W01 | 701384 | 5.21 | 545261 | 8.80 | 281141 | 11.99 |
| 10 | AZ90052W01 | 709606 | 5.21 | 539685 | 8.80 | 276195 | 11.99 |
| 11 | AZ90054W01 | 701624 | 5.20 | 541522 | 8.80 | 283034 | 11.99 |
| 12 | AZ90056W01 | 768638 | 5.21 | 578151 | 8.80 | 294599 | 11.99 |
| 13 | AZ90058W01 | 746252 | 5.20 | 571073 | 8.80 | 295723 | 11.99 |
| 14 | AZ90060W01 | 809717 | 5.21 | 608003 | 8.80 | 304633 | 11.99 |
| 15 | AZ90051W04 MS 10ug/ | 746831 | 5.21 | 566526 | 8.80 | 297794 | 11.99 |
| 16 | AZ90051W05 MSD 10u | 755025 | 5.21 | 570656 | 8.80 | 301145 | 11.99 |
| 17 | Ending CCV 10ug/L | 778804 | 5.21 | 603493 | 8.80 | 316720 | 11.99 |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

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

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

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/25/19

Matrix: WATER Instrument: Max

| APPL ID. | Client Sample No. | SURROGATE: 4-BROMOFLUOROBENZENE (S) | | | | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190425AM-LCS | Lab Control Spike | 85-114 | 103 | | | | |
| 190425AM-LCSD | Lab Control SpikeD | 85-114 | 101 | | | | |
| 190425AM-BLK | Blank | 85-114 | 99.9 | | | | |
| AZ90053 | ERH796 | 85-114 | 99.4 | | | | |
| AZ90059 | ERH802 | 85-114 | 100 | | | | |
| AZ90050 | ERH784 | 85-114 | 101 | | | | |
| AZ90055 | ERH798 | 85-114 | 96.4 | | | | |
| AZ90057 | ERH800 | 85-114 | 98.0 | | | | |
| AZ90051 | ERH785 | 85-114 | 99.5 | | | | |
| AZ90052 | ERH786 | 85-114 | 98.4 | | | | |
| AZ90054 | ERH797 | 85-114 | 97.2 | | | | |
| AZ90056 | ERH799 | 85-114 | 97.1 | | | | |
| AZ90058 | ERH801 | 85-114 | 99.0 | | | | |
| AZ90060 | ERH803 | 85-114 | 95.4 | | | | |
| AZ90051-MS | Matrix Spike | 85-114 | 98.0 | | | | |
| AZ90051-MSD | Matrix SpikeD | 85-114 | 100 | | | | |

Comments: Batch: #GRO86-190425AM

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/25/19

Matrix: WATER Instrument: Max

Blank ID: 190425AM-BLK Time Analyzed: 1708

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190425AM-LCS | Lab Control Spike | 0425M07 | 04/25/19 1543 |
| 190425AM-LCSD | Lab Control SpikeD | 0425M08 | 04/25/19 1611 |
| 190425AM-BLK | Blank | 0425M10 | 04/25/19 1708 |
| AZ90053 | ERH796 | 0425M12 | 04/25/19 1805 |
| AZ90059 | ERH802 | 0425M13 | 04/25/19 1834 |
| AZ90050 | ERH784 | 0425M14 | 04/25/19 1902 |
| AZ90055 | ERH798 | 0425M15 | 04/25/19 1931 |
| AZ90057 | ERH800 | 0425M16 | 04/25/19 1959 |
| AZ90051 | ERH785 | 0425M17 | 04/25/19 2028 |
| AZ90052 | ERH786 | 0425M18 | 04/25/19 2056 |
| AZ90054 | ERH797 | 0425M19 | 04/25/19 2125 |
| AZ90056 | ERH799 | 0425M20 | 04/25/19 2153 |
| AZ90058 | ERH801 | 0425M21 | 04/25/19 2222 |
| AZ90060 | ERH803 | 0425M22 | 04/25/19 2250 |
| 190425AM-MS | Matrix Spike | 0425M25 | 04/26/19 0016 |
| 190425AM-MSD | Matrix SpikeD | 0425M26 | 04/26/19 0044 |

Comments: Batch: #GRO86-190425AM

*Printed: 04/26/19 12:07:33 PM*
*Form 4, Blank Summary*

# Method Blank
## EPA 8260B GRO WATER

Blank Name/QCG: **190425W-90051 - 239739**
Batch ID: #GRO86-190425AM

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 | 04/25/19 | 04/25/19 |
| BLANK | SURROGATE: 4-BROMOFLUORO | 99.9 | 85-114 | | | % | 04/25/19 | 04/25/19 |

Quant Method: MSUR324.M
Run #: 0425M10
Instrument: Max
Sequence: M190401
Initials: DG

*GC SC-Blank-REG MDLs-DOD*
*Printed: 04/26/19 12:07:49 PM*

# EPA 8260B

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/25/19

Matrix: WATER Instrument: Max

LCS ID: 190425AM-LCS Time Analyzed: 1543

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190425AM-LCS | Lab Control Spike | 0425M07 | 04/25/19 1543 |
| 190425AM-LCSD | Lab Control SpikeD | 0425M08 | 04/25/19 1611 |
| 190425AM-BLK | Blank | 0425M10 | 04/25/19 1708 |
| AZ90053 | ERH796 | 0425M12 | 04/25/19 1805 |
| AZ90059 | ERH802 | 0425M13 | 04/25/19 1834 |
| AZ90050 | ERH784 | 0425M14 | 04/25/19 1902 |
| AZ90055 | ERH798 | 0425M15 | 04/25/19 1931 |
| AZ90057 | ERH800 | 0425M16 | 04/25/19 1959 |
| AZ90051 | ERH785 | 0425M17 | 04/25/19 2028 |
| AZ90052 | ERH786 | 0425M18 | 04/25/19 2056 |
| AZ90054 | ERH797 | 0425M19 | 04/25/19 2125 |
| AZ90056 | ERH799 | 0425M20 | 04/25/19 2153 |
| AZ90058 | ERH801 | 0425M21 | 04/25/19 2222 |
| AZ90060 | ERH803 | 0425M22 | 04/25/19 2250 |
| 190425AM-MS | Matrix Spike | 0425M25 | 04/26/19 0016 |
| 190425AM-MSD | Matrix SpikeD | 0425M26 | 04/26/19 0044 |

Comments: Batch: #GRO86-190425AM

# Laboratory Control Spike Recoveries
## EPA 8260B GRO WATER

APPL ID: **190425W-90051 LCS - 239739**
Batch ID: #GRO86-190425AM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| GASOLINE RANGE ORGANICS | 300 | 352 | 330 | 117 | 110 | 78-122 | 6.5 | 20 |
| SURROGATE: 4-BROMOFLUOROBENZE | 25.0 | 25.7 | 25.2 | 103 | 101 | 85-114 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | MSUR324.M | MSUR324.M |
| Extraction Date : | 04/25/19 | 04/25/19 |
| Analysis Date : | 04/25/19 | 04/25/19 |
| Instrument : | Max | Max |
| Run : | 0425M07 | 0425M08 |
| Initials : | DG | |



*Printed: 04/26/19 12:07:43 PM*
*APPL Standard LCSD*

# Matrix Spike Recoveries

## EPA 8260B GRO WATER

APPL ID: **190426W-90051 MS - 239739**
Batch ID: #GRO86-190425AM
Sample ID: AZ90051
Client ID: ERH785

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| GASOLINE RANGE ORGANICS | 300 | ND | 249 | 323 | 83.0 | 108 | 78-122 | 25.9 # | 20 |
| SURROGATE: 4-BROMOFLUOROBENZE | 25.0 | NA | 24.5 | 25.1 | 98.0 | 100 | 85-114 | | |

# = Recovery is outside QC limits.

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | MSUR324.M | MSUR324.M |
| Extraction Date : | 04/26/19 | 04/26/19 |
| Analysis Date : | 04/26/19 | 04/26/19 |
| Instrument : | Max | Max |
| Run : | 0425M25 | 0425M26 |
| Initials : | DG | |

*Printed: 04/26/19 12:07:39 PM*
*APPL MSD SCII*

# RSK 175

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Rocky

Blank ID: 190429A-BLK Time Analyzed: 1112

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-LCS | Lab Control Spike | 19042900 | 04/29/19 1103 |
| 190429A-LCSD | Lab Control SpikeD | 19042901 | 04/29/19 1107 |
| 190429A-BLK | Blank | 19042902 | 04/29/19 1112 |
| AZ90050 | ERH784 | 19042906 | 04/29/19 1123 |
| AZ90051 | ERH785 | 19042907 | 04/29/19 1127 |
| 190429A-MS | Matrix Spike | 19042908 | 04/29/19 1129 |
| 190429A-MSD | Matrix SpikeD | 19042909 | 04/29/19 1132 |
| AZ90053 | ERH796 | 19042910 | 04/29/19 1136 |
| AZ90054 | ERH797 | 19042911 | 04/29/19 1138 |
| AZ90055 | ERH798 | 19042912 | 04/29/19 1140 |
| AZ90056 | ERH799 | 19042913 | 04/29/19 1143 |
| AZ90057 | ERH800 | 19042914 | 04/29/19 1145 |
| AZ90058 | ERH801 | 19042915 | 04/29/19 1147 |
| AZ90059 | ERH802 | 19042916 | 04/29/19 1149 |
| AZ90060 | ERH803 | 19042917 | 04/29/19 1151 |

Comments: Batch: #RSKME-190429A

# Method Blank
## METHANE

Blank Name/QCG: **190429W-90051 - 239793**
Batch ID: #RSKME-190429A

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 | 04/29/19 | 04/29/19 |

Quant Method: RSK0311.M
Run #: 19042902
Instrument: Rocky
Sequence: 190311
Initials: CMO

*GC SC-Blank-REG MDLs-DOD*
*Printed: 04/29/19 12:12:57 PM*

# RSK 175

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Rocky

LCS ID: 190429A-LCS Time Analyzed: 1103

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-LCS | Lab Control Spike | 19042900 | 04/29/19 1103 |
| 190429A-LCSD | Lab Control SpikeD | 19042901 | 04/29/19 1107 |
| 190429A-BLK | Blank | 19042902 | 04/29/19 1112 |
| AZ90050 | ERH784 | 19042906 | 04/29/19 1123 |
| AZ90051 | ERH785 | 19042907 | 04/29/19 1127 |
| 190429A-MS | Matrix Spike | 19042908 | 04/29/19 1129 |
| 190429A-MSD | Matrix SpikeD | 19042909 | 04/29/19 1132 |
| AZ90053 | ERH796 | 19042910 | 04/29/19 1136 |
| AZ90054 | ERH797 | 19042911 | 04/29/19 1138 |
| AZ90055 | ERH798 | 19042912 | 04/29/19 1140 |
| AZ90056 | ERH799 | 19042913 | 04/29/19 1143 |
| AZ90057 | ERH800 | 19042914 | 04/29/19 1145 |
| AZ90058 | ERH801 | 19042915 | 04/29/19 1147 |
| AZ90059 | ERH802 | 19042916 | 04/29/19 1149 |
| AZ90060 | ERH803 | 19042917 | 04/29/19 1151 |

Comments: Batch: #RSKME-190429A

# Laboratory Control Spike Recoveries
## METHANE

APPL ID: **190429W-90051 LCS - 239793**
Batch ID: #RSKME-190429A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| METHANE | 83.4 | 84.9 | 82.4 | 102 | 98.8 | 72-125 | 3.0 | 30 |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | RSK0311.M | RSK0311.M |
| Extraction Date : | 04/29/19 | 04/29/19 |
| Analysis Date : | 04/29/19 | 04/29/19 |
| Instrument : | Rocky | Rocky |
| Run : | 19042900 | 19042901 |
| Initials : | CMO | |



*Printed: 04/29/19 12:12:50 PM*
*APPL Standard LCSD*

# Matrix Spike Recoveries

## METHANE

APPL ID: **190429W-90051 MS - 239793**
Batch ID: #RSKME-190429A
Sample ID: AZ90051
Client ID: ERH785

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | Matrix Result ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| METHANE | 83.4 | ND | 83.2 | 86.7 | 99.8 | 104 | 72-125 | 4.1 | 30 |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | RSK0311.M | RSK0311.M |
| Extraction Date : | 04/29/19 | 04/29/19 |
| Analysis Date : | 04/29/19 | 04/29/19 |
| Instrument : | Rocky | Rocky |
| Run : | 19042908 | 19042909 |
| Initials : | CMO | |

*Printed: 04/29/19 12:12:45 PM*
*APPL MSD SCII*

# EPA 353.2

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 05/01/19

Matrix: WATER Instrument: EVE

Blank ID: 190501A-BLK Time Analyzed: 1817

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190501A-BLK | Blank | 16 | 05/01/19 1817 |
| 190501A-LCS | Lab Control Spike | 17 | 05/01/19 1819 |
| 190501A-LCSD | Lab Control SpikeD | 18 | 05/01/19 1821 |
| AZ90051 | ERH785 | 19 | 05/01/19 1823 |
| 190501A-MS | Matrix Spike | 20 | 05/01/19 1825 |
| 190501A-MSD | Matrix SpikeD | 21 | 05/01/19 1828 |
| AZ90054 | ERH797 | 22 | 05/01/19 1830 |
| AZ90056 | ERH799 | 23 | 05/01/19 1832 |
| AZ90058 | ERH801 | 24 | 05/01/19 1834 |
| AZ90060 | ERH803 | 25 | 05/01/19 1836 |

Comments: Batch: #35OF-190501A

# SM 2320B

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Tiamo

Blank ID: 190424A-BLK Time Analyzed: 1727

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 1 | 04/24/19 1727 |
| 190424A-LCS | Lab Control Spike | 2 | 04/24/19 1730 |
| AZ90054 | ERH797 | 21 | 04/24/19 2132 |
| AZ90056 | ERH799 | 22 | 04/24/19 2137 |
| AZ90058 | ERH801 | 23 | 04/24/19 2144 |
| AZ90060 | ERH803 | 24 | 04/24/19 2157 |
| 190424A-LCSD | Lab Control SpikeD | 3 | 04/24/19 1740 |

Comments: Batch: #232W-190424A

# SM 2320B

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Tiamo

Blank ID: 190430A-BLK Time Analyzed: 1008

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190430A-BLK | Blank | 1 | 04/30/19 1008 |
| 190430A-LCS | Lab Control Spike | 2 | 04/30/19 1011 |
| 190430A-LCSD | Lab Control SpikeD | 3 | 04/30/19 1021 |
| AZ90051 | ERH785 | 4 | 04/30/19 1031 |
| 190430A-MS | Matrix Spike | 6 | 04/30/19 1043 |
| 190430A-MSD | Matrix SpikeD | 7 | 04/30/19 1054 |

Comments: Batch: #232W-190430A

# SM3500FeB

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190424A-BLK Time Analyzed: 1959

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 21 | 04/24/19 1959 |
| 190424A-LCS | Lab Control Spike | 22 | 04/24/19 2000 |
| 190424A-LCSD | Lab Control SpikeD | 23 | 04/24/19 2001 |
| AZ90051 | ERH785 | 24 | 04/24/19 2002 |
| 190424A-MS | Matrix Spike | 25 | 04/24/19 2003 |
| 190424A-MSD | Matrix SpikeD | 26 | 04/24/19 2004 |
| AZ90054 | ERH797 | 27 | 04/24/19 2005 |
| AZ90056 | ERH799 | 28 | 04/24/19 2006 |
| AZ90058 | ERH801 | 29 | 04/24/19 2007 |
| AZ90060 | ERH803 | 30 | 04/24/19 2008 |

Comments: Batch: #35FE-190424A

# SW846 9060A

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190429A-BLK Time Analyzed: 1451

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-LCSD | Lab Control SpikeD | 10 | 04/29/19 1600 |
| AZ90054 | ERH797 | 35 | 04/30/19 0547 |
| AZ90058 | ERH801 | 37 | 04/30/19 0650 |
| AZ90060 | ERH803 | 38 | 04/30/19 0722 |
| 190429A-BLK | Blank | 8 | 04/29/19 1451 |
| 190429A-LCS | Lab Control Spike | 9 | 04/29/19 1525 |

Comments: Batch: #DOCW5-190429A

# SW846 9060A

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 05/03/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190502B-BLK Time Analyzed: 0446

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502B-BLK | Blank | 24 | 05/03/19 0446 |
| 190502B-LCS | Lab Control Spike | 25 | 05/03/19 0520 |
| 190502B-LCSD | Lab Control SpikeD | 26 | 05/03/19 0555 |
| AZ90051 | ERH785 | 31 | 05/03/19 0847 |
| AZ90056 | ERH799 | 35 | 05/03/19 1104 |

Comments: Batch: #DOCW5-190502B

# SW846 9060A

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190429A-BLK Time Analyzed: 1451

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-LCSD | Lab Control SpikeD | 10 | 04/29/19 1600 |
| AZ90056 | ERH799 | 36 | 04/30/19 0618 |
| 190429A-BLK | Blank | 8 | 04/29/19 1451 |
| 190429A-LCS | Lab Control Spike | 9 | 04/29/19 1525 |

Comments: Batch: #TOCW5-190429A

# SW846 9060A

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190502A-BLK Time Analyzed: 1740

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| AZ90051 | ERH785 | 11 | 05/02/19 2139 |
| AZ90054 | ERH797 | 15 | 05/02/19 2355 |
| AZ90058 | ERH801 | 16 | 05/03/19 0027 |
| AZ90060 | ERH803 | 17 | 05/03/19 0058 |
| 190502A-BLK | Blank | 4 | 05/02/19 1740 |
| 190502A-LCS | Lab Control Spike | 5 | 05/02/19 1814 |
| 190502A-LCSD | Lab Control SpikeD | 6 | 05/02/19 1849 |

Comments: Batch: #TOCW5-190502A

# WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Analyte | Result | LOQ | LOD | DL | Units | Prep Date | Analysis Date | QC Group |
|---|---|---|---|---|---|---|---|---|---|
| SM 2320B | BICARBONATE AS | 3.9 | 2.0 | 1.70 | 0.85 | mg/L | 04/30/19 | 04/30/19 | #232W-190430A-AZ90051 |
| SM 2320B | CARBONATE AS C | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 04/30/19 | 04/30/19 | #232W-190430A-AZ90051 |
| SM 2320B | TOTAL ALKALINITY | 3.9 | 2.0 | 1.70 | 0.85 | mg/L | 04/30/19 | 04/30/19 | #232W-190430A-AZ90051 |
| EPA 300.0 | NITRATE | 0.18 U | 0.5 | 0.18 | 0.04 | mg/L | 05/07/19 | 05/07/19 | #300W-190506A1-AZ90051 |
| EPA 300.0 | CHLORIDE | 0.30 J | 1.0 | 0.20 | 0.08 | mg/L | 05/08/19 | 05/08/19 | #300WD-190508A-AZ90051 |
| EPA 300.0 | SULFATE | 0.20 U | 1.0 | 0.20 | 0.09 | mg/L | 05/08/19 | 05/08/19 | #300WD-190508A-AZ90051 |
| SM3500Fe | FERROUS IRON | 0.32 U | 1.0 | 0.32 | 0.16 | mg/L | 04/24/19 | 04/24/19 | #35FE-190424A-AZ90051 |
| EPA 353.2 | NITRATE-NITRITE- | 0.090 U | 0.10 | 0.090 | 0.028 | mg/L | 05/01/19 | 05/01/19 | #35OF-190501A-AZ90051 |
| SW846 90 | DISSOLVED ORGA | 0.350 U | 0.93 | 0.350 | 0.130 | mg/L | 05/03/19 | 05/03/19 | #DOCW5-190502B-AZ89958 |
| SW846 90 | TOTAL ORGANIC C | 0.350 U | 0.93 | 0.350 | 0.130 | mg/L | 05/02/19 | 05/02/19 | #TOCW5-190502A-AZ89958 |
| SM 2320B | BICARBONATE AS | 2.9 | 2.0 | 1.70 | 0.85 | mg/L | 04/24/19 | 04/24/19 | #232W-190424A-AZ89958 |
| SM 2320B | CARBONATE AS C | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 04/24/19 | 04/24/19 | #232W-190424A-AZ89958 |
| SM 2320B | TOTAL ALKALINITY | 2.9 | 2.0 | 1.70 | 0.85 | mg/L | 04/24/19 | 04/24/19 | #232W-190424A-AZ89958 |
| SW846 90 | DISSOLVED ORGA | 0.350 U | 0.93 | 0.350 | 0.130 | mg/L | 04/29/19 | 04/29/19 | #DOCW5-190429A-AZ90054 |
| SW846 90 | TOTAL ORGANIC C | 0.350 U | 0.93 | 0.350 | 0.130 | mg/L | 04/29/19 | 04/29/19 | #TOCW5-190429A-AZ90056 |

*Wetlab SC-Blank-REG MDLs*
*Printed: 05/16/19 3:26:57 PM*

# EPA 300.0

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 05/07/19

Matrix: WATER Instrument: Charlie

LCS ID: 190506A1-LCS Time Analyzed: 0924

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| AZ90051 | ERH785 | 10 | 05/07/19 1129 |
| AZ90054 | ERH797 | 11 | 05/07/19 1136 |
| AZ90056 | ERH799 | 12 | 05/07/19 1143 |
| AZ90058 | ERH801 | 13 | 05/07/19 1151 |
| AZ90060 | ERH803 | 14 | 05/07/19 1158 |
| 190506A1-BLK | Blank | 2 | 05/07/19 0916 |
| 190506A1-LCS | Lab Control Spike | 3 | 05/07/19 0924 |
| 190506A1-LCSD | Lab Control SpikeD | 4 | 05/07/19 0931 |

Comments: Batch: #300W-190506A1

# EPA 300.0

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 05/08/19

Matrix: WATER Instrument: Charlie

LCS ID: 190508A-LCS Time Analyzed: 0838

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| AZ90060 | ERH803 | 10 | 05/08/19 0946 |
| 190508A-BLK | Blank | 3 | 05/08/19 0831 |
| 190508A-LCS | Lab Control Spike | 4 | 05/08/19 0838 |
| 190508A-LCSD | Lab Control SpikeD | 5 | 05/08/19 0845 |
| AZ90051 | ERH785 | 6 | 05/08/19 0916 |
| AZ90054 | ERH797 | 7 | 05/08/19 0924 |
| AZ90056 | ERH799 | 8 | 05/08/19 0931 |
| AZ90058 | ERH801 | 9 | 05/08/19 0938 |

Comments: Batch: #300WD-190508A

# EPA 353.2

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 05/01/19

Matrix: WATER Instrument: EVE

LCS ID: 190501A-LCS Time Analyzed: 1819

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190501A-BLK | Blank | 16 | 05/01/19 1817 |
| 190501A-LCS | Lab Control Spike | 17 | 05/01/19 1819 |
| 190501A-LCSD | Lab Control SpikeD | 18 | 05/01/19 1821 |
| AZ90051 | ERH785 | 19 | 05/01/19 1823 |
| 190501A-MS | Matrix Spike | 20 | 05/01/19 1825 |
| 190501A-MSD | Matrix SpikeD | 21 | 05/01/19 1828 |
| AZ90054 | ERH797 | 22 | 05/01/19 1830 |
| AZ90056 | ERH799 | 23 | 05/01/19 1832 |
| AZ90058 | ERH801 | 24 | 05/01/19 1834 |
| AZ90060 | ERH803 | 25 | 05/01/19 1836 |

Comments: Batch: #35OF-190501A

# SM 2320B

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Tiamo

LCS ID: 190430A-LCS Time Analyzed: 1011

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190430A-BLK | Blank | 1 | 04/30/19 1008 |
| 190430A-LCS | Lab Control Spike | 2 | 04/30/19 1011 |
| 190430A-LCSD | Lab Control SpikeD | 3 | 04/30/19 1021 |
| AZ90051 | ERH785 | 4 | 04/30/19 1031 |
| 190430A-MS | Matrix Spike | 6 | 04/30/19 1043 |
| 190430A-MSD | Matrix SpikeD | 7 | 04/30/19 1054 |

Comments: Batch: #232W-190430A

# SM3500FeB

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190424A-LCS Time Analyzed: 2000

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 21 | 04/24/19 1959 |
| 190424A-LCS | Lab Control Spike | 22 | 04/24/19 2000 |
| 190424A-LCSD | Lab Control SpikeD | 23 | 04/24/19 2001 |
| AZ90051 | ERH785 | 24 | 04/24/19 2002 |
| 190424A-MS | Matrix Spike | 25 | 04/24/19 2003 |
| 190424A-MSD | Matrix SpikeD | 26 | 04/24/19 2004 |
| AZ90054 | ERH797 | 27 | 04/24/19 2005 |
| AZ90056 | ERH799 | 28 | 04/24/19 2006 |
| AZ90058 | ERH801 | 29 | 04/24/19 2007 |
| AZ90060 | ERH803 | 30 | 04/24/19 2008 |

Comments: Batch: #35FE-190424A

# SW846 9060A

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 05/03/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190502B-LCS Time Analyzed: 0520

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502B-BLK | Blank | 24 | 05/03/19 0446 |
| 190502B-LCS | Lab Control Spike | 25 | 05/03/19 0520 |
| 190502B-LCSD | Lab Control SpikeD | 26 | 05/03/19 0555 |
| AZ90051 | ERH785 | 31 | 05/03/19 0847 |
| AZ90056 | ERH799 | 35 | 05/03/19 1104 |

Comments: Batch: #DOCW5-190502B

# SW846 9060A

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190502A-LCS Time Analyzed: 1814

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| AZ90051 | ERH785 | 11 | 05/02/19 2139 |
| AZ90054 | ERH797 | 15 | 05/02/19 2355 |
| AZ90058 | ERH801 | 16 | 05/03/19 0027 |
| AZ90060 | ERH803 | 17 | 05/03/19 0058 |
| 190502A-BLK | Blank | 4 | 05/02/19 1740 |
| 190502A-LCS | Lab Control Spike | 5 | 05/02/19 1814 |
| 190502A-LCSD | Lab Control SpikeD | 6 | 05/02/19 1849 |

Comments: Batch: #TOCW5-190502A

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Compound Name | Spike Lvl mg/L | SPK Res mg/L | DUP Res mg/L | SPK % Recov | DUP % Recov | RPD | RPD Max | QC Limits | Extract Date-Spk | Analysis Date-Spk | Extract Date-Dup | Analysis Date-Dup | QC Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 25.0 | 24.4 | 24.4 | 97.6 | 97.6 | 0.0 | 20 | 90-110 | 05/08/19 | 05/08/19 | 05/08/19 | 05/08/19 | #300WD-190508A-AZ9005 |
| EPA 300.0 | SULFATE | 25.0 | 26.0 | 26.0 | 104 | 104 | 0.0 | 20 | 90-110 | 05/08/19 | 05/08/19 | 05/08/19 | 05/08/19 | #300WD-190508A-AZ9005 |
| EPA 300.0 | NITRATE | 22.1 | 22.9 | 22.9 | 104 | 104 | 0.0 | 20 | 90-110 | 05/07/19 | 05/07/19 | 05/07/19 | 05/07/19 | #300W-190506A1-AZ9005 |
| EPA 353.2 | NITRATE-NITRITE-N | 3.00 | 3.14 | 3.12 | 105 | 104 | 0.64 | 20 | 90-110 | 05/01/19 | 05/01/19 | 05/01/19 | 05/01/19 | #35OF-190501A-AZ90051 |
| SM 2320B | BICARBONATE AS CACO3 | 250 | 238 | 239 | 95.2 | 95.6 | 0.42 | 20 | 90-110 | 04/30/19 | 04/30/19 | 04/30/19 | 04/30/19 | #232W-190430A-AZ90051 |
| SM 2320B | TOTAL ALKALINITY AS CA | 250 | 238 | 239 | 95.2 | 95.6 | 0.42 | 20 | 90-110 | 04/30/19 | 04/30/19 | 04/30/19 | 04/30/19 | #232W-190430A-AZ90051 |
| SM3500Fe | FERROUS IRON | 3.00 | 3.06 | 3.08 | 102 | 103 | 0.65 | 20 | 80-120 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | #35FE-190424A-AZ90051 |
| SW846 90 | DISSOLVED ORGANIC CA | 2.5 | 2.46 | 2.45 | 98.4 | 98.0 | 0.41 | 20 | 90-110 | 05/03/19 | 05/03/19 | 05/03/19 | 05/03/19 | #DOCW5-190502B-AZ899 |
| SW846 90 | TOTAL ORGANIC CARBO | | 2.43 | 2.37 | NA | NA | | 20 | 90-110 | 05/02/19 | 05/02/19 | 05/02/19 | 05/02/19 | #TOCW5-190502A-AZ899 |

Comments: _____

# SW846 9060A

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190429A-LCS Time Analyzed: 1525

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-LCSD | Lab Control SpikeD | 10 | 04/29/19 1600 |
| AZ90054 | ERH797 | 35 | 04/30/19 0547 |
| AZ90058 | ERH801 | 37 | 04/30/19 0650 |
| AZ90060 | ERH803 | 38 | 04/30/19 0722 |
| 190429A-BLK | Blank | 8 | 04/29/19 1451 |
| 190429A-LCS | Lab Control Spike | 9 | 04/29/19 1525 |

Comments: Batch: #DOCW5-190429A

# SM 2320B

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/24/19

Matrix: WATER Instrument: Tiamo

LCS ID: 190424A-LCS Time Analyzed: 1730

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190424A-BLK | Blank | 1 | 04/24/19 1727 |
| 190424A-LCS | Lab Control Spike | 2 | 04/24/19 1730 |
| AZ90054 | ERH797 | 21 | 04/24/19 2132 |
| AZ90056 | ERH799 | 22 | 04/24/19 2137 |
| AZ90058 | ERH801 | 23 | 04/24/19 2144 |
| AZ90060 | ERH803 | 24 | 04/24/19 2157 |
| 190424A-LCSD | Lab Control SpikeD | 3 | 04/24/19 1740 |

Comments: Batch: #232W-190424A

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Compound Name | Spike Lvl mg/L | SPK Res mg/L | DUP Res mg/L | SPK % Recov | DUP % Recov | RPD | RPD Max | QC Limits | Extract Date-Spk | Analysis Date-Spk | Extract Date-Dup | Analysis Date-Dup | QC Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SM 2320B | BICARBONATE AS CACO3 | 250 | 233 | 229 | 93.2 | 91.6 | 1.7 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | #232W-190424A-AZ89958 |
| SM 2320B | TOTAL ALKALINITY AS CA | 250 | 233 | 229 | 93.2 | 91.6 | 1.7 | 20 | 90-110 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | #232W-190424A-AZ89958 |
| SW846 90 | DISSOLVED ORGANIC CA | 2.50 | 2.58 | 2.60 | 103 | 104 | 0.77 | 20 | 90-110 | 04/29/19 | 04/29/19 | 04/29/19 | 04/29/19 | #DOCW5-190429A-AZ900 |

Comments:

# SW846 9060A

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88701

Case No: 88701 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190429A-LCS Time Analyzed: 1525

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-LCSD | Lab Control SpikeD | 10 | 04/29/19 1600 |
| AZ90056 | ERH799 | 36 | 04/30/19 0618 |
| 190429A-BLK | Blank | 8 | 04/29/19 1451 |
| 190429A-LCS | Lab Control Spike | 9 | 04/29/19 1525 |

Comments: Batch: #TOCW5-190429A

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Compound Name | Spike Lvl mg/L | SPK Res mg/L | DUP Res mg/L | SPK % Recov | DUP % Recov | RPD | RPD Max | QC Limits | Extract Date-Spk | Analysis Date-Spk | Extract Date-Dup | Analysis Date-Dup | QC Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW846 90 | TOTAL ORGANIC CARBO | | 2.58 | 2.60 | NA | NA | | 20 | 90-110 | 04/29/19 | 04/29/19 | 04/29/19 | 04/29/19 | #TOCW5-190429A-AZ900 |

Comments: _____

# Matrix Spike Recoveries

## WETLAB

APPL ID: **190501W-90051 MS - 239906**

Sample ID: AZ90051

Client ID: ERH785

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Compound Name | Spike Lvl mg/L | Matrix Res mg/L | SPK Res mg/L | DUP Res mg/L | SPK % Recovery | DUP % Recovery | RPD | RPD Max | Recovery Limits | Extract Date-Spk | Analysis Date-Spk | Extract Date-Dup | Analysis Date-Dup | QC Group | QC Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EPA 353.2 | NITRATE-NITRITE-N | 2.50 | 0.62 | 3.04 | 3.19 | 96.8 | 103 | 4.8 | 20 | 90-110 | 05/01/19 | 05/01/19 | 05/01/19 | 05/01/19 | 239906 | AZ90051 |
| SM 2320B | BICARBONATE AS CA | 250 | 67.7 | 286 | 283 | 87.3 # | 86.1 # | 1.1 | 20 | 90-110 | 04/30/19 | 04/30/19 | 04/30/19 | 04/30/19 | 239877 | AZ90051 |
| SM 2320B | TOTAL ALKALINITY A | 250 | 67.7 | 286 | 283 | 87.3 # | 86.1 # | 1.1 | 20 | 90-110 | 04/30/19 | 04/30/19 | 04/30/19 | 04/30/19 | 239877 | AZ90051 |
| SM3500Fe | FERROUS IRON | 3.00 | 0.036 | 3.08 | 3.06 | 101 | 101 | 0.65 | 20 | 80-120 | 04/24/19 | 04/24/19 | 04/24/19 | 04/24/19 | 239727 | AZ90051 |

# = Recovery is outside QC limits.

Comments:

# ORGANICS
# Calibration Data

TPH Extractables
DOC0411

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 04/11/19
Matrix: Water Instrument: Apollo
Initials: D.P.

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel / Motor Oil: | 411002.D | 411003.D | 411004.D | 411005.D | 411006.D | 411007.D | | | | | | | | | | |
| Decanoic Acid: | 411009.D | 411010.D | 411011.D | 411012.D | 411013.D | 411014.D | | | | | | | | | | |

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | | | | | Avg | %RSD | Type | r^2 | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1479257 | 1066406 | 1154027 | 1149804 | 1155026 | 1151191 | | | | | 1192619 | 12 | HATM | | |
| 2 | HBTM | Motor Oil (C24-C40) | 1115442 | 902464 | 913566 | 920399 | 937513 | 921175 | | | | | 951760 | 8.5 | HBTM | | |
| 3 | SCL | Decanoic Acid(S) | 185262 | 314603 | 492479 | 537134 | 542867 | 560663 | | | | | 438835 | 35 | SC | 0.999 | |
| 4 | SA | Ortho-Terphenyl(S) | 2331995 | 1997948 | 2029193 | 1934422 | 1946955 | 1901973 | | | | | 2023748 | 7.8 | SA | | |
| 5 | SA | Octacosane(S) | 2126705 | 1844471 | 1831603 | 1894540 | 1808281 | 1847266 | | | | | 1892144 | 6.3 | SA | | |
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1.990883

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411002.D Vial: 2
Acq On : 4-11-19 12:41:17 Operator: DP
Sample : Diesel / Motor Oil - 1 1/15/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:32 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

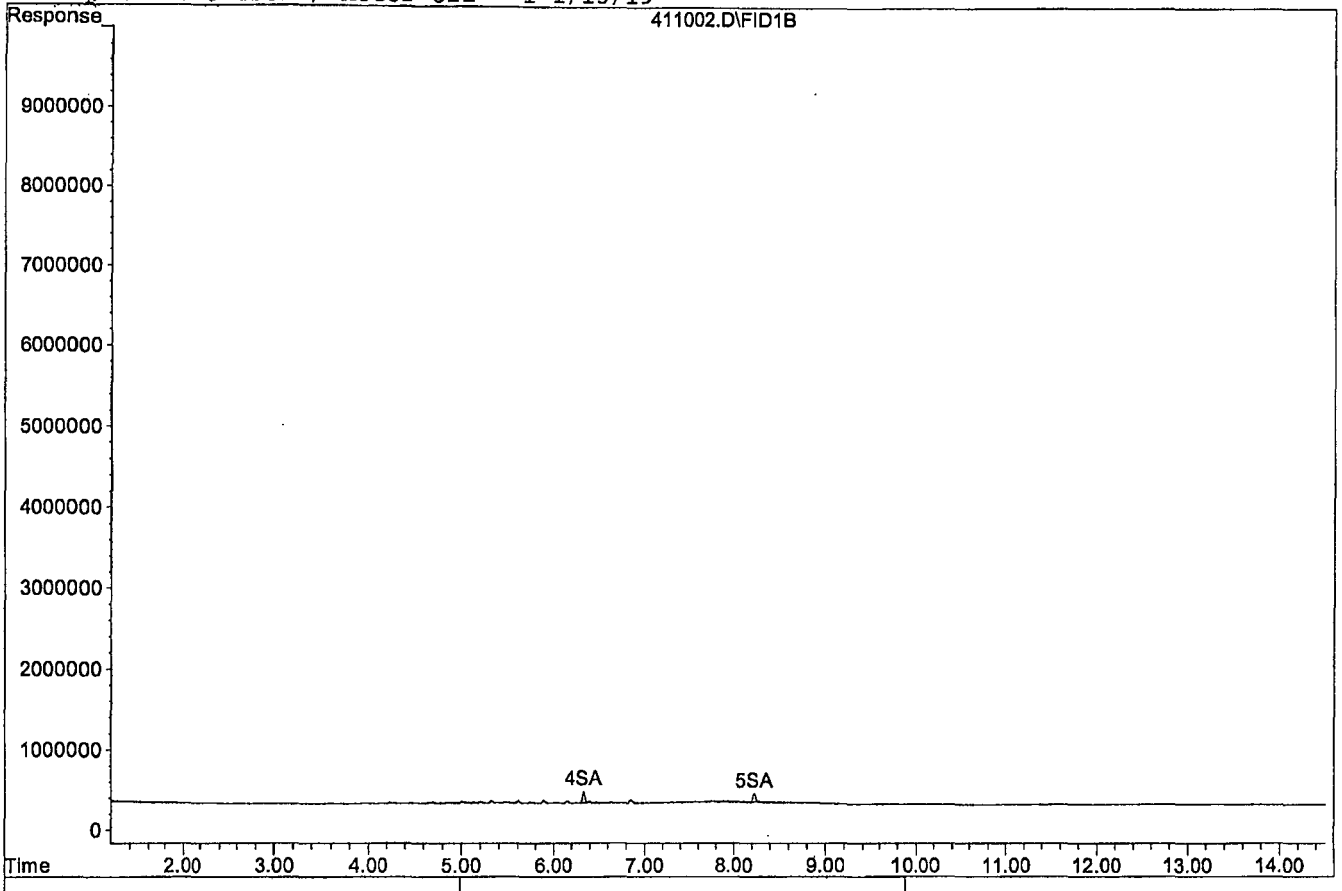
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

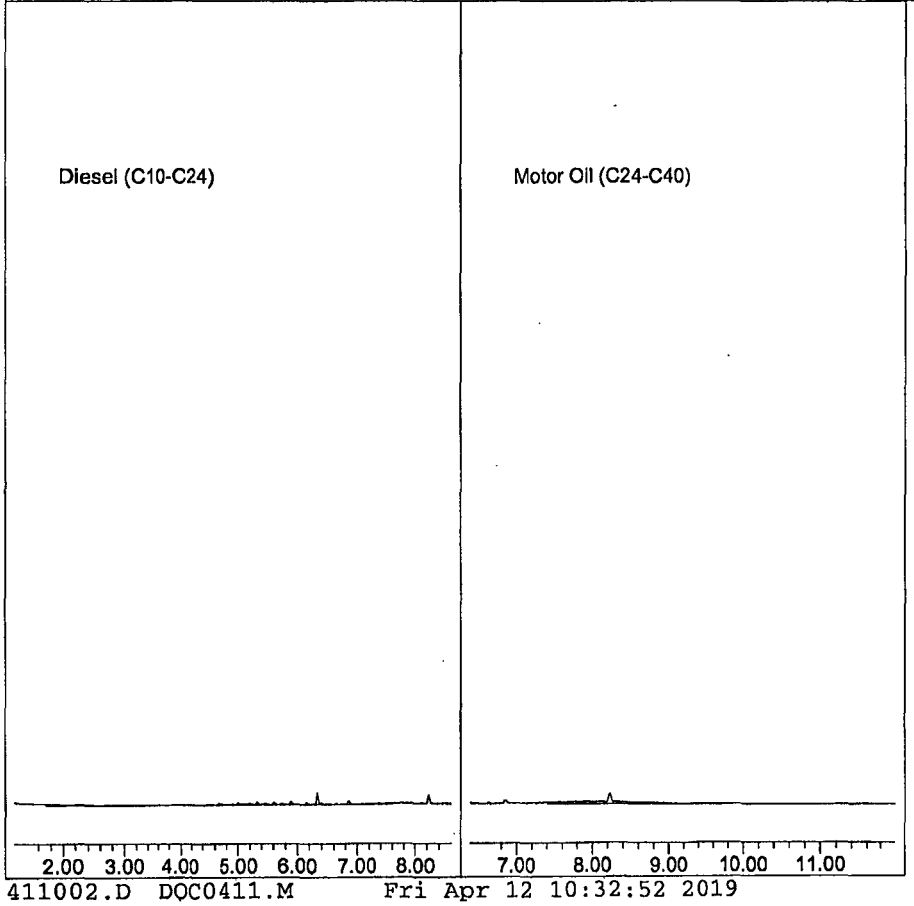
| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 2331995 | 0.576 ppb |
| Surrogate Spike 30.000 | Recovery = | | 1.92% |
| 5) SA Octacosane(S) | 8.23 | 2126705 | 0.562 ppb |
| Surrogate Spike 30.000 | Recovery = | | 1.87% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 29585142 | 12.403 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 22308844 | 11.720 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.
411002.D DOC0411.M Fri Apr 12 10:32:50 2019 Page 1

Quantitation Report

Data File: G:\APOLLO\DATA\190411\411002.D
Sample : Diesel / Motor Oil - 1 1/15/19




411002.D DOC0411.M Fri Apr 12 10:32:52 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411003.D Vial: 3
Acq On : 4-11-19 13:00:16 Operator: DP
Sample : Diesel / Motor Oil - 2 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:32 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

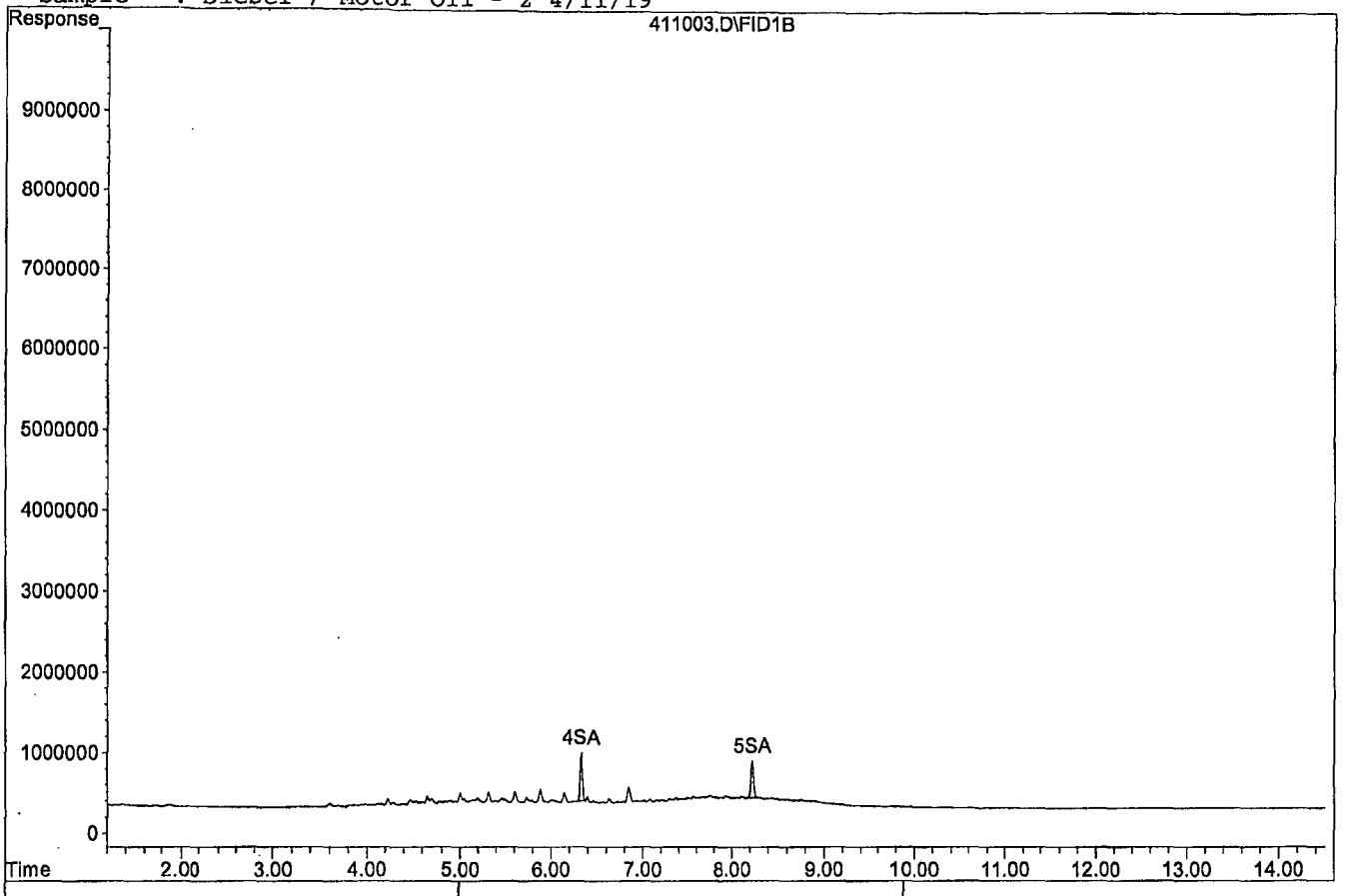
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

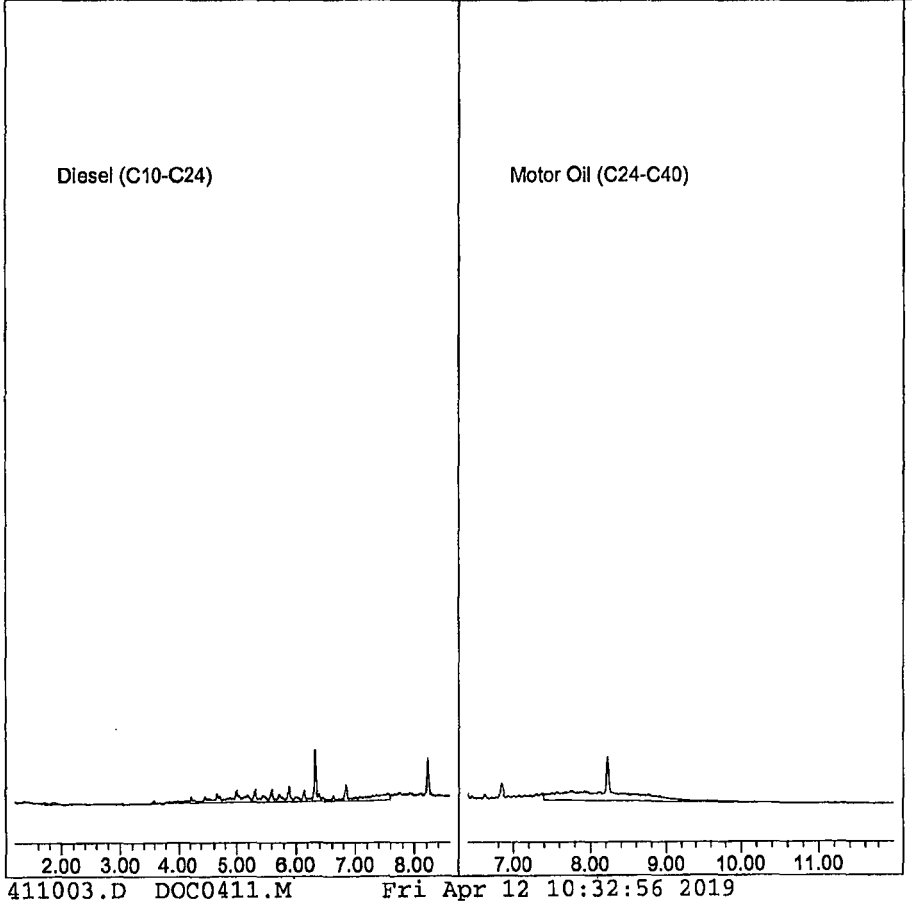
| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 9989738 | 2.468 ppb |
| Surrogate Spike 30.000 | Recovery = | | 8.23% |
| 5) SA Octacosane(S) | 8.22 | 9222354 | 2.437 ppb |
| Surrogate Spike 30.000 | Recovery = | | 8.12% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 106640632 | 44.709 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 90246355 | 47.410 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.
411003.D DOC0411.M Fri Apr 12 10:32:54 2019 Page 1

Quantitation Report

Data File: G:\APOLLO\DATA\190411\411003.D
Sample : Diesel / Motor Oil - 2 4/11/19




411003.D DOC0411.M Fri Apr 12 10:32:56 2019 Page 2

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411004.D Vial: 4
Acq On : 4-11-19 13:19:58 Operator: DP
Sample : Diesel / Motor Oil - 3 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:32 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

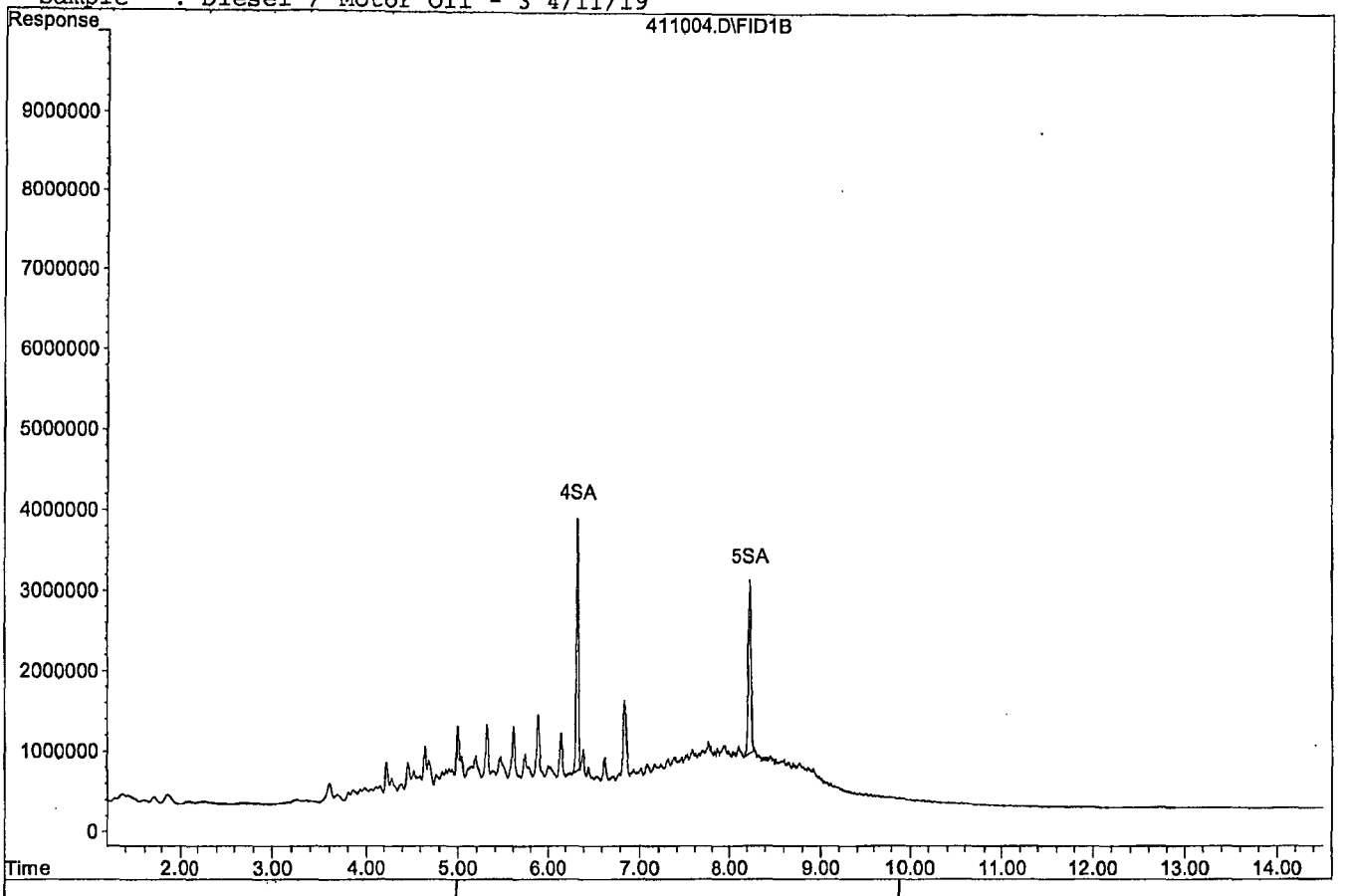
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

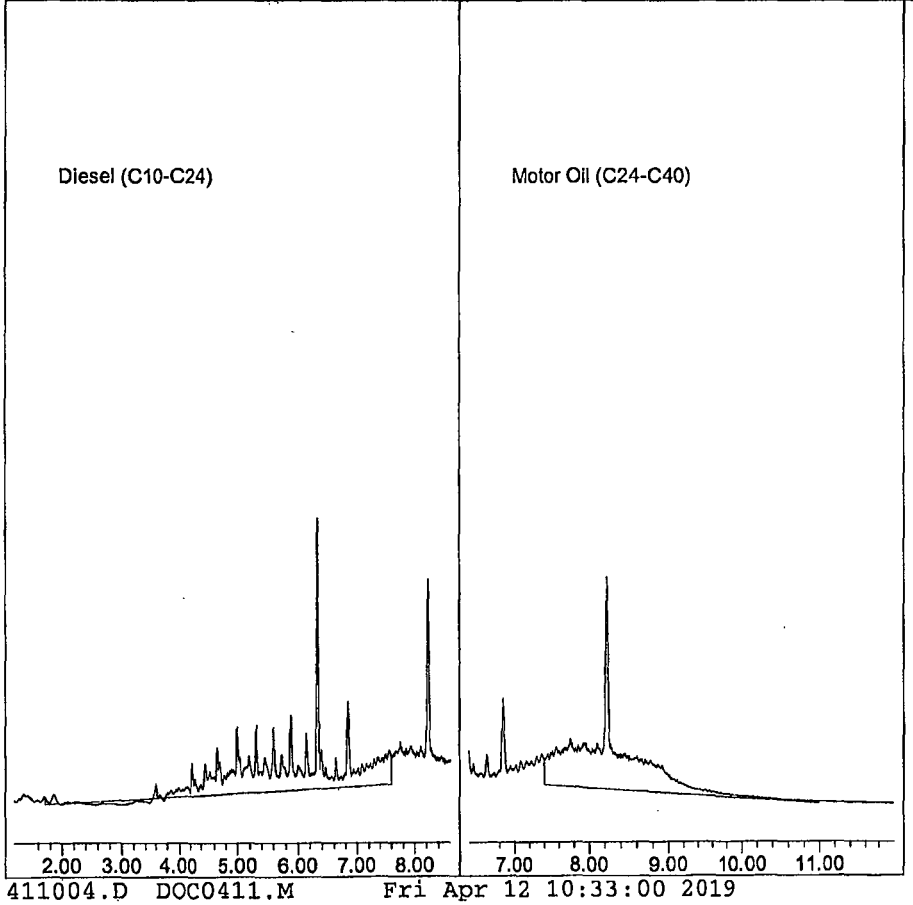
| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 50729819 | 12.534 ppb |
| Surrogate Spike 30.000 | Recovery = | | 41.78% |
| 5) SA Octacosane(S) | 8.23 | 45790065 | 12.100 ppb |
| Surrogate Spike 30.000 | Recovery = | | 40.33% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 577013623 | 241.910 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 456782905 | 239.968 ppb |

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

Quantitation Report

Data File: G:\APOLLO\DATA\190411\411004.D
Sample : Diesel / Motor Oil - 3 4/11/19




411004.D DOC0411.M Fri Apr 12 10:33:00 2019

Page 2

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411005.D Vial: 5
Acq On : 4-11-19 13:39:40 Operator: DP
Sample : Diesel / Motor Oil - 4 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:32 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

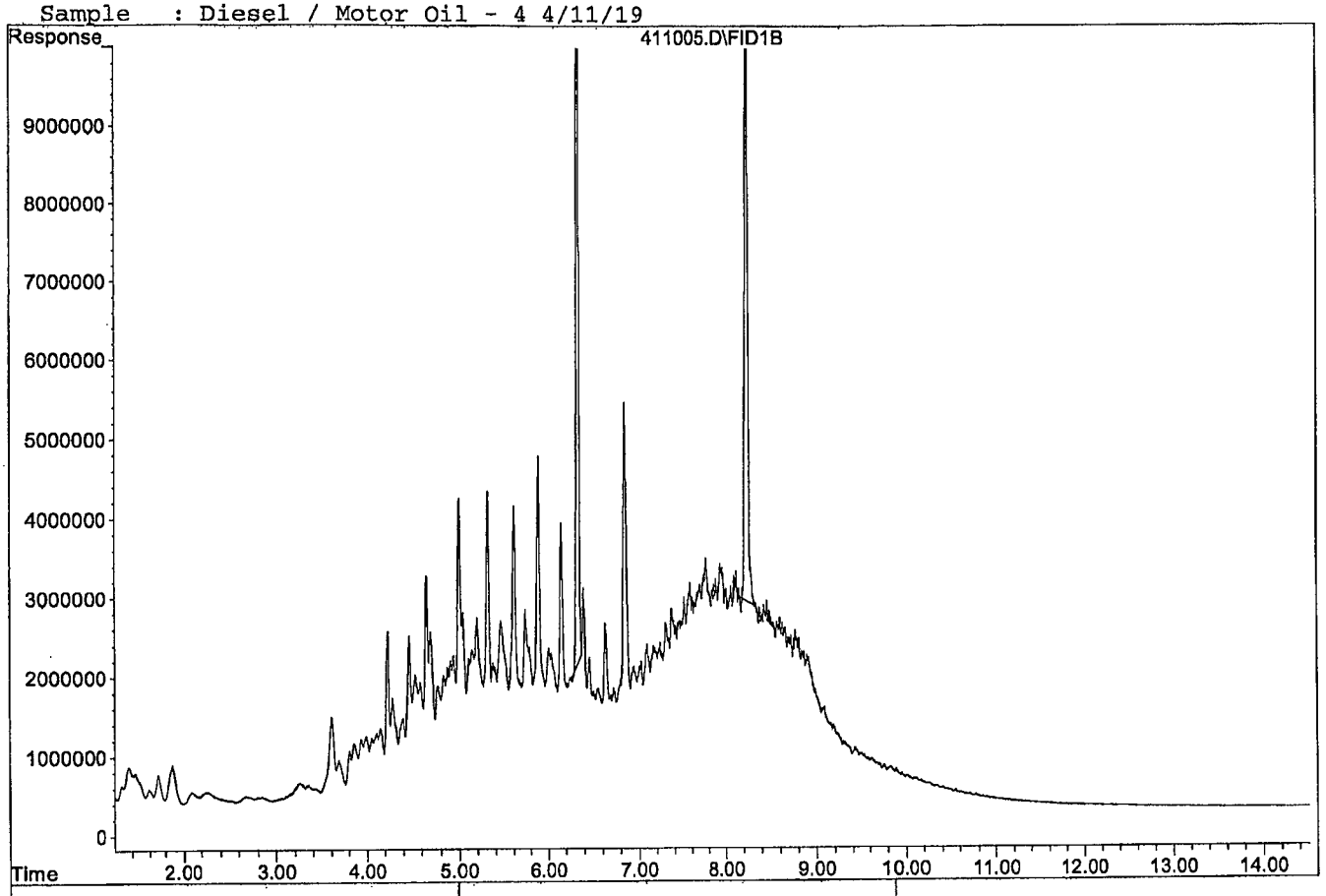
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

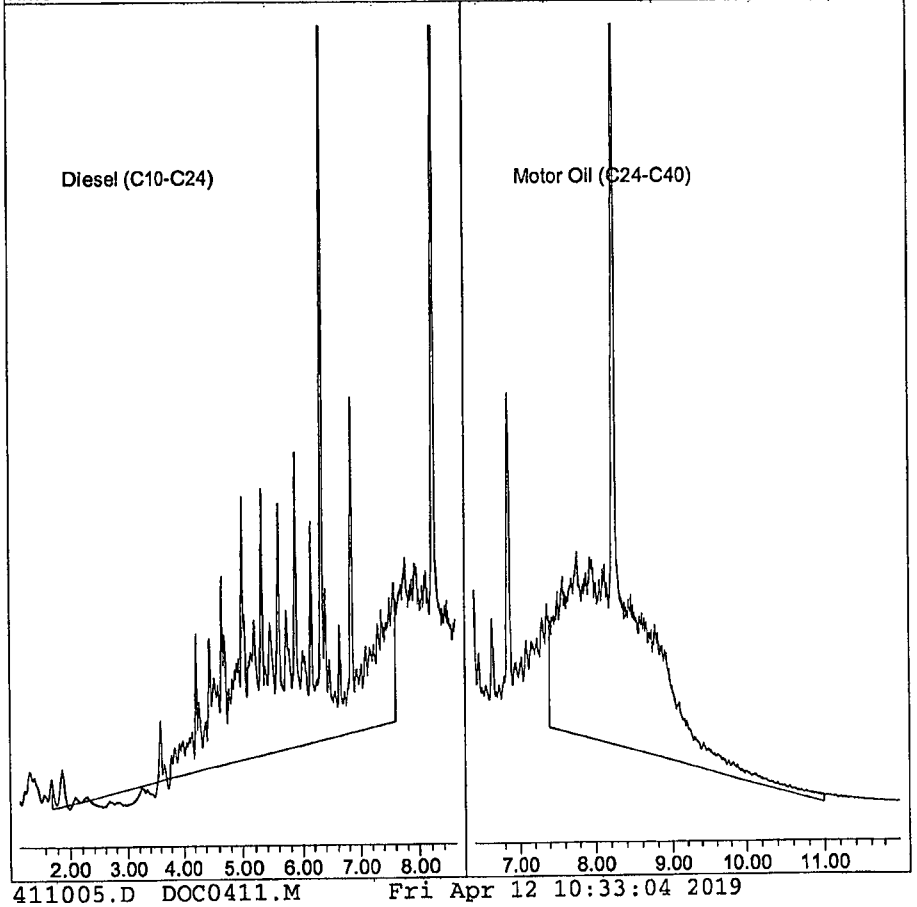
| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.34 | 193442220 | 47.793 ppb |
| Surrogate Spike 30.000 | | Recovery = | 159.31% |
| 5) SA Octacosane(S) | 8.24 | 189453974 | 50.063 ppb |
| Surrogate Spike 30.000 | | Recovery = | 166.88% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 2299608823 | 964.101 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 1840797531 | 967.050 ppb |

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

Quantitation Report

Data File: G:\APOLLO\DATA\190411\411005.D
Sample : Diesel / Motor Oil - 4 4/11/19




411005.D DOC0411.M Fri Apr 12 10:33:04 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411006.D Vial: 6
Acq On : 4-11-19 13:59:26 Operator: DP
Sample : Diesel / Motor Oil - 5 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:32 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

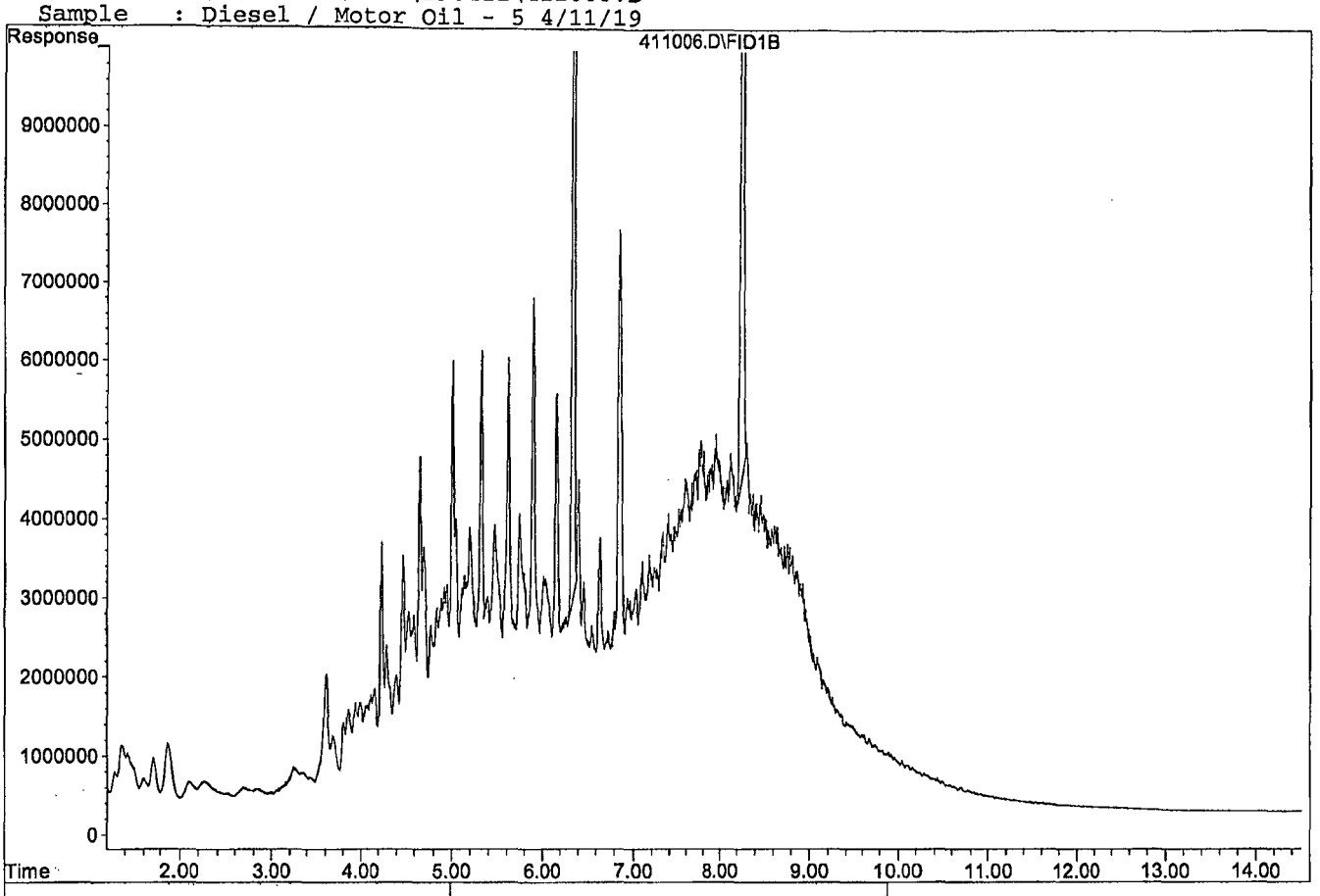
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

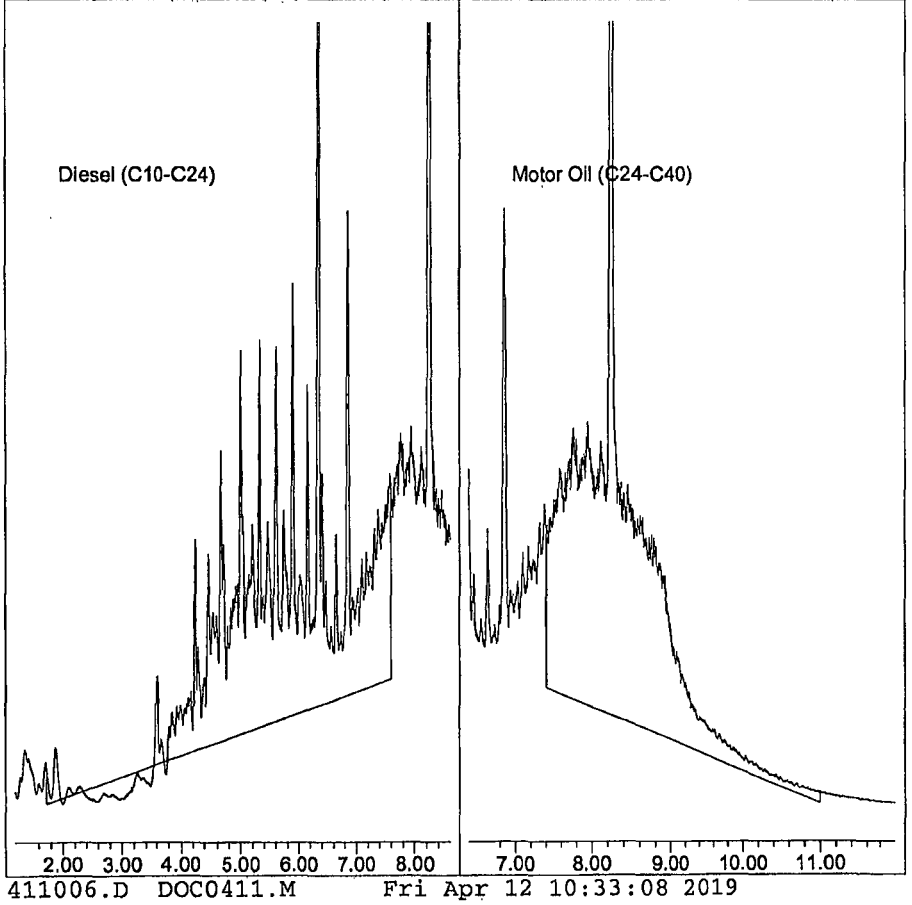
| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.35 | 292043263 | 72.154 ppb |
| Surrogate Spike 30.000 | Recovery = | | 240.51% |
| 5) SA Octacosane(S) | 8.25 | 271242076 | 71.676 ppb |
| Surrogate Spike 30.000 | Recovery = | | 238.92% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 3465077974 | 1452.718 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 2812537957 | 1477.546 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.
411006.D DOC0411.M Fri Apr 12 10:33:06 2019 Page 1

Quantitation Report

Data File: G:\APOLLO\DATA\190411\411006.D
Sample : Diesel / Motor Oil - 5 4/11/19




411006.D DOC0411.M Fri Apr 12 10:33:08 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411007.D Vial: 7
Acq On : 4-11-19 14:19:10 Operator: DP
Sample : Diesel / Motor Oil - 6 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:32 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

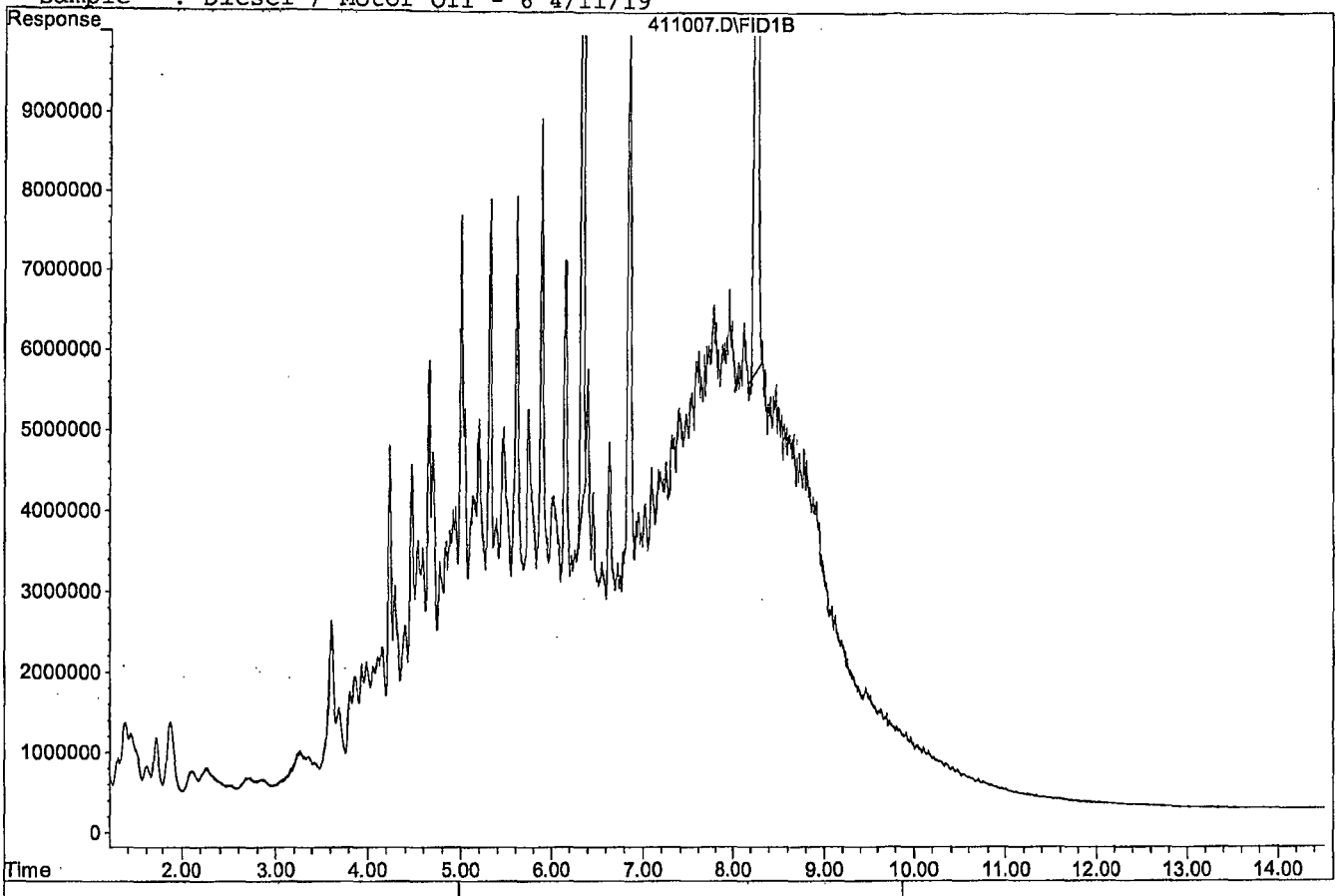
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

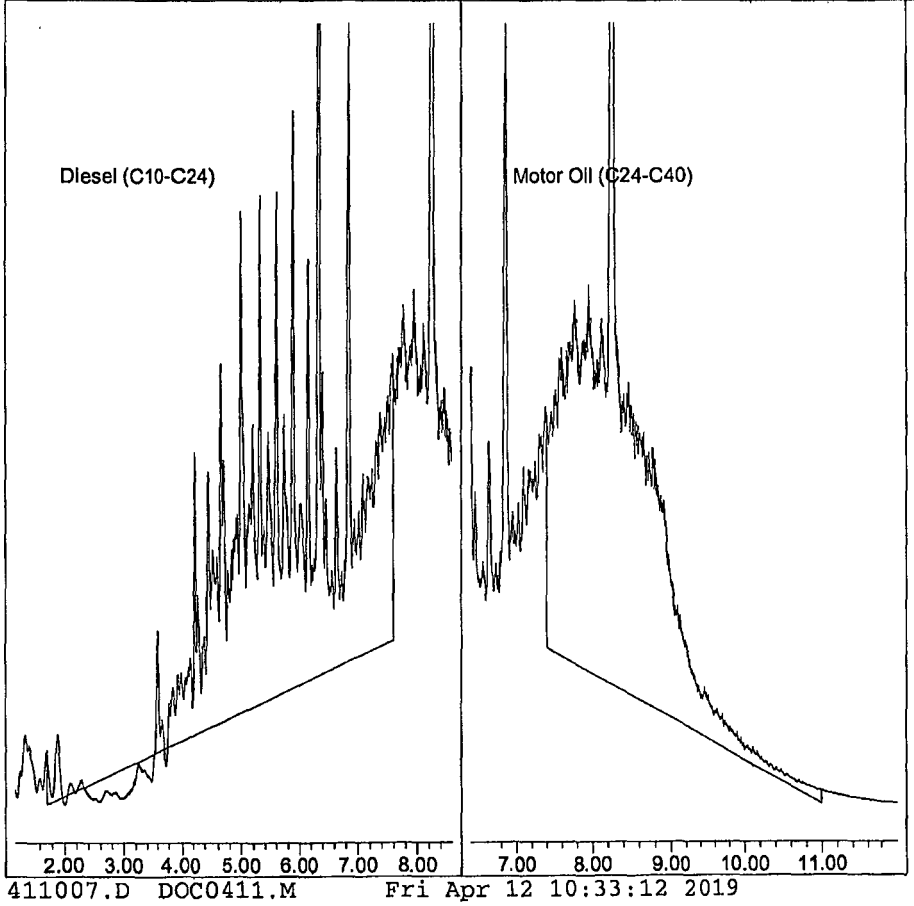
| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.35 | 380394582 | 93.983 ppb |
| Surrogate Spike 30.000 | | Recovery = | 313.28% |
| 5) SA Octacosane(S) | 8.25 | 369453158 | 97.628 ppb |
| Surrogate Spike 30.000 | | Recovery = | 325.43% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 4604763920 | 1930.527 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 3684700650 | 1935.731 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.
411007.D DOC0411.M Fri Apr 12 10:33:10 2019 Page 1

Quantitation Report

Data File: G:\APOLLO\DATA\190411\411007.D
Sample : Diesel / Motor Oil - 6 4/11/19




411007.D DOC0411.M Fri Apr 12 10:33:12 2019

TPH Extractables
DOC0411

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 04/11/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 411008.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1089150 | 8.7 | HATM | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 887564 | 6.7 | HBTM | |
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| | | Average | | | 7.7 | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411008.D Vial: 8
Acq On : 4-11-19 14:39:01 Operator: DP
Sample : Diesel / Motor Oil - 2nd Source 1/15/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

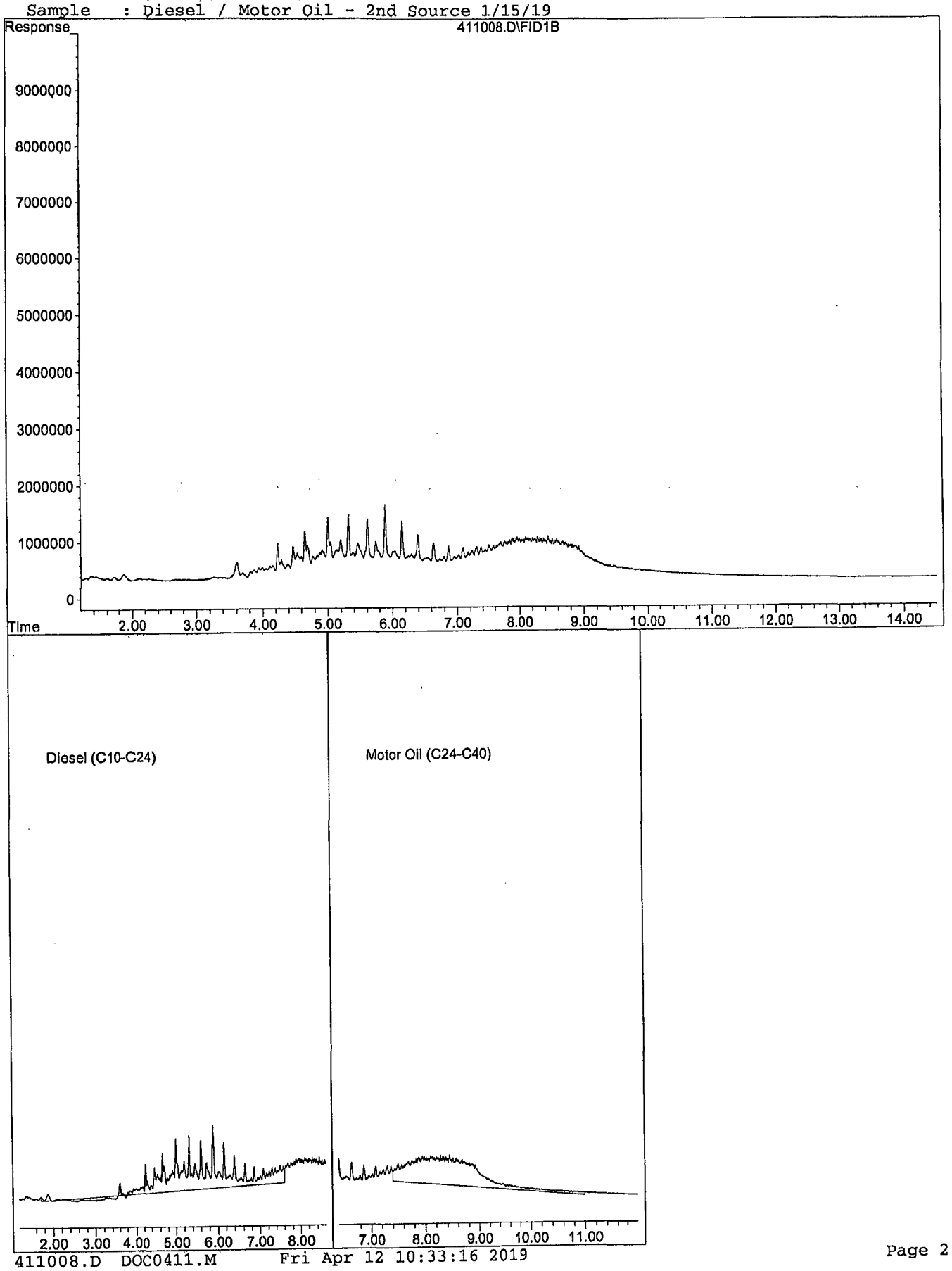
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 544574759 | 228.311 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 443782147 | 233.138 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.
411008.D DOC0411.M Fri Apr 12 10:33:13 2019 Page 1

Quantitation Report

Data File: G:\APOLLO\DATA\190411\411008.D
Sample : Diesel / Motor Oil - 2nd Source 1/15/19



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411009.D Vial: 9
Acq On : 4-11-19 15:57:31 Operator: DP
Sample : Decanoic Acid - 1 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

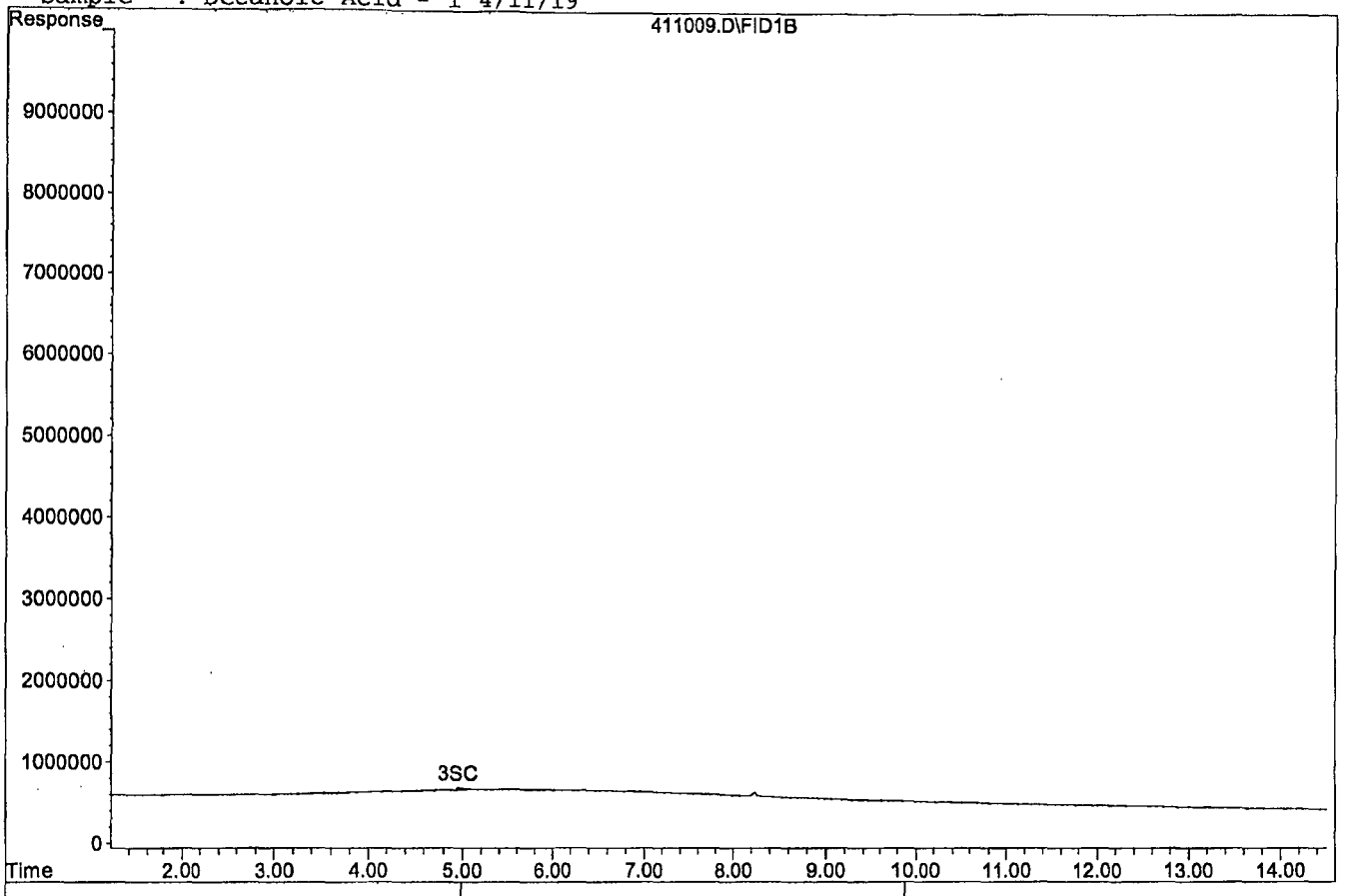
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

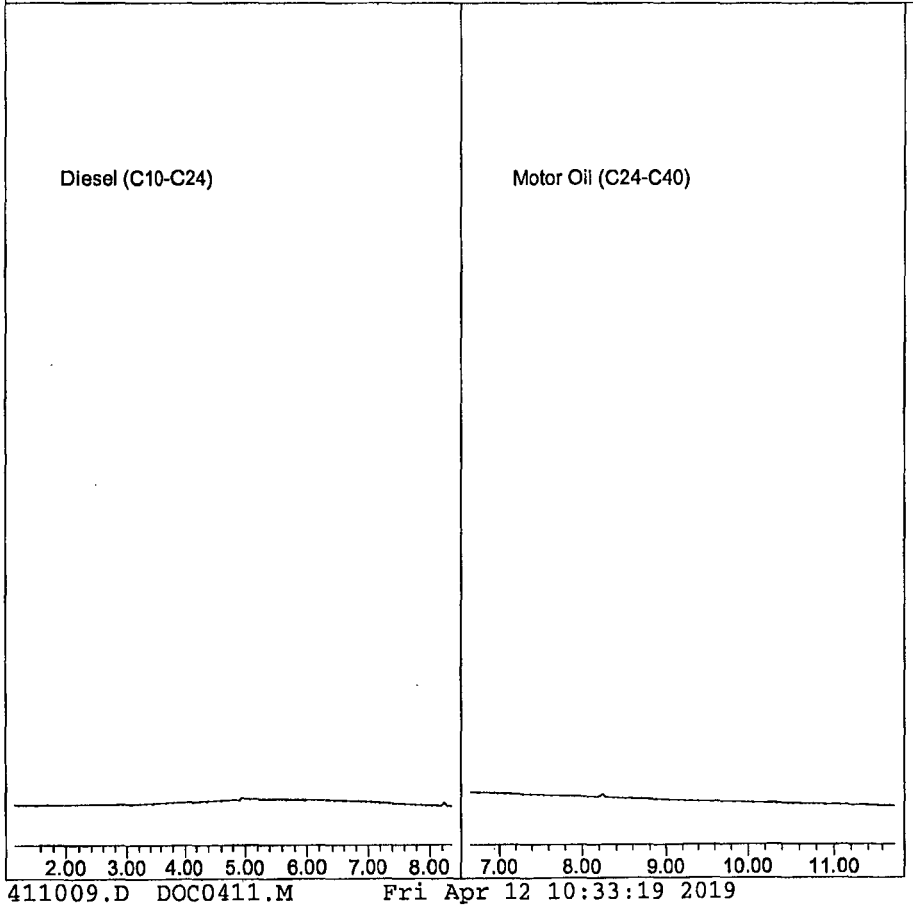
| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SC Decanoic Acid(S) | 4.95 | 1111571 | 3.678 ppb m |
| Surrogate Spike 24.000 | Recovery = | | 15.33% |
| Target Compounds | | | |

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

Quantitation Report

Data File: G:\APOLLO\DATA\190411\411009.D
Sample : Decanoic Acid - 1 4/11/19



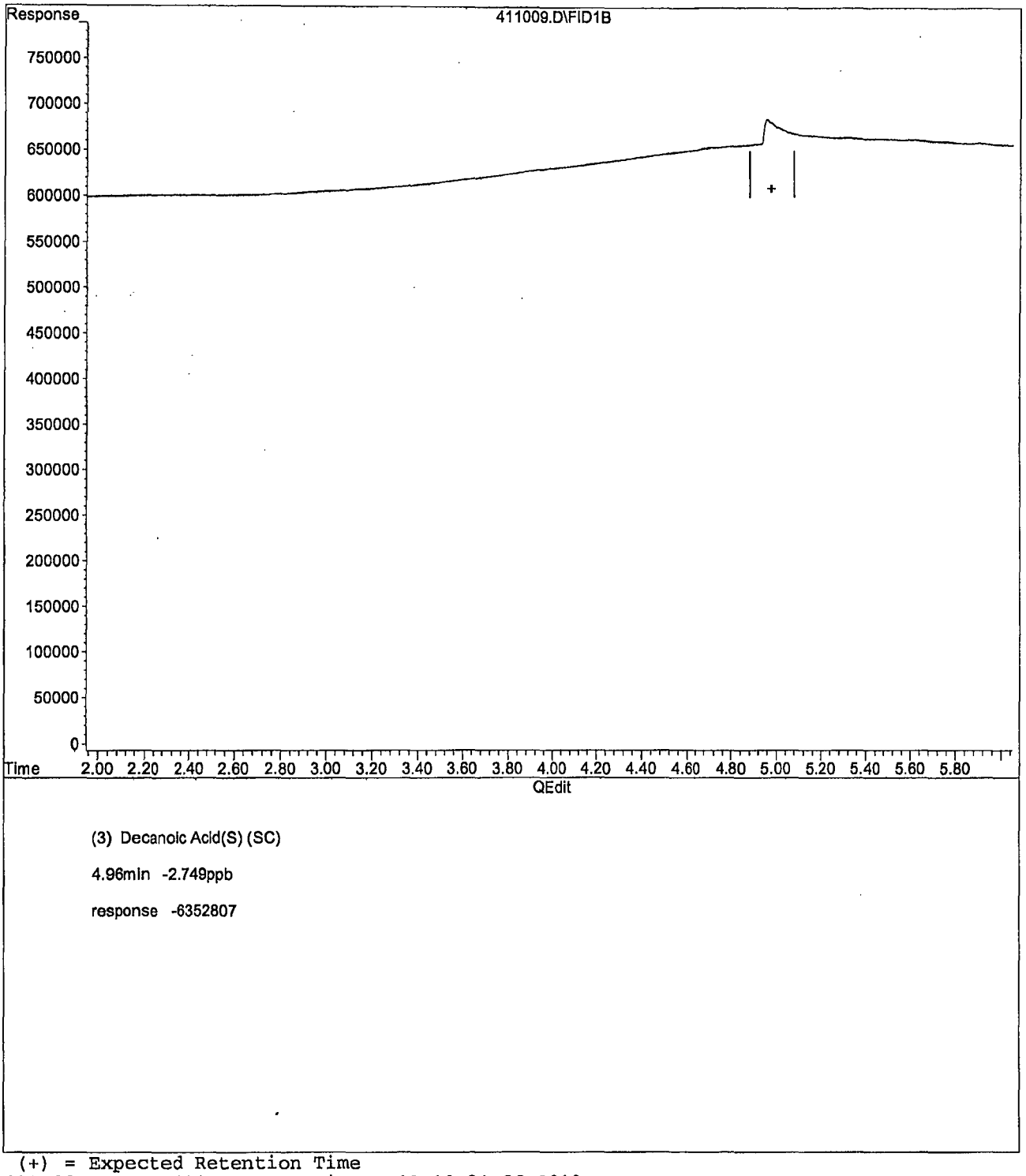




411009.D DOC0411.M Fri Apr 12 10:33:19 2019 Page 2

Quantitation Report

Data File : G:\APOLLO\DATA\190411\411009.D  Vial: 9
Acq On : 4-11-19 15:57:31  Operator: DP
Sample : Decanoic Acid - 1 4/11/19  Inst : Apollo
Misc : water  Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:30 2019  Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:30:24 2019
Response via : Multiple Level Calibration

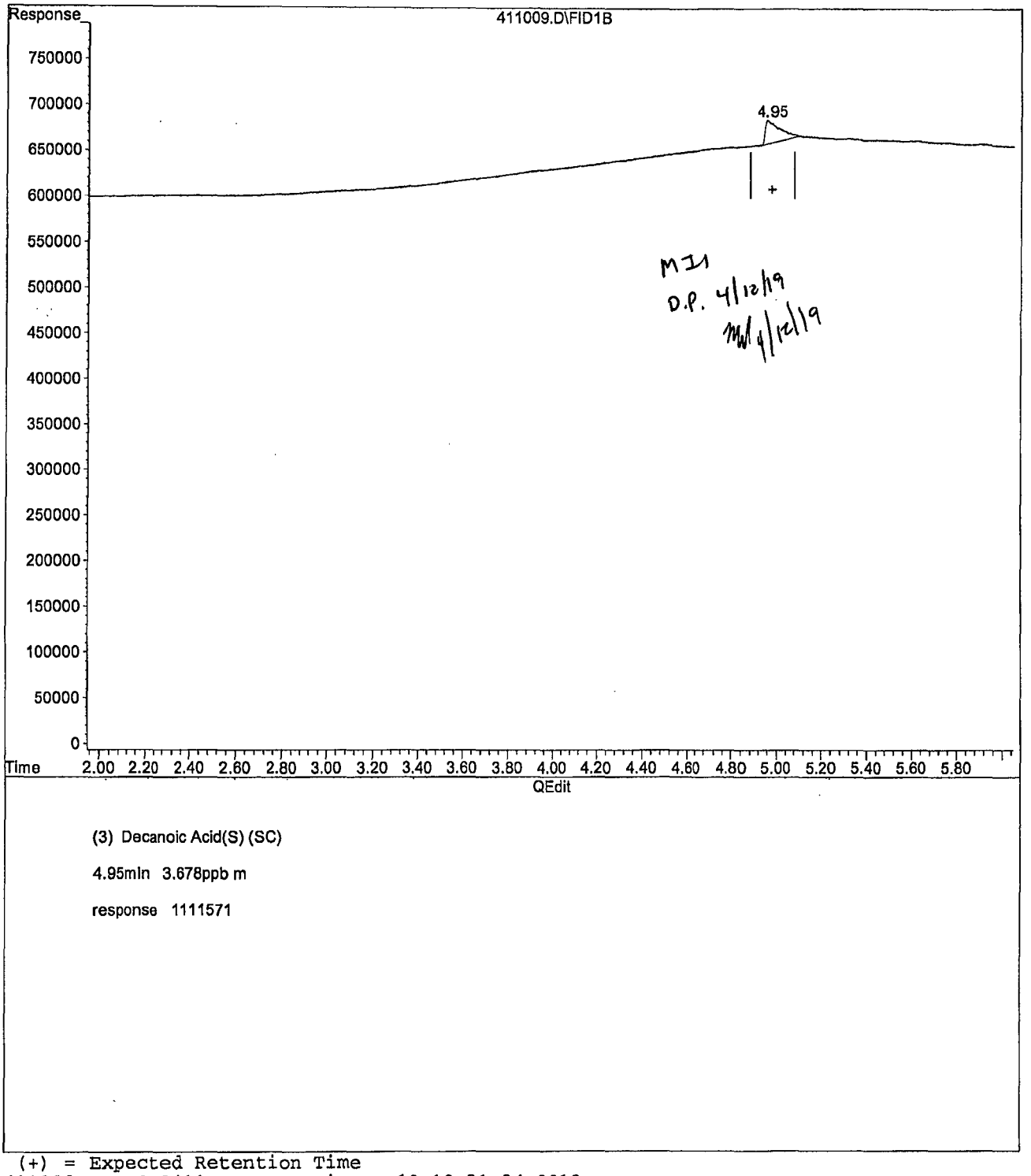



(+) = Expected Retention Time
411009.D DOC0411.M Fri Apr 12 10:31:28 2019

Quantitation Report

Data File : G:\APOLLO\DATA\190411\411009.D  Vial: 9
Acq On : 4-11-19 15:57:31  Operator: DP
Sample : Decanoic Acid - 1 4/11/19  Inst : Apollo
Misc : water  Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:30 2019  Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:30:24 2019
Response via : Multiple Level Calibration




MI
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4/12/19

(+) = Expected Retention Time
411009.D DOC0411.M Fri Apr 12 10:31:34 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411010.D Vial: 10
Acq On : 4-11-19 16:16:26 Operator: DP
Sample : Decanoic Acid - 2 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

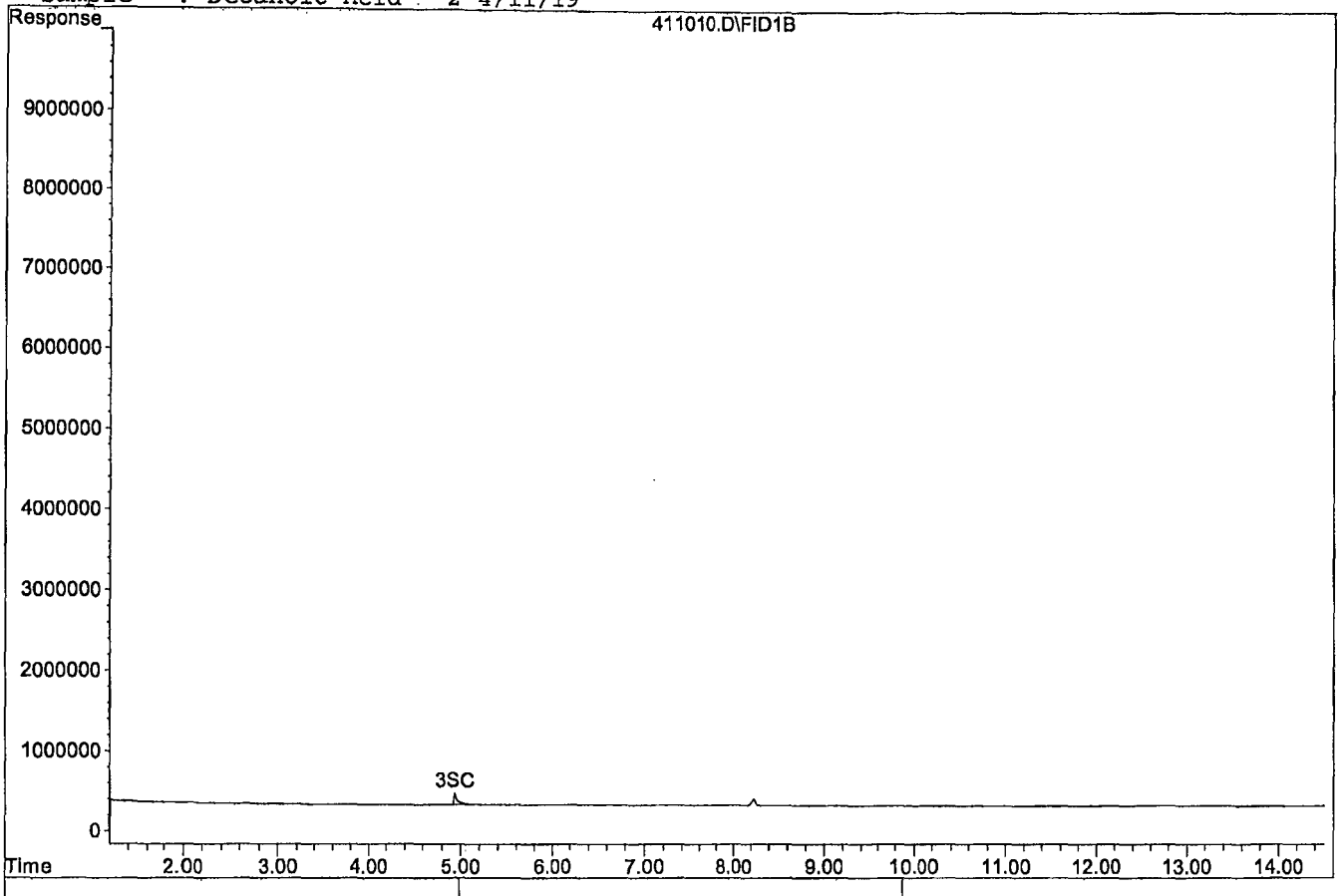
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

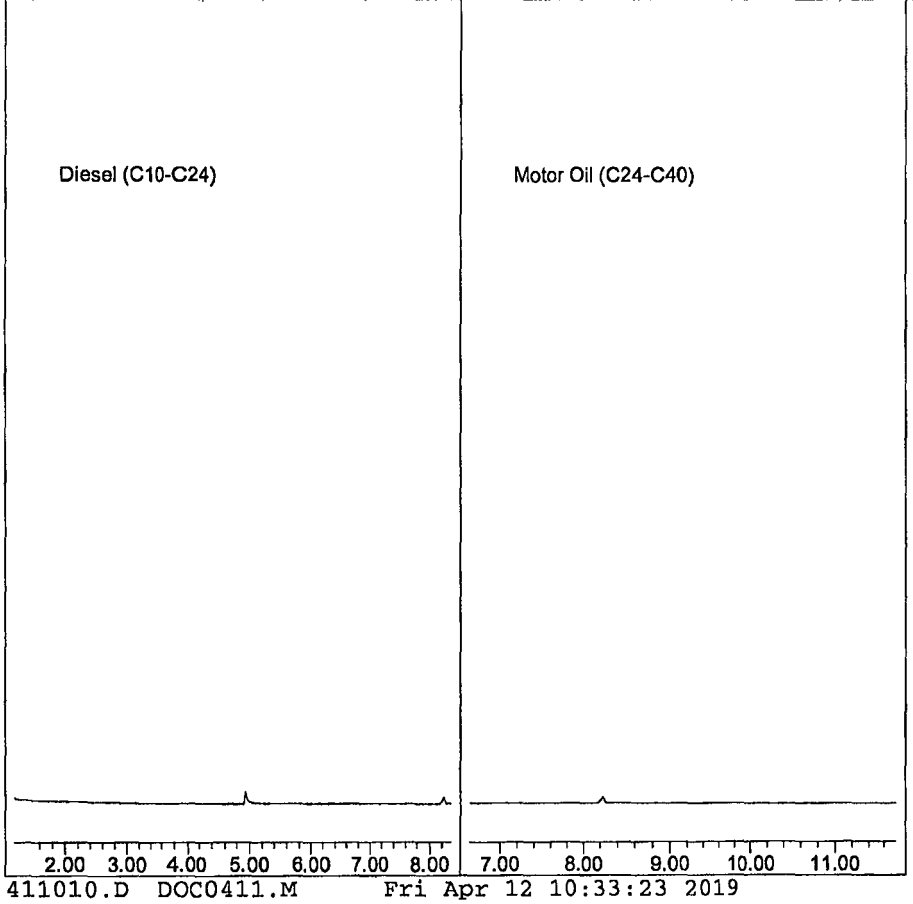
| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SC Decanoic Acid(S) | 4.94 | 3775239 | 5.972 ppb |
| Surrogate Spike 24.000 | Recovery = | | 24.88% |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.
411010.D DOC0411.M Fri Apr 12 10:33:21 2019 Page 1

Quantitation Report

Data File: G:\APOLLO\DATA\190411\411010.D
Sample : Decanoic Acid - 2 4/11/19




411010.D DOC0411.M Fri Apr 12 10:33:23 2019 Page 2

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411011.D Vial: 11
Acq On : 4-11-19 16:36:04 Operator: DP
Sample : Decanoic Acid - 3 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

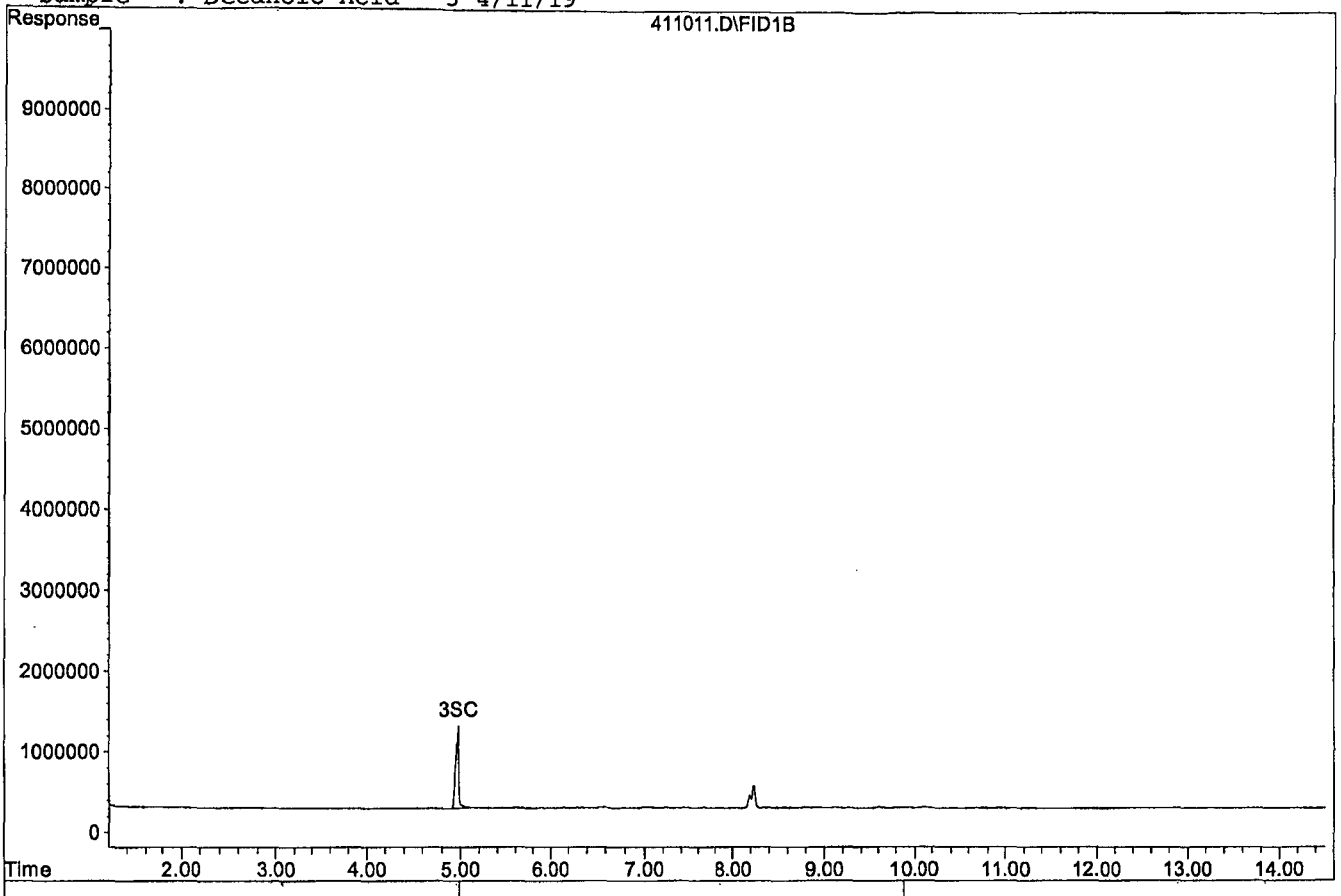
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

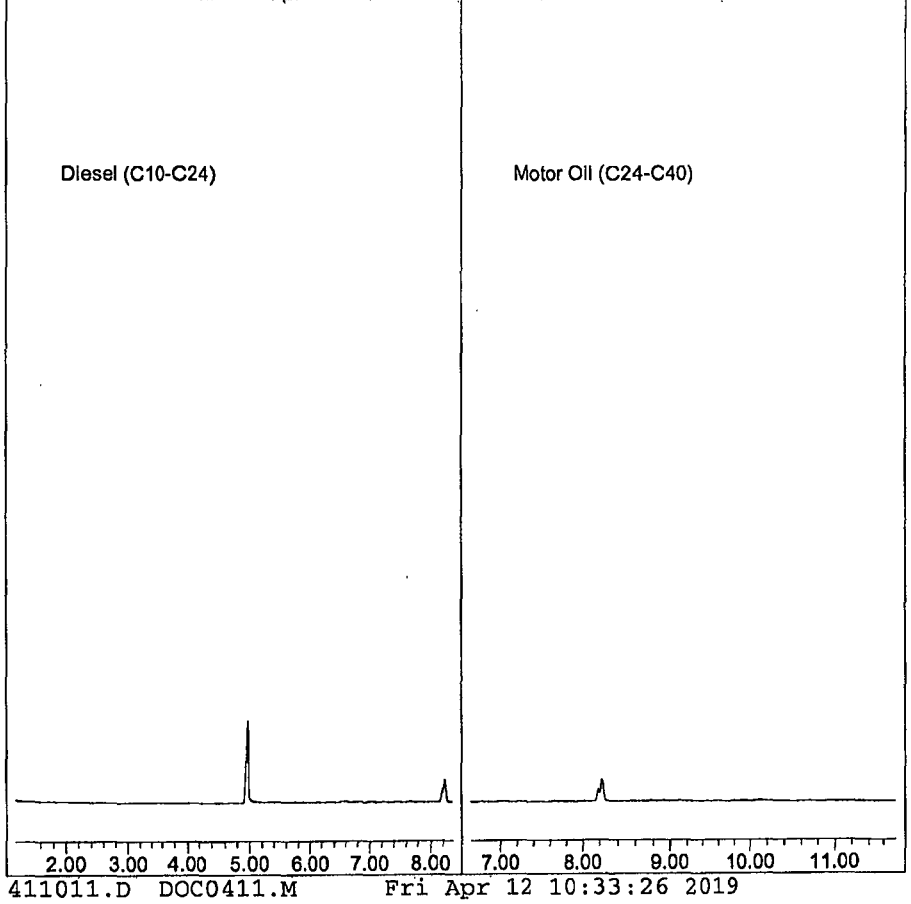
| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SC Decanoic Acid(S) | 4.97 | 23638982 | 23.075 ppb |
| Surrogate Spike 24.000 | | Recovery = | 96.15% |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.
411011.D DOC0411.M Fri Apr 12 10:33:24 2019 Page 1

Quantitation Report

Data File: G:\APOLLO\DATA\190411\411011.D
Sample : Decanoic Acid - 3 4/11/19




411011.D DOC0411.M Fri Apr 12 10:33:26 2019

Page 2

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411012.D Vial: 12
Acq On : 4-11-19 16:55:47 Operator: DP
Sample : Decanoic Acid - 4 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

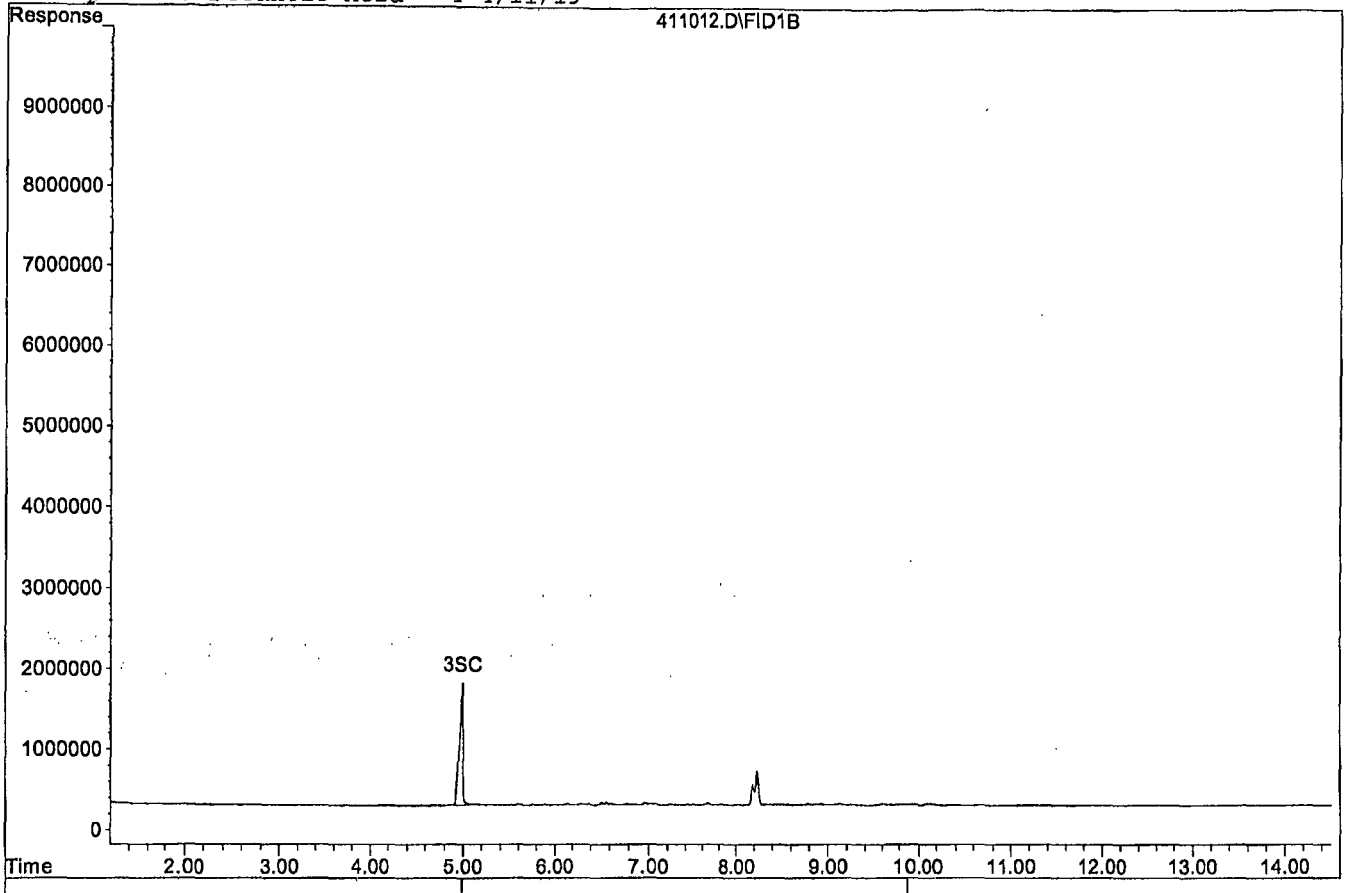
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

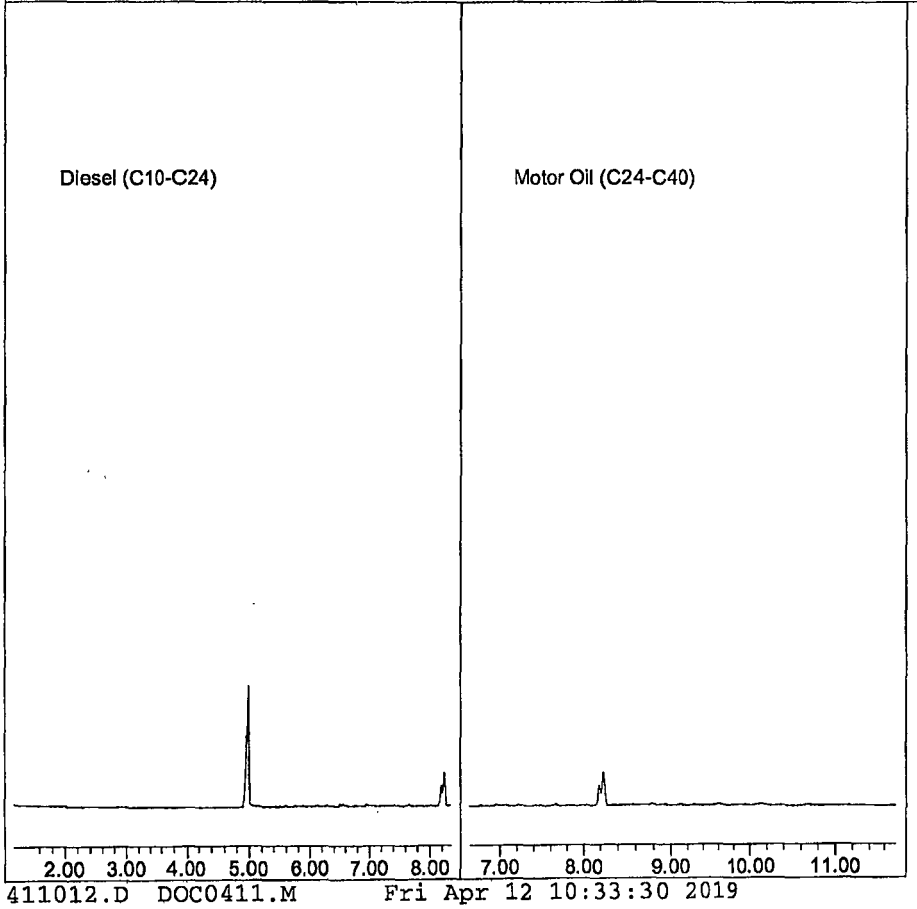
| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SC Decanoic Acid(S) | 4.99 | 38673628 | 36.020 ppb |
| Surrogate Spike 24.000 | Recovery = | | 150.08% |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.
411012.D DOC0411.M Fri Apr 12 10:33:28 2019 Page 1

Quantitation Report

Data File: G:\APOLLO\DATA\190411\411012.D
Sample : Decanoic Acid - 4 4/11/19




411012.D DOC0411.M Fri Apr 12 10:33:30 2019

Page 2

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411013.D Vial: 13
Acq On : 4-11-19 17:15:26 Operator: DP
Sample : Decanoic Acid - 5 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

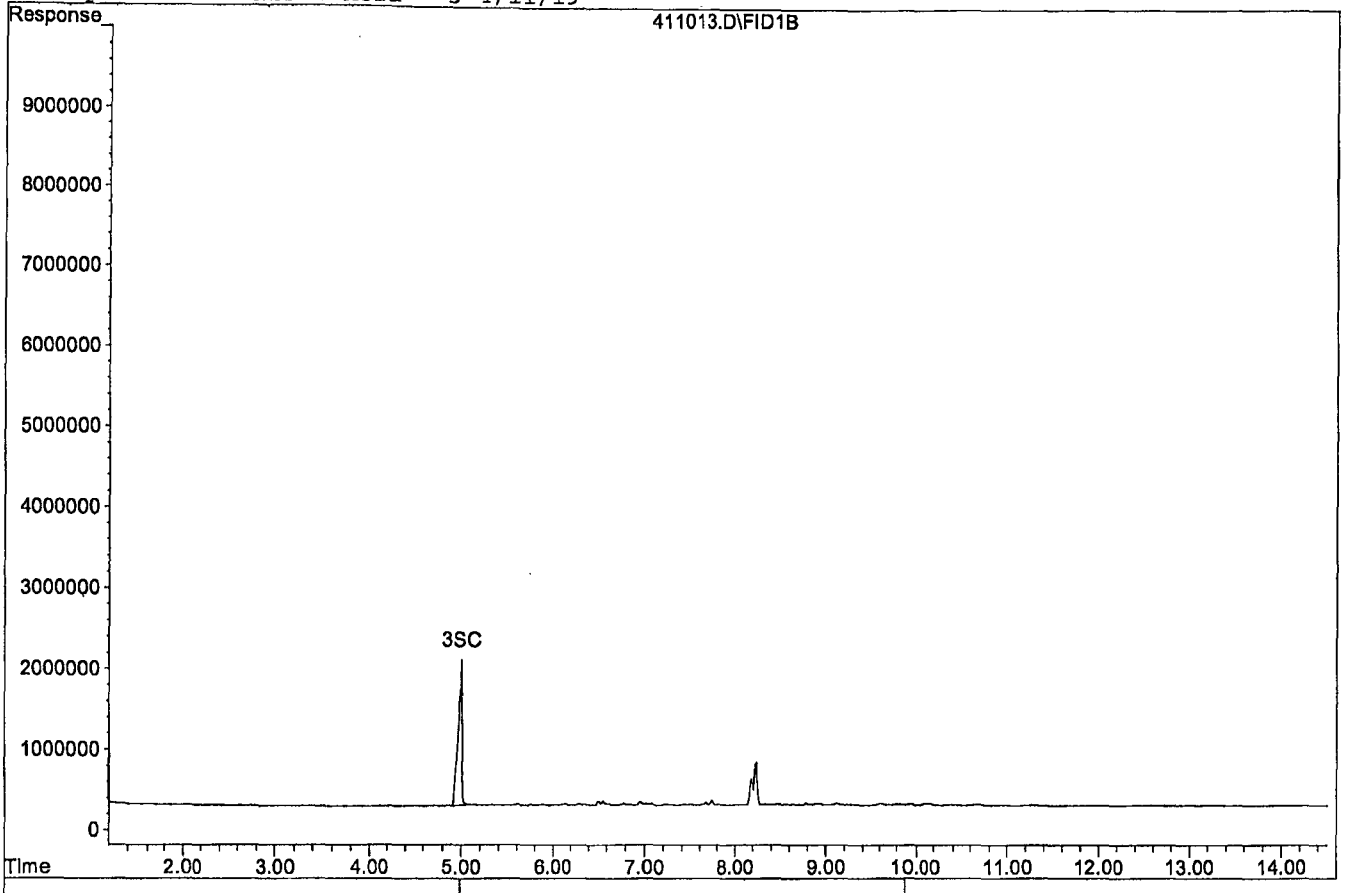
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

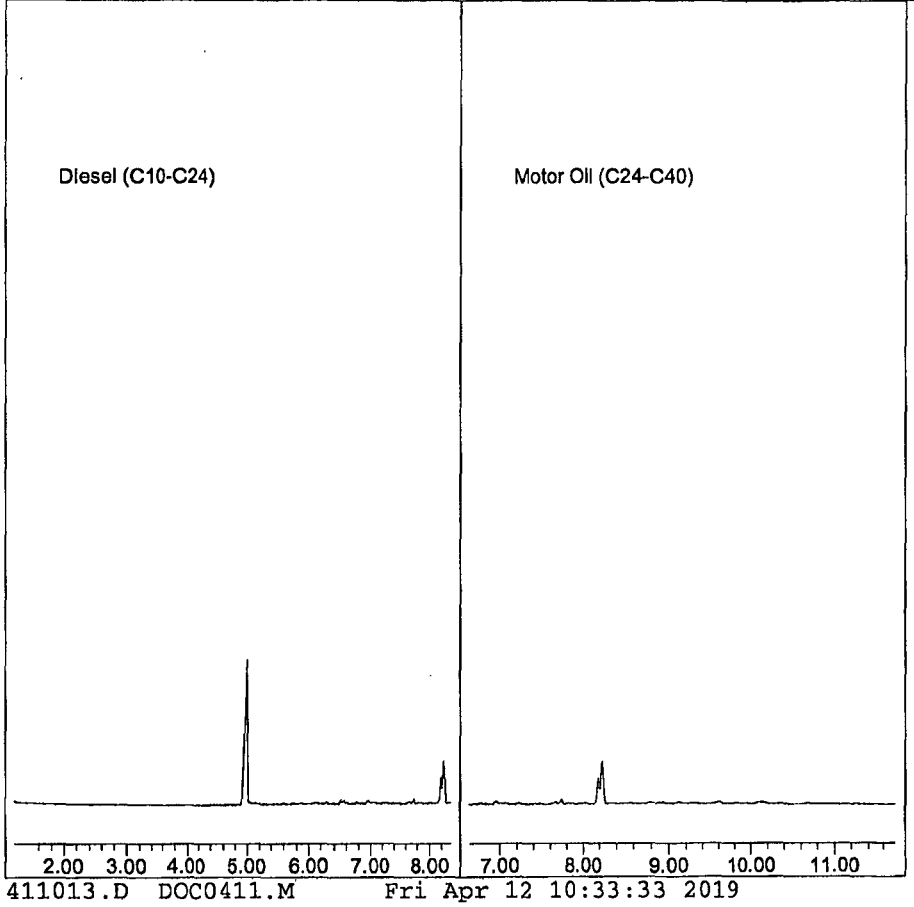
| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SC Decanoic Acid(S) | 5.00 | 52115206 | 47.594 ppb |
| Surrogate Spike 24.000 | Recovery | = | 198.31% |
| Target Compounds | | | |

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

Quantitation Report

Data File: G:\APOLLO\DATA\190411\411013.D
Sample : Decanoic Acid - 5 4/11/19




411013.D DOC0411.M Fri Apr 12 10:33:33 2019 Page 2

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411014.D Vial: 14
Acq On : 4-11-19 17:35:11 Operator: DP
Sample : Decanoic Acid - 6 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

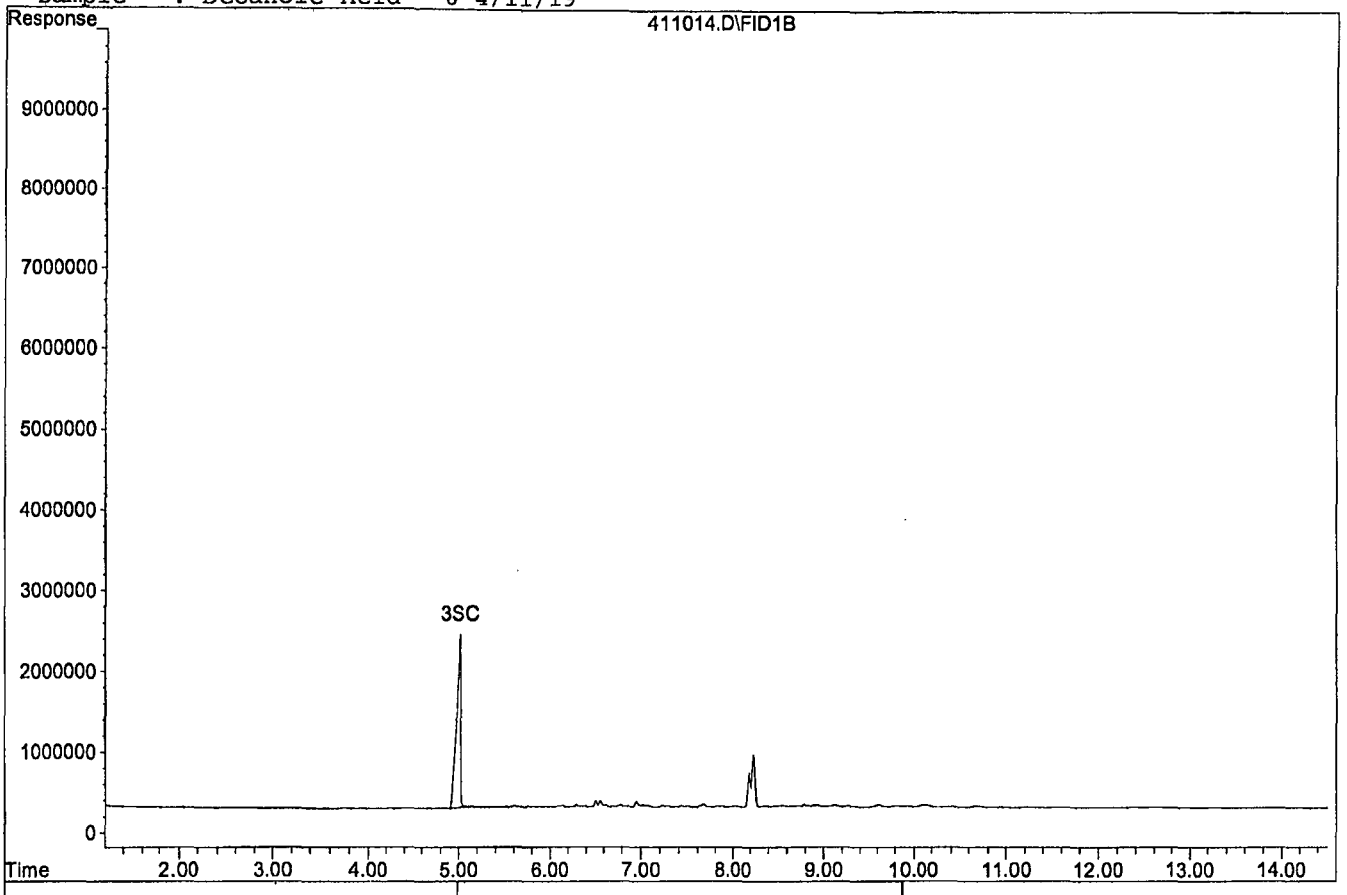
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

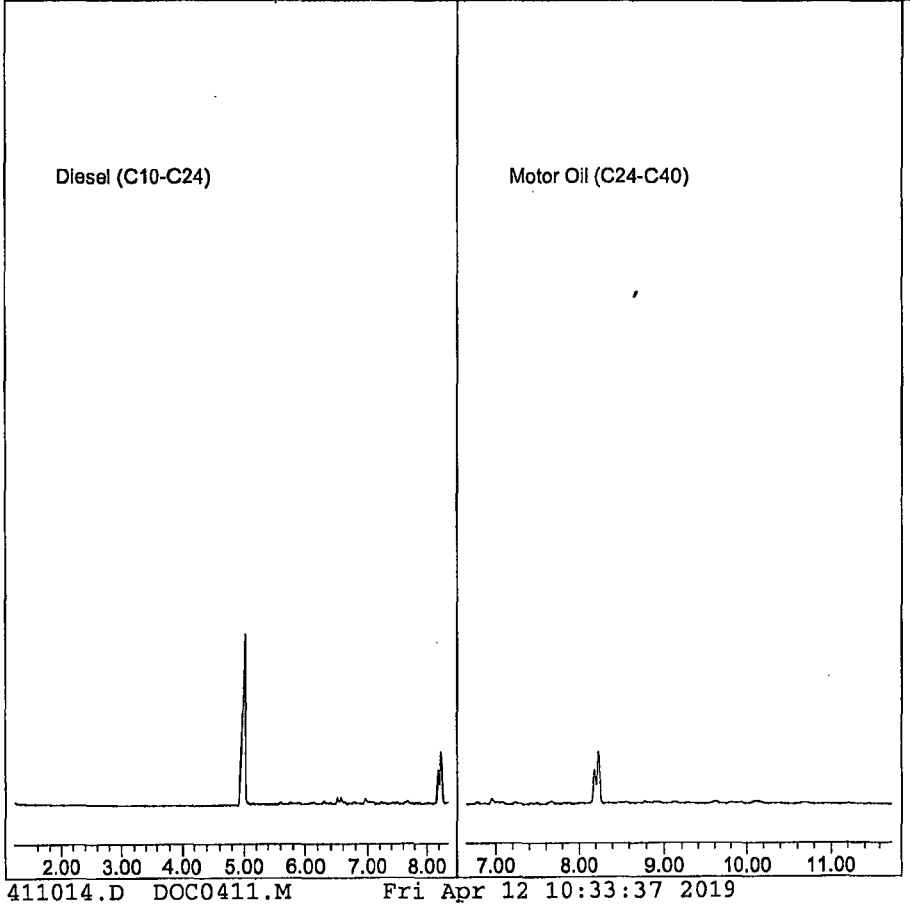
| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SC Decanoic Acid(S) | 5.02 | 67279572 | 60.651 ppb |
| Surrogate Spike 24.000 | Recovery | = | 252.71% |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.
411014.D DOC0411.M Fri Apr 12 10:33:35 2019 Page 1

Quantitation Report

Data File: G:\APOLLO\DATA\190411\411014.D
Sample : Decanoic Acid - 6 4/11/19




411014.D DOC0411.M Fri Apr 12 10:33:37 2019

Page 2

TPH Extractables
DOC0411

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/29/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 419048.D

| | | Compound | MEAN | CCRF | %D | %Drift | | |
|---|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1196390 | 0.32 | HATM | | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1033720 | 8.6 | HBTM | | |
| 3 | SCL | Decanoic Acid(S) | 438835 | 156063 | 64 | SCL | 62 | *NT |
| 4 | SA | Ortho-Terphenyl(S) | 2023750 | 2174580 | 7.5 | SA | | |
| 5 | SA | Octacosane(S) | 1892140 | 1924300 | 1.7 | SA | | |
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| | | Average | | | 16.4 | | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419048.D Vial: 48
Acq On : 4-29-19 17:02:59 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 30 11:55 2019 Quant Results File: DOC0411.RES

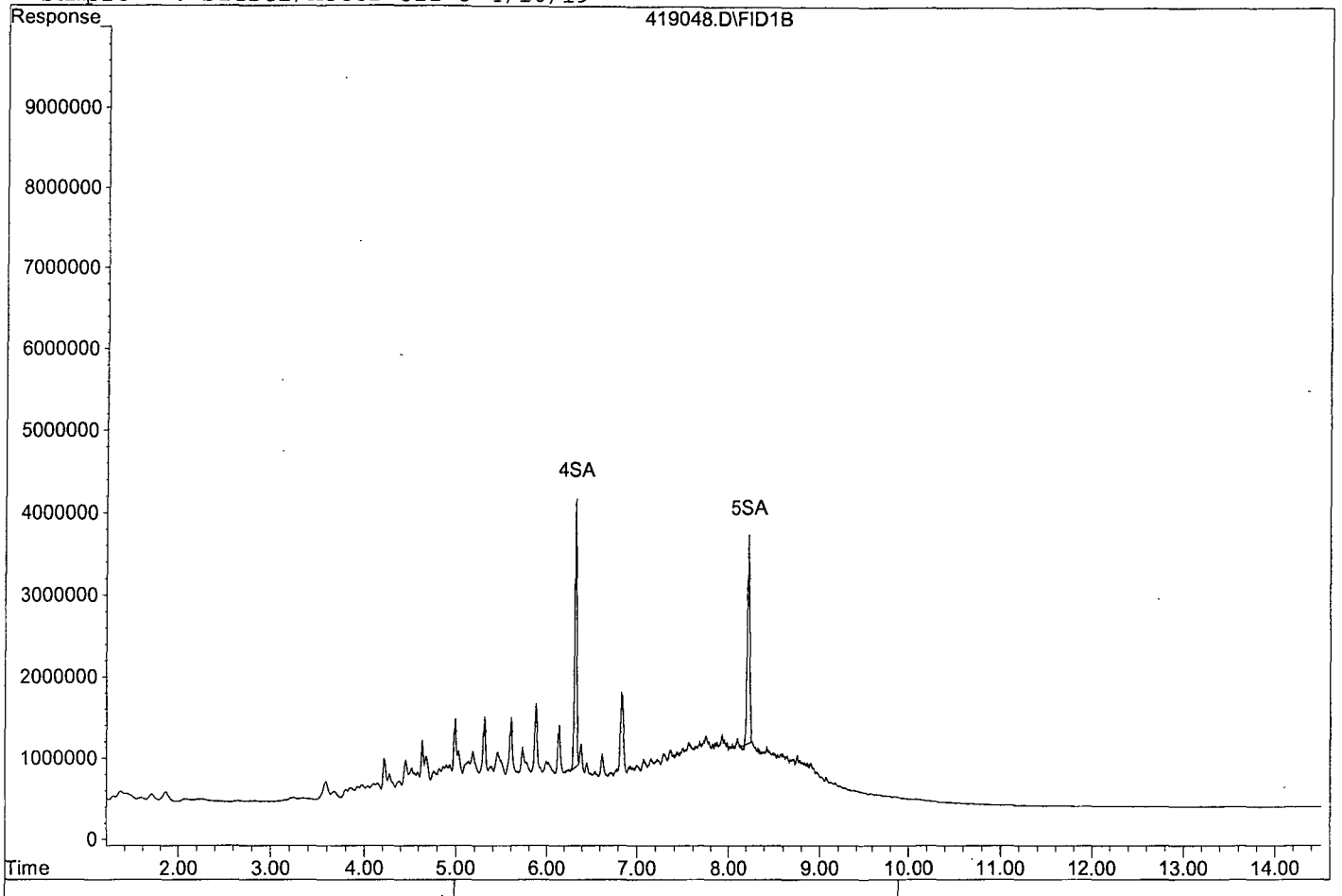
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

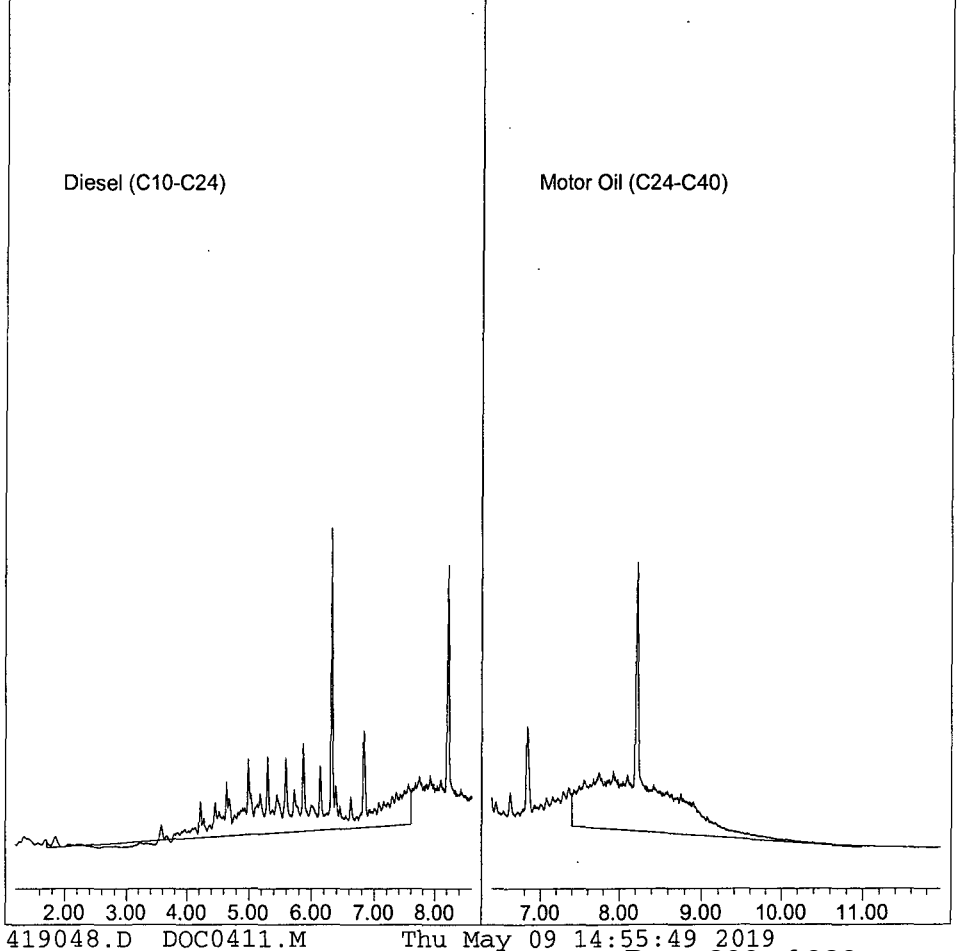
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 54364392 | 13.432 ppb |
| Surrogate Spike 30.000 | Recovery = | | 44.77% |
| 5) SA Octacosane(S) | 8.22 | 48107479 | 12.712 ppb |
| Surrogate Spike 30.000 | Recovery = | | 42.37% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 598195091 | 250.791 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 516860794 | 271.529 ppb |

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

Data File: G:\APOLLO\DATA\190419\419048.D
Sample : Diesel/Motor Oil 3 4/16/19



TPH Extractables
DOC0411

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/29/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 419063.D

| | | Compound | MEAN | CCRF | %D | %Drift | | |
|---|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1260280 | 5.7 | HATM | | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1039990 | 9.3 | HBTM | | |
| 3 | SCL | Decanoic Acid(S) | 438835 | 167417 | 62 | SCL | 60 | *NT |
| 4 | SA | Ortho-Terphenyl(S) | 2023750 | 2196810 | 8.6 | SA | | |
| 5 | SA | Octacosane(S) | 1892140 | 2121890 | 12 | SA | | |
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| | | Average | | | 19.5 | | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419063.D Vial: 63
Acq On : 4-29-19 22:03:37 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 30 11:54 2019 Quant Results File: DOC0411.RES

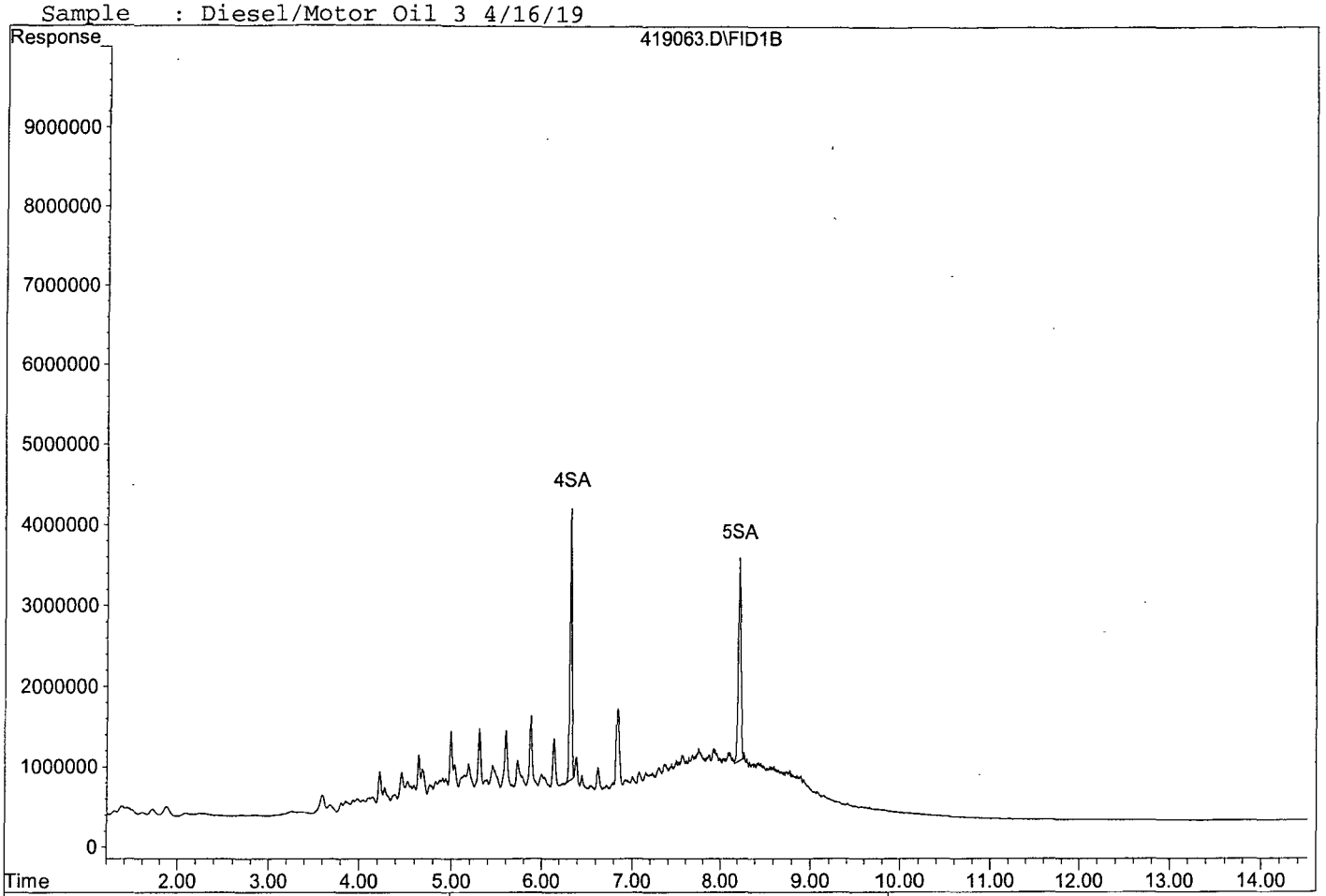
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

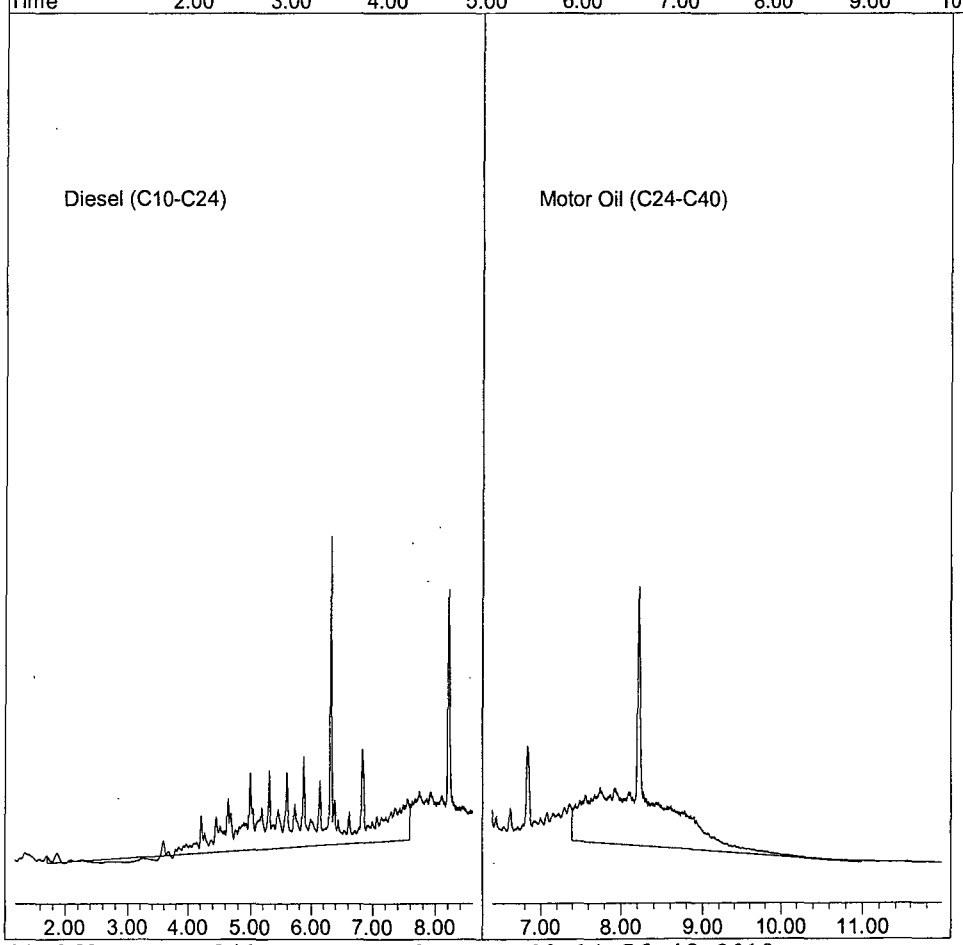
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 54920127 | 13.569 ppb |
| Surrogate Spike 30.000 | Recovery = | | 45.23% |
| 5) SA Octacosane(S) | 8.22 | 53047159 | 14.018 ppb |
| Surrogate Spike 30.000 | Recovery = | | 46.73% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 630142056 | 264.184 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 519994867 | 273.176 ppb |

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

Data File: G:\APOLLO\DATA\190419\419063.D
Sample : Diesel/Motor Oil 3 4/16/19



TPH Extractables
DOC0411

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/30/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 419072.D

| | | Compound | MEAN | CCRF | %D | %Drift | | |
|---|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1290500 | 8.2 | HATM | | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1047300 | 10 | HBTM | | |
| 3 | SCL | Decanoic Acid(S) | 438835 | 162486 | 63 | SCL | 61 | *NT |
| 4 | SA | Ortho-Terphenyl(S) | 2023750 | 2206830 | 9.0 | SA | | |
| 5 | SA | Octacosane(S) | 1892140 | 1987990 | 5.1 | SA | | |
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| | | Average | | | 19.1 | | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419072.D Vial: 72
Acq On : 4-30-19 1:02:05 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 30 11:55 2019 Quant Results File: DOC0411.RES

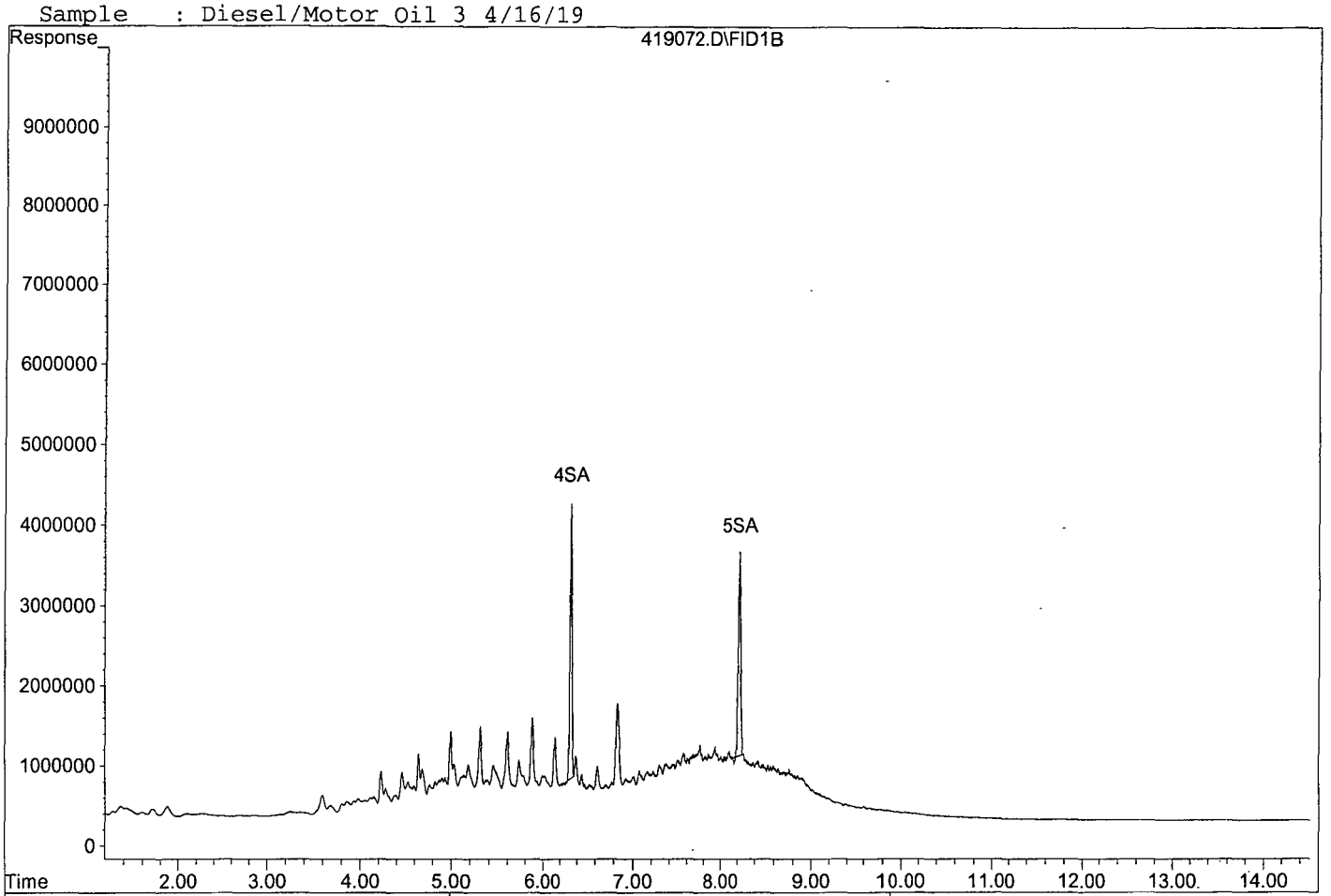
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

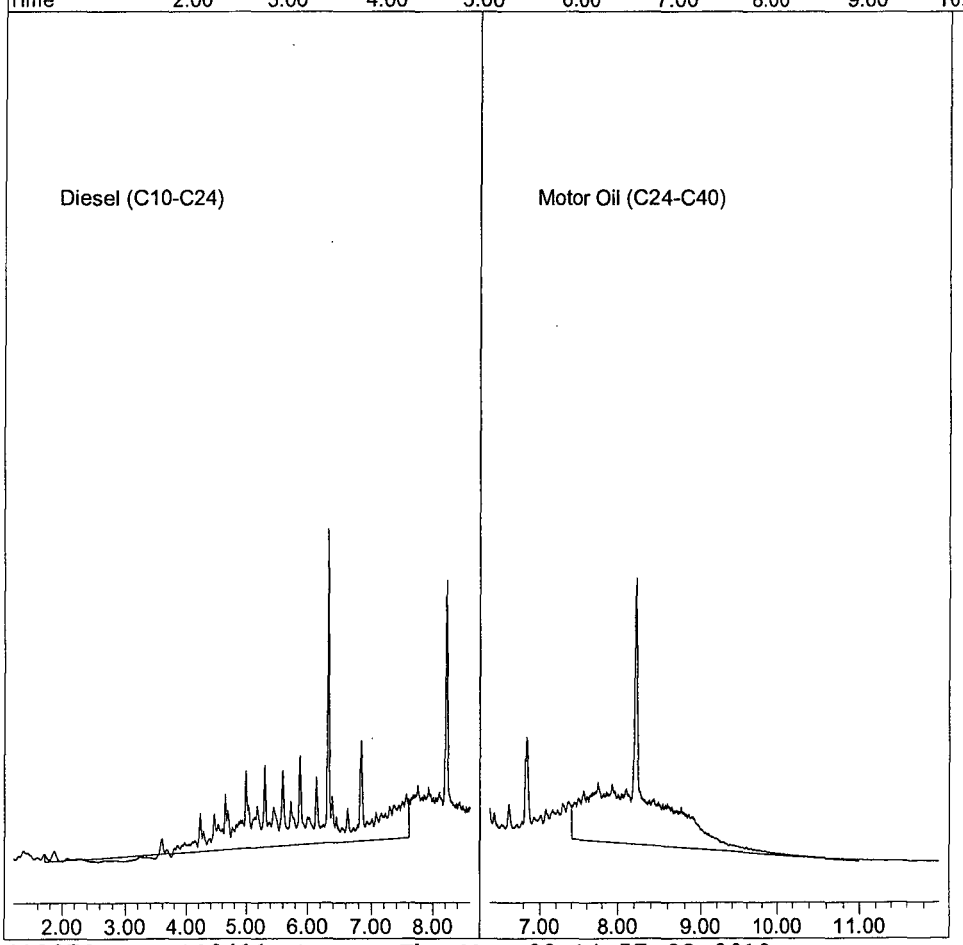
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 55170675 | 13.631 ppb |
| Surrogate Spike 30.000 | Recovery = | | 45.44% |
| 5) SA Octacosane(S) | 8.22 | 49699754 | 13.133 ppb |
| Surrogate Spike 30.000 | Recovery = | | 43.78% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 645250913 | 270.519 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 523649904 | 275.096 ppb |

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

Data File: G:\APOLLO\DATA\190419\419072.D
Sample : Diesel/Motor Oil 3 4/16/19



# ORGANICS
# Calibration Data

TPH Extractables
DOC0411

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 05/06/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 506002.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1189150 | 0.29 | HATM | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1039930 | 9.3 | HBTM | |
| 3 | SA | Ortho-Terphenyl(S) | 2023750 | 2093620 | 3.5 | SA | |
| 4 | SA | Octacosane(S) | 1892140 | 1954310 | 3.3 | SA | |
| 5 | | | | | | | |
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| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 4.1 | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506002.D Vial: 2
Acq On : 5-6-19 17:10:08 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: May 15 15:39 2019 Quant Results File: DOC0411.RES

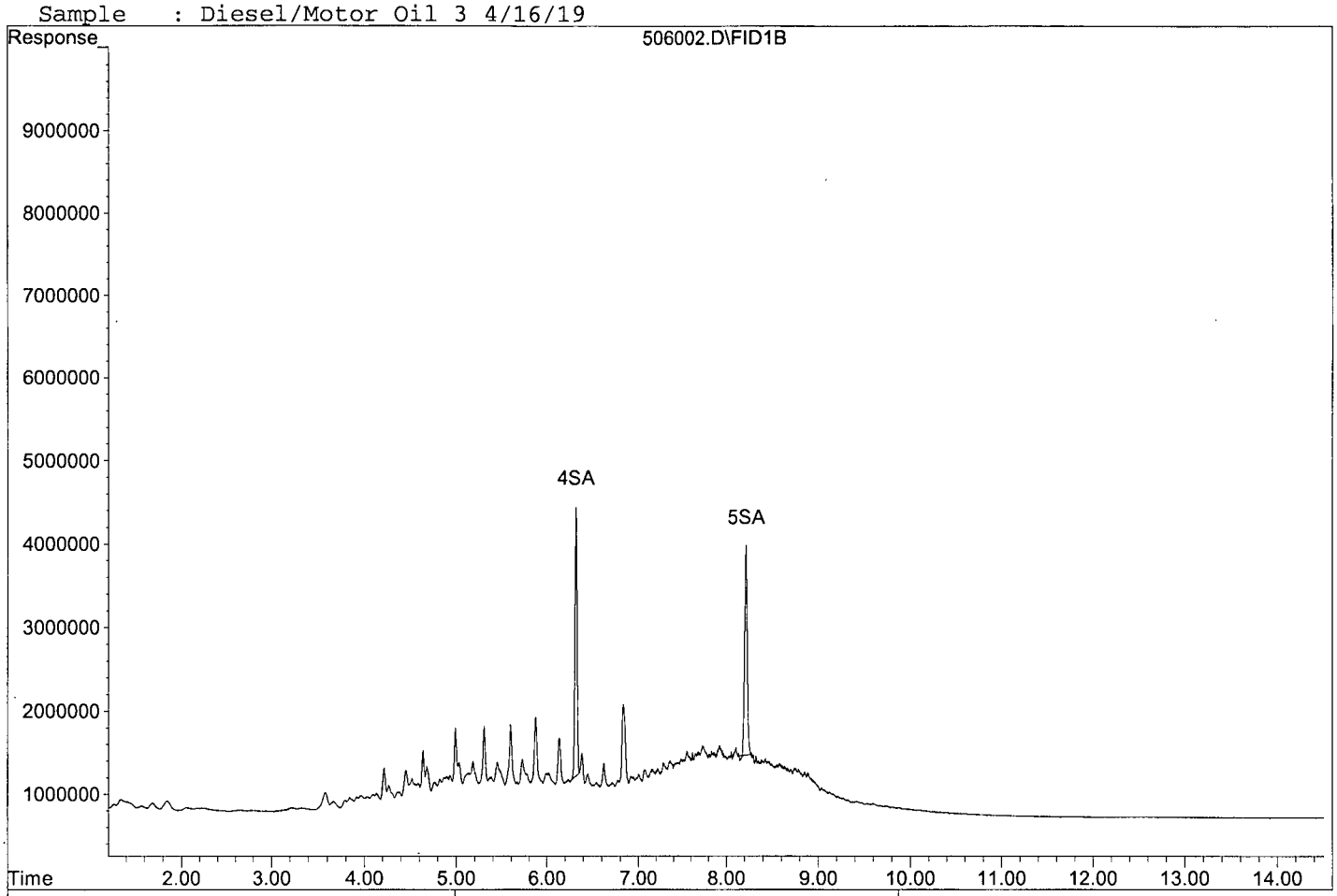
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

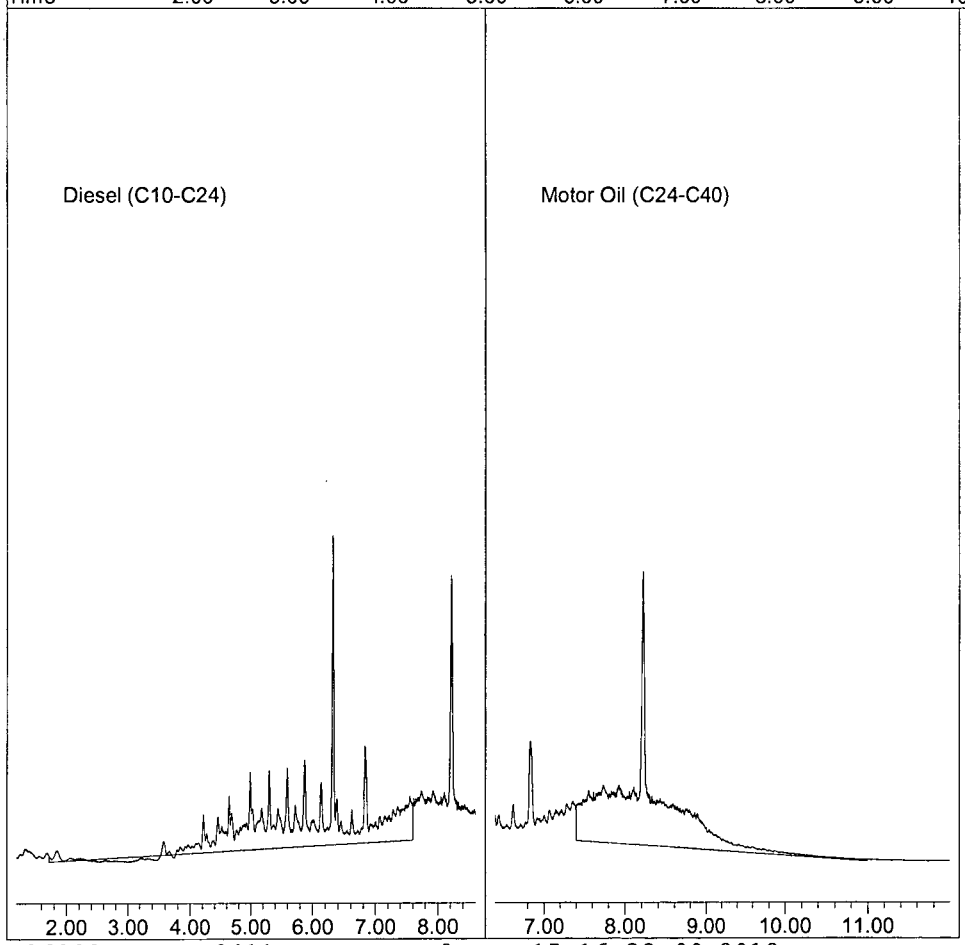
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 52340610 | 12.932 ppb |
| Surrogate Spike 30.000 | Recovery = | | 43.11% |
| 5) SA Octacosane(S) | 8.22 | 48857718 | 12.911 ppb |
| Surrogate Spike 30.000 | Recovery = | | 43.04% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 594574599 | 249.273 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 519962705 | 273.159 ppb |

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

Data File: G:\APOLLO\DATA\190506\506002.D
Sample : Diesel/Motor Oil 3 4/16/19




506002.D DOC0411.M Wed May 15 16:32:00 2019 Page 2

TPH Extractables
DOC0411

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 05/06/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 506016.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1231640 | 3.3 | HATM | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1057410 | 11 | HBTM | |
| 3 | SA | Ortho-Terphenyl(S) | 2023750 | 2197200 | 8.6 | SA | |
| 4 | SA | Octacosane(S) | 1892140 | 2145190 | 13 | SA | |
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| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 9.0 | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506016.D Vial: 16
Acq On : 5-6-19 21:49:32 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: May 8 8:26 2019 Quant Results File: DOC0411.RES

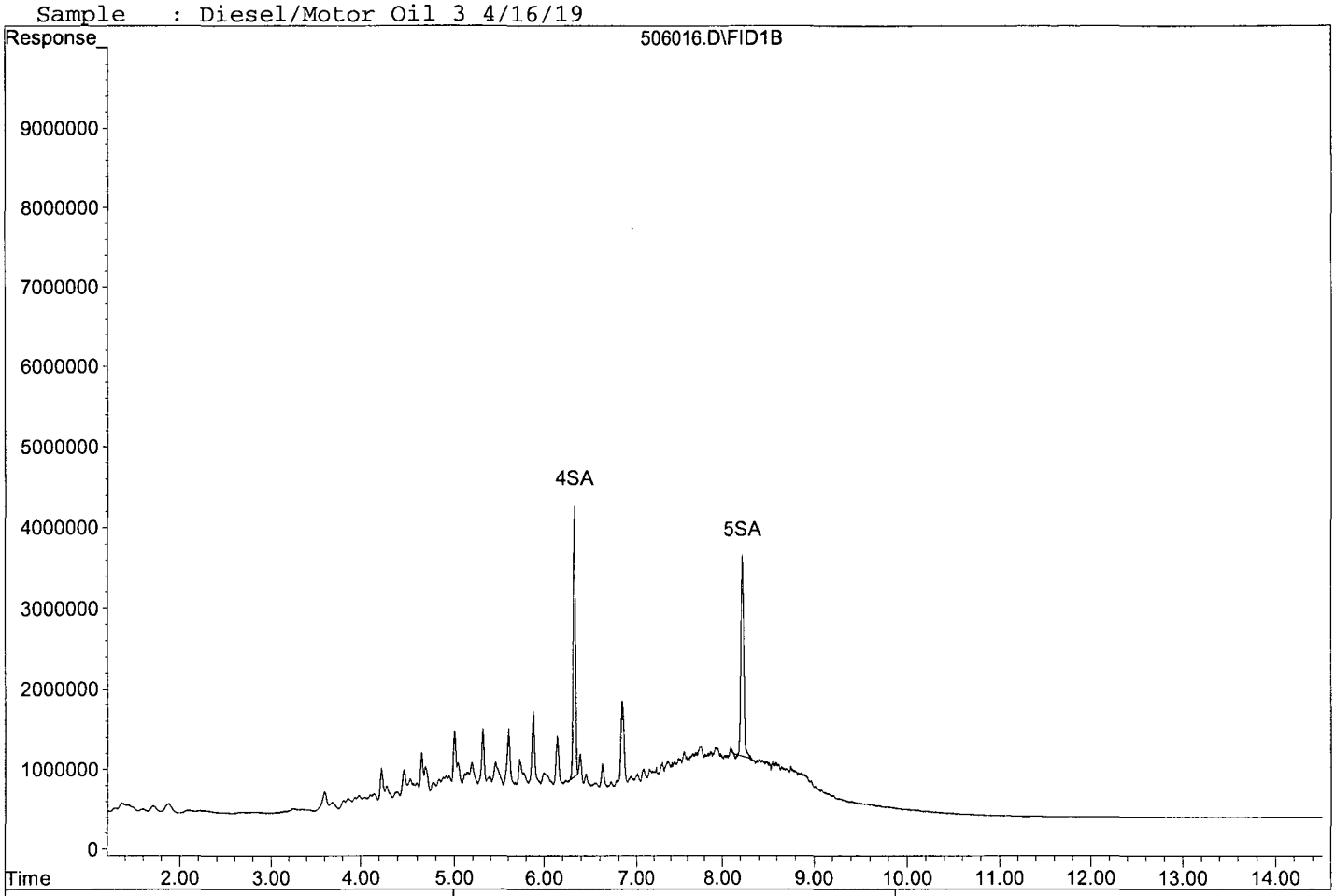
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

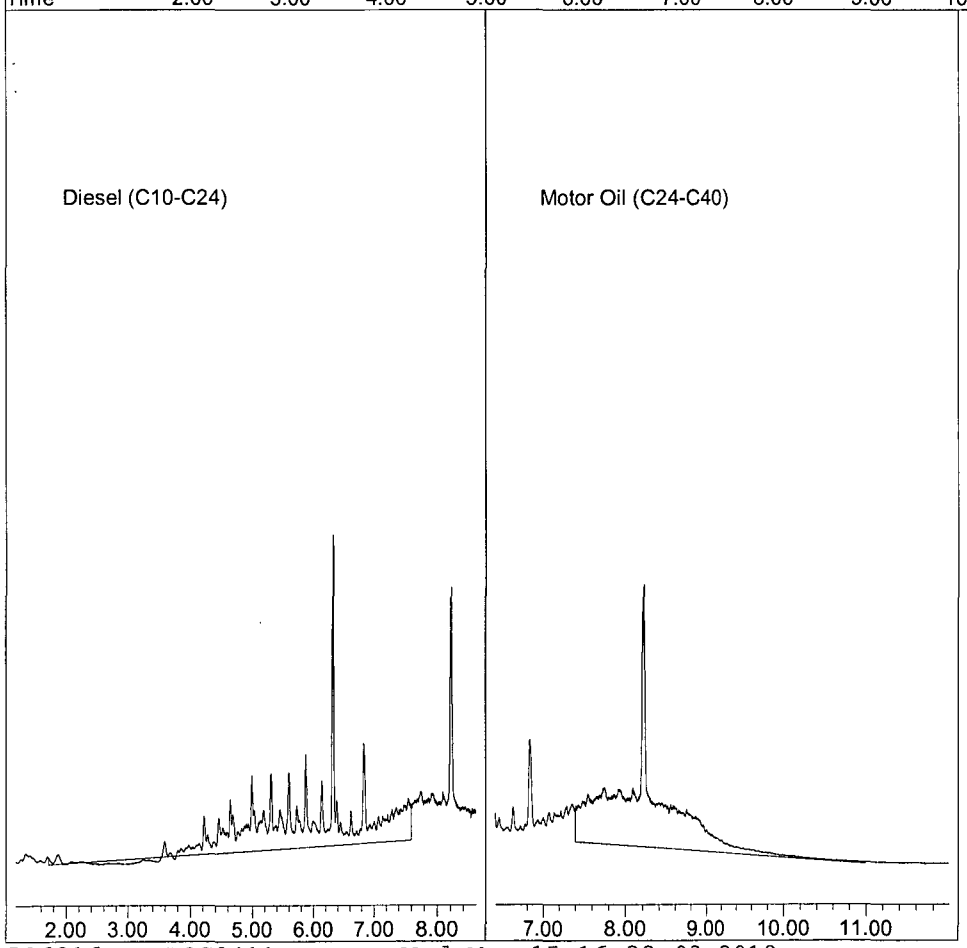
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 54930035 | 13.571 ppb |
| Surrogate Spike 30.000 | Recovery = | | 45.24% |
| 5) SA Octacosane(S) | 8.22 | 53629644 | 14.172 ppb |
| Surrogate Spike 30.000 | Recovery = | | 47.24% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 615821869 | 258.181 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 528706645 | 277.752 ppb |

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

Data File: G:\APOLLO\DATA\190506\506016.D
Sample : Diesel/Motor Oil 3 4/16/19




506016.D DOC0411.M Wed May 15 16:33:03 2019

# ORGANICS
# Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419057.D Vial: 57
Acq On : 4-29-19 20:03:53 Operator: DP
Sample : AZ90051W29 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 8 13:38 2019 Quant Results File: DOC0411.RES

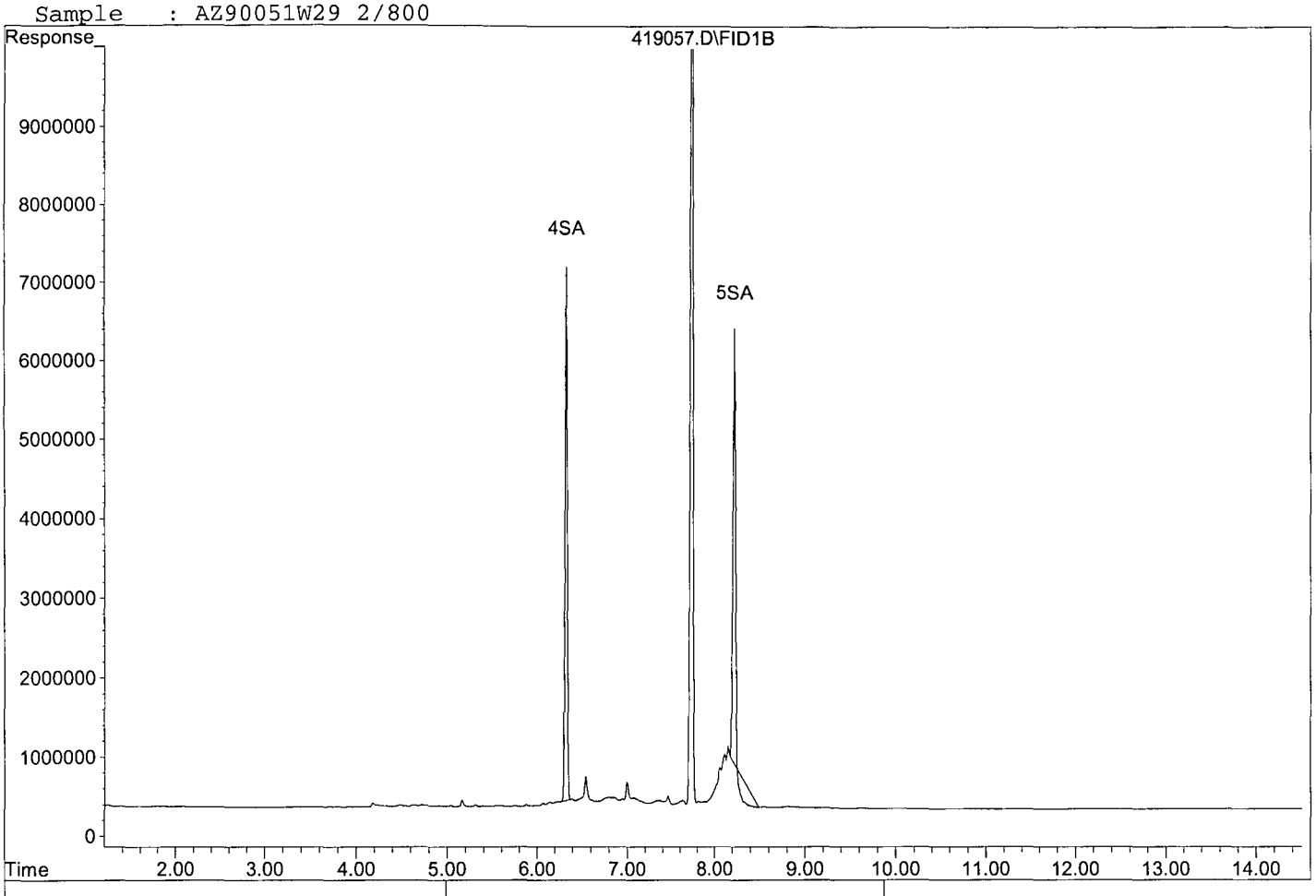
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

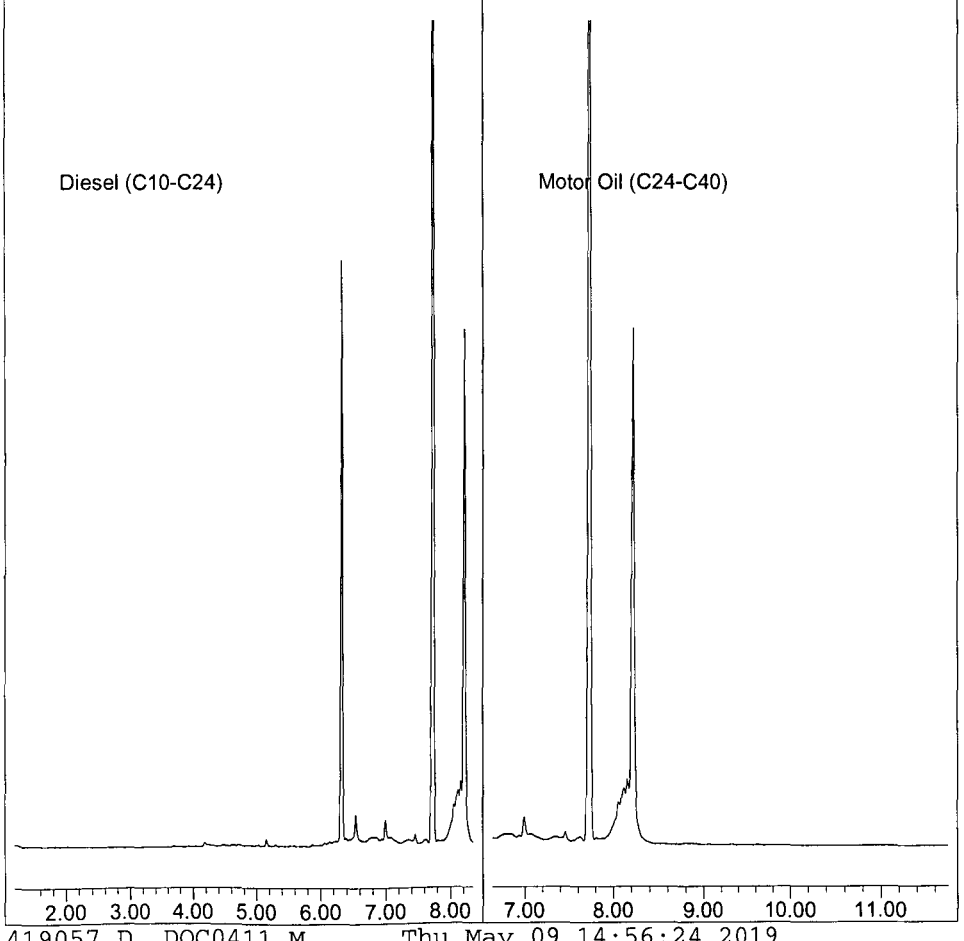
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 115596375 | 71.400 ppb |
| Surrogate Spike 75.000 | | Recovery = | 95.20% |
| 5) SA Octacosane(S) | 8.22 | 82316106 | 54.380 ppb |
| Surrogate Spike 75.000 | | Recovery = | 72.51% |
| Target Compounds | | | |

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

Data File: G:\APOLLO\DATA\190419\419057.D
Sample : AZ90051W29 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419060.D Vial: 60
Acq On : 4-29-19 21:04:10 Operator: DP
Sample : AZ90052W09 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 8 13:38 2019 Quant Results File: DOC0411.RES

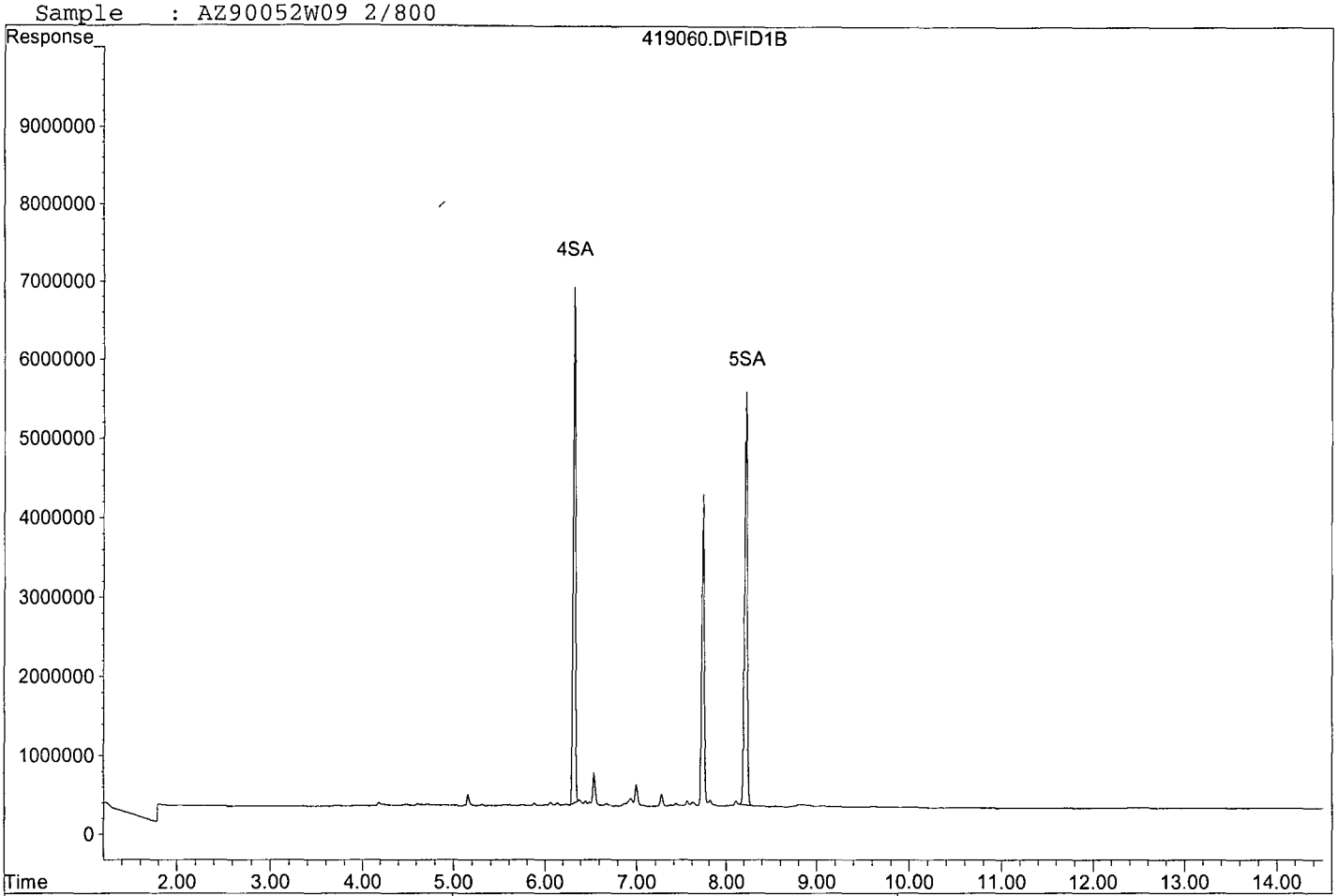
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

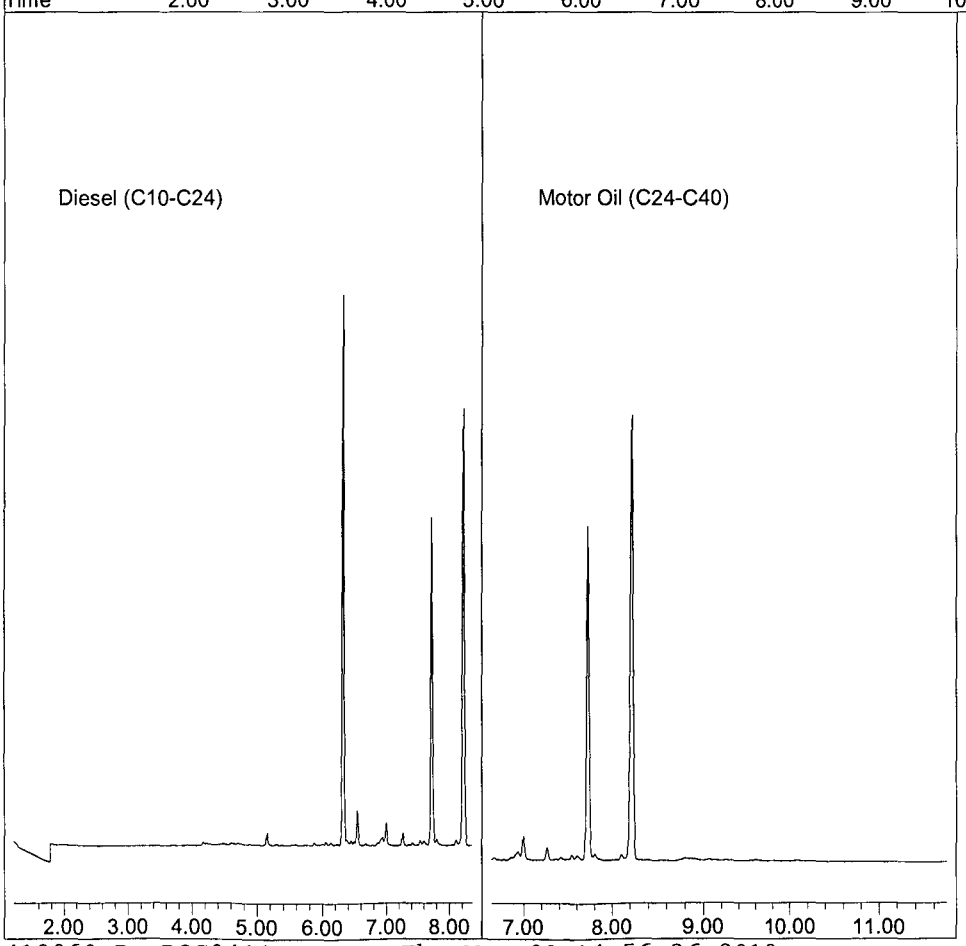
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 113290167 | 69.975 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 93.30% | |
| 5) SA Octacosane(S) | 8.22 | 113377839 | 74.900 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 99.87% | |
| Target Compounds | | | | |

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

Data File: G:\APOLLO\DATA\190419\419060.D
Sample : AZ90052W09 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419061.D Vial: 61
Acq On : 4-29-19 21:23:33 Operator: DP
Sample : AZ90054W19 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:34 2019 Quant Results File: DOC0411.RES

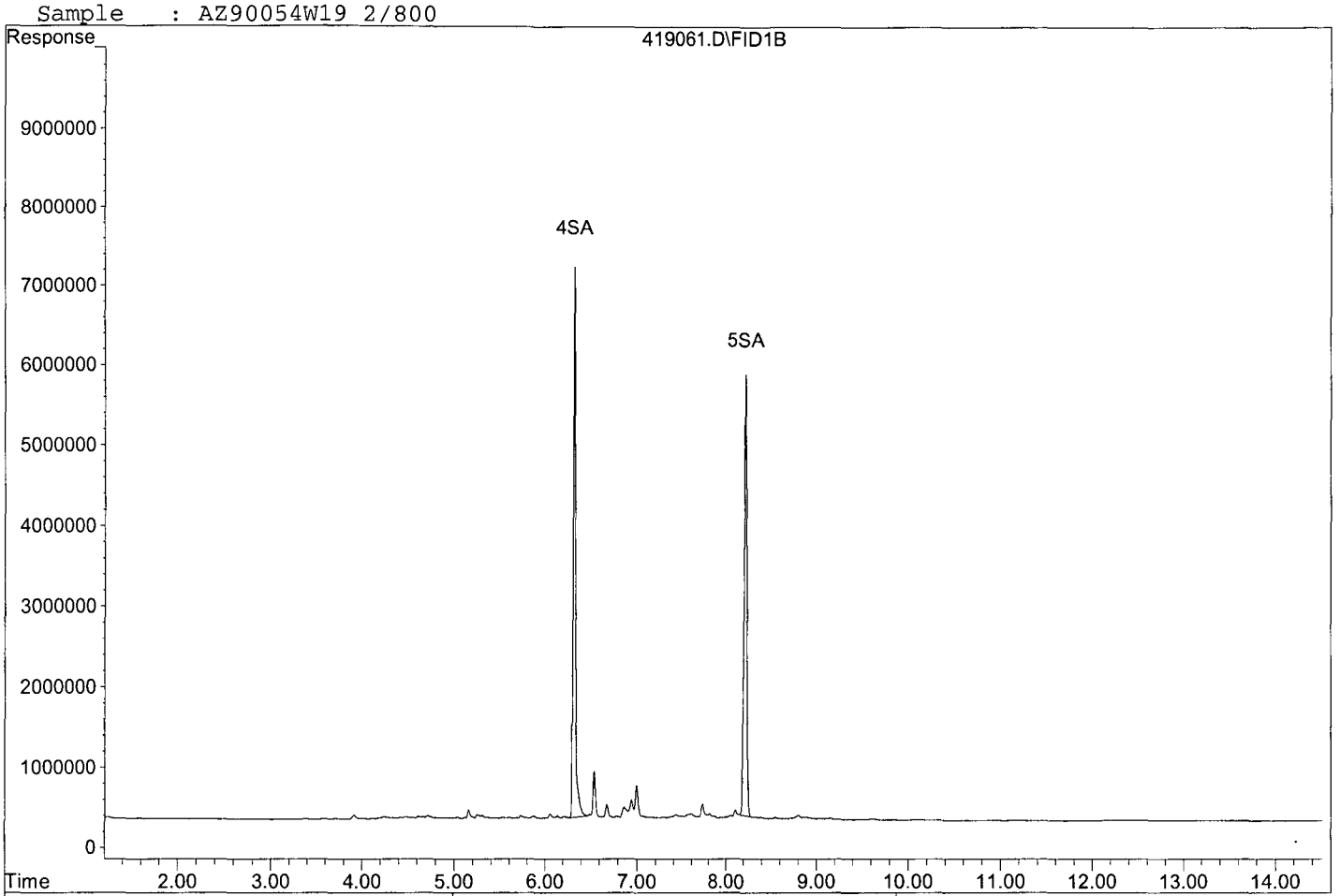
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

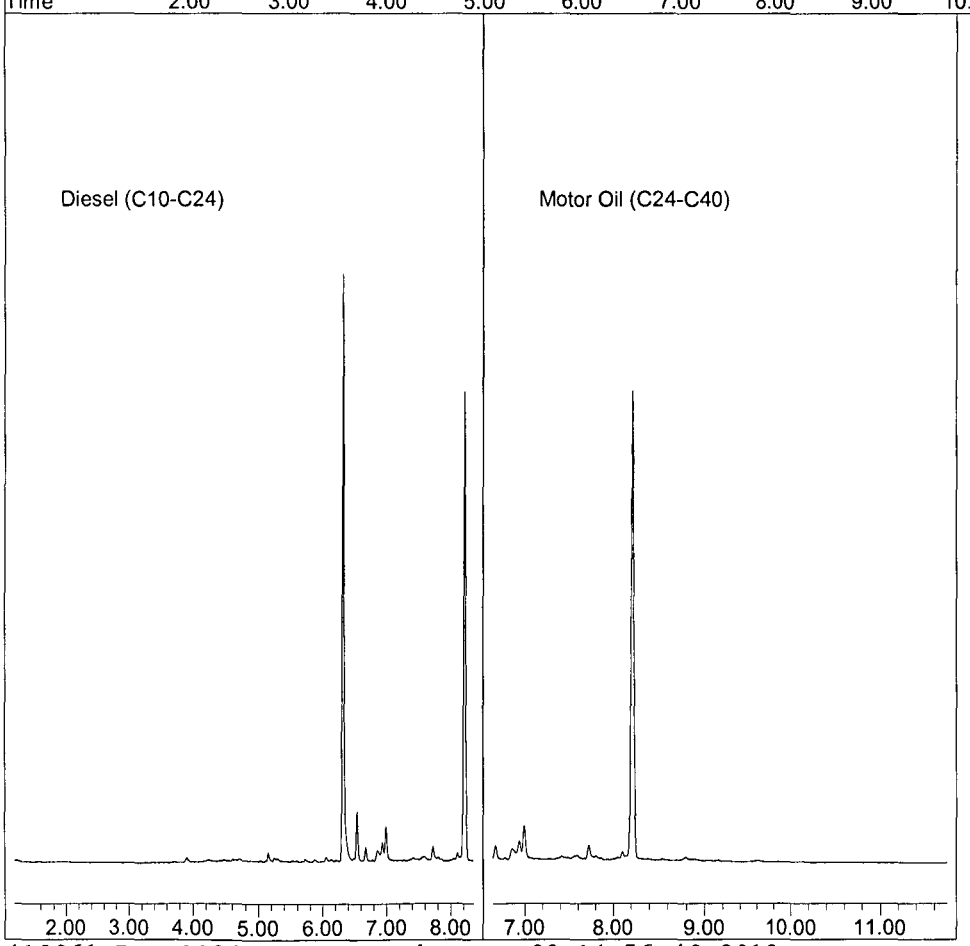
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 125824954 | 77.718 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 103.62% | |
| 5) SA Octacosane(S) | 8.22 | 112135234 | 74.079 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 98.77% | |
| Target Compounds | | | | |

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

Data File: G:\APOLLO\DATA\190419\419061.D
Sample : AZ90054W19 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419062.D Vial: 62
Acq On : 4-29-19 21:43:34 Operator: DP
Sample : AZ90056W20 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:35 2019 Quant Results File: DOC0411.RES

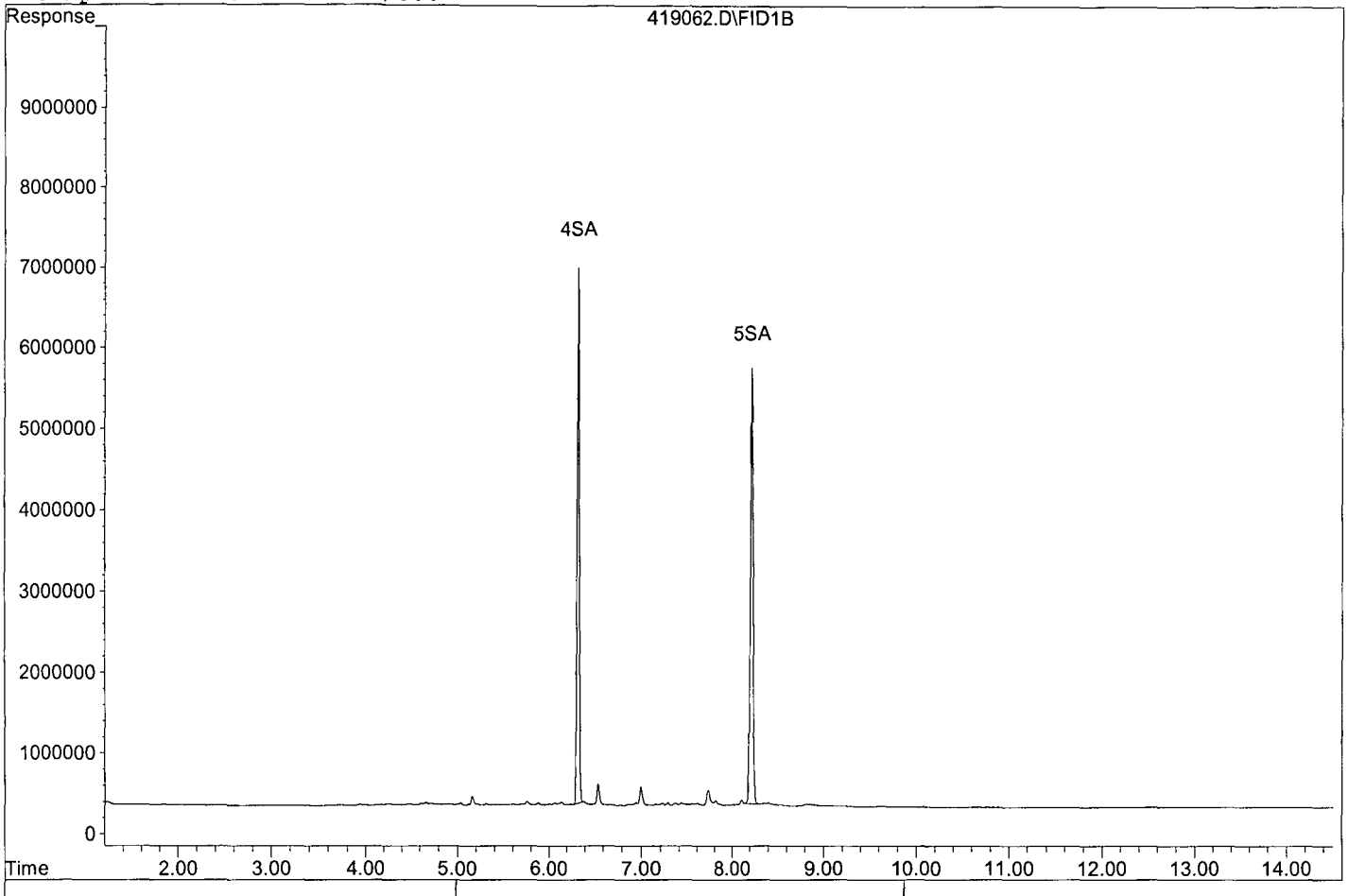
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

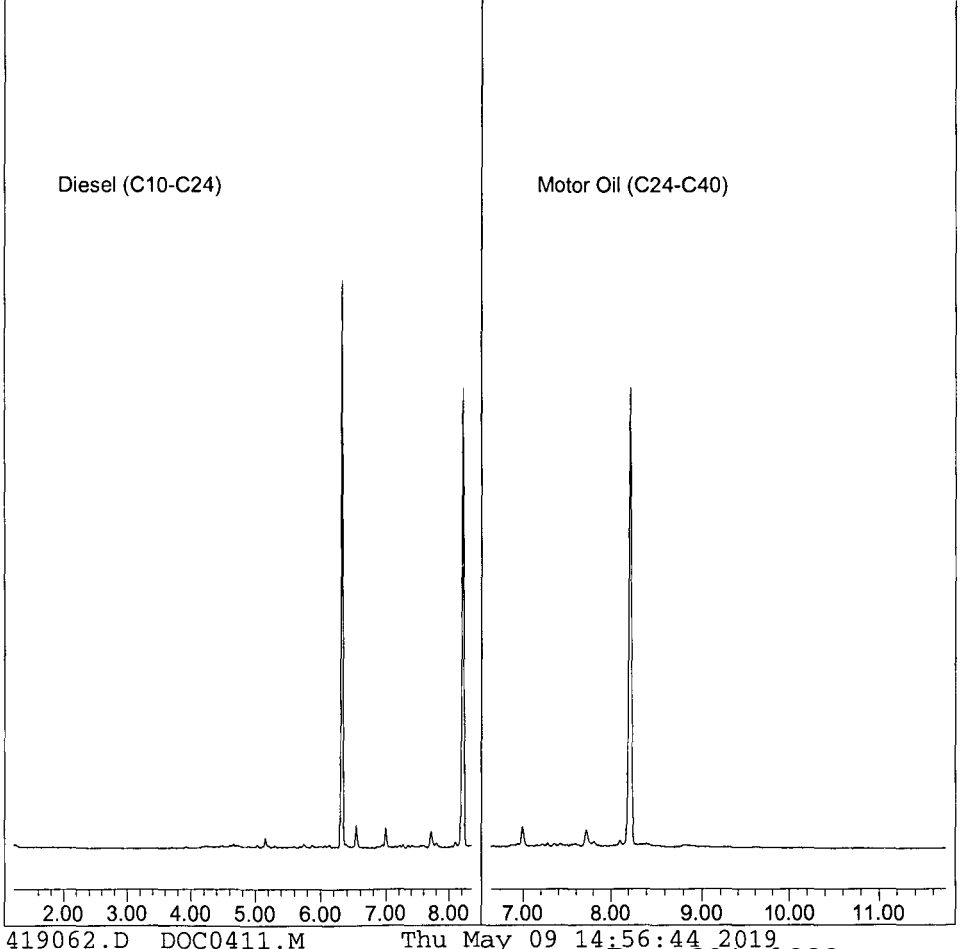
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 112180043 | 69.290 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 92.39% | |
| 5) SA Octacosane(S) | 8.22 | 109551834 | 72.373 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 96.50% | |
| Target Compounds | | | | |

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

Data File: G:\APOLLO\DATA\190419\419062.D
Sample : AZ90056W20 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419064.D Vial: 64
Acq On : 4-29-19 22:23:38 Operator: DP
Sample : AZ90058W19 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:35 2019 Quant Results File: DOC0411.RES

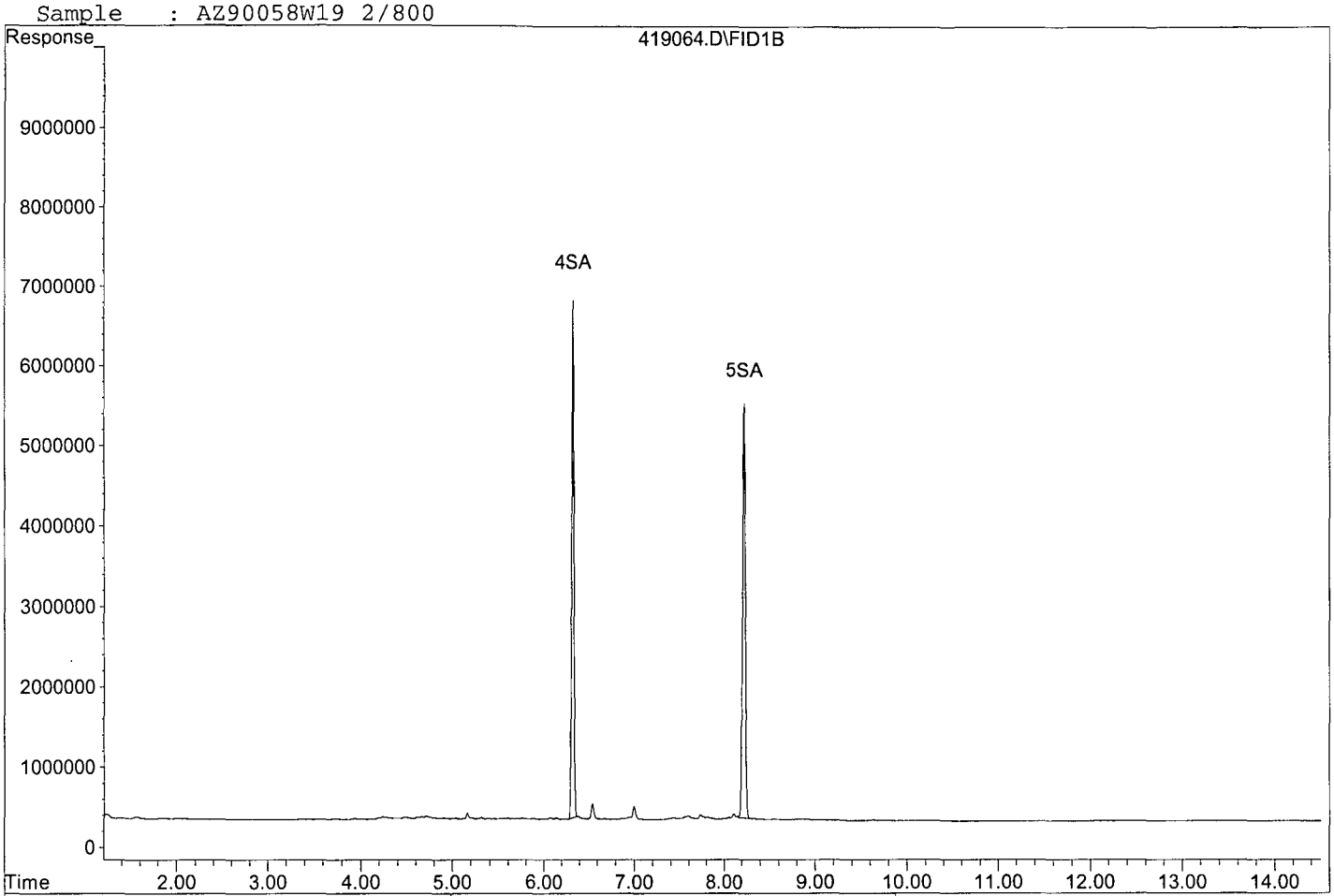
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

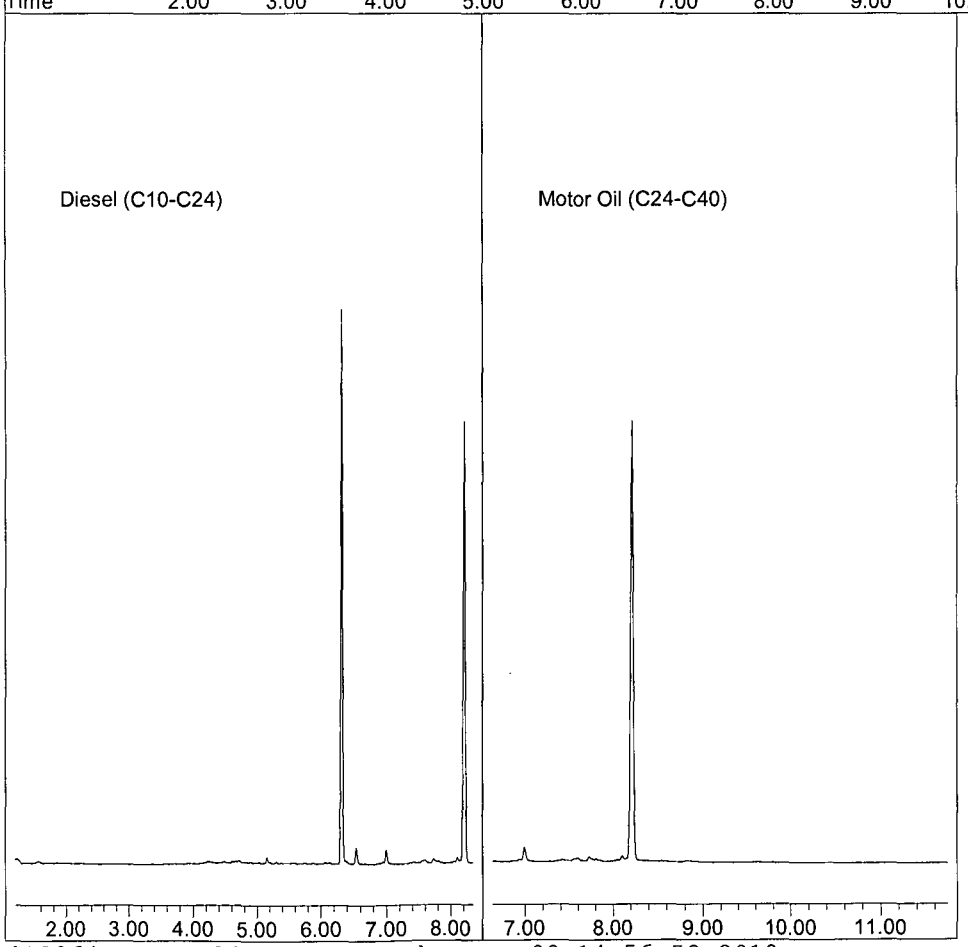
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 111091862 | 68.618 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 91.49% | |
| 5) SA Octacosane(S) | 8.22 | 107950143 | 71.315 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 95.09% | |
| Target Compounds | | | | |

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

Data File: G:\APOLLO\DATA\190419\419064.D
Sample : AZ90058W19 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419065.D Vial: 65
Acq On : 4-29-19 22:43:36 Operator: DP
Sample : AZ90060W21 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:35 2019 Quant Results File: DOC0411.RES

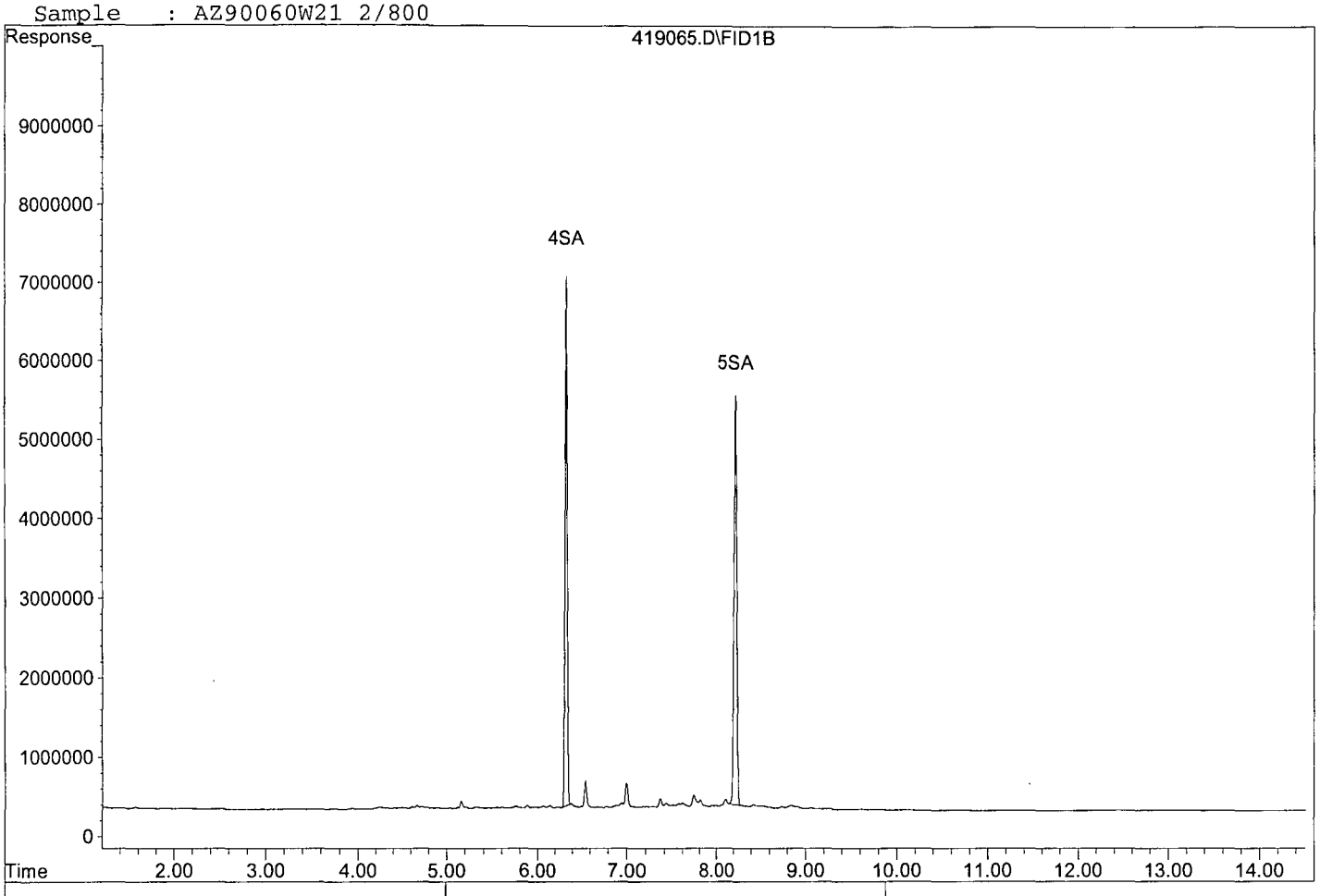
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

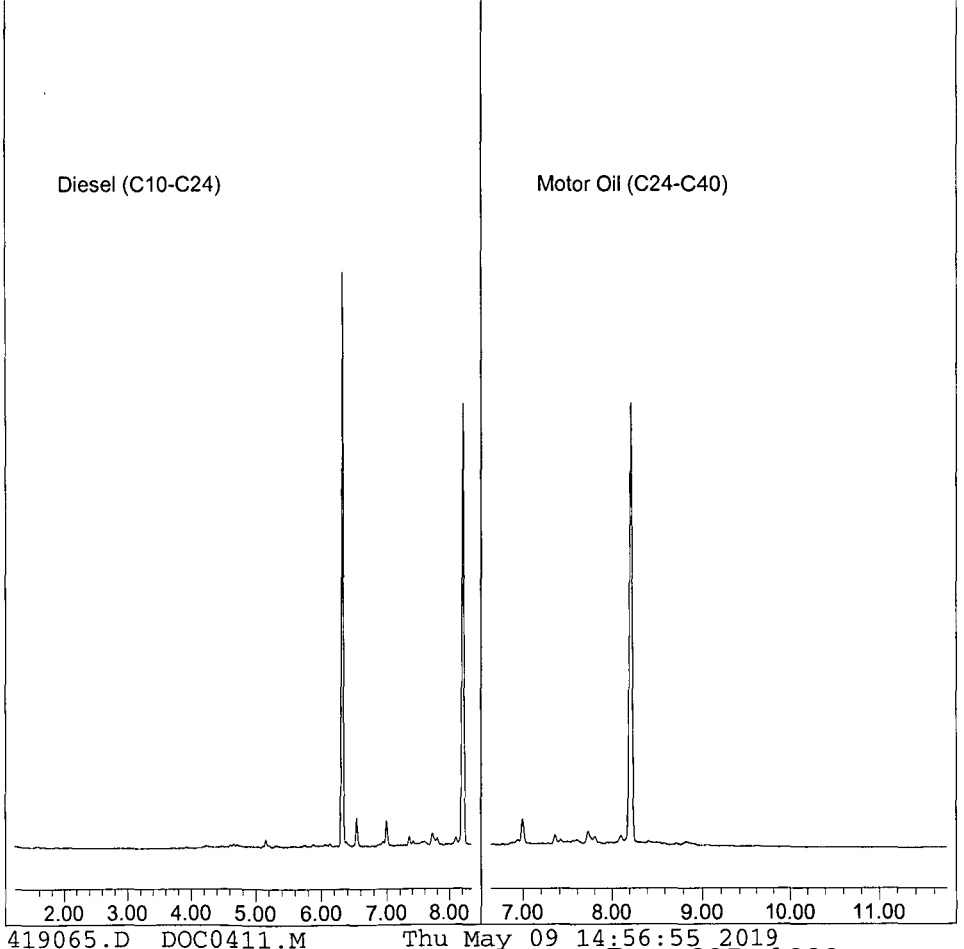
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 111628890 | 68.949 ppb |
| Surrogate Spike 75.000 | Recovery = | | 91.93% |
| 5) SA Octacosane(S) | 8.22 | 109780102 | 72.524 ppb |
| Surrogate Spike 75.000 | Recovery = | | 96.70% |
| Target Compounds | | | |

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

Data File: G:\APOLLO\DATA\190419\419065.D
Sample : AZ90060W21 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419049.D Vial: 49
Acq On : 4-29-19 17:23:01 Operator: DP
Sample : 190426A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 8 13:37 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

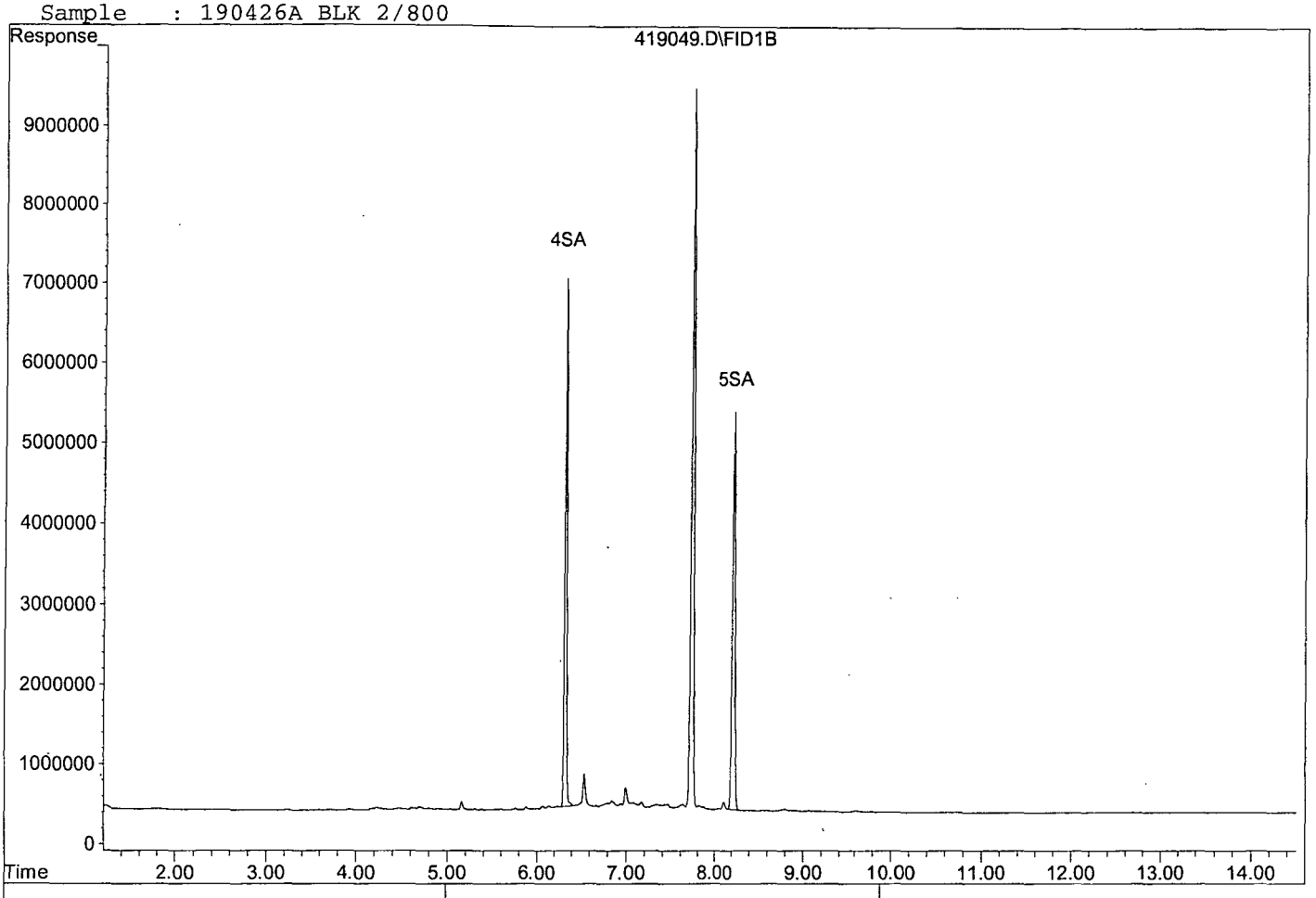
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

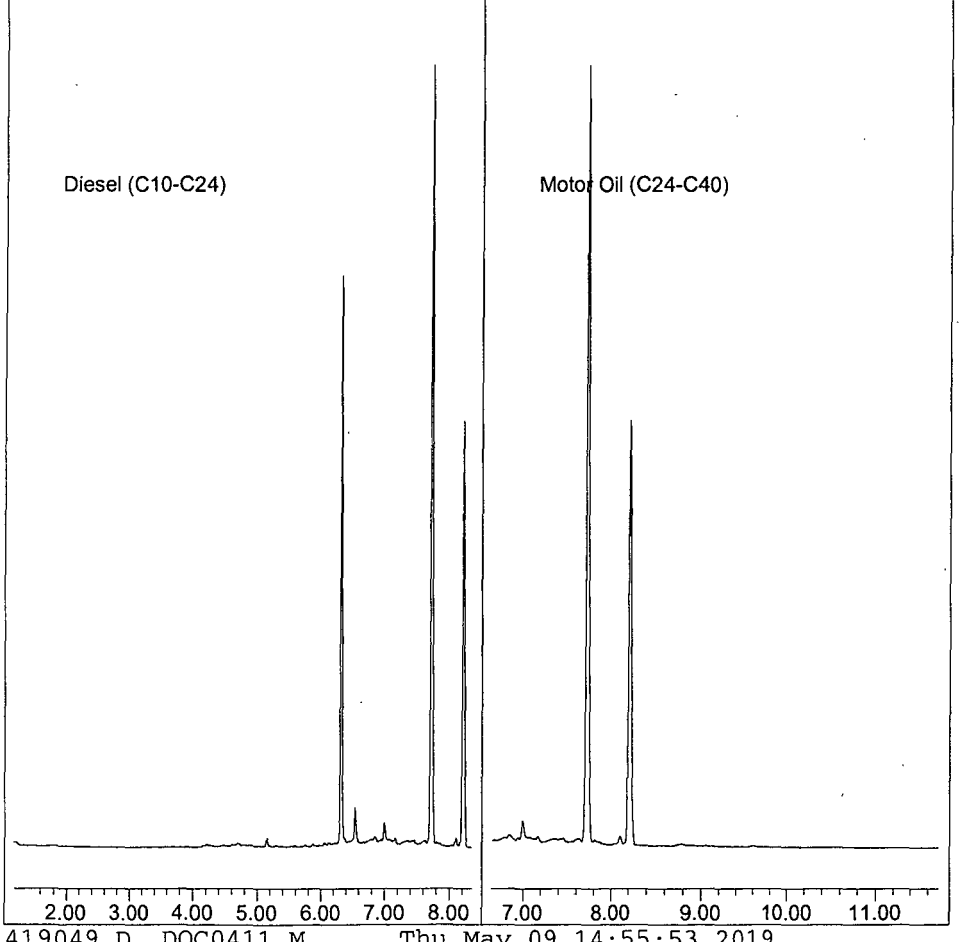
| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 110002294 | 67.945 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 90.59% | |
| 5) SA Octacosane(S) | 8.22 | 105116559 | 69.443 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 92.59% | |
| Target Compounds | | | | |

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

Quantitation Report

Data File: G:\APOLLO\DATA\190419\419049.D
Sample : 190426A BLK 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419050.D Vial: 50
Acq On : 4-29-19 17:43:06 Operator: DP
Sample : 190426A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:04 2019 Quant Results File: DOC0411.RES

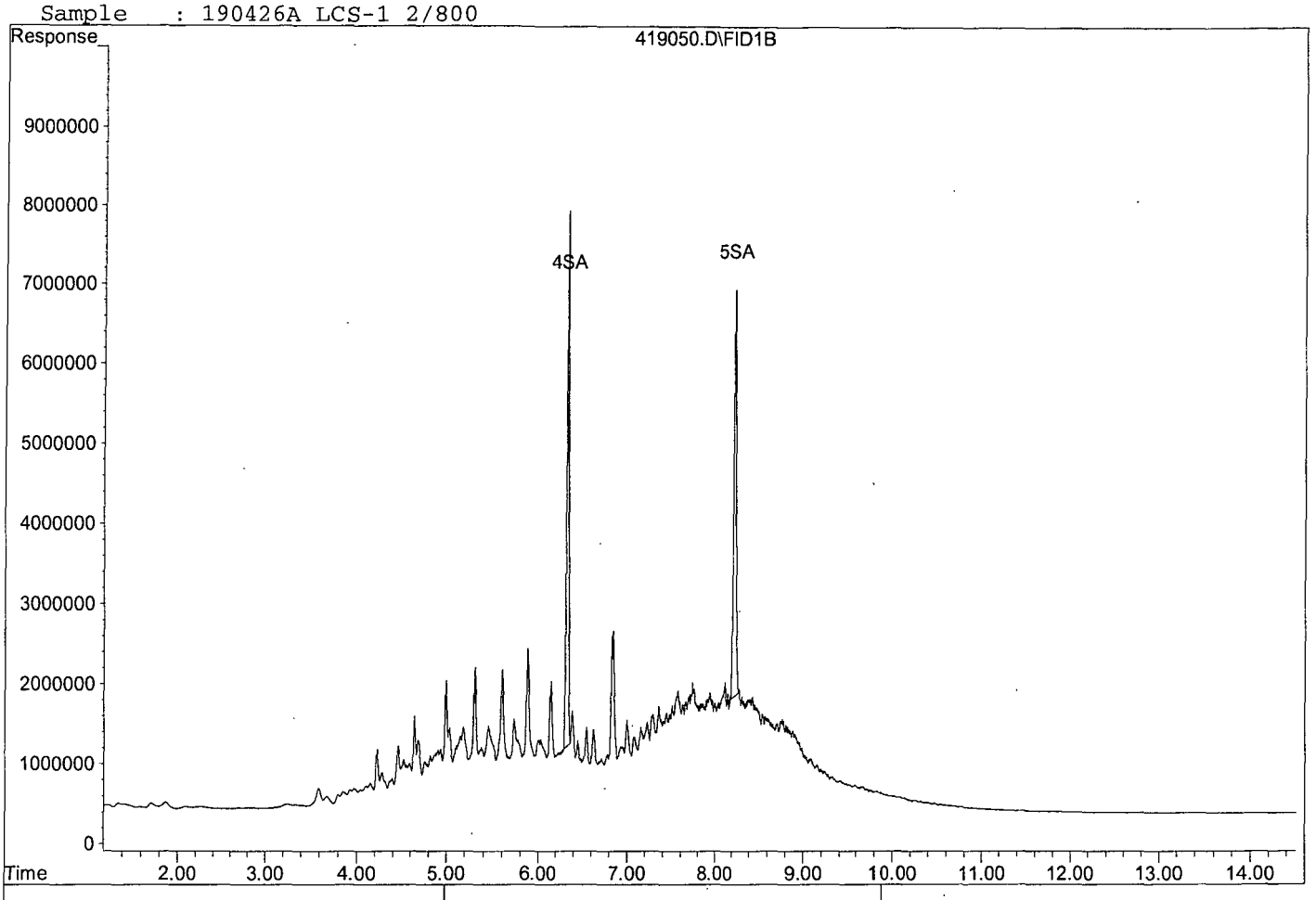
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

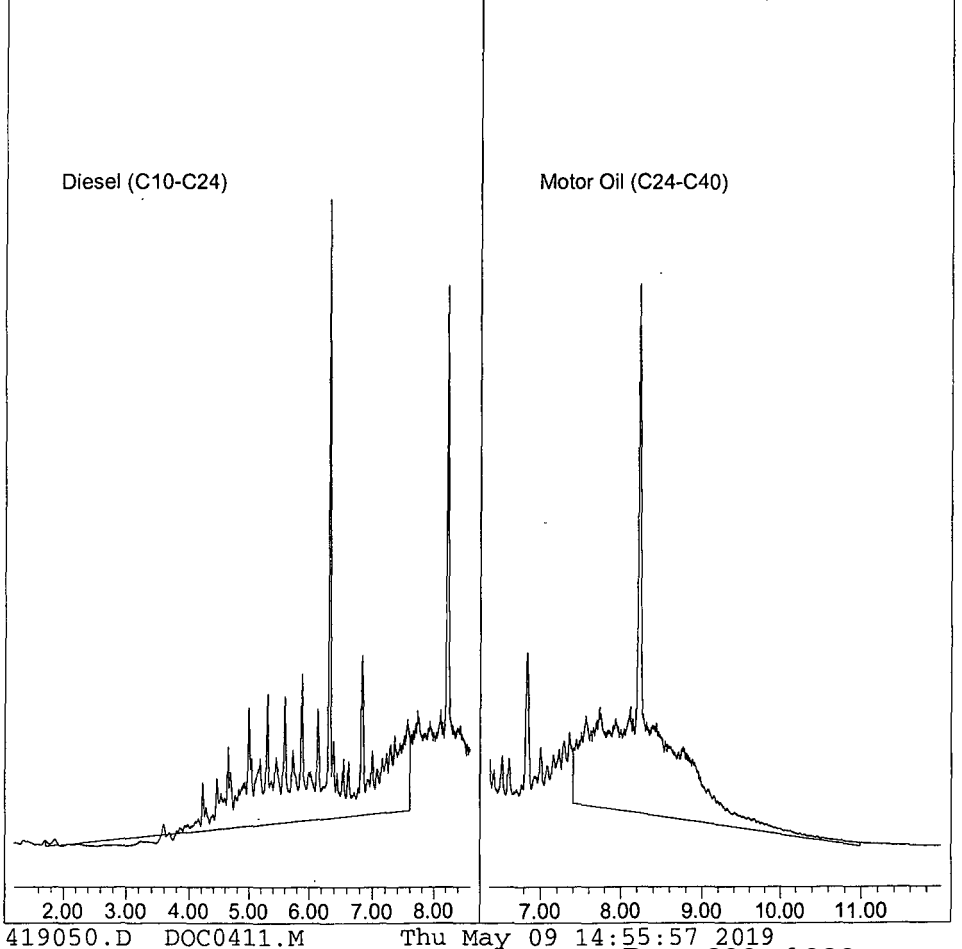
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 107443194 | 66.364 ppb |
| Surrogate Spike 75.000 | Recovery = | | 88.49% |
| 5) SA Octacosane(S) | 8.23 | 101025878 | 66.740 ppb |
| Surrogate Spike 75.000 | Recovery = | | 88.99% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1068693657 | 1120.112 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 954916564 | 1254.146 ppb |

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

Data File: G:\APOLLO\DATA\190419\419050.D
Sample : 190426A LCS-1 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419051.D Vial: 51
Acq On : 4-29-19 18:03:12 Operator: DP
Sample : 190426A LCSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:05 2019 Quant Results File: DOC0411.RES

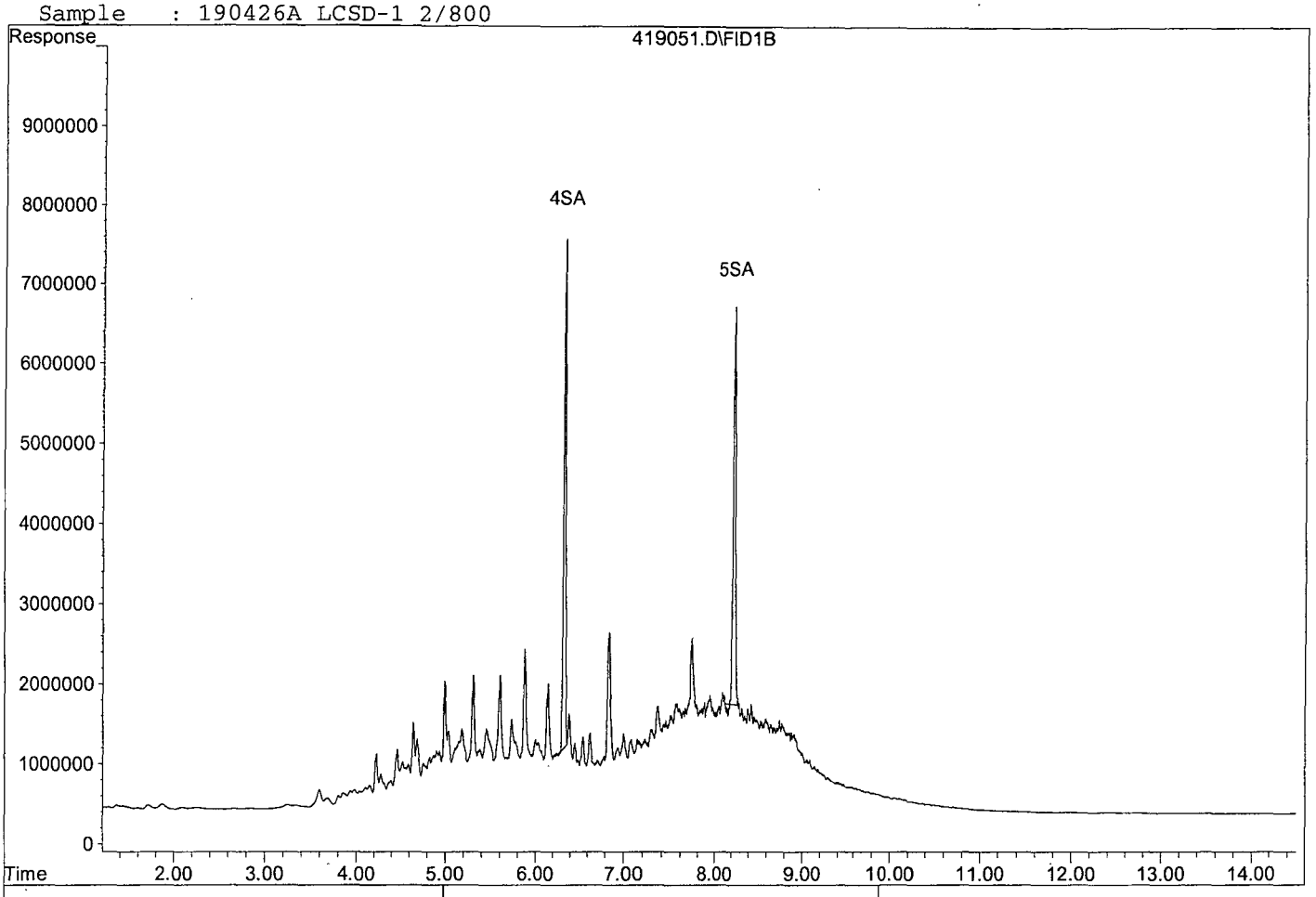
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

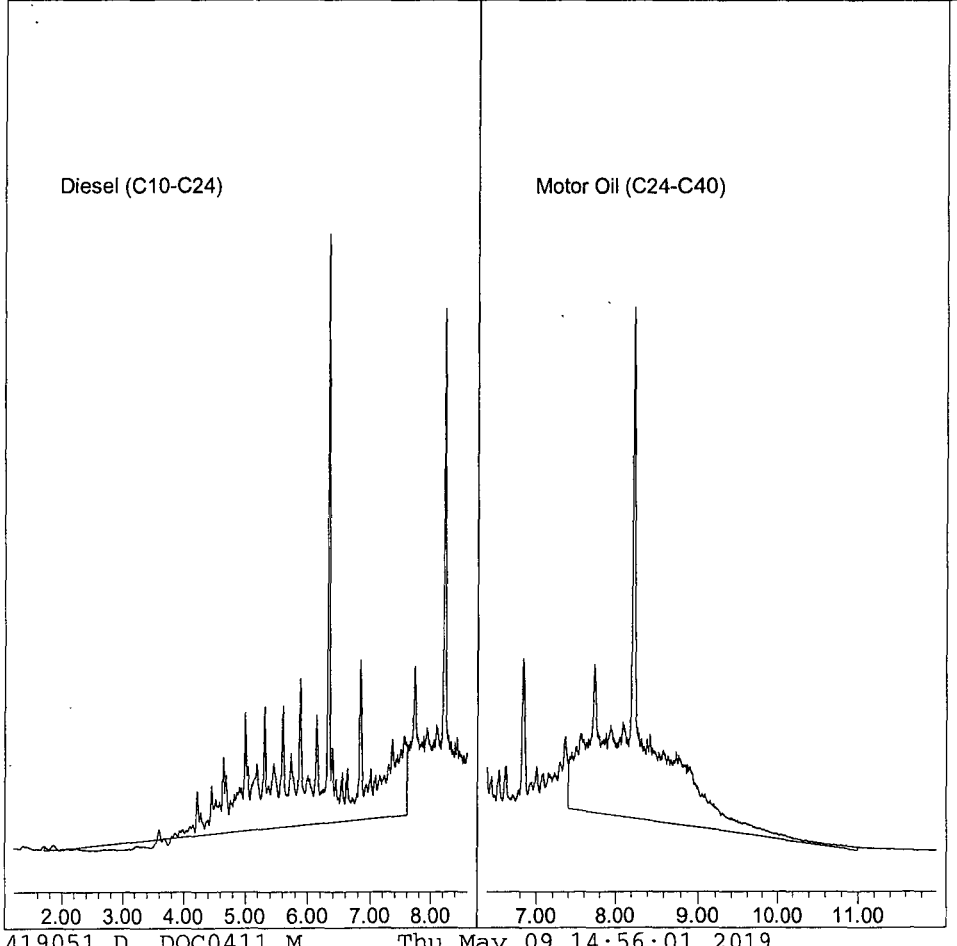
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 106639193 | 65.867 ppb |
| Surrogate Spike 75.000 | Recovery = | | 87.82% |
| 5) SA Octacosane(S) | 8.23 | 98198519 | 64.873 ppb |
| Surrogate Spike 75.000 | Recovery = | | 86.50% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1025097325 | 1074.419 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 901976261 | 1184.617 ppb |

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

Data File: G:\APOLLO\DATA\190419\419051.D
Sample : 190426A LCSD-1 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419058.D Vial: 58
Acq On : 4-29-19 20:23:59 Operator: DP
Sample : AZ90051W26 MS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:33 2019 Quant Results File: DOC0411.RES

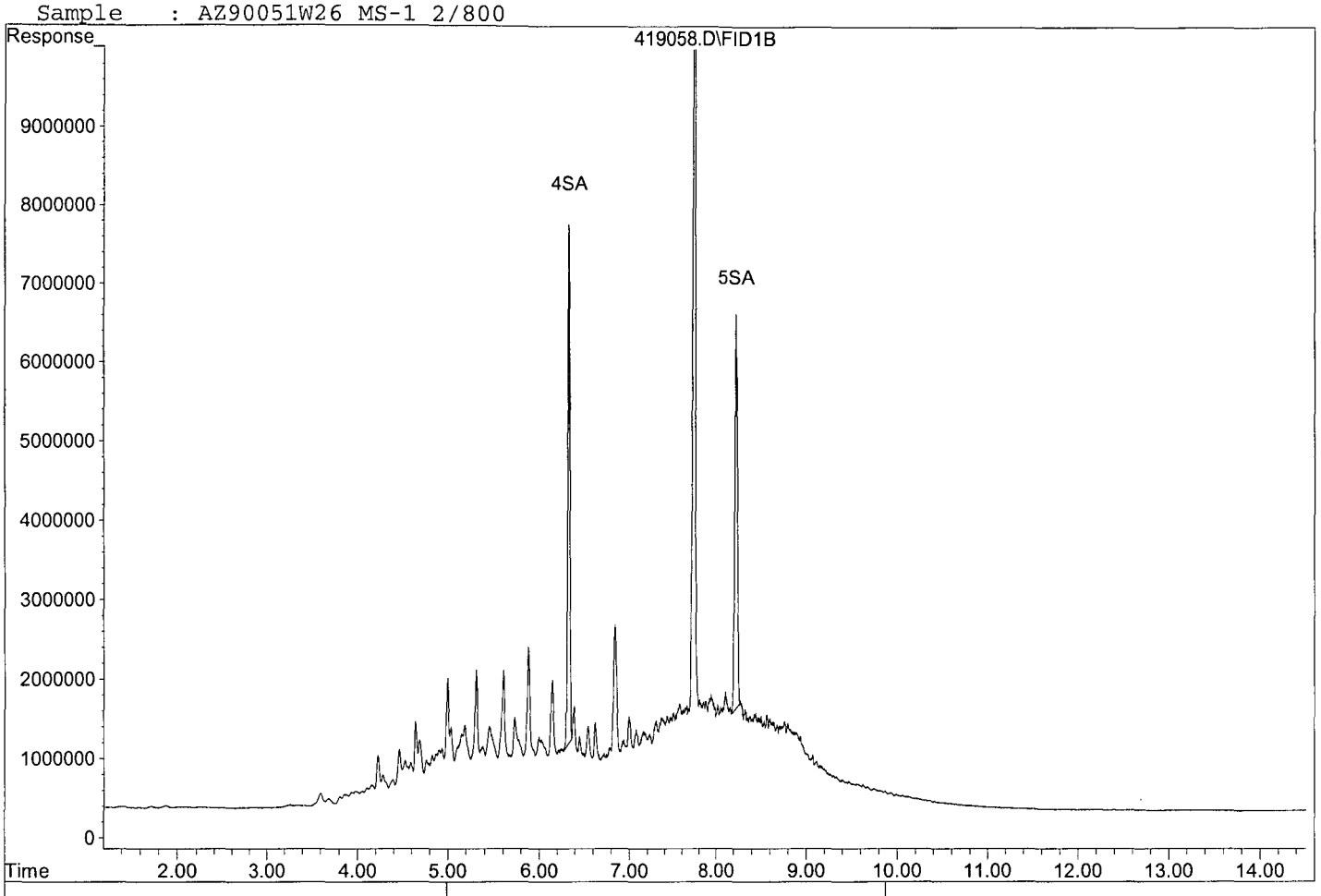
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

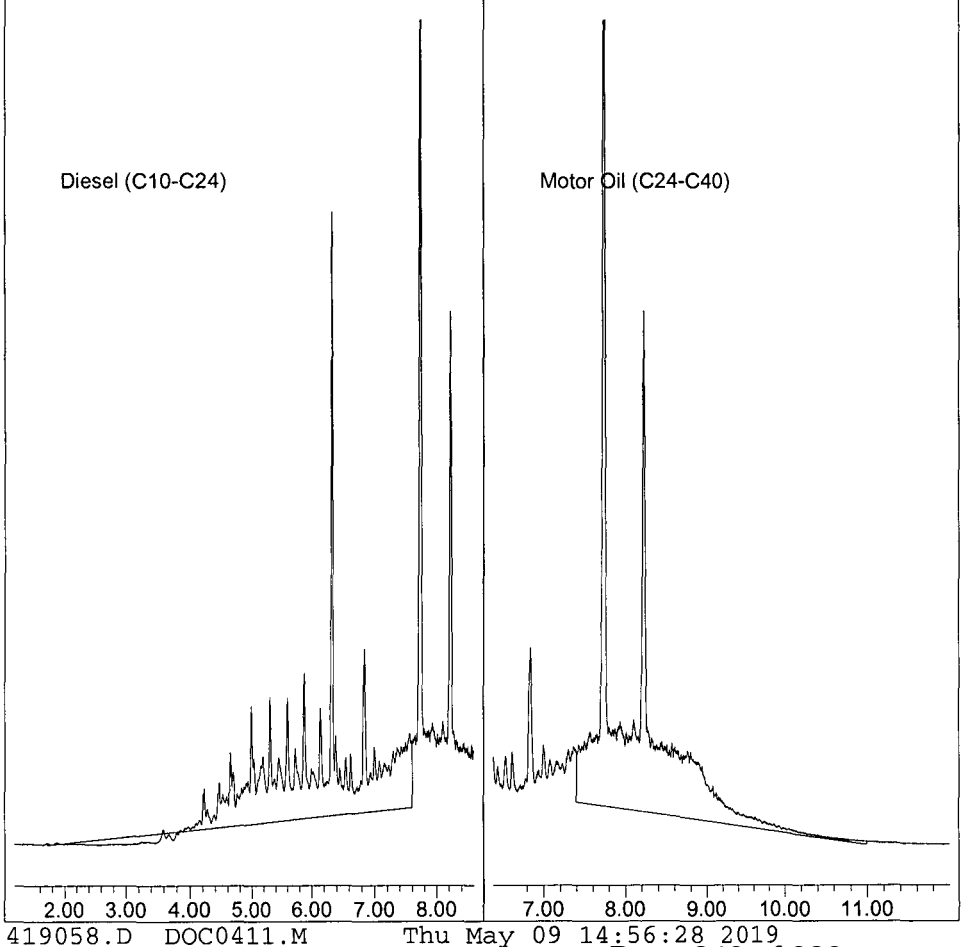
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 107418562 | 66.349 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 88.47% | |
| 5) SA Octacosane(S) | 8.22 | 102409269 | 67.654 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 90.21% | |
| Target Compounds | | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1049034015 | 1099.507 | ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 1081165766 | 1419.956 | ppb |

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

Data File: G:\APOLLO\DATA\190419\419058.D
Sample : AZ90051W26 MS-1 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419059.D Vial: 59
Acq On : 4-29-19 20:44:06 Operator: DP
Sample : AZ90051W31 MSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:33 2019 Quant Results File: DOC0411.RES

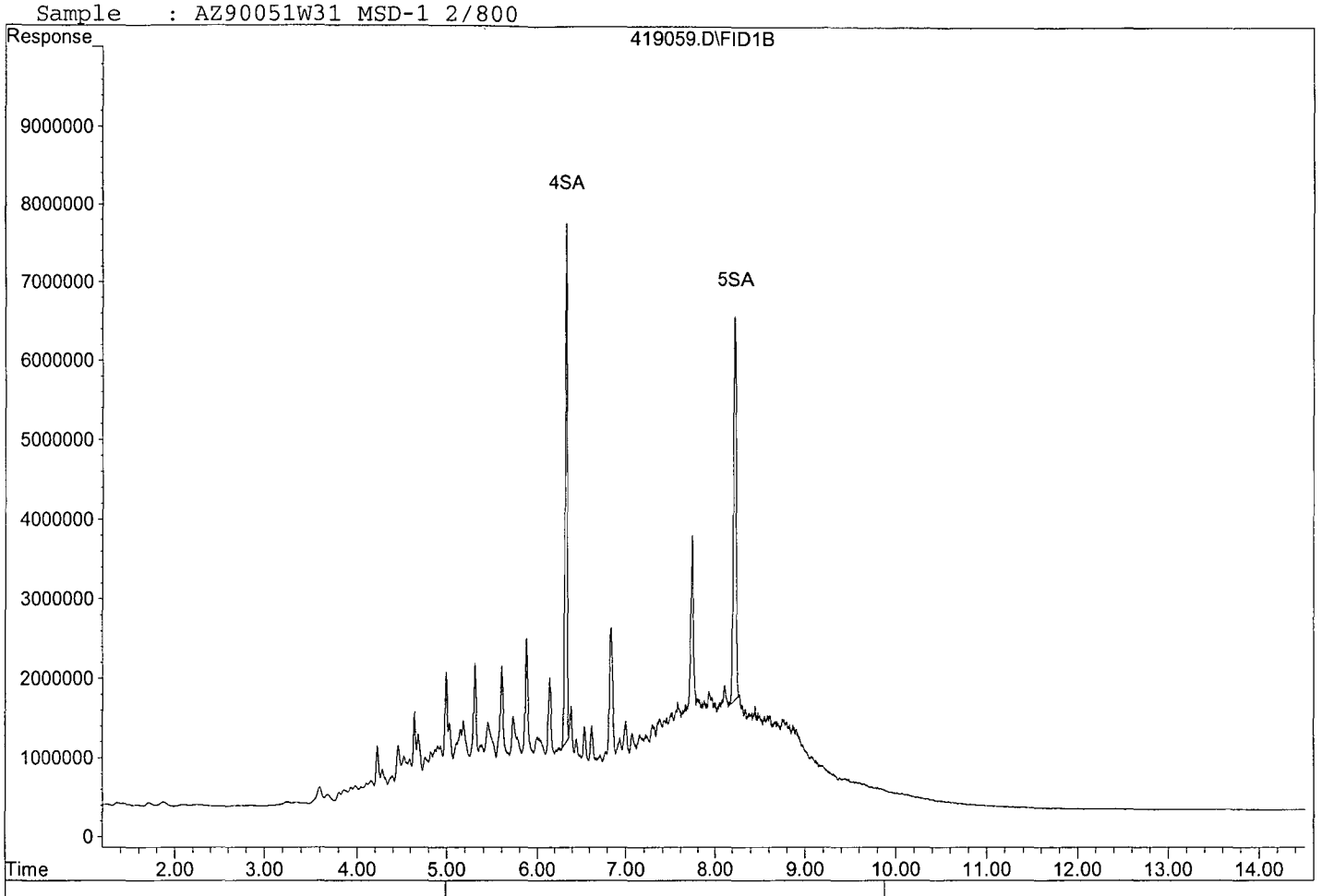
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

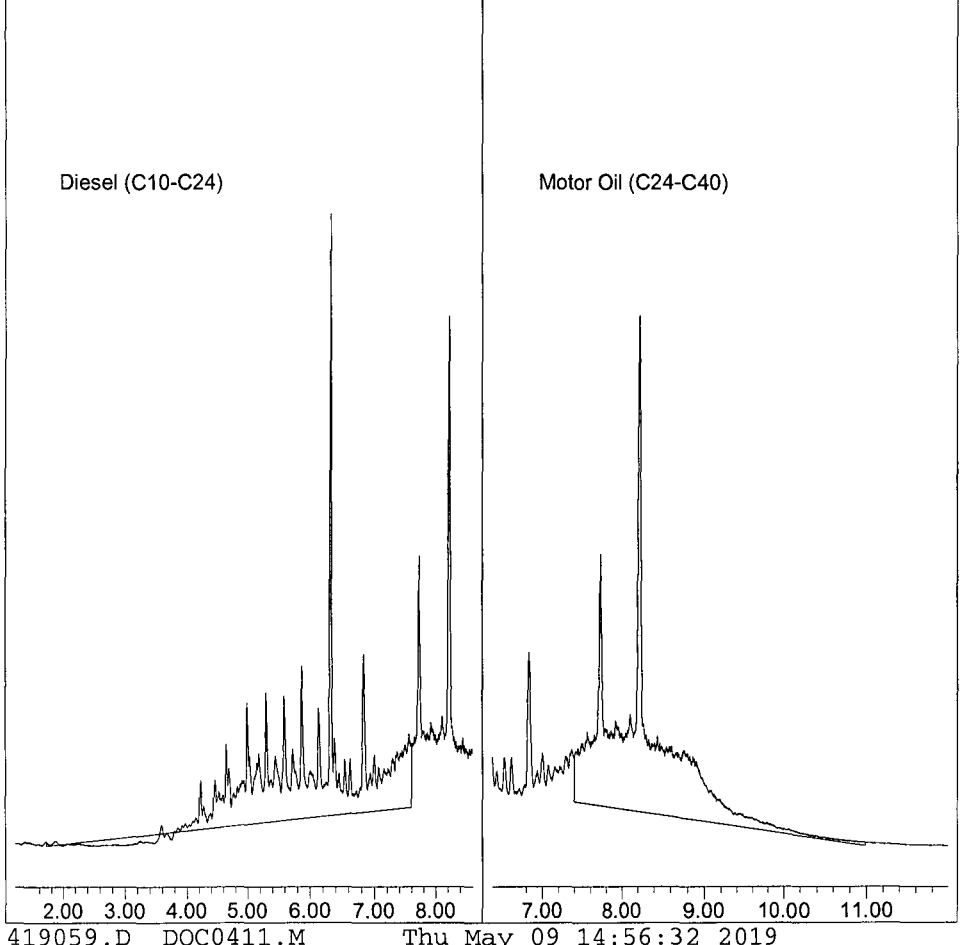
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 107535496 | 66.421 ppb |
| Surrogate Spike 75.000 | | Recovery = | 88.56% |
| 5) SA Octacosane(S) | 8.22 | 104290312 | 68.897 ppb |
| Surrogate Spike 75.000 | | Recovery = | 91.86% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1035515121 | 1085.338 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 917208902 | 1204.622 ppb |

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

Data File: G:\APOLLO\DATA\190419\419059.D
Sample : AZ90051W31 MSD-1 2/800



**Diesel / Motor Oil Calibration Curve**

**Prepared: 04/11/19**

**Expires: 10/11/19**

**Prepared By (Initials): BT**

**Methylene Chloride Lot No. 57278**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference to APPL Prep Date | Exp. Date | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 1 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 5uL | 1mL | MC | 10 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil -2 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 25uL | 1mL | MC | 50 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 3 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 125uL | 1mL | MC | 250 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 4 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 500uL | 1mL | MC | 1000 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 5 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 750uL | 1mL | MC | 1500 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 6 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 100uL | 100uL | N/A | 2,000 |

**Diesel / Motor Oil Second Source (SS)**

**Prepared: 01/15/19**

**Expires: 01/15/20**

**Prepared By (Initials): DP**

**Methylene Chloride Lot No. 56278**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Diesel Fuel #2 | O2SI | G34-011598-03 | 50,000 | **G34-319187-38958** | **08/02/19** | **09/29/21** | 50uL | 10mL | MC | 250 |
| Motor Oil Second Source | O2SI | 116390-02-SS | 50,000 | **301142-37652** | **07/13/19** | **03/05/22** | 50uL | | | |

**Diesel / Motor Oil Calibration Standard**

**Prepared: 01/15/19** **Prepared By (Initials): DP**

**Expires: 01/15/20**

**Methylene Chloride Lot No. 56278**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Diesel Fuel #2 | Restek | 31258 | 50,000 | **A0135614-39409** | **01/15/20** | **03/31/25** | 400uL | 10mL | MC | 2000 |
| Motor Oil | Restek | 31464 | 50,000 | **A0135245-39351** | **01/15/20** | **03/31/25** | 400uL | | | 2000 |
| THC Surrogate | Phenova | ALO-130161 | 600 | **CL12572-39691** | **08/13/19** | **06/30/23** | 1666uL | | | 100 |

**Diesel / Motor Oil CCV**

**Prepared: 04/16/19**

**Expires: 10/16/19**

**Prepared By (Initials): BT**

**Methylene Chloride Lot No. 58059**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference to APPL Prep Date | Exp. Date | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Diesel / Motor Oil STD | APPL | Diesel / Motor Oil CCV | 2,000 | Prepared 01/15/19 | 01/15/20 | N/A | 1250uL | 10mL | MC | 250 |

**Diesel Spike**

**Prepared: 04/26/19**

**Expires: 04/25/20**

**Prepared By (Initials): DP**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| (QAU Label) | Supplier | No. | (ug/mL) | Number | (1 yr.) | (Manufacturer) | From | Volume | Solvent | Conc. (ug/mL) |
| Diesel Fuel #2 | Restek | 31258 | 50,000 | **A0135614-39408** | **04/26/20** | **03/31/25** | N/A | N/A | N/A | 50,000 |

**Motor Oil Spike**

**Prepared: 04/08/19**

**Expires: 04/07/20**

**Prepared By (Initials): DP**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Motor Oil Composite | Restek | 31464 | 50,000 | **A0141636-40470** | **04/09/20** | **10/20/25** | N/A | N/A | N/A | 50,000 |

**THC Surrogate**

**Prepared: 04/17/19** **Prepared By (Initials): BT**

**Expires: 04/16/20**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| O-terphenyl / Octacosane Mix | Phenova | ALO-130161 | 600 | **CL13256-40363** | **04/17/20** | **02/28/24** | N/A | N/A | N/A | 600 |

# Organic Extraction Worksheet

| Method | Continuous Liq/Liq TPH-Diesel/MO 3520C | Extraction Set | 190426A | Extraction Method | LIQ005 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | Diesel Spike 4-26-19 EXP 4-26-20 | | Surrogate ID 1 | THC Surrogate 4-17-19 EXP 4-17-20 | |
| Spiked ID 2 | Motor Oil Spike 4-8-19 EXP 4-8-20 | | 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 04/26/19 13:00 | |
| Spiked ID 8 | | | Ext. End Time: | 04/27/19 10:13 ,04/29/19 14:35 | |
| | | | **GC Requires Extract By:** | **04/30/19 0:00** | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 4/26/19 10:15:00 AM | Water Bath Temp Criteria | 35,35,35 ° |
| pH2 | | | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/26/19 **Witnessed By:** DL **Date** 04/26/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190426A Blk | | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | |
| | | | | | | equip | E-HP51 E-WB1 | | | | |
| 2 | 190426A LCS-1 | | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | |
| | | | | | | equip | E-HP50 E-WB2 | | | | |
| 3 | 190426A LCSD-1 | | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | |
| | | | | | | equip | E-HP49 E-WB3 | | | | |
| 4 | AZ89958 MS-1 | AZ89958W32 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP48 E-WB1 | | | | |
| 5 | AZ89958 MSD-1 | AZ89958W42 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP47 E-WB2 | | | | |
| 6 | AZ89958 | AZ89958W29 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP25 E-WB3 | | | | |
| 7 | AZ89959 | AZ89959W10 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP26 E-WB1 | | | | |
| 8 | AZ89961 | AZ89961W13 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP27 E-WB2 | | | | |
| 9 | AZ90051 MS-1 | AZ90051W26 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP28 E-WB3 | | | | |
| 10 | AZ90051 MSD-1 | AZ90051W31 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP29 E-WB1 | | | | |
| 11 | AZ90051 | AZ90051W29 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP30 E-WB2 | | | | |
| 12 | AZ90052 | AZ90052W09 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP17 E-WB3 | | | | |
| 13 | AZ90054 | AZ90054W19 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP16 E-WB1 | | | | |
| 14 | AZ90056 | AZ90056W20 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP15 E-WB2 | | | | |
| 15 | AZ90058 | AZ90058W19 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP14 E-WB3 | | | | |
| 16 | AZ90060 | AZ90060W21 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP13 E-WB1 | | | | |

| Solvent and Lot# | |
|---|---|
| 1+1 HCL | 3-1-19 |
| PH Strips | HC 863463 |
| Dicholormethane (DCM) | 58240 |
| Filter Paper | 400148 |
| B. Sodium Sulfate | 18D105205 |
| | |
| | |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | SS |
| Date | 4/29/19 |
| Time | 15:10 |
| Refrigerator | Hobart 1 |

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

| Modified | 04/30/19 12:53:34 PM |
|---|---|

**Reviewed By:** Ky **Date** 4/30/19

# Organic Extraction Worksheet

| Method | Continuous Liq/Liq TPH-Diesel/MO 3520C | Extraction Set | 190426A | Extraction Method | LIQ005 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | Diesel Spike 4-26-19 EXP 4-26-20 | | Surrogate ID 1 | THC Surrogate 4-17-19 EXP 4-17-20 | |
| Spiked ID 2 | Motor Oil Spike 4-8-19 EXP 4-8-20 | | 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 04/26/19 13:00 | |
| Spiked ID 8 | | | Ext. End Time: | 04/27/19 10:13 , 04/29/19 14:35 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 4/26/19 10:15:00 AM | Water Bath Temp Criteria | 35,35,35 ° |
| pH2 | | | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/26/19 **Witnessed By:** DL **Date** 04/26/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | AZ90100 | AZ90100W20 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP12 E-WB2 | | | | |
| 18 | AZ90102 | AZ90102W18 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP11 E-WB3 | | | | |
| 19 | AZ90103 | AZ90103W09 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP10 E-WB1 | | | | |
| 20 | AZ90105 | AZ90105W22 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP9 E-WB2 | | | | |
| 21 | AZ90107 | AZ90107W19 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP7 E-WB3 | | | | |
| 22 | AZ90109 | AZ90109W22 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP6 E-WB1 | | | | |

KY 4/30/19

| Solvent and Lot# | |
|---|---|
| 1+1 HCL | 3-1-19 |
| PH Strips | HC 863463 |
| Dicholormethane (DCM) | 58240 |
| Filter Paper | 400148 |
| B. Sodium Sulfate | 18D105205 |
| | |
| | |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | |
| Date | |
| Time | |
| Refrigerator | |

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

| Modified | 04/30/19 12:53:34 PM |
|---|---|

**Reviewed By:** Ky **Date** 4/30/19

# Injection Log

Directory: G:\APOLLO\DATA\190411\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 2 | 411002.D | 1 | Diesel / Motor Oil - 1 1/15/19 | water | 4-11-19 12:41:17 |
| 2 | 3 | 411003.D | 1 | Diesel / Motor Oil - 2 4/11/19 | water | 4-11-19 13:00:16 |
| 3 | 4 | 411004.D | 1 | Diesel / Motor Oil - 3 4/11/19 | water | 4-11-19 13:19:58 |
| 4 | 5 | 411005.D | 1 | Diesel / Motor Oil - 4 4/11/19 | water | 4-11-19 13:39:40 |
| 5 | 6 | 411006.D | 1 | Diesel / Motor Oil - 5 4/11/19 | water | 4-11-19 13:59:26 |
| 6 | 7 | 411007.D | 1 | Diesel / Motor Oil - 6 4/11/19 | water | 4-11-19 14:19:10 |
| 7 | 8 | 411008.D | 1 | Diesel / Motor Oil - 2nd Source 1/15/19 | water | 4-11-19 14:39:01 |
| 8 | 48 | 419048.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 4-29-19 17:02:59 |
| 9 | 49 | 419049.D | 2.5 | 190426A BLK 2/800 | water | 4-29-19 17:23:01 |
| 10 | 50 | 419050.D | 2.5 | 190426A LCS-1 2/800 | water | 4-29-19 17:43:06 |
| 11 | 51 | 419051.D | 2.5 | 190426A LCSD-1 2/800 | water | 4-29-19 18:03:12 |
| 12 | 57 | 419057.D | 2.5 | AZ90051W29 2/800 | water | 4-29-19 20:03:53 |
| 13 | 58 | 419058.D | 2.5 | AZ90051W26 MS-1 2/800 | water | 4-29-19 20:23:59 |
| 14 | 59 | 419059.D | 2.5 | AZ90051W31 MSD-1 2/800 | water | 4-29-19 20:44:06 |
| 15 | 60 | 419060.D | 2.5 | AZ90052W09 2/800 | water | 4-29-19 21:04:10 |
| 16 | 61 | 419061.D | 2.5 | AZ90054W19 2/800 | water | 4-29-19 21:23:33 |
| 17 | 62 | 419062.D | 2.5 | AZ90056W20 2/800 | water | 4-29-19 21:43:34 |
| 18 | 63 | 419063.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 4-29-19 22:03:37 |
| 19 | 64 | 419064.D | 2.5 | AZ90058W19 2/800 | water | 4-29-19 22:23:38 |
| 20 | 65 | 419065.D | 2.5 | AZ90060W21 2/800 | water | 4-29-19 22:43:36 |
| 21 | 72 | 419072.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 4-30-19 1:02:05 |

# ORGANICS
# Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506013.D Vial: 13
Acq On : 5-6-19 20:49:47 Operator: DP
Sample : AZ90051W34 2/810 Inst : Apollo
Misc : water Multiplr: 2.47
IntFile : events.e
Quant Time: May 15 15:49 2019 Quant Results File: DOC0411.RES

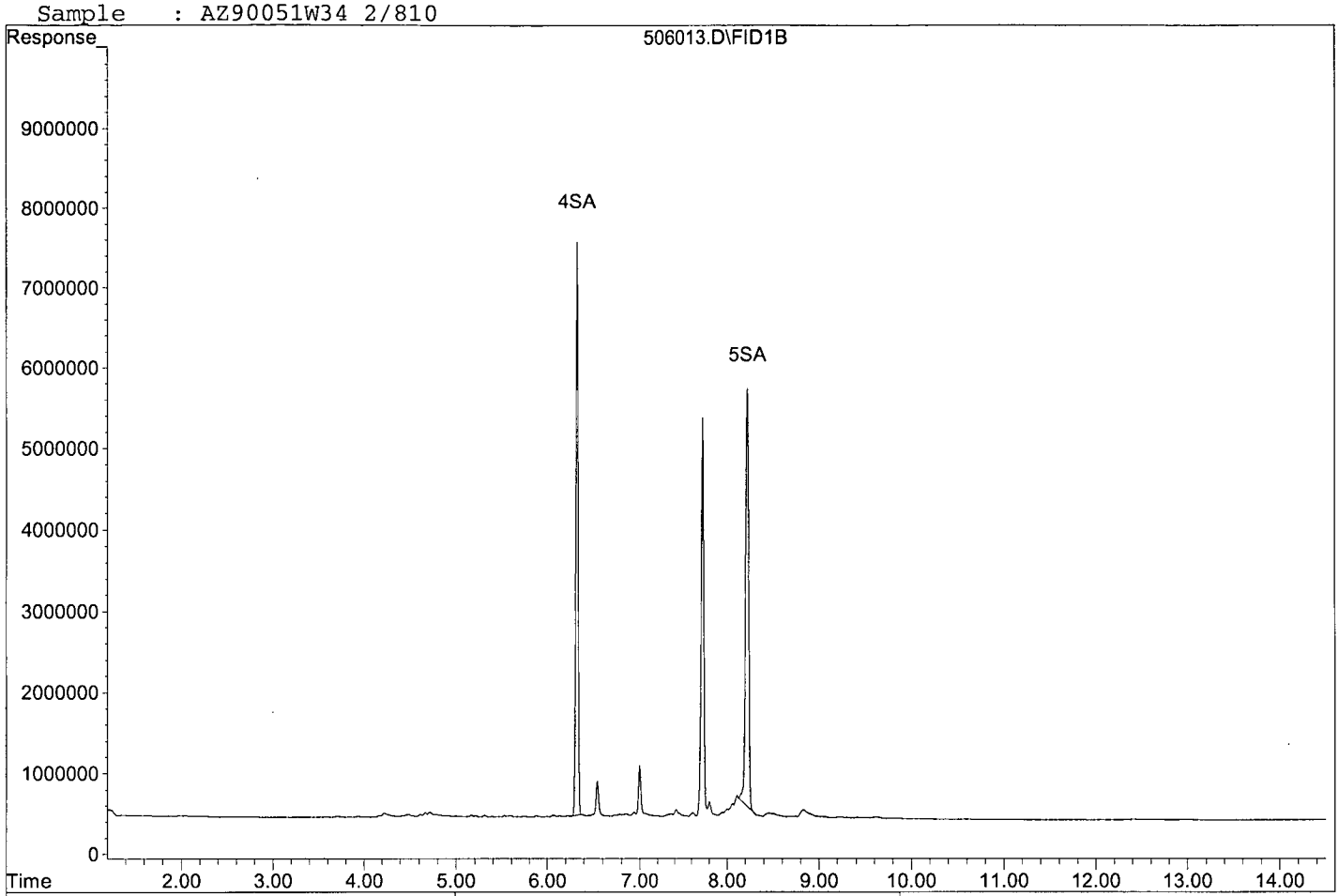
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

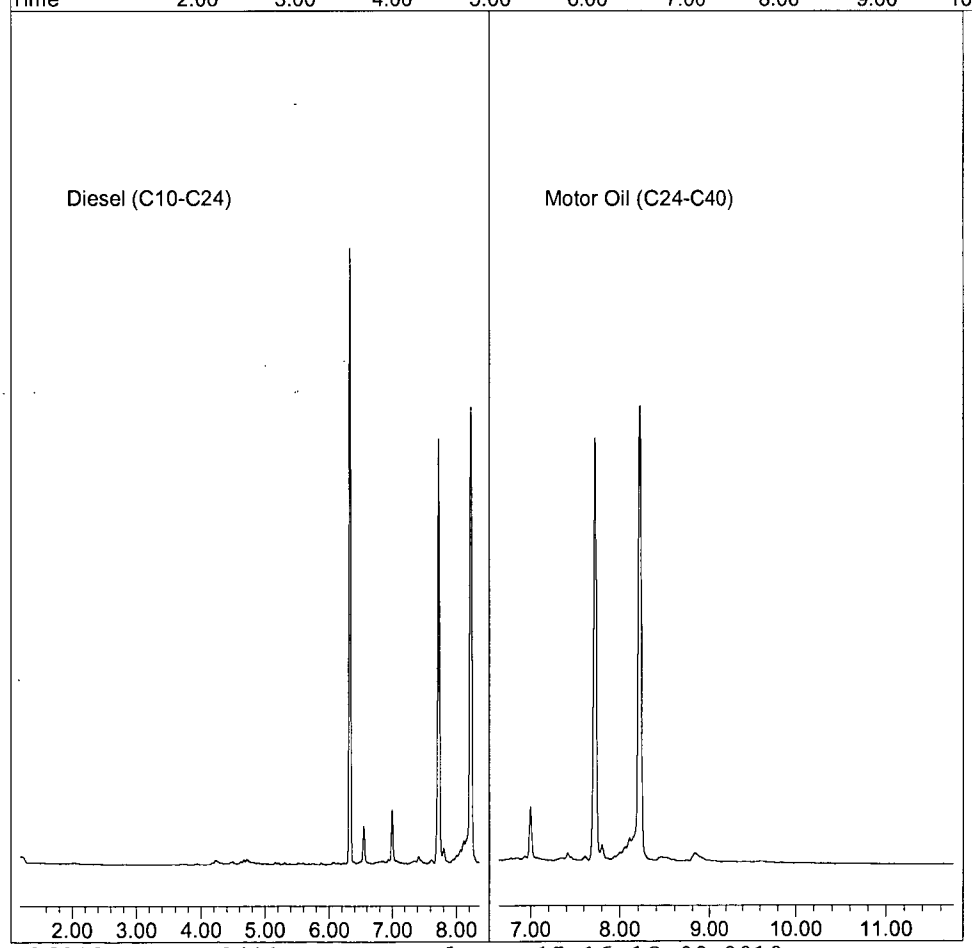
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 118135981 | 72.068 | ppb |
| Surrogate Spike 74.074 | | Recovery = | 97.29% | |
| 5) SA Octacosane(S) | 8.22 | 118671157 | 77.430 | ppb |
| Surrogate Spike 74.074 | | Recovery = | 104.53% | |
| Target Compounds | | | | |

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

Data File: G:\APOLLO\DATA\190506\506013.D
Sample : AZ90051W34 2/810



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506014.D Vial: 14
Acq On : 5-6-19 21:09:42 Operator: DP
Sample : AZ90052W08 2/790 Inst : Apollo
Misc : water Multiplr: 2.53
IntFile : events.e
Quant Time: May 15 15:50 2019 Quant Results File: DOC0411.RES

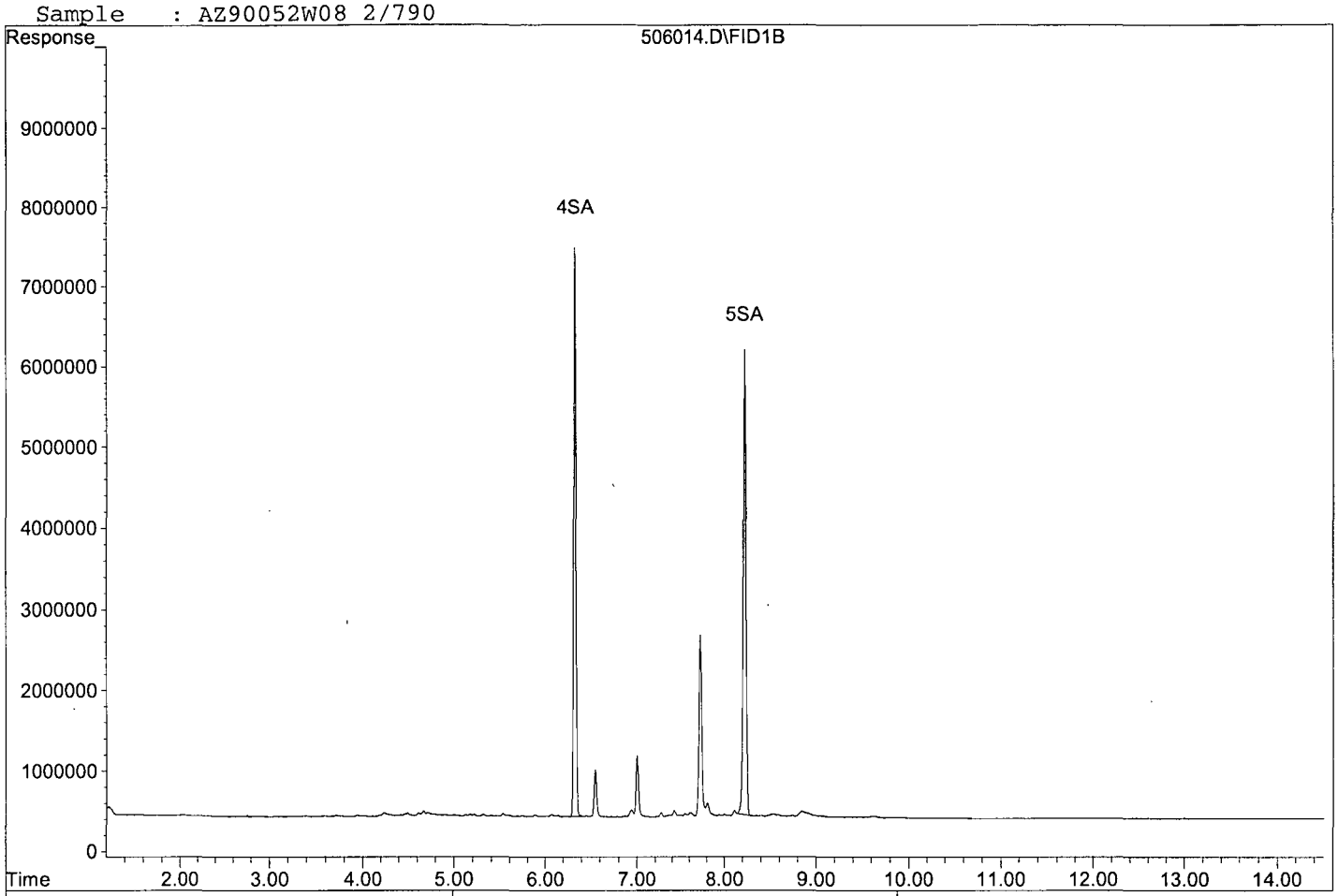
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

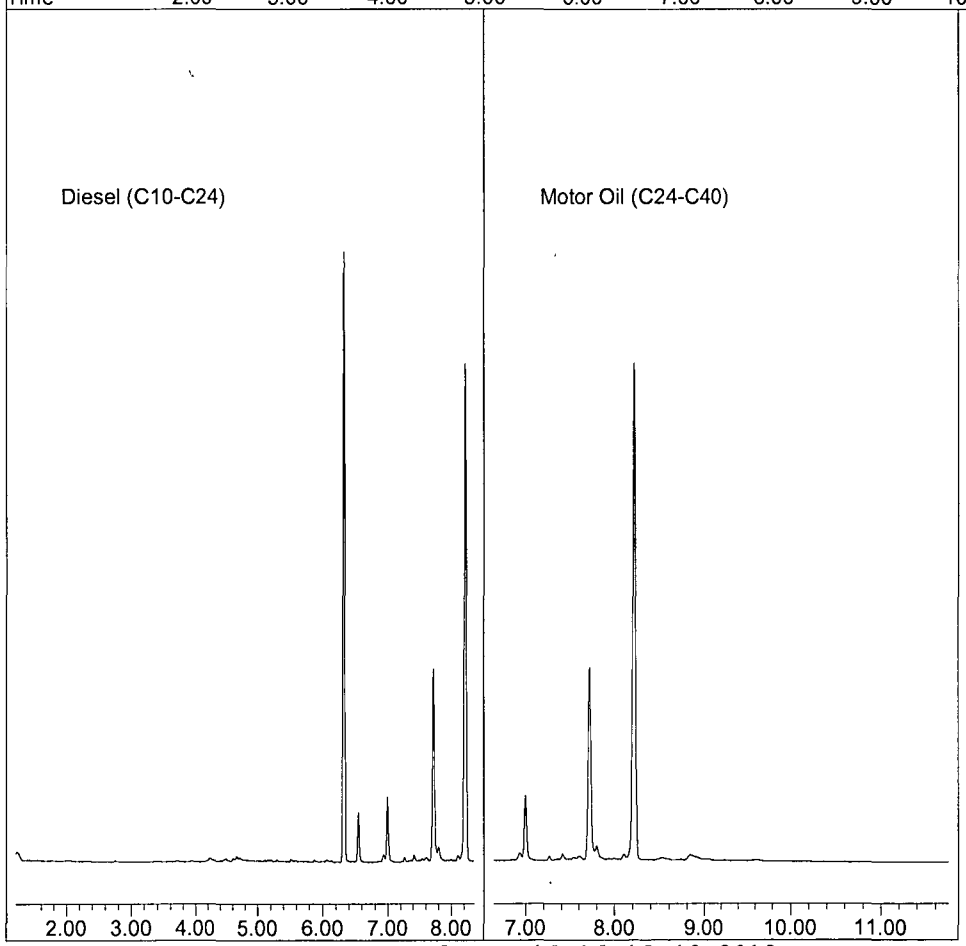
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 119619692 | 74.820 | ppb |
| Surrogate Spike 75.949 | | Recovery = | 98.51% | |
| 5) SA Octacosane(S) | 8.22 | 116891621 | 78.199 | ppb |
| Surrogate Spike 75.949 | | Recovery = | 102.96% | |
| Target Compounds | | | | |

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

Data File: G:\APOLLO\DATA\190506\506014.D
Sample : AZ90052W08 2/790




506014.D DOC0411.M Wed May 15 16:18:12 2019 Page 2

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506003.D Vial: 3
Acq On : 5-6-19 17:30:03 Operator: DP
Sample : 190502A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:32 2019 Quant Results File: DOC0411.RES

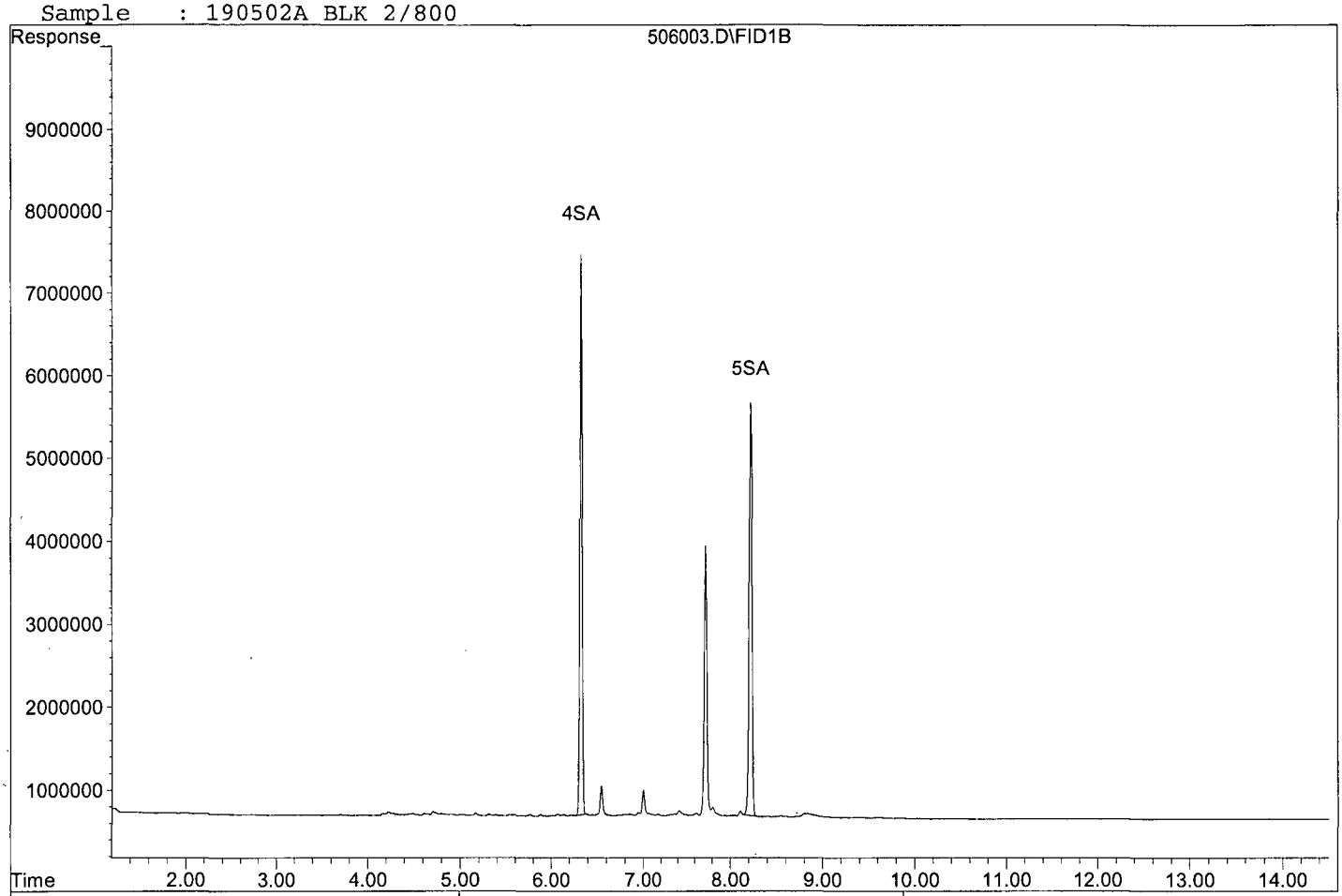
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

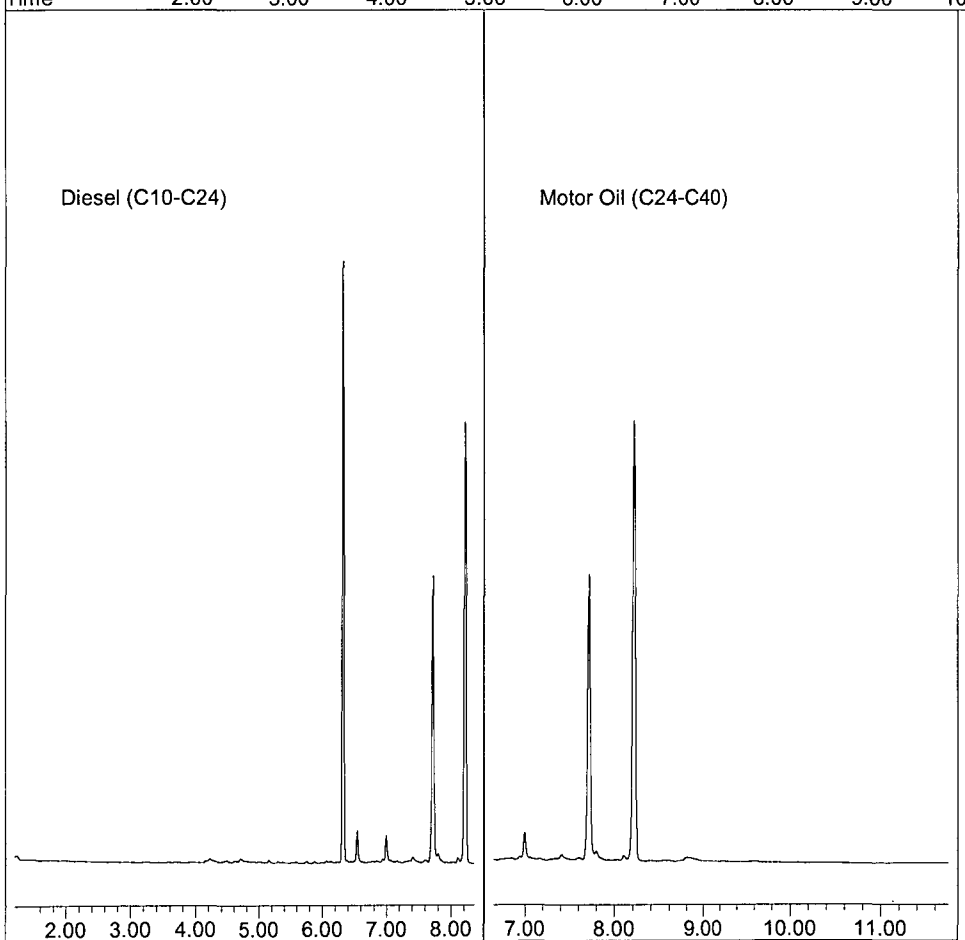
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 113486320 | 70.097 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 93.46% | |
| 5) SA Octacosane(S) | 8.22 | 110426276 | 72.950 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 97.27% | |
| Target Compounds | | | | |

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

Data File: G:\APOLLO\DATA\190506\506003.D
Sample : 190502A BLK 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506004.D Vial: 4
Acq On : 5-6-19 17:50:07 Operator: DP
Sample : 190502A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:42 2019 Quant Results File: DOC0411.RES

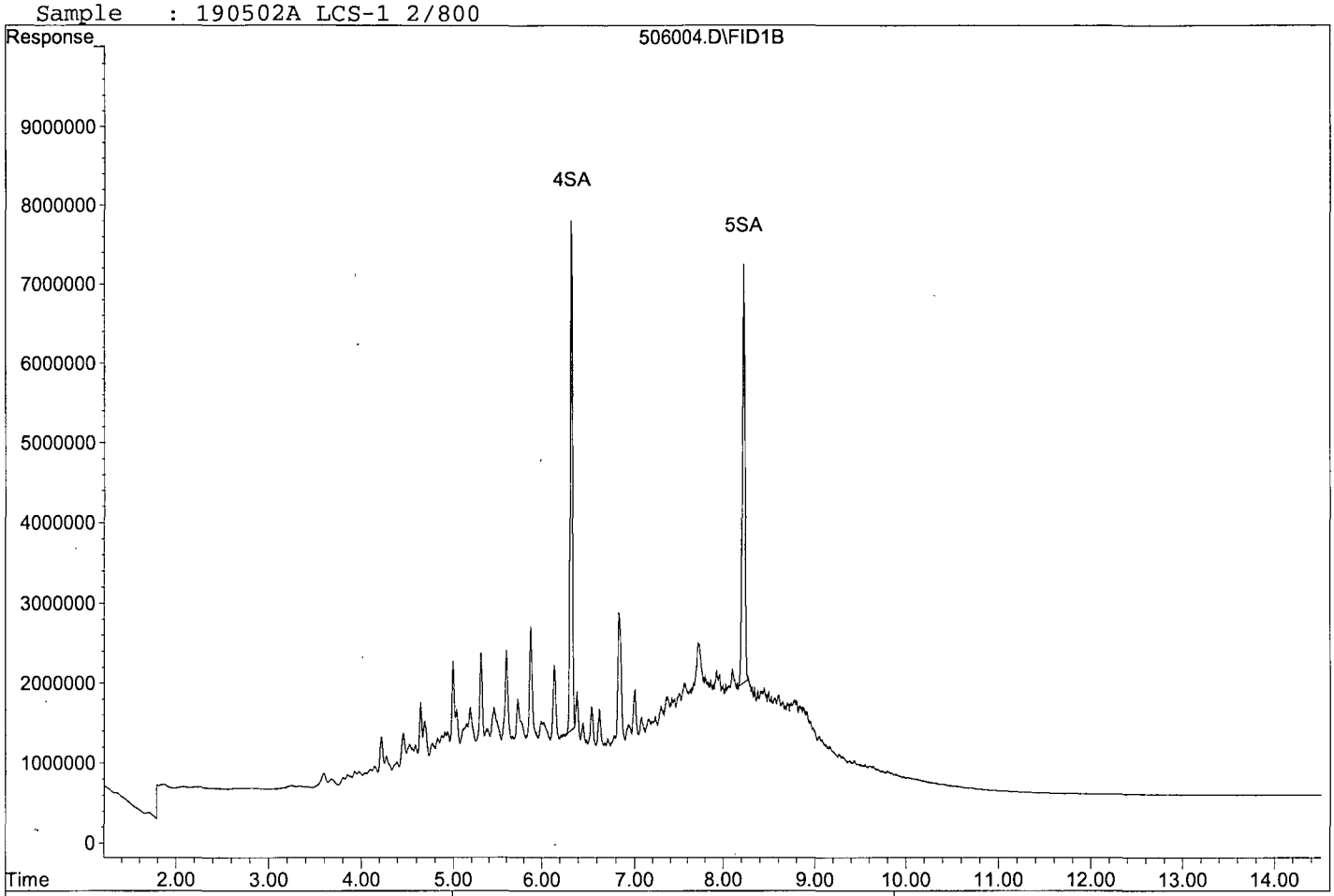
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

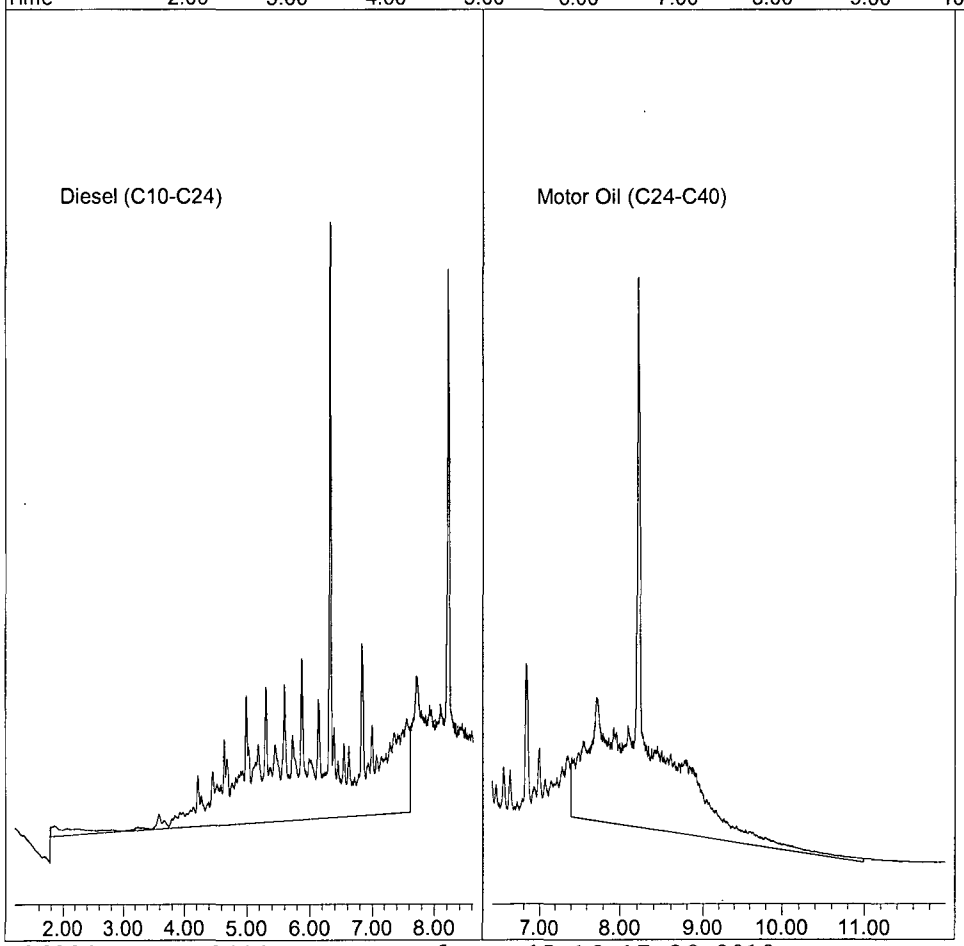
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 108692501 | 67.136 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 89.51% | |
| 5) SA Octacosane(S) | 8.22 | 102955317 | 68.015 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 90.69% | |
| Target Compounds | | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1416561534 | 1484.718 | ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 944760089 | 1240.807 | ppb |

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

Data File: G:\APOLLO\DATA\190506\506004.D
Sample : 190502A LCS-1 2/800

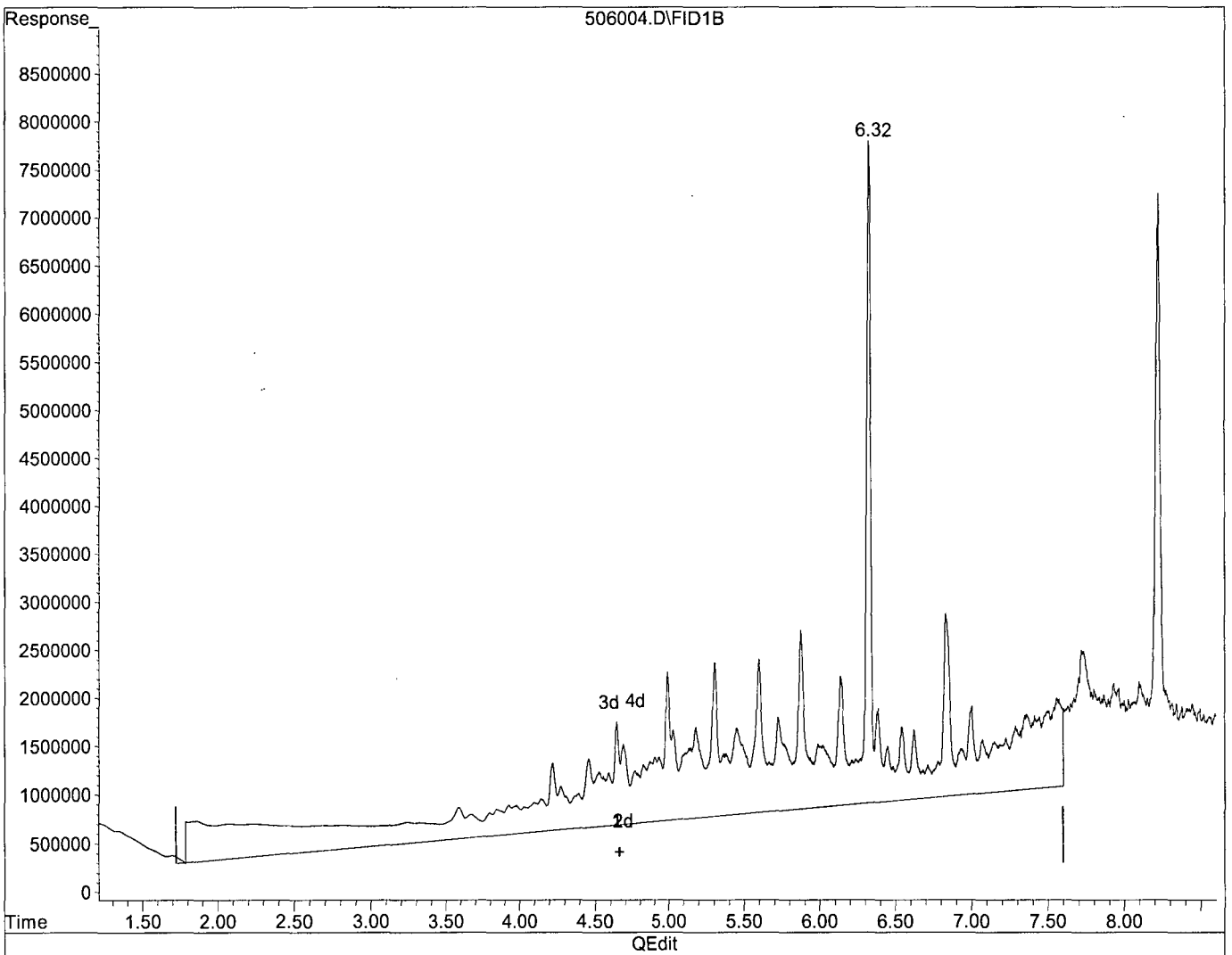


Quantitation Report

Data File : G:\APOLLO\DATA\190506\506004.D Vial: 4
Acq On : 5-6-19 17:50:07 Operator: DP
Sample : 190502A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:33 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration




(1) Diesel (C10-C24) (HATM)

4.66min 1678.079ppb m

response 1601046609

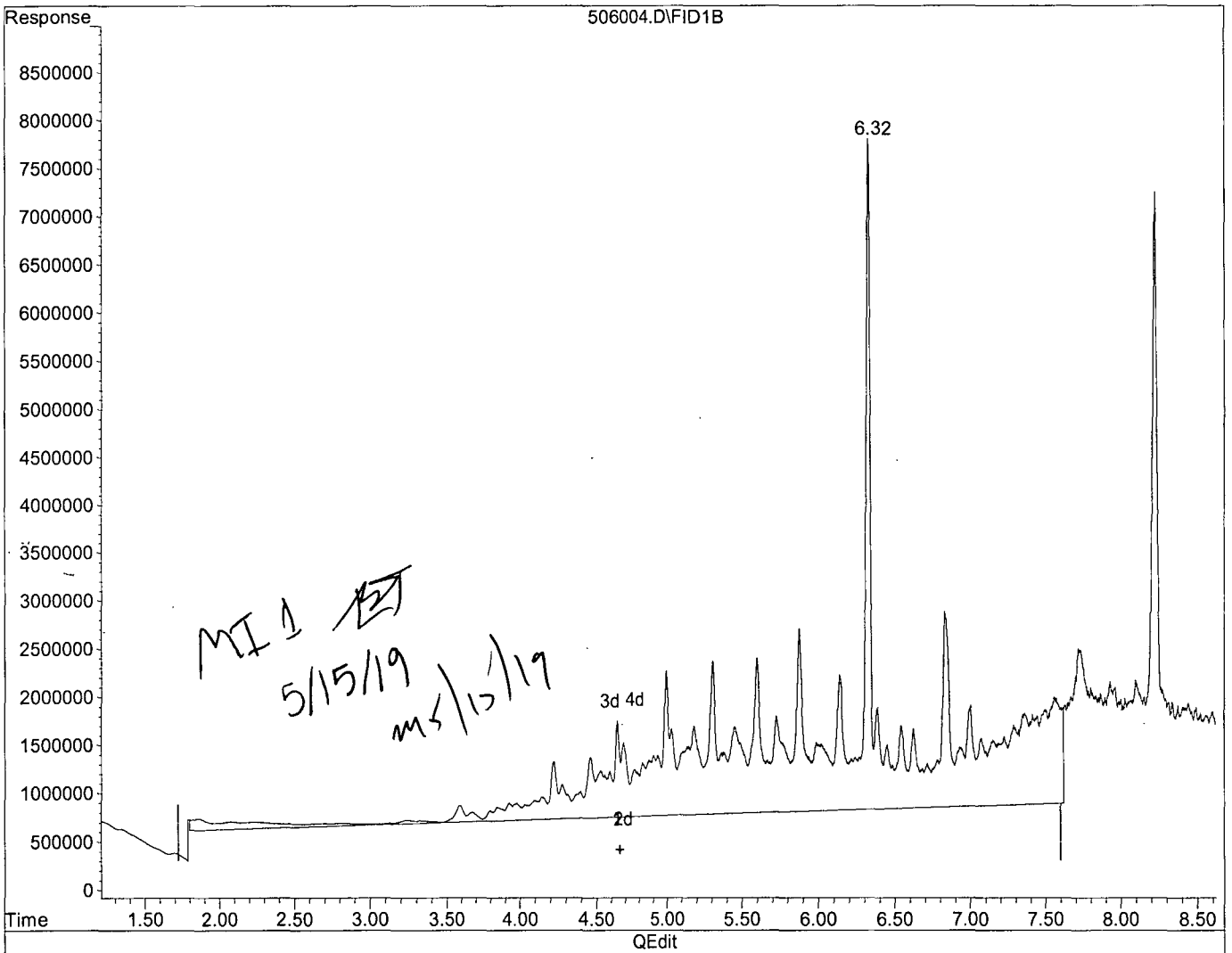
(+) = Expected Retention Time

506004.D DOC0411.M Wed May 15 15:41:43 2019

Quantitation Report

Data File : G:\APOLLO\DATA\190506\506004.D Vial: 4
Acq On : 5-6-19 17:50:07 Operator: DP
Sample : 190502A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:42 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration




(1) Diesel (C10-C24) (HATM)

4.66min 1484.718ppb m

response 1416561534

(+) = Expected Retention Time

506004.D DOC0411.M Wed May 15 15:42:32 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506005.D Vial: 5
Acq On : 5-6-19 18:10:08 Operator: DP
Sample : 190502A LCSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:42 2019 Quant Results File: DOC0411.RES

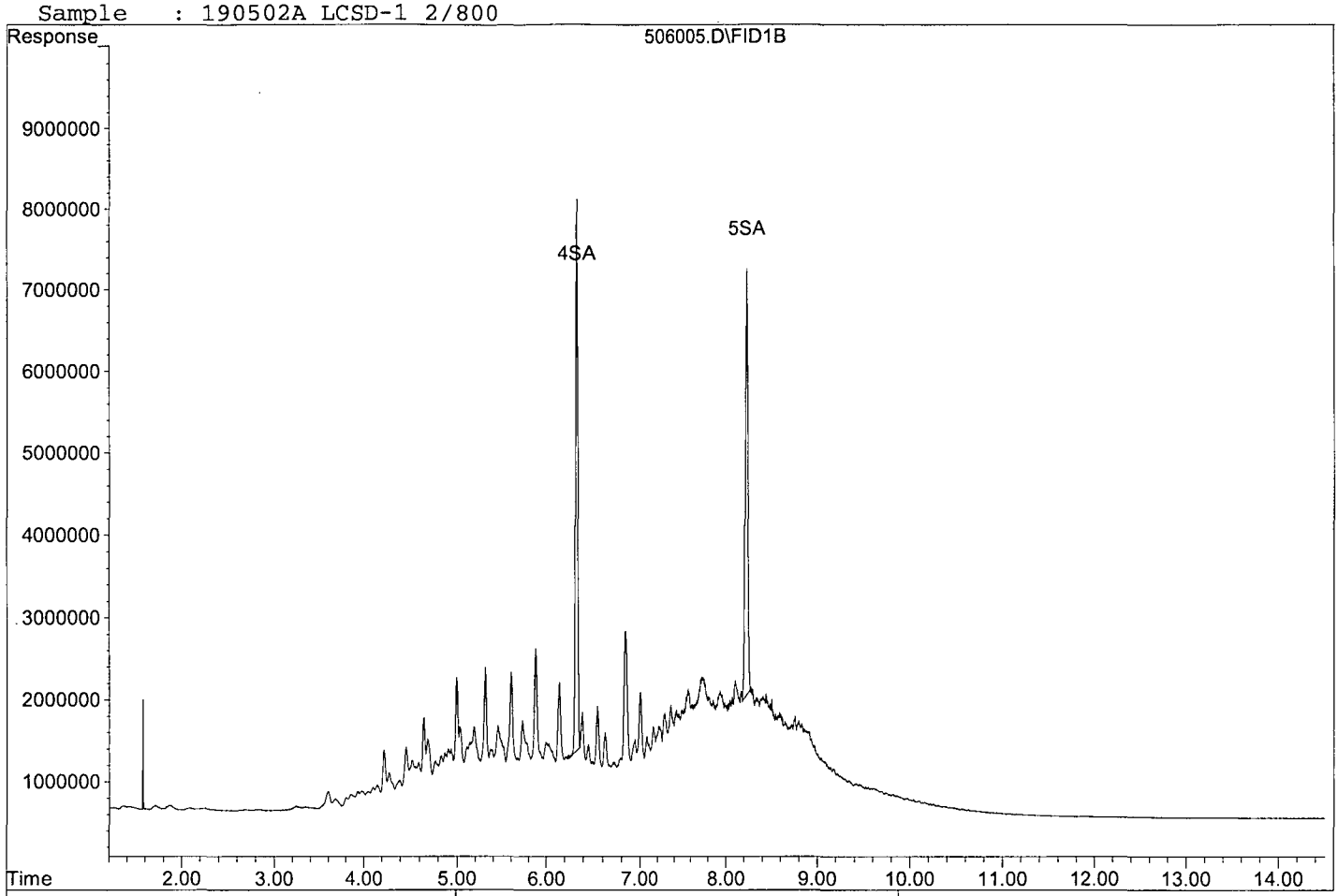
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

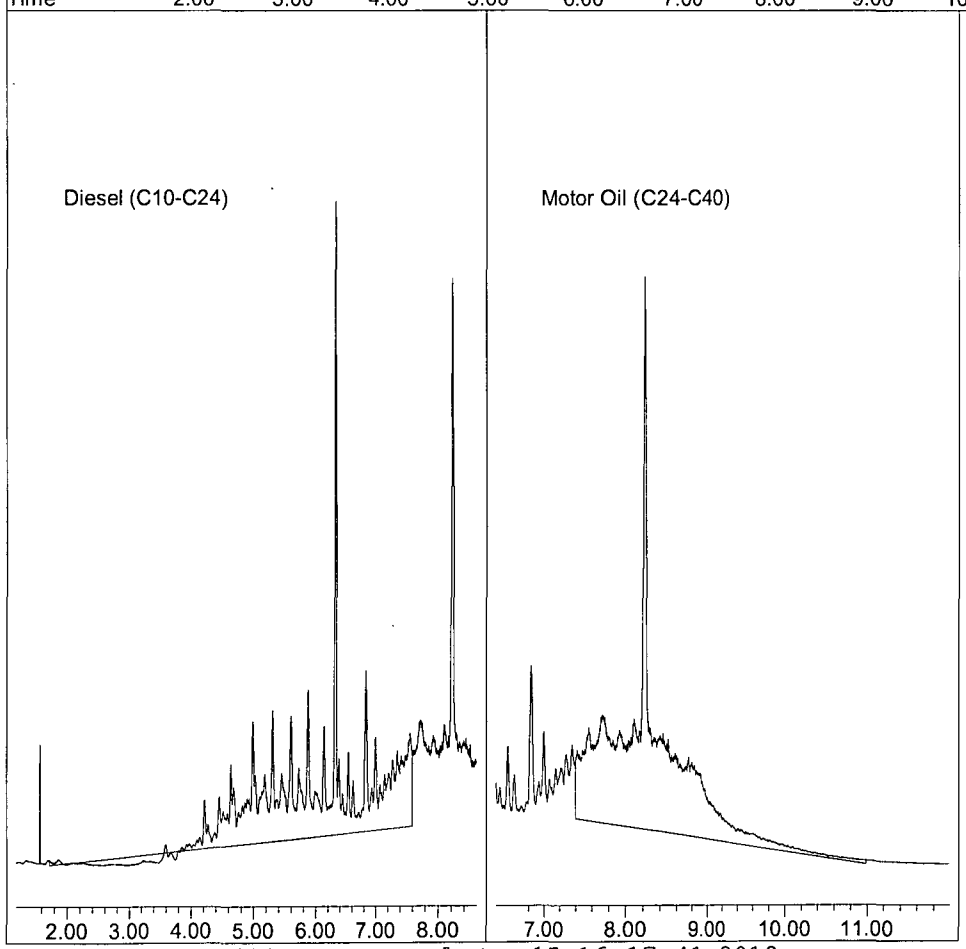
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 107765211 | 66.563 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 88.75% | |
| 5) SA Octacosane(S) | 8.23 | 103354341 | 68.279 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 91.04% | |
| Target Compounds | | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1030429392 | 1080.007 | ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 1000358478 | 1313.828 | ppb |

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

Data File: G:\APOLLO\DATA\190506\506005.D
Sample : 190502A LCSD-1 2/800




506005.D DOC0411.M Wed May 15 16:17:41 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506011.D Vial: 11
Acq On : 5-6-19 20:09:50 Operator: DP
Sample : AZ90051W32 MS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:48 2019 Quant Results File: DOC0411.RES

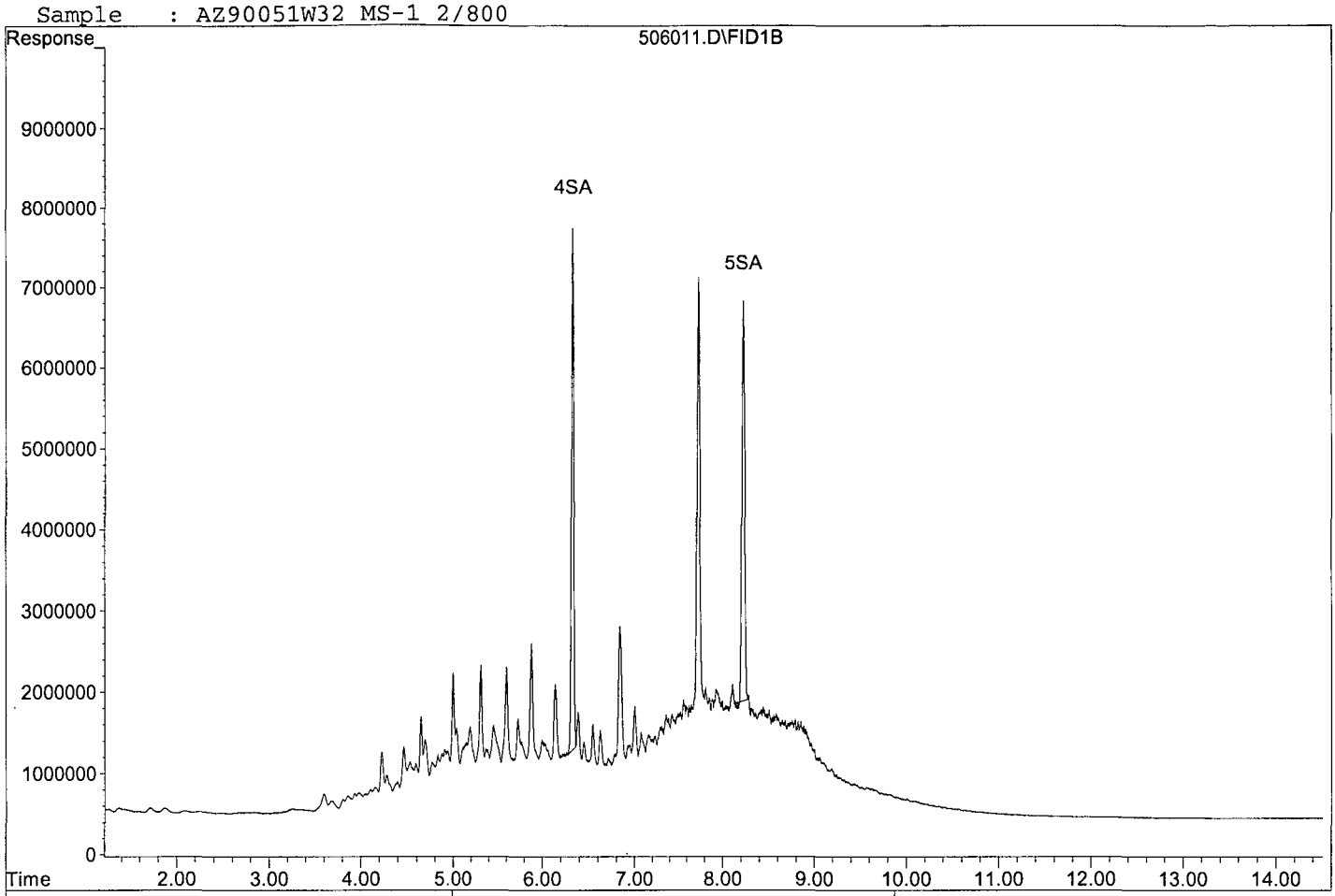
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

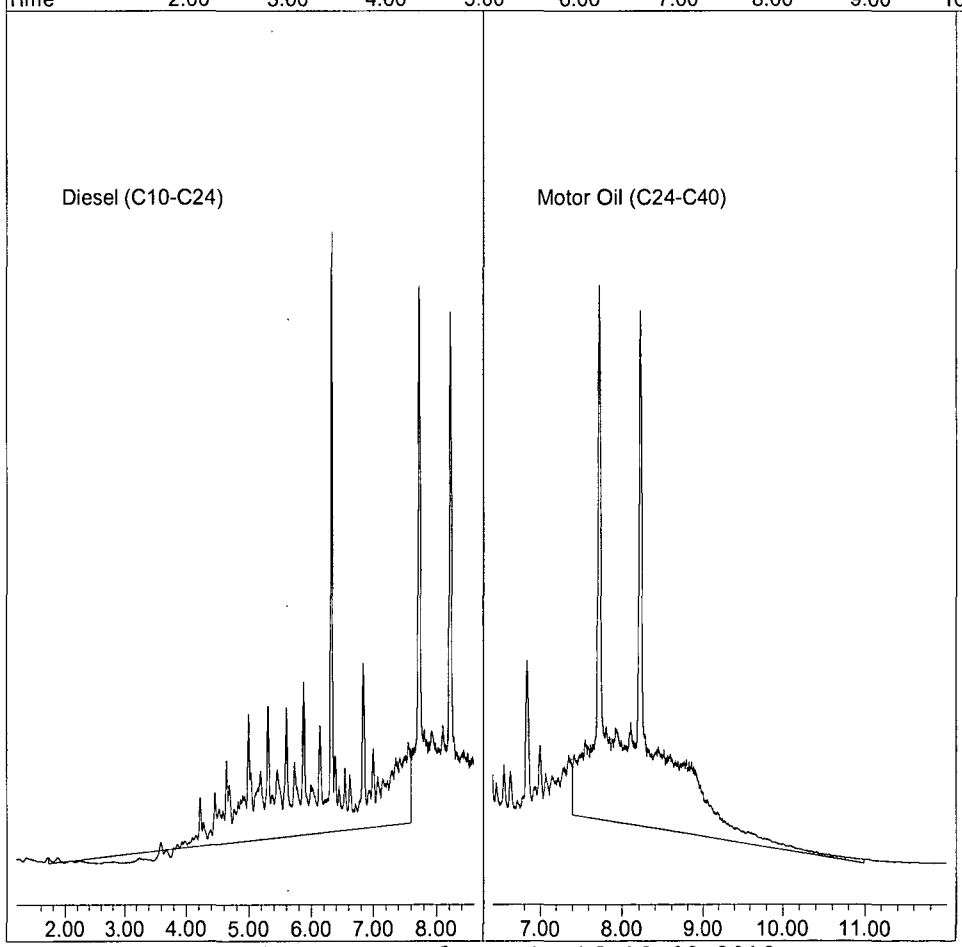
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 110214323 | 68.076 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 90.77% | |
| 5) SA Octacosane(S) | 8.22 | 103422354 | 68.324 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 91.10% | |
| Target Compounds | | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1053348497 | 1104.029 | ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 1036772946 | 1361.653 | ppb |

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

Data File: G:\APOLLO\DATA\190506\506011.D
Sample : AZ90051W32 MS-1 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190506\506012.D Vial: 12
Acq On : 5-6-19 20:29:51 Operator: DP
Sample : AZ90051W28 MSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 15 15:48 2019 Quant Results File: DOC0411.RES

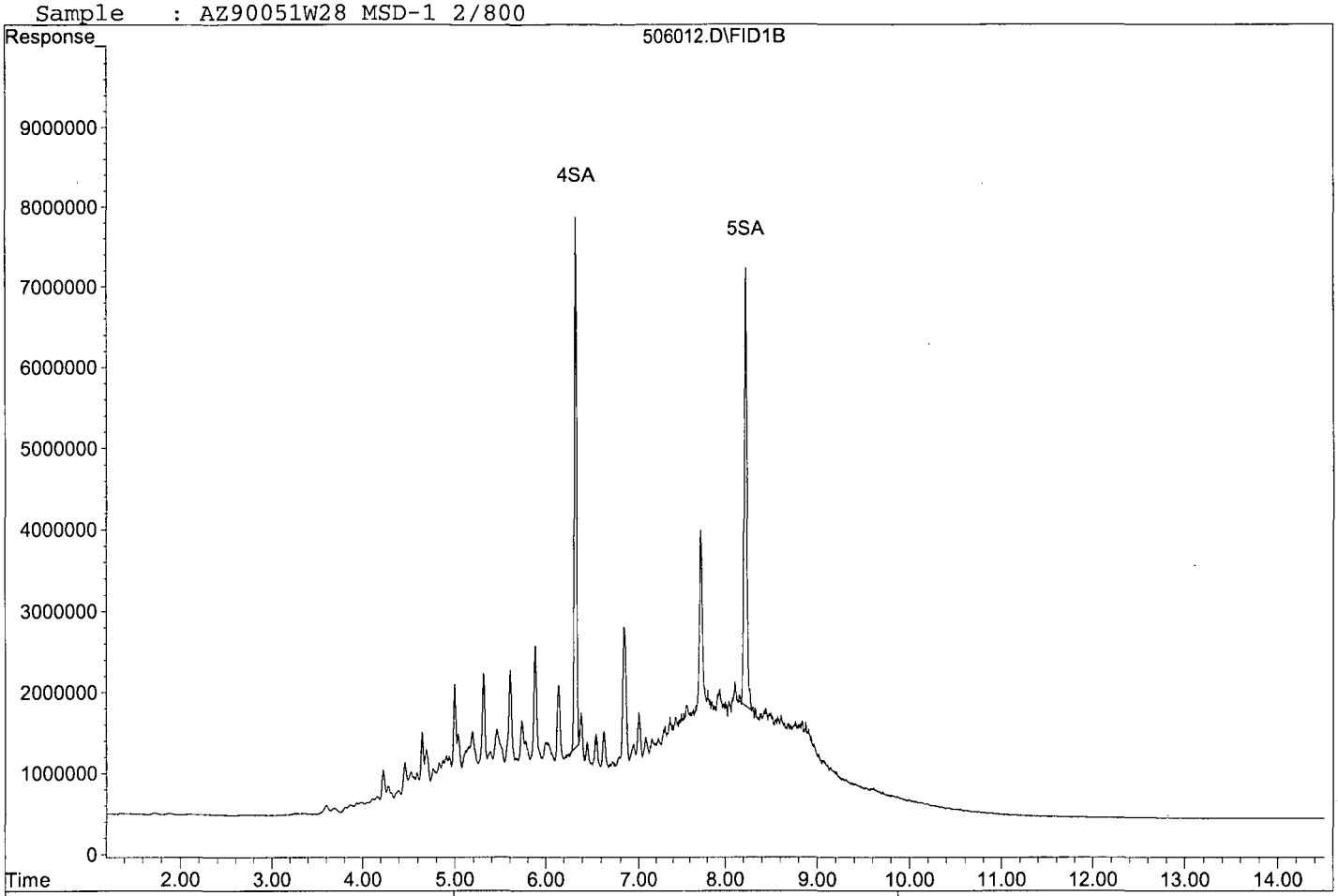
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

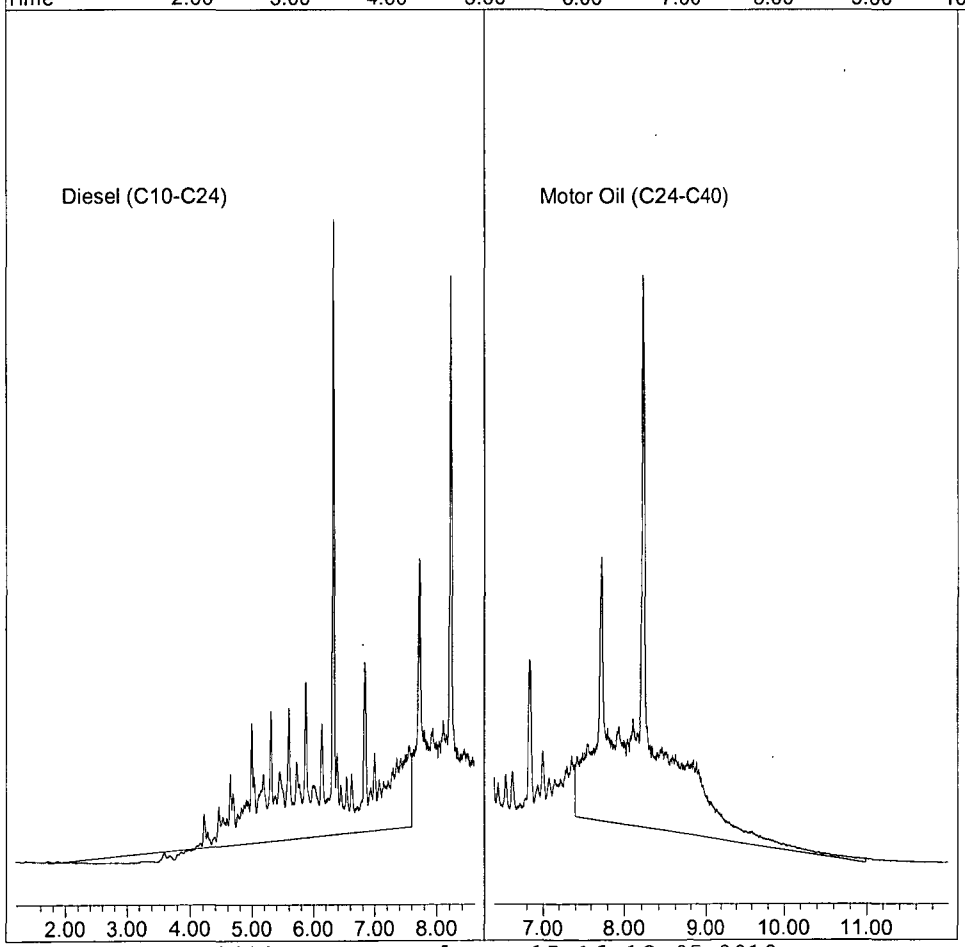
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 106301648 | 65.659 ppb |
| Surrogate Spike 75.000 | | Recovery = | 87.55% |
| 5) SA Octacosane(S) | 8.22 | 109762330 | 72.512 ppb |
| Surrogate Spike 75.000 | | Recovery = | 96.68% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1063486849 | 1114.655 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 985430157 | 1294.221 ppb |

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

Data File: G:\APOLLO\DATA\190506\506012.D
Sample : AZ90051W28 MSD-1 2/800




506012.D DOC0411.M Wed May 15 16:18:05 2019 Page 2

_LIQ005SGC

# Organic Extraction Worksheet

| Method | Continuous Liq/Liq TPH- 3520C w/SGC | Extraction Set | 190502A | Extraction Method | LIQ005SGC | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | |
|---|---|---|---|
| Spiked ID 1 | Diesel Spike 4-26-19 exp 4-26-20 | Surrogate ID 1 | THC Surrogate 4-17-19 exp 4-17-20 |
| Spiked ID 2 | Motor Oil Spike 4-8-19 exp 4-8-20 | 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: | YES |
| Spiked ID 7 | | Ext. Start Time: | 05/02/19 14:00 |
| Spiked ID 8 | | Ext. End Time: | 05/03/19 8:30 , 05/03/19 11:55 |
| | | GC Requires Extract By: | 04/30/19 0:00 |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 5/02/19 11:19:00 AM | Water Bath Temp Criteria | 35,35,35 ° |
| pH2 | | | | |
| pH3 | | | | |

**Spiked By:** DL **Date** 05/02/19 **Witnessed By:** YL **Date** 05/02/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190502A Blk | | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | |
| | | | | | | equip | e-hp51 e-wb1 | | | | |
| 2 | 190502A LCS-1 | | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | |
| | | | | | | equip | E-HP50 E-WB2 | | | | |
| 3 | 190502A LCSD-1 | | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | |
| | | | | | | equip | E-HP49 E-WB3 | | | | |
| 4 | AZ89958 MS-1 | AZ89958W39 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88687 |
| | | | | | | equip | E-HP47 E-WB1 | | | | |
| 5 | AZ89958 MSD-1 | AZ89958W38 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88687 |
| | | | | | | equip | E-HP25 E-WB2 | | | | |
| 6 | AZ89958 | AZ89958W40 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88687 |
| | | | | | | equip | E-HP48 E-WB3 | | | | |
| 7 | AZ89959 | AZ89959W08 | | | 0.100 | 1 | 790 | 2 | 2 | 05/02/19 11:30 | 88687 |
| | | | | | | equip | E-HP26 E-WB1 | | | | |
| 8 | AZ89961 | AZ89961W21 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88687 |
| | | | | | | equip | E-HP27 E-WB2 | | | | |
| 9 | AZ90051 MS-1 | AZ90051W32 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88701 |
| | | | | | | equip | E-HP29 E-WB3 | | | | |
| 10 | AZ90051 MSD-1 | AZ90051W28 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88701 |
| | | | | | | equip | E-HP30 E-WB1 | | | | |
| 11 | AZ90051 | AZ90051W34 | | | 0.100 | 1 | 810 | 2 | 2 | 05/02/19 11:30 | 88701 |
| | | | | | | equip | E-HP28 E-WB2 | | | | |
| 12 | AZ90052 | AZ90052W08 | | | 0.100 | 1 | 790 | 2 | 2 | 05/02/19 11:30 | 88701 |
| | | | | | | equip | E-HP17 E-WB3 | | | | |
| 13 | AZ90213 | AZ90213W18 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88736 |
| | | | | | | equip | E-HP16 E-WB1 | | | | |
| 14 | AZ90215 | AZ90215W21 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88736 |
| | | | | | | equip | E-HP15 E-WB2 | | | | |
| 15 | AZ90447 | AZ90447W11 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88764 |
| | | | | | | equip | E-HP14 E-WB3 | | | | |
| 16 | AZ90448 | AZ90448W08 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88764 |
| | | | | | | equip | E-HP13 E-WB1 | | | | |

| Solvent and Lot# | |
|---|---|
| 1+1 HCL (5mLs) | 3-1-19 |
| PH Strips | HC 601354 |
| Filter Paper | 400148 |
| B. Sodium Sulfate | 18D105205 |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | BT |
| Date | 5/3/19 |
| Time | 13:08 |
| Refrigerator | Hibard |

| | Technician's Initials |
|---|---|
| Scanned By | DL,FM |
| Sample Preparation | DL |
| Extraction | DL |
| Concentration | DL |

| Modified | 05/06/19 9:28:41 AM |
|---|---|

**Reviewed By:** Kg **Date** 5/6/19

# Organic Extraction Worksheet

| Method | Continuous Liq/Liq TPH- 3520C w/SGC | Extraction Set | 190502A | Extraction Method | LIQ005SGC | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | Diesel Spike 4-26-19 exp 4-26-20 | | Surrogate ID 1 | THC Surrogate 4-17-19 exp 4-17-20 | |
| Spiked ID 2 | Motor Oil Spike 4-8-19 exp 4-8-20 | | 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 05/02/19 14:00 | |
| Spiked ID 8 | | | Ext. End Time: | 05/03/19 8:30 ,05/03/19 11:55 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 5/02/19 11:19:00 AM | Water Bath Temp Criteria | 35,35,35 ° |
| pH2 | | | | |
| pH3 | | | | |

**Spiked By:** DL **Date** 05/02/19 **Witnessed By:** YL **Date** 05/02/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | AZ90450 | AZ90450W21 | | | 0.100 | 1 | 800 | 2 | 2 | 05/02/19 11:30 | 88764 |
| | | | | | | equip | E-HP12 E-WB2 | | | | |

KY 5/6/19

| Solvent and Lot# | |
|---|---|
| 1+1 HCL (5mLs) | 3-1-19 |
| PH Strips | HC 601354 |
| Filter Paper | 400148 |
| B. Sodium Sulfate | 18D105205 |
| | |
| | |
| | |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | |
| Date | |
| Time | |
| Refrigerator | |

| | Technician's Initials |
|---|---|
| Scanned By | DL,FM |
| Sample Preparation | DL |
| Extraction | DL |
| Concentration | DL |

| Modified | 05/06/19 9:28:41 AM |
|---|---|

**Reviewed By:** KY **Date** 5/6/19

# Injection Log

Directory: G:\APOLLO\DATA\190411\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 2 | 411002.D | 1 | Diesel / Motor Oil - 1 1/15/19 | water | 4-11-19 12:41:17 |
| 2 | 3 | 411003.D | 1 | Diesel / Motor Oil - 2 4/11/19 | water | 4-11-19 13:00:16 |
| 3 | 4 | 411004.D | 1 | Diesel / Motor Oil - 3 4/11/19 | water | 4-11-19 13:19:58 |
| 4 | 5 | 411005.D | 1 | Diesel / Motor Oil - 4 4/11/19 | water | 4-11-19 13:39:40 |
| 5 | 6 | 411006.D | 1 | Diesel / Motor Oil - 5 4/11/19 | water | 4-11-19 13:59:26 |
| 6 | 7 | 411007.D | 1 | Diesel / Motor Oil - 6 4/11/19 | water | 4-11-19 14:19:10 |
| 7 | 8 | 411008.D | 1 | Diesel / Motor Oil - 2nd Source 1/15/19 | water | 4-11-19 14:39:01 |
| 8 | 2 | 506002.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 5-6-19 17:10:08 |
| 9 | 3 | 506003.D | 2.5 | 190502A BLK 2/800 | water | 5-6-19 17:30:03 |
| 10 | 4 | 506004.D | 2.5 | 190502A LCS-1 2/800 | water | 5-6-19 17:50:07 |
| 11 | 5 | 506005.D | 2.5 | 190502A LCSD-1 2/800 | water | 5-6-19 18:10:08 |
| 12 | 11 | 506011.D | 2.5 | AZ90051W32 MS-1 2/800 | water | 5-6-19 20:09:50 |
| 13 | 12 | 506012.D | 2.5 | AZ90051W28 MSD-1 2/800 | water | 5-6-19 20:29:51 |
| 14 | 13 | 506013.D | 2.46914 | AZ90051W34 2/810 | water | 5-6-19 20:49:47 |
| 15 | 14 | 506014.D | 2.53165 | AZ90052W08 2/790 | water | 5-6-19 21:09:42 |
| 16 | 16 | 506016.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 5-6-19 21:49:32 |

# ORGANICS
# Calibration Data

PAH by GCMS SIM
EPA 8270 SIM

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/26/19
Matrix: Instrument: Linus
Initials: MA

| | | | 0326L013.D | 0326L012.D | 0326L005 D | 0326L006 D | 0326L007.D | 0326L008.D | 0326L009.D | 0326L010 D | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Compound | 0.1 | 0.2 | 0.5 | 1 | 5 | 10 | 50 | 100 | | | Avg | %RSD | Type | r^2 | Q | MRF |
| 1 | I | Napthalene-D8(IS) | | | | | | | | | | | | | | | | |
| 2 | S | Surrogate Recovery (NBZ) | | 0.3927 | 0.5340 | 0.4444 | 0.4714 | 0.4510 | 0.4089 | 0.4199 | | | 0.45 | 11 | S | | | |
| 3 | TM | Naphthalene | 1.529 | 1.407 | 1.448 | 1.163 | 1.400 | 1.287 | 1.154 | 1.122 | | | 1.3 | 12 | TM | | | 0.700 |
| 4 | S | 2-Methylnaphthalene-D10 (2M | 1.387 | 1.168 | 1.650 | 1.306 | 1.518 | 1.400 | 1.203 | 1.197 | | | 1.4 | 13 | S | | | |
| 5 | TM | 2-Methylnaphthalene | 0.7306 | 0.7642 | 0.8355 | 0.6668 | 0.8429 | 0.7635 | 0.6758 | 0.6477 | | | 0.74 | 10 | TM | | | 0.400 |
| 6 | TM | 1-Methylnaphthalene | 0.9900 | 0.8580 | 0.9185 | 0.7134 | 0.8390 | 0.7536 | 0.6593 | | | | 0.82 | 14 | TM | | | |
| 7 | I | Acenaphthene-D10(IS) | | | | | | | | | | | | | | | | |
| 8 | S | Surrogate Recovery (FBP) | 1.722 | 1.658 | 2.258 | 1.803 | 2.110 | 1.951 | 1.630 | 1.592 | | | 1.8 | 13 | S | | | |
| 9 | TM | Acenaphthylene | 5.900 | 5.710 | 6.401 | 5.037 | 6.465 | 5.885 | 4.974 | 4.865 | | | 5.7 | 11 | TM | | | 0.900 |
| 10 | *TM | Acenaphthene | 1.794 | 1.633 | 1.703 | 1.318 | 1.581 | 1.463 | 1.266 | 1.170 | | | 1.5 | 15 | *TM | | | 0.900 |
| 11 | TM | Fluorene | 2.218 | 1.880 | 2.093 | 1.632 | 2.029 | 1.885 | 1.631 | 1.570 | | | 1.9 | 13 | TM | | | 0.900 |
| 12 | I | Phenanthrene-D10(IS) | | | | | | | | | | | | | | | | |
| 13 | TM | Phenanthrene | 1.607 | 1.544 | 1.673 | 1.305 | 1.635 | 1.484 | 1.218 | 1.160 | | | 1.5 | 14 | TM | | | 0.700 |
| 14 | TM | Anthracene | 1.486 | 1.420 | 1.591 | 1.220 | 1.624 | 1.473 | 1.238 | 1.116 | | | 1.4 | 13 | TM | | | 0.700 |
| 15 | S | Fluoranthene-D10 (FRT) | 1.901 | 1.831 | 2.624 | 2.092 | 2.484 | 2.311 | 1.987 | 1.872 | | | 2.1 | 14 | S | | | |
| 16 | *TM | Fluoranthene | 2.537 | 2.471 | 2.787 | 2.228 | 2.784 | 2.506 | 2.112 | 1.908 | | | 2.4 | 13 | *TM | | | 0.600 |
| 17 | I | Chrysene-D12(IS) | | | | | | | | | | | | | | | | |
| 18 | TM | Pyrene | 1.899 | 1.728 | 1.916 | 1.501 | 1.868 | 1.718 | 1.481 | 1.425 | | | 1.7 | 12 | TM | | | 0.600 |
| 19 | S | Surrogate Recovery (TPH) | 0.8126 | 0.7648 | 1.100 | 0.8569 | 0.9951 | 0.9476 | 0.8279 | 0.7820 | | | 0.89 | 13 | S | | | |
| 20 | TM | Benz (a) anthracene | 1.413 | 1.328 | 1.559 | 1.165 | 1.523 | 1.457 | 1.326 | 1.311 | | | 1.4 | 9.3 | TM | | | 0.800 |
| 21 | TM | Chrysene | 1.693 | 1.584 | 1.532 | 1.291 | 1.505 | 1.343 | 1.166 | 1.155 | | | 1.4 | 14 | TM | | | 0.700 |
| 22 | TM | Indeno (1,2,3-cd) pyrene | 1.684 | 1.533 | 1.535 | 1.269 | 1.597 | 1.490 | 1.366 | 1.338 | | | 1.5 | 9.5 | TM | | | 0.500 |
| 23 | I | Perylene-D12(IS) | | | | | | | | | | | | | | | | |
| 24 | TM | Benzo (b) fluoranthene | 1.158 | 1.272 | 1.365 | 1.090 | 1.474 | 1.408 | 1.281 | 1.294 | | | 1.3 | 9.8 | TM | | | 0.700 |
| 25 | TM | Benzo (k) fluoranthene | 1.676 | 1.496 | 1.659 | 1.361 | 1.632 | 1.459 | 1.255 | 1.199 | | | 1.5 | 13 | TM | | | 0.700 |
| 26 | *TM | Benzo (a) pyrene | 1.243 | 1.369 | 1.446 | 1.176 | 1.471 | 1.369 | 1.224 | 1.197 | | | 1.3 | 8.8 | *TM | | | 0.700 |
| 27 | TM | Dibenz (a,h) anthracene | 1.391 | 1.269 | 1.295 | 1.077 | 1.349 | 1.244 | 1.099 | 1.054 | | | 1.2 | 11 | TM | | | 0.400 |
| 28 | TM | Benzo (g,h,i) perylene | 1.468 | 1.326 | 1.320 | 1.090 | 1.361 | 1.265 | 1.118 | 1.085 | | | 1.3 | 11 | TM | | | 0.500 |
| 29 | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | |
| 33 | | | | | | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | | |

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L005.D Vial: 5
Acq On : 26 Mar 19 10:39 Operator: MA
Sample : 0.5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:52 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:51:40 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 29983 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 14175 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 23888 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 35718 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 34636 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.14 | 82 | 1601 | 0.30171 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = | 6.040% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.75 | 152 | 4947 | 0.35041 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = | 7.000% | | |
| 8) Surrogate Recovery (FBP) | 5.23 | 172 | 3201 | 0.31519 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = | 6.300% | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 6268 | 0.36113 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = | 7.220% | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 3930 | 0.33442 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = | 6.680% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 8684 | 0.57398 ppb | | 98 |
| 5) 2-Methylnaphthalene | 4.78 | 142 | 5010 | 0.55092 ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.89 | 142 | 5508 | 0.59694 ppb | | 95 |
| 9) Acenaphthylene | 5.82 | 152 | 18147 | 0.56976 ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 4827 | 0.52888 ppb | | 97 |
| 11) Fluorene | 6.63 | 166 | 5934 | 0.55241 ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 7991 | 0.59247 ppb | | 99 |
| 14) Anthracene | 7.80 | 178 | 7601 | 0.57039 ppb | | 99 |
| 16) Fluoranthene | 9.11 | 202 | 13317 | 0.62414 ppb | # | 89 |
| 18) Pyrene | 9.37 | 202 | 13684 | 0.61385 ppb | | 98 |
| 20) Benz (a) anthracene | 10.78 | 228 | 11134 | 0.56445 ppb | | 99 |
| 21) Chrysene | 10.84 | 228 | 10947 | 0.57620 ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.70 | 276 | 10967 | 0.55654 ppb | # | 98 |
| 24) Benzo (b) fluoranthene | 12.50 | 252 | 9458 | 0.50818 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.54 | 252 | 11491 | 0.59936 ppb | | 96 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 10016 | 0.55876 ppb | | 99 |
| 27) Dibenz (a,h) anthracene | 14.72 | 278 | 8973 | 0.54057 ppb | | 99 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 9141 | 0.54410 ppb | | 98 |

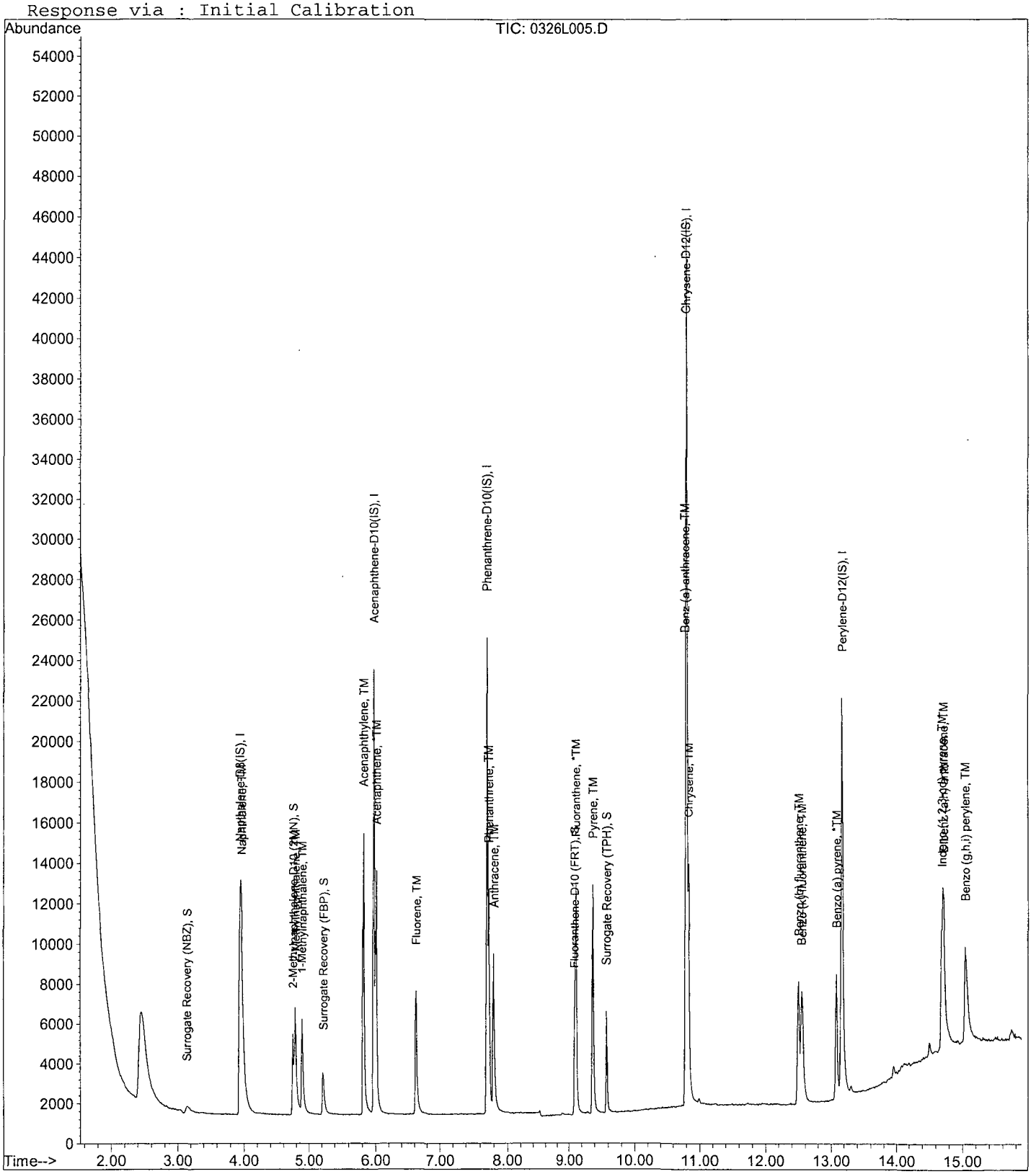
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L005.D Vial: 5
Acq On : 26 Mar 19 10:39 Operator: MA
Sample : 0.5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:52 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L006.D Vial: 6
Acq On : 26 Mar 19 11:01 Operator: MA
Sample : 1 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:52 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:51:40 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 35893 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 17165 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 29866 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 43804 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 41942 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.15 | 82 | 3190 | 0.50218 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = 10.040% | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.74 | 152 | 9372 | 0.55454 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = 11.100% | | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 6188 | 0.50317 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 10.060% | | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 12497 | 0.57589 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 11.520% | | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 7507 | 0.52088 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 10.420% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 16693 | 0.92168 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.78 | 142 | 9573 | 0.87935 ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.89 | 142 | 10243 | 0.92731 ppb | | 95 |
| 9) Acenaphthylene | 5.82 | 152 | 34586 | 0.89675 ppb | | 99 |
| 10) Acenaphthene | 6.01 | 154 | 9052 | 0.81904 ppb | | 96 |
| 11) Fluorene | 6.62 | 166 | 11205 | 0.86141 ppb | | 93 |
| 13) Phenanthrene | 7.73 | 178 | 15588 | 0.92440 ppb | | 98 |
| 14) Anthracene | 7.80 | 178 | 14573 | 0.87468 ppb | | 99 |
| 16) Fluoranthene | 9.11 | 202 | 26618 | 0.99782 ppb | # | 93 |
| 18) Pyrene | 9.37 | 202 | 26304 | 0.96215 ppb | | 95 |
| 20) Benz (a) anthracene | 10.78 | 228 | 20420 | 0.84412 ppb | | 98 |
| 21) Chrysene | 10.84 | 228 | 22628 | 0.97118 ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 22236 | 0.92011 ppb | | 98 |
| 24) Benzo (b) fluoranthene | 12.49 | 252 | 18288 | 0.81146 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.54 | 252 | 22834 | 0.98354 ppb | | 98 |
| 26) Benzo (a) pyrene | 13.07 | 252 | 19723 | 0.90862 ppb | # | 95 |
| 27) Dibenz (a,h) anthracene | 14.71 | 278 | 18076 | 0.89928 ppb | | 98 |
| 28) Benzo (g,h,i) perylene | 15.03 | 276 | 18288 | 0.89893 ppb | | 98 |

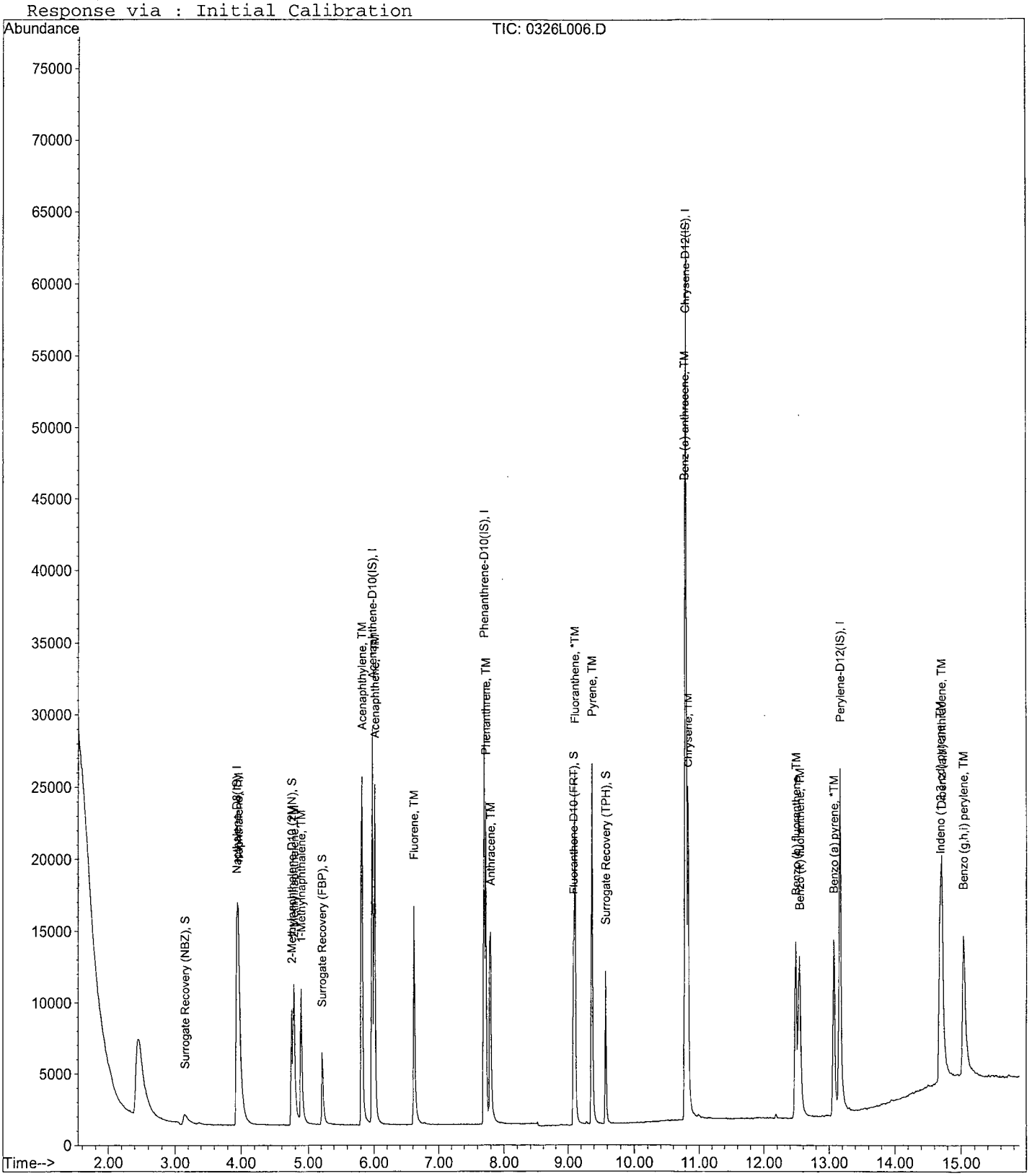
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L006.D Vial: 6
Acq On : 26 Mar 19 11:01 Operator: MA
Sample : 1 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:52 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L007.D Vial: 7
Acq On : 26 Mar 19 11:23 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:55 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 31036 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 14429 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 24630 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 36703 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 35401 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.13 | 82 | 14629 | 2.66335 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 53.260% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 47125 | 3.22473 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 64.500% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 30446 | 2.94510 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 58.900% | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 61183 | 3.41884 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 68.380% | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 36522 | 3.02438 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 60.480% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 86912 | 5.54970 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 52323 | 5.55839 ppb | | 100 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 52078 | 5.45251 ppb | | 100 |
| 9) Acenaphthylene | 5.81 | 152 | 186553 | 5.75411 ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 45619 | 4.91037 ppb | | 100 |
| 11) Fluorene | 6.62 | 166 | 58567 | 5.35620 ppb | | 100 |
| 13) Phenanthrene | 7.73 | 178 | 80559 | 5.79291 ppb | | 100 |
| 14) Anthracene | 7.79 | 178 | 80019 | 5.82381 ppb | | 100 |
| 16) Fluoranthene | 9.11 | 202 | 137128 | 6.23327 ppb | | 100 |
| 18) Pyrene | 9.36 | 202 | 137146 | 5.98710 ppb | | 100 |
| 20) Benz (a) anthracene | 10.78 | 228 | 111765 | 5.51397 ppb | | 100 |
| 21) Chrysene | 10.83 | 228 | 110485 | 5.65939 ppb | | 100 |
| 22) Indeno (1,2,3-cd) pyrene | 14.66 | 276 | 117203 | 5.78805 ppb | # | 100 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 104380 | 5.48718 ppb | | 100 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 115527 | 5.89556 ppb | # | 82 |
| 26) Benzo (a) pyrene | 13.07 | 252 | 104139 | 5.68402 ppb | | 100 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 95496 | 5.62874 ppb | | 100 |
| 28) Benzo (g,h,i) perylene | 15.01 | 276 | 96360 | 5.61166 ppb | | 100 |

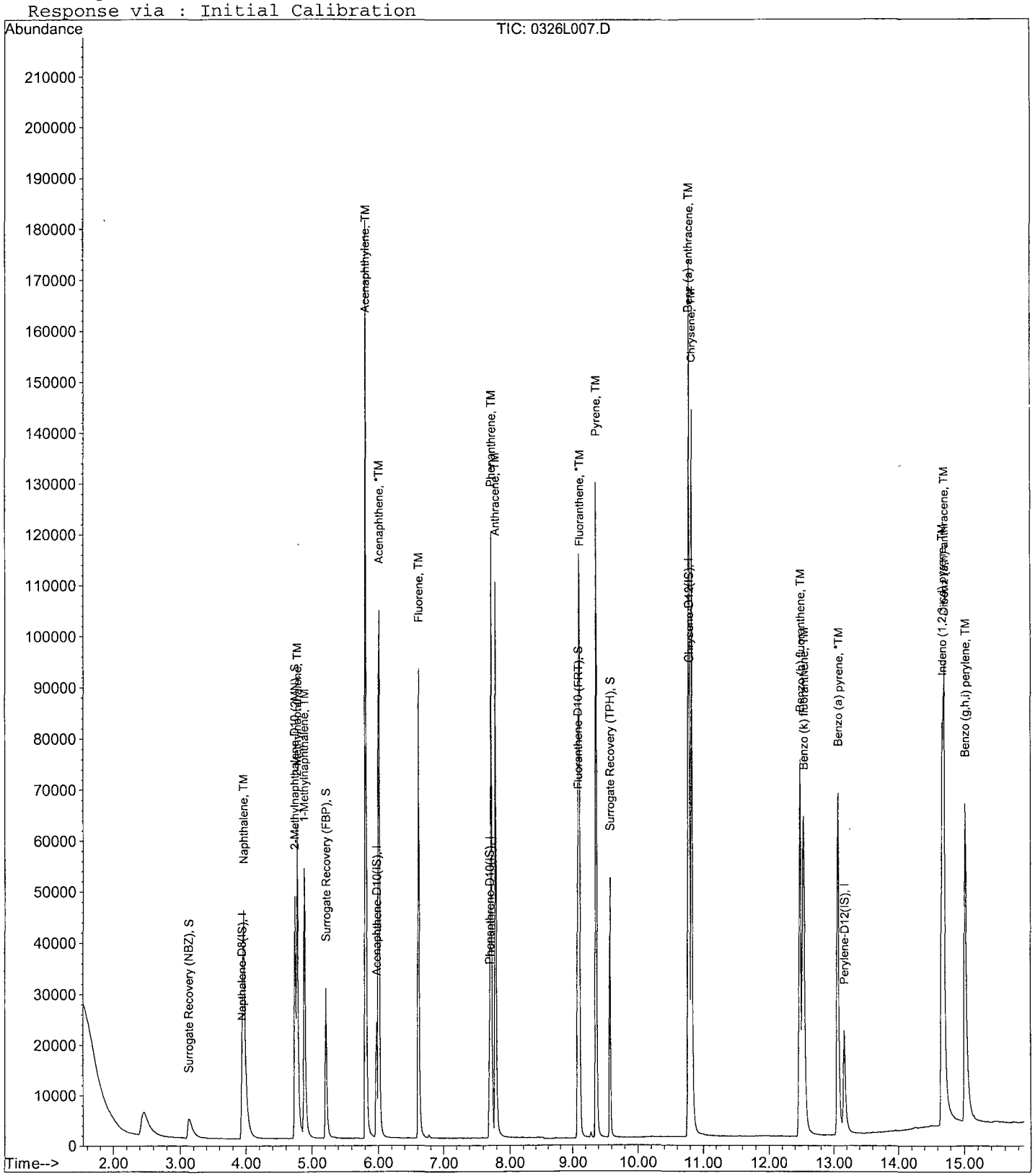
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L007.D Vial: 7
Acq On : 26 Mar 19 11:23 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:55 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L008.D Vial: 8
Acq On : 26 Mar 19 11:45 Operator: MA
Sample : 10 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 12:03 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 35838 | 2.50000 | ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 16640 | 2.50000 | ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 28622 | 2.50000 | ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 41948 | 2.50000 | ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 40987 | 2.50000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.13 | 82 | 32326 | 5.09668 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 101.940% | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 100381 | 5.94861 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 118.980% | | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 64921 | 5.44551 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 108.920% | | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 132302 | 6.36178 | ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 127.240% | | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 79496 | 5.75993 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 115.200% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 184477 | 10.20127 | ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 109454 | 10.06955 | ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 108031 | 9.79519 | ppb | | 98 |
| 9) Acenaphthylene | 5.81 | 152 | 391698 | 10.47636 | ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 97387 | 9.08975 | ppb | | 99 |
| 11) Fluorene | 6.62 | 166 | 125480 | 9.95086 | ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 169913 | 10.51414 | ppb | | 100 |
| 14) Anthracene | 7.79 | 178 | 168680 | 10.56433 | ppb | | 100 |
| 16) Fluoranthene | 9.10 | 202 | 286894 | 11.22214 | ppb | # | 86 |
| 18) Pyrene | 9.36 | 202 | 288195 | 11.00804 | ppb | | 99 |
| 20) Benz (a) anthracene | 10.78 | 228 | 244430 | 10.55125 | ppb | | 100 |
| 21) Chrysene | 10.83 | 228 | 225305 | 10.09781 | ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.66 | 276 | 249983 | 10.80176 | ppb | | 99 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 230916 | 10.48469 | ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 239205 | 10.54342 | ppb | # | 81 |
| 26) Benzo (a) pyrene | 13.05 | 252 | 224453 | 10.58124 | ppb | # | 96 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 203908 | 10.38077 | ppb | | 96 |
| 28) Benzo (g,h,i) perylene | 15.01 | 276 | 207384 | 10.43132 | ppb | | 94 |

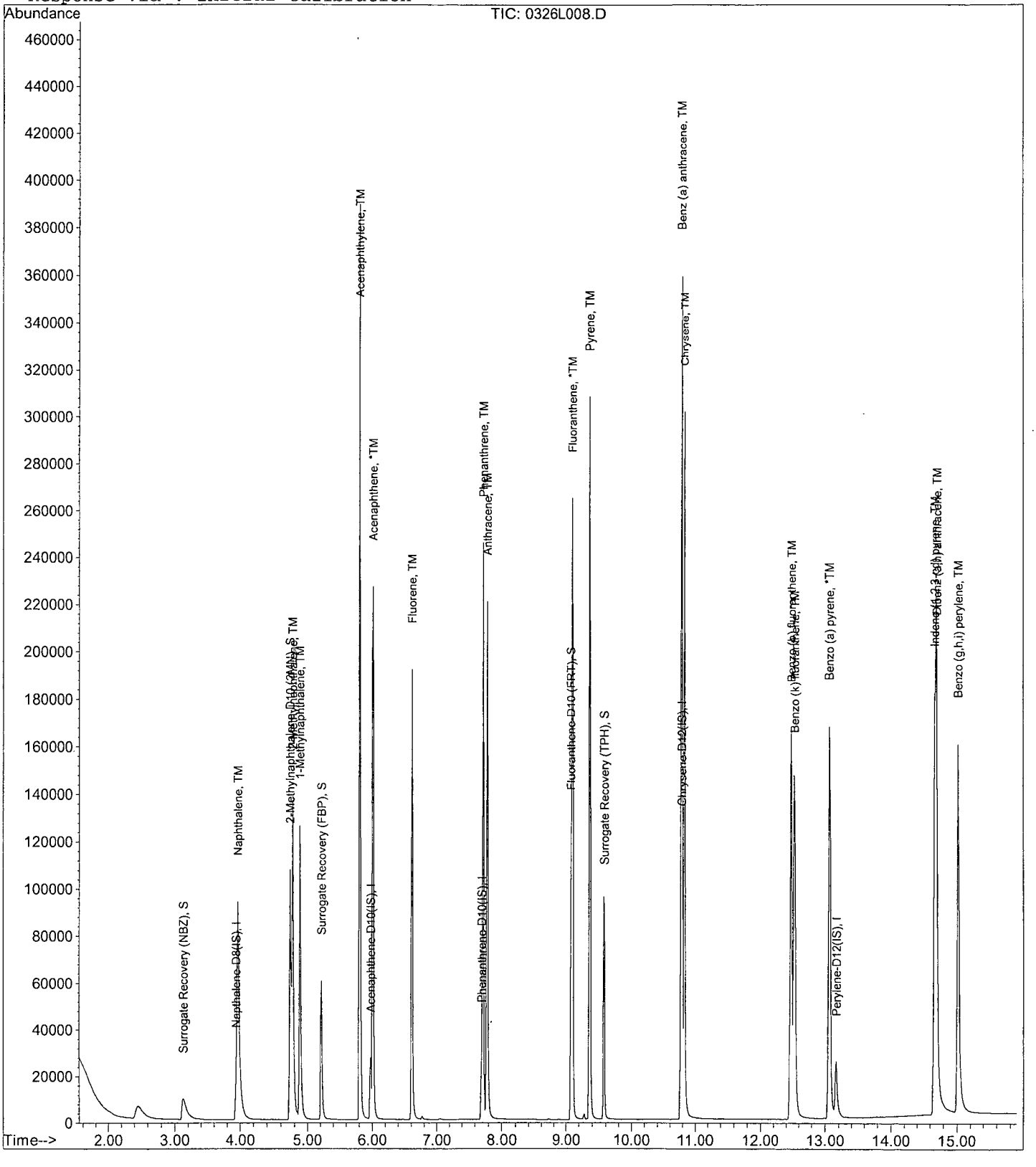
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L008.D Vial: 8
Acq On : 26 Mar 19 11:45 Operator: MA
Sample : 10 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 12:03 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L009.D Vial: 9
Acq On : 26 Mar 19 12:08 Operator: MA
Sample : 50 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 12:40 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 34439 | 2.50000 | ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 16178 | 2.50000 | ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 28297 | 2.50000 | ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.80 | 240 | 40379 | 2.50000 | ppb | | 0.01 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 41022 | 2.50000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.12 | 82 | 140833 | 21.64154 | ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery = 432.840% | | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 414181 | 23.25797 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 465.160% | | | | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 263684 | 21.46228 | ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery = 429.240% | | | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 562390 | 24.48515 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 489.700% | | | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 334289 | 23.27858 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 465.580% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 794731 | 44.68961 | ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 465489 | 44.02234 | ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 454120 | 41.81636 | ppb | | 98 |
| 9) Acenaphthylene | 5.81 | 152 | 1609229 | 43.19390 | ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 409705 | 39.67961 | ppb | | 97 |
| 11) Fluorene | 6.62 | 166 | 527629 | 42.63457 | ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 689088 | 41.97703 | ppb | | 99 |
| 14) Anthracene | 7.79 | 178 | 700455 | 43.39211 | ppb | | 99 |
| 16) Fluoranthene | 9.11 | 202 | 1195144 | 44.94761 | ppb | # | 89 |
| 18) Pyrene | 9.37 | 202 | 1195645 | 45.32840 | ppb | | 94 |
| 20) Benz (a) anthracene | 10.79 | 228 | 1070977 | 46.57534 | ppb | | 99 |
| 21) Chrysene | 10.84 | 228 | 941256 | 42.83259 | ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 1103036 | 48.39365 | ppb | | 100 |
| 24) Benzo (b) fluoranthene | 12.50 | 252 | 1050669 | 47.36694 | ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.55 | 252 | 1029810 | 43.39875 | ppb | # | 85 |
| 26) Benzo (a) pyrene | 13.09 | 252 | 1003811 | 46.19453 | ppb | # | 97 |
| 27) Dibenz (a,h) anthracene | 14.72 | 278 | 901711 | 45.25262 | ppb | | 96 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 917218 | 45.43228 | ppb | | 95 |

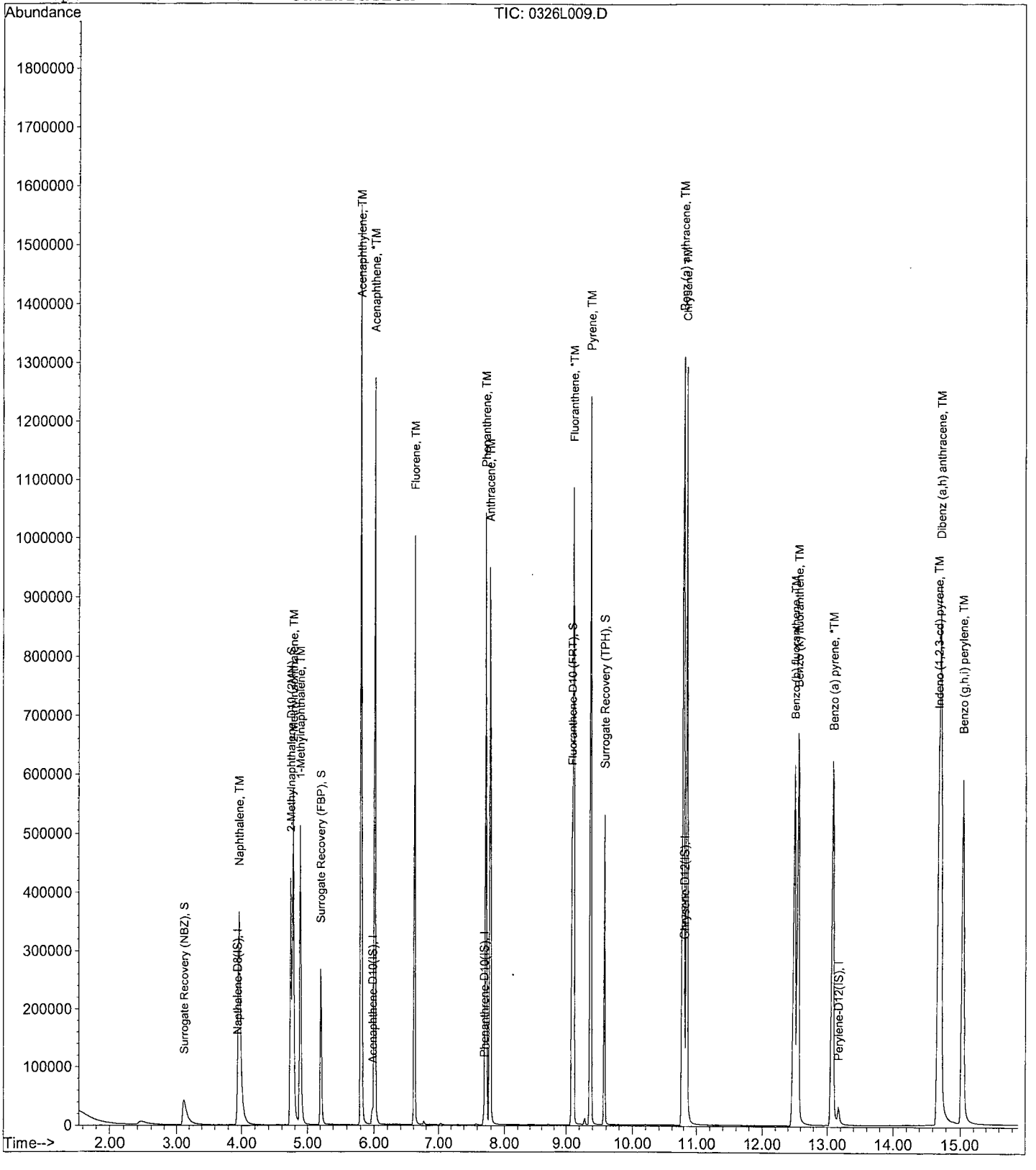
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L009.D Vial: 9
Acq On : 26 Mar 19 12:08 Operator: MA
Sample : 50 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 12:40 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L010.D Vial: 10
Acq On : 26 Mar 19 12:30 Operator: MA
Sample : 100 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 13:47 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 32479 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 15565 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 27637 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.82 | 240 | 38239 | 2.50000 ppb | | 0.02 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 38545 | 2.50000 ppb | | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 272771 | 44.44570 ppb | | -0.02 |
| Spiked Amount 5.000 | | | Recovery = 888.920% | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 777276 | 46.28122 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 925.620% | | | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 495434 | 41.91347 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery = 838.260% | | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 1034959 | 46.13577 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 922.720% | | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 598059 | 43.97719 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 879.540% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 1458290 | 86.95172 ppb | | 99 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 841432 | 84.37826 ppb | | 100 |
| 6) 1-Methylnaphthalene | 4.89 | 142 | 836950 | 81.71899 ppb | | 93 |
| 9) Acenaphthylene | 5.81 | 152 | 3029044 | 84.50567 ppb | | 99 |
| 10) Acenaphthene | 6.01 | 154 | 728333 | 73.31651 ppb | | 92 |
| 11) Fluorene | 6.62 | 166 | 977411 | 82.08923 ppb | | 98 |
| 13) Phenanthrene | 7.74 | 178 | 1281823 | 79.94928 ppb | | 99 |
| 14) Anthracene | 7.80 | 178 | 1233503 | 78.23844 ppb | | 99 |
| 16) Fluoranthene | 9.12 | 202 | 2109540 | 81.23134 ppb | # | 89 |
| 18) Pyrene | 9.38 | 202 | 2180307 | 87.28404 ppb | | 96 |
| 20) Benz (a) anthracene | 10.80 | 228 | 2005960 | 92.11857 ppb | | 98 |
| 21) Chrysene | 10.86 | 228 | 1765953 | 84.85838 ppb | # | 96 |
| 22) Indeno (1,2,3-cd) pyrene | 14.73 | 276 | 2046970 | 94.83293 ppb | # | 92 |
| 24) Benzo (b) fluoranthene | 12.52 | 252 | 1994752 | 95.70774 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.59 | 252 | 1848388 | 82.90143 ppb | # | 85 |
| 26) Benzo (a) pyrene | 13.11 | 252 | 1845710 | 90.39635 ppb | | 98 |
| 27) Dibenz (a,h) anthracene | 14.75 | 278 | 1624819 | 86.78209 ppb | | 100 |
| 28) Benzo (g,h,i) perylene | 15.08 | 276 | 1672824 | 88.18424 ppb | # | 87 |

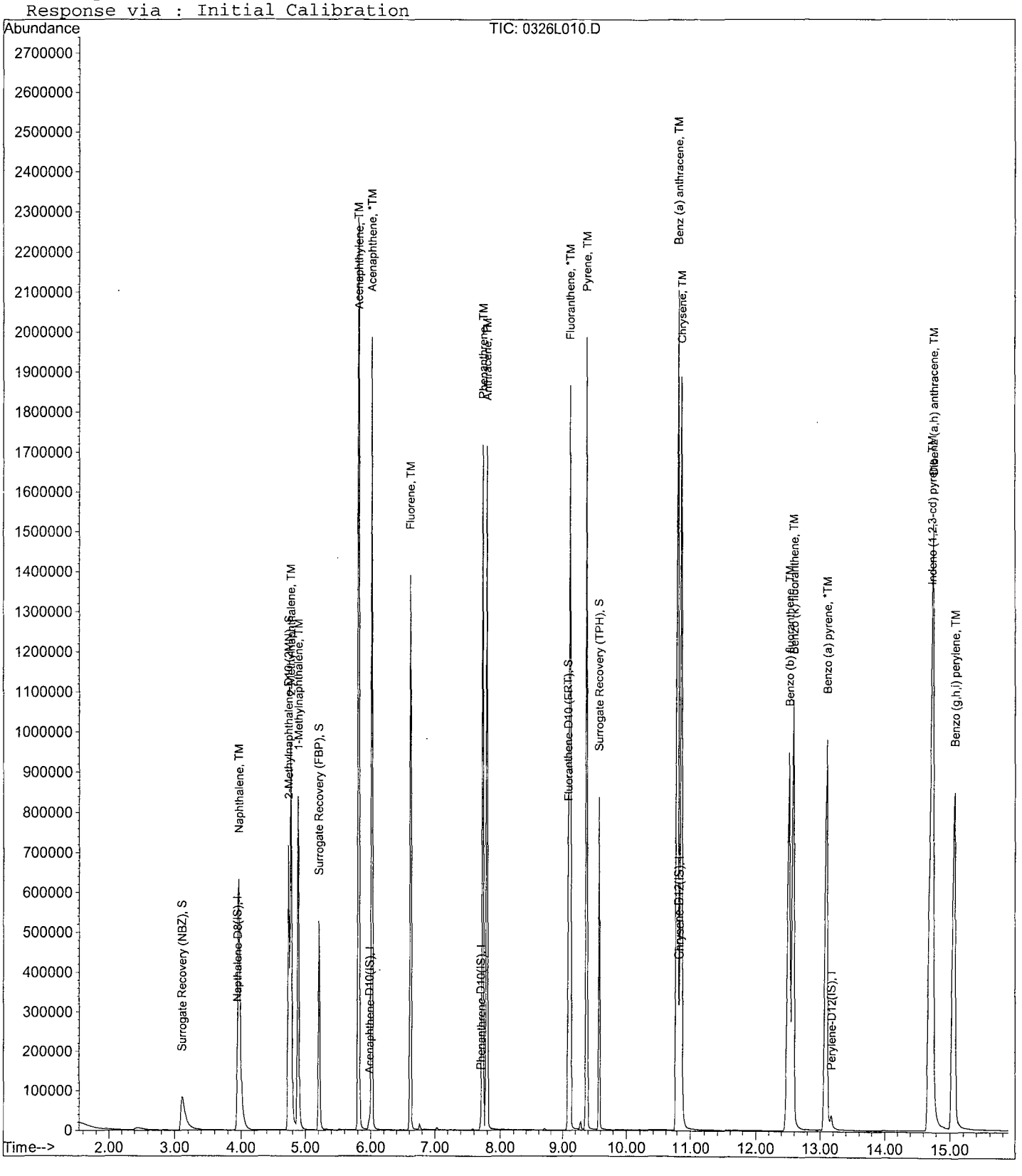
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L010.D Vial: 10
Acq On : 26 Mar 19 12:30 Operator: MA
Sample : 100 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 13:47 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L012.D Vial: 12
Acq On : 26 Mar 19 15:55 Operator: MA
Sample : 0.2 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 16:21 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 48893 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 22990 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 39076 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 57596 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 55456 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.16 | 82 | 768 | 0.08673 ppb | | 0.04 |
| Spiked Amount 5.000 | | | Recovery = | 1.740% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.76 | 152 | 2284 | 0.08927 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = | 1.780% | | |
| 8) Surrogate Recovery (FBP) | 5.23 | 172 | 1525 | 0.08934 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = | 1.780% | | |
| 15) Fluoranthene-D10 (FRT) | 9.10 | 212 | 2862 | 0.08813 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = | 1.760% | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 1762 | 0.08457 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = | 1.700% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 5503 | 0.21825 ppb | | 98 |
| 5) 2-Methylnaphthalene | 4.78 | 142 | 2989 | 0.19863 ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.89 | 142 | 3356 | 0.21862 ppb | | 97 |
| 9) Acenaphthylene | 5.82 | 152 | 10502 | 0.19841 ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 3004 | 0.20647 ppb | | 96 |
| 11) Fluorene | 6.63 | 166 | 3457 | 0.19696 ppb | | 96 |
| 13) Phenanthrene | 7.73 | 178 | 4828 | 0.20973 ppb | | 97 |
| 14) Anthracene | 7.80 | 178 | 4438 | 0.19743 ppb | | 98 |
| 16) Fluoranthene | 9.12 | 202 | 7726 | 0.20526 ppb | # | 95 |
| 18) Pyrene | 9.38 | 202 | 7961 | 0.20588 ppb | | 93 |
| 20) Benz (a) anthracene | 10.78 | 228 | 6119 | 0.18540 ppb | | 97 |
| 21) Chrysene | 10.84 | 228 | 7299 | 0.22752 ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.70 | 276 | 7062 | 0.17330 ppb | # | 92 |
| 24) Benzo (b) fluoranthene | 12.51 | 252 | 5643 | 0.19039 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.55 | 252 | 6638 | 0.19712 ppb | # | 84 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 6073 | 0.18974 ppb | # | 94 |
| 27) Dibenz (a,h) anthracene | 14.72 | 278 | 5632 | 0.16786 ppb | # | 91 |
| 28) Benzo (g,h,i) perylene | 15.05 | 276 | 5883 | 0.17144 ppb | | 99 |

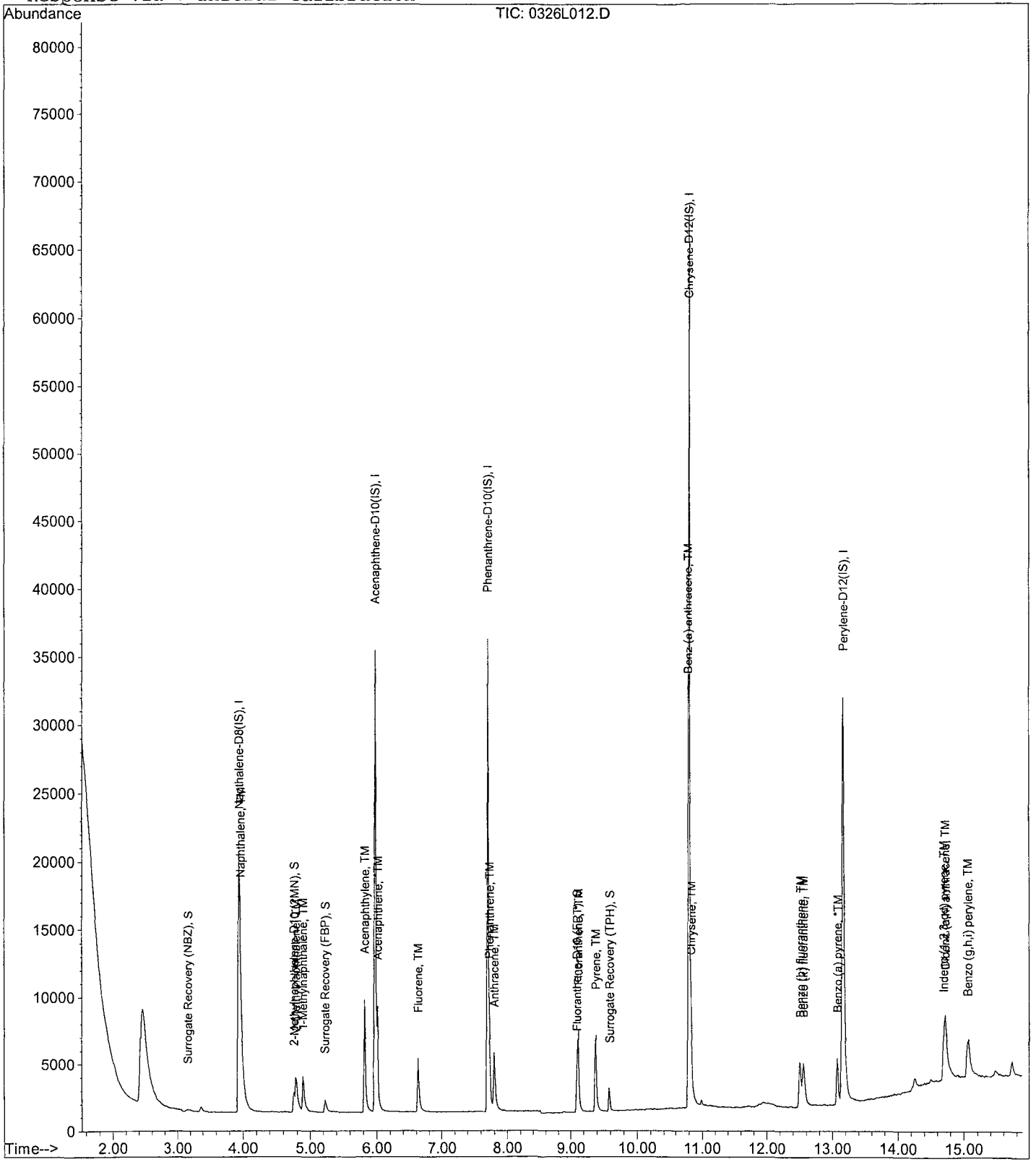
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L012.D Vial: 12
Acq On : 26 Mar 19 15:55 Operator: MA
Sample : 0.2 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 16:21 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L013.D Vial: 13
Acq On : 26 Mar 19 17:05 Operator: MA
Sample : 0.1 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 17:22 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.95 | 136 | 33055 | 2.50000 ppb | | 0.01 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 15242 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 26118 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 37102 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 35689 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.16 | 82 | 174 | 0.02974 ppb | | 0.04 |
| Spiked Amount 5.000 | | | Recovery = 0.600% | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.77 | 152 | 917 | 0.05892 ppb | | 0.04 |
| Spiked Amount 5.000 | | | Recovery = 1.180% | | | |
| 8) Surrogate Recovery (FBP) | 5.24 | 172 | 525 | 0.04808 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = 0.960% | | | |
| 15) Fluoranthene-D10 (FRT) | 9.11 | 212 | 993 | 0.05233 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = 1.040% | | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 603 | 0.04940 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = 0.980% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.97 | 128 | 2021 | 0.12117 ppb | | 98 |
| 5) 2-Methylnaphthalene | 4.79 | 142 | 966 | 0.09635 ppb | | 93 |
| 6) 1-Methylnaphthalene | 4.90 | 142 | 1309 | 0.12868 ppb | | 97 |
| 9) Acenaphthylene | 5.83 | 152 | 3597 | 0.10503 ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 1094 | 0.11148 ppb | | 97 |
| 11) Fluorene | 6.64 | 166 | 1352 | 0.11705 ppb | | 98 |
| 13) Phenanthrene | 7.74 | 178 | 1679 | 0.11386 ppb | | 98 |
| 14) Anthracene | 7.81 | 178 | 1552 | 0.10652 ppb | | 99 |
| 16) Fluoranthene | 9.13 | 202 | 2650 | 0.11360 ppb | # | 94 |
| 18) Pyrene | 9.39 | 202 | 2818 | 0.12170 ppb | # | 94 |
| 20) Benz (a) anthracene | 10.79 | 228 | 2097 | 0.10234 ppb | | 97 |
| 21) Chrysene | 10.84 | 228 | 2513 | 0.12734 ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.73 | 276 | 2499 | 0.12209 ppb | # | 81 |
| 24) Benzo (b) fluoranthene | 12.52 | 252 | 1653 | 0.08620 ppb | | 97 |
| 25) Benzo (k) fluoranthene | 12.58 | 252 | 2393 | 0.12113 ppb | # | 82 |
| 26) Benzo (a) pyrene | 13.09 | 252 | 1774 | 0.09605 ppb | | 98 |
| 27) Dibenz (a,h) anthracene | 14.74 | 278 | 1986 | 0.11611 ppb | # | 91 |
| 28) Benzo (g,h,i) perylene | 15.09 | 276 | 2096 | 0.12108 ppb | | 92 |

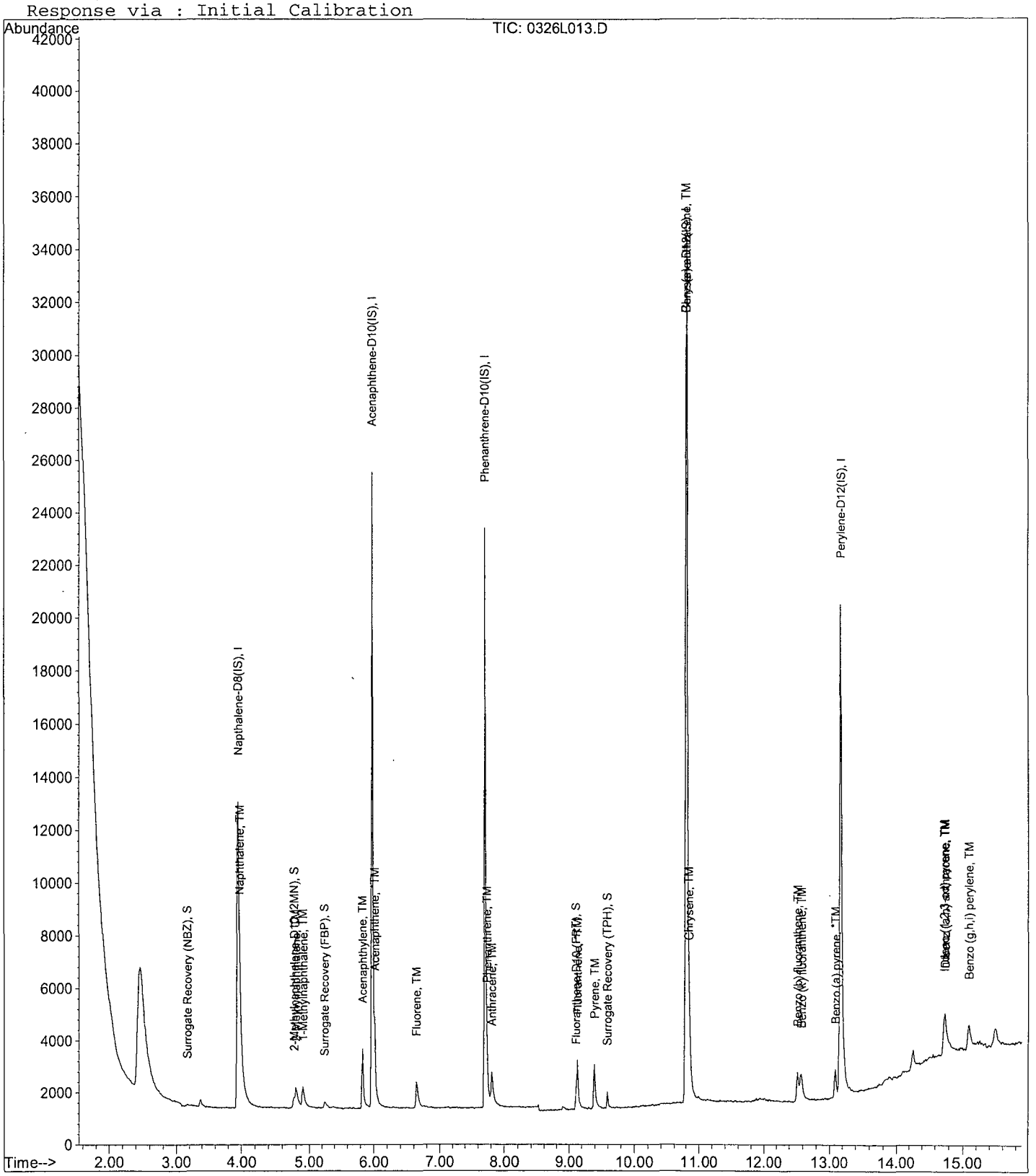
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L013.D Vial: 13
Acq On : 26 Mar 19 17:05 Operator: MA
Sample : 0.1 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 17:22 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 03/26/19
Instrument: Linus
Initial Cal. Date: 03/26/19
Data File: 0326L014.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | TM | Naphthalene | 1.314 | 1.344 | 2.3 | TM | |
| 2 | TM | 2-Methylnaphthalene | 0.7409 | 0.8066 | 8.9 | TM | |
| 3 | TM | 1-Methylnaphthalene | 0.8188 | 0.8287 | 1.2 | TM | |
| 4 | TM | Acenaphthylene | 5.655 | 5.927 | 4.8 | TM | |
| 5 | *TM | Acenaphthene | 1.491 | 1.500 | 0.63 | *TM | |
| 6 | TM | Fluorene | 1.867 | 1.894 | 1.4 | TM | |
| 7 | TM | Phenanthrene | 1.453 | 1.496 | 2.9 | TM | |
| 8 | TM | Anthracene | 1.396 | 1.451 | 4.0 | TM | |
| 9 | *TM | Fluoranthene | 2.417 | 2.498 | 3.4 | *TM | |
| 10 | TM | Pyrene | 1.692 | 1.717 | 1.5 | TM | |
| 11 | TM | Benz (a) anthracene | 1.385 | 1.403 | 1.3 | TM | |
| 12 | TM | Chrysene | 1.409 | 1.442 | 2.3 | TM | |
| 13 | TM | Indeno (1,2,3-cd) pyrene | 1.476 | 1.465 | 0.75 | TM | |
| 14 | TM | Benzo (b) fluoranthene | 1.293 | 1.413 | 9.3 | TM | |
| 15 | TM | Benzo (k) fluoranthene | 1.467 | 1.533 | 4.5 | TM | |
| 16 | *TM | Benzo (a) pyrene | 1.312 | 1.326 | 1.1 | *TM | |
| 17 | TM | Dibenz (a,h) anthracene | 1.222 | 1.285 | 5.1 | TM | |
| 18 | TM | Benzo (g,h,i) perylene | 1.254 | 1.309 | 4.4 | TM | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |
| 25 | | | | | | | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| | | Average | | | 3.3 | | |

PAH by GCMS SIM
EPA 8270 SIM

Form 7

Second Source Calibration

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L014.D Vial: 14
Acq On : 26 Mar 19 17:27 Operator: MA
Sample : SS SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 27 9:04 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 37593 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 17018 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 29145 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 42587 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 40320 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.15 | 82 | 89 | 0.01327 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = | 0.260% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.74 | 152 | 61 | 0.00300 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = | 0.060% | | |
| 8) Surrogate Recovery (FBP) | 5.26 | 172 | 21 | 0.00168 ppb | | 0.05 |
| Spiked Amount 5.000 | | | Recovery = | 0.040% | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 62 | 0.00249 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = | 0.040% | | |
| 19) Surrogate Recovery (TPH) | 9.60 | 244 | 51 | 0.00338 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = | 0.060% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 101084 | 5.11703 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 60648 | 5.44385 ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 62305 | 5.06007 ppb | | 99 |
| 9) Acenaphthylene | 5.81 | 152 | 201720 | 5.24063 ppb | | 99 |
| 10) Acenaphthene | 6.01 | 154 | 51069 | 5.03134 ppb | | 100 |
| 11) Fluorene | 6.62 | 166 | 64459 | 5.07138 ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 87187 | 5.14639 ppb | | 100 |
| 14) Anthracene | 7.79 | 178 | 84584 | 5.19763 ppb | | 100 |
| 16) Fluoranthene | 9.11 | 202 | 145598 | 5.16794 ppb | | 98 |
| 18) Pyrene | 9.36 | 202 | 146253 | 5.07448 ppb | | 99 |
| 20) Benz (a) anthracene | 10.78 | 228 | 119541 | 5.06587 ppb | | 98 |
| 21) Chrysene | 10.83 | 228 | 122783 | 5.11679 ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.66 | 276 | 124805 | 4.96230 ppb | | 98 |
| 24) Benzo (b) fluoranthene | 12.47 | 252 | 113984 | 5.46678 ppb | # | 96 |
| 25) Benzo (k) fluoranthene | 12.52 | 252 | 123617 | 5.22426 ppb | # | 84 |
| 26) Benzo (a) pyrene | 13.05 | 252 | 106932 | 5.05468 ppb | # | 94 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 103583 | 5.25425 ppb | | 99 |
| 28) Benzo (g,h,i) perylene | 15.01 | 276 | 105592 | 5.22057 ppb | | 99 |

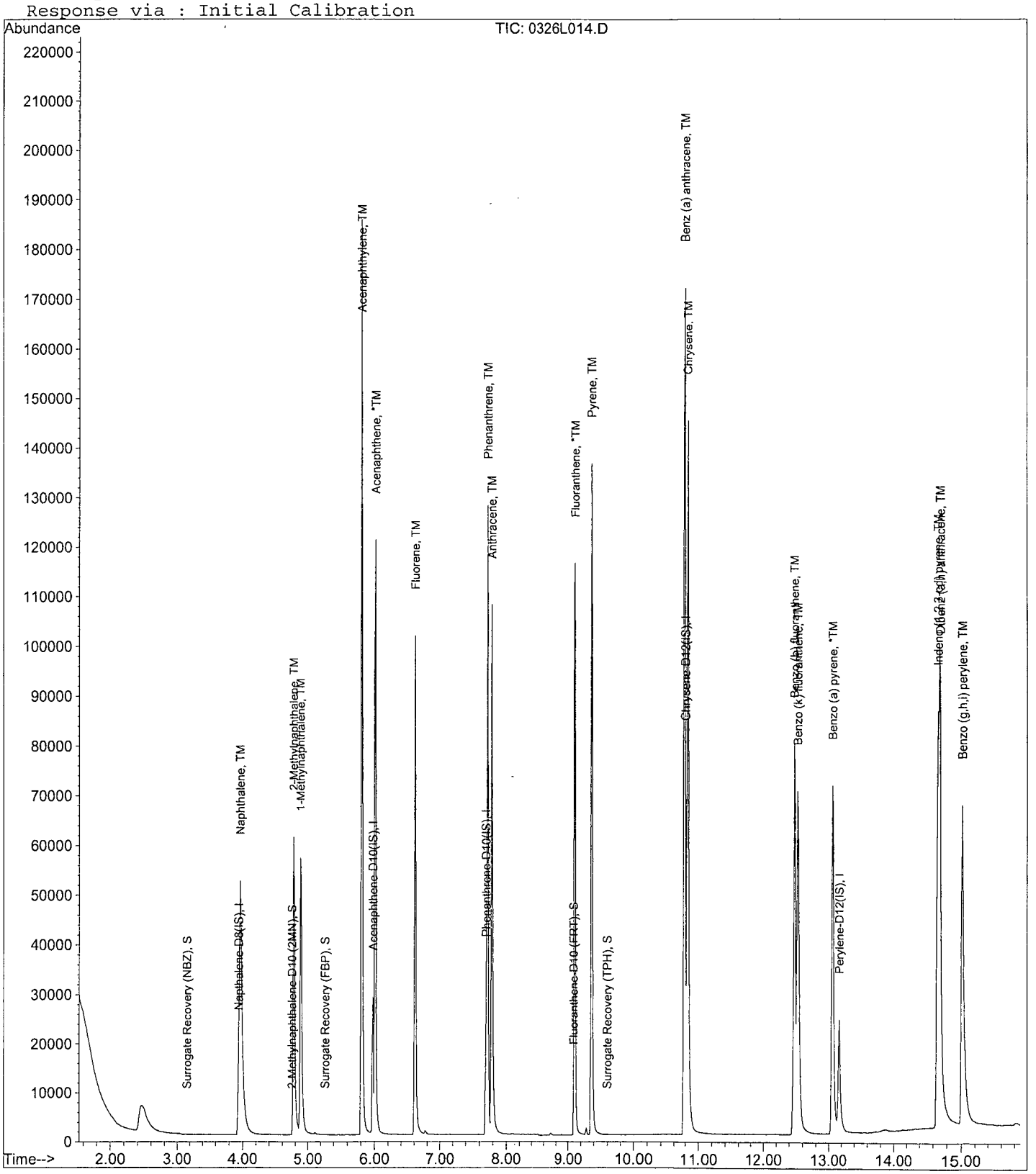
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L014.D Vial: 14
Acq On : 26 Mar 19 17:27 Operator: MA
Sample : SS SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 27 9:04 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/26/19
Instrument: Linus
Initial Cal. Date: 03/26/19
Data File: 0426L003.D

| | | Compound | MEAN | CCRF | %D | | %Drift | |
|---|---|---|---|---|---|---|---|---|
| 1 | I | Napthalene-D8(IS) | ISTD | | | I | | |
| 2 | S | Surrogate Recovery (NBZ) | 0.4460 | 0.4406 | 1.2 | S | | |
| 3 | TM | Naphthalene | 1.314 | 1.225 | 6.8 | TM | | |
| 4 | S | 2-Methylnaphthalene-D10 (2MN) | 1.354 | 1.236 | 8.7 | S | | |
| 5 | TM | 2-Methylnaphthalene | 0.7409 | 0.6982 | 5.8 | TM | | |
| 6 | TM | 1-Methylnaphthalene | 0.8188 | 0.7382 | 9.9 | TM | | |
| 7 | I | Acenaphthene-D10(IS) | ISTD | | | I | | |
| 8 | S | Surrogate Recovery (FBP) | 1.840 | 1.901 | 3.3 | S | | |
| 9 | TM | Acenaphthylene | 5.655 | 5.185 | 8.3 | TM | | |
| 10 | *TM | Acenaphthene | 1.491 | 1.502 | 0.70 | *TM | | |
| 11 | TM | Fluorene | 1.867 | 1.903 | 1.9 | TM | | |
| 12 | I | Phenanthrene-D10(IS) | ISTD | | | I | | |
| 13 | TM | Phenanthrene | 1.453 | 1.435 | 1.3 | TM | | |
| 14 | TM | Anthracene | 1.396 | 1.418 | 1.6 | TM | | |
| 15 | S | Fluoranthene-D10 (FRT) | 2.138 | 2.150 | 0.56 | S | | |
| 16 | *TM | Fluoranthene | 2.417 | 2.385 | 1.3 | *TM | | |
| 17 | I | Chrysene-D12(IS) | ISTD | | | I | | |
| 18 | TM | Pyrene | 1.692 | 1.666 | 1.5 | TM | | |
| 19 | S | Surrogate Recovery (TPH) | 0.8859 | 0.8756 | 1.2 | S | | |
| 20 | TM | Benz (a) anthracene | 1.385 | 1.360 | 1.8 | TM | | |
| 21 | TM | Chrysene | 1.409 | 1.364 | 3.1 | TM | | |
| 22 | TM | Indeno (1,2,3-cd) pyrene | 1.476 | 1.496 | 1.3 | TM | | |
| 23 | I | Perylene-D12(IS) | ISTD | | | I | | |
| 24 | TM | Benzo (b) fluoranthene | 1.293 | 1.245 | 3.7 | TM | | |
| 25 | TM | Benzo (k) fluoranthene | 1.467 | 1.779 | 21 | TM | | *NT |
| 26 | *TM | Benzo (a) pyrene | 1.312 | 1.322 | 0.80 | *TM | | |
| 27 | TM | Dibenz (a,h) anthracene | 1.222 | 1.373 | 12 | TM | | |
| 28 | TM | Benzo (g,h,i) perylene | 1.254 | 1.338 | 6.7 | TM | | |
| 29 | | | | | | | | |
| 30 | | | | | | | | |
| 31 | | | | | | | | |
| 32 | | | | | | | | |
| 33 | | | | | | | | |
| 34 | | | | | | | | |
| 35 | | | | | | | | |
| 36 | | | | | | | | |
| 37 | | | | | | | | |
| 38 | | | | | | | | |
| 39 | | | | | | | | |
| 40 | | | | | | | | |
| | | Average | | | 4.5 | | | |

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L003.D Vial: 3
Acq On : 26 Apr 19 14:31 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 26 14:50 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 48849 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 20245 | 2.50000 ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 34785 | 2.50000 ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.78 | 240 | 49781 | 2.50000 ppb | | -0.01 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 44763 | 2.50000 ppb | | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.13 | 82 | 21522 | 2.46943 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 49.380% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 60391 | 2.28337 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 45.660% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 38480 | 2.58189 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 51.640% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 74783 | 2.51398 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 50.280% | | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 43590 | 2.47107 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 49.420% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 119673 | 4.66212 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 68212 | 4.71196 ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 72118 | 4.50743 ppb | | 94 |
| 9) Acenaphthylene | 5.81 | 152 | 209953 | 4.58508 ppb | | 100 |
| 10) Acenaphthene | 6.00 | 154 | 60800 | 5.03525 ppb | | 98 |
| 11) Fluorene | 6.60 | 166 | 77042 | 5.09519 ppb | | 93 |
| 13) Phenanthrene | 7.71 | 178 | 99832 | 4.93734 ppb | | 98 |
| 14) Anthracene | 7.79 | 178 | 98649 | 5.07904 ppb | | 99 |
| 16) Fluoranthene | 9.10 | 202 | 165920 | 4.93438 ppb | # | 89 |
| 18) Pyrene | 9.36 | 202 | 165882 | 4.92379 ppb | | 100 |
| 20) Benz (a) anthracene | 10.77 | 228 | 135401 | 4.90877 ppb | | 97 |
| 21) Chrysene | 10.82 | 228 | 135847 | 4.84309 ppb | # | 95 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 148900 | 5.06476 ppb | # | 82 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 111470 | 4.81556 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 159254 | 6.06231 ppb | | 99 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 118369 | 5.03994 ppb | # | 96 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 122926 | 5.61652 ppb | # | 93 |
| 28) Benzo (g,h,i) perylene | 15.03 | 276 | 119820 | 5.33602 ppb | | 96 |

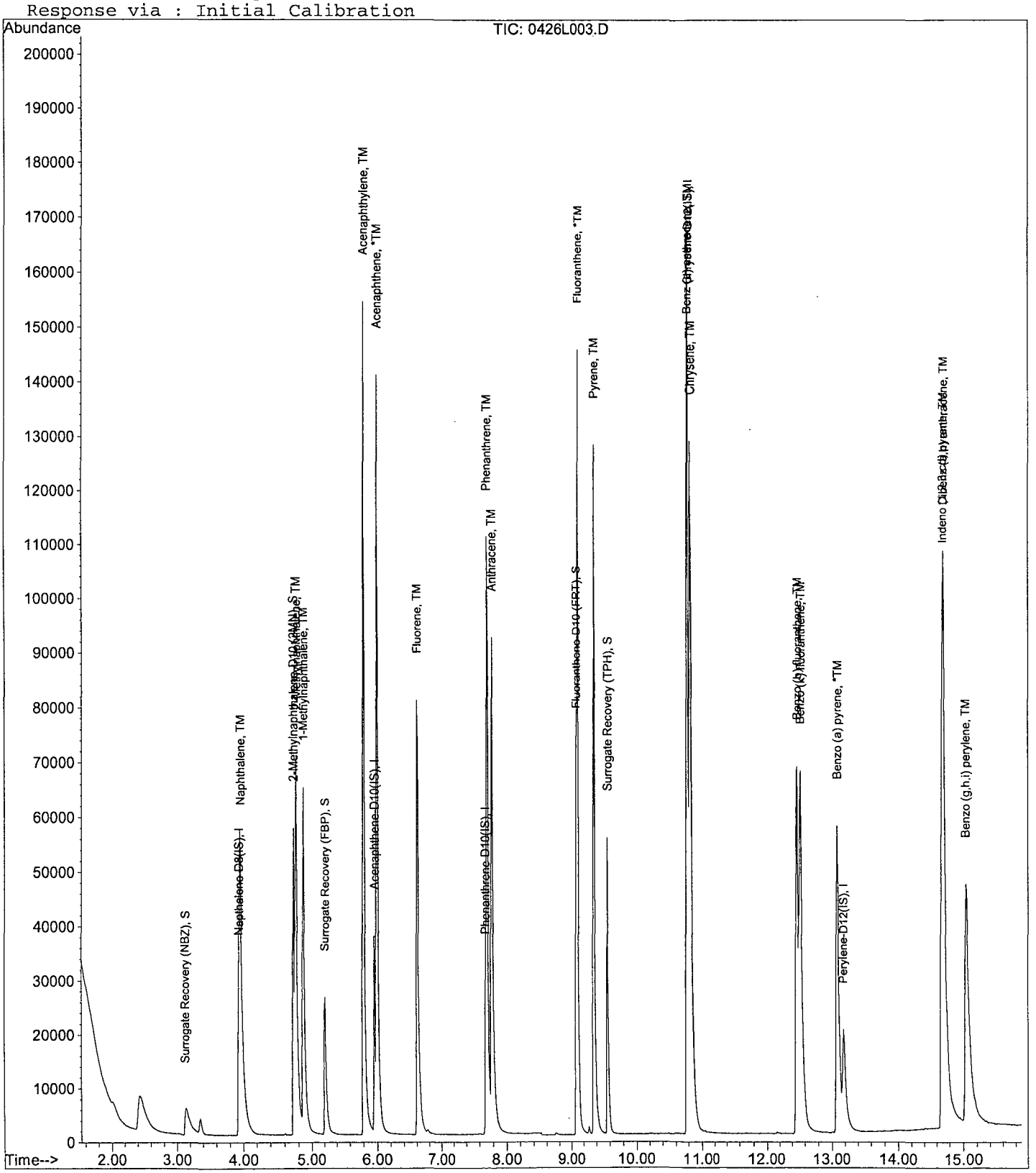
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L003.D Vial: 3
Acq On : 26 Apr 19 14:31 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 26 14:50 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

## Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/26/19
Instrument: Linus
Initial Cal. Date: 03/26/19
Data File: 0426L020.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | Napthalene-D8(IS) | ISTD | | | I | |
| 2 | S | Surrogate Recovery (NBZ) | 0.4460 | 0.4621 | 3.6 | S | |
| 3 | TM | Naphthalene | 1.314 | 1.435 | 9.3 | TM | |
| 4 | S | 2-Methylnaphthalene-D10 (2MN) | 1.354 | 1.218 | 10 | S | |
| 5 | TM | 2-Methylnaphthalene | 0.7409 | 0.8233 | 11 | TM | |
| 6 | TM | 1-Methylnaphthalene | 0.8188 | 0.8586 | 4.9 | TM | |
| 7 | I | Acenaphthene-D10(IS) | ISTD | | | I | |
| 8 | S | Surrogate Recovery (FBP) | 1.840 | 1.935 | 5.1 | S | |
| 9 | TM | Acenaphthylene | 5.655 | 6.783 | 20 | TM | |
| 10 | *TM | Acenaphthene | 1.491 | 1.740 | 17 | *TM | |
| 11 | TM | Fluorene | 1.867 | 2.174 | 16 | TM | |
| 12 | I | Phenanthrene-D10(IS) | ISTD | | | I | |
| 13 | TM | Phenanthrene | 1.453 | 1.679 | 16 | TM | |
| 14 | TM | Anthracene | 1.396 | 1.791 | 28 | TM | |
| 15 | S | Fluoranthene-D10 (FRT) | 2.138 | 2.323 | 8.6 | S | |
| 16 | *TM | Fluoranthene | 2.417 | 2.950 | 22 | *TM | |
| 17 | I | Chrysene-D12(IS) | ISTD | | | I | |
| 18 | TM | Pyrene | 1.692 | 1.874 | 11 | TM | |
| 19 | S | Surrogate Recovery (TPH) | 0.8859 | 0.8338 | 5.9 | S | |
| 20 | TM | Benz (a) anthracene | 1.385 | 1.439 | 3.9 | TM | |
| 21 | TM | Chrysene | 1.409 | 1.616 | 15 | TM | |
| 22 | TM | Indeno (1,2,3-cd) pyrene | 1.476 | 1.663 | 13 | TM | |
| 23 | I | Perylene-D12(IS) | ISTD | | | I | |
| 24 | TM | Benzo (b) fluoranthene | 1.293 | 1.311 | 1.4 | TM | |
| 25 | TM | Benzo (k) fluoranthene | 1.467 | 1.944 | 33 | TM | |
| 26 | *TM | Benzo (a) pyrene | 1.312 | 1.515 | 16 | *TM | |
| 27 | TM | Dibenz (a,h) anthracene | 1.222 | 1.455 | 19 | TM | |
| 28 | TM | Benzo (g,h,i) perylene | 1.254 | 1.408 | 12 | TM | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 13.1 | | |

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L020.D Vial: 20
Acq On : 26 Apr 19 21:43 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 29 8:46 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 50811 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 20724 | 2.50000 ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 34168 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 53412 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 50142 | 2.50000 ppb | | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.15 | 82 | 23480 | 2.59006 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery | = 51.800% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 61864 | 2.24875 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 44.980% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 40094 | 2.62801 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 52.560% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 79363 | 2.71612 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 54.320% | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 44533 | 2.35290 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 47.060% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 145856 | 5.46272 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 83669 | 5.55653 ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 87257 | 5.24304 ppb | | 97 |
| 9) Acenaphthylene | 5.81 | 152 | 281149 | 5.99799 ppb | | 99 |
| 10) Acenaphthene | 6.00 | 154 | 72126 | 5.83517 ppb | | 91 |
| 11) Fluorene | 6.62 | 166 | 90110 | 5.82170 ppb | | 98 |
| 13) Phenanthrene | 7.73 | 178 | 114720 | 5.77610 ppb | | 99 |
| 14) Anthracene | 7.79 | 178 | 122423 | 6.41689 ppb | | 99 |
| 16) Fluoranthene | 9.10 | 202 | 201579 | 6.10311 ppb | # | 84 |
| 18) Pyrene | 9.36 | 202 | 200163 | 5.53744 ppb | | 96 |
| 20) Benz (a) anthracene | 10.78 | 228 | 153766 | 5.19560 ppb | | 100 |
| 21) Chrysene | 10.83 | 228 | 172595 | 5.73490 ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.69 | 276 | 177616 | 5.63081 ppb | # | 83 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 131487 | 5.07095 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 194962 | 6.62545 ppb | | 99 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 151959 | 5.77605 ppb | # | 95 |
| 27) Dibenz (a,h) anthracene | 14.71 | 278 | 145864 | 5.94962 ppb | | 95 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 141222 | 5.61446 ppb | | 92 |

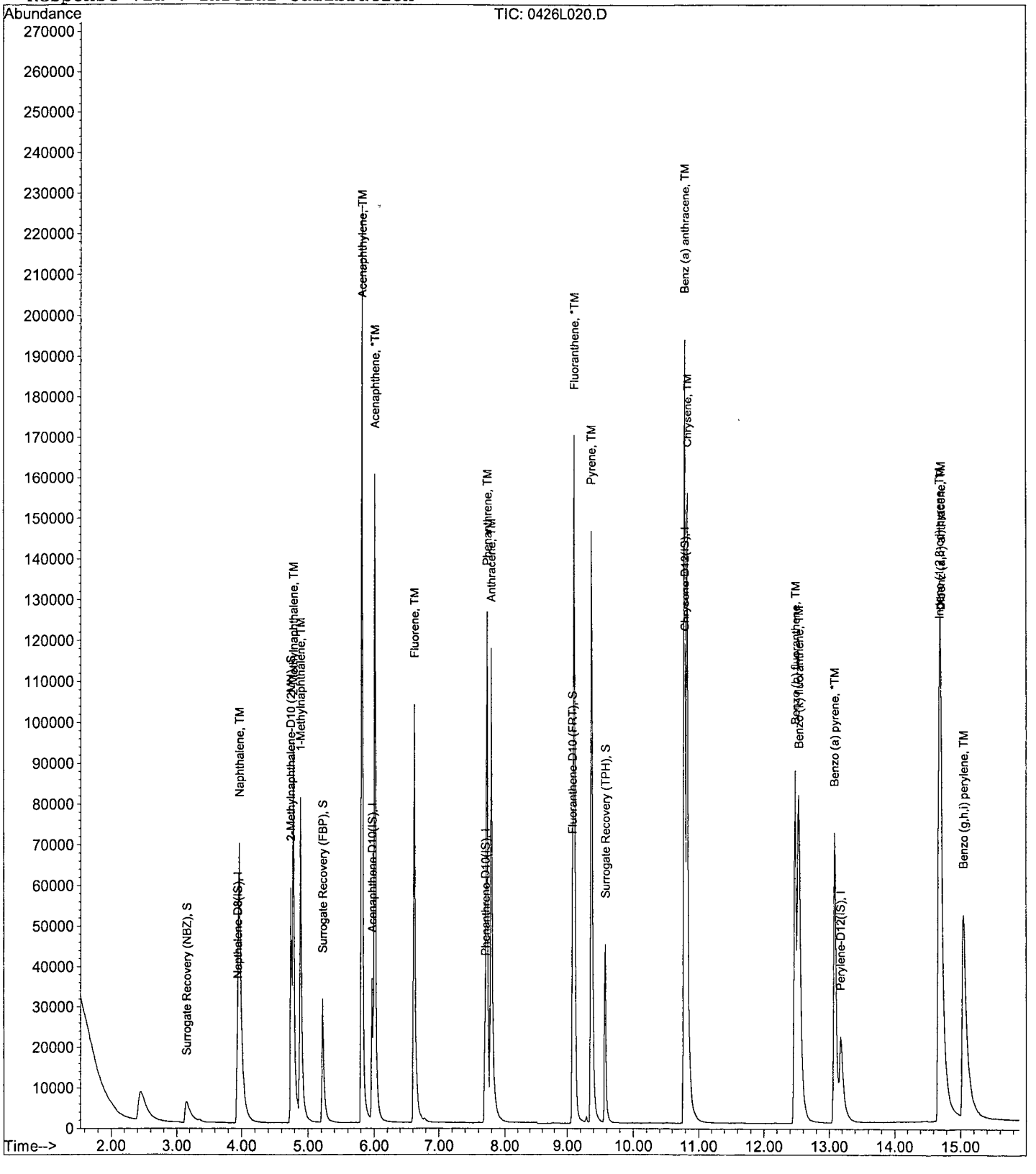
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L020.D Vial: 20
Acq On : 26 Apr 19 21:43 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 29 8:46 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



# ORGANICS
# Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L012.D Vial: 12
Acq On : 26 Apr 19 18:44 Operator: MA
Sample : AZ90051W37 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:18 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 46898 | 2.50000 ppb | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 20972 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 38792 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.82 | 240 | 57477 | 2.50000 ppb | 0.02 |
| 23) Perylene-D12(IS) | 13.20 | 264 | 55635 | 2.50000 ppb | 0.03 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 731859 | 109.33352 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1749.344% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 111346 | 5.48139 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 87.696% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1131116 | 91.57938 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1465.264% | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 152823 | 5.75847 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 92.128% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1302423 | 79.93352 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1278.944% | |

Target Compounds Qvalue

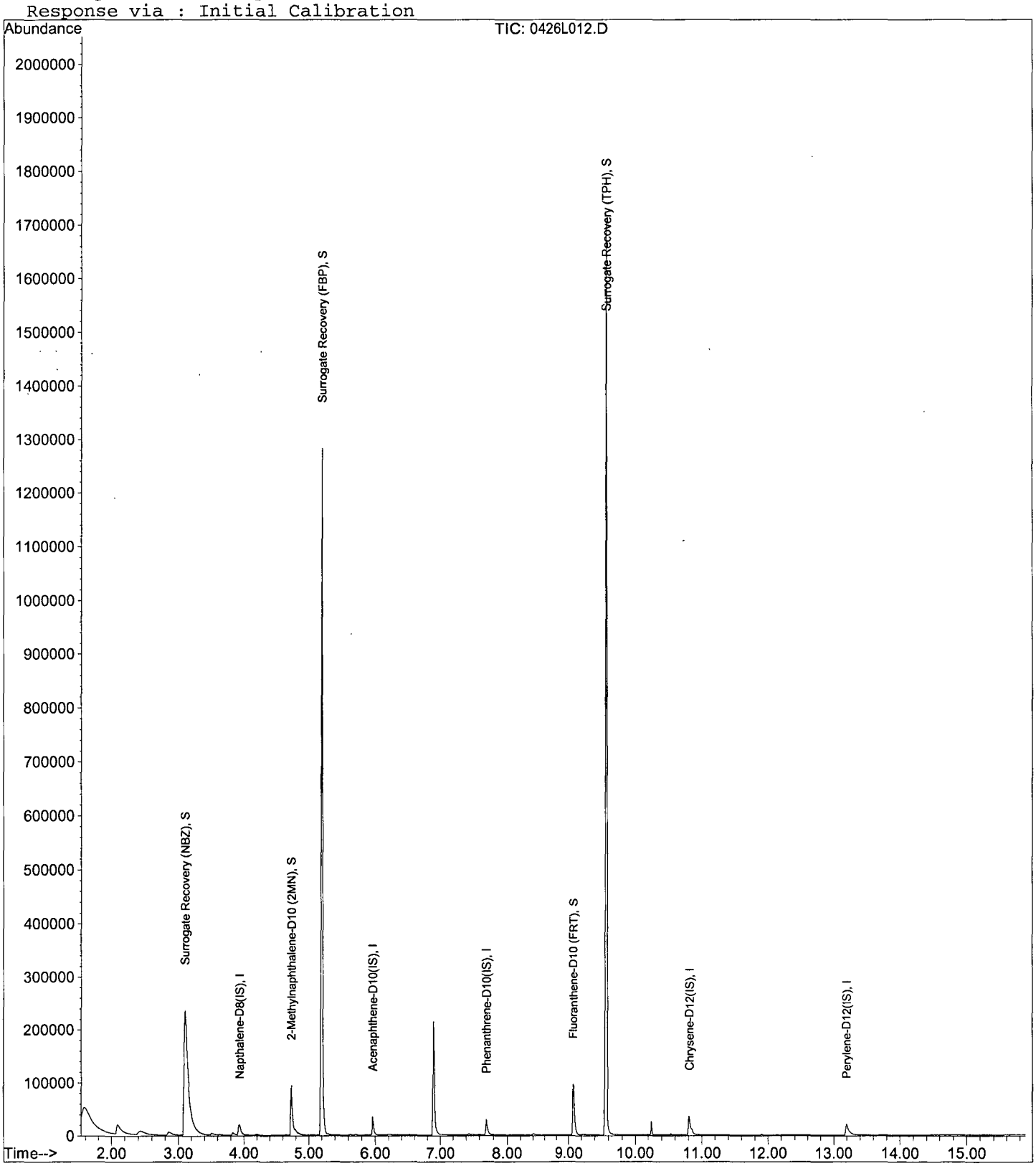
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L012.D Vial: 12
Acq On : 26 Apr 19 18:44 Operator: MA
Sample : AZ90051W37 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:18 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L015.D Vial: 15
Acq On : 26 Apr 19 19:51 Operator: MA
Sample : AZ90052W11 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:19 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 47262 | 2.50000 ppb | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 21024 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 36499 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.82 | 240 | 54398 | 2.50000 ppb | 0.02 |
| 23) Perylene-D12(IS) | 13.20 | 264 | 53093 | 2.50000 ppb | 0.03 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 737494 | 109.32680 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1749.232% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 111719 | 5.45739 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 87.312% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1114909 | 90.04394 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1440.704% | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 146242 | 5.85669 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 93.712% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1312674 | 85.12261 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1361.968% | |

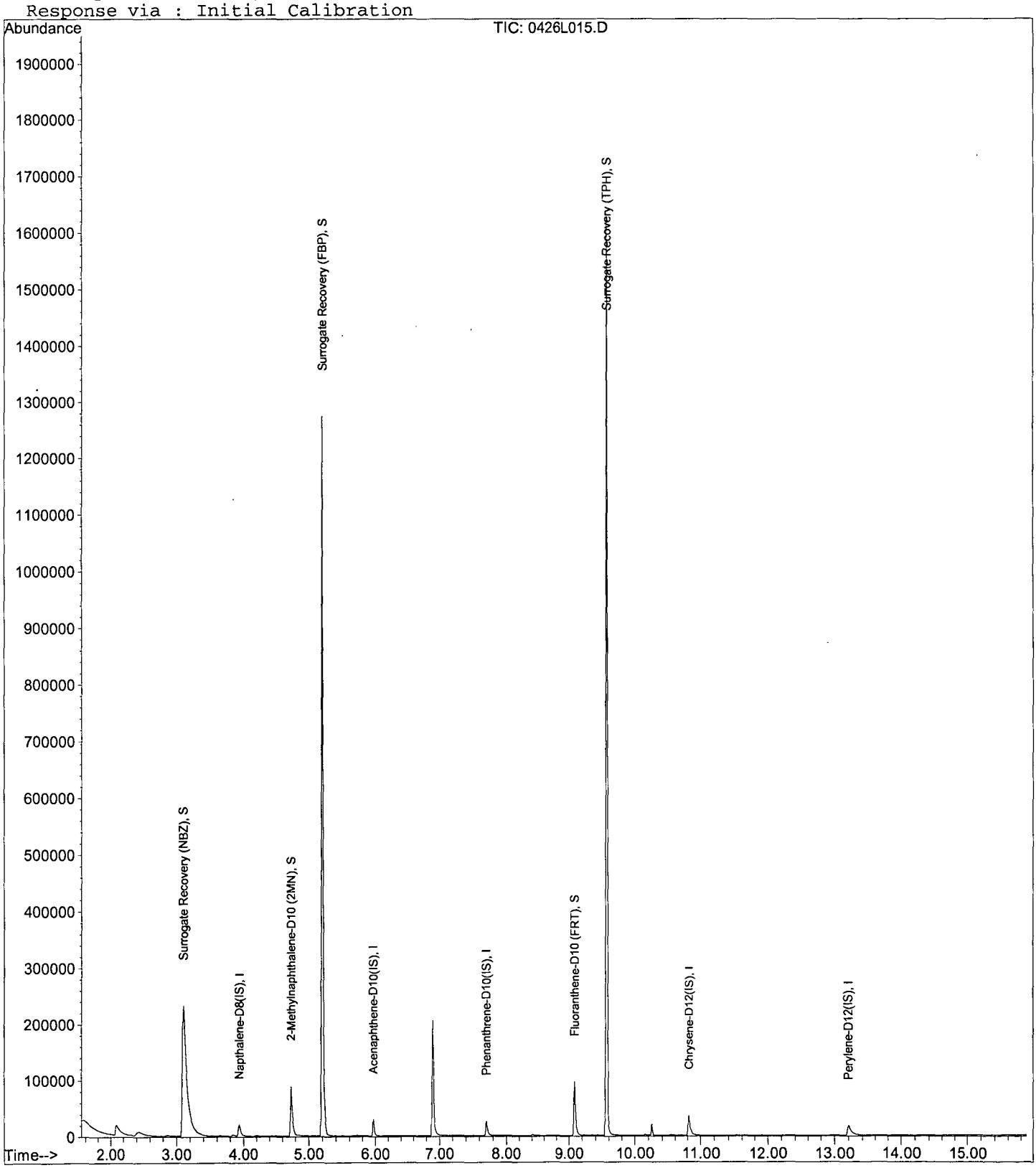
Target Compounds Qvalue

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

Data File : M:\LINUS\DATA\L190426\0426L015.D Vial: 15
Acq On : 26 Apr 19 19:51 Operator: MA
Sample : AZ90052W11 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:19 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L016.D Vial: 16
Acq On : 26 Apr 19 20:14 Operator: MA
Sample : AZ90054W22 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 44195 | 2.50000 ppb | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 19448 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 35944 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.82 | 240 | 53237 | 2.50000 ppb | 0.02 |
| 23) Perylene-D12(IS) | 13.20 | 264 | 52214 | 2.50000 ppb | 0.03 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 718848 | 113.95783 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1823.328% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 106915 | 5.58516 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 89.360% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1116244 | 97.45735 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1559.312% | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 140629 | 5.71886 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 91.504% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1299588 | 86.11188 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1377.792% | |

Target Compounds Qvalue

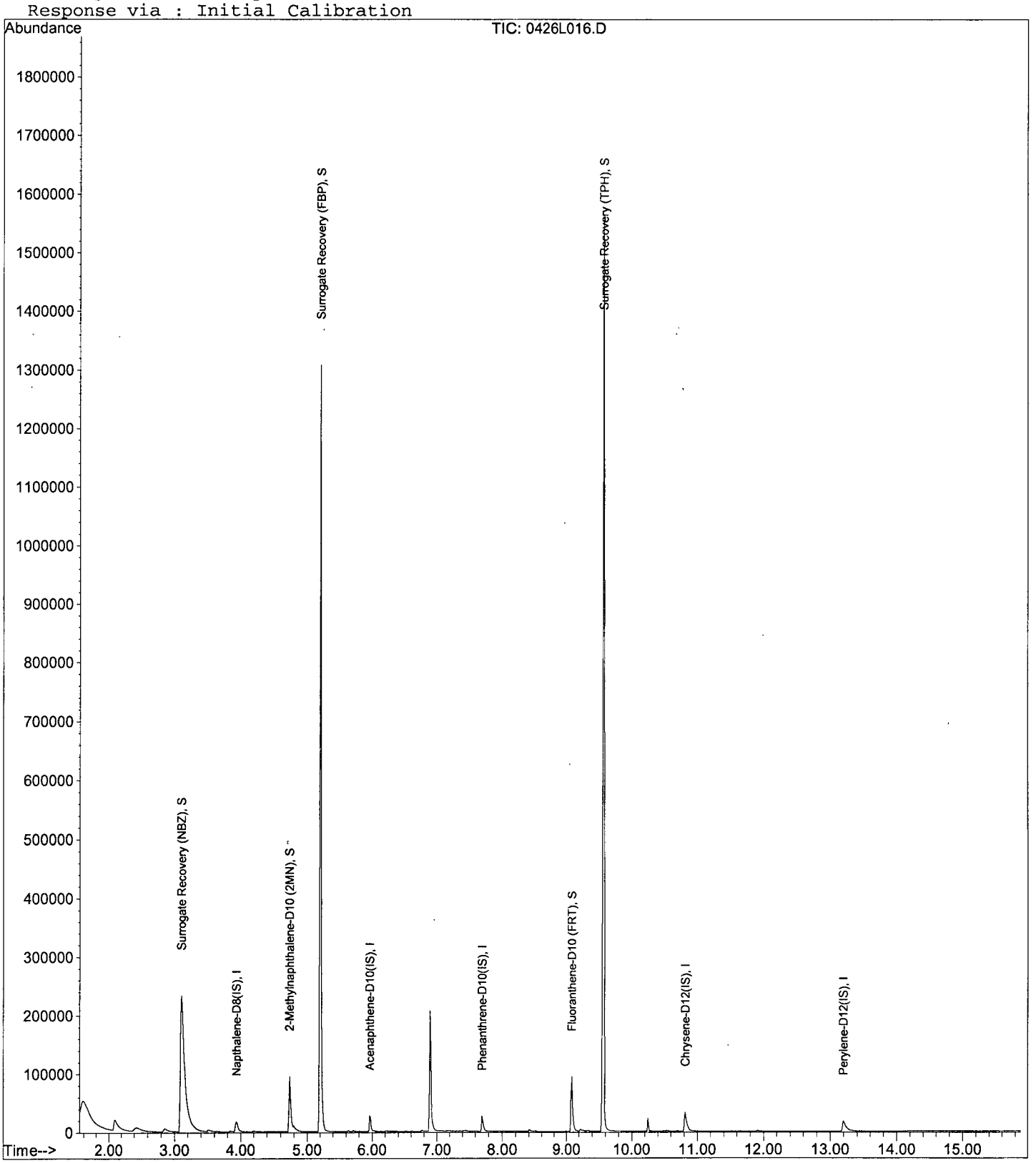
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L016.D Vial: 16
Acq On : 26 Apr 19 20:14 Operator: MA
Sample : AZ90054W22 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L017.D Vial: 17
Acq On : 26 Apr 19 20:36 Operator: MA
Sample : AZ90056W22 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 47278 | 2.50000 ppb | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 20437 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 37697 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.82 | 240 | 53172 | 2.50000 ppb | 0.02 |
| 23) Perylene-D12(IS) | 13.20 | 264 | 53230 | 2.50000 ppb | 0.03 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 736490 | 109.14102 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1746.256% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 109149 | 5.33005 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 85.280% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1111933 | 92.38296 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1478.128% | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 142254 | 5.51593 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 88.256% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1372312 | 91.04180 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1456.672% | |

Target Compounds Qvalue

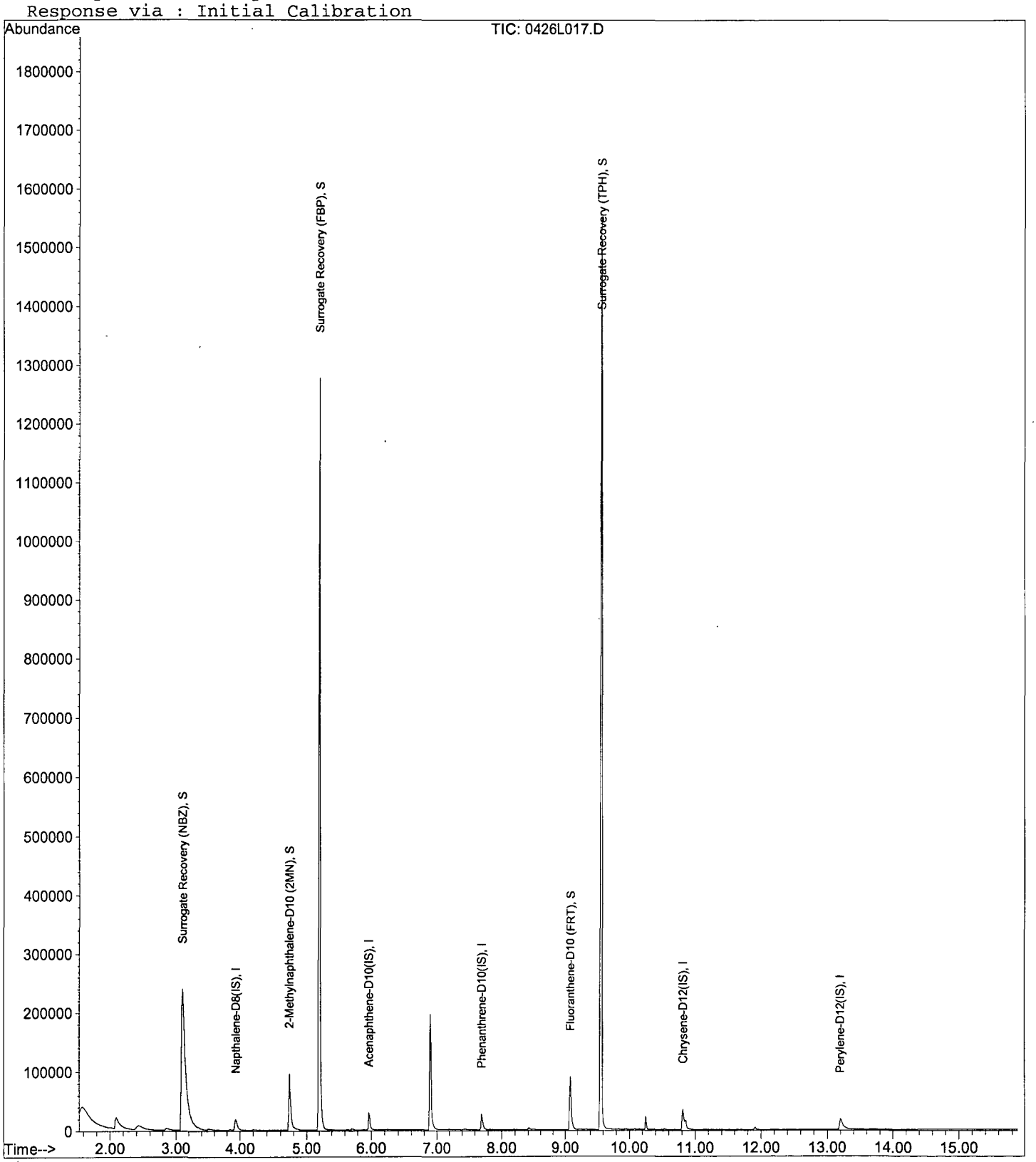
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L017.D Vial: 17
Acq On : 26 Apr 19 20:36 Operator: MA
Sample : AZ90056W22 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L018.D Vial: 18
Acq On : 26 Apr 19 20:58 Operator: MA
Sample : AZ90058W22 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:20 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 46113 | 2.50000 ppb | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 20001 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 35683 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.82 | 240 | 53926 | 2.50000 ppb | 0.02 |
| 23) Perylene-D12(IS) | 13.20 | 264 | 52452 | 2.50000 ppb | 0.03 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 721183 | 109.57269 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1753.168% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 106134 | 5.31375 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 85.024% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1100054 | 93.38835 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1494.208% | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 143239 | 5.86760 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 93.888% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1247001 | 81.57171 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1305.152% | |

Target Compounds Qvalue

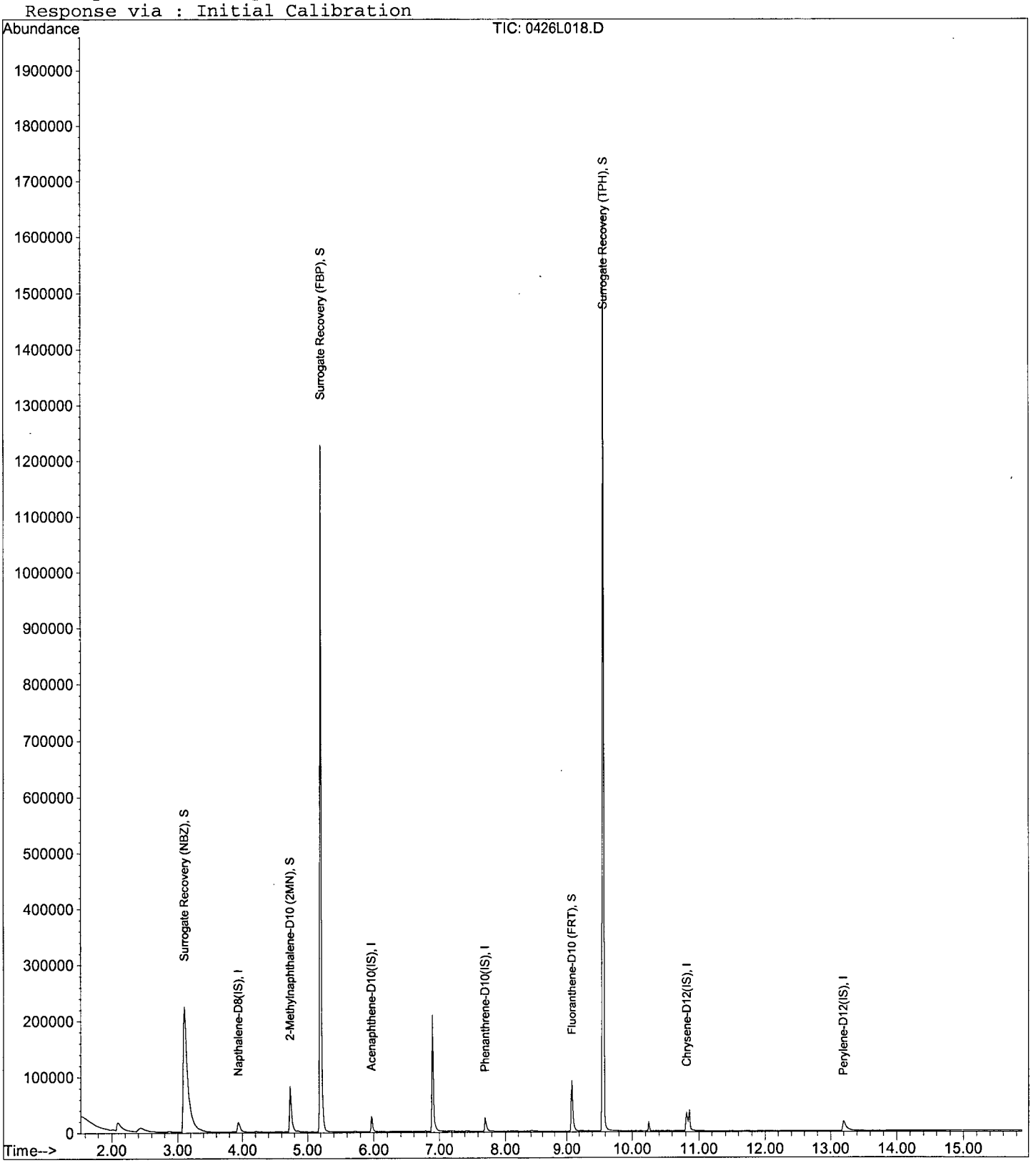
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L018.D Vial: 18
Acq On : 26 Apr 19 20:58 Operator: MA
Sample : AZ90058W22 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:20 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L019.D Vial: 19
Acq On : 26 Apr 19 21:21 Operator: MA
Sample : AZ90060W22 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:20 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 42355 | 2.50000 ppb | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 19313 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 35424 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.82 | 240 | 53302 | 2.50000 ppb | 0.02 |
| 23) Perylene-D12(IS) | 13.20 | 264 | 52649 | 2.50000 ppb | 0.03 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 741185 | 122.60330 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1961.648% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 110291 | 6.01182 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 96.192% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1115868 | 98.10553 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1569.696% | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 146990 | 6.06528 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 97.040% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1343525 | 88.91463 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1422.640% | |
| **Target Compounds** | | | | | Qvalue |

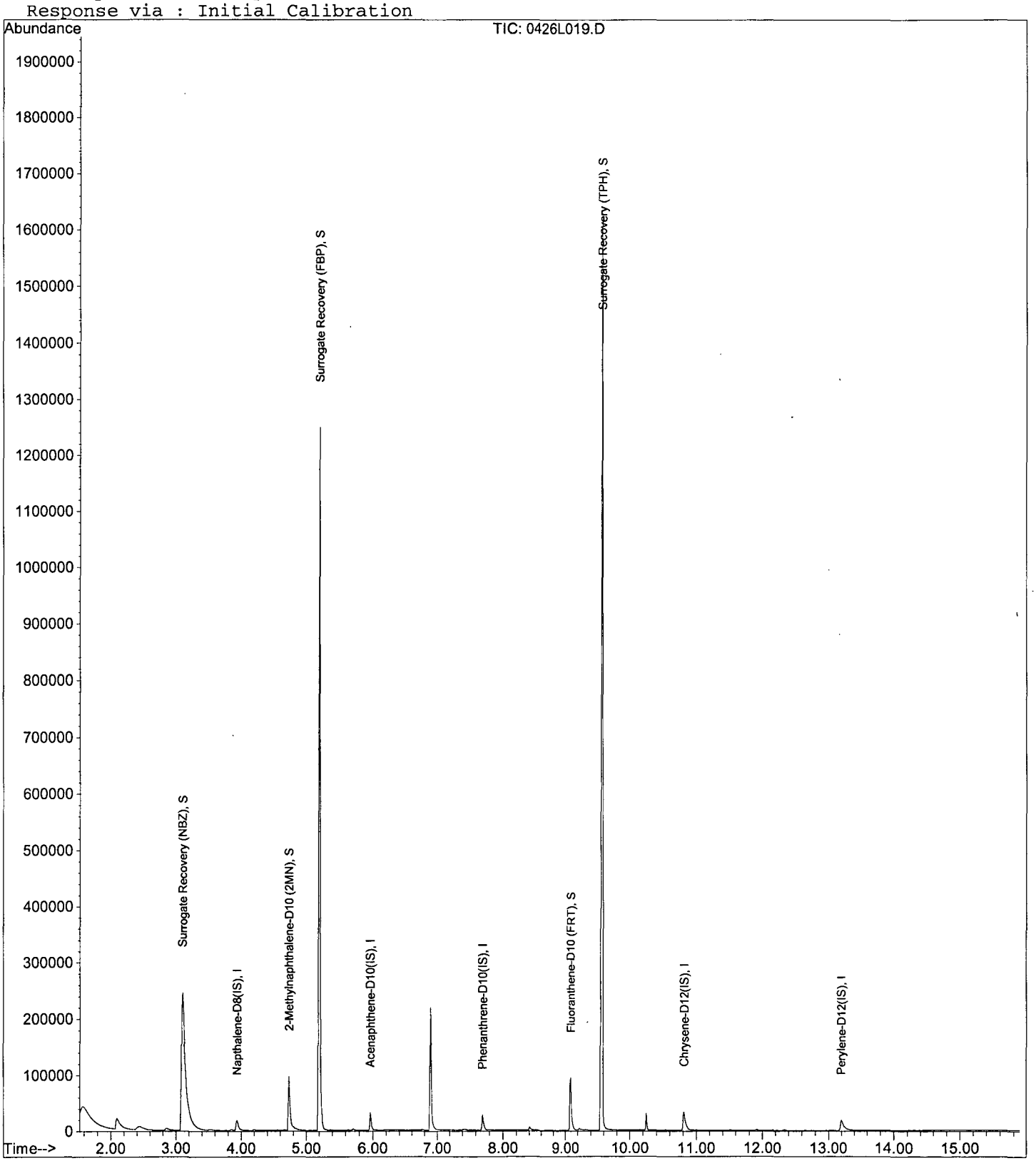
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L019.D Vial: 19
Acq On : 26 Apr 19 21:21 Operator: MA
Sample : AZ90060W22 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:20 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L004.D Vial: 4
Acq On : 26 Apr 19 15:45 Operator: MA
Sample : 190424A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:17 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.92 | 136 | 61581 | 2.50000 ppb | -0.01 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 27671 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 51116 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.80 | 240 | 74152 | 2.50000 ppb | 0.01 |
| 23) Perylene-D12(IS) | 13.18 | 264 | 72779 | 2.50000 ppb | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.09 | 82 | 725628 | 82.55579 ppb | -0.04 |
| Spiked Amount 6.250 | | | Recovery | = 1320.896% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 114213 | 4.28193 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 68.512% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1109405 | 68.07626 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1089.216% | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 149516 | 4.27555 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 68.416% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1299739 | 61.83071 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 989.296% | |

Target Compounds Qvalue

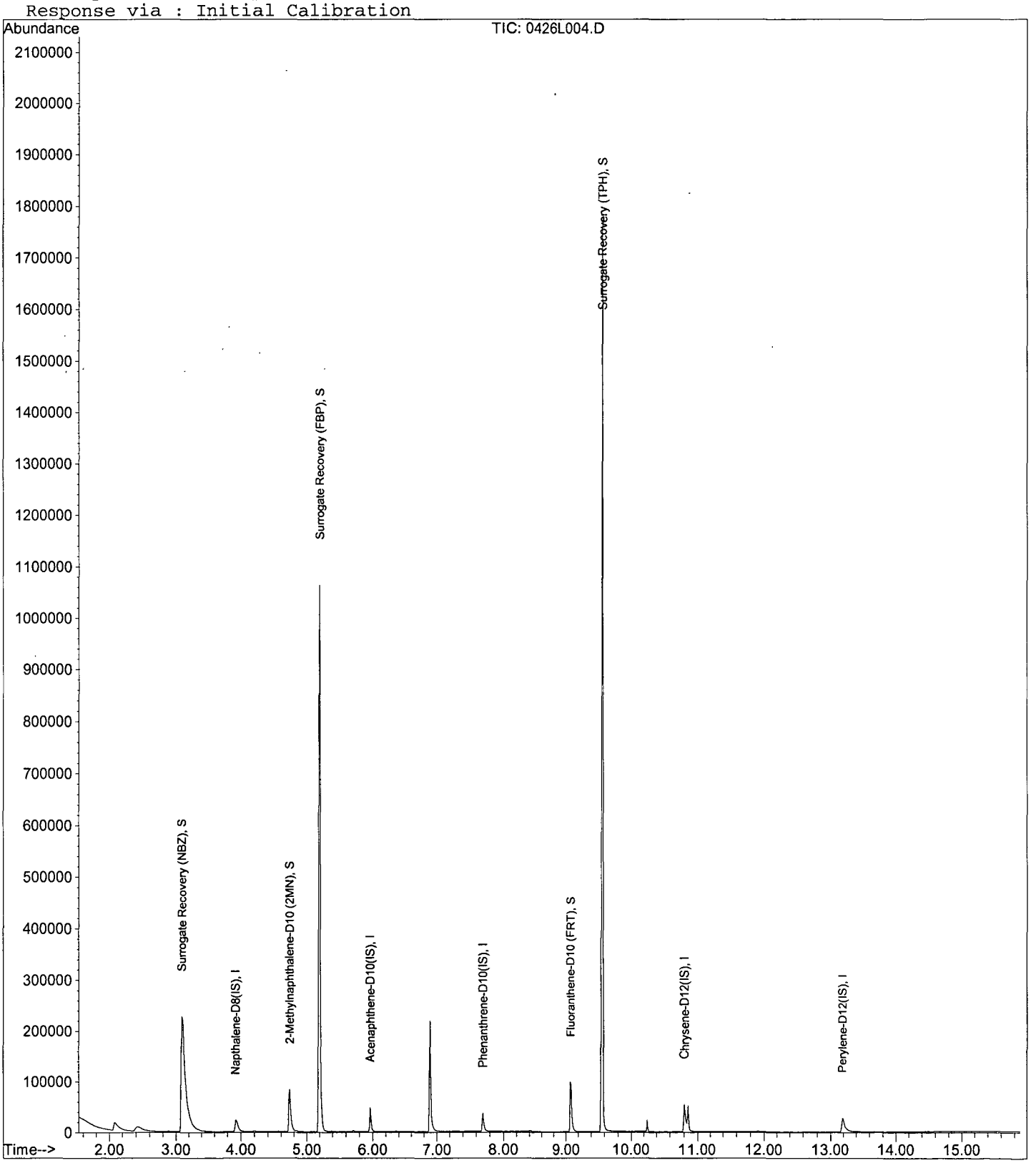
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L004.D Vial: 4
Acq On : 26 Apr 19 15:45 Operator: MA
Sample : 190424A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:17 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L005.D Vial: 5
Acq On : 26 Apr 19 16:07 Operator: MA
Sample : 190424A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.92 | 136 | 61600 | 2.50000 ppb | | -0.01 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 26296 | 2.50000 ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 49643 | 2.50000 ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.78 | 240 | 71987 | 2.50000 ppb | | -0.01 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 68680 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 0.00 | 82 | 0 | 0.00000 ppb | | |
| Spiked Amount 6.250 | | | Recovery | = 0.000% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 114360 | 4.28611 ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 68.576% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 68 | 0.00439 ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 0.064% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 154945 | 4.56226 ppb | | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 72.992% | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 427 | 0.02092 ppb | | 0.01 |
| Spiked Amount 6.250 | | | Recovery | = 0.336% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.95 | 128 | 119158 | 4.60145 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 70469 | 4.82530 ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 70028 | 4.33852 ppb | | 95 |
| 9) Acenaphthylene | 5.81 | 152 | 236354 | 4.96736 ppb | | 99 |
| 10) Acenaphthene | 6.00 | 154 | 62571 | 4.98687 ppb | | 100 |
| 11) Fluorene | 6.60 | 166 | 81645 | 5.19638 ppb | | 97 |
| 13) Phenanthrene | 7.71 | 178 | 107061 | 4.63765 ppb | | 98 |
| 14) Anthracene | 7.79 | 178 | 100226 | 4.51974 ppb | | 100 |
| 16) Fluoranthene | 9.10 | 202 | 172578 | 4.49535 ppb | # | 91 |
| 18) Pyrene | 9.36 | 202 | 178576 | 4.58187 ppb | | 95 |
| 20) Benz (a) anthracene | 10.77 | 228 | 133526 | 4.18443 ppb | | 98 |
| 21) Chrysene | 10.82 | 228 | 153531 | 4.73138 ppb | # | 97 |
| 22) Indeno (1,2,3-cd) pyrene | 14.67 | 276 | 157926 | 4.64341 ppb | # | 82 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 124752 | 4.39072 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.52 | 252 | 162449 | 5.03807 ppb | | 98 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 125100 | 4.33954 ppb | | 97 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 130275 | 4.84935 ppb | # | 92 |
| 28) Benzo (g,h,i) perylene | 15.03 | 276 | 128476 | 4.66133 ppb | | 95 |

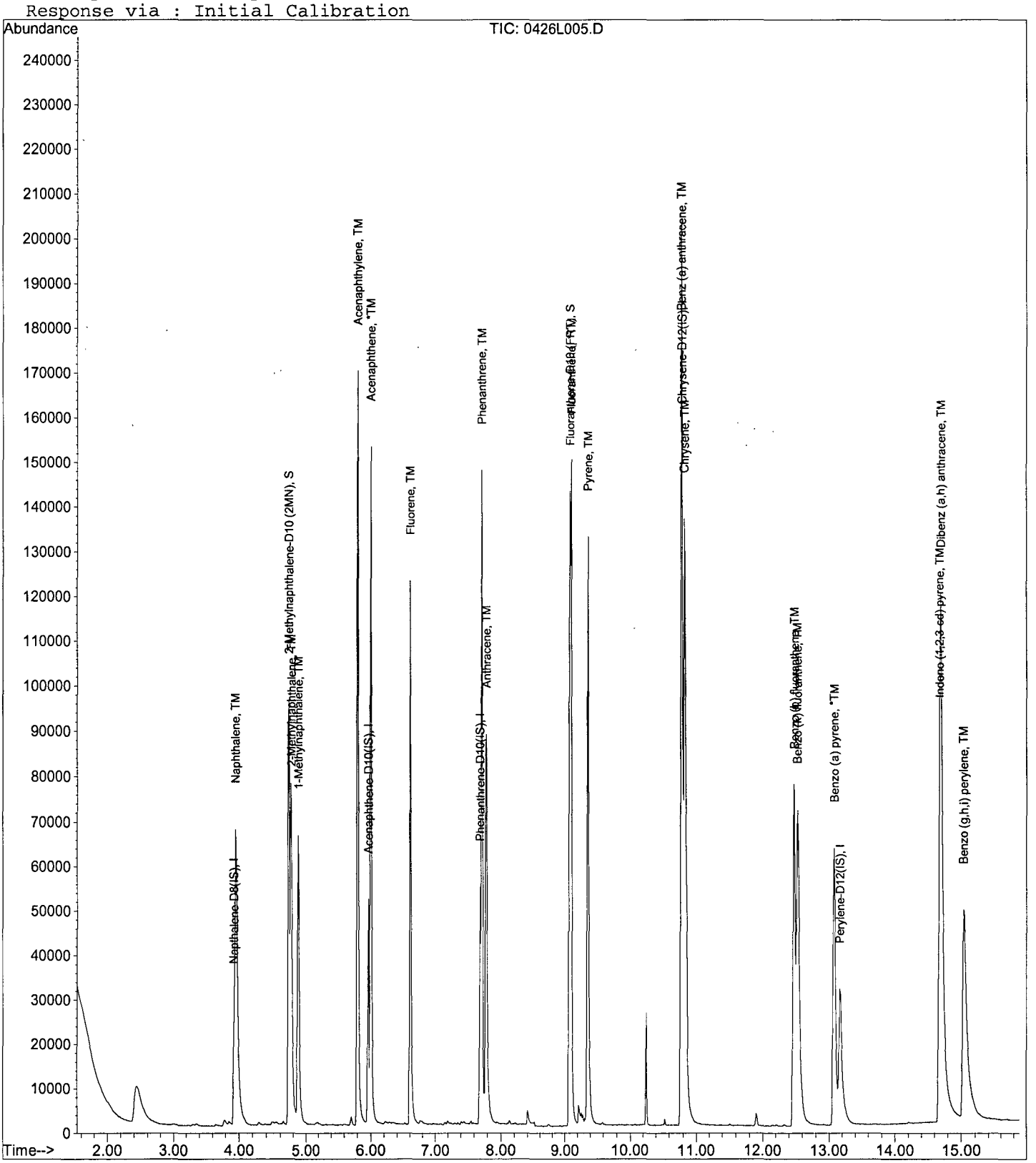
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L005.D Vial: 5
Acq On : 26 Apr 19 16:07 Operator: MA
Sample : 190424A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L006.D Vial: 6
Acq On : 26 Apr 19 16:29 Operator: MA
Sample : 190424A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 61904 | 2.50000 | ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 27133 | 2.50000 | ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 50790 | 2.50000 | ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.78 | 240 | 73769 | 2.50000 | ppb | | -0.01 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 73093 | 2.50000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 0.00 | 82 | 0 | 0.00000 | ppb | | |
| Spiked Amount 6.250 | | | Recovery | = 0.000% | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 115101 | 4.29270 | ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 68.688% | | | |
| 8) Surrogate Recovery (FBP) | 5.23 | 172 | 61 | 0.00382 | ppb | | 0.01 |
| Spiked Amount 6.250 | | | Recovery | = 0.064% | | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 156005 | 4.48974 | ppb | | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 71.840% | | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 265 | 0.01267 | ppb | | 0.01 |
| Spiked Amount 6.250 | | | Recovery | = 0.208% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 119326 | 4.58531 | ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 70567 | 4.80828 | ppb | | 97 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 70112 | 4.32239 | ppb | | 97 |
| 9) Acenaphthylene | 5.81 | 152 | 236980 | 4.82688 | ppb | | 99 |
| 10) Acenaphthene | 6.00 | 154 | 62873 | 4.85637 | ppb | | 100 |
| 11) Fluorene | 6.60 | 166 | 83195 | 5.13169 | ppb | | 96 |
| 13) Phenanthrene | 7.71 | 178 | 105658 | 4.47352 | ppb | | 98 |
| 14) Anthracene | 7.79 | 178 | 100191 | 4.41613 | ppb | | 100 |
| 16) Fluoranthene | 9.10 | 202 | 174429 | 4.44095 | ppb | # | 92 |
| 18) Pyrene | 9.36 | 202 | 175430 | 4.39242 | ppb | | 98 |
| 20) Benz (a) anthracene | 10.77 | 228 | 132176 | 4.04206 | ppb | | 98 |
| 21) Chrysene | 10.82 | 228 | 152369 | 4.58215 | ppb | | 97 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 156504 | 4.49045 | ppb | # | 81 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 122959 | 4.06633 | ppb | | 98 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 163967 | 4.77813 | ppb | | 99 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 126932 | 4.13725 | ppb | | 97 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 129586 | 4.53247 | ppb | # | 93 |
| 28) Benzo (g,h,i) perylene | 15.03 | 276 | 127250 | 4.33810 | ppb | | 95 |

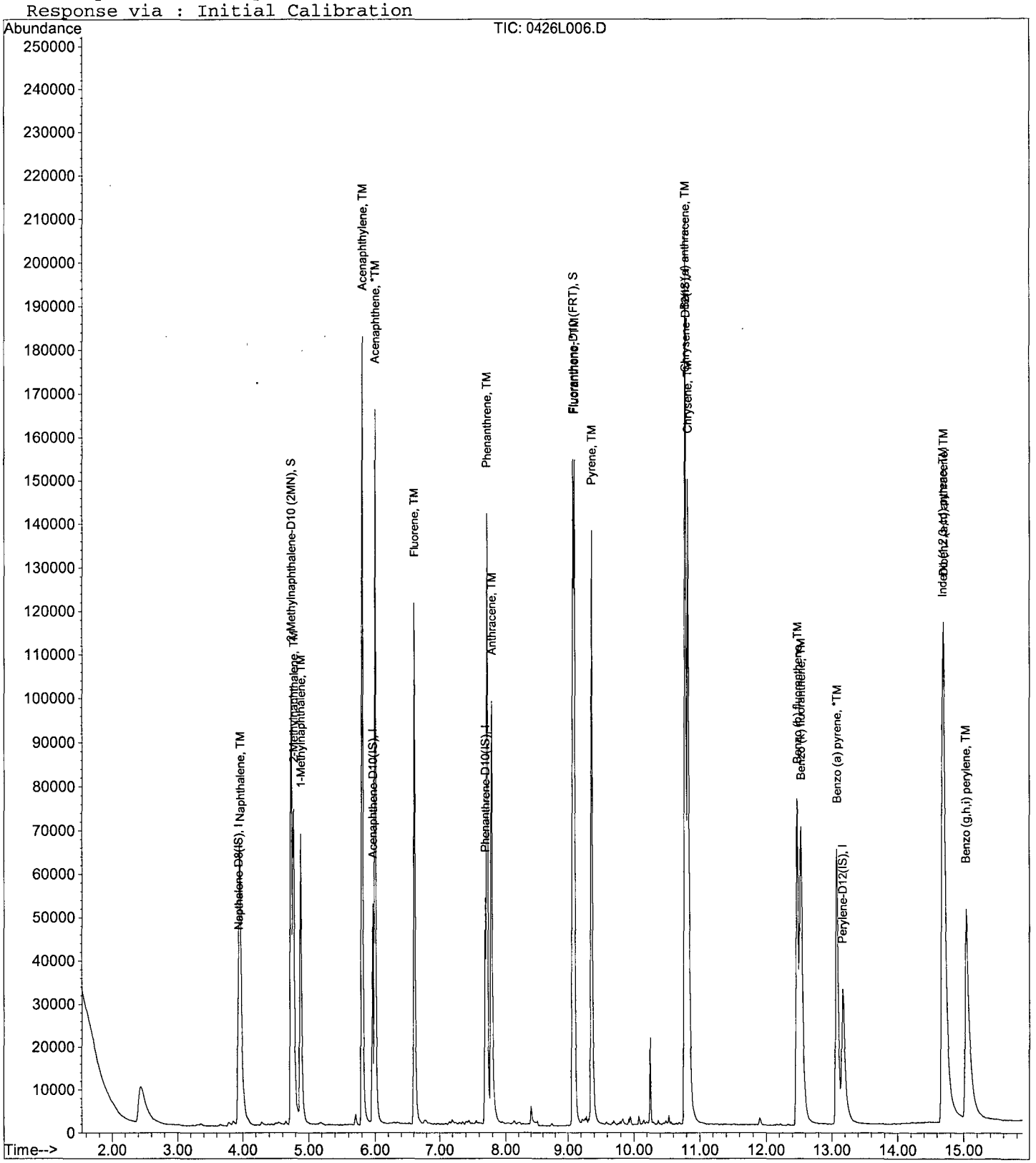
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L006.D Vial: 6
Acq On : 26 Apr 19 16:29 Operator: MA
Sample : 190424A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L013.D Vial: 13
Acq On : 26 Apr 19 19:06 Operator: MA
Sample : AZ90051W38 MS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 50394 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 21769 | 2.50000 ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 39937 | 2.50000 ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 59814 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 56078 | 2.50000 ppb | | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 0.00 | 82 | 0 | 0.00000 ppb | | |
| Spiked Amount 6.250 | | | Recovery | = 0.000% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 118797 | 5.44248 ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 87.072% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 227 | 0.01771 ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 0.288% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 154968 | 5.67188 ppb | | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 90.752% | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 777 | 0.04582 ppb | | 0.01 |
| Spiked Amount 6.250 | | | Recovery | = 0.736% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 124964 | 5.89873 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 72761 | 6.09013 ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 72659 | 5.50252 ppb | | 96 |
| 9) Acenaphthylene | 5.81 | 152 | 242782 | 6.16355 ppb | | 100 |
| 10) Acenaphthene | 6.00 | 154 | 64140 | 6.17498 ppb | | 95 |
| 11) Fluorene | 6.62 | 166 | 84417 | 6.49011 ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 105941 | 5.70445 ppb | | 99 |
| 14) Anthracene | 7.79 | 178 | 105434 | 5.91012 ppb | | 99 |
| 16) Fluoranthene | 9.10 | 202 | 177350 | 5.74237 ppb | # | 88 |
| 18) Pyrene | 9.36 | 202 | 180912 | 5.58648 ppb | | 99 |
| 20) Benz (a) anthracene | 10.77 | 228 | 141438 | 5.33443 ppb | | 97 |
| 21) Chrysene | 10.83 | 228 | 147730 | 5.47914 ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 160500 | 5.67950 ppb | # | 83 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 132512 | 5.71190 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 162283 | 6.16393 ppb | | 100 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 126449 | 5.37204 ppb | # | 95 |
| 27) Dibenz (a,h) anthracene | 14.71 | 278 | 132572 | 6.04382 ppb | | 96 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 126995 | 5.64302 ppb | | 98 |

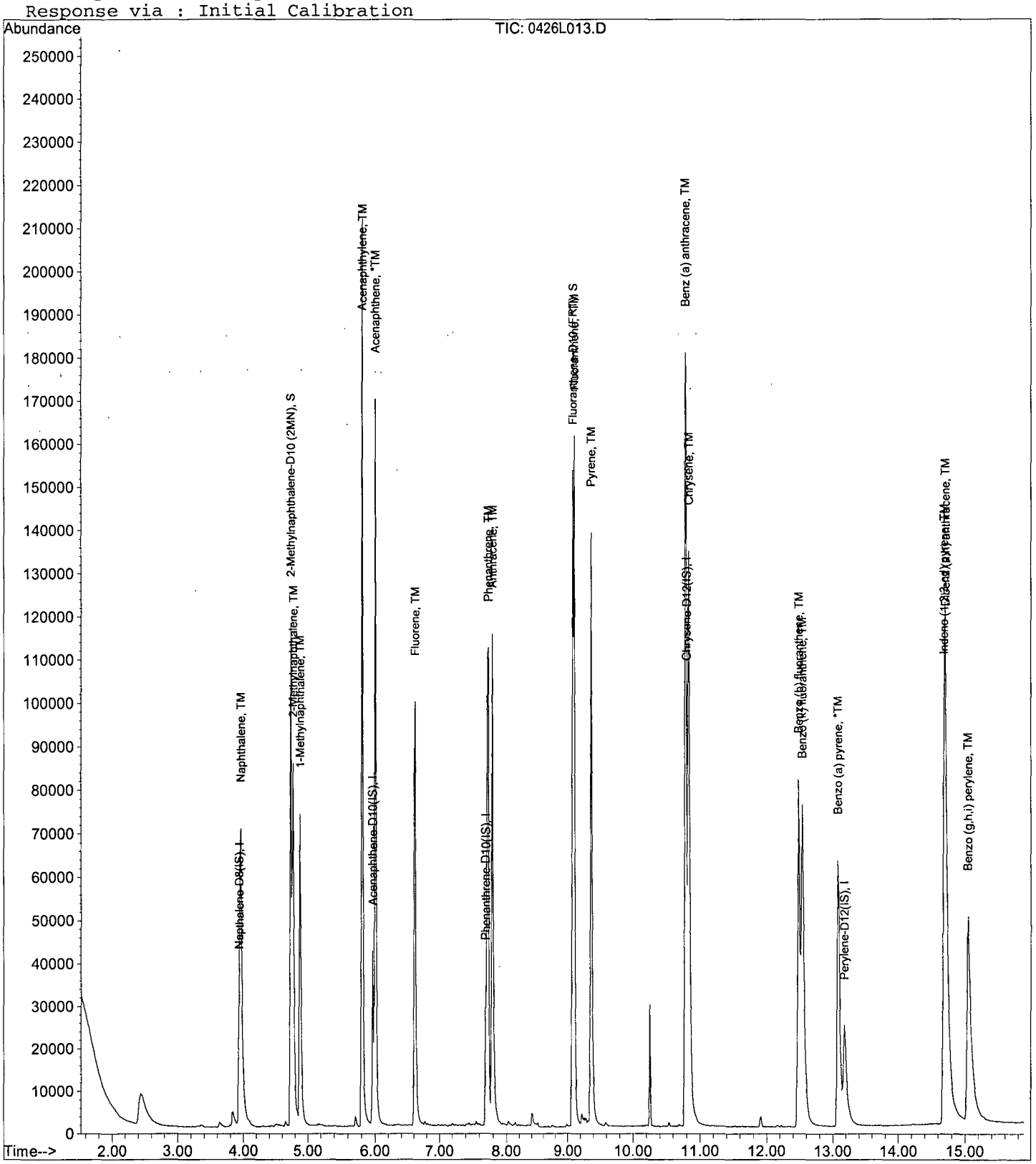
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L013.D Vial: 13
Acq On : 26 Apr 19 19:06 Operator: MA
Sample : AZ90051W38 MS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L014.D Vial: 14
Acq On : 26 Apr 19 19:29 Operator: MA
Sample : AZ90051W36 MSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 43526 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 19312 | 2.50000 ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 37941 | 2.50000 ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 56419 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.18 | 264 | 54157 | 2.50000 ppb | | 0.02 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 0.00 | 82 | 0 | 0.00000 ppb | | |
| Spiked Amount 6.250 | | | Recovery | = 0.000% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 111557 | 5.91723 ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 94.672% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 217 | 0.01908 ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 0.304% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 151559 | 5.83894 ppb | | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 93.424% | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 645 | 0.04033 ppb | | 0.01 |
| Spiked Amount 6.250 | | | Recovery | = 0.640% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 116531 | 6.36862 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 68086 | 6.59805 ppb | | 100 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 69561 | 6.09913 ppb | | 96 |
| 9) Acenaphthylene | 5.81 | 152 | 230541 | 6.59741 ppb | | 99 |
| 10) Acenaphthene | 6.00 | 154 | 60684 | 6.58555 ppb | | 95 |
| 11) Fluorene | 6.62 | 166 | 79534 | 6.89265 ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 98976 | 5.60978 ppb | | 99 |
| 14) Anthracene | 7.79 | 178 | 95978 | 5.66310 ppb | | 99 |
| 16) Fluoranthene | 9.10 | 202 | 159054 | 5.42090 ppb | # | 82 |
| 18) Pyrene | 9.36 | 202 | 172790 | 5.65675 ppb | | 95 |
| 20) Benz (a) anthracene | 10.78 | 228 | 131492 | 5.25773 ppb | | 99 |
| 21) Chrysene | 10.83 | 228 | 145154 | 5.70755 ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.69 | 276 | 149330 | 5.60221 ppb | # | 82 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 121271 | 5.41278 ppb | | 98 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 149757 | 5.88993 ppb | | 98 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 119929 | 5.27577 ppb | # | 94 |
| 27) Dibenz (a,h) anthracene | 14.71 | 278 | 123357 | 5.82320 ppb | # | 94 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 120517 | 5.54513 ppb | | 95 |

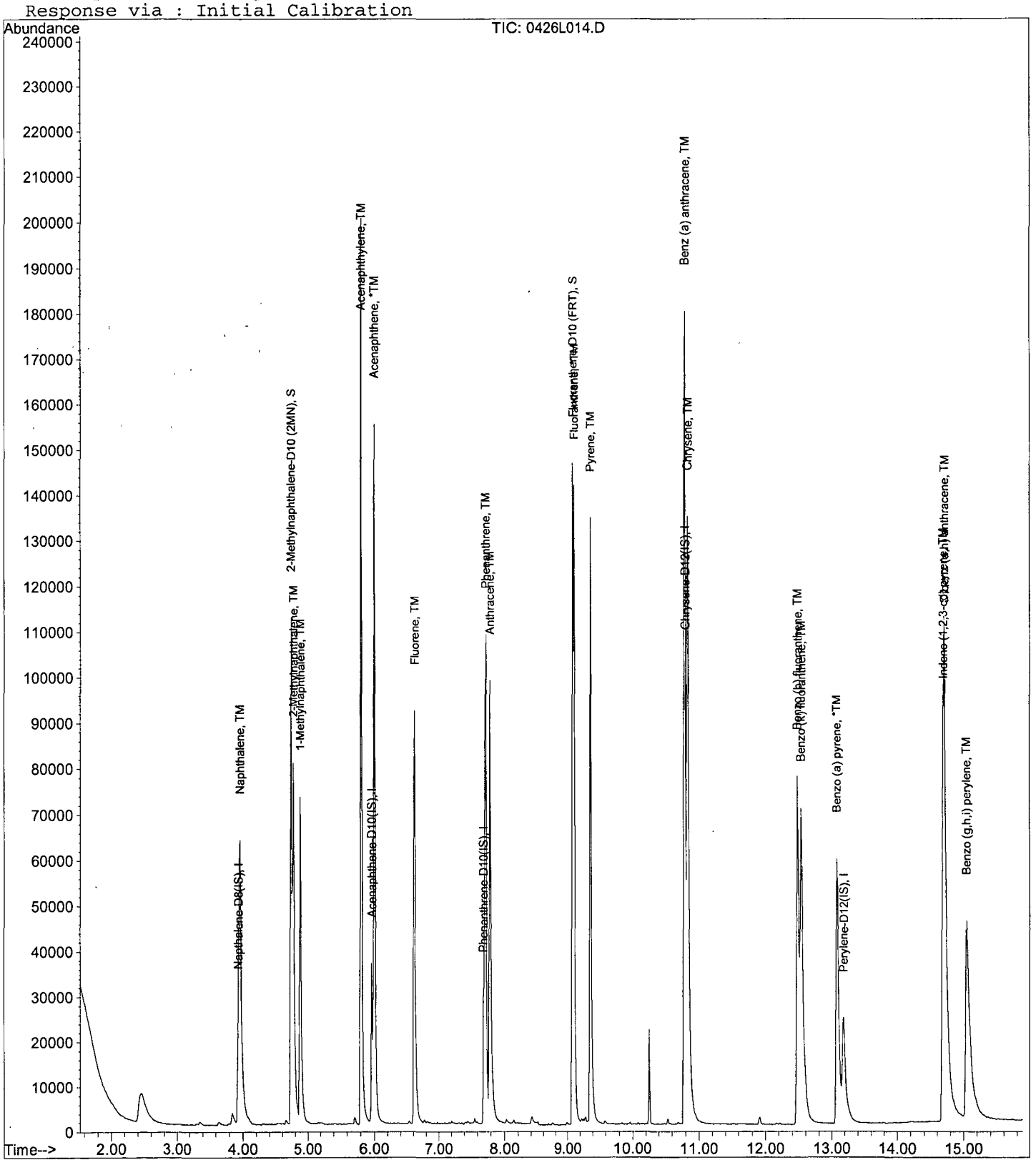
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L014.D Vial: 14
Acq On : 26 Apr 19 19:29 Operator: MA
Sample : AZ90051W36 MSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

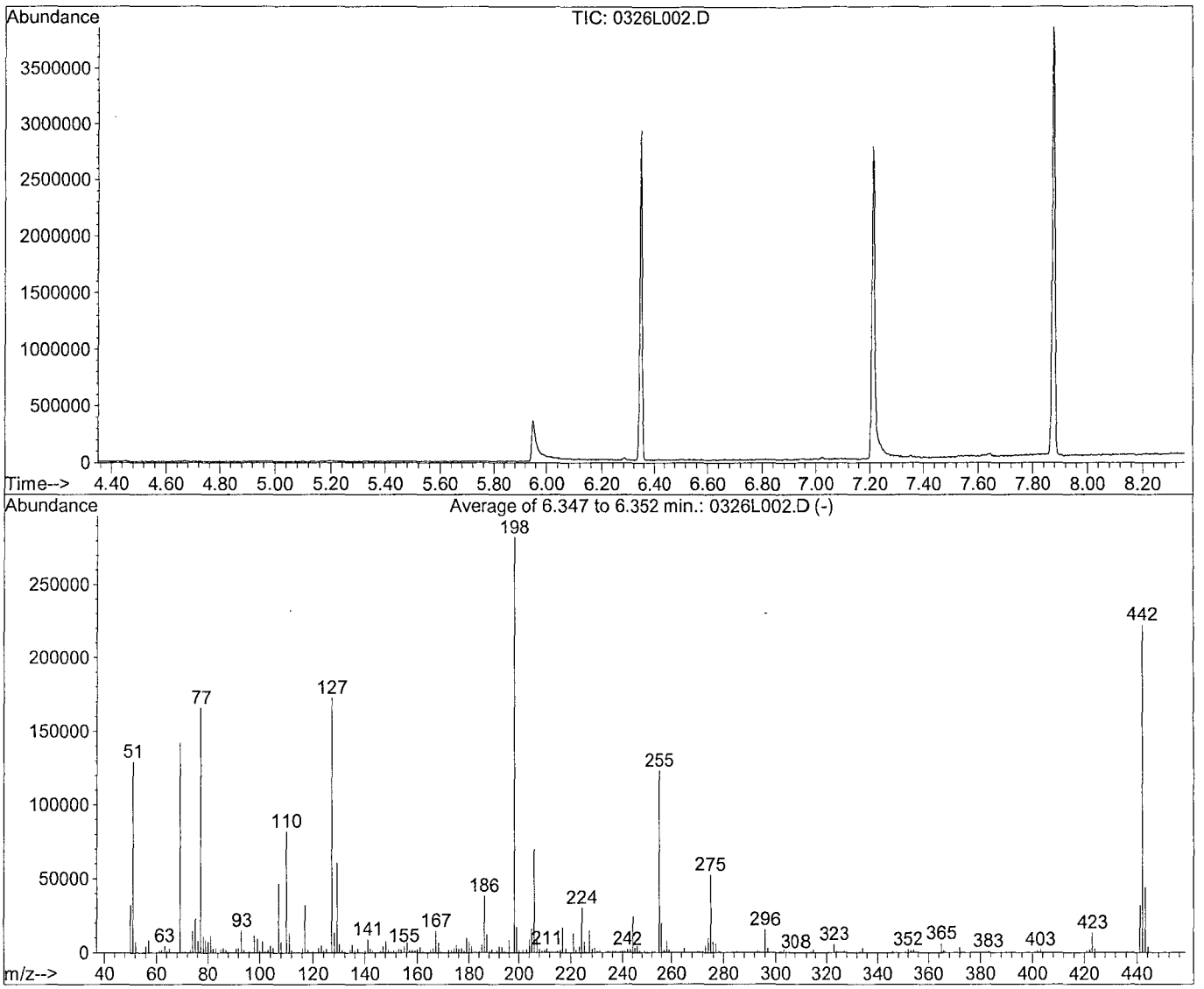
Quant Time: Apr 30 9:10 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L190326\0326L002.D  Vial: 2
Acq On : 26 Mar 19 9:39  Operator: MA
Sample : SV Tune 10/11/18  Inst : Linus
Misc :  Multiplr: 1.00

Method : M:\LINUS\DATA\L190326\L0122.M (RTE Integrator)
Title : EPA 8270




AutoFind: Scans 1511, 1512, 1513; Background Corrected with Scan 1501

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 45.8 | 129276 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.4 | 622 | PASS |
| 127 | 198 | 10 | 80 | 61.0 | 172437 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 282517 | PASS |
| 199 | 198 | 5 | 9 | 6.0 | 17040 | PASS |
| 275 | 198 | 10 | 60 | 18.6 | 52443 | PASS |
| 365 | 198 | 1 | 100 | 2.2 | 6254 | PASS |
| 441 | 442 | 0.01 | 24 | 14.3 | 31867 | PASS |
| 442 | 198 | 50 | 150 | 78.8 | 222613 | PASS |
| 443 | 442 | 15 | 24 | 19.8 | 44029 | PASS |

| | |
|---|---|
| Data File Name: | **0326L002.D** |
| Data File Path: | **M:\LINUS\DATA\L190326** |
| Operator: | **MA** |
| Date Acquired: | **26 Mar 2019 09:39** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV Tune 10/11/18** |
| Vial Number: | **2** |
| Instrument Name: | **Linus** |

| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.88 | 26061300 |
| 2) | DDD | 7.65 | 254374 |
| 3) | DDE | 7.70 | 0 |

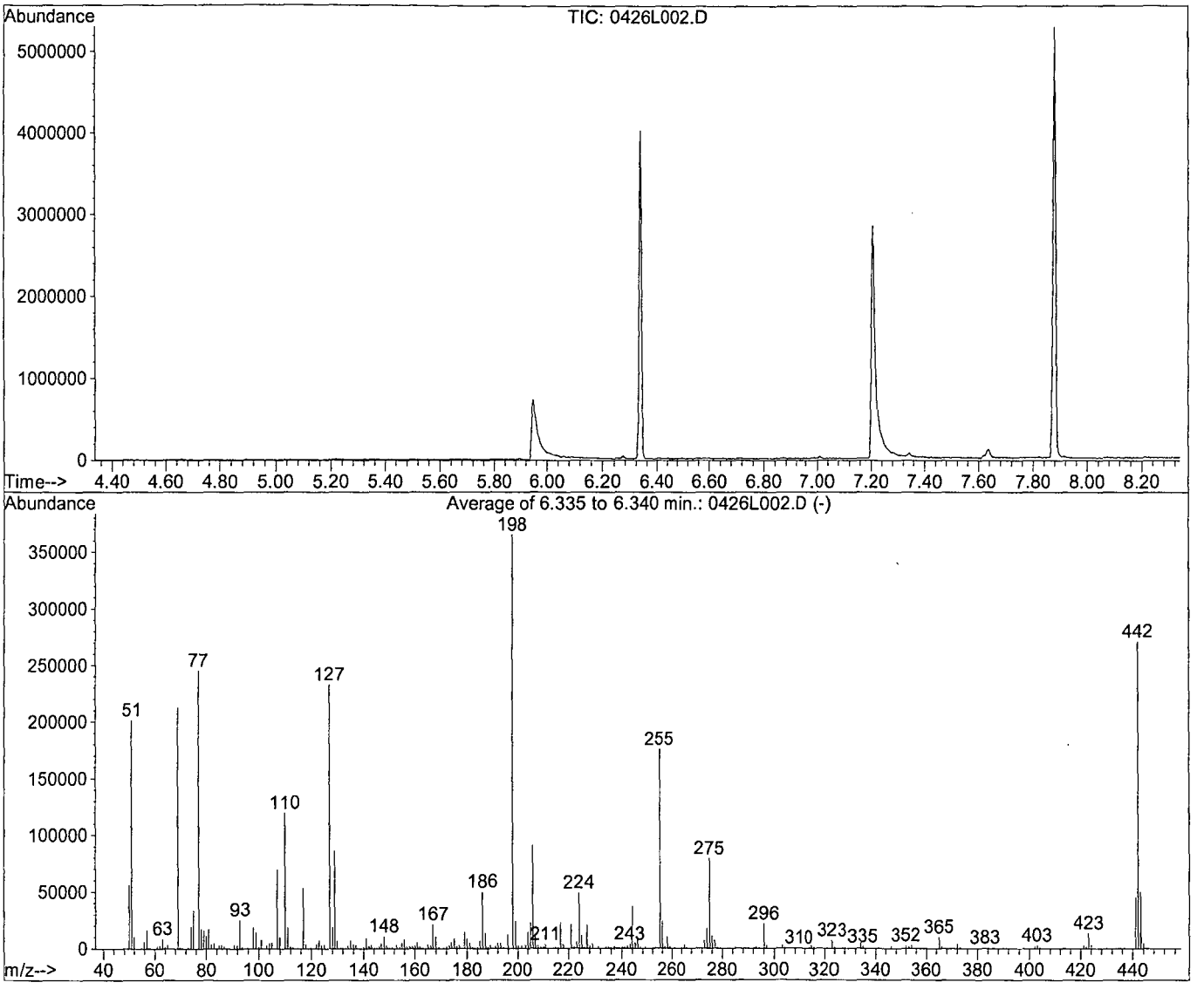
Breakdown **0.97**

DFTPP

Data File : M:\LINUS\DATA\L190426\0426L002.D
Acq On : 26 Apr 19 14:15
Sample : SV Tune 10/11/18
Misc :

Vial: 2
Operator: MA
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270




AutoFind: Scans 1506, 1507, 1508; Background Corrected with Scan 1497

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 55.2 | 201498 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.6 | 1295 | PASS |
| 127 | 198 | 10 | 80 | 63.7 | 232811 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 365355 | PASS |
| 199 | 198 | 5 | 9 | 6.6 | 23994 | PASS |
| 275 | 198 | 10 | 60 | 21.6 | 78763 | PASS |
| 365 | 198 | 1 | 100 | 2.7 | 9938 | PASS |
| 441 | 442 | 0.01 | 24 | 16.7 | 45291 | PASS |
| 442 | 198 | 50 | 150 | 74.2 | 271168 | PASS |
| 443 | 442 | 15 | 24 | 18.4 | 49955 | PASS |

0426L002.D L0326.M Fri Apr 26 14:50:49 2019

| | |
|---|---|
| Data File Name: | **0426L002.D** |
| Data File Path: | **M:\LINUS\DATA\L190426** |
| Operator: | **MA** |
| Date Acquired: | **26 Apr 2019 14:15** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV Tune 10/11/18** |
| Vial Number: | **2** |
| Instrument Name: | **Linus** |

| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.88 | 36076400 |
| 2) | DDD | 7.65 | 1238690 |
| 3) | DDE | 7.70 | 0 |

Breakdown **3.32**

| Name of Final Standard | Semivolatile (SV) Tuning Solution | Prep'd By (Initials) | GA |
|---|---|---|---|
| Prep Date | 10/11/18 | | |
| Exp Date | 09/30/19 | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Semivolatile GC/MS Tuning Standard | Ultra Scientific | GCM-150-1 | 1,000 ug/mL | CR3789-38879 | **09/30/19** | 1,250 uL | 25 mL | **MC #56258** | 50 ug/mL |

Name of Final Standard: **SIM Curve** Prep'd By (Initials): GA

Prep Date: 03/06/19

Exp Date: 06/01/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 1.0 ug/mL SIM | Phenova | 1.0 ug/mL SIM | 1.0 ug/mL | 03/06/19 | 06/01/19 | 10 uL | 100uL | MC 56258 90uL | 0.1 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 1.0 ug/mL SIM | Phenova | 1.0 ug/mL SIM | 1.0 ug/mL | 03/06/19 | 06/01/19 | 20 uL | 100uL | MC 56258 80uL | 0.2 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 5.0 ug/mL SIM | Phenova | 5.0 ug/mL SIM | 5.0 ug/mL | 03/06/19 | 06/01/19 | 10 uL | 100uL | MC 56258 90uL | 0.5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 5.0 ug/mL SIM | APPL | 5.0 ug/mL SIM | 5.0 ug/mL | 03/06/19 | 06/01/19 | 20 uL | 100uL | MC 56258 80 uL | 1.0 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | 12/28/18 | 12/28/19 | 5 uL | 200uL | MC 56258 190 uL | 5.0 ug/mL |
| Sim 2S Surrogate | Restek | SIM 2S SURR | 100 ug/mL | 06/07/18 | 06/01/19 | 5 uL | * | * | 2.5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 4 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | 12/28/18 | 12/28/19 | 5 uL | 100 uL | MC 56258 90 uL | 10 ug/mL |
| Sim 2S Surrogate | APPL | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 5 uL | * | * | 5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | 12/28/18 | 12/28/19 | 25 uL | 100uL | MC 56258 50 uL | 50 ug/mL |
| Sim 2S Surrogate | Restek | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 25 uL | * | * | 25 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | 12/28/18 | 12/28/19 | 50 uL | 100uL | na | 100 ug/mL |
| Sim 2S Surrogate | Restek | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 50 uL | * | * | 50 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |

Name of Final Standard: **8270 PAH SIM Second Source** Prep'd By (Initials): GA

Prep Date: 03/06/19

Exp Date: 11/06/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| PAH SIM SS Stock | Phenova | AL0-130490 | 200 ug/mL | 12/28/18 | 12/28/19 | 5 uL | 200uL | MC 56258 195uL | 5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 4 uL | * | * | 2.5ug/mL |

Name of Final Standard: **SIM Curve** Prep'd By (Initials): GA

Prep Date: 01/18/19

Exp Date: 06/01/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 1.0 ug/mL SIM | Phenova | 1.0 ug/mL SIM | 1.0 ug/mL | 01/18/19 | 06/01/19 | 10 uL | 100uL | MC 56258 90uL | 0.1 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 1.0 ug/mL SIM | Phenova | 1.0 ug/mL SIM | 1.0 ug/mL | 01/18/19 | 06/01/19 | 20 uL | 100uL | MC 56258 80uL | 0.2 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 5.0 ug/mL SIM | Phenova | 5.0 ug/mL SIM | 5.0 ug/mL | 01/18/19 | 06/01/19 | 10 uL | 100uL | MC 56258 90uL | 0.5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 5.0 ug/mL SIM | APPL | 5.0 ug/mL SIM | 5.0 ug/mL | 01/18/19 | 06/01/19 | 20 uL | 100uL | MC 56258 80 uL | 1.0 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | CL13117-40078 | 12/28/19 | 5 uL | 200uL | MC 56258 190 uL | 5.0 ug/mL |
| SIM 2S SURROGATE | Restek | SIM 2S SURR | 100 ug/mL | 06/07/18 | 06/01/19 | 5 uL | * | * | 5.0 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 4 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | CL13117-40078 | 12/28/19 | 5 uL | 100 uL | MC 56258 90 uL | 10 ug/mL |
| SIM 2S SURROGATE | APPL | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 5 uL | * | * | 10 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 | CL13117-40078 | 12/28/19 | 25 uL | 100uL | MC 56258 50 uL | 50 ug/mL |
| SIM 2S SURROGATE | Restek | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 25 uL | * | * | 50 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | CL13117-40078 | 12/28/19 | 50 uL | 100uL | na | 100 ug/mL |
| SIM 2S SURROGATE | Restek | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 50 uL | * | * | 100 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |

Name of Final Standard: **8270 PAH SIM Second Source** Prep'd By (Initials): GA

Prep Date: 01/18/19

Exp Date: 06/01/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| PAH SIM SS Stock | Phenova | AL0-130490 | 200 ug/mL | CL13121 - 40082 | 12/28/19 | 5 uL | 200uL | MC 56258 195uL | 5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 4 uL | * | * | 2.5ug/mL |

**Name of Final Standard** **SIM 2S Surrogate** **Prep'd By (Initials)** **GA**

**Prep Date** **06/07/18**
**Exp Date** **06/01/19**

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| SIM Surrogate Mix | Restek | 33913 | 2000 ug/mL | **A0131716-38553 & 38554** | **06/01/19 06/07/19** | 250 uL | 5 mL | **Acetone #030817A** | 100 ug/mL |
| 8270 B/N surrog mix | Restek | 31086 | 5000 ug/mL | **A0135243-39162** | **06/04/19** | 100 uL | * | * | * |

**Name of Final Standard** 8270 SIM PAH Internal Standard **Prep'd By (Initials)** GA

**Prep Date** 11/06/18

**Exp Date** 11/06/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| SV Internal Standard | Restek | 31206 | 2000 ug/mL | **A0130603-38560** | **11/06/19** | 350 uL | 5,600 uL | **MC 56258 5,250 uL** | 125 ug/mL |

**Name of Final Standard** PAH SIM Spike (Ampules) **Prep'd By (Initials)** OA

**Prep Date** 12/17/18

**Exp Date** 12/17/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 8270D PAH SIM | O2SI | 110780-01 | 200 ug/mL | **353450-39730** | **12/17/19** | 1 mL | 1 mL | **NA** | 200ug/mL |

**Name of Final Standard** **SIM Surrogate** **Prep'd By (Initials)** **GA**

**Prep Date** **01/24/19**

**Exp Date** **06/07/19**

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Sim Surrogate Deuterated | Restek | 33913 | 2000 ug/mL | **A0131716 - 38554 A0137718 - 39318** | **06/07/19 01/24/20** | 1250 uL | 25 mL | **Acetone #101717I** | 100 ug/mL |

**Name of Final Standard** **PAH SIM Spike (Ampules)** **Prep'd By (Initials)** **OA**

**Prep Date** **02/22/19**
**Exp Date** **02/22/20**

| Initial Standard Information | | | | | | Final Standard | | |
|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Standard Conc (range) |
| 8270D PAH SIM | O2SI | 110780-01 | 200 ug/mL | **355613-39771** | **02/22/20** | 1 mL | 1 mL | 200ug/mL |

# Organic Extraction Worksheet

| Method | Continuous Liquid/Liquid SVOC 3520C | Extraction Set | 190424A | Extraction Method | LIQ003 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | 8270T Spike 4-12-19 EXP 10-20-19 | | Surrogate ID 1 | 8270 Surrogate 4-10-19 EXP 3-15-20 | |
| Spiked ID 2 | Sim Spike 3-20-19 EXP 3-20-20 | | Surrogate ID 2 | SIM Surrogate 3-25-19 EXP 3-25-20 | |
| 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: | yes | |
| Spiked ID 7 | | | Ext. Start Time: | 04/24/19 14:25, 04/25/19 11:20 | |
| Spiked ID 8 | | | Ext. End Time: | 04/25/19 9:30, 04/26/19 17:30, 4/26/19 14:30 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 04/24/19 1:05:00 PM | Water Bath Temp Criteria | 75,70 °C |
| pH2 | 14 | 4/24/19 11:10:00 AM | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/24/19 **Witnessed By:** DL **Date** 04/24/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190424A Blk | | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP51 e-wb6 | | | | |
| 2 | 190424A LCS-1 | | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP50 E-WB6 | | | | |
| 3 | 190424A LCS-2 | | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP49 E-WB6 | | | | |
| 4 | 190424A LCSD-1 | | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP48 E-WB6 | | | | |
| 5 | 190424A LCSD-2 | | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP47 E-WB6 | | | | |
| 6 | AZ89958 MS-1 | AZ89958W28 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP25 E-WB6 | | | | |
| 7 | AZ89958 MSD-1 | AZ89958W34 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP26 E-WB6 | | | | |
| 8 | AZ89958 MS-2 | AZ89958W33 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP27 E-WB6 | | | | |
| 9 | AZ89958 MSD-2 | AZ89958W36 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP28 E-WB6 | | | | |
| 10 | AZ89958 | AZ89958W30 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP29 E-WB6 | | | | |
| 11 | AZ89959 | AZ89959W07 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP30 E-WB5 | | | | |
| 12 | AZ89961 | AZ89961W14 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP17 E-WB5 | | | | |
| 13 | AZ90051 MS-1 | AZ90051W39 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP10 E-WB5 | | | | |
| 14 | AZ90051 MSD-1 | AZ90051W40 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP9 E-WB5 | | | | |
| 15 | AZ90051 MS-2 | AZ90051W38 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP7 E-WB5 | | | | |
| 16 | AZ90051 MSD-2 | AZ90051W36 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP6 E-WB5 | | | | |

| Solvent and Lot# | |
|---|---|
| PH Strips | HC 863463 |
| Dichloromethane (DCM) | 58240 |
| 1+1 H2SO4 | 4-22-19 |
| 10N NaOH | 4-22-19 |
| Filter Paper | 400148 |
| Acidified Na2SO4 | 2-28-19 |
| B. Na2SO4 | 18D105205 |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | SS |
| Date | 4/26/19 |
| Time | 1100 |
| Refrigerator | GC-C |

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

| Modified | 04/30/19 12:47:43 PM |
|---|---|

**Reviewed By:** KS **Date** 4/30/19

# Organic Extraction Worksheet

| Method | Continuous Liquid/Liquid SVOC 3520C | Extraction Set | 190424A | Extraction Method | LIQ003 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | 8270T Spike 4-12-19 EXP 10-20-19 | | Surrogate ID 1 | 8270 Surrogate 4-10-19 EXP 3-15-20 | |
| Spiked ID 2 | Sim Spike 3-20-19 EXP 3-20-20 | | Surrogate ID 2 | SIM Surrogate 3-25-19 EXP 3-25-20 | |
| 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: | yes | |
| Spiked ID 7 | | | Ext. Start Time: | 04/24/19 14:25 , 04/25/19 11:20 | |
| Spiked ID 8 | | | Ext. End Time: | 04/25/19 9:30 , 04/26/19 17:30 , 4/26/19 14:20 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 04/24/19 1:05:00 PM | Water Bath Temp Criteria | 75,70 °C |
| pH2 | 14 | 4/24/19 11:10:00 AM | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/24/19 **Witnessed By:** DL **Date** 04/24/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | AZ90051 | AZ90051W37 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP11 E-WB5 | | | | |
| 18 | AZ90052 | AZ90052W11 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP13 E-WB5 | | | | |
| 19 | AZ90054 | AZ90054W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP16 E-WB5 | | | | |
| 20 | AZ90056 | AZ90056W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP15 E-WB5 | | | | |
| 21 | AZ90058 | AZ90058W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP14 E-WB5 | | | | |
| 22 | AZ90060 | AZ90060W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP12 E-WB5 | | | | |

KS 4/30/19

| Solvent and Lot# | |
|---|---|
| PH Strips | HC 863463 |
| Dichloromethane (DCM) | 58240 |
| 1+1 H2SO4 | 4-22-19 |
| 10N NaOH | 4-22-19 |
| Filter Paper | 400148 |
| Acidified Na2SO4 | 2-28-19 |
| B. Na2SO4 | 18D105205 |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | |
| Date | |
| Time | |
| Refrigerator | |

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

| Modified | 04/30/19 12:47:43 PM |
|---|---|

**Reviewed By:** KS **Date** 4/30/19

# Injection Log

Directory: M:\LINUS\DATA\L190326\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 2 | 0326L002.D | 1 | SV Tune 10/11/18 | | 26 Mar 19 9:39 |
| 2 | 5 | 0326L005.D | 1 | 0.5 SIM 03/06/19 | | 26 Mar 19 10:39 |
| 3 | 6 | 0326L006.D | 1 | 1 SIM 03/06/19 | | 26 Mar 19 11:01 |
| 4 | 7 | 0326L007.D | 1 | 5 SIM 03/06/19 | | 26 Mar 19 11:23 |
| 5 | 8 | 0326L008.D | 1 | 10 SIM 03/06/19 | | 26 Mar 19 11:45 |
| 6 | 9 | 0326L009.D | 1 | 50 SIM 03/06/19 | | 26 Mar 19 12:08 |
| 7 | 10 | 0326L010.D | 1 | 100 SIM 03/06/19 | | 26 Mar 19 12:30 |
| 8 | 12 | 0326L012.D | 1 | 0.2 SIM 01/18/19 | | 26 Mar 19 15:55 |
| 9 | 13 | 0326L013.D | 1 | 0.1 SIM 01/18/19 | | 26 Mar 19 17:05 |
| 10 | 14 | 0326L014.D | 1 | SS SIM 03/06/19 | | 26 Mar 19 17:27 |
| 11 | 2 | 0426L002.D | 1 | SV Tune 10/11/18 | | 26 Apr 19 14:15 |
| 12 | 3 | 0426L003.D | 1 | 5 SIM 03/06/19 | | 26 Apr 19 14:31 |
| 13 | 4 | 0426L004.D | 1.25 | 190424A BLK 1/800 | | 26 Apr 19 15:45 |
| 14 | 5 | 0426L005.D | 1.25 | 190424A LCS-2 1/800 | | 26 Apr 19 16:07 |
| 15 | 6 | 0426L006.D | 1.25 | 190424A LCSD-2 1/800 | | 26 Apr 19 16:29 |
| 16 | 12 | 0426L012.D | 1.25 | AZ90051W37 1/800 | | 26 Apr 19 18:44 |
| 17 | 13 | 0426L013.D | 1.25 | AZ90051W38 MS-2 1/800 | | 26 Apr 19 19:06 |
| 18 | 14 | 0426L014.D | 1.25 | AZ90051W36 MSD-2 1/800 | | 26 Apr 19 19:29 |
| 19 | 15 | 0426L015.D | 1.25 | AZ90052W11 1/800 | | 26 Apr 19 19:51 |
| 20 | 16 | 0426L016.D | 1.25 | AZ90054W22 1/800 | | 26 Apr 19 20:14 |
| 21 | 17 | 0426L017.D | 1.25 | AZ90056W22 1/800 | | 26 Apr 19 20:36 |
| 22 | 18 | 0426L018.D | 1.25 | AZ90058W22 1/800 | | 26 Apr 19 20:58 |
| 23 | 19 | 0426L019.D | 1.25 | AZ90060W22 1/800 | | 26 Apr 19 21:21 |
| 24 | 20 | 0426L020.D | 1 | 5 SIM 03/06/19 | | 26 Apr 19 21:43 |

# ORGANICS
# Calibration Data

Semi-Volatile Analysis by GC-MS
EPA 8270

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/19/19
Matrix: Instrument: Yoda
Initials: MA/JMP

| | | Compound | 4 | 5 | 10 | 20 | 40 | 50 | 60 | 80 | 100 | | Avg | %RSD | Type | r^2 | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0319Y004.D | 0319Y005.D | 0319Y006.D | 0319Y007.D | 0319Y008.D | 0319Y003.D | 0319Y009.D | 0319Y010 D | 0319Y011.D | | | | | | | |
| 1 | I | 1,4-dichlorobenzene-D4(IS) | ISTD | | | | | | | | | | | | | | | |
| 2 | | 1,4-Dioxane | | 0.2083 | 0.2289 | 0.2577 | 0.2765 | 0.3092 | 0.3137 | 0.3004 | 0.2718 | | 0.27 | 14 | | | | |
| 3 | TM | n-Nitrosodimethylamine | | 0.6432 | 0.5399 | 0.5100 | 0.4462 | 0.5113 | 0.4873 | 0.4661 | 0.4623 | | 0.51 | 12 | TM | | | |
| 4 | TM | Pyridine | | 1.255 | 1.395 | 1.213 | 1.241 | 1.247 | 1.229 | 1.101 | 1.098 | | 1.2 | 7.7 | TM | | | |
| 5 | S | 2-Fluorophenol (S) | | 1.375 | 1.526 | 1.553 | 1.455 | 1.536 | 1.549 | 1.482 | 1.487 | | 1.5 | 4.0 | S | | | |
| 6 | S | Phenol-D6 (S) | | 1.849 | 2.006 | 2.053 | 1.890 | 2.013 | 2.009 | 1.900 | 1.917 | | 2.0 | 3.8 | S | | | |
| 7 | *TM | Phenol | | 2.418 | 2.403 | 2.277 | 2.046 | 2.081 | 2.107 | 2.009 | 1.961 | | 2.2 | 8.3 | *TM | | | 0.800 |
| 8 | TM | Aniline | | 2.284 | 2.346 | 2.196 | 2.060 | 2.006 | 2.081 | 1.961 | 1.933 | | 2.1 | 7.2 | TM | | | |
| 9 | TM | Bis (2-chloroethyl) ether | | 1.068 | 1.038 | 0.9839 | 0.9400 | 0.9369 | 0.9481 | 0.8915 | 0.8834 | | 0.96 | 6.8 | TM | | | 0.700 |
| 10 | TM | 2-Chlorophenol | | 1.699 | 1.735 | 1.606 | 1.517 | 1.552 | 1.559 | 1.477 | 1.441 | | 1.6 | 6.5 | TM | | | 0.800 |
| 11 | TM | 1,3-DCB | | 1.869 | 1.829 | 1.683 | 1.591 | 1.607 | 1.620 | 1.523 | 1.490 | | 1.7 | 8.2 | TM | | | |
| 12 | *TM | 1,4-DCB | | 1.996 | 1.861 | 1.738 | 1.623 | 1.664 | 1.647 | 1.546 | 1.513 | | 1.7 | 9.5 | *TM | | | |
| 13 | TM | Benzyl alcohol | | 0.9401 | 0.9733 | 0.9065 | 0.8909 | 0.9247 | 0.9210 | 0.8902 | 0.8725 | | 0.91 | 3.5 | TM | | | |
| 14 | TM | 1,2-DCB | | 1.824 | 1.731 | 1.617 | 1.495 | 1.541 | 1.517 | 1.451 | 1.417 | | 1.6 | 9.0 | TM | | | |
| 15 | TM | 2-Methylphenol | | 1.623 | 1.481 | 1.389 | 1.309 | 1.330 | 1.329 | 1.261 | 1.243 | | 1.4 | 9.2 | TM | | | 0.700 |
| 16 | TM | Bis (2-chloroisopropyl) ether | | 1.614 | 1.589 | 1.448 | 1.349 | 1.383 | 1.381 | 1.296 | 1.267 | | 1.4 | 9.0 | TM | | | 0.010 |
| 17 | TM | Acetophenone | | 2.397 | 2.321 | 2.123 | 2.020 | 2.056 | 2.039 | 1.942 | 1.896 | | 2.1 | 8.4 | TM | | | 0.010 |
| 18 | TM | 3&4-Methylphenol | | 1.847 | 1.780 | 1.676 | 1.580 | 1.620 | 1.613 | 1.541 | 1.506 | | 1.6 | 7.1 | TM | | | 0.600 |
| 19 | **TM | n-Nitrosodi-n-propylamine | | 1.325 | 1.288 | 1.159 | 1.114 | 1.129 | 1.116 | 1.050 | 1.037 | | 1.2 | 9.0 | **TM | | | 0.500 |
| 20 | TM | Hexachloroethane | | 0.7326 | 0.7189 | 0.6438 | 0.6187 | 0.6212 | 0.6148 | 0.5862 | 0.5788 | | 0.64 | 8.9 | TM | | | 0.300 |
| 21 | I | Napthalene-D8(IS) | ISTD | | | | | | | | | | | | | | | |
| 22 | S | Nitrobenzene-D5(S) | | 0.4036 | 0.4481 | 0.4428 | 0.4092 | 0.4401 | 0.4199 | 0.4120 | 0.4051 | | 0.42 | 4.3 | S | | | |
| 23 | TM | Nitrobenzene | | 0.4636 | 0.4541 | 0.4209 | 0.3913 | 0.4042 | 0.3893 | 0.3799 | 0.3626 | | 0.41 | 8.7 | TM | | | 0.200 |
| 24 | TM | Isophorone | | 0.7995 | 0.7871 | 0.7264 | 0.6740 | 0.7092 | 0.6839 | 0.6638 | 0.6355 | | 0.71 | 8.2 | TM | | | 0.400 |
| 25 | *TM | 2-Nitrophenol | | 0.2130 | 0.2243 | 0.2061 | 0.2032 | 0.2140 | 0.2031 | 0.1972 | 0.1946 | | 0.21 | 4.7 | *TM | | | 0.100 |
| 26 | TM | 2,4-Dimethylphenol | | 0.3719 | 0.3513 | 0.3249 | 0.3195 | 0.3247 | 0.3133 | 0.3054 | 0.2986 | | 0.33 | 7.4 | TM | | | 0.200 |
| 27 | TM | Benzoic acid | | | 0.1610 | 0.2025 | 0.2286 | 0.2242 | 0.2467 | 0.2499 | 0.2474 | | 0.22 | 14 | TM | | | |
| 28 | TM | Bis (2-chloroethoxy) methane | | 0.4841 | 0.4859 | 0.4404 | 0.4136 | 0.4319 | 0.4182 | 0.4019 | 0.3931 | | 0.43 | 8.1 | TM | | | 0.300 |
| 29 | *TM | 2,4-Dichlorophenol | | 0.2934 | 0.2985 | 0.2811 | 0.2683 | 0.2800 | 0.2689 | 0.2659 | 0.2569 | | 0.28 | 5.2 | *TM | | | 0.200 |
| 30 | TM | 1,2,4-Trichlorobenzene | | 0.3367 | 0.3392 | 0.3144 | 0.2936 | 0.3050 | 0.2892 | 0.2812 | 0.2699 | | 0.30 | 8.3 | TM | | | |
| 31 | TM | 3,4-Dimethylphenol | | 0.5587 | 0.5474 | 0.4891 | 0.4564 | 0.4760 | 0.4559 | 0.4449 | 0.4308 | | 0.48 | 9.8 | TM | | | |
| 32 | TM | Naphthalene | | 1.237 | 1.222 | 1.100 | 1.039 | 1.078 | 1.023 | 0.9927 | 0.9676 | | 1.1 | 9.3 | TM | | | 0.700 |
| 33 | TM | 4-Chloroaniline | | 0.4513 | 0.4768 | 0.4305 | 0.3918 | 0.3933 | 0.3784 | 0.3518 | 0.3185 | | 0.40 | 13 | TM | | | 0.010 |
| 34 | TM | 2,6-Dichlorophenol | | 0.3085 | 0.3065 | 0.2861 | 0.2670 | 0.2807 | 0.2665 | 0.2580 | 0.2515 | | 0.28 | 7.7 | TM | | | |
| 35 | TM | Hexachloropropene | | 0.1687 | 0.1744 | 0.1722 | 0.1660 | 0.1739 | 0.1681 | 0.1639 | 0.1625 | | 0.17 | 2.7 | TM | | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/19/19
Matrix: Instrument: Yoda Initials:

| | | Compound | 4 | 5 | 10 | 20 | 40 | 50 | 60 | 80 | 100 | | Avg | %RSD | Type | | Q | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | *TM | Hexachlorobutadiene | | 0.1694 | 0.1661 | 0.1534 | 0.1428 | 0.1491 | 0.1420 | 0.1371 | 0.1317 | | 0.15 | 9.0 | *TM | | | 0.010 |
| 37 | TM | Caprolactum | | 0.1478 | 0.1541 | 0.1397 | 0.1352 | 0.1418 | 0.1370 | 0.1308 | 0.1287 | | 0.14 | 6.1 | TM | | | 0.010 |
| 38 | *TM | 4-Chloro-3-methylphenol | | 0.3629 | 0.3613 | 0.3391 | 0.3259 | 0.3411 | 0.3277 | 0.3136 | 0.3108 | | 0.34 | 5.9 | *TM | | | 0.200 |
| 39 | TM | 2-Methylnaphthalene | | 0.7804 | 0.7657 | 0.7030 | 0.6569 | 0.6856 | 0.6652 | 0.6437 | 0.6212 | | 0.69 | 8.2 | TM | | | 0.400 |
| 40 | TM | 1-Methylnaphthalene | | 0.8230 | 0.8014 | 0.7233 | 0.6897 | 0.6992 | 0.6841 | 0.6613 | 0.6407 | | 0.72 | 9.1 | TM | | | |
| 41 | I | Acenaphthene-D10(IS) | ISTD | | | | | | | | | | | | | | | |
| 42 | **TMQ | Hexachlorocyclopentadiene | | | | 0.0301 | 0.0672 | 0.0885 | 0.1000 | 0.1257 | 0.1432 | | 0.09 | 44 | **TMQ | 0.999 | | 0.050 |
| 43 | TM | 1,2,4,5-Tetrachlorobenzene | | 0.5827 | 0.5952 | 0.5304 | 0.5097 | 0.5190 | 0.4978 | 0.4794 | 0.4637 | | 0.52 | 8.9 | TM | | | 0.010 |
| 44 | *TM | 2,4,6-Trichlorophenol | | 0.3548 | 0.3607 | 0.3334 | 0.3325 | 0.3415 | 0.3279 | 0.3212 | 0.3146 | | 0.34 | 4.7 | *TM | | | 0.200 |
| 45 | TM | 2,4,5-Trichlorophenol | | 0.3961 | 0.4059 | 0.3592 | 0.3559 | 0.3567 | 0.3419 | 0.3391 | 0.3327 | | 0.36 | 7.4 | TM | | | 0.200 |
| 46 | S | 2-Fluorobiphenyl(S) | | 1.491 | 1.616 | 1.556 | 1.423 | 1.484 | 1.458 | 1.405 | 1.382 | | 1.5 | 5.3 | S | | | |
| 47 | TM | 1,1'-Biphenyl | | 1.864 | 1.851 | 1.700 | 1.616 | 1.634 | 1.564 | 1.518 | 1.480 | | 1.7 | 8.7 | TM | | | 0.010 |
| 48 | TM | 2-Chloronaphthalene | | 1.393 | 1.437 | 1.279 | 1.200 | 1.220 | 1.182 | 1.129 | 1.109 | | 1.2 | 9.5 | TM | | | 0.800 |
| 49 | TM | 2-Nitroaniline | | 0.4278 | 0.4515 | 0.4195 | 0.4009 | 0.4153 | 0.3909 | 0.3810 | 0.3738 | | 0.41 | 6.4 | TM | | | 0.010 |
| 50 | TM | Dimethyl phthalate | | 1.618 | 1.625 | 1.487 | 1.404 | 1.413 | 1.384 | 1.328 | 1.306 | | 1.4 | 8.4 | TM | | | 0.010 |
| 51 | TM | 2,6-DNT | | 0.3572 | 0.3611 | 0.3439 | 0.3373 | 0.3359 | 0.3312 | 0.3188 | 0.3185 | | 0.34 | 4.7 | TM | | | 0.200 |
| 52 | TM | Acenaphthylene | | 2.241 | 2.183 | 2.017 | 1.915 | 1.932 | 1.881 | 1.811 | 1.765 | | 2.0 | 8.6 | TM | | | 0.900 |
| 53 | TM | 3-Nitroaniline | | 0.3751 | 0.4164 | 0.3837 | 0.3767 | 0.3749 | 0.3636 | 0.3469 | 0.3348 | | 0.37 | 6.6 | TM | | | 0.010 |
| 54 | *TM | Acenaphthene | | 1.477 | 1.436 | 1.295 | 1.236 | 1.235 | 1.192 | 1.154 | 1.118 | | 1.3 | 10 | *TM | | | 0.900 |
| 55 | **TML | 2,4-Dinitrophenol | | | 0.0629 | 0.0984 | 0.1325 | 0.1407 | 0.1477 | 0.1554 | 0.1622 | | 0.13 | 28 | **TML | 0.998 | | 0.010 |
| 56 | **TMQ | 4-Nitrophenol | | | | 0.0399 | 0.2038 | 0.2264 | 0.2092 | 0.2146 | 0.2178 | | 0.19 | 39 | **TMQ | 0.993 | | 0.010 |
| 57 | TM | Dibenzofuran | | 2.010 | 1.948 | 1.757 | 1.676 | 1.685 | 1.610 | 1.564 | 1.514 | | 1.7 | 10 | TM | | | 0.800 |
| 58 | TM | 2,4-DNT | | 0.4665 | 0.4994 | 0.4758 | 0.4552 | 0.4666 | 0.4495 | 0.4242 | 0.4174 | | 0.46 | 5.9 | TM | | | 0.200 |
| 59 | TM | 2,3,4,6-Tetrachlorophenol | | 0.1873 | 0.2274 | 0.2275 | 0.2353 | 0.2494 | 0.2360 | 0.2358 | 0.2348 | | 0.23 | 8.0 | TM | | | 0.010 |
| 60 | TM | Diethyl phthalate | | 1.622 | 1.615 | 1.470 | 1.404 | 1.397 | 1.359 | 1.303 | 1.243 | | 1.4 | 9.6 | TM | | | 0.010 |
| 61 | TM | 4-Chlorophenyl phenyl ether | | 0.7793 | 0.7448 | 0.6754 | 0.6269 | 0.6475 | 0.6168 | 0.5875 | 0.5816 | | 0.66 | 11 | TM | | | 0.400 |
| 62 | TM | Fluorene | | 1.649 | 1.624 | 1.484 | 1.408 | 1.404 | 1.348 | 1.297 | 1.268 | | 1.4 | 9.9 | TM | | | 0.900 |
| 63 | TM | 4-Nitroaniline | | 0.4183 | 0.4299 | 0.3988 | 0.3690 | 0.3701 | 0.3531 | 0.3384 | 0.3290 | | 0.38 | 9.8 | TM | | | 0.010 |
| 64 | S | 2,4,6-Tribromophenol(S) | | 0.1108 | 0.1312 | 0.1374 | 0.1314 | 0.1423 | 0.1391 | 0.1326 | 0.1359 | | 0.13 | 7.3 | S | | | |
| 65 | I | Phenanthrene-D10(IS) | ISTD | | | | | | | | | | | | | | | |
| 66 | TM | 4,6-Dinitro-2-methylphenol | | 0.1114 | 0.1353 | 0.1511 | 0.1561 | 0.1630 | 0.1612 | 0.1567 | 0.1592 | | 0.15 | 12 | TM | | | 0.010 |
| 67 | TM | Diphenyl amine | | 0.7664 | 0.7653 | 0.6881 | 0.6527 | 0.6549 | 0.6478 | 0.6004 | 0.5930 | | 0.67 | 9.8 | TM | | | |
| 68 | *TM | n-Nitrosodiphenylamine | | 0.7664 | 0.7653 | 0.6881 | 0.6527 | 0.6549 | 0.6478 | 0.6004 | 0.5930 | | 0.67 | 9.8 | *TM | | | 0.010 |
| 69 | TM | 1,2-Diphenylhydrazine | | 1.063 | 1.009 | 0.9258 | 0.8681 | 0.8924 | 0.8755 | 0.9545 | 0.9253 | | 0.94 | 7.2 | TM | | | |
| 70 | TM | 4-Bromophenyl phenyl ether | | 0.2299 | 0.2348 | 0.2119 | 0.2034 | 0.2080 | 0.2040 | 0.1924 | 0.1907 | | 0.21 | 7.6 | TM | | | 0.100 |

Semi-Volatile Analysis by GC-MS
EPA 8270

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/19/19
Matrix: Instrument: Yoda Initials:

| | | Compound | 4 | 5 | 10 | 20 | 40 | 50 | 60 | 80 | 100 | | Avg | %RSD | Type | | Q | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | TM | Hexachlorobenzene | | 0.2203 | 0.2151 | 0.1979 | 0.1863 | 0.1927 | 0.1876 | 0.1800 | 0.1758 | | 0.19 | 8.2 | TM | | | 0.100 |
| 72 | TM | Atrazine | | 0.2516 | 0.2617 | 0.2290 | 0.2249 | 0.2273 | 0.2233 | 0.2103 | 0.2067 | | 0.23 | 8.2 | TM | | | 0.010 |
| 73 | *TML | Pentachlorophenol | | | 0.0405 | 0.0499 | 0.0629 | 0.0766 | 0.0666 | 0.0749 | 0.0786 | | 0.06 | 22 | *TML | 0.992 | | 0.050 |
| 74 | TM | Phenanthrene | | 1.407 | 1.374 | 1.246 | 1.173 | 1.199 | 1.179 | 1.110 | 1.091 | | 1.2 | 9.4 | TM | | | 0.700 |
| 75 | TM | Anthracene | | 1.450 | 1.477 | 1.323 | 1.248 | 1.258 | 1.248 | 1.175 | 1.149 | | 1.3 | 9.2 | TM | | | 0.700 |
| 76 | TM | Carbazol | | 1.339 | 1.327 | 1.220 | 1.149 | 1.156 | 1.154 | 1.094 | 1.073 | | 1.2 | 8.3 | TM | | | 0.010 |
| 77 | TM | Di-n-butylphthalate | | 1.692 | 1.656 | 1.541 | 1.434 | 1.489 | 1.439 | 1.338 | 1.322 | | 1.5 | 9.1 | TM | | | 0.010 |
| 78 | *TM | Fluoranthene | | 1.452 | 1.418 | 1.303 | 1.222 | 1.251 | 1.241 | 1.173 | 1.163 | | 1.3 | 8.4 | *TM | | | 0.600 |
| 79 | I | Chrysene-D12(IS) | ISTD | | | | | | | | | | | | | | | |
| 80 | TM | Benzidine | | | 0.3883 | 0.3450 | 0.3138 | 0.2584 | 0.2922 | 0.2852 | 0.2777 | | 0.31 | 14 | TM | | | |
| 81 | TM | Pyrene | | 1.688 | 1.628 | 1.498 | 1.401 | 1.432 | 1.421 | 1.381 | 1.349 | | 1.5 | 8.3 | TM | | | 0.600 |
| 82 | S | Terphenyl-D14(S) | | 0.9769 | 1.028 | 1.015 | 0.9194 | 1.003 | 0.9914 | 0.9548 | 0.9326 | | 0.98 | 4.0 | S | | | |
| 83 | TM | Butyl benzylphthalate | | 0.8445 | 0.8254 | 0.7609 | 0.7102 | 0.7295 | 0.7236 | 0.6958 | 0.6822 | | 0.75 | 8.0 | TM | | | 0.010 |
| 84 | TM | 3,3'-Dichlorobenzidine | | 0.4221 | 0.4411 | 0.3868 | 0.3566 | 0.3523 | 0.3532 | 0.3364 | 0.3177 | | 0.37 | 11 | TM | | | 0.010 |
| 85 | TM | Benz (a) anthracene | | 1.494 | 1.457 | 1.322 | 1.242 | 1.268 | 1.253 | 1.228 | 1.169 | | 1.3 | 8.8 | TM | | | 0.800 |
| 86 | TM | Bis (2-ethylhexyl) phthalate | | 1.282 | 1.208 | 1.089 | 1.013 | 1.026 | 1.009 | 0.9879 | 0.9390 | | 1.1 | 11 | TM | | | 0.010 |
| 87 | TM | Chrysene | | 1.439 | 1.441 | 1.255 | 1.188 | 1.232 | 1.198 | 1.174 | 1.132 | | 1.3 | 9.4 | TM | | | 0.700 |
| 88 | *TM | Di-n-octylphthalate | | 2.085 | 2.047 | 1.847 | 1.759 | 1.816 | 1.786 | 1.722 | 1.688 | | 1.8 | 7.9 | *TM | | | 0.010 |
| 89 | I | Perylene-D12(IS) | ISTD | | | | | | | | | | | | | | | |
| 90 | TM | Benzo (b) fluoranthene | | 1.414 | 1.260 | 1.197 | 1.198 | 1.062 | 1.197 | 1.065 | 1.130 | | 1.2 | 9.6 | TM | | | 0.700 |
| 91 | TM | Benzo (k) fluoranthene | | 1.414 | 1.260 | 1.197 | 1.198 | 1.062 | 1.197 | 1.065 | 1.130 | | 1.2 | 9.6 | TM | | | 0.700 |
| 92 | *TM | Benzo (a) pyrene | 1.251 | 1.297 | 1.304 | 1.187 | 1.138 | 1.172 | 1.144 | 1.099 | 1.079 | | 1.2 | 6.9 | *TM | | | 0.700 |
| 93 | TM | Indeno (1,2,3-cd) pyrene | | 1.420 | 1.445 | 1.291 | 1.214 | 1.272 | 1.218 | 1.182 | 1.164 | | 1.3 | 8.3 | TM | | | 0.500 |
| 94 | TM | Dibenz (a,h) anthracene | 1.172 | 1.224 | 1.230 | 1.116 | 1.072 | 1.115 | 1.074 | 1.043 | 1.019 | | 1.1 | 6.8 | TM | | | 0.400 |
| 95 | TM | Benzo (g,h,i) perylene | | 1.143 | 1.124 | 1.035 | 0.9798 | 1.010 | 0.9780 | 0.9425 | 0.9325 | | 1.0 | 7.7 | TM | | | 0.500 |
| 96 | | | | | | | | | | | | | | | | | | |
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Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y003.D Vial: 3
Acq On : 19 Mar 19 18:31 Operator: MA
Sample : 50ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:46 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Mar 20 09:42:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 114637 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 472309 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 256108 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.60 | 188 | 425827 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 388787 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 380454 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 440131 | 102.72345 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 51.362% | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 576782 | 102.96746 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 51.484% | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 259817 | 52.06712 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 52.067% | |
| 46) 2-Fluorobiphenyl(S) | 8.08 | 172 | 475108 | 50.24297 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 50.243% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 91088 | 107.31607 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 53.658% | |
| 82) Terphenyl-D14(S) | 12.46 | 244 | 487603 | 51.30654 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 51.307% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 4430 | 5.70818 | 100 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 73272 | 50.29680 ppb | 100 |
| 4) Pyridine | 1.95 | 79 | 178684 | 51.00094 ppb | 100 |
| 7) Phenol | 5.03 | 94 | 298210 | 48.11297 ppb | 100 |
| 8) Aniline | 5.03 | 93 | 287448 | 47.57204 ppb | 100 |
| 9) Bis (2-chloroethyl) ether | 5.10 | 63 | 134256 | 48.73577 ppb | 100 |
| 10) 2-Chlorophenol | 5.17 | 128 | 222358 | 49.31260 ppb | 100 |
| 11) 1,3-DCB | 5.33 | 146 | 230327 | 48.65913 ppb | 100 |
| 12) 1,4-DCB | 5.42 | 146 | 238399 | 48.97673 ppb | 100 |
| 13) Benzyl alcohol | 5.57 | 108 | 132506 | 50.53539 ppb | 100 |
| 14) 1,2-DCB | 5.59 | 146 | 220888 | 48.96362 ppb | 100 |
| 15) 2-Methylphenol | 5.71 | 107 | 190581 | 48.51630 ppb | 100 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 198207 | 48.84754 ppb | 100 |
| 17) Acetophenone | 5.87 | 105 | 294577 | 48.96670 ppb | 100 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 464156 | 98.43562 ppb | 100 |
| 19) n-Nitrosodi-n-propylamine | 5.87 | 70 | 161718 | 48.97969 ppb | 100 |
| 20) Hexachloroethane | 5.96 | 117 | 89016 | 48.57976 ppb | 100 |
| 23) Nitrobenzene | 6.06 | 77 | 238631 | 49.50538 ppb | 100 |
| 24) Isophorone | 6.32 | 82 | 418697 | 49.94868 ppb | 100 |
| 25) 2-Nitrophenol | 6.41 | 139 | 126352 | 51.70904 ppb | 100 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 191726 | 49.77633 ppb | 100 |
| 27) Benzoic acid | 6.61 | 105 | 132350 | 50.34444 ppb | 100 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 254996 | 49.79802 ppb | 100 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 165330 | 50.62002 ppb | 100 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 180070 | 50.22423 ppb | 100 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 280998 | 49.33330 ppb | 100 |
| 32) Naphthalene | 6.86 | 128 | 636316 | 49.78667 ppb | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 232189 | 49.27866 ppb | 100 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 165733 | 50.46907 ppb | 100 |
| 35) Hexachloropropene | 6.95 | 213 | 102692 | 51.54934 ppb | 100 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 88022 | 50.04871 ppb | 100 |
| 37) Caprolactum | 7.37 | 55 | 83739 | 50.88266 ppb | 100 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y003.D Vial: 3
Acq On : 19 Mar 19 18:31 Operator: MA
Sample : 50ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:46 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Mar 20 09:42:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|
| 38) 4-Chloro-3-methylphenol | 7.51 | 107 | 201357 | 50.85987 ppb | 100 |
| 39) 2-Methylnaphthalene | 7.65 | 142 | 404769 | 49.66629 ppb | 100 |
| 40) 1-Methylnaphthalene | 7.77 | 142 | 412817 | 48.87466 ppb | 100 |
| 42) Hexachlorocyclopentadiene | 7.82 | 237 | 28347 | 50.32166 ppb | 100 |
| 43) 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 166150 | 49.69069 ppb | 100 |
| 44) 2,4,6-Trichlorophenol | 7.99 | 196 | 109340 | 50.84958 ppb | 100 |
| 45) 2,4,5-Trichlorophenol | 8.05 | 196 | 114208 | 49.41944 ppb | 100 |
| 47) 1,1'-Biphenyl | 8.19 | 154 | 523036 | 49.40623 ppb | 100 |
| 48) 2-Chloronaphthalene | 8.21 | 162 | 390686 | 49.06511 ppb | 100 |
| 49) 2-Nitroaniline | 8.35 | 65 | 132948 | 50.94556 ppb | 100 |
| 50) Dimethyl phthalate | 8.54 | 163 | 452410 | 48.88515 ppb | 100 |
| 51) 2,6-DNT | 8.63 | 165 | 107526 | 49.68734 ppb | 100 |
| 52) Acenaphthylene | 8.70 | 152 | 618641 | 49.08888 ppb | 100 |
| 53) 3-Nitroaniline | 8.84 | 138 | 120032 | 50.46037 ppb | 100 |
| 54) Acenaphthene | 8.90 | 154 | 395327 | 48.70090 ppb | 100 |
| 55) 2,4-Dinitrophenol | 8.98 | 184 | 45050 | 48.81434 ppb | 96 |
| 56) 4-Nitrophenol | 9.10 | 65 | 72463 | 52.83268 ppb | 100 |
| 57) Dibenzofuran | 9.10 | 168 | 539583 | 48.98033 ppb | 100 |
| 58) 2,4-DNT | 9.11 | 165 | 149368 | 51.06896 ppb | 100 |
| 59) 2,3,4,6-Tetrachlorophenol | 9.25 | 232 | 79846 | 54.41028 ppb | 100 |
| 60) Diethyl phthalate | 9.36 | 149 | 447162 | 48.96183 ppb | 100 |
| 61) 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 207297 | 49.24255 ppb | 100 |
| 62) Fluorene | 9.50 | 166 | 449417 | 48.90581 ppb | 100 |
| 63) 4-Nitroaniline | 9.55 | 138 | 118496 | 49.24349 ppb | 100 |
| 66) 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 86742 | 54.59940 ppb | 100 |
| 67) Diphenyl amine | 9.64 | 169 | 697220 | 97.59456 ppb | 100 |
| 68) n-Nitrosodiphenylamine | 9.64 | 169 | 697220 | 97.59456 ppb | 100 |
| 69) 1,2-Diphenylhydrazine | 9.68 | 77 | 474998 | 47.50747 ppb | 100 |
| 70) 4-Bromophenyl phenyl ether | 10.06 | 248 | 110691 | 49.65994 ppb | 100 |
| 71) Hexachlorobenzene | 10.14 | 284 | 102559 | 49.54057 ppb | 100 |
| 72) Atrazine | 10.26 | 200 | 60502 | 24.78178 ppb | 100 |
| 73) Pentachlorophenol | 10.40 | 266 | 40781 | 53.51964 ppb | 100 |
| 74) Phenanthrene | 10.63 | 178 | 638282 | 49.05585 ppb | 100 |
| 75) Anthracene | 10.68 | 178 | 669670 | 48.72190 ppb | 100 |
| 76) Carbazol | 10.88 | 167 | 615499 | 48.62748 ppb | 100 |
| 77) Di-n-butylphthalate | 11.26 | 149 | 792368 | 49.99257 ppb | 100 |
| 78) Fluoranthene | 12.02 | 202 | 666118 | 48.96306 ppb | 100 |
| 80) Benzidine | 12.19 | 184 | 125559 | 40.87845 ppb | 100 |
| 81) Pyrene | 12.28 | 202 | 695754 | 48.54023 ppb | 100 |
| 83) Butyl benzylphthalate | 13.01 | 149 | 354521 | 48.86000 ppb | 100 |
| 84) 3,3'-Dichlorobenzidine | 13.65 | 252 | 171204 | 47.50798 ppb | 100 |
| 85) Benz (a) anthracene | 13.68 | 228 | 616195 | 48.61545 ppb | 100 |
| 86) Bis (2-ethylhexyl) phthala | 13.66 | 149 | 498649 | 47.98090 ppb | 100 |
| 87) Chrysene | 13.73 | 228 | 598755 | 48.99615 ppb | 100 |
| 88) Di-n-octylphthalate | 14.42 | 149 | 882741 | 49.26053 ppb | 100 |
| 90) Benzo (b) fluoranthene | 15.04 | 252 | 505099 | 44.60811 ppb | 100 |
| 91) Benzo (k) fluoranthene | 15.04 | 252 | 505099 | 44.60811 ppb | 100 |
| 92) Benzo (a) pyrene | 15.46 | 252 | 557254 | 49.41467 ppb | 100 |
| 93) Indeno (1,2,3-cd) pyrene | 17.47 | 276 | 605012 | 49.86727 ppb | 100 |
| 94) Dibenz (a,h) anthracene | 17.49 | 278 | 530453 | 49.86829 ppb | 100 |
| 95) Benzo (g,h,i) perylene | 18.05 | 276 | 480148 | 49.59085 ppb | 100 |

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

Quantitation Report

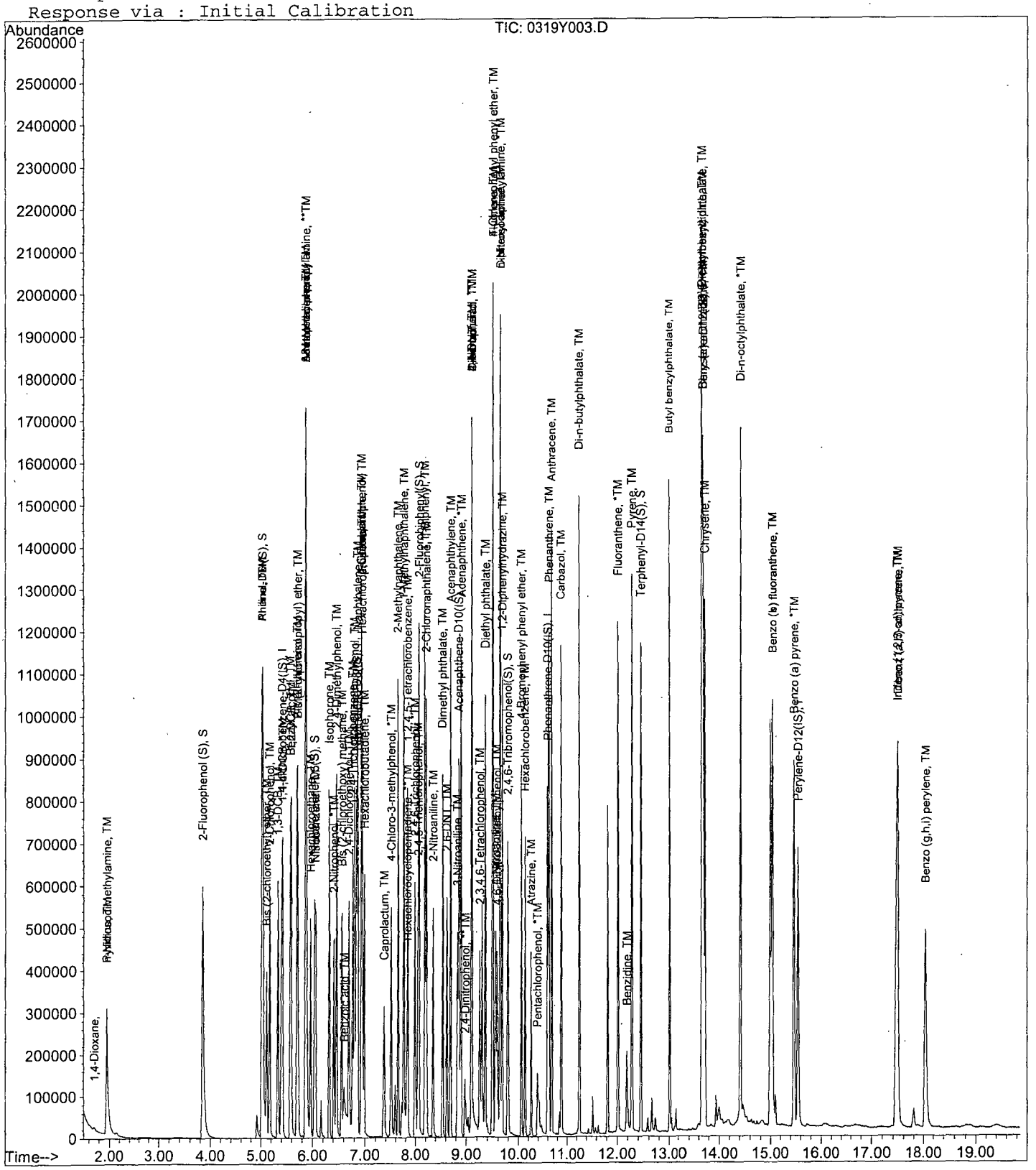
Data File : M:\YODA\DATA\Y190319\0319Y003.D
Acq On : 19 Mar 19 18:31
Sample : 50ug/mL 8270 03/13/19
Misc :

Vial: 3
Operator: MA
Inst : Yoda
Multiplr: 1.00

Quant Time: Mar 20 9:46 2019

Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y004.D Vial: 4
Acq On : 19 Mar 19 18:58 Operator: MA
Sample : 4ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 19 20:40 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 20:39:51 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 114954 | 40.00000 | ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.83 | 136 | 490093 | 40.00000 | ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 262404 | 40.00000 | ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 432886 | 40.00000 | ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 405658 | 40.00000 | ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 394479 | 40.00000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 0.00 | 112 | 0d | 0.00000 | ppb | |
| Spiked Amount 200.000 | | | Recovery = | 0.000% | | |
| 6) Phenol-D6 (S) | 0.00 | 99 | 0d | 0.00000 | ppb | |
| Spiked Amount 200.000 | | | Recovery = | 0.000% | | |
| 22) Nitrobenzene-D5(S) | 0.00 | 82 | 0d | 0.00000 | ppb | |
| Spiked Amount 100.000 | | | Recovery = | 0.000% | | |
| 46) 2-Fluorobiphenyl(S) | 0.00 | 172 | 0d | 0.00000 | ppb | |
| Spiked Amount 100.000 | | | Recovery = | 0.000% | | |
| 64) 2,4,6-Tribromophenol(S) | 0.00 | 330 | 0d | 0.00000 | ppb | |
| Spiked Amount 200.000 | | | Recovery = | 0.000% | | |
| 82) Terphenyl-D14(S) | 0.00 | 244 | 0d | 0.00000 | ppb | |
| Spiked Amount 100.000 | | | Recovery = | 0.000% | | |
| **Target Compounds** | | | | | | Qvalue |
| 92) Benzo (a) pyrene | 15.47 | 252 | 49367 | 4.21111 | ppb | 97 |
| 94) Dibenz (a,h) anthracene | 17.49 | 278 | 46216 | 4.19356 | ppb | 97 |

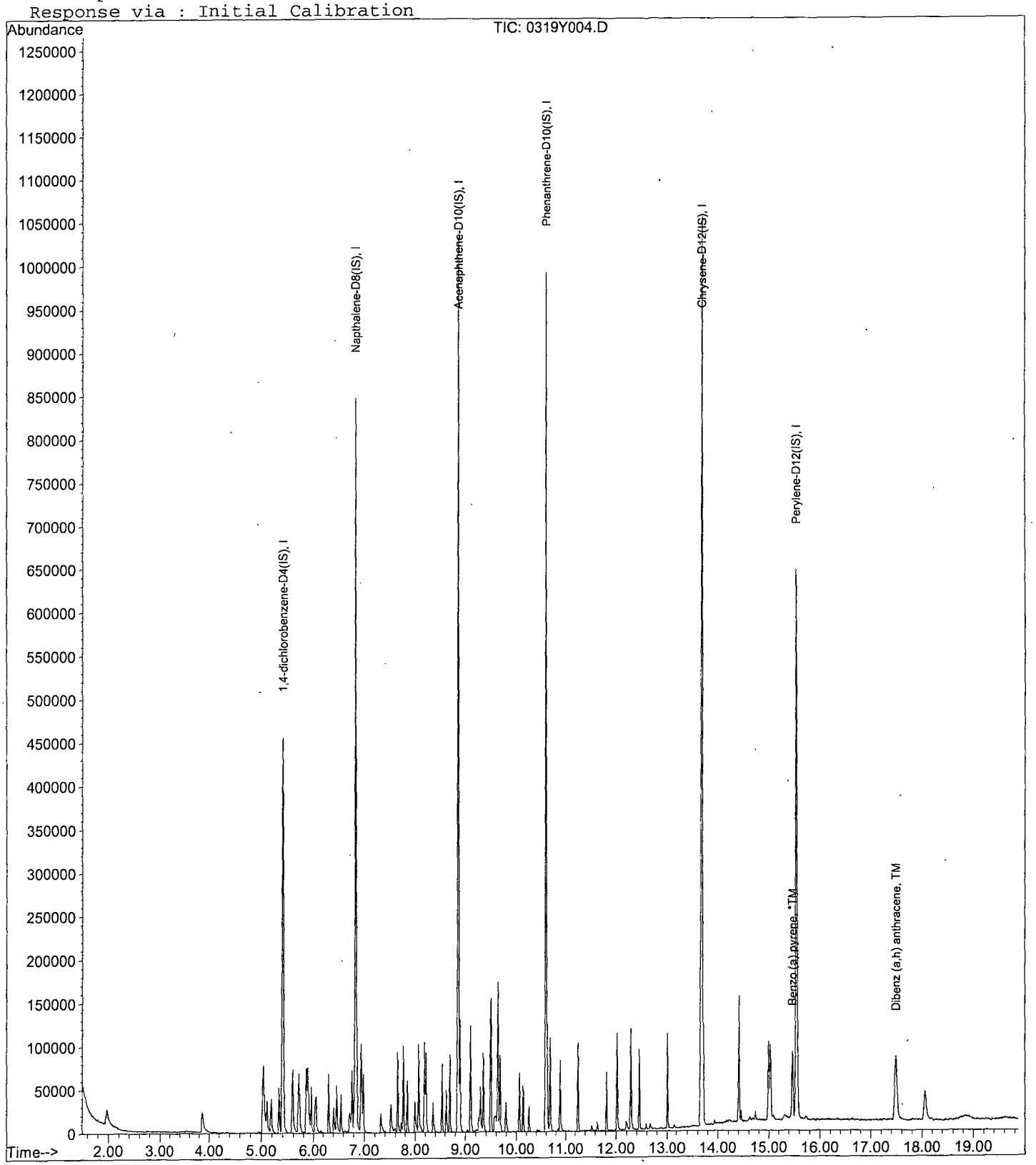
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y004.D  Vial: 4
Acq On : 19 Mar 19 18:58  Operator: MA
Sample : 4ug/mL 8270 03/13/19  Inst : Yoda
Misc :  Multiplr: 1.00

Quant Time: Mar 19 20:40 2019  Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y005.D Vial: 5
Acq On : 19 Mar 19 19:26 Operator: MA
Sample : 5ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 115611 | 40.00000 | ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 503407 | 40.00000 | ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.85 | 164 | 266346 | 40.00000 | ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.60 | 188 | 439621 | 40.00000 | ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 399547 | 40.00000 | ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 399700 | 40.00000 | ppb | 0.00 |
| System Monitoring Compounds | | | | | | |
| 5) 2-Fluorophenol (S) | 3.86 | 112 | 39728 | 9.19412 | ppb | 0.02 |
| Spiked Amount 200.000 | | | Recovery | = 4.597% | | |
| 6) Phenol-D6 (S) | 5.03 | 99 | 53431 | 9.45817 | ppb | 0.02 |
| Spiked Amount 200.000 | | | Recovery | = 4.729% | | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 25398 | 4.77532 | ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery | = 4.775% | | |
| 46) 2-Fluorobiphenyl(S) | 8.07 | 172 | 49637 | 5.04737 | ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery | = 5.047% | | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 7376 | 8.35606 | ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery | = 4.178% | | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 48790 | 4.99552 | ppb | -0.01 |
| Spiked Amount 100.000 | | | Recovery | = 4.996% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.72 | 58 | 301 | 0.38458 | | # 1 |
| 3) n-Nitrosodimethylamine | 1.95 | 42 | 9295 | 6.32670 | ppb | 67 |
| 4) Pyridine | 1.98 | 79 | 18131 | 5.13145 | ppb | 98 |
| 7) Phenol | 5.05 | 94 | 34943 | 5.59018 | ppb | 97 |
| 8) Aniline | 5.04 | 93 | 33010 | 5.41706 | ppb | 90 |
| 9) Bis (2-chloroethyl) ether | 5.10 | 63 | 15432 | 5.55472 | ppb | 98 |
| 10) 2-Chlorophenol | 5.19 | 128 | 24557 | 5.40015 | ppb | 97 |
| 11) 1,3-DCB | 5.34 | 146 | 27006 | 5.65725 | ppb | 98 |
| 12) 1,4-DCB | 5.42 | 146 | 28848 | 5.87661 | ppb | 99 |
| 13) Benzyl alcohol | 5.58 | 108 | 13586 | 5.13780 | ppb | 98 |
| 14) 1,2-DCB | 5.59 | 146 | 26355 | 5.79282 | ppb | 98 |
| 15) 2-Methylphenol | 5.71 | 107 | 23457 | 5.92115 | ppb | 96 |
| 16) Bis (2-chloroisopropyl) et | 5.71 | 45 | 23325 | 5.69995 | ppb | 91 |
| 17) Acetophenone | 5.86 | 105 | 34635 | 5.70877 | ppb | 78 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 53388 | 11.22684 | ppb | 97 |
| 19) n-Nitrosodi-n-propylamine | 5.86 | 70 | 19145 | 5.74961 | ppb | 96 |
| 20) Hexachloroethane | 5.96 | 117 | 10587 | 5.72909 | ppb | 94 |
| 23) Nitrobenzene | 6.06 | 77 | 29173 | 5.67824 | ppb | 94 |
| 24) Isophorone | 6.32 | 82 | 50308 | 5.63078 | ppb | 96 |
| 25) 2-Nitrophenol | 6.42 | 139 | 13403 | 5.14628 | ppb | 98 |
| 26) 2,4-Dimethylphenol | 6.47 | 122 | 23401 | 5.70011 | ppb | 96 |
| 27) Benzoic acid | 6.63 | 105 | 6735 | 2.38744 | ppb | 94 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 30463 | 5.58160 | ppb | 96 |
| 29) 2,4-Dichlorophenol | 6.73 | 162 | 18460 | 5.30285 | ppb | 96 |
| 30) 1,2,4-Trichlorobenzene | 6.77 | 180 | 21184 | 5.54354 | ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.81 | 107 | 35156 | 5.79086 | ppb | 100 |
| 32) Naphthalene | 6.86 | 128 | 77852 | 5.71501 | ppb | 98 |
| 33) 4-Chloroaniline | 6.93 | 127 | 28396 | 5.65433 | ppb | 97 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 19414 | 5.54675 | ppb | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 10616 | 4.99982 | ppb | 98 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 10662 | 5.68784 | ppb | 94 |
| 37) Caprolactum | 7.32 | 55 | 9298 | 5.30076 | ppb | 98 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y005.D Vial: 5
Acq On : 19 Mar 19 19:26 Operator: MA
Sample : 5ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|
| 38) 4-Chloro-3-methylphenol | 7.51 | 107 | 22835 | 5.41149 ppb | | 95 |
| 39) 2-Methylnaphthalene | 7.66 | 142 | 49109 | 5.65357 ppb | | 94 |
| 40) 1-Methylnaphthalene | 7.77 | 142 | 51788 | 5.75258 ppb | | 100 |
| 43) 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 19399 | 5.57867 ppb | | 97 |
| 44) 2,4,6-Trichlorophenol | 8.00 | 196 | 11813 | 5.28257 ppb | | 89 |
| 45) 2,4,5-Trichlorophenol | 8.07 | 196 | 13189 | 5.48770 ppb | | 93 |
| 47) 1,1'-Biphenyl | 8.19 | 154 | 62061 | 5.63697 ppb | | 100 |
| 48) 2-Chloronaphthalene | 8.21 | 162 | 46372 | 5.59987 ppb | | 99 |
| 49) 2-Nitroaniline | 8.35 | 65 | 14244 | 5.24848 ppb | | 91 |
| 50) Dimethyl phthalate | 8.54 | 163 | 53870 | 5.59717 ppb | | 99 |
| 51) 2,6-DNT | 8.63 | 165 | 11891 | 5.28357 ppb | | 97 |
| 52) Acenaphthylene | 8.70 | 152 | 74622 | 5.69362 ppb | | 98 |
| 53) 3-Nitroaniline | 8.84 | 138 | 12488 | 5.04805 ppb | # | 88 |
| 54) Acenaphthene | 8.89 | 154 | 49162 | 5.82354 ppb | | 99 |
| 55) 2,4-Dinitrophenol | 9.05 | 184 | 114 | 7.13477 ppb | # | 33 |
| 56) 4-Nitrophenol | 9.10 | 65 | 1432 | 17.24815 ppb | # | 26 |
| 57) Dibenzofuran | 9.10 | 168 | 66911 | 5.84034 ppb | | 94 |
| 58) 2,4-DNT | 9.10 | 165 | 15531 | 5.10594 ppb | | 82 |
| 59) 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 6236 | 4.08612 ppb | | 95 |
| 60) Diethyl phthalate | 9.36 | 149 | 53987 | 5.68406 ppb | | 98 |
| 61) 4-Chlorophenyl phenyl ethe | 9.49 | 204 | 25947 | 5.92668 ppb | | 94 |
| 62) Fluorene | 9.49 | 166 | 54887 | 5.74325 ppb | | 97 |
| 63) 4-Nitroaniline | 9.57 | 138 | 13928 | 5.56559 ppb | | 86 |
| 66) 4,6-Dinitro-2-methylphenol | 9.60 | 198 | 6121 | 3.73195 ppb | | 87 |
| 67) Diphenyl amine | 9.63 | 169 | 84233 | 11.42070 ppb | | 98 |
| 68) n-Nitrosodiphenylamine | 9.63 | 169 | 84233 | 11.42070 ppb | | 98 |
| 69) 1,2-Diphenylhydrazine | 9.68 | 77 | 58429 | 5.66048 ppb | | 95 |
| 70) 4-Bromophenyl phenyl ether | 10.06 | 248 | 12632 | 5.48935 ppb | | 97 |
| 71) Hexachlorobenzene | 10.14 | 284 | 12105 | 5.66379 ppb | | 92 |
| 72) Atrazine | 10.26 | 200 | 6913 | 2.74274 ppb | | 94 |
| 73) Pentachlorophenol | 10.43 | 266 | 696 | 7.10872 ppb | # | 57 |
| 74) Phenanthrene | 10.62 | 178 | 77308 | 5.75516 ppb | | 98 |
| 75) Anthracene | 10.68 | 178 | 79708 | 5.61720 ppb | | 99 |
| 76) Carbazol | 10.89 | 167 | 73559 | 5.62918 ppb | | 98 |
| 77) Di-n-butylphthalate | 11.26 | 149 | 92978 | 5.68216 ppb | | 99 |
| 78) Fluoranthene | 12.02 | 202 | 79788 | 5.68080 ppb | | 98 |
| 80) Benzidine | 12.20 | 184 | 18852 | 5.94895 ppb | | 96 |
| 81) Pyrene | 12.28 | 202 | 84308 | 5.72346 ppb | | 100 |
| 83) Butyl benzylphthalate | 13.01 | 149 | 42179 | 5.65655 ppb | | 94 |
| 84) 3,3'-Dichlorobenzidine | 13.65 | 252 | 21081 | 5.69230 ppb | | 97 |
| 85) Benz (a) anthracene | 13.68 | 228 | 74607 | 5.72769 ppb | | 98 |
| 86) Bis (2-ethylhexyl) phthala | 13.66 | 149 | 64037 | 5.99582 ppb | | 98 |
| 87) Chrysene | 13.72 | 228 | 71859 | 5.72187 ppb | | 97 |
| 88) Di-n-octylphthalate | 14.41 | 149 | 104149 | 5.65542 ppb | # | 94 |
| 90) Benzo (b) fluoranthene | 15.03 | 252 | 70654 | 5.93939 ppb | # | 94 |
| 91) Benzo (k) fluoranthene | 15.03 | 252 | 70654 | 5.93939 ppb | # | 94 |
| 92) Benzo (a) pyrene | 15.46 | 252 | 64822 | 5.47133 ppb | | 99 |
| 93) Indeno (1,2,3-cd) pyrene | 17.47 | 276 | 70934 | 5.56511 ppb | | 97 |
| 94) Dibenz (a,h) anthracene | 17.49 | 278 | 61171 | 5.47383 ppb | | 98 |
| 95) Benzo (g,h,i) perylene | 18.05 | 276 | 57086 | 5.61208 ppb | | 98 |

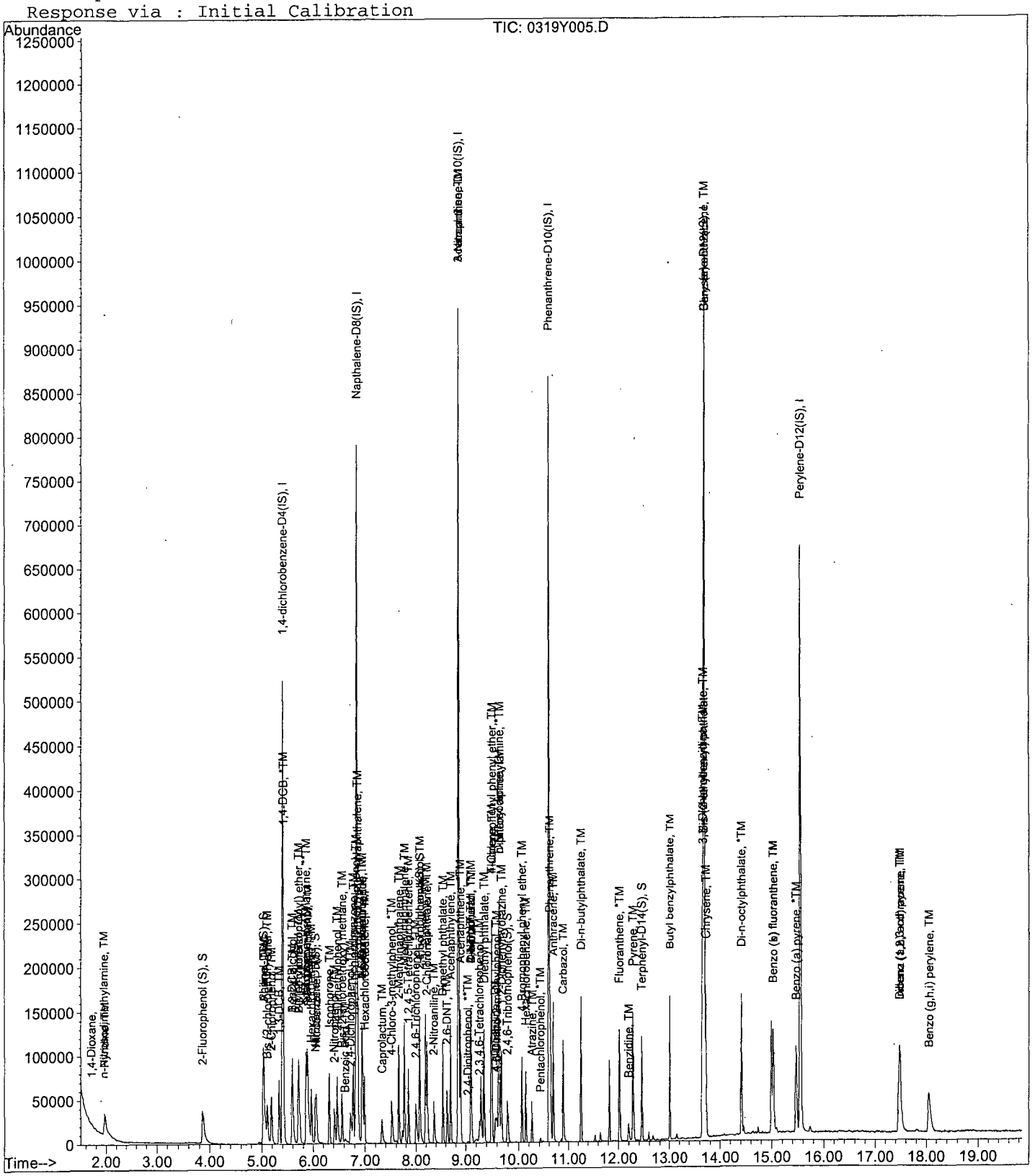
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y005.D  Vial: 5
Acq On : 19 Mar 19 19:26  Operator: MA
Sample : 5ug/mL 8270 03/13/19  Inst : Yoda
Misc :  Multiplr: 1.00

Quant Time: Mar 20 9:19 2019  Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y006.D Vial: 6
Acq On : 19 Mar 19 19:54 Operator: MA
Sample : 10ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:17 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 121984 | 40.00000 | ppb | | 0.00 |
| 21) Napthalene-D8(IS) | 6.83 | 136 | 512288 | 40.00000 | ppb | | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 269599 | 40.00000 | ppb | | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 449398 | 40.00000 | ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 410594 | 40.00000 | ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 404320 | 40.00000 | ppb | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 5) 2-Fluorophenol (S) | 3.85 | 112 | 93067 | 20.41293 | ppb | | 0.01 |
| Spiked Amount 200.000 | | | Recovery = 10.207% | | | | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 122377 | 20.53100 | ppb | | 0.00 |
| Spiked Amount 200.000 | | | Recovery = 10.266% | | | | |
| 22) Nitrobenzene-D5(S) | 6.04 | 82 | 57383 | 10.60208 | ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery = 10.602% | | | | |
| 46) 2-Fluorobiphenyl(S) | 8.07 | 172 | 108893 | 10.93926 | ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery = 10.939% | | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 17684 | 19.79197 | ppb | | 0.00 |
| Spiked Amount 200.000 | | | Recovery = 9.896% | | | | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 105565 | 10.51781 | ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery = 10.518% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 698 | 0.84522 | | # | 3 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 16466 | 10.62215 | ppb | | 92 |
| 4) Pyridine | 1.96 | 79 | 42557 | 11.41525 | ppb | | 95 |
| 7) Phenol | 5.03 | 94 | 73295 | 11.11313 | ppb | | 86 |
| 8) Aniline | 5.03 | 93 | 71536 | 11.12600 | ppb | | 91 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 31653 | 10.79819 | ppb | | 96 |
| 10) 2-Chlorophenol | 5.18 | 128 | 52907 | 11.02656 | ppb | | 97 |
| 11) 1,3-DCB | 5.33 | 146 | 55787 | 11.07578 | ppb | | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 56752 | 10.95692 | ppb | | 96 |
| 13) Benzyl alcohol | 5.57 | 108 | 29683 | 10.63873 | ppb | | 98 |
| 14) 1,2-DCB | 5.59 | 146 | 52788 | 10.99660 | ppb | | 98 |
| 15) 2-Methylphenol | 5.70 | 107 | 45159 | 10.80374 | ppb | | 93 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 48455 | 11.22236 | ppb | | 96 |
| 17) Acetophenone | 5.86 | 105 | 70767 | 11.05490 | ppb | | 79 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 108589 | 21.64194 | ppb | | 99 |
| 19) n-Nitrosodi-n-propylamine | 5.85 | 70 | 39282 | 11.18081 | ppb | | 94 |
| 20) Hexachloroethane | 5.96 | 117 | 21924 | 11.24421 | ppb | | 98 |
| 23) Nitrobenzene | 6.05 | 77 | 58158 | 11.12364 | ppb | | 95 |
| 24) Isophorone | 6.31 | 82 | 100807 | 11.08733 | ppb | | 100 |
| 25) 2-Nitrophenol | 6.42 | 139 | 28728 | 10.83931 | ppb | | 96 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 44991 | 10.76910 | ppb | | 99 |
| 27) Benzoic acid | 6.60 | 105 | 20618 | 7.18201 | ppb | | 90 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 62236 | 11.20553 | ppb | | 98 |
| 29) 2,4-Dichlorophenol | 6.71 | 162 | 38227 | 10.79078 | ppb | | 94 |
| 30) 1,2,4-Trichlorobenzene | 6.77 | 180 | 43440 | 11.17053 | ppb | | 97 |
| 31) 3,4-Dimethylphenol | 6.81 | 107 | 70107 | 11.34776 | ppb | | 98 |
| 32) Naphthalene | 6.86 | 128 | 156443 | 11.28518 | ppb | | 99 |
| 33) 4-Chloroaniline | 6.94 | 127 | 61067 | 11.94912 | ppb | | 99 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 39255 | 11.02106 | ppb | # | 95 |
| 35) Hexachloropropene | 6.95 | 213 | 22334 | 10.33630 | ppb | | 98 |
| 36) Hexachlorobutadiene | 6.98 | 225 | 21272 | 11.15121 | ppb | | 98 |
| 37) Caprolactum | 7.33 | 55 | 19734 | 11.05527 | ppb | | 98 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y006.D Vial: 6
Acq On : 19 Mar 19 19:54 Operator: MA
Sample : 10ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:17 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.50 | 107 | 46274 | 10.77600 ppb | | 96 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 98063 | 11.09358 ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.76 | 142 | 102639 | 11.20342 ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.82 | 237 | 696 | 15.95530 ppb | # | 86 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.85 | 216 | 40116 | 11.39717 ppb | | 99 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 24311 | 10.74029 ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 8.06 | 196 | 27355 | 11.24457 ppb | | 97 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 124754 | 11.19462 ppb | | 97 |
| 48) | 2-Chloronaphthalene | 8.22 | 162 | 96857 | 11.55529 ppb | | 93 |
| 49) | 2-Nitroaniline | 8.35 | 65 | 30428 | 11.07651 ppb | | 88 |
| 50) | Dimethyl phthalate | 8.54 | 163 | 109505 | 11.24045 ppb | | 98 |
| 51) | 2,6-DNT | 8.63 | 165 | 24341 | 10.68503 ppb | | 88 |
| 52) | Acenaphthylene | 8.70 | 152 | 147145 | 11.09161 ppb | | 100 |
| 53) | 3-Nitroaniline | 8.83 | 138 | 28068 | 11.20907 ppb | | 90 |
| 54) | Acenaphthene | 8.89 | 154 | 96774 | 11.32515 ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 9.02 | 184 | 4240 | 10.29161 ppb | # | 33 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 2643 | 17.74907 ppb | # | 57 |
| 57) | Dibenzofuran | 9.10 | 168 | 131289 | 11.32131 ppb | | 90 |
| 58) | 2,4-DNT | 9.10 | 165 | 33662 | 10.93312 ppb | # | 71 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 15327 | 9.92179 ppb | | 94 |
| 60) | Diethyl phthalate | 9.35 | 149 | 108817 | 11.31864 ppb | | 98 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.49 | 204 | 50202 | 11.32853 ppb | | 91 |
| 62) | Fluorene | 9.50 | 166 | 109490 | 11.31854 ppb | | 97 |
| 63) | 4-Nitroaniline | 9.55 | 138 | 28975 | 11.43862 ppb | | 96 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 15197 | 9.06397 ppb | | 93 |
| 67) | Diphenyl amine | 9.64 | 169 | 171955 | 22.80723 ppb | | 98 |
| 68) | n-Nitrosodiphenylamine | 9.64 | 169 | 171955 | 22.80723 ppb | | 98 |
| 69) | 1,2-Diphenylhydrazine | 9.67 | 77 | 113332 | 10.74050 ppb | | 96 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 26382 | 11.21511 ppb | | 88 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 24168 | 11.06191 ppb | # | 85 |
| 72) | Atrazine | 10.26 | 200 | 14699 | 5.70496 ppb | | 97 |
| 73) | Pentachlorophenol | 10.42 | 266 | 4554 | 11.29771 ppb | | 96 |
| 74) | Phenanthrene | 10.62 | 178 | 154357 | 11.24104 ppb | | 99 |
| 75) | Anthracene | 10.69 | 178 | 165890 | 11.43630 ppb | | 99 |
| 76) | Carbazol | 10.88 | 167 | 149122 | 11.16344 ppb | | 98 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 186080 | 11.12450 ppb | | 99 |
| 78) | Fluoranthene | 12.01 | 202 | 159257 | 11.09221 ppb | | 97 |
| 80) | Benzidine | 12.19 | 184 | 39860 | 12.23984 ppb | | 99 |
| 81) | Pyrene | 12.28 | 202 | 167082 | 11.03761 ppb | | 98 |
| 83) | Butyl benzylphthalate | 13.01 | 149 | 84725 | 11.05662 ppb | | 94 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 45275 | 11.89626 ppb | # | 97 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 149542 | 11.17168 ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.66 | 149 | 124012 | 11.29890 ppb | # | 97 |
| 87) | Chrysene | 13.72 | 228 | 147918 | 11.46127 ppb | | 97 |
| 88) | Di-n-octylphthalate | 14.41 | 149 | 210080 | 11.10068 ppb | | 97 |
| 90) | Benzo (b) fluoranthene | 15.03 | 252 | 127409 | 10.58801 ppb | | 100 |
| 91) | Benzo (k) fluoranthene | 15.03 | 252 | 127409 | 10.58801 ppb | | 100 |
| 92) | Benzo (a) pyrene | 15.47 | 252 | 131774 | 10.99536 ppb | | 99 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.46 | 276 | 146088 | 11.33034 ppb | | 98 |
| 94) | Dibenz (a,h) anthracene | 17.48 | 278 | 124313 | 10.99692 ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 18.04 | 276 | 113616 | 11.04188 ppb | | 99 |

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

Quantitation Report

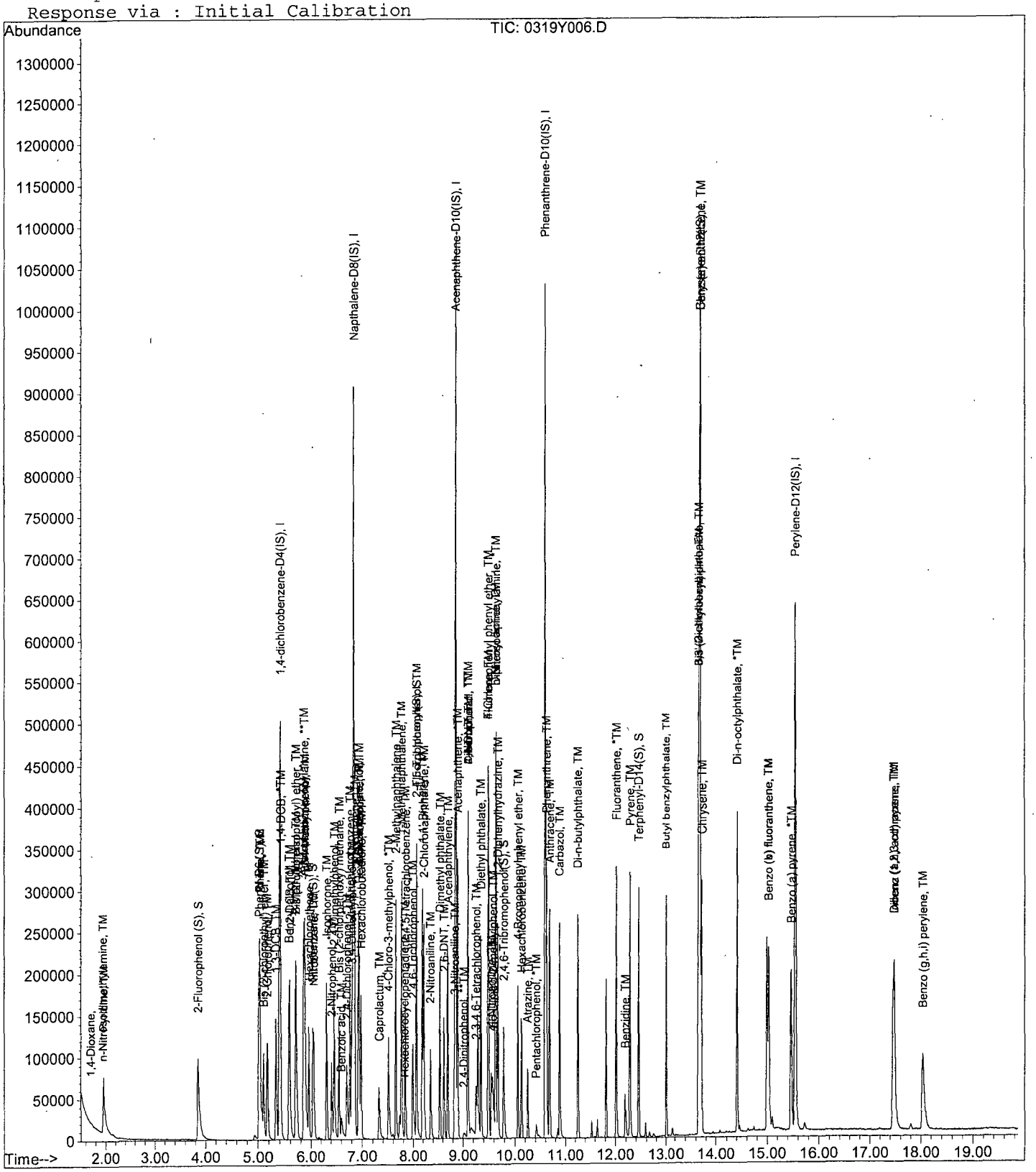
Data File : M:\YODA\DATA\Y190319\0319Y006.D
Acq On : 19 Mar 19 19:54
Sample : 10ug/mL 8270 03/13/19
Misc :

Vial: 6
Operator: MA
Inst : Yoda
Multiplr: 1.00

Quant Time: Mar 20 9:17 2019

Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y007.D Vial: 7
Acq On : 19 Mar 19 20:22 Operator: MA
Sample : 20ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 118806 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 501030 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 264687 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 443329 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 402412 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 394461 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 184447 | 41.53801 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 20.769% | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 243905 | 42.01414 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 21.007% | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 110927 | 20.95539 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 20.955% | |
| 46) 2-Fluorobiphenyl(S) | 8.07 | 172 | 205898 | 21.06811 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 21.068% | |
| 64) 2,4,6-Tribromophenol(S) | 9.78 | 330 | 36355 | 41.44368 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 20.722% | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 204305 | 20.76951 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 20.770% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 1531 | 1.90351 | # 1 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 30296 | 20.06661 ppb | 87 |
| 4) Pyridine | 1.96 | 79 | 72084 | 19.85262 ppb | 93 |
| 7) Phenol | 5.03 | 94 | 135235 | 21.05307 ppb | 90 |
| 8) Aniline | 5.04 | 93 | 130467 | 20.83433 ppb | 83 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 58445 | 20.47142 ppb | 98 |
| 10) 2-Chlorophenol | 5.17 | 128 | 95389 | 20.41220 ppb | 98 |
| 11) 1,3-DCB | 5.33 | 146 | 99950 | 20.37458 ppb | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 103214 | 20.46023 ppb | 98 |
| 13) Benzyl alcohol | 5.57 | 108 | 53846 | 19.81527 ppb | 99 |
| 14) 1,2-DCB | 5.59 | 146 | 96064 | 20.54700 ppb | 98 |
| 15) 2-Methylphenol | 5.70 | 107 | 82532 | 20.27295 ppb | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 86001 | 20.45096 ppb | 96 |
| 17) Acetophenone | 5.86 | 105 | 126134 | 20.23115 ppb | 85 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 199094 | 40.74112 ppb | 98 |
| 19) n-Nitrosodi-n-propylamine | 5.86 | 70 | 68841 | 20.11830 ppb | 98 |
| 20) Hexachloroethane | 5.96 | 117 | 38241 | 20.13738 ppb | 95 |
| 23) Nitrobenzene | 6.05 | 77 | 105433 | 20.61886 ppb | 93 |
| 24) Isophorone | 6.32 | 82 | 181974 | 20.46426 ppb | 96 |
| 25) 2-Nitrophenol | 6.41 | 139 | 51636 | 19.92046 ppb | 96 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 81380 | 19.91691 ppb | 98 |
| 27) Benzoic acid | 6.61 | 105 | 50723 | 18.06571 ppb | 94 |
| 28) Bis (2-chloroethoxy) metha | 6.55 | 93 | 110336 | 20.31227 ppb | 98 |
| 29) 2,4-Dichlorophenol | 6.70 | 162 | 70409 | 20.32176 ppb | 98 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 78773 | 20.71151 ppb | 95 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 122536 | 20.27977 ppb | 99 |
| 32) Naphthalene | 6.86 | 128 | 275604 | 20.32770 ppb | 99 |
| 33) 4-Chloroaniline | 6.93 | 127 | 107839 | 21.57524 ppb | 98 |
| 34) 2,6-Dichlorophenol | 6.93 | 162 | 71676 | 20.57560 ppb | 93 |
| 35) Hexachloropropene | 6.95 | 213 | 43151 | 20.41925 ppb | 96 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 38425 | 20.59577 ppb | 100 |
| 37) Caprolactum | 7.34 | 55 | 35007 | 20.05208 ppb | 96 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y007.D Vial: 7
Acq On : 19 Mar 19 20:22 Operator: MA
Sample : 20ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.50 | 107 | 84939 | 20.22452 | ppb | | 96 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 176107 | 20.37012 | ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.76 | 142 | 181203 | 20.22340 | ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.83 | 237 | 3981 | 20.96140 | ppb | | 89 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 70192 | 20.31201 | ppb | | 99 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 44129 | 19.85742 | ppb | | 98 |
| 45) | 2,4,5-Trichlorophenol | 8.06 | 196 | 47541 | 19.90491 | ppb | | 92 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 225012 | 20.56583 | ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.22 | 162 | 169311 | 20.57409 | ppb | | 97 |
| 49) | 2-Nitroaniline | 8.35 | 65 | 55513 | 20.58305 | ppb | | 88 |
| 50) | Dimethyl phthalate | 8.54 | 163 | 196774 | 20.57326 | ppb | | 99 |
| 51) | 2,6-DNT | 8.62 | 165 | 45513 | 20.34971 | ppb | | 86 |
| 52) | Acenaphthylene | 8.70 | 152 | 266936 | 20.49472 | ppb | | 100 |
| 53) | 3-Nitroaniline | 8.83 | 138 | 50779 | 20.65514 | ppb | # | 84 |
| 54) | Acenaphthene | 8.89 | 154 | 171432 | 20.43445 | ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.99 | 184 | 13024 | 17.19958 | ppb | # | 52 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 5285 | 18.90553 | ppb | # | 65 |
| 57) | Dibenzofuran | 9.10 | 168 | 232569 | 20.42706 | ppb | | 91 |
| 58) | 2,4-DNT | 9.10 | 165 | 62972 | 20.83231 | ppb | # | 75 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.25 | 232 | 30114 | 19.85577 | ppb | | 99 |
| 60) | Diethyl phthalate | 9.36 | 149 | 194484 | 20.60474 | ppb | | 98 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.49 | 204 | 89386 | 20.54507 | ppb | | 89 |
| 62) | Fluorene | 9.50 | 166 | 196332 | 20.67248 | ppb | | 98 |
| 63) | 4-Nitroaniline | 9.55 | 138 | 52779 | 21.22251 | ppb | | 95 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 33489 | 20.24732 | ppb | | 94 |
| 67) | Diphenyl amine | 9.64 | 169 | 305041 | 41.01295 | ppb | | 98 |
| 68) | n-Nitrosodiphenylamine | 9.64 | 169 | 305041 | 41.01295 | ppb | | 98 |
| 69) | 1,2-Diphenylhydrazine | 9.67 | 77 | 205211 | 19.71414 | ppb | | 93 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 46973 | 20.24181 | ppb | | 94 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 43877 | 20.35782 | ppb | | 93 |
| 72) | Atrazine | 10.26 | 200 | 25376 | 9.98374 | ppb | | 97 |
| 73) | Pentachlorophenol | 10.41 | 266 | 11068 | 18.56422 | ppb | | 94 |
| 74) | Phenanthrene | 10.62 | 178 | 276104 | 20.38252 | ppb | | 99 |
| 75) | Anthracene | 10.68 | 178 | 293214 | 20.49062 | ppb | | 99 |
| 76) | Carbazol | 10.88 | 167 | 270495 | 20.52677 | ppb | | 100 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 341694 | 20.70728 | ppb | | 99 |
| 78) | Fluoranthene | 12.01 | 202 | 288849 | 20.39367 | ppb | # | 95 |
| 80) | Benzidine | 12.19 | 184 | 69416 | 21.74901 | ppb | | 98 |
| 81) | Pyrene | 12.28 | 202 | 301452 | 20.31913 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 13.01 | 149 | 153106 | 20.38659 | ppb | | 90 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 77820 | 20.86338 | ppb | # | 96 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 266081 | 20.28200 | ppb | | 98 |
| 86) | Bis (2-ethylhexyl) phthala | 13.66 | 149 | 219023 | 20.36123 | ppb | | 98 |
| 87) | Chrysene | 13.72 | 228 | 252603 | 19.97064 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.41 | 149 | 371572 | 20.03317 | ppb | # | 94 |
| 90) | Benzo (b) fluoranthene | 15.03 | 252 | 236137 | 20.11405 | ppb | | 99 |
| 91) | Benzo (k) fluoranthene | 15.03 | 252 | 236137 | 20.11405 | ppb | | 99 |
| 92) | Benzo (a) pyrene | 15.47 | 252 | 234062 | 20.01851 | ppb | | 99 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.46 | 276 | 254606 | 20.24037 | ppb | | 98 |
| 94) | Dibenz (a,h) anthracene | 17.48 | 278 | 220046 | 19.95212 | ppb | | 97 |
| 95) | Benzo (g,h,i) perylene | 18.04 | 276 | 204083 | 20.32972 | ppb | | 98 |

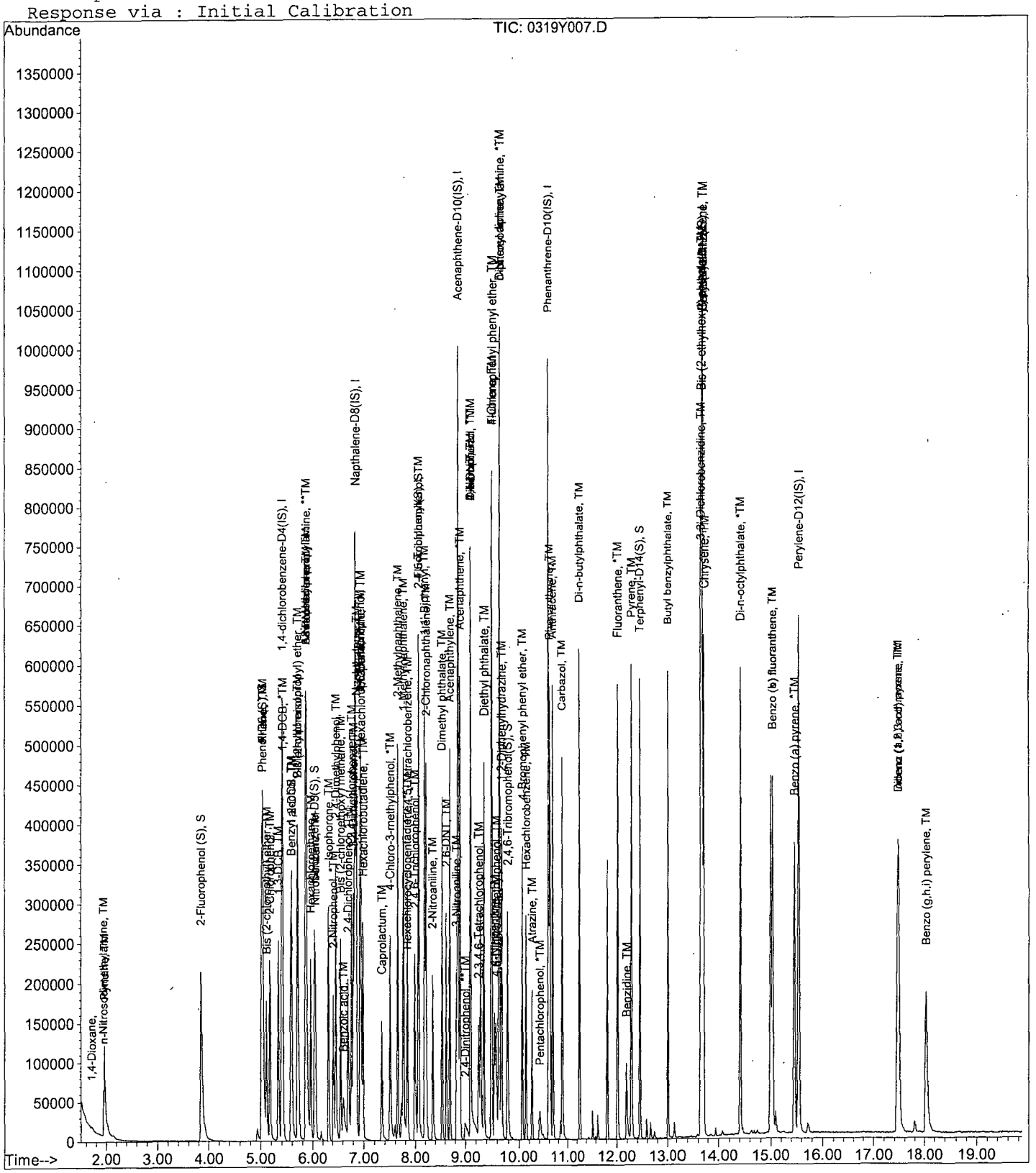
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y007.D Vial: 7
Acq On : 19 Mar 19 20:22 Operator: MA
Sample : 20ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y008.D Vial: 8
Acq On : 19 Mar 19 20:49 Operator: MA
Sample : 40ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 120598 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 508253 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.85 | 164 | 266643 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 448301 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 408816 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 402433 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 350844 | 77.83705 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 38.919% | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 455781 | 77.34446 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 38.672% | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 208001 | 38.73536 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 38.735% | |
| 46) 2-Fluorobiphenyl(S) | 8.07 | 172 | 379372 | 38.53374 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 38.534% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 70048 | 79.26698 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 39.634% | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 375873 | 37.61243 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 37.612% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 3334 | 4.08361 | 70 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 53816 | 35.11547 ppb | 99 |
| 4) Pyridine | 1.96 | 79 | 149718 | 40.62106 ppb | 94 |
| 7) Phenol | 5.03 | 94 | 246766 | 37.84513 ppb | 93 |
| 8) Aniline | 5.03 | 93 | 248414 | 39.07988 ppb | 97 |
| 9) Bis (2-chloroethyl) ether | 5.10 | 63 | 113368 | 39.11914 ppb | 97 |
| 10) 2-Chlorophenol | 5.17 | 128 | 182996 | 38.57726 ppb | 98 |
| 11) 1,3-DCB | 5.34 | 146 | 191910 | 38.53912 ppb | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 195735 | 38.22422 ppb | 98 |
| 13) Benzyl alcohol | 5.57 | 108 | 107441 | 38.95066 ppb | 97 |
| 14) 1,2-DCB | 5.59 | 146 | 180303 | 37.99173 ppb | 98 |
| 15) 2-Methylphenol | 5.70 | 107 | 157863 | 38.20086 ppb | 97 |
| 16) Bis (2-chloroisopropyl) et | 5.71 | 45 | 162678 | 38.10985 ppb | 95 |
| 17) Acetophenone | 5.87 | 105 | 243630 | 38.49616 ppb | 96 |
| 18) 3&4-Methylphenol | 5.87 | 107 | 381090 | 76.82465 ppb | 98 |
| 19) n-Nitrosodi-n-propylamine | 5.86 | 70 | 134357 | 38.68144 ppb | 96 |
| 20) Hexachloroethane | 5.96 | 117 | 74608 | 38.70414 ppb | 97 |
| 23) Nitrobenzene | 6.06 | 77 | 198863 | 38.33767 ppb | 99 |
| 24) Isophorone | 6.32 | 82 | 342537 | 37.97327 ppb | 98 |
| 25) 2-Nitrophenol | 6.41 | 139 | 103270 | 39.27397 ppb | 99 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 162398 | 39.18039 ppb | 95 |
| 27) Benzoic acid | 6.60 | 105 | 116208 | 40.80091 ppb | 97 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 210236 | 38.15330 ppb | 99 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 136350 | 38.79467 ppb | 97 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 149205 | 38.67244 ppb | 98 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 231946 | 37.84165 ppb | 100 |
| 32) Naphthalene | 6.86 | 128 | 528234 | 38.40722 ppb | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 199123 | 39.27218 ppb | 100 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 135706 | 38.40269 ppb | 99 |
| 35) Hexachloropropene | 6.95 | 213 | 84365 | 39.35456 ppb | 99 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 72578 | 38.34890 ppb | 97 |
| 37) Caprolactum | 7.36 | 55 | 68694 | 38.78887 ppb | 99 |

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

Data File : M:\YODA\DATA\Y190319\0319Y008.D Vial: 8
Acq On : 19 Mar 19 20:49 Operator: MA
Sample : 40ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.50 | 107 | 165627 | 38.87639 | ppb | | 94 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 333856 | 38.06799 | ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 350525 | 38.56483 | ppb | | 98 |
| 42) | Hexachlorocyclopentadiene | 7.82 | 237 | 17908 | 38.38937 | ppb | | 96 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 135909 | 39.04054 | ppb | | 100 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 88646 | 39.59683 | ppb | | 97 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 94897 | 39.44090 | ppb | | 98 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 430945 | 39.09893 | ppb | | 98 |
| 48) | 2-Chloronaphthalene | 8.21 | 162 | 320001 | 38.60017 | ppb | | 99 |
| 49) | 2-Nitroaniline | 8.34 | 65 | 106898 | 39.34478 | ppb | | 88 |
| 50) | Dimethyl phthalate | 8.54 | 163 | 374261 | 38.84296 | ppb | | 99 |
| 51) | 2,6-DNT | 8.63 | 165 | 89947 | 39.92197 | ppb | | 94 |
| 52) | Acenaphthylene | 8.70 | 152 | 510591 | 38.91442 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.83 | 138 | 100451 | 40.56025 | ppb | | 86 |
| 54) | Acenaphthene | 8.90 | 154 | 329590 | 38.99847 | ppb | | 98 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 35320 | 34.37892 | ppb | | 89 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 54344 | 41.65344 | ppb | | 98 |
| 57) | Dibenzofuran | 9.10 | 168 | 447008 | 38.97371 | ppb | | 95 |
| 58) | 2,4-DNT | 9.10 | 165 | 121371 | 39.85725 | ppb | # | 63 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.25 | 232 | 62752 | 41.07223 | ppb | | 95 |
| 60) | Diethyl phthalate | 9.36 | 149 | 374381 | 39.37309 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 167169 | 38.14137 | ppb | | 99 |
| 62) | Fluorene | 9.50 | 166 | 375496 | 39.24725 | ppb | | 99 |
| 63) | 4-Nitroaniline | 9.55 | 138 | 98403 | 39.27774 | ppb | | 93 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 69984 | 41.84279 | ppb | | 97 |
| 67) | Diphenyl amine | 9.63 | 169 | 585175 | 77.80455 | ppb | | 98 |
| 68) | n-Nitrosodiphenylamine | 9.63 | 169 | 585175 | 77.80455 | ppb | | 98 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 389175 | 36.97247 | ppb | | 98 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 91164 | 38.84908 | ppb | | 98 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 83502 | 38.31313 | ppb | | 95 |
| 72) | Atrazine | 10.26 | 200 | 50408 | 19.61218 | ppb | | 98 |
| 73) | Pentachlorophenol | 10.40 | 266 | 28214 | 37.16629 | ppb | | 95 |
| 74) | Phenanthrene | 10.63 | 178 | 525732 | 38.38010 | ppb | | 100 |
| 75) | Anthracene | 10.68 | 178 | 559632 | 38.67492 | ppb | | 99 |
| 76) | Carbazol | 10.88 | 167 | 515005 | 38.64820 | ppb | | 99 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 642809 | 38.52335 | ppb | | 100 |
| 78) | Fluoranthene | 12.01 | 202 | 547930 | 38.25656 | ppb | # | 94 |
| 80) | Benzidine | 12.18 | 184 | 128293 | 39.56635 | ppb | | 99 |
| 81) | Pyrene | 12.28 | 202 | 572657 | 37.99483 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 13.01 | 149 | 290328 | 38.05260 | ppb | | 95 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 145766 | 38.46739 | ppb | # | 96 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 507691 | 38.09250 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.66 | 149 | 413948 | 37.87940 | ppb | | 99 |
| 87) | Chrysene | 13.72 | 228 | 485669 | 37.79523 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 718957 | 38.15510 | ppb | | 99 |
| 90) | Benzo (b) fluoranthene | 15.03 | 252 | 482020 | 40.24491 | ppb | | 97 |
| 91) | Benzo (k) fluoranthene | 15.03 | 252 | 482020 | 40.24491 | ppb | | 97 |
| 92) | Benzo (a) pyrene | 15.46 | 252 | 458006 | 38.39569 | ppb | | 98 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.46 | 276 | 488450 | 38.06101 | ppb | | 98 |
| 94) | Dibenz (a,h) anthracene | 17.48 | 278 | 431503 | 38.35040 | ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 18.04 | 276 | 394295 | 38.49960 | ppb | | 99 |

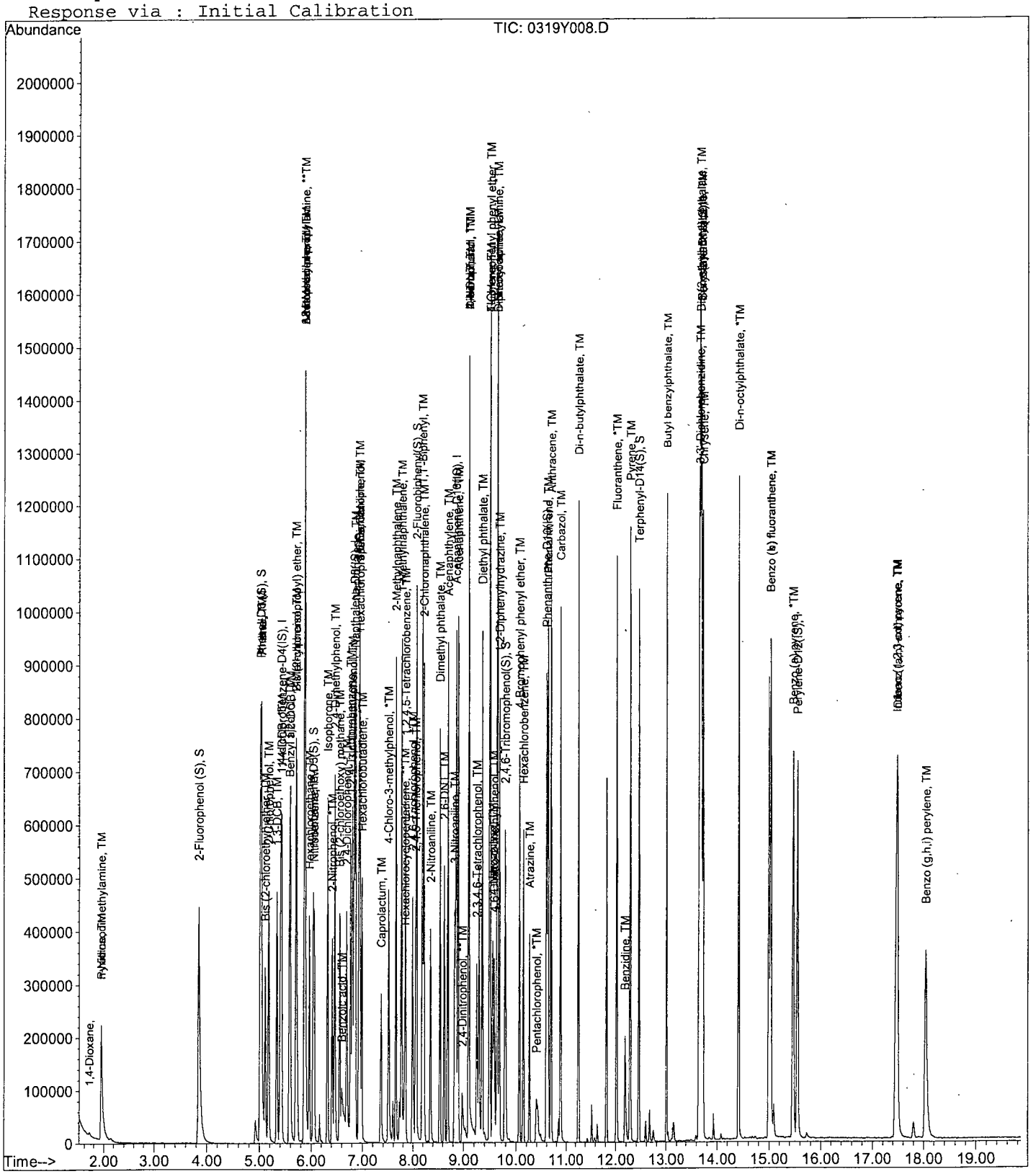
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y008.D Vial: 8
Acq On : 19 Mar 19 20:49 Operator: MA
Sample : 40ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y009.D Vial: 9
Acq On : 19 Mar 19 21:17 Operator: MA
Sample : 60ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 119422 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 509759 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 274152 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 446170 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 403300 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 398594 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 554819 | 124.30237 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 62.151% | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 719608 | 123.31751 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 61.659% | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 321087 | 59.61836 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 59.618% | |
| 46) 2-Fluorobiphenyl(S) | 8.08 | 172 | 599687 | 59.24331 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 59.243% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 114414 | 125.92573 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 62.963% | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 599770 | 60.83796 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 60.838% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 5619 | 6.95014 | 81 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 87300 | 57.52505 ppb | 97 |
| 4) Pyridine | 1.95 | 79 | 220241 | 60.34360 ppb | 99 |
| 7) Phenol | 5.03 | 94 | 377378 | 58.44629 ppb | 98 |
| 8) Aniline | 5.03 | 93 | 372737 | 59.21550 ppb | 99 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 169839 | 59.18233 ppb | 94 |
| 10) 2-Chlorophenol | 5.17 | 128 | 279330 | 59.46524 ppb | 99 |
| 11) 1,3-DCB | 5.33 | 146 | 290271 | 58.86587 ppb | 98 |
| 12) 1,4-DCB | 5.42 | 146 | 295031 | 58.18265 ppb | 99 |
| 13) Benzyl alcohol | 5.57 | 108 | 164974 | 60.39709 ppb | 99 |
| 14) 1,2-DCB | 5.59 | 146 | 271735 | 57.82124 ppb | 98 |
| 15) 2-Methylphenol | 5.70 | 107 | 238089 | 58.18189 ppb | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 247456 | 58.54127 ppb | 93 |
| 17) Acetophenone | 5.87 | 105 | 365171 | 58.26916 ppb | 97 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 577737 | 117.61399 ppb | 99 |
| 19) n-Nitrosodi-n-propylamine | 5.87 | 70 | 199853 | 58.10437 ppb | 98 |
| 20) Hexachloroethane | 5.96 | 117 | 110136 | 57.69751 ppb | 98 |
| 23) Nitrobenzene | 6.06 | 77 | 297656 | 57.21389 ppb | 96 |
| 24) Isophorone | 6.32 | 82 | 522924 | 57.79950 ppb | 99 |
| 25) 2-Nitrophenol | 6.41 | 139 | 155294 | 58.88441 ppb | 98 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 239596 | 57.63452 ppb | 98 |
| 27) Benzoic acid | 6.62 | 105 | 188602 | 66.02299 ppb | 96 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 319808 | 57.86678 ppb | 99 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 205603 | 58.32590 ppb | 97 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 221096 | 57.13656 ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 348609 | 56.70702 ppb | 97 |
| 32) Naphthalene | 6.86 | 128 | 782266 | 56.70953 ppb | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 289331 | 56.89493 ppb | 99 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 203765 | 57.49197 ppb | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 128538 | 59.78323 ppb | 98 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 108569 | 57.19641 ppb | 97 |
| 37) Caprolactum | 7.37 | 55 | 104723 | 58.95836 ppb | 99 |

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

Data File : M:\YODA\DATA\Y190319\0319Y009.D Vial: 9
Acq On : 19 Mar 19 21:17 Operator: MA
Sample : 60ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.50 | 107 | 250598 | 58.64722 | ppb | | 95 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 508641 | 57.82653 | ppb | | 99 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 523067 | 57.37792 | ppb | | 100 |
| 42) | Hexachlorocyclopentadiene | 7.83 | 237 | 41106 | 59.83288 | ppb | | 99 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 204706 | 57.19222 | ppb | | 98 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 134842 | 58.58213 | ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 140586 | 56.82967 | ppb | | 97 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 643208 | 56.75881 | ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.22 | 162 | 486021 | 57.02059 | ppb | | 98 |
| 49) | 2-Nitroaniline | 8.35 | 65 | 160739 | 57.54102 | ppb | | 97 |
| 50) | Dimethyl phthalate | 8.54 | 163 | 568962 | 57.43277 | ppb | | 99 |
| 51) | 2,6-DNT | 8.63 | 165 | 136200 | 58.79510 | ppb | | 95 |
| 52) | Acenaphthylene | 8.70 | 152 | 773677 | 57.35032 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.84 | 138 | 149508 | 58.71506 | ppb | | 99 |
| 54) | Acenaphthene | 8.90 | 154 | 490001 | 56.39093 | ppb | | 98 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 60741 | 52.76357 | ppb | | 97 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 86024 | 57.49889 | ppb | | 98 |
| 57) | Dibenzofuran | 9.10 | 168 | 661897 | 56.12878 | ppb | | 99 |
| 58) | 2,4-DNT | 9.11 | 165 | 184830 | 59.03420 | ppb | | 98 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 97056 | 61.78484 | ppb | | 99 |
| 60) | Diethyl phthalate | 9.36 | 149 | 558668 | 57.14501 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 253625 | 56.28224 | ppb | | 98 |
| 62) | Fluorene | 9.50 | 166 | 554278 | 56.34694 | ppb | | 100 |
| 63) | 4-Nitroaniline | 9.55 | 138 | 145202 | 56.37019 | ppb | | 98 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 107862 | 64.79772 | ppb | | 95 |
| 67) | Diphenyl amine | 9.65 | 169 | 867131 | 115.84393 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.65 | 169 | 867131 | 115.84393 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 585945 | 55.93193 | ppb | | 98 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 136546 | 58.46632 | ppb | | 98 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 125566 | 57.88847 | ppb | | 98 |
| 72) | Atrazine | 10.26 | 200 | 74712 | 29.20694 | ppb | | 98 |
| 73) | Pentachlorophenol | 10.39 | 266 | 44547 | 55.24805 | ppb | | 97 |
| 74) | Phenanthrene | 10.63 | 178 | 788815 | 57.86103 | ppb | | 100 |
| 75) | Anthracene | 10.69 | 178 | 835558 | 58.01934 | ppb | | 100 |
| 76) | Carbazol | 10.88 | 167 | 772017 | 58.21221 | ppb | | 99 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 963212 | 58.00071 | ppb | | 100 |
| 78) | Fluoranthene | 12.01 | 202 | 830711 | 58.27740 | ppb | # | 93 |
| 80) | Benzidine | 12.18 | 184 | 176783 | 55.26666 | ppb | | 97 |
| 81) | Pyrene | 12.28 | 202 | 859734 | 57.82208 | ppb | | 100 |
| 83) | Butyl benzylphthalate | 13.02 | 149 | 437718 | 58.15532 | ppb | | 96 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 213681 | 57.16130 | ppb | # | 96 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 757726 | 57.63043 | ppb | | 100 |
| 86) | Bis (2-ethylhexyl) phthala | 13.67 | 149 | 610683 | 56.64646 | ppb | | 99 |
| 87) | Chrysene | 13.72 | 228 | 724548 | 57.15621 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 1080420 | 58.12218 | ppb | | 99 |
| 90) | Benzo (b) fluoranthene | 15.04 | 252 | 715694 | 60.33039 | ppb | | 99 |
| 91) | Benzo (k) fluoranthene | 15.04 | 252 | 715694 | 60.33039 | ppb | | 99 |
| 92) | Benzo (a) pyrene | 15.47 | 252 | 683990 | 57.89271 | ppb | | 98 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.47 | 276 | 728010 | 57.27438 | ppb | | 98 |
| 94) | Dibenz (a,h) anthracene | 17.49 | 278 | 642062 | 57.61372 | ppb | | 99 |
| 95) | Benzo (g,h,i) perylene | 18.05 | 276 | 584721 | 57.64299 | ppb | | 99 |

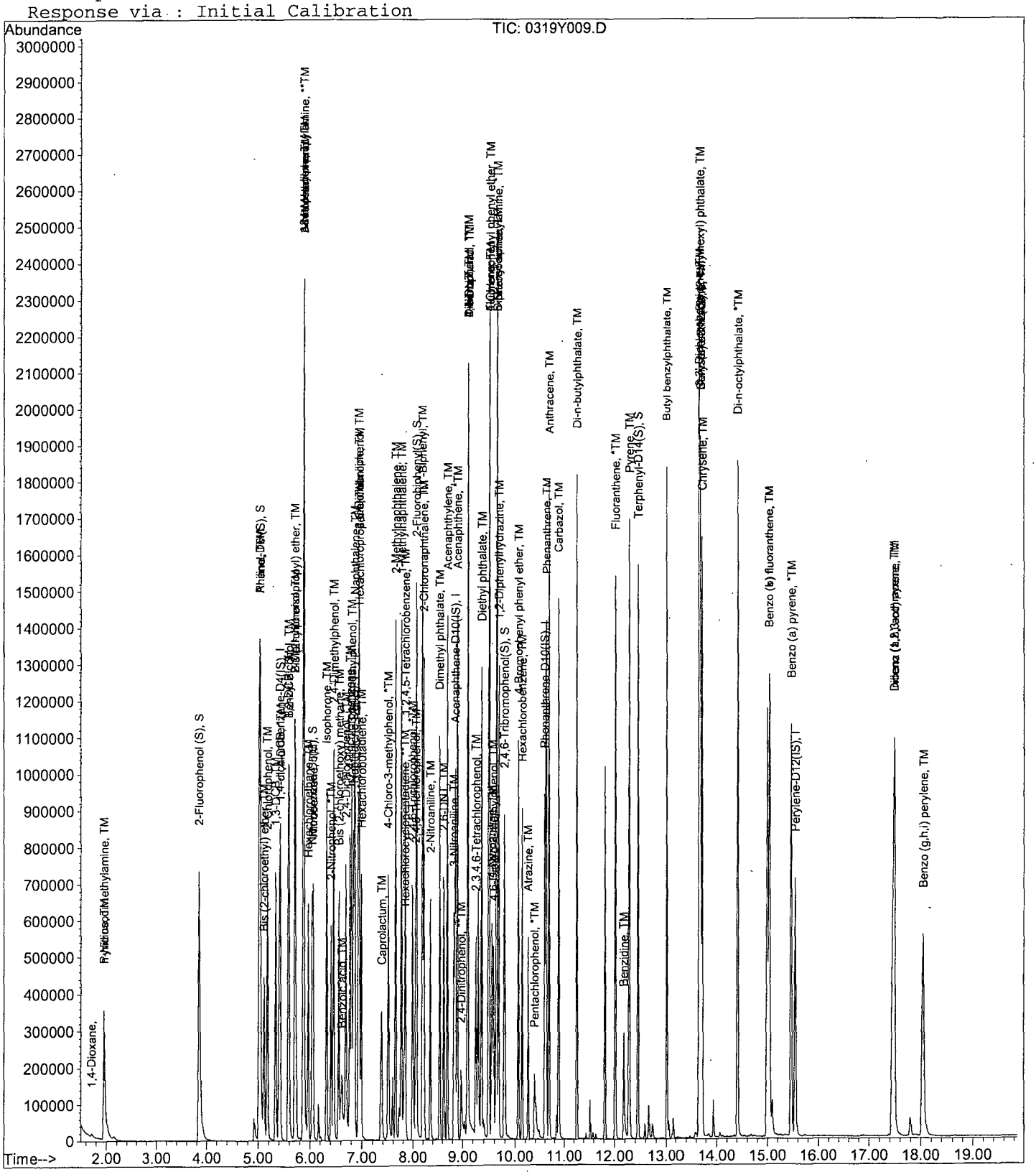
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y009.D Vial: 9
Acq On : 19 Mar 19 21:17 Operator: MA
Sample : 60ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y010.D Vial: 10
Acq On : 19 Mar 19 21:44 Operator: MA
Sample : 80ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 124639 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 522881 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 282109 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.60 | 188 | 471351 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 412376 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 411654 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 738693 | 158.57052 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 79.286% | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 947457 | 155.56742 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 77.784% | |
| 22) Nitrobenzene-D5(S) | 6.04 | 82 | 430884 | 77.99732 ppb | 0.01 |
| Spiked Amount 100.000 | | | Recovery = | 77.997% | |
| 46) 2-Fluorobiphenyl(S) | 8.08 | 172 | 792997 | 76.13085 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 76.131% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 149661 | 160.07313 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 80.037% | |
| 82) Terphenyl-D14(S) | 12.46 | 244 | 787455 | 78.11789 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 78.118% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 7489 | 8.87541 | 91 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 116191 | 73.35769 ppb | 100 |
| 4) Pyridine | 1.95 | 79 | 274406 | 72.03723 ppb | 95 |
| 7) Phenol | 5.03 | 94 | 500767 | 74.30987 ppb | 88 |
| 8) Aniline | 5.04 | 93 | 488876 | 74.41526 ppb | 86 |
| 9) Bis (2-chloroethyl) ether | 5.12 | 63 | 222242 | 74.20123 ppb | 98 |
| 10) 2-Chlorophenol | 5.17 | 128 | 368198 | 75.10302 ppb | 99 |
| 11) 1,3-DCB | 5.34 | 146 | 379628 | 73.76470 ppb | 98 |
| 12) 1,4-DCB | 5.42 | 146 | 385398 | 72.82252 ppb | 99 |
| 13) Benzyl alcohol | 5.58 | 108 | 221913 | 77.84194 ppb | 91 |
| 14) 1,2-DCB | 5.59 | 146 | 361603 | 73.72321 ppb | 99 |
| 15) 2-Methylphenol | 5.71 | 107 | 314233 | 73.57507 ppb | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.71 | 45 | 323030 | 73.22129 ppb | 96 |
| 17) Acetophenone | 5.87 | 105 | 483988 | 73.99586 ppb | 97 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 768184 | 149.83886 ppb | 98 |
| 19) n-Nitrosodi-n-propylamine | 5.87 | 70 | 261635 | 72.88269 ppb | 95 |
| 20) Hexachloroethane | 5.96 | 117 | 146122 | 73.34555 ppb | 97 |
| 23) Nitrobenzene | 6.06 | 77 | 397299 | 74.45028 ppb | 95 |
| 24) Isophorone | 6.33 | 82 | 694207 | 74.80602 ppb | 97 |
| 25) 2-Nitrophenol | 6.42 | 139 | 206201 | 76.22518 ppb | 97 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 319334 | 74.88767 ppb | 99 |
| 27) Benzoic acid | 6.64 | 105 | 261327 | 89.18570 ppb | 98 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 420280 | 74.13799 ppb | 98 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 278019 | 76.88976 ppb | 96 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 294061 | 74.08541 ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.81 | 107 | 465258 | 73.78263 ppb | 99 |
| 32) Naphthalene | 6.86 | 128 | 1038095 | 73.36699 ppb | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 367949 | 70.53883 ppb | 98 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 269825 | 74.22015 ppb | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 171358 | 77.69879 ppb | 99 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 143366 | 73.63278 ppb | 99 |
| 37) Caprolactum | 7.39 | 55 | 136816 | 75.09349 ppb | 94 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y010.D Vial: 10
Acq On : 19 Mar 19 21:44 Operator: MA
Sample : 80ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.50 | 107 | 327934 | 74.82010 ppb | | 96 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 673129 | 74.60640 ppb | | 98 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 691557 | 73.95670 ppb | | 100 |
| 42) | Hexachlorocyclopentadiene | 7.83 | 237 | 70940 | 80.93094 ppb | | 99 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 270466 | 73.43339 ppb | | 100 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 181249 | 76.52267 ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 191311 | 75.15320 ppb | | 96 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 856636 | 73.46029 ppb | | 100 |
| 48) | 2-Chloronaphthalene | 8.23 | 162 | 636805 | 72.60351 ppb | | 95 |
| 49) | 2-Nitroaniline | 8.36 | 65 | 214971 | 74.78434 ppb | | 99 |
| 50) | Dimethyl phthalate | 8.55 | 163 | 749146 | 73.48817 ppb | | 99 |
| 51) | 2,6-DNT | 8.63 | 165 | 179882 | 75.46163 ppb | | 92 |
| 52) | Acenaphthylene | 8.70 | 152 | 1021819 | 73.60792 ppb | | 99 |
| 53) | 3-Nitroaniline | 8.84 | 138 | 195736 | 74.70167 ppb | | 97 |
| 54) | Acenaphthene | 8.90 | 154 | 651107 | 72.81806 ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 87654 | 71.15902 ppb | | 95 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 121095 | 77.09489 ppb | | 94 |
| 57) | Dibenzofuran | 9.10 | 168 | 882579 | 72.73162 ppb | | 98 |
| 58) | 2,4-DNT | 9.11 | 165 | 239317 | 74.28125 ppb | | 91 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 133018 | 82.28950 ppb | | 99 |
| 60) | Diethyl phthalate | 9.37 | 149 | 735163 | 73.07732 ppb | | 98 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 331462 | 71.48049 ppb | | 99 |
| 62) | Fluorene | 9.51 | 166 | 731875 | 72.30262 ppb | | 99 |
| 63) | 4-Nitroaniline | 9.56 | 138 | 190904 | 72.02220 ppb | | 96 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.59 | 198 | 147764 | 84.02641 ppb | | 89 |
| 67) | Diphenyl amine | 9.65 | 169 | 1131969 | 143.14595 ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.65 | 169 | 1131969 | 143.14595 ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 899802 | 81.30286 ppb | | 97 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 181349 | 73.50178 ppb | | 99 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 169696 | 74.05384 ppb | | 96 |
| 72) | Atrazine | 10.27 | 200 | 99114 | 36.67639 ppb | | 95 |
| 73) | Pentachlorophenol | 10.39 | 266 | 70646 | 79.76194 ppb | | 98 |
| 74) | Phenanthrene | 10.63 | 178 | 1046291 | 72.64729 ppb | | 100 |
| 75) | Anthracene | 10.69 | 178 | 1107324 | 72.78248 ppb | | 100 |
| 76) | Carbazol | 10.88 | 167 | 1031382 | 73.61438 ppb | | 100 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 1261013 | 71.87650 ppb | | 99 |
| 78) | Fluoranthene | 12.02 | 202 | 1105666 | 73.42266 ppb | | 99 |
| 80) | Benzidine | 12.18 | 184 | 235199 | 71.91062 ppb | | 98 |
| 81) | Pyrene | 12.28 | 202 | 1139228 | 74.93335 ppb | | 99 |
| 83) | Butyl benzylphthalate | 13.02 | 149 | 573895 | 74.56968 ppb | | 99 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 277452 | 72.58701 ppb | # | 96 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 1012545 | 75.31628 ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.67 | 149 | 814809 | 73.91756 ppb | | 99 |
| 87) | Chrysene | 13.73 | 228 | 967964 | 74.67760 ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 1420300 | 74.72471 ppb | | 98 |
| 90) | Benzo (b) fluoranthene | 15.04 | 252 | 876462 | 71.53857 ppb | | 97 |
| 91) | Benzo (k) fluoranthene | 15.04 | 252 | 876462 | 71.53857 ppb | | 97 |
| 92) | Benzo (a) pyrene | 15.48 | 252 | 904838 | 74.15550 ppb | | 98 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.48 | 276 | 972746 | 74.10046 ppb | | 96 |
| 94) | Dibenz (a,h) anthracene | 17.50 | 278 | 858807 | 74.61788 ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 18.06 | 276 | 775963 | 74.06913 ppb | | 99 |

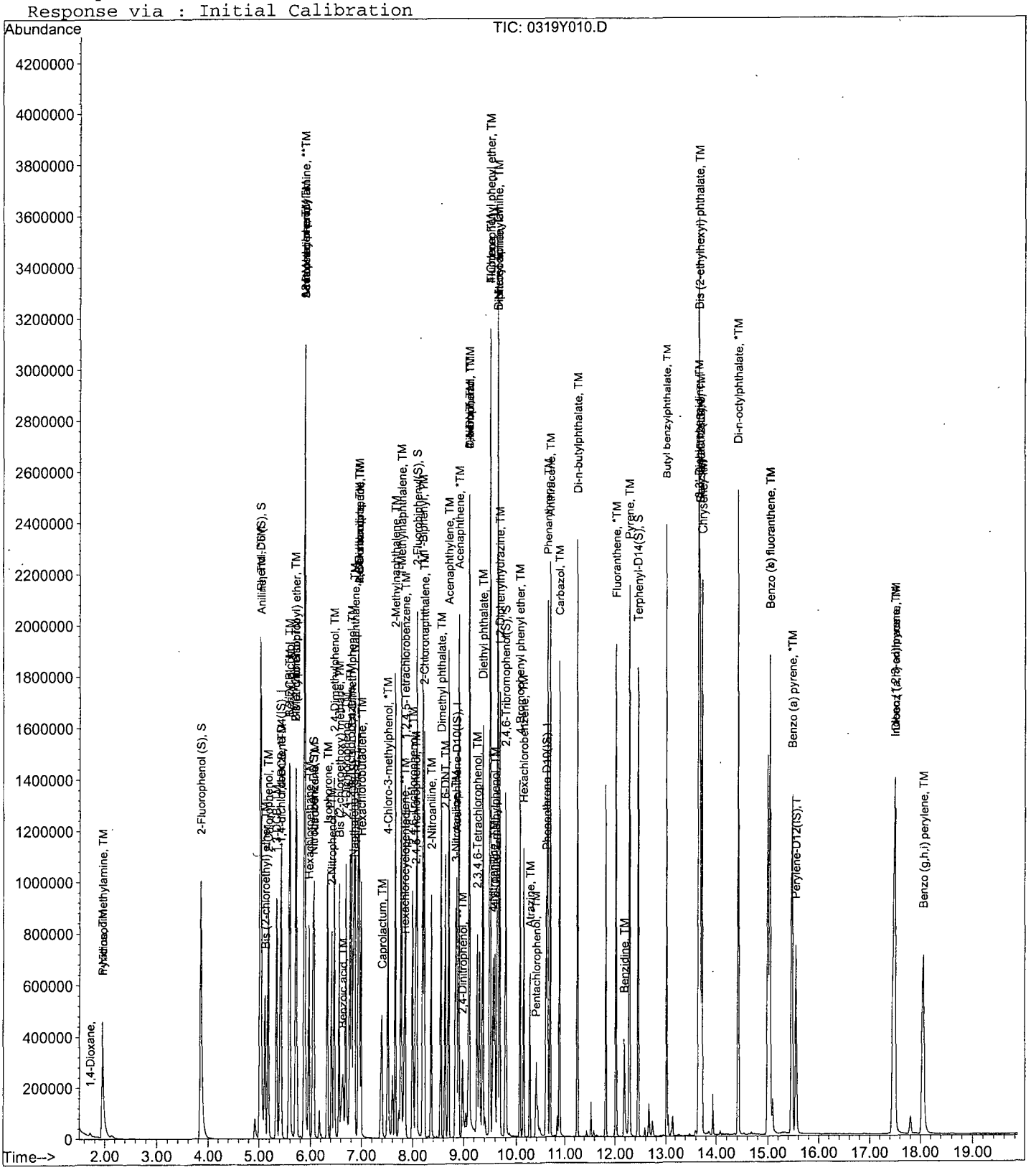
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y010.D Vial: 10
Acq On : 19 Mar 19 21:44 Operator: MA
Sample : 80ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y011.D Vial: 11
Acq On : 19 Mar 19 22:11 Operator: MA
Sample : 100ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 128999 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 546463 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 293849 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.60 | 188 | 490122 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.70 | 240 | 432203 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 424247 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 958858 | 198.87509 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 99.438% | |
| 6) Phenol-D6 (S) | 5.02 | 99 | 1236542 | 196.17137 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 98.086% | |
| 22) Nitrobenzene-D5(S) | 6.04 | 82 | 553462 | 95.86260 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 95.863% | |
| 46) 2-Fluorobiphenyl(S) | 8.08 | 172 | 1015497 | 93.59670 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 93.597% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 199616 | 204.97357 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 102.487% | |
| 82) Terphenyl-D14(S) | 12.46 | 244 | 1007645 | 95.37573 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 95.376% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 8764 | 10.03540 | 79 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 149106 | 90.95695 ppb | 96 |
| 4) Pyridine | 1.95 | 79 | 353962 | 89.78167 ppb | 96 |
| 7) Phenol | 5.03 | 94 | 632343 | 90.66321 ppb | 92 |
| 8) Aniline | 5.04 | 93 | 623311 | 91.67179 ppb | 97 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 284907 | 91.90851 ppb | 99 |
| 10) 2-Chlorophenol | 5.18 | 128 | 464858 | 91.61443 ppb | 94 |
| 11) 1,3-DCB | 5.34 | 146 | 480677 | 90.24254 ppb | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 487952 | 89.08426 ppb | 99 |
| 13) Benzyl alcohol | 5.58 | 108 | 281389 | 95.36865 ppb | 95 |
| 14) 1,2-DCB | 5.59 | 146 | 456948 | 90.01328 ppb | 99 |
| 15) 2-Methylphenol | 5.71 | 107 | 400929 | 90.70140 ppb | 99 |
| 16) Bis (2-chloroisopropyl) et | 5.71 | 45 | 408465 | 89.45755 ppb | 93 |
| 17) Acetophenone | 5.87 | 105 | 611533 | 90.33590 ppb | 88 |
| 18) 3&4-Methylphenol | 5.89 | 107 | 971454 | 183.08343 ppb | 100 |
| 19) n-Nitrosodi-n-propylamine | 5.88 | 70 | 334389 | 90.00116 ppb | 99 |
| 20) Hexachloroethane | 5.96 | 117 | 186656 | 90.52483 ppb | 95 |
| 23) Nitrobenzene | 6.06 | 77 | 495416 | 88.83027 ppb | 94 |
| 24) Isophorone | 6.33 | 82 | 868215 | 89.51935 ppb | 99 |
| 25) 2-Nitrophenol | 6.41 | 139 | 265905 | 94.05379 ppb | 94 |
| 26) 2,4-Dimethylphenol | 6.47 | 122 | 407998 | 91.55147 ppb | 95 |
| 27) Benzoic acid | 6.66 | 105 | 338030 | 110.38455 ppb | 97 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 537091 | 90.65506 ppb | 99 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 350974 | 92.87762 ppb | 99 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 368788 | 88.90253 ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 588474 | 89.29551 ppb | 100 |
| 32) Naphthalene | 6.87 | 128 | 1321905 | 89.39350 ppb | 99 |
| 33) 4-Chloroaniline | 6.94 | 127 | 435084 | 79.80973 ppb | 96 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 343607 | 90.43650 ppb | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 221953 | 96.29705 ppb | 98 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 179910 | 88.41428 ppb | 97 |
| 37) Caprolactum | 7.40 | 55 | 175756 | 92.30339 ppb | 99 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y011.D
Acq On : 19 Mar 19 22:11
Sample : 100ug/mL 8270 03/13/19
Misc :

Vial: 11
Operator: MA
Inst : Yoda
Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.51 | 107 | 424655 | 92.70650 | ppb | | 99 |
| 39) | 2-Methylnaphthalene | 7.66 | 142 | 848678 | 90.00421 | ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 875232 | 89.56016 | ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.83 | 237 | 105184 | 99.60718 | ppb | | 97 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 340674 | 88.79992 | ppb | | 97 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 231114 | 93.67710 | ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 244412 | 92.17705 | ppb | | 99 |
| 47) | 1,1'-Biphenyl | 8.20 | 154 | 1087136 | 89.50203 | ppb | | 98 |
| 48) | 2-Chloronaphthalene | 8.22 | 162 | 814565 | 89.15991 | ppb | | 97 |
| 49) | 2-Nitroaniline | 8.35 | 65 | 274610 | 91.71489 | ppb | | 94 |
| 50) | Dimethyl phthalate | 8.55 | 163 | 959118 | 90.32661 | ppb | | 99 |
| 51) | 2,6-DNT | 8.63 | 165 | 233972 | 94.23128 | ppb | | 82 |
| 52) | Acenaphthylene | 8.70 | 152 | 1296743 | 89.68034 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.84 | 138 | 245951 | 90.11579 | ppb | | 92 |
| 54) | Acenaphthene | 8.90 | 154 | 821465 | 88.19999 | ppb | | 98 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 119143 | 90.70931 | ppb | | 96 |
| 56) | 4-Nitrophenol | 9.07 | 65 | 159994 | 102.32682 | ppb | # | 76 |
| 57) | Dibenzofuran | 9.11 | 168 | 1112137 | 87.98744 | ppb | | 93 |
| 58) | 2,4-DNT | 9.11 | 165 | 306608 | 91.36542 | ppb | | 79 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 172487 | 102.44319 | ppb | | 96 |
| 60) | Diethyl phthalate | 9.37 | 149 | 913366 | 87.16387 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 427282 | 88.46288 | ppb | | 95 |
| 62) | Fluorene | 9.51 | 166 | 931717 | 88.36777 | ppb | | 99 |
| 63) | 4-Nitroaniline | 9.57 | 138 | 241665 | 87.53018 | ppb | | 93 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.60 | 198 | 195017 | 106.64976 | ppb | # | 79 |
| 67) | Diphenyl amine | 9.65 | 169 | 1453305 | 176.74271 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.65 | 169 | 1453305 | 176.74271 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 1133772 | 98.52009 | ppb | | 94 |
| 70) | 4-Bromophenyl phenyl ether | 10.07 | 248 | 233692 | 91.08917 | ppb | | 86 |
| 71) | Hexachlorobenzene | 10.15 | 284 | 215413 | 90.40410 | ppb | | 86 |
| 72) | Atrazine | 10.27 | 200 | 126617 | 45.05924 | ppb | | 97 |
| 73) | Pentachlorophenol | 10.39 | 266 | 96308 | 102.60104 | ppb | | 98 |
| 74) | Phenanthrene | 10.63 | 178 | 1336863 | 89.26765 | ppb | | 99 |
| 75) | Anthracene | 10.69 | 178 | 1408486 | 89.03175 | ppb | | 99 |
| 76) | Carbazol | 10.89 | 167 | 1314585 | 90.23438 | ppb | | 97 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 1619389 | 88.76847 | ppb | | 100 |
| 78) | Fluoranthene | 12.02 | 202 | 1425227 | 91.01866 | ppb | | 97 |
| 80) | Benzidine | 12.19 | 184 | 300037 | 87.52618 | ppb | | 98 |
| 81) | Pyrene | 12.29 | 202 | 1457256 | 91.45468 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 13.01 | 149 | 737088 | 91.38077 | ppb | | 96 |
| 84) | 3,3'-Dichlorobenzidine | 13.66 | 252 | 343274 | 85.68751 | ppb | | 99 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 1263351 | 89.66112 | ppb | | 98 |
| 86) | Bis (2-ethylhexyl) phthala | 13.66 | 149 | 1014608 | 87.82046 | ppb | | 98 |
| 87) | Chrysene | 13.73 | 228 | 1222782 | 90.00896 | ppb | | 98 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 1823445 | 91.53399 | ppb | | 96 |
| 90) | Benzo (b) fluoranthene | 15.05 | 252 | 1198995 | 94.95943 | ppb | | 99 |
| 91) | Benzo (k) fluoranthene | 15.05 | 252 | 1198995 | 94.95943 | ppb | | 99 |
| 92) | Benzo (a) pyrene | 15.47 | 252 | 1144046 | 90.97657 | ppb | | 100 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.49 | 276 | 1234147 | 91.22249 | ppb | | 97 |
| 94) | Dibenz (a,h) anthracene | 17.52 | 278 | 1080909 | 91.12762 | ppb | | 96 |
| 95) | Benzo (g,h,i) perylene | 18.07 | 276 | 989000 | 91.60224 | ppb | | 99 |

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

Quantitation Report

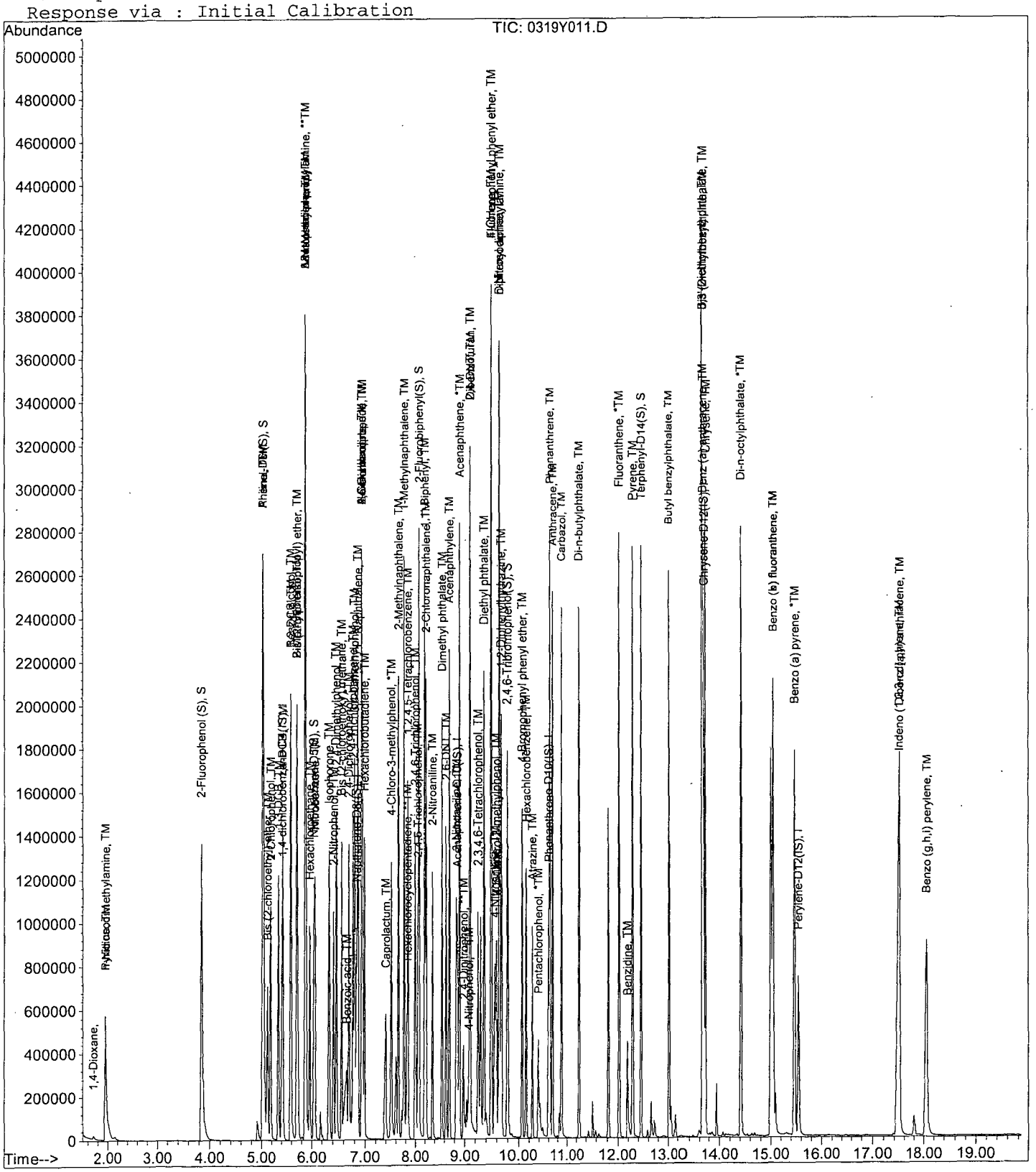
Data File : M:\YODA\DATA\Y190319\0319Y011.D
Acq On : 19 Mar 19 22:11
Sample : 100ug/mL 8270 03/13/19
Misc :

Vial: 11
Operator: MA
Inst : Yoda
Multiplr: 1.00

Quant Time: Mar 20 9:19 2019

Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 03/19/19
Matrix: Instrument: Yoda
Initial Cal. Date: 03/19/19
Data File: 0319Y012.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | | 1,4-Dioxane | 0.2708 | 0.2758 | 1.8 | | |
| 2 | TM | n-Nitrosodimethylamine | 0.5083 | 0.4536 | 11 | TM | |
| 3 | TM | Pyridine | 1.222 | 1.245 | 1.9 | TM | |
| 4 | *TM | Phenol | 2.163 | 2.182 | 0.89 | *TM | |
| 5 | TM | Aniline | 2.108 | 2.063 | 2.2 | TM | |
| 6 | TM | Bis (2-chloroethyl) ether | 0.9612 | 0.9227 | 4.0 | TM | |
| 7 | TM | 2-Chlorophenol | 1.573 | 1.558 | 1.00 | TM | |
| 8 | TM | 1,3-DCB | 1.652 | 1.633 | 1.2 | TM | |
| 9 | *TM | 1,4-DCB | 1.698 | 1.688 | 0.62 | *TM | |
| 10 | TM | Benzyl alcohol | 0.9149 | 0.9011 | 1.5 | TM | |
| 11 | TM | 1,2-DCB | 1.574 | 1.577 | 0.17 | TM | |
| 12 | TM | 2-Methylphenol | 1.371 | 1.313 | 4.2 | TM | |
| 13 | TM | Bis (2-chloroisopropyl) ether | 1.416 | 1.347 | 4.8 | TM | |
| 14 | TM | Acetophenone | 2.099 | 2.045 | 2.6 | TM | |
| 15 | TM | 3&4-Methylphenol | 1.645 | 1.624 | 1.3 | TM | |
| 16 | **TM | n-Nitrosodi-n-propylamine | 1.152 | 1.099 | 4.6 | **TM | |
| 17 | TM | Hexachloroethane | 0.6394 | 0.6376 | 0.27 | TM | |
| 18 | TM | Nitrobenzene | 0.4082 | 0.3946 | 3.3 | TM | |
| 19 | TM | Isophorone | 0.7099 | 0.7016 | 1.2 | TM | |
| 20 | *TM | 2-Nitrophenol | 0.2069 | 0.2042 | 1.3 | *TM | |
| 21 | TM | 2,4-Dimethylphenol | 0.3262 | 0.3125 | 4.2 | TM | |
| 22 | TM | Benzoic acid | 0.2229 | 0.2510 | 13 | TM | |
| 23 | TM | Bis (2-chloroethoxy) methane | 0.4337 | 0.4143 | 4.5 | TM | |
| 24 | *TM | 2,4-Dichlorophenol | 0.2766 | 0.2784 | 0.65 | *TM | |
| 25 | TM | 1,2,4-Trichlorobenzene | 0.3036 | 0.2987 | 1.6 | TM | |
| 26 | TM | 3,4-Dimethylphenol | 0.4824 | 0.4656 | 3.5 | TM | |
| 27 | TM | Naphthalene | 1.082 | 1.057 | 2.3 | TM | |
| 28 | TM | 4-Chloroaniline | 0.3990 | 0.3874 | 2.9 | TM | |
| 29 | TM | 2,6-Dichlorophenol | 0.2781 | 0.2704 | 2.8 | TM | |
| 30 | TM | Hexachloropropene | 0.1687 | 0.1705 | 1.1 | TM | |
| 31 | *TM | Hexachlorobutadiene | 0.1489 | 0.1463 | 1.8 | *TM | |
| 32 | TM | Caprolactum | 0.1394 | 0.1341 | 3.8 | TM | |
| 33 | *TM | 4-Chloro-3-methylphenol | 0.3353 | 0.3256 | 2.9 | *TM | |
| 34 | TM | 2-Methylnaphthalene | 0.6902 | 0.6654 | 3.6 | TM | |
| 35 | TM | 1-Methylnaphthalene | 0.7153 | 0.6853 | 4.2 | TM | |
| 36 | **TMQ | Hexachlorocyclopentadiene | 0.0924 | 0.0990 | 7.1 | **TMQ | 7.2 |
| 37 | TM | 1,2,4,5-Tetrachlorobenzene | 0.5222 | 0.4998 | 4.3 | TM | |
| 38 | *TM | 2,4,6-Trichlorophenol | 0.3358 | 0.3306 | 1.5 | *TM | |
| 39 | TM | 2,4,5-Trichlorophenol | 0.3609 | 0.3495 | 3.2 | TM | |
| 40 | TM | 1,1'-Biphenyl | 1.653 | 1.591 | 3.7 | TM | |
| | | Average | | | 3.1 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 03/19/19
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0319Y012.D

| | | Compound | MEAN | CCRF | %D | | %Drift | |
|---|---|---|---|---|---|---|---|---|
| 41 | TM | 2-Chloronaphthalene | 1.244 | 1.232 | 0.90 | TM | | |
| 42 | TM | 2-Nitroaniline | 0.4076 | 0.3927 | 3.6 | TM | | |
| 43 | TM | Dimethyl phthalate | 1.445 | 1.387 | 4.1 | TM | | |
| 44 | TM | 2,6-DNT | 0.3380 | 0.3438 | 1.7 | TM | | |
| 45 | TM | Acenaphthylene | 1.968 | 1.931 | 1.9 | TM | | |
| 46 | TM | 3-Nitroaniline | 0.3715 | 0.3753 | 1.0 | TM | | |
| 47 | *TM | Acenaphthene | 1.268 | 1.234 | 2.7 | *TM | | |
| 48 | **TML | 2,4-Dinitrophenol | 0.1285 | 0.1399 | 8.8 | **TML | 2.8 | |
| 49 | **TMQ | 4-Nitrophenol | 0.1853 | 0.2146 | 16 | **TMQ | 1.4 | |
| 50 | TM | Dibenzofuran | 1.721 | 1.642 | 4.6 | TM | | |
| 51 | TM | 2,4-DNT | 0.4568 | 0.4638 | 1.5 | TM | | |
| 52 | TM | 2,3,4,6-Tetrachlorophenol | 0.2292 | 0.2538 | 11 | TM | | |
| 53 | TM | Diethyl phthalate | 1.426 | 1.368 | 4.1 | TM | | |
| 54 | TM | 4-Chlorophenyl phenyl ether | 0.6575 | 0.6283 | 4.4 | TM | | |
| 55 | TM | Fluorene | 1.435 | 1.405 | 2.1 | TM | | |
| 56 | TM | 4-Nitroaniline | 0.3758 | 0.3660 | 2.6 | TM | | |
| 57 | TM | 4,6-Dinitro-2-methylphenol | 0.1492 | 0.1589 | 6.5 | TM | | |
| 58 | TM | Diphenyl amine | 0.6711 | 0.6712 | 0.01 | TM | | |
| 59 | *TM | n-Nitrosodiphenylamine | 0.6711 | 0.6712 | 0.01 | *TM | | |
| 60 | TM | 1,2-Diphenylhydrazine | 0.9392 | 0.9000 | 4.2 | TM | | |
| 61 | TM | 4-Bromophenyl phenyl ether | 0.2094 | 0.2004 | 4.3 | TM | | |
| 62 | TM | Hexachlorobenzene | 0.1945 | 0.1915 | 1.5 | TM | | |
| 63 | TM | Atrazine | 0.2293 | 0.2249 | 1.9 | TM | | |
| 64 | *TML | Pentachlorophenol | 0.0643 | 0.0638 | 0.80 | *TML | 8.4 | |
| 65 | TM | Phenanthrene | 1.222 | 1.192 | 2.5 | TM | | |
| 66 | TM | Anthracene | 1.291 | 1.238 | 4.1 | TM | | |
| 67 | TM | Carbazol | 1.189 | 1.175 | 1.2 | TM | | |
| 68 | TM | Di-n-butylphthalate | 1.489 | 1.422 | 4.5 | TM | | |
| 69 | *TM | Fluoranthene | 1.278 | 1.252 | 2.0 | *TM | | |
| 70 | TM | Benzidine | 0.3087 | 0.4238 | 37 | TM | | * |
| 71 | TM | Pyrene | 1.475 | 1.477 | 0.19 | TM | | |
| 72 | TM | Butyl benzylphthalate | 0.7465 | 0.7432 | 0.45 | TM | | |
| 73 | TM | 3,3'-Dichlorobenzidine | 0.3708 | 0.4245 | 14 | TM | | |
| 74 | TM | Benz (a) anthracene | 1.304 | 1.287 | 1.3 | TM | | |
| 75 | TM | Bis (2-ethylhexyl) phthalate | 1.069 | 1.047 | 2.1 | TM | | |
| 76 | TM | Chrysene | 1.257 | 1.249 | 0.66 | TM | | |
| 77 | *TM | Di-n-octylphthalate | 1.844 | 1.830 | 0.75 | *TM | | |
| 78 | TM | Benzo (b) fluoranthene | 1.190 | 1.224 | 2.8 | TM | | |
| 79 | TM | Benzo (k) fluoranthene | 1.190 | 1.224 | 2.8 | TM | | |
| 80 | *TM | Benzo (a) pyrene | 1.186 | 1.173 | 1.1 | *TM | | |
| | | Average | | | 4.2 | | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 03/19/19
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0319Y012.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 81 | TM | Indeno (1,2,3-cd) pyrene | 1.276 | 1.260 | 1.2 | TM | |
| 82 | TM | Dibenz (a,h) anthracene | 1.118 | 1.109 | 0.80 | TM | |
| 83 | TM | Benzo (g,h,i) perylene | 1.018 | 1.004 | 1.4 | TM | |
| 84 | | | | | | | |
| 85 | | | | | | | |
| 86 | | | | | | | |
| 87 | | | | | | | |
| 88 | | | | | | | |
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| 115 | | | | | | | |
| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 1.1 | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y012.D Vial: 12
Acq On : 19 Mar 19 22:39 Operator: MA
Sample : SS-8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:51 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Mar 20 09:42:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 119662 | 40.00000 ppb | | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 503749 | 40.00000 ppb | | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 265971 | 40.00000 ppb | | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 441976 | 40.00000 ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 392951 | 40.00000 ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 389935 | 40.00000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 0.00 | 112 | 0 | 0.00000 ppb | | |
| Spiked Amount 200.000 | | | Recovery | = 0.000% | | |
| 6) Phenol-D6 (S) | 0.00 | 99 | 0 | 0.00000 ppb | | |
| Spiked Amount 200.000 | | | Recovery | = 0.000% | | |
| 22) Nitrobenzene-D5(S) | 5.96 | 82 | 20266 | 3.80782 ppb | | -0.07 |
| Spiked Amount 100.000 | | | Recovery | = 3.808% | | |
| 46) 2-Fluorobiphenyl(S) | 0.00 | 172 | 0 | 0.00000 ppb | | |
| Spiked Amount 100.000 | | | Recovery | = 0.000% | | |
| 64) 2,4,6-Tribromophenol(S) | 0.00 | 330 | 0 | 0.00000 ppb | | |
| Spiked Amount 200.000 | | | Recovery | = 0.000% | | |
| 82) Terphenyl-D14(S) | 12.46 | 244 | 154 | 0.01603 ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery | = 0.016% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 4125 | 5.09198 | | 81 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 67841 | 44.61317 ppb | | 100 |
| 4) Pyridine | 1.95 | 79 | 186260 | 50.93082 ppb | | 99 |
| 7) Phenol | 5.03 | 94 | 326371 | 50.44522 ppb | | 99 |
| 8) Aniline | 5.03 | 93 | 308538 | 48.91811 ppb | # | 95 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 138021 | 47.99852 ppb | | 100 |
| 10) 2-Chlorophenol | 5.17 | 128 | 232989 | 49.50044 ppb | | 99 |
| 11) 1,3-DCB | 5.33 | 146 | 244193 | 49.42211 ppb | | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 252474 | 49.69018 ppb | | 99 |
| 13) Benzyl alcohol | 5.57 | 108 | 134784 | 49.24555 ppb | | 98 |
| 14) 1,2-DCB | 5.59 | 146 | 235856 | 50.08606 ppb | | 99 |
| 15) 2-Methylphenol | 5.70 | 107 | 196356 | 47.88735 ppb | | 99 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 201555 | 47.58672 ppb | | 89 |
| 17) Acetophenone | 5.87 | 105 | 305876 | 48.70976 ppb | | 91 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 485858 | 98.71116 ppb | | 100 |
| 19) n-Nitrosodi-n-propylamine | 5.86 | 70 | 164419 | 47.70657 ppb | | 97 |
| 20) Hexachloroethane | 5.96 | 117 | 95375 | 49.86438 ppb | | 97 |
| 23) Nitrobenzene | 6.05 | 77 | 248485 | 48.33233 ppb | | 93 |
| 24) Isophorone | 6.32 | 82 | 441766 | 49.41155 ppb | | 100 |
| 25) 2-Nitrophenol | 6.41 | 139 | 128567 | 49.33168 ppb | | 97 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 196783 | 47.90065 ppb | | 98 |
| 27) Benzoic acid | 6.61 | 105 | 158025 | 56.29546 ppb | | 98 |
| 28) Bis (2-chloroethoxy) metha | 6.55 | 93 | 260894 | 47.76995 ppb | | 98 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 175316 | 50.32737 ppb | | 95 |
| 30) 1,2,4-Trichlorobenzene | 6.77 | 180 | 188098 | 49.18901 ppb | | 96 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 293191 | 48.26136 ppb | | 97 |
| 32) Naphthalene | 6.86 | 128 | 665697 | 48.83474 ppb | | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 243911 | 48.53563 ppb | | 100 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 170257 | 48.61086 ppb | | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 107365 | 50.53139 ppb | | 100 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 92116 | 49.10760 ppb | | 98 |
| 37) Caprolactum | 7.37 | 55 | 84463 | 48.11944 ppb | | 95 |

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

Data File : M:\YODA\DATA\Y190319\0319Y012.D Vial: 12
Acq On : 19 Mar 19 22:39 Operator: MA
Sample : SS-8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:51 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Mar 20 09:42:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.50 | 107 | 205002 | 48.54881 ppb | | 95 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 418993 | 48.20291 ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 431516 | 47.89996 ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.83 | 237 | 32915 | 53.59927 ppb | | 97 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 166181 | 47.85694 ppb | | 98 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 109924 | 49.22545 ppb | | 96 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 116191 | 48.41308 ppb | | 95 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 529104 | 48.12603 ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.22 | 162 | 409749 | 49.55092 ppb | | 98 |
| 49) | 2-Nitroaniline | 8.34 | 65 | 130571 | 48.17926 ppb | | 89 |
| 50) | Dimethyl phthalate | 8.54 | 163 | 461073 | 47.97371 ppb | | 100 |
| 51) | 2,6-DNT | 8.63 | 165 | 114309 | 50.86295 ppb | | 96 |
| 52) | Acenaphthylene | 8.70 | 152 | 641976 | 49.05147 ppb | | 99 |
| 53) | 3-Nitroaniline | 8.83 | 138 | 124765 | 50.50507 ppb | | 89 |
| 54) | Acenaphthene | 8.89 | 154 | 410164 | 48.65494 ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 46512 | 48.57875 ppb | | 100 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 71354 | 50.68015 ppb | | 100 |
| 57) | Dibenzofuran | 9.10 | 168 | 545810 | 47.70829 ppb | | 98 |
| 58) | 2,4-DNT | 9.11 | 165 | 154197 | 50.76498 ppb | | 96 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.25 | 232 | 84375 | 55.36438 ppb | | 99 |
| 60) | Diethyl phthalate | 9.36 | 149 | 454872 | 47.95908 ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 208880 | 47.77858 ppb | | 97 |
| 62) | Fluorene | 9.50 | 166 | 467270 | 48.96296 ppb | | 97 |
| 63) | 4-Nitroaniline | 9.55 | 138 | 121690 | 48.69551 ppb | | 94 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 87770 | 53.22786 ppb | | 97 |
| 67) | Diphenyl amine | 9.64 | 169 | 741606 | 100.01462 ppb | | 98 |
| 68) | n-Nitrosodiphenylamine | 9.64 | 169 | 741606 | 100.01462 ppb | | 98 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 497223 | 47.91327 ppb | | 99 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 110718 | 47.85713 ppb | | 95 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 105782 | 49.23042 ppb | | 96 |
| 72) | Atrazine | 10.26 | 200 | 62133 | 24.51996 ppb | | 98 |
| 73) | Pentachlorophenol | 10.39 | 266 | 35240 | 45.78765 ppb | | 95 |
| 74) | Phenanthrene | 10.63 | 178 | 658612 | 48.76883 ppb | | 100 |
| 75) | Anthracene | 10.68 | 178 | 683995 | 47.94582 ppb | | 99 |
| 76) | Carbazol | 10.88 | 167 | 649223 | 49.41773 ppb | | 98 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 785841 | 47.76918 ppb | | 100 |
| 78) | Fluoranthene | 12.01 | 202 | 691935 | 49.00238 ppb | # | 94 |
| 80) | Benzidine | 12.18 | 184 | 208143 | 68.64547 ppb | | 98 |
| 81) | Pyrene | 12.28 | 202 | 725716 | 50.09405 ppb | | 99 |
| 83) | Butyl benzylphthalate | 13.01 | 149 | 365037 | 49.77620 ppb | | 94 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 208493 | 57.24235 ppb | # | 94 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 632354 | 49.36166 ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.66 | 149 | 514327 | 48.96504 ppb | | 99 |
| 87) | Chrysene | 13.72 | 228 | 613494 | 49.67026 ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 898831 | 49.62690 ppb | | 99 |
| 90) | Benzo (b) fluoranthene | 15.03 | 252 | 596428 | 51.39316 ppb | | 97 |
| 91) | Benzo (k) fluoranthene | 15.03 | 252 | 596428 | 51.39316 ppb | | 97 |
| 92) | Benzo (a) pyrene | 15.47 | 252 | 571604 | 49.45474 ppb | | 99 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.46 | 276 | 613999 | 49.37752 ppb | | 99 |
| 94) | Dibenz (a,h) anthracene | 17.49 | 278 | 540732 | 49.59861 ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 18.04 | 276 | 489260 | 49.30331 ppb | | 98 |

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

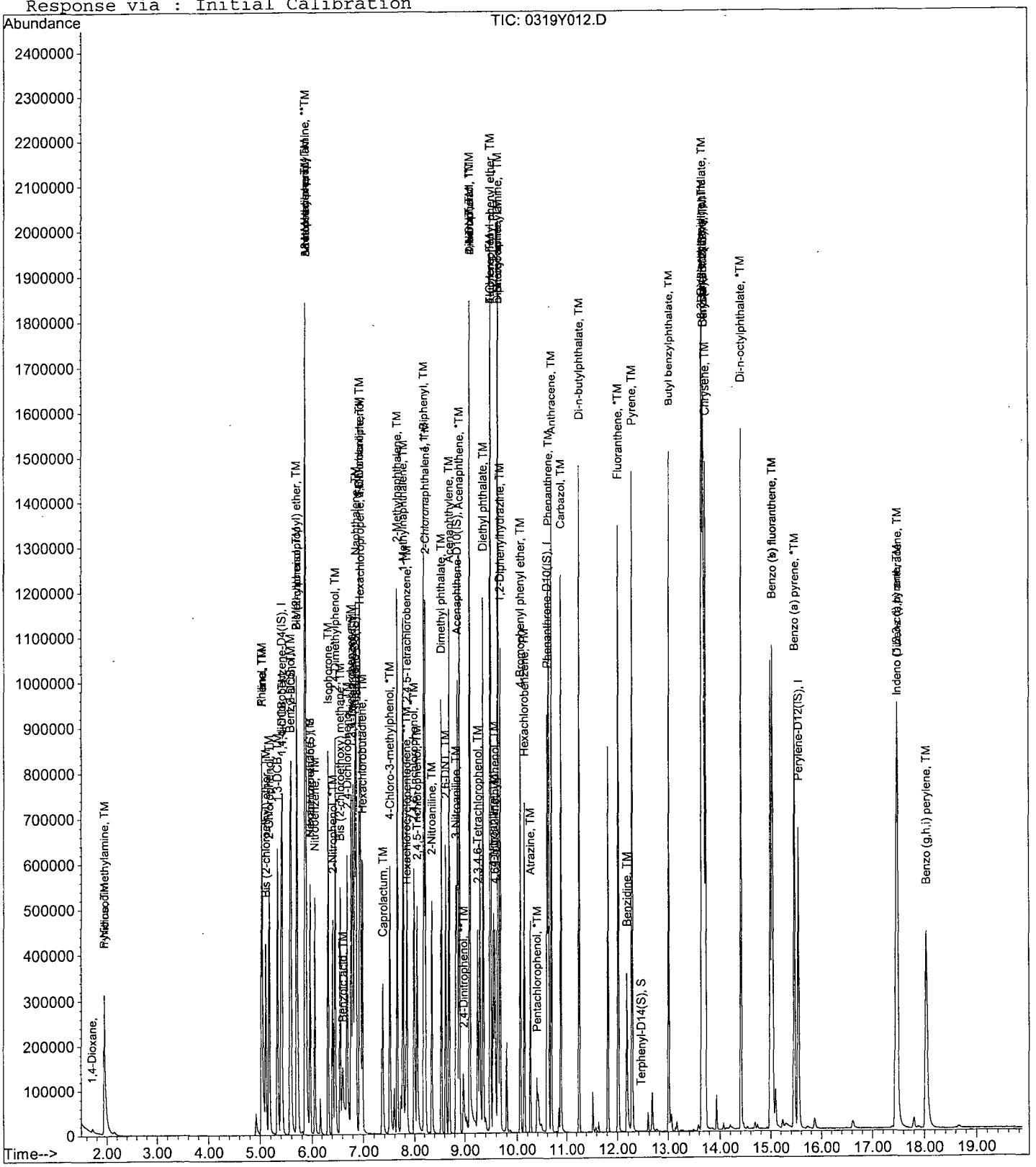
Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y012.D
Acq On : 19 Mar 19 22:39
Sample : SS-8270 03/13/19
Misc :

Vial: 12
Operator: MA
Inst : Yoda
Multiplr: 1.00

Quant Time: Mar 20 9:51 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

# Continuing Calibration

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

SDG No:
Date Analyzed: 04/26/19
Instrument: Yoda
Initial Cal. Date: 03/19/19
Data File: 0411Y195.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-dichlorobenzene-D4(IS) | ISTD | | | I | |
| 2 | | 1,4-Dioxane | 0.2708 | 0.2679 | 1.1 | | |
| 3 | TM | n-Nitrosodimethylamine | 0.5083 | 0.5181 | 1.9 | TM | |
| 4 | S | 2-Fluorophenol (S) | 1.495 | 1.568 | 4.9 | S | |
| 5 | S | Phenol-D6 (S) | 1.955 | 2.079 | 6.4 | S | |
| 6 | *TM | Phenol | 2.163 | 2.185 | 1.0 | *TM | |
| 7 | TM | Aniline | 2.108 | 2.306 | 9.4 | TM | |
| 8 | TM | Bis (2-chloroethyl) ether | 0.9612 | 0.9507 | 1.1 | TM | |
| 9 | TM | 2-Chlorophenol | 1.573 | 1.585 | 0.74 | TM | |
| 10 | TM | 1,3-DCB | 1.652 | 1.615 | 2.2 | TM | |
| 11 | *TM | 1,4-DCB | 1.698 | 1.670 | 1.7 | *TM | |
| 12 | TM | Benzyl alcohol | 0.9149 | 0.9732 | 6.4 | TM | |
| 13 | TM | 1,2-DCB | 1.574 | 1.540 | 2.2 | TM | |
| 14 | TM | 2-Methylphenol | 1.371 | 1.387 | 1.2 | TM | |
| 15 | TM | Bis (2-chloroisopropyl) ether | 1.416 | 1.381 | 2.5 | TM | |
| 16 | TM | Acetophenone | 2.099 | 2.121 | 1.0 | TM | |
| 17 | TM | 3&4-Methylphenol | 1.645 | 1.691 | 2.8 | TM | |
| 18 | **TM | n-Nitrosodi-n-propylamine | 1.152 | 1.156 | 0.34 | **TM | |
| 19 | TM | Hexachloroethane | 0.6394 | 0.6201 | 3.0 | TM | |
| 20 | I | Napthalene-D8(IS) | ISTD | | | I | |
| 21 | S | Nitrobenzene-D5(S) | 0.4226 | 0.4356 | 3.1 | S | |
| 22 | TM | Nitrobenzene | 0.4082 | 0.3965 | 2.9 | TM | |
| 23 | TM | Isophorone | 0.7099 | 0.6945 | 2.2 | TM | |
| 24 | *TM | 2-Nitrophenol | 0.2069 | 0.2095 | 1.2 | *TM | |
| 25 | TM | 2,4-Dimethylphenol | 0.3262 | 0.3299 | 1.1 | TM | |
| 26 | TM | Benzoic acid | 0.2242 | 0.2340 | 4.4 | TM | |
| 27 | TM | Bis (2-chloroethoxy) methane | 0.4337 | 0.4223 | 2.6 | TM | |
| 28 | *TM | 2,4-Dichlorophenol | 0.2766 | 0.2833 | 2.4 | *TM | |
| 29 | TM | 1,2,4-Trichlorobenzene | 0.3036 | 0.2993 | 1.4 | TM | |
| 30 | TM | 3,4-Dimethylphenol | 0.4824 | 0.4821 | 0.07 | TM | |
| 31 | TM | Naphthalene | 1.082 | 1.063 | 1.8 | TM | |
| 32 | TM | 4-Chloroaniline | 0.3990 | 0.4184 | 4.9 | TM | |
| 33 | TM | 2,6-Dichlorophenol | 0.2781 | 0.2787 | 0.22 | TM | |
| 34 | TM | Hexachloropropene | 0.1687 | 0.1704 | 1.0 | TM | |
| 35 | *TM | Hexachlorobutadiene | 0.1489 | 0.1486 | 0.20 | *TM | |
| 36 | TM | Caprolactum | 0.1394 | 0.1314 | 5.7 | TM | |
| 37 | *TM | 4-Chloro-3-methylphenol | 0.3353 | 0.3411 | 1.7 | *TM | |
| 38 | TM | 2-Methylnaphthalene | 0.6902 | 0.6837 | 0.94 | TM | |
| 39 | TM | 1-Methylnaphthalene | 0.7153 | 0.7043 | 1.5 | TM | |
| 40 | I | Acenaphthene-D10(IS) | ISTD | | | I | |
| | | Average | | | 2.4 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/26/19
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0411Y195.D

| | | Compound | MEAN | CCRF | %D | | %Drift | |
|---|---|---|---|---|---|---|---|---|
| 41 | **TMQ | Hexachlorocyclopentadiene | 0.0924 | 0.0792 | 14 | **TMQ | 5.5 | |
| 42 | TM | 1,2,4,5-Tetrachlorobenzene | 0.5222 | 0.5114 | 2.1 | TM | | |
| 43 | *TM | 2,4,6-Trichlorophenol | 0.3358 | 0.3397 | 1.2 | *TM | | |
| 44 | TM | 2,4,5-Trichlorophenol | 0.3609 | 0.3604 | 0.15 | TM | | |
| 45 | S | 2-Fluorobiphenyl(S) | 1.477 | 1.481 | 0.27 | S | | |
| 46 | TM | 1,1'-Biphenyl | 1.653 | 1.603 | 3.1 | TM | | |
| 47 | TM | 2-Chloronaphthalene | 1.244 | 1.215 | 2.3 | TM | | |
| 48 | TM | 2-Nitroaniline | 0.4076 | 0.4042 | 0.84 | TM | | |
| 49 | TM | Dimethyl phthalate | 1.445 | 1.426 | 1.4 | TM | | |
| 50 | TM | 2,6-DNT | 0.3380 | 0.3480 | 3.0 | TM | | |
| 51 | TM | Acenaphthylene | 1.968 | 1.919 | 2.5 | TM | | |
| 52 | TM | 3-Nitroaniline | 0.3715 | 0.3876 | 4.3 | TM | | |
| 53 | *TM | Acenaphthene | 1.268 | 1.221 | 3.7 | *TM | | |
| 54 | **TML | 2,4-Dinitrophenol | 0.1301 | 0.1001 | 23 | **TML | 34 | *NT |
| 55 | **TMQ | 4-Nitrophenol | 0.1853 | 0.2469 | 33 | **TMQ | 13 | |
| 56 | TM | Dibenzofuran | 1.721 | 1.686 | 2.0 | TM | | |
| 57 | TM | 2,4-DNT | 0.4568 | 0.4587 | 0.41 | TM | | |
| 58 | TM | 2,3,4,6-Tetrachlorophenol | 0.2292 | 0.2596 | 13 | TM | | |
| 59 | TM | Diethyl phthalate | 1.426 | 1.383 | 3.1 | TM | | |
| 60 | TM | 4-Chlorophenyl phenyl ether | 0.6575 | 0.6486 | 1.3 | TM | | |
| 61 | TM | Fluorene | 1.435 | 1.395 | 2.8 | TM | | |
| 62 | TM | 4-Nitroaniline | 0.3758 | 0.3454 | 8.1 | TM | | |
| 63 | S | 2,4,6-Tribromophenol(S) | 0.1326 | 0.1486 | 12 | S | | |
| 64 | I | Phenanthrene-D10(IS) | ISTD | | | I | | |
| 65 | TM | 4,6-Dinitro-2-methylphenol | 0.1492 | 0.1471 | 1.4 | TM | | |
| 66 | TM | Diphenyl amine | 0.6711 | 0.6564 | 2.2 | TM | | |
| 67 | *TM | n-Nitrosodiphenylamine | 0.6711 | 0.6564 | 2.2 | *TM | | |
| 68 | TM | 1,2-Diphenylhydrazine | 0.9392 | 1.026 | 9.3 | TM | | |
| 69 | TM | 4-Bromophenyl phenyl ether | 0.2094 | 0.2085 | 0.40 | TM | | |
| 70 | TM | Hexachlorobenzene | 0.1945 | 0.1960 | 0.77 | TM | | |
| 71 | TM | Atrazine | 0.2293 | 0.2209 | 3.7 | TM | | |
| 72 | *TML | Pentachlorophenol | 0.0578 | 0.0787 | 36 | *TML | 9.1 | |
| 73 | TM | Phenanthrene | 1.222 | 1.168 | 4.4 | TM | | |
| 74 | TM | Anthracene | 1.291 | 1.243 | 3.7 | TM | | |
| 75 | TM | Carbazol | 1.189 | 1.151 | 3.2 | TM | | |
| 76 | TM | Di-n-butylphthalate | 1.489 | 1.454 | 2.3 | TM | | |
| 77 | *TM | Fluoranthene | 1.278 | 1.263 | 1.1 | *TM | | |
| 78 | I | Chrysene-D12(IS) | ISTD | | | I | | |
| 79 | TM | Benzidine | 0.3173 | 0.3473 | 9.5 | TM | | |
| 80 | TM | Pyrene | 1.475 | 1.481 | 0.45 | TM | | |
| | | Average | | | 5.7 | | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/26/19
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0411Y195.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 81 | S | Terphenyl-D14(S) | 0.9778 | 1.027 | 5.0 | S | |
| 82 | TM | Butyl benzylphthalate | 0.7465 | 0.7285 | 2.4 | TM | |
| 83 | TM | 3,3'-Dichlorobenzidine | 0.3708 | 0.3631 | 2.1 | TM | |
| 84 | TM | Benz (a) anthracene | 1.304 | 1.276 | 2.2 | TM | |
| 85 | TM | Bis (2-ethylhexyl) phthalate | 1.069 | 1.021 | 4.5 | TM | |
| 86 | TM | Chrysene | 1.257 | 1.218 | 3.1 | TM | |
| 87 | *TM | Di-n-octylphthalate | 1.844 | 1.745 | 5.3 | *TM | |
| 88 | I | Perylene-D12(IS) | ISTD | | | I | |
| 89 | TM | Benzo (b) fluoranthene | 1.190 | 1.366 | 15 | TM | |
| 90 | TM | Benzo (k) fluoranthene | 1.190 | 1.147 | 3.7 | TM | |
| 91 | *TM | Benzo (a) pyrene | 1.186 | 1.174 | 0.98 | *TM | |
| 92 | TM | Indeno (1,2,3-cd) pyrene | 1.276 | 1.225 | 4.0 | TM | |
| 93 | TM | Dibenz (a,h) anthracene | 1.118 | 1.060 | 5.2 | TM | |
| 94 | TM | Benzo (g,h,i) perylene | 1.018 | 0.9792 | 3.8 | TM | |
| 95 | | | | | | | |
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| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 4.4 | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y195.D Vial: 95
Acq On : 26 Apr 19 17:18 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Apr 26 17:24 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 198066 | 40.00000 ppb | | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 854755 | 40.00000 ppb | | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.77 | 164 | 463907 | 40.00000 ppb | | -0.02 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 776149 | 40.00000 ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 676093 | 40.00000 ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.49 | 264 | 642988 | 40.00000 ppb | | 0.02 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.68 | 112 | 776312 | 104.86699 ppb | | -0.11 |
| Spiked Amount 200.000 | | | Recovery = | 52.434% | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1029552 | 106.37791 ppb | | -0.05 |
| Spiked Amount 200.000 | | | Recovery = | 53.189% | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 465381 | 51.53344 ppb | | -0.04 |
| Spiked Amount 100.000 | | | Recovery = | 51.533% | | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 858712 | 50.13289 ppb | | -0.03 |
| Spiked Amount 100.000 | | | Recovery = | 50.133% | | |
| 64) 2,4,6-Tribromophenol(S) | 9.72 | 330 | 172348 | 112.09908 ppb | | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 56.049% | | |
| 82) Terphenyl-D14(S) | 12.40 | 244 | 867655 | 52.49993 ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 52.500% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 128267 | 50.96032 ppb | | 93 |
| 7) Phenol | 4.90 | 94 | 540999 | 50.51860 ppb | | 86 |
| 8) Aniline | 4.91 | 93 | 570915 | 54.68633 ppb | # | 89 |
| 9) Bis (2-chloroethyl) ether | 5.00 | 63 | 235387 | 49.45515 ppb | | 98 |
| 10) 2-Chlorophenol | 5.04 | 128 | 392440 | 50.37247 ppb | | 99 |
| 11) 1,3-DCB | 5.21 | 146 | 399790 | 48.88395 ppb | | 99 |
| 12) 1,4-DCB | 5.30 | 146 | 413350 | 49.14940 ppb | | 97 |
| 13) Benzyl alcohol | 5.46 | 108 | 240952 | 53.18700 ppb | | 97 |
| 14) 1,2-DCB | 5.47 | 146 | 381262 | 48.91474 ppb | | 99 |
| 15) 2-Methylphenol | 5.59 | 107 | 343442 | 50.60301 ppb | | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 341904 | 48.76887 ppb | | 86 |
| 17) Acetophenone | 5.76 | 105 | 525099 | 50.51939 ppb | | 91 |
| 18) 3&4-Methylphenol | 5.78 | 107 | 837529 | 102.80236 ppb | | 98 |
| 19) n-Nitrosodi-n-propylamine | 5.76 | 70 | 286211 | 50.17171 ppb | | 96 |
| 20) Hexachloroethane | 5.85 | 117 | 153535 | 48.49641 ppb | | 94 |
| 23) Nitrobenzene | 5.95 | 77 | 423589 | 48.55732 ppb | | 93 |
| 24) Isophorone | 6.23 | 82 | 741995 | 48.91136 ppb | | 96 |
| 25) 2-Nitrophenol | 6.31 | 139 | 223794 | 50.60779 ppb | | 99 |
| 26) 2,4-Dimethylphenol | 6.36 | 122 | 352511 | 50.57071 ppb | | 99 |
| 27) Benzoic acid | 6.54 | 105 | 250014 | 52.19591 ppb | | 98 |
| 28) Bis (2-chloroethoxy) metha | 6.46 | 93 | 451189 | 48.68798 ppb | | 98 |
| 29) 2,4-Dichlorophenol | 6.59 | 162 | 302678 | 51.20780 ppb | | 97 |
| 30) 1,2,4-Trichlorobenzene | 6.68 | 180 | 319775 | 49.28344 ppb | | 98 |
| 31) 3,4-Dimethylphenol | 6.71 | 107 | 515057 | 49.96625 ppb | | 97 |
| 32) Naphthalene | 6.77 | 128 | 1135825 | 49.10619 ppb | | 99 |
| 33) 4-Chloroaniline | 6.84 | 127 | 447082 | 52.43111 ppb | | 98 |
| 34) 2,6-Dichlorophenol | 6.84 | 162 | 297789 | 50.10828 ppb | | 96 |
| 35) Hexachloropropene | 6.85 | 213 | 182092 | 50.50821 ppb | | 99 |
| 36) Hexachlorobutadiene | 6.89 | 225 | 158819 | 49.89864 ppb | | 99 |
| 37) Caprolactum | 7.29 | 55 | 140409 | 47.14347 ppb | | 96 |
| 38) 4-Chloro-3-methylphenol | 7.41 | 107 | 364474 | 50.86975 ppb | | 96 |
| 39) 2-Methylnaphthalene | 7.56 | 142 | 730540 | 49.53167 ppb | | 98 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y195.D Vial: 95
Acq On : 26 Apr 19 17:18 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Apr 26 17:24 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 40) | 1-Methylnaphthalene | 7.68 | 142 | 752537 | 49.23100 | ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.73 | 237 | 45907 | 47.27284 | ppb | | 97 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.75 | 216 | 296546 | 48.96198 | ppb | | 98 |
| 44) | 2,4,6-Trichlorophenol | 7.90 | 196 | 197007 | 50.58039 | ppb | | 98 |
| 45) | 2,4,5-Trichlorophenol | 7.96 | 196 | 208985 | 49.92392 | ppb | | 94 |
| 47) | 1,1'-Biphenyl | 8.11 | 154 | 929378 | 48.46572 | ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.13 | 162 | 704725 | 48.86038 | ppb | | 98 |
| 49) | 2-Nitroaniline | 8.26 | 65 | 234371 | 49.58161 | ppb | | 86 |
| 50) | Dimethyl phthalate | 8.47 | 163 | 826702 | 49.31579 | ppb | | 99 |
| 51) | 2,6-DNT | 8.55 | 165 | 201778 | 51.47523 | ppb | | 84 |
| 52) | Acenaphthylene | 8.62 | 152 | 1112814 | 48.74827 | ppb | | 100 |
| 53) | 3-Nitroaniline | 8.76 | 138 | 224754 | 52.16186 | ppb | | 95 |
| 54) | Acenaphthene | 8.82 | 154 | 708295 | 48.17114 | ppb | | 98 |
| 55) | 2,4-Dinitrophenol | 8.90 | 184 | 58073 | 32.87689 | ppb | | 97 |
| 56) | 4-Nitrophenol | 8.98 | 65 | 143164 | 56.70184 | ppb | # | 73 |
| 57) | Dibenzofuran | 9.02 | 168 | 977855 | 49.00384 | ppb | | 100 |
| 58) | 2,4-DNT | 9.03 | 165 | 265994 | 50.20691 | ppb | | 94 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.17 | 232 | 150529 | 56.62917 | ppb | | 97 |
| 60) | Diethyl phthalate | 9.29 | 149 | 801834 | 48.46960 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.42 | 204 | 376138 | 49.32726 | ppb | | 90 |
| 62) | Fluorene | 9.42 | 166 | 808898 | 48.59560 | ppb | | 99 |
| 63) | 4-Nitroaniline | 9.49 | 138 | 200271 | 45.94682 | ppb | | 90 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.52 | 198 | 142742 | 49.29448 | ppb | | 93 |
| 67) | Diphenyl amine | 9.57 | 169 | 1273690 | 97.81548 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.57 | 169 | 1273690 | 97.81548 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.61 | 77 | 995681 | 54.63594 | ppb | | 97 |
| 70) | 4-Bromophenyl phenyl ether | 9.99 | 248 | 202314 | 49.79755 | ppb | | 99 |
| 71) | Hexachlorobenzene | 10.07 | 284 | 190110 | 50.38256 | ppb | | 95 |
| 72) | Atrazine | 10.19 | 200 | 107150 | 24.07926 | ppb | | 98 |
| 73) | Pentachlorophenol | 10.32 | 266 | 76394 | 54.55426 | ppb | | 97 |
| 74) | Phenanthrene | 10.56 | 178 | 1133474 | 47.79449 | ppb | | 99 |
| 75) | Anthracene | 10.61 | 178 | 1206013 | 48.13971 | ppb | | 99 |
| 76) | Carbazol | 10.82 | 167 | 1116520 | 48.39594 | ppb | | 97 |
| 77) | Di-n-butylphthalate | 11.20 | 149 | 1410513 | 48.82517 | ppb | | 99 |
| 78) | Fluoranthene | 11.96 | 202 | 1225613 | 49.42639 | ppb | | 99 |
| 80) | Benzidine | 12.12 | 184 | 293506 | 54.73454 | ppb | | 99 |
| 81) | Pyrene | 12.22 | 202 | 1251894 | 50.22489 | ppb | | 100 |
| 83) | Butyl benzylphthalate | 12.96 | 149 | 615632 | 48.79081 | ppb | | 99 |
| 84) | 3,3'-Dichlorobenzidine | 13.59 | 252 | 306879 | 48.96944 | ppb | # | 95 |
| 85) | Benz (a) anthracene | 13.63 | 228 | 1078031 | 48.90944 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.62 | 149 | 862789 | 47.74010 | ppb | | 98 |
| 87) | Chrysene | 13.68 | 228 | 1029169 | 48.42892 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.36 | 149 | 1474901 | 47.32972 | ppb | | 94 |
| 90) | Benzo (b) fluoranthene | 14.94 | 252 | 1097987 | 57.37647 | ppb | | 99 |
| 91) | Benzo (k) fluoranthene | 14.98 | 252 | 921695 | 48.16415 | ppb | | 98 |
| 92) | Benzo (a) pyrene | 15.40 | 252 | 943614 | 49.51039 | ppb | | 99 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.39 | 276 | 984309 | 48.00455 | ppb | | 99 |
| 94) | Dibenz (a,h) anthracene | 17.41 | 278 | 851772 | 47.38056 | ppb | | 99 |
| 95) | Benzo (g,h,i) perylene | 17.96 | 276 | 787011 | 48.09573 | ppb | | 98 |

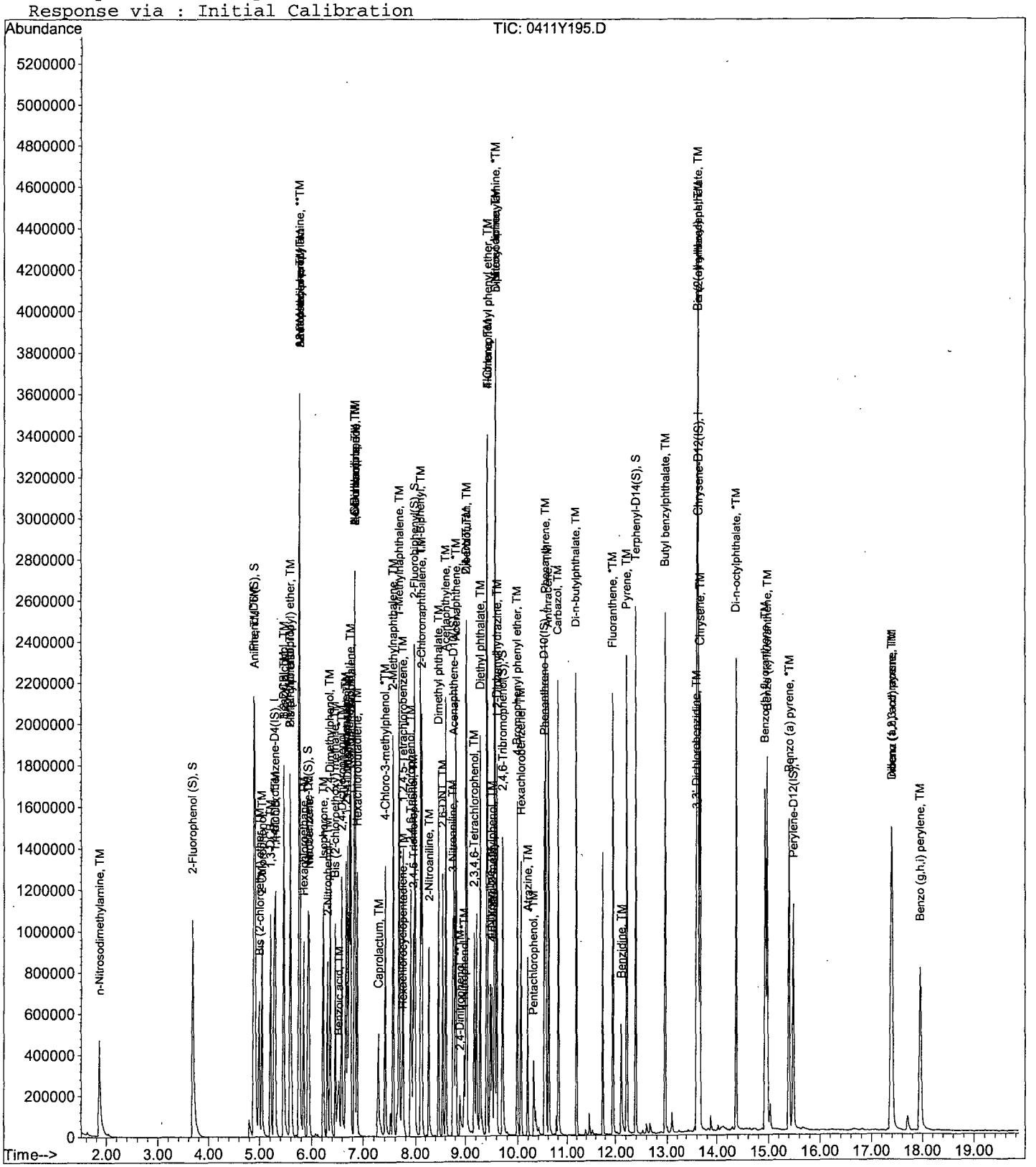
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y195.D Vial: 95
Acq On : 26 Apr 19 17:18 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Apr 26 17:24 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

# Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/27/19
Instrument: Yoda
Initial Cal. Date: 03/19/19
Data File: 0411Y212.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-dichlorobenzene-D4(IS) | ISTD | | | I | |
| 2 | | 1,4-Dioxane | 0.2708 | 0.2501 | 7.6 | | |
| 3 | TM | n-Nitrosodimethylamine | 0.5083 | 0.5037 | 0.92 | TM | |
| 4 | S | 2-Fluorophenol (S) | 1.495 | 1.560 | 4.4 | S | |
| 5 | S | Phenol-D6 (S) | 1.955 | 2.124 | 8.7 | S | |
| 6 | *TM | Phenol | 2.163 | 2.217 | 2.5 | *TM | |
| 7 | TM | Aniline | 2.108 | 2.265 | 7.4 | TM | |
| 8 | TM | Bis (2-chloroethyl) ether | 0.9612 | 0.9642 | 0.31 | TM | |
| 9 | TM | 2-Chlorophenol | 1.573 | 1.609 | 2.3 | TM | |
| 10 | TM | 1,3-DCB | 1.652 | 1.610 | 2.5 | TM | |
| 11 | *TM | 1,4-DCB | 1.698 | 1.634 | 3.8 | *TM | |
| 12 | TM | Benzyl alcohol | 0.9149 | 0.9845 | 7.6 | TM | |
| 13 | TM | 1,2-DCB | 1.574 | 1.550 | 1.5 | TM | |
| 14 | TM | 2-Methylphenol | 1.371 | 1.403 | 2.3 | TM | |
| 15 | TM | Bis (2-chloroisopropyl) ether | 1.416 | 1.411 | 0.35 | TM | |
| 16 | TM | Acetophenone | 2.099 | 2.156 | 2.7 | TM | |
| 17 | TM | 3&4-Methylphenol | 1.645 | 1.740 | 5.8 | TM | |
| 18 | **TM | n-Nitrosodi-n-propylamine | 1.152 | 1.196 | 3.8 | **TM | |
| 19 | TM | Hexachloroethane | 0.6394 | 0.6160 | 3.7 | TM | |
| 20 | I | Napthalene-D8(IS) | ISTD | | | I | |
| 21 | S | Nitrobenzene-D5(S) | 0.4226 | 0.4327 | 2.4 | S | |
| 22 | TM | Nitrobenzene | 0.4082 | 0.3929 | 3.8 | TM | |
| 23 | TM | Isophorone | 0.7099 | 0.6873 | 3.2 | TM | |
| 24 | *TM | 2-Nitrophenol | 0.2069 | 0.2073 | 0.17 | *TM | |
| 25 | TM | 2,4-Dimethylphenol | 0.3262 | 0.3288 | 0.79 | TM | |
| 26 | TM | Benzoic acid | 0.2242 | 0.2600 | 16 | TM | |
| 27 | TM | Bis (2-chloroethoxy) methane | 0.4337 | 0.4195 | 3.3 | TM | |
| 28 | *TM | 2,4-Dichlorophenol | 0.2766 | 0.2809 | 1.5 | *TM | |
| 29 | TM | 1,2,4-Trichlorobenzene | 0.3036 | 0.2900 | 4.5 | TM | |
| 30 | TM | 3,4-Dimethylphenol | 0.4824 | 0.4805 | 0.39 | TM | |
| 31 | TM | Naphthalene | 1.082 | 1.043 | 3.7 | TM | |
| 32 | TM | 4-Chloroaniline | 0.3990 | 0.4254 | 6.6 | TM | |
| 33 | TM | 2,6-Dichlorophenol | 0.2781 | 0.2744 | 1.3 | TM | |
| 34 | TM | Hexachloropropene | 0.1687 | 0.1610 | 4.5 | TM | |
| 35 | *TM | Hexachlorobutadiene | 0.1489 | 0.1477 | 0.86 | *TM | |
| 36 | TM | Caprolactum | 0.1394 | 0.1330 | 4.6 | TM | |
| 37 | *TM | 4-Chloro-3-methylphenol | 0.3353 | 0.3452 | 2.9 | *TM | |
| 38 | TM | 2-Methylnaphthalene | 0.6902 | 0.6753 | 2.2 | TM | |
| 39 | TM | 1-Methylnaphthalene | 0.7153 | 0.7013 | 2.0 | TM | |
| 40 | I | Acenaphthene-D10(IS) | ISTD | | | I | |
| | | Average | | | 3.6 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/27/19
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0411Y212.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | **TMQ | Hexachlorocyclopentadiene | 0.0924 | 0.0565 | 39 | **TMQ | 21 |
| 42 | TM | 1,2,4,5-Tetrachlorobenzene | 0.5222 | 0.5161 | 1.2 | TM | |
| 43 | *TM | 2,4,6-Trichlorophenol | 0.3358 | 0.3387 | 0.86 | *TM | |
| 44 | TM | 2,4,5-Trichlorophenol | 0.3609 | 0.3633 | 0.64 | TM | |
| 45 | S | 2-Fluorobiphenyl(S) | 1.477 | 1.474 | 0.21 | S | |
| 46 | TM | 1,1'-Biphenyl | 1.653 | 1.603 | 3.1 | TM | |
| 47 | TM | 2-Chloronaphthalene | 1.244 | 1.190 | 4.3 | TM | |
| 48 | TM | 2-Nitroaniline | 0.4076 | 0.4066 | 0.23 | TM | |
| 49 | TM | Dimethyl phthalate | 1.445 | 1.431 | 1.0 | TM | |
| 50 | TM | 2,6-DNT | 0.3380 | 0.3371 | 0.27 | TM | |
| 51 | TM | Acenaphthylene | 1.968 | 1.900 | 3.5 | TM | |
| 52 | TM | 3-Nitroaniline | 0.3715 | 0.3856 | 3.8 | TM | |
| 53 | *TM | Acenaphthene | 1.268 | 1.224 | 3.4 | *TM | |
| 54 | **TML | 2,4-Dinitrophenol | 0.1301 | 0.1160 | 11 | **TML | 26 |
| 55 | **TMQ | 4-Nitrophenol | 0.1853 | 0.2466 | 33 | **TMQ | 13 |
| 56 | TM | Dibenzofuran | 1.721 | 1.663 | 3.4 | TM | |
| 57 | TM | 2,4-DNT | 0.4568 | 0.4617 | 1.1 | TM | |
| 58 | TM | 2,3,4,6-Tetrachlorophenol | 0.2292 | 0.2597 | 13 | TM | |
| 59 | TM | Diethyl phthalate | 1.426 | 1.383 | 3.1 | TM | |
| 60 | TM | 4-Chlorophenyl phenyl ether | 0.6575 | 0.6386 | 2.9 | TM | |
| 61 | TM | Fluorene | 1.435 | 1.397 | 2.7 | TM | |
| 62 | TM | 4-Nitroaniline | 0.3758 | 0.3576 | 4.9 | TM | |
| 63 | S | 2,4,6-Tribromophenol(S) | 0.1326 | 0.1490 | 12 | S | |
| 64 | I | Phenanthrene-D10(IS) | ISTD | | | I | |
| 65 | TM | 4,6-Dinitro-2-methylphenol | 0.1492 | 0.1527 | 2.3 | TM | |
| 66 | TM | Diphenyl amine | 0.6711 | 0.6652 | 0.88 | TM | |
| 67 | *TM | n-Nitrosodiphenylamine | 0.6711 | 0.6652 | 0.88 | *TM | |
| 68 | TM | 1,2-Diphenylhydrazine | 0.9392 | 0.8830 | 6.0 | TM | |
| 69 | TM | 4-Bromophenyl phenyl ether | 0.2094 | 0.2081 | 0.63 | TM | |
| 70 | TM | Hexachlorobenzene | 0.1945 | 0.1926 | 0.98 | TM | |
| 71 | TM | Atrazine | 0.2293 | 0.2015 | 12 | TM | |
| 72 | *TML | Pentachlorophenol | 0.0578 | 0.0719 | 24 | *TML | 0.78 |
| 73 | TM | Phenanthrene | 1.222 | 1.190 | 2.6 | TM | |
| 74 | TM | Anthracene | 1.291 | 1.244 | 3.7 | TM | |
| 75 | TM | Carbazol | 1.189 | 1.153 | 3.0 | TM | |
| 76 | TM | Di-n-butylphthalate | 1.489 | 1.451 | 2.5 | TM | |
| 77 | *TM | Fluoranthene | 1.278 | 1.249 | 2.3 | *TM | |
| 78 | I | Chrysene-D12(IS) | ISTD | | | I | |
| 79 | TM | Benzidine | 0.3173 | 0.2390 | 25 | TM | |
| 80 | TM | Pyrene | 1.475 | 1.464 | 0.71 | TM | |
| | | Average | | | 6.2 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

# Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/27/19
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0411Y212.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 81 | S | Terphenyl-D14(S) | 0.9778 | 1.010 | 3.3 | S | |
| 82 | TM | Butyl benzylphthalate | 0.7465 | 0.7298 | 2.2 | TM | |
| 83 | TM | 3,3'-Dichlorobenzidine | 0.3708 | 0.3920 | 5.7 | TM | |
| 84 | TM | Benz (a) anthracene | 1.304 | 1.249 | 4.3 | TM | |
| 85 | TM | Bis (2-ethylhexyl) phthalate | 1.069 | 1.009 | 5.6 | TM | |
| 86 | TM | Chrysene | 1.257 | 1.214 | 3.4 | TM | |
| 87 | *TM | Di-n-octylphthalate | 1.844 | 1.763 | 4.4 | *TM | |
| 88 | I | Perylene-D12(IS) | ISTD | | | I | |
| 89 | TM | Benzo (b) fluoranthene | 1.190 | 1.214 | 2.0 | TM | |
| 90 | TM | Benzo (k) fluoranthene | 1.190 | 1.268 | 6.5 | TM | |
| 91 | *TM | Benzo (a) pyrene | 1.186 | 1.191 | 0.43 | *TM | |
| 92 | TM | Indeno (1,2,3-cd) pyrene | 1.276 | 1.245 | 2.4 | TM | |
| 93 | TM | Dibenz (a,h) anthracene | 1.118 | 1.068 | 4.5 | TM | |
| 94 | TM | Benzo (g,h,i) perylene | 1.018 | 0.9785 | 3.9 | TM | |
| 95 | | | | | | | |
| 96 | | | | | | | |
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| 115 | | | | | | | |
| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 3.7 | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y212.D Vial: 12
Acq On : 27 Apr 19 1:12 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Apr 29 8:22 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 172038 | 40.00000 ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 762569 | 40.00000 ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.77 | 164 | 411365 | 40.00000 ppb | -0.02 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 684409 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 609183 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.49 | 264 | 569428 | 40.00000 ppb | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.68 | 112 | 671002 | 104.35466 ppb | -0.11 |
| Spiked Amount 200.000 | | | Recovery = | 52.178% | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 913448 | 108.66071 ppb | -0.06 |
| Spiked Amount 200.000 | | | Recovery = | 54.331% | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 412415 | 51.18910 ppb | -0.04 |
| Spiked Amount 100.000 | | | Recovery = | 51.189% | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 757835 | 49.89459 ppb | -0.03 |
| Spiked Amount 100.000 | | | Recovery = | 49.895% | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 153208 | 112.37788 ppb | -0.01 |
| Spiked Amount 200.000 | | | Recovery = | 56.189% | |
| 82) Terphenyl-D14(S) | 12.40 | 244 | 768966 | 51.63896 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 51.639% | |
| **Target Compounds** | | | | | Qvalue |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 108310 | 49.54174 ppb | 91 |
| 7) Phenol | 4.90 | 94 | 476829 | 51.26288 ppb | 87 |
| 8) Aniline | 4.91 | 93 | 487170 | 53.72463 ppb | 86 |
| 9) Bis (2-chloroethyl) ether | 4.99 | 63 | 207344 | 50.15405 ppb | 93 |
| 10) 2-Chlorophenol | 5.04 | 128 | 345986 | 51.12862 ppb | 97 |
| 11) 1,3-DCB | 5.21 | 146 | 346289 | 48.74820 ppb | 98 |
| 12) 1,4-DCB | 5.30 | 146 | 351435 | 48.10950 ppb | 98 |
| 13) Benzyl alcohol | 5.46 | 108 | 211711 | 53.80268 ppb | 96 |
| 14) 1,2-DCB | 5.47 | 146 | 333289 | 49.22920 ppb | 98 |
| 15) 2-Methylphenol | 5.59 | 107 | 301633 | 51.16669 ppb | 99 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 303418 | 49.82708 ppb | 85 |
| 17) Acetophenone | 5.76 | 105 | 463696 | 51.36127 ppb | 96 |
| 18) 3&4-Methylphenol | 5.77 | 107 | 748514 | 105.77638 ppb | 97 |
| 19) n-Nitrosodi-n-propylamine | 5.76 | 70 | 257219 | 51.91121 ppb | 96 |
| 20) Hexachloroethane | 5.85 | 117 | 132463 | 48.17063 ppb | 93 |
| 23) Nitrobenzene | 5.95 | 77 | 374481 | 48.11742 ppb | 95 |
| 24) Isophorone | 6.22 | 82 | 655186 | 48.41009 ppb | 100 |
| 25) 2-Nitrophenol | 6.31 | 139 | 197601 | 50.08649 ppb | 98 |
| 26) 2,4-Dimethylphenol | 6.36 | 122 | 313413 | 50.39714 ppb | 98 |
| 27) Benzoic acid | 6.55 | 105 | 247839 | 57.99684 ppb | 99 |
| 28) Bis (2-chloroethoxy) metha | 6.46 | 93 | 399869 | 48.36637 ppb | 99 |
| 29) 2,4-Dichlorophenol | 6.59 | 162 | 267737 | 50.77222 ppb | 95 |
| 30) 1,2,4-Trichlorobenzene | 6.68 | 180 | 276476 | 47.76133 ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.70 | 107 | 458044 | 49.80709 ppb | 99 |
| 32) Naphthalene | 6.77 | 128 | 994065 | 48.17282 ppb | 99 |
| 33) 4-Chloroaniline | 6.84 | 127 | 405526 | 53.30686 ppb | 97 |
| 34) 2,6-Dichlorophenol | 6.84 | 162 | 261547 | 49.33023 ppb | 97 |
| 35) Hexachloropropene | 6.85 | 213 | 153514 | 47.72892 ppb | 98 |
| 36) Hexachlorobutadiene | 6.89 | 225 | 140763 | 49.57209 ppb | 99 |
| 37) Caprolactum | 7.28 | 55 | 126795 | 47.71899 ppb | 98 |
| 38) 4-Chloro-3-methylphenol | 7.41 | 107 | 329021 | 51.47297 ppb | 96 |
| 39) 2-Methylnaphthalene | 7.56 | 142 | 643687 | 48.91885 ppb | 98 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y212.D Vial: 12
Acq On : 27 Apr 19 1:12 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Apr 29 8:22 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 40) | 1-Methylnaphthalene | 7.68 | 142 | 668468 | 49.01781 ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.74 | 237 | 29034 | 39.39398 ppb | | 97 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.75 | 216 | 265398 | 49.41606 ppb | | 98 |
| 44) | 2,4,6-Trichlorophenol | 7.90 | 196 | 174182 | 50.43214 ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 7.96 | 196 | 186793 | 50.32198 ppb | | 94 |
| 47) | 1,1'-Biphenyl | 8.11 | 154 | 824101 | 48.46479 ppb | | 98 |
| 48) | 2-Chloronaphthalene | 8.13 | 162 | 612080 | 47.85738 ppb | | 98 |
| 49) | 2-Nitroaniline | 8.26 | 65 | 209093 | 49.88384 ppb | | 87 |
| 50) | Dimethyl phthalate | 8.47 | 163 | 735586 | 49.48505 ppb | | 99 |
| 51) | 2,6-DNT | 8.55 | 165 | 173319 | 49.86252 ppb | | 85 |
| 52) | Acenaphthylene | 8.62 | 152 | 977158 | 48.27308 ppb | | 99 |
| 53) | 3-Nitroaniline | 8.76 | 138 | 198285 | 51.89662 ppb | | 94 |
| 54) | Acenaphthene | 8.82 | 154 | 629440 | 48.27593 ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.90 | 184 | 59651 | 36.96763 ppb | | 92 |
| 56) | 4-Nitrophenol | 8.98 | 65 | 126813 | 56.65103 ppb | # | 74 |
| 57) | Dibenzofuran | 9.02 | 168 | 855052 | 48.32277 ppb | | 98 |
| 58) | 2,4-DNT | 9.03 | 165 | 237393 | 50.53162 ppb | | 90 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.17 | 232 | 133523 | 56.64736 ppb | | 97 |
| 60) | Diethyl phthalate | 9.29 | 149 | 711042 | 48.47121 ppb | | 98 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.42 | 204 | 328387 | 48.56566 ppb | | 89 |
| 62) | Fluorene | 9.42 | 166 | 718316 | 48.66562 ppb | | 98 |
| 63) | 4-Nitroaniline | 9.48 | 138 | 183864 | 47.57049 ppb | | 97 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.52 | 198 | 130652 | 51.16724 ppb | | 90 |
| 67) | Diphenyl amine | 9.57 | 169 | 1138099 | 99.11817 ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.57 | 169 | 1138099 | 99.11817 ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.61 | 77 | 755385 | 47.00628 ppb | | 98 |
| 70) | 4-Bromophenyl phenyl ether | 9.99 | 248 | 177991 | 49.68319 ppb | | 99 |
| 71) | Hexachlorobenzene | 10.07 | 284 | 164738 | 49.51063 ppb | | 96 |
| 72) | Atrazine | 10.20 | 200 | 86180 | 21.96275 ppb | | 98 |
| 73) | Pentachlorophenol | 10.32 | 266 | 61547 | 50.39007 ppb | | 99 |
| 74) | Phenanthrene | 10.56 | 178 | 1018161 | 48.68690 ppb | | 100 |
| 75) | Anthracene | 10.61 | 178 | 1064012 | 48.16453 ppb | | 99 |
| 76) | Carbazol | 10.82 | 167 | 986352 | 48.48460 ppb | | 97 |
| 77) | Di-n-butylphthalate | 11.20 | 149 | 1241452 | 48.73332 ppb | | 99 |
| 78) | Fluoranthene | 11.96 | 202 | 1068240 | 48.85440 ppb | | 99 |
| 80) | Benzidine | 12.12 | 184 | 181976 | 37.66320 ppb | | 99 |
| 81) | Pyrene | 12.22 | 202 | 1115007 | 49.64639 ppb | | 99 |
| 83) | Butyl benzylphthalate | 12.96 | 149 | 555724 | 48.88039 ppb | | 99 |
| 84) | 3,3'-Dichlorobenzidine | 13.59 | 252 | 298530 | 52.86943 ppb | # | 97 |
| 85) | Benz (a) anthracene | 13.63 | 228 | 950764 | 47.87324 ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.62 | 149 | 768620 | 47.20077 ppb | | 97 |
| 87) | Chrysene | 13.67 | 228 | 924660 | 48.29018 ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.36 | 149 | 1342564 | 47.81506 ppb | | 96 |
| 90) | Benzo (b) fluoranthene | 14.93 | 252 | 863909 | 50.97634 ppb | | 97 |
| 91) | Benzo (k) fluoranthene | 14.98 | 252 | 902341 | 53.24408 ppb | | 97 |
| 92) | Benzo (a) pyrene | 15.40 | 252 | 847542 | 50.21428 ppb | | 98 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.38 | 276 | 886337 | 48.81057 ppb | | 97 |
| 94) | Dibenz (a,h) anthracene | 17.40 | 278 | 760294 | 47.75539 ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 17.96 | 276 | 696506 | 48.06341 ppb | | 98 |

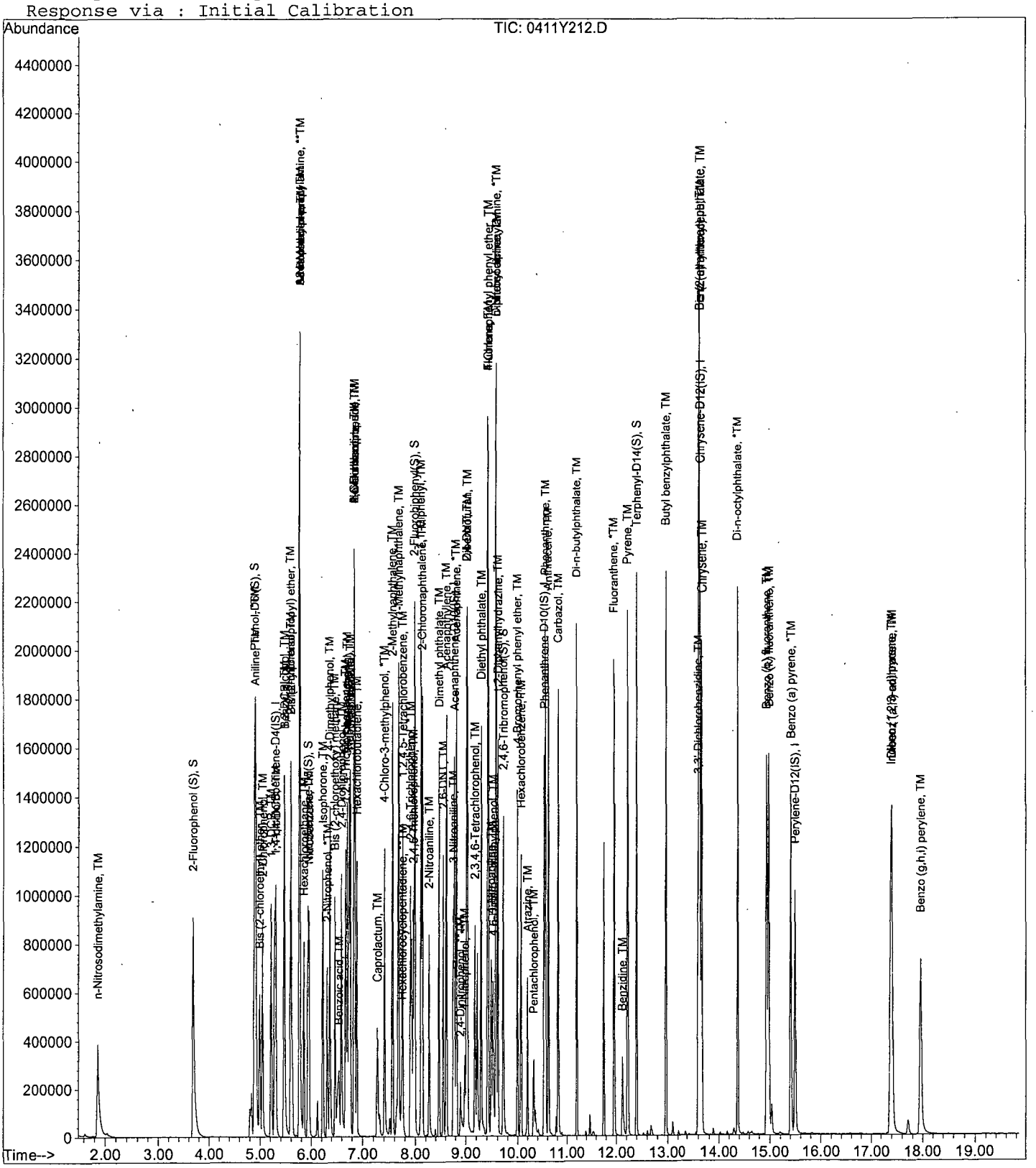
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y212.D Vial: 12
Acq On : 27 Apr 19 1:12 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Apr 29 8:22 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



# ORGANICS
# Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y204.D Vial: 4
Acq On : 26 Apr 19 21:29 Operator: MA
Sample : AZ90051W37 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 13:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 165799 | 40.0000 | ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 731764 | 40.0000 | ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.77 | 164 | 444129 | 40.0000 | ppb | -0.02 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 750664 | 40.0000 | ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 643056 | 40.0000 | ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 606037 | 40.0000 | ppb | 0.02 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.71 | 112 | 1039331 | 209.6498 | ppb | -0.08 |
| Spiked Amount 250.000 | | | Recovery = 83.860% | | | |
| 6) Phenol-D6 (S) | 4.90 | 99 | 1307424 | 201.7240 | ppb | -0.04 |
| Spiked Amount 250.000 | | | Recovery = 80.690% | | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 621270 | 100.4481 | ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery = 80.358% | | | |
| 46) 2-Fluorobiphenyl(S) | 7.98 | 172 | 1141008 | 86.9752 | ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery = 69.580% | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 255132 | 216.6669 | ppb | -0.01 |
| Spiked Amount 250.000 | | | Recovery = 86.667% | | | |
| 82) Terphenyl-D14(S) | 12.39 | 244 | 1189824 | 94.6155 | ppb | 0.00 |
| Spiked Amount 125.000 | | | Recovery = 75.692% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 26) 2,4-Dimethylphenol | 6.39 | 122 | 34188 | 7.1611 | ppb | 89 |
| 31) 3,4-Dimethylphenol | 6.59 | 107 | 126328 | 17.8938 | ppb | 90 |
| 86) Bis (2-ethylhexyl) phthala | 13.62 | 149 | 39204 | 2.8509 | ppb | 99 |

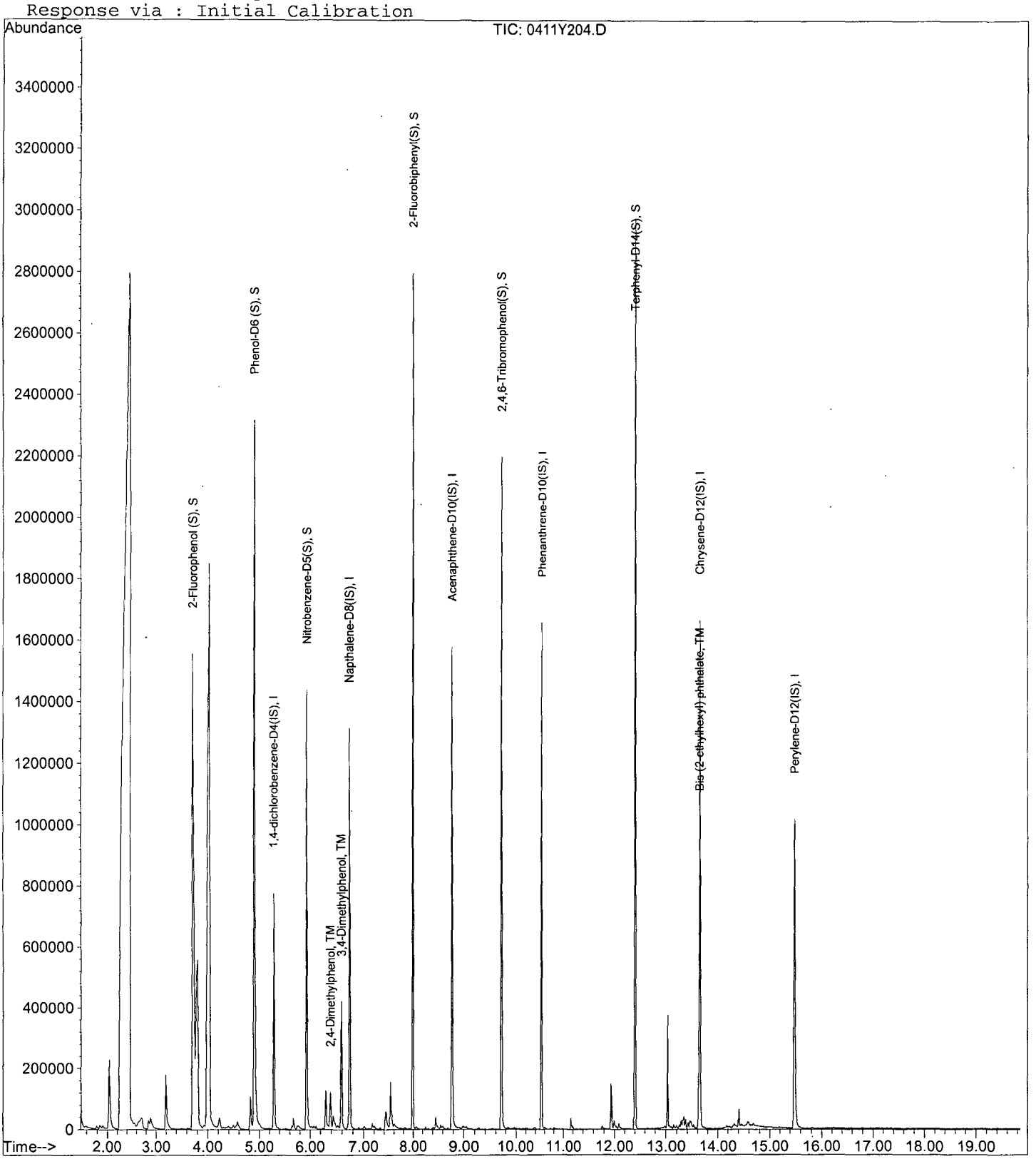
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y204.D Vial: 4
Acq On : 26 Apr 19 21:29 Operator: MA
Sample : AZ90051W37 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 13:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y207.D Vial: 7
Acq On : 26 Apr 19 22:53 Operator: MA
Sample : AZ90052W11 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 13:21 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 183225 | 40.0000 | ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 814756 | 40.0000 | ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.77 | 164 | 469745 | 40.0000 | ppb | -0.02 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 807393 | 40.0000 | ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 700169 | 40.0000 | ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 657852 | 40.0000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.69 | 112 | 982272 | 179.2955 | ppb | -0.10 |
| Spiked Amount 250.000 | | | Recovery = | 71.718% | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1221627 | 170.5599 | ppb | -0.05 |
| Spiked Amount 250.000 | | | Recovery = | 68.224% | | |
| 22) Nitrobenzene-D5(S) | 5.92 | 82 | 584404 | 84.8629 | ppb | -0.05 |
| Spiked Amount 125.000 | | | Recovery = | 67.890% | | |
| 46) 2-Fluorobiphenyl(S) | 7.98 | 172 | 1066267 | 76.8458 | ppb | -0.03 |
| Spiked Amount 125.000 | | | Recovery = | 61.477% | | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 235051 | 188.7282 | ppb | -0.01 |
| Spiked Amount 250.000 | | | Recovery = | 75.491% | | |
| 82) Terphenyl-D14(S) | 12.39 | 244 | 1086219 | 79.3309 | ppb | 0.00 |
| Spiked Amount 125.000 | | | Recovery = | 63.465% | | |
| **Target Compounds** | | | | | | Qvalue |
| 26) 2,4-Dimethylphenol | 6.39 | 122 | 21666 | 4.0760 | ppb | 86 |
| 31) 3,4-Dimethylphenol | 6.59 | 107 | 81372 | 10.3519 | ppb | 87 |

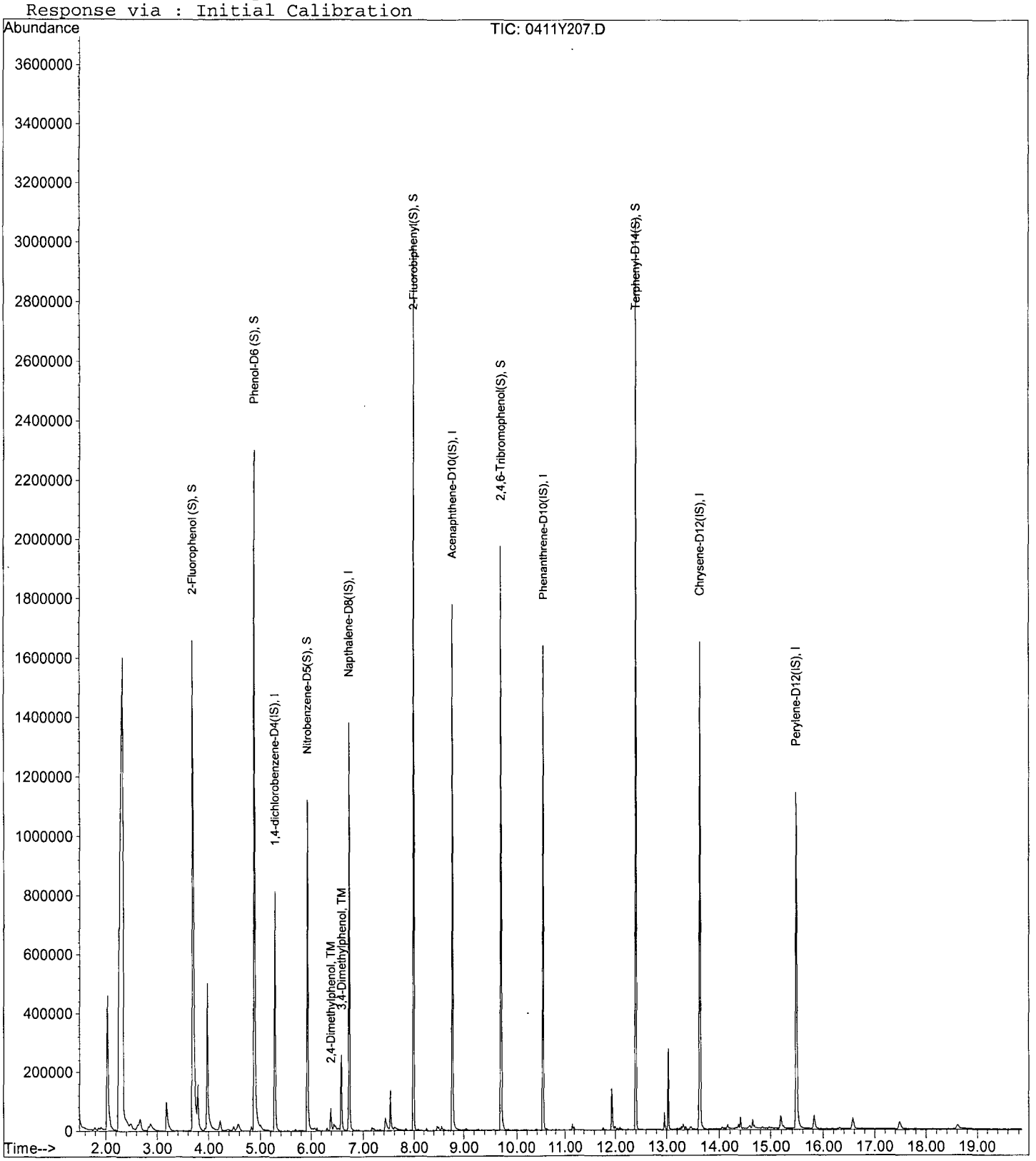
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y207.D Vial: 7
Acq On : 26 Apr 19 22:53 Operator: MA
Sample : AZ90052W11 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 13:21 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y208.D Vial: 8
Acq On : 26 Apr 19 23:21 Operator: MA
Sample : AZ90054W22 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 13:24 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 160242 | 40.0000 ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 733344 | 40.0000 ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.78 | 164 | 435297 | 40.0000 ppb | -0.01 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 743716 | 40.0000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 643010 | 40.0000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 614118 | 40.0000 ppb | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.72 | 112 | 959548 | 200.2686 ppb | -0.07 |
| Spiked Amount 250.000 | | | Recovery = | 80.108% | |
| 6) Phenol-D6 (S) | 4.90 | 99 | 1197630 | 191.1919 ppb | -0.05 |
| Spiked Amount 250.000 | | | Recovery = | 76.477% | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 567220 | 91.5116 ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery = | 73.210% | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 1055832 | 82.1155 ppb | -0.03 |
| Spiked Amount 125.000 | | | Recovery = | 65.693% | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 232459 | 201.4176 ppb | -0.02 |
| Spiked Amount 250.000 | | | Recovery = | 80.567% | |
| 82) Terphenyl-D14(S) | 12.40 | 244 | 1075047 | 85.4944 ppb | 0.00 |
| Spiked Amount 125.000 | | | Recovery = | 68.395% | |
| **Target Compounds** | | | | | Qvalue |
| 26) 2,4-Dimethylphenol | 6.39 | 122 | 18764 | 3.9219 ppb | 91 |
| 31) 3,4-Dimethylphenol | 6.59 | 107 | 52253 | 7.3854 ppb | 88 |

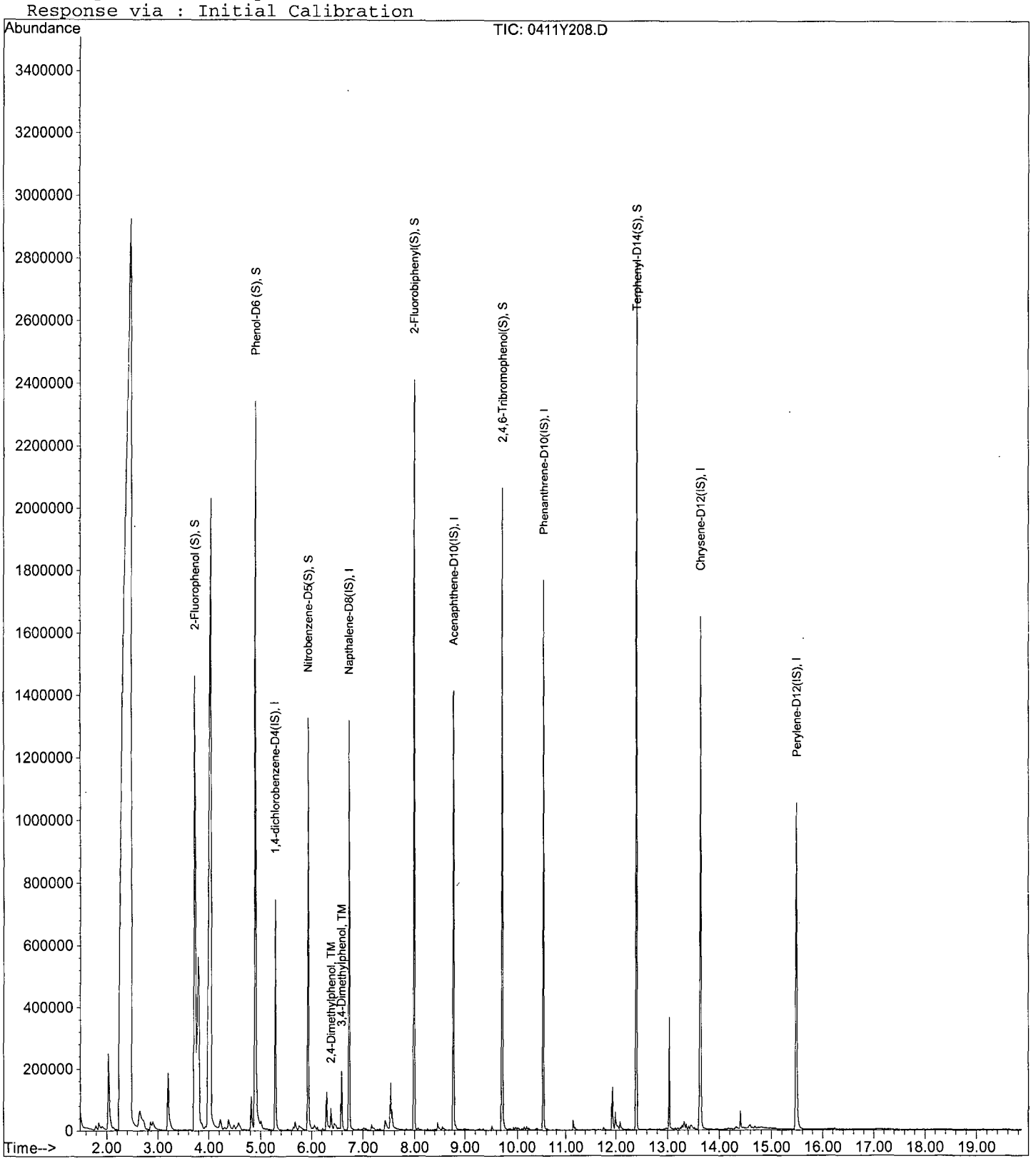
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y208.D  Vial: 8
Acq On : 26 Apr 19 23:21  Operator: MA
Sample : AZ90054W22 1/800  Inst : Yoda
Misc :  Multiplr: 1.25

Quant Time: Apr 29 13:24 2019  Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y209.D Vial: 9
Acq On : 26 Apr 19 23:49 Operator: MA
Sample : AZ90056W22 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 13:26 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 169817 | 40.0000 | ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 751024 | 40.0000 | ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.78 | 164 | 462889 | 40.0000 | ppb | -0.01 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 783005 | 40.0000 | ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 666589 | 40.0000 | ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 643072 | 40.0000 | ppb | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.70 | 112 | 1038385 | 204.5030 | ppb | -0.09 |
| Spiked Amount 250.000 | | | Recovery = 81.801% | | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1277662 | 192.4677 | ppb | -0.06 |
| Spiked Amount 250.000 | | | Recovery = 76.987% | | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 601331 | 94.7310 | ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery = 75.785% | | | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 1131466 | 82.7524 | ppb | -0.03 |
| Spiked Amount 125.000 | | | Recovery = 66.202% | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 243711 | 198.5798 | ppb | -0.02 |
| Spiked Amount 250.000 | | | Recovery = 79.432% | | | |
| 82) Terphenyl-D14(S) | 12.39 | 244 | 1132946 | 86.9119 | ppb | 0.00 |
| Spiked Amount 125.000 | | | Recovery = 69.530% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 26) 2,4-Dimethylphenol | 6.38 | 122 | 15108 | 3.0834 | ppb | 85 |
| 31) 3,4-Dimethylphenol | 6.59 | 107 | 41381 | 5.7111 | ppb | 90 |

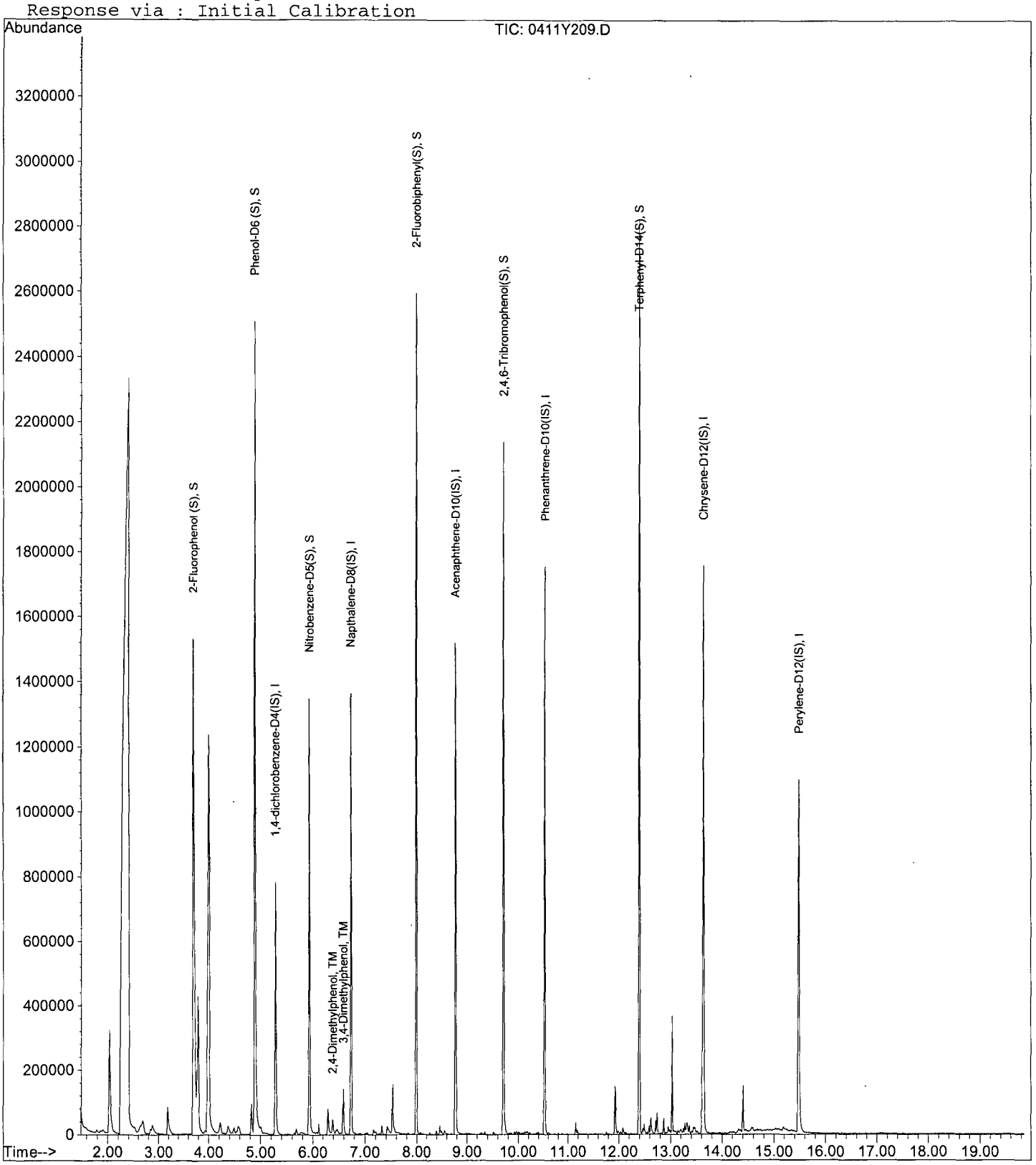
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y209.D  Vial: 9
Acq On : 26 Apr 19 23:49  Operator: MA
Sample : AZ90056W22 1/800  Inst : Yoda
Misc :  Multiplr: 1.25

Quant Time: Apr 29 13:26 2019  Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y210.D Vial: 10
Acq On : 27 Apr 19 00:17 Operator: MA
Sample : AZ90058W22 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: May 6 16:18 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 167578 | 40.00000 ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 758107 | 40.00000 ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.78 | 164 | 451799 | 40.00000 ppb | -0.01 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 766615 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 673211 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 627494 | 40.00000 ppb | 0.01 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.68 | 112 | 854522 | 170.54095 ppb | -0.11 |
| Spiked Amount 250.000 | | | Recovery | = 68.216% | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1065961 | 162.72243 ppb | -0.06 |
| Spiked Amount 250.000 | | | Recovery | = 65.089% | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 572680 | 89.37452 ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery | = 71.500% | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 1061543 | 79.54419 ppb | -0.03 |
| Spiked Amount 125.000 | | | Recovery | = 63.635% | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 230053 | 192.05224 ppb | -0.02 |
| Spiked Amount 250.000 | | | Recovery | = 76.821% | |
| 82) Terphenyl-D14(S) | 12.40 | 244 | 1087496 | 82.60467 ppb | 0.00 |
| Spiked Amount 125.000 | | | Recovery | = 66.084% | |
| **Target Compounds** | | | | | Qvalue |
| 86) Bis (2-ethylhexyl) phthala | 13.62 | 149 | 251767 | 17.48811 ppb | 99 |

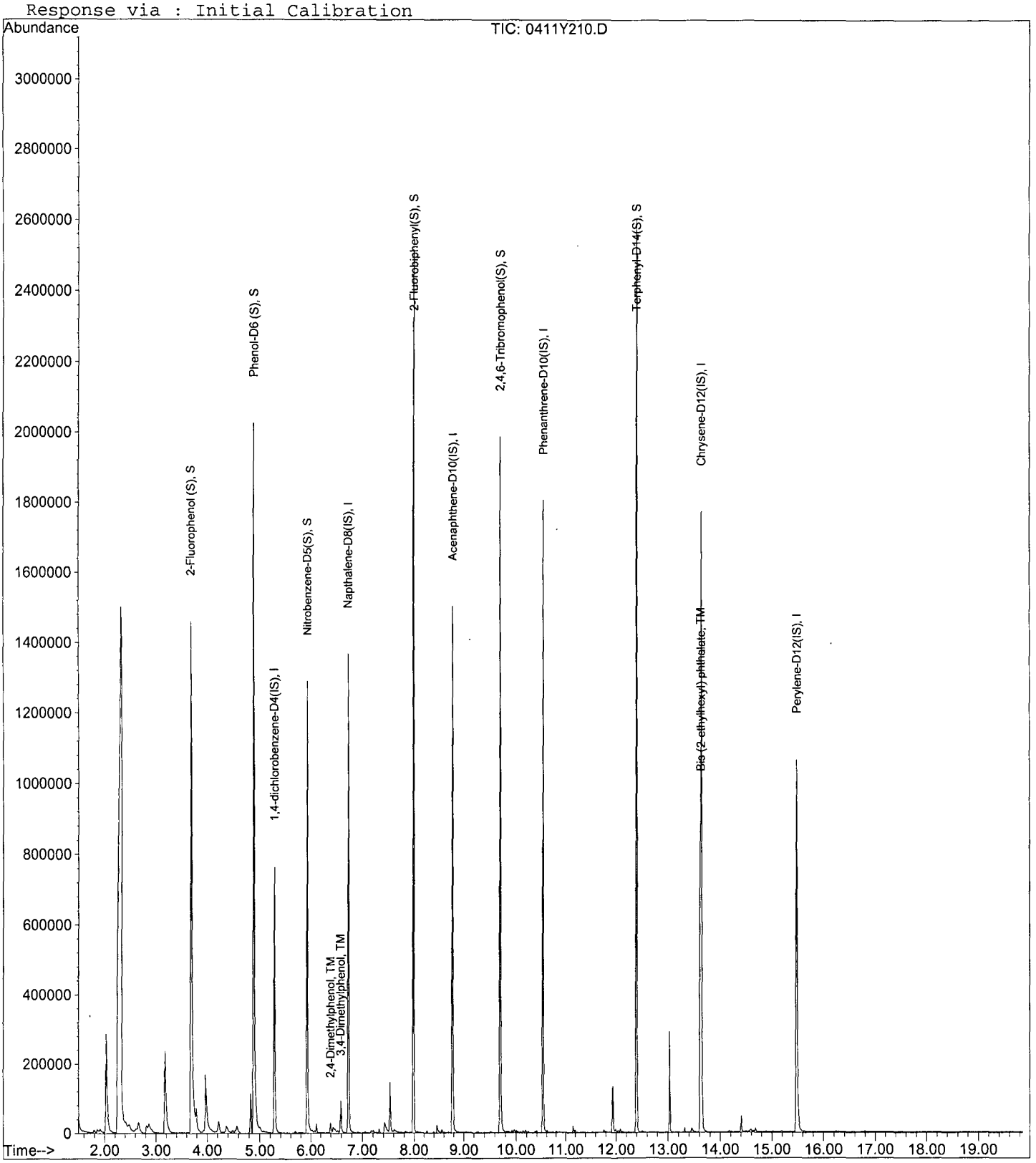
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y210.D Vial: 10
Acq On : 27 Apr 19 00:17 Operator: MA
Sample : AZ90058W22 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y211.D Vial: 11
Acq On : 27 Apr 19 00:45 Operator: MA
Sample : AZ90060W22 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 13:28 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 153337 | 40.0000 | ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 659093 | 40.0000 | ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.77 | 164 | 360567 | 40.0000 | ppb | -0.02 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 603056 | 40.0000 | ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 524020 | 40.0000 | ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.47 | 264 | 486077 | 40.0000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.70 | 112 | 1068860 | 233.1290 | ppb | -0.09 |
| Spiked Amount 250.000 | | | Recovery = | 93.252% | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1323118 | 220.7368 | ppb | -0.05 |
| Spiked Amount 250.000 | | | Recovery = | 88.295% | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 629793 | 113.0533 | ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery = | 90.442% | | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 1162777 | 109.1758 | ppb | -0.03 |
| Spiked Amount 125.000 | | | Recovery = | 87.341% | | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 259842 | 271.8067 | ppb | -0.01 |
| Spiked Amount 250.000 | | | Recovery = | 108.723% | | |
| 82) Terphenyl-D14(S) | 12.39 | 244 | 1164704 | 113.6569 | ppb | 0.00 |
| Spiked Amount 125.000 | | | Recovery = | 90.926% | | |
| **Target Compounds** | | | | | | Qvalue |
| 26) 2,4-Dimethylphenol | 6.39 | 122 | 18458 | 4.2926 | ppb | 92 |
| 31) 3,4-Dimethylphenol | 6.59 | 107 | 51502 | 8.0994 | ppb | 87 |

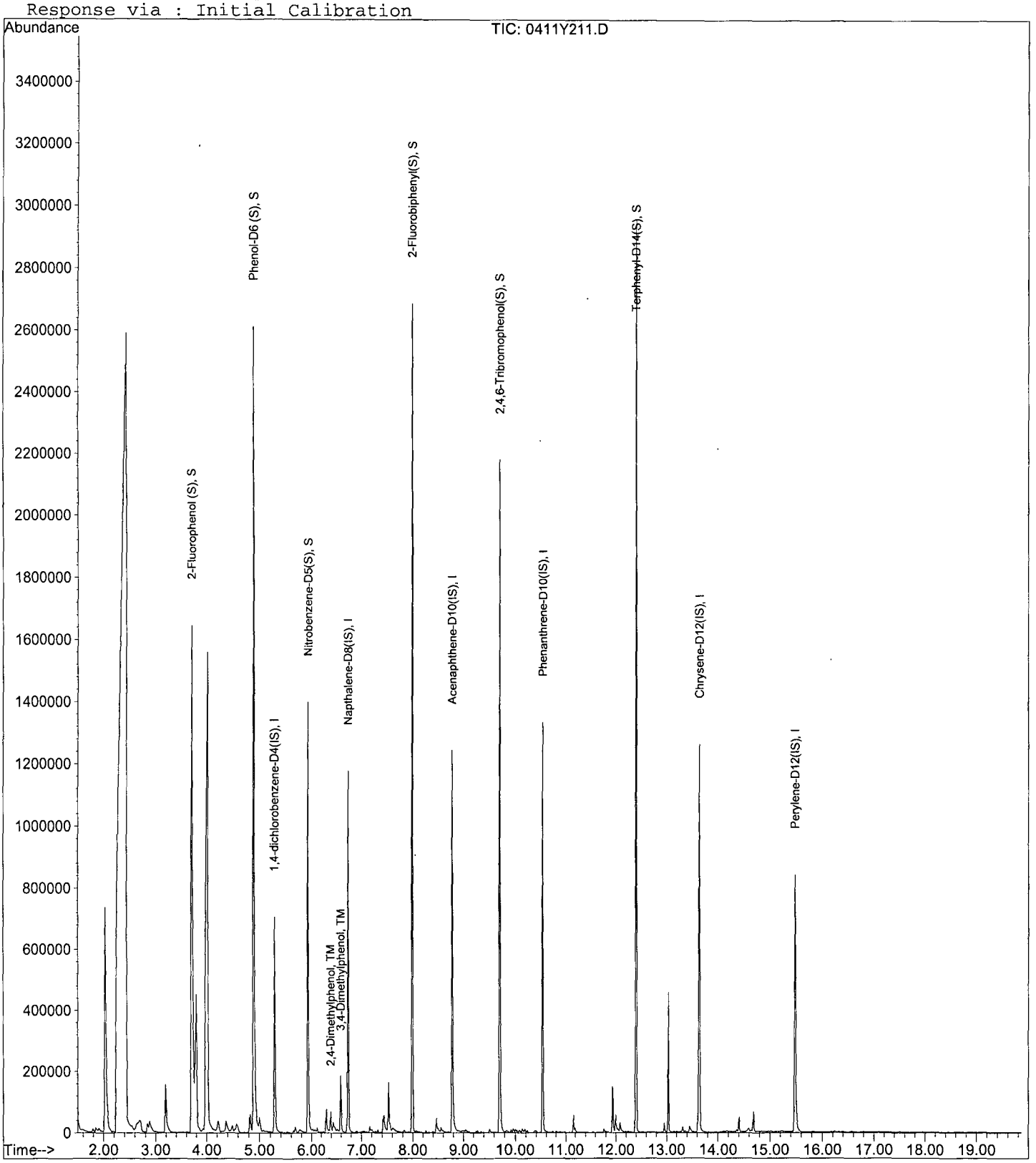
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y211.D Vial: 11
Acq On : 27 Apr 19 00:45 Operator: MA
Sample : AZ90060W22 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 13:28 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y196.D Vial: 96
Acq On : 26 Apr 19 17:46 Operator: MA
Sample : 190424A BLK 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: May 6 15:49 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 156918 | 40.00000 ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 730248 | 40.00000 ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.77 | 164 | 463695 | 40.00000 ppb | -0.02 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 781468 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 762900 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 695198 | 40.00000 ppb | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.68 | 112 | 953562 | 203.23505 ppb | -0.11 |
| Spiked Amount 250.000 | | | Recovery = | 81.294% | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1156335 | 188.50984 ppb | -0.05 |
| Spiked Amount 250.000 | | | Recovery = | 75.404% | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 579911 | 93.95571 ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery = | 75.165% | |
| 46) 2-Fluorobiphenyl(S) | 7.98 | 172 | 1073107 | 78.34779 ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery = | 62.678% | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 229267 | 186.48585 ppb | -0.02 |
| Spiked Amount 250.000 | | | Recovery = | 74.594% | |
| 82) Terphenyl-D14(S) | 12.39 | 244 | 1121804 | 75.19302 ppb | 0.00 |
| Spiked Amount 125.000 | | | Recovery = | 60.154% | |

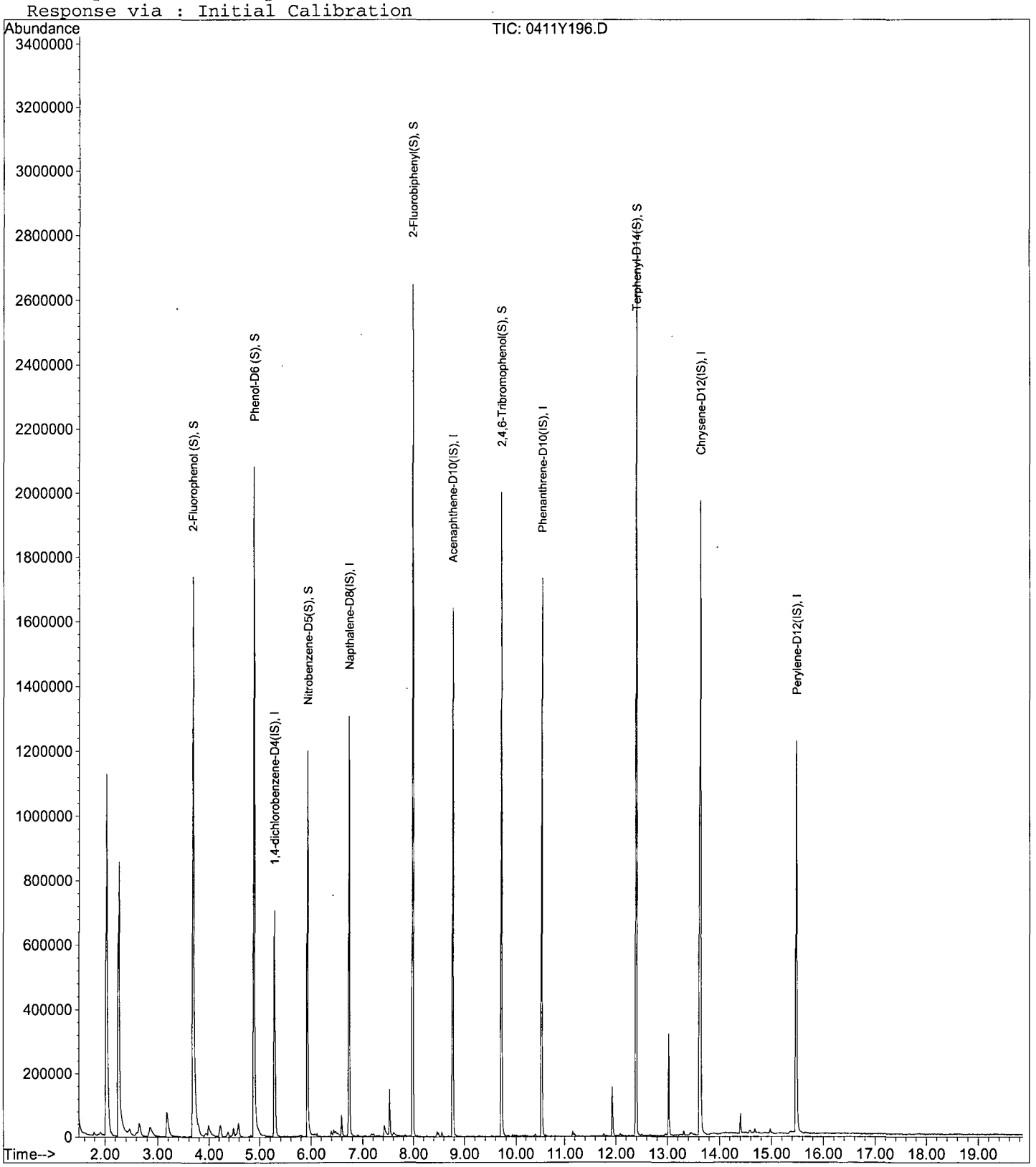
Target Compounds Qvalue

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

Data File : M:\YODA\DATA\Y190411\0411Y196.D Vial: 96
Acq On : 26 Apr 19 17:46 Operator: MA
Sample : 190424A BLK 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: May 6 15:49 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon May 06 14:42:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y197.D Vial: 97
Acq On : 26 Apr 19 18:13 Operator: MA
Sample : 190424A LCS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 165950 | 40.0000 | ppb | | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 746399 | 40.0000 | ppb | | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.77 | 164 | 433513 | 40.0000 | ppb | | -0.02 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 741316 | 40.0000 | ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 641284 | 40.0000 | ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.49 | 264 | 492206 | 40.0000 | ppb | | 0.02 |
| **System Monitoring Compounds** | | | | | | | |
| 5) 2-Fluorophenol (S) | 3.69 | 112 | 951775 | 191.8136 | ppb | | -0.10 |
| Spiked Amount 250.000 | | | Recovery = | 76.726% | | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1139938 | 175.7224 | ppb | | -0.05 |
| Spiked Amount 250.000 | | | Recovery = | 70.289% | | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 563951 | 89.3928 | ppb | | -0.04 |
| Spiked Amount 125.000 | | | Recovery = | 71.514% | | | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 1050416 | 82.0305 | ppb | | -0.02 |
| Spiked Amount 125.000 | | | Recovery = | 65.624% | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.71 | 330 | 236232 | 205.5291 | ppb | | -0.01 |
| Spiked Amount 250.000 | | | Recovery = | 82.212% | | | |
| 82) Terphenyl-D14(S) | 12.39 | 244 | 1088462 | 86.7943 | ppb | | 0.00 |
| Spiked Amount 125.000 | | | Recovery = | 69.435% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.62 | 58 | 6785 | 7.5492 | | | 57 |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 80842 | 47.9178 | ppb | | 94 |
| 4) Pyridine | 1.90 | 79 | 66907 | 16.4900 | ppb | | 93 |
| 7) Phenol | 4.91 | 94 | 349146 | 48.6412 | ppb | # | 61 |
| 8) Aniline | 4.93 | 93 | 57616 | 8.2337 | ppb | # | 96 |
| 9) Bis (2-chloroethyl) ether | 4.99 | 63 | 160568 | 50.3304 | ppb | | 93 |
| 10) 2-Chlorophenol | 5.05 | 128 | 264809 | 50.7102 | ppb | | 94 |
| 11) 1,3-DCB | 5.21 | 146 | 246025 | 44.8804 | ppb | | 100 |
| 12) 1,4-DCB | 5.30 | 146 | 255268 | 45.2834 | ppb | | 99 |
| 13) Benzyl alcohol | 5.46 | 108 | 113606 | 37.4127 | ppb | | 99 |
| 14) 1,2-DCB | 5.47 | 146 | 244960 | 46.8872 | ppb | | 99 |
| 15) 2-Methylphenol | 5.59 | 107 | 230746 | 50.7224 | ppb | | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 231895 | 49.3483 | ppb | | 94 |
| 17) Acetophenone | 5.76 | 105 | 361193 | 51.8440 | ppb | | 93 |
| 18) 3&4-Methylphenol | 5.77 | 107 | 564144 | 103.3085 | ppb | | 97 |
| 19) n-Nitrosodi-n-propylamine | 5.76 | 70 | 198910 | 52.0202 | ppb | | 95 |
| 20) Hexachloroethane | 5.85 | 117 | 82892 | 39.0623 | ppb | | 92 |
| 23) Nitrobenzene | 5.95 | 77 | 299358 | 49.1226 | ppb | | 94 |
| 24) Isophorone | 6.22 | 82 | 522726 | 49.3246 | ppb | | 99 |
| 25) 2-Nitrophenol | 6.31 | 139 | 154365 | 49.9687 | ppb | | 98 |
| 26) 2,4-Dimethylphenol | 6.36 | 122 | 246659 | 50.6529 | ppb | | 98 |
| 27) Benzoic acid | 6.55 | 105 | 205531 | 61.4229 | ppb | | 99 |
| 28) Bis (2-chloroethoxy) metha | 6.46 | 93 | 148184 | 22.8900 | ppb | | 98 |
| 29) 2,4-Dichlorophenol | 6.59 | 162 | 214128 | 51.8572 | ppb | | 97 |
| 30) 1,2,4-Trichlorobenzene | 6.68 | 180 | 198400 | 43.7702 | ppb | | 98 |
| 31) 3,4-Dimethylphenol | 6.70 | 107 | 314711 | 43.7033 | ppb | | 99 |
| 32) Naphthalene | 6.77 | 128 | 762730 | 47.2037 | ppb | | 99 |
| 33) 4-Chloroaniline | 6.84 | 127 | 14786 | 2.4822 | ppb | # | 49 |
| 34) 2,6-Dichlorophenol | 6.84 | 162 | 203645 | 49.0518 | ppb | | 99 |
| 35) Hexachloropropene | 6.85 | 213 | 70752 | 28.0925 | ppb | | 97 |
| 36) Hexachlorobutadiene | 6.89 | 225 | 82288 | 37.0087 | ppb | | 99 |
| 37) Caprolactum | 7.27 | 55 | 83419 | 40.0933 | ppb | | 95 |

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y197.D Vial: 97
Acq On : 26 Apr 19 18:13 Operator: MA
Sample : 190424A LCS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.42 | 107 | 260512 | 52.0477 | ppb | | 95 |
| 39) | 2-Methylnaphthalene | 7.57 | 142 | 478634 | 46.4540 | ppb | | 99 |
| 40) | 1-Methylnaphthalene | 7.68 | 142 | 497073 | 46.5491 | ppb | | 98 |
| 42) | Hexachlorocyclopentadiene | 7.73 | 237 | 1599 | 20.5237 | ppb | # | 88 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.75 | 216 | 190545 | 42.0827 | ppb | | 97 |
| 44) | 2,4,6-Trichlorophenol | 7.90 | 196 | 144783 | 49.7229 | ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 7.96 | 196 | 153263 | 48.9745 | ppb | | 99 |
| 47) | 1,1'-Biphenyl | 8.11 | 154 | 624951 | 43.5940 | ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.13 | 162 | 474067 | 43.9659 | ppb | | 97 |
| 49) | 2-Nitroaniline | 8.27 | 65 | 72890 | 20.6264 | ppb | | 97 |
| 50) | Dimethyl phthalate | 8.47 | 163 | 602246 | 48.0562 | ppb | | 99 |
| 51) | 2,6-DNT | 8.55 | 165 | 139356 | 47.5542 | ppb | | 86 |
| 52) | Acenaphthylene | 8.62 | 152 | 651659 | 38.1853 | ppb | | 100 |
| 53) | 3-Nitroaniline | 8.76 | 138 | 11303 | 3.5090 | ppb | # | 80 |
| 54) | Acenaphthene | 8.82 | 154 | 476381 | 43.3377 | ppb | | 98 |
| 55) | 2,4-Dinitrophenol | 8.89 | 184 | 62757 | 46.1467 | ppb | | 95 |
| 56) | 4-Nitrophenol | 8.98 | 65 | 113373 | 62.1270 | ppb | # | 76 |
| 57) | Dibenzofuran | 9.02 | 168 | 666160 | 44.6553 | ppb | | 91 |
| 58) | 2,4-DNT | 9.02 | 165 | 189528 | 47.8524 | ppb | # | 73 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.17 | 232 | 110960 | 55.8374 | ppb | | 99 |
| 60) | Diethyl phthalate | 9.29 | 149 | 587568 | 47.5097 | ppb | | 97 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.41 | 204 | 254939 | 44.7213 | ppb | | 87 |
| 62) | Fluorene | 9.42 | 166 | 558342 | 44.8686 | ppb | | 100 |
| 63) | 4-Nitroaniline | 9.48 | 138 | 26086 | 8.0054 | ppb | | 95 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.51 | 198 | 112165 | 50.6939 | ppb | | 98 |
| 67) | Diphenyl amine | 9.56 | 169 | 226142 | 22.7288 | ppb | | 98 |
| 68) | n-Nitrosodiphenylamine | 9.56 | 169 | 226142 | 22.7288 | ppb | | 98 |
| 69) | 1,2-Diphenylhydrazine | 9.60 | 77 | 226370 | 16.2566 | ppb | | 91 |
| 70) | 4-Bromophenyl phenyl ether | 9.99 | 248 | 142864 | 46.0211 | ppb | | 96 |
| 71) | Hexachlorobenzene | 10.06 | 284 | 132785 | 46.0549 | ppb | | 95 |
| 72) | Atrazine | 10.31 | 200 | 13111 | 3.8560 | ppb | # | 33 |
| 73) | Pentachlorophenol | 10.31 | 266 | 66810 | 63.1078 | ppb | | 98 |
| 74) | Phenanthrene | 10.56 | 178 | 801651 | 44.2388 | ppb | | 100 |
| 75) | Anthracene | 10.61 | 178 | 782714 | 40.8890 | ppb | | 99 |
| 76) | Carbazol | 10.82 | 167 | 284625 | 16.1461 | ppb | | 98 |
| 77) | Di-n-butylphthalate | 11.20 | 149 | 999538 | 45.2812 | ppb | | 99 |
| 78) | Fluoranthene | 11.96 | 202 | 826824 | 43.6385 | ppb | | 99 |
| 81) | Pyrene | 12.22 | 202 | 845747 | 44.7155 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 12.96 | 149 | 427657 | 44.6661 | ppb | | 97 |
| 85) | Benz (a) anthracene | 13.62 | 228 | 730421 | 43.6718 | ppb | | 98 |
| 86) | Bis (2-ethylhexyl) phthala | 13.61 | 149 | 629983 | 45.9382 | ppb | # | 95 |
| 87) | Chrysene | 13.67 | 228 | 716334 | 44.4222 | ppb | | 98 |
| 88) | Di-n-octylphthalate | 14.36 | 149 | 1101691 | 46.5905 | ppb | | 97 |
| 90) | Benzo (b) fluoranthene | 14.93 | 252 | 675903 | 57.6749 | ppb | | 98 |
| 91) | Benzo (k) fluoranthene | 14.97 | 252 | 672940 | 57.4221 | ppb | | 97 |
| 92) | Benzo (a) pyrene | 15.40 | 252 | 555555 | 47.5987 | ppb | | 97 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.38 | 276 | 614800 | 48.9611 | ppb | | 97 |
| 94) | Dibenz (a,h) anthracene | 17.40 | 278 | 571331 | 51.8956 | ppb | | 99 |
| 95) | Benzo (g,h,i) perylene | 17.96 | 276 | 506746 | 50.5687 | ppb | | 98 |

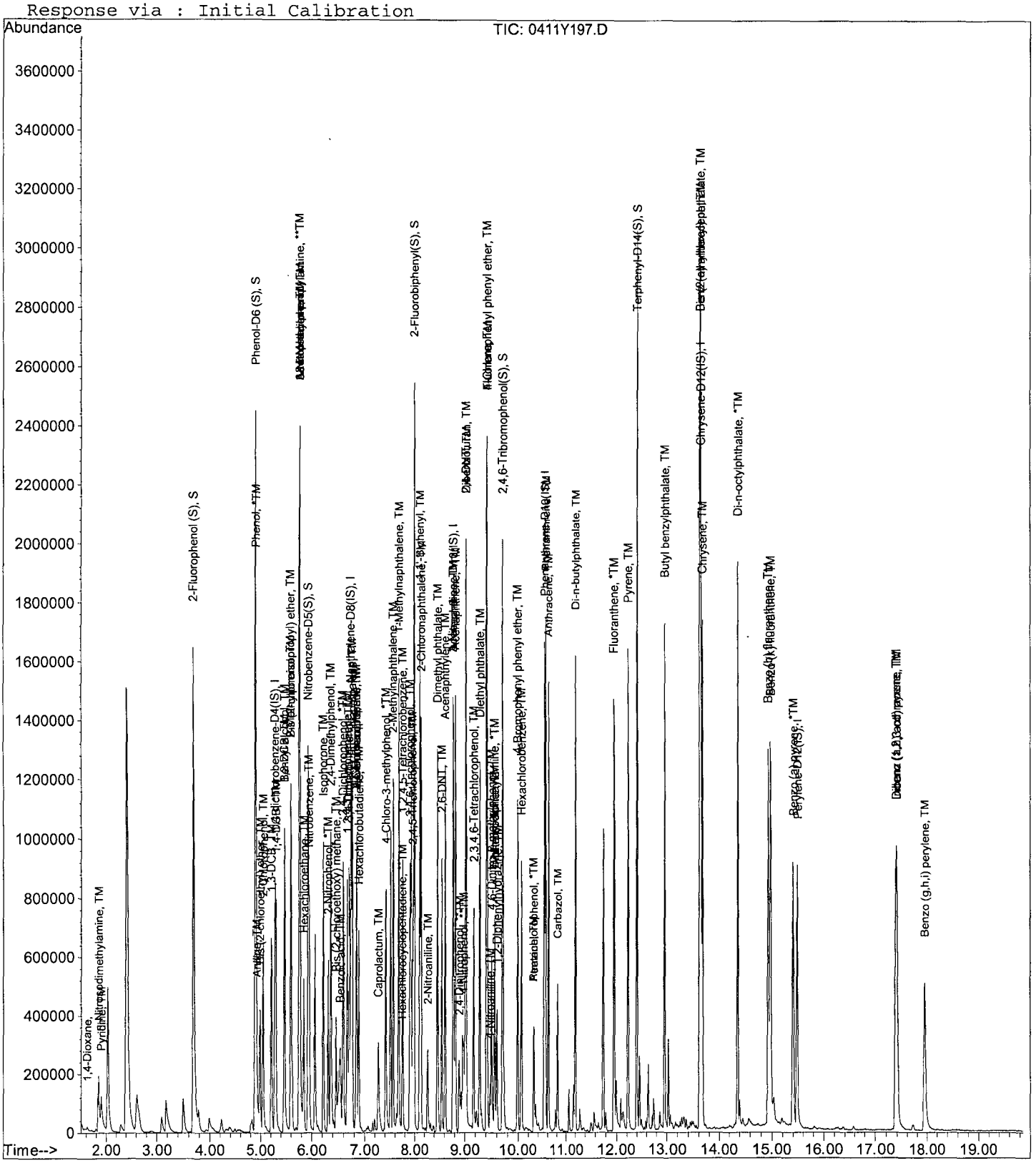
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y197.D Vial: 97
Acq On : 26 Apr 19 18:13 Operator: MA
Sample : 190424A LCS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y198.D Vial: 98
Acq On : 26 Apr 19 18:41 Operator: MA
Sample : 190424A LCSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 155619 | 40.0000 | ppb | | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 700505 | 40.0000 | ppb | | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.78 | 164 | 423707 | 40.0000 | ppb | | -0.01 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 708836 | 40.0000 | ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 626419 | 40.0000 | ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 542737 | 40.0000 | ppb | | 0.02 |
| **System Monitoring Compounds** | | | | | | | |
| 5) 2-Fluorophenol (S) | 3.68 | 112 | 978638 | 210.3206 | ppb | | -0.11 |
| Spiked Amount 250.000 | | | Recovery = 84.128% | | | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1167251 | 191.8778 | ppb | | -0.05 |
| Spiked Amount 250.000 | | | Recovery = 76.751% | | | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 562891 | 95.0704 | ppb | | -0.04 |
| Spiked Amount 125.000 | | | Recovery = 76.056% | | | | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 1037411 | 82.8898 | ppb | | -0.03 |
| Spiked Amount 125.000 | | | Recovery = 66.312% | | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.72 | 330 | 226642 | 201.7491 | ppb | | 0.00 |
| Spiked Amount 250.000 | | | Recovery = 80.700% | | | | |
| 82) Terphenyl-D14(S) | 12.39 | 244 | 1061317 | 86.6380 | ppb | | 0.00 |
| Spiked Amount 125.000 | | | Recovery = 69.310% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.61 | 58 | 4498 | 5.3369 | | | 93 |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 85665 | 54.1474 | ppb | | 92 |
| 4) Pyridine | 1.90 | 79 | 74979 | 19.7063 | ppb | | 93 |
| 7) Phenol | 4.91 | 94 | 352403 | 52.3542 | ppb | # | 63 |
| 8) Aniline | 4.93 | 93 | 64751 | 9.8676 | ppb | | 94 |
| 9) Bis (2-chloroethyl) ether | 4.99 | 63 | 162617 | 54.3566 | ppb | | 96 |
| 10) 2-Chlorophenol | 5.05 | 128 | 275314 | 56.2219 | ppb | | 95 |
| 11) 1,3-DCB | 5.22 | 146 | 254872 | 49.5808 | ppb | | 98 |
| 12) 1,4-DCB | 5.30 | 146 | 261415 | 49.4525 | ppb | | 99 |
| 13) Benzyl alcohol | 5.46 | 108 | 144164 | 50.6278 | ppb | | 99 |
| 14) 1,2-DCB | 5.48 | 146 | 253856 | 51.8157 | ppb | | 97 |
| 15) 2-Methylphenol | 5.59 | 107 | 234407 | 54.9479 | ppb | | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 233902 | 53.0799 | ppb | | 97 |
| 17) Acetophenone | 5.76 | 105 | 362437 | 55.4762 | ppb | | 87 |
| 18) 3&4-Methylphenol | 5.77 | 107 | 575418 | 112.3683 | ppb | | 97 |
| 19) n-Nitrosodi-n-propylamine | 5.76 | 70 | 197490 | 55.0776 | ppb | | 96 |
| 20) Hexachloroethane | 5.85 | 117 | 87818 | 44.1309 | ppb | | 100 |
| 23) Nitrobenzene | 5.95 | 77 | 299297 | 52.3303 | ppb | | 94 |
| 24) Isophorone | 6.22 | 82 | 514605 | 51.7396 | ppb | | 100 |
| 25) 2-Nitrophenol | 6.31 | 139 | 155006 | 53.4636 | ppb | | 94 |
| 26) 2,4-Dimethylphenol | 6.37 | 122 | 251965 | 55.1324 | ppb | | 96 |
| 27) Benzoic acid | 6.53 | 105 | 187634 | 59.7481 | ppb | | 96 |
| 28) Bis (2-chloroethoxy) metha | 6.46 | 93 | 276991 | 45.5900 | ppb | | 99 |
| 29) 2,4-Dichlorophenol | 6.60 | 162 | 211415 | 54.5546 | ppb | | 95 |
| 30) 1,2,4-Trichlorobenzene | 6.67 | 180 | 202257 | 47.5445 | ppb | | 98 |
| 31) 3,4-Dimethylphenol | 6.71 | 107 | 349137 | 51.6604 | ppb | | 97 |
| 32) Naphthalene | 6.77 | 128 | 764675 | 50.4246 | ppb | | 100 |
| 33) 4-Chloroaniline | 6.84 | 127 | 13604 | 2.4334 | ppb | # | 67 |
| 34) 2,6-Dichlorophenol | 6.84 | 162 | 205497 | 52.7408 | ppb | | 97 |
| 35) Hexachloropropene | 6.85 | 213 | 73152 | 30.9484 | ppb | | 97 |
| 36) Hexachlorobutadiene | 6.89 | 225 | 81534 | 39.0720 | ppb | | 95 |
| 37) Caprolactum | 7.27 | 55 | 96857 | 49.6019 | ppb | | 99 |

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

Data File : M:\YODA\DATA\Y190411\0411Y198.D Vial: 98
Acq On : 26 Apr 19 18:41 Operator: MA
Sample : 190424A LCSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.42 | 107 | 259346 | 55.2094 | ppb | | 98 |
| 39) | 2-Methylnaphthalene | 7.57 | 142 | 477235 | 49.3528 | ppb | | 98 |
| 40) | 1-Methylnaphthalene | 7.68 | 142 | 499450 | 49.8360 | ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.73 | 237 | 1127 | 19.9853 | ppb | | 97 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.76 | 216 | 191138 | 43.1906 | ppb | | 98 |
| 44) | 2,4,6-Trichlorophenol | 7.91 | 196 | 145581 | 51.1541 | ppb | | 98 |
| 45) | 2,4,5-Trichlorophenol | 7.96 | 196 | 150435 | 49.1833 | ppb | | 90 |
| 47) | 1,1'-Biphenyl | 8.10 | 154 | 622136 | 44.4020 | ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.13 | 162 | 468885 | 44.4917 | ppb | | 99 |
| 49) | 2-Nitroaniline | 8.27 | 65 | 98480 | 28.5128 | ppb | | 98 |
| 50) | Dimethyl phthalate | 8.47 | 163 | 597381 | 48.7712 | ppb | | 99 |
| 51) | 2,6-DNT | 8.55 | 165 | 138194 | 48.2491 | ppb | # | 81 |
| 52) | Acenaphthylene | 8.61 | 152 | 729504 | 43.7361 | ppb | | 100 |
| 53) | 3-Nitroaniline | 8.77 | 138 | 7364 | 2.3390 | ppb | # | 25 |
| 54) | Acenaphthene | 8.82 | 154 | 483321 | 44.9867 | ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.89 | 184 | 71538 | 52.3562 | ppb | | 99 |
| 56) | 4-Nitrophenol | 8.98 | 65 | 111323 | 62.3461 | ppb | | 82 |
| 57) | Dibenzofuran | 9.02 | 168 | 666116 | 45.6858 | ppb | | 92 |
| 58) | 2,4-DNT | 9.03 | 165 | 187109 | 48.3350 | ppb | | 94 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.17 | 232 | 106549 | 54.8586 | ppb | | 97 |
| 60) | Diethyl phthalate | 9.29 | 149 | 573352 | 47.4331 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.42 | 204 | 258125 | 46.3282 | ppb | | 98 |
| 62) | Fluorene | 9.42 | 166 | 560222 | 46.0616 | ppb | | 99 |
| 63) | 4-Nitroaniline | 9.48 | 138 | 33787 | 10.6087 | ppb | | 98 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.51 | 198 | 108354 | 51.2154 | ppb | | 83 |
| 67) | Diphenyl amine | 9.56 | 169 | 365615 | 38.4306 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.56 | 169 | 365615 | 38.4306 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.61 | 77 | 396353 | 29.7680 | ppb | | 99 |
| 70) | 4-Bromophenyl phenyl ether | 9.99 | 248 | 137791 | 46.4208 | ppb | | 96 |
| 71) | Hexachlorobenzene | 10.06 | 284 | 131424 | 47.6716 | ppb | | 99 |
| 73) | Pentachlorophenol | 10.31 | 266 | 64538 | 63.6739 | ppb | | 99 |
| 74) | Phenanthrene | 10.55 | 178 | 783244 | 45.2036 | ppb | | 99 |
| 75) | Anthracene | 10.62 | 178 | 814511 | 44.4998 | ppb | | 99 |
| 76) | Carbazol | 10.81 | 167 | 541591 | 32.1309 | ppb | | 98 |
| 77) | Di-n-butylphthalate | 11.20 | 149 | 990441 | 46.9250 | ppb | | 99 |
| 78) | Fluoranthene | 11.96 | 202 | 836205 | 46.1559 | ppb | | 99 |
| 81) | Pyrene | 12.23 | 202 | 859229 | 46.5063 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 12.96 | 149 | 446892 | 47.7827 | ppb | | 97 |
| 85) | Benz (a) anthracene | 13.63 | 228 | 735376 | 45.0114 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.62 | 149 | 630168 | 47.0421 | ppb | | 99 |
| 87) | Chrysene | 13.67 | 228 | 725283 | 46.0444 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.37 | 149 | 1074952 | 46.5384 | ppb | | 96 |
| 90) | Benzo (b) fluoranthene | 14.94 | 252 | 749168 | 57.9748 | ppb | | 98 |
| 91) | Benzo (k) fluoranthene | 14.97 | 252 | 638051 | 49.3760 | ppb | | 97 |
| 92) | Benzo (a) pyrene | 15.40 | 252 | 599089 | 46.5497 | ppb | | 99 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.38 | 276 | 651390 | 47.0452 | ppb | | 97 |
| 94) | Dibenz (a,h) anthracene | 17.40 | 278 | 588155 | 48.4498 | ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 17.95 | 276 | 537908 | 48.6807 | ppb | | 100 |

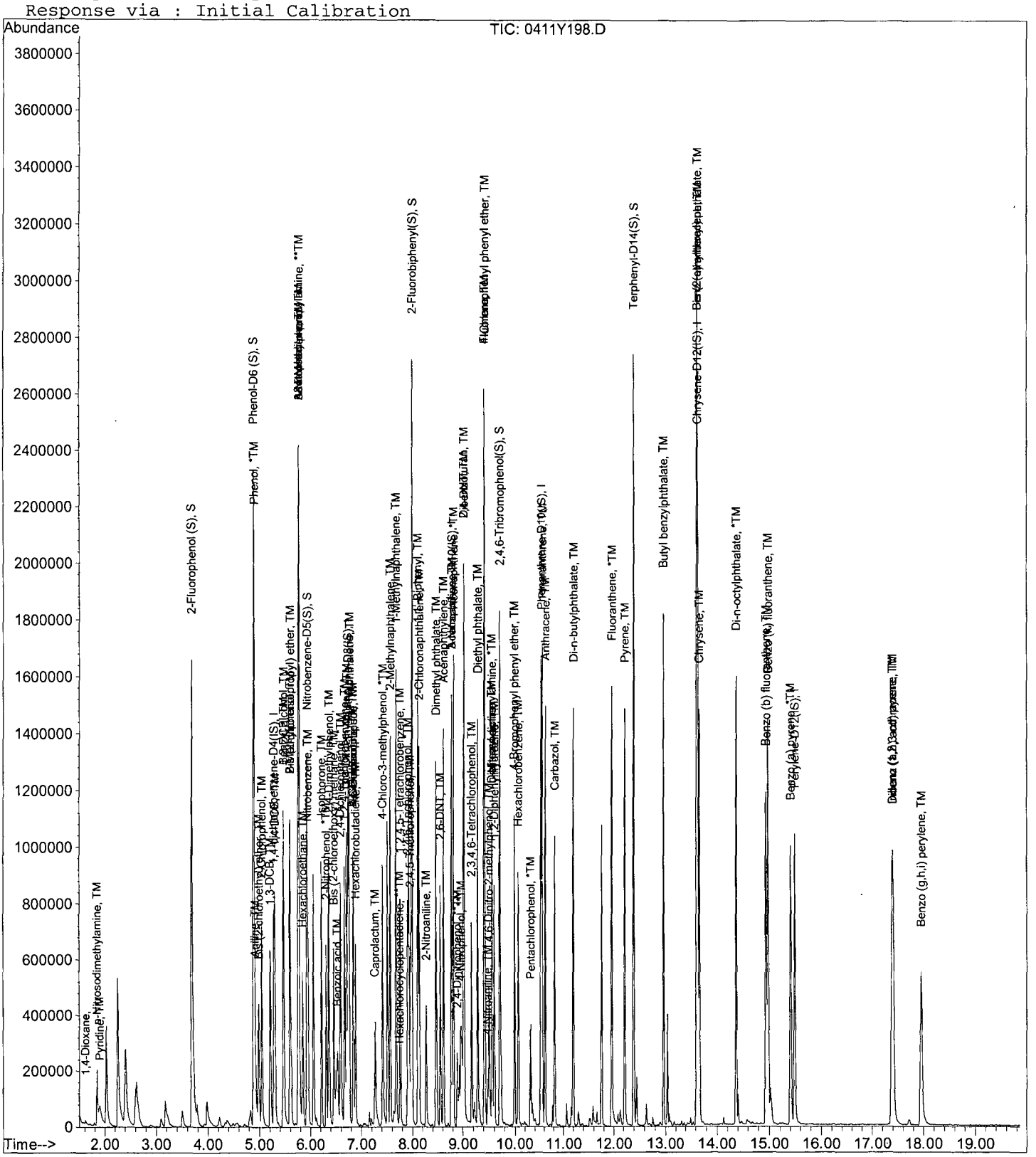
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y198.D Vial: 98
Acq On : 26 Apr 19 18:41 Operator: MA
Sample : 190424A LCSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y205.D Vial: 5
Acq On : 26 Apr 19 21:57 Operator: MA
Sample : AZ90051W39 MS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 130899 | 40.0000 | ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 623251 | 40.0000 | ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.78 | 164 | 420381 | 40.0000 | ppb | -0.01 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 725758 | 40.0000 | ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 632704 | 40.0000 | ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 601862 | 40.0000 | ppb | 0.02 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.70 | 112 | 1044180 | 266.7850 | ppb | -0.09 |
| Spiked Amount 250.000 | | | Recovery | = 106.714% | | |
| 6) Phenol-D6 (S) | 4.90 | 99 | 1298410 | 253.7457 | ppb | -0.05 |
| Spiked Amount 250.000 | | | Recovery | = 101.498% | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 615804 | 116.8992 | ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery | = 93.519% | | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 1147511 | 92.4123 | ppb | -0.03 |
| Spiked Amount 125.000 | | | Recovery | = 73.930% | | |
| 64) 2,4,6-Tribromophenol(S) | 9.72 | 330 | 255092 | 228.8709 | ppb | 0.00 |
| Spiked Amount 250.000 | | | Recovery | = 91.548% | | |
| 82) Terphenyl-D14(S) | 12.40 | 244 | 1189670 | 96.1511 | ppb | 0.00 |
| Spiked Amount 125.000 | | | Recovery | = 76.921% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.61 | 58 | 6400 | 9.0276 | | 65 |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 96050 | 72.1769 | ppb | 99 |
| 7) Phenol | 4.91 | 94 | 403370 | 71.2430 | ppb | 90 |
| 8) Aniline | 4.92 | 93 | 342190 | 61.9952 | ppb | 94 |
| 9) Bis (2-chloroethyl) ether | 4.99 | 63 | 178826 | 71.0630 | ppb | 98 |
| 10) 2-Chlorophenol | 5.05 | 128 | 296492 | 71.9808 | ppb | 99 |
| 11) 1,3-DCB | 5.22 | 146 | 288997 | 66.8361 | ppb | 98 |
| 12) 1,4-DCB | 5.30 | 146 | 292785 | 65.8465 | ppb | 98 |
| 13) Benzyl alcohol | 5.47 | 108 | 183704 | 76.6968 | ppb | 92 |
| 14) 1,2-DCB | 5.48 | 146 | 279399 | 67.7992 | ppb | 99 |
| 15) 2-Methylphenol | 5.60 | 107 | 258041 | 71.9110 | ppb | 99 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 257151 | 69.3762 | ppb | 90 |
| 17) Acetophenone | 5.75 | 105 | 402898 | 73.3155 | ppb | 83 |
| 18) 3&4-Methylphenol | 5.77 | 107 | 631425 | 146.5914 | ppb | 99 |
| 19) n-Nitrosodi-n-propylamine | 5.75 | 70 | 219506 | 72.7784 | ppb | 94 |
| 20) Hexachloroethane | 5.85 | 117 | 101180 | 60.4478 | ppb | 100 |
| 23) Nitrobenzene | 5.96 | 77 | 326960 | 64.2530 | ppb | 99 |
| 24) Isophorone | 6.23 | 82 | 569137 | 64.3153 | ppb | 95 |
| 25) 2-Nitrophenol | 6.31 | 139 | 170209 | 65.9842 | ppb | 92 |
| 26) 2,4-Dimethylphenol | 6.37 | 122 | 279574 | 68.7562 | ppb | 96 |
| 27) Benzoic acid | 6.54 | 105 | 213264 | 76.3270 | ppb | 99 |
| 28) Bis (2-chloroethoxy) metha | 6.47 | 93 | 349565 | 64.6666 | ppb | 100 |
| 29) 2,4-Dichlorophenol | 6.60 | 162 | 234759 | 68.0873 | ppb | 94 |
| 30) 1,2,4-Trichlorobenzene | 6.67 | 180 | 229376 | 60.6029 | ppb | 98 |
| 31) 3,4-Dimethylphenol | 6.71 | 107 | 389840 | 64.8331 | ppb | 99 |
| 32) Naphthalene | 6.77 | 128 | 857934 | 63.5869 | ppb | 100 |
| 33) 4-Chloroaniline | 6.84 | 127 | 205767 | 41.3682 | ppb | 98 |
| 34) 2,6-Dichlorophenol | 6.84 | 162 | 223959 | 64.6038 | ppb | 95 |
| 35) Hexachloropropene | 6.86 | 213 | 103689 | 49.3052 | ppb | 99 |
| 36) Hexachlorobutadiene | 6.89 | 225 | 101812 | 54.8370 | ppb | 100 |
| 37) Caprolactum | 7.28 | 55 | 109600 | 63.0850 | ppb | 92 |
| 38) 4-Chloro-3-methylphenol | 7.42 | 107 | 286139 | 68.4635 | ppb | 97 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y205.D Vial: 5
Acq On : 26 Apr 19 21:57 Operator: MA
Sample : AZ90051W39 MS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 39) | 2-Methylnaphthalene | 7.56 | 142 | 537631 | 62.4902 | ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.68 | 142 | 558079 | 62.5886 | ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.73 | 237 | 1107 | 19.9713 | ppb | # | 84 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.76 | 216 | 214373 | 48.8242 | ppb | | 99 |
| 44) | 2,4,6-Trichlorophenol | 7.91 | 196 | 159315 | 56.4229 | ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 7.96 | 196 | 166151 | 54.7513 | ppb | | 92 |
| 47) | 1,1'-Biphenyl | 8.10 | 154 | 696197 | 50.0809 | ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.13 | 162 | 531533 | 50.8353 | ppb | | 99 |
| 49) | 2-Nitroaniline | 8.27 | 65 | 175469 | 51.2053 | ppb | | 98 |
| 50) | Dimethyl phthalate | 8.47 | 163 | 659828 | 54.2957 | ppb | | 100 |
| 51) | 2,6-DNT | 8.56 | 165 | 153176 | 53.9030 | ppb | | 95 |
| 52) | Acenaphthylene | 8.61 | 152 | 829003 | 50.0946 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.75 | 138 | 147574 | 47.2447 | ppb | | 91 |
| 54) | Acenaphthene | 8.82 | 154 | 539705 | 50.6322 | ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.89 | 184 | 61689 | 46.6578 | ppb | | 92 |
| 56) | 4-Nitrophenol | 8.98 | 65 | 121520 | 67.1813 | ppb | | 81 |
| 57) | Dibenzofuran | 9.02 | 168 | 737304 | 50.9683 | ppb | | 94 |
| 58) | 2,4-DNT | 9.03 | 165 | 208555 | 54.3013 | ppb | | 95 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.17 | 232 | 118223 | 61.3507 | ppb | | 96 |
| 60) | Diethyl phthalate | 9.29 | 149 | 622195 | 51.8811 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.42 | 204 | 282803 | 51.1590 | ppb | | 99 |
| 62) | Fluorene | 9.42 | 166 | 616259 | 51.0698 | ppb | | 99 |
| 63) | 4-Nitroaniline | 9.49 | 138 | 145462 | 46.0346 | ppb | | 91 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.51 | 198 | 117067 | 54.0436 | ppb | | 97 |
| 67) | Diphenyl amine | 9.57 | 169 | 910652 | 93.4888 | ppb | | 100 |
| 68) | n-Nitrosodiphenylamine | 9.57 | 169 | 910652 | 93.4888 | ppb | | 100 |
| 69) | 1,2-Diphenylhydrazine | 9.61 | 77 | 626045 | 45.9227 | ppb | | 97 |
| 70) | 4-Bromophenyl phenyl ether | 10.00 | 248 | 156105 | 51.3644 | ppb | | 84 |
| 71) | Hexachlorobenzene | 10.06 | 284 | 142026 | 50.3160 | ppb | | 93 |
| 72) | Atrazine | 10.19 | 200 | 80020 | 24.0388 | ppb | | 97 |
| 73) | Pentachlorophenol | 10.31 | 266 | 62807 | 60.9132 | ppb | | 99 |
| 74) | Phenanthrene | 10.55 | 178 | 858034 | 48.3653 | ppb | | 99 |
| 75) | Anthracene | 10.62 | 178 | 894739 | 47.7432 | ppb | | 99 |
| 76) | Carbazol | 10.81 | 167 | 839667 | 48.6534 | ppb | | 98 |
| 77) | Di-n-butylphthalate | 11.20 | 149 | 1067173 | 49.3816 | ppb | | 99 |
| 78) | Fluoranthene | 11.96 | 202 | 915841 | 49.3729 | ppb | | 98 |
| 80) | Benzidine | 12.12 | 184 | 40553 | 10.1014 | ppb | | 95 |
| 81) | Pyrene | 12.23 | 202 | 949522 | 50.8830 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 12.96 | 149 | 480970 | 50.9156 | ppb | | 95 |
| 84) | 3,3'-Dichlorobenzidine | 13.59 | 252 | 160292 | 34.1653 | ppb | # | 93 |
| 85) | Benz (a) anthracene | 13.63 | 228 | 808547 | 48.9985 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.62 | 149 | 716298 | 52.9405 | ppb | | 100 |
| 87) | Chrysene | 13.67 | 228 | 797001 | 50.0948 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.37 | 149 | 1161088 | 49.7682 | ppb | | 98 |
| 90) | Benzo (b) fluoranthene | 14.94 | 252 | 784402 | 54.7383 | ppb | | 100 |
| 91) | Benzo (k) fluoranthene | 14.97 | 252 | 714805 | 49.8816 | ppb | | 99 |
| 92) | Benzo (a) pyrene | 15.41 | 252 | 694076 | 48.6323 | ppb | | 96 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.39 | 276 | 731569 | 47.6455 | ppb | | 99 |
| 94) | Dibenz (a,h) anthracene | 17.41 | 278 | 651036 | 48.3613 | ppb | | 97 |
| 95) | Benzo (g,h,i) perylene | 17.95 | 276 | 607534 | 49.5807 | ppb | | 97 |

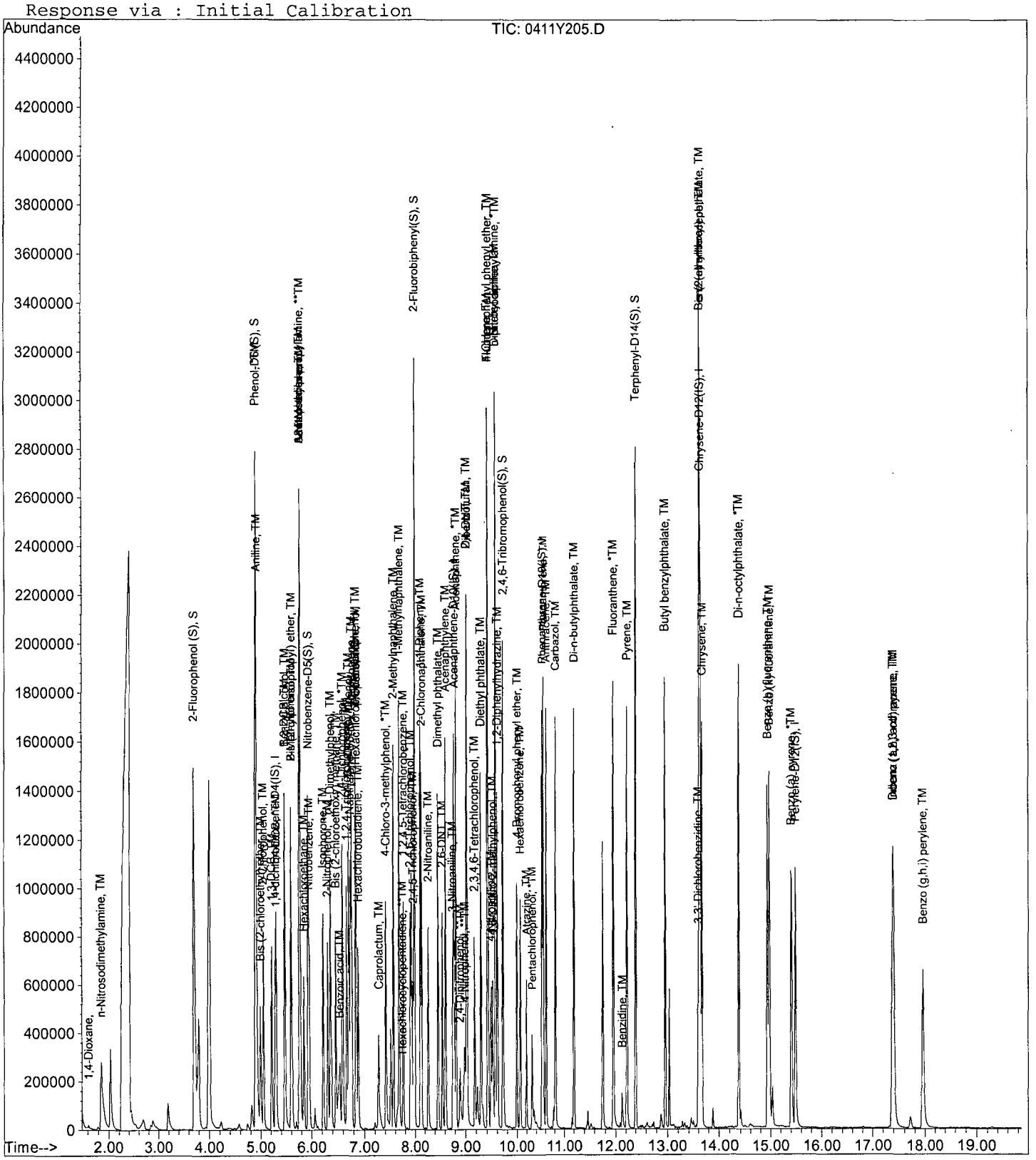
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y205.D Vial: 5
Acq On : 26 Apr 19 21:57 Operator: MA
Sample : AZ90051W39 MS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y206.D Vial: 6
Acq On : 26 Apr 19 22:25 Operator: MA
Sample : AZ90051W40 MSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 180514 | 40.0000 ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 795566 | 40.0000 ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.78 | 164 | 465174 | 40.0000 ppb | -0.01 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 775680 | 40.0000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.64 | 240 | 690164 | 40.0000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.48 | 264 | 657908 | 40.0000 ppb | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.69 | 112 | 1009228 | 186.9824 ppb | -0.10 |
| Spiked Amount 250.000 | | | Recovery = | 74.793% | |
| 6) Phenol-D6 (S) | 4.90 | 99 | 1255729 | 177.9542 ppb | -0.04 |
| Spiked Amount 250.000 | | | Recovery = | 71.182% | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 583153 | 86.7238 ppb | -0.04 |
| Spiked Amount 125.000 | | | Recovery = | 69.379% | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 1100027 | 80.0579 ppb | -0.03 |
| Spiked Amount 125.000 | | | Recovery = | 64.046% | |
| 64) 2,4,6-Tribromophenol(S) | 9.72 | 330 | 246603 | 199.9492 ppb | 0.00 |
| Spiked Amount 250.000 | | | Recovery = | 79.980% | |
| 82) Terphenyl-D14(S) | 12.39 | 244 | 1107912 | 82.0883 ppb | 0.00 |
| Spiked Amount 125.000 | | | Recovery = | 65.670% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.61 | 58 | 4063 | 4.1559 | 94 |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 90236 | 49.1707 ppb | 94 |
| 4) Pyridine | 1.87 | 79 | 156071 | 35.3622 ppb | 97 |
| 7) Phenol | 4.91 | 94 | 392120 | 50.2207 ppb | 86 |
| 8) Aniline | 4.92 | 93 | 338957 | 44.5309 ppb | 97 |
| 9) Bis (2-chloroethyl) ether | 4.99 | 63 | 173135 | 49.8911 ppb | 99 |
| 10) 2-Chlorophenol | 5.05 | 128 | 286020 | 50.3530 ppb | 97 |
| 11) 1,3-DCB | 5.22 | 146 | 260643 | 43.7109 ppb | 99 |
| 12) 1,4-DCB | 5.30 | 146 | 271167 | 44.2228 ppb | 98 |
| 13) Benzyl alcohol | 5.47 | 108 | 171382 | 51.8859 ppb | 93 |
| 14) 1,2-DCB | 5.48 | 146 | 258826 | 45.5442 ppb | 98 |
| 15) 2-Methylphenol | 5.60 | 107 | 249840 | 50.4887 ppb | 99 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 245722 | 48.0719 ppb | 92 |
| 17) Acetophenone | 5.75 | 105 | 383805 | 50.6450 ppb | 86 |
| 18) 3&4-Methylphenol | 5.77 | 107 | 607240 | 102.2287 ppb | 98 |
| 19) n-Nitrosodi-n-propylamine | 5.75 | 70 | 210050 | 50.5015 ppb | 94 |
| 20) Hexachloroethane | 5.85 | 117 | 89444 | 38.7492 ppb | 98 |
| 23) Nitrobenzene | 5.95 | 77 | 311569 | 47.9667 ppb | 91 |
| 24) Isophorone | 6.23 | 82 | 540677 | 47.8654 ppb | 96 |
| 25) 2-Nitrophenol | 6.31 | 139 | 164552 | 49.9744 ppb | 95 |
| 26) 2,4-Dimethylphenol | 6.37 | 122 | 282192 | 54.3684 ppb | 97 |
| 27) Benzoic acid | 6.56 | 105 | 231751 | 64.9784 ppb | 98 |
| 28) Bis (2-chloroethoxy) metha | 6.47 | 93 | 332134 | 48.1340 ppb | 100 |
| 29) 2,4-Dichlorophenol | 6.60 | 162 | 223378 | 50.7541 ppb | 94 |
| 30) 1,2,4-Trichlorobenzene | 6.67 | 180 | 211036 | 43.6806 ppb | 97 |
| 31) 3,4-Dimethylphenol | 6.71 | 107 | 374134 | 48.7443 ppb | 100 |
| 32) Naphthalene | 6.77 | 128 | 809901 | 47.0254 ppb | 100 |
| 33) 4-Chloroaniline | 6.84 | 127 | 166555 | 26.2322 ppb | 98 |
| 34) 2,6-Dichlorophenol | 6.84 | 162 | 216624 | 48.9534 ppb | 97 |
| 35) Hexachloropropene | 6.86 | 213 | 91406 | 34.0503 ppb | 98 |
| 36) Hexachlorobutadiene | 6.89 | 225 | 90769 | 38.3000 ppb | 98 |
| 37) Caprolactum | 7.28 | 55 | 112075 | 50.5372 ppb | 92 |

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y206.D Vial: 6
Acq On : 26 Apr 19 22:25 Operator: MA
Sample : AZ90051W40 MSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.42 | 107 | 274662 | 51.4834 | ppb | | 99 |
| 39) | 2-Methylnaphthalene | 7.57 | 142 | 507859 | 46.2442 | ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.68 | 142 | 534875 | 46.9936 | ppb | | 97 |
| 42) | Hexachlorocyclopentadiene | 7.73 | 237 | 1168 | 19.9069 | ppb | # | 79 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.76 | 216 | 207846 | 42.7793 | ppb | | 99 |
| 44) | 2,4,6-Trichlorophenol | 7.91 | 196 | 150423 | 48.1438 | ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 7.96 | 196 | 159899 | 47.6173 | ppb | | 90 |
| 47) | 1,1'-Biphenyl | 8.10 | 154 | 660496 | 42.9376 | ppb | | 98 |
| 48) | 2-Chloronaphthalene | 8.13 | 162 | 501978 | 43.3858 | ppb | | 98 |
| 49) | 2-Nitroaniline | 8.27 | 65 | 169543 | 44.7118 | ppb | | 95 |
| 50) | Dimethyl phthalate | 8.47 | 163 | 627160 | 46.6381 | ppb | | 99 |
| 51) | 2,6-DNT | 8.55 | 165 | 144709 | 46.0199 | ppb | # | 74 |
| 52) | Acenaphthylene | 8.61 | 152 | 793550 | 43.3348 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.75 | 138 | 137000 | 39.6362 | ppb | | 89 |
| 54) | Acenaphthene | 8.82 | 154 | 513709 | 43.5527 | ppb | | 100 |
| 55) | 2,4-Dinitrophenol | 8.89 | 184 | 68608 | 46.8496 | ppb | | 86 |
| 56) | 4-Nitrophenol | 8.98 | 65 | 117193 | 60.4084 | ppb | | 80 |
| 57) | Dibenzofuran | 9.02 | 168 | 704122 | 43.9875 | ppb | | 92 |
| 58) | 2,4-DNT | 9.03 | 165 | 196443 | 46.2225 | ppb | | 95 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.17 | 232 | 114038 | 53.4805 | ppb | | 95 |
| 60) | Diethyl phthalate | 9.29 | 149 | 599861 | 45.2024 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.42 | 204 | 272145 | 44.4903 | ppb | | 98 |
| 62) | Fluorene | 9.42 | 166 | 588732 | 44.0906 | ppb | | 99 |
| 63) | 4-Nitroaniline | 9.48 | 138 | 134985 | 38.6054 | ppb | | 93 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.51 | 198 | 113285 | 48.9318 | ppb | | 92 |
| 67) | Diphenyl amine | 9.57 | 169 | 845090 | 81.1744 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.57 | 169 | 845090 | 81.1744 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.61 | 77 | 621842 | 42.6787 | ppb | | 99 |
| 70) | 4-Bromophenyl phenyl ether | 10.00 | 248 | 146158 | 44.9963 | ppb | # | 81 |
| 71) | Hexachlorobenzene | 10.06 | 284 | 137192 | 45.4754 | ppb | | 99 |
| 72) | Atrazine | 10.19 | 200 | 75316 | 21.1695 | ppb | | 98 |
| 73) | Pentachlorophenol | 10.31 | 266 | 63223 | 57.8308 | ppb | | 97 |
| 74) | Phenanthrene | 10.55 | 178 | 827806 | 43.6584 | ppb | | 100 |
| 75) | Anthracene | 10.62 | 178 | 861056 | 42.9888 | ppb | | 100 |
| 76) | Carbazol | 10.81 | 167 | 809193 | 43.8699 | ppb | | 98 |
| 77) | Di-n-butylphthalate | 11.20 | 149 | 1030345 | 44.6089 | ppb | | 99 |
| 78) | Fluoranthene | 11.96 | 202 | 898205 | 45.3058 | ppb | | 99 |
| 80) | Benzidine | 12.12 | 184 | 31977 | 7.3021 | ppb | | 94 |
| 81) | Pyrene | 12.23 | 202 | 930999 | 45.7367 | ppb | | 98 |
| 83) | Butyl benzylphthalate | 12.96 | 149 | 464710 | 45.0986 | ppb | | 99 |
| 84) | 3,3'-Dichlorobenzidine | 13.59 | 252 | 152732 | 29.8437 | ppb | # | 96 |
| 85) | Benz (a) anthracene | 13.63 | 228 | 784699 | 43.5942 | ppb | | 98 |
| 86) | Bis (2-ethylhexyl) phthala | 13.62 | 149 | 663065 | 44.9261 | ppb | | 100 |
| 87) | Chrysene | 13.67 | 228 | 760831 | 43.8400 | ppb | | 100 |
| 88) | Di-n-octylphthalate | 14.37 | 149 | 1110146 | 43.6230 | ppb | | 97 |
| 90) | Benzo (b) fluoranthene | 14.94 | 252 | 770659 | 49.1979 | ppb | | 99 |
| 91) | Benzo (k) fluoranthene | 14.97 | 252 | 682558 | 43.5736 | ppb | | 98 |
| 92) | Benzo (a) pyrene | 15.40 | 252 | 677411 | 43.4212 | ppb | | 99 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.39 | 276 | 705311 | 42.0222 | ppb | | 99 |
| 94) | Dibenz (a,h) anthracene | 17.40 | 278 | 631556 | 42.9177 | ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 17.95 | 276 | 584198 | 43.6148 | ppb | | 99 |

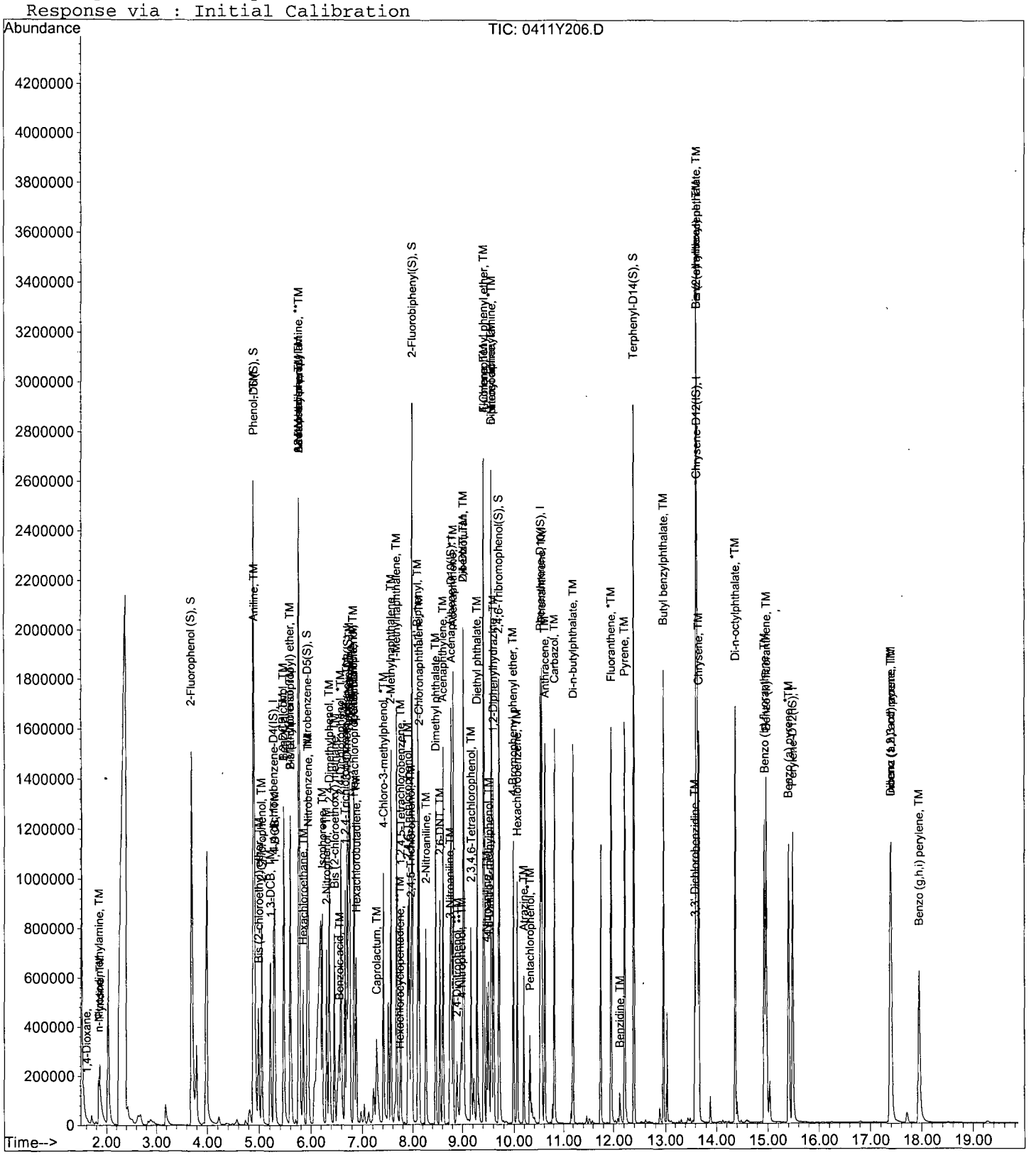
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y206.D Vial: 6
Acq On : 26 Apr 19 22:25 Operator: MA
Sample : AZ90051W40 MSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Apr 29 9:23 2019 Quant Results File: Y0319NC.RES

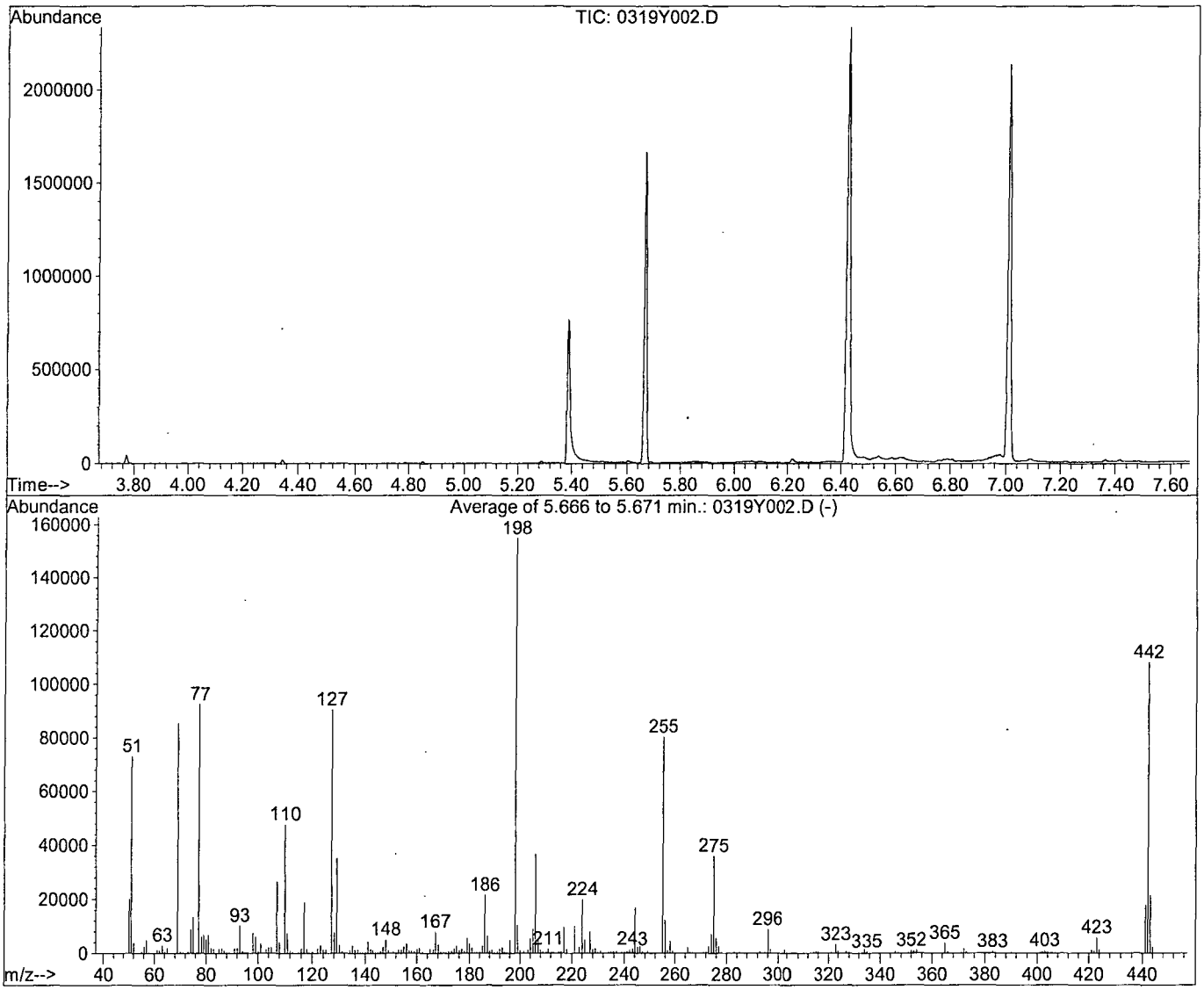
Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 23 17:24:10 2019
Response via : Initial Calibration



DFTPP

Data File : M:\YODA\DATA\Y190319\0319Y002.D  Vial: 2
Acq On : 19 Mar 19 18:15  Operator: MA
Sample : SV Tune 11/10/18  Inst : Yoda
Misc :  Multiplr: 1.00

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C




AutoFind: Scans 833, 834, 835; Background Corrected with Scan 824

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 47.2 | 73142 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.6 | 492 | PASS |
| 127 | 198 | 10 | 80 | 58.4 | 90499 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 154987 | PASS |
| 199 | 198 | 5 | 9 | 6.7 | 10387 | PASS |
| 275 | 198 | 10 | 60 | 23.1 | 35872 | PASS |
| 365 | 198 | 1 | 100 | 2.4 | 3731 | PASS |
| 441 | 442 | 0.01 | 24 | 16.3 | 17617 | PASS |
| 442 | 198 | 50 | 150 | 69.9 | 108320 | PASS |
| 443 | 442 | 15 | 24 | 19.7 | 21288 | PASS |

| | |
|---|---|
| Data File Name: | **0319Y002.D** |
| Data File Path: | **M:\YODA\DATA\Y190319** |
| Operator: | **MA** |
| Date Acquired: | **19 Mar 2019 18:15** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV Tune 11/10/18** |
| Vial Number: | **2** |
| Instrument Name: | **Yoda** |

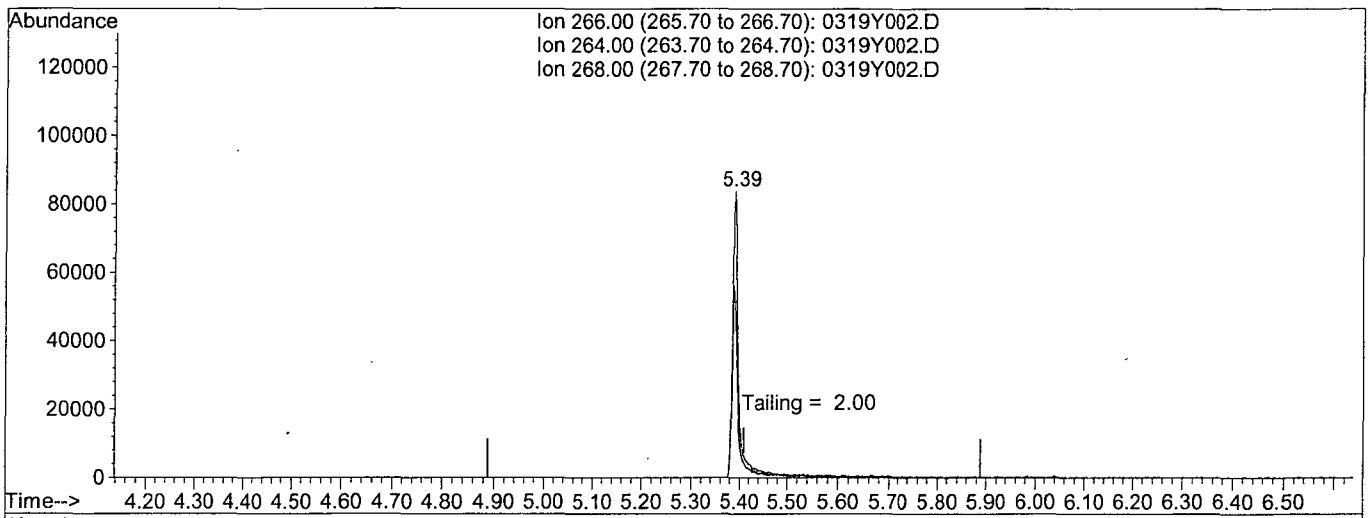
| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.01 | 15502300 |
| 2) | DDD | 6.80 | 149561 |
| 3) | DDE | 6.95 | 46466 |

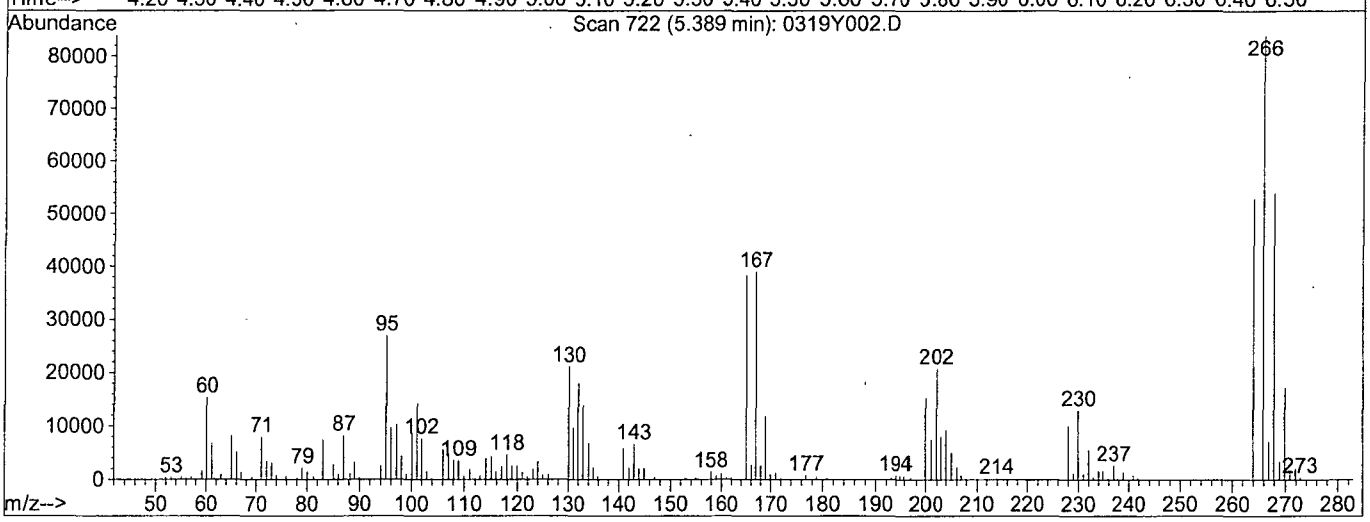
Breakdown **1.25**

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y002.D Vial: 2
Acq On : 19 Mar 19 18:15 Operator: MA
Sample : SV Tune 11/10/18 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Mar 19 19:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190319\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Wed Mar 20 00:14:48 2019
Response via : Single Level Calibration




TIC: 0319Y002.D

(5) Pentachlorophenol

5.39min 0.0000

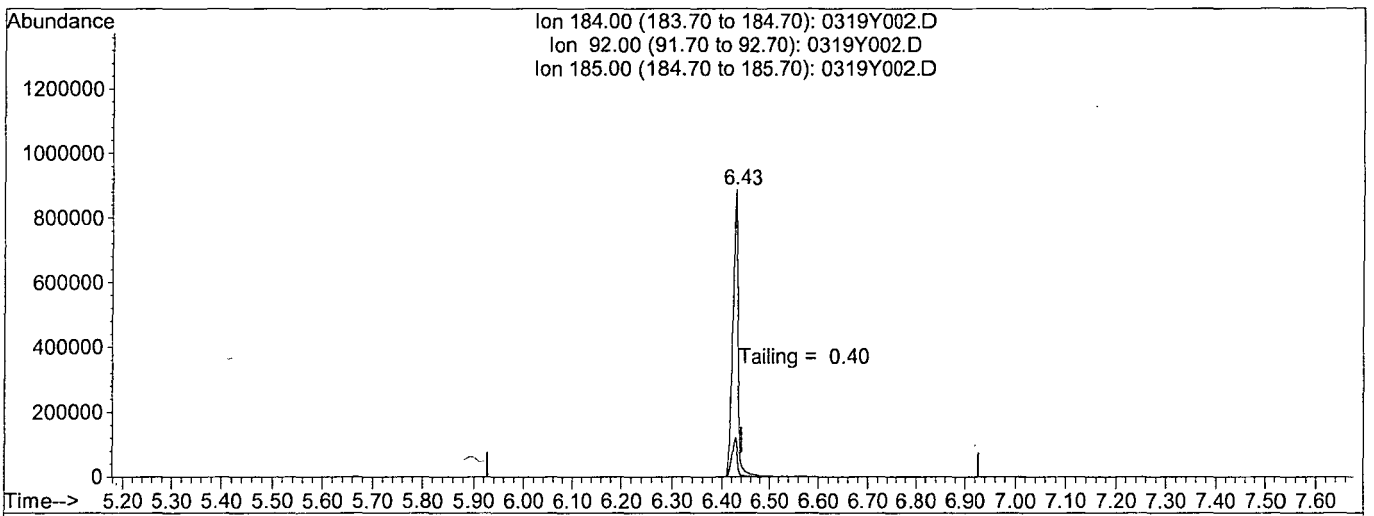
response 676097

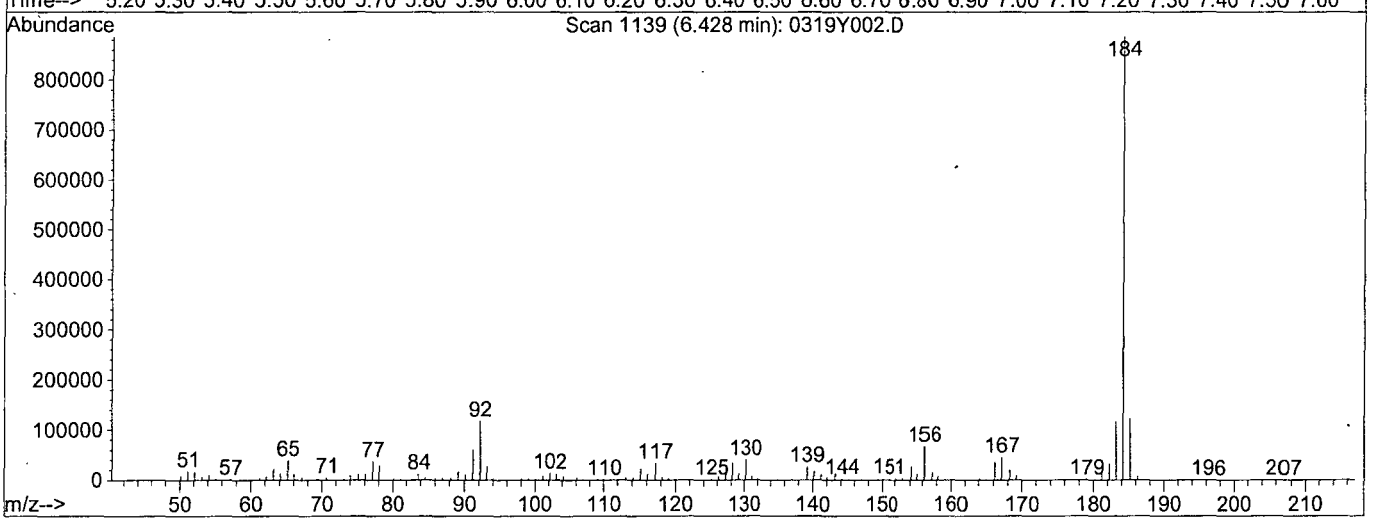
| Ion | Exp% | Act% |
|---|---|---|
| 266.00 | 100 | 100 |
| 264.00 | 63.10 | 59.85 |
| 268.00 | 64.40 | 64.59 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y002.D Vial: 2
Acq On : 19 Mar 19 18:15 Operator: MA
Sample : SV Tune 11/10/18 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Mar 19 19:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190319\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Wed Mar 20 00:14:48 2019
Response via : Single Level Calibration




TIC: 0319Y002.D

(6) Benzidine

6.43min 0.0000

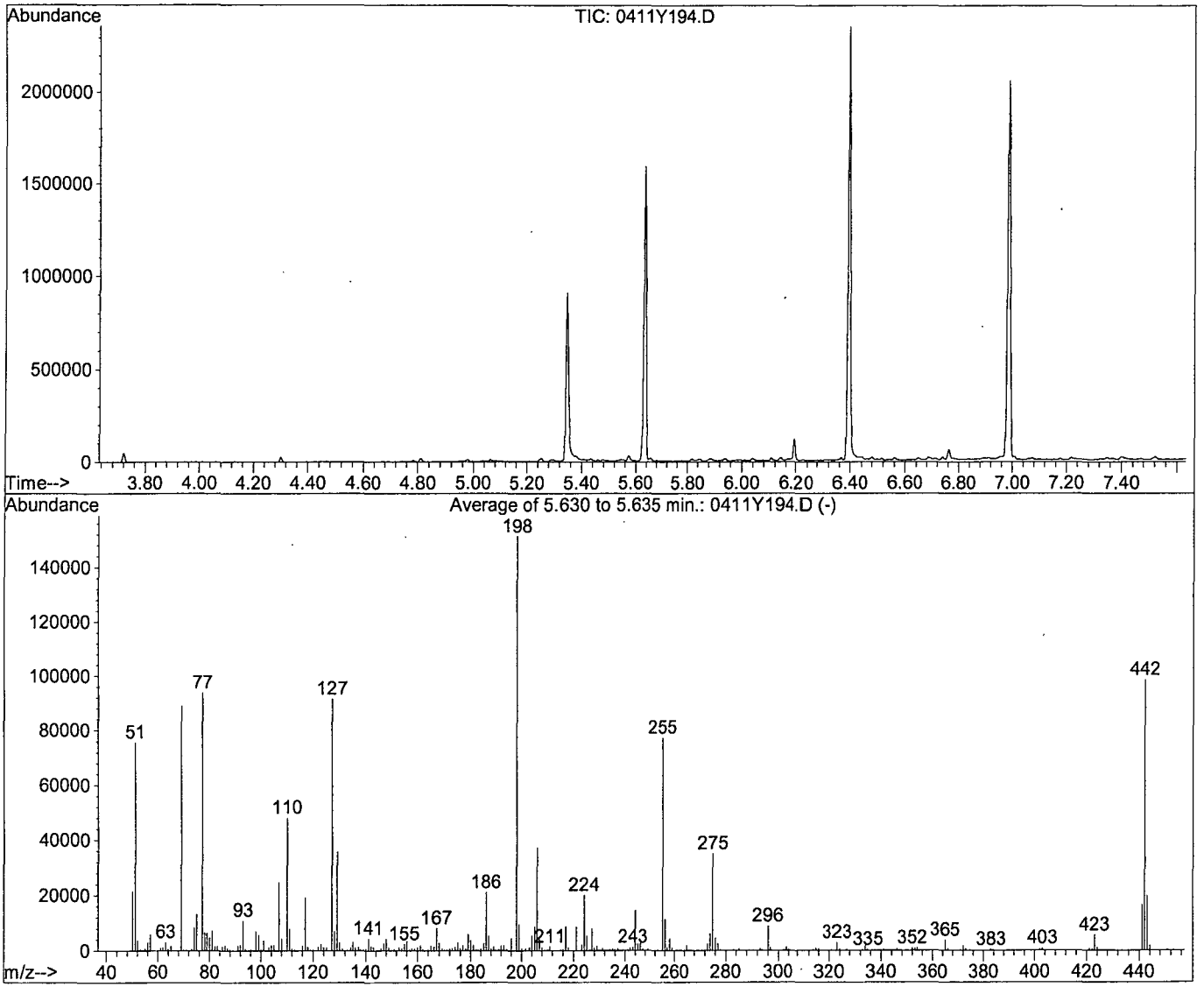
response 6732623

| Ion | Exp% | Act% |
|---|---|---|
| 184.00 | 100 | 100 |
| 92.00 | 13.20 | 13.26 |
| 185.00 | 13.60 | 13.98 |
| 0.00 | 0.00 | 0.00 |

DFTPP

Data File : M:\YODA\DATA\Y190411\0411Y194.D  Vial: 94
Acq On : 26 Apr 19 17:03  Operator: MA
Sample : SV TUNE 10/11/18  Inst : Yoda
Misc :  Multiplr: 1.00

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C




AutoFind: Scans 819, 820, 821; Background Corrected with Scan 812

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 49.9 | 75560 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.3 | 272 | PASS |
| 127 | 198 | 10 | 80 | 60.5 | 91643 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 151403 | PASS |
| 199 | 198 | 5 | 9 | 6.3 | 9568 | PASS |
| 275 | 198 | 10 | 60 | 23.2 | 35051 | PASS |
| 365 | 198 | 1 | 100 | 2.5 | 3766 | PASS |
| 441 | 442 | 0.01 | 24 | 16.7 | 16471 | PASS |
| 442 | 198 | 50 | 150 | 65.1 | 98613 | PASS |
| 443 | 442 | 15 | 24 | 20.0 | 19727 | PASS |

| | |
|---|---|
| Data File Name: | **0411Y194.D** |
| Data File Path: | **M:\YODA\DATA\Y190411** |
| Operator: | **MA** |
| Date Acquired: | **26 Apr 2019 17:03** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV TUNE 10/11/18** |
| Vial Number: | **94** |
| Instrument Name: | **Yoda** |

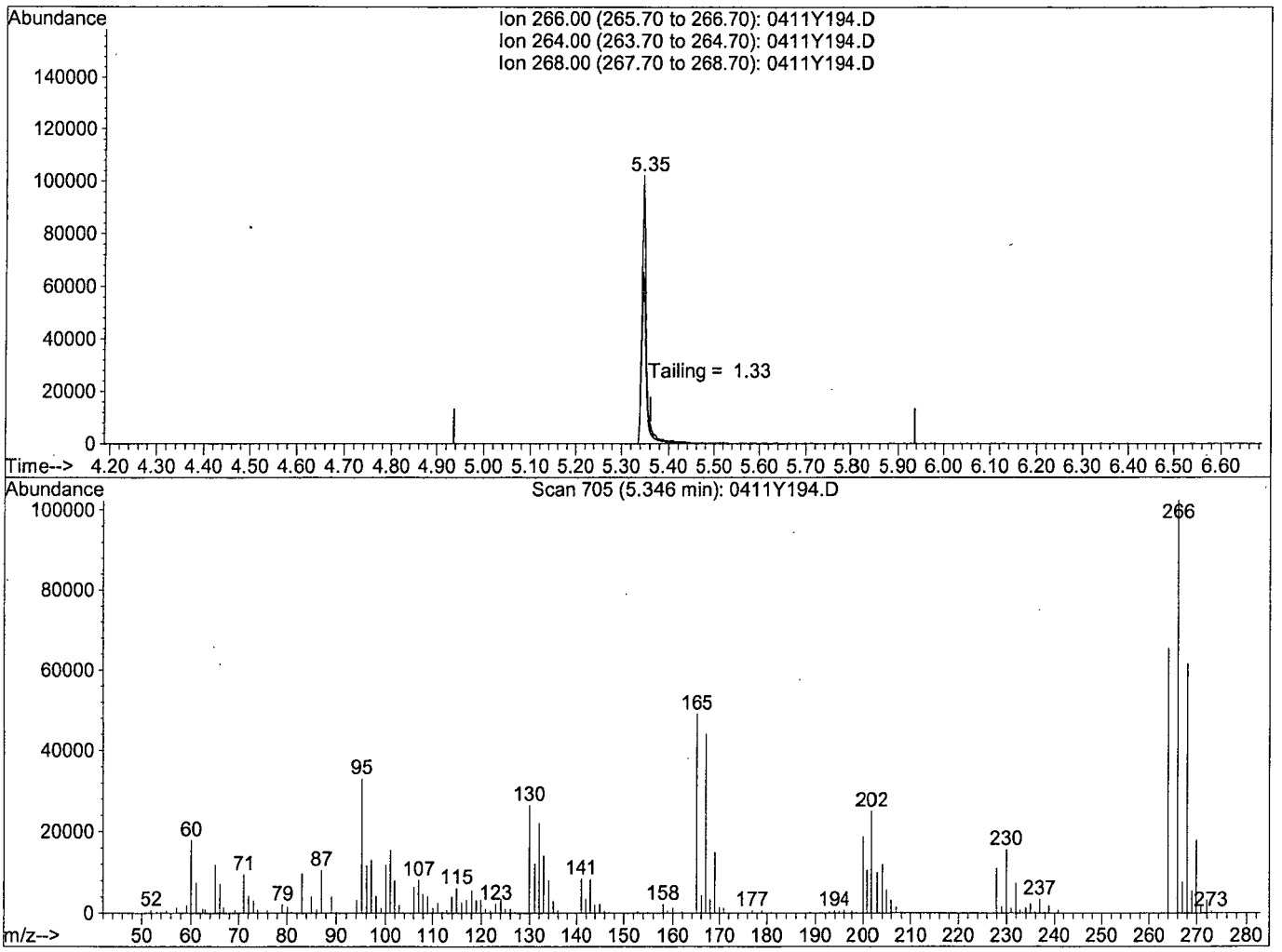
| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.08 | 14939900 |
| 2) | DDD | 6.75 | 114696 |
| 3) | DDE | 6.86 | 0 |

Breakdown **0.76**

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y194.D Vial: 94
Acq On : 26 Apr 19 17:03 Operator: MA
Sample : SV TUNE 10/11/18 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Apr 26 16:57 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190411\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 22 13:05:57 2019
Response via : Single Level Calibration




TIC: 0411Y194.D

(5) Pentachlorophenol

5.35min 0.0000

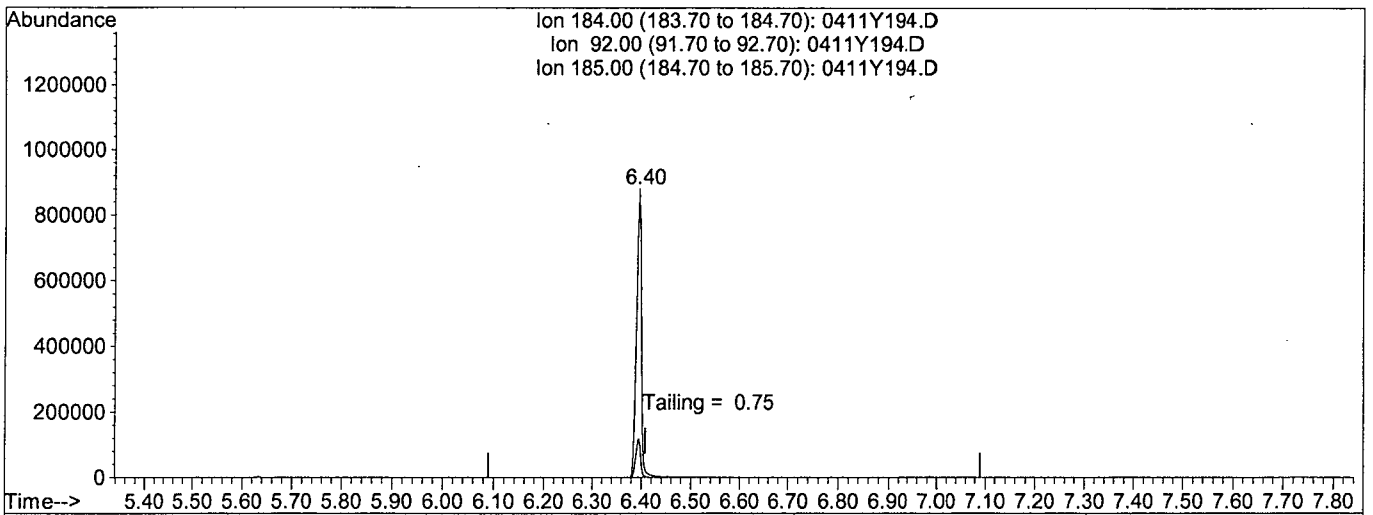
response 676111

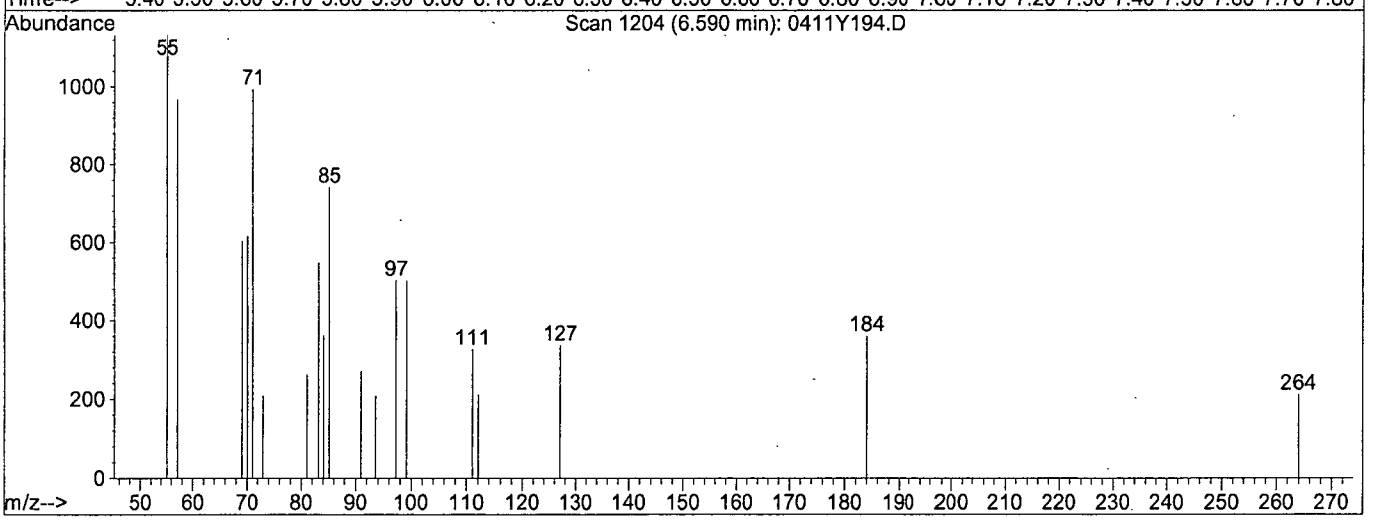
| Ion | Exp% | Act% |
|---|---|---|
| 266.00 | 100 | 100 |
| 264.00 | 61.20 | 58.82 |
| 268.00 | 65.20 | 61.30 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y194.D Vial: 94
Acq On : 26 Apr 19 17:03 Operator: MA
Sample : SV TUNE 10/11/18 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Apr 26 16:57 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190411\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 22 13:05:57 2019
Response via : Single Level Calibration




TIC: 0411Y194.D

(6) Benzidine

6.59min 0.0000

response 0

| Ion | Exp% | Act% |
|---|---|---|
| 184.00 | 100 | 0.00 |
| 92.00 | 13.60 | 0.00# |
| 185.00 | 14.10 | 0.00# |
| 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Name of Final Standard** | 8270 Full Scan Standard Curve | **Prep'd By (Initials)** | **GA** |
| **Prep Date** | **03/13/19** | | |
| **Exp Date** | **09/13/19** | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | **03/05/19** | **10/20/19** | 4 uL | 200uL | **MC 56258 192uL** | 4 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | **10/17/18** | **09/27/19** | 4 uL | * | * | * |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | **02/09/19** | **02/09/20** | 4 uL | * | * | * |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | **03/05/19** | **10/20/19** | 5 uL | 200uL | **MC 56258 190uL** | 5 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | **10/17/18** | **09/27/19** | 5 uL | * | * | * |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | **02/09/19** | **02/09/20** | 4 uL | * | * | * |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | **03/05/19** | **10/20/19** | 5 uL | 100uL | **MC 56258 90uL** | 10 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | **10/17/18** | **09/27/19** | 5 uL | * | * | * |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | **02/09/19** | **02/09/20** | 2 uL | * | * | * |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | **03/05/19** | **10/20/19** | 10 uL | 100uL | **MC 56258 80uL** | 20 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | **10/17/18** | **09/27/19** | 10 uL | * | * | * |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | **02/09/19** | **02/09/20** | 2 uL | * | * | * |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | **03/05/19** | **10/20/19** | 20 uL | 100uL | **MC 56258 60uL** | 40 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | **10/17/18** | **09/27/19** | 20 uL | * | * | * |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | **02/09/19** | **02/09/20** | 2 uL | * | * | * |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | **03/05/19** | **10/20/19** | 50 uL | 200 uL | **MC 56258 100uL** | 50 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | **10/17/18** | **09/27/19** | 50 uL | * | * | * |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | **02/09/19** | **02/09/20** | 4 uL | * | * | * |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | **03/05/19** | **10/20/19** | 30 uL | 100uL | **MC 56258 40uL** | 60 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | **10/17/18** | **09/27/19** | 30 uL | * | * | * |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | **02/09/19** | **02/09/20** | 2 uL | * | * | * |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | **03/05/19** | **10/20/19** | 40 uL | 100uL | **MC 56258 20uL** | 80 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | **10/17/18** | **09/27/19** | 40 uL | * | * | * |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | **02/09/19** | **02/09/20** | 2 uL | * | * | * |
| 8270 Stock | APPL | 8270 Stock | 200 ug/mL | **03/05/19** | **10/20/19** | 50 uL | 100uL | **na** | 100 ug/mL |
| 8270 Surrogate | APPL | 8270 Surrogate | 200/400 ug/mL | **10/17/18** | **09/27/19** | 50 uL | * | * | * |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | **02/09/19** | **02/09/20** | 2 uL | * | * | * |

| | | | |
|---|---|---|---|
| **Name of Final Standard** | 8270 Full Scan Second Source | **Prep'd By (Initials)** | **GA** |
| **Prep Date** | **03/13/19** | | |
| **Exp Date** | **09/13/19** | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 8270 SS Stock | o2si | 8270 SS Stock | 200 ug/mL | **03/05/19** | **01/08/20** | 50 uL | 200uL | **MC 56258 150uL** | 50 ug/mL |
| SV Internal Standard | APPL | SV Internal Standard | 2000 ug/mL | **01/16/19** | **01/16/20** | 4 uL | * | * | * |

| Name of Final Standard | 8270 Full Scan Spike | Prep'd By (Initials) | GA |
|---|---|---|---|
| Prep Date | 03/05/19 | | |
| Exp Date | 10/20/19 | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 10001 | Absolute | 10001 | 2000 | 051018-39827<br>051018-39828 | 03/05/20 | 2.0 mL | 20 mL | NA | 200 ug/mL |
| 10002 | Absolute | 10002 | 2000 | 051018-39832<br>051018-39833 | 03/05/20 | 2.0 mL | * | * | 200 ug/mL |
| 10004 | Absolute | 10004 | 2000 | 031618-39836<br>031618-39839 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10005 | Absolute | 10005 | 2000 | 032018-40011<br>032018-40012 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10006 | Absolute | 10006 | 2000 | 071318-39842<br>071318-39843 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10007 | Absolute | 10007 | 2000 | 080116-40016<br>080116-40017 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10018 | Absolute | 10018 | 2000 | 062718-39847<br>062718-39848 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 70023 | Absolute | 70023 | 1000 | 091217-39852<br>091217-39853 | 01/30/20 | 2.0 mL | * | * | 100 ug/mL |
| 82705 | Absolute | 82705 | 2000 | 081418-40020<br>081418-40021 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 94552 | Absolute | 94552 | various | 102017-40026<br>102017-40027 | 10/20/19 | 2.0 mL | * | * | various |

| Name of Final Standard | 8270 SS STOCK | Prep'd By (Initials) | GA |
|---|---|---|---|
| Prep Date | 03/05/19 | | |
| Exp Date | 01/08/20 | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 10001 | Absolute | 10001 | 2000 | 031618-39202 | 03/05/20 | 1.0 mL | 10 mL | NA | 200 ug/mL |
| 10002 | Absolute | 10002 | 2000 | G34-020217-38182 | 02/02/20 | 1.0 mL | * | * | 200 ug/mL |
| 10004 | Absolute | 10004 | 2000 | 010815-38625 | 01/08/20 | 1.0 mL | * | * | 200 ug/mL |
| 10005 | Absolute | 10005 | 2000 | 041317-37804 | 03/05/20 | 1.0 mL | * | * | 200 ug/mL |
| 10006 | Absolute | 10006 | 2000 | 011718-38827 | 03/05/20 | 1.0 mL | * | * | 200 ug/mL |
| 10007 | Absolute | 10007 | 2000 | 020515-38627 | 02/05/20 | 1.0 mL | * | * | 200 ug/mL |
| 10018 | Absolute | 10018 | 2000 | G34-030216-38195 | 03/05/20 | 1.0 mL | * | * | 200 ug/mL |
| 70023 | Absolute | 70023 | 1000 | 013118-38830 | 03/05/20 | 1.0 mL | * | * | 100 ug/mL |
| 82705 | Absolute | 82705 | 2000 | 090617-38832 | 03/05/20 | 1.0 mL | * | * | 200 ug/mL |
| 94552 | Absolute | 94552 | various | 013118-40453 | 01/31/20 | 1.0 mL | * | * | various |

| | | | |
|---|---|---|---|
| **Name of Final Standard** | 8270 Internal Standard (Ampule) | **Prep'd By (Initials)** | **GA** |
| **Prep Date** | **02/09/19** | | |
| **Exp Date** | **02/09/20** | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Semivolatile Internal Standard | Restek | 31206 | 2mg/mL | **A0138585-39540** | **01/16/20** | 1 mL | 1 mL | NA | 2mg/mL |

| | |
|---|---|
| **Name of Final Standard** | **8270 Surrogate 200/400 ppm** |
| **Prep Date** | **10/17/18** |
| **Exp Date** | **09/27/19** |

**Prep'd By (Initials)** **GA**

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 8270 Acid Surrogate Mix | Restek | 33029 | 10,000 ug/mL | **A0136352-39395** | **10/17/19** | 200 uL | 5 mL | **MC 56258** | 400 ug/mL |
| 8270 B/N Surrogate Mix | Restek | 31086 | 5000 ug/mL | **A0135243-39166** | **09/27/19** | 200 uL | " | " | 200 ug/mL |

| | |
|---|---|
| **Name of Final Standard** | 8270 Full Scan Spike |
| **Prep Date** | 01/30/19 |
| **Exp Date** | 10/20/19 |

**Prep'd By (Initials)** GA

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 10001 | Absolute | 10001 | 2000 | 051018-39825<br>051018-39826 | 01/30/20 | 2.0 mL | 20 mL | NA | 200 ug/mL |
| 10002 | Absolute | 10002 | 2000 | 051018-39830<br>051018-39831 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10004 | Absolute | 10004 | 2000 | 031618-39834<br>031618-39835 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10005 | Absolute | 10005 | 2000 | 032018-39611<br>032018-40010 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10006 | Absolute | 10006 | 2000 | 071318-39840<br>071318-39841 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10007 | Absolute | 10007 | 2000 | 080116-39616<br>080116-40015 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 10018 | Absolute | 10018 | 2000 | 062718-39845<br>062718-39846 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 70023 | Absolute | 70023 | 1000 | 091217-39850<br>091217-39851 | 01/30/20 | 2.0 mL | * | * | 100 ug/mL |
| 82705 | Absolute | 82705 | 2000 | 081418-39620<br>081418-39621 | 01/30/20 | 2.0 mL | * | * | 200 ug/mL |
| 94552 | Absolute | 94552 | various | 102017-40025<br>102017-40225 | 10/20/19 | 2.0 mL | * | * | various |

| | |
|---|---|
| **Name of Final Standard** | 8270 Surrogate 100/200 ppm |
| **Prep Date** | 01/30/19 |
| **Exp Date** | 12/06/19 |

**Prep'd By (Initials)** GA

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 8270 Acid Surrogate Mix | Restek | 33029 | 10,000 ug/mL | A0132399 -39396 | 01/30/20 | 5.0 mL | 250 mL | Acetone #101717I | 200 ug/mL |
| 8270 B/N Surrogate Mix | Restek | 31086 | 5000 ug/mL | A0140132 - 39546 & 39547 | 12/06/19<br>01/30/20 | 5.0 mL | 250 mL | * | 100 ug/mL |

# Organic Extraction Worksheet

| Method | Continuous Liquid/Liquid SVOC 3520C | Extraction Set | 190424A | Extraction Method | LIQ003 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | 8270T Spike 4-12-19 EXP 10-20-19 | | Surrogate ID 1 | 8270 Surrogate 4-10-19 EXP 3-15-20 | |
| Spiked ID 2 | Sim Spike 3-20-19 EXP 3-20-20 | | Surrogate ID 2 | SIM Surrogate 3-25-19 EXP 3-25-20 | |
| 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: | yes | |
| Spiked ID 7 | | | Ext. Start Time: | 04/24/19 14:25, 04/25/19 11:20 | |
| Spiked ID 8 | | | Ext. End Time: | 04/25/19 9:30, 04/26/19 17:30. 4/26/19 14:30 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 04/24/19 1:05:00 PM | Water Bath Temp Criteria | 75,70 °C |
| pH2 | 14 | 4/24/19 11:10:00 AM | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/24/19 **Witnessed By:** DL **Date** 04/24/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190424A Blk | | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP51 e-wb6 | | | | |
| 2 | 190424A LCS-1 | | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP50 E-WB6 | | | | |
| 3 | 190424A LCS-2 | | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP49 E-WB6 | | | | |
| 4 | 190424A LCSD-1 | | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP48 E-WB6 | | | | |
| 5 | 190424A LCSD-2 | | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | |
| | | | | | | equip | E-HP47 E-WB6 | | | | |
| 6 | AZ89958 MS-1 | AZ89958W28 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP25 E-WB6 | | | | |
| 7 | AZ89958 MSD-1 | AZ89958W34 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP26 E-WB6 | | | | |
| 8 | AZ89958 MS-2 | AZ89958W33 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP27 E-WB6 | | | | |
| 9 | AZ89958 MSD-2 | AZ89958W36 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP28 E-WB6 | | | | |
| 10 | AZ89958 | AZ89958W30 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP29 E-WB6 | | | | |
| 11 | AZ89959 | AZ89959W07 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP30 E-WB5 | | | | |
| 12 | AZ89961 | AZ89961W14 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88687 |
| | | | | | | equip | E-HP17 E-WB5 | | | | |
| 13 | AZ90051 MS-1 | AZ90051W39 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP10 E-WB5 | | | | |
| 14 | AZ90051 MSD-1 | AZ90051W40 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP9 E-WB5 | | | | |
| 15 | AZ90051 MS-2 | AZ90051W38 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP7 E-WB5 | | | | |
| 16 | AZ90051 MSD-2 | AZ90051W36 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP6 E-WB5 | | | | |

| Solvent and Lot# | |
|---|---|
| PH Strips | HC 863463 |
| Dichloromethane (DCM) | 58240 |
| 1+1 H2SO4 | 4-22-19 |
| 10N NaOH | 4-22-19 |
| Filter Paper | 400148 |
| Acidified Na2SO4 | 2-28-19 |
| B. Na2SO4 | 18D105205 |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | SS |
| Date | 4/26/19 |
| Time | 1100 |
| Refrigerator | GC-C |

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

| Modified | 04/30/19 12:47:43 PM |
|---|---|

**Reviewed By:** KS **Date** 4/30/19

# Organic Extraction Worksheet

| Method | Continuous Liquid/Liquid SVOC 3520C | Extraction Set | 190424A | Extraction Method | LIQ003 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | 8270T Spike 4-12-19 EXP 10-20-19 | | Surrogate ID 1 | 8270 Surrogate 4-10-19 EXP 3-15-20 | |
| Spiked ID 2 | Sim Spike 3-20-19 EXP 3-20-20 | | Surrogate ID 2 | SIM Surrogate 3-25-19 EXP 3-25-20 | |
| 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: | yes | |
| Spiked ID 7 | | | Ext. Start Time: | 04/24/19 14:25 , 04/25/19 11:20 | |
| Spiked ID 8 | | | Ext. End Time: | 04/25/19 9:30 , 04/26/19 17:30 , 4/26/19 14:20 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 04/24/19 1:05:00 PM | Water Bath Temp Criteria | 75,70 °C |
| pH2 | 14 | 4/24/19 11:10:00 AM | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/24/19 **Witnessed By:** DL **Date** 04/24/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | AZ90051 | AZ90051W37 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP11 E-WB5 | | | | |
| 18 | AZ90052 | AZ90052W11 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP13 E-WB5 | | | | |
| 19 | AZ90054 | AZ90054W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP16 E-WB5 | | | | |
| 20 | AZ90056 | AZ90056W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP15 E-WB5 | | | | |
| 21 | AZ90058 | AZ90058W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP14 E-WB5 | | | | |
| 22 | AZ90060 | AZ90060W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/24/19 13:00 | 88701 |
| | | | | | | equip | E-HP12 E-WB5 | | | | |

KS 4/30/19

| Solvent and Lot# | |
|---|---|
| PH Strips | HC 863463 |
| Dichloromethane (DCM) | 58240 |
| 1+1 H2SO4 | 4-22-19 |
| 10N NaOH | 4-22-19 |
| Filter Paper | 400148 |
| Acidified Na2SO4 | 2-28-19 |
| B. Na2SO4 | 18D105205 |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | |
| Date | |
| Time | |
| Refrigerator | |

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

| Modified | 04/30/19 12:47:43 PM |
|---|---|

**Reviewed By:** KS **Date** 4/30/19

# Injection Log

Directory: M:\YODA\DATA\Y190319\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 2 | 0319Y002.D | 1 | SV Tune 11/10/18 | | 19 Mar 19 18:15 |
| 2 | 3 | 0319Y003.D | 1 | 50ug/mL 8270 03/13/19 | | 19 Mar 19 18:31 |
| 3 | 4 | 0319Y004.D | 1 | 4ug/mL 8270 03/13/19 | | 19 Mar 19 18:58 |
| 4 | 5 | 0319Y005.D | 1 | 5ug/mL 8270 03/13/19 | | 19 Mar 19 19:26 |
| 5 | 6 | 0319Y006.D | 1 | 10ug/mL 8270 03/13/19 | | 19 Mar 19 19:54 |
| 6 | 7 | 0319Y007.D | 1 | 20ug/mL 8270 03/13/19 | | 19 Mar 19 20:22 |
| 7 | 8 | 0319Y008.D | 1 | 40ug/mL 8270 03/13/19 | | 19 Mar 19 20:49 |
| 8 | 9 | 0319Y009.D | 1 | 60ug/mL 8270 03/13/19 | | 19 Mar 19 21:17 |
| 9 | 10 | 0319Y010.D | 1 | 80ug/mL 8270 03/13/19 | | 19 Mar 19 21:44 |
| 10 | 11 | 0319Y011.D | 1 | 100ug/mL 8270 03/13/19 | | 19 Mar 19 22:11 |
| 11 | 12 | 0319Y012.D | 1 | SS-8270 03/13/19 | | 19 Mar 19 22:39 |
| 12 | 94 | 0411Y194.D | 1 | SV TUNE 10/11/18 | | 26 Apr 19 17:03 |
| 13 | 95 | 0411Y195.D | 1 | 50ug/ml 8270 3/13/19 | | 26 Apr 19 17:18 |
| 14 | 96 | 0411Y196.D | 1.25 | 190424A BLK 1/800 | | 26 Apr 19 17:46 |
| 15 | 97 | 0411Y197.D | 1.25 | 190424A LCS-1 1/800 | | 26 Apr 19 18:13 |
| 16 | 98 | 0411Y198.D | 1.25 | 190424A LCSD-1 1/800 | | 26 Apr 19 18:41 |
| 17 | 4 | 0411Y204.D | 1.25 | AZ90051W37 1/800 | | 26 Apr 19 21:29 |
| 18 | 5 | 0411Y205.D | 1.25 | AZ90051W39 MS-1 1/800 | | 26 Apr 19 21:57 |
| 19 | 6 | 0411Y206.D | 1.25 | AZ90051W40 MSD-1 1/800 | | 26 Apr 19 22:25 |
| 20 | 7 | 0411Y207.D | 1.25 | AZ90052W11 1/800 | | 26 Apr 19 22:53 |
| 21 | 8 | 0411Y208.D | 1.25 | AZ90054W22 1/800 | | 26 Apr 19 23:21 |
| 22 | 9 | 0411Y209.D | 1.25 | AZ90056W22 1/800 | | 26 Apr 19 23:49 |
| 23 | 10 | 0411Y210.D | 1.25 | AZ90058W22 1/800 | | 27 Apr 19 00:17 |
| 24 | 11 | 0411Y211.D | 1.25 | AZ90060W22 1/800 | | 27 Apr 19 00:45 |
| 25 | 12 | 0411Y212.D | 1 | 50ug/ml 8270 3/13/19 | | 27 Apr 19 1:12 |

# ORGANICS
# Calibration Data

2MEE
EPA 8270

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 04/30/19
Matrix: Instrument: Yoda
Initials: MH/LP

| | | | 0430Y003.D | 0430Y004.D | 0430Y005.D | 0430Y006.D | 0430Y007.D | 0430Y008.D | 0430Y009.D | 0430Y010.D | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | Avg | %RSD | Type | r^2 | Q | MRF |
| 1 | I | 1,4-dichlorobenzene-D4(IS) | | | | | | | | | | | | | | | | |
| 2 | TML | 2-(2-Methoxyethoxy)ethanol | 0.0855 | 0.1071 | 0.1202 | 0.1690 | 0.1716 | 0.1510 | 0.1681 | 0.1572 | | | 0.14 | 23 | TML | 0.992 | | |
| 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 | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | |
| 33 | | | | | | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y003.D Vial: 3
Acq On : 30 Apr 19 9:27 Operator: MA
Sample : 50ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 12:16 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 184530 | 40.00000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 792854 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 436769 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 740242 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 652884 | 40.00000 | ppb | 0.01 |
| 7) Perylene-D12(IS) | 15.14 | 264 | 661360 | 40.00000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.31 | 45 | 19721 | 51.20047 | ppb | 92 |

(#) = qualifier out of range (m) = manual integration
0430Y003.D YMEE0430.M Wed May 01 09:22:16 2019 Page 1

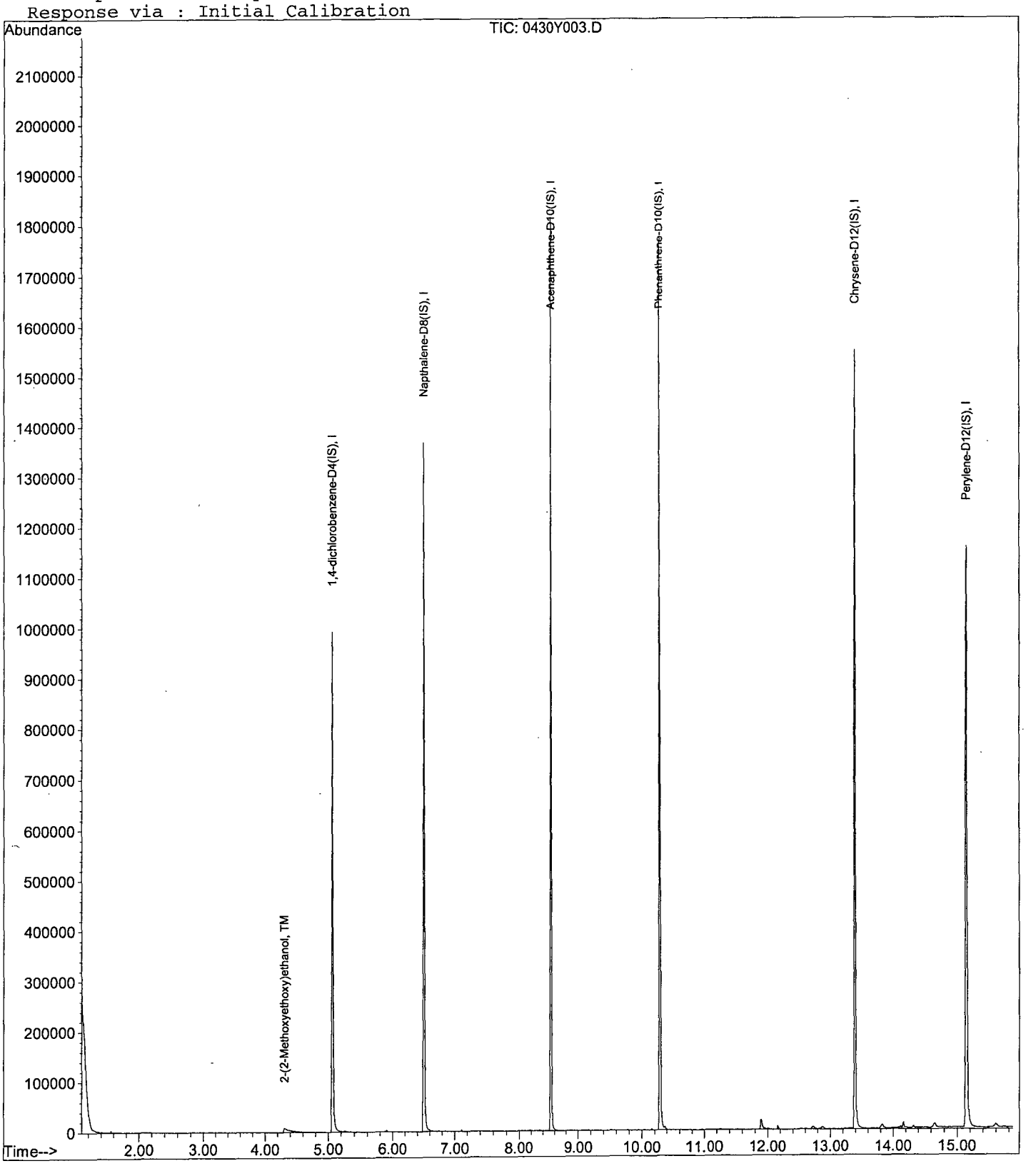
Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y003.D
Acq On : 30 Apr 19 9:27
Sample : 50ug/ml MEE 04/30/19
Misc : soil

Vial: 3
Operator: MA
Inst : Yoda
Multiplr: 1.00

Quant Time: Apr 30 12:16 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y004.D Vial: 4
Acq On : 30 Apr 19 9:50 Operator: MA
Sample : 100ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:44:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 187806 | 40.00000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 863865 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 468856 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 791427 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.38 | 240 | 668649 | 40.00000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 626815 | 40.00000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.27 | 45 | 50283 | 84.61640 | ppb | 97 |

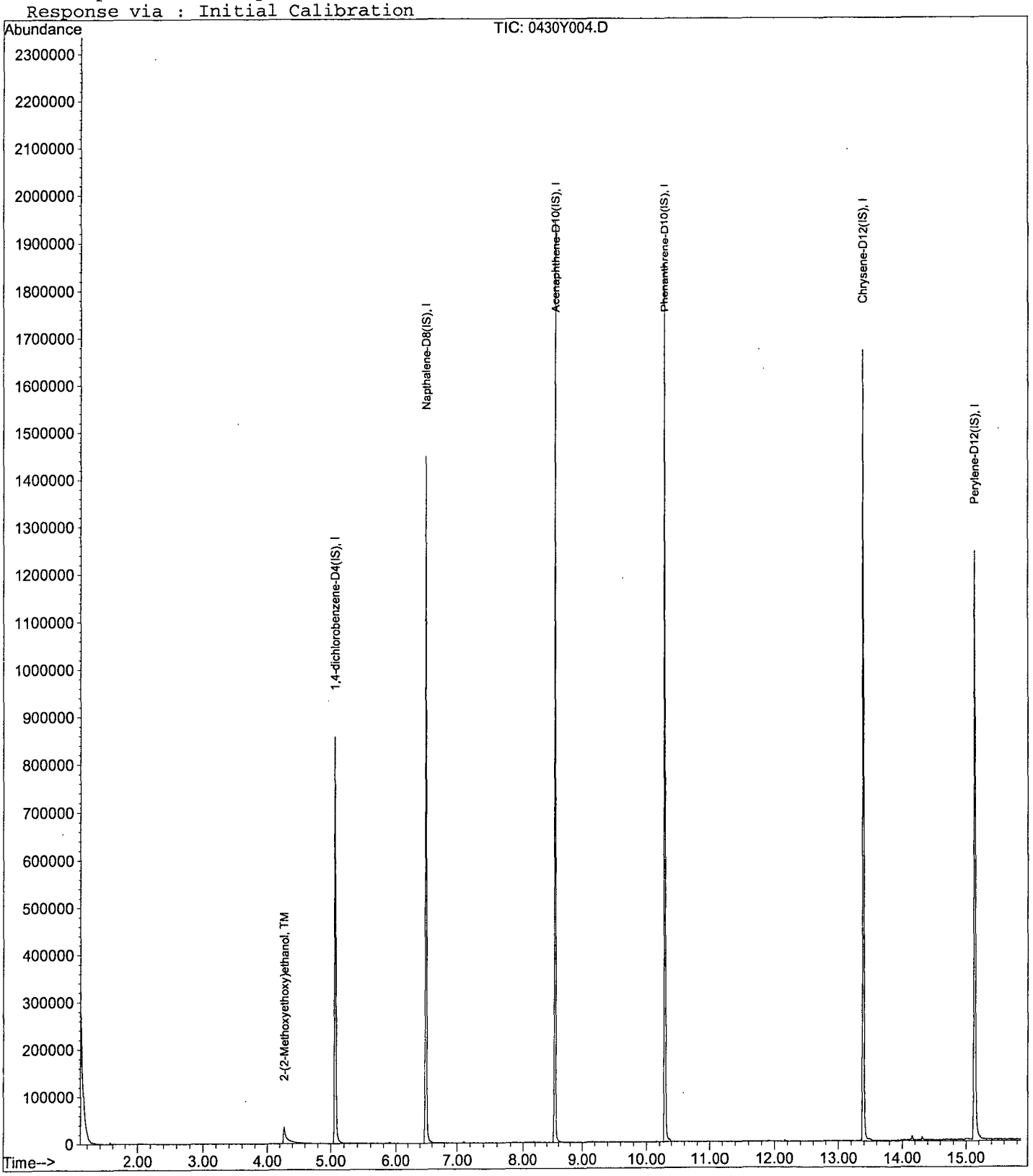
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y004.D Vial: 4
Acq On : 30 Apr 19 9:50 Operator: MA
Sample : 100ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y005.D Vial: 5
Acq On : 30 Apr 19 10:13 Operator: MA
Sample : 200ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:44:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 198152 | 40.00000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 841205 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 466203 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 786056 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.38 | 240 | 706531 | 40.00000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 682388 | 40.00000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.25 | 45 | 119065 | 189.90155 | ppb | 99 |

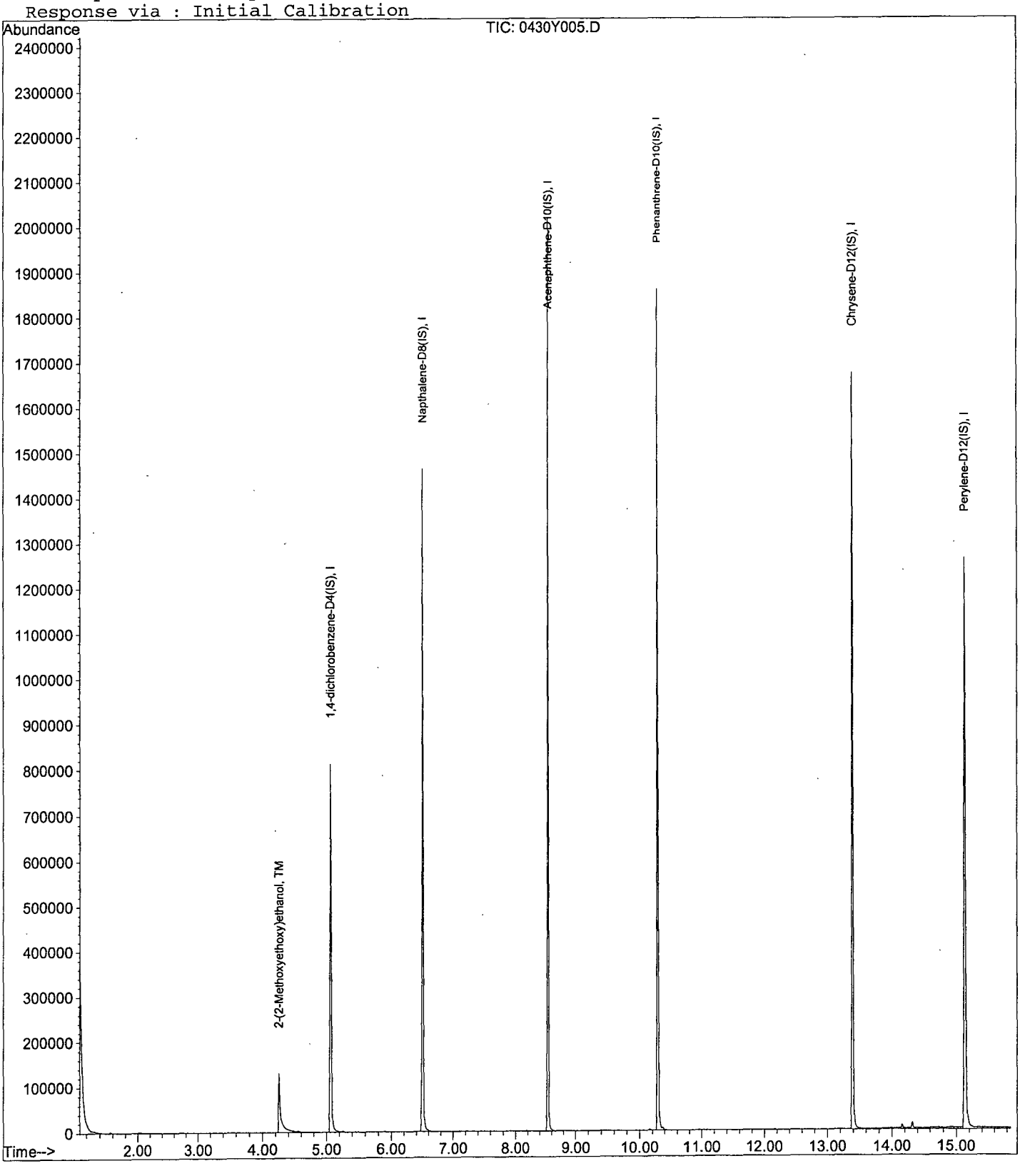
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y005.D Vial: 5
Acq On : 30 Apr 19 10:13 Operator: MA
Sample : 200ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y006.D Vial: 6
Acq On : 30 Apr 19 10:37 Operator: MA
Sample : 400ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:44:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 181654 | 40.00000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 797784 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 446801 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 742976 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.38 | 240 | 658989 | 40.00000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 628149 | 40.00000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.25 | 45 | 307070 | 534.23860 | ppb | 99 |

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

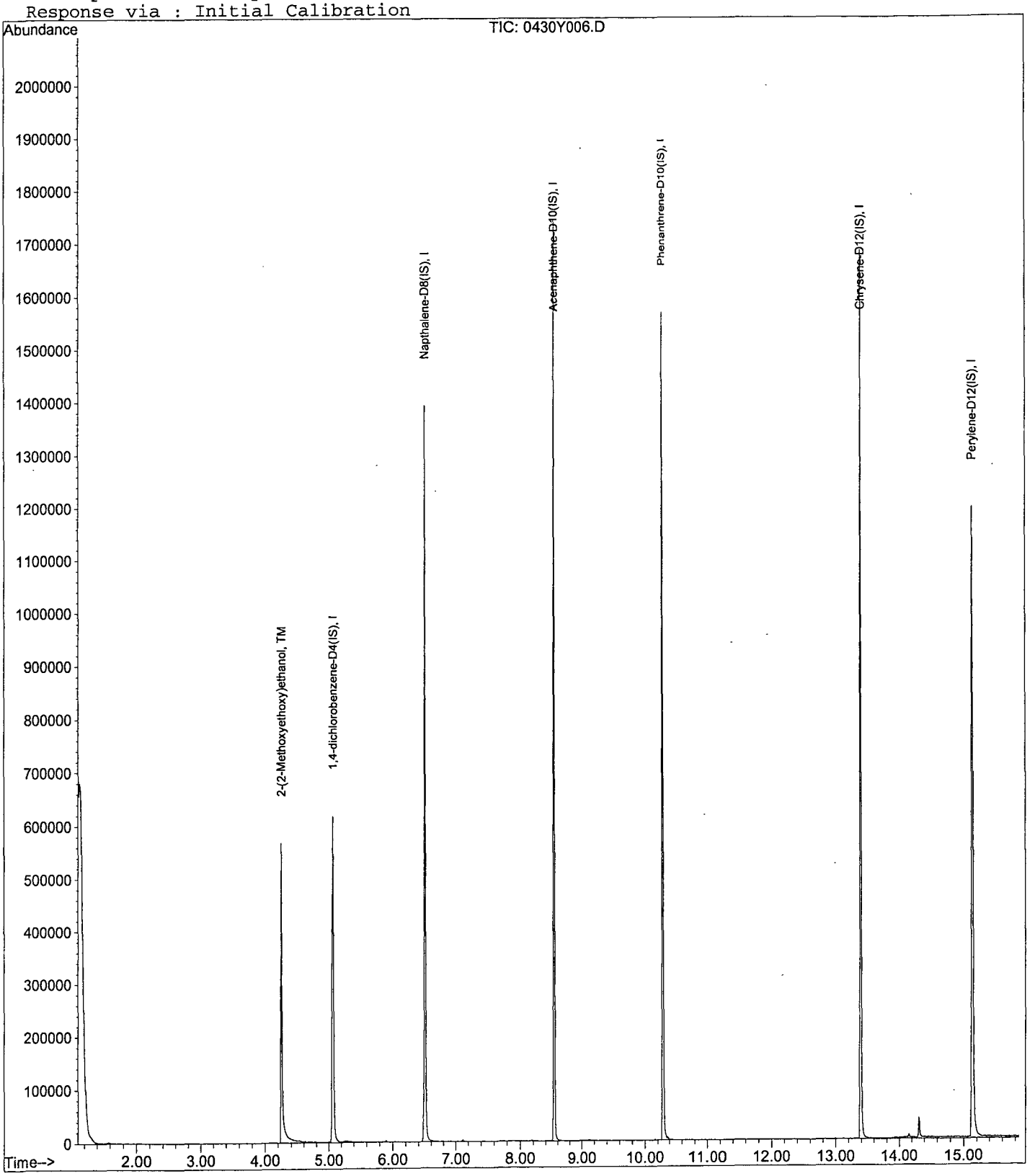
Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y006.D
Acq On : 30 Apr 19 10:37
Sample : 400ug/ml MEE 04/30/19
Misc : soil

Vial: 6
Operator: MA
Inst : Yoda
Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y007.D Vial: 7
Acq On : 30 Apr 19 11:00 Operator: MA
Sample : 500ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:44:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 165959 | 40.00000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 714594 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 398927 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 678369 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.38 | 240 | 607331 | 40.00000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.14 | 264 | 593257 | 40.00000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.25 | 45 | 356062 | 678.05928 | ppb | 100 |

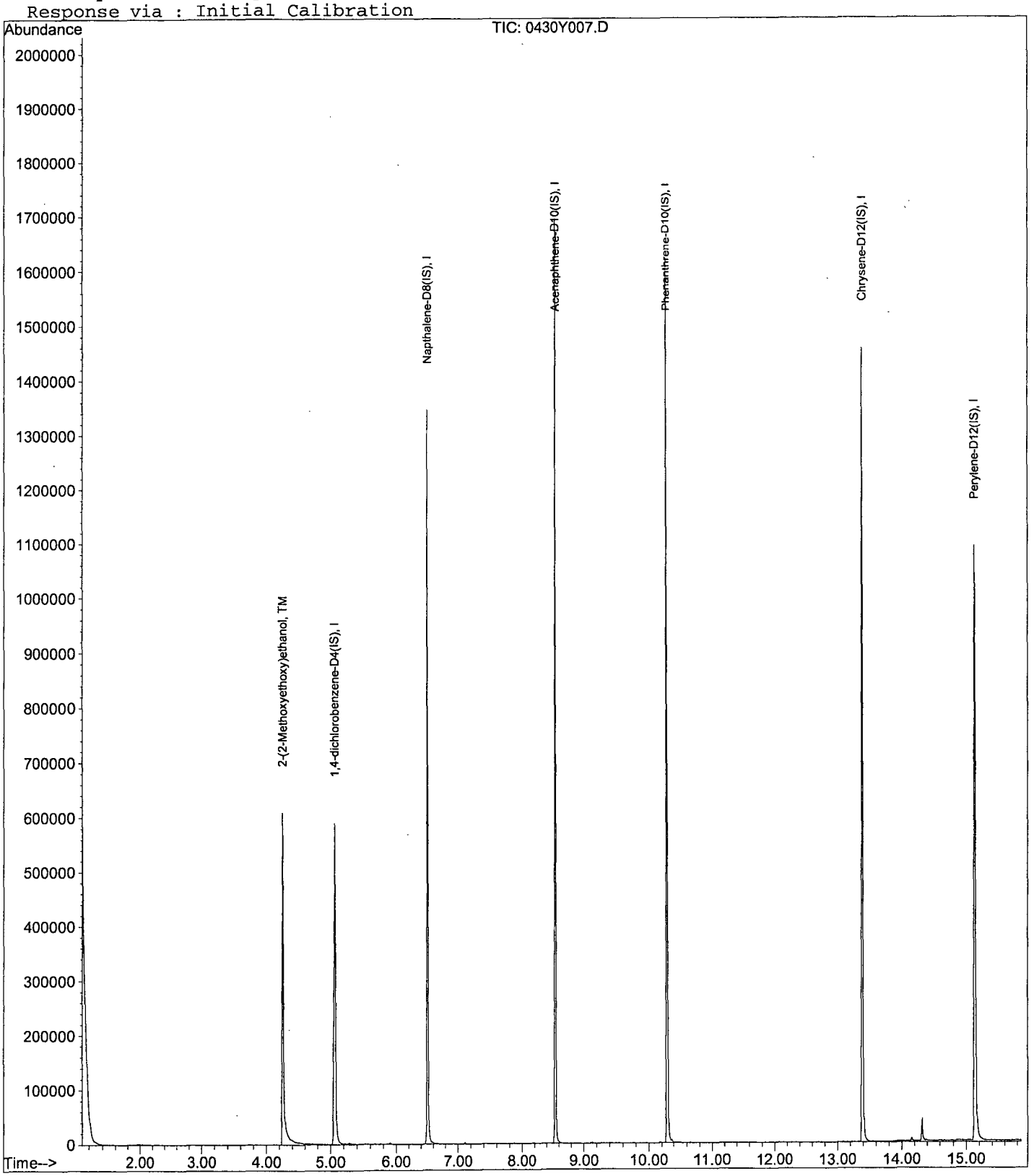
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y007.D Vial: 7
Acq On : 30 Apr 19 11:00 Operator: MA
Sample : 500ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y008.D Vial: 8
Acq On : 30 Apr 19 11:23 Operator: MA
Sample : 600ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:44:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 192050 | 40.00000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 832030 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 456909 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 771492 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.38 | 240 | 686371 | 40.00000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 672431 | 40.00000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.26 | 45 | 435053 | 715.93023 | ppb | 98 |

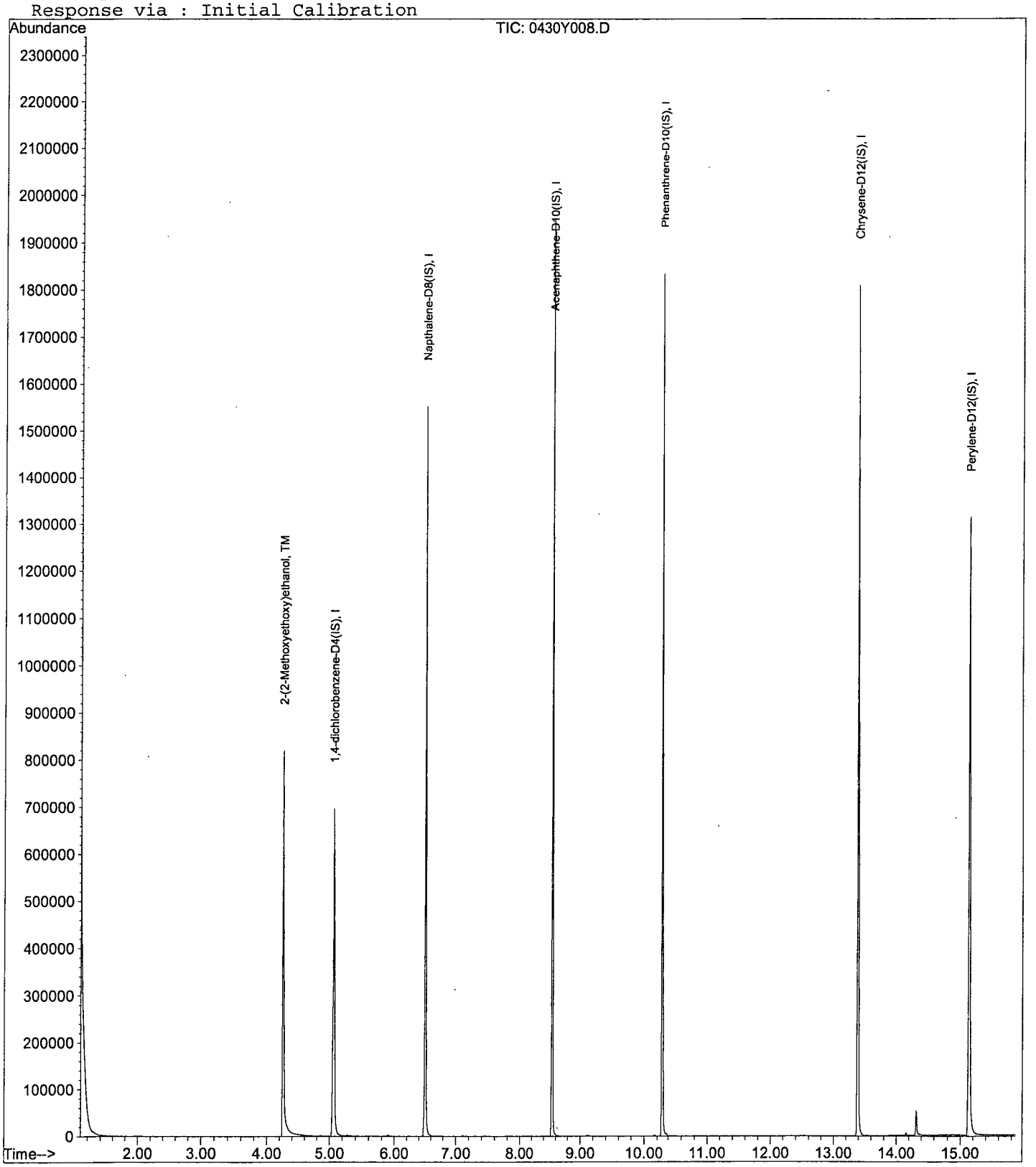
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y008.D Vial: 8
Acq On : 30 Apr 19 11:23 Operator: MA
Sample : 600ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y009.D Vial: 9
Acq On : 30 Apr 19 11:47 Operator: MA
Sample : 800ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:48 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:44:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.07 | 152 | 177494 | 40.00000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 809241 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 446680 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 765580 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.38 | 240 | 677822 | 40.00000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 648459 | 40.00000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.26 | 45 | 596711 | 1062.48599 | ppb | 99 |

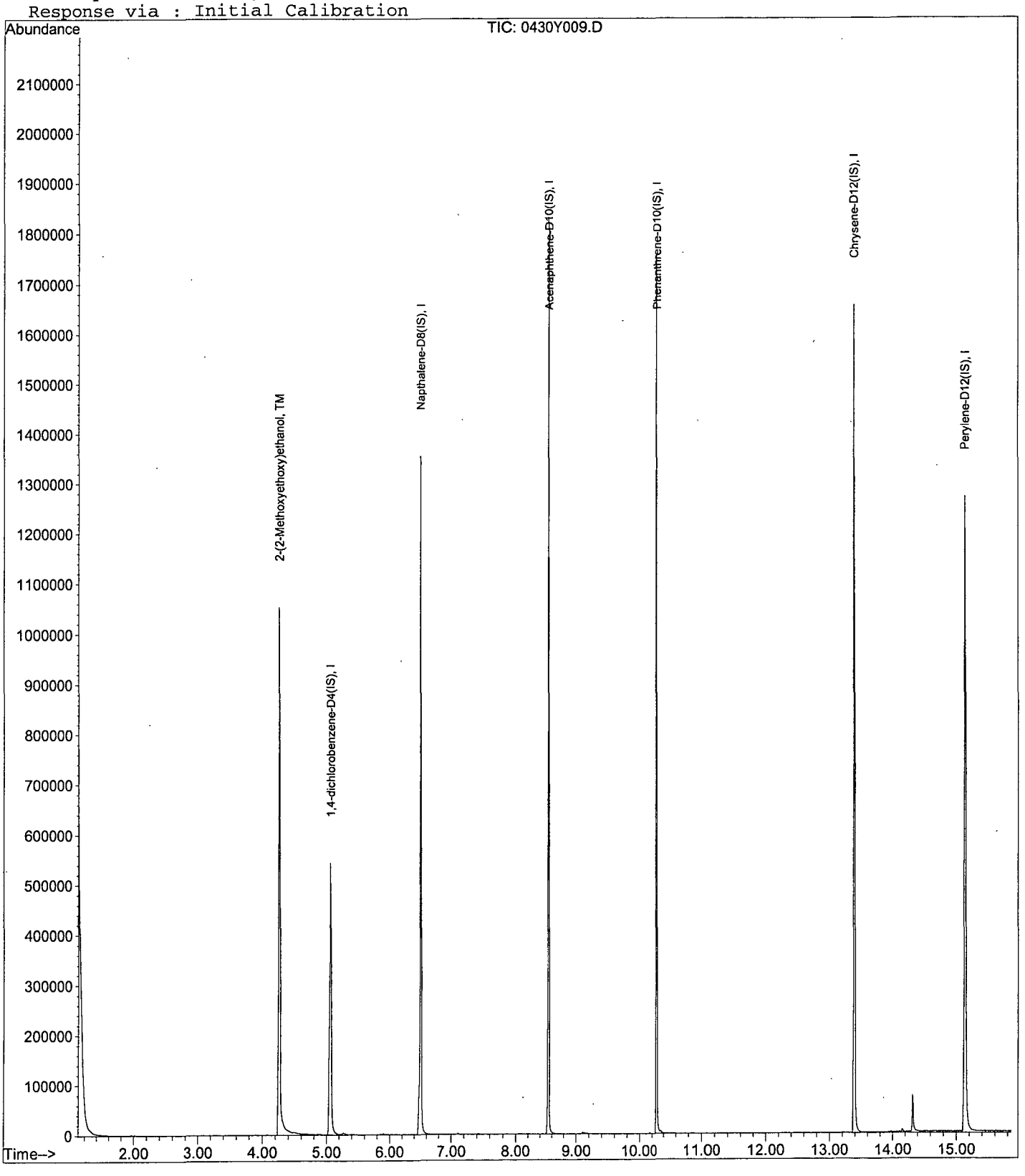
(#) = qualifier out of range (m) = manual integration
0430Y009.D YMEE0430.M Wed May 01 09:22:39 2019 Page 1

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y009.D Vial: 9
Acq On : 30 Apr 19 11:47 Operator: MA
Sample : 800ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 11:48 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y010.D Vial: 10
Acq On : 30 Apr 19 12:10 Operator: MA
Sample : 1000ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 12:15 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 11:49:24 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 194543 | 40.00000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 824746 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 455154 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.29 | 188 | 763926 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 675051 | 40.00000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 668405 | 40.00000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.29 | 45 | 764768 | 949.70790 | ppb | 98 |

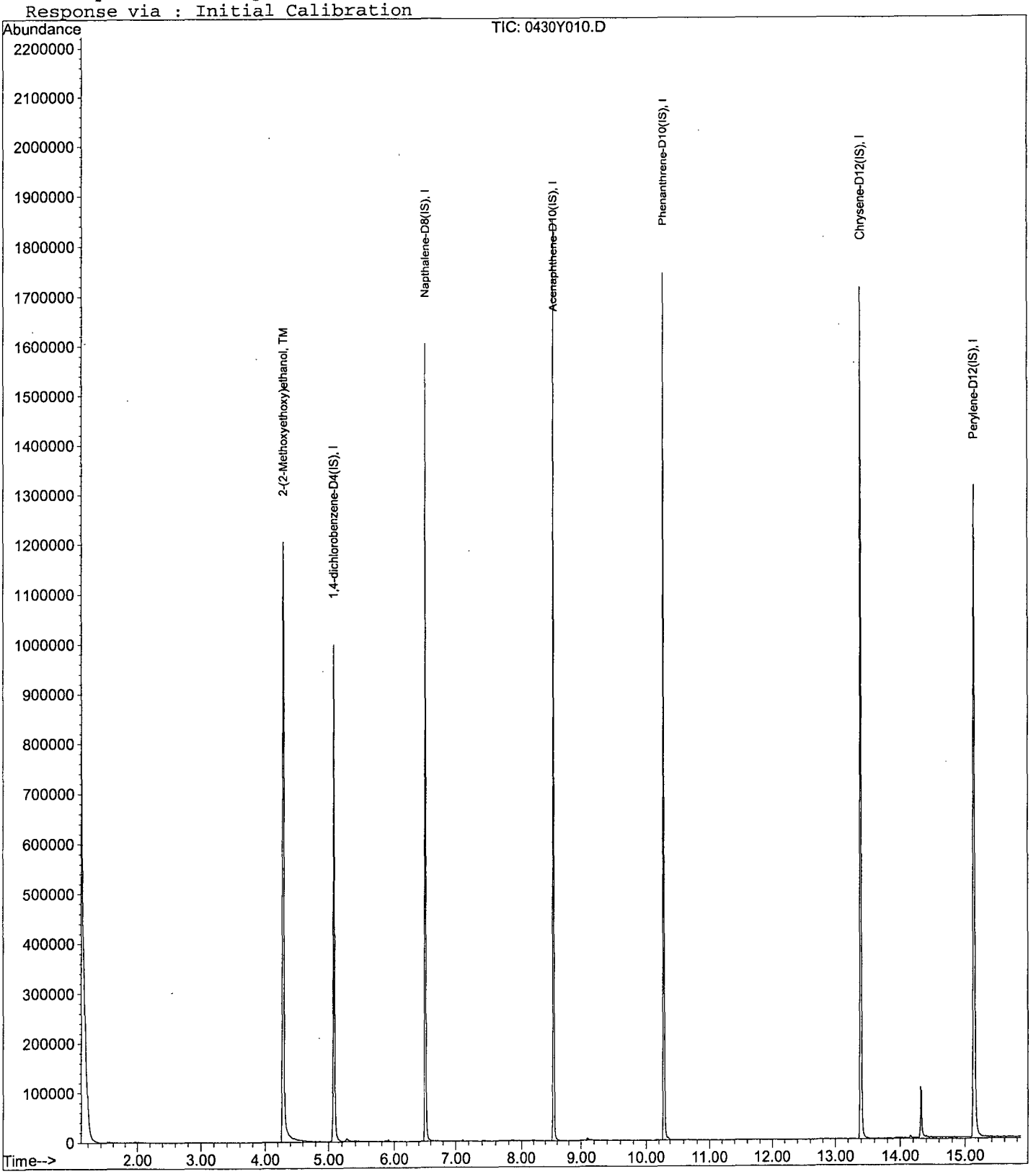
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y010.D Vial: 10
Acq On : 30 Apr 19 12:10 Operator: MA
Sample : 1000ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 12:15 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

# Second Source Calibration

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

SDG No:
Date Analyzed: 04/30/19
Instrument: Yoda
Initial Cal. Date: 04/30/19
Data File: 0430Y011.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 1 | TML | 2-(2-Methoxyethoxy)ethanol | 0.1412 | 0.1842 | 30 | TML | 16 |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
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| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 30.0 | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y011.D Vial: 11
Acq On : 30 Apr 19 13:30 Operator: MA
Sample : SS ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 13:31 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 176322 | 40.00000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 756659 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 427777 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 702800 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 636036 | 40.00000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.14 | 264 | 617157 | 40.00000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.26 | 45 | 406011 | 577.68332 | ppb | 99 |

(#) = qualifier out of range (m) = manual integration
0430Y011.D YMEE0430.M Wed May 01 09:22:46 2019 Page 1

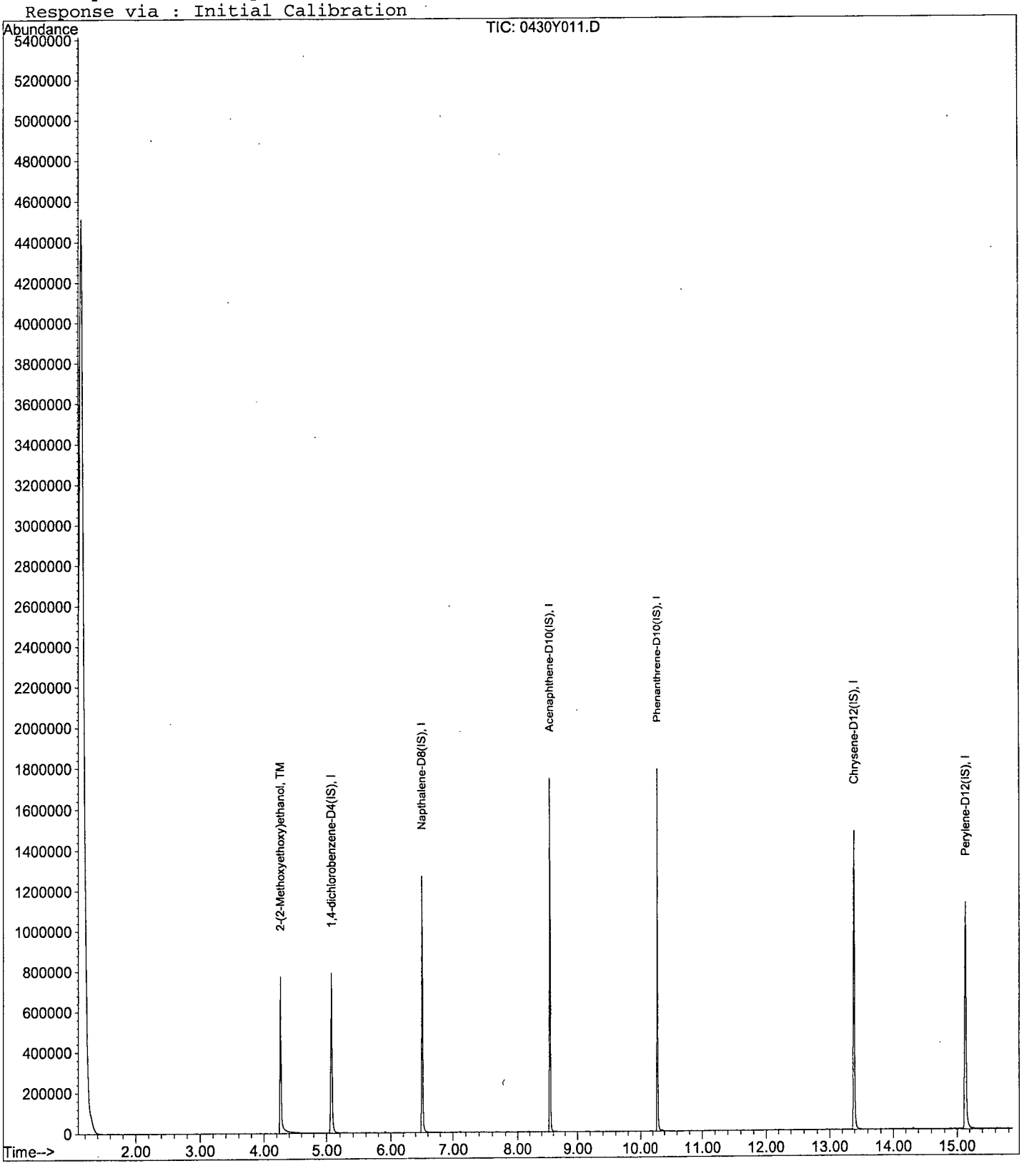
Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y011.D
Acq On : 30 Apr 19 13:30
Sample : SS ug/ml MEE 04/30/19
Misc : soil

Vial: 11
Operator: MA
Inst : Yoda
Multiplr: 1.00

Quant Time: Apr 30 13:31 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

# Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/30/19
Instrument: Yoda
Initial Cal. Date: 04/30/19
Data File: 0430Y037.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-dichlorobenzene-D4(IS) | ISTD | | | I | |
| 2 | TML | 2-(2-Methoxyethoxy)ethanol | 0.1412 | 0.1831 | 30 | TML | 15 |
| 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 | | | | | | | |
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| 20 | | | | | | | |
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| 25 | | | | | | | |
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| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 30.0 | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y037.D Vial: 37
Acq On : 30 Apr 19 23:38 Operator: MA
Sample : 500ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:39 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 148022 | 40.00000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 650008 | 40.00000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 364717 | 40.00000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 610351 | 40.00000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 544837 | 40.00000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 526754 | 40.00000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 2-(2-Methoxyethoxy)ethanol | 4.28 | 45 | 338753 | 574.29385 | ppb | 97 |

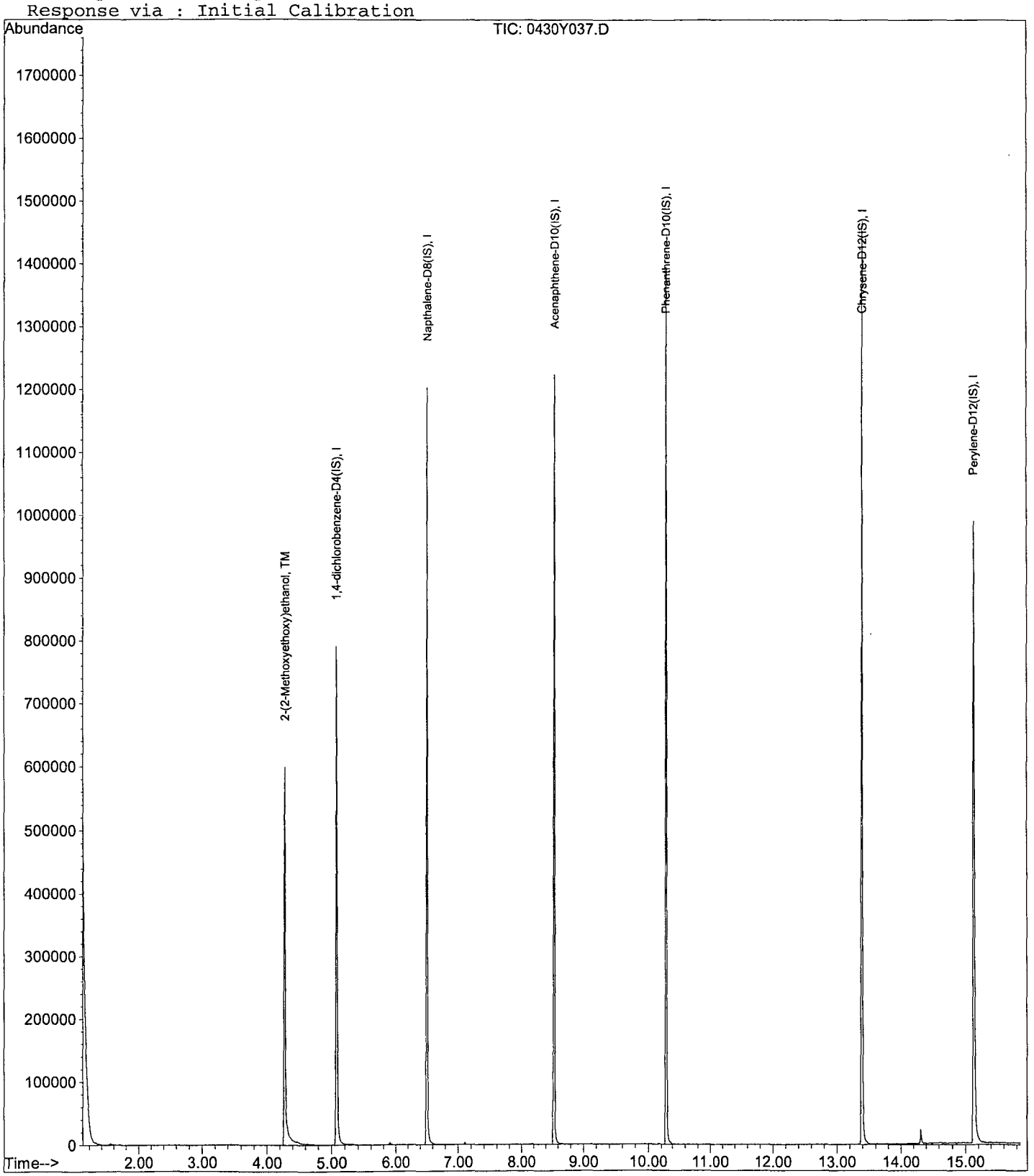
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y037.D Vial: 37
Acq On : 30 Apr 19 23:38 Operator: MA
Sample : 500ug/ml MEE 04/30/19 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:39 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



# ORGANICS
# Raw Data

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y021.D Vial: 21
Acq On : 30 Apr 19 17:22 Operator: MA
Sample : AZ90051W22 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 156596 | 40.0000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 702051 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 393448 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 673322 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 588670 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 585446 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

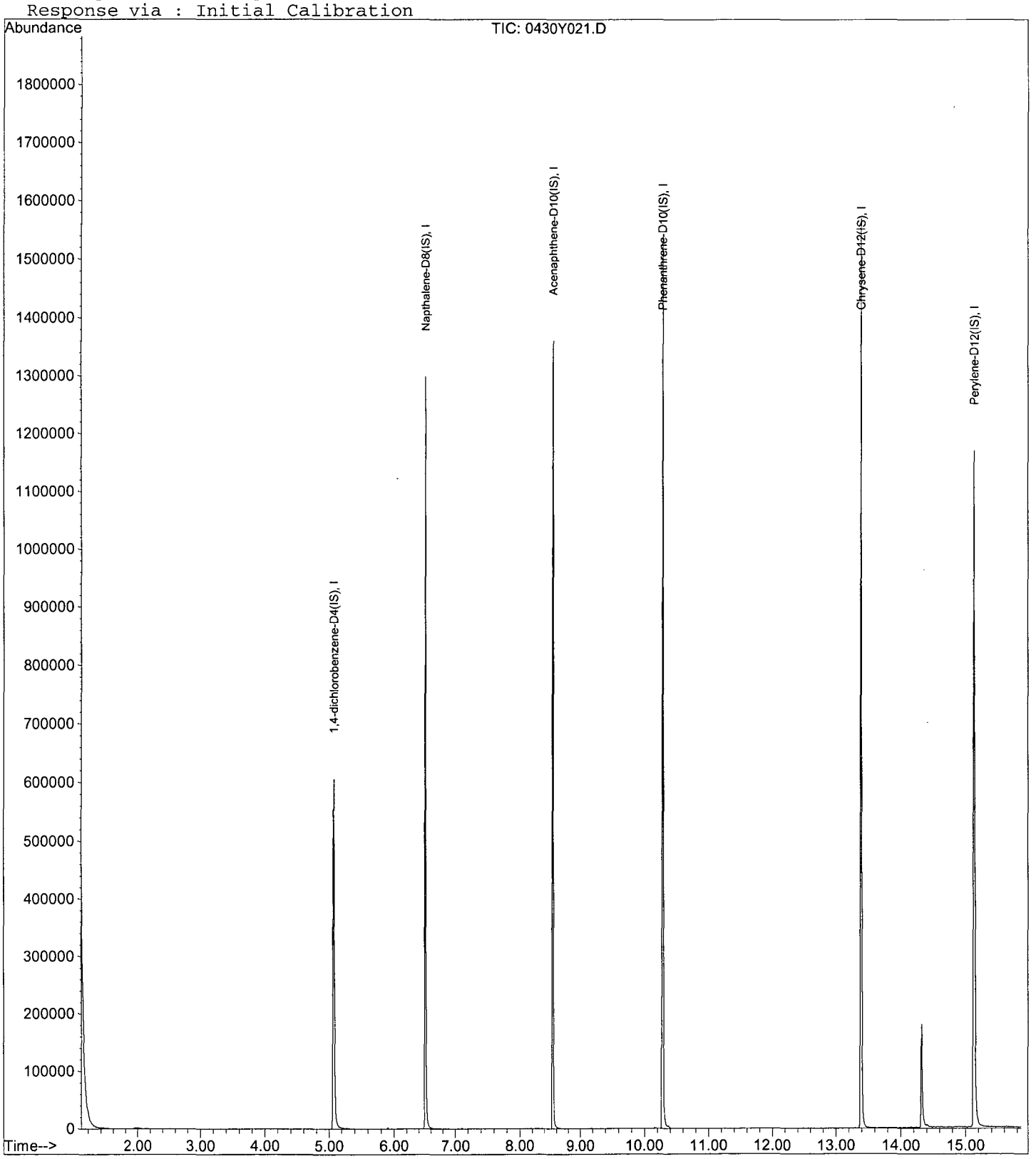
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y021.D Vial: 21
Acq On : 30 Apr 19 17:22 Operator: MA
Sample : AZ90051W22 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y024.D Vial: 24
Acq On : 30 Apr 19 18:33 Operator: MA
Sample : AZ90052W05 2/505 Inst : Yoda
Misc : soil Multiplr: 0.99

Quant Time: May 1 8:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 143773 | 40.0000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 658684 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 412548 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 713678 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 625446 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 669212 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

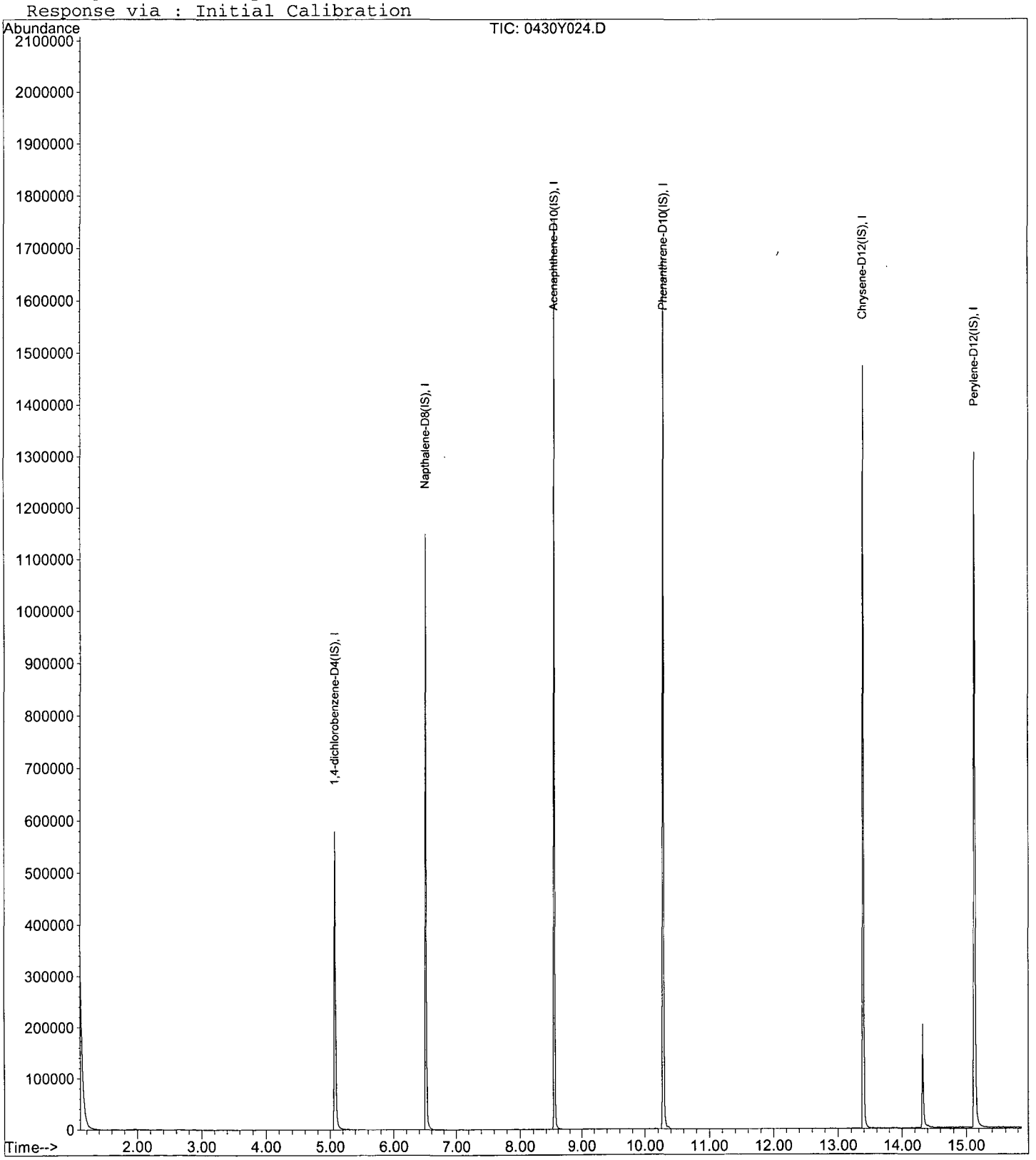
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y024.D Vial: 24
Acq On : 30 Apr 19 18:33 Operator: MA
Sample : AZ90052W05 2/505 Inst : Yoda
Misc : soil Multiplr: 0.99

Quant Time: May 1 8:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y025.D Vial: 25
Acq On : 30 Apr 19 18:57 Operator: MA
Sample : AZ90054W16 2/510 Inst : Yoda
Misc : soil Multiplr: 0.98

Quant Time: May 1 8:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 159671 | 40.0000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 713917 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 411720 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 708566 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 626978 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 610268 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

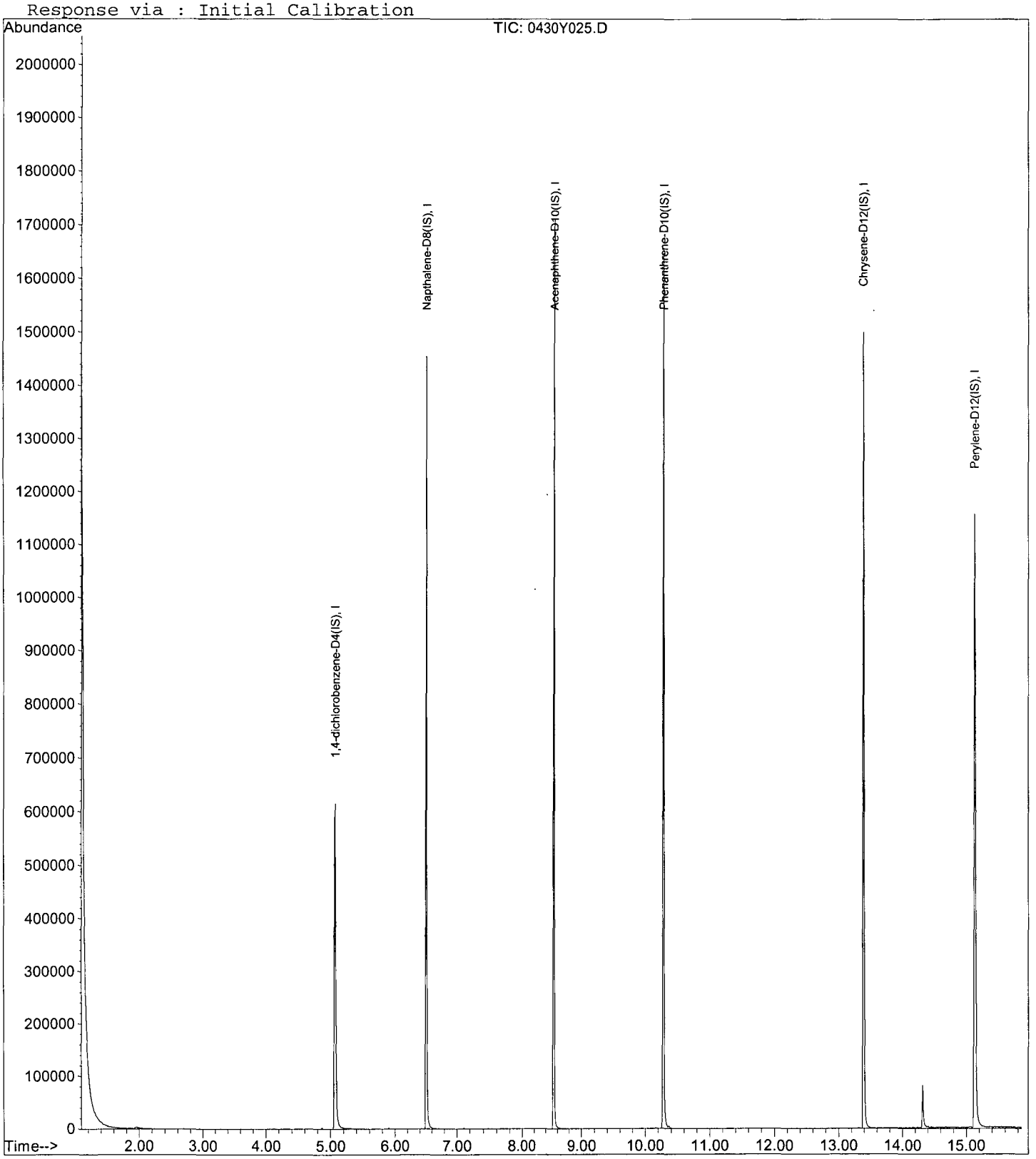
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y025.D Vial: 25
Acq On : 30 Apr 19 18:57 Operator: MA
Sample : AZ90054W16 2/510 Inst : Yoda
Misc : soil Multiplr: 0.98

Quant Time: May 1 8:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y026.D Vial: 26
Acq On : 30 Apr 19 19:20 Operator: MA
Sample : AZ90056W16 2/510 Inst : Yoda
Misc : soil Multiplr: 0.98

Quant Time: May 1 8:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 173313 | 40.0000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.50 | 136 | 749376 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 405702 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 690474 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 601958 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 587472 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

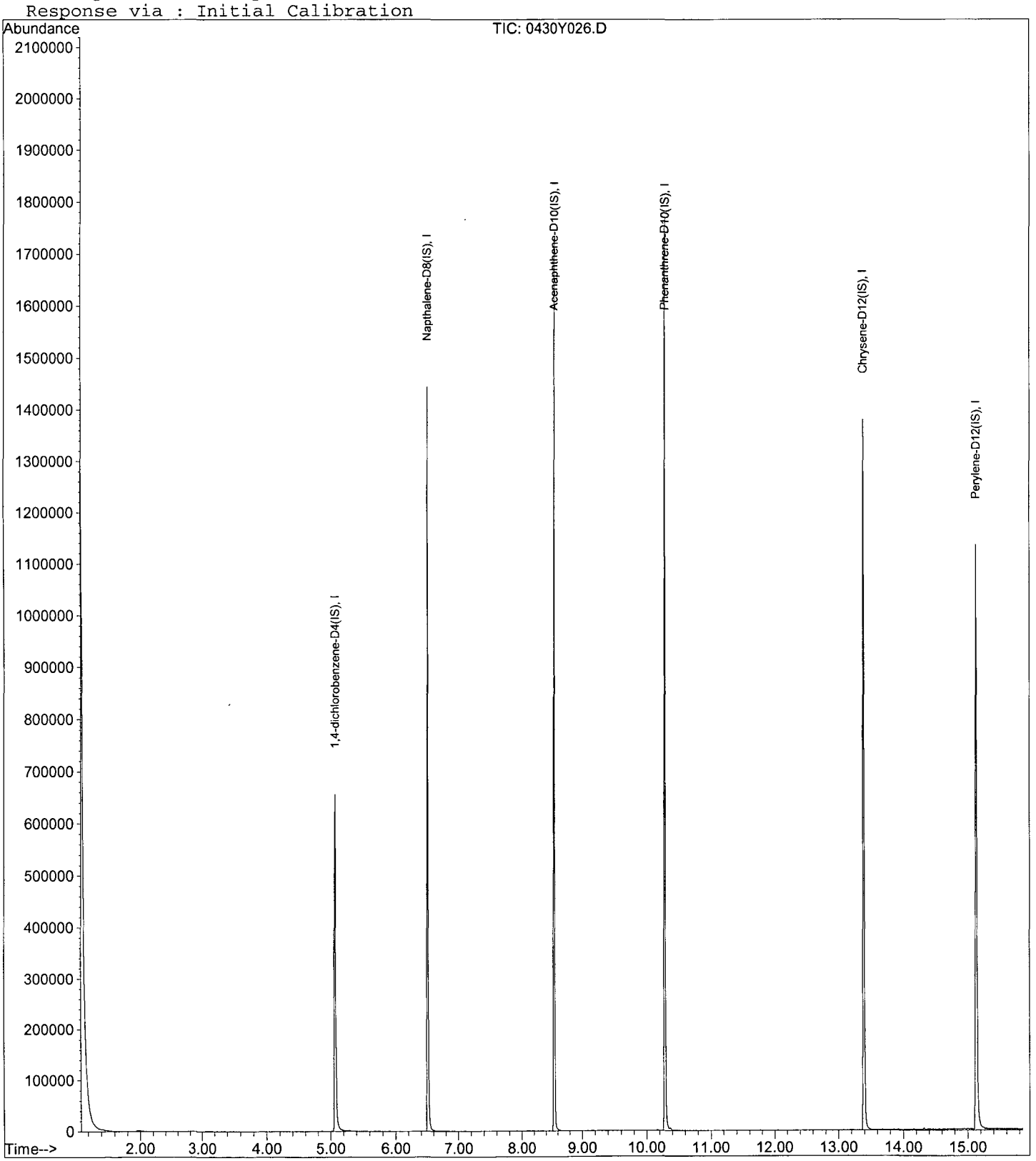
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y026.D Vial: 26
Acq On : 30 Apr 19 19:20 Operator: MA
Sample : AZ90056W16 2/510 Inst : Yoda
Misc : soil Multiplr: 0.98

Quant Time: May 1 8:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y027.D Vial: 27
Acq On : 30 Apr 19 19:44 Operator: MA
Sample : AZ90058W17 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 148947 | 40.0000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 671699 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 398175 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 683572 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 570200 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.14 | 264 | 665546 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

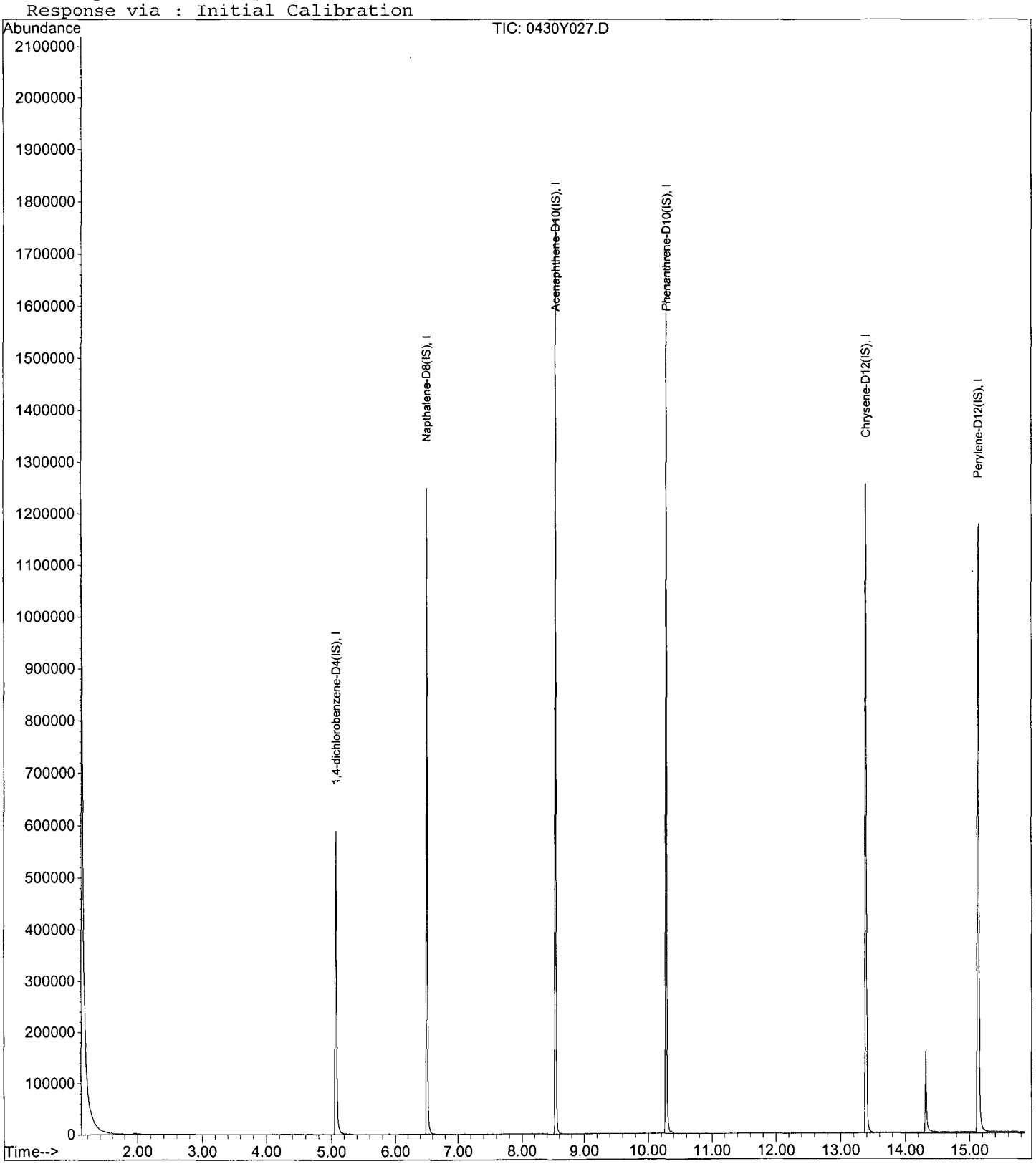
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y027.D Vial: 27
Acq On : 30 Apr 19 19:44 Operator: MA
Sample : AZ90058W17 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y028.D Vial: 28
Acq On : 30 Apr 19 20:07 Operator: MA
Sample : AZ90060W17 2/505 Inst : Yoda
Misc : soil Multiplr: 0.99

Quant Time: May 1 8:47 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 124917 | 40.0000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 589020 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 395475 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 672860 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 569250 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 539888 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

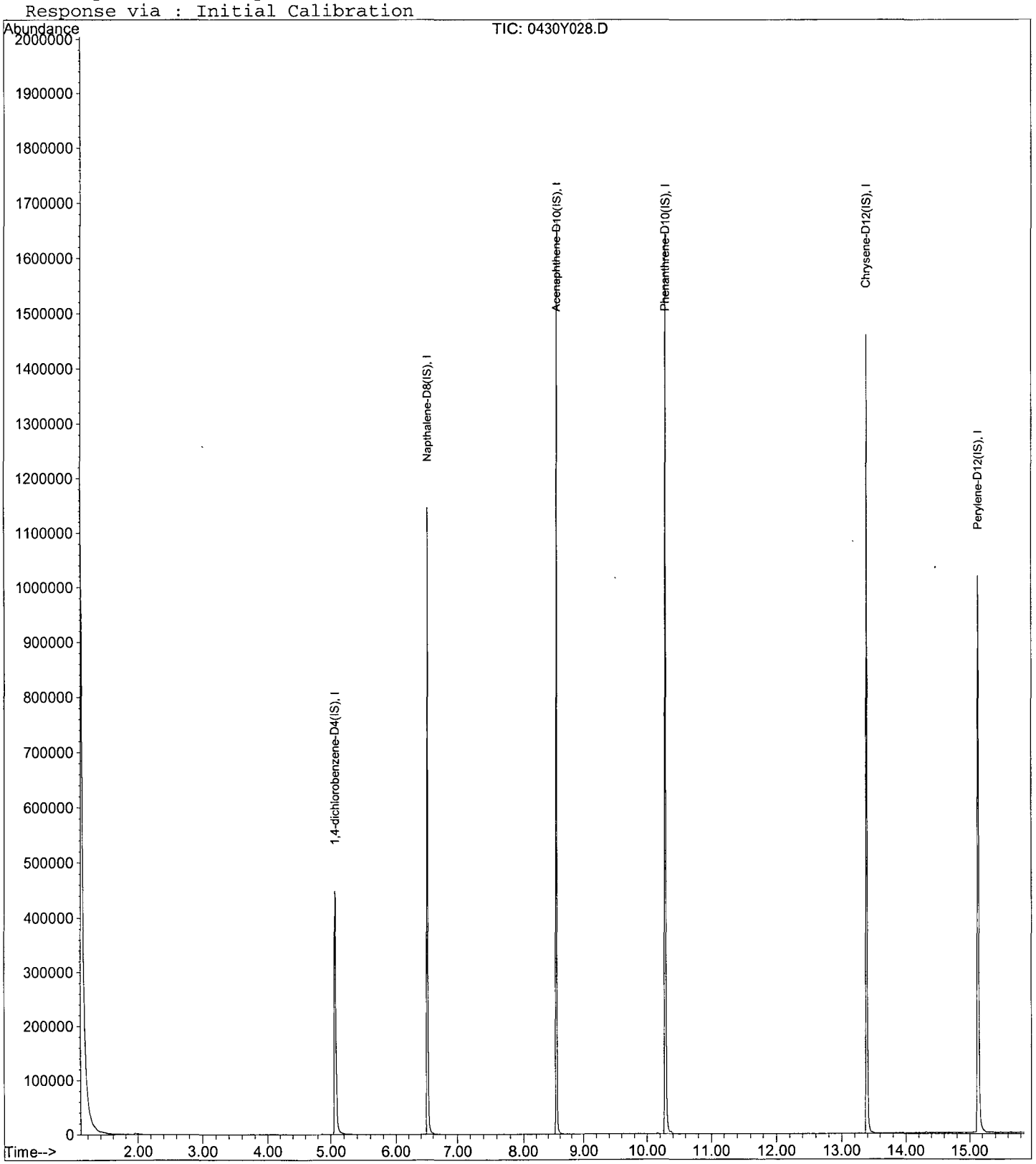
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y028.D Vial: 28
Acq On : 30 Apr 19 20:07 Operator: MA
Sample : AZ90060W17 2/505 Inst : Yoda
Misc : soil Multiplr: 0.99

Quant Time: May 1 8:47 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y013.D Vial: 13
Acq On : 30 Apr 19 14:13 Operator: MA
Sample : 190429A BLK 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 15:16 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 144443 | 40.0000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 680229 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 444226 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 771508 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 661861 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.14 | 264 | 641475 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

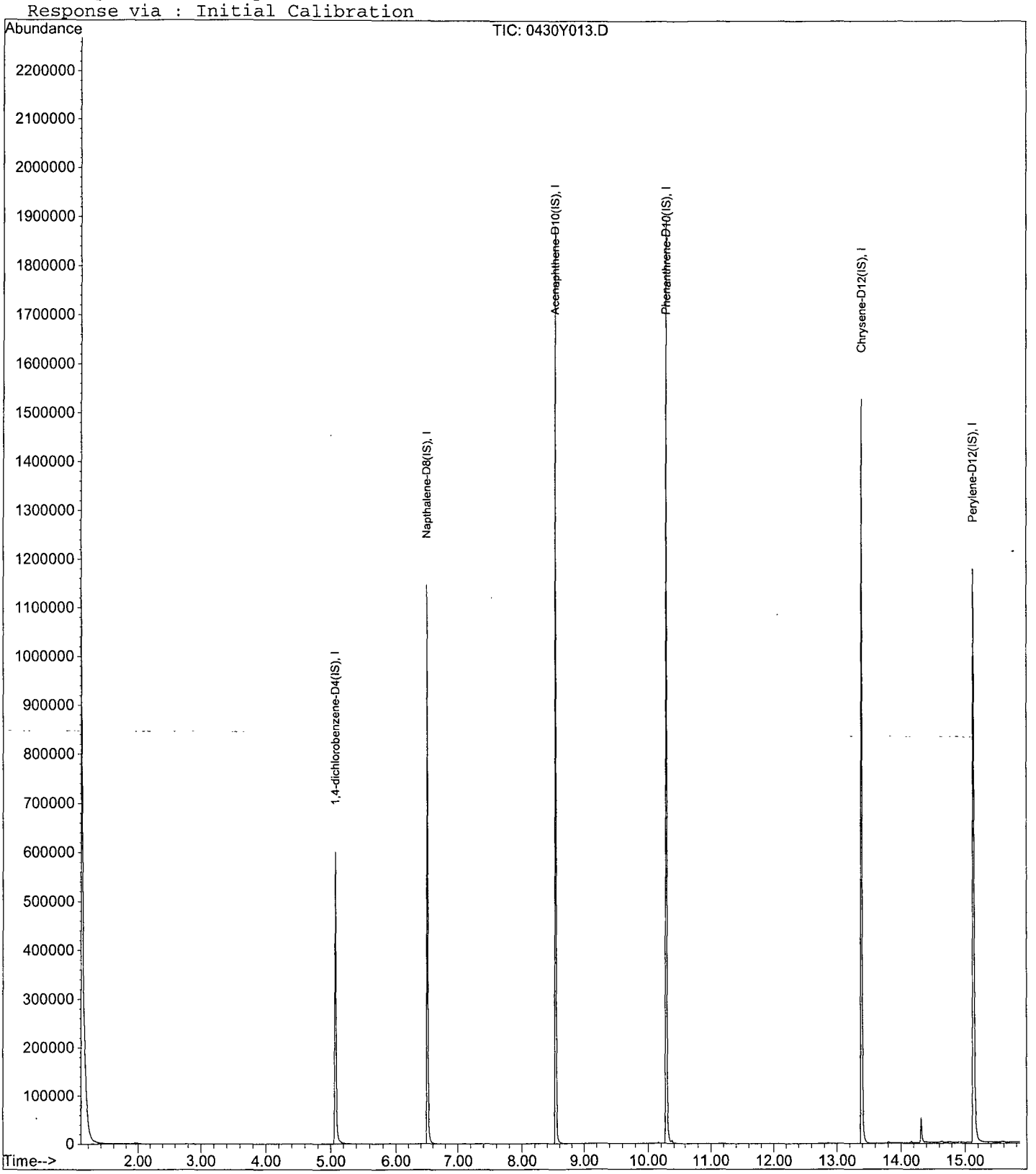
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y013.D Vial: 13
Acq On : 30 Apr 19 14:13 Operator: MA
Sample : 190429A BLK 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 15:16 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y014.D Vial: 14
Acq On : 30 Apr 19 14:37 Operator: MA
Sample : 190429A LCS-1 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 15:16 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 137259 | 40.0000 ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 622694 | 40.0000 ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 381830 | 40.0000 ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.29 | 188 | 657938 | 40.0000 ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 540582 | 40.0000 ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 562285 | 40.0000 ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.34 | 45 | 38771 | 93.3025 ppb | 98 |

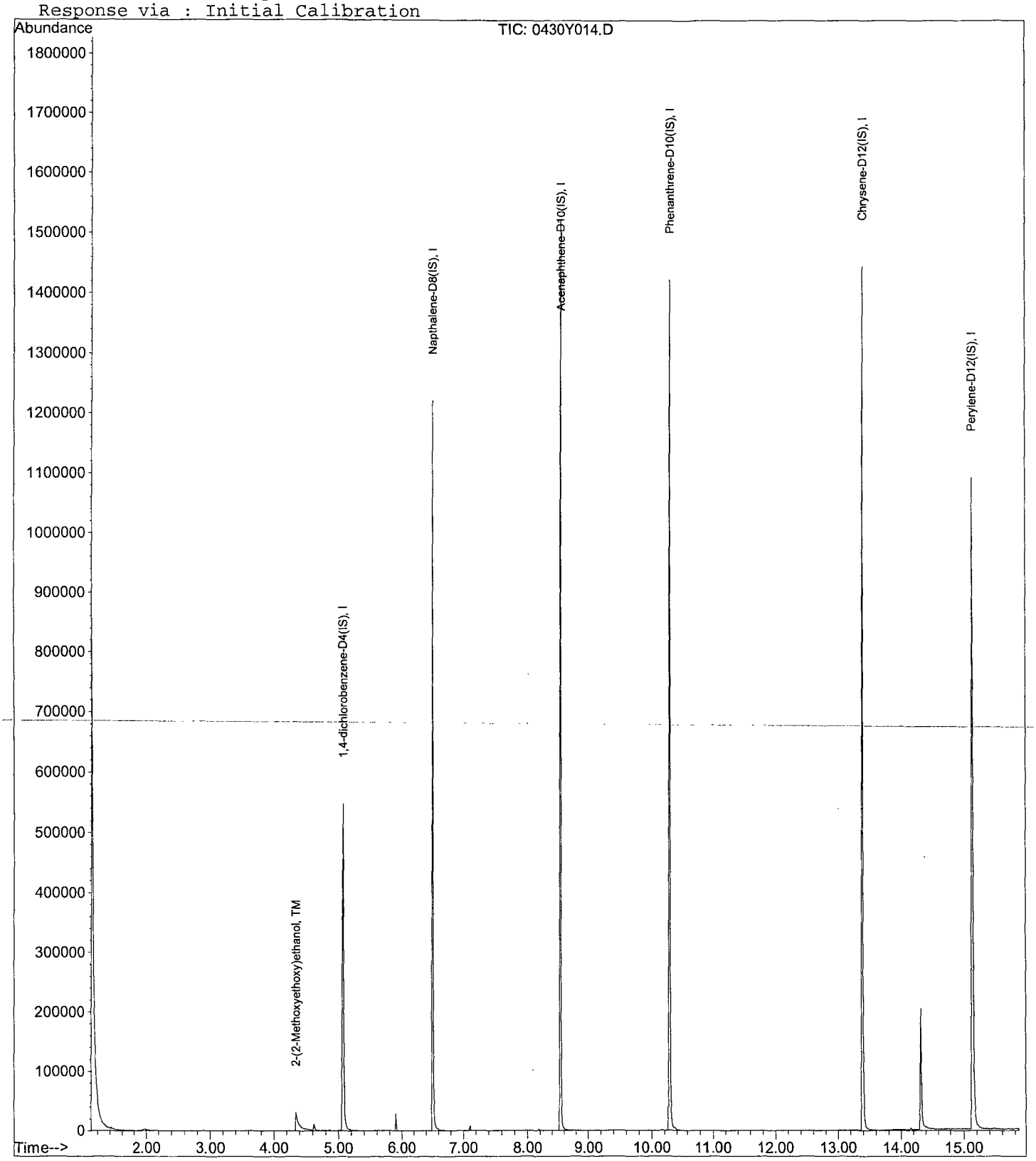
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y014.D Vial: 14
Acq On : 30 Apr 19 14:37 Operator: MA
Sample : 190429A LCS-1 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 15:16 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y015.D Vial: 15
Acq On : 30 Apr 19 15:01 Operator: MA
Sample : 190429A LCSD-1 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 15:16 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 114459 | 40.0000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 589204 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 427518 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 743005 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 629015 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 587575 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.34 | 45 | 47160 | 124.3667 | ppb | 97 |

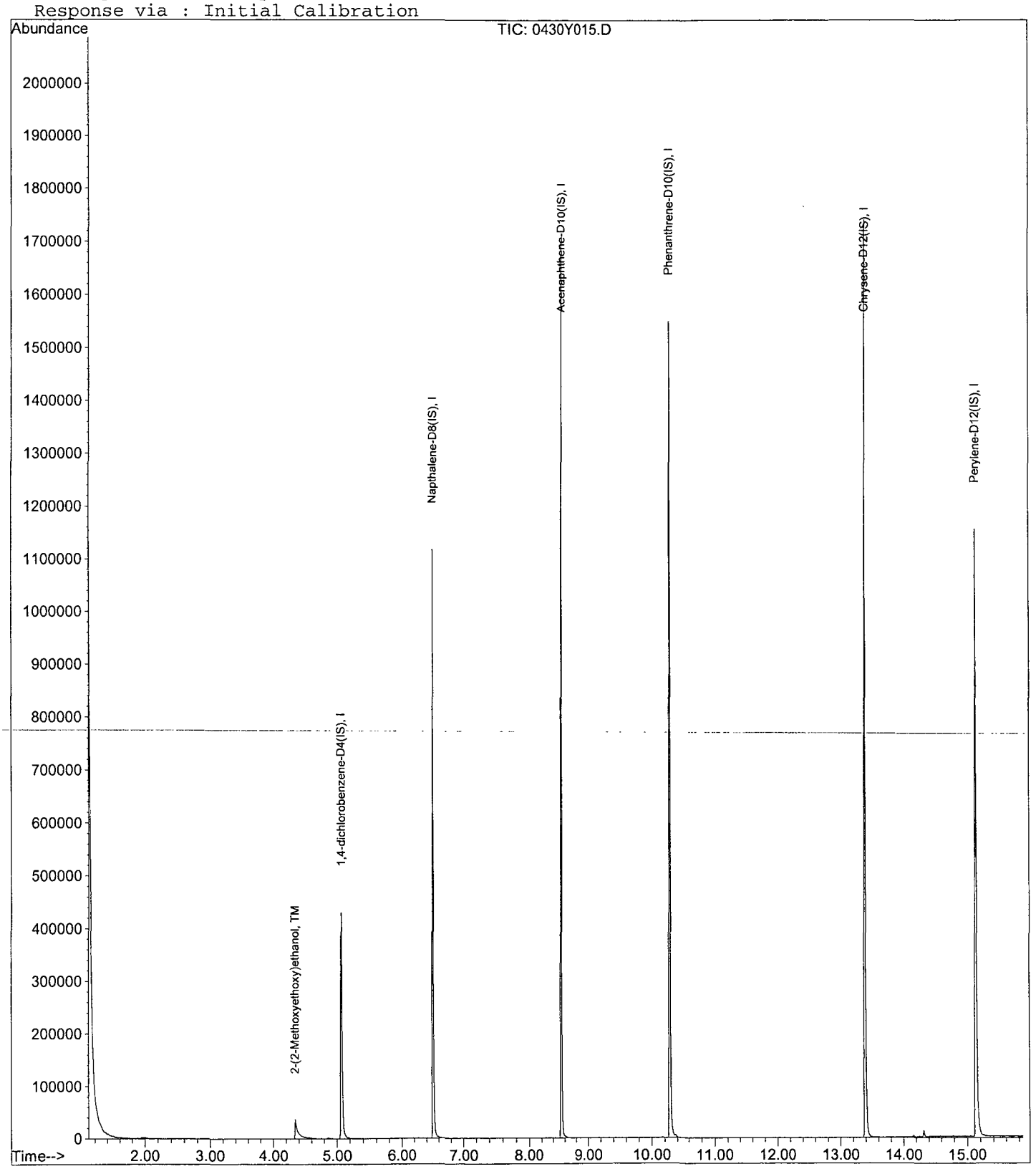
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y015.D Vial: 15
Acq On : 30 Apr 19 15:01 Operator: MA
Sample : 190429A LCSD-1 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Apr 30 15:16 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y022.D Vial: 22
Acq On : 30 Apr 19 17:46 Operator: MA
Sample : AZ90051W21 MS-1 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 170847 | 40.0000 | ppb | 0.00 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 740471 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 407908 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.28 | 188 | 684406 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 601063 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 575657 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.34 | 45 | 33035 | 71.9377 | ppb | 99 |

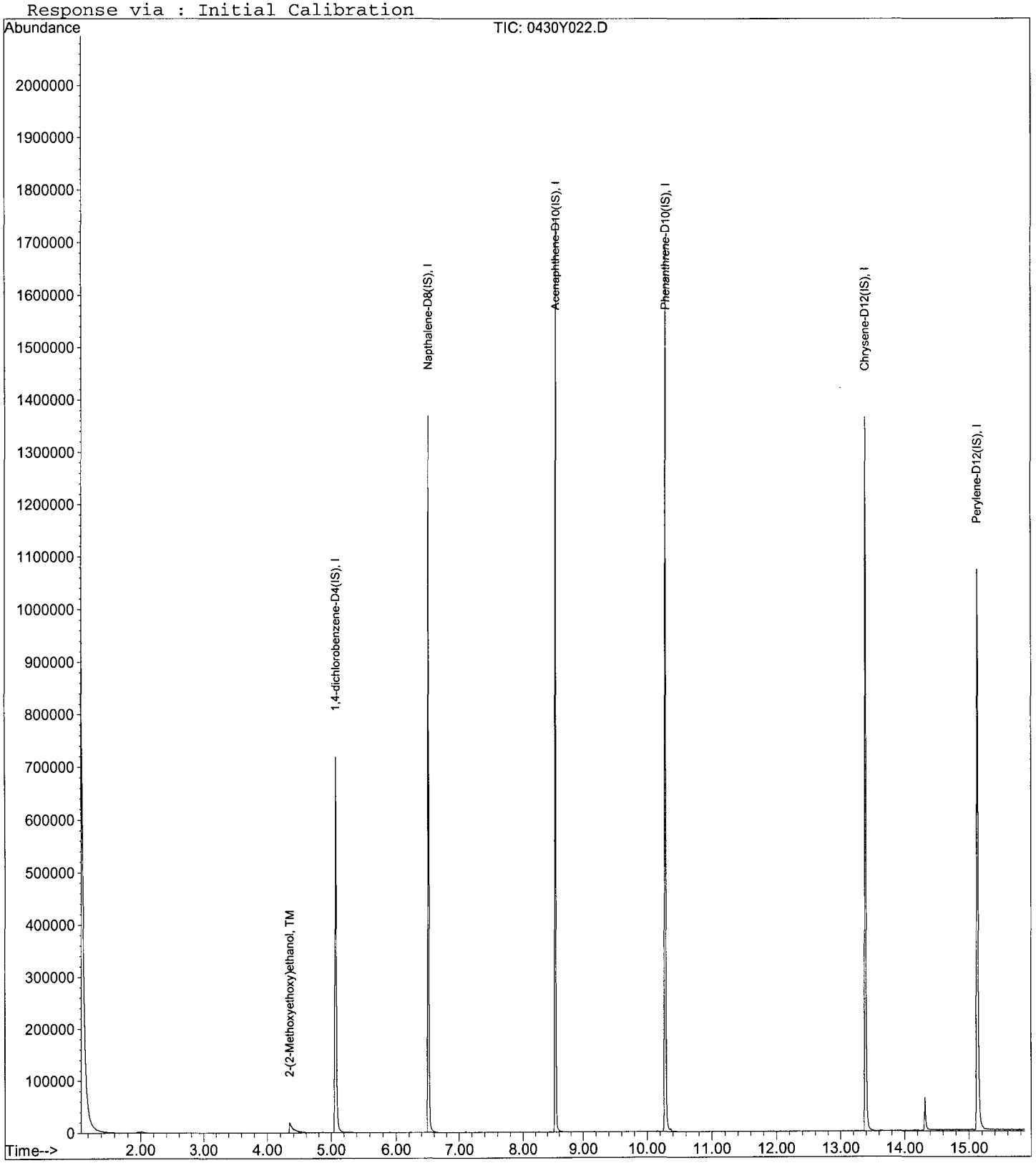
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y022.D Vial: 22
Acq On : 30 Apr 19 17:46 Operator: MA
Sample : AZ90051W21 MS-1 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190430M\0430Y023.D Vial: 23
Acq On : 30 Apr 19 18:09 Operator: MA
Sample : AZ90051W25 MSD-1 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

Quant Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration
DataAcq Meth : GED

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.08 | 152 | 147973 | 40.0000 | ppb | 0.01 |
| 3) Napthalene-D8(IS) | 6.51 | 136 | 663660 | 40.0000 | ppb | 0.00 |
| 4) Acenaphthene-D10(IS) | 8.54 | 164 | 416179 | 40.0000 | ppb | 0.00 |
| 5) Phenanthrene-D10(IS) | 10.29 | 188 | 717787 | 40.0000 | ppb | 0.00 |
| 6) Chrysene-D12(IS) | 13.39 | 240 | 624710 | 40.0000 | ppb | 0.00 |
| 7) Perylene-D12(IS) | 15.13 | 264 | 659515 | 40.0000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) 2-(2-Methoxyethoxy)ethanol | 4.34 | 45 | 37330 | 86.0638 | ppb | 98 |

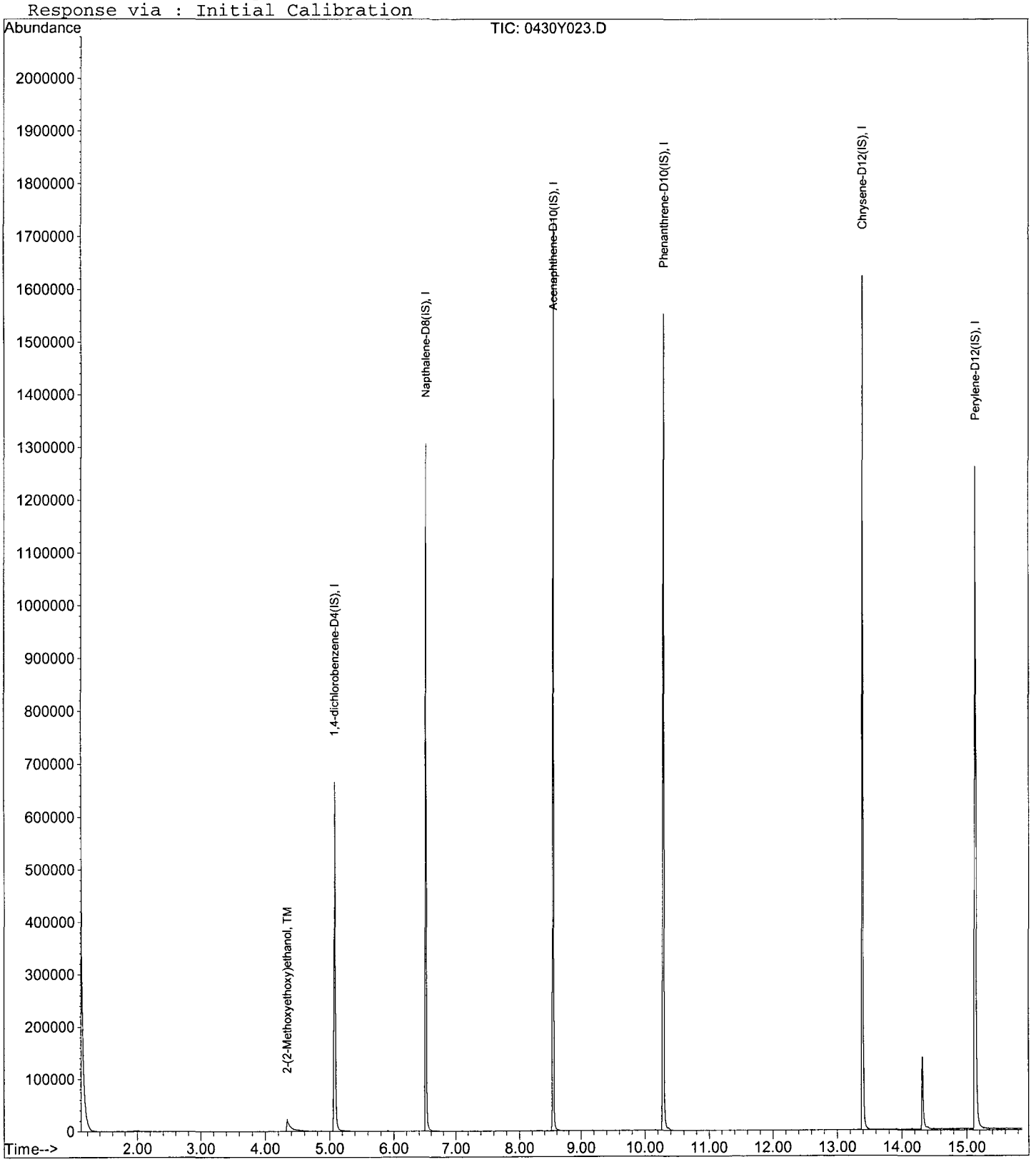
(#) = qualifier out of range (m) = manual integration
0430Y023.D YMEE0430.M Fri May 10 15:19:53 2019 Page 1

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y023.D Vial: 23
Acq On : 30 Apr 19 18:09 Operator: MA
Sample : AZ90051W25 MSD-1 2/500 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: May 1 8:46 2019 Quant Results File: YMEE0430.RES

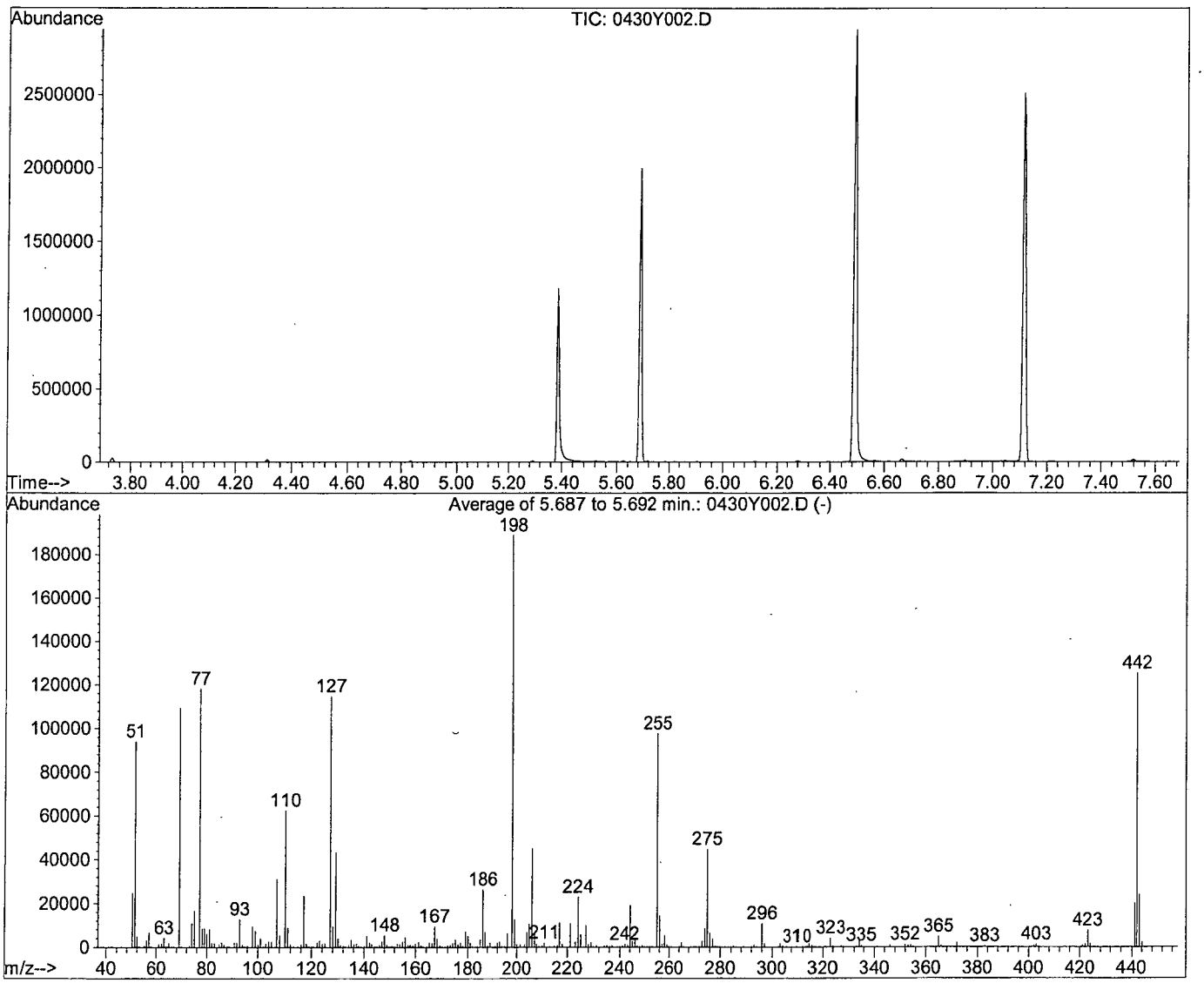
Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Apr 30 12:16:17 2019
Response via : Initial Calibration



DFTPP

Data File : M:\YODA\DATA\Y190430M\0430Y002.D  Vial: 2
Acq On : 30 Apr 19 9:12  Operator: MA
Sample : SV Tune 03/07/18  Inst : Yoda
Misc :  Multiplr: 1.00

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C




AutoFind: Scans 841, 842, 843; Background Corrected with Scan 833

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 49.7 | 93941 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.3 | 275 | PASS |
| 127 | 198 | 10 | 80 | 60.7 | 114675 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 189013 | PASS |
| 199 | 198 | 5 | 9 | 6.7 | 12705 | PASS |
| 275 | 198 | 10 | 60 | 23.7 | 44776 | PASS |
| 365 | 198 | 1 | 100 | 2.5 | 4785 | PASS |
| 441 | 442 | 0.01 | 24 | 16.0 | 20059 | PASS |
| 442 | 198 | 50 | 150 | 66.3 | 125365 | PASS |
| 443 | 442 | 15 | 24 | 19.3 | 24168 | PASS |

| | |
|---|---|
| Data File Name: | **0430Y002.D** |
| Data File Path: | **M:\YODA\DATA\Y190430M** |
| Operator: | **MA** |
| Date Acquired: | **30 Apr 2019 09:12** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV Tune 03/07/18** |
| Vial Number: | **2** |
| Instrument Name: | **Yoda** |

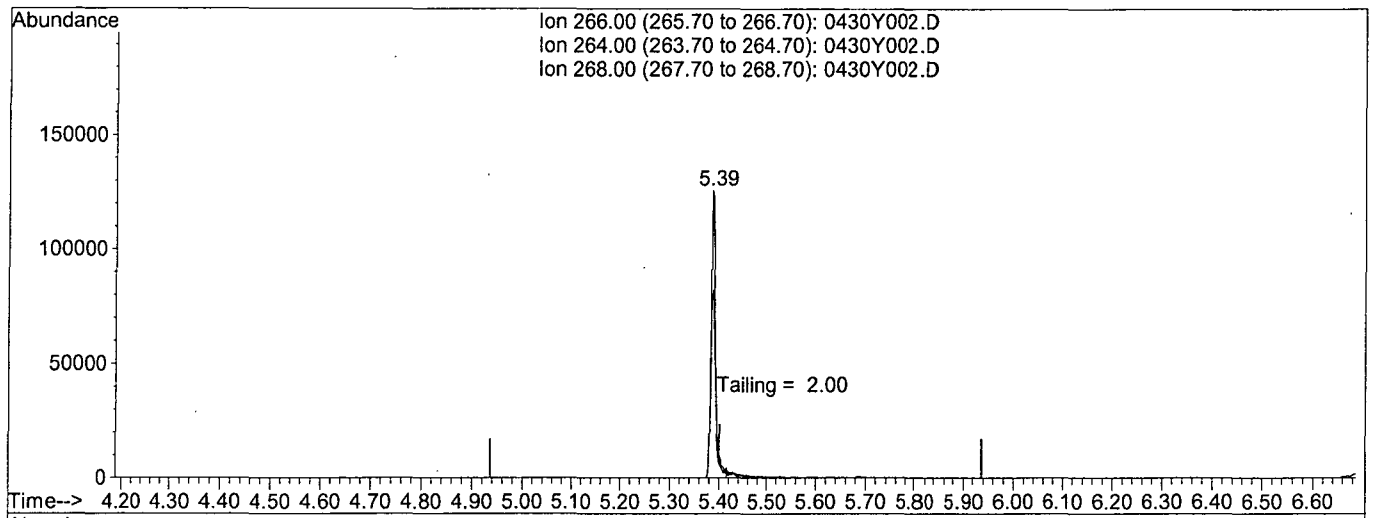
| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.08 | 19086100 |
| 2) | DDD | 6.75 | 104656 |
| 3) | DDE | 6.86 | 0 |

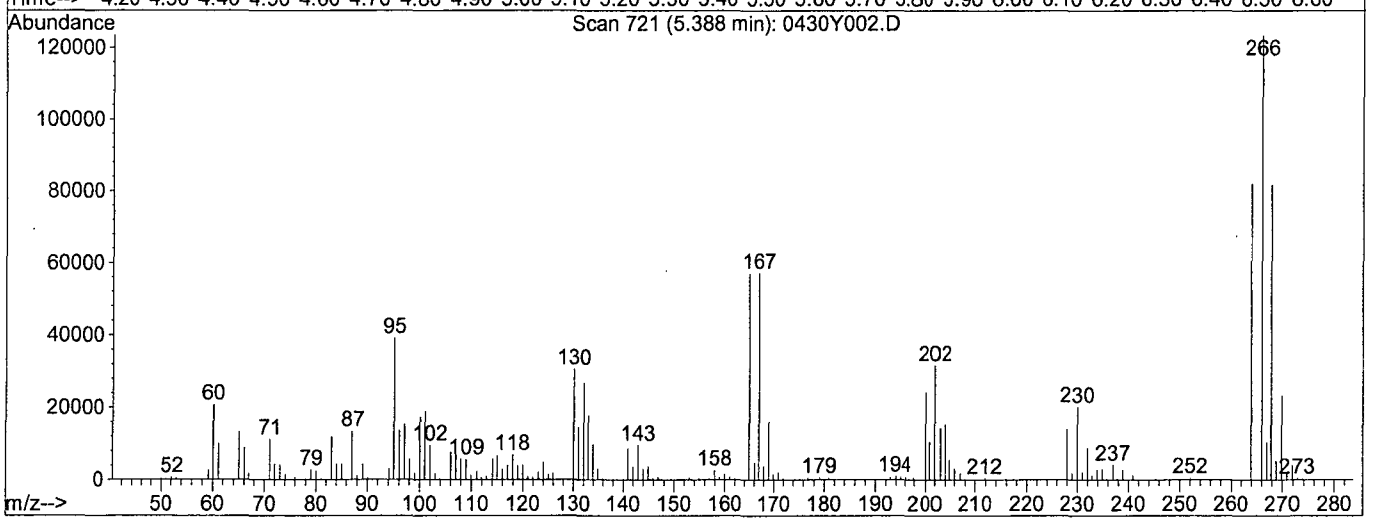
Breakdown **0.55**

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y002.D Vial: 2
Acq On : 30 Apr 19 9:12 Operator: MA
Sample : SV Tune 03/07/18 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Apr 30 9:33 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190430M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 22 13:05:57 2019
Response via : Single Level Calibration




TIC: 0430Y002.D

(5) Pentachlorophenol

5.39min 0.0000

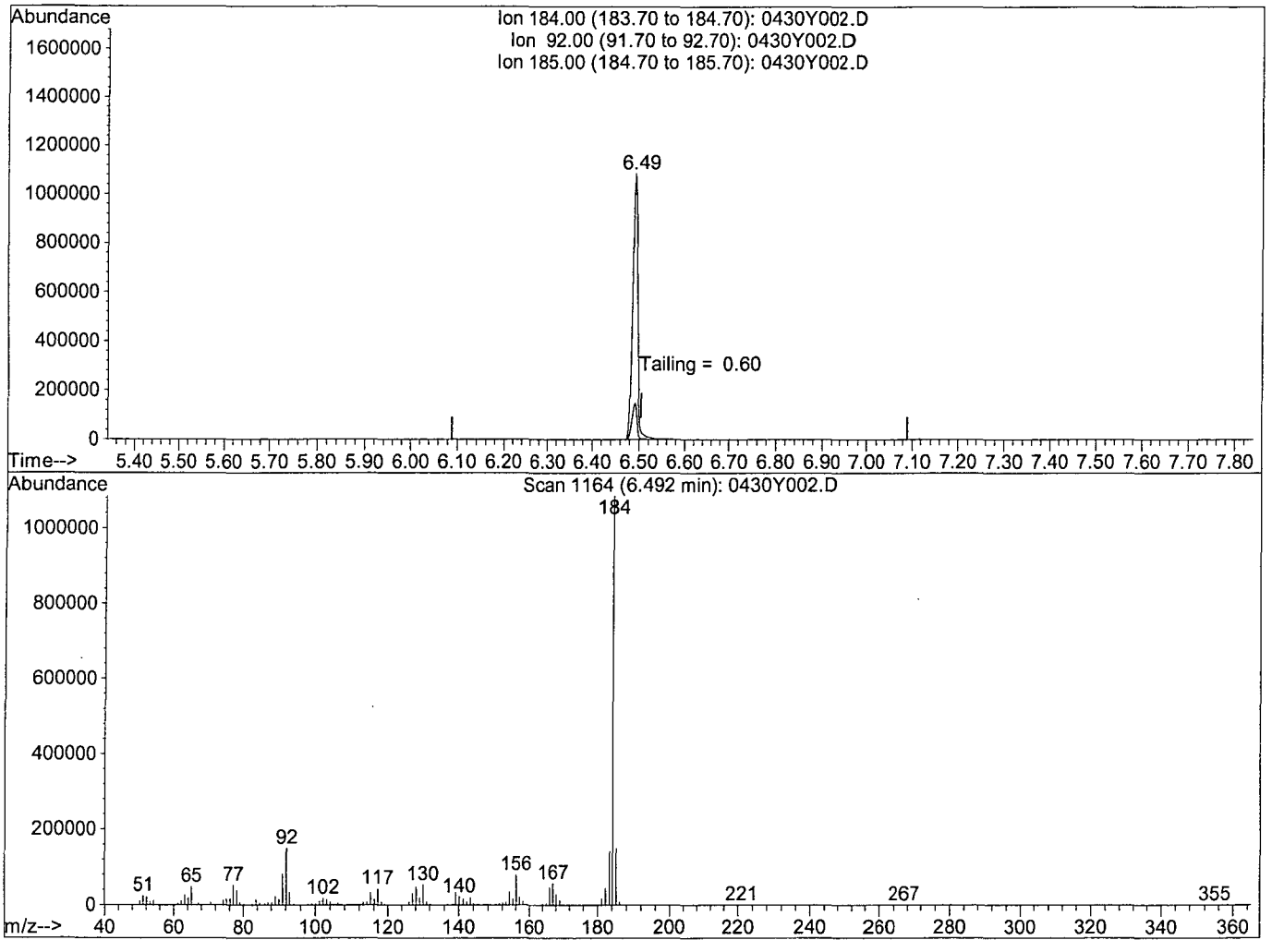
response 830307

| Ion | Exp% | Act% |
|---|---|---|
| 266.00 | 100 | 100 |
| 264.00 | 61.20 | 61.48 |
| 268.00 | 65.20 | 62.81 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y002.D Vial: 2
Acq On : 30 Apr 19 9:12 Operator: MA
Sample : SV Tune 03/07/18 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Apr 30 9:33 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190430M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 22 13:05:57 2019
Response via : Single Level Calibration




TIC: 0430Y002.D

(6) Benzidine

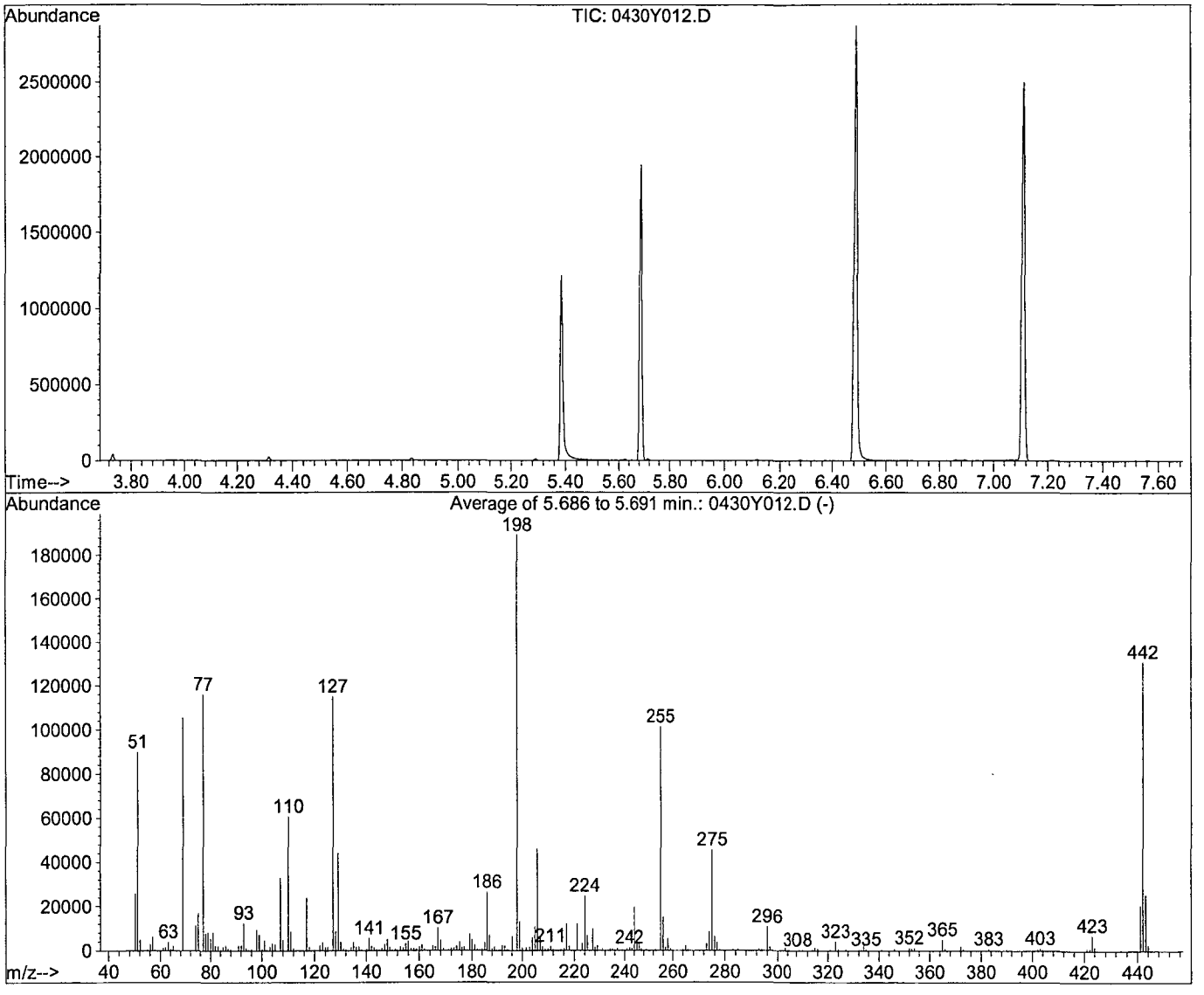
6.49min 0.0000

response 8412205

| Ion | Exp% | Act% |
|---|---|---|
| 184.00 | 100 | 100 |
| 92.00 | 13.60 | 13.24 |
| 185.00 | 14.10 | 13.47 |
| 0.00 | 0.00 | 0.00 |

Data File : M:\YODA\DATA\Y190430M\0430Y012.D  Vial: 12
Acq On : 30 Apr 19 13:58  Operator: MA
Sample : SV Tune 03/07/18  Inst : Yoda
Misc : soil  Multiplr: 1.00

Method : M:\YODA\DATA\Y190430M\YMEE0430.M (RTE Integrator)
Title : EPA 8270C




AutoFind: Scans 841, 842, 843; Background Corrected with Scan 833

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 47.4 | 89739 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.2 | 195 | PASS |
| 127 | 198 | 10 | 80 | 60.8 | 115021 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 189312 | PASS |
| 199 | 198 | 5 | 9 | 6.9 | 12995 | PASS |
| 275 | 198 | 10 | 60 | 24.1 | 45557 | PASS |
| 365 | 198 | 1 | 100 | 2.6 | 4955 | PASS |
| 441 | 442 | 0.01 | 24 | 15.7 | 20524 | PASS |
| 442 | 198 | 50 | 150 | 69.2 | 131056 | PASS |
| 443 | 442 | 15 | 24 | 19.4 | 25461 | PASS |

| | |
|---|---|
| Data File Name: | **0430Y012.D** |
| Data File Path: | **M:\YODA\DATA\Y190430M** |
| Operator: | **MA** |
| Date Acquired: | **30 Apr 2019 13:58** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV Tune 03/07/18** |
| Vial Number: | **12** |
| Instrument Name: | **Yoda** |

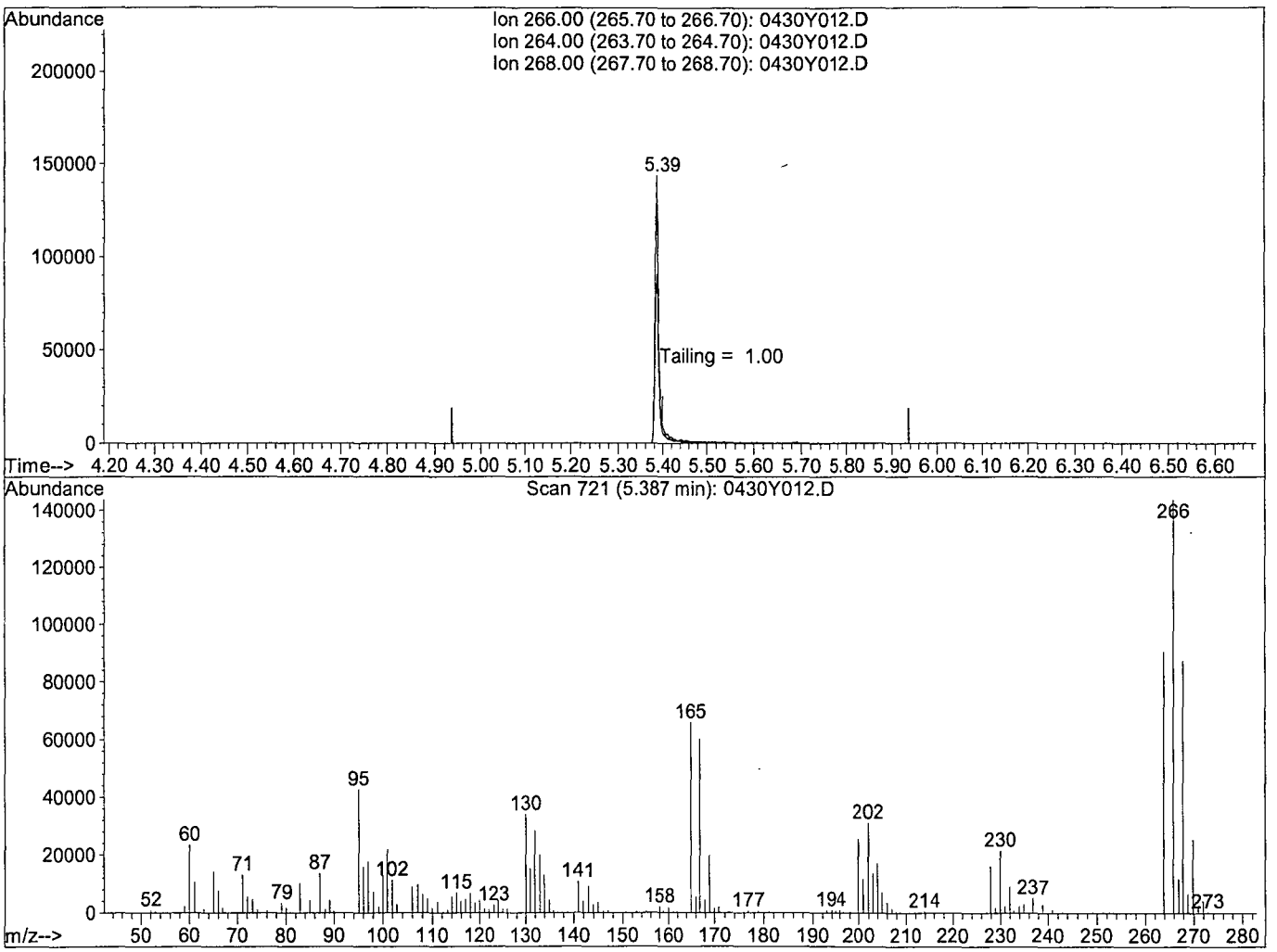
| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.08 | 18965500 |
| 2) | DDD | 6.75 | 0 |
| 3) | DDE | 6.86 | 0 |

Breakdown **0.00**

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y012.D Vial: 12
Acq On : 30 Apr 19 13:58 Operator: MA
Sample : SV Tune 03/07/18 Inst : Yoda
Misc : soil Multiplr: 1.00
Quant Time: Apr 30 15:14 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190430M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 22 13:05:57 2019
Response via : Single Level Calibration




TIC: 0430Y012.D

(5) Pentachlorophenol

5.39min 0.0000

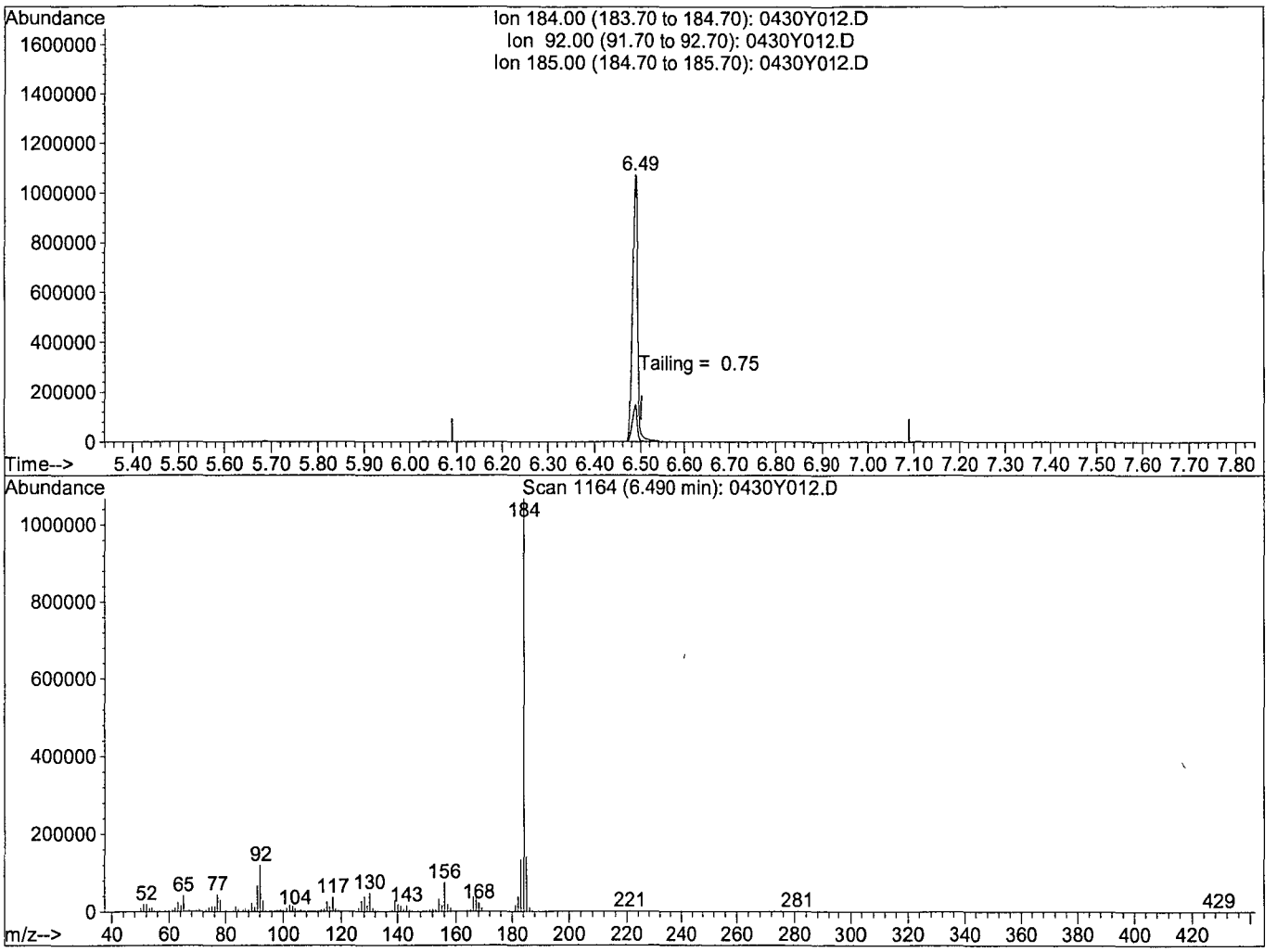
response 903595

| Ion | Exp% | Act% |
|---|---|---|
| 266.00 | 100 | 100 |
| 264.00 | 61.20 | 63.20 |
| 268.00 | 65.20 | 62.05 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report

Data File : M:\YODA\DATA\Y190430M\0430Y012.D Vial: 12
Acq On : 30 Apr 19 13:58 Operator: MA
Sample : SV Tune 03/07/18 Inst : Yoda
Misc : soil Multiplr: 1.00
Quant Time: Apr 30 15:14 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190430M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 22 13:05:57 2019
Response via : Single Level Calibration




TIC: 0430Y012.D

(6) Benzidine

6.49min 0.0000

response 8376584

| Ion | Exp% | Act% |
|---|---|---|
| 184.00 | 100 | 100 |
| 92.00 | 13.60 | 12.73 |
| 185.00 | 14.10 | 13.75 |
| 0.00 | 0.00 | 0.00 |

# Organic Extraction Worksheet

| Method | Solid Phase Extraction of 2MEE in Water | Extraction Set | 190429A | Extraction Method | MWE2MEE | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | Diethylene Glycol 1-31-19 EXP 1-31-20 | | Surrogate ID 1 | | |
| Spiked ID 2 | 2MEE SS 10320ug/mL 8-3-18 exp 8-3-19 | | 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 04/29/19 10:50 | |
| Spiked ID 8 | | | Ext. End Time: | 04/29/19 16:40 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | |
|---|---|---|---|
| pH1 | | | Water Bath Temp Criteria |
| pH2 | | | |
| pH3 | | | |

**Spiked By:** KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190429A Blk | | | | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | |
| 2 | 190429A LCS-1 | | 0.040 | 1 | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | |
| 3 | 190429A LCSD-1 | | 0.040 | 1 | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | |
| 4 | AZ89958 MS-1 | AZ89958W23 | 0.040 | 1 | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88687 |
| 5 | AZ89958 MSD-1 | AZ89958W22 | 0.040 | 1 | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88687 |
| 6 | AZ89958 | AZ89958W24 | | | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88687 |
| 7 | AZ89959 | AZ89959W06 | | | NA | NA equip | 480 | 2 | 7 | 04/29/19 10:50 | 88687 |
| 8 | AZ89961 | AZ89961W22 | | | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88687 |
| 9 | AZ90051 MS-1 | AZ90051W21 | 0.040 | 1 | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 10 | AZ90051 MSD-1 | AZ90051W25 | 0.040 | 1 | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 11 | AZ90051 | AZ90051W22 | | | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 12 | AZ90052 | AZ90052W05 | | | NA | NA equip | 505 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 13 | AZ90054 | AZ90054W16 | | | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 14 | AZ90056 | AZ90056W16 | | | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 15 | AZ90058 | AZ90058W17 | | | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88701 |
| 16 | AZ90060 | AZ90060W17 | | | NA | NA equip | 505 | 2 | 7 | 04/29/19 10:50 | 88701 |

| Solvent and Lot# | |
|---|---|
| ENVI-Carb Plus 400MG/1ML | |
| Reverible Tube Lot: | 11225702 |
| PH Strip | HC 863463 |
| Di Water | 4-29-19 |
| Dichloromethane | 58240 |
| Methanol | 58179 |
| | |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | SS |
| Date | 4/30/19 |
| Time | 11:30 |
| Refrigerator | 6C-C |

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

| Modified | 04/29/19 2:46:49 PM |
|---|---|

**Reviewed By:** KY **Date** 4/30/19

# Organic Extraction Worksheet

| Method | Solid Phase Extraction of 2MEE in Water | Extraction Set | 190429A | Extraction Method | MWE2MEE | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | Diethylene Glycol 1-31-19 EXP 1-31-20 | | Surrogate ID 1 | | |
| Spiked ID 2 | 2MEE SS 10320ug/mL 8-3-18 exp 8-3-19 | | 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 04/29/19 10:50 | |
| Spiked ID 8 | | | Ext. End Time: | 04/29/19 16:40 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | |
|---|---|---|---|
| pH1 | | | Water Bath Temp Criteria |
| pH2 | | | |
| pH3 | | | |

**Spiked By:** KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | AZ90100 | AZ90100W17 | | | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88714 |
| 18 | AZ90102 | AZ90102W16 | | | NA | NA equip | 395 | 2 | 7 | 04/29/19 10:50 | 88714 |
| 19 | AZ90103 | AZ90103W04 | | | NA | NA equip | 250 | 2 | 7 | 04/29/19 10:50 | 88714 |
| 20 | AZ90105 | AZ90105W16 | | | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88714 |
| 21 | AZ90107 | AZ90107W16 | | | NA | NA equip | 510 | 2 | 7 | 04/29/19 10:50 | 88714 |
| 22 | AZ90109 | AZ90109W17 | | | NA | NA equip | 505 | 2 | 7 | 04/29/19 10:50 | 88714 |
| 23 | AZ90213 | AZ90213W15 | | | NA | NA equip | 505 | 2 | 7 | 04/29/19 10:50 | 88736 |
| 24 | AZ90215 | AZ90215W16 | | | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | 88736 |
| 25 | M STD | | 1 | 1 | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | |
| 26 | SS | | 0.097 | 2 | NA | NA equip | 500 | 2 | 7 | 04/29/19 10:50 | |

KS 4/30/19

| Solvent and Lot# | |
|---|---|
| ENVI-Carb Plus 400MG/1ML | |
| Reverible Tube Lot: | 11225702 |
| PH Strip | HC 863463 |
| Di Water | 4-29-19 |
| Dichloromethane | 58240 |
| Methanol | 58179 |
| | |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | |
| Date | |
| Time | |
| Refrigerator | |

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

| Modified | 04/29/19 2:46:49 PM |
|---|---|

**Reviewed By:** KS **Date** 4/30/19



04/30/19 12:56:21 PM Ext_ID 62632

**Name of Final Standard** MEE Curve — **Prep'd By (Initials)** SS

**Prep Date** 04/30/19

**Exp Date** 10/30/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 5 uL | 200uL | Methanol 195uL Lot# 208858 | 50 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 4 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 5 uL | 100uL | Methanol 95uL Lot# 208858 | 100 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 2 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 10 uL | 100uL | Methanol 90uL Lot# 208858 | 200 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 2 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 20 uL | 100uL | Methanol 80 uL Lot# 208858 | 400 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 2 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 50 uL | 200 uL | Methanol 150 uL | 500 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 4 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 30 uL | 100uL | Methanol 70 uL Lot# 208858 | 600 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 2 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 40 uL | 100uL | Methanol 60 uL Lot# 208858 | 800 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 2 uL | " | " | " |
| MEE M STD Stock | APPL | | 2000 ug/mL | 04/29/19 | 01/31/20 | 50 uL | 100uL | Methanol 50uL Lot# 208858 | 1000 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 2 uL | " | " | " |

**Name of Final Standard** MEE Second Source — **Prep'd By (Initials)** SS

**Prep Date** 04/30/19

**Exp Date** 08/03/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| MEE SS | APPL | | 2000 ug/mL | 04/29/19 | 08/03/19 | 50 uL | 200uL | Methanol 150uL Lot# 208858 | 500 ug/mL |
| SV Internal Standard | APPL | 8270 I.S. | 2000 ug/mL | 03/12/19 | 03/12/20 | 4 uL | " | " | " |

**Name of Final Standard** 2MEE Second Source Stock

**Prep'd By (Initials)** GA

**Prep Date** 08/03/18

**Exp Date** 08/03/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Methoxyethanol-Neat | Chem Service | N-12404-1G | Neat 99.5% | **7079100 - 39417** | **08/03/19** | 0.1035g | 10 mL | **MC #56258** | 10320 ug/mL |

Given to Extraction to do **MEE SS** (used for ICAL SS)

0.097ml were spiked in 500ml of water and extracted on 04/29/19 . Final concentration is 2000ug/L

# Injection Log

Directory: M:\YODA\DATA\Y190430M\

| Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|
| 2 | 0430Y002.D | 1 | SV Tune 03/07/18 | | 30 Apr 19 9:12 |
| 3 | 0430Y003.D | 1 | 50ug/ml MEE 04/30/19 | soil | 30 Apr 19 9:27 |
| 4 | 0430Y004.D | 1 | 100ug/ml MEE 04/30/19 | soil | 30 Apr 19 9:50 |
| 5 | 0430Y005.D | 1 | 200ug/ml MEE 04/30/19 | soil | 30 Apr 19 10:13 |
| 6 | 0430Y006.D | 1 | 400ug/ml MEE 04/30/19 | soil | 30 Apr 19 10:37 |
| 7 | 0430Y007.D | 1 | 500ug/ml MEE 04/30/19 | soil | 30 Apr 19 11:00 |
| 8 | 0430Y008.D | 1 | 600ug/ml MEE 04/30/19 | soil | 30 Apr 19 11:23 |
| 9 | 0430Y009.D | 1 | 800ug/ml MEE 04/30/19 | soil | 30 Apr 19 11:47 |
| 10 | 0430Y010.D | 1 | 1000ug/ml MEE 04/30/19 | soil | 30 Apr 19 12:10 |
| 11 | 0430Y011.D | 1 | SS ug/ml MEE 04/30/19 | soil | 30 Apr 19 13:30 |
| 12 | 0430Y012.D | 1 | SV Tune 03/07/18 | soil | 30 Apr 19 13:58 |
| 13 | 0430Y013.D | 1 | 190429A BLK 2/500 | soil | 30 Apr 19 14:13 |
| 14 | 0430Y014.D | 1 | 190429A LCS-1 2/500 | soil | 30 Apr 19 14:37 |
| 15 | 0430Y015.D | 1 | 190429A LCSD-1 2/500 | soil | 30 Apr 19 15:01 |
| 21 | 0430Y021.D | 1 | AZ90051W22 2/500 | soil | 30 Apr 19 17:22 |
| 22 | 0430Y022.D | 1 | AZ90051W21 MS-1 2/500 | soil | 30 Apr 19 17:46 |
| 23 | 0430Y023.D | 1 | AZ90051W25 MSD-1 2/500 | soil | 30 Apr 19 18:09 |
| 24 | 0430Y024.D | 0.9901 | AZ90052W05 2/505 | soil | 30 Apr 19 18:33 |
| 25 | 0430Y025.D | 0.98039 | AZ90054W16 2/510 | soil | 30 Apr 19 18:57 |
| 26 | 0430Y026.D | 0.98039 | AZ90056W16 2/510 | soil | 30 Apr 19 19:20 |
| 27 | 0430Y027.D | 1 | AZ90058W17 2/500 | soil | 30 Apr 19 19:44 |
| 28 | 0430Y028.D | 0.9901 | AZ90060W17 2/505 | soil | 30 Apr 19 20:07 |
| 37 | 0430Y037.D | 1 | 500ug/ml MEE 04/30/19 | soil | 30 Apr 19 23:38 |

# ORGANICS
# Calibration Data

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/24/19
Matrix: water Instrument: Max
Initials: DG/AP

| | | Compound | 0324M05.D 1 | 0324M06.D 2 | 0324M07.D 3 | 0324M08.D 4 | 0324M09.D 5 | 0324M10.D 6 | 0324M11.D 7 | 0324M12.D 8 | 0324M13.D 9 | | Avg | %RSD | Type | r^2 | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | | | | | | | | | | | | | | | | |
| 2 | TM | Dichlorodifluoromethane | | 0.0635 | 0.0693 | 0.0675 | 0.0762 | 0.0701 | 0.0732 | 0.0679 | 0.0629 | | 0.07 | 6.5 | TM | | | |
| 3 | TM | Freon 114 | | 0.1012 | 0.0938 | 0.1001 | 0.0949 | 0.0941 | 0.0972 | 0.0920 | 0.0843 | | 0.09 | 5.5 | TM | | | |
| 4 | TM**L | Chloromethane | | 0.1465 | 0.1082 | 0.0912 | 0.1126 | 0.0971 | 0.1082 | 0.1038 | | | 0.11 | 16 | TM**L | 0.999 | | |
| 5 | TM* | Vinyl chloride | | 0.0921 | 0.1255 | 0.1141 | 0.1198 | 0.1125 | 0.1195 | 0.1149 | 0.1094 | | 0.11 | 8.8 | TM* | | | |
| 6 | TM | Bromomethane | | 0.0818 | 0.0854 | 0.0731 | 0.0733 | 0.0643 | 0.0669 | 0.0635 | 0.0624 | | 0.07 | 12 | TM | | | |
| 7 | TML | Chloroethane | | 0.2608 | 0.1278 | 0.1208 | 0.0863 | 0.0806 | 0.0784 | 0.0764 | | | 0.12 | 56 | TML | 1.000 | | |
| 8 | TM | Dichlorofluoromethane | | 0.2144 | 0.1899 | 0.1886 | 0.2066 | 0.1941 | 0.1977 | 0.1954 | 0.1869 | | 0.20 | 4.8 | TM | | | |
| 9 | TM | Trichlorofluoromethane | | 0.1220 | 0.1310 | 0.1535 | 0.1525 | 0.1474 | 0.1564 | 0.1458 | 0.1373 | | 0.14 | 8.4 | TM | | | |
| 10 | TM | Acrolein | | 0.0027 | 0.0027 | 0.0030 | 0.0033 | 0.0033 | 0.0033 | 0.0035 | 0.0038 | | 0.00 | 12 | TM | | | |
| 11 | TML | Acetone | | | 0.0728 | 0.0437 | 0.0341 | 0.0279 | 0.0233 | 0.0223 | 0.0211 | | 0.04 | 53 | TML | 1.000 | | |
| 12 | TM | Freon-113 | | 0.0733 | 0.0795 | 0.0877 | 0.0905 | 0.0836 | 0.0867 | 0.0807 | 0.0749 | | 0.08 | 7.5 | TM | | | |
| 13 | TM* | 1,1-DCE | | 0.1365 | 0.1369 | 0.1396 | 0.1471 | 0.1437 | 0.1492 | 0.1446 | 0.1392 | | 0.14 | 3.3 | TM* | | | |
| 14 | TM | Acetonitrile | | 0.0112 | 0.0108 | 0.0103 | 0.0109 | 0.0106 | 0.0101 | 0.0100 | 0.0104 | | 0.01 | 3.8 | TM | | | |
| 15 | TM | t-Butanol | | | 0.0027 | 0.0061 | 0.0067 | 0.0066 | 0.0070 | 0.0081 | | | 0.01 | 29 | TM | | * | NT |
| 16 | TM | Methyl Acetate | | | 0.0343 | 0.0339 | 0.0334 | 0.0337 | 0.0334 | 0.0341 | 0.0366 | | 0.03 | 3.2 | TM | | | |
| 17 | TML | Iodomethane | | | 0.0380 | 0.0453 | 0.0823 | 0.0984 | 0.1177 | 0.1200 | 0.1246 | | 0.09 | 40 | TML | 1.000 | | |
| 18 | TM | Acrylonitrile | | | 0.0238 | 0.0269 | 0.0338 | 0.0338 | 0.0342 | 0.0327 | 0.0327 | | 0.03 | 13 | TM | | | |
| 19 | TM | Methylene chloride | | 0.1124 | 0.1130 | 0.1074 | 0.1110 | 0.1105 | 0.1131 | 0.1108 | 0.1078 | | 0.11 | 2.0 | TM | | | |
| 20 | TM | Carbon disulfide | | 0.2714 | 0.2784 | 0.2600 | 0.2731 | 0.2572 | 0.2695 | 0.2670 | 0.2589 | | 0.27 | 2.8 | TM | | | |
| 21 | TM | Methyl t-butyl ether (MtBE) | | 0.1080 | 0.1265 | 0.1233 | 0.1331 | 0.1368 | 0.1382 | 0.1365 | 0.1312 | | 0.13 | 7.8 | TM | | | |
| 22 | TM | Trans-1,2-DCE | | 0.0922 | 0.0912 | 0.1013 | 0.1079 | 0.0990 | 0.1071 | 0.1050 | 0.1002 | | 0.10 | 6.3 | TM | | | |
| 23 | TM | Diisopropyl Ether | | 0.3654 | 0.3588 | 0.3727 | 0.3917 | 0.3900 | 0.3978 | 0.3900 | 0.3787 | | 0.38 | 3.7 | TM | | | |
| 24 | TM** | 1,1-DCA | | 0.1911 | 0.1986 | 0.1887 | 0.1987 | 0.1972 | 0.2065 | 0.2020 | 0.1969 | | 0.20 | 2.9 | TM** | | | |
| 25 | TM | Vinyl Acetate | | 0.1057 | 0.1017 | 0.0997 | 0.1034 | 0.0993 | 0.1021 | 0.0957 | 0.0928 | | 0.10 | 4.2 | TM | | | |
| 26 | TM | Ethyl tert Butyl Ether | | 0.2829 | 0.2984 | 0.3079 | 0.3469 | 0.3344 | 0.3473 | 0.3458 | 0.3331 | | 0.32 | 7.7 | TM | | | |
| 27 | TML | MEK (2-Butanone) | | | 0.0418 | 0.0435 | 0.0341 | 0.0373 | 0.0367 | 0.0328 | 0.0307 | | 0.04 | 13 | TML | 0.998 | | |
| 28 | TM | Cis-1,2-DCE | | 0.1286 | 0.1102 | 0.1136 | 0.1247 | 0.1221 | 0.1283 | 0.1235 | 0.1195 | | 0.12 | 5.4 | TM | | | |
| 29 | TM | 2,2-Dichloropropane | | 0.1644 | 0.1669 | 0.1604 | 0.1758 | 0.1618 | 0.1659 | 0.1622 | 0.1561 | | 0.16 | 3.5 | TM | | | |
| 30 | TM* | Chloroform | | 0.1964 | 0.1951 | 0.1983 | 0.1965 | 0.1895 | 0.1967 | 0.1942 | 0.1916 | | 0.19 | 1.5 | TM* | | | |
| 31 | TM | Bromochloromethane | | 0.0572 | 0.0491 | 0.0591 | 0.0569 | 0.0568 | 0.0572 | 0.0577 | 0.0566 | | 0.06 | 5.3 | TM | | | |
| 32 | S | Dibromofluoromethane(S) | 0.2250 | 0.2190 | 0.1683 | 0.1791 | 0.1920 | 0.1877 | 0.1903 | 0.1887 | 0.1712 | | 0.19 | 10 | S | | | |
| 33 | TM | 1,1,1-TCA | | 0.1676 | 0.1700 | 0.1580 | 0.1656 | 0.1615 | 0.1700 | 0.1652 | 0.1589 | | 0.16 | 2.9 | TM | | | |
| 34 | TM | Cyclohexane | | 0.1238 | 0.1054 | 0.1110 | 0.0999 | 0.0994 | 0.1006 | 0.0952 | 0.0868 | | 0.10 | 11 | TM | | | |
| 35 | TM | 1,1-Dichloropropene | | 0.1274 | 0.1225 | 0.1418 | 0.1441 | 0.1383 | 0.1430 | 0.1365 | 0.1317 | | 0.14 | 5.8 | TM | | | |

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/24/19
Matrix: water Instrument: Max Initials:

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | Avg | %RSD | Type | | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | TM | 2,2,4-Trimethylpentane | | 0.2900 | 0.2859 | 0.2834 | 0.2934 | 0.2904 | 0.2956 | 0.2826 | 0.2625 | | 0.29 | 3.6 | TM | | | |
| 37 | S | 1,2-DCA-D4(S) | 0.2745 | 0.2518 | 0.1982 | 0.2074 | 0.2233 | 0.2148 | 0.2139 | 0.2111 | 0.1879 | | 0.22 | 12 | S | | | |
| 38 | TM | Carbon Tetrachloride | | 0.1036 | 0.0876 | 0.0946 | 0.1165 | 0.1108 | 0.1186 | 0.1230 | 0.1236 | | 0.11 | 12 | TM | | | |
| 39 | TM | Tert-Amyl Methyl Ether | | 0.2612 | 0.2618 | 0.2601 | 0.2943 | 0.2946 | 0.2968 | 0.2906 | 0.2815 | | 0.28 | 5.9 | TM | | | |
| 40 | TM | 1,2-DCA | | 0.1580 | 0.1390 | 0.1485 | 0.1564 | 0.1465 | 0.1506 | 0.1438 | 0.1389 | | 0.15 | 4.9 | TM | | | |
| 41 | TM | Benzene | | 0.4595 | 0.4486 | 0.4417 | 0.4619 | 0.4486 | 0.4553 | 0.4459 | 0.4341 | | 0.45 | 2.1 | TM | | | |
| 42 | TM | TCE | | 0.1094 | 0.1243 | 0.1104 | 0.1213 | 0.1164 | 0.1167 | 0.1154 | 0.1121 | | 0.12 | 4.5 | TM | | | |
| 43 | TM | 2-Pentanone | | 0.0608 | 0.0558 | 0.0582 | 0.0625 | 0.0599 | 0.0614 | 0.0619 | 0.0590 | | 0.06 | 3.7 | TM | | | |
| 44 | TM* | 1,2-Dichloropropane | | 0.1058 | 0.1126 | 0.1148 | 0.1142 | 0.1112 | 0.1144 | 0.1134 | 0.1097 | | 0.11 | 2.7 | TM* | | | |
| 45 | TM | Bromodichloromethane | | 0.1195 | 0.1215 | 0.1184 | 0.1328 | 0.1332 | 0.1346 | 0.1373 | 0.1426 | | 0.13 | 6.9 | TM | | | |
| 46 | TM | Methyl Cyclohexane | | 0.1706 | 0.1612 | 0.1645 | 0.1612 | 0.1596 | 0.1669 | 0.1614 | 0.1482 | | 0.16 | 4.1 | TM | | | |
| 47 | TM | Dibromomethane | | 0.0524 | 0.0523 | 0.0548 | 0.0612 | 0.0625 | 0.0609 | 0.0594 | 0.0574 | | 0.06 | 7.0 | TM | | | |
| 48 | TM | MIBK (methyl isobutyl ketone) | | 0.1016 | 0.0970 | 0.0727 | 0.0867 | 0.0805 | 0.0779 | 0.0764 | 0.0725 | | 0.08 | 13 | TM | | | |
| 49 | TM | 1-Bromo-2-chloroethane | | 0.0789 | 0.0670 | 0.0676 | 0.0765 | 0.0725 | 0.0727 | 0.0724 | 0.0713 | | 0.07 | 5.5 | TM | | | |
| 50 | TM | 2-Chloroethyl vinyl ether | | | | | | | | | | | | | TM | | | |
| 51 | TM | Cis-1,3-Dichloropropene | | 0.1663 | 0.1617 | 0.1587 | 0.1772 | 0.1789 | 0.1831 | 0.1824 | 0.1817 | | 0.17 | 5.7 | TM | | | |
| 52 | TM* | Toluene | | 0.4972 | 0.5110 | 0.5025 | 0.5105 | 0.5015 | 0.5148 | 0.5034 | 0.4921 | | 0.50 | 1.5 | TM* | | | |
| 53 | TM | Trans-1,3-Dichloropropene | | 0.1422 | 0.1303 | 0.1237 | 0.1466 | 0.1492 | 0.1569 | 0.1565 | 0.1575 | | 0.15 | 8.7 | TM | | | |
| 54 | TM | 1,1,2-TCA | | 0.0660 | 0.0734 | 0.0673 | 0.0743 | 0.0721 | 0.0741 | 0.0732 | 0.0703 | | 0.07 | 4.5 | TM | | | |
| 55 | TM | 2-Hexanone | | 0.0653 | 0.0549 | 0.0591 | 0.0564 | 0.0513 | 0.0500 | 0.0505 | 0.0463 | | 0.05 | 11 | TM | | | |
| 56 | I | Chlorobenzene-D5 (IS) | | | | | | | | | | | | | | | | |
| 57 | S | Toluene-D8(S) | 1.394 | 1.286 | 1.018 | 1.062 | 1.091 | 1.071 | 1.080 | 1.053 | 0.9367 | | 1.1 | 13 | S | | | |
| 58 | TM | 1,2-EDB | | 0.1072 | 0.0990 | 0.1151 | 0.1223 | 0.1169 | 0.1185 | 0.1179 | 0.1118 | | 0.11 | 6.5 | TM | | | |
| 59 | TM | Tetrachloroethene | | 0.1523 | 0.1391 | 0.1369 | 0.1398 | 0.1349 | 0.1391 | 0.1320 | 0.1259 | | 0.14 | 5.5 | TM | | | |
| 60 | TM | 1-Chlorohexane | | 0.1831 | 0.1948 | 0.1894 | 0.1920 | 0.1956 | 0.1983 | 0.1902 | 0.1801 | | 0.19 | 3.3 | TM | | | |
| 61 | TM | 1,1,1,2-Tetrachloroethane | | 0.1278 | 0.1216 | 0.1226 | 0.1358 | 0.1371 | 0.1423 | 0.1472 | 0.1494 | | 0.14 | 7.9 | TM | | | |
| 62 | TM | m&p-Xylene | | 0.2826 | 0.2684 | 0.2631 | 0.2947 | 0.2836 | 0.2942 | 0.2860 | 0.2788 | | 0.28 | 4.0 | TM | | | |
| 63 | TM | o-Xylene | | 0.2816 | 0.2864 | 0.2793 | 0.2899 | 0.2899 | 0.2942 | 0.2872 | 0.2852 | | 0.29 | 1.7 | TM | | | |
| 64 | TM | Styrene | | 0.4550 | 0.4494 | 0.4297 | 0.4913 | 0.4738 | 0.4960 | 0.4861 | 0.4829 | | 0.47 | 5.0 | TM | | | |
| 65 | S | 4-Bromofluorobenzene(S) | 0.5102 | 0.4809 | 0.3610 | 0.3788 | 0.3957 | 0.3966 | 0.4009 | 0.3904 | 0.3516 | | 0.41 | 13 | S | | | |
| 66 | TM | 1,3-Dichloropropane | | 0.2080 | 0.1956 | 0.2014 | 0.2199 | 0.2170 | 0.2165 | 0.2080 | 0.1968 | | 0.21 | 4.5 | TM | | | |
| 67 | TM | Dibromochloromethane | | 0.1050 | 0.0989 | 0.0879 | 0.1026 | 0.1069 | 0.1163 | 0.1191 | 0.1267 | | 0.11 | 11 | TM | | | |
| 68 | TM** | Chlorobenzene | | 0.4564 | 0.4155 | 0.4047 | 0.4545 | 0.4416 | 0.4497 | 0.4354 | 0.4311 | | 0.44 | 4.2 | TM** | | | |
| 69 | TM* | Ethylbenzene | | 0.6772 | 0.7012 | 0.6789 | 0.7466 | 0.7340 | 0.7446 | 0.7080 | 0.6930 | | 0.71 | 4.0 | TM* | | | |
| 70 | TM**L | Bromoform | | 0.0491 | 0.0562 | 0.0495 | 0.0546 | 0.0580 | 0.0640 | 0.0700 | 0.0774 | | 0.06 | 17 | TM**L | 0.998 | | |

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/24/19
Matrix: water Instrument: Max Initials:

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | Avg | %RSD | Type | | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | I | 1,4-Dichlorobenzene-D (IS) | | | | | | | | | | | | | | | | |
| 72 | TM | Isopropylbenzene | | 1.387 | 1.372 | 1.385 | 1.421 | 1.361 | 1.388 | 1.352 | 1.319 | | 1.4 | 2.2 | TM | | | |
| 73 | TM** | 1,1,2,2-Tetrachloroethane | | 0.3157 | 0.3309 | 0.3307 | 0.3468 | 0.3458 | 0.3351 | 0.3370 | 0.3415 | | 0.34 | 3.0 | TM** | | | |
| 74 | TM | 1,2,3-Trichloropropane | | 0.0725 | 0.0794 | 0.0764 | 0.0889 | 0.0841 | 0.0838 | 0.0819 | 0.0763 | | 0.08 | 6.6 | TM | | | |
| 75 | TM | t-1,4-Dichloro-2-Butene | | | 0.0382 | 0.0276 | 0.0301 | 0.0284 | 0.0303 | 0.0320 | 0.0303 | | 0.03 | 11 | TM | | | |
| 76 | TM | Bromobenzene | | 0.3670 | 0.3936 | 0.3568 | 0.3853 | 0.3711 | 0.3772 | 0.3683 | 0.3633 | | 0.37 | 3.2 | TM | | | |
| 77 | TM | n-Propylbenzene | | 1.569 | 1.539 | 1.580 | 1.559 | 1.529 | 1.547 | 1.507 | 1.461 | | 1.5 | 2.5 | TM | | | |
| 78 | TM | 4-Ethyltoluene | | 1.305 | 1.346 | 1.365 | 1.395 | 1.380 | 1.390 | 1.355 | 1.322 | | 1.4 | 2.4 | TM | | | |
| 79 | TM | 2-Chlorotoluene | | 0.9027 | 1.006 | 1.002 | 0.9602 | 0.9521 | 0.9493 | 0.9180 | 0.8984 | | 0.95 | 4.3 | TM | | | |
| 80 | TM | 1,3,5-Trimethylbenzene | | 1.144 | 1.154 | 1.193 | 1.197 | 1.165 | 1.165 | 1.128 | 1.093 | | 1.2 | 2.9 | TM | | | |
| 81 | TM | 4-Chlorotoluene | | 1.108 | 1.112 | 1.136 | 1.119 | 1.116 | 1.124 | 1.072 | 1.054 | | 1.1 | 2.5 | TM | | | |
| 82 | TM | Tert-Butylbenzene | | 0.9405 | 1.211 | 1.007 | 1.092 | 1.019 | 1.018 | 0.9872 | 0.9548 | | 1.0 | 8.4 | TM | | | |
| 83 | TM | 1,2,4-Trimethylbenzene | | 1.178 | 1.136 | 1.152 | 1.199 | 1.188 | 1.177 | 1.154 | 1.128 | | 1.2 | 2.2 | TM | | | |
| 84 | TM | Sec-Butylbenzene | | 1.282 | 1.376 | 1.398 | 1.430 | 1.378 | 1.379 | 1.352 | 1.305 | | 1.4 | 3.5 | TM | | | |
| 85 | TM | p-Isopropyltoluene | | 0.5856 | 0.6249 | 0.6134 | 0.6694 | 0.6475 | 0.6492 | 0.6225 | 0.6144 | | 0.63 | 4.2 | TM | | | |
| 86 | TM | Benzyl Chloride | | 0.2555 | 0.2395 | 0.2479 | 0.2873 | 0.2808 | 0.3131 | 0.3202 | 0.3306 | | 0.28 | 12 | TM | | | |
| 87 | TM | 1,3-DCB | | 0.6855 | 0.6569 | 0.6628 | 0.6869 | 0.6823 | 0.6942 | 0.6750 | 0.6746 | | 0.68 | 1.9 | TM | | | |
| 88 | TM | 1,4-DCB | | 0.3624 | 0.3348 | 0.3208 | 0.3509 | 0.3475 | 0.3468 | 0.3505 | 0.3432 | | 0.34 | 3.6 | TM | | | |
| 89 | TM | n-Butylbenzene | | 0.4922 | 0.5100 | 0.4955 | 0.5388 | 0.5024 | 0.5237 | 0.5207 | 0.5078 | | 0.51 | 3.1 | TM | | | |
| 90 | TM | 1,2-DCB | | 0.5627 | 0.5926 | 0.6208 | 0.6461 | 0.6553 | 0.6508 | 0.6445 | 0.6293 | | 0.63 | 5.2 | TM | | | |
| 91 | TML | Hexachloroethane | | 0.0561 | 0.0479 | 0.0556 | 0.0463 | 0.0447 | 0.0582 | 0.0613 | 0.0730 | | 0.06 | 17 | TML | 0.995 | | |
| 92 | TM | 1,2-Dibromo-3-chloropropane | | | 0.0397 | 0.0356 | 0.0470 | 0.0461 | 0.0484 | 0.0521 | 0.0491 | | 0.05 | 13 | TM | | | |
| 93 | TM | 1,2,4-Trichlorobenzene | | 0.3600 | 0.3690 | 0.3442 | 0.4149 | 0.3972 | 0.4184 | 0.4272 | 0.4113 | | 0.39 | 7.9 | TM | | | |
| 94 | TM | Hexachlorobutadiene | | 0.1929 | 0.2069 | 0.2007 | 0.2166 | 0.1970 | 0.2136 | 0.2059 | 0.1911 | | 0.20 | 4.6 | TM | | | |
| 95 | TM | Naphthalene | | 0.6138 | 0.5370 | 0.5736 | 0.6586 | 0.6984 | 0.7193 | 0.7531 | 0.6922 | | 0.66 | 11 | TM | | | |
| 96 | TM | 1,2,3-Trichlorobenzene | | 0.3268 | 0.2954 | 0.3072 | 0.3453 | 0.3525 | 0.3672 | 0.3725 | 0.3520 | | 0.34 | 8.1 | TM | | | |
| 97 | | | | | | | | | | | | | | | | | | |
| 98 | | | | | | | | | | | | | | | | | | |
| 99 | | | | | | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | | | | | | |
| 101 | | | | | | | | | | | | | | | | | | |
| 102 | | | | | | | | | | | | | | | | | | |
| 103 | | | | | | | | | | | | | | | | | | |
| 104 | | | | | | | | | | | | | | | | | | |
| 105 | | | | | | | | | | | | | | | | | | |

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M05.D Vial: 3
Acq On : 24 Mar 19 12:56 Operator: PM,DG,SV,CMM,KV
Sample : 0.3ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 567297 | 25.000 | ppb | | 0.00 |
| 56) Chlorobenzene-D5 (IS) | 8.93 | 117 | 414490 | 25.000 | ppb | | 0.00 |
| 71) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 209079 | 25.000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 32) Dibromofluoromethane(S) | 4.60 | 111 | 25529 | 5.883 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 23.532% | | | |
| 37) 1,2-DCA-D4(S) | 4.95 | 65 | 31146 | 6.230 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 24.920% | | | |
| 57) Toluene-D8(S) | 7.13 | 98 | 115538 | 6.278 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 25.112% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.52 | 95 | 42297 | 6.263 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 25.052% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.13 | 85 | 521 | 0.334 | ppb | | 98 |
| 3) Freon 114 | 1.23 | 85 | 638 | 0.297 | ppb | # | 68 |
| 4) Chloromethane | 1.27 | 50 | 1219 | 0.471 | ppb | # | 81 |
| 5) Vinyl chloride | 1.36 | 62 | 684 | 0.266 | ppb | # | 1 |
| 6) Bromomethane | 1.61 | 94 | 684 | 0.423 | ppb | # | 69 |
| 7) Chloroethane | 1.70 | 64 | 5267 | 2.132 | ppb | | 93 |
| 8) Dichlorofluoromethane | 1.87 | 67 | 1440 | 0.323 | ppb | # | 82 |
| 9) Trichlorofluoromethane | 1.91 | 101 | 999 | 0.307 | ppb | | 99 |
| 10) Acrolein | 2.30 | 56 | 723 | 9.988 | ppb | # | 81 |
| 11) Acetone | 2.46 | 43 | 1016 | -0.762 | ppb | | 86 |
| 12) Freon-113 | 2.39 | 101 | 454 | 0.244 | ppb | # | 91 |
| 13) 1,1-DCE | 2.37 | 61 | 896 | 0.278 | ppb | | 98 |
| 14) Acetonitrile | 2.71 | 41 | 2892 | 12.104 | ppb | # | 74 |
| 15) t-Butanol | 3.03 | 59 | 550 | 3.905 | ppb | | 94 |
| 16) Methyl Acetate | 2.79 | 43 | 274 | 0.353 | ppb | # | 53 |
| 18) Acrylonitrile | 3.10 | 53 | 107 | 0.151 | ppb | # | 18 |
| 19) Methylene chloride | 2.83 | 84 | 730 | 0.291 | ppb | | 87 |
| 20) Carbon disulfide | 2.55 | 76 | 1906 | 0.315 | ppb | | 96 |
| 21) Methyl t-butyl ether (MtBE | 3.14 | 73 | 822 | 0.280 | ppb | # | 89 |
| 22) Trans-1,2-DCE | 3.11 | 96 | 735 | 0.322 | ppb | # | 53 |
| 23) Diisopropyl Ether | 3.64 | 45 | 2392 | 0.277 | ppb | # | 77 |
| 24) 1,1-DCA | 3.50 | 63 | 1312 | 0.293 | ppb | # | 87 |
| 25) Vinyl Acetate | 3.61 | 43 | 774 | 0.341 | ppb | | 100 |
| 26) Ethyl tert Butyl Ether | 4.00 | 59 | 2080 | 0.282 | ppb | | 98 |
| 27) MEK (2-Butanone) | 4.15 | 43 | 388 | -1.150 | ppb | # | 46 |
| 28) Cis-1,2-DCE | 4.10 | 96 | 838 | 0.304 | ppb | | 90 |
| 29) 2,2-Dichloropropane | 4.09 | 77 | 1154 | 0.310 | ppb | # | 88 |
| 30) Chloroform | 4.44 | 83 | 1186 | 0.268 | ppb | | 84 |
| 31) Bromochloromethane | 4.34 | 128 | 248 | 0.194 | ppb | # | 67 |
| 33) 1,1,1-TCA | 4.60 | 97 | 967 | 0.259 | ppb | # | 83 |
| 34) Cyclohexane | 4.66 | 41 | 926 | 0.397 | ppb | # | 61 |
| 35) 1,1-Dichloropropene | 4.79 | 75 | 825 | 0.268 | ppb | # | 68 |
| 36) 2,2,4-Trimethylpentane | 5.12 | 57 | 2329 | 0.360 | ppb | # | 76 |
| 38) Carbon Tetrachloride | 4.78 | 117 | 622 | 0.250 | ppb | # | 68 |
| 39) Tert Amyl Methyl Ether | 5.18 | 73 | 1967 | 0.309 | ppb | # | 79 |
| 40) 1,2-DCA | 5.03 | 62 | 894 | 0.267 | ppb | # | 65 |
| 41) Benzene | 5.01 | 78 | 3056 | 0.300 | ppb | # | 87 |
| 42) TCE | 5.73 | 95 | 1066 | 0.406 | ppb | # | 64 |
| 43) 2-Pentanone | 5.97 | 43 | 14419 | 10.601 | ppb | | 90 |

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

Data File : M:\MAX\DATA\M190324\0324M05.D Vial: 3
Acq On : 24 Mar 19 12:56 Operator: PM,DG,SV,CMM,KV
Sample : 0.3ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|
| 44) 1,2-Dichloropropane | 5.97 | 63 | 637 | 0.251 ppb | # | 89 |
| 45) Bromodichloromethane | 6.28 | 83 | 905 | 0.307 ppb | | 84 |
| 46) Methyl Cyclohexane | 5.94 | 83 | 1260 | 0.343 ppb | | 99 |
| 47) Dibromomethane | 6.09 | 93 | 409 | 0.313 ppb | # | 69 |
| 48) MIBK (methyl isobutyl ket | 7.06 | 43 | 523 | 0.277 ppb | # | 47 |
| 49) 1-Bromo-2-chloroethane | 6.64 | 63 | 494 | 0.301 ppb | | 94 |
| 51) Cis-1,3-Dichloropropene | 6.82 | 75 | 824 | 0.209 ppb | # | 39 |
| 52) Toluene | 7.21 | 91 | 3481 | 0.304 ppb | | 92 |
| 53) Trans-1,3-Dichloropropene | 7.51 | 75 | 879 | 0.266 ppb | | 89 |
| 54) 1,1,2-TCA | 7.71 | 83 | 473 | 0.292 ppb | # | 90 |
| 55) 2-Hexanone | 8.11 | 43 | 650 | 0.528 ppb | # | 32 |
| 58) 1,2-EDB | 8.32 | 107 | 581 | 0.309 ppb | | 93 |
| 59) Tetrachloroethene | 7.87 | 164 | 541 | 0.237 ppb | # | 77 |
| 60) 1-Chlorohexane | 8.99 | 91 | 904 | 0.286 ppb | | 84 |
| 61) 1,1,1,2-Tetrachloroethane | 9.09 | 131 | 507 | 0.226 ppb | # | 56 |
| 62) m&p-Xylene | 9.30 | 106 | 2560 | 0.549 ppb | | 91 |
| 63) o-Xylene | 9.82 | 106 | 1337 | 0.281 ppb | | 85 |
| 64) Styrene | 9.84 | 104 | 2251 | 0.289 ppb | | 96 |
| 66) 1,3-Dichloropropane | 7.92 | 76 | 994 | 0.288 ppb | # | 65 |
| 67) Dibromochloromethane | 8.19 | 129 | 428 | 0.239 ppb | | 90 |
| 68) Chlorobenzene | 8.97 | 112 | 2341 | 0.324 ppb | | 92 |
| 69) Ethylbenzene | 9.14 | 91 | 3488 | 0.296 ppb | # | 80 |
| 70) Bromoform | 10.05 | 173 | 244 | 1.798 ppb | # | 29 |
| 72) Isopropylbenzene | 10.34 | 105 | 3178 | 0.277 ppb | | 96 |
| 73) 1,1,2,2-Tetrachloroethane | 6.28 | 83 | 905 | 0.323 ppb | # | 84 |
| 74) 1,2,3-Trichloropropane | 10.78 | 110 | 201 | 0.299 ppb | # | 17 |
| 76) Bromobenzene | 10.70 | 156 | 784 | 0.251 ppb | | 75 |
| 77) n-Propylbenzene | 10.91 | 91 | 3937 | 0.306 ppb | | 95 |
| 78) 4-Ethyltoluene | 11.06 | 105 | 3158 | 0.278 ppb | | 89 |
| 79) 2-Chlorotoluene | 10.98 | 91 | 2361 | 0.298 ppb | | 92 |
| 80) 1,3,5-Trimethylbenzene | 11.16 | 105 | 2869 | 0.297 ppb | | 81 |
| 81) 4-Chlorotoluene | 11.14 | 91 | 2795 | 0.302 ppb | | 93 |
| 82) Tert-Butylbenzene | 11.61 | 119 | 2561 | 0.298 ppb | | 91 |
| 83) 1,2,4-Trimethylbenzene | 11.68 | 105 | 2952 | 0.303 ppb | | 94 |
| 84) Sec-Butylbenzene | 11.91 | 105 | 3308 | 0.290 ppb | | 93 |
| 85) p-Isopropyltoluene | 12.14 | 119 | 1509 | 0.287 ppb | | 93 |
| 86) Benzyl Chloride | 12.36 | 91 | 632 | 0.266 ppb | # | 62 |
| 87) 1,3-DCB | 12.02 | 146 | 1645 | 0.290 ppb | # | 80 |
| 88) 1,4-DCB | 12.15 | 146 | 931 | 0.323 ppb | # | 85 |
| 89) n-Butylbenzene | 12.72 | 91 | 1221 | 0.285 ppb | | 83 |
| 90) 1,2-DCB | 12.67 | 146 | 1513 | 0.289 ppb | | 88 |
| 91) Hexachloroethane | 13.01 | 117 | 168 | 2.403 ppb | # | 4 |
| 93) 1,2,4-Trichlorobenzene | 14.99 | 180 | 796 | 0.242 ppb | # | 85 |
| 94) Hexachlorobutadiene | 15.28 | 225 | 528 | 0.311 ppb | # | 74 |
| 95) Naphthalene | 15.32 | 128 | 1254 | 0.229 ppb | # | 75 |
| 96) 1,2,3-Trichlorobenzene | 15.67 | 180 | 808 | 0.284 ppb | | 94 |

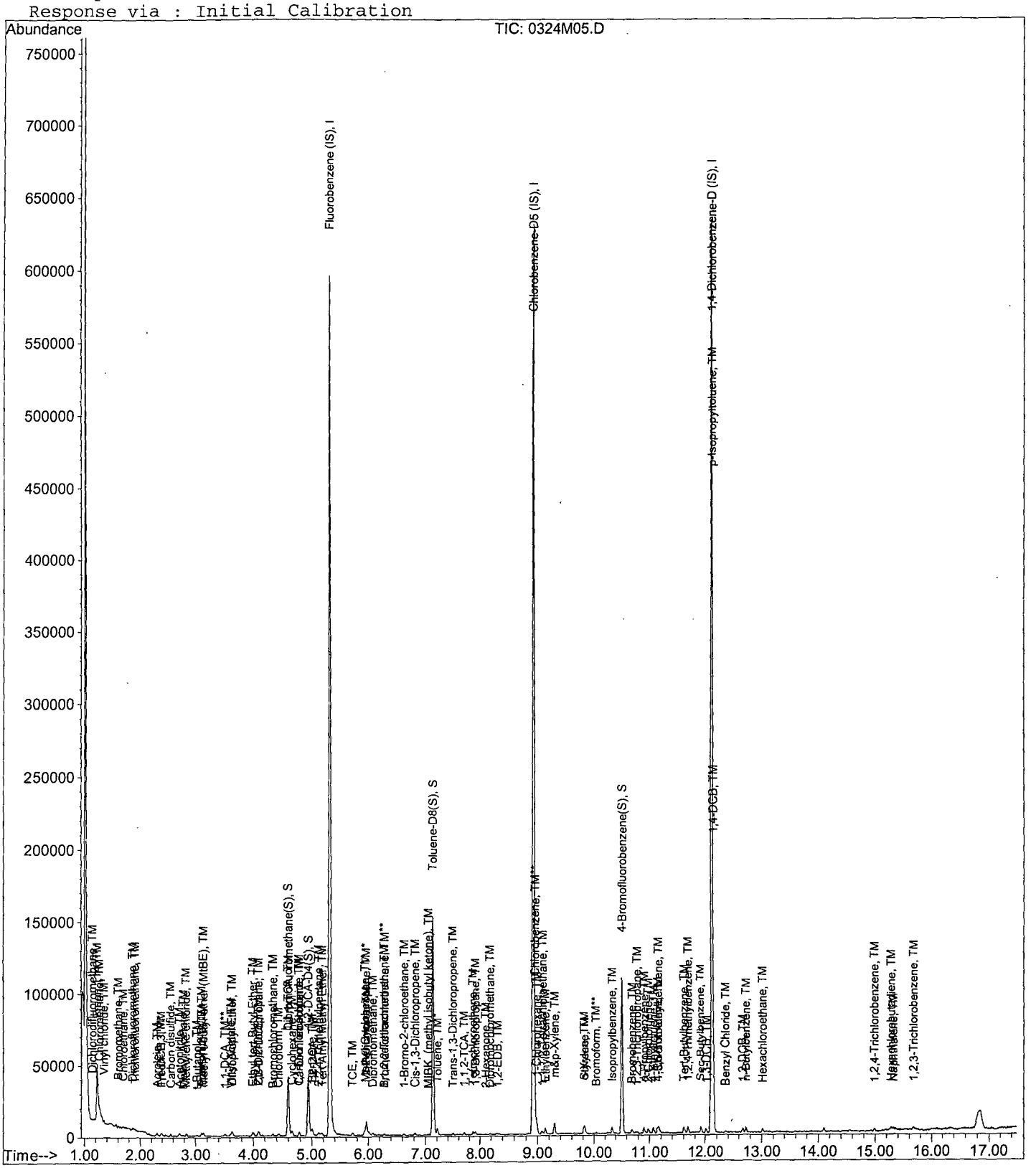
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M05.D  Vial: 3
Acq On : 24 Mar 19 12:56  Operator: PM,DG,SV,CMM,KV
Sample : 0.3ug/L VOC STD 3/24/19  Inst : Max
Misc : Is,Surr 3/24/19  Multiplr: 1.00

Quant Time: Mar 25 9:18 2019  Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M06.D Vial: 4
Acq On : 24 Mar 19 13:25 Operator: PM,DG,SV,CMM,KV
Sample : 0.5ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 548649 | 25.000 | ppb | | 0.00 |
| 56) Chlorobenzene-D5 (IS) | 8.93 | 117 | 408005 | 25.000 | ppb | | 0.00 |
| 71) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 207647 | 25.000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 32) Dibromofluoromethane(S) | 4.60 | 111 | 24026 | 5.724 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 22.896% | | | |
| 37) 1,2-DCA-D4(S) | 4.95 | 65 | 27628 | 5.714 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 22.856% | | | |
| 57) Toluene-D8(S) | 7.13 | 98 | 104917 | 5.791 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 23.164% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.52 | 95 | 39240 | 5.903 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 23.612% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.14 | 85 | 697 | 0.461 | ppb | # | 80 |
| 3) Freon 114 | 1.23 | 85 | 1110 | 0.534 | ppb | | 98 |
| 4) Chloromethane | 1.27 | 50 | 1607 | 0.658 | ppb | | 96 |
| 5) Vinyl chloride | 1.36 | 62 | 1011 | 0.406 | ppb | # | 1 |
| 6) Bromomethane | 1.61 | 94 | 898 | 0.574 | ppb | | 85 |
| 7) Chloroethane | 1.69 | 64 | 2862 | 0.767 | ppb | # | 79 |
| 8) Dichlorofluoromethane | 1.87 | 67 | 2353 | 0.545 | ppb | | 86 |
| 9) Trichlorofluoromethane | 1.91 | 101 | 1339 | 0.426 | ppb | | 79 |
| 10) Acrolein | 2.30 | 56 | 1455 | 20.784 | ppb | | 95 |
| 11) Acetone | 2.45 | 43 | 1189 | -0.303 | ppb | | 89 |
| 12) Freon-113 | 2.39 | 101 | 804 | 0.446 | ppb | # | 86 |
| 13) 1,1-DCE | 2.37 | 61 | 1498 | 0.480 | ppb | | 97 |
| 14) Acetonitrile | 2.71 | 41 | 6123 | 26.498 | ppb | # | 83 |
| 15) t-Butanol | 3.03 | 59 | 3404 | 24.991 | ppb | # | 75 |
| 16) Methyl Acetate | 2.77 | 43 | 412 | 0.549 | ppb | # | 53 |
| 17) Iodomethane | 2.50 | 142 | 127 | 1.552 | ppb | # | 45 |
| 18) Acrylonitrile | 3.08 | 53 | 98 | 0.143 | ppb | # | 81 |
| 19) Methylene chloride | 2.84 | 84 | 1233 | 0.507 | ppb | | 94 |
| 20) Carbon disulfide | 2.55 | 76 | 2978 | 0.508 | ppb | | 97 |
| 21) Methyl t-butyl ether (MtBE | 3.14 | 73 | 1185 | 0.418 | ppb | | 91 |
| 22) Trans-1,2-DCE | 3.10 | 96 | 1012 | 0.459 | ppb | | 77 |
| 23) Diisopropyl Ether | 3.63 | 45 | 4009 | 0.480 | ppb | | 94 |
| 24) 1,1-DCA | 3.51 | 63 | 2097 | 0.484 | ppb | | 92 |
| 25) Vinyl Acetate | 3.62 | 43 | 1160 | 0.528 | ppb | | 100 |
| 26) Ethyl tert Butyl Ether | 4.00 | 59 | 3104 | 0.436 | ppb | # | 86 |
| 27) MEK (2-Butanone) | 4.14 | 43 | 656 | -0.729 | ppb | # | 46 |
| 28) Cis-1,2-DCE | 4.10 | 96 | 1411 | 0.530 | ppb | | 87 |
| 29) 2,2-Dichloropropane | 4.09 | 77 | 1804 | 0.501 | ppb | | 93 |
| 30) Chloroform | 4.44 | 83 | 2155 | 0.504 | ppb | | 85 |
| 31) Bromochloromethane | 4.34 | 128 | 628 | 0.508 | ppb | # | 66 |
| 33) 1,1,1-TCA | 4.62 | 97 | 1839 | 0.509 | ppb | # | 89 |
| 34) Cyclohexane | 4.67 | 41 | 1358 | 0.602 | ppb | | 85 |
| 35) 1,1-Dichloropropene | 4.79 | 75 | 1398 | 0.470 | ppb | # | 86 |
| 36) 2,2,4-Trimethylpentane | 5.12 | 57 | 3182 | 0.508 | ppb | # | 72 |
| 38) Carbon Tetrachloride | 4.78 | 117 | 1137 | 0.472 | ppb | | 81 |
| 39) Tert Amyl Methyl Ether | 5.17 | 73 | 2866 | 0.466 | ppb | # | 91 |
| 40) 1,2-DCA | 5.03 | 62 | 1734 | 0.535 | ppb | # | 73 |
| 41) Benzene | 5.00 | 78 | 5042 | 0.511 | ppb | | 94 |
| 42) TCE | 5.72 | 95 | 1200 | 0.472 | ppb | | 93 |

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

Data File : M:\MAX\DATA\M190324\0324M06.D Vial: 4
Acq On : 24 Mar 19 13:25 Operator: PM,DG,SV,CMM,KV
Sample : 0.5ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 43) | 2-Pentanone | 5.97 | 43 | 33358 | 25.360 | ppb | | 95 |
| 44) | 1,2-Dichloropropane | 5.96 | 63 | 1161 | 0.472 | ppb | # | 89 |
| 45) | Bromodichloromethane | 6.29 | 83 | 1311 | 0.460 | ppb | | 98 |
| 46) | Methyl Cyclohexane | 5.94 | 83 | 1872 | 0.528 | ppb | | 85 |
| 47) | Dibromomethane | 6.09 | 93 | 575 | 0.455 | ppb | # | 69 |
| 48) | MIBK (methyl isobutyl ket | 7.06 | 43 | 1115 | 0.611 | ppb | # | 47 |
| 49) | 1-Bromo-2-chloroethane | 6.63 | 63 | 866 | 0.545 | ppb | | 93 |
| 51) | Cis-1,3-Dichloropropene | 6.82 | 75 | 1825 | 0.479 | ppb | | 88 |
| 52) | Toluene | 7.21 | 91 | 5456 | 0.493 | ppb | | 97 |
| 53) | Trans-1,3-Dichloropropene | 7.50 | 75 | 1560 | 0.489 | ppb | | 97 |
| 54) | 1,1,2-TCA | 7.71 | 83 | 724 | 0.463 | ppb | | 73 |
| 55) | 2-Hexanone | 8.09 | 43 | 717 | 0.603 | ppb | # | 32 |
| 58) | 1,2-EDB | 8.30 | 107 | 875 | 0.472 | ppb | | 87 |
| 59) | Tetrachloroethene | 7.88 | 164 | 1243 | 0.554 | ppb | # | 79 |
| 60) | 1-Chlorohexane | 8.99 | 91 | 1494 | 0.481 | ppb | | 85 |
| 61) | 1,1,1,2-Tetrachloroethane | 9.08 | 131 | 1043 | 0.472 | ppb | | 89 |
| 62) | m&p-Xylene | 9.30 | 106 | 4612 | 1.004 | ppb | | 88 |
| 63) | o-Xylene | 9.82 | 106 | 2298 | 0.491 | ppb | | 66 |
| 64) | Styrene | 9.85 | 104 | 3713 | 0.484 | ppb | | 90 |
| 66) | 1,3-Dichloropropane | 7.91 | 76 | 1697 | 0.500 | ppb | | 100 |
| 67) | Dibromochloromethane | 8.19 | 129 | 857 | 0.487 | ppb | # | 71 |
| 68) | Chlorobenzene | 8.97 | 112 | 3724 | 0.523 | ppb | | 99 |
| 69) | Ethylbenzene | 9.14 | 91 | 5526 | 0.477 | ppb | | 88 |
| 70) | Bromoform | 10.05 | 173 | 401 | 1.925 | ppb | | 89 |
| 72) | Isopropylbenzene | 10.34 | 105 | 5759 | 0.505 | ppb | | 98 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.29 | 83 | 1311 | 0.471 | ppb | # | 98 |
| 74) | 1,2,3-Trichloropropane | 10.79 | 110 | 301 | 0.451 | ppb | | 86 |
| 75) | t-1,4-Dichloro-2-Butene | 10.84 | 53 | 170 | 0.661 | ppb | # | 31 |
| 76) | Bromobenzene | 10.69 | 156 | 1524 | 0.492 | ppb | | 89 |
| 77) | n-Propylbenzene | 10.90 | 91 | 6514 | 0.510 | ppb | | 88 |
| 78) | 4-Ethyltoluene | 11.07 | 105 | 5419 | 0.481 | ppb | | 94 |
| 79) | 2-Chlorotoluene | 10.98 | 91 | 3749 | 0.476 | ppb | | 93 |
| 80) | 1,3,5-Trimethylbenzene | 11.16 | 105 | 4749 | 0.495 | ppb | | 92 |
| 81) | 4-Chlorotoluene | 11.14 | 91 | 4601 | 0.501 | ppb | | 100 |
| 82) | Tert-Butylbenzene | 11.61 | 119 | 3906 | 0.457 | ppb | # | 90 |
| 83) | 1,2,4-Trimethylbenzene | 11.68 | 105 | 4891 | 0.506 | ppb | | 88 |
| 84) | Sec-Butylbenzene | 11.92 | 105 | 5324 | 0.471 | ppb | | 91 |
| 85) | p-Isopropyltoluene | 12.15 | 119 | 2432 | 0.466 | ppb | # | 87 |
| 86) | Benzyl Chloride | 12.36 | 91 | 1061 | 0.449 | ppb | # | 85 |
| 87) | 1,3-DCB | 12.02 | 146 | 2847 | 0.506 | ppb | | 90 |
| 88) | 1,4-DCB | 12.16 | 146 | 1505 | 0.526 | ppb | | 92 |
| 89) | n-Butylbenzene | 12.72 | 91 | 2044 | 0.481 | ppb | | 98 |
| 90) | 1,2-DCB | 12.66 | 146 | 2337 | 0.450 | ppb | | 95 |
| 91) | Hexachloroethane | 13.03 | 117 | 233 | 2.512 | ppb | | 92 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.77 | 157 | 85 | 0.225 | ppb | # | 9 |
| 93) | 1,2,4-Trichlorobenzene | 14.98 | 180 | 1495 | 0.458 | ppb | | 92 |
| 94) | Hexachlorobutadiene | 15.27 | 225 | 801 | 0.475 | ppb | # | 72 |
| 95) | Naphthalene | 15.31 | 128 | 2549 | 0.468 | ppb | | 97 |
| 96) | 1,2,3-Trichlorobenzene | 15.67 | 180 | 1357 | 0.481 | ppb | # | 59 |

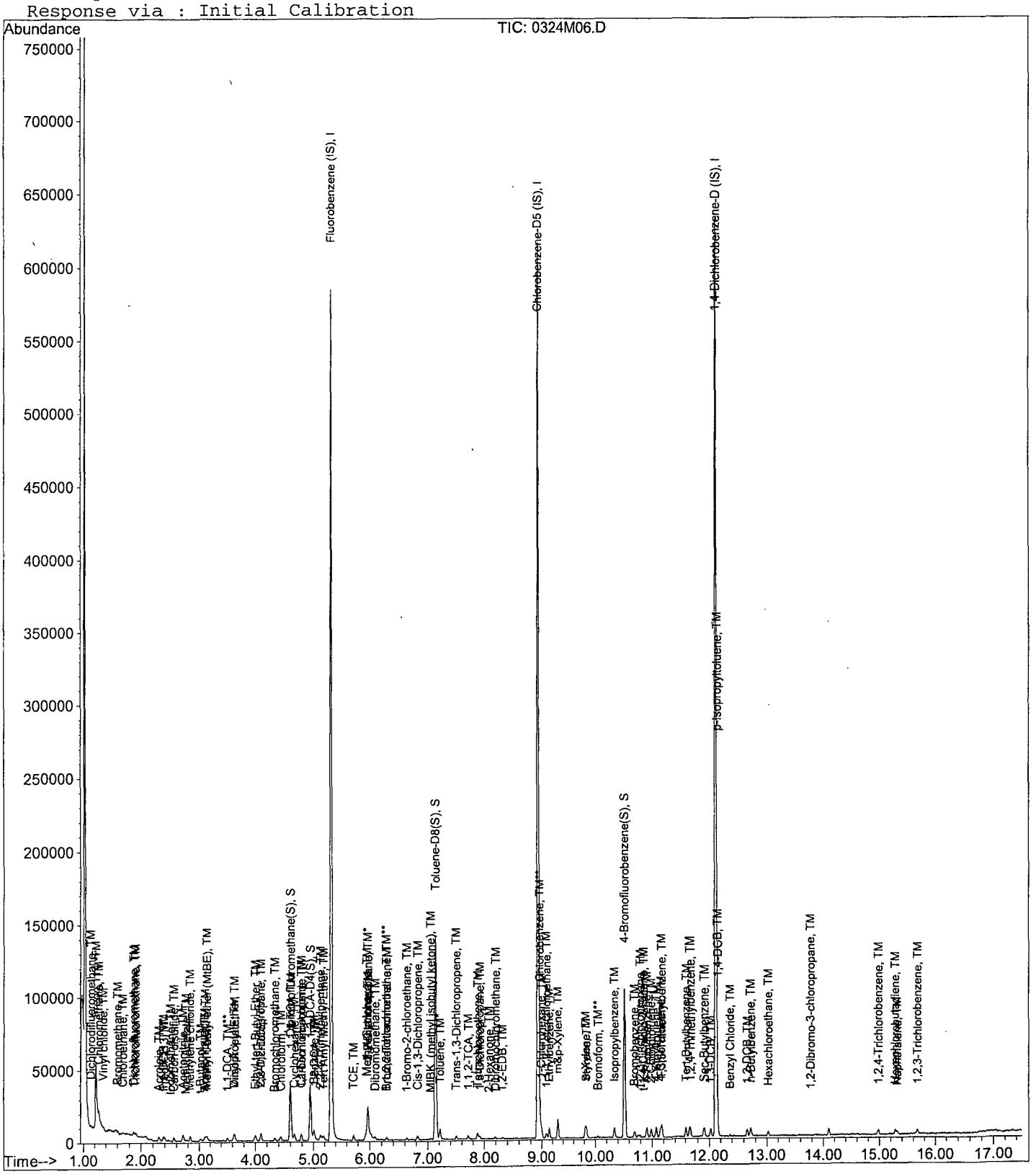
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M06.D Vial: 4
Acq On : 24 Mar 19 13:25 Operator: PM,DG,SV,CMM,KV
Sample : 0.5ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Data File : M:\MAX\DATA\M190324\0324M07.D
Acq On : 24 Mar 19 13:54
Sample : 1.0ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 5
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.32 | 96 | 562637 | 25.000 | ppb | | 0.00 |
| 56) Chlorobenzene-D5 (IS) | 8.93 | 117 | 415204 | 25.000 | ppb | | 0.00 |
| 71) 1,4-Dichlorobenzene-D4 (IS) | 12.12 | 152 | 206662 | 25.000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 32) Dibromofluoromethane(S) | 4.60 | 111 | 37879 | 8.801 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 35.204% | | | |
| 37) 1,2-DCA-D4(S) | 4.95 | 65 | 44603 | 8.995 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 35.980% | | | |
| 57) Toluene-D8(S) | 7.14 | 98 | 169003 | 9.167 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 36.668% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.52 | 95 | 59950 | 8.862 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 35.448% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.14 | 85 | 1559 | 1.006 | ppb | | 95 |
| 3) Freon 114 | 1.24 | 85 | 2112 | 0.991 | ppb | | 93 |
| 4) Chloromethane | 1.27 | 50 | 2436 | 0.994 | ppb | | 96 |
| 5) Vinyl chloride | 1.36 | 62 | 2825 | 1.106 | ppb | | 96 |
| 6) Bromomethane | 1.61 | 94 | 1922 | 1.197 | ppb | | 82 |
| 7) Chloroethane | 1.70 | 64 | 2876 | 0.732 | ppb | | 99 |
| 8) Dichlorofluoromethane | 1.88 | 67 | 4274 | 0.965 | ppb | | 94 |
| 9) Trichlorofluoromethane | 1.92 | 101 | 2948 | 0.915 | ppb | | 77 |
| 10) Acrolein | 2.30 | 56 | 3055 | 42.554 | ppb | | 98 |
| 11) Acetone | 2.46 | 43 | 1639 | 0.605 | ppb | | 87 |
| 12) Freon-113 | 2.40 | 101 | 1789 | 0.968 | ppb | | 95 |
| 13) 1,1-DCE | 2.38 | 61 | 3081 | 0.963 | ppb | | 90 |
| 14) Acetonitrile | 2.71 | 41 | 12157 | 51.302 | ppb | | 88 |
| 15) t-Butanol | 3.03 | 59 | 3092 | 22.136 | ppb | # | 53 |
| 16) Methyl Acetate | 2.78 | 43 | 773 | 1.004 | ppb | | 91 |
| 17) Iodomethane | 2.51 | 142 | 856 | 1.808 | ppb | # | 86 |
| 18) Acrylonitrile | 3.10 | 53 | 536 | 0.765 | ppb | | 94 |
| 19) Methylene chloride | 2.84 | 84 | 2542 | 1.020 | ppb | | 97 |
| 20) Carbon disulfide | 2.56 | 76 | 6265 | 1.043 | ppb | | 97 |
| 21) Methyl t-butyl ether (MtBE | 3.14 | 73 | 2848 | 0.980 | ppb | | 99 |
| 22) Trans-1,2-DCE | 3.10 | 96 | 2052 | 0.907 | ppb | | 96 |
| 23) Diisopropyl Ether | 3.64 | 45 | 8074 | 0.943 | ppb | | 95 |
| 24) 1,1-DCA | 3.51 | 63 | 4470 | 1.006 | ppb | | 97 |
| 25) Vinyl Acetate | 3.63 | 43 | 2288 | 1.016 | ppb | | 100 |
| 26) Ethyl tert Butyl Ether | 4.00 | 59 | 6716 | 0.919 | ppb | | 94 |
| 27) MEK (2-Butanone) | 4.16 | 43 | 940 | -0.339 | ppb | # | 46 |
| 28) Cis-1,2-DCE | 4.10 | 96 | 2479 | 0.908 | ppb | | 98 |
| 29) 2,2-Dichloropropane | 4.09 | 77 | 3757 | 1.017 | ppb | | 95 |
| 30) Chloroform | 4.44 | 83 | 4390 | 1.001 | ppb | | 99 |
| 31) Bromochloromethane | 4.34 | 128 | 1106 | 0.873 | ppb | | 96 |
| 33) 1,1,1-TCA | 4.62 | 97 | 3827 | 1.033 | ppb | # | 79 |
| 34) Cyclohexane | 4.67 | 41 | 2373 | 1.026 | ppb | | 91 |
| 35) 1,1-Dichloropropene | 4.79 | 75 | 2757 | 0.903 | ppb | # | 88 |
| 36) 2,2,4-Trimethylpentane | 5.13 | 57 | 6435 | 1.002 | ppb | # | 70 |
| 38) Carbon Tetrachloride | 4.79 | 117 | 1972 | 0.798 | ppb | | 82 |
| 39) Tert Amyl Methyl Ether | 5.18 | 73 | 5893 | 0.935 | ppb | | 94 |
| 40) 1,2-DCA | 5.03 | 62 | 3129 | 0.941 | ppb | | 99 |
| 41) Benzene | 5.00 | 78 | 10097 | 0.998 | ppb | | 96 |
| 42) TCE | 5.72 | 95 | 2798 | 1.074 | ppb | | 87 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M07.D Vial: 5
Acq On : 24 Mar 19 13:54 Operator: PM,DG,SV,CMM,KV
Sample : 1.0ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 43) | 2-Pentanone | 5.97 | 43 | 62762 | 46.528 | ppb | | 98 |
| 44) | 1,2-Dichloropropane | 5.96 | 63 | 2533 | 1.005 | ppb | # | 89 |
| 45) | Bromodichloromethane | 6.29 | 83 | 2735 | 0.935 | ppb | | 92 |
| 46) | Methyl Cyclohexane | 5.93 | 83 | 3627 | 0.997 | ppb | | 86 |
| 47) | Dibromomethane | 6.09 | 93 | 1178 | 0.908 | ppb | | 95 |
| 48) | MIBK (methyl isobutyl ket | 7.04 | 43 | 2183 | 1.166 | ppb | | 97 |
| 49) | 1-Bromo-2-chloroethane | 6.64 | 63 | 1508 | 0.926 | ppb | | 97 |
| 51) | Cis-1,3-Dichloropropene | 6.82 | 75 | 3638 | 0.930 | ppb | | 94 |
| 52) | Toluene | 7.21 | 91 | 11501 | 1.014 | ppb | | 94 |
| 53) | Trans-1,3-Dichloropropene | 7.51 | 75 | 2933 | 0.897 | ppb | | 99 |
| 54) | 1,1,2-TCA | 7.72 | 83 | 1653 | 1.030 | ppb | | 81 |
| 55) | 2-Hexanone | 8.08 | 43 | 1236 | 1.013 | ppb | # | 65 |
| 58) | 1,2-EDB | 8.31 | 107 | 1645 | 0.872 | ppb | | 89 |
| 59) | Tetrachloroethene | 7.88 | 164 | 2311 | 1.012 | ppb | | 88 |
| 60) | 1-Chlorohexane | 8.99 | 91 | 3236 | 1.023 | ppb | | 88 |
| 61) | 1,1,1,2-Tetrachloroethane | 9.09 | 131 | 2020 | 0.898 | ppb | | 95 |
| 62) | m&p-Xylene | 9.30 | 106 | 8914 | 1.907 | ppb | | 92 |
| 63) | o-Xylene | 9.82 | 106 | 4756 | 0.999 | ppb | | 88 |
| 64) | Styrene | 9.85 | 104 | 7463 | 0.955 | ppb | | 86 |
| 66) | 1,3-Dichloropropane | 7.92 | 76 | 3248 | 0.941 | ppb | | 89 |
| 67) | Dibromochloromethane | 8.19 | 129 | 1642 | 0.916 | ppb | # | 67 |
| 68) | Chlorobenzene | 8.97 | 112 | 6900 | 0.953 | ppb | | 99 |
| 69) | Ethylbenzene | 9.14 | 91 | 11645 | 0.987 | ppb | | 96 |
| 70) | Bromoform | 10.04 | 173 | 934 | 2.333 | ppb | | 96 |
| 72) | Isopropylbenzene | 10.34 | 105 | 11343 | 0.999 | ppb | | 95 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.29 | 83 | 2735 | 0.986 | ppb | # | 92 |
| 74) | 1,2,3-Trichloropropane | 10.79 | 110 | 656 | 0.987 | ppb | | 92 |
| 75) | t-1,4-Dichloro-2-Butene | 10.84 | 53 | 316 | 1.234 | ppb | # | 31 |
| 76) | Bromobenzene | 10.69 | 156 | 3254 | 1.056 | ppb | | 95 |
| 77) | n-Propylbenzene | 10.90 | 91 | 12720 | 1.002 | ppb | | 96 |
| 78) | 4-Ethyltoluene | 11.07 | 105 | 11130 | 0.992 | ppb | | 99 |
| 79) | 2-Chlorotoluene | 10.98 | 91 | 8319 | 1.061 | ppb | | 98 |
| 80) | 1,3,5-Trimethylbenzene | 11.16 | 105 | 9540 | 0.999 | ppb | | 92 |
| 81) | 4-Chlorotoluene | 11.14 | 91 | 9191 | 1.006 | ppb | | 86 |
| 82) | Tert-Butylbenzene | 11.61 | 119 | 10009 | 1.177 | ppb | | 96 |
| 83) | 1,2,4-Trimethylbenzene | 11.68 | 105 | 9393 | 0.976 | ppb | | 99 |
| 84) | Sec-Butylbenzene | 11.92 | 105 | 11374 | 1.010 | ppb | | 99 |
| 85) | p-Isopropyltoluene | 12.14 | 119 | 5166 | 0.995 | ppb | | 89 |
| 86) | Benzyl Chloride | 12.36 | 91 | 1980 | 0.842 | ppb | # | 82 |
| 87) | 1,3-DCB | 12.02 | 146 | 5430 | 0.970 | ppb | | 92 |
| 88) | 1,4-DCB | 12.16 | 146 | 2768 | 0.972 | ppb | | 94 |
| 89) | n-Butylbenzene | 12.72 | 91 | 4216 | 0.997 | ppb | | 90 |
| 90) | 1,2-DCB | 12.66 | 146 | 4899 | 0.948 | ppb | | 95 |
| 91) | Hexachloroethane | 13.02 | 117 | 396 | 2.784 | ppb | | 83 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.78 | 157 | 328 | 0.873 | ppb | # | 49 |
| 93) | 1,2,4-Trichlorobenzene | 14.98 | 180 | 3050 | 0.939 | ppb | | 82 |
| 94) | Hexachlorobutadiene | 15.28 | 225 | 1710 | 1.019 | ppb | | 81 |
| 95) | Naphthalene | 15.31 | 128 | 4439 | 0.819 | ppb | # | 90 |
| 96) | 1,2,3-Trichlorobenzene | 15.67 | 180 | 2442 | 0.869 | ppb | | 84 |

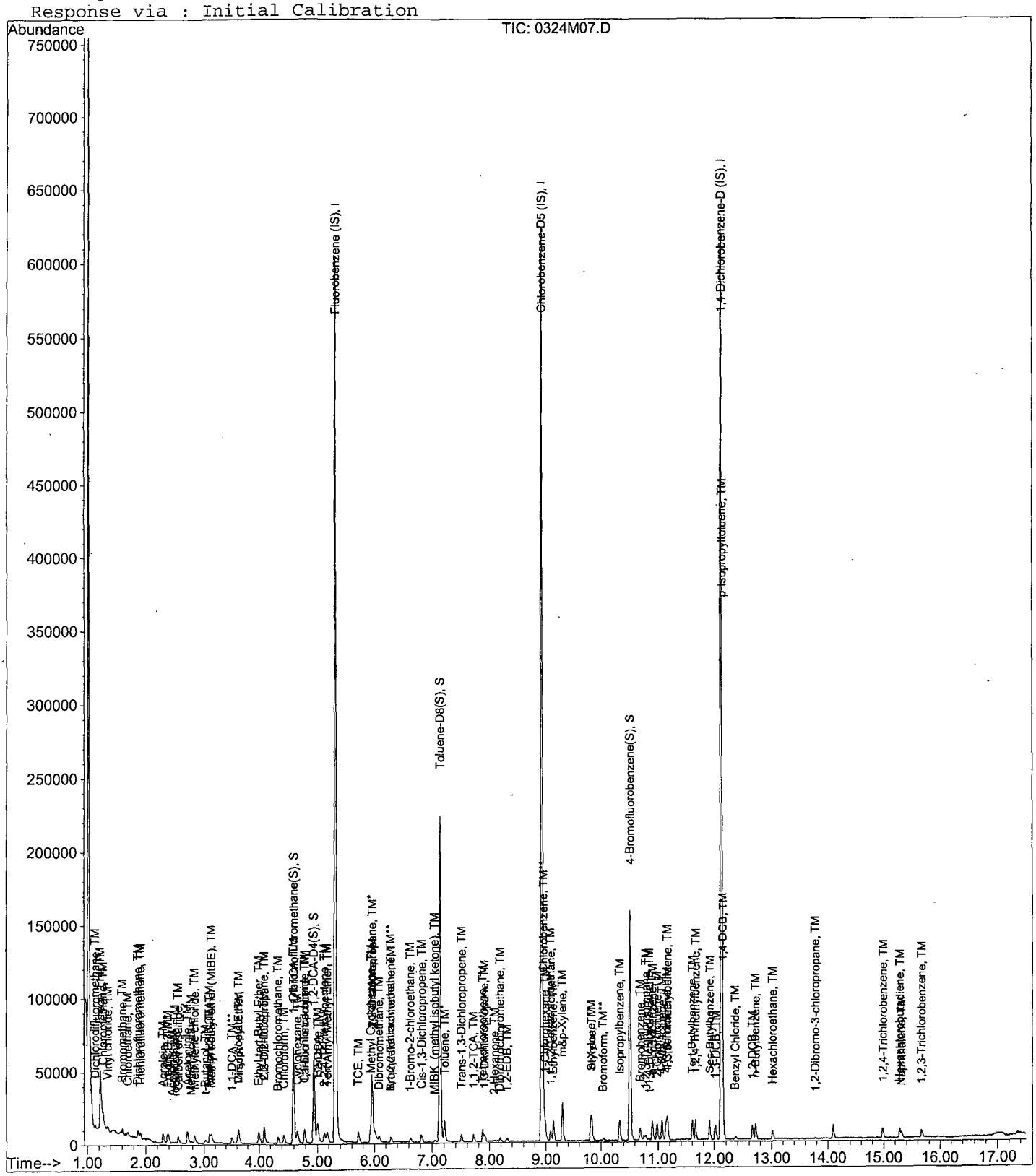
(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M190324\0324M07.D
Acq On : 24 Mar 19 13:54
Sample : 1.0ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 5
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M08.D Vial: 6
Acq On : 24 Mar 19 14:22 Operator: PM,DG,SV,CMM,KV
Sample : 2.0ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.32 | 96 | 588239 | 25.000 ppb | | 0.00 |
| 56) Chlorobenzene-D5 (IS) | 8.93 | 117 | 428656 | 25.000 ppb | | 0.00 |
| 71) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 210603 | 25.000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.60 | 111 | 42136 | 9.364 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 37.456% | | |
| 37) 1,2-DCA-D4(S) | 4.95 | 65 | 48794 | 9.412 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 37.648% | | |
| 57) Toluene-D8(S) | 7.14 | 98 | 182083 | 9.567 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 38.268% | | |
| 65) 4-Bromofluorobenzene(S) | 10.52 | 95 | 64942 | 9.298 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 37.192% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.14 | 85 | 3178 | 1.962 ppb | | 89 |
| 3) Freon 114 | 1.24 | 85 | 4711 | 2.114 ppb | | 100 |
| 4) Chloromethane | 1.27 | 50 | 4290 | 1.705 ppb | | 95 |
| 5) Vinyl chloride | 1.36 | 62 | 5368 | 2.010 ppb | | 91 |
| 6) Bromomethane | 1.61 | 94 | 3440 | 2.049 ppb | | 93 |
| 7) Chloroethane | 1.70 | 64 | 5687 | 2.261 ppb | | 95 |
| 8) Dichlorofluoromethane | 1.87 | 67 | 8877 | 1.918 ppb | | 100 |
| 9) Trichlorofluoromethane | 1.92 | 101 | 7224 | 2.143 ppb | | 97 |
| 10) Acrolein | 2.30 | 56 | 5228 | 69.654 ppb | | 99 |
| 11) Acetone | 2.46 | 43 | 2055 | 1.313 ppb | # | 81 |
| 12) Freon-113 | 2.40 | 101 | 4128 | 2.137 ppb | | 95 |
| 13) 1,1-DCE | 2.38 | 61 | 6569 | 1.965 ppb | | 94 |
| 14) Acetonitrile | 2.71 | 41 | 18140 | 73.218 ppb | | 96 |
| 15) t-Butanol | 3.02 | 59 | 10710 | 73.337 ppb | # | 81 |
| 16) Methyl Acetate | 2.77 | 43 | 1594 | 1.981 ppb | | 89 |
| 17) Iodomethane | 2.50 | 142 | 2131 | 2.224 ppb | | 91 |
| 18) Acrylonitrile | 3.09 | 53 | 1267 | 1.730 ppb | # | 84 |
| 19) Methylene chloride | 2.84 | 84 | 5054 | 1.940 ppb | | 93 |
| 20) Carbon disulfide | 2.55 | 76 | 12237 | 1.948 ppb | | 99 |
| 21) Methyl t-butyl ether (MtBE | 3.14 | 73 | 5803 | 1.909 ppb | | 98 |
| 22) Trans-1,2-DCE | 3.10 | 96 | 4767 | 2.016 ppb | | 95 |
| 23) Diisopropyl Ether | 3.63 | 45 | 17540 | 1.958 ppb | | 93 |
| 24) 1,1-DCA | 3.51 | 63 | 8879 | 1.911 ppb | | 97 |
| 25) Vinyl Acetate | 3.63 | 43 | 4691 | 1.993 ppb | # | 100 |
| 26) Ethyl tert Butyl Ether | 4.00 | 59 | 14488 | 1.897 ppb | | 96 |
| 27) MEK (2-Butanone) | 4.15 | 43 | 2047 | 1.147 ppb | | 88 |
| 28) Cis-1,2-DCE | 4.10 | 96 | 5346 | 1.873 ppb | | 82 |
| 29) 2,2-Dichloropropane | 4.09 | 77 | 7550 | 1.954 ppb | | 98 |
| 30) Chloroform | 4.44 | 83 | 9332 | 2.036 ppb | | 96 |
| 31) Bromochloromethane | 4.34 | 128 | 2781 | 2.098 ppb | | 82 |
| 33) 1,1,1-TCA | 4.61 | 97 | 7435 | 1.920 ppb | # | 85 |
| 34) Cyclohexane | 4.67 | 41 | 5222 | 2.160 ppb | | 87 |
| 35) 1,1-Dichloropropene | 4.79 | 75 | 6674 | 2.091 ppb | | 98 |
| 36) 2,2,4-Trimethylpentane | 5.12 | 57 | 13336 | 1.985 ppb | # | 86 |
| 38) Carbon Tetrachloride | 4.78 | 117 | 4451 | 1.723 ppb | | 96 |
| 39) Tert Amyl Methyl Ether | 5.18 | 73 | 12240 | 1.857 ppb | | 98 |
| 40) 1,2-DCA | 5.03 | 62 | 6987 | 2.010 ppb | | 98 |
| 41) Benzene | 5.00 | 78 | 20785 | 1.965 ppb | | 98 |
| 42) TCE | 5.72 | 95 | 5193 | 1.907 ppb | | 95 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M08.D Vial: 6
Acq On : 24 Mar 19 14:22 Operator: PM,DG,SV,CMM,KV
Sample : 2.0ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 43) | 2-Pentanone | 5.97 | 43 | 102655 | 72.789 | ppb | | 99 |
| 44) | 1,2-Dichloropropane | 5.97 | 63 | 5402 | 2.050 | ppb | | 97 |
| 45) | Bromodichloromethane | 6.29 | 83 | 5572 | 1.822 | ppb | | 90 |
| 46) | Methyl Cyclohexane | 5.93 | 83 | 7740 | 2.034 | ppb | | 87 |
| 47) | Dibromomethane | 6.09 | 93 | 2579 | 1.902 | ppb | | 99 |
| 48) | MIBK (methyl isobutyl ket | 7.04 | 43 | 3419 | 1.747 | ppb | | 95 |
| 49) | 1-Bromo-2-chloroethane | 6.64 | 63 | 3180 | 1.868 | ppb | | 97 |
| 51) | Cis-1,3-Dichloropropene | 6.82 | 75 | 7469 | 1.827 | ppb | | 96 |
| 52) | Toluene | 7.22 | 91 | 23646 | 1.993 | ppb | | 96 |
| 53) | Trans-1,3-Dichloropropene | 7.50 | 75 | 5820 | 1.702 | ppb | | 95 |
| 54) | 1,1,2-TCA | 7.71 | 83 | 3165 | 1.886 | ppb | | 96 |
| 55) | 2-Hexanone | 8.08 | 43 | 2780 | 2.179 | ppb | | 90 |
| 58) | 1,2-EDB | 8.31 | 107 | 3946 | 2.026 | ppb | | 96 |
| 59) | Tetrachloroethene | 7.88 | 164 | 4696 | 1.992 | ppb | | 97 |
| 60) | 1-Chlorohexane | 8.99 | 91 | 6496 | 1.989 | ppb | | 96 |
| 61) | 1,1,1,2-Tetrachloroethane | 9.08 | 131 | 4204 | 1.810 | ppb | | 97 |
| 62) | m&p-Xylene | 9.30 | 106 | 18048 | 3.740 | ppb | | 95 |
| 63) | o-Xylene | 9.82 | 106 | 9578 | 1.948 | ppb | | 89 |
| 64) | Styrene | 9.84 | 104 | 14735 | 1.826 | ppb | | 98 |
| 66) | 1,3-Dichloropropane | 7.92 | 76 | 6905 | 1.937 | ppb | | 95 |
| 67) | Dibromochloromethane | 8.19 | 129 | 3016 | 1.630 | ppb | | 89 |
| 68) | Chlorobenzene | 8.97 | 112 | 13877 | 1.856 | ppb | | 88 |
| 69) | Ethylbenzene | 9.14 | 91 | 23281 | 1.911 | ppb | | 93 |
| 70) | Bromoform | 10.05 | 173 | 1698 | 2.885 | ppb | | 91 |
| 72) | Isopropylbenzene | 10.34 | 105 | 23339 | 2.018 | ppb | | 99 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.29 | 83 | 5572 | 1.972 | ppb | # | 90 |
| 74) | 1,2,3-Trichloropropane | 10.79 | 110 | 1288 | 1.901 | ppb | # | 79 |
| 75) | t-1,4-Dichloro-2-Butene | 10.84 | 53 | 465 | 1.782 | ppb | | 84 |
| 76) | Bromobenzene | 10.69 | 156 | 6011 | 1.914 | ppb | | 91 |
| 77) | n-Propylbenzene | 10.90 | 91 | 26618 | 2.057 | ppb | | 99 |
| 78) | 4-Ethyltoluene | 11.07 | 105 | 23000 | 2.012 | ppb | | 97 |
| 79) | 2-Chlorotoluene | 10.98 | 91 | 16881 | 2.112 | ppb | | 92 |
| 80) | 1,3,5-Trimethylbenzene | 11.17 | 105 | 20103 | 2.066 | ppb | | 95 |
| 81) | 4-Chlorotoluene | 11.14 | 91 | 19132 | 2.055 | ppb | | 100 |
| 82) | Tert-Butylbenzene | 11.60 | 119 | 16970 | 1.958 | ppb | | 97 |
| 83) | 1,2,4-Trimethylbenzene | 11.67 | 105 | 19402 | 1.979 | ppb | | 99 |
| 84) | Sec-Butylbenzene | 11.92 | 105 | 23552 | 2.052 | ppb | | 98 |
| 85) | p-Isopropyltoluene | 12.14 | 119 | 10335 | 1.952 | ppb | | 97 |
| 86) | Benzyl Chloride | 12.36 | 91 | 4177 | 1.744 | ppb | # | 87 |
| 87) | 1,3-DCB | 12.02 | 146 | 11167 | 1.957 | ppb | | 99 |
| 88) | 1,4-DCB | 12.15 | 146 | 5405 | 1.862 | ppb | | 95 |
| 89) | n-Butylbenzene | 12.72 | 91 | 8348 | 1.938 | ppb | | 92 |
| 90) | 1,2-DCB | 12.67 | 146 | 10459 | 1.986 | ppb | | 100 |
| 91) | Hexachloroethane | 13.03 | 117 | 936 | 3.650 | ppb | # | 71 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.78 | 157 | 599 | 1.565 | ppb | # | 81 |
| 93) | 1,2,4-Trichlorobenzene | 14.98 | 180 | 5799 | 1.753 | ppb | | 100 |
| 94) | Hexachlorobutadiene | 15.28 | 225 | 3382 | 1.977 | ppb | | 93 |
| 95) | Naphthalene | 15.32 | 128 | 9664 | 1.749 | ppb | | 95 |
| 96) | 1,2,3-Trichlorobenzene | 15.67 | 180 | 5175 | 1.808 | ppb | | 92 |

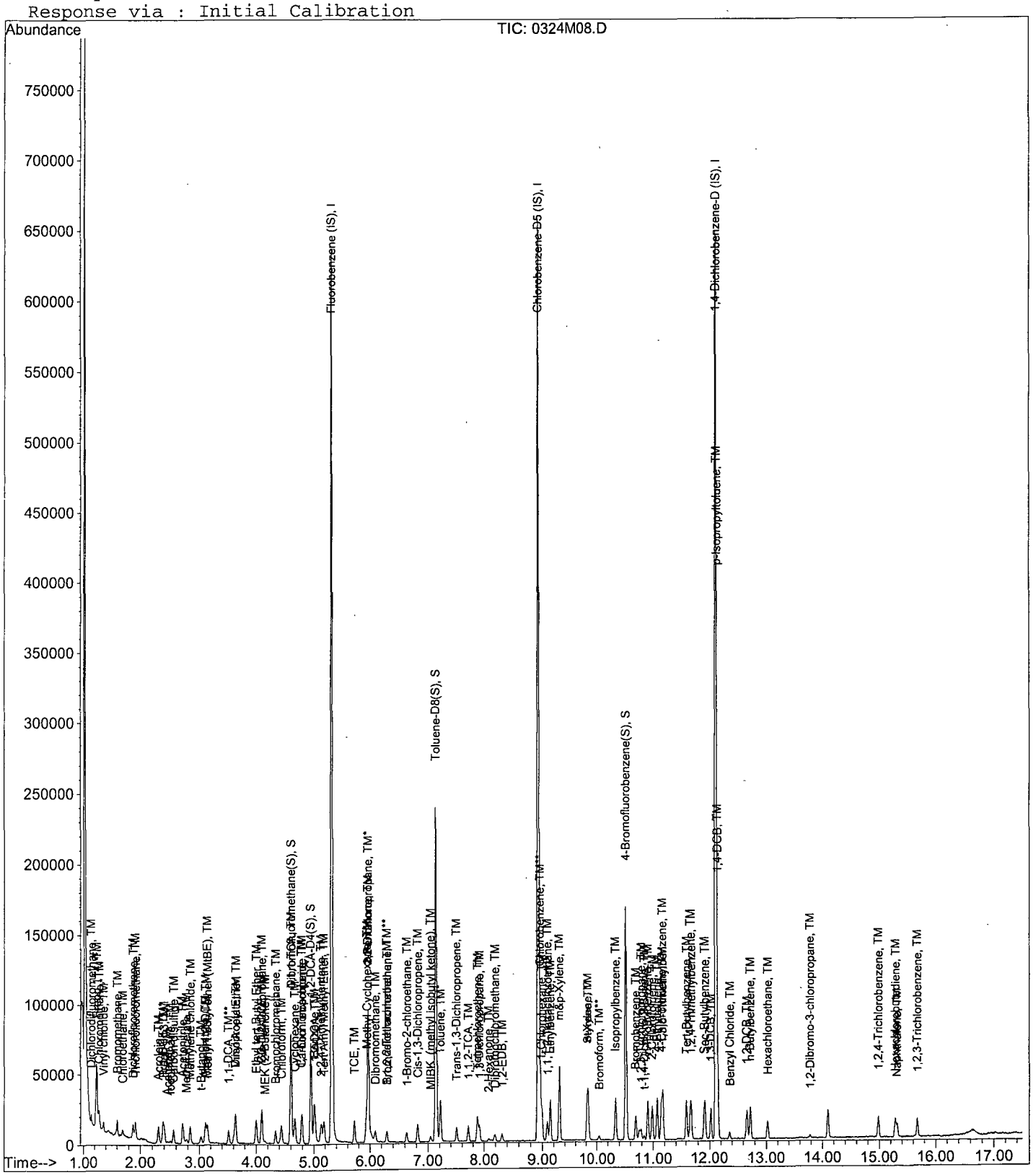
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M08.D Vial: 6
Acq On : 24 Mar 19 14:22 Operator: PM,DG,SV,CMM,KV
Sample : 2.0ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M09.D Vial: 7
Acq On : 24 Mar 19 14:51 Operator: PM,DG,SV,CMM,KV
Sample : 5.0ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.32 | 96 | 551421 | 25.000 ppb | | 0.00 |
| 56) Chlorobenzene-D5 (IS) | 8.93 | 117 | 414802 | 25.000 ppb | | 0.00 |
| 71) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 211221 | 25.000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.60 | 111 | 105862 | 25.096 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 100.384% | | | |
| 37) 1,2-DCA-D4(S) | 4.95 | 65 | 123145 | 25.340 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 101.360% | | | |
| 57) Toluene-D8(S) | 7.13 | 98 | 452516 | 24.569 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 98.276% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.52 | 95 | 164122 | 24.284 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 97.136% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.14 | 85 | 8400 | 5.533 ppb | | 99 |
| 3) Freon 114 | 1.24 | 85 | 10470 | 5.012 ppb | | 98 |
| 4) Chloromethane | 1.27 | 50 | 12414 | 5.356 ppb | | 98 |
| 5) Vinyl chloride | 1.36 | 62 | 13216 | 5.280 ppb | | 99 |
| 6) Bromomethane | 1.60 | 94 | 8082 | 5.137 ppb | | 90 |
| 7) Chloroethane | 1.70 | 64 | 9504 | 4.801 ppb | | 88 |
| 8) Dichlorofluoromethane | 1.88 | 67 | 22787 | 5.252 ppb | | 100 |
| 9) Trichlorofluoromethane | 1.92 | 101 | 16814 | 5.322 ppb | | 96 |
| 10) Acrolein | 2.30 | 56 | 7202 | 102.360 ppb | | 99 |
| 11) Acetone | 2.46 | 43 | 3766 | 5.377 ppb | | 85 |
| 12) Freon-113 | 2.40 | 101 | 9986 | 5.514 ppb | | 96 |
| 13) 1,1-DCE | 2.38 | 61 | 16225 | 5.176 ppb | | 98 |
| 14) Acetonitrile | 2.71 | 41 | 23981 | 103.257 ppb | | 96 |
| 15) t-Butanol | 3.03 | 59 | 14849 | 108.468 ppb | # | 79 |
| 16) Methyl Acetate | 2.78 | 43 | 3679 | 4.877 ppb | | 94 |
| 17) Iodomethane | 2.50 | 142 | 9077 | 4.766 ppb | | 95 |
| 18) Acrylonitrile | 3.09 | 53 | 3732 | 5.435 ppb | | 96 |
| 19) Methylene chloride | 2.84 | 84 | 12241 | 5.012 ppb | | 93 |
| 20) Carbon disulfide | 2.55 | 76 | 30123 | 5.116 ppb | | 99 |
| 21) Methyl t-butyl ether (MtBE | 3.14 | 73 | 14677 | 5.150 ppb | | 98 |
| 22) Trans-1,2-DCE | 3.10 | 96 | 11896 | 5.367 ppb | | 86 |
| 23) Diisopropyl Ether | 3.63 | 45 | 43194 | 5.145 ppb | | 93 |
| 24) 1,1-DCA | 3.51 | 63 | 21912 | 5.031 ppb | | 97 |
| 25) Vinyl Acetate | 3.63 | 43 | 11403 | 5.167 ppb | # | 100 |
| 26) Ethyl tert Butyl Ether | 4.00 | 59 | 38262 | 5.344 ppb | | 97 |
| 27) MEK (2-Butanone) | 4.15 | 43 | 3760 | 3.889 ppb | # | 83 |
| 28) Cis-1,2-DCE | 4.10 | 96 | 13750 | 5.139 ppb | | 99 |
| 29) 2,2-Dichloropropane | 4.09 | 77 | 19384 | 5.352 ppb | | 97 |
| 30) Chloroform | 4.44 | 83 | 21669 | 5.044 ppb | | 95 |
| 31) Bromochloromethane | 4.33 | 128 | 6273 | 5.049 ppb | | 93 |
| 33) 1,1,1-TCA | 4.61 | 97 | 18258 | 5.029 ppb | | 98 |
| 34) Cyclohexane | 4.67 | 41 | 11019 | 4.862 ppb | | 83 |
| 35) 1,1-Dichloropropene | 4.79 | 75 | 15895 | 5.312 ppb | | 93 |
| 36) 2,2,4-Trimethylpentane | 5.13 | 57 | 32360 | 5.139 ppb | | 94 |
| 38) Carbon Tetrachloride | 4.78 | 117 | 12850 | 5.307 ppb | | 99 |
| 39) Tert Amyl Methyl Ether | 5.18 | 73 | 32453 | 5.253 ppb | | 98 |
| 40) 1,2-DCA | 5.03 | 62 | 17247 | 5.293 ppb | | 96 |
| 41) Benzene | 5.01 | 78 | 50937 | 5.138 ppb | | 96 |
| 42) TCE | 5.72 | 95 | 13379 | 5.241 ppb | | 91 |

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

Data File : M:\MAX\DATA\M190324\0324M09.D Vial: 7
Acq On : 24 Mar 19 14:51 Operator: PM,DG,SV,CMM,KV
Sample : 5.0ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

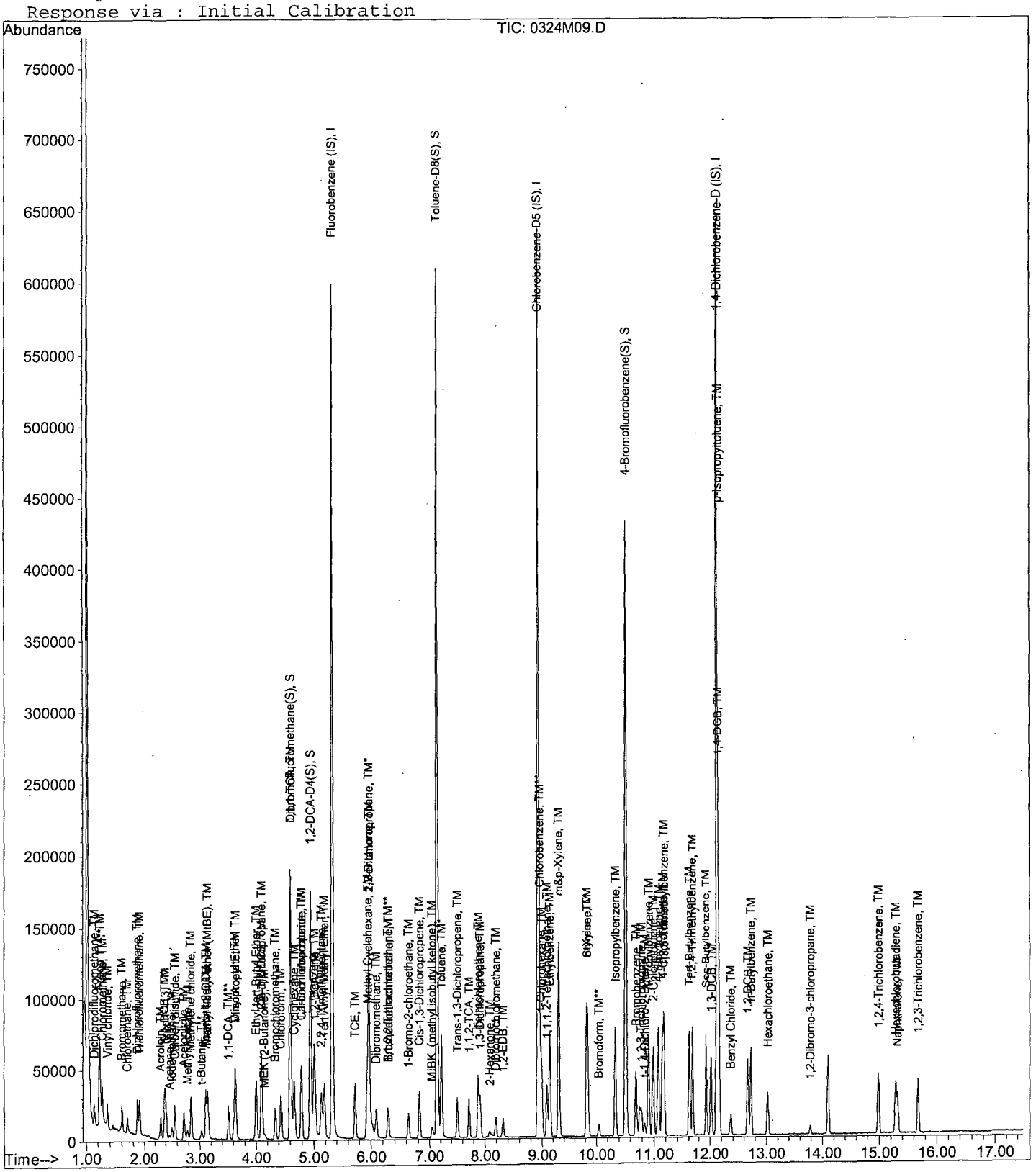
| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 43) | 2-Pentanone | 5.96 | 43 | 137846 | 104.268 | ppb | | 97 |
| 44) | 1,2-Dichloropropane | 5.97 | 63 | 12592 | 5.097 | ppb | # | 94 |
| 45) | Bromodichloromethane | 6.29 | 83 | 14651 | 5.110 | ppb | | 100 |
| 46) | Methyl Cyclohexane | 5.93 | 83 | 17775 | 4.984 | ppb | | 98 |
| 47) | Dibromomethane | 6.09 | 93 | 6749 | 5.311 | ppb | | 93 |
| 48) | MIBK (methyl isobutyl ket | 7.04 | 43 | 9566 | 5.214 | ppb | # | 88 |
| 49) | 1-Bromo-2-chloroethane | 6.63 | 63 | 8435 | 5.285 | ppb | | 91 |
| 51) | Cis-1,3-Dichloropropene | 6.82 | 75 | 19537 | 5.098 | ppb | | 96 |
| 52) | Toluene | 7.21 | 91 | 56304 | 5.063 | ppb | | 95 |
| 53) | Trans-1,3-Dichloropropene | 7.50 | 75 | 16165 | 5.042 | ppb | | 94 |
| 54) | 1,1,2-TCA | 7.72 | 83 | 8189 | 5.205 | ppb | | 95 |
| 55) | 2-Hexanone | 8.08 | 43 | 6221 | 5.202 | ppb | # | 87 |
| 58) | 1,2-EDB | 8.31 | 107 | 10143 | 5.382 | ppb | | 96 |
| 59) | Tetrachloroethene | 7.88 | 164 | 11596 | 5.082 | ppb | | 97 |
| 60) | 1-Chlorohexane | 8.99 | 91 | 15925 | 5.040 | ppb | | 92 |
| 61) | 1,1,1,2-Tetrachloroethane | 9.08 | 131 | 11268 | 5.012 | ppb | | 97 |
| 62) | m&p-Xylene | 9.30 | 106 | 48891 | 10.470 | ppb | | 99 |
| 63) | o-Xylene | 9.82 | 106 | 24051 | 5.056 | ppb | | 95 |
| 64) | Styrene | 9.84 | 104 | 40762 | 5.221 | ppb | | 91 |
| 66) | 1,3-Dichloropropane | 7.92 | 76 | 18240 | 5.288 | ppb | | 97 |
| 67) | Dibromochloromethane | 8.19 | 129 | 8513 | 4.754 | ppb | | 84 |
| 68) | Chlorobenzene | 8.96 | 112 | 37706 | 5.211 | ppb | | 96 |
| 69) | Ethylbenzene | 9.14 | 91 | 61936 | 5.254 | ppb | | 96 |
| 70) | Bromoform | 10.04 | 173 | 4526 | 5.124 | ppb | | 97 |
| 72) | Isopropylbenzene | 10.34 | 105 | 60050 | 5.176 | ppb | | 99 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.29 | 83 | 14651 | 5.170 | ppb | # | 100 |
| 74) | 1,2,3-Trichloropropane | 10.79 | 110 | 3755 | 5.526 | ppb | | 96 |
| 75) | t-1,4-Dichloro-2-Butene | 10.84 | 53 | 1271 | 4.856 | ppb | | 98 |
| 76) | Bromobenzene | 10.69 | 156 | 16277 | 5.167 | ppb | | 98 |
| 77) | n-Propylbenzene | 10.90 | 91 | 65854 | 5.073 | ppb | | 98 |
| 78) | 4-Ethyltoluene | 11.07 | 105 | 58921 | 5.138 | ppb | | 98 |
| 79) | 2-Chlorotoluene | 10.98 | 91 | 40561 | 5.061 | ppb | | 100 |
| 80) | 1,3,5-Trimethylbenzene | 11.17 | 105 | 50570 | 5.183 | ppb | | 99 |
| 81) | 4-Chlorotoluene | 11.14 | 91 | 47268 | 5.063 | ppb | | 96 |
| 82) | Tert-Butylbenzene | 11.61 | 119 | 46125 | 5.307 | ppb | | 96 |
| 83) | 1,2,4-Trimethylbenzene | 11.68 | 105 | 50665 | 5.152 | ppb | | 97 |
| 84) | Sec-Butylbenzene | 11.92 | 105 | 60389 | 5.247 | ppb | | 99 |
| 85) | p-Isopropyltoluene | 12.14 | 119 | 28280 | 5.327 | ppb | | 98 |
| 86) | Benzyl Chloride | 12.36 | 91 | 12136 | 5.051 | ppb | | 97 |
| 87) | 1,3-DCB | 12.02 | 146 | 29019 | 5.071 | ppb | | 96 |
| 88) | 1,4-DCB | 12.15 | 146 | 14822 | 5.091 | ppb | | 99 |
| 89) | n-Butylbenzene | 12.72 | 91 | 22760 | 5.268 | ppb | | 96 |
| 90) | 1,2-DCB | 12.66 | 146 | 27296 | 5.167 | ppb | | 96 |
| 91) | Hexachloroethane | 13.02 | 117 | 1955 | 5.298 | ppb | | 91 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.79 | 157 | 1986 | 5.175 | ppb | # | 84 |
| 93) | 1,2,4-Trichlorobenzene | 14.98 | 180 | 17529 | 5.282 | ppb | | 97 |
| 94) | Hexachlorobutadiene | 15.28 | 225 | 9148 | 5.332 | ppb | | 92 |
| 95) | Naphthalene | 15.31 | 128 | 27823 | 5.022 | ppb | | 99 |
| 96) | 1,2,3-Trichlorobenzene | 15.67 | 180 | 14585 | 5.080 | ppb | | 93 |

(#) = qualifier out of range (m) = manual integration
0324M09.D M0324.M Mon Mar 25 09:22:55 2019

Data File : M:\MAX\DATA\M190324\0324M09.D  Vial: 7
Acq On : 24 Mar 19 14:51  Operator: PM,DG,SV,CMM,KV
Sample : 5.0ug/L VOC STD 3/24/19  Inst : Max
Misc : Is,Surr 3/24/19  Multiplr: 1.00

Quant Time: Mar 25 9:18 2019  Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M10.D Vial: 8
Acq On : 24 Mar 19 15:19 Operator: PM,DG,SV,CMM,KV
Sample : 10ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.32 | 96 | 563465 | 25.000 ppb | 0.00 |
| 56) Chlorobenzene-D5 (IS) | 8.93 | 117 | 422362 | 25.000 ppb | 0.00 |
| 71) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 217007 | 25.000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 32) Dibromofluoromethane(S) | 4.60 | 111 | 105764 | 24.536 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.144% | |
| 37) 1,2-DCA-D4(S) | 4.95 | 65 | 121024 | 24.371 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.484% | |
| 57) Toluene-D8(S) | 7.14 | 98 | 452289 | 24.118 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 96.472% | |
| 65) 4-Bromofluorobenzene(S) | 10.52 | 95 | 167493 | 24.339 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.356% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.14 | 85 | 15800 | 10.185 ppb | 100 |
| 3) Freon 114 | 1.24 | 85 | 21216 | 9.939 ppb | 100 |
| 4) Chloromethane | 1.27 | 50 | 21888 | 9.274 ppb | 100 |
| 5) Vinyl chloride | 1.36 | 62 | 25361 | 9.915 ppb | 100 |
| 6) Bromomethane | 1.60 | 94 | 14483 | 9.008 ppb | 100 |
| 7) Chloroethane | 1.69 | 64 | 18171 | 9.839 ppb | 100 |
| 8) Dichlorofluoromethane | 1.87 | 67 | 43755 | 9.869 ppb | 100 |
| 9) Trichlorofluoromethane | 1.92 | 101 | 33228 | 10.293 ppb | 100 |
| 10) Acrolein | 2.30 | 56 | 9328 | 129.743 ppb | 100 |
| 11) Acetone | 2.46 | 43 | 6298 | 10.673 ppb | 100 |
| 12) Freon-113 | 2.40 | 101 | 18841 | 10.181 ppb | 100 |
| 13) 1,1-DCE | 2.38 | 61 | 32398 | 10.115 ppb | 100 |
| 14) Acetonitrile | 2.71 | 41 | 29850 | 125.781 ppb | 100 |
| 15) t-Butanol | 3.03 | 59 | 18506 | 132.292 ppb | 100 |
| 16) Methyl Acetate | 2.77 | 43 | 7593 | 9.850 ppb | 100 |
| 17) Iodomethane | 2.50 | 142 | 22167 | 9.296 ppb | 100 |
| 18) Acrylonitrile | 3.08 | 53 | 7626 | 10.868 ppb | 100 |
| 19) Methylene chloride | 2.84 | 84 | 24902 | 9.977 ppb | 100 |
| 20) Carbon disulfide | 2.55 | 76 | 57963 | 9.635 ppb | 100 |
| 21) Methyl t-butyl ether (MtBE | 3.14 | 73 | 30824 | 10.586 ppb | 100 |
| 22) Trans-1,2-DCE | 3.10 | 96 | 22303 | 9.848 ppb | 100 |
| 23) Diisopropyl Ether | 3.63 | 45 | 87895 | 10.246 ppb | 100 |
| 24) 1,1-DCA | 3.51 | 63 | 44441 | 9.986 ppb | 100 |
| 25) Vinyl Acetate | 3.63 | 43 | 22384 | 9.927 ppb | 100 |
| 26) Ethyl tert Butyl Ether | 4.00 | 59 | 75361 | 10.301 ppb | 100 |
| 27) MEK (2-Butanone) | 4.15 | 43 | 8407 | 10.542 ppb | 100 |
| 28) Cis-1,2-DCE | 4.10 | 96 | 27525 | 10.068 ppb | 100 |
| 29) 2,2-Dichloropropane | 4.09 | 77 | 36458 | 9.852 ppb | 100 |
| 30) Chloroform | 4.44 | 83 | 42720 | 9.731 ppb | 100 |
| 31) Bromochloromethane | 4.34 | 128 | 12804 | 10.086 ppb | 100 |
| 33) 1,1,1-TCA | 4.61 | 97 | 36404 | 9.813 ppb | 100 |
| 34) Cyclohexane | 4.67 | 41 | 22400 | 9.672 ppb | 100 |
| 35) 1,1-Dichloropropene | 4.79 | 75 | 31180 | 10.197 ppb | 100 |
| 36) 2,2,4-Trimethylpentane | 5.12 | 57 | 65443 | 10.171 ppb | 100 |
| 38) Carbon Tetrachloride | 4.79 | 117 | 24974 | 10.093 ppb | 100 |
| 39) Tert Amyl Methyl Ether | 5.18 | 73 | 66393 | 10.516 ppb | 100 |
| 40) 1,2-DCA | 5.03 | 62 | 33023 | 9.919 ppb | 100 |
| 41) Benzene | 5.01 | 78 | 101103 | 9.981 ppb | 100 |
| 42) TCE | 5.72 | 95 | 26233 | 10.056 ppb | 100 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M10.D Vial: 8
Acq On : 24 Mar 19 15:19 Operator: PM,DG,SV,CMM,KV
Sample : 10ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 43) | 2-Pentanone | 5.96 | 43 | 168816 | 124.965 ppb | 100 |
| 44) | 1,2-Dichloropropane | 5.96 | 63 | 25058 | 9.927 ppb | 100 |
| 45) | Bromodichloromethane | 6.29 | 83 | 30017 | 10.245 ppb | 100 |
| 46) | Methyl Cyclohexane | 5.93 | 83 | 35970 | 9.870 ppb | 100 |
| 47) | Dibromomethane | 6.09 | 93 | 14086 | 10.847 ppb | 100 |
| 48) | MIBK (methyl isobutyl ket | 7.04 | 43 | 18152 | 9.683 ppb | 100 |
| 49) | 1-Bromo-2-chloroethane | 6.63 | 63 | 16331 | 10.013 ppb | 100 |
| 51) | Cis-1,3-Dichloropropene | 6.82 | 75 | 40326 | 10.297 ppb | 100 |
| 52) | Toluene | 7.21 | 91 | 113034 | 9.948 ppb | 100 |
| 53) | Trans-1,3-Dichloropropene | 7.50 | 75 | 33629 | 10.264 ppb | 100 |
| 54) | 1,1,2-TCA | 7.71 | 83 | 16256 | 10.112 ppb | 100 |
| 55) | 2-Hexanone | 8.08 | 43 | 11554 | 9.454 ppb | 100 |
| 58) | 1,2-EDB | 8.31 | 107 | 19743 | 10.289 ppb | 100 |
| 59) | Tetrachloroethene | 7.88 | 164 | 22799 | 9.813 ppb | 100 |
| 60) | 1-Chlorohexane | 8.99 | 91 | 33041 | 10.269 ppb | 100 |
| 61) | 1,1,1,2-Tetrachloroethane | 9.08 | 131 | 23168 | 10.121 ppb | 100 |
| 62) | m&p-Xylene | 9.30 | 106 | 95832 | 20.155 ppb | 100 |
| 63) | o-Xylene | 9.82 | 106 | 48979 | 10.112 ppb | 100 |
| 64) | Styrene | 9.84 | 104 | 80042 | 10.069 ppb | 100 |
| 66) | 1,3-Dichloropropane | 7.92 | 76 | 36664 | 10.440 ppb | 100 |
| 67) | Dibromochloromethane | 8.19 | 129 | 18059 | 9.904 ppb | 100 |
| 68) | Chlorobenzene | 8.96 | 112 | 74610 | 10.127 ppb | 100 |
| 69) | Ethylbenzene | 9.14 | 91 | 124010 | 10.332 ppb | 100 |
| 70) | Bromoform | 10.04 | 173 | 9803 | 9.087 ppb | 100 |
| 72) | Isopropylbenzene | 10.34 | 105 | 118164 | 9.913 ppb | 100 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.29 | 83 | 30017 | 10.309 ppb | 100 |
| 74) | 1,2,3-Trichloropropane | 10.79 | 110 | 7302 | 10.460 ppb | 100 |
| 75) | t-1,4-Dichloro-2-Butene | 10.84 | 53 | 2461 | 9.152 ppb | 100 |
| 76) | Bromobenzene | 10.69 | 156 | 32214 | 9.954 ppb | 100 |
| 77) | n-Propylbenzene | 10.90 | 91 | 132686 | 9.950 ppb | 100 |
| 78) | 4-Ethyltoluene | 11.07 | 105 | 119764 | 10.165 ppb | 100 |
| 79) | 2-Chlorotoluene | 10.98 | 91 | 82647 | 10.037 ppb | 100 |
| 80) | 1,3,5-Trimethylbenzene | 11.16 | 105 | 101151 | 10.090 ppb | 100 |
| 81) | 4-Chlorotoluene | 11.14 | 91 | 96860 | 10.099 ppb | 100 |
| 82) | Tert-Butylbenzene | 11.61 | 119 | 88438 | 9.904 ppb | 100 |
| 83) | 1,2,4-Trimethylbenzene | 11.67 | 105 | 103147 | 10.208 ppb | 100 |
| 84) | Sec-Butylbenzene | 11.92 | 105 | 119618 | 10.115 ppb | 100 |
| 85) | p-Isopropyltoluene | 12.14 | 119 | 56208 | 10.305 ppb | 100 |
| 86) | Benzyl Chloride | 12.36 | 91 | 24375 | 9.875 ppb | 100 |
| 87) | 1,3-DCB | 12.02 | 146 | 59227 | 10.074 ppb | 100 |
| 88) | 1,4-DCB | 12.15 | 146 | 30160 | 10.083 ppb | 100 |
| 89) | n-Butylbenzene | 12.72 | 91 | 43608 | 9.824 ppb | 100 |
| 90) | 1,2-DCB | 12.66 | 146 | 56886 | 10.481 ppb | 100 |
| 91) | Hexachloroethane | 13.02 | 117 | 3883 | 8.257 ppb | 100 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.78 | 157 | 4000 | 10.144 ppb | 100 |
| 93) | 1,2,4-Trichlorobenzene | 14.98 | 180 | 34480 | 10.113 ppb | 100 |
| 94) | Hexachlorobutadiene | 15.28 | 225 | 17104 | 9.703 ppb | 100 |
| 95) | Naphthalene | 15.32 | 128 | 60622 | 10.650 ppb | 100 |
| 96) | 1,2,3-Trichlorobenzene | 15.67 | 180 | 30594 | 10.371 ppb | 100 |

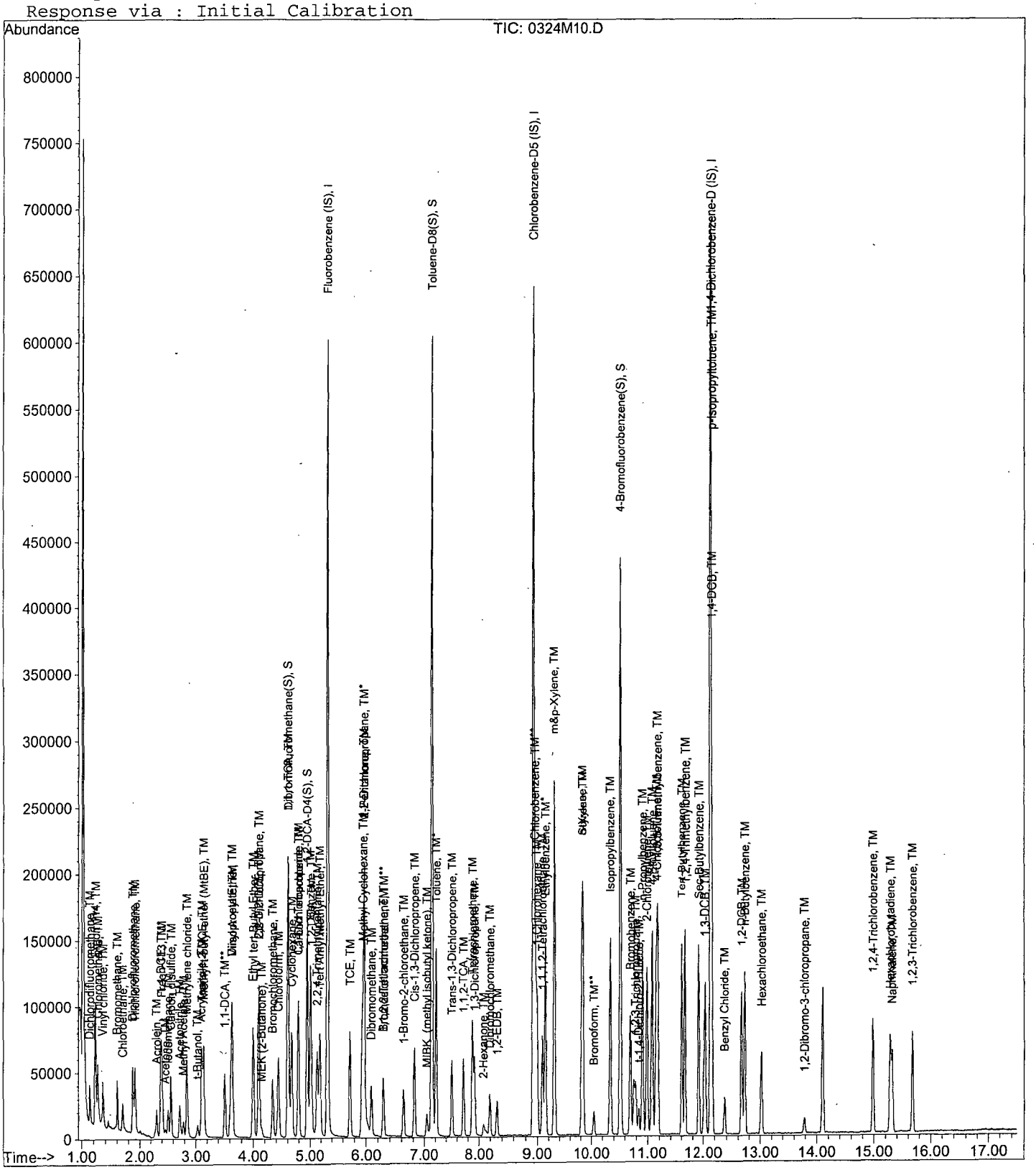
(#) = qualifier out of range (m) = manual integration
0324M10.D M0324.M Mon Mar 25 09:22:59 2019 Page 2

Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M10.D Vial: 8
Acq On : 24 Mar 19 15:19 Operator: PM,DG,SV,CMM,KV
Sample : 10ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Data File : M:\MAX\DATA\M190324\0324M11.D
Acq On : 24 Mar 19 15:48
Sample : 20ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 9
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 554172 | 25.000 ppb | | 0.00 |
| 56) Chlorobenzene-D5 (IS) | 8.93 | 117 | 421724 | 25.000 ppb | | 0.00 |
| 71) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 222616 | 25.000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.60 | 111 | 210921 | 49.753 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 199.012% | | | |
| 37) 1,2-DCA-D4(S) | 4.94 | 65 | 237117 | 48.550 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 194.200% | | | |
| 57) Toluene-D8(S) | 7.14 | 98 | 910661 | 48.633 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 194.532% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.52 | 95 | 338144 | 49.211 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 196.844% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.14 | 85 | 32456 | 21.273 ppb | | 97 |
| 3) Freon 114 | 1.23 | 85 | 43098 | 20.528 ppb | | 96 |
| 4) Chloromethane | 1.27 | 50 | 47984 | 20.726 ppb | | 98 |
| 5) Vinyl chloride | 1.36 | 62 | 52982 | 21.062 ppb | | 93 |
| 6) Bromomethane | 1.60 | 94 | 29675 | 18.766 ppb | | 94 |
| 7) Chloroethane | 1.69 | 64 | 34768 | 20.072 ppb | | 96 |
| 8) Dichlorofluoromethane | 1.87 | 67 | 87633 | 20.098 ppb | | 100 |
| 9) Trichlorofluoromethane | 1.91 | 101 | 69322 | 21.833 ppb | | 99 |
| 10) Acrolein | 2.30 | 56 | 10928 | 154.546 ppb | | 91 |
| 11) Acetone | 2.46 | 43 | 10315 | 19.732 ppb | | 98 |
| 12) Freon-113 | 2.39 | 101 | 38430 | 21.114 ppb | | 98 |
| 13) 1,1-DCE | 2.37 | 61 | 66156 | 21.001 ppb | | 97 |
| 14) Acetonitrile | 2.71 | 41 | 33503 | 143.541 ppb | | 96 |
| 15) t-Butanol | 3.03 | 59 | 23389 | 170.002 ppb | # | 89 |
| 16) Methyl Acetate | 2.77 | 43 | 14827 | 19.556 ppb | | 96 |
| 17) Iodomethane | 2.50 | 142 | 52162 | 20.144 ppb | | 97 |
| 18) Acrylonitrile | 3.08 | 53 | 15159 | 21.967 ppb | | 97 |
| 19) Methylene chloride | 2.84 | 84 | 50150 | 20.430 ppb | | 96 |
| 20) Carbon disulfide | 2.55 | 76 | 119461 | 20.190 ppb | | 100 |
| 21) Methyl t-butyl ether (MtBE | 3.13 | 73 | 61256 | 21.389 ppb | | 98 |
| 22) Trans-1,2-DCE | 3.10 | 96 | 47491 | 21.321 ppb | | 98 |
| 23) Diisopropyl Ether | 3.63 | 45 | 176365 | 20.903 ppb | | 98 |
| 24) 1,1-DCA | 3.51 | 63 | 91543 | 20.915 ppb | | 98 |
| 25) Vinyl Acetate | 3.63 | 43 | 45272 | 20.414 ppb | # | 100 |
| 26) Ethyl tert Butyl Ether | 4.00 | 59 | 153977 | 21.400 ppb | | 99 |
| 27) MEK (2-Butanone) | 4.14 | 43 | 16260 | 22.386 ppb | | 90 |
| 28) Cis-1,2-DCE | 4.10 | 96 | 56873 | 21.152 ppb | | 96 |
| 29) 2,2-Dichloropropane | 4.09 | 77 | 73546 | 20.207 ppb | | 98 |
| 30) Chloroform | 4.43 | 83 | 87196 | 20.194 ppb | | 97 |
| 31) Bromochloromethane | 4.33 | 128 | 25339 | 20.295 ppb | | 99 |
| 33) 1,1,1-TCA | 4.61 | 97 | 75383 | 20.660 ppb | | 95 |
| 34) Cyclohexane | 4.67 | 41 | 44609 | 19.584 ppb | | 99 |
| 35) 1,1-Dichloropropene | 4.79 | 75 | 63411 | 21.085 ppb | | 97 |
| 36) 2,2,4-Trimethylpentane | 5.12 | 57 | 131033 | 20.707 ppb | | 99 |
| 38) Carbon Tetrachloride | 4.78 | 117 | 52560 | 21.598 ppb | | 95 |
| 39) Tert Amyl Methyl Ether | 5.18 | 73 | 131590 | 21.193 ppb | | 99 |
| 40) 1,2-DCA | 5.03 | 62 | 66760 | 20.388 ppb | | 98 |
| 41) Benzene | 5.00 | 78 | 201862 | 20.261 ppb | | 99 |
| 42) TCE | 5.72 | 95 | 51727 | 20.162 ppb | | 97 |

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

Data File : M:\MAX\DATA\M190324\0324M11.D
Acq On : 24 Mar 19 15:48
Sample : 20ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 9
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 43) | 2-Pentanone | 5.96 | 43 | 204142 | 153.649 ppb | 100 |
| 44) | 1,2-Dichloropropane | 5.96 | 63 | 50739 | 20.437 ppb | 98 |
| 45) | Bromodichloromethane | 6.29 | 83 | 59679 | 20.711 ppb | 96 |
| 46) | Methyl Cyclohexane | 5.93 | 83 | 74014 | 20.650 ppb | 100 |
| 47) | Dibromomethane | 6.09 | 93 | 27008 | 21.147 ppb | 98 |
| 48) | MIBK (methyl isobutyl ket | 7.04 | 43 | 34524 | 18.725 ppb | 92 |
| 49) | 1-Bromo-2-chloroethane | 6.63 | 63 | 32240 | 20.100 ppb | 99 |
| 51) | Cis-1,3-Dichloropropene | 6.82 | 75 | 81196 | 21.081 ppb | 99 |
| 52) | Toluene | 7.21 | 91 | 228223 | 20.422 ppb | 100 |
| 53) | Trans-1,3-Dichloropropene | 7.50 | 75 | 69565 | 21.589 ppb | 97 |
| 54) | 1,1,2-TCA | 7.71 | 83 | 32831 | 20.765 ppb | 96 |
| 55) | 2-Hexanone | 8.08 | 43 | 22187 | 18.459 ppb | 98 |
| 58) | 1,2-EDB | 8.31 | 107 | 39973 | 20.864 ppb | 96 |
| 59) | Tetrachloroethene | 7.88 | 164 | 46918 | 20.225 ppb | 97 |
| 60) | 1-Chlorohexane | 8.99 | 91 | 66913 | 20.828 ppb | 96 |
| 61) | 1,1,1,2-Tetrachloroethane | 9.08 | 131 | 48015 | 21.008 ppb | 89 |
| 62) | m&p-Xylene | 9.30 | 106 | 198547 | 41.822 ppb | 98 |
| 63) | o-Xylene | 9.82 | 106 | 99251 | 20.521 ppb | 99 |
| 64) | Styrene | 9.84 | 104 | 167349 | 21.084 ppb | 96 |
| 66) | 1,3-Dichloropropane | 7.92 | 76 | 73028 | 20.826 ppb | 99 |
| 67) | Dibromochloromethane | 8.19 | 129 | 39222 | 21.543 ppb | 92 |
| 68) | Chlorobenzene | 8.97 | 112 | 151717 | 20.623 ppb | 98 |
| 69) | Ethylbenzene | 9.14 | 91 | 251207 | 20.961 ppb | 97 |
| 70) | Bromoform | 10.04 | 173 | 21577 | 18.095 ppb | 100 |
| 72) | Isopropylbenzene | 10.34 | 105 | 247238 | 20.219 ppb | 98 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.29 | 83 | 59679 | 19.980 ppb | 96 |
| 74) | 1,2,3-Trichloropropane | 10.79 | 110 | 14930 | 20.848 ppb | 95 |
| 75) | t-1,4-Dichloro-2-Butene | 10.84 | 53 | 5394 | 19.553 ppb | 99 |
| 76) | Bromobenzene | 10.69 | 156 | 67184 | 20.236 ppb | 99 |
| 77) | n-Propylbenzene | 10.90 | 91 | 275598 | 20.145 ppb | 97 |
| 78) | 4-Ethyltoluene | 11.07 | 105 | 247637 | 20.489 ppb | 99 |
| 79) | 2-Chlorotoluene | 10.98 | 91 | 169070 | 20.015 ppb | 100 |
| 80) | 1,3,5-Trimethylbenzene | 11.17 | 105 | 207449 | 20.173 ppb | 96 |
| 81) | 4-Chlorotoluene | 11.14 | 91 | 200132 | 20.341 ppb | 100 |
| 82) | Tert-Butylbenzene | 11.61 | 119 | 181301 | 19.793 ppb | 96 |
| 83) | 1,2,4-Trimethylbenzene | 11.68 | 105 | 209675 | 20.229 ppb | 100 |
| 84) | Sec-Butylbenzene | 11.92 | 105 | 245529 | 20.240 ppb | 96 |
| 85) | p-Isopropyltoluene | 12.14 | 119 | 115616 | 20.662 ppb | 98 |
| 86) | Benzyl Chloride | 12.36 | 91 | 55766 | 22.023 ppb | 97 |
| 87) | 1,3-DCB | 12.02 | 146 | 123627 | 20.499 ppb | 98 |
| 88) | 1,4-DCB | 12.15 | 146 | 61768 | 20.129 ppb | 99 |
| 89) | n-Butylbenzene | 12.72 | 91 | 93272 | 20.483 ppb | 98 |
| 90) | 1,2-DCB | 12.66 | 146 | 115898 | 20.816 ppb | 98 |
| 91) | Hexachloroethane | 13.02 | 117 | 10369 | 18.082 ppb | 85 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.78 | 157 | 8622 | 21.315 ppb | 89 |
| 93) | 1,2,4-Trichlorobenzene | 14.98 | 180 | 74515 | 21.305 ppb | 99 |
| 94) | Hexachlorobutadiene | 15.28 | 225 | 38038 | 21.035 ppb | 90 |
| 95) | Naphthalene | 15.32 | 128 | 128095 | 21.937 ppb | 97 |
| 96) | 1,2,3-Trichlorobenzene | 15.67 | 180 | 65395 | 21.610 ppb | 94 |

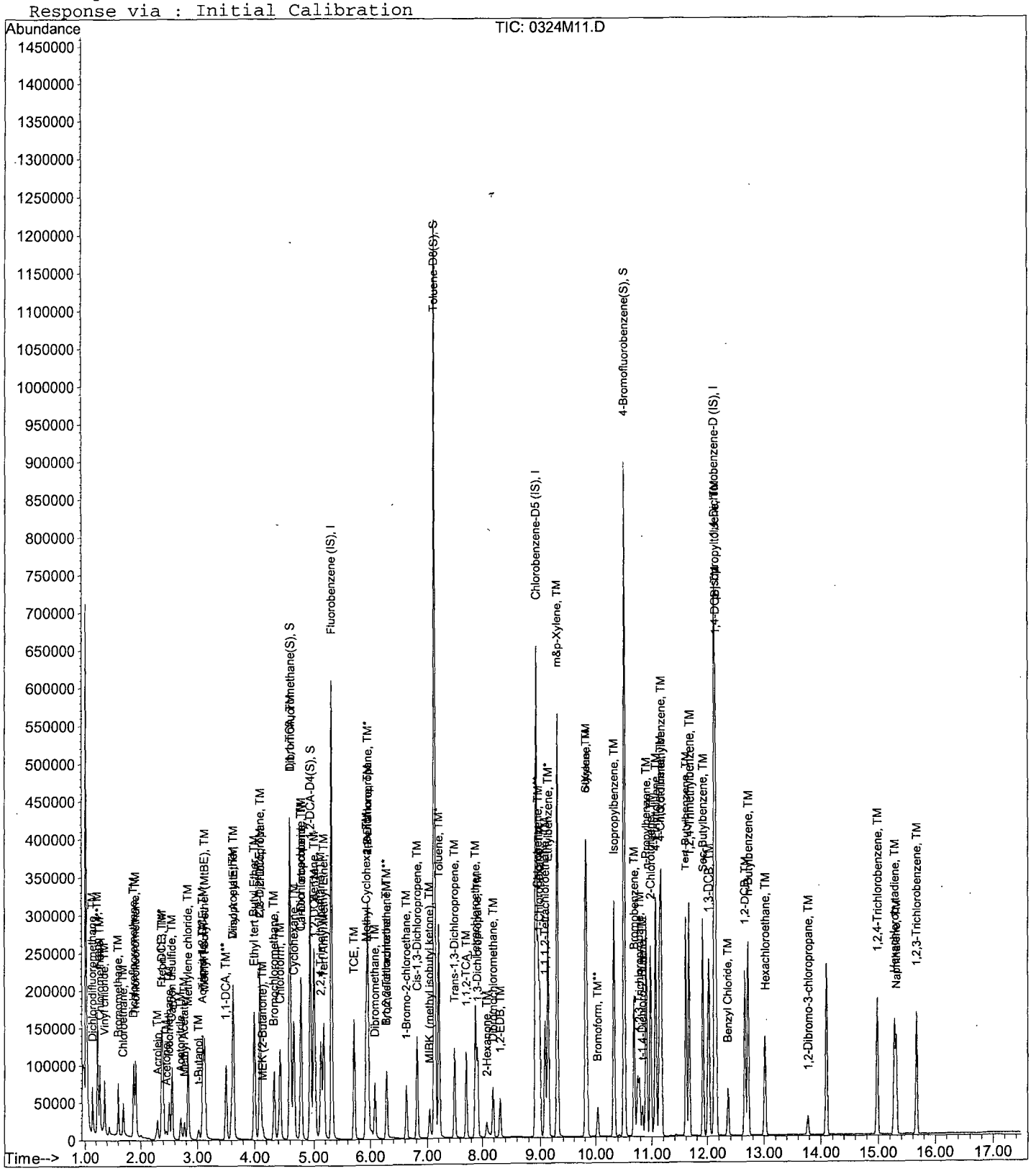
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M11.D Vial: 9
Acq On : 24 Mar 19 15:48 Operator: PM,DG,SV,CMM,KV
Sample : 20ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M12.D Vial: 10
Acq On : 24 Mar 19 16:17 Operator: PM,DG,SV,CMM,KV
Sample : 40ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 561800 | 25.000 ppb | | 0.00 |
| 56) Chlorobenzene-D5 (IS) | 8.93 | 117 | 434917 | 25.000 ppb | | 0.00 |
| 71) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 228943 | 25.000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.60 | 111 | 212017 | 49.332 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 197.328% | | | |
| 37) 1,2-DCA-D4(S) | 4.94 | 65 | 237213 | 47.910 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 191.640% | | | |
| 57) Toluene-D8(S) | 7.14 | 98 | 916073 | 47.438 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 189.752% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.52 | 95 | 339596 | 47.923 ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 191.692% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.14 | 85 | 61040 | 39.465 ppb | | 98 |
| 3) Freon 114 | 1.23 | 85 | 82667 | 38.841 ppb | | 98 |
| 4) Chloromethane | 1.27 | 50 | 93284 | 39.787 ppb | | 99 |
| 5) Vinyl chloride | 1.36 | 62 | 103251 | 40.488 ppb | | 92 |
| 6) Bromomethane | 1.60 | 94 | 57092 | 35.615 ppb | | 92 |
| 7) Chloroethane | 1.68 | 64 | 68637 | 40.018 ppb | | 92 |
| 8) Dichlorofluoromethane | 1.87 | 67 | 175602 | 39.726 ppb | | 100 |
| 9) Trichlorofluoromethane | 1.91 | 101 | 131043 | 40.712 ppb | | 100 |
| 10) Acrolein | 2.30 | 56 | 13694 | 191.034 ppb | | 99 |
| 11) Acetone | 2.46 | 43 | 20045 | 40.524 ppb | | 95 |
| 12) Freon-113 | 2.39 | 101 | 72554 | 39.321 ppb | | 99 |
| 13) 1,1-DCE | 2.37 | 61 | 129990 | 40.704 ppb | | 99 |
| 14) Acetonitrile | 2.71 | 41 | 39413 | 166.569 ppb | | 96 |
| 15) t-Butanol | 3.03 | 59 | 31806 | 228.042 ppb | # | 85 |
| 16) Methyl Acetate | 2.77 | 43 | 30692 | 39.932 ppb | | 100 |
| 17) Iodomethane | 2.50 | 142 | 107903 | 39.536 ppb | | 100 |
| 18) Acrylonitrile | 3.08 | 53 | 29354 | 41.959 ppb | | 93 |
| 19) Methylene chloride | 2.83 | 84 | 99605 | 40.027 ppb | | 94 |
| 20) Carbon disulfide | 2.55 | 76 | 239958 | 40.004 ppb | | 99 |
| 21) Methyl t-butyl ether (MtBE | 3.13 | 73 | 122736 | 42.275 ppb | | 99 |
| 22) Trans-1,2-DCE | 3.10 | 96 | 94398 | 41.805 ppb | | 96 |
| 23) Diisopropyl Ether | 3.63 | 45 | 350532 | 40.982 ppb | | 97 |
| 24) 1,1-DCA | 3.51 | 63 | 181585 | 40.923 ppb | | 99 |
| 25) Vinyl Acetate | 3.63 | 43 | 86048 | 38.273 ppb | | 100 |
| 26) Ethyl tert Butyl Ether | 4.00 | 59 | 310789 | 42.608 ppb | | 100 |
| 27) MEK (2-Butanone) | 4.14 | 43 | 29468 | 41.368 ppb | | 97 |
| 28) Cis-1,2-DCE | 4.09 | 96 | 110995 | 40.721 ppb | | 96 |
| 29) 2,2-Dichloropropane | 4.09 | 77 | 145822 | 39.521 ppb | | 97 |
| 30) Chloroform | 4.43 | 83 | 174599 | 39.888 ppb | | 95 |
| 31) Bromochloromethane | 4.33 | 128 | 51826 | 40.946 ppb | | 96 |
| 33) 1,1,1-TCA | 4.61 | 97 | 148474 | 40.140 ppb | | 96 |
| 34) Cyclohexane | 4.67 | 41 | 85551 | 37.049 ppb | | 94 |
| 35) 1,1-Dichloropropene | 4.79 | 75 | 122662 | 40.233 ppb | | 97 |
| 36) 2,2,4-Trimethylpentane | 5.12 | 57 | 254047 | 39.601 ppb | | 99 |
| 38) Carbon Tetrachloride | 4.78 | 117 | 110536 | 44.804 ppb | | 99 |
| 39) Tert Amyl Methyl Ether | 5.17 | 73 | 261189 | 41.494 ppb | | 99 |
| 40) 1,2-DCA | 5.03 | 62 | 129253 | 38.937 ppb | | 98 |
| 41) Benzene | 5.00 | 78 | 400821 | 39.685 ppb | | 99 |
| 42) TCE | 5.72 | 95 | 103735 | 39.885 ppb | | 97 |

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

Data File : M:\MAX\DATA\M190324\0324M12.D Vial: 10
Acq On : 24 Mar 19 16:17 Operator: PM,DG,SV,CMM,KV
Sample : 40ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 43) | 2-Pentanone | 5.96 | 43 | 243540 | 180.813 | ppb | | 98 |
| 44) | 1,2-Dichloropropane | 5.96 | 63 | 101915 | 40.493 | ppb | | 98 |
| 45) | Bromodichloromethane | 6.29 | 83 | 123459 | 42.263 | ppb | | 98 |
| 46) | Methyl Cyclohexane | 5.93 | 83 | 145054 | 39.920 | ppb | | 99 |
| 47) | Dibromomethane | 6.09 | 93 | 53361 | 41.213 | ppb | | 96 |
| 48) | MIBK (methyl isobutyl ket | 7.04 | 43 | 68710 | 36.762 | ppb | | 95 |
| 49) | 1-Bromo-2-chloroethane | 6.63 | 63 | 65064 | 40.013 | ppb | | 98 |
| 51) | Cis-1,3-Dichloropropene | 6.82 | 75 | 163972 | 41.995 | ppb | | 98 |
| 52) | Toluene | 7.21 | 91 | 452511 | 39.943 | ppb | | 98 |
| 53) | Trans-1,3-Dichloropropene | 7.50 | 75 | 140709 | 43.075 | ppb | | 99 |
| 54) | 1,1,2-TCA | 7.71 | 83 | 65831 | 41.071 | ppb | | 97 |
| 55) | 2-Hexanone | 8.08 | 43 | 45355 | 37.222 | ppb | | 96 |
| 58) | 1,2-EDB | 8.31 | 107 | 82030 | 41.516 | ppb | | 97 |
| 59) | Tetrachloroethene | 7.88 | 164 | 91886 | 38.408 | ppb | | 99 |
| 60) | 1-Chlorohexane | 8.99 | 91 | 132369 | 39.953 | ppb | | 96 |
| 61) | 1,1,1,2-Tetrachloroethane | 9.09 | 131 | 102425 | 43.454 | ppb | | 93 |
| 62) | m&p-Xylene | 9.30 | 106 | 398084 | 81.308 | ppb | | 98 |
| 63) | o-Xylene | 9.82 | 106 | 199887 | 40.075 | ppb | | 98 |
| 64) | Styrene | 9.84 | 104 | 338288 | 41.327 | ppb | | 96 |
| 66) | 1,3-Dichloropropane | 7.92 | 76 | 144730 | 40.021 | ppb | | 98 |
| 67) | Dibromochloromethane | 8.19 | 129 | 82867 | 44.135 | ppb | | 89 |
| 68) | Chlorobenzene | 8.97 | 112 | 302994 | 39.937 | ppb | | 99 |
| 69) | Ethylbenzene | 9.14 | 91 | 492702 | 39.865 | ppb | | 96 |
| 70) | Bromoform | 10.04 | 173 | 48718 | 37.705 | ppb | | 99 |
| 72) | Isopropylbenzene | 10.34 | 105 | 495168 | 39.375 | ppb | | 99 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.29 | 83 | 123459 | 40.190 | ppb | | 98 |
| 74) | 1,2,3-Trichloropropane | 10.79 | 110 | 30003 | 40.739 | ppb | | 97 |
| 75) | t-1,4-Dichloro-2-Butene | 10.84 | 53 | 11730 | 41.346 | ppb | | 91 |
| 76) | Bromobenzene | 10.69 | 156 | 134922 | 39.517 | ppb | | 96 |
| 77) | n-Propylbenzene | 10.90 | 91 | 552100 | 39.241 | ppb | | 97 |
| 78) | 4-Ethyltoluene | 11.07 | 105 | 496226 | 39.922 | ppb | | 100 |
| 79) | 2-Chlorotoluene | 10.98 | 91 | 336270 | 38.708 | ppb | | 100 |
| 80) | 1,3,5-Trimethylbenzene | 11.17 | 105 | 413065 | 39.057 | ppb | | 100 |
| 81) | 4-Chlorotoluene | 11.14 | 91 | 392528 | 38.793 | ppb | | 100 |
| 82) | Tert-Butylbenzene | 11.61 | 119 | 361635 | 38.389 | ppb | | 96 |
| 83) | 1,2,4-Trimethylbenzene | 11.68 | 105 | 422646 | 39.648 | ppb | | 99 |
| 84) | Sec-Butylbenzene | 11.92 | 105 | 495078 | 39.683 | ppb | | 97 |
| 85) | p-Isopropyltoluene | 12.14 | 119 | 228032 | 39.627 | ppb | | 97 |
| 86) | Benzyl Chloride | 12.36 | 91 | 117274 | 45.034 | ppb | | 94 |
| 87) | 1,3-DCB | 12.02 | 146 | 247268 | 39.866 | ppb | | 99 |
| 88) | 1,4-DCB | 12.15 | 146 | 128376 | 40.679 | ppb | | 98 |
| 89) | n-Butylbenzene | 12.72 | 91 | 190720 | 40.725 | ppb | | 99 |
| 90) | 1,2-DCB | 12.66 | 146 | 236081 | 41.229 | ppb | | 98 |
| 91) | Hexachloroethane | 13.02 | 117 | 22456 | 35.726 | ppb | | 91 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.78 | 157 | 19089 | 45.888 | ppb | # | 86 |
| 93) | 1,2,4-Trichlorobenzene | 14.98 | 180 | 156495 | 43.508 | ppb | | 99 |
| 94) | Hexachlorobutadiene | 15.28 | 225 | 75416 | 40.552 | ppb | | 94 |
| 95) | Naphthalene | 15.31 | 128 | 275870 | 45.939 | ppb | | 98 |
| 96) | 1,2,3-Trichlorobenzene | 15.67 | 180 | 136454 | 43.846 | ppb | | 93 |

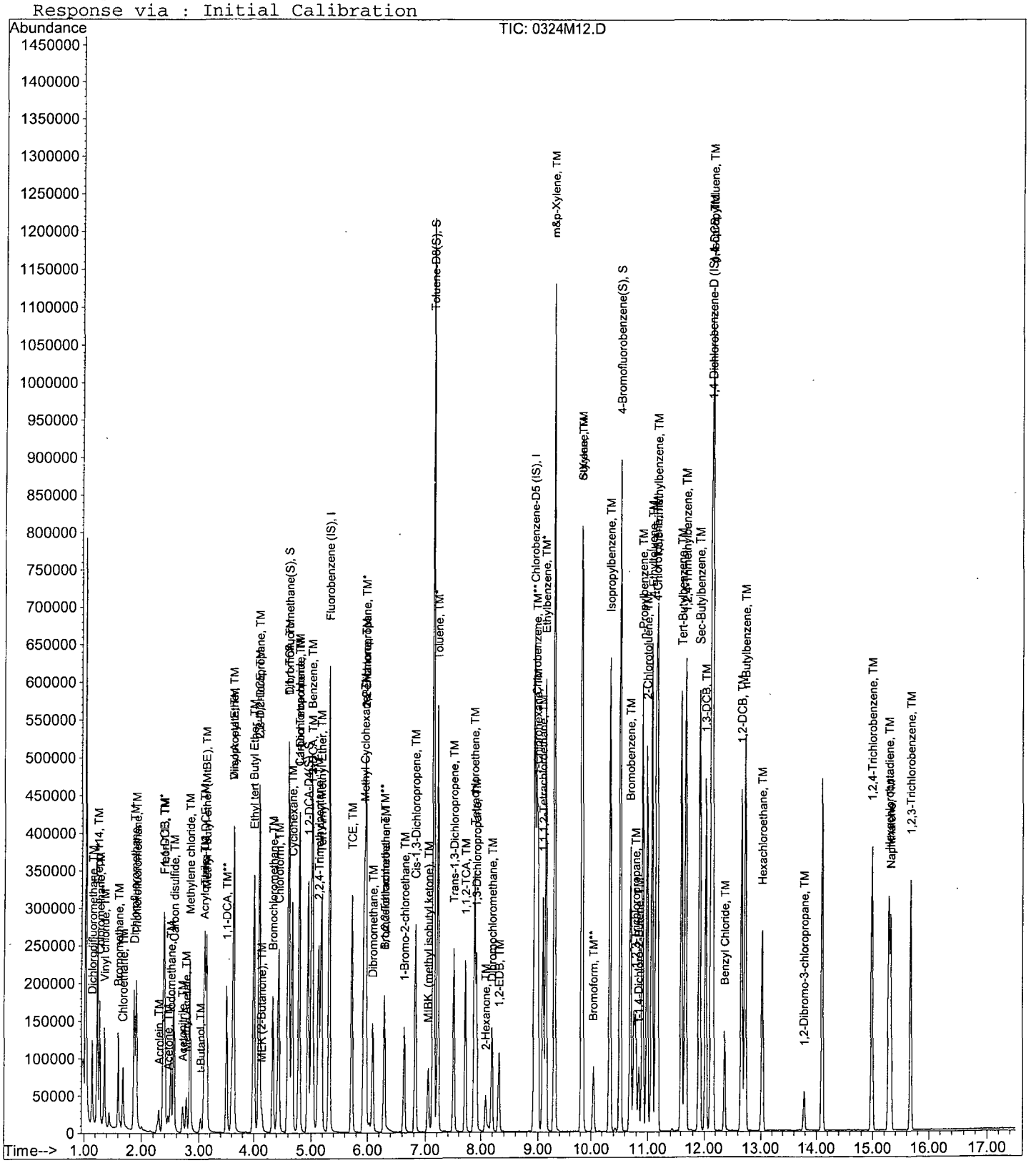
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M12.D Vial: 10
Acq On : 24 Mar 19 16:17 Operator: PM,DG,SV,CMM,KV
Sample : 40ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M13.D Vial: 11
Acq On : 24 Mar 19 16:45 Operator: PM,DG,SV,CMM,KV
Sample : 100ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 562288 | 25.000 | ppb | | 0.00 |
| 56) Chlorobenzene-D5 (IS) | 8.93 | 117 | 441644 | 25.000 | ppb | | 0.00 |
| 71) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 234726 | 25.000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 32) Dibromofluoromethane(S) | 4.60 | 111 | 385089 | 89.525 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 358.100% | | | | |
| 37) 1,2-DCA-D4(S) | 4.94 | 65 | 422708 | 85.300 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 341.200% | | | | |
| 57) Toluene-D8(S) | 7.14 | 98 | 1654770 | 84.385 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 337.540% | | | | |
| 65) 4-Bromofluorobenzene(S) | 10.52 | 95 | 621203 | 86.328 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 345.312% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.14 | 85 | 141504 | 91.408 | ppb | | 98 |
| 3) Freon 114 | 1.23 | 85 | 189686 | 89.046 | ppb | | 96 |
| 4) Chloromethane | 1.27 | 50 | 217005 | 92.534 | ppb | | 100 |
| 5) Vinyl chloride | 1.36 | 62 | 246040 | 96.396 | ppb | | 93 |
| 6) Bromomethane | 1.60 | 94 | 140237 | 87.406 | ppb | | 95 |
| 7) Chloroethane | 1.68 | 64 | 142292 | 83.944 | ppb | | 95 |
| 8) Dichlorofluoromethane | 1.87 | 67 | 420339 | 95.009 | ppb | | 99 |
| 9) Trichlorofluoromethane | 1.90 | 101 | 308827 | 95.863 | ppb | | 99 |
| 10) Acrolein | 2.30 | 56 | 17296 | 241.073 | ppb | | 98 |
| 11) Acetone | 2.46 | 43 | 47410 | 99.775 | ppb | | 100 |
| 12) Freon-113 | 2.39 | 101 | 168362 | 91.165 | ppb | | 98 |
| 13) 1,1-DCE | 2.37 | 61 | 313029 | 97.935 | ppb | | 99 |
| 14) Acetonitrile | 2.71 | 41 | 46901 | 198.044 | ppb | | 95 |
| 15) t-Butanol | 3.04 | 59 | 24312 | 174.160 | ppb | # | 82 |
| 16) Methyl Acetate | 2.77 | 43 | 82240 | 106.905 | ppb | | 100 |
| 17) Iodomethane | 2.50 | 142 | 280343 | 100.226 | ppb | | 98 |
| 18) Acrylonitrile | 3.08 | 53 | 73450 | 104.899 | ppb | | 96 |
| 19) Methylene chloride | 2.83 | 84 | 242384 | 97.318 | ppb | | 98 |
| 20) Carbon disulfide | 2.55 | 76 | 582222 | 96.980 | ppb | | 100 |
| 21) Methyl t-butyl ether (MtBE | 3.14 | 73 | 294976 | 101.513 | ppb | | 98 |
| 22) Trans-1,2-DCE | 3.10 | 96 | 225377 | 99.723 | ppb | | 99 |
| 23) Diisopropyl Ether | 3.63 | 45 | 851835 | 99.504 | ppb | | 98 |
| 24) 1,1-DCA | 3.51 | 63 | 442785 | 99.703 | ppb | | 99 |
| 25) Vinyl Acetate | 3.63 | 43 | 208640 | 92.720 | ppb | | 100 |
| 26) Ethyl tert Butyl Ether | 4.00 | 59 | 749297 | 102.638 | ppb | | 100 |
| 27) MEK (2-Butanone) | 4.15 | 43 | 68956 | 99.007 | ppb | | 97 |
| 28) Cis-1,2-DCE | 4.09 | 96 | 268688 | 98.488 | ppb | | 98 |
| 29) 2,2-Dichloropropane | 4.09 | 77 | 351154 | 95.088 | ppb | | 98 |
| 30) Chloroform | 4.43 | 83 | 430922 | 98.360 | ppb | | 95 |
| 31) Bromochloromethane | 4.33 | 128 | 127342 | 100.522 | ppb | | 99 |
| 33) 1,1,1-TCA | 4.61 | 97 | 357387 | 96.535 | ppb | | 96 |
| 34) Cyclohexane | 4.67 | 41 | 195213 | 84.465 | ppb | | 94 |
| 35) 1,1-Dichloropropene | 4.79 | 75 | 296173 | 97.060 | ppb | | 97 |
| 36) 2,2,4-Trimethylpentane | 5.12 | 57 | 590419 | 91.955 | ppb | | 99 |
| 38) Carbon Tetrachloride | 4.78 | 117 | 278015 | 112.591 | ppb | | 98 |
| 39) Tert Amyl Methyl Ether | 5.18 | 73 | 633172 | 100.502 | ppb | | 99 |
| 40) 1,2-DCA | 5.03 | 62 | 312479 | 94.052 | ppb | | 99 |
| 41) Benzene | 5.00 | 78 | 976315 | 96.581 | ppb | | 100 |
| 42) TCE | 5.72 | 95 | 252098 | 96.844 | ppb | | 98 |

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

Data File : M:\MAX\DATA\M190324\0324M13.D
Acq On : 24 Mar 19 16:45
Sample : 100ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 11
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|
| 43) 2-Pentanone | 5.97 | 43 | 265459 | 196.916 ppb | 100 |
| 44) 1,2-Dichloropropane | 5.96 | 63 | 246652 | 97.915 ppb | 98 |
| 45) Bromodichloromethane | 6.29 | 83 | 320630 | 109.664 ppb | 99 |
| 46) Methyl Cyclohexane | 5.93 | 83 | 333414 | 91.679 ppb | 99 |
| 47) Dibromomethane | 6.09 | 93 | 129115 | 99.635 ppb | 98 |
| 48) MIBK (methyl isobutyl ket | 7.04 | 43 | 163137 | 87.207 ppb | 94 |
| 49) 1-Bromo-2-chloroethane | 6.63 | 63 | 160448 | 98.585 ppb | 99 |
| 51) Cis-1,3-Dichloropropene | 6.82 | 75 | 408670 | 104.574 ppb | 99 |
| 52) Toluene | 7.21 | 91 | 1106799 | 97.612 ppb | 98 |
| 53) Trans-1,3-Dichloropropene | 7.50 | 75 | 354248 | 108.352 ppb | 97 |
| 54) 1,1,2-TCA | 7.71 | 83 | 158016 | 98.499 ppb | 98 |
| 55) 2-Hexanone | 8.08 | 43 | 104066 | 85.332 ppb | 98 |
| 58) 1,2-EDB | 8.31 | 107 | 197465 | 98.417 ppb | 98 |
| 59) Tetrachloroethene | 7.88 | 164 | 222398 | 91.546 ppb | 99 |
| 60) 1-Chlorohexane | 8.99 | 91 | 318198 | 94.579 ppb | 97 |
| 61) 1,1,1,2-Tetrachloroethane | 9.09 | 131 | 263958 | 110.280 ppb | 95 |
| 62) m&p-Xylene | 9.30 | 106 | 984994 | 198.120 ppb | 99 |
| 63) o-Xylene | 9.82 | 106 | 503762 | 99.460 ppb | 97 |
| 64) Styrene | 9.84 | 104 | 853008 | 102.621 ppb | 94 |
| 66) 1,3-Dichloropropane | 7.92 | 76 | 347648 | 94.668 ppb | 98 |
| 67) Dibromochloromethane | 8.19 | 129 | 223894 | 117.429 ppb | 93 |
| 68) Chlorobenzene | 8.97 | 112 | 761539 | 98.849 ppb | 99 |
| 69) Ethylbenzene | 9.14 | 91 | 1224261 | 97.548 ppb | 97 |
| 70) Bromoform | 10.05 | 173 | 136695 | 101.346 ppb | 100 |
| 72) Isopropylbenzene | 10.34 | 105 | 1238296 | 96.042 ppb | 99 |
| 73) 1,1,2,2-Tetrachloroethane | 6.29 | 83 | 320630 | 101.805 ppb | 99 |
| 74) 1,2,3-Trichloropropane | 10.79 | 110 | 71676 | 94.925 ppb | 94 |
| 75) t-1,4-Dichloro-2-Butene | 10.84 | 53 | 28432 | 97.749 ppb | 87 |
| 76) Bromobenzene | 10.69 | 156 | 341099 | 97.442 ppb | 97 |
| 77) n-Propylbenzene | 10.91 | 91 | 1372090 | 95.121 ppb | 98 |
| 78) 4-Ethyltoluene | 11.07 | 105 | 1241665 | 97.432 ppb | 98 |
| 79) 2-Chlorotoluene | 10.98 | 91 | 843554 | 94.709 ppb | 99 |
| 80) 1,3,5-Trimethylbenzene | 11.17 | 105 | 1026534 | 94.671 ppb | 98 |
| 81) 4-Chlorotoluene | 11.14 | 91 | 989465 | 95.379 ppb | 99 |
| 82) Tert-Butylbenzene | 11.61 | 119 | 896498 | 92.822 ppb | 95 |
| 83) 1,2,4-Trimethylbenzene | 11.68 | 105 | 1058993 | 96.896 ppb | 100 |
| 84) Sec-Butylbenzene | 11.92 | 105 | 1225293 | 95.794 ppb | 97 |
| 85) p-Isopropyltoluene | 12.15 | 119 | 576832 | 97.771 ppb | 98 |
| 86) Benzyl Chloride | 12.36 | 91 | 310395 | 116.258 ppb | 96 |
| 87) 1,3-DCB | 12.02 | 146 | 633430 | 99.610 ppb | 100 |
| 88) 1,4-DCB | 12.15 | 146 | 322240 | 99.594 ppb | 99 |
| 89) n-Butylbenzene | 12.72 | 91 | 476800 | 99.305 ppb | 99 |
| 90) 1,2-DCB | 12.66 | 146 | 590836 | 100.641 ppb | 99 |
| 91) Hexachloroethane | 13.02 | 117 | 68568 | 102.192 ppb | 90 |
| 92) 1,2-Dibromo-3-chloropropan | 13.78 | 157 | 46126 | 108.150 ppb | 89 |
| 93) 1,2,4-Trichlorobenzene | 14.99 | 180 | 386125 | 104.705 ppb | 99 |
| 94) Hexachlorobutadiene | 15.28 | 225 | 179423 | 94.101 ppb | 93 |
| 95) Naphthalene | 15.32 | 128 | 649926 | 105.562 ppb | 97 |
| 96) 1,2,3-Trichlorobenzene | 15.67 | 180 | 330464 | 103.569 ppb | 95 |

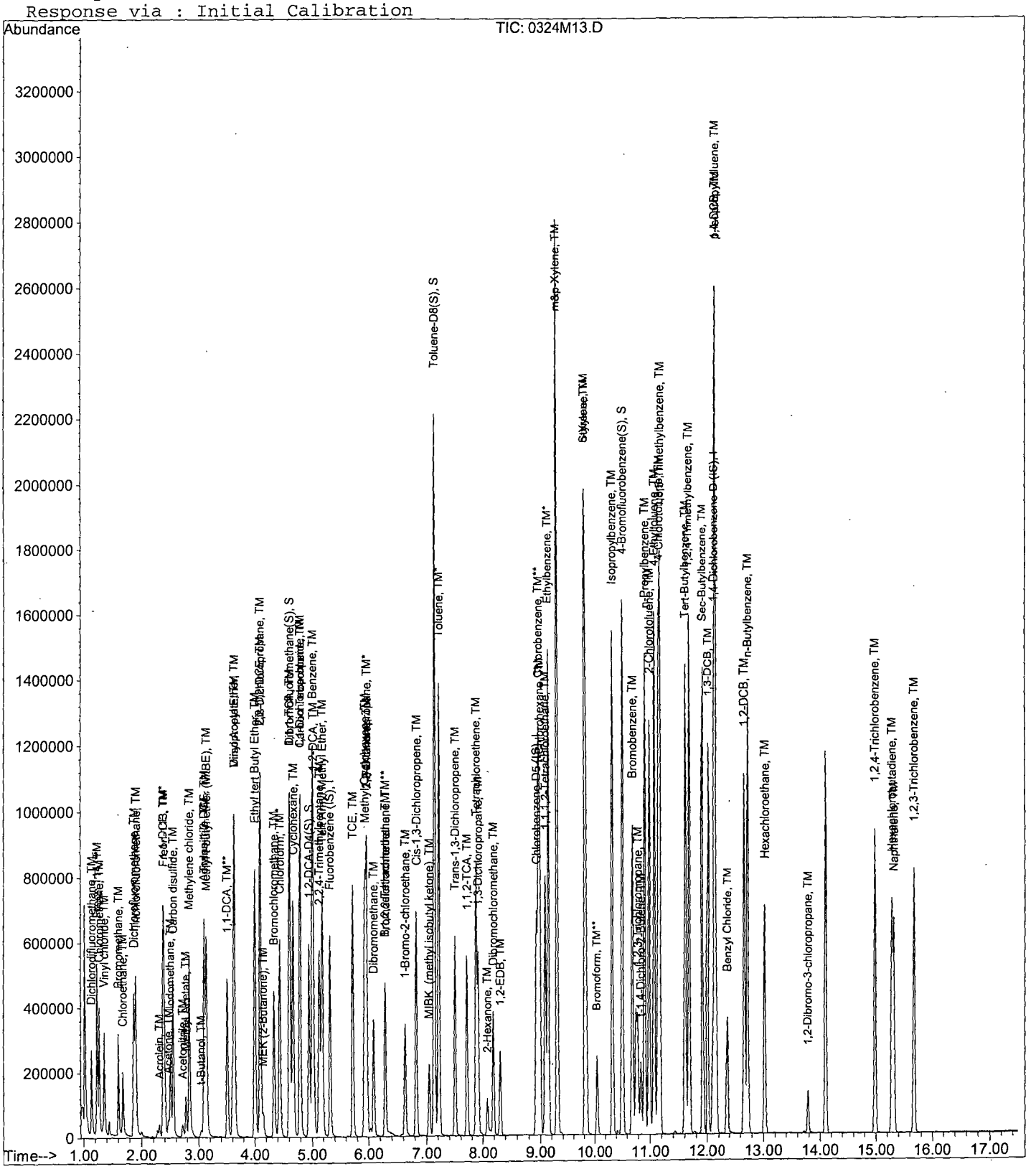
(#) = qualifier out of range (m) = manual integration

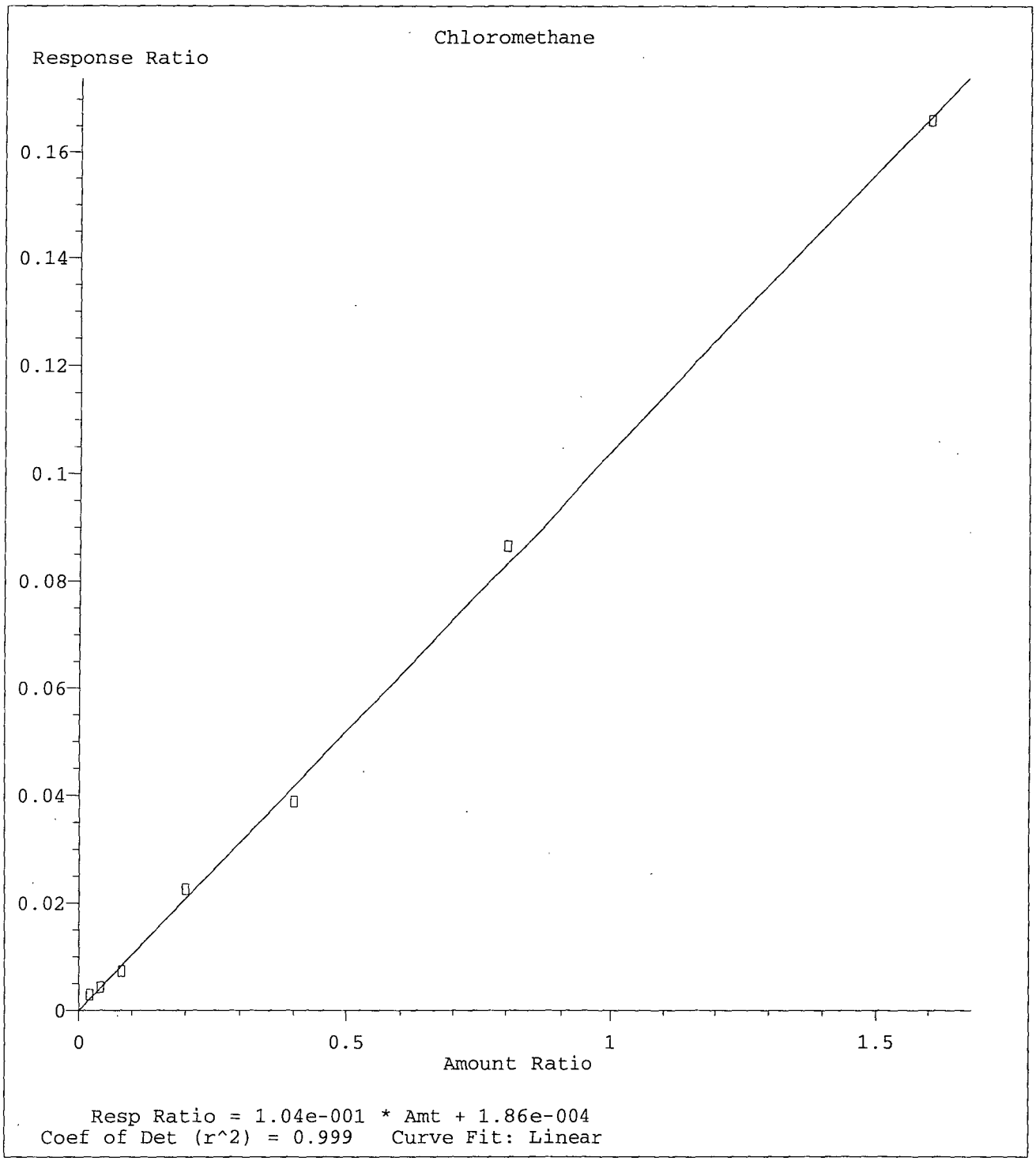
Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M13.D Vial: 11
Acq On : 24 Mar 19 16:45 Operator: PM,DG,SV,CMM,KV
Sample : 100ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

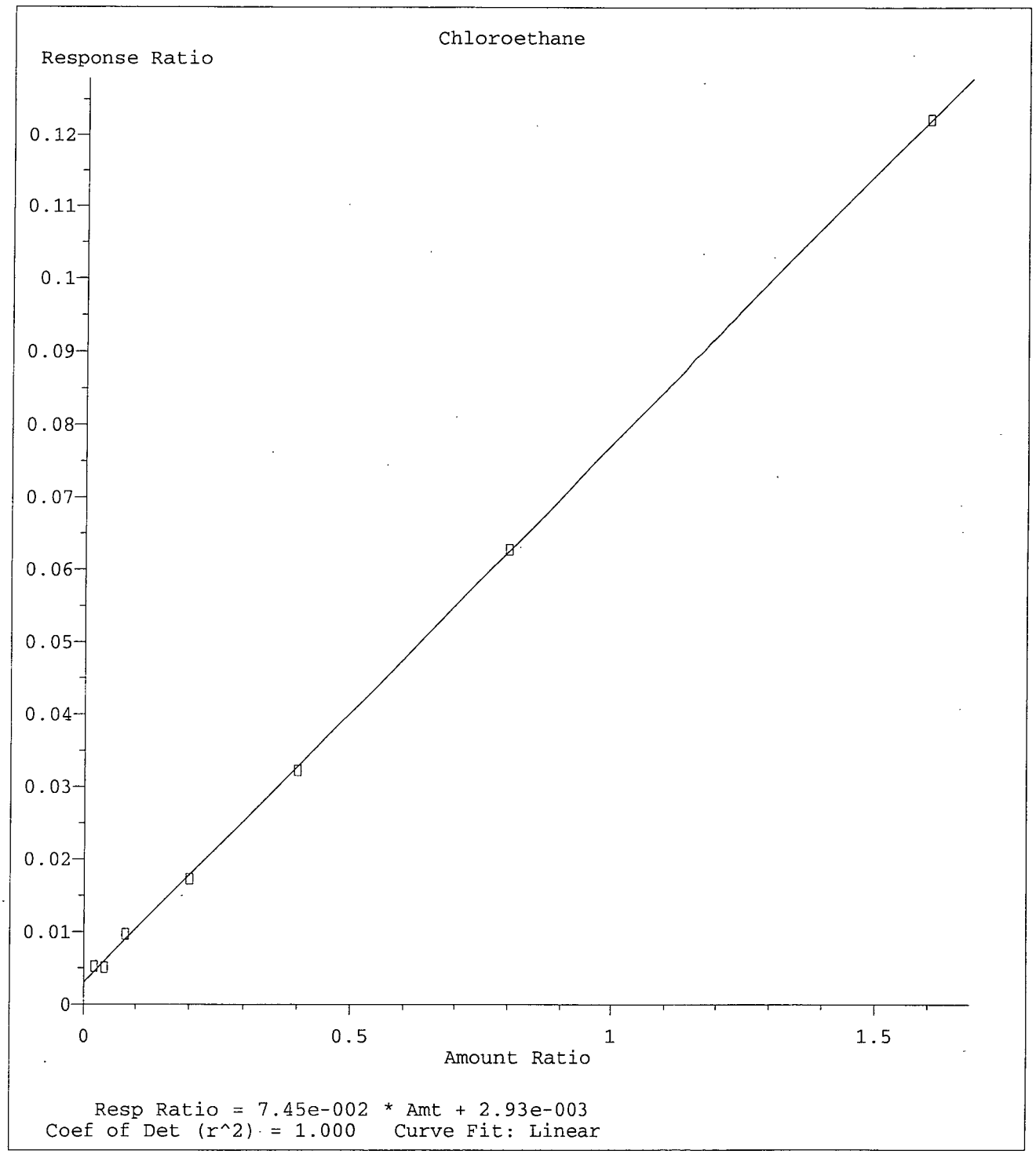
Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration

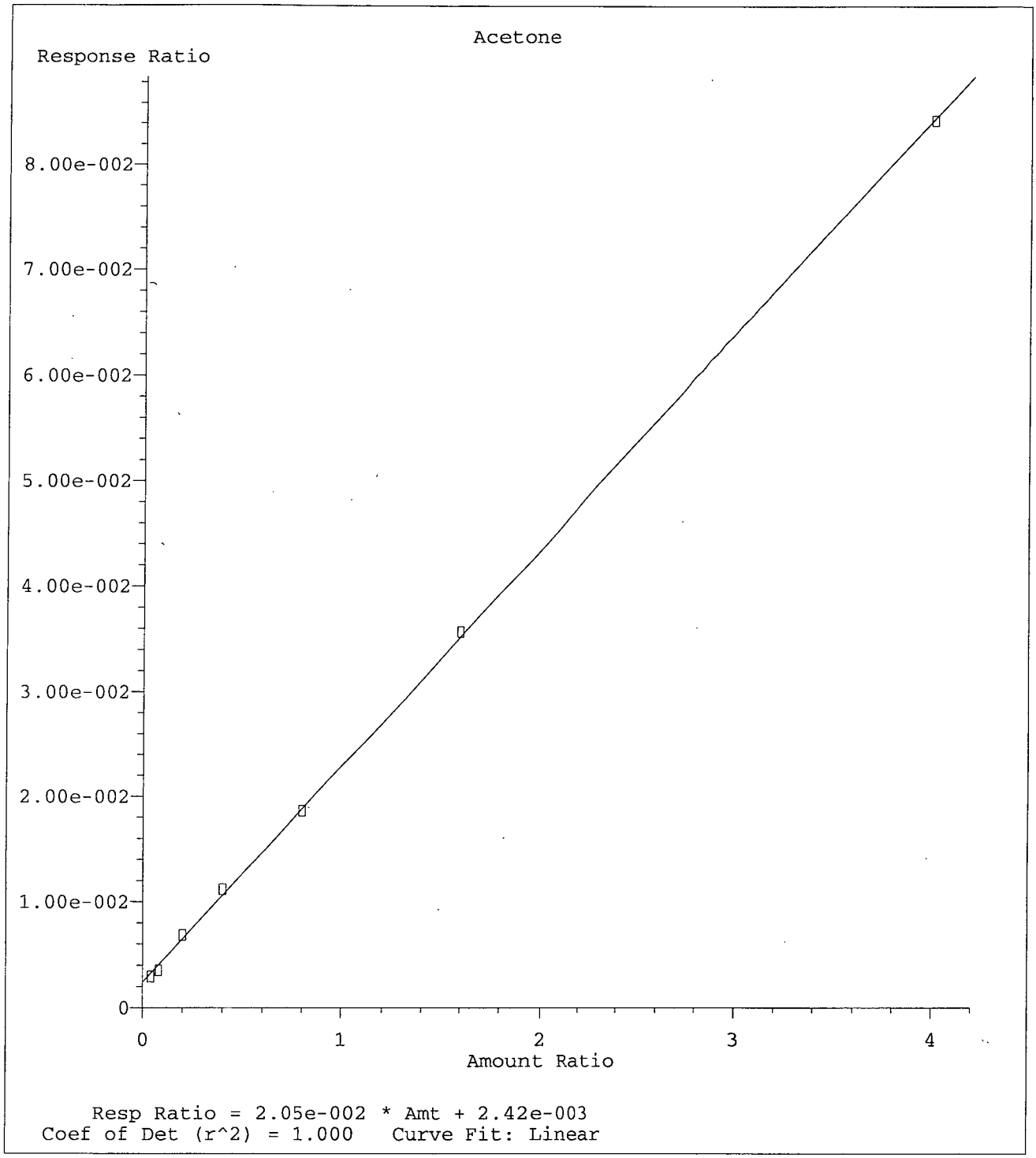




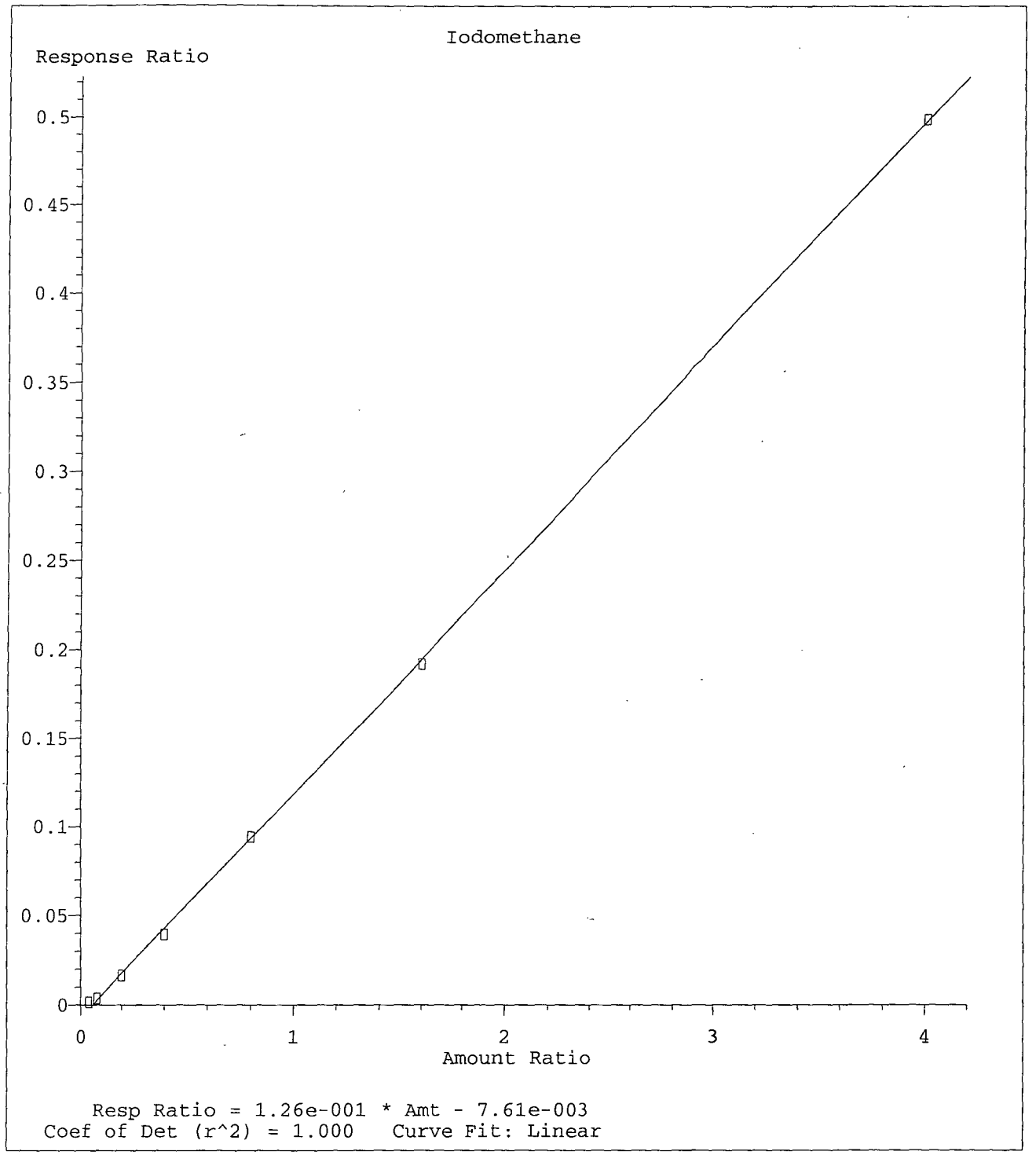

Method Name: M:\MAX\DATA\M190324\M0324.M
Calibration Table Last Updated: Mon Mar 25 09:13:52 2019



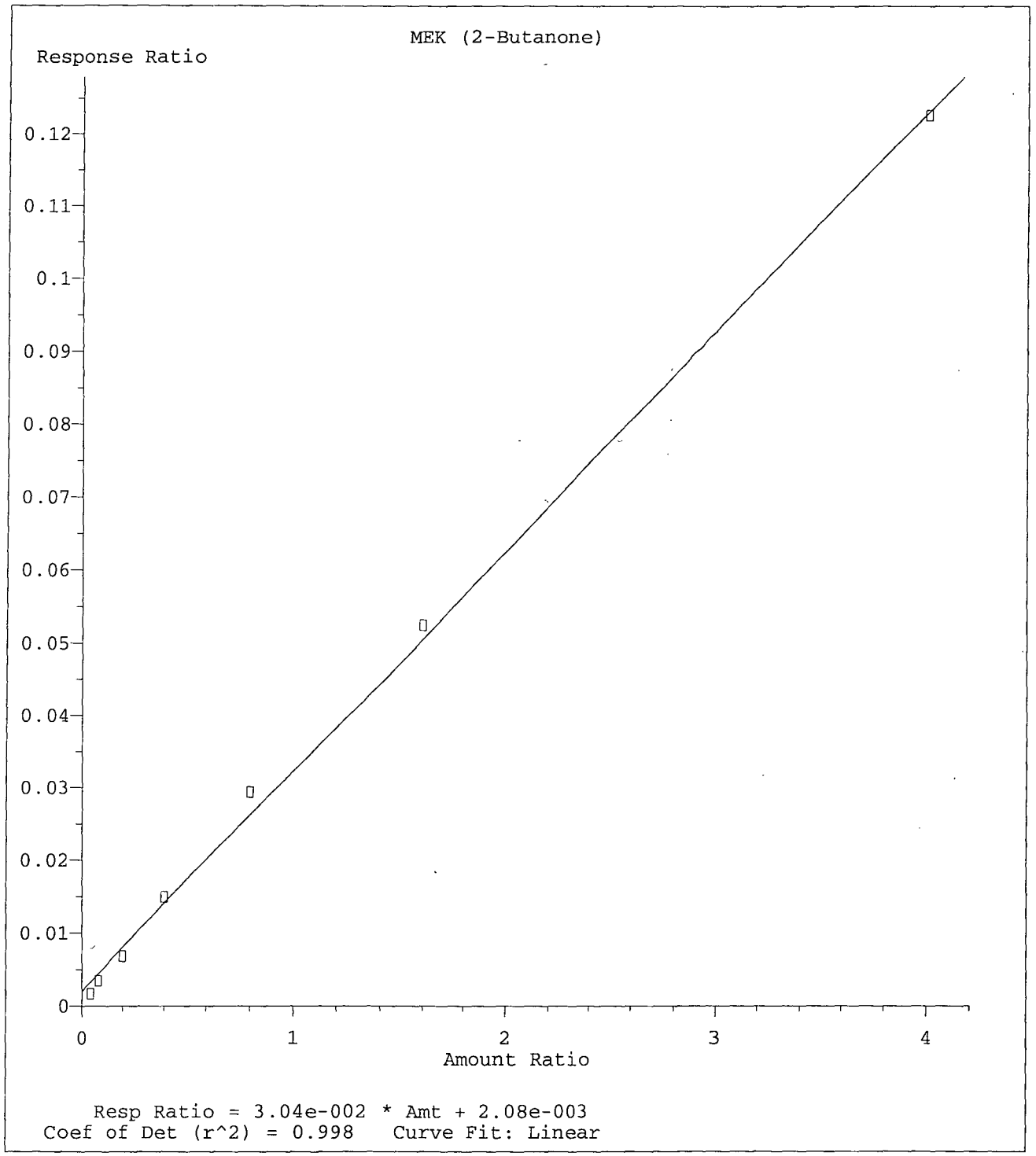

Method Name: M:\MAX\DATA\M190324\M0324.M
Calibration Table Last Updated: Mon Mar 25 09:13:52 2019



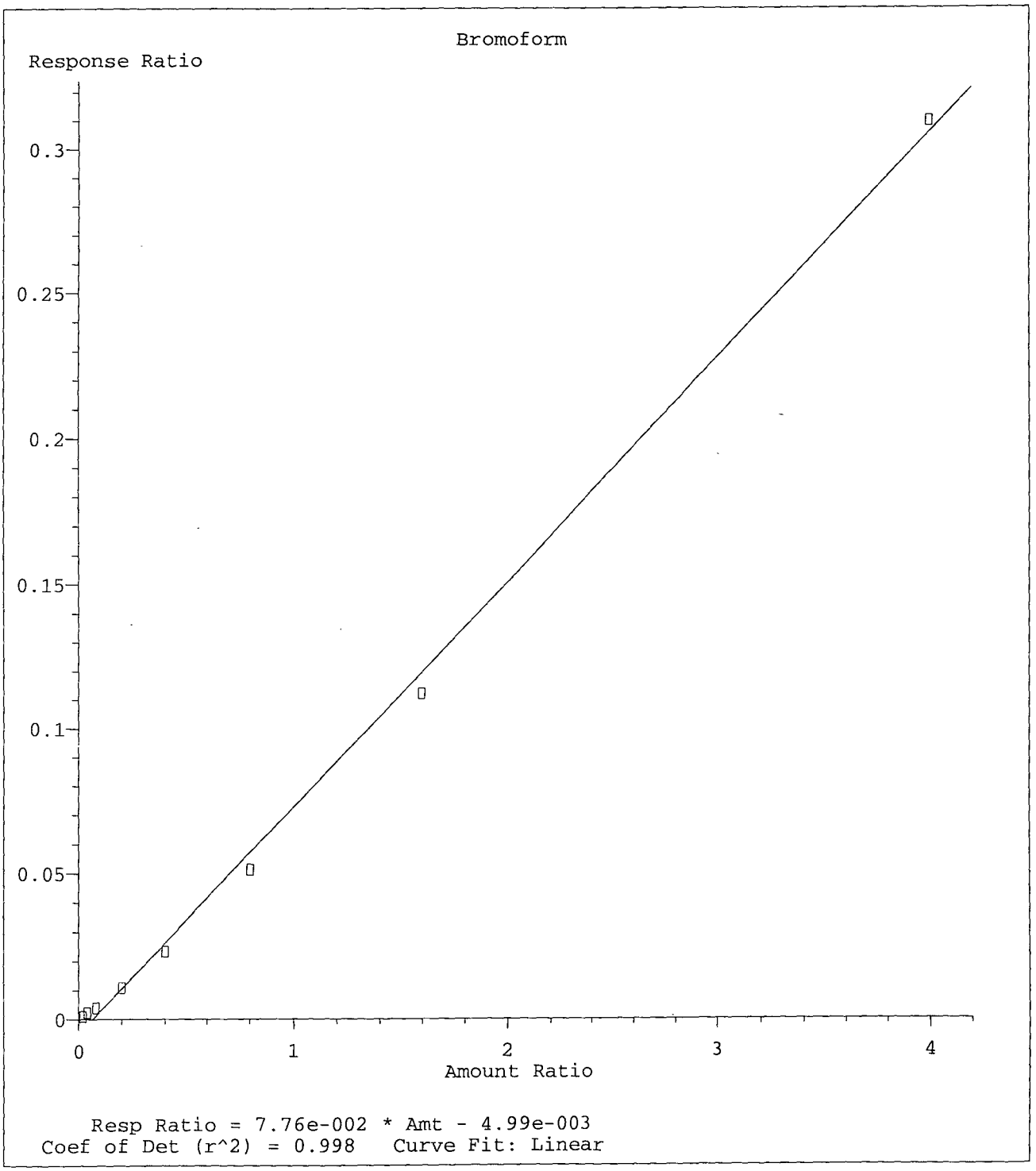

Method Name: M:\MAX\DATA\M190324\M0324.M
Calibration Table Last Updated: Mon Mar 25 09:13:52 2019



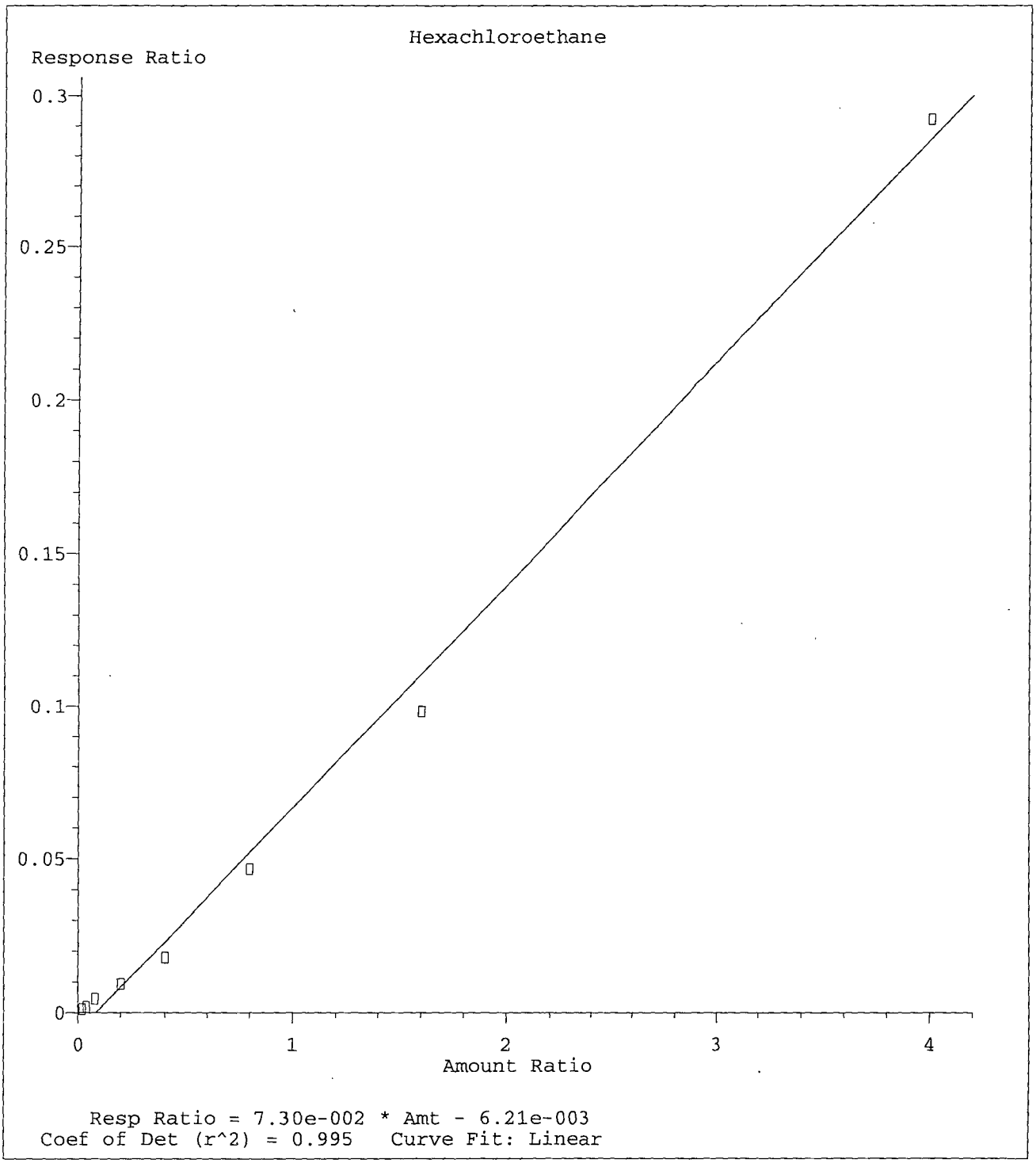

Method Name: M:\MAX\DATA\M190324\M0324.M
Calibration Table Last Updated: Mon Mar 25 09:13:52 2019




Method Name: M:\MAX\DATA\M190324\M0324.M
Calibration Table Last Updated: Mon Mar 25 09:13:52 2019




Method Name: M:\MAX\DATA\M190324\M0324.M
Calibration Table Last Updated: Mon Mar 25 09:13:52 2019




Method Name: M:\MAX\DATA\M190324\M0324.M
Calibration Table Last Updated: Mon Mar 25 09:13:52 2019

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 03/24/19
Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0324M16.D

| | | Compound | MEAN | CCRF | %D | %Drift | | |
|---|---|---|---|---|---|---|---|---|
| 1 | TM | Dichlorodifluoromethane | 0.0688 | 0.0632 | 8.2 | TM | | |
| 2 | TM | Freon 114 | 0.0947 | 0.0851 | 10 | TM | | |
| 3 | TM**L | Chloromethane | 0.1096 | 0.0838 | 24 | TM**L | 20 | |
| 4 | TM* | Vinyl chloride | 0.1135 | 0.1122 | 1.1 | TM* | | |
| 5 | TM | Bromomethane | 0.0713 | 0.0802 | 12 | TM | | |
| 6 | TML | Chloroethane | 0.1187 | 0.0822 | 31 | TML | 0.49 | |
| 7 | TM | Dichlorofluoromethane | 0.1967 | 0.1749 | 11 | TM | | |
| 8 | TM | Trichlorofluoromethane | 0.1432 | 0.1484 | 3.6 | TM | | |
| 9 | TM | Acrolein | 0.0032 | 0.0026 | 17 | TM | | |
| 10 | TML | Acetone | 0.0350 | 0.0292 | 17 | TML | 13 | |
| 11 | TM | Freon-113 | 0.0821 | 0.0785 | 4.4 | TM | | |
| 12 | TM* | 1,1-DCE | 0.1421 | 0.1449 | 1.9 | TM* | | |
| 13 | TM | Acetonitrile | 0.0105 | 0.0109 | 3.3 | TM | | |
| 14 | TM | t-Butanol | 0.0062 | 0.0070 | 12 | TM | | |
| 15 | TM | Methyl Acetate | 0.0342 | 0.0326 | 4.8 | TM | | |
| 16 | TML | Iodomethane | 0.0895 | 0.0495 | 45 | TML | 46 | *NT |
| 17 | TM | Acrylonitrile | 0.0311 | 0.0313 | 0.47 | TM | | |
| 18 | TM | Methylene chloride | 0.1107 | 0.1106 | 0.17 | TM | | |
| 19 | TM | Carbon disulfide | 0.2669 | 0.2543 | 4.7 | TM | | |
| 20 | TM | Methyl t-butyl ether (MtBE) | 0.1292 | 0.1199 | 7.2 | TM | | |
| 21 | TM | Trans-1,2-DCE | 0.1005 | 0.1049 | 4.4 | TM | | |
| 22 | TM | Diisopropyl Ether | 0.3806 | 0.3636 | 4.5 | TM | | |
| 23 | TM** | 1,1-DCA | 0.1975 | 0.1948 | 1.4 | TM** | | |
| 24 | TM | Vinyl Acetate | 0.1000 | 0.0921 | 8.0 | TM | | |
| 25 | TM | Ethyl tert Butyl Ether | 0.3246 | 0.2397 | 26 | TM | | *NT |
| 26 | TML | MEK (2-Butanone) | 0.0367 | 0.0325 | 12 | TML | 10 | |
| 27 | TM | Cis-1,2-DCE | 0.1213 | 0.1200 | 1.1 | TM | | |
| 28 | TM | 2,2-Dichloropropane | 0.1642 | 0.1398 | 15 | TM | | |
| 29 | TM* | Chloroform | 0.1948 | 0.1876 | 3.7 | TM* | | |
| 30 | TM | Bromochloromethane | 0.0563 | 0.0564 | 0.09 | TM | | |
| 31 | TM | 1,1,1-TCA | 0.1646 | 0.1562 | 5.1 | TM | | |
| 32 | TM | Cyclohexane | 0.1028 | 0.0880 | 14 | TM | | |
| 33 | TM | 1,1-Dichloropropene | 0.1357 | 0.1368 | 0.87 | TM | | |
| 34 | TM | 2,2,4-Trimethylpentane | 0.2855 | 0.2538 | 11 | TM | | |
| 35 | TM | Carbon Tetrachloride | 0.1098 | 0.1132 | 3.1 | TM | | |
| 36 | TM | Tert Amyl Methyl Ether | 0.2801 | 0.1964 | 30 | TM | | *NT |
| 37 | TM | 1,2-DCA | 0.1477 | 0.1455 | 1.5 | TM | | |
| 38 | TM | Benzene | 0.4494 | 0.4446 | 1.1 | TM | | |
| 39 | TM | TCE | 0.1157 | 0.1144 | 1.1 | TM | | |
| 40 | TM | 2-Pentanone | 0.0599 | 0.0589 | 1.8 | TM | | |
| | | Average | | | 9.1 | | | |

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 03/24/19
Instrument: Max
Cal. Date: 03/24/19
Data File: 0324M16.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | TM* | 1,2-Dichloropropane | 0.1120 | 0.1087 | 3.0 | TM* | |
| 42 | TM | Bromodichloromethane | 0.1300 | 0.1284 | 1.2 | TM | |
| 43 | TM | Methyl Cyclohexane | 0.1617 | 0.1470 | 9.1 | TM | |
| 44 | TM | Dibromomethane | 0.0576 | 0.0585 | 1.5 | TM | |
| 45 | TM | MIBK (methyl isobutyl ketone) | 0.0832 | 0.0771 | 7.4 | TM | |
| 46 | TM | 1-Bromo-2-chloroethane | 0.0724 | 0.0719 | 0.62 | TM | |
| 47 | TM | Cis-1,3-Dichloropropene | 0.1738 | 0.1672 | 3.8 | TM | |
| 48 | TM* | Toluene | 0.5041 | 0.4832 | 4.2 | TM* | |
| 49 | TM | Trans-1,3-Dichloropropene | 0.1454 | 0.1436 | 1.2 | TM | |
| 50 | TM | 1,1,2-TCA | 0.0713 | 0.0708 | 0.75 | TM | |
| 51 | TM | 2-Hexanone | 0.0542 | 0.0529 | 2.5 | TM | |
| 52 | TM | 1,2-EDB | 0.1136 | 0.1155 | 1.7 | TM | |
| 53 | TM | Tetrachloroethene | 0.1375 | 0.1435 | 4.3 | TM | |
| 54 | TM | 1-Chlorohexane | 0.1904 | 0.1803 | 5.3 | TM | |
| 55 | TM | 1,1,1,2-Tetrachloroethane | 0.1355 | 0.1364 | 0.65 | TM | |
| 56 | TM | m&p-Xylene | 0.2814 | 0.2781 | 1.2 | TM | |
| 57 | TM | o-Xylene | 0.2867 | 0.2848 | 0.66 | TM | |
| 58 | TM | Styrene | 0.4705 | 0.4642 | 1.3 | TM | |
| 59 | TM | 1,3-Dichloropropane | 0.2079 | 0.2127 | 2.3 | TM | |
| 60 | TM | Dibromochloromethane | 0.1079 | 0.1171 | 8.5 | TM | |
| 61 | TM** | Chlorobenzene | 0.4361 | 0.4280 | 1.9 | TM** | |
| 62 | TM* | Ethylbenzene | 0.7104 | 0.6953 | 2.1 | TM* | |
| 63 | TM**L | Bromoform | 0.0599 | 0.0610 | 1.9 | TM**L | 5.3 |
| 64 | TM | Isopropylbenzene | 1.373 | 1.350 | 1.7 | TM | |
| 65 | TM** | 1,1,2,2-Tetrachloroethane | 0.3354 | 0.3546 | 5.7 | TM** | |
| 66 | TM | 1,2,3-Trichloropropane | 0.0804 | 0.0853 | 6.1 | TM | |
| 67 | TM | t-1,4-Dichloro-2-Butene | 0.0310 | 0.0255 | 18 | TM | |
| 68 | TM | Bromobenzene | 0.3728 | 0.3790 | 1.6 | TM | |
| 69 | TM | n-Propylbenzene | 1.536 | 1.507 | 1.9 | TM | |
| 70 | TM | 4-Ethyltoluene | 1.357 | 1.309 | 3.6 | TM | |
| 71 | TM | 2-Chlorotoluene | 0.9486 | 0.9365 | 1.3 | TM | |
| 72 | TM | 1,3,5-Trimethylbenzene | 1.155 | 1.132 | 2.0 | TM | |
| 73 | TM | 4-Chlorotoluene | 1.105 | 1.111 | 0.53 | TM | |
| 74 | TM | Tert-Butylbenzene | 1.029 | 0.9621 | 6.5 | TM | |
| 75 | TM | 1,2,4-Trimethylbenzene | 1.164 | 1.154 | 0.87 | TM | |
| 76 | TM | Sec-Butylbenzene | 1.362 | 1.316 | 3.4 | TM | |
| 77 | TM | p-Isopropyltoluene | 0.6284 | 0.6035 | 4.0 | TM | |
| 78 | TM | Benzyl Chloride | 0.2844 | 0.2339 | 18 | TM | |
| 79 | TM | 1,3-DCB | 0.6773 | 0.6759 | 0.20 | TM | |
| 80 | TM | 1,4-DCB | 0.3446 | 0.3402 | 1.3 | TM | |
| | | Average | | | 3.6 | | |

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 03/24/19
Instrument: Max
Cal. Date: 03/24/19
Data File: 0324M16.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 81 | TM | n-Butylbenzene | 0.5114 | 0.5051 | 1.2 | TM | |
| 82 | TM | 1,2-DCB | 0.6253 | 0.6438 | 3.0 | TM | |
| 83 | TML | Hexachloroethane | 0.0554 | 0.0491 | 11 | TML | 12 |
| 84 | TM | 1,2-Dibromo-3-chloropropane | 0.0454 | 0.0499 | 9.8 | TM | |
| 85 | TM | 1,2,4-Trichlorobenzene | 0.3928 | 0.4060 | 3.4 | TM | |
| 86 | TM | Hexachlorobutadiene | 0.2031 | 0.2008 | 1.1 | TM | |
| 87 | TM | Naphthalene | 0.6557 | 0.7529 | 15 | TM | |
| 88 | TM | 1,2,3-Trichlorobenzene | 0.3398 | 0.3644 | 7.2 | TM | |
| 89 | | | | | | | |
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| 115 | | | | | | | |
| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 6.5 | | |

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M16.D
Acq On : 24 Mar 19 18:11
Sample : (SS)10ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 14
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 636618 | 25.000 | ppb | | 0.00 |
| 56) Chlorobenzene-D5 (IS) | 8.93 | 117 | 461911 | 25.000 | ppb | | 0.00 |
| 71) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 230470 | 25.000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 32) Dibromofluoromethane(S) | 4.60 | 111 | 117539 | 24.135 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 96.540% | | | |
| 37) 1,2-DCA-D4(S) | 4.95 | 65 | 135697 | 24.186 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 96.744% | | | |
| 57) Toluene-D8(S) | 7.13 | 98 | 501525 | 24.453 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.812% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.52 | 95 | 179120 | 23.800 | ppb | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 95.200% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.14 | 85 | 16084 | 9.177 | ppb | | 97 |
| 3) Freon 114 | 1.24 | 85 | 21659 | 8.980 | ppb | | 99 |
| 4) Chloromethane | 1.28 | 50 | 21328 | 7.992 | ppb | | 98 |
| 5) Vinyl chloride | 1.36 | 62 | 28568 | 9.886 | ppb | | 96 |
| 6) Bromomethane | 1.60 | 94 | 20431 | 11.247 | ppb | | 93 |
| 7) Chloroethane | 1.69 | 64 | 20929 | 10.049 | ppb | | 94 |
| 8) Dichlorofluoromethane | 1.87 | 67 | 44537 | 8.891 | ppb | | 99 |
| 9) Trichlorofluoromethane | 1.92 | 101 | 37802 | 10.364 | ppb | | 99 |
| 10) Acrolein | 2.30 | 56 | 8386 | 103.237 | ppb | | 94 |
| 11) Acetone | 2.46 | 43 | 7441 | 11.296 | ppb | | 97 |
| 12) Freon-113 | 2.39 | 101 | 19990 | 9.560 | ppb | | 98 |
| 13) 1,1-DCE | 2.37 | 61 | 36891 | 10.194 | ppb | | 98 |
| 14) Acetonitrile | 2.71 | 41 | 34637 | 129.181 | ppb | | 93 |
| 15) t-Butanol | 3.03 | 59 | 22188 | 140.387 | ppb | # | 80 |
| 16) Methyl Acetate | 2.78 | 43 | 8294 | 9.523 | ppb | | 99 |
| 17) Iodomethane | 2.50 | 142 | 12595 | 5.424 | ppb | | 98 |
| 18) Acrylonitrile | 3.09 | 53 | 7965 | 10.047 | ppb | | 96 |
| 19) Methylene chloride | 2.84 | 84 | 28152 | 9.983 | ppb | | 99 |
| 20) Carbon disulfide | 2.55 | 76 | 64768 | 9.529 | ppb | | 99 |
| 21) Methyl t-butyl ether (MtBE | 3.14 | 73 | 30536 | 9.282 | ppb | | 100 |
| 22) Trans-1,2-DCE | 3.10 | 96 | 26725 | 10.444 | ppb | | 93 |
| 23) Diisopropyl Ether | 3.63 | 45 | 92593 | 9.553 | ppb | | 99 |
| 24) 1,1-DCA | 3.51 | 63 | 49597 | 9.864 | ppb | | 99 |
| 25) Vinyl Acetate | 3.63 | 43 | 23448 | 9.204 | ppb | # | 100 |
| 26) Ethyl tert Butyl Ether | 4.00 | 59 | 61028 | 7.384 | ppb | | 99 |
| 27) MEK (2-Butanone) | 4.15 | 43 | 8266 | 8.952 | ppb | | 91 |
| 28) Cis-1,2-DCE | 4.10 | 96 | 30548 | 9.890 | ppb | | 98 |
| 29) 2,2-Dichloropropane | 4.09 | 77 | 35610 | 8.517 | ppb | | 97 |
| 30) Chloroform | 4.44 | 83 | 47761 | 9.629 | ppb | | 96 |
| 31) Bromochloromethane | 4.34 | 128 | 14356 | 10.009 | ppb | | 97 |
| 33) 1,1,1-TCA | 4.61 | 97 | 39788 | 9.492 | ppb | | 97 |
| 34) Cyclohexane | 4.67 | 41 | 22404 | 8.562 | ppb | | 96 |
| 35) 1,1-Dichloropropene | 4.79 | 75 | 34848 | 10.087 | ppb | | 97 |
| 36) 2,2,4-Trimethylpentane | 5.12 | 57 | 64625 | 8.890 | ppb | | 99 |
| 38) Carbon Tetrachloride | 4.78 | 117 | 28832 | 10.313 | ppb | | 99 |
| 39) Tert Amyl Methyl Ether | 5.18 | 73 | 50015 | 7.012 | ppb | | 98 |
| 40) 1,2-DCA | 5.03 | 62 | 37055 | 9.851 | ppb | | 98 |
| 41) Benzene | 5.00 | 78 | 113225 | 9.893 | ppb | | 99 |
| 42) TCE | 5.72 | 95 | 29142 | 9.888 | ppb | | 98 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M16.D Vial: 14
Acq On : 24 Mar 19 18:11 Operator: PM,DG,SV,CMM,KV
Sample : (SS)10ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| | Compound | R.T. | QIon | Response | Conc | Unit | Qvalue |
|---|---|---|---|---|---|---|---|
| 43) | 2-Pentanone | 5.97 | 43 | 187364 | 122.758 | ppb | 99 |
| 44) | 1,2-Dichloropropane | 5.96 | 63 | 27668 | 9.701 | ppb | 100 |
| 45) | Bromodichloromethane | 6.29 | 83 | 32690 | 9.875 | ppb | 96 |
| 46) | Methyl Cyclohexane | 5.93 | 83 | 37429 | 9.090 | ppb | 99 |
| 47) | Dibromomethane | 6.09 | 93 | 14892 | 10.150 | ppb | 99 |
| 48) | MIBK (methyl isobutyl ket | 7.04 | 43 | 19621 | 9.264 | ppb | 93 |
| 49) | 1-Bromo-2-chloroethane | 6.63 | 63 | 18312 | 9.938 | ppb | 96 |
| 51) | Cis-1,3-Dichloropropene | 6.82 | 75 | 42580 | 9.624 | ppb | 100 |
| 52) | Toluene | 7.21 | 91 | 123036 | 9.584 | ppb | 100 |
| 53) | Trans-1,3-Dichloropropene | 7.50 | 75 | 36570 | 9.879 | ppb | 98 |
| 54) | 1,1,2-TCA | 7.72 | 83 | 18027 | 9.925 | ppb | 94 |
| 55) | 2-Hexanone | 8.08 | 43 | 13468 | 9.754 | ppb | 89 |
| 58) | 1,2-EDB | 8.31 | 107 | 21337 | 10.168 | ppb | 97 |
| 59) | Tetrachloroethene | 7.88 | 164 | 26511 | 10.434 | ppb | 93 |
| 60) | 1-Chlorohexane | 8.99 | 91 | 33310 | 9.466 | ppb | 98 |
| 61) | 1,1,1,2-Tetrachloroethane | 9.08 | 131 | 25196 | 10.065 | ppb | 91 |
| 62) | m&p-Xylene | 9.30 | 106 | 102776 | 19.765 | ppb | 97 |
| 63) | o-Xylene | 9.82 | 106 | 52622 | 9.934 | ppb | 99 |
| 64) | Styrene | 9.84 | 104 | 85774 | 9.866 | ppb | 99 |
| 66) | 1,3-Dichloropropane | 7.92 | 76 | 39295 | 10.231 | ppb | 99 |
| 67) | Dibromochloromethane | 8.19 | 129 | 21631 | 10.847 | ppb | 88 |
| 68) | Chlorobenzene | 8.96 | 112 | 79083 | 9.815 | ppb | 98 |
| 69) | Ethylbenzene | 9.14 | 91 | 128459 | 9.786 | ppb | 95 |
| 70) | Bromoform | 10.04 | 173 | 11268 | 9.469 | ppb | 97 |
| 72) | Isopropylbenzene | 10.34 | 105 | 124478 | 9.833 | ppb | 98 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.29 | 83 | 32690 | 10.571 | ppb | 96 |
| 74) | 1,2,3-Trichloropropane | 10.79 | 110 | 7863 | 10.606 | ppb | 86 |
| 75) | t-1,4-Dichloro-2-Butene | 10.84 | 53 | 2350 | 8.228 | ppb | 100 |
| 76) | Bromobenzene | 10.69 | 156 | 34936 | 10.164 | ppb | 93 |
| 77) | n-Propylbenzene | 10.90 | 91 | 138882 | 9.806 | ppb | 99 |
| 78) | 4-Ethyltoluene | 11.07 | 105 | 120672 | 9.644 | ppb | 98 |
| 79) | 2-Chlorotoluene | 10.98 | 91 | 86335 | 9.872 | ppb | 97 |
| 80) | 1,3,5-Trimethylbenzene | 11.16 | 105 | 104342 | 9.801 | ppb | 99 |
| 81) | 4-Chlorotoluene | 11.14 | 91 | 102394 | 10.053 | ppb | 99 |
| 82) | Tert-Butylbenzene | 11.61 | 119 | 88695 | 9.353 | ppb | 97 |
| 83) | 1,2,4-Trimethylbenzene | 11.67 | 105 | 106379 | 9.913 | ppb | 98 |
| 84) | Sec-Butylbenzene | 11.92 | 105 | 121287 | 9.657 | ppb | 95 |
| 85) | p-Isopropyltoluene | 12.14 | 119 | 55632 | 9.604 | ppb | 98 |
| 86) | Benzyl Chloride | 12.36 | 91 | 21564 | 8.226 | ppb | 97 |
| 87) | 1,3-DCB | 12.02 | 146 | 62314 | 9.980 | ppb | 97 |
| 88) | 1,4-DCB | 12.15 | 146 | 31360 | 9.871 | ppb | 99 |
| 89) | n-Butylbenzene | 12.72 | 91 | 46560 | 9.876 | ppb | 97 |
| 90) | 1,2-DCB | 12.66 | 146 | 59351 | 10.296 | ppb | 99 |
| 91) | Hexachloroethane | 13.02 | 117 | 4522 | 8.848 | ppb | 95 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.78 | 157 | 4599 | 10.982 | ppb | 90 |
| 93) | 1,2,4-Trichlorobenzene | 14.98 | 180 | 37424 | 10.336 | ppb | 99 |
| 94) | Hexachlorobutadiene | 15.28 | 225 | 18511 | 9.888 | ppb | 92 |
| 95) | Naphthalene | 15.31 | 128 | 69409 | 11.482 | ppb | 97 |
| 96) | 1,2,3-Trichlorobenzene | 15.67 | 180 | 33589 | 10.721 | ppb | 97 |

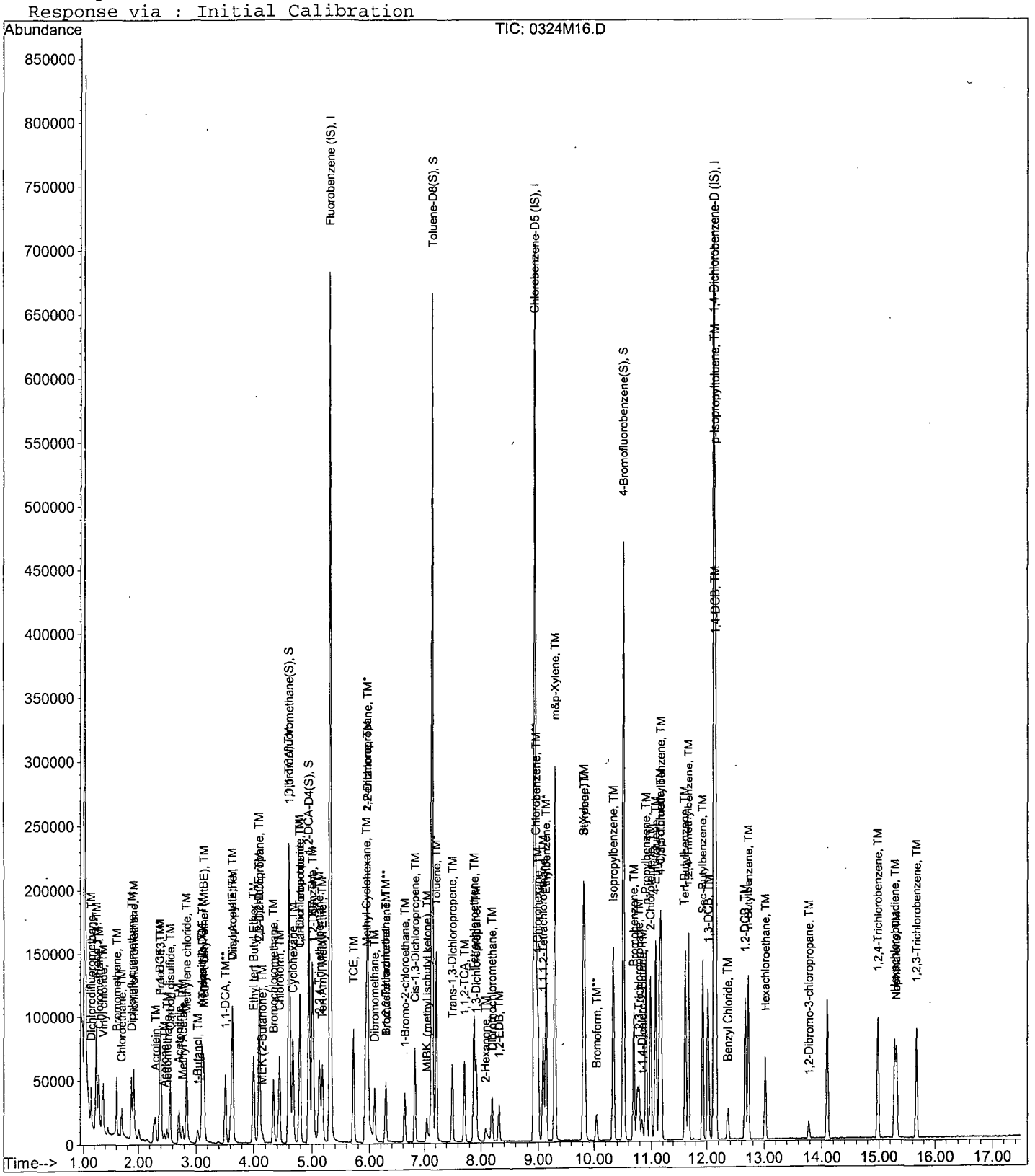
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M16.D Vial: 14
Acq On : 24 Mar 19 18:11 Operator: PM,DG,SV,CMM,KV
Sample : (SS)10ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Mar 25 9:18 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
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: 04/25/19
Matrix: water Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0425M03.D

| | | Compound | MEAN | CCRF | %D | %Drift | | |
|---|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | | |
| 2 | TM | Dichlorodifluoromethane | 0.0688 | 0.0874 | 27 | TM | | *NT |
| 3 | TM | Freon 114 | 0.0947 | 0.1039 | 9.7 | TM | | |
| 4 | TM**L | Chloromethane | 0.1096 | 0.1192 | 8.7 | TM**L | 14 | |
| 5 | TM* | Vinyl chloride | 0.1135 | 0.1365 | 20 | TM* | | |
| 6 | TM | Bromomethane | 0.0713 | 0.0898 | 26 | TM | | *NT |
| 7 | TML | Chloroethane | 0.1187 | 0.0883 | 26 | TML | 8.7 | |
| 8 | TM | Dichlorofluoromethane | 0.1967 | 0.1902 | 3.3 | TM | | |
| 9 | TM | Trichlorofluoromethane | 0.1432 | 0.1634 | 14 | TM | | |
| 10 | TM | Acrolein | 0.0032 | 0.0073 | 129 | TM | | *NT |
| 11 | TML | Acetone | 0.0350 | 0.0255 | 27 | TML | 5.3 | |
| 12 | TM* | 1,1-DCE | 0.1421 | 0.1356 | 4.5 | TM* | | |
| 13 | TM | Acetonitrile | 0.0105 | 0.0110 | 4.4 | TM | | |
| 14 | TM | t-Butanol | 0.0062 | 0.0063 | 1.4 | TM | | |
| 15 | TM | Methyl Acetate | 0.0342 | 0.0300 | 12 | TM | | |
| 16 | TML | Iodomethane | 0.0895 | 0.0907 | 1.4 | TML | 13 | |
| 17 | TM | Acrylonitrile | 0.0311 | 0.0348 | 12 | TM | | |
| 18 | TM | Methylene chloride | 0.1107 | 0.1140 | 3.0 | TM | | |
| 19 | TM | Carbon disulfide | 0.2669 | 0.2832 | 6.1 | TM | | |
| 20 | TM | Methyl t-butyl ether (MtBE) | 0.1292 | 0.1230 | 4.8 | TM | | |
| 21 | TM | Trans-1,2-DCE | 0.1005 | 0.1014 | 0.93 | TM | | |
| 22 | TM | Diisopropyl Ether | 0.3806 | 0.3864 | 1.5 | TM | | |
| 23 | TM** | 1,1-DCA | 0.1975 | 0.1894 | 4.1 | TM** | | |
| 24 | TM | Vinyl Acetate | 0.1000 | 0.0904 | 9.6 | TM | | |
| 25 | TM | Ethyl tert Butyl Ether | 0.3246 | 0.3433 | 5.8 | TM | | |
| 26 | TML | MEK (2-Butanone) | 0.0367 | 0.0398 | 8.5 | TML | 14 | |
| 27 | TM | Cis-1,2-DCE | 0.1213 | 0.1198 | 1.2 | TM | | |
| 28 | TM | 2,2-Dichloropropane | 0.1642 | 0.1694 | 3.2 | TM | | |
| 29 | TM* | Chloroform | 0.1948 | 0.1899 | 2.5 | TM* | | |
| 30 | TM | Bromochloromethane | 0.0563 | 0.0590 | 4.7 | TM | | |
| 31 | S | Dibromofluoromethane(S) | 0.1912 | 0.1957 | 2.3 | S | | |
| 32 | TM | 1,1,1-TCA | 0.1646 | 0.1645 | 0.04 | TM | | |
| 33 | TM | Cyclohexane | 0.1028 | 0.0937 | 8.8 | TM | | |
| 34 | TM | 1,1-Dichloropropene | 0.1357 | 0.1341 | 1.1 | TM | | |
| 35 | TM | 2,2,4-Trimethylpentane | 0.2855 | 0.2863 | 0.28 | TM | | |
| 36 | S | 1,2-DCA-D4(S) | 0.2203 | 0.2033 | 7.7 | S | | |
| 37 | TM | Carbon Tetrachloride | 0.1098 | 0.1185 | 7.9 | TM | | |
| 38 | TM | Tert Amyl Methyl Ether | 0.2801 | 0.3204 | 14 | TM | | |
| 39 | TM | 1,2-DCA | 0.1477 | 0.1360 | 7.9 | TM | | |
| 40 | TM | Benzene | 0.4494 | 0.4460 | 0.77 | TM | | |
| | | Average | | | 11.1 | | | |

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

## Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 04/25/19
Matrix: water Instrument: Max
Cal. Date: 03/24/19
Data File: 0425M03.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | TM | TCE | 0.1157 | 0.1085 | 6.2 | TM | |
| 42 | TM | 2-Pentanone | 0.0599 | 0.0571 | 4.7 | TM | |
| 43 | TM* | 1,2-Dichloropropane | 0.1120 | 0.1091 | 2.6 | TM* | |
| 44 | TM | Bromodichloromethane | 0.1300 | 0.1335 | 2.7 | TM | |
| 45 | TM | Methyl Cyclohexane | 0.1617 | 0.1611 | 0.37 | TM | |
| 46 | TM | Dibromomethane | 0.0576 | 0.0587 | 1.9 | TM | |
| 47 | TM | MIBK (methyl isobutyl ketone) | 0.0832 | 0.0781 | 6.1 | TM | |
| 48 | TM | 1-Bromo-2-chloroethane | 0.0724 | 0.0726 | 0.37 | TM | |
| 49 | TM | Cis-1,3-Dichloropropene | 0.1738 | 0.1741 | 0.22 | TM | |
| 50 | TM* | Toluene | 0.5041 | 0.5000 | 0.81 | TM* | |
| 51 | TM | Trans-1,3-Dichloropropene | 0.1454 | 0.1487 | 2.3 | TM | |
| 52 | TM | 1,1,2-TCA | 0.0713 | 0.0705 | 1.2 | TM | |
| 53 | TM | 2-Hexanone | 0.0542 | 0.0511 | 5.7 | TM | |
| 54 | I | Chlorobenzene-D5 (IS) | ISTD | | | I | |
| 55 | S | Toluene-D8(S) | 1.110 | 1.054 | 5.1 | S | |
| 56 | TM | 1,2-EDB | 0.1136 | 0.1083 | 4.6 | TM | |
| 57 | TM | Tetrachloroethene | 0.1375 | 0.1386 | 0.80 | TM | |
| 58 | TM | 1-Chlorohexane | 0.1904 | 0.1942 | 2.0 | TM | |
| 59 | TM | 1,1,1,2-Tetrachloroethane | 0.1355 | 0.1421 | 4.9 | TM | |
| 60 | TM | m&p-Xylene | 0.2814 | 0.2820 | 0.21 | TM | |
| 61 | TM | o-Xylene | 0.2867 | 0.2814 | 1.8 | TM | |
| 62 | TM | Styrene | 0.4705 | 0.4718 | 0.28 | TM | |
| 63 | S | 4-Bromofluorobenzene(S) | 0.4073 | 0.3993 | 2.0 | S | |
| 64 | TM | 1,3-Dichloropropane | 0.2079 | 0.1963 | 5.5 | TM | |
| 65 | TM | Dibromochloromethane | 0.1079 | 0.1163 | 7.8 | TM | |
| 66 | TM** | Chlorobenzene | 0.4361 | 0.4231 | 3.0 | TM** | |
| 67 | TM* | Ethylbenzene | 0.7104 | 0.6945 | 2.2 | TM* | |
| 68 | TM**L | Bromoform | 0.0599 | 0.0716 | 20 | TM**L | 8.3 |
| 69 | I | 1,4-Dichlorobenzene-D (IS) | ISTD | | | I | |
| 70 | TM | Isopropylbenzene | 1.373 | 1.258 | 8.4 | TM | |
| 71 | TM** | 1,1,2,2-Tetrachloroethane | 0.3354 | 0.3082 | 8.1 | TM** | |
| 72 | TM | 1,2,3-Trichloropropane | 0.0804 | 0.0753 | 6.4 | TM | |
| 73 | TM | t-1,4-Dichloro-2-Butene | 0.0310 | 0.0306 | 1.3 | TM | |
| 74 | TM | Bromobenzene | 0.3728 | 0.3421 | 8.3 | TM | |
| 75 | TM | n-Propylbenzene | 1.536 | 1.393 | 9.3 | TM | |
| 76 | TM | 4-Ethyltoluene | 1.357 | 1.276 | 6.0 | TM | |
| 77 | TM | 2-Chlorotoluene | 0.9486 | 0.8312 | 12 | TM | |
| 78 | TM | 1,3,5-Trimethylbenzene | 1.155 | 1.049 | 9.2 | TM | |
| 79 | TM | 4-Chlorotoluene | 1.105 | 0.9905 | 10 | TM | |
| 80 | TM | Tert-Butylbenzene | 1.029 | 0.9215 | 10 | TM | |
| | | Average | | | 4.9 | | |

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/25/19
Instrument: Max
Cal. Date: 03/24/19
Data File: 0425M03.D

| | | Compound | MEAN | CCRF | %D | | %Drift | |
|---|---|---|---|---|---|---|---|---|
| 81 | TM | 1,2,4-Trimethylbenzene | 1.164 | 1.067 | 8.3 | TM | | |
| 82 | TM | Sec-Butylbenzene | 1.362 | 1.258 | 7.7 | TM | | |
| 83 | TM | p-Isopropyltoluene | 0.6284 | 0.5793 | 7.8 | TM | | |
| 84 | TM | Benzyl Chloride | 0.2844 | 0.0730 | 74 | TM | | *NT |
| 85 | TM | 1,3-DCB | 0.6773 | 0.6346 | 6.3 | TM | | |
| 86 | TM | 1,4-DCB | 0.3446 | 0.3332 | 3.3 | TM | | |
| 87 | TM | n-Butylbenzene | 0.5114 | 0.4606 | 9.9 | TM | | |
| 88 | TM | 1,2-DCB | 0.6253 | 0.5947 | 4.9 | TM | | |
| 89 | TML | Hexachloroethane | 0.0554 | 0.0580 | 4.7 | TML | 0.76 | |
| 90 | TM | 1,2-Dibromo-3-chloropropane | 0.0454 | 0.0467 | 2.8 | TM | | |
| 91 | TM | 1,2,4-Trichlorobenzene | 0.3928 | 0.3321 | 15 | TM | | |
| 92 | TM | Hexachlorobutadiene | 0.2031 | 0.1833 | 9.7 | TM | | |
| 93 | TM | Naphthalene | 0.6557 | 0.4484 | 32 | TM | | *NT |
| 94 | TM | 1,2,3-Trichlorobenzene | 0.3398 | 0.2653 | 22 | TM | | *NT |
| 95 | | | | | | | | |
| 96 | | | | | | | | |
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| 116 | | | | | | | | |
| 117 | | | | | | | | |
| 118 | | | | | | | | |
| 119 | | | | | | | | |
| 120 | | | | | | | | |
| | | Average | | | 14.9 | | | |

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M03.D Vial: 2
Acq On : 25 Apr 19 13:49 Operator: PM,DG,SV,CMM,KV
Sample : 190425A CCV 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 25 14:08 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 775435 | 25.000 ppb | | -0.12 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 610368 | 25.000 ppb | | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 335796 | 25.000 ppb | | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 151775 | 25.586 ppb | | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 102.344% | | | |
| 37) 1,2-DCA-D4(S) | 4.83 | 65 | 157666 | 23.071 ppb | | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 92.284% | | | |
| 57) Toluene-D8(S) | 7.01 | 98 | 643186 | 23.733 ppb | | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 94.932% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 243723 | 24.507 ppb | | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 98.028% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.10 | 85 | 27120 | 12.703 ppb | | 97 |
| 3) Freon 114 | 1.18 | 85 | 32218 | 10.967 ppb | | 97 |
| 4) Chloromethane | 1.23 | 50 | 36976 | 11.394 ppb | | 97 |
| 5) Vinyl chloride | 1.31 | 62 | 42347 | 12.031 ppb | | 93 |
| 6) Bromomethane | 1.55 | 94 | 27842 | 12.583 ppb | | 91 |
| 7) Chloroethane | 1.63 | 64 | 27397 | 10.874 ppb | | 93 |
| 8) Dichlorofluoromethane | 1.81 | 67 | 59001 | 9.670 ppb | | 94 |
| 9) Trichlorofluoromethane | 1.84 | 101 | 50674 | 11.406 ppb | | 98 |
| 10) Acrolein | 2.21 | 56 | 28360 | 286.630 ppb | | 99 |
| 11) Acetone | 2.38 | 43 | 7904 | 9.474 ppb | | 97 |
| 13) 1,1-DCE | 2.29 | 61 | 42074 | 9.545 ppb | | 97 |
| 14) Acetonitrile | 2.63 | 41 | 42623 | 130.508 ppb | # | 88 |
| 15) t-Butanol | 2.95 | 59 | 24389 | 126.688 ppb | # | 78 |
| 16) Methyl Acetate | 2.68 | 43 | 9318 | 8.783 ppb | | 93 |
| 17) Iodomethane | 2.42 | 142 | 28148 | 8.694 ppb | | 100 |
| 18) Acrylonitrile | 2.99 | 53 | 10802 | 11.187 ppb | | 99 |
| 19) Methylene chloride | 2.75 | 84 | 35371 | 10.298 ppb | | 91 |
| 20) Carbon disulfide | 2.46 | 76 | 87833 | 10.609 ppb | | 100 |
| 21) Methyl t-butyl ether (MtBE | 3.04 | 73 | 38160 | 9.523 ppb | | 99 |
| 22) Trans-1,2-DCE | 3.00 | 96 | 31456 | 10.093 ppb | | 97 |
| 23) Diisopropyl Ether | 3.53 | 45 | 119844 | 10.151 ppb | | 98 |
| 24) 1,1-DCA | 3.41 | 63 | 58737 | 9.590 ppb | | 100 |
| 25) Vinyl Acetate | 3.53 | 43 | 28039 | 9.035 ppb | # | 100 |
| 26) Ethyl tert Butyl Ether | 3.89 | 59 | 106494 | 10.578 ppb | | 98 |
| 27) MEK (2-Butanone) | 4.05 | 43 | 12350 | 11.369 ppb | | 100 |
| 28) Cis-1,2-DCE | 3.99 | 96 | 37153 | 9.875 ppb | | 98 |
| 29) 2,2-Dichloropropane | 3.98 | 77 | 52543 | 10.317 ppb | | 99 |
| 30) Chloroform | 4.33 | 83 | 58911 | 9.751 ppb | | 97 |
| 31) Bromochloromethane | 4.22 | 128 | 18293 | 10.471 ppb | | 94 |
| 33) 1,1,1-TCA | 4.50 | 97 | 51035 | 9.996 ppb | | 91 |
| 34) Cyclohexane | 4.55 | 41 | 29073 | 9.122 ppb | | 98 |
| 35) 1,1-Dichloropropene | 4.68 | 75 | 41608 | 9.887 ppb | | 95 |
| 36) 2,2,4-Trimethylpentane | 5.01 | 57 | 88790 | 10.028 ppb | | 98 |
| 38) Carbon Tetrachloride | 4.67 | 117 | 36755 | 10.794 ppb | | 99 |
| 39) Tert Amyl Methyl Ether | 5.06 | 73 | 99375 | 11.438 ppb | | 99 |
| 40) 1,2-DCA | 4.91 | 62 | 42191 | 9.208 ppb | | 100 |
| 41) Benzene | 4.89 | 78 | 138327 | 9.923 ppb | | 99 |
| 42) TCE | 5.60 | 95 | 33665 | 9.378 ppb | | 99 |
| 43) 2-Pentanone | 5.85 | 43 | 221508 | 119.148 ppb | | 97 |

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

Data File : M:\MAX\DATA\M190401\0425M03.D
Acq On : 25 Apr 19 13:49
Sample : 190425A CCV 10ug/L
Misc : IS,Surr 03/24/19

Vial: 2
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 25 14:08 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 44) | 1,2-Dichloropropane | 5.84 | 63 | 33842 | 9.742 | ppb | # | 93 |
| 45) | Bromodichloromethane | 6.17 | 83 | 41400 | 10.268 | ppb | | 96 |
| 46) | Methyl Cyclohexane | 5.81 | 83 | 49968 | 9.963 | ppb | | 98 |
| 47) | Dibromomethane | 5.97 | 93 | 18217 | 10.194 | ppb | | 88 |
| 48) | MIBK (methyl isobutyl ket | 6.93 | 43 | 24216 | 9.387 | ppb | | 98 |
| 49) | 1-Bromo-2-chloroethane | 6.51 | 63 | 22528 | 10.037 | ppb | | 98 |
| 51) | Cis-1,3-Dichloropropene | 6.70 | 75 | 54011 | 10.022 | ppb | | 96 |
| 52) | Toluene | 7.09 | 91 | 155099 | 9.919 | ppb | | 98 |
| 53) | Trans-1,3-Dichloropropene | 7.38 | 75 | 46136 | 10.233 | ppb | | 97 |
| 54) | 1,1,2-TCA | 7.60 | 83 | 21867 | 9.884 | ppb | | 91 |
| 55) | 2-Hexanone | 7.96 | 43 | 15853 | 9.426 | ppb | | 99 |
| 58) | 1,2-EDB | 8.19 | 107 | 26446 | 9.537 | ppb | | 99 |
| 59) | Tetrachloroethene | 7.76 | 164 | 33844 | 10.080 | ppb | | 91 |
| 60) | 1-Chlorohexane | 8.87 | 91 | 47410 | 10.196 | ppb | | 98 |
| 61) | 1,1,1,2-Tetrachloroethane | 8.96 | 131 | 34684 | 10.485 | ppb | | 99 |
| 62) | m&p-Xylene | 9.17 | 106 | 137717 | 20.043 | ppb | | 95 |
| 63) | o-Xylene | 9.69 | 106 | 68707 | 9.815 | ppb | | 94 |
| 64) | Styrene | 9.71 | 104 | 115198 | 10.028 | ppb | | 94 |
| 66) | 1,3-Dichloropropane | 7.79 | 76 | 47936 | 9.445 | ppb | | 97 |
| 67) | Dibromochloromethane | 8.06 | 129 | 28395 | 10.776 | ppb | | 95 |
| 68) | Chlorobenzene | 8.84 | 112 | 103301 | 9.702 | ppb | | 99 |
| 69) | Ethylbenzene | 9.01 | 91 | 169572 | 9.776 | ppb | | 96 |
| 70) | Bromoform | 9.91 | 173 | 17470 | 10.831 | ppb | | 98 |
| 72) | Isopropylbenzene | 10.21 | 105 | 168955 | 9.160 | ppb | | 99 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.17 | 83 | 41400 | 9.189 | ppb | | 96 |
| 74) | 1,2,3-Trichloropropane | 10.66 | 110 | 10116 | 9.365 | ppb | | 100 |
| 75) | t-1,4-Dichloro-2-Butene | 10.71 | 53 | 4108 | 9.872 | ppb | | 94 |
| 76) | Bromobenzene | 10.56 | 156 | 45946 | 9.175 | ppb | | 100 |
| 77) | n-Propylbenzene | 10.78 | 91 | 187139 | 9.069 | ppb | | 98 |
| 78) | 4-Ethyltoluene | 10.94 | 105 | 171390 | 9.401 | ppb | | 96 |
| 79) | 2-Chlorotoluene | 10.85 | 91 | 111643 | 8.762 | ppb | | 99 |
| 80) | 1,3,5-Trimethylbenzene | 11.04 | 105 | 140915 | 9.084 | ppb | | 98 |
| 81) | 4-Chlorotoluene | 11.01 | 91 | 133038 | 8.964 | ppb | | 98 |
| 82) | Tert-Butylbenzene | 11.48 | 119 | 123774 | 8.958 | ppb | | 92 |
| 83) | 1,2,4-Trimethylbenzene | 11.55 | 105 | 143350 | 9.169 | ppb | | 99 |
| 84) | Sec-Butylbenzene | 11.79 | 105 | 168950 | 9.233 | ppb | | 95 |
| 85) | p-Isopropyltoluene | 12.01 | 119 | 77808 | 9.219 | ppb | | 98 |
| 86) | Benzyl Chloride | 12.23 | 91 | 9810 | 2.568 | ppb | | 93 |
| 87) | 1,3-DCB | 11.89 | 146 | 85243 | 9.370 | ppb | | 97 |
| 88) | 1,4-DCB | 12.02 | 146 | 44752 | 9.668 | ppb | | 99 |
| 89) | n-Butylbenzene | 12.59 | 91 | 61872 | 9.008 | ppb | | 98 |
| 90) | 1,2-DCB | 12.53 | 146 | 79878 | 9.511 | ppb | | 98 |
| 91) | Hexachloroethane | 12.89 | 117 | 7792 | 10.076 | ppb | | 91 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.64 | 157 | 6270 | 10.276 | ppb | | 88 |
| 93) | 1,2,4-Trichlorobenzene | 14.84 | 180 | 44610 | 8.456 | ppb | | 99 |
| 94) | Hexachlorobutadiene | 15.15 | 225 | 24619 | 9.025 | ppb | | 94 |
| 95) | Naphthalene | 15.18 | 128 | 60224 | 6.838 | ppb | | 99 |
| 96) | 1,2,3-Trichlorobenzene | 15.53 | 180 | 35629 | 7.805 | ppb | | 93 |

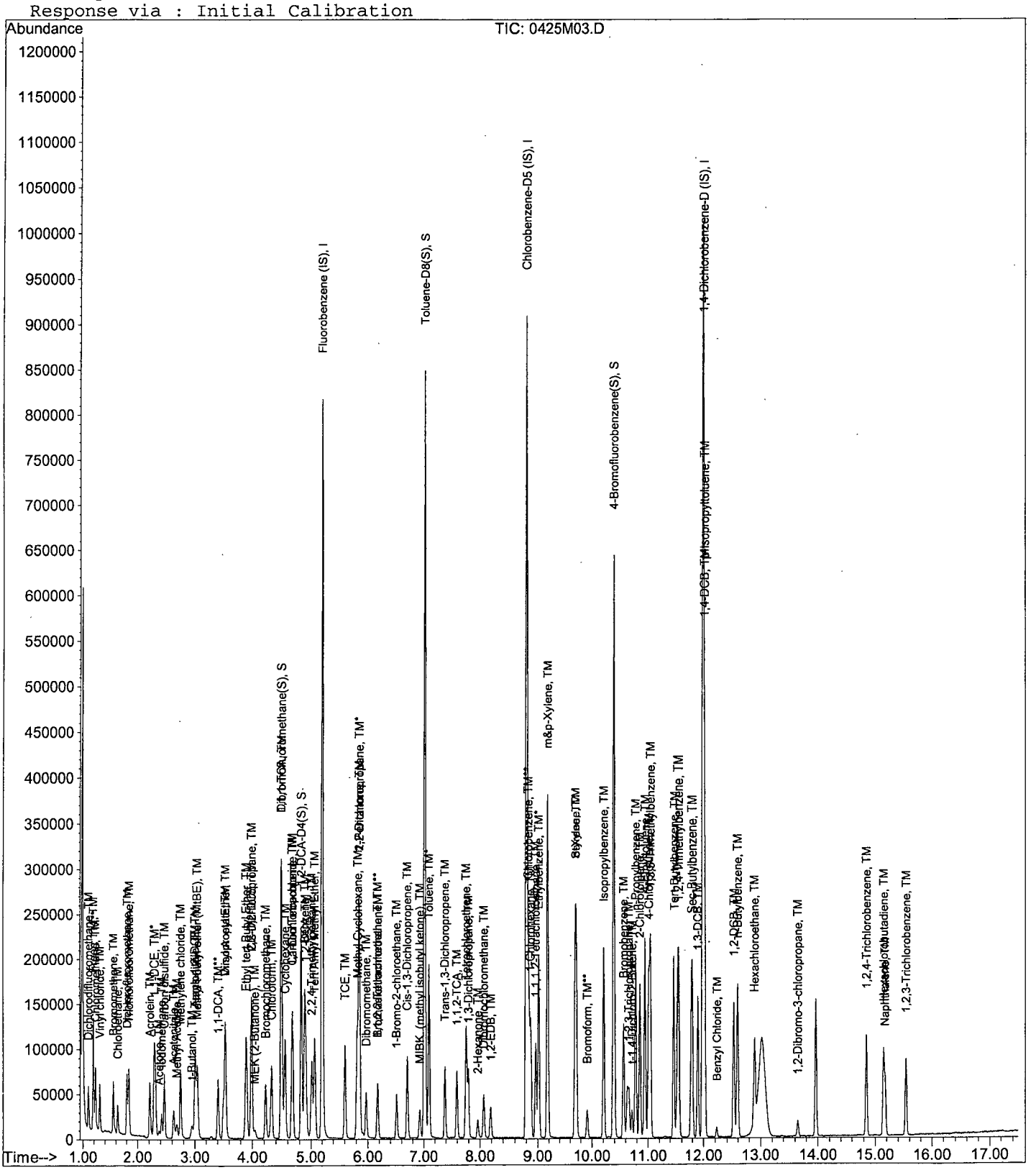
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M03.D Vial: 2
Acq On : 25 Apr 19 13:49 Operator: PM,DG,SV,CMM,KV
Sample : 190425A CCV 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 25 14:08 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
CLP

Form 7

## Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 04/26/19
Matrix: Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0425M27.D

| | | Compound | MEAN | CCRF | %D | | %Drift | |
|---|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | | |
| 2 | TM | Dichlorodifluoromethane | 0.0688 | 0.0716 | 4.0 | TM | | |
| 3 | TM | Freon 114 | 0.0947 | 0.1023 | 8.0 | TM | | |
| 4 | TM**L | Chloromethane | 0.1096 | 0.0693 | 37 | TM**L | 34 | |
| 5 | TM* | Vinyl chloride | 0.1135 | 0.1463 | 29 | TM* | | |
| 6 | TM | Bromomethane | 0.0713 | 0.0900 | 26 | TM | | |
| 7 | TML | Chloroethane | 0.1187 | 0.0947 | 20 | TML | 17 | |
| 8 | TM | Dichlorofluoromethane | 0.1967 | 0.2024 | 2.9 | TM | | |
| 9 | TM | Trichlorofluoromethane | 0.1432 | 0.1764 | 23 | TM | | |
| 10 | TM | Acrolein | 0.0032 | 0.0075 | 134 | TM | | *NT |
| 11 | TML | Acetone | 0.0350 | 0.0265 | 24 | TML | 0.24 | |
| 12 | TM* | 1,1-DCE | 0.1421 | 0.1430 | 0.59 | TM* | | |
| 13 | TM | Acetonitrile | 0.0105 | 0.0107 | 1.9 | TM | | |
| 14 | TM | t-Butanol | 0.0062 | 0.0075 | 21 | TM | | |
| 15 | TM | Methyl Acetate | 0.0342 | 0.0359 | 4.9 | TM | | |
| 16 | TML | Iodomethane | 0.0895 | 0.0420 | 53 | TML | 52 | *NT |
| 17 | TM | Acrylonitrile | 0.0311 | 0.0359 | 15 | TM | | |
| 18 | TM | Methylene chloride | 0.1107 | 0.1144 | 3.3 | TM | | |
| 19 | TM | Carbon disulfide | 0.2669 | 0.2870 | 7.5 | TM | | |
| 20 | TM | Methyl t-butyl ether (MtBE) | 0.1292 | 0.1457 | 13 | TM | | |
| 21 | TM | Trans-1,2-DCE | 0.1005 | 0.1104 | 9.8 | TM | | |
| 22 | TM | Diisopropyl Ether | 0.3806 | 0.3999 | 5.1 | TM | | |
| 23 | TM** | 1,1-DCA | 0.1975 | 0.2046 | 3.6 | TM** | | |
| 24 | TM | Vinyl Acetate | 0.1000 | 0.1009 | 0.84 | TM | | |
| 25 | TM | Ethyl tert Butyl Ether | 0.3246 | 0.3488 | 7.5 | TM | | |
| 26 | TML | MEK (2-Butanone) | 0.0367 | 0.0390 | 6.2 | TML | 11 | |
| 27 | TM | Cis-1,2-DCE | 0.1213 | 0.1298 | 7.0 | TM | | |
| 28 | TM | 2,2-Dichloropropane | 0.1642 | 0.1318 | 20 | TM | | |
| 29 | TM* | Chloroform | 0.1948 | 0.2030 | 4.2 | TM* | | |
| 30 | TM | Bromochloromethane | 0.0563 | 0.0622 | 10 | TM | | |
| 31 | S | Dibromofluoromethane(S) | 0.1912 | 0.1923 | 0.56 | S | | |
| 32 | TM | 1,1,1-TCA | 0.1646 | 0.1719 | 4.5 | TM | | |
| 33 | TM | Cyclohexane | 0.1028 | 0.0995 | 3.2 | TM | | |
| 34 | TM | 1,1-Dichloropropene | 0.1357 | 0.1463 | 7.8 | TM | | |
| 35 | TM | 2,2,4-Trimethylpentane | 0.2855 | 0.2715 | 4.9 | TM | | |
| 36 | S | 1,2-DCA-D4(S) | 0.2203 | 0.2054 | 6.8 | S | | |
| 37 | TM | Carbon Tetrachloride | 0.1098 | 0.1288 | 17 | TM | | |
| 38 | TM | Tert Amyl Methyl Ether | 0.2801 | 0.3133 | 12 | TM | | |
| 39 | TM | 1,2-DCA | 0.1477 | 0.1461 | 1.1 | TM | | |
| 40 | TM | Benzene | 0.4494 | 0.4709 | 4.8 | TM | | |
| | | Average | | | 14.5 | | | |

VOLATILE ORGANIC ANALYSIS BY
CLP

Form 7

## Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 04/26/19
Matrix: 0 Instrument: Max
Cal. Date: 03/24/19
Data File: 0425M27.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | TM | TCE | 0.1157 | 0.1212 | 4.7 | TM | |
| 42 | TM | 2-Pentanone | 0.0599 | 0.0607 | 1.3 | TM | |
| 43 | TM* | 1,2-Dichloropropane | 0.1120 | 0.1192 | 6.5 | TM* | |
| 44 | TM | Bromodichloromethane | 0.1300 | 0.1443 | 11 | TM | |
| 45 | TM | Methyl Cyclohexane | 0.1617 | 0.1675 | 3.6 | TM | |
| 46 | TM | Dibromomethane | 0.0576 | 0.0616 | 6.9 | TM | |
| 47 | TM | MIBK (methyl isobutyl ketone) | 0.0832 | 0.0815 | 2.0 | TM | |
| 48 | TM | 1-Bromo-2-chloroethane | 0.0724 | 0.0747 | 3.2 | TM | |
| 49 | TM | Cis-1,3-Dichloropropene | 0.1738 | 0.1798 | 3.5 | TM | |
| 50 | TM* | Toluene | 0.5041 | 0.5392 | 7.0 | TM* | |
| 51 | TM | Trans-1,3-Dichloropropene | 0.1454 | 0.1458 | 0.27 | TM | |
| 52 | TM | 1,1,2-TCA | 0.0713 | 0.0764 | 7.2 | TM | |
| 53 | TM | 2-Hexanone | 0.0542 | 0.0523 | 3.5 | TM | |
| 54 | I | Chlorobenzene-D5 (IS) | ISTD | | | I | |
| 55 | S | Toluene-D8(S) | 1.110 | 1.065 | 4.0 | S | |
| 56 | TM | 1,2-EDB | 0.1136 | 0.1178 | 3.7 | TM | |
| 57 | TM | Tetrachloroethene | 0.1375 | 0.1508 | 9.6 | TM | |
| 58 | TM | 1-Chlorohexane | 0.1904 | 0.1950 | 2.4 | TM | |
| 59 | TM | 1,1,1,2-Tetrachloroethane | 0.1355 | 0.1507 | 11 | TM | |
| 60 | TM | m&p-Xylene | 0.2814 | 0.3075 | 9.3 | TM | |
| 61 | TM | o-Xylene | 0.2867 | 0.3025 | 5.5 | TM | |
| 62 | TM | Styrene | 0.4705 | 0.4982 | 5.9 | TM | |
| 63 | S | 4-Bromofluorobenzene(S) | 0.4073 | 0.3993 | 2.0 | S | |
| 64 | TM | 1,3-Dichloropropane | 0.2079 | 0.2143 | 3.1 | TM | |
| 65 | TM | Dibromochloromethane | 0.1079 | 0.1227 | 14 | TM | |
| 66 | TM** | Chlorobenzene | 0.4361 | 0.4538 | 4.1 | TM** | |
| 67 | TM* | Ethylbenzene | 0.7104 | 0.7436 | 4.7 | TM* | |
| 68 | TM**L | Bromoform | 0.0599 | 0.0750 | 25 | TM**L | 13 |
| 69 | I | 1,4-Dichlorobenzene-D (IS) | ISTD | | | I | |
| 70 | TM | Isopropylbenzene | 1.373 | 1.407 | 2.5 | TM | |
| 71 | TM** | 1,1,2,2-Tetrachloroethane | 0.3354 | 0.3548 | 5.8 | TM** | |
| 72 | TM | 1,2,3-Trichloropropane | 0.0804 | 0.0851 | 5.8 | TM | |
| 73 | TM | t-1,4-Dichloro-2-Butene | 0.0310 | 0.0237 | 23 | TM | |
| 74 | TM | Bromobenzene | 0.3728 | 0.3873 | 3.9 | TM | |
| 75 | TM | n-Propylbenzene | 1.536 | 1.523 | 0.86 | TM | |
| 76 | TM | 4-Ethyltoluene | 1.357 | 1.417 | 4.4 | TM | |
| 77 | TM | 2-Chlorotoluene | 0.9486 | 0.9328 | 1.7 | TM | |
| 78 | TM | 1,3,5-Trimethylbenzene | 1.155 | 1.161 | 0.49 | TM | |
| 79 | TM | 4-Chlorotoluene | 1.105 | 1.131 | 2.4 | TM | |
| 80 | TM | Tert-Butylbenzene | 1.029 | 1.004 | 2.4 | TM | |
| | | Average | | | 5.7 | | |

VOLATILE ORGANIC ANALYSIS BY
CLP

Form 7

## Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 04/26/19
Matrix: 0 Instrument: Max
Cal. Date: 03/24/19
Data File: 0425M27.D

| | | Compound | MEAN | CCRF | %D | | %Drift | |
|---|---|---|---|---|---|---|---|---|
| 81 | TM | 1,2,4-Trimethylbenzene | 1.164 | 1.156 | 0.71 | TM | | |
| 82 | TM | Sec-Butylbenzene | 1.362 | 1.347 | 1.1 | TM | | |
| 83 | TM | p-Isopropyltoluene | 0.6284 | 0.6128 | 2.5 | TM | | |
| 84 | TM | Benzyl Chloride | 0.2844 | 0.0461 | 84 | TM | | *NT |
| 85 | TM | 1,3-DCB | 0.6773 | 0.7002 | 3.4 | TM | | |
| 86 | TM | 1,4-DCB | 0.3446 | 0.3632 | 5.4 | TM | | |
| 87 | TM | n-Butylbenzene | 0.5114 | 0.4773 | 6.7 | TM | | |
| 88 | TM | 1,2-DCB | 0.6253 | 0.6472 | 3.5 | TM | | |
| 89 | TML | Hexachloroethane | 0.0554 | 0.0657 | 19 | TML | 11 | |
| 90 | TM | 1,2-Dibromo-3-chloropropane | 0.0454 | 0.0458 | 0.77 | TM | | |
| 91 | TM | 1,2,4-Trichlorobenzene | 0.3928 | 0.3190 | 19 | TM | | |
| 92 | TM | Hexachlorobutadiene | 0.2031 | 0.1808 | 11 | TM | | |
| 93 | TM | Naphthalene | 0.6557 | 0.3889 | 41 | TM | | |
| 94 | TM | 1,2,3-Trichlorobenzene | 0.3398 | 0.2311 | 32 | TM | | |
| 95 | | | | | | | | |
| 96 | | | | | | | | |
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| 115 | | | | | | | | |
| 116 | | | | | | | | |
| 117 | | | | | | | | |
| 118 | | | | | | | | |
| 119 | | | | | | | | |
| 120 | | | | | | | | |
| | | Average | | | 16.4 | | | |

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M27.D Vial: 26
Acq On : 26 Apr 19 1:13 Operator: PM,DG,SV,CMM,KV
Sample : Ending CCV 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 778804 | 25.000 ppb | | -0.11 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 603493 | 25.000 ppb | | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 316720 | 25.000 ppb | | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 149780 | 25.140 ppb | | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 100.560% | | | |
| 37) 1,2-DCA-D4(S) | 4.83 | 65 | 160005 | 23.312 ppb | | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 93.248% | | | |
| 57) Toluene-D8(S) | 7.01 | 98 | 642922 | 23.993 ppb | | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 95.972% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 240959 | 24.505 ppb | | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 98.020% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.10 | 85 | 22304 | 10.402 ppb | | 99 |
| 3) Freon 114 | 1.19 | 85 | 31866 | 10.800 ppb | | 99 |
| 4) Chloromethane | 1.24 | 50 | 21576 | 6.601 ppb | | 96 |
| 5) Vinyl chloride | 1.31 | 62 | 45563 | 12.888 ppb | | 97 |
| 6) Bromomethane | 1.55 | 94 | 28045 | 12.620 ppb | | 100 |
| 7) Chloroethane | 1.64 | 64 | 29497 | 11.727 ppb | | 96 |
| 8) Dichlorofluoromethane | 1.81 | 67 | 63065 | 10.292 ppb | | 99 |
| 9) Trichlorofluoromethane | 1.85 | 101 | 54946 | 12.314 ppb | | 98 |
| 10) Acrolein | 2.22 | 56 | 29040 | 292.233 ppb | | 100 |
| 11) Acetone | 2.37 | 43 | 8259 | 9.976 ppb | | 97 |
| 13) 1,1-DCE | 2.29 | 61 | 44533 | 10.059 ppb | | 95 |
| 14) Acetonitrile | 2.62 | 41 | 41789 | 127.401 ppb | # | 84 |
| 15) t-Butanol | 2.94 | 59 | 29324 | 151.664 ppb | # | 88 |
| 16) Methyl Acetate | 2.68 | 43 | 11174 | 10.487 ppb | | 96 |
| 17) Iodomethane | 2.42 | 142 | 13097 | 4.836 ppb | | 99 |
| 18) Acrylonitrile | 2.99 | 53 | 11186 | 11.534 ppb | | 95 |
| 19) Methylene chloride | 2.75 | 84 | 35634 | 10.330 ppb | | 95 |
| 20) Carbon disulfide | 2.47 | 76 | 89407 | 10.752 ppb | | 99 |
| 21) Methyl t-butyl ether (MtBE | 3.04 | 73 | 45400 | 11.280 ppb | | 97 |
| 22) Trans-1,2-DCE | 3.01 | 96 | 34381 | 10.983 ppb | | 92 |
| 23) Diisopropyl Ether | 3.54 | 45 | 124567 | 10.506 ppb | | 98 |
| 24) 1,1-DCA | 3.41 | 63 | 63728 | 10.360 ppb | | 99 |
| 25) Vinyl Acetate | 3.53 | 43 | 31430 | 10.084 ppb | # | 100 |
| 26) Ethyl tert Butyl Ether | 3.90 | 59 | 108673 | 10.747 ppb | | 100 |
| 27) MEK (2-Butanone) | 4.04 | 43 | 12141 | 11.092 ppb | | 91 |
| 28) Cis-1,2-DCE | 3.99 | 96 | 40437 | 10.701 ppb | | 93 |
| 29) 2,2-Dichloropropane | 3.99 | 77 | 41056 | 8.027 ppb | | 100 |
| 30) Chloroform | 4.33 | 83 | 63240 | 10.422 ppb | | 96 |
| 31) Bromochloromethane | 4.23 | 128 | 19369 | 11.039 ppb | | 88 |
| 33) 1,1,1-TCA | 4.51 | 97 | 53561 | 10.445 ppb | | 94 |
| 34) Cyclohexane | 4.56 | 41 | 31000 | 9.684 ppb | | 97 |
| 35) 1,1-Dichloropropene | 4.68 | 75 | 45574 | 10.783 ppb | | 96 |
| 36) 2,2,4-Trimethylpentane | 5.02 | 57 | 84567 | 9.509 ppb | | 99 |
| 38) Carbon Tetrachloride | 4.68 | 117 | 40138 | 11.736 ppb | | 100 |
| 39) Tert Amyl Methyl Ether | 5.06 | 73 | 97602 | 11.185 ppb | | 99 |
| 40) 1,2-DCA | 4.92 | 62 | 45518 | 9.891 ppb | | 94 |
| 41) Benzene | 4.89 | 78 | 146695 | 10.477 ppb | | 98 |
| 42) TCE | 5.61 | 95 | 37748 | 10.470 ppb | | 98 |
| 43) 2-Pentanone | 5.85 | 43 | 236465 | 126.643 ppb | | 99 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M27.D Vial: 26
Acq On : 26 Apr 19 1:13 Operator: PM,DG,SV,CMM,KV
Sample : Ending CCV 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 44) | 1,2-Dichloropropane | 5.85 | 63 | 37145 | 10.646 | ppb | | 97 |
| 45) | Bromodichloromethane | 6.17 | 83 | 44950 | 11.100 | ppb | | 96 |
| 46) | Methyl Cyclohexane | 5.82 | 83 | 52182 | 10.359 | ppb | | 96 |
| 47) | Dibromomethane | 5.97 | 93 | 19186 | 10.689 | ppb | | 96 |
| 48) | MIBK (methyl isobutyl ket | 6.93 | 43 | 25391 | 9.800 | ppb | # | 90 |
| 49) | 1-Bromo-2-chloroethane | 6.51 | 63 | 23256 | 10.317 | ppb | | 98 |
| 51) | Cis-1,3-Dichloropropene | 6.70 | 75 | 55999 | 10.346 | ppb | | 96 |
| 52) | Toluene | 7.10 | 91 | 167966 | 10.695 | ppb | | 99 |
| 53) | Trans-1,3-Dichloropropene | 7.38 | 75 | 45407 | 10.027 | ppb | | 99 |
| 54) | 1,1,2-TCA | 7.60 | 83 | 23815 | 10.718 | ppb | | 97 |
| 55) | 2-Hexanone | 7.96 | 43 | 16306 | 9.653 | ppb | | 98 |
| 58) | 1,2-EDB | 8.19 | 107 | 28434 | 10.371 | ppb | | 97 |
| 59) | Tetrachloroethene | 7.76 | 164 | 36392 | 10.963 | ppb | | 97 |
| 60) | 1-Chlorohexane | 8.87 | 91 | 47063 | 10.237 | ppb | | 97 |
| 61) | 1,1,1,2-Tetrachloroethane | 8.96 | 131 | 36377 | 11.122 | ppb | | 97 |
| 62) | m&p-Xylene | 9.17 | 106 | 148462 | 21.853 | ppb | | 98 |
| 63) | o-Xylene | 9.69 | 106 | 73024 | 10.551 | ppb | | 95 |
| 64) | Styrene | 9.71 | 104 | 120267 | 10.588 | ppb | | 94 |
| 66) | 1,3-Dichloropropane | 7.79 | 76 | 51720 | 10.307 | ppb | | 98 |
| 67) | Dibromochloromethane | 8.07 | 129 | 29630 | 11.373 | ppb | | 93 |
| 68) | Chlorobenzene | 8.84 | 112 | 109549 | 10.406 | ppb | | 98 |
| 69) | Ethylbenzene | 9.01 | 91 | 179503 | 10.467 | ppb | | 95 |
| 70) | Bromoform | 9.92 | 173 | 18116 | 11.281 | ppb | | 99 |
| 72) | Isopropylbenzene | 10.21 | 105 | 178263 | 10.247 | ppb | | 99 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.17 | 83 | 44950 | 10.577 | ppb | | 96 |
| 74) | 1,2,3-Trichloropropane | 10.66 | 110 | 10782 | 10.583 | ppb | | 88 |
| 75) | t-1,4-Dichloro-2-Butene | 10.71 | 53 | 3003 | 7.651 | ppb | | 95 |
| 76) | Bromobenzene | 10.56 | 156 | 49069 | 10.389 | ppb | | 95 |
| 77) | n-Propylbenzene | 10.78 | 91 | 192956 | 9.914 | ppb | | 96 |
| 78) | 4-Ethyltoluene | 10.94 | 105 | 179542 | 10.441 | ppb | | 96 |
| 79) | 2-Chlorotoluene | 10.85 | 91 | 118177 | 9.833 | ppb | | 99 |
| 80) | 1,3,5-Trimethylbenzene | 11.04 | 105 | 147031 | 10.049 | ppb | | 97 |
| 81) | 4-Chlorotoluene | 11.01 | 91 | 143296 | 10.237 | ppb | | 97 |
| 82) | Tert-Butylbenzene | 11.48 | 119 | 127155 | 9.757 | ppb | | 94 |
| 83) | 1,2,4-Trimethylbenzene | 11.55 | 105 | 146420 | 9.929 | ppb | | 98 |
| 84) | Sec-Butylbenzene | 11.79 | 105 | 170643 | 9.887 | ppb | | 97 |
| 85) | p-Isopropyltoluene | 12.01 | 119 | 77640 | 9.753 | ppb | | 99 |
| 86) | Benzyl Chloride | 12.23 | 91 | 5837 | 1.620 | ppb | | 100 |
| 87) | 1,3-DCB | 11.89 | 146 | 88707 | 10.338 | ppb | | 97 |
| 88) | 1,4-DCB | 12.02 | 146 | 46016 | 10.540 | ppb | | 96 |
| 89) | n-Butylbenzene | 12.59 | 91 | 60472 | 9.334 | ppb | | 99 |
| 90) | 1,2-DCB | 12.53 | 146 | 81989 | 10.350 | ppb | | 99 |
| 91) | Hexachloroethane | 12.89 | 117 | 8320 | 11.126 | ppb | | 86 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.64 | 157 | 5799 | 10.077 | ppb | | 95 |
| 93) | 1,2,4-Trichlorobenzene | 14.85 | 180 | 40409 | 8.121 | ppb | | 97 |
| 94) | Hexachlorobutadiene | 15.14 | 225 | 22903 | 8.902 | ppb | | 87 |
| 95) | Naphthalene | 15.18 | 128 | 49273 | 5.931 | ppb | | 95 |
| 96) | 1,2,3-Trichlorobenzene | 15.53 | 180 | 29276 | 6.800 | ppb | | 91 |

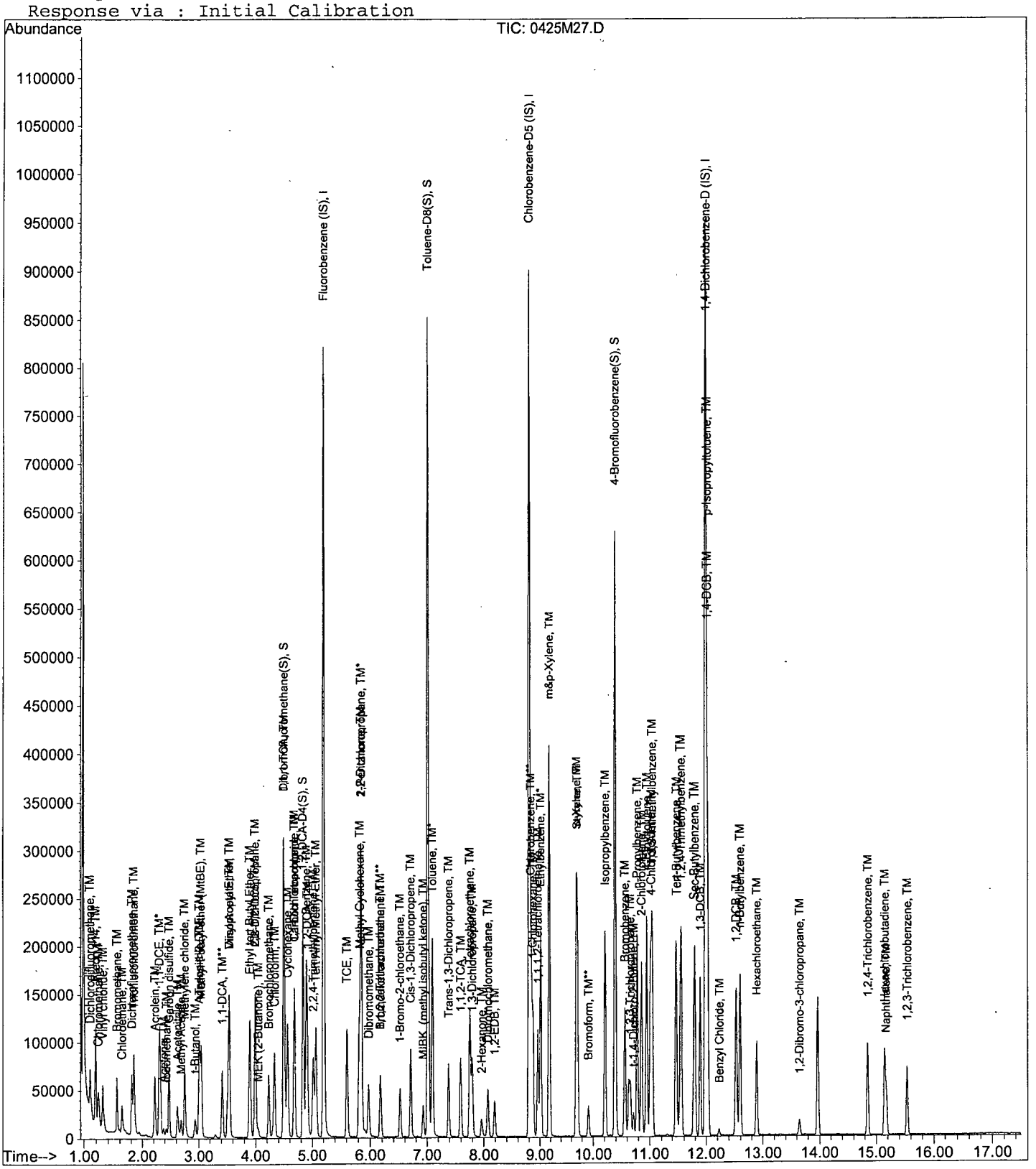
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M27.D Vial: 26
Acq On : 26 Apr 19 1:13 Operator: PM,DG,SV,CMM,KV
Sample : Ending CCV 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



# ORGANICS
# Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M14.D Vial: 13
Acq On : 25 Apr 19 19:02 Operator: PM,DG,SV,CMM,KV
Sample : AZ90050W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:17 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 698522 | 25.000 | ppb | -0.12 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 538780 | 25.000 | ppb | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 279935 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 136536 | 25.551 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 102.204% | | | |
| 37) 1,2-DCA-D4(S) | 4.84 | 65 | 142153 | 23.091 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 92.364% | | | |
| 57) Toluene-D8(S) | 7.01 | 98 | 588401 | 24.596 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 98.384% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 220886 | 25.162 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 100.648% | | | |

Target Compounds Qvalue

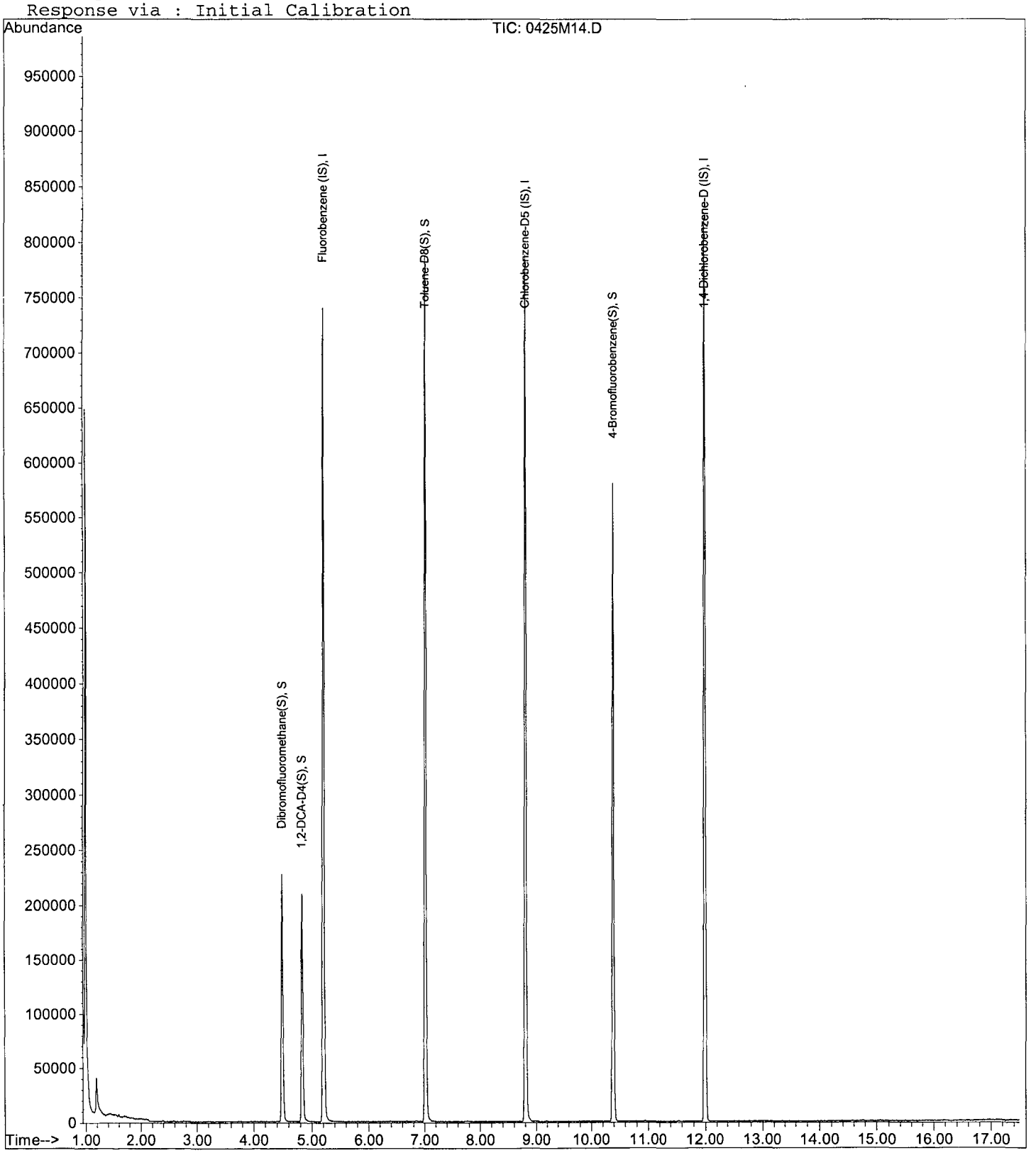
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M14.D Vial: 13
Acq On : 25 Apr 19 19:02 Operator: PM,DG,SV,CMM,KV
Sample : AZ90050W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:17 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M17.D Vial: 16
Acq On : 25 Apr 19 20:28 Operator: PM,DG,SV,CMM,KV
Sample : AZ90051W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 701384 | 25.000 | ppb | -0.11 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 545261 | 25.000 | ppb | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 281141 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 135286 | 25.214 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 100.856% | | |
| 37) 1,2-DCA-D4(S) | 4.84 | 65 | 143322 | 23.186 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 92.744% | | |
| 57) Toluene-D8(S) | 7.02 | 98 | 584131 | 24.127 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 96.508% | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 221042 | 24.880 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 99.520% | | |

| Target Compounds | Qvalue |
|---|---|

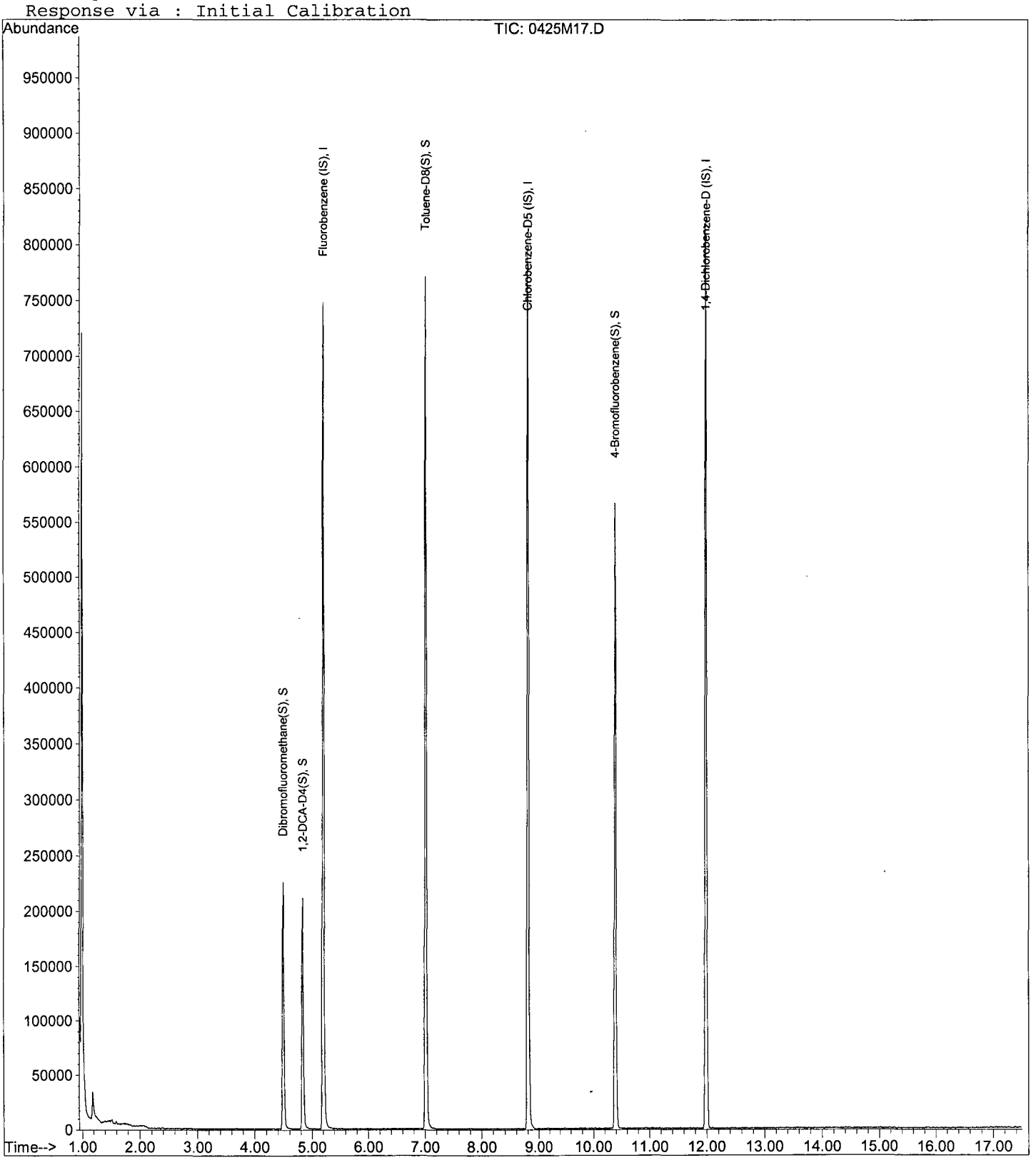
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M17.D Vial: 16
Acq On : 25 Apr 19 20:28 Operator: PM,DG,SV,CMM,KV
Sample : AZ90051W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:18 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M18.D Vial: 17
Acq On : 25 Apr 19 20:56 Operator: PM,DG,SV,CMM,KV
Sample : AZ90052W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:19 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 709606 | 25.000 | ppb | -0.11 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 539685 | 25.000 | ppb | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 276195 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 132664 | 24.439 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 97.756% | | |
| 37) 1,2-DCA-D4(S) | 4.84 | 65 | 141695 | 22.657 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 90.628% | | |
| 57) Toluene-D8(S) | 7.02 | 98 | 580539 | 24.227 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 96.908% | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 216394 | 24.609 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 98.436% | | |

Target Compounds Qvalue

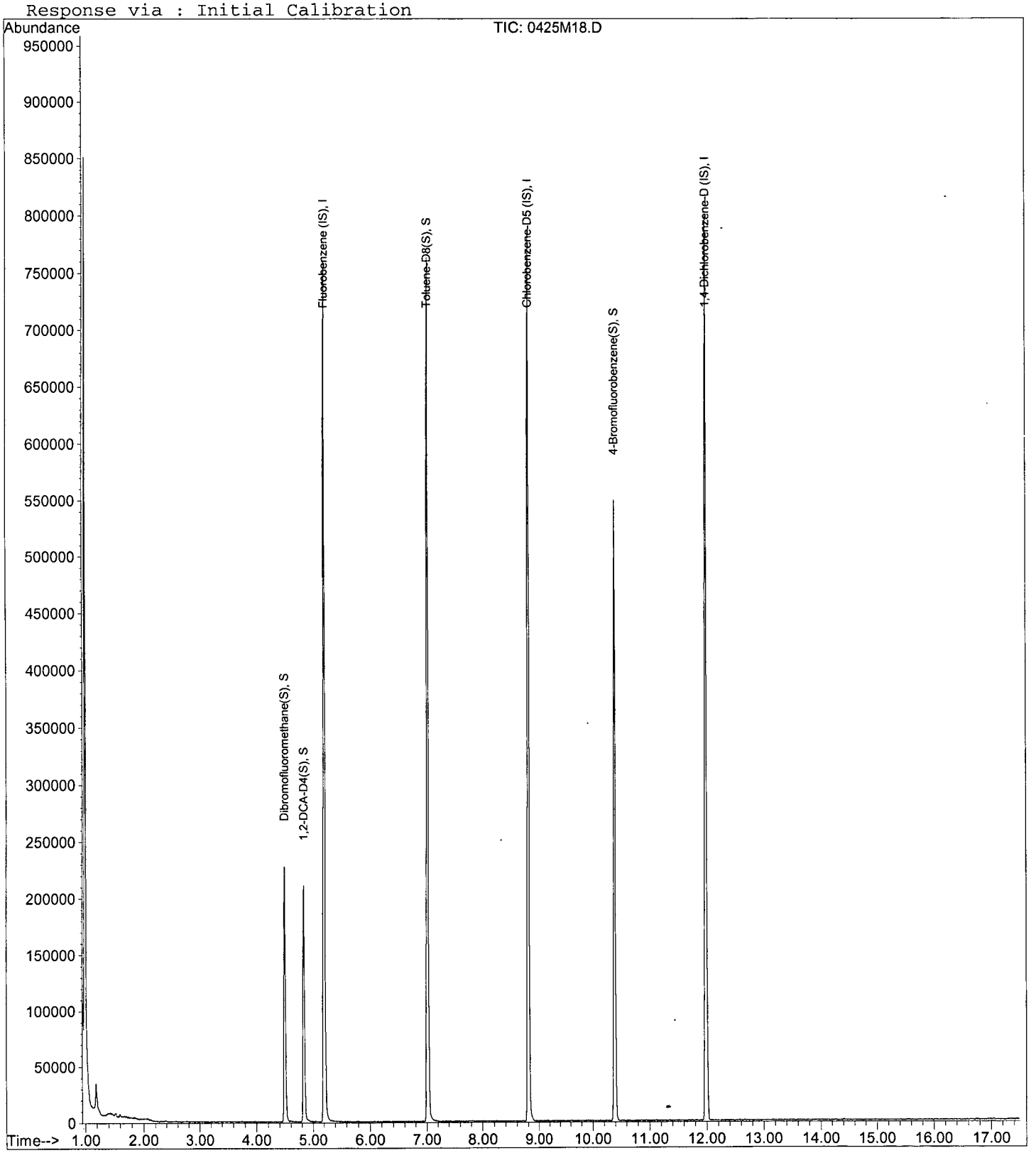
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M18.D Vial: 17
Acq On : 25 Apr 19 20:56 Operator: PM,DG,SV,CMM,KV
Sample : AZ90052W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:19 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M12.D Vial: 11
Acq On : 25 Apr 19 18:05 Operator: PM,DG,SV,CMM,KV
Sample : AZ90053W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:15 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 748240 | 25.000 | ppb | -0.11 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 561096 | 25.000 | ppb | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 287803 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 146645 | 25.619 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 102.476% | | |
| 37) 1,2-DCA-D4(S) | 4.83 | 65 | 154416 | 23.416 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 93.664% | | |
| 57) Toluene-D8(S) | 7.01 | 98 | 621817 | 24.959 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 99.836% | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 227191 | 24.851 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 99.404% | | |

Target Compounds Qvalue

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

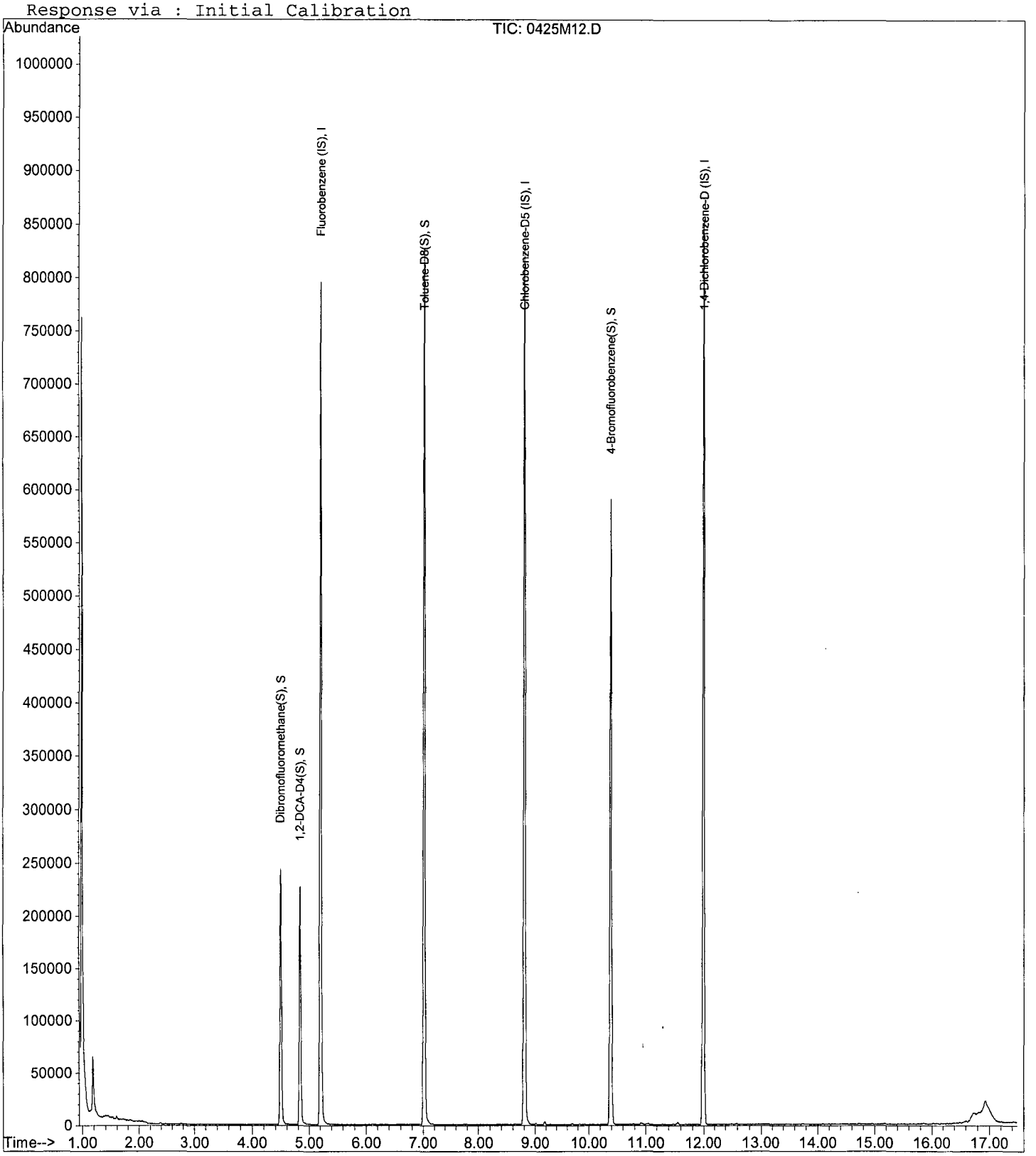
Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M12.D
Acq On : 25 Apr 19 18:05
Sample : AZ90053W01
Misc : IS,Surr 03/24/19

Vial: 11
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 12:15 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M19.D Vial: 18
Acq On : 25 Apr 19 21:25 Operator: PM,DG,SV,CMM,KV
Sample : AZ90054W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:19 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 701624 | 25.000 | ppb | -0.11 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 541522 | 25.000 | ppb | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 283034 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 133403 | 24.854 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 99.416% | | |
| 37) 1,2-DCA-D4(S) | 4.83 | 65 | 142438 | 23.035 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 92.140% | | |
| 57) Toluene-D8(S) | 7.01 | 98 | 582352 | 24.220 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 96.880% | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 214300 | 24.288 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 97.152% | | |

Target Compounds Qvalue

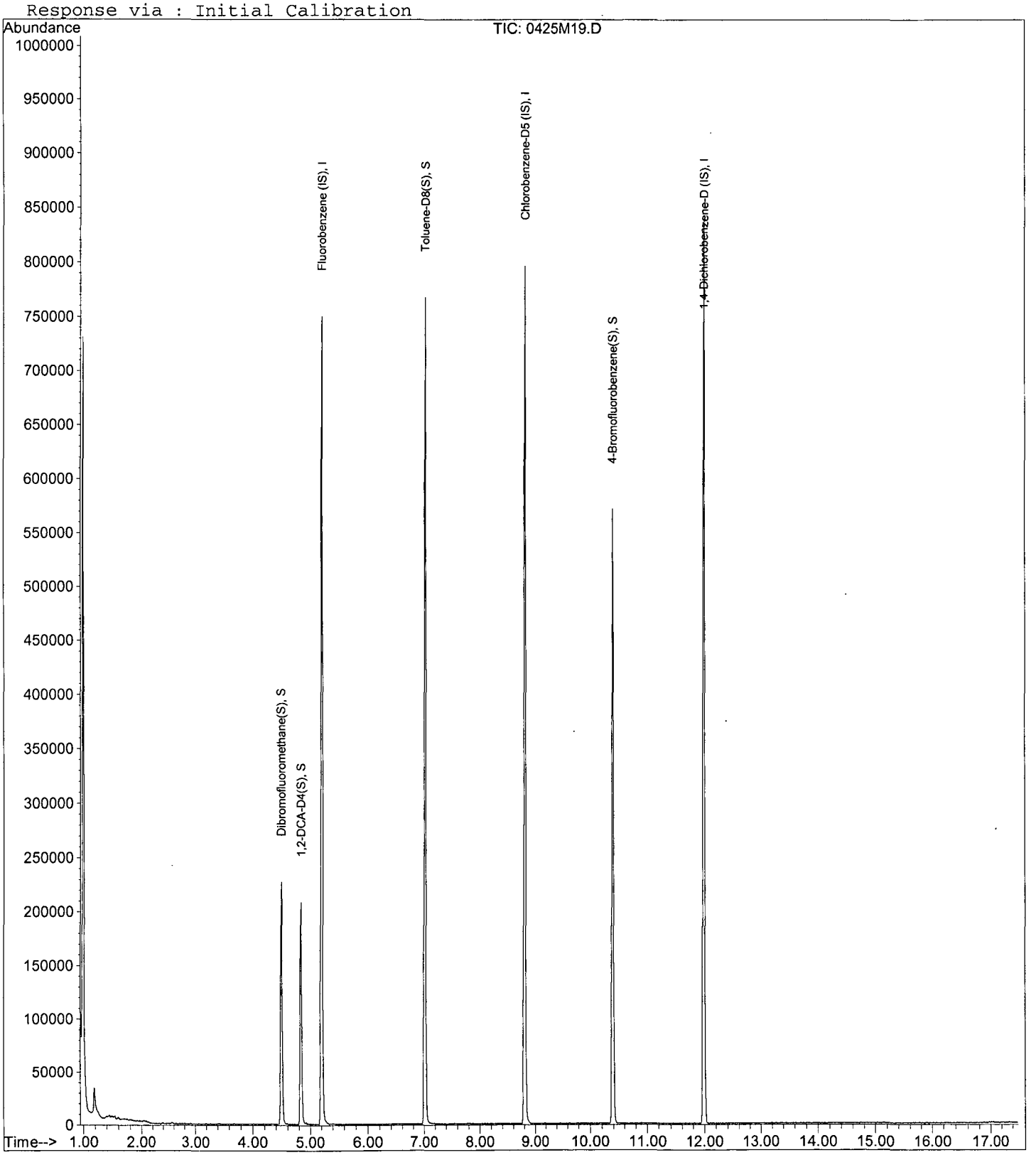
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M19.D Vial: 18
Acq On : 25 Apr 19 21:25 Operator: PM,DG,SV,CMM,KV
Sample : AZ90054W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:19 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M15.D Vial: 14
Acq On : 25 Apr 19 19:31 Operator: PM,DG,SV,CMM,KV
Sample : AZ90055W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:17 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 783726 | 25.000 | ppb | -0.11 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 585818 | 25.000 | ppb | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 284947 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 153077 | 25.532 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 102.128% | | | |
| 37) 1,2-DCA-D4(S) | 4.84 | 65 | 161786 | 23.423 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 93.692% | | | |
| 57) Toluene-D8(S) | 7.01 | 98 | 647264 | 24.884 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 99.536% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 230012 | 24.098 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 96.392% | | | |

Target Compounds Qvalue

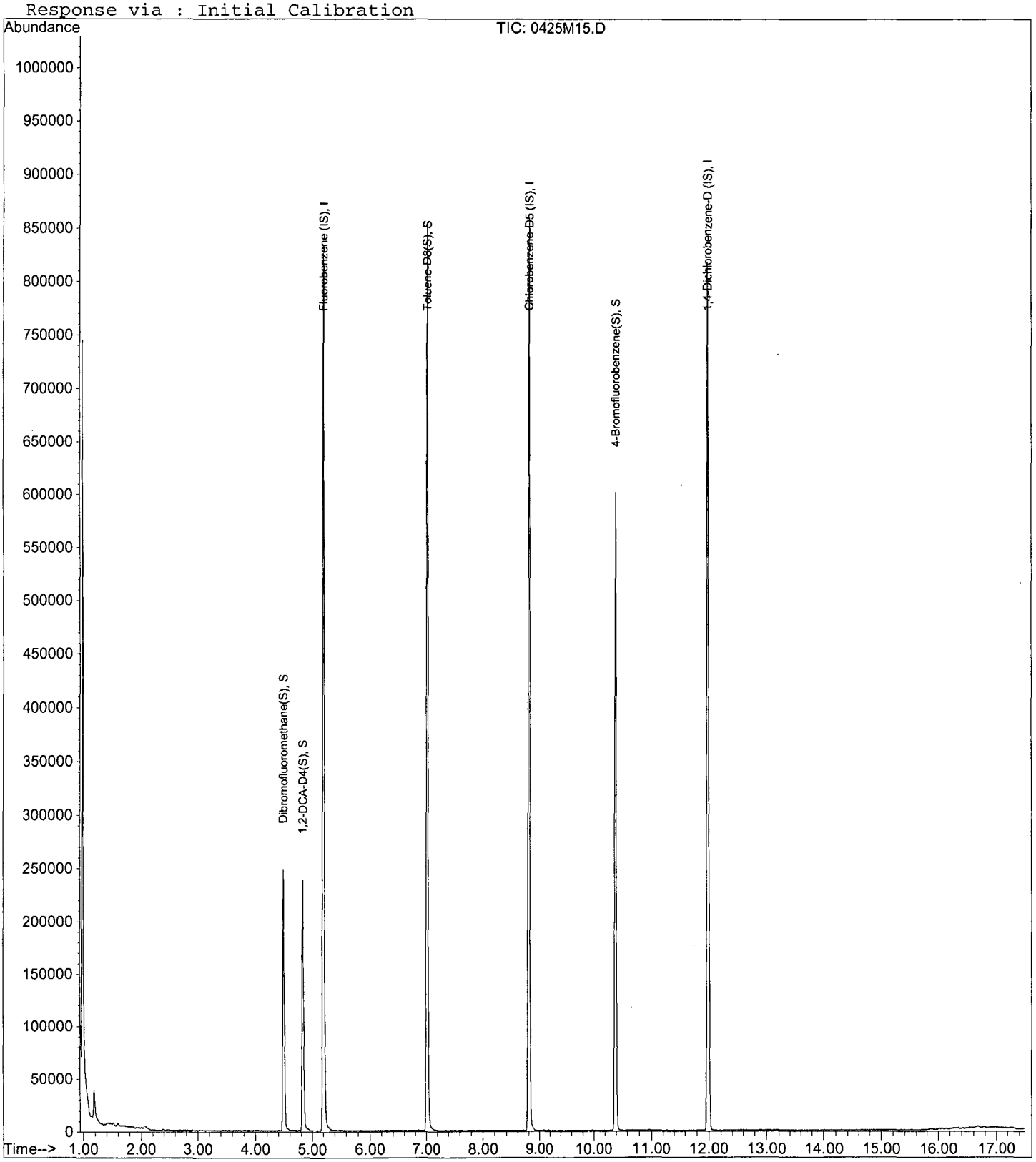
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M15.D  Vial: 14
Acq On : 25 Apr 19 19:31  Operator: PM,DG,SV,CMM,KV
Sample : AZ90055W01  Inst : Max
Misc : IS,Surr 03/24/19  Multiplr: 1.00

Quant Time: Apr 26 12:17 2019  Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M20.D Vial: 19
Acq On : 25 Apr 19 21:53 Operator: PM,DG,SV,CMM,KV
Sample : AZ90056W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:23 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 768638 | 25.000 | ppb | -0.11 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 578151 | 25.000 | ppb | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 294599 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 139339 | 23.697 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 94.788% | | |
| 37) 1,2-DCA-D4(S) | 4.84 | 65 | 154285 | 22.776 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 91.104% | | |
| 57) Toluene-D8(S) | 7.02 | 98 | 628181 | 24.471 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 97.884% | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 228644 | 24.272 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 97.088% | | |

Target Compounds Qvalue

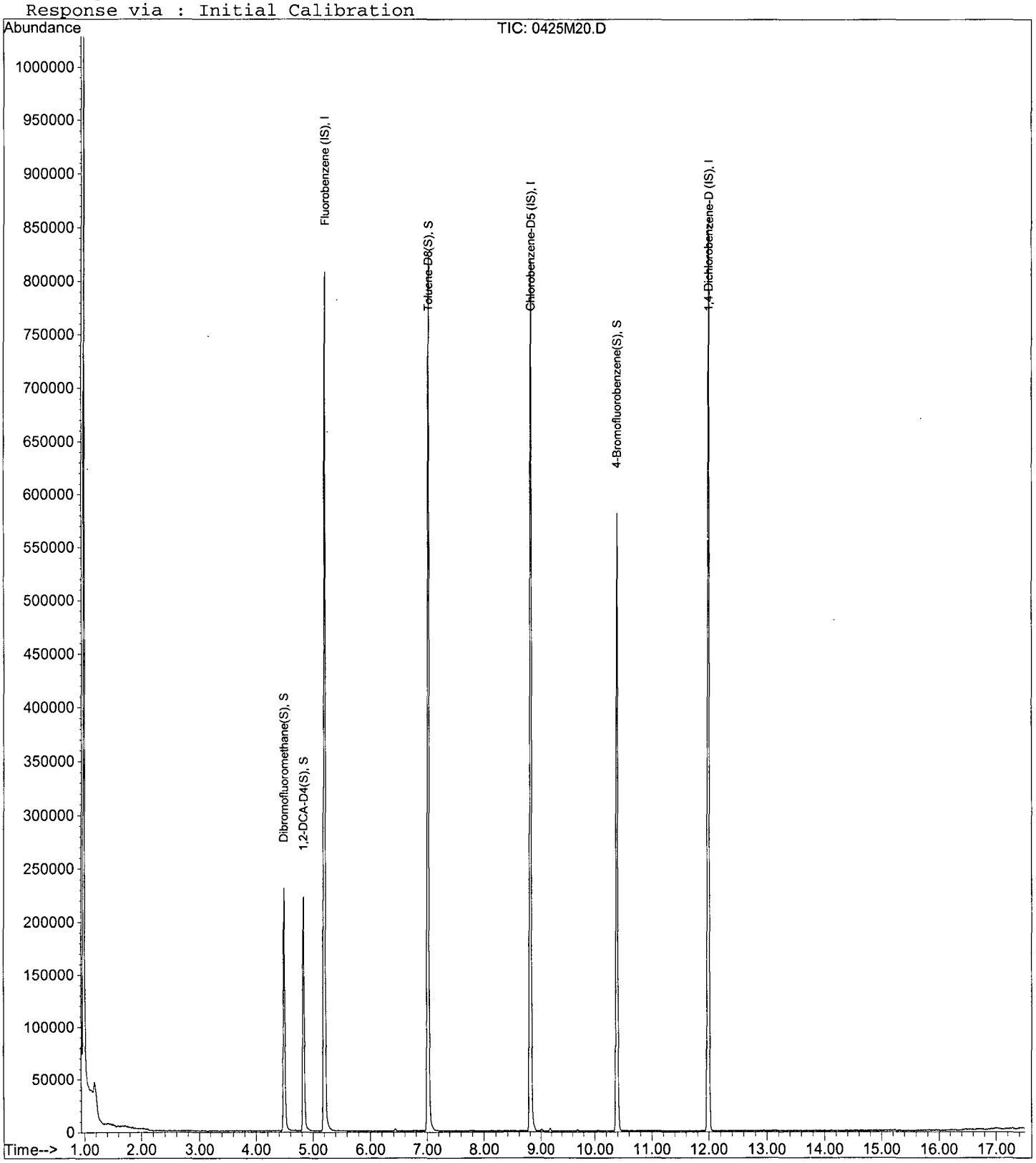
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M20.D  Vial: 19
Acq On : 25 Apr 19 21:53  Operator: PM,DG,SV,CMM,KV
Sample : AZ90056W01  Inst : Max
Misc : IS,Surr 03/24/19  Multiplr: 1.00

Quant Time: Apr 26 12:23 2019  Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M16.D Vial: 15
Acq On : 25 Apr 19 19:59 Operator: PM,DG,SV,CMM,KV
Sample : AZ90057W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:18 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 744311 | 25.000 | ppb | -0.11 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 558880 | 25.000 | ppb | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 286784 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 141704 | 24.887 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 99.548% | | |
| 37) 1,2-DCA-D4(S) | 4.84 | 65 | 153295 | 23.369 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 93.476% | | |
| 57) Toluene-D8(S) | 7.02 | 98 | 603069 | 24.302 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 97.208% | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 223097 | 24.500 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 98.000% | | |

Target Compounds Qvalue

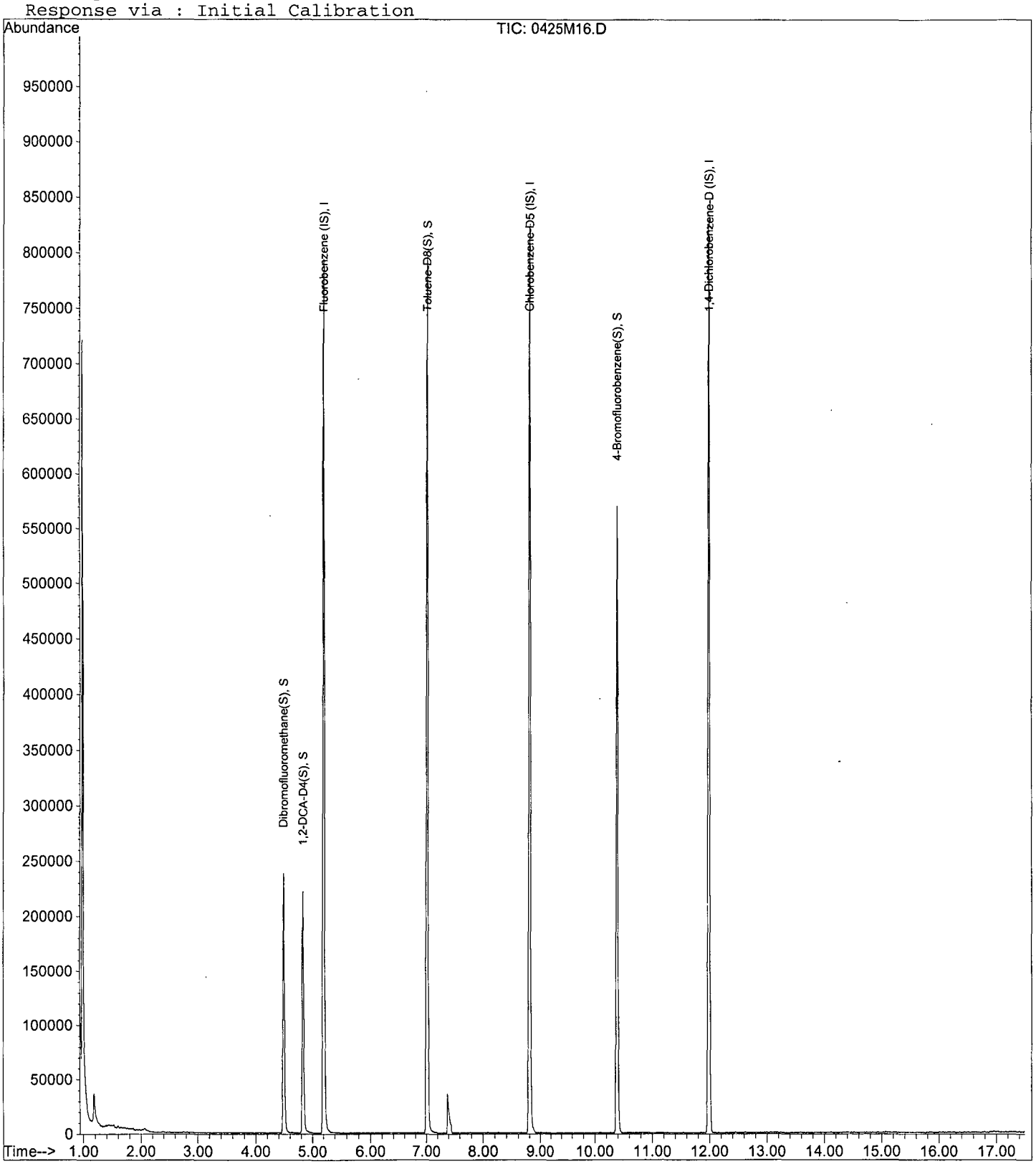
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M16.D Vial: 15
Acq On : 25 Apr 19 19:59 Operator: PM,DG,SV,CMM,KV
Sample : AZ90057W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:18 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M21.D Vial: 20
Acq On : 25 Apr 19 22:22 Operator: PM,DG,SV,CMM,KV
Sample : AZ90058W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:24 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 746252 | 25.000 | ppb | -0.12 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 571073 | 25.000 | ppb | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 295723 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 141141 | 24.723 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 98.892% | | |
| 37) 1,2-DCA-D4(S) | 4.83 | 65 | 153371 | 23.320 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 93.280% | | |
| 57) Toluene-D8(S) | 7.02 | 98 | 619629 | 24.437 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 97.748% | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 230203 | 24.740 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 98.960% | | |

Target Compounds Qvalue

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

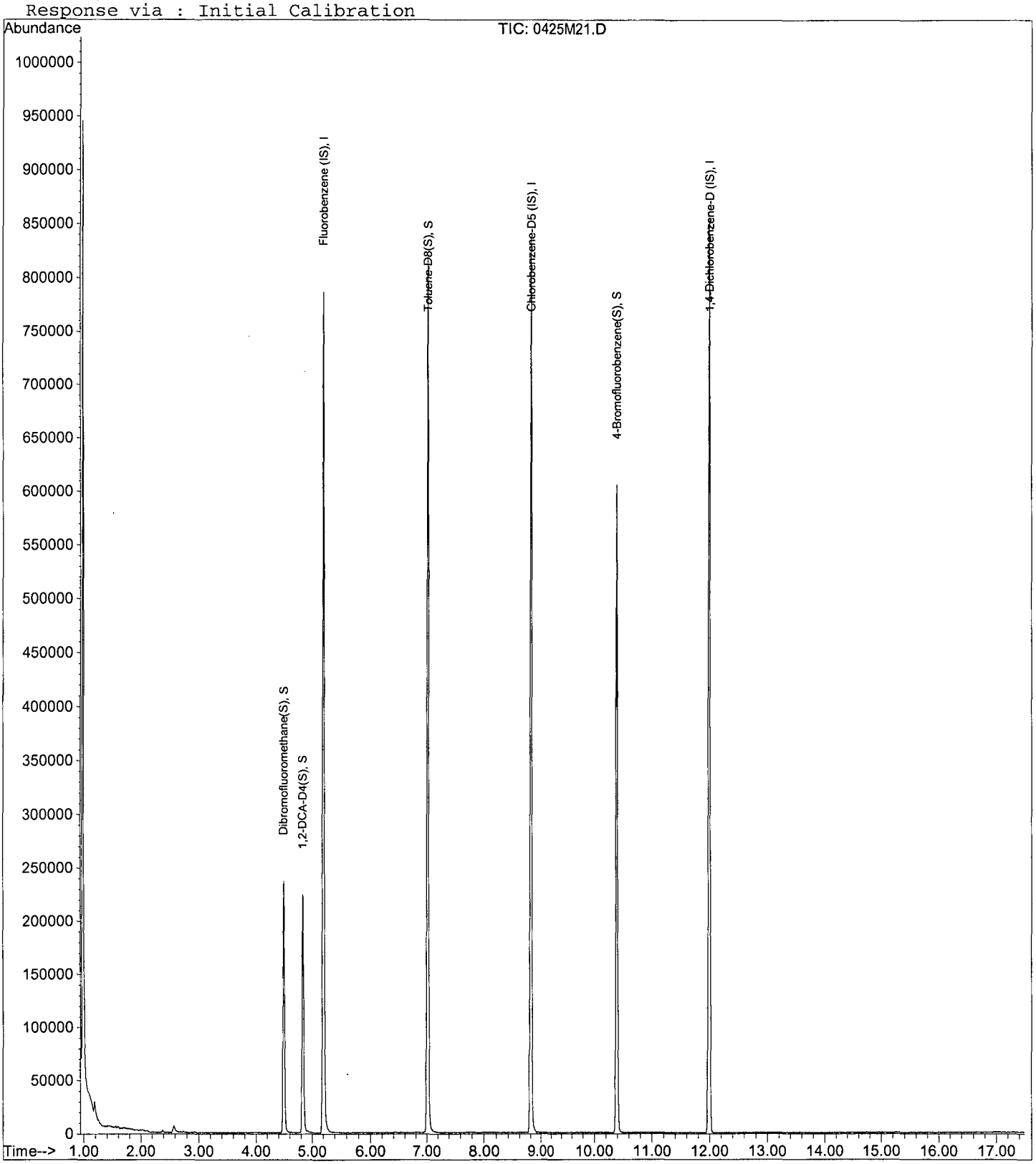
Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M21.D
Acq On : 25 Apr 19 22:22
Sample : AZ90058W01
Misc : IS,Surr 03/24/19

Vial: 20
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 12:24 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M13.D Vial: 12
Acq On : 25 Apr 19 18:34 Operator: PM,DG,SV,CMM,KV
Sample : AZ90059W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:16 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 705837 | 25.000 | ppb | -0.12 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 541846 | 25.000 | ppb | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 286214 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 136138 | 25.212 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 100.848% | | | |
| 37) 1,2-DCA-D4(S) | 4.83 | 65 | 144819 | 23.280 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 93.120% | | | |
| 57) Toluene-D8(S) | 7.02 | 98 | 593321 | 24.661 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 98.644% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 221532 | 25.093 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 100.372% | | | |

Target Compounds Qvalue

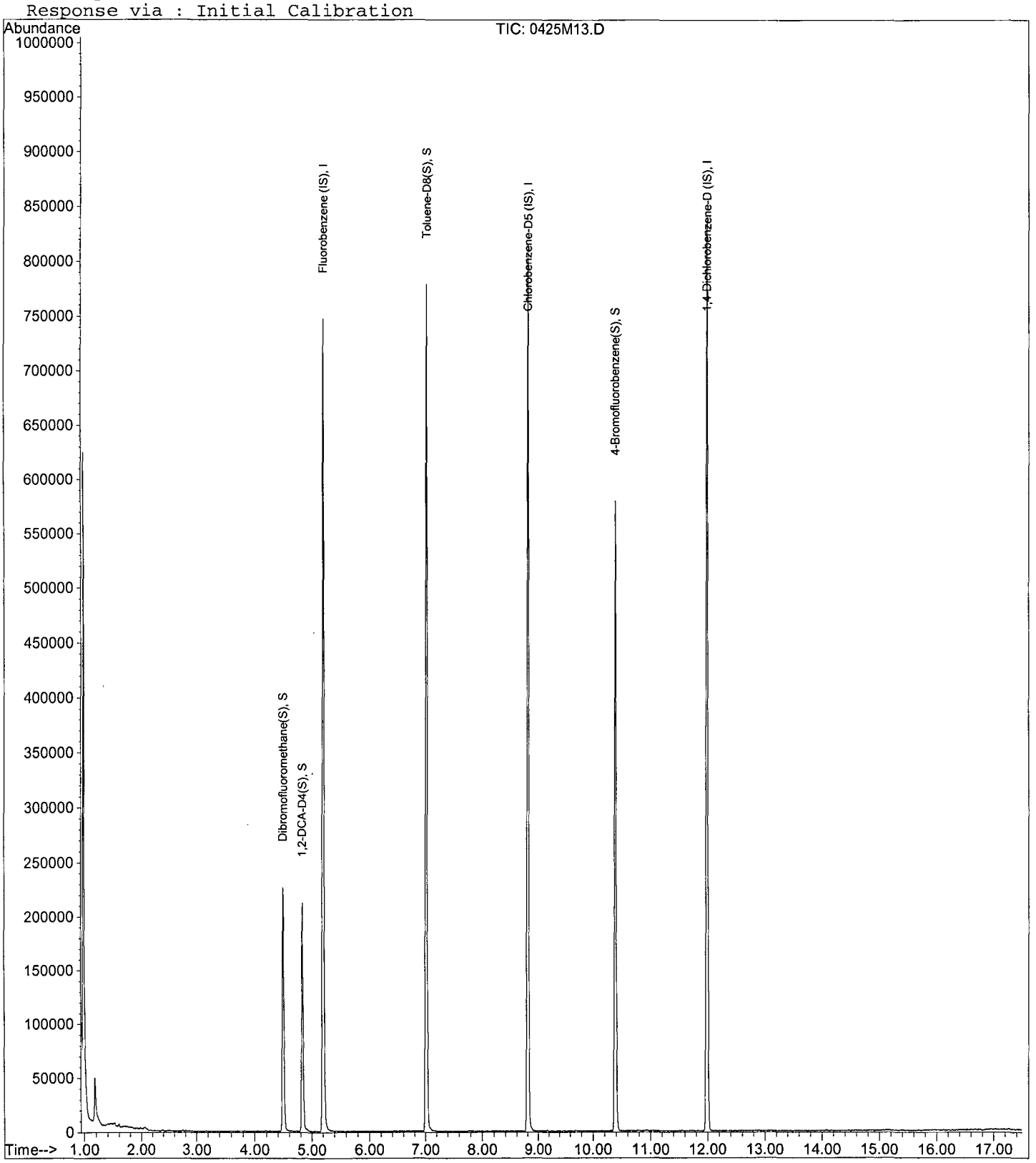
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M13.D Vial: 12
Acq On : 25 Apr 19 18:34 Operator: PM,DG,SV,CMM,KV
Sample : AZ90059W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:16 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M22.D Vial: 21
Acq On : 25 Apr 19 22:50 Operator: PM,DG,SV,CMM,KV
Sample : AZ90060W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:26 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 809717 | 25.000 | ppb | -0.11 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 608003 | 25.000 | ppb | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 304633 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 150387 | 24.278 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 97.112% | | |
| 37) 1,2-DCA-D4(S) | 4.83 | 65 | 162505 | 22.772 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 91.088% | | |
| 57) Toluene-D8(S) | 7.01 | 98 | 651641 | 24.138 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 96.552% | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 236256 | 23.849 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 95.396% | | |

Target Compounds Qvalue

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

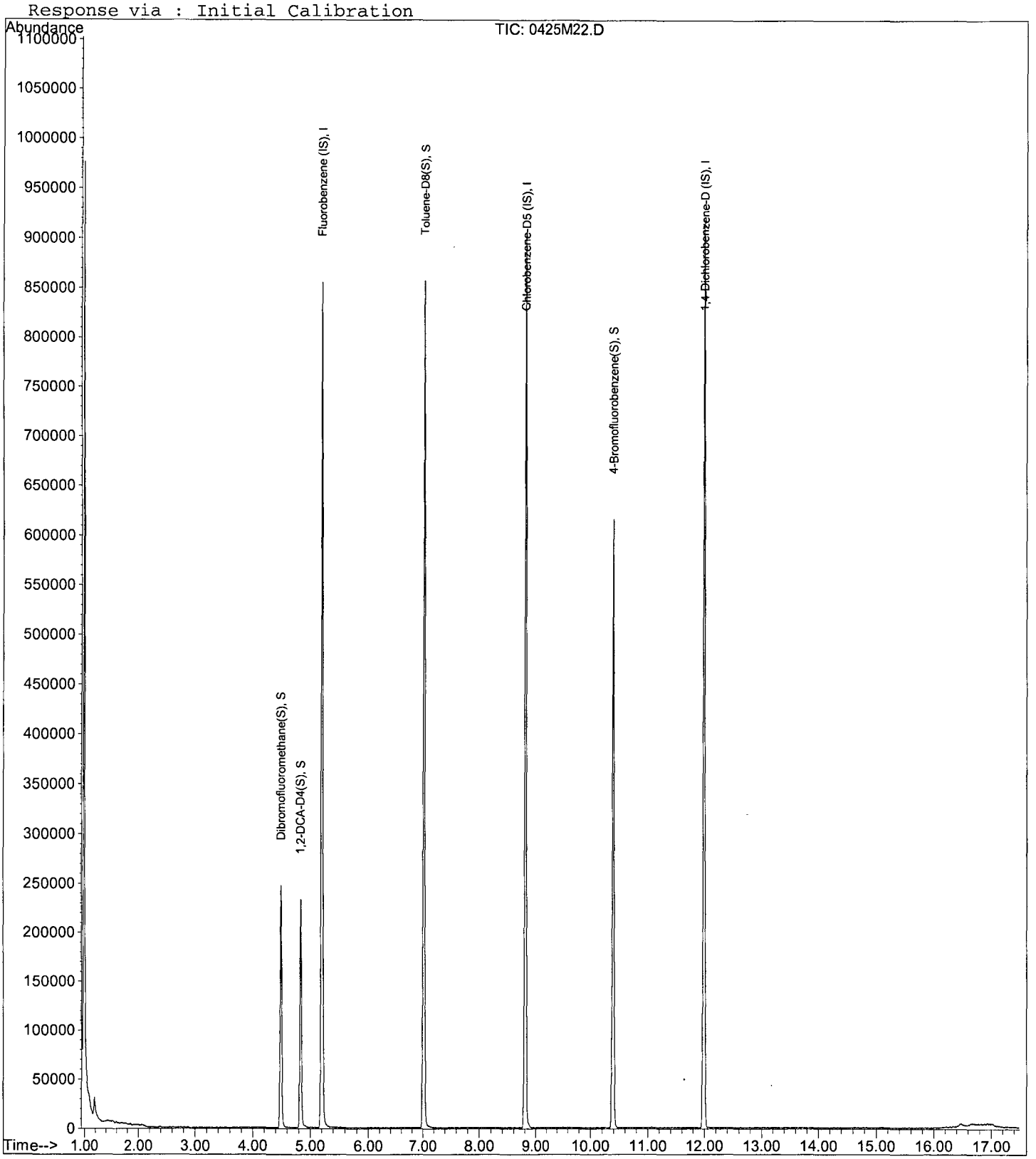
Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M22.D
Acq On : 25 Apr 19 22:50
Sample : AZ90060W01
Misc : IS,Surr 03/24/19

Vial: 21
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 12:26 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M10.D Vial: 9
Acq On : 25 Apr 19 17:08 Operator: PM,DG,SV,CMM,KV
Sample : 190425A blk Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 12:13 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 724713 | 25.000 | ppb | -0.11 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 561675 | 25.000 | ppb | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 294075 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 141762 | 25.570 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 102.280% | | | |
| 37) 1,2-DCA-D4(S) | 4.83 | 65 | 149599 | 23.422 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 93.688% | | | |
| 57) Toluene-D8(S) | 7.01 | 98 | 606922 | 24.336 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 97.344% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 228485 | 24.967 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 99.868% | | | |

Target Compounds Qvalue

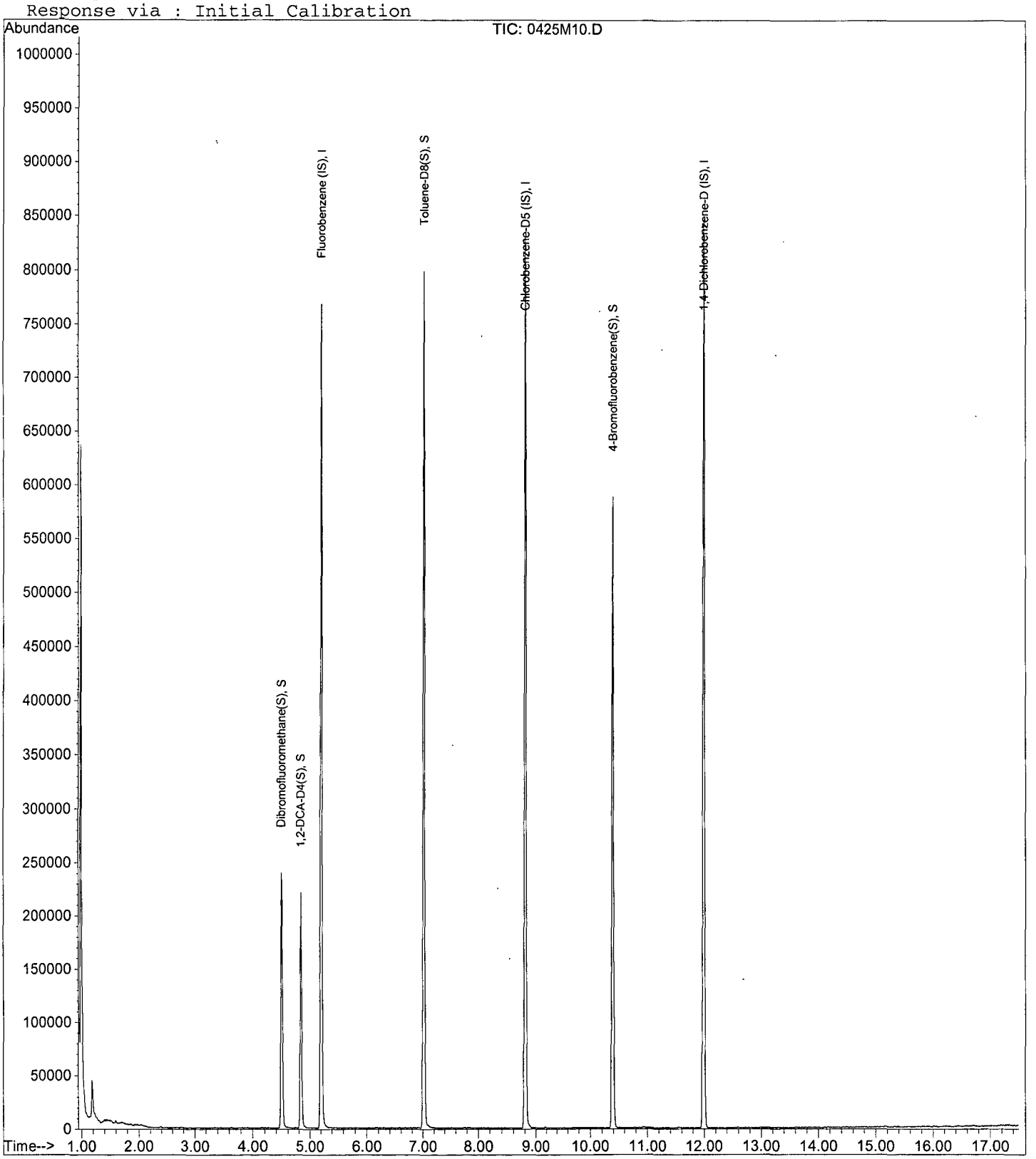
(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M190401\0425M10.D
Acq On : 25 Apr 19 17:08
Sample : 190425A blk
Misc : IS,Surr 03/24/19

Vial: 9
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 12:13 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M04.D Vial: 3
Acq On : 25 Apr 19 14:17 Operator: PM,DG,SV,CMM,KV
Sample : 190425A LCS 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 729105 | 25.000 | ppb | | -0.12 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 584018 | 25.000 | ppb | | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 329157 | 25.000 | ppb | | -0.13 |
| **System Monitoring Compounds** | | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 147212 | 26.393 | ppb | | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 105.572% | | | | |
| 37) 1,2-DCA-D4(S) | 4.83 | 65 | 153529 | 23.893 | ppb | | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 95.572% | | | | |
| 57) Toluene-D8(S) | 7.01 | 98 | 621695 | 23.975 | ppb | | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 95.900% | | | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 244121 | 25.655 | ppb | | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 102.620% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.10 | 85 | 24728 | 12.319 | ppb | | 98 |
| 3) Freon 114 | 1.18 | 85 | 29286 | 10.602 | ppb | | 91 |
| 4) Chloromethane | 1.22 | 50 | 38432 | 12.600 | ppb | | 97 |
| 5) Vinyl chloride | 1.31 | 62 | 42200 | 12.751 | ppb | | 89 |
| 6) Bromomethane | 1.55 | 94 | 25495 | 12.255 | ppb | | 95 |
| 7) Chloroethane | 1.63 | 64 | 23421 | 9.797 | ppb | | 93 |
| 8) Dichlorofluoromethane | 1.80 | 67 | 56426 | 9.836 | ppb | | 97 |
| 9) Trichlorofluoromethane | 1.84 | 101 | 48175 | 11.533 | ppb | | 97 |
| 10) Acrolein | 2.21 | 56 | 29672 | 318.947 | ppb | | 96 |
| 11) Acetone | 2.37 | 43 | 7129 | 8.968 | ppb | | 97 |
| 13) 1,1-DCE | 2.29 | 61 | 39610 | 9.557 | ppb | | 93 |
| 14) Acetonitrile | 2.62 | 41 | 38000 | 123.746 | ppb | # | 87 |
| 15) t-Butanol | 2.94 | 59 | 22475 | 124.164 | ppb | # | 90 |
| 16) Methyl Acetate | 2.68 | 43 | 9881 | 9.906 | ppb | | 93 |
| 17) Iodomethane | 2.42 | 142 | 32381 | 10.300 | ppb | | 98 |
| 18) Acrylonitrile | 2.99 | 53 | 10788 | 11.882 | ppb | | 94 |
| 19) Methylene chloride | 2.74 | 84 | 33392 | 10.340 | ppb | | 93 |
| 20) Carbon disulfide | 2.46 | 76 | 83299 | 10.700 | ppb | | 99 |
| 21) Methyl t-butyl ether (MtBE | 3.04 | 73 | 40880 | 10.850 | ppb | | 99 |
| 22) Trans-1,2-DCE | 3.00 | 96 | 30354 | 10.358 | ppb | | 98 |
| 23) Diisopropyl Ether | 3.53 | 45 | 117418 | 10.578 | ppb | | 97 |
| 24) 1,1-DCA | 3.40 | 63 | 56244 | 9.767 | ppb | | 99 |
| 25) Vinyl Acetate | 3.50 | 43 | 28973 | 9.930 | ppb | # | 100 |
| 26) Ethyl tert Butyl Ether | 3.89 | 59 | 107981 | 11.407 | ppb | | 98 |
| 27) MEK (2-Butanone) | 4.04 | 43 | 11066 | 10.754 | ppb | | 94 |
| 28) Cis-1,2-DCE | 3.99 | 96 | 37405 | 10.574 | ppb | | 97 |
| 29) 2,2-Dichloropropane | 3.98 | 77 | 49496 | 10.336 | ppb | | 99 |
| 30) Chloroform | 4.33 | 83 | 57068 | 10.046 | ppb | | 94 |
| 31) Bromochloromethane | 4.23 | 128 | 17603 | 10.716 | ppb | | 93 |
| 33) 1,1,1-TCA | 4.50 | 97 | 46798 | 9.749 | ppb | | 95 |
| 34) Cyclohexane | 4.55 | 41 | 26944 | 8.991 | ppb | | 87 |
| 35) 1,1-Dichloropropene | 4.68 | 75 | 39975 | 10.103 | ppb | | 93 |
| 36) 2,2,4-Trimethylpentane | 5.01 | 57 | 82615 | 9.923 | ppb | | 98 |
| 38) Carbon Tetrachloride | 4.67 | 117 | 35535 | 11.098 | ppb | | 96 |
| 39) Tert Amyl Methyl Ether | 5.06 | 73 | 98141 | 12.014 | ppb | | 99 |
| 40) 1,2-DCA | 4.91 | 62 | 42071 | 9.766 | ppb | | 99 |
| 41) Benzene | 4.89 | 78 | 131011 | 9.995 | ppb | | 99 |
| 42) TCE | 5.60 | 95 | 33092 | 9.804 | ppb | | 99 |
| 43) 2-Pentanone | 5.85 | 43 | 229436 | 131.254 | ppb | | 99 |

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

Data File : M:\MAX\DATA\M190401\0425M04.D Vial: 3
Acq On : 25 Apr 19 14:17 Operator: PM,DG,SV,CMM,KV
Sample : 190425A LCS 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

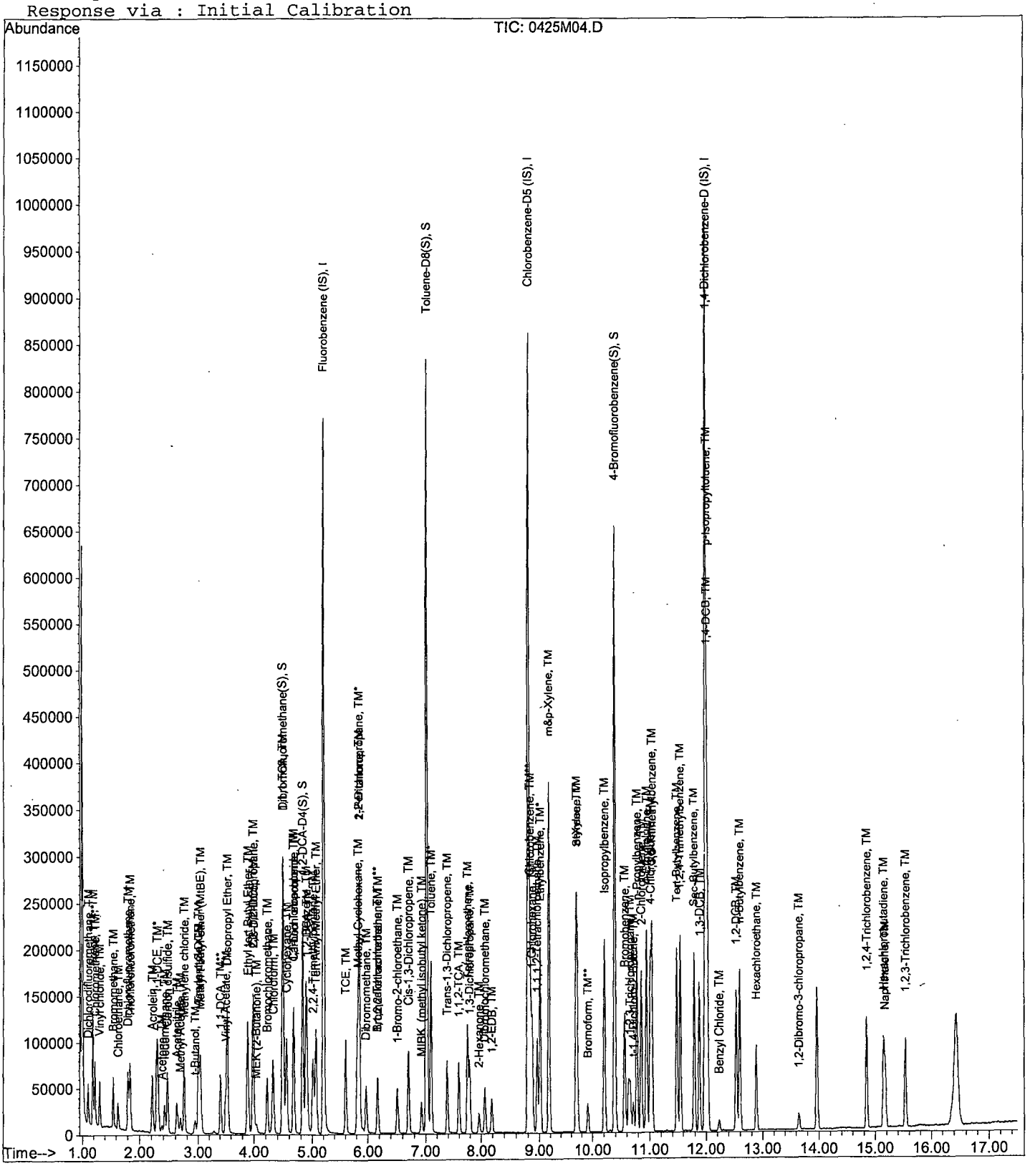
| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 44) | 1,2-Dichloropropane | 5.84 | 63 | 33423 | 10.232 ppb | 98 |
| 45) | Bromodichloromethane | 6.17 | 83 | 40452 | 10.670 ppb | 97 |
| 46) | Methyl Cyclohexane | 5.81 | 83 | 47419 | 10.056 ppb | 98 |
| 47) | Dibromomethane | 5.97 | 93 | 18351 | 10.921 ppb | 95 |
| 48) | MIBK (methyl isobutyl ket | 6.93 | 43 | 24762 | 10.208 ppb | 94 |
| 49) | 1-Bromo-2-chloroethane | 6.51 | 63 | 23096 | 10.944 ppb | 97 |
| 51) | Cis-1,3-Dichloropropene | 6.70 | 75 | 54457 | 10.747 ppb | 96 |
| 52) | Toluene | 7.09 | 91 | 150179 | 10.214 ppb | 98 |
| 53) | Trans-1,3-Dichloropropene | 7.38 | 75 | 45753 | 10.792 ppb | 100 |
| 54) | 1,1,2-TCA | 7.59 | 83 | 22612 | 10.870 ppb | 89 |
| 55) | 2-Hexanone | 7.96 | 43 | 16943 | 10.714 ppb | 97 |
| 58) | 1,2-EDB | 8.18 | 107 | 27760 | 10.463 ppb | 100 |
| 59) | Tetrachloroethene | 7.76 | 164 | 31899 | 9.930 ppb | 96 |
| 60) | 1-Chlorohexane | 8.87 | 91 | 44051 | 9.901 ppb | 98 |
| 61) | 1,1,1,2-Tetrachloroethane | 8.96 | 131 | 33028 | 10.435 ppb | 95 |
| 62) | m&p-Xylene | 9.17 | 106 | 134658 | 20.482 ppb | 99 |
| 63) | o-Xylene | 9.69 | 106 | 67275 | 10.044 ppb | 96 |
| 64) | Styrene | 9.71 | 104 | 114693 | 10.434 ppb | 93 |
| 66) | 1,3-Dichloropropane | 7.79 | 76 | 48715 | 10.032 ppb | 96 |
| 67) | Dibromochloromethane | 8.06 | 129 | 28569 | 11.331 ppb | 92 |
| 68) | Chlorobenzene | 8.84 | 112 | 102959 | 10.106 ppb | 99 |
| 69) | Ethylbenzene | 9.01 | 91 | 167680 | 10.103 ppb | 95 |
| 70) | Bromoform | 9.92 | 173 | 17551 | 11.292 ppb | 99 |
| 72) | Isopropylbenzene | 10.21 | 105 | 163096 | 9.021 ppb | 96 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.17 | 83 | 40452 | 9.159 ppb | 97 |
| 74) | 1,2,3-Trichloropropane | 10.66 | 110 | 10442 | 9.862 ppb | 97 |
| 75) | t-1,4-Dichloro-2-Butene | 10.71 | 53 | 4154 | 10.184 ppb | 91 |
| 76) | Bromobenzene | 10.56 | 156 | 46487 | 9.470 ppb | 97 |
| 77) | n-Propylbenzene | 10.78 | 91 | 185207 | 9.156 ppb | 95 |
| 78) | 4-Ethyltoluene | 10.94 | 105 | 171834 | 9.615 ppb | 98 |
| 79) | 2-Chlorotoluene | 10.85 | 91 | 114167 | 9.141 ppb | 95 |
| 80) | 1,3,5-Trimethylbenzene | 11.04 | 105 | 138060 | 9.080 ppb | 95 |
| 81) | 4-Chlorotoluene | 11.01 | 91 | 135262 | 9.298 ppb | 98 |
| 82) | Tert-Butylbenzene | 11.48 | 119 | 122021 | 9.009 ppb | 95 |
| 83) | 1,2,4-Trimethylbenzene | 11.55 | 105 | 141967 | 9.263 ppb | 100 |
| 84) | Sec-Butylbenzene | 11.79 | 105 | 164503 | 9.171 ppb | 95 |
| 85) | p-Isopropyltoluene | 12.01 | 119 | 76192 | 9.209 ppb | 98 |
| 86) | Benzyl Chloride | 12.23 | 91 | 10196 | 2.723 ppb | 98 |
| 87) | 1,3-DCB | 11.89 | 146 | 86488 | 9.699 ppb | 97 |
| 88) | 1,4-DCB | 12.02 | 146 | 46032 | 10.145 ppb | 99 |
| 89) | n-Butylbenzene | 12.59 | 91 | 63968 | 9.501 ppb | 97 |
| 90) | 1,2-DCB | 12.53 | 146 | 81717 | 9.926 ppb | 98 |
| 91) | Hexachloroethane | 12.89 | 117 | 7819 | 10.264 ppb | 96 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.64 | 157 | 6199 | 10.365 ppb | 96 |
| 93) | 1,2,4-Trichlorobenzene | 14.85 | 180 | 50613 | 9.787 ppb | 96 |
| 94) | Hexachlorobutadiene | 15.15 | 225 | 25018 | 9.357 ppb | 89 |
| 95) | Naphthalene | 15.18 | 128 | 72340 | 8.379 ppb | 95 |
| 96) | 1,2,3-Trichlorobenzene | 15.53 | 180 | 40094 | 8.961 ppb | 94 |

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

Data File : M:\MAX\DATA\M190401\0425M04.D Vial: 3
Acq On : 25 Apr 19 14:17 Operator: PM,DG,SV,CMM,KV
Sample : 190425A LCS 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M05.D Vial: 4
Acq On : 25 Apr 19 14:46 Operator: PM,DG,SV,CMM,KV
Sample : 190425A LCSD 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 726393 | 25.000 ppb | | -0.12 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 574203 | 25.000 ppb | | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 317313 | 25.000 ppb | | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 145516 | 26.187 ppb | | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 104.748% | | | |
| 37) 1,2-DCA-D4(S) | 4.83 | 65 | 155328 | 24.263 ppb | | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 97.052% | | | |
| 57) Toluene-D8(S) | 7.01 | 98 | 625101 | 24.518 ppb | | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 98.072% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 242189 | 25.887 ppb | | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 103.548% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.10 | 85 | 25968 | 12.985 ppb | | 94 |
| 3) Freon 114 | 1.19 | 85 | 29766 | 10.816 ppb | | 92 |
| 4) Chloromethane | 1.23 | 50 | 35264 | 11.601 ppb | | 97 |
| 5) Vinyl chloride | 1.31 | 62 | 42471 | 12.881 ppb | | 92 |
| 6) Bromomethane | 1.55 | 94 | 25092 | 12.106 ppb | | 95 |
| 7) Chloroethane | 1.64 | 64 | 23197 | 9.734 ppb | | 92 |
| 8) Dichlorofluoromethane | 1.81 | 67 | 55929 | 9.786 ppb | | 96 |
| 9) Trichlorofluoromethane | 1.84 | 101 | 48239 | 11.591 ppb | | 97 |
| 10) Acrolein | 2.21 | 56 | 27648 | 298.300 ppb | | 95 |
| 11) Acetone | 2.37 | 43 | 7311 | 9.318 ppb | | 93 |
| 13) 1,1-DCE | 2.29 | 61 | 41172 | 9.971 ppb | | 97 |
| 14) Acetonitrile | 2.63 | 41 | 38021 | 124.277 ppb | | 94 |
| 15) t-Butanol | 2.96 | 59 | 22540 | 124.988 ppb | # | 88 |
| 16) Methyl Acetate | 2.68 | 43 | 9521 | 9.580 ppb | | 100 |
| 17) Iodomethane | 2.42 | 142 | 31716 | 10.152 ppb | | 98 |
| 18) Acrylonitrile | 2.99 | 53 | 10463 | 11.567 ppb | | 97 |
| 19) Methylene chloride | 2.75 | 84 | 32042 | 9.959 ppb | | 97 |
| 20) Carbon disulfide | 2.46 | 76 | 82930 | 10.693 ppb | | 100 |
| 21) Methyl t-butyl ether (MtBE | 3.04 | 73 | 38576 | 10.276 ppb | | 99 |
| 22) Trans-1,2-DCE | 3.00 | 96 | 30229 | 10.354 ppb | | 99 |
| 23) Diisopropyl Ether | 3.53 | 45 | 112273 | 10.152 ppb | | 97 |
| 24) 1,1-DCA | 3.41 | 63 | 56466 | 9.842 ppb | | 99 |
| 25) Vinyl Acetate | 3.50 | 43 | 27710 | 9.532 ppb | # | 100 |
| 26) Ethyl tert Butyl Ether | 3.90 | 59 | 103267 | 10.950 ppb | | 98 |
| 27) MEK (2-Butanone) | 4.04 | 43 | 12086 | 11.954 ppb | | 89 |
| 28) Cis-1,2-DCE | 3.99 | 96 | 36483 | 10.352 ppb | | 93 |
| 29) 2,2-Dichloropropane | 3.98 | 77 | 48922 | 10.255 ppb | | 95 |
| 30) Chloroform | 4.33 | 83 | 56491 | 9.981 ppb | | 96 |
| 31) Bromochloromethane | 4.23 | 128 | 17529 | 10.711 ppb | | 97 |
| 33) 1,1,1-TCA | 4.50 | 97 | 47212 | 9.872 ppb | | 95 |
| 34) Cyclohexane | 4.55 | 41 | 29217 | 9.786 ppb | | 97 |
| 35) 1,1-Dichloropropene | 4.68 | 75 | 41188 | 10.448 ppb | | 98 |
| 36) 2,2,4-Trimethylpentane | 5.01 | 57 | 85241 | 10.277 ppb | | 99 |
| 38) Carbon Tetrachloride | 4.67 | 117 | 36474 | 11.434 ppb | | 96 |
| 39) Tert Amyl Methyl Ether | 5.07 | 73 | 94787 | 11.646 ppb | | 98 |
| 40) 1,2-DCA | 4.91 | 62 | 41640 | 9.702 ppb | | 99 |
| 41) Benzene | 4.89 | 78 | 131222 | 10.048 ppb | | 99 |
| 42) TCE | 5.60 | 95 | 32420 | 9.641 ppb | | 96 |
| 43) 2-Pentanone | 5.85 | 43 | 215567 | 123.781 ppb | | 98 |

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

Data File : M:\MAX\DATA\M190401\0425M05.D Vial: 4
Acq On : 25 Apr 19 14:46 Operator: PM,DG,SV,CMM,KV
Sample : 190425A LCSD 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 44) | 1,2-Dichloropropane | 5.84 | 63 | 32643 | 10.031 | ppb | # | 96 |
| 45) | Bromodichloromethane | 6.17 | 83 | 39802 | 10.538 | ppb | | 92 |
| 46) | Methyl Cyclohexane | 5.81 | 83 | 47558 | 10.123 | ppb | | 99 |
| 47) | Dibromomethane | 5.97 | 93 | 17315 | 10.343 | ppb | | 95 |
| 48) | MIBK (methyl isobutyl ket | 6.93 | 43 | 23655 | 9.788 | ppb | | 93 |
| 49) | 1-Bromo-2-chloroethane | 6.51 | 63 | 21528 | 10.239 | ppb | | 99 |
| 51) | Cis-1,3-Dichloropropene | 6.70 | 75 | 53103 | 10.519 | ppb | | 98 |
| 52) | Toluene | 7.09 | 91 | 149364 | 10.197 | ppb | | 98 |
| 53) | Trans-1,3-Dichloropropene | 7.38 | 75 | 45584 | 10.793 | ppb | | 98 |
| 54) | 1,1,2-TCA | 7.60 | 83 | 21193 | 10.226 | ppb | | 95 |
| 55) | 2-Hexanone | 7.96 | 43 | 15690 | 9.959 | ppb | # | 96 |
| 58) | 1,2-EDB | 8.18 | 107 | 26116 | 10.011 | ppb | | 99 |
| 59) | Tetrachloroethene | 7.76 | 164 | 32398 | 10.257 | ppb | | 97 |
| 60) | 1-Chlorohexane | 8.87 | 91 | 45114 | 10.314 | ppb | | 97 |
| 61) | 1,1,1,2-Tetrachloroethane | 8.96 | 131 | 31972 | 10.274 | ppb | | 95 |
| 62) | m&p-Xylene | 9.17 | 106 | 133106 | 20.592 | ppb | | 98 |
| 63) | o-Xylene | 9.69 | 106 | 65373 | 9.927 | ppb | | 97 |
| 64) | Styrene | 9.71 | 104 | 111285 | 10.297 | ppb | | 92 |
| 66) | 1,3-Dichloropropane | 7.79 | 76 | 46013 | 9.637 | ppb | | 99 |
| 67) | Dibromochloromethane | 8.06 | 129 | 28097 | 11.334 | ppb | | 95 |
| 68) | Chlorobenzene | 8.84 | 112 | 99738 | 9.957 | ppb | | 98 |
| 69) | Ethylbenzene | 9.01 | 91 | 163467 | 10.018 | ppb | | 97 |
| 70) | Bromoform | 9.92 | 173 | 16902 | 11.094 | ppb | | 95 |
| 72) | Isopropylbenzene | 10.21 | 105 | 160997 | 9.237 | ppb | | 100 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.17 | 83 | 39802 | 9.349 | ppb | | 92 |
| 74) | 1,2,3-Trichloropropane | 10.66 | 110 | 9668 | 9.471 | ppb | | 99 |
| 75) | t-1,4-Dichloro-2-Butene | 10.71 | 53 | 4092 | 10.407 | ppb | | 91 |
| 76) | Bromobenzene | 10.56 | 156 | 45750 | 9.668 | ppb | | 94 |
| 77) | n-Propylbenzene | 10.78 | 91 | 181809 | 9.324 | ppb | | 96 |
| 78) | 4-Ethyltoluene | 10.94 | 105 | 167208 | 9.706 | ppb | | 96 |
| 79) | 2-Chlorotoluene | 10.85 | 91 | 111061 | 9.224 | ppb | | 99 |
| 80) | 1,3,5-Trimethylbenzene | 11.04 | 105 | 136568 | 9.317 | ppb | | 98 |
| 81) | 4-Chlorotoluene | 11.01 | 91 | 130579 | 9.311 | ppb | | 98 |
| 82) | Tert-Butylbenzene | 11.48 | 119 | 118013 | 9.039 | ppb | | 96 |
| 83) | 1,2,4-Trimethylbenzene | 11.55 | 105 | 137299 | 9.293 | ppb | | 99 |
| 84) | Sec-Butylbenzene | 11.79 | 105 | 163017 | 9.428 | ppb | | 94 |
| 85) | p-Isopropyltoluene | 12.01 | 119 | 76648 | 9.610 | ppb | | 98 |
| 86) | Benzyl Chloride | 12.23 | 91 | 9274 | 2.570 | ppb | | 99 |
| 87) | 1,3-DCB | 11.89 | 146 | 83235 | 9.682 | ppb | | 100 |
| 88) | 1,4-DCB | 12.02 | 146 | 44344 | 10.138 | ppb | | 99 |
| 89) | n-Butylbenzene | 12.59 | 91 | 60432 | 9.311 | ppb | | 98 |
| 90) | 1,2-DCB | 12.53 | 146 | 78113 | 9.843 | ppb | | 98 |
| 91) | Hexachloroethane | 12.88 | 117 | 7565 | 10.294 | ppb | | 91 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.64 | 157 | 5990 | 10.389 | ppb | | 89 |
| 93) | 1,2,4-Trichlorobenzene | 14.85 | 180 | 47657 | 9.560 | ppb | | 95 |
| 94) | Hexachlorobutadiene | 15.15 | 225 | 23510 | 9.121 | ppb | | 97 |
| 95) | Naphthalene | 15.18 | 128 | 73622 | 8.846 | ppb | | 96 |
| 96) | 1,2,3-Trichlorobenzene | 15.53 | 180 | 38213 | 8.859 | ppb | | 92 |

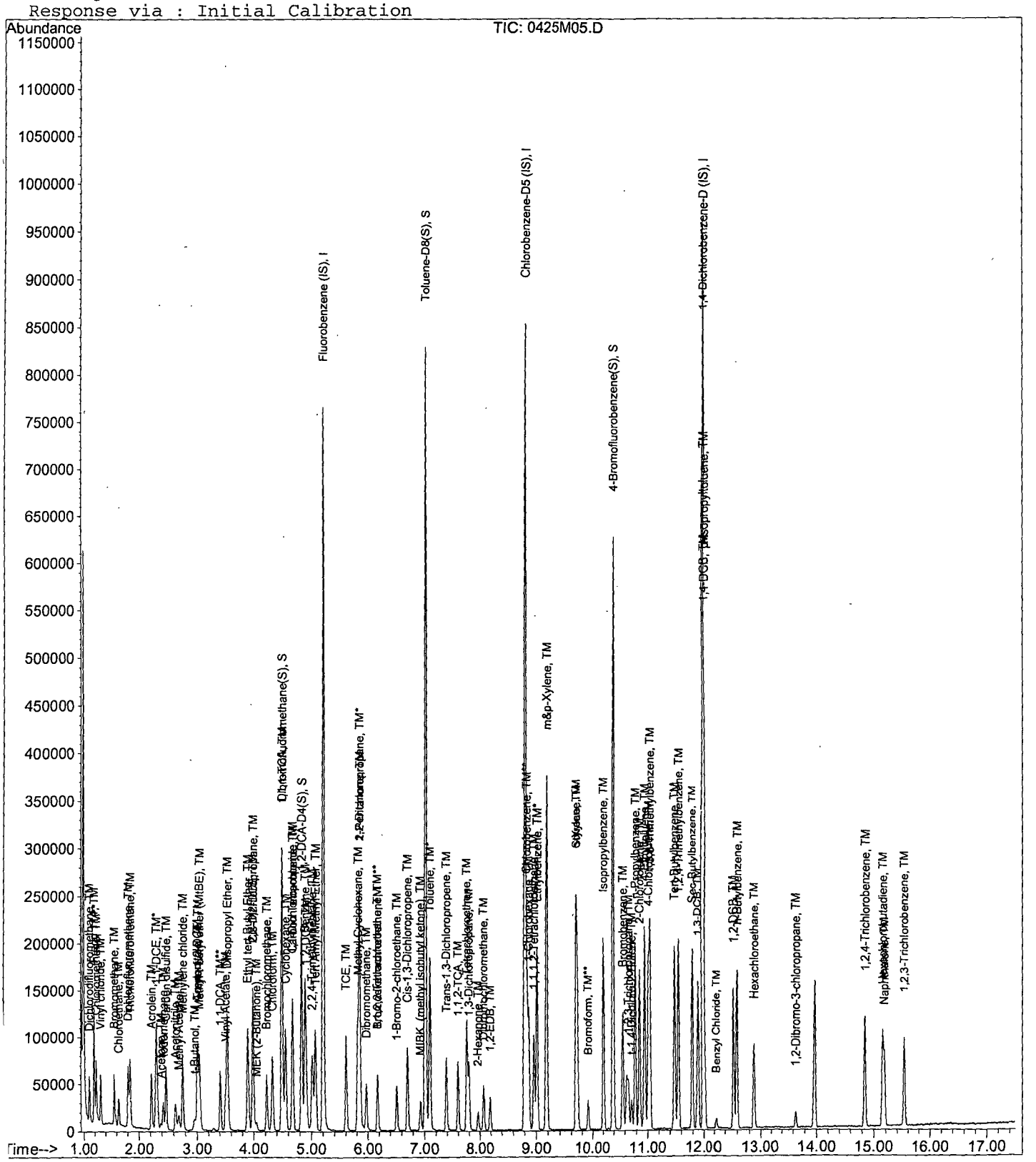
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M05.D Vial: 4
Acq On : 25 Apr 19 14:46 Operator: PM,DG,SV,CMM,KV
Sample : 190425A LCSD 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M23.D Vial: 22
Acq On : 25 Apr 19 23:19 Operator: PM,DG,SV,CMM,KV
Sample : AZ90051W04 MS 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 746831 | 25.0000 ppb | | -0.11 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 566526 | 25.0000 ppb | | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 297794 | 25.0000 ppb | | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 148191 | 25.9382 ppb | | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 103.752% | | | |
| 37) 1,2-DCA-D4(S) | 4.83 | 65 | 158107 | 24.0213 ppb | | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 96.084% | | | |
| 57) Toluene-D8(S) | 7.02 | 98 | 618054 | 24.5702 ppb | | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 98.280% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 230776 | 25.0011 ppb | | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 100.004% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.10 | 85 | 26088 | 12.6881 ppb | | 94 |
| 3) Freon 114 | 1.19 | 85 | 33124 | 11.7073 ppb | | 99 |
| 4) Chloromethane | 1.24 | 50 | 34424 | 11.0125 ppb | | 97 |
| 5) Vinyl chloride | 1.31 | 62 | 46703 | 13.7764 ppb | | 91 |
| 6) Bromomethane | 1.55 | 94 | 29607 | 13.8934 ppb | | 97 |
| 7) Chloroethane | 1.64 | 64 | 31558 | 13.1975 ppb | | 97 |
| 8) Dichlorofluoromethane | 1.81 | 67 | 64606 | 10.9945 ppb | | 98 |
| 9) Trichlorofluoromethane | 1.85 | 101 | 58646 | 13.7060 ppb | | 99 |
| 10) Acrolein | 2.22 | 56 | 34592 | 363.0069 ppb | | 97 |
| 11) Acetone | 2.37 | 43 | 7462 | 9.2289 ppb | | 98 |
| 12) Freon-113 | 2.32 | 101 | 23995 | 9.7823 ppb | | 97 |
| 13) 1,1-DCE | 2.30 | 61 | 46033 | 10.8433 ppb | | 96 |
| 14) Acetonitrile | 2.62 | 41 | 50508 | 160.5740 ppb | | 90 |
| 15) t-Butanol | 2.93 | 59 | 28956 | 156.1721 ppb | # | 89 |
| 16) Methyl Acetate | 2.68 | 43 | 11969 | 11.7142 ppb | | 95 |
| 17) Iodomethane | 2.42 | 142 | 16954 | 6.0015 ppb | | 100 |
| 18) Acrylonitrile | 2.99 | 53 | 12395 | 13.3279 ppb | | 91 |
| 19) Methylene chloride | 2.75 | 84 | 39151 | 11.8351 ppb | | 96 |
| 20) Carbon disulfide | 2.47 | 76 | 91950 | 11.5314 ppb | | 99 |
| 21) Methyl t-butyl ether (MtBE | 3.04 | 73 | 50128 | 12.9883 ppb | | 98 |
| 22) Trans-1,2-DCE | 3.01 | 96 | 37015 | 12.3311 ppb | | 96 |
| 23) Diisopropyl Ether | 3.54 | 45 | 133591 | 11.7490 ppb | | 97 |
| 24) 1,1-DCA | 3.41 | 63 | 66825 | 11.3290 ppb | | 100 |
| 25) Vinyl Acetate | 3.53 | 43 | 33424 | 11.1833 ppb | | 100 |
| 26) Ethyl tert Butyl Ether | 3.90 | 59 | 121242 | 12.5038 ppb | | 98 |
| 27) MEK (2-Butanone) | 4.04 | 43 | 12778 | 12.3406 ppb | | 98 |
| 28) Cis-1,2-DCE | 4.00 | 96 | 42147 | 11.6315 ppb | | 91 |
| 29) 2,2-Dichloropropane | 3.99 | 77 | 51090 | 10.4159 ppb | | 99 |
| 30) Chloroform | 4.33 | 83 | 70234 | 12.0699 ppb | | 97 |
| 31) Bromochloromethane | 4.23 | 128 | 20190 | 11.9995 ppb | | 96 |
| 33) 1,1,1-TCA | 4.51 | 97 | 56464 | 11.4830 ppb | | 91 |
| 34) Cyclohexane | 4.56 | 41 | 34994 | 11.3999 ppb | | 97 |
| 35) 1,1-Dichloropropene | 4.68 | 75 | 46314 | 11.4273 ppb | | 96 |
| 36) 2,2,4-Trimethylpentane | 5.02 | 57 | 95187 | 11.1617 ppb | | 97 |
| 38) Carbon Tetrachloride | 4.68 | 117 | 43680 | 13.3185 ppb | | 99 |
| 39) Tert Amyl Methyl Ether | 5.07 | 73 | 108925 | 13.0172 ppb | | 98 |
| 40) 1,2-DCA | 4.91 | 62 | 51494 | 11.6692 ppb | | 99 |
| 41) Benzene | 4.89 | 78 | 161277 | 12.0119 ppb | | 100 |
| 42) TCE | 5.61 | 95 | 39654 | 11.4690 ppb | | 96 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M23.D Vial: 22
Acq On : 25 Apr 19 23:19 Operator: PM,DG,SV,CMM,KV
Sample : AZ90051W04 MS 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 43) | 2-Pentanone | 5.85 | 43 | 260834 | 145.6746 | ppb | | 100 |
| 44) | 1,2-Dichloropropane | 5.85 | 63 | 41026 | 12.2620 | ppb | # | 96 |
| 45) | Bromodichloromethane | 6.17 | 83 | 47318 | 12.1849 | ppb | | 99 |
| 46) | Methyl Cyclohexane | 5.82 | 83 | 56716 | 11.7416 | ppb | | 99 |
| 47) | Dibromomethane | 5.97 | 93 | 21176 | 12.3031 | ppb | | 96 |
| 48) | MIBK (methyl isobutyl ket | 6.93 | 43 | 26774 | 10.7757 | ppb | | 92 |
| 49) | 1-Bromo-2-chloroethane | 6.51 | 63 | 26320 | 12.1759 | ppb | | 95 |
| 51) | Cis-1,3-Dichloropropene | 6.70 | 75 | 61159 | 11.7828 | ppb | | 99 |
| 52) | Toluene | 7.10 | 91 | 235803 | 15.6575 | ppb | | 96 |
| 53) | Trans-1,3-Dichloropropene | 7.38 | 75 | 53503 | 12.3209 | ppb | | 96 |
| 54) | 1,1,2-TCA | 7.60 | 83 | 26453 | 12.4149 | ppb | | 97 |
| 55) | 2-Hexanone | 7.96 | 43 | 16053 | 9.9105 | ppb | | 96 |
| 58) | 1,2-EDB | 8.19 | 107 | 31740 | 12.3322 | ppb | | 95 |
| 59) | Tetrachloroethene | 7.76 | 164 | 38853 | 12.4677 | ppb | | 98 |
| 60) | 1-Chlorohexane | 8.87 | 91 | 48556 | 11.2510 | ppb | | 95 |
| 61) | 1,1,1,2-Tetrachloroethane | 8.96 | 131 | 36893 | 12.0159 | ppb | | 90 |
| 62) | m&p-Xylene | 9.17 | 106 | 169219 | 26.5336 | ppb | | 100 |
| 63) | o-Xylene | 9.69 | 106 | 85453 | 13.1523 | ppb | | 97 |
| 64) | Styrene | 9.71 | 104 | 132138 | 12.3927 | ppb | | 93 |
| 66) | 1,3-Dichloropropane | 7.79 | 76 | 54262 | 11.5190 | ppb | | 95 |
| 67) | Dibromochloromethane | 8.06 | 129 | 32189 | 13.1611 | ppb | | 89 |
| 68) | Chlorobenzene | 8.84 | 112 | 116475 | 11.7860 | ppb | | 98 |
| 69) | Ethylbenzene | 9.01 | 91 | 201147 | 12.4942 | ppb | | 93 |
| 70) | Bromoform | 9.92 | 173 | 18394 | 12.0707 | ppb | | 97 |
| 72) | Isopropylbenzene | 10.21 | 105 | 180089 | 11.0095 | ppb | | 97 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.17 | 83 | 47318 | 11.8424 | ppb | | 99 |
| 74) | 1,2,3-Trichloropropane | 10.66 | 110 | 12489 | 13.0371 | ppb | | 94 |
| 75) | t-1,4-Dichloro-2-Butene | 10.71 | 53 | 3985 | 10.7989 | ppb | | 86 |
| 76) | Bromobenzene | 10.56 | 156 | 50489 | 11.3686 | ppb | | 97 |
| 77) | n-Propylbenzene | 10.78 | 91 | 202996 | 11.0924 | ppb | | 96 |
| 78) | 4-Ethyltoluene | 10.94 | 105 | 197346 | 12.2060 | ppb | | 98 |
| 79) | 2-Chlorotoluene | 10.85 | 91 | 116880 | 10.3434 | ppb | | 100 |
| 80) | 1,3,5-Trimethylbenzene | 11.04 | 105 | 157070 | 11.4178 | ppb | | 98 |
| 81) | 4-Chlorotoluene | 11.01 | 91 | 141068 | 10.7183 | ppb | | 98 |
| 82) | Tert-Butylbenzene | 11.48 | 119 | 130058 | 10.6142 | ppb | | 95 |
| 83) | 1,2,4-Trimethylbenzene | 11.55 | 105 | 165272 | 11.9195 | ppb | | 96 |
| 84) | Sec-Butylbenzene | 11.79 | 105 | 174061 | 10.7262 | ppb | | 96 |
| 85) | p-Isopropyltoluene | 12.01 | 119 | 79960 | 10.6826 | ppb | | 99 |
| 86) | Benzyl Chloride | 12.23 | 91 | 7419 | 2.1903 | ppb | | 94 |
| 87) | 1,3-DCB | 11.89 | 146 | 90190 | 11.1792 | ppb | | 100 |
| 88) | 1,4-DCB | 12.02 | 146 | 48136 | 11.7265 | ppb | | 100 |
| 89) | n-Butylbenzene | 12.59 | 91 | 61608 | 10.1139 | ppb | | 98 |
| 90) | 1,2-DCB | 12.53 | 146 | 89732 | 12.0476 | ppb | | 98 |
| 91) | Hexachloroethane | 12.88 | 117 | 8041 | 11.3767 | ppb | | 97 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.64 | 157 | 6408 | 11.8426 | ppb | | 92 |
| 93) | 1,2,4-Trichlorobenzene | 14.84 | 180 | 45386 | 9.7007 | ppb | | 97 |
| 94) | Hexachlorobutadiene | 15.15 | 225 | 23250 | 9.6113 | ppb | | 91 |
| 95) | Naphthalene | 15.18 | 128 | 53120 | 6.8006 | ppb | | 98 |
| 96) | 1,2,3-Trichlorobenzene | 15.53 | 180 | 30865 | 7.6246 | ppb | | 96 |

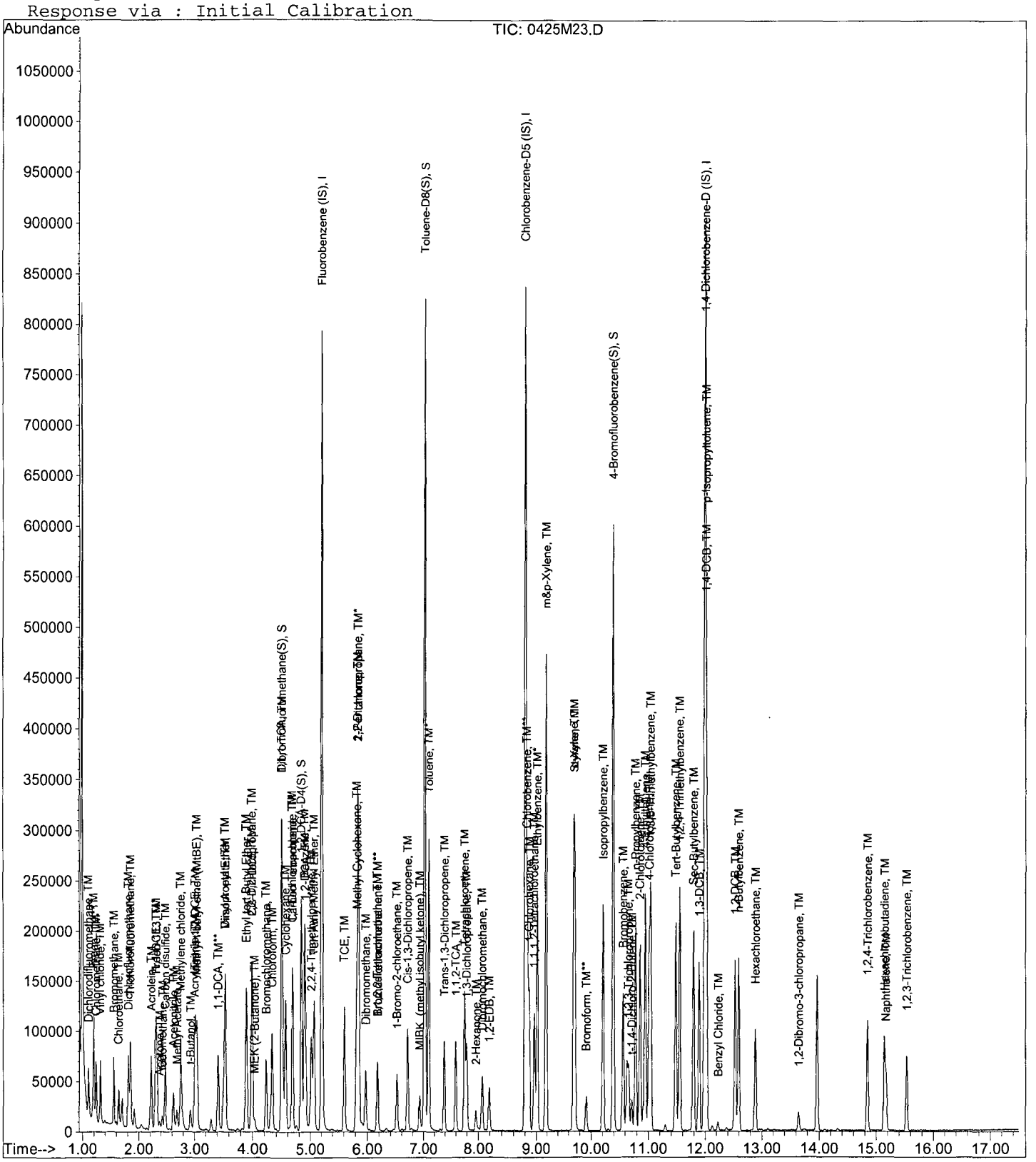
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M23.D Vial: 22
Acq On : 25 Apr 19 23:19 Operator: PM,DG,SV,CMM,KV
Sample : AZ90051W04 MS 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed May 01 09:43:56 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M24.D Vial: 23
Acq On : 25 Apr 19 23:47 Operator: PM,DG,SV,CMM,KV
Sample : AZ90051W05 MSD 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 755025 | 25.0000 | ppb | | -0.11 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 570656 | 25.0000 | ppb | | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 301145 | 25.0000 | ppb | | -0.13 |
| **System Monitoring Compounds** | | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 136914 | 23.7043 | ppb | | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 94.816% | | | | |
| 37) 1,2-DCA-D4(S) | 4.83 | 65 | 149916 | 22.5297 | ppb | | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 90.120% | | | | |
| 57) Toluene-D8(S) | 7.02 | 98 | 605791 | 23.9084 | ppb | | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 95.632% | | | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 224503 | 24.1455 | ppb | | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 96.580% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.10 | 85 | 9483 | 4.5621 | ppb | | 99 |
| 3) Freon 114 | 1.19 | 85 | 25214 | 8.8149 | ppb | | 99 |
| 4) Chloromethane | 1.26 | 50 | 10536 | 3.3029 | ppb | | 94 |
| 5) Vinyl chloride | 1.31 | 62 | 32262 | 9.4133 | ppb | | 93 |
| 6) Bromomethane | 1.55 | 94 | 16363 | 7.5952 | ppb | | 82 |
| 7) Chloroethane | 1.64 | 64 | 20291 | 8.0355 | ppb | | 89 |
| 8) Dichlorofluoromethane | 1.81 | 67 | 46111 | 7.7619 | ppb | | 99 |
| 9) Trichlorofluoromethane | 1.85 | 101 | 38781 | 8.9650 | ppb | | 97 |
| 10) Acrolein | 2.22 | 56 | 23960 | 248.7064 | ppb | | 99 |
| 11) Acetone | 2.37 | 43 | 7272 | 8.7902 | ppb | | 91 |
| 12) Freon-113 | 2.32 | 101 | 16514 | 6.6594 | ppb | | 97 |
| 13) 1,1-DCE | 2.30 | 61 | 40779 | 9.5014 | ppb | | 97 |
| 14) Acetonitrile | 2.62 | 41 | 37309 | 117.3247 | ppb | | 90 |
| 15) t-Butanol | 2.93 | 59 | 5303 | 28.2909 | ppb | | 96 |
| 16) Methyl Acetate | 2.69 | 43 | 7695 | 7.4494 | ppb | | 94 |
| 17) Iodomethane | 2.43 | 142 | 4684 | 2.7349 | ppb | # | 82 |
| 18) Acrylonitrile | 2.99 | 53 | 7472 | 7.9472 | ppb | | 96 |
| 19) Methylene chloride | 2.75 | 84 | 28809 | 8.6142 | ppb | | 92 |
| 20) Carbon disulfide | 2.47 | 76 | 66297 | 8.2240 | ppb | | 100 |
| 21) Methyl t-butyl ether (MtBE | 3.04 | 73 | 2582 | 0.6617 | ppb | # | 62 |
| 22) Trans-1,2-DCE | 3.01 | 96 | 26792 | 8.8285 | ppb | | 92 |
| 23) Diisopropyl Ether | 3.53 | 45 | 91841 | 7.9895 | ppb | | 96 |
| 24) 1,1-DCA | 3.41 | 63 | 47596 | 7.9815 | ppb | | 98 |
| 25) Vinyl Acetate | 3.53 | 43 | 21981 | 7.2748 | ppb | | 100 |
| 26) Ethyl tert Butyl Ether | 3.89 | 59 | 6888 | 0.7027 | ppb | | 94 |
| 27) MEK (2-Butanone) | 4.04 | 43 | 6647 | 5.5190 | ppb | | 100 |
| 28) Cis-1,2-DCE | 4.00 | 96 | 30067 | 8.2077 | ppb | | 85 |
| 29) 2,2-Dichloropropane | 3.99 | 77 | 1371 | 0.2765 | ppb | # | 1 |
| 30) Chloroform | 4.33 | 83 | 50071 | 8.5115 | ppb | | 94 |
| 31) Bromochloromethane | 4.23 | 128 | 13541 | 7.9605 | ppb | | 93 |
| 33) 1,1,1-TCA | 4.50 | 97 | 32018 | 6.4408 | ppb | | 90 |
| 34) Cyclohexane | 4.56 | 41 | 25145 | 8.1025 | ppb | | 94 |
| 35) 1,1-Dichloropropene | 4.68 | 75 | 34385 | 8.3919 | ppb | | 96 |
| 36) 2,2,4-Trimethylpentane | 5.02 | 57 | 67453 | 7.8238 | ppb | | 91 |
| 38) Carbon Tetrachloride | 4.68 | 117 | 19132 | 5.7703 | ppb | | 99 |
| 39) Tert Amyl Methyl Ether | 5.06 | 73 | 7001 | 0.8276 | ppb | | 97 |
| 40) 1,2-DCA | 4.92 | 62 | 36703 | 8.2271 | ppb | | 99 |
| 41) Benzene | 4.89 | 78 | 113846 | 8.3872 | ppb | | 99 |
| 42) TCE | 5.61 | 95 | 29483 | 8.4348 | ppb | | 99 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M24.D Vial: 23
Acq On : 25 Apr 19 23:47 Operator: PM,DG,SV,CMM,KV
Sample : AZ90051W05 MSD 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 43) | 2-Pentanone | 5.85 | 43 | 117078 | 64.6779 | ppb | | 98 |
| 44) | 1,2-Dichloropropane | 5.84 | 63 | 29290 | 8.6593 | ppb | | 98 |
| 45) | Bromodichloromethane | 6.17 | 83 | 30777 | 7.8394 | ppb | | 98 |
| 46) | Methyl Cyclohexane | 5.82 | 83 | 41139 | 8.4243 | ppb | | 99 |
| 47) | Dibromomethane | 5.97 | 93 | 12753 | 7.3290 | ppb | | 89 |
| 48) | MIBK (methyl isobutyl ket | 6.93 | 43 | 15286 | 6.0854 | ppb | | 94 |
| 49) | 1-Bromo-2-chloroethane | 6.51 | 63 | 16298 | 7.4578 | ppb | | 97 |
| 51) | Cis-1,3-Dichloropropene | 6.70 | 75 | 30261 | 5.7668 | ppb | | 99 |
| 52) | Toluene | 7.10 | 91 | 173783 | 11.4141 | ppb | | 97 |
| 53) | Trans-1,3-Dichloropropene | 7.38 | 75 | 14731 | 3.3555 | ppb | | 96 |
| 54) | 1,1,2-TCA | 7.60 | 83 | 18087 | 8.3964 | ppb | | 97 |
| 55) | 2-Hexanone | 7.96 | 43 | 10722 | 6.5475 | ppb | | 96 |
| 58) | 1,2-EDB | 8.19 | 107 | 9862 | 3.8040 | ppb | | 89 |
| 59) | Tetrachloroethene | 7.76 | 164 | 31928 | 10.1713 | ppb | | 97 |
| 60) | 1-Chlorohexane | 8.87 | 91 | 33724 | 7.7577 | ppb | | 97 |
| 61) | 1,1,1,2-Tetrachloroethane | 8.96 | 131 | 23538 | 7.6108 | ppb | | 100 |
| 62) | m&p-Xylene | 9.17 | 106 | 122568 | 19.0796 | ppb | | 100 |
| 63) | o-Xylene | 9.69 | 106 | 62623 | 9.5687 | ppb | | 92 |
| 64) | Styrene | 9.71 | 104 | 93965 | 8.7488 | ppb | | 95 |
| 66) | 1,3-Dichloropropane | 7.79 | 76 | 32307 | 6.8086 | ppb | | 99 |
| 67) | Dibromochloromethane | 8.06 | 129 | 19340 | 7.8503 | ppb | | 93 |
| 68) | Chlorobenzene | 8.84 | 112 | 85197 | 8.5586 | ppb | | 98 |
| 69) | Ethylbenzene | 9.01 | 91 | 143554 | 8.8523 | ppb | | 96 |
| 70) | Bromoform | 9.92 | 173 | 10935 | 7.7830 | ppb | | 96 |
| 72) | Isopropylbenzene | 10.21 | 105 | 129660 | 7.8384 | ppb | | 98 |
| 73) | 1,1,2,2-Tetrachloroethane | 6.17 | 83 | 30777 | 7.6169 | ppb | # | 98 |
| 74) | 1,2,3-Trichloropropane | 10.66 | 110 | 8867 | 9.1531 | ppb | | 94 |
| 75) | t-1,4-Dichloro-2-Butene | 10.71 | 53 | 949 | 2.5431 | ppb | | 89 |
| 76) | Bromobenzene | 10.56 | 156 | 37259 | 8.2962 | ppb | | 94 |
| 77) | n-Propylbenzene | 10.78 | 91 | 146415 | 7.9116 | ppb | | 97 |
| 78) | 4-Ethyltoluene | 10.94 | 105 | 141434 | 8.6504 | ppb | | 99 |
| 79) | 2-Chlorotoluene | 10.85 | 91 | 85614 | 7.4922 | ppb | | 99 |
| 80) | 1,3,5-Trimethylbenzene | 11.04 | 105 | 113254 | 8.1411 | ppb | | 98 |
| 81) | 4-Chlorotoluene | 11.01 | 91 | 103489 | 7.7756 | ppb | | 97 |
| 82) | Tert-Butylbenzene | 11.48 | 119 | 92733 | 7.4838 | ppb | | 96 |
| 83) | 1,2,4-Trimethylbenzene | 11.55 | 105 | 121297 | 8.6507 | ppb | | 99 |
| 84) | Sec-Butylbenzene | 11.79 | 105 | 127582 | 7.7745 | ppb | | 93 |
| 85) | p-Isopropyltoluene | 12.01 | 119 | 57336 | 7.5748 | ppb | | 98 |
| 86) | Benzyl Chloride | 12.23 | 91 | 3933 | 1.1482 | ppb | | 98 |
| 87) | 1,3-DCB | 11.89 | 146 | 65423 | 8.0190 | ppb | | 97 |
| 88) | 1,4-DCB | 12.02 | 146 | 37888 | 9.1273 | ppb | | 99 |
| 89) | n-Butylbenzene | 12.60 | 91 | 42536 | 6.9052 | ppb | | 96 |
| 90) | 1,2-DCB | 12.53 | 146 | 67116 | 8.9109 | ppb | | 99 |
| 91) | Hexachloroethane | 12.89 | 117 | 4515 | 7.2631 | ppb | | 88 |
| 92) | 1,2-Dibromo-3-chloropropan | 13.64 | 157 | 4536 | 8.2897 | ppb | | 90 |
| 93) | 1,2,4-Trichlorobenzene | 14.84 | 180 | 34372 | 7.2649 | ppb | | 97 |
| 94) | Hexachlorobutadiene | 15.15 | 225 | 17869 | 7.3047 | ppb | | 89 |
| 95) | Naphthalene | 15.18 | 128 | 35995 | 4.5569 | ppb | | 97 |
| 96) | 1,2,3-Trichlorobenzene | 15.53 | 180 | 22068 | 5.3908 | ppb | | 91 |

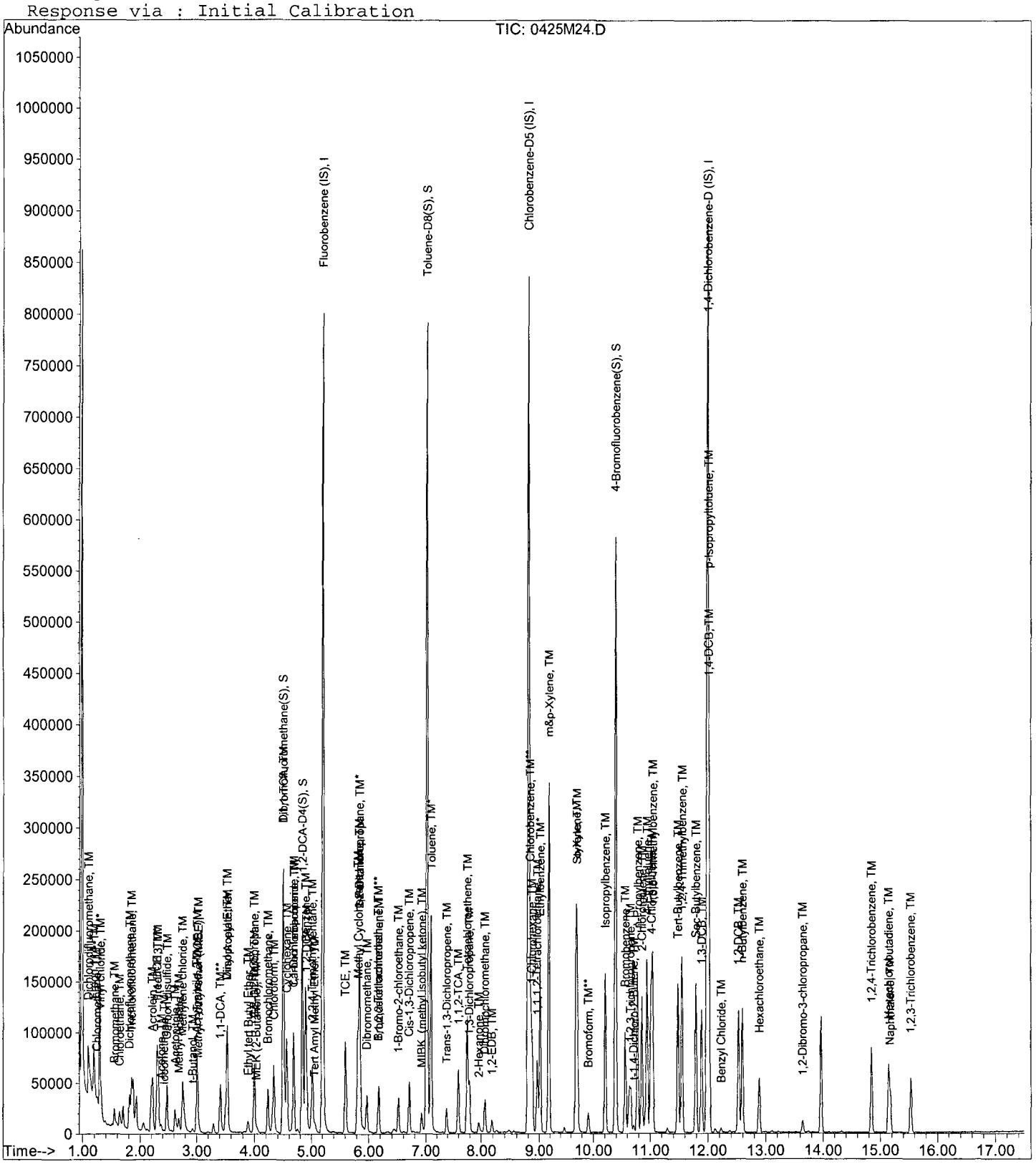
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M24.D Vial: 23
Acq On : 25 Apr 19 23:47 Operator: PM,DG,SV,CMM,KV
Sample : AZ90051W05 MSD 10ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 8:29 2019 Quant Results File: M0324.RES

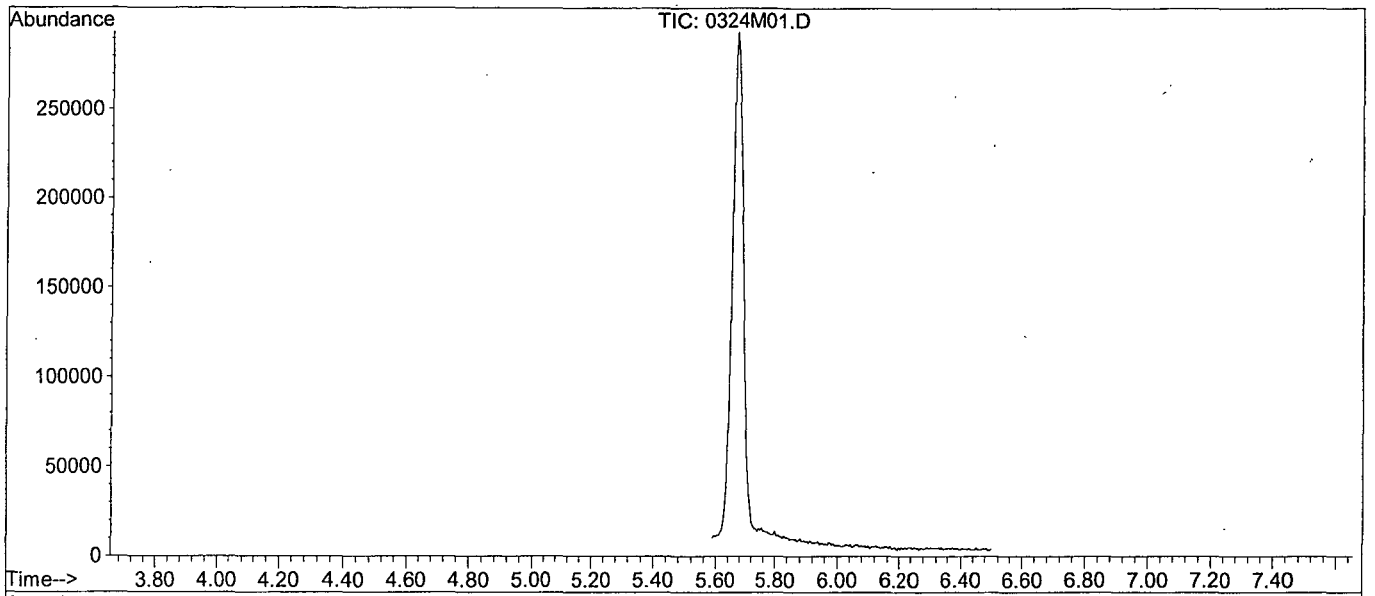
Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed May 01 09:43:56 2019
Response via : Initial Calibration

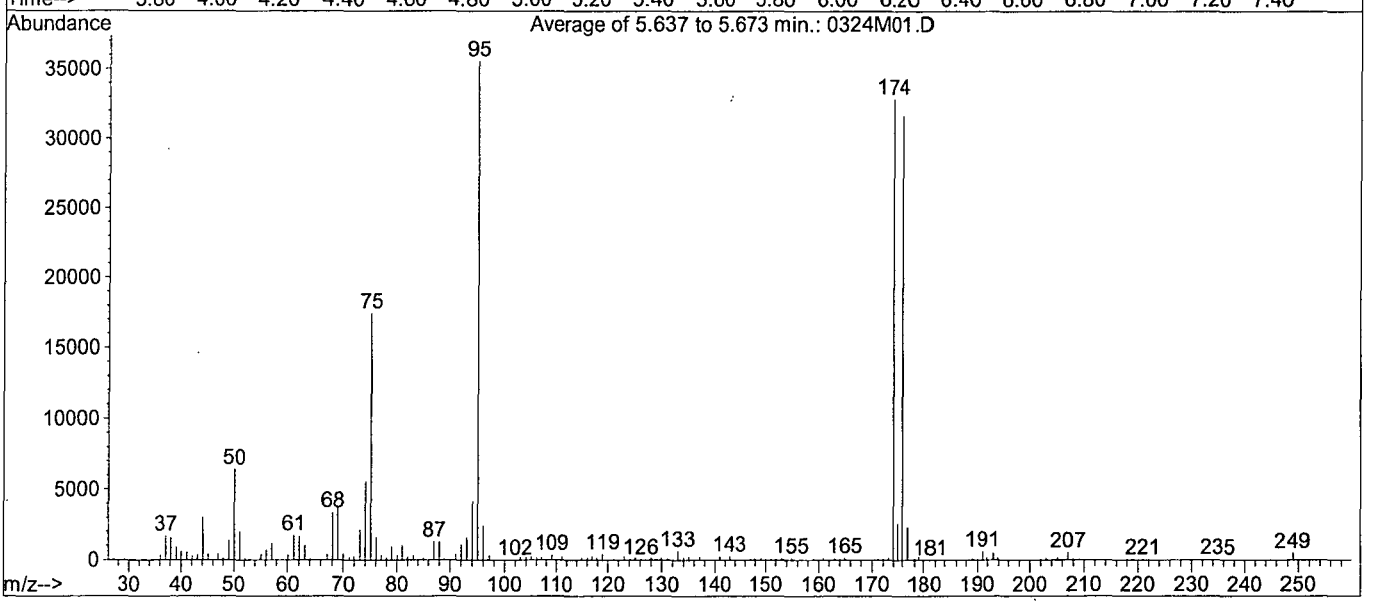


Data File : M:\MAX\DATA\M190324\0324M01.D
Acq On : 24 Mar 19 10:39
Sample : 25ug/L BFB 3/11/19
Misc : 2ul

Vial: 1
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B




Spectrum Information: Average of 5.637 to 5.673 min.

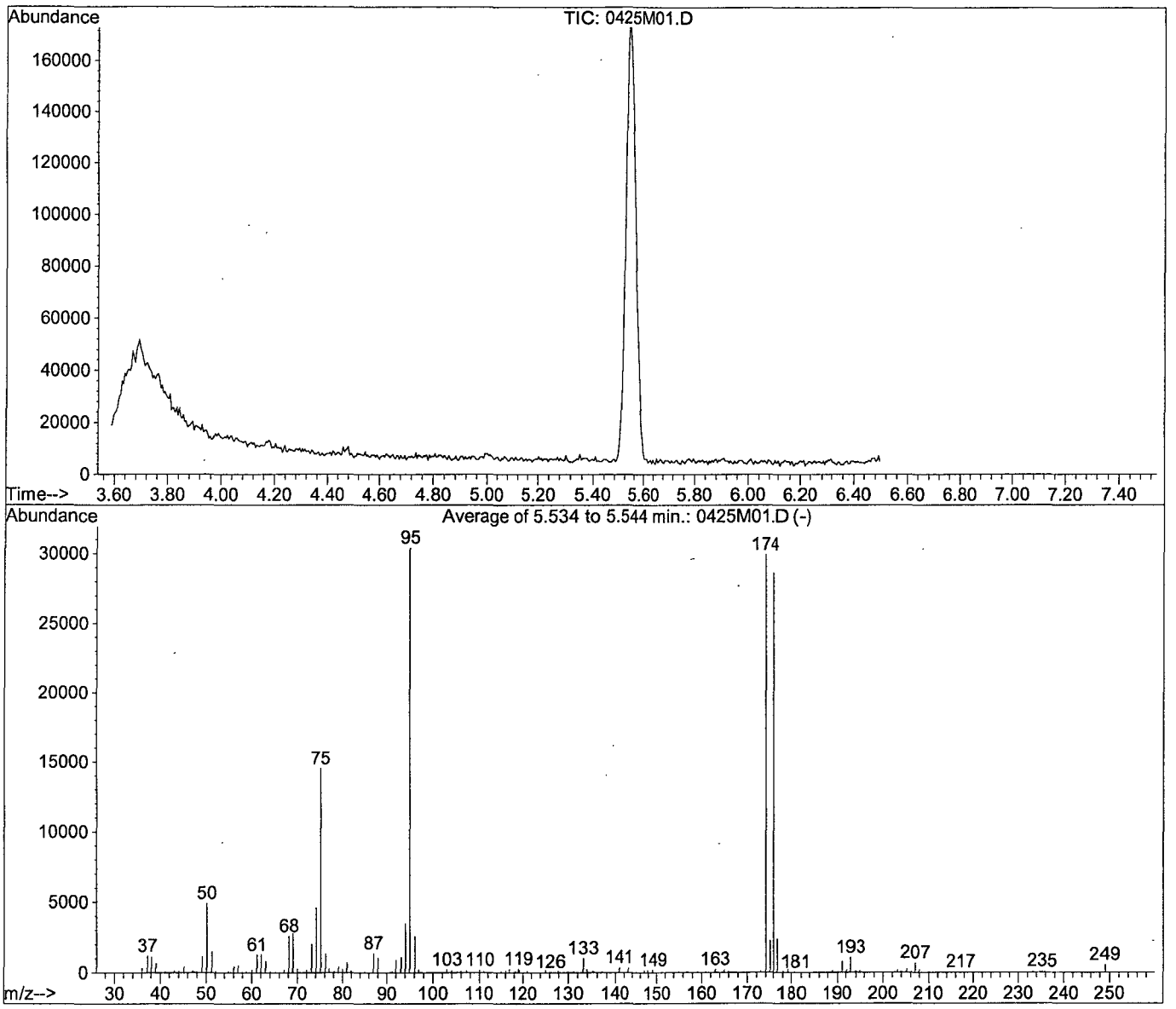
| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.1 | 6437 | PASS |
| 75 | 95 | 30 | 60 | 49.1 | 17449 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 35572 | PASS |
| 96 | 95 | 5 | 9 | 6.9 | 2445 | PASS |
| 173 | 174 | 0.00 | 2 | 0.4 | 130 | PASS |
| 174 | 95 | 50 | 100 | 92.4 | 32863 | PASS |
| 175 | 174 | 5 | 9 | 7.8 | 2572 | PASS |
| 176 | 174 | 95 | 101 | 96.4 | 31664 | PASS |
| 177 | 176 | 5 | 9 | 7.4 | 2328 | PASS |

BFB

Data File : M:\MAX\DATA\M190401\0425M01.D
Acq On : 25 Apr 19 12:55
Sample : 25ug/L BFB 3/11/19
Misc : 2ul

Vial: 1
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B




AutoFind: Scans 389, 390, 391; Background Corrected with Scan 375

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 16.1 | 4900 | PASS |
| 75 | 95 | 30 | 60 | 47.8 | 14533 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 30407 | PASS |
| 96 | 95 | 5 | 9 | 8.4 | 2569 | PASS |
| 173 | 174 | 0.00 | 2 | 0.3 | 101 | PASS |
| 174 | 95 | 50 | 100 | 98.4 | 29920 | PASS |
| 175 | 174 | 5 | 9 | 7.7 | 2289 | PASS |
| 176 | 174 | 95 | 101 | 95.8 | 28656 | PASS |
| 177 | 176 | 5 | 9 | 8.3 | 2373 | PASS |

# Max 8260 Standard Prep

**Max 8260 Water Calibration Curve**

***0.3ug/L***

**Prepared By (Initials): DG**

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 9 | O2SI | 0.3ug/L | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 3uL | 50mL | P&T Water | 0.3 |
| VOA STD. 10 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 3uL | | | 0.3 |
| VOA STD. 12 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 3uL | | | 0.3 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 2uL | | | 10 |

***0.5ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 9 | O2SI | 0.5ug/L | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 5uL | 50mL | P&T Water | 0.5 |
| VOA STD. 10 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 5uL | | | 0.5 |
| VOA STD. 12 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 5uL | | | 0.5 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 5uL | | | 25 |

***1.0ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 9 | O2SI | 1.0ug/L | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | 50mL | P&T Water | 1 |
| VOA STD. 10 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 1 |
| VOA STD. 12 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 1 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 10uL | | | 50 |

***2.0ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 9 | O2SI | 2.0ug/L | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 20uL | 50mL | P&T Water | 2 |
| VOA STD. 10 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 20uL | | | 2 |
| VOA STD. 12 | O2SI | | 5 | Prepared 03/21/19 | 05/20/19 | N/A | 20uL | | | 2 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 15uL | | | 75 |

***5ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 5ug/L | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 5uL | 50mL | P&T Water | 5 |
| VOA STD. 8 | Phenova | | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 5uL | | | 5 |
| VOA STD. 1 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 5uL | | | 5 |
| VOA STD. 2 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 5uL | | | 5 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 20uL | | | 100 |

***10ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 10ug/L | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD 8 | Phenova | | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 10uL | | | 10 |
| VOA STD. 1 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 10 |
| VOA STD. 2 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 10 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 25uL | | | 125 |

***20ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 20ug/L | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 20uL | 50mL | P&T Water | 20 |
| VOA STD. 8 | Phenova | | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 20uL | | | 20 |
| VOA STD. 1 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 20uL | | | 20 |
| VOA STD. 2 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 20uL | | | 20 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 30uL | | | 150 |

***40ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 40ug/L | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 40uL | 50mL | P&T Water | 40 |
| VOA STD. 8 | Phenova | | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 40uL | | | 40 |
| VOA STD. 1 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 40uL | | | 40 |
| VOA STD. 2 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 40uL | | | 40 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 35uL | | | 175 |

***100ug/L***

**Prepared: 03/24/19**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | 100ug/L | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 100uL | 50mL | P&T Water | 100 |
| VOA STD. 8 | Phenova | | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 100uL | | | 100 |
| VOA STD. 1 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 100uL | | | 100 |
| VOA STD. 2 | O2SI | | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 100uL | | | 100 |
| VOA STD. TBA | Various | | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 40uL | | | 200 |

**Max 8260 Water Second Source (SS)**

**Prepared: 03/24/19**

**Prepared By (Initials): DG**

**Expires: 04/23/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 4 | Phenova | 8260 Water SS | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD. 5 | O2SI | 8260 Water SS | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 10 |
| VOA STD. 6 | Various | 8260 Water SS | 50 | Prepared 03/21/19 | 03/13/19 | N/A | 10uL | | | 10 |
| Voa STD. TBA | Various | 8260 Water SS | 250 | Prepared 03/21/19 | 03/13/19 | N/A | 25uL | | | 250 |

**8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)**

**Prepared: 03/24/19**

**Prepared By (Initials): DG**

**Expires: 03/25/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | CCV/ LCS | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD. 8 | Phenova | CCV/ LCS | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 10uL | | | 10 |
| VOA STD. 1 | O2SI | CCV/ LCS | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 10 |
| VOA STD. 2 | O2SI | CCV/ LCS | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 10 |
| VOA STD. TBA | Various | CCV/ LCS | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 25uL | | | 125 |

***LCS (X4 Ketones)***

**Prepared: 03/24/19**

**Prepared By (Initials): DG**

**Expires: 03/25/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA STD. 7 | Various | LCS X4 Ketones | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | 50mL | P&T Water | 10 |
| VOA STD. 8 | Phenova | LCS X4 Ketones | 50 | Prepared 03/21/19 | 03/27/19 | N/A | 10uL | | | 10 |
| VOA STD. 1 | O2SI | LCS X4 Ketones | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 10uL | | | 10 |
| VOA STD. 2 | O2SI | LCS X4 Ketones | 50 | Prepared 03/21/19 | 05/20/19 | N/A | 40uL | | | 40 |
| VOA STD. TBA | Various | LCS X4 Ketones | 250 | Prepared 03/21/19 | 03/27/19 | N/A | 25uL | | | 125 |

**Max 8260 Water Surrogate**

**Prepared: 03/24/19** — **Prepared By (Initials): DG**

**Expires: 03/23/20**

**Methanol Lot No: 58019**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 8260 Surrogate Solution | O2SI | 120002-01 | 2,000 | **348756-39342** | **03/24/20** | **02/10/22** | 375uL | 15mL | Methanol | 50 |

**Max 8260 Water Internal Standard**

**Prepared: 03/24/19** — **Prepared By (Initials): DG**

**Expires: 03/23/20**

**Methanol Lot No: 58019**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Internal Standard Solution | O2SI | 120004-02 | 2,000 | **326533-38436** | **03/24/20** | **04/27/21** | 375uL | 15mL | Methanol | 50 |

# Injection Log

Directory: M:\MAX\DATA\M190324\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 0324M01.D | 1 | 25ug/L BFB 3/11/19 | 2ul | 24 Mar 19 10:39 |
| 2 | 3 | 0324M05.D | 1 | 0.3ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 12:56 |
| 3 | 4 | 0324M06.D | 1 | 0.5ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 13:25 |
| 4 | 5 | 0324M07.D | 1 | 1.0ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 13:54 |
| 5 | 6 | 0324M08.D | 1 | 2.0ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 14:22 |
| 6 | 7 | 0324M09.D | 1 | 5.0ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 14:51 |
| 7 | 8 | 0324M10.D | 1 | 10ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 15:19 |
| 8 | 9 | 0324M11.D | 1 | 20ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 15:48 |
| 9 | 10 | 0324M12.D | 1 | 40ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 16:17 |
| 10 | 11 | 0324M13.D | 1 | 100ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 16:45 |
| 11 | 14 | 0324M16.D | 1 | (SS)10ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 18:11 |
| 12 | 1 | 0425M01.D | 1 | 25ug/L BFB 3/11/19 | 2ul | 25 Apr 19 12:55 |
| 13 | 2 | 0425M03.D | 1 | 190425A CCV 10ug/L | IS,Surr 03/24/19 | 25 Apr 19 13:49 |
| 14 | 3 | 0425M04.D | 1 | 190425A LCS 10ug/L | IS,Surr 03/24/19 | 25 Apr 19 14:17 |
| 15 | 4 | 0425M05.D | 1 | 190425A LCSD 10ug/L | IS,Surr 03/24/19 | 25 Apr 19 14:46 |
| 16 | 9 | 0425M10.D | 1 | 190425A blk | IS,Surr 03/24/19 | 25 Apr 19 17:08 |
| 17 | 11 | 0425M12.D | 1 | AZ90053W01 | IS,Surr 03/24/19 | 25 Apr 19 18:05 |
| 18 | 12 | 0425M13.D | 1 | AZ90059W01 | IS,Surr 03/24/19 | 25 Apr 19 18:34 |
| 19 | 13 | 0425M14.D | 1 | AZ90050W01 | IS,Surr 03/24/19 | 25 Apr 19 19:02 |
| 20 | 14 | 0425M15.D | 1 | AZ90055W01 | IS,Surr 03/24/19 | 25 Apr 19 19:31 |
| 21 | 15 | 0425M16.D | 1 | AZ90057W01 | IS,Surr 03/24/19 | 25 Apr 19 19:59 |
| 22 | 16 | 0425M17.D | 1 | AZ90051W01 | IS,Surr 03/24/19 | 25 Apr 19 20:28 |
| 23 | 17 | 0425M18.D | 1 | AZ90052W01 | IS,Surr 03/24/19 | 25 Apr 19 20:56 |
| 24 | 18 | 0425M19.D | 1 | AZ90054W01 | IS,Surr 03/24/19 | 25 Apr 19 21:25 |
| 25 | 19 | 0425M20.D | 1 | AZ90056W01 | IS,Surr 03/24/19 | 25 Apr 19 21:53 |
| 26 | 20 | 0425M21.D | 1 | AZ90058W01 | IS,Surr 03/24/19 | 25 Apr 19 22:22 |
| 27 | 21 | 0425M22.D | 1 | AZ90060W01 | IS,Surr 03/24/19 | 25 Apr 19 22:50 |
| 28 | 22 | 0425M23.D | 1 | AZ90051W04 MS 10ug/L | IS,Surr 03/24/19 | 25 Apr 19 23:19 |
| 29 | 23 | 0425M24.D | 1 | AZ90051W05 MSD 10ug/L | IS,Surr 03/24/19 | 25 Apr 19 23:47 |
| 30 | 26 | 0425M27.D | 1 | Ending CCV 10ug/L | IS,Surr 03/24/19 | 26 Apr 19 1:13 |

# ORGANICS
# Calibration Data

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 04/01/19
Matrix: water Instrument: Max
Initials:

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | Avg | %RSD | Type | r^2 | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0401M04.D | 0401M05.D | 0401M06.D | 0401M07.D | 0401M08.D | 0401M09.D | 0401M10.D | | | | | | | | | |
| 1 | I | Fluorobenzene (IS) | | | | | | | | | | | | | | | | |
| 2 | TMHBL | Gasoline C6-C10 | 11.0 | 4.649 | 2.597 | 1.206 | 0.8368 | 0.7215 | 0.6807 | | | | 3.1 | 122 | TMHBL | 0.999 | | |
| 3 | TMHB | Chlorobenzene-D5 (IS) | | | | | | | | | | | | | | | | |
| 4 | TMHB | 1,4-Dichlorobenzene (IS) | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | |

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M04.D Vial: 3
Acq On : 1 Apr 19 10:31 Operator: PM,DG,SV,CMM,KV
Sample : 20ug/L GAS STD 4/01/19 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 1 15:17 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 598255 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 338283m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 187311m | 25.000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| **Target Compounds** | | | | | Qvalue |
| 2) Gasoline C6-C10 | 8.80 | TIC | 5271420m | 26.591 ppb | 100 |

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

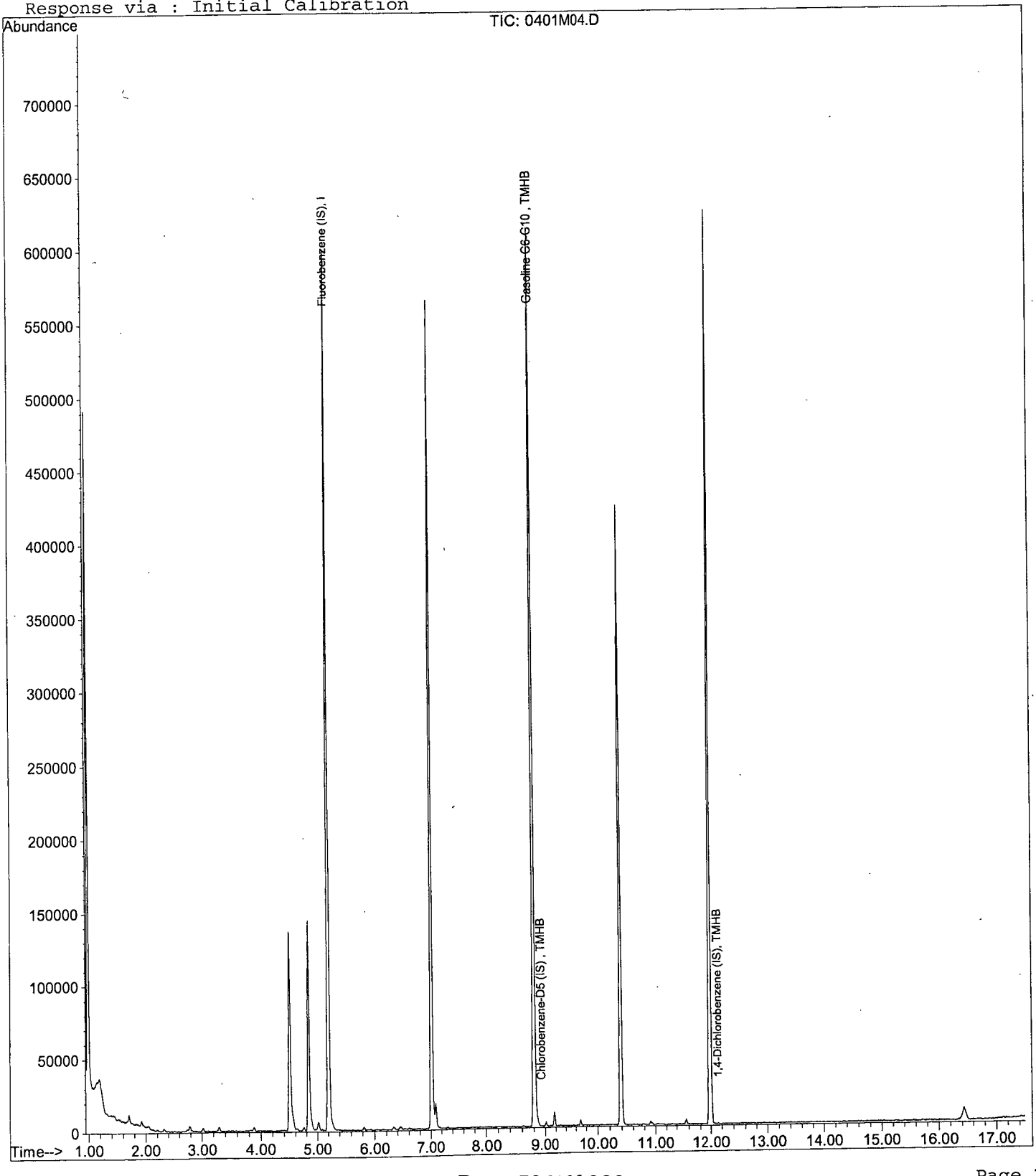
Quantitation Report

Data File : M:\MAX\DATA\M190401\0401M04.D
Acq On : 1 Apr 19 10:31
Sample : 20ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 3
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:17 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:19:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M05.D
Acq On : 1 Apr 19 11:00
Sample : 50ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 4
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:17 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 587568 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 330094m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 190101m | 25.000 ppb | 0.00 |
| System Monitoring Compounds | | | | | |
| Target Compounds | | | | | Qvalue |
| 2) Gasoline C6-C10 | 8.80 | TIC | 5463157m | 51.914 ppb | 100 |

(#) = qualifier out of range (m) = manual integration
0401M05.D MGAS401.M Mon Apr 01 15:17:51 2019

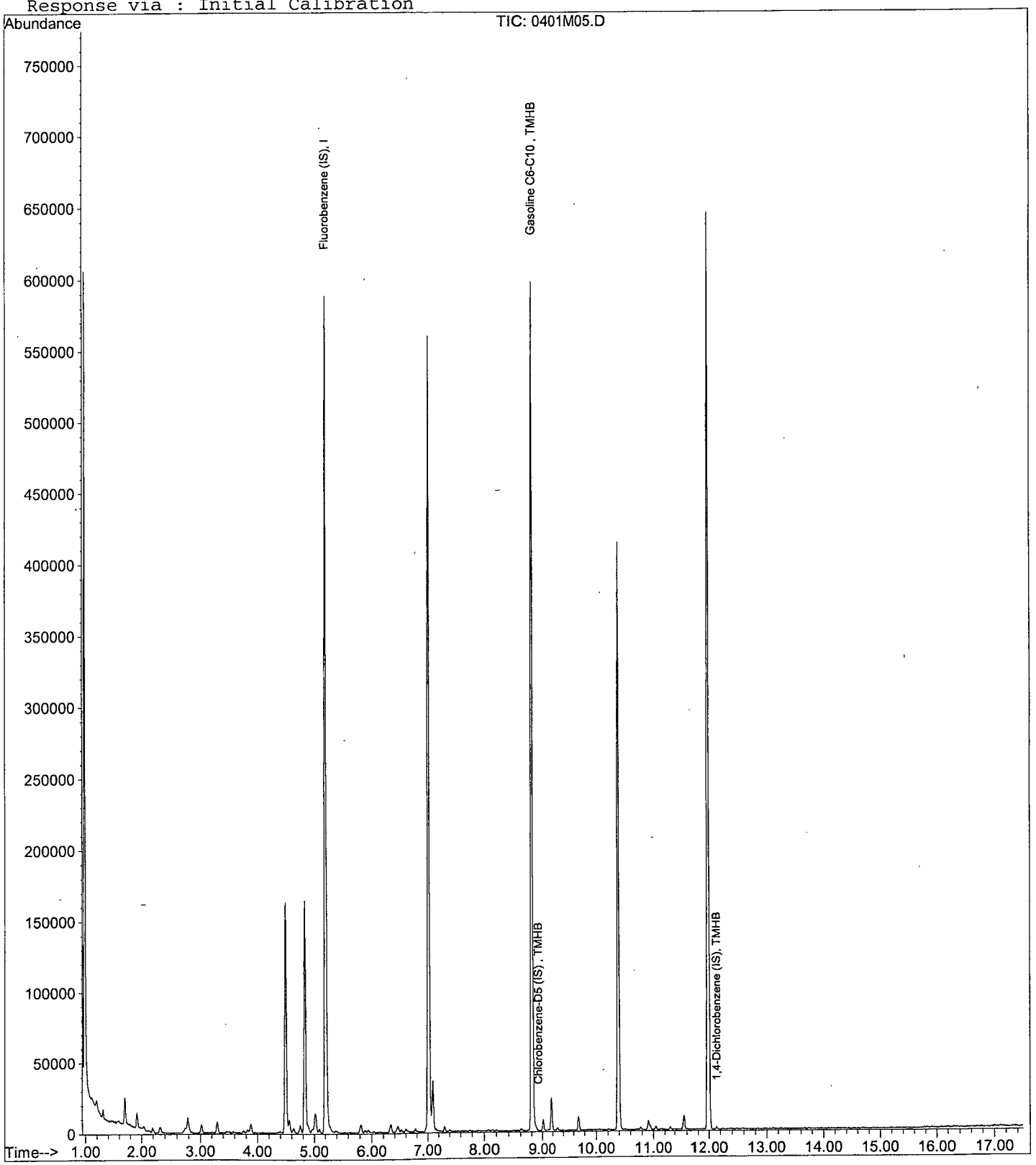
Quantitation Report

Data File : M:\MAX\DATA\M190401\0401M05.D
Acq On : 1 Apr 19 11:00
Sample : 50ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 4
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:17 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:19:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M06.D
Acq On : 1 Apr 19 11:28
Sample : 100ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 5
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 575257 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 323893m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 181396m | 25.000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| **Target Compounds** | | | | | Qvalue |
| 2) Gasoline C6-C10 | 8.80 | TIC | 5976508m | 108.711 ppb | 100 |

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

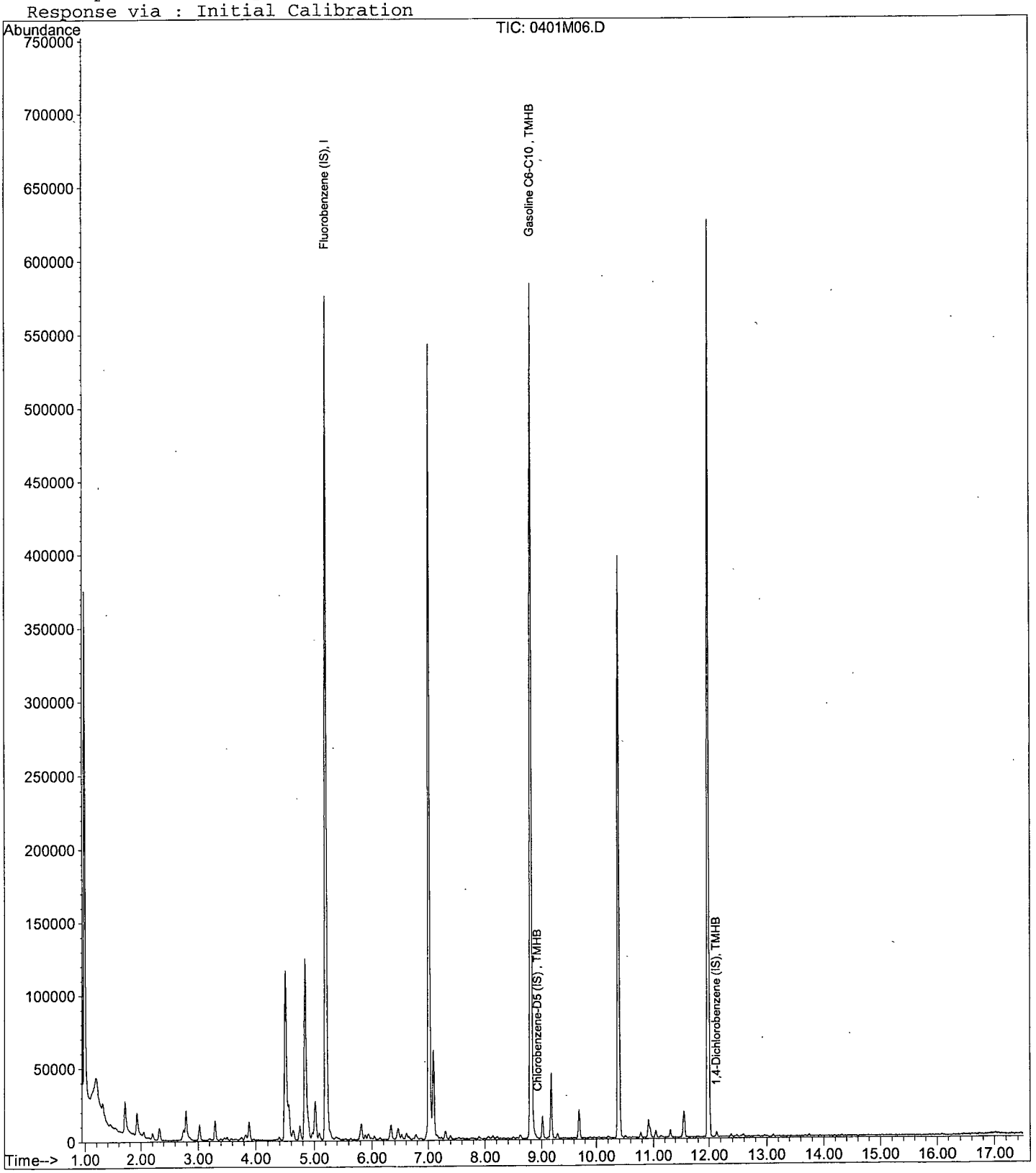
Quantitation Report

Data File : M:\MAX\DATA\M190401\0401M06.D
Acq On : 1 Apr 19 11:28
Sample : 100ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 5
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:19:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M07.D
Acq On : 1 Apr 19 11:57
Sample : 300ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 6
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 573184 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 333476m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 189443m | 25.000 ppb | 0.00 |
| System Monitoring Compounds | | | | | |
| Target Compounds | | | | | Qvalue |
| 2) Gasoline C6-C10 | 8.80 | TIC | 8295201m | 321.192 ppb | 100 |

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

Quantitation Report

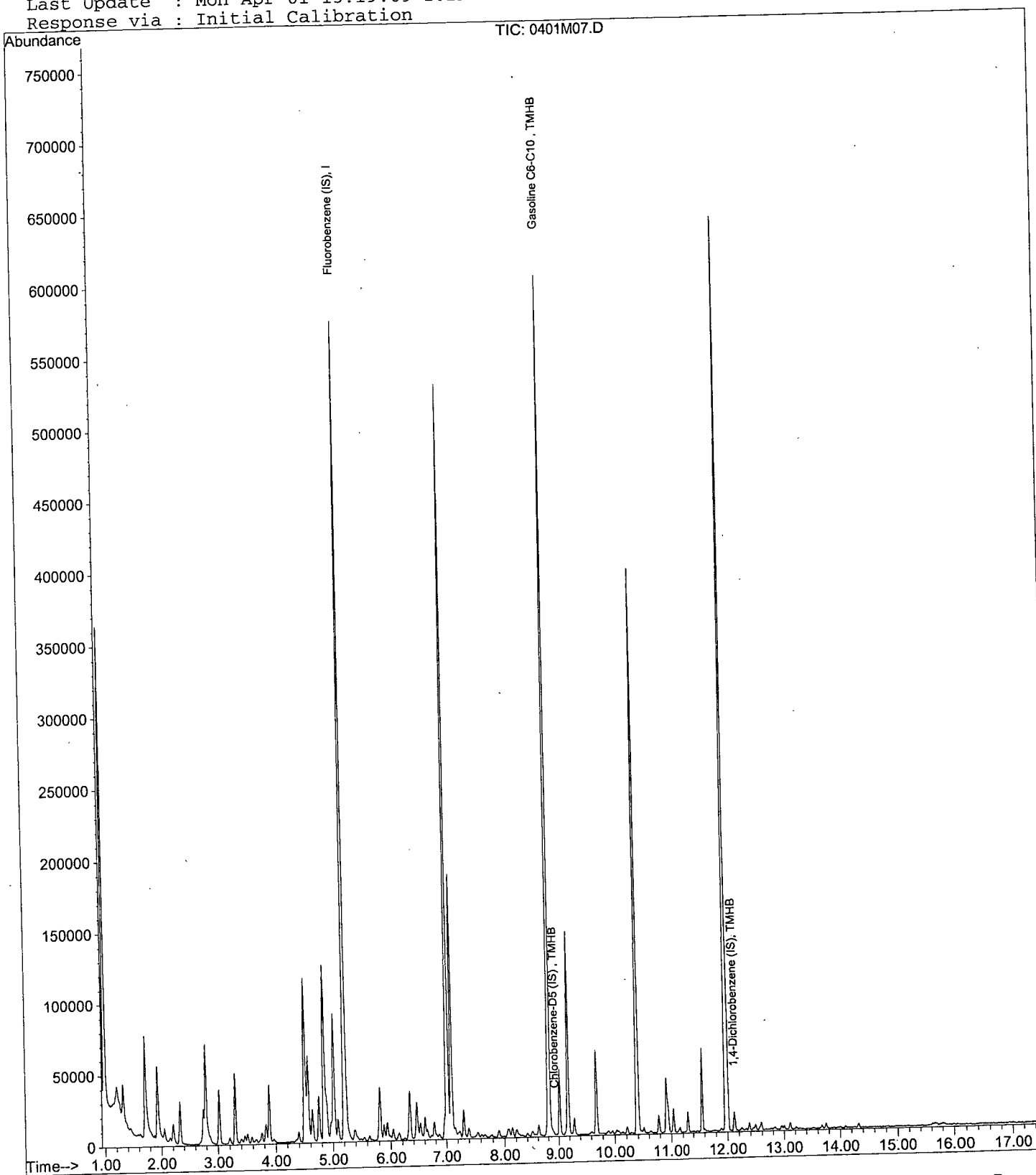
Data File : M:\MAX\DATA\M190401\0401M07.D
Acq On : 1 Apr 19 11:57
Sample : 300ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 6
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:18 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:19:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M08.D Vial: 7
Acq On : 1 Apr 19 12:25 Operator: PM,DG,SV,CMM,KV
Sample : 600ug/L GAS STD 4/01/19 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 576087 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 330146m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 190295m | 25.000 ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Gasoline C6-C10 | 8.80 | TIC | 11569749m | 613.209 ppb | 100 |

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

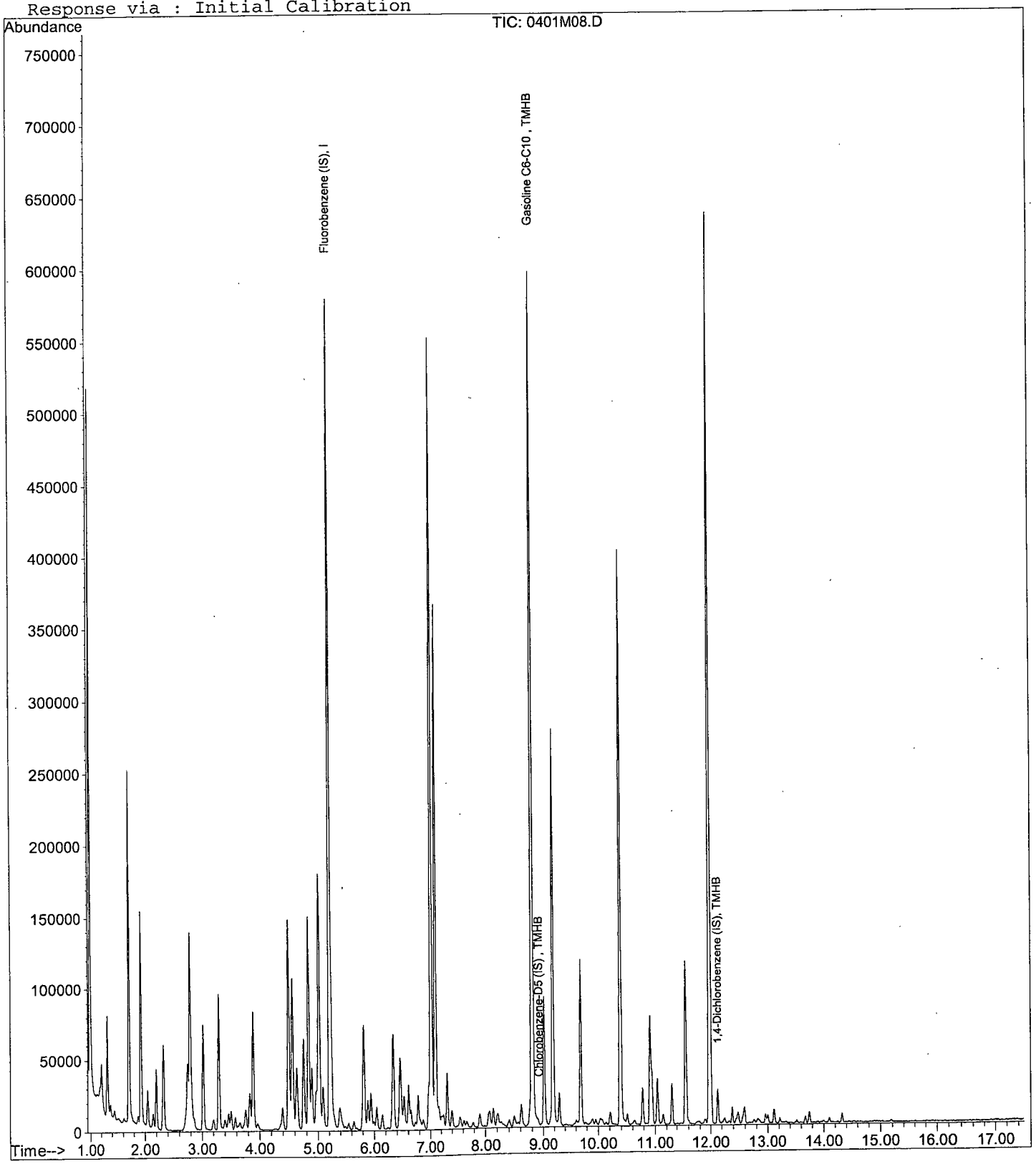
Quantitation Report

Data File : M:\MAX\DATA\M190401\0401M08.D
Acq On : 1 Apr 19 12:25
Sample : 600ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 7
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:19:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M09.D Vial: 8
Acq On : 1 Apr 19 12:54 Operator: PM,DG,SV,CMM,KV
Sample : 800ug/L GAS STD 4/01/19 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 579649 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 326637m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 190935m | 25.000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Gasoline C6-C10 | 8.80 | TIC | 13383194m | 769.601 | ppb | 100 |

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

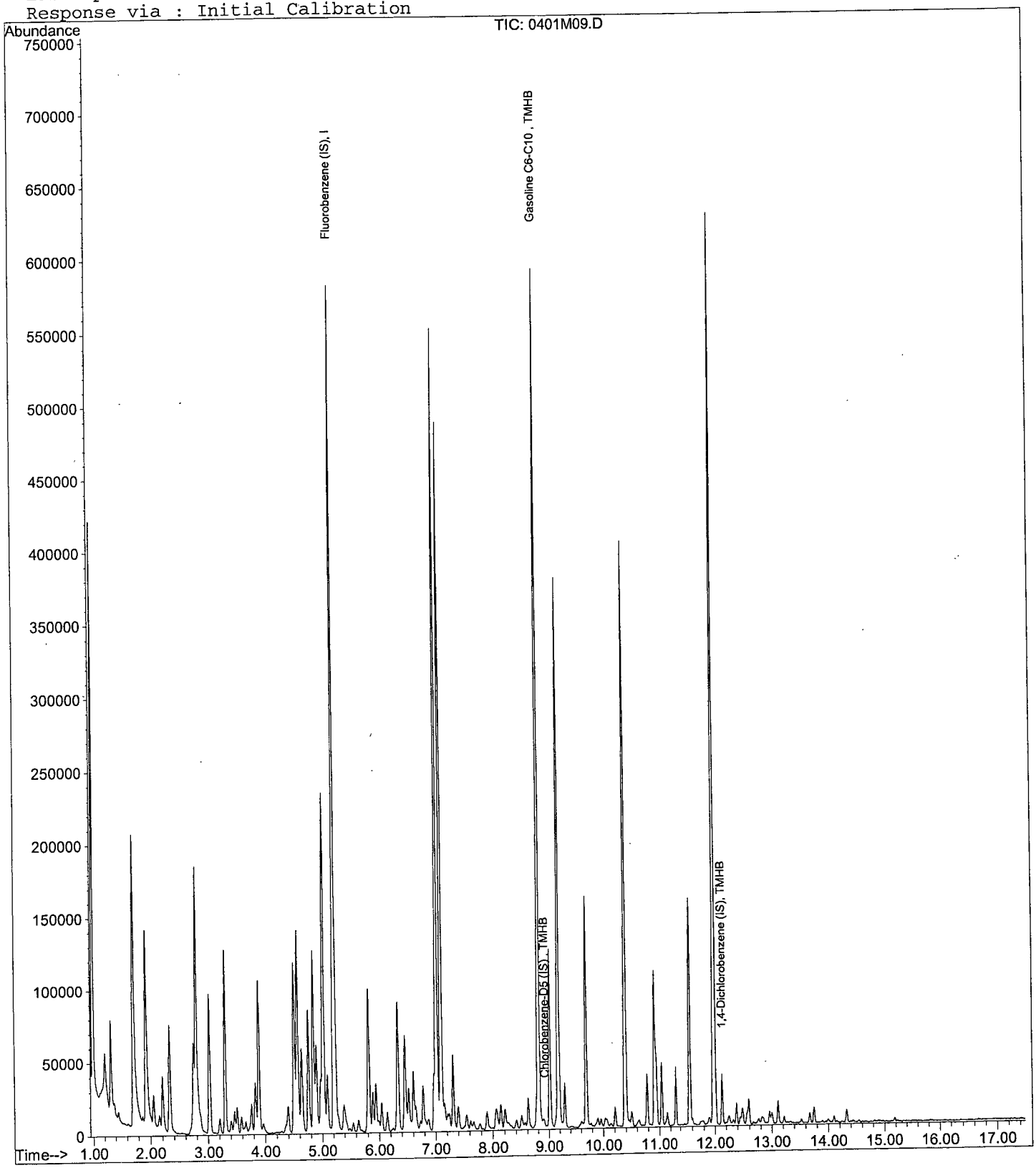
Quantitation Report

Data File : M:\MAX\DATA\M190401\0401M09.D
Acq On : 1 Apr 19 12:54
Sample : 800ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 8
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 1 15:18 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:19:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M10.D Vial: 9
Acq On : 1 Apr 19 13:22 Operator: PM,DG,SV,CMM,KV
Sample : 1000ug/L GAS STD 4/01/19 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 1 15:19 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:16:42 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 582261 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | 117 | 329343m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | 152 | 190806m | 25.000 | ppb | 0.00 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) Gasoline C6-C10 | 7.10 | TIC | 15853101m | 984.969 | ppb | 100 |

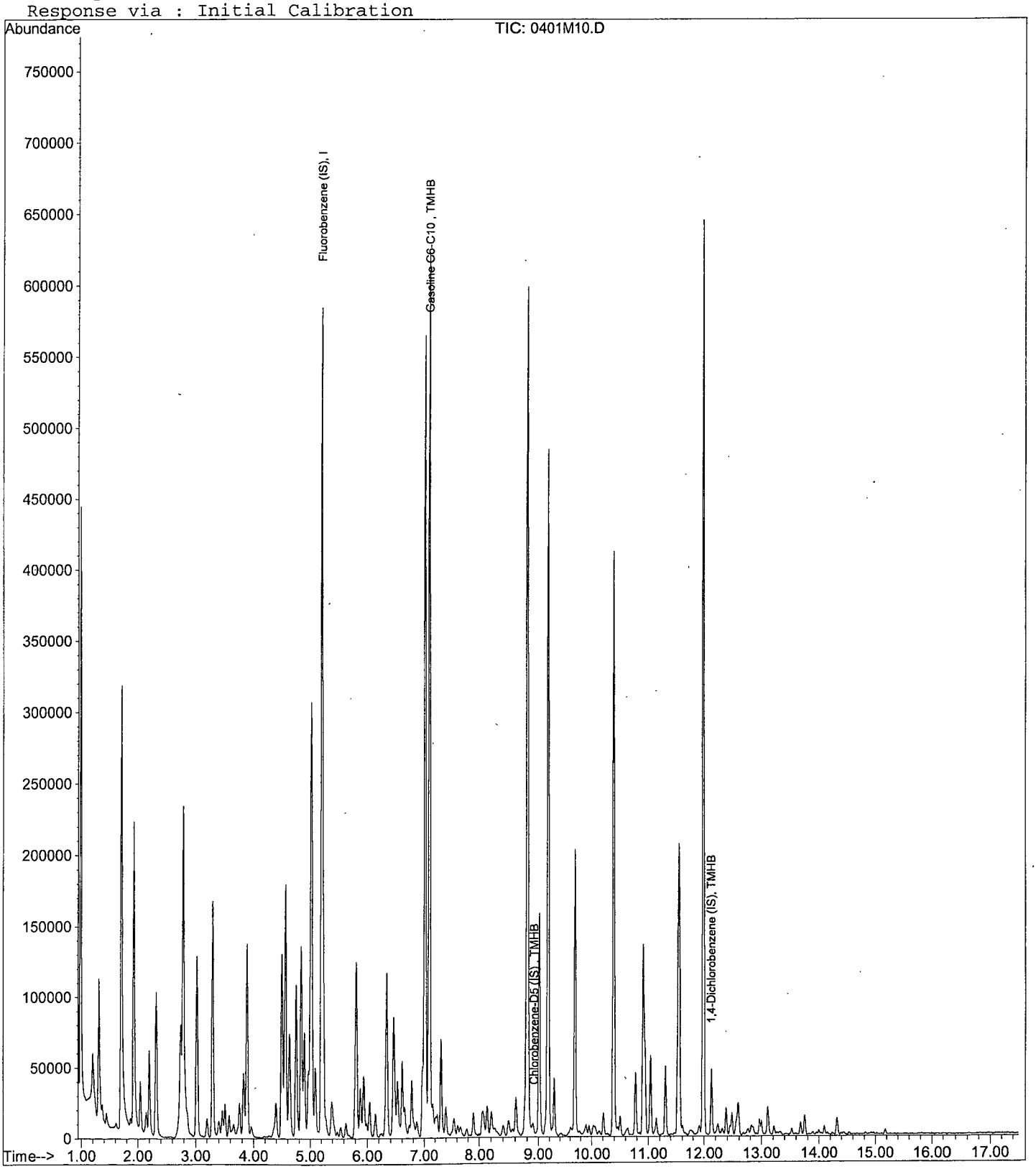
(#) = qualifier out of range (m) = manual integration

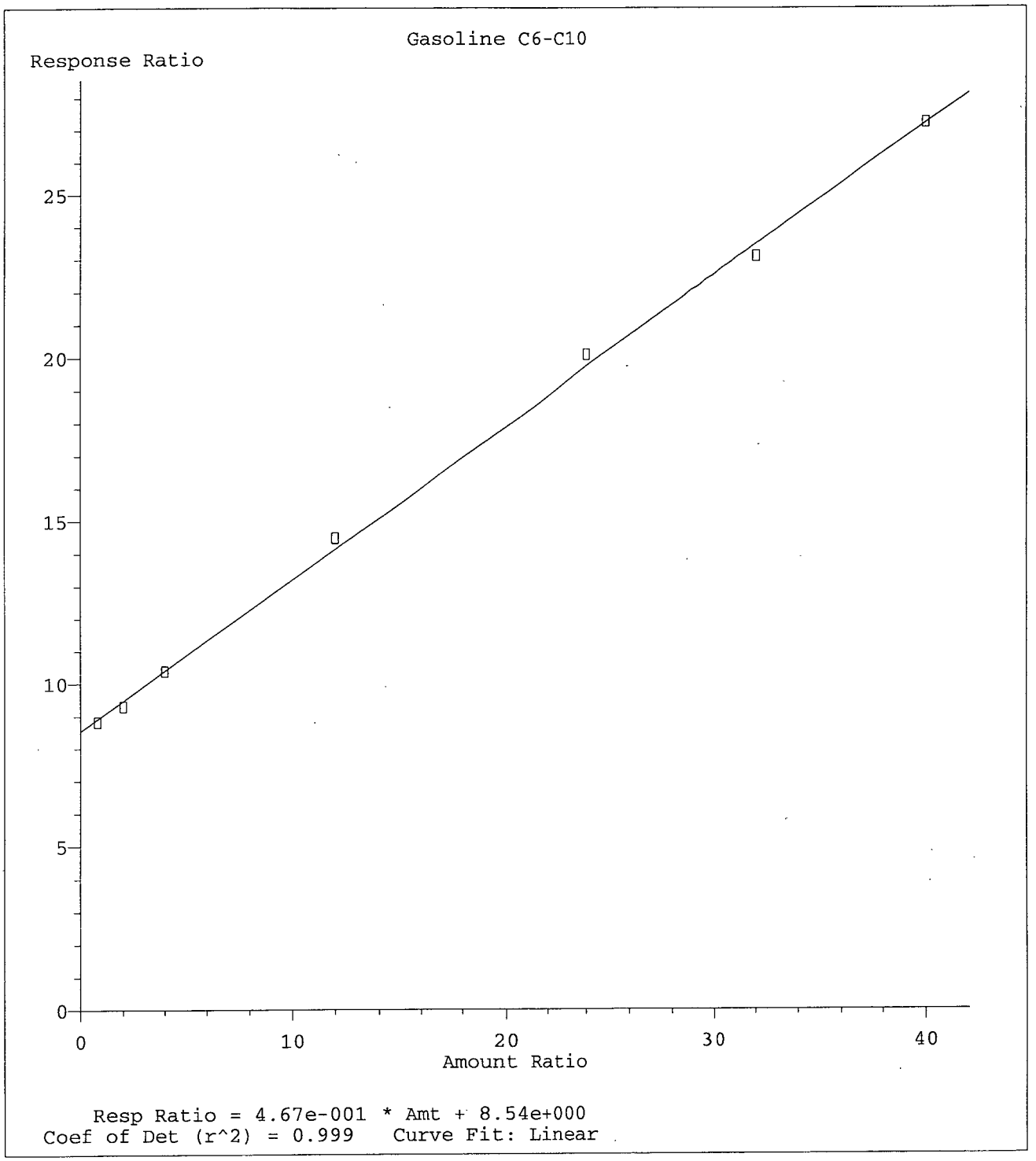
Quantitation Report

Data File : M:\MAX\DATA\M190401\0401M10.D Vial: 9
Acq On : 1 Apr 19 13:22 Operator: PM,DG,SV,CMM,KV
Sample : 1000ug/L GAS STD 4/01/19 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 1 15:19 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:19:09 2019
Response via : Initial Calibration






Method Name: M:\MAX\DATA\M190401\MGAS401.M
Calibration Table Last Updated: Mon Apr 01 15:30:17 2019

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Second Source Calibration

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

SDG No:
Date Analyzed: 1 Apr 19 14:19
Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0401M12.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | TMHB | Gasoline C6-C10 | 3.101 | 1.185 | 62 | TMHBL | 1.3 |
| 2 | | | | | | | |
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| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 62.0 | | |

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0401M12.D
Acq On : 1 Apr 19 14:19
Sample : (SS)300ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 11
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:08 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 565675 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1215857m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1225243m | 25.000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| **Target Compounds** | | | | | Qvalue |
| 2) Gasoline C6-C10 | 8.81 | TIC | 8042743m | 304.047 ppb | 100 |

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

Quantitation Report

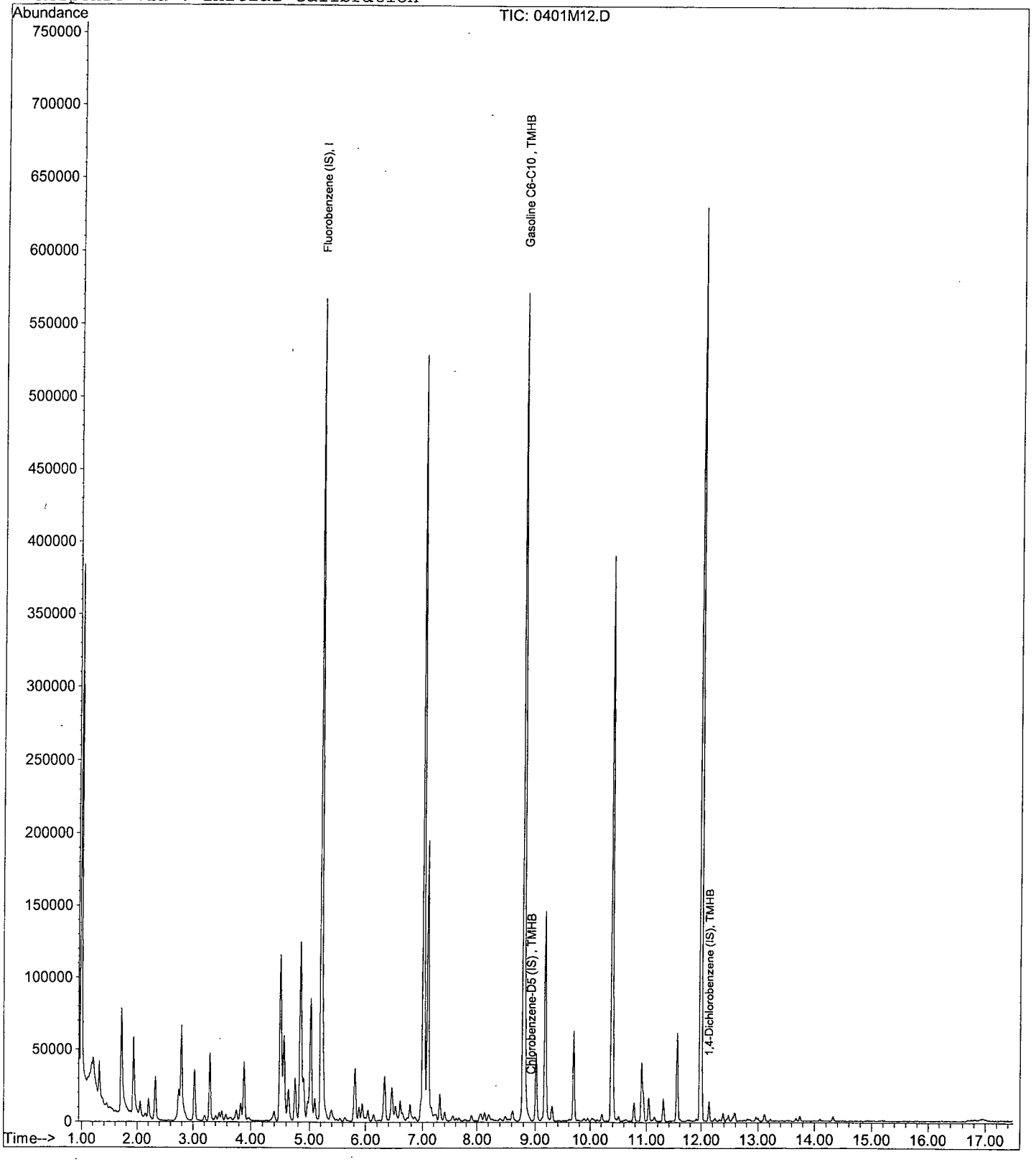
Data File : M:\MAX\DATA\M190401\0401M12.D
Acq On : 1 Apr 19 14:19
Sample : (SS)300ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 11
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:08 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

## Second Source

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

SDG No:
Date Analyzed: 1 Apr 19 14:19
Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0401M12.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | |
| 2 | S | Dibromofluoromethane(S) | 0.1912 | 0.1716 | 10 | S | |
| 3 | S | 1,2-DCA-D4(S) | 0.2203 | 0.1989 | 9.7 | S | |
| 4 | I | Chlorobenzene-D5 (IS) | ISTD | | | I | |
| 5 | S | Toluene-D8(S) | 1.110 | 1.060 | 4.5 | S | |
| 6 | S | 4-Bromofluorobenzene(S) | 0.4073 | 0.3905 | 4.1 | S | |
| 7 | I | 1,4-Dichlorobenzene-D (IS) | ISTD | | | I | |
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| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 7.1 | | |

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0401M12.D
Acq On : 1 Apr 19 14:19
Sample : (SS)300ug/L GAS STD 4/01/19
Misc : IS,Surr 03/24/19

Vial: 11
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 7:57 2019

Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 529928 | 25.000 | ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.81 | 117 | 392457 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 205157 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.50 | 111 | 90934 | 22.431 | ppb | -0.10 |
| Spiked Amount 25.000 | | | Recovery = | 89.724% | | |
| 3) 1,2-DCA-D4(S) | 4.84 | 65 | 105401 | 22.568 | ppb | -0.10 |
| Spiked Amount 25.000 | | | Recovery = | 90.272% | | |
| 5) Toluene-D8(S) | 7.02 | 98 | 415956 | 23.870 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 95.480% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 153268 | 23.969 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 95.876% | | |

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: water

SDG No:
Date Analyzed: 04/25/19
Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0425M03.D

| | | Compound | MEAN | CCRF | %D | %Drift | | |
|---|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | | |
| 2 | TM | Dichlorodifluoromethane | 0.0688 | 0.0874 | 27 | TM | | *NT |
| 3 | TM | Freon 114 | 0.0947 | 0.1039 | 9.7 | TM | | |
| 4 | TM**L | Chloromethane | 0.1096 | 0.1192 | 8.7 | TM**L | 14 | |
| 5 | TM* | Vinyl chloride | 0.1135 | 0.1365 | 20 | TM* | | |
| 6 | TM | Bromomethane | 0.0713 | 0.0898 | 26 | TM | | *NT |
| 7 | TML | Chloroethane | 0.1187 | 0.0883 | 26 | TML | 8.7 | |
| 8 | TM | Dichlorofluoromethane | 0.1967 | 0.1902 | 3.3 | TM | | |
| 9 | TM | Trichlorofluoromethane | 0.1432 | 0.1634 | 14 | TM | | |
| 10 | TM | Acrolein | 0.0032 | 0.0073 | 129 | TM | | *NT |
| 11 | TML | Acetone | 0.0350 | 0.0255 | 27 | TML | 5.3 | |
| 12 | TM* | 1,1-DCE | 0.1421 | 0.1356 | 4.5 | TM* | | |
| 13 | TM | Acetonitrile | 0.0105 | 0.0110 | 4.4 | TM | | |
| 14 | TM | t-Butanol | 0.0062 | 0.0063 | 1.4 | TM | | |
| 15 | TM | Methyl Acetate | 0.0342 | 0.0300 | 12 | TM | | |
| 16 | TML | Iodomethane | 0.0895 | 0.0907 | 1.4 | TML | 13 | |
| 17 | TM | Acrylonitrile | 0.0311 | 0.0348 | 12 | TM | | |
| 18 | TM | Methylene chloride | 0.1107 | 0.1140 | 3.0 | TM | | |
| 19 | TM | Carbon disulfide | 0.2669 | 0.2832 | 6.1 | TM | | |
| 20 | TM | Methyl t-butyl ether (MtBE) | 0.1292 | 0.1230 | 4.8 | TM | | |
| 21 | TM | Trans-1,2-DCE | 0.1005 | 0.1014 | 0.93 | TM | | |
| 22 | TM | Diisopropyl Ether | 0.3806 | 0.3864 | 1.5 | TM | | |
| 23 | TM** | 1,1-DCA | 0.1975 | 0.1894 | 4.1 | TM** | | |
| 24 | TM | Vinyl Acetate | 0.1000 | 0.0904 | 9.6 | TM | | |
| 25 | TM | Ethyl tert Butyl Ether | 0.3246 | 0.3433 | 5.8 | TM | | |
| 26 | TML | MEK (2-Butanone) | 0.0367 | 0.0398 | 8.5 | TML | 14 | |
| 27 | TM | Cis-1,2-DCE | 0.1213 | 0.1198 | 1.2 | TM | | |
| 28 | TM | 2,2-Dichloropropane | 0.1642 | 0.1694 | 3.2 | TM | | |
| 29 | TM* | Chloroform | 0.1948 | 0.1899 | 2.5 | TM* | | |
| 30 | TM | Bromochloromethane | 0.0563 | 0.0590 | 4.7 | TM | | |
| 31 | S | Dibromofluoromethane(S) | 0.1912 | 0.1957 | 2.3 | S | | |
| 32 | TM | 1,1,1-TCA | 0.1646 | 0.1645 | 0.04 | TM | | |
| 33 | TM | Cyclohexane | 0.1028 | 0.0937 | 8.8 | TM | | |
| 34 | TM | 1,1-Dichloropropene | 0.1357 | 0.1341 | 1.1 | TM | | |
| 35 | TM | 2,2,4-Trimethylpentane | 0.2855 | 0.2863 | 0.28 | TM | | |
| 36 | S | 1,2-DCA-D4(S) | 0.2203 | 0.2033 | 7.7 | S | | |
| 37 | TM | Carbon Tetrachloride | 0.1098 | 0.1185 | 7.9 | TM | | |
| 38 | TM | Tert Amyl Methyl Ether | 0.2801 | 0.3204 | 14 | TM | | |
| 39 | TM | 1,2-DCA | 0.1477 | 0.1360 | 7.9 | TM | | |
| 40 | TM | Benzene | 0.4494 | 0.4460 | 0.77 | TM | | |
| | | Average | | | 11.1 | | | |

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/25/19
Instrument: Max
Cal. Date: 03/24/19
Data File: 0425M03.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | TM | TCE | 0.1157 | 0.1085 | 6.2 | TM | |
| 42 | TM | 2-Pentanone | 0.0599 | 0.0571 | 4.7 | TM | |
| 43 | TM* | 1,2-Dichloropropane | 0.1120 | 0.1091 | 2.6 | TM* | |
| 44 | TM | Bromodichloromethane | 0.1300 | 0.1335 | 2.7 | TM | |
| 45 | TM | Methyl Cyclohexane | 0.1617 | 0.1611 | 0.37 | TM | |
| 46 | TM | Dibromomethane | 0.0576 | 0.0587 | 1.9 | TM | |
| 47 | TM | MIBK (methyl isobutyl ketone) | 0.0832 | 0.0781 | 6.1 | TM | |
| 48 | TM | 1-Bromo-2-chloroethane | 0.0724 | 0.0726 | 0.37 | TM | |
| 49 | TM | Cis-1,3-Dichloropropene | 0.1738 | 0.1741 | 0.22 | TM | |
| 50 | TM* | Toluene | 0.5041 | 0.5000 | 0.81 | TM* | |
| 51 | TM | Trans-1,3-Dichloropropene | 0.1454 | 0.1487 | 2.3 | TM | |
| 52 | TM | 1,1,2-TCA | 0.0713 | 0.0705 | 1.2 | TM | |
| 53 | TM | 2-Hexanone | 0.0542 | 0.0511 | 5.7 | TM | |
| 54 | I | Chlorobenzene-D5 (IS) | ISTD | | | I | |
| 55 | S | Toluene-D8(S) | 1.110 | 1.054 | 5.1 | S | |
| 56 | TM | 1,2-EDB | 0.1136 | 0.1083 | 4.6 | TM | |
| 57 | TM | Tetrachloroethene | 0.1375 | 0.1386 | 0.80 | TM | |
| 58 | TM | 1-Chlorohexane | 0.1904 | 0.1942 | 2.0 | TM | |
| 59 | TM | 1,1,1,2-Tetrachloroethane | 0.1355 | 0.1421 | 4.9 | TM | |
| 60 | TM | m&p-Xylene | 0.2814 | 0.2820 | 0.21 | TM | |
| 61 | TM | o-Xylene | 0.2867 | 0.2814 | 1.8 | TM | |
| 62 | TM | Styrene | 0.4705 | 0.4718 | 0.28 | TM | |
| 63 | S | 4-Bromofluorobenzene(S) | 0.4073 | 0.3993 | 2.0 | S | |
| 64 | TM | 1,3-Dichloropropane | 0.2079 | 0.1963 | 5.5 | TM | |
| 65 | TM | Dibromochloromethane | 0.1079 | 0.1163 | 7.8 | TM | |
| 66 | TM** | Chlorobenzene | 0.4361 | 0.4231 | 3.0 | TM** | |
| 67 | TM* | Ethylbenzene | 0.7104 | 0.6945 | 2.2 | TM* | |
| 68 | TM**L | Bromoform | 0.0599 | 0.0716 | 20 | TM**L | 8.3 |
| 69 | I | 1,4-Dichlorobenzene-D (IS) | ISTD | | | I | |
| 70 | TM | Isopropylbenzene | 1.373 | 1.258 | 8.4 | TM | |
| 71 | TM** | 1,1,2,2-Tetrachloroethane | 0.3354 | 0.3082 | 8.1 | TM** | |
| 72 | TM | 1,2,3-Trichloropropane | 0.0804 | 0.0753 | 6.4 | TM | |
| 73 | TM | t-1,4-Dichloro-2-Butene | 0.0310 | 0.0306 | 1.3 | TM | |
| 74 | TM | Bromobenzene | 0.3728 | 0.3421 | 8.3 | TM | |
| 75 | TM | n-Propylbenzene | 1.536 | 1.393 | 9.3 | TM | |
| 76 | TM | 4-Ethyltoluene | 1.357 | 1.276 | 6.0 | TM | |
| 77 | TM | 2-Chlorotoluene | 0.9486 | 0.8312 | 12 | TM | |
| 78 | TM | 1,3,5-Trimethylbenzene | 1.155 | 1.049 | 9.2 | TM | |
| 79 | TM | 4-Chlorotoluene | 1.105 | 0.9905 | 10 | TM | |
| 80 | TM | Tert-Butylbenzene | 1.029 | 0.9215 | 10 | TM | |
| | | Average | | | 4.9 | | |

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/25/19
Instrument: Max
Cal. Date: 03/24/19
Data File: 0425M03.D

| | | Compound | MEAN | CCRF | %D | | %Drift | |
|---|---|---|---|---|---|---|---|---|
| 81 | TM | 1,2,4-Trimethylbenzene | 1.164 | 1.067 | 8.3 | TM | | |
| 82 | TM | Sec-Butylbenzene | 1.362 | 1.258 | 7.7 | TM | | |
| 83 | TM | p-Isopropyltoluene | 0.6284 | 0.5793 | 7.8 | TM | | |
| 84 | TM | Benzyl Chloride | 0.2844 | 0.0730 | 74 | TM | | *NT |
| 85 | TM | 1,3-DCB | 0.6773 | 0.6346 | 6.3 | TM | | |
| 86 | TM | 1,4-DCB | 0.3446 | 0.3332 | 3.3 | TM | | |
| 87 | TM | n-Butylbenzene | 0.5114 | 0.4606 | 9.9 | TM | | |
| 88 | TM | 1,2-DCB | 0.6253 | 0.5947 | 4.9 | TM | | |
| 89 | TML | Hexachloroethane | 0.0554 | 0.0580 | 4.7 | TML | 0.76 | |
| 90 | TM | 1,2-Dibromo-3-chloropropane | 0.0454 | 0.0467 | 2.8 | TM | | |
| 91 | TM | 1,2,4-Trichlorobenzene | 0.3928 | 0.3321 | 15 | TM | | |
| 92 | TM | Hexachlorobutadiene | 0.2031 | 0.1833 | 9.7 | TM | | |
| 93 | TM | Naphthalene | 0.6557 | 0.4484 | 32 | TM | | *NT |
| 94 | TM | 1,2,3-Trichlorobenzene | 0.3398 | 0.2653 | 22 | TM | | *NT |
| 95 | | | | | | | | |
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| 119 | | | | | | | | |
| 120 | | | | | | | | |
| | | Average | | | 14.9 | | | |

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M03.D
Acq On : 25 Apr 19 13:49
Sample : 190425A CCV 10ug/L
Misc : IS,Surr 03/24/19

Vial: 2
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 25 14:08 2019

Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 775435 | 25.000 ppb | | -0.12 |
| 56) Chlorobenzene-D5 (IS) | 8.80 | 117 | 610368 | 25.000 ppb | | -0.13 |
| 71) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 335796 | 25.000 ppb | | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 32) Dibromofluoromethane(S) | 4.49 | 111 | 151775 | 25.586 ppb | | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 102.344% | | | |
| 37) 1,2-DCA-D4(S) | 4.83 | 65 | 157666 | 23.071 ppb | | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 92.284% | | | |
| 57) Toluene-D8(S) | 7.01 | 98 | 643186 | 23.733 ppb | | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 94.932% | | | |
| 65) 4-Bromofluorobenzene(S) | 10.39 | 95 | 243723 | 24.507 ppb | | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 98.028% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.10 | 85 | 27120 | 12.703 ppb | | 97 |
| 3) Freon 114 | 1.18 | 85 | 32218 | 10.967 ppb | | 97 |
| 4) Chloromethane | 1.23 | 50 | 36976 | 11.394 ppb | | 97 |
| 5) Vinyl chloride | 1.31 | 62 | 42347 | 12.031 ppb | | 93 |
| 6) Bromomethane | 1.55 | 94 | 27842 | 12.583 ppb | | 91 |
| 7) Chloroethane | 1.63 | 64 | 27397 | 10.874 ppb | | 93 |
| 8) Dichlorofluoromethane | 1.81 | 67 | 59001 | 9.670 ppb | | 94 |
| 9) Trichlorofluoromethane | 1.84 | 101 | 50674 | 11.406 ppb | | 98 |
| 10) Acrolein | 2.21 | 56 | 28360 | 286.630 ppb | | 99 |
| 11) Acetone | 2.38 | 43 | 7904 | 9.474 ppb | | 97 |
| 13) 1,1-DCE | 2.29 | 61 | 42074 | 9.545 ppb | | 97 |
| 14) Acetonitrile | 2.63 | 41 | 42623 | 130.508 ppb | # | 88 |
| 15) t-Butanol | 2.95 | 59 | 24389 | 126.688 ppb | # | 78 |
| 16) Methyl Acetate | 2.68 | 43 | 9318 | 8.783 ppb | | 93 |
| 17) Iodomethane | 2.42 | 142 | 28148 | 8.694 ppb | | 100 |
| 18) Acrylonitrile | 2.99 | 53 | 10802 | 11.187 ppb | | 99 |
| 19) Methylene chloride | 2.75 | 84 | 35371 | 10.298 ppb | | 91 |
| 20) Carbon disulfide | 2.46 | 76 | 87833 | 10.609 ppb | | 100 |
| 21) Methyl t-butyl ether (MtBE | 3.04 | 73 | 38160 | 9.523 ppb | | 99 |
| 22) Trans-1,2-DCE | 3.00 | 96 | 31456 | 10.093 ppb | | 97 |
| 23) Diisopropyl Ether | 3.53 | 45 | 119844 | 10.151 ppb | | 98 |
| 24) 1,1-DCA | 3.41 | 63 | 58737 | 9.590 ppb | | 100 |
| 25) Vinyl Acetate | 3.53 | 43 | 28039 | 9.035 ppb | # | 100 |
| 26) Ethyl tert Butyl Ether | 3.89 | 59 | 106494 | 10.578 ppb | | 98 |
| 27) MEK (2-Butanone) | 4.05 | 43 | 12350 | 11.369 ppb | | 100 |
| 28) Cis-1,2-DCE | 3.99 | 96 | 37153 | 9.875 ppb | | 98 |
| 29) 2,2-Dichloropropane | 3.98 | 77 | 52543 | 10.317 ppb | | 99 |
| 30) Chloroform | 4.33 | 83 | 58911 | 9.751 ppb | | 97 |
| 31) Bromochloromethane | 4.22 | 128 | 18293 | 10.471 ppb | | 94 |
| 33) 1,1,1-TCA | 4.50 | 97 | 51035 | 9.996 ppb | | 91 |
| 34) Cyclohexane | 4.55 | 41 | 29073 | 9.122 ppb | | 98 |
| 35) 1,1-Dichloropropene | 4.68 | 75 | 41608 | 9.887 ppb | | 95 |
| 36) 2,2,4-Trimethylpentane | 5.01 | 57 | 88790 | 10.028 ppb | | 98 |
| 38) Carbon Tetrachloride | 4.67 | 117 | 36755 | 10.794 ppb | | 99 |
| 39) Tert Amyl Methyl Ether | 5.06 | 73 | 99375 | 11.438 ppb | | 99 |
| 40) 1,2-DCA | 4.91 | 62 | 42191 | 9.208 ppb | | 100 |
| 41) Benzene | 4.89 | 78 | 138327 | 9.923 ppb | | 99 |
| 42) TCE | 5.60 | 95 | 33665 | 9.378 ppb | | 99 |
| 43) 2-Pentanone | 5.85 | 43 | 221508 | 119.148 ppb | | 97 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M03.D
Acq On : 25 Apr 19 13:49
Sample : 190425A CCV 10ug/L
Misc : IS,Surr 03/24/19

Vial: 2
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 25 14:08 2019

Quant Results File: M0324.RES

Quant Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|
| 44) 1,2-Dichloropropane | 5.84 | 63 | 33842 | 9.742 ppb | # | 93 |
| 45) Bromodichloromethane | 6.17 | 83 | 41400 | 10.268 ppb | | 96 |
| 46) Methyl Cyclohexane | 5.81 | 83 | 49968 | 9.963 ppb | | 98 |
| 47) Dibromomethane | 5.97 | 93 | 18217 | 10.194 ppb | | 88 |
| 48) MIBK (methyl isobutyl ket | 6.93 | 43 | 24216 | 9.387 ppb | | 98 |
| 49) 1-Bromo-2-chloroethane | 6.51 | 63 | 22528 | 10.037 ppb | | 98 |
| 51) Cis-1,3-Dichloropropene | 6.70 | 75 | 54011 | 10.022 ppb | | 96 |
| 52) Toluene | 7.09 | 91 | 155099 | 9.919 ppb | | 98 |
| 53) Trans-1,3-Dichloropropene | 7.38 | 75 | 46136 | 10.233 ppb | | 97 |
| 54) 1,1,2-TCA | 7.60 | 83 | 21867 | 9.884 ppb | | 91 |
| 55) 2-Hexanone | 7.96 | 43 | 15853 | 9.426 ppb | | 99 |
| 58) 1,2-EDB | 8.19 | 107 | 26446 | 9.537 ppb | | 99 |
| 59) Tetrachloroethene | 7.76 | 164 | 33844 | 10.080 ppb | | 91 |
| 60) 1-Chlorohexane | 8.87 | 91 | 47410 | 10.196 ppb | | 98 |
| 61) 1,1,1,2-Tetrachloroethane | 8.96 | 131 | 34684 | 10.485 ppb | | 99 |
| 62) m&p-Xylene | 9.17 | 106 | 137717 | 20.043 ppb | | 95 |
| 63) o-Xylene | 9.69 | 106 | 68707 | 9.815 ppb | | 94 |
| 64) Styrene | 9.71 | 104 | 115198 | 10.028 ppb | | 94 |
| 66) 1,3-Dichloropropane | 7.79 | 76 | 47936 | 9.445 ppb | | 97 |
| 67) Dibromochloromethane | 8.06 | 129 | 28395 | 10.776 ppb | | 95 |
| 68) Chlorobenzene | 8.84 | 112 | 103301 | 9.702 ppb | | 99 |
| 69) Ethylbenzene | 9.01 | 91 | 169572 | 9.776 ppb | | 96 |
| 70) Bromoform | 9.91 | 173 | 17470 | 10.831 ppb | | 98 |
| 72) Isopropylbenzene | 10.21 | 105 | 168955 | 9.160 ppb | | 99 |
| 73) 1,1,2,2-Tetrachloroethane | 6.17 | 83 | 41400 | 9.189 ppb | | 96 |
| 74) 1,2,3-Trichloropropane | 10.66 | 110 | 10116 | 9.365 ppb | | 100 |
| 75) t-1,4-Dichloro-2-Butene | 10.71 | 53 | 4108 | 9.872 ppb | | 94 |
| 76) Bromobenzene | 10.56 | 156 | 45946 | 9.175 ppb | | 100 |
| 77) n-Propylbenzene | 10.78 | 91 | 187139 | 9.069 ppb | | 98 |
| 78) 4-Ethyltoluene | 10.94 | 105 | 171390 | 9.401 ppb | | 96 |
| 79) 2-Chlorotoluene | 10.85 | 91 | 111643 | 8.762 ppb | | 99 |
| 80) 1,3,5-Trimethylbenzene | 11.04 | 105 | 140915 | 9.084 ppb | | 98 |
| 81) 4-Chlorotoluene | 11.01 | 91 | 133038 | 8.964 ppb | | 98 |
| 82) Tert-Butylbenzene | 11.48 | 119 | 123774 | 8.958 ppb | | 92 |
| 83) 1,2,4-Trimethylbenzene | 11.55 | 105 | 143350 | 9.169 ppb | | 99 |
| 84) Sec-Butylbenzene | 11.79 | 105 | 168950 | 9.233 ppb | | 95 |
| 85) p-Isopropyltoluene | 12.01 | 119 | 77808 | 9.219 ppb | | 98 |
| 86) Benzyl Chloride | 12.23 | 91 | 9810 | 2.568 ppb | | 93 |
| 87) 1,3-DCB | 11.89 | 146 | 85243 | 9.370 ppb | | 97 |
| 88) 1,4-DCB | 12.02 | 146 | 44752 | 9.668 ppb | | 99 |
| 89) n-Butylbenzene | 12.59 | 91 | 61872 | 9.008 ppb | | 98 |
| 90) 1,2-DCB | 12.53 | 146 | 79878 | 9.511 ppb | | 98 |
| 91) Hexachloroethane | 12.89 | 117 | 7792 | 10.076 ppb | | 91 |
| 92) 1,2-Dibromo-3-chloropropan | 13.64 | 157 | 6270 | 10.276 ppb | | 88 |
| 93) 1,2,4-Trichlorobenzene | 14.84 | 180 | 44610 | 8.456 ppb | | 99 |
| 94) Hexachlorobutadiene | 15.15 | 225 | 24619 | 9.025 ppb | | 94 |
| 95) Naphthalene | 15.18 | 128 | 60224 | 6.838 ppb | | 99 |
| 96) 1,2,3-Trichlorobenzene | 15.53 | 180 | 35629 | 7.805 ppb | | 93 |

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

Quantitation Report

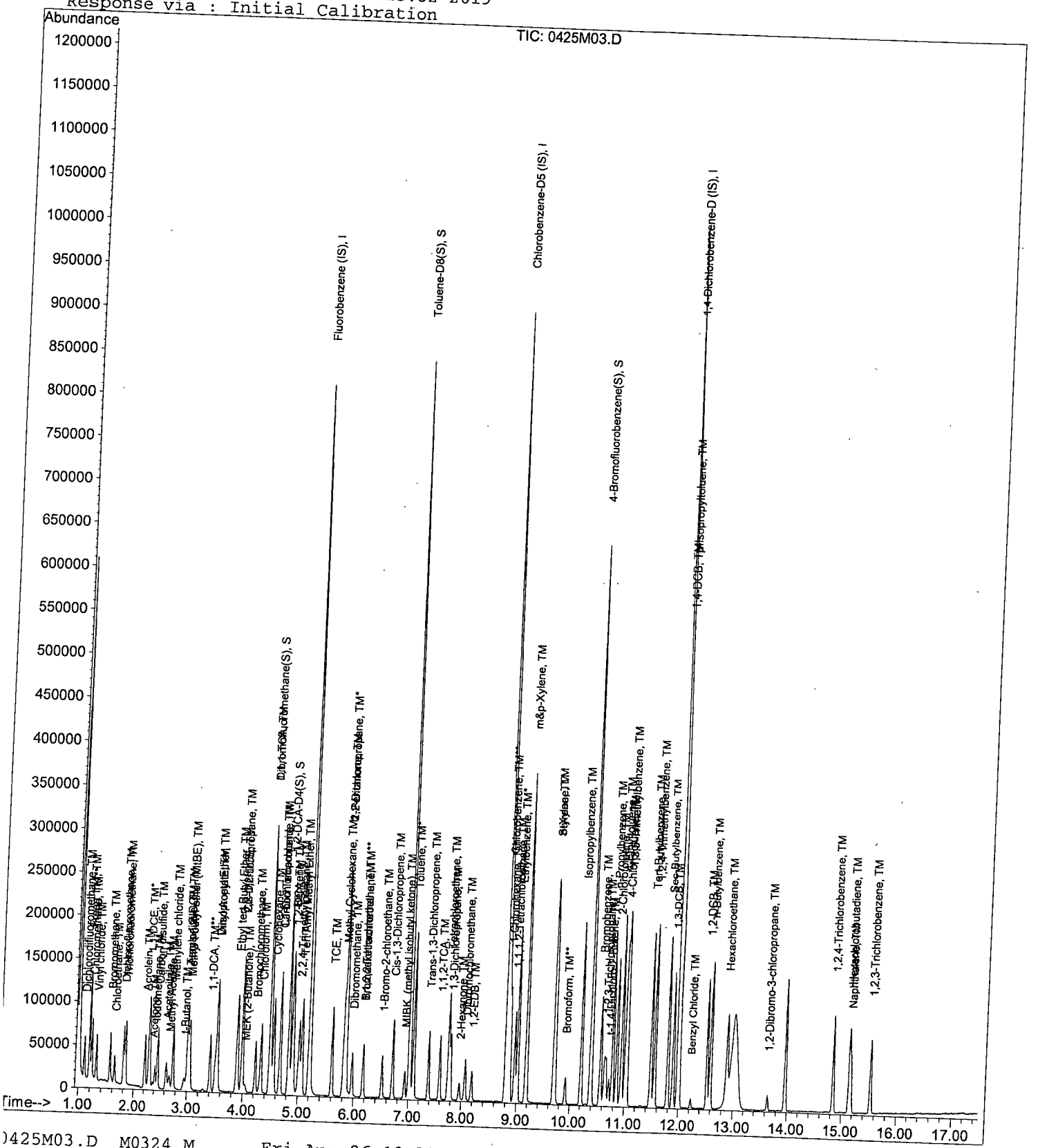
Data File : M:\MAX\DATA\M190401\0425M03.D
Acq On : 25 Apr 19 13:49
Sample : 190425A CCV 10ug/L
Misc : IS,Surr 03/24/19

Vial: 2
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 25 14:08 2019

Quant Results File: M0324.RES

Method : M:\MAX\DATA\M190324\M0324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Mar 25 09:13:52 2019
Response via : Initial Calibration




0425M03.D M0324.M Fri Apr 26 12:31:25 2019 Page 3

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/24/19
Matrix: water Instrument: Max
Initials: DG/LP

| | | Compound | 0324M05.D | 0324M06.D | 0324M07.D | 0324M08.D | 0324M09.D | 0324M10.D | 0324M11.D | 0324M12.D | 0324M13.D | | Avg | %RSD | Type | r^2 | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | | | | | | | | | | | | | | | | |
| 2 | S | Dibromofluoromethane(S) | 0.2250 | 0.2190 | 0.1683 | 0.1791 | 0.1920 | 0.1877 | 0.1903 | 0.1887 | 0.1712 | | 0.19 | 10 | S | | | |
| 3 | S | 1,2-DCA-D4(S) | 0.2745 | 0.2518 | 0.1982 | 0.2074 | 0.2233 | 0.2148 | 0.2139 | 0.2111 | 0.1879 | | 0.22 | 12 | S | | | |
| 4 | I | Chlorobenzene-D5 (IS) | | | | | | | | | | | | | | | | |
| 5 | S | Toluene-D8(S) | 1.394 | 1.286 | 1.018 | 1.062 | 1.091 | 1.071 | 1.080 | 1.053 | 0.9367 | | 1.1 | 13 | S | | | |
| 6 | S | 4-Bromofluorobenzene(S) | 0.5102 | 0.4809 | 0.3610 | 0.3788 | 0.3957 | 0.3966 | 0.4009 | 0.3904 | 0.3516 | | 0.41 | 13 | S | | | |
| 7 | I | 1,4-Dichlorobenzene-D (IS) | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | |
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| 32 | | | | | | | | | | | | | | | | | | |
| 33 | | | | | | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | | |

Data File : M:\MAX\DATA\M190324\0324M05.D Vial: 3
Acq On : 24 Mar 19 12:56 Operator: PM,DG,SV,CMM,KV
Sample : 0.3ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 567297 | 25.000 | ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 414490 | 25.000 | ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 209079 | 25.000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 25529 | 5.883 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 23.532% | | |
| 3) 1,2-DCA-D4(S) | 4.95 | 65 | 31146 | 6.230 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 24.920% | | |
| 5) Toluene-D8(S) | 7.13 | 98 | 115538 | 6.278 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 25.112% | | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 42297 | 6.263 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 25.052% | | |

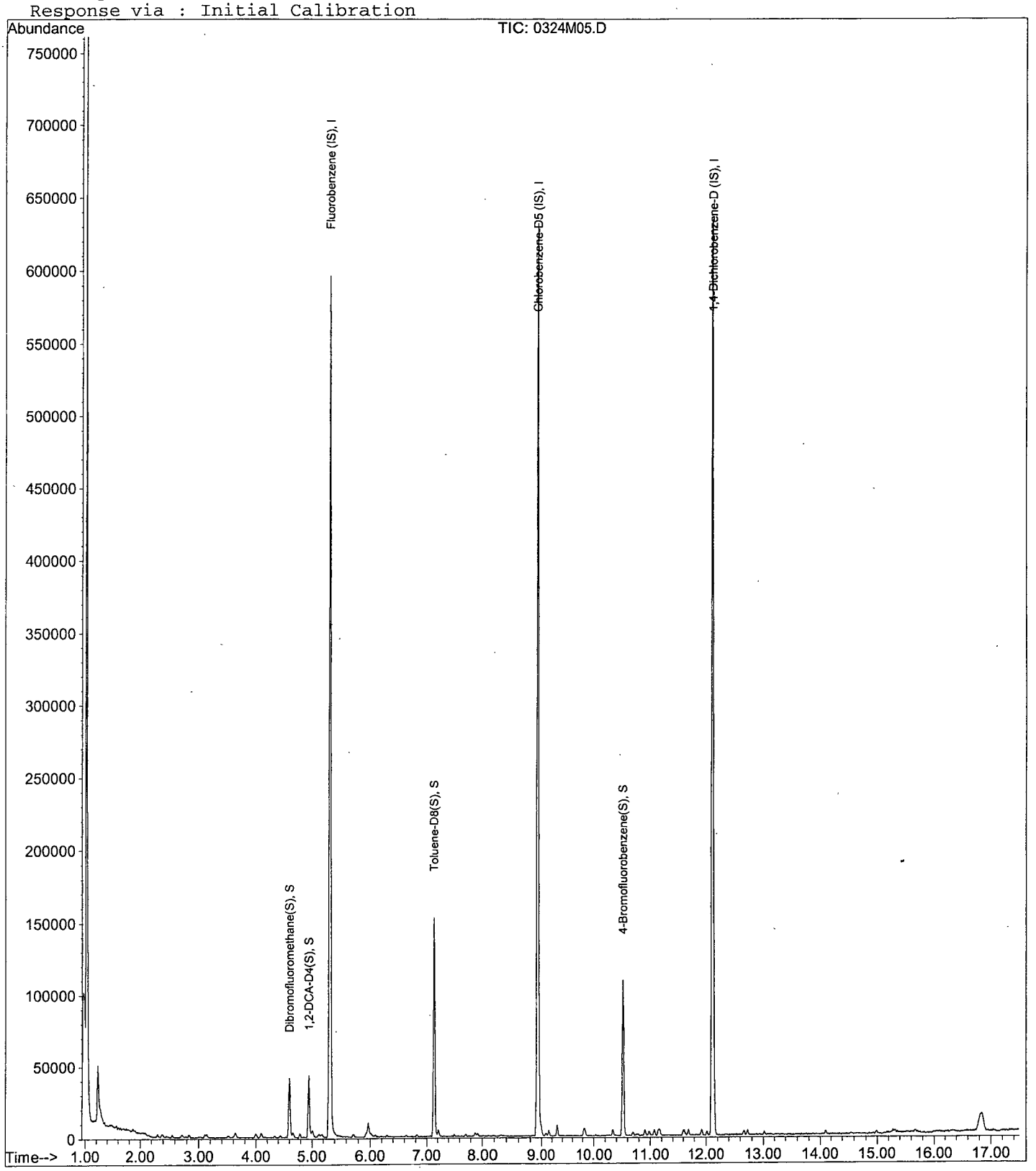
Target Compounds Qvalue

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

Data File : M:\MAX\DATA\M190324\0324M05.D Vial: 3
Acq On : 24 Mar 19 12:56 Operator: PM,DG,SV,CMM,KV
Sample : 0.3ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M06.D Vial: 4
Acq On : 24 Mar 19 13:25 Operator: PM,DG,SV,CMM,KV
Sample : 0.5ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 548649 | 25.000 | ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 408005 | 25.000 | ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 207647 | 25.000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 24026 | 5.724 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 22.896% | | |
| 3) 1,2-DCA-D4(S) | 4.95 | 65 | 27628 | 5.714 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 22.856% | | |
| 5) Toluene-D8(S) | 7.13 | 98 | 104917 | 5.791 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 23.164% | | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 39240 | 5.903 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 23.612% | | |

Target Compounds Qvalue

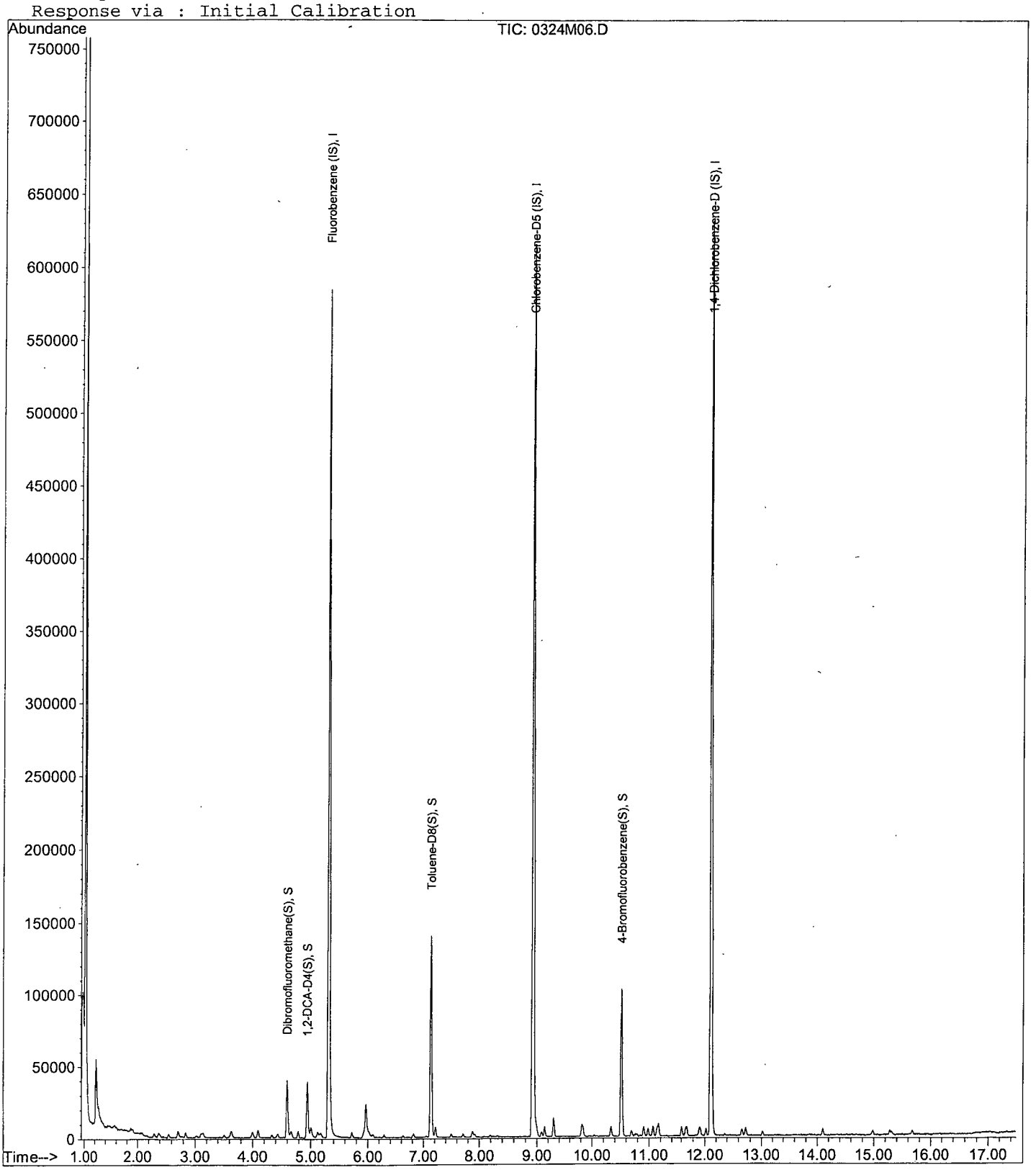
(#) = qualifier out of range (m) = manual integration
0324M06.D MSUR324.M Tue Apr 02 08:00:57 2019 Page 1

Quantitation Report

Data File : M:\MAX\DATA\M190324\0324M06.D Vial: 4
Acq On : 24 Mar 19 13:25 Operator: PM,DG,SV,CMM,KV
Sample : 0.5ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M07.D Vial: 5
Acq On : 24 Mar 19 13:54 Operator: PM,DG,SV,CMM,KV
Sample : 1.0ug/L VOC STD 3/24/19 Inst : Max
Misc : Is,Surr 3/24/19 Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.32 | 96 | 562637 | 25.000 | ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 415204 | 25.000 | ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 206662 | 25.000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 37879 | 8.801 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 35.204% | | |
| 3) 1,2-DCA-D4(S) | 4.95 | 65 | 44603 | 8.995 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 35.980% | | |
| 5) Toluene-D8(S) | 7.14 | 98 | 169003 | 9.167 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 36.668% | | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 59950 | 8.862 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 35.448% | | |

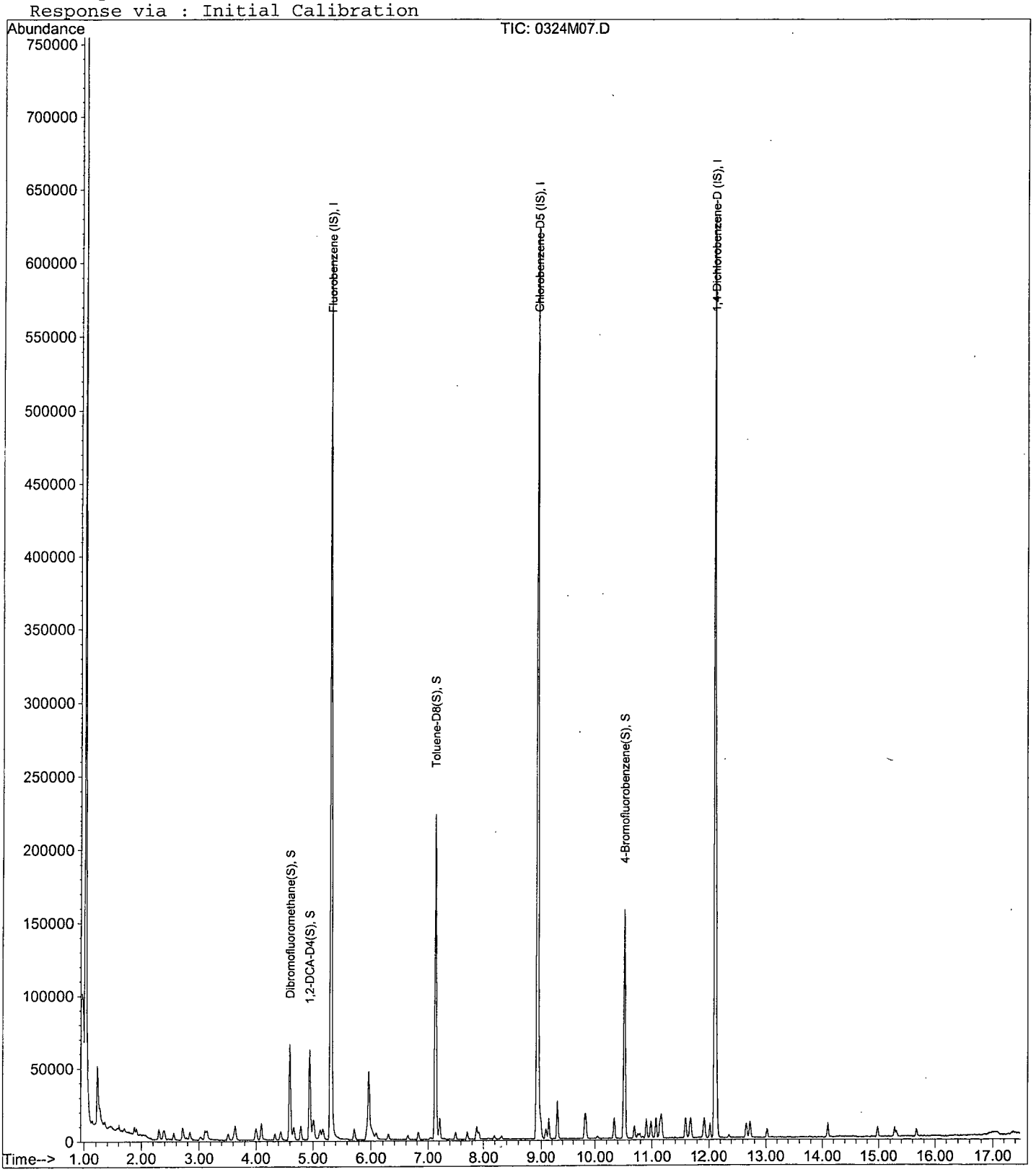
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
0324M07.D MSUR324.M Tue Apr 02 08:00:59 2019 Page 1

Data File : M:\MAX\DATA\M190324\0324M07.D  Vial: 5
Acq On : 24 Mar 19 13:54  Operator: PM,DG,SV,CMM,KV
Sample : 1.0ug/L VOC STD 3/24/19  Inst : Max
Misc : Is,Surr 3/24/19  Multiplr: 1.00

Quant Time: Apr 2 7:59 2019  Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Data File : M:\MAX\DATA\M190324\0324M08.D
Acq On : 24 Mar 19 14:22
Sample : 2.0ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 6
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.32 | 96 | 588239 | 25.000 | ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 428656 | 25.000 | ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 210603 | 25.000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 42136 | 9.364 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 37.456% | | |
| 3) 1,2-DCA-D4(S) | 4.95 | 65 | 48794 | 9.412 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 37.648% | | |
| 5) Toluene-D8(S) | 7.14 | 98 | 182083 | 9.567 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 38.268% | | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 64942 | 9.298 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 37.192% | | |

Target Compounds Qvalue

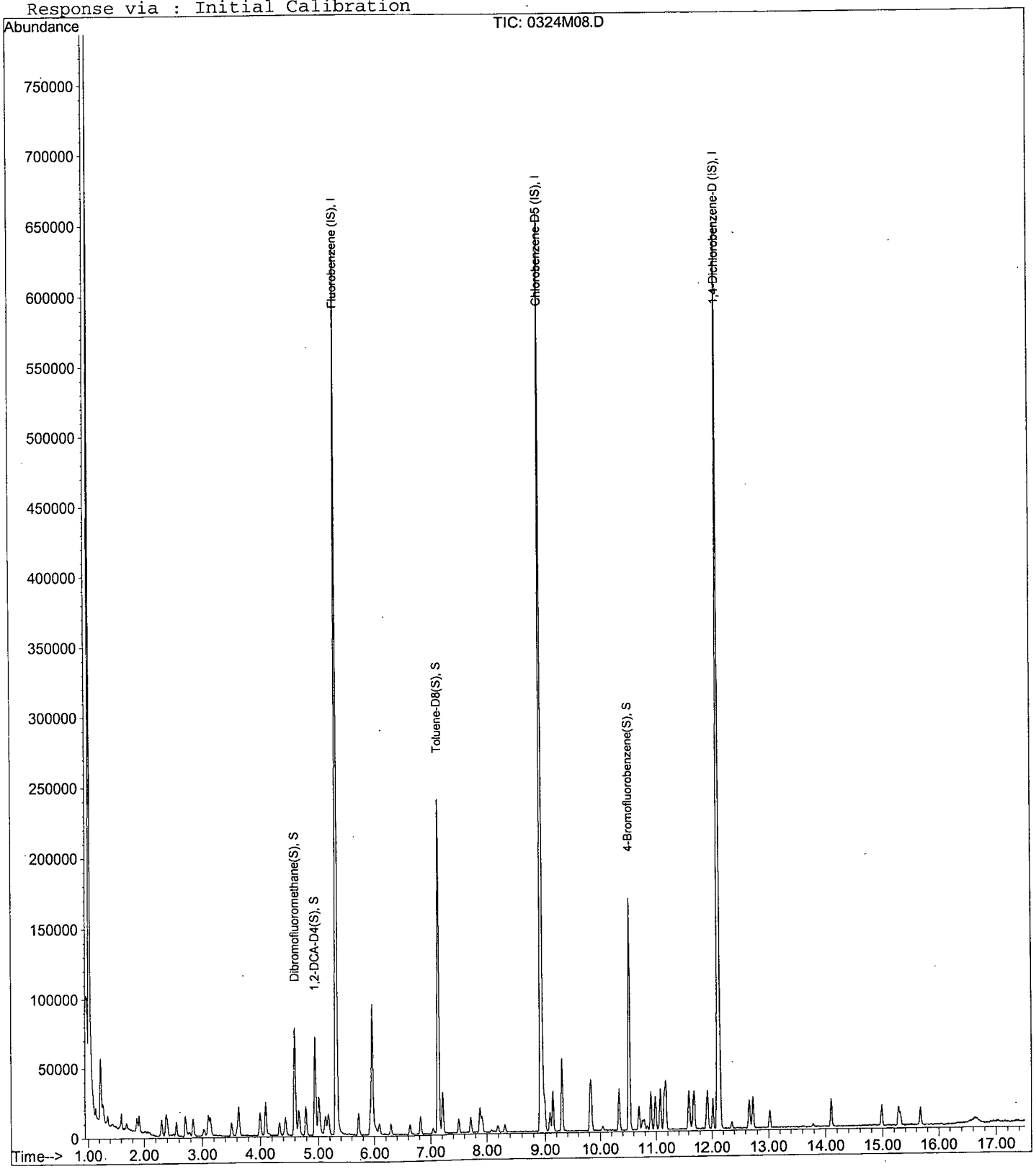
(#) = qualifier out of range (m) = manual integration
0324M08.D MSUR324.M Tue Apr 02 08:01:01 2019 Page 1

Data File : M:\MAX\DATA\M190324\0324M08.D
Acq On : 24 Mar 19 14:22
Sample : 2.0ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 6
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Data File : M:\MAX\DATA\M190324\0324M09.D
Acq On : 24 Mar 19 14:51
Sample : 5.0ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 7
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.32 | 96 | 551421 | 25.000 ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 414802 | 25.000 ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 211221 | 25.000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 105862 | 25.096 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 100.384% | |
| 3) 1,2-DCA-D4(S) | 4.95 | 65 | 123145 | 25.340 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 101.360% | |
| 5) Toluene-D8(S) | 7.13 | 98 | 452516 | 24.569 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.276% | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 164122 | 24.284 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.136% | |

Target Compounds Qvalue

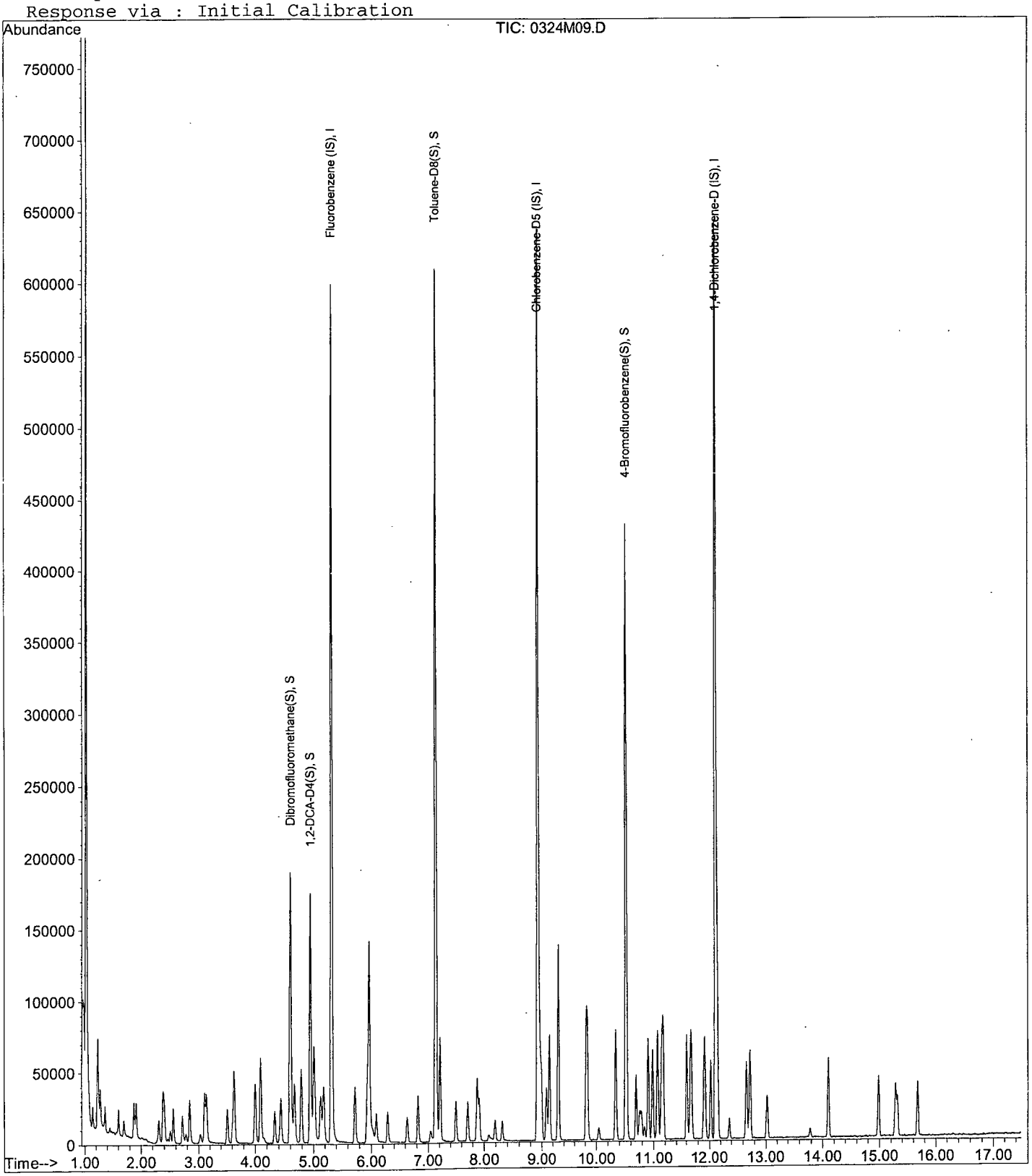
(#) = qualifier out of range (m) = manual integration
0324M09.D MSUR324.M Tue Apr 02 08:01:03 2019

Data File : M:\MAX\DATA\M190324\0324M09.D
Acq On : 24 Mar 19 14:51
Sample : 5.0ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 7
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 7:59 2019 Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Data File : M:\MAX\DATA\M190324\0324M10.D
Acq On : 24 Mar 19 15:19
Sample : 10ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 8
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:00 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.32 | 96 | 563465 | 25.000 | ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 422362 | 25.000 | ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 217007 | 25.000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 105764 | 24.536 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.144% | | |
| 3) 1,2-DCA-D4(S) | 4.95 | 65 | 121024 | 24.371 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.484% | | |
| 5) Toluene-D8(S) | 7.14 | 98 | 452289 | 24.118 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 96.472% | | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 167493 | 24.339 | ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.356% | | |

Target Compounds Qvalue

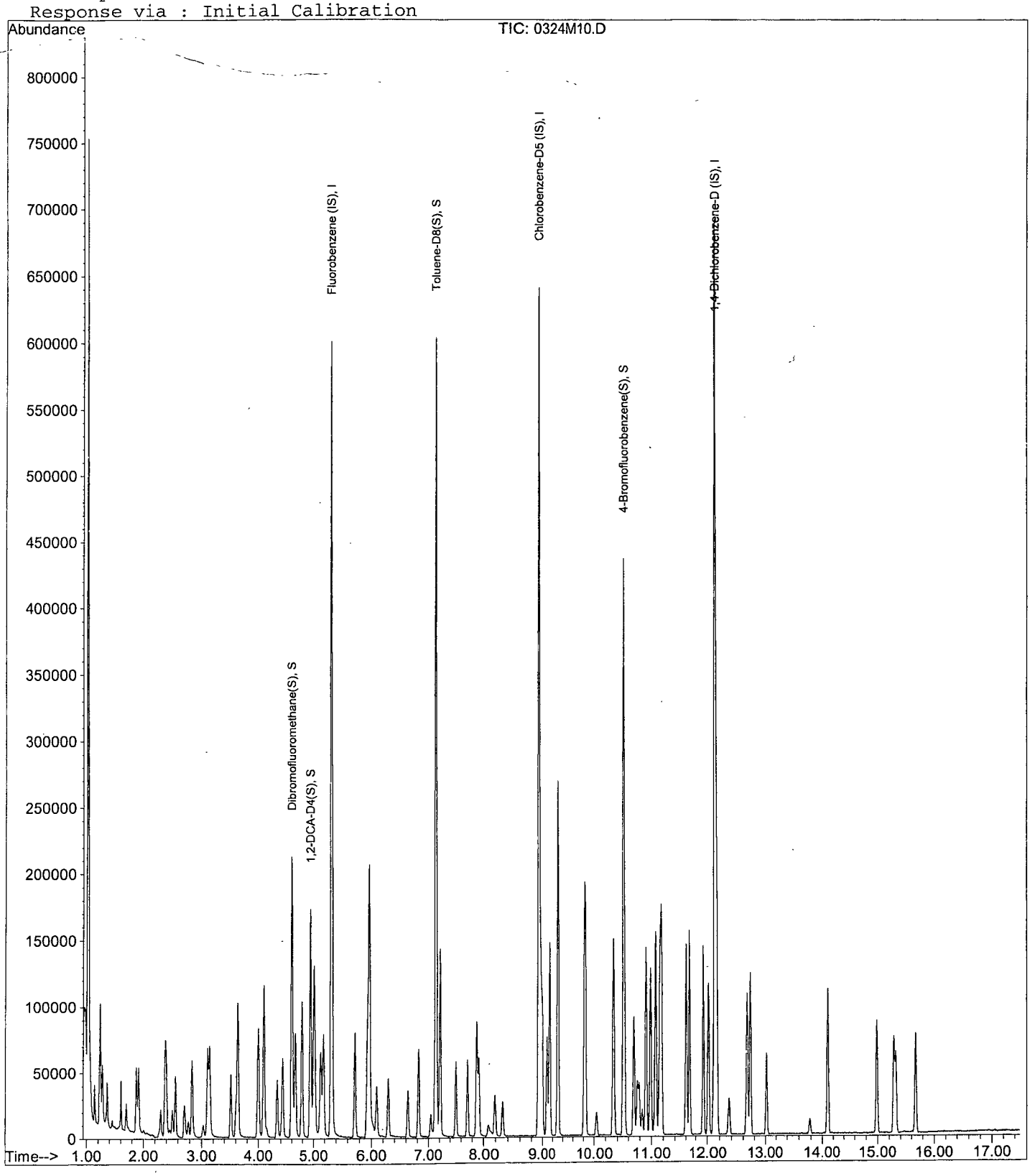
(#) = qualifier out of range (m) = manual integration
0324M10.D MSUR324.M Tue Apr 02 08:01:05 2019 Page 1

Data File : M:\MAX\DATA\M190324\0324M10.D
Acq On : 24 Mar 19 15:19
Sample : 10ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 8
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:00 2019 Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M11.D
Acq On : 24 Mar 19 15:48
Sample : 20ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 9
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:00 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 554172 | 25.000 ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 421724 | 25.000 ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 222616 | 25.000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 210921 | 49.753 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 199.012% | | |
| 3) 1,2-DCA-D4(S) | 4.94 | 65 | 237117 | 48.550 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 194.200% | | |
| 5) Toluene-D8(S) | 7.14 | 98 | 910661 | 48.633 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 194.532% | | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 338144 | 49.211 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 196.844% | | |

Target Compounds Qvalue

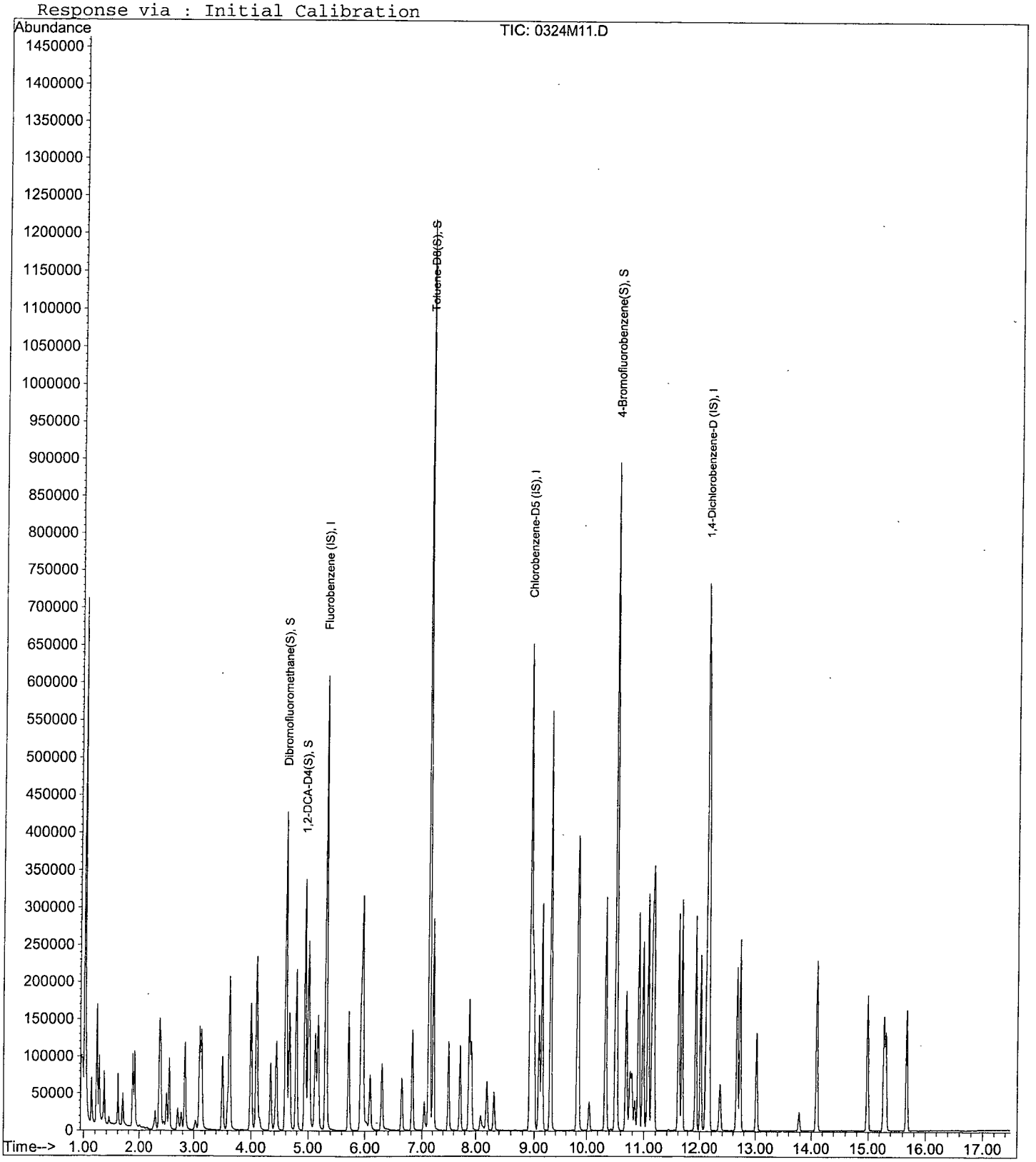
(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M190324\0324M11.D
Acq On : 24 Mar 19 15:48
Sample : 20ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 9
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:00 2019 Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M12.D
Acq On : 24 Mar 19 16:17
Sample : 40ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 10
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:00 2019

Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 561800 | 25.000 ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 434917 | 25.000 ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 228943 | 25.000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 212017 | 49.332 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 197.328% | | |
| 3) 1,2-DCA-D4(S) | 4.94 | 65 | 237213 | 47.910 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 191.640% | | |
| 5) Toluene-D8(S) | 7.14 | 98 | 916073 | 47.438 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 189.752% | | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 339596 | 47.923 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 191.692% | | |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
0324M12.D MSUR324.M Tue Apr 02 08:01:09 2019

Quantitation Report

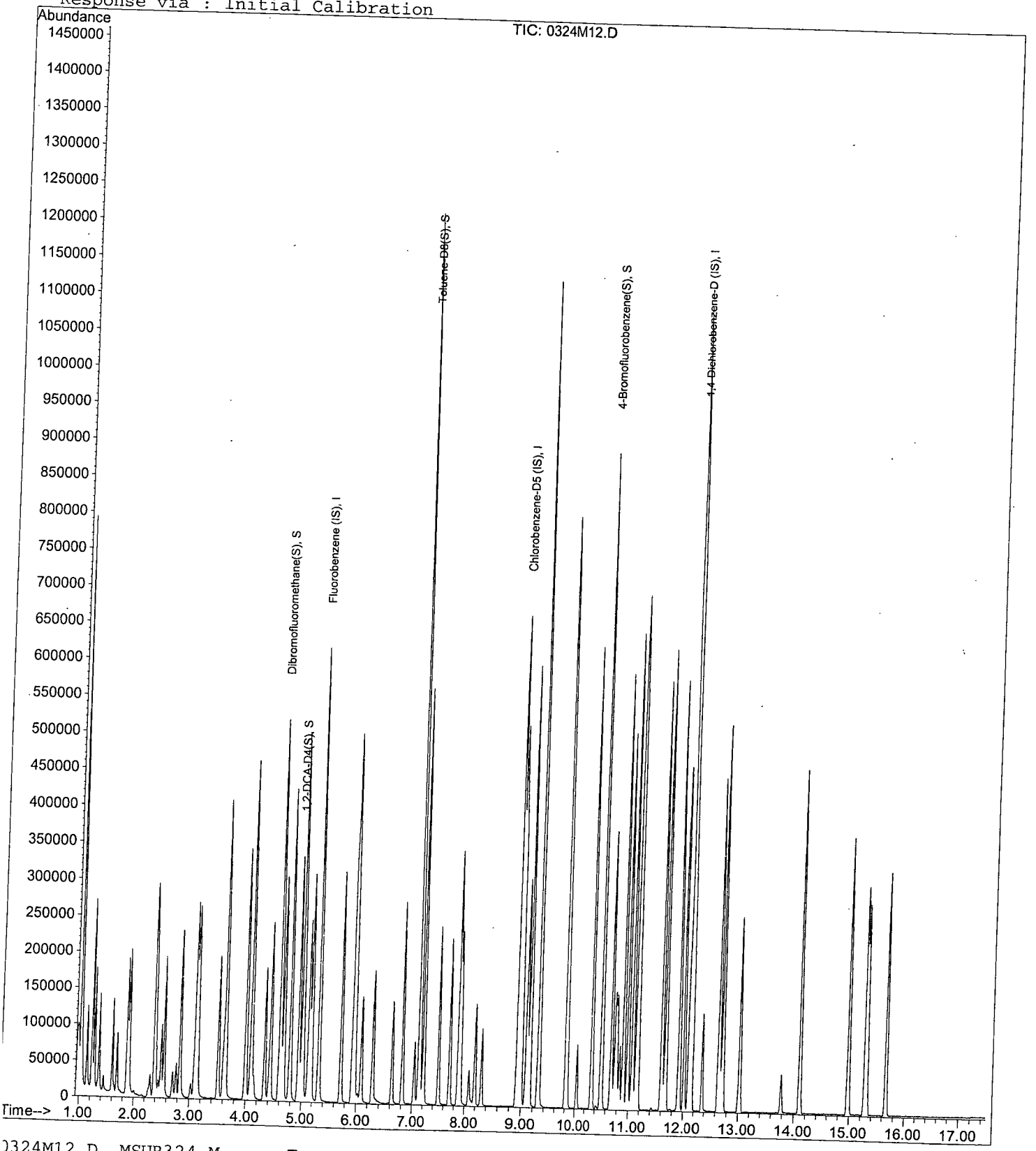
Data File : M:\MAX\DATA\M190324\0324M12.D
Acq On : 24 Mar 19 16:17
Sample : 40ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 10
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:00 2019

Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190324\0324M13.D
Acq On : 24 Mar 19 16:45
Sample : 100ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 11
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:00 2019

Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.31 | 96 | 562288 | 25.000 ppb | 0.00 |
| 4) Chlorobenzene-D5 (IS) | 8.93 | 117 | 441644 | 25.000 ppb | 0.00 |
| 7) 1,4-Dichlorobenzene-D (IS) | 12.12 | 152 | 234726 | 25.000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.60 | 111 | 385089 | 89.525 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 358.100% | | |
| 3) 1,2-DCA-D4(S) | 4.94 | 65 | 422708 | 85.300 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 341.200% | | |
| 5) Toluene-D8(S) | 7.14 | 98 | 1654770 | 84.385 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 337.540% | | |
| 6) 4-Bromofluorobenzene(S) | 10.52 | 95 | 621203 | 86.328 ppb | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 345.312% | | |

Target Compounds Qvalue

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

Quantitation Report

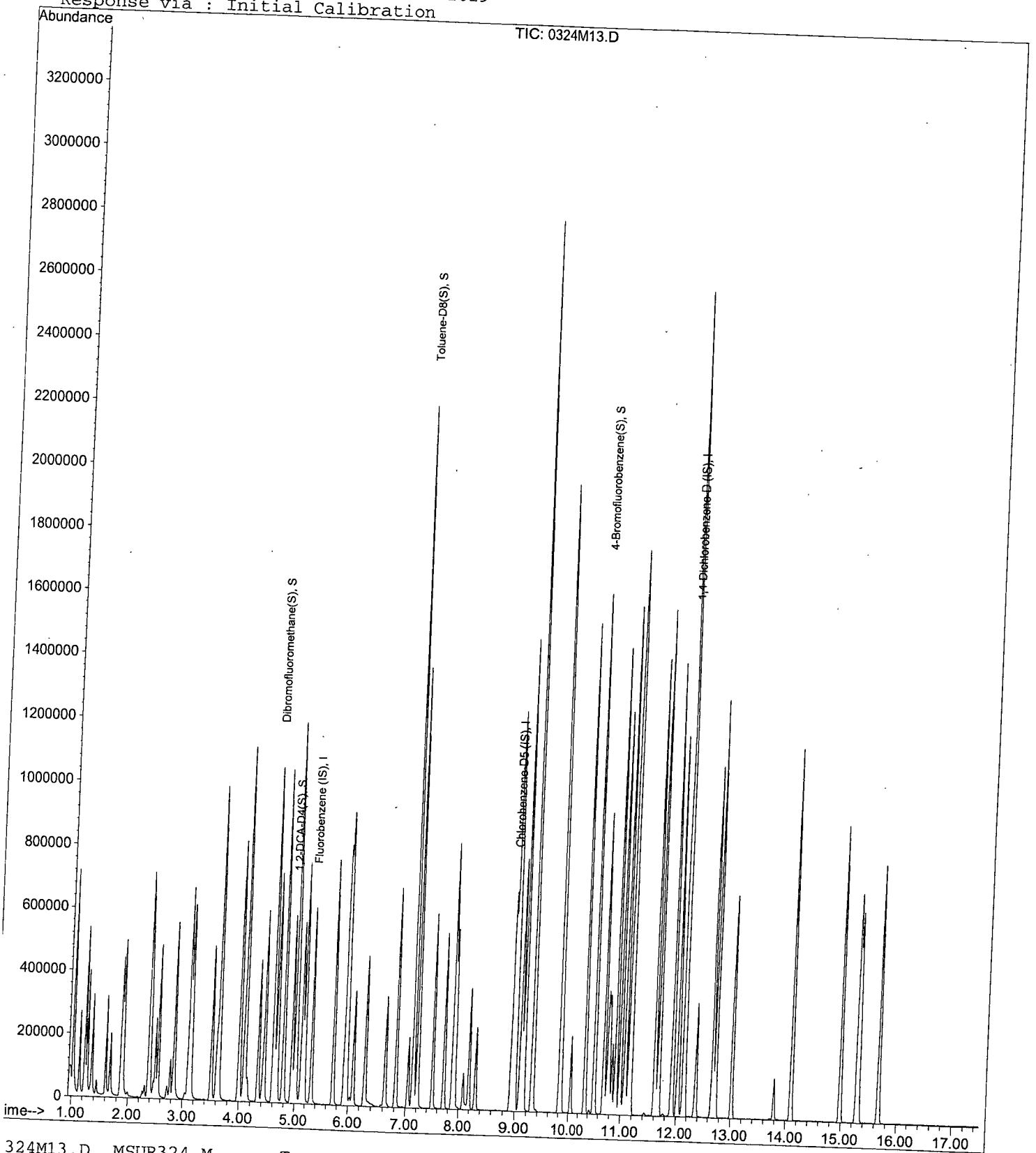
Data File : M:\MAX\DATA\M190324\0324M13.D
Acq On : 24 Mar 19 16:45
Sample : 100ug/L VOC STD 3/24/19
Misc : Is,Surr 3/24/19

Vial: 11
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 2 8:00 2019

Quant Results File: MSUR324.RES

Method : M:\MAX\DATA\M190324\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Continuing Calibration

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

SDG No:
Date Analyzed: 04/26/19
Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0426M06.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | |
| 2 | TMHB | Gasoline C6-C10 | 3.101 | 1.231 | 60 | TMHBL | 11 |
| 3 | TMHB | Chlorobenzene-D5 (IS) | ISTD | | | TMHB | |
| 4 | TMHB | 1,4-Dichlorobenzene (IS) | ISTD | | | TMHB | |
| 5 | | | | | | | |
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| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 60.0 | | |

VOLATILE ORGANIC ANALYSIS BY
CLP

Form 7

## Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 04/26/19
Matrix: Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0426M06.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | |
| 2 | S | Dibromofluoromethane(S) | 0.1912 | 0.1994 | 4.3 | S | |
| 3 | S | 1,2-DCA-D4(S) | 0.2203 | 0.2119 | 3.8 | S | |
| 4 | I | Chlorobenzene-D5 (IS) | ISTD | | | I | |
| 5 | S | Toluene-D8(S) | 1.110 | 1.121 | 0.96 | S | |
| 6 | S | 4-Bromofluorobenzene(S) | 0.4073 | 0.4100 | 0.66 | S | |
| 7 | I | 1,4-Dichlorobenzene-D (IS) | ISTD | | | I | |
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| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 2.4 | | |

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M06.D
Acq On : 25 Apr 19 15:14
Sample : 190425A CCV 300ug/L
Misc : IS,Surr 03/24/19

Vial: 5
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:19 2019

Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 774642 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1682828m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1766873m | 25.000 ppb | 0.00 |
| System Monitoring Compounds | | | | | |
| Target Compounds | | | | | Qvalue |
| 2) Gasoline C6-C10 | 7.01 | TIC | 11058125m | 307.111 ppb | 100 |

(#) = qualifier out of range (m) = manual integration
0425M06.D MGAS401.M Fri Apr 26 09:35:39 2019

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M06.D
Acq On : 25 Apr 19 15:14
Sample : 190425A CCV 300ug/L
Misc : IS,Surr 03/24/19

Vial: 5
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 11:04 2019

Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 732039 | 25.000 ppb | -0.12 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 566221 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 302672 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 150131 | 26.809 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 107.236% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 157339 | 24.388 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 97.552% | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 635350 | 25.271 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 101.084% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 242686 | 26.306 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 105.224% | | |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
0425M06.D MSUR324.M Fri Apr 26 11:05:53 2019

Quantitation Report

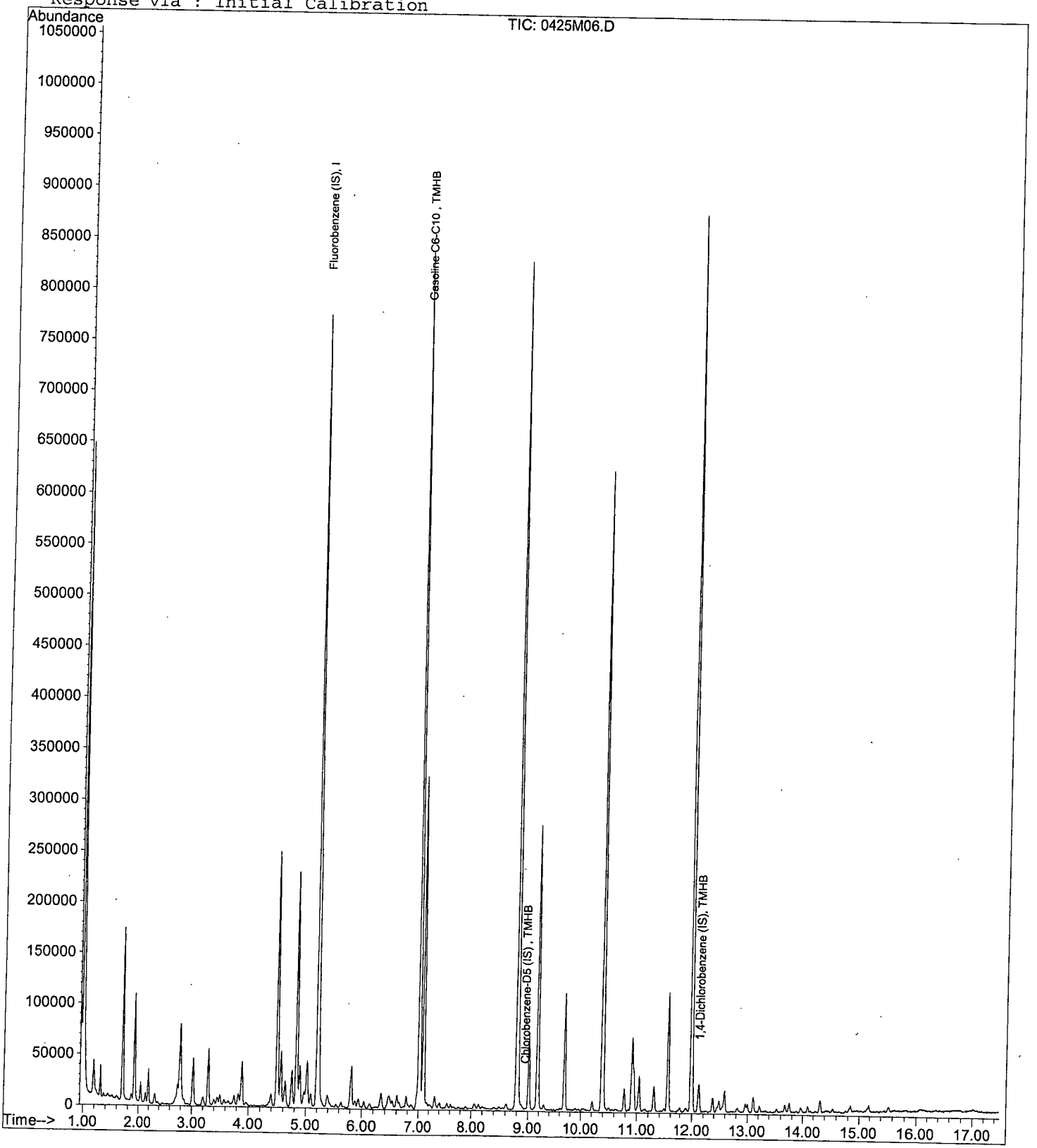
Data File : M:\MAX\DATA\M190401\0425M06.D
Acq On : 25 Apr 19 15:14
Sample : 190425A CCV 300ug/L
Misc : IS,Surr 03/24/19

Vial: 5
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:19 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
CLP

Form 7

## Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/26/19
Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0425M28.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | |
| 2 | S | Dibromofluoromethane(S) | 0.1912 | 0.1921 | 0.45 | S | |
| 3 | S | 1,2-DCA-D4(S) | 0.2203 | 0.2041 | 7.4 | S | |
| 4 | I | Chlorobenzene-D5 (IS) | ISTD | | | I | |
| 5 | S | Toluene-D8(S) | 1.110 | 1.084 | 2.3 | S | |
| 6 | S | 4-Bromofluorobenzene(S) | 0.4073 | 0.4011 | 1.5 | S | |
| 7 | I | 1,4-Dichlorobenzene-D (IS) | ISTD | | | I | |
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| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 2.9 | | |

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

## Ending Continuing Calibration

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

SDG No:
Date Analyzed: 04/26/19
Instrument: Max
Initial Cal. Date: 03/24/19
Data File: 0425M28.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 1 | I | Fluorobenzene (IS) | ISTD | | | I | |
| 2 | TMHB | Gasoline C6-C10 | 3.101 | 1.204 | 61 | TMHBL | 5.4 |
| 3 | TMHB | Chlorobenzene-D5 (IS) | ISTD | | | TMHB | |
| 4 | TMHB | 1,4-Dichlorobenzene (IS) | ISTD | | | TMHB | |
| 5 | | | | | | | |
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| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 61.0 | | |

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M28.D
Acq On : 26 Apr 19 1:41
Sample : Ending CCV 300ug/L
Misc : IS,Surr 03/24/19

Vial: 27
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:24 2019

Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 799586 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1694189m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1734202m | 25.000 ppb | 0.00 |
| System Monitoring Compounds | | | | | |
| Target Compounds | | | | | Qvalue |
| 2) Gasoline C6-C10 | 8.80 | TIC | 11547746m | 316.059 ppb | 100 |

(#) = qualifier out of range (m) = manual integration
0425M28.D MGAS401.M Fri Apr 26 09:36:15 2019

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M28.D
Acq On : 26 Apr 19 1:41
Sample : Ending CCV 300ug/L
Misc : IS,Surr 03/24/19

Vial: 27
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 11:04 2019

Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 754871 | 25.000 ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 563988 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 294222 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 145020 | 25.113 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 100.452% | |
| 3) 1,2-DCA-D4(S) | 4.84 | 65 | 154048 | 23.155 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 92.620% | |
| 5) Toluene-D8(S) | 7.02 | 98 | 611494 | 24.419 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 97.676% | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 226232 | 24.619 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 98.476% | |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
0425M28.D MSUR324.M Fri Apr 26 11:05:10 2019

Quantitation Report

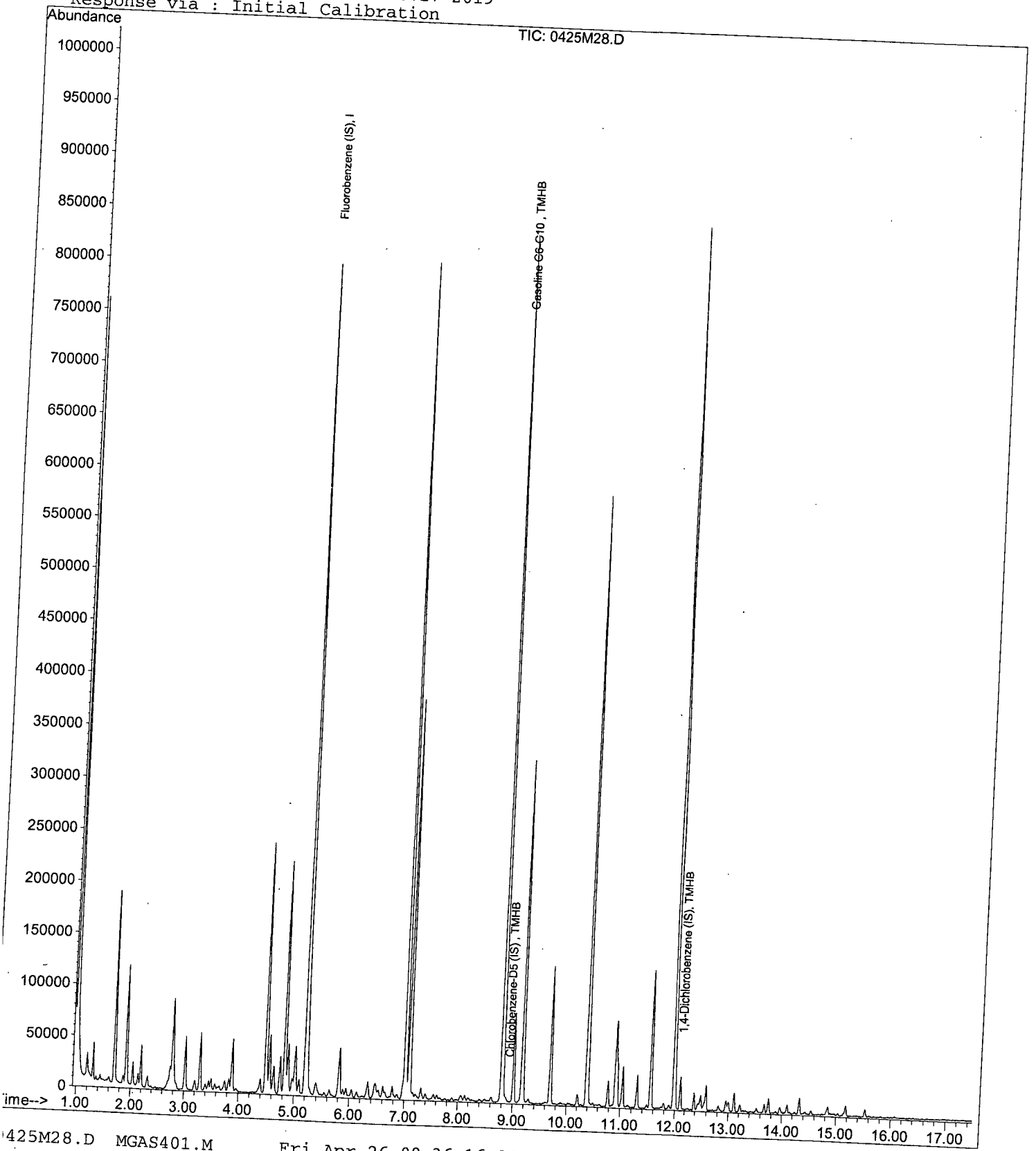
Data File : M:\MAX\DATA\M190401\0425M28.D
Acq On : 26 Apr 19 1:41
Sample : Ending CCV 300ug/L
Misc : IS,Surr 03/24/19

Vial: 27
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:24 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration




0425M28.D MGAS401.M Fri Apr 26 09:36:16 2019

# ORGANICS
# Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M12.D Vial: 11
Acq On : 25 Apr 19 18:05 Operator: PM,DG,SV,CMM,KV
Sample : AZ90053W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 9:33 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 794600 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 765826m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 762335m | 25.000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M12.D Vial: 11
Acq On : 25 Apr 19 18:05 Operator: PM,DG,SV,CMM,KV
Sample : AZ90053W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 748240 | 25.000 | ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 561096 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 287803 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 146645 | 25.619 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 102.476% | | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 154416 | 23.416 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 93.664% | | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 621817 | 24.959 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 99.836% | | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 227191 | 24.851 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 99.404% | | | |

Target Compounds Qvalue

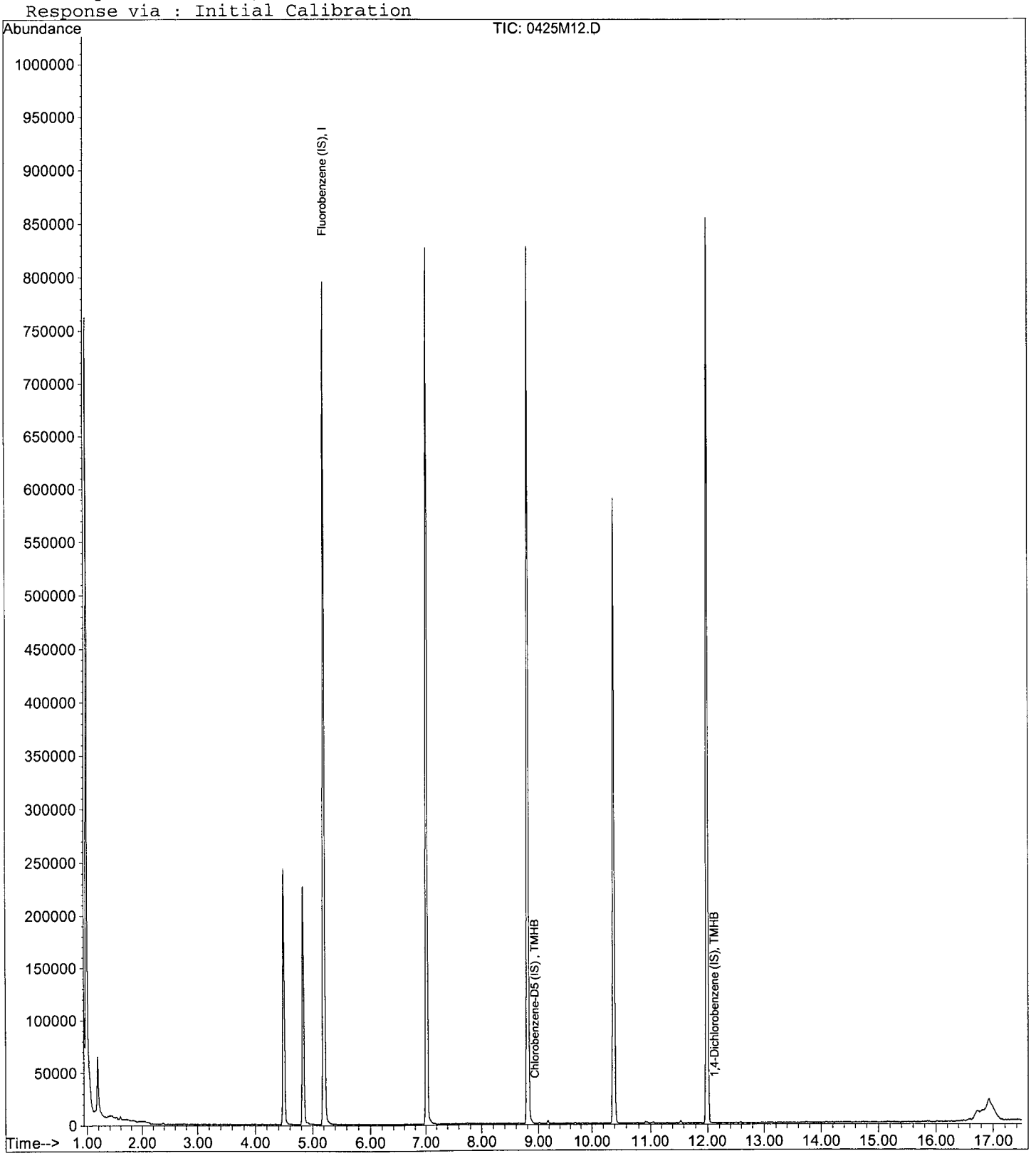
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M12.D Vial: 11
Acq On : 25 Apr 19 18:05 Operator: PM,DG,SV,CMM,KV
Sample : AZ90053W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 9:33 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M13.D Vial: 12
Acq On : 25 Apr 19 18:34 Operator: PM,DG,SV,CMM,KV
Sample : AZ90059W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 9:33 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 746200 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 734511m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 783953m | 25.000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
0425M13.D MGAS401.M Fri Apr 26 09:35:51 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M13.D Vial: 12
Acq On : 25 Apr 19 18:34 Operator: PM,DG,SV,CMM,KV
Sample : AZ90059W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 705837 | 25.000 | ppb | -0.12 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 541846 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 286214 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 136138 | 25.212 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 100.848% | | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 144819 | 23.280 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 93.120% | | | |
| 5) Toluene-D8(S) | 7.02 | 98 | 593321 | 24.661 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 98.644% | | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 221532 | 25.093 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 100.372% | | | |

Target Compounds Qvalue

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

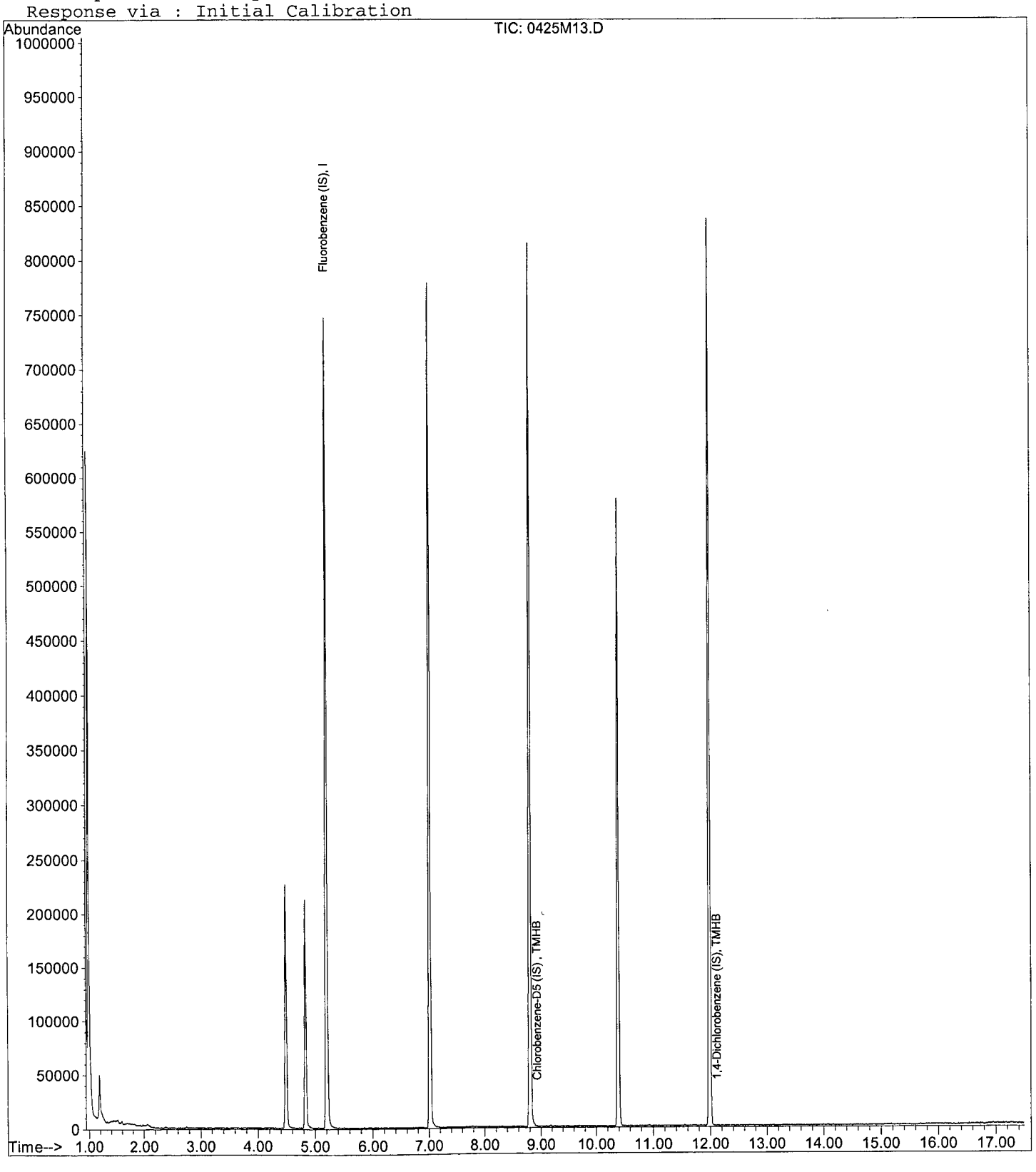
Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M13.D
Acq On : 25 Apr 19 18:34
Sample : AZ90059W01
Misc : IS,Surr 03/24/19

Vial: 12
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:33 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M14.D Vial: 13
Acq On : 25 Apr 19 19:02 Operator: PM,DG,SV,CMM,KV
Sample : AZ90050W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 9:33 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 739644 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 741925m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 761431m | 25.000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M14.D Vial: 13
Acq On : 25 Apr 19 19:02 Operator: PM,DG,SV,CMM,KV
Sample : AZ90050W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 698522 | 25.000 | ppb | -0.12 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 538780 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 279935 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 136536 | 25.551 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 102.204% | | | |
| 3) 1,2-DCA-D4(S) | 4.84 | 65 | 142153 | 23.091 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 92.364% | | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 588401 | 24.596 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 98.384% | | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 220886 | 25.162 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 100.648% | | | |

Target Compounds Qvalue

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

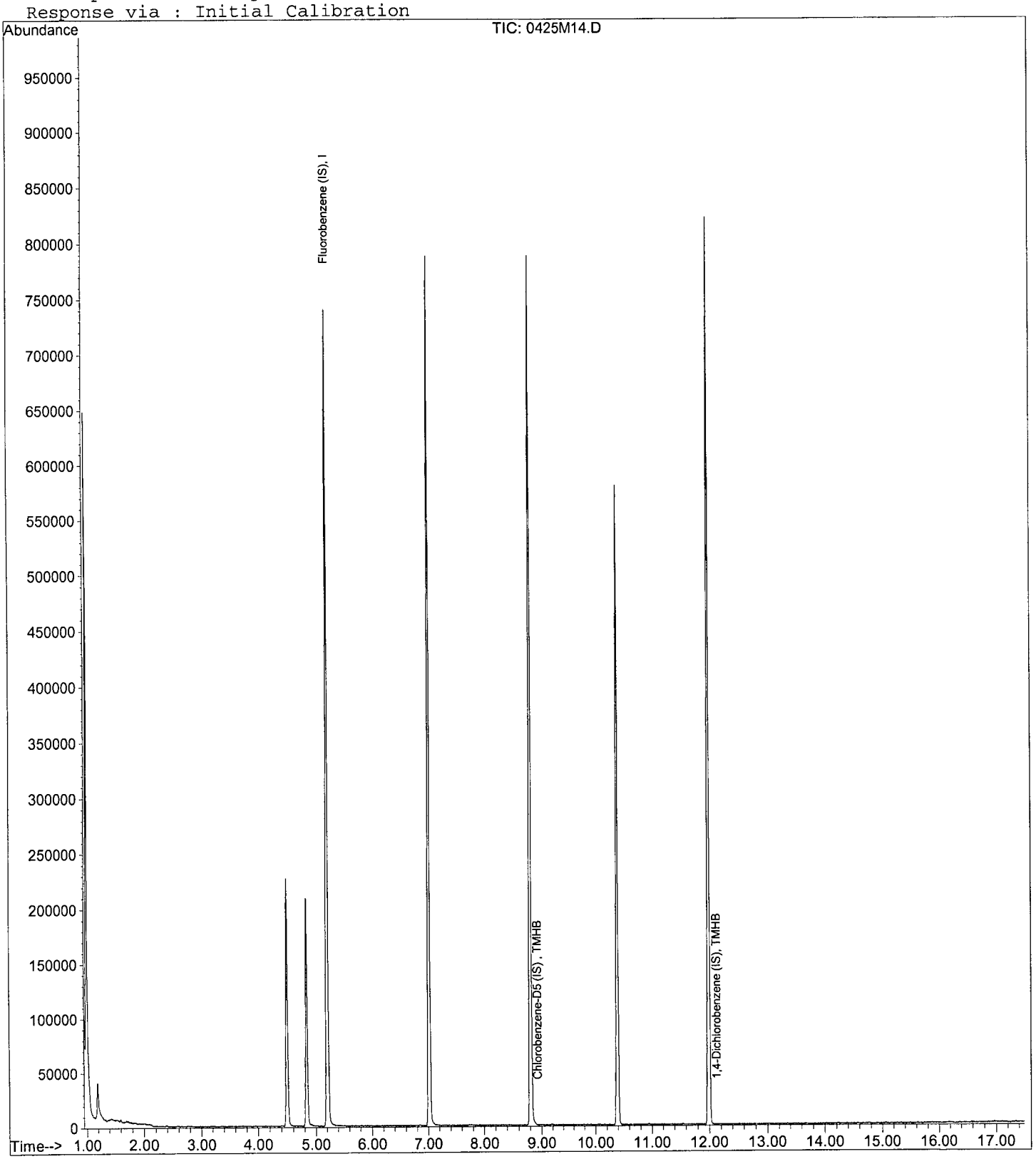
Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M14.D
Acq On : 25 Apr 19 19:02
Sample : AZ90050W01
Misc : IS,Surr 03/24/19

Vial: 13
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:33 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M15.D Vial: 14
Acq On : 25 Apr 19 19:31 Operator: PM,DG,SV,CMM,KV
Sample : AZ90055W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 9:33 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 832445 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 810667m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 794389m | 25.000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M15.D Vial: 14
Acq On : 25 Apr 19 19:31 Operator: PM,DG,SV,CMM,KV
Sample : AZ90055W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 783726 | 25.000 | ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 585818 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 284947 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 153077 | 25.532 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 102.128% | | | |
| 3) 1,2-DCA-D4(S) | 4.84 | 65 | 161786 | 23.423 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 93.692% | | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 647264 | 24.884 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 99.536% | | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 230012 | 24.098 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 96.392% | | | |

Target Compounds Qvalue

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

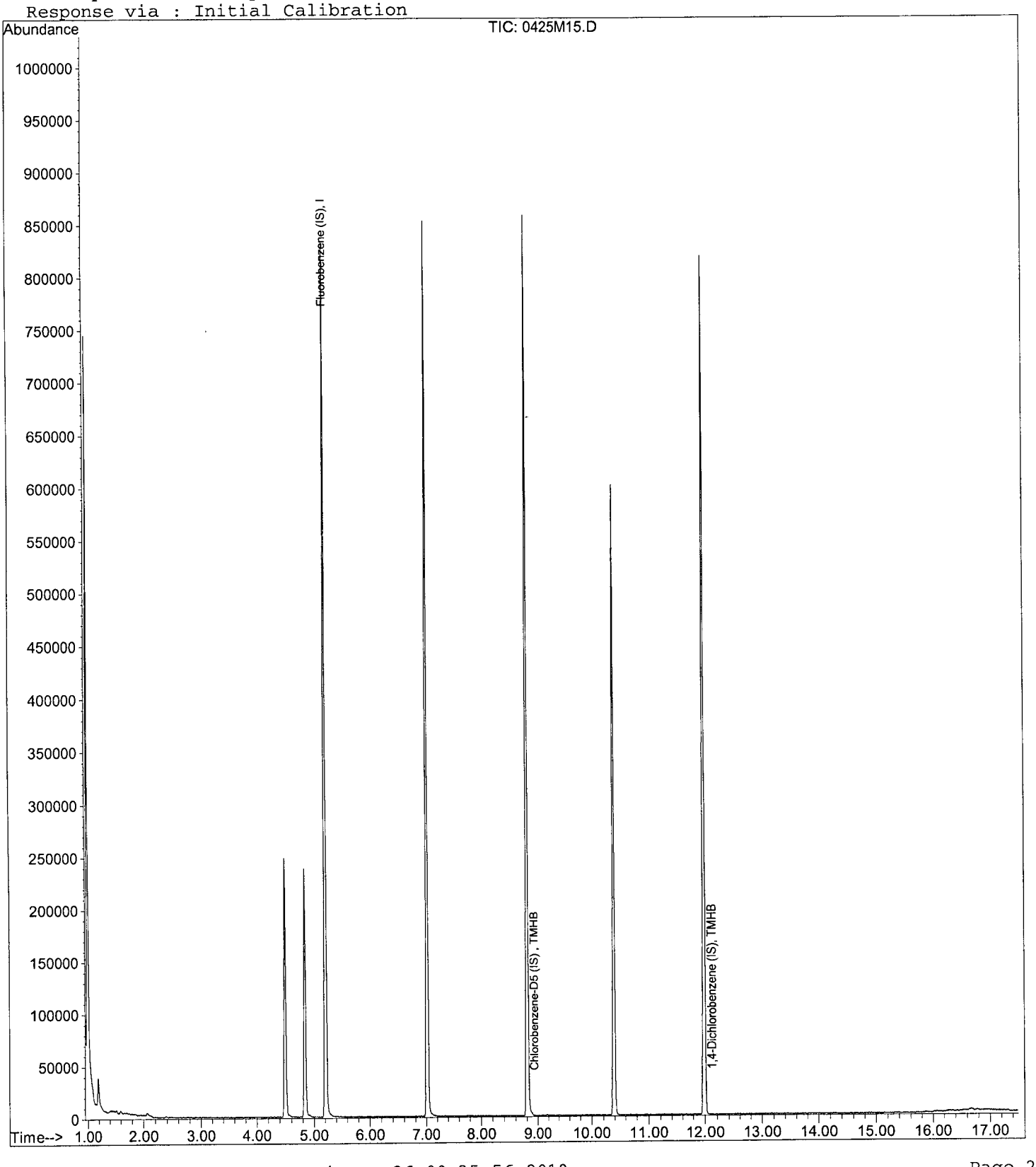
Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M15.D
Acq On : 25 Apr 19 19:31
Sample : AZ90055W01
Misc : IS,Surr 03/24/19

Vial: 14
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:33 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M16.D
Acq On : 25 Apr 19 19:59
Sample : AZ90057W01
Misc : IS,Surr 03/24/19

Vial: 15
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:33 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 793491 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 766524m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 789798m | 25.000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M16.D Vial: 15
Acq On : 25 Apr 19 19:59 Operator: PM,DG,SV,CMM,KV
Sample : AZ90057W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 744311 | 25.000 | ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 558880 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 286784 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 141704 | 24.887 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 99.548% | | |
| 3) 1,2-DCA-D4(S) | 4.84 | 65 | 153295 | 23.369 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 93.476% | | |
| 5) Toluene-D8(S) | 7.02 | 98 | 603069 | 24.302 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 97.208% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 223097 | 24.500 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 98.000% | | |

Target Compounds Qvalue

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

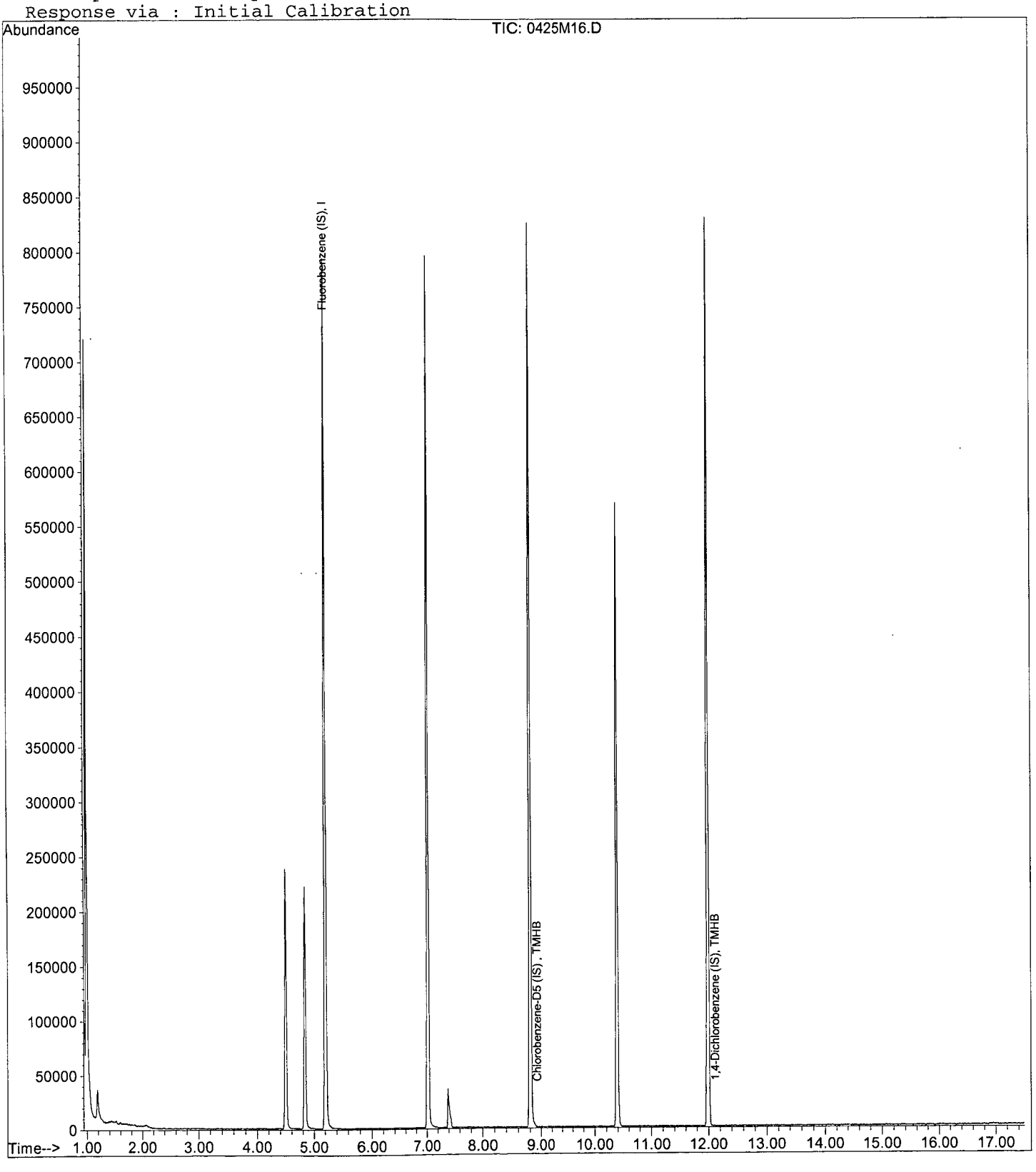
Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M16.D
Acq On : 25 Apr 19 19:59
Sample : AZ90057W01
Misc : IS,Surr 03/24/19

Vial: 15
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:33 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M17.D
Acq On : 25 Apr 19 20:28
Sample : AZ90051W01
Misc : IS,Surr 03/24/19

Vial: 16
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:34 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 747239 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 753057m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 773375m | 25.000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M17.D Vial: 16
Acq On : 25 Apr 19 20:28 Operator: PM,DG,SV,CMM,KV
Sample : AZ90051W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 701384 | 25.000 | ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 545261 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 281141 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 135286 | 25.214 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 100.856% | | | |
| 3) 1,2-DCA-D4(S) | 4.84 | 65 | 143322 | 23.186 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 92.744% | | | |
| 5) Toluene-D8(S) | 7.02 | 98 | 584131 | 24.127 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 96.508% | | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 221042 | 24.880 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 99.520% | | | |

Target Compounds Qvalue

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

Quantitation Report

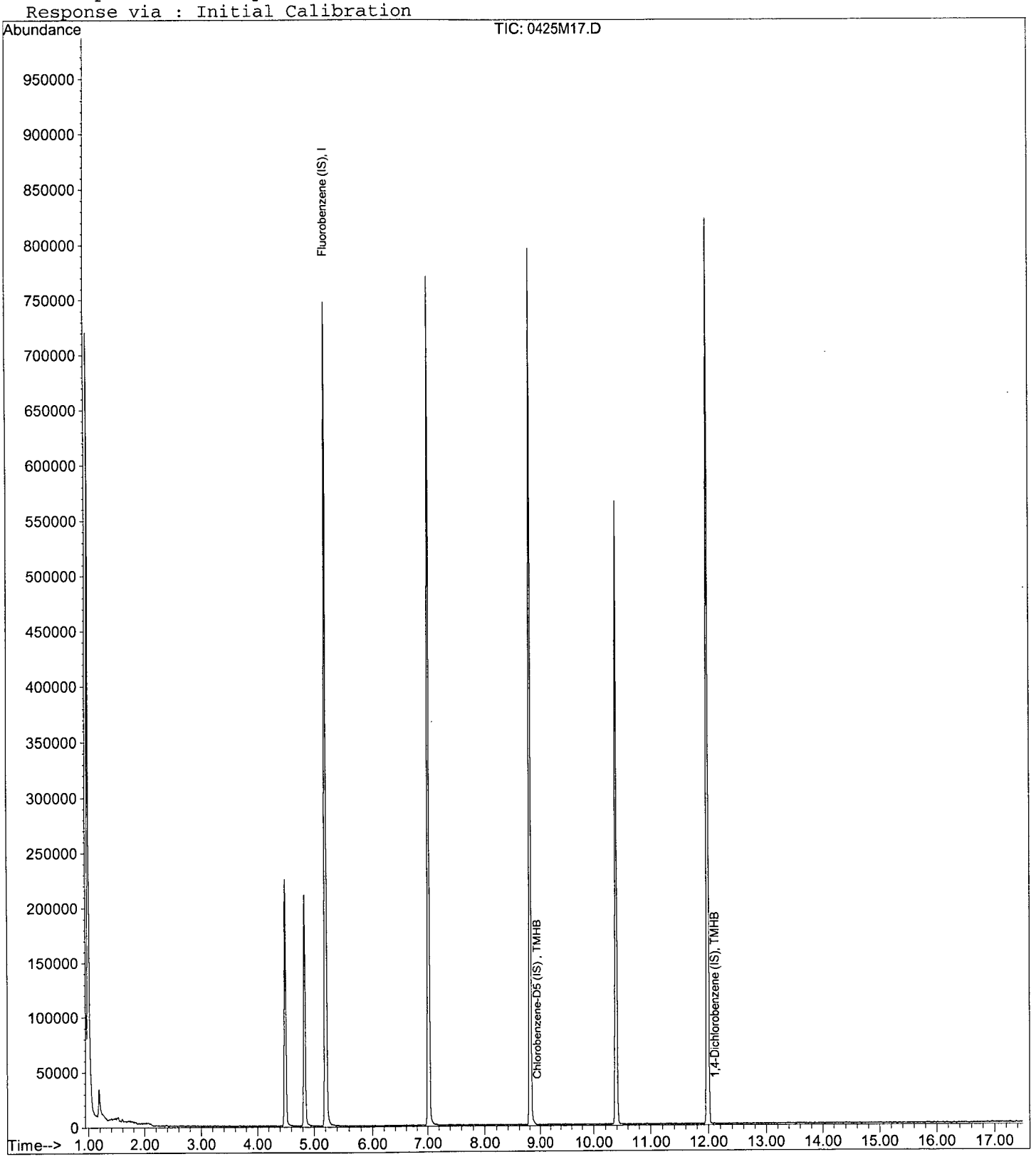
Data File : M:\MAX\DATA\M190401\0425M17.D
Acq On : 25 Apr 19 20:28
Sample : AZ90051W01
Misc : IS,Surr 03/24/19

Vial: 16
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:34 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M18.D Vial: 17
Acq On : 25 Apr 19 20:56 Operator: PM,DG,SV,CMM,KV
Sample : AZ90052W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 9:34 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 758903 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 748467m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 773847m | 25.000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
0425M18.D MGAS401.M Fri Apr 26 09:36:01 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M18.D Vial: 17
Acq On : 25 Apr 19 20:56 Operator: PM,DG,SV,CMM,KV
Sample : AZ90052W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 709606 | 25.000 | ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 539685 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 276195 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 132664 | 24.439 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 97.756% | | |
| 3) 1,2-DCA-D4(S) | 4.84 | 65 | 141695 | 22.657 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 90.628% | | |
| 5) Toluene-D8(S) | 7.02 | 98 | 580539 | 24.227 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 96.908% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 216394 | 24.609 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 98.436% | | |

Target Compounds Qvalue

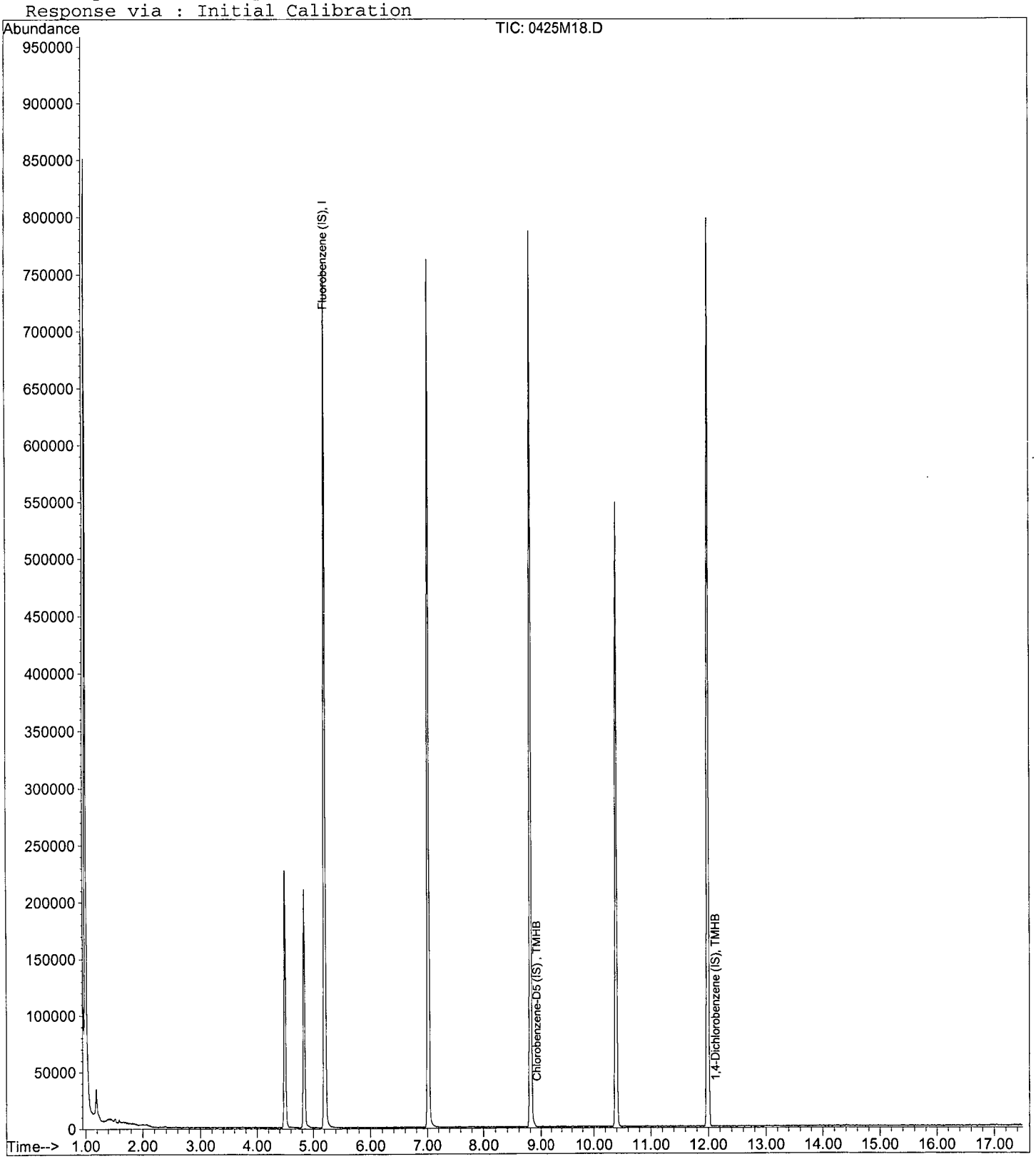
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M18.D Vial: 17
Acq On : 25 Apr 19 20:56 Operator: PM,DG,SV,CMM,KV
Sample : AZ90052W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 9:34 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M19.D Vial: 18
Acq On : 25 Apr 19 21:25 Operator: PM,DG,SV,CMM,KV
Sample : AZ90054W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 9:34 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 748859 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 745630m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 766025m | 25.000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M19.D Vial: 18
Acq On : 25 Apr 19 21:25 Operator: PM,DG,SV,CMM,KV
Sample : AZ90054W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 701624 | 25.000 | ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 541522 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 283034 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 133403 | 24.854 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 99.416% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 142438 | 23.035 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 92.140% | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 582352 | 24.220 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 96.880% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 214300 | 24.288 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 97.152% | | |

Target Compounds Qvalue

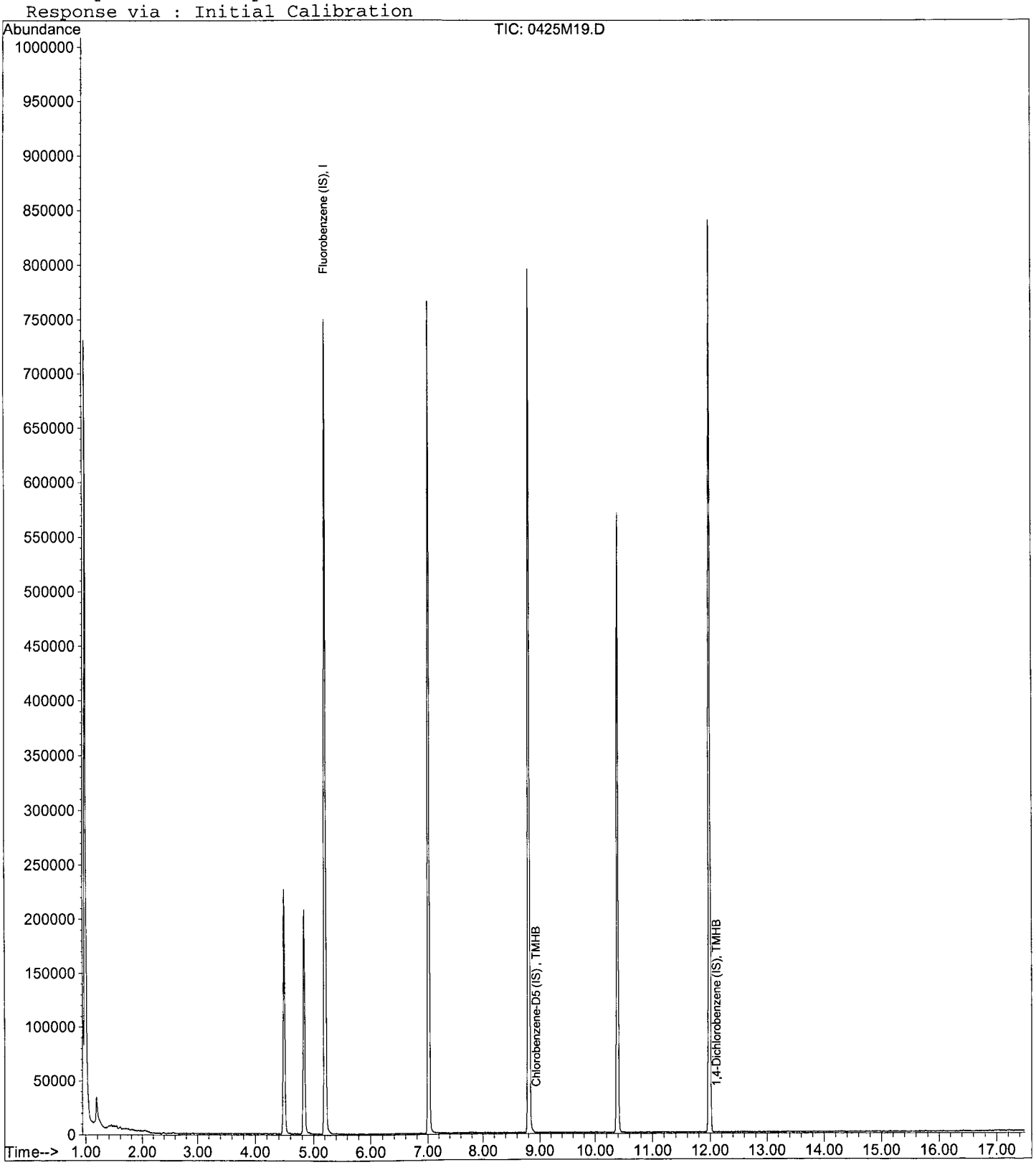
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M19.D  Vial: 18
Acq On : 25 Apr 19 21:25  Operator: PM,DG,SV,CMM,KV
Sample : AZ90054W01  Inst : Max
Misc : IS,Surr 03/24/19  Multiplr: 1.00

Quant Time: Apr 26 9:34 2019  Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M20.D
Acq On : 25 Apr 19 21:53
Sample : AZ90056W01
Misc : IS,Surr 03/24/19

Vial: 19
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:34 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 807429 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 812036m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 808778m | 25.000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M20.D Vial: 19
Acq On : 25 Apr 19 21:53 Operator: PM,DG,SV,CMM,KV
Sample : AZ90056W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 768638 | 25.000 | ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 578151 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 294599 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 139339 | 23.697 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 94.788% | | |
| 3) 1,2-DCA-D4(S) | 4.84 | 65 | 154285 | 22.776 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 91.104% | | |
| 5) Toluene-D8(S) | 7.02 | 98 | 628181 | 24.471 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 97.884% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 228644 | 24.272 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 97.088% | | |

Target Compounds Qvalue

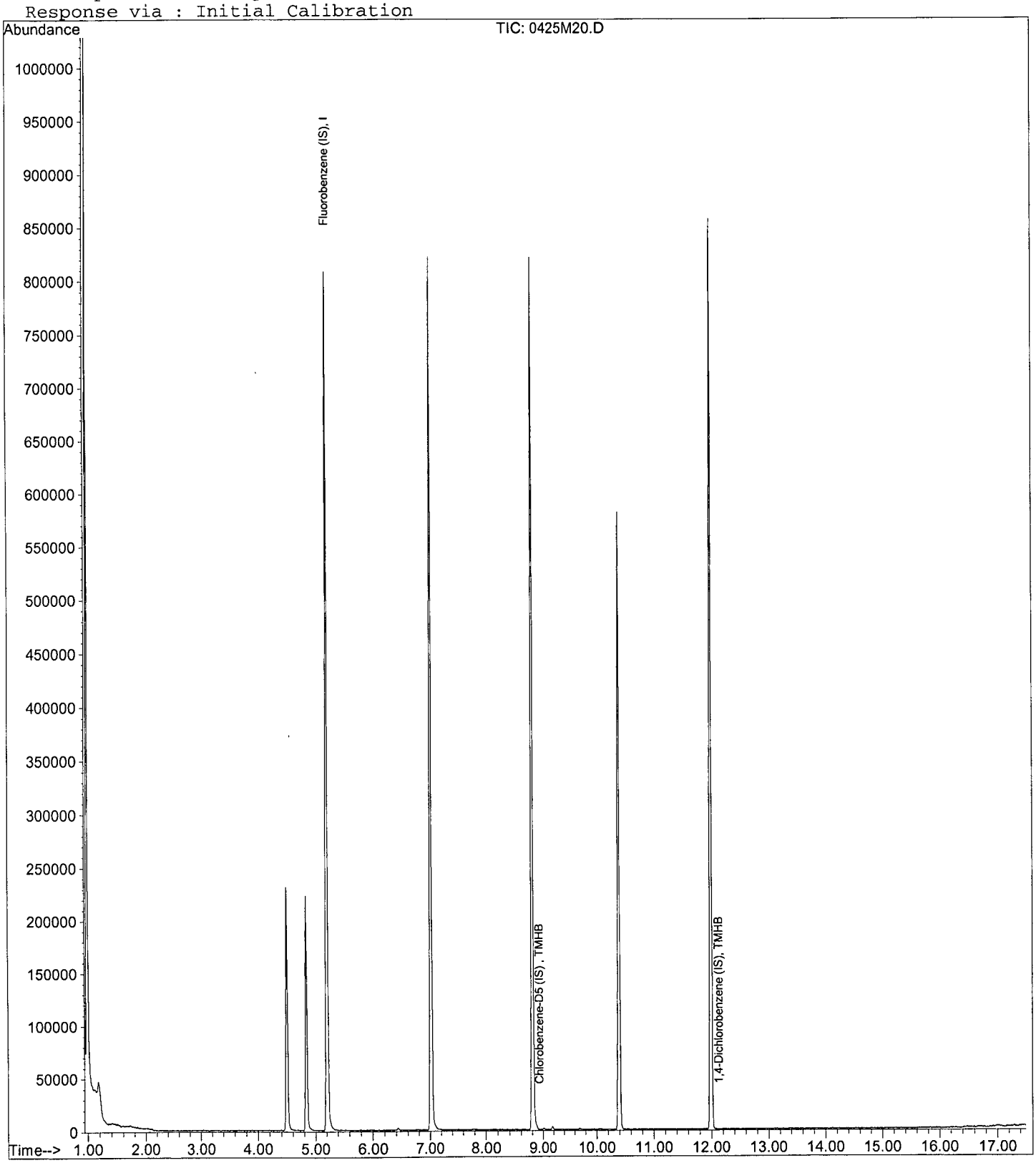
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M20.D  Vial: 19
Acq On : 25 Apr 19 21:53  Operator: PM,DG,SV,CMM,KV
Sample : AZ90056W01  Inst : Max
Misc : IS,Surr 03/24/19  Multiplr: 1.00

Quant Time: Apr 26 9:34 2019  Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M21.D Vial: 20
Acq On : 25 Apr 19 22:22 Operator: PM,DG,SV,CMM,KV
Sample : AZ90058W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 9:34 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 785330 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 781492m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 809299m | 25.000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
0425M21.D MGAS401.M Fri Apr 26 09:36:07 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M21.D Vial: 20
Acq On : 25 Apr 19 22:22 Operator: PM,DG,SV,CMM,KV
Sample : AZ90058W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 746252 | 25.000 | ppb | -0.12 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 571073 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 295723 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 141141 | 24.723 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 98.892% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 153371 | 23.320 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 93.280% | | |
| 5) Toluene-D8(S) | 7.02 | 98 | 619629 | 24.437 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 97.748% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 230203 | 24.740 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 98.960% | | |

| Target Compounds | Qvalue |
|---|---|

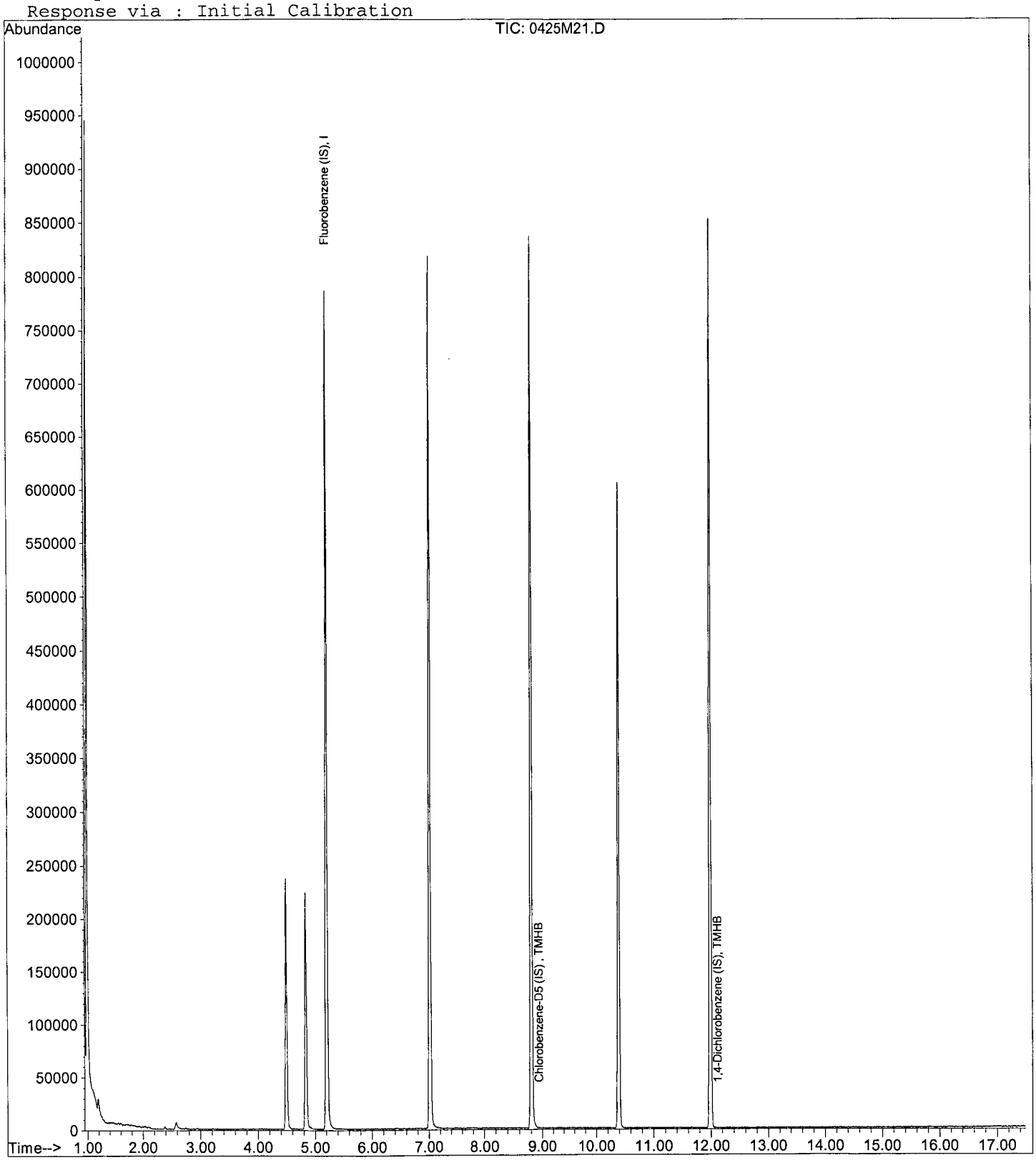
(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M190401\0425M21.D
Acq On : 25 Apr 19 22:22
Sample : AZ90058W01
Misc : IS,Surr 03/24/19

Vial: 20
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:34 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M22.D Vial: 21
Acq On : 25 Apr 19 22:50 Operator: PM,DG,SV,CMM,KV
Sample : AZ90060W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 9:34 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 854167 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 826839m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 803799m | 25.000 | ppb | 0.00 |

System Monitoring Compounds

Target Compounds Qvalue

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M22.D Vial: 21
Acq On : 25 Apr 19 22:50 Operator: PM,DG,SV,CMM,KV
Sample : AZ90060W01 Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 809717 | 25.000 | ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 608003 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 304633 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 150387 | 24.278 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 97.112% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 162505 | 22.772 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 91.088% | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 651641 | 24.138 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 96.552% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 236256 | 23.849 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 95.396% | | |

Target Compounds Qvalue

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

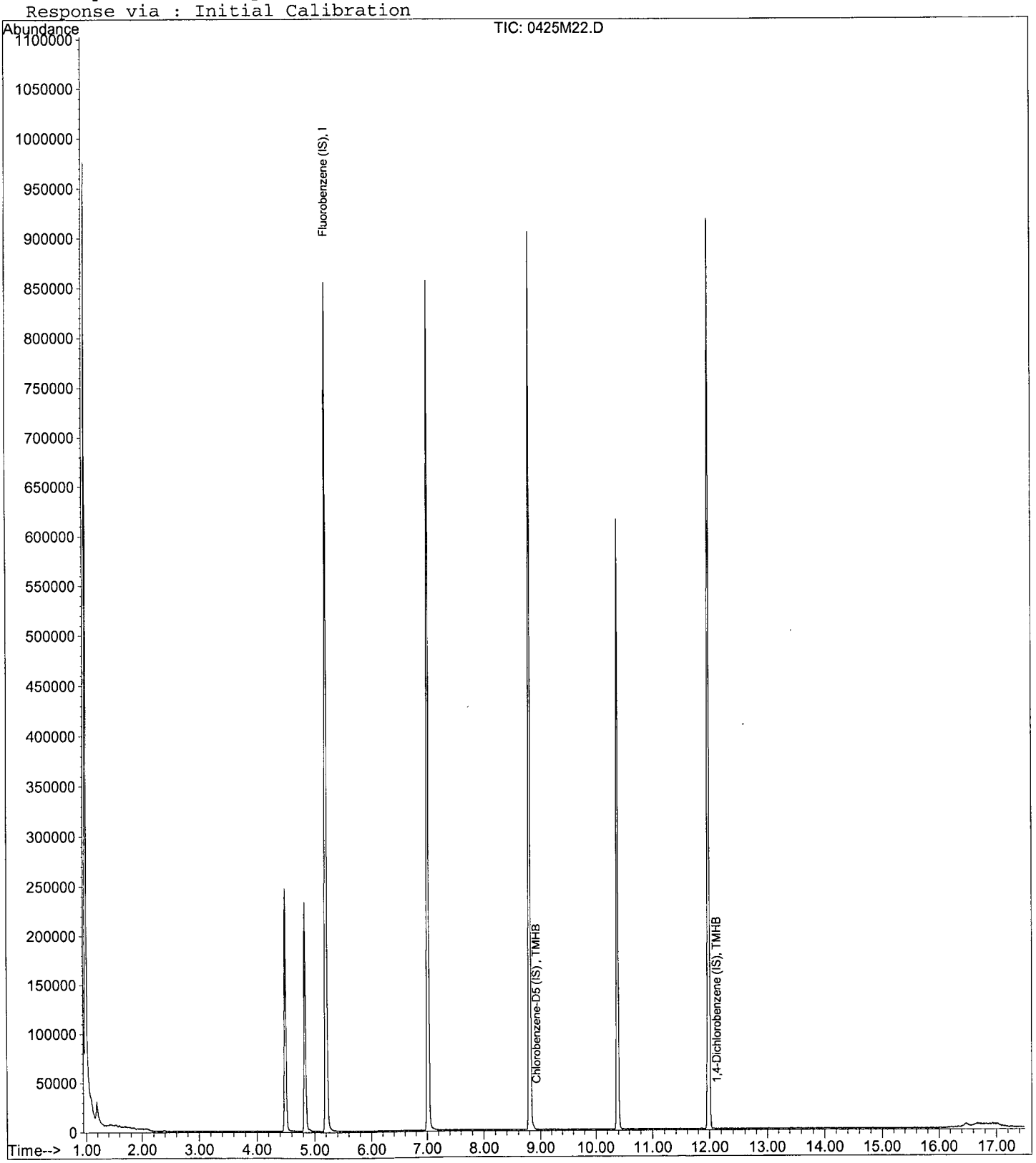
Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M22.D
Acq On : 25 Apr 19 22:50
Sample : AZ90060W01
Misc : IS,Surr 03/24/19

Vial: 21
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:34 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M10.D
Acq On : 25 Apr 19 17:08
Sample : 190425A blk
Misc : IS,Surr 03/24/19

Vial: 9
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:28 2019

Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 766795 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 763330m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 820378m | 25.000 ppb | 0.00 |

System Monitoring Compounds

Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration
)425M10.D MGAS401.M Fri Apr 26 09:35:45 2019

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M10.D
Acq On : 25 Apr 19 17:08
Sample : 190425A blk
Misc : IS,Surr 03/24/19

Vial: 9
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 11:04 2019

Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 724713 | 25.000 ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 561675 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 294075 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 141762 | 25.570 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 102.280% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 149599 | 23.422 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 93.688% | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 606922 | 24.336 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 97.344% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 228485 | 24.967 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 99.868% | | |

Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration
0425M10.D MSUR324.M Fri Apr 26 11:05:56 2019

Quantitation Report

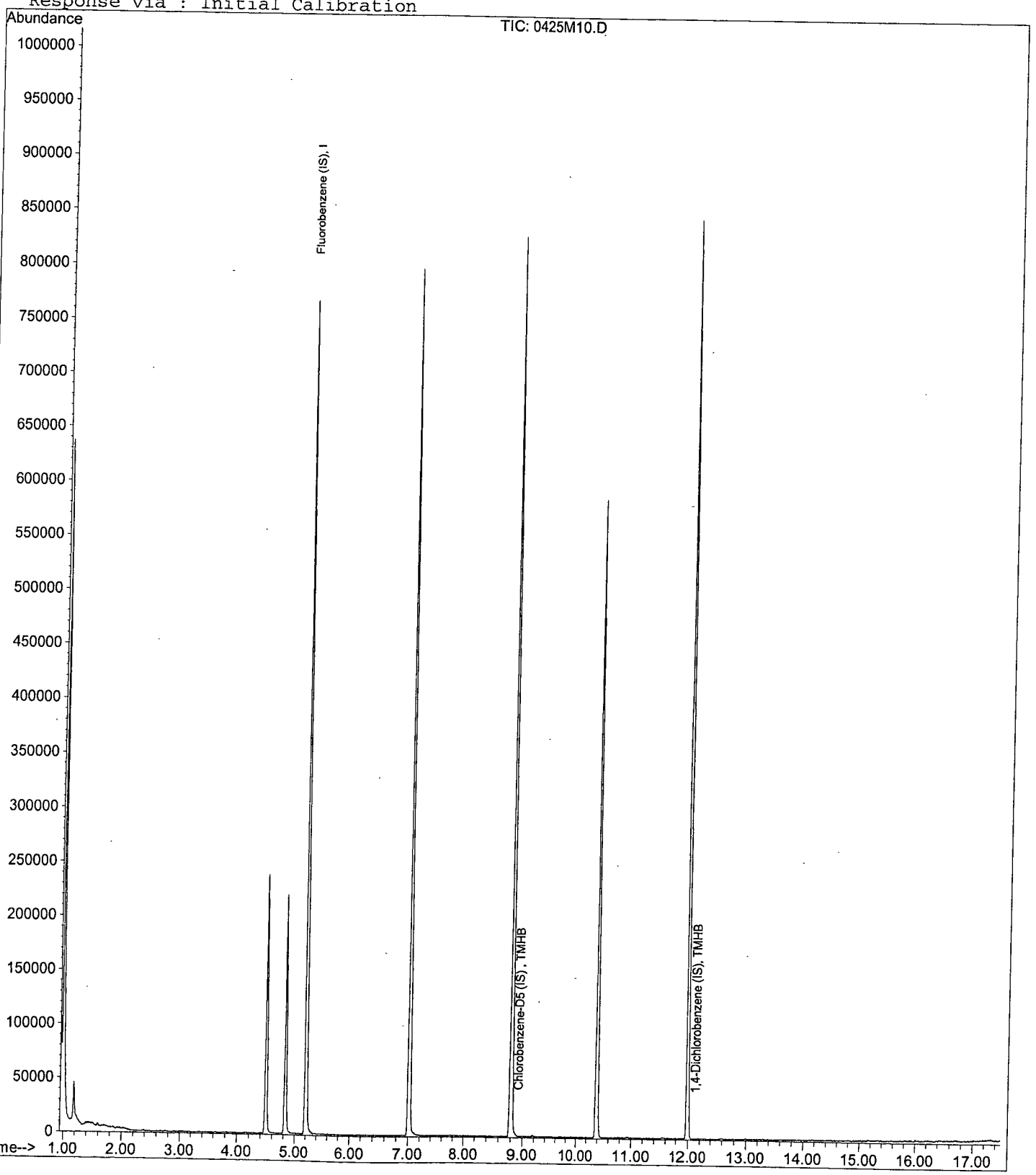
Data File : M:\MAX\DATA\M190401\0425M10.D
Acq On : 25 Apr 19 17:08
Sample : 190425A blk
Misc : IS,Surr 03/24/19

Vial: 9
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:28 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Data File : M:\MAX\DATA\M190401\0425M07.D
Acq On : 25 Apr 19 15:43
Sample : 190425A LCS 300ug/L
Misc : IS,Surr 03/24/19

Vial: 6
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:21 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 749625 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1668208m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1747453m | 25.000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Gasoline C6-C10 | 8.80 | TIC | 11331608m | 352.180 | ppb | 100 |

(#) = qualifier out of range (m) = manual integration
0425M07.D MGAS401.M Fri Apr 26 09:35:41 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M07.D
Acq On : 25 Apr 19 15:43
Sample : 190425A LCS 300ug/L
Misc : IS,Surr 03/24/19

Vial: 6
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | 96 | 715351 | 25.000 ppb | -0.12 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 556250 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 298441 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 140961 | 25.758 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 103.032% | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 149070 | 23.645 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 94.580% | | |
| 5) Toluene-D8(S) | 7.01 | 98 | 612688 | 24.807 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 99.228% | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 233212 | 25.732 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 102.928% | | |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
0425M07.D MSUR324.M Fri Apr 26 11:05:54 2019

Quantitation Report

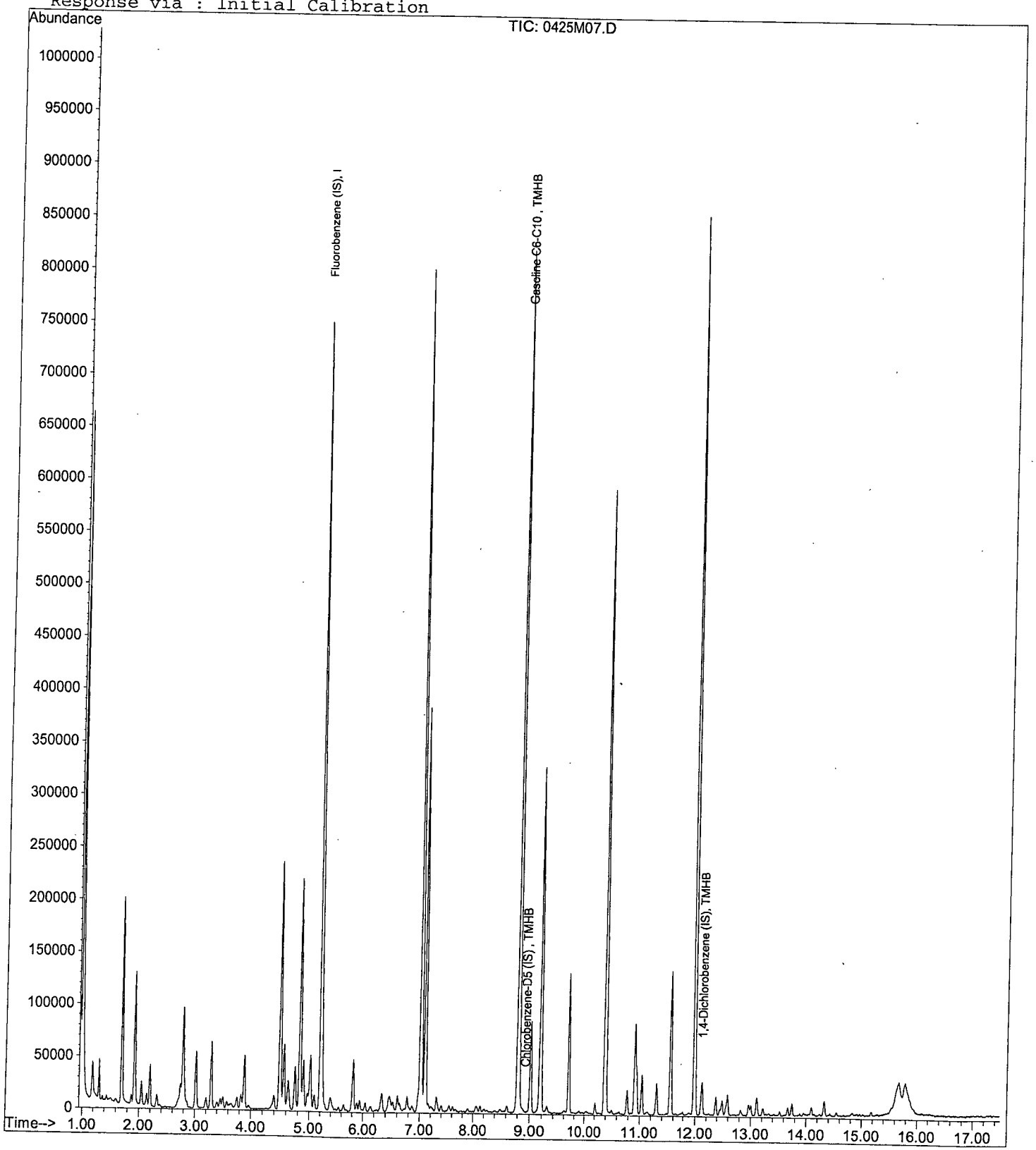
Data File : M:\MAX\DATA\M190401\0425M07.D
Acq On : 25 Apr 19 15:43
Sample : 190425A LCS 300ug/L
Misc : IS,Surr 03/24/19

Vial: 6
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:21 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M08.D
Acq On : 25 Apr 19 16:11
Sample : 190425A LCSD 300ug/L
Misc : IS,Surr 03/24/19

Vial: 7
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:22 2019

Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 763016 | 25.000 ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1673786m | 25.000 ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1753923m | 25.000 ppb | 0.00 |
| System Monitoring Compounds | | | | | |
| Target Compounds | | | | | Qvalue |
| 2) Gasoline C6-C10 | 8.80 | TIC | 11218524m | 330.026 ppb | 100 |

(#) = qualifier out of range (m) = manual integration
0425M08.D MGAS401.M Fri Apr 26 09:35:43 2019

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M08.D Vial: 7
Acq On : 25 Apr 19 16:11 Operator: PM,DG,SV,CMM,KV
Sample : 190425A LCSD 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 719422 | 25.000 ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 558303 | 25.000 ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 298376 | 25.000 ppb | -0.13 |
| **System Monitoring Compounds** | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 139597 | 25.365 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 101.460% | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 150656 | 23.761 ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = | 95.044% | |
| 5) Toluene-D8(S) | 7.01 | 98 | 605342 | 24.419 ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = | 97.676% | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 228784 | 25.150 ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = | 100.600% | |

Target Compounds Qvalue

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

Quantitation Report

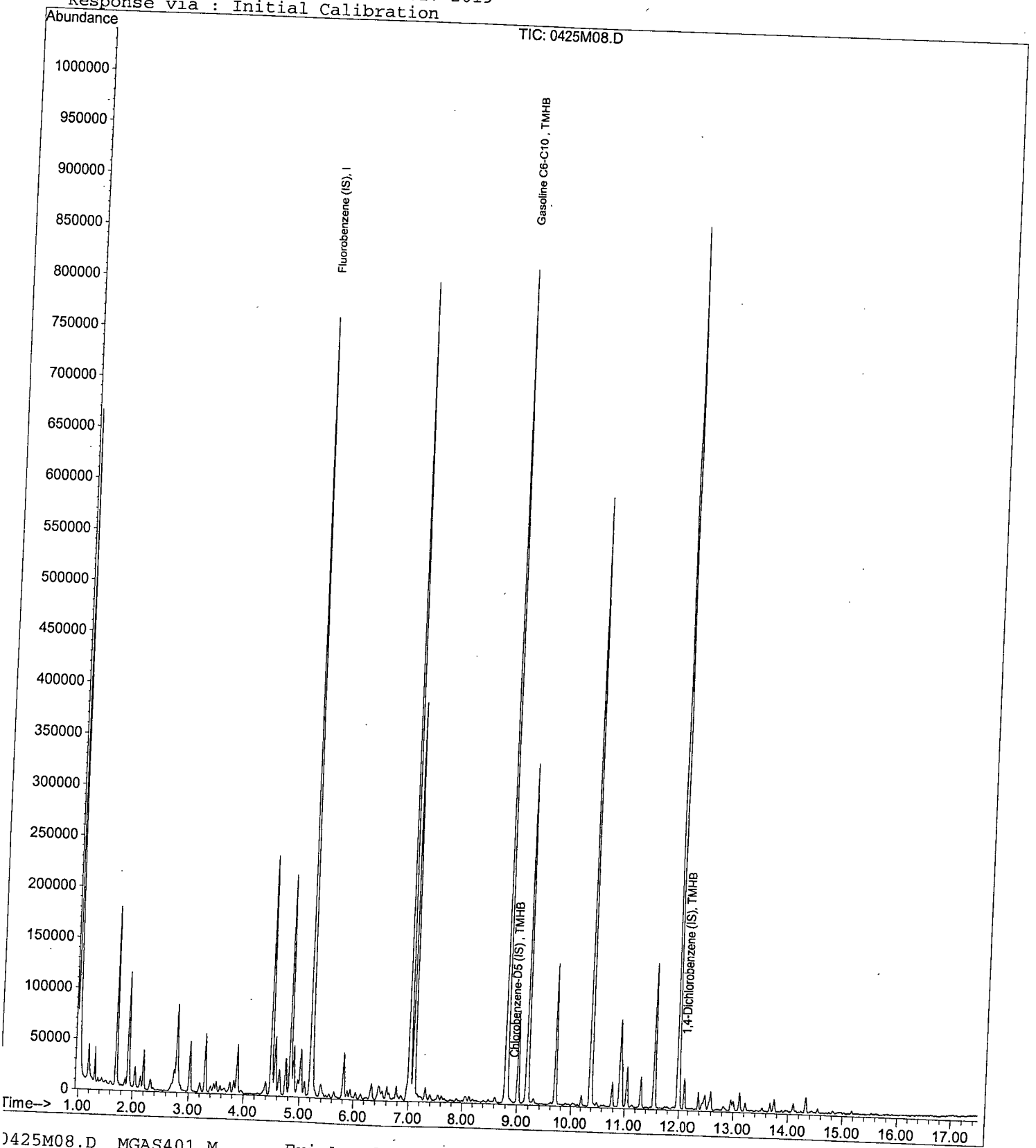
Data File : M:\MAX\DATA\M190401\0425M08.D
Acq On : 25 Apr 19 16:11
Sample : 190425A LCSD 300ug/L
Misc : IS,Surr 03/24/19

Vial: 7
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:22 2019

Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M25.D Vial: 24
Acq On : 26 Apr 19 00:16 Operator: PM,DG,SV,CMM,KV
Sample : AZ90051W02 MS 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 9:26 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | TIC | 804884 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1686470m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1713520m | 25.000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Gasoline C6-C10 | 8.80 | TIC | 10611081m | 248.619 | ppb | 100 |

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

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M25.D Vial: 24
Acq On : 26 Apr 19 00:16 Operator: PM,DG,SV,CMM,KV
Sample : AZ90051W02 MS 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 754403 | 25.000 | ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 570552 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 293588 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 144965 | 25.119 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 100.476% | | | |
| 3) 1,2-DCA-D4(S) | 4.84 | 65 | 156520 | 23.542 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 94.168% | | | |
| 5) Toluene-D8(S) | 7.02 | 98 | 616402 | 24.332 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 97.328% | | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 227328 | 24.454 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 97.816% | | | |

Target Compounds Qvalue

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

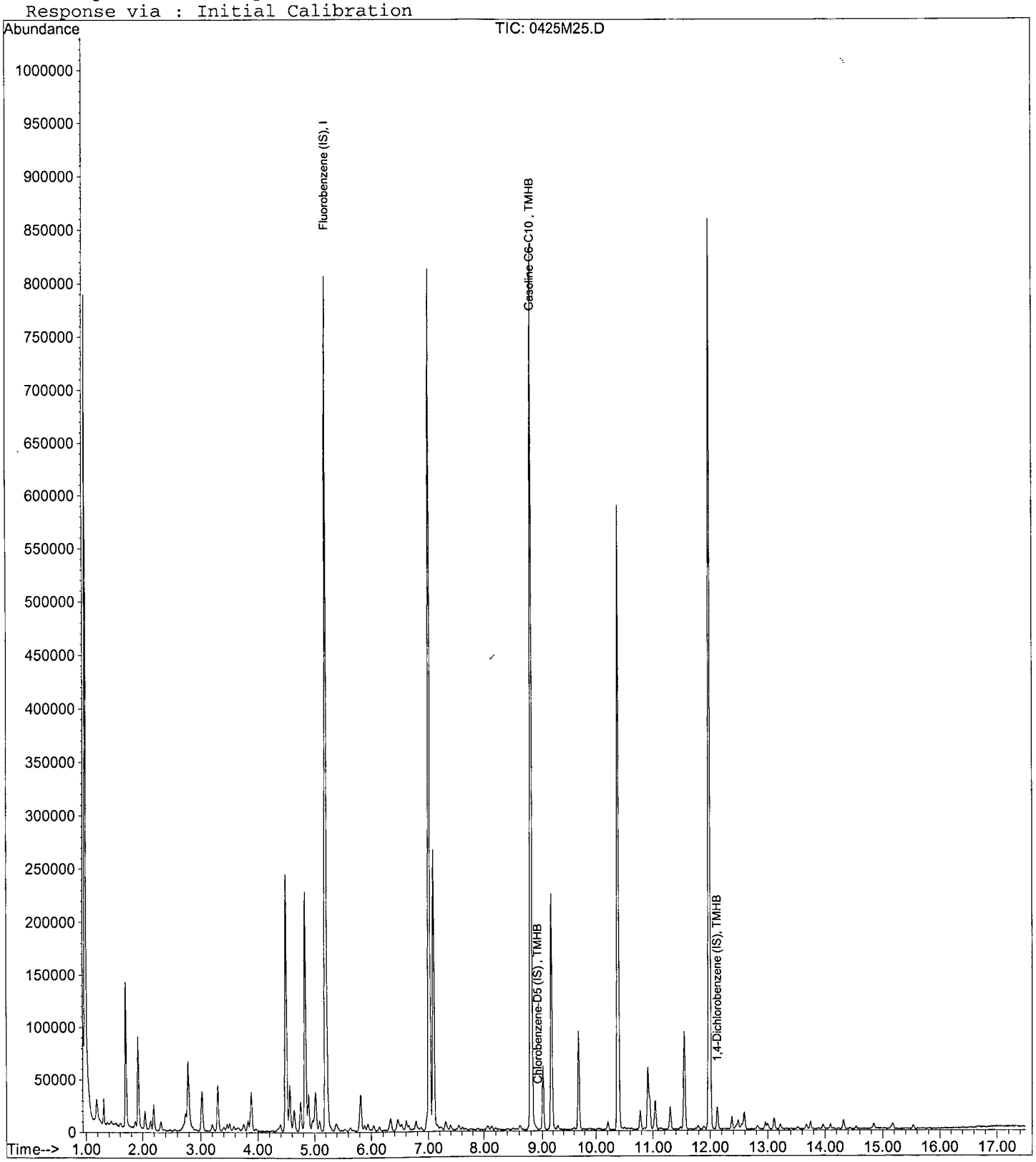
Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M25.D
Acq On : 26 Apr 19 00:16
Sample : AZ90051W02 MS 300ug/L
Misc : IS,Surr 03/24/19

Vial: 24
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:26 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M190401\0425M26.D Vial: 25
Acq On : 26 Apr 19 00:44 Operator: PM,DG,SV,CMM,KV
Sample : AZ90051W03 MSD 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 9:27 2019 Quant Results File: MGAS401.RES

Quant Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.20 | TIC | 829938 | 25.000 | ppb | 0.00 |
| 3) Chlorobenzene-D5 (IS) | 8.93 | TIC | 1803452m | 25.000 | ppb | 0.00 |
| 4) 1,4-Dichlorobenzene (IS) | 12.12 | TIC | 1789973m | 25.000 | ppb | 0.00 |
| System Monitoring Compounds | | | | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Gasoline C6-C10 | 7.02 | TIC | 12087299m | 322.592 | ppb | 100 |

(#) = qualifier out of range (m) = manual integration
0425M26.D MGAS401.M Fri Apr 26 09:36:13 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M190401\0425M26.D Vial: 25
Acq On : 26 Apr 19 00:44 Operator: PM,DG,SV,CMM,KV
Sample : AZ90051W03 MSD 300ug/L Inst : Max
Misc : IS,Surr 03/24/19 Multiplr: 1.00

Quant Time: Apr 26 11:04 2019 Quant Results File: MSUR324.RES

Quant Method : M:\MAX\DATA\M190401\MSUR324.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Mar 29 07:48:21 2019
Response via : Initial Calibration
DataAcq Meth : V8260_BETA

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Fluorobenzene (IS) | 5.21 | 96 | 784647 | 25.000 | ppb | -0.11 |
| 4) Chlorobenzene-D5 (IS) | 8.80 | 117 | 600895 | 25.000 | ppb | -0.13 |
| 7) 1,4-Dichlorobenzene-D (IS) | 11.99 | 152 | 306504 | 25.000 | ppb | -0.13 |
| **System Monitoring Compounds** | | | | | | |
| 2) Dibromofluoromethane(S) | 4.49 | 111 | 153240 | 25.529 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 102.116% | | | |
| 3) 1,2-DCA-D4(S) | 4.83 | 65 | 164871 | 23.842 | ppb | -0.11 |
| Spiked Amount 25.000 | | | Recovery = 95.368% | | | |
| 5) Toluene-D8(S) | 7.02 | 98 | 662554 | 24.833 | ppb | -0.12 |
| Spiked Amount 25.000 | | | Recovery = 99.332% | | | |
| 6) 4-Bromofluorobenzene(S) | 10.39 | 95 | 245936 | 25.120 | ppb | -0.13 |
| Spiked Amount 25.000 | | | Recovery = 100.480% | | | |

Target Compounds Qvalue

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

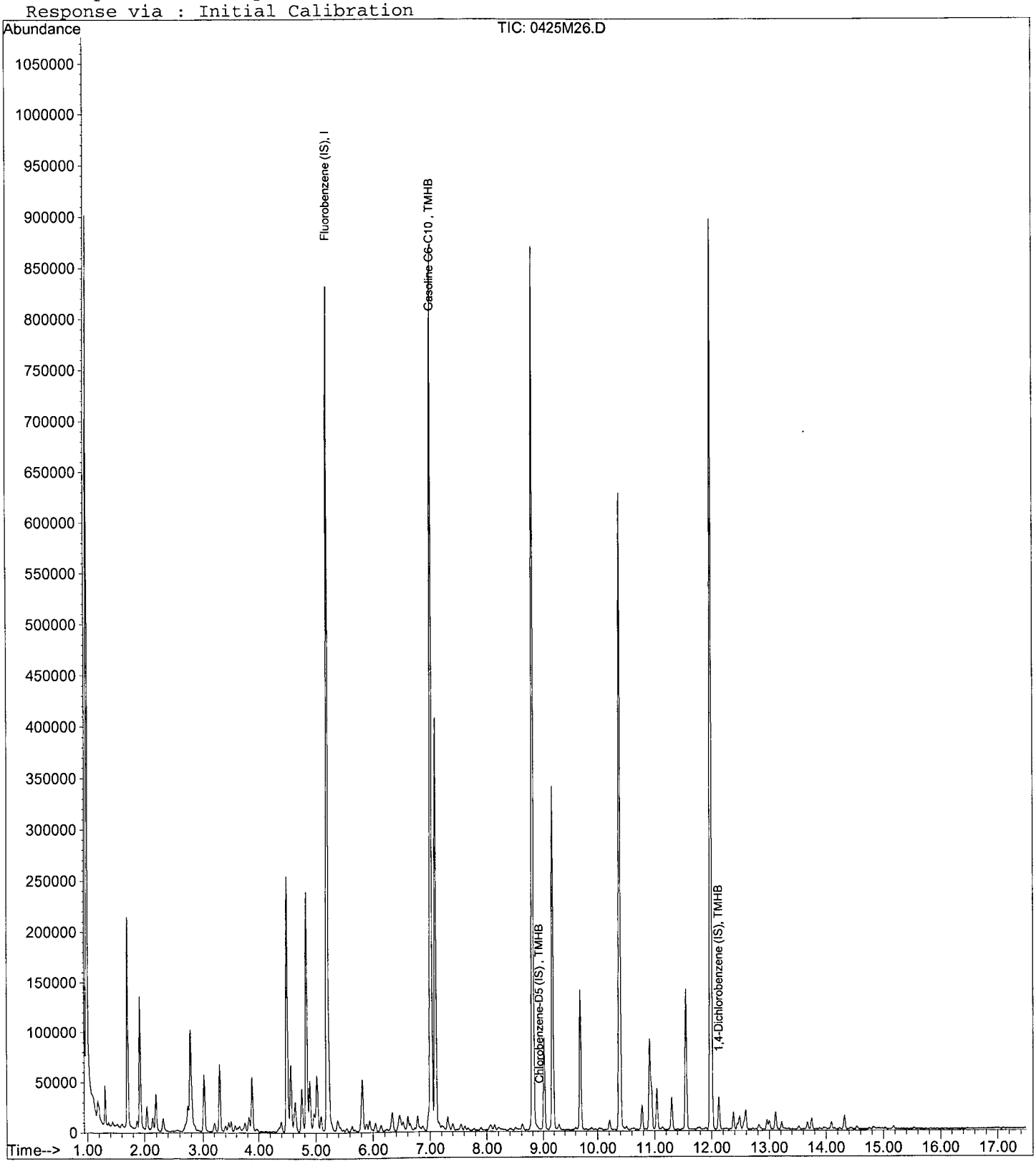
Quantitation Report

Data File : M:\MAX\DATA\M190401\0425M26.D
Acq On : 26 Apr 19 00:44
Sample : AZ90051W03 MSD 300ug/L
Misc : IS,Surr 03/24/19

Vial: 25
Operator: PM,DG,SV,CMM,KV
Inst : Max
Multiplr: 1.00

Quant Time: Apr 26 9:27 2019 Quant Results File: MGAS401.RES

Method : M:\MAX\DATA\M190401\MGAS401.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Apr 01 15:30:17 2019
Response via : Initial Calibration



**Max 8260 Water Surrogate**

**Prepared:** 03/24/19 **Prepared By (Initials):** DG

**Expires:** 03/23/20

**Methanol Lot No:** 58019

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 8260 Surrogate Solution | O2SI | 120002-01 | 2,000 | 348756-39342 | 03/24/20 | 02/10/22 | 375uL | 15mL | Methanol | 50 |

**Max 8260 Water Internal Standard**

**Prepared:** 03/24/19 **Prepared By (Initials):** DG

**Expires:** 03/23/20

**Methanol Lot No:** 58019

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Internal Standard Solution | O2SI | 120004-02 | 2,000 | 326533-38436 | 03/24/20 | 04/27/21 | 375uL | 15mL | Methanol | 50 |

# Max Gas Standard Prep

**Gas Primary Working Standard**

**Prepared: 02/01/19** — **Prepared By (Initials): CMM**

**Expires: 11/01/19**

**Methanol Lot No. 9077-02**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| 50,000ug/mL Gas STD | Restek | 30205 | 50,000 | A0132443-39861 | 11/01/19 | 12/31/24 | 80uL | 2mL | Methanol | 2,000 |

**Gas Second Source (SS) Working Standard**

**Prepared: 01/14/19** — **Prepared By (Initials): CMM**

**Expires: 01/14/20**

**Methanol Lot No. 946**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Gasoline (5,000ppm) | O2SI | 020246-06 | 5,000 | G34-326538-39193 | 01/14/20 | 10/31/20 | 800uL | 2mL | Methanol | 2,000 |

**Max Gas Calibration Curve**

**Prepared: 04/01/19** — **Prepared By (Initials): PC**

**Expires: 05/31/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| VOA Gasses Standards | Phenova | 20ug/L | 2,000 | Prepared 02/01/19 | 11/01/19 | N/A | 1uL | 100mL | P&T Water | 20 |
| VOA Gasses Standards | Phenova | 50ug/L | 2,000 | Prepared 02/01/19 | 11/01/19 | N/A | 2.5uL | 100mL | P&T Water | 50 |
| VOA Gasses Standards | Phenova | 100ug/L | 2,000 | Prepared 02/01/19 | 11/01/19 | N/A | 5uL | 100mL | P&T Water | 100 |
| VOA Gasses Standards | Phenova | 300ug/L | 2,000 | Prepared 02/01/19 | 11/01/19 | N/A | 15uL | 100mL | P&T Water | 300 |
| VOA Gasses Standards | Phenova | 600ug/L | 2,000 | Prepared 02/01/19 | 11/01/19 | N/A | 30uL | 100mL | P&T Water | 600 |
| VOA Gasses Standards | Phenova | 800ug/L | 2,000 | Prepared 02/01/19 | 11/01/19 | N/A | 40uL | 100mL | P&T Water | 800 |
| VOA Gasses Standards | Phenova | 1,000ug/L | 2,000 | Prepared 02/01/19 | 11/01/19 | N/A | 50uL | 100mL | P&T Water | 1,000 |

**Max Gas Second Source**

**Prepared: 04/01/19** — **Prepared By (Initials): PC**

**Expires: 05/31/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/L) |
| 50,000ug/mL Gas STD | Phenova | SS 300ug/L | 2,000 | Prepared 01/14/19 | 01/14/20 | N/A | 15uL | 100mL | P&T Water | 300 |

**Max Gas Continuing Calibrations/Lab Control Spikes**

**Prepared: 04/01/19** — **Prepared By (Initials): PC**

**Expires: 04/02/19**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier P/N# | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr) | Exp. Date (Manufacturers) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| VOA Gasses Standards | Phenova | 300ug/L | 2,000 | Prepared 02/01/19 | 11/01/19 | N/A | 15uL | 100mL | P&T Water | 300 |

# Injection Log

Directory: M:\MAX\DATA\M190324\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 3 | 0324M05.D | 1 | 0.3ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 12:56 |
| 2 | 4 | 0324M06.D | 1 | 0.5ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 13:25 |
| 3 | 5 | 0324M07.D | 1 | 1.0ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 13:54 |
| 4 | 6 | 0324M08.D | 1 | 2.0ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 14:22 |
| 5 | 7 | 0324M09.D | 1 | 5.0ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 14:51 |
| 6 | 8 | 0324M10.D | 1 | 10ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 15:19 |
| 7 | 9 | 0324M11.D | 1 | 20ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 15:48 |
| 8 | 10 | 0324M12.D | 1 | 40ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 16:17 |
| 9 | 11 | 0324M13.D | 1 | 100ug/L VOC STD 3/24/19 | Is,Surr 3/24/19 | 24 Mar 19 16:45 |
| 10 | 3 | 0401M04.D | 1 | 20ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 10:31 |
| 11 | 4 | 0401M05.D | 1 | 50ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 11:00 |
| 12 | 5 | 0401M06.D | 1 | 100ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 11:28 |
| 13 | 6 | 0401M07.D | 1 | 300ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 11:57 |
| 14 | 7 | 0401M08.D | 1 | 600ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 12:25 |
| 15 | 8 | 0401M09.D | 1 | 800ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 12:54 |
| 16 | 9 | 0401M10.D | 1 | 1000ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 13:22 |
| 17 | 11 | 0401M12.D | 1 | (SS)300ug/L GAS STD 4/01/19 | IS,Surr 03/24/19 | 1 Apr 19 14:19 |
| 18 | 5 | 0425M06.D | 1 | 190425A CCV 300ug/L | IS,Surr 03/24/19 | 25 Apr 19 15:14 |
| 19 | 6 | 0425M07.D | 1 | 190425A LCS 300ug/L | IS,Surr 03/24/19 | 25 Apr 19 15:43 |
| 20 | 7 | 0425M08.D | 1 | 190425A LCSD 300ug/L | IS,Surr 03/24/19 | 25 Apr 19 16:11 |
| 21 | 9 | 0425M10.D | 1 | 190425A blk | IS,Surr 03/24/19 | 25 Apr 19 17:08 |
| 22 | 11 | 0425M12.D | 1 | AZ90053W01 | IS,Surr 03/24/19 | 25 Apr 19 18:05 |
| 23 | 12 | 0425M13.D | 1 | AZ90059W01 | IS,Surr 03/24/19 | 25 Apr 19 18:34 |
| 24 | 13 | 0425M14.D | 1 | AZ90050W01 | IS,Surr 03/24/19 | 25 Apr 19 19:02 |
| 25 | 14 | 0425M15.D | 1 | AZ90055W01 | IS,Surr 03/24/19 | 25 Apr 19 19:31 |
| 26 | 15 | 0425M16.D | 1 | AZ90057W01 | IS,Surr 03/24/19 | 25 Apr 19 19:59 |
| 27 | 16 | 0425M17.D | 1 | AZ90051W01 | IS,Surr 03/24/19 | 25 Apr 19 20:28 |
| 28 | 17 | 0425M18.D | 1 | AZ90052W01 | IS,Surr 03/24/19 | 25 Apr 19 20:56 |
| 29 | 18 | 0425M19.D | 1 | AZ90054W01 | IS,Surr 03/24/19 | 25 Apr 19 21:25 |
| 30 | 19 | 0425M20.D | 1 | AZ90056W01 | IS,Surr 03/24/19 | 25 Apr 19 21:53 |
| 31 | 20 | 0425M21.D | 1 | AZ90058W01 | IS,Surr 03/24/19 | 25 Apr 19 22:22 |
| 32 | 21 | 0425M22.D | 1 | AZ90060W01 | IS,Surr 03/24/19 | 25 Apr 19 22:50 |
| 33 | 24 | 0425M25.D | 1 | AZ90051W02 MS 300ug/L | IS,Surr 03/24/19 | 26 Apr 19 00:16 |
| 34 | 25 | 0425M26.D | 1 | AZ90051W03 MSD 300ug/L | IS,Surr 03/24/19 | 26 Apr 19 00:44 |
| 35 | 27 | 0425M28.D | 1 | Ending CCV 300ug/L | IS,Surr 03/24/19 | 26 Apr 19 1:41 |

# ORGANICS
# Calibration Data

APPL, INC.

RSK 175

# Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/11/19
Matrix: Instrument: 7890

Initials: CMO/LP

19031100.D 19031101.D 19031103.D 19031104.D 19031105.D 19031106.D 19031107.D

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | Avg | %RSD | Type | r^2 | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ATML | Methane | 17670 | 8968 | 6066 | 11811 | 14125 | 14507 | 13183 | | | | 12333 | 31 | ATM | 0.999 | |
| 2 | ATML | Ethane | 14730 | 8189 | 5526 | 9883 | 12114 | 11368 | 10522 | | | | 10333 | 28 | ATM | 0.999 | |
| 3 | ATML | Ethene | 12553 | 7178 | 4798 | 8331 | 10165 | 9095 | 8863 | | | | 8712 | 28 | ATM | 1.000 | |
| 4 | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | |
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| 10 | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | |
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| 25 | | | | | | | | | | | | | | | | | |
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| 30 | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | |
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| 33 | | | | | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | |

2.487833

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031100.D Vial: 1
Acq On : 11 Mar 19 10:21 Operator: cmm
Sample : RSK Std 1 03/11/19 Inst : 7890
Misc : 125uL from RSK Std 3 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:49 2019 Quant Results File: RSK0311.RES

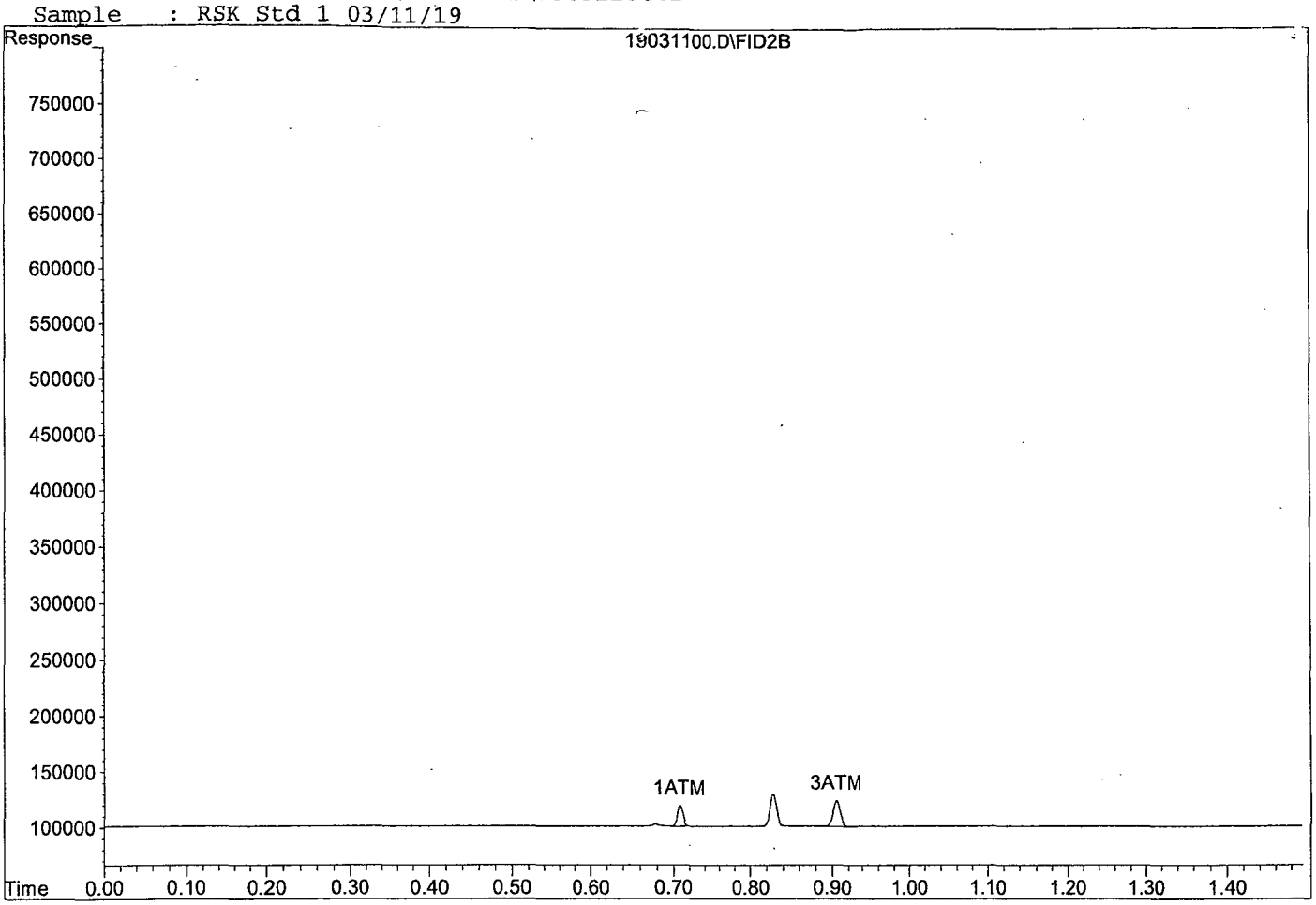
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:48:58 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| Target Compounds | | | | |
| 1) ATM Methane | 0.71 | 18377 | 0.442 | ppb |
| 3) ATM Ethene | 0.91 | 22909 | 1.995 | ppb |
| Target Compounds | | | | |
| 2) ATM Ethane | 0.83 | 28797 | N.D. | ppb |

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

Data File: G:\ROCKY\DATA\190311RS\19031100.D
Sample : RSK Std 1 03/11/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031101.D Vial: 2
Acq On : 11 Mar 19 10:23 Operator: cmm
Sample : RSK Std 2 03/11/19 Inst : 7890
Misc : 250uL from RSK Std 3 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:49 2019 Quant Results File: RSK0311.RES

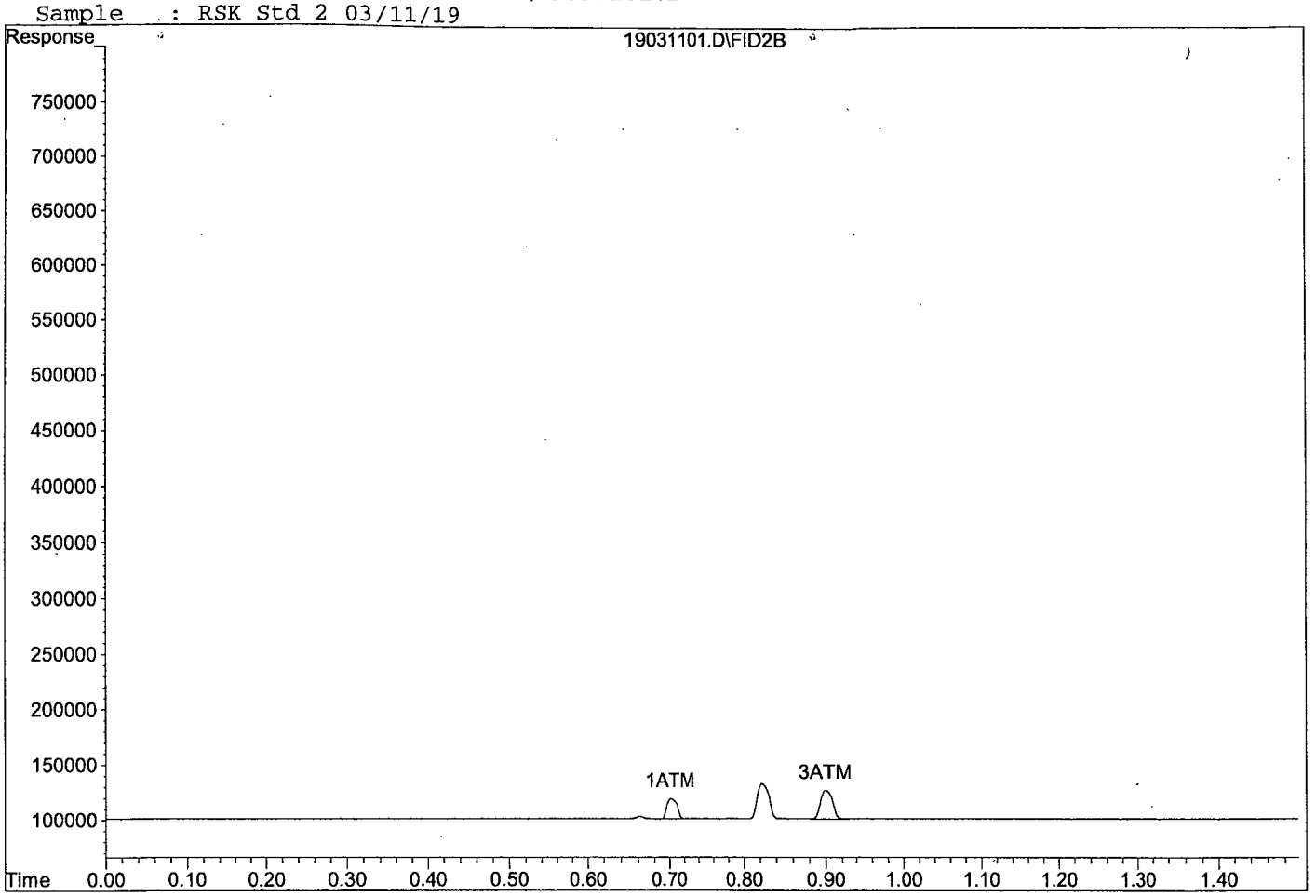
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:49:30 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| Target Compounds | | | | |
| 1) ATM Methane | 0.70 | 18654 | 0.484 | ppb |
| 3) ATM Ethene | 0.90 | 26201 | 2.738 | ppb |
| Target Compounds | | | | |
| 2) ATM Ethane | 0.82 | 31979 | N.D. | ppb |

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

Data File: G:\ROCKY\DATA\190311RS\19031101.D
Sample : RSK Std 2 03/11/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031103.D Vial: 4
Acq On : 11 Mar 19 10:28 Operator: cmm
Sample : RSK Std 3 03/11/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:50 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:49:59 2019
Response via : Multiple Level Calibration

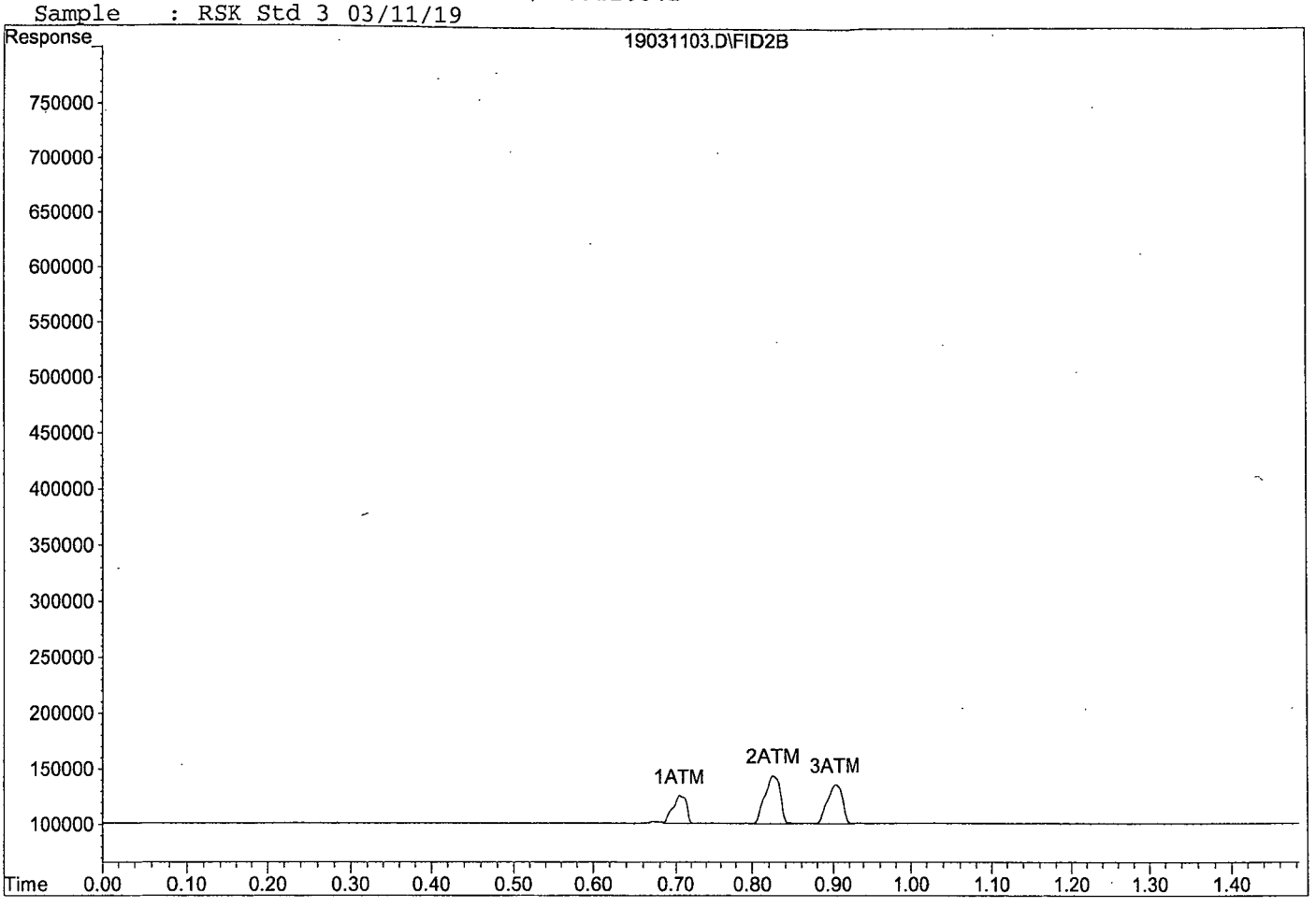
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.70 | 25296 | 1.488 ppb |
| 2) ATM Ethane | 0.83 | 43104 | 2.024 ppb |
| 3) ATM Ethene | 0.90 | 35029 | 4.730 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19031103.D
Sample : RSK Std 3 03/11/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031104.D Vial: 5
Acq On : 11 Mar 19 10:31 Operator: cmm
Sample : RSK Std 4 03/11/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:50 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:50:29 2019
Response via : Multiple Level Calibration

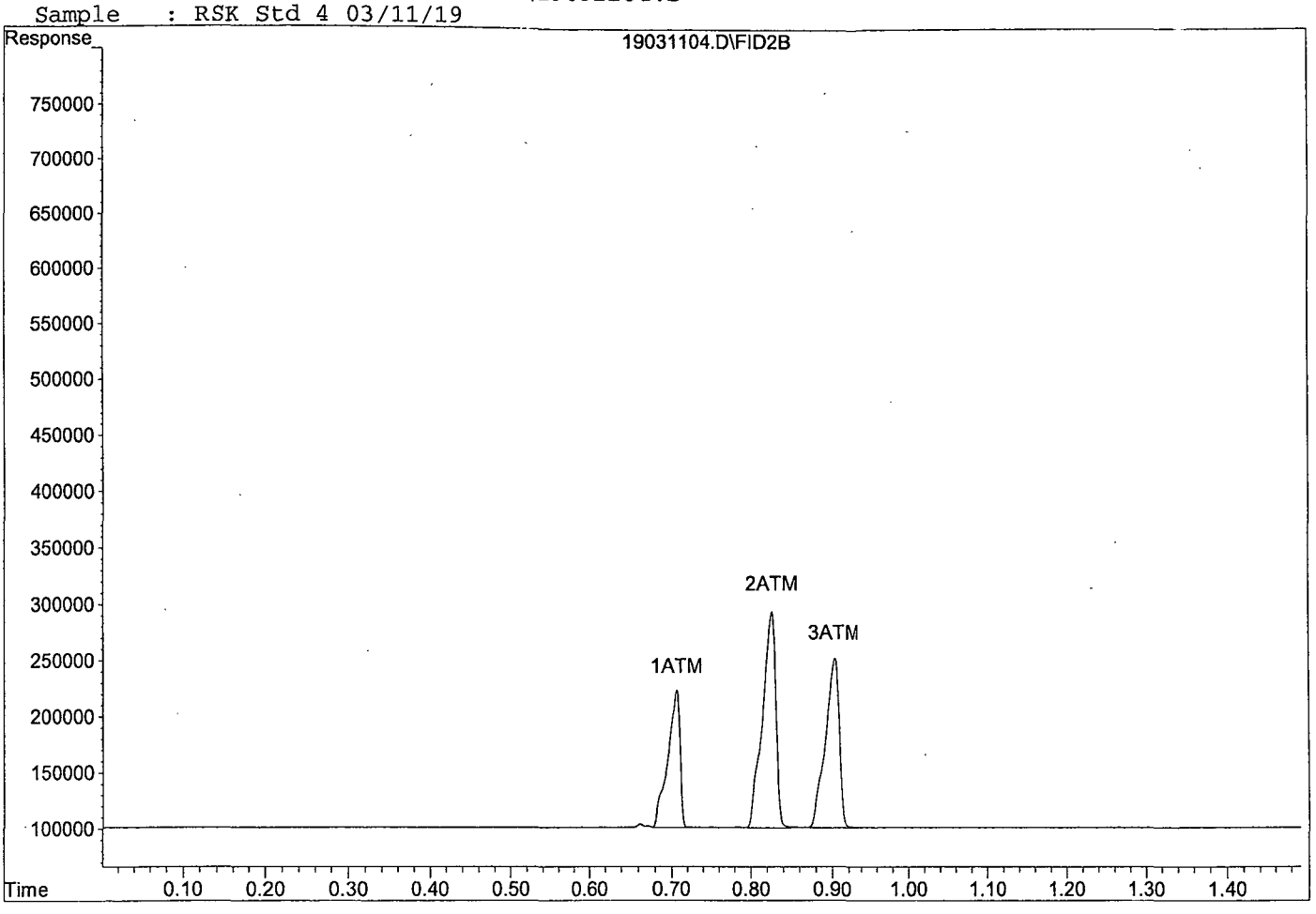
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.71 | 123132 | 16.291 ppb |
| 2) ATM Ethane | 0.83 | 193161 | 30.521 ppb |
| 3) ATM Ethene | 0.90 | 151872 | 31.095 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19031104.D
Sample : RSK Std 4 03/11/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031105.D Vial: 6
Acq On : 11 Mar 19 10:33 Operator: cmm
Sample : RSK Std 5 03/11/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:51 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:51:01 2019
Response via : Multiple Level Calibration

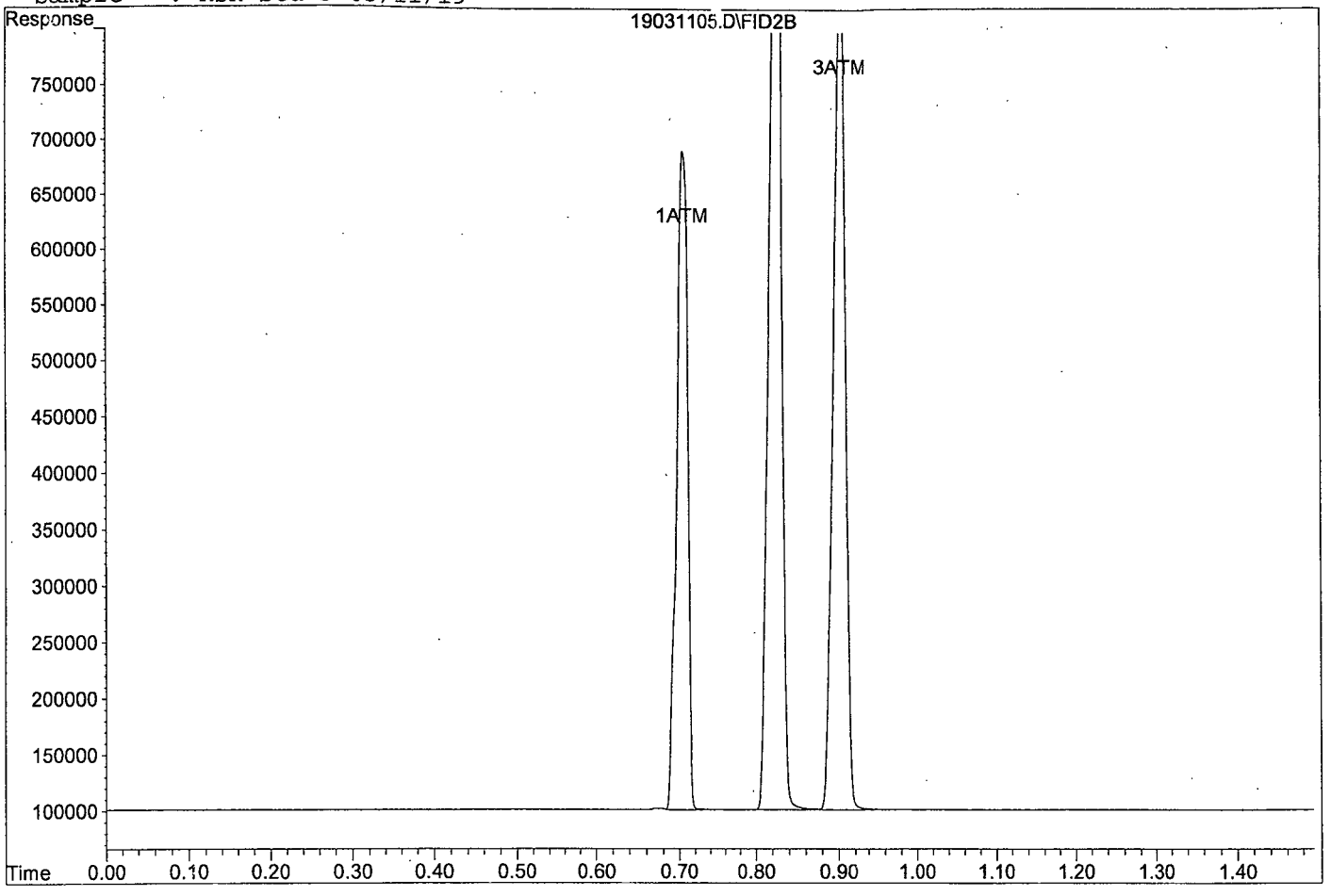
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.70 | 588996 | 86.775 ppb |
| 2) ATM Ethane | 0.83 | 946997 | 173.678 ppb |
| 3) ATM Ethene | 0.90 | 741247 | 164.087 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19031105.D
Sample : RSK Std 5 03/11/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031106.D Vial: 7
Acq On : 11 Mar 19 10:35 Operator: cmm
Sample : RSK Std 6 03/11/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:51 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:51:33 2019
Response via : Multiple Level Calibration

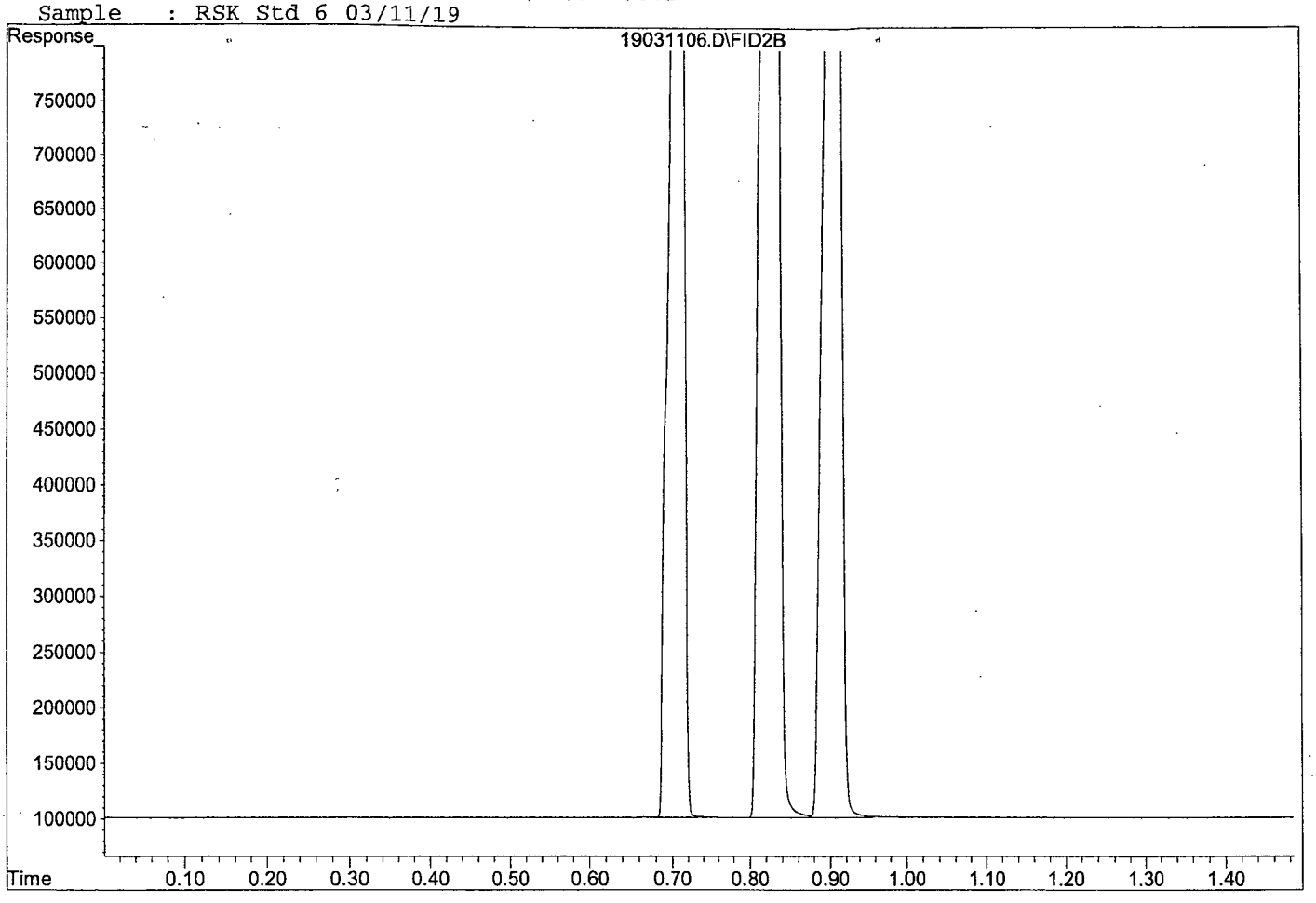
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| Target Compounds | | | | |
| 1) ATM Methane | 0.71 | 1512363 | 226.478 | ppb |
| 2) ATM Ethane | 0.83 | 2221790 | 415.768 | ppb |
| 3) ATM Ethene | 0.91 | 1658041 | 370.960 | ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19031106.D
Sample : RSK Std 6 03/11/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031107.D Vial: 8
Acq On : 11 Mar 19 10:37 Operator: cmm
Sample : RSK Std 7 03/11/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:52 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:52:05 2019
Response via : Multiple Level Calibration

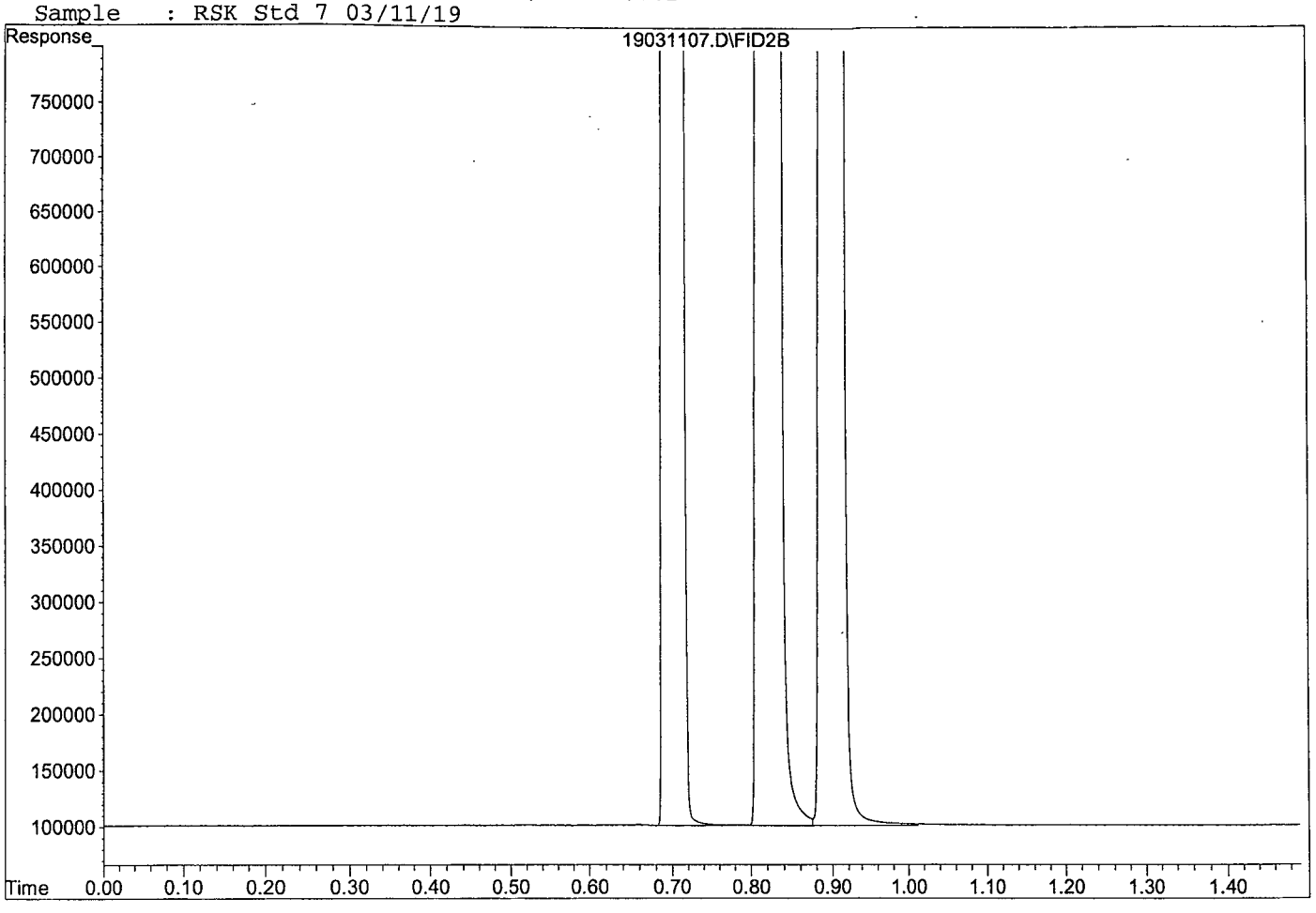
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

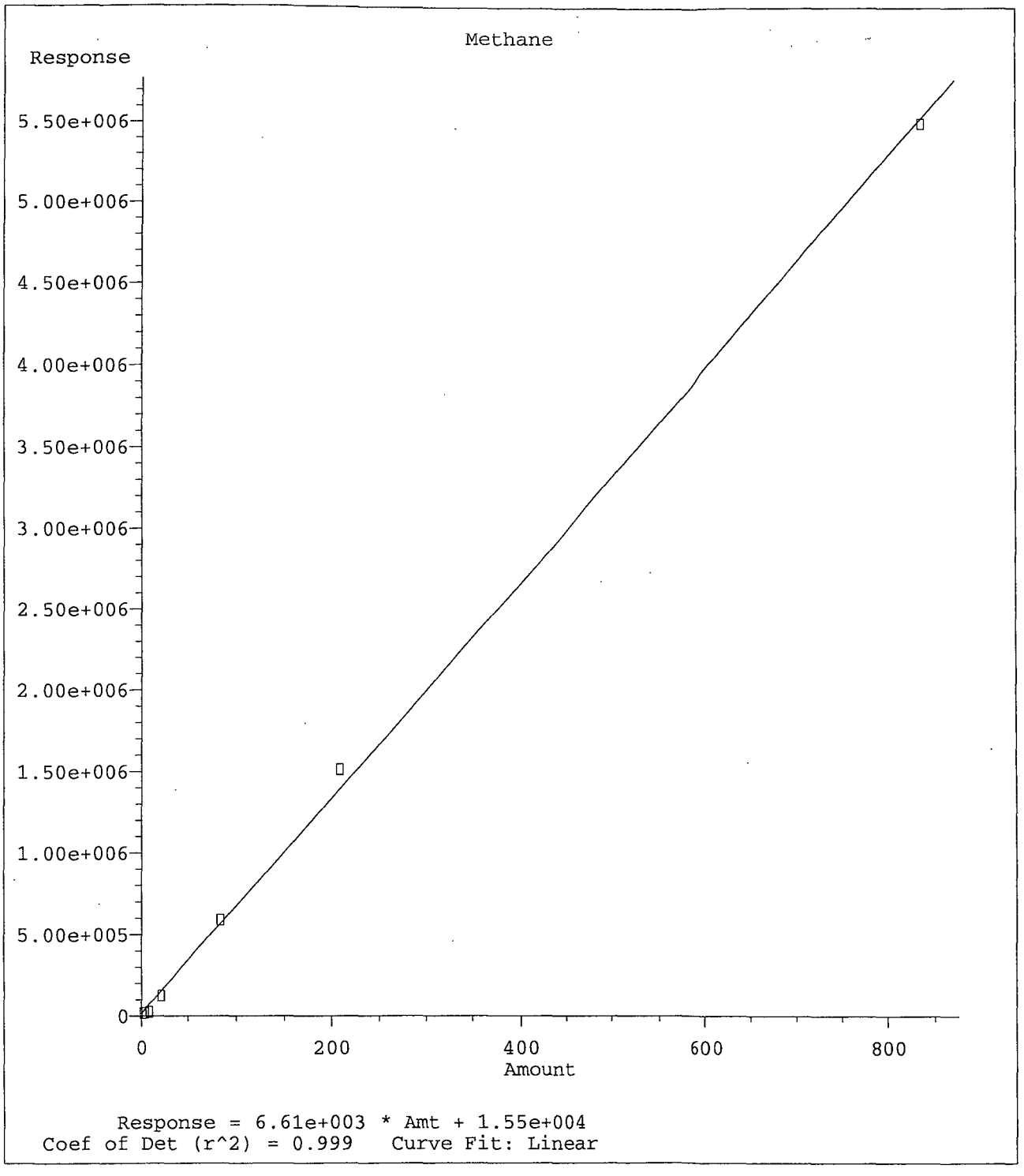
| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| Target Compounds | | | | |
| 1) ATM Methane | 0.71 | 5497199 | 829.373 | ppb |
| 2) ATM Ethane | 0.83 | 8225741 | 1555.950 | ppb |
| 3) ATM Ethene | 0.91 | 6463235 | 1455.245 | ppb |

Target Compounds

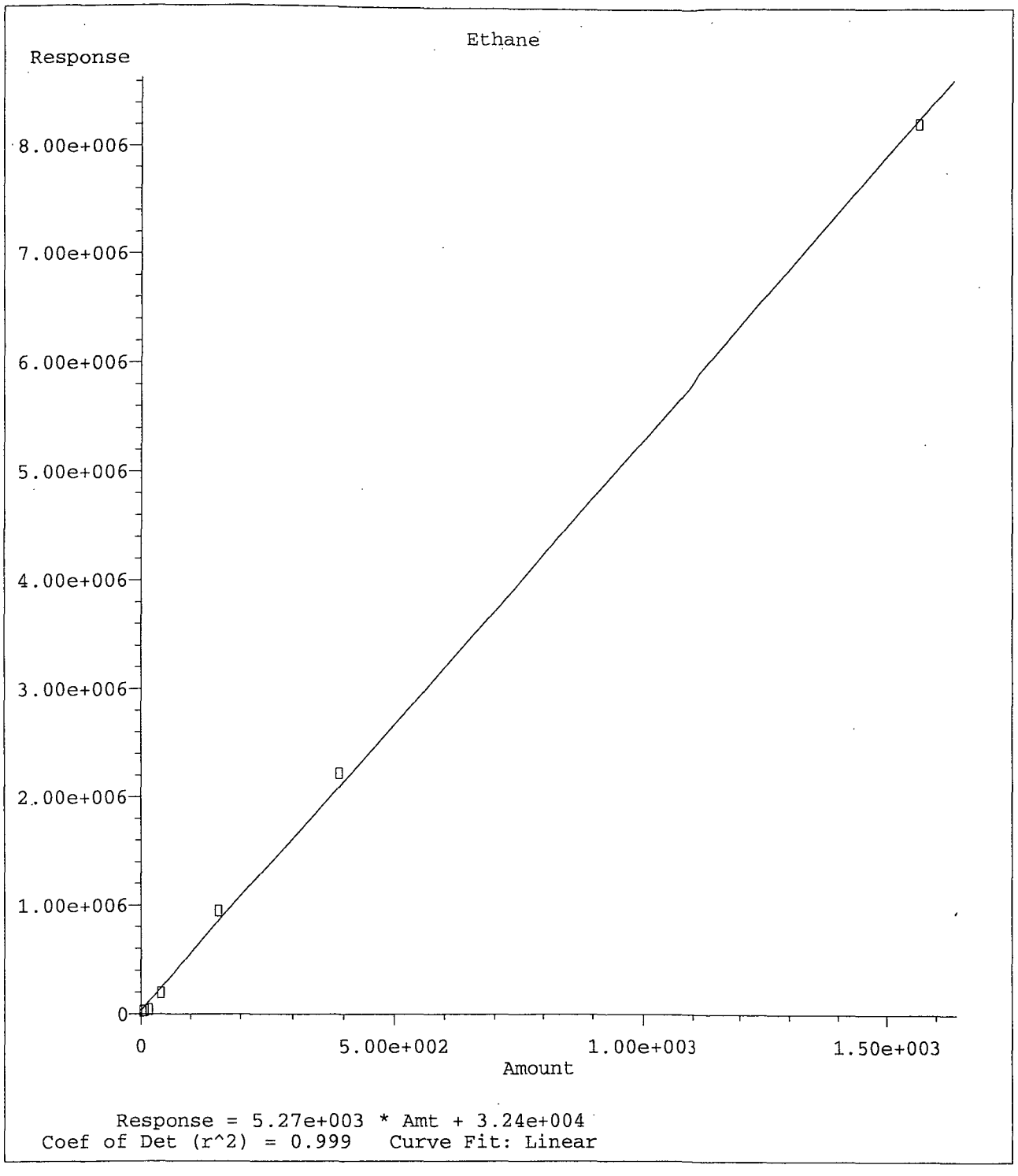
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\190311RS\19031107.D
Sample : RSK Std 7 03/11/19

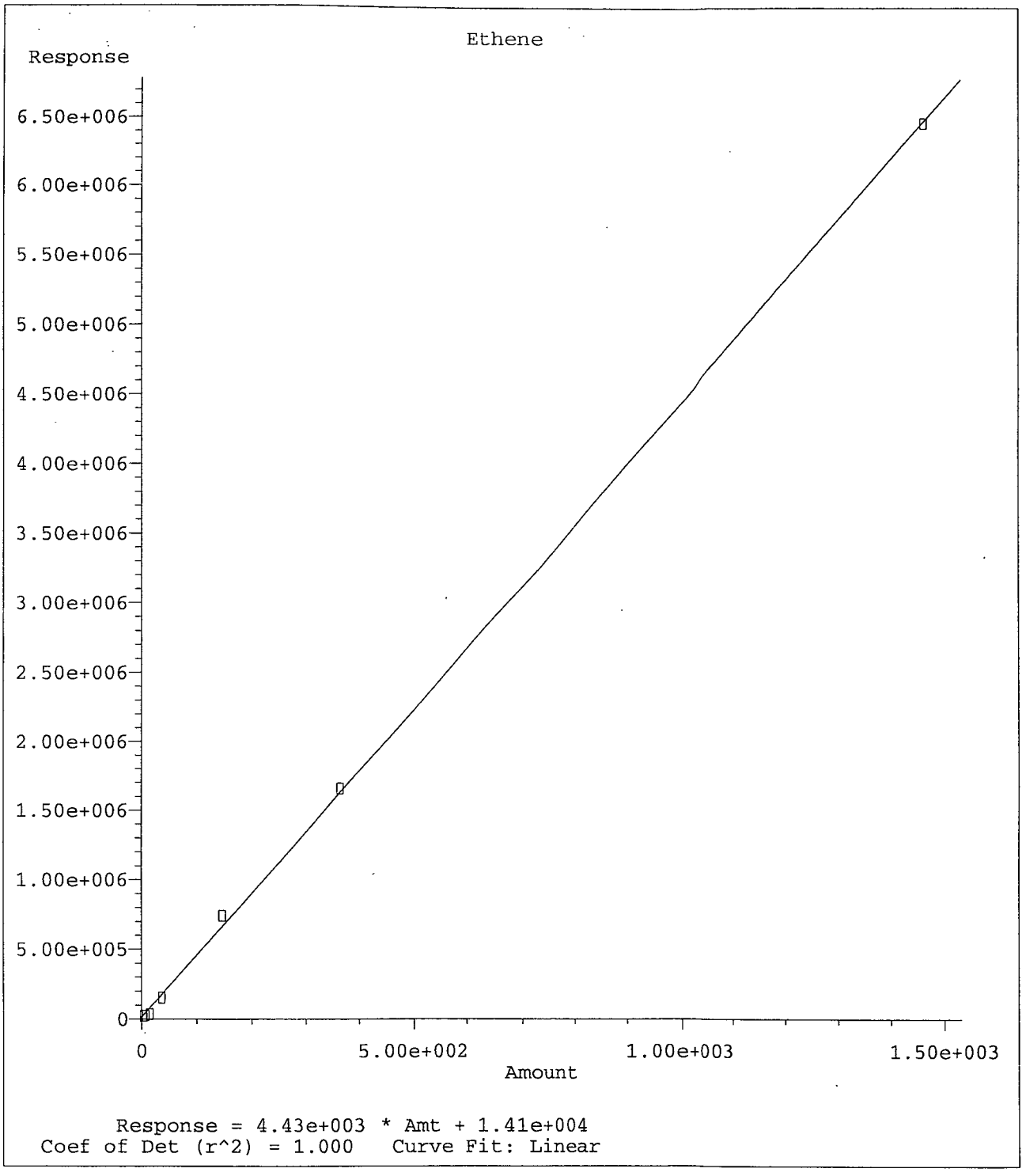





Method Name: G:\ROCKY\DATA\190311RS\RSK0311.M
Calibration Table Last Updated: Mon Mar 11 10:52:05 2019




Method Name: G:\ROCKY\DATA\190311RS\RSK0311.M
Calibration Table Last Updated: Mon Mar 11 10:52:05 2019




Method Name: G:\ROCKY\DATA\190311RS\RSK0311.M
Calibration Table Last Updated: Mon Mar 11 10:52:05 2019

Form 7

# Second Source Calibration

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

SDG No:
Date Analyzed: 03/11/19
Instrument: 7890
Initial Cal. Date: 03/11/19
Data File: 19031108.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | ATML | Methane | 12333 | 15569 | 26 | ATML | 15 |
| 2 | ATML | Ethane | 10333 | 12628 | 22 | ATML | 16 |
| 3 | ATML | Ethene | 8712 | 10096 | 16 | ATML | 12 |
| 4 | | | | | | | |
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| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 21.3 | | |

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19031108.D Vial: 9
Acq On : 11 Mar 19 10:48 Operator: cmm
Sample : SS RSK Std 5 03/11/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 11 10:59 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Mar 11 10:59:14 2019
Response via : Multiple Level Calibration

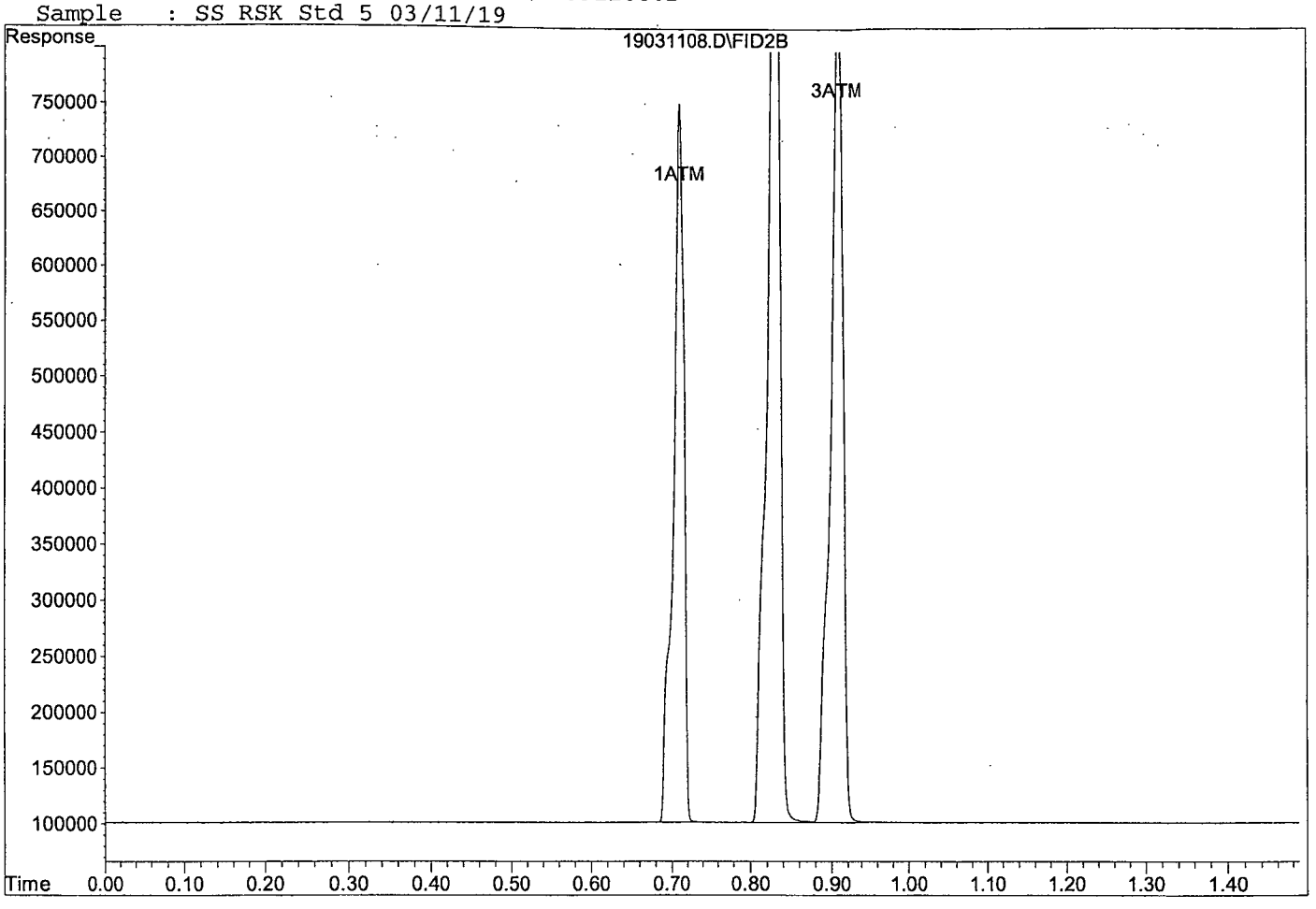
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.71 | 649223 | 95.887 ppb |
| 2) ATM Ethane | 0.83 | 987165 | 181.306 ppb |
| 3) ATM Ethene | 0.91 | 736184 | 162.944 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19031108.D
Sample : SS RSK Std 5 03/11/19



Form 7

# Continuing Calibration

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

SDG No:
Date Analyzed: 04/29/19
Instrument: 7890
Initial Cal. Date: 03/11/19
Data File: 19042900.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | ATML | Methane | 12333 | 13829 | 12 | ATML | 1.8 |
| 2 | ATML | Ethane | 10333 | 11634 | 13 | ATML | 6.5 |
| 3 | ATML | Ethene | 8712 | 9351 | 7.3 | ATML | 3.3 |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
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| 16 | | | | | | | |
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| 18 | | | | | | | |
| 19 | | | | | | | |
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| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |
| 25 | | | | | | | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 10.8 | | |

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042900.D Vial: 1
Acq On : 29 Apr 19 11:03 Operator: cmm
Sample : 190429A LCS/CCV RSK Std 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:07 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

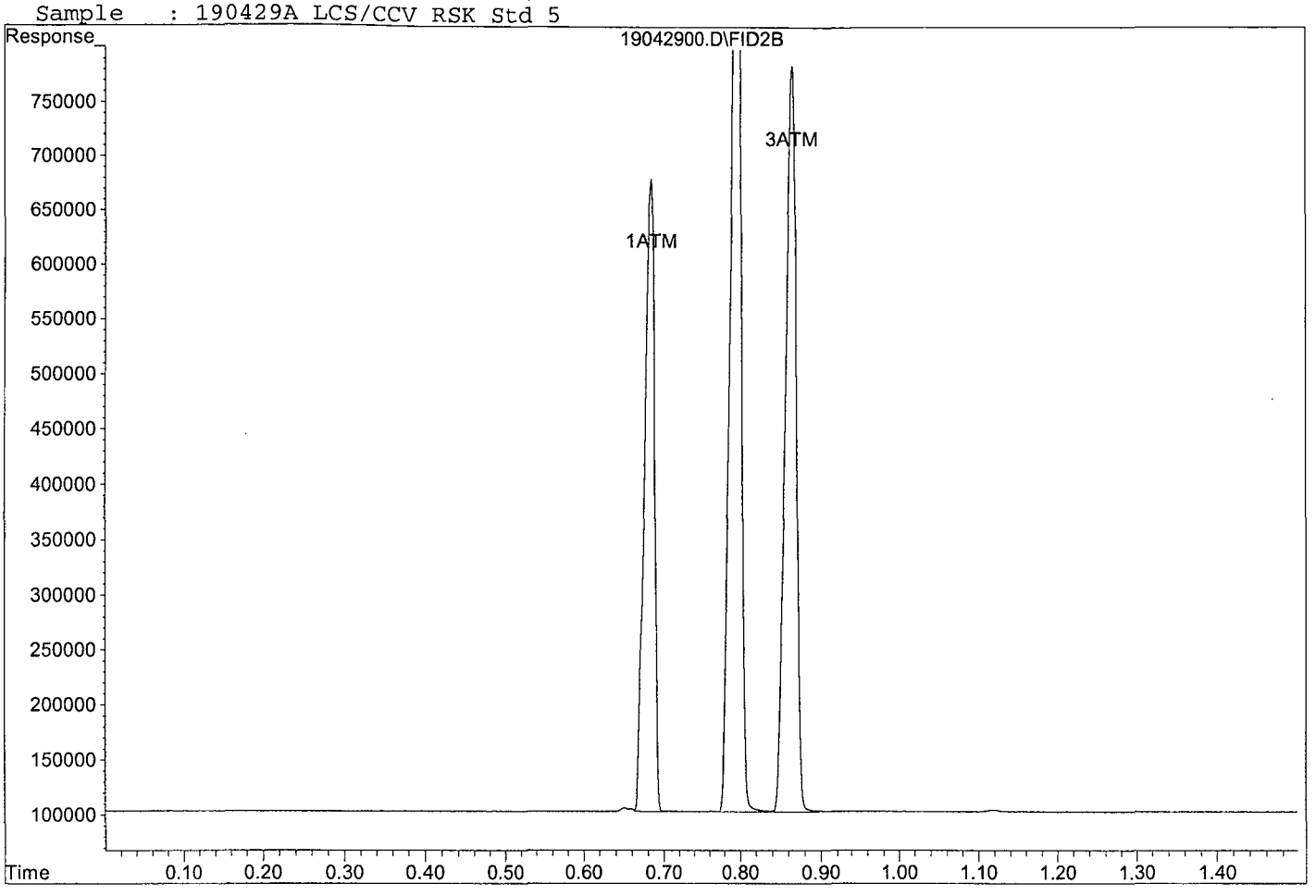
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.68 | 576667 | 84.909 ppb |
| 2) ATM Ethane | 0.80 | 909493 | 166.556 ppb |
| 3) ATM Ethene | 0.86 | 681904 | 150.696 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19042900.D
Sample : 190429A LCS/CCV RSK Std 5



Form 7

# Ending Calibration

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

SDG No:
Date Analyzed: 04/29/19
Instrument: 7890
Initial Cal. Date: 03/11/19
Data File: 19042918.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | ATML | Methane | 12333 | 10517 | 15 | ATML | 23 |
| 2 | ATML | Ethane | 10333 | 8572 | 17 | ATML | 23 |
| 3 | ATML | Ethene | 8712 | 6817 | 22 | ATML | 25 |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
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| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 18.0 | | |

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042918.D Vial: 19
Acq On : 29 Apr 19 11:54 Operator: cmm
Sample : Ending CCV RSK Std 5 04/29/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:56 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

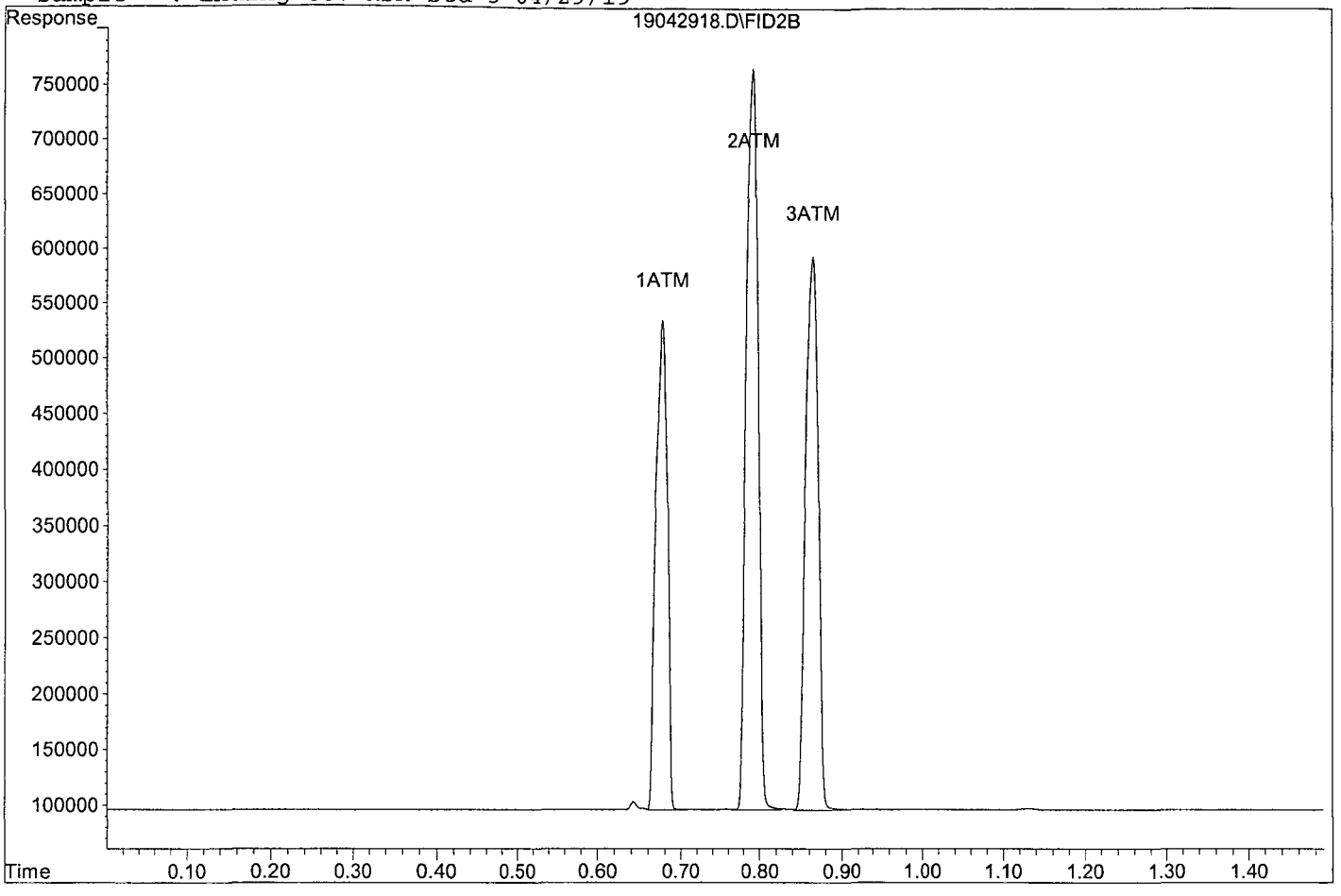
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.68 | 438547 | 64.012 ppb |
| 2) ATM Ethane | 0.79 | 670103 | 121.095 ppb |
| 3) ATM Ethene | 0.86 | 497073 | 108.989 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19042918.D
Sample : Ending CCV RSK Std 5 04/29/19



# ORGANICS
# Raw Data

APPL, INC.

Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042906.D Vial: 7
Acq On : 29 Apr 19 11:23 Operator: cmm
Sample : AZ90050W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:28 2019 Quant Results File: RSK0311.RES

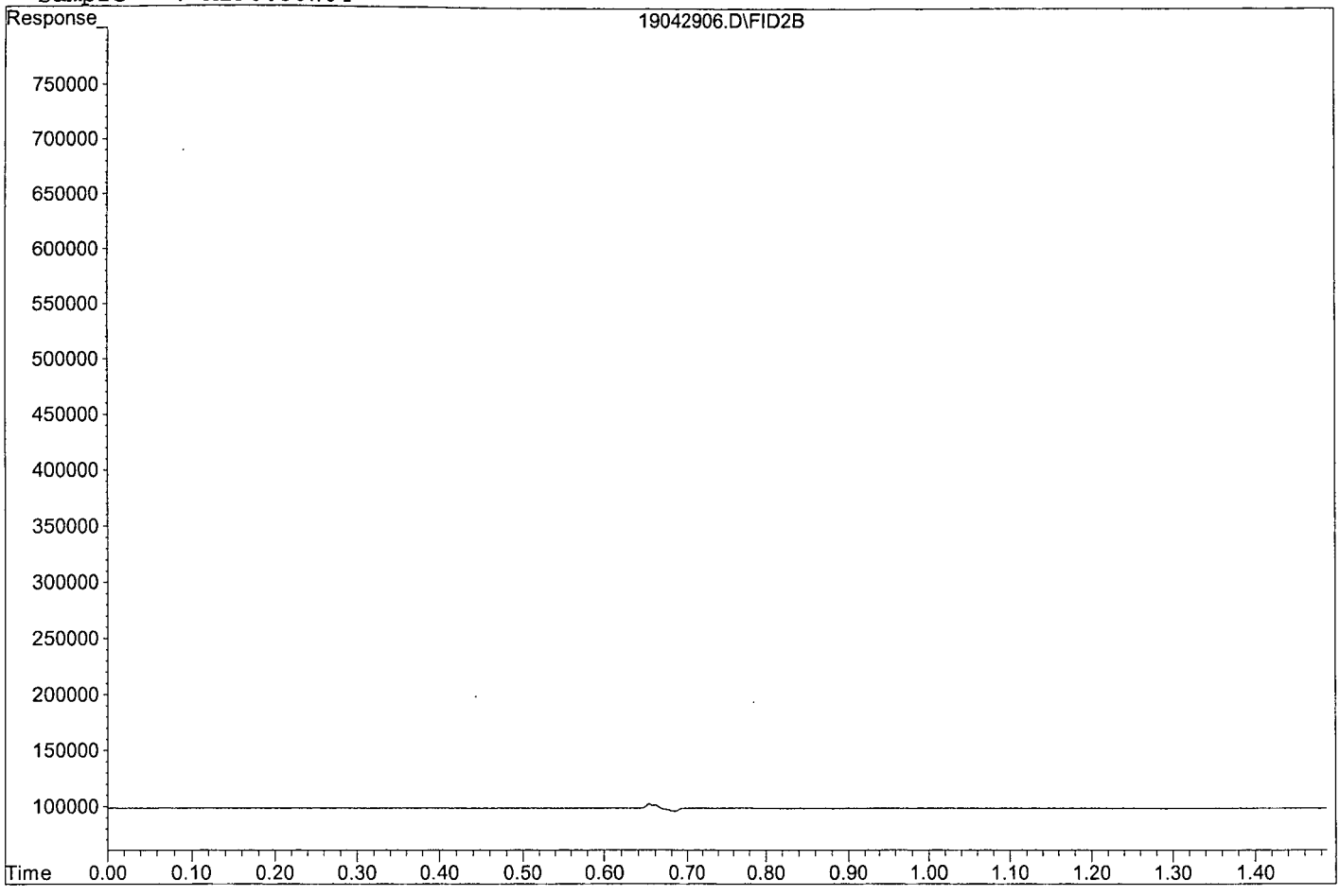
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042906.D
Sample : AZ90050W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042907.D Vial: 8
Acq On : 29 Apr 19 11:27 Operator: cmm
Sample : AZ90051W07 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:30 2019 Quant Results File: RSK0311.RES

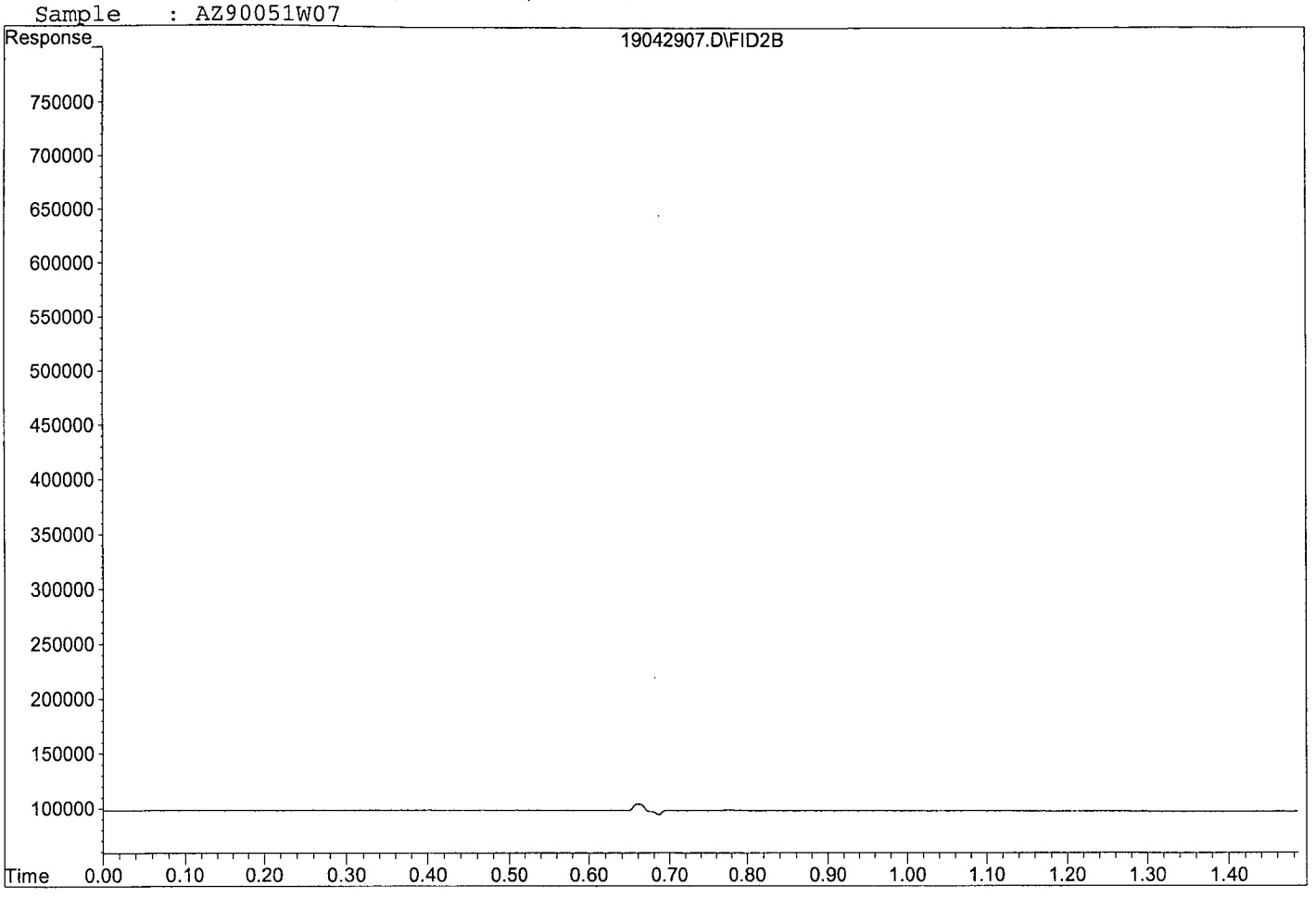
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042907.D
Sample : AZ90051W07



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042910.D Vial: 11
Acq On : 29 Apr 19 11:36 Operator: cmm
Sample : AZ90053W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:39 2019 Quant Results File: RSK0311.RES

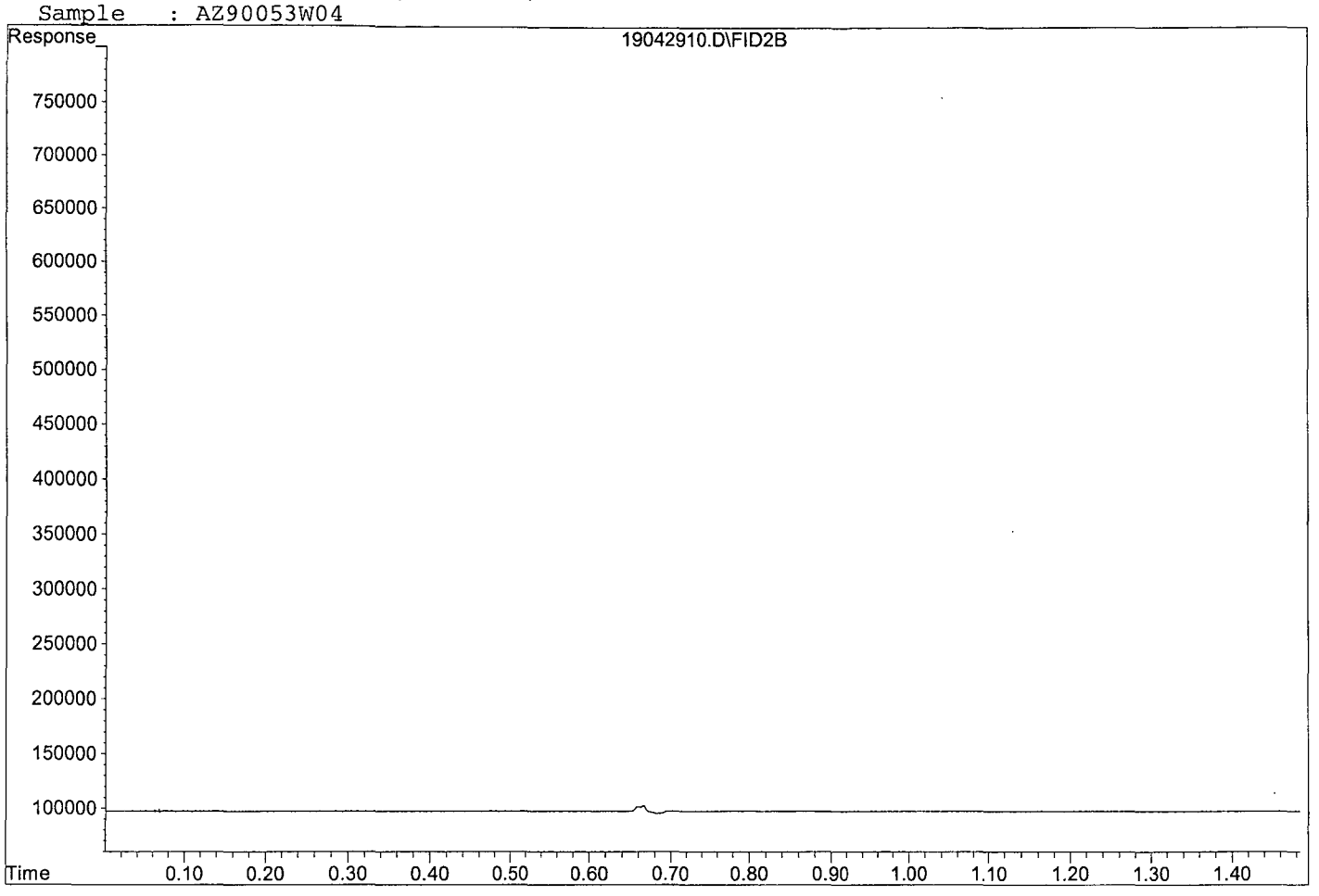
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042910.D
Sample : AZ90053W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042911.D Vial: 12
Acq On : 29 Apr 19 11:38 Operator: cmm
Sample : AZ90054W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:41 2019 Quant Results File: RSK0311.RES

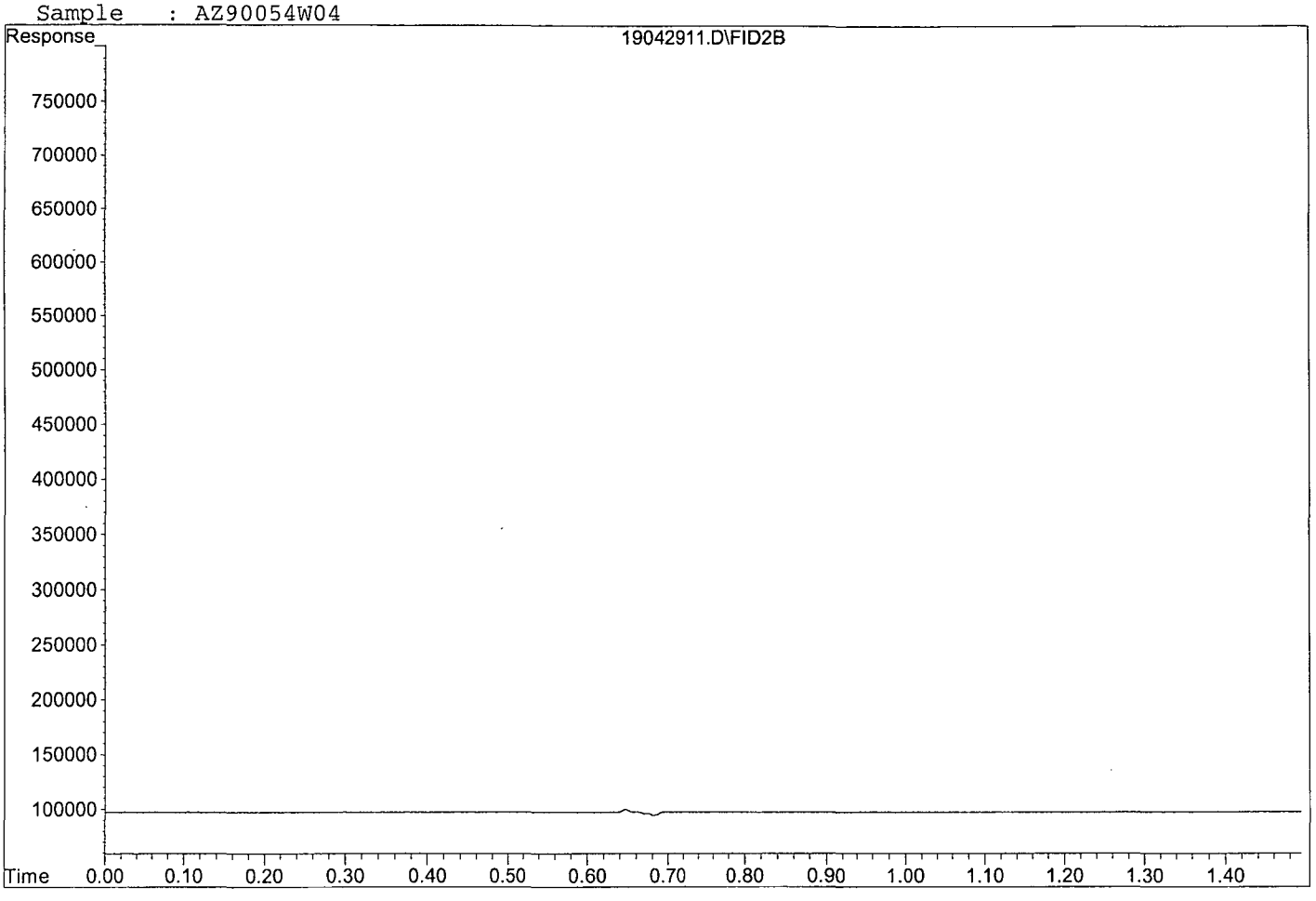
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042911.D
Sample : AZ90054W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042912.D Vial: 13
Acq On : 29 Apr 19 11:40 Operator: cmm
Sample : AZ90055W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:43 2019 Quant Results File: RSK0311.RES

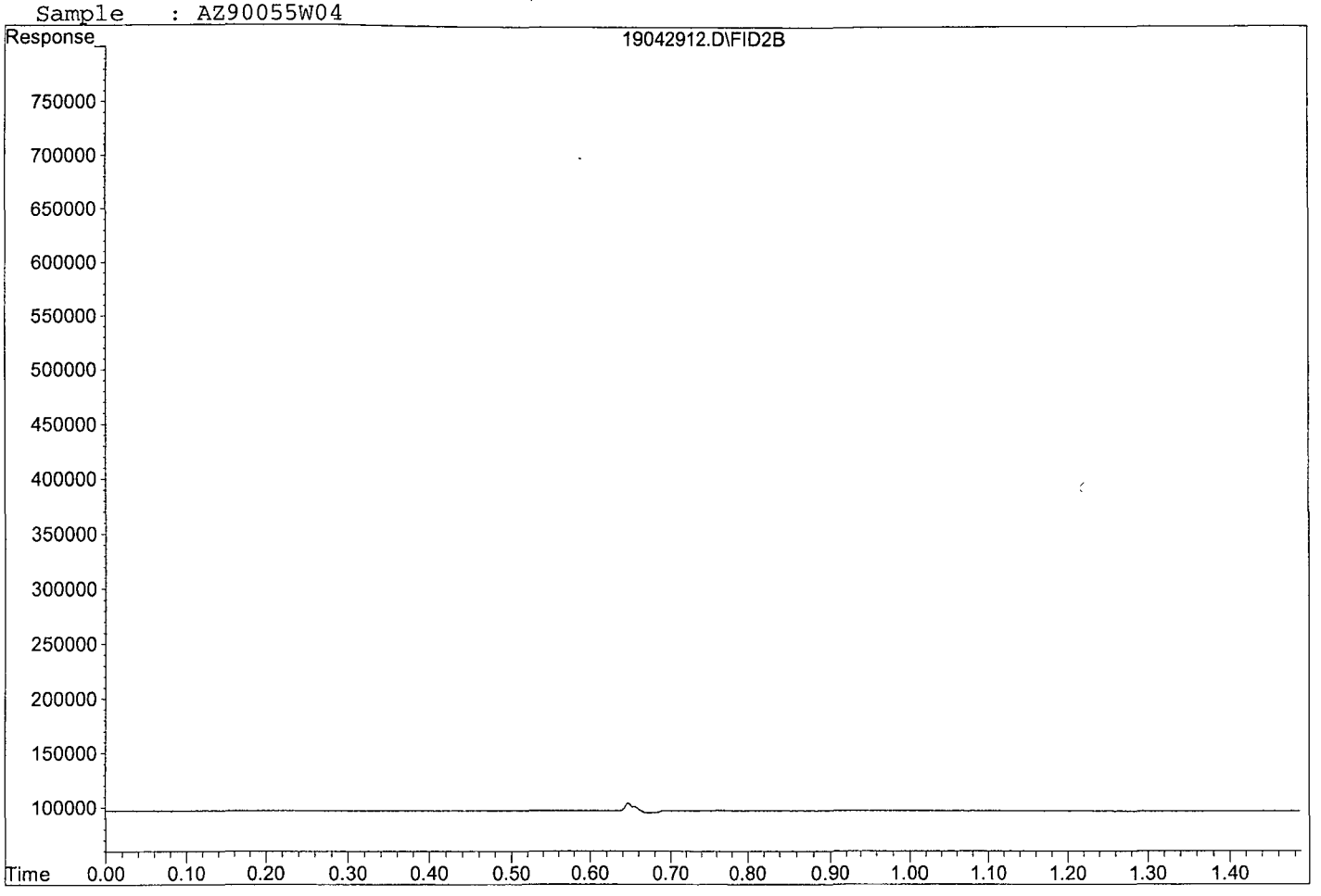
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042912.D
Sample : AZ90055W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042913.D Vial: 14
Acq On : 29 Apr 19 11:43 Operator: cmm
Sample : AZ90056W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:45 2019 Quant Results File: RSK0311.RES

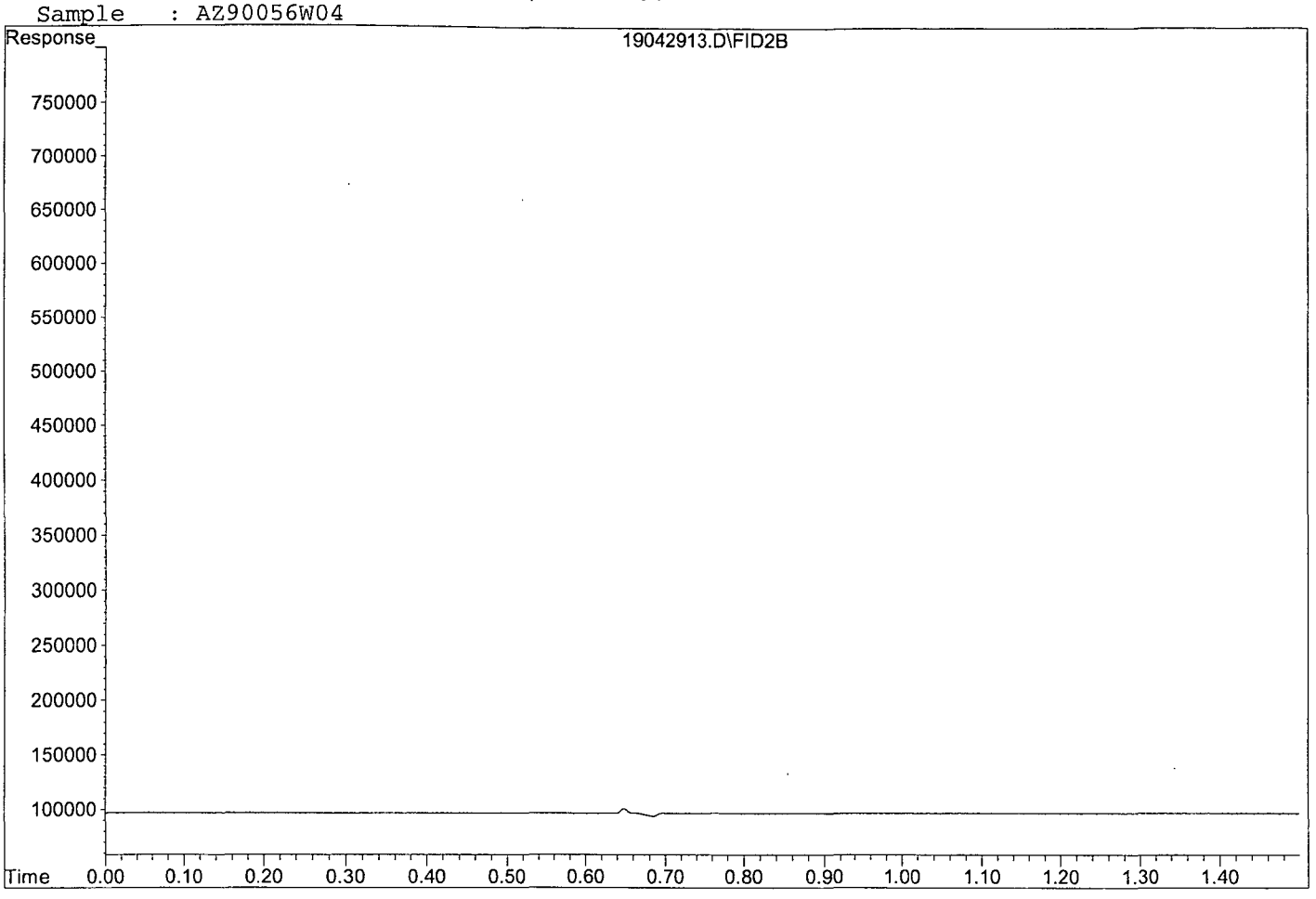
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042913.D
Sample : AZ90056W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042914.D Vial: 15
Acq On : 29 Apr 19 11:45 Operator: cmm
Sample : AZ90057W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:48 2019 Quant Results File: RSK0311.RES

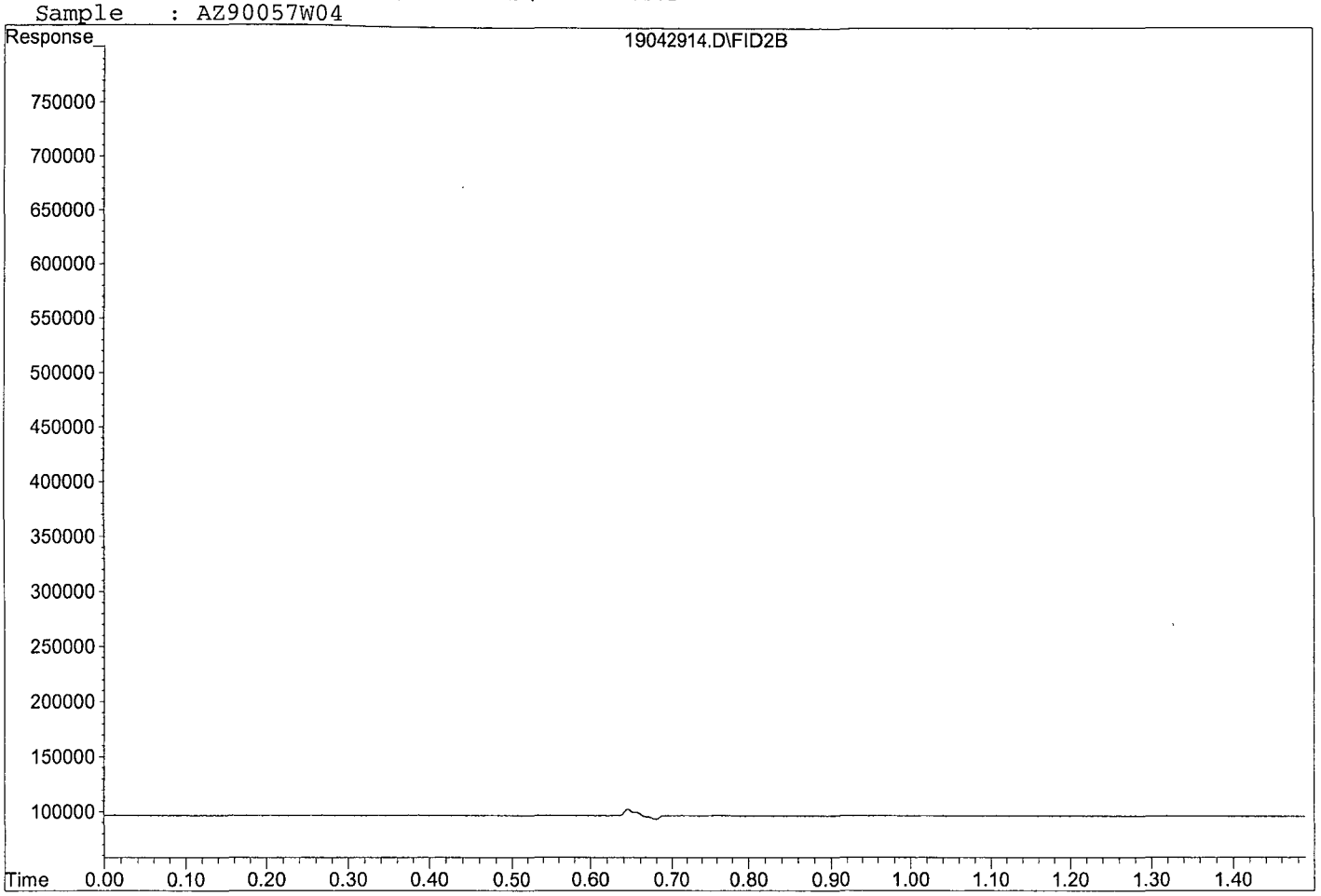
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042914.D
Sample : AZ90057W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042915.D Vial: 16
Acq On : 29 Apr 19 11:47 Operator: cmm
Sample : AZ90058W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:50 2019 Quant Results File: RSK0311.RES

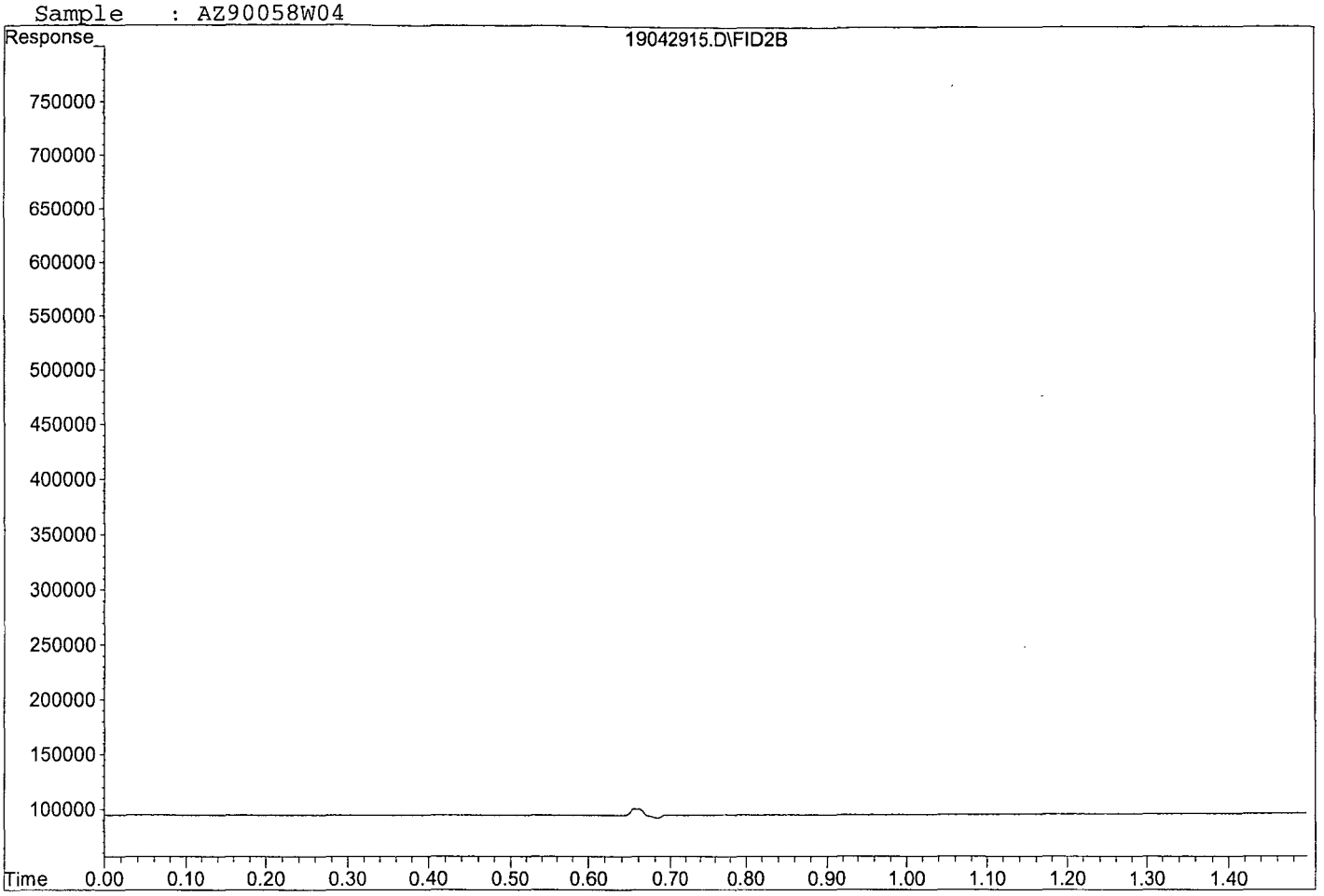
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042915.D
Sample : AZ90058W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042916.D Vial: 17
Acq On : 29 Apr 19 11:49 Operator: cmm
Sample : AZ90059W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:52 2019 Quant Results File: RSK0311.RES

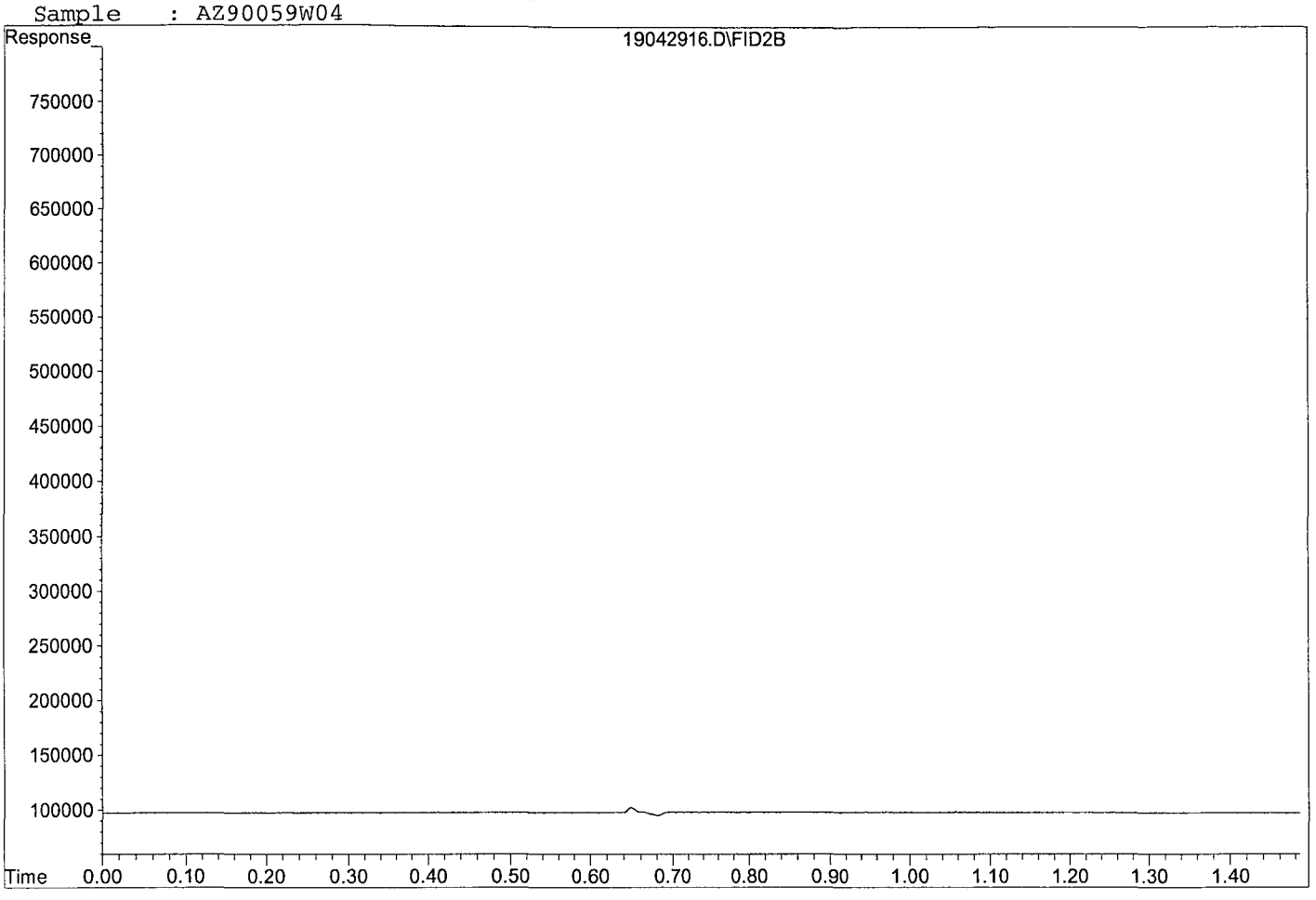
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042916.D
Sample : AZ90059W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042917.D Vial: 18
Acq On : 29 Apr 19 11:51 Operator: cmm
Sample : AZ90060W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:55 2019 Quant Results File: RSK0311.RES

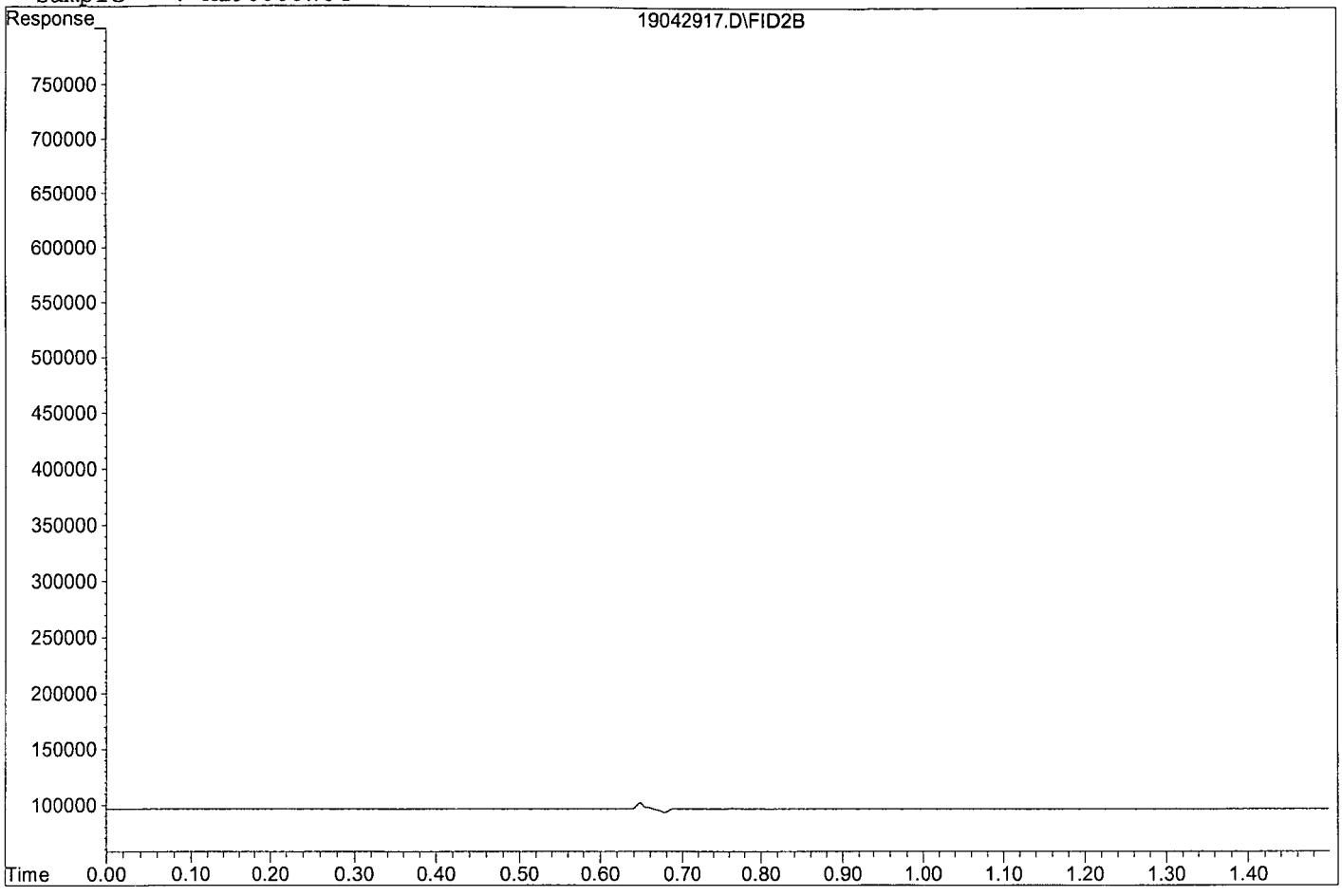
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042917.D
Sample : AZ90060W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042902.D Vial: 3
Acq On : 29 Apr 19 11:12 Operator: cmm
Sample : 190429A Blk Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:15 2019 Quant Results File: RSK0311.RES

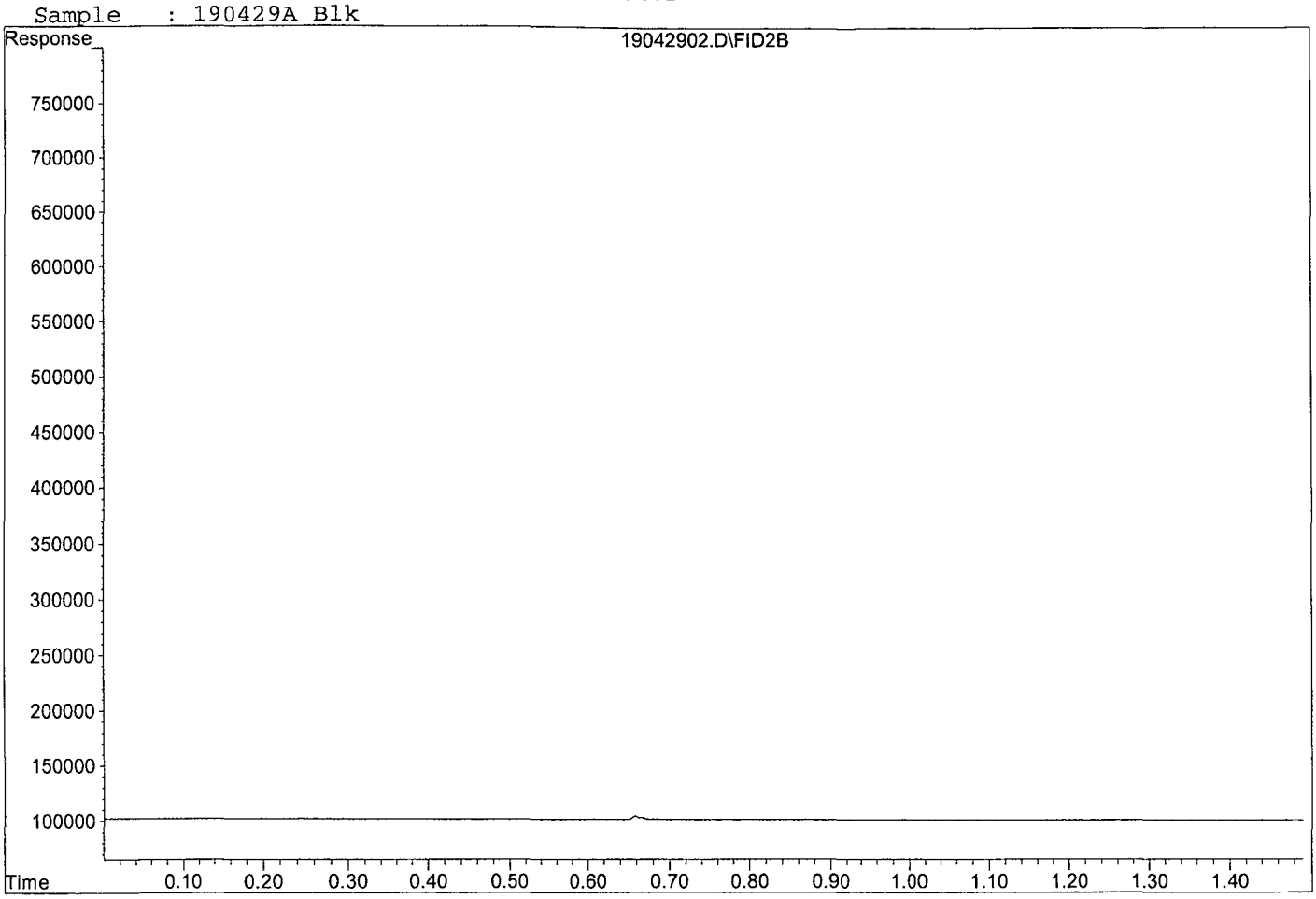
Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| Target Compounds | | | | | |
| Target Compounds | | | | | |
| 1) ATM Methane | 0.00 | 0 | N.D. | ppb | d |
| 2) ATM Ethane | 0.00 | 0 | N.D. | ppb | d |
| 3) ATM Ethene | 0.00 | 0 | N.D. | ppb | d |

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

Data File: G:\ROCKY\DATA\190311RS\19042902.D
Sample : 190429A Blk



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042900.D Vial: 1
Acq On : 29 Apr 19 11:03 Operator: cmm
Sample : 190429A LCS/CCV RSK Std 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:07 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

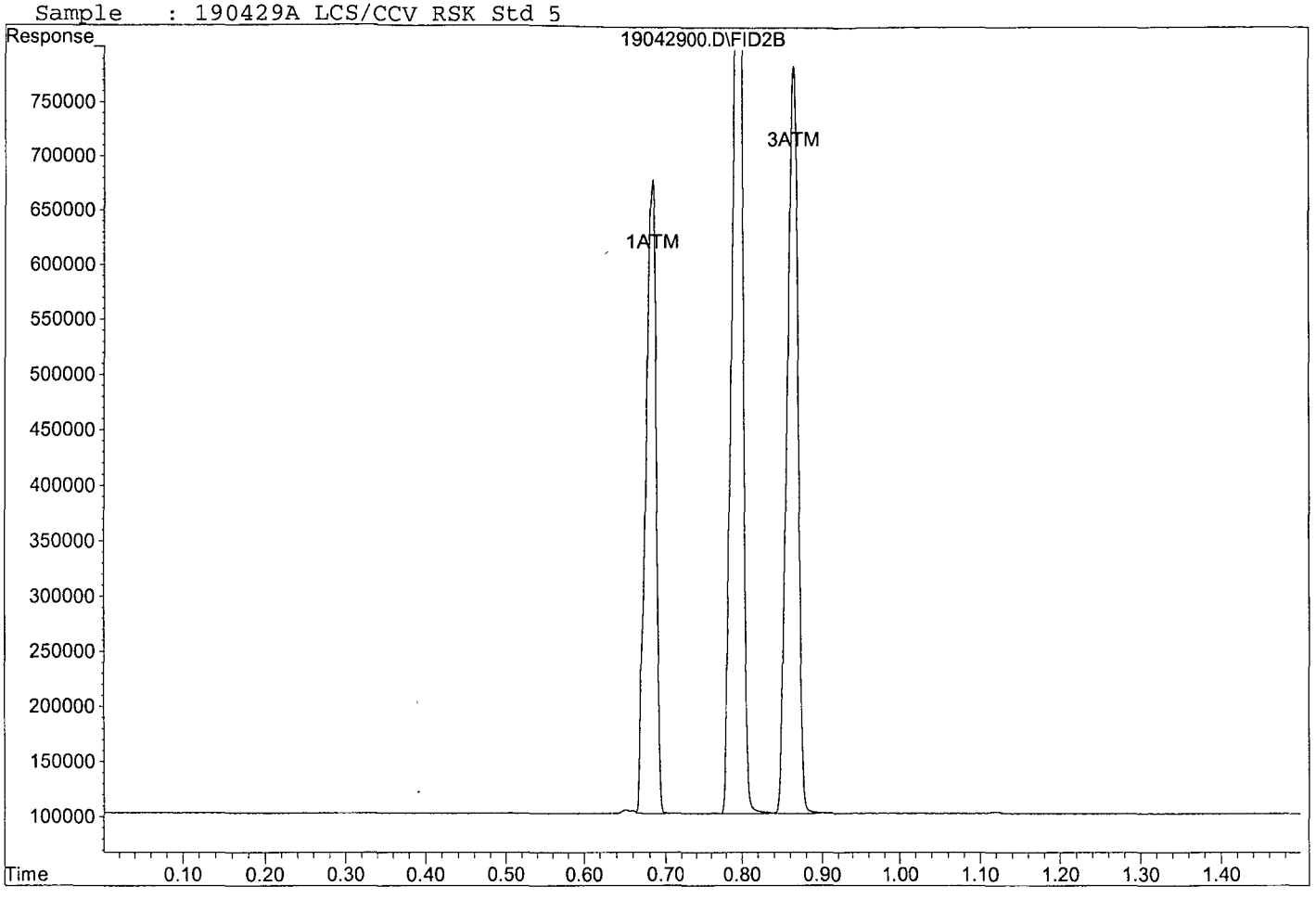
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.68 | 576667 | 84.909 ppb |
| 2) ATM Ethane | 0.80 | 909493 | 166.556 ppb |
| 3) ATM Ethene | 0.86 | 681904 | 150.696 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19042900.D
Sample : 190429A LCS/CCV RSK Std 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042901.D Vial: 2
Acq On : 29 Apr 19 11:07 Operator: cmm
Sample : 190429A LCSD RSK Std 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:12 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

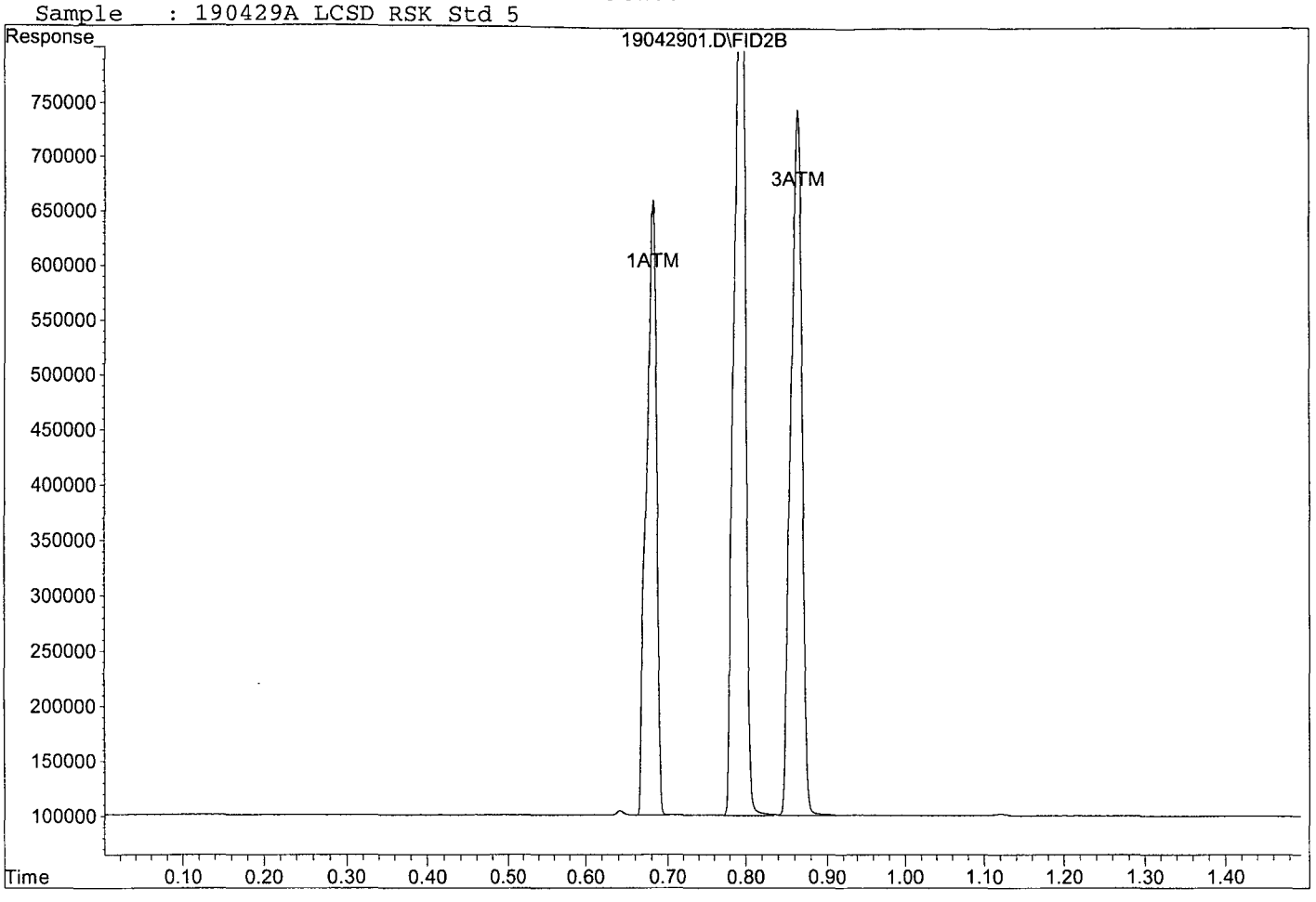
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.68 | 560268 | 82.428 ppb |
| 2) ATM Ethane | 0.79 | 865912 | 158.280 ppb |
| 3) ATM Ethene | 0.86 | 644404 | 142.234 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19042901.D
Sample : 190429A LCSD RSK Std 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042908.D Vial: 9
Acq On : 29 Apr 19 11:29 Operator: cmm
Sample : AZ90051W08 MS RSK Std 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:32 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

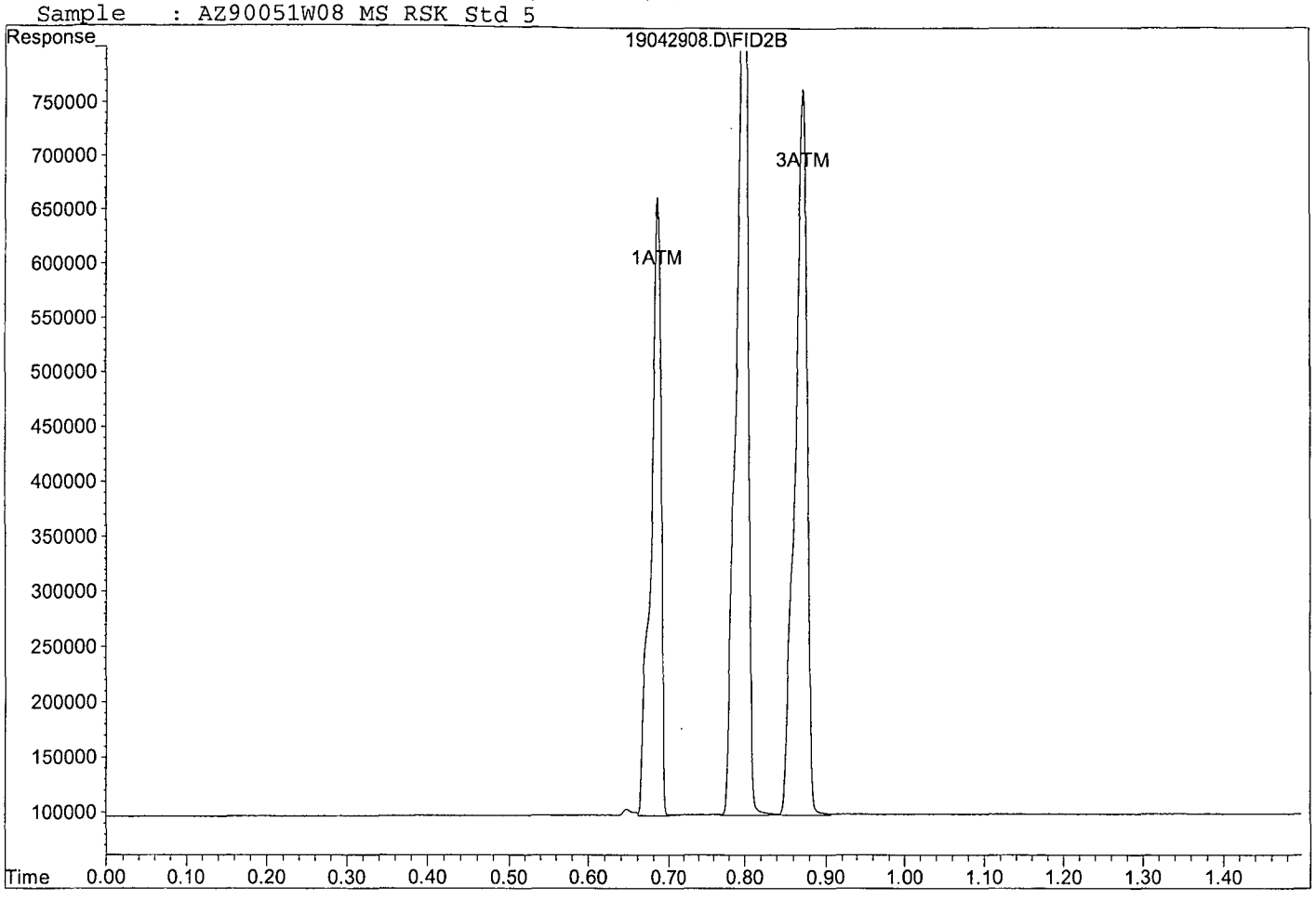
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.69 | 565427 | 83.209 ppb |
| 2) ATM Ethane | 0.80 | 917406 | 168.059 ppb |
| 3) ATM Ethene | 0.87 | 666706 | 147.267 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19042908.D
Sample : AZ90051W08 MS RSK Std 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\190311RS\19042909.D Vial: 10
Acq On : 29 Apr 19 11:32 Operator: cmm
Sample : AZ90051W08 MSD RSK Std 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 29 11:36 2019 Quant Results File: RSK0311.RES

Method : G:\ROCKY\DATA\190311RS\RSK0311.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 19 11:51:54 2019
Response via : Multiple Level Calibration

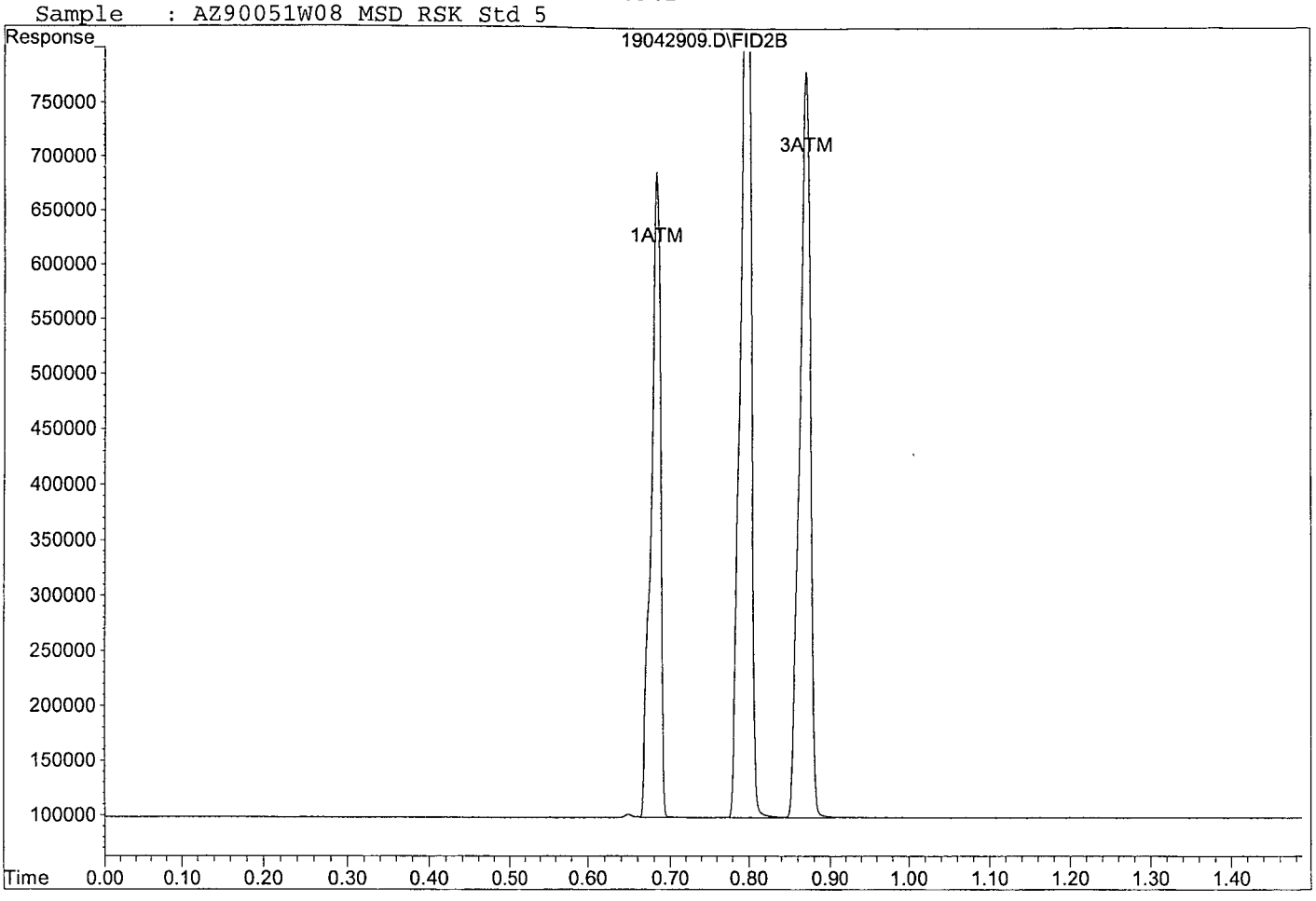
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| Target Compounds | | | |
| 1) ATM Methane | 0.68 | 588410 | 86.686 ppb |
| 2) ATM Ethane | 0.80 | 951633 | 174.559 ppb |
| 3) ATM Ethene | 0.87 | 682625 | 150.859 ppb |

Target Compounds

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

Data File: G:\ROCKY\DATA\190311RS\19042909.D
Sample : AZ90051W08 MSD RSK Std 5



**Primary Source Stock Standard 10,000ppmV** **Manufacturer Exp Date 9-21-21**

RSK Gas Mix (Scott Specialty Gas) Cat.# 0104E40028`4, Lot # 160-401303031-39773

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

**RSK Calibration Curve (prepared in 1.0 L Tedlar Bags at room temp)** **Expires 04/11/19** **CMM 03/11/19**

| Analye | Conc Std 1 (1/2 = LOD) (ug/L) | Conc Std 2 (LOQ Chk) (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) |
|---|---|---|---|---|---|---|---|
| Methane (MW 16.04) | 2.08 | 4.16 | 8.34 | 20.85 | 83.40 | 208.5 | 834.0 |
| Ethane (MW 30.07) | 3.91 | 7.81 | 15.6 | 39.09 | 156.35 | 390.9 | 1563.5 |
| Ethene (MW 28.05) | 3.65 | 7.30 | 14.6 | 36.46 | 145.84 | 364.6 | 1458.4 |
| Stock Source | RSK Tank Lot #170PLU5SPC06L-35410 | RSK Tank Lot #170PLU5SPC06L-35410 | RSK Tank Lot #170PLU5SPC06L-35410 | RSK Tank Lot #170PLU5SPC06L-35410 | RSK Tank Lot #170PLU5SPC06L-35410 | RSK Tank Lot #170PLU5SPC06L-35410 | RSK Tank Lot #170PLU5SPC06L-35410 |
| Stock Conc (ppmv) | 10,000 ppmV | 10,000 ppmV | 10,000 ppmV | 10,000 ppmV | 10,000 ppmV | 10,000 ppmV | 10,000 ppmV |
| Stock Aliquot (mL) | 0.010 | 0.020 | 0.040 | 0.100 | 0.400 | 1.00 | 4.00 |
| Final Volume P&T Water | 32 mL | 32 mL | 32 mL | 32 mL | 32 mL | 32 mL | 32 mL |

**Second Source Stock Standard 10,000ppmV** **Manufacturer Exp date 9-21-2021**

RSK Gas Mix (Scott Specialty Gas) Cat.# 23452, Lot # 160-401303032-1-39774

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

**Second Source** **Expires 03/12/19** **CMM 03/11/19**

2.0mL of SS from tank into 980 mL Nitrogen

final conc: 13.3ug/L Methane, 25.0 ug/L Ethane, and 23.3 ug/L Ethene

**CCV/LCS/LCSD** **CMM 04/29/19**

Spike 0.400mL of 10,000ppmV into 32mL DI water, with 8mL Nitrogen headspace

final conc: 83.40ug/L Methane, 156.35ug/L Ethane, and 145.84ug/L Ethene

**AZ90051W07 MS/MSD** **CMM 04/29/19**

Spike 0.400mL of 10,000ppmV into 32mL DI water, with 8mL Nitrogen headspace

final conc: 83.40ug/L Methane, 156.35ug/L Ethane, and 145.84ug/L Ethene

# Injection Log

Directory: G:\ROCKY\DATA\190311RS\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 19031100.D | 1 | RSK Std 1 03/11/19 | 125uL from RSK Std 3 | 11 Mar 19 10:21 |
| 2 | 2 | 19031101.D | 1 | RSK Std 2 03/11/19 | 250uL from RSK Std 3 | 11 Mar 19 10:23 |
| 3 | 4 | 19031103.D | 1 | RSK Std 3 03/11/19 | | 11 Mar 19 10:28 |
| 4 | 5 | 19031104.D | 1 | RSK Std 4 03/11/19 | | 11 Mar 19 10:31 |
| 5 | 6 | 19031105.D | 1 | RSK Std 5 03/11/19 | | 11 Mar 19 10:33 |
| 6 | 7 | 19031106.D | 1 | RSK Std 6 03/11/19 | | 11 Mar 19 10:35 |
| 7 | 8 | 19031107.D | 1 | RSK Std 7 03/11/19 | | 11 Mar 19 10:37 |
| 8 | 9 | 19031108.D | 1 | SS RSK Std 5 03/11/19 | | 11 Mar 19 10:48 |
| 9 | 1 | 19042900.D | 1 | 190429A LCS/CCV RSK Std 5 | | 29 Apr 19 11:03 |
| 10 | 2 | 19042901.D | 1 | 190429A LCSD RSK Std 5 | | 29 Apr 19 11:07 |
| 11 | 3 | 19042902.D | 1 | 190429A Blk | | 29 Apr 19 11:12 |
| 15 | 7 | 19042906.D | 1 | AZ90050W04 | | 29 Apr 19 11:23 |
| 16 | 8 | 19042907.D | 1 | AZ90051W07 | | 29 Apr 19 11:27 |
| 17 | 9 | 19042908.D | 1 | AZ90051W08 MS RSK Std 5 | | 29 Apr 19 11:29 |
| 18 | 10 | 19042909.D | 1 | AZ90051W08 MSD RSK Std 5 | | 29 Apr 19 11:32 |
| 19 | 11 | 19042910.D | 1 | AZ90053W04 | | 29 Apr 19 11:36 |
| 20 | 12 | 19042911.D | 1 | AZ90054W04 | | 29 Apr 19 11:38 |
| 21 | 13 | 19042912.D | 1 | AZ90055W04 | | 29 Apr 19 11:40 |
| 22 | 14 | 19042913.D | 1 | AZ90056W04 | | 29 Apr 19 11:43 |
| 23 | 15 | 19042914.D | 1 | AZ90057W04 | | 29 Apr 19 11:45 |
| 24 | 16 | 19042915.D | 1 | AZ90058W04 | | 29 Apr 19 11:47 |
| 25 | 17 | 19042916.D | 1 | AZ90059W04 | | 29 Apr 19 11:49 |
| 26 | 18 | 19042917.D | 1 | AZ90060W04 | | 29 Apr 19 11:51 |
| 27 | 19 | 19042918.D | 1 | Ending CCV RSK Std 5 04/29/19 | | 29 Apr 19 11:54 |

# INORGANIC ANALYSIS
## Calibration Data

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 88701 SDG: 88701

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: o2si

Analysis Date: 05/01/19

| Analyte | Calibration Verification | | | | | | | | | M |
|---|---|---|---|---|---|---|---|---|---|---|
| | True ICV | Found 16:50 | %R(1) | True CCV1 | Found 18:39 | %R(1) | True | Found | %R(1) | |
| TOXN | 3 | 2.9656 | 98.9 | 3 | 3.0459 | 102 | | | | |

(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.: 88701 SDG: 88701

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

| Analyte | Calibration Blanks | | | | | | | | | | M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ICB 05/01/19 16:51 | C | CCB 05/01/19 18:41 | C | | C | | C | | C | |
| TOXN | .100 | U | .100 | U | | | | | | | |

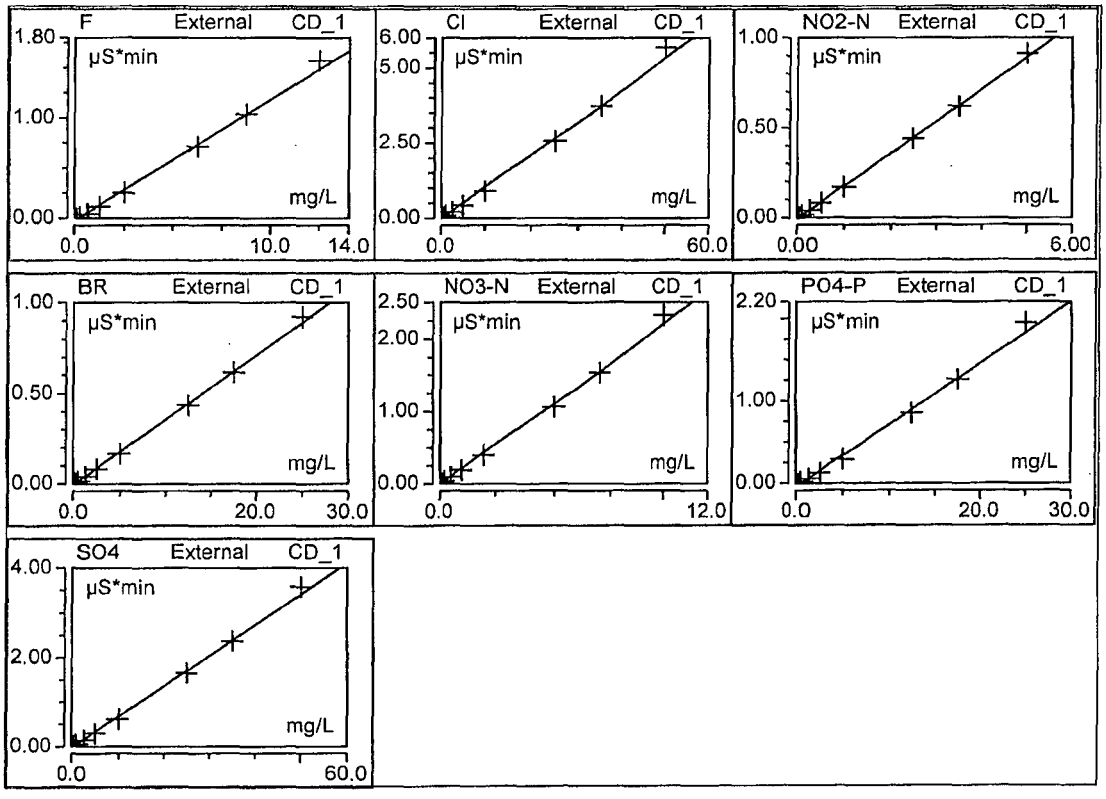
## Calibration Batch Report

| | | | |
|---|---|---|---|
| *Sequence:* | 190401 | *Injection Volume:* | 25.00 |
| *Instrument Method:* | Anions IM | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:26 | *Run Time:* | 5 |

**Calibration Summary**

| Peak Name | Eval.Type | Cal.Type | Points | Offset (C0) | Slope (C1) | Curve (C2) | Coeff.Det. % |
|---|---|---|---|---|---|---|---|
| F | Area | Lin, WithOffset, 1/A | 8.000 | -0.017 | 0.120 | 0.000 | 99.4806 |
| Cl | Area | Lin, WithOffset, 1/A | 8.000 | -0.028 | 0.107 | 0.000 | 99.4166 |
| NO2-N | Area | Lin, WithOffset, 1/A | 8.000 | -0.001 | 0.179 | 0.000 | 99.9419 |
| BR | Area | Lin, WithOffset, 1/A | 8.000 | -0.002 | 0.036 | 0.000 | 99.8824 |
| NO3-N | Area | Lin, WithOffset, 1/A | 8.000 | -0.007 | 0.222 | 0.000 | 99.7096 |
| PO4-P | Area | Lin, WithOffset, 1/A | 7.000 | -0.032 | 0.075 | 0.000 | 99.3402 |
| SO4 | Area | Lin, WithOffset, 1/A | 8.000 | -0.012 | 0.069 | 0.000 | 99.7352 |

| Injection Name | Amount mg/L CD_1 F | Amount mg/L CD_1 Cl | Amount mg/L CD_1 NO2-N | Amount mg/L CD_1 BR | Amount mg/L CD_1 NO3-N | Amount mg/L CD_1 PO4-P | Amount mg/L CD_1 SO4 |
|---|---|---|---|---|---|---|---|
| i cal 1 | 0.152 | 0.5642 | 0.0447 | 0.2325 | 0.1005 | 0.4778 | 0.4991 |
| i cal 2 | 0.223 | 1.0054 | 0.1008 | 0.5019 | 0.2020 | 0.6726 | 1.0108 |
| i cal 3 | 0.498 | 2.1345 | 0.2378 | 1.1759 | 0.4556 | 1.1460 | 2.2782 |
| i cal 4 | 1.078 | 4.1718 | 0.4757 | 2.3481 | 0.8983 | 2.1327 | 4.5095 |
| i cal 5 | 2.245 | 8.6460 | 0.9640 | 4.7379 | 1.8243 | 4.3601 | 9.1640 |
| i cal 6 | 6.079 | 24.1535 | 2.4749 | 12.2599 | 4.8399 | 11.9336 | 24.2601 |
| i cal 7 | 8.756 | 35.0732 | 3.4778 | 17.3494 | 6.9503 | 17.3831 | 34.7622 |
| i cal 8 | 13.194 | 53.1515 | 5.1141 | 25.8443 | 10.5090 | 26.6219 | 52.4162 |



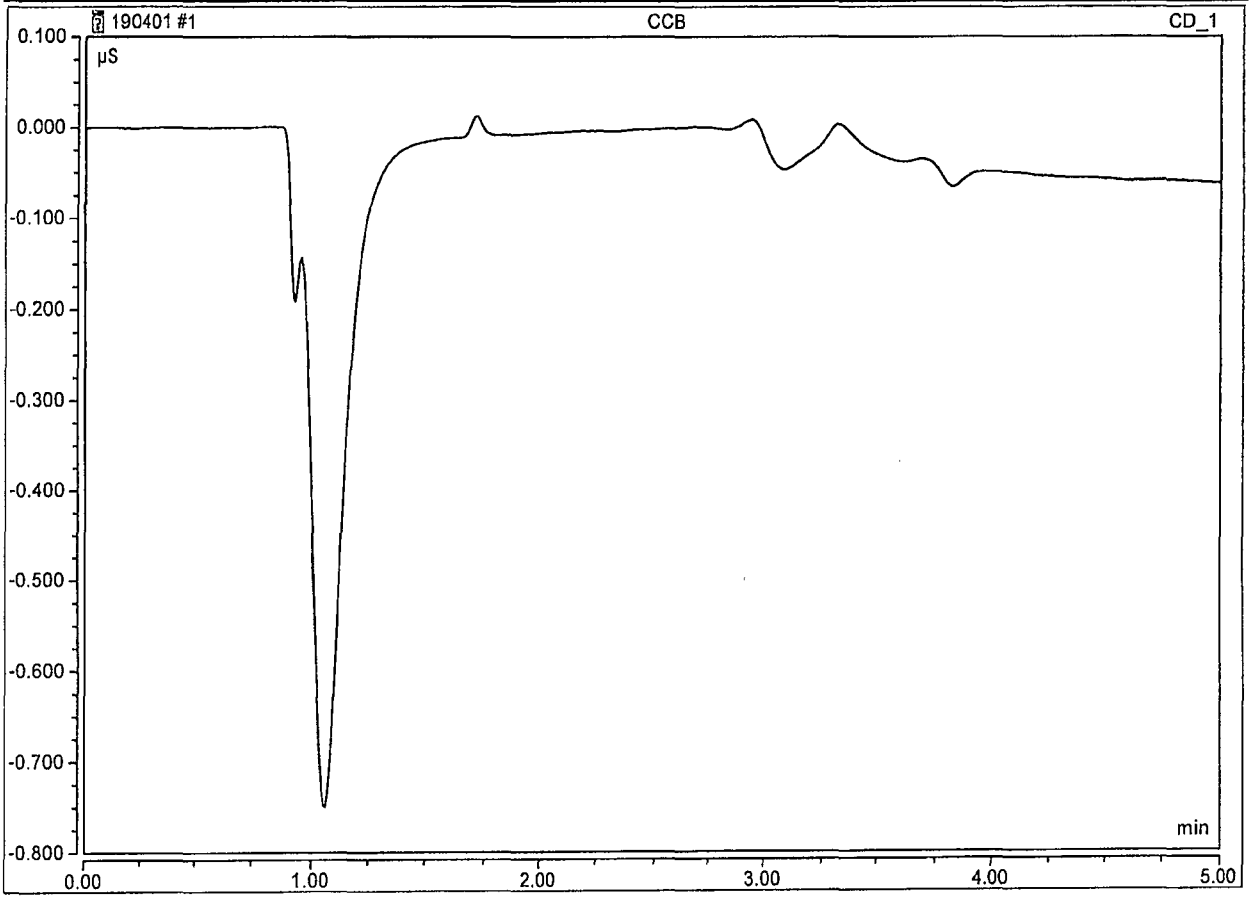



Chromeleon (c) Dionex 1996-2009
Version 7.2.4.8340

## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | CCB | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Unknown | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 18:27 | *Run Time:* | 5.00 |

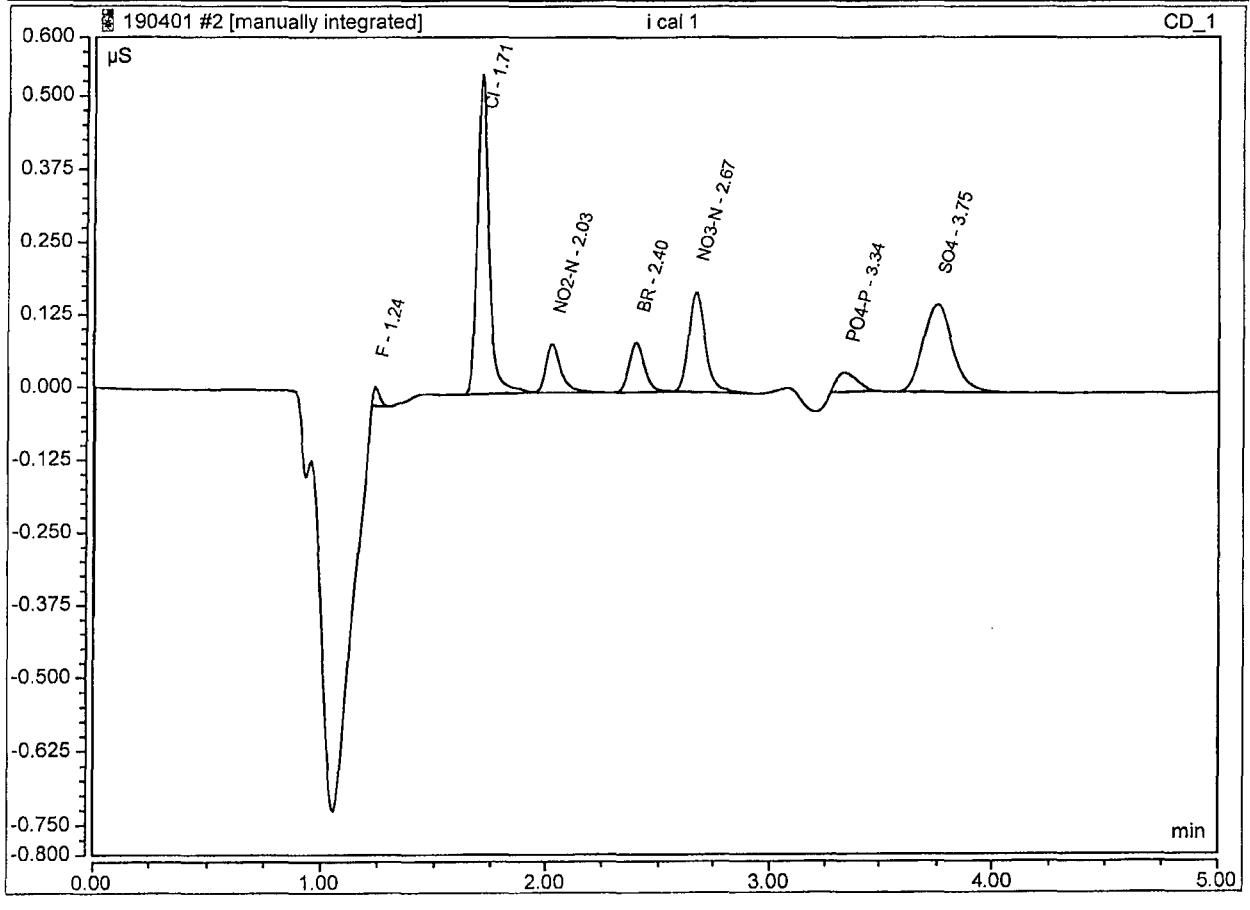
| No. | Time (min) | Peak Name | Peak Type | Area (µS*min) | Height (µS) | Amount | Amount | Recovery |
|---|---|---|---|---|---|---|---|---|
| | min | | | µS*min | µS | n.a. | n.a. | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 1 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 18:34 | *Run Time:* | 5.00 |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | F | BMB* | 0.001 | 0.032 | 0.15 | 0.1000 | 152.1% |
| 2 | 1.71 | Cl | BMB | 0.033 | 0.547 | 0.56 | 0.4000 | 141.1% |
| 3 | 2.03 | NO2-N | BMB | 0.007 | 0.084 | 0.04 | 0.0400 | 111.8% |
| 4 | 2.40 | BR | BMB | 0.007 | 0.086 | 0.23 | 0.2000 | 116.3% |
| 5 | 2.67 | NO3-N | BMB | 0.016 | 0.173 | 0.10 | 0.0800 | 125.7% |
| 6 | 3.34 | PO4-P | BMB* | 0.004 | 0.034 | 0.48 | 0.2000 | 238.9% |
| 7 | 3.75 | SO4 | BMB | 0.023 | 0.151 | 0.50 | 0.4000 | 124.8% |

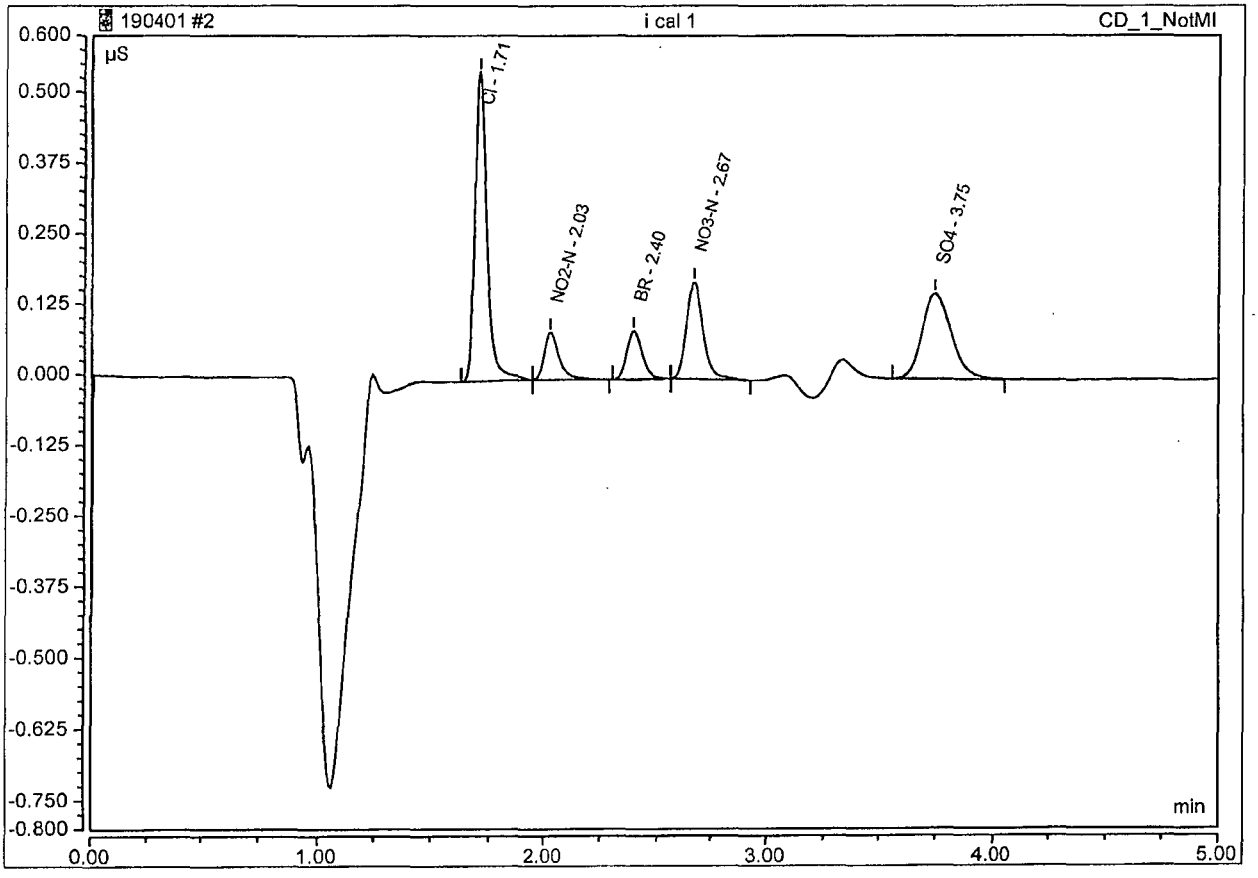



F mi1 HH 190405

## Not Manipulated Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 1 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 18:34 | *Run Time:* | 5.00 |

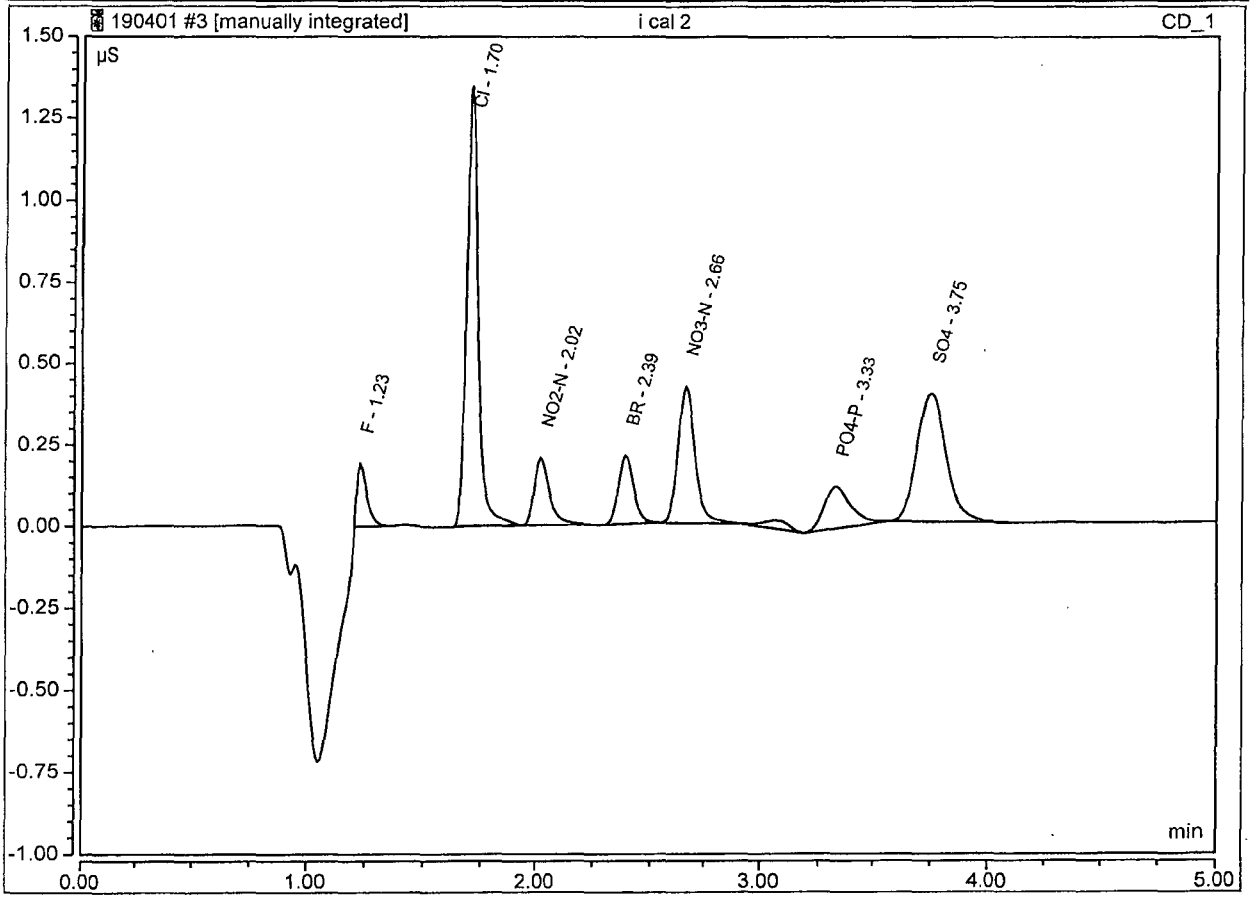
| No. | Time min | Peak Name | Peak Type | Area µS*min | Height µS | Ammount mg/L |
|---|---|---|---|---|---|---|
| 1 | n.a. | F | BMB* | n.a. | n.a. | n.a. |
| 2 | 1.71 | Cl | BMB | 0.033 | 0.547 | 0.5642 |
| 3 | 2.03 | NO2-N | BMB | 0.007 | 0.084 | 0.0447 |
| 4 | 2.40 | BR | BMB | 0.007 | 0.086 | 0.2325 |
| 5 | 2.67 | NO3-N | BMB | 0.016 | 0.173 | 0.1005 |
| 6 | n.a. | PO4-P | BMB* | n.a. | n.a. | n.a. |
| 7 | 3.75 | SO4 | BMB | 0.023 | 0.151 | 0.4991 |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **i cal 2** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Calibration Standard** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **01-Apr-2019 / 18:42** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB* | 0.010 | 0.194 | 0.22 | 0.2500 | 89.3% |
| 2 | 1.70 | Cl | BMB | 0.080 | 1.346 | 1.01 | 1.0000 | 100.5% |
| 3 | 2.02 | NO2-N | BMB | 0.017 | 0.208 | 0.10 | 0.1000 | 100.8% |
| 4 | 2.39 | BR | BMB | 0.016 | 0.211 | 0.50 | 0.5000 | 100.4% |
| 5 | 2.66 | NO3-N | BMB | 0.038 | 0.421 | 0.20 | 0.2000 | 101.0% |
| 7 | 3.33 | PO4-P | BMB | 0.018 | 0.129 | 0.67 | 0.5000 | 134.5% |
| 8 | 3.75 | SO4 | BMB | 0.058 | 0.395 | 1.01 | 1.0000 | 101.1% |

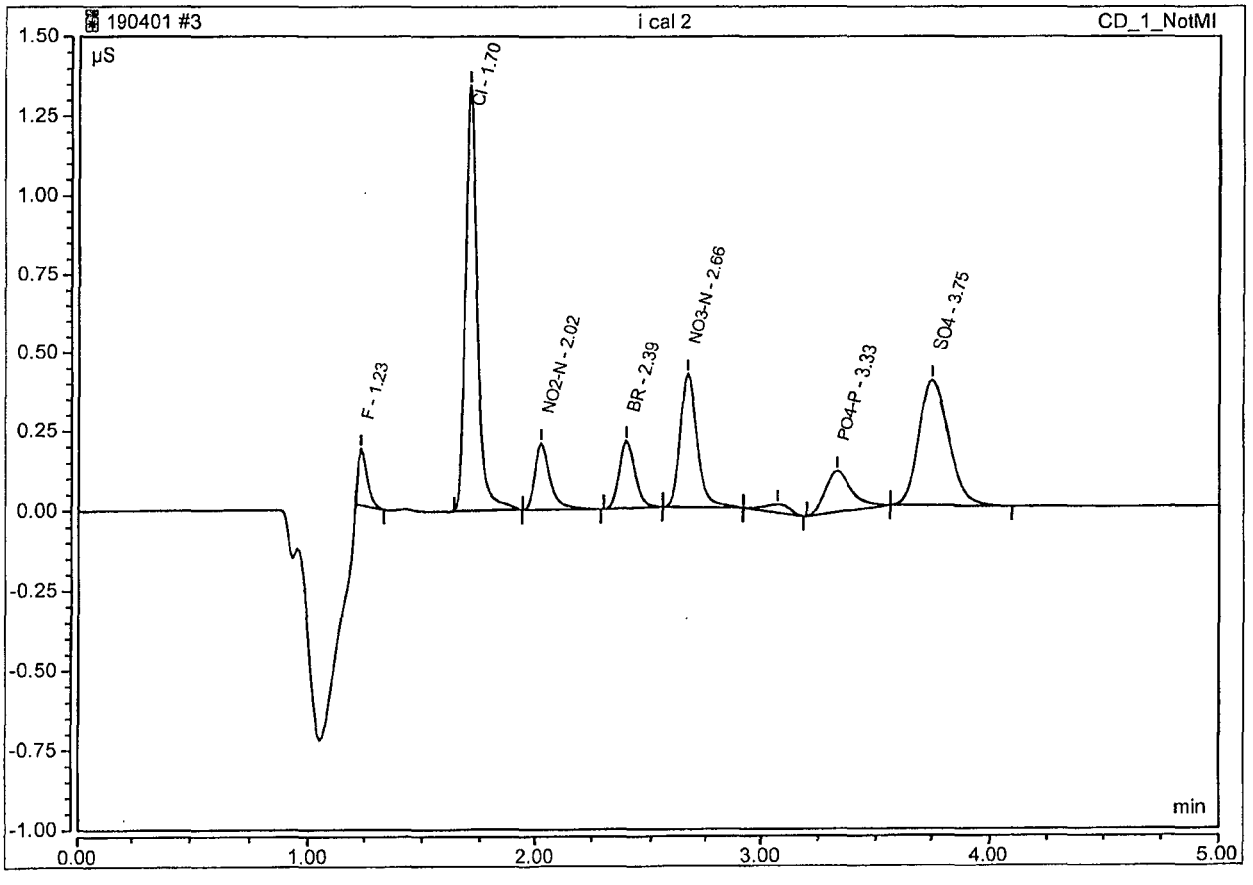



F mi1 HH 190405

## Not Manipulated Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 2 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 18:42 | *Run Time:* | 5.00 |

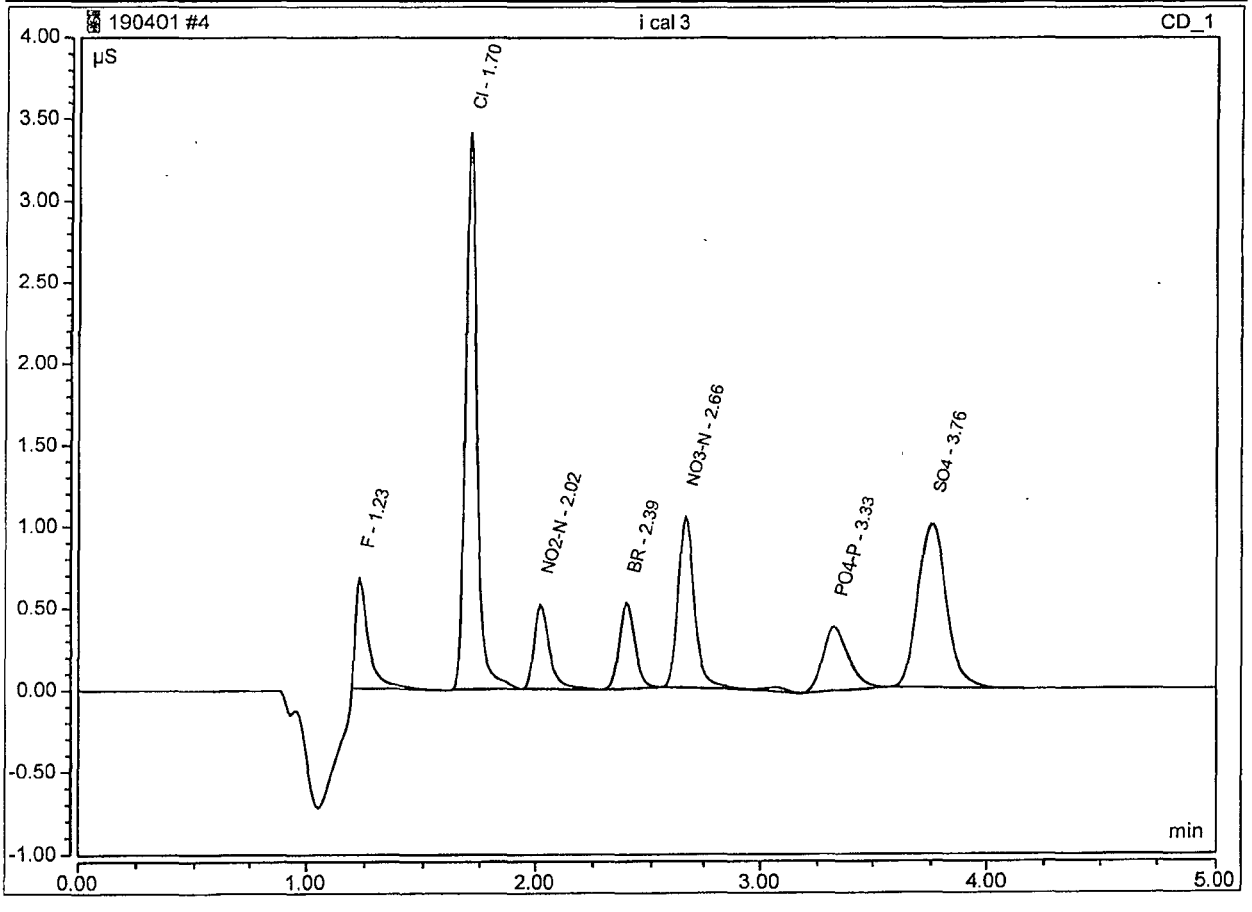
| No. | Time min | Peak Name | Peak Type | Area µS*min | Height µS | Ammount mg/L |
|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB* | 0.008 | 0.177 | 0.3039 |
| 2 | 1.70 | Cl | BMB | 0.080 | 1.346 | 1.0054 |
| 3 | 2.02 | NO2-N | BMB | 0.017 | 0.208 | 0.1008 |
| 4 | 2.39 | BR | BMB | 0.016 | 0.211 | 0.5019 |
| 5 | 2.66 | NO3-N | BMB | 0.038 | 0.421 | 0.2020 |
| 7 | 3.33 | PO4-P | BMB | 0.018 | 0.129 | 0.6726 |
| 8 | 3.75 | SO4 | BMB | 0.058 | 0.395 | 1.0108 |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 3 | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Calibration Standard** | *Dilution Factor:* | **1.0000** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **chemist_wetlab** |
| *Inj. Date / Time:* | **01-Apr-2019 / 18:49** | *Run Time:* | **5.00** |

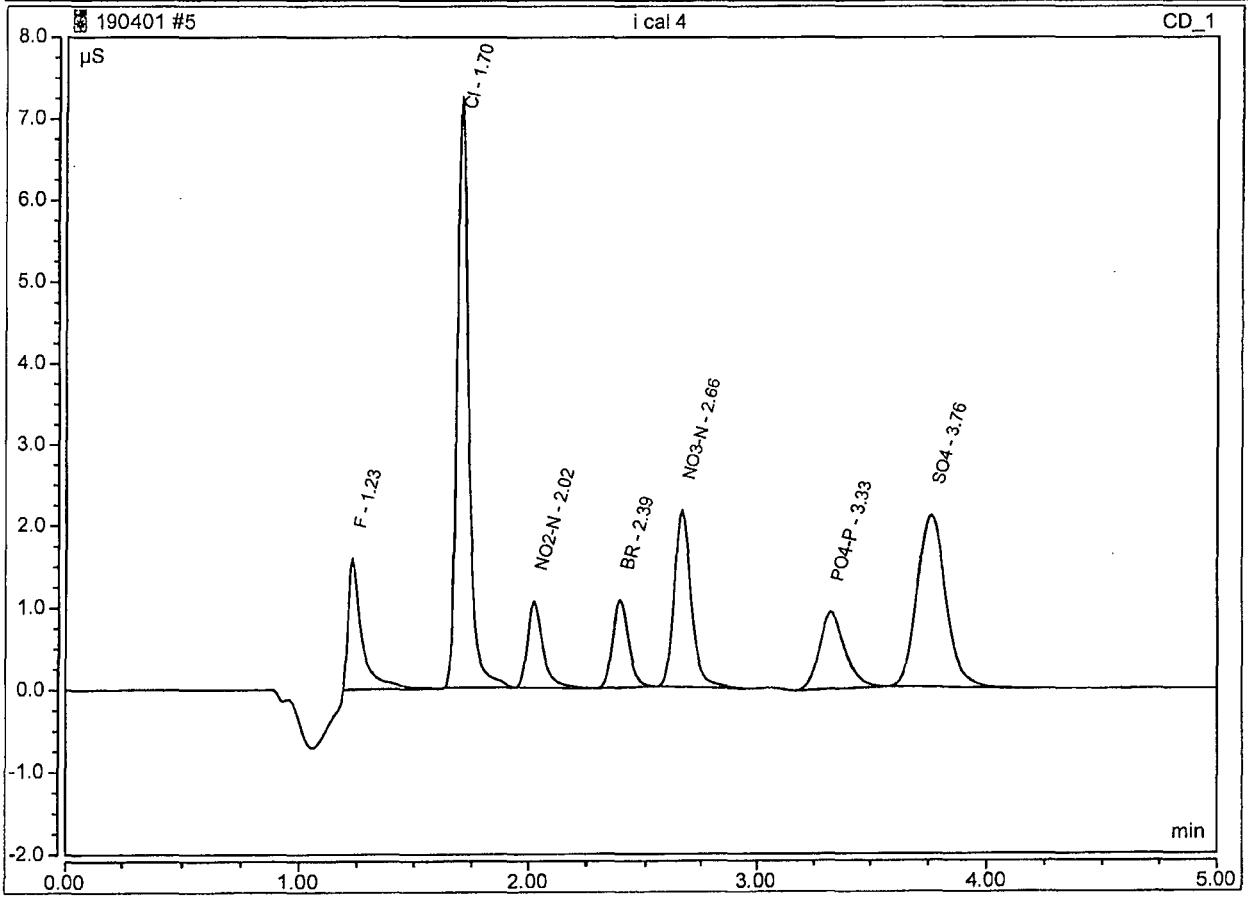
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB | 0.043 | 0.673 | 0.50 | 0.6250 | 79.7% |
| 2 | 1.70 | Cl | BMB | 0.201 | 3.411 | 2.13 | 2.5000 | 85.4% |
| 3 | 2.02 | NO2-N | BMB | 0.041 | 0.518 | 0.24 | 0.2500 | 95.1% |
| 4 | 2.39 | BR | BMB | 0.040 | 0.524 | 1.18 | 1.2500 | 94.1% |
| 5 | 2.66 | NO3-N | BMB | 0.094 | 1.046 | 0.46 | 0.5000 | 91.1% |
| 7 | 3.33 | PO4-P | BMB | 0.053 | 0.392 | 1.15 | 1.2500 | 91.7% |
| 8 | 3.76 | SO4 | BMB | 0.145 | 1.005 | 2.28 | 2.5000 | 91.1% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 4 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 18:56 | *Run Time:* | 5.00 |

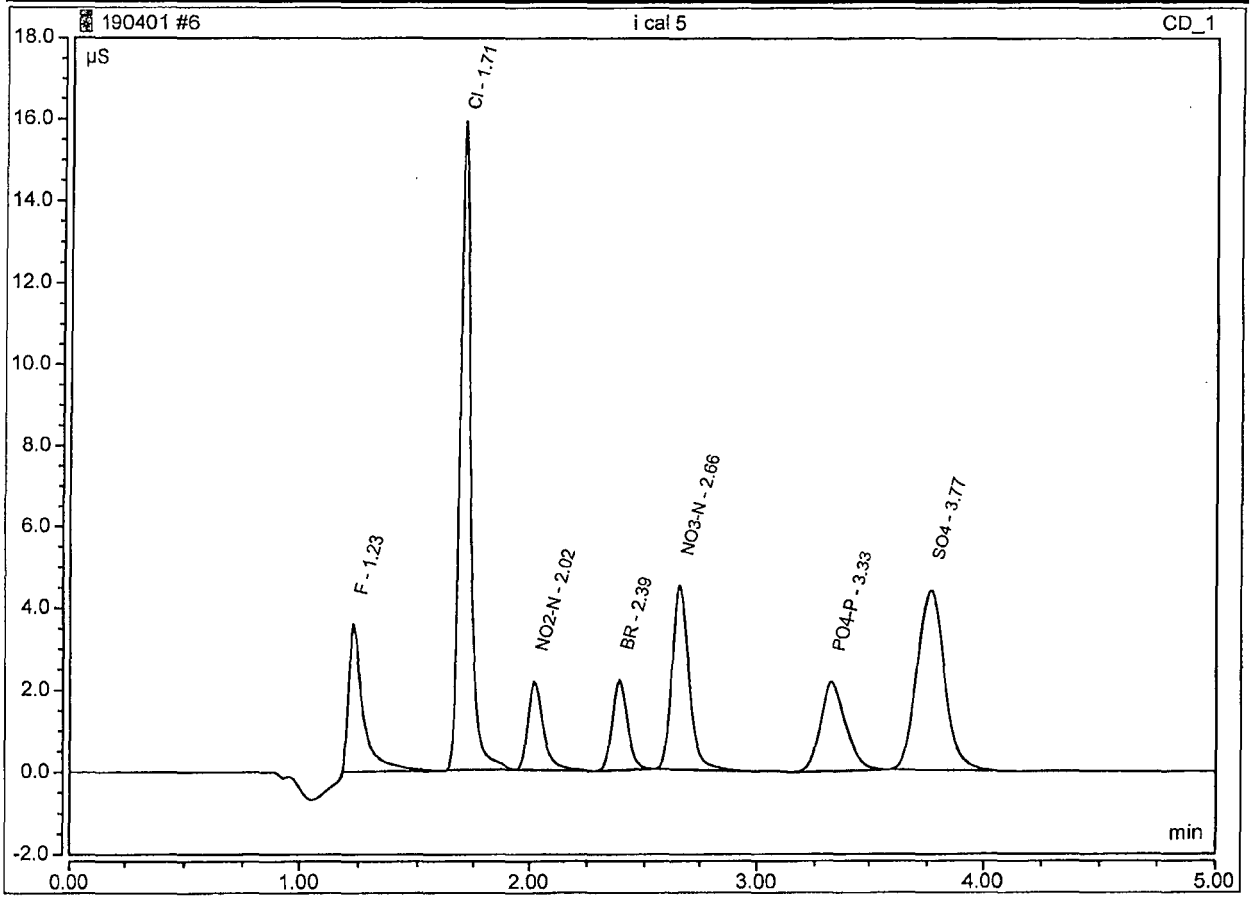
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB | 0.112 | 1.593 | 1.08 | 1.2500 | 86.2% |
| 2 | 1.70 | Cl | BMB | 0.420 | 7.239 | 4.17 | 5.0000 | 83.4% |
| 3 | 2.02 | NO2-N | BMB | 0.084 | 1.054 | 0.48 | 0.5000 | 95.1% |
| 4 | 2.39 | BR | BMB | 0.082 | 1.069 | 2.35 | 2.5000 | 93.9% |
| 5 | 2.66 | NO3-N | BMB | 0.193 | 2.151 | 0.90 | 1.0000 | 89.8% |
| 6 | 3.33 | PO4-P | BMB | 0.127 | 0.939 | 2.13 | 2.5000 | 85.3% |
| 7 | 3.76 | SO4 | BMB | 0.298 | 2.093 | 4.51 | 5.0000 | 90.2% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 5 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:04 | *Run Time:* | 5.00 |

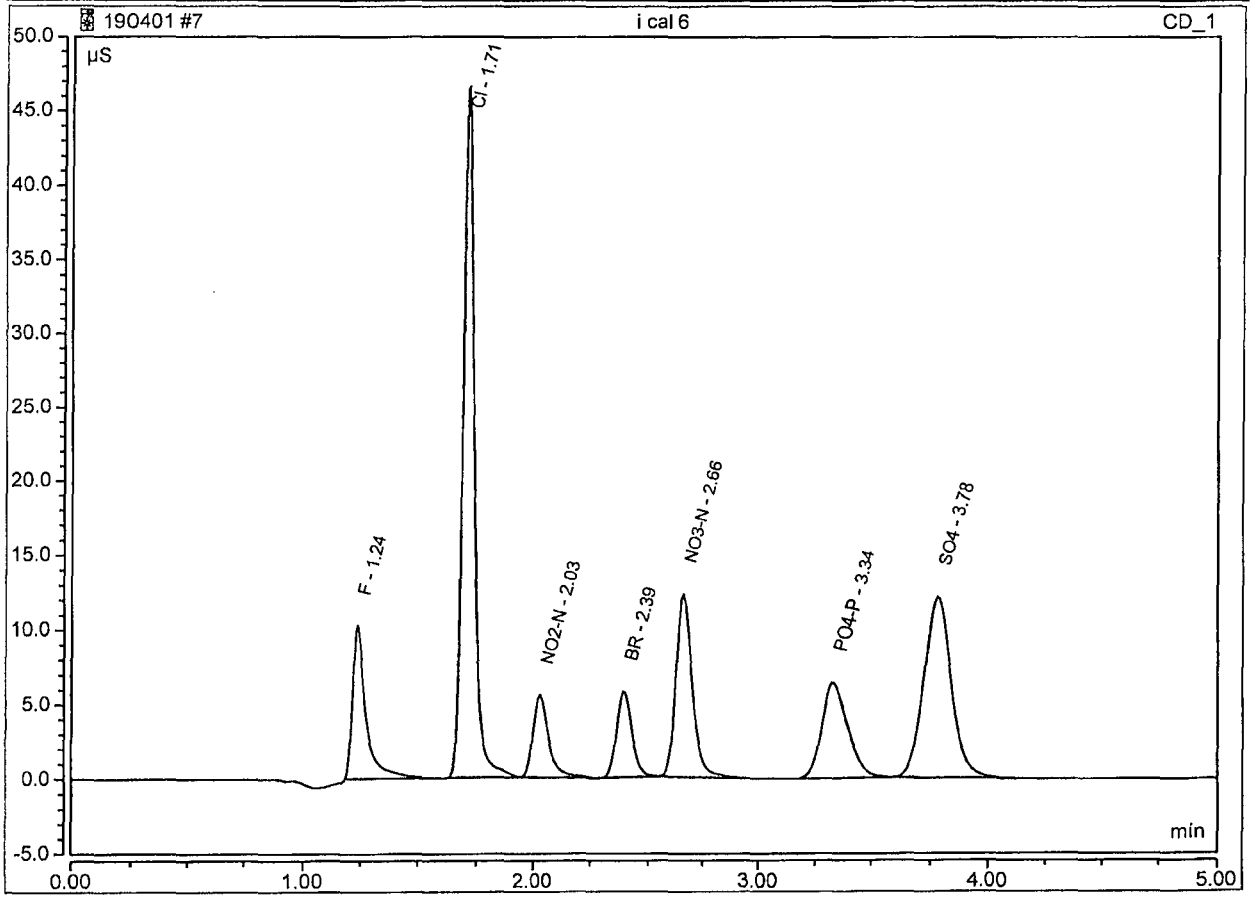
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB | 0.253 | 3.584 | 2.24 | 2.5000 | 89.8% |
| 2 | 1.71 | Cl | BMB | 0.900 | 15.899 | 8.65 | 10.0000 | 86.5% |
| 3 | 2.02 | NO2-N | BMB | 0.171 | 2.155 | 0.96 | 1.0000 | 96.4% |
| 4 | 2.39 | BR | BMB | 0.167 | 2.196 | 4.74 | 5.0000 | 94.8% |
| 5 | 2.66 | NO3-N | BMB | 0.398 | 4.491 | 1.82 | 2.0000 | 91.2% |
| 6 | 3.33 | PO4-P | BMB | 0.293 | 2.182 | 4.36 | 5.0000 | 87.2% |
| 7 | 3.77 | SO4 | BMB | 0.618 | 4.399 | 9.16 | 10.0000 | 91.6% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 6 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:11 | *Run Time:* | 5.00 |

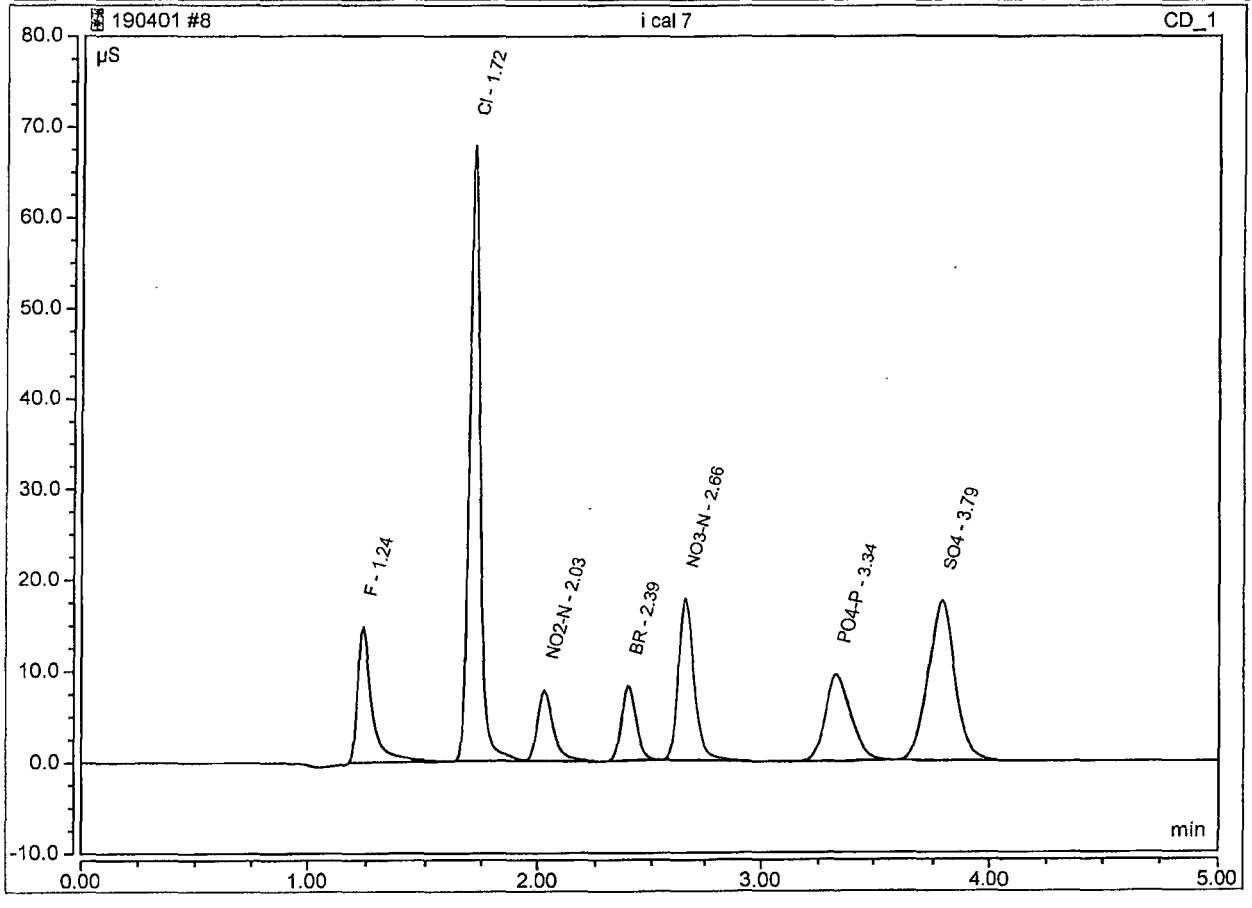
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | F | BMB | 0.715 | 10.279 | 6.08 | 6.2500 | 97.3% |
| 2 | 1.71 | Cl | BMB | 2.565 | 46.518 | 24.15 | 25.0000 | 96.6% |
| 3 | 2.03 | NO2-N | BMB | 0.441 | 5.520 | 2.47 | 2.5000 | 99.0% |
| 4 | 2.39 | BR | BMB | 0.436 | 5.795 | 12.26 | 12.5000 | 98.1% |
| 5 | 2.66 | NO3-N | BMB | 1.067 | 12.256 | 4.84 | 5.0000 | 96.8% |
| 6 | 3.34 | PO4-P | BMB | 0.857 | 6.441 | 11.93 | 12.5000 | 95.5% |
| 7 | 3.78 | SO4 | BMB | 1.654 | 12.099 | 24.26 | 25.0000 | 97.0% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 7 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:19 | *Run Time:* | 5.00 |

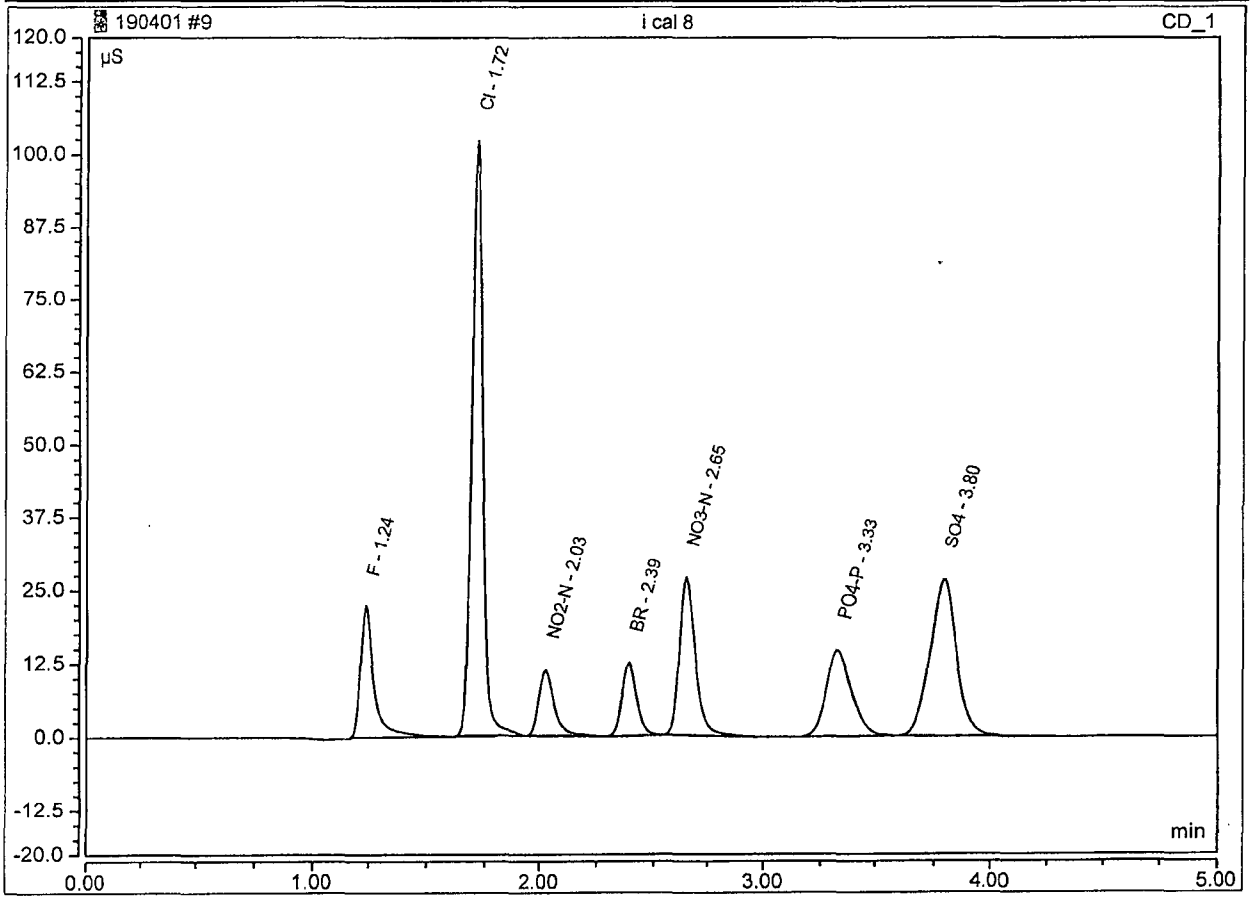
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | F | BMB | 1.037 | 14.883 | 8.76 | 8.7500 | 100.1% |
| 2 | 1.72 | Cl | BMB | 3.736 | 67.756 | 35.07 | 35.0000 | 100.2% |
| 3 | 2.03 | NO2-N | BMB | 0.621 | 7.719 | 3.48 | 3.5000 | 99.4% |
| 4 | 2.39 | BR | BMB | 0.618 | 8.268 | 17.35 | 17.5000 | 99.1% |
| 5 | 2.66 | NO3-N | BMB | 1.534 | 17.727 | 6.95 | 7.0000 | 99.3% |
| 6 | 3.34 | PO4-P | BMB | 1.263 | 9.506 | 17.38 | 17.5000 | 99.3% |
| 7 | 3.79 | SO4 | BMB | 2.375 | 17.528 | 34.76 | 35.0000 | 99.3% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | i cal 8 | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Calibration Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:26 | *Run Time:* | 5.00 |

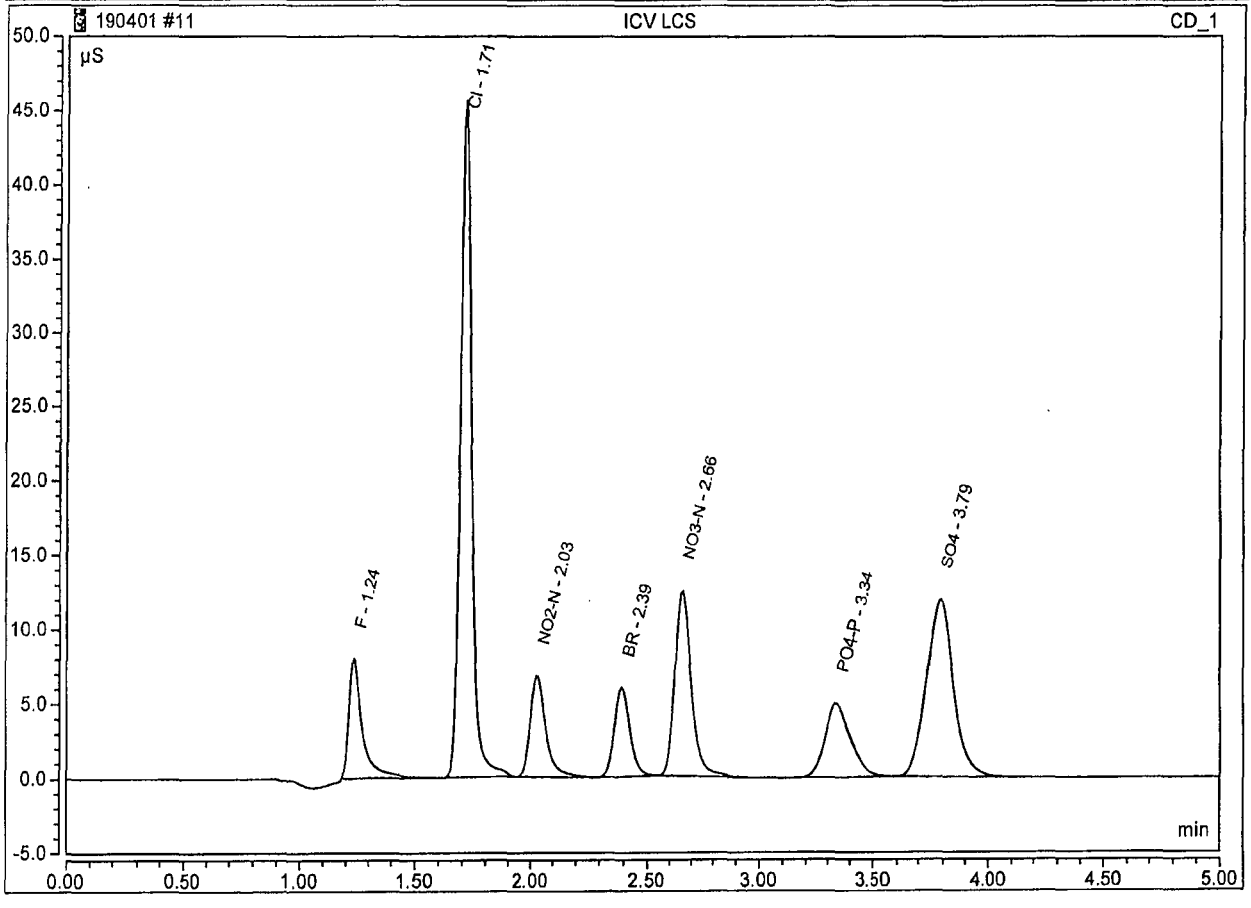
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | F | BMB | 1.571 | 22.280 | 13.19 | 12.5000 | 105.5% |
| 2 | 1.72 | Cl | BMB | 5.677 | 102.036 | 53.15 | 50.0000 | 106.3% |
| 3 | 2.03 | NO2-N | BMB | 0.913 | 11.224 | 5.11 | 5.0000 | 102.3% |
| 4 | 2.39 | BR | BMB | 0.921 | 12.428 | 25.84 | 25.0000 | 103.4% |
| 5 | 2.65 | NO3-N | BMB | 2.324 | 26.884 | 10.51 | 10.0000 | 105.1% |
| 6 | 3.33 | PO4-P | BMB | 1.951 | 14.669 | 26.62 | 25.0000 | 106.5% |
| 7 | 3.80 | SO4 | BMB | 3.588 | 26.635 | 52.42 | 50.0000 | 104.8% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | ICV LCS | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Check Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:41 | *Run Time:* | 5.00 |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | F | BMB | 0.555 | 8.015 | 4.75 | 5.0000 | 95.0% |
| 2 | 1.71 | Cl | BMB | 2.510 | 45.585 | 23.64 | 25.0000 | 94.6% |
| 3 | 2.03 | NO2-N | BMB | 0.545 | 6.798 | 3.06 | 3.0400 | 100.6% |
| 4 | 2.39 | BR | BMB | 0.450 | 5.995 | 12.66 | 12.5000 | 101.3% |
| 5 | 2.66 | NO3-N | BMB | 1.085 | 12.464 | 4.92 | 5.0000 | 98.5% |
| 6 | 3.34 | PO4-P | BMB | 0.666 | 4.985 | 9.37 | 10.0000 | 93.7% |
| 7 | 3.79 | SO4 | BMB | 1.623 | 11.942 | 23.81 | 25.0000 | 95.2% |



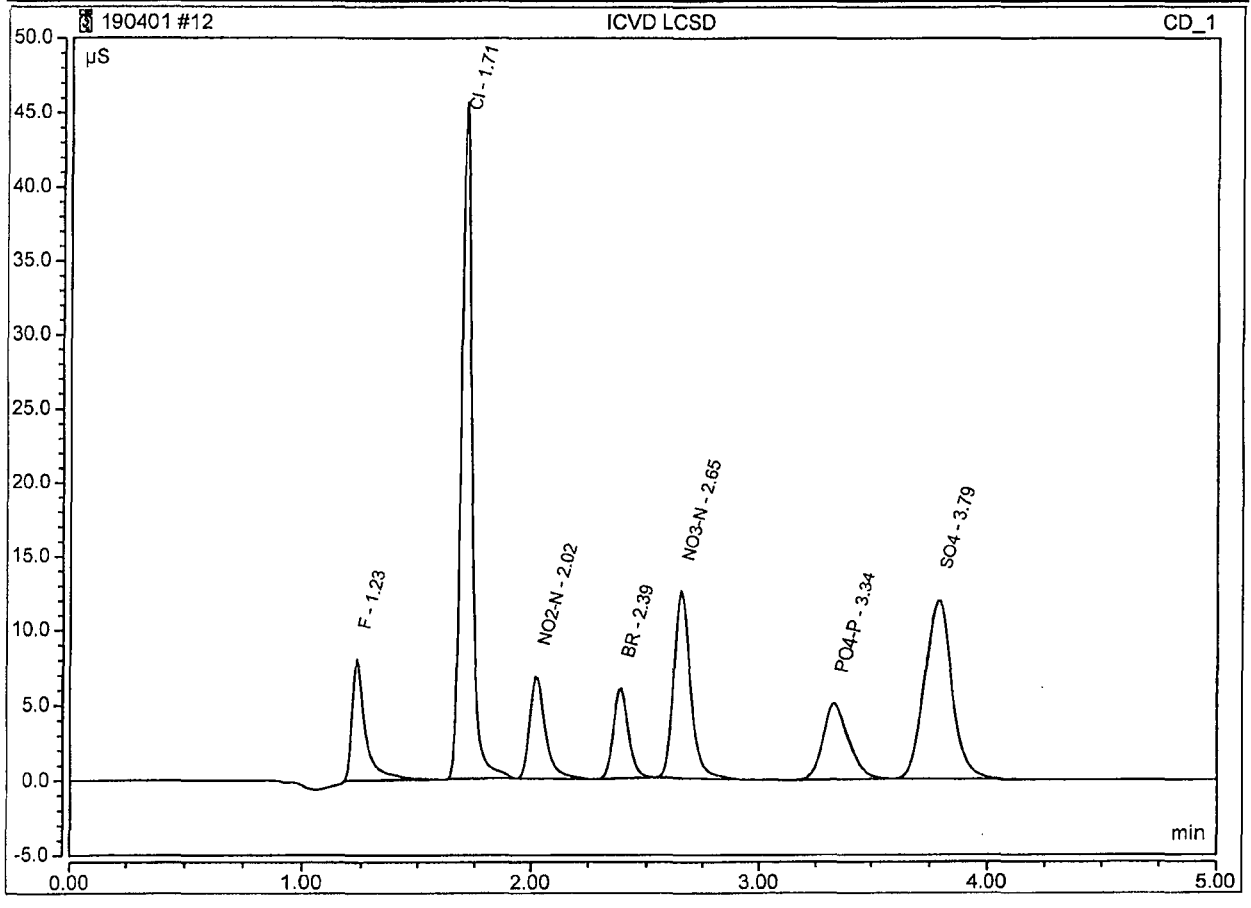

Algortith Check:
y = Peak Area
x = mg/L S04

y = 0.0687 x + -0.0115
y = 1.6231 therefor x = 23.8071 190406 HH

## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | ICVD LCSD | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Check Standard | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:48 | *Run Time:* | 5.00 |

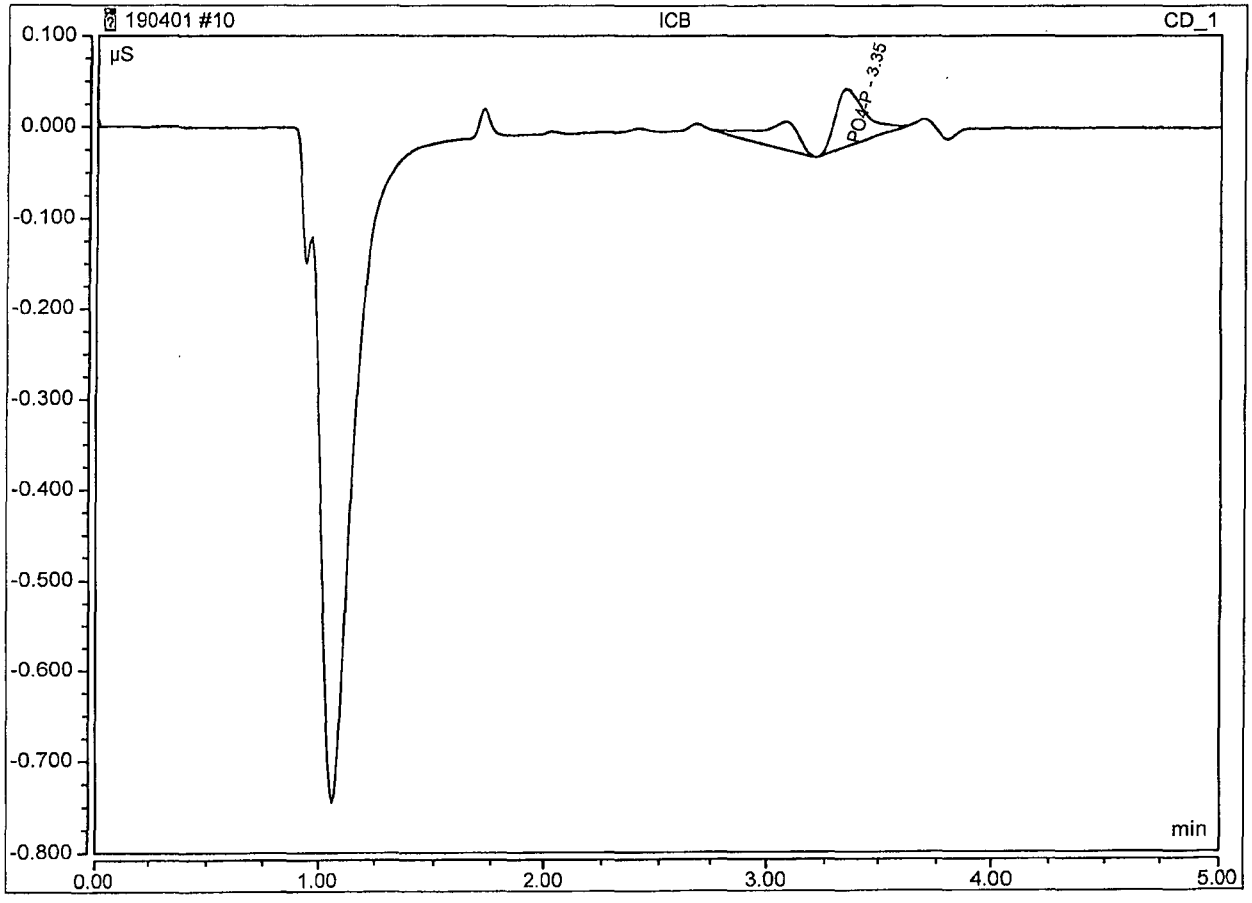
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB | 0.558 | 8.048 | 4.78 | 5.0000 | 95.6% |
| 2 | 1.71 | Cl | BMB | 2.509 | 45.546 | 23.64 | 25.0000 | 94.6% |
| 3 | 2.02 | NO2-N | BMB | 0.545 | 6.797 | 3.06 | 3.0400 | 100.6% |
| 4 | 2.39 | BR | BMB | 0.450 | 5.991 | 12.66 | 12.5000 | 101.3% |
| 5 | 2.65 | NO3-N | BMB | 1.085 | 12.462 | 4.92 | 5.0000 | 98.5% |
| 6 | 3.34 | PO4-P | BMB | 0.676 | 5.055 | 9.50 | 10.0000 | 95.0% |
| 7 | 3.79 | SO4 | BMB | 1.624 | 11.941 | 23.83 | 25.0000 | 95.3% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | ICB | *Inj. Vol.:* | 25uL |
| *Injection Type:* | Unknown | *Dilution Factor:* | 1.0000 |
| *Program:* | Anion APM 190401A | *Operator:* | chemist_wetlab |
| *Inj. Date / Time:* | 01-Apr-2019 / 19:33 | *Run Time:* | 5.00 |

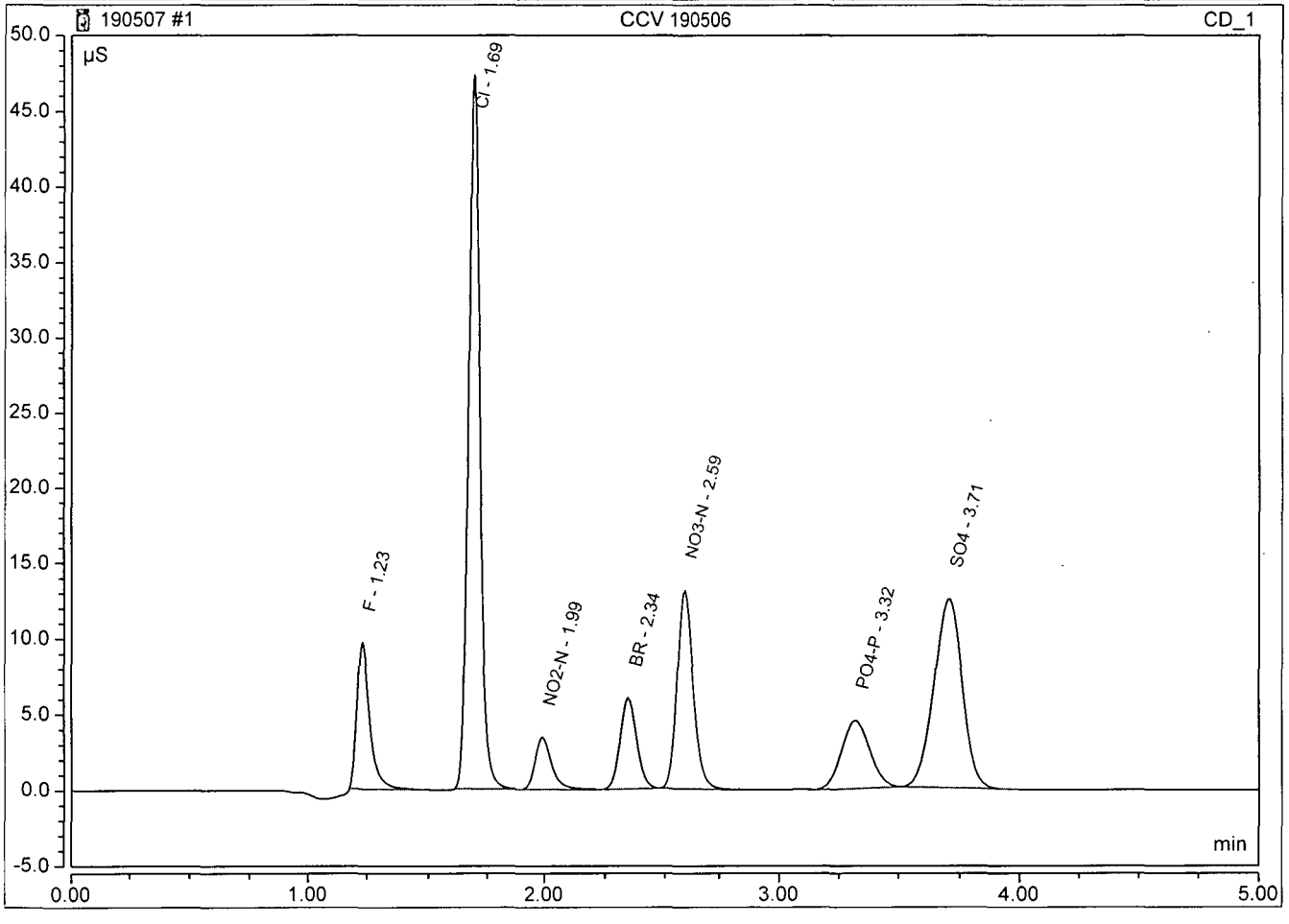
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Amount mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 2 | 3.35 | PO4-P | BMB | 0.010 | 0.062 | 0.56 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCV 190506** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Check Standard** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **07-May-2019 / 09:09** | *Run Time:* | **5.00** |

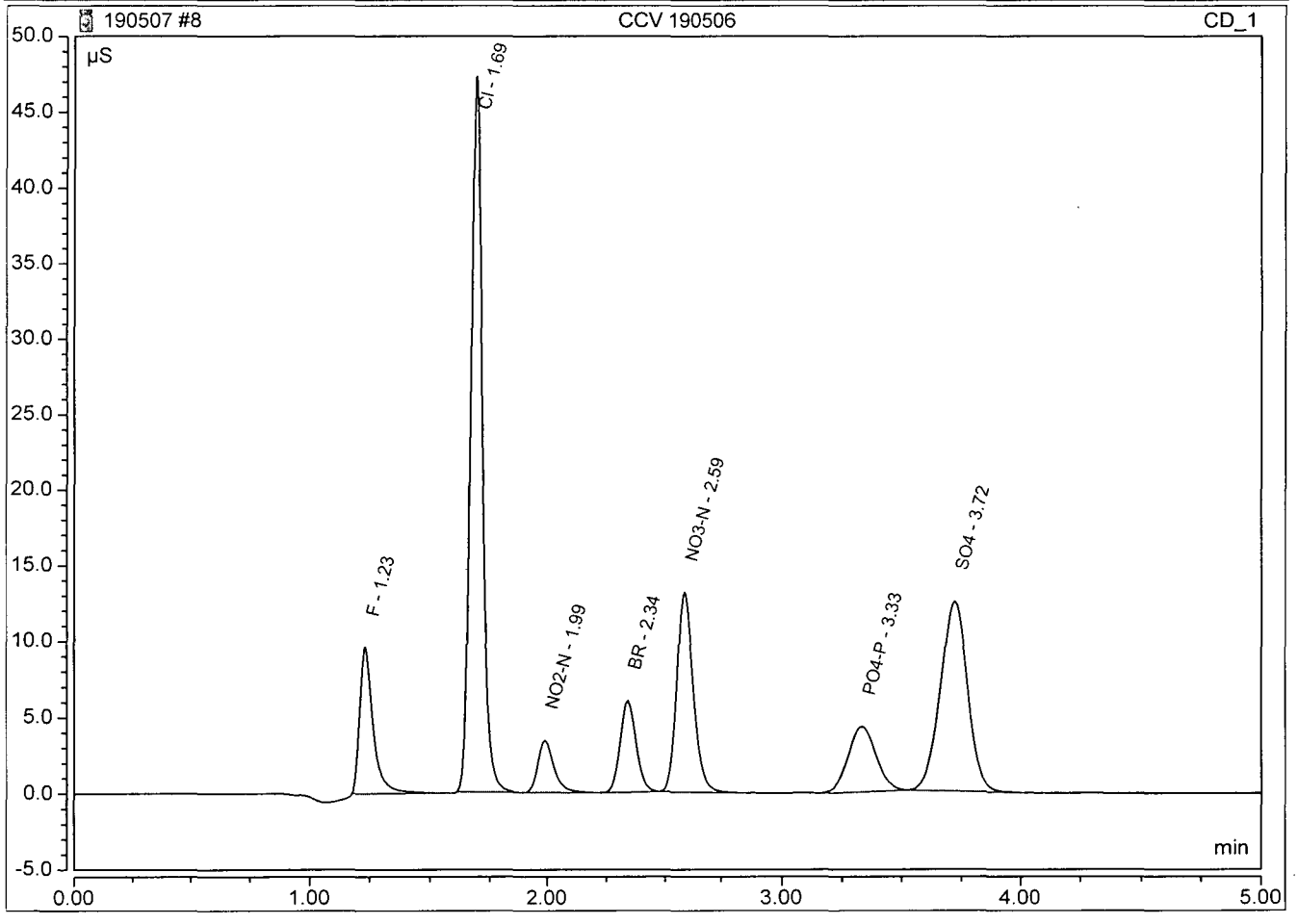
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB | 0.606 | 9.671 | 5.18 | 5 | 103.5% |
| 2 | 1.69 | Cl | BMB | 2.723 | 47.260 | 25.63 | 25 | 102.5% |
| 3 | 1.99 | NO2-N | BMB | 0.279 | 3.432 | 1.57 | 3.04 | 51.6% |
| 4 | 2.34 | BR | BMB | 0.465 | 6.011 | 13.07 | 12.5 | 104.5% |
| 5 | 2.59 | NO3-N | BMB | 1.132 | 13.112 | 5.13 | 5 | 102.7% |
| 6 | 3.32 | PO4-P | BMB | 0.602 | 4.480 | 8.51 | 10 | 85.1% |
| 7 | 3.71 | SO4 | BMB | 1.695 | 12.458 | 24.86 | 25 | 99.4% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCV 190506** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Check Standard** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **07-May-2019 / 10:08** | *Run Time:* | **5.00** |

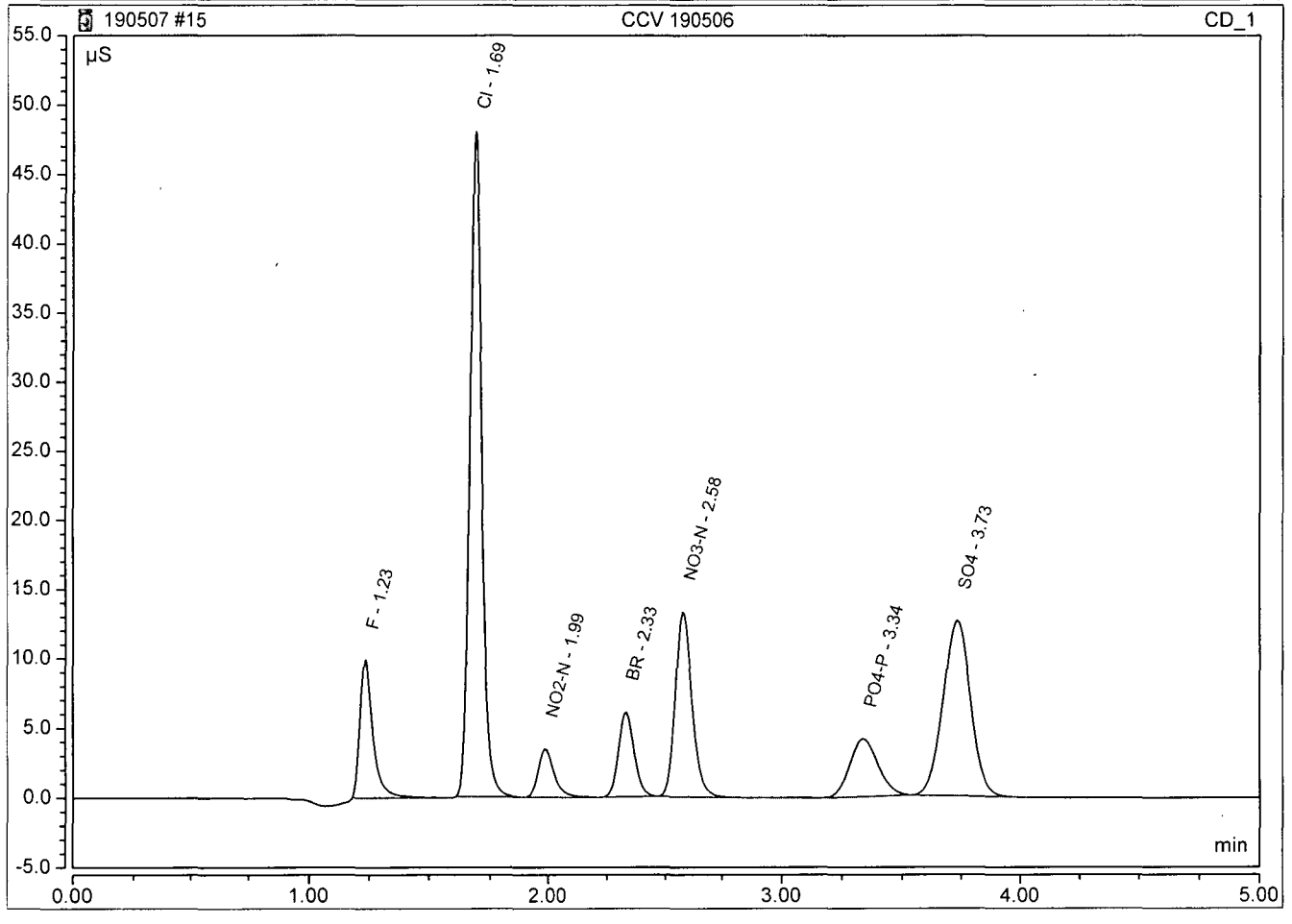
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | **F** | BMB | 0.629 | 9.625 | 5.37 | 5 | 107.4% |
| 2 | 1.69 | **Cl** | BMB | 2.714 | 47.225 | 25.54 | 25 | 102.2% |
| 3 | 1.99 | **NO2-N** | BMB | 0.276 | 3.423 | 1.55 | 3.04 | 51.0% |
| 4 | 2.34 | **BR** | BMB | 0.462 | 6.007 | 12.99 | 12.5 | 103.9% |
| 5 | 2.59 | **NO3-N** | BMB | 1.125 | 13.112 | 5.10 | 5 | 102.1% |
| 6 | 3.33 | **PO4-P** | BMB | 0.581 | 4.293 | 8.23 | 10 | 82.3% |
| 7 | 3.72 | **SO4** | BMB | 1.687 | 12.450 | 24.74 | 25 | 99.0% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCV 190506** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Check Standard** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Chemist_wetlab** |
| *Inj. Date / Time:* | **07-May-2019 / 12:05** | *Run Time:* | **5.00** |

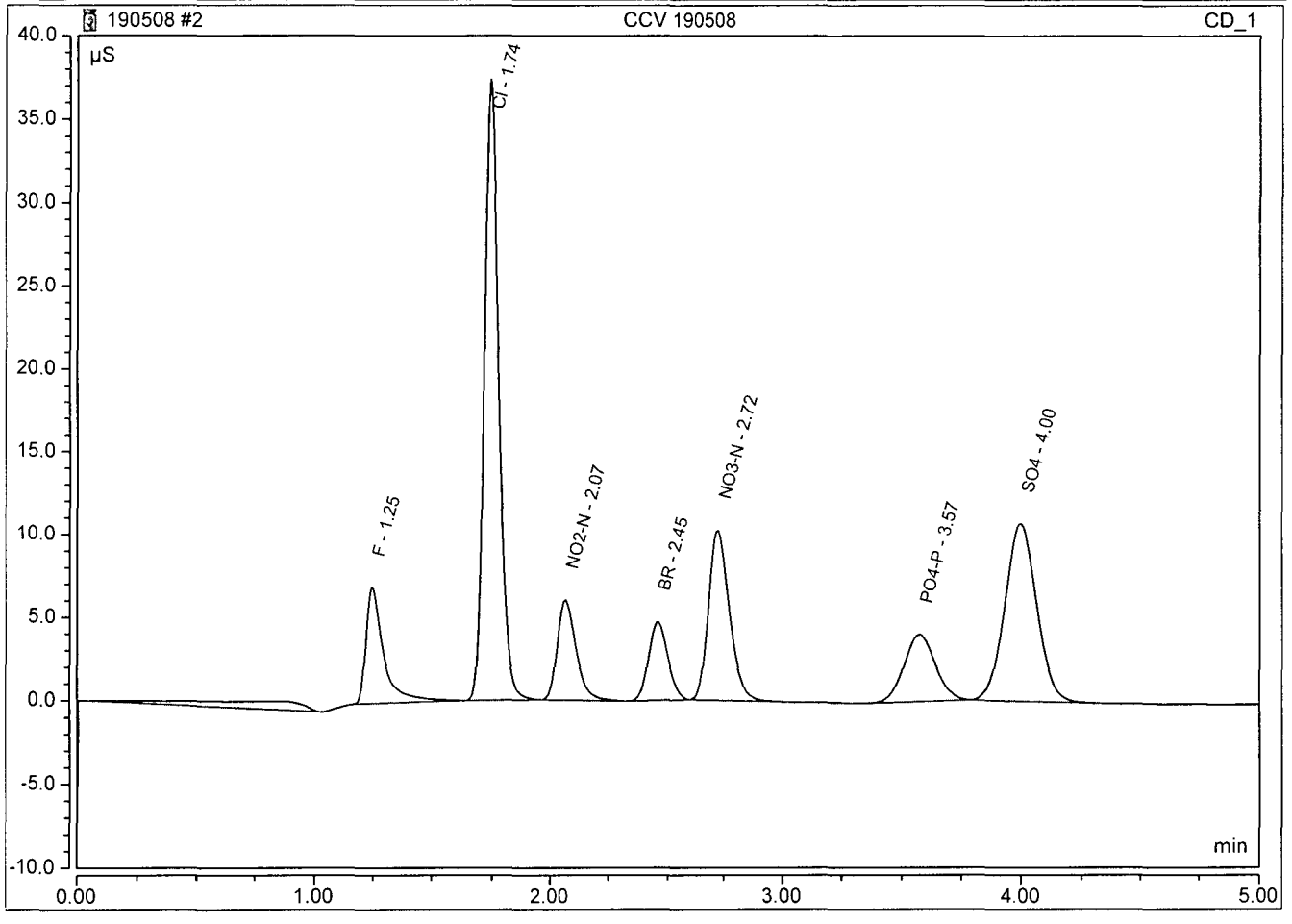
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | **F** | BMB | 0.632 | 9.894 | 5.39 | 5 | 107.9% |
| 2 | 1.69 | **Cl** | BMB | 2.732 | 47.945 | 25.72 | 25 | 102.9% |
| 3 | 1.99 | **NO2-N** | BMB | 0.276 | 3.457 | 1.55 | 3.04 | 51.1% |
| 4 | 2.33 | **BR** | BMB | 0.463 | 6.082 | 13.03 | 12.5 | 104.2% |
| 5 | 2.58 | **NO3-N** | BMB | 1.129 | 13.288 | 5.12 | 5 | 102.5% |
| 7 | 3.34 | **PO4-P** | BMB | 0.564 | 4.138 | 8.00 | 10 | 80.0% |
| 8 | 3.73 | **SO4** | BMB | 1.695 | 12.564 | 24.85 | 25 | 99.4% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCV 190508** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Check Standard** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **08-May-2019 / 08:23** | *Run Time:* | **5.00** |

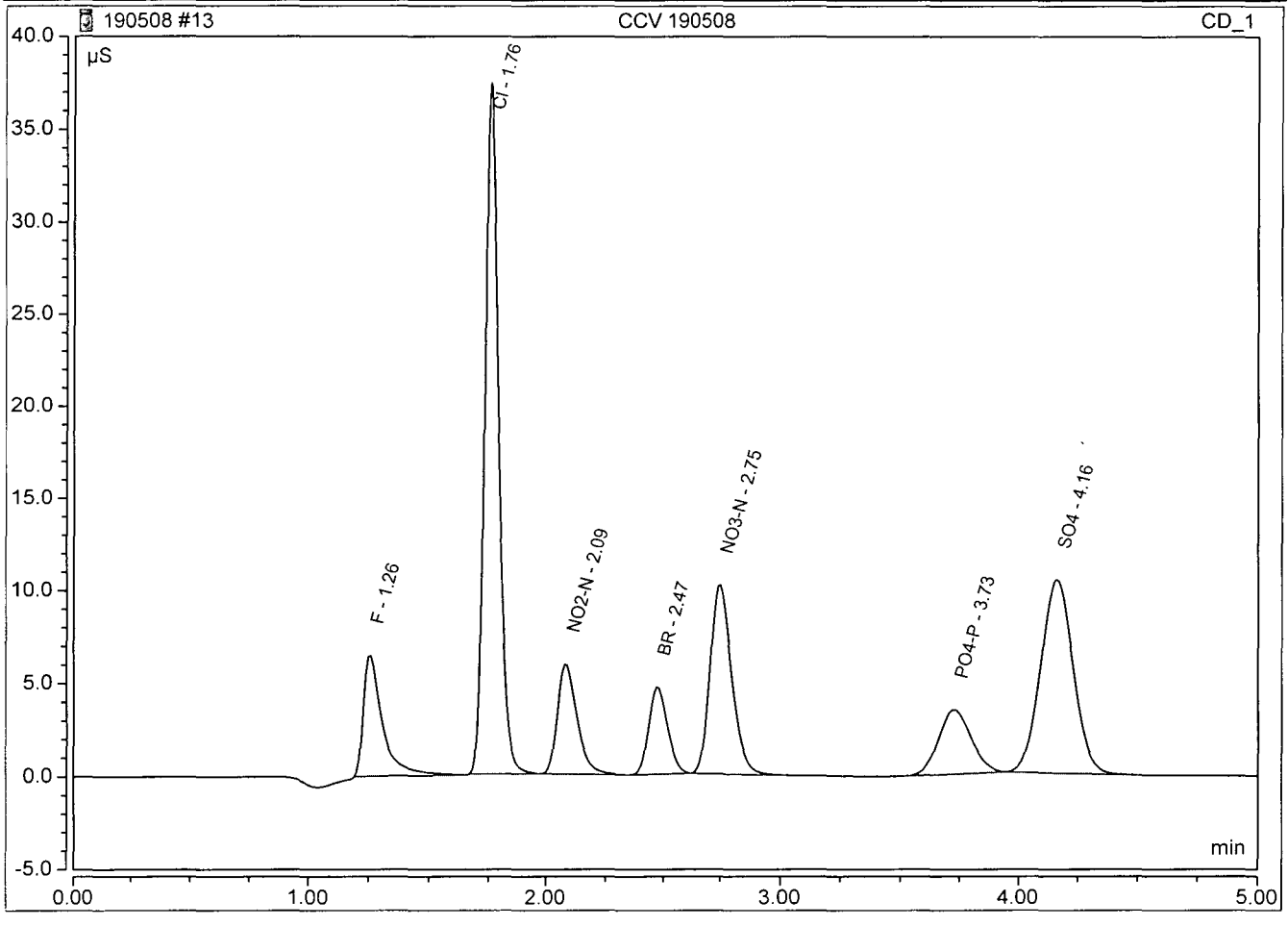
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 2 | 1.25 | F | BMB | 0.619 | 6.996 | 5.29 | 5 | 105.7% |
| 3 | 1.74 | Cl | BMB | 2.618 | 37.357 | 24.65 | 25 | 98.6% |
| 4 | 2.07 | NO2-N | BMB | 0.563 | 6.018 | 3.16 | 3.04 | 103.9% |
| 5 | 2.45 | BR | BMB | 0.446 | 4.721 | 12.54 | 12.5 | 100.4% |
| 6 | 2.72 | NO3-N | BMB | 1.091 | 10.246 | 4.95 | 5 | 99.0% |
| 8 | 3.57 | PO4-P | BMB | 0.615 | 4.013 | 8.69 | 10 | 86.9% |
| 9 | 4.00 | SO4 | BMB | 1.666 | 10.698 | 24.43 | 25 | 97.7% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCV 190508** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Check Standard** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **08-May-2019 / 10:08** | *Run Time:* | **5.00** |

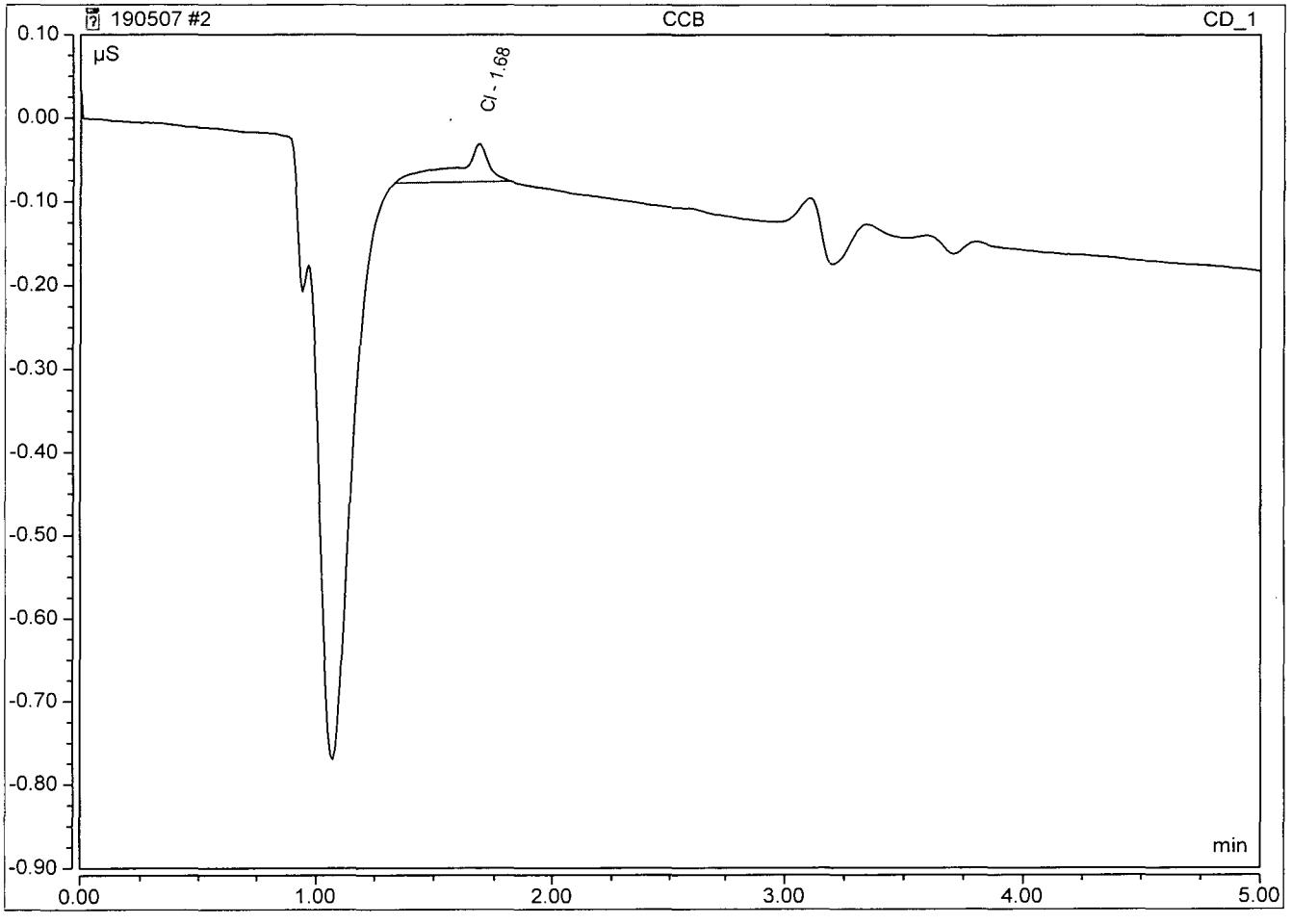
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.26 | F | BMB | 0.595 | 6.527 | 5.09 | 5 | 101.7% |
| 2 | 1.76 | Cl | BMB | 2.608 | 37.328 | 24.56 | 25 | 98.2% |
| 3 | 2.09 | NO2-N | BMB | 0.562 | 5.921 | 3.15 | 3.04 | 103.6% |
| 4 | 2.47 | BR | BMB | 0.446 | 4.689 | 12.53 | 12.5 | 100.2% |
| 5 | 2.75 | NO3-N | BMB | 1.086 | 10.189 | 4.93 | 5 | 98.5% |
| 6 | 3.73 | PO4-P | BMB | 0.555 | 3.463 | 7.88 | 10 | 78.8% |
| 7 | 4.16 | SO4 | BMB | 1.653 | 10.411 | 24.24 | 25 | 96.9% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCB** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **07-May-2019 / 09:16** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.68 | Cl | BMB | 0.007 | 0.046 | 0.33 | | |



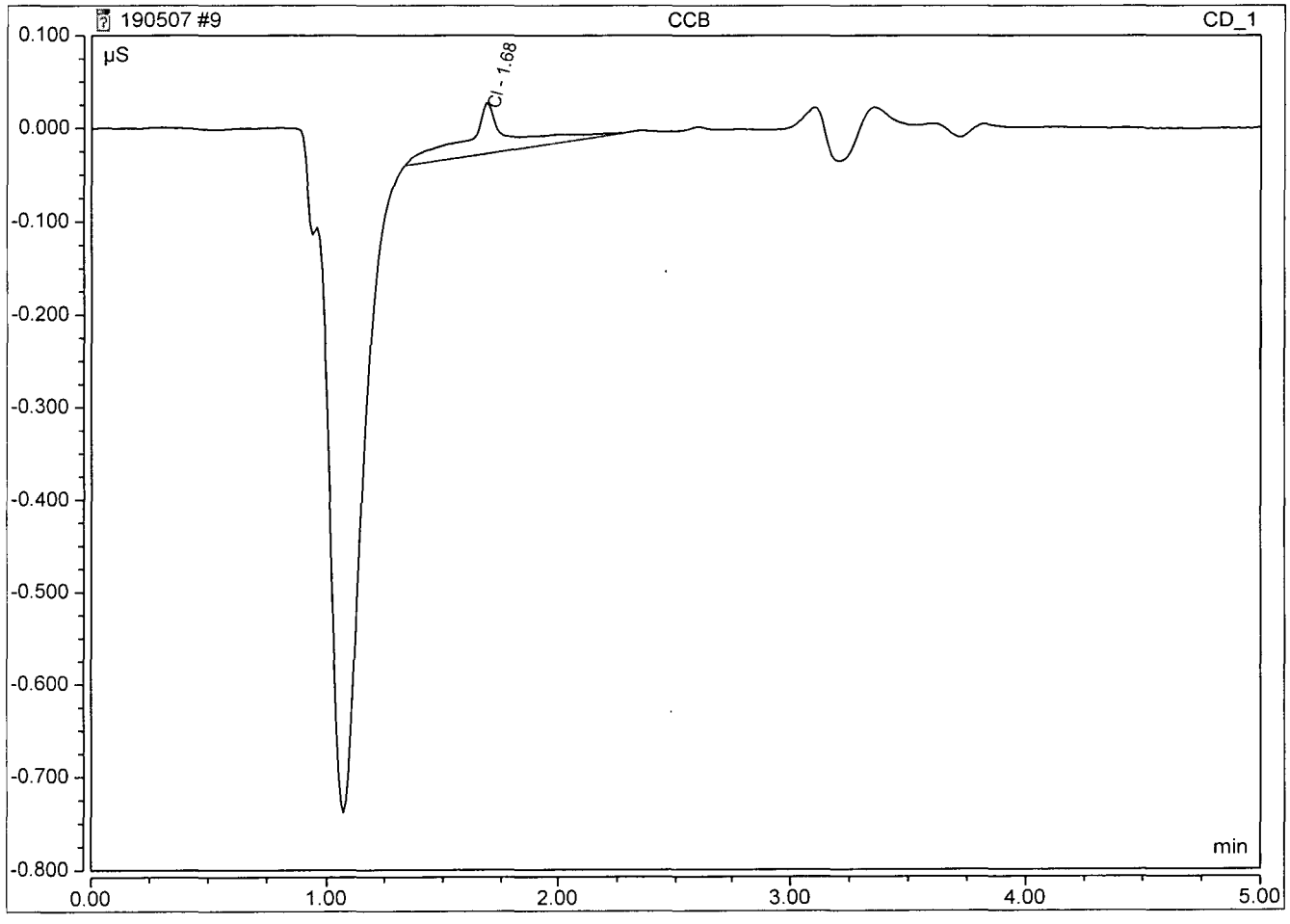



Chromeleon (c) Dionex 1996-2009
Version 7.2.4.8340

## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCB** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **07-May-2019 / 10:15** | *Run Time:* | **5.00** |

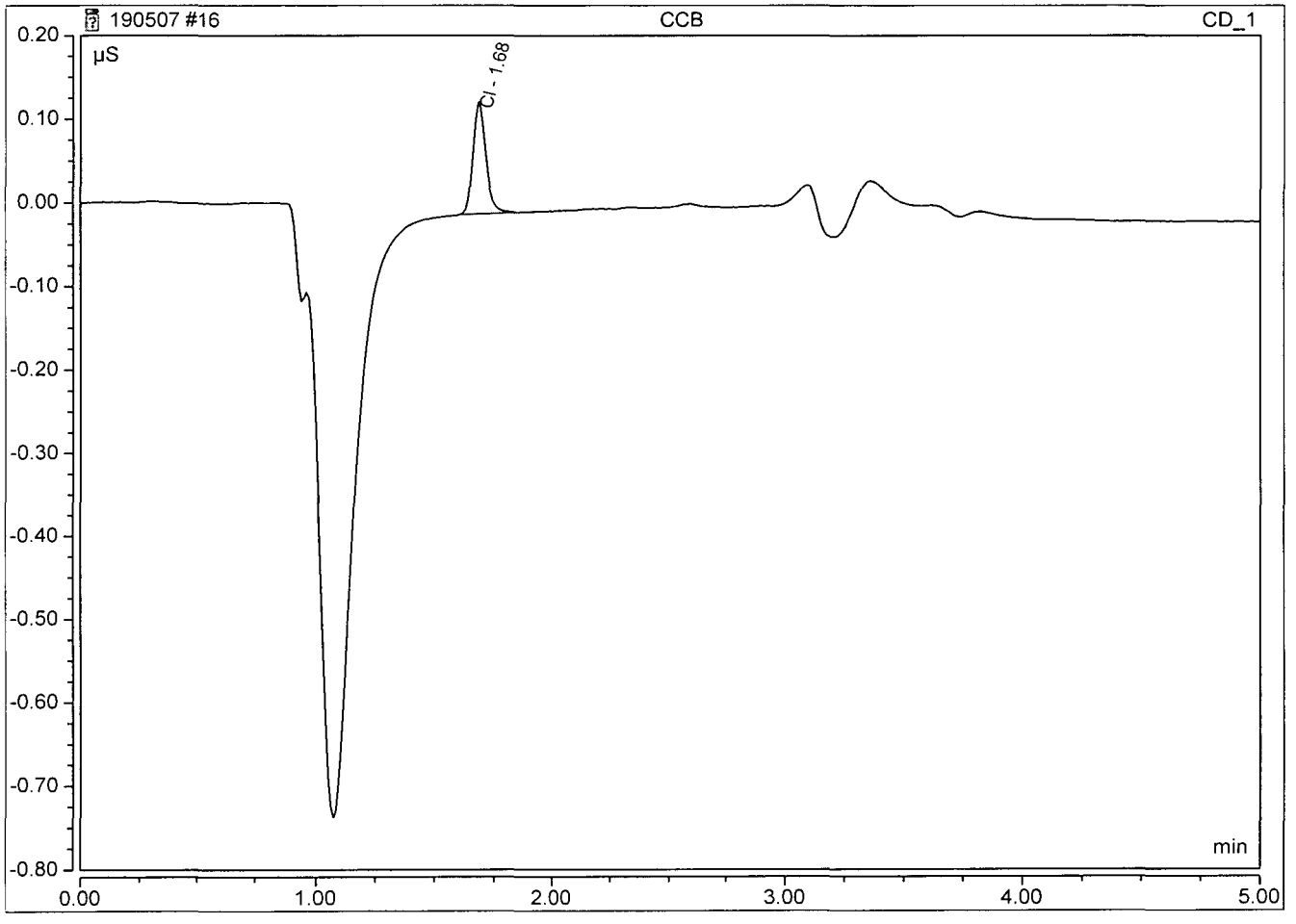
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.68 | Cl | BMB | 0.012 | 0.055 | 0.37 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCB** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **07-May-2019 / 12:13** | *Run Time:* | **5.00** |

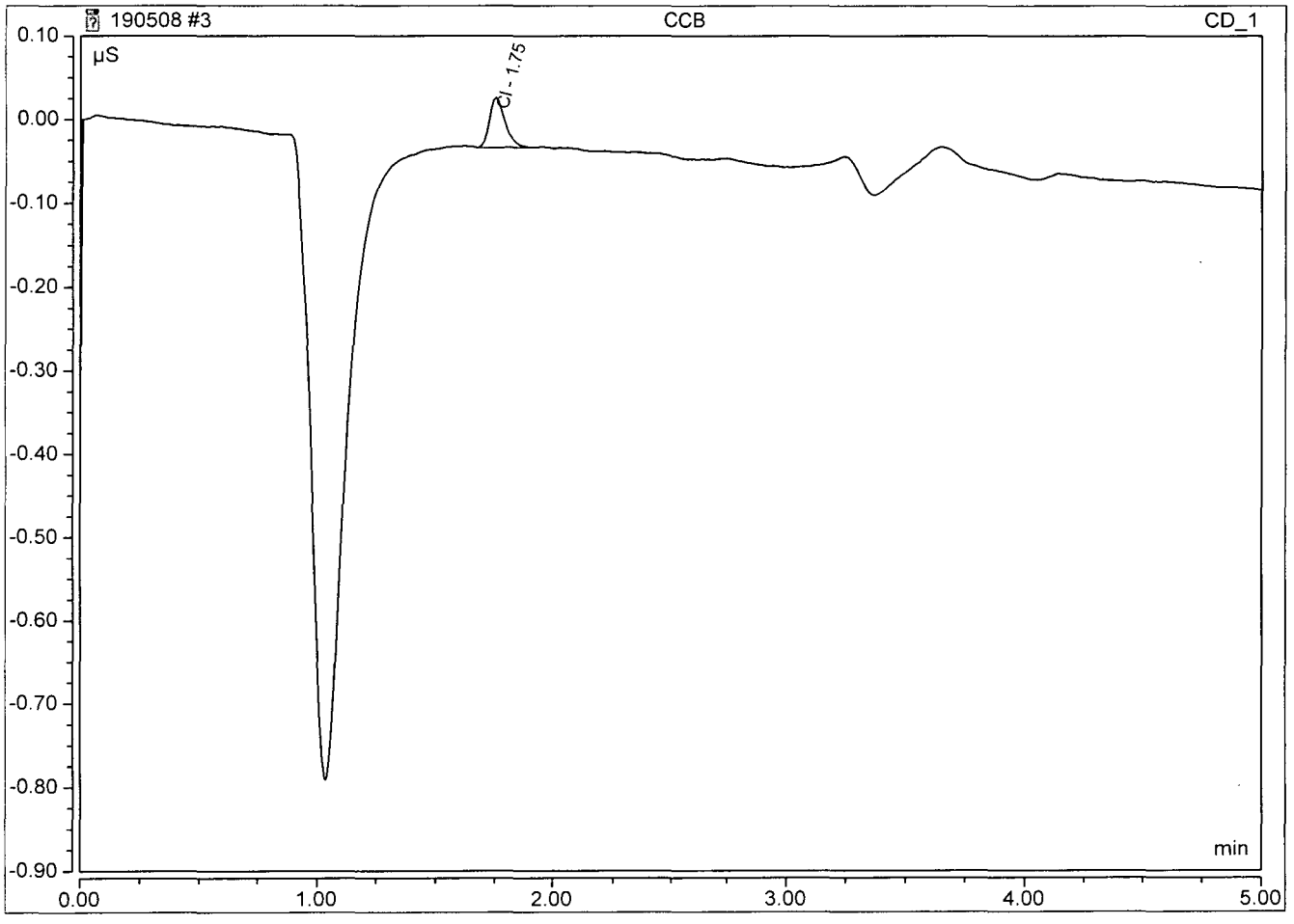
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.68 | Cl | BMB | 0.008 | 0.134 | 0.33 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCB** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **08-May-2019 / 08:31** | *Run Time:* | **5.00** |

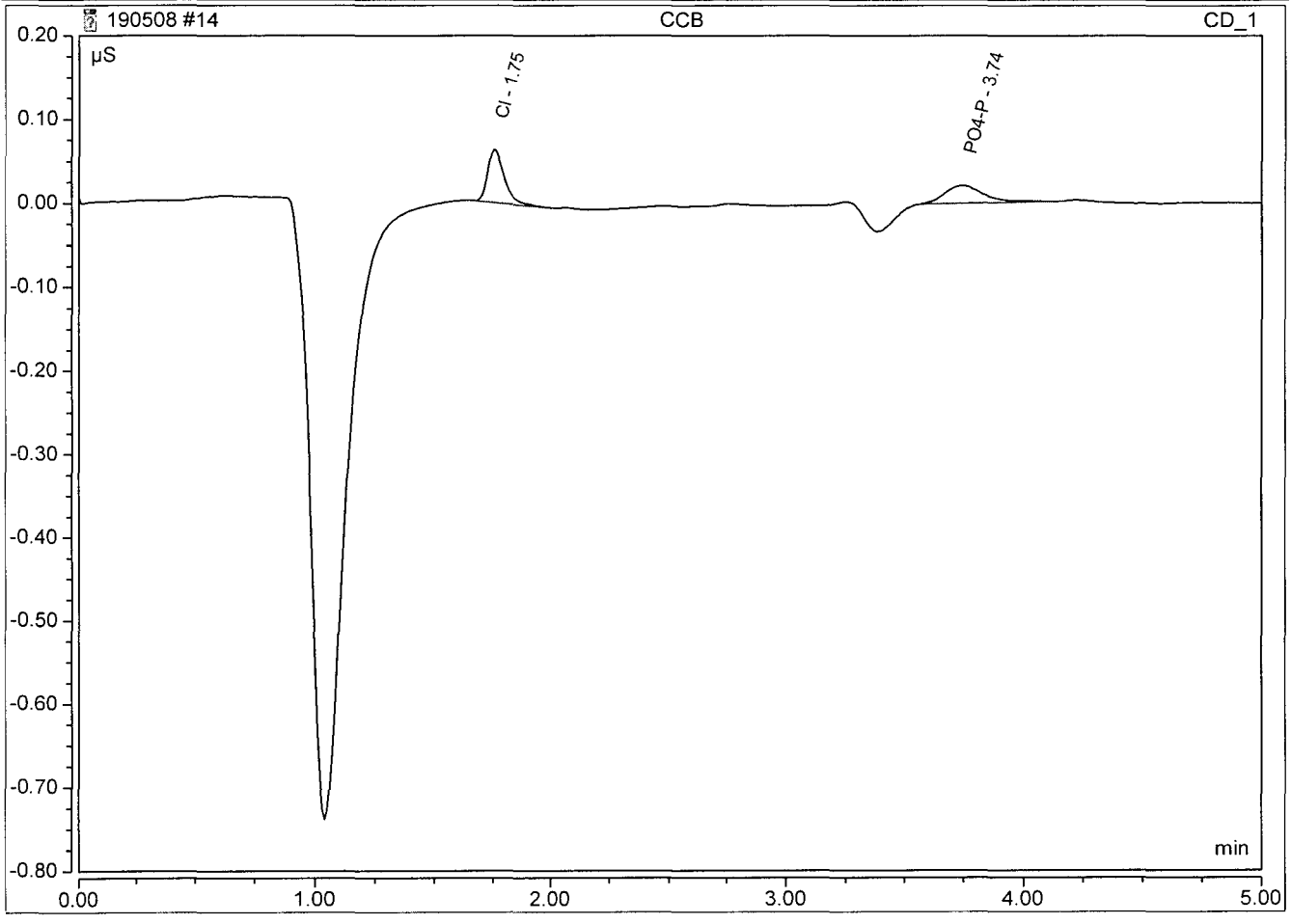
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.75 | Cl | BMB | 0.005 | 0.060 | 0.30 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **CCB** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **08-May-2019 / 10:15** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.75 | **Cl** | BMB | 0.005 | 0.063 | 0.31 | | |
| 2 | 3.74 | **PO4-P** | BMB | 0.004 | 0.021 | 0.49 | | |



# INORGANIC ANALYSIS
## Raw Data

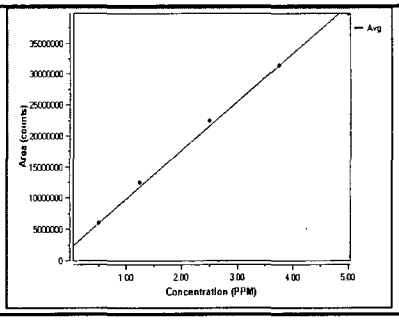
TOTAL ORGANIC CARBON

Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: TOC | QCG: 190502A

Analyist: AR | Final Volume: 40mL

| Date | Time | Appl ID | [TOC] | Raw | % Recovery |
|---|---|---|---|---|---|
| 02/23/19 | 12:37 | QC blank | 0.00 | 2073066.000 | |
| 02/23/19 | 13:11 | Ical 1 | 0.50 | 6066781.000 | |
| 02/23/19 | 13:43 | Ical 2 | 1.25 | 12451764.000 | |
| 02/23/19 | 14:15 | Ical 3 | 2.50 | 22465756.000 | |
| 02/23/19 | 14:48 | Ical 4 | 3.75 | 31457150.000 | |
| 02/23/19 | 15:21 | Ical 5 | 5.00 | 39864495.000 | |
| 02/23/19 | 15:56 | ICB | 0.25 | 1917909.000 | |
| 02/23/19 | 16:30 | ICV | 2.97 | 23239734.000 | 118.9% |
| r^2= | 0.9984 | | | | |




| Date | Time | Appl ID | DF | Raw Result | SubSample Amount | Calc Conc | Result | QC True | % Recovery |
|---|---|---|---|---|---|---|---|---|---|
| 2019-05-02 | 04:32 PM | CCV | 1 | 21675369 | 40mL | 2.422 | 2.42 | 2.50 | 96.9% |
| 2019-05-02 | 05:07 PM | CCB | 1 | 727823 | 40mL | 0 | 0.00 | | |
| 2019-05-02 | 05:40 PM | 190502A BLK | 1 | 927374 | 40mL | 0 | 0.00 | | |
| 2019-05-02 | 06:14 PM | 190502A LCS | 1 | 21760887 | 40mL | 2.433 | 2.43 | 2.50 | 97.3% |
| 2019-05-02 | 06:49 PM | 190502A LCSD | 1 | 21292907 | 40mL | 2.373 | 2.37 | 2.50 | 94.9% |
| 2019-05-02 | 07:24 PM | AZ89958W12 | 1 | 2719364 | 40mL | 0.298 | 0.30 | | |
| 2019-05-02 | 07:55 PM | AZ89958W09 DUP | 1 | 2096550 | 40mL | 0 | 0.00 | | |
| 2019-05-02 | 08:29 PM | AZ89958W14 MS | 1 | 22354778 | 40mL | 2.508 | 2.51 | | |
| 2019-05-02 | 09:04 PM | AZ89958W11 MSD | 1 | 22821834 | 40mL | 2.568 | 2.57 | | |
| 2019-05-02 | 09:39 PM | AZ90051W13 | 1 | 2446110 | 40mL | 0.263 | 0.26 | | |
| 2019-05-02 | 10:10 PM | AZ90051W13 DUP | 1 | 3624059 | 40mL | 0.113 | 0.11 | | |
| 2019-05-02 | 10:45 PM | AZ90051W16 MS | 1 | 23433442 | 40mL | 2.646 | 2.65 | | |
| 2019-05-02 | 11:20 PM | AZ90051W16 MSD | 1 | 23412687 | 40mL | 2.644 | 2.64 | | |
| 2019-05-02 | 11:55 PM | AZ90054W09 | 1 | 4072622 | 40mL | 0.471 | 0.47 | | |
| 2019-05-03 | 12:27 AM | AZ90058W05 | 1 | 4372254 | 40mL | 0.509 | 0.51 | | |
| 2019-05-03 | 12:58 AM | AZ90060W12 | 1 | 7550103 | 40mL | 0.915 | 0.92 | | |
| 2019-05-03 | 01:30 AM | AZ90100W09 | 1 | 8006133 | 40mL | 0.974 | 0.97 | | |
| 2019-05-03 | 02:02 AM | AZ90105W08 | 1 | 12129049 | 40mL | 1.501 | 1.50 | | |
| 2019-05-03 | 02:33 AM | AZ90109W09 | 1 | 2449956 | 40mL | 0.263 | 0.26 | | |
| 2019-05-03 | 03:05 AM | AZ90213W12 | 1 | 16936404 | 40mL | 2.115 | 2.12 | | |
| 2019-05-03 | 03:38 AM | CCV | 1 | 21447087 | 40mL | 2.392 | 2.39 | 2.50 | 95.7% |
| 2019-05-03 | 04:13 AM | CCB | 1 | 882391 | 40mL | 0 | 0.00 | | |
| 2019-05-03 | 04:46 AM | 190502B BLK | 1 | 797351 | 40mL | 0 | 0.00 | | |
| 2019-05-03 | 05:20 AM | 190502B LCS | 1 | 21956853 | 40mL | 2.458 | 2.46 | 2.50 | 98.3% |
| 2019-05-03 | 05:55 AM | 190502B LCSD | 1 | 21901664 | 40mL | 2.45 | 2.45 | 2.50 | 98.0% |
| 2019-05-03 | 06:30 AM | AZ89958W43 | 1 | 2048429 | 40mL | 0.212 | 0.21 | | |
| 2019-05-03 | 07:01 AM | AZ89958W17 DUP | 1 | 5821945 | 40mL | 0.394 | 0.39 | | |
| 2019-05-03 | 07:36 AM | AZ89958W10 MS | 1 | 21950218 | 40mL | 2.457 | 2.46 | | |
| 2019-05-03 | 08:12 AM | AZ89958W18 MSD | 1 | 22462368 | 40mL | 2.523 | 2.52 | | |
| 2019-05-03 | 08:47 AM | AZ90051W09 | 1 | 2995627 | 40mL | 0.333 | 0.33 | | |
| 2019-05-03 | 09:18 AM | AZ90051W09 DUP | 1 | 3326206 | 40mL | 0.075 | 0.08 | | |
| 2019-05-03 | 09:53 AM | AZ90051W10 MS | 1 | 23819230 | 40mL | 2.696 | 2.70 | | |
| 2019-05-03 | 10:29 AM | AZ90051W10 MSD | 1 | 23878289 | 40mL | 2.704 | 2.70 | | |
| 2019-05-03 | 11:04 AM | AZ90056W08 | 1 | 4065043 | 40mL | 0.47 | 0.47 | | |
| 2019-05-03 | 11:36 AM | AZ90102W10 | 1 | 27567265 | 40mL | 3.475 | 3.48 | | |
| 2019-05-03 | 12:08 PM | AZ90107W10 | 1 | 3202077 | 40mL | 0.359 | 0.36 | | |
| 2019-05-03 | 12:39 PM | AZ90215W06 | 1 | 4079275 | 40mL | 0.472 | 0.47 | | |
| 2019-05-03 | 01:11 PM | CCV | 1 | 21730719 | 40mL | 2.428 | 2.43 | 2.50 | 97.1% |
| 2019-05-03 | 01:46 PM | CCB | 1 | 969840 | 40mL | 0 | 0.00 | | |

Sample Results Summary

| Spl # | Vial # | Sample ID | Num Rep | Act Rep | Method | Type | Dil | Customer ID | Mode | Avg. Area (cts) | Avg. Mass (ug) | Avg. Conc (PPM) | Std. Dev | % RSD | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,675,369 | 4.843 | 2.422 | 885,314 | 4.08 | |
| 2 | 2 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 727,823 | 0.000 | 0.000 | 79,089 | 10.87 | |
| 3 | 3 | 190502A BLK | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 927,374 | 0.000 | 0.000 | 130,387 | 14.06 | |
| 4 | 4 | 190502A LCS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,760,887 | 4.865 | 2.433 | 173,533 | 0.80 | |
| 5 | 5 | 190502A LCSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,292,907 | 4.745 | 2.373 | 166,010 | 0.78 | |
| 10 | 10 | AZ90051W13 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 2,446,110 | 0.525 | 0.263 | 49,829 | 2.04 | Pass |
| 11 | 11 | AZ90051W13 DUP | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 3,624,059 | 0.226 | 0.113 | 32,860 | 0.91 | |
| 12 | 12 | AZ90051W16 MS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 23,433,442 | 5.293 | 2.646 | 148,075 | 0.63 | |
| 13 | 13 | AZ90051W16 MSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 23,412,687 | 5.287 | 2.644 | 125,339 | 0.54 | |
| 14 | 14 | AZ90054W09 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 4,072,622 | 0.941 | 0.471 | 56,787 | 1.39 | Pass |
| 15 | 15 | AZ90058W05 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 4,372,254 | 1.018 | 0.509 | 69,617 | 1.59 | Pass |
| 16 | 16 | AZ90060W12 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 7,550,103 | 1.831 | 0.915 | 117,920 | 1.56 | Pass |
| 21 | 21 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,447,087 | 4.785 | 2.392 | 314,866 | 1.47 | |
| 22 | 22 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 882,391 | 0.000 | 0.000 | 102,678 | 11.64 | |
| 23 | 23 | 190502B BLK | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 797,351 | 0.000 | 0.000 | 132,774 | 16.65 | |
| 24 | 24 | 190502B LCS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,956,853 | 4.915 | 2.458 | 166,059 | 0.76 | |
| 25 | 25 | 190502B LCSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,901,664 | 4.901 | 2.451 | 140,053 | 0.64 | |
| 30 | 30 | AZ90051W09 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 2,995,627 | 0.666 | 0.333 | 86,227 | 2.88 | Pass |
| 31 | 31 | AZ90051W09 DUP | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 3,326,206 | 0.150 | 0.075 | 106,811 | 3.21 | |
| 32 | 32 | AZ90051W10 MS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 23,819,230 | 5.391 | 2.696 | 196,208 | 0.82 | |
| 33 | 33 | AZ90051W10 MSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 23,878,289 | 5.406 | 2.704 | 78,166 | 0.33 | |
| 34 | 34 | AZ90056W08 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 4,065,043 | 0.940 | 0.470 | 45,204 | 1.11 | Pass |
| 38 | 38 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,730,719 | 4.857 | 2.428 | 335,238 | 1.54 | |
| 39 | 39 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 969,840 | 0.000 | 0.000 | 46,958 | 4.84 | |
| 1 | 1 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,940,997 | 4.911 | 2.455 | 567,607 | 2.59 | |
| 2 | 2 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 937,340 | 0.000 | 0.000 | 85,381 | 9.11 | |
| 3 | 3 | 190506A LCS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,565,896 | 4.815 | 2.407 | 577,118 | 2.68 | |
| 4 | 4 | 190506A LCSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,627,304 | 4.831 | 2.416 | 358,147 | 1.66 | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 5 | AZ90450W12 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 3,386,923 | 0.766 | 0.383 | 310,849 | 9.18 | Pass |
| 6 | 6 | AZ90450W12 DUP | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 6,042,856 | 1.445 | 0.723 | 1,119,538 | 18.53 | Pass |
| 7 | 7 | AZ90450W06 MS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 22,108,222 | 5.554 | 2.777 | 1,486,216 | 6.72 | Pass |
| 8 | 8 | AZ90450W06 MSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 22,740,256 | 5.716 | 2.858 | 3,877,107 | 17.05 | Pass |
| 9 | 9 | AZ90450W08 | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 3,732,262 | 0.854 | 0.427 | 347,614 | 9.31 | Pass |
| 10 | 10 | AZ90450W08 DUP | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 3,865,616 | 0.889 | 0.444 | 493,975 | 12.78 | Pass |
| 11 | 11 | AZ90450W05 MS | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 16,355,040 | 4.083 | 2.041 | 9,961,105 | 60.91 | Pass |
| 12 | 12 | AZ90450W05 MSD | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | Sample | 1 : 1 | 00000000 | TOC | 23,794,786 | 5.986 | 2.993 | 107,099 | 0.45 | Pass |
| 13 | 13 | CCV | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 21,986,053 | 4.923 | 2.461 | 361,898 | 1.65 | |
| 14 | 14 | CCB | 4 | 4 | 190223A NPOC - Feb 23, 2019; 11-13-26 AM | QC #1 | 1 : 1 | 00000000 | TOC | 1,000,079 | 0.000 | 0.000 | 123,317 | 12.33 | |

# AQ2 Report

| | |
|---|---|
| **Serial Number:** | 190170 |
| **Software Version:** | 2.1.0 |
| **Report Requested By:** | Eve V |
| **Date & Time:** | 2019-05-02 09:25:07 |
| **Tray Number:** | 3 |
| **Tray Name:** | 190501A TOXN CCV |

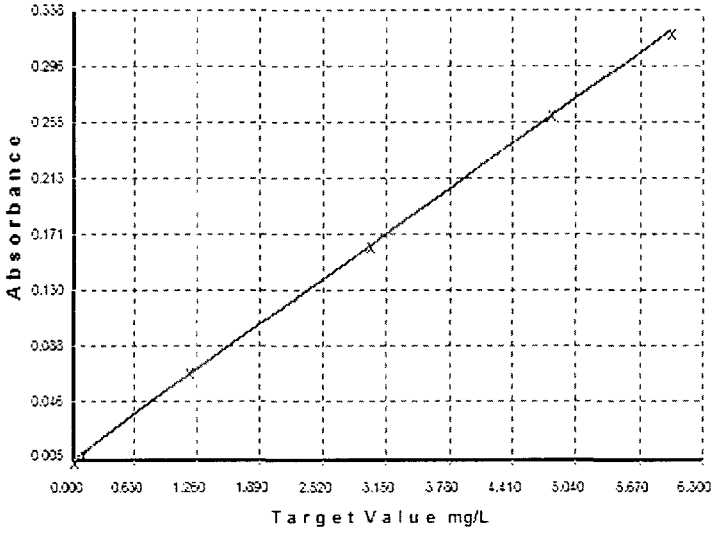
## TOXN

### Calibration Chart

| Type | Absorbance | Calc mg/L | Target mg/L | % Error |
|---|---|---|---|---|
| S1 | 0.0045 | -0.0187 | 0.0000 | |
| S90 | 0.0100 | 0.0854 | 0.1000 | -14.60 |
| S91 | 0.0708 | 1.2299 | 1.2000 | 2.49 |
| S92 | 0.1649 | 3.0029 | 3.0000 | 0.10 |
| S93 | 0.2623 | 4.8388 | 4.8000 | 0.81 |
| S94 | 0.3219 | 5.9618 | 6.0000 | -0.64 |
| S0 | 0.0054 | -0.0029 | 0.0000 | |

| | |
|---|---|
| Polynomial Order. | 1 |
| Correlation Coefficient: | 0.9999 |
| Carryover(%): | 0.3 |
| Calibration equation: | y = bx + a |
| y =: | Concentration mg/L |
| x =: | Measured absorbance |
| a =: | -1.038605E-001 |
| b =: | 1.884315E+001 |
| Date & Time: | 2019-05-01 16:47:29 |

### Calibration Graph




### Reagents

| Name | Batch | Prepared By | Expiry Date |
|---|---|---|---|
| NO3 W Buffer | Algorithm check | Joel | |
| Sulfa-NEDD | y = 18.84315 x 0.162897 - 0.1038605 | Joel | |
| | y = 2.97 | EV 5/15/19 | |

| Cup | Type | ID | Result | Units | QC Pro | Raw Data | Auto Dil. | Man Dil. | User | Time/Date |
|---|---|---|---|---|---|---|---|---|---|---|
| | S1 | Standard 1 | 0.0045 | | | 0.004518 | | | Ev | 2019-05-01 16:37:54 |
| | S90 | Standard 90 | 0.0100 | | | 0.010044 | | | Ev | 2019-05-01 16:40:05 |
| | S91 | Standard 91 | 0.0708 | | | 0.070781 | | | Ev | 2019-05-01 16:42:17 |
| | S92 | Standard 92 | 0.1649 | | | 0.164873 | | | Ev | 2019-05-01 16:44:30 |
| | S93 | Standard 93 | 0.2623 | | | 0.262303 | | | Ev | 2019-05-01 16:45:36 |
| | S94 | Standard 94 | 0.3219 | | | 0.321904 | | | Ev | 2019-05-01 16:46:33 |
| | S0 | Standard 0 | 0.0054 | | | 0.005359 | | | Ev | 2019-05-01 16:47:29 |
| | CCV | CCV | 2.9088 | mg/L | | 0.159881 | | | Ev | 2019-05-01 16:48:25 |
| | CCB | CCB | -0.0233 | mg/L | | 0.004274 | | | Ev | 2019-05-01 16:49:21 |
| 3 | U1 | ICV TOXN | 2.9656 | mg/L | | 0.162897 | | | Ev | 2019-05-01 16:50:17 |
| 4 | U2 | ICB TOXN | -0.0075 | mg/L | | 0.005115 | | | Ev | 2019-05-01 16:51:13 |
| | CCV | CCV | 2.8375 | mg/L | | 0.156098 | | | Ev | 2019-05-01 16:52:09 |
| | CCB | CCB | -0.0134 | mg/L | | 0.004803 | | | Ev | 2019-05-01 16:53:05 |

# AQ2 Report

| | |
|---|---|
| **Serial Number:** | 190170 |
| **Software Version:** | 2.1.0 |
| **Report Requested By:** | Eve V |
| **Date & Time:** | 2019-05-02 09:21:44 |
| **Tray Number:** | 5 |
| **Tray Name:** | 190501B TOXN |

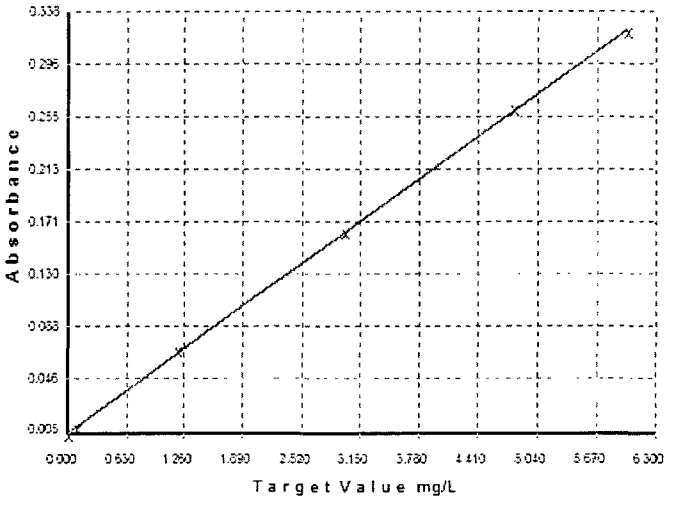
## TOXN

### Calibration Chart

| Type | Absorbance | Calc mg/L | Target mg/L | % Error |
|---|---|---|---|---|
| S1 | 0.0045 | -0.0187 | 0.0000 | |
| S90 | 0.0100 | 0.0854 | 0.1000 | -14.60 |
| S91 | 0.0708 | 1 2299 | 1.2000 | 2.49 |
| S92 | 0.1649 | 3.0029 | 3.0000 | 0.10 |
| S93 | 0.2623 | 4.8388 | 4.8000 | 0.81 |
| S94 | 0.3219 | 5.9618 | 6.0000 | -0.64 |
| S0 | 0.0054 | -0.0029 | 0.0000 | |

| | |
|---|---|
| Polynomial Order: | 1 |
| Correlation Coefficient: | 0.9999 |
| Carryover(%): | 0.3 |
| Calibration equation: | y = bx + a |
| y =: | Concentration mg/L |
| x =: | Measured absorbance |
| a =: | -1.038605E-001 |
| b =: | 1.884315E+001 |
| Date & Time: | 2019-05-01 16:47:29 |

### Calibration Graph




### Reagents

| Name | Batch | Prepared By | Expiry Date |
|---|---|---|---|
| NO3 W Buffer | | Joel | |
| Sulfa-NEDD | | Joel | |

| Cup | Type | ID | Result | Units | QC Pro | Raw Data | Auto Dil. | Man Dil. | User | Time/Date |
|---|---|---|---|---|---|---|---|---|---|---|
| | CCV | CCV | 3.0092 | mg/L | | 0.165207 | | | Ev | 2019-05-01 18:12:39 |
| | CCB | CCB | -0 0024 | mg/L | | 0.005387 | | | Ev | 2019-05-01 18:14:51 |
| 3 | U1 | 190501A BLK | -0.0044 | mg/L | | 0.005278 | | | Ev | 2019-05-01 18:17:03 |
| 4 | U2 | 190501A LCS | 3.1419 | mg/L | | 0.172251 | | | Ev | 2019-05-01 18:19:14 |
| 5 | U3 | 190501A LCSD | 3.1186 | mg/L | | 0.171016 | | | Ev | 2019-05-01 18:21:28 |
| 6 | U4 | AZ90051W18 | 0.6235 | mg/L | | 0.038603 | | | Ev | 2019-05-01 18:23:40 |
| 7 | U5 | AZ90051W18 MS | 3.0373 | mg/L | | 0.166701 | | | Ev | 2019-05-01 18:25:52 |
| 8 | U6 | AZ90051W18 MSD | 3.1909 | mg/L | | 0.174852 | | | Ev | 2019-05-01 18:28:04 |
| 9 | U7 | AZ90054W14 | 0.8207 | mg/L | | 0.049066 | | | Ev | 2019-05-01 18:30:16 |
| 10 | U8 | AZ90056W14 | 0.5902 | mg/L | | 0.036832 | | | Ev | 2019-05-01 18:32:28 |
| 11 | U9 | AZ90058W14 | 1.1029 | mg/L | | 0.064043 | | | Ev | 2019-05-01 18:34:41 |
| 12 | U10 | AZ90060W14 | 1 2224 | mg/L | | 0.070386 | | | Ev | 2019-05-01 18:36:53 |
| | CCV | CCV | 3.0459 | mg/L | | 0.167154 | | | Ev | 2019-05-01 18:39:06 |
| | CCB | CCB | -0.0121 | mg/L | | 0.004871 | | | Ev | 2019-05-01 18:41:18 |
| 13 | U11 | AZ90100W14 | 0.0017 | mg/L | | 0.005604 | | | Ev | 2019-05-01 18:43:31 |
| 14 | U12 | AZ90102W14 | 0.0015 | mg/L | | 0.005590 | | | Ev | 2019-05-01 18:44:38 |
| 15 | U13 | AZ90105W14 | 1.7150 | mg/L | | 0.096528 | | | Ev | 2019-05-01 18:45:34 |
| 16 | U14 | AZ90107W14 | 0.4616 | mg/L | | 0.030007 | | | Ev | 2019-05-01 18:46:30 |
| 17 | U15 | AZ90109W14 | 0.4143 | mg/L | | 0.027499 | | | Ev | 2019-05-01 18:47:26 |
| 18 | U16 | AZ90213W22 | 1.7632 | mg/L | | 0.099082 | | | Ev | 2019-05-01 18:48:22 |
| 19 | U17 | AZ90215W22 | 0.2121 | mg/L | | 0.016769 | | | Ev | 2019-05-01 18:49:18 |
| 20 | U18 | AZ90450W14 | -0.0279 | mg/L | | 0.004030 | | | Ev | 2019-05-01 18:50:14 |
| | CCV | CCV | 2.8702 | mg/L | | 0.157831 | | | Ev | 2019-05-01 18:51:10 |
| | CCB | CCB | -0.0154 | mg/L | | 0.004694 | | | Ev | 2019-05-01 18:52:07 |

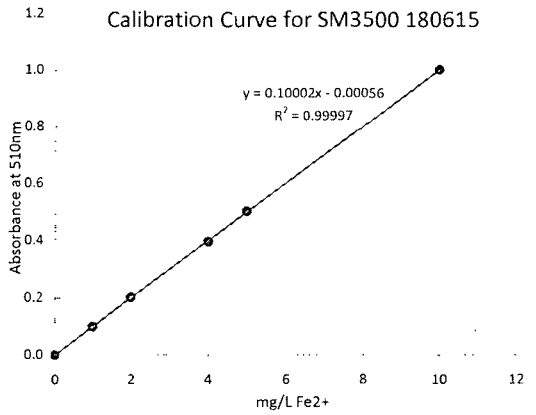
Ferrous Iron — Rev 2, 04-05-19

Method SM3500Fe | Units mg/L | Instrument: Genisis Spectrometer
Analyte Fe2+ | QCG: 190424 | Wavelength: 510 nm
Analyist FJR | Final Volume: 50mL | Units: mg/L

| Date | Time | Appl ID | [Fe2+] | Absorbance | % Recovery |
|---|---|---|---|---|---|
| 06/15/18 | 12:27 | ICB | 0.00 | 0.000 | |
| 06/15/18 | 12:27 | Ical 1 | 1.00 | 0.099 | 99.5% |
| 06/15/18 | 12:28 | Ical 2 | 2.00 | 0.201 | 100.8% |
| 06/15/18 | 12:28 | Ical 3 | 4.00 | 0.396 | 99.1% |
| 06/15/18 | 12:29 | Ical 4 | 5.00 | 0.501 | 100.3% |
| 06/15/18 | 12:30 | Ical 5 | 10.00 | 1.000 | 100.0% |
| 06/15/18 | 12:31 | ICV | 3.00 | 0.316 | 105.5% |
| 06/15/18 | 12:32 | ICB | 0.00 | 0.000 | |

| | |
|---|---|
| Slope | 0.100015306 |
| Intercept | -0.000556122 |
| Coefficient of Determination | 0.999973247 |

| Algortithm Check: | Appl ID | Absorbance | Result |
|---|---|---|---|
| | 190424A LCS | 0.305 | 3.06 |
| Result = (Absorbance-Raw Blk-Intercept)/ Slope | | | |
| Test: | FJR | 04/24/19 | 3.06 |

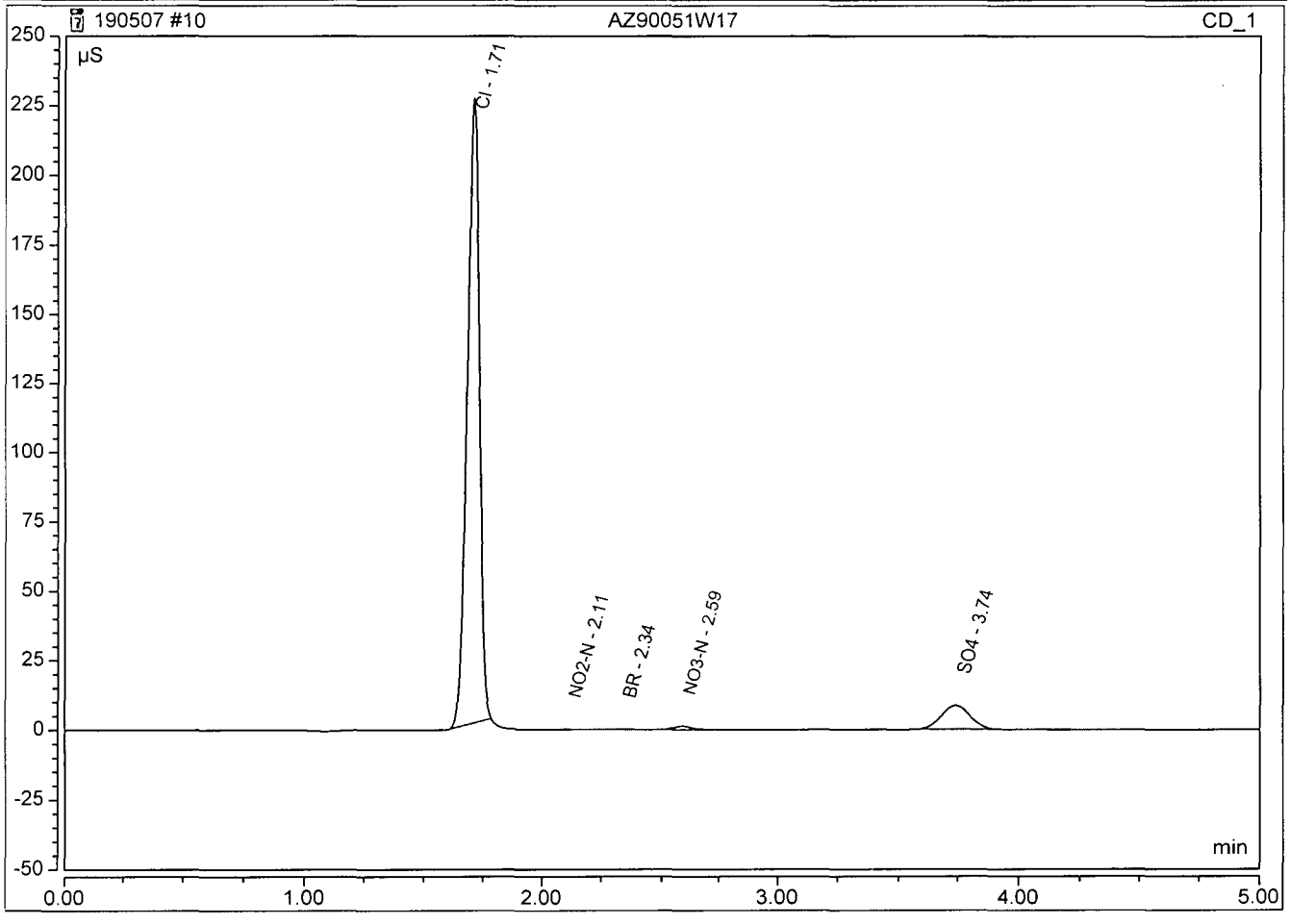



| Date | Time | Appl ID | DF | Raw Result | SubSample Amount | Raw BLK | Calc Conc | Result | QC True | % Recovery |
|---|---|---|---|---|---|---|---|---|---|---|
| 04/24/19 | 19:58 | CCV 4.0 190416 | 1 | 0.378 | 25mL | | 3.78 | 3.78 | 4.00 | 94.6% |
| 04/24/19 | 19:59 | CCB 190416 | 1 | 0.000 | 25mL | | 0.01 | 0.01 | | |
| 04/24/19 | 20:00 | 190424A LCS | 1 | 0.305 | 25mL | | 3.06 | 3.06 | 3.00 | 101.8% |
| 04/24/19 | 20:01 | 190424A LCSD | 1 | 0.307 | 25mL | | 3.08 | 3.08 | 3.00 | 102.5% |
| 04/24/19 | 20:02 | az90051w19 | 1 | 0.003 | 25mL | | 0.04 | 0.04 | | |
| 04/24/19 | 20:03 | az90051w19 ms | 1 | 0.307 | 25mL | | 3.08 | 3.08 | | |
| 04/24/19 | 20:04 | az90051w19 msd | 1 | 0.305 | 25mL | | 3.06 | 3.06 | | |
| 04/24/19 | 20:05 | az90054w15 | 1 | 0.003 | 25mL | | 0.04 | 0.04 | | |
| 04/24/19 | 20:06 | az90056w15 | 1 | 0.000 | 25mL | | 0.01 | 0.01 | | |
| 04/24/19 | 20:07 | az90058w15 | 1 | 0.001 | 25mL | | 0.02 | 0.02 | | |
| 04/24/19 | 20:08 | az90060w15 | 1 | 0.003 | 25mL | | 0.04 | 0.04 | | |
| 04/24/19 | 20:09 | CCV 4.0 190416 | 1 | 0.385 | 25mL | | 3.85 | 3.85 | 4.00 | 96.4% |
| 04/24/19 | 20:10 | CCB 190416 | 1 | 0.000 | 25mL | | 0.01 | 0.01 | | |

## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ90051W17** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **07-May-2019 / 11:29** | *Run Time:* | **5.00** |

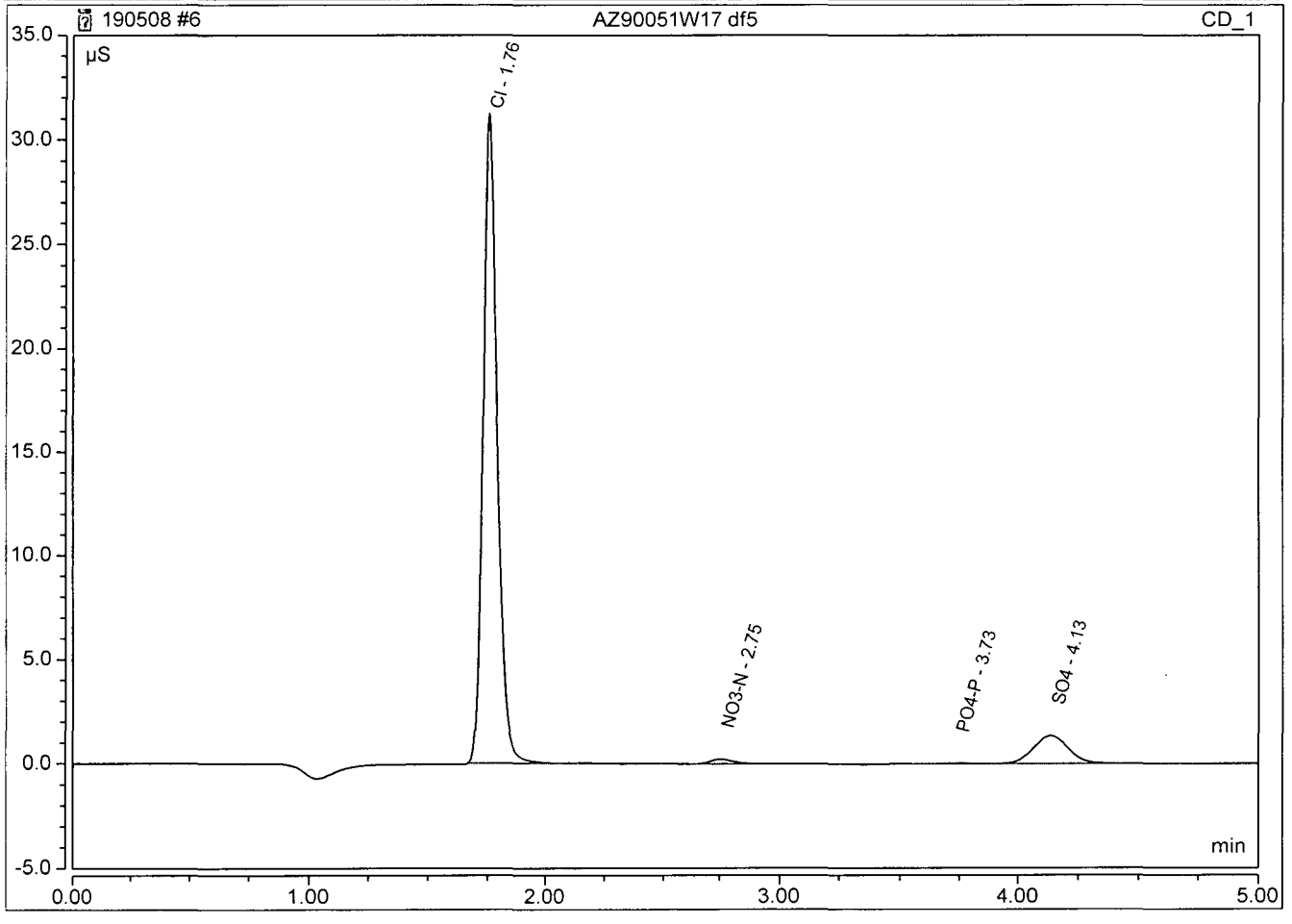
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.71 | **Cl** | BMB | 13.376 | 224.987 | 124.90 | | |
| 2 | 2.11 | **NO2-N** | BMB | 0.012 | 0.082 | 0.07 | | |
| 3 | 2.34 | **BR** | BMB | 0.012 | 0.163 | 0.39 | | |
| 4 | 2.59 | **NO3-N** | BMB | 0.120 | 1.348 | 0.57 | | |
| 5 | 3.74 | **SO4** | BMB | 1.086 | 8.494 | 15.98 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ90051W17 df5** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **5.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **08-May-2019 / 09:16** | *Run Time:* | **5.00** |

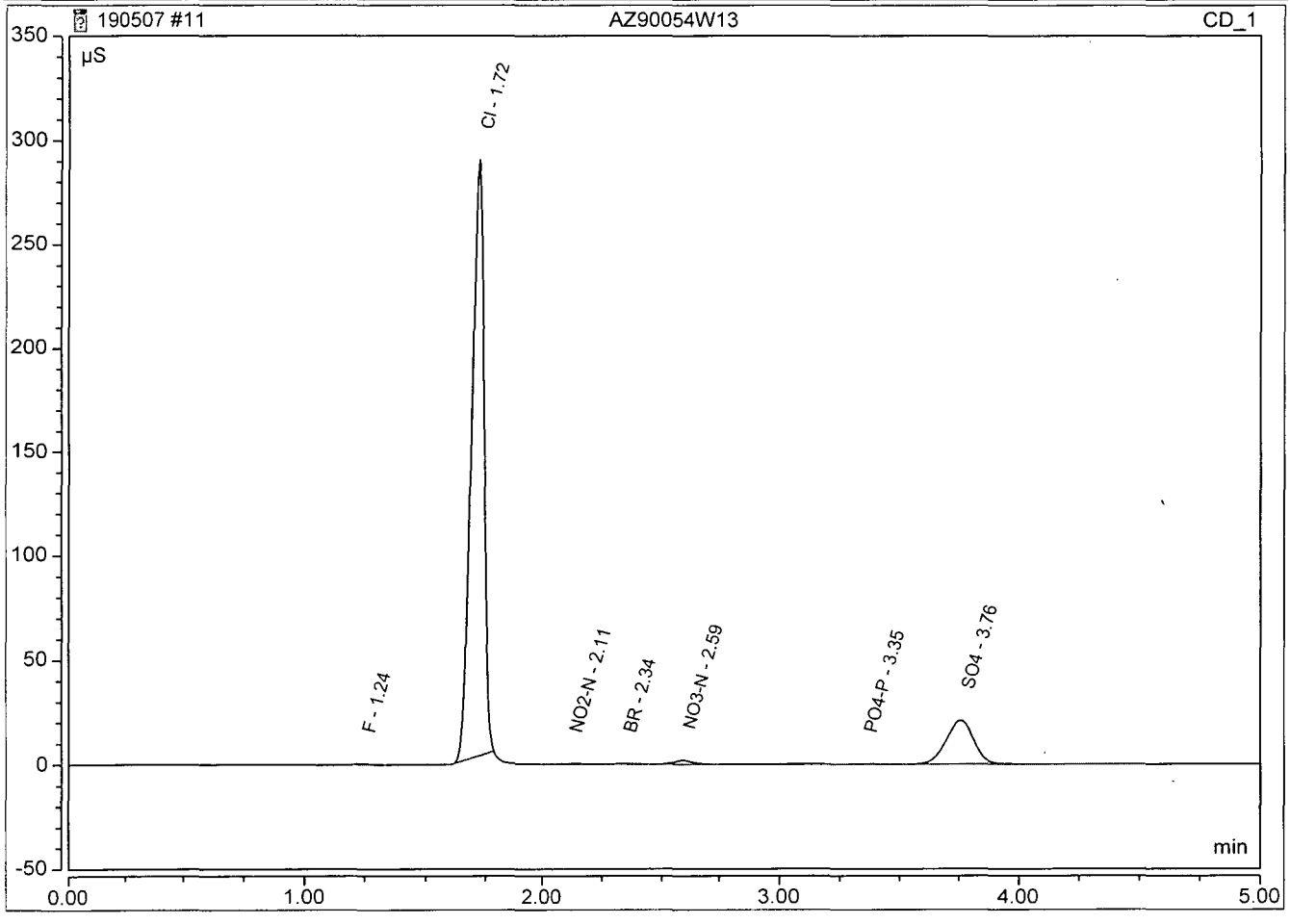
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.76 | **Cl** | BMB | 2.199 | 31.231 | 103.74 | | |
| 2 | 2.75 | **NO3-N** | BMB | 0.025 | 0.223 | 0.71 | | |
| 3 | 3.73 | **PO4-P** | BMB | 0.003 | 0.020 | 2.35 | | |
| 4 | 4.13 | **SO4** | BMB | 0.223 | 1.342 | 17.10 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ90054W13** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **07-May-2019 / 11:36** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | F | BMB | 0.032 | 0.565 | 0.41 | | |
| 2 | 1.72 | Cl | BMB | 17.696 | 286.387 | 165.15 | | |
| 3 | 2.11 | NO2-N | BMB | 0.016 | 0.115 | 0.10 | | |
| 4 | 2.34 | BR | BMB | 0.015 | 0.204 | 0.48 | | |
| 5 | 2.59 | NO3-N | BMB | 0.170 | 1.901 | 0.80 | | |
| 6 | 3.35 | PO4-P | BMB | 0.010 | 0.079 | 0.57 | | |
| 7 | 3.76 | SO4 | BMB | 2.775 | 20.867 | 40.59 | | |



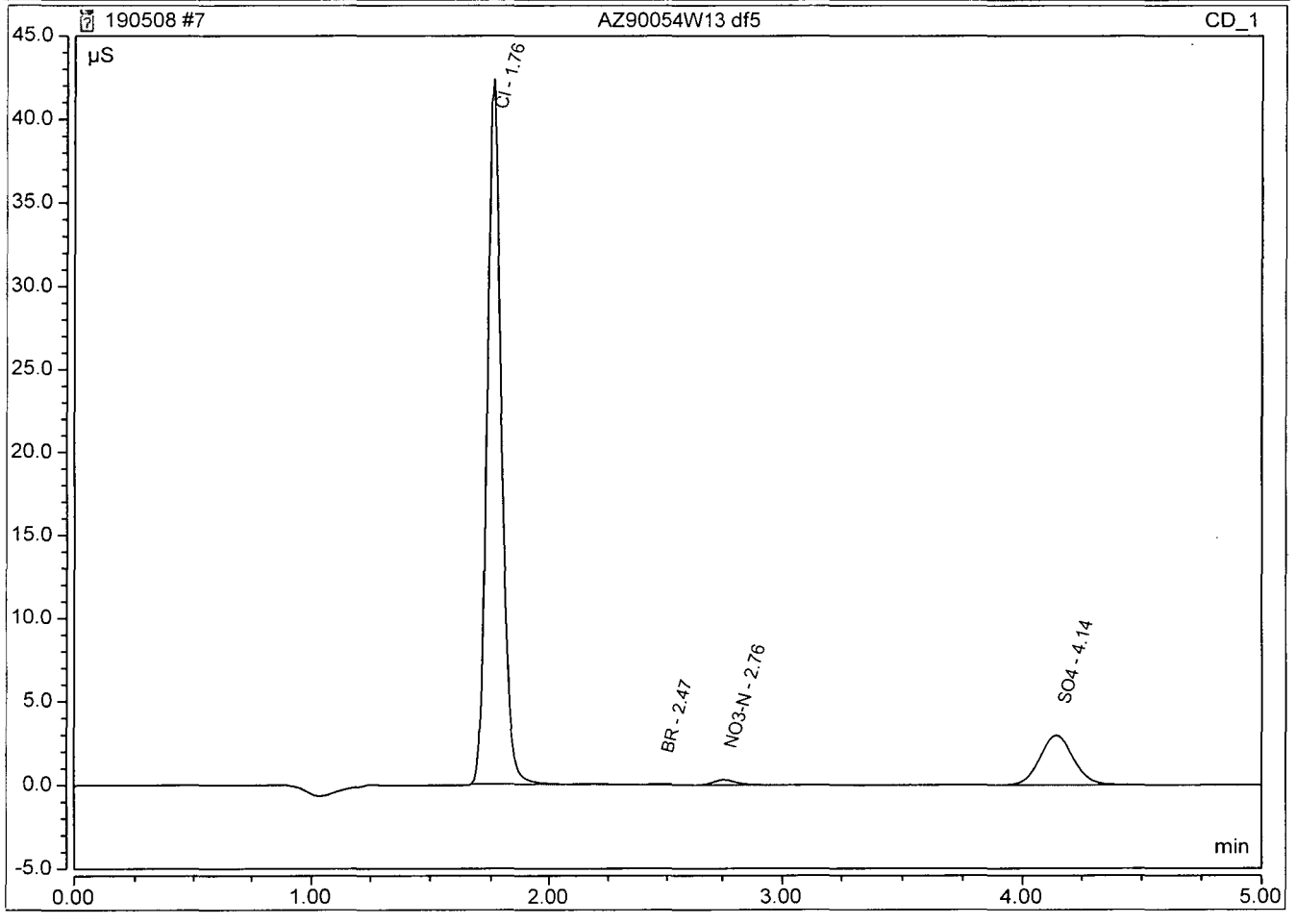



Chromeleon (c) Dionex 1996-2009
Version 7.2.4.8340

## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ90054W13 df5** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **5.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **08-May-2019 / 09:24** | *Run Time:* | **5.00** |

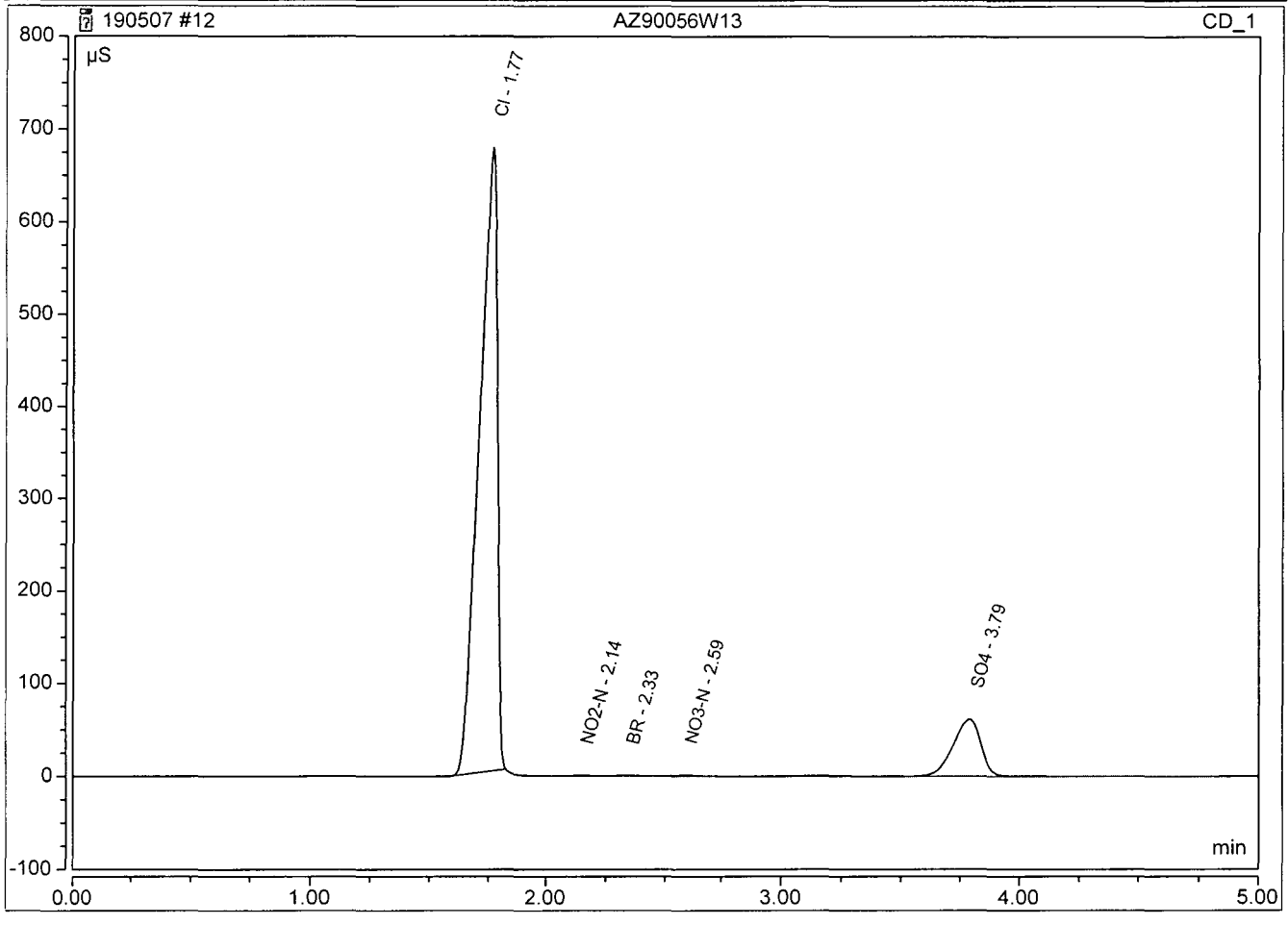
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.76 | **Cl** | BMB | 2.957 | 42.338 | 139.07 | | |
| 2 | 2.47 | **BR** | BMB | 0.003 | 0.031 | 0.64 | | |
| 3 | 2.76 | **NO3-N** | BMB | 0.035 | 0.311 | 0.93 | | |
| 4 | 4.14 | **SO4** | BMB | 0.489 | 2.966 | 36.47 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ90056W13** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **07-May-2019 / 11:43** | *Run Time:* | **5.00** |

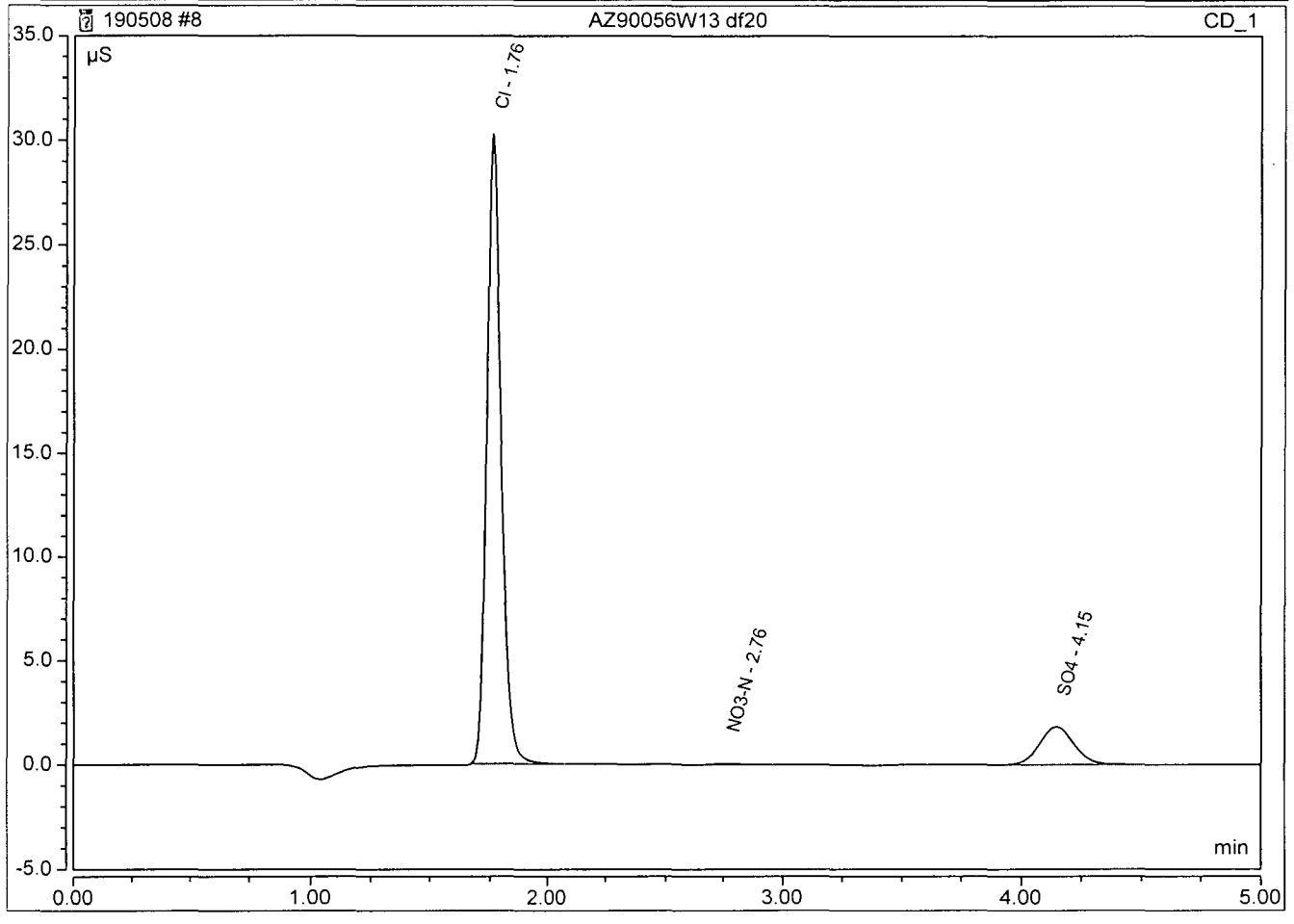
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.77 | **Cl** | BMB | 60.060 | 674.127 | 559.89 | | |
| 2 | 2.14 | **NO2-N** | BMB | 0.032 | 0.252 | 0.19 | | |
| 3 | 2.33 | **BR** | BMB | 0.045 | 0.587 | 1.30 | | |
| 4 | 2.59 | **NO3-N** | BMB | 0.110 | 1.173 | 0.53 | | |
| 5 | 3.79 | **SO4** | BMB | 8.302 | 61.172 | 121.08 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ90056W13 df20** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **20.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **08-May-2019 / 09:31** | *Run Time:* | **5.00** |

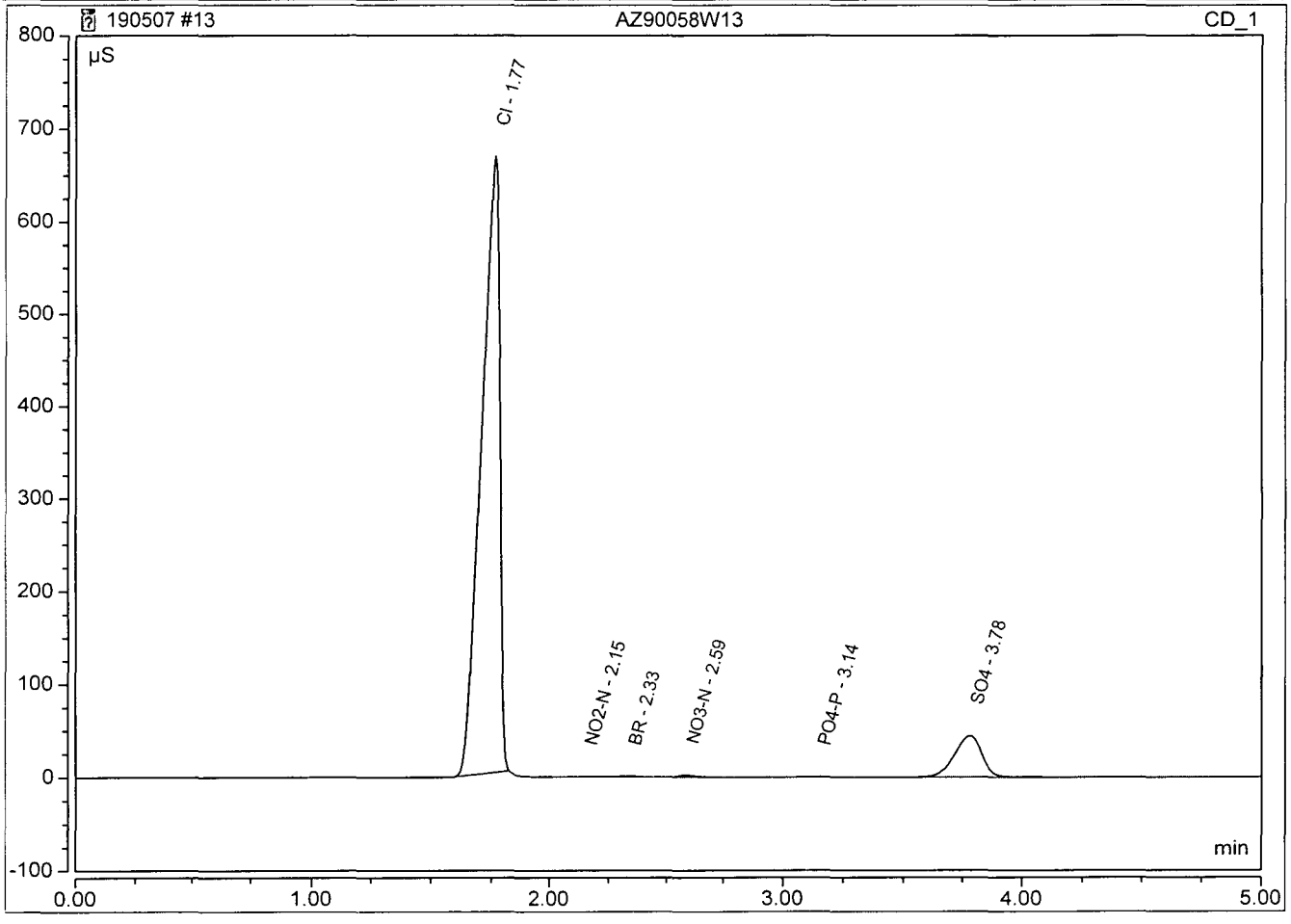
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.76 | Cl | BMB | 2.134 | 30.238 | 402.82 | | |
| 2 | 2.76 | NO3-N | BMB | 0.007 | 0.061 | 1.20 | | |
| 3 | 4.15 | SO4 | BMB | 0.304 | 1.821 | 91.76 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ90058W13** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **07-May-2019 / 11:51** | *Run Time:* | **5.00** |

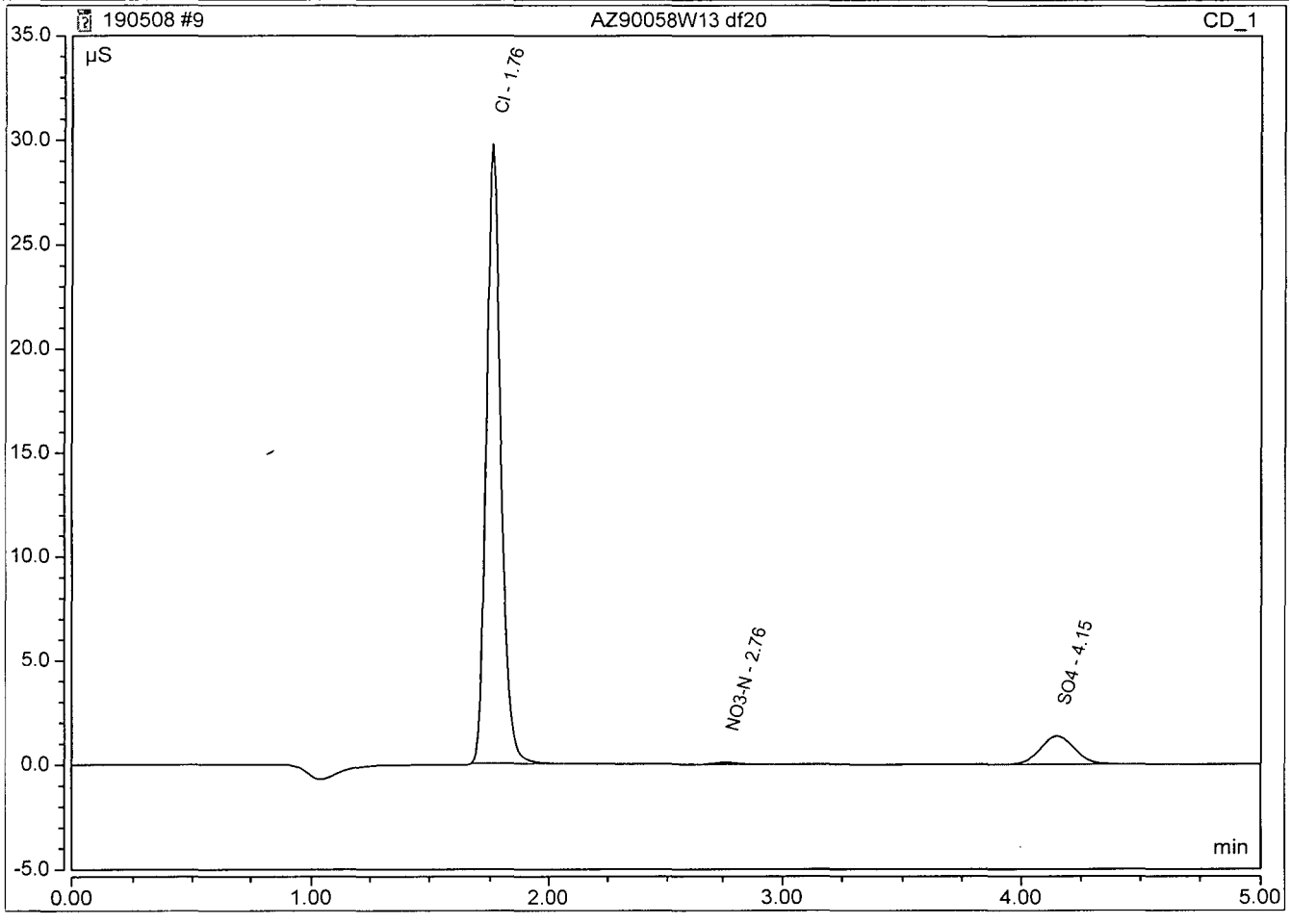
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.77 | **Cl** | BMB | 58.600 | 664.903 | 546.29 | | |
| 2 | 2.15 | **NO2-N** | BMB | 0.033 | 0.254 | 0.19 | | |
| 3 | 2.33 | **BR** | BMB | 0.043 | 0.569 | 1.25 | | |
| 4 | 2.59 | **NO3-N** | BMB | 0.215 | 2.207 | 1.00 | | |
| 5 | 3.14 | **PO4-P** | BMB | 0.054 | 0.202 | 1.16 | | |
| 6 | 3.78 | **SO4** | BMB | 5.928 | 44.396 | 86.50 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ90058W13 df20** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **20.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **08-May-2019 / 09:38** | *Run Time:* | **5.00** |

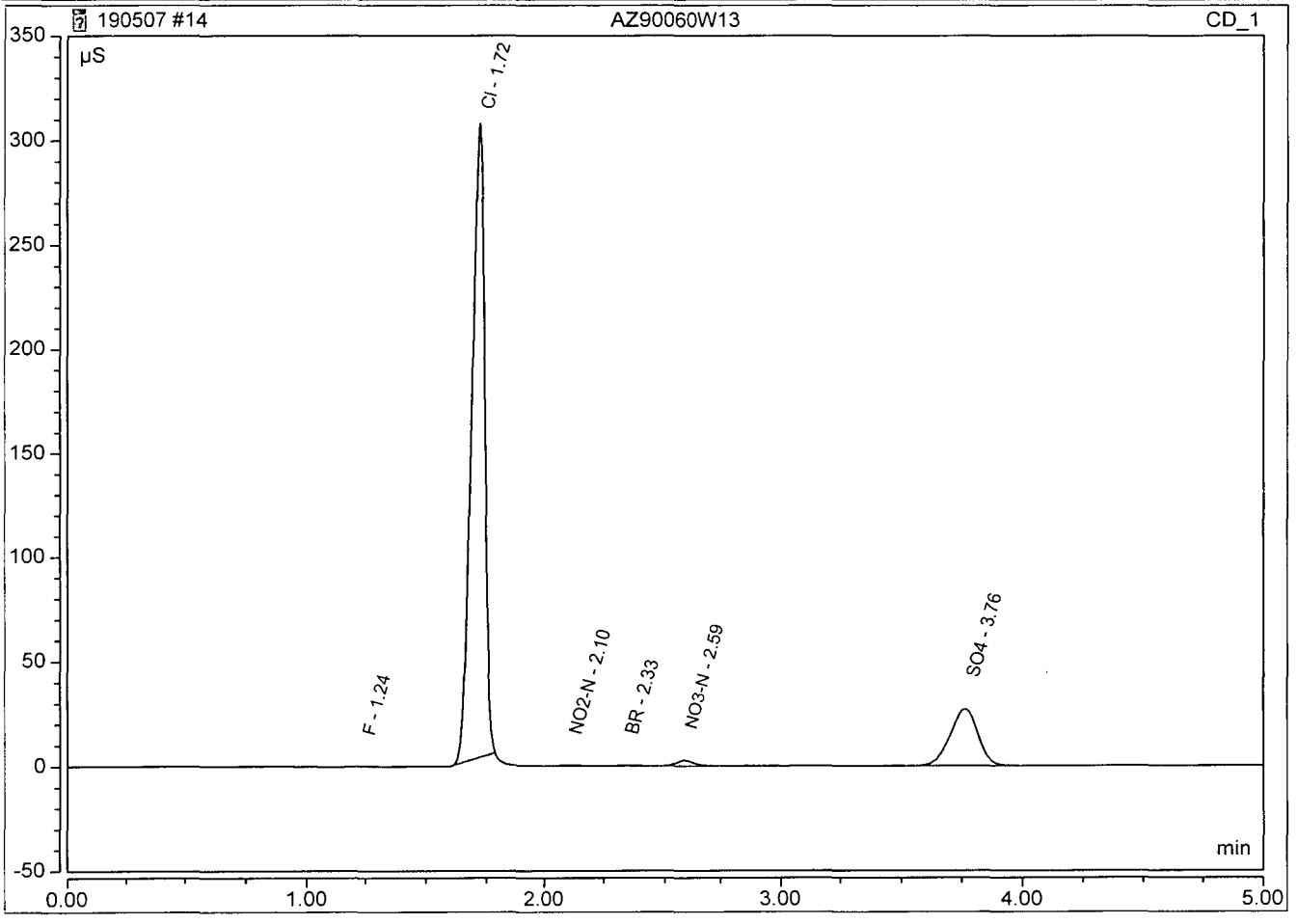
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.76 | **Cl** | BMB | 2.095 | 29.736 | 395.58 | | |
| 2 | 2.76 | **NO3-N** | BMB | 0.011 | 0.100 | 1.59 | | |
| 3 | 4.15 | **SO4** | BMB | 0.227 | 1.357 | 69.34 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ90060W13** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **07-May-2019 / 11:58** | *Run Time:* | **5.00** |

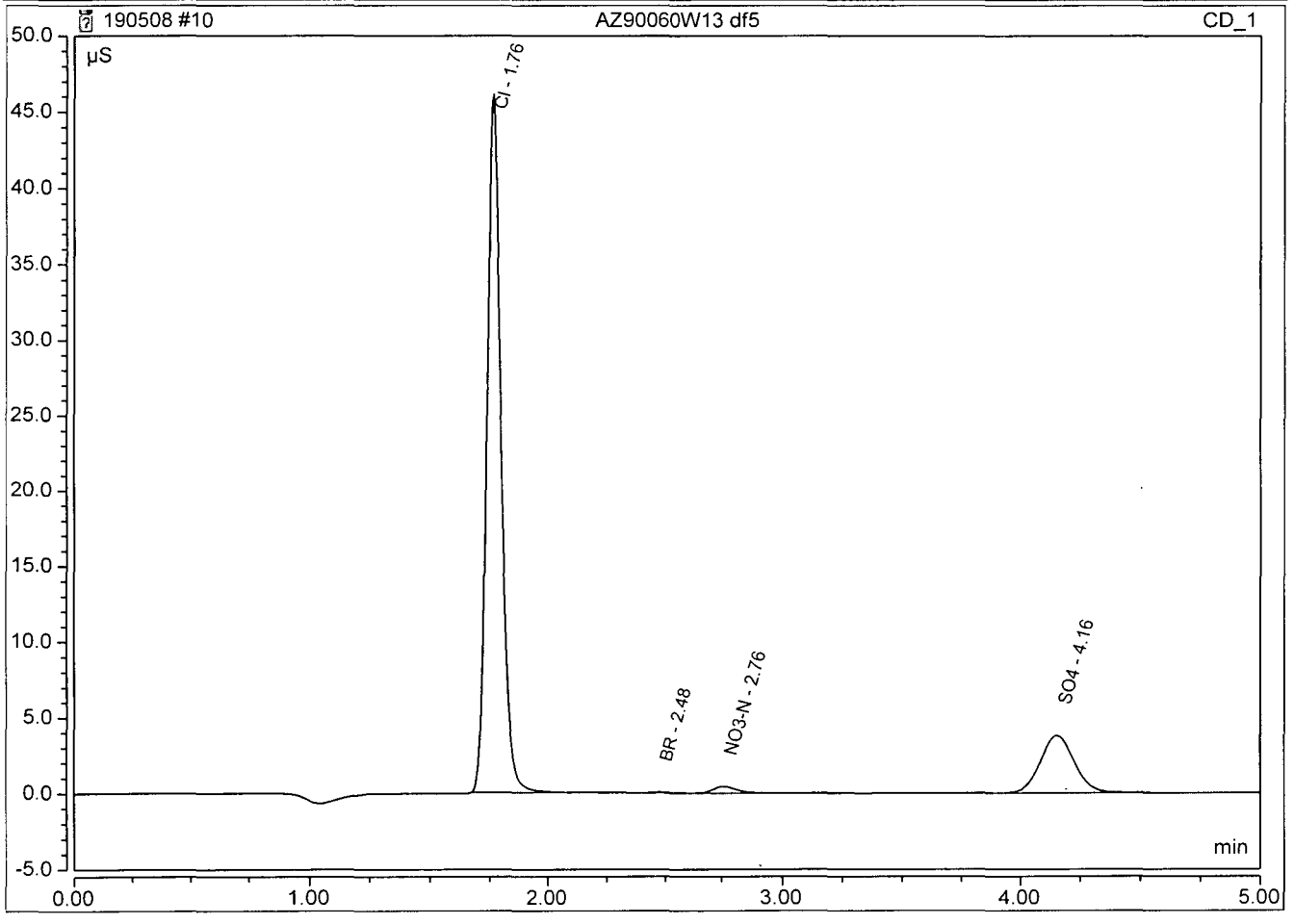
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.24 | **F** | BMB | 0.014 | 0.262 | 0.26 | | |
| 2 | 1.72 | **Cl** | BMB | 19.018 | 303.753 | 177.47 | | |
| 3 | 2.10 | **NO2-N** | BMB | 0.015 | 0.109 | 0.09 | | |
| 4 | 2.33 | **BR** | BMB | 0.016 | 0.213 | 0.49 | | |
| 5 | 2.59 | **NO3-N** | BMB | 0.244 | 2.722 | 1.13 | | |
| 6 | 3.76 | **SO4** | BMB | 3.609 | 27.055 | 52.74 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **AZ90060W13 df5** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Unknown** | *Dilution Factor:* | **5.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **08-May-2019 / 09:46** | *Run Time:* | **5.00** |

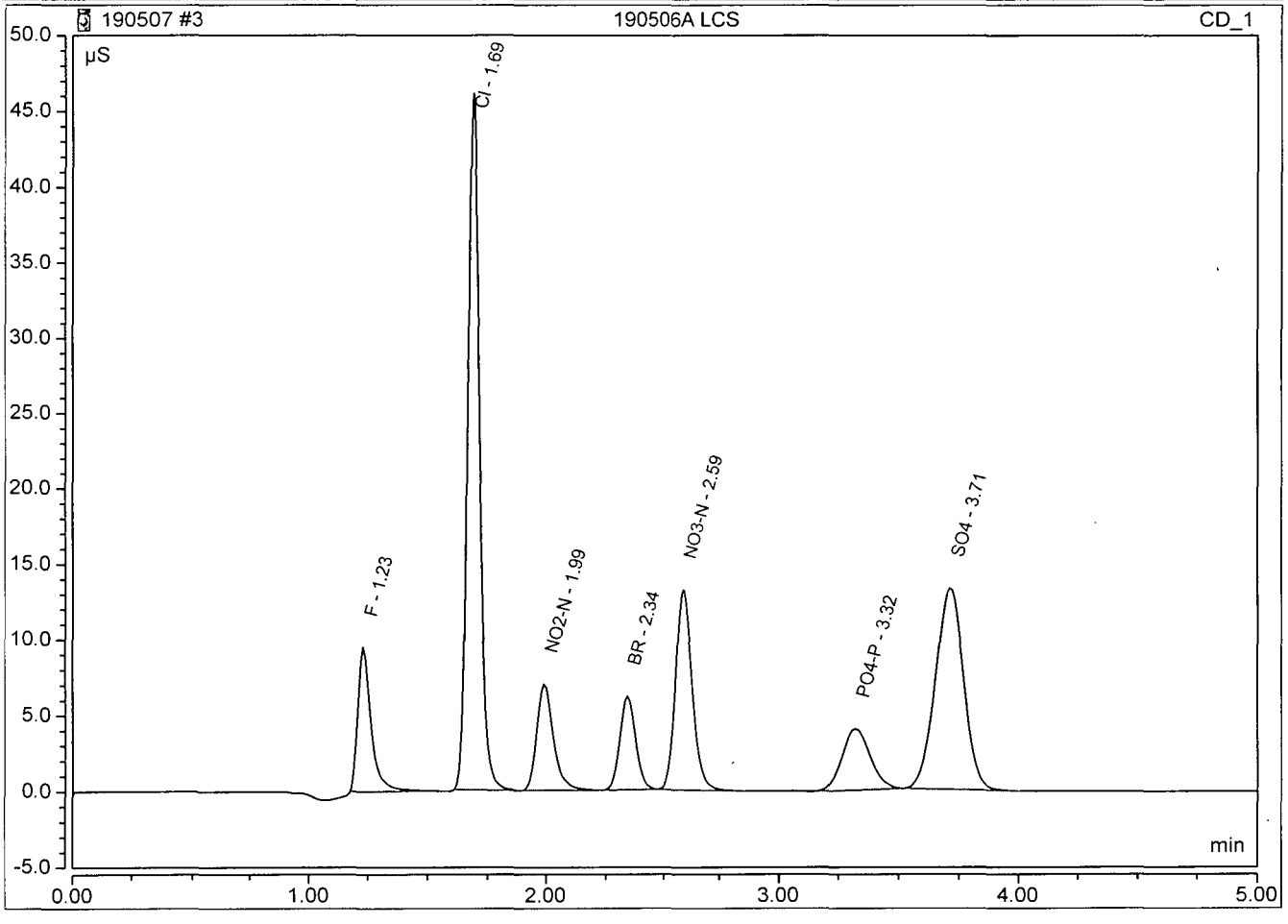
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.76 | **Cl** | BMB | 3.213 | 46.066 | 150.99 | | |
| 2 | 2.48 | **BR** | BMB | 0.003 | 0.034 | 0.67 | | |
| 3 | 2.76 | **NO3-N** | BMB | 0.049 | 0.444 | 1.26 | | |
| 4 | 4.16 | **SO4** | BMB | 0.628 | 3.789 | 46.54 | | |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **190506A LCS** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Check Standard** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **07-May-2019 / 09:24** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB | 0.621 | 9.510 | 5.31 | 5 | 106.1% |
| 2 | 1.69 | Cl | BMB | 2.657 | 46.072 | 25.02 | 25 | 100.1% |
| 3 | 1.99 | NO2-N | BMB | 0.572 | 7.004 | 3.21 | 3.04 | 105.5% |
| 4 | 2.34 | BR | BMB | 0.477 | 6.180 | 13.41 | 12.5 | 107.2% |
| 5 | 2.59 | NO3-N | BMB | 1.138 | 13.183 | 5.16 | 5 | 103.3% |
| 6 | 3.32 | PO4-P | BMB | 0.546 | 4.038 | 7.76 | 10 | 77.6% |
| 7 | 3.71 | SO4 | BMB | 1.794 | 13.264 | 26.29 | 25 | 105.2% |



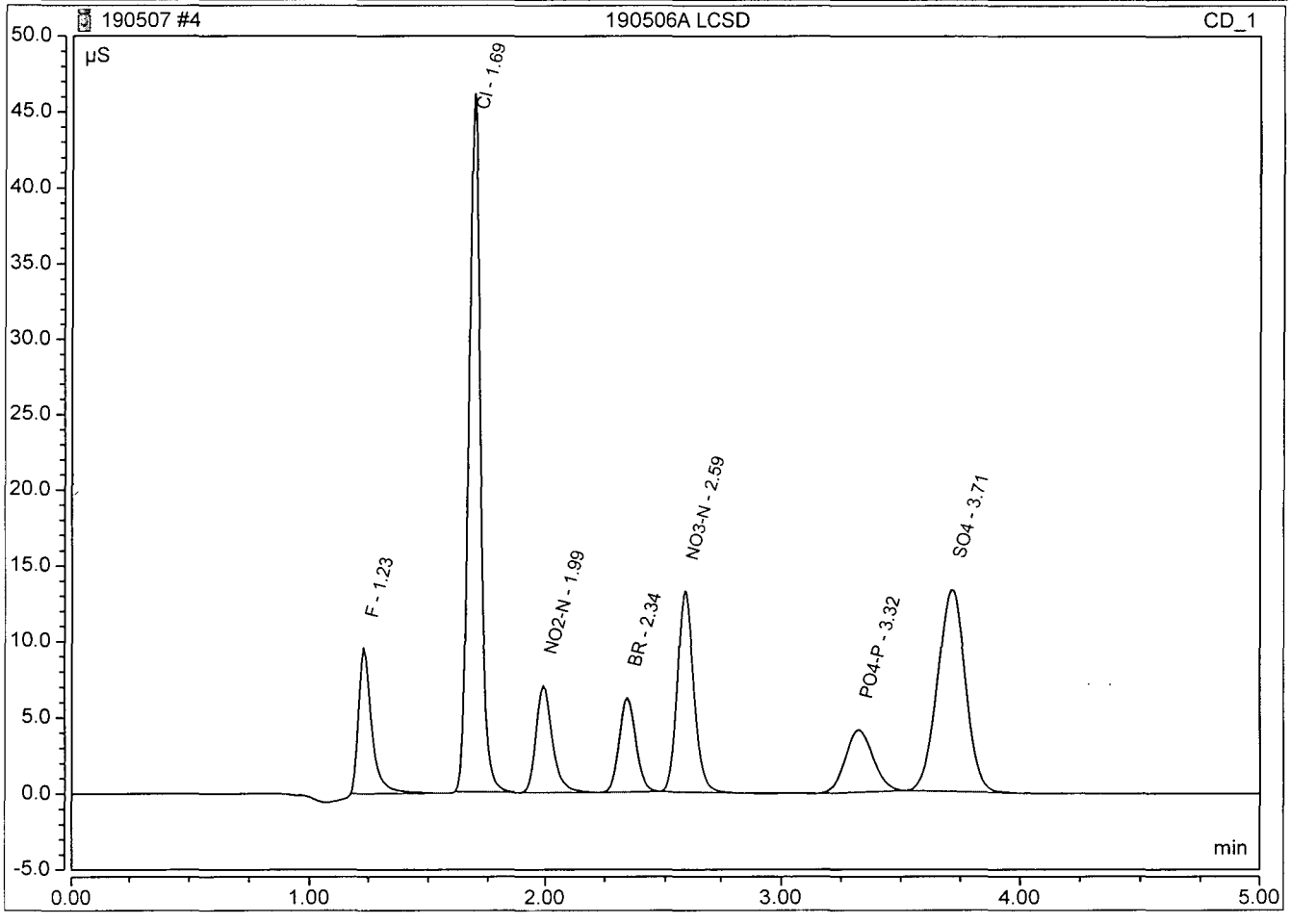

Algortith Check:
y = Peak Area
x = mg/L S04

y = 0.0687 x + -0.0115
y = 1.7940 therefor x = 26.28 HH 190508

## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **190506A LCSD** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Check Standard** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **07-May-2019 / 09:31** | *Run Time:* | **5.00** |

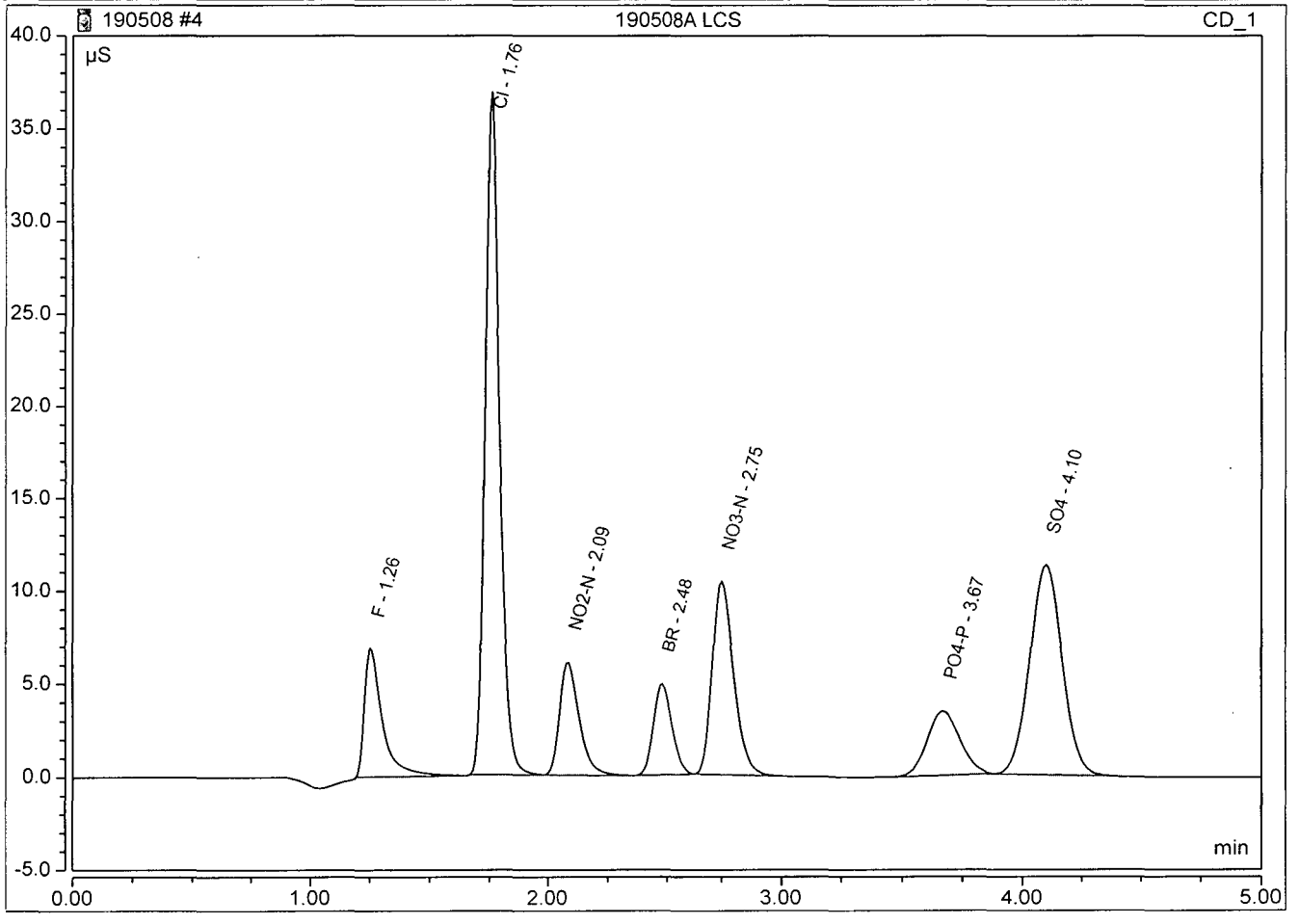
| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.23 | F | BMB | 0.625 | 9.553 | 5.34 | 5 | 106.7% |
| 2 | 1.69 | Cl | BMB | 2.657 | 46.081 | 25.01 | 25 | 100.0% |
| 3 | 1.99 | NO2-N | BMB | 0.572 | 7.011 | 3.21 | 3.04 | 105.4% |
| 4 | 2.34 | BR | BMB | 0.477 | 6.185 | 13.42 | 12.5 | 107.3% |
| 5 | 2.59 | NO3-N | BMB | 1.139 | 13.206 | 5.17 | 5 | 103.3% |
| 6 | 3.32 | PO4-P | BMB | 0.553 | 4.087 | 7.85 | 10 | 78.5% |
| 7 | 3.71 | SO4 | BMB | 1.796 | 13.275 | 26.32 | 25 | 105.3% |



## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **190508A LCS** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Check Standard** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **08-May-2019 / 08:38** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.26 | **F** | BMB | 0.594 | 6.880 | 5.08 | 5 | 101.5% |
| 2 | 1.76 | **Cl** | BMB | 2.589 | 36.827 | 24.38 | 25 | 97.5% |
| 3 | 2.09 | **NO2-N** | BMB | 0.574 | 6.064 | 3.22 | 3.04 | 105.9% |
| 4 | 2.48 | **BR** | BMB | 0.466 | 4.890 | 13.09 | 12.5 | 104.7% |
| 5 | 2.75 | **NO3-N** | BMB | 1.112 | 10.385 | 5.04 | 5 | 100.9% |
| 6 | 3.67 | **PO4-P** | BMB | 0.539 | 3.433 | 7.66 | 10 | 76.6% |
| 7 | 4.10 | **SO4** | BMB | 1.777 | 11.279 | 26.05 | 25 | 104.2% |



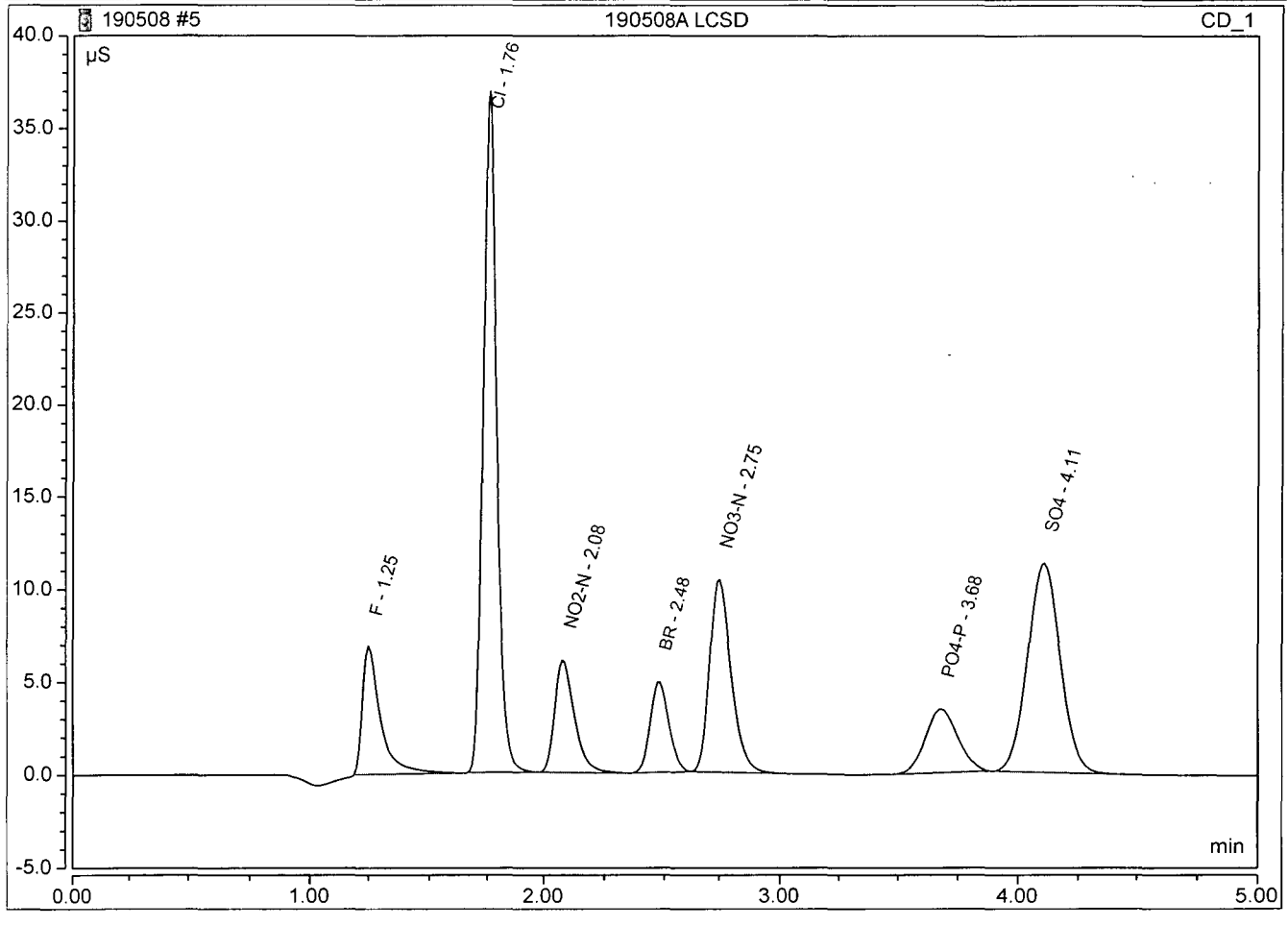

Algortith Check:
y = Peak Area
x = mg/L S04

y = 0.0687 x + -0.0115
y = 1.7769 therefor x = 25.88 MH 190508

## Peak Integration Report

| | | | |
|---|---|---|---|
| *Sample Name:* | **190508A LCSD** | *Inj. Vol.:* | **25uL** |
| *Injection Type:* | **Check Standard** | *Dilution Factor:* | **1.00** |
| *Program:* | **Anion APM 190401A** | *Operator:* | **Instrument Controller** |
| *Inj. Date / Time:* | **08-May-2019 / 08:45** | *Run Time:* | **5.00** |

| No. | Time (min) min | Peak Name | Peak Type | Area (µS*min) µS*min | Height (µS) µS | Amount mg/L | Spike Level mg/L | Recovery |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.25 | F | BMB | 0.601 | 6.893 | 5.13 | 5 | 102.7% |
| 2 | 1.76 | Cl | BMB | 2.594 | 36.850 | 24.42 | 25 | 97.7% |
| 3 | 2.08 | NO2-N | BMB | 0.576 | 6.067 | 3.23 | 3.04 | 106.1% |
| 4 | 2.48 | BR | BMB | 0.466 | 4.890 | 13.11 | 12.5 | 104.9% |
| 5 | 2.75 | NO3-N | BMB | 1.115 | 10.401 | 5.06 | 5 | 101.1% |
| 6 | 3.68 | PO4-P | BMB | 0.539 | 3.430 | 7.67 | 10 | 76.7% |
| 7 | 4.11 | SO4 | BMB | 1.775 | 11.274 | 26.02 | 25 | 104.1% |



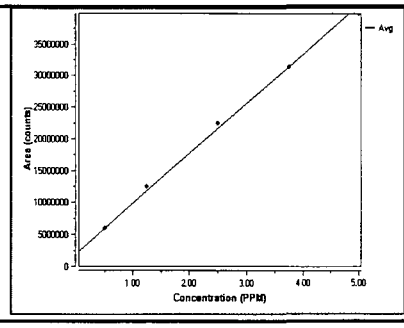
TOTAL ORGANIC CARBON

Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: DOC | QCG: 190429

Analyst: AR | Final Volume: 40mL

| Date | Time | Appl ID | [TOC] | Raw | % Recovery |
|---|---|---|---|---|---|
| 02/23/19 | 12:37 | QC blank | 0.00 | 2073066.000 | |
| 02/23/19 | 13:11 | Ical 1 | 0.50 | 6066781.000 | |
| 02/23/19 | 13:43 | Ical 2 | 1.25 | 12451764.000 | |
| 02/23/19 | 14:15 | Ical 3 | 2.50 | 22465756.000 | |
| 02/23/19 | 14:48 | Ical 4 | 3.75 | 31457150.000 | |
| 02/23/19 | 15:21 | Ical 5 | 5.00 | 39864495.000 | |
| 02/23/19 | 15:56 | ICB | 0.25 | 1917909.000 | |
| 02/23/19 | 16:30 | ICV | 2.97 | 23239734.000 | 118.9% |




| Date | Time | Appl ID | DF | Raw Result | SubSample Amount | Calc Conc | Result | QC True | % Recovery |
|---|---|---|---|---|---|---|---|---|---|
| 2019-04-29 | 01:42 PM | CCV | 1 | 24466701 | 40mL | 2.779 | 2.78 | 2.50 | 111.2% |
| 2019-04-29 | 02:17 PM | CCB | 1 | 1708898 | 40mL | 0 | 0.00 | | |
| 2019-04-29 | 02:51 PM | 190429A BLK | 1 | 1741828 | 40mL | 0 | 0.00 | | |
| 2019-04-29 | 03:25 PM | 190429A LCS | 1 | 22920937 | 40mL | 2.581 | 2.58 | 2.50 | 103.2% |
| 2019-04-29 | 04:00 PM | 190429A LCSD | 1 | 23092940 | 40mL | 2.603 | 2.60 | 2.50 | 104.1% |
| 2019-04-29 | 04:35 PM | AZ89036W07 | 1 | 5526843 | 40mL | 0.657 | 0.66 | | |
| 2019-04-29 | 05:06 PM | AZ89037W07 | 1 | 7561873 | 40mL | 0.917 | 0.92 | | |
| 2019-04-29 | 05:38 PM | AZ89038W07 | 1 | 7094444 | 40mL | 0.857 | 0.86 | | |
| 2019-04-29 | 06:11 PM | AZ89985W06 | 1 | 10548848 | 40mL | 1.299 | 1.30 | | |
| 2019-04-29 | 06:43 PM | AZ89986W06 | 1 | 3344316 | 40mL | 0.378 | 0.38 | | |
| 2019-04-29 | 07:14 PM | AZ89987W06 | 1 | 7551499 | 40mL | 0.916 | 0.92 | | |
| 2019-04-29 | 07:46 PM | AZ89989W06 | 1 | 10826591 | 40mL | 1.334 | 1.33 | | |
| 2019-04-29 | 08:18 PM | AZ89990W06 | 1 | 14542115 | 40mL | 1.81 | 1.81 | | |
| 2019-04-29 | 08:49 PM | AZ89991W06 | 1 | 11767525 | 40mL | 1.455 | 1.46 | | |
| 2019-04-29 | 09:21 PM | AZ89992W06 | 1 | 10114694 | 40mL | 1.244 | 1.24 | | |
| 2019-04-29 | 09:53 PM | AZ89995W06 | 1 | 6268362 | 40mL | 0.752 | 0.75 | | |
| 2019-04-29 | 10:24 PM | AZ89995W06 DUP | 1 | 6103945 | 40mL | 0.43 | 0.43 | | |
| 2019-04-29 | 10:59 PM | CCV | 1 | 22564568 | 40mL | 2.535 | 2.54 | | |
| 2019-04-29 | 11:34 PM | CCB | 1 | 1732634 | 40mL | 0 | 0.00 | | |
| 2019-04-30 | 12:08 AM | AZ89996W06 | 1 | 7399746 | 40mL | 0.896 | 0.90 | 2.50 | 35.8% |
| 2019-04-30 | 12:39 AM | AZ89997W10 | 1 | 4837493 | 40mL | 0.569 | 0.57 | | |
| 2019-04-30 | 01:11 AM | AZ89997W10 DUP | 1 | 4994141 | 40mL | 0.288 | 0.29 | | |
| 2019-04-30 | 01:45 AM | AZ89997W10 MS | 1 | 25984254 | 40mL | 2.973 | 2.97 | | |
| 2019-04-30 | 02:21 AM | AZ89997W10 MSD | 1 | 25080914 | 40mL | 2.857 | 2.86 | | |
| 2019-04-30 | 02:56 AM | AZ89998W06 | 1 | 4925305 | 40mL | 0.28 | 0.28 | | |
| 2019-04-30 | 03:30 AM | AZ90051W09 | 1 | 2860288 | 40mL | 0.316 | 0.32 | | |
| 2019-04-30 | 04:01 AM | AZ90051W13 DUP | 1 | 3751299 | 40mL | 0.13 | 0.13 | | |
| 2019-04-30 | 04:36 AM | AZ90051W10 MS | 1 | 24137206 | 40mL | 2.736 | 2.74 | | |
| 2019-04-30 | 05:11 AM | AZ90051W16 MSD | 1 | 23516549 | 40mL | 2.657 | 2.66 | | |
| 2019-04-30 | 05:47 AM | AZ90054W12 | 1 | 6017956 | 40mL | 0.72 | 0.72 | | |
| 2019-04-30 | 06:18 AM | AZ90056W09 | 1 | 3896025 | 40mL | 0.448 | 0.45 | | |
| 2019-04-30 | 06:50 AM | AZ90058W11 | 1 | 7317873 | 40mL | 0.886 | 0.89 | | |
| 2019-04-30 | 07:22 AM | AZ90060W05 | 1 | 9511784 | 40mL | 1.166 | 1.17 | | |
| 2019-04-30 | 07:54 AM | CCV | 1 | 21955615 | 40mL | 2.457 | 2.46 | 2.50 | 98.3% |
| 2019-04-30 | 08:29 AM | CCB | 1 | 1693750 | 40mL | 0 | 0.00 | | |

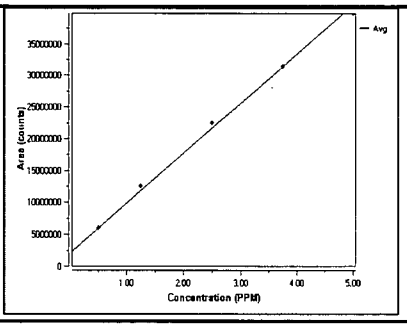
TOTAL ORGANIC CARBON

Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: TOC | QCG: 190502A

Analyst: AR | Final Volume: 40mL

| Date | Time | Appl ID | [TOC] | Raw | % Recovery |
|---|---|---|---|---|---|
| 02/23/19 | 12:37 | QC blank | 0.00 | 2073066.000 | |
| 02/23/19 | 13:11 | Ical 1 | 0.50 | 6066781.000 | |
| 02/23/19 | 13:43 | Ical 2 | 1.25 | 12451764.000 | |
| 02/23/19 | 14:15 | Ical 3 | 2.50 | 22465756.000 | |
| 02/23/19 | 14:48 | Ical 4 | 3.75 | 31457150.000 | |
| 02/23/19 | 15:21 | Ical 5 | 5.00 | 39864495.000 | |
| 02/23/19 | 15:56 | ICB | 0.25 | 1917909.000 | |
| 02/23/19 | 16:30 | ICV | 2.97 | 23239734.000 | 118.9% |
| r^2= | 0.9984 | | | | |




| Date | Time | Appl ID | DF | Raw Result | SubSample Amount | Calc Conc | Result | QC True | % Recovery |
|---|---|---|---|---|---|---|---|---|---|
| 2019-05-02 | 04:32 PM | CCV | 1 | 21675369 | 40mL | 2.422 | 2.42 | 2.50 | 96.9% |
| 2019-05-02 | 05:07 PM | CCB | 1 | 727823 | 40mL | 0 | 0.00 | | |
| 2019-05-02 | 05:40 PM | 190502A BLK | 1 | 927374 | 40mL | 0 | 0.00 | | |
| 2019-05-02 | 06:14 PM | 190502A LCS | 1 | 21760887 | 40mL | 2.433 | 2.43 | 2.50 | 97.3% |
| 2019-05-02 | 06:49 PM | 190502A LCSD | 1 | 21292907 | 40mL | 2.373 | 2.37 | 2.50 | 94.9% |
| 2019-05-02 | 07:24 PM | AZ89958W12 | 1 | 2719364 | 40mL | 0.298 | 0.30 | | |
| 2019-05-02 | 07:55 PM | AZ89958W09 DUP | 1 | 2096550 | 40mL | 0 | 0.00 | | |
| 2019-05-02 | 08:29 PM | AZ89958W14 MS | 1 | 22354778 | 40mL | 2.508 | 2.51 | | |
| 2019-05-02 | 09:04 PM | AZ89958W11 MSD | 1 | 22821834 | 40mL | 2.568 | 2.57 | | |
| 2019-05-02 | 09:39 PM | AZ90051W13 | 1 | 2446110 | 40mL | 0.263 | 0.26 | | |
| 2019-05-02 | 10:10 PM | AZ90051W13 DUP | 1 | 3624059 | 40mL | 0.113 | 0.11 | | |
| 2019-05-02 | 10:45 PM | AZ90051W16 MS | 1 | 23433442 | 40mL | 2.646 | 2.65 | | |
| 2019-05-02 | 11:20 PM | AZ90051W16 MSD | 1 | 23412687 | 40mL | 2.644 | 2.64 | | |
| 2019-05-02 | 11:55 PM | AZ90054W09 | 1 | 4072622 | 40mL | 0.471 | 0.47 | | |
| 2019-05-03 | 12:27 AM | AZ90058W05 | 1 | 4372254 | 40mL | 0.509 | 0.51 | | |
| 2019-05-03 | 12:58 AM | AZ90060W12 | 1 | 7550103 | 40mL | 0.915 | 0.92 | | |
| 2019-05-03 | 01:30 AM | AZ90100W09 | 1 | 8006133 | 40mL | 0.974 | 0.97 | | |
| 2019-05-03 | 02:02 AM | AZ90105W08 | 1 | 12129049 | 40mL | 1.501 | 1.50 | | |
| 2019-05-03 | 02:33 AM | AZ90109W09 | 1 | 2449956 | 40mL | 0.263 | 0.26 | | |
| 2019-05-03 | 03:05 AM | AZ90213W12 | 1 | 16936404 | 40mL | 2.115 | 2.12 | | |
| 2019-05-03 | 03:38 AM | CCV | 1 | 21447087 | 40mL | 2.392 | 2.39 | 2.50 | 95.7% |
| 2019-05-03 | 04:13 AM | CCB | 1 | 882391 | 40mL | 0 | 0.00 | | |
| 2019-05-03 | 04:46 AM | 190502B BLK | 1 | 797351 | 40mL | 0 | 0.00 | | |
| 2019-05-03 | 05:20 AM | 190502B LCS | 1 | 21956853 | 40mL | 2.458 | 2.46 | 2.50 | 98.3% |
| 2019-05-03 | 05:55 AM | 190502B LCSD | 1 | 21901664 | 40mL | 2.45 | 2.45 | 2.50 | 98.0% |
| 2019-05-03 | 06:30 AM | AZ89958W43 | 1 | 2048429 | 40mL | 0.212 | 0.21 | | |
| 2019-05-03 | 07:01 AM | AZ89958W17 DUP | 1 | 5821945 | 40mL | 0.394 | 0.39 | | |
| 2019-05-03 | 07:36 AM | AZ89958W10 MS | 1 | 21950218 | 40mL | 2.457 | 2.46 | | |
| 2019-05-03 | 08:12 AM | AZ89958W18 MSD | 1 | 22462368 | 40mL | 2.523 | 2.52 | | |
| 2019-05-03 | 08:47 AM | AZ90051W09 | 1 | 2995627 | 40mL | 0.333 | 0.33 | | |
| 2019-05-03 | 09:18 AM | AZ90051W09 DUP | 1 | 3326206 | 40mL | 0.075 | 0.08 | | |
| 2019-05-03 | 09:53 AM | AZ90051W10 MS | 1 | 23819230 | 40mL | 2.696 | 2.70 | | |
| 2019-05-03 | 10:29 AM | AZ90051W10 MSD | 1 | 23878289 | 40mL | 2.704 | 2.70 | | |
| 2019-05-03 | 11:04 AM | AZ90056W08 | 1 | 4065043 | 40mL | 0.47 | 0.47 | | |
| 2019-05-03 | 11:36 AM | AZ90102W10 | 1 | 27567265 | 40mL | 3.475 | 3.48 | | |
| 2019-05-03 | 12:08 PM | AZ90107W10 | 1 | 3202077 | 40mL | 0.359 | 0.36 | | |
| 2019-05-03 | 12:39 PM | AZ90215W06 | 1 | 4079275 | 40mL | 0.472 | 0.47 | | |
| 2019-05-03 | 01:11 PM | CCV | 1 | 21730719 | 40mL | 2.428 | 2.43 | 2.50 | 97.1% |
| 2019-05-03 | 01:46 PM | CCB | 1 | 969840 | 40mL | 0 | 0.00 | | |

# Metrohm 814/809 Titrando Data

| Sample ID | Analysis Date/Time | Method | Titration Volume (to 8.3) | Titration Volume (total) | OH | CO3 | HCO3 | Total Alk | Unit | Sample Vol | N | Batch | Initials |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AZ90051W17 MSD | 2019-04-30 10:54:24 UTC-7 | Alkalinity | 0.000 | 6.900 | 0.00 | 0.00 | 282.90 | 282.90 | mg/L | 25 mL | 0.0205 | 190430A | AR |
| AZ90051W17 MS | 2019-04-30 10:43:21 UTC-7 | Alkalinity | 0.000 | 6.966 | 0.00 | 0.00 | 285.61 | 285.61 | mg/L | 25 mL | 0.0205 | 190430A | AR |
| AZ90051W17 DUP | 2019-04-30 10:37:57 UTC-7 | Alkalinity | 0.000 | 1.422 | 0.00 | 0.00 | 58.30 | 58.30 | mg/L | 25 mL | 0.0205 | 190430A | AR |
| AZ90051W17 | 2019-04-30 10:31:08 UTC-7 | Alkalinity | 0.000 | 1.650 | 0.00 | 0.00 | 67.65 | 67.65 | mg/L | 25 mL | 0.0205 | 190430A | AR |
| 190430A LCSD | 2019-04-30 10:21:29 UTC-7 | Alkalinity | 0.000 | 5.828 | 0.00 | 0.00 | 238.95 | 238.95 | mg/L | 25 mL | 0.0205 | 190430A | AR |
| 190430A LCS | 2019-04-30 10:11:46 UTC-7 | Alkalinity | 0.000 | 5.794 | 0.00 | 0.00 | 237.55 | 237.55 | mg/L | 25 mL | 0.0205 | 190430A | AR |
| 190430A BLK | 2019-04-30 10:08:41 UTC-7 | Alkalinity | 0.000 | 0.096 | 0.00 | 0.00 | 3.94 | 3.94 | mg/L | 25 mL | 0.0205 | 190430A | AR |
| AZ90060W13 | 2019-04-24 21:57:46 UTC-7 | Alkalinity | 0.000 | 2.298 | 0.00 | 0.00 | 92.84 | 92.84 | mg/L | 25 mL | 0.0202 | 190424A | AR |
| AZ90058W13 | 2019-04-24 21:44:26 UTC-7 | Alkalinity | 0.000 | 3.352 | 0.00 | 0.00 | 135.42 | 135.42 | mg/L | 25 mL | 0.0202 | 190424A | AR |
| AZ90056W13 | 2019-04-24 21:37:44 UTC-7 | Alkalinity | 0.000 | 2.606 | 0.00 | 0.00 | 105.28 | 105.28 | mg/L | 25 mL | 0.0202 | 190424A | AR |
| AZ90054W13 | 2019-04-24 21:32:09 UTC-7 | Alkalinity | 0.000 | 2.266 | 0.00 | 0.00 | 91.55 | 91.55 | mg/L | 25 mL | 0.0202 | 190424A | AR |
| 190424A LCSD | 2019-04-24 17:40:25 UTC-7 | Alkalinity | 0.000 | 5.672 | 0.00 | 0.00 | 229.15 | 229.15 | mg/L | 25 mL | 0.0202 | 190424A | AR |
| 190424A LCS | 2019-04-24 17:30:49 UTC-7 | Alkalinity | 0.000 | 5.760 | 0.00 | 0.00 | 232.70 | 232.70 | mg/L | 25 mL | 0.0202 | 190424A | AR |
| 190424A BLK | 2019-04-24 17:27:49 UTC-7 | Alkalinity | 0.000 | 0.072 | 0.00 | 0.00 | 2.91 | 2.91 | mg/L | 25 mL | 0.0202 | 190424A | AR |

**Tiamo Alkalinity Standard Prep**

**Prep Date:**

**Exp Date:**

**Prep'd By (Initials): AR**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Unit | Conc | Lot Number - QA Number | Prep/Opened | Exp. Date | Aliquot from Stock | Final Volume | Solvent | Final Standard Conc |
| Sulfuric Acid (H2SO4) | J.T.Baker | NA | NA | **167828** | **NA** | **NA** | PURCHASED | NA | NA | NA |
| 0.10N Sulfuric Acid (H2SO4) | J.T.Baker | Normality | 0.1N | **167828** | **02/18/19** | **02/18/20** | 3ml | 1L | DI | 0.10N |
| 0.02N Sulfuric Acid (H2SO4) | J.T.Baker | Normality | 0.02N | **167828** | **01/22/19** | **01/22/20** | 200mL | 1L | DI | 0.02N |
| Inorganic Spike(NaHCO3) | BDH | NA | NA | **1575C510** | **10/18/18** | **08/14/20** | PURCHASED | NA | NA | NA |
| Inorganic Spike Solution | BDH | Milligrams/Liters | 250mg/L | **1575C510** | **05/06/19** | **11/05/19** | 3.5g | 500mL | DI | 250mg/L |
| Standarizing Solution(NaCO3) | J.T.Baker | Normality | 1N | **178494** | **07/25/17** | **07/25/19** | PURCHASED | NA | NA | NA |
| | | | | | | | | | | |

**Tiamo Alkalinity Standard Prep**

**Prep Date:**

**Exp Date:**

**Prep'd By (Initials): AR**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Unit | Conc | Lot Number - QA Number | Prep/Opened | Exp. Date | Aliquot from Stock | Final Volume | Solvent | Final Standard Conc |
| Sulfuric Acid (H2SO4) | J.T.Baker | NA | NA | 167828 | NA | NA | PURCHASED | NA | NA | NA |
| 0.10N Sulfuric Acid (H2SO4) | J.T.Baker | Normality | 0.1N | 167828 | 02/18/19 | 02/18/20 | 3ml | 1L | DI | 0.10N |
| 0.02N Sulfuric Acid (H2SO4) | J.T.Baker | Normality | 0.02N | 167828 | 01/22/19 | 01/22/20 | 200mL | 1L | DI | 0.02N |
| Inorganic Spike(NaHCO3) | BDH | NA | NA | 1575C510 | 10/18/18 | 08/14/20 | PURCHASED | NA | NA | NA |
| Inorganic Spike Solution | BDH | Milligrams/Liters | 250mg/L | 1575C510 | 03/25/19 | 09/25/19 | 3.5g | 500mL | DI | 250mg/L |
| Standarizing Solution(NaCO3) | J.T.Baker | Normality | 1N | 178494 | 07/25/17 | 07/25/19 | PURCHASED | NA | NA | NA |
| | | | | | | | | | | |

**Name of Final Standard** TOC Calibration Curve — **Prep'd By (Initials)** HH

**Prep Date** 02/11/19

**Exp Date** 03/11/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 20 uL | 40 mL | **DI Water** | 0.5 ppm |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 50 uL | 40 mL | **DI Water** | 1.25 ppm |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 100 uL | 40 mL | **DI Water** | 2.5 ppm |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 150 uL | 40 mL | **DI Water** | 3.75 ppm |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 200 uL | 40 mL | **DI Water** | 5 ppm |

**Name of Final Standard** 1000 PPM ICV TOC Intermediate — **Prep'd By (Initials)** HH

**Prep Date** 02/11/19

**Exp Date** 02/11/20

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Sugar | Millenia | 814-293 | 42% Carbon | **V298J-NA** | **NA** | 2.3831 g | 1 L | **DI Water** | 1003.45 ppm |

**Name of Final Standard** ICV (TOC) — **Prep'd By (Initials)** HH

**Prep Date** 02/11/19

**Exp Date** 03/11/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 1000 PPM ICV TOC Intermediate | APPL Inc. | Prep: 2/11/19 | 1000 mg/L | **Prep: 2/11/19** | **03/11/19** | 100 uL | 40mL | **DI Water** | 2.5 ppm |

**Name of Final Standard** CCV (TOC) **Prep'd By (Initials)** AR
**Prep Date** 05/02/19
**Exp Date** 05/30/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 100 uL | 40 mL | **DI Water** | 2.5 ppm |

**Name of Final Standard** TOC LCS/LCSD **Prep'd By (Initials)** AR
**Prep Date** 05/02/19
**Exp Date** 05/30/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | ULTRA Scientific | IQC-106-5 | 1000 mg/L | **CR-0328-37639** | **02/28/19** | 100 uL | 40 mL | **DI Water** | 2.5 ppm |

**Name of Final Standard** TOC MS/MSD **Prep'd By (Initials)** AR
**Prep Date** 05/02/19
**Exp Date** 05/30/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | ULTRA Scientific | IQC-106-5 | 1000 mg/L | **CR-0328-37639** | **02/28/19** | 100 uL | 40 mL | **sample** | 2.5 ppm |

**Name of Final Standard** TOC Calibration Curve — **Prep'd By (Initials)** HH

**Prep Date** 02/11/19

**Exp Date** 03/11/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 20 uL | 40 mL | **DI Water** | 0.5 ppm |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 50 uL | 40 mL | **DI Water** | 1.25 ppm |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 100 uL | 40 mL | **DI Water** | 2.5 ppm |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 150 uL | 40 mL | **DI Water** | 3.75 ppm |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 200 uL | 40 mL | **DI Water** | 5 ppm |

**Name of Final Standard** 1000 PPM ICV TOC Intermediate — **Prep'd By (Initials)** HH

**Prep Date** 02/11/19

**Exp Date** 02/11/20

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Sugar | Millenia | 814-293 | 42% Carbon | **V298J-NA** | **NA** | 2.3831 g | 1 L | **DI Water** | 1003.45 ppm |

**Name of Final Standard** ICV (TOC) — **Prep'd By (Initials)** HH

**Prep Date** 02/11/19

**Exp Date** 03/11/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 1000 PPM ICV TOC Intermediate | APPL Inc. | Prep: 2/11/19 | 1000 mg/L | **Prep: 2/11/19** | **03/11/19** | 100 uL | 40mL | **DI Water** | 2.5 ppm |

**Name of Final Standard** CCV (TOC)
**Prep Date** 04/29/19
**Exp Date** 05/27/19
**Prep'd By (Initials)** AR

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 100 uL | 40 mL | **DI Water** | 2.5 ppm |

**Name of Final Standard** TOC LCS/LCSD
**Prep Date** 04/29/19
**Exp Date** 05/27/19
**Prep'd By (Initials)** AR

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | ULTRA Scientific | IQC-106-5 | 1000 mg/L | **CR-0328-37639** | **02/28/19** | 80 uL | 40 mL | **DI Water** | 2.0 ppm |

**Name of Final Standard** TOC MS/MSD
**Prep Date** 04/29/19
**Exp Date** 05/27/19
**Prep'd By (Initials)** AR

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | ULTRA Scientific | IQC-106-5 | 1000 mg/L | **CR-0328-37639** | **02/28/19** | 100 uL | 40 mL | **sample** | 2.5 ppm |

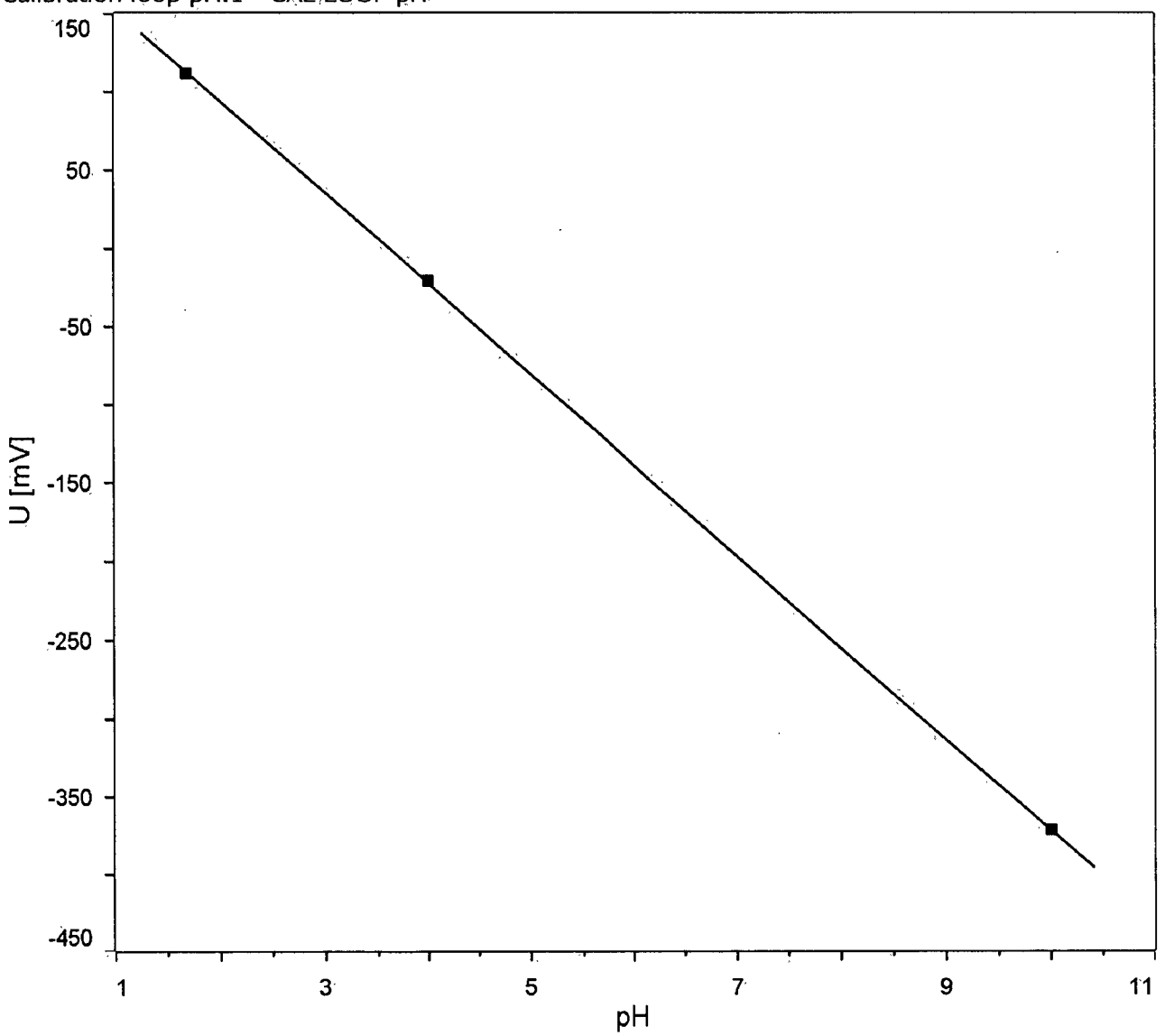
# Timao Calibration Curve

2019-04-24 16:49:57

**Calculations**

| | | |
|---|---|---|
| Buffer 7 | 7.04 | |
| Formula | 'MEAS pH.EME' | |
| MEAS pH.EME | 7.0408 | |
| Slope | 99.60 | |
| Formula | 'Calibration loop pH.SLO' | |
| Calibration loop pH.SLO | 99.6 | |
| pH(as) | 3.62 | |
| Formula | 'Calibration loop pH.ENP' | |
| Calibration loop pH.ENP | 3.618 | |
| Res19 | 21.6 | °C |
| Formula | 'CAL MEAS pH.ETE' | |
| CAL MEAS pH.ETE | 21.5614 | |

Calibration loop pH.1 - CAL LOOP pH



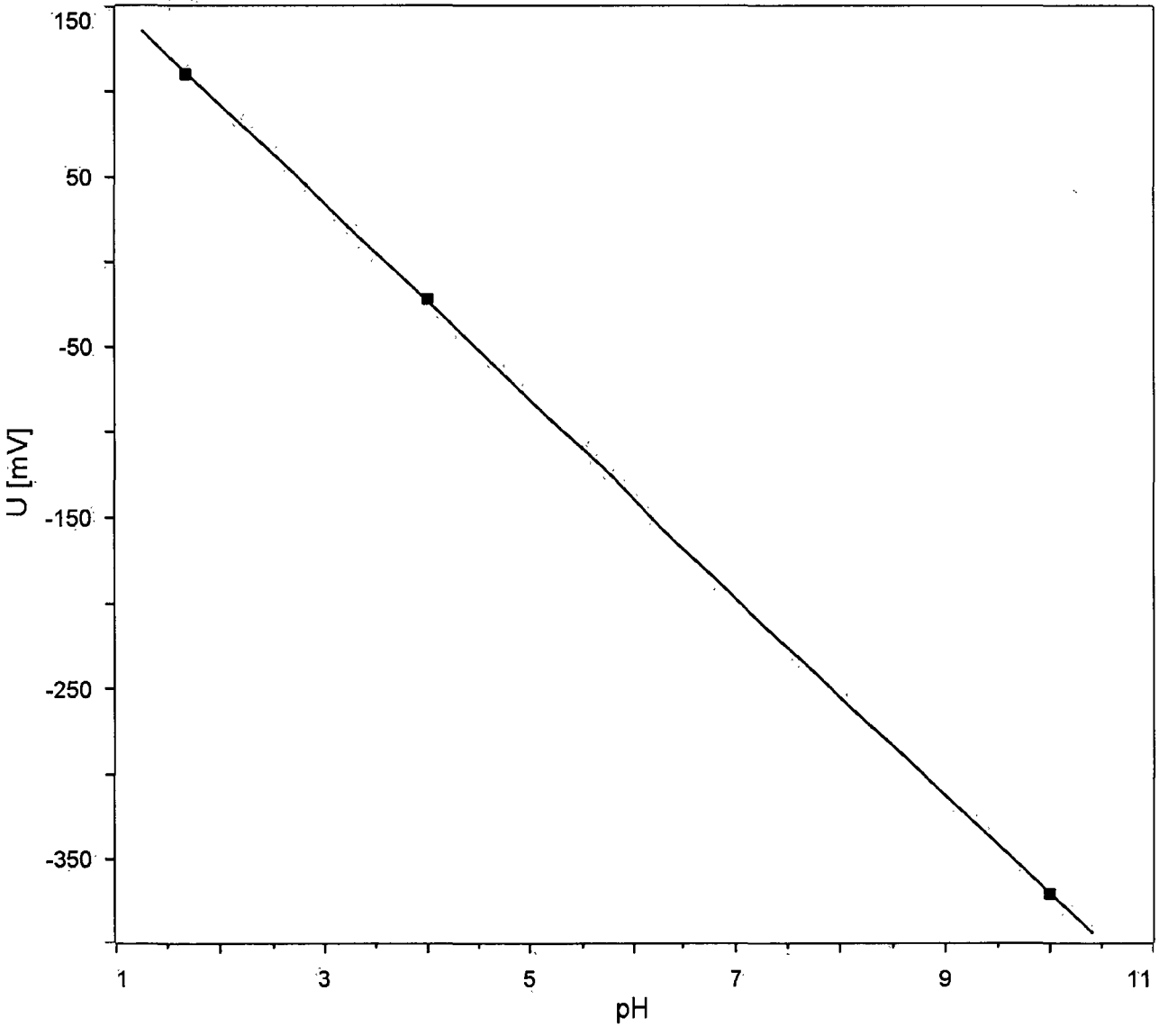
# Timao Calibration Curve

2019-04-30 09:12:37

**Calculations**

| | | |
|---|---|---|
| Buffer 7 | 7.05 | |
| Formula | 'MEAS pH.EME' | |
| MEAS pH.EME | 7.0480 | |
| Slope | 99.20 | |
| Formula | 'Calibration loop pH.SLO' | |
| Calibration loop pH.SLO | 99.2 | |
| pH(as) | 3.60 | |
| Formula | 'Calibration loop pH.ENP' | |
| Calibration loop pH.ENP | 3.601 | |
| Res19 | 20.8 | °C |
| Formula | 'CAL MEAS pH.ETE' | |
| CAL MEAS pH.ETE | 20.7900 | |

Calibration loop pH.1 - CAL LOOP pH



**Name of Final Standard** CCV (TOC) **Prep'd By (Initials)** AR
**Prep Date** 05/02/19
**Exp Date** 05/30/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | Agilent | IQC-1 06-5 | 1000 mg/L | **CS-5157-40233** | **11/30/20** | 100 uL | 40 mL | **DI Water** | 2.5 ppm |

**Name of Final Standard** TOC LCS/LCSD **Prep'd By (Initials)** AR
**Prep Date** 05/02/19
**Exp Date** 05/30/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | ULTRA Scientific | IQC-106-5 | 1000 mg/L | **CR-0328-37639** | **02/28/19** | 100 uL | 40 mL | **DI Water** | 2.5 ppm |

**Name of Final Standard** TOC MS/MSD **Prep'd By (Initials)** AR
**Prep Date** 05/02/19
**Exp Date** 05/30/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Total Organic Carbon (TOC) Standard | ULTRA Scientific | IQC-106-5 | 1000 mg/L | **CR-0328-37639** | **02/28/19** | 100 uL | 40 mL | **sample** | 2.5 ppm |

# Nitrite

**High Point @ 1.5 mg/L**
0.075 mL NO2 O2Si lot 142626-24 - 38408 exp: 4/20/19*
50 mL DI Water

**CCV @ 0.75 mg/L**
0.0375 mL NO2 O2Si lot 142626-24-38408 exp: 4/20/19*
50 mL DI Water

*Nitrite lot 142626-24 – 38408 (O2SI) expiration date was extended to 10/20/19 by in-house re-certification against Nitrite lot M2-NOX660562-39802 (Inorganic Ventures). SD 04/25/19

**ICV/LCS @ 0.73 mg/L**
0.12mL NO2 Inorganic Ventures lot M2-NOX660562-39802 exp: 10/23/19
50 mL DI Water

**1 mg/L NO2**
400 uL of High point and 200 uL of DI made directly into a sample cup

Prep 05/01/19
Exp 05/08/19
EV

# Nitrate/TOXN

**High Point @ 6 mg/L**
0.300 mL NO3 O2Si lot 880117-39577 exp: 2/21/20
50 mL DI Water

**CCV @ 3.0 mg/L**
0.150 mL NO3 O2Si lot 880117-39577 exp: 2/21/20
50 mL DI Water

**ICV/LCS @ 3.0 mg/L**
0.150 mL NO3 Inorganic Ventures lot N2-NOX667147-39510 exp: 10/23/19
50 mL DI Water

**1 mg/L NO3**
100 uL of High point and 500 uL of DI made directly into a sample cup

**MS @ 2.5 mg/L NO3 and 0.73 mg/L NO2**
0.125 mL NO3 Inorganic Ventures lot N2-NOX667147-39510 exp: 10/23/19
and 0.12mL NO2 Inorganic Ventures lot M2-NOX660562-39802 exp: 10/23/19
Final volume 50 mL of sample

Prep 05/01/19
Exp 05/08/19
EV

## Standard Prep

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Ferrous Iron Standards | | Prep'd By (Initials) | | HH | | |
| Prep Date | 06/15/18 | | | | | | |
| Exp Date | 06/15/19 | | | | | | |
| Stock Label | Supplier | Batch Number | Exp Date | Aliquot from Stock | Final Volume | Solvent | Ferrous Iron Concentration |
| Ferrous Ammonium Sulfate | J.T.Baker | 0000184592 | 08/21/20 | 0.351 | 250mL | 5ml H2SO4 (0000167828) Diluted with water | 200ug/L |
| Ferrous Sulfate | Mallinckrodt | Lot 5056 KDRX | NA | 0.249 | 250mL | 5ml H2SO4 (0000167828) Diluted with water | 200ug/L |
| Ferrous Iron CCV/LCS/MS/ICV | | | Prep'd By (Initials) | | HH | | |
| Prep Date | See Injection Log | | | | | | |
| Exp Date | 24 Hours | | | | | | |
| Initial Standard Information | Supplier | Batch Number | Exp Date | Final Standard Information | | | |
| Ferrous Iron CCV | J.T.Baker | 0000184592 | 06/14/19 | 500uL | 25mL | Deionized water | 4mg/L |
| Ferrous Iron ICV/LCS | Mallinckrodt | Lot 5056 KDRX | 06/14/19 | 375uL | 25mL | Deionized water | 3mg/L |
| | Ferrous Iron Calibration Curve | | Prep'd By (Initials) | | HH | | |
| Prep Date | 06/15/18 | | | | | | |
| Exp Date | 06/16/18 | | | | | | |
| Final Standard Information | | | | | | | |
| Point Label | Supplier | Batch Number | Exp Date | Aliquot from Stock (mL) | Final Volume | Solvent | Ferrous Iron Concentration |
| CCB | J.T.Baker | 0000184592 | 06/14/19 | 0 | 25mL | Deionized water | 0mg/L |
| Ical 1 | J.T Baker | 0000184592 | 06/14/19 | 0.125 | 25mL | Deionized water | 1mg/L |
| Ical 2 | J.T.Baker | 0000184592 | 06/14/19 | 0.25 | 25mL | Deionized water | 2mg/L |
| Ical 3 | J.T Baker | 0000184592 | 06/14/19 | 0.5 | 25mL | Deionized water | 4mg/L |
| Ical 4 | J.T.Baker | 0000184592 | 06/14/19 | 0.625 | 25mL | Deionized water | 5mg/L |
| Ical 5 | J.T Baker | 0000184592 | 06/14/19 | 1.25 | 25mL | Deionized water | 10mg/L |
| ICV | Mallinckrodt | Lot 5056 KDRX | 06/14/19 | 0.375 | 25mL | Deionized water | 3mg/L |

## Reagent Prep

| Reagent | Chemical Lot # | Chemical | Chemical Expiration Date | Amount | Date Prep |
|---|---|---|---|---|---|
| Colorizer | 0747C107 | 1,10-phenanthroline | na | 0.21326 | 02/26/19 |
| | | 10% HCL conc | na | enough to dissolve | 01/15/19 |
| Buffer | Z28B018 | Ammonia Acetate | na | 249.2 | 02/09/19 |
| | 2018071399 | Glacial Acetic Acid | 06/27/20 | 700mL | |

## Anion Chromatography Working Standard

Prep Date: 04/01/19
Exp Date: 04/02/19
Prep'd By (Initials): TH

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date | Aliquot from Stock | Final Volume | Solvent | Final Standard Conc (ug/mL) |
| Ion Chromatography Standard Fluoride 1000µg/mL in H2O | o2si | O2SI-062002-01-01 | 1000 | 142626-24-38407 | 04/20/19 | 312.5 µL | 25 mL | Millipore Water | 12.5 |
| Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O | o2si | O2SI-062004-01-01 | 1000 | 142626-24-38408 | 04/20/19 | 125 µL | 25 mL | Millipore Water | 5 |
| Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O | o2si | 062001-08-03 | 5000 | 10084781-1-39578 | 02/21/20 | 250 µL | 25 mL | Millipore Water | 50 |
| Ortho-Phosphate as P Standard | Ultra Scientific | ICC-005A | 1000 | G34-CP-3323-39057 | 08/31/23 | 625 µL | 25 mL | Millipore Water | 25 |
| Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O | o2si | 062003-01-03 | 1000 | 880117-4-39577 | 02/21/20 | 250 µL | 25 mL | Millipore Water | 10 |
| Bromide Standard | Ultra Scientific | ICC-001 | 1000 | CR-5372-39521 | 12/31/21 | 625 µL | 25 mL | Millipore Water | 25 |
| Sulfate Standard | Agilent | ICC-006 | 1000 | CS-0688-40047 | 03/31/22 | 1250 µL | 25 mL | Millipore Water | 50 |

## Anion Chromatography Calibration Curve

Prep Date: 04/01/19
Exp Date: 04/02/19
Prep'd By (Initials): TH

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. Range (ug/mL) | Reference To APPL Prep Date | Exp. Date | Aliquot from Stock | Final Volume | Solvent | Final Conc. Range (µg/mL) |
| Ical2 | Varries | ICal1 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 400 µL | 1000 µL | Millipore Water | 0.08-0.40 |
| Anion Chromatography Working Standard | Varries | ICal2 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 20 µL | 1000 µL | Millipore Water | 0.1-1.0 |
| Anion Chromatography Working Standard | Varries | ICal3 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 50 µL | 1000 µL | Millipore Water | 0.25-2.5 |
| Anion Chromatography Working Standard | Varries | ICal4 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 100 µL | 1000 µL | Millipore Water | 0.5-5.0 |
| Anion Chromatography Working Standard | Varries | ICal5 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 200 µL | 1000 µL | Millipore Water | 1.0-10.0 |
| Anion Chromatography Working Standard | Varries | ICal6 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 500 µL | 1000 µL | Millipore Water | 2.5-25.0 |
| Anion Chromatography Working Standard | Varries | ICal7 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 700 µL | 1000 µL | Millipore Water | 3.5-35.0 |
| Anion Chromatography Working Standard | Varries | ICal8 | 5.0-50.0 | Prepared 04/01/19 | 04/02/19 | 1000 µL | 1000 µL | Millipore Water | 5.0-50.0 |

## Anion Chromatography LCS/ICV

Prep Date: See injection Log
Exp Date: 24 hours after prep
Prep'd By (Initials): TH

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. Range (ug/mL) | Lot Number - QA Number | Exp. Date | Aliquot from Stock | Final Volume | Solvent | Final Standard Conc (µg/mL) |
| Flouride | Inorganic Ventures | ICF1 | 993-999 | K-F652018-39801 | 10/23/19 | 62.5 µL | 25 mL | Millipore Water | 5 |
| Nitrite | Inorganic Ventures | ICNO21 | 993-1001 | M2-NOX660562-39802 | 10/23/19 | 250 µL | 25 mL | Millipore Water | 3.04 |
| Chloride | Inorganic Ventures | ICCL1 | 995-1001 | NaCL664868-39904 | 11/26/19 | 500 µL | 25 mL | Millipore Water | 20 |
| O-Phosphate as P | Inorganic Ventures | IPPO41 | 1001-1009 | M2-POX655826-39803 | 10/23/19 | 125 µL | 25 mL | Millipore Water | 10 |
| Nitrate as N | Inorganic Ventures | ICNNO31 | 994-1002 | N2-NOX667147-39510 | 10/23/19 | 125 µL | 25 mL | Millipore Water | 5 |
| Ion Chromatography Bromide Standard | CPI International | 4400-IC8M | 1000 | 161681-8-39539 | 02/06/20 | 312.5 µL | 25 mL | Millipore Water | 12.5 |
| Sulfate | Inorganic Ventures | ICSO41 | 998-1006 | K2-SOX01111-38875 | 08/13/19 | 500 µL | 25 mL | Millipore Water | 20 |

## Anion Chromatography CCV

Prep Date: See injection Log
Exp Date: 24 hours after prep
Prep'd By (Initials): TH

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date | Aliquot from Stock | Final Volume | Solvent | Final Standard Conc (µg/mL) |
| Ion Chromatography Standard Fluoride 1000µg/mL in H2O | o2si | O2SI-062002-01-01 | 1000 | 142626-24-38407 | 04/20/19 | 125 µL | 25 mL | Millipore Water | 5 |
| Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O | o2si | O2SI-062004-01-01 | 1000 | 142626-24-38408 | 04/20/19 | 62.5 µL | 25 mL | Millipore Water | 2.5 |
| Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O | o2si | 062001-08-03 | 5000 | 10084781-1-39578 | 02/21/20 | 125 µL | 25 mL | Millipore Water | 25 |
| Ortho-Phosphate as P Standard | Ultra Scientific | ICC-005A | 1000 | G34-CP-3323-39057 | 08/31/23 | 250 µL | 25 mL | Millipore Water | 10 |
| Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O | o2si | 062003-01-03 | 1000 | 880117-4-39577 | 02/21/20 | 125 µL | 25 mL | Millipore Water | 5 |
| Bromide Standard | Ultra Scientific | ICC-001 | 1000 | CR-5372-39521 | 12/31/21 | 312.5 µL | 25 mL | Millipore Water | 12.5 |
| Sulfate Standard | Agilent | ICC-006 | 1000 | CS-0688-40047 | 03/31/22 | 625 µL | 25 mL | Millipore Water | 25 |

# EPA 353.2 Injection Log

Directory: I:\EVE\Export\2019\

| RunID | Injected | | Sample Name | Misc Info | FileName | Multiplier |
|---|---|---|---|---|---|---|
| 1 | 01 May 2019 | 16:37 | Standard 1 TOXN/NO3 | | 190501B TO | 1. |
| 2 | 01 May 2019 | 16:40 | Standard 90 TOXN/NO3 | | 190501B TO | 1. |
| 3 | 01 May 2019 | 16:42 | Standard 91 TOXN/NO3 | | 190501B TO | 1. |
| 4 | 01 May 2019 | 16:44 | Standard 92 TOXN/NO3 | | 190501B TO | 1. |
| 5 | 01 May 2019 | 16:45 | Standard 93 TOXN/NO3 | | 190501B TO | 1. |
| 6 | 01 May 2019 | 16:46 | Standard 94 TOXN/NO3 | | 190501B TO | 1. |
| 7 | 01 May 2019 | 16:47 | Standard 0 TOXN/NO3 | | 190501B TO | 1. |
| 10 | 01 May 2019 | 16:50 | ICV TOXN | | 190501B TO | 1. |
| 11 | 01 May 2019 | 16:51 | ICB TOXN | | 190501B TO | 1. |

# EPA 353.2 Injection Log

Directory: I:\EVE\Export\2019\

| RunID | Injected | | Sample Name | Misc Info | FileName | Multiplier |
|---|---|---|---|---|---|---|
| 16 | 01 May 2019 | 18:17 | 190501A BLK TOXN/NO3 | | 190501B TO | 1. |
| 17 | 01 May 2019 | 18:19 | 190501A LCS TOXN/NO3 | | 190501B TO | 1. |
| 18 | 01 May 2019 | 18:21 | 190501A LCSD TOXN/NO3 | | 190501B TO | 1. |
| 19 | 01 May 2019 | 18:23 | AZ90051W18 TOXN/NO3 | | 190501B TO | 1. |
| 20 | 01 May 2019 | 18:25 | AZ90051W18 MS TOXN/NO3 | | 190501B TO | 1. |
| 21 | 01 May 2019 | 18:28 | AZ90051W18 MSD TOXN/NO3 | | 190501B TO | 1. |
| 22 | 01 May 2019 | 18:30 | AZ90054W14 TOXN/NO3 | | 190501B TO | 1. |
| 23 | 01 May 2019 | 18:32 | AZ90056W14 TOXN/NO3 | | 190501B TO | 1. |
| 24 | 01 May 2019 | 18:34 | AZ90058W14 TOXN/NO3 | | 190501B TO | 1. |
| 25 | 01 May 2019 | 18:36 | AZ90060W14 TOXN/NO3 | | 190501B TO | 1. |
| 26 | 01 May 2019 | 18:39 | CCV TOXN/NO3 | | 190501B TO | 1. |
| 27 | 01 May 2019 | 18:41 | CCB TOXN/NO3 | | 190501B TO | 1. |

# EPA 300.0 Injection Log

Directory: I:\Dionex\Charlie\

| RunID | Injected | | Sample Name | Misc Info | FileName | Multiplier |
|---|---|---|---|---|---|---|
| 1 | 01 Apr 2019 | 18:27 | CCB | | Anions | 1. |
| 2 | 01 Apr 2019 | 18:34 | i cal 1 | | Anions | 1. |
| 3 | 01 Apr 2019 | 18:42 | i cal 2 | | Anions | 1. |
| 4 | 01 Apr 2019 | 18:49 | i cal 3 | | Anions | 1. |
| 5 | 01 Apr 2019 | 18:56 | i cal 4 | | Anions | 1. |
| 6 | 01 Apr 2019 | 19:04 | i cal 5 | | Anions | 1. |
| 7 | 01 Apr 2019 | 19:11 | i cal 6 | | Anions | 1. |
| 8 | 01 Apr 2019 | 19:19 | i cal 7 | | Anions | 1. |
| 9 | 01 Apr 2019 | 19:26 | i cal 8 | | Anions | 1. |
| 10 | 01 Apr 2019 | 19:33 | ICB | | Anions | 1. |
| 11 | 01 Apr 2019 | 19:41 | ICV LCS | | Anions | 1. |
| 12 | 01 Apr 2019 | 19:48 | ICVD LCSD | | Anions | 1. |

# EPA 300.0 Injection Log

Directory: I:\Dionex\Charlie\

| RunID | Injected | | Sample Name | Misc Info | FileName | Multiplier |
|---|---|---|---|---|---|---|
| 1 | 07 May 2019 | 09:09 | CCV 190506 | | Anions | 1. |
| 2 | 07 May 2019 | 09:16 | CCB | | Anions | 1. |
| 3 | 07 May 2019 | 09:24 | 190506A LCS | | Anions | 1. |
| 4 | 07 May 2019 | 09:31 | 190506A LCSD | | Anions | 1. |
| 8 | 07 May 2019 | 10:08 | CCV 190506 | | Anions | 1. |
| 9 | 07 May 2019 | 10:15 | CCB | | Anions | 1. |
| 10 | 07 May 2019 | 11:29 | AZ90051W17 | | Anions | 1. |
| 11 | 07 May 2019 | 11:36 | AZ90054W13 | | Anions | 1. |
| 12 | 07 May 2019 | 11:43 | AZ90056W13 | | Anions | 1. |
| 13 | 07 May 2019 | 11:51 | AZ90058W13 | | Anions | 1. |
| 14 | 07 May 2019 | 11:58 | AZ90060W13 | | Anions | 1. |
| 15 | 07 May 2019 | 12:05 | CCV 190506 | | Anions | 1. |
| 16 | 07 May 2019 | 12:13 | CCB | | Anions | 1. |

# EPA 300.0 Injection Log

Directory: I:\Dionex\Charlie\

| RunID | Injected | | Sample Name | Misc Info | FileName | Multiplier |
|---|---|---|---|---|---|---|
| 2 | 08 May 2019 | 08:23 | CCV 190508 | | Anions | 1. |
| 3 | 08 May 2019 | 08:31 | CCB | | Anions | 1. |
| 4 | 08 May 2019 | 08:38 | 190508A LCS | | Anions | 1. |
| 5 | 08 May 2019 | 08:45 | 190508A LCSD | | Anions | 1. |
| 6 | 08 May 2019 | 09:16 | AZ90051W17 df5 | | Anions | 5. |
| 7 | 08 May 2019 | 09:24 | AZ90054W13 df5 | | Anions | 5. |
| 8 | 08 May 2019 | 09:31 | AZ90056W13 df20 | | Anions | 20. |
| 9 | 08 May 2019 | 09:38 | AZ90058W13 df20 | | Anions | 20. |
| 10 | 08 May 2019 | 09:46 | AZ90060W13 df5 | | Anions | 5. |
| 13 | 08 May 2019 | 10:08 | CCV 190508 | | Anions | 1. |
| 14 | 08 May 2019 | 10:15 | CCB | | Anions | 1. |

# Nonconforming Work Report NWR Tracking No.: 953

**Client:** AECOM-Red Hill
**ARF #s:** 88701
**Matrix:** water
**Method # and Instrument:** EPA 300.0- Ion Chromatograph
**Prep/Analysis date:** 05/07/19
**Project Manager:** Libby Cheeseborough
**Analyst:** Taylor Hollman

**Explain what the problem is:**
For AECOM report 88701, the Nitrate analysis was performed 13 days past the 2 day hold time (15 days after collection). The samples were collected on 4/22/19 and 4/23/19, and they arrived at the lab on 4/24/19.

**Explain what caused the problem:**
The Anions analyst mistakenly picked up the preserved container for EPA 353.2 TOXN instead of the un-preserved container for EPA 300.0-NO3. The mistake was not caught until the EPA 300.0 data was in peer review.

**Explain why the problem occurred:**
Human error when reading the container label.

**Record any corrections made to remediate the situation and to improve the quality of the data:**
- The un-preserved container was analyzed by EPA 300.0 immediately after catching the error on 5/7/19.
- The lab director has re-arranged personnel in the Wetlab department.

**Explain if data quality was affected:**
The data should be flagged for Nitrate missed hold time. The TOXN (Nitrate + Nitrite as N) was analyzed within hold time.

**Was work stopped:**
No work was stopped.

**Was corrective action initiated:**
No CAR was initiated. No procedural changes required.

**Required initials:**

**Project Manager:** Libby Cheeseborough **Date:** 06/28/19

**QAU:** Sharon Dehnlow **Date:** 06/28/19

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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

May 30, 2019

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 88714

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

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

Dear Ms. Pascua:

Eleven water samples were received April 25,2019. Revised written results for the requested analyses are being provided on this May 30, 2019.

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, Laboratory Director
APPL, Inc.

PM/lac
Enclosure
cc: File

# Data Validation Package
# for
# 60571032 CV18F0126 Red Hill Fuel Storage
# APPL SDG 88714
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LABORATORY NAME: *APPL, Inc.*


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# CASE NARRATIVE

# Case Narrative

ARF: 88714

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

## Sample Receipt Information:

Eleven water samples were received April 25,2019, at 2.5°C, 3.0°C, 1.5°C, 1.0°C, 1.0°C and 2.0°C. The sample group was assigned Analytical Request Form (ARF) number 88714.

## Sample Preparation and Analysis Information:

For the EPA 8015B analysis, the samples were extracted according to EPA method 3520C. The sample extracts were silica gel cleaned according to APPL's SOP CLN004 and placed on hold.

For the EPA 8270D SIM analysis, the samples were extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the samples were extracted according to EPA method 3520C.

For the APPL SOP ANA2MEE analysis, the samples were extracted according to EPA method 3535.

For the EPA 8260B analysis, the samples were purged according to EPA method 5030B.

For the RSK-175 analysis, the samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed.

For the EPA 9060A, 300.0, 353.2, SM 2320B, and SM 3500FeB analyses, the samples were prepared according to the methods.

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

## Analytical Exceptions, Deviations and Abnormalities.

**EPA 8015B:** Manual integrations were performed in accordance with APPL's SOP. Chromatograms of before and after manual integration are enclosed. Diesel was manually integrated in samples ERH790 and ERH793

**EPA 8015B Silica gel:** In the continuing calibration 0508120.D, the surrogate Ocatacosane increased in sensitivity with a 25%D. In the ending continuing calibration 0508133.D, the surrogates Ortho-Terphenyl and Ocatacosane increased in sensitivity with a 23%D and 21%D, respectively. Corrective action: The target analytes are within criteria. The project manager was notified.

**EPA 8015B:** Manual integrations were performed in accordance with APPL's SOP. Chromatograms of before and after manual integration are enclosed. Diesel was manually integrated in samples ERH790 and ERH793

**EPA 8270D Phenol**: The surrogate Terphenyl-D14 recovered below the 50% lower control limit in one sample. Corrective action: None, the low surrogate recovery may be attributed to the matrix.

**APPL SOP ANA2MEE:** In the 190429A LCS/LCSD: 2MEE recovered above the upper control limit in the LCSD and the RPD exceeded the 20% control limit. Corrective action: None, 2MEE was not detected in the associated samples.

| SDG | Received | Client ID | APPL ID | Collected DateTime | Matrix | Method | Method Description |
|---|---|---|---|---|---|---|---|
| 88714 | 04/25/19 | ERH787 | AZ90099 | 04/23/19 11:20:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88714 | 04/25/19 | ERH787 | AZ90099 | 04/23/19 11:20:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88714 | 04/25/19 | ERH787 | AZ90099 | 04/23/19 11:20:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88714 | 04/25/19 | ERH787 | AZ90099 | 04/23/19 11:20:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | SM 2320B | Wetlab 2320B - Water |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | SM3500FeB | Ferrous Iron |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | EPA 353.2 | EPA 353.2 - WATER |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | EPA 8270D | EPA 8270D WATER |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | EPA 8015B-eLL | EPA 8015B TPH WATER L-L SGC |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | SW846 9060A | 9060A DOC |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88714 | 04/25/19 | ERH788 | AZ90100 | 04/23/19 3:35:00 PM | WATER | SW846 9060A | 9060A TOC |
| 88714 | 04/25/19 | ERH789 | AZ90101 | 04/24/19 8:00:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88714 | 04/25/19 | ERH789 | AZ90101 | 04/24/19 8:00:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88714 | 04/25/19 | ERH789 | AZ90101 | 04/24/19 8:00:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88714 | 04/25/19 | ERH789 | AZ90101 | 04/24/19 8:00:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | SM 2320B | Wetlab 2320B - Water |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | SM3500FeB | Ferrous Iron |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | EPA 353.2 | EPA 353.2 - WATER |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | EPA 8270D | EPA 8270D WATER |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH WATER L-L SGC |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | SW846 9060A | 9060A DOC |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88714 | 04/25/19 | ERH790 | AZ90102 | 04/24/19 8:40:00 AM | WATER | SW846 9060A | 9060A TOC |
| 88714 | 04/25/19 | ERH791 | AZ90103 | 04/24/19 8:40:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88714 | 04/25/19 | ERH791 | AZ90103 | 04/24/19 8:40:00 AM | WATER | EPA 8270D | EPA 8270D WATER |
| 88714 | 04/25/19 | ERH791 | AZ90103 | 04/24/19 8:40:00 AM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88714 | 04/25/19 | ERH791 | AZ90103 | 04/24/19 8:40:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH WATER L-L SGC |
| 88714 | 04/25/19 | ERH791 | AZ90103 | 04/24/19 8:40:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88714 | 04/25/19 | ERH791 | AZ90103 | 04/24/19 8:40:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88714 | 04/25/19 | ERH791 | AZ90103 | 04/24/19 8:40:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88714 | 04/25/19 | ERH791 | AZ90103 | 04/24/19 8:40:00 AM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88714 | 04/25/19 | ERH792 | AZ90104 | 04/24/19 10:02:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88714 | 04/25/19 | ERH792 | AZ90104 | 04/24/19 10:02:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88714 | 04/25/19 | ERH792 | AZ90104 | 04/24/19 10:02:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88714 | 04/25/19 | ERH792 | AZ90104 | 04/24/19 10:02:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | SM 2320B | Wetlab 2320B - Water |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | SM3500FeB | Ferrous Iron |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | EPA 353.2 | EPA 353.2 - WATER |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | EPA 8270D | EPA 8270D WATER |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH WATER L-L SGC |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | SW846 9060A | 9060A DOC |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88714 | 04/25/19 | ERH793 | AZ90105 | 04/24/19 10:04:00 AM | WATER | SW846 9060A | 9060A TOC |
| 88714 | 04/25/19 | ERH804 | AZ90106 | 04/23/19 12:50:00 PM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88714 | 04/25/19 | ERH804 | AZ90106 | 04/23/19 12:50:00 PM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88714 | 04/25/19 | ERH804 | AZ90106 | 04/23/19 12:50:00 PM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88714 | 04/25/19 | ERH804 | AZ90106 | 04/23/19 12:50:00 PM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | SM 2320B | Wetlab 2320B - Water |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | SM3500FeB | Ferrous Iron |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | EPA 353.2 | EPA 353.2 - WATER |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | EPA 8270D | EPA 8270D WATER |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | SW846 9060A | 9060A DOC |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88714 | 04/25/19 | ERH805 | AZ90107 | 04/23/19 2:15:00 PM | WATER | SW846 9060A | 9060A TOC |
| 88714 | 04/25/19 | ERH806 | AZ90108 | 04/24/19 8:21:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88714 | 04/25/19 | ERH806 | AZ90108 | 04/24/19 8:21:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88714 | 04/25/19 | ERH806 | AZ90108 | 04/24/19 8:21:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88714 | 04/25/19 | ERH806 | AZ90108 | 04/24/19 8:21:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | SM 2320B | Wetlab 2320B - Water |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | EPA 300.0 | Wetlab 300.0 - Water |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | SM3500FeB | Ferrous Iron |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | EPA 353.2 | EPA 353.2 - WATER |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | EPA 8260B | EPA 8260B BTEX WATER |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | EPA 8270D | EPA 8270D WATER |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | EPA 8270D | EPA 8270D MODIFIED WATER |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | EPA 8015B-eLL | EPA 8015B TPH LIQ-LIQ |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | SW846 9060A | 9060A DOC |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | EPA 8260-GAS | EPA 8260 with GAS |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | EPA 8260B | EPA 8260B GRO WATER |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | RSK 175 | METHANE BY RSK 175 |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | 8270D-SIM | EPA 8270D SIM LIQ-LIQ |
| 88714 | 04/25/19 | ERH807 | AZ90109 | 04/24/19 10:20:00 AM | WATER | SW846 9060A | 9060A TOC |

**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, e.g. mineral spirits, kerosene, stoddard solvent, white gas |
| T2 M | Is mainly lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas |
| T3 I | Includes higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel |
| T3 M | Is mainly higher boiling hydrocarbons, e.g. asphaltene, waste 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% |

# SAMPLE RECORDS MANAGEMENT

## CHAIN OF CUSTODY,

## ARF, CRF, AND

## CLIENT COMMUNICATION

# APPL - Analysis Request Form 88714

Client: **AECOM**
Address: **1001 Bishop Street, Suite 1600**
**Honolulu, HI 96813**
Attn: **Margie Pascua**
Phone: **808-356-5373** Fax: **808-523-8950**
Job: **60571032 CV18F0126 Red Hill Fuel Storage**
PO #: **102604**
Chain of Custody (Y/N): **Y** # **031**
RAD Screen (Y/N): **Y** pH (Y/N): **Y**
Turn Around Type: **ONE WEEK**

Received by: **RBE**
Date Received: **04/25/19** Time: **10:00**
Delivered by: **FEDEX**
Shuttle Custody Seals (Y/N): **Y** Time Zone: **-10**
Chest Temp(s): **2.5°3°1.5°1°2X2.0°C**
Color: **VOA/G-Blue**
Samples Chilled until Placed in Refrig/Freezer: **Y**
Project Manager: **Libby Cheesebor**
QC Report Type: **DVP4DOD/EQUIS/HI**
Due Date: **05/02/19**

Comments:
***PM: login and F1s to Margie.Pascua@aecom.com***
***AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms (LOQ/LOD database/DL)***
***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; analyze SGC if detections***
***RSK: Methane only; $87DC53W5: report phenol + TICs; $87DMEEW5: 2-MEE (LCS Spk 80ppb).***

***FR: HC to LDC, 2 labeled CDs to Margie Pascua.***
***EDD: AECOM EQuIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com***

Sample Distribution:
**GC: 6-$87DC53W5, 6-$87DMEEW5, 6-$DOC53W5LIQ, 6-$SIM53LIQ51**
**Extractions: 6-_LIQ003, 6-_LIQ005, 6-_MWE2MEE**
**VOA: 11-$86BTOTXDOD5W, 11-$GASBL, 11-$GRO86BW, 10-$RSKMETH**
**Wetlab: 5-$232W(HCO3,CO3,ALK), 5-$300W(NO3,CL,SO4), 5-$35FE, 5-$35OF, 5-$DOCW53,5-$TOCW53, 1-$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. | ERH787 | AZ90099W | 04/23/19 11:20 | $86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH |
| 2. | ERH788 | AZ90100W | 04/23/19 15:35 | $232W(HCO3,CO3,ALK), $300W(NO3,CL,SO4), $35FE, $35OF, $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $TOCW53 |
| 3. | ERH789 | AZ90101W | 04/24/19 08:00 | $86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH |

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 05/03/19 8:52:16 AM* Computer: APPL-LC **# 88714**

| | | | |
|---|---|---|---|
| 4. ERH790 | AZ90102W | 04/24/19 08:40 | $232W(HCO3,CO3,ALK), $300W(NO3,CL,SO4), $35FE, $35OF, $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $TOCW53 |
| 5. ERH791 | AZ90103W | 04/24/19 08:40 | $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $GASBL, $GRO86BW, $SIM53LIQ51 |
| 6. ERH792 | AZ90104W | 04/24/19 10:02 | $86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH |
| 7. ERH793 | AZ90105W | 04/24/19 10:04 | $232W(HCO3,CO3,ALK), $300W(NO3,CL,SO4), $35FE, $35OF, $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $TOCW53 |
| 8. ERH804 | AZ90106W | 04/23/19 12:50 | $86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH |
| 9. ERH805 | AZ90107W | 04/23/19 14:15 | $232W(HCO3,CO3,ALK), $300W(NO3,CL,SO4), $300WD(CL,SO4), $35FE, $35OF, $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $TOCW53 |
| 10. ERH806 | AZ90108W | 04/24/19 08:21 | $86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH |
| 11. ERH807 | AZ90109W | 04/24/19 10:20 | $232W(HCO3,CO3,ALK), $300W(NO3,CL,SO4), $35FE, $35OF, $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $TOCW53 |

# APPL Sample Receipt Form

ARF# 88714

| Sample | Container Type | Count | p |
|---|---|---|---|
| AZ90099 | [13] VOAs - HCL | 4 | NA |
| AZ90100 | [3] PL 250mL | 1 | NA |
| | [10] PL 250mL - H2SO4 | 1 | 1.7 |
| | [13] VOAs - HCL | 4 | NA |
| | [17] Amber Liter | 5 | NA |
| | [32] Clear VOA - H2SO4 | 8 | NA |
| | [38] 250mL brn poly, HCl prsvd | 1 | 1.7 |
| | [40] 500mL Amber, unprsrvd | 2 | NA |
| AZ90101 | [13] VOAs - HCL | 4 | NA |
| AZ90102 | [3] PL 250mL | 1 | NA |
| | [10] PL 250mL - H2SO4 | 1 | 1.7 |
| | [13] VOAs - HCL | 3 | NA |
| | [17] Amber Liter | 6 | NA |
| | [32] Clear VOA - H2SO4 | 8 | NA |
| | [38] 250mL brn poly, HCl prsvd | 1 | 1.7 |
| | [40] 500mL Amber, unprsrvd | 2 | NA |
| AZ90103 | [13] VOAs - HCL | 4 | NA |
| | [17] Amber Liter | 5 | NA |
| | [40] 500mL Amber, unprsrvd | 2 | NA |
| AZ90104 | [13] VOAs - HCL | 4 | NA |
| AZ90105 | [3] PL 250mL | 1 | NA |
| | [10] PL 250mL - H2SO4 | 1 | 1.7 |
| | [13] VOAs - HCL | 4 | NA |
| | [17] Amber Liter | 5 | NA |
| | [32] Clear VOA - H2SO4 | 8 | NA |
| | [38] 250mL brn poly, HCl prsvd | 1 | 1.7 |
| | [40] 500mL Amber, unprsrvd | 2 | NA |
| AZ90106 | [13] VOAs - HCL | 4 | NA |
| AZ90107 | [3] PL 250mL | 1 | NA |
| | [10] PL 250mL - H2SO4 | 1 | 1.7 |
| | [13] VOAs - HCL | 4 | NA |
| | [17] Amber Liter | 5 | NA |
| | [32] Clear VOA - H2SO4 | 8 | NA |
| | [38] 250mL brn poly, HCl prsvd | 1 | 1.7 |
| | [40] 500mL Amber, unprsrvd | 2 | NA |
| AZ90108 | [13] VOAs - HCL | 4 | NA |
| AZ90109 | [3] PL 250mL | 1 | NA |
| | [10] PL 250mL - H2SO4 | 1 | 1.7 |
| | [13] VOAs - HCL | 4 | NA |
| | [17] Amber Liter | 5 | NA |
| | [32] Clear VOA - H2SO4 | 8 | NA |
| | [38] 250mL brn poly, HCl prsvd | 1 | 1.7 |
| | [40] 500mL Amber, unprsrvd | 2 | NA |

| Sample | Container Type | Count | p |
|---|---|---|---|

APPL LABS

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 031

**Report to:** PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373

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

Attn: Margie Pascua

Email: margie.pascua@aecom.com

**Invoice to:** PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249

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

Attn: Mary Basano

Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032

Purchase Order Number: 102604

Sampler (Print): BL for GM, RS, MM, TV

Sampler (Signature):

Date Shipped: MM/DD/YY

Carrier: FedEx

Waybill No.:

Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Sed. | Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, ~~7-Gen~~ MM | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC, DOC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH 787 | Trip Blank | 4-23-19 | 11:20 | HST | 4 | X | | | X | | | | | | | X | | | | | |
| ERH 788 | RHMW01 | 4-23-19 | 15:35 | HST | 22 | X | | | X | | X | X | X | X | X | X | X | X | X | | X |

BL 4-24-19

Ferrous iron and DOC are field-filtered.

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

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

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Brant Lauder | 4/24/19 | 11:05 | | | | | |
| **Relinquished by:** | **Date** | **Time** | **Received by:** | **Relinquished by:** | **Date** | **Time** | **Received at lab by:** |
| | | | | | 4-25-19 | 1000 | |

See page 2 for Container Preservative and Sampling Information

APPL LABS

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 032

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com | Email: mary.basano@aecom.com; usapimaging@aecom.com |

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): GM AM DH KTV
Sampler (Signature): GM

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Matrix: Sed. | Matrix: Soil |
|---|---|---|---|---|---|---|---|---|
| ERH 789 | Trip Blank | 4/24/19 | 0800 | HST | 4 | X | | |
| ERH 790 | RHMW02 | 4/24/19 | 0840 | HST | 4 | X | | |
| ERH 791 | RHMW02 | 4/24/19 | 0840 | HST | 8 | X | | |

Analysis Requested/Method Number

| 8260C BTEX, TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, TCEP | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate, Sulfate, Chloride | 300.0 Bromide/Fluoride 6010 Total Ca, Mg, Mn, K, Na SM4500 Total & Dissolved Silica | 9060A TOC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X | | | | | | | X | X* | | | | |
| X | | | | | | | X | X* | | | | |
| X | | X | X | X | X | X | | | | X* | | |

Date Shipped: MM/DD/YY
Carrier: FedEx
Waybill No.:
Comments:
see other cooler

*Analyze TPH w/SGT only if TPH-d/o detected.
TPH-d/o & PAHs need liquid-liquid extraction.

GM 4/24/19

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM Sidney Mahanay | Date 4/24/19 | Time 230 | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date 4-25-19 | Time 1000 | Received at lab by: |

See page 2 for Container Preservative and Sampling Information

98714

APPL LABS

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 033

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com | Email: mary.basano@aecom.com; usapimaging@aecom.com |

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): SM MM DH K GM TV
Sampler (Signature): SM

Date Shipped: MM/DD/YY
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Sed. | Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, THOs MW | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 8060A TOC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH790 | RHMW02 | 4/24/19 | 0840 | HST | 18 | X | | | | | X | X | X | X | X | | X | X | X | | X | see other cooler for VOAs |
| | | | | | | | | | | | | | | | | | | | | | | |
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SM 4/24/19

Ferrous iron and DOC are field-filtered.
*Analyze TPH w/SGT only if TPH-d/o detected.
TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature: 2.5, 3.0, 1.5, 1.0, 2.0, 2.0

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

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

| Relinquished by sampler: AECOM | Date | Time | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Sidney Mahanay | 4/24/19 | 230 | | | | | |
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date | Time | Received at lab by: |
| | | | | | 4-25-19 | 1000 | |

See page 2 for Container Preservative and Sampling Information

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 034

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com | Email: mary.basano@aecom.com; usapimaging@aecom.com |

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): M. DH K GM TV
Sampler (Signature):

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Sed. | Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, ~~TCP~~ | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,K,Na SM4500 Total & Dissolved Silica | 9060A TOC, DOC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH792 | Trip Blank | 4/24/19 | 1002 | HST | 4 | X | | | X | | | | | | | X | | | | | |
| ERH793 | RHMW03 | 4/24/19 | 1040 | HST | 22 | X | | | X | | X | X | X | X | X | X | X | X | X | | X |

Date Shipped: MM/DD/YY
Carrier: FedEx
Waybill No.:
Comments:

Ferrous iron and DOC are field-filtered.
*Analyze TPH w/SGT only if TPH-d/o detected.
TPH-d/o & PAHs need liquid-liquid extraction.

4/24/19

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM Sidney Mahanay | Date 4/24/19 | Time 2:20 | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date 4-25-19 | Time 1000 | Received at lab by: |

See page 2 for Container Preservative and Sampling Information

APPL LABS

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 040

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com | Email: mary.basano@aecom.com; usapimaging@aecom.com |

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): BL Soz GM, RS, MM, TV
Sampler (Signature):

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Sed. | Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenol, ~~HGs~~ MS | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC/DOC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH 804 | Trip Blank | 4-23-19 | 12:50 | HST | 4 | X | | | X | | | | | | | X | | | | | |
| ERH 805 | RHMW09 | 4-23-19 | 14:15 | HST | 22 | X | | | X | | X | X* | X | X | X | X | X | X | X | | X |

Date Shipped: MM/DD/YY
Carrier: FedEx
Waybill No.:
Comments:

Ferrous iron and DOC are field-filtered.
*Analyze TPH w/SGT only if TPH-d/o detected.
TPH-d/o & PAHs need liquid-liquid extraction.

4/24/19

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM Brant Landers | Date 4/24/19 | Time 11:05 | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date 4-25-19 | Time 1000 | Received at lab by: |

See page 2 for Container Preservative and Sampling Information

APPL LABS

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

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

# CHAIN OF CUSTODY RECORD

C.O.C. 041

| Report to: PLEASE PRINT | Invoice to: PLEASE PRINT |
|---|---|
| Company Name: AECOM Phone: 808-356-5373 | Company Name: AECOM Phone: 808-529-7249 |
| Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 | Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950 |
| Attn: Margie Pascua | Attn: Mary Basano |
| Email: margie.pascua@aecom.com | Email: mary.basano@aecom.com; usapimaging@aecom.com |

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): SM MM DH K GM TV
Sampler (Signature): SM
Date Shipped: MM/DD/YY
Carrier: FedEx
Waybill No.:
Comments:

| Sample Identification | Location | Date Collected | Time Collected | Time Zone | No. of Containers | Matrix: Aq | Matrix: Sed. | Matrix: Soil | 8260C BTEX,TPH-g | 8260C DCA 8011 EDB | 8015C TPH-d/o | 3630/8015C TPH-d/o w/ SGT | 8270DSIM PAHs short list | 8270D Phenols-THS only | 8270D 2-(2-methoxy ethoxy)-ethanol | RSK175M Methane | SM3500-Fe Ferrous Iron | 353.2 Nitrate-Nitrite N | SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride | 300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica | 9060A TOC,Dissolved | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERH806 | Trip Blank | 4/24/19 | 0821 | HST | 4 | X | | | X | | | | | | | X | | | | | | |
| ERH807 | RHMW10 | 4/24/19 | 1020 | HST | 22 | X | | | X | | X | X* | X | X | X | X | X | X | X | | X | |

4/24/19 SM

Ferrous iron and DOC are field-filtered.
*Analyze TPH w/SGT only if TPH-d/o detected.
TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature:

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

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

| Relinquished by sampler: AECOM Sidney Mahanay | Date 4/24/19 | Time 230 | Received by: | Relinquished by: | Date | Time | Received by: |
|---|---|---|---|---|---|---|---|
| Relinquished by: | Date | Time | Received by: | Relinquished by: | Date 4.25.19 | Time 1000 | Received at lab by: |

See page 2 for Container Preservative and Sampling Information

**COOLER RECEIPT FORM** **ARF: 88714**

1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 04/25/19

**2) Coolers:** Number of Coolers: 6

3) YES Were custody seals present and intact?
How many? 12 Name/Date on seal? see below

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

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

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use R1

8) Cooler temp(s): In °C
1: 2.5°C 2: 3.0°C 3: 1.5°C 4: 1.0°C 5: 2.0°C x2 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/b

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

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

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

CUSTODY SEAL AECOM (808) 521-30 Initials BL Date 4/24/19

**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) NO Were unpreserved VOA Vials received?

23) NA 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:
Sample ERH791 COC lists 8 but we received 11.

Personnel receiving samples: ZG Second reviewer: AA
Personnel labeling samples: ZG
Project manager notified: ZG Date/Time of notification 04/25/19
Name of client notified: _____ Date/Time of notification _____

Revision: 22, November 5, 2013

# SAMPLE RESULTS

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH788**

**APPL ID: AZ90100**

Sample Collection Date: 04/23/19

QCG: #DOC53-190426A1-239905

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8015B-eL | DIESEL (C10-C24) | 230 ++ | 40.0 | 25.00 | 13.07 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 96.4 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 93.4 | 56-125 | | | % | 04/26/19 | 04/29/19 |

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: DOC0411.M
Run #: 419066
Instrument: Apollo
Sequence: 190419
Dilution Factor: 1
Initials: BTI

*Printed: 05/02/19 8:52:42 AM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH WATER L-L SGC

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH788**

**APPL ID: AZ90100**

Sample Collection Date: 04/23/19

QCG: #DOC53-190426A3-240379

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8015B-eL | DIESEL (C10-C24) | 57 ++ | 40.0 | 25.00 | 13.07 | ug/L | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | SURROGATE: (R) DECANOIC ACID (S) | 0.0 | 0-1 | | | % | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 96.9 | 60-142 | | | % | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 93.8 | 56-125 | | | % | 04/26/19 | 05/16/19 |

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: DOC0411.M
Run #: 508129
Instrument: Apollo
Sequence: 190508
Dilution Factor: 1
Initials: DPO

*Printed: 05/16/19 2:58:29 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH790**

**APPL ID: AZ90102**

Sample Collection Date: 04/24/19

QCG: #DOC53-190426A1-239905

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8015B-eL | DIESEL (C10-C24) | 2300 ++ | 40.0 | 25.00 | 13.07 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | OIL (C24-C40) | 190 | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 99.0 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 90.4 | 56-125 | | | % | 04/26/19 | 04/29/19 |

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: DOC0411.M
Run #: 419067
Instrument: Apollo
Sequence: 190419
Dilution Factor: 1
Initials: BTI

*Printed: 05/02/19 8:52:42 AM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH WATER L-L SGC

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH790**

**APPL ID: AZ90102**

Sample Collection Date: 04/24/19

QCG: #DOC53-190426A3-240379

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8015B-eL | DIESEL (C10-C24) | 430 ++ | 40.0 | 25.00 | 13.07 | ug/L | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | SURROGATE: (R) DECANOIC ACID (S) | 0.0 | 0-1 | | | % | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 98.4 | 60-142 | | | % | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 95.3 | 56-125 | | | % | 04/26/19 | 05/16/19 |

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: DOC0411.M
Run #: 508130
Instrument: Apollo
Sequence: 190508
Dilution Factor: 1
Initials: DPO

*Printed: 05/16/19 2:58:30 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH791**

**APPL ID: AZ90103**

Sample Collection Date: 04/24/19

QCG: #DOC53-190426A1-239905

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8015B-eL | DIESEL (C10-C24) | 2200 ++ | 40.0 | 25.00 | 13.07 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | OIL (C24-C40) | 190 | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 97.0 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 89.5 | 56-125 | | | % | 04/26/19 | 04/29/19 |

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: DOC0411.M
Run #: 419068
Instrument: Apollo
Sequence: 190419
Dilution Factor: 1
Initials: BTI

*Printed: 05/02/19 8:52:42 AM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH WATER L-L SGC

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH791**

**APPL ID: AZ90103**

Sample Collection Date: 04/24/19

QCG: #DOC53-190426A3-240379

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8015B-eL | DIESEL (C10-C24) | 440 ++ | 40.0 | 25.00 | 13.07 | ug/L | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | SURROGATE: (R) DECANOIC ACID (S) | 0.0 | 0-1 | | | % | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 98.2 | 60-142 | | | % | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 94.5 | 56-125 | | | % | 04/26/19 | 05/16/19 |

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: DOC0411.M
Run #: 508131
Instrument: Apollo
Sequence: 190508
Dilution Factor: 1
Initials: DPO

*Printed: 05/16/19 2:58:30 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH793**
Sample Collection Date: 04/24/19

ARF: 88714
**APPL ID: AZ90105**
QCG: #DOC53-190426A1-239905

| 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 | 04/26/19 | 04/30/19 |
| EPA 8015B-eL | OIL (C24-C40) | 190 ++ | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/30/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 98.6 | 60-142 | | | % | 04/26/19 | 04/30/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 93.8 | 56-125 | | | % | 04/26/19 | 04/30/19 |

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

Quant Method: DOC0411.M
Run #: 419069
Instrument: Apollo
Sequence: 190419
Dilution Factor: 1
Initials: BTI

*Printed: 05/02/19 8:52:42 AM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH WATER L-L SGC

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH793**

**APPL ID: AZ90105**

Sample Collection Date: 04/24/19

QCG: #DOC53-190426A3-240379

| 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 | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | SURROGATE: (R) DECANOIC ACID (S) | 0.0 | 0-1 | | | % | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 96.1 | 60-142 | | | % | 04/26/19 | 05/16/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 93.3 | 56-125 | | | % | 04/26/19 | 05/16/19 |

Quant Method: DOC0411.M
Run #: 508132
Instrument: Apollo
Sequence: 190508
Dilution Factor: 1
Initials: DPO

*Printed: 05/16/19 2:58:30 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH805**

**APPL ID: AZ90107**

Sample Collection Date: 04/23/19

QCG: #DOC53-190426A1-239905

| 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 | 04/26/19 | 04/30/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/30/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 97.9 | 60-142 | | | % | 04/26/19 | 04/30/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 95.2 | 56-125 | | | % | 04/26/19 | 04/30/19 |

Quant Method: DOC0411.M
Run #: 419070
Instrument: Apollo
Sequence: 190419
Dilution Factor: 1
Initials: BTI

*Printed: 05/02/19 8:52:42 AM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH807**
Sample Collection Date: 04/24/19

ARF: 88714
**APPL ID: AZ90109**
QCG: #DOC53-190426A1-239905

| 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 | 04/26/19 | 04/30/19 |
| EPA 8015B-eL | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/30/19 |
| EPA 8015B-eL | SURROGATE: OCTACOSANE (S) | 99.6 | 60-142 | | | % | 04/26/19 | 04/30/19 |
| EPA 8015B-eL | SURROGATE: ORTHO-TERPHENYL (S) | 98.2 | 56-125 | | | % | 04/26/19 | 04/30/19 |

Quant Method: DOC0411.M
Run #: 419071
Instrument: Apollo
Sequence: 190419
Dilution Factor: 1
Initials: BTI

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

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH788**

**APPL ID: AZ90100**

Sample Collection Date: 04/23/19

QCG: #SIM53-190430A-239930

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 68.5 | 39-114 | | | % | 04/30/19 | 05/02/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 74.8 | 58-120 | | | % | 04/30/19 | 05/02/19 |

Quant Method: L0326.M
Run #: 0426L034
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH790**

**APPL ID: AZ90102**

Sample Collection Date: 04/24/19

QCG: #SIM53-190430A-239930

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 9.0 | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 7.9 | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | NAPHTHALENE | 28 | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 70.9 | 39-114 | | | % | 04/30/19 | 05/02/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 66.0 | 58-120 | | | % | 04/30/19 | 05/02/19 |

Quant Method: L0326.M
Run #: 0426L035
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH791**

**APPL ID: AZ90103**

Sample Collection Date: 04/24/19

QCG: #SIM53-190430A-239930

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 8.7 | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 7.4 | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | NAPHTHALENE | 26 | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 67.4 | 39-114 | | | % | 04/30/19 | 05/02/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 66.4 | 58-120 | | | % | 04/30/19 | 05/02/19 |

Quant Method: L0326.M
Run #: 0426L036
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH793**

**APPL ID: AZ90105**

Sample Collection Date: 04/24/19

QCG: #SIM53-190430A-239930

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 57.2 | 39-114 | | | % | 04/30/19 | 05/02/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 58.1 | 58-120 | | | % | 04/30/19 | 05/02/19 |

Quant Method: L0326.M
Run #: 0426L037
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH805**

**APPL ID: AZ90107**

Sample Collection Date: 04/23/19

QCG: #SIM53-190430A-239930

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 70.9 | 39-114 | | | % | 04/30/19 | 05/02/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 71.6 | 58-120 | | | % | 04/30/19 | 05/02/19 |

Quant Method: L0326.M
Run #: 0426L038
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
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APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH807**

**APPL ID: AZ90109**

Sample Collection Date: 04/24/19

QCG: #SIM53-190430A-239930

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| 8270D-SIM | 1-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| 8270D-SIM | SURROGATE: 2-METHYLNAPHTHALEN | 71.4 | 39-114 | | | % | 04/30/19 | 05/02/19 |
| 8270D-SIM | SURROGATE: FLUORANTHENE-D10 (S | 84.2 | 58-120 | | | % | 04/30/19 | 05/02/19 |

Quant Method: L0326.M
Run #: 0426L039
Instrument: Linus
Sequence: L190426
Dilution Factor: 1
Initials: JPR

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

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH788**

**APPL ID: AZ90100**

Sample Collection Date: 04/23/19

QCG: #87DC5-190430A-239931

| 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 | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 78.0 | 43-140 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 63.1 | 44-119 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 69.9 | 19-119 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 72.9 | 44-120 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 66.3 | 10-115 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 61.3 | 50-134 | | | % | 04/30/19 | 05/02/19 |

Quant Method: Y0319NC.M
Run #: 0411Y273
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: MA

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

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH790**

**APPL ID: AZ90102**

Sample Collection Date: 04/24/19

QCG: #87DC5-190430A-239931

| 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 | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 76.9 | 43-140 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 61.1 | 44-119 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 66.5 | 19-119 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 70.5 | 44-120 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 62.7 | 10-115 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 49.5 | 50-134 | | | % | 04/30/19 | 05/02/19 |

Quant Method: Y0319NC.M
Run #: 0411Y274
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: MA

*Printed: 05/02/19 4:33:35 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH791**
Sample Collection Date: 04/24/19

ARF: 88714
**APPL ID: AZ90103**
QCG: #87DC5-190430A-239931

| 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 | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 76.3 | 43-140 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 61.1 | 44-119 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 75.0 | 19-119 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 76.2 | 44-120 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 69.4 | 10-115 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 39.5 # | 50-134 | | | % | 04/30/19 | 05/02/19 |

# = Recovery (or RPD) is outside QC limits.

Quant Method: Y0319NC.M
Run #: 0411Y275
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: MA

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

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH793**

**APPL ID: AZ90105**

Sample Collection Date: 04/24/19

QCG: #87DC5-190430A-239931

| 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 | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 63.9 | 43-140 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 52.5 | 44-119 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 66.0 | 19-119 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 63.0 | 44-120 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 61.0 | 10-115 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 49.9 | 50-134 | | | % | 04/30/19 | 05/02/19 |

Quant Method: Y0319NC.M
Run #: 0411Y276
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: MA

*Printed: 05/02/19 4:33:35 PM*
*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH805**

**APPL ID: AZ90107**

Sample Collection Date: 04/23/19

QCG: #87DC5-190430A-239931

| 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 | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 77.9 | 43-140 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 63.7 | 44-119 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 72.1 | 19-119 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 74.1 | 44-120 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 68.8 | 10-115 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 67.3 | 50-134 | | | % | 04/30/19 | 05/02/19 |

Quant Method: Y0319NC.M
Run #: 0411Y277
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: MA

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

# EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH807**

**APPL ID: AZ90109**

Sample Collection Date: 04/24/19

QCG: #87DC5-190430A-239931

| 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 | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2,4,6-TRIBROMOPHENO | 79.2 | 43-140 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2-FLUORBIPHENYL (S) | 64.3 | 44-119 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: 2-FLUOROPHENOL (S) | 75.1 | 19-119 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: NITROBENZENE-D5 (S) | 77.4 | 44-120 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: PHENOL-D6 (S) | 70.9 | 10-115 | | | % | 04/30/19 | 05/02/19 |
| EPA 8270D | SURROGATE: TERPHENYL-D14 (S) | 65.9 | 50-134 | | | % | 04/30/19 | 05/02/19 |

Quant Method: Y0319NC.M
Run #: 0411Y278
Instrument: Yoda
Sequence: Y190411
Dilution Factor: 1
Initials: MA

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

# EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH788**
Sample Collection Date: 04/23/19

ARF: 88714
**APPL ID: AZ90100**
QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

| | |
|---|---|
| Quant Method: | YMEE0430.M |
| Run #: | 0430Y029 |
| Instrument: | Yoda |
| Sequence: | Y190430M |
| Dilution Factor: | 1 |
| Initials: | MA |

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

# EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH790**
Sample Collection Date: 04/24/19

ARF: 88714
**APPL ID: AZ90102**
QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

Quant Method: YMEE0430.M
Run #: 0430Y030
Instrument: Yoda
Sequence: Y190430M
Dilution Factor: 1
Initials: MA

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

# EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH791**
Sample Collection Date: 04/24/19

ARF: 88714
**APPL ID: AZ90103**
QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

| | |
|---|---|
| Quant Method: | YMEE0430.M |
| Run #: | 0430Y031 |
| Instrument: | Yoda |
| Sequence: | Y190430M |
| Dilution Factor: | 1 |
| Initials: | MA |

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

# EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH793**
Sample Collection Date: 04/24/19

ARF: 88714
**APPL ID: AZ90105**
QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

| | |
|---|---|
| Quant Method: | YMEE0430.M |
| Run #: | 0430Y032 |
| Instrument: | Yoda |
| Sequence: | Y190430M |
| Dilution Factor: | 1 |
| Initials: | MA |

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

# EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH805**

**APPL ID: AZ90107**

Sample Collection Date: 04/23/19

QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

| | |
|---|---|
| Quant Method: | YMEE0430.M |
| Run #: | 0430Y033 |
| Instrument: | Yoda |
| Sequence: | Y190430M |
| Dilution Factor: | 1 |
| Initials: | MA |

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

# EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH807**
Sample Collection Date: 04/24/19

ARF: 88714
**APPL ID: AZ90109**
QCG: #87DME-190429A-239869

| 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 | 04/29/19 | 04/30/19 |

| | |
|---|---|
| Quant Method: | YMEE0430.M |
| Run #: | 0430Y034 |
| Instrument: | Yoda |
| Sequence: | Y190430M |
| Dilution Factor: | 1 |
| Initials: | MA |

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH787**

**APPL ID: AZ90099**

Sample Collection Date: 04/23/19

QCG: #86BTO-190426AM-239794

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 93.3 | 81-118 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 97.9 | 85-114 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 103 | 80-119 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 98.5 | 89-112 | | | % | 04/26/19 | 04/26/19 |

Quant Method: M0324.M
Run #: 0426M11
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH788**

**APPL ID: AZ90100**

Sample Collection Date: 04/23/19

QCG: #86BTO-190426AM-239794

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 94.2 | 81-118 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 98.4 | 85-114 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 102 | 80-119 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 97.9 | 89-112 | | | % | 04/26/19 | 04/26/19 |

Quant Method: M0324.M
Run #: 0426M16
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH789**

**APPL ID: AZ90101**

Sample Collection Date: 04/24/19

QCG: #86BTO-190426AM-239794

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 94.2 | 81-118 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 96.5 | 85-114 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 101 | 80-119 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 97.1 | 89-112 | | | % | 04/26/19 | 04/26/19 |

Quant Method: M0324.M
Run #: 0426M12
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH790**

**APPL ID: AZ90102**

Sample Collection Date: 04/24/19

QCG: #86BTO-190426AM-239794

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 90.2 | 81-118 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 99.8 | 85-114 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 96.9 | 80-119 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 96.3 | 89-112 | | | % | 04/26/19 | 04/26/19 |

Quant Method: M0324.M
Run #: 0426M17
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH791**

**APPL ID: AZ90103**

Sample Collection Date: 04/24/19

QCG: #86BTO-190426AM-239794

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 93.4 | 81-118 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 98.5 | 85-114 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 101 | 80-119 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 99.2 | 89-112 | | | % | 04/26/19 | 04/26/19 |

Quant Method: M0324.M
Run #: 0426M18
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH792**

**APPL ID: AZ90104**

Sample Collection Date: 04/24/19

QCG: #86BTO-190426AM-239794

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 95.4 | 81-118 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 97.4 | 85-114 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 102 | 80-119 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 98.4 | 89-112 | | | % | 04/26/19 | 04/26/19 |

Quant Method: M0324.M
Run #: 0426M13
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH793**

**APPL ID: AZ90105**

Sample Collection Date: 04/24/19

QCG: #86BTO-190426AM-239794

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 91.4 | 81-118 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 97.6 | 85-114 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 98.0 | 80-119 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 95.9 | 89-112 | | | % | 04/26/19 | 04/26/19 |

Quant Method: M0324.M
Run #: 0426M19
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH804**

**APPL ID: AZ90106**

Sample Collection Date: 04/23/19

QCG: #86BTO-190426AM-239794

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 93.7 | 81-118 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 99.8 | 85-114 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 102 | 80-119 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 97.7 | 89-112 | | | % | 04/26/19 | 04/26/19 |

Quant Method: M0324.M
Run #: 0426M14
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH805**

**APPL ID: AZ90107**

Sample Collection Date: 04/23/19

QCG: #86BTO-190426AM-239794

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 91.3 | 81-118 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 97.4 | 85-114 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 101 | 80-119 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 96.8 | 89-112 | | | % | 04/26/19 | 04/26/19 |

Quant Method: M0324.M
Run #: 0426M20
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH806**

**APPL ID: AZ90108**

Sample Collection Date: 04/24/19

QCG: #86BTO-190426AM-239794

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 94.6 | 81-118 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 96.0 | 85-114 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 102 | 80-119 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 96.8 | 89-112 | | | % | 04/26/19 | 04/26/19 |

Quant Method: M0324.M
Run #: 0426M15
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH807**

**APPL ID: AZ90109**

Sample Collection Date: 04/24/19

QCG: #86BTO-190426AM-239794

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | BENZENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 1,2-DICHLOROETHANE- | 91.6 | 81-118 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 96.8 | 85-114 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: DIBROMOFLUOROMETH | 101 | 80-119 | | | % | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: TOLUENE-D8 (S) | 97.0 | 89-112 | | | % | 04/26/19 | 04/26/19 |

Quant Method: M0324.M
Run #: 0426M21
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH787**

**APPL ID: AZ90099**

Sample Collection Date: 04/23/19

QCG: #GRO86-190426AM-239796

| 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 | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 97.9 | 85-114 | | | % | 04/26/19 | 04/26/19 |

Quant Method: MGAS401.M
Run #: 0426M11
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH788**

Sample Collection Date: 04/23/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 88714

**APPL ID: AZ90100**

QCG: #GRO86-190426AM-239796

| 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 | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 98.4 | 85-114 | | | % | 04/26/19 | 04/26/19 |

| | |
|---|---|
| Quant Method: | MGAS401.M |
| Run #: | 0426M16 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DPO |

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH789**

**APPL ID: AZ90101**

Sample Collection Date: 04/24/19

QCG: #GRO86-190426AM-239796

| 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 | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 96.5 | 85-114 | | | % | 04/26/19 | 04/26/19 |

| | |
|---|---|
| Quant Method: | MGAS401.M |
| Run #: | 0426M12 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DPO |

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B GRO WATER

AECOM
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Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH790**

**APPL ID: AZ90102**

Sample Collection Date: 04/24/19

QCG: #GRO86-190426AM-239796

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | GASOLINE RANGE ORGANICS | 48 ++ | 20 | 18.0 | 8.6 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 99.8 | 85-114 | | | % | 04/26/19 | 04/26/19 |

++(G3) The analyst has noted that the chromatogram of this sample includes higher boiling hydrocarbons.

Quant Method: MGAS401.M
Run #: 0426M17
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH791**

**APPL ID: AZ90103**

Sample Collection Date: 04/24/19

QCG: #GRO86-190426AM-239796

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| EPA 8260B | GASOLINE RANGE ORGANICS | 57 ++ | 20 | 18.0 | 8.6 | ug/L | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 98.5 | 85-114 | | | % | 04/26/19 | 04/26/19 |

++(G3) The analyst has noted that the chromatogram of this sample includes higher boiling hydrocarbons.

| | |
|---|---|
| Quant Method: | MGAS401.M |
| Run #: | 0426M18 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DPO |

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH792**

**APPL ID: AZ90104**

Sample Collection Date: 04/24/19

QCG: #GRO86-190426AM-239796

| 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 | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 97.4 | 85-114 | | | % | 04/26/19 | 04/26/19 |

| | |
|---|---|
| Quant Method: | MGAS401.M |
| Run #: | 0426M13 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DPO |

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH793**

Sample Collection Date: 04/24/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 88714

**APPL ID: AZ90105**

QCG: #GRO86-190426AM-239796

| 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 | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 97.6 | 85-114 | | | % | 04/26/19 | 04/26/19 |

| | |
|---|---|
| Quant Method: | MGAS401.M |
| Run #: | 0426M19 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DPO |

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH804**

**APPL ID: AZ90106**

Sample Collection Date: 04/23/19

QCG: #GRO86-190426AM-239796

| 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 | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 99.8 | 85-114 | | | % | 04/26/19 | 04/26/19 |

| | |
|---|---|
| Quant Method: | MGAS401.M |
| Run #: | 0426M14 |
| Instrument: | Max |
| Sequence: | M190401 |
| Dilution Factor: | 1 |
| Initials: | DPO |

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH805**

**APPL ID: AZ90107**

Sample Collection Date: 04/23/19

QCG: #GRO86-190426AM-239796

| 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 | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 97.4 | 85-114 | | | % | 04/26/19 | 04/26/19 |

Quant Method: MGAS401.M
Run #: 0426M20
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH806**

**APPL ID: AZ90108**

Sample Collection Date: 04/24/19

QCG: #GRO86-190426AM-239796

| 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 | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 96.0 | 85-114 | | | % | 04/26/19 | 04/26/19 |

Quant Method: MGAS401.M
Run #: 0426M15
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH807**

**APPL ID: AZ90109**

Sample Collection Date: 04/24/19

QCG: #GRO86-190426AM-239796

| 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 | 04/26/19 | 04/26/19 |
| EPA 8260B | SURROGATE: 4-BROMOFLUOROBENZ | 96.8 | 85-114 | | | % | 04/26/19 | 04/26/19 |

Quant Method: MGAS401.M
Run #: 0426M21
Instrument: Max
Sequence: M190401
Dilution Factor: 1
Initials: DPO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH787**

**APPL ID: AZ90099**

Sample Collection Date: 04/23/19

QCG: #RSKME-190503A-239958

| 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 | 05/03/19 | 05/03/19 |

Quant Method: RSK0311.M
Run #: 19050307
Instrument: Rocky
Sequence: 190311
Dilution Factor: 1
Initials: CMO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH788**

**APPL ID: AZ90100**

Sample Collection Date: 04/23/19

QCG: #RSKME-190503A-239958

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| RSK 175 | METHANE | 140 | 5.0 | 1.00 | 0.25 | ug/L | 05/03/19 | 05/03/19 |

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19050308 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH789**
Sample Collection Date: 04/24/19

ARF: 88714
**APPL ID: AZ90101**
QCG: #RSKME-190503A-239958

| 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 | 05/03/19 | 05/03/19 |

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19050309 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH790**

**APPL ID: AZ90102**

Sample Collection Date: 04/24/19

QCG: #RSKME-190503A-239958

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| RSK 175 | METHANE | 1500 E | 5.0 | 1.00 | 0.25 | ug/L | 05/03/19 | 05/03/19 |

E = The reported value exceeds linear range.

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19050310 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# METHANE - Dilution

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH790**

**APPL ID: AZ90102**

Sample Collection Date: 04/24/19

QCG: #RSKME-190503A-239958

| Method | Analyte | Result | LOQ | LOD | DL | Units | Extraction Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| RSK 175 | METHANE | 4500 | 50.0 | 10.00 | 2.50 | ug/L | 05/03/19 | 05/03/19 |

Quant Method: RSK0311.M
Run #: 19050312
Instrument: Rocky
Sequence: 190311
Dilution Factor: 10
Initials: CMO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH792**

**APPL ID: AZ90104**

Sample Collection Date: 04/24/19

QCG: #RSKME-190503A-239958

| 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 | 05/03/19 | 05/03/19 |

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19050313 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH793**

**APPL ID: AZ90105**

Sample Collection Date: 04/24/19

QCG: #RSKME-190503A-239958

| 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 | 05/03/19 | 05/03/19 |

Quant Method: RSK0311.M
Run #: 19050314
Instrument: Rocky
Sequence: 190311
Dilution Factor: 1
Initials: CMO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
**Sample ID: ERH804**
Sample Collection Date: 04/23/19

ARF: 88714
**APPL ID: AZ90106**
QCG: #RSKME-190503A-239958

| 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 | 05/03/19 | 05/03/19 |

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19050315 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH805**

**APPL ID: AZ90107**

Sample Collection Date: 04/23/19

QCG: #RSKME-190503A-239958

| 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 | 05/03/19 | 05/03/19 |

Quant Method: RSK0311.M
Run #: 19050316
Instrument: Rocky
Sequence: 190311
Dilution Factor: 1
Initials: CMO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH806**

**APPL ID: AZ90108**

Sample Collection Date: 04/24/19

QCG: #RSKME-190503A-239958

| 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 | 05/03/19 | 05/03/19 |

Quant Method: RSK0311.M
Run #: 19050317
Instrument: Rocky
Sequence: 190311
Dilution Factor: 1
Initials: CMO

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 88714

**Sample ID: ERH807**

**APPL ID: AZ90109**

Sample Collection Date: 04/24/19

QCG: #RSKME-190503A-239958

| 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 | 05/03/19 | 05/03/19 |

| | |
|---|---|
| Quant Method: | RSK0311.M |
| Run #: | 19050318 |
| Instrument: | Rocky |
| Sequence: | 190311 |
| Dilution Factor: | 1 |
| Initials: | CMO |

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*APPL-F1-SC-NoMC-REG MDLs-DOD*

# Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH788**

**APPL ID: AZ90100**

Sample Collection Date: 04/23/19

ARF: 88714

| Method | Analyte | Result | LOQ | LOD | DL | Units | DF | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 43.4 | 1.0 | 0.20 | 0.08 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 300.0 | NITRATE | 0.18 U | 0.5 | 0.18 | 0.04 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 300.0 | SULFATE | 4.8 | 1.0 | 0.20 | 0.09 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 353.2 | NITRATE-NITRITE-N | 0.090 U | 0.10 | 0.090 | 0.028 | mg/L | 1 | 05/01/19 | 05/01/19 |
| SM 2320B | BICARBONATE AS CACO3 | 81.1 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM 2320B | CARBONATE AS CACO3 | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM 2320B | TOTAL ALKALINITY AS CACO | 81.1 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM3500FeB | FERROUS IRON | 0.43 J | 1.0 | 0.32 | 0.16 | mg/L | 1 | 04/26/19 | 04/26/19 |
| SW846 9060A | DISSOLVED ORGANIC CARB | 1.1 | 0.93 | 0.350 | 0.130 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SW846 9060A | TOTAL ORGANIC CARBON | 0.97 | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/03/19 | 05/03/19 |

J = Estimated value.

*Printed: 05/22/19 9:50:47 AM*

*APPL-F1-SC-NoMC-REG MDLs*

# Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH790**

**APPL ID: AZ90102**

Sample Collection Date: 04/24/19

ARF: 88714

| Method | Analyte | Result | LOQ | LOD | DL | Units | DF | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 42.8 | 1.0 | 0.20 | 0.08 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 300.0 | NITRATE | 0.18 U | 0.5 | 0.18 | 0.04 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 300.0 | SULFATE | 0.98 J | 1.0 | 0.20 | 0.09 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 353.2 | NITRATE-NITRITE-N | 0.090 U | 0.10 | 0.090 | 0.028 | mg/L | 1 | 05/01/19 | 05/01/19 |
| SM 2320B | BICARBONATE AS CACO3 | 196 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM 2320B | CARBONATE AS CACO3 | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM 2320B | TOTAL ALKALINITY AS CACO | 196 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM3500FeB | FERROUS IRON | 2.3 | 1.0 | 0.32 | 0.16 | mg/L | 1 | 04/26/19 | 04/26/19 |
| SW846 9060A | DISSOLVED ORGANIC CARB | 3.5 | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/03/19 | 05/03/19 |
| SW846 9060A | TOTAL ORGANIC CARBON | 3.8 | 0.93 | 0.350 | 0.130 | mg/L | 1 | 04/30/19 | 04/30/19 |

J = Estimated value.

*Printed: 05/22/19 9:50:47 AM*

*APPL-F1-SC-NoMC-REG MDLs*

# Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH793

**APPL ID: AZ90105**

Sample Collection Date: 04/24/19

ARF: 88714

| Method | Analyte | Result | LOQ | LOD | DL | Units | DF | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 50.9 | 1.0 | 0.20 | 0.08 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 300.0 | NITRATE | 7.3 | 0.5 | 0.18 | 0.04 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 300.0 | SULFATE | 50.6 | 1.0 | 0.20 | 0.09 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 353.2 | NITRATE-NITRITE-N | 1.7 | 0.10 | 0.090 | 0.028 | mg/L | 1 | 05/01/19 | 05/01/19 |
| SM 2320B | BICARBONATE AS CACO3 | 267 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM 2320B | CARBONATE AS CACO3 | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM 2320B | TOTAL ALKALINITY AS CACO | 267 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM3500FeB | FERROUS IRON | 0.32 U | 1.0 | 0.32 | 0.16 | mg/L | 1 | 04/26/19 | 04/26/19 |
| SW846 9060A | DISSOLVED ORGANIC CARB | 1.6 | 0.93 | 0.350 | 0.130 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SW846 9060A | TOTAL ORGANIC CARBON | 1.5 | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/03/19 | 05/03/19 |

*Printed: 05/22/19 9:50:47 AM*

*APPL-F1-SC-NoMC-REG MDLs*

# Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH805**

**APPL ID: AZ90107**

Sample Collection Date: 04/23/19

ARF: 88714

| Method | Analyte | Result | LOQ | LOD | DL | Units | DF | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 49.3 | 5.0 | 1.00 | 0.40 | mg/L | 5 | 05/02/19 | 05/02/19 |
| EPA 300.0 | NITRATE | 2.1 | 0.5 | 0.18 | 0.04 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 300.0 | SULFATE | 9.3 | 1.0 | 0.20 | 0.09 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 353.2 | NITRATE-NITRITE-N | 0.46 | 0.10 | 0.090 | 0.028 | mg/L | 1 | 05/01/19 | 05/01/19 |
| SM 2320B | BICARBONATE AS CACO3 | 62.7 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM 2320B | CARBONATE AS CACO3 | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM 2320B | TOTAL ALKALINITY AS CACO | 62.7 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM3500FeB | FERROUS IRON | 0.32 U | 1.0 | 0.32 | 0.16 | mg/L | 1 | 04/26/19 | 04/26/19 |
| SW846 9060A | DISSOLVED ORGANIC CARB | 0.36 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/03/19 | 05/03/19 |
| SW846 9060A | TOTAL ORGANIC CARBON | 0.23 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 04/30/19 | 04/30/19 |

J = Estimated value.

*Printed: 05/22/19 9:50:47 AM*

*APPL-F1-SC-NoMC-REG MDLs*

# Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH807**

**APPL ID: AZ90109**

Sample Collection Date: 04/24/19

ARF: 88714

| Method | Analyte | Result | LOQ | LOD | DL | Units | DF | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 44.0 | 1.0 | 0.20 | 0.08 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 300.0 | NITRATE | 1.9 | 0.5 | 0.18 | 0.04 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 300.0 | SULFATE | 6.9 | 1.0 | 0.20 | 0.09 | mg/L | 1 | 04/25/19 | 04/25/19 |
| EPA 353.2 | NITRATE-NITRITE-N | 0.41 | 0.10 | 0.090 | 0.028 | mg/L | 1 | 05/01/19 | 05/01/19 |
| SM 2320B | BICARBONATE AS CACO3 | 64.9 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM 2320B | CARBONATE AS CACO3 | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM 2320B | TOTAL ALKALINITY AS CACO | 64.9 | 2.0 | 1.70 | 0.85 | mg/L | 1 | 04/30/19 | 04/30/19 |
| SM3500FeB | FERROUS IRON | 0.32 U | 1.0 | 0.32 | 0.16 | mg/L | 1 | 04/26/19 | 04/26/19 |
| SW846 9060A | DISSOLVED ORGANIC CARB | 0.21 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/01/19 | 05/01/19 |
| SW846 9060A | TOTAL ORGANIC CARBON | 0.26 J | 0.93 | 0.350 | 0.130 | mg/L | 1 | 05/03/19 | 05/03/19 |

J = Estimated value.

*Printed: 05/22/19 9:50:47 AM*

*APPL-F1-SC-NoMC-REG MDLs*

# QC FORMS

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Apollo

| APPL ID. | Client Sample No. | SURROGATE: OCTACOSANE (S) | | | SURROGATE: ORTHO-TERPHENYL (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190426A1-BLK | Blank | 60-142 | 92.6 | | 56-125 | 90.6 | |
| 190426A1-LCS | Lab Control Spike | 60-142 | 88.9 | | 56-125 | 88.5 | |
| 190426A1-LCSD | Lab Control SpikeD | 60-142 | 86.5 | | 56-125 | 87.9 | |
| AZ90100 | ERH788 | 60-142 | 96.4 | | 56-125 | 93.4 | |
| AZ90102 | ERH790 | 60-142 | 99.0 | | 56-125 | 90.4 | |
| AZ90103 | ERH791 | 60-142 | 97.0 | | 56-125 | 89.5 | |
| AZ90105 | ERH793 | 60-142 | 98.6 | | 56-125 | 93.8 | |
| AZ90107 | ERH805 | 60-142 | 97.9 | | 56-125 | 95.2 | |
| AZ90109 | ERH807 | 60-142 | 99.6 | | 56-125 | 98.2 | |

Comments: Batch: #DOC53-190426A1

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/16/19

Matrix: WATER Instrument: Apollo

| APPL ID. | Client Sample No. | SURROGATE: (R) DECANOIC ACID (S) | | | SURROGATE: OCTACOSANE (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190426A3-BLK | Blank | 0-1 | 0.0 | | 60-142 | 100 | |
| 190426A3-LCS | Lab Control Spike | 0-1 | 0.0 | | 60-142 | 87.9 | |
| 190426A3-LCSD | Lab Control SpikeD | 0-1 | 0.0 | | 60-142 | 88.5 | |
| AZ90100 | ERH788 | 0-1 | 0.0 | | 60-142 | 96.9 | |
| AZ90102 | ERH790 | 0-1 | 0.0 | | 60-142 | 98.4 | |
| AZ90103 | ERH791 | 0-1 | 0.0 | | 60-142 | 98.2 | |
| AZ90105 | ERH793 | 0-1 | 0.0 | | 60-142 | 96.1 | |

Comments: Batch: #DOC53-190426A3

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/16/19

Matrix: WATER Instrument: Apollo

| APPL ID. | Client Sample No. | SURROGATE: ORTHO-TERPHENYL (S) | | | | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190426A3-BLK | Blank | 56-125 | 94.7 | | | | |
| 190426A3-LCS | Lab Control Spike | 56-125 | 87.5 | | | | |
| 190426A3-LCSD | Lab Control SpikeD | 56-125 | 88.4 | | | | |
| AZ90100 | ERH788 | 56-125 | 93.8 | | | | |
| AZ90102 | ERH790 | 56-125 | 95.3 | | | | |
| AZ90103 | ERH791 | 56-125 | 94.5 | | | | |
| AZ90105 | ERH793 | 56-125 | 93.3 | | | | |

Comments: Batch: #DOC53-190426A3

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Apollo

Blank ID: 190426A1-BLK Time Analyzed: 1723

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426A1-BLK | Blank | 419049 | 04/29/19 1723 |
| 190426A1-LCS | Lab Control Spike | 419050 | 04/29/19 1743 |
| 190426A1-LCSD | Lab Control SpikeD | 419051 | 04/29/19 1803 |
| AZ90100 | ERH788 | 419066 | 04/29/19 2303 |
| AZ90102 | ERH790 | 419067 | 04/29/19 2323 |
| AZ90103 | ERH791 | 419068 | 04/29/19 2343 |
| AZ90105 | ERH793 | 419069 | 04/30/19 0002 |
| AZ90107 | ERH805 | 419070 | 04/30/19 0022 |
| AZ90109 | ERH807 | 419071 | 04/30/19 0042 |

Comments: Batch: #DOC53-190426A1

# Method Blank
## EPA 8015B TPH LIQ-LIQ

Blank Name/QCG: **190426W-90100 - 239905**
Batch ID: #DOC53-190426A1

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 | 04/26/19 | 04/29/19 |
| BLANK | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 04/29/19 |
| BLANK | SURROGATE: OCTACOSANE (S) | 92.6 | 60-142 | | | % | 04/26/19 | 04/29/19 |
| BLANK | SURROGATE: ORTHO-TERPHEN | 90.6 | 56-125 | | | % | 04/26/19 | 04/29/19 |

Quant Method:DOC0411.M
Run #:419049
Instrument:Apollo
Sequence:190419
Initials:BTI

*GC SC-Blank-REG MDLs-DOD*
*Printed: 05/08/19 12:16:21 PM*

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/16/19

Matrix: WATER Instrument: Apollo

Blank ID: 190426A3-BLK Time Analyzed: 1025

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426A3-BLK | Blank | 508126 | 05/16/19 1025 |
| 190426A3-LCS | Lab Control Spike | 508127 | 05/16/19 1044 |
| 190426A3-LCSD | Lab Control SpikeD | 508128 | 05/16/19 1103 |
| AZ90100 | ERH788 | 508129 | 05/16/19 1246 |
| AZ90102 | ERH790 | 508130 | 05/16/19 1306 |
| AZ90103 | ERH791 | 508131 | 05/16/19 1326 |
| AZ90105 | ERH793 | 508132 | 05/16/19 1345 |

Comments: Batch: #DOC53-190426A3

# Method Blank

## EPA 8015B TPH WATER L-L SGC

Blank Name/QCG: **190426W-90100 - 240379**

Batch ID: #DOC53-190426A3

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 | 04/26/19 | 05/16/19 |
| BLANK | OIL (C24-C40) | 40.00 U | 40.0 | 40.00 | 5.54 | ug/L | 04/26/19 | 05/16/19 |
| BLANK | SURROGATE: (R) DECANOIC AC | 0.0 | 0-1 | | | % | 04/26/19 | 05/16/19 |
| BLANK | SURROGATE: OCTACOSANE (S) | 100 | 60-142 | | | % | 04/26/19 | 05/16/19 |
| BLANK | SURROGATE: ORTHO-TERPHEN | 94.7 | 56-125 | | | % | 04/26/19 | 05/16/19 |

Quant Method:DOC0411.M
Run #:508126
Instrument:Apollo
Sequence:190508
Initials:DPO

*GC SC-Blank-REG MDLs-DOD*
*Printed: 05/16/19 3:01:30 PM*

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/29/19

Matrix: WATER Instrument: Apollo

LCS ID: 190426A1-LCS Time Analyzed: 1743

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426A1-BLK | Blank | 419049 | 04/29/19 1723 |
| 190426A1-LCS | Lab Control Spike | 419050 | 04/29/19 1743 |
| 190426A1-LCSD | Lab Control SpikeD | 419051 | 04/29/19 1803 |
| AZ90100 | ERH788 | 419066 | 04/29/19 2303 |
| AZ90102 | ERH790 | 419067 | 04/29/19 2323 |
| AZ90103 | ERH791 | 419068 | 04/29/19 2343 |
| AZ90105 | ERH793 | 419069 | 04/30/19 0002 |
| AZ90107 | ERH805 | 419070 | 04/30/19 0022 |
| AZ90109 | ERH807 | 419071 | 04/30/19 0042 |

Comments: Batch: #DOC53-190426A1

# Laboratory Control Spike Recoveries

## EPA 8015B TPH LIQ-LIQ

APPL ID: **190426W-90100 LCS - 239905**
Batch ID: #DOC53-190426A1

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| DIESEL (C10-C24) | 1250 | 1120 | 1070 | 89.6 | 85.6 | 36-132 | 4.6 | 30 |
| OIL (C24-C40) | 1250 | 1250 | 1180 | 100 | 94.4 | 41-113 | 5.8 | 30 |
| SURROGATE: OCTACOSANE (S) | 75.0 | 66.7 | 64.9 | 88.9 | 86.5 | 60-142 | | |
| SURROGATE: ORTHO-TERPHENYL (S) | 75.0 | 66.4 | 65.9 | 88.5 | 87.9 | 56-125 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | DOC0411.M | DOC0411.M |
| Extraction Date : | 04/26/19 | 04/26/19 |
| Analysis Date : | 04/29/19 | 04/29/19 |
| Instrument : | Apollo | Apollo |
| Run : | 419050 | 419051 |
| Initials : | BTI | |

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/16/19

Matrix: WATER Instrument: Apollo

LCS ID: 190426A3-LCS Time Analyzed: 1044

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426A3-BLK | Blank | 508126 | 05/16/19 1025 |
| 190426A3-LCS | Lab Control Spike | 508127 | 05/16/19 1044 |
| 190426A3-LCSD | Lab Control SpikeD | 508128 | 05/16/19 1103 |
| AZ90100 | ERH788 | 508129 | 05/16/19 1246 |
| AZ90102 | ERH790 | 508130 | 05/16/19 1306 |
| AZ90103 | ERH791 | 508131 | 05/16/19 1326 |
| AZ90105 | ERH793 | 508132 | 05/16/19 1345 |

Comments: Batch: #DOC53-190426A3

# Laboratory Control Spike Recoveries
## EPA 8015B TPH WATER L-L SGC

APPL ID: **190426W-90100 LCS - 240379**
Batch ID: #DOC53-190426A3

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| DIESEL (C10-C24) | 1250 | 1040 | 1040 | 83.2 | 83.2 | 36-132 | 0.0 | 30 |
| OIL (C24-C40) | 1250 | 1140 | 1120 | 91.2 | 89.6 | 41-113 | 1.8 | 30 |
| SURROGATE: (R) DECANOIC ACID (S) | 10.00 | 0 | 0 | 0.0 | 0.0 | 0-1 | | |
| SURROGATE: OCTACOSANE (S) | 75.0 | 65.9 | 66.4 | 87.9 | 88.5 | 60-142 | | |
| SURROGATE: ORTHO-TERPHENYL (S) | 75.0 | 65.6 | 66.3 | 87.5 | 88.4 | 56-125 | | |

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | DOC0411.M | DOC0411.M |
| Extraction Date : | 04/26/19 | 04/26/19 |
| Analysis Date : | 05/16/19 | 05/16/19 |
| Instrument : | Apollo | Apollo |
| Run : | 508127 | 508128 |
| Initials : | DPO | |



*Printed: 05/16/19 3:01:22 PM*
*APPL Standard LCSD*

# 8270D-SIM

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Linus

| APPL ID. | Client Sample No. | SURROGATE: 2-METHYLNAPHTHALENE-D10 (S) | | | SURROGATE: FLUORANTHENE-D10 (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190430A-BLK | Blank | 39-114 | 61.4 | | 58-120 | 77.7 | |
| 190430A-LCS | Lab Control Spike | 39-114 | 60.5 | | 58-120 | 73.1 | |
| 190430A-LCSD | Lab Control SpikeD | 39-114 | 64.6 | | 58-120 | 72.3 | |
| AZ90100 | ERH788 | 39-114 | 68.5 | | 58-120 | 74.8 | |
| AZ90102 | ERH790 | 39-114 | 70.9 | | 58-120 | 66.0 | |
| AZ90103 | ERH791 | 39-114 | 67.4 | | 58-120 | 66.4 | |
| AZ90105 | ERH793 | 39-114 | 57.2 | | 58-120 | 58.1 | |
| AZ90107 | ERH805 | 39-114 | 70.9 | | 58-120 | 71.6 | |
| AZ90109 | ERH807 | 39-114 | 71.4 | | 58-120 | 84.2 | |

Comments: Batch: #SIM53-190430A

# 8270D-SIM

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Linus

Blank ID: 190430A-BLK Time Analyzed: 1216

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190430A-BLK | Blank | 0426L031 | 05/02/19 1216 |
| 190430A-LCS | Lab Control Spike | 0426L032 | 05/02/19 1239 |
| 190430A-LCSD | Lab Control SpikeD | 0426L033 | 05/02/19 1301 |
| AZ90100 | ERH788 | 0426L034 | 05/02/19 1336 |
| AZ90102 | ERH790 | 0426L035 | 05/02/19 1358 |
| AZ90103 | ERH791 | 0426L036 | 05/02/19 1420 |
| AZ90105 | ERH793 | 0426L037 | 05/02/19 1443 |
| AZ90107 | ERH805 | 0426L038 | 05/02/19 1505 |
| AZ90109 | ERH807 | 0426L039 | 05/02/19 1527 |

Comments: Batch: #SIM53-190430A

# Method Blank
## EPA 8270D SIM LIQ-LIQ

Blank Name/QCG: **190430W-90100 - 239930**
Batch ID: #SIM53-190430A

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 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| BLANK | 2-METHYLNAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| BLANK | NAPHTHALENE | 0.10 U | 0.2 | 0.10 | 0.04 | ug/L | 04/30/19 | 05/02/19 |
| BLANK | SURROGATE: 2-METHYLNAPHT | 61.4 | 39-114 | | | % | 04/30/19 | 05/02/19 |
| BLANK | SURROGATE: FLUORANTHENE- | 77.7 | 58-120 | | | % | 04/30/19 | 05/02/19 |

Quant Method:L0326.M
Run #:0426L031
Instrument:Linus
Sequence:L190426
Initials:JPR

*GC SC-Blank-REG MDLs-DOD*
*Printed: 05/02/19 4:29:46 PM*

# 8270D-SIM

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Linus

LCS ID: 190430A-LCS Time Analyzed: 1239

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190430A-BLK | Blank | 0426L031 | 05/02/19 1216 |
| 190430A-LCS | Lab Control Spike | 0426L032 | 05/02/19 1239 |
| 190430A-LCSD | Lab Control SpikeD | 0426L033 | 05/02/19 1301 |
| AZ90100 | ERH788 | 0426L034 | 05/02/19 1336 |
| AZ90102 | ERH790 | 0426L035 | 05/02/19 1358 |
| AZ90103 | ERH791 | 0426L036 | 05/02/19 1420 |
| AZ90105 | ERH793 | 0426L037 | 05/02/19 1443 |
| AZ90107 | ERH805 | 0426L038 | 05/02/19 1505 |
| AZ90109 | ERH807 | 0426L039 | 05/02/19 1527 |

Comments: Batch: #SIM53-190430A

# Laboratory Control Spike Recoveries

## EPA 8270D SIM LIQ-LIQ

APPL ID: **190430W-90100 LCS - 239930**
Batch ID: #SIM53-190430A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 1-METHYLNAPHTHALENE | 6.25 | 3.76 | 3.97 | 60.2 | 63.5 | 41-115 | 5.4 | 20 |
| 2-METHYLNAPHTHALENE | 6.25 | 4.07 | 4.33 | 65.1 | 69.3 | 39-114 | 6.2 | 20 |
| NAPHTHALENE | 6.25 | 3.87 | 4.27 | 61.9 | 68.3 | 43-114 | 9.8 | 20 |
| SURROGATE: 2-METHYLNAPHTHALEN | 6.25 | 3.78 | 4.04 | 60.5 | 64.6 | 39-114 | | |
| SURROGATE: FLUORANTHENE-D10 (S) | 6.25 | 4.57 | 4.52 | 73.1 | 72.3 | 58-120 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | L0326.M | L0326.M |
| Extraction Date : | 04/30/19 | 04/30/19 |
| Analysis Date : | 05/02/19 | 05/02/19 |
| Instrument : | Linus | Linus |
| Run : | 0426L032 | 0426L033 |
| Initials : | JPR | |



*Printed: 05/02/19 4:29:53 PM*
*APPL Standard LCSD*

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 0326L002.D

SDG No:
Date Analyzed: 03/26/19
Instrument: Linus
Time Analyzed: 9:39

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 0.5 SIM 03/06/19 | 0326L005.D | 03/26/19 10:39 |
| 2 | | 1 SIM 03/06/19 | 0326L006.D | 03/26/19 11:01 |
| 3 | | 5 SIM 03/06/19 | 0326L007.D | 03/26/19 11:23 |
| 4 | | 10 SIM 03/06/19 | 0326L008.D | 03/26/19 11:45 |
| 5 | | 50 SIM 03/06/19 | 0326L009.D | 03/26/19 12:08 |
| 6 | | 100 SIM 03/06/19 | 0326L010.D | 03/26/19 12:30 |
| 7 | | 0.2 SIM 01/18/19 | 0326L012.D | 03/26/19 15:55 |
| 8 | | 0.1 SIM 01/18/19 | 0326L013.D | 03/26/19 17:05 |
| 9 | | SS SIM 03/06/19 | 0326L014.D | 03/26/19 17:27 |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 51 | 9.95 - 80% of mass 198 | 45.8 |
| 68 | 0 - 2.05% of mass 69 | 0.0 |
| 70 | 0 - 2% of mass 69 | 0.4 |
| 127 | 10 - 80% of mass 198 | 61.0 |
| 197 | 0 - 2% of mass 198 | 0.0 |
| 198 | 100 - 100% of mass 198 | 100.0 |
| 199 | 5 - 9% of mass 198 | 6.0 |
| 275 | 10 - 60% of mass 198 | 18.6 |
| 365 | 1 - 100% of mass 198 | 2.2 |
| 441 | 0.01 - 24% of mass 442 | 14.3 |
| 442 | 50 - 150% of mass 198 | 78.8 |
| 443 | 15 - 24% of mass 442 | 19.8 |

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 88714
Matrix: Water
ID: 0426L029.D

SDG No: 88714
Date Analyzed: 05/02/19
Instrument: Linus
Time Analyzed: 10:38

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 5 SIM 03/06/19 | 0426L030.D | 05/02/19 10:54 |
| 2 | Blank | 190430A BLK 1/800 | 0426L031.D | 05/02/19 12:16 |
| 3 | Lab Control Spike | 190430A LCS-2 1/800 | 0426L032.D | 05/02/19 12:39 |
| 4 | Lab Control SpikeD | 190430A LCSD-2 1/800 | 0426L033.D | 05/02/19 13:01 |
| 5 | ERH788 | AZ90100W21 1/800 | 0426L034.D | 05/02/19 13:36 |
| 6 | ERH790 | AZ90102W22 1/800 | 0426L035.D | 05/02/19 13:58 |
| 7 | ERH791 | AZ90103W08 1/800 | 0426L036.D | 05/02/19 14:20 |
| 8 | ERH793 | AZ90105W21 1/800 | 0426L037.D | 05/02/19 14:43 |
| 9 | ERH805 | AZ90107W18 1/800 | 0426L038.D | 05/02/19 15:05 |
| 10 | ERH807 | AZ90109W21 1/800 | 0426L039.D | 05/02/19 15:27 |
| 11 | | 5 SIM 03/06/19 | 0426L054.D | 05/02/19 21:03 |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 51 | 9.95 - 80% of mass 198 | 61.6 |
| 68 | 0 - 2.05% of mass 69 | 0.0 |
| 70 | 0 - 2% of mass 69 | 0.5 |
| 127 | 10 - 80% of mass 198 | 66.1 |
| 197 | 0 - 2% of mass 198 | 0.0 |
| 198 | 100 - 100% of mass 198 | 100.0 |
| 199 | 5 - 9% of mass 198 | 6.8 |
| 275 | 10 - 60% of mass 198 | 21.5 |
| 365 | 1 - 100% of mass 198 | 2.9 |
| 441 | 0.01 - 24% of mass 442 | 18.3 |
| 442 | 50 - 150% of mass 198 | 70.0 |
| 443 | 15 - 24% of mass 442 | 19.0 |

# INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 88714

Lab File ID (Standard): 0426L030.D Date Analyzed: 2 May 19 10:54

Instrument ID: Linus Time Analyzed: 2 May 19 10:54

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 | 45570 | 3.94 | 18053 | 5.96 | 28703 | 7.70 |
| | UPPER LIMIT | 91140 | 4.11 | 36106 | 6.13 | 57406 | 7.87 |
| | LOWER LIMIT | 22785 | 3.77 | 9027 | 5.79 | 14352 | 7.53 |
| | SAMPLE NO. | | | | | | |
| 01 | 190430A BLK 1/800 | 66235 | 3.94 | 26500 | 5.96 | 46178 | 7.70 |
| 02 | 190430A LCS-2 1/800 | 66824 | 3.94 | 27543 | 5.96 | 47183 | 7.69 |
| 03 | 190430A LCSD-2 1/800 | 62257 | 3.94 | 24694 | 5.96 | 47014 | 7.69 |
| 04 | AZ90100W21 1/800 | 57934 | 3.94 | 27040 | 5.96 | 48201 | 7.70 |
| 05 | AZ90102W22 1/800 | 59074 | 3.92 | 24673 | 5.96 | 47103 | 7.69 |
| 06 | AZ90103W08 1/800 | 59008 | 3.92 | 24116 | 5.96 | 45531 | 7.69 |
| 07 | AZ90105W21 1/800 | 61475 | 3.94 | 26582 | 5.96 | 47174 | 7.70 |
| 08 | AZ90107W18 1/800 | 60041 | 3.94 | 25621 | 5.96 | 45813 | 7.70 |
| 09 | AZ90109W21 1/800 | 60884 | 3.94 | 25643 | 5.96 | 43273 | 7.70 |
| 10 | 5 SIM 03/06/19 | 52891 | 3.94 | 22558 | 5.96 | 34382 | 7.70 |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

# INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 88714

Lab File ID (Standard): 0426L030.D Date Analyzed: 2 May 19 10:54

Instrument ID: Linus Time Analyzed: 2 May 19 10:54

GC Column: _____ ID: Heated Purge: (Y/N) _____

| | | Chrysene-D12(IS) | | Perylene-D12(IS) | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| | 12 HOUR STD | 43875 | 10.79 | 36594 | 13.19 | | |
| | UPPER LIMIT | 87750 | 10.96 | 73188 | 13.36 | | |
| | LOWER LIMIT | 21938 | 10.62 | 18297 | 13.02 | | |
| | SAMPLE NO. | | | | | | |
| 01 | 190430A BLK 1/800 | 70364 | 10.80 | 60724 | 13.20 | | |
| 02 | 190430A LCS-2 1/800 | 69956 | 10.78 | 64347 | 13.17 | | |
| 03 | 190430A LCSD-2 1/800 | 67213 | 10.78 | 65915 | 13.17 | | |
| 04 | AZ90100W21 1/800 | 69327 | 10.80 | 66817 | 13.18 | | |
| 05 | AZ90102W22 1/800 | 68499 | 10.79 | 65571 | 13.17 | | |
| 06 | AZ90103W08 1/800 | 68691 | 10.79 | 66904 | 13.17 | | |
| 07 | AZ90105W21 1/800 | 67598 | 10.80 | 64757 | 13.17 | | |
| 08 | AZ90107W18 1/800 | 65038 | 10.80 | 65063 | 13.18 | | |
| 09 | AZ90109W21 1/800 | 57967 | 10.80 | 59099 | 13.18 | | |
| 10 | 5 SIM 03/06/19 | 56026 | 10.79 | 55890 | 13.19 | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/02/19

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 |
| 190430A-BLK | Blank | 43-140 | 75.7 | | 44-119 | 61.7 | |
| 190430A-LCS | Lab Control Spike | 43-140 | 78.8 | | 44-119 | 64.0 | |
| 190430A-LCSD | Lab Control SpikeD | 43-140 | 82.0 | | 44-119 | 64.1 | |
| AZ90100 | ERH788 | 43-140 | 78.0 | | 44-119 | 63.1 | |
| AZ90102 | ERH790 | 43-140 | 76.9 | | 44-119 | 61.1 | |
| AZ90103 | ERH791 | 43-140 | 76.3 | | 44-119 | 61.1 | |
| AZ90105 | ERH793 | 43-140 | 63.9 | | 44-119 | 52.5 | |
| AZ90107 | ERH805 | 43-140 | 77.9 | | 44-119 | 63.7 | |
| AZ90109 | ERH807 | 43-140 | 79.2 | | 44-119 | 64.3 | |

Comments: Batch: #87DC5-190430A

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Yoda

| APPL ID. | Client Sample No. | SURROGATE: 2-FLUOROPHENOL (S) | | | SURROGATE: NITROBENZENE-D5 (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190430A-BLK | Blank | 19-119 | 66.7 | | 44-120 | 65.0 | |
| 190430A-LCS | Lab Control Spike | 19-119 | 79.6 | | 44-120 | 72.6 | |
| 190430A-LCSD | Lab Control SpikeD | 19-119 | 84.8 | | 44-120 | 77.2 | |
| AZ90100 | ERH788 | 19-119 | 69.9 | | 44-120 | 72.9 | |
| AZ90102 | ERH790 | 19-119 | 66.5 | | 44-120 | 70.5 | |
| AZ90103 | ERH791 | 19-119 | 75.0 | | 44-120 | 76.2 | |
| AZ90105 | ERH793 | 19-119 | 66.0 | | 44-120 | 63.0 | |
| AZ90107 | ERH805 | 19-119 | 72.1 | | 44-120 | 74.1 | |
| AZ90109 | ERH807 | 19-119 | 75.1 | | 44-120 | 77.4 | |

Comments: Batch: #87DC5-190430A

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Yoda

| APPL ID. | Client Sample No. | SURROGATE: PHENOL-D6 (S) | | | SURROGATE: TERPHENYL-D14 (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190430A-BLK | Blank | 10-115 | 61.1 | | 50-134 | 66.0 | |
| 190430A-LCS | Lab Control Spike | 10-115 | 74.8 | | 50-134 | 66.9 | |
| 190430A-LCSD | Lab Control SpikeD | 10-115 | 80.0 | | 50-134 | 66.0 | |
| AZ90100 | ERH788 | 10-115 | 66.3 | | 50-134 | 61.3 | |
| AZ90102 | ERH790 | 10-115 | 62.7 | | 50-134 | 49.5 | |
| AZ90103 | ERH791 | 10-115 | 69.4 | | 50-134 | 39.5 | # |
| AZ90105 | ERH793 | 10-115 | 61.0 | | 50-134 | 49.9 | |
| AZ90107 | ERH805 | 10-115 | 68.8 | | 50-134 | 67.3 | |
| AZ90109 | ERH807 | 10-115 | 70.9 | | 50-134 | 65.9 | |

Comments: Batch: #87DC5-190430A

# = Recovery outside of Control Limits on Sample.

# EPA 8270D

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Yoda

Blank ID: 190430A-BLK Time Analyzed: 1235

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190430A-BLK | Blank | 0411Y270 | 05/02/19 1235 |
| 190430A-LCS | Lab Control Spike | 0411Y271 | 05/02/19 1303 |
| 190430A-LCSD | Lab Control SpikeD | 0411Y272 | 05/02/19 1331 |
| AZ90100 | ERH788 | 0411Y273 | 05/02/19 1358 |
| AZ90102 | ERH790 | 0411Y274 | 05/02/19 1426 |
| AZ90103 | ERH791 | 0411Y275 | 05/02/19 1454 |
| AZ90105 | ERH793 | 0411Y276 | 05/02/19 1522 |
| AZ90107 | ERH805 | 0411Y277 | 05/02/19 1550 |
| AZ90109 | ERH807 | 0411Y278 | 05/02/19 1618 |

Comments: Batch: #87DC5-190430A

# Method Blank
## EPA 8270D WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **190430W-90100 - 239931**
Batch ID: #87DC5-190430A

| 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 | 04/30/19 | 05/02/19 |
| BLANK | SURROGATE: 2,4,6-TRIBROMOP | 75.7 | 43-140 | | | % | 04/30/19 | 05/02/19 |
| BLANK | SURROGATE: 2-FLUORBIPHENY | 61.7 | 44-119 | | | % | 04/30/19 | 05/02/19 |
| BLANK | SURROGATE: 2-FLUOROPHENO | 66.7 | 19-119 | | | % | 04/30/19 | 05/02/19 |
| BLANK | SURROGATE: NITROBENZENE- | 65.0 | 44-120 | | | % | 04/30/19 | 05/02/19 |
| BLANK | SURROGATE: PHENOL-D6 (S) | 61.1 | 10-115 | | | % | 04/30/19 | 05/02/19 |
| BLANK | SURROGATE: TERPHENYL-D14 ( | 66.0 | 50-134 | | | % | 04/30/19 | 05/02/19 |

Quant Method:Y0319NC.M
Run #:0411Y270
Instrument:Yoda
Sequence:Y190411
Initials:MA

*GC SC-Blank-REG MDLs-DOD*
*Printed: 05/02/19 4:33:33 PM*

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Yoda

LCS ID: 190430A-LCS Time Analyzed: 1303

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190430A-BLK | Blank | 0411Y270 | 05/02/19 1235 |
| 190430A-LCS | Lab Control Spike | 0411Y271 | 05/02/19 1303 |
| 190430A-LCSD | Lab Control SpikeD | 0411Y272 | 05/02/19 1331 |
| AZ90100 | ERH788 | 0411Y273 | 05/02/19 1358 |
| AZ90102 | ERH790 | 0411Y274 | 05/02/19 1426 |
| AZ90103 | ERH791 | 0411Y275 | 05/02/19 1454 |
| AZ90105 | ERH793 | 0411Y276 | 05/02/19 1522 |
| AZ90107 | ERH805 | 0411Y277 | 05/02/19 1550 |
| AZ90109 | ERH807 | 0411Y278 | 05/02/19 1618 |

Comments: Batch: #87DC5-190430A

# Laboratory Control Spike Recoveries

## EPA 8270D WATER

APPL ID: **190430W-90100 LCS - 239931**
Batch ID: #87DC5-190430A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| PHENOL | 62.5 | 51.8 | 55.8 | 82.9 | 89.3 | 10-115 | 7.4 | 20 |
| SURROGATE: 2,4,6-TRIBROMOPHENOL | 250 | 197 | 205 | 78.8 | 82.0 | 43-140 | | |
| SURROGATE: 2-FLUORBIPHENYL (S) | 125 | 80.0 | 80.1 | 64.0 | 64.1 | 44-119 | | |
| SURROGATE: 2-FLUOROPHENOL (S) | 250 | 199 | 212 | 79.6 | 84.8 | 19-119 | | |
| SURROGATE: NITROBENZENE-D5 (S) | 125 | 90.8 | 96.5 | 72.6 | 77.2 | 44-120 | | |
| SURROGATE: PHENOL-D6 (S) | 250 | 187 | 200 | 74.8 | 80.0 | 10-115 | | |
| SURROGATE: TERPHENYL-D14 (S) | 125 | 83.6 | 82.5 | 66.9 | 66.0 | 50-134 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | Y0319NC.M | Y0319NC.M |
| Extraction Date : | 04/30/19 | 04/30/19 |
| Analysis Date : | 05/02/19 | 05/02/19 |
| Instrument : | Yoda | Yoda |
| Run : | 0411Y271 | 0411Y272 |
| Initials : | MA | |



*Printed: 05/02/19 4:33:42 PM*
*APPL Standard LCSD*

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 0319Y002.D

SDG No:
Date Analyzed: 03/19/19
Instrument: Yoda
Time Analyzed: 18:15

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 50ug/mL 8270 03/13/1 | 0319Y003.D | 03/19/19 18:31 |
| 2 | | 4ug/mL 8270 03/13/19 | 0319Y004.D | 03/19/19 18:58 |
| 3 | | 5ug/mL 8270 03/13/19 | 0319Y005.D | 03/19/19 19:26 |
| 4 | | 10ug/mL 8270 03/13/1 | 0319Y006.D | 03/19/19 19:54 |
| 5 | | 20ug/mL 8270 03/13/1 | 0319Y007.D | 03/19/19 20:22 |
| 6 | | 40ug/mL 8270 03/13/1 | 0319Y008.D | 03/19/19 20:49 |
| 7 | | 60ug/mL 8270 03/13/1 | 0319Y009.D | 03/19/19 21:17 |
| 8 | | 80ug/mL 8270 03/13/1 | 0319Y010.D | 03/19/19 21:44 |
| 9 | | 100ug/mL 8270 03/13/ | 0319Y011.D | 03/19/19 22:11 |
| 10 | | SS-8270 03/13/19 | 0319Y012.D | 03/19/19 22:39 |
| 11 | | | | |
| 12 | | | | |
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| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 51 | 9.95 - 80.04% of mass 198 | 47.2 |
| 68 | 0 - 2% of mass 69 | 0.0 |
| 70 | 0 - 2% of mass 69 | 0.6 |
| 127 | 10 - 80% of mass 198 | 58.4 |
| 197 | 0 - 2% of mass 198 | 0.0 |
| 198 | 100 - 100% of mass 198.05 | 100.0 |
| 199 | 5 - 9% of mass 198 | 6.7 |
| 275 | 10 - 60% of mass 198 | 23.1 |
| 365 | 1 - 100% of mass 198 | 2.4 |
| 441 | 0.01 - 24% of mass 442 | 16.3 |
| 442 | 50 - 150% of mass 198.05 | 69.9 |
| 443 | 15 - 24% of mass 442 | 19.7 |

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 88714
Matrix: Water
ID: 0411Y263.D

SDG No: 88714
Date Analyzed: 05/02/19
Instrument: Yoda
Time Analyzed: 9:11

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 50ug/ml 8270 3/13/19 | 0411Y264.D | 05/02/19 9:26 |
| 2 | Blank | 190430A BLK 1/800 | 0411Y270.D | 05/02/19 12:35 |
| 3 | Lab Control Spike | 190430A LCS-1 1/800 | 0411Y271.D | 05/02/19 13:03 |
| 4 | Lab Control SpikeD | 190430A LCSD-1 1/800 | 0411Y272.D | 05/02/19 13:31 |
| 5 | ERH788 | AZ90100W21 1/800 | 0411Y273.D | 05/02/19 13:58 |
| 6 | ERH790 | AZ90102W22 1/800 | 0411Y274.D | 05/02/19 14:26 |
| 7 | ERH791 | AZ90103W08 1/800 | 0411Y275.D | 05/02/19 14:54 |
| 8 | ERH793 | AZ90105W21 1/800 | 0411Y276.D | 05/02/19 15:22 |
| 9 | ERH805 | AZ90107W18 1/800 | 0411Y277.D | 05/02/19 15:50 |
| 10 | ERH807 | AZ90109W21 1/800 | 0411Y278.D | 05/02/19 16:18 |
| 11 | | 50ug/ml 8270 3/13/19 | 0411Y287.D | 05/02/19 20:30 |
| 12 | | | | |
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| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 51 | 9.95 - 80.04% of mass 198 | 53.1 |
| 68 | 0 - 2% of mass 69 | 0.0 |
| 70 | 0 - 2% of mass 69 | 0.5 |
| 127 | 10 - 80% of mass 198 | 62.7 |
| 197 | 0 - 2% of mass 198 | 0.0 |
| 198 | 100 - 100% of mass 198.05 | 100.0 |
| 199 | 5 - 9% of mass 198 | 7.2 |
| 275 | 10 - 60% of mass 198 | 22.7 |
| 365 | 1 - 100% of mass 198 | 2.3 |
| 441 | 0.01 - 24% of mass 442 | 12.8 |
| 442 | 50 - 150% of mass 198.05 | 61.8 |
| 443 | 15 - 24% of mass 442 | 19.7 |

# INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 88714

Lab File ID (Standard): 0411Y264.D Date Analyzed: 2 May 19 9:26

Instrument ID: Yoda Time Analyzed: 2 May 19 9:26

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 | 184492 | 5.28 | 808807 | 6.74 | 439608 | 8.78 |
| | UPPER LIMIT | 368984 | 5.45 | 1617614 | 6.91 | 879216 | 8.95 |
| | LOWER LIMIT | 92246 | 5.11 | 404404 | 6.57 | 219804 | 8.61 |
| | SAMPLE NO. | | | | | | |
| 01 | 190430A BLK 1/800 | 199329 | 5.28 | 866269 | 6.74 | 470806 | 8.77 |
| 02 | 190430A LCS-1 1/800 | 167547 | 5.28 | 753242 | 6.74 | 443671 | 8.78 |
| 03 | 190430A LCSD-1 1/800 | 159395 | 5.28 | 719335 | 6.74 | 448864 | 8.78 |
| 04 | AZ90100W21 1/800 | 176554 | 5.28 | 769546 | 6.74 | 458178 | 8.77 |
| 05 | AZ90102W22 1/800 | 172749 | 5.28 | 762406 | 6.74 | 454729 | 8.78 |
| 06 | AZ90103W08 1/800 | 159301 | 5.28 | 706230 | 6.74 | 441998 | 8.78 |
| 07 | AZ90105W21 1/800 | 158241 | 5.28 | 720418 | 6.74 | 439723 | 8.77 |
| 08 | AZ90107W18 1/800 | 164084 | 5.28 | 731728 | 6.74 | 446791 | 8.77 |
| 09 | AZ90109W21 1/800 | 161112 | 5.28 | 707979 | 6.74 | 445340 | 8.78 |
| 10 | 50ug/ml 8270 3/13/19 | 207550 | 5.28 | 911370 | 6.74 | 504495 | 8.78 |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
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| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

# INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 88714

Lab File ID (Standard): 0411Y264.D Date Analyzed: 2 May 19 9:26

Instrument ID: Yoda Time Analyzed: 2 May 19 9:26

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 | 736697 | 10.53 | 671005 | 13.65 | 660853 | 15.49 |
| | UPPER LIMIT | 1473394 | 10.70 | 1342010 | 13.82 | 1321706 | 15.66 |
| | LOWER LIMIT | 368349 | 10.36 | 335503 | 13.48 | 330427 | 15.32 |
| | SAMPLE NO. | | | | | | |
| 01 | 190430A BLK 1/800 | 780417 | 10.53 | 707014 | 13.64 | 699190 | 15.49 |
| 02 | 190430A LCS-1 1/800 | 766016 | 10.53 | 688048 | 13.64 | 671650 | 15.49 |
| 03 | 190430A LCSD-1 1/800 | 760800 | 10.53 | 689946 | 13.65 | 668653 | 15.49 |
| 04 | AZ90100W21 1/800 | 789498 | 10.53 | 701952 | 13.64 | 691635 | 15.48 |
| 05 | AZ90102W22 1/800 | 756283 | 10.53 | 680116 | 13.64 | 665891 | 15.48 |
| 06 | AZ90103W08 1/800 | 735531 | 10.53 | 663939 | 13.64 | 648363 | 15.49 |
| 07 | AZ90105W21 1/800 | 753798 | 10.53 | 659785 | 13.64 | 646243 | 15.49 |
| 08 | AZ90107W18 1/800 | 764274 | 10.53 | 660372 | 13.64 | 662447 | 15.49 |
| 09 | AZ90109W21 1/800 | 761299 | 10.53 | 675056 | 13.64 | 662035 | 15.48 |
| 10 | 50ug/ml 8270 3/13/19 | 839503 | 10.54 | 762276 | 13.65 | 743444 | 15.49 |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
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| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

# EPA 8270D

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Yoda

Blank ID: 190429A-BLK Time Analyzed: 1413

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-BLK | Blank | 0430Y013 | 04/30/19 1413 |
| 190429A-LCS | Lab Control Spike | 0430Y014 | 04/30/19 1437 |
| 190429A-LCSD | Lab Control SpikeD | 0430Y015 | 04/30/19 1501 |
| AZ90100 | ERH788 | 0430Y029 | 04/30/19 2031 |
| AZ90102 | ERH790 | 0430Y030 | 04/30/19 2054 |
| AZ90103 | ERH791 | 0430Y031 | 04/30/19 2118 |
| AZ90105 | ERH793 | 0430Y032 | 04/30/19 2141 |
| AZ90107 | ERH805 | 0430Y033 | 04/30/19 2205 |
| AZ90109 | ERH807 | 0430Y034 | 04/30/19 2228 |

Comments: Batch: #87DME-190429A

# Method Blank
## EPA 8270D MODIFIED WATER

Blank Name/QCG: **190429W-89958 - 239869**
Batch ID: #87DME-190429A

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 | 04/29/19 | 04/30/19 |

Quant Method:YMEE0430.M
Run #:0430Y013
Instrument:Yoda
Sequence:Y190430M
Initials:MA

*GC SC-Blank-REG MDLs-DOD*
*Printed: 05/01/19 9:35:39 AM*

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Yoda

LCS ID: 190429A-LCS Time Analyzed: 1437

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190429A-BLK | Blank | 0430Y013 | 04/30/19 1413 |
| 190429A-LCS | Lab Control Spike | 0430Y014 | 04/30/19 1437 |
| 190429A-LCSD | Lab Control SpikeD | 0430Y015 | 04/30/19 1501 |
| AZ90100 | ERH788 | 0430Y029 | 04/30/19 2031 |
| AZ90102 | ERH790 | 0430Y030 | 04/30/19 2054 |
| AZ90103 | ERH791 | 0430Y031 | 04/30/19 2118 |
| AZ90105 | ERH793 | 0430Y032 | 04/30/19 2141 |
| AZ90107 | ERH805 | 0430Y033 | 04/30/19 2205 |
| AZ90109 | ERH807 | 0430Y034 | 04/30/19 2228 |

Comments: Batch: #87DME-190429A

# Laboratory Control Spike Recoveries

## EPA 8270D MODIFIED WATER

APPL ID: **190429W-89958 LCS - 239869**
Batch ID: #87DME-190429A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| 2-(2-METHOXYETHOXY)-ETHANOL | 80.0 | 93.3 | 124 | 117 | 155 # | 30-130 | 28.3 # | 20 |

# = Recovery is outside QC limits.

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | YMEE0430.M | YMEE0430.M |
| Extraction Date : | 04/29/19 | 04/29/19 |
| Analysis Date : | 04/30/19 | 04/30/19 |
| Instrument : | Yoda | Yoda |
| Run : | 0430Y014 | 0430Y015 |
| Initials : | MA | |

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/26/19

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 |
| 190426AM-LCS | Lab Control Spike | 81-118 | 96.0 | | 85-114 | 101 | |
| 190426AM-LCSD | Lab Control SpikeD | 81-118 | 94.8 | | 85-114 | 99.2 | |
| 190426AM-BLK | Blank | 81-118 | 94.7 | | 85-114 | 99.7 | |
| AZ90099 | ERH787 | 81-118 | 93.3 | | 85-114 | 97.9 | |
| AZ90101 | ERH789 | 81-118 | 94.2 | | 85-114 | 96.5 | |
| AZ90104 | ERH792 | 81-118 | 95.4 | | 85-114 | 97.4 | |
| AZ90106 | ERH804 | 81-118 | 93.7 | | 85-114 | 99.8 | |
| AZ90108 | ERH806 | 81-118 | 94.6 | | 85-114 | 96.0 | |
| AZ90100 | ERH788 | 81-118 | 94.2 | | 85-114 | 98.4 | |
| AZ90102 | ERH790 | 81-118 | 90.2 | | 85-114 | 99.8 | |
| AZ90103 | ERH791 | 81-118 | 93.4 | | 85-114 | 98.5 | |
| AZ90105 | ERH793 | 81-118 | 91.4 | | 85-114 | 97.6 | |
| AZ90107 | ERH805 | 81-118 | 91.3 | | 85-114 | 97.4 | |
| AZ90109 | ERH807 | 81-118 | 91.6 | | 85-114 | 96.8 | |

Comments: Batch: #86BTO-190426AM

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Max

| APPL ID. | Client Sample No. | SURROGATE: DIBROMOFLUOROMETHANE (S) | | | SURROGATE: TOLUENE-D8 (S) | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190426AM-LCS | Lab Control Spike | 80-119 | 102 | | 89-112 | 97.2 | |
| 190426AM-LCSD | Lab Control SpikeD | 80-119 | 104 | | 89-112 | 97.6 | |
| 190426AM-BLK | Blank | 80-119 | 102 | | 89-112 | 98.3 | |
| AZ90099 | ERH787 | 80-119 | 103 | | 89-112 | 98.5 | |
| AZ90101 | ERH789 | 80-119 | 101 | | 89-112 | 97.1 | |
| AZ90104 | ERH792 | 80-119 | 102 | | 89-112 | 98.4 | |
| AZ90106 | ERH804 | 80-119 | 102 | | 89-112 | 97.7 | |
| AZ90108 | ERH806 | 80-119 | 102 | | 89-112 | 96.8 | |
| AZ90100 | ERH788 | 80-119 | 102 | | 89-112 | 97.9 | |
| AZ90102 | ERH790 | 80-119 | 96.9 | | 89-112 | 96.3 | |
| AZ90103 | ERH791 | 80-119 | 101 | | 89-112 | 99.2 | |
| AZ90105 | ERH793 | 80-119 | 98.0 | | 89-112 | 95.9 | |
| AZ90107 | ERH805 | 80-119 | 101 | | 89-112 | 96.8 | |
| AZ90109 | ERH807 | 80-119 | 101 | | 89-112 | 97.0 | |

Comments: Batch: #86BTO-190426AM

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Max

Blank ID: 190426AM-BLK Time Analyzed: 1323

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426AM-LCS | Lab Control Spike | 0426M04 | 04/26/19 1032 |
| 190426AM-LCSD | Lab Control SpikeD | 0426M05 | 04/26/19 1101 |
| 190426AM-BLK | Blank | 0426m10 | 04/26/19 1323 |
| AZ90099 | ERH787 | 0426M11 | 04/26/19 1351 |
| AZ90101 | ERH789 | 0426M12 | 04/26/19 1419 |
| AZ90104 | ERH792 | 0426M13 | 04/26/19 1448 |
| AZ90106 | ERH804 | 0426M14 | 04/26/19 1516 |
| AZ90108 | ERH806 | 0426M15 | 04/26/19 1545 |
| AZ90100 | ERH788 | 0426M16 | 04/26/19 1613 |
| AZ90102 | ERH790 | 0426M17 | 04/26/19 1642 |
| AZ90103 | ERH791 | 0426M18 | 04/26/19 1710 |
| AZ90105 | ERH793 | 0426M19 | 04/26/19 1739 |
| AZ90107 | ERH805 | 0426M20 | 04/26/19 1808 |
| AZ90109 | ERH807 | 0426M21 | 04/26/19 1836 |

Comments: Batch: #86BTO-190426AM

*Printed: 04/29/19 1:05:31 PM*
*Form 4, Blank Summary*

# Method Blank
## EPA 8260B BTEX WATER

Blank Name/QCG: **190426W-90099 - 239794**
Batch ID: #86BTO-190426AM

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 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| BLANK | ETHYLBENZENE | 0.50 U | 1.0 | 0.50 | 0.23 | ug/L | 04/26/19 | 04/26/19 |
| BLANK | TOLUENE | 0.30 U | 1.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| BLANK | XYLENES (TOTAL) | 0.30 U | 2.0 | 0.30 | 0.15 | ug/L | 04/26/19 | 04/26/19 |
| BLANK | SURROGATE: 1,2-DICHLOROET | 94.7 | 81-118 | | | % | 04/26/19 | 04/26/19 |
| BLANK | SURROGATE: 4-BROMOFLUORO | 99.7 | 85-114 | | | % | 04/26/19 | 04/26/19 |
| BLANK | SURROGATE: DIBROMOFLUOR | 102 | 80-119 | | | % | 04/26/19 | 04/26/19 |
| BLANK | SURROGATE: TOLUENE-D8 (S) | 98.3 | 89-112 | | | % | 04/26/19 | 04/26/19 |

Quant Method:M0324.M
Run #:0426m10
Instrument:Max
Sequence:M190401
Initials:DPO

*GC SC-Blank-REG MDLs-DOD*
*Printed: 04/29/19 1:05:37 PM*

# EPA 8260B

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Max

LCS ID: 190426AM-LCS Time Analyzed: 1032

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426AM-LCS | Lab Control Spike | 0426M04 | 04/26/19 1032 |
| 190426AM-LCSD | Lab Control SpikeD | 0426M05 | 04/26/19 1101 |
| 190426AM-BLK | Blank | 0426m10 | 04/26/19 1323 |
| AZ90099 | ERH787 | 0426M11 | 04/26/19 1351 |
| AZ90101 | ERH789 | 0426M12 | 04/26/19 1419 |
| AZ90104 | ERH792 | 0426M13 | 04/26/19 1448 |
| AZ90106 | ERH804 | 0426M14 | 04/26/19 1516 |
| AZ90108 | ERH806 | 0426M15 | 04/26/19 1545 |
| AZ90100 | ERH788 | 0426M16 | 04/26/19 1613 |
| AZ90102 | ERH790 | 0426M17 | 04/26/19 1642 |
| AZ90103 | ERH791 | 0426M18 | 04/26/19 1710 |
| AZ90105 | ERH793 | 0426M19 | 04/26/19 1739 |
| AZ90107 | ERH805 | 0426M20 | 04/26/19 1808 |
| AZ90109 | ERH807 | 0426M21 | 04/26/19 1836 |

Comments: Batch: #86BTO-190426AM

# Laboratory Control Spike Recoveries
## EPA 8260B BTEX WATER

APPL ID: **190426W-90099 LCS - 239794**
Batch ID: #86BTO-190426AM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| BENZENE | 10.00 | 9.83 | 10.2 | 98.3 | 102 | 79-120 | 3.7 | 20 |
| ETHYLBENZENE | 10.00 | 10.0 | 10.3 | 100 | 103 | 79-121 | 3.0 | 20 |
| TOLUENE | 10.00 | 9.85 | 10.4 | 98.5 | 104 | 80-121 | 5.4 | 20 |
| XYLENES (TOTAL) | 30.0 | 30.5 | 31.7 | 102 | 106 | 79-121 | 3.9 | 20 |
| SURROGATE: 1,2-DICHLOROETHANE-D | 25.0 | 24.0 | 23.7 | 96.0 | 94.8 | 81-118 | | |
| SURROGATE: 4-BROMOFLUOROBENZE | 25.0 | 25.2 | 24.8 | 101 | 99.2 | 85-114 | | |
| SURROGATE: DIBROMOFLUOROMETH | 25.0 | 25.6 | 26.0 | 102 | 104 | 80-119 | | |
| SURROGATE: TOLUENE-D8 (S) | 25.0 | 24.3 | 24.4 | 97.2 | 97.6 | 89-112 | | |

Comments:

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | M0324.M | M0324.M |
| Extraction Date : | 04/26/19 | 04/26/19 |
| Analysis Date : | 04/26/19 | 04/26/19 |
| Instrument : | Max | Max |
| Run : | 0426M04 | 0426M05 |
| Initials : | DPO | |



*Printed: 04/29/19 1:05:33 PM*
*APPL Standard LCSD*

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 0324M01.D

SDG No:
Date Analyzed: 03/24/19
Instrument: Max
Time Analyzed: 10:39

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 0.3ug/L VOC STD 3/24 | 0324M05.D | 03/24/19 12:56 |
| 2 | | 0.5ug/L VOC STD 3/24 | 0324M06.D | 03/24/19 13:25 |
| 3 | | 1.0ug/L VOC STD 3/24 | 0324M07.D | 03/24/19 13:54 |
| 4 | | 2.0ug/L VOC STD 3/24 | 0324M08.D | 03/24/19 14:22 |
| 5 | | 5.0ug/L VOC STD 3/24 | 0324M09.D | 03/24/19 14:51 |
| 6 | | 10ug/L VOC STD 3/24/ | 0324M10.D | 03/24/19 15:19 |
| 7 | | 20ug/L VOC STD 3/24/ | 0324M11.D | 03/24/19 15:48 |
| 8 | | 40ug/L VOC STD 3/24/ | 0324M12.D | 03/24/19 16:17 |
| 9 | | 100ug/L VOC STD 3/24 | 0324M13.D | 03/24/19 16:45 |
| 10 | | (SS)10ug/L VOC STD 3 | 0324M16.D | 03/24/19 18:11 |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 50 | 15 - 40% of mass 95 | 18.1 |
| 75 | 30 - 60% of mass 95 | 49.1 |
| 95 | 100 - 100% of mass 95 | 100.0 |
| 96 | 5 - 9% of mass 95 | 6.9 |
| 173 | 0 - 2% of mass 174 | 0.4 |
| 174 | 50 - 100% of mass 95 | 92.4 |
| 175 | 5 - 9% of mass 174 | 7.8 |
| 176 | 95.06 - 101% of mass 174 | 96.4 |
| 177 | 5 - 9% of mass 176 | 7.4 |

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 88714
Matrix: Water
ID: 0426M01.D

SDG No: 88714
Date Analyzed: 04/26/19
Instrument: Max
Time Analyzed: 9:11

| | Client Sample No. | APPL ID. | File ID. | Date Analyzed |
|---|---|---|---|---|
| 1 | | 25ug/L BFB 3/11/19 | 0426M01.D | 04/26/19 9:11 |
| 2 | | 190426A CCV 10ug/L | 0426M03.D | 04/26/19 10:04 |
| 3 | Lab Control Spike | 190426A LCS 10ug/L | 0426M04.D | 04/26/19 10:32 |
| 4 | Lab Control SpikeD | 190426A LCSD 10ug/L | 0426M05.D | 04/26/19 11:01 |
| 5 | Blank | 190426A blk | 0426M10.D | 04/26/19 13:23 |
| 6 | ERH787 | AZ90099W01 | 0426M11.D | 04/26/19 13:51 |
| 7 | ERH789 | AZ90101W01 | 0426M12.D | 04/26/19 14:19 |
| 8 | ERH792 | AZ90104W01 | 0426M13.D | 04/26/19 14:48 |
| 9 | ERH804 | AZ90106W01 | 0426M14.D | 04/26/19 15:16 |
| 10 | ERH806 | AZ90108W01 | 0426M15.D | 04/26/19 15:45 |
| 11 | ERH788 | AZ90100W01 | 0426M16.D | 04/26/19 16:13 |
| 12 | ERH790 | AZ90102W01 | 0426M17.D | 04/26/19 16:42 |
| 13 | ERH791 | AZ90103W01 | 0426M18.D | 04/26/19 17:10 |
| 14 | ERH793 | AZ90105W01 | 0426M19.D | 04/26/19 17:39 |
| 15 | ERH805 | AZ90107W01 | 0426M20.D | 04/26/19 18:08 |
| 16 | ERH807 | AZ90109W01 | 0426M21.D | 04/26/19 18:36 |
| 17 | | Ending CCV 10ug/L | 0426M23.D | 04/26/19 19:33 |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |

| m/e | | |
|---|---|---|
| 50 | 15 - 40% of mass 95 | 17.4 |
| 75 | 30 - 60% of mass 95 | 46.5 |
| 95 | 100 - 100% of mass 95 | 100.0 |
| 96 | 5 - 9% of mass 95 | 5.9 |
| 173 | 0 - 2% of mass 174 | 0.8 |
| 174 | 50 - 100% of mass 95 | 89.9 |
| 175 | 5 - 9% of mass 174 | 7.0 |
| 176 | 95.06 - 101% of mass 174 | 100.8 |
| 177 | 5 - 9% of mass 176 | 6.5 |

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 88714

Lab File ID (Standard): 0426M03.D Date Analyzed: 04/26/19

Instrument ID: Max Time Analyzed: 10:04

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 | 751361 | 5.20 | 578928 | 8.80 | 310805 | 11.99 |
| | UPPER LIMIT | 1502722 | 5.37 | 1157856 | 8.97 | 621610 | 12.16 |
| | LOWER LIMIT | 375681 | 5.03 | 289464 | 8.63 | 155403 | 11.82 |
| | SAMPLE NO. | | | | | | |
| 01 | 190426A LCS 10ug/L | 739998 | 5.20 | 568894 | 8.80 | 310777 | 11.99 |
| 02 | 190426A LCSD 10ug/L | 713522 | 5.20 | 557548 | 8.80 | 296241 | 11.99 |
| 03 | 190426A blk | 720853 | 5.21 | 544351 | 8.80 | 282492 | 11.99 |
| 04 | AZ90099W01 | 772742 | 5.21 | 577606 | 8.80 | 291681 | 11.99 |
| 05 | AZ90101W01 | 752707 | 5.21 | 568527 | 8.80 | 293966 | 11.99 |
| 06 | AZ90104W01 | 773615 | 5.21 | 585975 | 8.80 | 290918 | 11.99 |
| 07 | AZ90106W01 | 733032 | 5.21 | 550923 | 8.80 | 287034 | 11.99 |
| 08 | AZ90108W01 | 733023 | 5.21 | 561505 | 8.80 | 287112 | 11.99 |
| 09 | AZ90100W01 | 752112 | 5.21 | 568075 | 8.80 | 290083 | 11.99 |
| 10 | AZ90102W01 | 751383 | 5.21 | 565484 | 8.80 | 304669 | 11.99 |
| 11 | AZ90103W01 | 796671 | 5.21 | 600842 | 8.80 | 302482 | 11.99 |
| 12 | AZ90105W01 | 734280 | 5.21 | 558644 | 8.80 | 295225 | 11.99 |
| 13 | AZ90107W01 | 734488 | 5.21 | 559504 | 8.80 | 287703 | 11.99 |
| 14 | AZ90109W01 | 771608 | 5.21 | 583042 | 8.80 | 298723 | 11.99 |
| 15 | Ending CCV 10ug/L | 790712 | 5.21 | 601605 | 8.80 | 310024 | 11.99 |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Max

| APPL ID. | Client Sample No. | SURROGATE: 4-BROMOFLUOROBENZENE (S) | | | | | |
|---|---|---|---|---|---|---|---|
| | | Limits | Result | Qualifier | Limits | Result | Qualifier |
| 190426AM-LCS | Lab Control Spike | 85-114 | 100 | | | | |
| 190426AM-LCSD | Lab Control SpikeD | 85-114 | 98.8 | | | | |
| 190426AM-BLK | Blank | 85-114 | 99.7 | | | | |
| AZ90099 | ERH787 | 85-114 | 97.9 | | | | |
| AZ90101 | ERH789 | 85-114 | 96.5 | | | | |
| AZ90104 | ERH792 | 85-114 | 97.4 | | | | |
| AZ90106 | ERH804 | 85-114 | 99.8 | | | | |
| AZ90108 | ERH806 | 85-114 | 96.0 | | | | |
| AZ90100 | ERH788 | 85-114 | 98.4 | | | | |
| AZ90102 | ERH790 | 85-114 | 99.8 | | | | |
| AZ90103 | ERH791 | 85-114 | 98.5 | | | | |
| AZ90105 | ERH793 | 85-114 | 97.6 | | | | |
| AZ90107 | ERH805 | 85-114 | 97.4 | | | | |
| AZ90109 | ERH807 | 85-114 | 96.8 | | | | |

Comments: Batch: #GRO86-190426AM

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Max

Blank ID: 190426AM-BLK Time Analyzed: 1323

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426AM-LCS | Lab Control Spike | 0426M07 | 04/26/19 1157 |
| 190426AM-LCSD | Lab Control SpikeD | 0426M08 | 04/26/19 1226 |
| 190426AM-BLK | Blank | 0426M10 | 04/26/19 1323 |
| AZ90099 | ERH787 | 0426M11 | 04/26/19 1351 |
| AZ90101 | ERH789 | 0426M12 | 04/26/19 1419 |
| AZ90104 | ERH792 | 0426M13 | 04/26/19 1448 |
| AZ90106 | ERH804 | 0426M14 | 04/26/19 1516 |
| AZ90108 | ERH806 | 0426M15 | 04/26/19 1545 |
| AZ90100 | ERH788 | 0426M16 | 04/26/19 1613 |
| AZ90102 | ERH790 | 0426M17 | 04/26/19 1642 |
| AZ90103 | ERH791 | 0426M18 | 04/26/19 1710 |
| AZ90105 | ERH793 | 0426M19 | 04/26/19 1739 |
| AZ90107 | ERH805 | 0426M20 | 04/26/19 1808 |
| AZ90109 | ERH807 | 0426M21 | 04/26/19 1836 |

Comments: Batch: #GRO86-190426AM

# Method Blank
## EPA 8260B GRO WATER

Blank Name/QCG: **190426W-90099 - 239796**
Batch ID: #GRO86-190426AM

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 | 04/26/19 | 04/26/19 |
| BLANK | SURROGATE: 4-BROMOFLUORO | 99.7 | 85-114 | | | % | 04/26/19 | 04/26/19 |

Quant Method:MGAS401.M
Run #:0426M10
Instrument:Max
Sequence:M190401
Initials:DPO

*GC SC-Blank-REG MDLs-DOD*
*Printed: 04/29/19 1:06:42 PM*

# EPA 8260B

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Max

LCS ID: 190426AM-LCS Time Analyzed: 1157

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426AM-LCS | Lab Control Spike | 0426M07 | 04/26/19 1157 |
| 190426AM-LCSD | Lab Control SpikeD | 0426M08 | 04/26/19 1226 |
| 190426AM-BLK | Blank | 0426M10 | 04/26/19 1323 |
| AZ90099 | ERH787 | 0426M11 | 04/26/19 1351 |
| AZ90101 | ERH789 | 0426M12 | 04/26/19 1419 |
| AZ90104 | ERH792 | 0426M13 | 04/26/19 1448 |
| AZ90106 | ERH804 | 0426M14 | 04/26/19 1516 |
| AZ90108 | ERH806 | 0426M15 | 04/26/19 1545 |
| AZ90100 | ERH788 | 0426M16 | 04/26/19 1613 |
| AZ90102 | ERH790 | 0426M17 | 04/26/19 1642 |
| AZ90103 | ERH791 | 0426M18 | 04/26/19 1710 |
| AZ90105 | ERH793 | 0426M19 | 04/26/19 1739 |
| AZ90107 | ERH805 | 0426M20 | 04/26/19 1808 |
| AZ90109 | ERH807 | 0426M21 | 04/26/19 1836 |

Comments: Batch: #GRO86-190426AM

# Laboratory Control Spike Recoveries
## EPA 8260B GRO WATER

APPL ID: **190426W-90099 LCS - 239796**
Batch ID: #GRO86-190426AM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| GASOLINE RANGE ORGANICS | 300 | 302 | 322 | 101 | 107 | 78-122 | 6.4 | 20 |
| SURROGATE: 4-BROMOFLUOROBENZE | 25.0 | 25.1 | 24.7 | 100 | 98.8 | 85-114 | | |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | MGAS401.M | MGAS401.M |
| Extraction Date : | 04/26/19 | 04/26/19 |
| Analysis Date : | 04/26/19 | 04/26/19 |
| Instrument : | Max | Max |
| Run : | 0426M07 | 0426M08 |
| Initials : | DPO | |



*Printed: 04/29/19 1:06:38 PM*
*APPL Standard LCSD*

# RSK 175

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/03/19

Matrix: WATER Instrument: Rocky

Blank ID: 190503A-BLK Time Analyzed: 1039

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190503A-LCS | Lab Control Spike | 19050300 | 05/03/19 1033 |
| 190503A-LCSD | Lab Control SpikeD | 19050301 | 05/03/19 1036 |
| 190503A-BLK | Blank | 19050302 | 05/03/19 1039 |
| AZ90099 | ERH787 | 19050307 | 05/03/19 1052 |
| AZ90100 | ERH788 | 19050308 | 05/03/19 1054 |
| AZ90101 | ERH789 | 19050309 | 05/03/19 1056 |
| AZ90102 | ERH790 | 19050310 | 05/03/19 1058 |
| AZ90102 | ERH790 | 19050312 | 05/03/19 1104 |
| AZ90104 | ERH792 | 19050313 | 05/03/19 1107 |
| AZ90105 | ERH793 | 19050314 | 05/03/19 1109 |
| AZ90106 | ERH804 | 19050315 | 05/03/19 1111 |
| AZ90107 | ERH805 | 19050316 | 05/03/19 1114 |
| AZ90108 | ERH806 | 19050317 | 05/03/19 1116 |
| AZ90109 | ERH807 | 19050318 | 05/03/19 1118 |

Comments: Batch: #RSKME-190503A

*Printed: 05/06/19 10:30:33 AM*

*Form 4, Blank Summary*

# Method Blank
## METHANE

Blank Name/QCG: **190503W-89959 - 239958**
Batch ID: #RSKME-190503A

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 | 05/03/19 | 05/03/19 |

Quant Method: RSK0311.M
Run #: 19050302
Instrument: Rocky
Sequence: 190311
Initials: CMO

*GC SC-Blank-REG MDLs-DOD*
*Printed: 05/06/19 10:30:44 AM*

# RSK 175

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/03/19

Matrix: WATER Instrument: Rocky

LCS ID: 190503A-LCS Time Analyzed: 1033

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190503A-LCS | Lab Control Spike | 19050300 | 05/03/19 1033 |
| 190503A-LCSD | Lab Control SpikeD | 19050301 | 05/03/19 1036 |
| 190503A-BLK | Blank | 19050302 | 05/03/19 1039 |
| AZ90099 | ERH787 | 19050307 | 05/03/19 1052 |
| AZ90100 | ERH788 | 19050308 | 05/03/19 1054 |
| AZ90101 | ERH789 | 19050309 | 05/03/19 1056 |
| AZ90102 | ERH790 | 19050310 | 05/03/19 1058 |
| AZ90102 | ERH790 | 19050312 | 05/03/19 1104 |
| AZ90104 | ERH792 | 19050313 | 05/03/19 1107 |
| AZ90105 | ERH793 | 19050314 | 05/03/19 1109 |
| AZ90106 | ERH804 | 19050315 | 05/03/19 1111 |
| AZ90107 | ERH805 | 19050316 | 05/03/19 1114 |
| AZ90108 | ERH806 | 19050317 | 05/03/19 1116 |
| AZ90109 | ERH807 | 19050318 | 05/03/19 1118 |

Comments: Batch: #RSKME-190503A

# Laboratory Control Spike Recoveries

## METHANE

APPL ID: **190503W-89959 LCS - 239958**
Batch ID: #RSKME-190503A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Compound Name | Spike Lvl ug/L | SPK Result ug/L | DUP Result ug/L | SPK % Recovery | DUP % Recovery | Recovery Limits | RPD % | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| METHANE | 83.4 | 69.1 | 78.4 | 82.9 | 94.0 | 72-125 | 12.6 | 30 |

Comments: _____

| Primary | SPK | DUP |
|---|---|---|
| Quant Method : | RSK0311.M | RSK0311.M |
| Extraction Date : | 05/03/19 | 05/03/19 |
| Analysis Date : | 05/03/19 | 05/03/19 |
| Instrument : | Rocky | Rocky |
| Run : | 19050300 | 19050301 |
| Initials : | CMO | |



*Printed: 05/06/19 10:30:37 AM*
*APPL Standard LCSD*

# EPA 300.0

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/25/19

Matrix: WATER Instrument: Charlie

Blank ID: 190425A-BLK Time Analyzed: 1534

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| AZ90109 | ERH807 | 18 | 04/25/19 1732 |
| AZ90102 | ERH790 | 19 | 04/25/19 1739 |
| 190425A-BLK | Blank | 2 | 04/25/19 1534 |
| AZ90105 | ERH793 | 20 | 04/25/19 1747 |
| AZ90100 | ERH788 | 21 | 04/25/19 1754 |
| AZ90107 | ERH805 | 22 | 04/25/19 1801 |
| 190425A-LCS | Lab Control Spike | 3 | 04/25/19 1541 |
| 190425A-LCSD | Lab Control SpikeD | 4 | 04/25/19 1548 |

Comments: Batch: #300W-190425A

# EPA 300.0

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Charlie

Blank ID: 190502C-BLK Time Analyzed: 1429

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502C-BLK | Blank | 39 | 05/02/19 1429 |
| 190502C-LCS | Lab Control Spike | 40 | 05/02/19 1436 |
| 190502C-LCSD | Lab Control SpikeD | 41 | 05/02/19 1443 |
| AZ90107 | ERH805 | 9 | 05/02/19 1801 |

Comments: Batch: #300WD-190502C

# EPA 353.2

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/01/19

Matrix: WATER Instrument: EVE

Blank ID: 190501A-BLK Time Analyzed: 1817

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190501A-BLK | Blank | 16 | 05/01/19 1817 |
| 190501A-LCS | Lab Control Spike | 17 | 05/01/19 1819 |
| 190501A-LCSD | Lab Control SpikeD | 18 | 05/01/19 1821 |
| AZ90100 | ERH788 | 28 | 05/01/19 1843 |
| AZ90102 | ERH790 | 29 | 05/01/19 1844 |
| AZ90105 | ERH793 | 30 | 05/01/19 1845 |
| AZ90107 | ERH805 | 31 | 05/01/19 1846 |
| AZ90109 | ERH807 | 32 | 05/01/19 1847 |

Comments: Batch: #35OF-190501A

# SM 2320B

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Tiamo

Blank ID: 190430A-BLK Time Analyzed: 1008

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190430A-BLK | Blank | 1 | 04/30/19 1008 |
| AZ90105 | ERH793 | 10 | 04/30/19 1122 |
| AZ90107 | ERH805 | 11 | 04/30/19 1134 |
| AZ90109 | ERH807 | 12 | 04/30/19 1140 |
| 190430A-LCS | Lab Control Spike | 2 | 04/30/19 1011 |
| 190430A-LCSD | Lab Control SpikeD | 3 | 04/30/19 1021 |
| AZ90100 | ERH788 | 8 | 04/30/19 1105 |
| AZ90102 | ERH790 | 9 | 04/30/19 1111 |

Comments: Batch: #232W-190430A

# SM3500FeB

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190426A-BLK Time Analyzed: 1510

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426A-BLK | Blank | 20 | 04/26/19 1510 |
| 190426A-LCS | Lab Control Spike | 21 | 04/26/19 1511 |
| 190426A-LCSD | Lab Control SpikeD | 22 | 04/26/19 1512 |
| AZ90100 | ERH788 | 24 | 04/26/19 1514 |
| AZ90102 | ERH790 | 25 | 04/26/19 1515 |
| AZ90105 | ERH793 | 26 | 04/26/19 1516 |
| AZ90107 | ERH805 | 27 | 04/26/19 1517 |
| AZ90109 | ERH807 | 28 | 04/26/19 1518 |

Comments: Batch: #35FE-190426A

# SW846 9060A

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190430A-BLK Time Analyzed: 1628

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190430A-BLK | Blank | 25 | 04/30/19 1628 |
| 190430A-LCS | Lab Control Spike | 26 | 04/30/19 1702 |
| 190430A-LCSD | Lab Control SpikeD | 27 | 04/30/19 1737 |
| AZ90100 | ERH788 | 35 | 04/30/19 2200 |
| AZ90105 | ERH793 | 37 | 04/30/19 2305 |

Comments: Batch: #DOCW5-190430A

# SW846 9060A

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/03/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190502B-BLK Time Analyzed: 0446

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502B-BLK | Blank | 24 | 05/03/19 0446 |
| 190502B-LCS | Lab Control Spike | 25 | 05/03/19 0520 |
| 190502B-LCSD | Lab Control SpikeD | 26 | 05/03/19 0555 |
| AZ90102 | ERH790 | 36 | 05/03/19 1136 |
| AZ90107 | ERH805 | 37 | 05/03/19 1208 |

Comments: Batch: #DOCW5-190502B

# SW846 9060A

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/01/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190530A-BLK Time Analyzed: 1459

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190530A-BLK | Blank | 30 | 05/01/19 1459 |
| 190530A-LCS | Lab Control Spike | 31 | 05/01/19 1530 |
| 190530A-LCSD | Lab Control SpikeD | 32 | 05/01/19 1602 |
| AZ90109 | ERH807 | 38 | 05/01/19 1913 |

Comments: Batch: #DOCW5-190530A

# SW846 9060A

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190430A-BLK Time Analyzed: 1628

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190430A-BLK | Blank | 25 | 04/30/19 1628 |
| 190430A-LCS | Lab Control Spike | 26 | 04/30/19 1702 |
| 190430A-LCSD | Lab Control SpikeD | 27 | 04/30/19 1737 |
| AZ90102 | ERH790 | 36 | 04/30/19 2232 |
| AZ90107 | ERH805 | 38 | 04/30/19 2337 |

Comments: Batch: #TOCW5-190430A

# SW846 9060A

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 190502A-BLK Time Analyzed: 1740

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| AZ90100 | ERH788 | 18 | 05/03/19 0130 |
| AZ90105 | ERH793 | 19 | 05/03/19 0202 |
| AZ90109 | ERH807 | 20 | 05/03/19 0233 |
| 190502A-BLK | Blank | 4 | 05/02/19 1740 |
| 190502A-LCS | Lab Control Spike | 5 | 05/02/19 1814 |
| 190502A-LCSD | Lab Control SpikeD | 6 | 05/02/19 1849 |

Comments: Batch: #TOCW5-190502A

# WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Analyte | Result | LOQ | LOD | DL | Units | Prep Date | Analysis Date | QC Group |
|---|---|---|---|---|---|---|---|---|---|
| SM 2320B | BICARBONATE AS | 3.9 | 2.0 | 1.70 | 0.85 | mg/L | 04/30/19 | 04/30/19 | #232W-190430A-AZ90051 |
| SM 2320B | CARBONATE AS C | 1.70 U | 2.0 | 1.70 | 0.85 | mg/L | 04/30/19 | 04/30/19 | #232W-190430A-AZ90051 |
| SM 2320B | TOTAL ALKALINITY | 3.9 | 2.0 | 1.70 | 0.85 | mg/L | 04/30/19 | 04/30/19 | #232W-190430A-AZ90051 |
| EPA 353.2 | NITRATE-NITRITE- | 0.090 U | 0.10 | 0.090 | 0.028 | mg/L | 05/01/19 | 05/01/19 | #35OF-190501A-AZ90051 |
| SW846 90 | DISSOLVED ORGA | 0.350 U | 0.93 | 0.350 | 0.130 | mg/L | 04/30/19 | 04/30/19 | #DOCW5-190430A-AZ90100 |
| SW846 90 | TOTAL ORGANIC C | 0.350 U | 0.93 | 0.350 | 0.130 | mg/L | 05/02/19 | 05/02/19 | #TOCW5-190502A-AZ89958 |
| SW846 90 | DISSOLVED ORGA | 0.350 U | 0.93 | 0.350 | 0.130 | mg/L | 05/03/19 | 05/03/19 | #DOCW5-190502B-AZ89958 |
| SW846 90 | TOTAL ORGANIC C | 0.350 U | 0.93 | 0.350 | 0.130 | mg/L | 04/30/19 | 04/30/19 | #TOCW5-190430A-AZ90102 |
| EPA 300.0 | CHLORIDE | 0.28 J | 1.0 | 0.20 | 0.08 | mg/L | 05/02/19 | 05/02/19 | #300WD-190502C-AZ90107 |
| EPA 300.0 | CHLORIDE | 0.29 J | 1.0 | 0.20 | 0.08 | mg/L | 04/25/19 | 04/25/19 | #300W-190425A-AZ90109 |
| EPA 300.0 | NITRATE | 0.18 U | 0.5 | 0.18 | 0.04 | mg/L | 04/25/19 | 04/25/19 | #300W-190425A-AZ90109 |
| EPA 300.0 | SULFATE | 0.20 U | 1.0 | 0.20 | 0.09 | mg/L | 04/25/19 | 04/25/19 | #300W-190425A-AZ90109 |
| SM3500Fe | FERROUS IRON | 0.32 U | 1.0 | 0.32 | 0.16 | mg/L | 04/26/19 | 04/26/19 | #35FE-190426A-AZ90109 |
| SW846 90 | DISSOLVED ORGA | 0.350 U | 0.93 | 0.350 | 0.130 | mg/L | 05/01/19 | 05/01/19 | #DOCW5-190530A-AZ90109 |

*Wetlab SC-Blank-REG MDLs*
*Printed: 05/22/19 9:52:38 AM*

# EPA 300.0

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/25/19

Matrix: WATER Instrument: Charlie

LCS ID: 190425A-LCS Time Analyzed: 1541

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| AZ90109 | ERH807 | 18 | 04/25/19 1732 |
| AZ90102 | ERH790 | 19 | 04/25/19 1739 |
| 190425A-BLK | Blank | 2 | 04/25/19 1534 |
| AZ90105 | ERH793 | 20 | 04/25/19 1747 |
| AZ90100 | ERH788 | 21 | 04/25/19 1754 |
| AZ90107 | ERH805 | 22 | 04/25/19 1801 |
| 190425A-LCS | Lab Control Spike | 3 | 04/25/19 1541 |
| 190425A-LCSD | Lab Control SpikeD | 4 | 04/25/19 1548 |

Comments: Batch: #300W-190425A

# SM3500FeB

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/26/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190426A-LCS Time Analyzed: 1511

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190426A-BLK | Blank | 20 | 04/26/19 1510 |
| 190426A-LCS | Lab Control Spike | 21 | 04/26/19 1511 |
| 190426A-LCSD | Lab Control SpikeD | 22 | 04/26/19 1512 |
| AZ90100 | ERH788 | 24 | 04/26/19 1514 |
| AZ90102 | ERH790 | 25 | 04/26/19 1515 |
| AZ90105 | ERH793 | 26 | 04/26/19 1516 |
| AZ90107 | ERH805 | 27 | 04/26/19 1517 |
| AZ90109 | ERH807 | 28 | 04/26/19 1518 |

Comments: Batch: #35FE-190426A

# SW846 9060A

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190430A-LCS Time Analyzed: 1702

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190430A-BLK | Blank | 25 | 04/30/19 1628 |
| 190430A-LCS | Lab Control Spike | 26 | 04/30/19 1702 |
| 190430A-LCSD | Lab Control SpikeD | 27 | 04/30/19 1737 |
| AZ90100 | ERH788 | 35 | 04/30/19 2200 |
| AZ90105 | ERH793 | 37 | 04/30/19 2305 |

Comments: Batch: #DOCW5-190430A

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Compound Name | Spike Lvl mg/L | SPK Res mg/L | DUP Res mg/L | SPK % Recov | DUP % Recov | RPD | RPD Max | QC Limits | Extract Date-Spk | Analysis Date-Spk | Extract Date-Dup | Analysis Date-Dup | QC Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 25.0 | 25.1 | 25.0 | 100 | 100 | 0.40 | 20 | 90-110 | 04/25/19 | 04/25/19 | 04/25/19 | 04/25/19 | #300W-190425A-AZ90109 |
| EPA 300.0 | NITRATE | 22.1 | 22.8 | 22.8 | 103 | 103 | 0.0 | 20 | 90-110 | 04/25/19 | 04/25/19 | 04/25/19 | 04/25/19 | #300W-190425A-AZ90109 |
| EPA 300.0 | SULFATE | 25.0 | 24.9 | 24.9 | 99.6 | 99.6 | 0.0 | 20 | 90-110 | 04/25/19 | 04/25/19 | 04/25/19 | 04/25/19 | #300W-190425A-AZ90109 |
| SM3500Fe | FERROUS IRON | 3.00 | 3.11 | 2.89 | 104 | 96.3 | 7.3 | 20 | 80-120 | 04/26/19 | 04/26/19 | 04/26/19 | 04/26/19 | #35FE-190426A-AZ90109 |
| SW846 90 | DISSOLVED ORGANIC CA | 2.50 | 2.57 | 2.43 | 103 | 97.2 | 5.6 | 20 | 90-110 | 05/01/19 | 05/01/19 | 05/01/19 | 05/01/19 | #DOCW5-190530A-AZ901 |

Comments: _____

# SW846 9060A

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/03/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190502B-LCS Time Analyzed: 0520

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502B-BLK | Blank | 24 | 05/03/19 0446 |
| 190502B-LCS | Lab Control Spike | 25 | 05/03/19 0520 |
| 190502B-LCSD | Lab Control SpikeD | 26 | 05/03/19 0555 |
| AZ90102 | ERH790 | 36 | 05/03/19 1136 |
| AZ90107 | ERH805 | 37 | 05/03/19 1208 |

Comments: Batch: #DOCW5-190502B

# SW846 9060A

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/01/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190530A-LCS Time Analyzed: 1530

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190530A-BLK | Blank | 30 | 05/01/19 1459 |
| 190530A-LCS | Lab Control Spike | 31 | 05/01/19 1530 |
| 190530A-LCSD | Lab Control SpikeD | 32 | 05/01/19 1602 |
| AZ90109 | ERH807 | 38 | 05/01/19 1913 |

Comments: Batch: #DOCW5-190530A

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Compound Name | Spike Lvl mg/L | SPK Res mg/L | DUP Res mg/L | SPK % Recov | DUP % Recov | RPD | RPD Max | QC Limits | Extract Date-Spk | Analysis Date-Spk | Extract Date-Dup | Analysis Date-Dup | QC Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW846 90 | DISSOLVED ORGANIC CA | 2.5 | 2.46 | 2.45 | 98.4 | 98.0 | 0.41 | 20 | 90-110 | 05/03/19 | 05/03/19 | 05/03/19 | 05/03/19 | #DOCW5-190502B-AZ899 |
| SW846 90 | TOTAL ORGANIC CARBO | 2.50 | 2.62 | 2.59 | 105 | 104 | 1.2 | 20 | 90-110 | 04/30/19 | 04/30/19 | 04/30/19 | 04/30/19 | #TOCW5-190430A-AZ901 |

Comments: _____

# EPA 300.0

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Charlie

LCS ID: 190502C-LCS Time Analyzed: 1436

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190502C-BLK | Blank | 39 | 05/02/19 1429 |
| 190502C-LCS | Lab Control Spike | 40 | 05/02/19 1436 |
| 190502C-LCSD | Lab Control SpikeD | 41 | 05/02/19 1443 |
| AZ90107 | ERH805 | 9 | 05/02/19 1801 |

Comments: Batch: #300WD-190502C

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Compound Name | Spike Lvl mg/L | SPK Res mg/L | DUP Res mg/L | SPK % Recov | DUP % Recov | RPD | RPD Max | QC Limits | Extract Date-Spk | Analysis Date-Spk | Extract Date-Dup | Analysis Date-Dup | QC Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EPA 300.0 | CHLORIDE | 25.0 | 25.1 | 25.1 | 100 | 100 | 0.0 | 20 | 90-110 | 05/02/19 | 05/02/19 | 05/02/19 | 05/02/19 | #300WD-190502C-AZ9010 |

Comments: _____

# EPA 353.2

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/01/19

Matrix: WATER Instrument: EVE

LCS ID: 190501A-LCS Time Analyzed: 1819

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190501A-BLK | Blank | 16 | 05/01/19 1817 |
| 190501A-LCS | Lab Control Spike | 17 | 05/01/19 1819 |
| 190501A-LCSD | Lab Control SpikeD | 18 | 05/01/19 1821 |
| AZ90100 | ERH788 | 28 | 05/01/19 1843 |
| AZ90102 | ERH790 | 29 | 05/01/19 1844 |
| AZ90105 | ERH793 | 30 | 05/01/19 1845 |
| AZ90107 | ERH805 | 31 | 05/01/19 1846 |
| AZ90109 | ERH807 | 32 | 05/01/19 1847 |

Comments: Batch: #35OF-190501A

# SM 2320B

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Tiamo

LCS ID: 190430A-LCS Time Analyzed: 1011

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190430A-BLK | Blank | 1 | 04/30/19 1008 |
| AZ90105 | ERH793 | 10 | 04/30/19 1122 |
| AZ90107 | ERH805 | 11 | 04/30/19 1134 |
| AZ90109 | ERH807 | 12 | 04/30/19 1140 |
| 190430A-LCS | Lab Control Spike | 2 | 04/30/19 1011 |
| 190430A-LCSD | Lab Control SpikeD | 3 | 04/30/19 1021 |
| AZ90100 | ERH788 | 8 | 04/30/19 1105 |
| AZ90102 | ERH790 | 9 | 04/30/19 1111 |

Comments: Batch: #232W-190430A

# SW846 9060A

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 04/30/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190430A-LCS Time Analyzed: 1702

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| 190430A-BLK | Blank | 25 | 04/30/19 1628 |
| 190430A-LCS | Lab Control Spike | 26 | 04/30/19 1702 |
| 190430A-LCSD | Lab Control SpikeD | 27 | 04/30/19 1737 |
| AZ90102 | ERH790 | 36 | 04/30/19 2232 |
| AZ90107 | ERH805 | 38 | 04/30/19 2337 |

Comments: Batch: #TOCW5-190430A

# SW846 9060A

Form 4

## LCS Summary

Lab Name: APPL, Inc. SDG No: 88714

Case No: 88714 Date Analyzed: 05/02/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 190502A-LCS Time Analyzed: 1814

| APPL ID. | Client Sample No. | File ID. | Date Analyzed |
|---|---|---|---|
| AZ90100 | ERH788 | 18 | 05/03/19 0130 |
| AZ90105 | ERH793 | 19 | 05/03/19 0202 |
| AZ90109 | ERH807 | 20 | 05/03/19 0233 |
| 190502A-BLK | Blank | 4 | 05/02/19 1740 |
| 190502A-LCS | Lab Control Spike | 5 | 05/02/19 1814 |
| 190502A-LCSD | Lab Control SpikeD | 6 | 05/02/19 1849 |

Comments: Batch: #TOCW5-190502A

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

| Method | Compound Name | Spike Lvl mg/L | SPK Res mg/L | DUP Res mg/L | SPK % Recov | DUP % Recov | RPD | RPD Max | QC Limits | Extract Date-Spk | Analysis Date-Spk | Extract Date-Dup | Analysis Date-Dup | QC Group |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EPA 353.2 | NITRATE-NITRITE-N | 3.00 | 3.14 | 3.12 | 105 | 104 | 0.64 | 20 | 90-110 | 05/01/19 | 05/01/19 | 05/01/19 | 05/01/19 | #35OF-190501A-AZ90051 |
| SM 2320B | BICARBONATE AS CACO3 | 250 | 238 | 239 | 95.2 | 95.6 | 0.42 | 20 | 90-110 | 04/30/19 | 04/30/19 | 04/30/19 | 04/30/19 | #232W-190430A-AZ90051 |
| SM 2320B | TOTAL ALKALINITY AS CA | 250 | 238 | 239 | 95.2 | 95.6 | 0.42 | 20 | 90-110 | 04/30/19 | 04/30/19 | 04/30/19 | 04/30/19 | #232W-190430A-AZ90051 |
| SW846 90 | DISSOLVED ORGANIC CA | 2.50 | 2.62 | 2.59 | 105 | 104 | 1.2 | 20 | 90-110 | 04/30/19 | 04/30/19 | 04/30/19 | 04/30/19 | #DOCW5-190430A-AZ901 |
| SW846 90 | TOTAL ORGANIC CARBO | 2.50 | 2.43 | 2.37 | 97.2 | 94.8 | 2.5 | 20 | 90-110 | 05/02/19 | 05/02/19 | 05/02/19 | 05/02/19 | #TOCW5-190502A-AZ899 |

Comments:

# ORGANICS
# Calibration Data

TPH Extractables
DOC0411

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 04/11/19
Matrix: Water Instrument: Apollo
Initials: D.P.

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel / Motor Oil: | 411002.D | 411003.D | 411004.D | 411005.D | 411006.D | 411007.D | | | | | | | | | | |
| Decanoic Acid: | 411009.D | 411010.D | 411011.D | 411012.D | 411013 D | 411014.D | | | | | | | | | | |

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | | | | | Avg | %RSD | Type | r^2 | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1479257 | 1066406 | 1154027 | 1149804 | 1155026 | 1151191 | | | | | 1192619 | 12 | HATM | | |
| 2 | HBTM | Motor Oil (C24-C40) | 1115442 | 902464 | 913566 | 920399 | 937513 | 921175 | | | | | 951760 | 8.5 | HBTM | | |
| 3 | SCL | Decanoic Acid(S) | 185262 | 314603 | 492479 | 537134 | 542867 | 560663 | | | | | 438835 | 35 | SC | 0.999 | |
| 4 | SA | Ortho-Terphenyl(S) | 2331995 | 1997948 | 2029193 | 1934422 | 1946955 | 1901973 | | | | | 2023748 | 7.8 | SA | | |
| 5 | SA | Octacosane(S) | 2126705 | 1844471 | 1831603 | 1894540 | 1808281 | 1847266 | | | | | 1892144 | 6.3 | SA | | |
| 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 | | | | | | | | | | | | | | | | | |

1.990883

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411002.D Vial: 2
Acq On : 4-11-19 12:41:17 Operator: DP
Sample : Diesel / Motor Oil - 1 1/15/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:32 2019 Quant Results File: DOC0411.RES

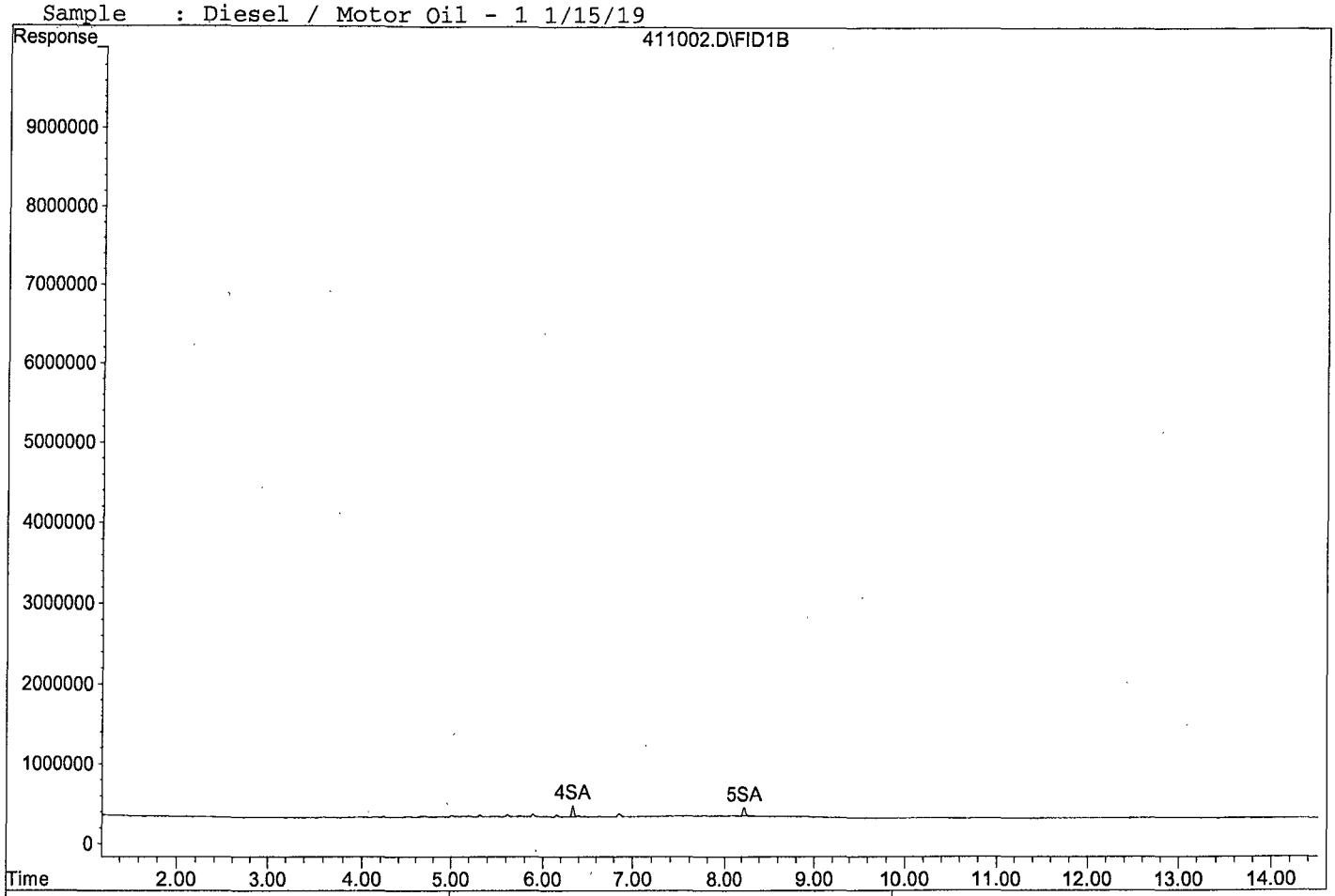
Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

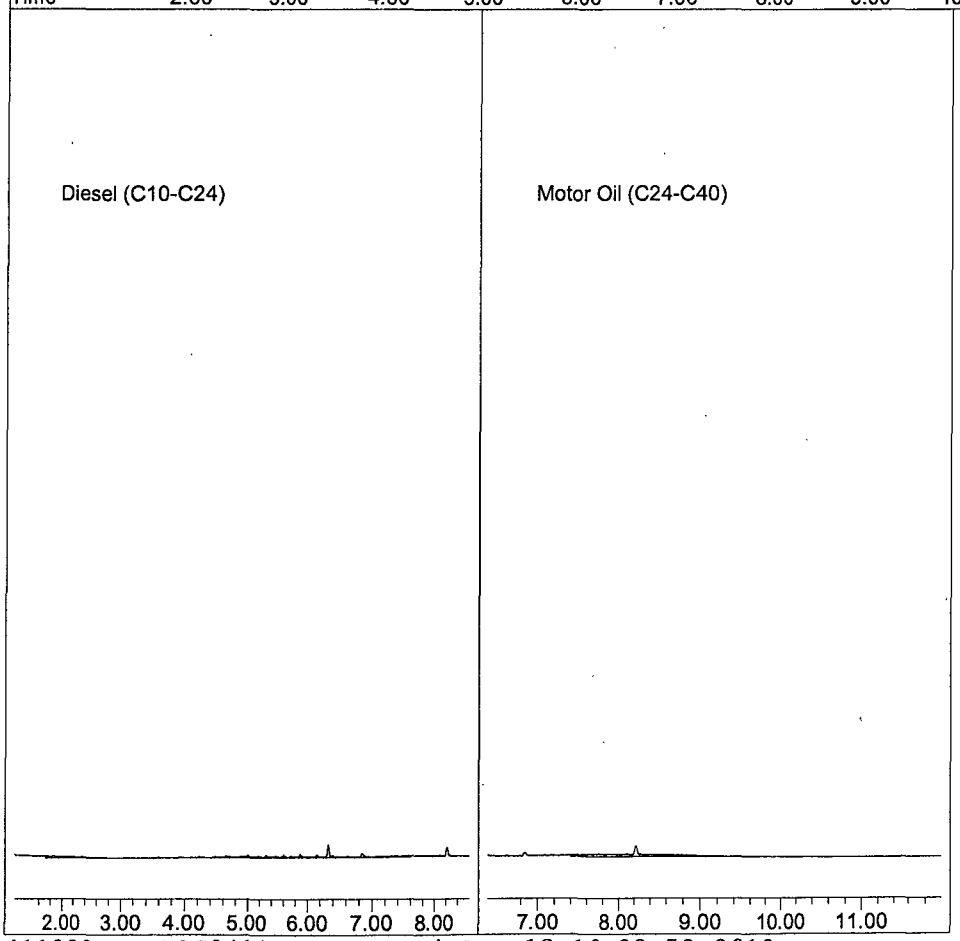
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 2331995 | 0.576 ppb |
| Surrogate Spike 30.000 | Recovery = | | 1.92% |
| 5) SA Octacosane(S) | 8.23 | 2126705 | 0.562 ppb |
| Surrogate Spike 30.000 | Recovery = | | 1.87% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 29585142 | 12.403 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 22308844 | 11.720 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190411\411002.D
Sample : Diesel / Motor Oil - 1 1/15/19




411002.D DOC0411.M Fri Apr 12 10:32:52 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411003.D Vial: 3
Acq On : 4-11-19 13:00:16 Operator: DP
Sample : Diesel / Motor Oil - 2 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:32 2019 Quant Results File: DOC0411.RES

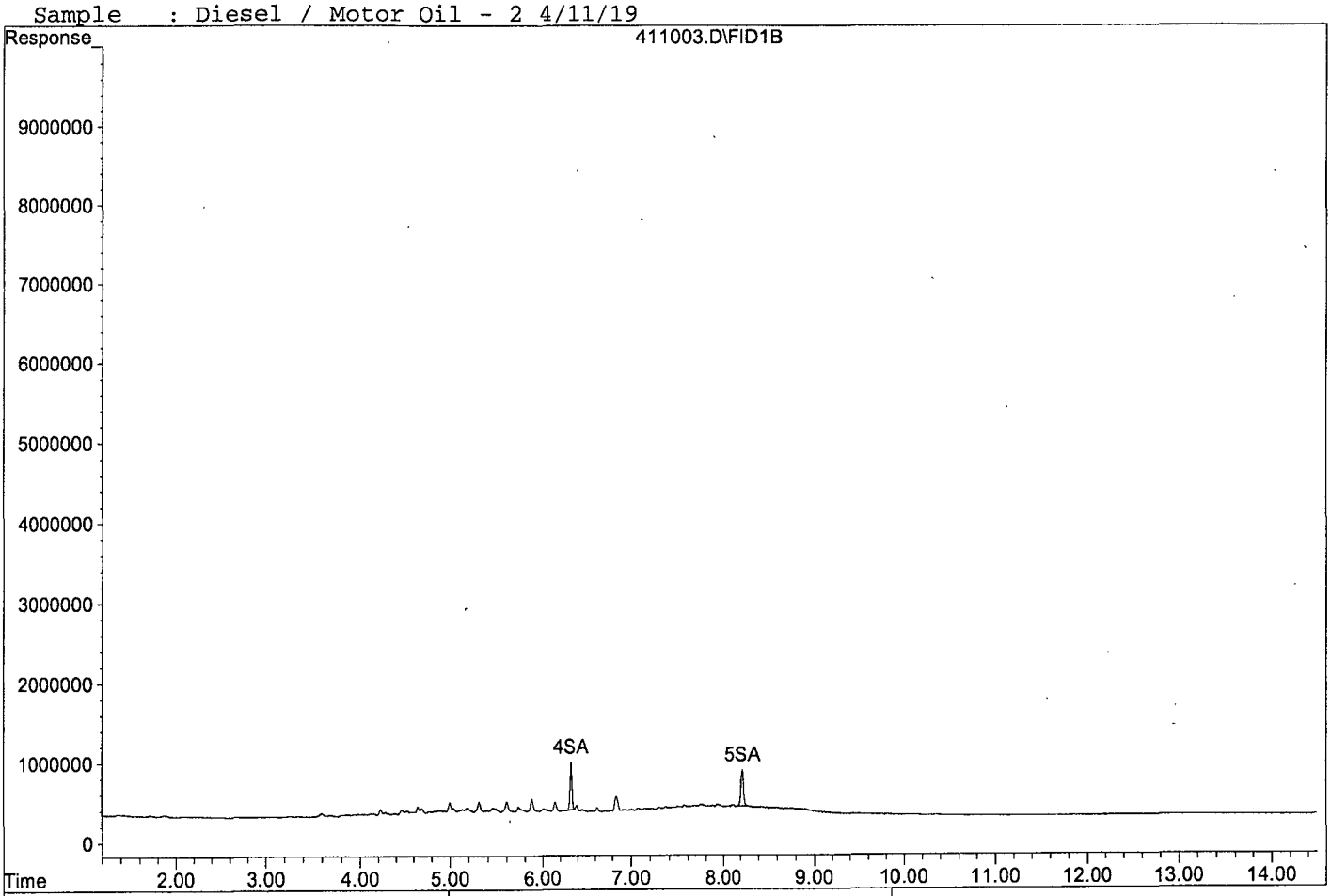
Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

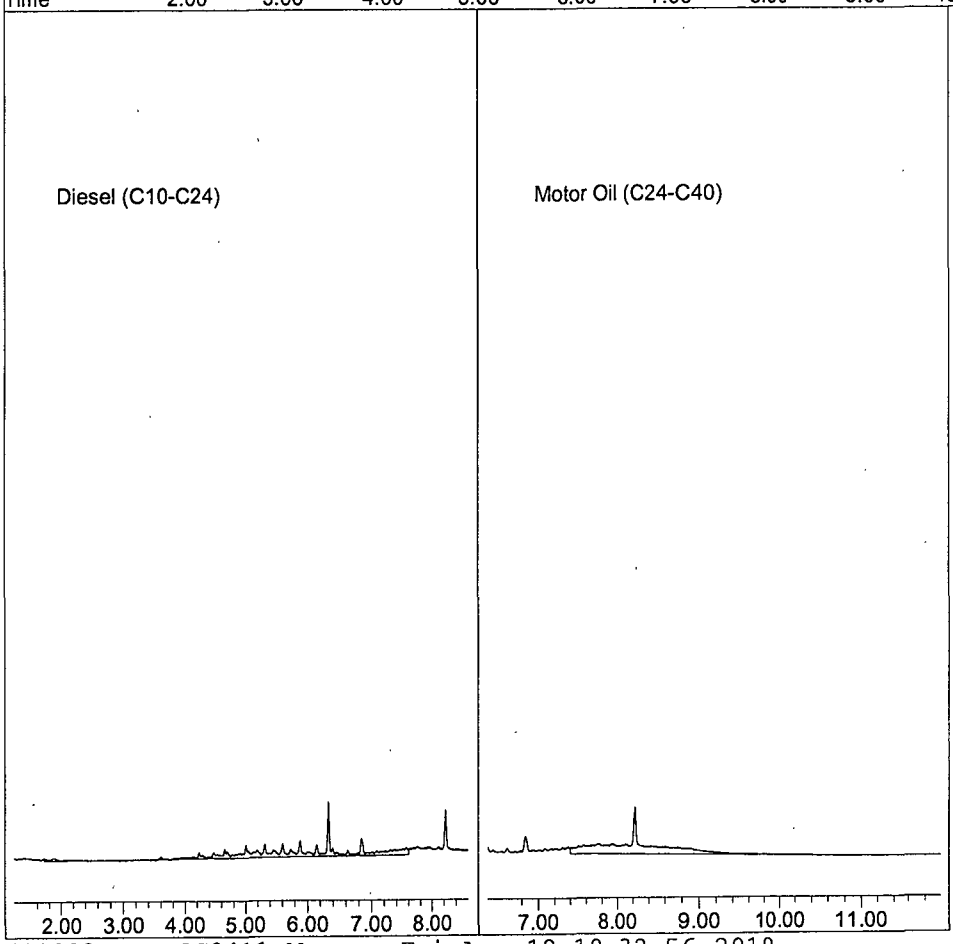
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 9989738 | 2.468 ppb |
| Surrogate Spike 30.000 | Recovery = | | 8.23% |
| 5) SA Octacosane(S) | 8.22 | 9222354 | 2.437 ppb |
| Surrogate Spike 30.000 | Recovery = | | 8.12% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 106640632 | 44.709 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 90246355 | 47.410 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190411\411003.D
Sample : Diesel / Motor Oil - 2 4/11/19




411003.D DOC0411.M Fri Apr 12 10:32:56 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411004.D Vial: 4
Acq On : 4-11-19 13:19:58 Operator: DP
Sample : Diesel / Motor Oil - 3 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:32 2019 Quant Results File: DOC0411.RES

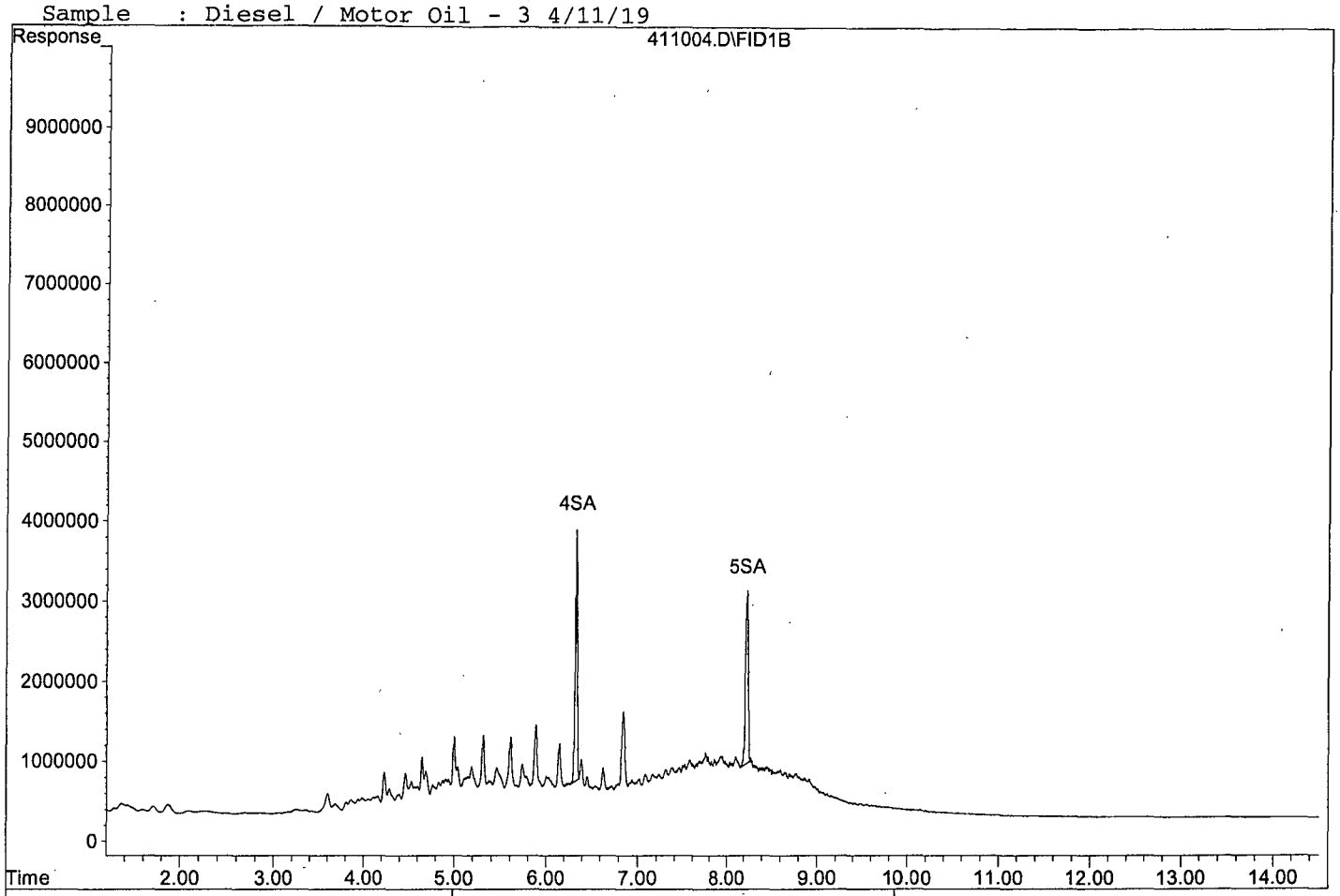
Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

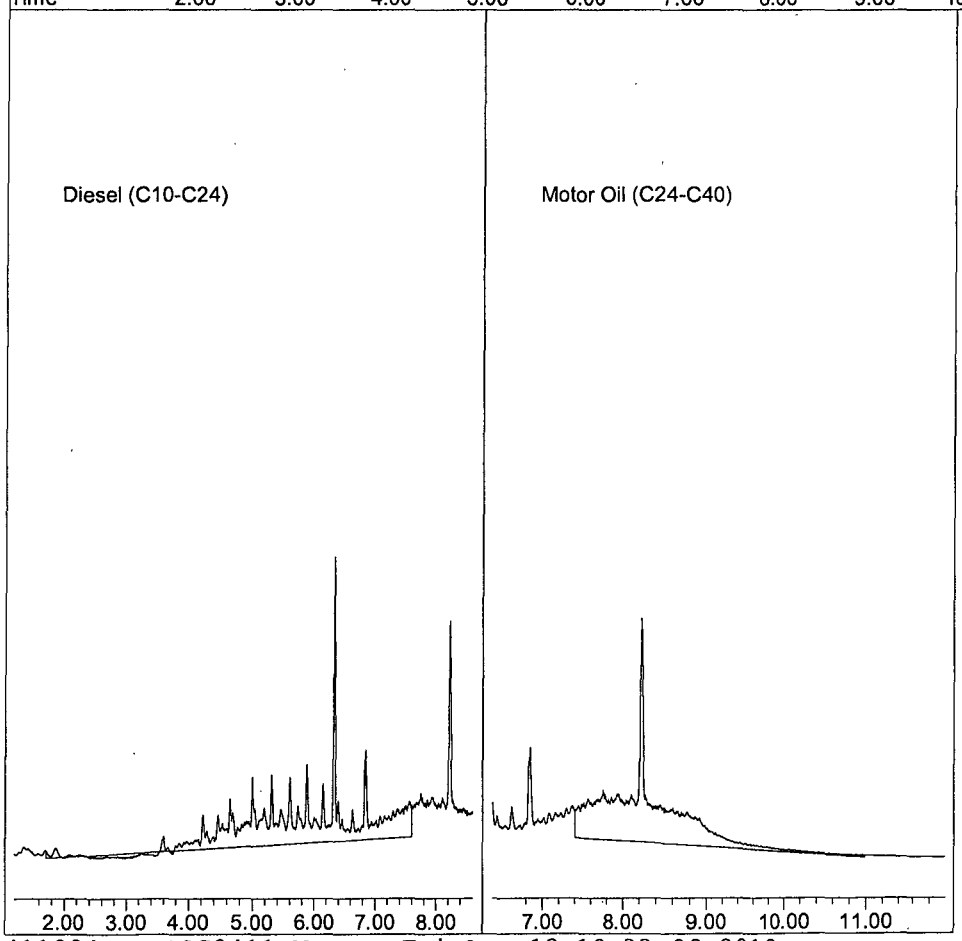
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 50729819 | 12.534 ppb |
| Surrogate Spike 30.000 | Recovery = | | 41.78% |
| 5) SA Octacosane(S) | 8.23 | 45790065 | 12.100 ppb |
| Surrogate Spike 30.000 | Recovery = | | 40.33% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 577013623 | 241.910 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 456782905 | 239.968 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190411\411004.D
Sample : Diesel / Motor Oil - 3 4/11/19




411004.D DOC0411.M Fri Apr 12 10:33:00 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411005.D Vial: 5
Acq On : 4-11-19 13:39:40 Operator: DP
Sample : Diesel / Motor Oil - 4 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:32 2019 Quant Results File: DOC0411.RES

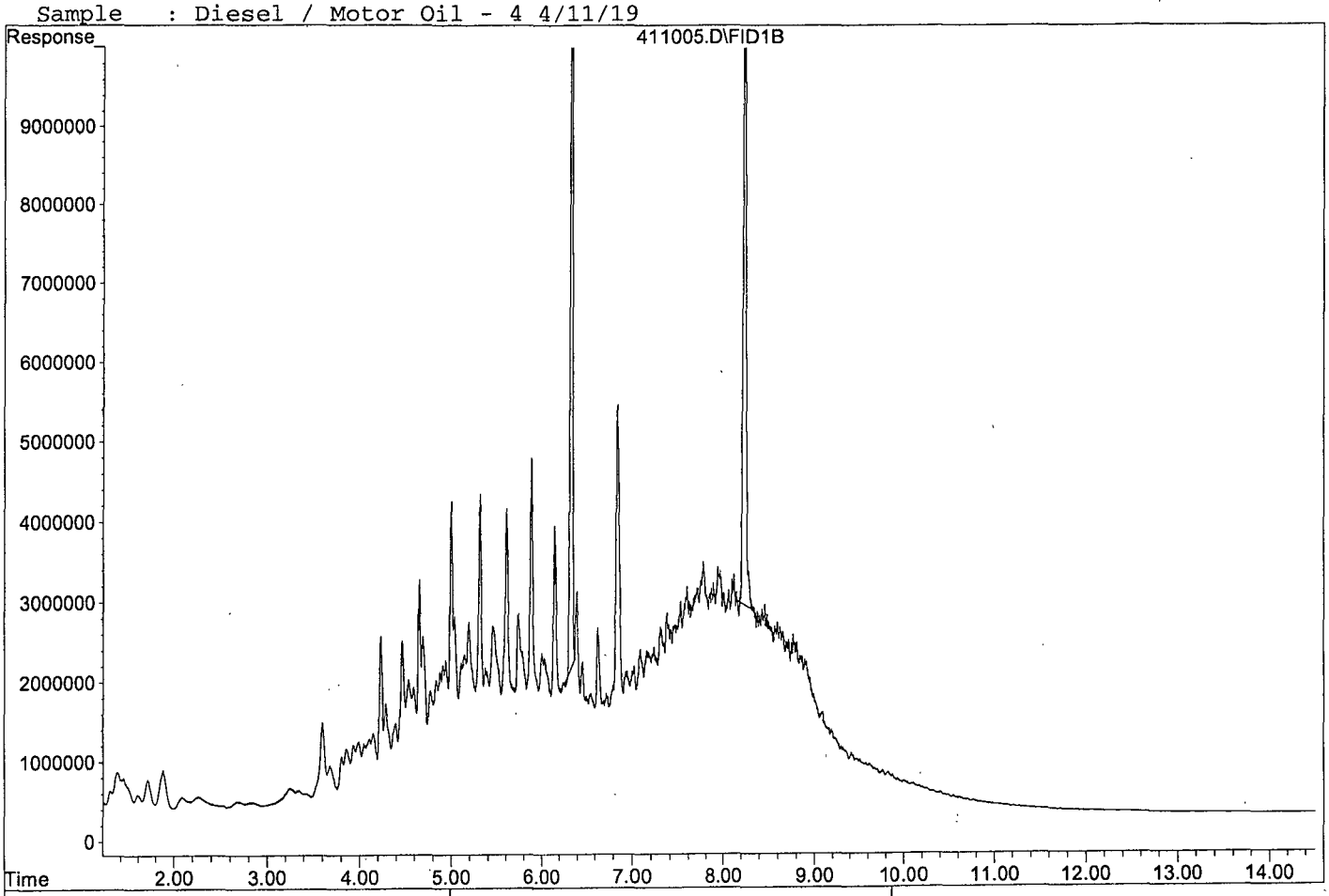
Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

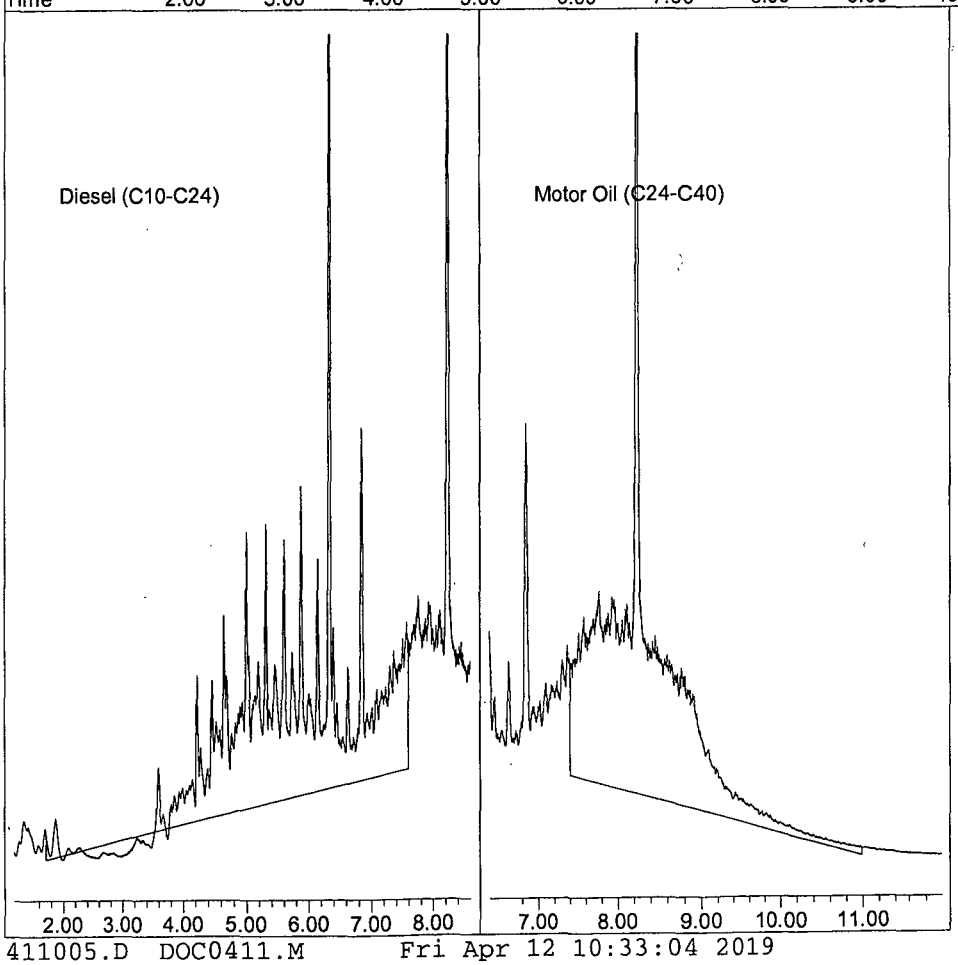
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.34 | 193442220 | 47.793 ppb |
| Surrogate Spike 30.000 | Recovery = | | 159.31% |
| 5) SA Octacosane(S) | 8.24 | 189453974 | 50.063 ppb |
| Surrogate Spike 30.000 | Recovery = | | 166.88% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 2299608823 | 964.101 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 1840797531 | 967.050 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190411\411005.D
Sample : Diesel / Motor Oil - 4 4/11/19




411005.D DOC0411.M Fri Apr 12 10:33:04 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411006.D Vial: 6
Acq On : 4-11-19 13:59:26 Operator: DP
Sample : Diesel / Motor Oil - 5 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:32 2019 Quant Results File: DOC0411.RES

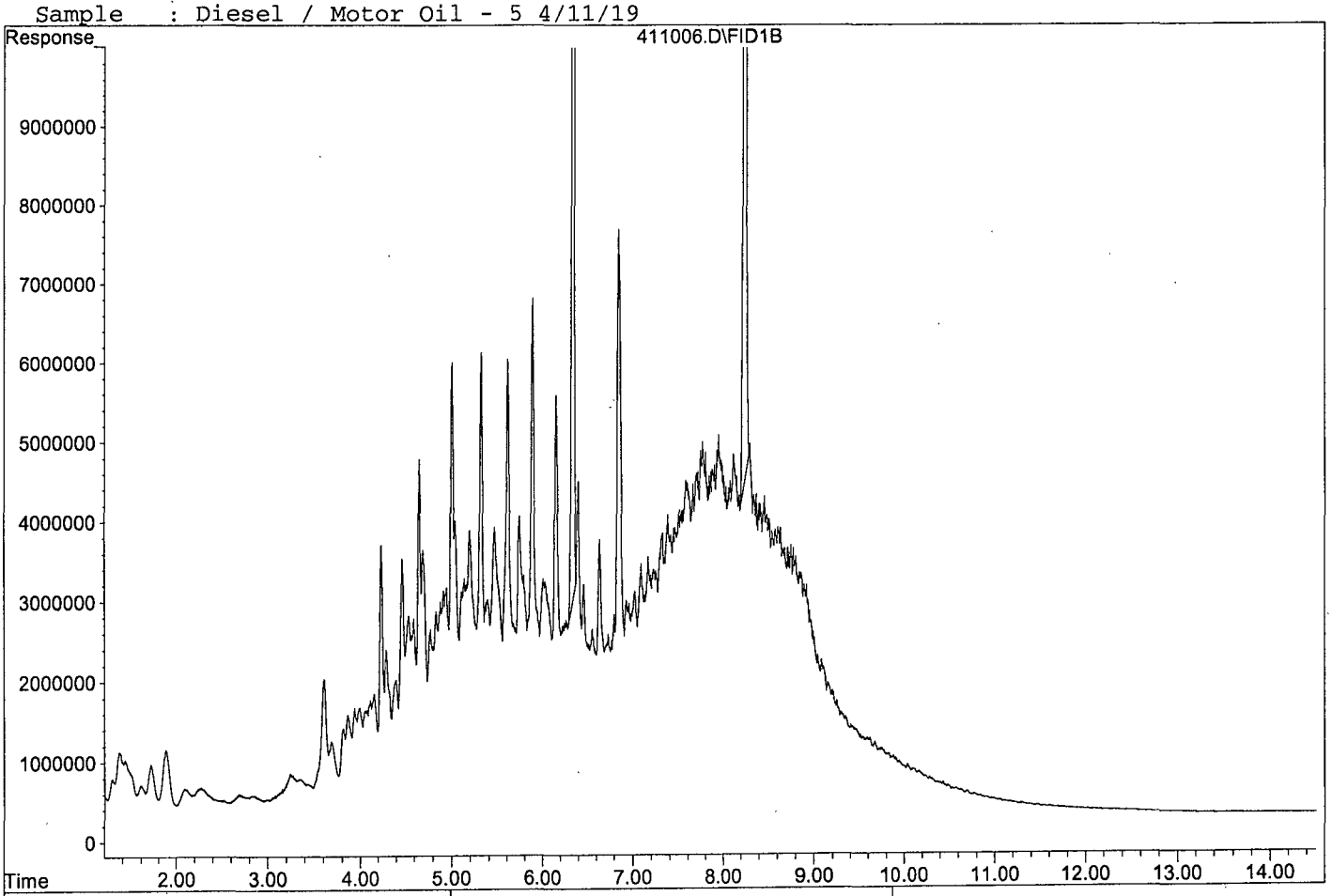
Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

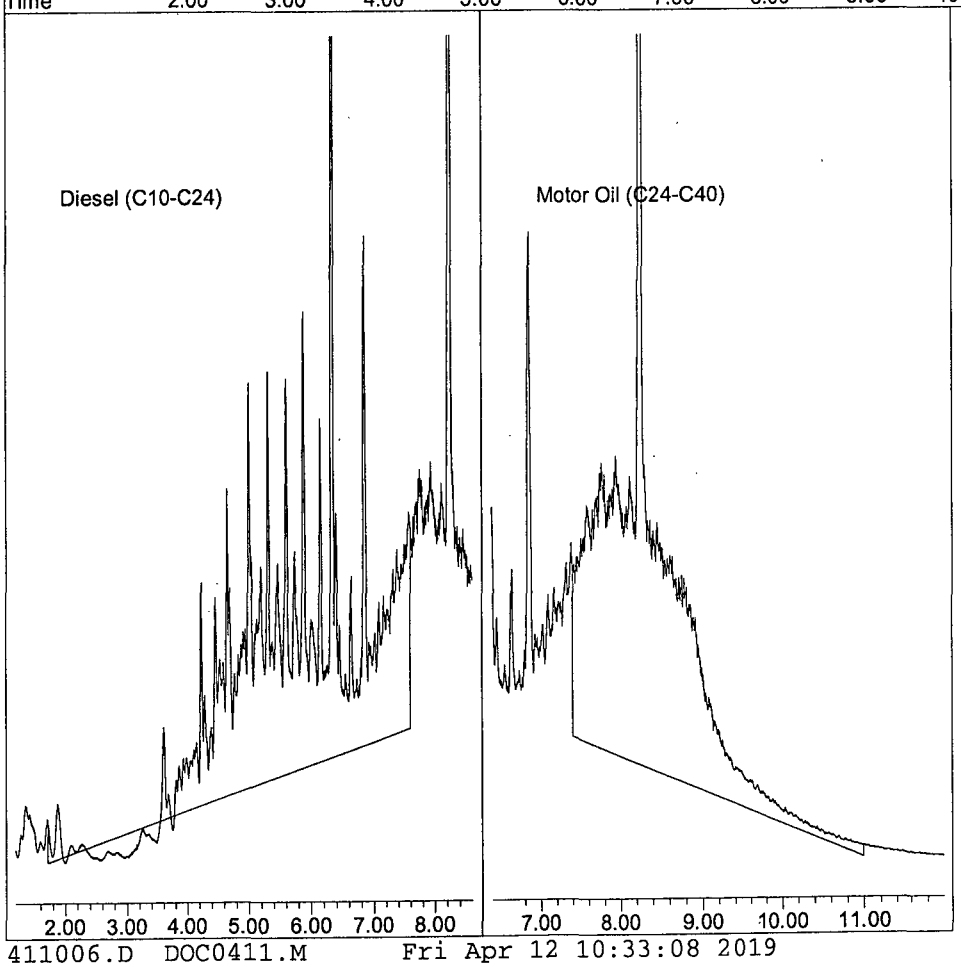
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.35 | 292043263 | 72.154 ppb |
| Surrogate Spike 30.000 | | Recovery = | 240.51% |
| 5) SA Octacosane(S) | 8.25 | 271242076 | 71.676 ppb |
| Surrogate Spike 30.000 | | Recovery = | 238.92% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 3465077974 | 1452.718 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 2812537957 | 1477.546 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190411\411006.D
Sample : Diesel / Motor Oil - 5 4/11/19




411006.D DOC0411.M Fri Apr 12 10:33:08 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411007.D Vial: 7
Acq On : 4-11-19 14:19:10 Operator: DP
Sample : Diesel / Motor Oil - 6 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:32 2019 Quant Results File: DOC0411.RES

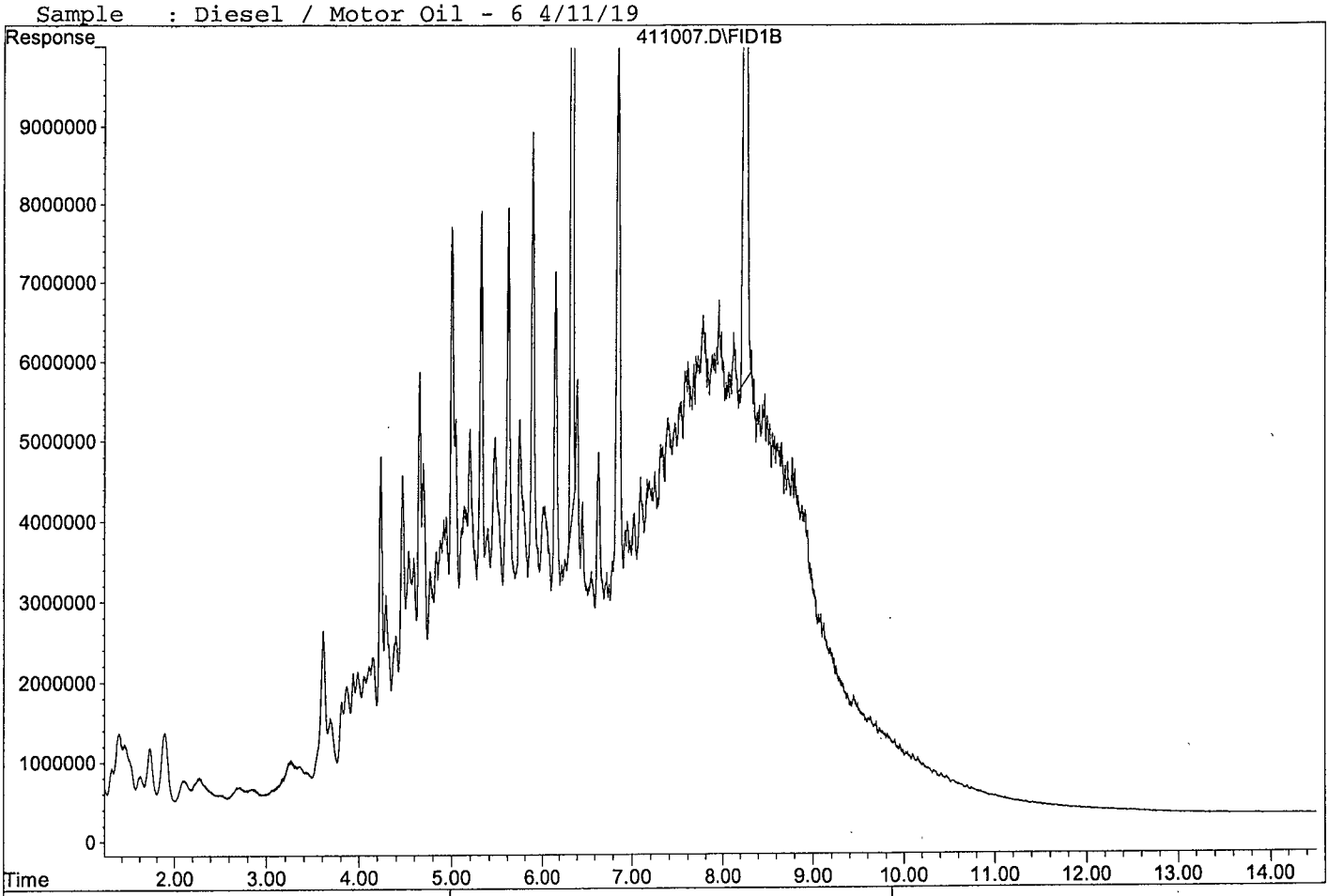
Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

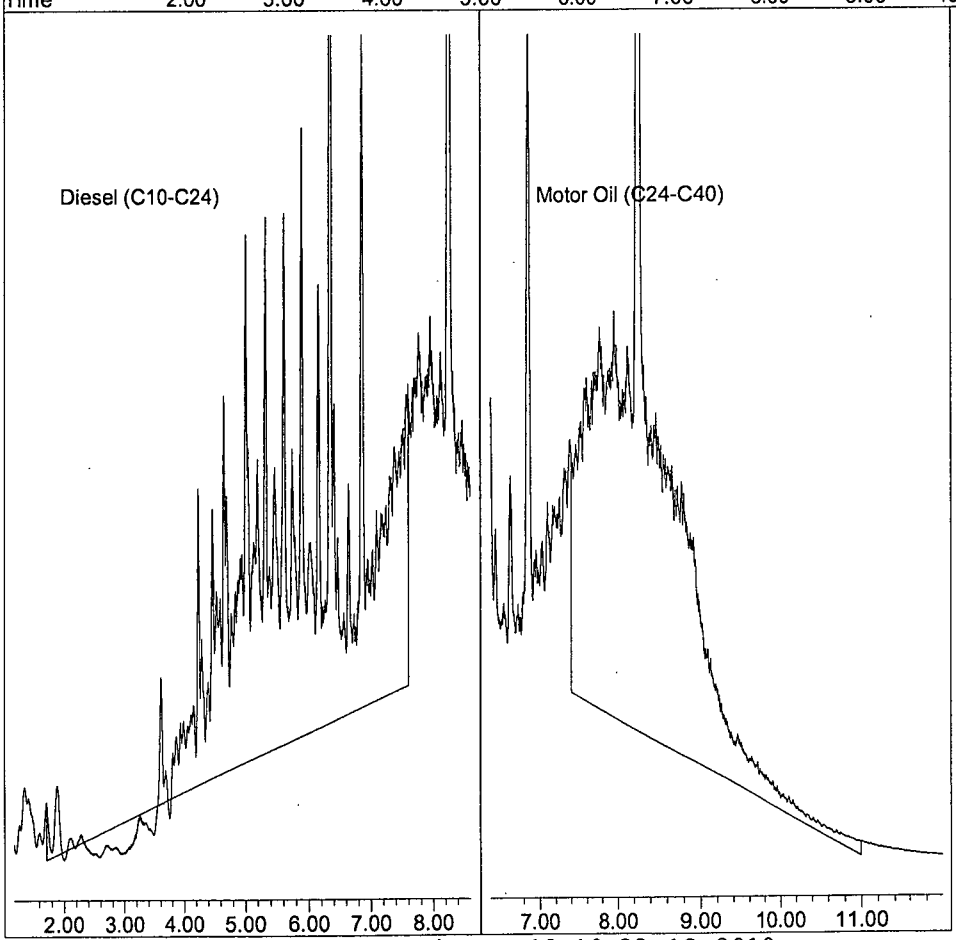
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.35 | 380394582 | 93.983 ppb |
| Surrogate Spike 30.000 | Recovery = | | 313.28% |
| 5) SA Octacosane(S) | 8.25 | 369453158 | 97.628 ppb |
| Surrogate Spike 30.000 | Recovery = | | 325.43% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 4604763920 | 1930.527 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 3684700650 | 1935.731 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190411\411007.D
Sample : Diesel / Motor Oil - 6 4/11/19




411007.D DOC0411.M Fri Apr 12 10:33:12 2019

TPH Extractables
DOC0411

Form 7

## Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 04/11/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 411008.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1089150 | 8.7 | HATM | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 887564 | 6.7 | HBTM | |
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| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 7.7 | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411008.D Vial: 8
Acq On : 4-11-19 14:39:01 Operator: DP
Sample : Diesel / Motor Oil - 2nd Source 1/15/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

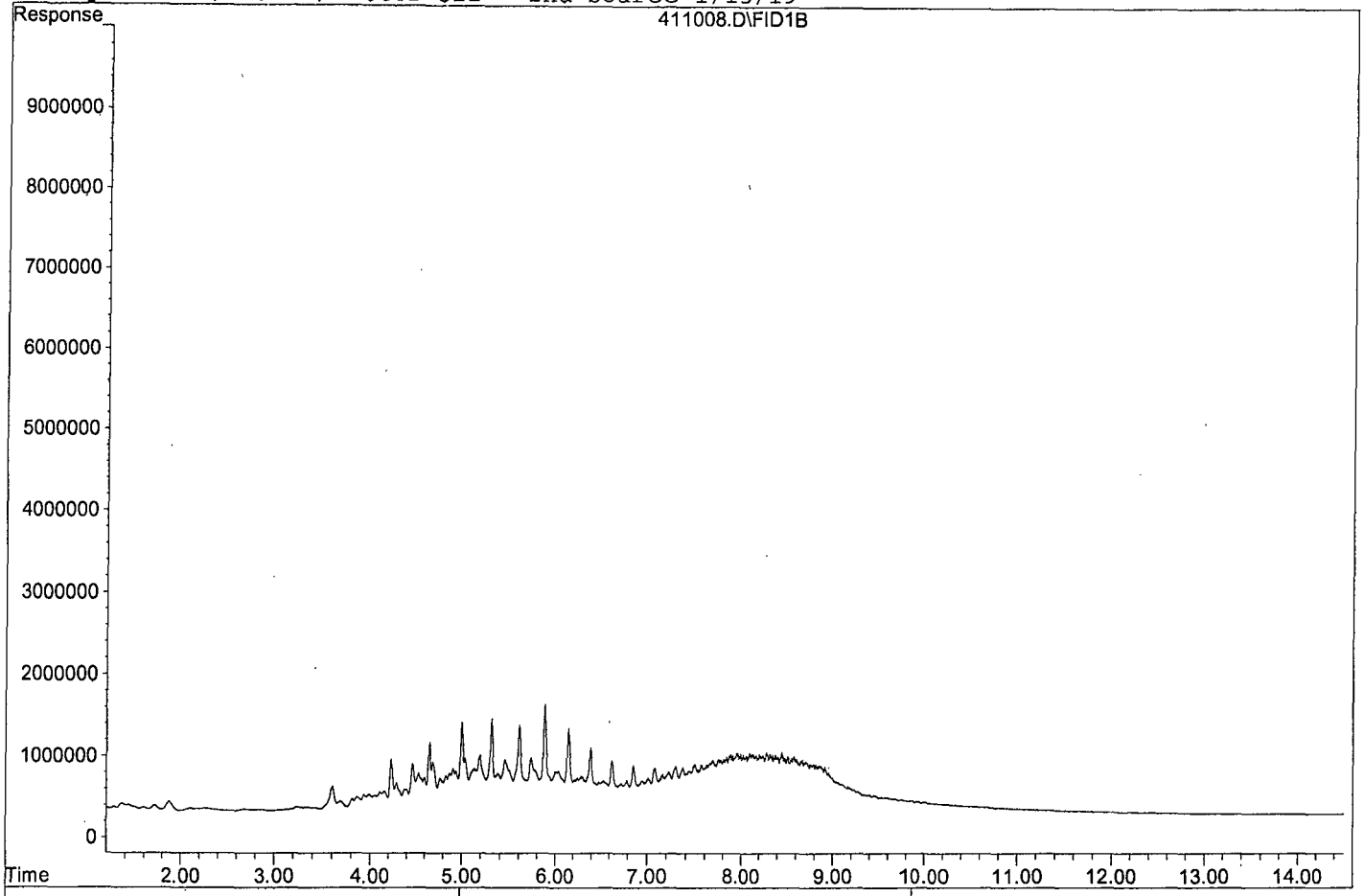
Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

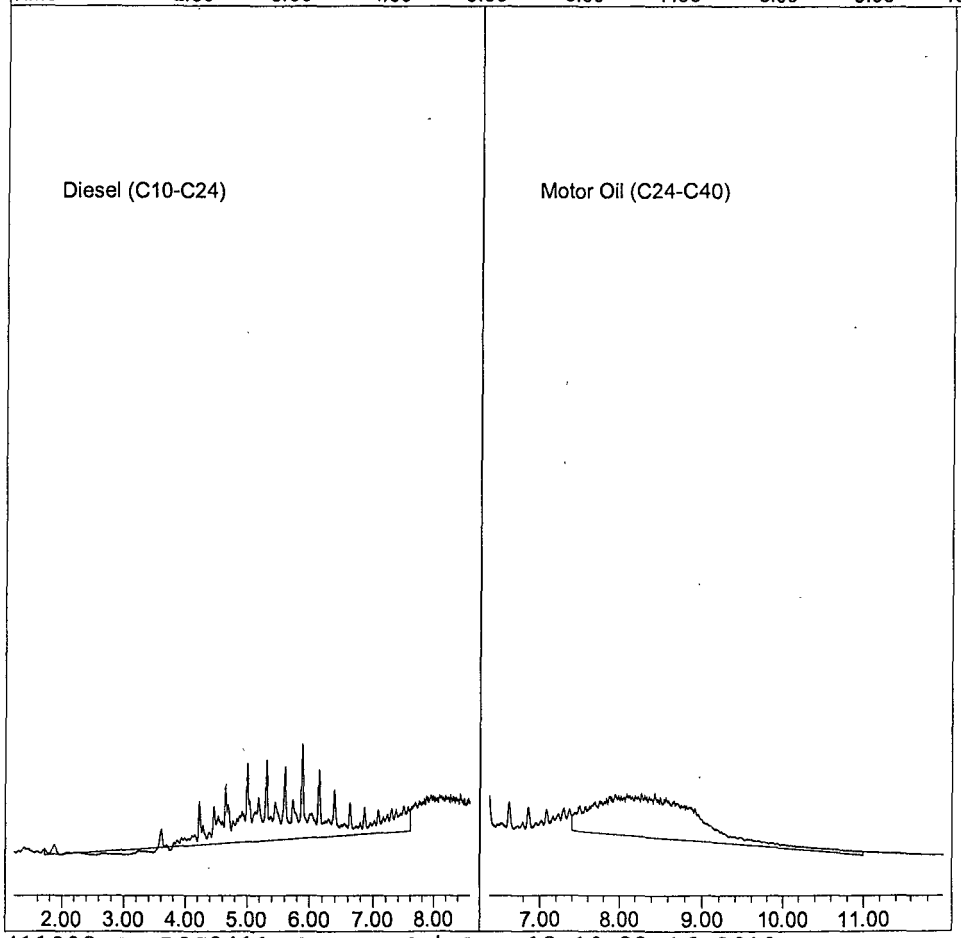
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 544574759 | 228.311 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 443782147 | 233.138 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190411\411008.D
Sample : Diesel / Motor Oil - 2nd Source 1/15/19



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411009.D Vial: 9
Acq On : 4-11-19 15:57:31 Operator: DP
Sample : Decanoic Acid - 1 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

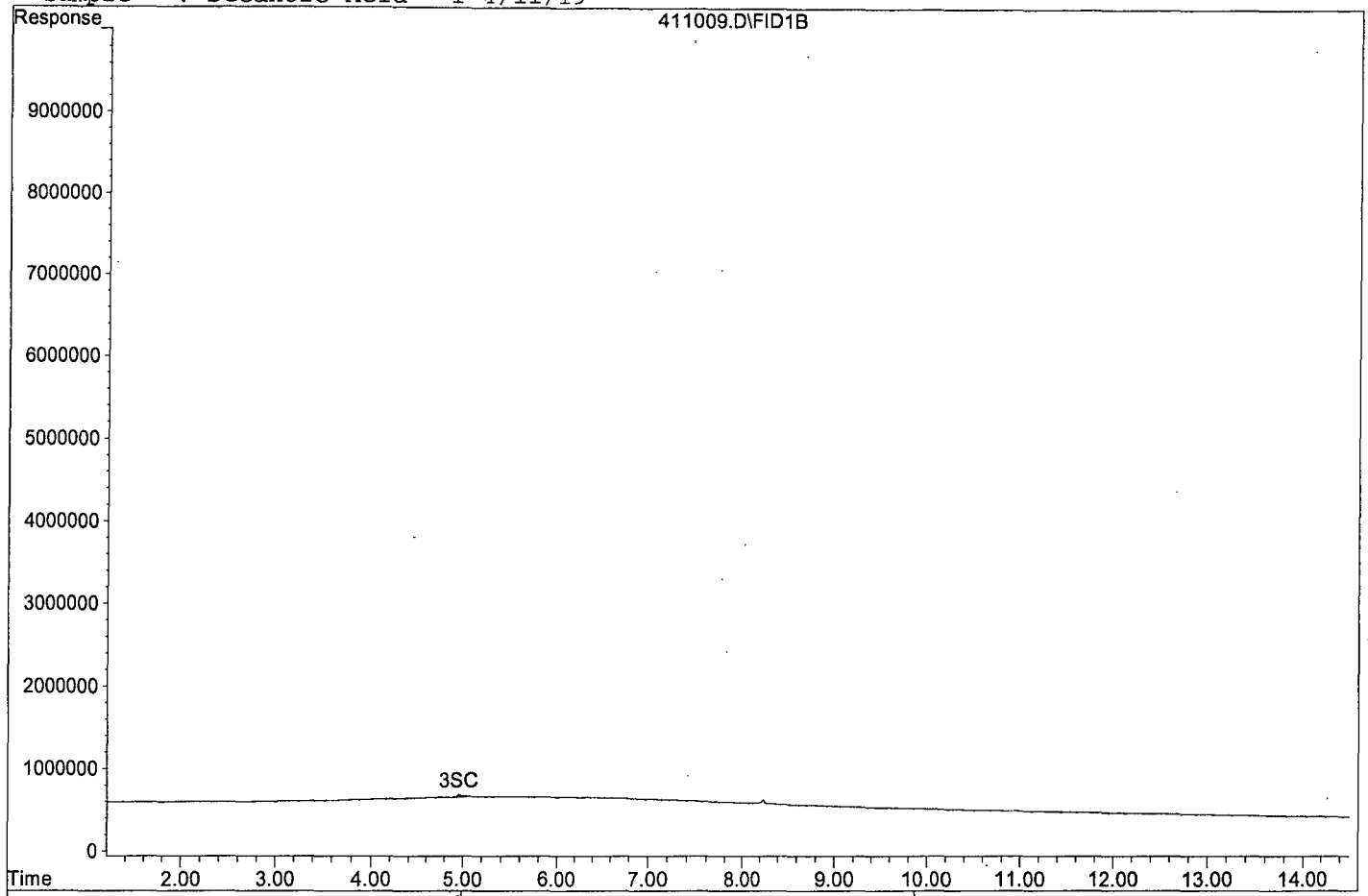
Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

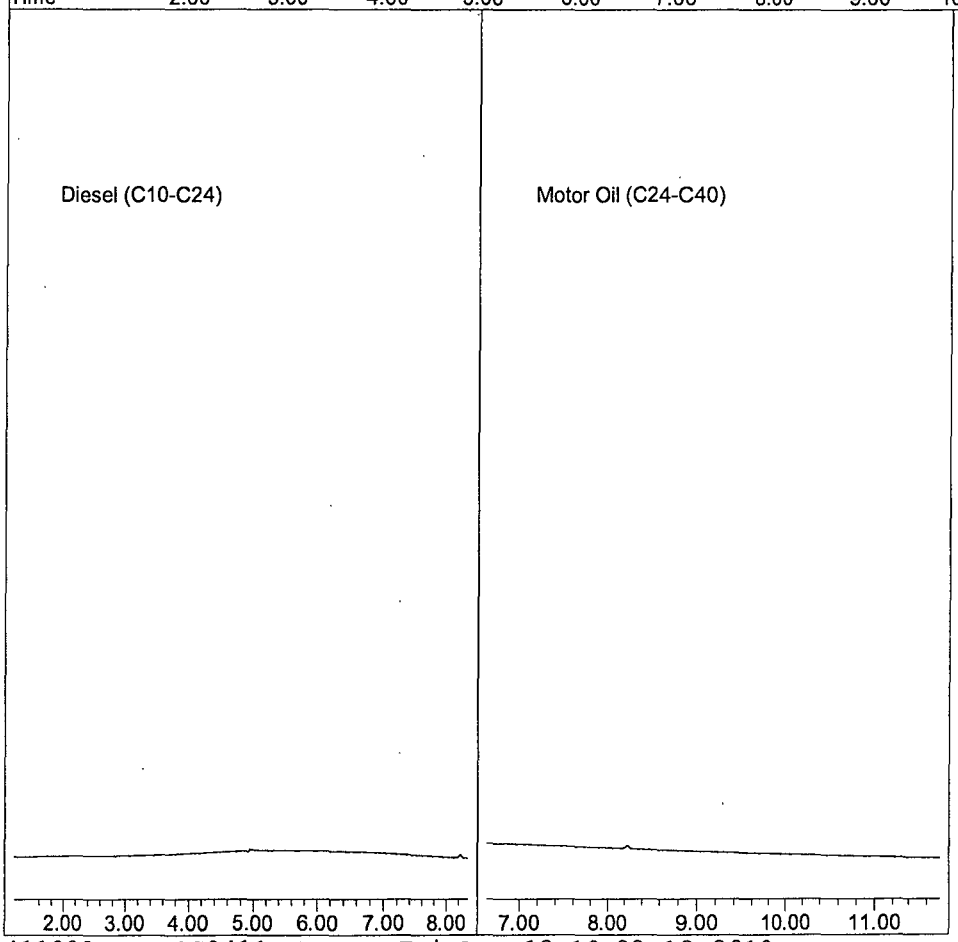
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units | |
|---|---|---|---|---|---|
| System Monitoring Compounds | | | | | |
| 3) SC Decanoic Acid(S) | 4.95 | 1111571 | 3.678 | ppb | m |
| Surrogate Spike 24.000 | Recovery = | | 15.33% | | |
| Target Compounds | | | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190411\411009.D
Sample : Decanoic Acid - 1 4/11/19



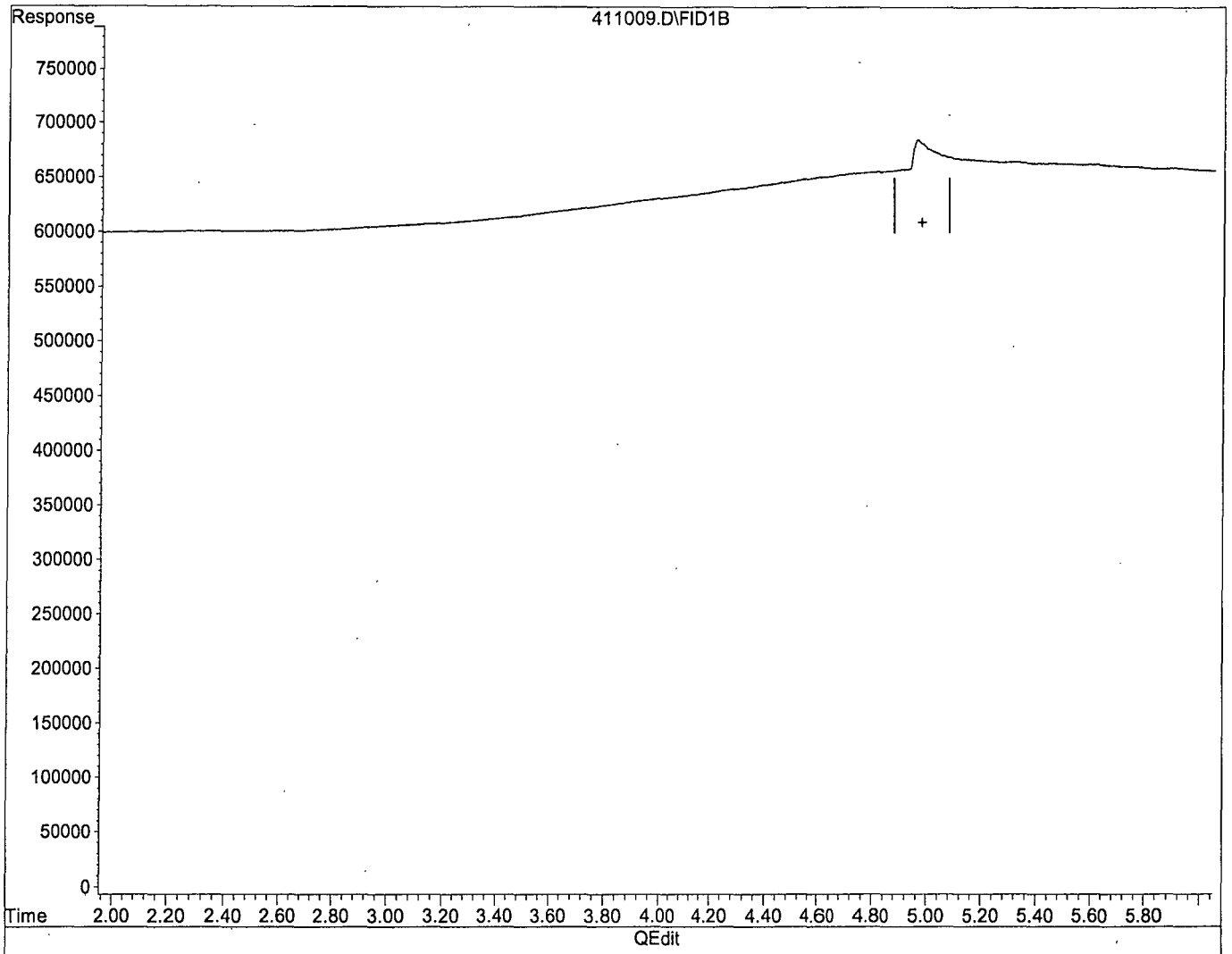




411009.D DOC0411.M Fri Apr 12 10:33:19 2019 Page 2

Quantitation Report

Data File : G:\APOLLO\DATA\190411\411009.D Vial: 9
Acq On : 4-11-19 15:57:31 Operator: DP
Sample : Decanoic Acid - 1 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:30 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:30:24 2019
Response via : Multiple Level Calibration




(3) Decanoic Acid(S) (SC)

4.96min -2.749ppb

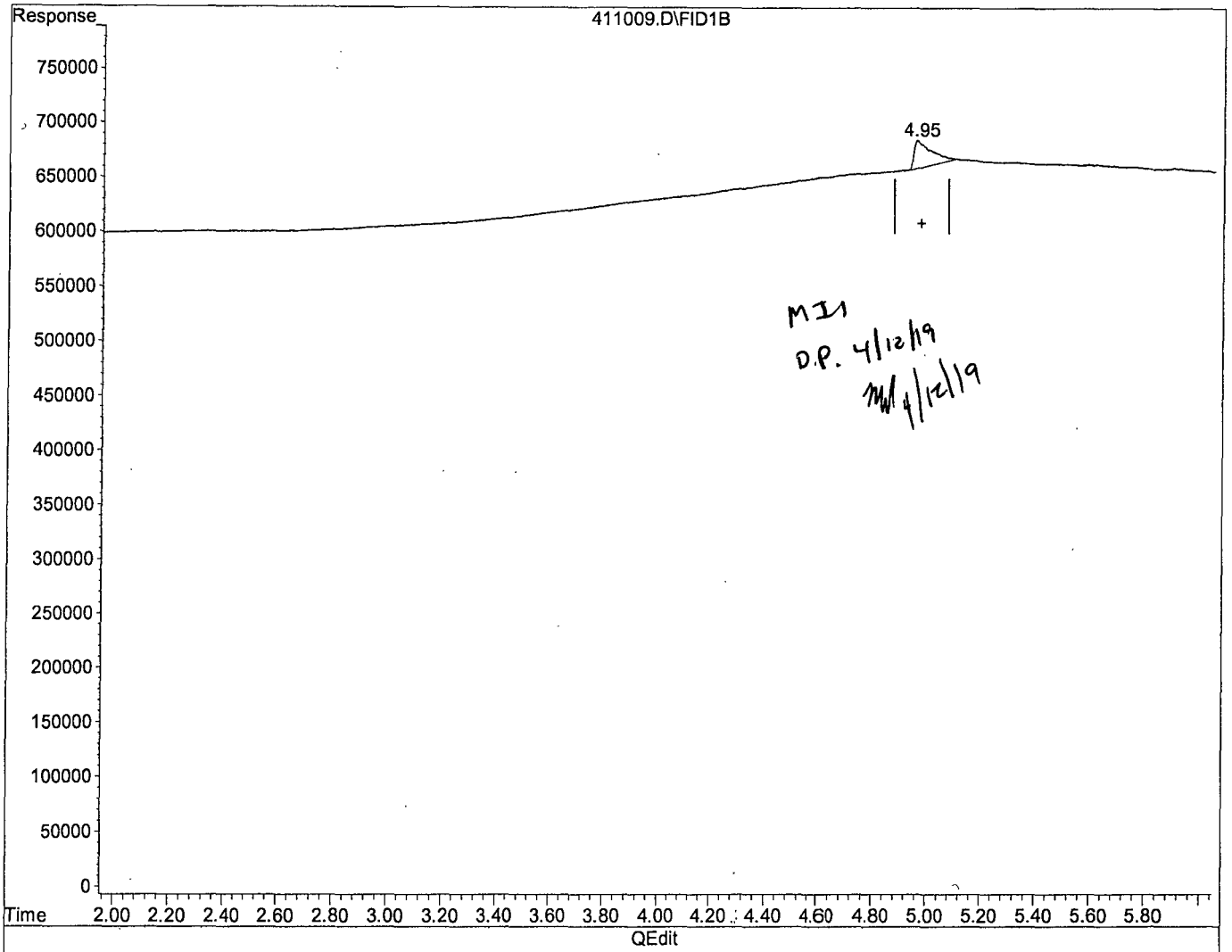
response -6352807

(+) = Expected Retention Time
411009.D DOC0411.M Fri Apr 12 10:31:28 2019

Quantitation Report

Data File : G:\APOLLO\DATA\190411\411009.D Vial: 9
Acq On : 4-11-19 15:57:31 Operator: DP
Sample : Decanoic Acid - 1 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:30 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:30:24 2019
Response via : Multiple Level Calibration




MI
D.P. 4/12/19
4/12/19

(3) Decanoic Acid(S) (SC)

4.95min 3.678ppb m

response 1111571

(+) = Expected Retention Time
411009.D DOC0411.M Fri Apr 12 10:31:34 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411010.D Vial: 10
Acq On : 4-11-19 16:16:26 Operator: DP
Sample : Decanoic Acid - 2 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

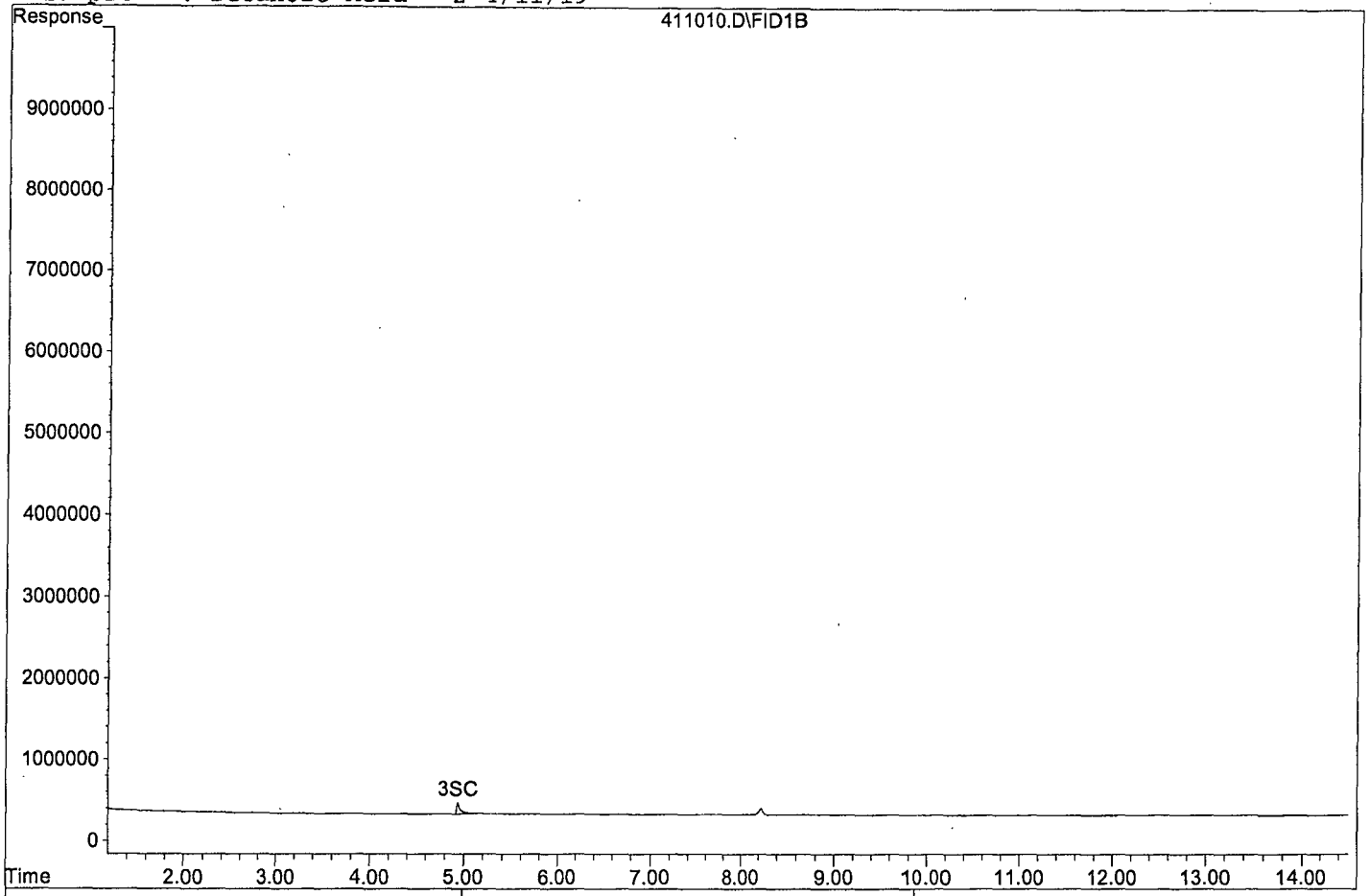
Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

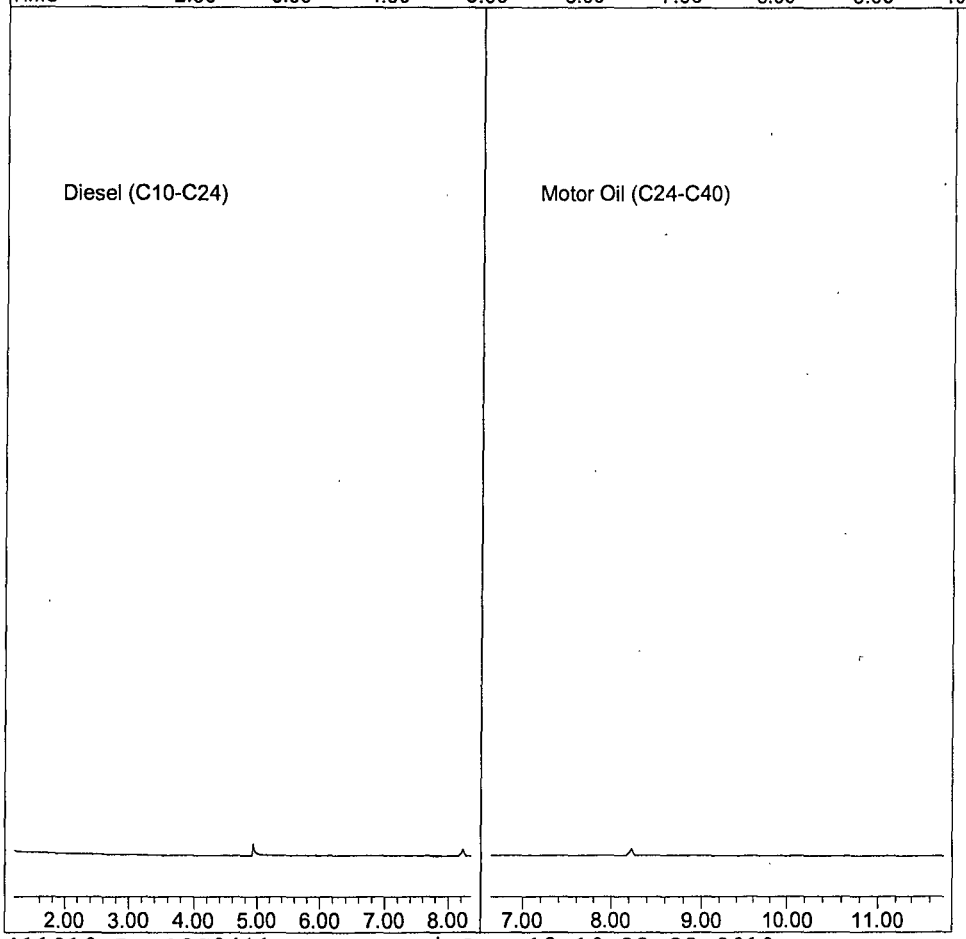
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SC Decanoic Acid(S) | 4.94 | 3775239 | 5.972 ppb |
| Surrogate Spike 24.000 | Recovery = | 24.88% | |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190411\411010.D
Sample : Decanoic Acid - 2 4/11/19



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411011.D Vial: 11
Acq On : 4-11-19 16:36:04 Operator: DP
Sample : Decanoic Acid - 3 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

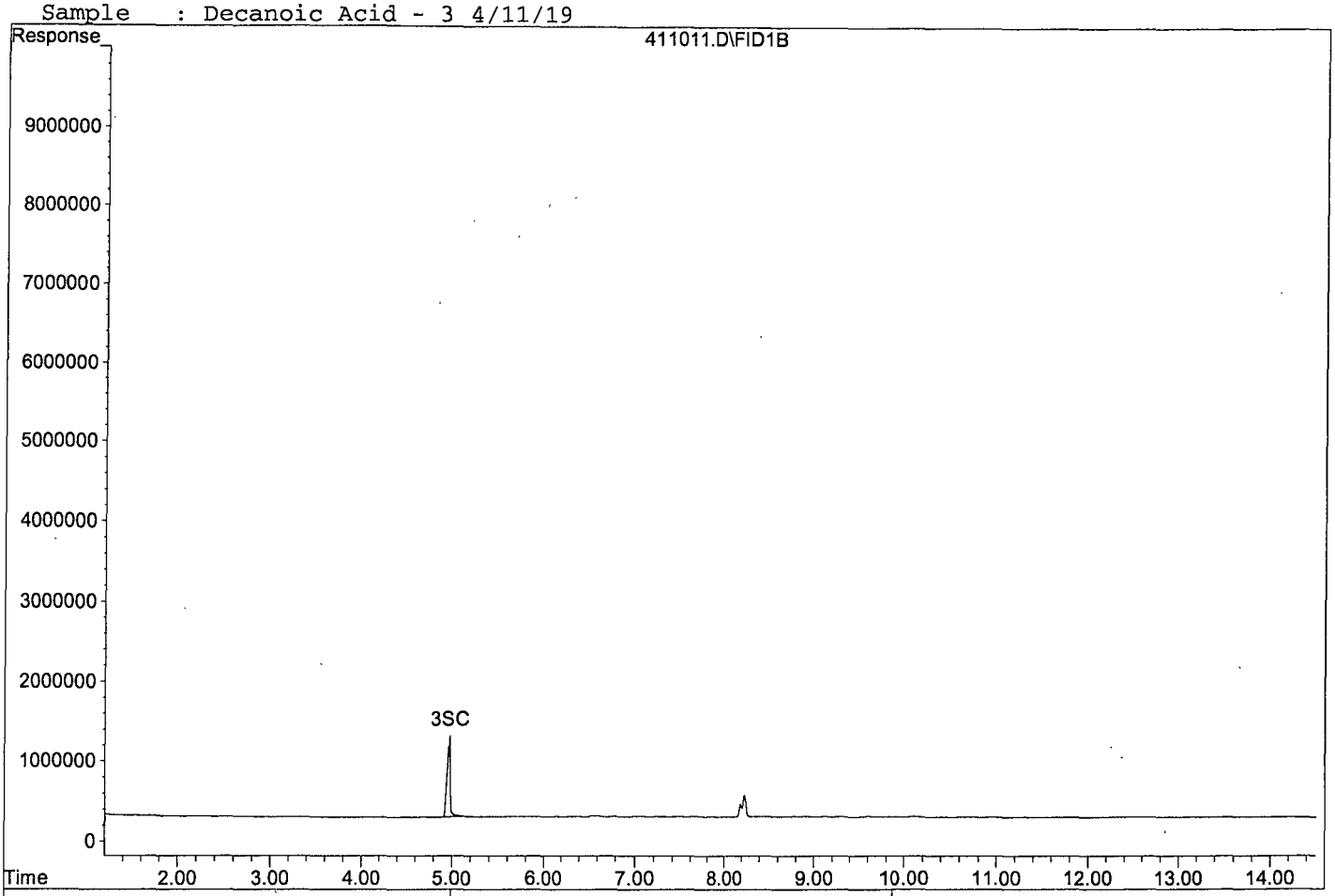
Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

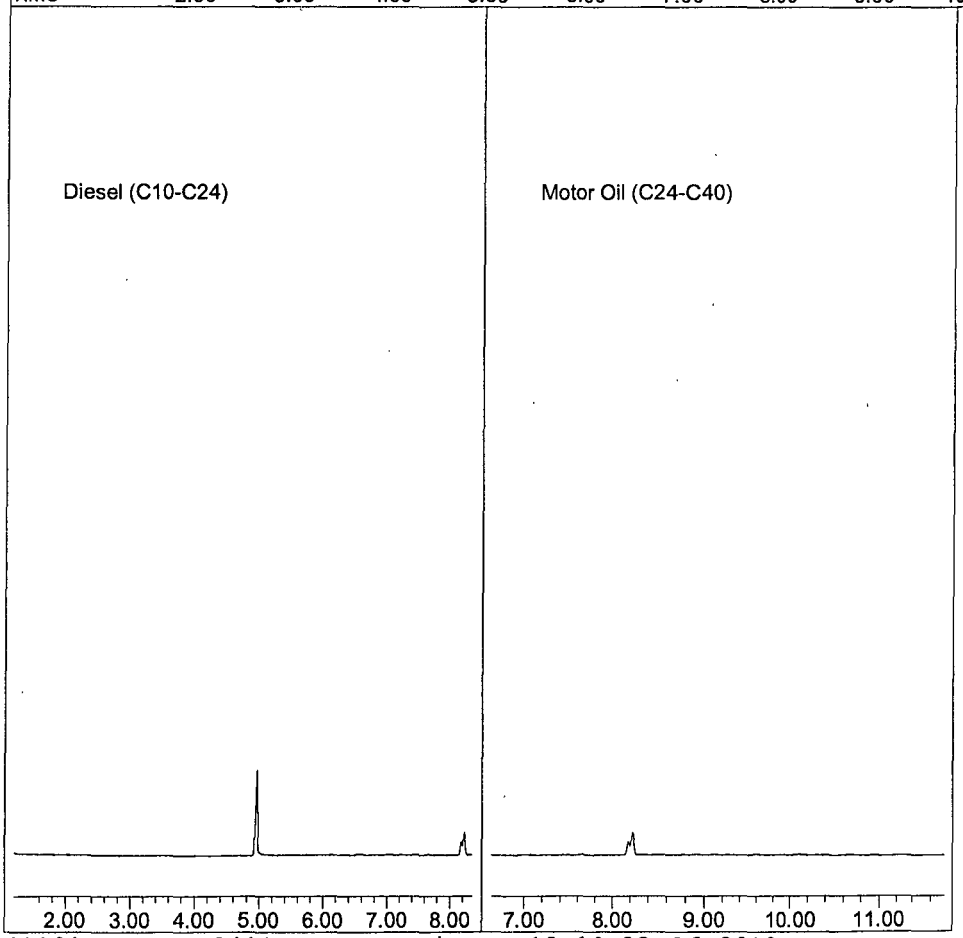
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SC Decanoic Acid(S) | 4.97 | 23638982 | 23.075 ppb |
| Surrogate Spike 24.000 | Recovery | = | 96.15% |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190411\411011.D
Sample : Decanoic Acid - 3 4/11/19




411011.D DOC0411.M Fri Apr 12 10:33:26 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411012.D Vial: 12
Acq On : 4-11-19 16:55:47 Operator: DP
Sample : Decanoic Acid - 4 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

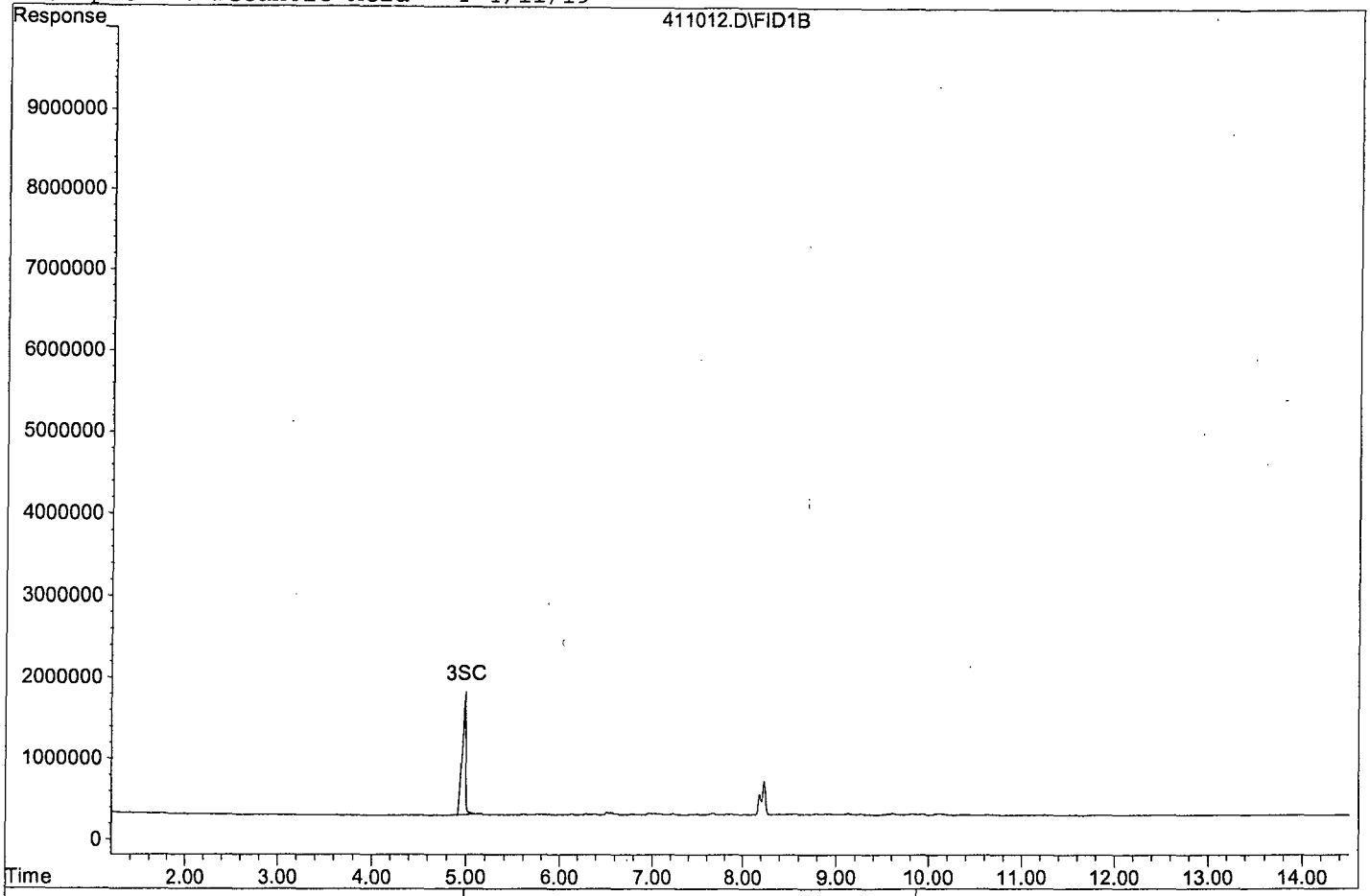
Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

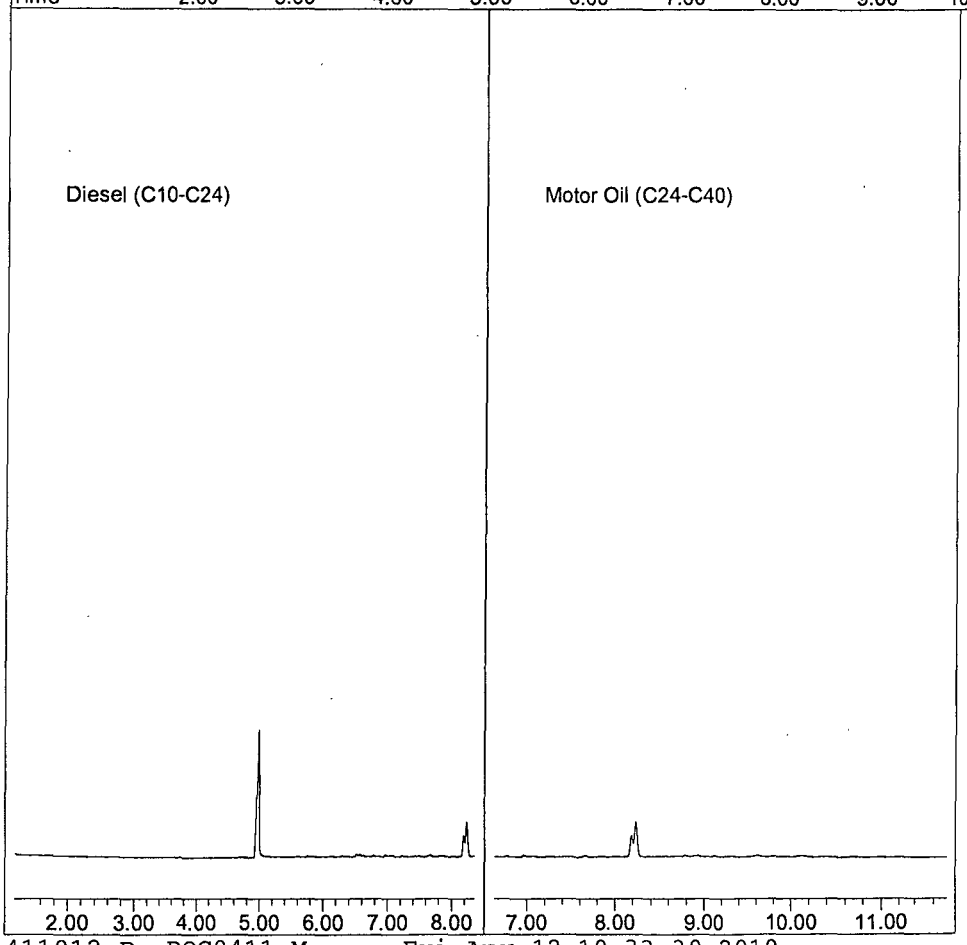
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SC Decanoic Acid(S) | 4.99 | 38673628 | 36.020 ppb |
| Surrogate Spike 24.000 | Recovery = | | 150.08% |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190411\411012.D
Sample : Decanoic Acid - 4 4/11/19




411012.D DOC0411.M Fri Apr 12 10:33:30 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411013.D Vial: 13
Acq On : 4-11-19 17:15:26 Operator: DP
Sample : Decanoic Acid - 5 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

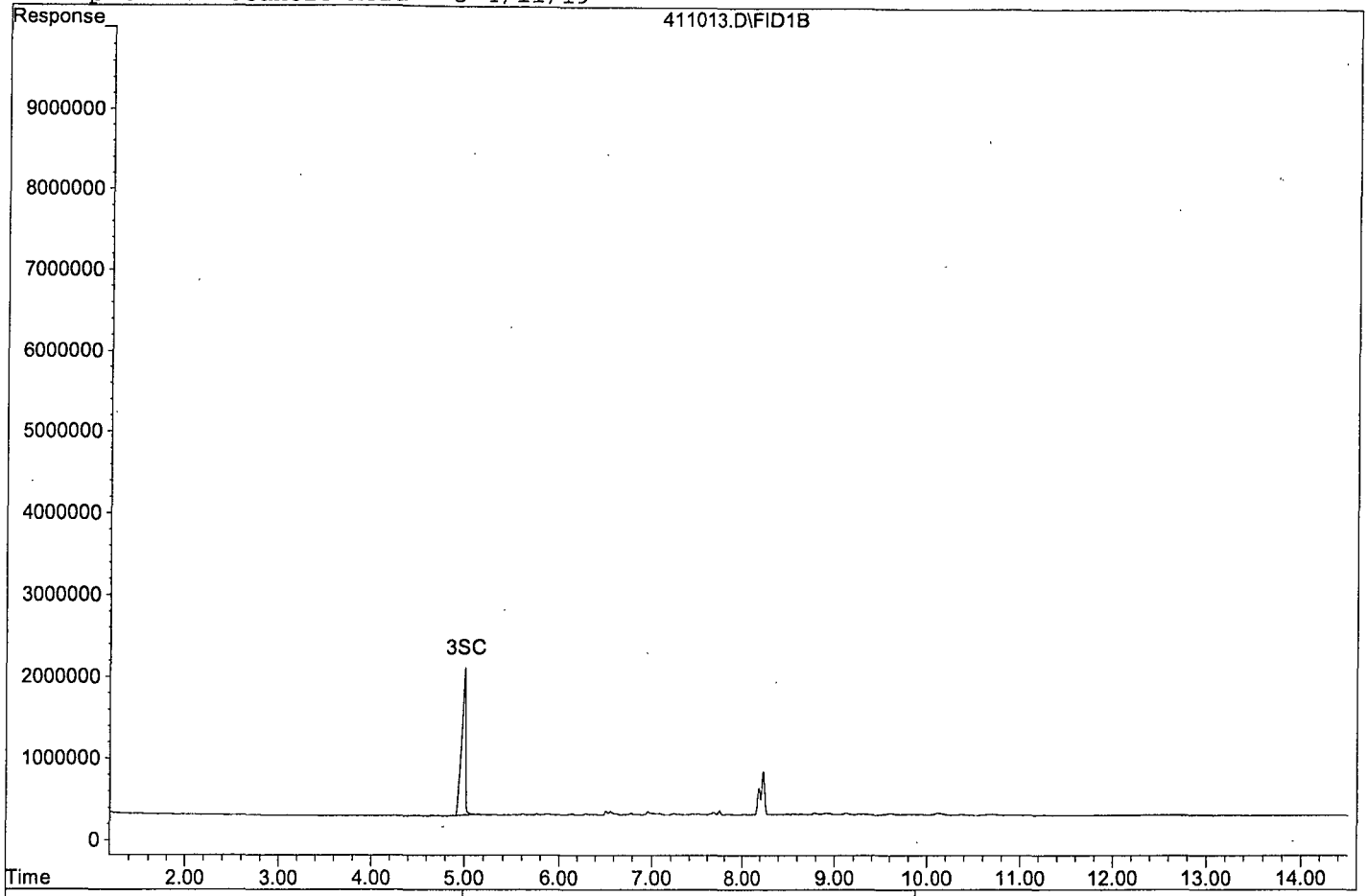
Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

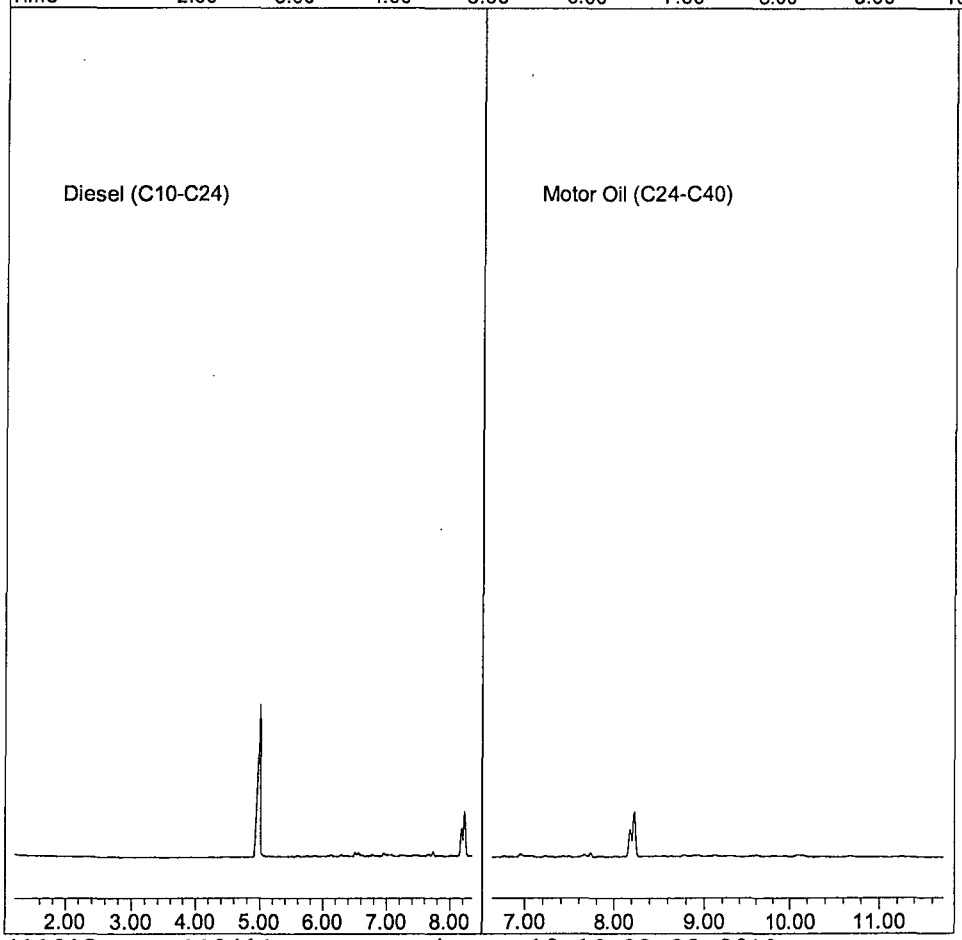
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SC Decanoic Acid(S) | 5.00 | 52115206 | 47.594 ppb |
| Surrogate Spike 24.000 | Recovery = | 198.31% | |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190411\411013.D
Sample : Decanoic Acid - 5 4/11/19



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190411\411014.D Vial: 14
Acq On : 4-11-19 17:35:11 Operator: DP
Sample : Decanoic Acid - 6 4/11/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 12 10:31 2019 Quant Results File: DOC0411.RES

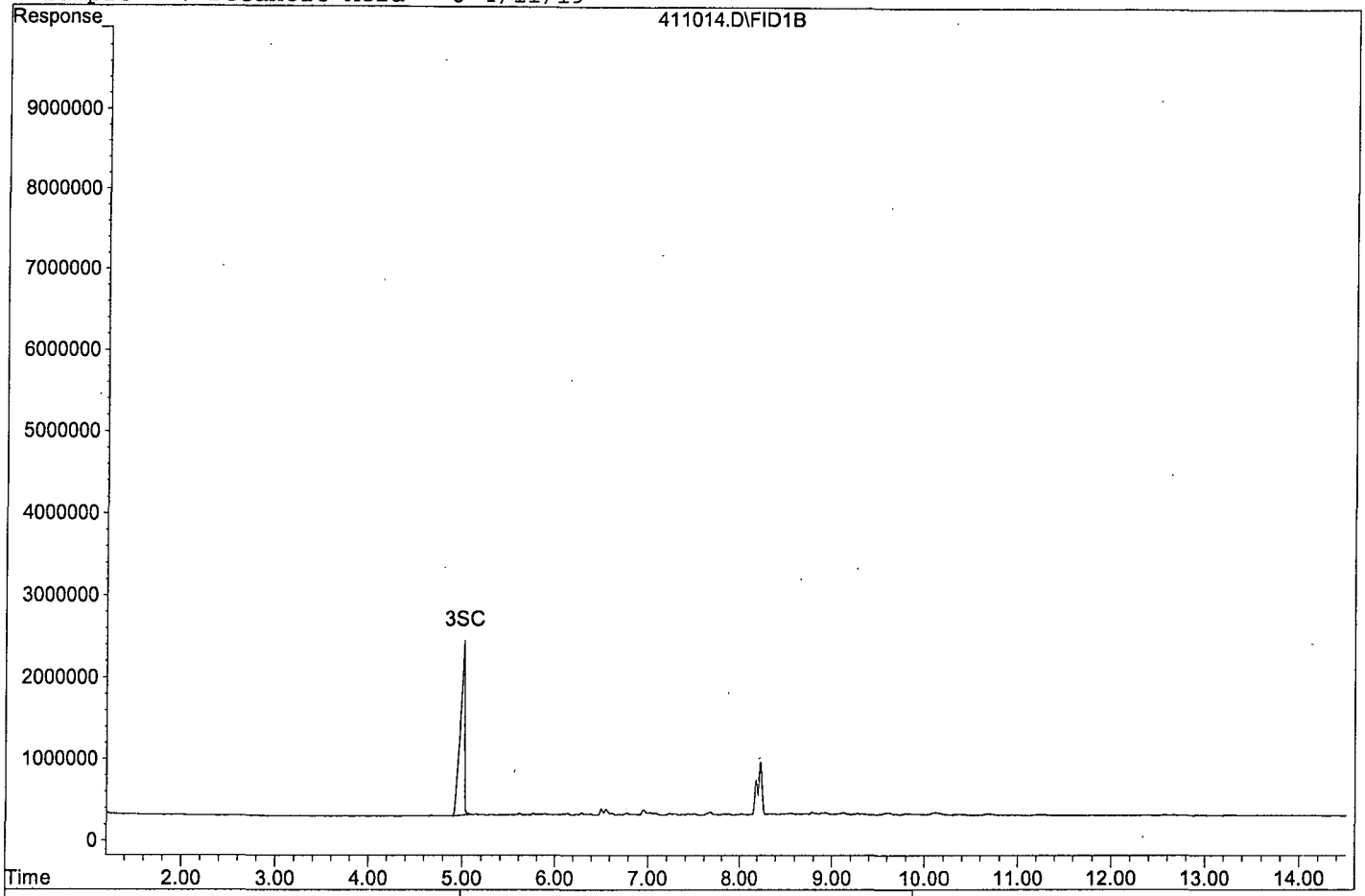
Method : G:\APOLLO\DATA\190411\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

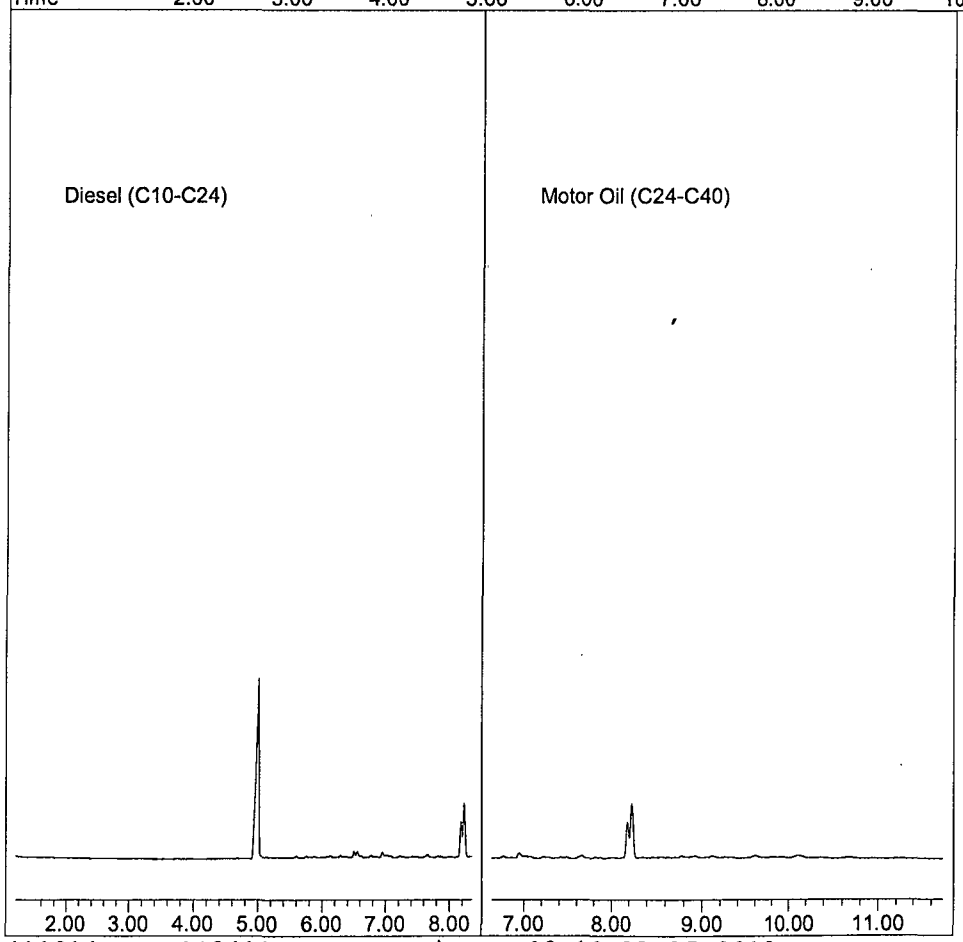
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SC Decanoic Acid(S) | 5.02 | 67279572 | 60.651 ppb |
| Surrogate Spike 24.000 | Recovery = | 252.71% | |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190411\411014.D
Sample : Decanoic Acid - 6 4/11/19



TPH Extractables
DOC0411

Form 7

## Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 04/29/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 419048.D

| | | Compound | MEAN | CCRF | %D | %Drift | | |
|---|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1196390 | 0.32 | HATM | | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1033720 | 8.6 | HBTM | | |
| 3 | SCL | Decanoic Acid(S) | 438835 | 156063 | 64 | SCL | 62 | *NT |
| 4 | SA | Ortho-Terphenyl(S) | 2023750 | 2174580 | 7.5 | SA | | |
| 5 | SA | Octacosane(S) | 1892140 | 1924300 | 1.7 | SA | | |
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| | | Average | | | 16.4 | | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419048.D Vial: 48
Acq On : 4-29-19 17:02:59 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 30 11:55 2019 Quant Results File: DOC0411.RES

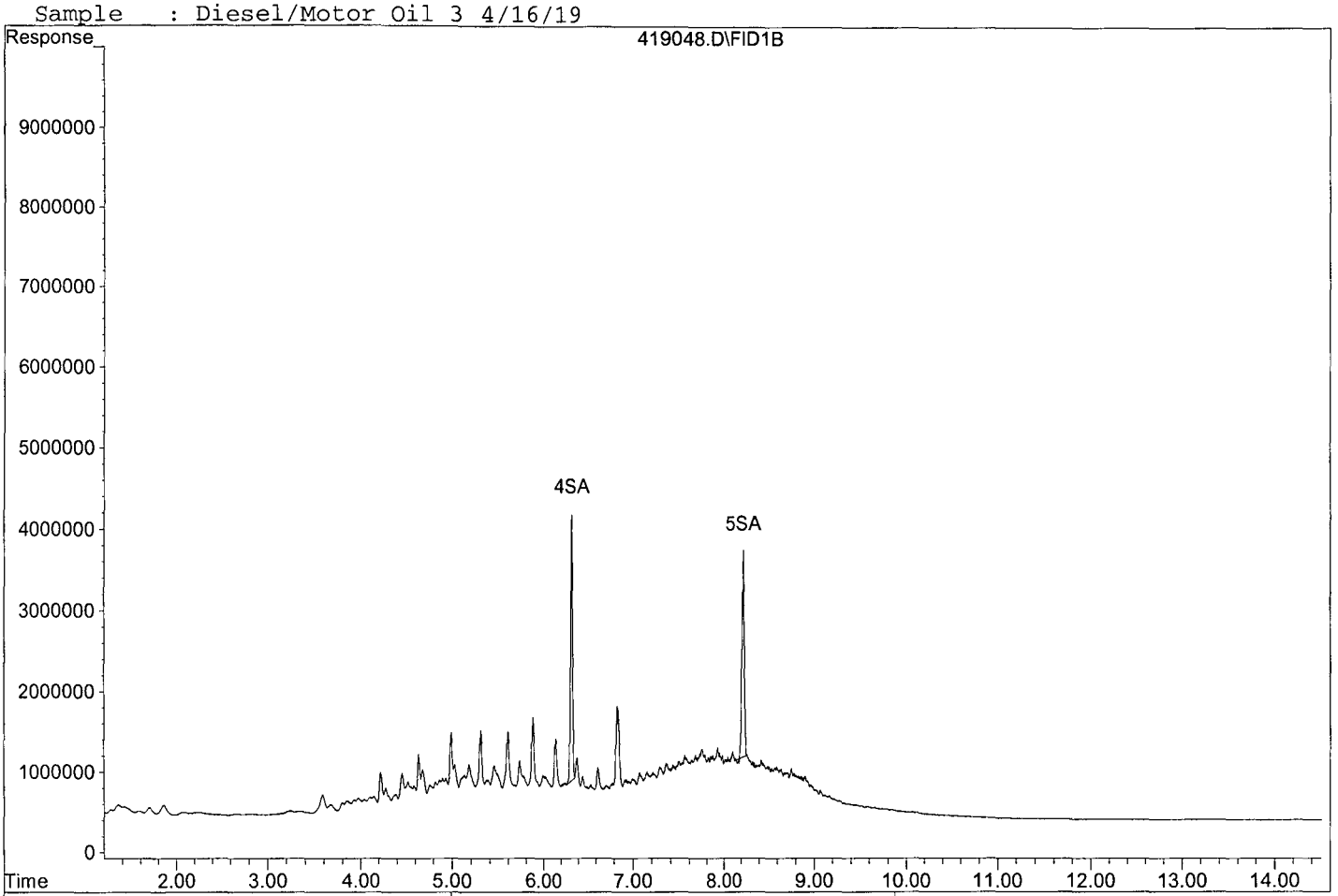
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

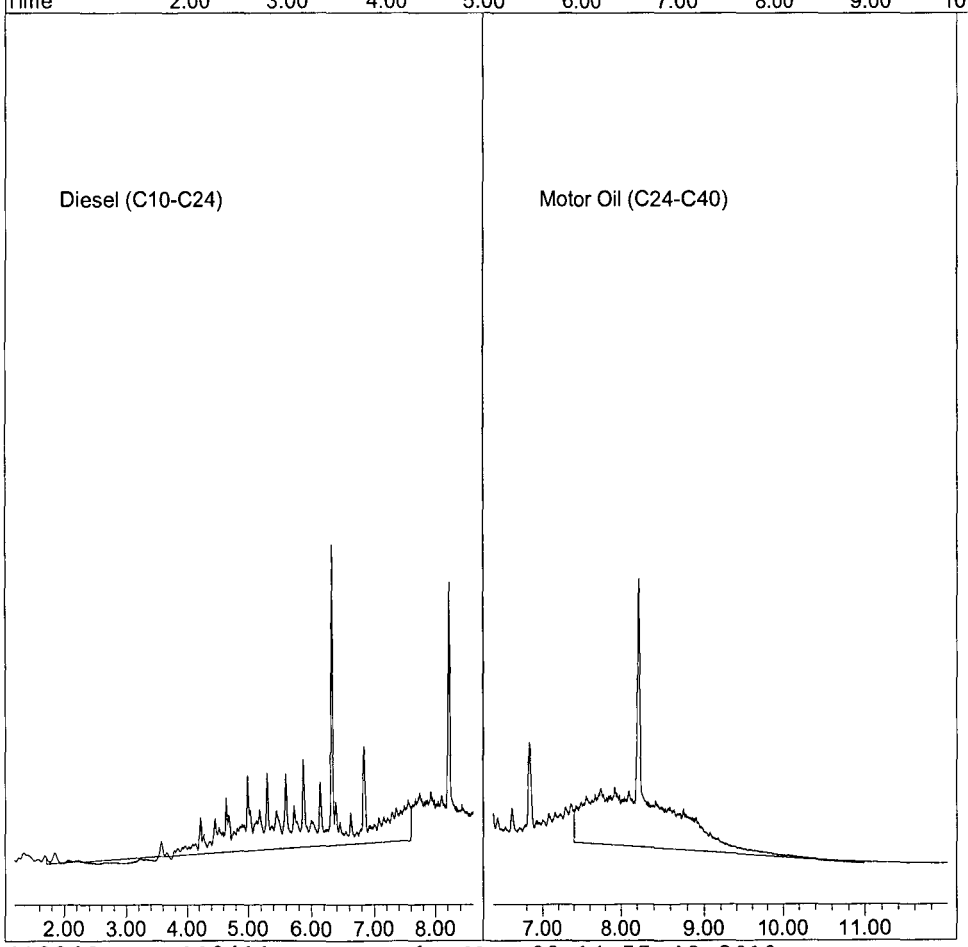
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 54364392 | 13.432 ppb |
| Surrogate Spike 30.000 | Recovery = | | 44.77% |
| 5) SA Octacosane(S) | 8.22 | 48107479 | 12.712 ppb |
| Surrogate Spike 30.000 | Recovery = | | 42.37% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 598195091 | 250.791 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 516860794 | 271.529 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190419\419048.D
Sample : Diesel/Motor Oil 3 4/16/19



TPH Extractables
DOC0411

Form 7

## Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 04/29/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 419063.D

| | | Compound | MEAN | CCRF | %D | %Drift | | |
|---|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1260280 | 5.7 | HATM | | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1039990 | 9.3 | HBTM | | |
| 3 | SCL | Decanoic Acid(S) | 438835 | 167417 | 62 | SCL | 60 | *NT |
| 4 | SA | Ortho-Terphenyl(S) | 2023750 | 2196810 | 8.6 | SA | | |
| 5 | SA | Octacosane(S) | 1892140 | 2121890 | 12 | SA | | |
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| | | Average | | | 19.5 | | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419063.D Vial: 63
Acq On : 4-29-19 22:03:37 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 30 11:54 2019 Quant Results File: DOC0411.RES

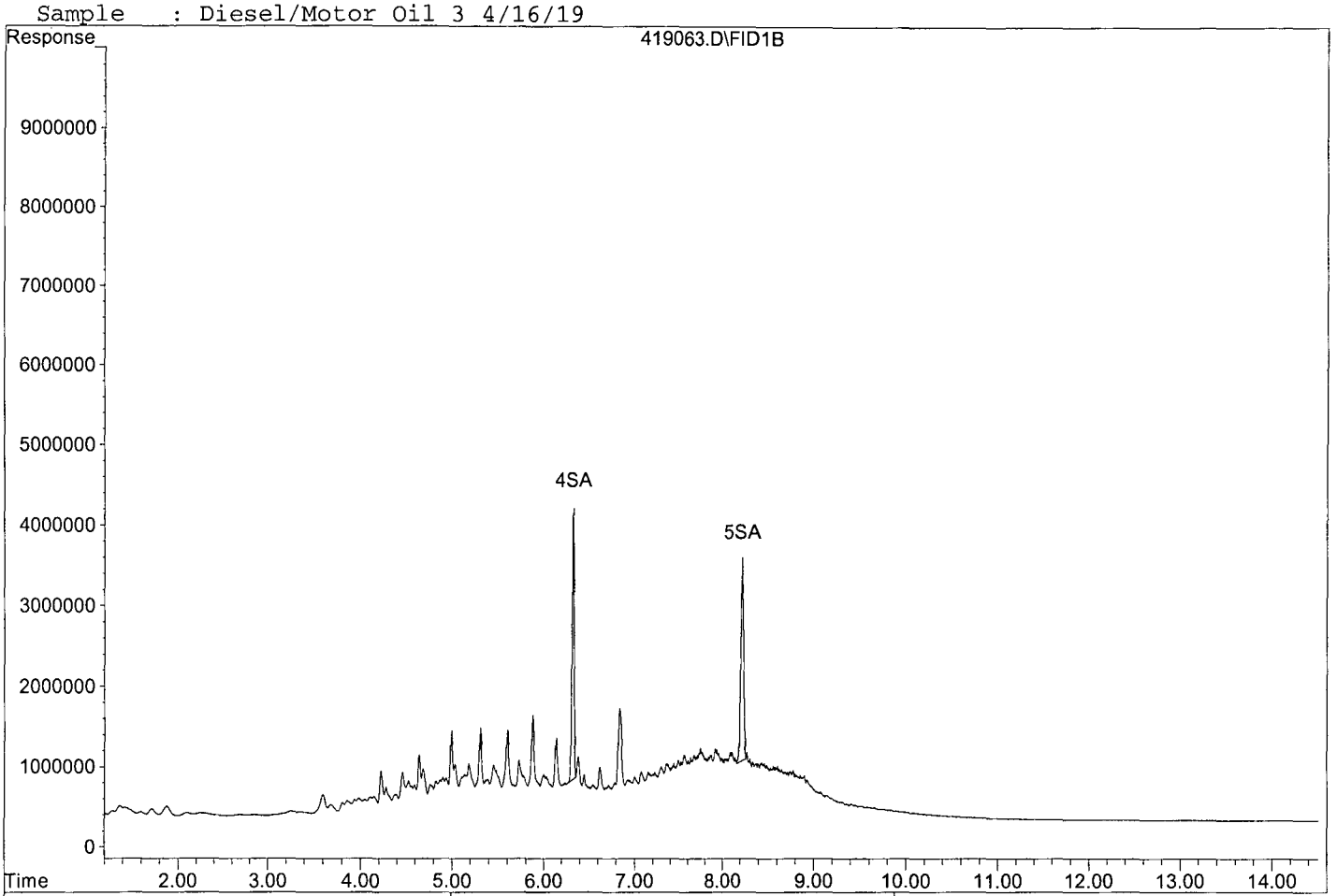
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

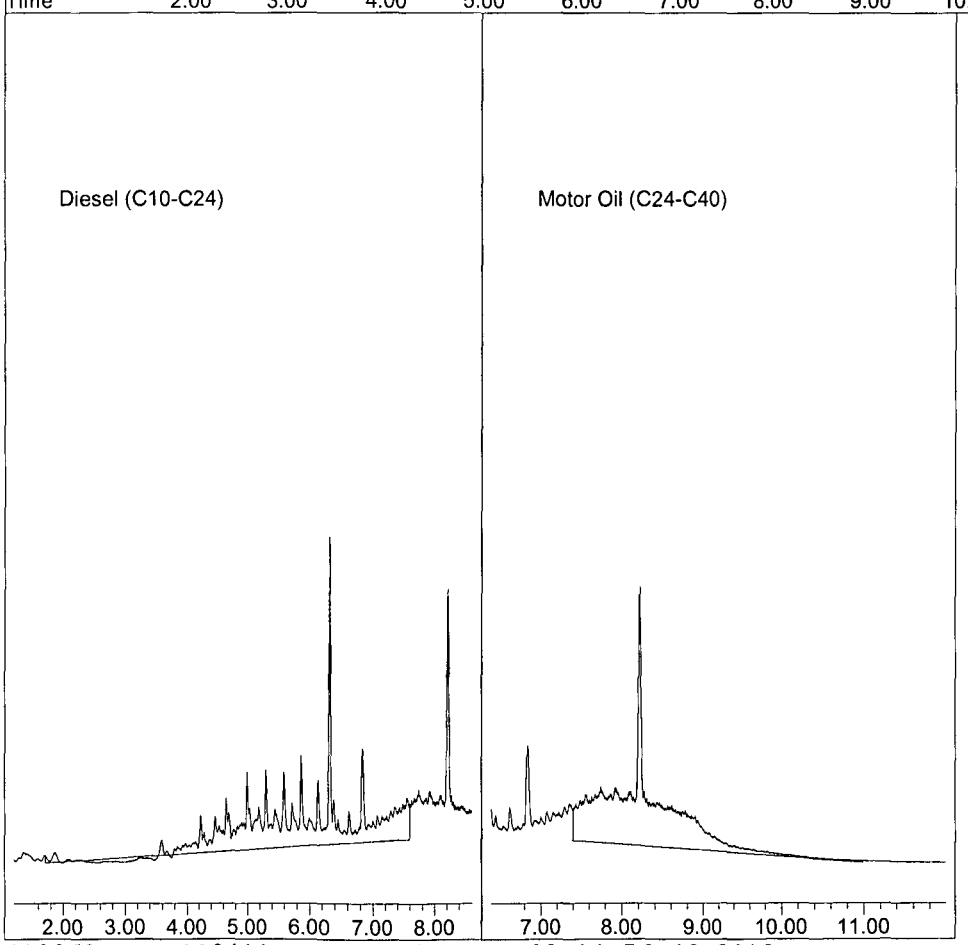
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 54920127 | 13.569 ppb |
| Surrogate Spike 30.000 | Recovery = | | 45.23% |
| 5) SA Octacosane(S) | 8.22 | 53047159 | 14.018 ppb |
| Surrogate Spike 30.000 | Recovery = | | 46.73% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 630142056 | 264.184 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 519994867 | 273.176 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190419\419063.D
Sample : Diesel/Motor Oil 3 4/16/19



TPH Extractables
DOC0411

Form 7

## Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 04/29/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 419063.D

| | | Compound | MEAN | CCRF | %D | %Drift | | |
|---|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1260280 | 5.7 | HATM | | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1039990 | 9.3 | HBTM | | |
| 3 | SCL | Decanoic Acid(S) | 438835 | 167417 | 62 | SCL | 60 | *NT |
| 4 | SA | Ortho-Terphenyl(S) | 2023750 | 2196810 | 8.6 | SA | | |
| 5 | SA | Octacosane(S) | 1892140 | 2121890 | 12 | SA | | |
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| | | Average | | | 19.5 | | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419063.D Vial: 63
Acq On : 4-29-19 22:03:37 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 30 11:54 2019 Quant Results File: DOC0411.RES

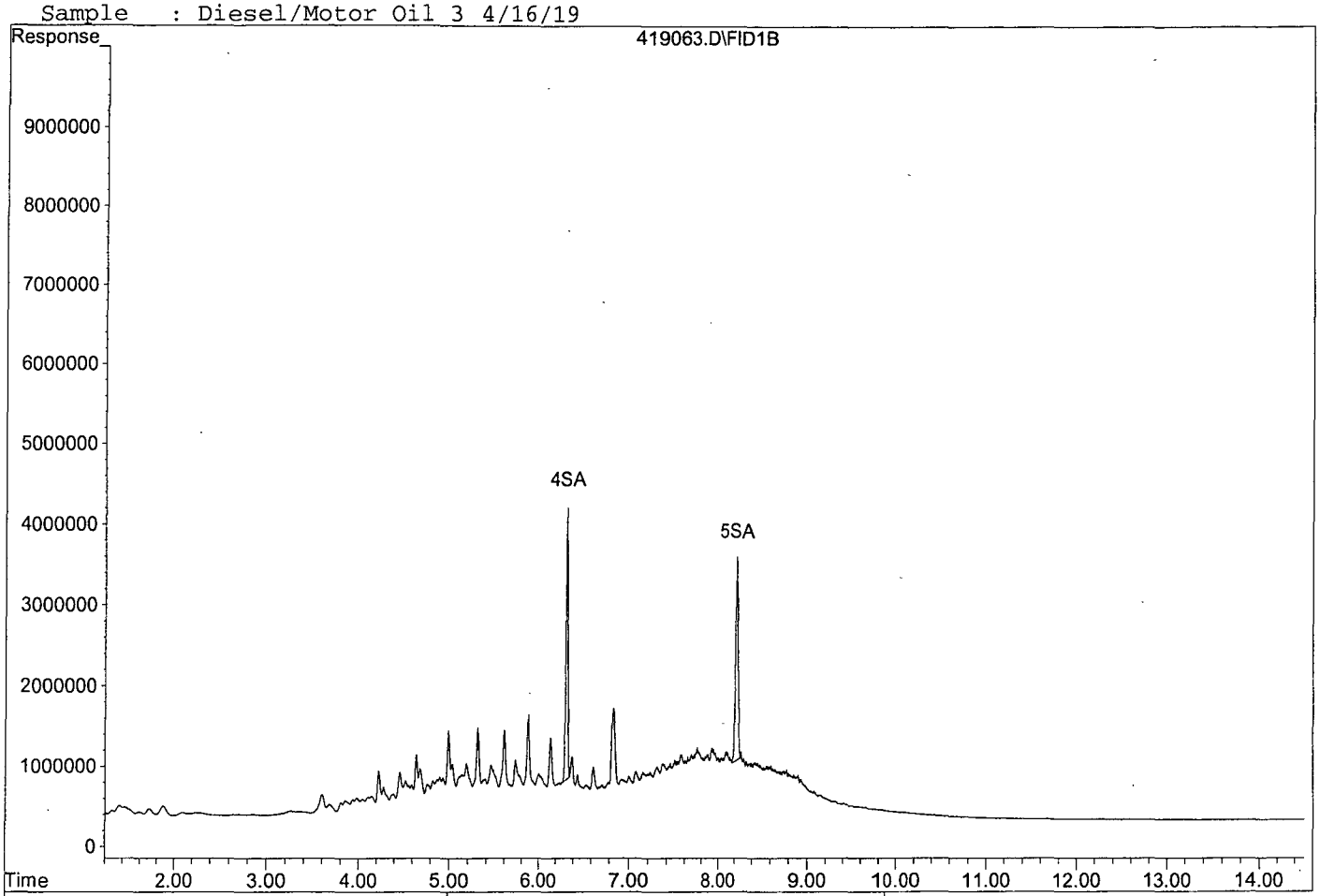
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

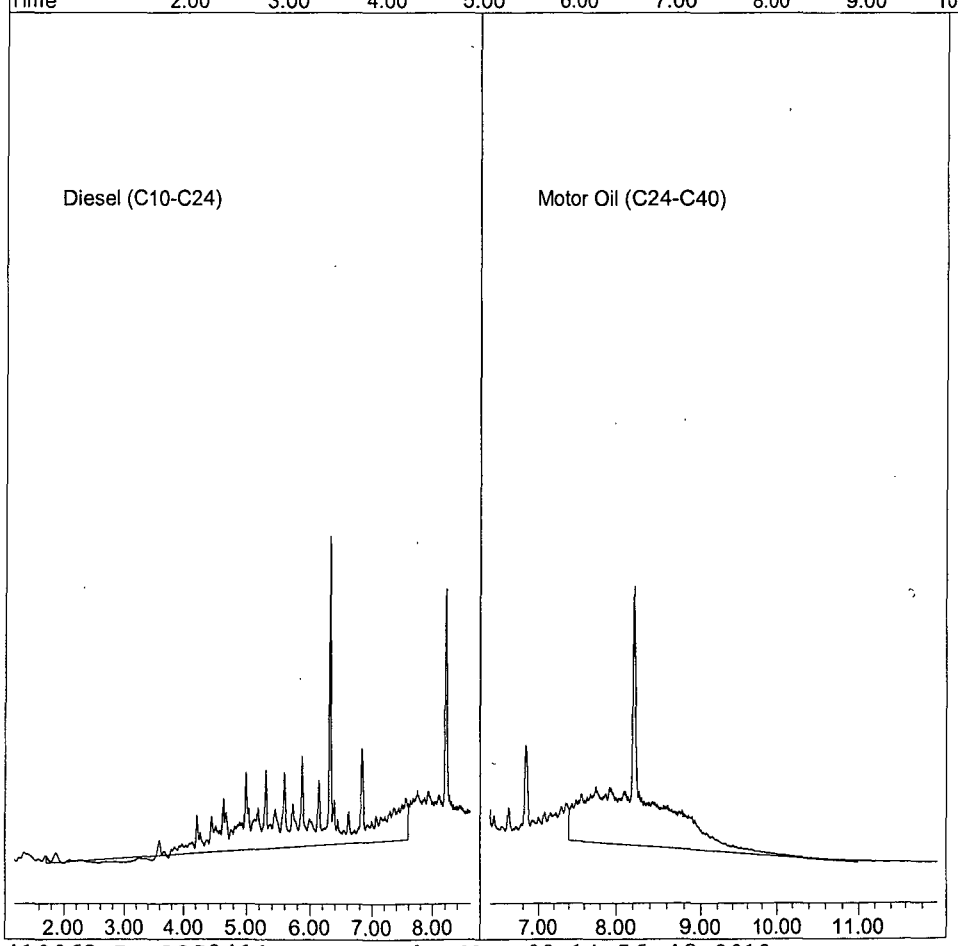
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 54920127 | 13.569 ppb |
| Surrogate Spike 30.000 | Recovery = | | 45.23% |
| 5) SA Octacosane(S) | 8.22 | 53047159 | 14.018 ppb |
| Surrogate Spike 30.000 | Recovery = | | 46.73% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 630142056 | 264.184 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 519994867 | 273.176 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190419\419063.D
Sample : Diesel/Motor Oil 3 4/16/19



TPH Extractables
DOC0411

Form 7

# Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 05/16/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 508120.D

| | | Compound | MEAN | CCRF | %D | %Drift | | |
|---|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1391580 | 17 | HATM | | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1102500 | 16 | HBTM | | |
| 3 | SA | Ortho-Terphenyl(S) | 2023750 | 2395660 | 18 | SA | | |
| 4 | SA | Octacosane(S) | 1892140 | 2372230 | 25 | SA | | * |
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| | | Average | | | 19.0 | | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190508\508120.D Vial: 20
Acq On : 5-16-19 8:28:01 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: May 16 12:16 2019 Quant Results File: DOC0411.RES

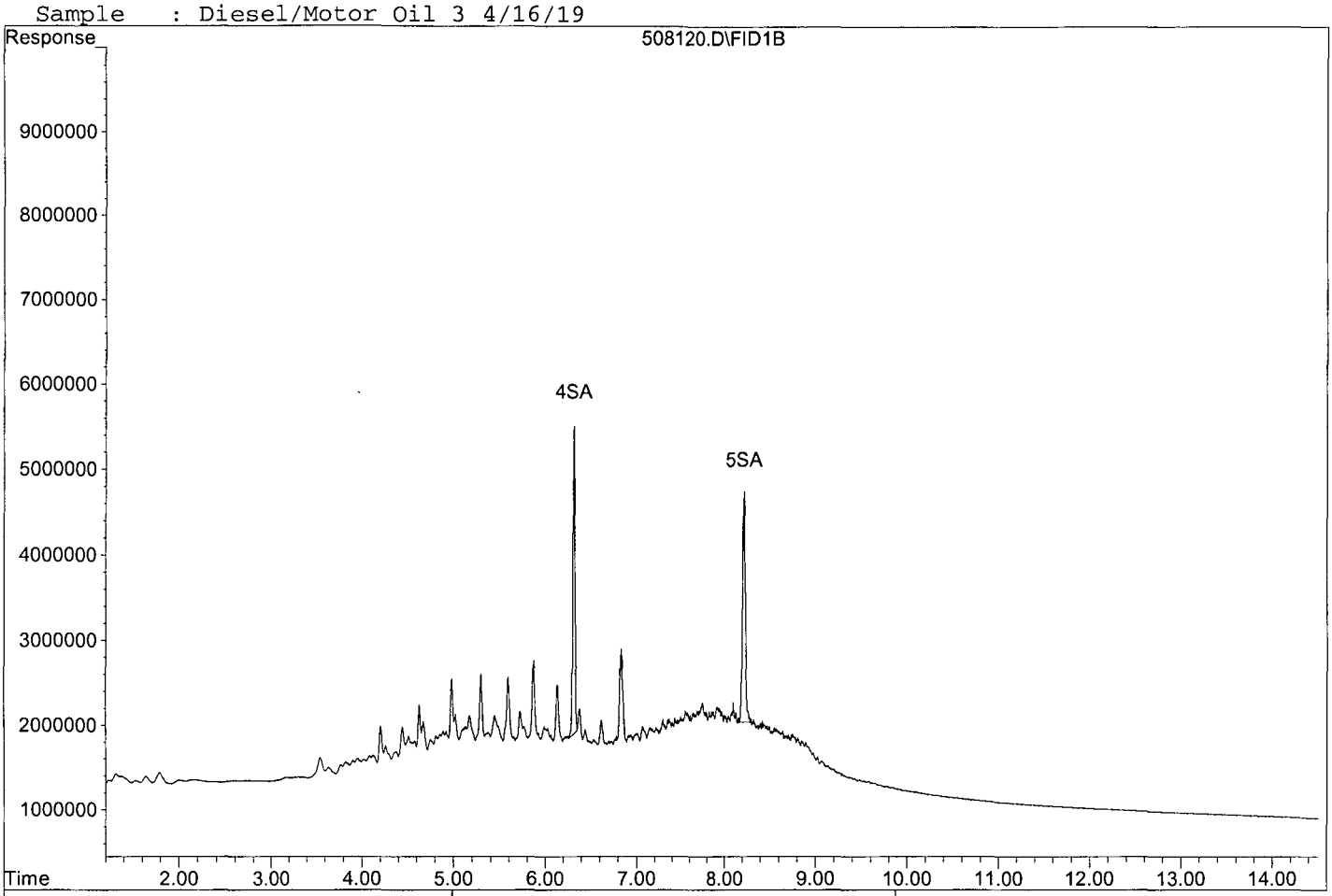
Method : G:\APOLLO\DATA\190508\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

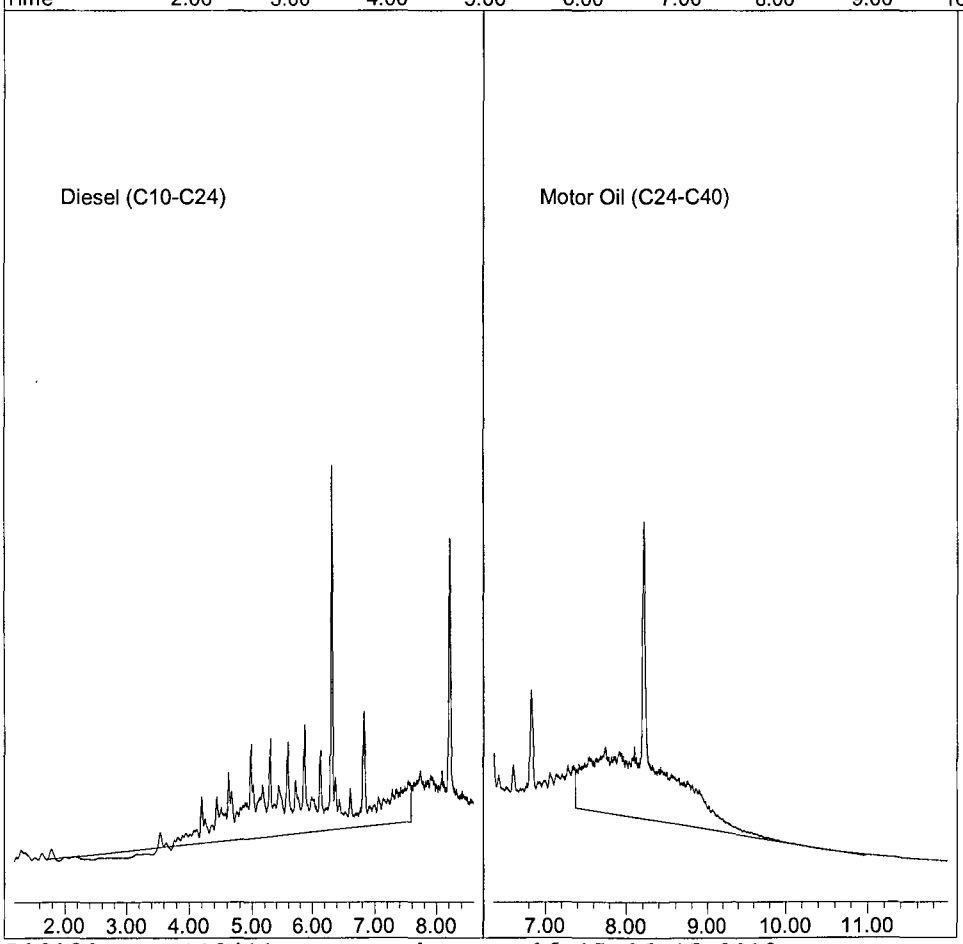
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 59891465 | 14.797 ppb |
| Surrogate Spike 30.000 | Recovery = | | 49.32% |
| 5) SA Octacosane(S) | 8.22 | 59305731 | 15.672 ppb |
| Surrogate Spike 30.000 | Recovery = | | 52.24% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 695788419 | 291.706 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 551248673 | 289.594 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190508\508120.D
Sample : Diesel/Motor Oil 3 4/16/19



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190508\508121.D Vial: 21
Acq On : 5-16-19 8:47:16 Operator: DP
Sample : Decanoic Acid - 3 3/5/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: May 16 12:09 2019 Quant Results File: DOC0411.RES

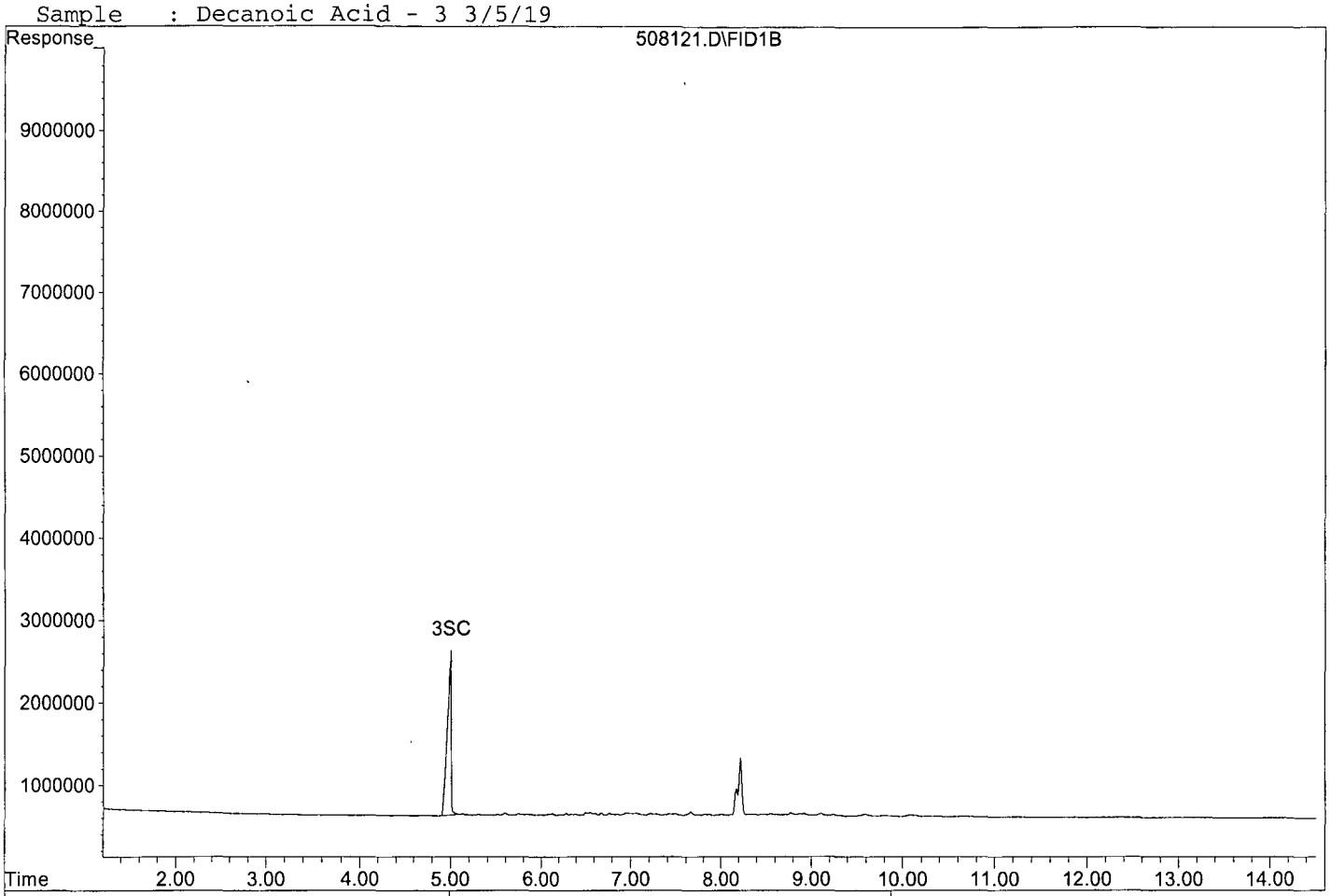
Method : G:\APOLLO\DATA\190508\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

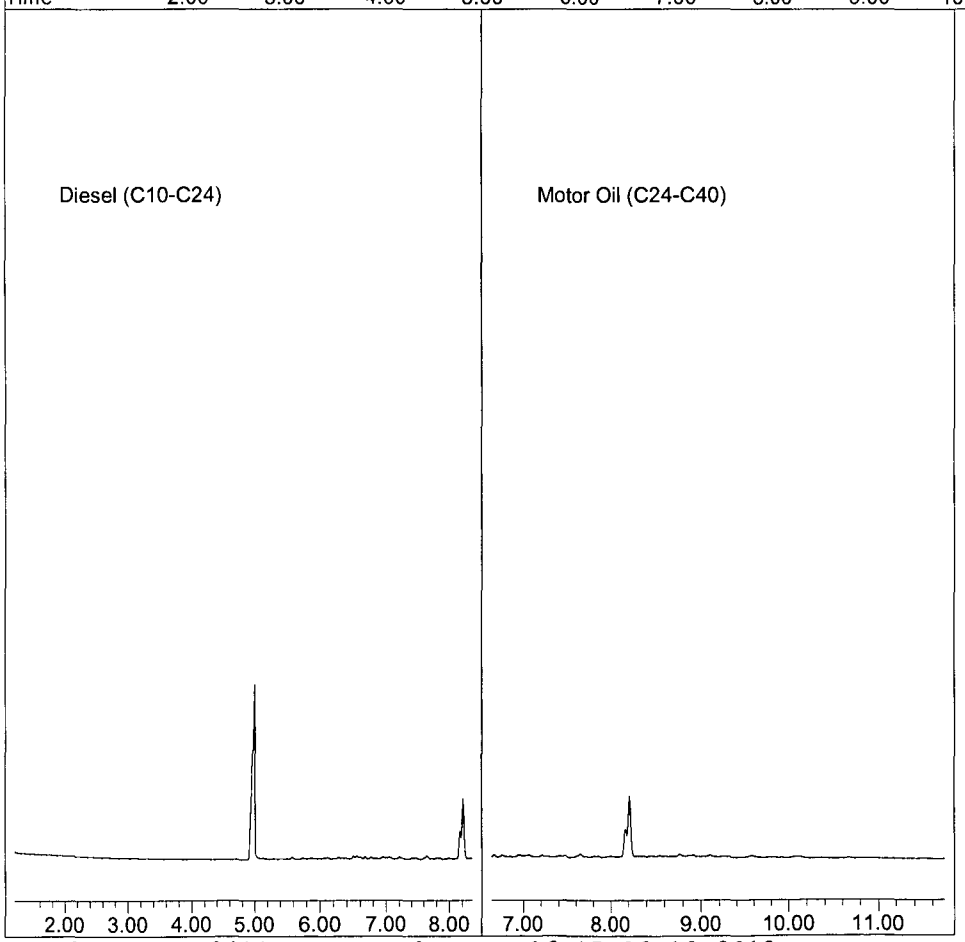
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SC Decanoic Acid(S) | 5.00 | 57822040 | 52.507 ppb |
| Surrogate Spike 24.000 | Recovery = | | 218.78% |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190508\508121.D
Sample : Decanoic Acid - 3 3/5/19



TPH Extractables
DOC0411

Form 7

# Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 05/16/19
Instrument: Apollo
Initial Cal. Date: 04/11/19
Data File: 508133.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 1 | HATM | Diesel (C10-C24) | 1192620 | 1349040 | 13 | HATM | |
| 2 | HBTM | Motor Oil (C24-C40) | 951760 | 1113260 | 17 | HBTM | |
| 3 | SA | Ortho-Terphenyl(S) | 2023750 | 2489120 | 23 | SA | * |
| 4 | SA | Octacosane(S) | 1892140 | 2292800 | 21 | SA | * |
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| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 18.5 | | |

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190508\508133.D Vial: 33
Acq On : 5-16-19 14:05:44 Operator: DP
Sample : Diesel/Motor Oil 3 4/16/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: May 16 14:25 2019 Quant Results File: DOC0411.RES

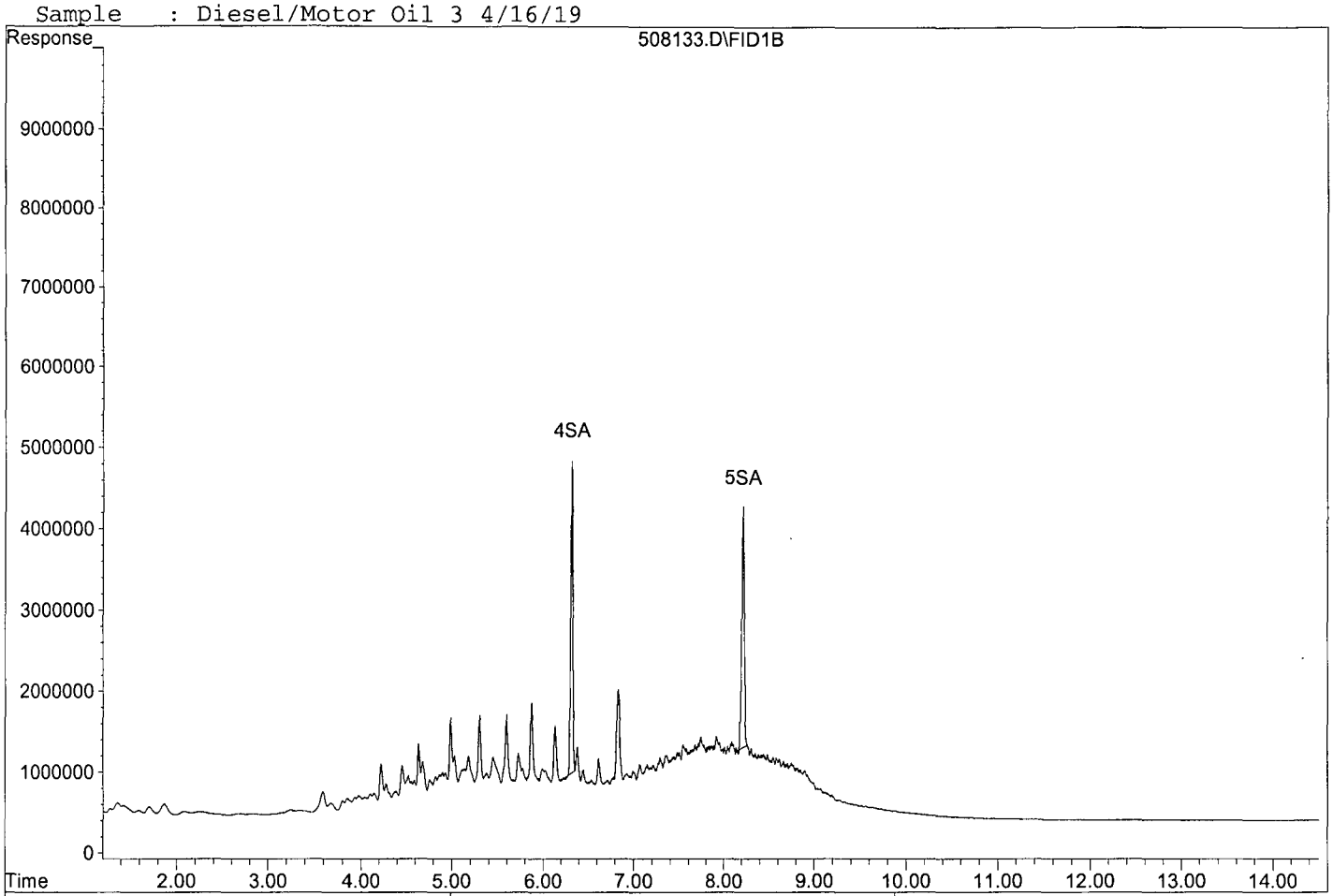
Method : G:\APOLLO\DATA\190508\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

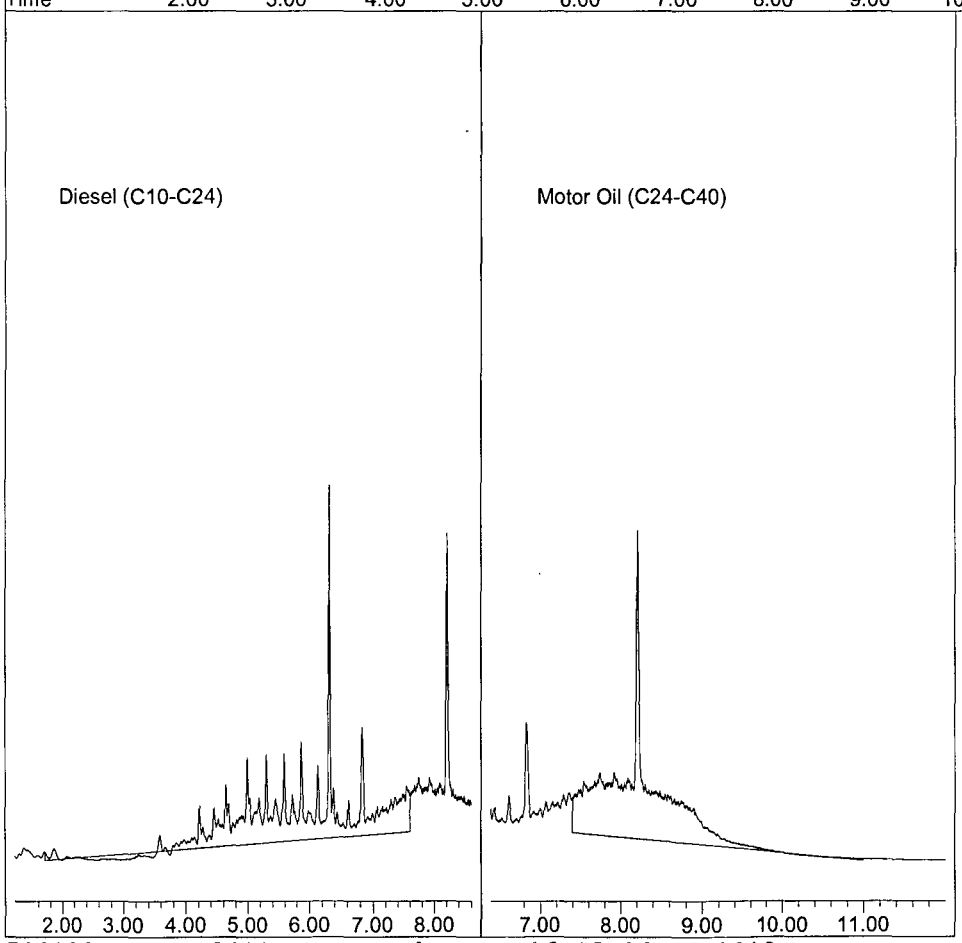
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 62228096 | 15.374 ppb |
| Surrogate Spike 30.000 | Recovery = | | 51.25% |
| 5) SA Octacosane(S) | 8.22 | 57320090 | 15.147 ppb |
| Surrogate Spike 30.000 | Recovery = | | 50.49% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 674519137 | 282.789 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 556628405 | 292.421 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190508\508133.D
Sample : Diesel/Motor Oil 3 4/16/19



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190508\508134.D Vial: 34
Acq On : 5-16-19 14:24:56 Operator: DP
Sample : Decanoic Acid - 3 3/5/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: May 16 14:51 2019 Quant Results File: DOC0411.RES

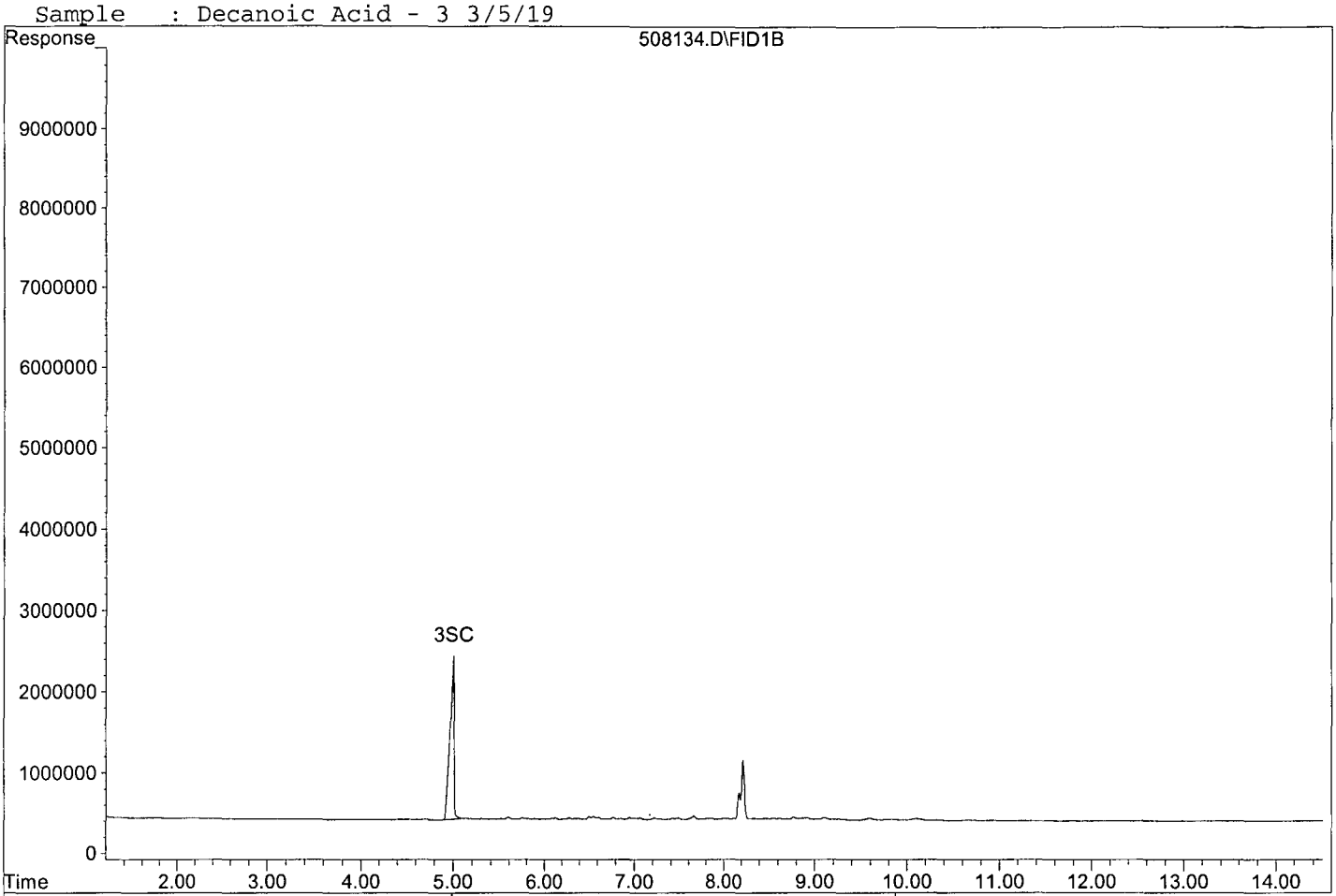
Method : G:\APOLLO\DATA\190508\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

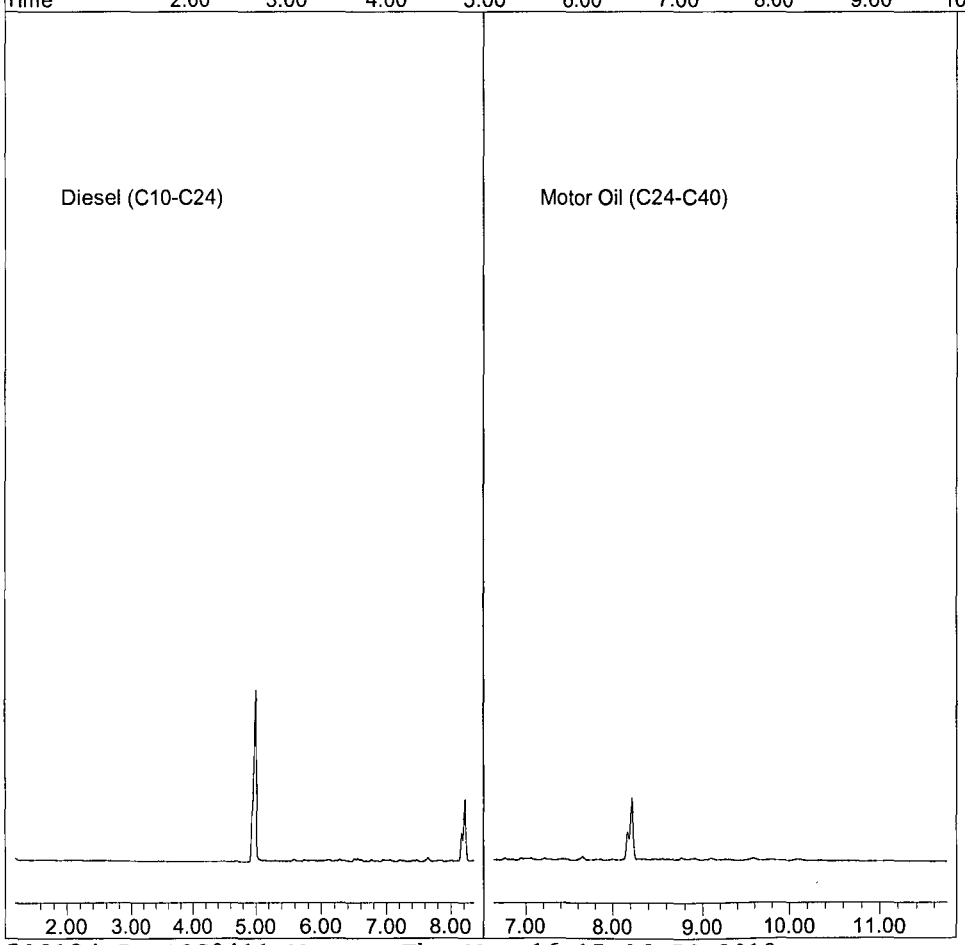
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 3) SC Decanoic Acid(S) | 5.01 | 60116529 | 54.483 ppb |
| Surrogate Spike 24.000 | Recovery = | | 227.01% |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190508\508134.D
Sample : Decanoic Acid - 3 3/5/19



# ORGANICS
# Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419066.D Vial: 66
Acq On : 4-29-19 23:03:30 Operator: DP
Sample : AZ90100W20 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:39 2019 Quant Results File: DOC0411.RES

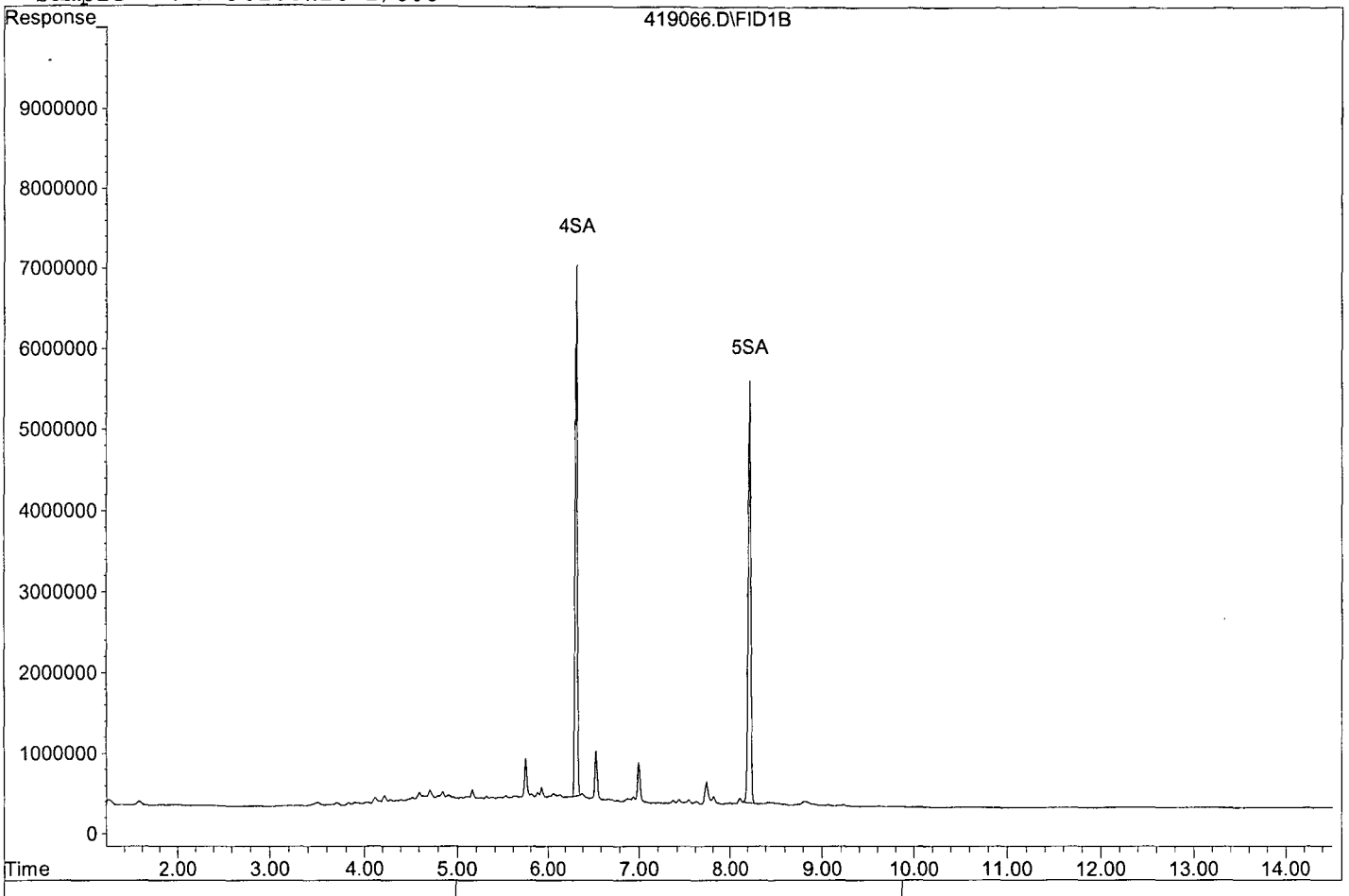
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

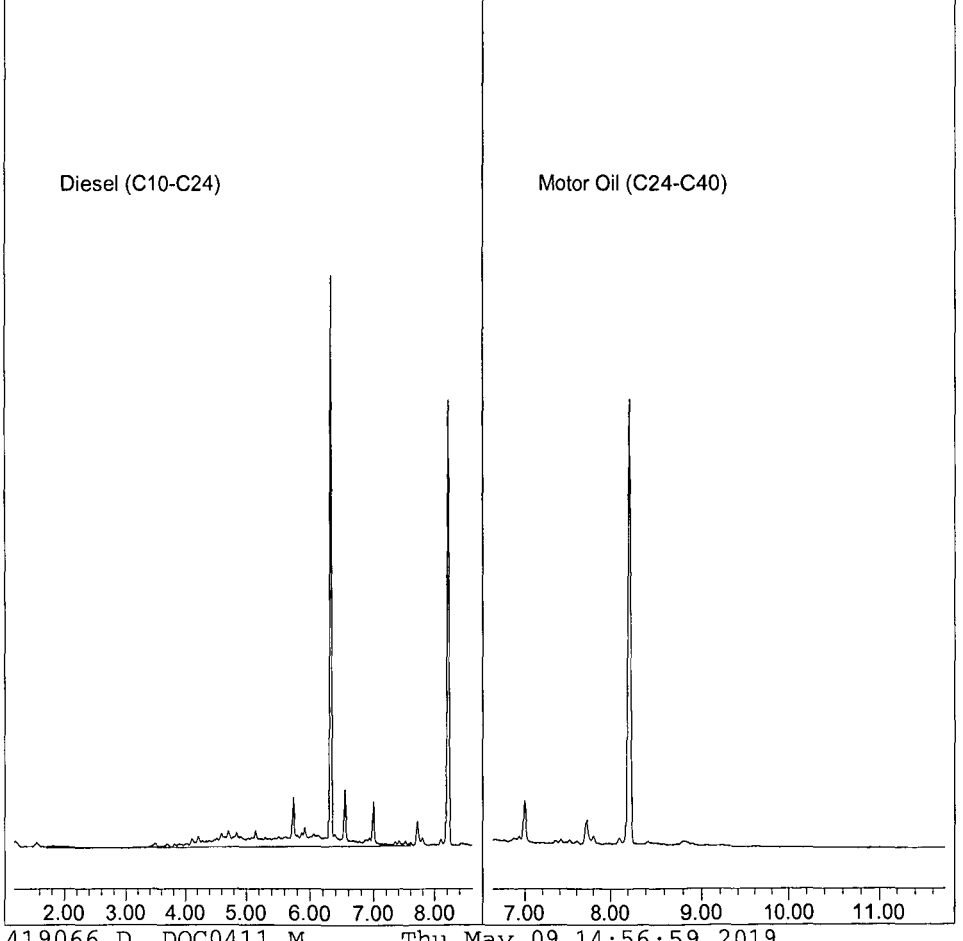
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 113451456 | 70.075 ppb |
| Surrogate Spike 75.000 | | Recovery = | 93.43% |
| 5) SA Octacosane(S) | 8.22 | 109441811 | 72.300 ppb |
| Surrogate Spike 75.000 | | Recovery = | 96.40% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 221197053 | 231.840 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190419\419066.D
Sample : AZ90100W20 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190508\508129.D Vial: 29
Acq On : 5-16-19 12:46:45 Operator: DP
Sample : AZ90100W20 2/800 SG Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 16 14:55 2019 Quant Results File: DOC0411.RES

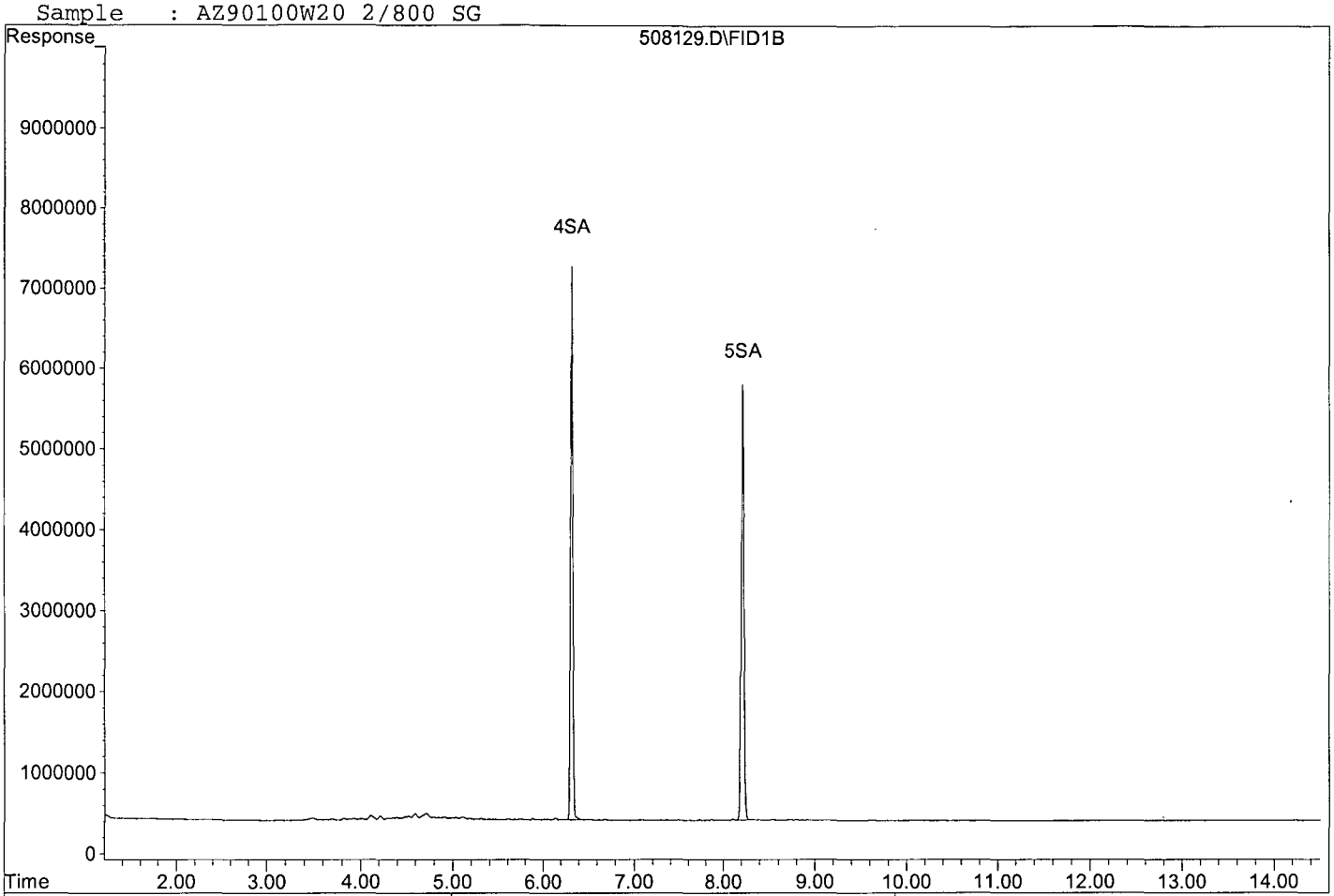
Method : G:\APOLLO\DATA\190508\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

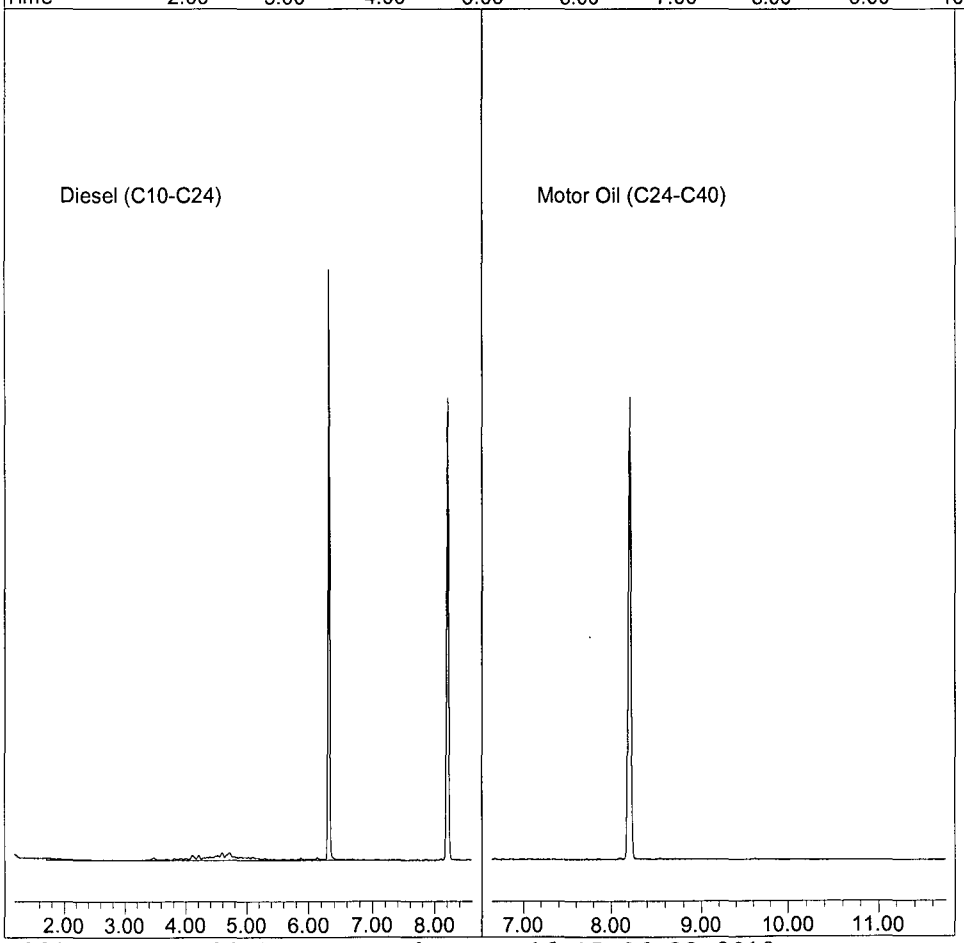
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 113873072 | 70.336 ppb |
| Surrogate Spike 75.000 | Recovery = | | 93.78% |
| 5) SA Octacosane(S) | 8.21 | 110020012 | 72.682 ppb |
| Surrogate Spike 75.000 | Recovery = | | 96.91% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 54110760 | 56.714 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190508\508129.D
Sample : AZ90100W20 2/800 SG




508129.D DOC0411.M Thu May 16 15:06:33 2019 Page 2

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419067.D Vial: 67
Acq On : 4-29-19 23:23:20 Operator: DP
Sample : AZ90102W18 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:43 2019 Quant Results File: DOC0411.RES

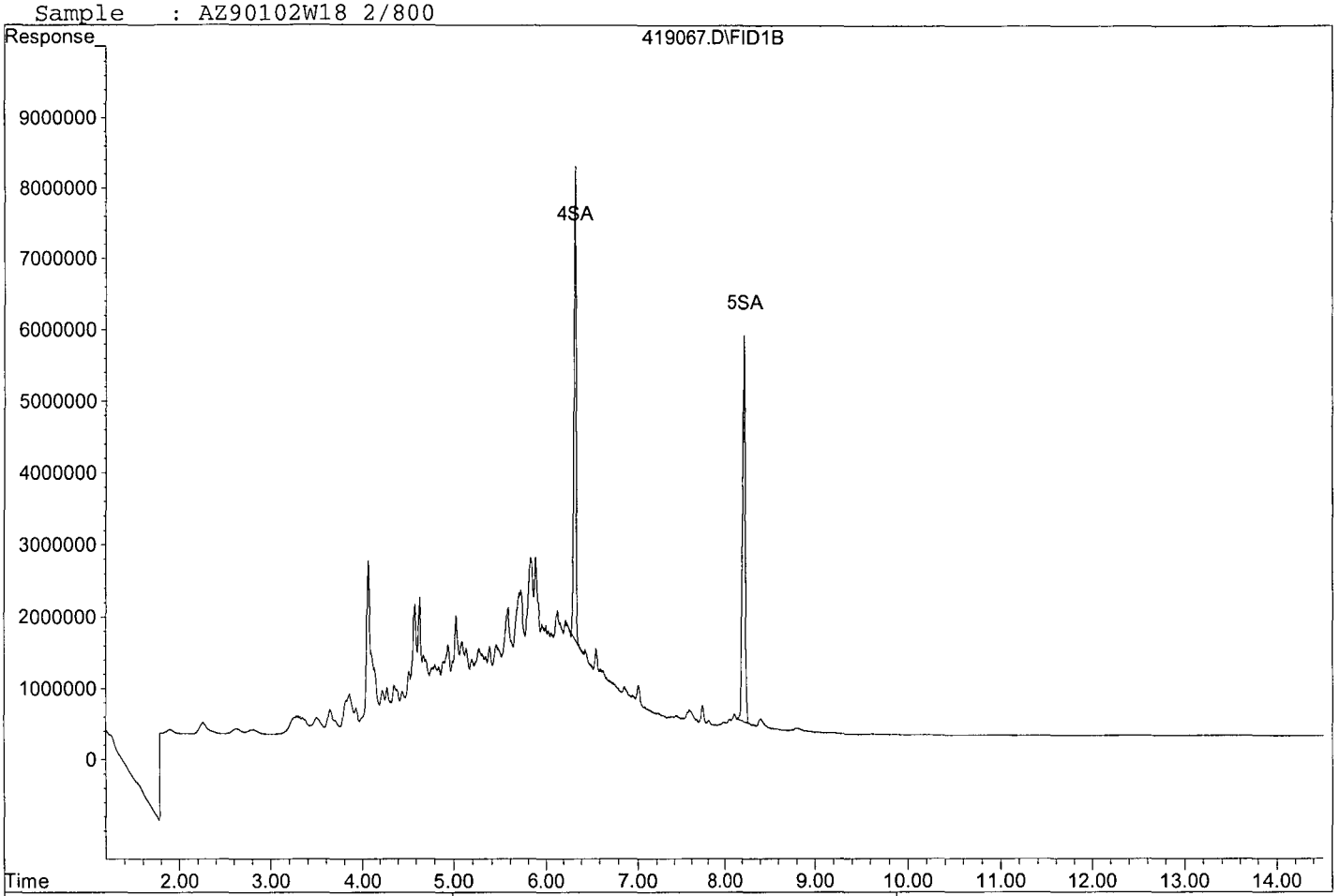
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

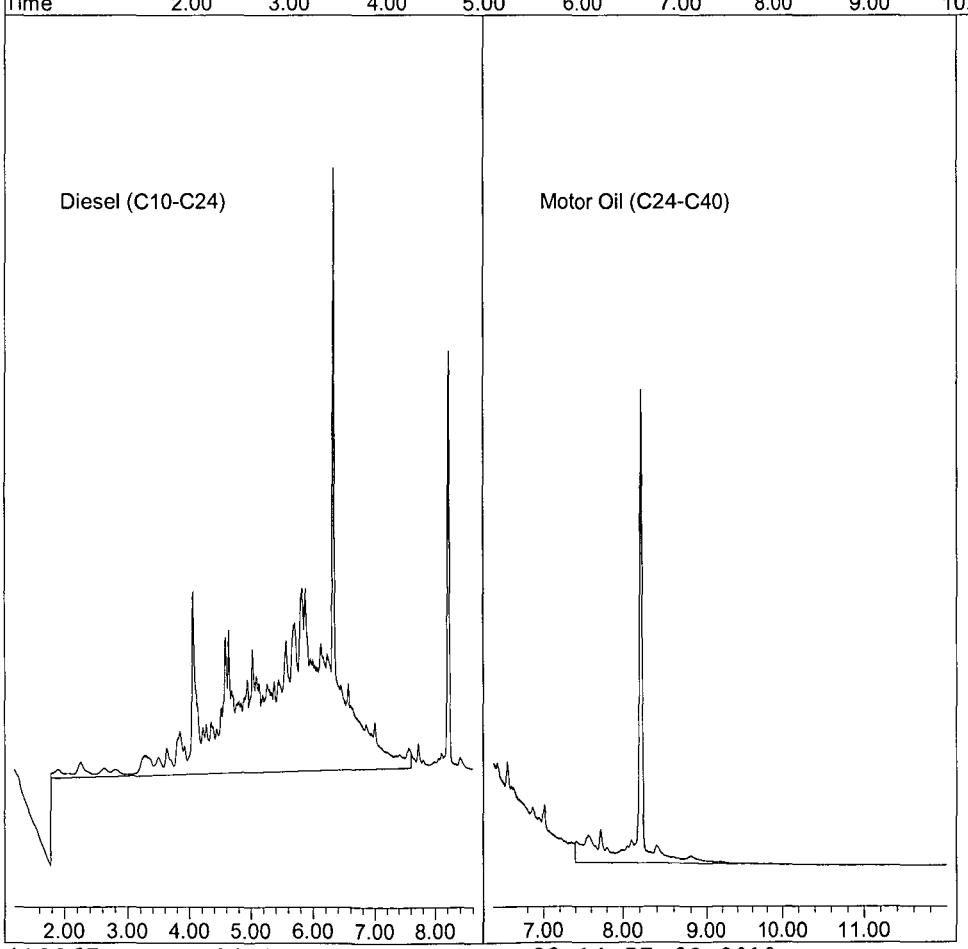
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 109739192 | 67.782 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 90.38% | |
| 5) SA Octacosane(S) | 8.22 | 112383608 | 74.244 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 98.99% | |
| Target Compounds | | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 2181047995 | 2285.986 | ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 144008596 | 189.135 | ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190419\419067.D
Sample : AZ90102W18 2/800

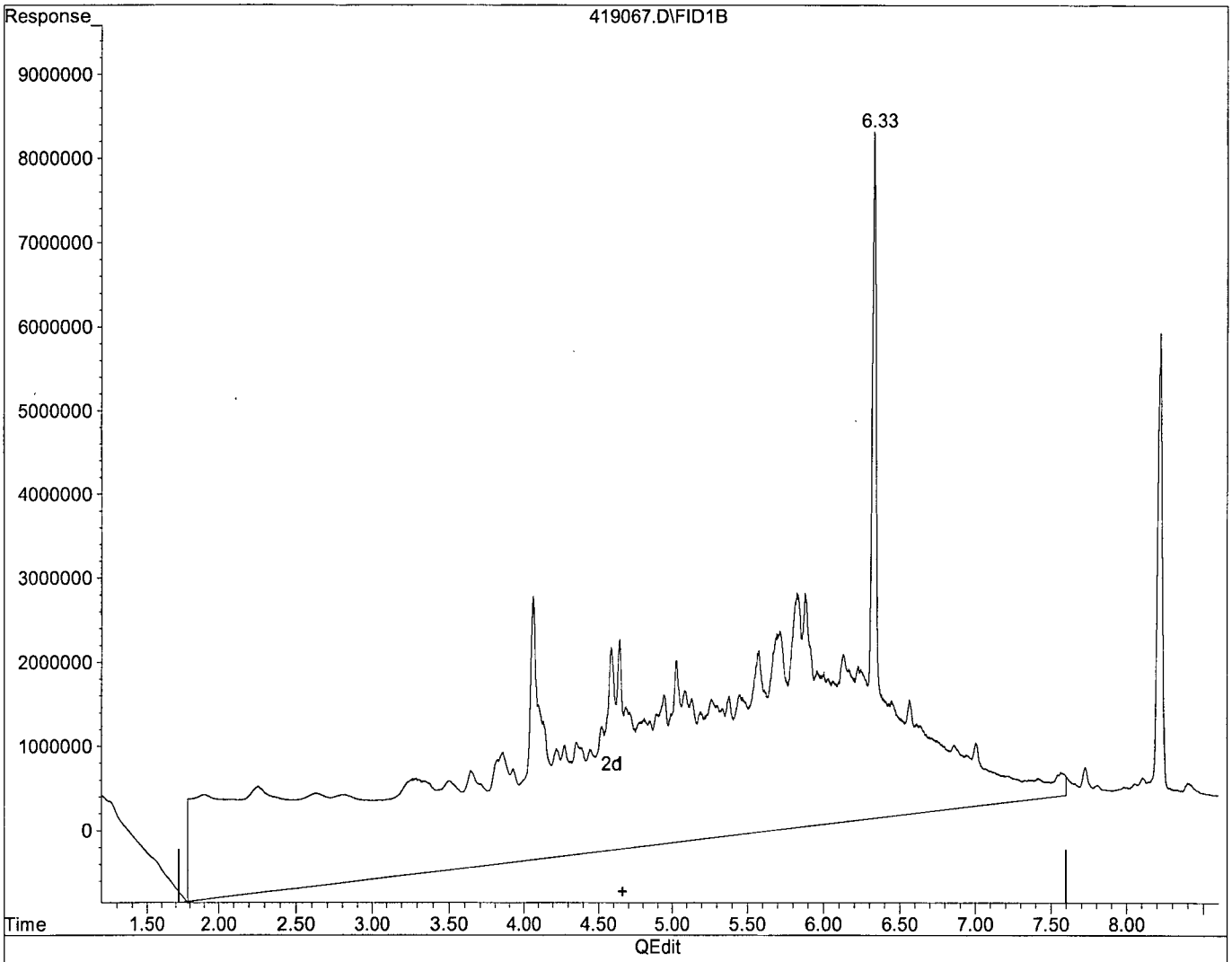


Quantitation Report

Data File : G:\APOLLO\DATA\190419\419067.D Vial: 67
Acq On : 4-29-19 23:23:20 Operator: DP
Sample : AZ90102W18 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 10:51 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190419\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration




(1) Diesel (C10-C24) (HATM)

4.66min 4425.357ppb m

response 4222210910

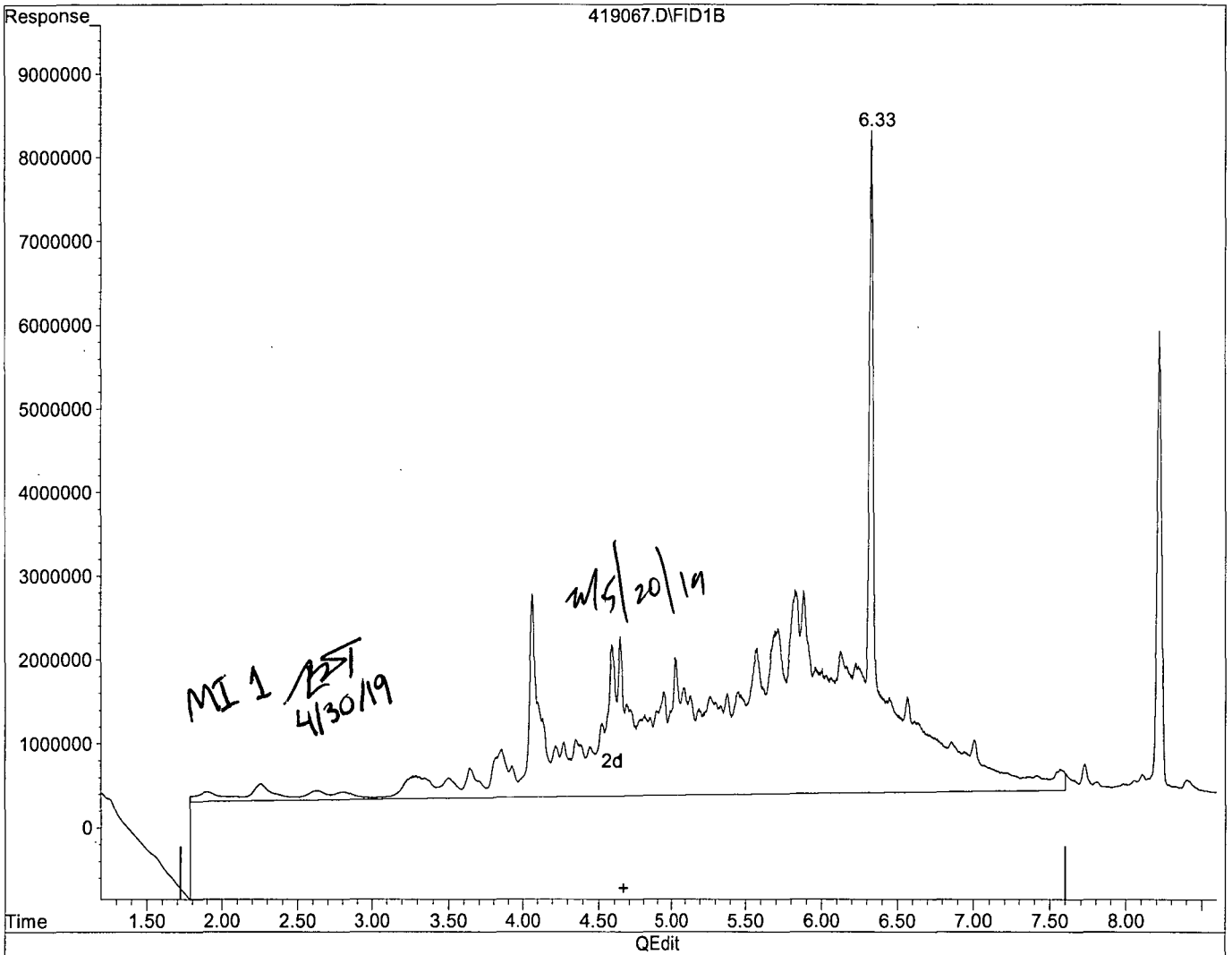
(+) = Expected Retention Time

419067.D DOC0411.M Tue Apr 30 11:42:48 2019

Quantitation Report

Data File : G:\APOLLO\DATA\190419\419067.D Vial: 67
Acq On : 4-29-19 23:23:20 Operator: DP
Sample : AZ90102W18 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 10:51 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190419\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration




(1) Diesel (C10-C24) (HATM)

4.66min 2285.986ppb m

response 2181047995

(+) = Expected Retention Time

419067.D DOC0411.M Tue Apr 30 11:43:51 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190508\508130.D Vial: 30
Acq On : 5-16-19 13:06:28 Operator: DP
Sample : AZ90102W18 2/800 SG Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 16 14:55 2019 Quant Results File: DOC0411.RES

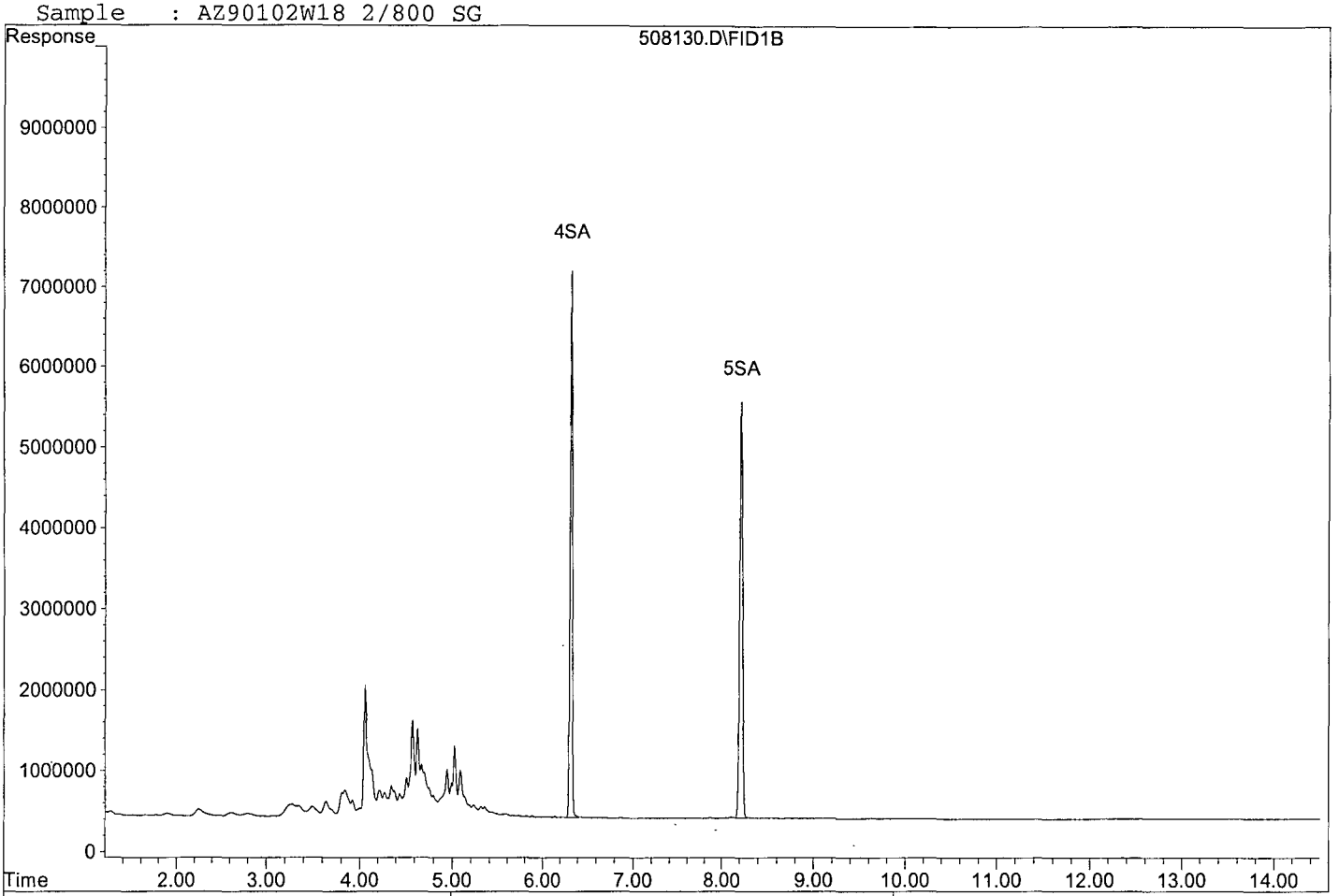
Method : G:\APOLLO\DATA\190508\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

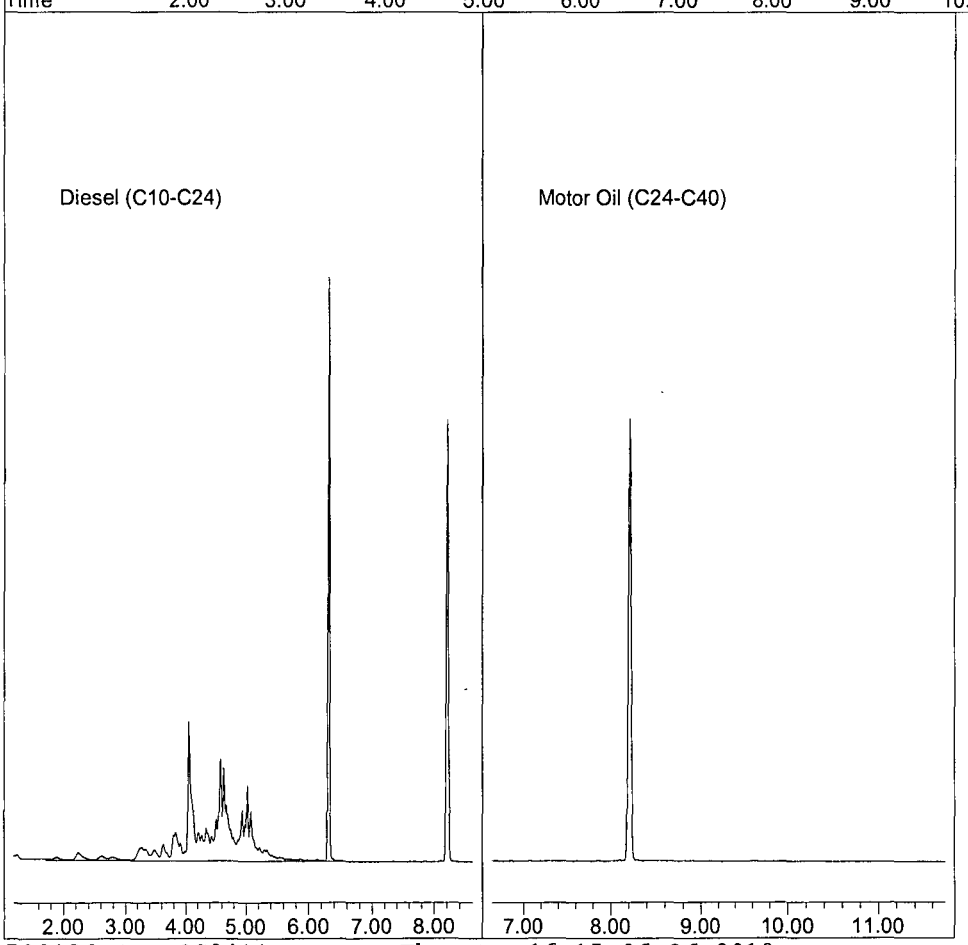
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 115691945 | 71.459 ppb |
| Surrogate Spike 75.000 | Recovery = | | 95.28% |
| 5) SA Octacosane(S) | 8.21 | 111711120 | 73.799 ppb |
| Surrogate Spike 75.000 | Recovery = | | 98.40% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 411909509 | 431.728 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190508\508130.D
Sample : AZ90102W18 2/800 SG



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419068.D Vial: 68
Acq On : 4-29-19 23:43:08 Operator: DP
Sample : AZ90103W09 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:45 2019 Quant Results File: DOC0411.RES

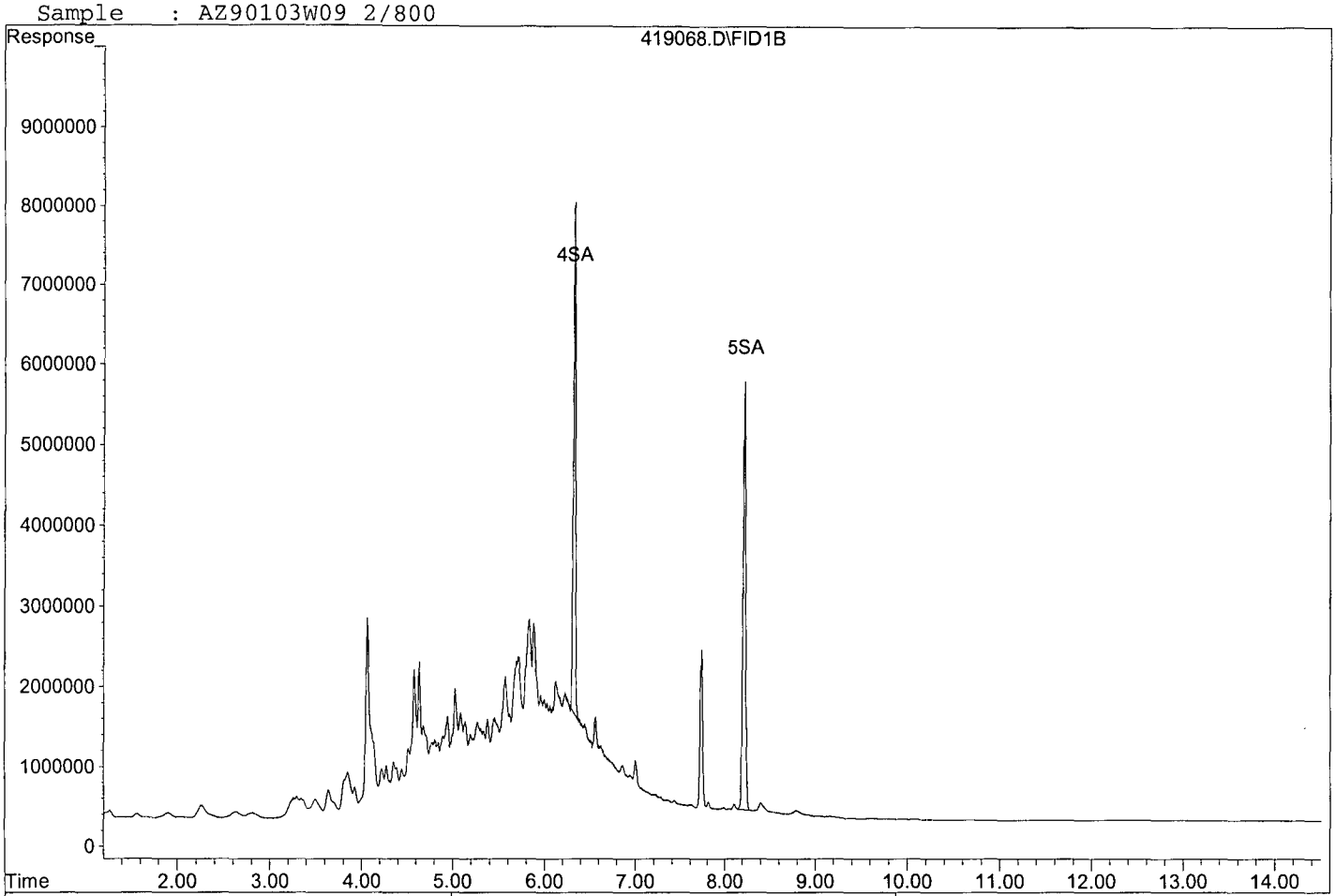
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

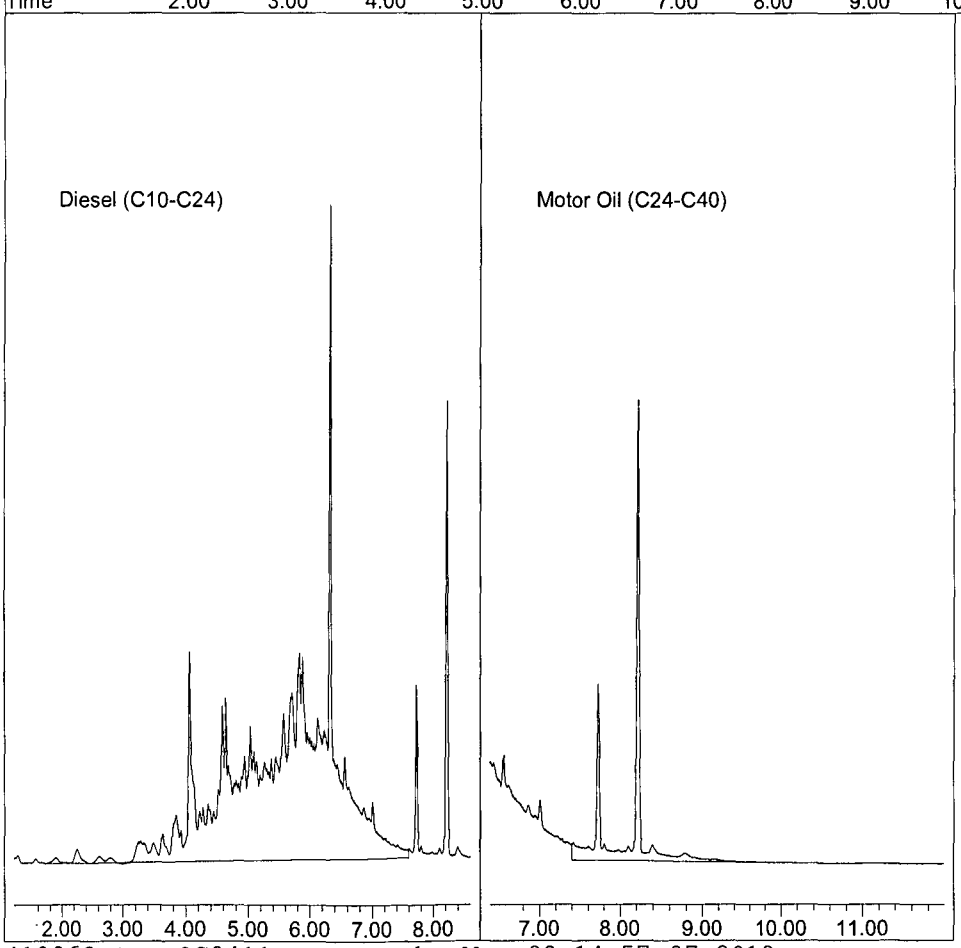
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 108659767 | 67.115 ppb |
| Surrogate Spike 75.000 | Recovery = | | 89.49% |
| 5) SA Octacosane(S) | 8.22 | 110092384 | 72.730 ppb |
| Surrogate Spike 75.000 | Recovery = | | 96.97% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 2122330316 | 2224.444 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 146196475 | 192.008 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190419\419068.D
Sample : AZ90103W09 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190508\508131.D Vial: 31
Acq On : 5-16-19 13:26:13 Operator: DP
Sample : AZ90103W09 2/800 SG Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 16 14:55 2019 Quant Results File: DOC0411.RES

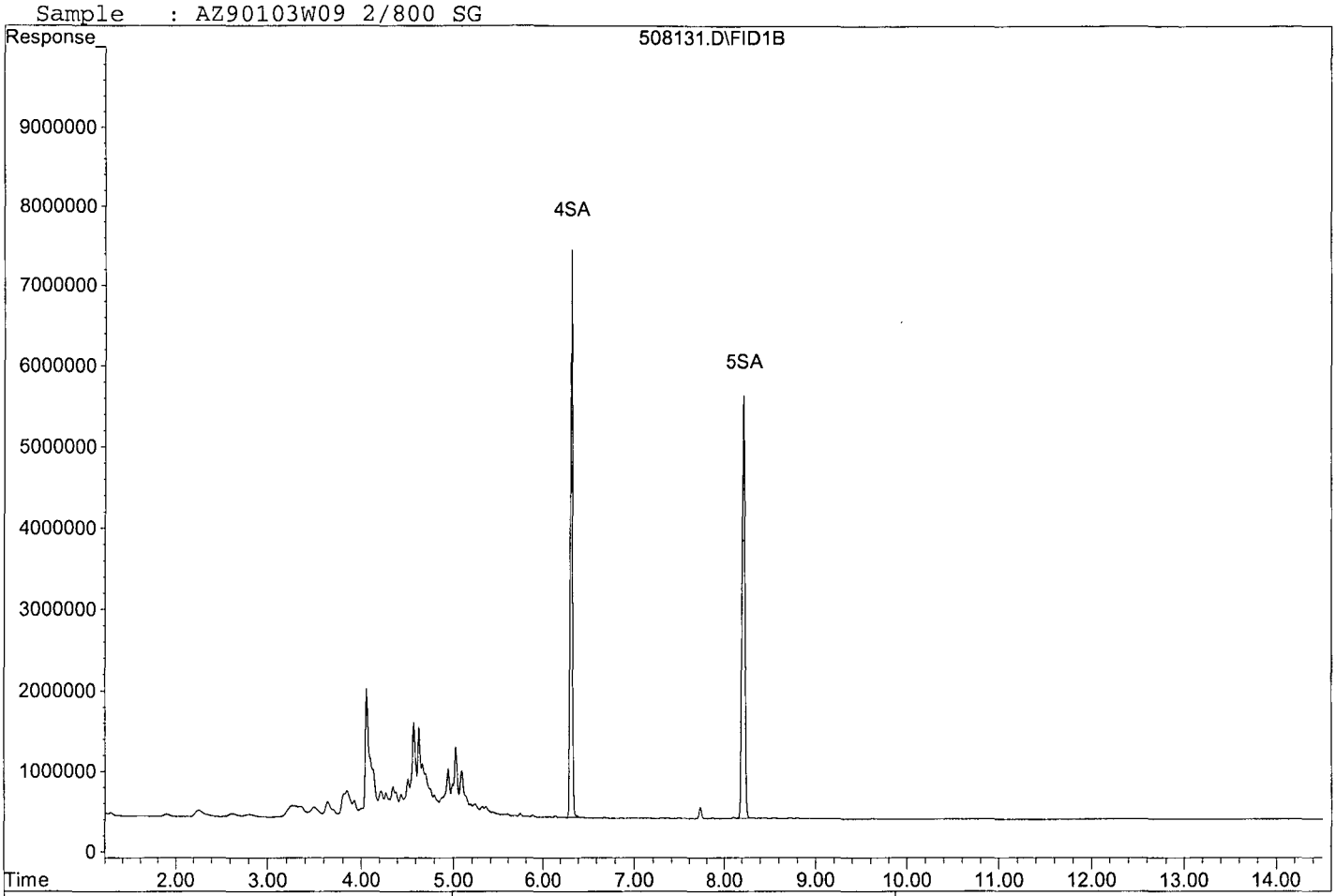
Method : G:\APOLLO\DATA\190508\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

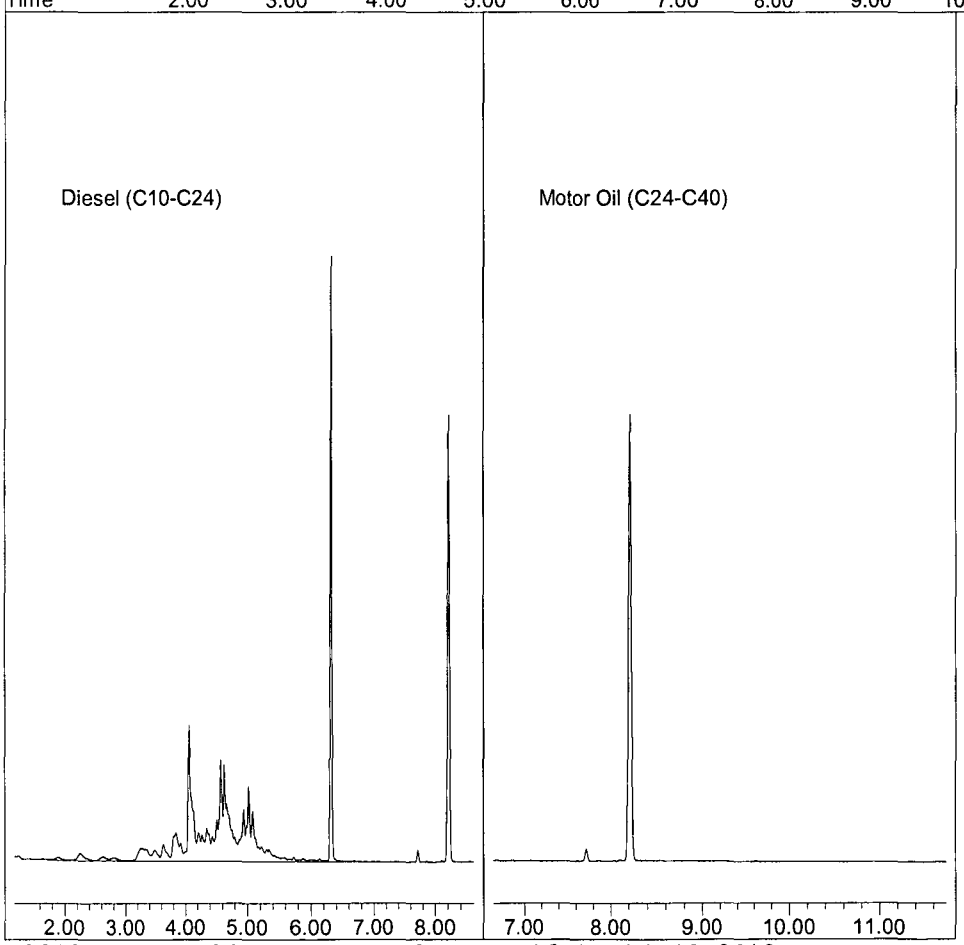
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 114758948 | 70.883 ppb |
| Surrogate Spike 75.000 | Recovery = | | 94.51% |
| 5) SA Octacosane(S) | 8.21 | 111455216 | 73.630 ppb |
| Surrogate Spike 75.000 | Recovery = | | 98.17% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 418480423 | 438.615 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190508\508131.D
Sample : AZ90103W09 2/800 SG



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419069.D Vial: 69
Acq On : 4-30-19 0:02:56 Operator: DP
Sample : AZ90105W22 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:48 2019 Quant Results File: DOC0411.RES

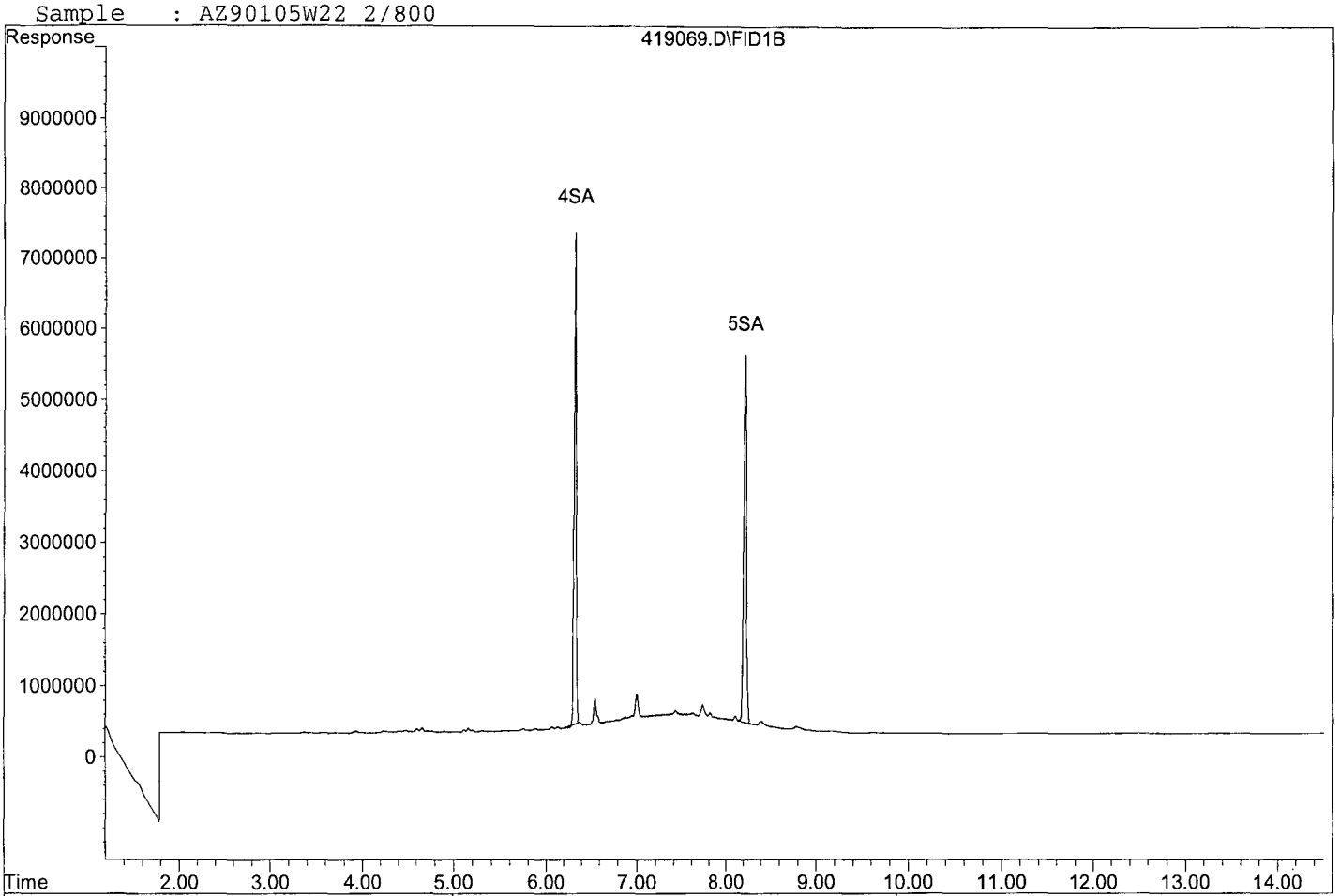
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

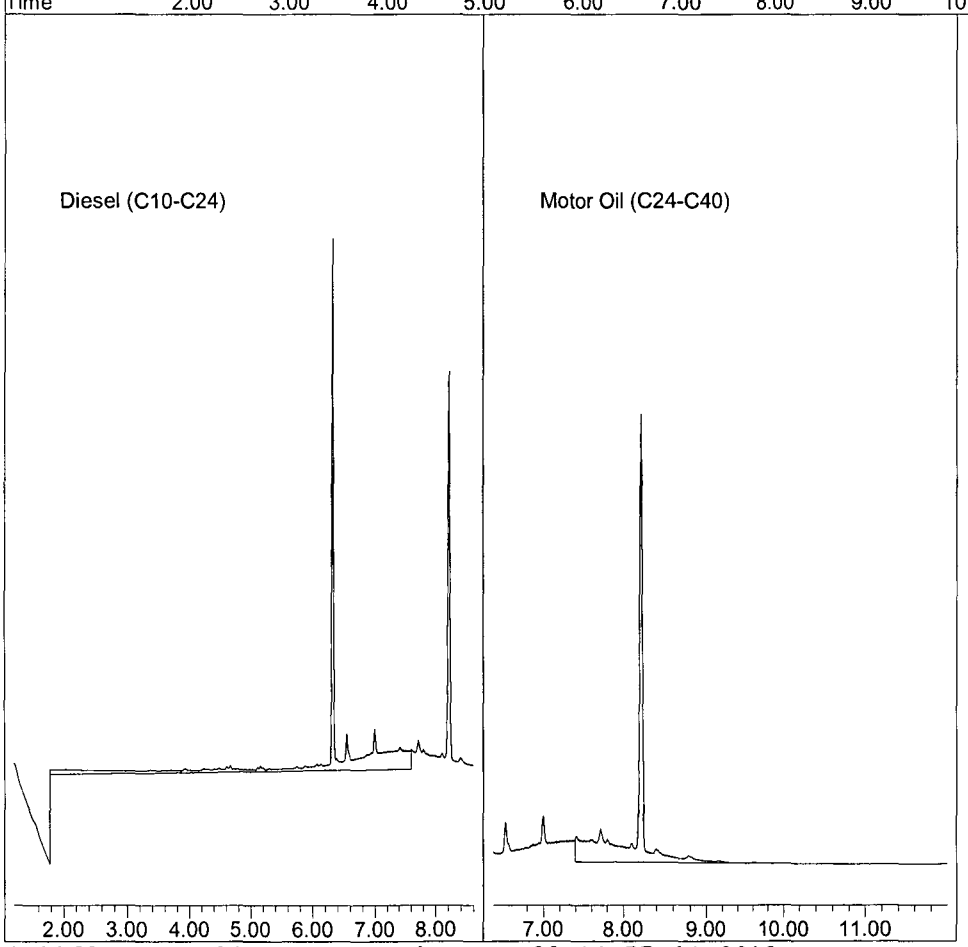
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 113948211 | 70.382 ppb |
| Surrogate Spike 75.000 | Recovery = | | 93.84% |
| 5) SA Octacosane(S) | 8.22 | 111949870 | 73.957 ppb |
| Surrogate Spike 75.000 | Recovery = | | 98.61% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 284922014 | 298.631 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 147647918 | 193.914 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190419\419069.D
Sample : AZ90105W22 2/800

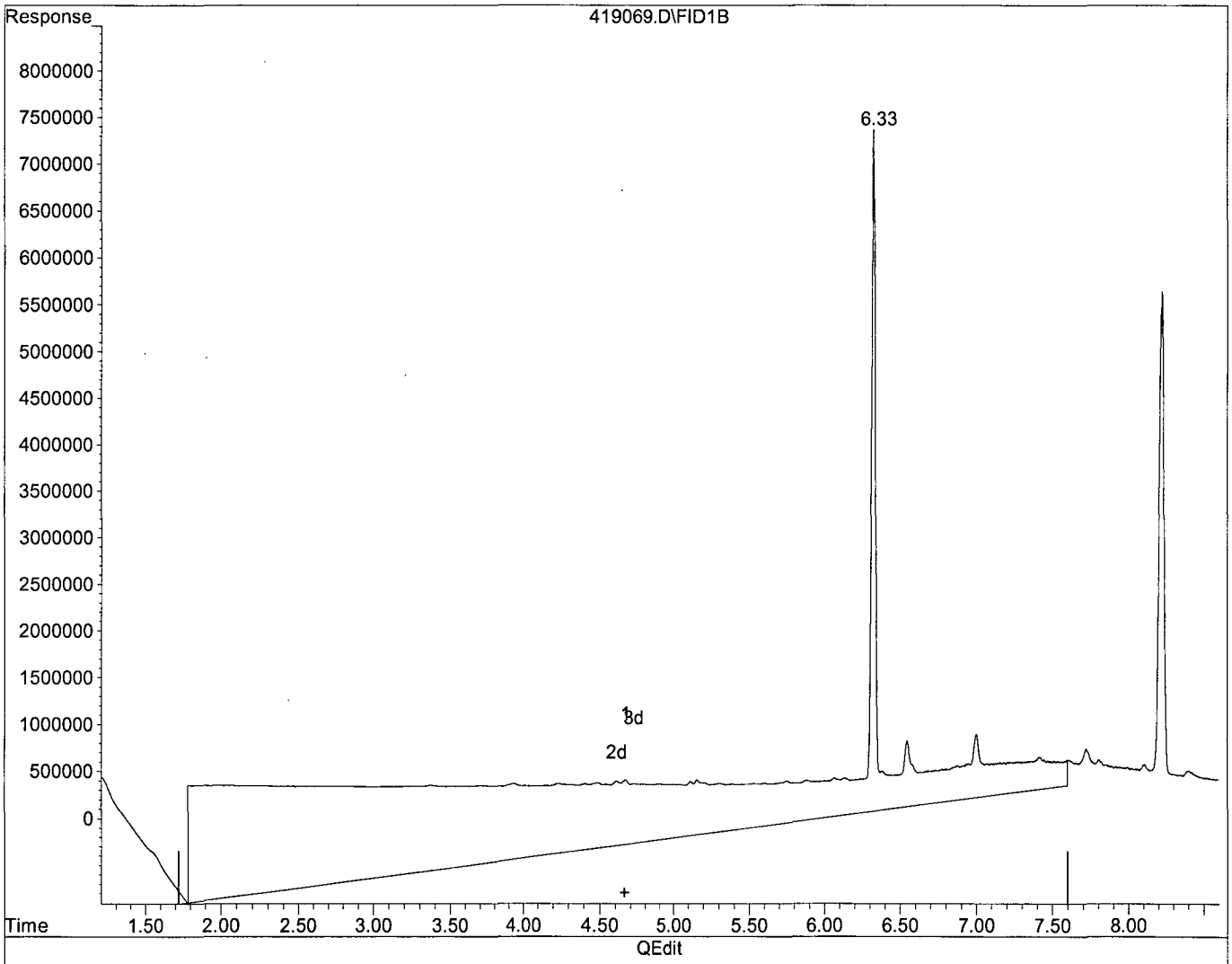


Quantitation Report

Data File : G:\APOLLO\DATA\190419\419069.D Vial: 69
Acq On : 4-30-19 0:02:56 Operator: DP
Sample : AZ90105W22 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 10:52 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190419\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration




(1) Diesel (C10-C24) (HATM)

4.66min 2475.968ppb m

response 2362308442

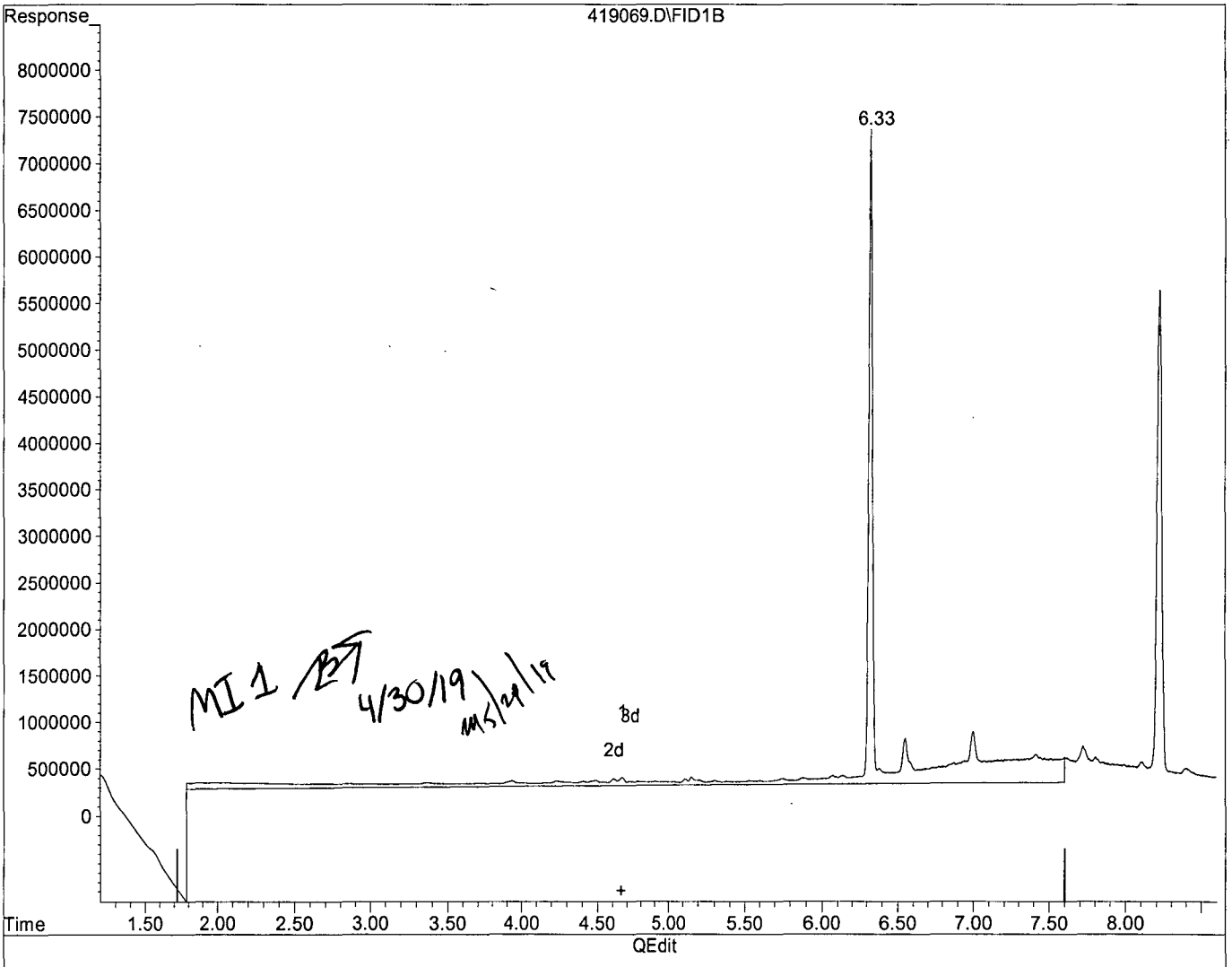
(+) = Expected Retention Time

419069.D DOC0411.M Tue Apr 30 11:47:26 2019

Quantitation Report

Data File : G:\APOLLO\DATA\190419\419069.D Vial: 69
Acq On : 4-30-19 0:02:56 Operator: DP
Sample : AZ90105W22 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 10:52 2019 Quant Results File: DOC0411.RES

Method : G:\APOLLO\DATA\190419\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration




(1) Diesel (C10-C24) (HATM)

4.66min 298.631ppb m

response 284922014

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190508\508132.D Vial: 32
Acq On : 5-16-19 13:45:56 Operator: DP
Sample : AZ90105W22 2/800 SG Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 16 14:55 2019 Quant Results File: DOC0411.RES

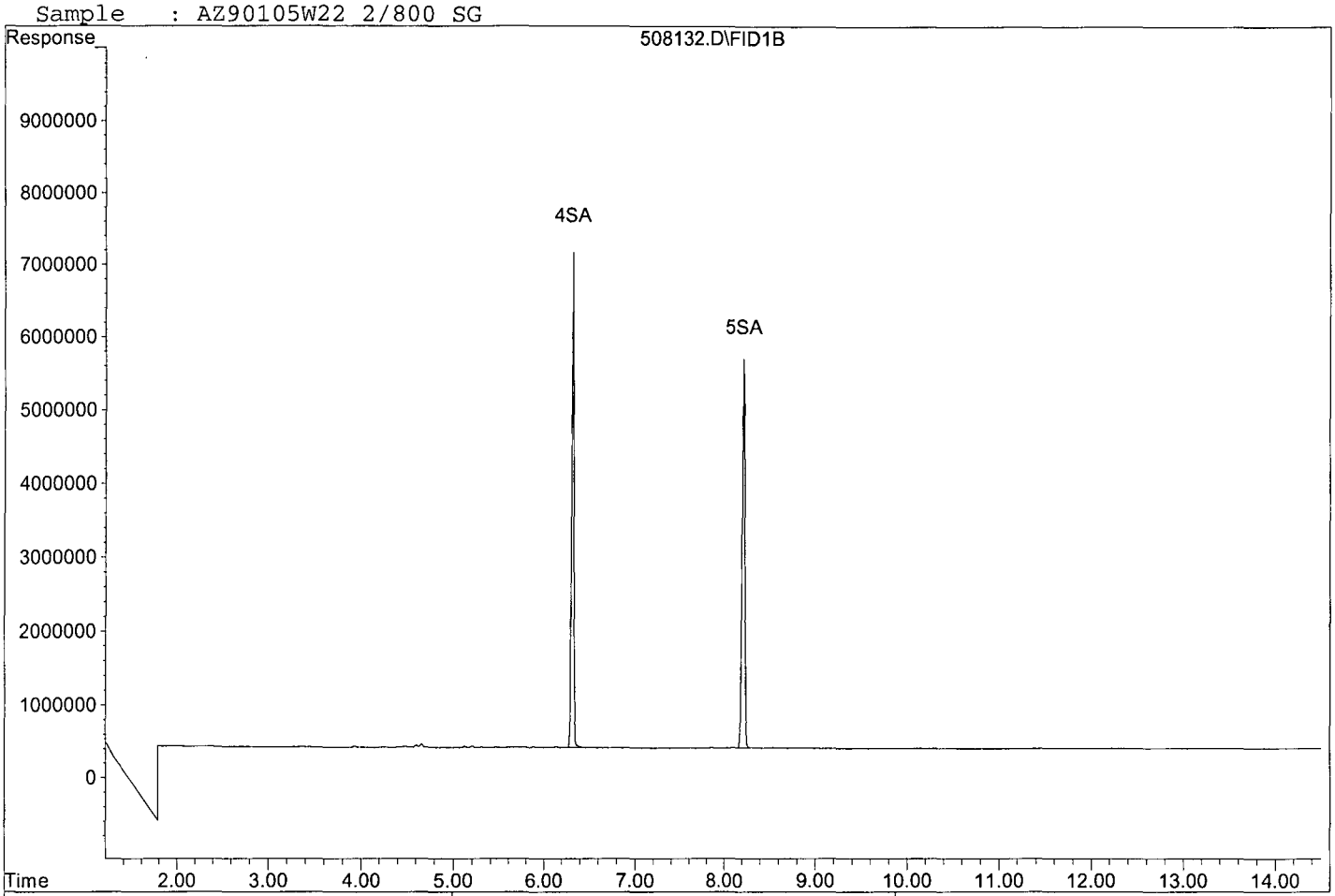
Method : G:\APOLLO\DATA\190508\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

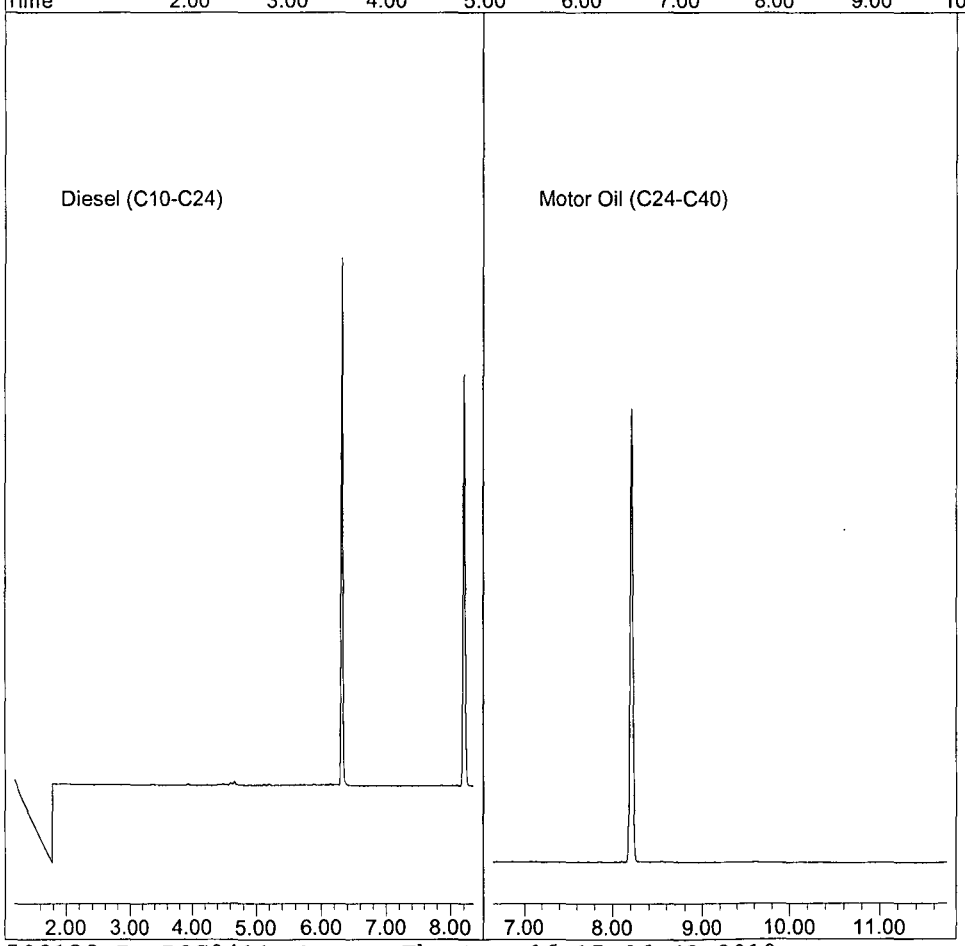
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 113303277 | 69.984 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 93.31% | |
| 5) SA Octacosane(S) | 8.21 | 109051297 | 72.042 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 96.06% | |
| Target Compounds | | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190508\508132.D
Sample : AZ90105W22 2/800 SG



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419070.D Vial: 70
Acq On : 4-30-19 0:22:41 Operator: DP
Sample : AZ90107W19 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:48 2019 Quant Results File: DOC0411.RES

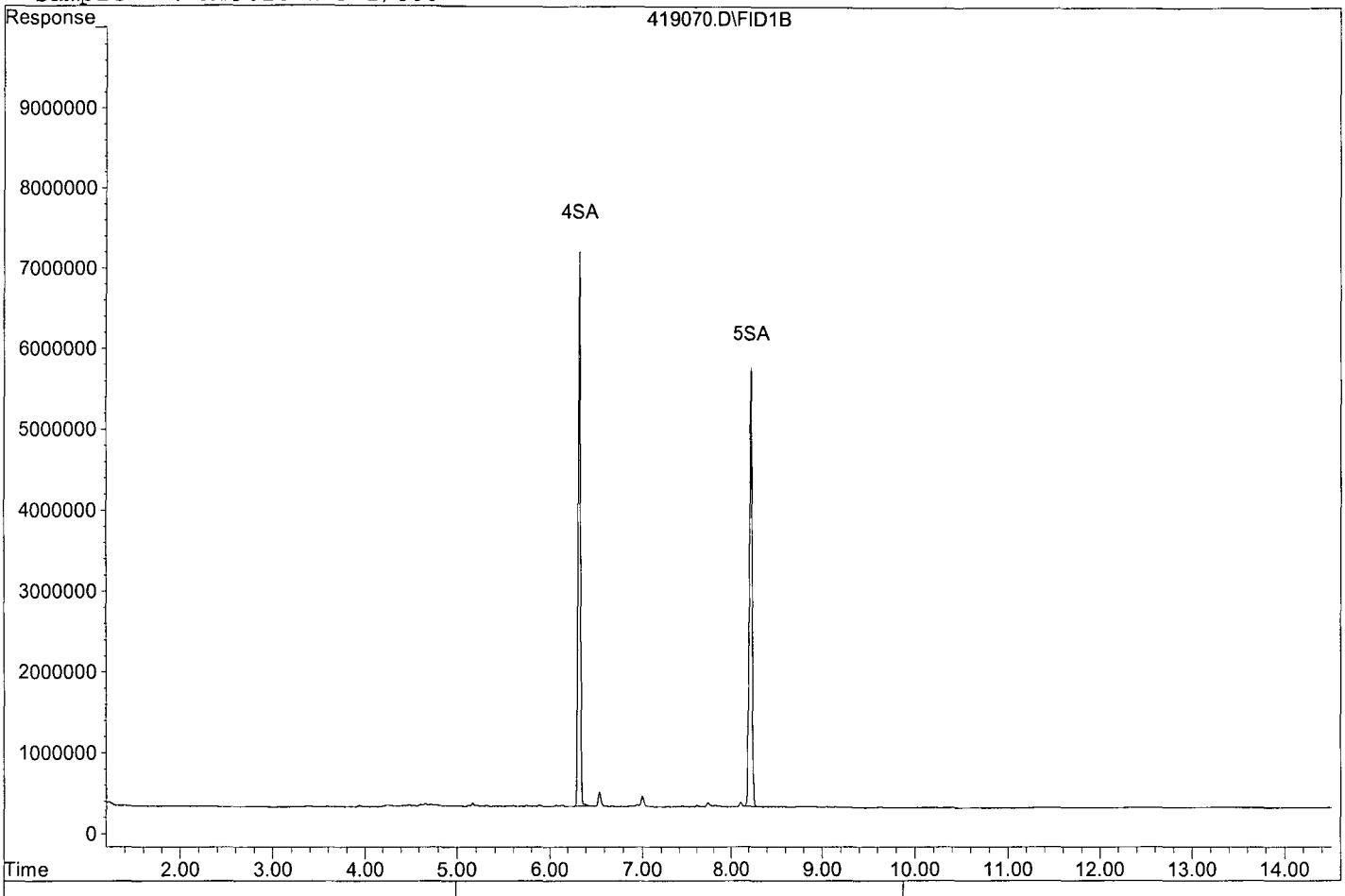
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

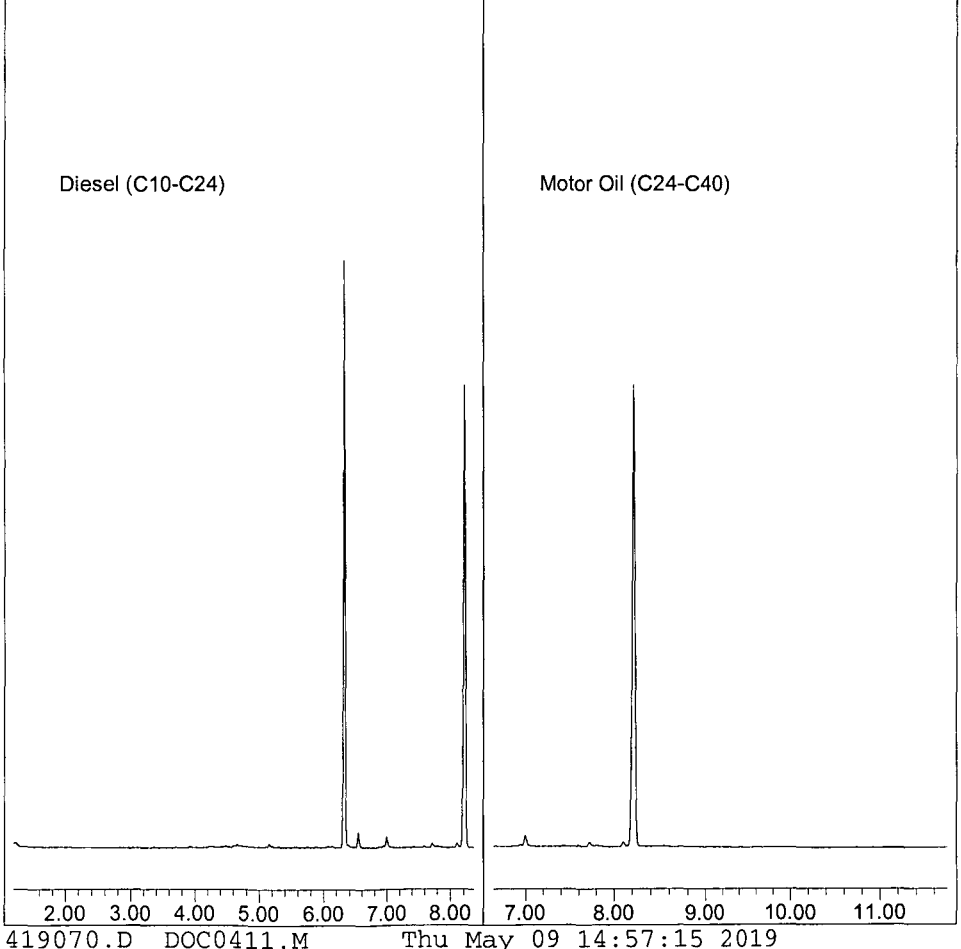
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 115642668 | 71.429 ppb |
| Surrogate Spike 75.000 | | Recovery = | 95.24% |
| 5) SA Octacosane(S) | 8.22 | 111172276 | 73.443 ppb |
| Surrogate Spike 75.000 | | Recovery = | 97.92% |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190419\419070.D
Sample : AZ90107W19 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419071.D Vial: 71
Acq On : 4-30-19 0:42:23 Operator: DP
Sample : AZ90109W22 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:49 2019 Quant Results File: DOC0411.RES

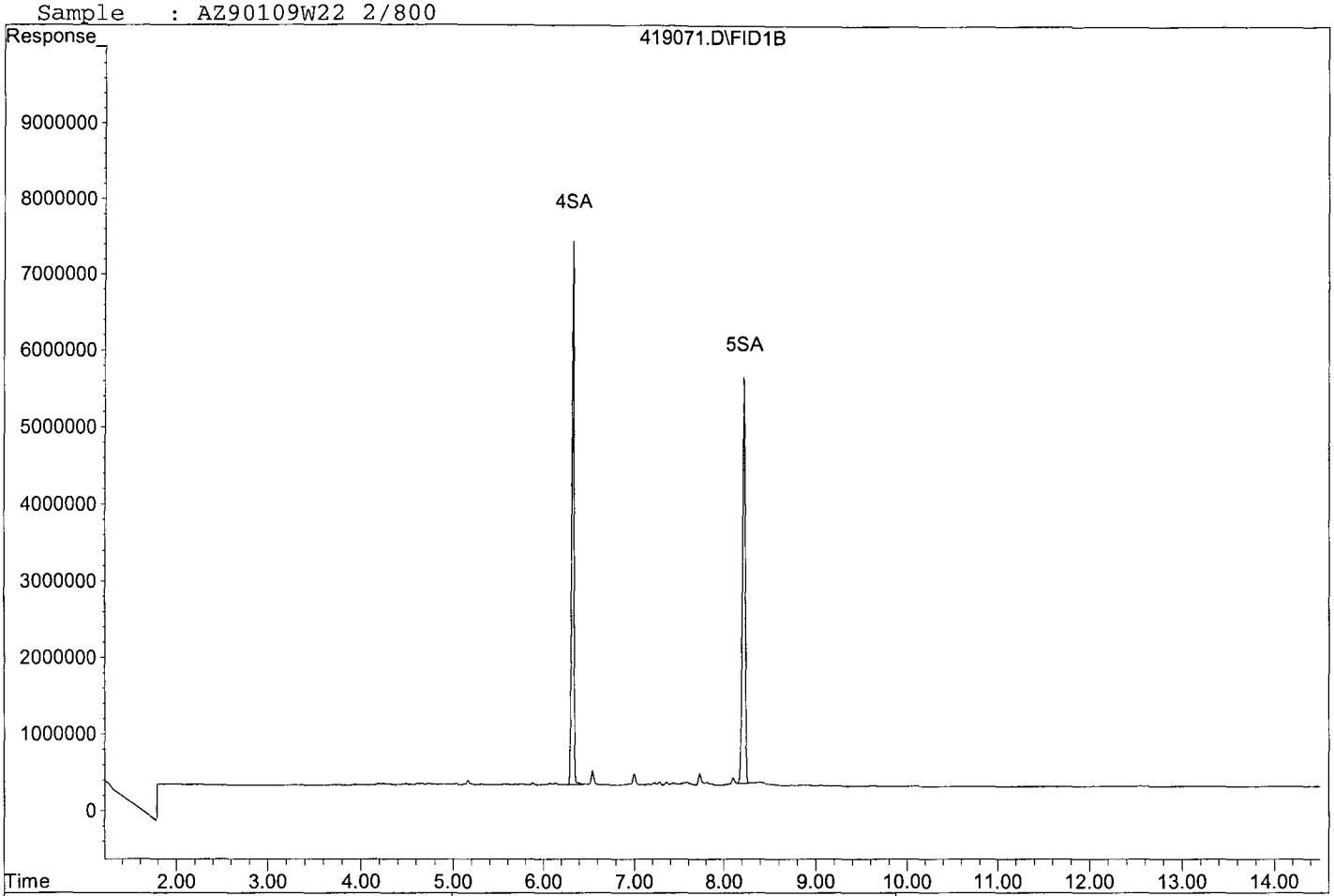
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

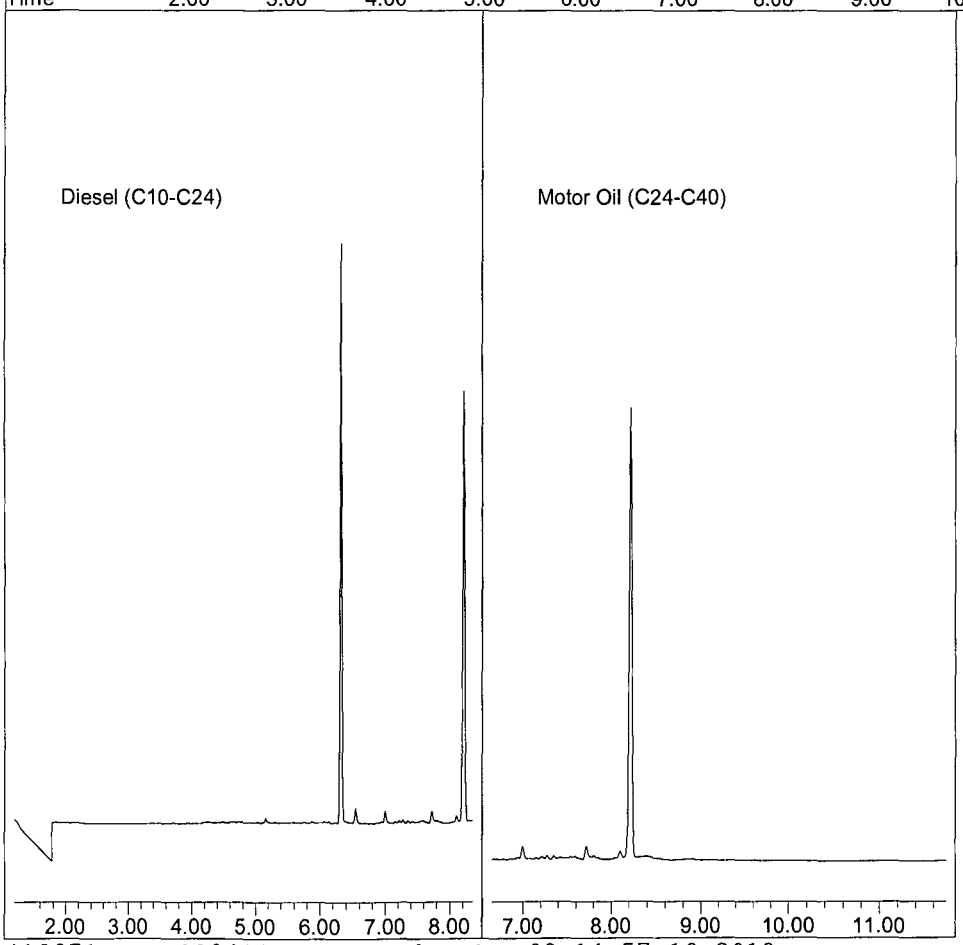
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 119284646 | 73.678 ppb |
| Surrogate Spike 75.000 | | Recovery = | 98.24% |
| 5) SA Octacosane(S) | 8.22 | 113119414 | 74.730 ppb |
| Surrogate Spike 75.000 | | Recovery = | 99.64% |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190419\419071.D
Sample : AZ90109W22 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419049.D Vial: 49
Acq On : 4-29-19 17:23:01 Operator: DP
Sample : 190426A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 8 13:37 2019 Quant Results File: DOC0411.RES

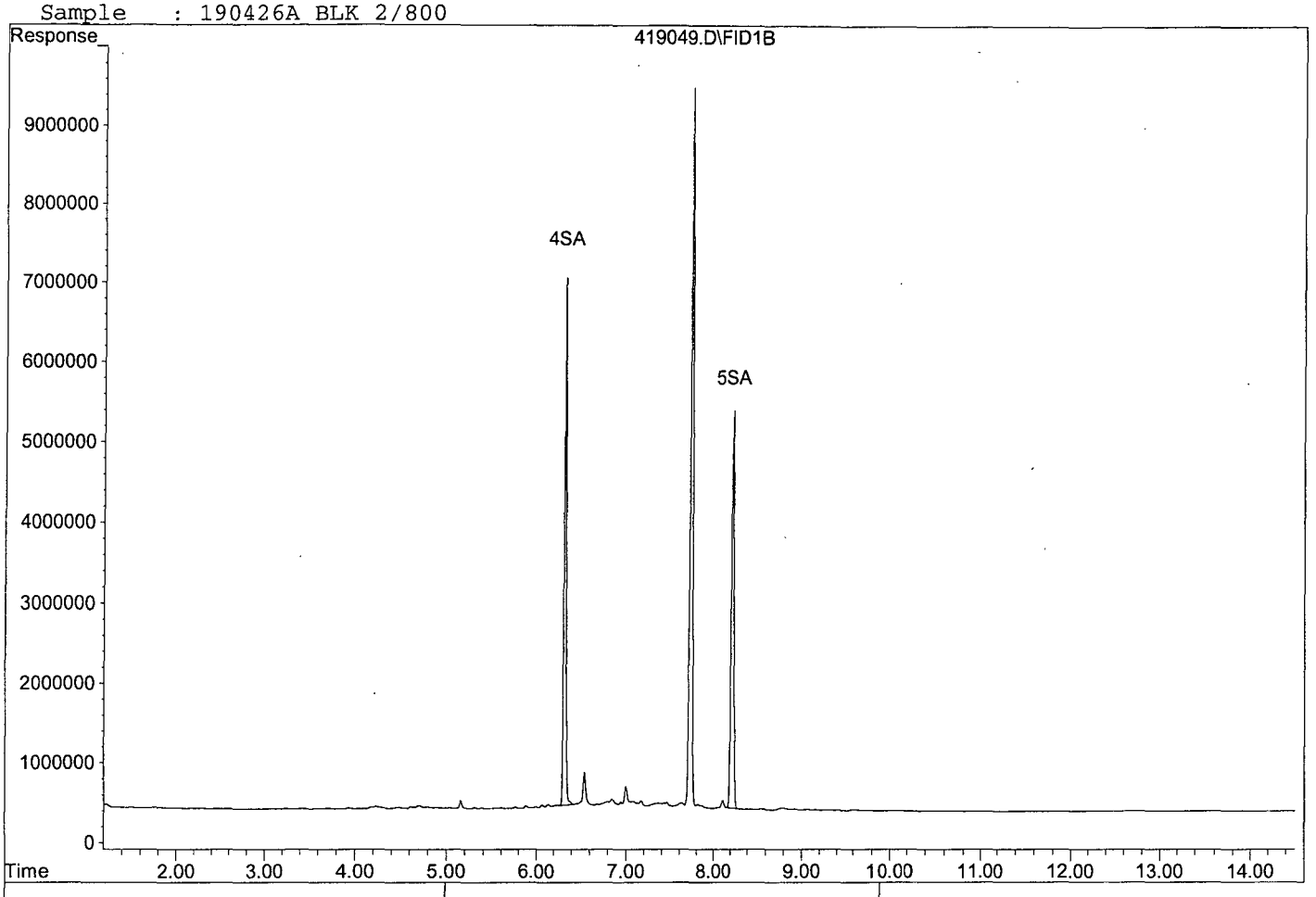
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

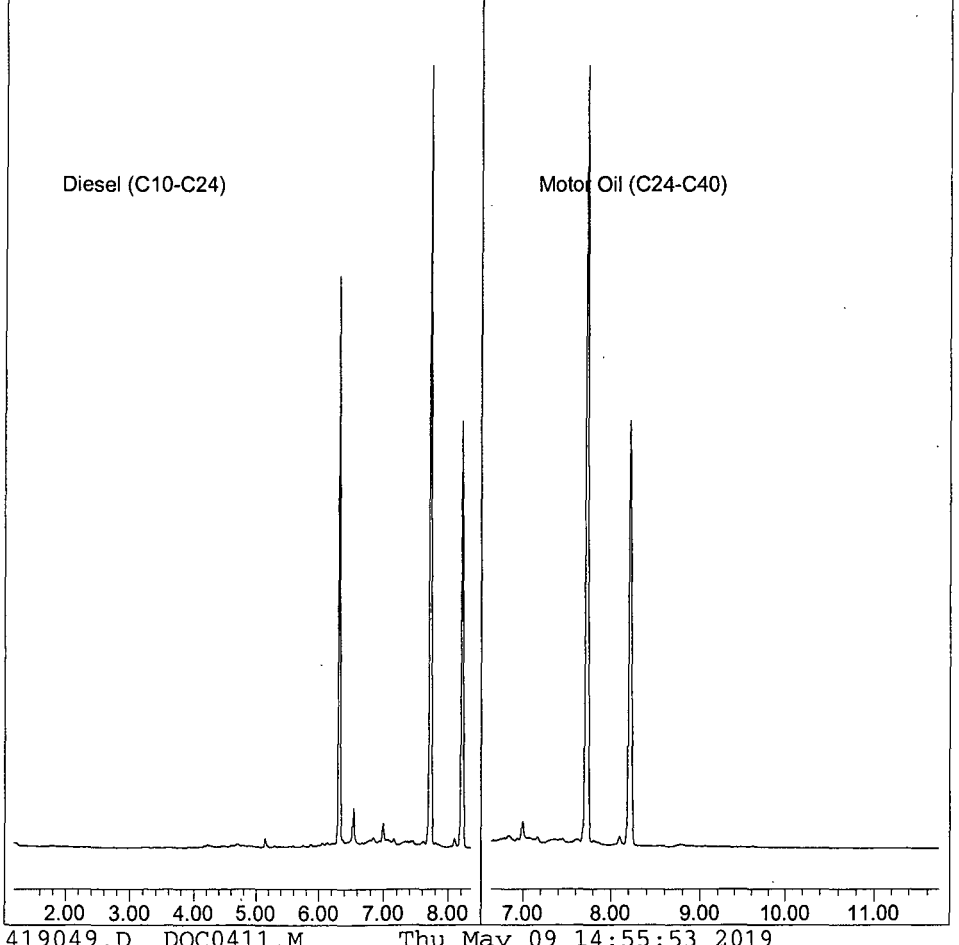
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 110002294 | 67.945 ppb |
| Surrogate Spike 75.000 | Recovery = | | 90.59% |
| 5) SA Octacosane(S) | 8.22 | 105116559 | 69.443 ppb |
| Surrogate Spike 75.000 | Recovery = | | 92.59% |
| Target Compounds | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190419\419049.D
Sample : 190426A BLK 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190508\508126.D Vial: 26
Acq On : 5-16-19 10:25:07 Operator: DP
Sample : 190426A BLK 2/800 SG Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 16 15:00 2019 Quant Results File: DOC0411.RES

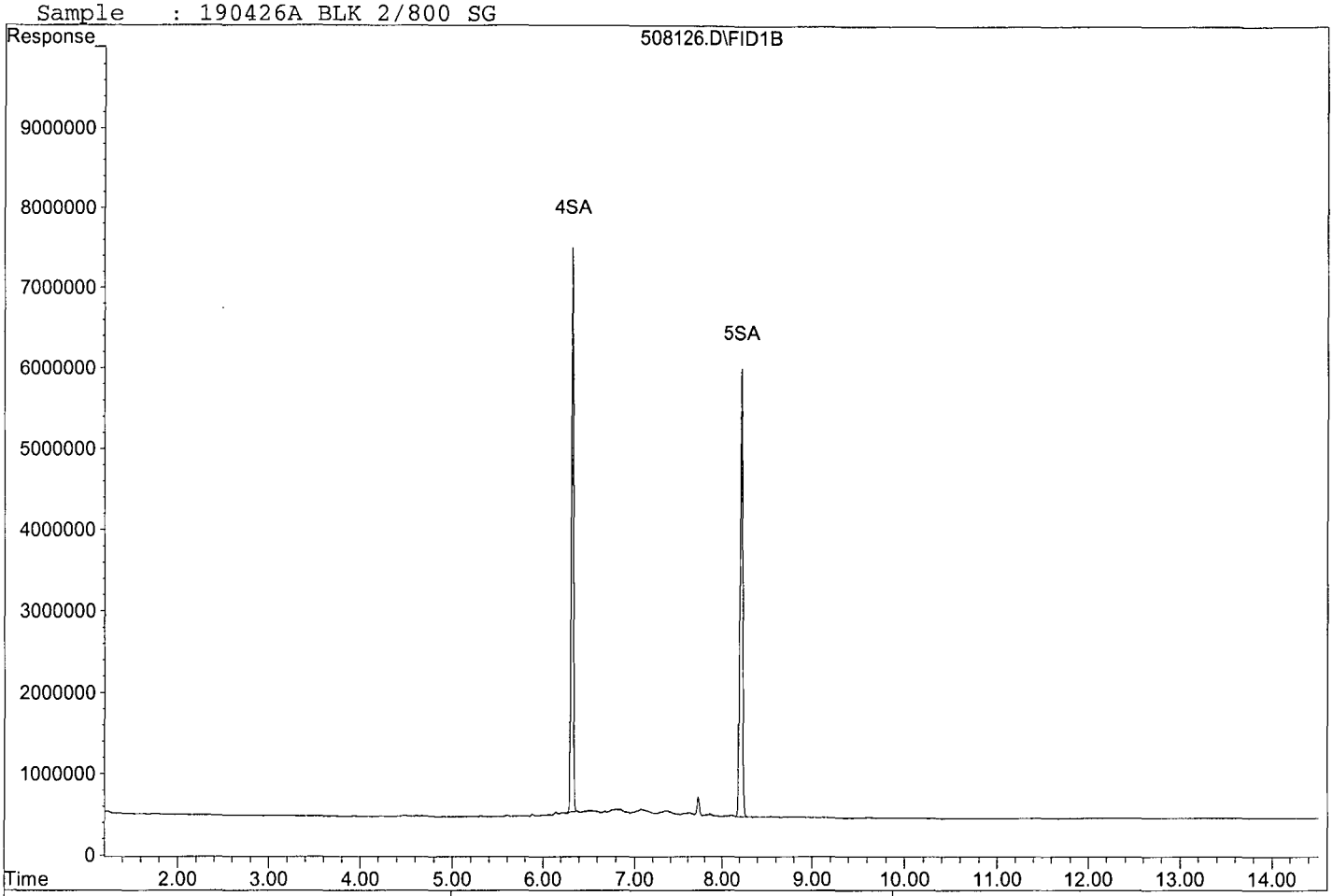
Method : G:\APOLLO\DATA\190508\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

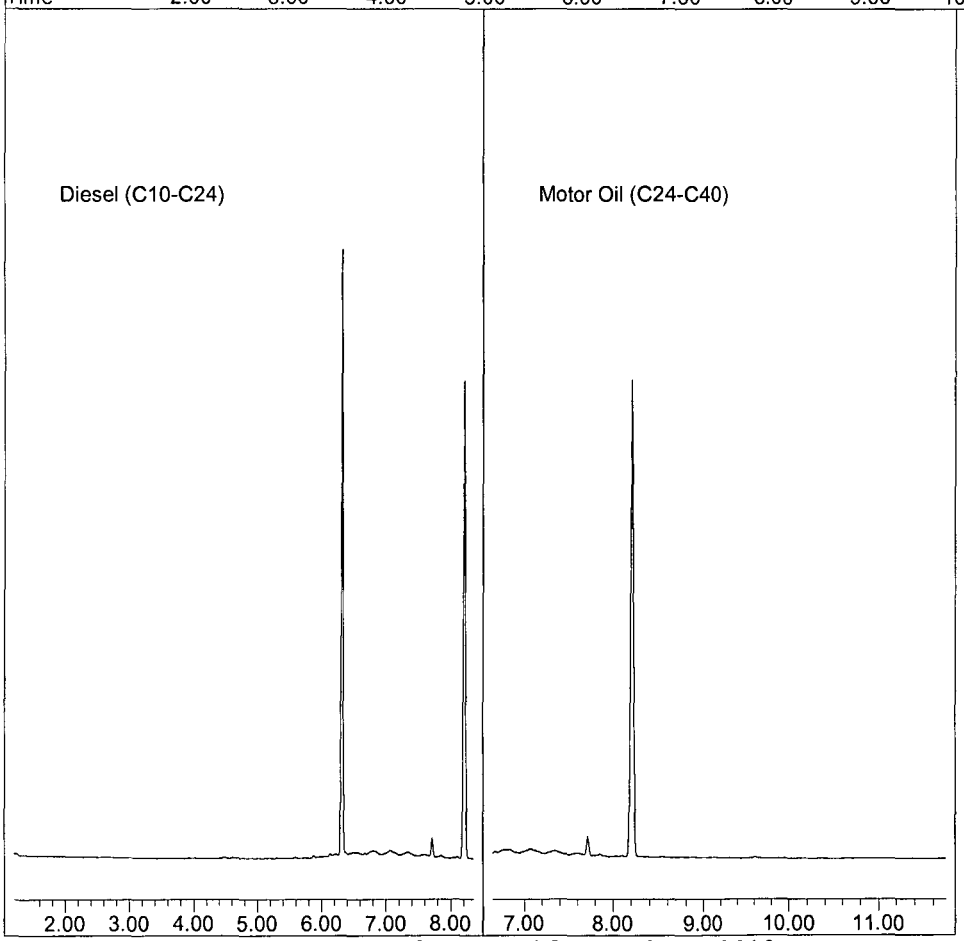
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 114994164 | 71.028 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 94.70% | |
| 5) SA Octacosane(S) | 8.21 | 113835073 | 75.202 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 100.27% | |
| Target Compounds | | | | |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190508\508126.D
Sample : 190426A BLK 2/800 SG



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419050.D Vial: 50
Acq On : 4-29-19 17:43:06 Operator: DP
Sample : 190426A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:04 2019 Quant Results File: DOC0411.RES

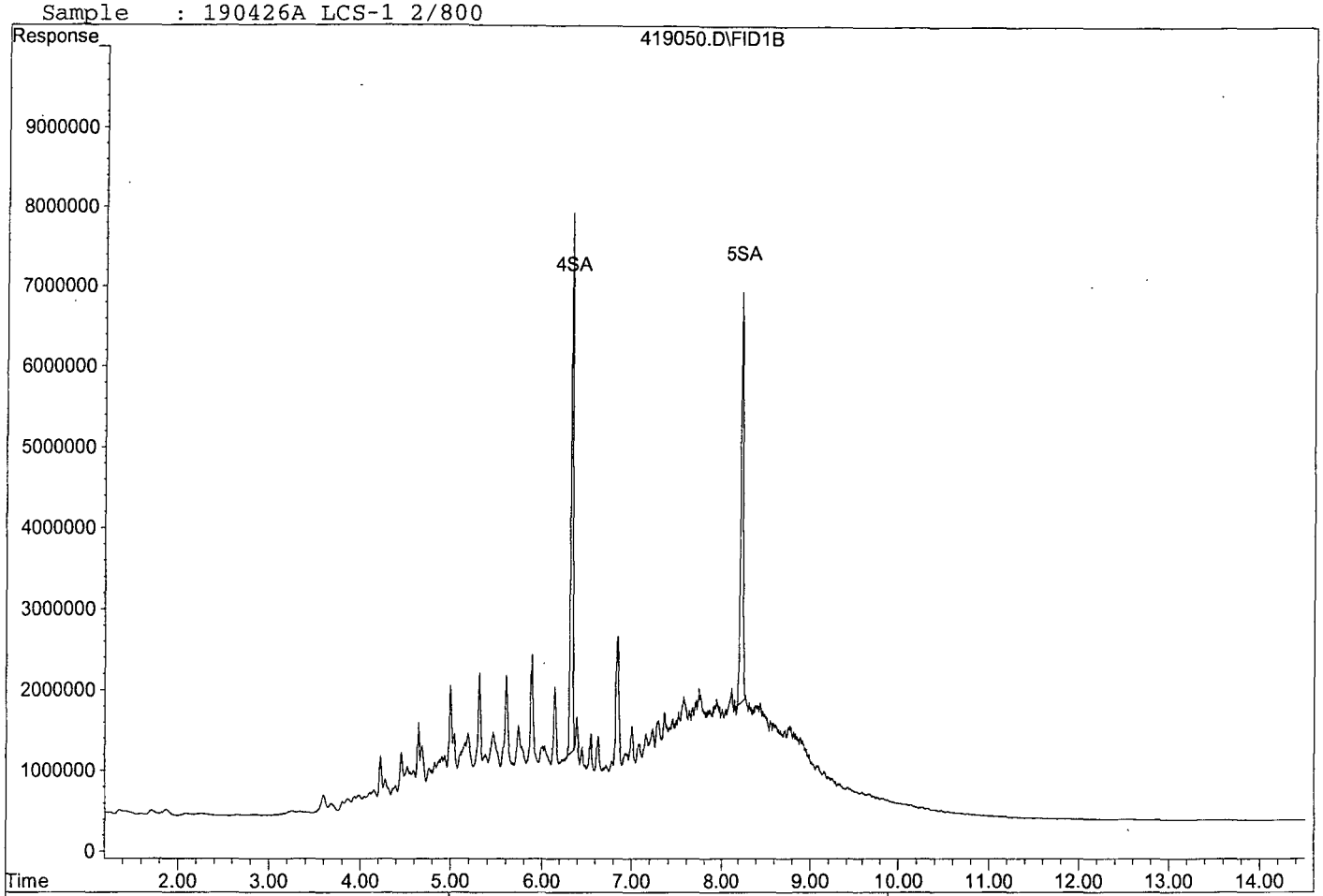
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

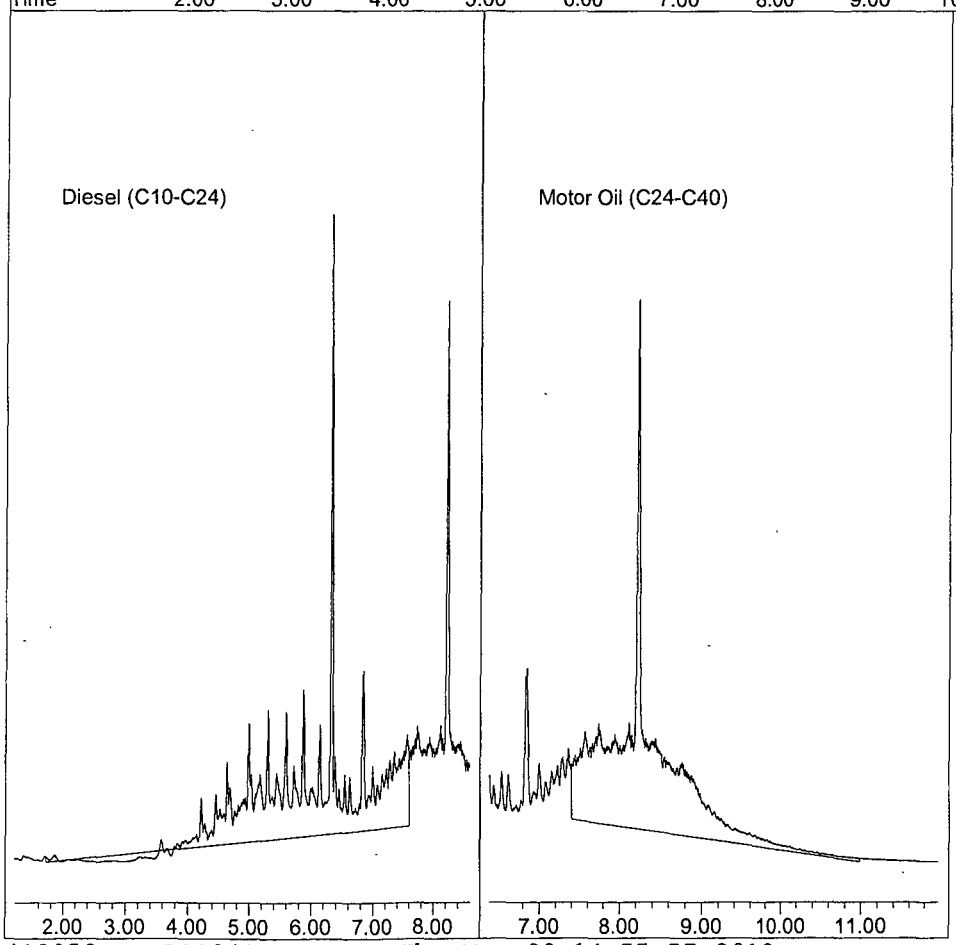
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc Units |
|---|---|---|---|
| System Monitoring Compounds | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 107443194 | 66.364 ppb |
| Surrogate Spike 75.000 | | Recovery = | 88.49% |
| 5) SA Octacosane(S) | 8.23 | 101025878 | 66.740 ppb |
| Surrogate Spike 75.000 | | Recovery = | 88.99% |
| Target Compounds | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1068693657 | 1120.112 ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 954916564 | 1254.146 ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190419\419050.D
Sample : 190426A LCS-1 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190419\419051.D Vial: 51
Acq On : 4-29-19 18:03:12 Operator: DP
Sample : 190426A LCSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Apr 30 11:05 2019 Quant Results File: DOC0411.RES

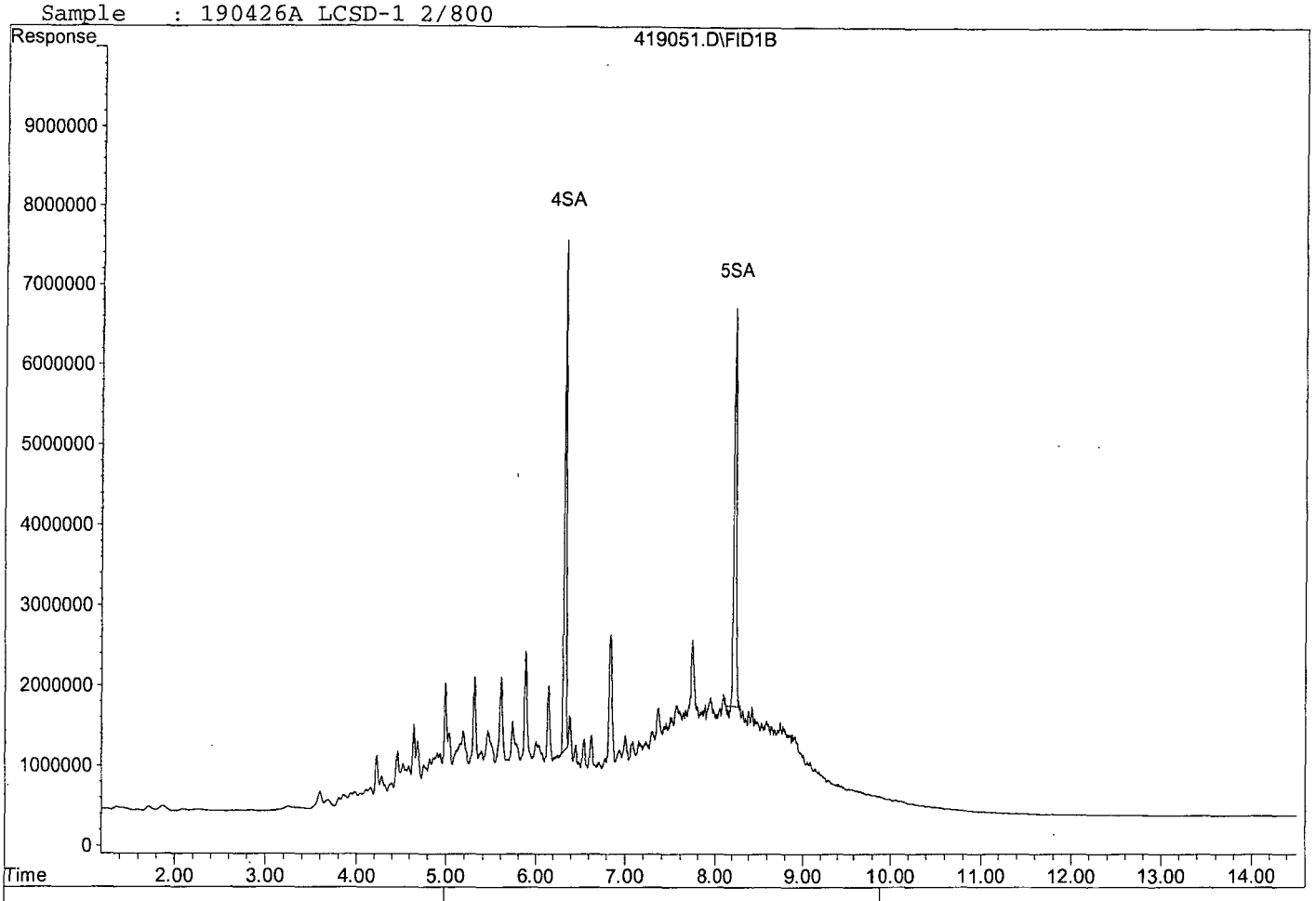
Method : G:\APOLLO\DATA\190506\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

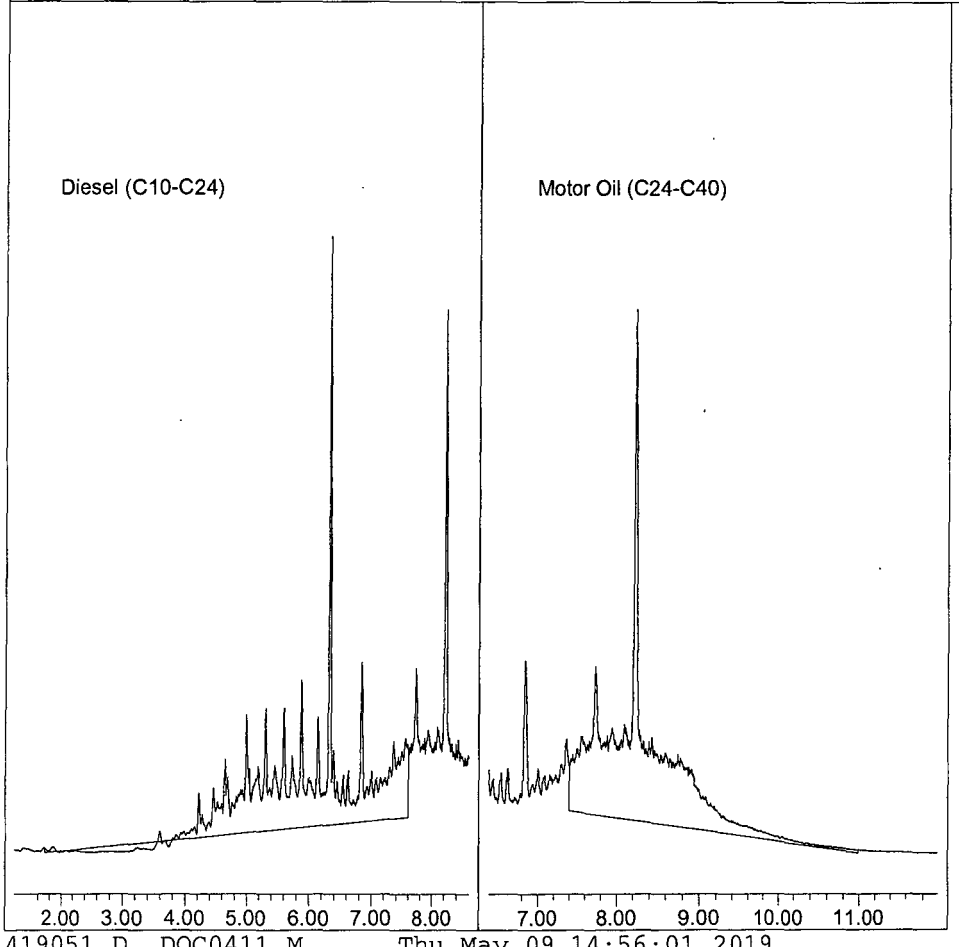
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.33 | 106639193 | 65.867 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 87.82% | |
| 5) SA Octacosane(S) | 8.23 | 98198519 | 64.873 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 86.50% | |
| Target Compounds | | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 1025097325 | 1074.419 | ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 901976261 | 1184.617 | ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190419\419051.D
Sample : 190426A LCSD-1 2/800



Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190508\508127.D Vial: 27
Acq On : 5-16-19 10:44:08 Operator: DP
Sample : 190426A LCS-1 2/800 SG Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 16 14:59 2019 Quant Results File: DOC0411.RES

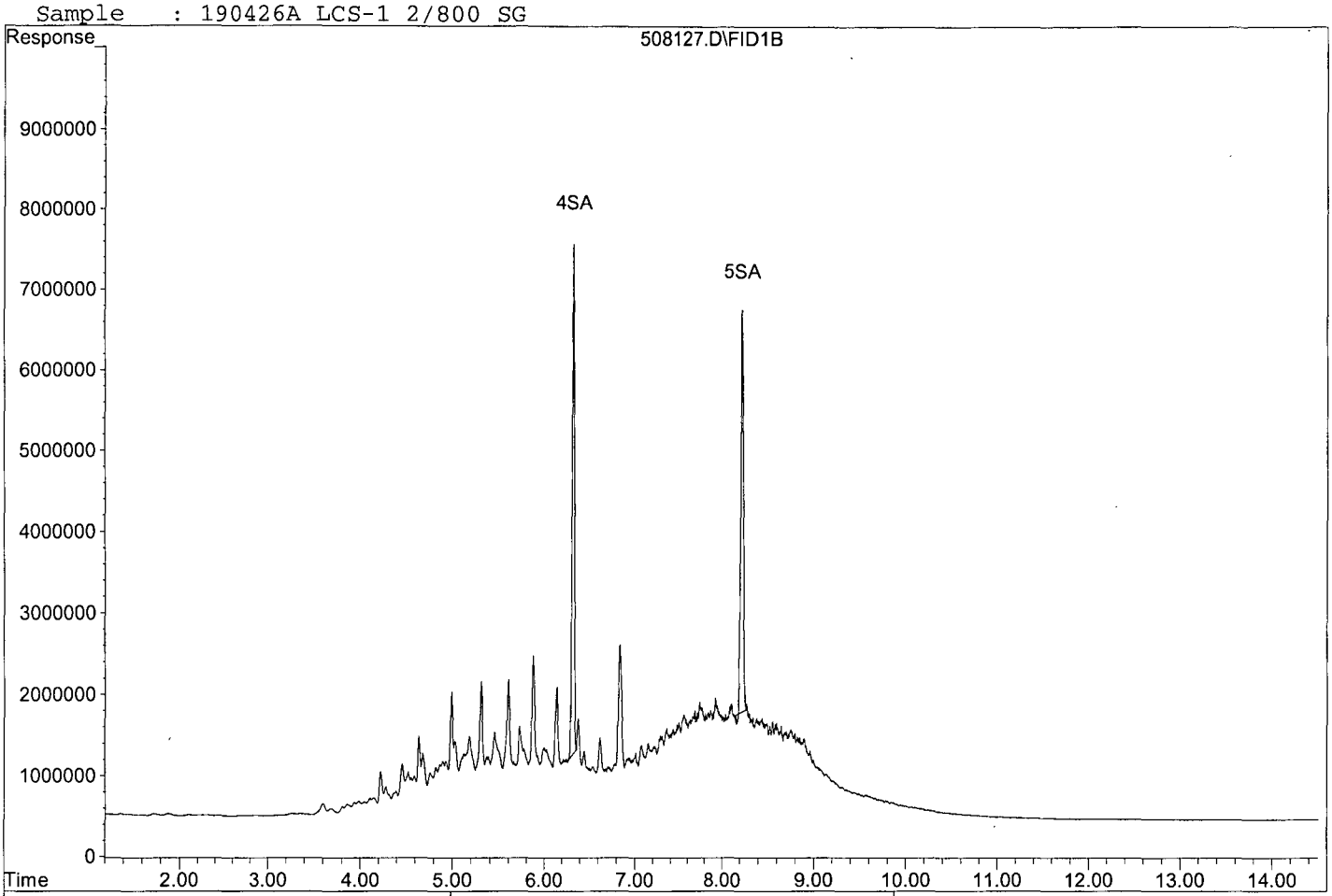
Method : G:\APOLLO\DATA\190508\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

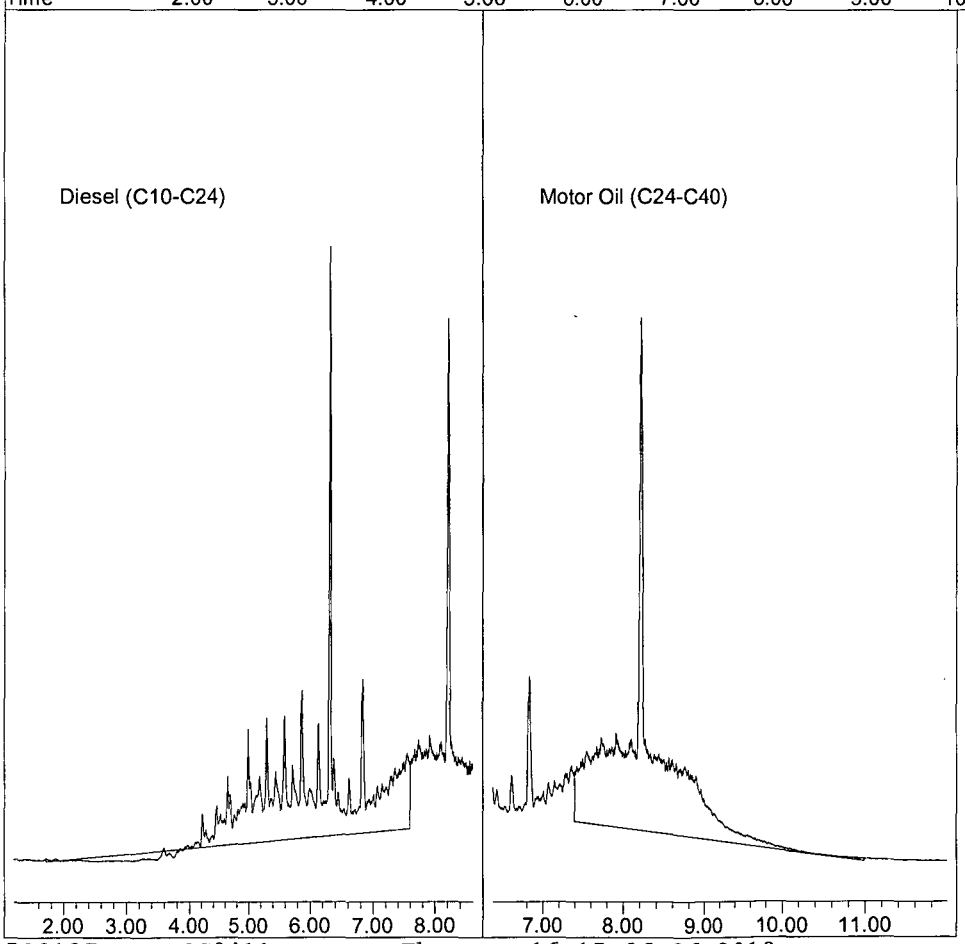
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 106279438 | 65.645 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 87.53% | |
| 5) SA Octacosane(S) | 8.22 | 99806293 | 65.935 | ppb |
| Surrogate Spike 75.000 | | Recovery = | 87.91% | |
| Target Compounds | | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 991429798 | 1039.131 | ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 868657096 | 1140.857 | ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190508\508127.D
Sample : 190426A LCS-1 2/800 SG




508127.D DOC0411.M Thu May 16 15:06:26 2019 Page 2

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\190508\508128.D Vial: 28
Acq On : 5-16-19 11:03:53 Operator: DP
Sample : 190426A LCSD-1 2/800 SG Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: May 16 14:59 2019 Quant Results File: DOC0411.RES

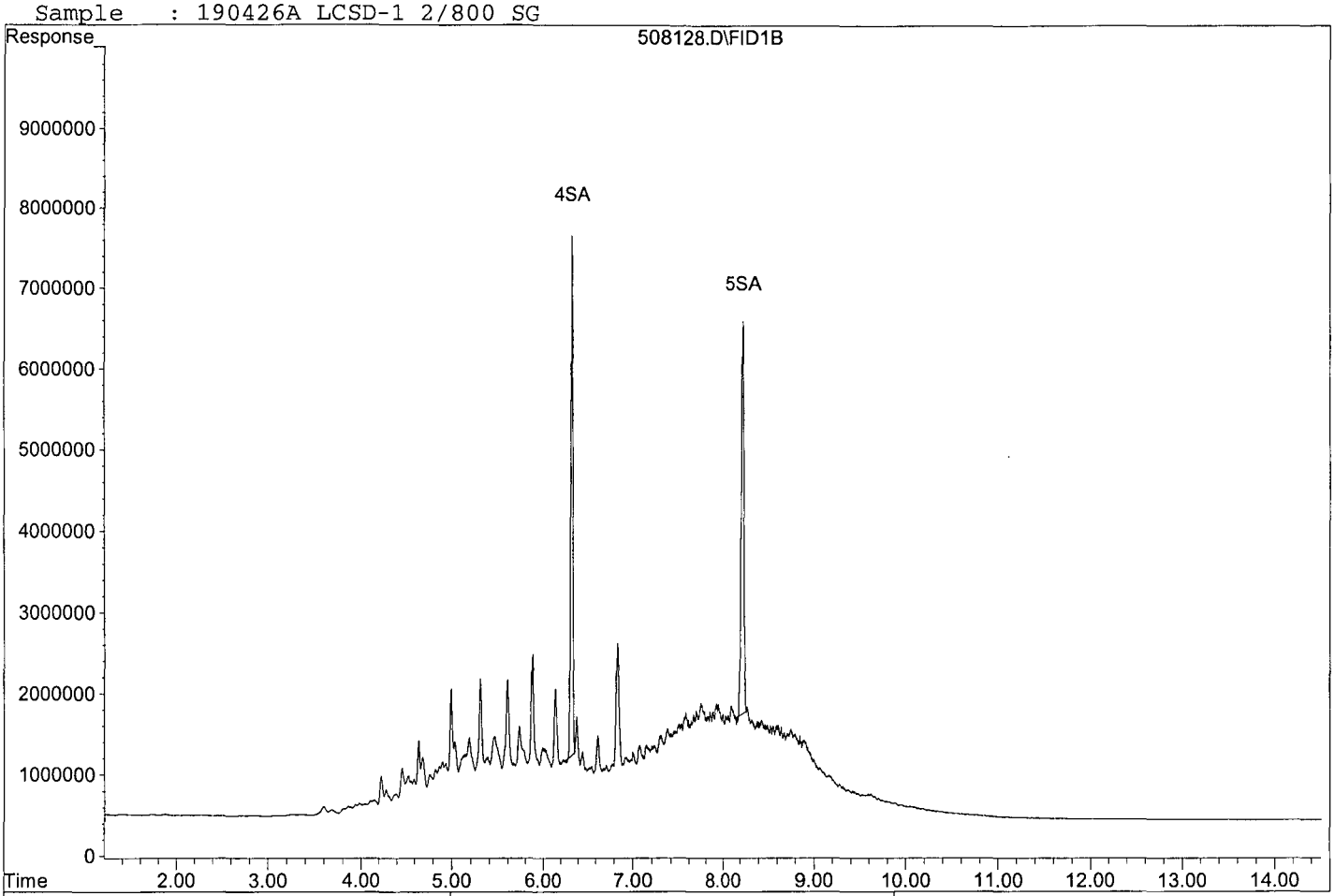
Method : G:\APOLLO\DATA\190508\DOC0411.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Apr 12 10:31:44 2019
Response via : Multiple Level Calibration

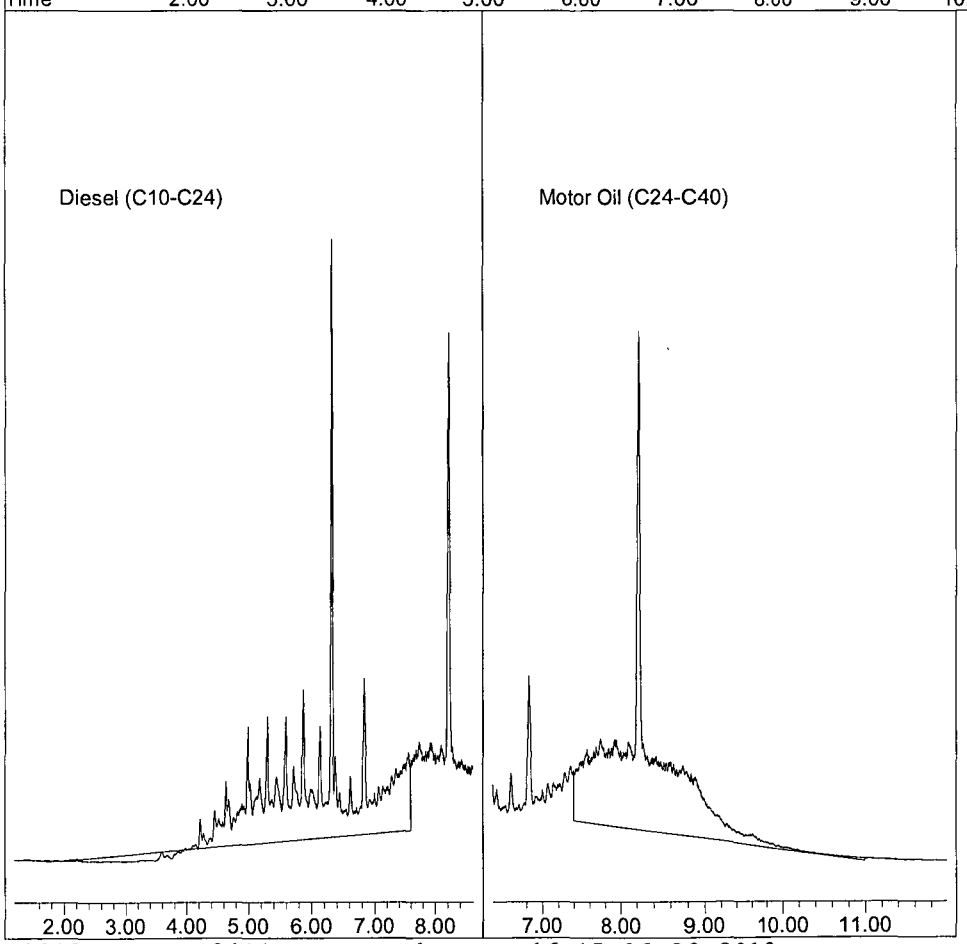
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

| Compound | R.T. | Response | Conc | Units |
|---|---|---|---|---|
| System Monitoring Compounds | | | | |
| 4) SA Ortho-Terphenyl(S) | 6.32 | 107323588 | 66.290 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 88.39% | |
| 5) SA Octacosane(S) | 8.22 | 100547524 | 66.424 | ppb |
| Surrogate Spike 75.000 | Recovery = | | 88.57% | |
| Target Compounds | | | | |
| 1) HATM Diesel (C10-C24) | 4.66 | 994856161 | 1042.722 | ppb |
| 2) HBTM Motor Oil (C24-C40) | 9.20 | 854793387 | 1122.649 | ppb |

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\190508\508128.D
Sample : 190426A LCSD-1 2/800 SG




508128.D DOC0411.M Thu May 16 15:06:29 2019 Page 2

**Diesel / Motor Oil Calibration Curve**

**Prepared: 04/11/19**

**Expires: 10/11/19**

**Prepared By (Initials): BT**

**Methylene Chloride Lot No. 57278**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference to APPL Prep Date | Exp. Date | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 1 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 5uL | 1mL | MC | 10 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil -2 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 25uL | 1mL | MC | 50 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 3 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 125uL | 1mL | MC | 250 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 4 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 500uL | 1mL | MC | 1000 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 5 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 750uL | 1mL | MC | 1500 |
| Diesel / Motor Oil Calibration STD | APPL | Diesel / Motor Oil - 6 | 2,000 | Prepared 04/11/19 | 01/15/20 | N/A | 100uL | 100uL | N/A | 2,000 |

**Decanoic Acid Calibration Curve**

**Prepared: 04/11/19**

**Expires: 07/20/19**

**Prepared By (Initials): DP**

**Methylene Chloride Lot No. 57278**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference To APPL Prep Date | Exp. Date | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Decanoic Acid STD | APPL | Decanoic Acid-1 | 60 | Prepared 07/20/18 | 07/20/19 | N/A | 50uL | 1mL | MC | 3 |
| Decanoic Acid STD | APPL | Decanoic Acid-2 | 60 | Prepared 07/20/18 | 07/20/19 | N/A | 100uL | 1mL | MC | 6 |
| Decanoic Acid STD | APPL | Decanoic Acid-3 | 60 | Prepared 07/20/18 | 07/20/19 | N/A | 400uL | 1mL | MC | 24 |
| Decanoic Acid STD | APPL | Decanoic Acid-4 | 60 | Prepared 07/20/18 | 07/20/19 | N/A | 600uL | 1mL | MC | 36 |
| Decanoic Acid STD | APPL | Decanoic Acid-5 | 60 | Prepared 07/20/18 | 07/20/19 | N/A | 800uL | 1mL | MC | 48 |
| Decanoic Acid STD | APPL | Decanoic Acid-6 | 60 | Prepared 07/20/18 | 07/20/19 | N/A | 100uL | 100uL | N/A | 60 |

**Diesel / Motor Oil Calibration Standard**

**Prepared: 01/15/19** **Prepared By (Initials): DP**

**Expires: 01/15/20**

**Methylene Chloride Lot No. 56278**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Diesel Fuel #2 | Restek | 31258 | 50,000 | **A0135614-39409** | **01/15/20** | **03/31/25** | 400uL | 10mL | MC | 2000 |
| Motor Oil | Restek | 31464 | 50,000 | **A0135245-39351** | **01/15/20** | **03/31/25** | 400uL | | | 2000 |
| THC Surrogate | Phenova | ALO-130161 | 600 | **CL12572-39691** | **08/13/19** | **06/30/23** | 1666uL | | | 100 |

**Diesel / Motor Oil Second Source (SS)**

**Prepared: 01/15/19**

**Expires: 01/15/20**

**Prepared By (Initials): DP**

**Methylene Chloride Lot No. 56278**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Diesel Fuel #2 | O2SI | G34-011598-03 | 50,000 | **G34-319187-38958** | **08/02/19** | **09/29/21** | 50uL | 10mL | MC | 250 |
| Motor Oil Second Source | O2SI | 116390-02-SS | 50,000 | **301142-37652** | **07/13/19** | **03/05/22** | 50uL | | | |

**Name of Final Standard** **Decanoic Acid Std** **Prep'd By (Initials)** **DS**

**Prep Date** **07/20/18**
**Exp Date** **07/20/19**

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Decanoic Acid | O2Si | 011729-0105-5PAK | 1000 ug/mL | **329540-38638** | **07/20/19** | 600 uL | 10 mL | **MC 47186** | 60 ug/mL |

**Diesel / Motor Oil CCV**

**Prepared: 04/16/19**

**Expires: 10/16/19**

**Prepared By (Initials): BT**

**Methylene Chloride Lot No. 58059**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | APPL Mix Name | Conc. (ug/mL) | Reference to APPL Prep Date | Exp. Date | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Diesel / Motor Oil STD | APPL | Diesel / Motor Oil CCV | 2,000 | Prepared 01/15/19 | 01/15/20 | N/A | 1250uL | 10mL | MC | 250 |

**Diesel Spike**

**Prepared: 04/26/19** **Prepared By (Initials): DP**

**Expires: 04/25/20**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| (QAU Label) | Supplier | No. | (ug/mL) | Number | (1 yr.) | (Manufacturer) | From | Volume | Solvent | Conc. (ug/mL) |
| Diesel Fuel #2 | Restek | 31258 | 50,000 | **A0135614-39408** | **04/26/20** | **03/31/25** | N/A | N/A | N/A | 50,000 |

**Motor Oil Spike**

**Prepared: 04/08/19** **Prepared By (Initials): DP**

**Expires: 04/07/20**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| Motor Oil Composite | Restek | 31464 | 50,000 | **A0141636-40470** | **04/09/20** | **10/20/25** | N/A | N/A | N/A | 50,000 |

**THC Surrogate**

**Prepared: 04/17/19** **Prepared By (Initials): BT**

**Expires: 04/16/20**

| Initial Standard Information | | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (QAU Label) | Supplier | Supplier Part No. | Conc. (ug/mL) | Lot Number - QA Number | Exp. Date (1 yr.) | Exp. Date (Manufacturer) | Aliquot From Stock | Final Volume | Solvent | Final Standard Conc. (ug/mL) |
| O-terphenyl / Octacosane Mix | Phenova | ALO-130161 | 600 | **CL13256-40363** | **04/17/20** | **02/28/24** | N/A | N/A | N/A | 600 |

# Organic Extraction Worksheet

| Method | Continuous Liq/Liq TPH-Diesel/MO 3520C | Extraction Set | 190426A | Extraction Method | LIQ005 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | Diesel Spike 4-26-19 EXP 4-26-20 | | Surrogate ID 1 | THC Surrogate 4-17-19 EXP 4-17-20 | |
| Spiked ID 2 | Motor Oil Spike 4-8-19 EXP 4-8-20 | | 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 04/26/19 13:00 | |
| Spiked ID 8 | | | Ext. End Time: | 04/27/19 10:13 ,04/29/19 14:35 | |
| | | | GC Requires Extract By: | 04/30/19 0:00 | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 4/26/19 10:15:00 AM | Water Bath Temp Criteria | 35,35,35 ° |
| pH2 | | | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/26/19 **Witnessed By:** DL **Date** 04/26/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190426A Blk | | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | |
| | | | | | | equip | E-HP51 E-WB1 | | | | |
| 2 | 190426A LCS-1 | | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | |
| | | | | | | equip | E-HP50 E-WB2 | | | | |
| 3 | 190426A LCSD-1 | | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | |
| | | | | | | equip | E-HP49 E-WB3 | | | | |
| 4 | AZ89958 MS-1 | AZ89958W32 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP48 E-WB1 | | | | |
| 5 | AZ89958 MSD-1 | AZ89958W42 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP47 E-WB2 | | | | |
| 6 | AZ89958 | AZ89958W29 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP25 E-WB3 | | | | |
| 7 | AZ89959 | AZ89959W10 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP26 E-WB1 | | | | |
| 8 | AZ89961 | AZ89961W13 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88687 |
| | | | | | | equip | E-HP27 E-WB2 | | | | |
| 9 | AZ90051 MS-1 | AZ90051W26 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP28 E-WB3 | | | | |
| 10 | AZ90051 MSD-1 | AZ90051W31 | 0.020 | 1,2 | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP29 E-WB1 | | | | |
| 11 | AZ90051 | AZ90051W29 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP30 E-WB2 | | | | |
| 12 | AZ90052 | AZ90052W09 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP17 E-WB3 | | | | |
| 13 | AZ90054 | AZ90054W19 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP16 E-WB1 | | | | |
| 14 | AZ90056 | AZ90056W20 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP15 E-WB2 | | | | |
| 15 | AZ90058 | AZ90058W19 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP14 E-WB3 | | | | |
| 16 | AZ90060 | AZ90060W21 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88701 |
| | | | | | | equip | E-HP13 E-WB1 | | | | |

| Solvent and Lot# | |
|---|---|
| 1+1 HCL | 3-1-19 |
| PH Strips | HC 863463 |
| Dicholormethane (DCM) | 58240 |
| Filter Paper | 400148 |
| B. Sodium Sulfate | 18D105205 |
| | |
| | |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | SS |
| Date | 4/29/19 |
| Time | 15:10 |
| Refrigerator | Hobart 1 |

| | Technician's Initials |
|---|---|
| Scanned By | DL |
| Sample Preparation | DL |
| Extraction | DL |
| Concentration | DL |

| Modified | 04/30/19 12:53:34 PM |
|---|---|

**Reviewed By:** Ky **Date** 4/30/19

# Organic Extraction Worksheet

| Method | Continuous Liq/Liq TPH-Diesel/MO 3520C | Extraction Set | 190426A | Extraction Method | LIQ005 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | Diesel Spike 4-26-19 EXP 4-26-20 | | Surrogate ID 1 | THC Surrogate 4-17-19 EXP 4-17-20 | |
| Spiked ID 2 | Motor Oil Spike 4-8-19 EXP 4-8-20 | | 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 04/26/19 13:00 | |
| Spiked ID 8 | | | Ext. End Time: | 04/27/19 10:13 , 04/29/19 14:35 | |
| | | | **GC Requires Extract By:** | **04/30/19 0:00** | |

| | | | | |
|---|---|---|---|---|
| pH1 | 2 | 4/26/19 10:15:00 AM | Water Bath Temp Criteria | 35,35,35 ° |
| pH2 | | | | |
| pH3 | | | | |

**Spiked By:** KY **Date** 04/26/19 **Witnessed By:** DL **Date** 04/26/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | AZ90100 | AZ90100W20 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP12 E-WB2 | | | | |
| 18 | AZ90102 | AZ90102W18 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP11 E-WB3 | | | | |
| 19 | AZ90103 | AZ90103W09 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP10 E-WB1 | | | | |
| 20 | AZ90105 | AZ90105W22 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP9 E-WB2 | | | | |
| 21 | AZ90107 | AZ90107W19 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP7 E-WB3 | | | | |
| 22 | AZ90109 | AZ90109W22 | | | 0.100 | 1 | 800 | 2 | 2 | 04/26/19 10:20 | 88714 |
| | | | | | | equip | E-HP6 E-WB1 | | | | |

KY 4/30/19

| Solvent and Lot# | |
|---|---|
| 1+1 HCL | 3-1-19 |
| PH Strips | HC 863463 |
| Dicholormethane (DCM) | 58240 |
| Filter Paper | 400148 |
| B. Sodium Sulfate | 18D105205 |
| | |
| | |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | |
| Date | |
| Time | |
| Refrigerator | |

| | Technician's Initials |
|---|---|
| Scanned By | DL |
| Sample Preparation | DL |
| Extraction | DL |
| Concentration | DL |

| Modified | 04/30/19 12:53:34 PM |
|---|---|

**Reviewed By:** KY **Date** 4/30/19

# Injection Log

Directory: G:\APOLLO\DATA\190411\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 2 | 411002.D | 1 | Diesel / Motor Oil - 1 1/15/19 | water | 4-11-19 12:41:17 |
| 2 | 3 | 411003.D | 1 | Diesel / Motor Oil - 2 4/11/19 | water | 4-11-19 13:00:16 |
| 3 | 4 | 411004.D | 1 | Diesel / Motor Oil - 3 4/11/19 | water | 4-11-19 13:19:58 |
| 4 | 5 | 411005.D | 1 | Diesel / Motor Oil - 4 4/11/19 | water | 4-11-19 13:39:40 |
| 5 | 6 | 411006.D | 1 | Diesel / Motor Oil - 5 4/11/19 | water | 4-11-19 13:59:26 |
| 6 | 7 | 411007.D | 1 | Diesel / Motor Oil - 6 4/11/19 | water | 4-11-19 14:19:10 |
| 7 | 8 | 411008.D | 1 | Diesel / Motor Oil - 2nd Source 1/15/19 | water | 4-11-19 14:39:01 |
| 8 | 48 | 419048.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 4-29-19 17:02:59 |
| 9 | 49 | 419049.D | 2.5 | 190426A BLK 2/800 | water | 4-29-19 17:23:01 |
| 10 | 50 | 419050.D | 2.5 | 190426A LCS-1 2/800 | water | 4-29-19 17:43:06 |
| 11 | 51 | 419051.D | 2.5 | 190426A LCSD-1 2/800 | water | 4-29-19 18:03:12 |
| 12 | 63 | 419063.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 4-29-19 22:03:37 |
| 13 | 66 | 419066.D | 2.5 | AZ90100W20 2/800 | water | 4-29-19 23:03:30 |
| 14 | 67 | 419067.D | 2.5 | AZ90102W18 2/800 | water | 4-29-19 23:23:20 |
| 15 | 68 | 419068.D | 2.5 | AZ90103W09 2/800 | water | 4-29-19 23:43:08 |
| 16 | 69 | 419069.D | 2.5 | AZ90105W22 2/800 | water | 4-30-19 0:02:56 |
| 17 | 70 | 419070.D | 2.5 | AZ90107W19 2/800 | water | 4-30-19 0:22:41 |
| 18 | 71 | 419071.D | 2.5 | AZ90109W22 2/800 | water | 4-30-19 0:42:23 |
| 19 | 72 | 419072.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 4-30-19 1:02:05 |

# Injection Log

Directory: G:\APOLLO\DATA\190411\

| Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|
| 2 | 411002.D | 1 | Diesel / Motor Oil - 1 1/15/19 | water | 4-11-19 12:41:17 |
| 3 | 411003.D | 1 | Diesel / Motor Oil - 2 4/11/19 | water | 4-11-19 13:00:16 |
| 4 | 411004.D | 1 | Diesel / Motor Oil - 3 4/11/19 | water | 4-11-19 13:19:58 |
| 5 | 411005.D | 1 | Diesel / Motor Oil - 4 4/11/19 | water | 4-11-19 13:39:40 |
| 6 | 411006.D | 1 | Diesel / Motor Oil - 5 4/11/19 | water | 4-11-19 13:59:26 |
| 7 | 411007.D | 1 | Diesel / Motor Oil - 6 4/11/19 | water | 4-11-19 14:19:10 |
| 8 | 411008.D | 1 | Diesel / Motor Oil - 2nd Source 1/15/19 | water | 4-11-19 14:39:01 |
| 9 | 411009.D | 1 | Decanoic Acid - 1 4/11/19 | water | 4-11-19 15:57:31 |
| 10 | 411010.D | 1 | Decanoic Acid - 2 4/11/19 | water | 4-11-19 16:16:26 |
| 11 | 411011.D | 1 | Decanoic Acid - 3 4/11/19 | water | 4-11-19 16:36:04 |
| 12 | 411012.D | 1 | Decanoic Acid - 4 4/11/19 | water | 4-11-19 16:55:47 |
| 13 | 411013.D | 1 | Decanoic Acid - 5 4/11/19 | water | 4-11-19 17:15:26 |
| 14 | 411014.D | 1 | Decanoic Acid - 6 4/11/19 | water | 4-11-19 17:35:11 |
| 20 | 508120.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 5-16-19 8:28:01 |
| 21 | 508121.D | 1 | Decanoic Acid - 3 3/5/19 | water | 5-16-19 8:47:16 |
| 26 | 508126.D | 2.5 | 190426A BLK 2/800 SG | water | 5-16-19 10:25:07 |
| 27 | 508127.D | 2.5 | 190426A LCS-1 2/800 SG | water | 5-16-19 10:44:08 |
| 28 | 508128.D | 2.5 | 190426A LCSD-1 2/800 SG | water | 5-16-19 11:03:53 |
| 29 | 508129.D | 2.5 | AZ90100W20 2/800 SG | water | 5-16-19 12:46:45 |
| 30 | 508130.D | 2.5 | AZ90102W18 2/800 SG | water | 5-16-19 13:06:28 |
| 31 | 508131.D | 2.5 | AZ90103W09 2/800 SG | water | 5-16-19 13:26:13 |
| 32 | 508132.D | 2.5 | AZ90105W22 2/800 SG | water | 5-16-19 13:45:56 |
| 33 | 508133.D | 1 | Diesel/Motor Oil 3 4/16/19 | water | 5-16-19 14:05:44 |
| 34 | 508134.D | 1 | Decanoic Acid - 3 3/5/19 | water | 5-16-19 14:24:56 |

# ORGANICS
# Calibration Data

PAH by GCMS SIM
EPA 8270 SIM

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/26/19
Matrix: Instrument: Linus
Initials: MA/JA

| | | Compound | 0326L013 D 0.1 | 0326L012.D 0.2 | 0326L005.D 0.5 | 0326L006.D 1 | 0326L007.D 5 | 0326L008.D 10 | 0326L009.D 50 | 0326L010.D 100 | | | Avg | %RSD | Type | r^2 | Q | MRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | I | Napthalene-D8(IS) | | | | | | | | | | | | | | | | |
| 2 | S | Surrogate Recovery (NBZ) | | 0.3927 | 0.5340 | 0.4444 | 0.4714 | 0.4510 | 0.4089 | 0.4199 | | | 0.45 | 11 | S | | | |
| 3 | TM | Naphthalene | 1.529 | 1.407 | 1.448 | 1.163 | 1.400 | 1.287 | 1.154 | 1.122 | | | 1.3 | 12 | TM | | | 0.700 |
| 4 | S | 2-Methylnaphthalene-D10 (2M | 1.387 | 1.168 | 1.650 | 1.306 | 1.518 | 1.400 | 1.203 | 1.197 | | | 1.4 | 13 | S | | | |
| 5 | TM | 2-Methylnaphthalene | 0.7306 | 0.7642 | 0.8355 | 0.6668 | 0.8429 | 0.7635 | 0.6758 | 0.6477 | | | 0.74 | 10 | TM | | | 0.400 |
| 6 | TM | 1-Methylnaphthalene | 0.9900 | 0.8580 | 0.9185 | 0.7134 | 0.8390 | 0.7536 | 0.6593 | | | | 0.82 | 14 | TM | | | |
| 7 | I | Acenaphthene-D10(IS) | | | | | | | | | | | | | | | | |
| 8 | S | Surrogate Recovery (FBP) | 1.722 | 1.658 | 2.258 | 1.803 | 2.110 | 1.951 | 1.630 | 1.592 | | | 1.8 | 13 | S | | | |
| 9 | TM | Acenaphthylene | 5.900 | 5.710 | 6.401 | 5.037 | 6.465 | 5.885 | 4.974 | 4.865 | | | 5.7 | 11 | TM | | | 0.900 |
| 10 | *TM | Acenaphthene | 1.794 | 1.633 | 1.703 | 1.318 | 1.581 | 1.463 | 1.266 | 1.170 | | | 1.5 | 15 | *TM | | | 0.900 |
| 11 | TM | Fluorene | 2.218 | 1.880 | 2.093 | 1.632 | 2.029 | 1.885 | 1.631 | 1.570 | | | 1.9 | 13 | TM | | | 0.900 |
| 12 | I | Phenanthrene-D10(IS) | | | | | | | | | | | | | | | | |
| 13 | TM | Phenanthrene | 1.607 | 1.544 | 1.673 | 1.305 | 1.635 | 1.484 | 1.218 | 1.160 | | | 1.5 | 14 | TM | | | 0.700 |
| 14 | TM | Anthracene | 1.486 | 1.420 | 1.591 | 1.220 | 1.624 | 1.473 | 1.238 | 1.116 | | | 1.4 | 13 | TM | | | 0.700 |
| 15 | S | Fluoranthene-D10 (FRT) | 1.901 | 1.831 | 2.624 | 2.092 | 2.484 | 2.311 | 1.987 | 1.872 | | | 2.1 | 14 | S | | | |
| 16 | *TM | Fluoranthene | 2.537 | 2.471 | 2.787 | 2.228 | 2.784 | 2.506 | 2.112 | 1.908 | | | 2.4 | 13 | *TM | | | 0.600 |
| 17 | I | Chrysene-D12(IS) | | | | | | | | | | | | | | | | |
| 18 | TM | Pyrene | 1.899 | 1.728 | 1.916 | 1.501 | 1.868 | 1.718 | 1.481 | 1.425 | | | 1.7 | 12 | TM | | | 0.600 |
| 19 | S | Surrogate Recovery (TPH) | 0.8126 | 0.7648 | 1.100 | 0.8569 | 0.9951 | 0.9476 | 0.8279 | 0.7820 | | | 0.89 | 13 | S | | | |
| 20 | TM | Benz (a) anthracene | 1.413 | 1.328 | 1.559 | 1.165 | 1.523 | 1.457 | 1.326 | 1.311 | | | 1.4 | 9.3 | TM | | | 0.800 |
| 21 | TM | Chrysene | 1.693 | 1.584 | 1.532 | 1.291 | 1.505 | 1.343 | 1.166 | 1.155 | | | 1.4 | 14 | TM | | | 0.700 |
| 22 | TM | Indeno (1,2,3-cd) pyrene | 1.684 | 1.533 | 1.535 | 1.269 | 1.597 | 1.490 | 1.366 | 1.338 | | | 1.5 | 9.5 | TM | | | 0.500 |
| 23 | I | Perylene-D12(IS) | | | | | | | | | | | | | | | | |
| 24 | TM | Benzo (b) fluoranthene | 1.158 | 1.272 | 1.365 | 1.090 | 1.474 | 1.408 | 1.281 | 1.294 | | | 1.3 | 9.8 | TM | | | 0.700 |
| 25 | TM | Benzo (k) fluoranthene | 1.676 | 1.496 | 1.659 | 1.361 | 1.632 | 1.459 | 1.255 | 1.199 | | | 1.5 | 13 | TM | | | 0.700 |
| 26 | *TM | Benzo (a) pyrene | 1.243 | 1.369 | 1.446 | 1.176 | 1.471 | 1.369 | 1.224 | 1.197 | | | 1.3 | 8.8 | *TM | | | 0.700 |
| 27 | TM | Dibenz (a,h) anthracene | 1.391 | 1.269 | 1.295 | 1.077 | 1.349 | 1.244 | 1.099 | 1.054 | | | 1.2 | 11 | TM | | | 0.400 |
| 28 | TM | Benzo (g,h,i) perylene | 1.468 | 1.326 | 1.320 | 1.090 | 1.361 | 1.265 | 1.118 | 1.085 | | | 1.3 | 11 | TM | | | 0.500 |
| 29 | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | |
| 33 | | | | | | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | | |

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L005.D Vial: 5
Acq On : 26 Mar 19 10:39 Operator: MA
Sample : 0.5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:52 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:51:40 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 29983 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 14175 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 23888 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 35718 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 34636 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.14 | 82 | 1601 | 0.30171 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = | 6.040% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.75 | 152 | 4947 | 0.35041 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = | 7.000% | | |
| 8) Surrogate Recovery (FBP) | 5.23 | 172 | 3201 | 0.31519 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = | 6.300% | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 6268 | 0.36113 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = | 7.220% | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 3930 | 0.33442 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = | 6.680% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 8684 | 0.57398 ppb | | 98 |
| 5) 2-Methylnaphthalene | 4.78 | 142 | 5010 | 0.55092 ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.89 | 142 | 5508 | 0.59694 ppb | | 95 |
| 9) Acenaphthylene | 5.82 | 152 | 18147 | 0.56976 ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 4827 | 0.52888 ppb | | 97 |
| 11) Fluorene | 6.63 | 166 | 5934 | 0.55241 ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 7991 | 0.59247 ppb | | 99 |
| 14) Anthracene | 7.80 | 178 | 7601 | 0.57039 ppb | | 99 |
| 16) Fluoranthene | 9.11 | 202 | 13317 | 0.62414 ppb | # | 89 |
| 18) Pyrene | 9.37 | 202 | 13684 | 0.61385 ppb | | 98 |
| 20) Benz (a) anthracene | 10.78 | 228 | 11134 | 0.56445 ppb | | 99 |
| 21) Chrysene | 10.84 | 228 | 10947 | 0.57620 ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.70 | 276 | 10967 | 0.55654 ppb | # | 98 |
| 24) Benzo (b) fluoranthene | 12.50 | 252 | 9458 | 0.50818 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.54 | 252 | 11491 | 0.59936 ppb | | 96 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 10016 | 0.55876 ppb | | 99 |
| 27) Dibenz (a,h) anthracene | 14.72 | 278 | 8973 | 0.54057 ppb | | 99 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 9141 | 0.54410 ppb | | 98 |

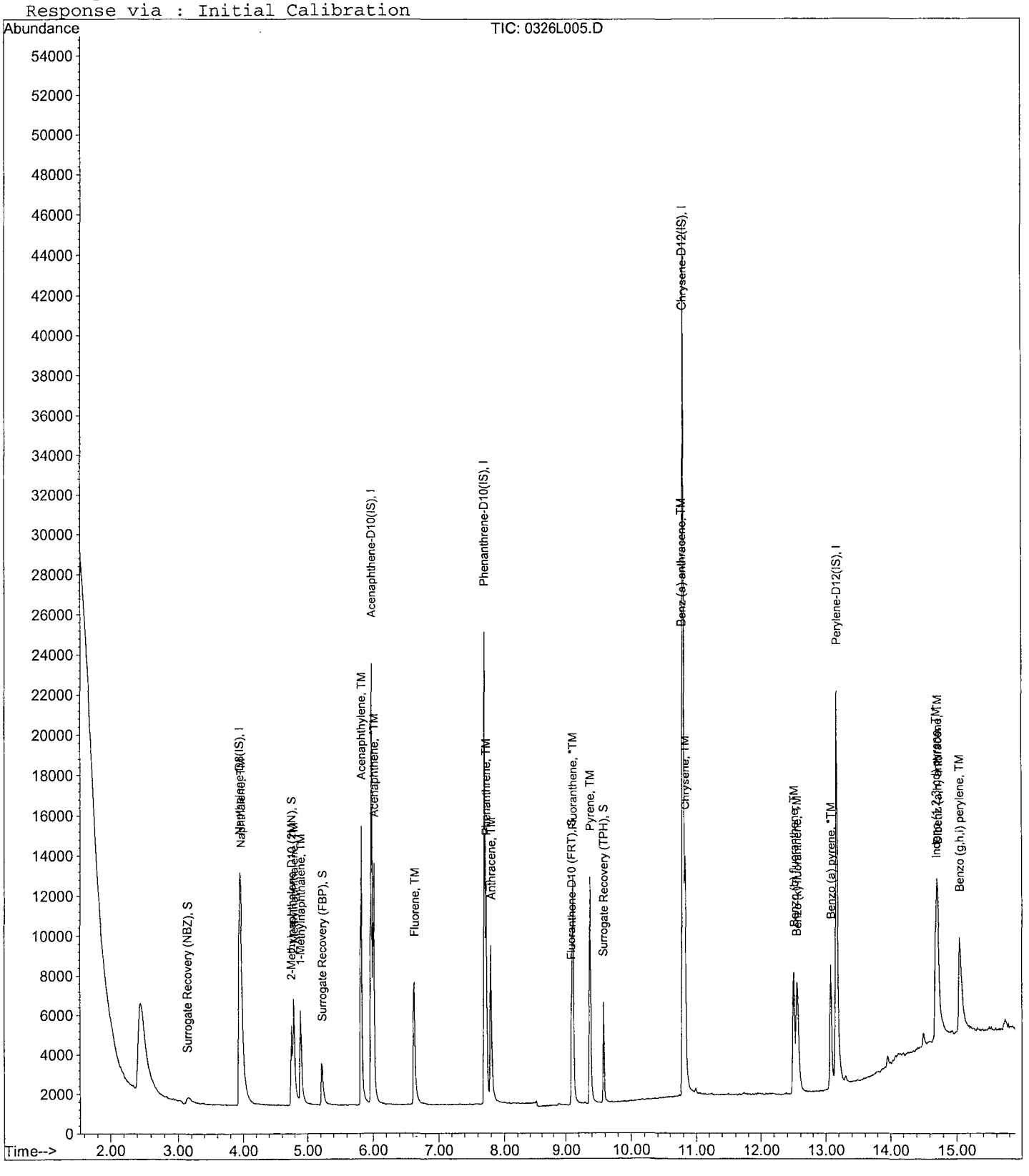
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L005.D Vial: 5
Acq On : 26 Mar 19 10:39 Operator: MA
Sample : 0.5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:52 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L006.D Vial: 6
Acq On : 26 Mar 19 11:01 Operator: MA
Sample : 1 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:52 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:51:40 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 35893 | 2.50000 | ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 17165 | 2.50000 | ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 29866 | 2.50000 | ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 43804 | 2.50000 | ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 41942 | 2.50000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.15 | 82 | 3190 | 0.50218 | ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = 10.040% | | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.74 | 152 | 9372 | 0.55454 | ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = 11.100% | | | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 6188 | 0.50317 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 10.060% | | | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 12497 | 0.57589 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 11.520% | | | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 7507 | 0.52088 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 10.420% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 16693 | 0.92168 | ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.78 | 142 | 9573 | 0.87935 | ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.89 | 142 | 10243 | 0.92731 | ppb | | 95 |
| 9) Acenaphthylene | 5.82 | 152 | 34586 | 0.89675 | ppb | | 99 |
| 10) Acenaphthene | 6.01 | 154 | 9052 | 0.81904 | ppb | | 96 |
| 11) Fluorene | 6.62 | 166 | 11205 | 0.86141 | ppb | | 93 |
| 13) Phenanthrene | 7.73 | 178 | 15588 | 0.92440 | ppb | | 98 |
| 14) Anthracene | 7.80 | 178 | 14573 | 0.87468 | ppb | | 99 |
| 16) Fluoranthene | 9.11 | 202 | 26618 | 0.99782 | ppb | # | 93 |
| 18) Pyrene | 9.37 | 202 | 26304 | 0.96215 | ppb | | 95 |
| 20) Benz (a) anthracene | 10.78 | 228 | 20420 | 0.84412 | ppb | | 98 |
| 21) Chrysene | 10.84 | 228 | 22628 | 0.97118 | ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 22236 | 0.92011 | ppb | | 98 |
| 24) Benzo (b) fluoranthene | 12.49 | 252 | 18288 | 0.81146 | ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.54 | 252 | 22834 | 0.98354 | ppb | | 98 |
| 26) Benzo (a) pyrene | 13.07 | 252 | 19723 | 0.90862 | ppb | # | 95 |
| 27) Dibenz (a,h) anthracene | 14.71 | 278 | 18076 | 0.89928 | ppb | | 98 |
| 28) Benzo (g,h,i) perylene | 15.03 | 276 | 18288 | 0.89893 | ppb | | 98 |

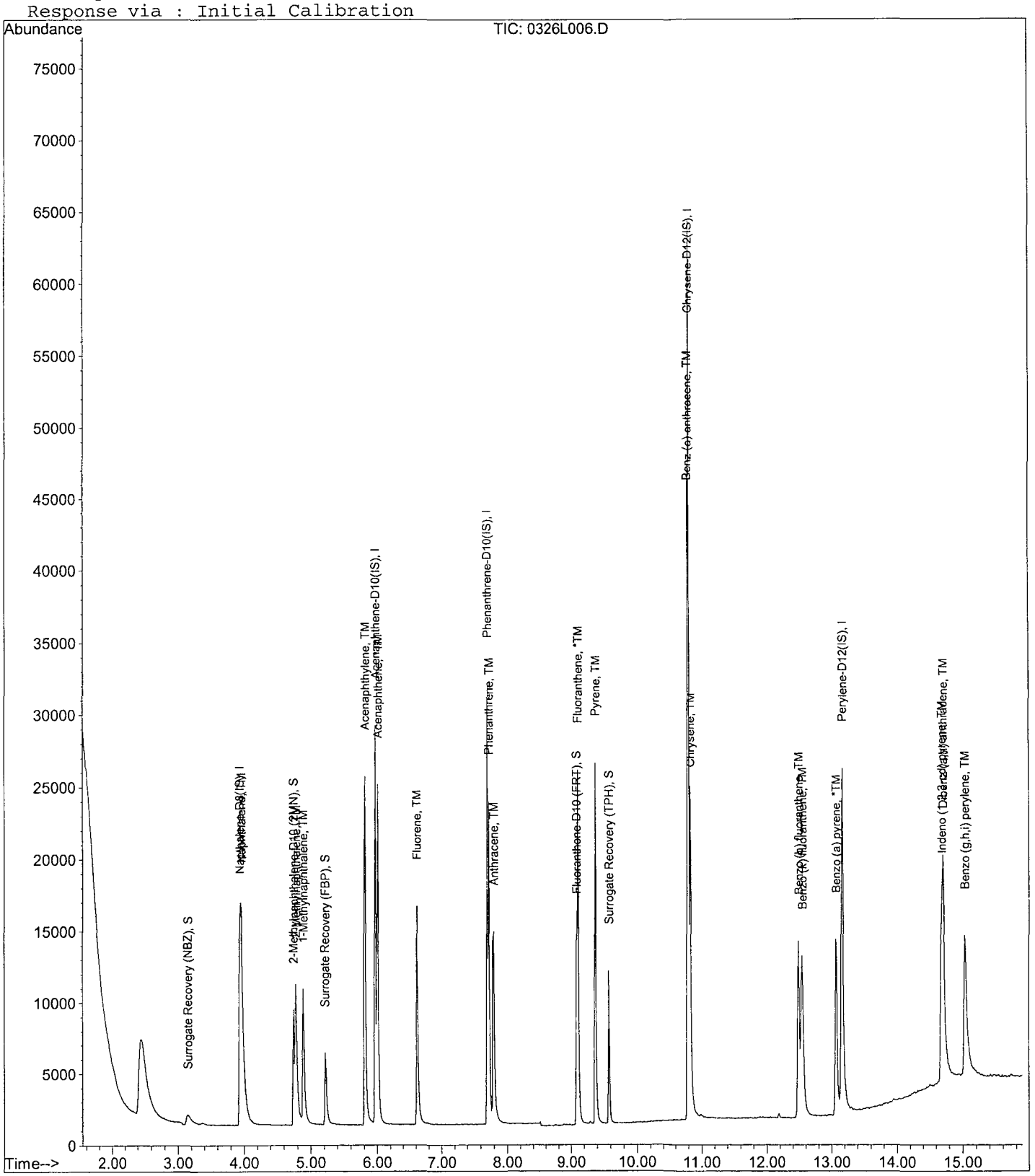
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L006.D Vial: 6
Acq On : 26 Mar 19 11:01 Operator: MA
Sample : 1 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:52 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L007.D Vial: 7
Acq On : 26 Mar 19 11:23 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:55 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 31036 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 14429 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 24630 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 36703 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 35401 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.13 | 82 | 14629 | 2.66335 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 53.260% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 47125 | 3.22473 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 64.500% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 30446 | 2.94510 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 58.900% | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 61183 | 3.41884 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 68.380% | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 36522 | 3.02438 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 60.480% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 86912 | 5.54970 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 52323 | 5.55839 ppb | | 100 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 52078 | 5.45251 ppb | | 100 |
| 9) Acenaphthylene | 5.81 | 152 | 186553 | 5.75411 ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 45619 | 4.91037 ppb | | 100 |
| 11) Fluorene | 6.62 | 166 | 58567 | 5.35620 ppb | | 100 |
| 13) Phenanthrene | 7.73 | 178 | 80559 | 5.79291 ppb | | 100 |
| 14) Anthracene | 7.79 | 178 | 80019 | 5.82381 ppb | | 100 |
| 16) Fluoranthene | 9.11 | 202 | 137128 | 6.23327 ppb | | 100 |
| 18) Pyrene | 9.36 | 202 | 137146 | 5.98710 ppb | | 100 |
| 20) Benz (a) anthracene | 10.78 | 228 | 111765 | 5.51397 ppb | | 100 |
| 21) Chrysene | 10.83 | 228 | 110485 | 5.65939 ppb | | 100 |
| 22) Indeno (1,2,3-cd) pyrene | 14.66 | 276 | 117203 | 5.78805 ppb | # | 100 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 104380 | 5.48718 ppb | | 100 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 115527 | 5.89556 ppb | # | 82 |
| 26) Benzo (a) pyrene | 13.07 | 252 | 104139 | 5.68402 ppb | | 100 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 95496 | 5.62874 ppb | | 100 |
| 28) Benzo (g,h,i) perylene | 15.01 | 276 | 96360 | 5.61166 ppb | | 100 |

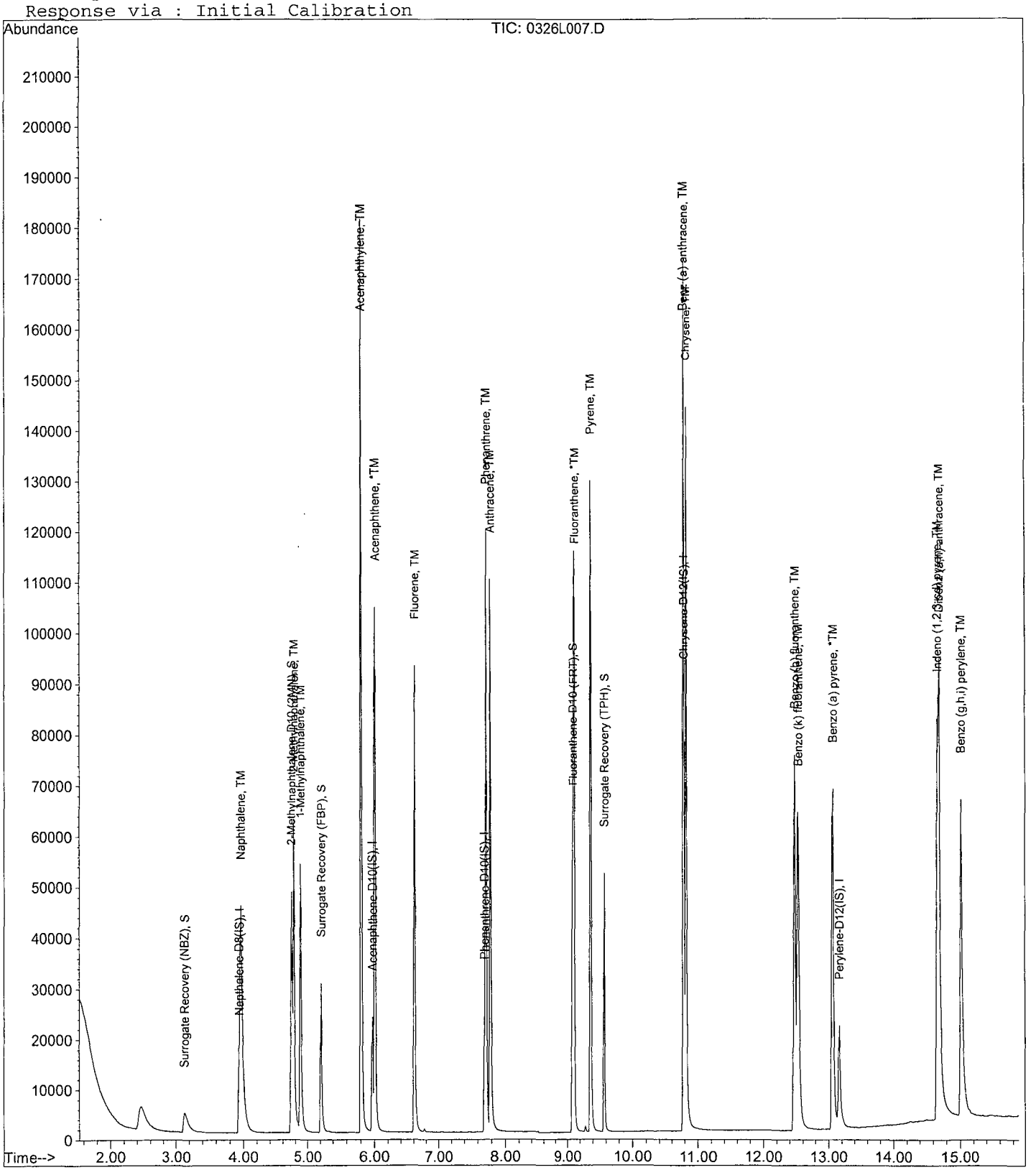
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L007.D Vial: 7
Acq On : 26 Mar 19 11:23 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 11:55 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L008.D Vial: 8
Acq On : 26 Mar 19 11:45 Operator: MA
Sample : 10 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 12:03 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 35838 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 16640 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 28622 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 41948 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 40987 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.13 | 82 | 32326 | 5.09668 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 101.940% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 100381 | 5.94861 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 118.980% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 64921 | 5.44551 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 108.920% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 132302 | 6.36178 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 127.240% | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 79496 | 5.75993 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 115.200% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 184477 | 10.20127 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 109454 | 10.06955 ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 108031 | 9.79519 ppb | | 98 |
| 9) Acenaphthylene | 5.81 | 152 | 391698 | 10.47636 ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 97387 | 9.08975 ppb | | 99 |
| 11) Fluorene | 6.62 | 166 | 125480 | 9.95086 ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 169913 | 10.51414 ppb | | 100 |
| 14) Anthracene | 7.79 | 178 | 168680 | 10.56433 ppb | | 100 |
| 16) Fluoranthene | 9.10 | 202 | 286894 | 11.22214 ppb | # | 86 |
| 18) Pyrene | 9.36 | 202 | 288195 | 11.00804 ppb | | 99 |
| 20) Benz (a) anthracene | 10.78 | 228 | 244430 | 10.55125 ppb | | 100 |
| 21) Chrysene | 10.83 | 228 | 225305 | 10.09781 ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.66 | 276 | 249983 | 10.80176 ppb | | 99 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 230916 | 10.48469 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 239205 | 10.54342 ppb | # | 81 |
| 26) Benzo (a) pyrene | 13.05 | 252 | 224453 | 10.58124 ppb | # | 96 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 203908 | 10.38077 ppb | | 96 |
| 28) Benzo (g,h,i) perylene | 15.01 | 276 | 207384 | 10.43132 ppb | | 94 |

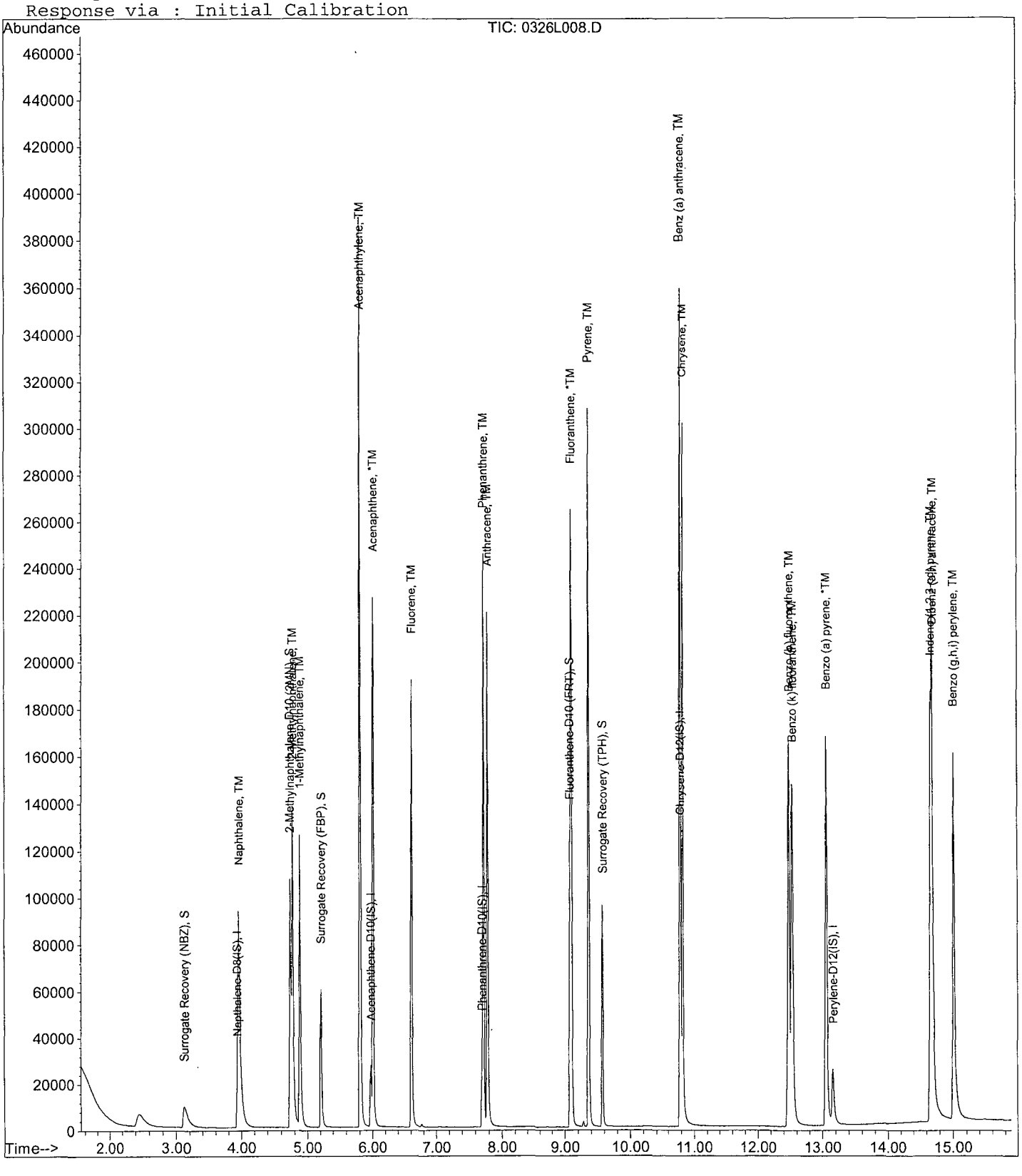
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L008.D Vial: 8
Acq On : 26 Mar 19 11:45 Operator: MA
Sample : 10 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 12:03 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L009.D Vial: 9
Acq On : 26 Mar 19 12:08 Operator: MA
Sample : 50 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 12:40 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 34439 | 2.50000 | ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 16178 | 2.50000 | ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 28297 | 2.50000 | ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.80 | 240 | 40379 | 2.50000 | ppb | | 0.01 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 41022 | 2.50000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.12 | 82 | 140833 | 21.64154 | ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery = 432.840% | | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 414181 | 23.25797 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 465.160% | | | | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 263684 | 21.46228 | ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery = 429.240% | | | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 562390 | 24.48515 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 489.700% | | | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 334289 | 23.27858 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 465.580% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 794731 | 44.68961 | ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 465489 | 44.02234 | ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 454120 | 41.81636 | ppb | | 98 |
| 9) Acenaphthylene | 5.81 | 152 | 1609229 | 43.19390 | ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 409705 | 39.67961 | ppb | | 97 |
| 11) Fluorene | 6.62 | 166 | 527629 | 42.63457 | ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 689088 | 41.97703 | ppb | | 99 |
| 14) Anthracene | 7.79 | 178 | 700455 | 43.39211 | ppb | | 99 |
| 16) Fluoranthene | 9.11 | 202 | 1195144 | 44.94761 | ppb | # | 89 |
| 18) Pyrene | 9.37 | 202 | 1195645 | 45.32840 | ppb | | 94 |
| 20) Benz (a) anthracene | 10.79 | 228 | 1070977 | 46.57534 | ppb | | 99 |
| 21) Chrysene | 10.84 | 228 | 941256 | 42.83259 | ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 1103036 | 48.39365 | ppb | | 100 |
| 24) Benzo (b) fluoranthene | 12.50 | 252 | 1050669 | 47.36694 | ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.55 | 252 | 1029810 | 43.39875 | ppb | # | 85 |
| 26) Benzo (a) pyrene | 13.09 | 252 | 1003811 | 46.19453 | ppb | # | 97 |
| 27) Dibenz (a,h) anthracene | 14.72 | 278 | 901711 | 45.25262 | ppb | | 96 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 917218 | 45.43228 | ppb | | 95 |

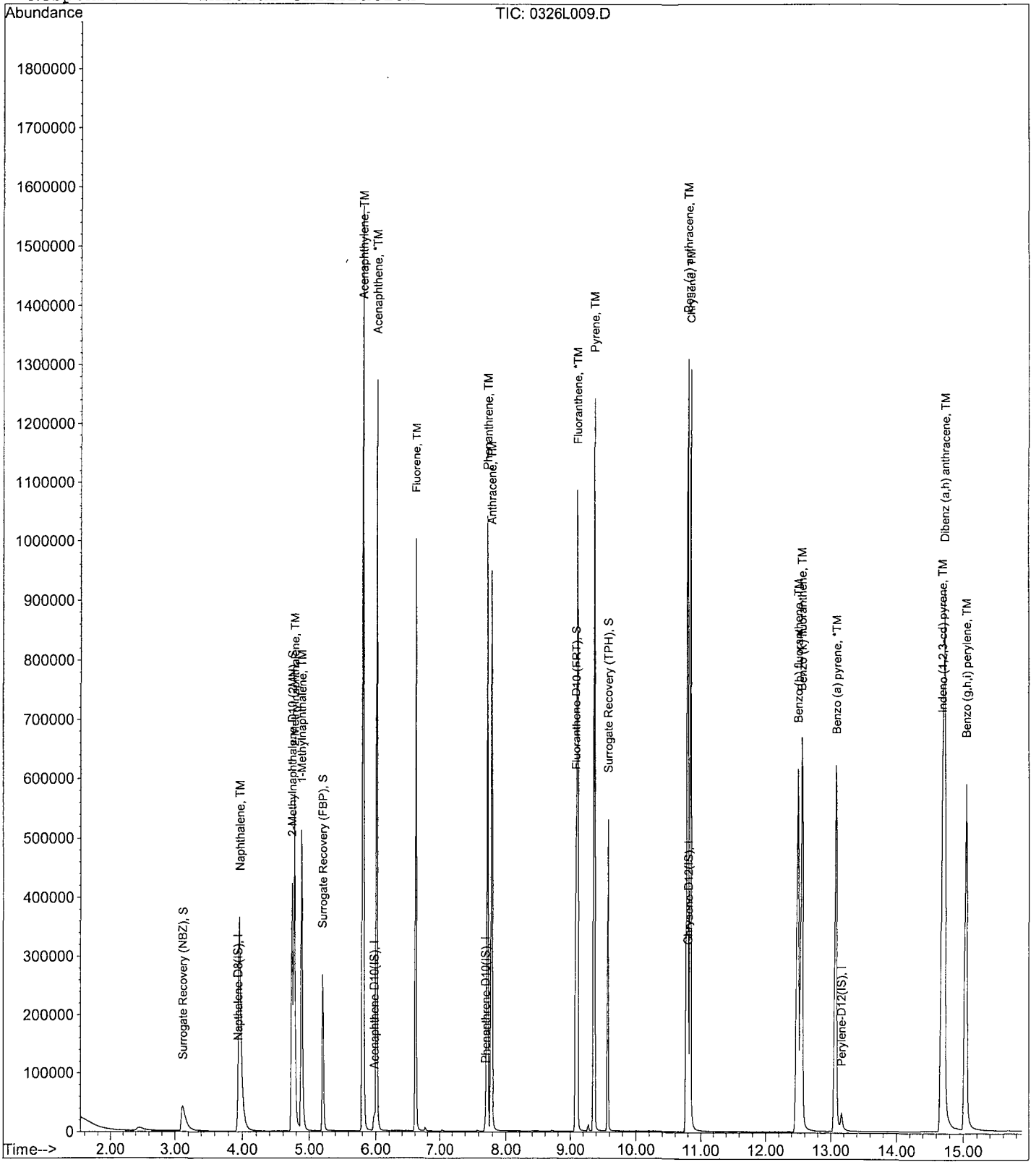
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L009.D Vial: 9
Acq On : 26 Mar 19 12:08 Operator: MA
Sample : 50 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 12:40 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L010.D Vial: 10
Acq On : 26 Mar 19 12:30 Operator: MA
Sample : 100 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 13:47 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 32479 | 2.50000 | ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 15565 | 2.50000 | ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 27637 | 2.50000 | ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.82 | 240 | 38239 | 2.50000 | ppb | | 0.02 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 38545 | 2.50000 | ppb | | 0.01 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 272771 | 44.44570 | ppb | | -0.02 |
| Spiked Amount 5.000 | | | Recovery = 888.920% | | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 777276 | 46.28122 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 925.620% | | | | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 495434 | 41.91347 | ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery = 838.260% | | | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 1034959 | 46.13577 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 922.720% | | | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 598059 | 43.97719 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = 879.540% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 1458290 | 86.95172 | ppb | | 99 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 841432 | 84.37826 | ppb | | 100 |
| 6) 1-Methylnaphthalene | 4.89 | 142 | 836950 | 81.71899 | ppb | | 93 |
| 9) Acenaphthylene | 5.81 | 152 | 3029044 | 84.50567 | ppb | | 99 |
| 10) Acenaphthene | 6.01 | 154 | 728333 | 73.31651 | ppb | | 92 |
| 11) Fluorene | 6.62 | 166 | 977411 | 82.08923 | ppb | | 98 |
| 13) Phenanthrene | 7.74 | 178 | 1281823 | 79.94928 | ppb | | 99 |
| 14) Anthracene | 7.80 | 178 | 1233503 | 78.23844 | ppb | | 99 |
| 16) Fluoranthene | 9.12 | 202 | 2109540 | 81.23134 | ppb | # | 89 |
| 18) Pyrene | 9.38 | 202 | 2180307 | 87.28404 | ppb | | 96 |
| 20) Benz (a) anthracene | 10.80 | 228 | 2005960 | 92.11857 | ppb | | 98 |
| 21) Chrysene | 10.86 | 228 | 1765953 | 84.85838 | ppb | # | 96 |
| 22) Indeno (1,2,3-cd) pyrene | 14.73 | 276 | 2046970 | 94.83293 | ppb | # | 92 |
| 24) Benzo (b) fluoranthene | 12.52 | 252 | 1994752 | 95.70774 | ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.59 | 252 | 1848388 | 82.90143 | ppb | # | 85 |
| 26) Benzo (a) pyrene | 13.11 | 252 | 1845710 | 90.39635 | ppb | | 98 |
| 27) Dibenz (a,h) anthracene | 14.75 | 278 | 1624819 | 86.78209 | ppb | | 100 |
| 28) Benzo (g,h,i) perylene | 15.08 | 276 | 1672824 | 88.18424 | ppb | # | 87 |

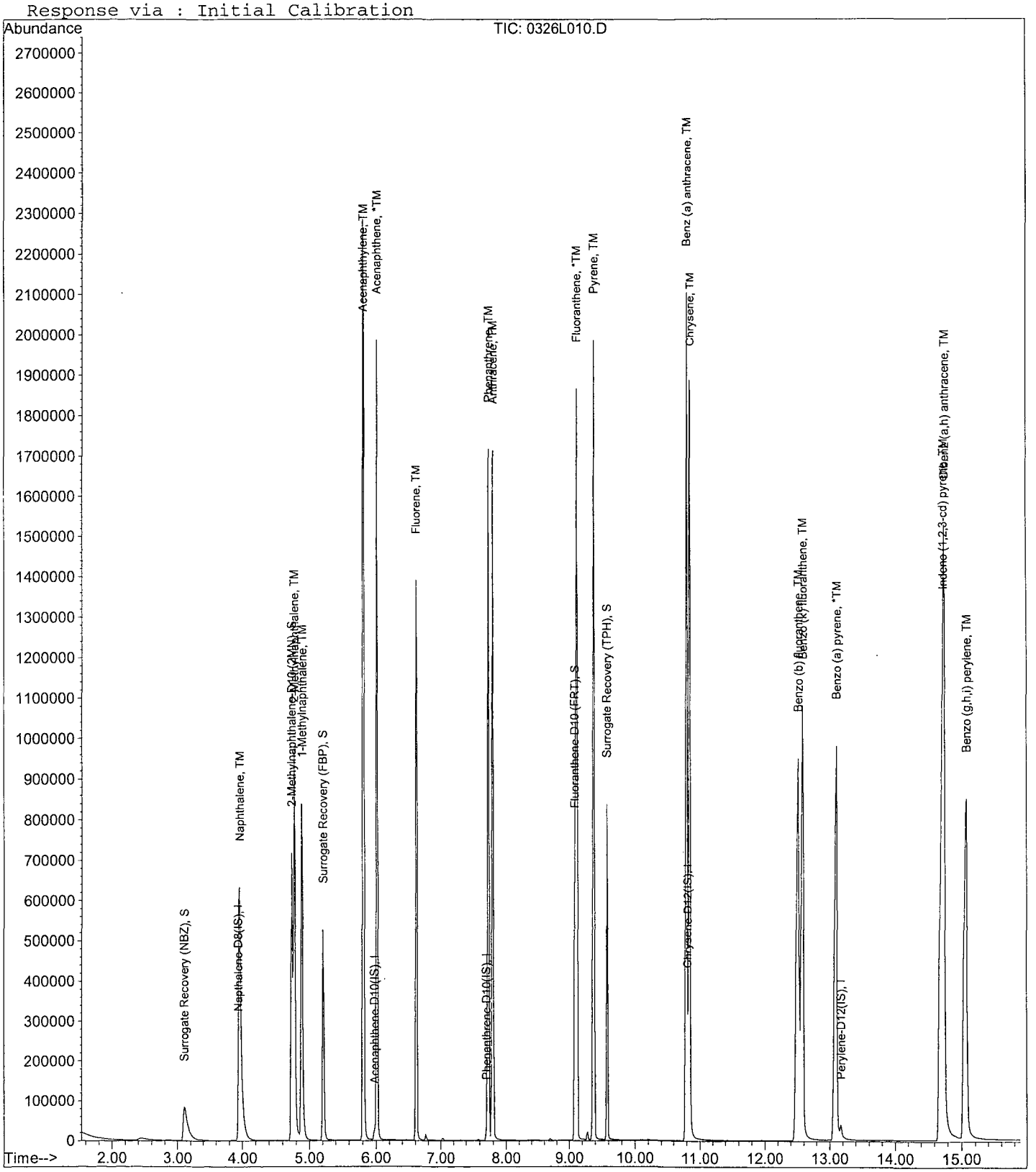
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L010.D Vial: 10
Acq On : 26 Mar 19 12:30 Operator: MA
Sample : 100 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 13:47 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L012.D Vial: 12
Acq On : 26 Mar 19 15:55 Operator: MA
Sample : 0.2 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 16:21 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 48893 | 2.50000 | ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 22990 | 2.50000 | ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 39076 | 2.50000 | ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 57596 | 2.50000 | ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 55456 | 2.50000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.16 | 82 | 768 | 0.08673 | ppb | | 0.04 |
| Spiked Amount 5.000 | | | Recovery = 1.740% | | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.76 | 152 | 2284 | 0.08927 | ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = 1.780% | | | | |
| 8) Surrogate Recovery (FBP) | 5.23 | 172 | 1525 | 0.08934 | ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = 1.780% | | | | |
| 15) Fluoranthene-D10 (FRT) | 9.10 | 212 | 2862 | 0.08813 | ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = 1.760% | | | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 1762 | 0.08457 | ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = 1.700% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 5503 | 0.21825 | ppb | | 98 |
| 5) 2-Methylnaphthalene | 4.78 | 142 | 2989 | 0.19863 | ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.89 | 142 | 3356 | 0.21862 | ppb | | 97 |
| 9) Acenaphthylene | 5.82 | 152 | 10502 | 0.19841 | ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 3004 | 0.20647 | ppb | | 96 |
| 11) Fluorene | 6.63 | 166 | 3457 | 0.19696 | ppb | | 96 |
| 13) Phenanthrene | 7.73 | 178 | 4828 | 0.20973 | ppb | | 97 |
| 14) Anthracene | 7.80 | 178 | 4438 | 0.19743 | ppb | | 98 |
| 16) Fluoranthene | 9.12 | 202 | 7726 | 0.20526 | ppb | # | 95 |
| 18) Pyrene | 9.38 | 202 | 7961 | 0.20588 | ppb | | 93 |
| 20) Benz (a) anthracene | 10.78 | 228 | 6119 | 0.18540 | ppb | | 97 |
| 21) Chrysene | 10.84 | 228 | 7299 | 0.22752 | ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.70 | 276 | 7062 | 0.17330 | ppb | # | 92 |
| 24) Benzo (b) fluoranthene | 12.51 | 252 | 5643 | 0.19039 | ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.55 | 252 | 6638 | 0.19712 | ppb | # | 84 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 6073 | 0.18974 | ppb | # | 94 |
| 27) Dibenz (a,h) anthracene | 14.72 | 278 | 5632 | 0.16786 | ppb | # | 91 |
| 28) Benzo (g,h,i) perylene | 15.05 | 276 | 5883 | 0.17144 | ppb | | 99 |

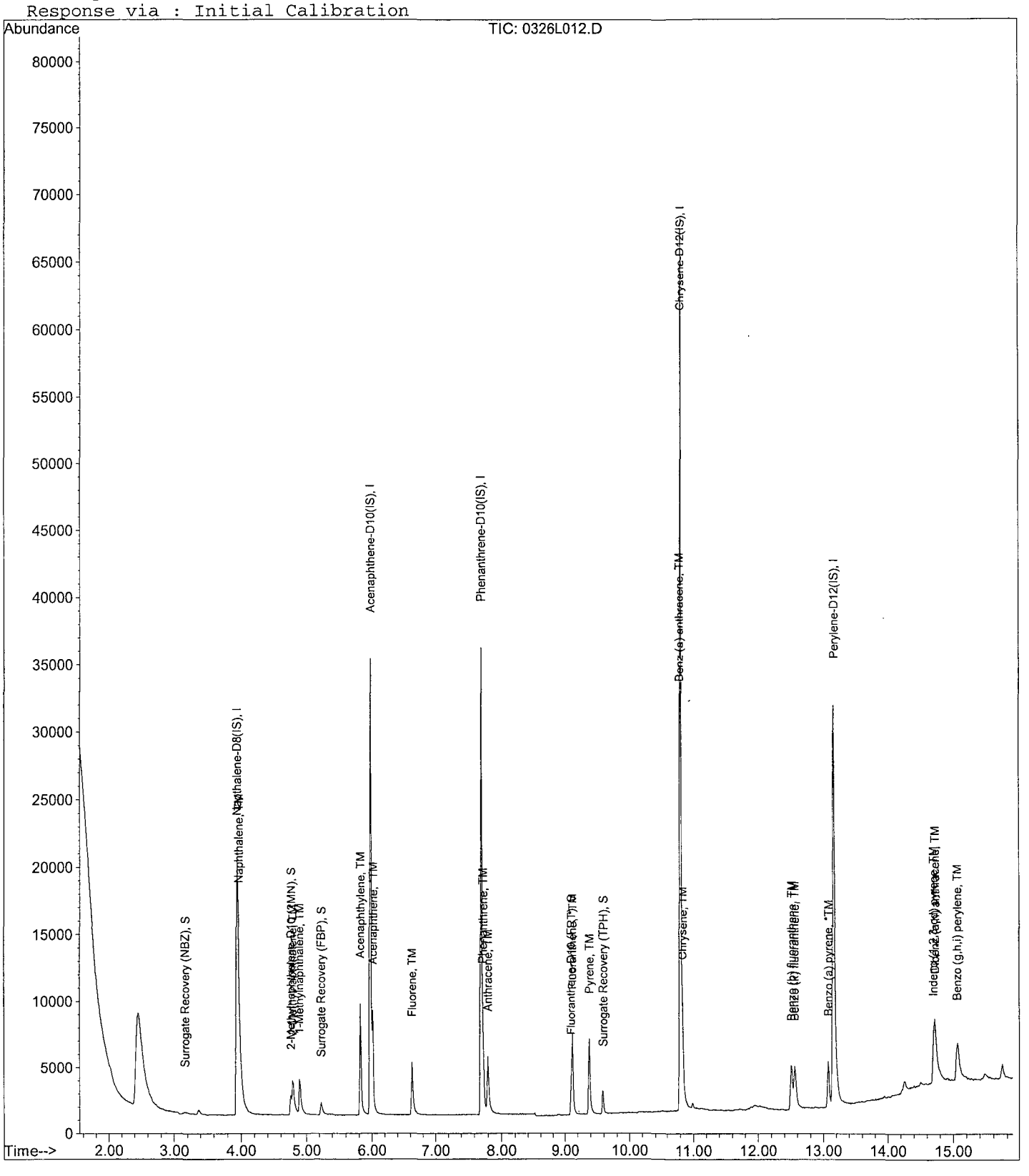
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L012.D Vial: 12
Acq On : 26 Mar 19 15:55 Operator: MA
Sample : 0.2 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 16:21 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L013.D Vial: 13
Acq On : 26 Mar 19 17:05 Operator: MA
Sample : 0.1 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 17:22 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Mar 26 11:52:44 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.95 | 136 | 33055 | 2.50000 ppb | | 0.01 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 15242 | 2.50000 ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 26118 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 37102 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 35689 | 2.50000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.16 | 82 | 174 | 0.02974 ppb | | 0.04 |
| Spiked Amount 5.000 | | | Recovery = | 0.600% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.77 | 152 | 917 | 0.05892 ppb | | 0.04 |
| Spiked Amount 5.000 | | | Recovery = | 1.180% | | |
| 8) Surrogate Recovery (FBP) | 5.24 | 172 | 525 | 0.04808 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = | 0.960% | | |
| 15) Fluoranthene-D10 (FRT) | 9.11 | 212 | 993 | 0.05233 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = | 1.040% | | |
| 19) Surrogate Recovery (TPH) | 9.59 | 244 | 603 | 0.04940 ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = | 0.980% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.97 | 128 | 2021 | 0.12117 ppb | | 98 |
| 5) 2-Methylnaphthalene | 4.79 | 142 | 966 | 0.09635 ppb | | 93 |
| 6) 1-Methylnaphthalene | 4.90 | 142 | 1309 | 0.12868 ppb | | 97 |
| 9) Acenaphthylene | 5.83 | 152 | 3597 | 0.10503 ppb | | 100 |
| 10) Acenaphthene | 6.01 | 154 | 1094 | 0.11148 ppb | | 97 |
| 11) Fluorene | 6.64 | 166 | 1352 | 0.11705 ppb | | 98 |
| 13) Phenanthrene | 7.74 | 178 | 1679 | 0.11386 ppb | | 98 |
| 14) Anthracene | 7.81 | 178 | 1552 | 0.10652 ppb | | 99 |
| 16) Fluoranthene | 9.13 | 202 | 2650 | 0.11360 ppb | # | 94 |
| 18) Pyrene | 9.39 | 202 | 2818 | 0.12170 ppb | # | 94 |
| 20) Benz (a) anthracene | 10.79 | 228 | 2097 | 0.10234 ppb | | 97 |
| 21) Chrysene | 10.84 | 228 | 2513 | 0.12734 ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.73 | 276 | 2499 | 0.12209 ppb | # | 81 |
| 24) Benzo (b) fluoranthene | 12.52 | 252 | 1653 | 0.08620 ppb | | 97 |
| 25) Benzo (k) fluoranthene | 12.58 | 252 | 2393 | 0.12113 ppb | # | 82 |
| 26) Benzo (a) pyrene | 13.09 | 252 | 1774 | 0.09605 ppb | | 98 |
| 27) Dibenz (a,h) anthracene | 14.74 | 278 | 1986 | 0.11611 ppb | # | 91 |
| 28) Benzo (g,h,i) perylene | 15.09 | 276 | 2096 | 0.12108 ppb | | 92 |

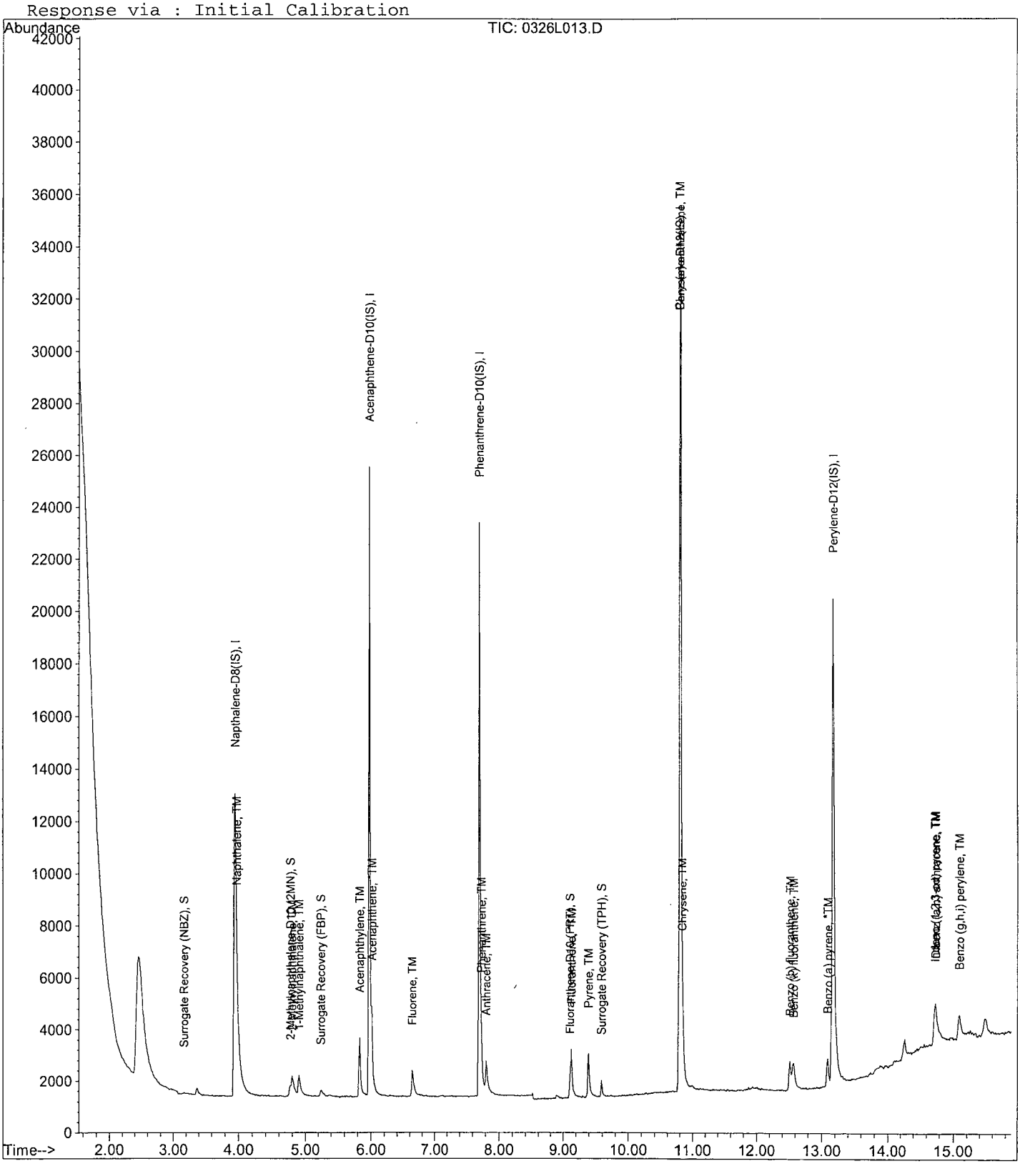
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L013.D Vial: 13
Acq On : 26 Mar 19 17:05 Operator: MA
Sample : 0.1 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 26 17:22 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

## Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 03/26/19
Instrument: Linus
Initial Cal. Date: 03/26/19
Data File: 0326L014.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | TM | Naphthalene | 1.314 | 1.344 | 2.3 | TM | |
| 2 | TM | 2-Methylnaphthalene | 0.7409 | 0.8066 | 8.9 | TM | |
| 3 | TM | 1-Methylnaphthalene | 0.8188 | 0.8287 | 1.2 | TM | |
| 4 | TM | Acenaphthylene | 5.655 | 5.927 | 4.8 | TM | |
| 5 | *TM | Acenaphthene | 1.491 | 1.500 | 0.63 | *TM | |
| 6 | TM | Fluorene | 1.867 | 1.894 | 1.4 | TM | |
| 7 | TM | Phenanthrene | 1.453 | 1.496 | 2.9 | TM | |
| 8 | TM | Anthracene | 1.396 | 1.451 | 4.0 | TM | |
| 9 | *TM | Fluoranthene | 2.417 | 2.498 | 3.4 | *TM | |
| 10 | TM | Pyrene | 1.692 | 1.717 | 1.5 | TM | |
| 11 | TM | Benz (a) anthracene | 1.385 | 1.403 | 1.3 | TM | |
| 12 | TM | Chrysene | 1.409 | 1.442 | 2.3 | TM | |
| 13 | TM | Indeno (1,2,3-cd) pyrene | 1.476 | 1.465 | 0.75 | TM | |
| 14 | TM | Benzo (b) fluoranthene | 1.293 | 1.413 | 9.3 | TM | |
| 15 | TM | Benzo (k) fluoranthene | 1.467 | 1.533 | 4.5 | TM | |
| 16 | *TM | Benzo (a) pyrene | 1.312 | 1.326 | 1.1 | *TM | |
| 17 | TM | Dibenz (a,h) anthracene | 1.222 | 1.285 | 5.1 | TM | |
| 18 | TM | Benzo (g,h,i) perylene | 1.254 | 1.309 | 4.4 | TM | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |
| 25 | | | | | | | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| | | Average | | | 3.3 | | |

PAH by GCMS SIM
EPA 8270 SIM

Form 7

Second Source Calibration

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190326\0326L014.D Vial: 14
Acq On : 26 Mar 19 17:27 Operator: MA
Sample : SS SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 27 9:04 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 37593 | 2.50000 | ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.98 | 164 | 17018 | 2.50000 | ppb | | 0.00 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 29145 | 2.50000 | ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 42587 | 2.50000 | ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.16 | 264 | 40320 | 2.50000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.15 | 82 | 89 | 0.01327 | ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = | 0.260% | | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.74 | 152 | 61 | 0.00300 | ppb | | 0.01 |
| Spiked Amount 5.000 | | | Recovery = | 0.060% | | | |
| 8) Surrogate Recovery (FBP) | 5.26 | 172 | 21 | 0.00168 | ppb | | 0.05 |
| Spiked Amount 5.000 | | | Recovery = | 0.040% | | | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 62 | 0.00249 | ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery = | 0.040% | | | |
| 19) Surrogate Recovery (TPH) | 9.60 | 244 | 51 | 0.00338 | ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery = | 0.060% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 101084 | 5.11703 | ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 60648 | 5.44385 | ppb | | 98 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 62305 | 5.06007 | ppb | | 99 |
| 9) Acenaphthylene | 5.81 | 152 | 201720 | 5.24063 | ppb | | 99 |
| 10) Acenaphthene | 6.01 | 154 | 51069 | 5.03134 | ppb | | 100 |
| 11) Fluorene | 6.62 | 166 | 64459 | 5.07138 | ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 87187 | 5.14639 | ppb | | 100 |
| 14) Anthracene | 7.79 | 178 | 84584 | 5.19763 | ppb | | 100 |
| 16) Fluoranthene | 9.11 | 202 | 145598 | 5.16794 | ppb | | 98 |
| 18) Pyrene | 9.36 | 202 | 146253 | 5.07448 | ppb | | 99 |
| 20) Benz (a) anthracene | 10.78 | 228 | 119541 | 5.06587 | ppb | | 98 |
| 21) Chrysene | 10.83 | 228 | 122783 | 5.11679 | ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.66 | 276 | 124805 | 4.96230 | ppb | | 98 |
| 24) Benzo (b) fluoranthene | 12.47 | 252 | 113984 | 5.46678 | ppb | # | 96 |
| 25) Benzo (k) fluoranthene | 12.52 | 252 | 123617 | 5.22426 | ppb | # | 84 |
| 26) Benzo (a) pyrene | 13.05 | 252 | 106932 | 5.05468 | ppb | # | 94 |
| 27) Dibenz (a,h) anthracene | 14.70 | 278 | 103583 | 5.25425 | ppb | | 99 |
| 28) Benzo (g,h,i) perylene | 15.01 | 276 | 105592 | 5.22057 | ppb | | 99 |

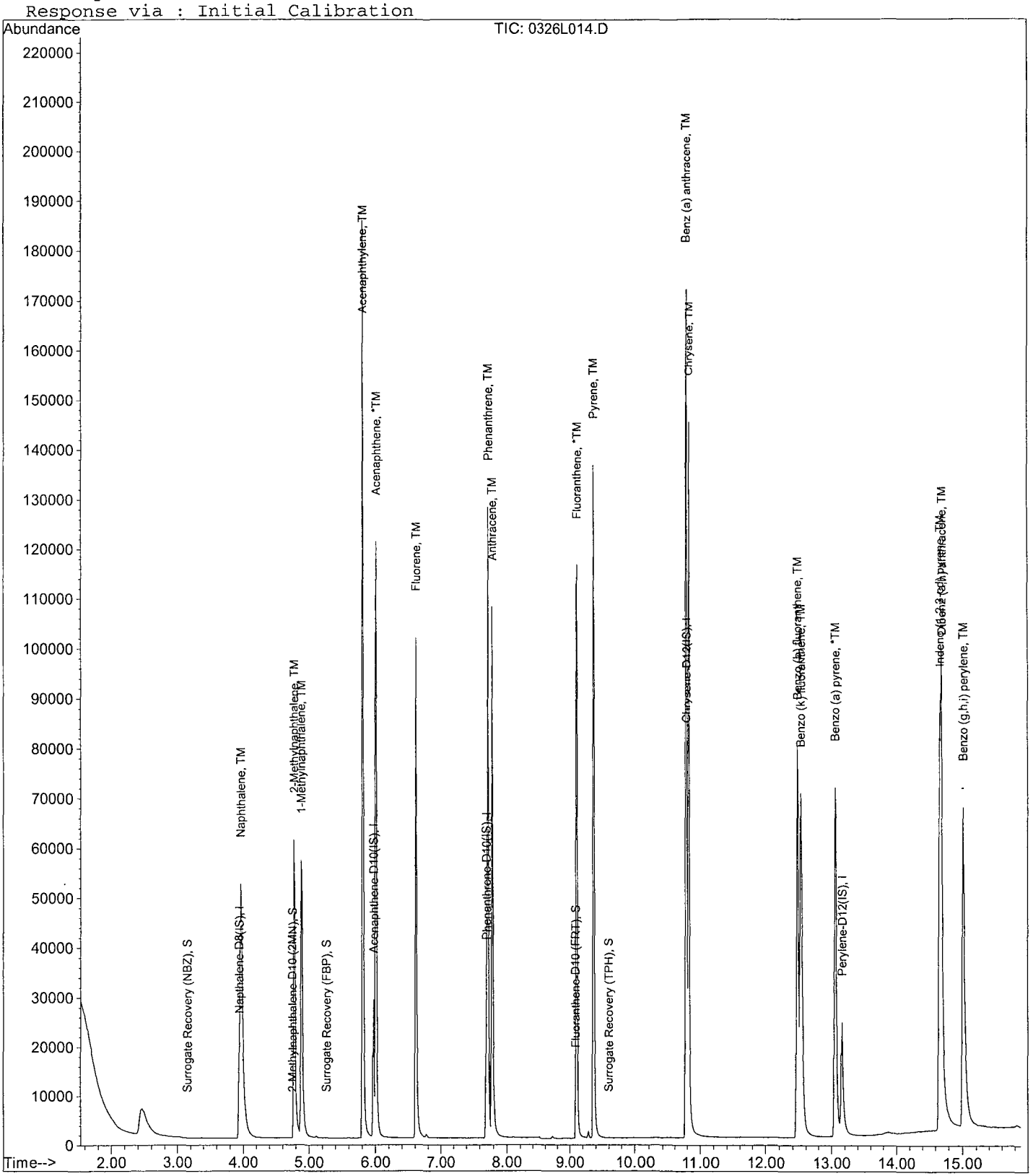
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190326\0326L014.D Vial: 14
Acq On : 26 Mar 19 17:27 Operator: MA
Sample : SS SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 27 9:04 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190326\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Mar 27 09:03:54 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

## Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 May 19 10:54
Instrument: Linus
Initial Cal. Date: 03/26/19
Data File: 0426L030.D

| | | Compound | MEAN | CCRF | %D | %Drift | |
|---|---|---|---|---|---|---|---|
| 1 | I | Napthalene-D8(IS) | ISTD | | | I | |
| 2 | S | Surrogate Recovery (NBZ) | 0.4460 | 0.4371 | 2.0 | S | |
| 3 | TM | Naphthalene | 1.314 | 1.250 | 4.9 | TM | |
| 4 | S | 2-Methylnaphthalene-D10 (2MN) | 1.354 | 1.222 | 9.7 | S | |
| 5 | TM | 2-Methylnaphthalene | 0.7409 | 0.6941 | 6.3 | TM | |
| 6 | TM | 1-Methylnaphthalene | 0.8188 | 0.7371 | 10.0 | TM | |
| 7 | I | Acenaphthene-D10(IS) | ISTD | | | I | |
| 8 | S | Surrogate Recovery (FBP) | 1.840 | 1.923 | 4.5 | S | |
| 9 | TM | Acenaphthylene | 5.655 | 5.281 | 6.6 | TM | |
| 10 | *TM | Acenaphthene | 1.491 | 1.527 | 2.4 | *TM | |
| 11 | TM | Fluorene | 1.867 | 1.917 | 2.6 | TM | |
| 12 | I | Phenanthrene-D10(IS) | ISTD | | | I | |
| 13 | TM | Phenanthrene | 1.453 | 1.470 | 1.2 | TM | |
| 14 | TM | Anthracene | 1.396 | 1.517 | 8.6 | TM | |
| 15 | S | Fluoranthene-D10 (FRT) | 2.138 | 2.178 | 1.9 | S | |
| 16 | *TM | Fluoranthene | 2.417 | 2.499 | 3.4 | *TM | |
| 17 | I | Chrysene-D12(IS) | ISTD | | | I | |
| 18 | TM | Pyrene | 1.692 | 1.690 | 0.11 | TM | |
| 19 | S | Surrogate Recovery (TPH) | 0.8859 | 0.8568 | 3.3 | S | |
| 20 | TM | Benz (a) anthracene | 1.385 | 1.189 | 14 | TM | |
| 21 | TM | Chrysene | 1.409 | 1.473 | 4.6 | TM | |
| 22 | TM | Indeno (1,2,3-cd) pyrene | 1.476 | 1.396 | 5.4 | TM | |
| 23 | I | Perylene-D12(IS) | ISTD | | | I | |
| 24 | TM | Benzo (b) fluoranthene | 1.293 | 1.336 | 3.3 | TM | |
| 25 | TM | Benzo (k) fluoranthene | 1.467 | 1.808 | 23 | TM | *NT HA 5/8/19 |
| 26 | *TM | Benzo (a) pyrene | 1.312 | 1.325 | 1.0 | *TM | |
| 27 | TM | Dibenz (a,h) anthracene | 1.222 | 1.364 | 12 | TM | |
| 28 | TM | Benzo (g,h,i) perylene | 1.254 | 1.329 | 6.0 | TM | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 5.9 | | |

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L030.D Vial: 30
Acq On : 2 May 19 10:54 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 2 11:23 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 45570 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 18053 | 2.50000 ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 28703 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 43875 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.18 | 264 | 36594 | 2.50000 ppb | | 0.02 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.15 | 82 | 19917 | 2.44971 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery | = 49.000% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 55699 | 2.25750 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 45.160% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 34715 | 2.61209 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 52.240% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 62519 | 2.54704 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 50.940% | | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 37591 | 2.41784 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 48.360% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 113888 | 4.75600 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 63260 | 4.68432 ppb | | 100 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 67181 | 4.50099 ppb | | 96 |
| 9) Acenaphthylene | 5.81 | 152 | 190681 | 4.66983 ppb | | 99 |
| 10) Acenaphthene | 6.00 | 154 | 55140 | 5.12097 ppb | | 96 |
| 11) Fluorene | 6.62 | 166 | 69199 | 5.13217 ppb | | 98 |
| 13) Phenanthrene | 7.73 | 178 | 84389 | 5.05794 ppb | | 99 |
| 14) Anthracene | 7.79 | 178 | 87065 | 5.43247 ppb | | 99 |
| 16) Fluoranthene | 9.10 | 202 | 143463 | 5.17057 ppb | # | 79 |
| 18) Pyrene | 9.36 | 202 | 148298 | 4.99438 ppb | | 91 |
| 20) Benz (a) anthracene | 10.78 | 228 | 104301 | 4.29028 ppb | | 99 |
| 21) Chrysene | 10.83 | 228 | 129286 | 5.22963 ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 122536 | 4.72906 ppb | # | 77 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 97766 | 5.16638 ppb | | 97 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 132349 | 6.16280 ppb | | 98 |
| 26) Benzo (a) pyrene | 13.09 | 252 | 96988 | 5.05143 ppb | # | 95 |
| 27) Dibenz (a,h) anthracene | 14.71 | 278 | 99841 | 5.58009 ppb | # | 92 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 97275 | 5.29906 ppb | | 93 |

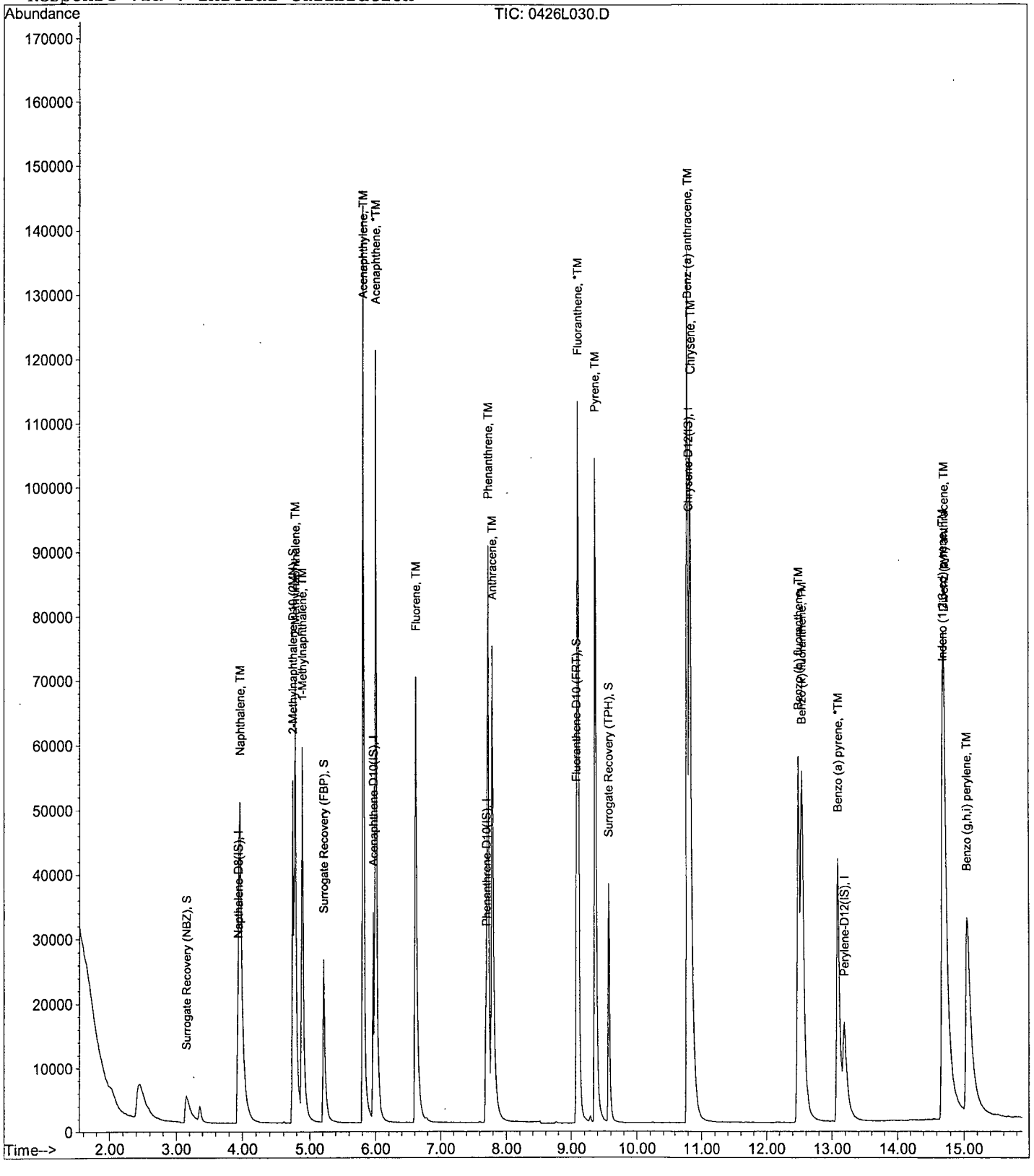
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L030.D Vial: 30
Acq On : 2 May 19 10:54 Operator: MA
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 2 11:23 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

# Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 May 19 21:03
Instrument: Linus
Initial Cal. Date: 03/26/19
Data File: 0426L054.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | Napthalene-D8(IS) | ISTD | | | I | |
| 2 | S | Surrogate Recovery (NBZ) | 0.4460 | 0.4597 | 3.1 | S | |
| 3 | TM | Naphthalene | 1.314 | 1.439 | 9.5 | TM | |
| 4 | S | 2-Methylnaphthalene-D10 (2MN) | 1.354 | 1.222 | 9.7 | S | |
| 5 | TM | 2-Methylnaphthalene | 0.7409 | 0.7872 | 6.3 | TM | |
| 6 | TM | 1-Methylnaphthalene | 0.8188 | 0.8347 | 1.9 | TM | |
| 7 | I | Acenaphthene-D10(IS) | ISTD | | | I | |
| 8 | S | Surrogate Recovery (FBP) | 1.840 | 1.818 | 1.2 | S | |
| 9 | TM | Acenaphthylene | 5.655 | 6.733 | 19 | TM | |
| 10 | *TM | Acenaphthene | 1.491 | 1.730 | 16 | *TM | |
| 11 | TM | Fluorene | 1.867 | 2.205 | 18 | TM | |
| 12 | I | Phenanthrene-D10(IS) | ISTD | | | I | |
| 13 | TM | Phenanthrene | 1.453 | 1.635 | 13 | TM | |
| 14 | TM | Anthracene | 1.396 | 1.764 | 26 | TM | |
| 15 | S | Fluoranthene-D10 (FRT) | 2.138 | 2.514 | 18 | S | |
| 16 | *TM | Fluoranthene | 2.417 | 3.180 | 32 | *TM | |
| 17 | I | Chrysene-D12(IS) | ISTD | | | I | |
| 18 | TM | Pyrene | 1.692 | 1.947 | 15 | TM | |
| 19 | S | Surrogate Recovery (TPH) | 0.8859 | 0.8608 | 2.8 | S | |
| 20 | TM | Benz (a) anthracene | 1.385 | 1.462 | 5.5 | TM | |
| 21 | TM | Chrysene | 1.409 | 1.648 | 17 | TM | |
| 22 | TM | Indeno (1,2,3-cd) pyrene | 1.476 | 1.672 | 13 | TM | |
| 23 | I | Perylene-D12(IS) | ISTD | | | I | |
| 24 | TM | Benzo (b) fluoranthene | 1.293 | 1.244 | 3.8 | TM | |
| 25 | TM | Benzo (k) fluoranthene | 1.467 | 1.939 | 32 | TM | |
| 26 | *TM | Benzo (a) pyrene | 1.312 | 1.502 | 15 | *TM | |
| 27 | TM | Dibenz (a,h) anthracene | 1.222 | 1.378 | 13 | TM | |
| 28 | TM | Benzo (g,h,i) perylene | 1.254 | 1.358 | 8.3 | TM | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | | | | | | | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| | | Average | | | 13.0 | | |

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L054.D Vial: 54
Acq On : 2 May 19 21:03 Operator: MA,SS
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 3 8:50 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

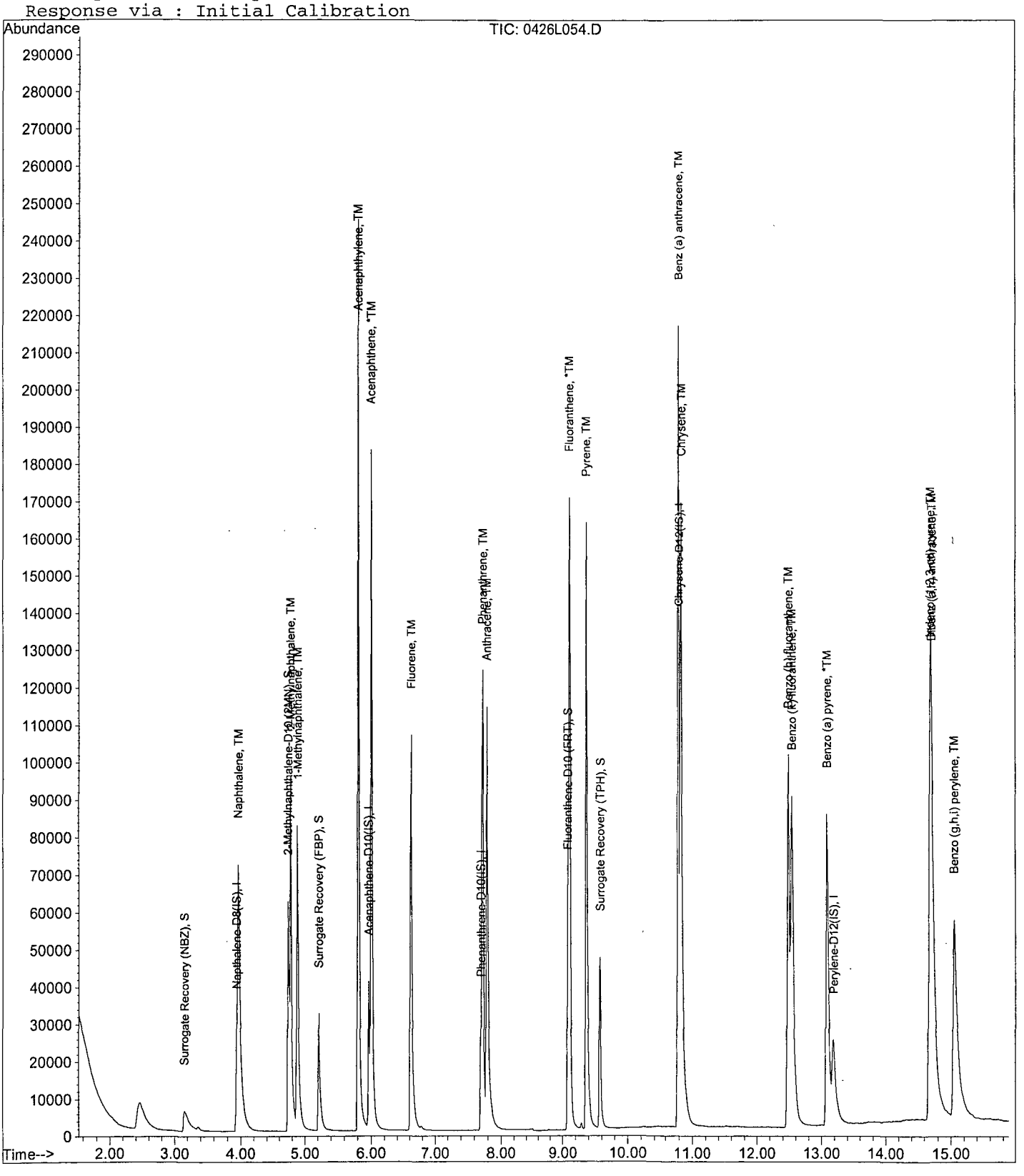
| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 52891 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 22558 | 2.50000 ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 34382 | 2.50000 ppb | | 0.00 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 56026 | 2.50000 ppb | | 0.00 |
| 23) Perylene-D12(IS) | 13.18 | 264 | 55890 | 2.50000 ppb | | 0.02 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.15 | 82 | 24315 | 2.57669 ppb | | 0.02 |
| Spiked Amount 5.000 | | | Recovery | = 51.540% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 64641 | 2.25729 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 45.140% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 41010 | 2.46950 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 49.400% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 86432 | 2.93964 ppb | | -0.01 |
| Spiked Amount 5.000 | | | Recovery | = 58.800% | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 48225 | 2.42909 ppb | | 0.00 |
| Spiked Amount 5.000 | | | Recovery | = 48.580% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 152208 | 5.47644 ppb | | 100 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 83276 | 5.31294 ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 88293 | 5.09665 ppb | | 99 |
| 9) Acenaphthylene | 5.81 | 152 | 303788 | 5.95405 ppb | | 99 |
| 10) Acenaphthene | 6.00 | 154 | 78043 | 5.80054 ppb | | 91 |
| 11) Fluorene | 6.62 | 166 | 99460 | 5.90335 ppb | | 99 |
| 13) Phenanthrene | 7.73 | 178 | 112442 | 5.62616 ppb | | 99 |
| 14) Anthracene | 7.79 | 178 | 121315 | 6.31923 ppb | | 99 |
| 16) Fluoranthene | 9.10 | 202 | 218682 | 6.57972 ppb | # | 81 |
| 18) Pyrene | 9.36 | 202 | 218147 | 5.75338 ppb | | 96 |
| 20) Benz (a) anthracene | 10.78 | 228 | 163787 | 5.27599 ppb | | 100 |
| 21) Chrysene | 10.83 | 228 | 184673 | 5.84992 ppb | | 98 |
| 22) Indeno (1,2,3-cd) pyrene | 14.69 | 276 | 187350 | 5.66229 ppb | # | 80 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 139073 | 4.81190 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 216697 | 6.60672 ppb | | 99 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 167895 | 5.72546 ppb | # | 94 |
| 27) Dibenz (a,h) anthracene | 14.71 | 278 | 154047 | 5.63718 ppb | # | 94 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 151766 | 5.41312 ppb | | 97 |

(#) = qualifier out of range (m) = manual integration

Data File : M:\LINUS\DATA\L190426\0426L054.D Vial: 54
Acq On : 2 May 19 21:03 Operator: MA,SS
Sample : 5 SIM 03/06/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: May 3 8:50 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



# ORGANICS
# Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L034.D Vial: 34
Acq On : 2 May 19 13:36 Operator: MA,SS
Sample : AZ90100W21 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:05 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 57934 | 2.50000 ppb | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 27040 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 48201 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.80 | 240 | 69327 | 2.50000 ppb | 0.01 |
| 23) Perylene-D12(IS) | 13.18 | 264 | 66817 | 2.50000 ppb | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 787670 | 95.25571 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1524.096% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 107385 | 4.27938 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 68.464% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1142309 | 71.73107 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1147.696% | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 154106 | 4.67331 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 74.768% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1217201 | 61.93425 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 990.944% | |

Target Compounds Qvalue

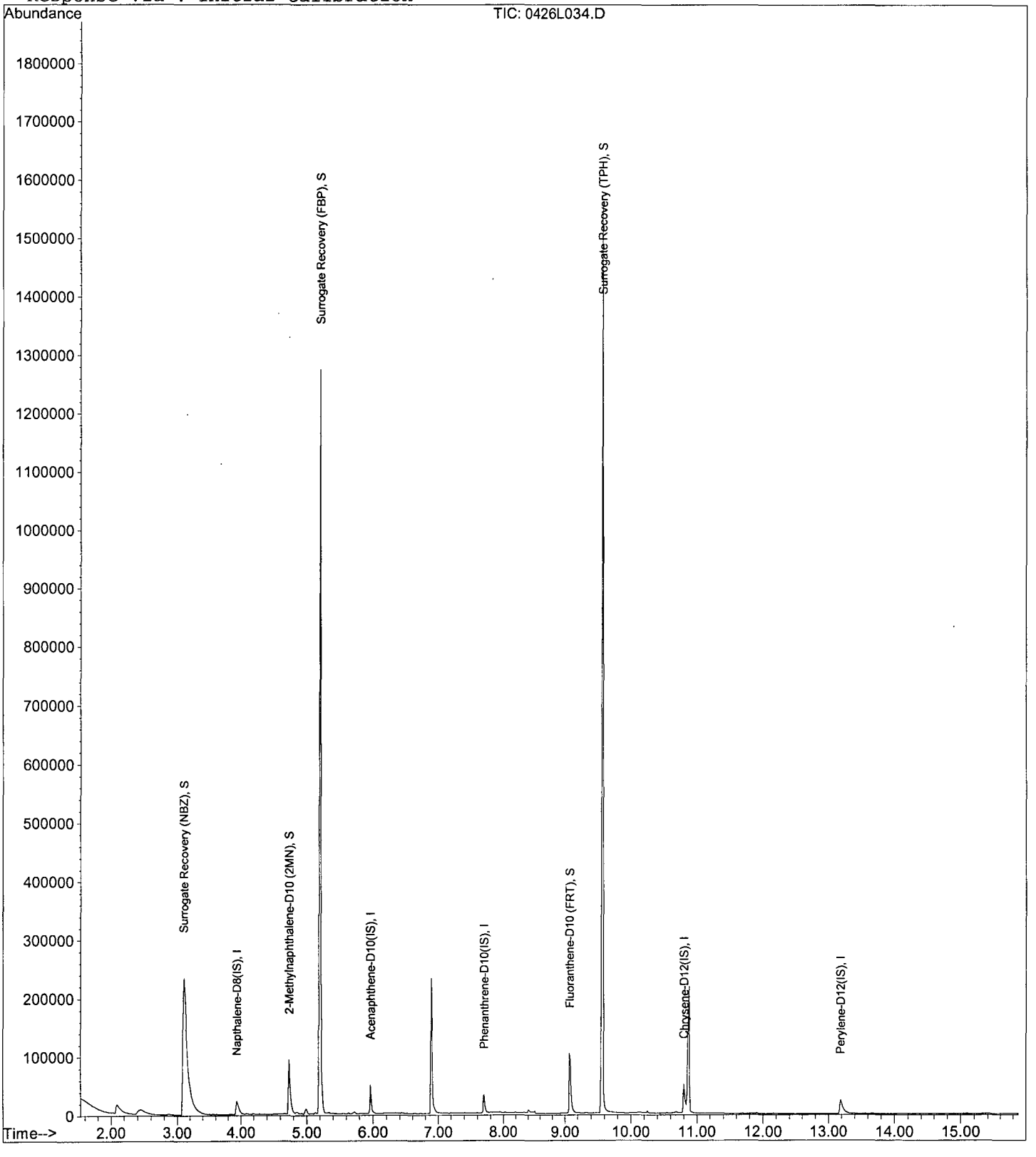
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L034.D Vial: 34
Acq On : 2 May 19 13:36 Operator: MA,SS
Sample : AZ90100W21 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:05 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L035.D Vial: 35
Acq On : 2 May 19 13:58 Operator: MA,SS
Sample : AZ90102W22 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:07 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.92 | 136 | 59074 | 2.50000 | ppb | -0.01 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 24673 | 2.50000 | ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 47103 | 2.50000 | ppb | -0.01 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 68499 | 2.50000 | ppb | 0.00 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 65571 | 2.50000 | ppb | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 757082 | 89.78975 | ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1436.640% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.72 | 152 | 113376 | 4.43093 | ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 70.896% | | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1088114 | 74.88293 | ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1198.128% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 132879 | 4.12352 | ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 65.984% | | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 899351 | 46.31439 | ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 741.024% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.95 | 128 | 690846 | 27.81874 | ppb | 96 |
| 5) 2-Methylnaphthalene | 4.76 | 142 | 110506 | 7.89035 | ppb | 99 |
| 6) 1-Methylnaphthalene | 4.87 | 142 | 138965 | 8.97759 | ppb | 99 |
| 10) Acenaphthene | 6.00 | 154 | 3810 | 0.32363 | ppb | 92 |
| 11) Fluorene | 6.60 | 166 | 3076 | 0.20865 | ppb | 91 |

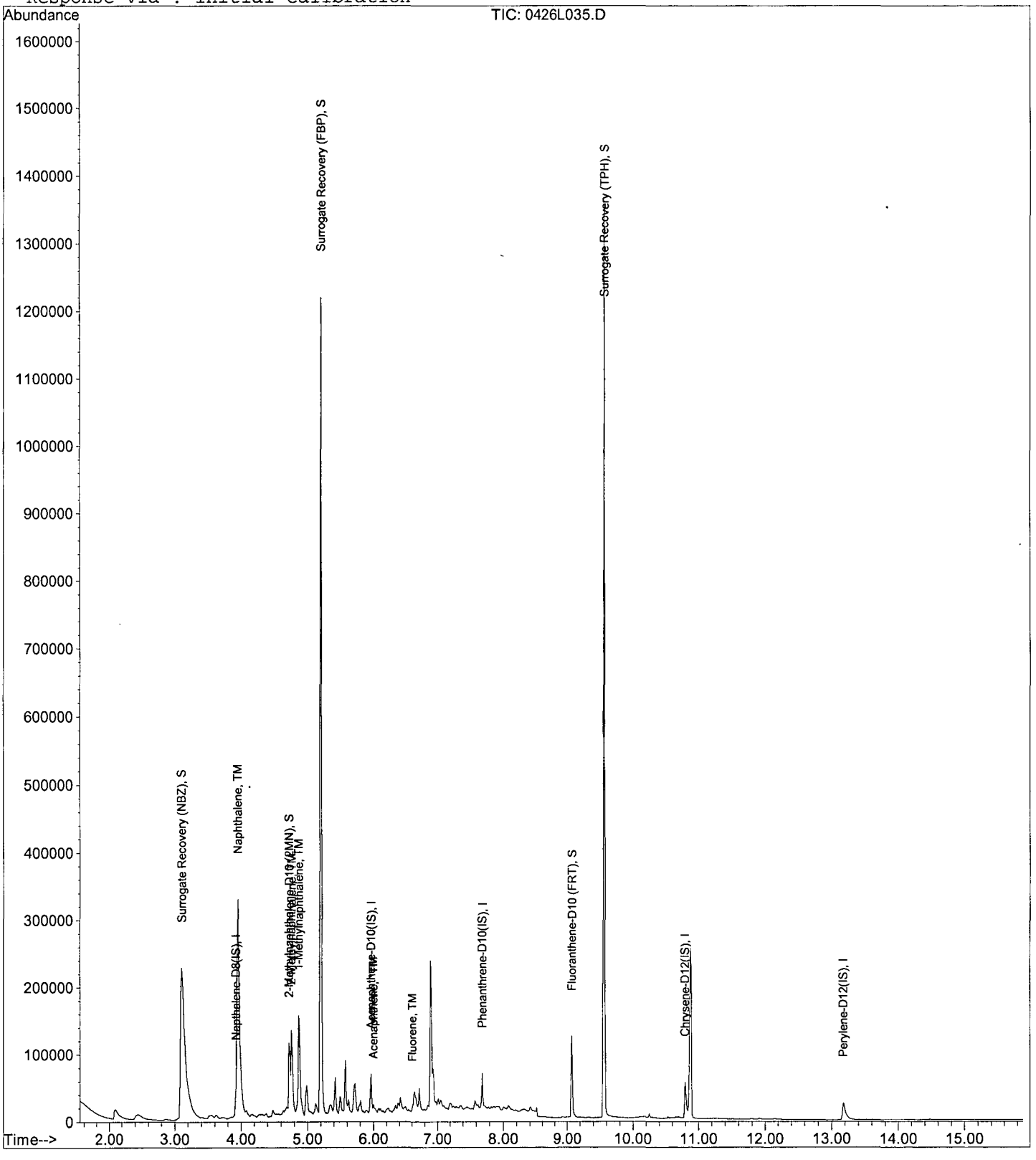
(#) = qualifier out of range (m) = manual integration

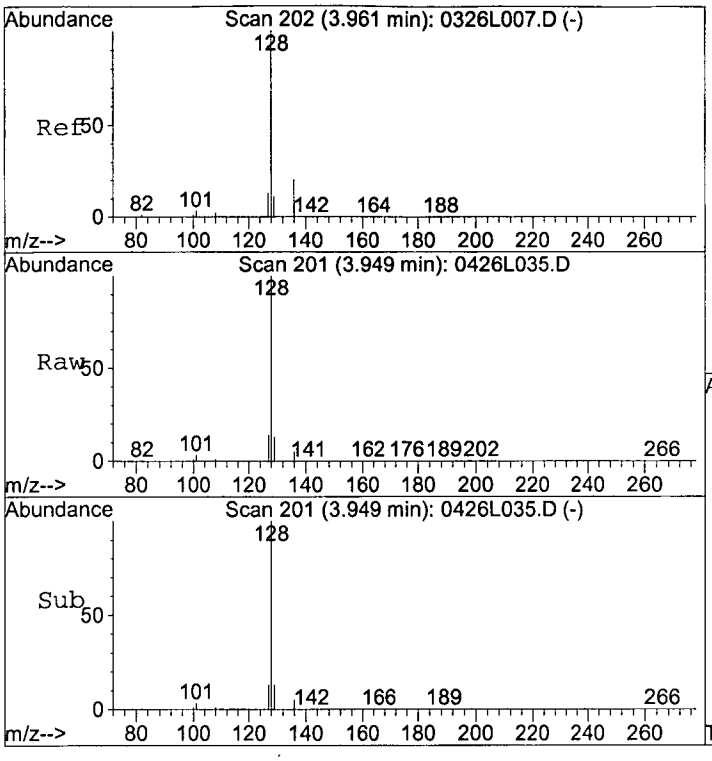
Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L035.D Vial: 35
Acq On : 2 May 19 13:58 Operator: MA,SS
Sample : AZ90102W22 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:07 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration

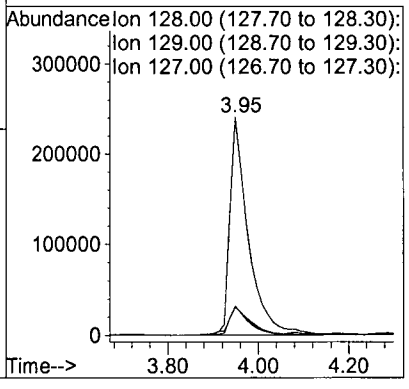


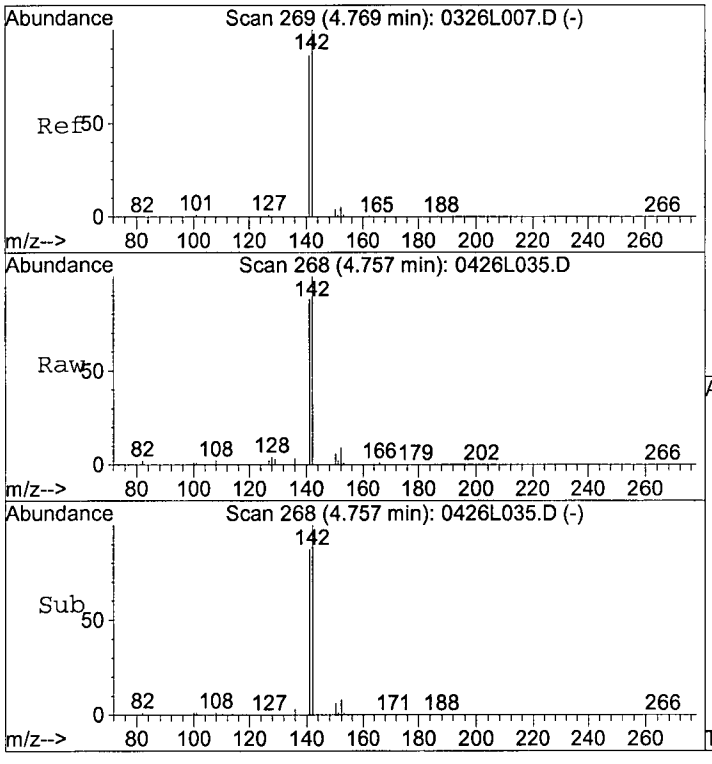



#3
Naphthalene
Concen: 27.81874 ppb
RT: 3.95 min Scan# 201
Delta R.T. -0.01 min
Lab File: 0426L035.D
Acq: 2 May 19 13:58

Tgt Ion:128 Resp: 690846

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 129 | 13.1 | 7.6 | 14.2 |
| 127 | 13.5 | 9.0 | 16.6 |

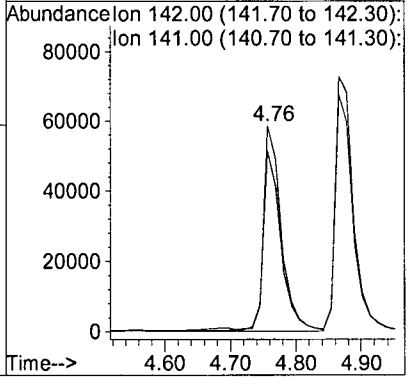


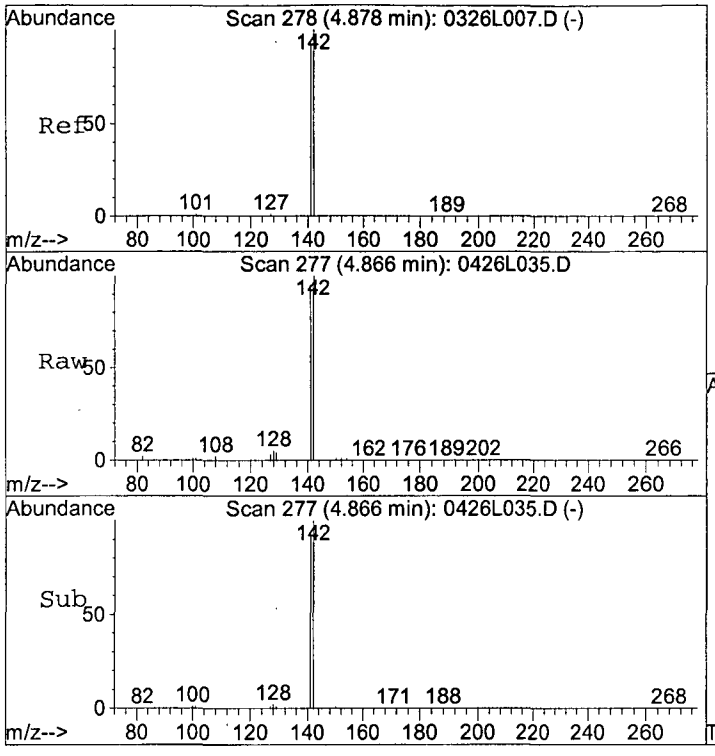




#5
2-Methylnaphthalene
Concen: 7.89035 ppb
RT: 4.76 min Scan# 268
Delta R.T. -0.01 min
Lab File: 0426L035.D
Acq: 2 May 19 13:58

Tgt Ion:142 Resp: 110506

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 142 | 100 | | |
| 141 | 87.0 | 60.1 | 111.5 |

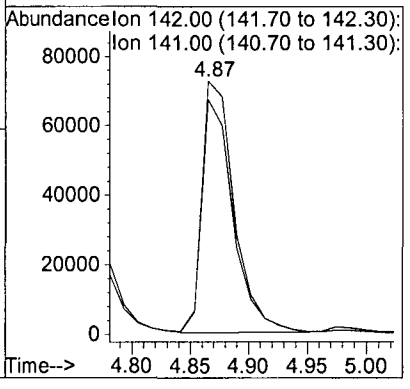


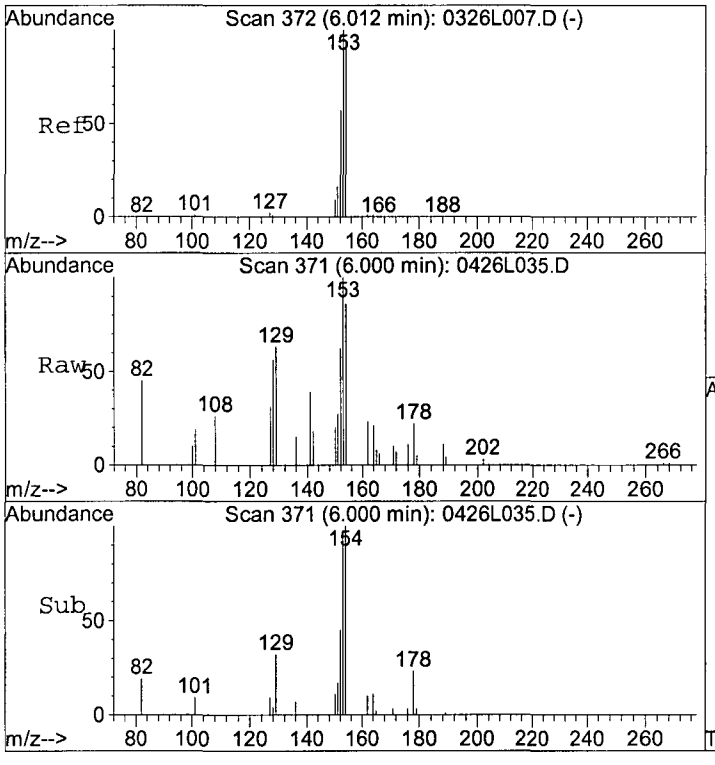



#6
1-Methylnaphthalene
Concen: 8.97759 ppb
RT: 4.87 min Scan# 277
Delta R.T. -0.01 min
Lab File: 0426L035.D
Acq: 2 May 19 13:58

Tgt Ion:142 Resp: 138965

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 142 | 100 | | |
| 141 | 92.3 | 64.3 | 119.3 |

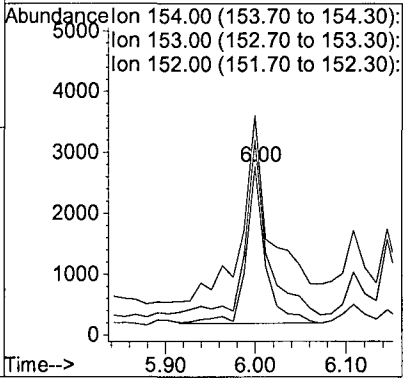


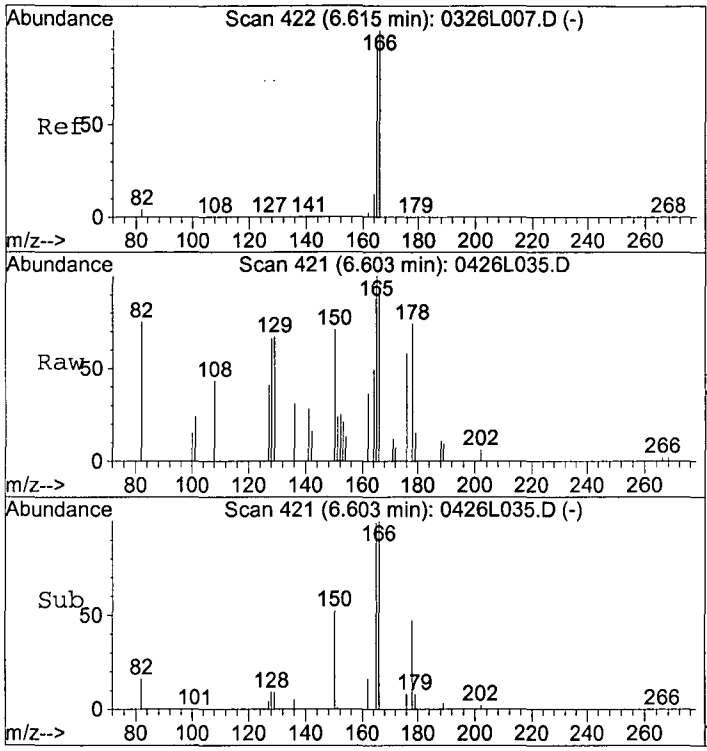




#10
Acenaphthene
Concen: 0.32363 ppb
RT: 6.00 min Scan# 371
Delta R.T. -0.01 min
Lab File: 0426L035.D
Acq: 2 May 19 13:58

Tgt Ion:154 Resp: 3810

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 154 | 100 | | |
| 153 | 111.7 | 74.1 | 137.7 |
| 152 | 118.7 | 75.1 | 139.5 |

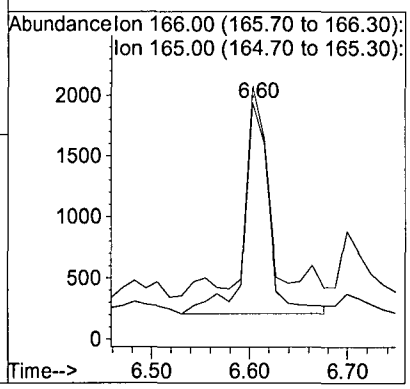





#11
Fluorene
Concen: 0.20865 ppb
RT: 6.60 min Scan# 421
Delta R.T. -0.01 min
Lab File: 0426L035.D
Acq: 2 May 19 13:58

Tgt Ion:166 Resp: 3076

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 165 | 99.4 | 63.5 | 117.9 |



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L036.D Vial: 36
Acq On : 2 May 19 14:20 Operator: MA,SS
Sample : AZ90103W08 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:11 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.92 | 136 | 59008 | 2.50000 ppb | -0.01 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 24116 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 45531 | 2.50000 ppb | -0.01 |
| 17) Chrysene-D12(IS) | 10.79 | 240 | 68691 | 2.50000 ppb | 0.00 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 66904 | 2.50000 ppb | 0.01 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 751985 | 89.28500 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1428.560% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.72 | 152 | 107741 | 4.21542 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 67.440% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1021087 | 71.89321 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1150.288% | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 129270 | 4.15003 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 66.400% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 723840 | 37.17181 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 594.752% | |
| **Target Compounds** | | | | | Qvalue |
| 3) Naphthalene | 3.95 | 128 | 651445 | 26.26149 ppb | 96 |
| 5) 2-Methylnaphthalene | 4.76 | 142 | 102939 | 7.35827 ppb | 98 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 135264 | 8.74827 ppb | 95 |
| 10) Acenaphthene | 6.00 | 154 | 3509 | 0.30495 ppb | 90 |
| 11) Fluorene | 6.60 | 166 | 3225 | 0.22381 ppb | 86 |

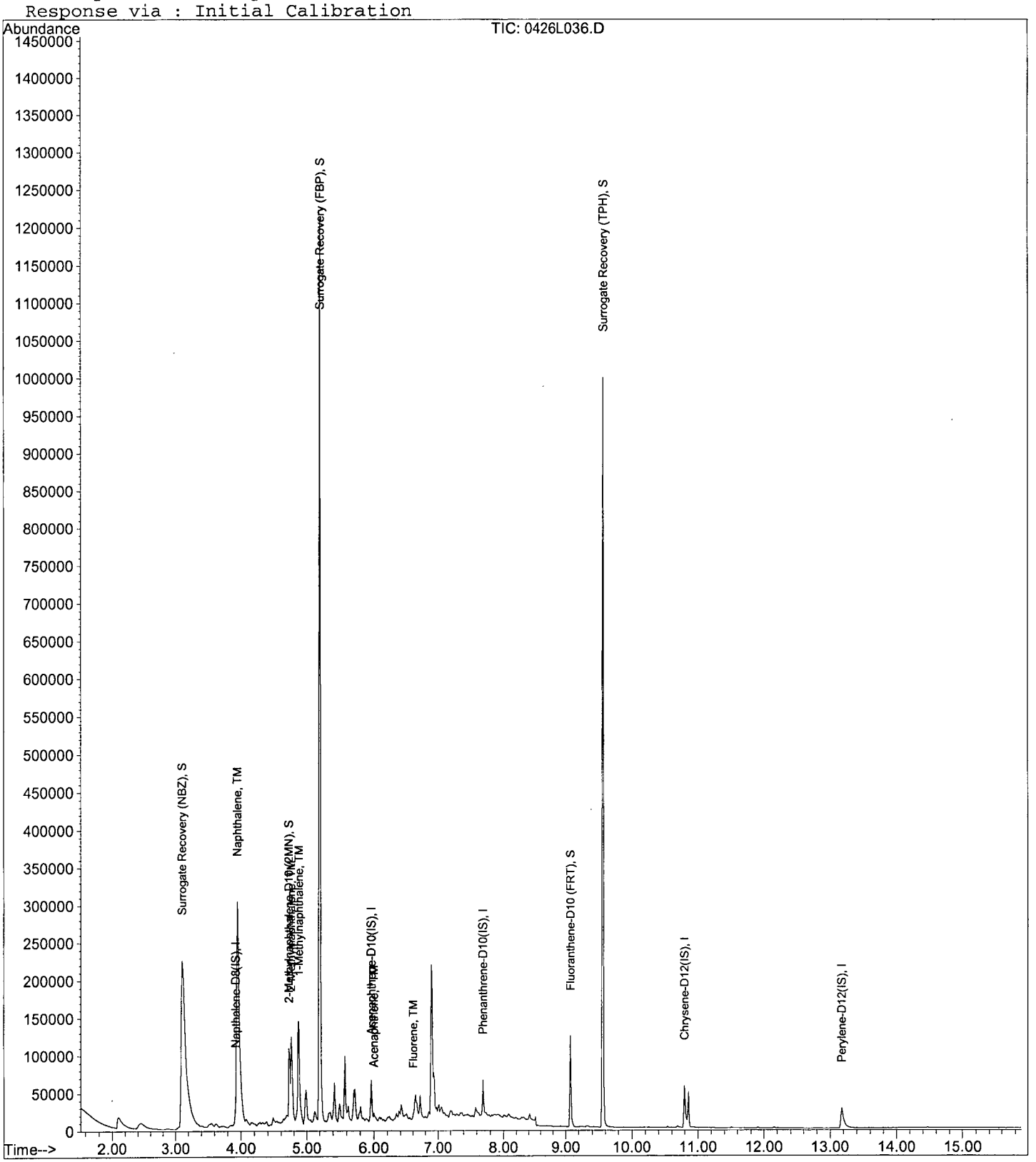
(#) = qualifier out of range (m) = manual integration

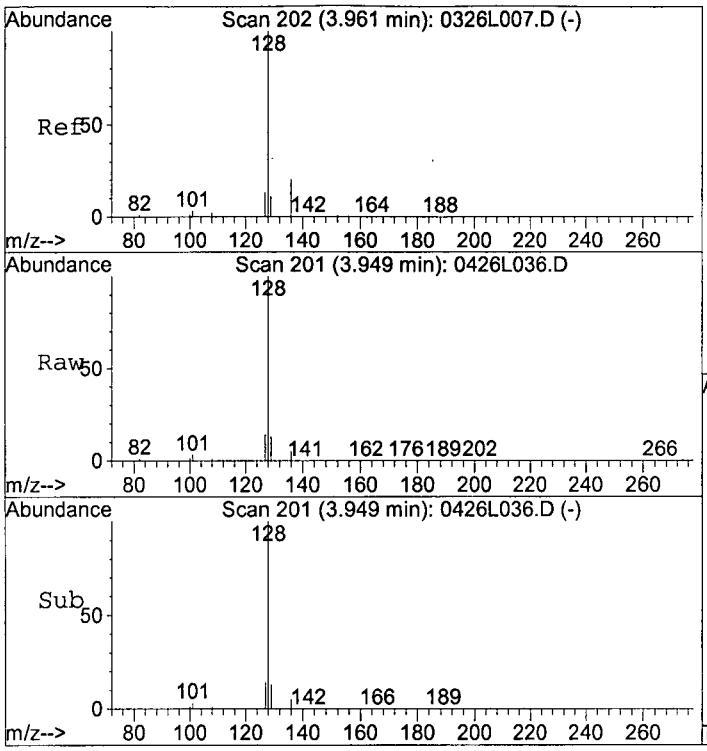
Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L036.D Vial: 36
Acq On : 2 May 19 14:20 Operator: MA,SS
Sample : AZ90103W08 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:11 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration

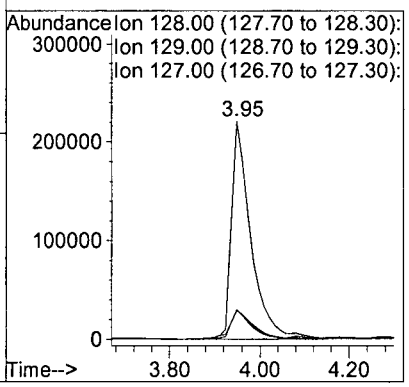


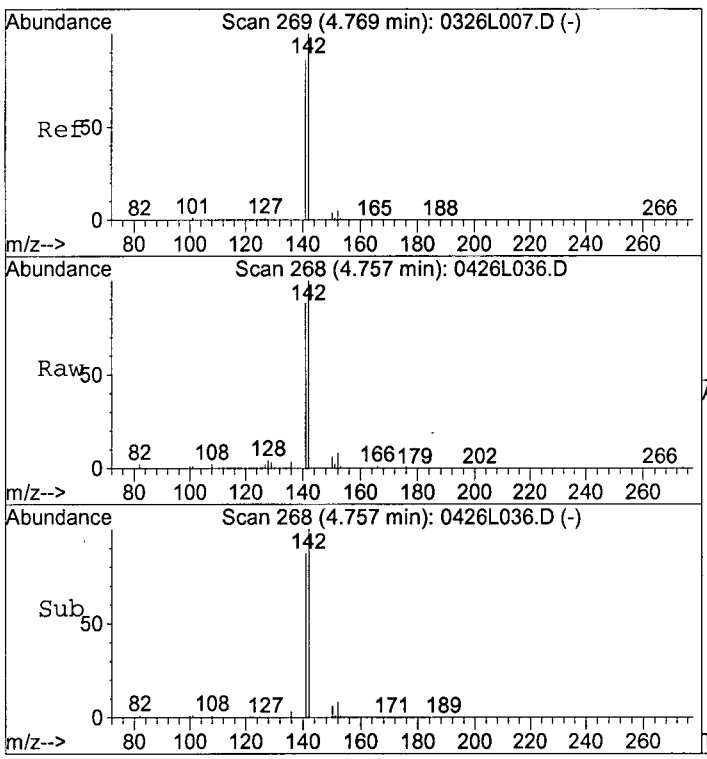



#3
Naphthalene
Concen: 26.26149 ppb
RT: 3.95 min Scan# 201
Delta R.T. -0.01 min
Lab File: 0426L036.D
Acq: 2 May 19 14:20

Tgt Ion:128 Resp: 651445

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 129 | 13.1 | 7.6 | 14.2 |
| 127 | 13.5 | 9.0 | 16.6 |

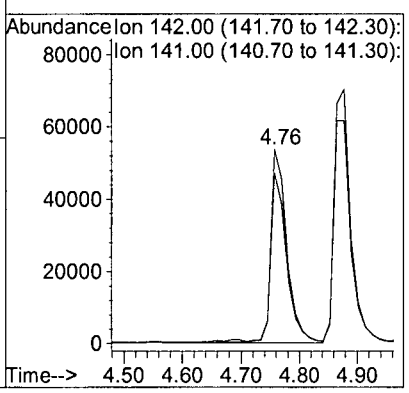


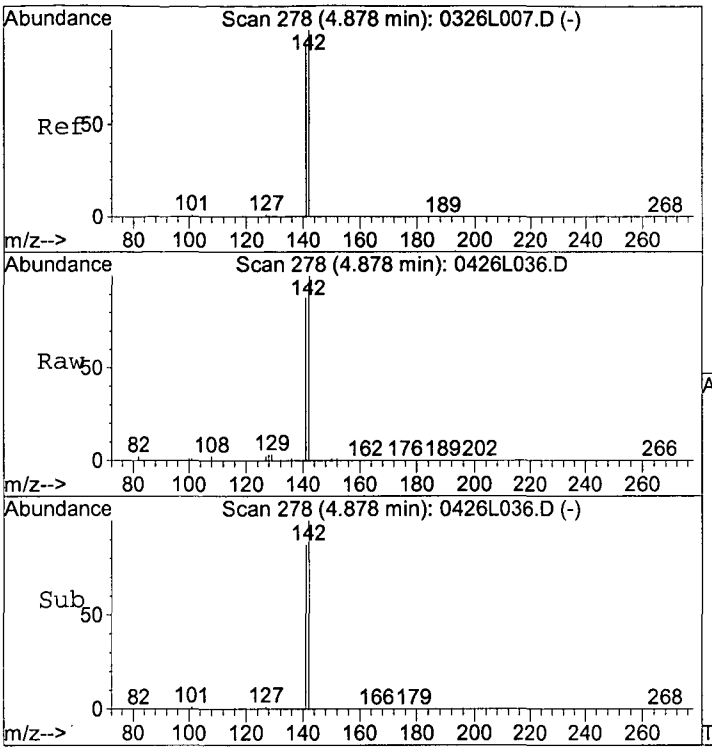




#5
2-Methylnaphthalene
Concen: 7.35827 ppb
RT: 4.76 min Scan# 268
Delta R.T. -0.01 min
Lab File: 0426L036.D
Acq: 2 May 19 14:20

Tgt Ion:142 Resp: 102939

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 142 | 100 | | |
| 141 | 87.4 | 60.1 | 111.5 |

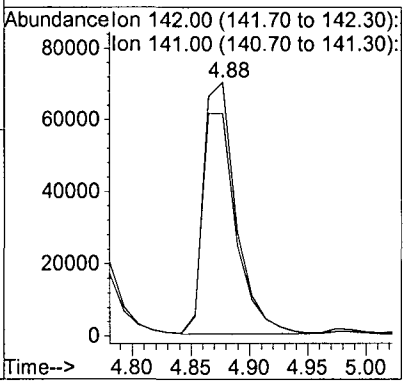


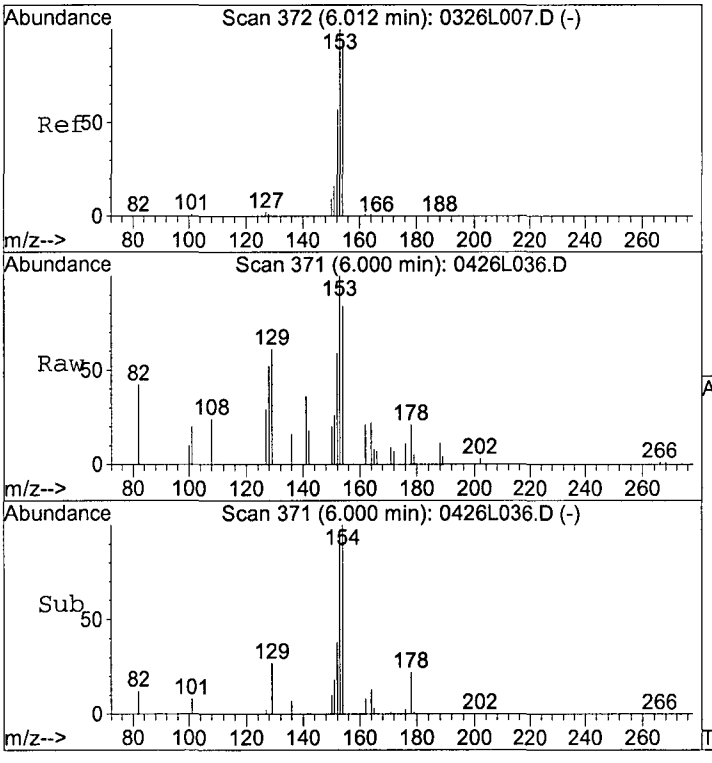



#6
1-Methylnaphthalene
Concen: 8.74827 ppb
RT: 4.88 min Scan# 278
Delta R.T. 0.00 min
Lab File: 0426L036.D
Acq: 2 May 19 14:20

Tgt Ion:142 Resp: 135264

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 142 | 100 | | |
| 141 | 87.1 | 64.3 | 119.3 |

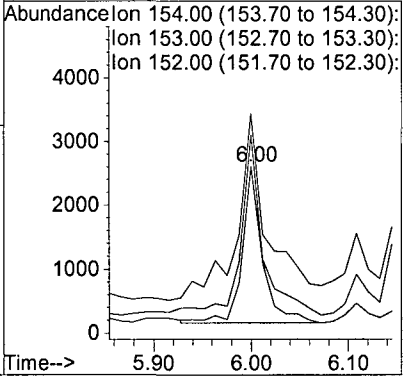


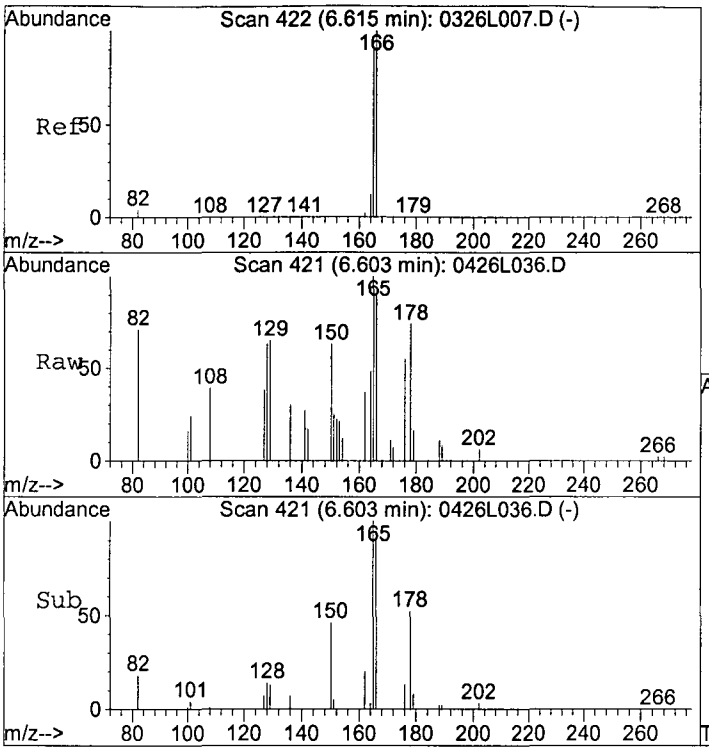




#10
Acenaphthene
Concen: 0.30495 ppb
RT: 6.00 min Scan# 371
Delta R.T. -0.01 min
Lab File: 0426L036.D
Acq: 2 May 19 14:20

Tgt Ion:154 Resp: 3509

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 154 | 100 | | |
| 153 | 115.4 | 74.1 | 137.7 |
| 152 | 118.0 | 75.1 | 139.5 |

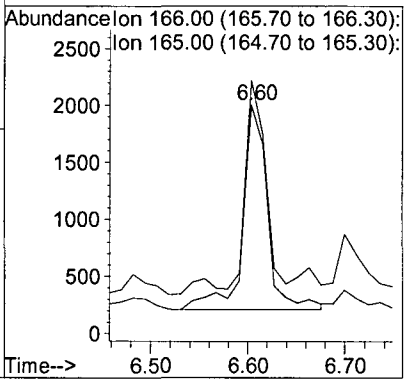





#11
Fluorene
Concen: 0.22381 ppb
RT: 6.60 min Scan# 421
Delta R.T. -0.01 min
Lab File: 0426L036.D
Acq: 2 May 19 14:20

Tgt Ion:166 Resp: 3225

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 165 | 104.1 | 63.5 | 117.9 |



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L037.D Vial: 37
Acq On : 2 May 19 14:43 Operator: MA,SS
Sample : AZ90105W21 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:22 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 61475 | 2.50000 ppb | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 26582 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 47174 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.80 | 240 | 67598 | 2.50000 ppb | 0.01 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 64757 | 2.50000 ppb | 0.01 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 632084 | 72.03715 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1152.592% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 95214 | 3.57579 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 57.216% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 936114 | 59.79591 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 956.736% | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 117156 | 3.63013 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 58.080% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 932053 | 48.63823 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 778.208% | |

Target Compounds Qvalue

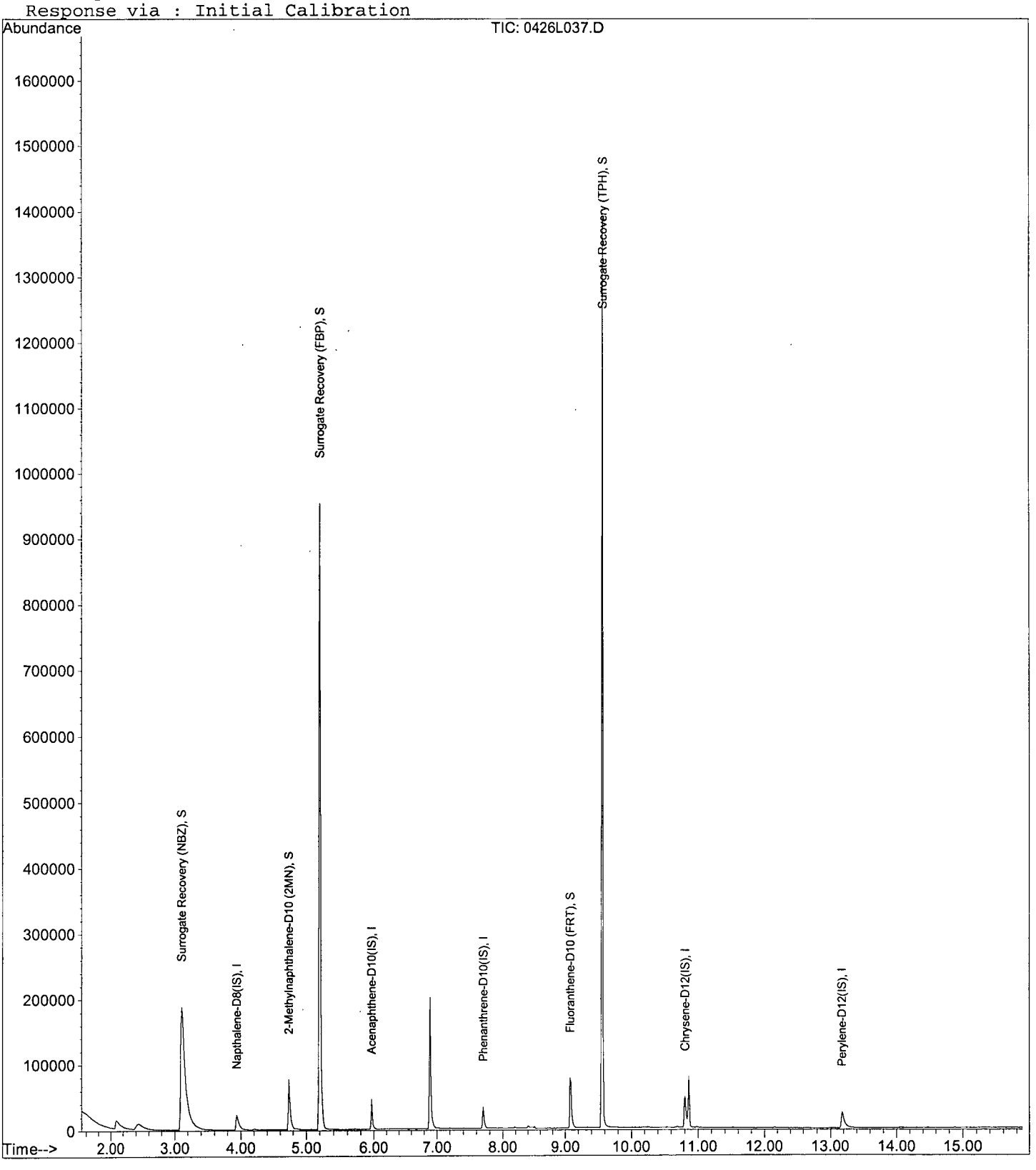
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L037.D Vial: 37
Acq On : 2 May 19 14:43 Operator: MA,SS
Sample : AZ90105W21 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:22 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L038.D Vial: 38
Acq On : 2 May 19 15:05 Operator: MA,SS
Sample : AZ90107W18 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:13 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 60041 | 2.50000 ppb | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 25621 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 45813 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.80 | 240 | 65038 | 2.50000 ppb | 0.01 |
| 23) Perylene-D12(IS) | 13.18 | 264 | 65063 | 2.50000 ppb | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 754980 | 88.09835 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1409.568% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 115203 | 4.42982 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 70.880% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1112700 | 73.74158 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1179.872% | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 140306 | 4.47660 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 71.632% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1279576 | 69.40166 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1110.432% | |

Target Compounds Qvalue

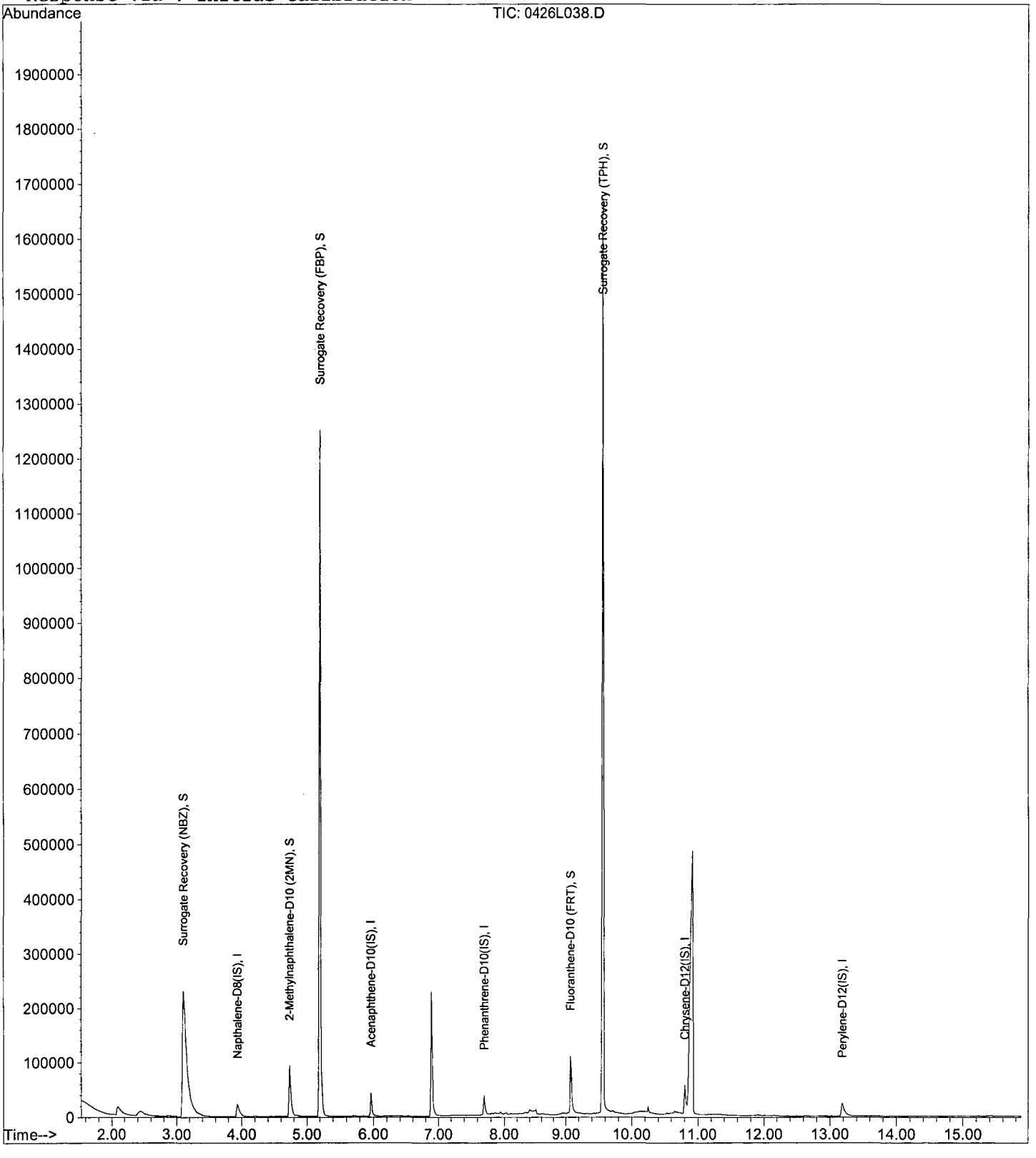
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L038.D Vial: 38
Acq On : 2 May 19 15:05 Operator: MA,SS
Sample : AZ90107W18 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:13 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L039.D Vial: 39
Acq On : 2 May 19 15:27 Operator: MA,SS
Sample : AZ90109W21 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:14 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 60884 | 2.50000 ppb | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 25643 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 43273 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.80 | 240 | 57967 | 2.50000 ppb | 0.01 |
| 23) Perylene-D12(IS) | 13.18 | 264 | 59099 | 2.50000 ppb | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 761288 | 87.60443 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1401.664% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 117749 | 4.46503 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 71.440% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1072023 | 70.98485 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1135.760% | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 155735 | 5.26054 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 84.176% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1208271 | 73.52829 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1176.448% | |

Target Compounds Qvalue

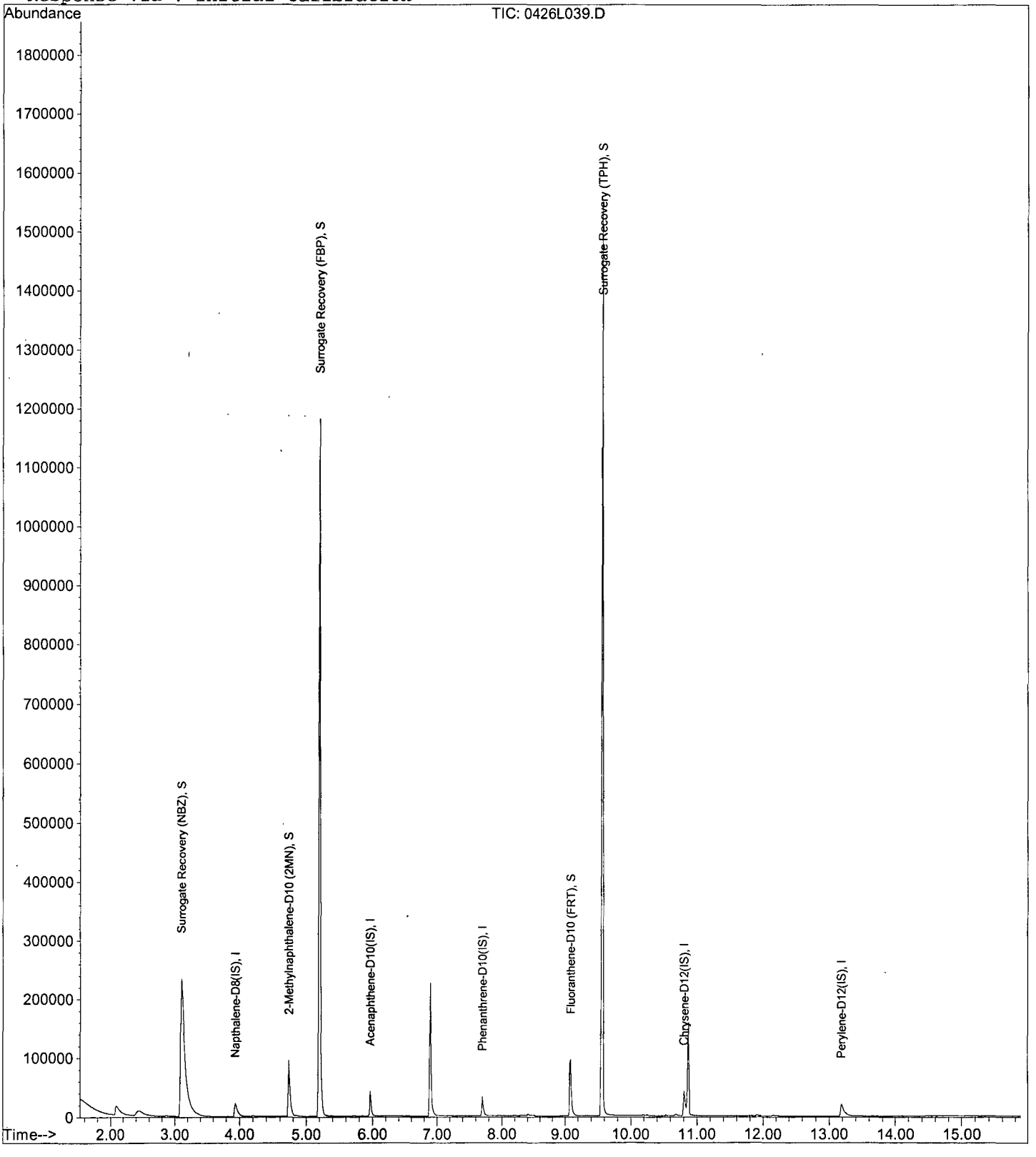
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L039.D Vial: 39
Acq On : 2 May 19 15:27 Operator: MA,SS
Sample : AZ90109W21 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:14 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L031.D Vial: 31
Acq On : 2 May 19 12:16 Operator: MA
Sample : 190430A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 14:20 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 66235 | 2.50000 ppb | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 26500 | 2.50000 ppb | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.70 | 188 | 46178 | 2.50000 ppb | 0.00 |
| 17) Chrysene-D12(IS) | 10.80 | 240 | 70364 | 2.50000 ppb | 0.01 |
| 23) Perylene-D12(IS) | 13.20 | 264 | 60724 | 2.50000 ppb | 0.03 |
| **System Monitoring Compounds** | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 775785 | 82.06048 ppb | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 1312.960% | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 110144 | 3.83923 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 61.424% | |
| 8) Surrogate Recovery (FBP) | 5.20 | 172 | 1108583 | 71.03179 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1136.512% | |
| 15) Fluoranthene-D10 (FRT) | 9.09 | 212 | 153492 | 4.85860 ppb | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 77.744% | |
| 19) Surrogate Recovery (TPH) | 9.57 | 244 | 1282491 | 64.29464 ppb | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1028.720% | |

Target Compounds Qvalue

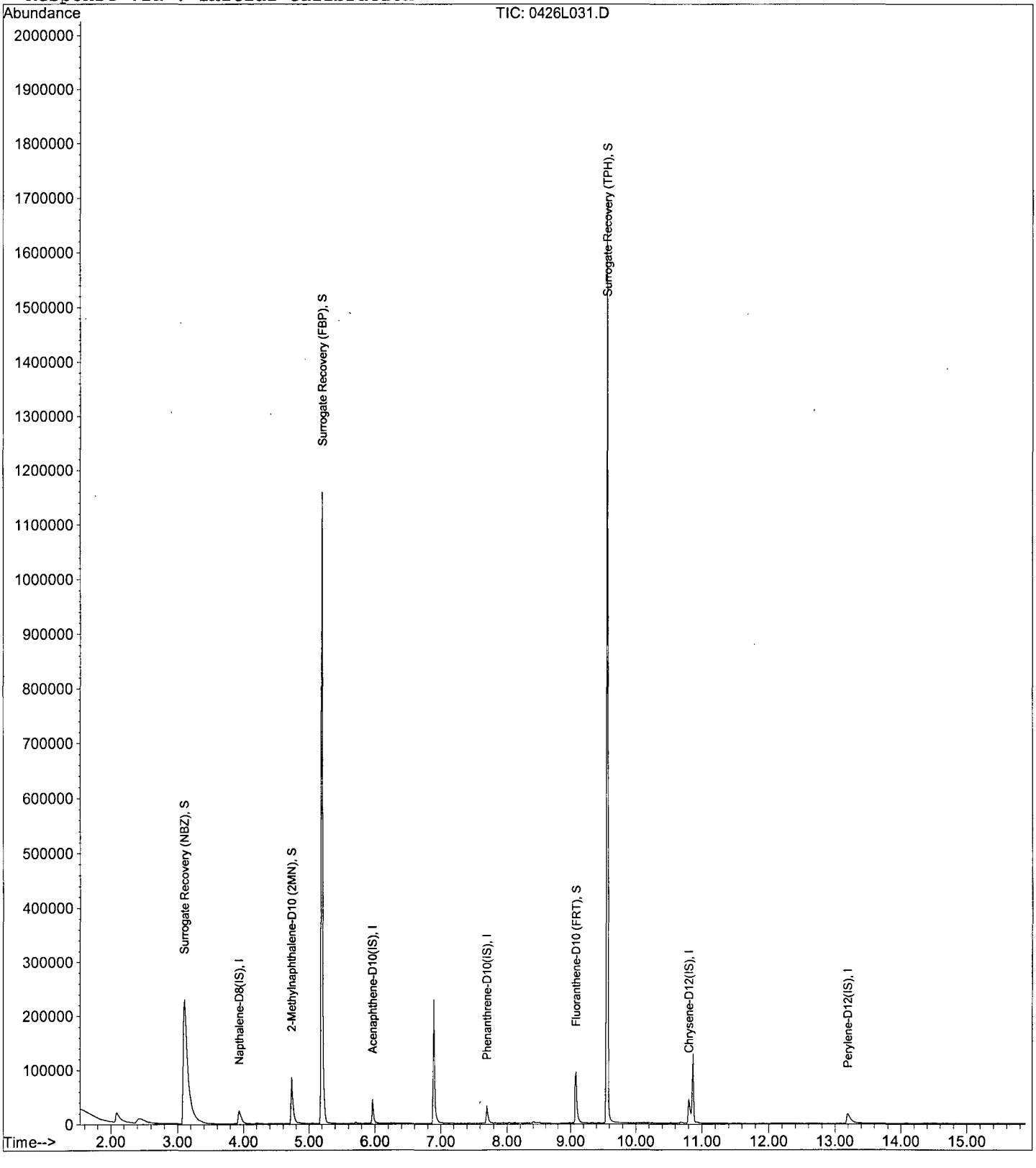
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L031.D Vial: 31
Acq On : 2 May 19 12:16 Operator: MA
Sample : 190430A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 14:20 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L032.D Vial: 32
Acq On : 2 May 19 12:39 Operator: MA
Sample : 190430A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:03 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 66824 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 27543 | 2.50000 ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 47183 | 2.50000 ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.78 | 240 | 69956 | 2.50000 ppb | | -0.01 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 64347 | 2.50000 ppb | | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 0.00 | 82 | 0 | 0.00000 ppb | | |
| Spiked Amount 6.250 | | | Recovery | = 0.000% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 109489 | 3.78276 ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 60.528% | | |
| 8) Surrogate Recovery (FBP) | 5.23 | 172 | 1645 | 0.10141 ppb | | 0.01 |
| Spiked Amount 6.250 | | | Recovery | = 1.616% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 147601 | 4.57261 ppb | | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 73.168% | | |
| 19) Surrogate Recovery (TPH) | 9.58 | 244 | 2975 | 0.15001 ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 2.400% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 108791 | 3.87269 ppb | | 99 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 64535 | 4.07352 ppb | | 99 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 65794 | 3.75755 ppb | | 97 |
| 9) Acenaphthylene | 5.81 | 152 | 210541 | 4.22453 ppb | | 100 |
| 10) Acenaphthene | 6.00 | 154 | 58172 | 4.42637 ppb | | 99 |
| 11) Fluorene | 6.60 | 166 | 75364 | 4.57945 ppb | | 94 |
| 13) Phenanthrene | 7.71 | 178 | 95481 | 4.35167 ppb | | 97 |
| 14) Anthracene | 7.79 | 178 | 89280 | 4.23604 ppb | | 99 |
| 16) Fluoranthene | 9.10 | 202 | 160222 | 4.39109 ppb | # | 89 |
| 18) Pyrene | 9.36 | 202 | 161544 | 4.26520 ppb | | 98 |
| 20) Benz (a) anthracene | 10.77 | 228 | 124931 | 4.02874 ppb | | 98 |
| 21) Chrysene | 10.83 | 228 | 130832 | 4.14892 ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.69 | 276 | 130097 | 3.93623 ppb | # | 78 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 98710 | 3.70810 ppb | | 99 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 154328 | 5.10850 ppb | | 99 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 108546 | 4.01885 ppb | # | 95 |
| 27) Dibenz (a,h) anthracene | 14.71 | 278 | 106593 | 4.23500 ppb | # | 93 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 106789 | 4.13538 ppb | | 95 |

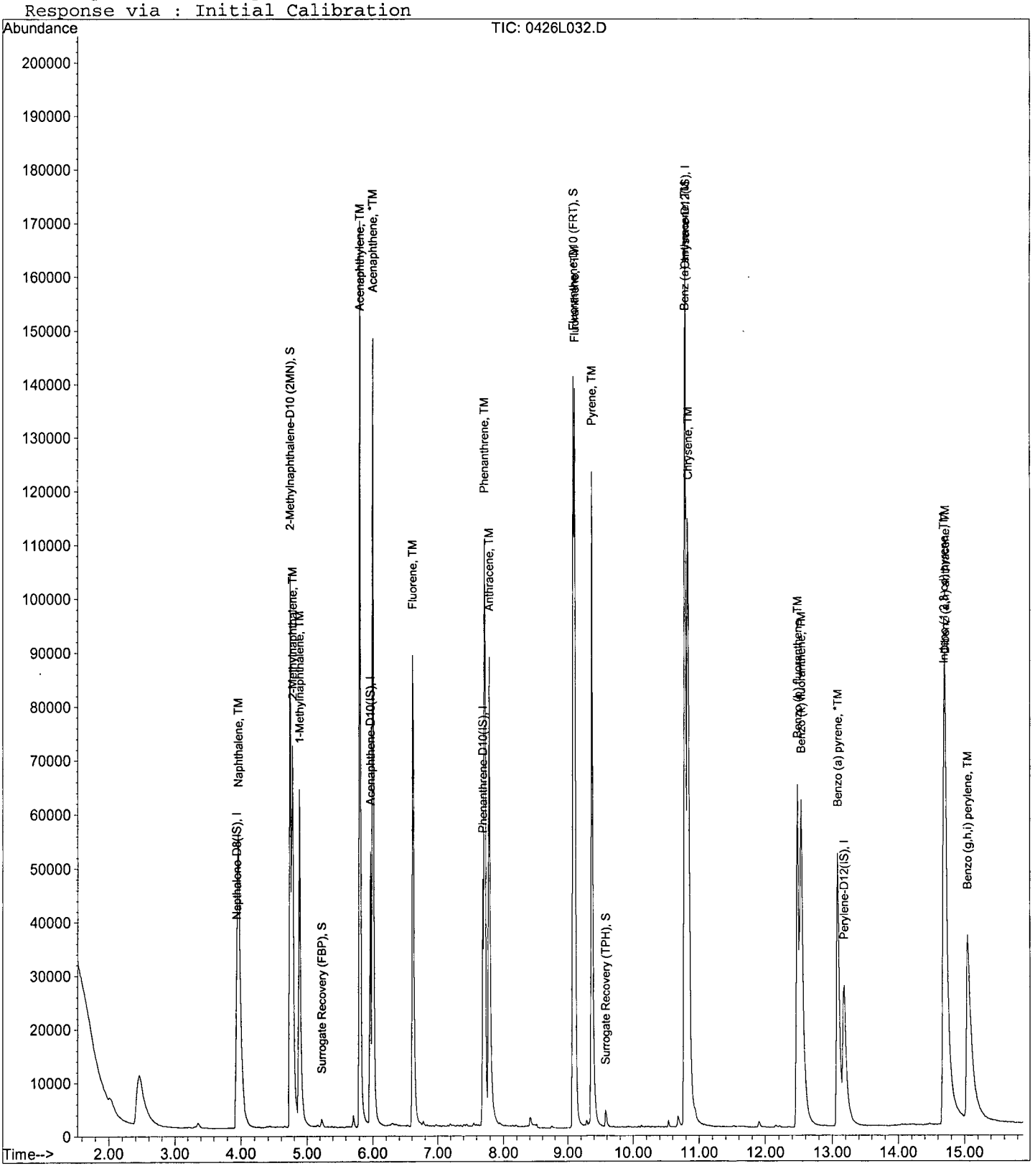
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L032.D Vial: 32
Acq On : 2 May 19 12:39 Operator: MA
Sample : 190430A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:03 2019 Quant Results File: L0326.RES

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L190426\0426L033.D Vial: 33
Acq On : 2 May 19 13:01 Operator: MA
Sample : 190430A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:03 2019 Quant Results File: L0326.RES

Quant Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) Napthalene-D8(IS) | 3.94 | 136 | 62257 | 2.50000 ppb | | 0.00 |
| 7) Acenaphthene-D10(IS) | 5.96 | 164 | 24694 | 2.50000 ppb | | -0.01 |
| 12) Phenanthrene-D10(IS) | 7.69 | 188 | 47014 | 2.50000 ppb | | -0.01 |
| 17) Chrysene-D12(IS) | 10.78 | 240 | 67213 | 2.50000 ppb | | -0.01 |
| 23) Perylene-D12(IS) | 13.17 | 264 | 65915 | 2.50000 ppb | | 0.01 |
| **System Monitoring Compounds** | | | | | | |
| 2) Surrogate Recovery (NBZ) | 3.10 | 82 | 21 | 0.00236 ppb | | -0.02 |
| Spiked Amount 6.250 | | | Recovery | = 0.032% | | |
| 4) 2-Methylnaphthalene-D10 (2 | 4.73 | 152 | 108869 | 4.03726 ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 64.592% | | |
| 8) Surrogate Recovery (FBP) | 5.22 | 172 | 57 | 0.00392 ppb | | 0.00 |
| Spiked Amount 6.250 | | | Recovery | = 0.064% | | |
| 15) Fluoranthene-D10 (FRT) | 9.08 | 212 | 145464 | 4.52261 ppb | | -0.01 |
| Spiked Amount 6.250 | | | Recovery | = 72.368% | | |
| 19) Surrogate Recovery (TPH) | 9.60 | 244 | 183 | 0.00960 ppb | | 0.02 |
| Spiked Amount 6.250 | | | Recovery | = 0.160% | | |
| **Target Compounds** | | | | | | Qvalue |
| 3) Naphthalene | 3.96 | 128 | 111857 | 4.27393 ppb | | 99 |
| 5) 2-Methylnaphthalene | 4.77 | 142 | 63946 | 4.33243 ppb | | 97 |
| 6) 1-Methylnaphthalene | 4.88 | 142 | 64789 | 3.97158 ppb | | 95 |
| 9) Acenaphthylene | 5.81 | 152 | 200847 | 4.49497 ppb | | 99 |
| 10) Acenaphthene | 6.00 | 154 | 53185 | 4.51380 ppb | | 97 |
| 11) Fluorene | 6.60 | 166 | 72947 | 4.94398 ppb | | 95 |
| 13) Phenanthrene | 7.71 | 178 | 93925 | 4.29614 ppb | | 98 |
| 14) Anthracene | 7.79 | 178 | 89089 | 4.24217 ppb | | 100 |
| 16) Fluoranthene | 9.10 | 202 | 157943 | 4.34419 ppb | # | 89 |
| 18) Pyrene | 9.36 | 202 | 159554 | 4.38458 ppb | | 99 |
| 20) Benz (a) anthracene | 10.77 | 228 | 126136 | 4.23360 ppb | | 98 |
| 21) Chrysene | 10.83 | 228 | 125427 | 4.13984 ppb | | 99 |
| 22) Indeno (1,2,3-cd) pyrene | 14.68 | 276 | 129675 | 4.08358 ppb | # | 77 |
| 24) Benzo (b) fluoranthene | 12.48 | 252 | 101021 | 3.70464 ppb | | 100 |
| 25) Benzo (k) fluoranthene | 12.53 | 252 | 148368 | 4.79439 ppb | | 98 |
| 26) Benzo (a) pyrene | 13.08 | 252 | 108084 | 3.90655 ppb | # | 95 |
| 27) Dibenz (a,h) anthracene | 14.71 | 278 | 105877 | 4.10648 ppb | # | 93 |
| 28) Benzo (g,h,i) perylene | 15.04 | 276 | 105799 | 3.99959 ppb | | 95 |

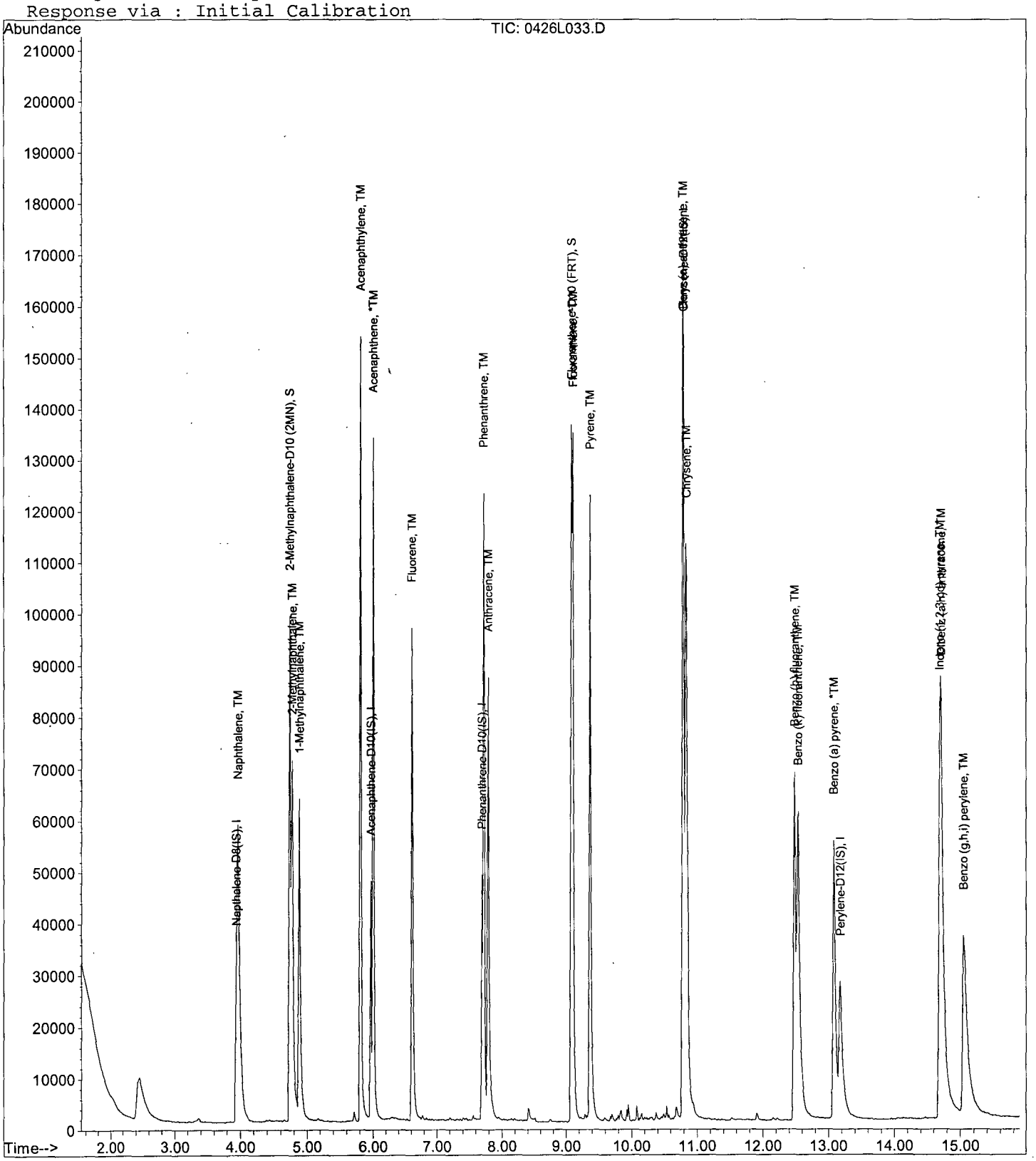
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L190426\0426L033.D Vial: 33
Acq On : 2 May 19 13:01 Operator: MA
Sample : 190430A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: May 2 16:03 2019 Quant Results File: L0326.RES

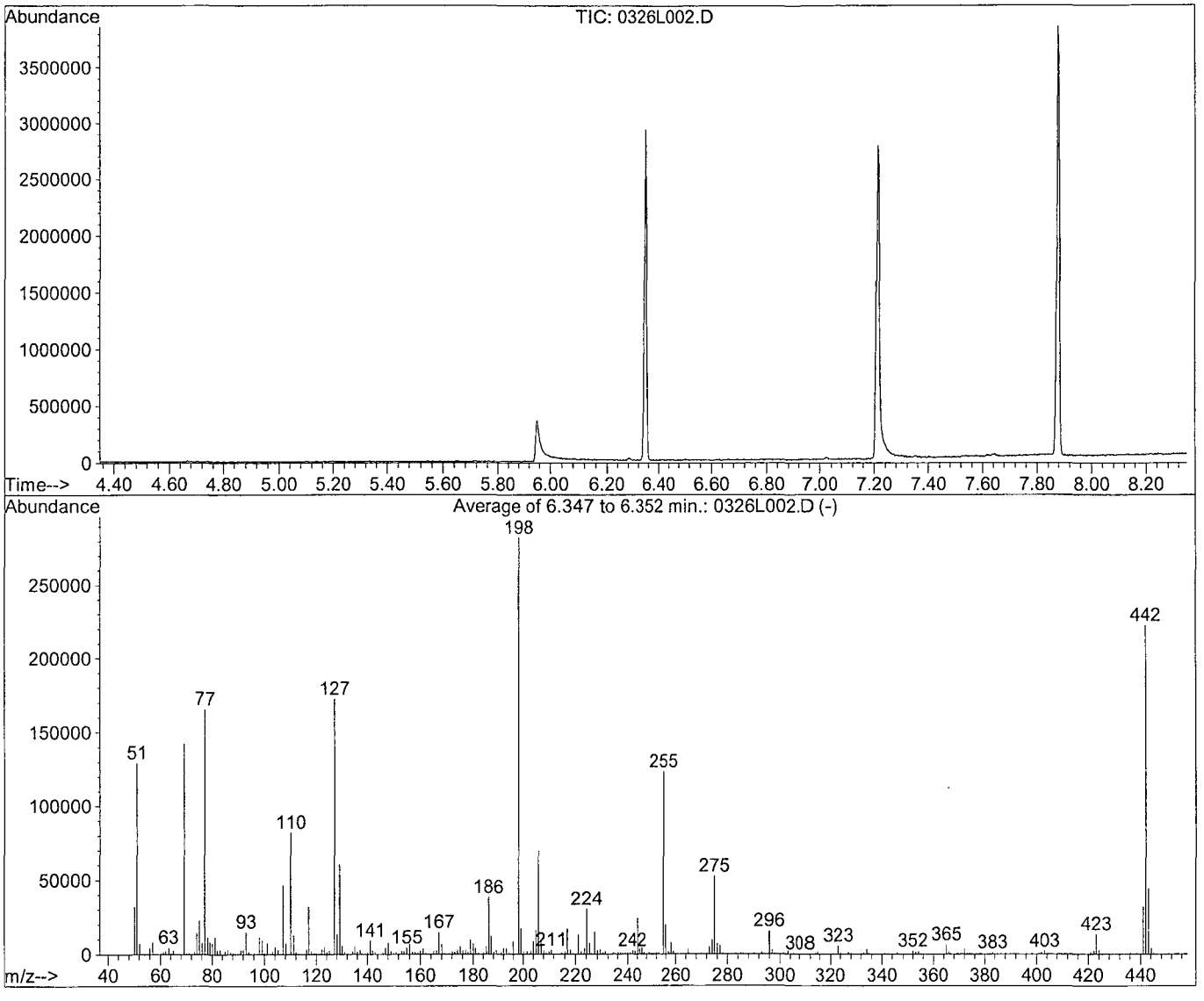
Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270
Last Update : Mon Apr 15 10:16:53 2019
Response via : Initial Calibration



DFTPP

Data File : M:\LINUS\DATA\L190326\0326L002.D  Vial: 2
Acq On : 26 Mar 19 9:39  Operator: MA
Sample : SV Tune 10/11/18  Inst : Linus
Misc :  Multiplr: 1.00

Method : M:\LINUS\DATA\L190326\L0122.M (RTE Integrator)
Title : EPA 8270




AutoFind: Scans 1511, 1512, 1513; Background Corrected with Scan 1501

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 45.8 | 129276 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.4 | 622 | PASS |
| 127 | 198 | 10 | 80 | 61.0 | 172437 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 282517 | PASS |
| 199 | 198 | 5 | 9 | 6.0 | 17040 | PASS |
| 275 | 198 | 10 | 60 | 18.6 | 52443 | PASS |
| 365 | 198 | 1 | 100 | 2.2 | 6254 | PASS |
| 441 | 442 | 0.01 | 24 | 14.3 | 31867 | PASS |
| 442 | 198 | 50 | 150 | 78.8 | 222613 | PASS |
| 443 | 442 | 15 | 24 | 19.8 | 44029 | PASS |

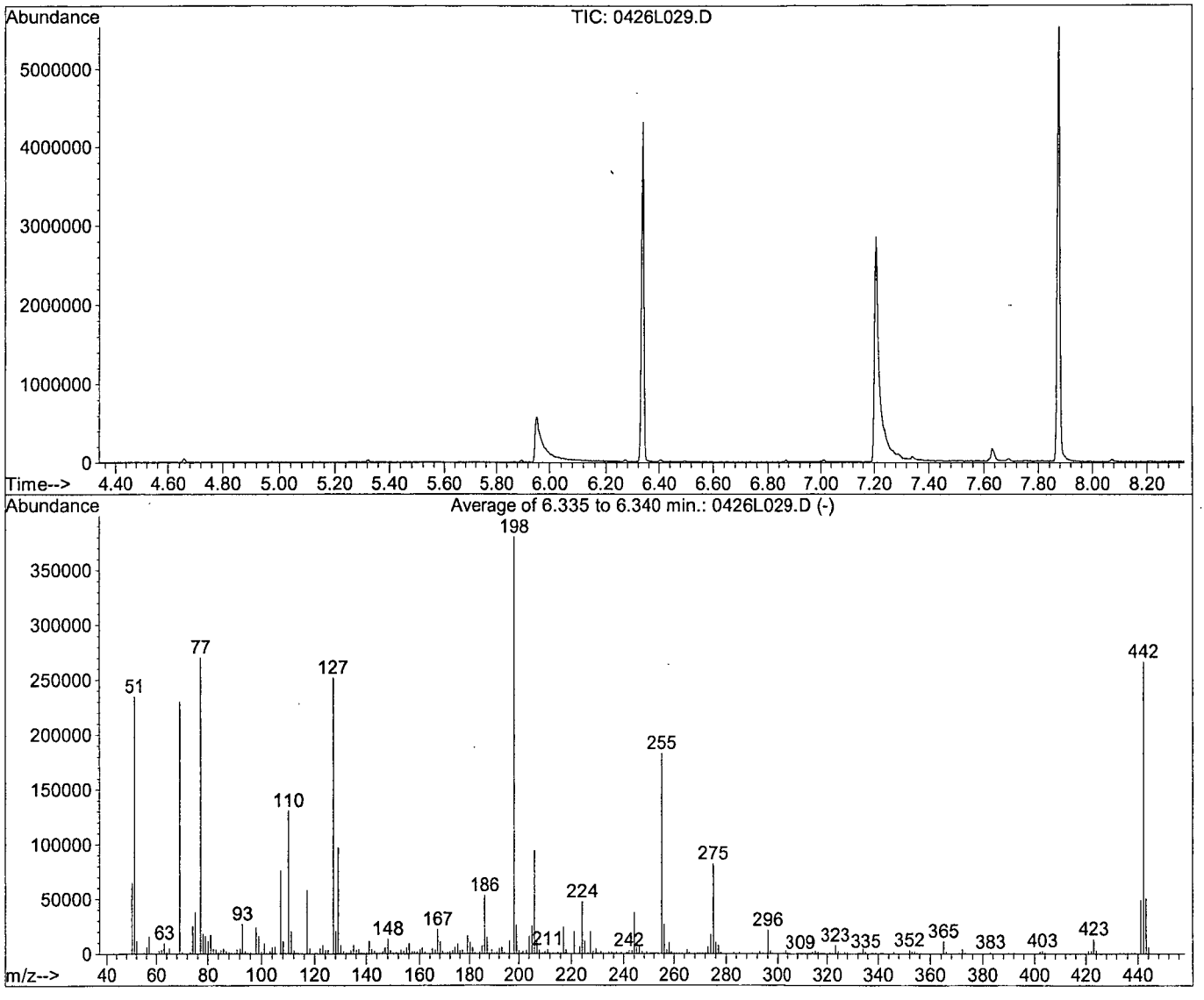
| | |
|---|---|
| Data File Name: | **0326L002.D** |
| Data File Path: | **M:\LINUS\DATA\L190326** |
| Operator: | **MA** |
| Date Acquired: | **26 Mar 2019 09:39** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV Tune 10/11/18** |
| Vial Number: | **2** |
| Instrument Name: | **Linus** |

| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.88 | 26061300 |
| 2) | DDD | 7.65 | 254374 |
| 3) | DDE | 7.70 | 0 |

Breakdown **0.97**

Data File : M:\LINUS\DATA\L190426\0426L029.D  Vial: 29
Acq On : 2 May 19 10:38  Operator: MA
Sample : SV Tune 10/11/18  Inst : Linus
Misc :  Multiplr: 1.00

Method : M:\LINUS\DATA\L190426\L0326.M (RTE Integrator)
Title : EPA 8270




AutoFind: Scans 1506, 1507, 1508; Background Corrected with Scan 1497

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 51 | 198 | 10 | 80 | 61.6 | 234562 | PASS |
| 68 | 69 | 0.00 | 2 | 0.0 | 0 | PASS |
| 70 | 69 | 0.00 | 2 | 0.5 | 1224 | PASS |
| 127 | 198 | 10 | 80 | 66.1 | 251541 | PASS |
| 197 | 198 | 0.00 | 2 | 0.0 | 0 | PASS |
| 198 | 198 | 100 | 100 | 100.0 | 380693 | PASS |
| 199 | 198 | 5 | 9 | 6.8 | 25973 | PASS |
| 275 | 198 | 10 | 60 | 21.5 | 82029 | PASS |
| 365 | 198 | 1 | 100 | 2.9 | 10974 | PASS |
| 441 | 442 | 0.01 | 24 | 18.3 | 48709 | PASS |
| 442 | 198 | 50 | 150 | 70.0 | 266389 | PASS |
| 443 | 442 | 15 | 24 | 19.0 | 50637 | PASS |

| | |
|---|---|
| Data File Name: | **0426L029.D** |
| Data File Path: | **M:\LINUS\DATA\L190426** |
| Operator: | **MA** |
| Date Acquired: | **2 May 19 10:38** |
| Method File: | **DFTPP2.M** |
| Sample Name: | **SV Tune 10/11/18** |
| Vial Number: | **29** |
| Instrument Name: | **Linus** |

| # | Name | Ret Time | Target Response |
|---|---|---|---|
| 1) | DDT | 7.88 | 38039600 |
| 2) | DDD | 7.65 | 1827910 |
| 3) | DDE | 7.70 | 156818 |

Breakdown **4.96**

| | | | |
|---|---|---|---|
| **Name of Final Standard** | **Semivolatile (SV) Tuning Solution** | **Prep'd By (Initials)** | **GA** |
| **Prep Date** | **10/11/18** | | |
| **Exp Date** | **09/30/19** | | |

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Semivolatile GC/MS Tuning Standard | Ultra Scientific | GCM-150-1 | 1,000 ug/mL | CR3789-38879 | **09/30/19** | 1,250 uL | 25 mL | **MC #56258** | 50 ug/mL |

Name of Final Standard: **SIM Curve** Prep'd By (Initials): **GA**

Prep Date: **03/06/19**

Exp Date: **06/01/19**

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 1.0 ug/mL SIM | Phenova | 1.0 ug/mL SIM | 1.0 ug/mL | 03/06/19 | 06/01/19 | 10 uL | 100uL | MC 56258 90uL | 0.1 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 1.0 ug/mL SIM | Phenova | 1.0 ug/mL SIM | 1.0 ug/mL | 03/06/19 | 06/01/19 | 20 uL | 100uL | MC 56258 80uL | 0.2 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 5.0 ug/mL SIM | Phenova | 5.0 ug/mL SIM | 5.0 ug/mL | 03/06/19 | 06/01/19 | 10 uL | 100uL | MC 56258 90uL | 0.5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 5.0 ug/mL SIM | APPL | 5.0 ug/mL SIM | 5.0 ug/mL | 03/06/19 | 06/01/19 | 20 uL | 100uL | MC 56258 80 uL | 1.0 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | 12/28/18 | 12/28/19 | 5 uL | 200uL | MC 56258 190 uL | 5.0 ug/mL |
| Sim 2S Surrogate | Restek | SIM 2S SURR | 100 ug/mL | 06/07/18 | 06/01/19 | 5 uL | * | * | 2.5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 4 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | 12/28/18 | 12/28/19 | 5 uL | 100 uL | MC 56258 90 uL | 10 ug/mL |
| Sim 2S Surrogate | APPL | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 5 uL | * | * | 5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | 12/28/18 | 12/28/19 | 25 uL | 100uL | MC 56258 50 uL | 50 ug/mL |
| Sim 2S Surrogate | Restek | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 25 uL | * | * | 25 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | 12/28/18 | 12/28/19 | 50 uL | 100uL | na | 100 ug/mL |
| Sim 2S Surrogate | Restek | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 50 uL | * | * | 50 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |

Name of Final Standard: **8270 PAH SIM Second Source** Prep'd By (Initials): **GA**

Prep Date: **03/06/19**

Exp Date: **11/06/19**

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| PAH SIM SS Stock | Phenova | AL0-130490 | 200 ug/mL | 12/28/18 | 12/28/19 | 5 uL | 200uL | MC 56258 195uL | 5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 4 uL | * | * | 2.5ug/mL |

Name of Final Standard: **SIM Curve** Prep'd By (Initials): GA

Prep Date: 01/18/19

Exp Date: 06/01/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 1.0 ug/mL SIM | Phenova | 1.0 ug/mL SIM | 1.0 ug/mL | 01/18/19 | 06/01/19 | 10 uL | 100uL | MC 56258 90uL | 0.1 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 1.0 ug/mL SIM | Phenova | 1.0 ug/mL SIM | 1.0 ug/mL | 01/18/19 | 06/01/19 | 20 uL | 100uL | MC 56258 80uL | 0.2 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 5.0 ug/mL SIM | Phenova | 5.0 ug/mL SIM | 5.0 ug/mL | 01/18/19 | 06/01/19 | 10 uL | 100uL | MC 56258 90uL | 0.5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| 5.0 ug/mL SIM | APPL | 5.0 ug/mL SIM | 5.0 ug/mL | 01/18/19 | 06/01/19 | 20 uL | 100uL | MC 56258 80 uL | 1.0 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | CL13117-40078 | 12/28/19 | 5 uL | 200uL | MC 56258 190 uL | 5.0 ug/mL |
| SIM 2S SURROGATE | Restek | SIM 2S SURR | 100 ug/mL | 06/07/18 | 06/01/19 | 5 uL | * | * | 5.0 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 4 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | CL13117-40078 | 12/28/19 | 5 uL | 100 uL | MC 56258 90 uL | 10 ug/mL |
| SIM 2S SURROGATE | APPL | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 5 uL | * | * | 10 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 | CL13117-40078 | 12/28/19 | 25 uL | 100uL | MC 56258 50 uL | 50 ug/mL |
| SIM 2S SURROGATE | Restek | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 25 uL | * | * | 50 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |
| PAH SIM STOCK | Phenova | PAH SIM STOCK | 200 ug/mL | CL13117-40078 | 12/28/19 | 50 uL | 100uL | na | 100 ug/mL |
| SIM 2S SURROGATE | Restek | SIM 2S SURROGATE | 100 ug/mL | 06/07/18 | 06/01/19 | 50 uL | * | * | 100 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 2 uL | * | * | 2.5ug/mL |

Name of Final Standard: **8270 PAH SIM Second Source** Prep'd By (Initials): GA

Prep Date: 01/18/19

Exp Date: 06/01/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from container Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| PAH SIM SS Stock | Phenova | AL0-130490 | 200 ug/mL | CL13121 - 40082 | 12/28/19 | 5 uL | 200uL | MC 56258 195uL | 5 ug/mL |
| SIM Internal Standard | Restek | SIM Internal Standard | 125 ug/mL | 11/06/18 | 11/06/19 | 4 uL | * | * | 2.5ug/mL |

**Name of Final Standard** **SIM 2S Surrogate** **Prep'd By (Initials)** **GA**

**Prep Date** **06/07/18**
**Exp Date** **06/01/19**

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| SIM Surrogate Mix | Restek | 33913 | 2000 ug/mL | **A0131716-38553 & 38554** | **06/01/19 06/07/19** | 250 uL | 5 mL | **Acetone #030817A** | 100 ug/mL |
| 8270 B/N surrog mix | Restek | 31086 | 5000 ug/mL | **A0135243-39162** | **06/04/19** | 100 uL | * | * | * |

**Name of Final Standard** 8270 SIM PAH Internal Standard **Prep'd By (Initials)** GA

**Prep Date** 11/06/18

**Exp Date** 11/06/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| SV Internal Standard | Restek | 31206 | 2000 ug/mL | **A0130603-38560** | **11/06/19** | 350 uL | 5,600 uL | **MC 56258 5,250 uL** | 125 ug/mL |

**Name of Final Standard** PAH SIM Spike (Ampules) **Prep'd By (Initials)** OA

**Prep Date** 12/17/18

**Exp Date** 12/17/19

| Initial Standard Information | | | | | | Final Standard Information | | | |
|---|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| 8270D PAH SIM | O2SI | 110780-01 | 200 ug/mL | **353450-39730** | **12/17/19** | 1 mL | 1 mL | **NA** | 200ug/mL |

**Name of Final Standard** **SIM Surrogate** **Prep'd By (Initials)**

**Prep Date** **03/25/19**
**Exp Date** **01/24/20**

| Initial Standard Information | | | | | | Final Standard | | |
|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Solvent + Lot# (or APPL Prep Date) | Final Standard Conc (range) |
| Sim Surrogate Deuterated | Restek | 33913 | 2000 ug/mL | **A0131716 - 38554 A0137718 - 39318** | **06/07/19 01/24/20** | 1250 uL | **Acetone #101717I** | 100 ug/mL |

| | | | |
|---|---|---|---|
| **Name of Final Standard** | **PAH SIM Spike (Ampules)** | **Prep'd By (Initials)** | **OA** |

| | |
|---|---|
| **Prep Date** | **02/22/19** |
| **Exp Date** | **02/22/20** |

| Initial Standard Information | | | | | | Final Standard | | |
|---|---|---|---|---|---|---|---|---|
| Name of Initial Standard (from contianer Label) | Supplier | Supplier P/N# (or APPL Mix Name) | Conc.(range) | Lot # with QA # (or reference to APPL prep date) | Exp Date | Aliquot from Stock | Final Volume | Final Standard Conc (range) |
| 8270D PAH SIM | O2SI | 110780-01 | 200 ug/mL | **355613-39771** | **02/22/20** | 1 mL | 1 mL | 200ug/mL |

# Organic Extraction Worksheet

| Method | Continuous Liquid/Liquid SVOC 3520C | Extraction Set | 190430A | Extraction Method | LIQ003 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | 8270T Spike 4-12-19 exp 10-20-19 | | Surrogate ID 1 | 8270 Surrogate 4-10-19 exp 3-15-20 | |
| Spiked ID 2 | Sim Spike 3-20-19 exp 3-20-20 | | Surrogate ID 2 | SIM Surrogate 3-25-19 exp 3-25-20 | |
| 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 04/30/19 13:10, 05/01/19 11:30 | |
| Spiked ID 8 | | | Ext. End Time: | 05/01/19 7:45, 05/02/19 05:45, 11:10 | |
| | | | GC Requires Extract By: | 05/02/19 0:00 | |

| | | | |
|---|---|---|---|
| pH1 | 2 | 4/30/19 10:35:00 AM | Water Bath Temp Criteria 71,70 °C |
| pH2 | 14 | 5/01/19 11:10:00 AM | |
| pH3 | | | |

**Spiked By:** KY **Date** 04/30/19 **Witnessed By:** DL **Date** 04/30/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190430A Blk | | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/30/19 10:25 | |
| | | | | | | equip | e-hp51 E-WB6 | | | | |
| 2 | 190430A LCS-1 | | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/30/19 10:25 | |
| | | | | | | equip | e-hp50 E-WB6 | | | | |
| 3 | 190430A LCS-2 | | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/30/19 10:25 | |
| | | | | | | equip | E-HP48 E-WB6 | | | | |
| 4 | 190430A LCSD-1 | | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/30/19 10:25 | |
| | | | | | | equip | E-HP49 E-WB6 | | | | |
| 5 | 190430A LCSD-2 | | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/30/19 10:25 | |
| | | | | | | equip | E-HP47 E-WB6 | | | | |
| 6 | AZ90100 | AZ90100W21 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88714 |
| | | | | | | equip | E-HP25 E-WB6 | | | | |
| 7 | AZ90102 | AZ90102W22 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88714 |
| | | | | | | equip | E-HP26 E-WB5 | | | | |
| 8 | AZ90103 | AZ90103W08 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88714 |
| | | | | | | equip | E-HP27 E-WB5 | | | | |
| 9 | AZ90105 | AZ90105W21 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88714 |
| | | | | | | equip | E-HP28 E-WB5 | | | | |
| 10 | AZ90107 | AZ90107W18 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88714 |
| | | | | | | equip | E-HP29 E-WB5 | | | | |
| 11 | AZ90109 | AZ90109W21 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88714 |
| | | | | | | equip | E-HP30 E-WB5 | | | | |
| 12 | AZ90121 MS-1 | AZ90121W22 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88712 |
| | | | | | | equip | E-HP16 E-WB6 | | | | |
| 13 | AZ90121 MSD-1 | AZ90121W19 | 0.250 | 1 | 1 | 1 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88712 |
| | | | | | | equip | E-HP15 E-WB6 | | | | |
| 14 | AZ90121 MS-2 | AZ90121W23 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88712 |
| | | | | | | equip | E-HP14 E-WB6 | | | | |
| 15 | AZ90121 MSD-2 | AZ90121W20 | 0.0250 | 2 | 0.050 | 2 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88712 |
| | | | | | | equip | E-HP13 E-WB6 | | | | |
| 16 | AZ90121 | AZ90121W24 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88712 |
| | | | | | | equip | E-HP17 E-WB6 | | | | |

| Solvent and Lot# | |
|---|---|
| PH Strips | HC857466 |
| Dichloromethane (DCM) | 58240 |
| 1+1 H2SO4 | 4-22-19 |
| 10N NaOH | 4-22-19 |
| Filter Paper | 400148 |
| Acidified Na2SO4 | 2-28-19 |
| B. Na2SO4 | 18D105205 |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | SS |
| Date | 5/2/19 |
| Time | 11:40 |
| Refrigerator | GC-C |

| | Technician's Initials |
|---|---|
| Scanned By | DL |
| Sample Preparation | DL |
| Extraction | DL |
| Concentration | DL |

| Modified | 05/02/19 12:10:32 PM |
|---|---|

**Reviewed By:** Ky **Date** 5/2/19

# Organic Extraction Worksheet

| Method | Continuous Liquid/Liquid SVOC 3520C | Extraction Set | 190430A | Extraction Method | LIQ003 | Units | mL |
|---|---|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Spiked ID 1 | 8270T Spike 4-12-19 exp 10-20-19 | | Surrogate ID 1 | 8270 Surrogate 4-10-19 exp 3-15-20 | |
| Spiked ID 2 | Sim Spike 3-20-19 exp 3-20-20 | | Surrogate ID 2 | SIM Surrogate 3-25-19 exp 3-25-20 | |
| 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: | YES | |
| Spiked ID 7 | | | Ext. Start Time: | 04/30/19 13:10, 05/01/19 11:30 | |
| Spiked ID 8 | | | Ext. End Time: | 05/01/19 7:45, 05/02/19 05:45, 11:10 | |
| | | | GC Requires Extract By: | 05/02/19 0:00 | |

| | | | |
|---|---|---|---|
| pH1 | 2 | 4/30/19 10:35:00 AM | Water Bath Temp Criteria 71,70 °C |
| pH2 | 14 | 5/01/19 11:10:00 AM | |
| pH3 | | | |

**Spiked By:** KY **Date** 04/30/19 **Witnessed By:** DL **Date** 04/30/19

| | Sample | Sample Container | Spike Amount | Spike ID | Surrogate Amount | Surrogate ID | Extract Amount | Final Volume | pH | Extract Date/Time | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | AZ90122 | AZ90122W07 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88712 |
| | | | | | | equip | E-HP12 E-WB6 | | | | |
| 18 | AZ90213 | AZ90213W21 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88736 |
| | | | | | | equip | E-HP11 E-WB6 | | | | |
| 19 | AZ90215 | AZ90215W18 | | | 1,0.050 | 1,2 | 800 | 1 | 2/1 | 04/30/19 10:25 | 88736 |
| | | | | | | equip | E-HP10 E-WB5 | | | | |

Ky 5/2/19

| Solvent and Lot# | |
|---|---|
| PH Strips | HC857466 |
| Dichloromethane (DCM) | 58240 |
| 1+1 H2SO4 | 4-22-19 |
| 10N NaOH | 4-22-19 |
| Filter Paper | 400148 |
| Acidified Na2SO4 | 2-28-19 |
| B. Na2SO4 | 18D105205 |
| | |
| | |

| Extraction COC Transfer | |
|---|---|
| Extraction lab employee Initials | KY |
| GC analyst's initials | |
| Date | |
| Time | |
| Refrigerator | |

| | Technician's Initials |
|---|---|
| Scanned By | DL |
| Sample Preparation | DL |
| Extraction | DL |
| Concentration | DL |

| Modified | 05/02/19 12:10:32 PM |
|---|---|

**Reviewed By:** Ky **Date** 5/2/19

# Injection Log

Directory: M:\LINUS\DATA\L190326\

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 2 | 0326L002.D | 1 | SV Tune 10/11/18 | | 26 Mar 19 9:39 |
| 2 | 5 | 0326L005.D | 1 | 0.5 SIM 03/06/19 | | 26 Mar 19 10:39 |
| 3 | 6 | 0326L006.D | 1 | 1 SIM 03/06/19 | | 26 Mar 19 11:01 |
| 4 | 7 | 0326L007.D | 1 | 5 SIM 03/06/19 | | 26 Mar 19 11:23 |
| 5 | 8 | 0326L008.D | 1 | 10 SIM 03/06/19 | | 26 Mar 19 11:45 |
| 6 | 9 | 0326L009.D | 1 | 50 SIM 03/06/19 | | 26 Mar 19 12:08 |
| 7 | 10 | 0326L010.D | 1 | 100 SIM 03/06/19 | | 26 Mar 19 12:30 |
| 8 | 12 | 0326L012.D | 1 | 0.2 SIM 01/18/19 | | 26 Mar 19 15:55 |
| 9 | 13 | 0326L013.D | 1 | 0.1 SIM 01/18/19 | | 26 Mar 19 17:05 |
| 10 | 14 | 0326L014.D | 1 | SS SIM 03/06/19 | | 26 Mar 19 17:27 |
| 11 | 29 | 0426L029.D | 1 | SV Tune 10/11/18 | | 2 May 19 10:38 |
| 12 | 30 | 0426L030.D | 1 | 5 SIM 03/06/19 | | 2 May 19 10:54 |
| 13 | 31 | 0426L031.D | 1.25 | 190430A BLK 1/800 | | 2 May 19 12:16 |
| 14 | 32 | 0426L032.D | 1.25 | 190430A LCS-2 1/800 | | 2 May 19 12:39 |
| 15 | 33 | 0426L033.D | 1.25 | 190430A LCSD-2 1/800 | | 2 May 19 13:01 |
| 16 | 34 | 0426L034.D | 1.25 | AZ90100W21 1/800 | | 2 May 19 13:36 |
| 17 | 35 | 0426L035.D | 1.25 | AZ90102W22 1/800 | | 2 May 19 13:58 |
| 18 | 36 | 0426L036.D | 1.25 | AZ90103W08 1/800 | | 2 May 19 14:20 |
| 19 | 37 | 0426L037.D | 1.25 | AZ90105W21 1/800 | | 2 May 19 14:43 |
| 20 | 38 | 0426L038.D | 1.25 | AZ90107W18 1/800 | | 2 May 19 15:05 |
| 21 | 39 | 0426L039.D | 1.25 | AZ90109W21 1/800 | | 2 May 19 15:27 |
| 22 | 54 | 0426L054.D | 1 | 5 SIM 03/06/19 | | 2 May 19 21:03 |

# ORGANICS
# Calibration Data

Semi-Volatile Analysis by GC-MS
EPA 8270

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/19/19
Matrix: Instrument: Yoda
Initials: MA/JMP

| | | | 0319Y004.D | 0319Y005.D | 0319Y006.D | 0319Y007.D | 0319Y008.D | 0319Y003.D | 0319Y009.D | 0319Y010.D | 0319Y011.D | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Compound | 4 | 5 | 10 | 20 | 40 | 50 | 60 | 80 | 100 | | Avg | %RSD | Type | r^2 | Q | MRF |
| 1 | I | 1,4-dichlorobenzene-D4(IS) | ISTD | | | | | | | | | | | | | | | |
| 2 | | 1,4-Dioxane | | 0.2083 | 0.2289 | 0.2577 | 0.2765 | 0.3092 | 0.3137 | 0.3004 | 0.2718 | | 0.27 | 14 | | | | |
| 3 | TM | n-Nitrosodimethylamine | | 0.6432 | 0.5399 | 0.5100 | 0.4462 | 0.5113 | 0.4873 | 0.4661 | 0.4623 | | 0.51 | 12 | TM | | | |
| 4 | TM | Pyridine | | 1.255 | 1.395 | 1.213 | 1.241 | 1.247 | 1.229 | 1.101 | 1.098 | | 1.2 | 7.7 | TM | | | |
| 5 | S | 2-Fluorophenol (S) | | 1.375 | 1.526 | 1.553 | 1.455 | 1.536 | 1.549 | 1.482 | 1.487 | | 1.5 | 4.0 | S | | | |
| 6 | S | Phenol-D6 (S) | | 1.849 | 2.006 | 2.053 | 1.890 | 2.013 | 2.009 | 1.900 | 1.917 | | 2.0 | 3.8 | S | | | |
| 7 | *TM | Phenol | | 2.418 | 2.403 | 2.277 | 2.046 | 2.081 | 2.107 | 2.009 | 1.961 | | 2.2 | 8.3 | *TM | | | 0.800 |
| 8 | TM | Aniline | | 2.284 | 2.346 | 2.196 | 2.060 | 2.006 | 2.081 | 1.961 | 1.933 | | 2.1 | 7.2 | TM | | | |
| 9 | TM | Bis (2-chloroethyl) ether | | 1.068 | 1.038 | 0.9839 | 0.9400 | 0.9369 | 0.9481 | 0.8915 | 0.8834 | | 0.96 | 6.8 | TM | | | 0.700 |
| 10 | TM | 2-Chlorophenol | | 1.699 | 1.735 | 1.606 | 1.517 | 1.552 | 1.559 | 1.477 | 1.441 | | 1.6 | 6.5 | TM | | | 0.800 |
| 11 | TM | 1,3-DCB | | 1.869 | 1.829 | 1.683 | 1.591 | 1.607 | 1.620 | 1.523 | 1.490 | | 1.7 | 8.2 | TM | | | |
| 12 | *TM | 1,4-DCB | | 1.996 | 1.861 | 1.738 | 1.623 | 1.664 | 1.647 | 1.546 | 1.513 | | 1.7 | 9.5 | *TM | | | |
| 13 | TM | Benzyl alcohol | | 0.9401 | 0.9733 | 0.9065 | 0.8909 | 0.9247 | 0.9210 | 0.8902 | 0.8725 | | 0.91 | 3.5 | TM | | | |
| 14 | TM | 1,2-DCB | | 1.824 | 1.731 | 1.617 | 1.495 | 1.541 | 1.517 | 1.451 | 1.417 | | 1.6 | 9.0 | TM | | | |
| 15 | TM | 2-Methylphenol | | 1.623 | 1.481 | 1.389 | 1.309 | 1.330 | 1.329 | 1.261 | 1.243 | | 1.4 | 9.2 | TM | | | 0.700 |
| 16 | TM | Bis (2-chloroisopropyl) ether | | 1.614 | 1.589 | 1.448 | 1.349 | 1.383 | 1.381 | 1.296 | 1.267 | | 1.4 | 9.0 | TM | | | 0.010 |
| 17 | TM | Acetophenone | | 2.397 | 2.321 | 2.123 | 2.020 | 2.056 | 2.039 | 1.942 | 1.896 | | 2.1 | 8.4 | TM | | | 0.010 |
| 18 | TM | 3&4-Methylphenol | | 1.847 | 1.780 | 1.676 | 1.580 | 1.620 | 1.613 | 1.541 | 1.506 | | 1.6 | 7.1 | TM | | | 0.600 |
| 19 | **TM | n-Nitrosodi-n-propylamine | | 1.325 | 1.288 | 1.159 | 1.114 | 1.129 | 1.116 | 1.050 | 1.037 | | 1.2 | 9.0 | **TM | | | 0.500 |
| 20 | TM | Hexachloroethane | | 0.7326 | 0.7189 | 0.6438 | 0.6187 | 0.6212 | 0.6148 | 0.5862 | 0.5788 | | 0.64 | 8.9 | TM | | | 0.300 |
| 21 | I | Napthalene-D8(IS) | ISTD | | | | | | | | | | | | | | | |
| 22 | S | Nitrobenzene-D5(S) | | 0.4036 | 0.4481 | 0.4428 | 0.4092 | 0.4401 | 0.4199 | 0.4120 | 0.4051 | | 0.42 | 4.3 | S | | | |
| 23 | TM | Nitrobenzene | | 0.4636 | 0.4541 | 0.4209 | 0.3913 | 0.4042 | 0.3893 | 0.3799 | 0.3626 | | 0.41 | 8.7 | TM | | | 0.200 |
| 24 | TM | Isophorone | | 0.7995 | 0.7871 | 0.7264 | 0.6740 | 0.7092 | 0.6839 | 0.6638 | 0.6355 | | 0.71 | 8.2 | TM | | | 0.400 |
| 25 | *TM | 2-Nitrophenol | | 0.2130 | 0.2243 | 0.2061 | 0.2032 | 0.2140 | 0.2031 | 0.1972 | 0.1946 | | 0.21 | 4.7 | *TM | | | 0.100 |
| 26 | TM | 2,4-Dimethylphenol | | 0.3719 | 0.3513 | 0.3249 | 0.3195 | 0.3247 | 0.3133 | 0.3054 | 0.2986 | | 0.33 | 7.4 | TM | | | 0.200 |
| 27 | TM | Benzoic acid | | | 0.1610 | 0.2025 | 0.2286 | 0.2242 | 0.2467 | 0.2499 | 0.2474 | | 0.22 | 14 | TM | | | |
| 28 | TM | Bis (2-chloroethoxy) methane | | 0.4841 | 0.4859 | 0.4404 | 0.4136 | 0.4319 | 0.4182 | 0.4019 | 0.3931 | | 0.43 | 8.1 | TM | | | 0.300 |
| 29 | *TM | 2,4-Dichlorophenol | | 0.2934 | 0.2985 | 0.2811 | 0.2683 | 0.2800 | 0.2689 | 0.2659 | 0.2569 | | 0.28 | 5.2 | *TM | | | 0.200 |
| 30 | TM | 1,2,4-Trichlorobenzene | | 0.3367 | 0.3392 | 0.3144 | 0.2936 | 0.3050 | 0.2892 | 0.2812 | 0.2699 | | 0.30 | 8.3 | TM | | | |
| 31 | TM | 3,4-Dimethylphenol | | 0.5587 | 0.5474 | 0.4891 | 0.4564 | 0.4760 | 0.4559 | 0.4449 | 0.4308 | | 0.48 | 9.8 | TM | | | |
| 32 | TM | Naphthalene | | 1.237 | 1.222 | 1.100 | 1.039 | 1.078 | 1.023 | 0.9927 | 0.9676 | | 1.1 | 9.3 | TM | | | 0.700 |
| 33 | TM | 4-Chloroaniline | | 0.4513 | 0.4768 | 0.4305 | 0.3918 | 0.3933 | 0.3784 | 0.3518 | 0.3185 | | 0.40 | 13 | TM | | | 0.010 |
| 34 | TM | 2,6-Dichlorophenol | | 0.3085 | 0.3065 | 0.2861 | 0.2670 | 0.2807 | 0.2665 | 0.2580 | 0.2515 | | 0.28 | 7.7 | TM | | | |
| 35 | TM | Hexachloropropene | | 0.1687 | 0.1744 | 0.1722 | 0.1660 | 0.1739 | 0.1681 | 0.1639 | 0.1625 | | 0.17 | 2.7 | TM | | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

## Form 6
## Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 03/19/19
Matrix: Instrument: Yoda Initials:

| | | Compound | 4 | 5 | 10 | 20 | 40 | 50 | 60 | 80 | 100 | | Avg | %RSD | Type | | Q | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | *TM | Hexachlorobutadiene | | 0.1694 | 0.1661 | 0.1534 | 0.1428 | 0.1491 | 0.1420 | 0.1371 | 0.1317 | | 0.15 | 9.0 | *TM | | | 0.010 |
| 37 | TM | Caprolactum | | 0.1478 | 0.1541 | 0.1397 | 0.1352 | 0.1418 | 0.1370 | 0.1308 | 0.1287 | | 0.14 | 6.1 | TM | | | 0.010 |
| 38 | *TM | 4-Chloro-3-methylphenol | | 0.3629 | 0.3613 | 0.3391 | 0.3259 | 0.3411 | 0.3277 | 0.3136 | 0.3108 | | 0.34 | 5.9 | *TM | | | 0.200 |
| 39 | TM | 2-Methylnaphthalene | | 0.7804 | 0.7657 | 0.7030 | 0.6569 | 0.6856 | 0.6652 | 0.6437 | 0.6212 | | 0.69 | 8.2 | TM | | | 0.400 |
| 40 | TM | 1-Methylnaphthalene | | 0.8230 | 0.8014 | 0.7233 | 0.6897 | 0.6992 | 0.6841 | 0.6613 | 0.6407 | | 0.72 | 9.1 | TM | | | |
| 41 | I | Acenaphthene-D10(IS) | ISTD | | | | | | | | | | | | | | | |
| 42 | **TMQ | Hexachlorocyclopentadiene | | | | 0.0301 | 0.0672 | 0.0885 | 0.1000 | 0.1257 | 0.1432 | | 0.09 | 44 | **TMQ | 0.999 | | 0.050 |
| 43 | TM | 1,2,4,5-Tetrachlorobenzene | | 0.5827 | 0.5952 | 0.5304 | 0.5097 | 0.5190 | 0.4978 | 0.4794 | 0.4637 | | 0.52 | 8.9 | TM | | | 0.010 |
| 44 | *TM | 2,4,6-Trichlorophenol | | 0.3548 | 0.3607 | 0.3334 | 0.3325 | 0.3415 | 0.3279 | 0.3212 | 0.3146 | | 0.34 | 4.7 | *TM | | | 0.200 |
| 45 | TM | 2,4,5-Trichlorophenol | | 0.3961 | 0.4059 | 0.3592 | 0.3559 | 0.3567 | 0.3419 | 0.3391 | 0.3327 | | 0.36 | 7.4 | TM | | | 0.200 |
| 46 | S | 2-Fluorobiphenyl(S) | | 1.491 | 1.616 | 1.556 | 1.423 | 1.484 | 1.458 | 1.405 | 1.382 | | 1.5 | 5.3 | S | | | |
| 47 | TM | 1,1'-Biphenyl | | 1.864 | 1.851 | 1.700 | 1.616 | 1.634 | 1.564 | 1.518 | 1.480 | | 1.7 | 8.7 | TM | | | 0.010 |
| 48 | TM | 2-Chloronaphthalene | | 1.393 | 1.437 | 1.279 | 1.200 | 1.220 | 1.182 | 1.129 | 1.109 | | 1.2 | 9.5 | TM | | | 0.800 |
| 49 | TM | 2-Nitroaniline | | 0.4278 | 0.4515 | 0.4195 | 0.4009 | 0.4153 | 0.3909 | 0.3810 | 0.3738 | | 0.41 | 6.4 | TM | | | 0.010 |
| 50 | TM | Dimethyl phthalate | | 1.618 | 1.625 | 1.487 | 1.404 | 1.413 | 1.384 | 1.328 | 1.306 | | 1.4 | 8.4 | TM | | | 0.010 |
| 51 | TM | 2,6-DNT | | 0.3572 | 0.3611 | 0.3439 | 0.3373 | 0.3359 | 0.3312 | 0.3188 | 0.3185 | | 0.34 | 4.7 | TM | | | 0.200 |
| 52 | TM | Acenaphthylene | | 2.241 | 2.183 | 2.017 | 1.915 | 1.932 | 1.881 | 1.811 | 1.765 | | 2.0 | 8.6 | TM | | | 0.900 |
| 53 | TM | 3-Nitroaniline | | 0.3751 | 0.4164 | 0.3837 | 0.3767 | 0.3749 | 0.3636 | 0.3469 | 0.3348 | | 0.37 | 6.6 | TM | | | 0.010 |
| 54 | *TM | Acenaphthene | | 1.477 | 1.436 | 1.295 | 1.236 | 1.235 | 1.192 | 1.154 | 1.118 | | 1.3 | 10 | *TM | | | 0.900 |
| 55 | **TML | 2,4-Dinitrophenol | | | 0.0629 | 0.0984 | 0.1325 | 0.1407 | 0.1477 | 0.1554 | 0.1622 | | 0.13 | 28 | **TML | 0.998 | | 0.010 |
| 56 | **TMQ | 4-Nitrophenol | | | | 0.0399 | 0.2038 | 0.2264 | 0.2092 | 0.2146 | 0.2178 | | 0.19 | 39 | **TMQ | 0.993 | | 0.010 |
| 57 | TM | Dibenzofuran | | 2.010 | 1.948 | 1.757 | 1.676 | 1.685 | 1.610 | 1.564 | 1.514 | | 1.7 | 10 | TM | | | 0.800 |
| 58 | TM | 2,4-DNT | | 0.4665 | 0.4994 | 0.4758 | 0.4552 | 0.4666 | 0.4495 | 0.4242 | 0.4174 | | 0.46 | 5.9 | TM | | | 0.200 |
| 59 | TM | 2,3,4,6-Tetrachlorophenol | | 0.1873 | 0.2274 | 0.2275 | 0.2353 | 0.2494 | 0.2360 | 0.2358 | 0.2348 | | 0.23 | 8.0 | TM | | | 0.010 |
| 60 | TM | Diethyl phthalate | | 1.622 | 1.615 | 1.470 | 1.404 | 1.397 | 1.359 | 1.303 | 1.243 | | 1.4 | 9.6 | TM | | | 0.010 |
| 61 | TM | 4-Chlorophenyl phenyl ether | | 0.7793 | 0.7448 | 0.6754 | 0.6269 | 0.6475 | 0.6168 | 0.5875 | 0.5816 | | 0.66 | 11 | TM | | | 0.400 |
| 62 | TM | Fluorene | | 1.649 | 1.624 | 1.484 | 1.408 | 1.404 | 1.348 | 1.297 | 1.268 | | 1.4 | 9.9 | TM | | | 0.900 |
| 63 | TM | 4-Nitroaniline | | 0.4183 | 0.4299 | 0.3988 | 0.3690 | 0.3701 | 0.3531 | 0.3384 | 0.3290 | | 0.38 | 9.8 | TM | | | 0.010 |
| 64 | S | 2,4,6-Tribromophenol(S) | | 0.1108 | 0.1312 | 0.1374 | 0.1314 | 0.1423 | 0.1391 | 0.1326 | 0.1359 | | 0.13 | 7.3 | S | | | |
| 65 | I | Phenanthrene-D10(IS) | ISTD | | | | | | | | | | | | | | | |
| 66 | TM | 4,6-Dinitro-2-methylphenol | | 0.1114 | 0.1353 | 0.1511 | 0.1561 | 0.1630 | 0.1612 | 0.1567 | 0.1592 | | 0.15 | 12 | TM | | | 0.010 |
| 67 | TM | Diphenyl amine | | 0.7664 | 0.7653 | 0.6881 | 0.6527 | 0.6549 | 0.6478 | 0.6004 | 0.5930 | | 0.67 | 9.8 | TM | | | |
| 68 | *TM | n-Nitrosodiphenylamine | | 0.7664 | 0.7653 | 0.6881 | 0.6527 | 0.6549 | 0.6478 | 0.6004 | 0.5930 | | 0.67 | 9.8 | *TM | | | 0.010 |
| 69 | TM | 1,2-Diphenylhydrazine | | 1.063 | 1.009 | 0.9258 | 0.8681 | 0.8924 | 0.8755 | 0.9545 | 0.9253 | | 0.94 | 7.2 | TM | | | |
| 70 | TM | 4-Bromophenyl phenyl ether | | 0.2299 | 0.2348 | 0.2119 | 0.2034 | 0.2080 | 0.2040 | 0.1924 | 0.1907 | | 0.21 | 7.6 | TM | | | 0.100 |

Semi-Volatile Analysis by GC-MS
EPA 8270

## Form 6
## Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Initial Cal. Date: 03/19/19
Instrument: Yoda

Initials:

| | | Compound | 4 | 5 | 10 | 20 | 40 | 50 | 60 | 80 | 100 | | Avg | %RSD | Type | | Q | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | TM | Hexachlorobenzene | | 0.2203 | 0.2151 | 0.1979 | 0.1863 | 0.1927 | 0.1876 | 0.1800 | 0.1758 | | 0.19 | 8.2 | TM | | | 0.100 |
| 72 | TM | Atrazine | | 0.2516 | 0.2617 | 0.2290 | 0.2249 | 0.2273 | 0.2233 | 0.2103 | 0.2067 | | 0.23 | 8.2 | TM | | | 0.010 |
| 73 | *TML | Pentachlorophenol | | | 0.0405 | 0.0499 | 0.0629 | 0.0766 | 0.0666 | 0.0749 | 0.0786 | | 0.06 | 22 | *TML | 0.992 | | 0.050 |
| 74 | TM | Phenanthrene | | 1.407 | 1.374 | 1.246 | 1.173 | 1.199 | 1.179 | 1.110 | 1.091 | | 1.2 | 9.4 | TM | | | 0.700 |
| 75 | TM | Anthracene | | 1.450 | 1.477 | 1.323 | 1.248 | 1.258 | 1.248 | 1.175 | 1.149 | | 1.3 | 9.2 | TM | | | 0.700 |
| 76 | TM | Carbazol | | 1.339 | 1.327 | 1.220 | 1.149 | 1.156 | 1.154 | 1.094 | 1.073 | | 1.2 | 8.3 | TM | | | 0.010 |
| 77 | TM | Di-n-butylphthalate | | 1.692 | 1.656 | 1.541 | 1.434 | 1.489 | 1.439 | 1.338 | 1.322 | | 1.5 | 9.1 | TM | | | 0.010 |
| 78 | *TM | Fluoranthene | | 1.452 | 1.418 | 1.303 | 1.222 | 1.251 | 1.241 | 1.173 | 1.163 | | 1.3 | 8.4 | *TM | | | 0.600 |
| 79 | I | Chrysene-D12(IS) | ISTD | | | | | | | | | | | | | | | |
| 80 | TM | Benzidine | | | 0.3883 | 0.3450 | 0.3138 | 0.2584 | 0.2922 | 0.2852 | 0.2777 | | 0.31 | 14 | TM | | | |
| 81 | TM | Pyrene | | 1.688 | 1.628 | 1.498 | 1.401 | 1.432 | 1.421 | 1.381 | 1.349 | | 1.5 | 8.3 | TM | | | 0.600 |
| 82 | S | Terphenyl-D14(S) | | 0.9769 | 1.028 | 1.015 | 0.9194 | 1.003 | 0.9914 | 0.9548 | 0.9326 | | 0.98 | 4.0 | S | | | |
| 83 | TM | Butyl benzylphthalate | | 0.8445 | 0.8254 | 0.7609 | 0.7102 | 0.7295 | 0.7236 | 0.6958 | 0.6822 | | 0.75 | 8.0 | TM | | | 0.010 |
| 84 | TM | 3,3'-Dichlorobenzidine | | 0.4221 | 0.4411 | 0.3868 | 0.3566 | 0.3523 | 0.3532 | 0.3364 | 0.3177 | | 0.37 | 11 | TM | | | 0.010 |
| 85 | TM | Benz (a) anthracene | | 1.494 | 1.457 | 1.322 | 1.242 | 1.268 | 1.253 | 1.228 | 1.169 | | 1.3 | 8.8 | TM | | | 0.800 |
| 86 | TM | Bis (2-ethylhexyl) phthalate | | 1.282 | 1.208 | 1.089 | 1.013 | 1.026 | 1.009 | 0.9879 | 0.9390 | | 1.1 | 11 | TM | | | 0.010 |
| 87 | TM | Chrysene | | 1.439 | 1.441 | 1.255 | 1.188 | 1.232 | 1.198 | 1.174 | 1.132 | | 1.3 | 9.4 | TM | | | 0.700 |
| 88 | *TM | Di-n-octylphthalate | | 2.085 | 2.047 | 1.847 | 1.759 | 1.816 | 1.786 | 1.722 | 1.688 | | 1.8 | 7.9 | *TM | | | 0.010 |
| 89 | I | Perylene-D12(IS) | ISTD | | | | | | | | | | | | | | | |
| 90 | TM | Benzo (b) fluoranthene | | 1.414 | 1.260 | 1.197 | 1.198 | 1.062 | 1.197 | 1.065 | 1.130 | | 1.2 | 9.6 | TM | | | 0.700 |
| 91 | TM | Benzo (k) fluoranthene | | 1.414 | 1.260 | 1.197 | 1.198 | 1.062 | 1.197 | 1.065 | 1.130 | | 1.2 | 9.6 | TM | | | 0.700 |
| 92 | *TM | Benzo (a) pyrene | 1.251 | 1.297 | 1.304 | 1.187 | 1.138 | 1.172 | 1.144 | 1.099 | 1.079 | | 1.2 | 6.9 | *TM | | | 0.700 |
| 93 | TM | Indeno (1,2,3-cd) pyrene | | 1.420 | 1.445 | 1.291 | 1.214 | 1.272 | 1.218 | 1.182 | 1.164 | | 1.3 | 8.3 | TM | | | 0.500 |
| 94 | TM | Dibenz (a,h) anthracene | 1.172 | 1.224 | 1.230 | 1.116 | 1.072 | 1.115 | 1.074 | 1.043 | 1.019 | | 1.1 | 6.8 | TM | | | 0.400 |
| 95 | TM | Benzo (g,h,i) perylene | | 1.143 | 1.124 | 1.035 | 0.9798 | 1.010 | 0.9780 | 0.9425 | 0.9325 | | 1.0 | 7.7 | TM | | | 0.500 |
| 96 | | | | | | | | | | | | | | | | | | |
| 97 | | | | | | | | | | | | | | | | | | |
| 98 | | | | | | | | | | | | | | | | | | |
| 99 | | | | | | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | | | | | | |
| 101 | | | | | | | | | | | | | | | | | | |
| 102 | | | | | | | | | | | | | | | | | | |
| 103 | | | | | | | | | | | | | | | | | | |
| 104 | | | | | | | | | | | | | | | | | | |
| 105 | | | | | | | | | | | | | | | | | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y003.D Vial: 3
Acq On : 19 Mar 19 18:31 Operator: MA
Sample : 50ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:46 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Mar 20 09:42:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 114637 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 472309 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 256108 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.60 | 188 | 425827 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 388787 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 380454 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 440131 | 102.72345 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 51.362% | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 576782 | 102.96746 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 51.484% | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 259817 | 52.06712 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 52.067% | |
| 46) 2-Fluorobiphenyl(S) | 8.08 | 172 | 475108 | 50.24297 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 50.243% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 91088 | 107.31607 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 53.658% | |
| 82) Terphenyl-D14(S) | 12.46 | 244 | 487603 | 51.30654 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 51.307% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 4430 | 5.70818 | 100 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 73272 | 50.29680 ppb | 100 |
| 4) Pyridine | 1.95 | 79 | 178684 | 51.00094 ppb | 100 |
| 7) Phenol | 5.03 | 94 | 298210 | 48.11297 ppb | 100 |
| 8) Aniline | 5.03 | 93 | 287448 | 47.57204 ppb | 100 |
| 9) Bis (2-chloroethyl) ether | 5.10 | 63 | 134256 | 48.73577 ppb | 100 |
| 10) 2-Chlorophenol | 5.17 | 128 | 222358 | 49.31260 ppb | 100 |
| 11) 1,3-DCB | 5.33 | 146 | 230327 | 48.65913 ppb | 100 |
| 12) 1,4-DCB | 5.42 | 146 | 238399 | 48.97673 ppb | 100 |
| 13) Benzyl alcohol | 5.57 | 108 | 132506 | 50.53539 ppb | 100 |
| 14) 1,2-DCB | 5.59 | 146 | 220888 | 48.96362 ppb | 100 |
| 15) 2-Methylphenol | 5.71 | 107 | 190581 | 48.51630 ppb | 100 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 198207 | 48.84754 ppb | 100 |
| 17) Acetophenone | 5.87 | 105 | 294577 | 48.96670 ppb | 100 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 464156 | 98.43562 ppb | 100 |
| 19) n-Nitrosodi-n-propylamine | 5.87 | 70 | 161718 | 48.97969 ppb | 100 |
| 20) Hexachloroethane | 5.96 | 117 | 89016 | 48.57976 ppb | 100 |
| 23) Nitrobenzene | 6.06 | 77 | 238631 | 49.50538 ppb | 100 |
| 24) Isophorone | 6.32 | 82 | 418697 | 49.94868 ppb | 100 |
| 25) 2-Nitrophenol | 6.41 | 139 | 126352 | 51.70904 ppb | 100 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 191726 | 49.77633 ppb | 100 |
| 27) Benzoic acid | 6.61 | 105 | 132350 | 50.34444 ppb | 100 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 254996 | 49.79802 ppb | 100 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 165330 | 50.62002 ppb | 100 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 180070 | 50.22423 ppb | 100 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 280998 | 49.33330 ppb | 100 |
| 32) Naphthalene | 6.86 | 128 | 636316 | 49.78667 ppb | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 232189 | 49.27866 ppb | 100 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 165733 | 50.46907 ppb | 100 |
| 35) Hexachloropropene | 6.95 | 213 | 102692 | 51.54934 ppb | 100 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 88022 | 50.04871 ppb | 100 |
| 37) Caprolactum | 7.37 | 55 | 83739 | 50.88266 ppb | 100 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y003.D Vial: 3
Acq On : 19 Mar 19 18:31 Operator: MA
Sample : 50ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:46 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Mar 20 09:42:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Compound | R.T. | QIon | Response | Conc | Unit | Qvalue |
|---|---|---|---|---|---|---|
| 38) 4-Chloro-3-methylphenol | 7.51 | 107 | 201357 | 50.85987 | ppb | 100 |
| 39) 2-Methylnaphthalene | 7.65 | 142 | 404769 | 49.66629 | ppb | 100 |
| 40) 1-Methylnaphthalene | 7.77 | 142 | 412817 | 48.87466 | ppb | 100 |
| 42) Hexachlorocyclopentadiene | 7.82 | 237 | 28347 | 50.32166 | ppb | 100 |
| 43) 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 166150 | 49.69069 | ppb | 100 |
| 44) 2,4,6-Trichlorophenol | 7.99 | 196 | 109340 | 50.84958 | ppb | 100 |
| 45) 2,4,5-Trichlorophenol | 8.05 | 196 | 114208 | 49.41944 | ppb | 100 |
| 47) 1,1'-Biphenyl | 8.19 | 154 | 523036 | 49.40623 | ppb | 100 |
| 48) 2-Chloronaphthalene | 8.21 | 162 | 390686 | 49.06511 | ppb | 100 |
| 49) 2-Nitroaniline | 8.35 | 65 | 132948 | 50.94556 | ppb | 100 |
| 50) Dimethyl phthalate | 8.54 | 163 | 452410 | 48.88515 | ppb | 100 |
| 51) 2,6-DNT | 8.63 | 165 | 107526 | 49.68734 | ppb | 100 |
| 52) Acenaphthylene | 8.70 | 152 | 618641 | 49.08888 | ppb | 100 |
| 53) 3-Nitroaniline | 8.84 | 138 | 120032 | 50.46037 | ppb | 100 |
| 54) Acenaphthene | 8.90 | 154 | 395327 | 48.70090 | ppb | 100 |
| 55) 2,4-Dinitrophenol | 8.98 | 184 | 45050 | 48.81434 | ppb | 96 |
| 56) 4-Nitrophenol | 9.10 | 65 | 72463 | 52.83268 | ppb | 100 |
| 57) Dibenzofuran | 9.10 | 168 | 539583 | 48.98033 | ppb | 100 |
| 58) 2,4-DNT | 9.11 | 165 | 149368 | 51.06896 | ppb | 100 |
| 59) 2,3,4,6-Tetrachlorophenol | 9.25 | 232 | 79846 | 54.41028 | ppb | 100 |
| 60) Diethyl phthalate | 9.36 | 149 | 447162 | 48.96183 | ppb | 100 |
| 61) 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 207297 | 49.24255 | ppb | 100 |
| 62) Fluorene | 9.50 | 166 | 449417 | 48.90581 | ppb | 100 |
| 63) 4-Nitroaniline | 9.55 | 138 | 118496 | 49.24349 | ppb | 100 |
| 66) 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 86742 | 54.59940 | ppb | 100 |
| 67) Diphenyl amine | 9.64 | 169 | 697220 | 97.59456 | ppb | 100 |
| 68) n-Nitrosodiphenylamine | 9.64 | 169 | 697220 | 97.59456 | ppb | 100 |
| 69) 1,2-Diphenylhydrazine | 9.68 | 77 | 474998 | 47.50747 | ppb | 100 |
| 70) 4-Bromophenyl phenyl ether | 10.06 | 248 | 110691 | 49.65994 | ppb | 100 |
| 71) Hexachlorobenzene | 10.14 | 284 | 102559 | 49.54057 | ppb | 100 |
| 72) Atrazine | 10.26 | 200 | 60502 | 24.78178 | ppb | 100 |
| 73) Pentachlorophenol | 10.40 | 266 | 40781 | 53.51964 | ppb | 100 |
| 74) Phenanthrene | 10.63 | 178 | 638282 | 49.05585 | ppb | 100 |
| 75) Anthracene | 10.68 | 178 | 669670 | 48.72190 | ppb | 100 |
| 76) Carbazol | 10.88 | 167 | 615499 | 48.62748 | ppb | 100 |
| 77) Di-n-butylphthalate | 11.26 | 149 | 792368 | 49.99257 | ppb | 100 |
| 78) Fluoranthene | 12.02 | 202 | 666118 | 48.96306 | ppb | 100 |
| 80) Benzidine | 12.19 | 184 | 125559 | 40.87845 | ppb | 100 |
| 81) Pyrene | 12.28 | 202 | 695754 | 48.54023 | ppb | 100 |
| 83) Butyl benzylphthalate | 13.01 | 149 | 354521 | 48.86000 | ppb | 100 |
| 84) 3,3'-Dichlorobenzidine | 13.65 | 252 | 171204 | 47.50798 | ppb | 100 |
| 85) Benz (a) anthracene | 13.68 | 228 | 616195 | 48.61545 | ppb | 100 |
| 86) Bis (2-ethylhexyl) phthala | 13.66 | 149 | 498649 | 47.98090 | ppb | 100 |
| 87) Chrysene | 13.73 | 228 | 598755 | 48.99615 | ppb | 100 |
| 88) Di-n-octylphthalate | 14.42 | 149 | 882741 | 49.26053 | ppb | 100 |
| 90) Benzo (b) fluoranthene | 15.04 | 252 | 505099 | 44.60811 | ppb | 100 |
| 91) Benzo (k) fluoranthene | 15.04 | 252 | 505099 | 44.60811 | ppb | 100 |
| 92) Benzo (a) pyrene | 15.46 | 252 | 557254 | 49.41467 | ppb | 100 |
| 93) Indeno (1,2,3-cd) pyrene | 17.47 | 276 | 605012 | 49.86727 | ppb | 100 |
| 94) Dibenz (a,h) anthracene | 17.49 | 278 | 530453 | 49.86829 | ppb | 100 |
| 95) Benzo (g,h,i) perylene | 18.05 | 276 | 480148 | 49.59085 | ppb | 100 |

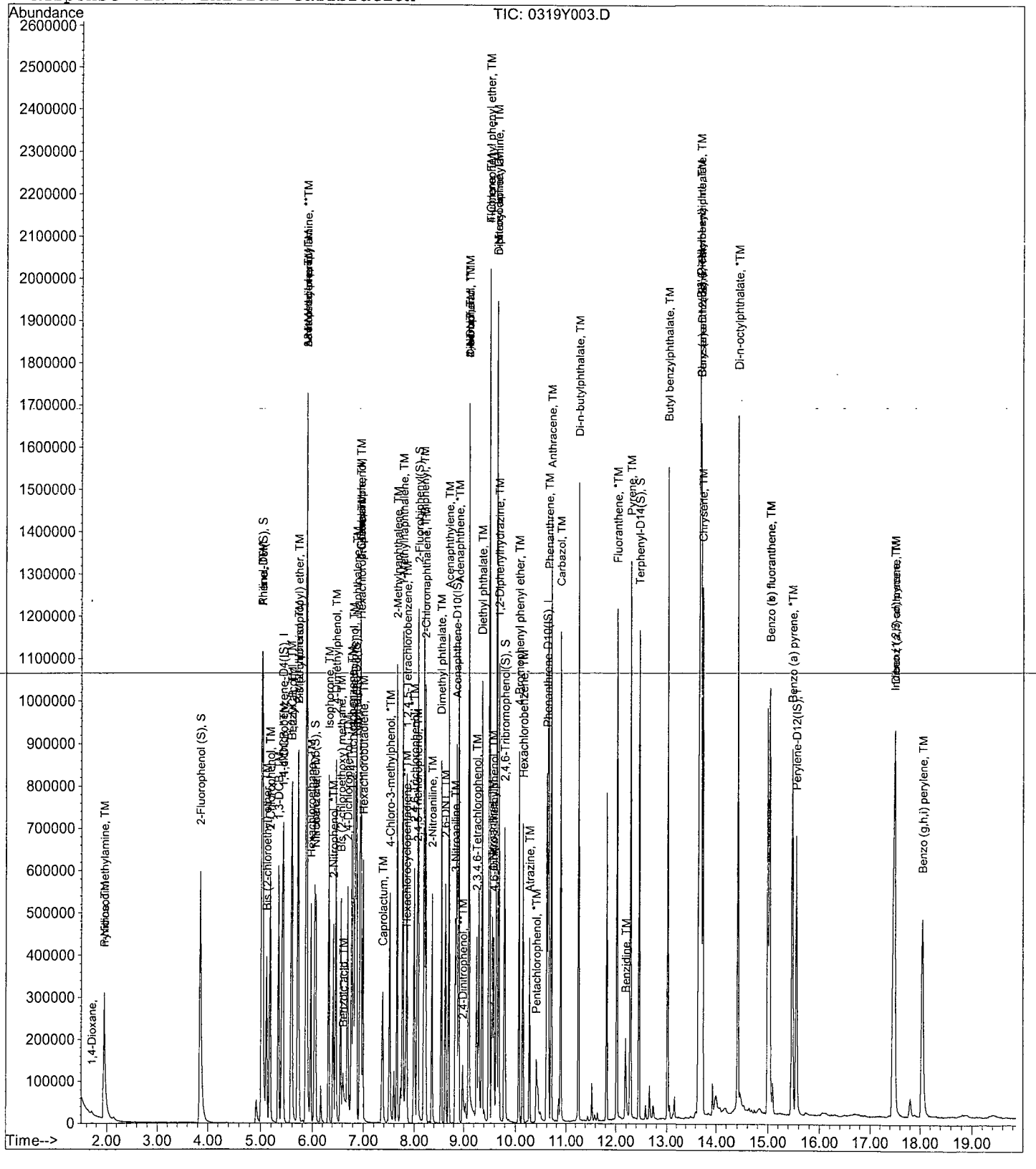
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y003.D Vial: 3
Acq On : 19 Mar 19 18:31 Operator: MA
Sample : 50ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:46 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y004.D Vial: 4
Acq On : 19 Mar 19 18:58 Operator: MA
Sample : 4ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 19 20:40 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 20:39:51 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 114954 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.83 | 136 | 490093 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 262404 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 432886 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 405658 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 394479 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 0.00 | 112 | 0d | 0.00000 ppb | |
| Spiked Amount 200.000 | | | Recovery = | 0.000% | |
| 6) Phenol-D6 (S) | 0.00 | 99 | 0d | 0.00000 ppb | |
| Spiked Amount 200.000 | | | Recovery = | 0.000% | |
| 22) Nitrobenzene-D5(S) | 0.00 | 82 | 0d | 0.00000 ppb | |
| Spiked Amount 100.000 | | | Recovery = | 0.000% | |
| 46) 2-Fluorobiphenyl(S) | 0.00 | 172 | 0d | 0.00000 ppb | |
| Spiked Amount 100.000 | | | Recovery = | 0.000% | |
| 64) 2,4,6-Tribromophenol(S) | 0.00 | 330 | 0d | 0.00000 ppb | |
| Spiked Amount 200.000 | | | Recovery = | 0.000% | |
| 82) Terphenyl-D14(S) | 0.00 | 244 | 0d | 0.00000 ppb | |
| Spiked Amount 100.000 | | | Recovery = | 0.000% | |
| **Target Compounds** | | | | | Qvalue |
| 92) Benzo (a) pyrene | 15.47 | 252 | 49367 | 4.21111 ppb | 97 |
| 94) Dibenz (a,h) anthracene | 17.49 | 278 | 46216 | 4.19356 ppb | 97 |

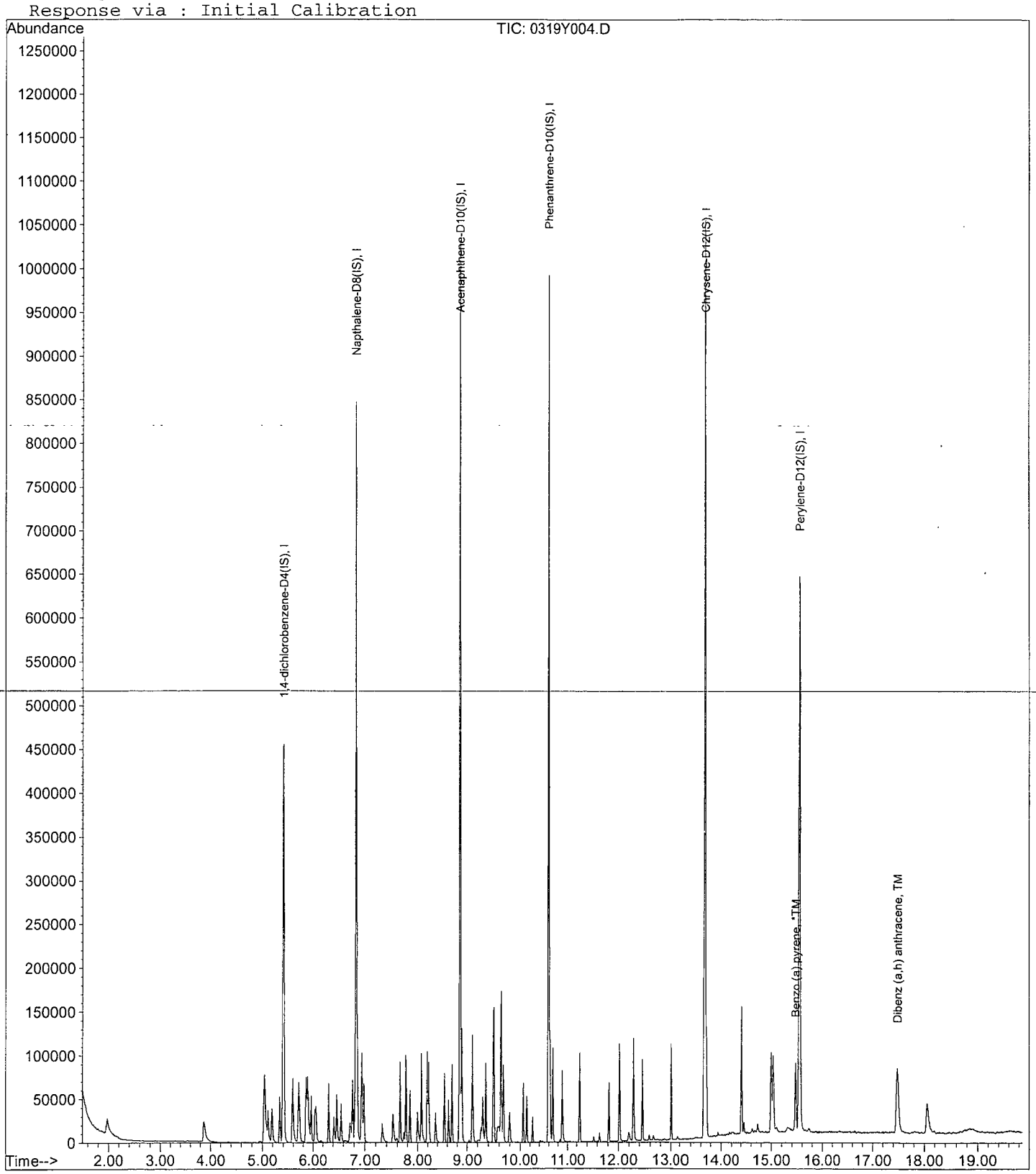
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y004.D Vial: 4
Acq On : 19 Mar 19 18:58 Operator: MA
Sample : 4ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 19 20:40 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y005.D Vial: 5
Acq On : 19 Mar 19 19:26 Operator: MA
Sample : 5ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 115611 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 503407 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.85 | 164 | 266346 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.60 | 188 | 439621 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 399547 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 399700 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.86 | 112 | 39728 | 9.19412 ppb | 0.02 |
| Spiked Amount 200.000 | | | Recovery = | 4.597% | |
| 6) Phenol-D6 (S) | 5.03 | 99 | 53431 | 9.45817 ppb | 0.02 |
| Spiked Amount 200.000 | | | Recovery = | 4.729% | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 25398 | 4.77532 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 4.775% | |
| 46) 2-Fluorobiphenyl(S) | 8.07 | 172 | 49637 | 5.04737 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 5.047% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 7376 | 8.35606 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 4.178% | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 48790 | 4.99552 ppb | -0.01 |
| Spiked Amount 100.000 | | | Recovery = | 4.996% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.72 | 58 | 301 | 0.38458 | # 1 |
| 3) n-Nitrosodimethylamine | 1.95 | 42 | 9295 | 6.32670 ppb | 67 |
| 4) Pyridine | 1.98 | 79 | 18131 | 5.13145 ppb | 98 |
| 7) Phenol | 5.05 | 94 | 34943 | 5.59018 ppb | 97 |
| 8) Aniline | 5.04 | 93 | 33010 | 5.41706 ppb | 90 |
| 9) Bis (2-chloroethyl) ether | 5.10 | 63 | 15432 | 5.55472 ppb | 98 |
| 10) 2-Chlorophenol | 5.19 | 128 | 24557 | 5.40015 ppb | 97 |
| 11) 1,3-DCB | 5.34 | 146 | 27006 | 5.65725 ppb | 98 |
| 12) 1,4-DCB | 5.42 | 146 | 28848 | 5.87661 ppb | 99 |
| 13) Benzyl alcohol | 5.58 | 108 | 13586 | 5.13780 ppb | 98 |
| 14) 1,2-DCB | 5.59 | 146 | 26355 | 5.79282 ppb | 98 |
| 15) 2-Methylphenol | 5.71 | 107 | 23457 | 5.92115 ppb | 96 |
| 16) Bis (2-chloroisopropyl) et | 5.71 | 45 | 23325 | 5.69995 ppb | 91 |
| 17) Acetophenone | 5.86 | 105 | 34635 | 5.70877 ppb | 78 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 53388 | 11.22684 ppb | 97 |
| 19) n-Nitrosodi-n-propylamine | 5.86 | 70 | 19145 | 5.74961 ppb | 96 |
| 20) Hexachloroethane | 5.96 | 117 | 10587 | 5.72909 ppb | 94 |
| 23) Nitrobenzene | 6.06 | 77 | 29173 | 5.67824 ppb | 94 |
| 24) Isophorone | 6.32 | 82 | 50308 | 5.63078 ppb | 96 |
| 25) 2-Nitrophenol | 6.42 | 139 | 13403 | 5.14628 ppb | 98 |
| 26) 2,4-Dimethylphenol | 6.47 | 122 | 23401 | 5.70011 ppb | 96 |
| 27) Benzoic acid | 6.63 | 105 | 6735 | 2.38744 ppb | 94 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 30463 | 5.58160 ppb | 96 |
| 29) 2,4-Dichlorophenol | 6.73 | 162 | 18460 | 5.30285 ppb | 96 |
| 30) 1,2,4-Trichlorobenzene | 6.77 | 180 | 21184 | 5.54354 ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.81 | 107 | 35156 | 5.79086 ppb | 100 |
| 32) Naphthalene | 6.86 | 128 | 77852 | 5.71501 ppb | 98 |
| 33) 4-Chloroaniline | 6.93 | 127 | 28396 | 5.65433 ppb | 97 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 19414 | 5.54675 ppb | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 10616 | 4.99982 ppb | 98 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 10662 | 5.68784 ppb | 94 |
| 37) Caprolactum | 7.32 | 55 | 9298 | 5.30076 ppb | 98 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y005.D Vial: 5
Acq On : 19 Mar 19 19:26 Operator: MA
Sample : 5ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 38) 4-Chloro-3-methylphenol | 7.51 | 107 | 22835 | 5.41149 | ppb | | 95 |
| 39) 2-Methylnaphthalene | 7.66 | 142 | 49109 | 5.65357 | ppb | | 94 |
| 40) 1-Methylnaphthalene | 7.77 | 142 | 51788 | 5.75258 | ppb | | 100 |
| 43) 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 19399 | 5.57867 | ppb | | 97 |
| 44) 2,4,6-Trichlorophenol | 8.00 | 196 | 11813 | 5.28257 | ppb | | 89 |
| 45) 2,4,5-Trichlorophenol | 8.07 | 196 | 13189 | 5.48770 | ppb | | 93 |
| 47) 1,1'-Biphenyl | 8.19 | 154 | 62061 | 5.63697 | ppb | | 100 |
| 48) 2-Chloronaphthalene | 8.21 | 162 | 46372 | 5.59987 | ppb | | 99 |
| 49) 2-Nitroaniline | 8.35 | 65 | 14244 | 5.24848 | ppb | | 91 |
| 50) Dimethyl phthalate | 8.54 | 163 | 53870 | 5.59717 | ppb | | 99 |
| 51) 2,6-DNT | 8.63 | 165 | 11891 | 5.28357 | ppb | | 97 |
| 52) Acenaphthylene | 8.70 | 152 | 74622 | 5.69362 | ppb | | 98 |
| 53) 3-Nitroaniline | 8.84 | 138 | 12488 | 5.04805 | ppb | # | 88 |
| 54) Acenaphthene | 8.89 | 154 | 49162 | 5.82354 | ppb | | 99 |
| 55) 2,4-Dinitrophenol | 9.05 | 184 | 114 | 7.13477 | ppb | # | 33 |
| 56) 4-Nitrophenol | 9.10 | 65 | 1432 | 17.24815 | ppb | # | 26 |
| 57) Dibenzofuran | 9.10 | 168 | 66911 | 5.84034 | ppb | | 94 |
| 58) 2,4-DNT | 9.10 | 165 | 15531 | 5.10594 | ppb | | 82 |
| 59) 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 6236 | 4.08612 | ppb | | 95 |
| 60) Diethyl phthalate | 9.36 | 149 | 53987 | 5.68406 | ppb | | 98 |
| 61) 4-Chlorophenyl phenyl ethe | 9.49 | 204 | 25947 | 5.92668 | ppb | | 94 |
| 62) Fluorene | 9.49 | 166 | 54887 | 5.74325 | ppb | | 97 |
| 63) 4-Nitroaniline | 9.57 | 138 | 13928 | 5.56559 | ppb | | 86 |
| 66) 4,6-Dinitro-2-methylphenol | 9.60 | 198 | 6121 | 3.73195 | ppb | | 87 |
| 67) Diphenyl amine | 9.63 | 169 | 84233 | 11.42070 | ppb | | 98 |
| 68) n-Nitrosodiphenylamine | 9.63 | 169 | 84233 | 11.42070 | ppb | | 98 |
| 69) 1,2-Diphenylhydrazine | 9.68 | 77 | 58429 | 5.66048 | ppb | | 95 |
| 70) 4-Bromophenyl phenyl ether | 10.06 | 248 | 12632 | 5.48935 | ppb | | 97 |
| 71) Hexachlorobenzene | 10.14 | 284 | 12105 | 5.66379 | ppb | | 92 |
| 72) Atrazine | 10.26 | 200 | 6913 | 2.74274 | ppb | | 94 |
| 73) Pentachlorophenol | 10.43 | 266 | 696 | 7.10872 | ppb | # | 57 |
| 74) Phenanthrene | 10.62 | 178 | 77308 | 5.75516 | ppb | | 98 |
| 75) Anthracene | 10.68 | 178 | 79708 | 5.61720 | ppb | | 99 |
| 76) Carbazol | 10.89 | 167 | 73559 | 5.62918 | ppb | | 98 |
| 77) Di-n-butylphthalate | 11.26 | 149 | 92978 | 5.68216 | ppb | | 99 |
| 78) Fluoranthene | 12.02 | 202 | 79788 | 5.68080 | ppb | | 98 |
| 80) Benzidine | 12.20 | 184 | 18852 | 5.94895 | ppb | | 96 |
| 81) Pyrene | 12.28 | 202 | 84308 | 5.72346 | ppb | | 100 |
| 83) Butyl benzylphthalate | 13.01 | 149 | 42179 | 5.65655 | ppb | | 94 |
| 84) 3,3'-Dichlorobenzidine | 13.65 | 252 | 21081 | 5.69230 | ppb | | 97 |
| 85) Benz (a) anthracene | 13.68 | 228 | 74607 | 5.72769 | ppb | | 98 |
| 86) Bis (2-ethylhexyl) phthala | 13.66 | 149 | 64037 | 5.99582 | ppb | | 98 |
| 87) Chrysene | 13.72 | 228 | 71859 | 5.72187 | ppb | | 97 |
| 88) Di-n-octylphthalate | 14.41 | 149 | 104149 | 5.65542 | ppb | # | 94 |
| 90) Benzo (b) fluoranthene | 15.03 | 252 | 70654 | 5.93939 | ppb | # | 94 |
| 91) Benzo (k) fluoranthene | 15.03 | 252 | 70654 | 5.93939 | ppb | # | 94 |
| 92) Benzo (a) pyrene | 15.46 | 252 | 64822 | 5.47133 | ppb | | 99 |
| 93) Indeno (1,2,3-cd) pyrene | 17.47 | 276 | 70934 | 5.56511 | ppb | | 97 |
| 94) Dibenz (a,h) anthracene | 17.49 | 278 | 61171 | 5.47383 | ppb | | 98 |
| 95) Benzo (g,h,i) perylene | 18.05 | 276 | 57086 | 5.61208 | ppb | | 98 |

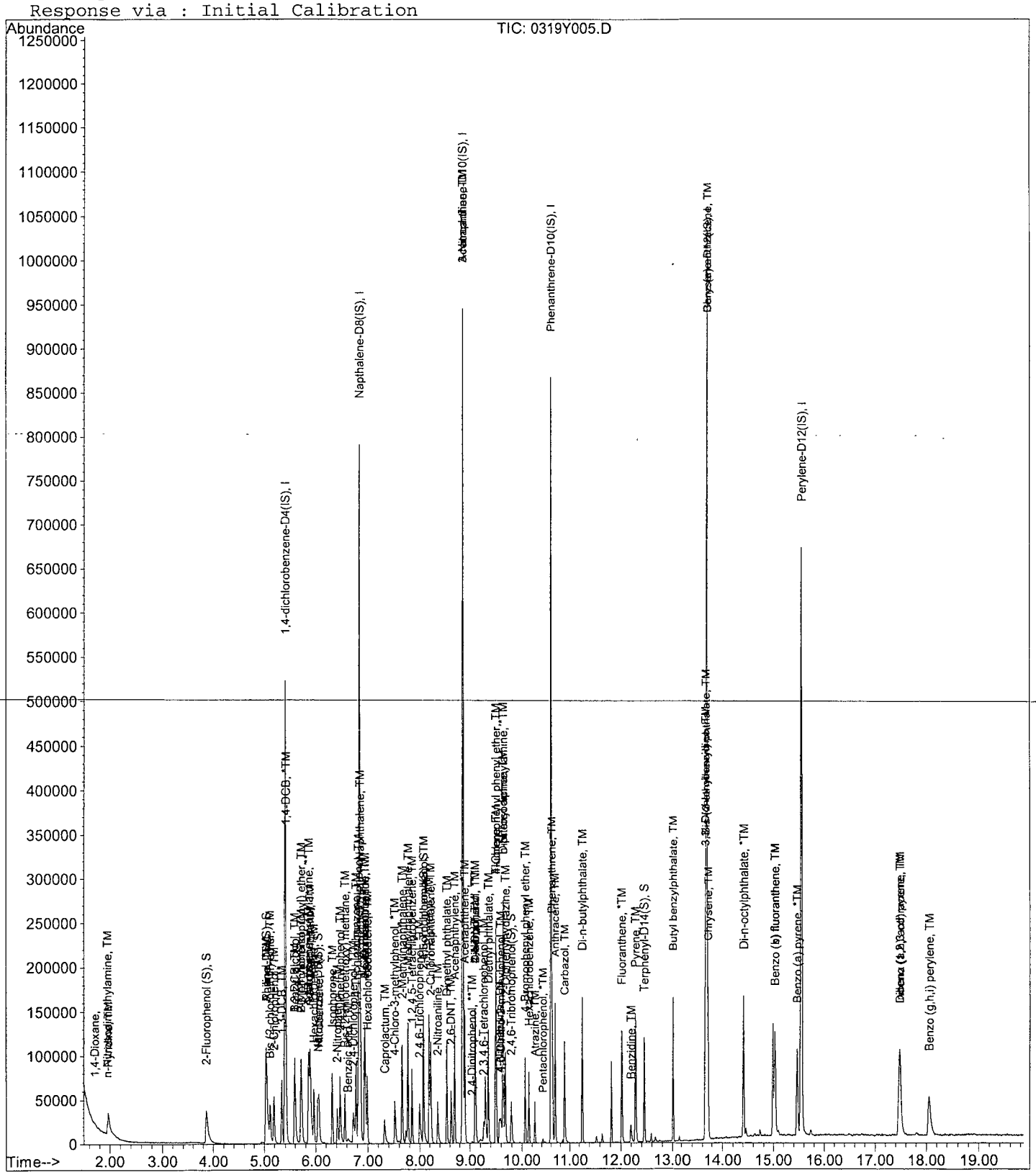
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y005.D Vial: 5
Acq On : 19 Mar 19 19:26 Operator: MA
Sample : 5ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y006.D Vial: 6
Acq On : 19 Mar 19 19:54 Operator: MA
Sample : 10ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:17 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 121984 | 40.00000 ppb | | 0.00 |
| 21) Napthalene-D8(IS) | 6.83 | 136 | 512288 | 40.00000 ppb | | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 269599 | 40.00000 ppb | | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 449398 | 40.00000 ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 410594 | 40.00000 ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 404320 | 40.00000 ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.85 | 112 | 93067 | 20.41293 ppb | | 0.01 |
| Spiked Amount 200.000 | | | Recovery = | 10.207% | | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 122377 | 20.53100 ppb | | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 10.266% | | |
| 22) Nitrobenzene-D5(S) | 6.04 | 82 | 57383 | 10.60208 ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 10.602% | | |
| 46) 2-Fluorobiphenyl(S) | 8.07 | 172 | 108893 | 10.93926 ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 10.939% | | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 17684 | 19.79197 ppb | | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 9.896% | | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 105565 | 10.51781 ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 10.518% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 698 | 0.84522 | # | 3 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 16466 | 10.62215 ppb | | 92 |
| 4) Pyridine | 1.96 | 79 | 42557 | 11.41525 ppb | | 95 |
| 7) Phenol | 5.03 | 94 | 73295 | 11.11313 ppb | | 86 |
| 8) Aniline | 5.03 | 93 | 71536 | 11.12600 ppb | | 91 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 31653 | 10.79819 ppb | | 96 |
| 10) 2-Chlorophenol | 5.18 | 128 | 52907 | 11.02656 ppb | | 97 |
| 11) 1,3-DCB | 5.33 | 146 | 55787 | 11.07578 ppb | | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 56752 | 10.95692 ppb | | 96 |
| 13) Benzyl alcohol | 5.57 | 108 | 29683 | 10.63873 ppb | | 98 |
| 14) 1,2-DCB | 5.59 | 146 | 52788 | 10.99660 ppb | | 98 |
| 15) 2-Methylphenol | 5.70 | 107 | 45159 | 10.80374 ppb | | 93 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 48455 | 11.22236 ppb | | 96 |
| 17) Acetophenone | 5.86 | 105 | 70767 | 11.05490 ppb | | 79 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 108589 | 21.64194 ppb | | 99 |
| 19) n-Nitrosodi-n-propylamine | 5.85 | 70 | 39282 | 11.18081 ppb | | 94 |
| 20) Hexachloroethane | 5.96 | 117 | 21924 | 11.24421 ppb | | 98 |
| 23) Nitrobenzene | 6.05 | 77 | 58158 | 11.12364 ppb | | 95 |
| 24) Isophorone | 6.31 | 82 | 100807 | 11.08733 ppb | | 100 |
| 25) 2-Nitrophenol | 6.42 | 139 | 28728 | 10.83931 ppb | | 96 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 44991 | 10.76910 ppb | | 99 |
| 27) Benzoic acid | 6.60 | 105 | 20618 | 7.18201 ppb | | 90 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 62236 | 11.20553 ppb | | 98 |
| 29) 2,4-Dichlorophenol | 6.71 | 162 | 38227 | 10.79078 ppb | | 94 |
| 30) 1,2,4-Trichlorobenzene | 6.77 | 180 | 43440 | 11.17053 ppb | | 97 |
| 31) 3,4-Dimethylphenol | 6.81 | 107 | 70107 | 11.34776 ppb | | 98 |
| 32) Naphthalene | 6.86 | 128 | 156443 | 11.28518 ppb | | 99 |
| 33) 4-Chloroaniline | 6.94 | 127 | 61067 | 11.94912 ppb | | 99 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 39255 | 11.02106 ppb | # | 95 |
| 35) Hexachloropropene | 6.95 | 213 | 22334 | 10.33630 ppb | | 98 |
| 36) Hexachlorobutadiene | 6.98 | 225 | 21272 | 11.15121 ppb | | 98 |
| 37) Caprolactum | 7.33 | 55 | 19734 | 11.05527 ppb | | 98 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y006.D Vial: 6
Acq On : 19 Mar 19 19:54 Operator: MA
Sample : 10ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:17 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|
| 38) 4-Chloro-3-methylphenol | 7.50 | 107 | 46274 | 10.77600 ppb | | 96 |
| 39) 2-Methylnaphthalene | 7.65 | 142 | 98063 | 11.09358 ppb | | 100 |
| 40) 1-Methylnaphthalene | 7.76 | 142 | 102639 | 11.20342 ppb | | 99 |
| 42) Hexachlorocyclopentadiene | 7.82 | 237 | 696 | 15.95530 ppb | # | 86 |
| 43) 1,2,4,5-Tetrachlorobenzene | 7.85 | 216 | 40116 | 11.39717 ppb | | 99 |
| 44) 2,4,6-Trichlorophenol | 7.99 | 196 | 24311 | 10.74029 ppb | | 99 |
| 45) 2,4,5-Trichlorophenol | 8.06 | 196 | 27355 | 11.24457 ppb | | 97 |
| 47) 1,1'-Biphenyl | 8.19 | 154 | 124754 | 11.19462 ppb | | 97 |
| 48) 2-Chloronaphthalene | 8.22 | 162 | 96857 | 11.55529 ppb | | 93 |
| 49) 2-Nitroaniline | 8.35 | 65 | 30428 | 11.07651 ppb | | 88 |
| 50) Dimethyl phthalate | 8.54 | 163 | 109505 | 11.24045 ppb | | 98 |
| 51) 2,6-DNT | 8.63 | 165 | 24341 | 10.68503 ppb | | 88 |
| 52) Acenaphthylene | 8.70 | 152 | 147145 | 11.09161 ppb | | 100 |
| 53) 3-Nitroaniline | 8.83 | 138 | 28068 | 11.20907 ppb | | 90 |
| 54) Acenaphthene | 8.89 | 154 | 96774 | 11.32515 ppb | | 99 |
| 55) 2,4-Dinitrophenol | 9.02 | 184 | 4240 | 10.29161 ppb | # | 33 |
| 56) 4-Nitrophenol | 9.10 | 65 | 2643 | 17.74907 ppb | # | 57 |
| 57) Dibenzofuran | 9.10 | 168 | 131289 | 11.32131 ppb | | 90 |
| 58) 2,4-DNT | 9.10 | 165 | 33662 | 10.93312 ppb | # | 71 |
| 59) 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 15327 | 9.92179 ppb | | 94 |
| 60) Diethyl phthalate | 9.35 | 149 | 108817 | 11.31864 ppb | | 98 |
| 61) 4-Chlorophenyl phenyl ethe | 9.49 | 204 | 50202 | 11.32853 ppb | | 91 |
| 62) Fluorene | 9.50 | 166 | 109490 | 11.31854 ppb | | 97 |
| 63) 4-Nitroaniline | 9.55 | 138 | 28975 | 11.43862 ppb | | 96 |
| 66) 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 15197 | 9.06397 ppb | | 93 |
| 67) Diphenyl amine | 9.64 | 169 | 171955 | 22.80723 ppb | | 98 |
| 68) n-Nitrosodiphenylamine | 9.64 | 169 | 171955 | 22.80723 ppb | | 98 |
| 69) 1,2-Diphenylhydrazine | 9.67 | 77 | 113332 | 10.74050 ppb | | 96 |
| 70) 4-Bromophenyl phenyl ether | 10.06 | 248 | 26382 | 11.21511 ppb | | 88 |
| 71) Hexachlorobenzene | 10.14 | 284 | 24168 | 11.06191 ppb | # | 85 |
| 72) Atrazine | 10.26 | 200 | 14699 | 5.70496 ppb | | 97 |
| 73) Pentachlorophenol | 10.42 | 266 | 4554 | 11.29771 ppb | | 96 |
| 74) Phenanthrene | 10.62 | 178 | 154357 | 11.24104 ppb | | 99 |
| 75) Anthracene | 10.69 | 178 | 165890 | 11.43630 ppb | | 99 |
| 76) Carbazol | 10.88 | 167 | 149122 | 11.16344 ppb | | 98 |
| 77) Di-n-butylphthalate | 11.26 | 149 | 186080 | 11.12450 ppb | | 99 |
| 78) Fluoranthene | 12.01 | 202 | 159257 | 11.09221 ppb | | 97 |
| 80) Benzidine | 12.19 | 184 | 39860 | 12.23984 ppb | | 99 |
| 81) Pyrene | 12.28 | 202 | 167082 | 11.03761 ppb | | 98 |
| 83) Butyl benzylphthalate | 13.01 | 149 | 84725 | 11.05662 ppb | | 94 |
| 84) 3,3'-Dichlorobenzidine | 13.65 | 252 | 45275 | 11.89626 ppb | # | 97 |
| 85) Benz (a) anthracene | 13.68 | 228 | 149542 | 11.17168 ppb | | 99 |
| 86) Bis (2-ethylhexyl) phthala | 13.66 | 149 | 124012 | 11.29890 ppb | # | 97 |
| 87) Chrysene | 13.72 | 228 | 147918 | 11.46127 ppb | | 97 |
| 88) Di-n-octylphthalate | 14.41 | 149 | 210080 | 11.10068 ppb | | 97 |
| 90) Benzo (b) fluoranthene | 15.03 | 252 | 127409 | 10.58801 ppb | | 100 |
| 91) Benzo (k) fluoranthene | 15.03 | 252 | 127409 | 10.58801 ppb | | 100 |
| 92) Benzo (a) pyrene | 15.47 | 252 | 131774 | 10.99536 ppb | | 99 |
| 93) Indeno (1,2,3-cd) pyrene | 17.46 | 276 | 146088 | 11.33034 ppb | | 98 |
| 94) Dibenz (a,h) anthracene | 17.48 | 278 | 124313 | 10.99692 ppb | | 98 |
| 95) Benzo (g,h,i) perylene | 18.04 | 276 | 113616 | 11.04188 ppb | | 99 |

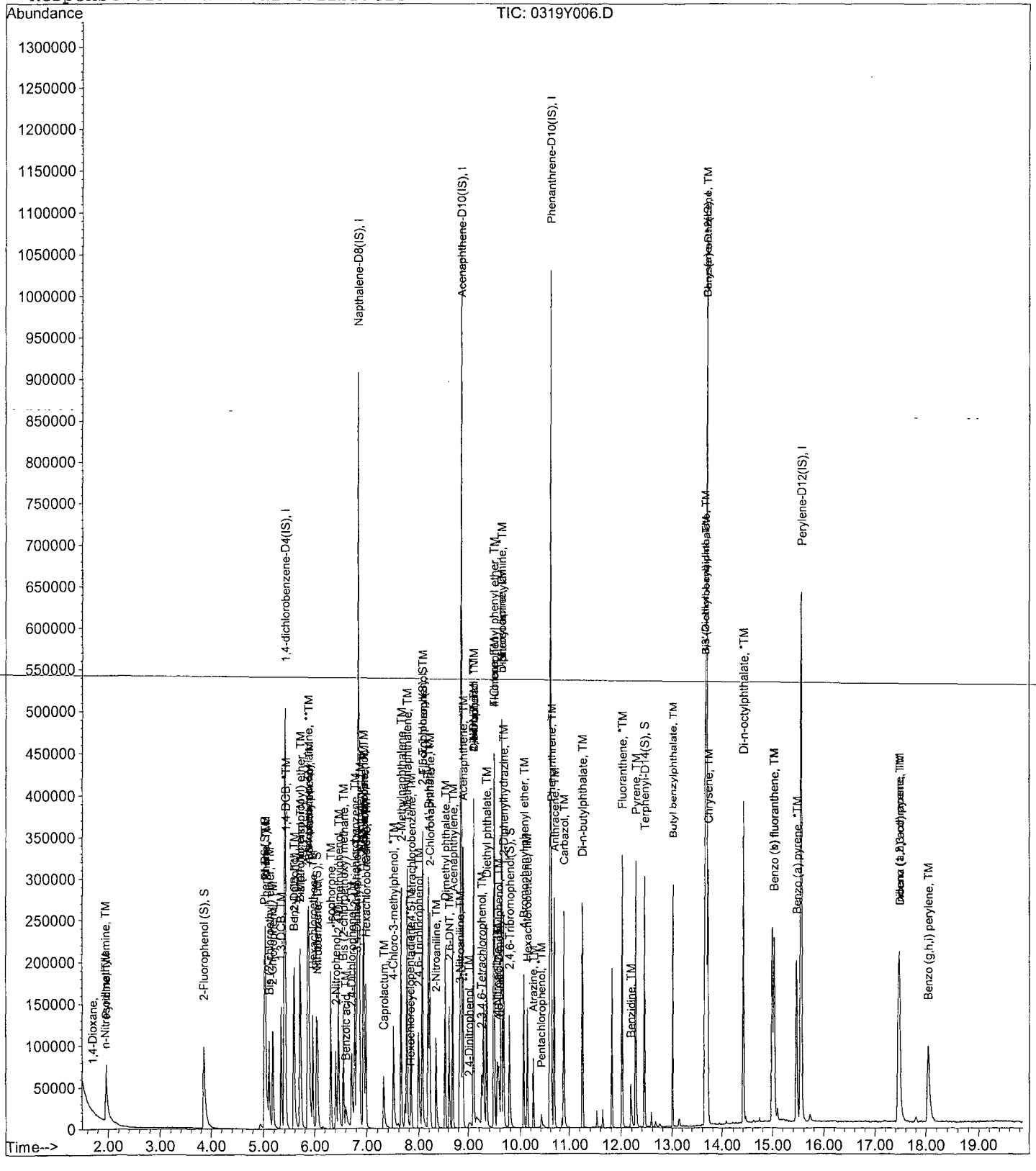
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y006.D Vial: 6
Acq On : 19 Mar 19 19:54 Operator: MA
Sample : 10ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:17 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y007.D Vial: 7
Acq On : 19 Mar 19 20:22 Operator: MA
Sample : 20ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 118806 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 501030 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 264687 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 443329 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 402412 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 394461 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 184447 | 41.53801 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 20.769% | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 243905 | 42.01414 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 21.007% | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 110927 | 20.95539 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 20.955% | |
| 46) 2-Fluorobiphenyl(S) | 8.07 | 172 | 205898 | 21.06811 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 21.068% | |
| 64) 2,4,6-Tribromophenol(S) | 9.78 | 330 | 36355 | 41.44368 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 20.722% | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 204305 | 20.76951 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 20.770% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 1531 | 1.90351 | # 1 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 30296 | 20.06661 ppb | 87 |
| 4) Pyridine | 1.96 | 79 | 72084 | 19.85262 ppb | 93 |
| 7) Phenol | 5.03 | 94 | 135235 | 21.05307 ppb | 90 |
| 8) Aniline | 5.04 | 93 | 130467 | 20.83433 ppb | 83 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 58445 | 20.47142 ppb | 98 |
| 10) 2-Chlorophenol | 5.17 | 128 | 95389 | 20.41220 ppb | 98 |
| 11) 1,3-DCB | 5.33 | 146 | 99950 | 20.37458 ppb | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 103214 | 20.46023 ppb | 98 |
| 13) Benzyl alcohol | 5.57 | 108 | 53846 | 19.81527 ppb | 99 |
| 14) 1,2-DCB | 5.59 | 146 | 96064 | 20.54700 ppb | 98 |
| 15) 2-Methylphenol | 5.70 | 107 | 82532 | 20.27295 ppb | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 86001 | 20.45096 ppb | 96 |
| 17) Acetophenone | 5.86 | 105 | 126134 | 20.23115 ppb | 85 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 199094 | 40.74112 ppb | 98 |
| 19) n-Nitrosodi-n-propylamine | 5.86 | 70 | 68841 | 20.11830 ppb | 98 |
| 20) Hexachloroethane | 5.96 | 117 | 38241 | 20.13738 ppb | 95 |
| 23) Nitrobenzene | 6.05 | 77 | 105433 | 20.61886 ppb | 93 |
| 24) Isophorone | 6.32 | 82 | 181974 | 20.46426 ppb | 96 |
| 25) 2-Nitrophenol | 6.41 | 139 | 51636 | 19.92046 ppb | 96 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 81380 | 19.91691 ppb | 98 |
| 27) Benzoic acid | 6.61 | 105 | 50723 | 18.06571 ppb | 94 |
| 28) Bis (2-chloroethoxy) metha | 6.55 | 93 | 110336 | 20.31227 ppb | 98 |
| 29) 2,4-Dichlorophenol | 6.70 | 162 | 70409 | 20.32176 ppb | 98 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 78773 | 20.71151 ppb | 95 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 122536 | 20.27977 ppb | 99 |
| 32) Naphthalene | 6.86 | 128 | 275604 | 20.32770 ppb | 99 |
| 33) 4-Chloroaniline | 6.93 | 127 | 107839 | 21.57524 ppb | 98 |
| 34) 2,6-Dichlorophenol | 6.93 | 162 | 71676 | 20.57560 ppb | 93 |
| 35) Hexachloropropene | 6.95 | 213 | 43151 | 20.41925 ppb | 96 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 38425 | 20.59577 ppb | 100 |
| 37) Caprolactum | 7.34 | 55 | 35007 | 20.05208 ppb | 96 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y007.D Vial: 7
Acq On : 19 Mar 19 20:22 Operator: MA
Sample : 20ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 38) 4-Chloro-3-methylphenol | 7.50 | 107 | 84939 | 20.22452 | ppb | | 96 |
| 39) 2-Methylnaphthalene | 7.65 | 142 | 176107 | 20.37012 | ppb | | 100 |
| 40) 1-Methylnaphthalene | 7.76 | 142 | 181203 | 20.22340 | ppb | | 99 |
| 42) Hexachlorocyclopentadiene | 7.83 | 237 | 3981 | 20.96140 | ppb | | 89 |
| 43) 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 70192 | 20.31201 | ppb | | 99 |
| 44) 2,4,6-Trichlorophenol | 7.99 | 196 | 44129 | 19.85742 | ppb | | 98 |
| 45) 2,4,5-Trichlorophenol | 8.06 | 196 | 47541 | 19.90491 | ppb | | 92 |
| 47) 1,1'-Biphenyl | 8.19 | 154 | 225012 | 20.56583 | ppb | | 99 |
| 48) 2-Chloronaphthalene | 8.22 | 162 | 169311 | 20.57409 | ppb | | 97 |
| 49) 2-Nitroaniline | 8.35 | 65 | 55513 | 20.58305 | ppb | | 88 |
| 50) Dimethyl phthalate | 8.54 | 163 | 196774 | 20.57326 | ppb | | 99 |
| 51) 2,6-DNT | 8.62 | 165 | 45513 | 20.34971 | ppb | | 86 |
| 52) Acenaphthylene | 8.70 | 152 | 266936 | 20.49472 | ppb | | 100 |
| 53) 3-Nitroaniline | 8.83 | 138 | 50779 | 20.65514 | ppb | # | 84 |
| 54) Acenaphthene | 8.89 | 154 | 171432 | 20.43445 | ppb | | 99 |
| 55) 2,4-Dinitrophenol | 8.99 | 184 | 13024 | 17.19958 | ppb | # | 52 |
| 56) 4-Nitrophenol | 9.10 | 65 | 5285 | 18.90553 | ppb | # | 65 |
| 57) Dibenzofuran | 9.10 | 168 | 232569 | 20.42706 | ppb | | 91 |
| 58) 2,4-DNT | 9.10 | 165 | 62972 | 20.83231 | ppb | # | 75 |
| 59) 2,3,4,6-Tetrachlorophenol | 9.25 | 232 | 30114 | 19.85577 | ppb | | 99 |
| 60) Diethyl phthalate | 9.36 | 149 | 194484 | 20.60474 | ppb | | 98 |
| 61) 4-Chlorophenyl phenyl ethe | 9.49 | 204 | 89386 | 20.54507 | ppb | | 89 |
| 62) Fluorene | 9.50 | 166 | 196332 | 20.67248 | ppb | | 98 |
| 63) 4-Nitroaniline | 9.55 | 138 | 52779 | 21.22251 | ppb | | 95 |
| 66) 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 33489 | 20.24732 | ppb | | 94 |
| 67) Diphenyl amine | 9.64 | 169 | 305041 | 41.01295 | ppb | | 98 |
| 68) n-Nitrosodiphenylamine | 9.64 | 169 | 305041 | 41.01295 | ppb | | 98 |
| 69) 1,2-Diphenylhydrazine | 9.67 | 77 | 205211 | 19.71414 | ppb | | 93 |
| 70) 4-Bromophenyl phenyl ether | 10.06 | 248 | 46973 | 20.24181 | ppb | | 94 |
| 71) Hexachlorobenzene | 10.14 | 284 | 43877 | 20.35782 | ppb | | 93 |
| 72) Atrazine | 10.26 | 200 | 25376 | 9.98374 | ppb | | 97 |
| 73) Pentachlorophenol | 10.41 | 266 | 11068 | 18.56422 | ppb | | 94 |
| 74) Phenanthrene | 10.62 | 178 | 276104 | 20.38252 | ppb | | 99 |
| 75) Anthracene | 10.68 | 178 | 293214 | 20.49062 | ppb | | 99 |
| 76) Carbazol | 10.88 | 167 | 270495 | 20.52677 | ppb | | 100 |
| 77) Di-n-butylphthalate | 11.26 | 149 | 341694 | 20.70728 | ppb | | 99 |
| 78) Fluoranthene | 12.01 | 202 | 288849 | 20.39367 | ppb | # | 95 |
| 80) Benzidine | 12.19 | 184 | 69416 | 21.74901 | ppb | | 98 |
| 81) Pyrene | 12.28 | 202 | 301452 | 20.31913 | ppb | | 99 |
| 83) Butyl benzylphthalate | 13.01 | 149 | 153106 | 20.38659 | ppb | | 90 |
| 84) 3,3'-Dichlorobenzidine | 13.65 | 252 | 77820 | 20.86338 | ppb | # | 96 |
| 85) Benz (a) anthracene | 13.68 | 228 | 266081 | 20.28200 | ppb | | 98 |
| 86) Bis (2-ethylhexyl) phthala | 13.66 | 149 | 219023 | 20.36123 | ppb | | 98 |
| 87) Chrysene | 13.72 | 228 | 252603 | 19.97064 | ppb | | 99 |
| 88) Di-n-octylphthalate | 14.41 | 149 | 371572 | 20.03317 | ppb | # | 94 |
| 90) Benzo (b) fluoranthene | 15.03 | 252 | 236137 | 20.11405 | ppb | | 99 |
| 91) Benzo (k) fluoranthene | 15.03 | 252 | 236137 | 20.11405 | ppb | | 99 |
| 92) Benzo (a) pyrene | 15.47 | 252 | 234062 | 20.01851 | ppb | | 99 |
| 93) Indeno (1,2,3-cd) pyrene | 17.46 | 276 | 254606 | 20.24037 | ppb | | 98 |
| 94) Dibenz (a,h) anthracene | 17.48 | 278 | 220046 | 19.95212 | ppb | | 97 |
| 95) Benzo (g,h,i) perylene | 18.04 | 276 | 204083 | 20.32972 | ppb | | 98 |

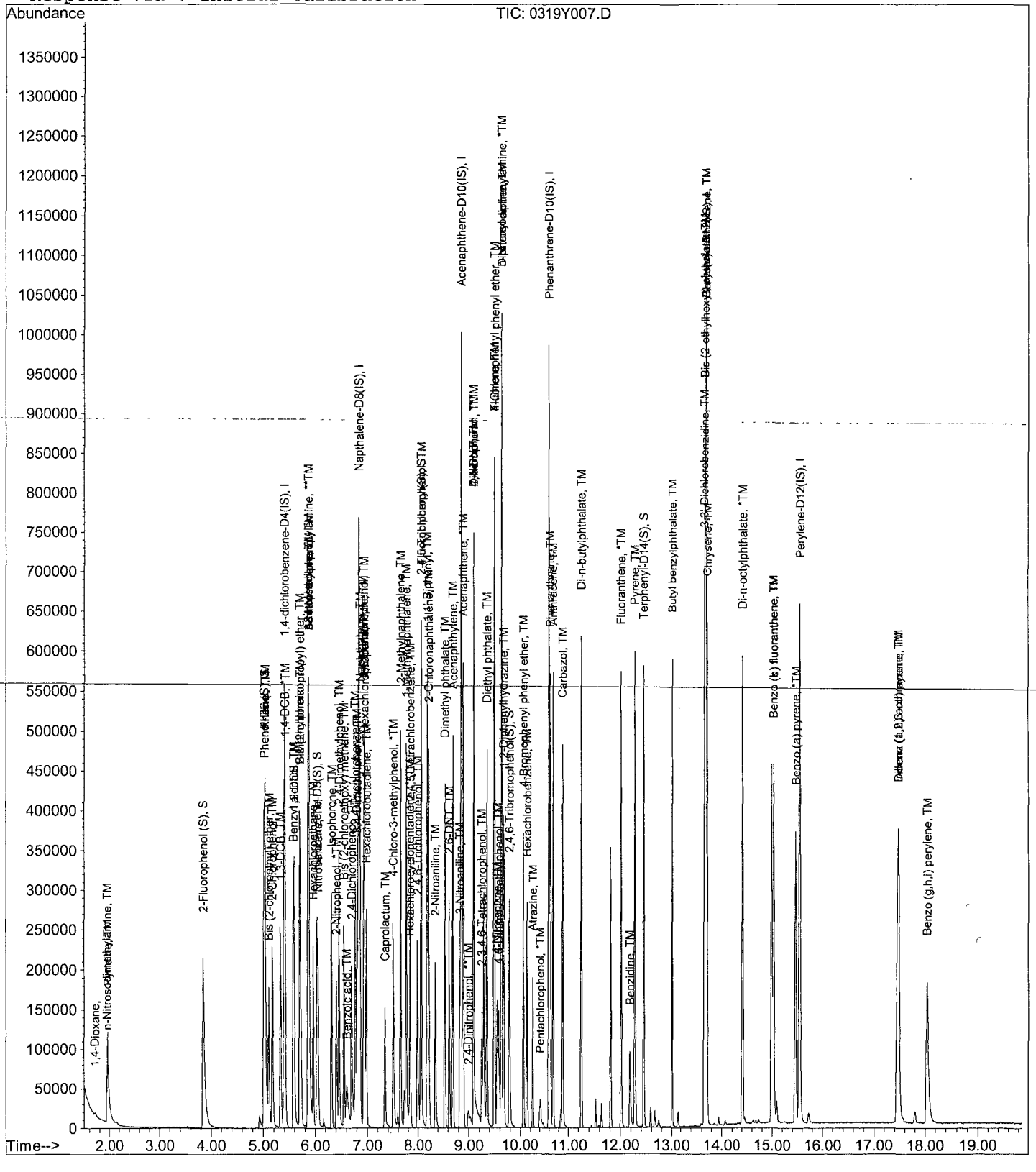
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y007.D Vial: 7
Acq On : 19 Mar 19 20:22 Operator: MA
Sample : 20ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y008.D Vial: 8
Acq On : 19 Mar 19 20:49 Operator: MA
Sample : 40ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 120598 | 40.00000 ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 508253 | 40.00000 ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.85 | 164 | 266643 | 40.00000 ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 448301 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 408816 | 40.00000 ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 402433 | 40.00000 ppb | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 350844 | 77.83705 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 38.919% | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 455781 | 77.34446 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 38.672% | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 208001 | 38.73536 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 38.735% | |
| 46) 2-Fluorobiphenyl(S) | 8.07 | 172 | 379372 | 38.53374 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 38.534% | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 70048 | 79.26698 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 39.634% | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 375873 | 37.61243 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 37.612% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 3334 | 4.08361 | 70 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 53816 | 35.11547 ppb | 99 |
| 4) Pyridine | 1.96 | 79 | 149718 | 40.62106 ppb | 94 |
| 7) Phenol | 5.03 | 94 | 246766 | 37.84513 ppb | 93 |
| 8) Aniline | 5.03 | 93 | 248414 | 39.07988 ppb | 97 |
| 9) Bis (2-chloroethyl) ether | 5.10 | 63 | 113368 | 39.11914 ppb | 97 |
| 10) 2-Chlorophenol | 5.17 | 128 | 182996 | 38.57726 ppb | 98 |
| 11) 1,3-DCB | 5.34 | 146 | 191910 | 38.53912 ppb | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 195735 | 38.22422 ppb | 98 |
| 13) Benzyl alcohol | 5.57 | 108 | 107441 | 38.95066 ppb | 97 |
| 14) 1,2-DCB | 5.59 | 146 | 180303 | 37.99173 ppb | 98 |
| 15) 2-Methylphenol | 5.70 | 107 | 157863 | 38.20086 ppb | 97 |
| 16) Bis (2-chloroisopropyl) et | 5.71 | 45 | 162678 | 38.10985 ppb | 95 |
| 17) Acetophenone | 5.87 | 105 | 243630 | 38.49616 ppb | 96 |
| 18) 3&4-Methylphenol | 5.87 | 107 | 381090 | 76.82465 ppb | 98 |
| 19) n-Nitrosodi-n-propylamine | 5.86 | 70 | 134357 | 38.68144 ppb | 96 |
| 20) Hexachloroethane | 5.96 | 117 | 74608 | 38.70414 ppb | 97 |
| 23) Nitrobenzene | 6.06 | 77 | 198863 | 38.33767 ppb | 99 |
| 24) Isophorone | 6.32 | 82 | 342537 | 37.97327 ppb | 98 |
| 25) 2-Nitrophenol | 6.41 | 139 | 103270 | 39.27397 ppb | 99 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 162398 | 39.18039 ppb | 95 |
| 27) Benzoic acid | 6.60 | 105 | 116208 | 40.80091 ppb | 97 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 210236 | 38.15330 ppb | 99 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 136350 | 38.79467 ppb | 97 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 149205 | 38.67244 ppb | 98 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 231946 | 37.84165 ppb | 100 |
| 32) Naphthalene | 6.86 | 128 | 528234 | 38.40722 ppb | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 199123 | 39.27218 ppb | 100 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 135706 | 38.40269 ppb | 99 |
| 35) Hexachloropropene | 6.95 | 213 | 84365 | 39.35456 ppb | 99 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 72578 | 38.34890 ppb | 97 |
| 37) Caprolactum | 7.36 | 55 | 68694 | 38.78887 ppb | 99 |

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y190319\0319Y008.D Vial: 8
Acq On : 19 Mar 19 20:49 Operator: MA
Sample : 40ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 38) 4-Chloro-3-methylphenol | 7.50 | 107 | 165627 | 38.87639 | ppb | | 94 |
| 39) 2-Methylnaphthalene | 7.65 | 142 | 333856 | 38.06799 | ppb | | 100 |
| 40) 1-Methylnaphthalene | 7.77 | 142 | 350525 | 38.56483 | ppb | | 98 |
| 42) Hexachlorocyclopentadiene | 7.82 | 237 | 17908 | 38.38937 | ppb | | 96 |
| 43) 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 135909 | 39.04054 | ppb | | 100 |
| 44) 2,4,6-Trichlorophenol | 7.99 | 196 | 88646 | 39.59683 | ppb | | 97 |
| 45) 2,4,5-Trichlorophenol | 8.05 | 196 | 94897 | 39.44090 | ppb | | 98 |
| 47) 1,1'-Biphenyl | 8.19 | 154 | 430945 | 39.09893 | ppb | | 98 |
| 48) 2-Chloronaphthalene | 8.21 | 162 | 320001 | 38.60017 | ppb | | 99 |
| 49) 2-Nitroaniline | 8.34 | 65 | 106898 | 39.34478 | ppb | | 88 |
| 50) Dimethyl phthalate | 8.54 | 163 | 374261 | 38.84296 | ppb | | 99 |
| 51) 2,6-DNT | 8.63 | 165 | 89947 | 39.92197 | ppb | | 94 |
| 52) Acenaphthylene | 8.70 | 152 | 510591 | 38.91442 | ppb | | 99 |
| 53) 3-Nitroaniline | 8.83 | 138 | 100451 | 40.56025 | ppb | | 86 |
| 54) Acenaphthene | 8.90 | 154 | 329590 | 38.99847 | ppb | | 98 |
| 55) 2,4-Dinitrophenol | 8.98 | 184 | 35320 | 34.37892 | ppb | | 89 |
| 56) 4-Nitrophenol | 9.10 | 65 | 54344 | 41.65344 | ppb | | 98 |
| 57) Dibenzofuran | 9.10 | 168 | 447008 | 38.97371 | ppb | | 95 |
| 58) 2,4-DNT | 9.10 | 165 | 121371 | 39.85725 | ppb | # | 63 |
| 59) 2,3,4,6-Tetrachlorophenol | 9.25 | 232 | 62752 | 41.07223 | ppb | | 95 |
| 60) Diethyl phthalate | 9.36 | 149 | 374381 | 39.37309 | ppb | | 99 |
| 61) 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 167169 | 38.14137 | ppb | | 99 |
| 62) Fluorene | 9.50 | 166 | 375496 | 39.24725 | ppb | | 99 |
| 63) 4-Nitroaniline | 9.55 | 138 | 98403 | 39.27774 | ppb | | 93 |
| 66) 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 69984 | 41.84279 | ppb | | 97 |
| 67) Diphenyl amine | 9.63 | 169 | 585175 | 77.80455 | ppb | | 98 |
| 68) n-Nitrosodiphenylamine | 9.63 | 169 | 585175 | 77.80455 | ppb | | 98 |
| 69) 1,2-Diphenylhydrazine | 9.68 | 77 | 389175 | 36.97247 | ppb | | 98 |
| 70) 4-Bromophenyl phenyl ether | 10.06 | 248 | 91164 | 38.84908 | ppb | | 98 |
| 71) Hexachlorobenzene | 10.14 | 284 | 83502 | 38.31313 | ppb | | 95 |
| 72) Atrazine | 10.26 | 200 | 50408 | 19.61218 | ppb | | 98 |
| 73) Pentachlorophenol | 10.40 | 266 | 28214 | 37.16629 | ppb | | 95 |
| 74) Phenanthrene | 10.63 | 178 | 525732 | 38.38010 | ppb | | 100 |
| 75) Anthracene | 10.68 | 178 | 559632 | 38.67492 | ppb | | 99 |
| 76) Carbazol | 10.88 | 167 | 515005 | 38.64820 | ppb | | 99 |
| 77) Di-n-butylphthalate | 11.26 | 149 | 642809 | 38.52335 | ppb | | 100 |
| 78) Fluoranthene | 12.01 | 202 | 547930 | 38.25656 | ppb | # | 94 |
| 80) Benzidine | 12.18 | 184 | 128293 | 39.56635 | ppb | | 99 |
| 81) Pyrene | 12.28 | 202 | 572657 | 37.99483 | ppb | | 99 |
| 83) Butyl benzylphthalate | 13.01 | 149 | 290328 | 38.05260 | ppb | | 95 |
| 84) 3,3'-Dichlorobenzidine | 13.65 | 252 | 145766 | 38.46739 | ppb | # | 96 |
| 85) Benz (a) anthracene | 13.68 | 228 | 507691 | 38.09250 | ppb | | 99 |
| 86) Bis (2-ethylhexyl) phthala | 13.66 | 149 | 413948 | 37.87940 | ppb | | 99 |
| 87) Chrysene | 13.72 | 228 | 485669 | 37.79523 | ppb | | 99 |
| 88) Di-n-octylphthalate | 14.42 | 149 | 718957 | 38.15510 | ppb | | 99 |
| 90) Benzo (b) fluoranthene | 15.03 | 252 | 482020 | 40.24491 | ppb | | 97 |
| 91) Benzo (k) fluoranthene | 15.03 | 252 | 482020 | 40.24491 | ppb | | 97 |
| 92) Benzo (a) pyrene | 15.46 | 252 | 458006 | 38.39569 | ppb | | 98 |
| 93) Indeno (1,2,3-cd) pyrene | 17.46 | 276 | 488450 | 38.06101 | ppb | | 98 |
| 94) Dibenz (a,h) anthracene | 17.48 | 278 | 431503 | 38.35040 | ppb | | 98 |
| 95) Benzo (g,h,i) perylene | 18.04 | 276 | 394295 | 38.49960 | ppb | | 99 |

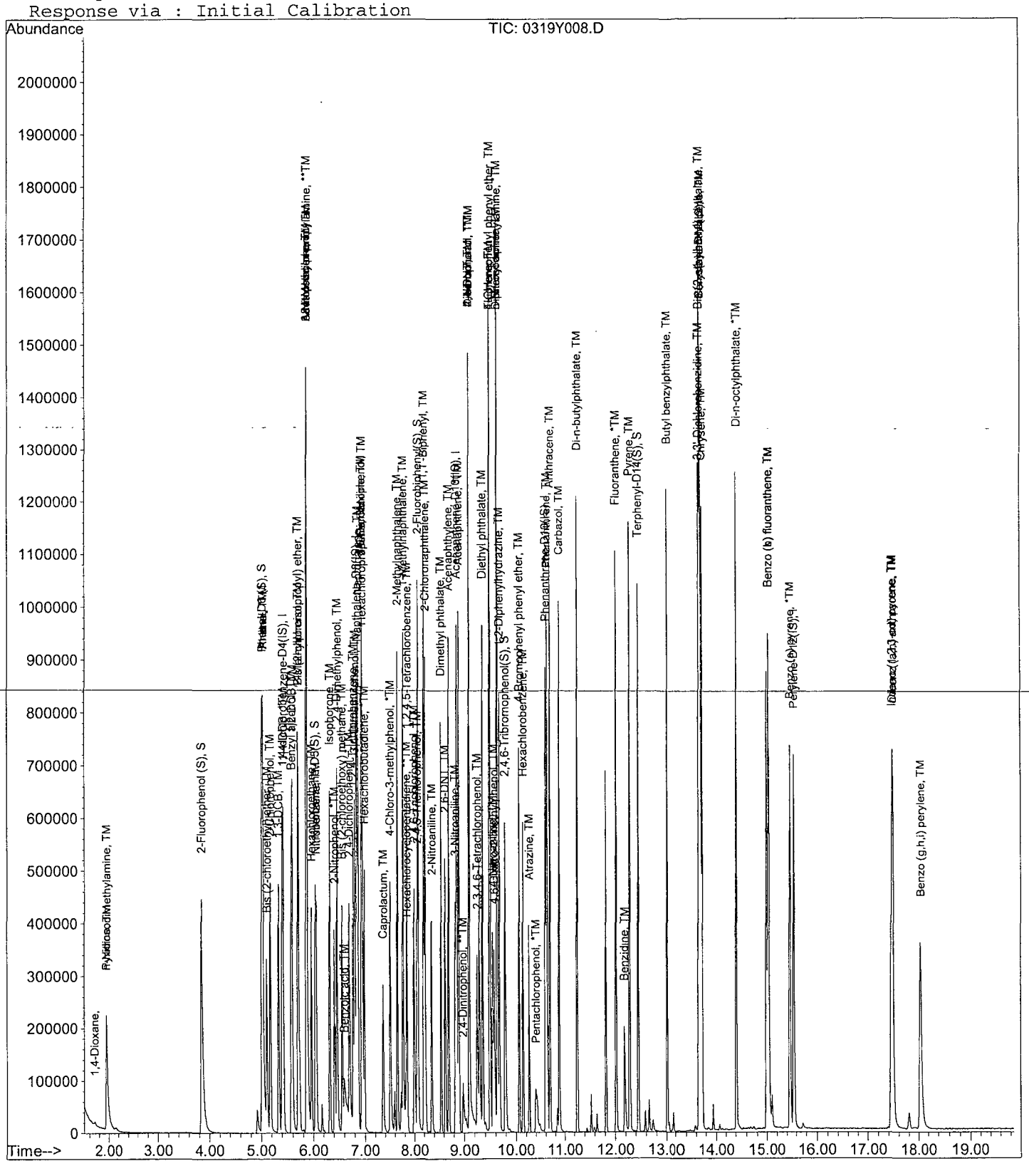
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y008.D Vial: 8
Acq On : 19 Mar 19 20:49 Operator: MA
Sample : 40ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y009.D Vial: 9
Acq On : 19 Mar 19 21:17 Operator: MA
Sample : 60ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 119422 | 40.00000 | ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 509759 | 40.00000 | ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 274152 | 40.00000 | ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 446170 | 40.00000 | ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 403300 | 40.00000 | ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 398594 | 40.00000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 554819 | 124.30237 | ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = 62.151% | | | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 719608 | 123.31751 | ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = 61.659% | | | |
| 22) Nitrobenzene-D5(S) | 6.03 | 82 | 321087 | 59.61836 | ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = 59.618% | | | |
| 46) 2-Fluorobiphenyl(S) | 8.08 | 172 | 599687 | 59.24331 | ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = 59.243% | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 114414 | 125.92573 | ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = 62.963% | | | |
| 82) Terphenyl-D14(S) | 12.45 | 244 | 599770 | 60.83796 | ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = 60.838% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 5619 | 6.95014 | | 81 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 87300 | 57.52505 | ppb | 97 |
| 4) Pyridine | 1.95 | 79 | 220241 | 60.34360 | ppb | 99 |
| 7) Phenol | 5.03 | 94 | 377378 | 58.44629 | ppb | 98 |
| 8) Aniline | 5.03 | 93 | 372737 | 59.21550 | ppb | 99 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 169839 | 59.18233 | ppb | 94 |
| 10) 2-Chlorophenol | 5.17 | 128 | 279330 | 59.46524 | ppb | 99 |
| 11) 1,3-DCB | 5.33 | 146 | 290271 | 58.86587 | ppb | 98 |
| 12) 1,4-DCB | 5.42 | 146 | 295031 | 58.18265 | ppb | 99 |
| 13) Benzyl alcohol | 5.57 | 108 | 164974 | 60.39709 | ppb | 99 |
| 14) 1,2-DCB | 5.59 | 146 | 271735 | 57.82124 | ppb | 98 |
| 15) 2-Methylphenol | 5.70 | 107 | 238089 | 58.18189 | ppb | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 247456 | 58.54127 | ppb | 93 |
| 17) Acetophenone | 5.87 | 105 | 365171 | 58.26916 | ppb | 97 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 577737 | 117.61399 | ppb | 99 |
| 19) n-Nitrosodi-n-propylamine | 5.87 | 70 | 199853 | 58.10437 | ppb | 98 |
| 20) Hexachloroethane | 5.96 | 117 | 110136 | 57.69751 | ppb | 98 |
| 23) Nitrobenzene | 6.06 | 77 | 297656 | 57.21389 | ppb | 96 |
| 24) Isophorone | 6.32 | 82 | 522924 | 57.79950 | ppb | 99 |
| 25) 2-Nitrophenol | 6.41 | 139 | 155294 | 58.88441 | ppb | 98 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 239596 | 57.63452 | ppb | 98 |
| 27) Benzoic acid | 6.62 | 105 | 188602 | 66.02299 | ppb | 96 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 319808 | 57.86678 | ppb | 99 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 205603 | 58.32590 | ppb | 97 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 221096 | 57.13656 | ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 348609 | 56.70702 | ppb | 97 |
| 32) Naphthalene | 6.86 | 128 | 782266 | 56.70953 | ppb | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 289331 | 56.89493 | ppb | 99 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 203765 | 57.49197 | ppb | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 128538 | 59.78323 | ppb | 98 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 108569 | 57.19641 | ppb | 97 |
| 37) Caprolactum | 7.37 | 55 | 104723 | 58.95836 | ppb | 99 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y009.D Vial: 9
Acq On : 19 Mar 19 21:17 Operator: MA
Sample : 60ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

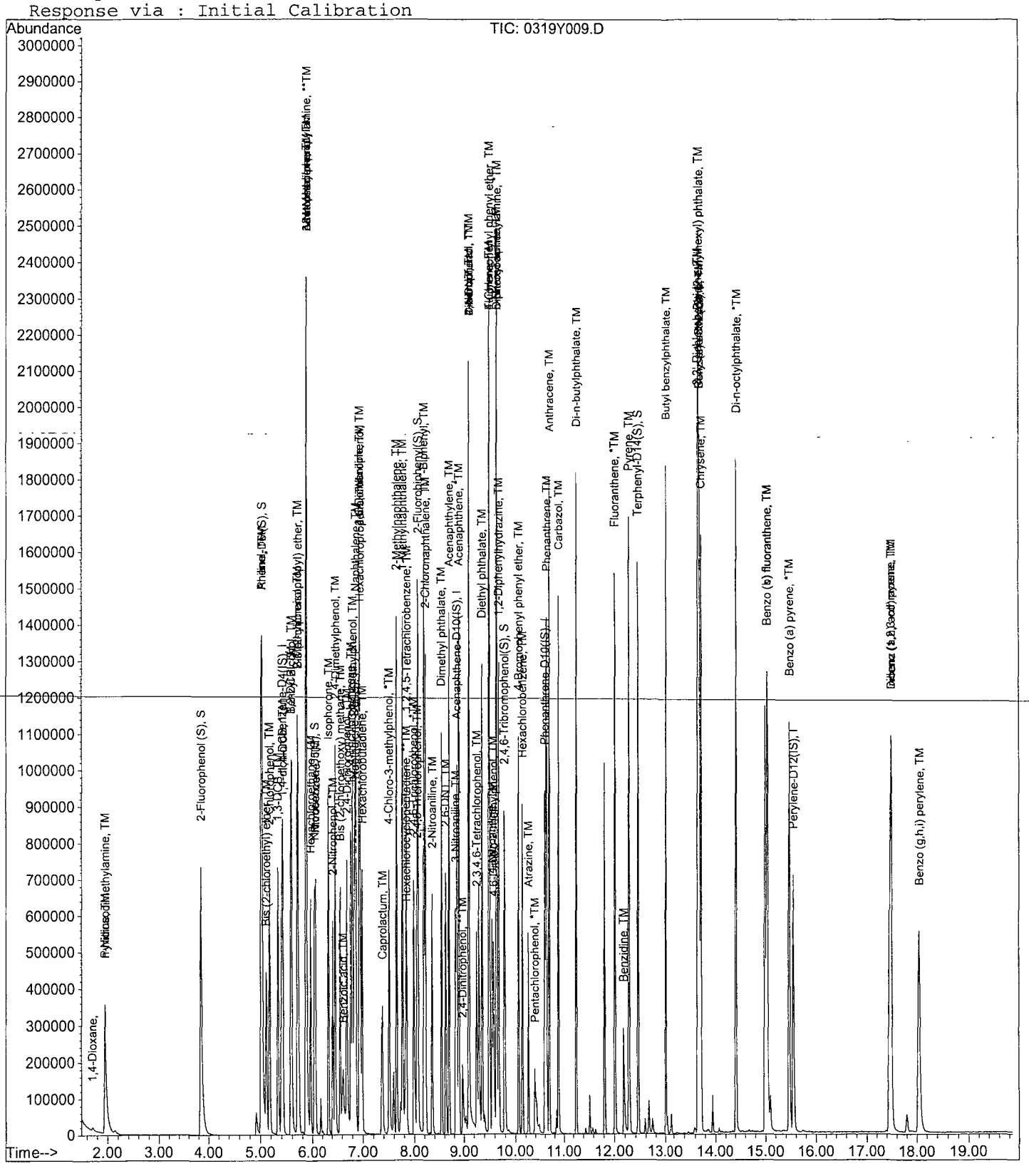
| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.50 | 107 | 250598 | 58.64722 | ppb | | 95 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 508641 | 57.82653 | ppb | | 99 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 523067 | 57.37792 | ppb | | 100 |
| 42) | Hexachlorocyclopentadiene | 7.83 | 237 | 41106 | 59.83288 | ppb | | 99 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 204706 | 57.19222 | ppb | | 98 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 134842 | 58.58213 | ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 140586 | 56.82967 | ppb | | 97 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 643208 | 56.75881 | ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.22 | 162 | 486021 | 57.02059 | ppb | | 98 |
| 49) | 2-Nitroaniline | 8.35 | 65 | 160739 | 57.54102 | ppb | | 97 |
| 50) | Dimethyl phthalate | 8.54 | 163 | 568962 | 57.43277 | ppb | | 99 |
| 51) | 2,6-DNT | 8.63 | 165 | 136200 | 58.79510 | ppb | | 95 |
| 52) | Acenaphthylene | 8.70 | 152 | 773677 | 57.35032 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.84 | 138 | 149508 | 58.71506 | ppb | | 99 |
| 54) | Acenaphthene | 8.90 | 154 | 490001 | 56.39093 | ppb | | 98 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 60741 | 52.76357 | ppb | | 97 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 86024 | 57.49889 | ppb | | 98 |
| 57) | Dibenzofuran | 9.10 | 168 | 661897 | 56.12878 | ppb | | 99 |
| 58) | 2,4-DNT | 9.11 | 165 | 184830 | 59.03420 | ppb | | 98 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 97056 | 61.78484 | ppb | | 99 |
| 60) | Diethyl phthalate | 9.36 | 149 | 558668 | 57.14501 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 253625 | 56.28224 | ppb | | 98 |
| 62) | Fluorene | 9.50 | 166 | 554278 | 56.34694 | ppb | | 100 |
| 63) | 4-Nitroaniline | 9.55 | 138 | 145202 | 56.37019 | ppb | | 98 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 107862 | 64.79772 | ppb | | 95 |
| 67) | Diphenyl amine | 9.65 | 169 | 867131 | 115.84393 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.65 | 169 | 867131 | 115.84393 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 585945 | 55.93193 | ppb | | 98 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 136546 | 58.46632 | ppb | | 98 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 125566 | 57.88847 | ppb | | 98 |
| 72) | Atrazine | 10.26 | 200 | 74712 | 29.20694 | ppb | | 98 |
| 73) | Pentachlorophenol | 10.39 | 266 | 44547 | 55.24805 | ppb | | 97 |
| 74) | Phenanthrene | 10.63 | 178 | 788815 | 57.86103 | ppb | | 100 |
| 75) | Anthracene | 10.69 | 178 | 835558 | 58.01934 | ppb | | 100 |
| 76) | Carbazol | 10.88 | 167 | 772017 | 58.21221 | ppb | | 99 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 963212 | 58.00071 | ppb | | 100 |
| 78) | Fluoranthene | 12.01 | 202 | 830711 | 58.27740 | ppb | # | 93 |
| 80) | Benzidine | 12.18 | 184 | 176783 | 55.26666 | ppb | | 97 |
| 81) | Pyrene | 12.28 | 202 | 859734 | 57.82208 | ppb | | 100 |
| 83) | Butyl benzylphthalate | 13.02 | 149 | 437718 | 58.15532 | ppb | | 96 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 213681 | 57.16130 | ppb | # | 96 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 757726 | 57.63043 | ppb | | 100 |
| 86) | Bis (2-ethylhexyl) phthala | 13.67 | 149 | 610683 | 56.64646 | ppb | | 99 |
| 87) | Chrysene | 13.72 | 228 | 724548 | 57.15621 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 1080420 | 58.12218 | ppb | | 99 |
| 90) | Benzo (b) fluoranthene | 15.04 | 252 | 715694 | 60.33039 | ppb | | 99 |
| 91) | Benzo (k) fluoranthene | 15.04 | 252 | 715694 | 60.33039 | ppb | | 99 |
| 92) | Benzo (a) pyrene | 15.47 | 252 | 683990 | 57.89271 | ppb | | 98 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.47 | 276 | 728010 | 57.27438 | ppb | | 98 |
| 94) | Dibenz (a,h) anthracene | 17.49 | 278 | 642062 | 57.61372 | ppb | | 99 |
| 95) | Benzo (g,h,i) perylene | 18.05 | 276 | 584721 | 57.64299 | ppb | | 99 |

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y190319\0319Y009.D Vial: 9
Acq On : 19 Mar 19 21:17 Operator: MA
Sample : 60ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y010.D Vial: 10
Acq On : 19 Mar 19 21:44 Operator: MA
Sample : 80ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 124639 | 40.00000 | ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 522881 | 40.00000 | ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 282109 | 40.00000 | ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.60 | 188 | 471351 | 40.00000 | ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 412376 | 40.00000 | ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 411654 | 40.00000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 738693 | 158.57052 | ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = 79.286% | | | |
| 6) Phenol-D6 (S) | 5.01 | 99 | 947457 | 155.56742 | ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = 77.784% | | | |
| 22) Nitrobenzene-D5(S) | 6.04 | 82 | 430884 | 77.99732 | ppb | 0.01 |
| Spiked Amount 100.000 | | | Recovery = 77.997% | | | |
| 46) 2-Fluorobiphenyl(S) | 8.08 | 172 | 792997 | 76.13085 | ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = 76.131% | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 149661 | 160.07313 | ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = 80.037% | | | |
| 82) Terphenyl-D14(S) | 12.46 | 244 | 787455 | 78.11789 | ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = 78.118% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 7489 | 8.87541 | | 91 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 116191 | 73.35769 | ppb | 100 |
| 4) Pyridine | 1.95 | 79 | 274406 | 72.03723 | ppb | 95 |
| 7) Phenol | 5.03 | 94 | 500767 | 74.30987 | ppb | 88 |
| 8) Aniline | 5.04 | 93 | 488876 | 74.41526 | ppb | 86 |
| 9) Bis (2-chloroethyl) ether | 5.12 | 63 | 222242 | 74.20123 | ppb | 98 |
| 10) 2-Chlorophenol | 5.17 | 128 | 368198 | 75.10302 | ppb | 99 |
| 11) 1,3-DCB | 5.34 | 146 | 379628 | 73.76470 | ppb | 98 |
| 12) 1,4-DCB | 5.42 | 146 | 385398 | 72.82252 | ppb | 99 |
| 13) Benzyl alcohol | 5.58 | 108 | 221913 | 77.84194 | ppb | 91 |
| 14) 1,2-DCB | 5.59 | 146 | 361603 | 73.72321 | ppb | 99 |
| 15) 2-Methylphenol | 5.71 | 107 | 314233 | 73.57507 | ppb | 98 |
| 16) Bis (2-chloroisopropyl) et | 5.71 | 45 | 323030 | 73.22129 | ppb | 96 |
| 17) Acetophenone | 5.87 | 105 | 483988 | 73.99586 | ppb | 97 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 768184 | 149.83886 | ppb | 98 |
| 19) n-Nitrosodi-n-propylamine | 5.87 | 70 | 261635 | 72.88269 | ppb | 95 |
| 20) Hexachloroethane | 5.96 | 117 | 146122 | 73.34555 | ppb | 97 |
| 23) Nitrobenzene | 6.06 | 77 | 397299 | 74.45028 | ppb | 95 |
| 24) Isophorone | 6.33 | 82 | 694207 | 74.80602 | ppb | 97 |
| 25) 2-Nitrophenol | 6.42 | 139 | 206201 | 76.22518 | ppb | 97 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 319334 | 74.88767 | ppb | 99 |
| 27) Benzoic acid | 6.64 | 105 | 261327 | 89.18570 | ppb | 98 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 420280 | 74.13799 | ppb | 98 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 278019 | 76.88976 | ppb | 96 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 294061 | 74.08541 | ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.81 | 107 | 465258 | 73.78263 | ppb | 99 |
| 32) Naphthalene | 6.86 | 128 | 1038095 | 73.36699 | ppb | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 367949 | 70.53883 | ppb | 98 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 269825 | 74.22015 | ppb | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 171358 | 77.69879 | ppb | 99 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 143366 | 73.63278 | ppb | 99 |
| 37) Caprolactum | 7.39 | 55 | 136816 | 75.09349 | ppb | 94 |

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y190319\0319Y010.D Vial: 10
Acq On : 19 Mar 19 21:44 Operator: MA
Sample : 80ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.50 | 107 | 327934 | 74.82010 | ppb | | 96 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 673129 | 74.60640 | ppb | | 98 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 691557 | 73.95670 | ppb | | 100 |
| 42) | Hexachlorocyclopentadiene | 7.83 | 237 | 70940 | 80.93094 | ppb | | 99 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 270466 | 73.43339 | ppb | | 100 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 181249 | 76.52267 | ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 191311 | 75.15320 | ppb | | 96 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 856636 | 73.46029 | ppb | | 100 |
| 48) | 2-Chloronaphthalene | 8.23 | 162 | 636805 | 72.60351 | ppb | | 95 |
| 49) | 2-Nitroaniline | 8.36 | 65 | 214971 | 74.78434 | ppb | | 99 |
| 50) | Dimethyl phthalate | 8.55 | 163 | 749146 | 73.48817 | ppb | | 99 |
| 51) | 2,6-DNT | 8.63 | 165 | 179882 | 75.46163 | ppb | | 92 |
| 52) | Acenaphthylene | 8.70 | 152 | 1021819 | 73.60792 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.84 | 138 | 195736 | 74.70167 | ppb | | 97 |
| 54) | Acenaphthene | 8.90 | 154 | 651107 | 72.81806 | ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 87654 | 71.15902 | ppb | | 95 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 121095 | 77.09489 | ppb | | 94 |
| 57) | Dibenzofuran | 9.10 | 168 | 882579 | 72.73162 | ppb | | 98 |
| 58) | 2,4-DNT | 9.11 | 165 | 239317 | 74.28125 | ppb | | 91 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 133018 | 82.28950 | ppb | | 99 |
| 60) | Diethyl phthalate | 9.37 | 149 | 735163 | 73.07732 | ppb | | 98 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 331462 | 71.48049 | ppb | | 99 |
| 62) | Fluorene | 9.51 | 166 | 731875 | 72.30262 | ppb | | 99 |
| 63) | 4-Nitroaniline | 9.56 | 138 | 190904 | 72.02220 | ppb | | 96 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.59 | 198 | 147764 | 84.02641 | ppb | | 89 |
| 67) | Diphenyl amine | 9.65 | 169 | 1131969 | 143.14595 | ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.65 | 169 | 1131969 | 143.14595 | ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 899802 | 81.30286 | ppb | | 97 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 181349 | 73.50178 | ppb | | 99 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 169696 | 74.05384 | ppb | | 96 |
| 72) | Atrazine | 10.27 | 200 | 99114 | 36.67639 | ppb | | 95 |
| 73) | Pentachlorophenol | 10.39 | 266 | 70646 | 79.76194 | ppb | | 98 |
| 74) | Phenanthrene | 10.63 | 178 | 1046291 | 72.64729 | ppb | | 100 |
| 75) | Anthracene | 10.69 | 178 | 1107324 | 72.78248 | ppb | | 100 |
| 76) | Carbazol | 10.88 | 167 | 1031382 | 73.61438 | ppb | | 100 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 1261013 | 71.87650 | ppb | | 99 |
| 78) | Fluoranthene | 12.02 | 202 | 1105666 | 73.42266 | ppb | | 99 |
| 80) | Benzidine | 12.18 | 184 | 235199 | 71.91062 | ppb | | 98 |
| 81) | Pyrene | 12.28 | 202 | 1139228 | 74.93335 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 13.02 | 149 | 573895 | 74.56968 | ppb | | 99 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 277452 | 72.58701 | ppb | # | 96 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 1012545 | 75.31628 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.67 | 149 | 814809 | 73.91756 | ppb | | 99 |
| 87) | Chrysene | 13.73 | 228 | 967964 | 74.67760 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 1420300 | 74.72471 | ppb | | 98 |
| 90) | Benzo (b) fluoranthene | 15.04 | 252 | 876462 | 71.53857 | ppb | | 97 |
| 91) | Benzo (k) fluoranthene | 15.04 | 252 | 876462 | 71.53857 | ppb | | 97 |
| 92) | Benzo (a) pyrene | 15.48 | 252 | 904838 | 74.15550 | ppb | | 98 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.48 | 276 | 972746 | 74.10046 | ppb | | 96 |
| 94) | Dibenz (a,h) anthracene | 17.50 | 278 | 858807 | 74.61788 | ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 18.06 | 276 | 775963 | 74.06913 | ppb | | 99 |

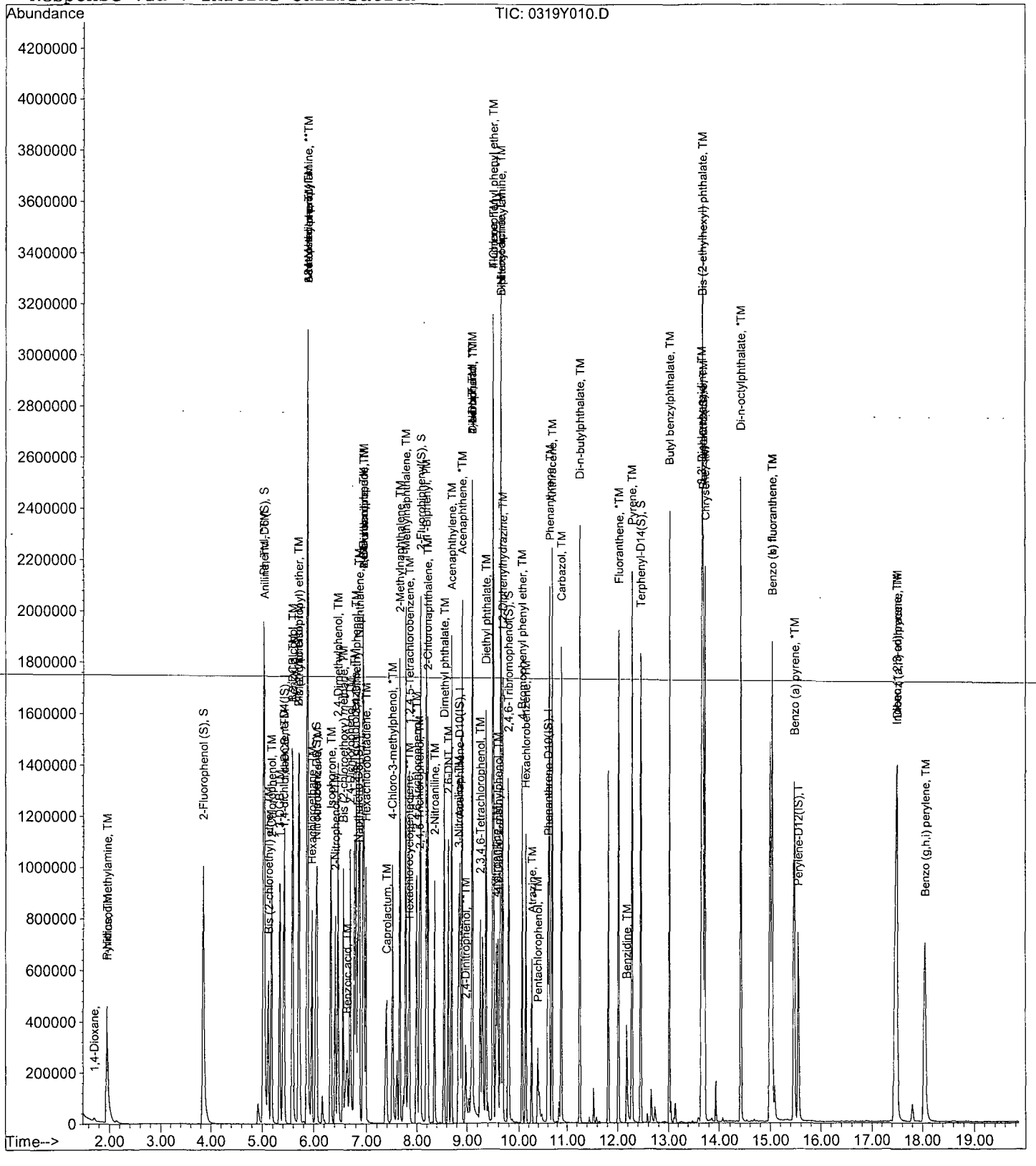
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y010.D Vial: 10
Acq On : 19 Mar 19 21:44 Operator: MA
Sample : 80ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y011.D Vial: 11
Acq On : 19 Mar 19 22:11 Operator: MA
Sample : 100ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 128999 | 40.00000 | ppb | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 546463 | 40.00000 | ppb | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 293849 | 40.00000 | ppb | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.60 | 188 | 490122 | 40.00000 | ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.70 | 240 | 432203 | 40.00000 | ppb | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 424247 | 40.00000 | ppb | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.84 | 112 | 958858 | 198.87509 | ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = 99.438% | | | |
| 6) Phenol-D6 (S) | 5.02 | 99 | 1236542 | 196.17137 | ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = 98.086% | | | |
| 22) Nitrobenzene-D5(S) | 6.04 | 82 | 553462 | 95.86260 | ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = 95.863% | | | |
| 46) 2-Fluorobiphenyl(S) | 8.08 | 172 | 1015497 | 93.59670 | ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = 93.597% | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.79 | 330 | 199616 | 204.97357 | ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = 102.487% | | | |
| 82) Terphenyl-D14(S) | 12.46 | 244 | 1007645 | 95.37573 | ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = 95.376% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 8764 | 10.03540 | | 79 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 149106 | 90.95695 | ppb | 96 |
| 4) Pyridine | 1.95 | 79 | 353962 | 89.78167 | ppb | 96 |
| 7) Phenol | 5.03 | 94 | 632343 | 90.66321 | ppb | 92 |
| 8) Aniline | 5.04 | 93 | 623311 | 91.67179 | ppb | 97 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 284907 | 91.90851 | ppb | 99 |
| 10) 2-Chlorophenol | 5.18 | 128 | 464858 | 91.61443 | ppb | 94 |
| 11) 1,3-DCB | 5.34 | 146 | 480677 | 90.24254 | ppb | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 487952 | 89.08426 | ppb | 99 |
| 13) Benzyl alcohol | 5.58 | 108 | 281389 | 95.36865 | ppb | 95 |
| 14) 1,2-DCB | 5.59 | 146 | 456948 | 90.01328 | ppb | 99 |
| 15) 2-Methylphenol | 5.71 | 107 | 400929 | 90.70140 | ppb | 99 |
| 16) Bis (2-chloroisopropyl) et | 5.71 | 45 | 408465 | 89.45755 | ppb | 93 |
| 17) Acetophenone | 5.87 | 105 | 611533 | 90.33590 | ppb | 88 |
| 18) 3&4-Methylphenol | 5.89 | 107 | 971454 | 183.08343 | ppb | 100 |
| 19) n-Nitrosodi-n-propylamine | 5.88 | 70 | 334389 | 90.00116 | ppb | 99 |
| 20) Hexachloroethane | 5.96 | 117 | 186656 | 90.52483 | ppb | 95 |
| 23) Nitrobenzene | 6.06 | 77 | 495416 | 88.83027 | ppb | 94 |
| 24) Isophorone | 6.33 | 82 | 868215 | 89.51935 | ppb | 99 |
| 25) 2-Nitrophenol | 6.41 | 139 | 265905 | 94.05379 | ppb | 94 |
| 26) 2,4-Dimethylphenol | 6.47 | 122 | 407998 | 91.55147 | ppb | 95 |
| 27) Benzoic acid | 6.66 | 105 | 338030 | 110.38455 | ppb | 97 |
| 28) Bis (2-chloroethoxy) metha | 6.56 | 93 | 537091 | 90.65506 | ppb | 99 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 350974 | 92.87762 | ppb | 99 |
| 30) 1,2,4-Trichlorobenzene | 6.78 | 180 | 368788 | 88.90253 | ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 588474 | 89.29551 | ppb | 100 |
| 32) Naphthalene | 6.87 | 128 | 1321905 | 89.39350 | ppb | 99 |
| 33) 4-Chloroaniline | 6.94 | 127 | 435084 | 79.80973 | ppb | 96 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 343607 | 90.43650 | ppb | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 221953 | 96.29705 | ppb | 98 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 179910 | 88.41428 | ppb | 97 |
| 37) Caprolactum | 7.40 | 55 | 175756 | 92.30339 | ppb | 99 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y011.D Vial: 11
Acq On : 19 Mar 19 22:11 Operator: MA
Sample : 100ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.51 | 107 | 424655 | 92.70650 ppb | | 99 |
| 39) | 2-Methylnaphthalene | 7.66 | 142 | 848678 | 90.00421 ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 875232 | 89.56016 ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.83 | 237 | 105184 | 99.60718 ppb | | 97 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 340674 | 88.79992 ppb | | 97 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 231114 | 93.67710 ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 244412 | 92.17705 ppb | | 99 |
| 47) | 1,1'-Biphenyl | 8.20 | 154 | 1087136 | 89.50203 ppb | | 98 |
| 48) | 2-Chloronaphthalene | 8.22 | 162 | 814565 | 89.15991 ppb | | 97 |
| 49) | 2-Nitroaniline | 8.35 | 65 | 274610 | 91.71489 ppb | | 94 |
| 50) | Dimethyl phthalate | 8.55 | 163 | 959118 | 90.32661 ppb | | 99 |
| 51) | 2,6-DNT | 8.63 | 165 | 233972 | 94.23128 ppb | | 82 |
| 52) | Acenaphthylene | 8.70 | 152 | 1296743 | 89.68034 ppb | | 99 |
| 53) | 3-Nitroaniline | 8.84 | 138 | 245951 | 90.11579 ppb | | 92 |
| 54) | Acenaphthene | 8.90 | 154 | 821465 | 88.19999 ppb | | 98 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 119143 | 90.70931 ppb | | 96 |
| 56) | 4-Nitrophenol | 9.07 | 65 | 159994 | 102.32682 ppb | # | 76 |
| 57) | Dibenzofuran | 9.11 | 168 | 1112137 | 87.98744 ppb | | 93 |
| 58) | 2,4-DNT | 9.11 | 165 | 306608 | 91.36542 ppb | | 79 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.26 | 232 | 172487 | 102.44319 ppb | | 96 |
| 60) | Diethyl phthalate | 9.37 | 149 | 913366 | 87.16387 ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 427282 | 88.46288 ppb | | 95 |
| 62) | Fluorene | 9.51 | 166 | 931717 | 88.36777 ppb | | 99 |
| 63) | 4-Nitroaniline | 9.57 | 138 | 241665 | 87.53018 ppb | | 93 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.60 | 198 | 195017 | 106.64976 ppb | # | 79 |
| 67) | Diphenyl amine | 9.65 | 169 | 1453305 | 176.74271 ppb | | 99 |
| 68) | n-Nitrosodiphenylamine | 9.65 | 169 | 1453305 | 176.74271 ppb | | 99 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 1133772 | 98.52009 ppb | | 94 |
| 70) | 4-Bromophenyl phenyl ether | 10.07 | 248 | 233692 | 91.08917 ppb | | 86 |
| 71) | Hexachlorobenzene | 10.15 | 284 | 215413 | 90.40410 ppb | | 86 |
| 72) | Atrazine | 10.27 | 200 | 126617 | 45.05924 ppb | | 97 |
| 73) | Pentachlorophenol | 10.39 | 266 | 96308 | 102.60104 ppb | | 98 |
| 74) | Phenanthrene | 10.63 | 178 | 1336863 | 89.26765 ppb | | 99 |
| 75) | Anthracene | 10.69 | 178 | 1408486 | 89.03175 ppb | | 99 |
| 76) | Carbazol | 10.89 | 167 | 1314585 | 90.23438 ppb | | 97 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 1619389 | 88.76847 ppb | | 100 |
| 78) | Fluoranthene | 12.02 | 202 | 1425227 | 91.01866 ppb | | 97 |
| 80) | Benzidine | 12.19 | 184 | 300037 | 87.52618 ppb | | 98 |
| 81) | Pyrene | 12.29 | 202 | 1457256 | 91.45468 ppb | | 99 |
| 83) | Butyl benzylphthalate | 13.01 | 149 | 737088 | 91.38077 ppb | | 96 |
| 84) | 3,3'-Dichlorobenzidine | 13.66 | 252 | 343274 | 85.68751 ppb | | 99 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 1263351 | 89.66112 ppb | | 98 |
| 86) | Bis (2-ethylhexyl) phthala | 13.66 | 149 | 1014608 | 87.82046 ppb | | 98 |
| 87) | Chrysene | 13.73 | 228 | 1222782 | 90.00896 ppb | | 98 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 1823445 | 91.53399 ppb | | 96 |
| 90) | Benzo (b) fluoranthene | 15.05 | 252 | 1198995 | 94.95943 ppb | | 99 |
| 91) | Benzo (k) fluoranthene | 15.05 | 252 | 1198995 | 94.95943 ppb | | 99 |
| 92) | Benzo (a) pyrene | 15.47 | 252 | 1144046 | 90.97657 ppb | | 100 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.49 | 276 | 1234147 | 91.22249 ppb | | 97 |
| 94) | Dibenz (a,h) anthracene | 17.52 | 278 | 1080909 | 91.12762 ppb | | 96 |
| 95) | Benzo (g,h,i) perylene | 18.07 | 276 | 989000 | 91.60224 ppb | | 99 |

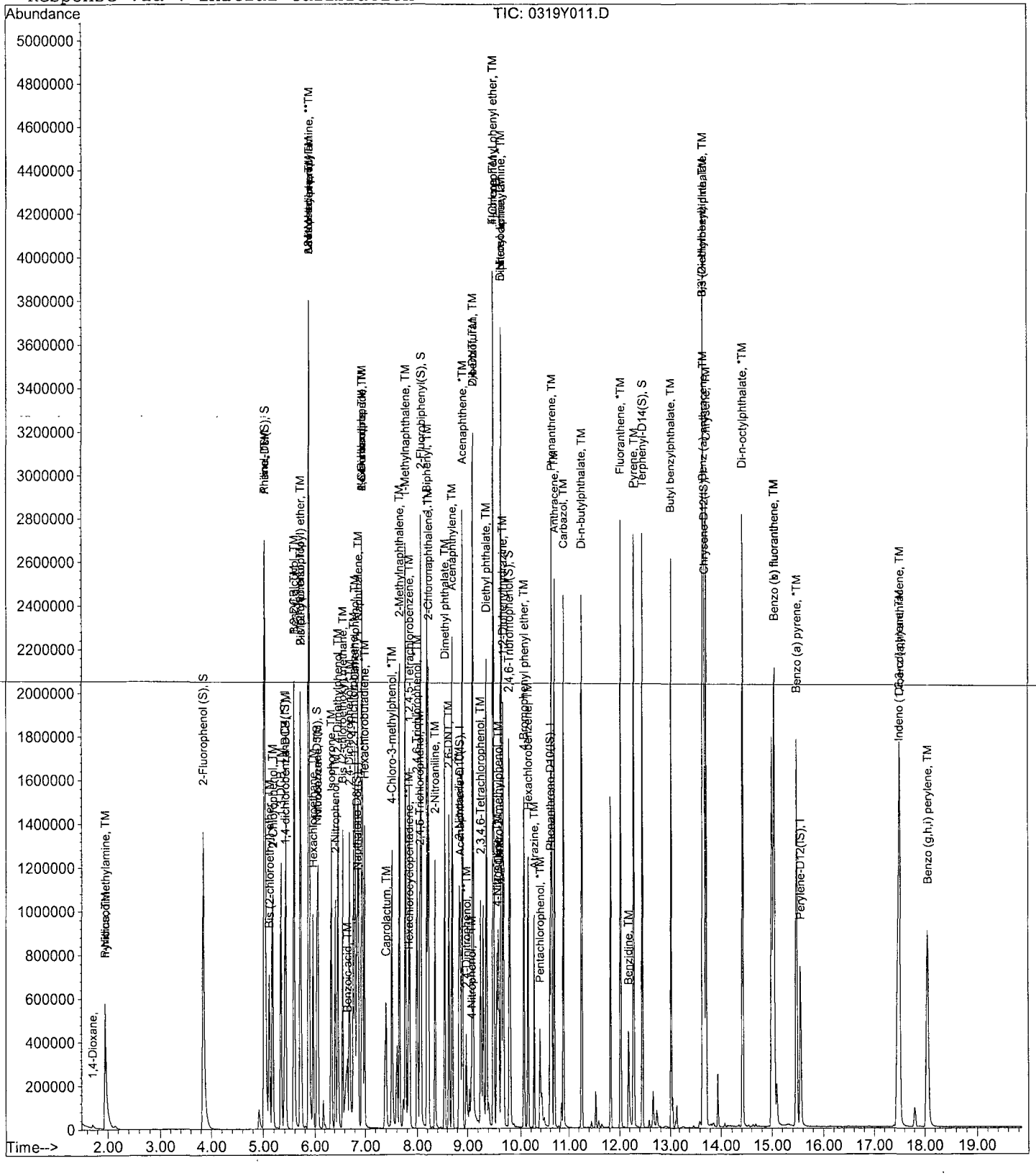
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y011.D Vial: 11
Acq On : 19 Mar 19 22:11 Operator: MA
Sample : 100ug/mL 8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:19 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 03/19/19
Matrix: Instrument: Yoda
Initial Cal. Date: 03/19/19
Data File: 0319Y012.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | | 1,4-Dioxane | 0.2708 | 0.2758 | 1.8 | | |
| 2 | TM | n-Nitrosodimethylamine | 0.5083 | 0.4536 | 11 | TM | |
| 3 | TM | Pyridine | 1.222 | 1.245 | 1.9 | TM | |
| 4 | *TM | Phenol | 2.163 | 2.182 | 0.89 | *TM | |
| 5 | TM | Aniline | 2.108 | 2.063 | 2.2 | TM | |
| 6 | TM | Bis (2-chloroethyl) ether | 0.9612 | 0.9227 | 4.0 | TM | |
| 7 | TM | 2-Chlorophenol | 1.573 | 1.558 | 1.00 | TM | |
| 8 | TM | 1,3-DCB | 1.652 | 1.633 | 1.2 | TM | |
| 9 | *TM | 1,4-DCB | 1.698 | 1.688 | 0.62 | *TM | |
| 10 | TM | Benzyl alcohol | 0.9149 | 0.9011 | 1.5 | TM | |
| 11 | TM | 1,2-DCB | 1.574 | 1.577 | 0.17 | TM | |
| 12 | TM | 2-Methylphenol | 1.371 | 1.313 | 4.2 | TM | |
| 13 | TM | Bis (2-chloroisopropyl) ether | 1.416 | 1.347 | 4.8 | TM | |
| 14 | TM | Acetophenone | 2.099 | 2.045 | 2.6 | TM | |
| 15 | TM | 3&4-Methylphenol | 1.645 | 1.624 | 1.3 | TM | |
| 16 | **TM | n-Nitrosodi-n-propylamine | 1.152 | 1.099 | 4.6 | **TM | |
| 17 | TM | Hexachloroethane | 0.6394 | 0.6376 | 0.27 | TM | |
| 18 | TM | Nitrobenzene | 0.4082 | 0.3946 | 3.3 | TM | |
| 19 | TM | Isophorone | 0.7099 | 0.7016 | 1.2 | TM | |
| 20 | *TM | 2-Nitrophenol | 0.2069 | 0.2042 | 1.3 | *TM | |
| 21 | TM | 2,4-Dimethylphenol | 0.3262 | 0.3125 | 4.2 | TM | |
| 22 | TM | Benzoic acid | 0.2229 | 0.2510 | 13 | TM | |
| 23 | TM | Bis (2-chloroethoxy) methane | 0.4337 | 0.4143 | 4.5 | TM | |
| 24 | *TM | 2,4-Dichlorophenol | 0.2766 | 0.2784 | 0.65 | *TM | |
| 25 | TM | 1,2,4-Trichlorobenzene | 0.3036 | 0.2987 | 1.6 | TM | |
| 26 | TM | 3,4-Dimethylphenol | 0.4824 | 0.4656 | 3.5 | TM | |
| 27 | TM | Naphthalene | 1.082 | 1.057 | 2.3 | TM | |
| 28 | TM | 4-Chloroaniline | 0.3990 | 0.3874 | 2.9 | TM | |
| 29 | TM | 2,6-Dichlorophenol | 0.2781 | 0.2704 | 2.8 | TM | |
| 30 | TM | Hexachloropropene | 0.1687 | 0.1705 | 1.1 | TM | |
| 31 | *TM | Hexachlorobutadiene | 0.1489 | 0.1463 | 1.8 | *TM | |
| 32 | TM | Caprolactum | 0.1394 | 0.1341 | 3.8 | TM | |
| 33 | *TM | 4-Chloro-3-methylphenol | 0.3353 | 0.3256 | 2.9 | *TM | |
| 34 | TM | 2-Methylnaphthalene | 0.6902 | 0.6654 | 3.6 | TM | |
| 35 | TM | 1-Methylnaphthalene | 0.7153 | 0.6853 | 4.2 | TM | |
| 36 | **TMQ | Hexachlorocyclopentadiene | 0.0924 | 0.0990 | 7.1 | **TMQ | 7.2 |
| 37 | TM | 1,2,4,5-Tetrachlorobenzene | 0.5222 | 0.4998 | 4.3 | TM | |
| 38 | *TM | 2,4,6-Trichlorophenol | 0.3358 | 0.3306 | 1.5 | *TM | |
| 39 | TM | 2,4,5-Trichlorophenol | 0.3609 | 0.3495 | 3.2 | TM | |
| 40 | TM | 1,1'-Biphenyl | 1.653 | 1.591 | 3.7 | TM | |
| | | Average | | | 3.1 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 03/19/19
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0319Y012.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | TM | 2-Chloronaphthalene | 1.244 | 1.232 | 0.90 | TM | |
| 42 | TM | 2-Nitroaniline | 0.4076 | 0.3927 | 3.6 | TM | |
| 43 | TM | Dimethyl phthalate | 1.445 | 1.387 | 4.1 | TM | |
| 44 | TM | 2,6-DNT | 0.3380 | 0.3438 | 1.7 | TM | |
| 45 | TM | Acenaphthylene | 1.968 | 1.931 | 1.9 | TM | |
| 46 | TM | 3-Nitroaniline | 0.3715 | 0.3753 | 1.0 | TM | |
| 47 | *TM | Acenaphthene | 1.268 | 1.234 | 2.7 | *TM | |
| 48 | **TML | 2,4-Dinitrophenol | 0.1285 | 0.1399 | 8.8 | **TML | 2.8 |
| 49 | **TMQ | 4-Nitrophenol | 0.1853 | 0.2146 | 16 | **TMQ | 1.4 |
| 50 | TM | Dibenzofuran | 1.721 | 1.642 | 4.6 | TM | |
| 51 | TM | 2,4-DNT | 0.4568 | 0.4638 | 1.5 | TM | |
| 52 | TM | 2,3,4,6-Tetrachlorophenol | 0.2292 | 0.2538 | 11 | TM | |
| 53 | TM | Diethyl phthalate | 1.426 | 1.368 | 4.1 | TM | |
| 54 | TM | 4-Chlorophenyl phenyl ether | 0.6575 | 0.6283 | 4.4 | TM | |
| 55 | TM | Fluorene | 1.435 | 1.405 | 2.1 | TM | |
| 56 | TM | 4-Nitroaniline | 0.3758 | 0.3660 | 2.6 | TM | |
| 57 | TM | 4,6-Dinitro-2-methylphenol | 0.1492 | 0.1589 | 6.5 | TM | |
| 58 | TM | Diphenyl amine | 0.6711 | 0.6712 | 0.01 | TM | |
| 59 | *TM | n-Nitrosodiphenylamine | 0.6711 | 0.6712 | 0.01 | *TM | |
| 60 | TM | 1,2-Diphenylhydrazine | 0.9392 | 0.9000 | 4.2 | TM | |
| 61 | TM | 4-Bromophenyl phenyl ether | 0.2094 | 0.2004 | 4.3 | TM | |
| 62 | TM | Hexachlorobenzene | 0.1945 | 0.1915 | 1.5 | TM | |
| 63 | TM | Atrazine | 0.2293 | 0.2249 | 1.9 | TM | |
| 64 | *TML | Pentachlorophenol | 0.0643 | 0.0638 | 0.80 | *TML | 8.4 |
| 65 | TM | Phenanthrene | 1.222 | 1.192 | 2.5 | TM | |
| 66 | TM | Anthracene | 1.291 | 1.238 | 4.1 | TM | |
| 67 | TM | Carbazol | 1.189 | 1.175 | 1.2 | TM | |
| 68 | TM | Di-n-butylphthalate | 1.489 | 1.422 | 4.5 | TM | |
| 69 | *TM | Fluoranthene | 1.278 | 1.252 | 2.0 | *TM | |
| 70 | TM | Benzidine | 0.3087 | 0.4238 | 37 | TM | |
| 71 | TM | Pyrene | 1.475 | 1.477 | 0.19 | TM | |
| 72 | TM | Butyl benzylphthalate | 0.7465 | 0.7432 | 0.45 | TM | |
| 73 | TM | 3,3'-Dichlorobenzidine | 0.3708 | 0.4245 | 14 | TM | |
| 74 | TM | Benz (a) anthracene | 1.304 | 1.287 | 1.3 | TM | |
| 75 | TM | Bis (2-ethylhexyl) phthalate | 1.069 | 1.047 | 2.1 | TM | |
| 76 | TM | Chrysene | 1.257 | 1.249 | 0.66 | TM | |
| 77 | *TM | Di-n-octylphthalate | 1.844 | 1.830 | 0.75 | *TM | |
| 78 | TM | Benzo (b) fluoranthene | 1.190 | 1.224 | 2.8 | TM | |
| 79 | TM | Benzo (k) fluoranthene | 1.190 | 1.224 | 2.8 | TM | |
| 80 | *TM | Benzo (a) pyrene | 1.186 | 1.173 | 1.1 | *TM | |
| | | Average | | | 4.2 | | |

* NT MA 5/13/19

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 03/19/19
Matrix: 0 Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0319Y012.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 81 | TM | Indeno (1,2,3-cd) pyrene | 1.276 | 1.260 | 1.2 | TM | |
| 82 | TM | Dibenz (a,h) anthracene | 1.118 | 1.109 | 0.80 | TM | |
| 83 | TM | Benzo (g,h,i) perylene | 1.018 | 1.004 | 1.4 | TM | |
| 84 | | | | | | | |
| 85 | | | | | | | |
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| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 1.1 | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y012.D Vial: 12
Acq On : 19 Mar 19 22:39 Operator: MA
Sample : SS-8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:51 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Mar 20 09:42:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.40 | 152 | 119662 | 40.00000 | ppb | | 0.00 |
| 21) Napthalene-D8(IS) | 6.84 | 136 | 503749 | 40.00000 | ppb | | 0.00 |
| 41) Acenaphthene-D10(IS) | 8.86 | 164 | 265971 | 40.00000 | ppb | | 0.00 |
| 65) Phenanthrene-D10(IS) | 10.59 | 188 | 441976 | 40.00000 | ppb | | 0.00 |
| 79) Chrysene-D12(IS) | 13.69 | 240 | 392951 | 40.00000 | ppb | | 0.00 |
| 89) Perylene-D12(IS) | 15.55 | 264 | 389935 | 40.00000 | ppb | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 5) 2-Fluorophenol (S) | 0.00 | 112 | 0 | 0.00000 | ppb | | |
| Spiked Amount 200.000 | | | Recovery | = | 0.000% | | |
| 6) Phenol-D6 (S) | 0.00 | 99 | 0 | 0.00000 | ppb | | |
| Spiked Amount 200.000 | | | Recovery | = | 0.000% | | |
| 22) Nitrobenzene-D5(S) | 5.96 | 82 | 20266 | 3.80782 | ppb | | -0.07 |
| Spiked Amount 100.000 | | | Recovery | = | 3.808% | | |
| 46) 2-Fluorobiphenyl(S) | 0.00 | 172 | 0 | 0.00000 | ppb | | |
| Spiked Amount 100.000 | | | Recovery | = | 0.000% | | |
| 64) 2,4,6-Tribromophenol(S) | 0.00 | 330 | 0 | 0.00000 | ppb | | |
| Spiked Amount 200.000 | | | Recovery | = | 0.000% | | |
| 82) Terphenyl-D14(S) | 12.46 | 244 | 154 | 0.01603 | ppb | | 0.00 |
| Spiked Amount 100.000 | | | Recovery | = | 0.016% | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.71 | 58 | 4125 | 5.09198 | | | 81 |
| 3) n-Nitrosodimethylamine | 1.94 | 42 | 67841 | 44.61317 | ppb | | 100 |
| 4) Pyridine | 1.95 | 79 | 186260 | 50.93082 | ppb | | 99 |
| 7) Phenol | 5.03 | 94 | 326371 | 50.44522 | ppb | | 99 |
| 8) Aniline | 5.03 | 93 | 308538 | 48.91811 | ppb | # | 95 |
| 9) Bis (2-chloroethyl) ether | 5.11 | 63 | 138021 | 47.99852 | ppb | | 100 |
| 10) 2-Chlorophenol | 5.17 | 128 | 232989 | 49.50044 | ppb | | 99 |
| 11) 1,3-DCB | 5.33 | 146 | 244193 | 49.42211 | ppb | | 99 |
| 12) 1,4-DCB | 5.42 | 146 | 252474 | 49.69018 | ppb | | 99 |
| 13) Benzyl alcohol | 5.57 | 108 | 134784 | 49.24555 | ppb | | 98 |
| 14) 1,2-DCB | 5.59 | 146 | 235856 | 50.08606 | ppb | | 99 |
| 15) 2-Methylphenol | 5.70 | 107 | 196356 | 47.88735 | ppb | | 99 |
| 16) Bis (2-chloroisopropyl) et | 5.70 | 45 | 201555 | 47.58672 | ppb | | 89 |
| 17) Acetophenone | 5.87 | 105 | 305876 | 48.70976 | ppb | | 91 |
| 18) 3&4-Methylphenol | 5.88 | 107 | 485858 | 98.71116 | ppb | | 100 |
| 19) n-Nitrosodi-n-propylamine | 5.86 | 70 | 164419 | 47.70657 | ppb | | 97 |
| 20) Hexachloroethane | 5.96 | 117 | 95375 | 49.86438 | ppb | | 97 |
| 23) Nitrobenzene | 6.05 | 77 | 248485 | 48.33233 | ppb | | 93 |
| 24) Isophorone | 6.32 | 82 | 441766 | 49.41155 | ppb | | 100 |
| 25) 2-Nitrophenol | 6.41 | 139 | 128567 | 49.33168 | ppb | | 97 |
| 26) 2,4-Dimethylphenol | 6.46 | 122 | 196783 | 47.90065 | ppb | | 98 |
| 27) Benzoic acid | 6.61 | 105 | 158025 | 56.29546 | ppb | | 98 |
| 28) Bis (2-chloroethoxy) metha | 6.55 | 93 | 260894 | 47.76995 | ppb | | 98 |
| 29) 2,4-Dichlorophenol | 6.69 | 162 | 175316 | 50.32737 | ppb | | 95 |
| 30) 1,2,4-Trichlorobenzene | 6.77 | 180 | 188098 | 49.18901 | ppb | | 96 |
| 31) 3,4-Dimethylphenol | 6.80 | 107 | 293191 | 48.26136 | ppb | | 97 |
| 32) Naphthalene | 6.86 | 128 | 665697 | 48.83474 | ppb | | 100 |
| 33) 4-Chloroaniline | 6.93 | 127 | 243911 | 48.53563 | ppb | | 100 |
| 34) 2,6-Dichlorophenol | 6.94 | 162 | 170257 | 48.61086 | ppb | | 98 |
| 35) Hexachloropropene | 6.95 | 213 | 107365 | 50.53139 | ppb | | 100 |
| 36) Hexachlorobutadiene | 6.99 | 225 | 92116 | 49.10760 | ppb | | 98 |
| 37) Caprolactum | 7.37 | 55 | 84463 | 48.11944 | ppb | | 95 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190319\0319Y012.D Vial: 12
Acq On : 19 Mar 19 22:39 Operator: MA
Sample : SS-8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:51 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Mar 20 09:42:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.50 | 107 | 205002 | 48.54881 | ppb | | 95 |
| 39) | 2-Methylnaphthalene | 7.65 | 142 | 418993 | 48.20291 | ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.77 | 142 | 431516 | 47.89996 | ppb | | 99 |
| 42) | Hexachlorocyclopentadiene | 7.83 | 237 | 32915 | 53.59927 | ppb | | 97 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.84 | 216 | 166181 | 47.85694 | ppb | | 98 |
| 44) | 2,4,6-Trichlorophenol | 7.99 | 196 | 109924 | 49.22545 | ppb | | 96 |
| 45) | 2,4,5-Trichlorophenol | 8.05 | 196 | 116191 | 48.41308 | ppb | | 95 |
| 47) | 1,1'-Biphenyl | 8.19 | 154 | 529104 | 48.12603 | ppb | | 99 |
| 48) | 2-Chloronaphthalene | 8.22 | 162 | 409749 | 49.55092 | ppb | | 98 |
| 49) | 2-Nitroaniline | 8.34 | 65 | 130571 | 48.17926 | ppb | | 89 |
| 50) | Dimethyl phthalate | 8.54 | 163 | 461073 | 47.97371 | ppb | | 100 |
| 51) | 2,6-DNT | 8.63 | 165 | 114309 | 50.86295 | ppb | | 96 |
| 52) | Acenaphthylene | 8.70 | 152 | 641976 | 49.05147 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.83 | 138 | 124765 | 50.50507 | ppb | | 89 |
| 54) | Acenaphthene | 8.89 | 154 | 410164 | 48.65494 | ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.98 | 184 | 46512 | 48.57875 | ppb | | 100 |
| 56) | 4-Nitrophenol | 9.10 | 65 | 71354 | 50.68015 | ppb | | 100 |
| 57) | Dibenzofuran | 9.10 | 168 | 545810 | 47.70829 | ppb | | 98 |
| 58) | 2,4-DNT | 9.11 | 165 | 154197 | 50.76498 | ppb | | 96 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.25 | 232 | 84375 | 55.36438 | ppb | | 99 |
| 60) | Diethyl phthalate | 9.36 | 149 | 454872 | 47.95908 | ppb | | 99 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.50 | 204 | 208880 | 47.77858 | ppb | | 97 |
| 62) | Fluorene | 9.50 | 166 | 467270 | 48.96296 | ppb | | 97 |
| 63) | 4-Nitroaniline | 9.55 | 138 | 121690 | 48.69551 | ppb | | 94 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.58 | 198 | 87770 | 53.22786 | ppb | | 97 |
| 67) | Diphenyl amine | 9.64 | 169 | 741606 | 100.01462 | ppb | | 98 |
| 68) | n-Nitrosodiphenylamine | 9.64 | 169 | 741606 | 100.01462 | ppb | | 98 |
| 69) | 1,2-Diphenylhydrazine | 9.68 | 77 | 497223 | 47.91327 | ppb | | 99 |
| 70) | 4-Bromophenyl phenyl ether | 10.06 | 248 | 110718 | 47.85713 | ppb | | 95 |
| 71) | Hexachlorobenzene | 10.14 | 284 | 105782 | 49.23042 | ppb | | 96 |
| 72) | Atrazine | 10.26 | 200 | 62133 | 24.51996 | ppb | | 98 |
| 73) | Pentachlorophenol | 10.39 | 266 | 35240 | 45.78765 | ppb | | 95 |
| 74) | Phenanthrene | 10.63 | 178 | 658612 | 48.76883 | ppb | | 100 |
| 75) | Anthracene | 10.68 | 178 | 683995 | 47.94582 | ppb | | 99 |
| 76) | Carbazol | 10.88 | 167 | 649223 | 49.41773 | ppb | | 98 |
| 77) | Di-n-butylphthalate | 11.26 | 149 | 785841 | 47.76918 | ppb | | 100 |
| 78) | Fluoranthene | 12.01 | 202 | 691935 | 49.00238 | ppb | # | 94 |
| 80) | Benzidine | 12.18 | 184 | 208143 | 68.64547 | ppb | | 98 |
| 81) | Pyrene | 12.28 | 202 | 725716 | 50.09405 | ppb | | 99 |
| 83) | Butyl benzylphthalate | 13.01 | 149 | 365037 | 49.77620 | ppb | | 94 |
| 84) | 3,3'-Dichlorobenzidine | 13.65 | 252 | 208493 | 57.24235 | ppb | # | 94 |
| 85) | Benz (a) anthracene | 13.68 | 228 | 632354 | 49.36166 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.66 | 149 | 514327 | 48.96504 | ppb | | 99 |
| 87) | Chrysene | 13.72 | 228 | 613494 | 49.67026 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.42 | 149 | 898831 | 49.62690 | ppb | | 99 |
| 90) | Benzo (b) fluoranthene | 15.03 | 252 | 596428 | 51.39316 | ppb | | 97 |
| 91) | Benzo (k) fluoranthene | 15.03 | 252 | 596428 | 51.39316 | ppb | | 97 |
| 92) | Benzo (a) pyrene | 15.47 | 252 | 571604 | 49.45474 | ppb | | 99 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.46 | 276 | 613999 | 49.37752 | ppb | | 99 |
| 94) | Dibenz (a,h) anthracene | 17.49 | 278 | 540732 | 49.59861 | ppb | | 98 |
| 95) | Benzo (g,h,i) perylene | 18.04 | 276 | 489260 | 49.30331 | ppb | | 98 |

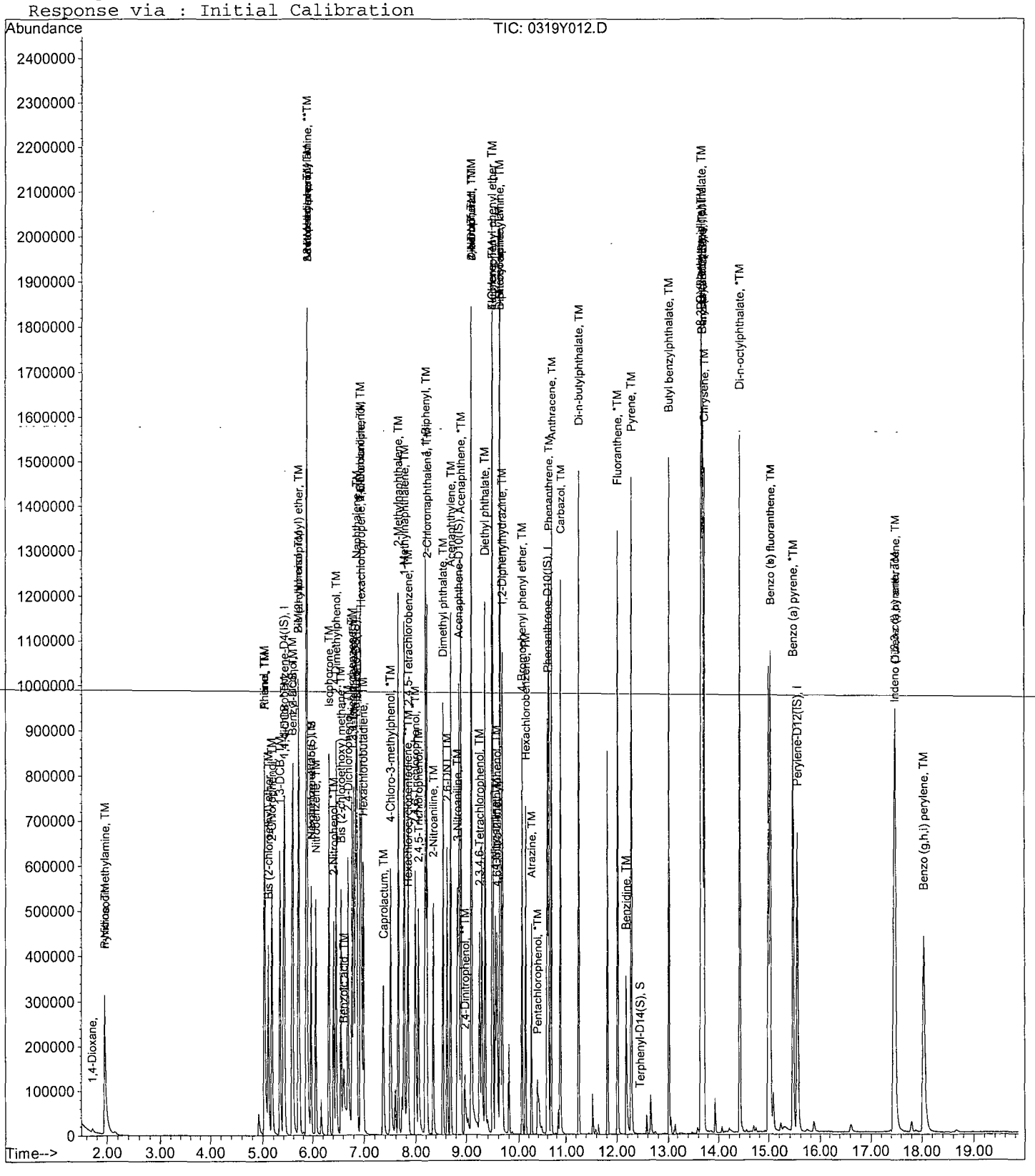
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190319\0319Y012.D Vial: 12
Acq On : 19 Mar 19 22:39 Operator: MA
Sample : SS-8270 03/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Mar 20 9:51 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190319\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Mar 19 23:23:59 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 2 May 19 9:26
Matrix: Instrument: Yoda
Initial Cal. Date: 03/19/19
Data File: 0411Y264.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-dichlorobenzene-D4(IS) | ISTD | | | I | |
| 2 | | 1,4-Dioxane | 0.2708 | 0.2736 | 1.0 | | |
| 3 | TM | n-Nitrosodimethylamine | 0.5083 | 0.4896 | 3.7 | TM | |
| 4 | TM | Pyridine | 1.222 | 1.283 | 4.9 | TM | |
| 5 | S | 2-Fluorophenol (S) | 1.495 | 1.599 | 7.0 | S | |
| 6 | S | Phenol-D6 (S) | 1.955 | 2.139 | 9.4 | S | |
| 7 | *TM | Phenol | 2.163 | 2.244 | 3.8 | *TM | |
| 8 | TM | Aniline | 2.108 | 2.384 | 13 | TM | |
| 9 | TM | Bis (2-chloroethyl) ether | 0.9612 | 0.9829 | 2.3 | TM | |
| 10 | TM | 2-Chlorophenol | 1.573 | 1.621 | 3.0 | TM | |
| 11 | TM | 1,3-DCB | 1.652 | 1.604 | 2.9 | TM | |
| 12 | *TM | 1,4-DCB | 1.698 | 1.638 | 3.5 | *TM | |
| 13 | TM | Benzyl alcohol | 0.9149 | 0.9902 | 8.2 | TM | |
| 14 | TM | 1,2-DCB | 1.574 | 1.546 | 1.8 | TM | |
| 15 | TM | 2-Methylphenol | 1.371 | 1.402 | 2.3 | TM | |
| 16 | TM | Bis (2-chloroisopropyl) ether | 1.416 | 1.461 | 3.2 | TM | |
| 17 | TM | Acetophenone | 2.099 | 2.173 | 3.5 | TM | |
| 18 | TM | 3&4-Methylphenol | 1.645 | 1.731 | 5.2 | TM | |
| 19 | **TM | n-Nitrosodi-n-propylamine | 1.152 | 1.213 | 5.3 | **TM | |
| 20 | TM | Hexachloroethane | 0.6394 | 0.6171 | 3.5 | TM | |
| 21 | I | Napthalene-D8(IS) | ISTD | | | I | |
| 22 | S | Nitrobenzene-D5(S) | 0.4226 | 0.4493 | 6.3 | S | |
| 23 | TM | Nitrobenzene | 0.4082 | 0.4009 | 1.8 | TM | |
| 24 | TM | Isophorone | 0.7099 | 0.7044 | 0.77 | TM | |
| 25 | *TM | 2-Nitrophenol | 0.2069 | 0.2088 | 0.88 | *TM | |
| 26 | TM | 2,4-Dimethylphenol | 0.3262 | 0.3307 | 1.4 | TM | |
| 27 | TM | Benzoic acid | 0.2242 | 0.2244 | 0.11 | TM | |
| 28 | TM | Bis (2-chloroethoxy) methane | 0.4337 | 0.4287 | 1.2 | TM | |
| 29 | *TM | 2,4-Dichlorophenol | 0.2766 | 0.2833 | 2.4 | *TM | |
| 30 | TM | 1,2,4-Trichlorobenzene | 0.3036 | 0.2955 | 2.7 | TM | |
| 31 | TM | 3,4-Dimethylphenol | 0.4824 | 0.4813 | 0.22 | TM | |
| 32 | TM | Naphthalene | 1.082 | 1.065 | 1.6 | TM | |
| 33 | TM | 4-Chloroaniline | 0.3990 | 0.4239 | 6.2 | TM | |
| 34 | TM | 2,6-Dichlorophenol | 0.2781 | 0.2789 | 0.28 | TM | |
| 35 | TM | Hexachloropropene | 0.1687 | 0.1773 | 5.1 | TM | |
| 36 | *TM | Hexachlorobutadiene | 0.1489 | 0.1470 | 1.3 | *TM | |
| 37 | TM | Caprolactum | 0.1394 | 0.1423 | 2.1 | TM | |
| 38 | *TM | 4-Chloro-3-methylphenol | 0.3353 | 0.3466 | 3.4 | *TM | |
| 39 | TM | 2-Methylnaphthalene | 0.6902 | 0.6768 | 1.9 | TM | |
| 40 | TM | 1-Methylnaphthalene | 0.7153 | 0.7054 | 1.4 | TM | |
| | | Average | | | 3.4 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 May 19 9:26
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0411Y264.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | I | Acenaphthene-D10(IS) | ISTD | | | I | |
| 42 | **TMQ | Hexachlorocyclopentadiene | 0.0924 | 0.0880 | 4.8 | **TMQ | 0.27 |
| 43 | TM | 1,2,4,5-Tetrachlorobenzene | 0.5222 | 0.5063 | 3.0 | TM | |
| 44 | *TM | 2,4,6-Trichlorophenol | 0.3358 | 0.3334 | 0.72 | *TM | |
| 45 | TM | 2,4,5-Trichlorophenol | 0.3609 | 0.3613 | 0.11 | TM | |
| 46 | S | 2-Fluorobiphenyl(S) | 1.477 | 1.480 | 0.20 | S | |
| 47 | TM | 1,1'-Biphenyl | 1.653 | 1.589 | 3.9 | TM | |
| 48 | TM | 2-Chloronaphthalene | 1.244 | 1.210 | 2.7 | TM | |
| 49 | TM | 2-Nitroaniline | 0.4076 | 0.4145 | 1.7 | TM | |
| 50 | TM | Dimethyl phthalate | 1.445 | 1.442 | 0.26 | TM | |
| 51 | TM | 2,6-DNT | 0.3380 | 0.3454 | 2.2 | TM | |
| 52 | TM | Acenaphthylene | 1.968 | 1.914 | 2.8 | TM | |
| 53 | TM | 3-Nitroaniline | 0.3715 | 0.3877 | 4.4 | TM | |
| 54 | *TM | Acenaphthene | 1.268 | 1.230 | 3.0 | *TM | |
| 55 | **TML | 2,4-Dinitrophenol | 0.1301 | 0.1444 | 11 | **TML | 11 |
| 56 | **TMQ | 4-Nitrophenol | 0.1853 | 0.2546 | 37 | **TMQ | 16 |
| 57 | TM | Dibenzofuran | 1.721 | 1.683 | 2.2 | TM | |
| 58 | TM | 2,4-DNT | 0.4568 | 0.4600 | 0.70 | TM | |
| 59 | TM | 2,3,4,6-Tetrachlorophenol | 0.2292 | 0.2618 | 14 | TM | |
| 60 | TM | Diethyl phthalate | 1.426 | 1.409 | 1.3 | TM | |
| 61 | TM | 4-Chlorophenyl phenyl ether | 0.6575 | 0.6478 | 1.5 | TM | |
| 62 | TM | Fluorene | 1.435 | 1.418 | 1.2 | TM | |
| 63 | TM | 4-Nitroaniline | 0.3758 | 0.3654 | 2.8 | TM | |
| 64 | S | 2,4,6-Tribromophenol(S) | 0.1326 | 0.1487 | 12 | S | |
| 65 | I | Phenanthrene-D10(IS) | ISTD | | | I | |
| 66 | TM | 4,6-Dinitro-2-methylphenol | 0.1492 | 0.1628 | 9.1 | TM | |
| 67 | TM | Diphenyl amine | 0.6711 | 0.6669 | 0.63 | TM | |
| 68 | *TM | n-Nitrosodiphenylamine | 0.6711 | 0.6669 | 0.63 | *TM | |
| 69 | TM | 1,2-Diphenylhydrazine | 0.9392 | 0.8842 | 5.9 | TM | |
| 70 | TM | 4-Bromophenyl phenyl ether | 0.2094 | 0.2100 | 0.31 | TM | |
| 71 | TM | Hexachlorobenzene | 0.1945 | 0.1974 | 1.5 | TM | |
| 72 | TM | Atrazine | 0.2293 | 0.2306 | 0.56 | TM | |
| 73 | *TML | Pentachlorophenol | 0.0578 | 0.0811 | 40 | *TML | 12 |
| 74 | TM | Phenanthrene | 1.222 | 1.198 | 2.0 | TM | |
| 75 | TM | Anthracene | 1.291 | 1.261 | 2.3 | TM | |
| 76 | TM | Carbazol | 1.189 | 1.175 | 1.2 | TM | |
| 77 | TM | Di-n-butylphthalate | 1.489 | 1.470 | 1.2 | TM | |
| 78 | *TM | Fluoranthene | 1.278 | 1.251 | 2.1 | *TM | |
| 79 | I | Chrysene-D12(IS) | ISTD | | | I | |
| 80 | TM | Benzidine | 0.3173 | 0.3530 | 11 | TM | |
| | | Average | | | 5.2 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 2 May 19 9:26
Matrix: 0 Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0411Y264.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 81 | TM | Pyrene | 1.475 | 1.449 | 1.8 | TM | |
| 82 | S | Terphenyl-D14(S) | 0.9778 | 1.010 | 3.3 | S | |
| 83 | TM | Butyl benzylphthalate | 0.7465 | 0.7357 | 1.4 | TM | |
| 84 | TM | 3,3'-Dichlorobenzidine | 0.3708 | 0.3750 | 1.1 | TM | |
| 85 | TM | Benz (a) anthracene | 1.304 | 1.278 | 2.0 | TM | |
| 86 | TM | Bis (2-ethylhexyl) phthalate | 1.069 | 1.018 | 4.8 | TM | |
| 87 | TM | Chrysene | 1.257 | 1.224 | 2.7 | TM | |
| 88 | *TM | Di-n-octylphthalate | 1.844 | 1.795 | 2.6 | *TM | |
| 89 | I | Perylene-D12(IS) | ISTD | | | I | |
| 90 | TM | Benzo (b) fluoranthene | 1.190 | 1.339 | 12 | TM | |
| 91 | TM | Benzo (k) fluoranthene | 1.190 | 1.110 | 6.7 | TM | |
| 92 | *TM | Benzo (a) pyrene | 1.186 | 1.168 | 1.5 | *TM | |
| 93 | TM | Indeno (1,2,3-cd) pyrene | 1.276 | 1.243 | 2.6 | TM | |
| 94 | TM | Dibenz (a,h) anthracene | 1.118 | 1.087 | 2.8 | TM | |
| 95 | TM | Benzo (g,h,i) perylene | 1.018 | 0.9924 | 2.5 | TM | |
| 96 | | | | | | | |
| 97 | | | | | | | |
| 98 | | | | | | | |
| 99 | | | | | | | |
| 100 | | | | | | | |
| 101 | | | | | | | |
| 102 | | | | | | | |
| 103 | | | | | | | |
| 104 | | | | | | | |
| 105 | | | | | | | |
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| 112 | | | | | | | |
| 113 | | | | | | | |
| 114 | | | | | | | |
| 115 | | | | | | | |
| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 3.4 | | |

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y264.D Vial: 64
Acq On : 2 May 19 9:26 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: May 2 9:40 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed May 01 12:19:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 184492 | 40.00000 | ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 808807 | 40.00000 | ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.78 | 164 | 439608 | 40.00000 | ppb | -0.01 |
| 65) Phenanthrene-D10(IS) | 10.53 | 188 | 736697 | 40.00000 | ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.65 | 240 | 671005 | 40.00000 | ppb | 0.02 |
| 89) Perylene-D12(IS) | 15.49 | 264 | 660853 | 40.00000 | ppb | 0.02 |
| **System Monitoring Compounds** | | | | | | |
| 5) 2-Fluorophenol (S) | 3.67 | 112 | 737565 | 106.96340 | ppb | -0.12 |
| Spiked Amount 200.000 | | | Recovery = 53.481% | | | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 986662 | 109.44703 | ppb | -0.05 |
| Spiked Amount 200.000 | | | Recovery = 54.724% | | | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 454296 | 53.16382 | ppb | -0.04 |
| Spiked Amount 100.000 | | | Recovery = 53.164% | | | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 813203 | 50.10020 | ppb | -0.03 |
| Spiked Amount 100.000 | | | Recovery = 50.100% | | | |
| 64) 2,4,6-Tribromophenol(S) | 9.72 | 330 | 163452 | 112.18929 | ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = 56.094% | | | |
| 82) Terphenyl-D14(S) | 12.40 | 244 | 847306 | 51.65741 | ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = 51.657% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.61 | 58 | 6310 | 5.05208 | | 88 |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 112898 | 48.15438 | ppb | 93 |
| 4) Pyridine | 1.86 | 79 | 295789 | 52.45922 | ppb | 97 |
| 7) Phenol | 4.90 | 94 | 517513 | 51.88102 | ppb | 89 |
| 8) Aniline | 4.91 | 93 | 549900 | 56.54881 | ppb | 98 |
| 9) Bis (2-chloroethyl) ether | 4.99 | 63 | 226676 | 51.12896 | ppb | 97 |
| 10) 2-Chlorophenol | 5.05 | 128 | 373818 | 51.51250 | ppb | 94 |
| 11) 1,3-DCB | 5.22 | 146 | 369793 | 48.54287 | ppb | 98 |
| 12) 1,4-DCB | 5.30 | 146 | 377850 | 48.23387 | ppb | 99 |
| 13) Benzyl alcohol | 5.46 | 108 | 228364 | 54.11716 | ppb | 97 |
| 14) 1,2-DCB | 5.48 | 146 | 356515 | 49.10508 | ppb | 98 |
| 15) 2-Methylphenol | 5.59 | 107 | 323268 | 51.13497 | ppb | 97 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 336907 | 51.59184 | ppb | 99 |
| 17) Acetophenone | 5.76 | 105 | 501192 | 51.76705 | ppb | 90 |
| 18) 3&4-Methylphenol | 5.77 | 107 | 798429 | 105.21361 | ppb | 98 |
| 19) n-Nitrosodi-n-propylamine | 5.76 | 70 | 279735 | 52.64435 | ppb | 99 |
| 20) Hexachloroethane | 5.85 | 117 | 142308 | 48.25739 | ppb | 98 |
| 23) Nitrobenzene | 5.95 | 77 | 405273 | 49.09695 | ppb | 91 |
| 24) Isophorone | 6.23 | 82 | 712195 | 49.61402 | ppb | 97 |
| 25) 2-Nitrophenol | 6.31 | 139 | 211060 | 50.43960 | ppb | 91 |
| 26) 2,4-Dimethylphenol | 6.37 | 122 | 334315 | 50.68495 | ppb | 97 |
| 27) Benzoic acid | 6.54 | 105 | 226874m | 50.05571 | ppb | 98 |
| 28) Bis (2-chloroethoxy) metha | 6.47 | 93 | 433382 | 49.42320 | ppb | 99 |
| 29) 2,4-Dichlorophenol | 6.60 | 162 | 286425 | 51.21096 | ppb | 94 |
| 30) 1,2,4-Trichlorobenzene | 6.67 | 180 | 298776 | 48.66301 | ppb | 99 |
| 31) 3,4-Dimethylphenol | 6.71 | 107 | 486603 | 49.88765 | ppb | 98 |
| 32) Naphthalene | 6.77 | 128 | 1076922 | 49.20461 | ppb | 100 |
| 33) 4-Chloroaniline | 6.84 | 127 | 428522 | 53.10944 | ppb | 99 |
| 34) 2,6-Dichlorophenol | 6.84 | 162 | 281956 | 50.13938 | ppb | 95 |
| 35) Hexachloropropene | 6.86 | 213 | 179274 | 52.55150 | ppb | 99 |
| 36) Hexachlorobutadiene | 6.90 | 225 | 148617 | 49.34594 | ppb | 98 |
| 37) Caprolactum | 7.29 | 55 | 143861 | 51.04655 | ppb | 96 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y264.D Vial: 64
Acq On : 2 May 19 9:26 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: May 2 9:40 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed May 01 12:19:54 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| | Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|---|
| 38) | 4-Chloro-3-methylphenol | 7.42 | 107 | 350405 | 51.68448 | ppb | | 99 |
| 39) | 2-Methylnaphthalene | 7.56 | 142 | 684275 | 49.03051 | ppb | | 100 |
| 40) | 1-Methylnaphthalene | 7.68 | 142 | 713148 | 49.30457 | ppb | | 100 |
| 42) | Hexachlorocyclopentadiene | 7.73 | 237 | 48335 | 50.13406 | ppb | | 98 |
| 43) | 1,2,4,5-Tetrachlorobenzene | 7.76 | 216 | 278228 | 48.47670 | ppb | | 99 |
| 44) | 2,4,6-Trichlorophenol | 7.91 | 196 | 183220 | 49.64079 | ppb | | 99 |
| 45) | 2,4,5-Trichlorophenol | 7.96 | 196 | 198552 | 50.05335 | ppb | | 91 |
| 47) | 1,1'-Biphenyl | 8.11 | 154 | 872969 | 48.04038 | ppb | | 97 |
| 48) | 2-Chloronaphthalene | 8.13 | 162 | 665077 | 48.66026 | ppb | | 99 |
| 49) | 2-Nitroaniline | 8.27 | 65 | 227767 | 50.84789 | ppb | | 94 |
| 50) | Dimethyl phthalate | 8.47 | 163 | 792182 | 49.86861 | ppb | | 98 |
| 51) | 2,6-DNT | 8.56 | 165 | 189811 | 51.09886 | ppb | | 96 |
| 52) | Acenaphthylene | 8.61 | 152 | 1051555 | 48.61093 | ppb | | 99 |
| 53) | 3-Nitroaniline | 8.76 | 138 | 213045 | 52.17738 | ppb | | 94 |
| 54) | Acenaphthene | 8.82 | 154 | 675992 | 48.51540 | ppb | | 99 |
| 55) | 2,4-Dinitrophenol | 8.90 | 184 | 79338 | 44.28597 | ppb | | 100 |
| 56) | 4-Nitrophenol | 8.98 | 65 | 139920 | 58.19666 | ppb | | 78 |
| 57) | Dibenzofuran | 9.02 | 168 | 925004 | 48.91754 | ppb | | 94 |
| 58) | 2,4-DNT | 9.03 | 165 | 252779 | 50.34983 | ppb | | 82 |
| 59) | 2,3,4,6-Tetrachlorophenol | 9.18 | 232 | 143853 | 57.10896 | ppb | | 97 |
| 60) | Diethyl phthalate | 9.30 | 149 | 773989 | 49.37250 | ppb | | 97 |
| 61) | 4-Chlorophenyl phenyl ethe | 9.42 | 204 | 355946 | 49.25941 | ppb | | 96 |
| 62) | Fluorene | 9.43 | 166 | 779284 | 49.40424 | ppb | | 99 |
| 63) | 4-Nitroaniline | 9.49 | 138 | 200794 | 48.61311 | ppb | | 95 |
| 66) | 4,6-Dinitro-2-methylphenol | 9.52 | 198 | 149879 | 54.53100 | ppb | | 88 |
| 67) | Diphenyl amine | 9.57 | 169 | 1228175 | 99.37115 | ppb | | 97 |
| 68) | n-Nitrosodiphenylamine | 9.57 | 169 | 1228175 | 99.37115 | ppb | | 97 |
| 69) | 1,2-Diphenylhydrazine | 9.61 | 77 | 814270 | 47.07419 | ppb | | 91 |
| 70) | 4-Bromophenyl phenyl ether | 10.00 | 248 | 193408 | 50.15482 | ppb | | 91 |
| 71) | Hexachlorobenzene | 10.07 | 284 | 181752 | 50.74704 | ppb | | 87 |
| 72) | Atrazine | 10.20 | 200 | 106182 | 25.13958 | ppb | | 96 |
| 73) | Pentachlorophenol | 10.31 | 266 | 74690 | 56.00343 | ppb | | 97 |
| 74) | Phenanthrene | 10.56 | 178 | 1103188 | 49.00857 | ppb | | 100 |
| 75) | Anthracene | 10.62 | 178 | 1161674 | 48.85308 | ppb | | 99 |
| 76) | Carbazol | 10.81 | 167 | 1082224 | 49.42149 | ppb | | 100 |
| 77) | Di-n-butylphthalate | 11.20 | 149 | 1353910 | 49.37563 | ppb | | 100 |
| 78) | Fluoranthene | 11.96 | 202 | 1152215 | 48.95479 | ppb | # | 95 |
| 80) | Benzidine | 12.12 | 184 | 296102 | 55.63736 | ppb | | 98 |
| 81) | Pyrene | 12.22 | 202 | 1215141 | 49.12005 | ppb | | 100 |
| 83) | Butyl benzylphthalate | 12.97 | 149 | 617090 | 49.27720 | ppb | | 96 |
| 84) | 3,3'-Dichlorobenzidine | 13.60 | 252 | 314497 | 50.56560 | ppb | # | 98 |
| 85) | Benz (a) anthracene | 13.64 | 228 | 1071778 | 48.99446 | ppb | | 99 |
| 86) | Bis (2-ethylhexyl) phthala | 13.62 | 149 | 854006 | 47.61243 | ppb | | 97 |
| 87) | Chrysene | 13.67 | 228 | 1026343 | 48.66215 | ppb | | 99 |
| 88) | Di-n-octylphthalate | 14.37 | 149 | 1505636 | 48.68238 | ppb | | 96 |
| 90) | Benzo (b) fluoranthene | 14.94 | 252 | 1106318 | 56.24897 | ppb | | 99 |
| 91) | Benzo (k) fluoranthene | 14.98 | 252 | 917061 | 46.62650 | ppb | | 98 |
| 92) | Benzo (a) pyrene | 15.41 | 252 | 964689 | 49.24786 | ppb | | 100 |
| 93) | Indeno (1,2,3-cd) pyrene | 17.40 | 276 | 1026636 | 48.71530 | ppb | | 97 |
| 94) | Dibenz (a,h) anthracene | 17.41 | 278 | 898017 | 48.60259 | ppb | | 99 |
| 95) | Benzo (g,h,i) perylene | 17.97 | 276 | 819807 | 48.74559 | ppb | | 98 |

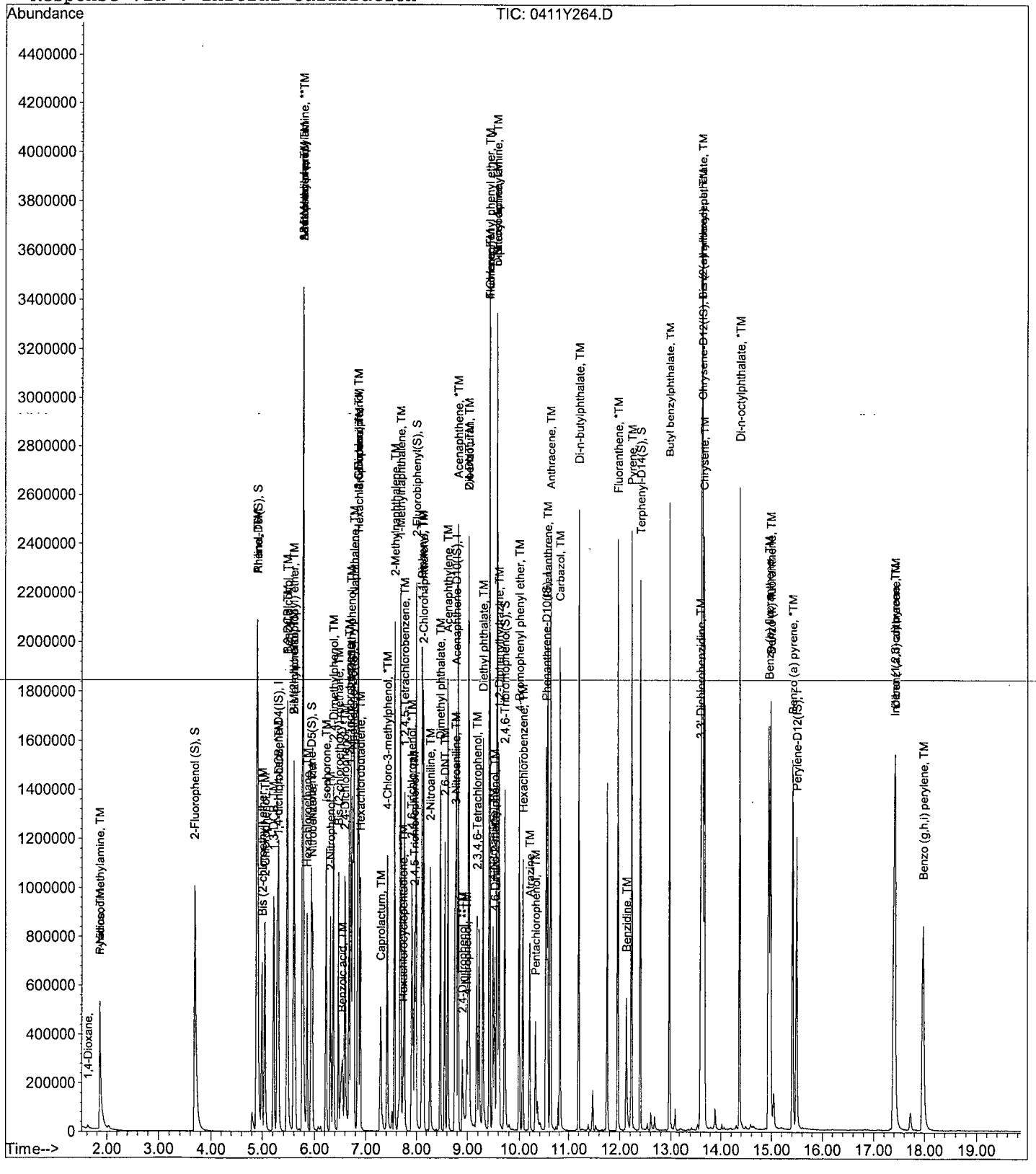
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y264.D Vial: 64
Acq On : 2 May 19 9:26 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: May 2 9:40 2019 Quant Results File: Y0319NC.RES

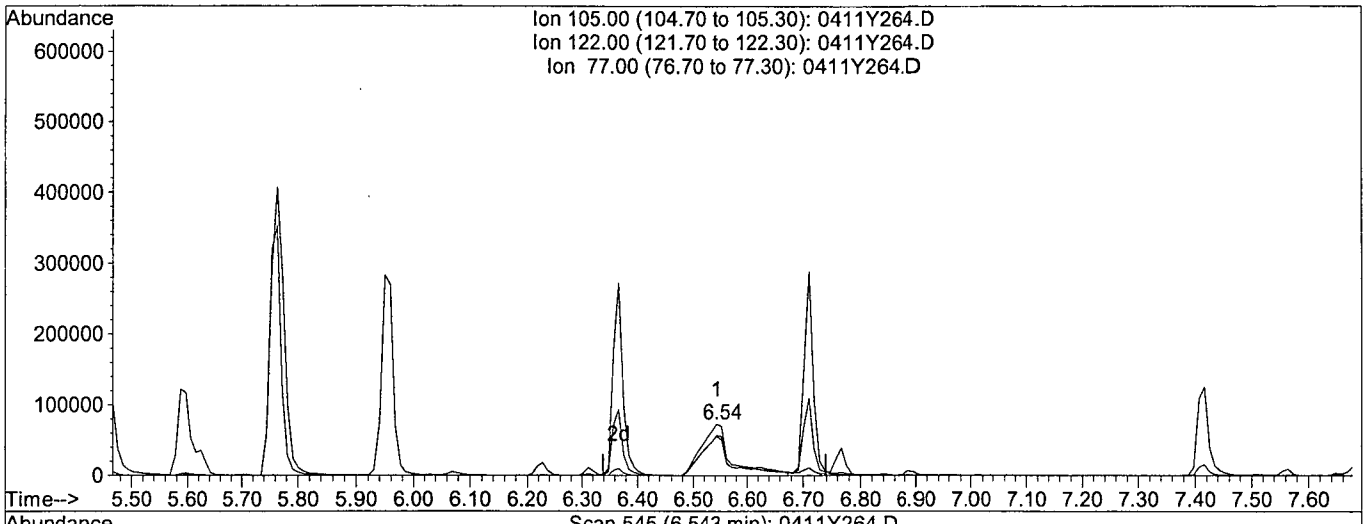
Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed May 01 12:19:54 2019
Response via : Initial Calibration

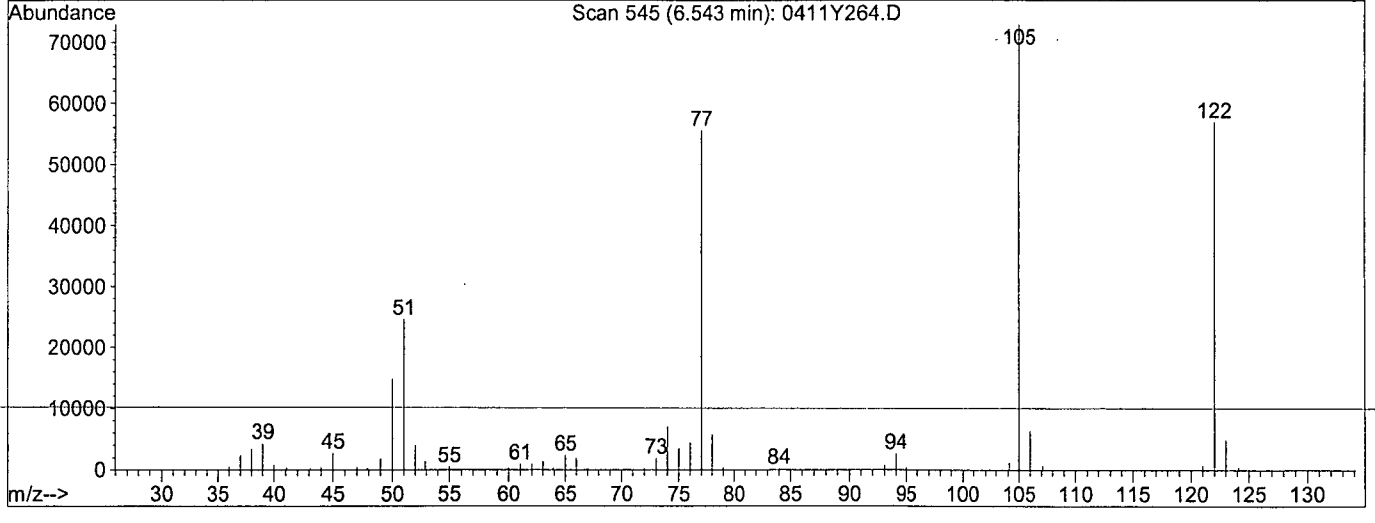


Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y264.D Vial: 64
Acq On : 2 May 19 9:26 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: May 2 9:39 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed May 01 12:19:54 2019
Response via : Multiple Level Calibration




TIC: 0411Y264.D

(27) Benzoic acid (TM)

6.54min 61.8463ppb

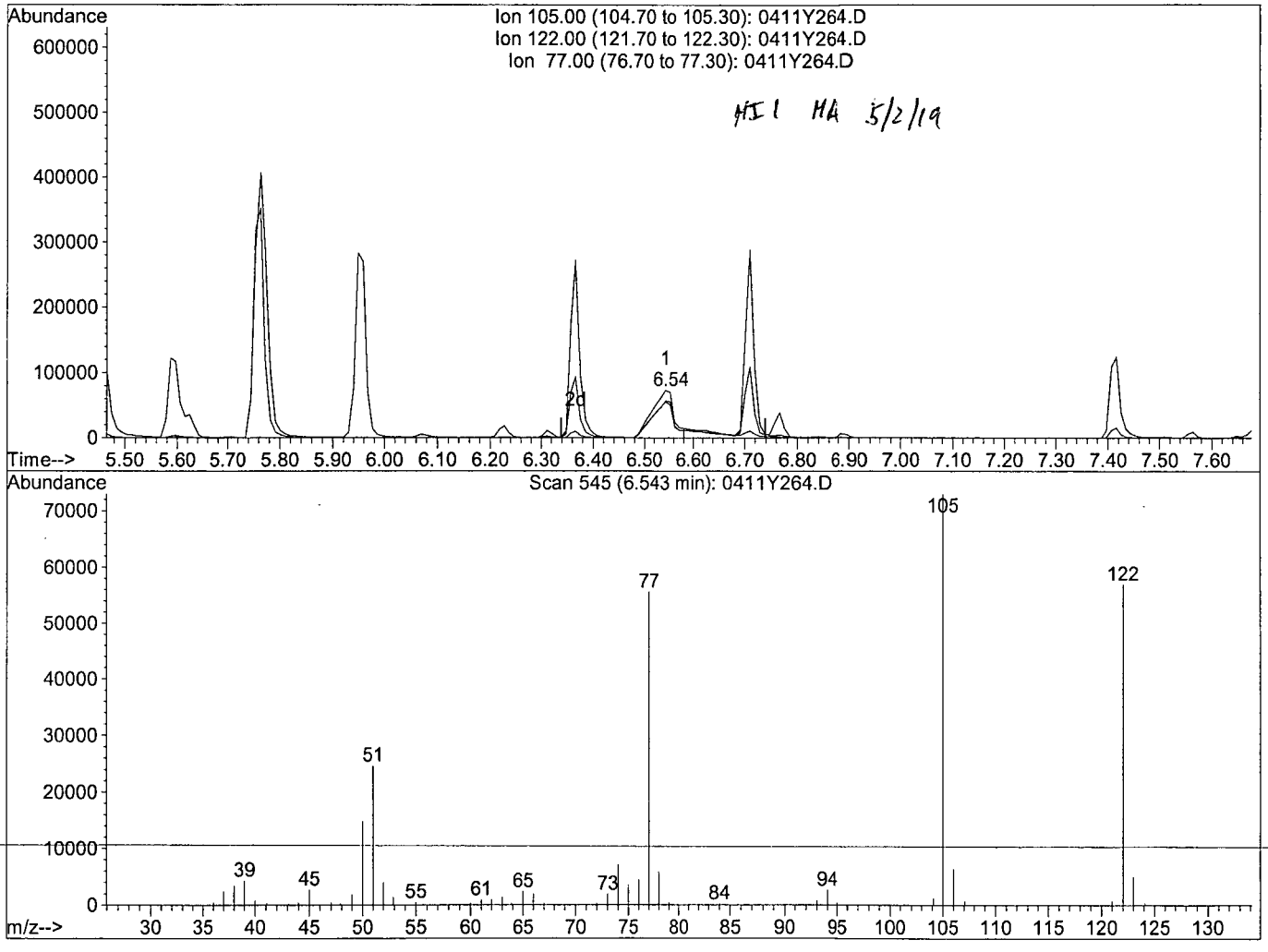
response 280314

| Ion | Exp% | Act% |
|---|---|---|
| 105.00 | 100 | 100 |
| 122.00 | 79.10 | 78.05 |
| 77.00 | 72.70 | 75.53 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y264.D Vial: 64
Acq On : 2 May 19 9:26 Operator: MA
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: May 2 9:40 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed May 01 12:19:54 2019
Response via : Multiple Level Calibration




TIC: 0411Y264.D

(27) Benzoic acid (TM)

6.54min 50.0557ppb m

response 226874

| Ion | Exp% | Act% |
|---|---|---|
| 105.00 | 100 | 100 |
| 122.00 | 79.10 | 78.05 |
| 77.00 | 72.70 | 76.14 |
| 0.00 | 0.00 | 0.00 |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

# Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 2 May 19 20:30
Matrix: Instrument: Yoda
Initial Cal. Date: 03/19/19
Data File: 0411Y287.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-dichlorobenzene-D4(IS) | ISTD | | | I | |
| 2 | | 1,4-Dioxane | 0.2708 | 0.2491 | 8.0 | | |
| 3 | TM | n-Nitrosodimethylamine | 0.5083 | 0.4636 | 8.8 | TM | |
| 4 | TM | Pyridine | 1.222 | 1.188 | 2.8 | TM | |
| 5 | S | 2-Fluorophenol (S) | 1.495 | 1.595 | 6.7 | S | |
| 6 | S | Phenol-D6 (S) | 1.955 | 2.157 | 10 | S | |
| 7 | *TM | Phenol | 2.163 | 2.249 | 4.0 | *TM | |
| 8 | TM | Aniline | 2.108 | 2.265 | 7.4 | TM | |
| 9 | TM | Bis (2-chloroethyl) ether | 0.9612 | 0.9883 | 2.8 | TM | |
| 10 | TM | 2-Chlorophenol | 1.573 | 1.612 | 2.4 | TM | |
| 11 | TM | 1,3-DCB | 1.652 | 1.607 | 2.7 | TM | |
| 12 | *TM | 1,4-DCB | 1.698 | 1.618 | 4.7 | *TM | |
| 13 | TM | Benzyl alcohol | 0.9149 | 0.9941 | 8.7 | TM | |
| 14 | TM | 1,2-DCB | 1.574 | 1.527 | 3.0 | TM | |
| 15 | TM | 2-Methylphenol | 1.371 | 1.428 | 4.2 | TM | |
| 16 | TM | Bis (2-chloroisopropyl) ether | 1.416 | 1.443 | 1.9 | TM | |
| 17 | TM | Acetophenone | 2.099 | 2.188 | 4.2 | TM | |
| 18 | TM | 3&4-Methylphenol | 1.645 | 1.744 | 6.0 | TM | |
| 19 | **TM | n-Nitrosodi-n-propylamine | 1.152 | 1.216 | 5.6 | **TM | |
| 20 | TM | Hexachloroethane | 0.6394 | 0.6112 | 4.4 | TM | |
| 21 | I | Napthalene-D8(IS) | ISTD | | | I | |
| 22 | S | Nitrobenzene-D5(S) | 0.4226 | 0.4454 | 5.4 | S | |
| 23 | TM | Nitrobenzene | 0.4082 | 0.4042 | 0.99 | TM | |
| 24 | TM | Isophorone | 0.7099 | 0.7178 | 1.1 | TM | |
| 25 | *TM | 2-Nitrophenol | 0.2069 | 0.2084 | 0.70 | *TM | |
| 26 | TM | 2,4-Dimethylphenol | 0.3262 | 0.3334 | 2.2 | TM | |
| 27 | TM | Benzoic acid | 0.2242 | 0.2823 | 26 | TM | |
| 28 | TM | Bis (2-chloroethoxy) methane | 0.4337 | 0.4358 | 0.50 | TM | |
| 29 | *TM | 2,4-Dichlorophenol | 0.2766 | 0.2839 | 2.6 | *TM | |
| 30 | TM | 1,2,4-Trichlorobenzene | 0.3036 | 0.2951 | 2.8 | TM | |
| 31 | TM | 3,4-Dimethylphenol | 0.4824 | 0.4946 | 2.5 | TM | |
| 32 | TM | Naphthalene | 1.082 | 1.058 | 2.3 | TM | |
| 33 | TM | 4-Chloroaniline | 0.3990 | 0.4249 | 6.5 | TM | |
| 34 | TM | 2,6-Dichlorophenol | 0.2781 | 0.2803 | 0.80 | TM | |
| 35 | TM | Hexachloropropene | 0.1687 | 0.1668 | 1.2 | TM | |
| 36 | *TM | Hexachlorobutadiene | 0.1489 | 0.1465 | 1.7 | *TM | |
| 37 | TM | Caprolactum | 0.1394 | 0.1422 | 2.0 | TM | |
| 38 | *TM | 4-Chloro-3-methylphenol | 0.3353 | 0.3513 | 4.8 | *TM | |
| 39 | TM | 2-Methylnaphthalene | 0.6902 | 0.6802 | 1.4 | TM | |
| 40 | TM | 1-Methylnaphthalene | 0.7153 | 0.7086 | 0.94 | TM | |
| | | Average | | | 4.3 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

# Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 May 19 20:30
Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0411Y287.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 41 | I | Acenaphthene-D10(IS) | ISTD | | | I | |
| 42 | **TMQ | Hexachlorocyclopentadiene | 0.0924 | 0.0564 | 39 | **TMQ | 21 |
| 43 | TM | 1,2,4,5-Tetrachlorobenzene | 0.5222 | 0.5011 | 4.0 | TM | |
| 44 | *TM | 2,4,6-Trichlorophenol | 0.3358 | 0.3365 | 0.21 | *TM | |
| 45 | TM | 2,4,5-Trichlorophenol | 0.3609 | 0.3581 | 0.79 | TM | |
| 46 | S | 2-Fluorobiphenyl(S) | 1.477 | 1.480 | 0.21 | S | |
| 47 | TM | 1,1'-Biphenyl | 1.653 | 1.586 | 4.1 | TM | |
| 48 | TM | 2-Chloronaphthalene | 1.244 | 1.200 | 3.5 | TM | |
| 49 | TM | 2-Nitroaniline | 0.4076 | 0.4137 | 1.5 | TM | |
| 50 | TM | Dimethyl phthalate | 1.445 | 1.409 | 2.5 | TM | |
| 51 | TM | 2,6-DNT | 0.3380 | 0.3434 | 1.6 | TM | |
| 52 | TM | Acenaphthylene | 1.968 | 1.892 | 3.9 | TM | |
| 53 | TM | 3-Nitroaniline | 0.3715 | 0.3845 | 3.5 | TM | |
| 54 | *TM | Acenaphthene | 1.268 | 1.221 | 3.7 | *TM | |
| 55 | **TML | 2,4-Dinitrophenol | 0.1301 | 0.1409 | 8.2 | **TML | 13 |
| 56 | **TMQ | 4-Nitrophenol | 0.1853 | 0.2528 | 36 | **TMQ | 16 |
| 57 | TM | Dibenzofuran | 1.721 | 1.672 | 2.8 | TM | |
| 58 | TM | 2,4-DNT | 0.4568 | 0.4623 | 1.2 | TM | |
| 59 | TM | 2,3,4,6-Tetrachlorophenol | 0.2292 | 0.2582 | 13 | TM | |
| 60 | TM | Diethyl phthalate | 1.426 | 1.398 | 2.0 | TM | |
| 61 | TM | 4-Chlorophenyl phenyl ether | 0.6575 | 0.6450 | 1.9 | TM | |
| 62 | TM | Fluorene | 1.435 | 1.403 | 2.3 | TM | |
| 63 | TM | 4-Nitroaniline | 0.3758 | 0.3644 | 3.0 | TM | |
| 64 | S | 2,4,6-Tribromophenol(S) | 0.1326 | 0.1475 | 11 | S | |
| 65 | I | Phenanthrene-D10(IS) | ISTD | | | I | |
| 66 | TM | 4,6-Dinitro-2-methylphenol | 0.1492 | 0.1607 | 7.7 | TM | |
| 67 | TM | Diphenyl amine | 0.6711 | 0.6619 | 1.4 | TM | |
| 68 | *TM | n-Nitrosodiphenylamine | 0.6711 | 0.6619 | 1.4 | *TM | |
| 69 | TM | 1,2-Diphenylhydrazine | 0.9392 | 0.8818 | 6.1 | TM | |
| 70 | TM | 4-Bromophenyl phenyl ether | 0.2094 | 0.2085 | 0.42 | TM | |
| 71 | TM | Hexachlorobenzene | 0.1945 | 0.1915 | 1.5 | TM | |
| 72 | TM | Atrazine | 0.2293 | 0.1921 | 16 | TM | |
| 73 | *TML | Pentachlorophenol | 0.0578 | 0.0810 | 40 | *TML | 12 |
| 74 | TM | Phenanthrene | 1.222 | 1.191 | 2.6 | TM | |
| 75 | TM | Anthracene | 1.291 | 1.255 | 2.8 | TM | |
| 76 | TM | Carbazol | 1.189 | 1.180 | 0.77 | TM | |
| 77 | TM | Di-n-butylphthalate | 1.489 | 1.465 | 1.6 | TM | |
| 78 | *TM | Fluoranthene | 1.278 | 1.273 | 0.42 | *TM | |
| 79 | I | Chrysene-D12(IS) | ISTD | | | I | |
| 80 | TM | Benzidine | 0.3173 | 0.2255 | 29 | TM | |
| | | Average | | | 7.1 | | |

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

## Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 2 May 19 20:30
Matrix: 0 Instrument: Yoda
Cal. Date: 03/19/19
Data File: 0411Y287.D

| | | Compound | MEAN | CCRF | %D | | %Drift |
|---|---|---|---|---|---|---|---|
| 81 | TM | Pyrene | 1.475 | 1.437 | 2.6 | TM | |
| 82 | S | Terphenyl-D14(S) | 0.9778 | 1.007 | 3.0 | S | |
| 83 | TM | Butyl benzylphthalate | 0.7465 | 0.7365 | 1.3 | TM | |
| 84 | TM | 3,3'-Dichlorobenzidine | 0.3708 | 0.4046 | 9.1 | TM | |
| 85 | TM | Benz (a) anthracene | 1.304 | 1.264 | 3.1 | TM | |
| 86 | TM | Bis (2-ethylhexyl) phthalate | 1.069 | 1.043 | 2.5 | TM | |
| 87 | TM | Chrysene | 1.257 | 1.222 | 2.8 | TM | |
| 88 | *TM | Di-n-octylphthalate | 1.844 | 1.801 | 2.3 | *TM | |
| 89 | I | Perylene-D12(IS) | ISTD | | | I | |
| 90 | TM | Benzo (b) fluoranthene | 1.190 | 1.261 | 5.9 | TM | |
| 91 | TM | Benzo (k) fluoranthene | 1.190 | 1.175 | 1.3 | TM | |
| 92 | *TM | Benzo (a) pyrene | 1.186 | 1.150 | 3.0 | *TM | |
| 93 | TM | Indeno (1,2,3-cd) pyrene | 1.276 | 1.218 | 4.5 | TM | |
| 94 | TM | Dibenz (a,h) anthracene | 1.118 | 1.068 | 4.5 | TM | |
| 95 | TM | Benzo (g,h,i) perylene | 1.018 | 0.9545 | 6.2 | TM | |
| 96 | | | | | | | |
| 97 | | | | | | | |
| 98 | | | | | | | |
| 99 | | | | | | | |
| 100 | | | | | | | |
| 101 | | | | | | | |
| 102 | | | | | | | |
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| 104 | | | | | | | |
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| 113 | | | | | | | |
| 114 | | | | | | | |
| 115 | | | | | | | |
| 116 | | | | | | | |
| 117 | | | | | | | |
| 118 | | | | | | | |
| 119 | | | | | | | |
| 120 | | | | | | | |
| | | Average | | | 3.7 | | |

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y287.D Vial: 87
Acq On : 2 May 19 20:30 Operator: MA,SS
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: May 3 8:45 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu May 02 09:51:35 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) 1,4-dichlorobenzene-D4(IS) | 5.28 | 152 | 207550 | 40.00000 ppb | -0.05 |
| 21) Napthalene-D8(IS) | 6.74 | 136 | 911370 | 40.00000 ppb | -0.03 |
| 41) Acenaphthene-D10(IS) | 8.78 | 164 | 504495 | 40.00000 ppb | -0.01 |
| 65) Phenanthrene-D10(IS) | 10.54 | 188 | 839503 | 40.00000 ppb | 0.00 |
| 79) Chrysene-D12(IS) | 13.65 | 240 | 762276 | 40.00000 ppb | 0.02 |
| 89) Perylene-D12(IS) | 15.49 | 264 | 743444 | 40.00000 ppb | 0.02 |
| **System Monitoring Compounds** | | | | | |
| 5) 2-Fluorophenol (S) | 3.67 | 112 | 827842 | 106.71787 ppb | -0.12 |
| Spiked Amount 200.000 | | | Recovery = | 53.359% | |
| 6) Phenol-D6 (S) | 4.89 | 99 | 1119054 | 110.34214 ppb | -0.05 |
| Spiked Amount 200.000 | | | Recovery = | 55.171% | |
| 22) Nitrobenzene-D5(S) | 5.93 | 82 | 507403 | 52.69634 ppb | -0.04 |
| Spiked Amount 100.000 | | | Recovery = | 52.696% | |
| 46) 2-Fluorobiphenyl(S) | 7.99 | 172 | 933293 | 50.10341 ppb | -0.03 |
| Spiked Amount 100.000 | | | Recovery = | 50.103% | |
| 64) 2,4,6-Tribromophenol(S) | 9.72 | 330 | 186040 | 111.26952 ppb | 0.00 |
| Spiked Amount 200.000 | | | Recovery = | 55.635% | |
| 82) Terphenyl-D14(S) | 12.40 | 244 | 959745 | 51.50646 ppb | 0.00 |
| Spiked Amount 100.000 | | | Recovery = | 51.506% | |
| **Target Compounds** | | | | | Qvalue |
| 2) 1,4-Dioxane | 1.61 | 58 | 6462 | 4.59900 | 94 |
| 3) n-Nitrosodimethylamine | 1.85 | 42 | 120277 | 45.60232 ppb | 93 |
| 4) Pyridine | 1.86 | 79 | 308223 | 48.59143 ppb | 97 |
| 7) Phenol | 4.91 | 94 | 583468 | 51.99470 ppb | 94 |
| 8) Aniline | 4.91 | 93 | 587671 | 53.71911 ppb | 97 |
| 9) Bis (2-chloroethyl) ether | 4.99 | 63 | 256414 | 51.41122 ppb | 96 |
| 10) 2-Chlorophenol | 5.05 | 128 | 418171 | 51.22254 ppb | 95 |
| 11) 1,3-DCB | 5.22 | 146 | 416899 | 48.64659 ppb | 98 |
| 12) 1,4-DCB | 5.30 | 146 | 419807 | 47.63620 ppb | 98 |
| 13) Benzyl alcohol | 5.47 | 108 | 257904 | 54.32756 ppb | 92 |
| 14) 1,2-DCB | 5.48 | 146 | 396112 | 48.49773 ppb | 99 |
| 15) 2-Methylphenol | 5.60 | 107 | 370532 | 52.09977 ppb | 99 |
| 16) Bis (2-chloroisopropyl) et | 5.60 | 45 | 374376 | 50.96051 ppb | 97 |
| 17) Acetophenone | 5.76 | 105 | 567575 | 52.11075 ppb | 95 |
| 18) 3&4-Methylphenol | 5.77 | 107 | 905046 | 106.01347 ppb | 100 |
| 19) n-Nitrosodi-n-propylamine | 5.76 | 70 | 315560 | 52.78879 ppb | 97 |
| 20) Hexachloroethane | 5.85 | 117 | 158566 | 47.79687 ppb | 97 |
| 23) Nitrobenzene | 5.96 | 77 | 460440 | 49.50283 ppb | 100 |
| 24) Isophorone | 6.23 | 82 | 817761 | 50.55709 ppb | 99 |
| 25) 2-Nitrophenol | 6.31 | 139 | 237402 | 50.35009 ppb | 90 |
| 26) 2,4-Dimethylphenol | 6.37 | 122 | 379822 | 51.10383 ppb | 99 |
| 27) Benzoic acid | 6.55 | 105 | 321593 | 62.96884 ppb | 96 |
| 28) Bis (2-chloroethoxy) metha | 6.47 | 93 | 496489 | 50.24812 ppb | 97 |
| 29) 2,4-Dichlorophenol | 6.60 | 162 | 323453 | 51.32316 ppb | 94 |
| 30) 1,2,4-Trichlorobenzene | 6.67 | 180 | 336222 | 48.59924 ppb | 96 |
| 31) 3,4-Dimethylphenol | 6.71 | 107 | 563500 | 51.26988 ppb | 100 |
| 32) Naphthalene | 6.77 | 128 | 1205030 | 48.86182 ppb | 100 |
| 33) 4-Chloroaniline | 6.84 | 127 | 484070 | 53.24232 ppb | 97 |
| 34) 2,6-Dichlorophenol | 6.85 | 162 | 319374 | 50.40195 ppb | 98 |
| 35) Hexachloropropene | 6.86 | 213 | 189989 | 49.42497 ppb | 98 |
| 36) Hexachlorobutadiene | 6.90 | 225 | 166862 | 49.16891 ppb | 98 |
| 37) Caprolactum | 7.30 | 55 | 161946 | 50.99689 ppb | 96 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y190411\0411Y287.D Vial: 87
Acq On : 2 May 19 20:30 Operator: MA,SS
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: May 3 8:45 2019 Quant Results File: Y0319NC.RES

Quant Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu May 02 09:51:35 2019
Response via : Initial Calibration
DataAcq Meth : SVOC416

| Compound | R.T. | QIon | Response | Conc | Unit | | Qvalue |
|---|---|---|---|---|---|---|---|
| 38) 4-Chloro-3-methylphenol | 7.42 | 107 | 400221 | 52.38897 | ppb | | 98 |
| 39) 2-Methylnaphthalene | 7.56 | 142 | 774915 | 49.27652 | ppb | | 100 |
| 40) 1-Methylnaphthalene | 7.68 | 142 | 807219 | 49.52780 | ppb | | 99 |
| 42) Hexachlorocyclopentadiene | 7.73 | 237 | 35553 | 39.36268 | ppb | | 97 |
| 43) 1,2,4,5-Tetrachlorobenzene | 7.76 | 216 | 316009 | 47.97781 | ppb | | 99 |
| 44) 2,4,6-Trichlorophenol | 7.91 | 196 | 212223 | 50.10338 | ppb | | 99 |
| 45) 2,4,5-Trichlorophenol | 7.96 | 196 | 225821 | 49.60574 | ppb | | 92 |
| 47) 1,1'-Biphenyl | 8.11 | 154 | 999907 | 47.94861 | ppb | | 97 |
| 48) 2-Chloronaphthalene | 8.14 | 162 | 756636 | 48.23899 | ppb | | 94 |
| 49) 2-Nitroaniline | 8.27 | 65 | 260902 | 50.75376 | ppb | | 88 |
| 50) Dimethyl phthalate | 8.47 | 163 | 888790 | 48.75399 | ppb | | 99 |
| 51) 2,6-DNT | 8.56 | 165 | 216560 | 50.80153 | ppb | | 92 |
| 52) Acenaphthylene | 8.61 | 152 | 1193085 | 48.05981 | ppb | | 99 |
| 53) 3-Nitroaniline | 8.76 | 138 | 242494 | 51.75123 | ppb | | 92 |
| 54) Acenaphthene | 8.82 | 154 | 769822 | 48.14344 | ppb | | 99 |
| 55) 2,4-Dinitrophenol | 8.90 | 184 | 88831 | 43.37902 | ppb | | 97 |
| 56) 4-Nitrophenol | 8.99 | 65 | 159422 | 57.84261 | ppb | # | 72 |
| 57) Dibenzofuran | 9.02 | 168 | 1054455 | 48.59122 | ppb | | 95 |
| 58) 2,4-DNT | 9.03 | 165 | 291504 | 50.59531 | ppb | | 81 |
| 59) 2,3,4,6-Tetrachlorophenol | 9.18 | 232 | 162804 | 56.31955 | ppb | | 97 |
| 60) Diethyl phthalate | 9.30 | 149 | 881781 | 49.01396 | ppb | | 98 |
| 61) 4-Chlorophenyl phenyl ethe | 9.42 | 204 | 406749 | 49.05015 | ppb | | 96 |
| 62) Fluorene | 9.43 | 166 | 884632 | 48.86972 | ppb | | 100 |
| 63) 4-Nitroaniline | 9.50 | 138 | 229810 | 48.48198 | ppb | | 94 |
| 66) 4,6-Dinitro-2-methylphenol | 9.52 | 198 | 168662 | 53.85011 | ppb | | 94 |
| 67) Diphenyl amine | 9.58 | 169 | 1389140 | 98.63084 | ppb | | 98 |
| 68) n-Nitrosodiphenylamine | 9.58 | 169 | 1389140 | 98.63084 | ppb | | 98 |
| 69) 1,2-Diphenylhydrazine | 9.61 | 77 | 925394 | 46.94699 | ppb | | 92 |
| 70) 4-Bromophenyl phenyl ether | 10.00 | 248 | 218786 | 49.78797 | ppb | | 91 |
| 71) Hexachlorobenzene | 10.07 | 284 | 200994 | 49.24717 | ppb | | 89 |
| 72) Atrazine | 10.20 | 200 | 100805 | 20.94382 | ppb | | 96 |
| 73) Pentachlorophenol | 10.31 | 266 | 84952 | 55.90948 | ppb | | 97 |
| 74) Phenanthrene | 10.56 | 178 | 1249545 | 48.71257 | ppb | | 99 |
| 75) Anthracene | 10.62 | 178 | 1317326 | 48.61470 | ppb | | 100 |
| 76) Carbazol | 10.82 | 167 | 1238090 | 49.61552 | ppb | | 96 |
| 77) Di-n-butylphthalate | 11.20 | 149 | 1537682 | 49.21030 | ppb | | 99 |
| 78) Fluoranthene | 11.96 | 202 | 1335460 | 49.79196 | ppb | # | 94 |
| 80) Benzidine | 12.12 | 184 | 214838 | 35.53446 | ppb | | 100 |
| 81) Pyrene | 12.22 | 202 | 1368877 | 48.70909 | ppb | | 100 |
| 83) Butyl benzylphthalate | 12.97 | 149 | 701780 | 49.33010 | ppb | | 95 |
| 84) 3,3'-Dichlorobenzidine | 13.60 | 252 | 385549 | 54.56721 | ppb | # | 98 |
| 85) Benz (a) anthracene | 13.64 | 228 | 1204037 | 48.45019 | ppb | | 99 |
| 86) Bis (2-ethylhexyl) phthala | 13.62 | 149 | 993558 | 48.76028 | ppb | # | 96 |
| 87) Chrysene | 13.68 | 228 | 1164034 | 48.58228 | ppb | | 99 |
| 88) Di-n-octylphthalate | 14.37 | 149 | 1715977 | 48.84012 | ppb | | 95 |
| 90) Benzo (b) fluoranthene | 14.95 | 252 | 1171576 | 52.94948 | ppb | | 99 |
| 91) Benzo (k) fluoranthene | 14.98 | 252 | 1091631 | 49.33636 | ppb | | 99 |
| 92) Benzo (a) pyrene | 15.42 | 252 | 1068967 | 48.50884 | ppb | | 96 |
| 93) Indeno (1,2,3-cd) pyrene | 17.41 | 276 | 1132053 | 47.74988 | ppb | | 99 |
| 94) Dibenz (a,h) anthracene | 17.42 | 278 | 992480 | 47.74778 | ppb | | 99 |
| 95) Benzo (g,h,i) perylene | 17.98 | 276 | 887025 | 46.88308 | ppb | | 98 |

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y190411\0411Y287.D Vial: 87
Acq On : 2 May 19 20:30 Operator: MA,SS
Sample : 50ug/ml 8270 3/13/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: May 3 8:45 2019 Quant Results File: Y0319NC.RES

Method : M:\YODA\DATA\Y190411\Y0319NC.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu May 02 09:51:35 2019
Response via : Initial Calibration

