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

Certification Number: CA1312
NELAP Certification number: 05233CA
DoD-ELAP Certificate number: ADE-1410

Data Validatable Report

May 17, 2012

Environet, Inc.
650 Iwilei Road, #204
Honolulu, Hawaii 96817

Attn: Max Solmssen

Title: Report of Data: Case 67525

Project: LTM Red Hill/1022-024

Contract #: Prime contract # for DoD: N62742-08-D-1930, CTO HC21

Dear Mr. Solmssen:

Three water samples were received April 18, 2012, in good condition. Written results for the requested analyses are provided on this May 17, 2012.

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, Cynthia Clark, 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.

Sharon Dehmlow, Laboratory Director
APPL, Inc.

SD/sdm
Enclosure
cc: File

Number of pages in this report: 361

Data Validation Package
for
LTM Red Hill/1022-024
SDG 67525

TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

SAMPLE RECEIPT INFORMATION

Sample receipt information

ARF: 67525

Project: LTM Red Hill/1022-024

Sample Receipt Information:

The samples were received on April 18, 2012, at 5.0°C. The samples were assigned Analytical Request Form (ARF) number 67525. The sample numbers and requested analyses were compared to the chains of custody and email communications. Some containers were received broken; the client was notified. The 8260B MS/MSD analysis for sample ES074 was cancelled, as per client's instructions. No other exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
ES074	AY59236	WATER	04/17/12	04/18/12
ES075	AY59237	WATER	04/17/12	04/18/12
ES076 TRIP BLANK	AY59238	WATER	04/17/12	04/18/12

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

APPL's Laboratory control limits generated in house statistically do not meet the control limits listed in DoD QSM 4.2 for all analytes. Laboratory control spike recoveries for this project meet all control limits listed in the DoD QSM 4.2 except where noted. A copy of our in house generated control limits is available upon request. In addition, a copy of our LOQ control limits, established using 7 data points, are also available upon request.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request.

Measurement uncertainty can be reported upon request.

CASE NARRATIVE

EPA Method 8015B

Total Petroleum Hydrocarbons – Diesel

Sample Preparation:

The water samples were extracted according to EPA method 3510C. The sample were extracted within holding time.

Sample Analysis Information:

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

Quality Control/Assurance

Calibrations:

Initial and continuing calibrations were performed according to the method. All calibration criteria were met.

Blanks:

No target analyte was detected above the detection limit in the method blank.

Spikes:

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

Sample ES074 was designated by the client for MS/MSD analysis. All recoveries met acceptance criteria.

Surrogates:

The surrogate recoveries are summarized on the form 2 & 8. All surrogate recoveries were within control limits.

Summary:

No problem was encountered

EPA Method 8270D SIM

Polynuclear Aromatic Hydrocarbons

Sample Preparation:

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

Sample Analysis Information:

The samples were analyzed according to EPA method 8270D using a Hewlett Packard Gas Chromatograph with a mass spectrometer detector in selective ion monitoring mode.

Quality Control/Assurance

Calibrations:

Initial and continuing calibrations were performed according to the method. All calibration criteria were met.

Blanks:

No target analyte was detected above the detection limits in the method blank.

Spikes:

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

Sample ES074 was designated by the client for MS/MSD analysis. For the MS/MSD, Anthracene recovered slightly below the 55% lower control limit at 51.2% and 50.0%. All other recoveries met acceptance criteria.

Surrogates

Surrogate recoveries are summarized on the forms 2&8. All surrogate recoveries were within control limits.

Tuning:

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

Internal Standards

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

Summary:

No other problem was encountered.

EPA Method 8260B
Volatile Organic Analysis

Sample Preparation:

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

Sample Analysis Information:

The samples were analyzed according to the method using a Hewlett Packard Gas Chromatograph with a mass spectrometer detector. All holding times were met. The samples were received in unpreserved vials; they were analyzed within seven days of collection

Quality Control/Assurance:

Calibrations:

Initial and continuing calibrations were performed according to the method. All system performance check compounds and calibration check compounds met DoD acceptance criteria. All calibration criteria were met.

Blanks:

No target analyte was detected above its detection limit in the method blanks

Spikes:

Laboratory Control Spikes (LCS) were used for quality assurance. A second-source standard was used for the LCS. All LCS and second-source criteria were met.

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

Surrogates:

Surrogate recoveries are summarized on Form 2 & 8. All surrogate recoveries were within the acceptance limits.

Tuning:

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

Internal Standards:

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

Summary:

No problem was encountered. The data generated are acceptable.

EPA Method 6020
Dissolved Lead

Digestion Information:

The water samples were digested according to EPA method 3015. All holding times were met.

Analysis Information:

Samples:

The samples were analyzed for dissolved lead according to EPA method 6020 using an Agilent 7500CX ICP-MS.

Calibrations:

The initial and continuing calibrations were analyzed according to the DoD QSM. The initial calibration verification is prepared from a second source standard.

Blanks:

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

Spikes:

Laboratory Control Spike (LCS), matrix spikes (MS/MSD), post digestion spike (PDS), and Dilution Test were used for quality assurance. All LCS recoveries were within the acceptance limits.

Sample ES074 was designated by the client for MS/MSD analysis. The MS/MSD, PDS, and DT met all acceptance criteria.

Summary:

No problem was encountered. The data generated are acceptable.

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
M1	Manual integration: integration does not follow baseline
M2	Manual integration: non-target peak interference
M3	Manual integration: to split a peak that was integrated as one peak by the computer
M4	Manual integration: to integrate a split peak
M5	Manual integration: the whole peak or part of the peak was not integrated
M6	Manual integration: computer integrated wrong peak
M7	Manual integration: other - explain
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel.
Y	Percent difference between primary and confirmation column > 40%

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form 67525

Client: **Environet, Inc.**
Address: **650 Iwilei Rd, #204**
Honolulu, HI 96817
Attn: **Max Solmssen**
Phone: **808-833-2225** Fax: **808-833-2231**
Job: **LTM Red Hill / 1022-024**
PO #: **1022-024**
Chain of Custody (Y/N): **Y** # **33005**
RAD Screen (Y/N): **Y** pH (Y/N): **Y**
Turn Around Type: **2 WEEKS**

Received by: **TBV**
Date Received: **04/18/12** Time: **09:50**
Delivered by: **FED EX**
Shuttle Custody Seals (Y/N): **N** Time Zone: **-10**
Chest Temp(s): **5.0°C**
Color: **VOA,F-PINKK,Q-ORYELL**
Samples Chilled until Placed in Refrig/Freezer: **Y**
Project Manager: **Cynthia Clark**
QC Report Type: **DVP4/ADRDOD/HI**
Due Date: **05/02/12**

Comments:
14 day TAT for Form 1s & 30 day TAT for full package.
OSDas@, MSolmssen@ & VDupra@environetinc.com
1 pdf on CD or FTP (no hard copy), NO hard copy to LDC per Stacy 2-24-11
Guidance: DOD QSM, DoD Forms, J flag to DL, U flag at LOD
EDD ADR A1/A3 (ADR 8.3a unchecked) to OSDas@ VDupra@ & MSolmssen@environetinc.com
metals 6020: report Lead with 0.5ug/L RL
TPH-Diesel only; VOCs: include gasoline by 8260B
Please see attached emails for sample breakage and MS/MSD correction: no voc/gas ms/msd

Sample Distribution:
GC: 2-$SIMHC12W, 2-$TPETD2
Extractions: 2-_SEP004S, 2-_SEP011
VOA: 3-$86RHBF
Metals: 2-$602D(Pb)
Other: 2-_M3015

Charges:

Invoice To:
same

	Client ID		APPL ID	Sampled	Analyses Requested
1.	ES074	MS/MSD,LTDVOL	AY59236W	04/17/12 09:30	$602D(Pb), $86RHBF, $SIMHC12W, $TPETD2 -- Unpreserved VOA, No voc/gas MS/MSD
2.	ES075	LTDVOL	AY59237W	04/17/12 12:30	$602D(Pb), $86RHBF, $SIMHC12W, $TPETD2 -- Unpreserved VOA, ltdvol on VOA
3.	ES076 TRIP BLANK		AY59238W	04/17/12 00:01	$86RHBF -- Unpreserved VOA

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

APPL Sample Receipt Form

ARF# **67525**

Sample	Container Type	Count	pH
AY59236	[6] PL 500mL - HNO3	2	1.7
	[15] VOAs - NP	4	NA
	[17] Amber Liter	7	NA
AY59237	[6] PL 500mL - HNO3	1	1.7
	[15] VOAs - NP	2	NA
	[17] Amber Liter	4	NA
AY59238	[15] VOAs - NP	3	NA

Sample	Container Type	Count	pH

Chue Moua

From: "Cynthia Clark" <cclark@applinc.com>
To: "Receiving" <receiving@applinc.com>; "Chue Moua" <cmoua@applinc.com>
Sent: Wednesday, April 18, 2012 2:39 PM
Attach: COC67525.pdf; ARF 67525 broken voa and amber.jpg
Subject: FW: Red Hill Groundwater Samples (67525)

Per Max:
run limited volume extraction for TPHe MS/MSD. Full volume extraction for PAHs MS/MSD. Do not run MS/MSD for VOC/GRO.

Cynthia Clark, Project Manager

APPL, Inc.
908 North Temperance Ave., Clovis, CA 93611
Phone: 559-275-2175
Fax: 559-275-4422
cclark@applinc.com
www.applinc.com

-----Original Message-----
From: Cynthia Clark [mailto:cclark@applinc.com]
Sent: Wednesday, April 18, 2012 1:58 PM
To: 'Max R. Solmssen'
Subject: RE: Red Hil Groundwater Samples
Importance: High

Hi Max,
for samples received today,
sample ES074 arrived with one broken amber liter and 2 broken VOAs (4 VOAs and 7 AL left) This is an MS/MSD sample. For VOCs and gas I think we need 7 vials to perform analysis of the parent and MS/MSD. We need 3 amber liters for PAHs (parent/MS/MSD), and we need 5 amber liters for TPH (parent/DRO-MS/DRO-MSD/MO-MS/MO-MSD)

sample ES075 arrived with one broken VOA, 2 left. Barring the need for dilution, I think we will be okay for this sample.

Please let me know how you would like us to proceed for sample ES074.

Thanks,

5.0
67525

APPL LABS

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

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

CHAIN OF CUSTODY RECORD

C.O.C. 33005

Report to: PLEASE PRINT		Invoice to: PLEASE PRINT	
Company Name: Environet, Inc	Phone: 808-833-2225	Company Name: Environet, Inc	Phone: 808-833-2225
Address: 650 Iwilei RD suite 204 Honolulu, HI 96817	Fax: 808-833-2231	Address: 650 Iwilei RD, suite 204 Honolulu, HI 96817	Fax: 808-833-2231
Attn: Max Solmssen - msolmssen@environetinc.com		Attn: Attn A.P.	

Project Name/Number	Sampler (Print)								Analysis Requested/Method Number												Date Shipped: 4/17/12
1022-024 / Red Hill	Max Solmssen																				Carrier: Fedex
Purchase Order Number	Sampler (Signature)																				Waybill No.: 876412433324
1022-024	Max K Sol																				Comments: * lead samples have been field-filtered.
Sample Identification	Location	Date Collected	Time Collected	No. of Containers	Matrix: Aq	Sed.	Soil		VOCs (8260B)	TPHG (8260B)	TPH-D (8015B)	PAHs (8270C SIM)	Pb (6020)								
ES074 MS/MSD	Red Hill	4/17/12	930	16	X				X	X	X	X	X								
ES075			1230	8																	
ES076 Trip Blank			N/A	3																	

Shuttle Temperature:	Turnaround Requested: MUST CHECK ONE	Sample Disposal:
	☑ Standard (2-3 week) ☐ One week ☐ 24-48 hour	☐ Return to client ☑ Disposal by Lab (30-day retention)

Relinquished by sampler: MS	Date 4/17/12	Time 2:30 pm	Received by:	Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date 4/18/12	Time 0950	Received at lab by:

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

See reverse side for Container Preservative and Sampling Information

COOLER RECEIPT FORM

1) Project: 1022-024 / RED HILL Date Received: 4/18/12

2) Coolers: Number of Coolers: 1

3) YES NO Were coolers and samples screened for radioactivity?

4) YES NO Were custody seals on outside of cooler? How many? _____ Date on seal? _____

5) Name on seal? _____

6) YES NO NA Were custody seals unbroken and intact at the time of arrival?

7) YES NO Did the cooler come with a shipping slip (air bill, etc.)? Carrier name: Fed Ex

8) Shipping slip numbers: 1) 8764 1243 3324 2) _____ 3) _____

9) YES NO NA Was the shipping slip scanned into the database?

10) YES NO NA If cooler belongs to APPL, has it been logged into the ice chest database?

11) Describe type of packing in cooler (bubble wrap, popcorn, type of ice, etc.): bubble bag in wet ice

12) YES NO NA For hand delivered samples was sufficient ice present to start the cooling process?

13) YES NO Was a temperature blank included in the cooler?

14) Serial number of certified NIST thermometer used: A39267 Correction factor: 0

15) Cooler temp(s): 1) 5.0°C 2) _____ 3) _____ 4) _____ 5) _____ 6) _____ 7) _____ 8) _____

Chain of custody:

16) YES NO Was a chain of custody received?

17) YES NO Were the custody papers signed in the appropriate places?

18) YES NO Was the project identifiable from custody papers?

19) YES NO Did the chain of custody include date and time of sampling?

20) YES NO Is location where sample was taken listed on the chain of custody?

Sample Labels:

21) YES NO Were container labels in good condition?

22) YES NO Was the client ID on the label?

23) YES NO Was the date of sampling on the label?

24) YES NO Was the time of sampling on the label?

25) YES NO Did all container labels agree with custody papers?

Sample Containers:

26) YES NO Were all containers sealed in separate bags?

27) YES NO Did all containers arrive unbroken?

28) YES NO Was there any leakage from samples?

29) YES NO Were any of the lids cracked or broken?

30) YES NO Were correct containers used for the tests indicated?

31) YES NO Was a sufficient amount of sample sent for tests indicated?

32) YES NO NA Were bubbles present in volatile samples? If yes, the following were received with air bubbles:

Larger than a pea: _____

Smaller than a pea: AY59236W03-W04, AY59238W01-W03

Preservation & Hold time:

33) YES NO NA Was a sufficient amount of holding time remaining to analyze the samples?

34) YES NO NA Do the sample containers contain the same preservative as what is stated on the COC?

35) YES NO NA Was the pH taken of all non-VOA preserved samples and written on the sample container?

36) YES NO NA Was the pH of acid preserved non-VOA samples < 2 & sodium hydroxide preserved samples > 12?

37) YES NO NA Unpreserved VOA Vials received? _____

38) YES NO NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF? _____

Lab notified if pH was not adequate: _____

Deficiencies: Received broken 2 voa Vial, 1 Amber liter from Sample ES074 and 4 voa and 7 Amber liter left. Received 1 voa vial broken 2 left for Sample ES075.

Signature of personnel receiving samples: _____ Second reviewer: _____

Signature of project manager notified: Renée Date and Time of notification: 4-18-12

Name of client notified: _____ Date and Time of notification: _____

Information given to client: _____

_____ by whom (Initials): _____

EPA 8015 Modified
Total Petroleum Hydrocarbons

EPA 8015 Modified
Total Petroleum Hydrocarbons
QC Summary

Method Blank
TPH Diesel Water

Blank Name/QCG: **120419W-59236 - 166194**
Batch ID: #TPETD-120419A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	04/19/12	04/24/12
BLANK	SURROGATE: OCTACOSANE (S)	106	28-142			%	04/19/12	04/24/12
BLANK	SURROGATE: ORTHO-TERPHEN	79.7	57-132			%	04/19/12	04/24/12

Quant Method: TPH0306.M
Run #: 423068
Instrument: Apollo
Sequence: 120423
Initials: TRL

Printed: 04/25/12 5:41:34 PM
GC SC-Blank-REG MDLs

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 67525

Case No: 67525 Date Analyzed: 04/24/12

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
120419A-BLK	Blank	28-142	106		57-132	79.7	
120419A-LCS	Lab Control Spike	28-142	113		57-132	103	
AY59236-MSD	Matrix SpikeD	28-142	122		57-132	89.3	
AY59236	ES074	28-142	110		57-132	85.8	
AY59237	ES075	28-142	106		57-132	82.2	
AY59236-MS	Matrix Spike	28-142	114		57-132	84.7	

Comments: Batch: #TPETD-120419A

Laboratory Control Spike Recovery

TPH Diesel Water

APPL ID: **120419W-59236 LCS - 166194**
Batch ID: #TPETD-120419A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL FUEL	2000	1620	81.0	61-143
SURROGATE: OCTACOSANE (S)	150	170	113	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	155	103	57-132

Comments: _____

Primary	SPK
Quant Method :	TPH0306.M
Extraction Date :	04/19/12
Analysis Date :	04/24/12
Instrument :	Apollo
Run :	423069
Initials :	TRL

Printed: 04/25/12 5:41:41 PM
APPL Standard LCS

Matrix Spike Recoveries

TPH Diesel Water

APPL ID: **120419W-59236 MS - 166194**
Batch ID: #TPETD-120419A
Sample ID: AY59236
Client ID: ES074

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 FUEL	2000	ND	1530	1570	76.5	78.5	61-143	2.6	30
SURROGATE: OCTACOSANE (S)	150	NA	171	183	114	122	28-142		
SURROGATE: ORTHO-TERPHENYL (S)	150	NA	127	134	84.7	89.3	57-132		

Comments: _____

Primary	SPK	DUP
Quant Method :	TPH0306.M	TPH0306.M
Extraction Date :	04/19/12	04/19/12
Analysis Date :	04/28/12	04/25/12
Instrument :	Apollo	Apollo
Run :	427047	423072
Initials :	TRL	

Printed: 04/30/12 3:47:55 PM
APPL MSD SCII

EPA 8015B-e

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 67525

Case No: 67525 Date Analyzed: 04/24/12

Matrix: WATER Instrument: Apollo

Blank ID: 120419A-BLK Time Analyzed: 2233

APPL ID.	Client Sample No.	File ID.	Date Analyzed
120419A-BLK	Blank	423068	04/24/12 2233
120419A-LCS	Lab Control Spike	423069	04/24/12 2257
120419A-MSD	Matrix SpikeD	423072	04/25/12 0009
AY59236	ES074	423075	04/25/12 0121
AY59237	ES075	423076	04/25/12 0145
120419A-MS	Matrix Spike	427047	04/28/12 0308

Comments: Batch: #TPETD-120419A

Printed: 04/30/12 3:47:36 PM
Form 4, Blank Summary

EPA 8015 Modified
Total Petroleum Hydrocarbons
Sample Data

TPH Diesel Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Max Solmssen

Project: LTM Red Hill / 1022-024

ARF: 67525

Sample ID: ES074

APPL ID: AY59236

Sample Collection Date: 04/17/12

QCG: #TPETD-120419A-166194

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	04/19/12	04/25/12
EPA 8015B-	SURROGATE: OCTACOSANE (S)	110	28-142			%	04/19/12	04/25/12
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S	85.8	57-132			%	04/19/12	04/25/12

Quant Method:	TPH0306.M
Run #:	423075
Instrument:	Apollo
Sequence:	120423
Dilution Factor:	1
Initials:	TRL

Printed: 04/25/12 5:41:57 PM
APPL-F1-SC-NoMC-REG MDLs

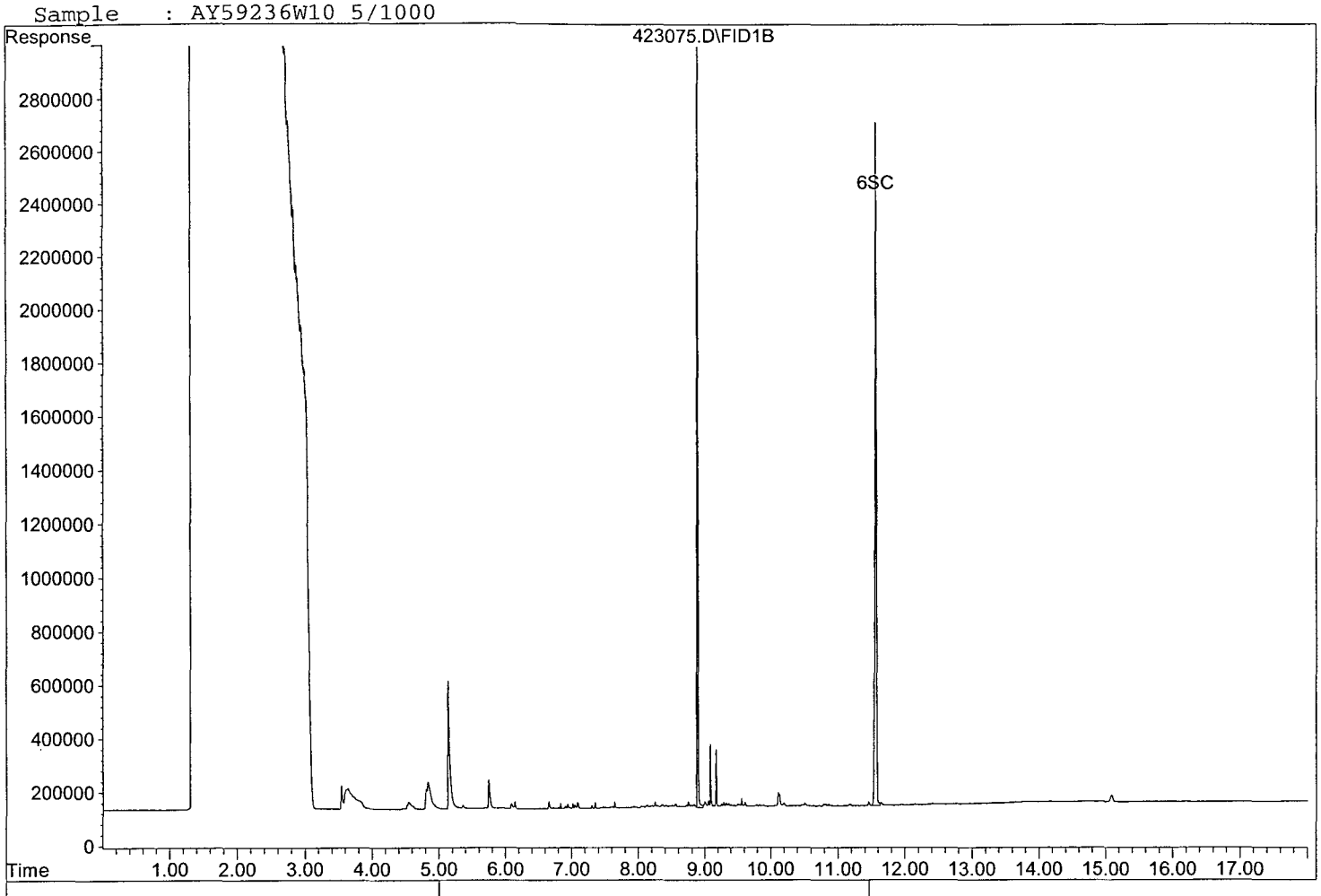
Data File : G:\APOLLO\DATA\120423\423075.D Vial: 75
Acq On : 4-25-12 1:21:48 Operator: LAC
Sample : AY59236W10 5/1000 Inst : Apollo
Misc : Water Multiplr: 5.00
IntFile : events.e
Quant Time: May 3 13:37 2012 Quant Results File: TPH0306.RES

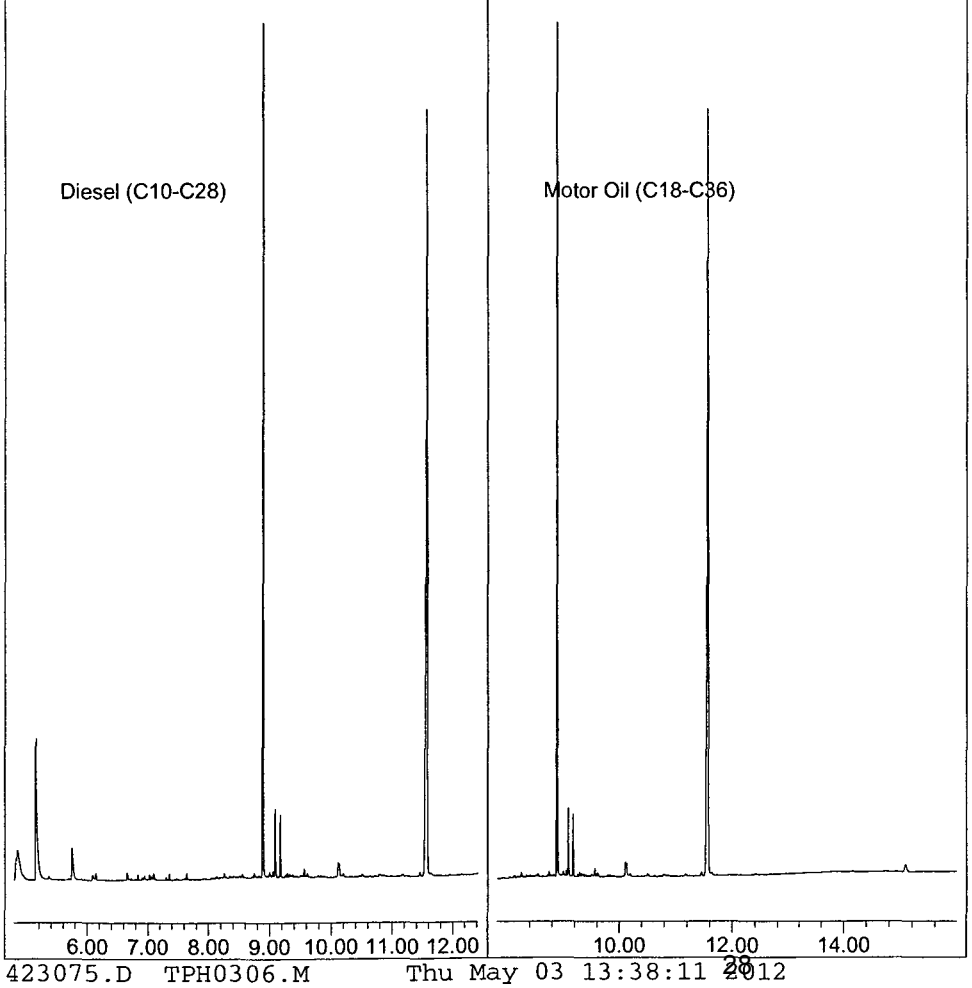
Method : G:\APOLLO\DATA\120423\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Apr 25 16:50:48 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.89	35573879	128.673 ppb
Surrogate Spike 150.000		Recovery =	85.78%
6) SC Octacosane(S)	11.57	39020628	165.155 ppb
Surrogate Spike 150.000		Recovery =	110.10%
Target Compounds			

Data File: G:\APOLLO\DATA\120423\423075.D
Sample : AY59236W10 5/1000





TPH Diesel Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Max Solmssen

Project: LTM Red Hill / 1022-024

ARF: 67525

Sample ID: ES075

APPL ID: AY59237

Sample Collection Date: 04/17/12

QCG: #TPETD-120419A-166194

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	04/19/12	04/25/12
EPA 8015B-	SURROGATE: OCTACOSANE (S)	106	28-142			%	04/19/12	04/25/12
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S	82.2	57-132			%	04/19/12	04/25/12

Quant Method: TPH0306.M
Run #: 423076
Instrument: Apollo
Sequence: 120423
Dilution Factor: 1
Initials: TRL

Printed: 04/25/12 5:41:57 PM
APPL-F1-SC-NoMC-REG MDLs

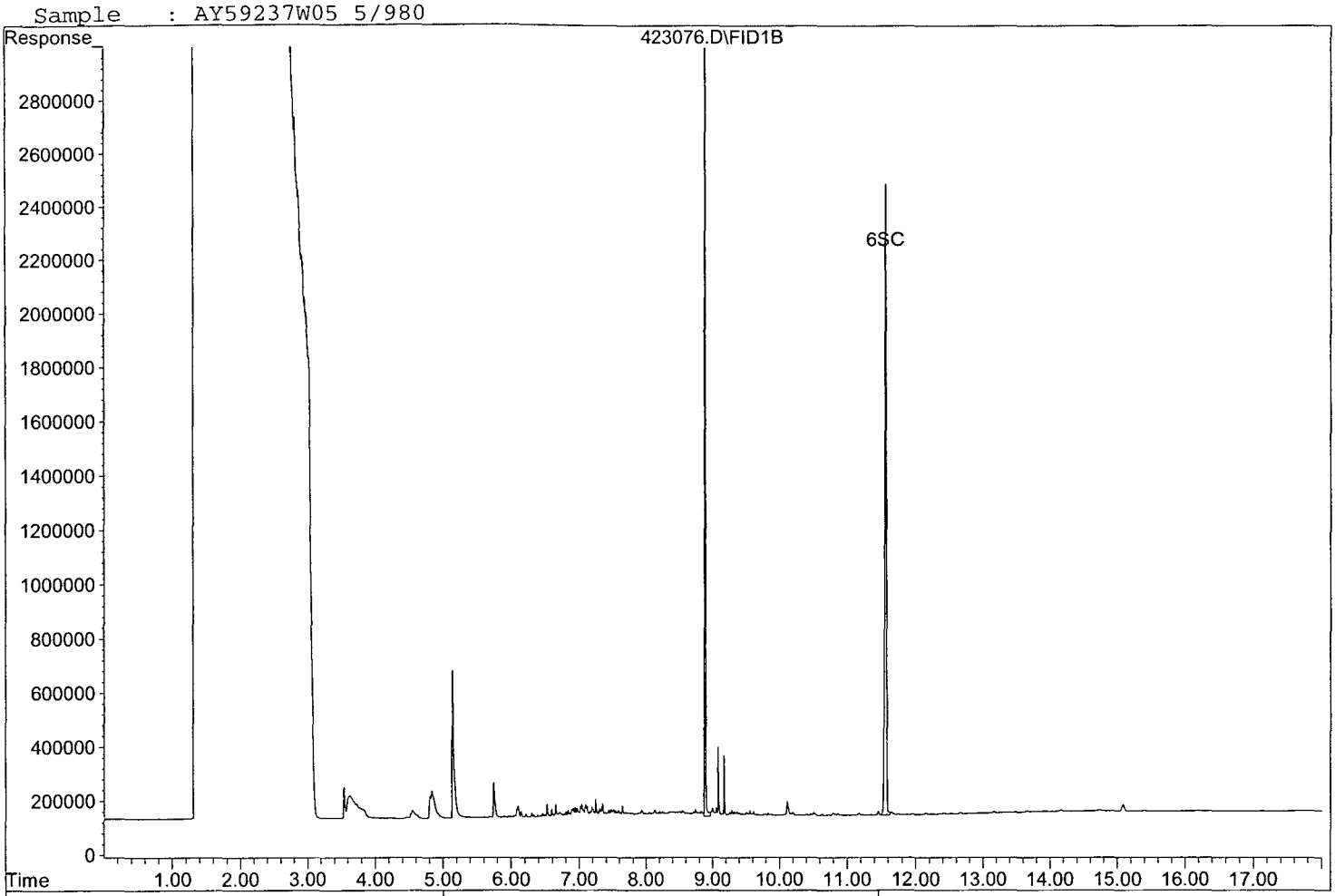
Data File : G:\APOLLO\DATA\120423\423076.D Vial: 76
Acq On : 4-25-12 1:45:39 Operator: LAC
Sample : AY59237W05 5/980 Inst : Apollo
Misc : Water Multiplr: 5.10
IntFile : events.e
Quant Time: May 3 13:37 2012 Quant Results File: TPH0306.RES

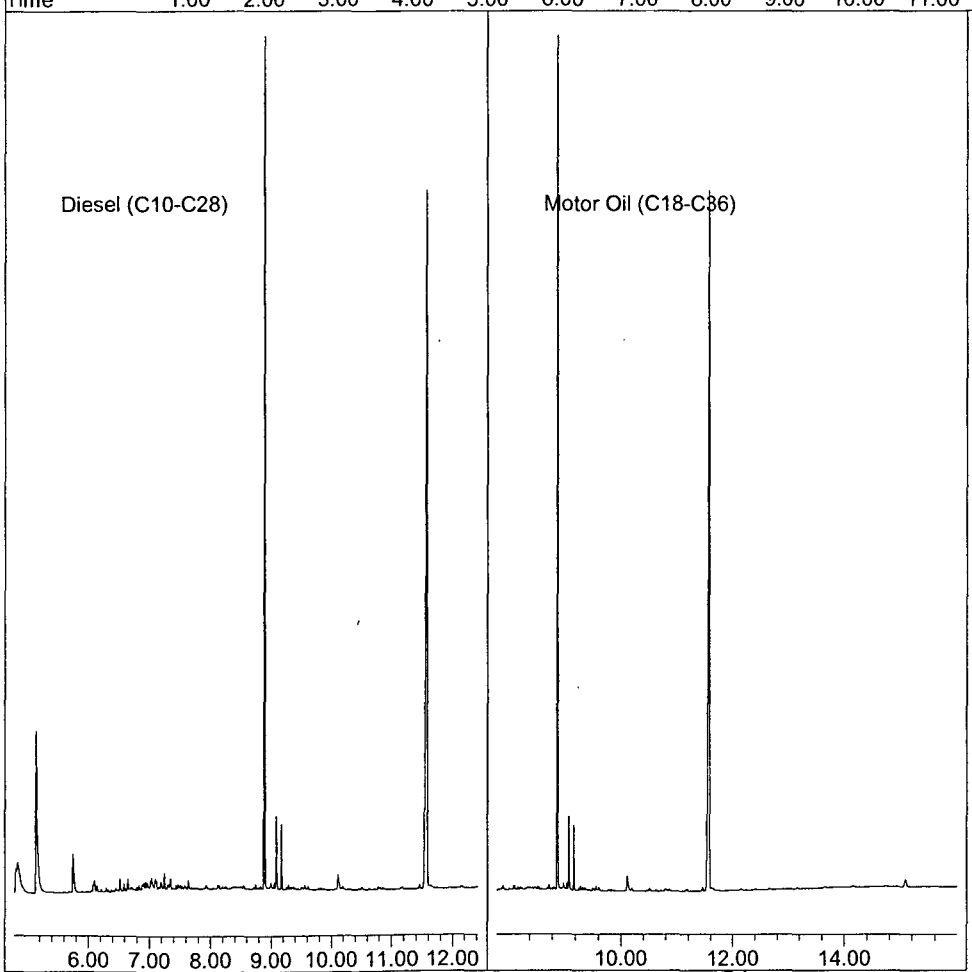
Method : G:\APOLLO\DATA\120423\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Apr 25 16:50:48 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.89	34068491	125.742 ppb
Surrogate Spike 153.061		Recovery =	82.15%
6) SC Octacosane(S)	11.57	37475491	161.852 ppb
Surrogate Spike 153.061		Recovery =	105.74%
Target Compounds			

Data File: G:\APOLLO\DATA\120423\423076.D
Sample : AY59237W05 5/980





EPA 8015 Modified
Total Petroleum Hydrocarbons

Calibration Data

TPH Extractables
TPH0306

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 67525
Case No: Initial Cal. Date: 03/06/12
Matrix: Instrument: Apollo Initials: LAC

306021.D 306022.D 306023.D 306024.D 306025.D 306026.D
306028.D 306029.D 306030.D 306031.D 306032.D 306033.D
306034.D 306035.D 306036.D 306037.D 306038.D 306039.D

		Compound	1	2	3	4	5	6			Avg	%RSD		
1	HATM	Diesel (C10-C28)	529470	572376	554327	532214	548865	544808			547010	2.9	HATM	
2	HBTM	Motor Oil (C18-C36)	330338	392850	386776	387626	385763	416808			383360	7.4	HBTM	
3	SA	Not Used(S)	818070	901397	771640	752170	778035	779206			800086	6.8	SA	
4	SC	Ortho-Terphenyl(S)		758155	695456	669026	662710	670505			691170	5.7	SC	
5	SA	Not Used2(S)	639279	629664	580197	560231	582428	580127			595321	5.3	SA	
6	SC	Octacosane(S)		649248	593354	568152	567907	574675			590667	5.8	SC	
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														

0.967941

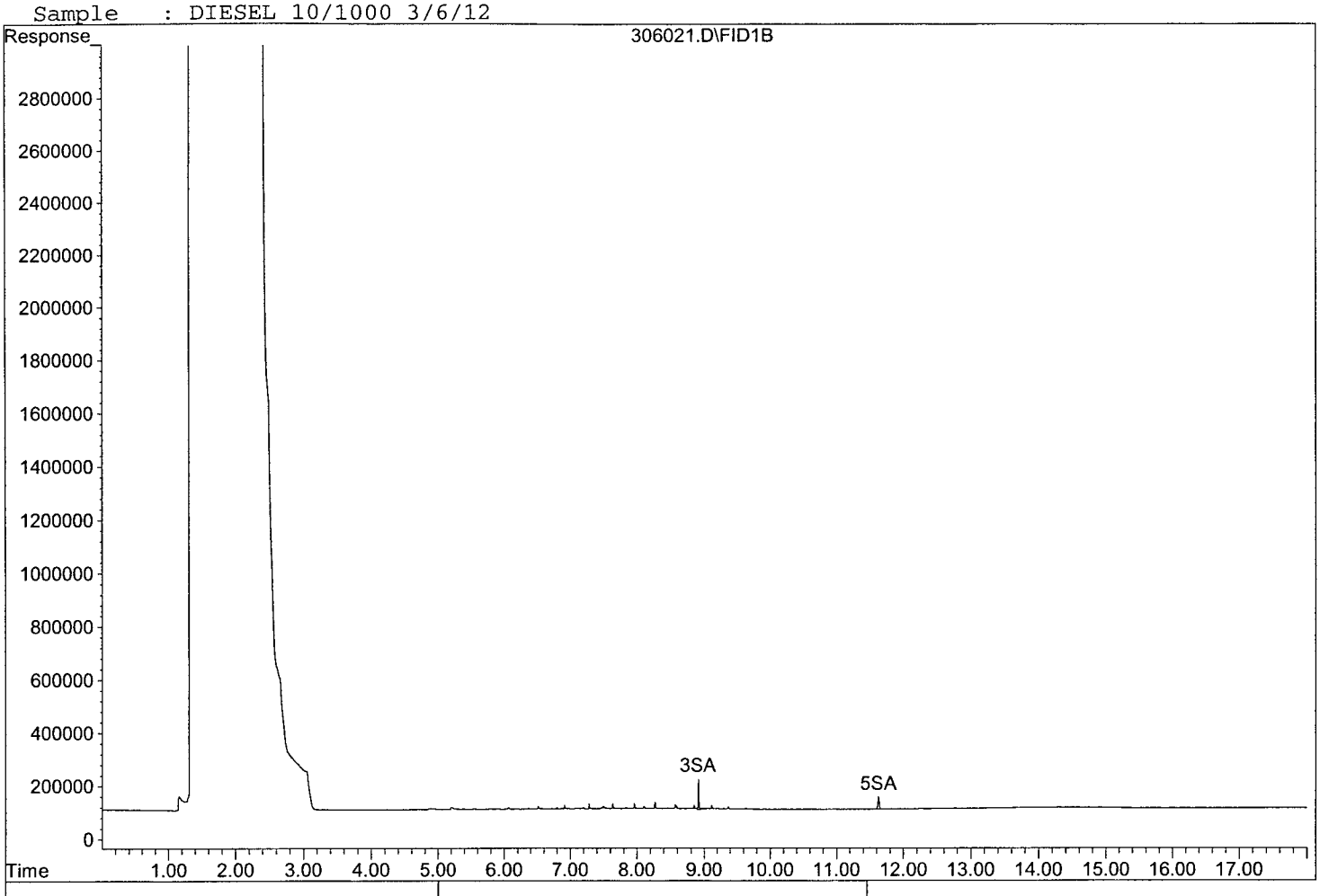
Data File : G:\APOLLO\DATA\120306\306021.D Vial: 21
Acq On : 3-6-12 17:25:38 Operator: LAC
Sample : DIESEL 10/1000 3/6/12 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 7 9:48 2012 Quant Results File: TPH0306.RES

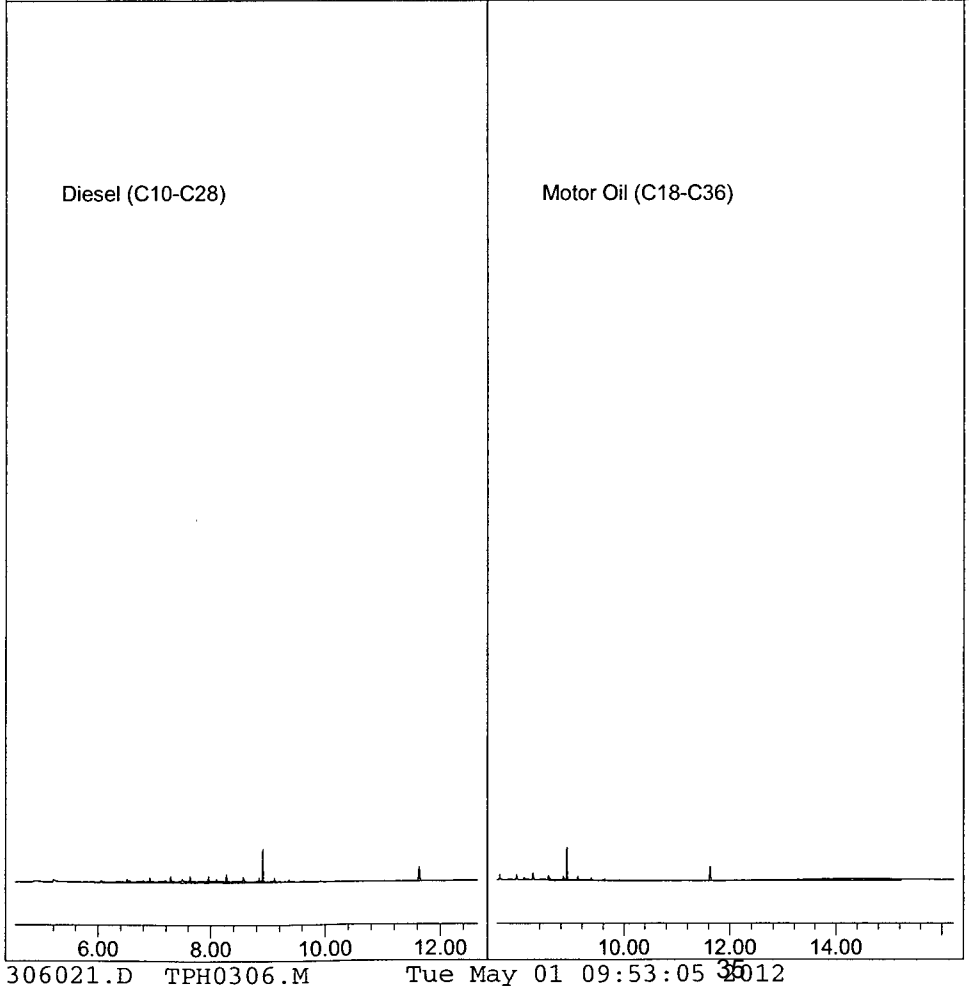
Method : G:\APOLLO\DATA\120427\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Apr 30 15:43:58 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.91	818070	0.500 ppb
Surrogate Spike 30.000	Recovery	=	1.67%
5) SA Not Used2(S)	11.63	639279	0.500 ppb
Surrogate Spike 30.000	Recovery	=	1.67%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	10589402	10.000 ppb

Data File: G:\APOLLO\DATA\120306\306021.D
Sample : DIESEL 10/1000 3/6/12





306021.D TPH0306.M Tue May 01 09:53:05 2012

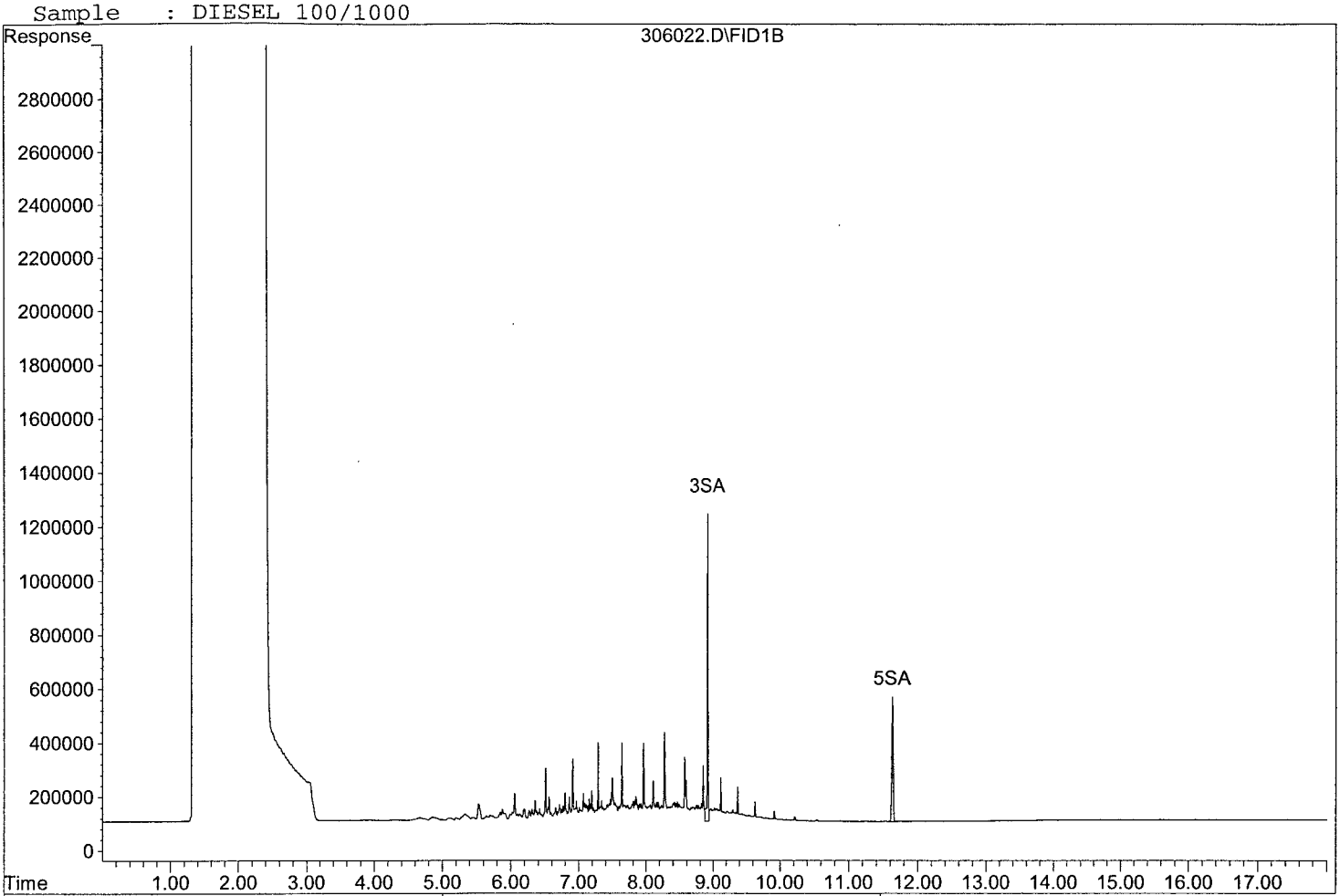
Data File : G:\APOLLO\DATA\120306\306022.D Vial: 22
Acq On : 3-6-12 17:49:21 Operator: LAC
Sample : DIESEL 100/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 7 9:49 2012 Quant Results File: TPH0306.RES

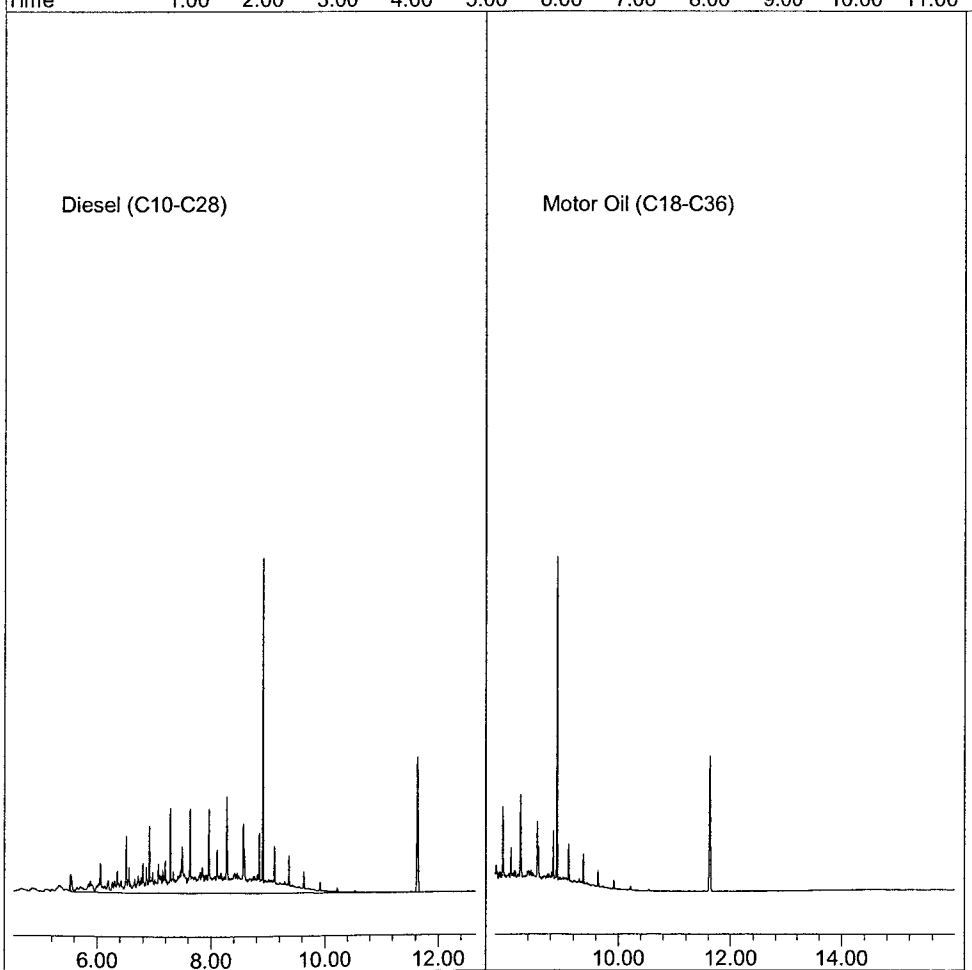
Method : G:\APOLLO\DATA\120427\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Apr 30 15:43:58 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.91	9013972	5.509 ppb
Surrogate Spike 30.000	Recovery =		18.36%
5) SA Not Used2(S)	11.63	6296635	4.925 ppb
Surrogate Spike 30.000	Recovery =		16.42%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	114475207	108.104 ppb

Data File: G:\APOLLO\DATA\120306\306022.D
Sample : DIESEL 100/1000





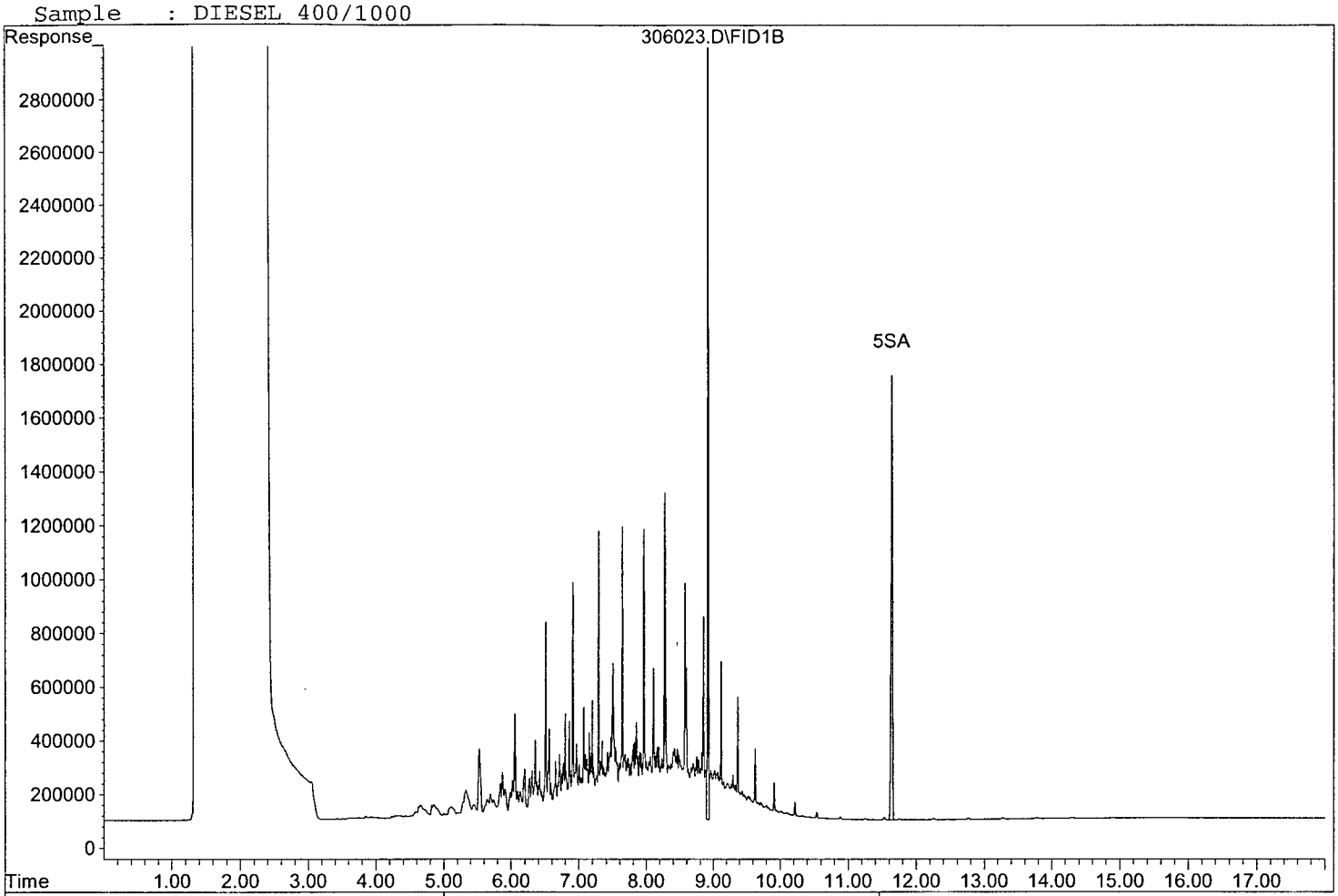
Data File : G:\APOLLO\DATA\120306\306023.D Vial: 23
Acq On : 3-6-12 18:12:55 Operator: LAC
Sample : DIESEL 400/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 7 9:49 2012 Quant Results File: TPH0306.RES

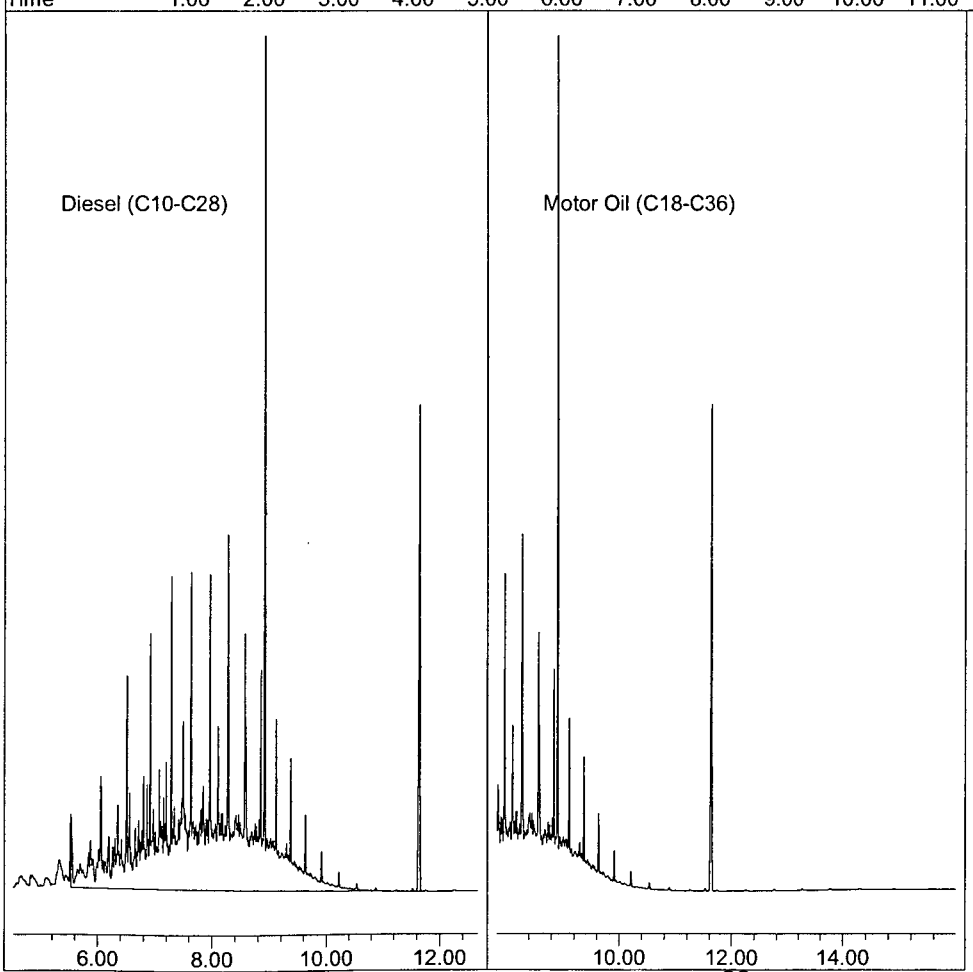
Method : G:\APOLLO\DATA\120427\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Apr 30 15:43:58 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.92	30865588	17.951 ppb
Surrogate Spike 30.000	Recovery =		59.84%
5) SA Not Used2(S)	11.64	23207886	18.289 ppb
Surrogate Spike 30.000	Recovery =		60.96%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	443461339	402.471 ppb

Data File: G:\APOLLO\DATA\120306\306023.D
Sample : DIESEL 400/1000





Data File : G:\APOLLO\DATA\120306\306024.D Vial: 24
Acq On : 3-6-12 18:36:31 Operator: LAC
Sample : DIESEL 600/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 7 9:49 2012 Quant Results File: TPH0306.RES

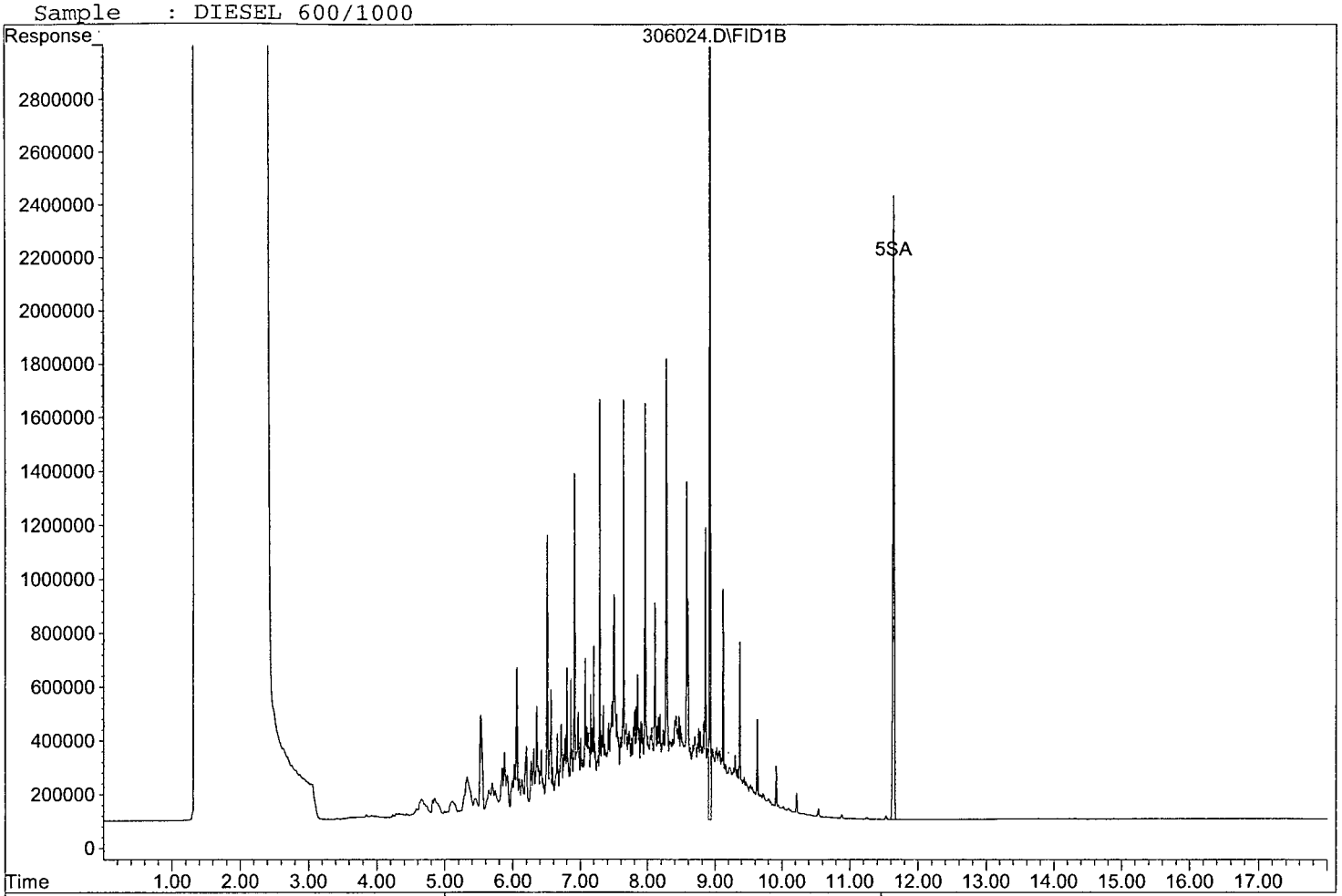
Method : G:\APOLLO\DATA\120427\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Apr 30 15:43:58 2012
Response via : Multiple Level Calibration

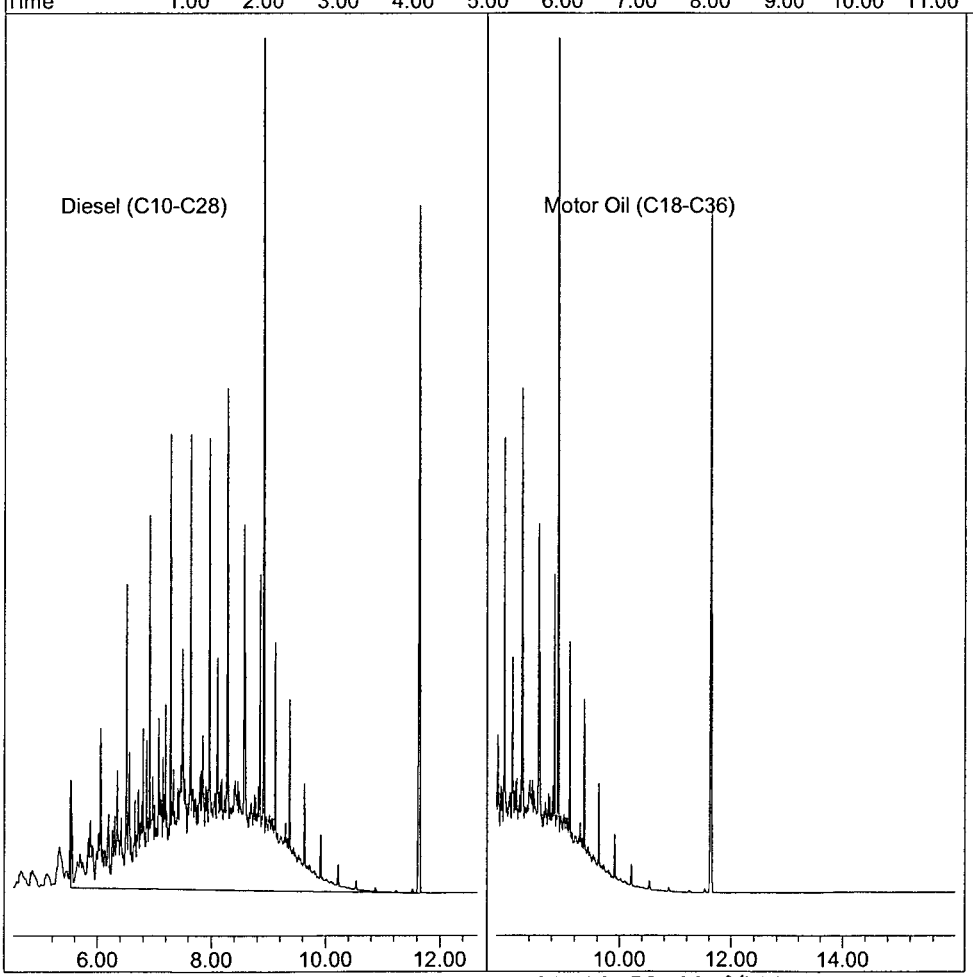
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.92	45130195	27.175 ppb
Surrogate Spike 30.000	Recovery =		90.58%
5) SA Not Used2(S)	11.64	33613879	27.267 ppb
Surrogate Spike 30.000	Recovery =		90.89%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	638656371	578.433 ppb

(f)=RT Delta > 1/2 Window 40 (m)=manual int.

Data File: G:\APOLLO\DATA\120306\306024.D
Sample : DIESEL 600/1000





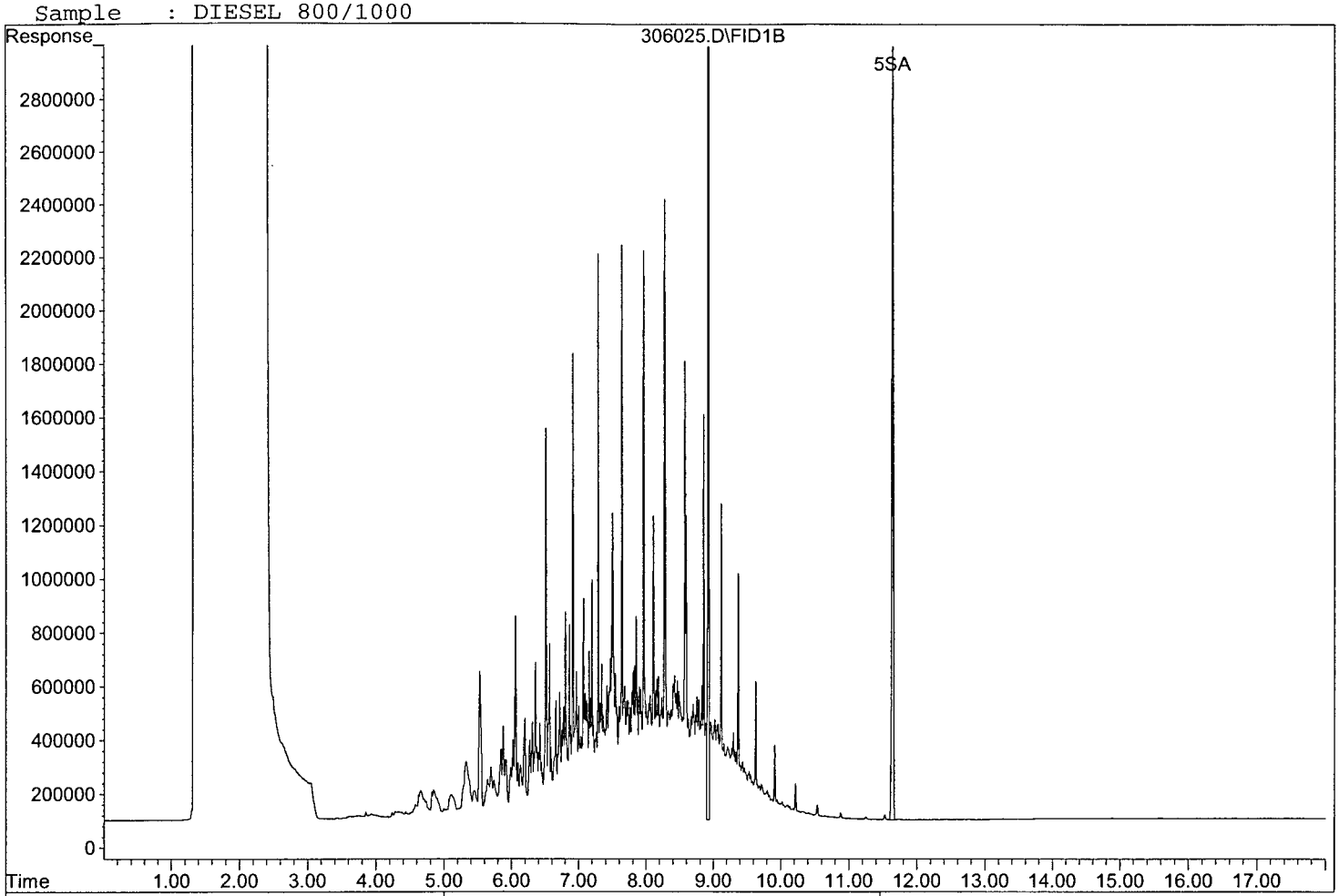
Data File : G:\APOLLO\DATA\120306\306025.D Vial: 25
Acq On : 3-6-12 19:00:08 Operator: LAC
Sample : DIESEL 800/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 7 9:50 2012 Quant Results File: TPH0306.RES

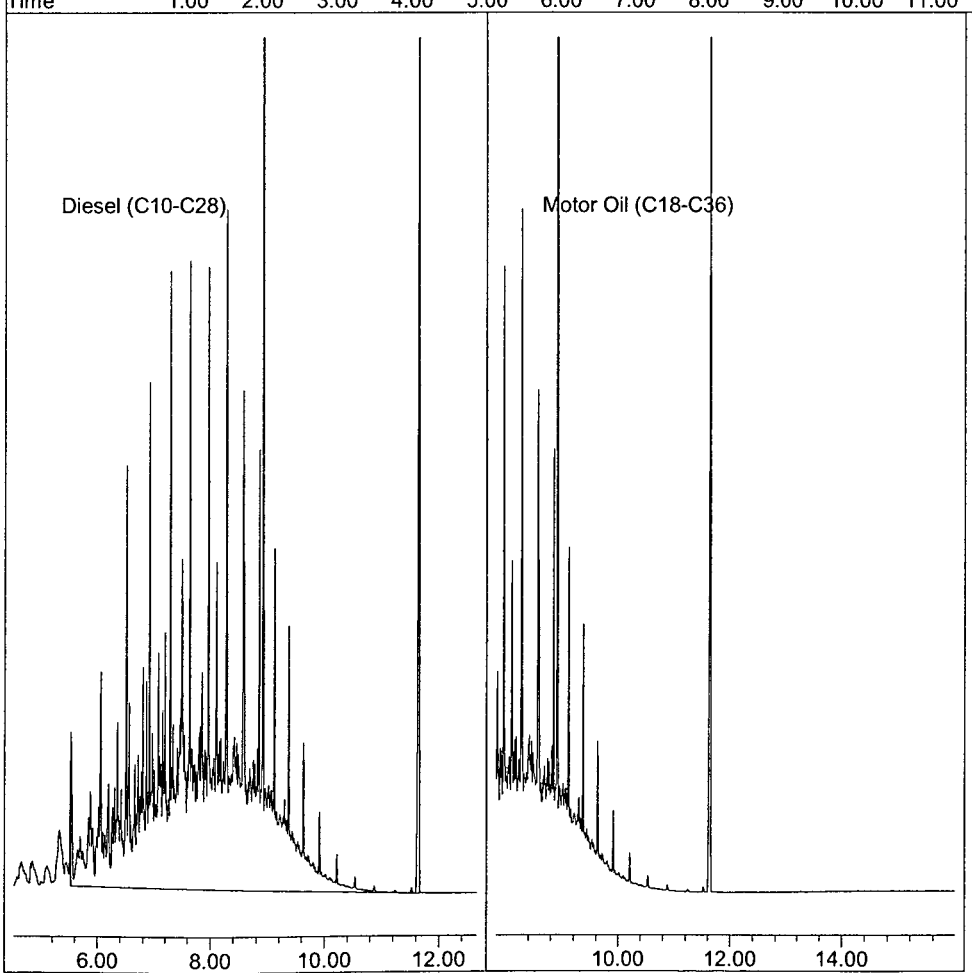
Method : G:\APOLLO\DATA\120427\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Apr 30 15:43:58 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.92	62242769	38.383 ppb
Surrogate Spike 30.000	Recovery =		127.94%
5) SA Not Used2(S)	11.65	46594210	38.677 ppb
Surrogate Spike 30.000	Recovery =		128.92%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	878183394	802.585 ppb

Data File: G:\APOLLO\DATA\120306\306025.D
Sample : DIESEL 800/1000





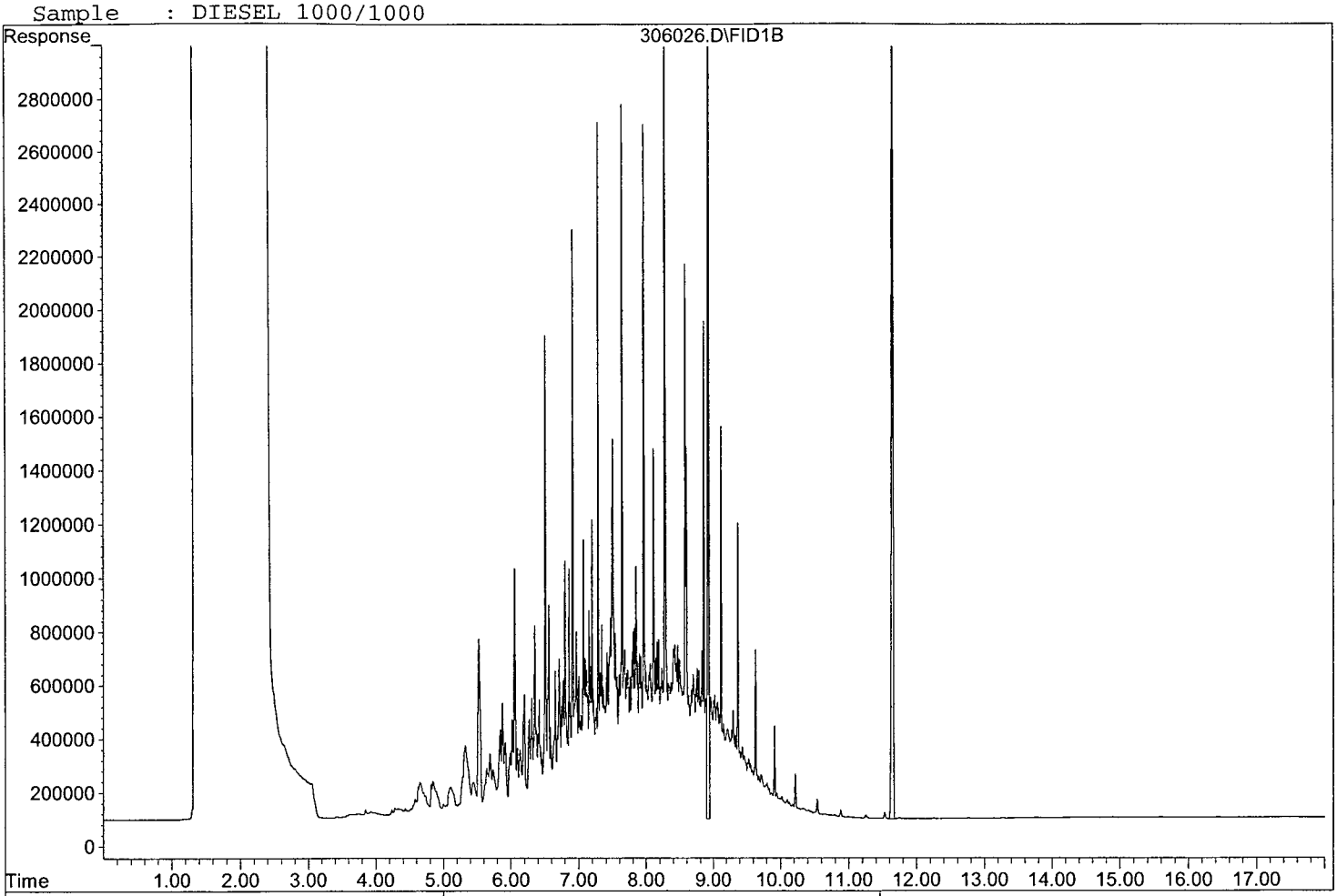
Data File : G:\APOLLO\DATA\120306\306026.D Vial: 26
Acq On : 3-6-12 19:23:45 Operator: LAC
Sample : DIESEL 1000/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Mar 7 9:50 2012 Quant Results File: TPH0306.RES

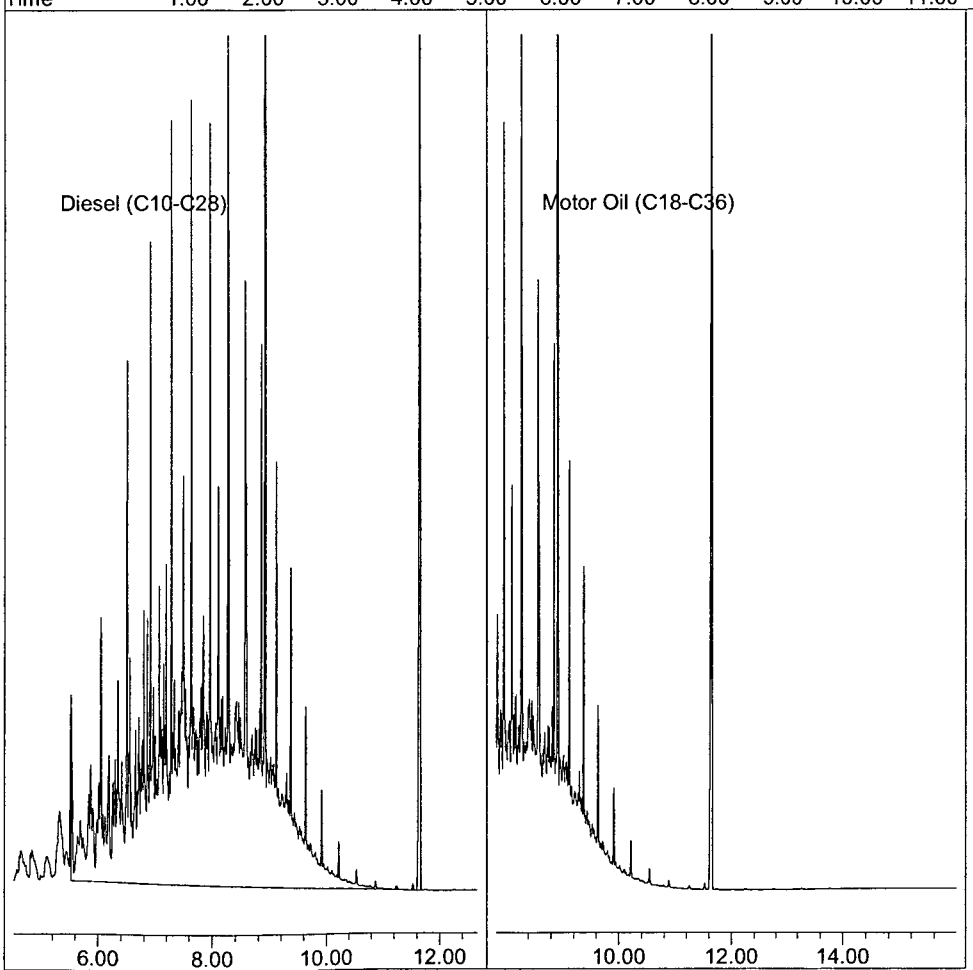
Method : G:\APOLLO\DATA\120427\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Apr 30 15:43:58 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.92	77920610	48.442 ppb
Surrogate Spike 30.000	Recovery =		161.47%
5) SA Not Used2(S)	11.65	58012669	48.476 ppb
Surrogate Spike 30.000	Recovery =		161.59%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	1089615924	995.174 ppb

Data File: G:\APOLLO\DATA\120306\306026.D
Sample : DIESEL 1000/1000





TPH Extractables
TPH0306

Form 7

Second Source Calibration

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

SDG No: 67525
Date Analyzed: 03/06/12
Instrument: Apollo
Initial Cal. Date: 03/06/12
Data File: 306027.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C28)	547010	547335	0.06	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			0.1		

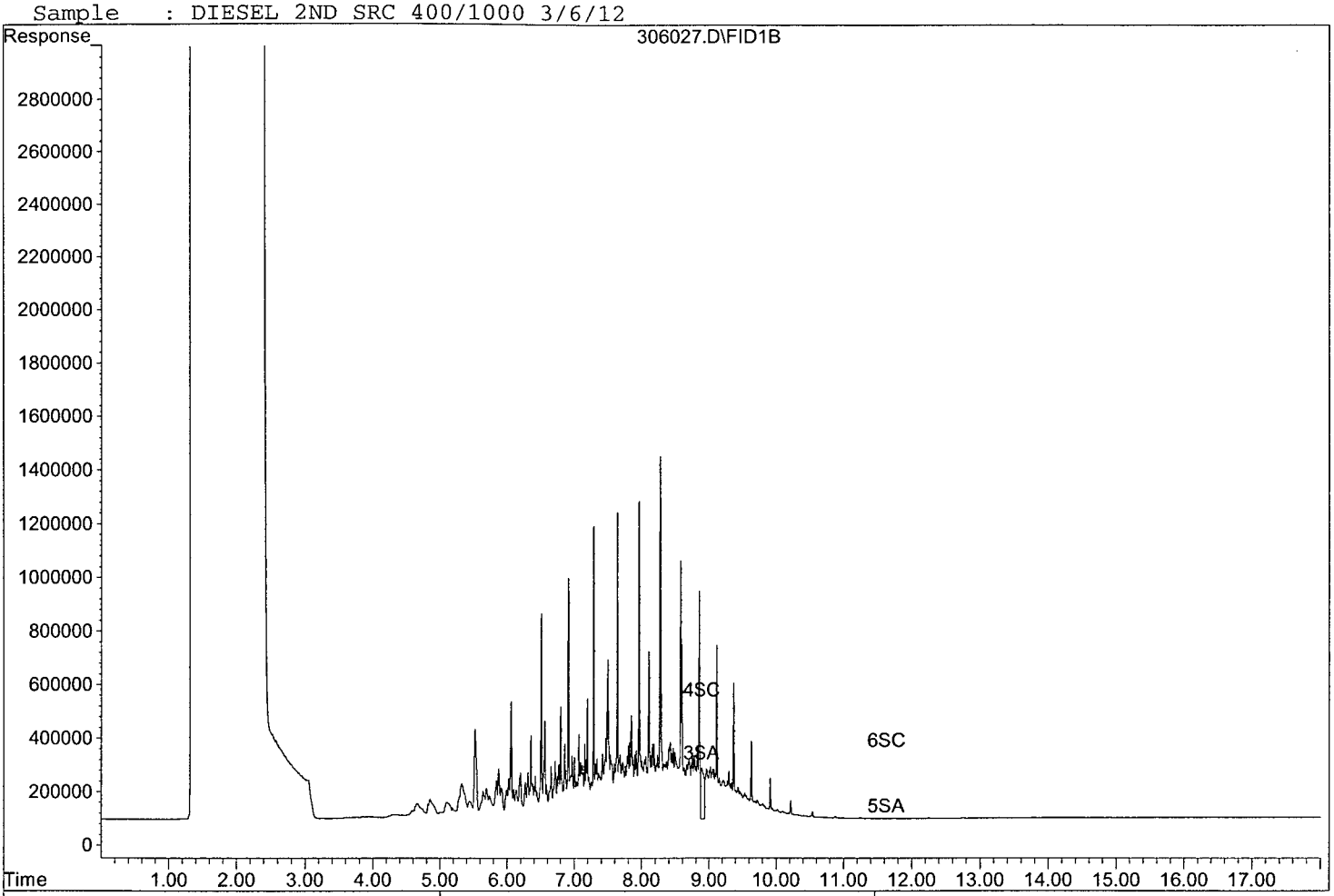
Data File : G:\APOLLO\DATA\120306\306027.D Vial: 27
Acq On : 3-6-12 19:47:20 Operator: LAC
Sample : DIESEL 2ND SRC 400/1000 3/6/12 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 3 12:39 2012 Quant Results File: TPH0306.RES

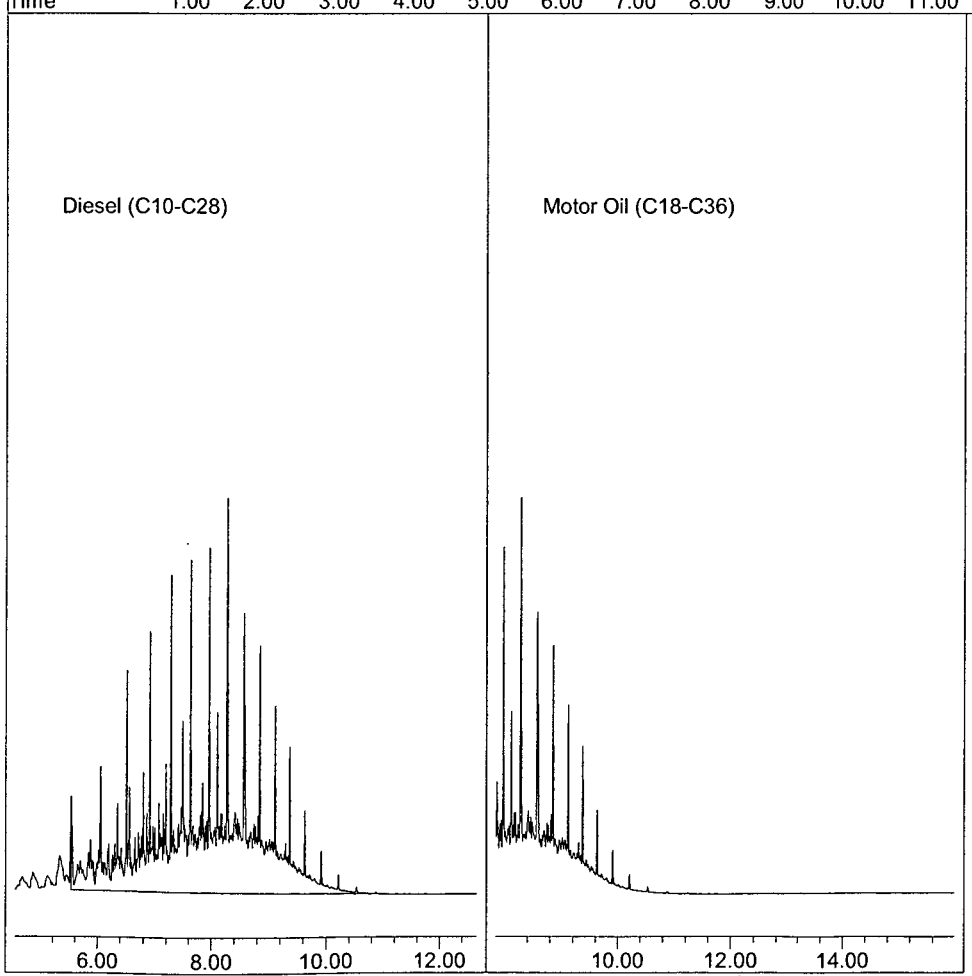
Method : G:\APOLLO\DATA\120427\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Apr 30 15:43:58 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	8.88	6428955	4.018	ppb
Surrogate Spike 30.000	Recovery =		13.39%	
4) SC Ortho-Terphenyl(S)	8.88	6428955	4.651	ppb
Surrogate Spike 30.000	Recovery =		15.50%	
5) SA Not Used2(S)	11.63	18476	0.016	ppb
Surrogate Spike 30.000	Recovery =		0.05%	
6) SC Octacosane(S)	11.63	18476	0.016	ppb
Surrogate Spike 30.000	Recovery =		0.05%	
Target Compounds				
1) HATM Diesel (C10-C28)	8.60	437868309	400.238	ppb

Data File: G:\APOLLO\DATA\120306\306027.D
Sample : DIESEL 2ND SRC 400/1000 3/6/12





306027.D TPH0306.M Tue May 01 09:53:41 2012

TPH Extractables
TPH0306

Form 7

Continuing Calibration

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

SDG No: 67525
Date Analyzed: 04/24/12
Instrument: Apollo
Initial Cal. Date: 04/23/12
Data File: 423066.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C28)	547010	601270	9.9	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			9.9		

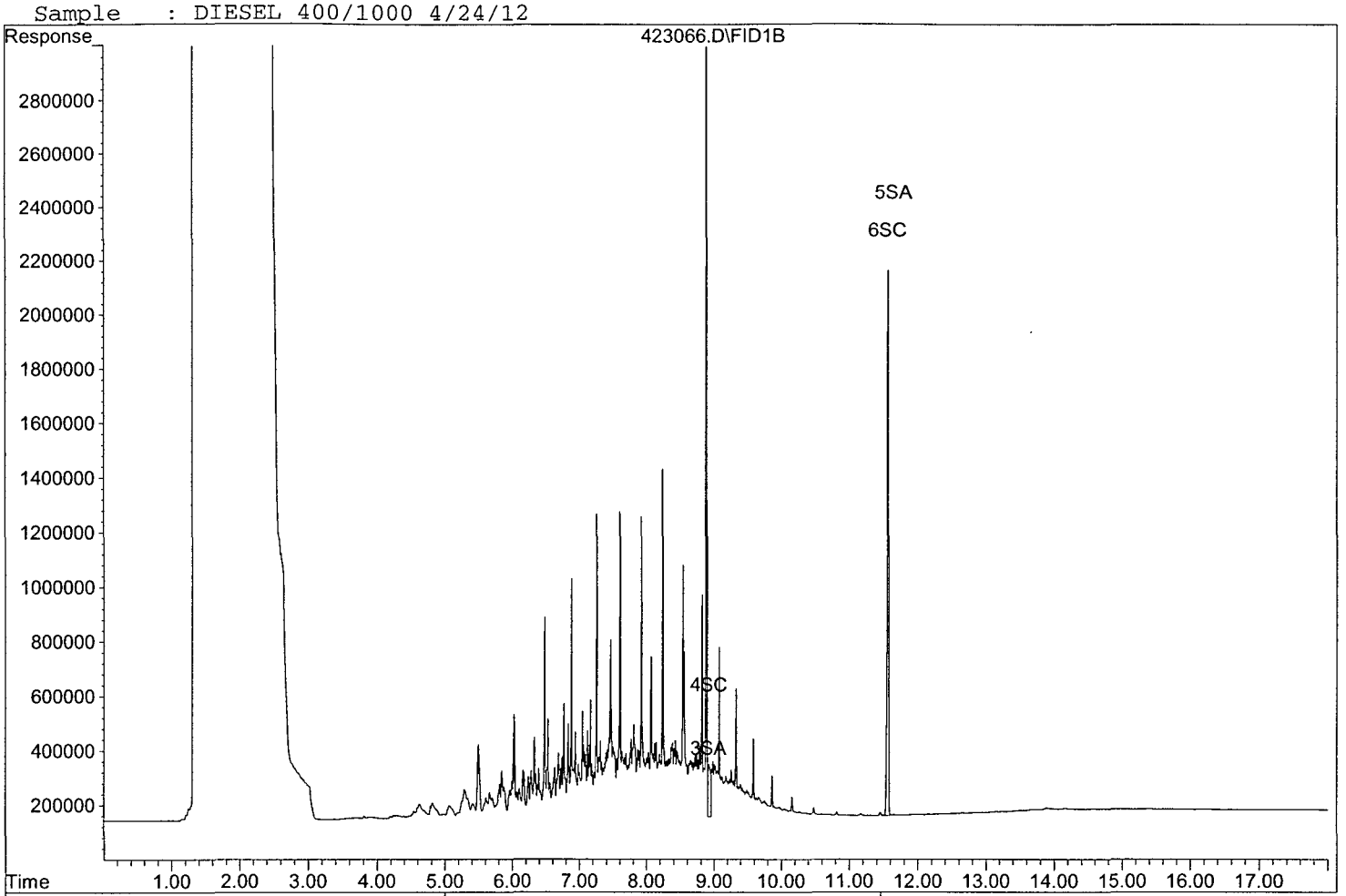
Data File : G:\APOLLO\DATA\120423\423066.D Vial: 66
Acq On : 4-24-12 21:44:51 Operator: LAC
Sample : DIESEL 400/1000 4/24/12 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 25 8:28 2012 Quant Results File: TPH0306.RES

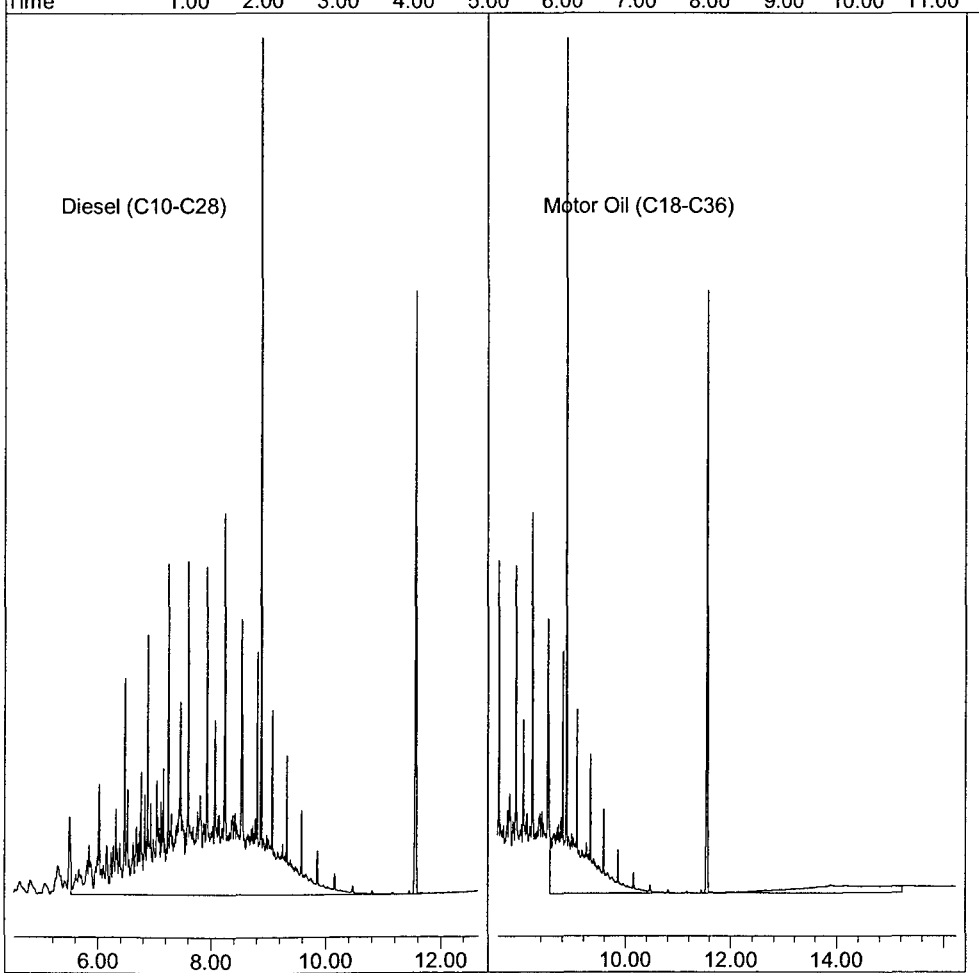
Method : G:\APOLLO\DATA\120427\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Apr 30 15:43:58 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.92	5076601	3.173 ppb
Surrogate Spike 30.000	Recovery =		10.58%
4) SC Ortho-Terphenyl(S)	8.92	5076601	3.672 ppb
Surrogate Spike 30.000	Recovery =		12.24%
5) SA Not Used2(S)	11.66	91709	0.077 ppb
Surrogate Spike 30.000	Recovery =		0.26%
6) SC Octacosane(S)	11.57	27771415	23.509 ppb
Surrogate Spike 30.000	Recovery =		78.36%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	481015774	439.677 ppb
2) HBTM Motor Oil (C18-C36)	11.91	167885873	218.966 ppb

Data File: G:\APOLLO\DATA\120423\423066.D
Sample : DIESEL 400/1000 4/24/12





TPH Extractables
TPH0306

Form 7

Continuing Calibration

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

SDG No: 67525
Date Analyzed: 04/25/12
Instrument: Apollo
Initial Cal. Date: 04/23/12
Data File: 423077.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	547010	633769	16	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			16.0		

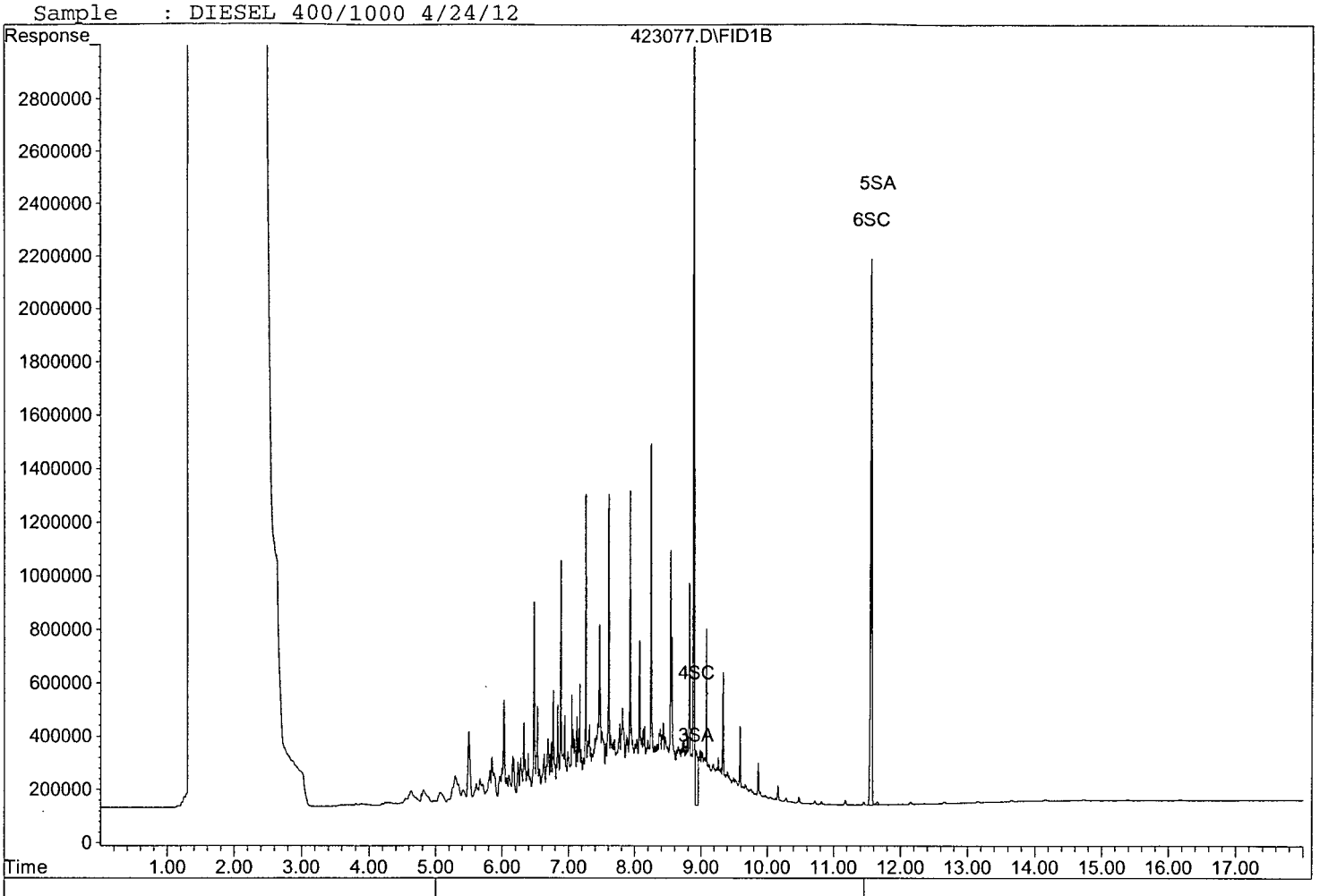
Data File : G:\APOLLO\DATA\120423\423077.D Vial: 77
Acq On : 4-25-12 2:09:29 Operator: LAC
Sample : DIESEL 400/1000 4/24/12 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 25 9:13 2012 Quant Results File: TPH0306.RES

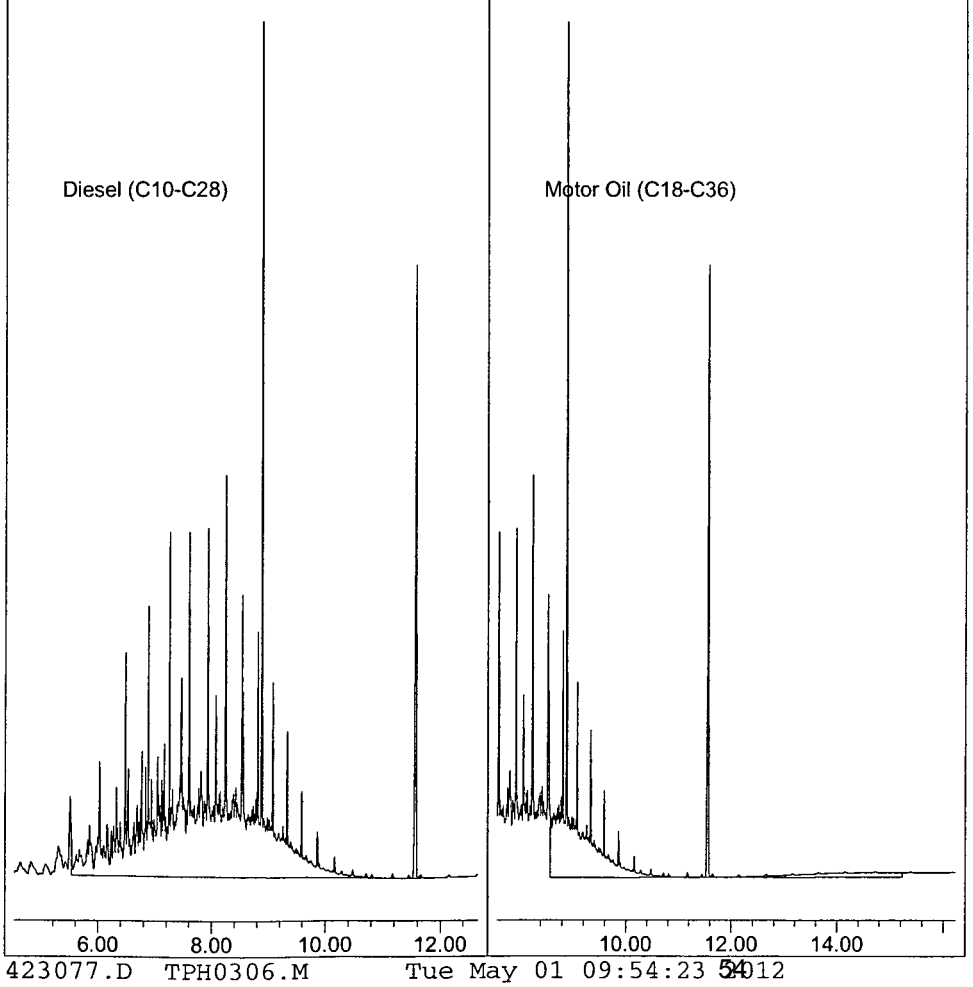
Method : G:\APOLLO\DATA\120427\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Apr 30 15:43:58 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.92	5511954	3.445 ppb
Surrogate Spike 30.000	Recovery =		11.48%
4) SC Ortho-Terphenyl(S)	8.92	5511954	3.987 ppb
Surrogate Spike 30.000	Recovery =		13.29%
5) SA Not Used2(S)	11.66	264168	0.222 ppb
Surrogate Spike 30.000	Recovery =		0.74%
6) SC Octacosane(S)	11.56	29006021	24.554 ppb
Surrogate Spike 30.000	Recovery =		81.85%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	507015307	463.443 ppb
2) HBTM Motor Oil (C18-C36)	11.91	169904243	221.599 ppb

Data File: G:\APOLLO\DATA\120423\423077.D
Sample : DIESEL 400/1000 4/24/12





TPH Extractables
TPH0306

Form 7

Continuing Calibration

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

SDG No: 67525
Date Analyzed: 04/27/12
Instrument: Apollo
Initial Cal. Date: 04/27/12
Data File: 427035.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C28)	547010	527112	3.6	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			3.6		

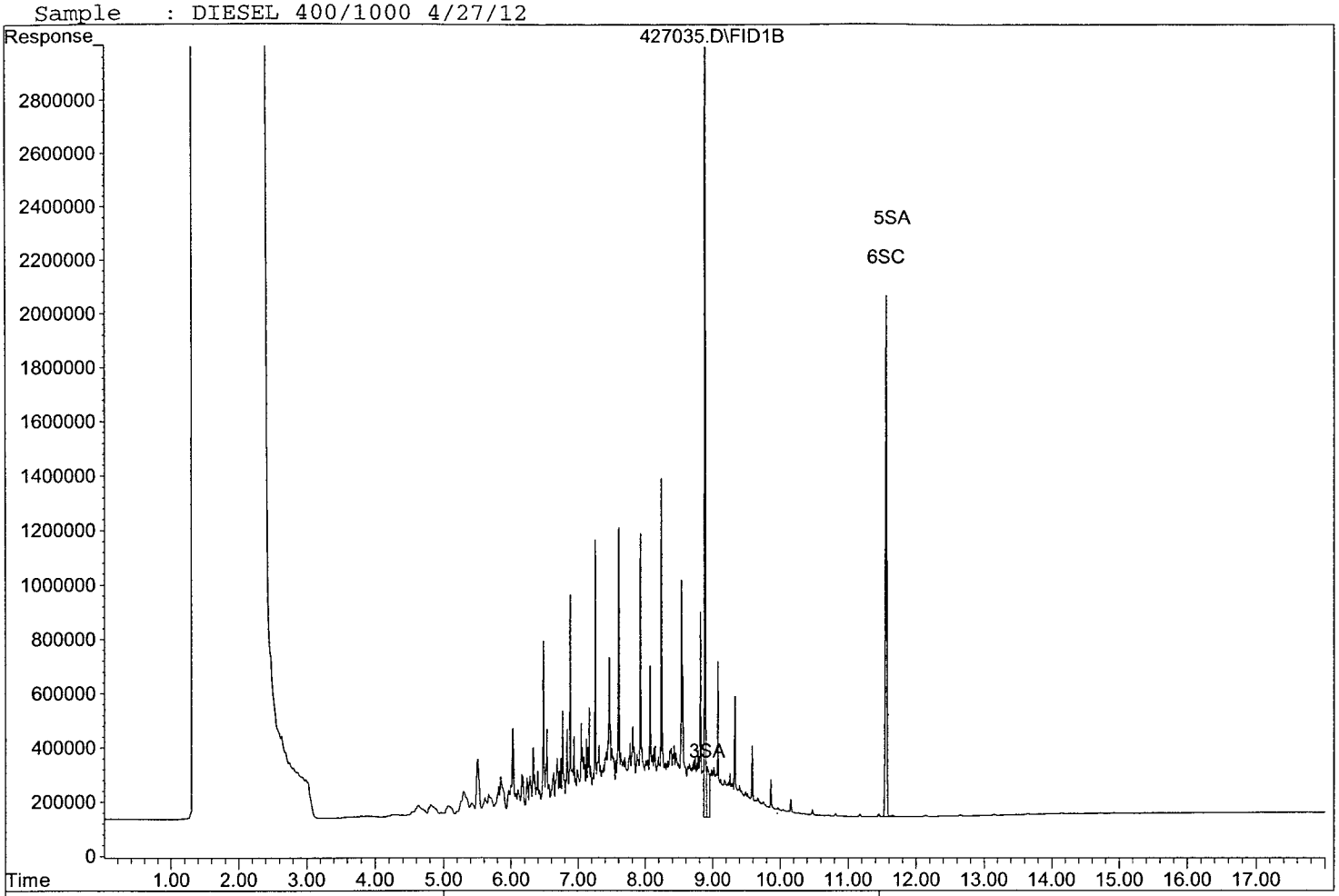
Data File : G:\APOLLO\DATA\120427\427035.D Vial: 35
Acq On : 4-27-12 22:25:15 Operator: LAC
Sample : DIESEL 400/1000 4/27/12 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: May 1 9:56 2012 Quant Results File: TPH0306.RES

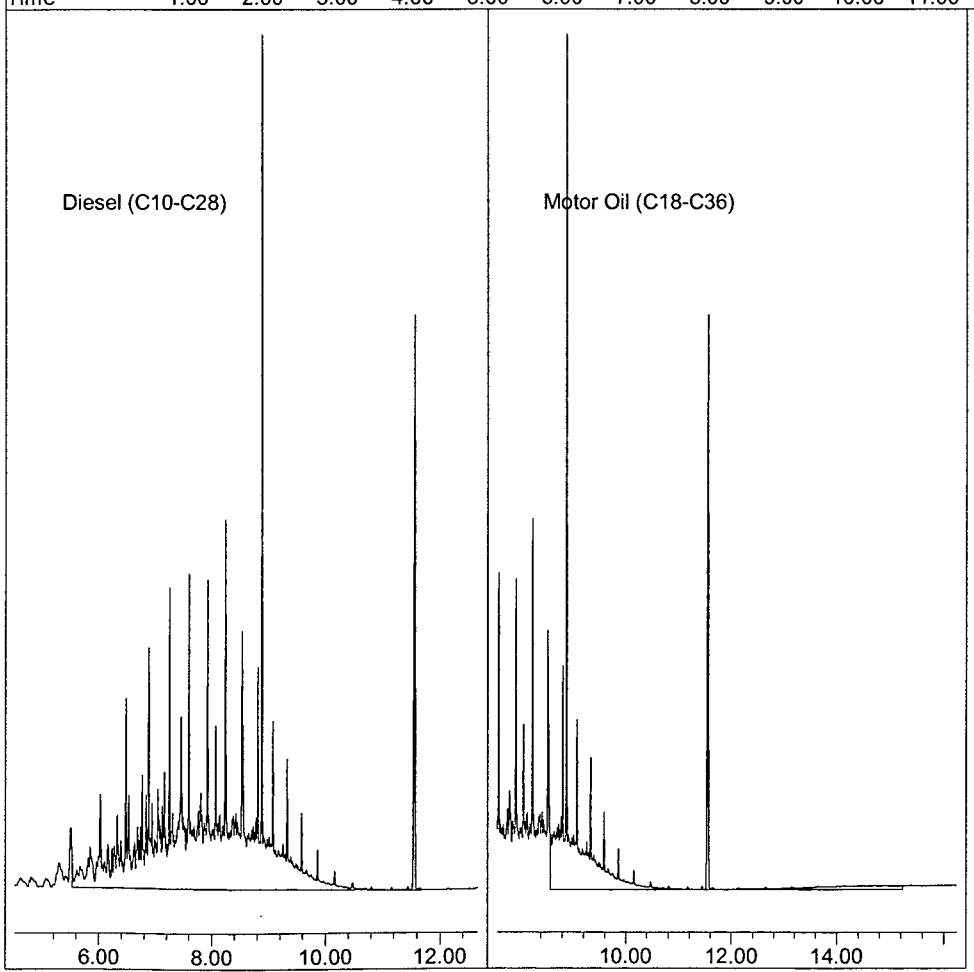
Method : G:\APOLLO\DATA\120427\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Apr 30 15:43:58 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.92	5005038	3.128 ppb
Surrogate Spike 30.000	Recovery =		10.43%
4) SC Ortho-Terphenyl(S)	8.88	30767127	22.257 ppb
Surrogate Spike 30.000	Recovery =		74.19%
5) SA Not Used2(S)	11.65	130670	0.110 ppb
Surrogate Spike 30.000	Recovery =		0.37%
6) SC Octacosane(S)	11.56	26963900	22.825 ppb
Surrogate Spike 30.000	Recovery =		76.08%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	421689428	385.450 ppb
2) HBTM Motor Oil (C18-C36)	11.91	118173332	154.128 ppb

Data File: G:\APOLLO\DATA\120427\427035.D
Sample : DIESEL 400/1000 4/27/12





TPH Extractables
TPH0306

Form 7

Continuing Calibration

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

SDG No: 67525
Date Analyzed: 04/28/12
Instrument: Apollo
Initial Cal. Date: 04/27/12
Data File: 427048.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C28)	547010	553526	1.2	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			1.2		

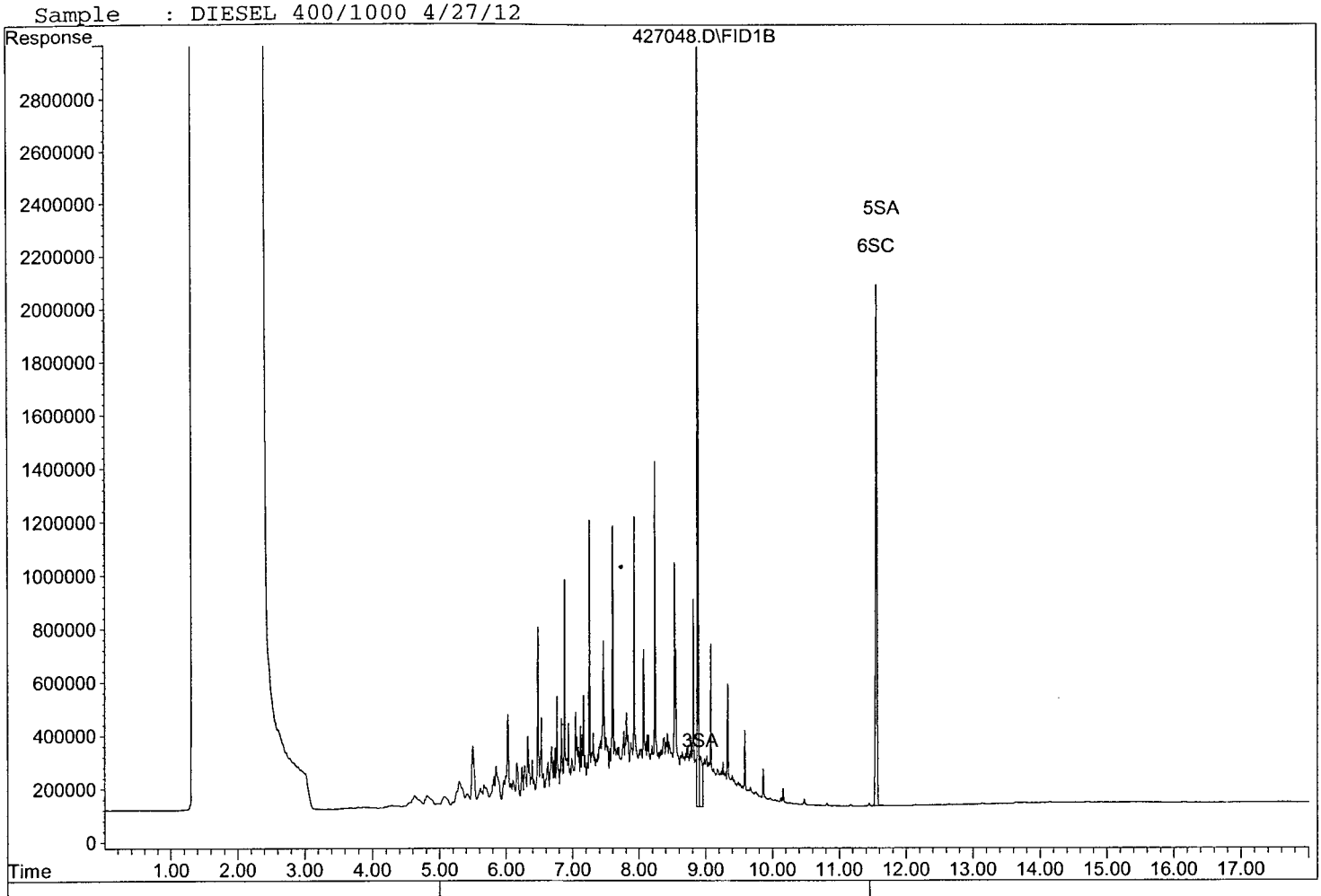
Data File : G:\APOLLO\DATA\120427\427048.D Vial: 48
Acq On : 4-28-12 3:31:33 Operator: LAC
Sample : DIESEL 400/1000 4/27/12 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: May 1 9:55 2012 Quant Results File: TPH0306.RES

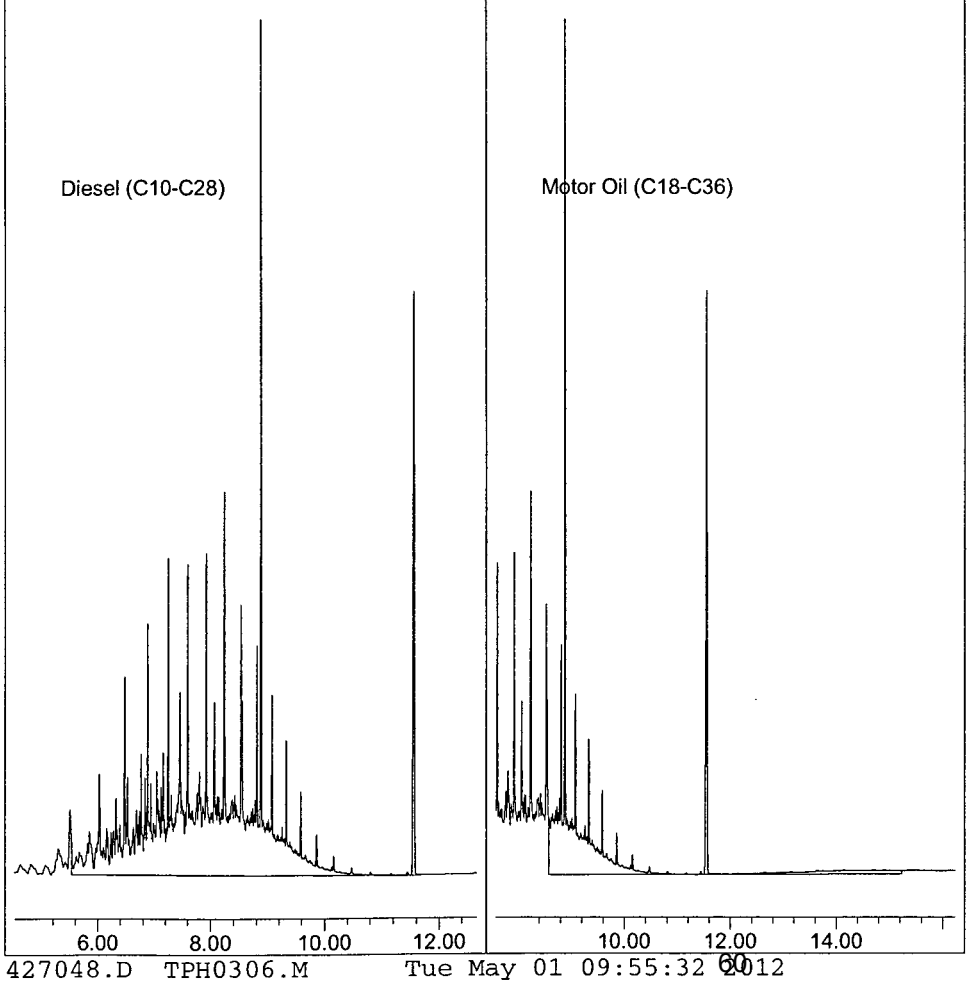
Method : G:\APOLLO\DATA\120427\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Apr 30 15:43:58 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.92	5005927	3.128 ppb
Surrogate Spike 30.000	Recovery =		10.43%
4) SC Ortho-Terphenyl(S)	8.88	32548860	23.546 ppb
Surrogate Spike 30.000	Recovery =		78.49%
5) SA Not Used2(S)	11.65	84299	0.071 ppb
Surrogate Spike 30.000	Recovery =		0.24%
6) SC Octacosane(S)	11.56	28318602	23.972 ppb
Surrogate Spike 30.000	Recovery =		79.91%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	442820738	404.765 ppb
2) HBTM Motor Oil (C18-C36)	11.91	120983509	157.793 ppb

Data File: G:\APOLLO\DATA\120427\427048.D
Sample : DIESEL 400/1000 4/27/12





EPA 8015 Modified
Total Petroleum Hydrocarbons
Raw Data

Method Blank
TPH Diesel Water

Blank Name/QCG: **120419W-59236 - 166194**
Batch ID: #TPETD-120419A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	04/19/12	04/24/12
BLANK	SURROGATE: OCTACOSANE (S)	106	28-142			%	04/19/12	04/24/12
BLANK	SURROGATE: ORTHO-TERPHEN	79.7	57-132			%	04/19/12	04/24/12

Quant Method: TPH0306.M
Run #: 423068
Instrument: Apollo
Sequence: 120423
Initials: TRL

Printed: 04/25/12 5:41:33 PM
GC SC-Blank-REG MDLs

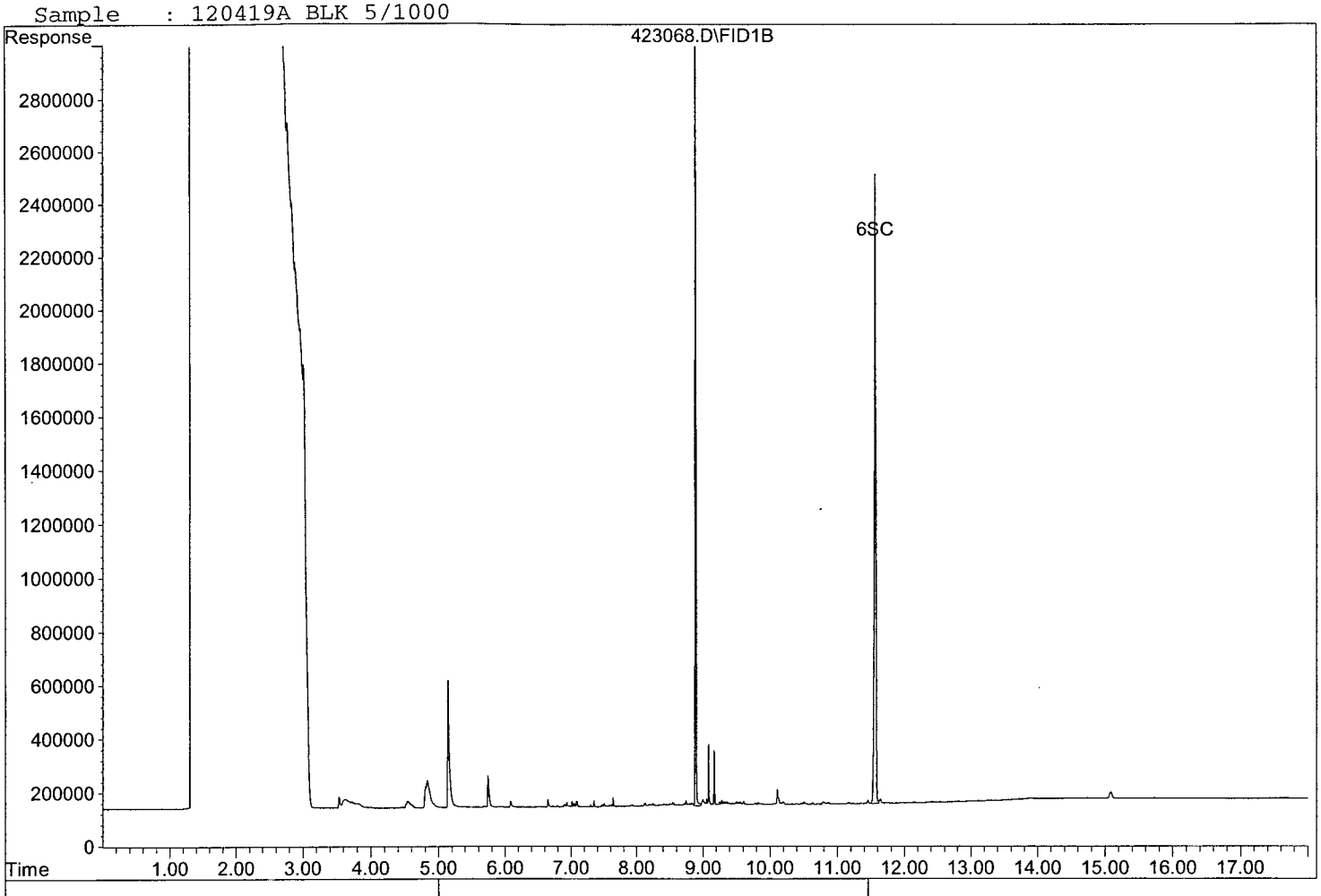
Data File : G:\APOLLO\DATA\120423\423068.D Vial: 68
Acq On : 4-24-12 22:33:21 Operator: LAC
Sample : 120419A BLK 5/1000 Inst : Apollo
Misc : Water Multiplr: 5.00
IntFile : events.e
Quant Time: May 3 13:36 2012 Quant Results File: TPH0306.RES

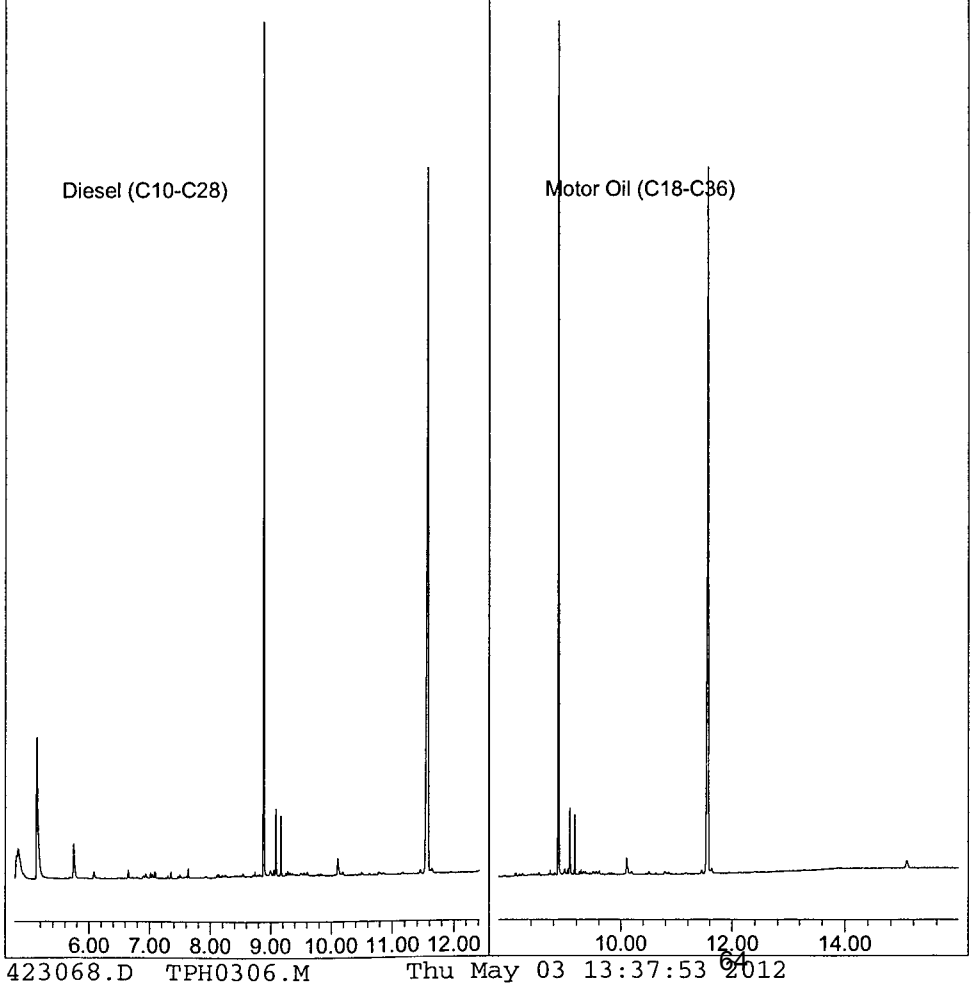
Method : G:\APOLLO\DATA\120423\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Apr 25 16:50:48 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.89	33050984	119.547 ppb
Surrogate Spike 150.000		Recovery =	79.70%
6) SC Octacosane(S)	11.57	37411132	158.343 ppb
Surrogate Spike 150.000		Recovery =	105.56%
Target Compounds			

Data File: G:\APOLLO\DATA\120423\423068.D
Sample : 120419A BLK 5/1000





Laboratory Control Spike Recovery
TPH Diesel Water

APPL ID: **120419W-59236 LCS - 166194**
Batch ID: #TPETD-120419A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL FUEL	2000	1620	81.0	61-143
SURROGATE: OCTACOSANE (S)	150	170	113	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	155	103	57-132

Comments: _____

Primary	SPK
Quant Method :	TPH0306.M
Extraction Date :	04/19/12
Analysis Date :	04/24/12
Instrument :	Apollo
Run :	423069
Initials :	TRL

Printed: 04/25/12 5:41:40 PM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\120423\423069.D Vial: 69
Acq On : 4-24-12 22:57:36 Operator: LAC
Sample : 120419A LCS-1 5/1000 Inst : Apollo
Misc : Water Multiplr: 5.00
IntFile : events.e
Quant Time: May 3 13:36 2012 Quant Results File: TPH0306.RES

Method : G:\APOLLO\DATA\120423\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Apr 25 16:50:48 2012
Response via : Multiple Level Calibration

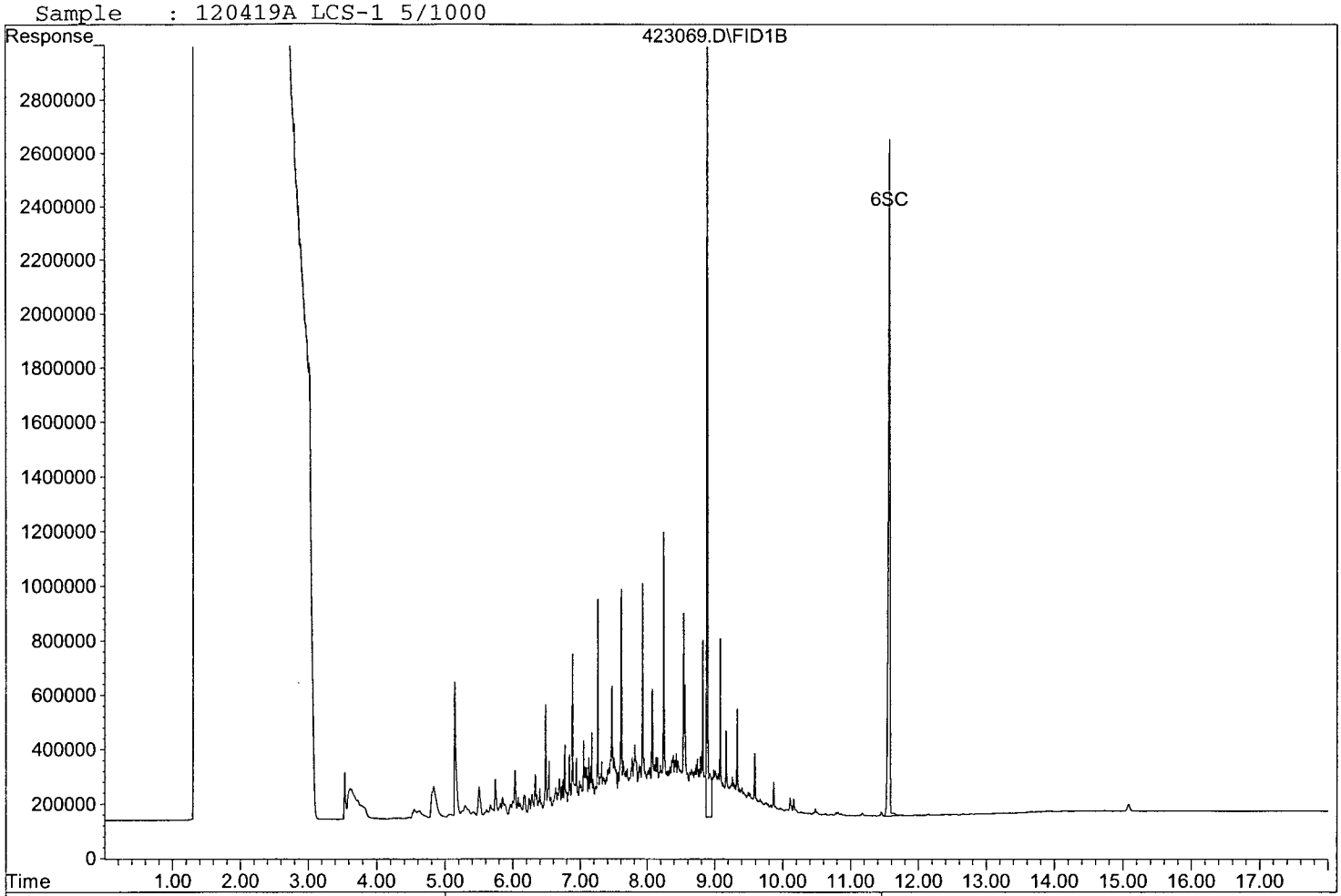
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

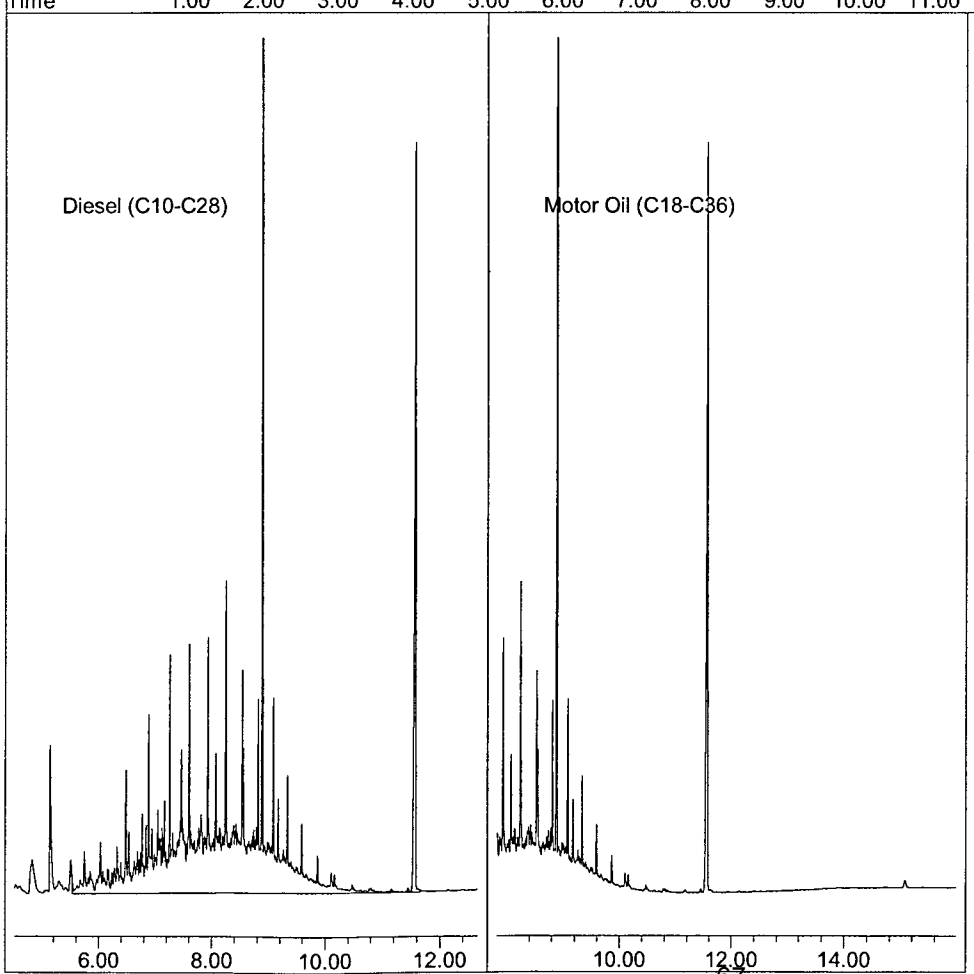
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.89	42851954	154.998 ppb
Surrogate Spike 150.000		Recovery =	103.33%
6) SC Octacosane(S)	11.57	40232003	170.282 ppb
Surrogate Spike 150.000		Recovery =	113.52%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	353524223	1615.712 ppb

DL Alg✓ = $\frac{353524223(5)}{(2)\ 547010} = 1615.711883694996435$

4/30/12

Data File: G:\APOLLO\DATA\120423\423069.D
Sample : 120419A LCS-1 5/1000





Matrix Spike Recoveries

TPH Diesel Water

APPL ID: **120419W-59236 MS - 166194**
Batch ID: #TPETD-120419A
Sample ID: AY59236
Client ID: ES074

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 FUEL	2000	ND	1530	1570	76.5	78.5	61-143	2.6	30
SURROGATE: OCTACOSANE (S)	150	NA	171	183	114	122	28-142		
SURROGATE: ORTHO-TERPHENYL (S)	150	NA	127	134	84.7	89.3	57-132		

Comments: _____

Primary	SPK	DUP
Quant Method :	TPH0306.M	TPH0306.M
Extraction Date :	04/19/12	04/19/12
Analysis Date :	04/28/12	04/25/12
Instrument :	Apollo	Apollo
Run :	427047	423072
Initials :	TRL	

Printed: 04/30/12 3:47:56 PM
APPL MSD SCII

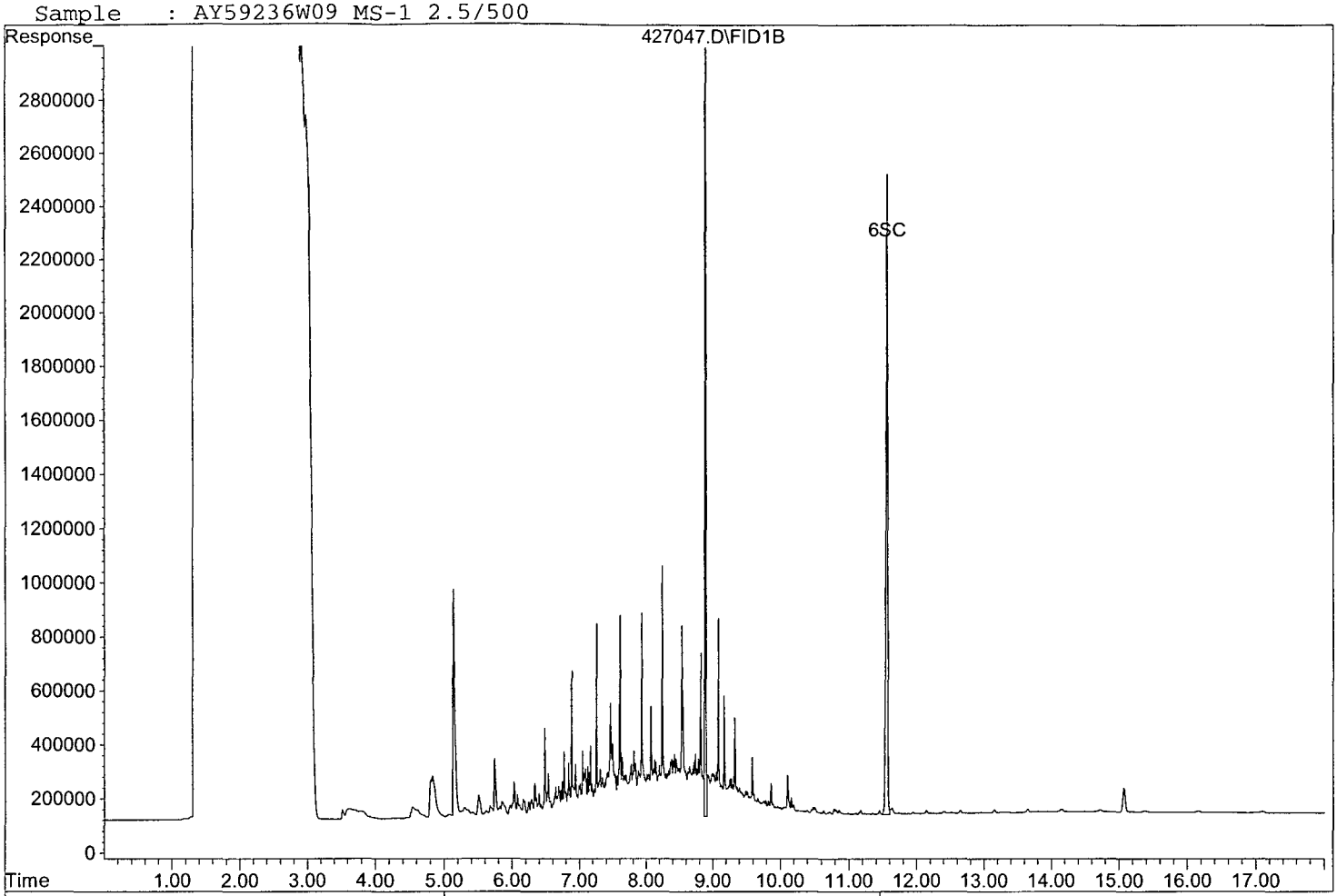
Data File : G:\APOLLO\DATA\120427\427047.D Vial: 47
Acq On : 4-28-12 3:08:08 Operator: LAC
Sample : AY59236W09 MS-1 2.5/500 Inst : Apollo
Misc : Water Multiplr: 5.00
IntFile : events.e
Quant Time: May 3 13:39 2012 Quant Results File: TPH0306.RES

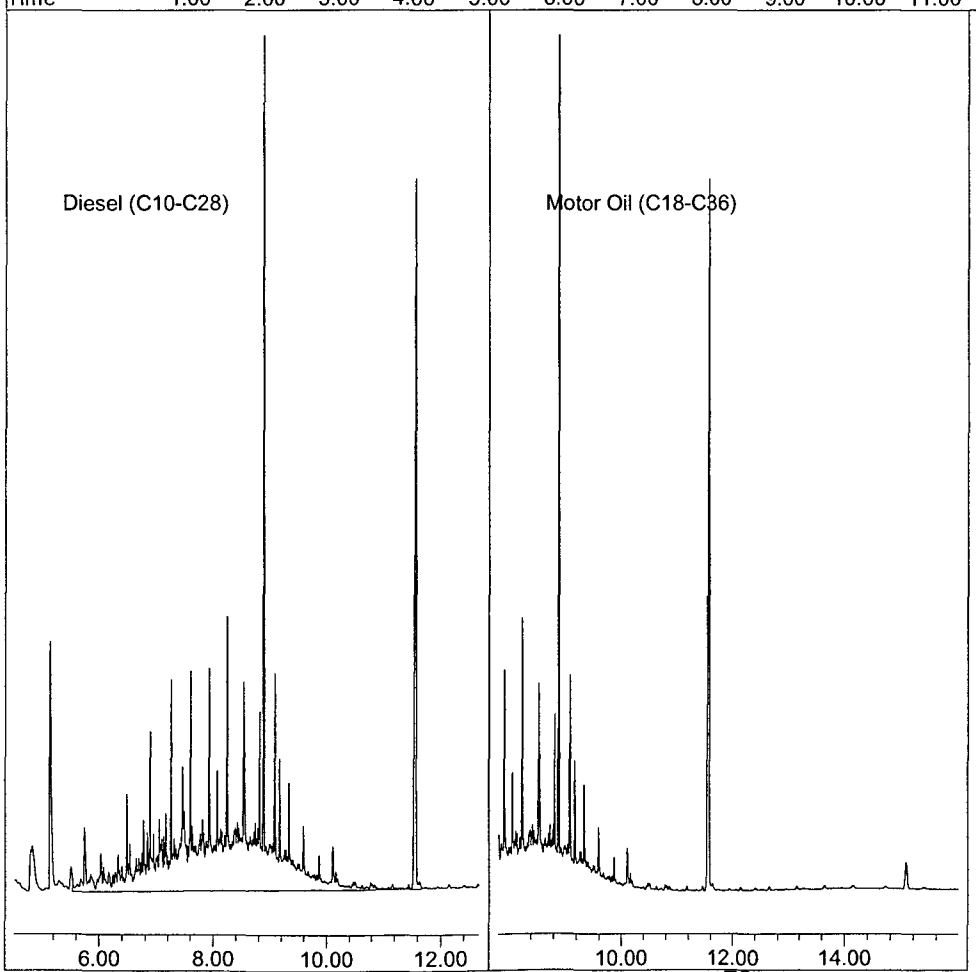
Method : G:\APOLLO\DATA\120423\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Apr 25 16:50:48 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.88	35180300	127.249 ppb
Surrogate Spike 150.000		Recovery =	84.83%
6) SC Octacosane(S)	11.56	40409653	171.034 ppb
Surrogate Spike 150.000		Recovery =	114.02%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	335344311	1532.625 ppb

Data File: G:\APOLLO\DATA\120427\427047.D
Sample : AY59236W09 MS-1 2.5/500





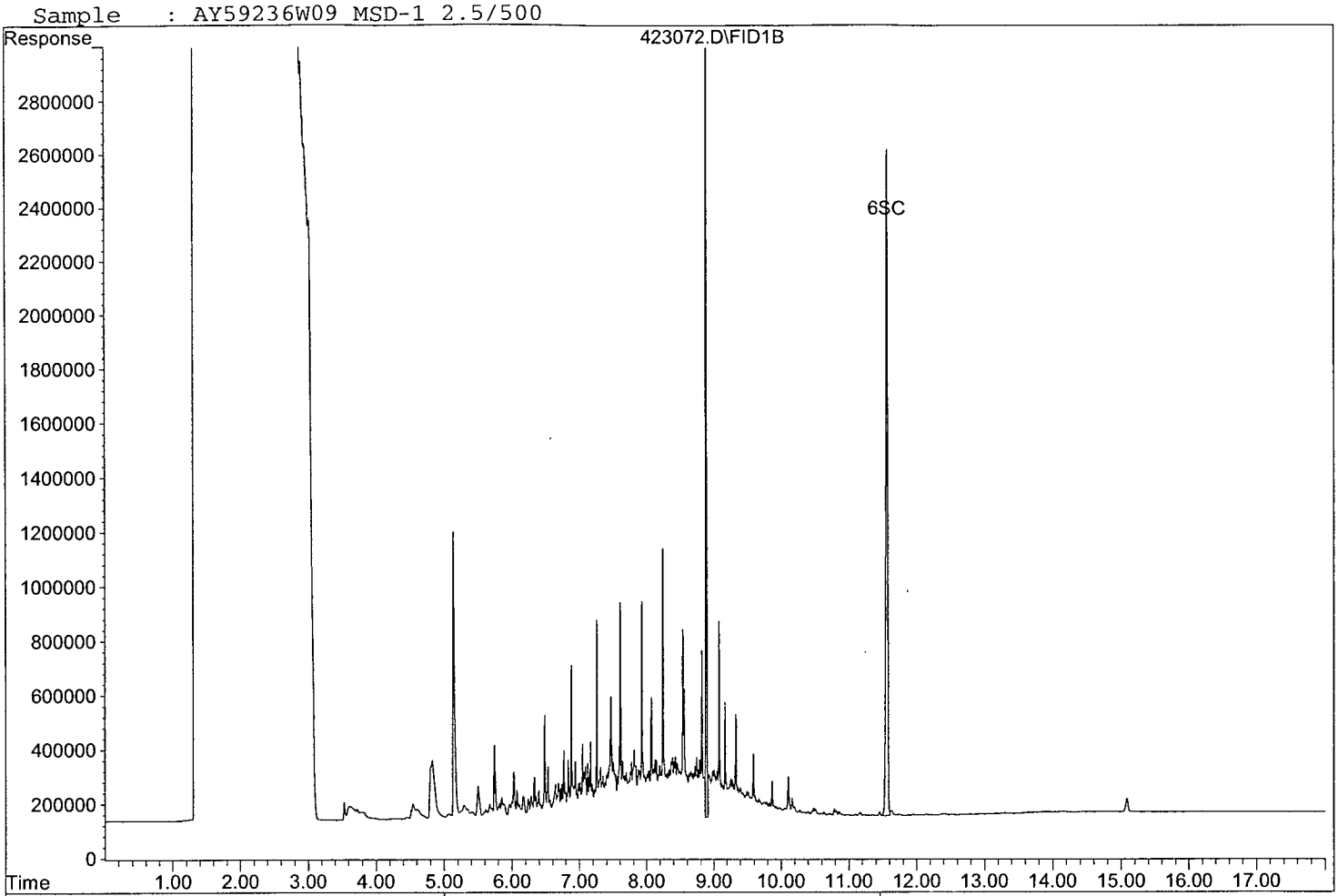
Data File : G:\APOLLO\DATA\120423\423072.D Vial: 72
Acq On : 4-25-12 0:09:58 Operator: LAC
Sample : AY59236W09 MSD-1 2.5/500 Inst : Apollo
Misc : Water Multiplr: 5.00
IntFile : events.e
Quant Time: May 3 13:36 2012 Quant Results File: TPH0306.RES

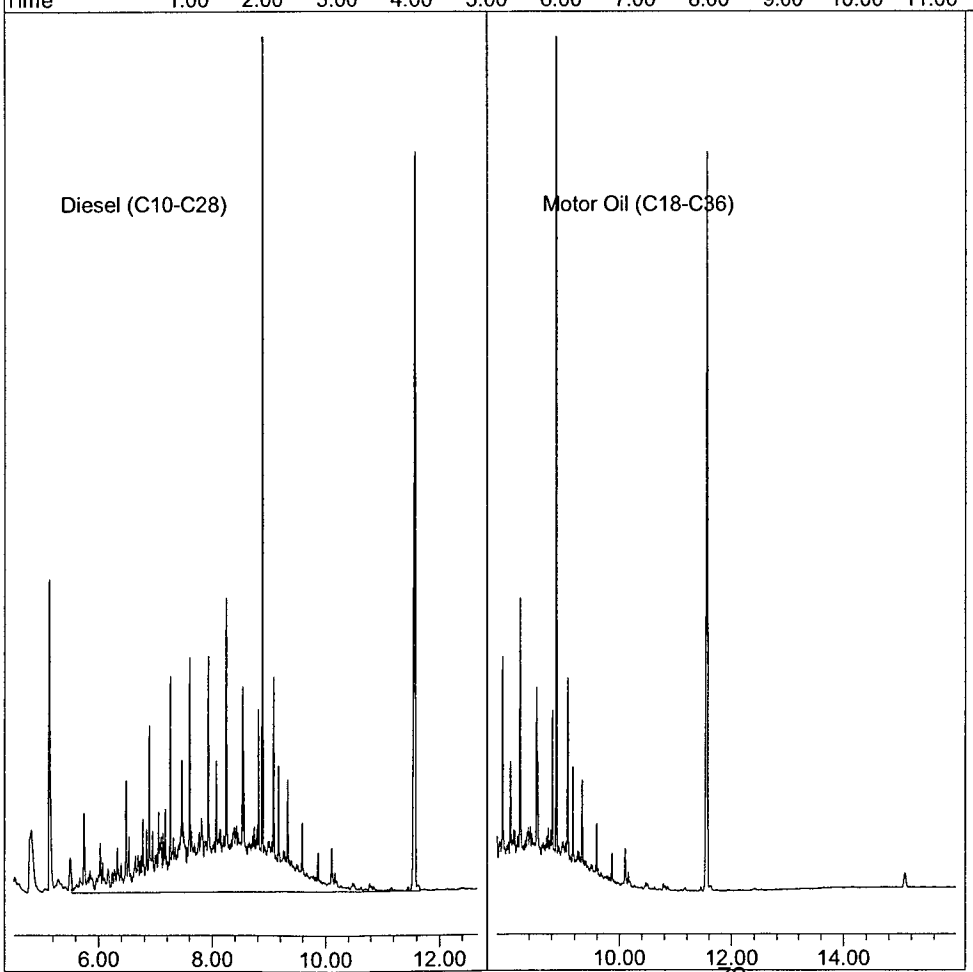
Method : G:\APOLLO\DATA\120423\TPH0306.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Apr 25 16:50:48 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.89	36925076	133.560 ppb
Surrogate Spike 150.000		Recovery =	89.04%
6) SC Octacosane(S)	11.57	43293503	183.240 ppb
Surrogate Spike 150.000		Recovery =	122.16%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	343078803	1567.974 ppb

Data File: G:\APOLLO\DATA\120423\423072.D
Sample : AY59236W09 MSD-1 2.5/500





STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE / INITIALS

AR1254/1260 MIX

1 ug/mL AR1254 prep. 3/26/12 Exp. 9/26/12 — 500 uL — 1 mL — 0.5 ug/mL — — — HA 3/29/12 Exp 9/22/12

1 ug/mL AR1260 prep. 3/22/12 exp. 9/22/12 — 500 uL — ↓ — 0.5 ug/mL — —

DIESEL SPIKE

DIESEL FUEL #2 — 50,000 ug/mL — 0251 — 1000 uL — 25 mL — 200 ug/mL — MC #51306 — [initials] 3/30/12 EX: 6/30/12

Diesel Fuel #2 Composite,
50,000 mg/L, 1 ml
011598-03
Lot# 179635 Storage ≤ -10 Degrees C Expiry 11/8/15
Solv: Methylene Chloride
Made in the USA
[initials] 3/30/12
Diesel Fuel #2 Composite OP: 3/30/12
Lot #: 179635 - 30220 EX: 3/30/13
Rec: 1/10/12 MFR exp. 11/08/15

MOTOR OIL SPIKE

MOTOR OIL — 50,000 ug/mL — 0251 — 2000 uL — 50 mL — 2000 ug/mL — MC #51306 — [initials] 3/30/12 EX: 6/30/12

Motor Oil Composite,
50,000 mg/L, 1 ml
116390-02
Lot# 183768 Storage ≤ -10 Degrees C Expiry 1/8/15
Solv: Methylene Chloride
R&D only, not human consump. Made in the USA
[initials] 3/30/12
Motor oil composite OP: 3/30/12
Lot #: 183768 - 30237 EX: 3/30/13
Rec: 1/10/12 MFR exp. 01/08/15

Motor Oil Composite,
50,000 mg/L, 1 ml
116390-02
Lot# 183768 Storage ≤ -10 Degrees C Expiry 1/8/15
Solv: Methylene Chloride
R&D only, not human consump. Made in the USA
[initials] 3/30/12
Motor oil composite OP: 3/30/12
Lot #: 183768 - 30236 EX: 3/30/13
Rec: 1/10/12 MFR exp. 01/08/15

AROMATIC CURVE [initials] 3/30/12

STANDARD	INITIAL CONC	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL
AROMATIC	200/100 µg/mL		03/12/12	09/12/12	25	50	100	250	500	750	1000
MC		51306			975	950	900	750	500	250	NA
				Final Vol	1000	1000	1000	1000	1000	1000	1000

[initials] 3/30/12 Ex: 9/12/12

ALIPHATIC CURVE

STANDARD	INITIAL CONC	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
ALIPHATIC	200/100 µg/mL		03/12/12	09/12/12	20	40	100	200	500	1000
Hexane		082911B			980	960	900	800	500	na
				Final Vol	1000	1000	1000	1000	1000	1000

[initials] 3/30/12

PREP:	03/30/12										
MITC CURVE											
EXP:	07/27/12										
						1	2	3	4	5	6
SUPPLIER	ID#	ug/mL	LOT #	DATE	EXP.	µL	µL	µL	µL	µL	µL
	MITC STD	5		03/29/12	07/27/12	4	50	200	500	700	1000
VWR	ETHYL ACETATE		CB664			996	950	800	500	300	N/A
					Final Vol	1000	1000	1000	1000	1000	1000

[initials] 3/30/12 Ex: 7/27/12

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE / INITIALS

045

TNRCC 400/1000 ug/mL CCV

TNRCC | 1000/500 ug/mL | TNRCC STD | 400 mL | 1 mL | 400 ug/mL | Pentane | #J | 3/5/12 EX: 4/2/12

Prep: 3/2/12
EX: 4/2/12

DIESEL SPIKE

DIESEL FUEL #2 | 50,000 ug/mL | O2SI | 2000 mL | 50 mL | 2000 ug/mL | MC | #51306 | 3/6/12 EX: 6/6/12

Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml
#11598-03
Lot # 179635 Storage ≤-10 Degrees C Expiry 11/8/15
Diesel Fuel #2 Composite OP: 3/6/12 EX: 3/6/13
Lot #: 179635 - 30224
Rec: 1/10/12 MFR exp. 11/08/15

Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml
#11598-03
Lot # 179635 Storage ≤-10 Degrees C Expiry 11/8/15
Solv: Methylene Chloride OP: 3/6/12
Diesel Fuel #2 Composite
Lot #: 179635 - 30223 EX: 3/6/13
Rec: 1/10/12 MFR exp. 11/08/15

3/6/12

DIESEL CAL STD.

STD.	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT / LOT#
DIESEL FUEL #2	50,000 ug/mL	O2SI 179635-80225 CAT#011598-03 LOT#~~156524-27195~~ OP:1/5/11 EXP:1/5/12 3/6/12	1mL	50mL	1000ug/mL	MC LOT# 51306
O-TERPHENYL OCTACOSANE	600 ug/mL	O2SI CAT#110316-05 LOT#183766-30213 OP:3/5/12EXP:3/5/13	4160 µL		50ug/mL	

3/6/12 EX: 9/6/12

3/6/12

MOTOR OIL CAL STD

STD.	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT / LOT#
MOTOR OIL	50,000 ug/mL	O2SI CAT#116390-02 LOT#171363-30230 OP:3/6/12 EXP:3/6/12	1mL	50mL	1000ug/mL	MC LOT# 51306

3/6/12 EX: 9/6/12

3/6/12

THC SURR CAL STD

STD.	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT LOT#
O-TERPHENYL OCTACOSANE	600 ug/mL	O2SI CAT#110316-05 LOT#183766-30213 OP:3/5/12EXP:3/5/13	834 µL	10mL	50ug/mL	MC LOT# 51306

3/6/12 EX: 9/6/12

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT #	DATE INTV
	THC Surrogate			* GIVE TO EXTRACTION *			
O-TERPHENYL	600 mg/mL	0281	N/A	25mL	600 mg/mL	NA	
OCTACOSANE		CAT: 110316-05					3/20/12
		LOT: 183766-					EX: 3/20/13
		30215 THRU 30219					
		EX: 3/20/13					

NOT used 3/22/12

75

STANDARD 086

STANDARD	INITIAL CONC	SOURCE	DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	LOT #	INITIALS

4/23/12

AROMATIC CURVE

STANDARD	INITIAL CONC	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL
AROMATIC	200/100 µg/mL		04/18/12	10/18/12	25	50	100	250	500	750	1000
MC		51306			975	950	900	750	500	250	NA
				Final Vol	1000	1000	1000	1000	1000	1000	1000

4/23/12 EX: 10/18/12

ALIPHATIC CURVE

STANDARD	INITIAL CONC	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
ALIPHATIC	200/100 µg/mL		04/18/12	10/18/12	20	40	100	200	500	1000
Hexane		082911B			980	960	900	800	500	na
				Final Vol	1000	1000	1000	1000	1000	1000

PCB WATER SPIKE

AR1016 1000ng/ml 0281 250ml 50ml 5ng/ml ACETONE 4/24/12

AR1260 CAT: 130011-03 EX: 7/24/12

LOT: 1635591-29971

OP: 2/14/12

EX: 2/14/13

081111B

DIESEL CCV 400ug/ml

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		03/06/12	09/06/12			51306

4/24/12 EX: 9/6/12

MOTOR OIL CCV 400UG/ML

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MOTOR OIL STD	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		03/06/12	09/06/12			51306

4/24/12

PREP:	04/24/12											
PAC ECO CURVE												
EXP:	07/21/12											
PE Lot#	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL
	PAC ECO CAL STD	5		04/16/12	07/21/12	2	10	50	200	500	700	1000
VWR	Hexane		082610B			998	990	950	800	500	300	N/A
					Final VOL.	1000	1000	1000	1000	1000	1000	1000
PAC ECO 2ND SRC				DATE	EXP. DATE							
Prep: 4/24/12	Exp: 10/6/12	5µg/ml	0826108	04/06/12	10/06/12	500/1000						

4/24/12 EX: 7/21/12

4/24/12 EX: 10/6/12

4/25/12

OP FAMPHUR CURVE												
PREP:	04/25/12	EXP:	07/28/12			IA	1	2	3	4	5	6
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL
	OP/FAMPHUR S	5		04/05/12	07/28/12	2	10	50	200	500	700	1000
VWR	Hexane		082610B			998	990	950	800	500	300	NA
					Final VOL.	1000	1000	1000	1000	1000	1000	1000
OP 2ND SRC		[µg/mL]										
PREP: 4/25		5		DATE	EXP. DATE	500						
EXP: 9/23/12	Hexane Lot#		082610B	04/05/12	09/23/12	1000						

4/25/12 EX: 7/28/12

4/23/12 EX: 9/23/12

STANDARD 088

INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT #	DATE / INITIALS

4/27/12

DIESEL CCV 400ug/ml						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		03/06/12	09/06/12			51306

4/27/12 EX: 9/6/12

MOTOR OIL CCV 400UG/ML						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MOTOR OIL STD	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		03/06/12	09/06/12			51306

4/27/12

Aromatic 250/1000 µg/mL CCV						
Standard	Init Conc.	Source Date	Aliquot	Final Vol.	Final Conc.	Solvent
Aromatic	200/100 µg/mL	Aromatic Std	250 µL	1 mL	50/25 µg/mL	MC
	Prep:	04/18/12				Lot:
	Exp:	10/18/12				51306

4/27/12 EX: 10/18/12

Aliphatic 200/1000 µg/mL CCV						
Standard	Init Conc.	Source Date	Aliquot	Final Vol.	Final Conc.	Solvent
Aliphatic	200/100 µg/mL	Aromatic Std	200 µL	1 mL	40/20 µg/mL	Hexane
	Prep:	04/18/12				Lot:
	Exp:	10/18/12				082911B

504/8011 Surrogate

1,3 DBP | 100 ug/mL | 1,3 DBP STOCK prep. 12-13-11 exp. 12-13-12 | 35 mL | 10 mL | 0.35 ug/mL | Methanol #04611A CM 4-30- exp. 5-31-

4/27/12

PAC ECO STD					
DIAZINON	5ug/ml	200ug/ml	250ul	O2SI	10ml
DISULFOTON	5	200		CAT:130169-01	HEXANE
MALATHION	5	200		LOT: 184710-30286	LOT#
MOLINATE	5	200		Op: 4/16/12	082610B
PHORATE	5	200		Exp: 7/21/12	
THIOBENCARB	5	200			
TRIBUTYL PHOSPHATE	5	200			
DEMETON	5	200			
DISCHLORVOS	5	200			
EPTC	5	200			
PARATHION	5	200			
AZINPHOS METHYL	5	200			
CHLORPYRIFOS	5	200			
DIMETHOATE	5	200			
METHIDATHION	5	200			
METHYL PARATHION	5	200			
ATRAZINE	5	200			
CYANIZINE	5	200			
TRIPHENYL PHOSPHAT	5	200			
PENDIMETHALIN	5	200			
TRIFLURALIN	5	200			
SIMAZINE	5	200			
PHOSMET	5	1000ug/ml	50ul	ABSOLUTE	
				PART:70798	
				LOT:111010-29426	
				OP: 9/19/11	
				EXP: 9/19/12	

* NAS NOT RECORDED 4/27/12

4/27/12 EX: 7/21/12

_SEP011

Organic Extraction Worksheet

Method	THC Separatory Funnel Extraction 3510C	Extraction Set	120419A	Extraction Method	SEP011	Units	mL

Spiked ID 1	Diesel Spike 03/06/12 ex 06/06/12		Surrogate ID 1	THC Surrogate 183766-30215	
Spiked ID 2	Motor Oil Spike 03/30/12 ex 06/30/12		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:		
Spiked ID 8			Ext. End Time:		
			GC Requires Extract By:	**05/02/12 0:00**	

pH1			Water Bath Temp Criteria	80 °C
pH2				
pH3				

Spiked By: DL **Date** 04/19/12 **Witnessed By:** DRA **Date** 04/19/12

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	120419A Blk				0.250	1 equip	1000 E-WB5	5	7	04/19/12 11:55	
2	120419A LCS-1		1	1	0.250	1 equip	1000 E-WB5	5	7	04/19/12 11:55	
3	120419A LCS-2		1	2	0.250	1 equip	1000 E-WB5	5	7	04/19/12 11:55	
4	AY59236 MS-1	AY59236W09	0.500	1	0.125	1 equip	500 E-WB5	2.5	7	04/19/12 11:55	67525-2 WEEK RUSH -- Amber Liter
5	AY59236 MSD-1	AY59236W09	0.500	1	0.125	1 equip	500 E-WB5	2.5	7	04/19/12 11:55	67525-2 WEEK RUSH -- Amber Liter
6	AY59236 MS-2	AY59236W08	0.500	2	0.125	1 equip	500 E-WB5	2.5	7	04/19/12 11:55	67525-2 WEEK RUSH -- Amber Liter
7	AY59236 MSD-2	AY59236W08	0.500	2	0.125	1 equip	500 E-WB5	2.5	7	04/19/12 11:55	67525-2 WEEK RUSH -- Amber Liter
8	AY59236	AY59236W10			0.250	1 equip	1000 E-WB6	5	7	04/19/12 11:55	67525-2 WEEK RUSH -- Amber Liter
9	AY59237	AY59237W05			0.250	1 equip	980 E-WB6	5	7	04/19/12 11:55	67525-2 WEEK RUSH -- Amber Liter

DRA 4-20-12

Solvent and Lot#	
MC	EMD51306
Na2SO4	3851C501

Extraction COC Transfer	
Extraction lab employee Initials	DRA
GC analyst's initials	
Date	4/23/12
Time	15:28
Refrigerator	Hoosier

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

Modified	04/20/12 12:14:27 PM

Reviewed By: DRA **Date** 04/20/12

Injection Log

Directory: G:\APOLLO\DATA\120306\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	21	306021.D	1	DIESEL 10/1000 3/6/12	Mix(A)	3-6-12 17:25:38
2	22	306022.D	1	DIESEL 100/1000	Mix(A)	3-6-12 17:49:21
3	23	306023.D	1	DIESEL 400/1000	Mix(A)	3-6-12 18:12:55
4	24	306024.D	1	DIESEL 600/1000	Mix(A)	3-6-12 18:36:31
5	25	306025.D	1	DIESEL 800/1000	Mix(A)	3-6-12 19:00:08
6	26	306026.D	1	DIESEL 1000/1000	Mix(A)	3-6-12 19:23:45
7	27	306027.D	1	DIESEL 2ND SRC 400/1000 3/6/12	Mix(A)	3-6-12 19:47:20
1	66	423066.D	1	DIESEL 400/1000 4/24/12	Mix(A)	4-24-12 21:44:51
2	68	423068.D	5	120419A BLK 5/1000	Water	4-24-12 22:33:21
3	69	423069.D	5	120419A LCS-1 5/1000	Water	4-24-12 22:57:36
4	72	423072.D	5	AY59236W09 MSD-1 2.5/500	Water	4-25-12 0:09:58
5	75	423075.D	5	AY59236W10 5/1000	Water	4-25-12 1:21:48
6	76	423076.D	5.10204	AY59237W05 5/980	Water	4-25-12 1:45:39
7	77	423077.D	1	DIESEL 400/1000 4/24/12	Mix(A)	4-25-12 2:09:29
8	35	427035.D	1	DIESEL 400/1000 4/27/12	Mix(A)	4-27-12 22:25:15
9	47	427047.D	5	AY59236W09 MS-1 2.5/500	Water	4-28-12 3:08:08
10	48	427048.D	1	DIESEL 400/1000 4/27/12	Mix(A)	4-28-12 3:31:33

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons

APPL, INC.

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
QC Summary

APPL, INC.

Method Blank
EPA 8270D SIM

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **120419W-59236 - 166432**
Batch ID: #SIMHC-120419A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
BLANK	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/19/12	04/22/12
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/19/12	04/22/12
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/19/12	04/22/12
BLANK	SURROGATE: 2-FLUORBIPHENY	56.7	50-110			%	04/19/12	04/22/12
BLANK	SURROGATE: NITROBENZENE-	56.9	40-110			%	04/19/12	04/22/12
BLANK	SURROGATE: TERPHENYL-D14 (	65.4	50-135			%	04/19/12	04/22/12

Quant Method:SIMB.M
Run #:0422L009
Instrument:Linus
Sequence:L120229
Initials:LF

Printed: 05/02/12 1:26:00 PM
GC SC-Blank-REG MDLs

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 67525

Case No: 67525 Date Analyzed: 04/22/12

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
120419A-BLK	Blank	50-110	56.7		40-110	56.9	
120419A-LCS	Lab Control Spike	50-110	57.5		40-110	49.1	
AY59236-MS	Matrix Spike	50-110	56.5		40-110	55.5	
AY59236-MSD	Matrix SpikeD	50-110	52.0		40-110	51.5	
AY59236	ES074	50-110	58.9		40-110	60.2	
AY59237	ES075	50-110	60.4		40-110	83.0	

Comments: Batch: #SIMHC-120419A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 67525

Case No: 67525 Date Analyzed: 04/22/12

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
120419A-BLK	Blank	50-135	65.4				
120419A-LCS	Lab Control Spike	50-135	64.0				
AY59236-MS	Matrix Spike	50-135	61.5				
AY59236-MSD	Matrix SpikeD	50-135	60.0				
AY59236	ES074	50-135	54.4				
AY59237	ES075	50-135	56.9				

Comments: Batch: #SIMHC-120419A

Laboratory Control Spike Recovery
EPA 8270D SIM

APPL ID: **120419W-59236 LCS - 166432**
Batch ID: #SIMHC-120419A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1-METHYLNAPHTHALENE	4.00	2.29	57.3	45-105
2-METHYLNAPHTHALENE	4.00	2.19	54.8	45-105
ACENAPHTHENE	4.00	2.36	59.0	45-110
ACENAPHTHYLENE	4.00	2.39	59.8	50-105
ANTHRACENE	4.00	2.23	55.8	55-110
BENZO(A)ANTHRACENE	4.00	2.98	74.5	55-110
BENZO(A)PYRENE	4.00	2.65	66.3	55-110
BENZO(B)FLUORANTHENE	4.00	2.88	72.0	45-120
BENZO(GHI)PERYLENE	4.00	2.90	72.5	40-125
BENZO(K)FLUORANTHENE	4.00	3.05	76.3	45-125
CHRYSENE	4.00	2.84	71.0	55-110
DIBENZ(A,H)ANTHRACENE	4.00	2.93	73.3	40-125
FLUORANTHENE	4.00	2.75	68.8	55-115
FLUORENE	4.00	2.59	64.8	50-110
INDENO(1,2,3-CD)PYRENE	4.00	3.83	95.8	45-125
NAPHTHALENE	4.00	2.17	54.3	40-100
PHENANTHRENE	4.00	2.44	61.0	50-115
PYRENE	4.00	2.82	70.5	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.15	57.5	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	0.983	49.1	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.28	64.0	50-135

Comments:

Primary	SPK
Quant Method :	SIMB.M
Extraction Date :	04/19/12
Analysis Date :	04/22/12
Instrument :	Linus
Run :	0422L010
Initials :	LF

Printed: 05/02/12 1:26:06 PM
APPL Standard LCS

Matrix Spike Recoveries

EPA 8270D SIM

APPL ID: **120419W-59236 MS - 166432**
Batch ID: #SIMHC-120419A
Sample ID: AY59236
Client ID: ES074

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	4.00	ND	2.34	2.45	58.5	61.3	45-105	4.6	25
2-METHYLNAPHTHALENE	4.00	ND	2.39	2.25	59.8	56.3	45-105	6.0	25
ACENAPHTHENE	4.00	ND	2.18	2.24	54.5	56.0	45-110	2.7	25
ACENAPHTHYLENE	4.00	ND	2.16	2.15	54.0	53.8	50-105	0.46	25
ANTHRACENE	4.00	ND	2.05	2.00	51.2 #	50.0 #	55-110	2.5	25
BENZO(A)ANTHRACENE	4.00	ND	2.90	2.73	72.5	68.3	55-110	6.0	25
BENZO(A)PYRENE	4.00	ND	2.59	2.49	64.8	62.3	55-110	3.9	25
BENZO(B)FLUORANTHENE	4.00	ND	2.96	2.74	74.0	68.5	45-120	7.7	25
BENZO(GHI)PERYLENE	4.00	ND	2.78	2.69	69.5	67.3	40-125	3.3	25
BENZO(K)FLUORANTHENE	4.00	ND	2.68	2.73	67.0	68.3	45-125	1.8	25
CHRYSENE	4.00	ND	2.48	2.36	62.0	59.0	55-110	5.0	25
DIBENZ(A,H)ANTHRACENE	4.00	ND	2.78	2.73	69.5	68.3	40-125	1.8	25
FLUORANTHENE	4.00	ND	2.83	2.66	70.8	66.5	55-115	6.2	25
FLUORENE	4.00	ND	2.60	2.44	65.0	61.0	50-110	6.3	25
INDENO(1,2,3-CD)PYRENE	4.00	ND	3.72	3.55	93.0	88.8	45-125	4.7	25
NAPHTHALENE	4.00	ND	2.17	2.15	54.3	53.8	40-100	0.93	25
PHENANTHRENE	4.00	ND	2.56	2.36	64.0	59.0	50-115	8.1	25
PYRENE	4.00	ND	2.70	2.51	67.5	62.7	50-130	7.3	25
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	NA	1.13	1.04	56.5	52.0	50-110		
SURROGATE: NITROBENZENE-D5 (S)	2.00	NA	1.11	1.03	55.5	51.5	40-110		
SURROGATE: TERPHENYL-D14 (S)	2.00	NA	1.23	1.20	61.5	60.0	50-135		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	SIMB.M	SIMB.M
Extraction Date :	04/19/12	04/19/12
Analysis Date :	04/22/12	04/22/12
Instrument :	Linus	Linus
Run :	0422L011	0422L012
Initials :	LF	

Printed: 05/02/12 1:26:08 PM
APPL MSD SCII

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 67525

Case No: 67525 Date Analyzed: 04/22/12

Matrix: WATER Instrument: Linus

Blank ID: 120419A-BLK Time Analyzed: 1407

APPL ID.	Client Sample No.	File ID.	Date Analyzed
120419A-BLK	Blank	0422L009	04/22/12 1407
120419A-LCS	Lab Control Spike	0422L010	04/22/12 1433
120419A-MS	Matrix Spike	0422L011	04/22/12 1500
120419A-MSD	Matrix SpikeD	0422L012	04/22/12 1525
AY59236	ES074	0422L013	04/22/12 1552
AY59237	ES075	0422L014	04/22/12 1618

Comments: Batch: #SIMHC-120419A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 67525
Matrix: Water
ID: SVTUNE 2-28-12

SDG No: 67525
Date Analyzed: 04/22/12
Instrument: Linus
Time Analyzed: 10:48

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Blank	120419A BLK 1/1000	0422L009.D	04/22/12 14:07
2	Lab Control Spike	120419A LCS-1 1/1000	0422L010.D	04/22/12 14:33
3	Matrix Spike	AY59236W11 MS-1 1/10	0422L011.D	04/22/12 15:00
4	Matrix Spike Dup	AY59236W13 MSD-1 1/1	0422L012.D	04/22/12 15:25
5	ES074	AY59236W07 1/1030	0422L013.D	04/22/12 15:52
6	ES075	AY59237W06 1/1000	0422L014.D	04/22/12 16:18
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	37.9
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.5
127	40 - 60% of mass 198	49.2
197	0 - 1% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.4
275	10 - 30% of mass 198	26.7
365	1 - 100% of mass 198	2.8
441	0.01 - 100% of mass 443	73.7
442	40 - 150% of mass 198	72.6
443	17 - 23% of mass 442	20.7

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 67525

Lab File ID (Standard): 0229L007.D Date Analyzed: 1 Mar 12 1:59

Instrument ID: Linus Time Analyzed: 1 Mar 12 1:59

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	5710	6.12	2760	8.13	4470	9.86
	UPPER LIMIT	11420	6.62	5520	8.63	8940	10.36
	LOWER LIMIT	2855	5.62	1380	7.63	2235	9.36
	SAMPLE NO.						
01	120419A BLK 1/1000	5620	6.12	3234	8.12	5679	9.86
02	120419A LCS-1 1/1000	6164	6.12	3244	8.12	5954	9.85
03	AY59236W11 MS-1 1/1(	6364	6.12	3620	8.12	6258	9.85
04	AY59236W13 MSD-1 1/	5990	6.12	3428	8.12	6094	9.85
05	AY59236W07 1/1030	6504	6.12	3262	8.12	5948	9.86
06	AY59237W06 1/1000	6327	6.12	3506	8.12	6211	9.85
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 67525

Lab File ID (Standard): 0229L007.D Date Analyzed: 1 Mar 12 1:59

Instrument ID: Linus Time Analyzed: 1 Mar 12 1:59

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

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	6006	12.93	5058	14.54		
	UPPER LIMIT	12012	13.43	10116	15.04		
	LOWER LIMIT	3003	12.43	2529	14.04		
	SAMPLE NO.						
01	120419A BLK 1/1000	7289	12.94	6388	14.56		
02	120419A LCS-1 1/1000	7610	12.94	6504	14.56		
03	AY59236W11 MS-1 1/1(	8229	12.94	7141	14.56		
04	AY59236W13 MSD-1 1/	7944	12.94	6751	14.56		
05	AY59236W07 1/1030	7256	12.94	6524	14.56		
06	AY59237W06 1/1000	7744	12.94	6759	14.56		
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Sample Data

APPL, INC.

EPA 8270D SIM

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Max Solmssen
Project: LTM Red Hill / 1022-024
Sample ID: ES074
Sample Collection Date: 04/17/12

ARF: 67525
APPL ID: AY59236
QCG: #SIMHC-120419A-166432

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
8270D-SIM	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/19/12	04/22/12
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/19/12	04/22/12
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/19/12	04/22/12
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	58.9	50-110			%	04/19/12	04/22/12
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	60.2	40-110			%	04/19/12	04/22/12
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	54.4	50-135			%	04/19/12	04/22/12

Quant Method: SIMB.M
Run #: 0422L013
Instrument: Linus
Sequence: L120229
Dilution Factor: 1
Initials: LF

Printed: 05/02/12 1:26:14 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0422L013.D Vial: 13
Acq On : 22 Apr 12 15:52 Operator: LF
Sample : AY59236W07 1/1030 Inst : Linus
Misc : Multiplr: 0.97

Quant Time: Apr 23 16:14 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:14:14 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	6504	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.12	164	3262	2.50000 ppb	-0.01
12) Phenanthrene-D10(IS)	9.86	188	5948	2.50000 ppb	0.00
16) Chrysene-D12(IS)	12.94	240	7256	2.50000 ppb	0.01
22) Perylene-D12(IS)	14.56	264	6524	2.50000 ppb	0.02
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.33	82	768	1.16769 ppb	0.01
Spiked Amount 1.942			Recovery = 60.152%		
7) Surrogate Recovery (FBP)	7.36	172	2436	1.14400 ppb	-0.01
Spiked Amount 1.942			Recovery = 58.916%		
18) Surrogate Recovery (TPH)	11.73	244	2466	1.05745 ppb	0.00
Spiked Amount 1.942			Recovery = 54.435%		

Target Compounds Qvalue

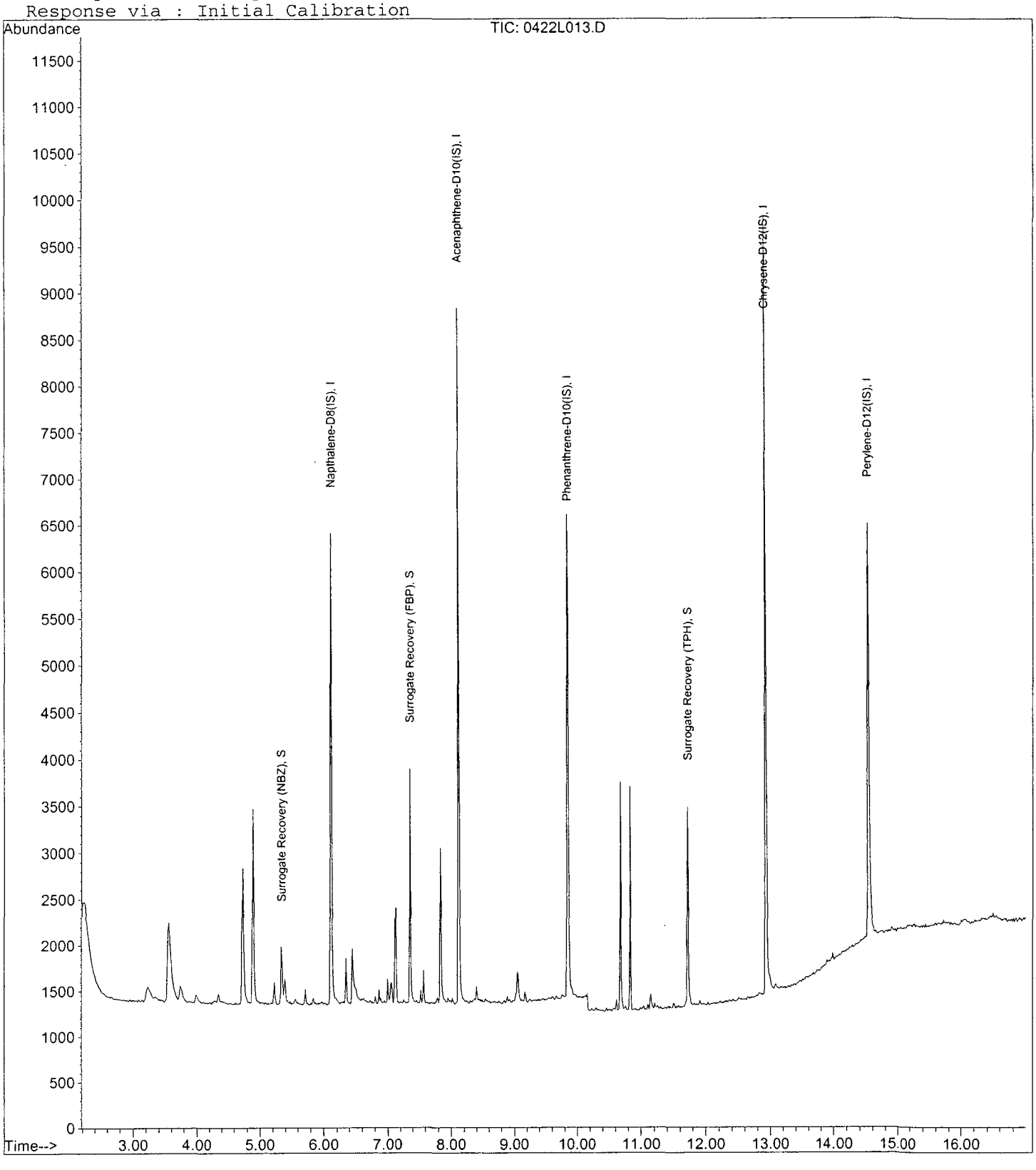
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120229\0422L013.D Vial: 13
Acq On : 22 Apr 12 15:52 Operator: LF
Sample : AY59236W07 1/1030 Inst : Linus
Misc : Multiplr: 0.97

Quant Time: Apr 23 16:14 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:14:14 2012
Response via : Initial Calibration



EPA 8270D SIM

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Max Solmssen
Project: LTM Red Hill / 1022-024
Sample ID: ES075
Sample Collection Date: 04/17/12

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 67525
APPL ID: AY59237
QCG: #SIMHC-120419A-166432

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
8270D-SIM	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/19/12	04/22/12
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/19/12	04/22/12
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/19/12	04/22/12
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	60.4	50-110			%	04/19/12	04/22/12
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	83.0	40-110			%	04/19/12	04/22/12
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	56.9	50-135			%	04/19/12	04/22/12

Quant Method: SIMB.M
Run #: 0422L014
Instrument: Linus
Sequence: L120229
Dilution Factor: 1
Initials: LF

Printed: 05/02/12 1:26:14 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0422L014.D Vial: 14
Acq On : 22 Apr 12 16:18 Operator: LF
Sample : AY59237W06 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 23 16:15 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:14:14 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	6327	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.12	164	3506	2.50000 ppb	-0.01
12) Phenanthrene-D10(IS)	9.85	188	6211	2.50000 ppb	-0.01
16) Chrysene-D12(IS)	12.94	240	7744	2.50000 ppb	0.01
22) Perylene-D12(IS)	14.56	264	6759	2.50000 ppb	0.02
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.33	82	1031	1.65977 ppb	0.01
Spiked Amount 2.000			Recovery = 83.000%		
7) Surrogate Recovery (FBP)	7.36	172	2685	1.20838 ppb	-0.01
Spiked Amount 2.000			Recovery = 60.400%		
18) Surrogate Recovery (TPH)	11.72	244	2749	1.13766 ppb	-0.01
Spiked Amount 2.000			Recovery = 56.900%		
Target Compounds					Qvalue

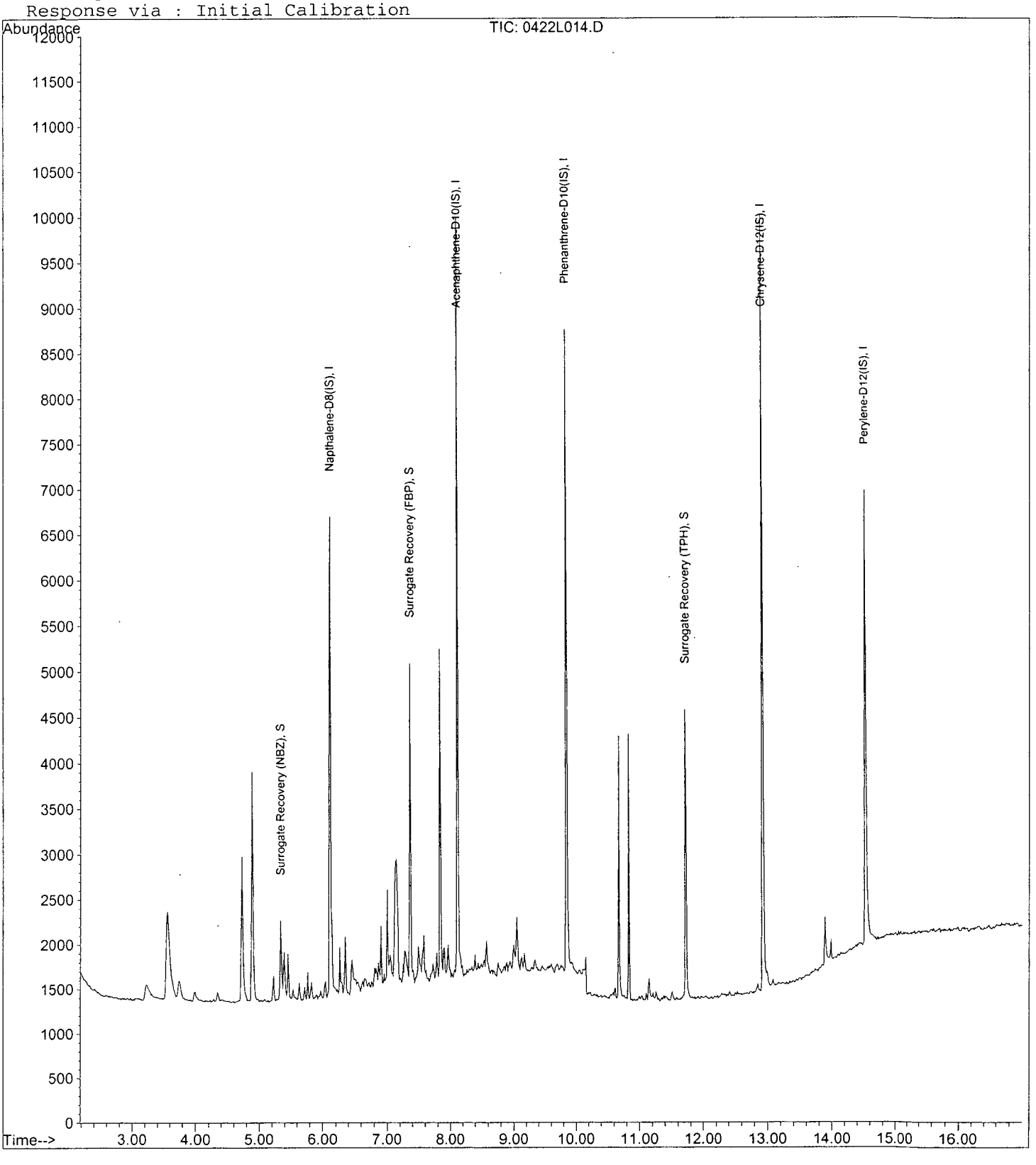
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120229\0422L014.D Vial: 14
Acq On : 22 Apr 12 16:18 Operator: LF
Sample : AY59237W06 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 23 16:15 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:14:14 2012
Response via : Initial Calibration



EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 67525
Case No: Initial Cal. Date: 02/29/12
Matrix: Instrument: Linus Initials:

			0229L003.D	0229L004.D	0229L005.D	0229L006.D	0229L007.D	0229L008.D	0229L009.D	0229L010.D						
		Compound	0.1	0.2	0.5	1	5	10	50	100			Avg	%RSD		r
1	I	Napthalene-D8(IS)														
2	S	Surrogate Recovery (NBZ)	0.2482	0.2256	0.2462	0.2440	0.2171	0.2327	0.2670	0.2827			0.25	8.7	S	
3	TM	Naphthalene	1.506	1.608	1.562	1.574	1.325	1.287	1.126				1.4	13	TM	
4	TM	2-Methylnaphthalene	0.8962	0.9576	0.9479	0.9511	0.8263	0.8144	0.7431	0.7273			0.86	11	TM	
5	TM	1-Methylnaphthalene	0.8541	0.8647	0.8796	0.8802	0.7838	0 7780	0.6922	0.6698			0.80	10	TM	
6	I	Acenaphthene-D10(IS)														
7	S	Surrogate Recovery (FBP)	1.606	1.554	1.731	1.634	1.565	1.629	1.553	1.403			1.6	5.9	S	
8	TM	1,1'-Biphenyl	2.138	2.145	2.246	2.082	1.979	1.931	1.704	1.571			2.0	12	TM	
9	TM	Acenaphthylene	2.594	2.556	2.650	2.501	2.372	2.428	2.200	1.916			2.4	10	TM	
10	*TM	Acenaphthene	1.563	1 492	1.519	1.435	1.390	1.363	1.267	1.160			1.4	9.6	*TM	
11	TM	Fluorene	1.795	1.796	1.859	1.726	1.669	1.690	1.582	1.441			1.7	7.9	TM	
12	I	Phenanthrene-D10(IS)														
13	TM	Phenanthrene	1.714	1.615	1.639	1.576	1.495	1.438	1.290	1.104			1.5	14	TM	
14	TM	Anthracene	1.369	1.458	1.377	1.380	1.423	1.368	1.259	1.082			1.3	8.9	TM	
15	*TM	Fluoranthene	1.923	1.896	1.919	1.851	1.865	1.835	1.685	1.576			1.8	6.8	*TM	
16	I	Chrysene-D12(IS)														
17	TM	Pyrene	1.588	1.532	1.612	1.507	1.443	1.392	1.268	1.182			1.4	11	TM	
18	S	Surrogate Recovery (TPH)	0.8061	0.7442	0.8201	0.7874	0.8133	0.8544	0.7588	0.6563			0.78	7.8	S	
19	TM	Benz (a) anthracene	1.403	1.361	1.365	1.258	1.212	1.147	1.063	1.065			1.2	11	TM	
20	TM	Chrysene	1.320	1.398	1.410	1.346	1.276	1.241	1.056	0.9180			1.2	14	TM	
21	TMQ	Indeno (1,2,3-cd) pyrene	7.776	4.408	2.527	1.790	1.291	0.9457	0.9123	0.9049			2.6	94	TMQ	1.00
22	I	Perylene-D12(IS)														
23	TM	Benzo (b) fluoranthene	1.941	1.771	1.720	1.677	1.526	1.484	1.245	1.286			1.6	15	TM	
24	TM	Benzo (k) fluoranthene	1.461	1.239	1.438	1.321	1.364	1.390	1.356	0.9323			1.3	13	TM	
25	*TM	Benzo (a) pyrene	1.645	1.593	1.481	1.396	1.362	1.366	1.253	1.136			1.4	12	*TM	
26	TMQ	Dibenz (a,h) anthracene	2.398	1.892	1.442	1.259	1.148	1.160	1.097	1.028			1.4	34	TMQ	1.00
27	TMQ	Benzo (g,h,i) perylene	12.9	7.045	3.555	2.361	1.431	1.308	1.150	1.082			3.9	108	TMQ	1.00
28																
29																
30																
31																
32																
33																
34																
35																

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L003.D Vial: 3
Acq On : 1 Mar 12 00:20 Operator: LF
Sample : 0.1ug/ml PAH 02-29-12 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:00:28 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	5942	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.13	164	2911	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	9.86	188	5004	2.50000 ppb		0.00
16) Chrysene-D12(IS)	12.93	240	6327	2.50000 ppb		0.00
22) Perylene-D12(IS)	14.54	264	5577	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.32	82	59	0.11037 ppb		0.00
Spiked Amount 2.000			Recovery = 5.500%			
7) Surrogate Recovery (FBP)	7.37	172	187	0.10055 ppb		0.00
Spiked Amount 2.000			Recovery = 5.050%			
18) Surrogate Recovery (TPH)	11.73	244	204	0.09667 ppb		0.00
Spiked Amount 2.000			Recovery = 4.850%			
Target Compounds						Qvalue
3) Naphthalene	6.14	128	358	0.11535 ppb		98
4) 2-Methylnaphthalene	6.93	142	213	0.10924 ppb		96
5) 1-Methylnaphthalene	7.05	142	203	0.10937 ppb		99
8) 1,1'-Biphenyl	7.47	154	249	0.10939 ppb		99
9) Acenaphthylene	7.96	152	302	0.10805 ppb		98
10) Acenaphthene	8.17	154	182	0.11354 ppb		93
11) Fluorene	8.76	166	209	0.10687 ppb		91
13) Phenanthrene	9.88	178	343	0.11685 ppb		98
14) Anthracene	9.94	178	274	0.09809 ppb		96
15) Fluoranthene	11.26	202	385	0.10399 ppb		97
17) Pyrene	11.51	202	402	0.11205 ppb		94
19) Benz (a) anthracene	12.91	228	355	0.11892 ppb		98
20) Chrysene	12.96	228	334	0.10484 ppb		98
21) Indeno (1,2,3-cd) pyrene	15.99	276	1968	0.69525 ppb	#	96
23) Benzo (b) fluoranthene	14.09	252	433	0.12898 ppb	#	94
24) Benzo (k) fluoranthene	14.13	252	326	0.10614 ppb		98
25) Benzo (a) pyrene	14.47	252	367	0.12057 ppb		99
26) Dibenz (a,h) anthracene	16.04	278	535	0.20789 ppb		98
27) Benzo (g,h,i) perylene	16.41	276	2880	0.94271 ppb	#	91

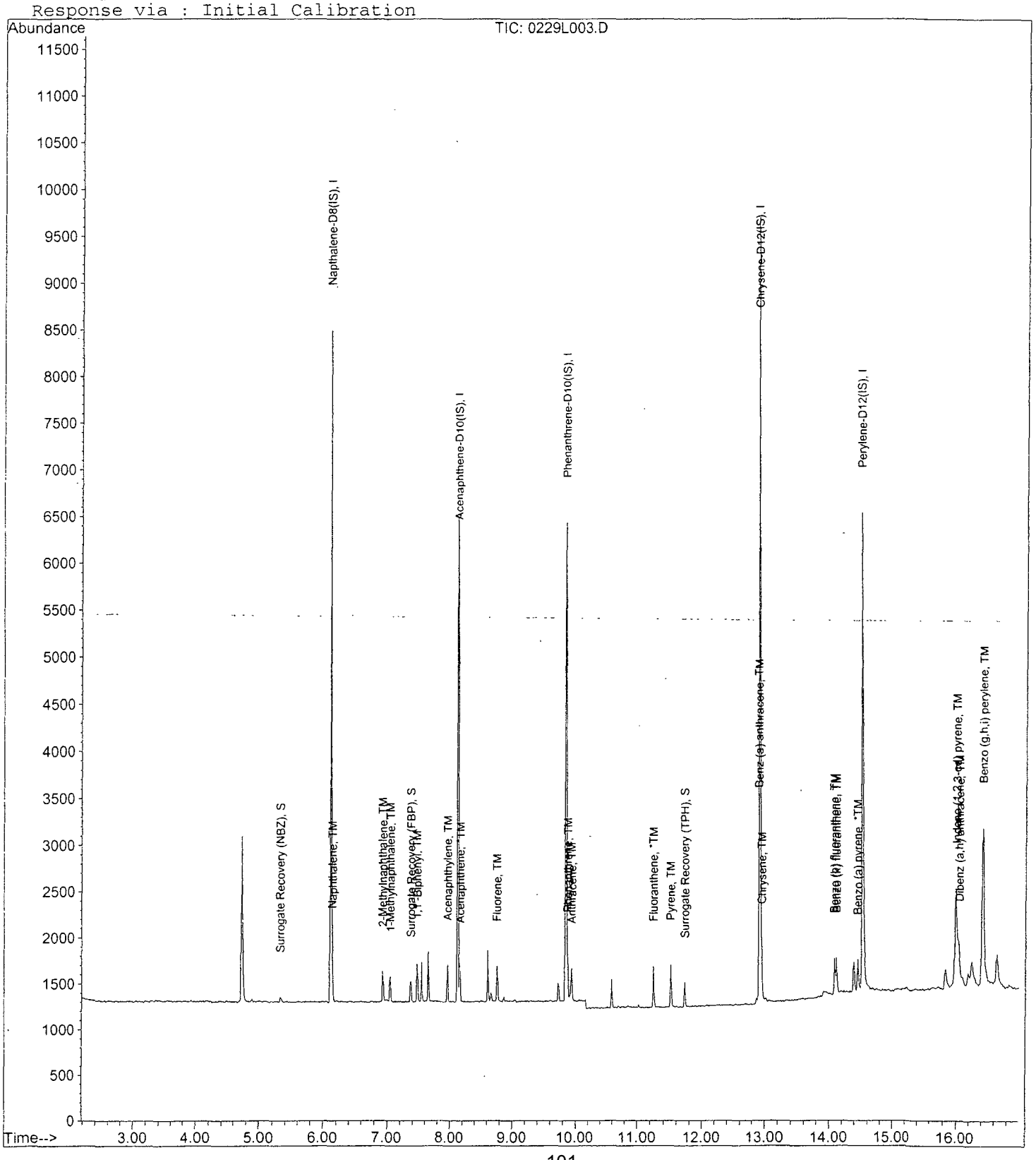
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120229\0229L003.D Vial: 3
Acq On : 1 Mar 12 00:20 Operator: LF
Sample : 0.1ug/ml PAH 02-29-12 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:48:01 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L004.D Vial: 4
Acq On : 1 Mar 12 00:44 Operator: LF
Sample : 0.2ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:00:28 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	5652	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.13	164	2832	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	9.86	188	4715	2.50000 ppb		0.00
16) Chrysene-D12(IS)	12.92	240	6080	2.50000 ppb		0.00
22) Perylene-D12(IS)	14.53	264	5399	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.32	82	102	0.20060 ppb		0.00
Spiked Amount 2.000			Recovery = 10.050%			
7) Surrogate Recovery (FBP)	7.37	172	352	0.19455 ppb		0.00
Spiked Amount 2.000			Recovery = 9.750%			
18) Surrogate Recovery (TPH)	11.73	244	362	0.17851 ppb		0.00
Spiked Amount 2.000			Recovery = 8.950%			
Target Compounds						Qvalue
3) Naphthalene	6.14	128	727	0.24627 ppb		97
4) 2-Methylnaphthalene	6.93	142	433	0.23347 ppb		94
5) 1-Methylnaphthalene	7.05	142	391	0.22147 ppb		97
8) 1,1'-Biphenyl	7.48	154	486	0.21945 ppb	#	84
9) Acenaphthylene	7.96	152	579	0.21294 ppb		100
10) Acenaphthene	8.17	154	338	0.21674 ppb		98
11) Fluorene	8.76	166	407	0.21392 ppb		95
13) Phenanthrene	9.88	178	609	0.22018 ppb		99
14) Anthracene	9.94	178	550	0.20897 ppb		97
15) Fluoranthene	11.26	202	715	0.20496 ppb		97
17) Pyrene	11.51	202	745	0.21610 ppb		97
19) Benz (a) anthracene	12.91	228	662	0.23077 ppb		98
20) Chrysene	12.96	228	680	0.22213 ppb		98
21) Indeno (1,2,3-cd) pyrene	15.99	276	2144	0.78820 ppb	#	93
23) Benzo (b) fluoranthene	14.09	252	765	0.23539 ppb		96
24) Benzo (k) fluoranthene	14.13	252	535	0.17993 ppb	#	96
25) Benzo (a) pyrene	14.46	252	688	0.23348 ppb		98
26) Dibenz (a,h) anthracene	16.03	278	817	0.32794 ppb		96
27) Benzo (g,h,i) perylene	16.41	276	3043	1.02890 ppb		95

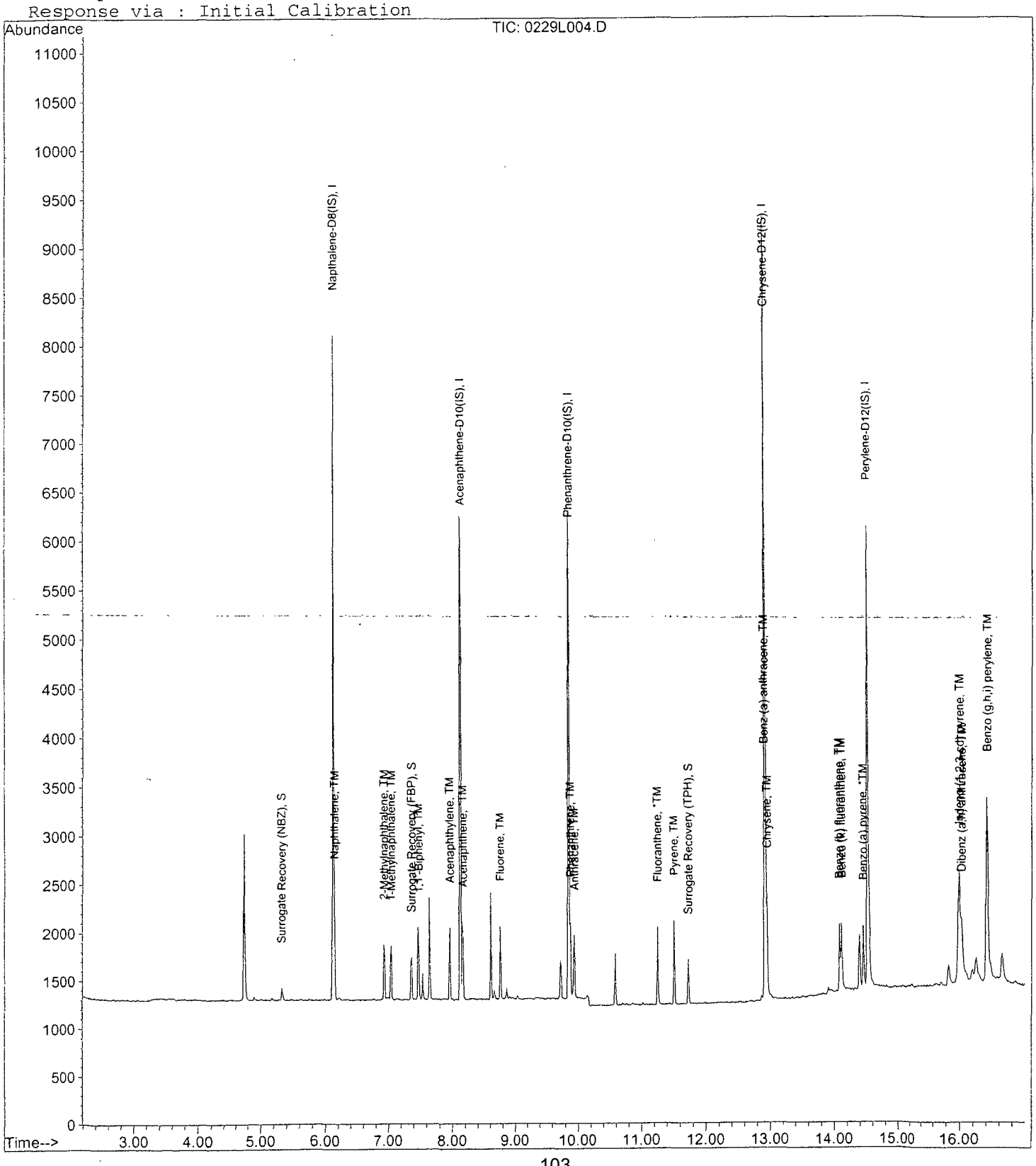
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120229\0229L004.D Vial: 4
Acq On : 1 Mar 12 00:44 Operator: LF
Sample : 0.2ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:48:01 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L005.D Vial: 5
Acq On : 1 Mar 12 1:09 Operator: LF
Sample : 0.5ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:00:28 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	5565	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.13	164	2781	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	9.86	188	4739	2.50000 ppb	0.00
16) Chrysene-D12(IS)	12.92	240	5969	2.50000 ppb	0.00
22) Perylene-D12(IS)	14.54	264	5253	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.32	82	274	0.54730 ppb	0.00
Spiked Amount 2.000			Recovery = 27.350%		
7) Surrogate Recovery (FBP)	7.37	172	963	0.54201 ppb	0.00
Spiked Amount 2.000			Recovery = 27.100%		
18) Surrogate Recovery (TPH)	11.73	244	979	0.49173 ppb	0.00
Spiked Amount 2.000			Recovery = 24.600%		
Target Compounds					Qvalue
3) Naphthalene	6.14	128	1738	0.59795 ppb	99
4) 2-Methylnaphthalene	6.93	142	1055	0.57775 ppb	98
5) 1-Methylnaphthalene	7.05	142	979	0.56319 ppb	97
8) 1,1'-Biphenyl	7.47	154	1249	0.57433 ppb	98
9) Acenaphthylene	7.96	152	1474	0.55203 ppb	99
10) Acenaphthene	8.16	154	845	0.55178 ppb	83
11) Fluorene	8.76	166	1034	0.55344 ppb	100
13) Phenanthrene	9.88	178	1553	0.55864 ppb	99
14) Anthracene	9.94	178	1305	0.49333 ppb	99
15) Fluoranthene	11.26	202	1819	0.51879 ppb	98
17) Pyrene	11.51	202	1925	0.56875 ppb	95
19) Benz (a) anthracene	12.91	228	1629	0.57842 ppb	99
20) Chrysene	12.96	228	1683	0.55999 ppb	99
21) Indeno (1,2,3-cd) pyrene	15.99	276	3017	1.12977 ppb	98
23) Benzo (b) fluoranthene	14.09	252	1807	0.57147 ppb	96
24) Benzo (k) fluoranthene	14.13	252	1511	0.52230 ppb	98
25) Benzo (a) pyrene	14.47	252	1556	0.54272 ppb	99
26) Dibenz (a,h) anthracene	16.04	278	1515	0.62501 ppb	98
27) Benzo (g,h,i) perylene	16.41	276	3735	1.29798 ppb	94

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

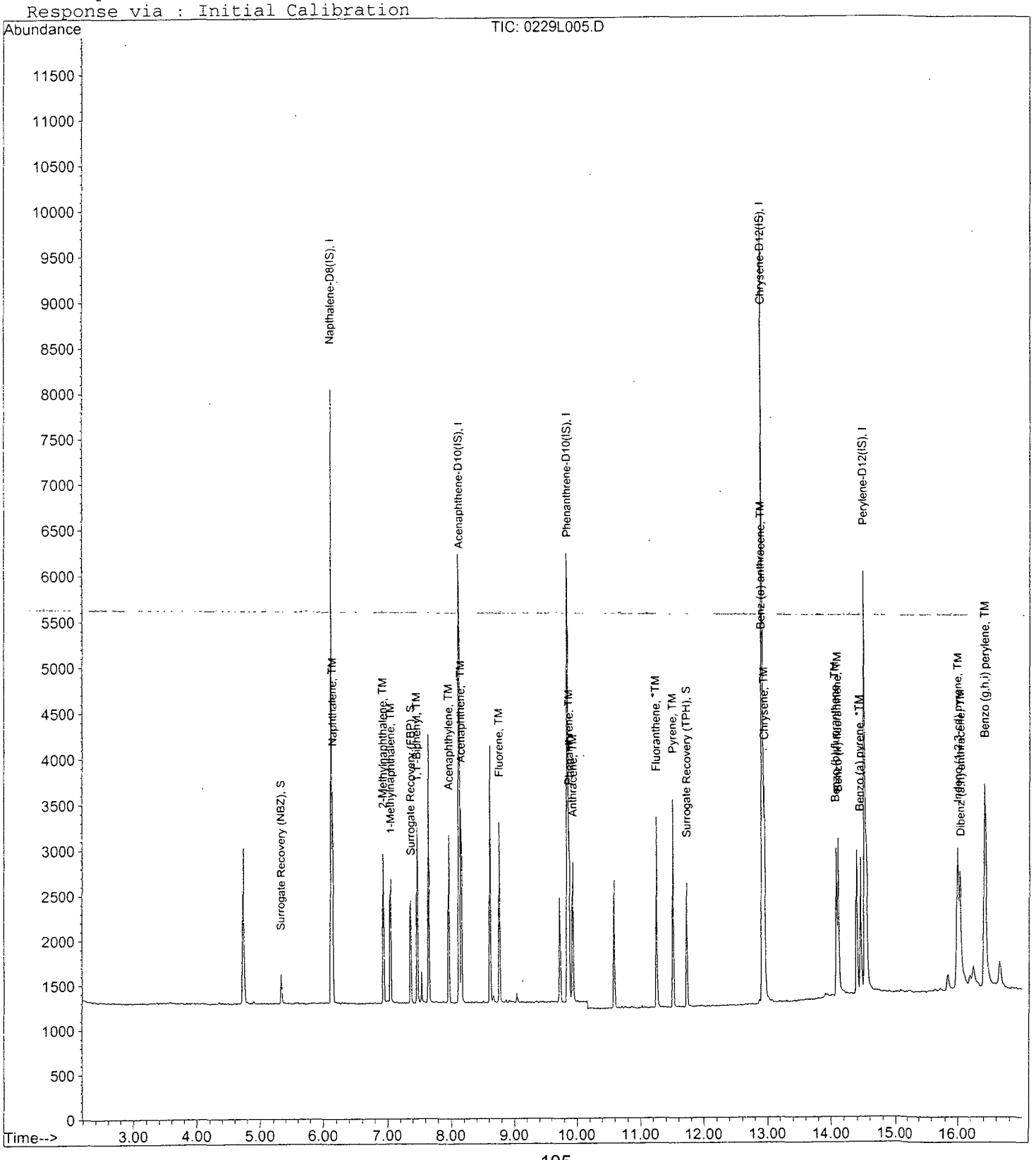
Quantitation Report

Data File : M:\LINUS\DATA\L120229\0229L005.D
Acq On : 1 Mar 12 1:09
Sample : 0.5ug/ml PAH
Misc :

Vial: 5
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:48:01 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L006.D Vial: 6
Acq On : 1 Mar 12 1:34 Operator: LF
Sample : 1.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:00:28 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	5215	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.13	164	2733	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	9.86	188	4543	2.50000 ppb		0.00
16) Chrysene-D12(IS)	12.93	240	5902	2.50000 ppb		0.00
22) Perylene-D12(IS)	14.54	264	5053	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.32	82	509	1.08494 ppb		0.00
Spiked Amount 2.000			Recovery = 54.250%			
7) Surrogate Recovery (FBP)	7.37	172	1786	1.02288 ppb		0.00
Spiked Amount 2.000			Recovery = 51.150%			
18) Surrogate Recovery (TPH)	11.73	244	1859	0.94434 ppb		0.00
Spiked Amount 2.000			Recovery = 47.200%			
Target Compounds						Qvalue
3) Naphthalene	6.14	128	3283	1.20530 ppb		99
4) 2-Methylnaphthalene	6.93	142	1984	1.15942 ppb		98
5) 1-Methylnaphthalene	7.05	142	1836	1.12708 ppb		99
8) 1,1'-Biphenyl	7.48	154	2276	1.06496 ppb	#	84
9) Acenaphthylene	7.96	152	2734	1.04189 ppb		99
10) Acenaphthene	8.16	154	1569	1.04254 ppb	#	81
11) Fluorene	8.76	166	1887	1.02774 ppb		97
13) Phenanthrene	9.88	178	2864	1.07467 ppb		99
14) Anthracene	9.94	178	2508	0.98900 ppb		99
15) Fluoranthene	11.26	202	3364	1.00084 ppb		98
17) Pyrene	11.51	202	3558	1.06316 ppb		94
19) Benz (a) anthracene	12.91	228	2969	1.06618 ppb		100
20) Chrysene	12.96	228	3178	1.06942 ppb		99
21) Indeno (1,2,3-cd) pyrene	15.99	276	4226	1.60046 ppb	#	98
23) Benzo (b) fluoranthene	14.09	252	3390	1.11454 ppb		98
24) Benzo (k) fluoranthene	14.13	252	2669	0.95910 ppb		99
25) Benzo (a) pyrene	14.47	252	2821	1.02288 ppb		97
26) Dibenz (a,h) anthracene	16.04	278	2545	1.09150 ppb		99
27) Benzo (g,h,i) perylene	16.41	276	4772	1.72400 ppb		94

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

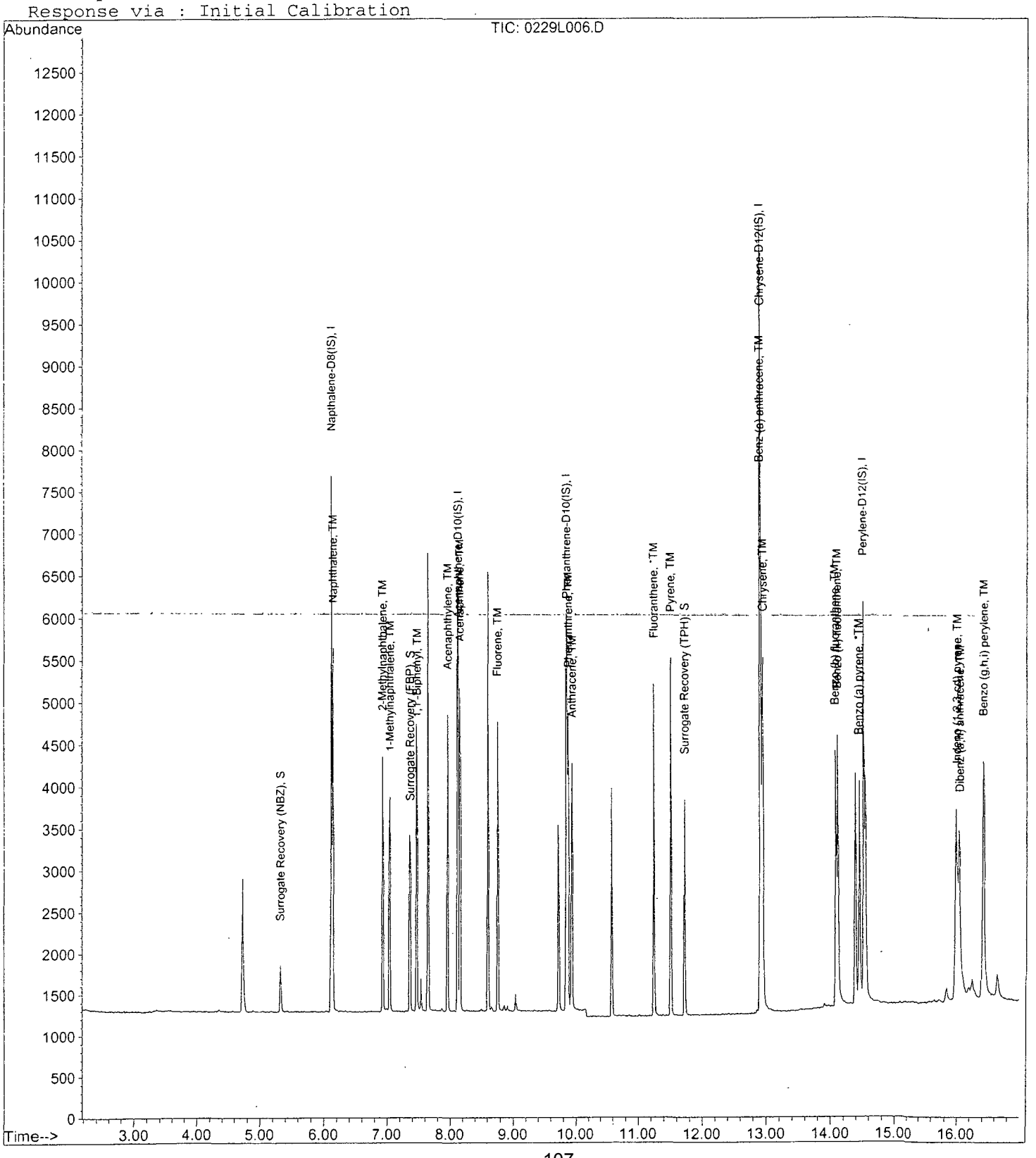
Quantitation Report

Data File : M:\LINUS\DATA\L120229\0229L006.D
Acq On : 1 Mar 12 1:34
Sample : 1.0ug/ml PAH
Misc :

Vial: 6
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:48:01 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L007.D Vial: 7
Acq On : 1 Mar 12 1:59 Operator: LF
Sample : 5.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:00:28 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	5710	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.13	164	2760	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	9.86	188	4470	2.50000 ppb		0.00
16) Chrysene-D12(IS)	12.93	240	6006	2.50000 ppb		0.00
22) Perylene-D12(IS)	14.54	264	5058	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.32	82	2479	4.82594 ppb		0.00
Spiked Amount 2.000			Recovery	= 241.300%		
7) Surrogate Recovery (FBP)	7.37	172	8641	4.90046 ppb		0.00
Spiked Amount 2.000			Recovery	= 245.000%		
18) Surrogate Recovery (TPH)	11.73	244	9769	4.87655 ppb		0.00
Spiked Amount 2.000			Recovery	= 243.850%		
Target Compounds						Qvalue
3) Naphthalene	6.14	128	15130	5.07319 ppb		100
4) 2-Methylnaphthalene	6.93	142	9436	5.03624 ppb		100
5) 1-Methylnaphthalene	7.05	142	8951	5.01847 ppb		100
8) 1,1'-Biphenyl	7.47	154	10923	5.06097 ppb		100
9) Acenaphthylene	7.96	152	13095	4.94152 ppb		100
10) Acenaphthene	8.17	154	7674	5.04922 ppb		100
11) Fluorene	8.76	166	9212	4.96816 ppb		100
13) Phenanthrene	9.88	178	13364	5.09651 ppb		100
14) Anthracene	9.94	178	12720	5.09789 ppb		100
15) Fluoranthene	11.26	202	16671	5.04085 ppb		100
17) Pyrene	11.51	202	17331	5.08899 ppb		100
19) Benz (a) anthracene	12.91	228	14556	5.13662 ppb		100
20) Chrysene	12.96	228	15329	5.06901 ppb		100
21) Indeno (1,2,3-cd) pyrene	15.99	276	15511	5.77257 ppb	#	100
23) Benzo (b) fluoranthene	14.09	252	15432	5.06859 ppb		100
24) Benzo (k) fluoranthene	14.13	252	13796	4.95267 ppb		100
25) Benzo (a) pyrene	14.47	252	13783	4.99271 ppb		100
26) Dibenz (a,h) anthracene	16.04	278	11610	4.97436 ppb		100
27) Benzo (g,h,i) perylene	16.43	276	14480	5.22607 ppb		100

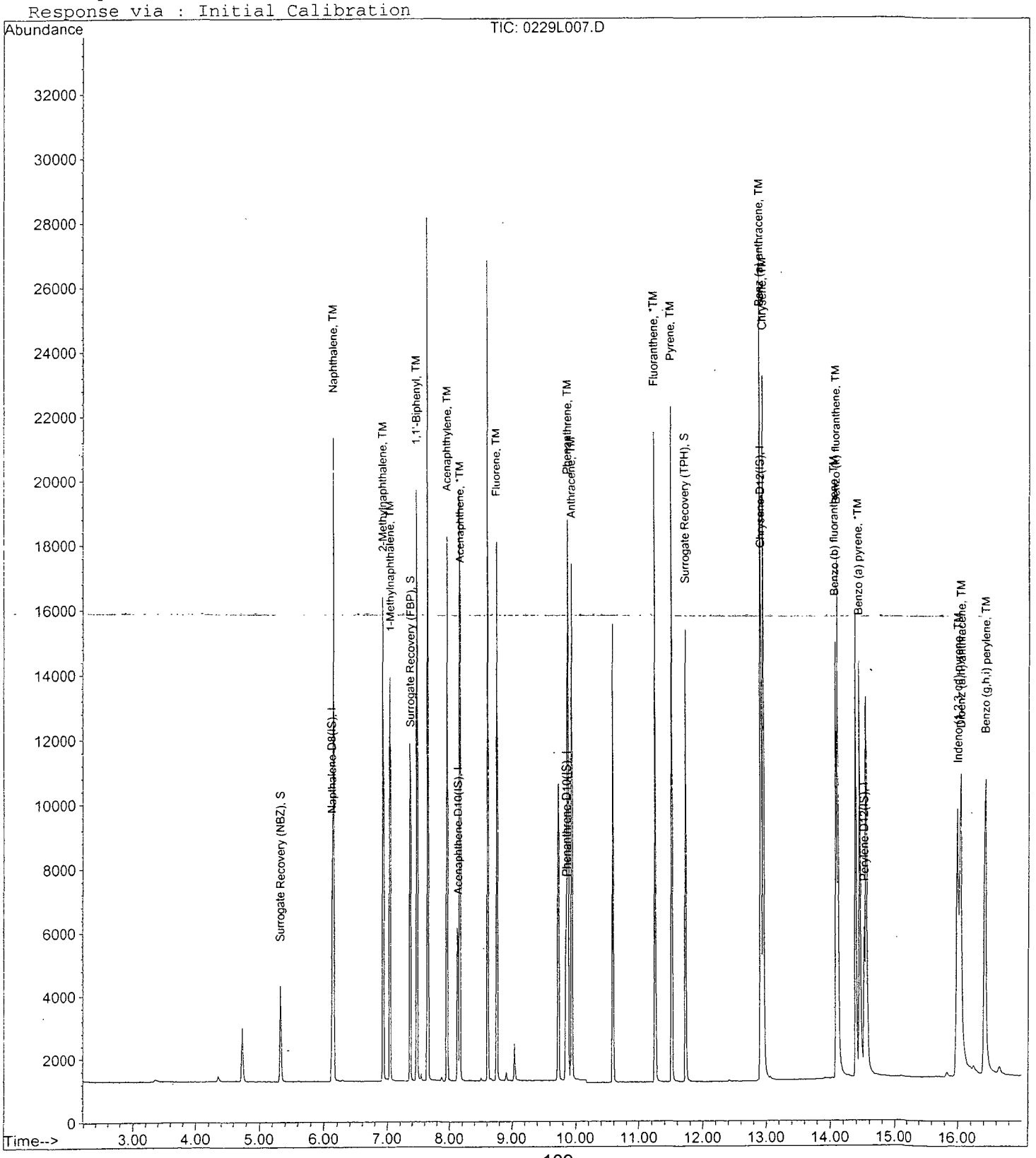
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120229\0229L007.D Vial: 7
Acq On : 1 Mar 12 1:59 Operator: LF
Sample : 5.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:48:01 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L008.D Vial: 8
Acq On : 1 Mar 12 2:24 Operator: LF
Sample : 10ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:00:28 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	5922	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.13	164	2882	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	9.86	188	4817	2.50000 ppb		0.00
16) Chrysene-D12(IS)	12.92	240	6477	2.50000 ppb		0.00
22) Perylene-D12(IS)	14.53	264	5338	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.32	82	5513	10.34812 ppb		0.00
Spiked Amount 2.000			Recovery = 517.400%			
7) Surrogate Recovery (FBP)	7.37	172	18779	10.19907 ppb		0.00
Spiked Amount 2.000			Recovery = 509.950%			
18) Surrogate Recovery (TPH)	11.73	244	22137	10.24690 ppb		0.00
Spiked Amount 2.000			Recovery = 512.350%			
Target Compounds						Qvalue
3) Naphthalene	6.14	128	30478	9.85363 ppb		100
4) 2-Methylnaphthalene	6.93	142	19291	9.92752 ppb		99
5) 1-Methylnaphthalene	7.05	142	18430	9.96306 ppb		100
8) 1,1'-Biphenyl	7.48	154	22262	9.87805 ppb	#	83
9) Acenaphthylene	7.96	152	27995	10.11697 ppb		100
10) Acenaphthene	8.17	154	15714	9.90157 ppb		99
11) Fluorene	8.76	166	19485	10.06368 ppb		98
13) Phenanthrene	9.88	178	27712	9.80698 ppb		99
14) Anthracene	9.94	178	26362	9.80421 ppb		100
15) Fluoranthene	11.26	202	35348	9.91831 ppb		100
17) Pyrene	11.51	202	36073	9.82203 ppb		97
19) Benz (a) anthracene	12.91	228	29725	9.72677 ppb		99
20) Chrysene	12.96	228	32162	9.86198 ppb		99
21) Indeno (1,2,3-cd) pyrene	15.99	276	24500	8.45487 ppb	#	100
23) Benzo (b) fluoranthene	14.09	252	31691	9.86282 ppb		99
24) Benzo (k) fluoranthene	14.13	252	29676	10.09466 ppb		99
25) Benzo (a) pyrene	14.46	252	29177	10.01459 ppb		100
26) Dibenz (a,h) anthracene	16.04	278	24758	10.05127 ppb		99
27) Benzo (g,h,i) perylene	16.43	276	27919	9.54787 ppb		100

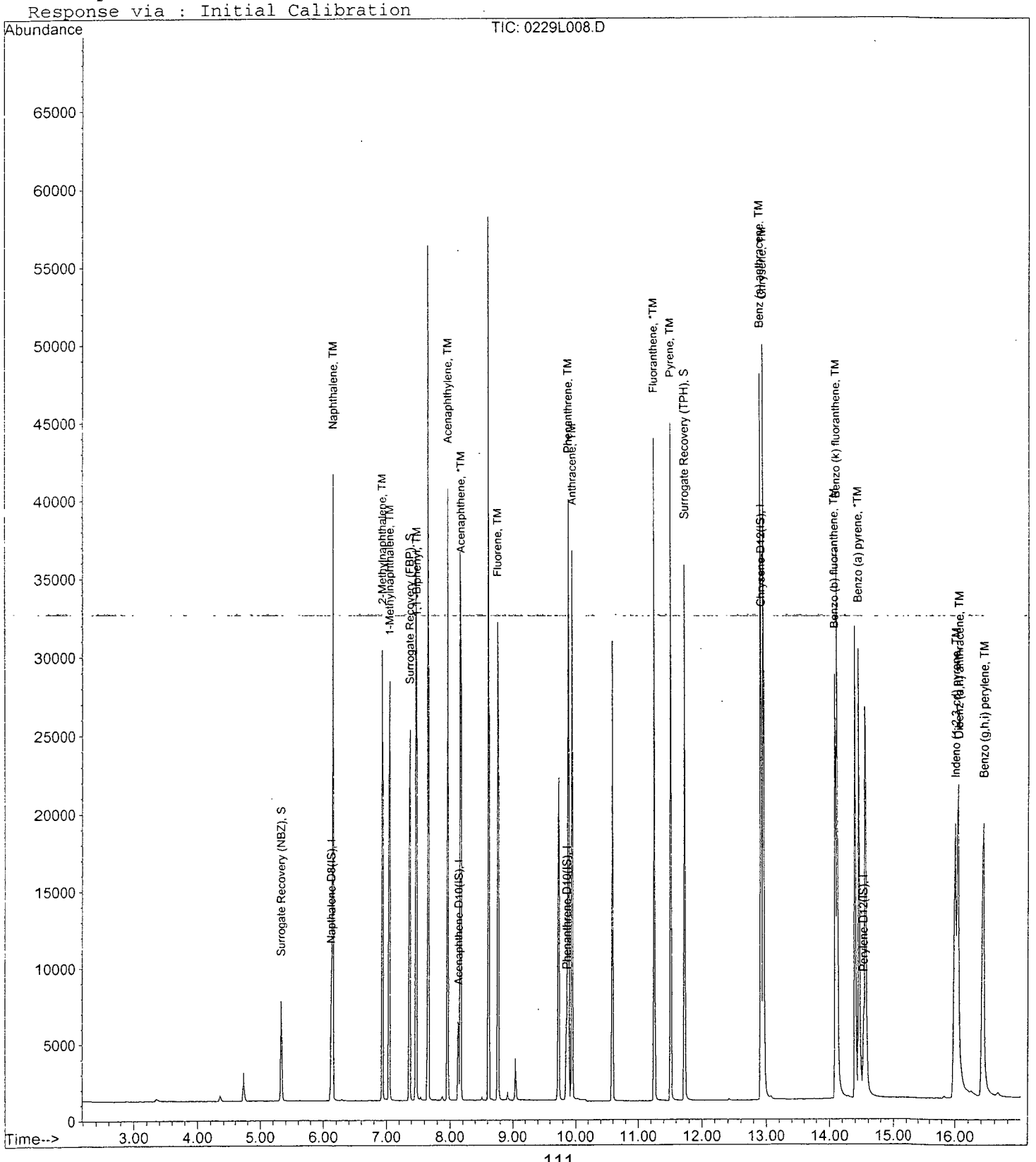
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120229\0229L008.D Vial: 8
Acq On : 1 Mar 12 2:24 Operator: LF
Sample : 10ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:48:01 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L009.D Vial: 9
Acq On : 1 Mar 12 2:49 Operator: LF
Sample : 50ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:00:28 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	5719	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.13	164	2718	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	9.86	188	4593	2.50000 ppb		0.00
16) Chrysene-D12(IS)	12.94	240	6372	2.50000 ppb		0.01
22) Perylene-D12(IS)	14.54	264	5338	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.32	82	30540	59.35955 ppb		0.00
Spiked Amount 2.000			Recovery	= 2968.000%		
7) Surrogate Recovery (FBP)	7.37	172	84407	48.60839 ppb		0.00
Spiked Amount 2.000			Recovery	= 2430.400%		
18) Surrogate Recovery (TPH)	11.73	244	96696	45.49676 ppb		0.00
Spiked Amount 2.000			Recovery	= 2274.850%		
Target Compounds						Qvalue
3) Naphthalene	6.14	128	128767	43.10846 ppb		99
4) 2-Methylnaphthalene	6.94	142	84994	45.29212 ppb		87
5) 1-Methylnaphthalene	7.05	142	79171	44.31818 ppb		100
8) 1,1'-Biphenyl	7.48	154	92639	43.58586 ppb	#	84
9) Acenaphthylene	7.96	152	119609	45.83300 ppb		98
10) Acenaphthene	8.17	154	68862	46.00885 ppb		98
11) Fluorene	8.77	166	86013	47.10480 ppb		90
13) Phenanthrene	9.88	178	118464	43.96772 ppb		98
14) Anthracene	9.94	178	115636	45.10324 ppb		98
15) Fluoranthene	11.26	202	154795	45.55225 ppb	#	92
17) Pyrene	11.52	202	161556	44.71366 ppb	#	81
19) Benz(a)anthracene	12.92	228	135460	45.05633 ppb		95
20) Chrysene	12.96	228	134623	41.96027 ppb	#	96
21) Indeno (1,2,3-cd) pyrene	16.01	276	116267	40.78451 ppb		95
23) Benzo (b) fluoranthene	14.10	252	132868	41.35096 ppb	#	92
24) Benzo (k) fluoranthene	14.14	252	144725	49.23001 ppb	#	96
25) Benzo (a) pyrene	14.48	252	133729	45.90057 ppb		96
26) Dibenz (a,h) anthracene	16.05	278	117167	47.56756 ppb		99
27) Benzo (g,h,i) perylene	16.44	276	122767	41.98443 ppb		94

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

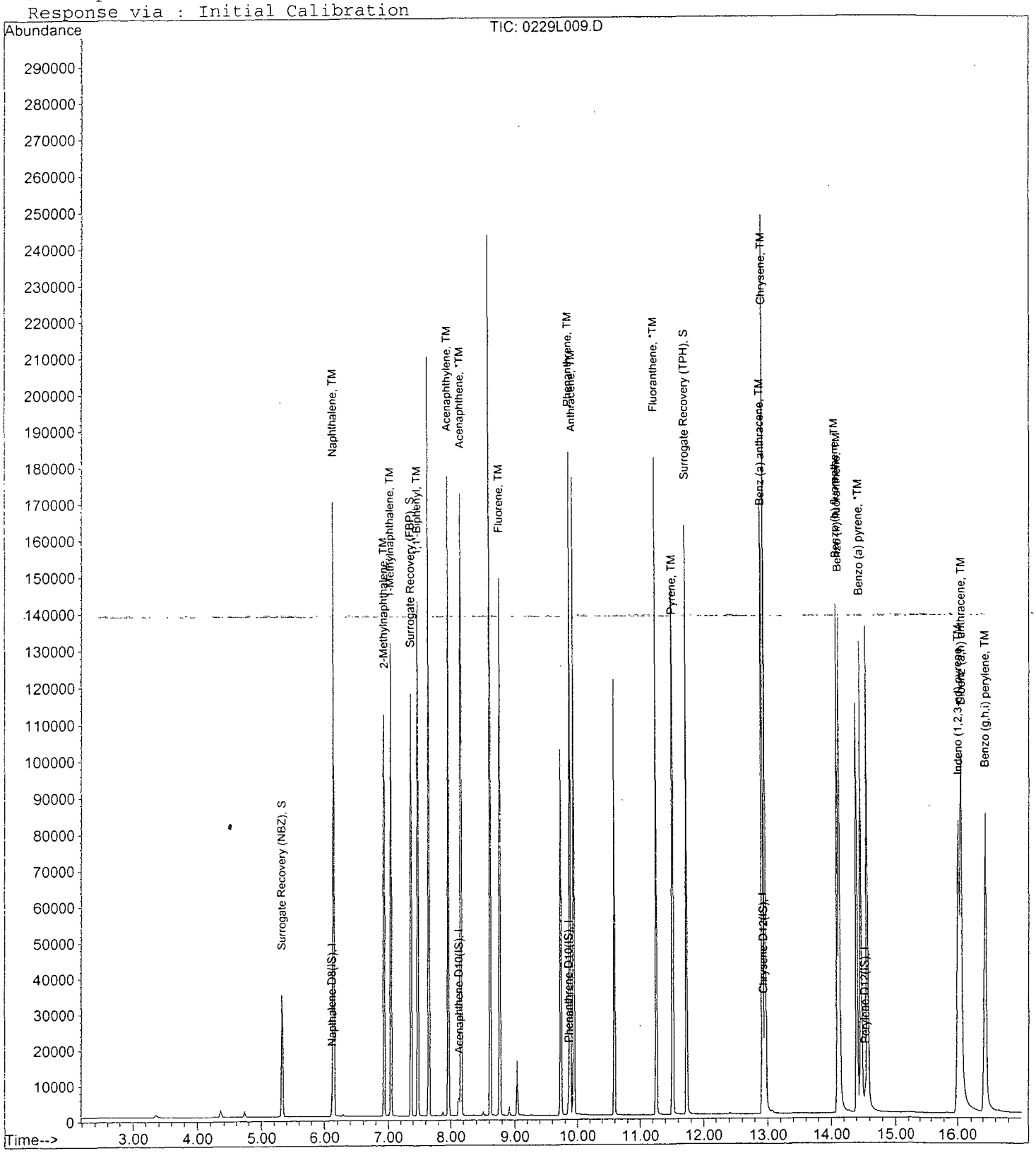
Quantitation Report

Data File : M:\LINUS\DATA\L120229\0229L009.D
Acq On : 1 Mar 12 2:49
Sample : 50ug/ml PAH
Misc :

Vial: 9
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:48:01 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L010.D Vial: 10
Acq On : 1 Mar 12 3:14 Operator: LF
Sample : 100ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:00:28 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	5584	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.13	164	2832	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	9.86	188	4766	2.50000 ppb		0.00
16) Chrysene-D12(IS)	12.94	240	6566	2.50000 ppb		0.01
22) Perylene-D12(IS)	14.55	264	5654	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.33	82	63151	125.71194 ppb		0.01
Spiked Amount 2.000			Recovery	= 6285.600%		
7) Surrogate Recovery (FBP)	7.37	172	158975	87.86538 ppb		0.00
Spiked Amount 2.000			Recovery	= 4393.250%		
18) Surrogate Recovery (TPH)	11.73	244	172379	78.71024 ppb		0.00
Spiked Amount 2.000			Recovery	= 3935.500%		
Target Compounds						Qvalue
3) Naphthalene	6.14	128	230712	79.10479 ppb		98
4) 2-Methylnaphthalene	6.94	142	162439	88.65422 ppb		89
5) 1-Methylnaphthalene	7.05	142	149617	85.77710 ppb		98
8) 1,1'-Biphenyl	7.48	154	177959	80.35777 ppb	#	87
9) Acenaphthylene	7.96	152	217090	79.83814 ppb		97
10) Acenaphthene	8.17	154	131352	84.22765 ppb		96
11) Fluorene	8.77	166	163286	85.82351 ppb		93
13) Phenanthrene	9.88	178	210497	75.28975 ppb		97
14) Anthracene	9.94	178	206234	77.52064 ppb		97
15) Fluoranthene	11.27	202	300423	85.19782 ppb	#	88
17) Pyrene	11.52	202	310532	83.40621 ppb	#	89
19) Benz (a) anthracene	12.93	228	279782	90.31073 ppb		97
20) Chrysene	12.97	228	241095	72.92596 ppb		97
21) Indeno (1,2,3-cd) pyrene	16.02	276	237656	80.90259 ppb		92
23) Benzo (b) fluoranthene	14.10	252	290761	85.43269 ppb		97
24) Benzo (k) fluoranthene	14.14	252	210844	67.71274 ppb	#	94
25) Benzo (a) pyrene	14.48	252	256847	83.23189 ppb	#	94
26) Dibenz (a,h) anthracene	16.06	278	232404	89.07830 ppb		99
27) Benzo (g,h,i) perylene	16.46	276	244670	78.99690 ppb		96

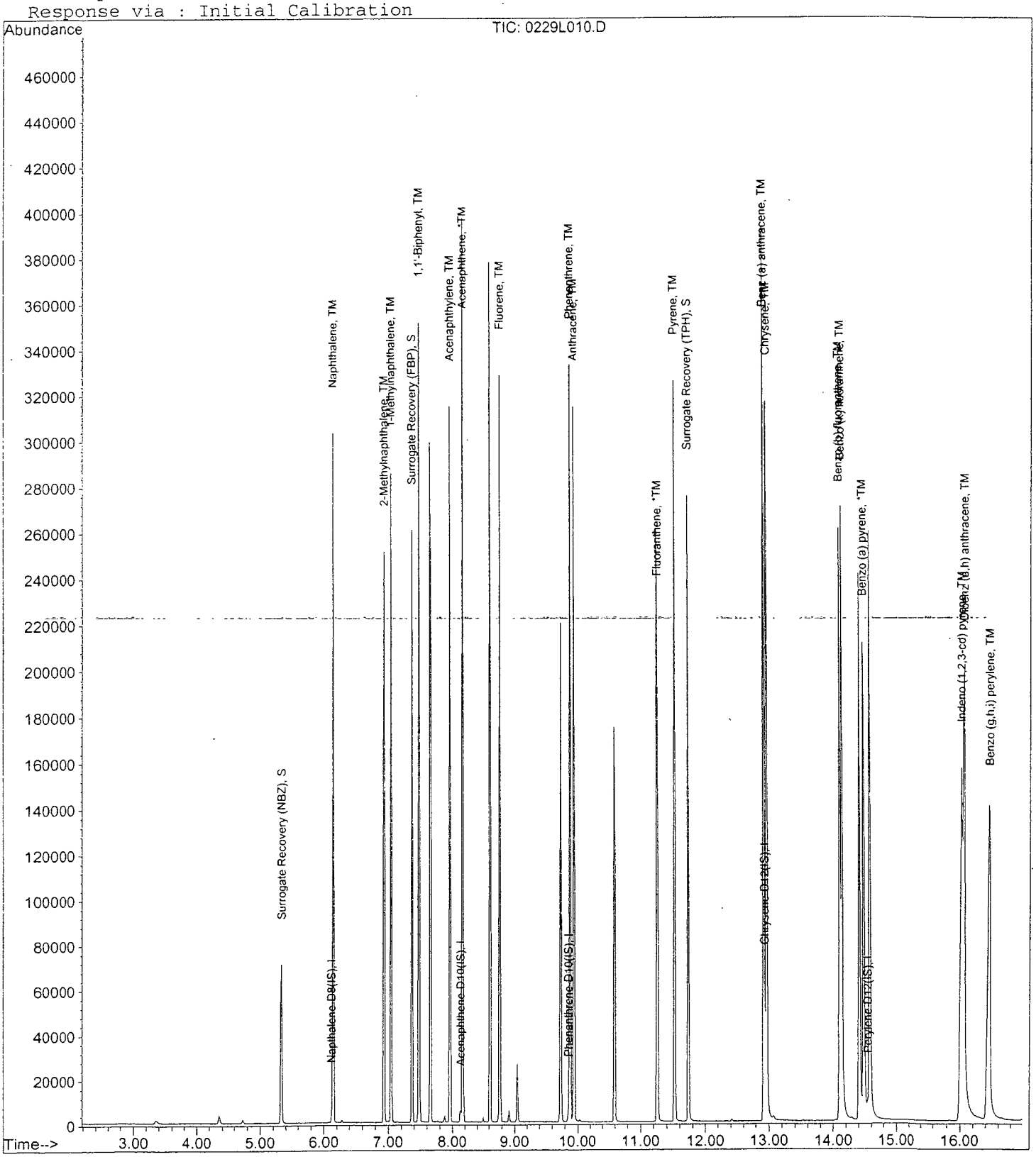
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120229\0229L010.D Vial: 10
Acq On : 1 Mar 12 3:14 Operator: LF
Sample : 100ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:01 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:48:01 2012
Response via : Initial Calibration



EPA 8270C SIM

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No: 67525

Case No: Date Analyzed: 1 Mar 12 3:39

Matrix: Instrument: Linus

Initial Cal. Date: 02/29/12

Data File: 0229L011.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	TM	Naphthalene	1.427	1.252	12	TM	
3	TM	2-Methylnaphthalene	0.8580	0.7746	9.7	TM	
4	TM	1-Methylnaphthalene	0.8003	0.7468	6.7	TM	
5	I	Acenaphthene-D10(IS)	ISTD			I	
6	TM	1,1'-Biphenyl	1.975	1.861	5.8	TM	
7	TM	Acenaphthylene	2.402	2.280	5.1	TM	
8	*TM	Acenaphthene	1.399	1.340	4.2	*TM	
9	TM	Fluorene	1.695	1.647	2.9	TM	
10	I	Phenanthrene-D10(IS)	ISTD			I	
11	TM	Phenanthrene	1.484	1.434	3.3	TM	
12	TM	Anthracene	1.339	1.306	2.5	TM	
13	*TM	Fluoranthene	1.819	1.764	3.0	*TM	
14	I	Chrysene-D12(IS)	ISTD			I	
15	TM	Pyrene	1.441	1.394	3.2	TM	
16	TM	Benz (a) anthracene	1.234	1.133	8.2	TM	
17	TM	Chrysene	1.246	1.237	0.66	TM	
18	TMQ	Indeno (1,2,3-cd) pyrene	2.569	1.086	58	TMQ	16
19	I	Perylene-D12(IS)	ISTD			I	
20	TM	Benzo (b) fluoranthene	1.581	1.584	0.20	TM	
21	TM	Benzo (k) fluoranthene	1.313	1.334	1.6	TM	
22	*TM	Benzo (a) pyrene	1.404	1.397	0.53	*TM	
23	TMQ	Dibenz (a,h) anthracene	1.428	1.298	9.1	TMQ	12
24	TMQ	Benzo (g,h,i) perylene	3.855	1.401	64	TMQ	14
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			10.6		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L011.D Vial: 11
Acq On : 1 Mar 12 3:39 Operator: LF
Sample : 5.0ug/ml SS PAH 02-29-12 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:49 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:48:01 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	6095	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.12	164	2897	2.50000 ppb	-0.01
12) Phenanthrene-D10(IS)	9.86	188	4786	2.50000 ppb	0.00
16) Chrysene-D12(IS)	12.92	240	6313	2.50000 ppb	0.00
22) Perylene-D12(IS)	14.53	264	5186	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	0.00	82	0d	0.00000 ppb	
Spiked Amount 2.000			Recovery	= 0.000%	
7) Surrogate Recovery (FBP)	0.00	172	0d	0.00000 ppb	
Spiked Amount 2.000			Recovery	= 0.000%	
18) Surrogate Recovery (TPH)	0.00	244	0d	0.00000 ppb	
Spiked Amount 2.000			Recovery	= 0.000%	
Target Compounds					Qvalue
3) Naphthalene	6.14	128	15266	4.38901 ppb	100
4) 2-Methylnaphthalene	6.93	142	9442	4.51396 ppb	100
5) 1-Methylnaphthalene	7.05	142	9103	4.66547 ppb	99
8) 1,1'-Biphenyl	7.47	154	10782	4.71225 ppb	100
9) Acenaphthylene	7.96	152	13210	4.74551 ppb	100
10) Acenaphthene	8.16	154	7765	4.79105 ppb	85
11) Fluorene	8.76	166	9540	4.85727 ppb	100
13) Phenanthrene	9.88	178	13730	4.83383 ppb	100
14) Anthracene	9.94	178	12504	4.87627 ppb	100
15) Fluoranthene	11.26	202	16883	4.84901 ppb	99
17) Pyrene	11.51	202	17602	4.83859 ppb	100
19) Benz (a) anthracene	12.91	228	14301	4.58882 ppb	99
20) Chrysene	12.96	228	15624	4.96689 ppb	99
21) Indeno (1,2,3-cd) pyrene	15.99	276	13708	5.79850 ppb	99
23) Benzo (b) fluoranthene	14.09	252	16432	5.00982 ppb	99
24) Benzo (k) fluoranthene	14.13	252	13837	5.08206 ppb	99
25) Benzo (a) pyrene	14.46	252	14485	4.97343 ppb	98
26) Dibenz (a,h) anthracene	16.04	278	13464	5.59460 ppb	100
27) Benzo (g,h,i) perylene	16.43	276	14534	5.68375 ppb	99

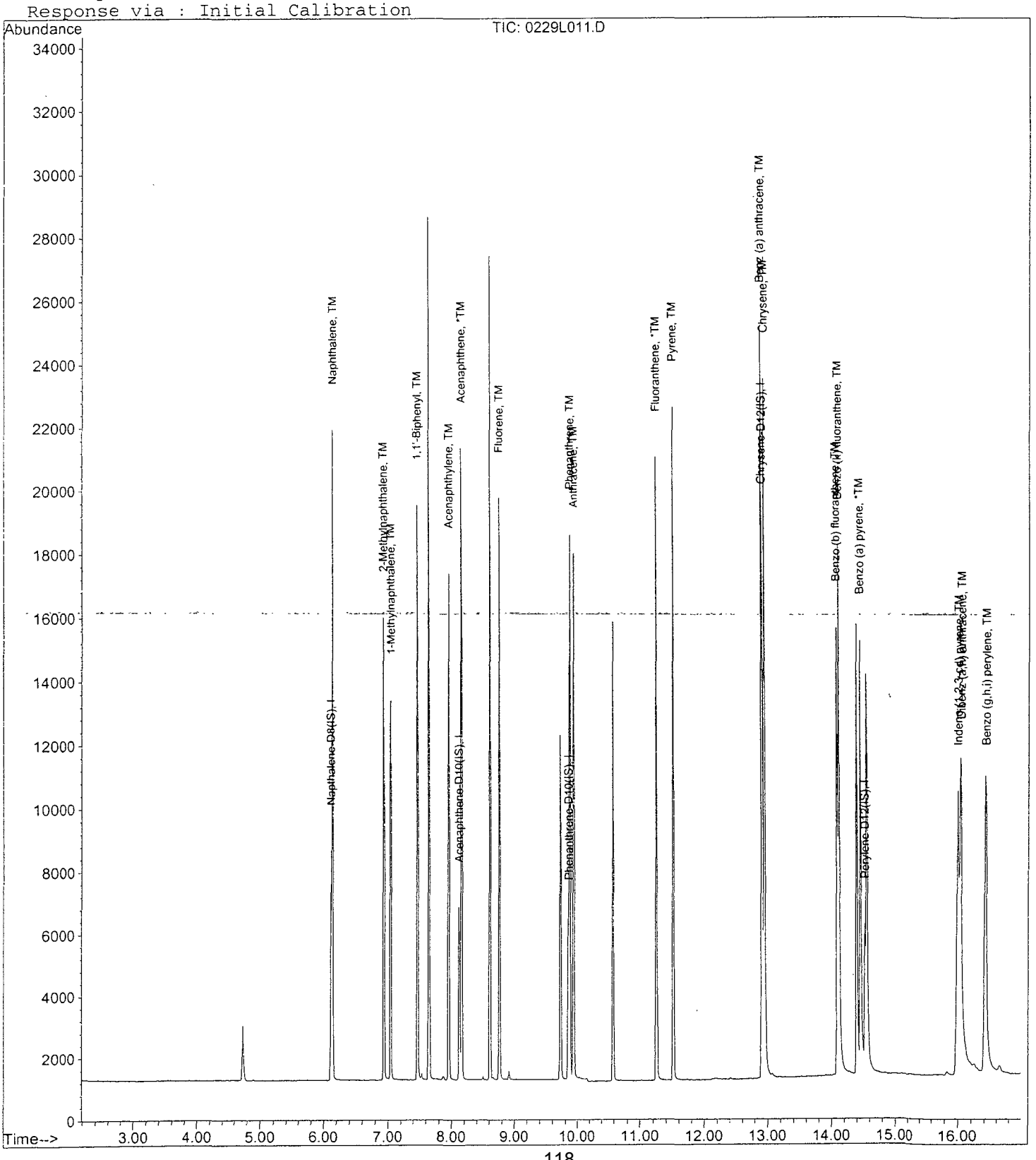
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120229\0229L011.D Vial: 11
Acq On : 1 Mar 12 3:39 Operator: LF
Sample : 5.0ug/ml SS PAH 02-29-12 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Mar 1 8:49 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Mar 01 08:48:01 2012
Response via : Initial Calibration



Form 7

Continuing Calibration

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

SDG No: 6535
Date Analyzed: 04/22/12
Instrument: Linus
Initial Cal. Date: 02/29/12
Data File: 0422L002.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.2454	0.2522	2.8	S	
3	TM	Naphthalene	1.427	1.234	13	TM	
4	TM	2-Methylnaphthalene	0.8580	0.8338	2.8	TM	
5	TM	1-Methylnaphthalene	0.8003	0.7765	3.0	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.584	1.750	10	S	
8	TM	1,1'-Biphenyl	1.975	1.865	5.6	TM	
9	TM	Acenaphthylene	2.402	2.281	5.1	TM	
10	*TM	Acenaphthene	1.399	1.341	4.1	*TM	
11	TM	Fluorene	1.695	1.590	6.2	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.484	1.368	7.8	TM	
14	TM	Anthracene	1.339	1.313	2.0	TM	
15	*TM	Fluoranthene	1.819	1.841	1.2	*TM	
16	I	Chrysene-D12(IS)	ISTD			I	
17	TM	Pyrene	1.441	1.516	5.2	TM	
18	S	Surrogate Recovery (TPH)	0.7801	0.9281	19	S	
19	TM	Benz (a) anthracene	1.234	1.271	3.0	TM	
20	TM	Chrysene	1.246	1.183	5.0	TM	
21	TMQ	Indeno (1,2,3-cd) pyrene	2.569	1.050	59	TMQ	12
22	I	Perylene-D12(IS)	ISTD			I	
23	TM	Benzo (b) fluoranthene	1.581	1.346	15	TM	
24	TM	Benzo (k) fluoranthene	1.313	1.457	11	TM	
25	*TM	Benzo (a) pyrene	1.404	1.334	5.0	*TM	
26	TMQ	Dibenz (a,h) anthracene	1.428	1.185	17	TMQ	2.1
27	TMQ	Benzo (g,h,i) perylene	3.855	1.205	69	TMQ	2.4
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			12.4		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0422L002.D Vial: 2
Acq On : 22 Apr 12 11:06 Operator: LF
Sample : 5.0ug/ml PAH 02-29-12 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 23 16:03 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:02:34 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	6084	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.12	164	3082	2.50000 ppb		-0.01
12) Phenanthrene-D10(IS)	9.86	188	5219	2.50000 ppb		0.00
16) Chrysene-D12(IS)	12.94	240	6560	2.50000 ppb		0.01
22) Perylene-D12(IS)	14.56	264	5823	2.50000 ppb		0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.33	82	3069	5.13801 ppb		0.01
Spiked Amount 2.000			Recovery	= 256.900%		
7) Surrogate Recovery (FBP)	7.36	172	10789	5.52358 ppb		-0.01
Spiked Amount 2.000			Recovery	= 276.200%		
18) Surrogate Recovery (TPH)	11.73	244	12177	5.94892 ppb		0.00
Spiked Amount 2.000			Recovery	= 297.450%		
Target Compounds						Qvalue
3) Naphthalene	6.14	128	15020	4.32609 ppb		100
4) 2-Methylnaphthalene	6.93	142	10146	4.85930 ppb		95
5) 1-Methylnaphthalene	7.03	142	9448	4.85104 ppb		91
8) 1,1'-Biphenyl	7.47	154	11494	4.72189 ppb	#	91
9) Acenaphthylene	7.96	152	14058	4.74700 ppb		100
10) Acenaphthene	8.16	154	8268	4.79518 ppb		89
11) Fluorene	8.76	166	9800	4.69014 ppb		99
13) Phenanthrene	9.88	178	14280	4.61036 ppb		98
14) Anthracene	9.94	178	13707	4.90192 ppb		98
15) Fluoranthene	11.27	202	19212	5.06013 ppb	#	93
17) Pyrene	11.52	202	19890	5.26167 ppb	#	89
19) Benz (a) anthracene	12.92	228	16682	5.15128 ppb		99
20) Chrysene	12.97	228	15523	4.74897 ppb		99
21) Indeno (1,2,3-cd) pyrene	16.05	276	13772	5.60583 ppb		99
23) Benzo (b) fluoranthene	14.11	252	15671	4.25515 ppb		95
24) Benzo (k) fluoranthene	14.15	252	16972	5.55158 ppb	#	90
25) Benzo (a) pyrene	14.49	252	15539	4.75167 ppb		99
26) Dibenz (a,h) anthracene	16.08	278	13798	5.10315 ppb	#	94
27) Benzo (g,h,i) perylene	16.50	276	14031	4.88167 ppb		98

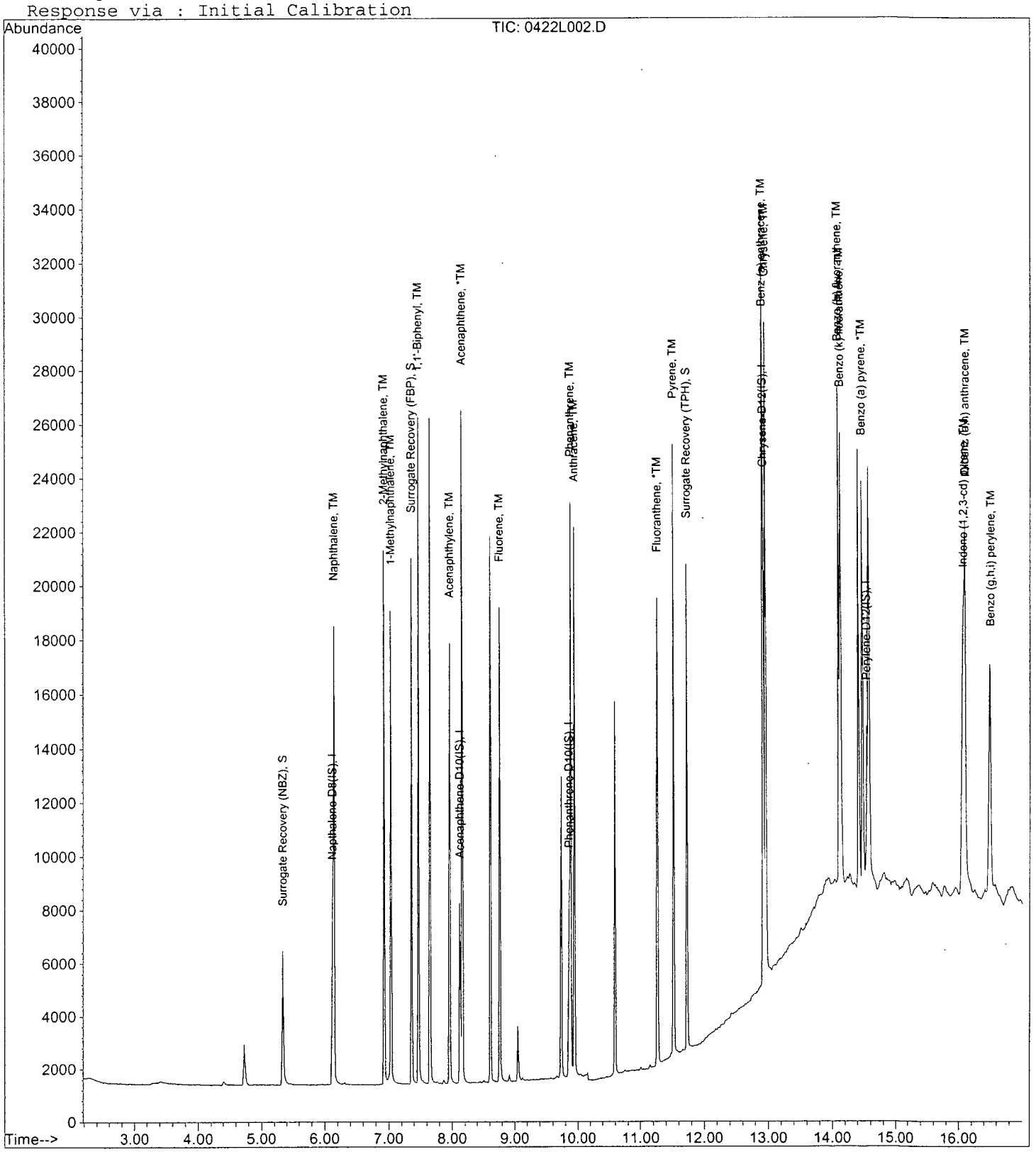
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120229\0422L002.D Vial: 2
Acq On : 22 Apr 12 11:06 Operator: LF
Sample : 5.0ug/ml PAH 02-29-12 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 23 16:03 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:14:14 2012
Response via : Initial Calibration



EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Raw Data

APPL, INC.

Method Blank
EPA 8270D SIM

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **120419W-59236 - 166432**
Batch ID: #SIMHC-120419A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
BLANK	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/19/12	04/22/12
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/19/12	04/22/12
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	04/19/12	04/22/12
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	04/19/12	04/22/12
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/19/12	04/22/12
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/19/12	04/22/12
BLANK	SURROGATE: 2-FLUORBIPHENY	56.7	50-110			%	04/19/12	04/22/12
BLANK	SURROGATE: NITROBENZENE-	56.9	40-110			%	04/19/12	04/22/12
BLANK	SURROGATE: TERPHENYL-D14 (	65.4	50-135			%	04/19/12	04/22/12

Quant Method:SIMB.M
Run #:0422L009
Instrument:Linus
Sequence:L120229
Initials:LF

Printed: 05/02/12 1:26:15 PM
GC SC-Blank-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0422L009.D Vial: 9
Acq On : 22 Apr 12 14:07 Operator: LF
Sample : 120419A BLK 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 23 16:10 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:03:12 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	5620	2.50000	ppb	0.00
6) Acenaphthene-D10(IS)	8.12	164	3234	2.50000	ppb	-0.01
12) Phenanthrene-D10(IS)	9.86	188	5679	2.50000	ppb	0.00
16) Chrysene-D12(IS)	12.94	240	7289	2.50000	ppb	0.01
22) Perylene-D12(IS)	14.56	264	6388	2.50000	ppb	0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.33	82	628	1.13818	ppb	0.01
Spiked Amount 2.000			Recovery = 56.900%			
7) Surrogate Recovery (FBP)	7.36	172	2324	1.13388	ppb	-0.01
Spiked Amount 2.000			Recovery = 56.700%			
18) Surrogate Recovery (TPH)	11.73	244	2973	1.30716	ppb	0.00
Spiked Amount 2.000			Recovery = 65.350%			

Target Compounds Qvalue

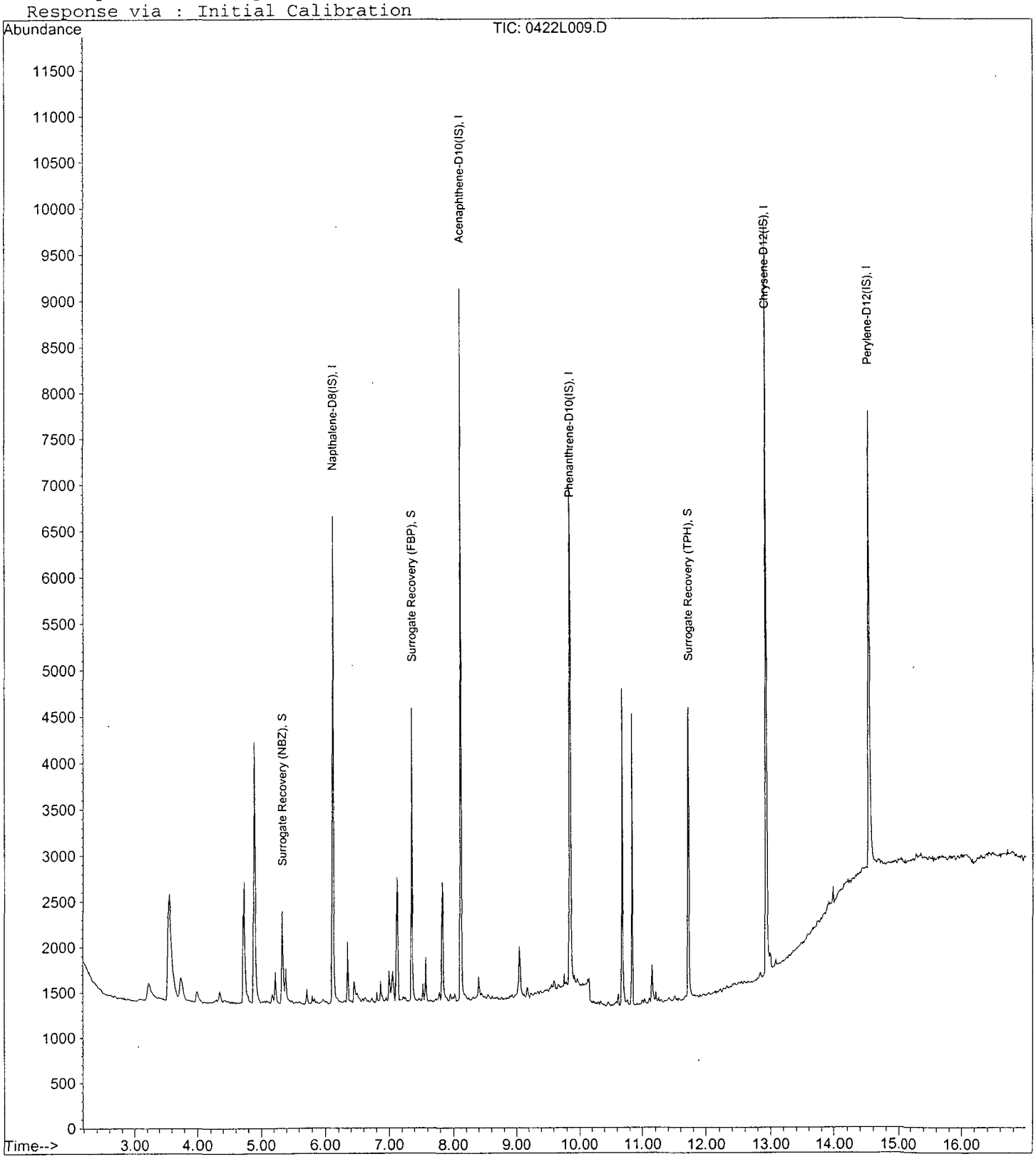
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120229\0422L009.D Vial: 9
Acq On : 22 Apr 12 14:07 Operator: LF
Sample : 120419A BLK 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 23 16:10 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:14:14 2012
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8270D SIM

APPL ID: **120419W-59236 LCS - 166432**
Batch ID: #SIMHC-120419A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1-METHYLNAPHTHALENE	4.00	2.29	57.3	45-105
2-METHYLNAPHTHALENE	4.00	2.19	54.8	45-105
ACENAPHTHENE	4.00	2.36	59.0	45-110
ACENAPHTHYLENE	4.00	2.39	59.8	50-105
ANTHRACENE	4.00	2.23	55.8	55-110
BENZO(A)ANTHRACENE	4.00	2.98	74.5	55-110
BENZO(A)PYRENE	4.00	2.65	66.3	55-110
BENZO(B)FLUORANTHENE	4.00	2.88	72.0	45-120
BENZO(GHI)PERYLENE	4.00	2.90	72.5	40-125
BENZO(K)FLUORANTHENE	4.00	3.05	76.3	45-125
CHRYSENE	4.00	2.84	71.0	55-110
DIBENZ(A,H)ANTHRACENE	4.00	2.93	73.3	40-125
FLUORANTHENE	4.00	2.75	68.8	55-115
FLUORENE	4.00	2.59	64.8	50-110
INDENO(1,2,3-CD)PYRENE	4.00	3.83	95.8	45-125
NAPHTHALENE	4.00	2.17	54.3	40-100
PHENANTHRENE	4.00	2.44	61.0	50-115
PYRENE	4.00	2.82	70.5	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.15	57.5	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	0.983	49.1	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.28	64.0	50-135

Comments: _____

Primary	SPK
Quant Method :	SIMB.M
Extraction Date :	04/19/12
Analysis Date :	04/22/12
Instrument :	Linus
Run :	0422L010
Initials :	LF

Printed: 05/02/12 1:26:17 PM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0422L010.D Vial: 10
Acq On : 22 Apr 12 14:33 Operator: LF
Sample : 120419A LCS-1 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 23 16:11 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:03:12 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	6164	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.12	164	3244	2.50000	ppb		-0.01
12) Phenanthrene-D10(IS)	9.85	188	5954	2.50000	ppb		-0.01
16) Chrysene-D12(IS)	12.94	240	7610	2.50000	ppb		0.01
22) Perylene-D12(IS)	14.56	264	6504	2.50000	ppb		0.02
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.33	82	595	0.98320	ppb		0.01
Spiked Amount 2.000			Recovery = 49.150%				
7) Surrogate Recovery (FBP)	7.36	172	2372	1.15373	ppb		-0.01
Spiked Amount 2.000			Recovery = 57.700%				
18) Surrogate Recovery (TPH)	11.73	244	3033	1.27729	ppb		0.00
Spiked Amount 2.000			Recovery = 63.850%				
Target Compounds							Qvalue
3) Naphthalene	6.13	128	7645	2.17335	ppb		98
4) 2-Methylnaphthalene	6.93	142	4635	2.19106	ppb		92
5) 1-Methylnaphthalene	7.04	142	4523	2.29218	ppb		96
8) 1,1'-Biphenyl	7.47	154	5802	2.26451	ppb		88
9) Acenaphthylene	7.95	152	7449	2.38971	ppb		96
10) Acenaphthene	8.16	154	4289	2.36327	ppb		93
11) Fluorene	8.76	166	5700	2.59171	ppb		96
13) Phenanthrene	9.88	178	8605	2.43521	ppb		100
14) Anthracene	9.94	178	7110	2.22880	ppb		100
15) Fluoranthene	11.26	202	11890	2.74505	ppb	#	93
17) Pyrene	11.52	202	12373	2.82152	ppb	#	84
19) Benz (a) anthracene	12.93	228	11179	2.97570	ppb		98
20) Chrysene	12.96	228	10766	2.83921	ppb	#	95
21) Indeno (1,2,3-cd) pyrene	16.04	276	10909	3.82528	ppb	#	98
23) Benzo (b) fluoranthene	14.10	252	11838	2.87781	ppb		95
24) Benzo (k) fluoranthene	14.14	252	10413	3.04948	ppb	#	94
25) Benzo (a) pyrene	14.49	252	9683	2.65094	ppb		97
26) Dibenz (a,h) anthracene	16.08	278	8879	2.93233	ppb		99
27) Benzo (g,h,i) perylene	16.47	276	9333	2.89964	ppb		94

$\frac{7645 \times 2.5}{6164 \times 1.427} = 2.17$ LRS 4/19/12

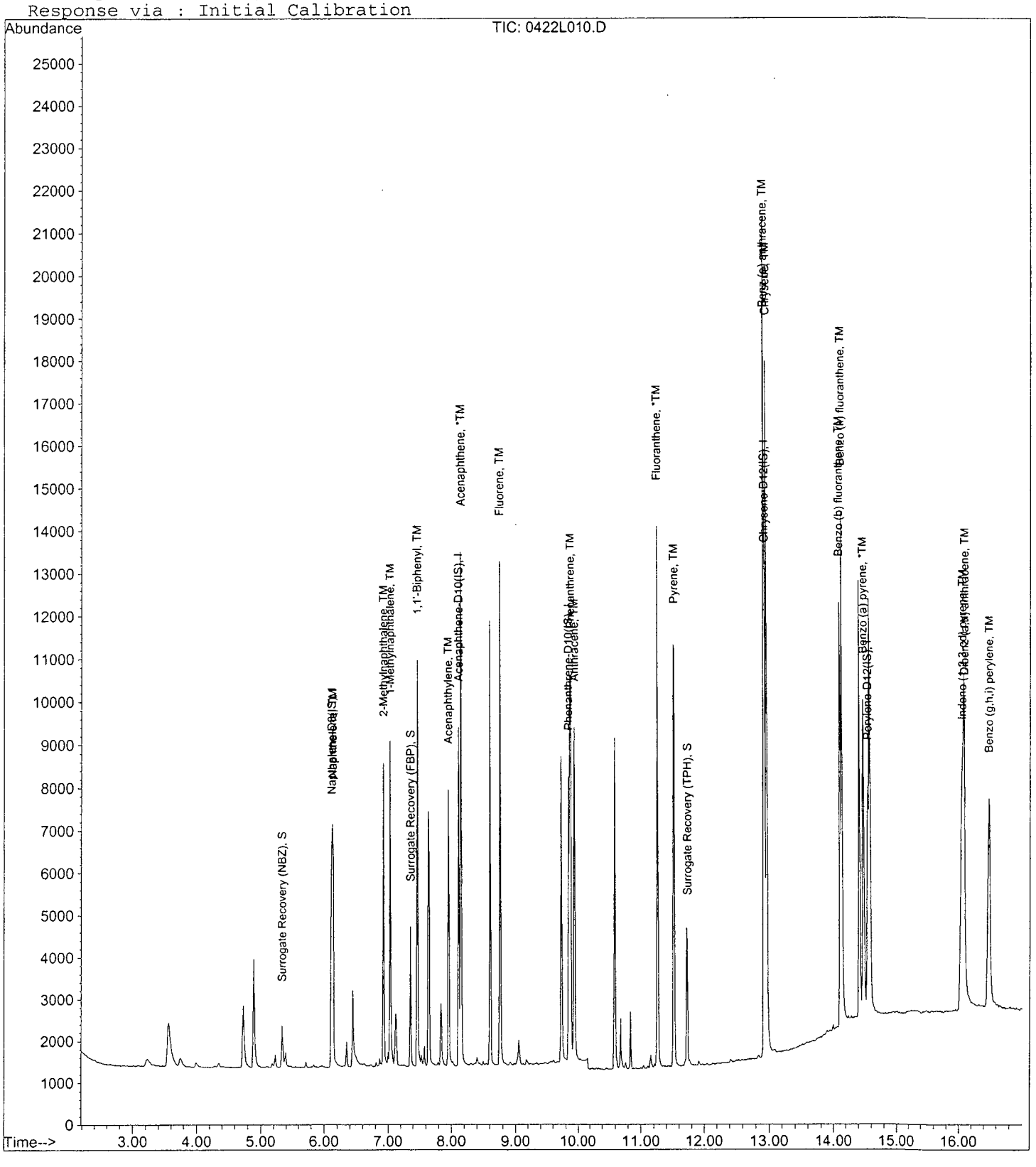
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120229\0422L010.D Vial: 10
Acq On : 22 Apr 12 14:33 Operator: LF
Sample : 120419A LCS-1 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 23 16:11 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:14:14 2012
Response via : Initial Calibration



Matrix Spike Recoveries

EPA 8270D SIM

APPL ID: **120419W-59236 MS - 166432**
Batch ID: #SIMHC-120419A
Sample ID: AY59236
Client ID: ES074

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	4.00	ND	2.34	2.45	58.5	61.3	45-105	4.6	25
2-METHYLNAPHTHALENE	4.00	ND	2.39	2.25	59.8	56.3	45-105	6.0	25
ACENAPHTHENE	4.00	ND	2.18	2.24	54.5	56.0	45-110	2.7	25
ACENAPHTHYLENE	4.00	ND	2.16	2.15	54.0	53.8	50-105	0.46	25
ANTHRACENE	4.00	ND	2.05	2.00	51.2 #	50.0 #	55-110	2.5	25
BENZO(A)ANTHRACENE	4.00	ND	2.90	2.73	72.5	68.3	55-110	6.0	25
BENZO(A)PYRENE	4.00	ND	2.59	2.49	64.8	62.3	55-110	3.9	25
BENZO(B)FLUORANTHENE	4.00	ND	2.96	2.74	74.0	68.5	45-120	7.7	25
BENZO(GHI)PERYLENE	4.00	ND	2.78	2.69	69.5	67.3	40-125	3.3	25
BENZO(K)FLUORANTHENE	4.00	ND	2.68	2.73	67.0	68.3	45-125	1.8	25
CHRYSENE	4.00	ND	2.48	2.36	62.0	59.0	55-110	5.0	25
DIBENZ(A,H)ANTHRACENE	4.00	ND	2.78	2.73	69.5	68.3	40-125	1.8	25
FLUORANTHENE	4.00	ND	2.83	2.66	70.8	66.5	55-115	6.2	25
FLUORENE	4.00	ND	2.60	2.44	65.0	61.0	50-110	6.3	25
INDENO(1,2,3-CD)PYRENE	4.00	ND	3.72	3.55	93.0	88.8	45-125	4.7	25
NAPHTHALENE	4.00	ND	2.17	2.15	54.3	53.8	40-100	0.93	25
PHENANTHRENE	4.00	ND	2.56	2.36	64.0	59.0	50-115	8.1	25
PYRENE	4.00	ND	2.70	2.51	67.5	62.7	50-130	7.3	25
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	NA	1.13	1.04	56.5	52.0	50-110		
SURROGATE: NITROBENZENE-D5 (S)	2.00	NA	1.11	1.03	55.5	51.5	40-110		
SURROGATE: TERPHENYL-D14 (S)	2.00	NA	1.23	1.20	61.5	60.0	50-135		

= Recovery is outside QC limits.

Comments: _____

Primary	SPK	DUP
Quant Method :	SIMB.M	SIMB.M
Extraction Date :	04/19/12	04/19/12
Analysis Date :	04/22/12	04/22/12
Instrument :	Linus	Linus
Run :	0422L011	0422L012
Initials :	LF	

Printed: 05/02/12 1:26:19 PM
APPL MSD SCII

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0422L011.D Vial: 11
Acq On : 22 Apr 12 15:00 Operator: LF
Sample : AY59236W11 MS-1 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 23 16:13 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:03:12 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	6364	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.12	164	3620	2.50000 ppb		-0.01
12) Phenanthrene-D10(IS)	9.85	188	6258	2.50000 ppb		-0.01
16) Chrysene-D12(IS)	12.94	240	8229	2.50000 ppb		0.01
22) Perylene-D12(IS)	14.56	264	7141	2.50000 ppb		0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.33	82	695	1.11235 ppb		0.01
Spiked Amount 2.000			Recovery = 55.600%			
7) Surrogate Recovery (FBP)	7.36	172	2584	1.12631 ppb		-0.01
Spiked Amount 2.000			Recovery = 56.300%			
18) Surrogate Recovery (TPH)	11.73	244	3160	1.23067 ppb		0.00
Spiked Amount 2.000			Recovery = 61.550%			
Target Compounds						Qvalue
3) Naphthalene	6.14	128	7895	2.17389 ppb		99
4) 2-Methylnaphthalene	6.93	142	5228	2.39372 ppb		91
5) 1-Methylnaphthalene	7.03	142	4759	2.33599 ppb		95
8) 1,1'-Biphenyl	7.47	154	6222	2.17620 ppb	#	87
9) Acenaphthylene	7.95	152	7499	2.15587 ppb		96
10) Acenaphthene	8.16	154	4414	2.17952 ppb		94
11) Fluorene	8.76	166	6387	2.60244 ppb		95
13) Phenanthrene	9.88	178	9517	2.56247 ppb		100
14) Anthracene	9.94	178	6877	2.05104 ppb		99
15) Fluoranthene	11.26	202	12886	2.83047 ppb		98
17) Pyrene	11.51	202	12805	2.70038 ppb		92
19) Benz (a) anthracene	12.92	228	11764	2.89587 ppb		97
20) Chrysene	12.96	228	10175	2.48151 ppb	#	95
21) Indeno (1,2,3-cd) pyrene	16.04	276	11476	3.72126 ppb	#	98
23) Benzo (b) fluoranthene	14.10	252	13381	2.96274 ppb		94
24) Benzo (k) fluoranthene	14.14	252	10044	2.67903 ppb	#	93
25) Benzo (a) pyrene	14.49	252	10378	2.58776 ppb	#	95
26) Dibenz (a,h) anthracene	16.08	278	9234	2.77702 ppb		99
27) Benzo (g,h,i) perylene	16.47	276	9810	2.77551 ppb		96

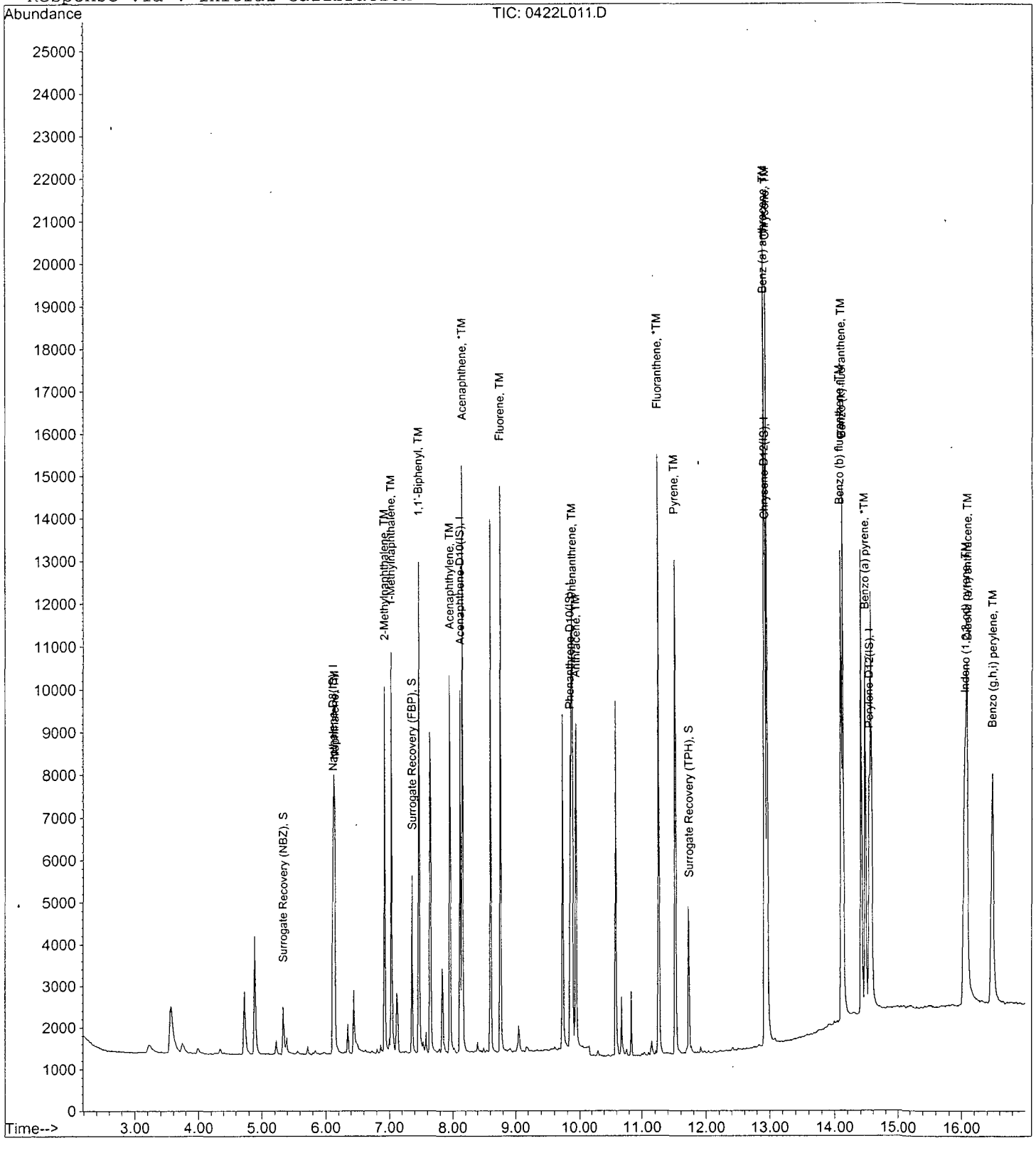
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120229\0422L011.D Vial: 11
Acq On : 22 Apr 12 15:00 Operator: LF
Sample : AY59236W11 MS-1 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 23 16:13 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:14:14 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0422L012.D Vial: 12
Acq On : 22 Apr 12 15:25 Operator: LF
Sample : AY59236W13 MSD-1 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 23 16:13 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:03:12 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	5990	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.12	164	3428	2.50000	ppb		-0.01
12) Phenanthrene-D10(IS)	9.85	188	6094	2.50000	ppb		-0.01
16) Chrysene-D12(IS)	12.94	240	7944	2.50000	ppb		0.01
22) Perylene-D12(IS)	14.56	264	6751	2.50000	ppb		0.02
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.33	82	608	1.03387	ppb		0.01
Spiked Amount 2.000			Recovery = 51.700%				
7) Surrogate Recovery (FBP)	7.36	172	2265	1.04256	ppb		-0.01
Spiked Amount 2.000			Recovery = 52.150%				
18) Surrogate Recovery (TPH)	11.72	244	2981	1.20261	ppb		-0.01
Spiked Amount 2.000			Recovery = 60.150%				
Target Compounds							Qvalue
3) Naphthalene	6.13	128	7361	2.15340	ppb		98
4) 2-Methylnaphthalene	6.93	142	4630	2.25228	ppb		94
5) 1-Methylnaphthalene	7.04	142	4698	2.45003	ppb		96
8) 1,1'-Biphenyl	7.47	154	5829	2.15293	ppb		86
9) Acenaphthylene	7.95	152	7097	2.15458	ppb		96
10) Acenaphthene	8.16	154	4304	2.24424	ppb		95
11) Fluorene	8.76	166	5668	2.43883	ppb		95
13) Phenanthrene	9.87	178	8534	2.35963	ppb		96
14) Anthracene	9.94	178	6546	2.00486	ppb		99
15) Fluoranthene	11.26	202	11779	2.65694	ppb		99
17) Pyrene	11.51	202	11497	2.51153	ppb		97
19) Benz (a) anthracene	12.93	228	10714	2.73202	ppb		98
20) Chrysene	12.96	228	9350	2.36211	ppb	#	95
21) Indeno (1,2,3-cd) pyrene	16.04	276	10558	3.54618	ppb	#	97
23) Benzo (b) fluoranthene	14.10	252	11703	2.74090	ppb		95
24) Benzo (k) fluoranthene	14.14	252	9689	2.73364	ppb	#	94
25) Benzo (a) pyrene	14.49	252	9454	2.49355	ppb	#	96
26) Dibenz (a,h) anthracene	16.08	278	8567	2.72510	ppb		98
27) Benzo (g,h,i) perylene	16.47	276	8989	2.68985	ppb		98

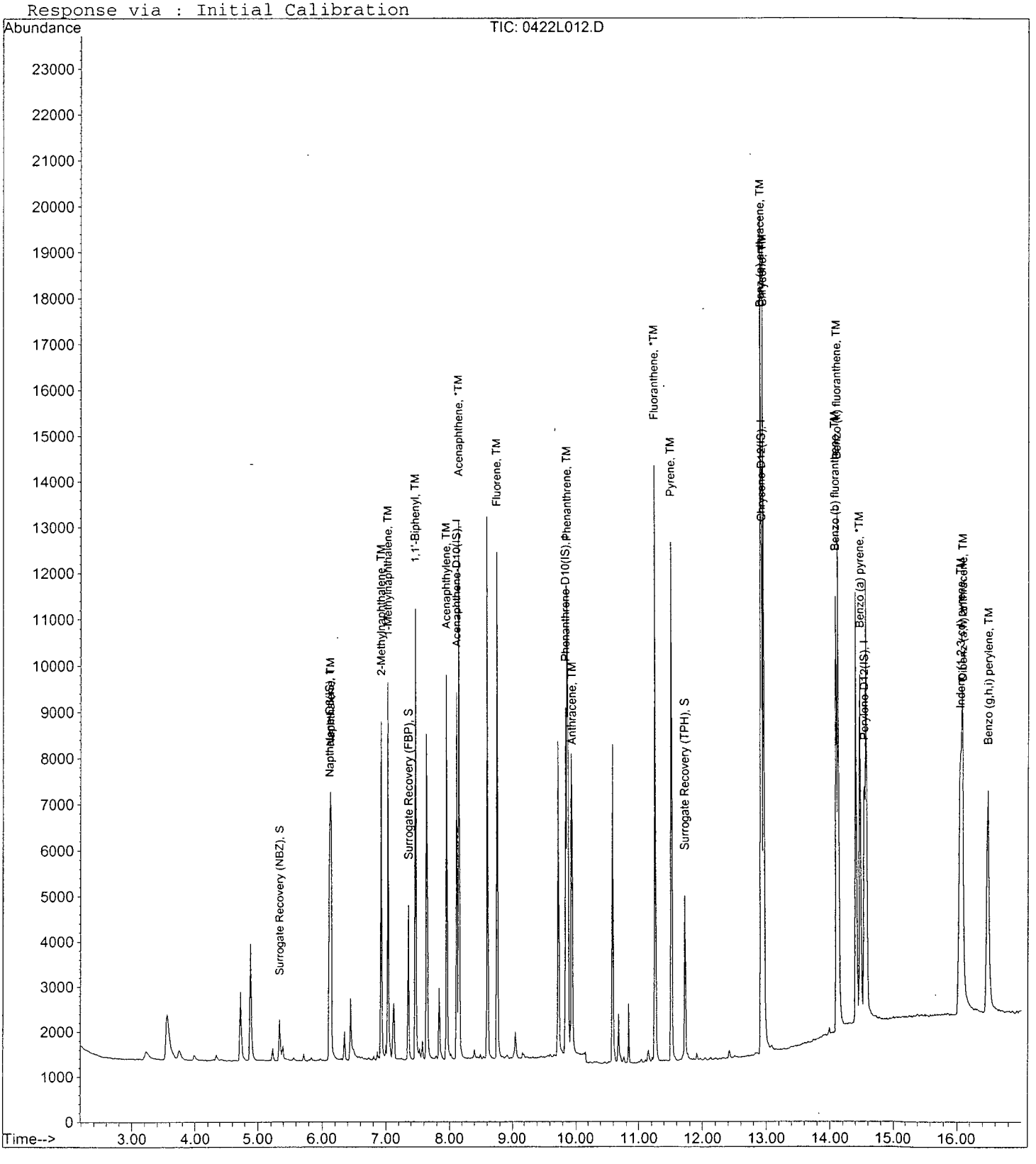
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120229\0422L012.D Vial: 12
Acq On : 22 Apr 12 15:25 Operator: LF
Sample : AY59236W13 MSD-1 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Apr 23 16:13 2012 Quant Results File: SIMB.RES

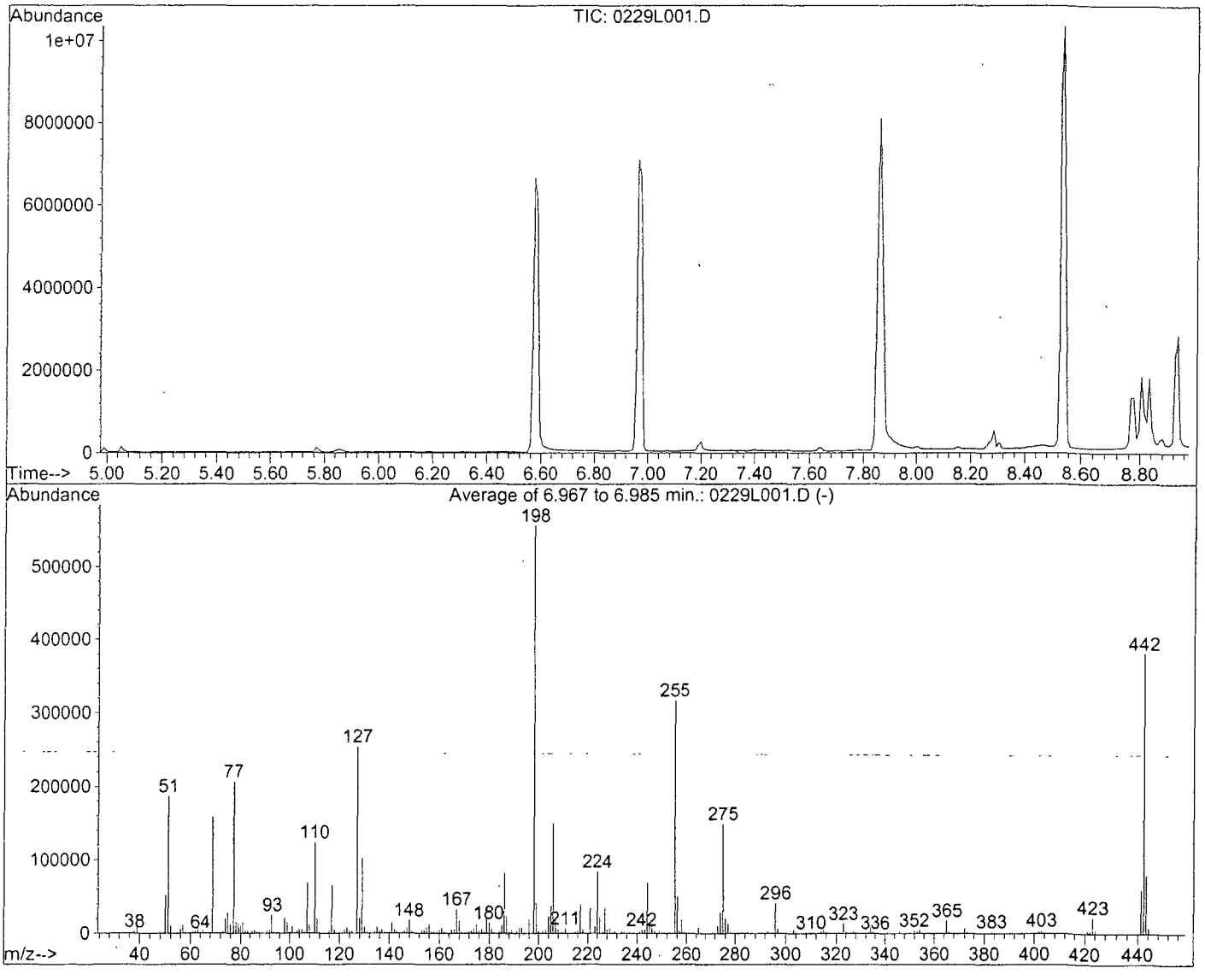
Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Mon Apr 23 16:14:14 2012
Response via : Initial Calibration



DFTPP

Data File : M:\LINUS\DATA\L120229\0229L001.D Vial: 1
Acq On : 29 Feb 12 21:31 Operator: LF
Sample : SVTUNE 2-28-12 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C



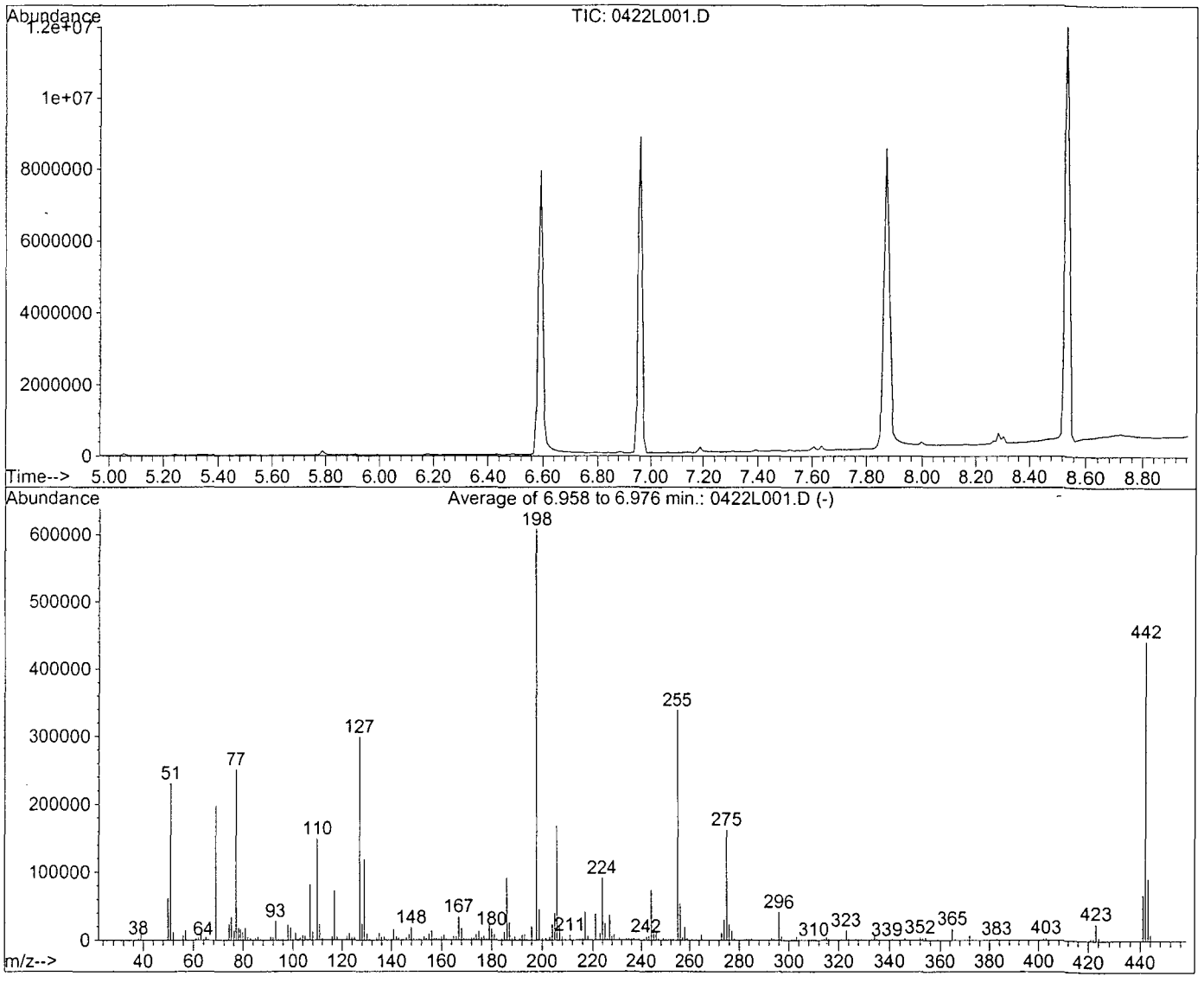
Spectrum Information: Average of 6.967 to 6.985 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.4	186212	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	747	PASS
127	198	40	60	45.5	253515	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	556758	PASS
199	198	5	9	7.4	41091	PASS
275	198	10	30	26.6	148178	PASS
365	198	1	100	3.0	16881	PASS
441	443	0.01	100	74.7	59029	PASS
442	198	40	150	68.4	380557	PASS
443	442	17	23	20.8	78999	PASS

DFTPP

Data File : M:\LINUS\DATA\L120229\0422L001.D Vial: 1
Acq On : 22 Apr 12 10:48 Operator: LF
Sample : SVTUNE 2-28-12 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 6.958 to 6.976 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.9	230526	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	1014	PASS
127	198	40	60	49.2	299026	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	608168	PASS
199	198	5	9	7.4	45143	PASS
275	198	10	30	26.7	162174	PASS
365	198	1	100	2.8	16853	PASS
441	443	0.01	100	73.7	67245	PASS
442	198	40	150	72.6	441237	PASS
443	442	17	23	20.7	91240	PASS

VF 1/17/11

PREP DATE:	01-17-11					
8270C Stock/Spike Standard						
Exp:	05-29-11					
		Conc.		Date	CODE:	P
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	10001	2000	032009-28092	01/17/11	03-20-12	1000
Absolute	10001	2000	032009-28091	01/17/11	03-20-12	1000
Absolute	10002	2000	073109-27974	01/17/11	07-31-12	1000
Absolute	10002	2000	073109-27973	01/17/11	07-31-12	1000
Absolute	10004	2000	101509-27979	01/17/11	10-15-14	1000
Absolute	10004	2000	101509-27978	01/17/11	10-15-14	1000
Absolute	10005	2000	061209-27984	01/17/11	06-12-14	1000
Absolute	10005	2000	061209-27983	01/17/11	06-12-14	1000
Absolute	10006	2000	120810-27989	01/17/11	12-08-13	1000
Absolute	10006	2000	120810-27988	01/17/11	12-08-13	1000
Absolute	10007	2000	100909-28010	01/17/11	10-09-14	1000
Absolute	10007	2000	100909-28013	01/17/11	10-09-14	1000
Absolute	10018	2000	073109-27994	01/17/11	07-31-14	1000
Absolute	10018	2000	073109-27993	01/17/11	07-31-14	1000
Absolute	70023	1000	080310-28008	01/17/11	08-03-15	1000
Absolute	70023	1000	080310-28009	01/17/11	08-03-15	1000
Absolute	82705	2000	121010-27999	01/17/11	12-10-13	1000
Absolute	82705	2000	121010-27998	01/17/11	12-10-13	1000
Absolute	94552	2000	052908-28004	01/17/11	05-29-11	1000
Absolute	94552	2000	052908-28003	01/17/11	05-29-11	1000
					Final Vol	20000

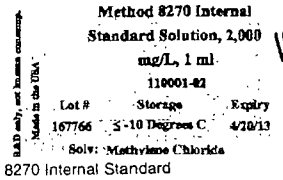
VF 1/25/11

PREP DATE:	01-25-11																
8270T STANDARD CURVE																	
Exp:	02-24-11					0.1	0.2	1	5	10	20	40	50	60	80	100	
		Conc.		Date													
Supplier	ID #	µg/mL	Lot #	Code	Exp Date			µL	µL	µL	µL	µL	µL	µL	µL	µL	
	8270T Stock	200		12/17/10	05-29-11	0	0	0	5	5	10	20	25	30	40	50	
	5.0ug/mL			01/25/11		0	0	20	0	0	0	0	0	0	0	0	
	1.0ug/mL			01/25/11		10	20	0	0	0	0	0	0	0	0	0	
	Surrogate Stock	VAR	160538-27570	11/11/10	11-11-11	0	0	0	5	5	10	20	25	30	40	50	
EM Science	Methylene Chloride		47080			90	80	80	190	90	80	60	50	40	20	0	
					Final Vol.			100	200	100	100	100	100	100	100	100	

VF 1/25/11

PREP DATE:	01-25-11					
8270 Second Source (SS) 50ug/mL						
						50
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/06/10	10-06-11	25
EM Science	Methylene Chloride		47080			75
					Final Vol.	100

VF 1/25/11



VF

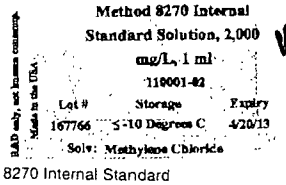
exp 1/25/12

8270 Internal Standard

Lot #: 167766 - 28148

Rec: 1/20/11 MFR exp. 04/20/13

VF 1/25/11



VF

exp 1/25/12

8270 Internal Standard

Lot #: 167766 - 28147

Rec: 1/20/11 MFR exp. 04/20/13

LF 3/23/11

Part #: 94552 Laboratory Use Only-See MSDS
Lot #: 052908 Exp: 052911 1 mL
Semi-Volatile Standard
11 components
Varied ug/mL in
ABSOLUTE STANDA
Semi-Volatile Standard
Lot #: 052908 - 28001
Rec: 12/16/10 MFR exp. 05/29/11

LF

exp 5/29/11

LF 3/23/11

Part #: 94552 Laboratory Use Only-See MSDS
Lot #: 052908 Exp: 052911 1 mL
Semi-Volatile Standard
11 components
Varied ug/mL in
ABSOLUTE STANDA
Semi-Volatile Standard
Lot #: 052908 - 28002
Rec: 12/16/10 MFR exp. 05/29/11

LF

exp 5/29/11

LF 3/23/11

Part #: 82705 Laboratory Use Only - See MSDS
Lot #: 121010 Exp: 121013 Storage 4 °C
EPA Method 8270A
4 components
2000 ug/mL in ace
EPA Method 8270A-Mix#11
Lot #: 121010 - 27996
Rec: 12/16/10 MFR exp. 12/10/13
ABSOLUTE STANDARDS, INC.

LF

exp 5/29/11

LF 3/23/11

Part #: 82705 Laboratory Use Only - See MSDS
Lot #: 121010 Exp: 121013 Storage 4 °C
EPA Method 8270A - Mix #11
4 components
2000 ug/mL in ace
EPA Method 8270A-Mix#11
Lot #: 121010 - 27997
Rec: 12/16/10 MFR exp. 12/10/13
ABSOLUTE STANDAF

LF

exp 5/29/11

LF 3/23/11

PREP_DATE:	03-23-11					
8270C Stock/Spike Standard						
Exp:	05-29-11					
		Conc.		Date	CODE:	P
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	10001	2000	032009-28089	03/23/11	03-20-12	1000
Absolute	10001	2000	320009-28090	03/23/11	03-20-12	1000
Absolute	10002	2000	073109-27971	03/23/11	07-31-12	1000
Absolute	10002	2000	073109-27972	03/23/11	07-31-12	1000
Absolute	10004	2000	101509-27976	03/23/11	10-15-14	1000
Absolute	10004	2000	101509-27977	03/23/11	10-15-14	1000
Absolute	10005	2000	061209-27981	03/23/11	06-12-14	1000
Absolute	10005	2000	061209-27982	03/23/11	06-12-14	1000
Absolute	10006	2000	120810-27986	03/23/11	12-08-13	1000
Absolute	10006	2000	120810-27987	03/23/11	12-08-13	1000
Absolute	10007	2000	100909-28015	03/23/11	10-09-14	1000
Absolute	10007	2000	100909-28014	03/23/11	10-09-14	1000
Absolute	10018	2000	073109-27991	03/23/11	07-31-14	1000
Absolute	10018	2000	073109-27992	03/23/11	07-31-14	1000
Absolute	70023	1000	080310-28006	03/23/11	08-03-15	1000
Absolute	70023	1000	080310-28007	03/23/11	08-03-15	1000
Absolute	82705	2000	052908-28001	03/23/11	05-29-11	1000
Absolute	82705	2000	052908-28002	03/23/11	05-29-11	1000
Absolute	94552	2000	121010-27996	03/23/11	12-10-13	1000
Absolute	94552	2000	121010-27997	03/23/11	12-10-13	1000
					Final Vol	20000

LF 3/23/11

Surr IS exp 4/25/12
1500µL EM Science MC Lot #47080
100µL 8270 IS opened 4/25/11 exp 4/25/12

VF 3/28/11

o2si smart solutions

8270 BN:A (200:400) Surrogate Solution, 1 ml

110004-17

Storage: </= -10 Degrees C

Made in USA Lot No 160538

Solvent: Methylene Chloride

Exp: 6/10/2012

VF exp 3/28/12

Date Opened:

8270 BN:A (200:400) Surrogate Solution

Lot #: 160538 - 27574

Rec: 10/18/10 MFR exp. 06/10/12

VF 3/28/11

PREP DATE:	03-28-11																
8270T STANDARD CURVE																	
Exp:	04-27-11					0.1	0.2	1	5	10	20	40	50	60	80	100	
		Conc.		Date													
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date			µL	µL	µL	µL	µL	µL	µL	µL	µL	
	8270T Stock	200		03/23/11	05-29-11	0	0	0	5	5	10	20	25	30	40	50	
	5.0ug/mL			03/28/11		0	0	20	0	0	0	0	0	0	0	0	
	1.0ug/mL			03/28/11		10	20	0	0	0	0	0	0	0	0	0	
	Surrogate Stock	VAR	160538-27574	03/28/11	03-28-12	0	0	0	5	5	10	20	25	30	40	50	
EM Science	Methylene Chloride		47080			90	80	80	190	90	80	60	50	40	20	0	
					Final Vol.			100	200	100	100	100	100	100	100	100	

VF 3/28/11

PREP DATE:	03-28-11					
8270 Second Source (SS) 50ug/mL						
						50 VF
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/06/10	10-06-11	25
EM Science	Methylene Chloride		47080			75
					Final Vol.	100

VF 4/18/11

GCM-160-1

Lot: CF-2995

Exp. 08/31/2011

ULTRA

1 mL

Semi-Volatiles GC/MS Tuning Standard

4 analyte(s) at 1000 µg/mL in dichloromethane

250 Smith St, No Kingstown, RI 02852 USA

Semi-volatiles GC/MS Tuning Standard

Lot #: CF-2995 - 26131

Rec: 2/17/10 MFR exp. 08/31/11

VF exp 8/31/11

VF 4/13/11

PREP DATE:	04-13-11						
SV Tune Mix 50ug/ml							VF
Exp:	08-31-11						
		Conc.			Date	CODE:	B
Supplier	ID #	µg/mL	Lot #		Code	Exp.Date	µL
U. Scientific	GCM-150	1000	CF-2995-26131		04/13/11	08-31-11	1000
EM Science	MeCl2		47080				19000
						Final Vol	20000

exp 8/31/11

VF 4/20/11

8270D PAH SIM Solution, 200 mg/L, 1 ml

110780-01

Lot # 170253 Storage ≤-10 Degrees C Expiry 3/3/13

Solv: Methylene Chloride

Per R&D only, not license concerns. Made in the USA

VF exp 4/20/12

8270D PAH SIM

Lot #: 170253 - 28485

Rec: 3/10/11 MFR exp 3/3/2013

VF 4/20/11

8270D PAH SIM Solution, Second Source, 200 mg/L, 1 ml

110780-01-SS

Lot # 170256 Storage ≤-10 Degrees C Expiry 3/3/13

Solv: Methylene Chloride

Per R&D only, not license concerns. Made in the USA

VF exp 4/20/12

8270D PAH SIM (SS)

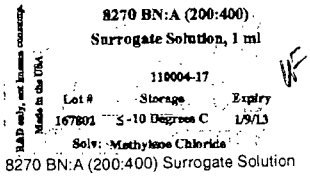
Lot #: 170256 - 28487

Rec: 3/10/11 MFR exp 3/3/2013

VF 8/16/11

PREP DATE:	08/16/11		exp:	08/23/11			
10ug/mL 1,2,3-TCP							
	50uL of 1000ug/mL 1,2,3 TCP into a final volume of 5mL of P&T Methanol						
	1000ug/mL 1,2,3 TCP date code:			05/27/11			
	P & T Methonal Lot #			9077-02			
PREP DATE:	08/16/11		exp:	08/23/11			
1ug/mL 1,2,3-TCP							
	5uL of 1000ug/mL 1,2,3 TCP into a final volume of 5mL of P&T Methanol						
	1000ug/mL 1,2,3 TCP date code:			05/27/11			
	P & T Methanol Lot #			JT Baker H46E44			
PREP DATE:	08/16/11		exp:	08/23/11			
2ug/mL 1,2,3-TCPd5							
	10uL of 2000ug/mL 1,2,3 TCP into a final volume of 10mL of P&T Methanol						
	2000ug/mL 1,2,3 TCP-d5 date code:			05/27/11			
	P & T Methanol Lot #			9077-02			

VF 8/22/11



VF exp 8/22/12

8270 BN:A (200:400) Surrogate Solution

Lot #: 167802 - 29313

Rec: 8/8/11 MFR exp. 01/09/13

VF 8/22/11

PREP DATE:	08-22-11												
8270 STANDARD CURVE													
Exp:	08-29-11						5	10	20	40	50	60	80	100
		Conc.		Date										
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date		µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		07/26/11	01-26-12		5	5	10	20	25	30	40	50
	Surrogate Stock	VAR	167802-29313	08/22/11	08-22-12		5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47186				190	90	80	60	50	40	20	0
						Final Vol.	200	100	100	100	100	100	200	100

VF 8/22/11

PREP DATE:	08-22-11					
8270 Second Source (SS) 50ug/mL						
						50
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/06/10	10-06-11	25
EM Science	Methylene Chloride		47186			75
					Final Vol.	100

VF 9/21/11

PREP DATE:	09-21-11												
8270 SIM STANDARD CURVE													
						0.10	0.20	0.50	1.00	5.00	10.00	50.00	100.00
		Conc.		Date	CODE:	A	A	C	D	E	F	G	H
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL
	8270D PAH SIM	200	170253-28485	04/20/11	04-20-12	0	0	0	0	5	5	25	50
	5.0ug/mL	5		09/21/11		0	0	10	20	0	0	0	0
	1.0ug/mL	1		09/21/11		10	20	0	0	0	0	0	0
	Surrogate Stock	VAR	167802-29313	08/22/11	08-23-11	0	0	0	0	5	5	25	50
EM Science	Methylene Chloride		47186			90	80	90	80	190	90	50	0
					Final Vol.	100	100	100	100	200	100	100	100

PREP DATE:	09-21-11						
SIM 8270 Second Source (5µg/mL)							
Exp:	10-05-11						
				Conc.	Date	CODE:	
Supplier	ID #		Lot #	µg/mL	Code	Exp.Date	µL
	8270D PAH SIM (SS)		170256-28487	200	04/20/11	04-20-12	5
	MeCl2			Lot#47186			195
					Final Volume		200

8270 BN Solution 14-4, 2,000 mg/L, 1 ml

Cat. No: 110391-01
Lot No: 158119
8270BN Solution 14-4
Lot #. 158119 - 28021
Rec: 12/16/10 MFR exp. 04/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
d: _____

8270 BN Solution 14-3, 2,000 mg/L, 1 ml

Cat. No: 110392-01
Lot No: 158120
8270BN Solution 14-3
Lot #: 158120 - 28023
Rec: 12/16/10 MFR exp. 04/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
ened: _____

8270 Acid Solution 4-6, 2,000 mg/L, 1 ml

Cat. No: 110393-01
Lot No: 158121
8270B Acid Solution 4-6
Lot #: 158121 - 28025
Rec: 12/16/10 MFR exp. 04/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
ned: _____

TCL Hazardous Substances Solution 2, 2,000 mg/L, 1 ml

Cat. No: 110394-01
Lot No: 158122
TCL Hzd. Soln. 2
Lot #: 158122 - 28018
Rec: 12/16/10 MFR exp. 04/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
d: _____

PAH Solution 17-3, 2,000 mg/L, 1 ml

Cat. No: 116070-02
Lot No: 158123
PAH Solution
Lot #: 158123 - 28027
Rec: 12/16/10 MFR exp. 07/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
d: _____

8270 Acid Solution 13-4, 2,000 mg/L, 1 ml

Cat. No: 110396-01
Lot No: 158124
8270 Acid Solution 13-4
Lot #: 158124 - 28029
Rec: 12/16/10 MFR exp. 04/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
d: _____

8270 BN Solution 4-21, 2,000 mg/L, 1 ml

O2SI

Cat. No. 110395-01
Lot No: 158125

8270BN Solution 4-21
Lot #: 158125 - 28031
Rec: 12/16/10 MFR exp. 04/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
pened: _____

exp 10/12/11

8270 11 Compound Custom Mix, 200:2,000 mg/L, 1 ml

O2SI

Cat. No: 110397-01
Lot No: 158127

8270 11 Compound Mix
Lot #: 158127 - 28033
Rec: 12/16/10 MFR exp. 04/12/12

Exp: 4/12/2012
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
ened: _____

exp 4/12/12

Atrazine Solution, 1,000 mg/L, 1 ml

O2SI

Cat. No: 010337-01
Lot No: 158126

Atrazine
Lot #: 158126 - 28019
Rec: 12/16/10 MFR exp. 04/12/12

Exp: 4/12/2012
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
ed: _____

exp 4/12/12

PREP DATE:	10-11-11					
8270C Second Source Stock Standard						
Exp:	04-12-12					
		Conc.		Date	CODE:	P
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
O2SI	110391-01	2000	158119-28021	10-11-11	04-17-13	1000
O2SI	110392-01	2000	158120-28023	10-11-11	04-17-13	1000
O2SI	110393-01	2000	158121-28025	10-11-11	04-17-13	1000
O2SI	110394-01	2000	158122-28018	10-11-11	04-17-13	1000
O2SI	116070-02	2000	158123-28027	10-11-11	04-17-13	1000
O2SI	110395-01	2000	158125-28031	10-11-11	04-17-13	1000
O2SI	110396-01	2000	158124-28029	10-11-11	04-17-13	1000
O2SI	110397-01	2000	158127-28033	10-11-11	04-12-12	1000
O2SI	010337-01	1000	158126-28019	10-11-11	04-12-12	1000
EM Science	MeCl2		47186			1000
					Final Vol	10000

PREP DATE:	10-11-11												
8270 STANDARD CURVE													
Exp:	10-18-11					5	10	20	40	50	60	80	100
		Conc.		Date									
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		07/26/11	01-26-12	5	5	10	20	25	30	40	50
	Surrogate Stock	VAR	167802-29313	08/22/11	08-22-12	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47186			190	90	80	60	50	40	20	0
					Final Vol.	200	100	100	100	100	100	100	100

PREP DATE:	10-11-11					
8270 Second Source (SS) 50ug/mL						50
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/11/11	04-12-12	25
EM Science	Methylene Chloride		47186			75
					Final Vol.	100

GCM-150-1
Lot. CH-2137
Exp 07/31/2013

ULTRA 1 mL

Semi-Volatiles GC/MS Tuning Standard
4 analyte(s) at 1000 µg/mL in dichloromethane
For Lab Use Only
250 Smith St, N o Kingstown, RI 02852 USA

50µg/mL SV Tune Mix
1ml of GCM-150-1 opened 10/11/11 into 19mls EM Science MC Lot-47186
exp 10/11/12

10/18/12

Part #: 10001 Laboratory Use Only - See MSDS
Lot #: 042910 Exp: 042913 Storage 0 °C
CLP Semi-Volatiles Base/Neutrals Mix #1
14 components
2000 ug/mL in methy
ABSOLUTE STANDARD
CLP Semi-Volatiles Base/Neutrals Mix #1
Lot #: 042910 - 28440
Rec: 3/8/11 MFR exp. 4/29/2013

exp 10/18/12

10/18/12

Part #: 10001 Laboratory Use Only - See MSDS
Lot #: 042910 Exp: 042913 Storage 0 °C
CLP Semi-Volatiles Base/Neutrals Mix #1
14 components
2000 ug/mL in m
ABSOLUTE STANDA
Lot #: 042910 - 29085
Rec: 8/4/11 MFR exp. 04/29/13

exp 10/18/12

10/18/12

Part #: 10002 Laboratory Use Only - See MSDS
Lot #: 073109 Exp: 073112 Storage 4 °C
CLP Semi-Volatiles Base/Neutrals Mix #2
14 components
2000 ug/mL in methyle
ABSOLUTE STANDARDS
CLP Semi-Volatiles Base/Neutrals Mix #2
Lot # 073109 - 28446
Rec. 3/8/11 MFR exp. 7/31/2012

exp 7/31/12

10/18/12

Part #: 10002 Laboratory Use Only - See MSDS
Lot #: 073109 Exp: 073112 Storage 4 °C
CLP Semi-Volatiles Base/Neutrals Mix #2
14 components
2000 ug/mL in met
ABSOLUTE STANDAF
CLP Semi-Volatiles Base Neutrals Mix #2
Lot #: 073109 - 29090
Rec: 8/4/11 MFR exp. 07/31/12

exp 7/31/12

10/18/12

Part #: 10004 Laboratory Use Only - See MSDS
Lot #: 101509 Exp: 101514 Storage 4 °C
CLP Semi-Volatiles Toxic Substances #1
4 components
2000 ug/mL in methyl
ABSOLUTE STANDARDS
CLP Semi-Volatiles Toxic Substances #1
Lot #: 101509 - 28453
Rec: 3/8/11 MFR exp. 10/15/201

exp 10/18/12

10/18/12

Part #: 10004 Laboratory Use Only - See MSDS
Lot #: 101509 Exp: 101514 Storage 4 °C
CLP Semi-Volatiles Toxic Substances #1
4 components
2000 ug/mL in metl
ABSOLUTE STANDAR
CLP Semi-Volatiles Toxic Substances #1
Lot #: 101509 - 29095
Rec: 8/4/11 MFR exp. 10/15/14

exp 10/18/12

10/18/12

Part #: 10005 Laboratory Use Only - See MSDS
Lot #: 061209 Exp: 061214 Storage 4 °C
CLP Semi-Volatiles Toxic Substances #2
8 components
2000 ug/mL in methy
ABSOLUTE STANDARD
CLP Semi-Volatiles Toxic Substances #2
Lot #: 061209 - 28458
Rec: 3/8/11 MFR exp. 6/12/2014

exp 10/18/12

10/18/12

Part #: 10005 Laboratory Use Only - See MSDS
Lot #: 121208 Exp: 121213 Storage 4 °C
CLP Semi-Volatiles Toxic Substances #2
8 components
2000 ug/mL in met
ABSOLUTE STANDAR
CLP Semi-Volatiles Toxic Substances #2
Lot #: 121208 - 29100
Rec: 8/4/11 MFR exp. 12/12/13

exp 10/18/12

Part #: 10006
Lot #: 120810
Laboratory Use Only - See MSDS
Exp: 120813 Storage 4 °C
CLP Semi-Volatiles - Benzidines
2 components
2000 ug/mL in methar
ABSOLUTE STANDARDS
CLP Semi-Volatiles - Benzidines
Lot # 120810 - 28462
Rec: 3/8/11 MFR exp. 12/8/2013

exp 10/18/12

Part #: 10006
Lot #: 071211
Laboratory Use Only - See MSDS
Exp: 071214 Storage 4 °C
CLP Semi-Volatiles - Benzidines
2 components
2000 ug/mL in meth
ABSOLUTE STANDAR
Lot #: 071211 - 29105
Rec: 8/4/11 MFR exp. 07/12/14

exp 10/18/12

Part #: 10007
Lot #: 100909
Laboratory Use Only - See MSDS
Exp: 100914 Storage 4 °C
CLP Semi-Volatiles - PAH Standard
17 components
2000 ug/mL in methy
ABSOLUTE STANDAR
CLP Semi-Volatiles - PAH Mix
Lot #: 100909 - 28469
Rec: 3/8/11 MFR exp 10/9/2014

exp 10/18/12

Part #: 10007
Lot #: 100909
Laboratory Use Only - See MSDS
Exp: 100914 Storage 4 °C
CLP Semi-Volatiles - PAH Standard
17 components
2000 ug/mL in meth
ABSOLUTE STANDAR
CLP Semi-Volatiles - PAH Mix
Lot #: 100909 - 29110
Rec: 8/4/11 MFR exp. 10/09/14

exp 10/18/12

Part #: 10018
Lot #: 073109
Laboratory Use Only - See MSDS
Exp: 073114 Storage 4 °C
EPA Method 8270A - Analytes Mix #8
13 components - Pher
2000 ug/mL in methyl
ABSOLUTE STANDARD
CLP Semi-Volatiles Mix #8 - Phenols
Lot # 073109 - 28410
Rec: 3/8/11 MFR exp. 7/31/2014

exp 10/18/12

Part #: 10018
Lot #: 062111
Laboratory Use Only - See MSDS
Exp: 062116 Storage 4 °C
EPA Method 8270A - Analytes Mix #8
13 components - Phr
2000 ug/mL in meth
ABSOLUTE STANDARI
EPA Method 8270A - Analytes Mix #8
Lot #: 062111 - 29115
Rec: 8/4/11 MFR exp. 06/21/16

exp 10/18/12

Part #: 70023
Lot #: 080310
Laboratory Use Only - See MSDS
Exp: 080315 Storage 4 °C
Atrazine
1000 ug/mL in aceto
ABSOLUTE STANDARI
Atrazine
Lot # 080310 - 28416
Rec 3/8/11 MFR exp. 8/13/2015

exp 10/18/12

Part #: 70023
Lot #: 031611
Laboratory Use Only - See MSDS
Exp: 031616 Storage 4 °C
Atrazine
1000 ug/mL in ace
ABSOLUTE STANDA
Atrazine
Lot #: 031611 - 29120
Rec: 8/4/11 MFR exp. 03/16/16

exp 10/18/12

Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	120419A	Extraction Method	SEP004S	Units	mL

Spiked ID 1	SIM Spike 170745-30370		Surrogate ID 1	8270 SIM Surrogate 177982-29476	
Spiked ID 2			Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:		
Spiked ID 8			Ext. End Time:		
			GC Requires Extract By:	**05/02/12 0:00**	

pH1	2	04/19/12 12:00:00 PM	Water Bath Temp Criteria	80 °C
pH2	14	04/19/12 1:00:00 PM		
pH3				

Spiked By: DL **Date** 04/19/12 **Witnessed By:** DRA **Date** 04/19/12

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	120419A Blk				0.025	1	1000	1	2/1	04/19/12 11:55	
						equip	E-WB7				
2	120419A LCS-1		0.025	1	0.025	1	1000	1	2/1	04/19/12 11:55	
						equip	E-WB7				
3	AY59236 MS-1	AY59236W11	0.025	1	0.025	1	1000	1	2/1	04/19/12 11:55	67525-2 WEEK RUSH -- Amber Liter
						equip	E-WB7				
4	AY59236 MSD-1	AY59236W13	0.025	1	0.025	1	1000	1	2/1	04/19/12 11:55	67525-2 WEEK RUSH -- Amber Liter
						equip	E-WB7				
5	AY59236	AY59236W07			0.025	1	1030	1	2/1	04/19/12 11:55	67525-2 WEEK RUSH -- Amber Liter
						equip	E-WB7				
6	AY59237	AY59237W06			0.025	1	1000	1	2/1	04/19/12 11:55	67525-2 WEEK RUSH -- Amber Liter
						equip	E-WB7				

DRA 4-20-12

Solvent and Lot#	
MC	EMD51306
Na2SO4	3851C501
10N NaOH	03/28/12
1+1 Acid	04/06/12
A. Na2SO4	03/19/12

Extraction COC Transfer	
Extraction lab employee Initials	DRA
GC analyst's initials	JF
Date	4/20/12
Time	1200
Refrigerator	Hobby

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

Modified	04/19/12 10:24:26 AM

Reviewed By: DRA **Date** 04/20/12

Injection Log

Directory: M:\LINUS\DATA\L120229\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0229L001.D	1	SVTUNE 2-28-12		29 Feb 12 21:31
2	3	0229L003.D	1	0.1ug/ml PAH 02-29-12		1 Mar 12 00:20
3	4	0229L004.D	1	0.2ug/ml PAH		1 Mar 12 00:44
4	5	0229L005.D	1	0.5ug/ml PAH		1 Mar 12 1:09
5	6	0229L006.D	1	1.0ug/ml PAH		1 Mar 12 1:34
6	7	0229L007.D	1	5.0ug/ml PAH		1 Mar 12 1:59
7	8	0229L008.D	1	10ug/ml PAH		1 Mar 12 2:24
8	9	0229L009.D	1	50ug/ml PAH		1 Mar 12 2:49
9	10	0229L010.D	1	100ug/ml PAH		1 Mar 12 3:14
10	11	0229L011.D	1	5.0ug/ml SS PAH 02-29-12		1 Mar 12 3:39
11	1	0422L001.D	1	SVTUNE 2-28-12		22 Apr 12 10:48
12	2	0422L002.D	1	5.0ug/ml PAH 02-29-12		22 Apr 12 11:06
13	9	0422L009.D	1	120419A BLK 1/1000		22 Apr 12 14:07
14	10	0422L010.D	1	120419A LCS-1 1/1000		22 Apr 12 14:33
15	11	0422L011.D	1	AY59236W11 MS-1 1/1000		22 Apr 12 15:00
16	12	0422L012.D	1	AY59236W13 MSD-1 1/1000		22 Apr 12 15:25
17	13	0422L013.D	0.97087	AY59236W07 1/1030		22 Apr 12 15:52
18	14	0422L014.D	1	AY59237W06 1/1000		22 Apr 12 16:18

EPA METHOD 8260B
Volatile Organic Compounds

APPL, INC.

EPA METHOD 8260B
Volatile Organic Compounds
QC Summary

APPL, INC.

Method Blank

EPA 8260B VOCs + Gas Water

Blank Name/QCG: **120419W-59236 - 166110**
Batch ID: #86RHB-120419AT

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/19/12	04/19/12
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/19/12	04/19/12
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/19/12	04/19/12
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/19/12	04/19/12
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/19/12	04/19/12
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	04/19/12	04/19/12
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/19/12	04/19/12
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/19/12	04/19/12
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/19/12	04/19/12
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/19/12	04/19/12
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/19/12	04/19/12
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/19/12	04/19/12
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/19/12	04/19/12
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/19/12	04/19/12
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/19/12	04/19/12
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	04/19/12	04/19/12
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/19/12	04/19/12
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/19/12	04/19/12
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	04/19/12	04/19/12

Quant Method: TALLW.M
Run #: 0419T17
Instrument: Thor
Sequence: T120411
Initials: DG

Printed: 05/01/12 3:52:45 PM
GC SC-Blank-REG MDLs

Method Blank
EPA 8260B VOCs + Gas Water

Blank Name/QCG: **120419W-59236 - 166110**
Batch ID: #86RHB-120419AT

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/19/12	04/19/12
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/19/12	04/19/12
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	04/19/12	04/19/12
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/19/12	04/19/12
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
BLANK	SURROGATE: 1,2-DICHLOROET	105	70-120			%	04/19/12	04/19/12
BLANK	SURROGATE: 4-BROMOFLUORO	96.2	75-120			%	04/19/12	04/19/12
BLANK	SURROGATE: DIBROMOFLUOR	104	85-115			%	04/19/12	04/19/12
BLANK	SURROGATE: TOLUENE-D8 (S)	100	85-120			%	04/19/12	04/19/12

Quant Method: TALLW.M
Run #: 0419T17
Instrument: Thor
Sequence: T120411
Initials: DG

Printed: 05/01/12 3:52:46 PM
GC SC-Blank-REG MDLs

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 67525

Case No: 67525 Date Analyzed: 04/19/12

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
120419AT-LCS	Lab Control Spike	70-120	105		75-120	102	
120419AT-BLK	Blank	70-120	105		75-120	96.2	
AY59238	ES076 TRIP BLANK	70-120	105		75-120	96.8	
AY59236	ES074	70-120	105		75-120	96.6	
AY59237	ES075	70-120	104		75-120	94.1	

Comments: Batch: #86RHB-120419AT

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 67525

Case No: 67525 Date Analyzed: 04/19/12

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
120419AT-LCS	Lab Control Spike	85-115	108		85-120	98.8	
120419AT-BLK	Blank	85-115	104		85-120	100	
AY59238	ES076 TRIP BLANK	85-115	105		85-120	103	
AY59236	ES074	85-115	106		85-120	98.3	
AY59237	ES075	85-115	105		85-120	97.2	

Comments: Batch: #86RHB-120419AT

Laboratory Control Spike Recovery

EPA 8260B VOCs + Gas Water

APPL ID: **120419W-59236 LCS - 166110**
Batch ID: #86RHB-120419AT

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,1,1,2-TETRACHLOROETHANE	10.00	10.1	101	80-130
1,1,1-TRICHLOROETHANE	10.00	9.60	96.0	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	10.8	108	65-130
1,1,2-TRICHLOROETHANE	10.00	9.92	99.2	75-125
1,1-DICHLOROETHANE	10.00	9.14	91.4	70-135
1,1-DICHLOROETHENE	10.00	9.29	92.9	70-130
1,2,3-TRICHLOROPROPANE	10.00	9.79	97.9	75-125
1,2,4-TRICHLOROBENZENE	10.00	9.71	97.1	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	11.3	113	50-130
1,2-DIBROMOETHANE	10.00	10.3	103	70-130
1,2-DICHLOROBENZENE	10.00	9.35	93.5	70-120
1,2-DICHLOROETHANE	10.00	9.82	98.2	70-130
1,2-DICHLOROPROPANE	10.00	9.52	95.2	75-125
1,3-DICHLOROBENZENE	10.00	9.15	91.5	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	20.0	100	70-130
1,4-DICHLOROBENZENE	10.00	9.34	93.4	75-125
2-BUTANONE	10.00	10.1	101	30-150
4-METHYL-2-PENTANONE	10.00	9.58	95.8	60-135
ACETONE	10.00	9.60	96.0	40-140
BENZENE	10.00	9.34	93.4	80-120
BROMODICHLOROMETHANE	10.00	9.61	96.1	75-120
BROMOFORM	10.00	10.8	108	70-130
BROMOMETHANE	10.00	10.1	101	30-145
CARBON TETRACHLORIDE	10.00	9.67	96.7	65-140
CHLOROBENZENE	10.00	9.28	92.8	80-120
CHLORODIBROMOMETHANE	10.00	10.4	104	60-135
CHLOROETHANE	10.00	10.3	103	60-135
CHLOROFORM	10.00	9.64	96.4	65-135
CHLOROMETHANE	10.00	9.78	97.8	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.40	94.0	70-125
ETHYLBENZENE	10.00	8.90	89.0	75-125

Primary	SPK
Quant Method :	TALLW.M
Extraction Date :	04/19/12
Analysis Date :	04/19/12
Instrument :	Thor
Run :	0419T12
Initials :	DG

Comments:

Printed: 05/01/12 3:52:37 PM
APPL Standard LCS

Laboratory Control Spike Recovery

EPA 8260B VOCs + Gas Water

APPL ID: **120419W-59236 LCS - 166110**
Batch ID: #86RHB-120419AT

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
GASOLINE	300	338	113	75-125
HEXACHLOROBUTADIENE	10.00	9.29	92.9	50-140
METHYL TERT-BUTYL ETHER	10.00	9.25	92.5	65-125
METHYLENE CHLORIDE	10.00	8.48	84.8	55-140
STYRENE	10.00	9.46	94.6	65-135
TETRACHLOROETHENE	10.00	9.58	95.8	45-150
TOLUENE	10.00	9.33	93.3	75-120
TRANS-1,2-DICHLOROETHENE	10.00	9.51	95.1	60-140
TRICHLOROETHENE	10.00	8.94	89.4	70-125
VINYL CHLORIDE	10.00	10.3	103	50-145
XYLENES (TOTAL)	30.0	27.5	91.7	80-120
SURROGATE: 1,2-DICHLOROETHANE-D	29.6	31.2	105	70-120
SURROGATE: 4-BROMOFLUOROBENZE	29.4	30.0	102	75-120
SURROGATE: DIBROMOFLUOROMETH	29.7	32.0	108	85-115
SURROGATE: TOLUENE-D8 (S)	32.0	31.6	98.8	85-120

Comments:

Primary	SPK
Quant Method :	TALLW.M
Extraction Date :	04/19/12
Analysis Date :	04/19/12
Instrument :	Thor
Run :	0419T12
Initials :	DG

Printed: 05/01/12 3:52:37 PM
APPL Standard LCS

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 67525

Case No: 67525 Date Analyzed: 04/19/12

Matrix: WATER Instrument: Thor

Blank ID: 120419AT-BLK Time Analyzed: 1232

APPL ID.	Client Sample No.	File ID.	Date Analyzed
120419AT-LCS	Lab Control Spike	0419T12	04/19/12 1013
120419AT-BLK	Blank	0419T17	04/19/12 1232
AY59238	ES076 TRIP BLANK	0419T19	04/19/12 1327
AY59236	ES074	0419T32	04/19/12 1928
AY59237	ES075	0419T33	04/19/12 1956

Comments: Batch: #86RHB-120419AT

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 67525
Matrix: Water
ID: 5ng BFB 4-10-12

SDG No: 67525
Date Analyzed: 04/19/12
Instrument: Thor
Time Analyzed: 9:23

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		10ug/L Vol Std 04-19	0419T11W.D	04/19/12 9:45
2	Lab Control Spike	120419A LCS-1WT	0419T12W.D	04/19/12 10:13
3	Blank	120419A BLK-1WT	0419T17W.D	04/19/12 12:32
4	ES076 TRIP BLANK	AY59238W02	0419T19W.D	04/19/12 13:27
5	ES074	AY59236W02	0419T32W.D	04/19/12 19:28
6	ES075	AY59237W02	0419T33W.D	04/19/12 19:56
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	14.9 - 40% of mass 95	15.2
75	30 - 60% of mass 95	44.3
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.3
173	0 - 2% of mass 174	0.9
174	50 - 100% of mass 95	97.3
175	5 - 9% of mass 174	6.6
176	95 - 101% of mass 174	97.5
177	5 - 9% of mass 176	6.0

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 67525
Matrix: Water
ID: 25ug/ml BFB STD 04-10-12

SDG No: 67525
Date Analyzed: 04/19/12
Instrument: Chico
Time Analyzed: 6:16

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		CCV gas 300ug/L	0419C01W.D	04/19/12 6:48
2	Lab Control Spike	LCS gas 300 ug/L	0419C06W.D	04/19/12 9:52
3	Blank	120419A BLK-1WC	0419C09W.D	04/19/12 11:44
4	ES076 TRIP BLANK	AY59238W01	0419C10W.D	04/19/12 12:21
5	ES074	AY59236W01	0419C12W.D	04/19/12 13:35
6	ES075	AY59237W01	0419C13W.D	04/19/12 14:11
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	19.0
75	30 - 60% of mass 95	43.5
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.4
173	0 - 2% of mass 174	0.0
174	50 - 100% of mass 95	70.4
175	5 - 9% of mass 174	7.2
176	95 - 101% of mass 174	98.1
177	5 - 9% of mass 176	6.6

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 67525

Lab File ID (Standard): 0411T35W.D Date Analyzed: 04/12/12

Instrument ID: Thor Time Analyzed: 0:31

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	482688	6.75	391232	9.89	241024	12.21
	UPPER LIMIT	965376	7.25	782464	10.39	482048	12.71
	LOWER LIMIT	241344	6.25	195616	9.39	120512	11.71
	SAMPLE NO.						
01	10ug/L Vol Std 04-19-12	499136	6.75	420608	9.89	266368	12.21
02	120419A LCS-1WT	439424	6.75	375360	9.89	233344	12.21
03	120419A BLK-1WT	474432	6.75	395840	9.89	232000	12.21
04	AY59238W02	444160	6.75	371456	9.89	216064	12.21
05	AY59236W02	448448	6.75	384640	9.89	216448	12.21
06	AY59237W02	473152	6.75	403456	9.89	223168	12.21
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 67525

Lab File ID (Standard): 0125C32W.D Date Analyzed: 01/26/12

Instrument ID: Chico Time Analyzed: 21:24

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	1085220	12.79	1323770	17.98	1382630	22.18
	UPPER LIMIT	2170440	13.29	2647540	18.48	2765260	22.68
	LOWER LIMIT	542610	12.29	661885	17.48	691315	21.68
	SAMPLE NO.						
01	CCV gas 300ug/L	1270200	12.79	1364280	17.99	1270550	22.19
02	LCS gas 300 ug/L	1333750	12.80	1439520	17.98	1368840	22.18
03	120419A BLK-1WC	1323980	12.80	1379510	17.99	1323330	22.19
04	AY59238W01	1255510	12.80	1342600	18.00	1248290	22.18
05	AY59236W01	1323060	12.81	1390830	17.99	1323350	22.19
06	AY59237W01	1298870	12.81	1401470	17.99	1331360	22.19
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

EPA METHOD 8260B
Volatile Organic Compounds
Sample Data

APPL, INC.

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Max Solmssen

Project: LTM Red Hill / 1022-024

Sample ID: ES074

Sample Collection Date: 04/17/12

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 67525

APPL ID: AY59236

QCG: #86RHB-120419AT-166110

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/19/12	04/19/12
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/19/12	04/19/12
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/19/12	04/19/12
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/19/12	04/19/12
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/19/12	04/19/12
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/19/12	04/19/12
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/19/12	04/19/12
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/19/12	04/19/12
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/19/12	04/19/12
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/19/12	04/19/12
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/19/12	04/19/12
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/19/12	04/19/12
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/19/12	04/19/12
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	04/19/12	04/19/12
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/19/12	04/19/12
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/19/12	04/19/12
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	04/19/12	04/19/12

J = Estimated value.

Quant Method: TALLW.M
Run #: 0419T32
Instrument: Thor
Sequence: T120411
Dilution Factor: 1
Initials: DG

Printed: 05/01/12 3:53:11 PM
APPL-F1-SC-NoMC-REG MDLs

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Max Solmssen

Project: LTM Red Hill / 1022-024

ARF: 67525

Sample ID: ES074

APPL ID: AY59236

Sample Collection Date: 04/17/12

QCG: #86RHB-120419AT-166110

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/19/12	04/19/12
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/19/12	04/19/12
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	04/19/12	04/19/12
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	TRICHLOROETHENE	0.17 J	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/19/12	04/19/12
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	105	70-120			%	04/19/12	04/19/12
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	96.6	75-120			%	04/19/12	04/19/12
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	106	85-115			%	04/19/12	04/19/12
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	98.3	85-120			%	04/19/12	04/19/12

J = Estimated value.

Quant Method: TALLW.M
Run #: 0419T32
Instrument: Thor
Sequence: T120411
Dilution Factor: 1
Initials: DG

Printed: 05/01/12 3:53:11 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120411\0419T32W.D Vial: 22
Acq On : 19 Apr 12 19:28 Operator: DG,RS,HW,ARS,SV
Sample : AY59236W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 23 13:53 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	448448	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	384640	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	216448	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	5.96	111	236123	31.57603 ppb	0.00
Spiked Amount 29.720			Recovery = 106.244%		
36) 1,2-DCA-D4(S)	6.34	65	212812	31.20081 ppb	0.00
Spiked Amount 29.608			Recovery = 105.380%		
56) Toluene-D8(S)	8.44	98	806862	31.44105 ppb	0.00
Spiked Amount 31.981			Recovery = 98.313%		
64) 4-Bromofluorobenzene(S)	11.06	95	301520	28.36503 ppb	0.00
Spiked Amount 29.353			Recovery = 96.635%		
Target Compounds					Qvalue
41) TCE	7.16	95	1246	0.17436 ppb	90

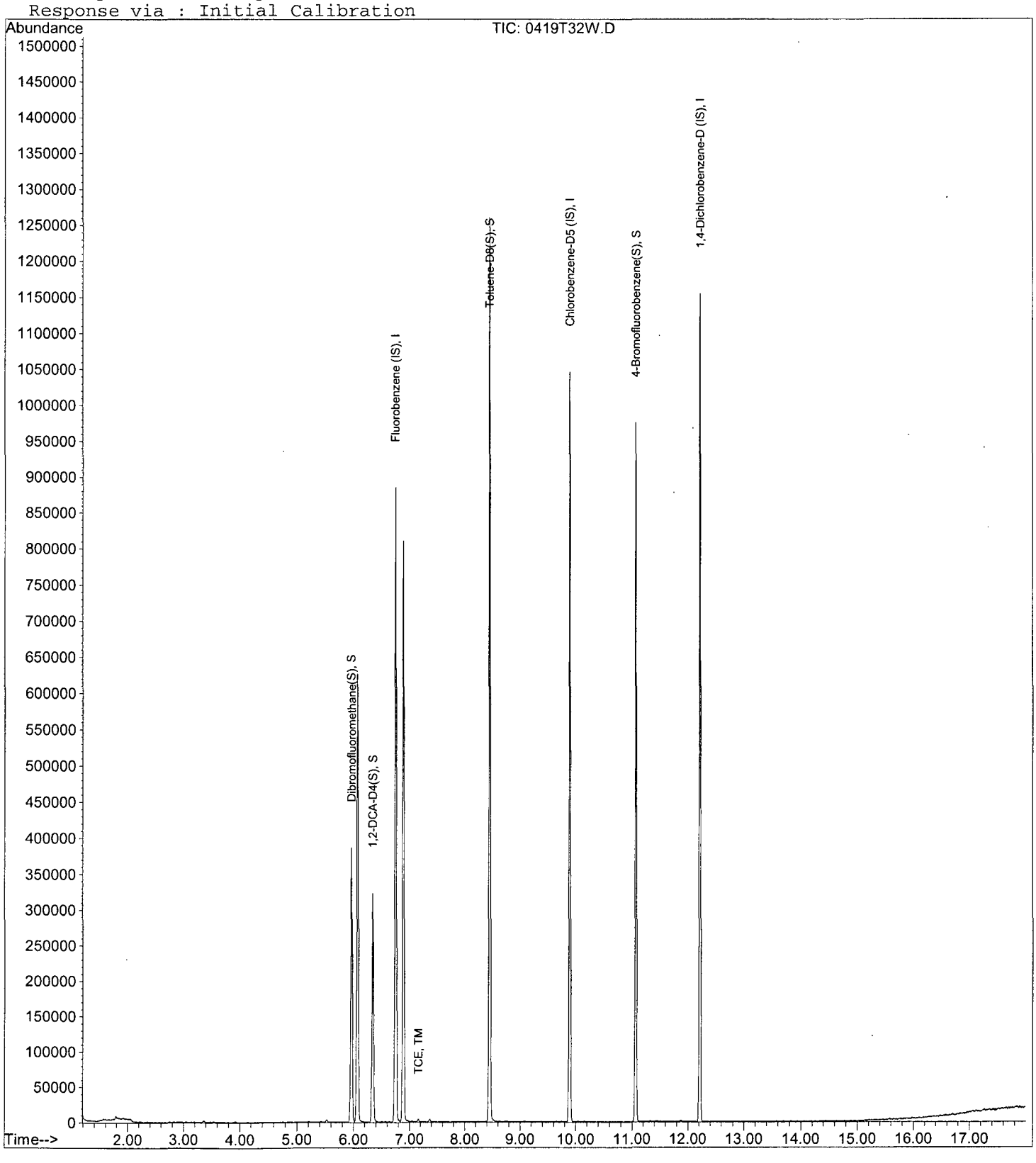
(#) = qualifier out of range (m) = manual integration

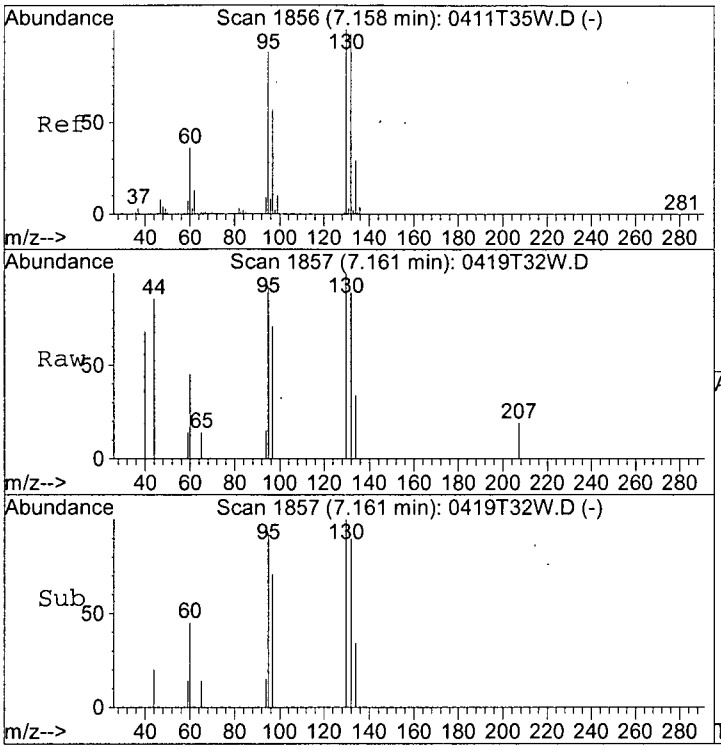
Quantitation Report

Data File : M:\THOR\DATA\T120411\0419T32W.D Vial: 22
Acq On : 19 Apr 12 19:28 Operator: DG,RS,HW,ARS,SV
Sample : AY59236W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 23 13:53 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration

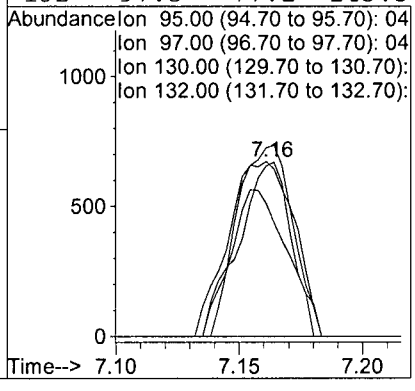




#41
TCE
Concen: 0.17436 ppb
RT: 7.16 min Scan# 1857
Delta R.T. 0.00 min
Lab File: 0419T32W.D
Acq: 19 Apr 12 19:28

Tgt Ion: 95 Resp: 1246

Ion	Ratio	Lower	Upper
95	100		
97	76.2	45.2	84.0
130	107.9	79.1	146.9
132	97.5	77.1	143.3



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C120410\0419C12W.D Vial: 1
Acq On : 19 Apr 12 13:35 Operator: SV
Sample : AY59236W01 Inst : Chico
Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 14:00 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.81	TIC	1323064	25.00000	ppb	0.02
3) Chlorobenzene-D5 (IS)	17.99	TIC	1390830	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1323345	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.58	TIC	25766269m	31.97318	ppb	ND 100

No gasoline pattern detected.

AKS 5/1/12

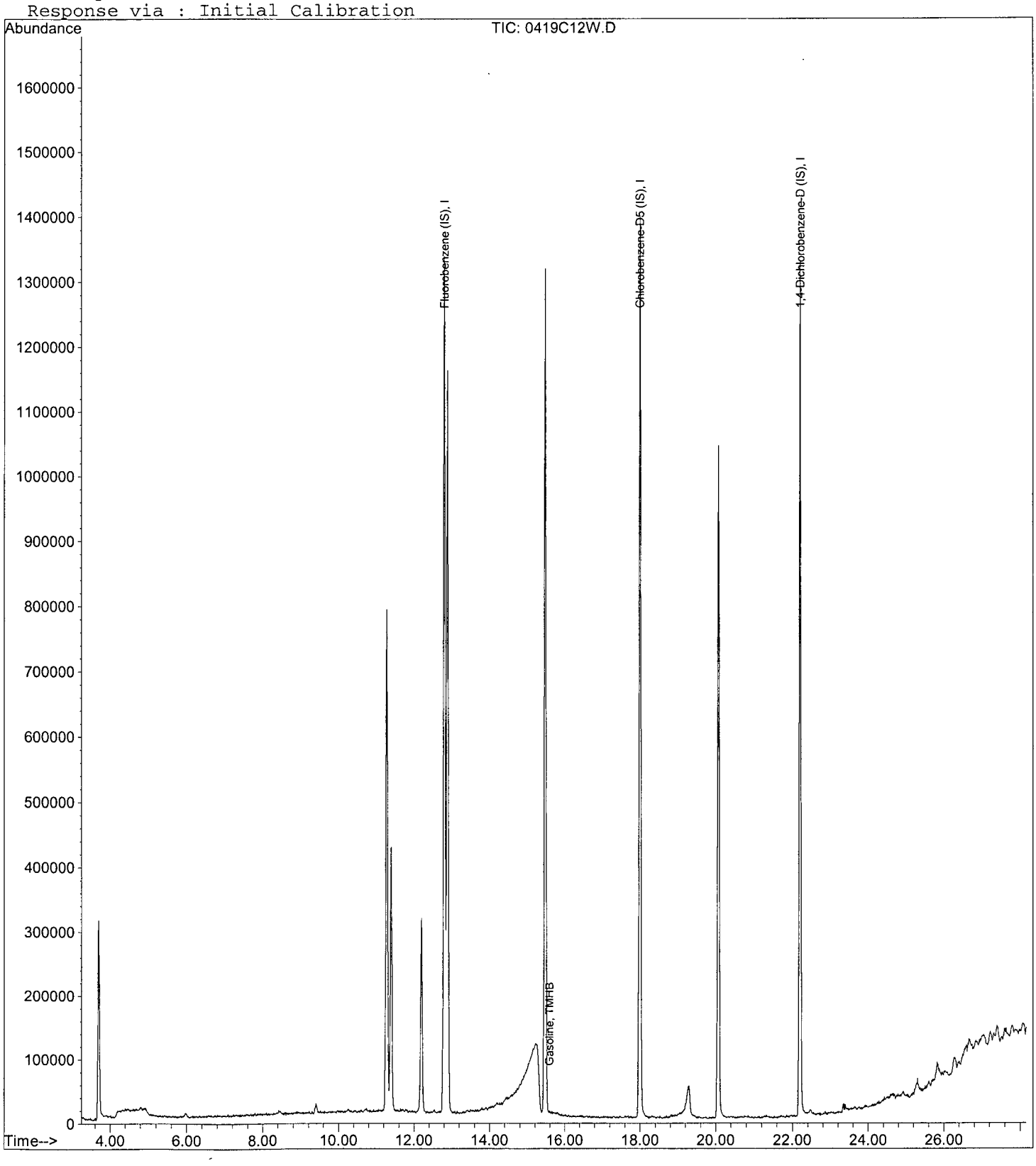
(#) = qualifier out of range (m) = manual integration

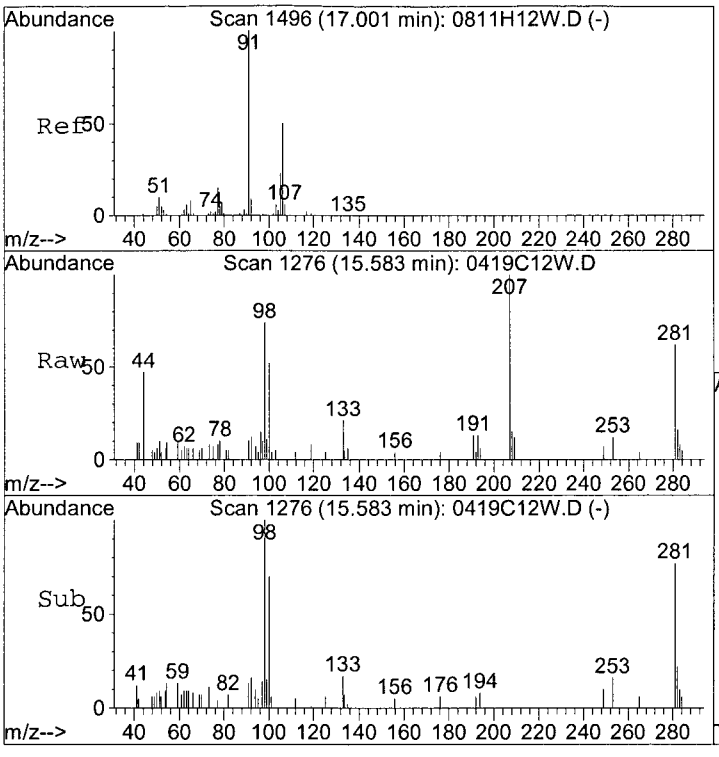
Quantitation Report

Data File : M:\CHICO\DATA\C120410\0419C12W.D Vial: 1
Acq On : 19 Apr 12 13:35 Operator: SV
Sample : AY59236W01 Inst : Chico
Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 14:00 2012 Quant Results File: CGAS.RES

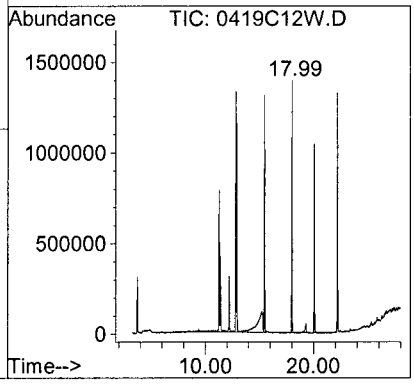
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration





#2
Gasoline
Concen: 31.97318 ppb m
RT: 15.58 min Scan# 1276
Delta R.T. 0.00 min
Lab File: 0419C12W.D
Acq: 19 Apr 12 13:35

Tgt Ion:TIC Resp:25766269



EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Max Solmssen
Project: LTM Red Hill / 1022-024
Sample ID: ES075
Sample Collection Date: 04/17/12

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 67525
APPL ID: AY59237
QCG: #86RHB-120419AT-166110

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/19/12	04/19/12
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/19/12	04/19/12
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/19/12	04/19/12
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/19/12	04/19/12
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/19/12	04/19/12
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/19/12	04/19/12
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/19/12	04/19/12
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/19/12	04/19/12
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/19/12	04/19/12
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/19/12	04/19/12
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/19/12	04/19/12
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/19/12	04/19/12
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/19/12	04/19/12
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	04/19/12	04/19/12
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/19/12	04/19/12
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/19/12	04/19/12
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	04/19/12	04/19/12

Quant Method: TALLW.M
Run #: 0419T33
Instrument: Thor
Sequence: T120411
Dilution Factor: 1
Initials: DG

Printed: 05/01/12 3:53:11 PM
APPL-F1-SC-NoMC-REG MDLs

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Max Solmssen

Project: LTM Red Hill / 1022-024

ARF: 67525

Sample ID: ES075

APPL ID: AY59237

Sample Collection Date: 04/17/12

QCG: #86RHB-120419AT-166110

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/19/12	04/19/12
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/19/12	04/19/12
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	04/19/12	04/19/12
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/19/12	04/19/12
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	104	70-120			%	04/19/12	04/19/12
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	94.1	75-120			%	04/19/12	04/19/12
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	105	85-115			%	04/19/12	04/19/12
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	97.2	85-120			%	04/19/12	04/19/12

Quant Method: TALLW.M
Run #: 0419T33
Instrument: Thor
Sequence: T120411
Dilution Factor: 1
Initials: DG

Printed: 05/01/12 3:53:11 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120411\0419T33W.D Vial: 23
Acq On : 19 Apr 12 19:56 Operator: DG,RS,HW,ARS,SV
Sample : AY59237W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 23 13:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	473152	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	403456	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	223168	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	5.96	111	245543	31.12133 ppb	0.00
Spiked Amount 29.720			Recovery = 104.713%		
36) 1,2-DCA-D4(S)	6.35	65	220716	30.67009 ppb	0.00
Spiked Amount 29.608			Recovery = 103.587%		
56) Toluene-D8(S)	8.44	98	836915	31.09120 ppb	0.00
Spiked Amount 31.981			Recovery = 97.218%		
64) 4-Bromofluorobenzene(S)	11.06	95	307916	27.61581 ppb	0.00
Spiked Amount 29.353			Recovery = 94.083%		
Target Compounds					Qvalue
81) Tert-Butylbenzene	11.83	119	3418	0.14244 ppb	98

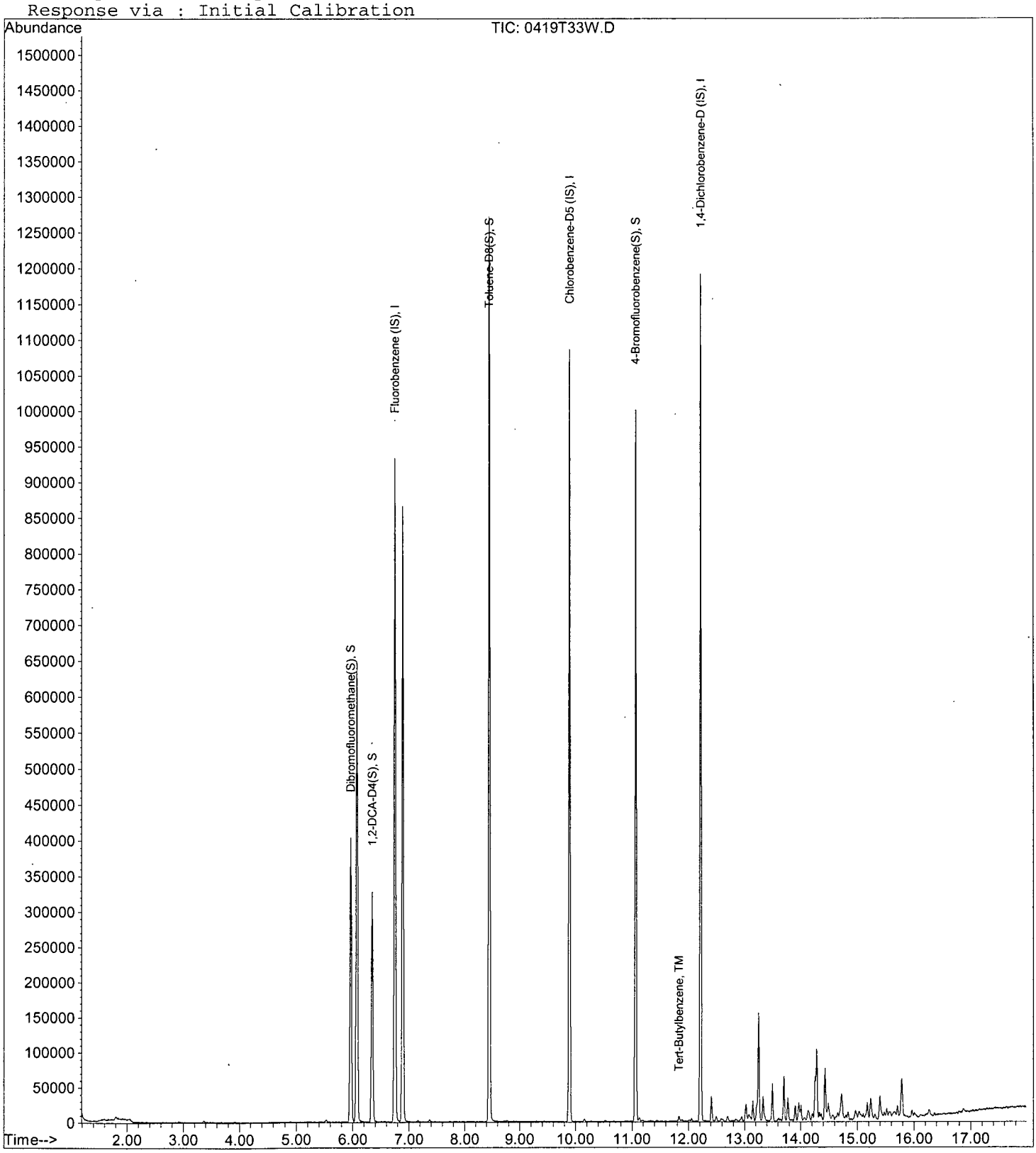
(#) = qualifier out of range (m) = manual integration

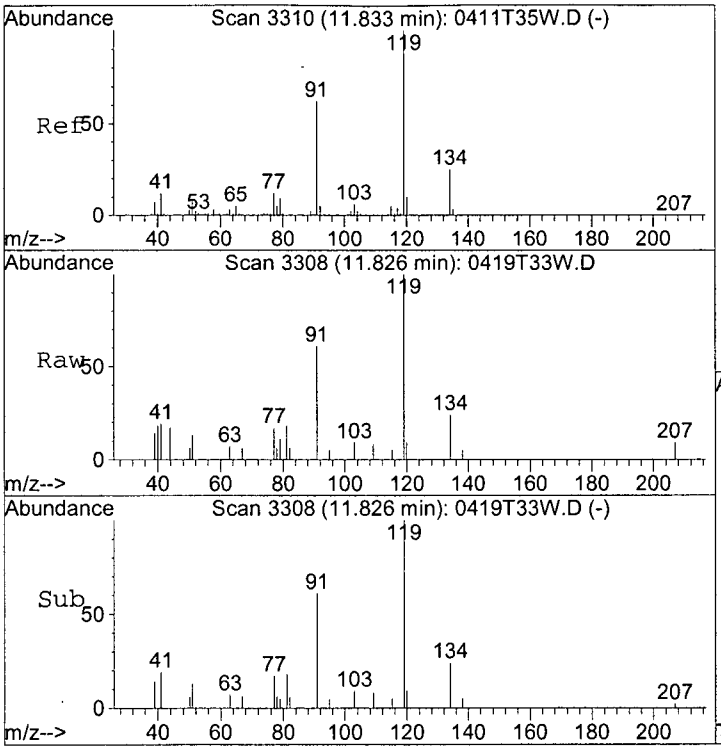
Quantitation Report

Data File : M:\THOR\DATA\T120411\0419T33W.D Vial: 23
Acq On : 19 Apr 12 19:56 Operator: DG,RS,HW,ARS,SV
Sample : AY59237W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 23 13:55 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration

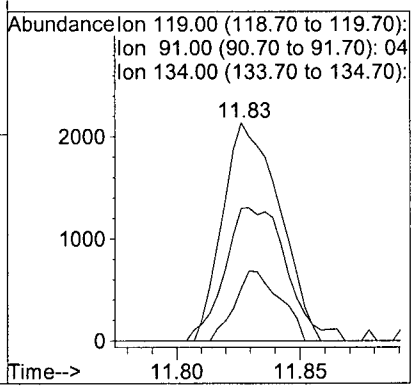




#81
Tert-Butylbenzene
Concen: 0.14244 ppb
RT: 11.83 min Scan# 3308
Delta R.T. -0.01 min
Lab File: 0419T33W.D
Acq: 19 Apr 12 19:56

Tgt Ion:119 Resp: 3418

Ion	Ratio	Lower	Upper
119	100		
91	60.9	43.7	81.1
134	24.2	17.2	31.9



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C120410\0419C13W.D Vial: 1
Acq On : 19 Apr 12 14:11 Operator: SV
Sample : AY59237W01 Inst : Chico
Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 14:00 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.81	TIC	1298865	25.00000	ppb	0.02
3) Chlorobenzene-D5 (IS)	17.99	TIC	1401472	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1331362	25.00000	ppb	0.01

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.58	TIC	25527306m	34.03117	ppb	ND 100

No gasoline pattern detected.
ARS 5/1/12

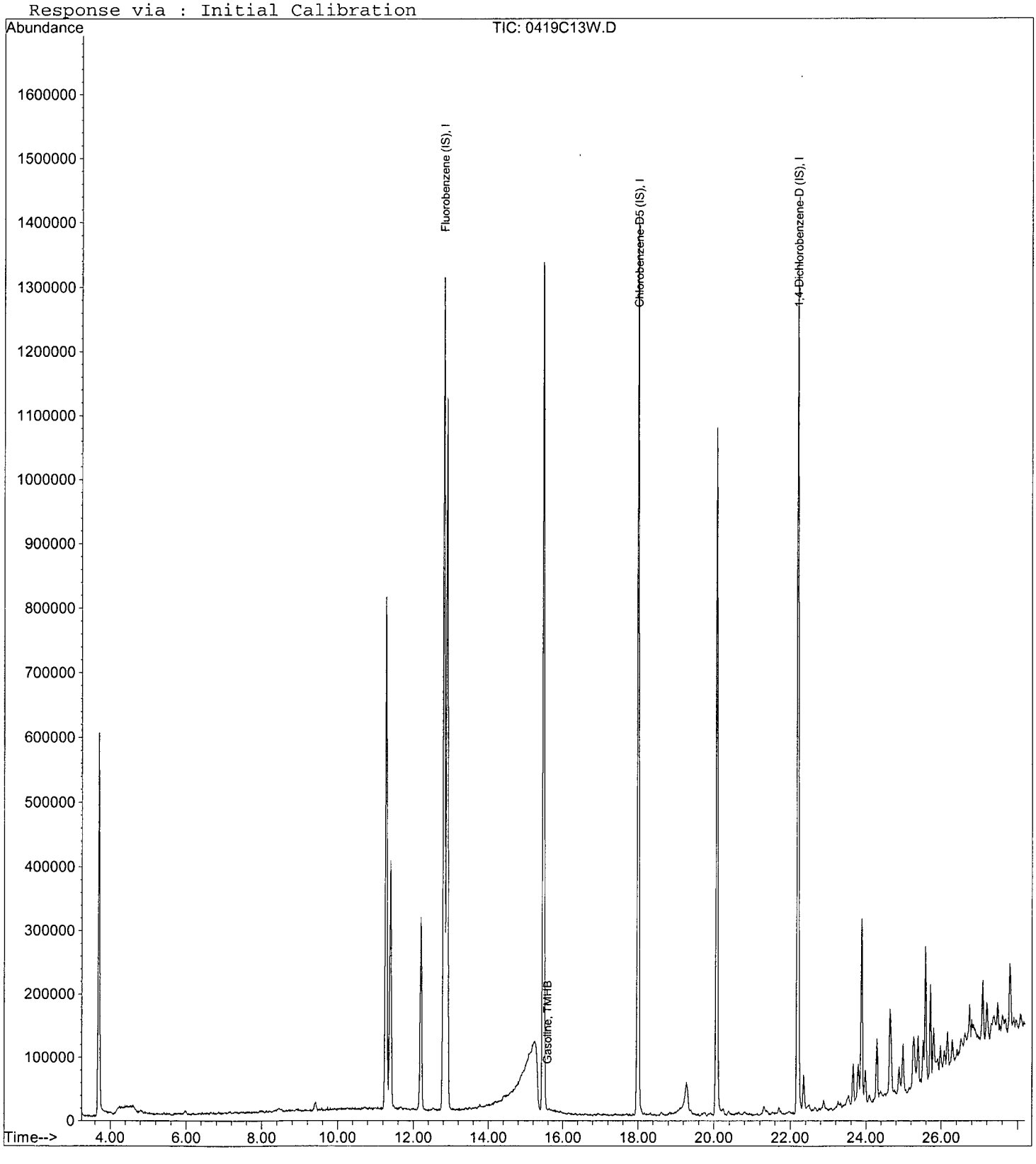
(#) = qualifier out of range (m) = manual integration

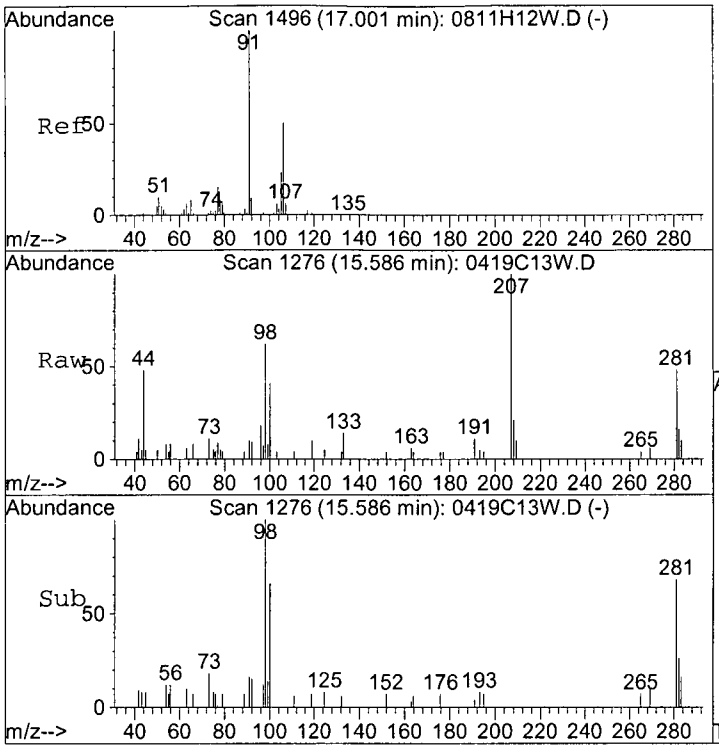
Quantitation Report

Data File : M:\CHICO\DATA\C120410\0419C13W.D Vial: 1
Acq On : 19 Apr 12 14:11 Operator: SV
Sample : AY59237W01 Inst : Chico
Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 14:00 2012 Quant Results File: CGAS.RES

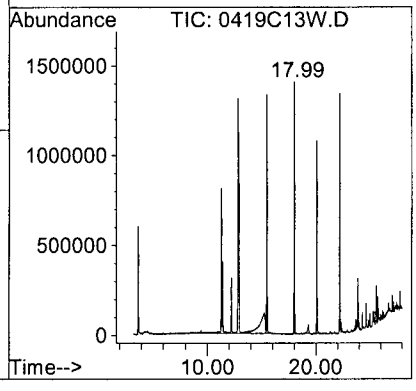
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration





#2
Gasoline
Concen: 34.03117 ppb m
RT: 15.58 min Scan# 1276
Delta R.T. 0.00 min
Lab File: 0419C13W.D
Acq: 19 Apr 12 14:11

Tgt Ion:TIC Resp:25527306



EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Max Solmssen

Project: LTM Red Hill / 1022-024

Sample ID: ES076 TRIP BLANK

Sample Collection Date: 04/17/12

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 67525

APPL ID: AY59238

QCG: #86RHB-120419AT-166110

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/19/12	04/19/12
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/19/12	04/19/12
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/19/12	04/19/12
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/19/12	04/19/12
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/19/12	04/19/12
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/19/12	04/19/12
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/19/12	04/19/12
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/19/12	04/19/12
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/19/12	04/19/12
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/19/12	04/19/12
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/19/12	04/19/12
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/19/12	04/19/12
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/19/12	04/19/12
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	04/19/12	04/19/12
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/19/12	04/19/12
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/19/12	04/19/12
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	04/19/12	04/19/12

Quant Method: TALLW.M
Run #: 0419T19
Instrument: Thor
Sequence: T120411
Dilution Factor: 1
Initials: DG

Printed: 05/01/12 3:53:11 PM
APPL-F1-SC-NoMC-REG MDLs

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Max Solmssen

Project: LTM Red Hill / 1022-024

ARF: 67525

Sample ID: ES076 TRIP BLANK

APPL ID: AY59238

Sample Collection Date: 04/17/12

QCG: #86RHB-120419AT-166110

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/19/12	04/19/12
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/19/12	04/19/12
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	04/19/12	04/19/12
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/19/12	04/19/12
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	105	70-120			%	04/19/12	04/19/12
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	96.8	75-120			%	04/19/12	04/19/12
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	105	85-115			%	04/19/12	04/19/12
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	103	85-120			%	04/19/12	04/19/12

Quant Method: TALLW.M
Run #: 0419T19
Instrument: Thor
Sequence: T120411
Dilution Factor: 1
Initials: DG

Printed: 05/01/12 3:53:11 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120411\0419T19W.D Vial: 9
Acq On : 19 Apr 12 13:27 Operator: DG,RS,HW,ARS,SV
Sample : AY59238W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 20 10:38 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	444160	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	371456	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	216064	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	5.96	111	231422	31.24615 ppb	0.00
Spiked Amount 29.720			Recovery = 105.133%		
36) 1,2-DCA-D4(S)	6.34	65	209045	30.94441 ppb	0.00
Spiked Amount 29.608			Recovery = 104.512%		
56) Toluene-D8(S)	8.44	98	814316	32.85775 ppb	0.00
Spiked Amount 31.981			Recovery = 102.744%		
64) 4-Bromofluorobenzene(S)	11.06	95	291529	28.39854 ppb	0.00
Spiked Amount 29.353			Recovery = 96.751%		

Target Compounds Qvalue

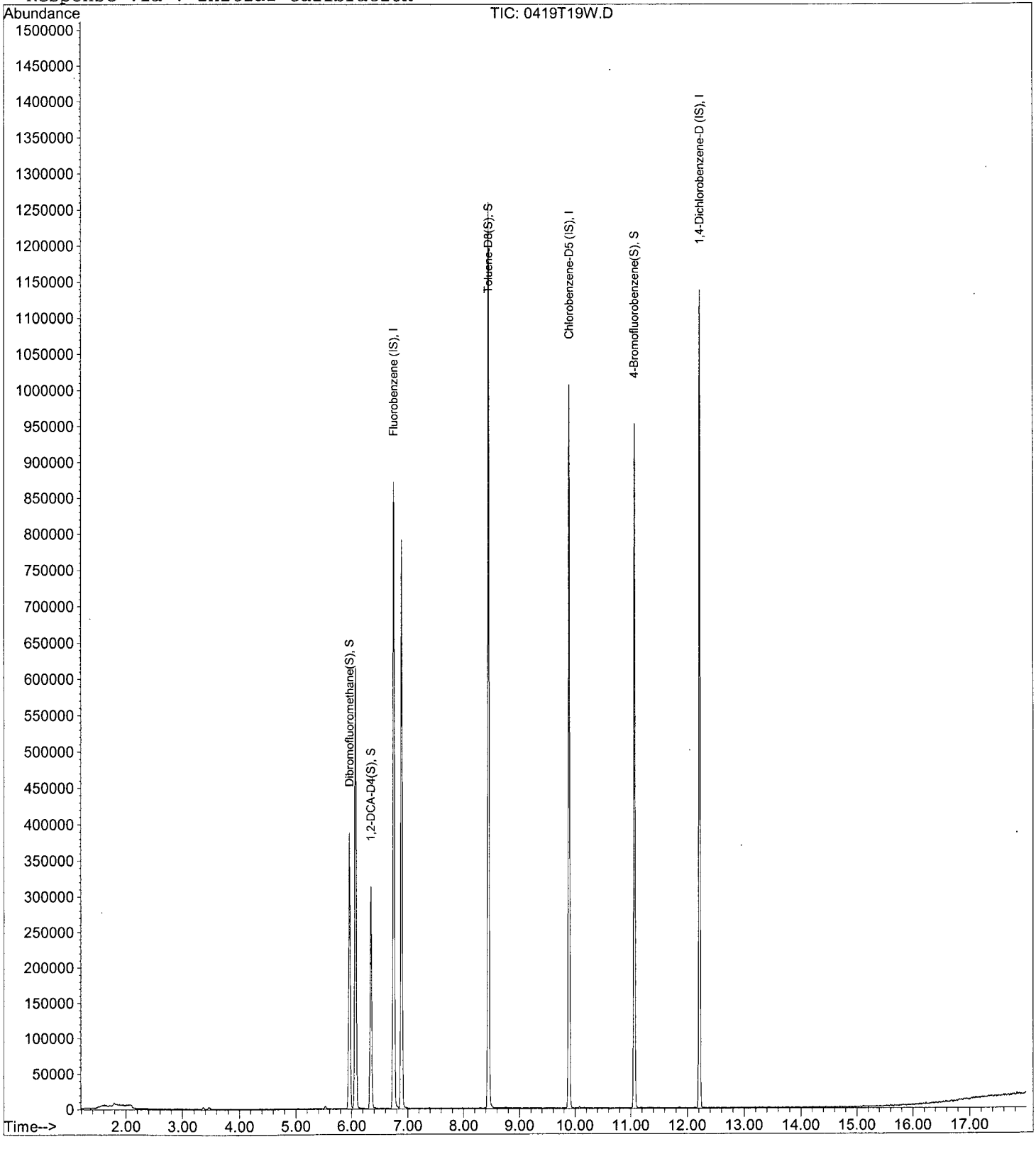
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T120411\0419T19W.D Vial: 9
Acq On : 19 Apr 12 13:27 Operator: DG,RS,HW,ARS,SV
Sample : AY59238W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 20 10:38 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C120410\0419C10W.D Vial: 1
Acq On : 19 Apr 12 12:21 Operator: SV
Sample : AY59238W01 Inst : Chico
Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 14:00 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.80	TIC	1255513	25.00000	ppb	0.01
3) Chlorobenzene-D5 (IS)	18.00	TIC	1342598	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1248287	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.58	TIC	24337982m	30.93982	ppb ND	100

No gasoline pattern detected.
ARS 5/1/12

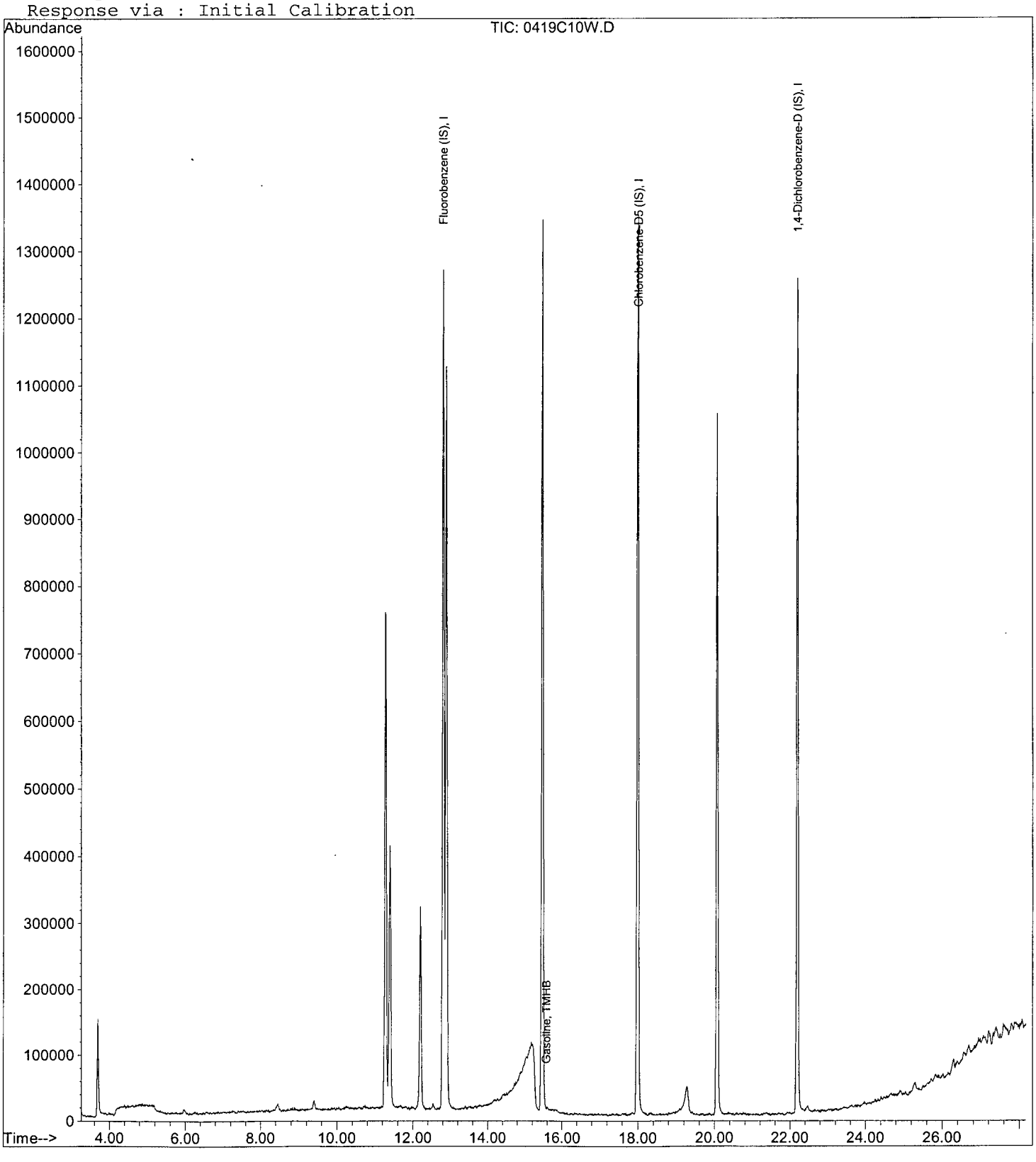
(#) = qualifier out of range (m) = manual integration

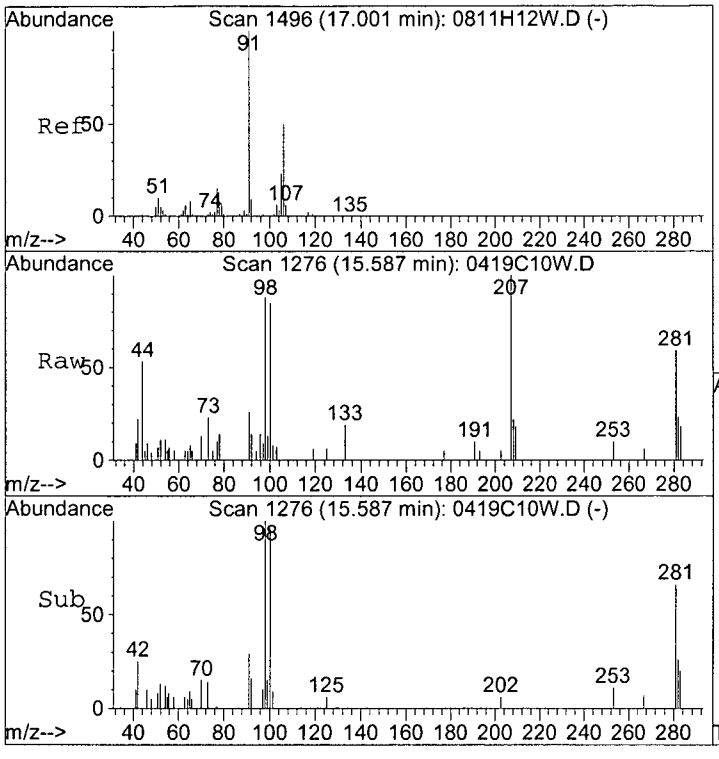
Quantitation Report

Data File : M:\CHICO\DATA\C120410\0419C10W.D Vial: 1
Acq On : 19 Apr 12 12:21 Operator: SV
Sample : AY59238W01 Inst : Chico
Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 14:00 2012 Quant Results File: CGAS.RES

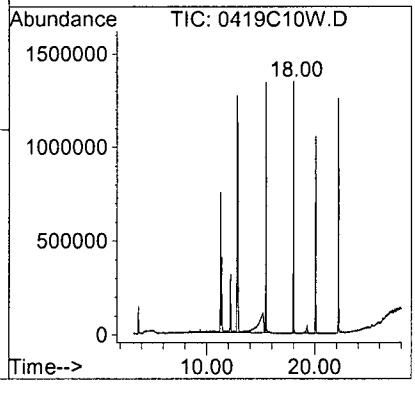
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration





#2
Gasoline
Concen: 30.93982 ppb m
RT: 15.58 min Scan# 1276
Delta R.T. 0.00 min
Lab File: 0419C10W.D
Acq: 19 Apr 12 12:21

Tgt Ion:TIC Resp:24337982



EPA METHOD 8260B
Volatile Organic Compounds
Calibration Data

APPL, INC.

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 67525
Case No: 67525 Initial Cal. Date: 04/11/12
Matrix: Water Instrument: Thor
Initials:

			0411T32W.D	0411T33W.D	0411T34W.D	0411T35W.D	0411T36W.D	0411T37W.D	0411T38W.D								
		Compound	0.5	1	5	10	20	40	100				Avg	%RSD			r^2
1	I	Fluorobenzene (IS)															
2	TM	Dichlorodifluoromethane	0.2309	0.2909	0.2778	0.2827	0.3270	0.3248	0.3733				0.30	15	TM		
3	TM	Freon 114	0.1911	0.2083	0.2029	0.2216	0.2222	0.2240	0.2507				0.22	8.8	TM		
4	TM**L	Chloromethane	0.3719	0.3569	0.2650	0.2533	0.2786	0.3012					0.30	16	TM**L	✓	0.997
5	TM*	Vinyl chloride	0.4209	0.4826	0.4792	0.4855	0.4827	0.4720	0.5187				0.48	6.1	TM*	✓	
6	TM	Bromomethane	0.3723	0.3757	0.3369	0.3151	0.3123	0.3213	0.3670				0.34	8.2	TM		
7	TM	Chloroethane	0.2756	0.2503	0.2573	0.2603	0.2700	0.2595	0.2855				0.27	4.6	TM		
8	TMQ	Dichlorofluoromethane	0.0230	0.0255	0.0376	0.0582	0.0760	0.1135	0.2111				0.08	86	TMQ	1.00	
9	TMQ	Trichlorofluoromethane	0.1019	0.1372	0.1436	0.1533	0.1750	0.1937	0.2601				0.17	30	TMQ	1.00	
10	TM	Acrolein	0.0226	0.0230	0.0248	0.0255	0.0306						0.03	13	TM		
11	TML	Acetone	0.2098	0.1537	0.0859	0.0809	0.0850	0.0794	0.0726				0.11	47	TML	0.999	
12	TM	Freon-113	0.2494	0.2244	0.2234	0.2582	0.2625	0.2556	0.2888				0.25	9.0	TM		
13	TM*	1,1-DCE	0.4387	0.4078	0.4046	0.4051	0.4074	0.4095	0.4607				0.42	5.2	TM*	✓	
14	TMQ	t-Butanol	0.0058	0.0060	0.0063	0.0063	0.0076	0.0086					0.01	16	TMQ	0.995	
15	TML	Methyl Acetate	0.5902	0.5159	0.2542	0.2337	0.2237	0.2121	0.2247				0.32	50	TML	0.999	
16	TM	Iodomethane	0.4180	0.4193	0.4690	0.4478	0.4357	0.4319	0.4782				0.44	5.3	TM		
17	TM	Acrylonitrile	0.0594	0.0643	0.0722	0.0708	0.0697	0.0714	0.0756				0.07	7.9	TM		
18	TM	Methylene chloride	0.1717	0.1526	0.1309	0.1236	0.1225	0.1181	0.1270				0.14	15	TM		
19	TM	Carbon disulfide	0.1374	0.1486	0.1454	0.1516	0.1485	0.1417	0.1565				0.15	4.3	TM		
20	TM	Methyl t-butyl ether (MtBE)	0.4998	0.4459	0.4749	0.4641	0.4492	0.4372	0.4466				0.46	4.7	TM		
21	TM	Trans-1,2-DCE	0.2848	0.2606	0.2919	0.2875	0.2793	0.2752	0.3009				0.28	4.6	TM		
22	TM	Diisopropyl Ether	0.1209	0.1193	0.1231	0.1207	0.1214	0.1201	0.1319				0.12	3.5	TM		
23	TM**	1,1-DCA	0.6265	0.6498	0.6196	0.6123	0.5982	0.5923	0.6445				0.62	3.5	TM**	✓	
24	TM	Vinyl Acetate	0.3180	0.3007	0.2958	0.2984	0.2969	0.3028	0.3234				0.31	3.6	TM		
25	TM	Ethyl tert Butyl Ether	0.6630	0.6687	0.6392	0.6345	0.6206	0.6075	0.6024				0.63	4.1	TM		
26	TML	MEK (2-Butanone)	0.1667	0.1616	0.1122	0.1049	0.1041	0.0998	0.1046				0.12	24	TML	1.000	
27	TM	Cis-1,2-DCE	0.4243	0.4140	0.4186	0.4026	0.4022	0.3916	0.4293				0.41	3.3	TM		
28	TM	2,2-Dichloropropane	0.2369	0.2375	0.2410	0.2370	0.2306	0.2271	0.2342				0.23	2.0	TM		
29	TM*	Chloroform	0.7088	0.7099	0.6763	0.6684	0.6560	0.6576	0.7058				0.68	3.6	TM*	✓	
30	TM	Bromochloromethane	0.1920	0.2069	0.1944	0.1938	0.1937	0.1938	0.2048				0.20	3.1	TM		
31	S	Dibromofluoromethane(S)	0.4216	0.4394	0.4062	0.3950	0.4143	0.4069	0.4346				0.42	3.8	S		
32	TM	1,1,1-TCA	0.4508	0.4458	0.4445	0.4358	0.4439	0.4414	0.4825				0.45	3.4	TM		
33	TM	Cyclohexane	0.1713	0.1745	0.1519	0.1605	0.1588	0.1692	0.1836				0.17	6.4	TM		
34	TM	1,1-Dichloropropene	0.4053	0.4150	0.3747	0.3822	0.3797	0.3827	0.4269				0.40	5.1	TM		
35	TM	2,2,4-Trimethylpentane	0.4929	0.4881	0.4614	0.5344	0.5122	0.5460	0.6255				0.52	10	TM		

ABS 4/12/12

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 67525
Case No: 67525 Initial Cal. Date: 04/11/12
Matrix: Water Instrument: Thor Initials: _____

		Compound	0.5	1	5	10	20	40	100				Avg	%RSD		r²
36	S	1,2-DCA-D4(S)	0.4021	0.3921	0.3878	0.3648	0.3689	0.3637	0.3823				0.38	3.9	S	
37	TM	Carbon Tetrachloride	0.4284	0.4469	0.4076	0.4245	0.4302	0.4421	0.4956				0.44	6.3	TM	
38	TM	Tert Amyl Methyl Ether	0.7212	0.7513	0.7043	0.6886	0.6845	0.6709	0.6717				0.70	4.2	TM	
39	TM	1,2-DCA	0.4508	0.4302	0.4449	0.4378	0.4296	0.4149	0.4456				0.44	2.8	TM	
40	TM	Benzene	1.468	1.441	1.393	1.390	1.358	1.344	1.464				1.4	3.5	TM	
41	TM	TCE	0.4278	0.4235	0.3949	0.3868	0.3765	0.3714	0.4077				0.40	5.6	TM	
42	TM	2-Pentanone	0.1774	0.1766	0.1757	0.1736	0.1778	0.1785	0.1876				0.18	2.5	TM	
43	TM*	1,2-Dichloropropane	0.4530	0.4039	0.4191	0.4200	0.4038	0.3992	0.4305				0.42	4.5	TM*	✓
44	TM	Bromodichloromethane	0.5255	0.5098	0.5199	0.5034	0.5066	0.5028	0.5548				0.52	3.6	TM	
45	TM	Methyl Cyclohexane	0.3136	0.3328	0.2986	0.3321	0.3295	0.3450	0.3883				0.33	8.4	TM	
46	TM	Dibromomethane	0.2157	0.2295	0.2255	0.2173	0.2208	0.2110	0.2283				0.22	3.1	TM	
47	TML	2-Chloroethyl vinyl ether													TML	
48	TM	MIBK (methyl isobutyl ketone	0.1441	0.1503	0.1319	0.1304	0.1278	0.1264	0.1369				0.14	6.6	TM	
49	TM	1-Bromo-2-chloroethane	0.2817	0.3012	0.2766	0.2633	0.2557	0.2585	0.2757				0.27	5.8	TM	
50	TM	Cis-1,3-Dichloropropene	0.5068	0.5408	0.5454	0.5355	0.5504	0.5560	0.6255				0.55	6.6	TM	
51	TM*	Toluene	1.720	1.706	1.588	1.620	1.583	1.593	1.755				1.7	4.4	TM*	✓
52	TM	Trans-1,3-Dichloropropene	0.4049	0.4580	0.4580	0.4572	0.4572	0.4735	0.5274				0.46	7.8	TM	
53	TM	1,1,2-TCA	0.3339	0.2861	0.3058	0.2880	0.2757	0.2754	0.2979				0.29	7.0	TM	
54	TM	2-Hexanone	0.1688	0.1443	0.1515	0.1473	0.1494	0.1449	0.1561				0.15	5.6	TM	
55	I	Chlorobenzene-D5 (IS)														
56	S	Toluene-D8(S)	1.700	1.637	1.626	1.643	1.691	1.645	1.734				1.7	2.4	S	
57	TM	1,2-EDB	0.3430	0.3529	0.3888	0.3881	0.3804	0.3681	0.3953				0.37	5.3	TM	
58	TM	Tetrachloroethene	0.5441	0.5656	0.5108	0.5439	0.5075	0.4983	0.5506				0.53	4.8	TM	
59	TM	1-Chlorohexane	0.6397	0.5987	0.4930	0.5409	0.5279	0.5290	0.6110				0.56	9.5	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.5054	0.4801	0.4963	0.5086	0.4944	0.4901	0.5458				0.50	4.2	TM	
61	TM	m&p-Xylene	0.8051	0.8242	0.8245	0.8858	0.8623	0.8617	0.9654				0.86	6.2	TM	
62	TM	o-Xylene	0.8295	0.7829	0.8351	0.8760	0.8568	0.8530	0.9571				0.86	6.2	TM	
63	TM	Styrene	1.258	1.332	1.368	1.462	1.475	1.489	1.684				1.4	9.6	TM	
64	S	4-Bromofluorobenzene(S)	0.7053	0.6824	0.6818	0.6834	0.6802	0.6767	0.7265				0.69	2.6	S	
65	TM	1,3-Dichloropropane	0.6519	0.7194	0.6736	0.6904	0.6435	0.6242	0.6670				0.67	4.7	TM	
66	TM	Dibromochloromethane	0.4218	0.5036	0.4719	0.4912	0.4718	0.4665	0.5172				0.48	6.5	TM	
67	TM**	Chlorobenzene	1.504	1.429	1.414	1.423	1.384	1.359	1.479				1.4	3.5	TM**	✓
68	TM*	Ethylbenzene	2.106	2.245	2.141	2.264	2.223	2.192	2.451				2.2	5.0	TM*	✓
69	TM**	Bromoform	0.3092	0.3060	0.3219	0.3251	0.3119	0.3097	0.3457				0.32	4.4	TM**	✓
70	I	1,4-Dichlorobenzene-D (IS)														

ARS 4/12/12

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: _____
Case No: _____ Initial Cal. Date: 04/11/12
Matrix: _____ Instrument: Thor Initials: _____

		Compound	0.5	1	5	10	20	40	100				Avg	%RSD		r^2
71	TM	Isopropylbenzene	3.479	3.282	3.341	3.477	3.449	3.541	3.887				3.5	5.6	TM	
72	TM**	1,1,2,2-Tetrachloroethane	0.7759	0.7724	0.7668	0.7661	0.7397	0.7231	0.7614				0.76	2.5	TM**	
73	TM	1,2,3-Trichloropropane	0.2963	0.2617	0.2395	0.2271	0.2221	0.2142	0.2241				0.24	12	TM	
74	TM	t-1,4-Dichloro-2-Butene	0.1536	0.1300	0.1442	0.1395	0.1490	0.1451	0.1583				0.15	6.4	TM	
75	TM	Bromobenzene	1.155	1.195	1.125	1.104	1.077	1.068	1.146				1.1	4.0	TM	
76	TM	n-Propylbenzene	4.017	4.073	4.008	4.316	4.290	4.348	4.749				4.3	6.1	TM	
77	TM	4-Ethyltoluene	2.188	2.281	2.303	2.485	2.490	2.521	2.756				2.4	7.8	TM	
78	TM	2-Chlorotoluene	2.844	2.916	2.872	2.987	2.918	2.926	3.163				2.9	3.6	TM	
79	TM	1,3,5-Trimethylbenzene	2.790	2.875	2.959	3.182	3.153	3.219	3.516				3.1	7.9	TM	
80	TM	4-Chlorotoluene	2.954	3.035	2.983	3.156	3.069	3.052	3.332				3.1	4.1	TM	
81	TM	Tert-Butylbenzene	2.518	2.491	2.562	2.729	2.716	2.744	3.057				2.7	7.2	TM	
82	TM	1,2,4-Trimethylbenzene	2.871	2.852	2.966	3.180	3.241	3.254	3.580				3.1	8.3	TM	
83	TM	Sec-Butylbenzene	3.386	3.406	3.494	3.800	3.749	3.806	4.215				3.7	7.9	TM	
84	TM	p-Isopropyltoluene	2.974	2.992	2.997	3.239	3.226	3.312	3.685				3.2	7.9	TM	
85	TM	Benzyl Chloride	0.9420	0.8639	0.9337	0.9225	0.8974	0.9146	1.036				0.93	5.7	TM	
86	TM	1,3-DCB	2.455	2.277	2.159	2.141	2.069	2.052	2.215				2.2	6.3	TM	
87	TM	1,4-DCB	2.340	2.303	2.139	2.171	2.103	2.086	2.236				2.2	4.5	TM	
88	TM	n-Butylbenzene	2.603	2.514	2.581	2.773	2.728	2.796	3.128				2.7	7.5	TM	
89	TM	1,2-DCB	2.134	2.115	2.002	2.008	1.950	1.926	2.067				2.0	3.9	TM	
90	TM	Hexachloroethane	0.5614	0.6116	0.5473	0.5591	0.5427	0.5488	0.6158				0.57	5.4	TM	
91	TM	1,2-Dibromo-3-chloropropane	0.1281	0.1312	0.1543	0.1546	0.1544	0.1544	0.1677				0.15	9.6	TM	
92	TM	1,2,4-Trichlorobenzene	0.8308	0.8423	0.8413	0.8685	0.8343	0.8735	1.002				0.87	6.9	TM	
93	TM	Hexachlorobutadiene	0.3971	0.4265	0.3512	0.3571	0.3442	0.3465	0.3852				0.37	8.4	TM	
94	TM	Naphthalene	2.035	2.001	2.162	2.258	2.297	2.424	2.755				2.3	11	TM	
95	TM	1,2,3-Trichlorobenzene	1.232	1.175	1.194	1.233	1.194	1.222	1.352				1.2	4.8	TM	
96																
97																
98																
99																
100																
101																
102																
103																
104																
105																

ARS 4/12/12

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T32W.D Vial: 32
Acq On : 11 Apr 12 23:07 Operator: DG,RS,HW,ARS,SV
Sample : 0.5ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.75	96	467648	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.89	117	388928	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	215808	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.96	111	7887	1.01140 ppb		0.00
Spiked Amount 29.720			Recovery = 3.402%			
36) 1,2-DCA-D4(S)	6.35	65	7521	1.05740 ppb		0.00
Spiked Amount 29.608			Recovery = 3.570%			
56) Toluene-D8(S)	8.44	98	26440	1.01893 ppb		0.00
Spiked Amount 31.981			Recovery = 3.186%			
64) 4-Bromofluorobenzene(S)	11.06	95	10973	1.02089 ppb		0.00
Spiked Amount 29.353			Recovery = 3.478%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.31	85	2160	0.38355 ppb		88
3) Freon 114	1.42	85	1787	0.43971 ppb		97
4) Chloromethane	1.46	50	3478	1.12685 ppb		96
5) Vinyl chloride	1.57	62	3937	0.44088 ppb	#	75
6) Bromomethane	1.88	94	3482	0.54280 ppb		99
7) Chloroethane	1.99	64	2578	0.51906 ppb		93
8) Dichlorofluoromethane	2.20	67	215	1.25275 ppb	#	1
9) Trichlorofluoromethane	2.25	101	953	0.58228 ppb		86
10) Acrolein	2.71	55	10580	22.34973 ppb		81
11) Acetone	2.91	43	1962	-0.33137 ppb		98
12) Freon-113	2.87	101	2333	0.49541 ppb		85
13) 1,1-DCE	2.84	61	4103	0.52336 ppb		87
14) t-Butanol	3.71	59	2728	10.66835 ppb		94
15) Methyl Acetate	3.37	43	5520	0.86723 ppb		96
16) Iodomethane	3.00	142	3910	0.47201 ppb		95
17) Acrylonitrile	3.83	52	556	0.43032 ppb	#	54
18) Methylene chloride	3.47	84	1606	0.63493 ppb		91
19) Carbon disulfide	3.07	76	1285	0.46702 ppb		100
20) Methyl t-butyl ether (MtBE	3.93	73	4675	0.54371 ppb	#	90
21) Trans-1,2-DCE	3.88	96	2664	0.50341 ppb		87
22) Diisopropyl Ether	4.73	59	1131	0.49357 ppb		91
23) 1,1-DCA	4.53	63	5860	0.50489 ppb	#	94
24) Vinyl Acetate	4.73	87	2974	0.52102 ppb		88
25) Ethyl tert Butyl Ether	5.23	59	6201	0.52312 ppb		100
26) MEK (2-Butanone)	5.41	43	1559	0.71736 ppb		97
27) Cis-1,2-DCE	5.34	96	3968	0.51514 ppb		95
28) 2,2-Dichloropropane	5.33	77	2216	0.50429 ppb	#	79
29) Chloroform	5.77	83	6629	0.51867 ppb		92
30) Bromochloromethane	5.64	128	1796	0.48720 ppb		94
32) 1,1,1-TCA	5.97	97	4216	0.50172 ppb		91
33) Cyclohexane	6.05	41	1602	0.51252 ppb	#	1
34) 1,1-Dichloropropene	6.18	75	3791	0.51281 ppb		92
35) 2,2,4-Trimethylpentane	6.57	57	4610	0.47127 ppb	#	58
37) Carbon Tetrachloride	6.18	117	4007	0.48758 ppb		77
38) Tert Amyl Methyl Ether	6.60	73	6745	0.51592 ppb		92
39) 1,2-DCA	6.43	62	4216	0.51662 ppb		100
40) Benzene	6.41	78	13727	0.52105 ppb		96
41) TCE	7.16	95	4001	0.53690 ppb		96
42) 2-Pentanone	7.38	43	82943	24.88519 ppb		99

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T32W.D Vial: 32
Acq On : 11 Apr 12 23:07 Operator: DG,RS,HW,ARS,SV
Sample : 0.5ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	7.38	63	4237	0.54122	ppb	#	92
44)	Bromodichloromethane	7.69	83	4915	0.50769	ppb		98
45)	Methyl Cyclohexane	7.37	83	2933	0.46905	ppb		73
46)	Dibromomethane	7.51	93	2017	0.48755	ppb		81
48)	MIBK (methyl isobutyl ket	8.35	43	1348	0.53214	ppb	#	88
49)	1-Bromo-2-chloroethane	8.00	63	2635	0.51553	ppb		98
50)	Cis-1,3-Dichloropropene	8.16	75	4740	0.45949	ppb		98
51)	Toluene	8.51	91	16087	0.52051	ppb		99
52)	Trans-1,3-Dichloropropene	8.74	75	3787	0.43790	ppb	#	79
53)	1,1,2-TCA	8.92	83	3123	0.56655	ppb	#	76
54)	2-Hexanone	9.20	43	1579	0.55625	ppb	#	96
57)	1,2-EDB	9.41	107	2668	0.45878	ppb		94
58)	Tetrachloroethene	9.08	166	4232	0.51177	ppb		87
59)	1-Chlorohexane	9.91	91	4976	0.56824	ppb	#	77
60)	1,1,1,2-Tetrachloroethane	10.00	131	3931	0.50240	ppb		95
61)	m&p-Xylene	10.16	106	12525	0.93474	ppb		99
62)	o-Xylene	10.55	106	6452	0.48464	ppb		96
63)	Styrene	10.56	104	9786	0.43736	ppb		99
65)	1,3-Dichloropropane	9.08	76	5071	0.48857	ppb		99
66)	Dibromochloromethane	9.31	129	3281	0.44147	ppb		81
67)	Chlorobenzene	9.92	112	11696	0.52670	ppb		91
68)	Ethylbenzene	10.04	91	16379	0.47176	ppb		100
69)	Bromoform	10.73	173	2405	0.48539	ppb	#	79
71)	Isopropylbenzene	10.92	105	15018	0.49794	ppb		97
72)	1,1,2,2-Tetrachloroethane	11.20	83	3349	0.51189	ppb	#	83
73)	1,2,3-Trichloropropane	11.24	110	1279	0.61554	ppb	#	64
74)	t-1,4-Dichloro-2-Butene	11.26	53	663	0.52725	ppb		88
75)	Bromobenzene	11.21	156	4985	0.51367	ppb		79
76)	n-Propylbenzene	11.33	91	17337	0.47175	ppb		99
77)	4-Ethyltoluene	11.45	105	9445	0.44989	ppb		92
78)	2-Chlorotoluene	11.41	91	12275	0.48259	ppb		97
79)	1,3,5-Trimethylbenzene	11.51	105	12044	0.45019	ppb		92
80)	4-Chlorotoluene	11.51	91	12751	0.47910	ppb		99
81)	Tert-Butylbenzene	11.83	119	10870	0.46843	ppb		96
82)	1,2,4-Trimethylbenzene	11.88	105	12392	0.45791	ppb		94
83)	Sec-Butylbenzene	12.05	105	14613	0.45831	ppb		92
84)	p-Isopropyltoluene	12.20	119	12836	0.46416	ppb		93
85)	Benzyl Chloride	12.37	91	4066	0.50646	ppb		93
86)	1,3-DCB	12.15	146	10595	0.55906	ppb		84
87)	1,4-DCB	12.24	146	10098	0.53248	ppb		98
88)	n-Butylbenzene	12.61	91	11233	0.47633	ppb		94
89)	1,2-DCB	12.60	146	9212	0.52599	ppb		92
90)	Hexachloroethane	12.87	117	2423	0.49286	ppb		95
91)	1,2-Dibromo-3-chloropropan	13.37	157	553	0.42924	ppb	#	36
92)	1,2,4-Trichlorobenzene	14.21	180	3586	0.47728	ppb	#	77
93)	Hexachlorobutadiene	14.40	223	1714	0.53296	ppb	#	49
94)	Naphthalene	14.45	128	8784	0.44710	ppb		99
95)	1,2,3-Trichlorobenzene	14.69	180	5316	0.50116	ppb		90

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

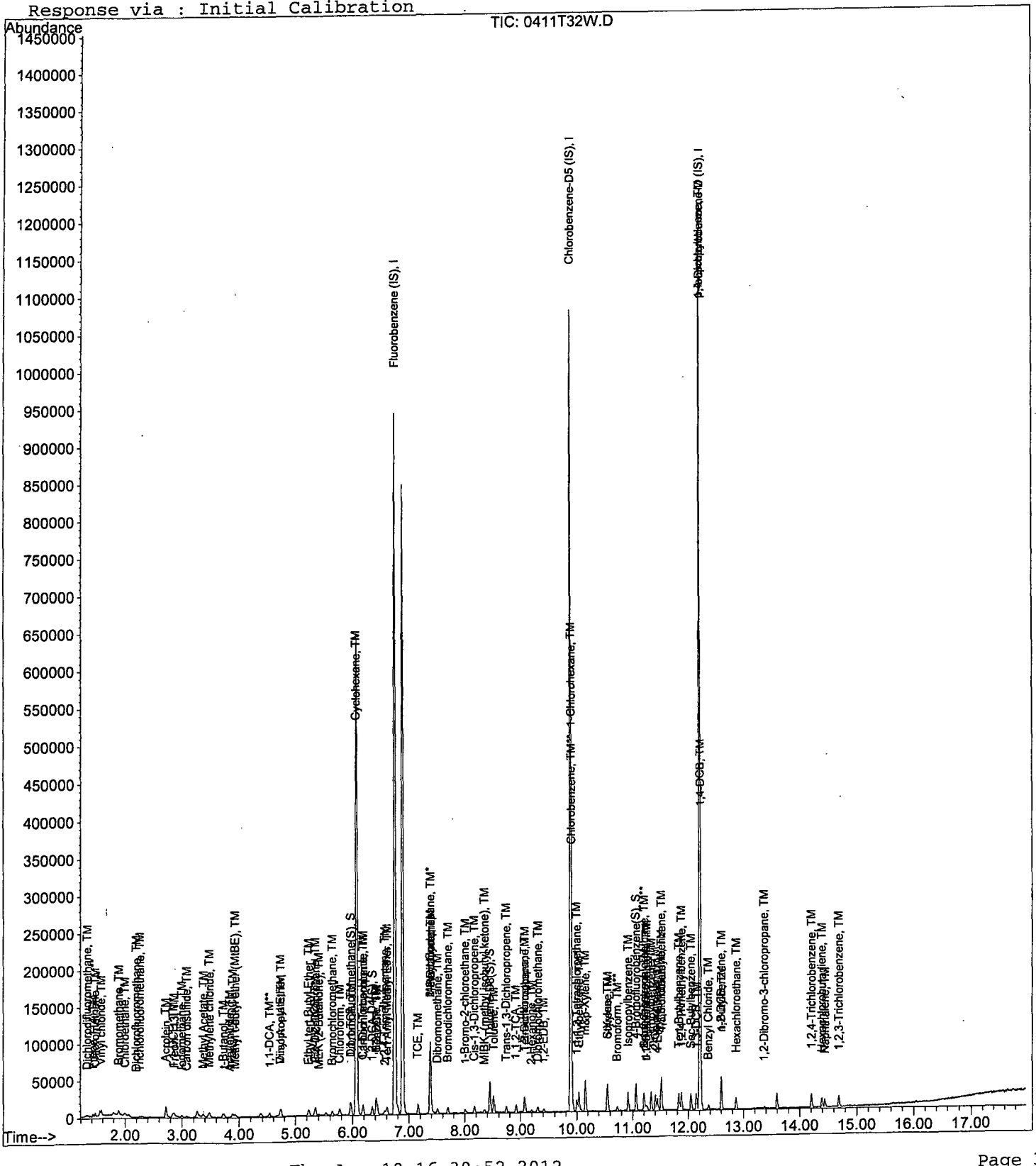
Quantitation Report

Data File : M:\THOR\DATA\T120411\0411T32W.D
Acq On : 11 Apr 12 23:07
Sample : 0.5ug/L VOL STD 4-11-12
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 32
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120402\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Sat Apr 07 08:12:59 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T33W.D Vial: 33
Acq On : 11 Apr 12 23:35 Operator: DG,RS,HW,ARS,SV
Sample : 1.0ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.75	96	444352	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.89	117	371264	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	211712	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.96	111	15620	2.10807 ppb		0.00
Spiked Amount 29.720			Recovery =	7.093%		
36) 1,2-DCA-D4(S)	6.34	65	13940	2.06261 ppb		0.00
Spiked Amount 29.608			Recovery =	6.968%		
56) Toluene-D8(S)	8.44	98	48633	1.96336 ppb		0.00
Spiked Amount 31.981			Recovery =	6.138%		
64) 4-Bromofluorobenzene(S)	11.06	95	20268	1.97538 ppb		0.00
Spiked Amount 29.353			Recovery =	6.728%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.30	85	5171	0.96635 ppb		94
3) Freon 114	1.42	85	3703	0.95894 ppb		96
4) Chloromethane	1.45	50	6343	1.69716 ppb		91
5) Vinyl chloride	1.56	62	8578	1.01095 ppb		96
6) Bromomethane	1.88	94	6677	1.09542 ppb		94
7) Chloroethane	1.98	64	4449	0.94274 ppb		89
8) Dichlorofluoromethane	2.19	67	454	1.51866 ppb	#	83
9) Trichlorofluoromethane	2.25	101	2439	1.14420 ppb		93
10) Acrolein	2.70	55	20453	45.47112 ppb		85
11) Acetone	2.92	43	2731	0.34467 ppb	#	70
12) Freon-113	2.86	101	3989	0.89148 ppb		93
13) 1,1-DCE	2.83	61	7248	0.97300 ppb		93
14) t-Butanol	3.71	59	5339	57.50412 ppb	#	92
15) Methyl Acetate	3.36	43	9170	1.86324 ppb		85
16) Iodomethane	2.99	142	7453	0.94688 ppb	#	95
17) Acrylonitrile	3.83	52	1143	0.93101 ppb		96
18) Methylene chloride	3.47	84	2713	1.12881 ppb		83
19) Carbon disulfide	3.07	76	2642	1.01054 ppb		94
20) Methyl t-butyl ether (MtBE	3.93	73	7925	0.97002 ppb	#	88
21) Trans-1,2-DCE	3.88	96	4632	0.92118 ppb		95
22) Diisopropyl Ether	4.72	59	2121	0.97414 ppb	#	54
23) 1,1-DCA	4.52	63	11550	1.04731 ppb		95
24) Vinyl Acetate	4.73	87	5345	0.98549 ppb		82
25) Ethyl tert Butyl Ether	5.23	59	11885	1.05520 ppb		95
26) MEK (2-Butanone)	5.41	43	2872	1.47108 ppb		84
27) Cis-1,2-DCE	5.34	96	7358	1.00532 ppb		92
28) 2,2-Dichloropropane	5.33	77	4222	1.01117 ppb		96
29) Chloroform	5.77	83	12617	1.03894 ppb		94
30) Bromochloromethane	5.64	128	3677	1.04976 ppb		90
32) 1,1,1-TCA	5.97	97	7923	0.99230 ppb		90
33) Cyclohexane	6.05	41	3102	1.04443 ppb	#	69
34) 1,1-Dichloropropene	6.18	75	7376	1.05005 ppb		97
35) 2,2,4-Trimethylpentane	6.56	57	8676	0.93343 ppb		93
37) Carbon Tetrachloride	6.18	117	7943	1.01719 ppb		92
38) Tert Amyl Methyl Ether	6.60	73	13354	1.07498 ppb		97
39) 1,2-DCA	6.43	62	7647	0.98618 ppb		94
40) Benzene	6.41	78	25620	1.02346 ppb		97
41) TCE	7.16	95	7528	1.06315 ppb		90
42) 2-Pentanone	7.38	43	156962	49.56187 ppb		99

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T33W.D Vial: 33
Acq On : 11 Apr 12 23:35 Operator: DG,RS,HW,ARS,SV
Sample : 1.0ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43) 1,2-Dichloropropane	7.39	63	7179	0.96509 ppb		97
44) Bromodichloromethane	7.69	83	9061	0.98501 ppb		97
45) Methyl Cyclohexane	7.37	83	5915	0.99553 ppb		99
46) Dibromomethane	7.50	93	4080	1.03792 ppb		92
48) MIBK (methyl isobutyl ket	8.35	43	2671	1.10969 ppb		93
49) 1-Bromo-2-chloroethane	8.00	63	5354	1.10241 ppb		97
50) Cis-1,3-Dichloropropene	8.17	75	9612	0.98062 ppb		97
51) Toluene	8.51	91	30324	1.03259 ppb		99
52) Trans-1,3-Dichloropropene	8.74	75	8141	0.99072 ppb	#	82
53) 1,1,2-TCA	8.91	83	5085	0.97084 ppb		88
54) 2-Hexanone	9.19	43	2564	0.95060 ppb	#	90
57) 1,2-EDB	9.41	107	5241	0.94409 ppb		96
58) Tetrachloroethene	9.07	166	8399	1.06401 ppb		94
59) 1-Chlorohexane	9.92	91	8891	1.06362 ppb		93
60) 1,1,1,2-Tetrachloroethane	10.00	131	7130	0.95459 ppb		99
61) m&p-Xylene	10.16	106	24479	1.91379 ppb		99
62) o-Xylene	10.55	106	11626	0.91483 ppb		98
63) Styrene	10.56	104	19781	0.92613 ppb		97
65) 1,3-Dichloropropane	9.08	76	10684	1.07833 ppb		95
66) Dibromochloromethane	9.31	129	7479	1.05420 ppb		86
67) Chlorobenzene	9.92	112	21216	1.00086 ppb		97
68) Ethylbenzene	10.04	91	33344	1.00608 ppb		96
69) Bromoform	10.73	173	4545	0.96093 ppb		100
71) Isopropylbenzene	10.92	105	27793	0.93933 ppb		99
72) 1,1,2,2-Tetrachloroethane	11.20	83	6541	1.01912 ppb		87
73) 1,2,3-Trichloropropane	11.24	110	2216	1.08712 ppb		81
74) t-1,4-Dichloro-2-Butene	11.26	53	1101	0.89251 ppb		98
75) Bromobenzene	11.21	156	10122	1.06317 ppb		98
76) n-Propylbenzene	11.33	91	34494	0.95677 ppb		99
77) 4-Ethyltoluene	11.45	105	19317	0.93792 ppb		93
78) 2-Chlorotoluene	11.40	91	24694	0.98963 ppb		99
79) 1,3,5-Trimethylbenzene	11.51	105	24345	0.92760 ppb		96
80) 4-Chlorotoluene	11.51	91	25703	0.98445 ppb		94
81) Tert-Butylbenzene	11.83	119	21099	0.92683 ppb		97
82) 1,2,4-Trimethylbenzene	11.88	105	24153	0.90977 ppb		100
83) Sec-Butylbenzene	12.05	105	28844	0.92215 ppb		99
84) p-Isopropyltoluene	12.20	119	25341	0.93408 ppb		97
85) Benzyl Chloride	12.37	91	7316	0.92891 ppb		95
86) 1,3-DCB	12.15	146	19286	1.03734 ppb		96
87) 1,4-DCB	12.24	146	19504	1.04836 ppb		95
88) n-Butylbenzene	12.61	91	21287	0.92013 ppb		98
89) 1,2-DCB	12.60	146	17915	1.04271 ppb		98
90) Hexachloroethane	12.87	117	5179	1.07384 ppb		87
91) 1,2-Dibromo-3-chloropropan	13.37	157	1111	0.87904 ppb		80
92) 1,2,4-Trichlorobenzene	14.21	180	7133	0.96774 ppb		97
93) Hexachlorobutadiene	14.40	223	3612	1.14486 ppb	#	74
94) Naphthalene	14.45	128	16942	0.87902 ppb		99
95) 1,2,3-Trichlorobenzene	14.69	180	9948	0.95598 ppb		95

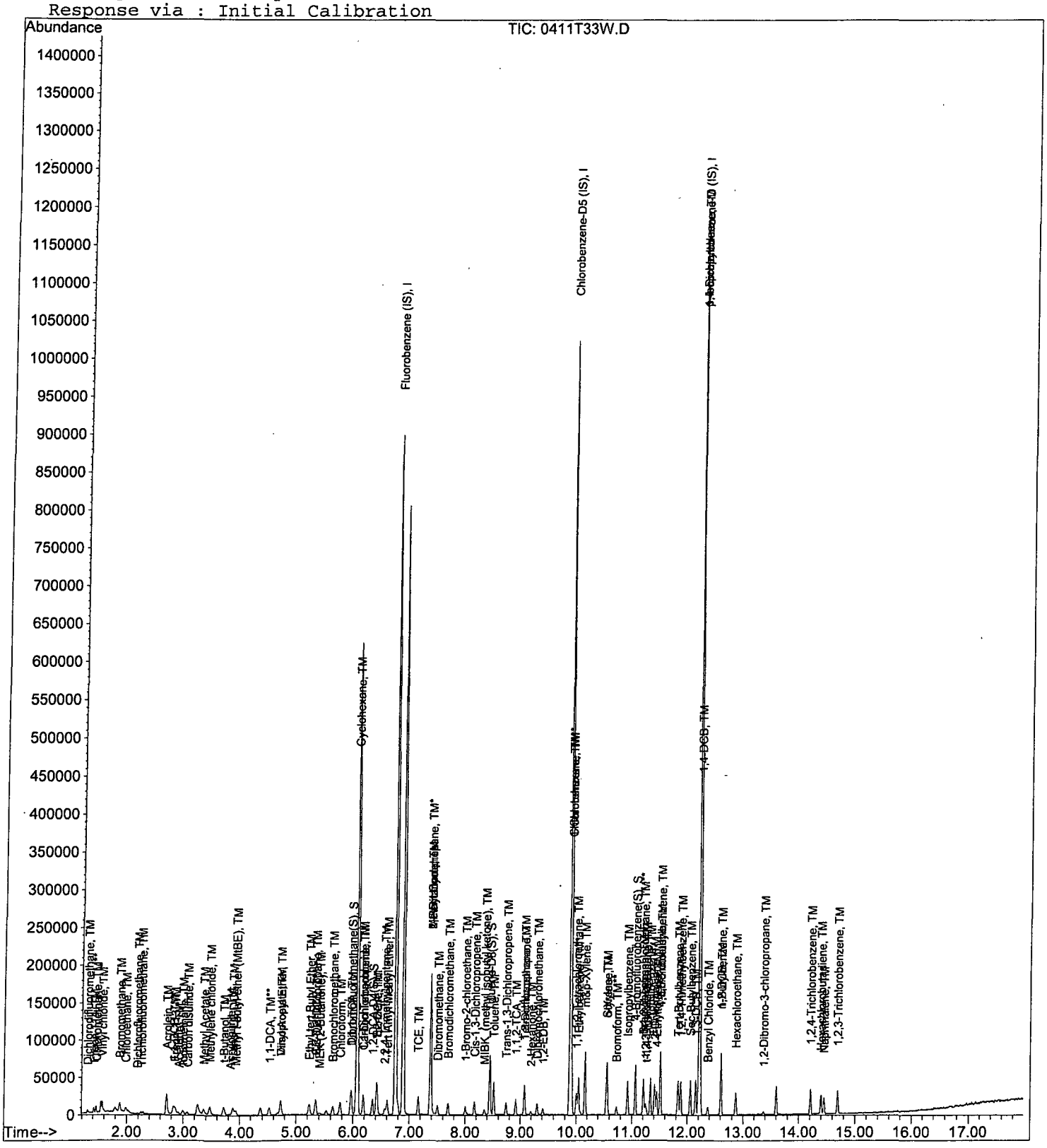
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T120411\0411T33W.D Vial: 33
Acq On : 11 Apr 12 23:35 Operator: DG,RS,HW,ARS,SV
Sample : 1.0ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120402\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Sat Apr 07 08:12:59 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T34W.D Vial: 34
Acq On : 12 Apr 12 00:03 Operator: DG,RS,HW,ARS,SV
Sample : 5.0ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.75	96	474816	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.89	117	397952	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	240384	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.96	111	77152	9.74436 ppb		0.00
Spiked Amount 29.720			Recovery = 32.786%			
36) 1,2-DCA-D4(S)	6.34	65	73660	10.19972 ppb		0.00
Spiked Amount 29.608			Recovery = 34.450%			
56) Toluene-D8(S)	8.44	98	258761	9.74587 ppb		0.00
Spiked Amount 31.981			Recovery = 30.475%			
64) 4-Bromofluorobenzene(S)	11.06	95	108524	9.86772 ppb		0.00
Spiked Amount 29.353			Recovery = 33.619%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.31	85	26377	4.61302 ppb		96
3) Freon 114	1.42	85	19269	4.66979 ppb		92
4) Chloromethane	1.46	50	25168	4.92766 ppb		94
5) Vinyl chloride	1.57	62	45511	5.01952 ppb		96
6) Bromomethane	1.88	94	31992	4.91183 ppb		97
7) Chloroethane	1.99	64	24436	4.84574 ppb		98
8) Dichlorofluoromethane	2.20	67	3566	4.32273 ppb	#	62
9) Trichlorofluoromethane	2.25	101	13640	4.81772 ppb		95
10) Acrolein	2.71	55	47109	98.01314 ppb		98
11) Acetone	2.91	43	8156	4.16796 ppb		97
12) Freon-113	2.87	101	21214	4.43680 ppb		94
13) 1,1-DCE	2.84	61	38418	4.82647 ppb		96
14) t-Butanol	3.72	59	12038	103.95431 ppb		100
15) Methyl Acetate	3.36	43	24143	5.26974 ppb		91
16) Iodomethane	3.00	142	44535	5.29503 ppb		94
17) Acrylonitrile	3.83	52	6860	5.22916 ppb		97
18) Methylene chloride	3.47	84	12432	4.84077 ppb		99
19) Carbon disulfide	3.08	76	13805	4.94152 ppb		99
20) Methyl t-butyl ether (MtBE	3.93	73	45095	5.16548 ppb		97
21) Trans-1,2-DCE	3.88	96	27723	5.15964 ppb		91
22) Diisopropyl Ether	4.73	59	11687	5.02326 ppb		95
23) 1,1-DCA	4.53	63	58843	4.99331 ppb		97
24) Vinyl Acetate	4.73	87	28094	4.84753 ppb		99
25) Ethyl tert Butyl Ether	5.23	59	60705	5.04384 ppb		98
26) MEK (2-Butanone)	5.40	43	10654	5.31834 ppb		100
27) Cis-1,2-DCE	5.34	96	39756	5.08332 ppb		95
28) 2,2-Dichloropropane	5.34	77	22884	5.12909 ppb		95
29) Chloroform	5.77	83	64224	4.94918 ppb		95
30) Bromochloromethane	5.64	128	18460	4.93208 ppb		84
32) 1,1,1-TCA	5.98	97	42207	4.94697 ppb		100
33) Cyclohexane	6.05	41	14421	4.54396 ppb		93
34) 1,1-Dichloropropene	6.18	75	35579	4.74009 ppb		96
35) 2,2,4-Trimethylpentane	6.57	57	43820	4.41200 ppb		98
37) Carbon Tetrachloride	6.18	117	38711	4.63931 ppb		92
38) Tert Amyl Methyl Ether	6.60	73	66882	5.03849 ppb		99
39) 1,2-DCA	6.43	62	42249	5.09900 ppb		99
40) Benzene	6.41	78	132267	4.94477 ppb		99
41) TCE	7.16	95	37497	4.95579 ppb		92
42) 2-Pentanone	7.38	43	333668	98.59832 ppb		100

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T34W.D Vial: 34
Acq On : 12 Apr 12 00:03 Operator: DG,RS,HW,ARS,SV
Sample : 5.0ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43) 1,2-Dichloropropane	7.39	63	39801	5.00726 ppb	100
44) Bromodichloromethane	7.69	83	49374	5.02301 ppb	99
45) Methyl Cyclohexane	7.37	83	28359	4.46674 ppb	90
46) Dibromomethane	7.50	93	21416	5.09852 ppb	94
48) MIBK (methyl isobutyl ket	8.34	43	12530	4.87169 ppb	94
49) 1-Bromo-2-chloroethane	8.00	63	26264	5.06091 ppb	94
50) Cis-1,3-Dichloropropene	8.17	75	51792	4.94484 ppb	95
51) Toluene	8.51	91	150763	4.80440 ppb	98
52) Trans-1,3-Dichloropropene	8.74	75	43494	4.95342 ppb	98
53) 1,1,2-TCA	8.92	83	29041	5.18883 ppb	96
54) 2-Hexanone	9.19	43	14384	4.99072 ppb	98
57) 1,2-EDB	9.41	107	30948	5.20099 ppb	98
58) Tetrachloroethene	9.07	166	40654	4.80479 ppb	98
59) 1-Chlorohexane	9.92	91	39239	4.37933 ppb	97
60) 1,1,1,2-Tetrachloroethane	10.00	131	39499	4.93364 ppb	98
61) m&p-Xylene	10.16	106	131250	9.57308 ppb	99
62) o-Xylene	10.55	106	66462	4.87903 ppb	99
63) Styrene	10.56	104	108840	4.75407 ppb	98
65) 1,3-Dichloropropane	9.08	76	53616	5.04854 ppb	94
66) Dibromochloromethane	9.31	129	37561	4.93936 ppb	100
67) Chlorobenzene	9.92	112	112571	4.95436 ppb	98
68) Ethylbenzene	10.04	91	170399	4.79663 ppb	98
69) Bromoform	10.72	173	25618	5.05308 ppb	98
71) Isopropylbenzene	10.92	105	160644	4.78176 ppb	100
72) 1,1,2,2-Tetrachloroethane	11.20	83	36865	5.05867 ppb	97
73) 1,2,3-Trichloropropane	11.24	110	11513	4.97434 ppb	84
74) t-1,4-Dichloro-2-Butene	11.26	53	6933	4.94977 ppb	92
75) Bromobenzene	11.21	156	54102	5.00485 ppb	95
76) n-Propylbenzene	11.33	91	192715	4.70780 ppb	97
77) 4-Ethyltoluene	11.45	105	110728	4.73502 ppb	99
78) 2-Chlorotoluene	11.41	91	138074	4.87339 ppb	99
79) 1,3,5-Trimethylbenzene	11.51	105	142270	4.77421 ppb	100
80) 4-Chlorotoluene	11.51	91	143418	4.83785 ppb	98
81) Tert-Butylbenzene	11.83	119	123163	4.76496 ppb	100
82) 1,2,4-Trimethylbenzene	11.88	105	142601	4.73066 ppb	99
83) Sec-Butylbenzene	12.05	105	167967	4.72944 ppb	98
84) p-Isopropyltoluene	12.20	119	144081	4.67742 ppb	97
85) Benzyl Chloride	12.37	91	44888	5.01960 ppb	99
86) 1,3-DCB	12.15	146	103781	4.91627 ppb	98
87) 1,4-DCB	12.23	146	102838	4.86835 ppb	98
88) n-Butylbenzene	12.61	91	124107	4.72466 ppb	99
89) 1,2-DCB	12.60	146	96227	4.93269 ppb	97
90) Hexachloroethane	12.87	117	26311	4.80475 ppb	95
91) 1,2-Dibromo-3-chloropropan	13.37	157	7417	5.16845 ppb	95
92) 1,2,4-Trichlorobenzene	14.21	180	40448	4.83307 ppb	98
93) Hexachlorobutadiene	14.40	223	16885	4.71350 ppb	88
94) Naphthalene	14.45	128	103949	4.75001 ppb	98
95) 1,2,3-Trichlorobenzene	14.69	180	57419	4.85970 ppb	95

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

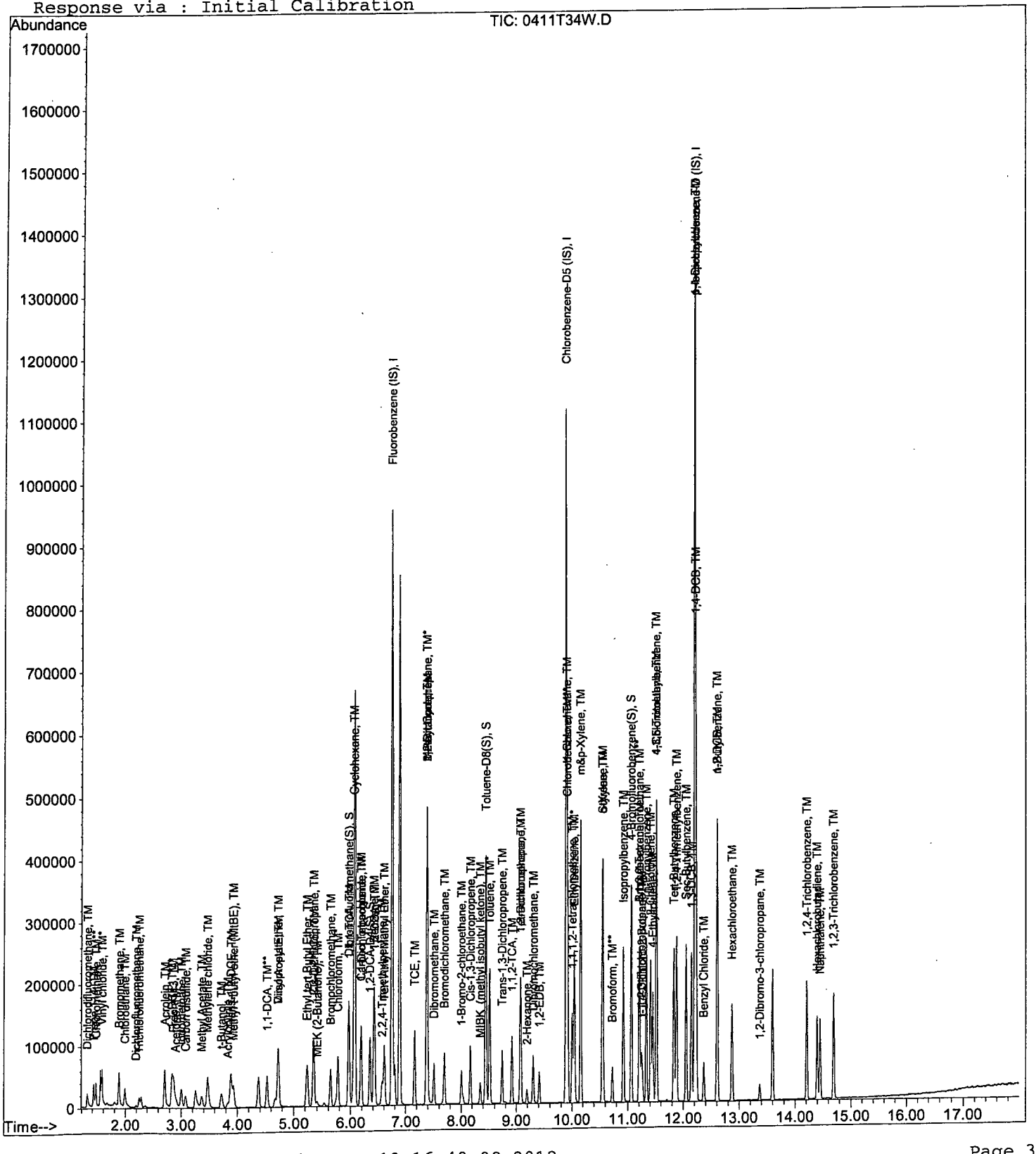
Quantitation Report

Data File : M:\THOR\DATA\T120411\0411T34W.D
Acq On : 12 Apr 12 00:03
Sample : 5.0ug/L VOL STD 4-11-12
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 34
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120402\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Sat Apr 07 08:12:59 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T35W.D Vial: 35
Acq On : 12 Apr 12 00:31 Operator: DG,RS,HW,ARS,SV
Sample : 10ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	482688	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	391232	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	241024	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	5.96	111	190685	23.69089 ppb	0.00
Spiked Amount 29.720			Recovery =	79.713%	
36) 1,2-DCA-D4(S)	6.34	65	176098	23.98666 ppb	0.00
Spiked Amount 29.608			Recovery =	81.015%	
56) Toluene-D8(S)	8.44	98	642685	24.62159 ppb	0.00
Spiked Amount 31.981			Recovery =	76.990%	
64) 4-Bromofluorobenzene(S)	11.06	95	267387	24.73020 ppb	0.00
Spiked Amount 29.353			Recovery =	84.251%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.30	85	54584	9.39041 ppb	100
3) Freon 114	1.42	85	42783	10.19924 ppb	100
4) Chloromethane	1.46	50	48904	8.95713 ppb	100
5) Vinyl chloride	1.56	62	93740	10.17020 ppb	100
6) Bromomethane	1.87	94	60845	9.18938 ppb	100
7) Chloroethane	1.98	64	50259	9.80398 ppb	100
8) Dichlorofluoromethane	2.19	67	11231	9.83687 ppb	100
9) Trichlorofluoromethane	2.24	101	29589	9.68132 ppb	100
10) Acrolein	2.70	55	61589	126.04987 ppb	100
11) Acetone	2.90	43	15627	9.43536 ppb	100
12) Freon-113	2.86	101	49848	10.25543 ppb	100
13) 1,1-DCE	2.83	61	78209	9.66518 ppb	100
14) t-Butanol	3.71	59	15182	119.58008 ppb	100
15) Methyl Acetate	3.35	43	45130	10.07895 ppb	100
16) Iodomethane	2.99	142	86451	10.11104 ppb	100
17) Acrylonitrile	3.82	52	13660	10.24277 ppb	100
18) Methylene chloride	3.46	84	23864	9.14062 ppb	100
19) Carbon disulfide	3.07	76	29264	10.30425 ppb	100
20) Methyl t-butyl ether (MtBE	3.92	73	89610	10.09712 ppb	100
21) Trans-1,2-DCE	3.88	96	55501	10.16106 ppb	100
22) Diisopropyl Ether	4.72	59	23298	9.85054 ppb	100
23) 1,1-DCA	4.52	63	118223	9.86857 ppb	100
24) Vinyl Acetate	4.72	87	57618	9.77966 ppb	100
25) Ethyl tert Butyl Ether	5.23	59	122506	10.01275 ppb	100
26) MEK (2-Butanone)	5.40	43	20245	10.01556 ppb	100
27) Cis-1,2-DCE	5.34	96	77725	9.77608 ppb	100
28) 2,2-Dichloropropane	5.33	77	45757	10.08845 ppb	100
29) Chloroform	5.77	83	129058	9.78318 ppb	100
30) Bromochloromethane	5.64	128	37412	9.83260 ppb	100
32) 1,1,1-TCA	5.97	97	84135	9.70041 ppb	100
33) Cyclohexane	6.05	41	30983	9.60332 ppb	100
34) 1,1-Dichloropropene	6.18	75	73787	9.67010 ppb	100
35) 2,2,4-Trimethylpentane	6.56	57	103183	10.21950 ppb	100
37) Carbon Tetrachloride	6.18	117	81968	9.66322 ppb	100
38) Tert Amyl Methyl Ether	6.60	73	132942	9.85171 ppb	100
39) 1,2-DCA	6.43	62	84526	10.03500 ppb	100
40) Benzene	6.42	78	268385	9.86987 ppb	100
41) TCE	7.16	95	74689	9.71029 ppb	100
42) 2-Pentanone	7.38	43	419063	121.81285 ppb	100

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T35W.D Vial: 35
Acq On : 12 Apr 12 00:31 Operator: DG,RS,HW,ARS,SV
Sample : 10ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 1,2-Dichloropropane	7.38	63	81094	10.03583	ppb	100
44) Bromodichloromethane	7.69	83	97202	9.72746	ppb	100
45) Methyl Cyclohexane	7.37	83	64129	9.93603	ppb	100
46) Dibromomethane	7.51	93	41959	9.82630	ppb	100
48) MIBK (methyl isobutyl ket	8.34	43	25184	9.63191	ppb	100
49) 1-Bromo-2-chloroethane	8.00	63	50840	9.63678	ppb	100
50) Cis-1,3-Dichloropropene	8.17	75	103394	9.71055	ppb	100
51) Toluene	8.51	91	312713	9.80278	ppb	100
52) Trans-1,3-Dichloropropene	8.74	75	88272	9.88912	ppb	100
53) 1,1,2-TCA	8.92	83	55611	9.77412	ppb	100
54) 2-Hexanone	9.19	43	28438	9.70603	ppb	100
57) 1,2-EDB	9.41	107	60737	10.38252	ppb	100
58) Tetrachloroethene	9.07	166	85123	10.23327	ppb	100
59) 1-Chlorohexane	9.92	91	84646	9.60931	ppb	100
60) 1,1,1,2-Tetrachloroethane	10.00	131	79591	10.11211	ppb	100
61) m&p-Xylene	10.16	106	277258	20.56992	ppb	100
62) o-Xylene	10.55	106	137083	10.23623	ppb	100
63) Styrene	10.56	104	228759	10.16369	ppb	100
65) 1,3-Dichloropropane	9.08	76	108048	10.34867	ppb	100
66) Dibromochloromethane	9.31	129	76871	10.28234	ppb	100
67) Chlorobenzene	9.92	112	222718	9.97041	ppb	100
68) Ethylbenzene	10.04	91	354333	10.14558	ppb	100
69) Bromoform	10.73	173	50876	10.20753	ppb	100
71) Isopropylbenzene	10.92	105	335255	9.95277	ppb	100
72) 1,1,2,2-Tetrachloroethane	11.20	83	73856	10.10773	ppb	100
73) 1,2,3-Trichloropropane	11.24	110	21890	9.43274	ppb	100
74) t-1,4-Dichloro-2-Butene	11.26	53	13448	9.57562	ppb	100
75) Bromobenzene	11.21	156	106439	9.82027	ppb	100
76) n-Propylbenzene	11.33	91	416103	10.13792	ppb	100
77) 4-Ethyltoluene	11.45	105	239555	10.21679	ppb	100
78) 2-Chlorotoluene	11.41	91	287968	10.13699	ppb	100
79) 1,3,5-Trimethylbenzene	11.51	105	306748	10.26634	ppb	100
80) 4-Chlorotoluene	11.51	91	304243	10.23562	ppb	100
81) Tert-Butylbenzene	11.83	119	263113	10.15234	ppb	100
82) 1,2,4-Trimethylbenzene	11.88	105	306569	10.14315	ppb	100
83) Sec-Butylbenzene	12.05	105	366323	10.28715	ppb	100
84) p-Isopropyltoluene	12.20	119	312314	10.11199	ppb	100
85) Benzyl Chloride	12.37	91	88937	9.91896	ppb	100
86) 1,3-DCB	12.15	146	206401	9.75159	ppb	100
87) 1,4-DCB	12.23	146	209337	9.88371	ppb	100
88) n-Butylbenzene	12.61	91	267339	10.15037	ppb	100
89) 1,2-DCB	12.60	146	193575	9.89650	ppb	100
90) Hexachloroethane	12.87	117	53904	9.81748	ppb	100
91) 1,2-Dibromo-3-chloropropan	13.37	157	14907	10.36019	ppb	100
92) 1,2,4-Trichlorobenzene	14.21	180	83736	9.97893	ppb	100
93) Hexachlorobutadiene	14.40	223	34426	9.58461	ppb	100
94) Naphthalene	14.45	128	217652	9.91932	ppb	100
95) 1,2,3-Trichlorobenzene	14.69	180	118921	10.03824	ppb	100

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

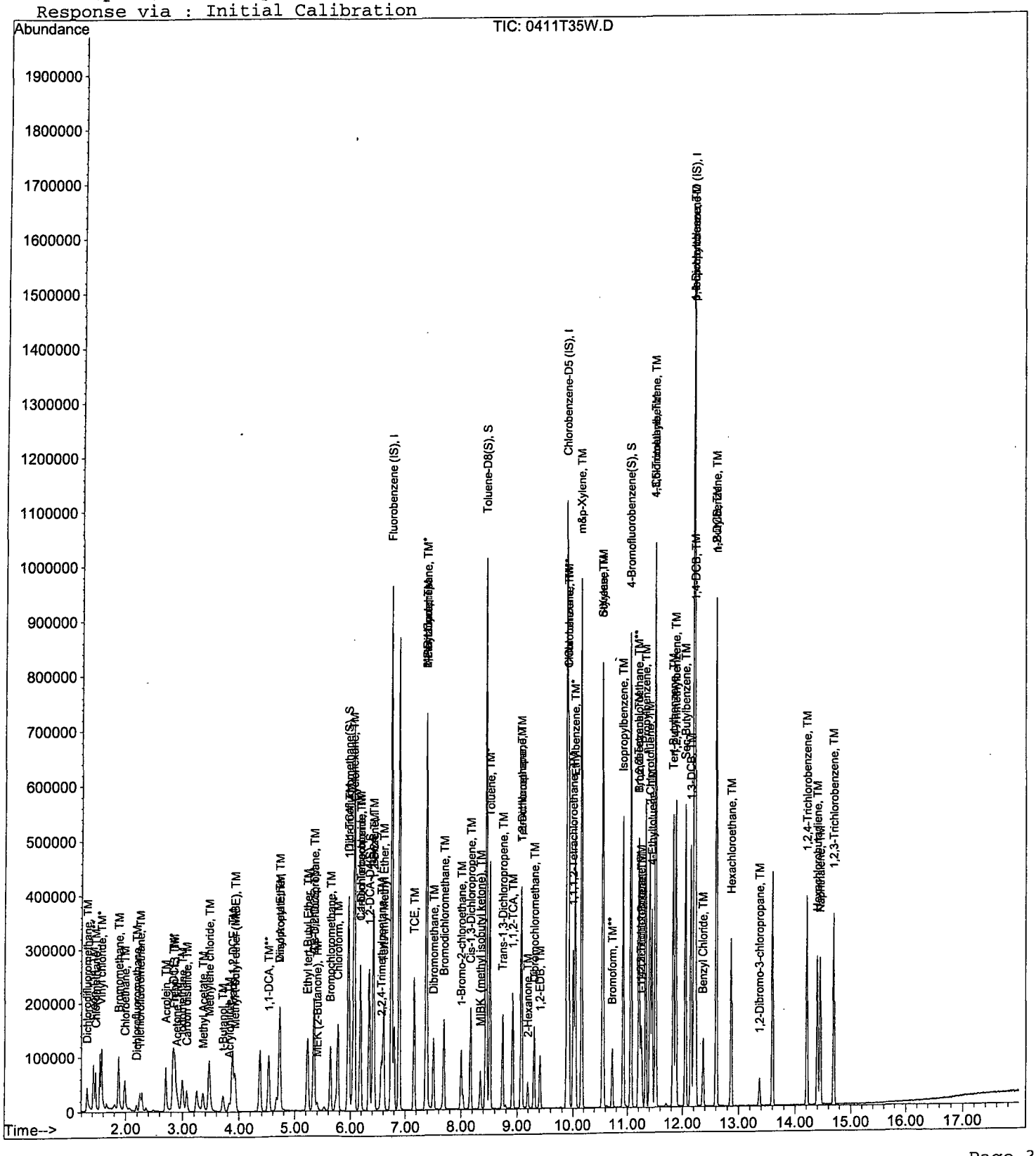
Quantitation Report

Data File : M:\THOR\DATA\T120411\0411T35W.D
Acq On : 12 Apr 12 00:31
Sample : 10ug/L VOL STD 4-11-12
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 35
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120402\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Sat Apr 07 08:12:59 2012
Response via : Initial Calibration



198

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T36W.D Vial: 36
Acq On : 12 Apr 12 00:58 Operator: DG,RS,HW,ARS,SV
Sample : 20ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	476800	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	398720	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	243648	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	5.96	111	316087	39.75591 ppb	0.00
Spiked Amount 29.720			Recovery	= 133.767%	
36) 1,2-DCA-D4(S)	6.34	65	281400	38.80340 ppb	0.00
Spiked Amount 29.608			Recovery	= 131.056%	
56) Toluene-D8(S)	8.44	98	1078758	40.55163 ppb	0.00
Spiked Amount 31.981			Recovery	= 126.802%	
64) 4-Bromofluorobenzene(S)	11.06	95	433924	39.37924 ppb	0.00
Spiked Amount 29.353			Recovery	= 134.158%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.30	85	124716	21.72058 ppb	98
3) Freon 114	1.42	85	84752	20.45394 ppb	99
4) Chloromethane	1.46	50	106251	19.09341 ppb	96
5) Vinyl chloride	1.57	62	184111	20.22155 ppb	99
6) Bromomethane	1.87	94	119106	18.21064 ppb	97
7) Chloroethane	1.98	64	102981	20.33648 ppb	98
8) Dichlorofluoromethane	2.19	67	28980	19.56996 ppb	91
9) Trichlorofluoromethane	2.25	101	66767	20.35841 ppb	94
10) Acrolein	2.70	55	87460	181.20868 ppb	90
11) Acetone	2.90	43	32413	21.77581 ppb	100
12) Freon-113	2.87	101	100123	20.85308 ppb	93
13) 1,1-DCE	2.83	61	155387	19.44009 ppb	95
14) t-Butanol	3.71	59	21608	149.34300 ppb	97
15) Methyl Acetate	3.35	43	85331	19.71637 ppb	95
16) Iodomethane	2.99	142	166183	19.67626 ppb	98
17) Acrylonitrile	3.82	52	26602	20.19349 ppb	96
18) Methylene chloride	3.46	84	46744	18.12543 ppb	97
19) Carbon disulfide	3.07	76	56648	20.19285 ppb	99
20) Methyl t-butyl ether (MtBE	3.92	73	171335	19.54417 ppb	97
21) Trans-1,2-DCE	3.88	96	106554	19.74868 ppb	96
22) Diisopropyl Ether	4.72	59	46321	19.82666 ppb	100
23) 1,1-DCA	4.52	63	228167	19.28125 ppb	96
24) Vinyl Acetate	4.72	87	113251	19.45977 ppb	97
25) Ethyl tert Butyl Ether	5.23	59	236729	19.58744 ppb	100
26) MEK (2-Butanone)	5.40	43	39715	19.97464 ppb	95
27) Cis-1,2-DCE	5.34	96	153403	19.53296 ppb	99
28) 2,2-Dichloropropane	5.33	77	87964	19.63370 ppb	98
29) Chloroform	5.77	83	250217	19.20181 ppb	96
30) Bromochloromethane	5.64	128	73899	19.66193 ppb	93
32) 1,1,1-TCA	5.97	97	169304	19.76110 ppb	100
33) Cyclohexane	6.05	41	60559	19.00234 ppb	93
34) 1,1-Dichloropropene	6.18	75	144842	19.21658 ppb	93
35) 2,2,4-Trimethylpentane	6.56	57	195355	19.58738 ppb	99
37) Carbon Tetrachloride	6.18	117	164092	19.58372 ppb	97
38) Tert Amyl Methyl Ether	6.60	73	261079	19.58627 ppb	98
39) 1,2-DCA	6.43	62	163881	19.69636 ppb	99
40) Benzene	6.41	78	518042	19.28628 ppb	99
41) TCE	7.16	95	143630	18.90388 ppb	97
42) 2-Pentanone	7.38	43	508657	149.68182 ppb	100

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T36W.D Vial: 36
Acq On : 12 Apr 12 00:58 Operator: DG,RS,HW,ARS,SV
Sample : 20ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43) 1,2-Dichloropropane	7.39	63	154042	19.29897 ppb	99
44) Bromodichloromethane	7.69	83	193222	19.57542 ppb	99
45) Methyl Cyclohexane	7.37	83	125701	19.71639 ppb	95
46) Dibromomethane	7.50	93	84204	19.96310 ppb	98
48) MIBK (methyl isobutyl ket	8.34	43	48757	18.87795 ppb	97
49) 1-Bromo-2-chloroethane	8.00	63	97528	18.71484 ppb	99
50) Cis-1,3-Dichloropropene	8.17	75	209935	19.96014 ppb	98
51) Toluene	8.51	91	603953	19.16623 ppb	99
52) Trans-1,3-Dichloropropene	8.74	75	174409	19.78034 ppb	99
53) 1,1,2-TCA	8.92	83	105155	18.71014 ppb	96
54) 2-Hexanone	9.19	43	56991	19.69152 ppb	96
57) 1,2-EDB	9.41	107	121352	20.35462 ppb	97
58) Tetrachloroethene	9.07	166	161888	19.09628 ppb	96
59) 1-Chlorohexane	9.92	91	168377	18.75576 ppb	96
60) 1,1,1,2-Tetrachloroethane	10.00	131	157707	19.66053 ppb	100
61) m&p-Xylene	10.16	106	550133	40.04816 ppb	100
62) o-Xylene	10.55	106	273312	20.02541 ppb	98
63) Styrene	10.56	104	470603	20.51607 ppb	98
65) 1,3-Dichloropropane	9.08	76	205264	19.29065 ppb	94
66) Dibromochloromethane	9.31	129	150481	19.75048 ppb	98
67) Chlorobenzene	9.92	112	441605	19.39805 ppb	99
68) Ethylbenzene	10.04	91	709179	19.92451 ppb	99
69) Bromoform	10.73	173	99479	19.58418 ppb	95
71) Isopropylbenzene	10.92	105	672269	19.74282 ppb	99
72) 1,1,2,2-Tetrachloroethane	11.20	83	144180	19.51957 ppb	99
73) 1,2,3-Trichloropropane	11.24	110	43290	18.45343 ppb	99
74) t-1,4-Dichloro-2-Butene	11.26	53	29050	20.46222 ppb	87
75) Bromobenzene	11.21	156	209850	19.15266 ppb	97
76) n-Propylbenzene	11.33	91	836195	20.15361 ppb	99
77) 4-Ethyltoluene	11.45	105	485323	20.47564 ppb	100
78) 2-Chlorotoluene	11.41	91	568717	19.80425 ppb	99
79) 1,3,5-Trimethylbenzene	11.51	105	614496	20.34466 ppb	99
80) 4-Chlorotoluene	11.51	91	598258	19.91038 ppb	98
81) Tert-Butylbenzene	11.83	119	529315	20.20392 ppb	99
82) 1,2,4-Trimethylbenzene	11.88	105	631718	20.67595 ppb	100
83) Sec-Butylbenzene	12.05	105	730752	20.30011 ppb	98
84) p-Isopropyltoluene	12.20	119	628711	20.13696 ppb	99
85) Benzyl Chloride	12.37	91	174911	19.29738 ppb	99
86) 1,3-DCB	12.15	146	403216	18.84511 ppb	99
87) 1,4-DCB	12.24	146	409857	19.14272 ppb	99
88) n-Butylbenzene	12.61	91	531750	19.97213 ppb	99
89) 1,2-DCB	12.60	146	380068	19.22167 ppb	97
90) Hexachloroethane	12.87	117	105786	19.05920 ppb	98
91) 1,2-Dibromo-3-chloropropan	13.37	157	30093	20.68904 ppb	90
92) 1,2,4-Trichlorobenzene	14.21	180	162624	19.17140 ppb	98
93) Hexachlorobutadiene	14.40	223	67094	18.47860 ppb	87
94) Naphthalene	14.45	128	447769	20.18694 ppb	97
95) 1,2,3-Trichlorobenzene	14.69	180	232648	19.42656 ppb	96

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

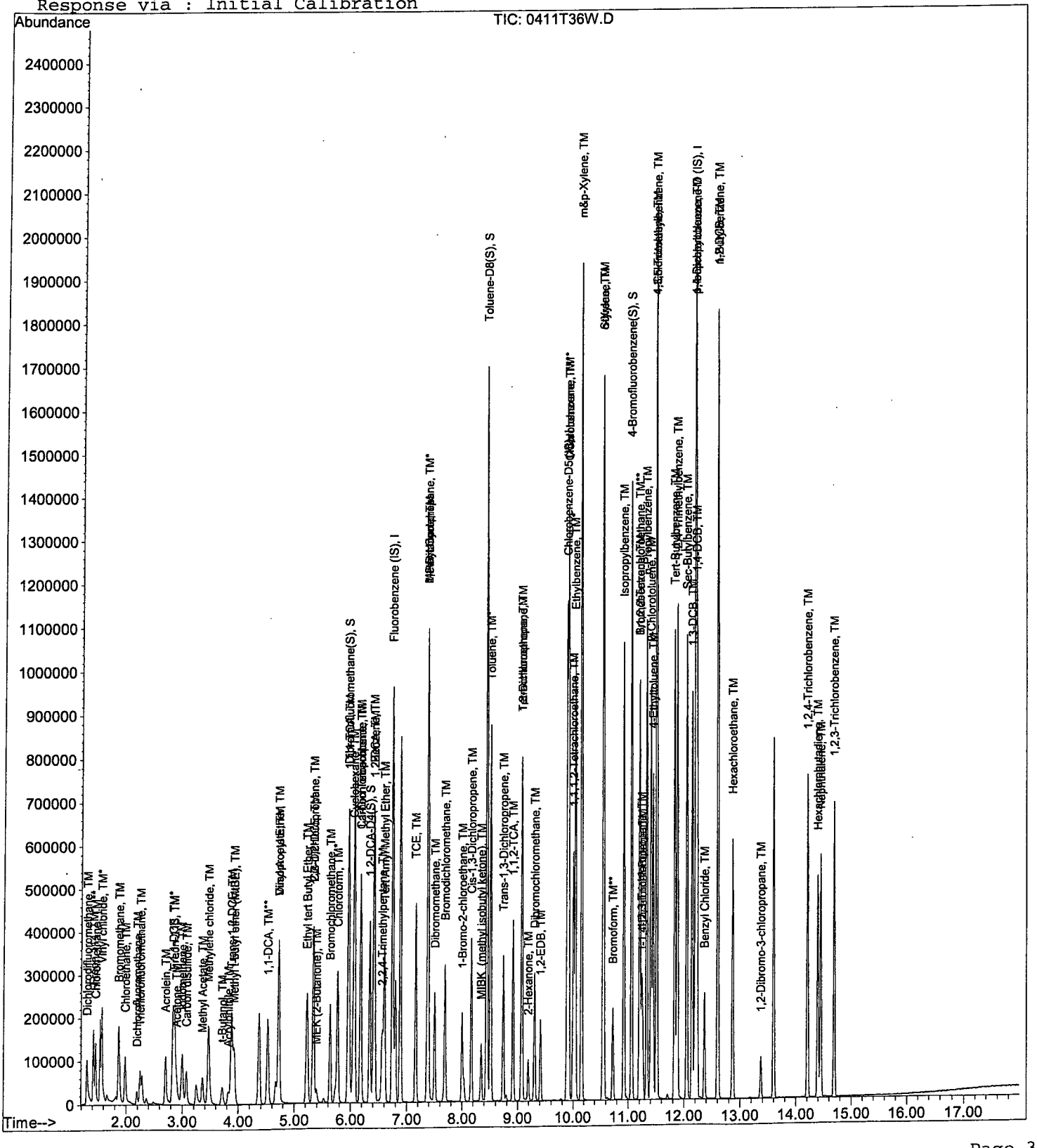
Quantitation Report

Data File : M:\THOR\DATA\T120411\0411T36W.D
Acq On : 12 Apr 12 00:58
Sample : 20ug/L VOL STD 4-11-12
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 36
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120402\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Sat Apr 07 08:12:59 2012
Response via : Initial Calibration



201

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T37W.D Vial: 37
Acq On : 12 Apr 12 1:26 Operator: DG,RS,HW,ARS,SV
Sample : 40ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.75	96	482496	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.89	117	411136	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	246912	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.96	111	628249	78.08533 ppb		0.00
Spiked Amount 29.720			Recovery = 262.732%			
36) 1,2-DCA-D4(S)	6.34	65	561508	76.51457 ppb		0.00
Spiked Amount 29.608			Recovery = 258.427%			
56) Toluene-D8(S)	8.44	98	2164701	78.91593 ppb		0.00
Spiked Amount 31.981			Recovery = 246.762%			
64) 4-Bromofluorobenzene(S)	11.06	95	890289	78.35508 ppb		0.00
Spiked Amount 29.353			Recovery = 266.942%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.30	85	250781	43.16049 ppb		96
3) Freon 114	1.42	85	172914	41.23819 ppb		98
4) Chloromethane	1.46	50	232496	40.69779 ppb		96
5) Vinyl chloride	1.56	62	364412	39.55213 ppb		99
6) Bromomethane	1.86	94	248056	37.47863 ppb		99
7) Chloroethane	1.97	64	200335	39.09472 ppb		98
8) Dichlorofluoromethane	2.19	67	87598	40.24479 ppb		93
9) Trichlorofluoromethane	2.24	101	149540	39.91045 ppb		95
10) Acrolein	2.70	55	131731	269.71186 ppb	#	58
11) Acetone	2.90	43	61312	42.25660 ppb		91
12) Freon-113	2.86	101	197286	40.60459 ppb		97
13) 1,1-DCE	2.83	61	316140	39.08459 ppb		96
14) t-Butanol	3.71	59	29192	176.43499 ppb		96
15) Methyl Acetate	3.35	43	163727	37.79931 ppb		98
16) Iodomethane	2.99	142	333439	39.01350 ppb		98
17) Acrylonitrile	3.82	52	55143	41.36471 ppb		96
18) Methylene chloride	3.46	84	91208	34.94926 ppb		98
19) Carbon disulfide	3.07	76	109360	38.52247 ppb		100
20) Methyl t-butyl ether (MtBE	3.92	73	337480	38.04186 ppb		98
21) Trans-1,2-DCE	3.88	96	212470	38.91423 ppb		97
22) Diisopropyl Ether	4.72	59	92744	39.22835 ppb		98
23) 1,1-DCA	4.52	63	457255	38.18418 ppb		98
24) Vinyl Acetate	4.72	87	233754	39.69148 ppb		100
25) Ethyl tert Butyl Ether	5.23	59	468949	38.34372 ppb		99
26) MEK (2-Butanone)	5.39	43	77041	38.36872 ppb		99
27) Cis-1,2-DCE	5.34	96	302312	38.03926 ppb		97
28) 2,2-Dichloropropane	5.33	77	175332	38.67239 ppb		99
29) Chloroform	5.77	83	507633	38.49619 ppb		96
30) Bromochloromethane	5.64	128	149643	39.34472 ppb		89
32) 1,1,1-TCA	5.97	97	340792	39.30753 ppb		99
33) Cyclohexane	6.05	41	130599	40.49587 ppb		93
34) 1,1-Dichloropropene	6.18	75	295434	38.73331 ppb		95
35) 2,2,4-Trimethylpentane	6.56	57	421521	41.76511 ppb		97
37) Carbon Tetrachloride	6.18	117	341285	40.25016 ppb		96
38) Tert Amyl Methyl Ether	6.60	73	517917	38.39570 ppb		97
39) 1,2-DCA	6.43	62	320306	38.04215 ppb		98
40) Benzene	6.41	78	1037914	38.18453 ppb		99
41) TCE	7.16	95	286701	37.28873 ppb		98
42) 2-Pentanone	7.38	43	603024	175.35621 ppb		100

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T37W.D Vial: 37
Acq On : 12 Apr 12 1:26 Operator: DG,RS,HW,ARS,SV
Sample : 40ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43) 1,2-Dichloropropane	7.39	63	308167	38.15255 ppb	99
44) Bromodichloromethane	7.69	83	388137	38.85815 ppb	98
45) Methyl Cyclohexane	7.37	83	266352	41.28451 ppb	95
46) Dibromomethane	7.50	93	162915	38.16795 ppb	97
48) MIBK (methyl isobutyl ket	8.34	43	97600	37.34308 ppb	98
49) 1-Bromo-2-chloroethane	8.00	63	199552	37.84036 ppb	100
50) Cis-1,3-Dichloropropene	8.17	75	429208	40.32636 ppb	96
51) Toluene	8.51	91	1230132	38.57693 ppb	98
52) Trans-1,3-Dichloropropene	8.74	75	365532	40.96686 ppb	99
53) 1,1,2-TCA	8.91	83	212622	37.38504 ppb	99
54) 2-Hexanone	9.19	43	111853	38.19118 ppb	96
57) 1,2-EDB	9.41	107	242130	39.38647 ppb	99
58) Tetrachloroethene	9.07	166	327777	37.49687 ppb	98
59) 1-Chlorohexane	9.92	91	347983	37.59174 ppb	99
60) 1,1,1,2-Tetrachloroethane	10.00	131	322428	38.98158 ppb	99
61) m&p-Xylene	10.16	106	1133680	80.03645 ppb	100
62) o-Xylene	10.55	106	561119	39.87128 ppb	98
63) Styrene	10.56	104	979430	41.40906 ppb	98
65) 1,3-Dichloropropane	9.08	76	410625	37.42501 ppb	97
66) Dibromochloromethane	9.31	129	306876	39.06083 ppb	97
67) Chlorobenzene	9.92	112	893888	38.07936 ppb	99
68) Ethylbenzene	10.04	91	1441837	39.28533 ppb	100
69) Bromoform	10.73	173	203730	38.89658 ppb	96
71) Isopropylbenzene	10.92	105	1398944	40.54031 ppb	99
72) 1,1,2,2-Tetrachloroethane	11.20	83	285659	38.16223 ppb	99
73) 1,2,3-Trichloropropane	11.24	110	84625	35.59663 ppb	97
74) t-1,4-Dichloro-2-Butene	11.26	53	57317	39.83922 ppb	90
75) Bromobenzene	11.21	156	421877	37.99502 ppb	98
76) n-Propylbenzene	11.33	91	1717520	40.84771 ppb	99
77) 4-Ethyltoluene	11.45	105	995916	41.46198 ppb	99
78) 2-Chlorotoluene	11.41	91	1156097	39.72620 ppb	100
79) 1,3,5-Trimethylbenzene	11.51	105	1271860	41.55194 ppb	100
80) 4-Chlorotoluene	11.51	91	1205584	39.59216 ppb	98
81) Tert-Butylbenzene	11.83	119	1084027	40.83027 ppb	99
82) 1,2,4-Trimethylbenzene	11.88	105	1285665	41.52319 ppb	100
83) Sec-Butylbenzene	12.05	105	1503607	41.21766 ppb	98
84) p-Isopropyltoluene	12.20	119	1308500	41.35587 ppb	99
85) Benzyl Chloride	12.37	91	361316	39.33590 ppb	98
86) 1,3-DCB	12.15	146	810718	37.38965 ppb	98
87) 1,4-DCB	12.24	146	824255	37.98862 ppb	99
88) n-Butylbenzene	12.61	91	1104682	40.94255 ppb	99
89) 1,2-DCB	12.60	146	760757	37.96614 ppb	96
90) Hexachloroethane	12.87	117	216790	38.54219 ppb	99
91) 1,2-Dibromo-3-chloropropan	13.37	157	61007	41.38807 ppb	90
92) 1,2,4-Trichlorobenzene	14.21	180	345088	40.14390 ppb	98
93) Hexachlorobutadiene	14.40	223	136894	37.20407 ppb	88
94) Naphthalene	14.45	128	957617	42.60191 ppb	99
95) 1,2,3-Trichlorobenzene	14.69	180	482671	39.77118 ppb	96

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

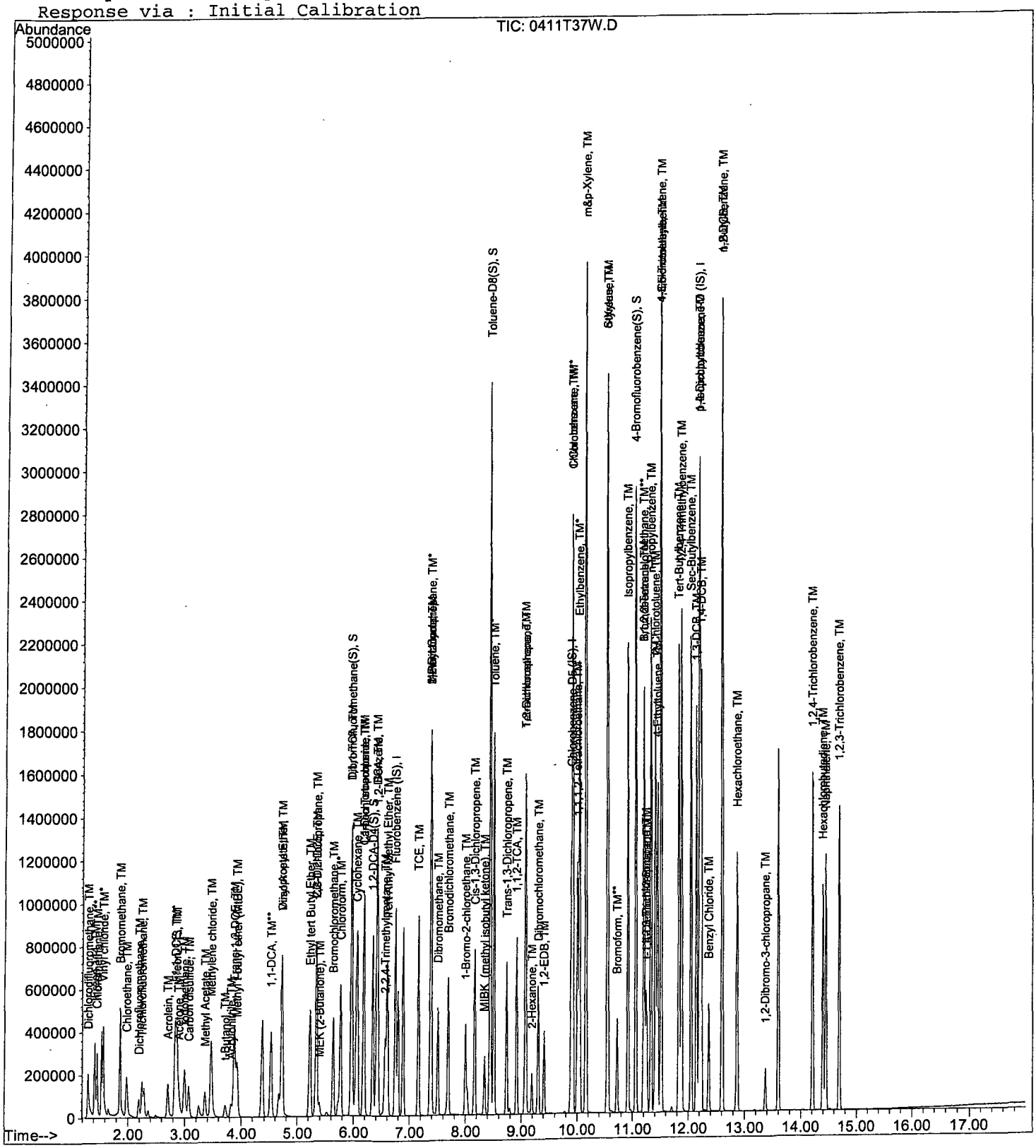
Quantitation Report

Data File : M:\THOR\DATA\T120411\0411T37W.D
Acq On : 12 Apr 12 1:26
Sample : 40ug/L VOL STD 4-11-12
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 37
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120402\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Sat Apr 07 08:12:59 2012
Response via : Initial Calibration



204

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T38W.D Vial: 38
Acq On : 12 Apr 12 1:53 Operator: DG,RS,HW,ARS,SV
Sample : 100ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.75	96	479168	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.89	117	413824	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	254336	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.96	111	832997	104.25262 ppb		0.00
Spiked Amount 29.720			Recovery = 350.779%			
36) 1,2-DCA-D4(S)	6.34	65	732688	100.53405 ppb		0.00
Spiked Amount 29.608			Recovery = 339.550%			
56) Toluene-D8(S)	8.44	98	2870588	103.96986 ppb		0.00
Spiked Amount 31.981			Recovery = 325.103%			
64) 4-Bromofluorobenzene(S)	11.06	95	1202580	105.15258 ppb		0.00
Spiked Amount 29.353			Recovery = 358.238%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.30	85	715449	123.98706 ppb		99
3) Freon 114	1.42	85	480585	115.41057 ppb		99
4) Chloromethane	1.46	50	758768	132.58471 ppb		96
5) Vinyl chloride	1.57	62	994130	108.64915 ppb		98
6) Bromomethane	1.86	94	703424	107.01806 ppb		98
7) Chloroethane	1.97	64	547273	107.54030 ppb		97
8) Dichlorofluoromethane	2.19	67	404670	99.98707 ppb		90
9) Trichlorofluoromethane	2.24	101	498539	100.00335 ppb		95
10) Acrolein	2.70	55	283768	585.03437 ppb	#	21
11) Acetone	2.91	43	139132	98.85097 ppb		97
12) Freon-113	2.86	101	553462	114.70243 ppb		96
13) 1,1-DCE	2.83	61	883088	109.93500 ppb		97
14) t-Butanol	3.74	59	49256	236.40490 ppb		96
15) Methyl Acetate	3.36	43	430764	100.90515 ppb		95
16) Iodomethane	2.99	142	916547	107.98395 ppb		96
17) Acrylonitrile	3.83	52	144895	109.44575 ppb		99
18) Methylene chloride	3.47	84	243392	93.91117 ppb		97
19) Carbon disulfide	3.07	76	299968	106.39874 ppb		99
20) Methyl t-butyl ether (MtBE	3.93	73	855894	97.14929 ppb		98
21) Trans-1,2-DCE	3.88	96	576758	106.36785 ppb		98
22) Diisopropyl Ether	4.72	59	252861	107.69659 ppb		94
23) 1,1-DCA	4.52	63	1235296	103.87282 ppb		98
24) Vinyl Acetate	4.72	87	619796	105.97243 ppb		97
25) Ethyl tert Butyl Ether	5.23	59	1154510	95.05441 ppb		99
26) MEK (2-Butanone)	5.39	43	200395	100.63431 ppb		96
27) Cis-1,2-DCE	5.34	96	822804	104.25070 ppb		99
28) 2,2-Dichloropropane	5.33	77	448937	99.70825 ppb		100
29) Chloroform	5.77	83	1352872	103.30717 ppb		97
30) Bromochloromethane	5.64	128	392612	103.94404 ppb		93
32) 1,1,1-TCA	5.97	97	924794	107.40817 ppb		99
33) Cyclohexane	6.05	41	351950	109.88989 ppb		92
34) 1,1-Dichloropropene	6.18	75	818187	108.01463 ppb		95
35) 2,2,4-Trimethylpentane	6.56	57	1198942	119.61855 ppb		94
37) Carbon Tetrachloride	6.18	117	949871	112.80308 ppb		97
38) Tert Amyl Methyl Ether	6.60	73	1287498	96.11139 ppb		95
39) 1,2-DCA	6.43	62	854060	102.13962 ppb		99
40) Benzene	6.42	78	2806241	103.95776 ppb		99
41) TCE	7.16	95	781473	102.34539 ppb		98
42) 2-Pentanone	7.38	43	719196	210.59097 ppb		99

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0411T38W.D Vial: 38
Acq On : 12 Apr 12 1:53 Operator: DG,RS,HW,ARS,SV
Sample : 100ug/L VOL STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	1,2-Dichloropropane	7.39	63	825159	102.86816	ppb	99
44)	Bromodichloromethane	7.69	83	1063435	107.20473	ppb	99
45)	Methyl Cyclohexane	7.37	83	744183	116.14937	ppb	94
46)	Dibromomethane	7.51	93	437581	103.22911	ppb	97
48)	MIBK (methyl isobutyl ket	8.35	43	262421	101.10318	ppb	98
49)	1-Bromo-2-chloroethane	8.00	63	528384	100.89155	ppb	100
50)	Cis-1,3-Dichloropropene	8.17	75	1198858	113.42136	ppb	97
51)	Toluene	8.51	91	3364716	106.25033	ppb	99
52)	Trans-1,3-Dichloropropene	8.74	75	1010775	114.06902	ppb	99
53)	1,1,2-TCA	8.92	83	570887	101.07546	ppb	98
54)	2-Hexanone	9.19	43	299229	102.87860	ppb	96
57)	1,2-EDB	9.41	107	654360	105.75114	ppb	98
58)	Tetrachloroethene	9.07	166	911462	103.59170	ppb	99
59)	1-Chlorohexane	9.92	91	1011426	108.55214	ppb	96
60)	1,1,1,2-Tetrachloroethane	10.00	131	903393	108.51087	ppb	99
61)	m&p-Xylene	10.16	106	3196175	224.18044	ppb	99
62)	o-Xylene	10.55	106	1584273	111.84205	ppb	98
63)	Styrene	10.56	104	2787649	117.09272	ppb	97
65)	1,3-Dichloropropane	9.08	76	1104141	99.97949	ppb	95
66)	Dibromochloromethane	9.31	129	856174	108.27056	ppb	98
67)	Chlorobenzene	9.92	112	2447723	103.59495	ppb	99
68)	Ethylbenzene	10.04	91	4056777	109.81590	ppb	99
69)	Bromoform	10.73	173	572169	108.53019	ppb	96
71)	Isopropylbenzene	10.92	105	3954451	111.25187	ppb	100
72)	1,1,2,2-Tetrachloroethane	11.20	83	774559	100.45573	ppb	98
73)	1,2,3-Trichloropropane	11.24	110	228003	93.10759	ppb	96
74)	t-1,4-Dichloro-2-Butene	11.26	53	160999	108.63878	ppb	90
75)	Bromobenzene	11.21	156	1165453	101.89901	ppb	99
76)	n-Propylbenzene	11.33	91	4831367	111.55020	ppb	99
77)	4-Ethyltoluene	11.45	105	2804023	113.32957	ppb	99
78)	2-Chlorotoluene	11.41	91	3217839	107.34490	ppb	99
79)	1,3,5-Trimethylbenzene	11.51	105	3577037	113.45137	ppb	100
80)	4-Chlorotoluene	11.51	91	3390276	108.08891	ppb	100
81)	Tert-Butylbenzene	11.83	119	3109798	113.71262	ppb	99
82)	1,2,4-Trimethylbenzene	11.88	105	3642528	114.20894	ppb	99
83)	Sec-Butylbenzene	12.05	105	4288136	114.11740	ppb	98
84)	p-Isopropyltoluene	12.20	119	3748564	115.01717	ppb	99
85)	Benzyl Chloride	12.37	91	1054108	111.40929	ppb	100
86)	1,3-DCB	12.15	146	2253891	100.91341	ppb	99
87)	1,4-DCB	12.24	146	2274733	101.77865	ppb	99
88)	n-Butylbenzene	12.61	91	3182444	114.50718	ppb	99
89)	1,2-DCB	12.60	146	2102993	101.88792	ppb	98
90)	Hexachloroethane	12.87	117	626446	108.12226	ppb	98
91)	1,2-Dibromo-3-chloropropan	13.37	157	170606	112.36321	ppb	93
92)	1,2,4-Trichlorobenzene	14.21	180	1019200	115.10218	ppb	100
93)	Hexachlorobutadiene	14.40	223	391919	103.40386	ppb	88
94)	Naphthalene	14.45	128	2802700	121.04537	ppb	98
95)	1,2,3-Trichlorobenzene	14.69	180	1375528	110.03251	ppb	97

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

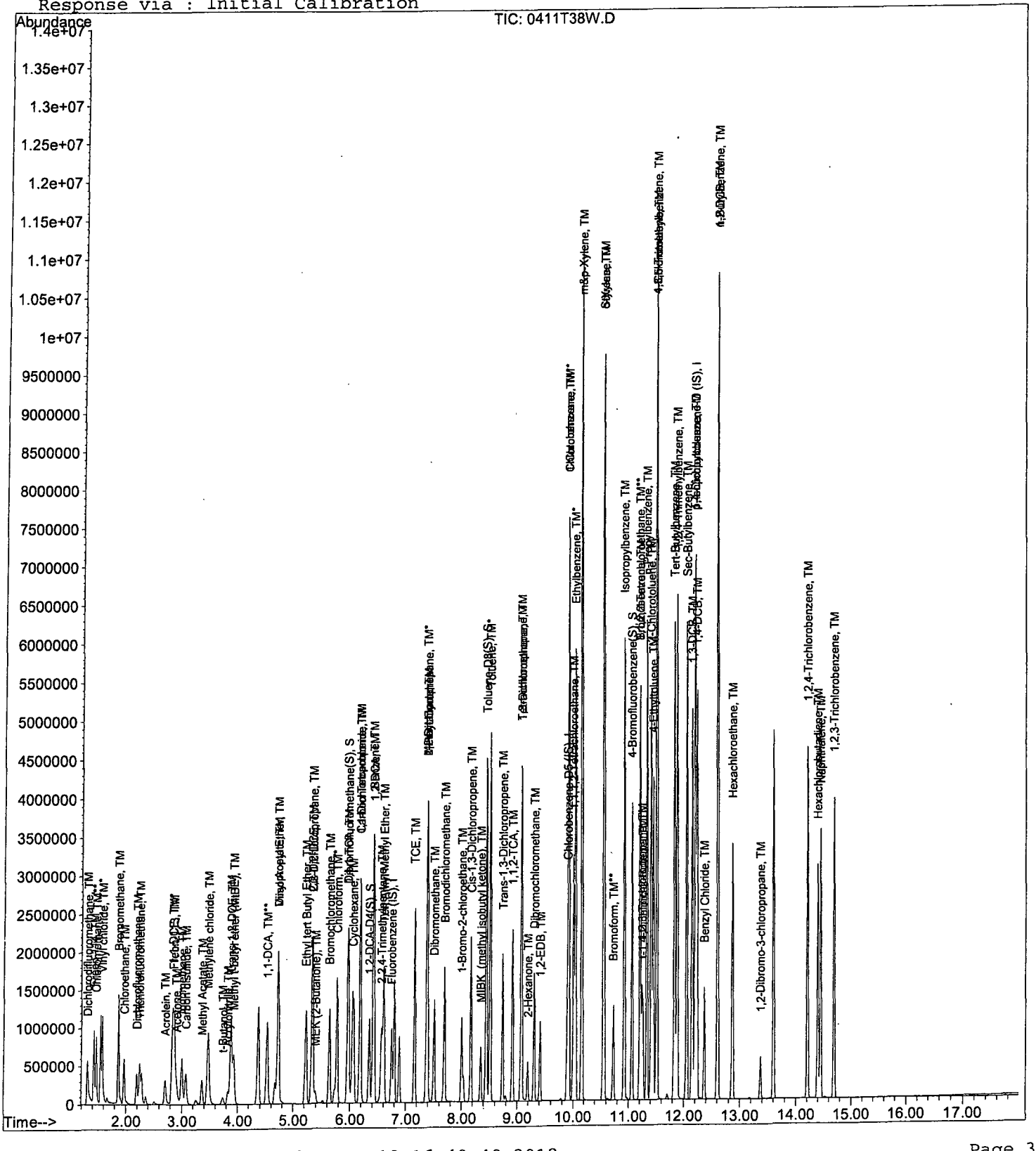
Quantitation Report

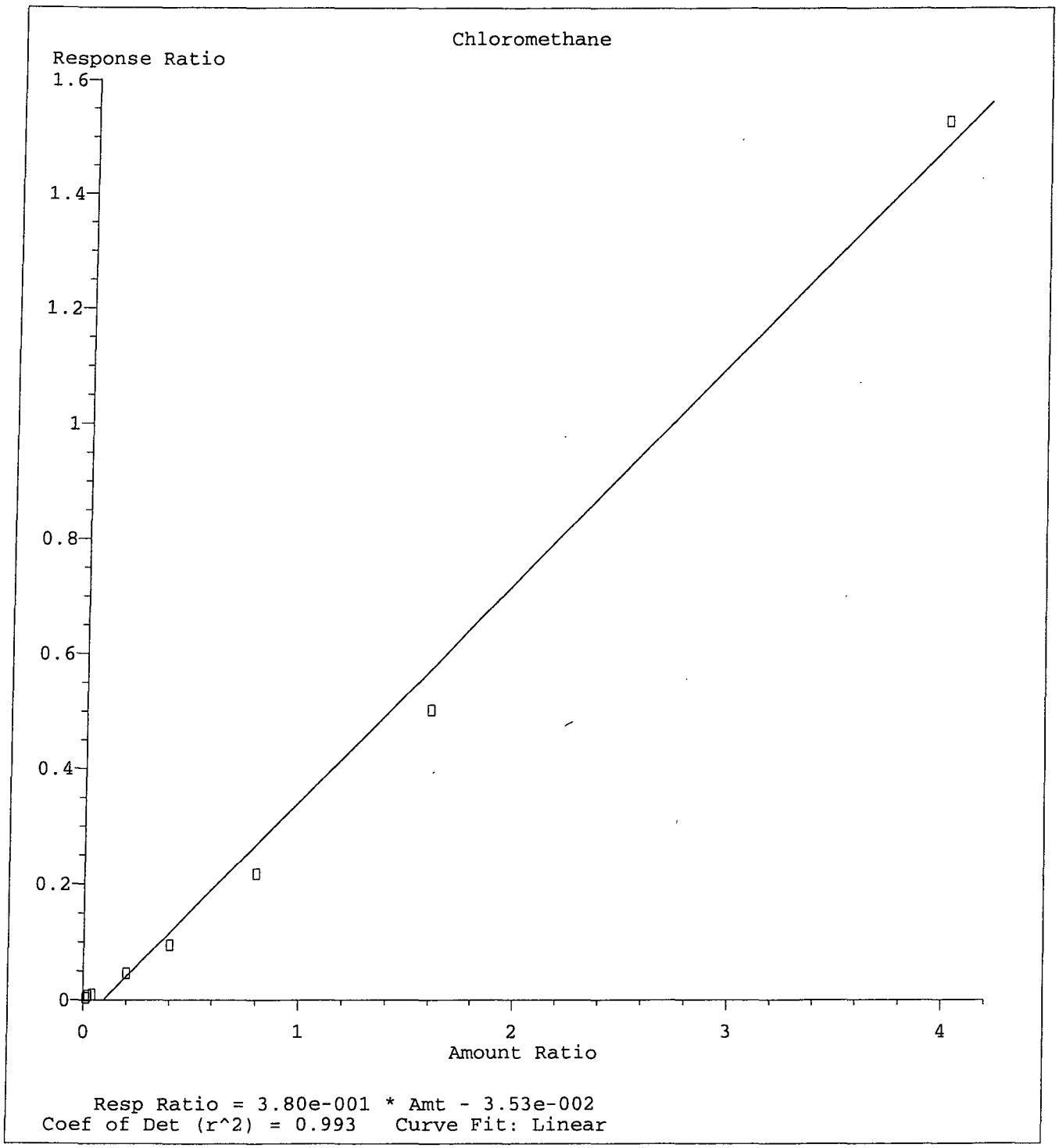
Data File : M:\THOR\DATA\T120411\0411T38W.D
Acq On : 12 Apr 12 1:53
Sample : 100ug/L VOL STD 4-11-12
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 38
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

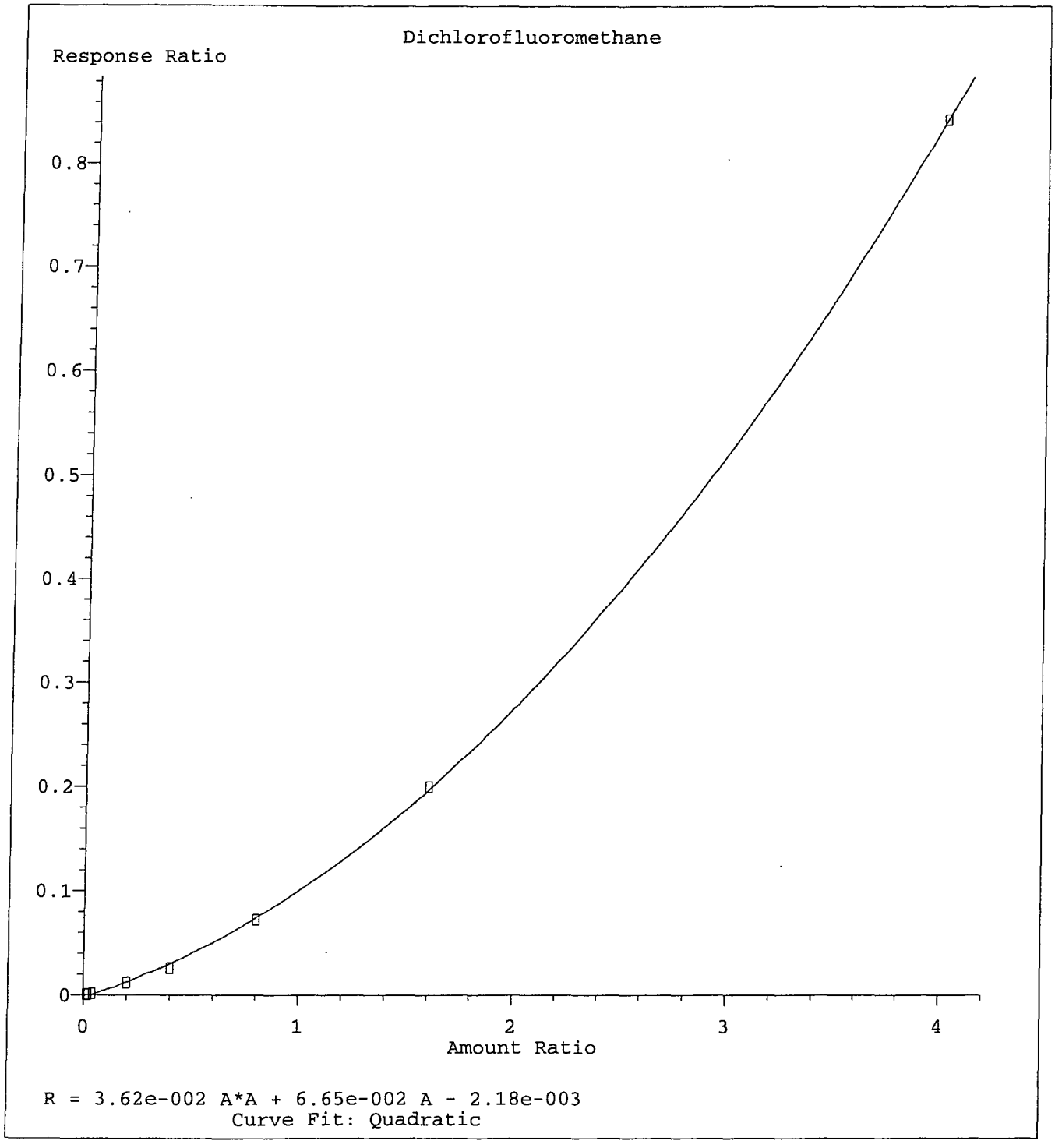
Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120402\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Sat Apr 07 08:12:59 2012
Response via : Initial Calibration

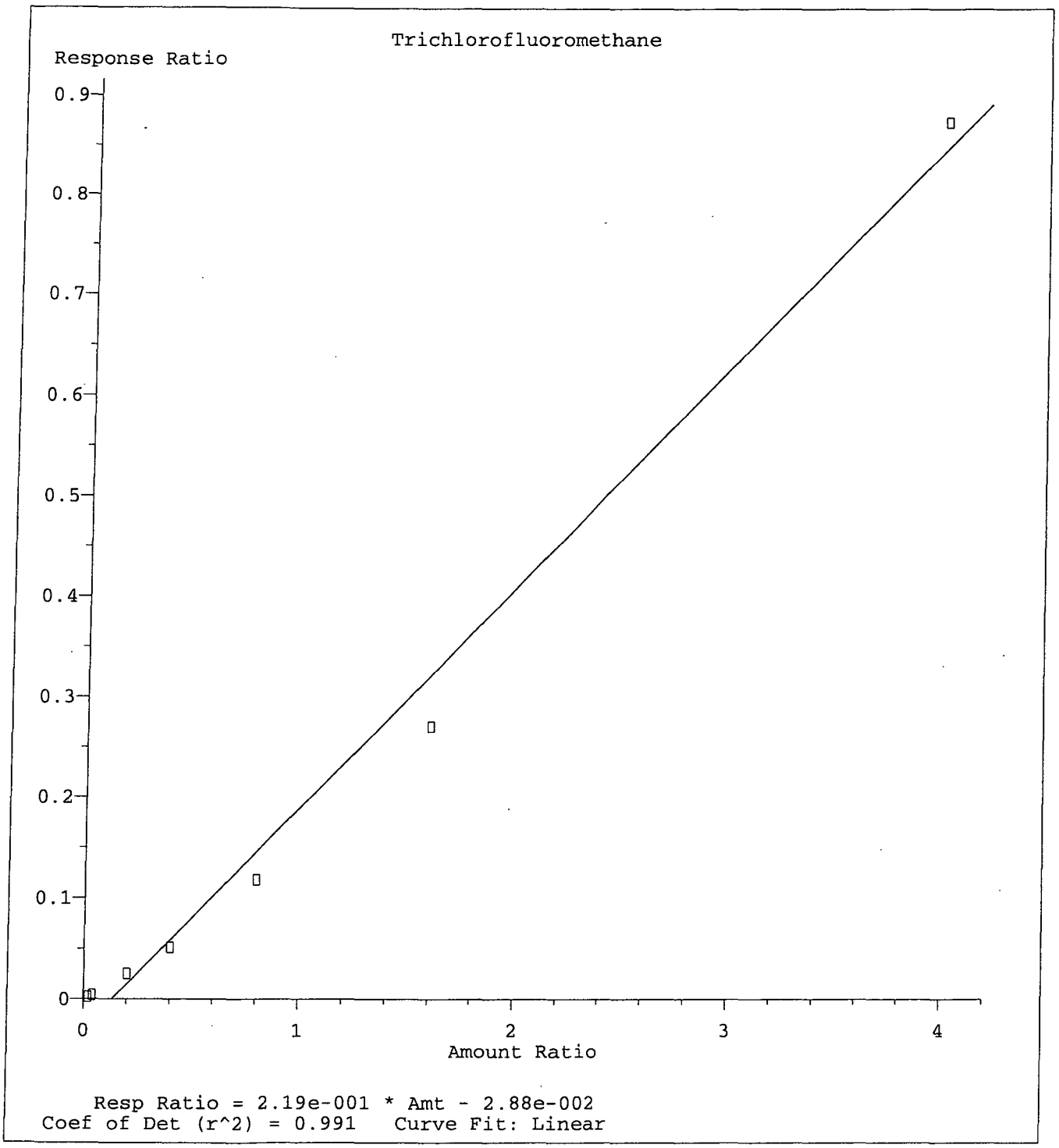




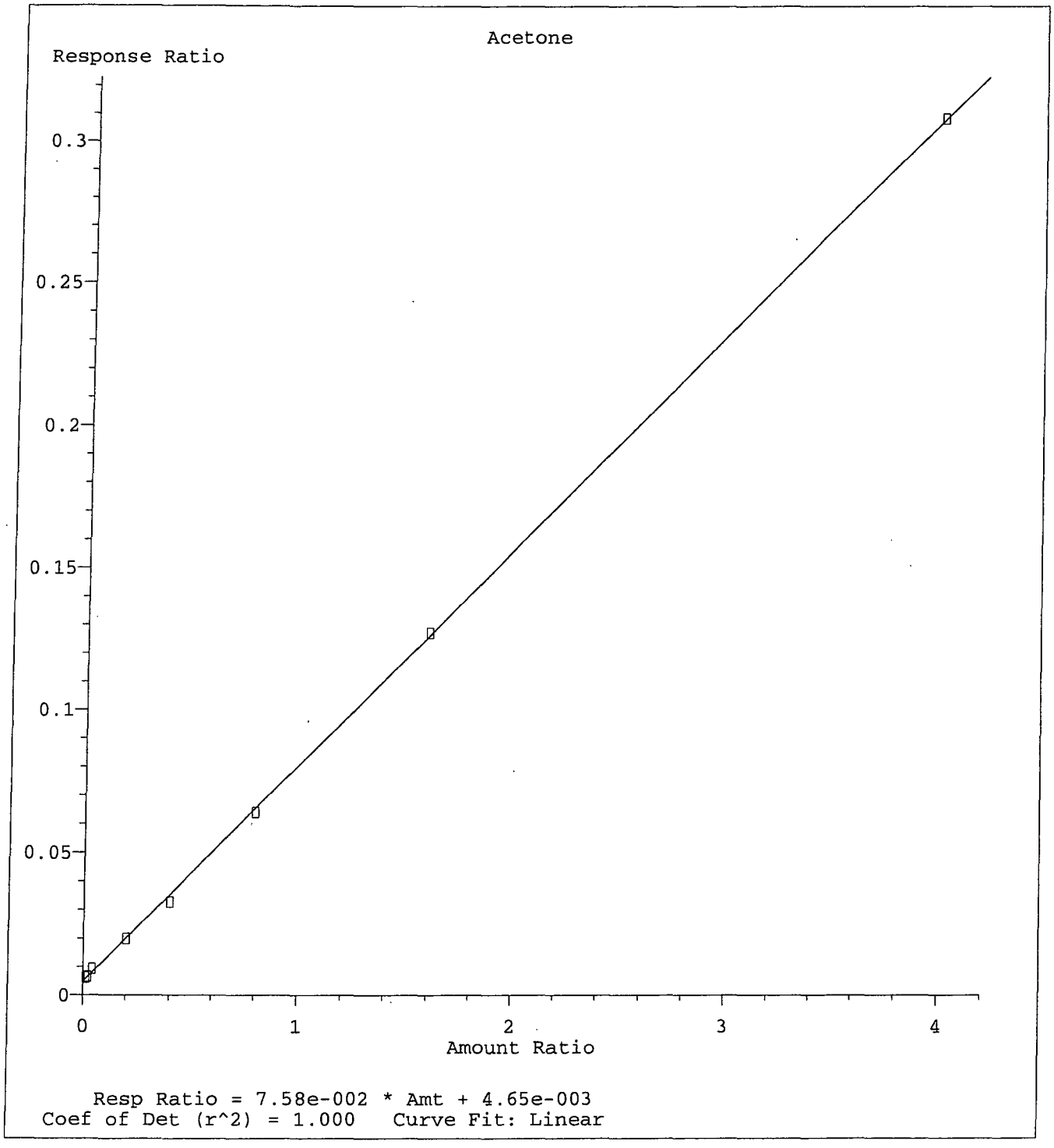
Method Name: M:\THOR\DATA\T120402\TALLW.M
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012



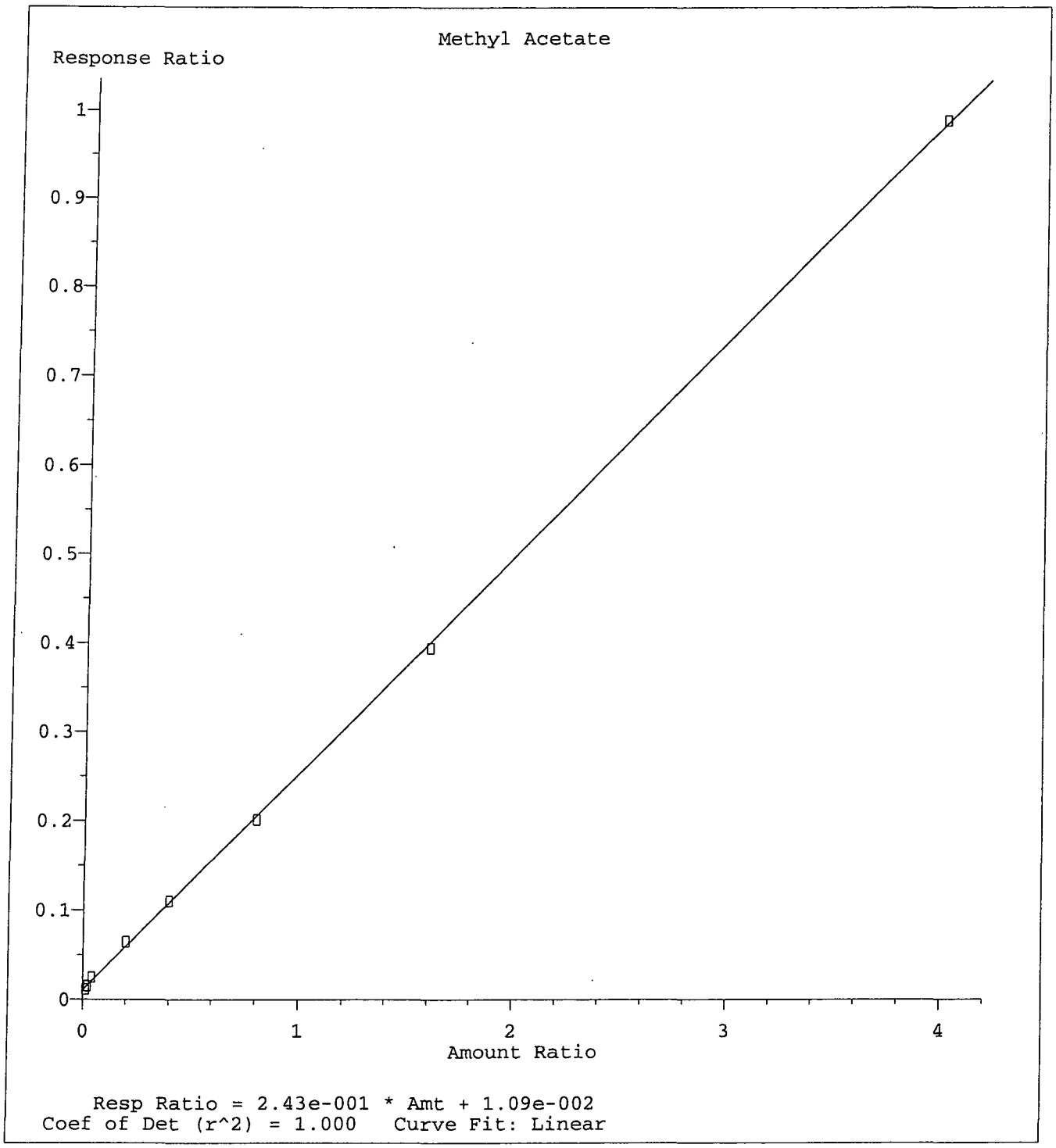
Method Name: M:\THOR\DATA\T120402\TALLW.M
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012



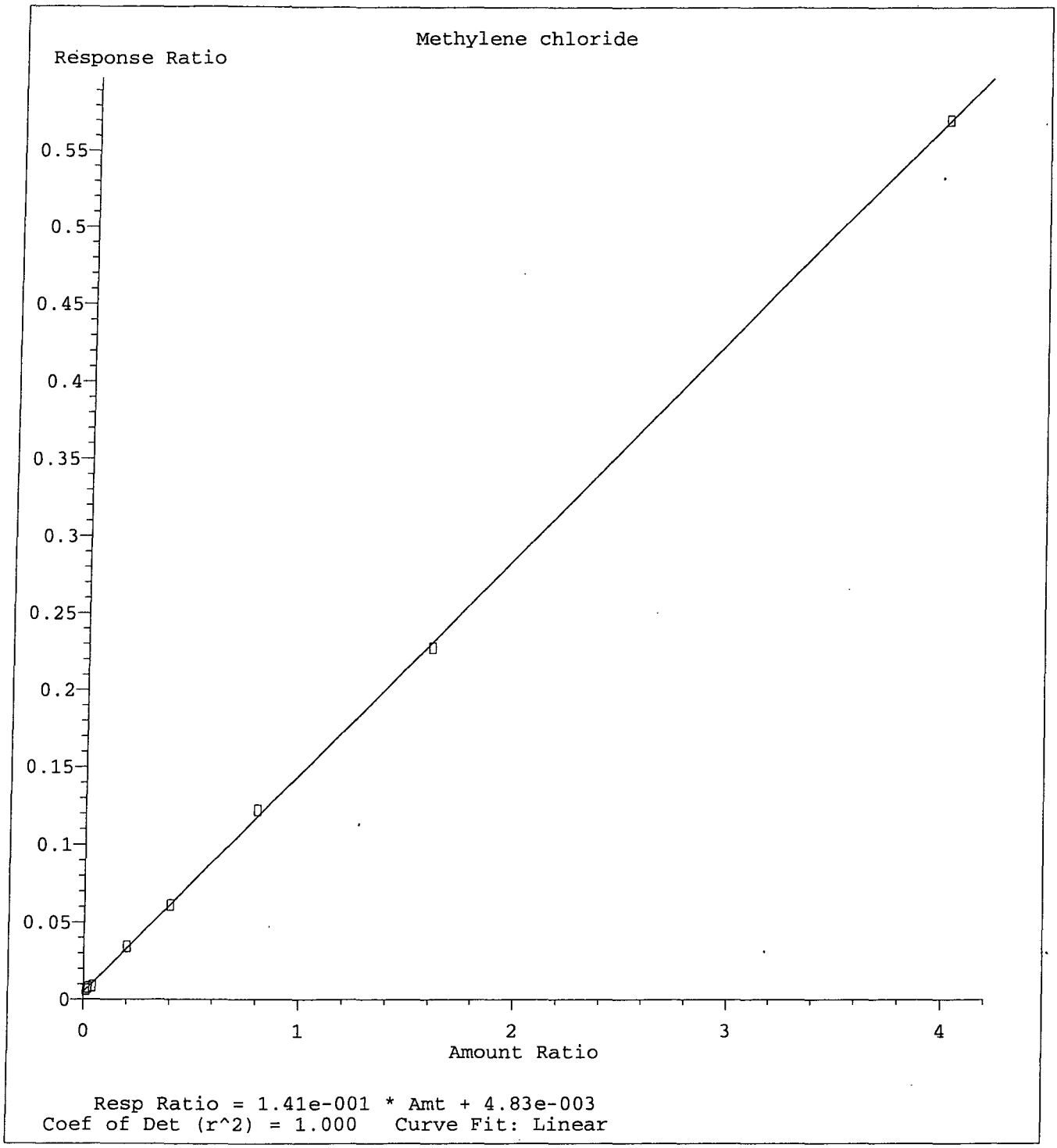
Method Name: M:\THOR\DATA\T120402\TALLW.M
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012



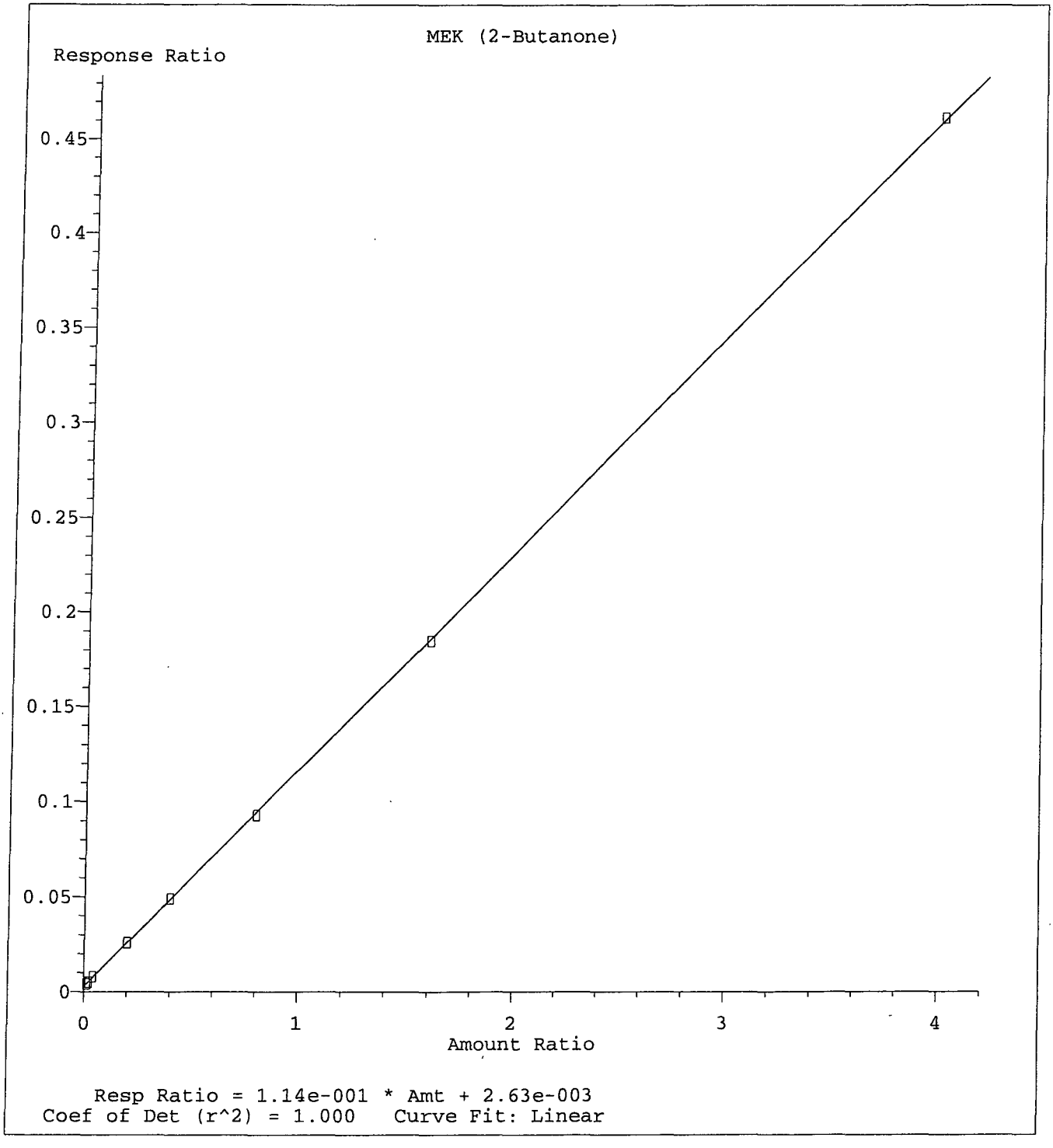
Method Name: M:\THOR\DATA\T120402\TALLW.M
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012



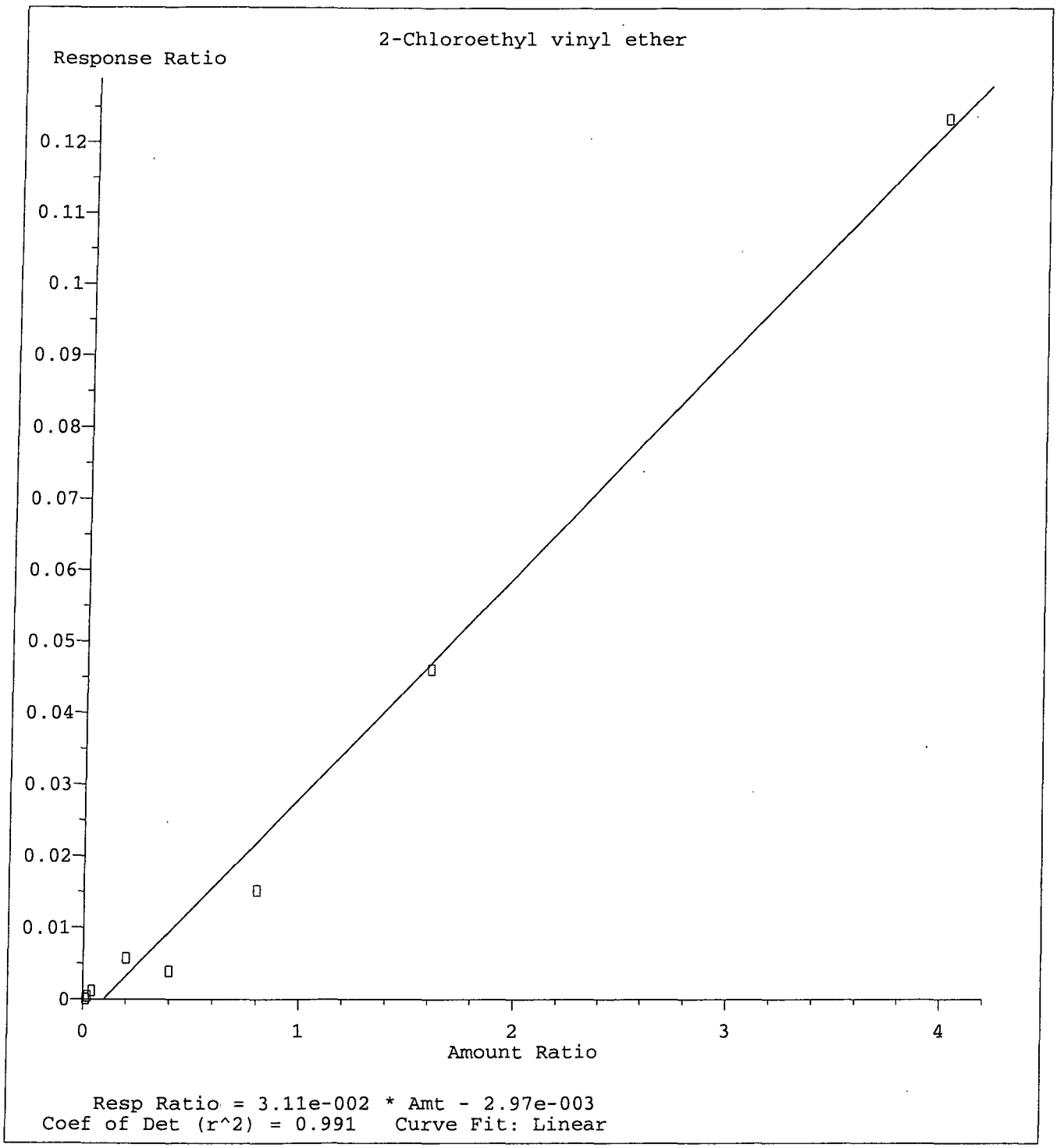
Method Name: M:\THOR\DATA\T120402\TALLW.M
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012



Method Name: M:\THOR\DATA\T120402\TALLW.M
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012



Method Name: M:\THOR\DATA\T120402\TALLW.M
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012



Method Name: M:\THOR\DATA\T120402\TALLW.M
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 04/12/12
Matrix: Instrument: Thor
Initial Cal. Date: 04/11/12
Data File: 0412T12W.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.3011	0.3128	3.9	TM	
3	TM	Freon 114	0.2173	0.2160	0.56	TM	
4	TM**L	Chloromethane	0.3045	0.2786	8.5	TM**L	2.0
5	TM*	Vinyl chloride	0.4774	0.5239	9.7	TM*	
6	TM	Bromomethane	0.3429	0.3264	4.8	TM	
7	TM	Chloroethane	0.2655	0.2701	1.7	TM	
8	TMQ	Dichlorofluoromethane	0.0778	0.0640	18	TMQ	5.5
9	TMQ	Trichlorofluoromethane	0.1664	0.1691	1.6	TMQ	5.9
10	TM	Acrolein	0.0253	0.0271	7.1	TM	
11	TML	Acetone	0.1096	0.0894	18	TML	6.1
12	TM	Freon-113	0.2517	0.2775	10	TM	
13	TM*	1,1-DCE	0.4191	0.4234	1.0	TM*	
14	TMQ	t-Butanol	0.0068	0.0073	7.9	TMQ	5.1
15	TML	Methyl Acetate	0.3221	0.2389	26	TML	3.1
16	TM	Iodomethane	0.4428	0.4736	7.0	TM	
17	TM	Acrylonitrile	0.0691	0.0756	9.5	TM	
18	TM	Methylene chloride	0.1352	0.1305	3.5	TM	
19	TM	Carbon disulfide	0.1471	0.1627	11	TM	
20	TM	Methyl t-butyl ether (MtBE)	0.4597	0.4997	8.7	TM	
21	TM	Trans-1,2-DCE	0.2829	0.3022	6.8	TM	
22	TM	Diisopropyl Ether	0.1225	0.1267	3.4	TM	
23	TM**	1,1-DCA	0.6205	0.6383	2.9	TM**	
24	TM	Vinyl Acetate	0.3051	0.3087	1.2	TM	
25	TM	Ethyl tert Butyl Ether	0.6337	0.6762	6.7	TM	
26	TML	MEK (2-Butanone)	0.1220	0.1145	6.1	TML	9.5
27	TM	Cis-1,2-DCE	0.4118	0.4230	2.7	TM	
28	TM	2,2-Dichloropropane	0.2349	0.2417	2.9	TM	
29	TM*	Chloroform	0.6832	0.6942	1.6	TM*	
30	TM	Bromochloromethane	0.1971	0.2035	3.3	TM	
31	S	Dibromofluoromethane(S)	0.4169	0.4187	0.43	S	
32	TM	1,1,1-TCA	0.4492	0.4718	5.0	TM	
33	TM	Cyclohexane	0.1671	0.1669	0.10	TM	
34	TM	1,1-Dichloropropene	0.3952	0.4094	3.6	TM	
35	TM	2,2,4-Trimethylpentane	0.5229	0.5433	3.9	TM	
36	S	1,2-DCA-D4(S)	0.3802	0.3728	2.0	S	
37	TM	Carbon Tetrachloride	0.4393	0.4557	3.7	TM	
38	TM	Tert Amyl Methyl Ether	0.6989	0.7565	8.2	TM	
39	TM	1,2-DCA	0.4363	0.4538	4.0	TM	
40	TM	Benzene	1.408	1.436	2.0	TM	
		Average			5.9		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 04/12/12
Matrix: 0 Instrument: Thor
Cal. Date: 04/11/12
Data File: 0412T12W.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	TCE	0.3984	0.4211	5.7	TM	
42	TM	2-Pentanone	0.1782	0.1894	6.3	TM	
43	TM*	1,2-Dichloropropane	0.4185	0.4263	1.9	TM*	
44	TM	Bromodichloromethane	0.5175	0.5269	1.8	TM	
45	TM	Methyl Cyclohexane	0.3343	0.3462	3.6	TM	
46	TM	Dibromomethane	0.2212	0.2309	4.4	TM	
47	TML	2-Chloroethyl vinyl ether	0.0000	0.0000	0.00	TML	
48	TM	MIBK (methyl isobutyl ketone)	0.1354	0.1344	0.78	TM	
49	TM	1-Bromo-2-chloroethane	0.2732	0.2831	3.6	TM	
50	TM	Cis-1,3-Dichloropropene	0.5515	0.5660	2.6	TM	
51	TM*	Toluene	1.652	1.699	2.8	TM*	
52	TM	Trans-1,3-Dichloropropene	0.4623	0.4742	2.6	TM	
53	TM	1,1,2-TCA	0.2947	0.2997	1.7	TM	
54	TM	2-Hexanone	0.1518	0.1466	3.4	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	1.668	1.679	0.68	S	
57	TM	1,2-EDB	0.3738	0.3956	5.8	TM	
58	TM	Tetrachloroethene	0.5315	0.5514	3.7	TM	
59	TM	1-Chlorohexane	0.5629	0.5638	0.16	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.5030	0.5159	2.6	TM	
61	TM	m&p-Xylene	0.8613	0.8987	4.3	TM	
62	TM	o-Xylene	0.8558	0.8962	4.7	TM	
63	TM	Styrene	1.438	1.485	3.3	TM	
64	S	4-Bromofluorobenzene(S)	0.6909	0.7019	1.6	S	
65	TM	1,3-Dichloropropane	0.6672	0.6750	1.2	TM	
66	TM	Dibromochloromethane	0.4777	0.4999	4.6	TM	
67	TM**	Chlorobenzene	1.427	1.465	2.7	TM**	
68	TM*	Ethylbenzene	2.232	2.323	4.1	TM*	
69	TM**	Bromoform	0.3185	0.3247	2.0	TM**	
70	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
71	TM	Isopropylbenzene	3.494	3.624	3.7	TM	
72	TM**	1,1,2,2-Tetrachloroethane	0.7579	0.7620	0.54	TM**	
73	TM	1,2,3-Trichloropropane	0.2407	0.2347	2.5	TM	
74	TM	t-1,4-Dichloro-2-Butene	0.1457	0.1509	3.6	TM	
75	TM	Bromobenzene	1.124	1.133	0.81	TM	
76	TM	n-Propylbenzene	4.257	4.388	3.1	TM	
77	TM	4-Ethyltoluene	2.432	2.617	7.6	TM	
78	TM	2-Chlorotoluene	2.947	3.101	5.2	TM	
79	TM	1,3,5-Trimethylbenzene	3.099	3.261	5.2	TM	
80	TM	4-Chlorotoluene	3.083	3.216	4.3	TM	
		Average			3.1		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 04/12/12
Instrument: Thor
Cal. Date: 04/11/12
Data File: 0412T12W.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	Tert-Butylbenzene	2.688	2.833	5.4	TM	
82	TM	1,2,4-Trimethylbenzene	3.135	3.320	5.9	TM	
83	TM	Sec-Butylbenzene	3.694	3.943	6.8	TM	
84	TM	p-Isopropyltoluene	3.204	3.310	3.3	TM	
85	TM	Benzyl Chloride	0.9300	0.8793	5.5	TM	
86	TM	1,3-DCB	2.195	2.175	0.92	TM	
87	TM	1,4-DCB	2.197	2.200	0.16	TM	
88	TM	n-Butylbenzene	2.732	2.840	4.0	TM	
89	TM	1,2-DCB	2.029	2.047	0.92	TM	
90	TM	Hexachloroethane	0.5695	0.5452	4.3	TM	
91	TM	1,2-Dibromo-3-chloropropane	0.1492	0.1575	5.5	TM	
92	TM	1,2,4-Trichlorobenzene	0.8704	0.9120	4.8	TM	
93	TM	Hexachlorobutadiene	0.3726	0.3742	0.44	TM	
94	TM	Naphthalene	2.276	2.321	2.0	TM	
95	TM	1,2,3-Trichlorobenzene	1.229	1.279	4.1	TM	
96							
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			3.6		

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0412T12W.D Vial: 42
Acq On : 12 Apr 12 3:44 Operator: DG,RS,HW,ARS,SV
Sample : 10ug/L VOC STD 4-11-12 (SS) 4/19/12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	467840	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	389056	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	238272	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	5.96	111	232857	29.84855 ppb	0.00
Spiked Amount 29.720			Recovery =	100.433%	
36) 1,2-DCA-D4(S)	6.34	65	206556	29.02835 ppb	0.00
Spiked Amount 29.608			Recovery =	98.041%	
56) Toluene-D8(S)	8.44	98	835757	32.19735 ppb	0.00
Spiked Amount 31.981			Recovery =	100.677%	
64) 4-Bromofluorobenzene(S)	11.06	95	320616	29.81911 ppb	0.00
Spiked Amount 29.353			Recovery =	101.588%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.31	85	58541	9.39078 ppb	98
3) Freon 114	1.42	85	40429	9.94395 ppb	93
4) Chloromethane	1.46	50	52128	9.80012 ppb	100
5) Vinyl chloride	1.57	62	98043	10.97464 ppb	99
6) Bromomethane	1.88	94	61078	9.51733 ppb	93
7) Chloroethane	1.98	64	50539	10.17148 ppb	92
8) Dichlorofluoromethane	2.20	67	11978	10.55213 ppb	94
9) Trichlorofluoromethane	2.25	101	31649	10.59495 ppb	100
10) Acrolein	2.71	55	63408	133.89133 ppb	99
11) Acetone	2.91	43	16729	10.60787 ppb	100
12) Freon-113	2.87	101	51932	11.02327 ppb	95
13) 1,1-DCE	2.84	61	79239	10.10326 ppb	96
14) t-Butanol	3.71	59	17112	131.33354 ppb	95
15) Methyl Acetate	3.36	43	44709	10.31208 ppb	94
16) Iodomethane	3.00	142	88633	10.69524 ppb	97
17) Acrylonitrile	3.83	52	14152	10.94848 ppb	100
18) Methylene chloride	3.47	84	24424	9.65202 ppb	99
19) Carbon disulfide	3.08	76	30448	11.06142 ppb	98
20) Methyl t-butyl ether (MtBE	3.93	73	93508	10.87073 ppb	96
21) Trans-1,2-DCE	3.88	96	56551	10.68187 ppb	95
22) Diisopropyl Ether	4.73	59	23710	10.34290 ppb	98
23) 1,1-DCA	4.53	63	119447	10.28719 ppb	97
24) Vinyl Acetate	4.72	87	57764	10.11560 ppb	99
25) Ethyl tert Butyl Ether	5.23	59	126546	10.67120 ppb	96
26) MEK (2-Butanone)	5.40	43	21430	10.94615 ppb	93
27) Cis-1,2-DCE	5.34	96	79159	10.27243 ppb	97
28) 2,2-Dichloropropane	5.34	77	45235	10.28989 ppb	100
29) Chloroform	5.77	83	129901	10.15960 ppb	92
30) Bromochloromethane	5.64	128	38088	10.32796 ppb	94
32) 1,1,1-TCA	5.98	97	88285	10.50194 ppb	100
33) Cyclohexane	6.05	41	31238	9.98965 ppb	90
34) 1,1-Dichloropropene	6.18	75	76611	10.35885 ppb	95
35) 2,2,4-Trimethylpentane	6.57	57	101671	10.38934 ppb	100
37) Carbon Tetrachloride	6.18	117	85280	10.37275 ppb	93
38) Tert Amyl Methyl Ether	6.60	73	141562	10.82344 ppb	100
39) 1,2-DCA	6.43	62	84923	10.40211 ppb	98
40) Benzene	6.41	78	268704	10.19522 ppb	99
41) TCE	7.16	95	78804	10.57044 ppb	97
42) 2-Pentanone	7.38	43	443016	132.86248 ppb	99

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

Data File : M:\THOR\DATA\T120411\0412T12W.D Vial: 42
Acq On : 12 Apr 12 3:44 Operator: DG,RS,HW,ARS,SV
Sample : 10ug/L VOC STD 4-11-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43) 1,2-Dichloropropane	7.39	63	79768	10.18503 ppb	99
44) Bromodichloromethane	7.69	83	98596	10.18012 ppb	95
45) Methyl Cyclohexane	7.37	83	64779	10.35528 ppb	94
46) Dibromomethane	7.50	93	43218	10.44236 ppb	96
48) MIBK (methyl isobutyl ket	8.35	43	25144	9.92181 ppb	97
49) 1-Bromo-2-chloroethane	8.00	63	52984	10.36192 ppb	99
50) Cis-1,3-Dichloropropene	8.17	75	105913	10.26282 ppb	98
51) Toluene	8.51	91	317983	10.28434 ppb	100
52) Trans-1,3-Dichloropropene	8.74	75	88745	10.25764 ppb	100
53) 1,1,2-TCA	8.92	83	56091	10.17136 ppb	97
54) 2-Hexanone	9.19	43	27437	9.66159 ppb	99
57) 1,2-EDB	9.41	107	61559	10.58189 ppb	99
58) Tetrachloroethene	9.07	166	85805	10.37296 ppb	96
59) 1-Chlorohexane	9.92	91	87735	10.01569 ppb	99
60) 1,1,1,2-Tetrachloroethane	10.00	131	80293	10.25836 ppb	98
61) m&p-Xylene	10.16	106	279701	20.86723 ppb	99
62) o-Xylene	10.55	106	139464	10.47227 ppb	99
63) Styrene	10.56	104	231157	10.32767 ppb	98
65) 1,3-Dichloropropane	9.08	76	105041	10.11693 ppb	93
66) Dibromochloromethane	9.31	129	77794	10.46401 ppb	95
67) Chlorobenzene	9.92	112	228040	10.26576 ppb	99
68) Ethylbenzene	10.04	91	361467	10.40774 ppb	100
69) Bromoform	10.73	173	50532	10.19521 ppb	92
71) Isopropylbenzene	10.92	105	345420	10.37298 ppb	100
72) 1,1,2,2-Tetrachloroethane	11.20	83	72625	10.05405 ppb	99
73) 1,2,3-Trichloropropane	11.24	110	22366	9.74917 ppb	93
74) t-1,4-Dichloro-2-Butene	11.26	53	14383	10.35967 ppb	86
75) Bromobenzene	11.21	156	108015	10.08078 ppb	99
76) n-Propylbenzene	11.33	91	418167	10.30588 ppb	99
77) 4-Ethyltoluene	11.45	105	249432	10.76090 ppb	99
78) 2-Chlorotoluene	11.41	91	295571	10.52480 ppb	99
79) 1,3,5-Trimethylbenzene	11.51	105	310832	10.52318 ppb	100
80) 4-Chlorotoluene	11.51	91	306556	10.43256 ppb	98
81) Tert-Butylbenzene	11.83	119	269992	10.53810 ppb	99
82) 1,2,4-Trimethylbenzene	11.88	105	316455	10.59117 ppb	99
83) Sec-Butylbenzene	12.05	105	375806	10.67534 ppb	100
84) p-Isopropyltoluene	12.20	119	315519	10.33375 ppb	98
85) Benzyl Chloride	12.37	91	83805	9.45455 ppb	99
86) 1,3-DCB	12.15	146	207309	9.90761 ppb	100
87) 1,4-DCB	12.23	146	209716	10.01596 ppb	98
88) n-Butylbenzene	12.61	91	270707	10.39696 ppb	98
89) 1,2-DCB	12.60	146	195145	10.09200 ppb	98
90) Hexachloroethane	12.87	117	51961	9.57291 ppb	96
91) 1,2-Dibromo-3-chloropropan	13.37	157	15013	10.55437 ppb	85
92) 1,2,4-Trichlorobenzene	14.21	180	86920	10.47801 ppb	99
93) Hexachlorobutadiene	14.40	223	35665	10.04425 ppb	83
94) Naphthalene	14.45	128	221248	10.19966 ppb	98
95) 1,2,3-Trichlorobenzene	14.69	180	121944	10.41230 ppb	98

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

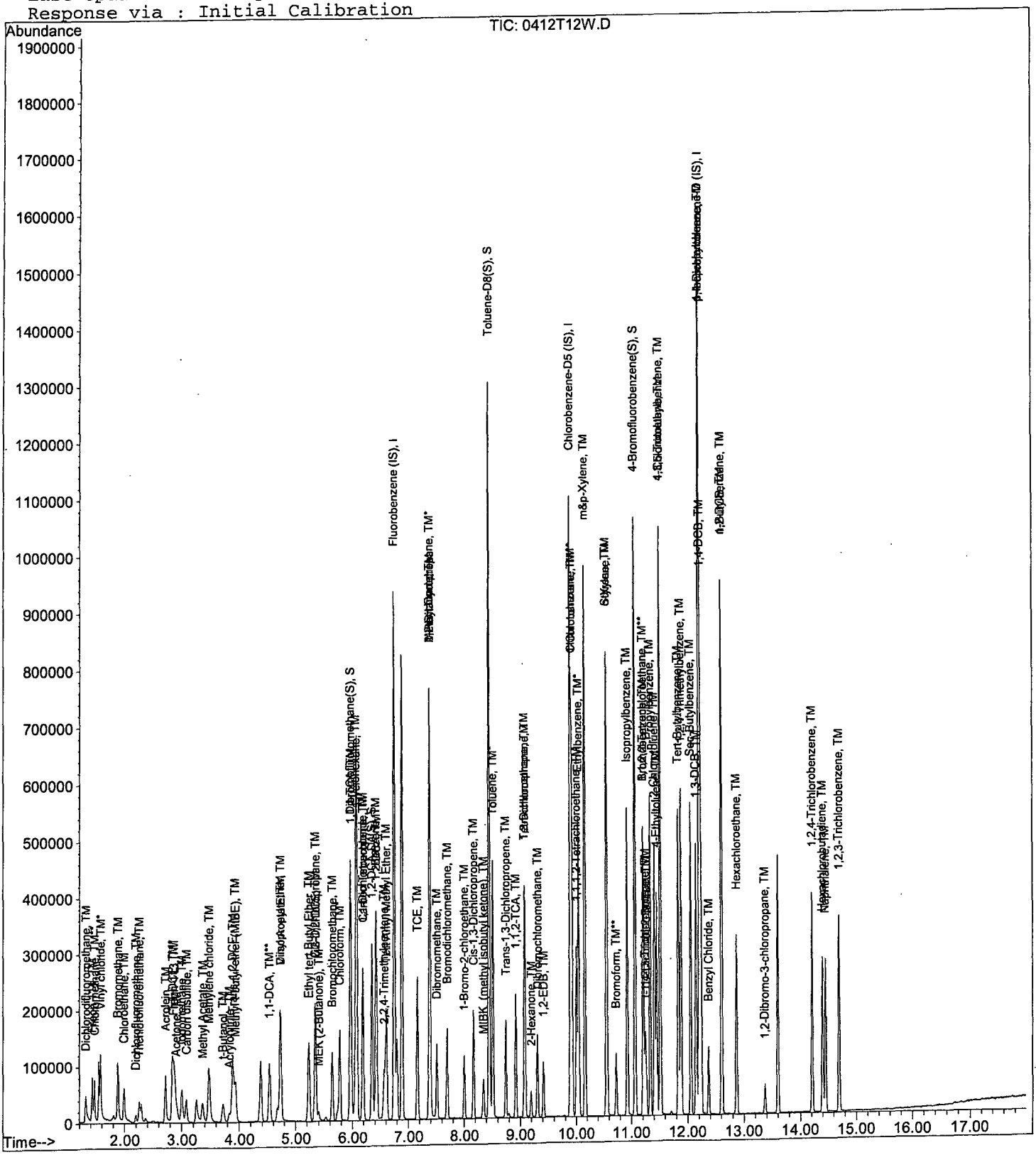
Quantitation Report

Data File : M:\THOR\DATA\T120411\0412T12W.D
Acq On : 12 Apr 12 3:44
Sample : 10ug/L VOC STD 4-11-12
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 42
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 12 8:55 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No: 67525
Matrix: water

SDG No: 67525
Date Analyzed: 4/19/12
Instrument: Thor
Initial Cal. Date: 4/11/12
Data File: 0419T11W.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.3011	0.3251	8.0	TM		
3	TM	Freon 114	0.2173	0.2142	1.4	TM		
4	TM**L	Chloromethane	0.3045	0.2923	4.0	TM**L	2.6	
5	TM*	Vinyl chloride	0.4774	0.4884	2.3	TM*		
6	TM	Bromomethane	0.3429	0.3394	1.0	TM		
7	TM	Chloroethane	0.2655	0.2779	4.7	TM		
8	TMQ	Dichlorofluoromethane	0.0778	0.0477	39	TMQ	15	
9	TMQ	Trichlorofluoromethane	0.1664	0.1620	2.7	TMQ	1.8	
10	TM	Acrolein	0.0253	0.0159	37	TM		nt
11	TML	Acetone	0.1096	0.0769	30	TML	11	
12	TM	Freon-113	0.2517	0.2754	9.4	TM		
13	TM*	1,1-DCE	0.4191	0.3839	8.4	TM*		
14	TMQ	t-Butanol	0.0068	0.0023	66	TMQ	55	nt
15	TML	Methyl Acetate	0.3221	0.2096	35	TML	10	
16	TM	Iodomethane	0.4428	0.4260	3.8	TM		
17	TM	Acrylonitrile	0.0691	0.0705	2.1	TM		
18	TM	Methylene chloride	0.1352	0.1095	19	TM		
19	TM	Carbon disulfide	0.1471	0.1287	13	TM		
20	TM	Methyl t-butyl ether (MtBE)	0.4597	0.4046	12	TM		
21	TM	Trans-1,2-DCE	0.2829	0.2761	2.4	TM		
22	TM	Diisopropyl Ether	0.1225	0.1125	8.1	TM		
23	TM**	1,1-DCA	0.6205	0.5808	6.4	TM**		
24	TM	Vinyl Acetate	0.3051	0.2727	11	TM		
25	TM	Ethyl tert Butyl Ether	0.6337	0.5153	19	TM		
26	TML	MEK (2-Butanone)	0.1220	0.0933	24	TML	11	
27	TM	Cis-1,2-DCE	0.4118	0.3634	12	TM		
28	TM	2,2-Dichloropropane	0.2349	0.2618	11	TM		
29	TM*	Chloroform	0.6832	0.6431	5.9	TM*		
30	TM	Bromochloromethane	0.1971	0.1925	2.3	TM		
31	S	Dibromofluoromethane(S)	0.4169	0.4366	4.7	S		
32	TM	1,1,1-TCA	0.4492	0.4257	5.2	TM		
33	TM	Cyclohexane	0.1671	0.1367	18	TM		
34	TM	1,1-Dichloropropene	0.3952	0.3463	12	TM		
35	TM	2,2,4-Trimethylpentane	0.5229	0.5583	6.8	TM		
36	S	1,2-DCA-D4(S)	0.3802	0.3847	1.2	S		
37	TM	Carbon Tetrachloride	0.4393	0.4311	1.9	TM		
38	TM	Tert Amyl Methyl Ether	0.6989	0.5900	16	TM		
39	TM	1,2-DCA	0.4363	0.3826	12	TM		
40	TM	Benzene	1.408	1.245	12	TM		
		Average			12.6			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

SDM 5.17.12

Lab Name: APPL, Inc.
Case No: 67525
Matrix: ~~0~~ Water
SDM 5.17.12

SDG No: ~~0~~ 62525
Date Analyzed: 4/19/12
Instrument: Thor
Cal. Date: 4/11/12
Data File: 0419T11W.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	TCE	0.3984	0.3506	12	TM	
42	TM	2-Pentanone	0.1782	0.1704	4.4	TM	
43	TM*	1,2-Dichloropropane	0.4185	0.3830	8.5	TM*	
44	TM	Bromodichloromethane	0.5175	0.4812	7.0	TM	
45	TM	Methyl Cyclohexane	0.3343	0.3270	2.2	TM	
46	TM	Dibromomethane	0.2212	0.2035	8.0	TM	
47	TML	2-Chloroethyl vinyl ether	0.0000	0.0064	0.00	TML	
48	TM	MIBK (methyl isobutyl ketone)	0.1354	0.1124	17	TM	
49	TM	1-Bromo-2-chloroethane	0.2732	0.2381	13	TM	
50	TM	Cis-1,3-Dichloropropene	0.5515	0.5148	6.6	TM	
51	TM*	Toluene	1.652	1.493	9.6	TM*	
52	TM	Trans-1,3-Dichloropropene	0.4623	0.4426	4.3	TM	
53	TM	1,1,2-TCA	0.2947	0.2687	8.8	TM	
54	TM	2-Hexanone	0.1518	0.1378	9.2	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	1.668	1.675	0.43	S	
57	TM	1,2-EDB	0.3738	0.3585	4.1	TM	
58	TM	Tetrachloroethene	0.5315	0.5024	5.5	TM	
59	TM	1-Chlorohexane	0.5629	0.5127	8.9	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.5030	0.4925	2.1	TM	
61	TM	m&p-Xylene	0.8613	0.8167	5.2	TM	
62	TM	o-Xylene	0.8558	0.7763	9.3	TM	
63	TM	Styrene	1.438	1.351	6.1	TM	
64	S	4-Bromofluorobenzene(S)	0.6909	0.7210	4.3	S	
65	TM	1,3-Dichloropropane	0.6672	0.5881	12	TM	
66	TM	Dibromochloromethane	0.4777	0.4584	4.0	TM	
67	TM**	Chlorobenzene	1.427	1.318	7.7	TM**	
68	TM*	Ethylbenzene	2.232	2.056	7.9	TM*	
69	TM**	Bromoform	0.3185	0.3043	4.5	TM**	
70	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
71	TM	Isopropylbenzene	3.494	3.095	11	TM	
72	TM**	1,1,2,2-Tetrachloroethane	0.7579	0.7168	5.4	TM**	
73	TM	1,2,3-Trichloropropane	0.2407	0.2038	15	TM	
74	TM	t-1,4-Dichloro-2-Butene	0.1457	0.1322	9.3	TM	
75	TM	Bromobenzene	1.124	1.011	10	TM	
76	TM	n-Propylbenzene	4.257	3.920	7.9	TM	
77	TM	4-Ethyltoluene	2.432	2.332	4.1	TM	
78	TM	2-Chlorotoluene	2.947	2.670	9.4	TM	
79	TM	1,3,5-Trimethylbenzene	3.099	2.893	6.7	TM	
80	TM	4-Chlorotoluene	3.083	2.811	8.8	TM	
		Average			7.4		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No: 67525
Matrix: ~~067525~~ Water
SAM 5.17.12

SDG No: 067525
Date Analyzed: 4/19/12
Instrument: Thor
Cal. Date: 4/11/12
Data File: 0419T11W.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	Tert-Butylbenzene	2.688	2.445	9.0	TM	
82	TM	1,2,4-Trimethylbenzene	3.135	2.885	8.0	TM	
83	TM	Sec-Butylbenzene	3.694	3.465	6.2	TM	
84	TM	p-Isopropyltoluene	3.204	3.027	5.5	TM	
85	TM	Benzyl Chloride	0.9300	1.133	22	TM	*
86	TM	1,3-DCB	2.195	1.981	9.8	TM	
87	TM	1,4-DCB	2.197	2.011	8.5	TM	
88	TM	n-Butylbenzene	2.732	2.604	4.7	TM	
89	TM	1,2-DCB	2.029	1.814	11	TM	
90	TM	Hexachloroethane	0.5695	0.5493	3.6	TM	
91	TM	1,2-Dibromo-3-chloropropane	0.1492	0.1477	1.1	TM	
92	TM	1,2,4-Trichlorobenzene	0.8704	0.8328	4.3	TM	
93	TM	Hexachlorobutadiene	0.3726	0.3709	0.44	TM	
94	TM	Naphthalene	2.276	2.087	8.3	TM	
95	TM	1,2,3-Trichlorobenzene	1.229	1.179	4.0	TM	
96							
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			7.1		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120411\0419T11W.D Vial: 1
Acq On : 19 Apr 12 9:45 Operator: DG,RS,HW,ARS,SV
Sample : 10ug/L Vol Std 04-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: May 8 14:39 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue May 08 14:20:01 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.75	96	499136	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.89	117	420608	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	266368	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.96	111	259074	31.12693 ppb		0.00
Spiked Amount 29.720			Recovery = 104.733%			
36) 1,2-DCA-D4(S)	6.34	65	227385	29.95193 ppb		0.00
Spiked Amount 29.608			Recovery = 101.162%			
56) Toluene-D8(S)	8.44	98	901334	32.11889 ppb		0.00
Spiked Amount 31.981			Recovery = 100.433%			
64) 4-Bromofluorobenzene(S)	11.06	95	356040	30.62971 ppb		0.00
Spiked Amount 29.353			Recovery = 104.351%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.29	85	64912	10.79920 ppb		100
3) Freon 114	1.41	85	42766	9.85923 ppb		93
4) Chloromethane	1.45	50	58361	10.25898 ppb		98
5) Vinyl chloride	1.56	62	97507	10.23029 ppb		98
6) Bromomethane	1.87	94	67767	9.89754 ppb		98
7) Chloroethane	1.97	64	55487	10.46712 ppb		100
8) Dichlorofluoromethane	2.18	67	9532	8.50481 ppb		84
9) Trichlorofluoromethane	2.24	101	32335	10.18362 ppb		93
10) Acrolein	2.69	55	39595	78.36592 ppb	#	7
11) Acetone	2.95	43	15349m	8.87256 ppb		93
12) Freon-113	2.85	101	54981	10.93872 ppb		95
13) 1,1-DCE	2.82	61	76639	9.15906 ppb		93
14) t-Butanol	3.87	59	5822	55.80855 ppb		97
15) Methyl Acetate	3.37	43	41853	8.99123 ppb		95
16) Iodomethane	2.98	142	85051	9.61951 ppb		94
17) Acrylonitrile	3.85	52	14084	10.21270 ppb		97
18) Methylene chloride	3.46	84	21872	8.10155 ppb		90
19) Carbon disulfide	3.06	76	25696	8.74976 ppb		97
20) Methyl t-butyl ether (MtBE	3.93	73	80779	8.80212 ppb		98
21) Trans-1,2-DCE	3.87	96	55134	9.76124 ppb		94
22) Diisopropyl Ether	4.73	59	22468	9.18657 ppb		99
23) 1,1-DCA	4.51	63	115960	9.36069 ppb		98
24) Vinyl Acetate	4.73	87	54440	8.93575 ppb		95
25) Ethyl tert Butyl Ether	5.24	59	102883	8.13181 ppb		97
26) MEK (2-Butanone)	5.43	43	18624	8.90056 ppb		100
27) Cis-1,2-DCE	5.34	96	72548	8.82423 ppb		95
28) 2,2-Dichloropropane	5.32	77	52273	11.14531 ppb		95
29) Chloroform	5.77	83	128388	9.41168 ppb		94
30) Bromochloromethane	5.64	128	38440	9.76986 ppb		79
32) 1,1,1-TCA	5.97	97	85001	9.47731 ppb		97
33) Cyclohexane	6.04	41	27292	8.18052 ppb		97
34) 1,1-Dichloropropene	6.18	75	69140	8.76251 ppb		93
35) 2,2,4-Trimethylpentane	6.56	57	111459	10.67541 ppb		100
37) Carbon Tetrachloride	6.17	117	86062	9.81153 ppb		90
38) Tert Amyl Methyl Ether	6.61	73	117793	8.44144 ppb		98
39) 1,2-DCA	6.43	62	76395	8.77081 ppb		100
40) Benzene	6.41	78	248623	8.84183 ppb		100
41) TCE	7.16	95	69991	8.79965 ppb		98
42) 2-Pentanone	7.39	43	425179	119.51797 ppb		99

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

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120411\0419T11W.D Vial: 1
Acq On : 19 Apr 12 9:45 Operator: DG,RS,HW,ARS,SV
Sample : 10ug/L Vol Std 04-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: May 8 14:39 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue May 08 14:20:01 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43) 1,2-Dichloropropane	7.39	63	76469	9.15161 ppb	98
44) Bromodichloromethane	7.69	83	96075	9.29785 ppb	99
45) Methyl Cyclohexane	7.37	83	65290	9.78256 ppb	89
46) Dibromomethane	7.50	93	40638	9.20333 ppb	94
48) MIBK (methyl isobutyl ket	8.35	43	22432	8.29666 ppb	97
49) 1-Bromo-2-chloroethane	8.00	63	47544	8.71505 ppb	100
50) Cis-1,3-Dichloropropene	8.17	75	102786	9.33534 ppb	95
51) Toluene	8.51	91	298093	9.03655 ppb	99
52) Trans-1,3-Dichloropropene	8.74	75	88369	9.57375 ppb	98
53) 1,1,2-TCA	8.92	83	53642	9.11737 ppb	98
54) 2-Hexanone	9.20	43	27517	9.08221 ppb	95
57) 1,2-EDB	9.41	107	60311	9.58966 ppb	99
58) Tetrachloroethene	9.07	166	84527	9.45192 ppb	96
59) 1-Chlorohexane	9.92	91	86259	9.10850 ppb	97
60) 1,1,1,2-Tetrachloroethane	10.00	131	82859	9.79207 ppb	98
61) m&p-Xylene	10.16	106	274798	18.96352 ppb	95
62) o-Xylene	10.55	106	130605	9.07137 ppb	95
63) Styrene	10.56	104	227212	9.38991 ppb	96
65) 1,3-Dichloropropane	9.08	76	98940	8.81447 ppb	93
66) Dibromochloromethane	9.31	129	77123	9.59556 ppb	96
67) Chlorobenzene	9.92	112	221715	9.23229 ppb	99
68) Ethylbenzene	10.04	91	345872	9.21165 ppb	99
69) Bromoform	10.73	173	51195	9.55415 ppb	92
71) Isopropylbenzene	10.92	105	329772	8.85851 ppb	99
72) 1,1,2,2-Tetrachloroethane	11.20	83	76375	9.45795 ppb	97
73) 1,2,3-Trichloropropane	11.24	110	21716	8.46740 ppb	96
74) t-1,4-Dichloro-2-Butene	11.26	53	14083	9.07366 ppb	91
75) Bromobenzene	11.21	156	107715	8.99243 ppb	98
76) n-Propylbenzene	11.33	91	417619	9.20675 ppb	99
77) 4-Ethyltoluene	11.45	105	248440	9.58758 ppb	100
78) 2-Chlorotoluene	11.41	91	284530	9.06298 ppb	99
79) 1,3,5-Trimethylbenzene	11.51	105	308242	9.33478 ppb	99
80) 4-Chlorotoluene	11.51	91	299480	9.11674 ppb	100
81) Tert-Butylbenzene	11.83	119	260511	9.09554 ppb	98
82) 1,2,4-Trimethylbenzene	11.88	105	307414	9.20336 ppb	99
83) Sec-Butylbenzene	12.05	105	369141	9.37997 ppb	96
84) p-Isopropyltoluene	12.20	119	322515	9.44873 ppb	98
85) Benzyl Chloride	12.37	91	120705	12.18112 ppb	98
86) 1,3-DCB	12.15	146	211093	9.02434 ppb	97
87) 1,4-DCB	12.23	146	214236	9.15260 ppb	98
88) n-Butylbenzene	12.61	91	277441	9.53166 ppb	99
89) 1,2-DCB	12.60	146	193280	8.94124 ppb	99
90) Hexachloroethane	12.87	117	58525	9.64492 ppb	99
91) 1,2-Dibromo-3-chloropropan	13.37	157	15734	9.89452 ppb	91
92) 1,2,4-Trichlorobenzene	14.21	180	88728	9.56777 ppb	98
93) Hexachlorobutadiene	14.40	223	39521	9.95621 ppb	87
94) Naphthalene	14.45	128	222363	9.16980 ppb	100
95) 1,2,3-Trichlorobenzene	14.69	180	125663	9.59809 ppb	97

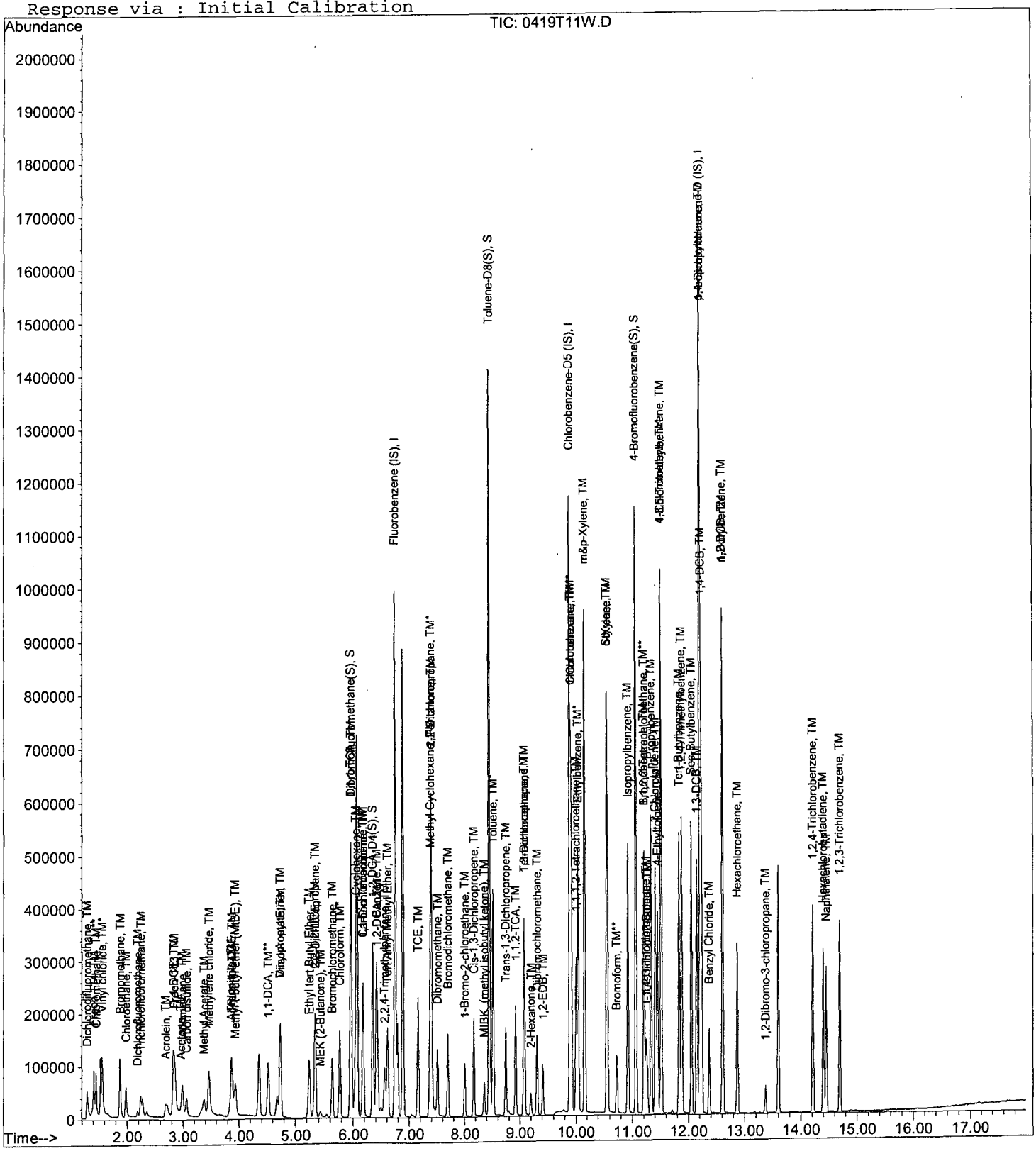
(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T120411\0419T11W.D
Acq On : 19 Apr 12 9:45
Sample : 10ug/L Vol Std 04-19-12
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 1
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: May 8 14:39 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue May 08 14:20:01 2012
Response via : Initial Calibration

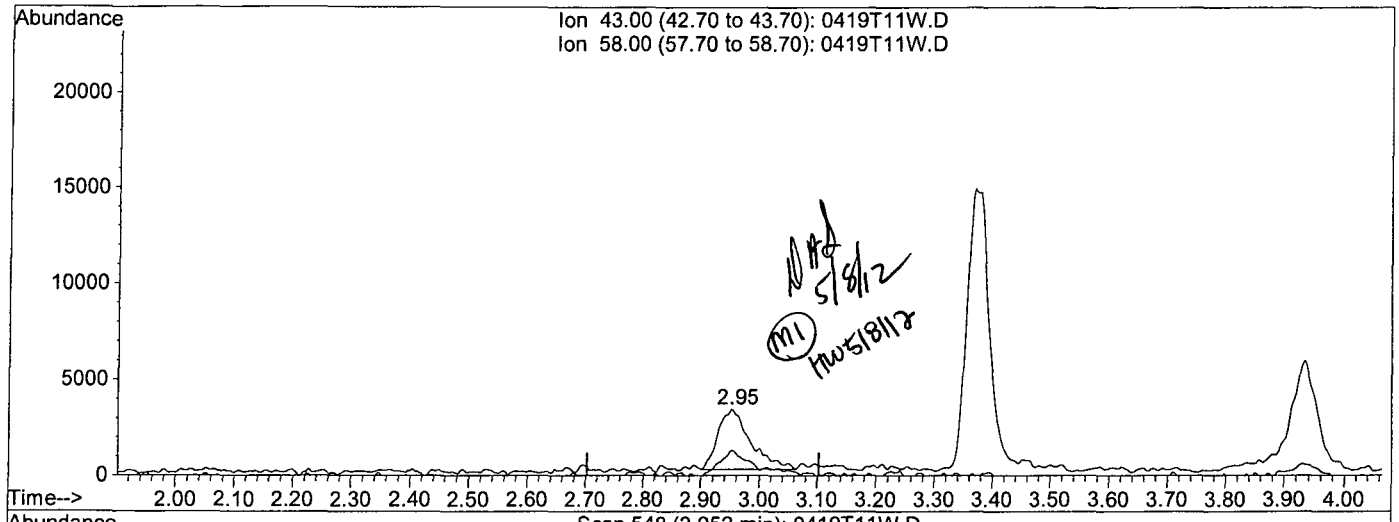


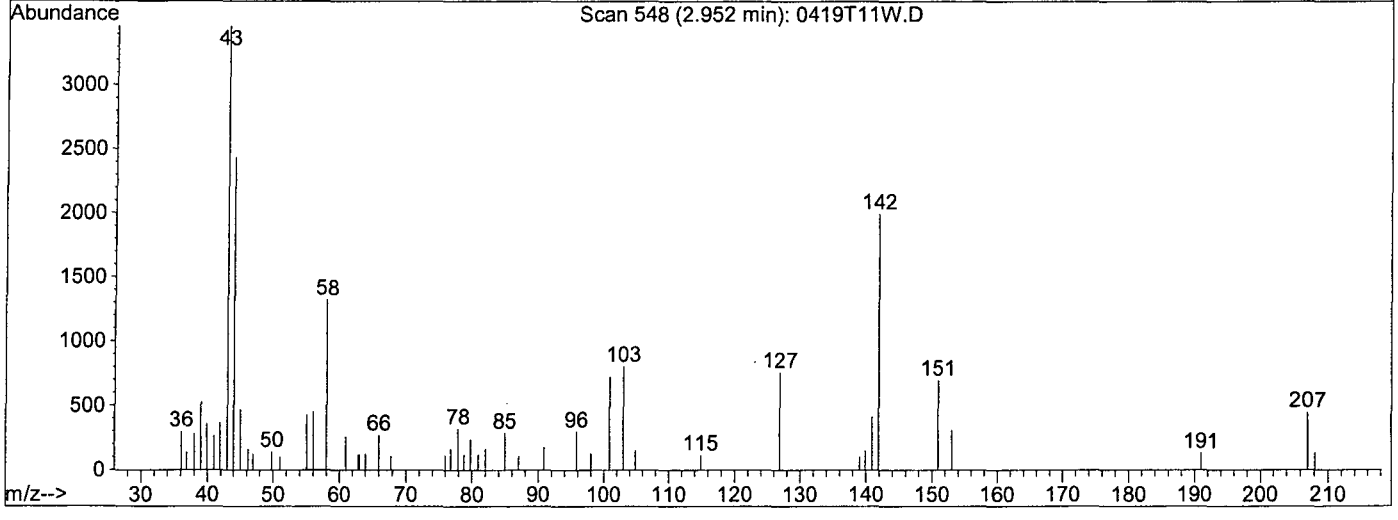
227

Quantitation Report

Data File : M:\THOR\DATA\T120411\0419T11W.D Vial: 1
Acq On : 19 Apr 12 9:45 Operator: DG,RS,HW,ARS,SV
Sample : 10ug/L Vol Std 04-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00
Quant Time: May 8 14:38 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue May 08 14:20:01 2012
Response via : Multiple Level Calibration





TIC: 0419T11W.D

(11) Acetone (TM)

2.95min 6.7290ppb

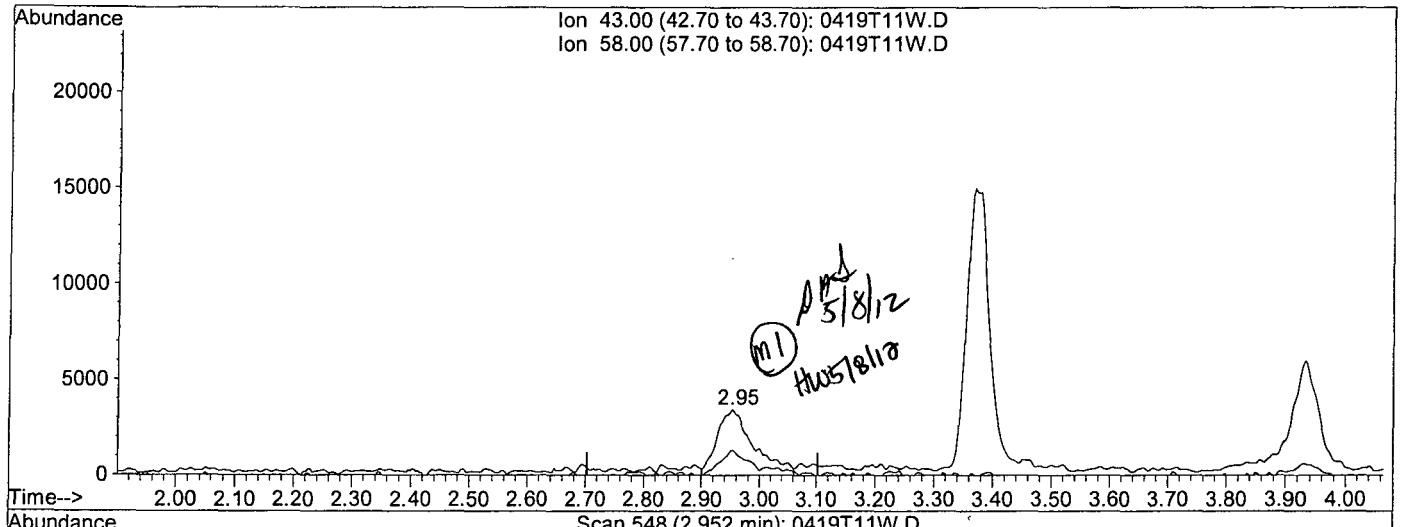
response 12262

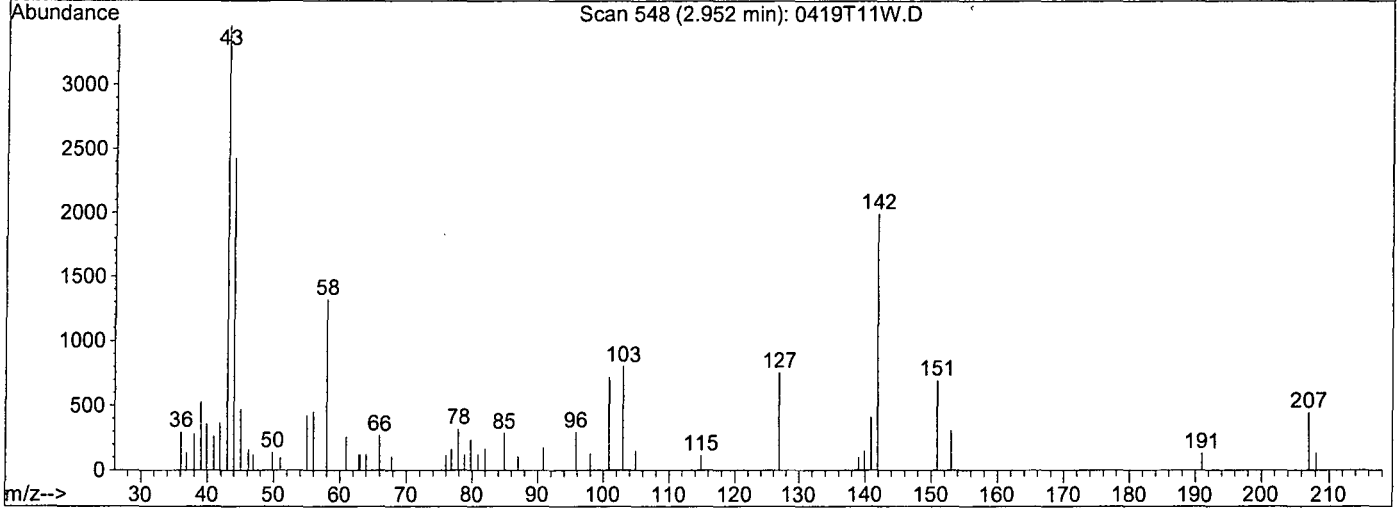
Ion	Exp%	Act%
43.00	100	100
58.00	37.80	42.25
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120411\0419T11W.D Vial: 1
Acq On : 19 Apr 12 9:45 Operator: DG,RS,HW,ARS,SV
Sample : 10ug/L Vol Std 04-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00
Quant Time: May 8 14:39 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue May 08 14:20:01 2012
Response via : Multiple Level Calibration





TIC: 0419T11W.D

(11) Acetone (TM)

2.95min 8.8726ppb m

response 15349

Ion	Exp%	Act%
43.00	100	100
58.00	37.80	38.26
0.00	0.00	0.00
0.00	0.00	0.00

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 67525
Case No: 67525 Initial Cal. Date: 01/25/12
Matrix: WATER Instrument: Chico Initials:

0125C29W.D 0125C30W.D 0125C31W D 0125C32W.D 0125C33W.D 0125C34W D 0125C35W D

		Compound	20	50	100	300	600	800	1000				Avg	%RSD		
1	I	Fluorobenzene (IS)														r
2	TMHBL	Gasoline	23.6	10.6	5.907	3.541	2.892	2.841	2.494				7.4	104	TMHBL	0.997
3	I	Chlorobenzene-D5 (IS)														
4	I	1,4-Dichlorobenzene-D (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:\CHICO\DATA\C120125\0125C29W.D Vial: 1
Acq On : 26 Jan 12 19:32 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 7 9:34 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:01:13 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1053352	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1266647	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1287754	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	17.98	TIC	19858101m	31.82421	ppb	100

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

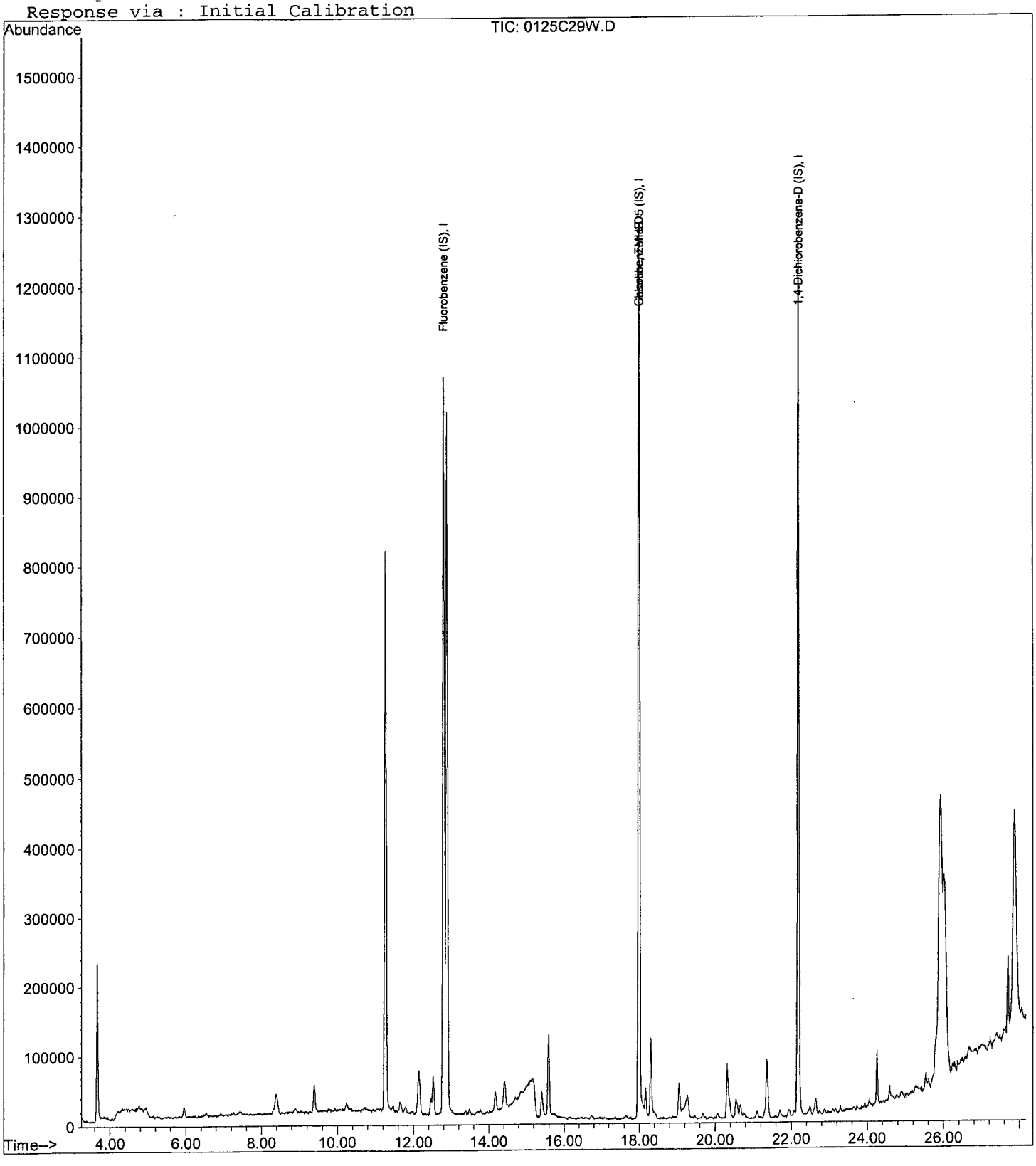
Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C29W.D
Acq On : 26 Jan 12 19:32
Sample : Vol. Std. 01-26-12@20ug/L
Misc : Water 10mLw/ IS:12-06-11

Vial: 1
Operator: RS, ARS
Inst : Chico
Multiplr: 1.00

Quant Time: Feb 7 9:34 2012 Quant Results File: CGAS.RES

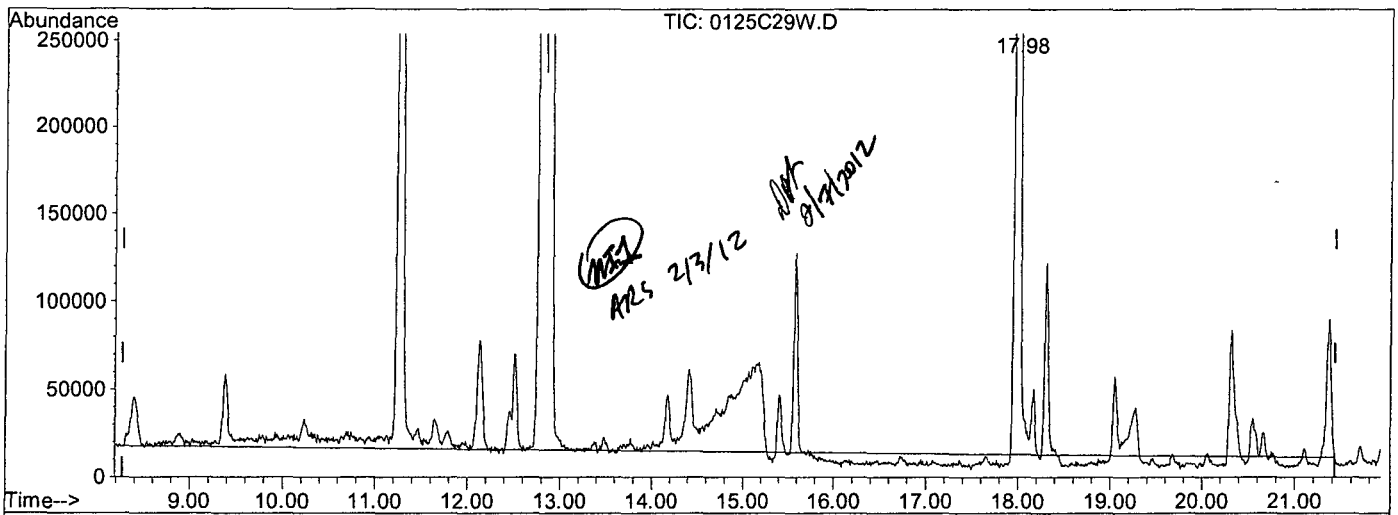
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration

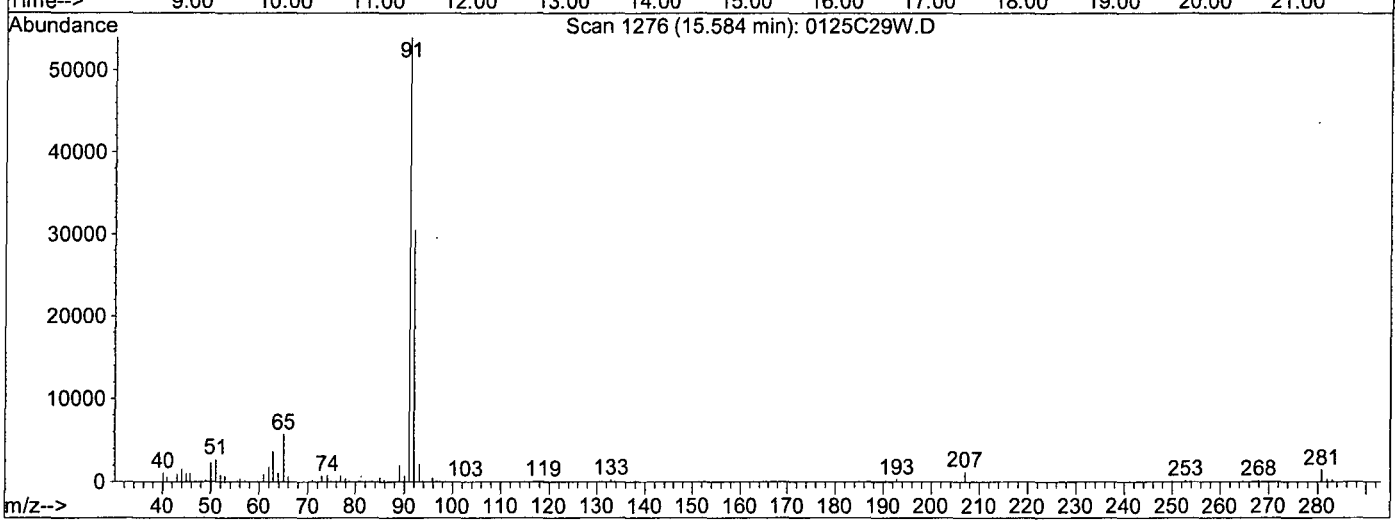


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C29W.D Vial: 1
Acq On : 26 Jan 12 19:32 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 3 12:07 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Single Level Calibration





TIC: 0125C29W.D

(2) Gasoline (TMHB)

15.58min -8.2763ppb m

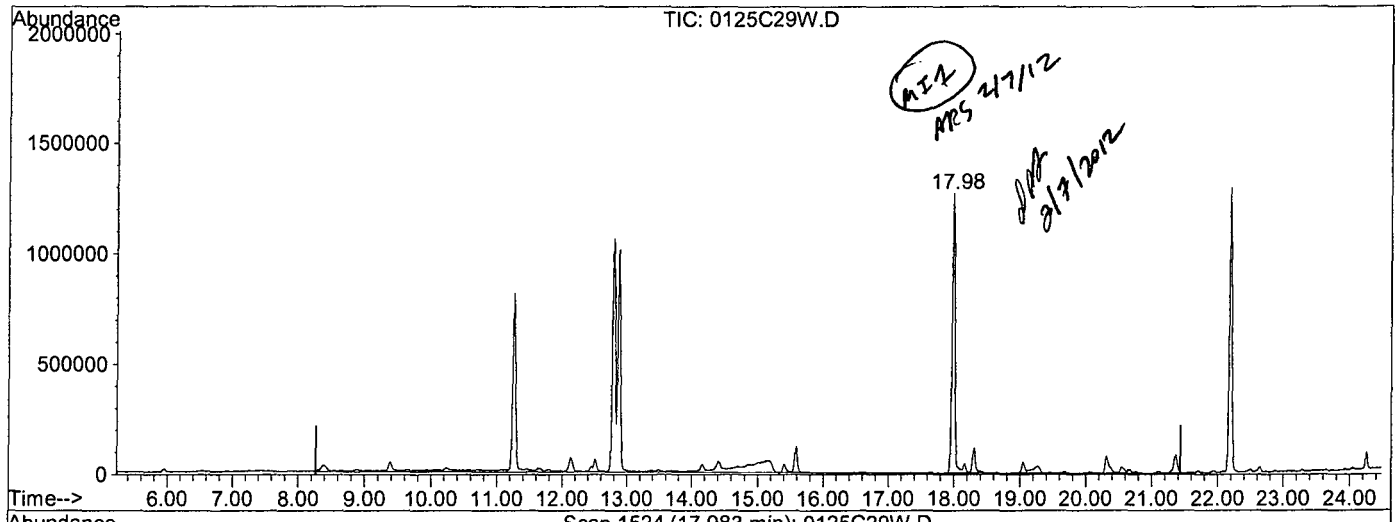
response 16152794

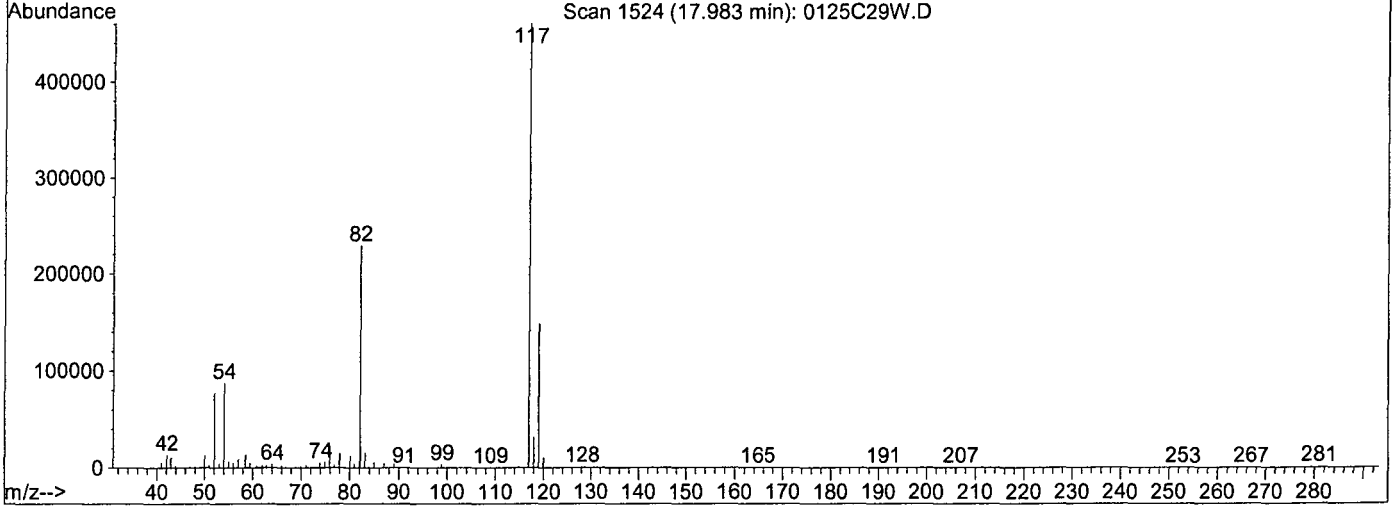
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.79#
0.00	0.00	2.40#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C29W.D Vial: 1
Acq On : 26 Jan 12 19:32 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 7 9:34 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Single Level Calibration





TIC: 0125C29W.D

(2) Gasoline (TMHB)

17.98min 31.8242ppb m

response 19858101

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.64#
0.00	0.00	1.95#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C30W.D Vial: 1
Acq On : 26 Jan 12 20:09 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@50ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 7 9:35 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1088272	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.99	TIC	1269196	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1282230	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	17.99	TIC	23136590m	59.27095	ppb	100

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

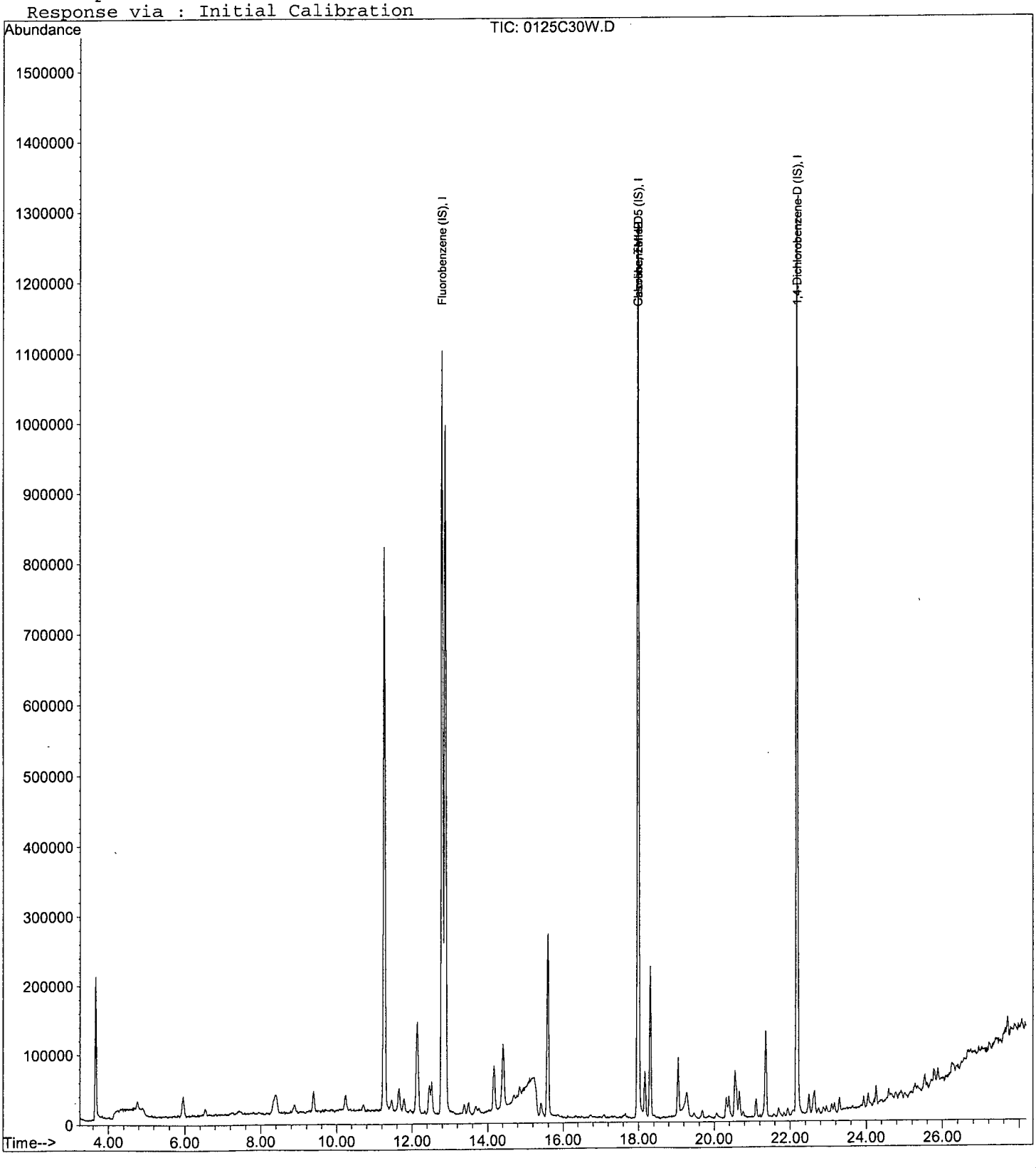
Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C30W.D
Acq On : 26 Jan 12 20:09
Sample : Vol. Std. 01-26-12@50ug/L
Misc : Water 10mLw/ IS:12-06-11

Vial: 1
Operator: RS, ARS
Inst : Chico
Multiplr: 1.00

Quant Time: Feb 7 9:35 2012 Quant Results File: CGAS.RES

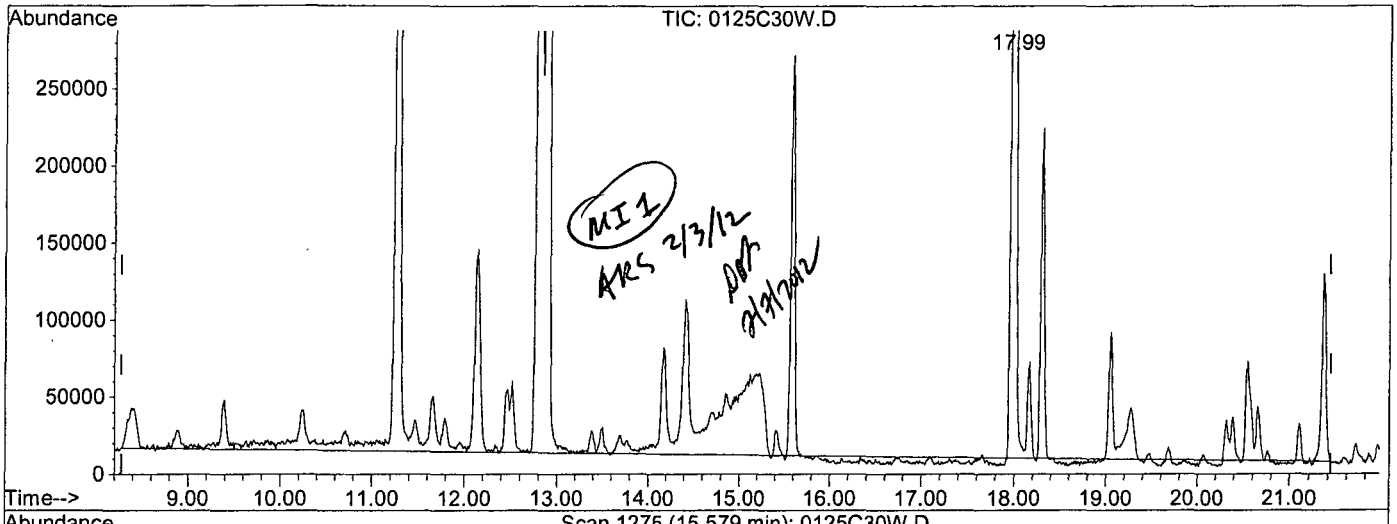
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration

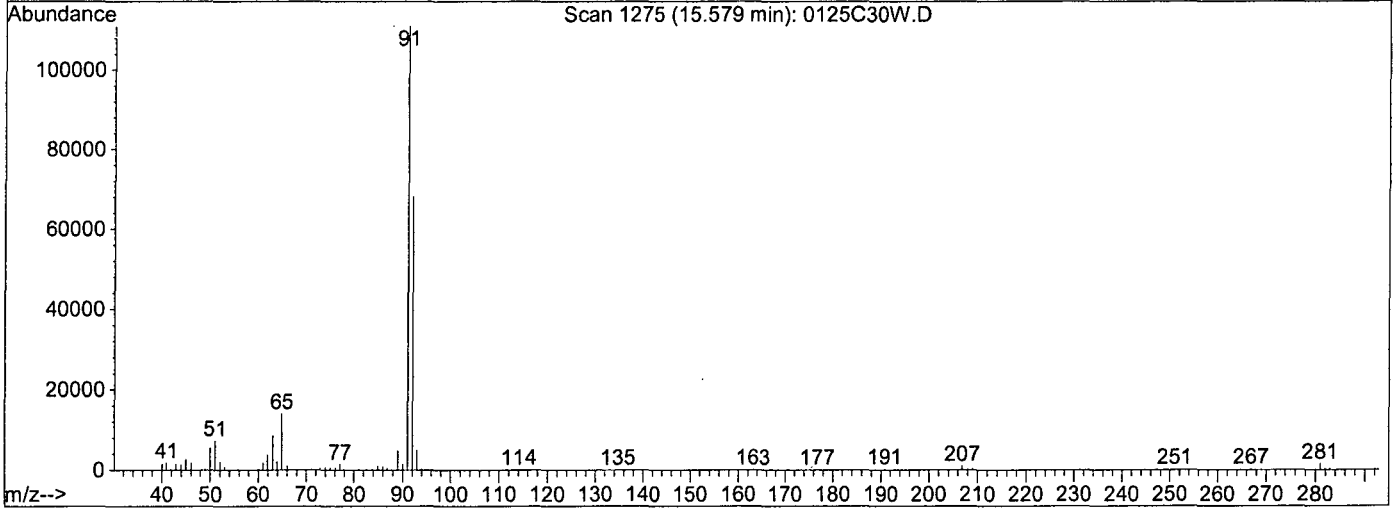


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C30W.D Vial: 1
Acq On : 26 Jan 12 20:09 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@50ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 3 12:07 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Single Level Calibration





TIC: 0125C30W.D

(2) Gasoline (TMHB)

15.58min -0.0275ppb m

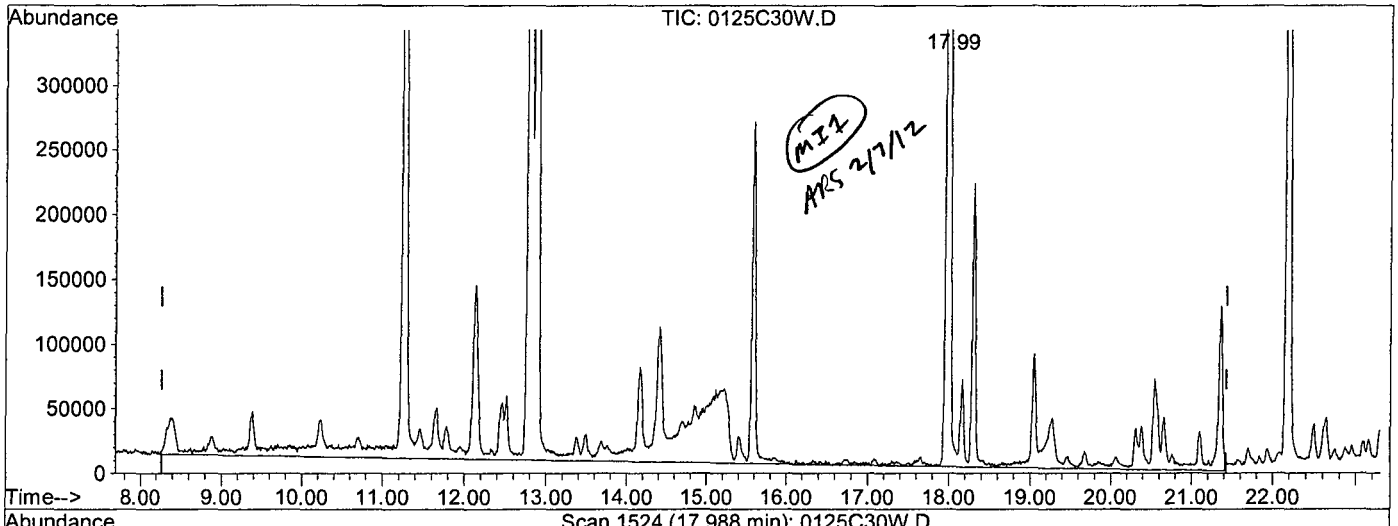
response 17475741

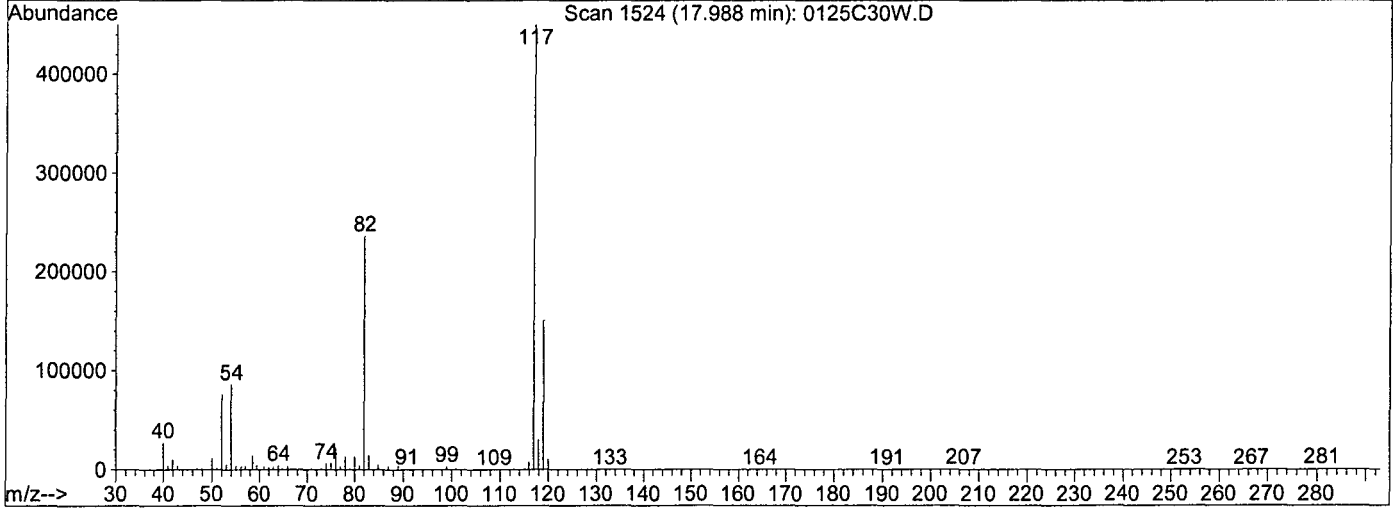
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.72#
0.00	0.00	2.18#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C30W.D Vial: 1
Acq On : 26 Jan 12 20:09 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@50ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 7 9:35 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Single Level Calibration





TIC: 0125C30W.D

(2) Gasoline (TMHB)

17.99min 59.2710ppb m

response 23136590

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.54#
0.00	0.00	1.65#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C31W.D Vial: 1
Acq On : 26 Jan 12 20:46 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 12:13 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1080126	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1280154	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1288106	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	17.98	TIC	26257782m	94.04042	ppb	100

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

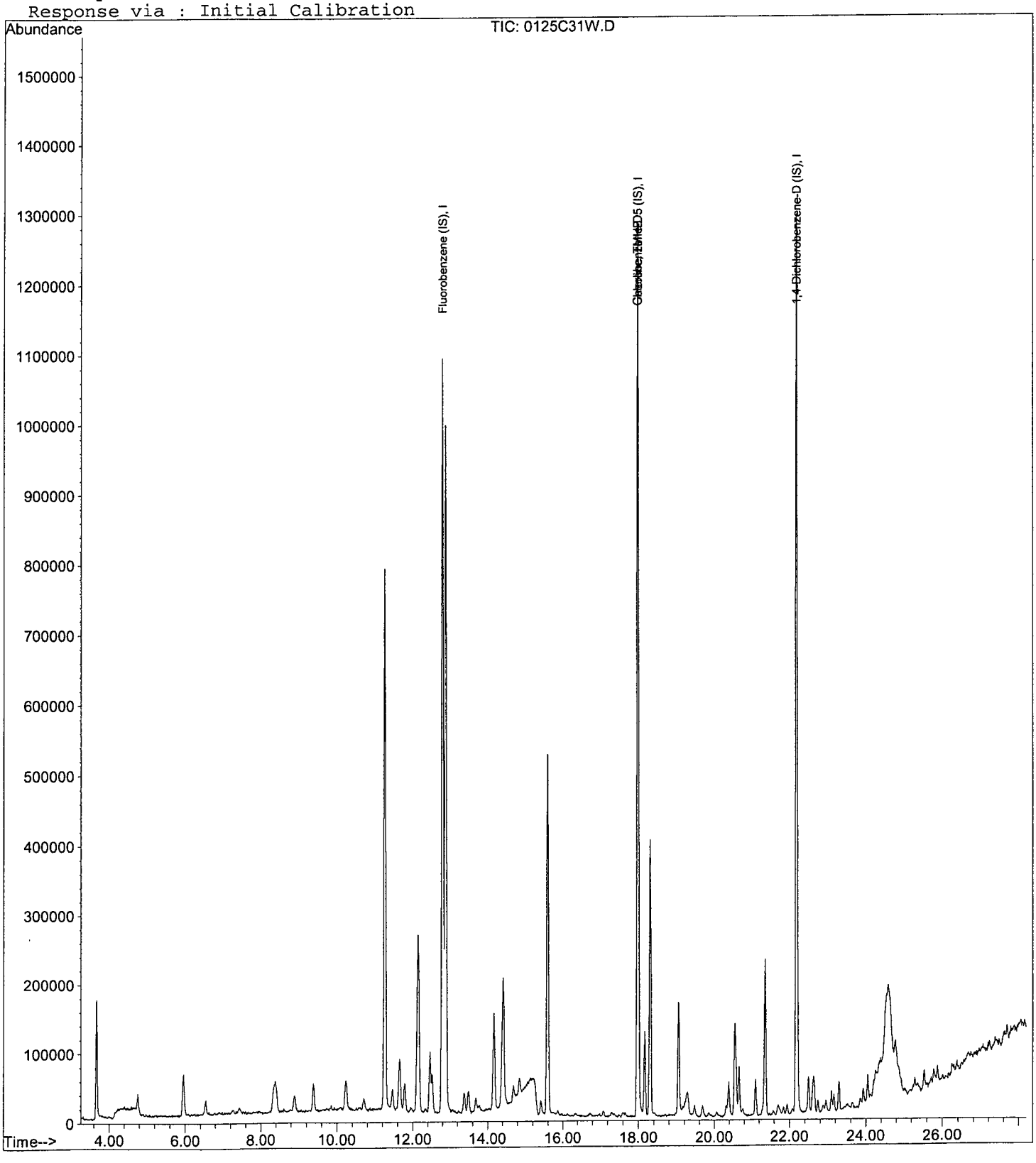
Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C31W.D
Acq On : 26 Jan 12 20:46
Sample : Vol. Std. 01-26-12@100ug/L
Misc : Water 10mLw/ IS:12-06-11

Vial: 1
Operator: RS, ARS
Inst : Chico
Multiplr: 1.00

Quant Time: Feb 3 12:13 2012 Quant Results File: CGAS.RES

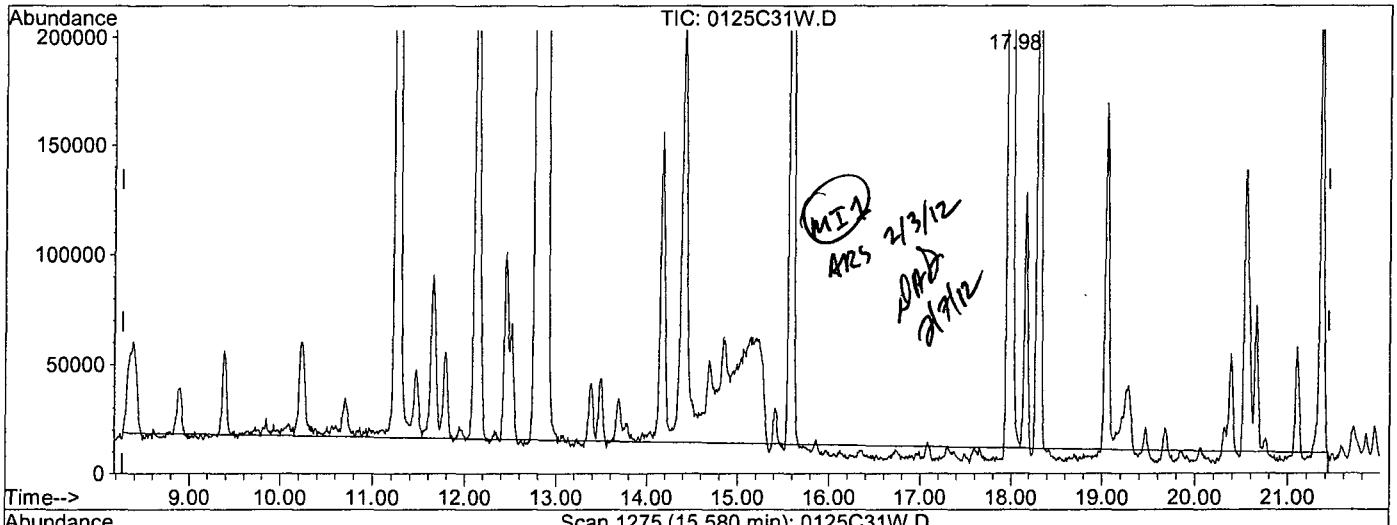
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Initial Calibration

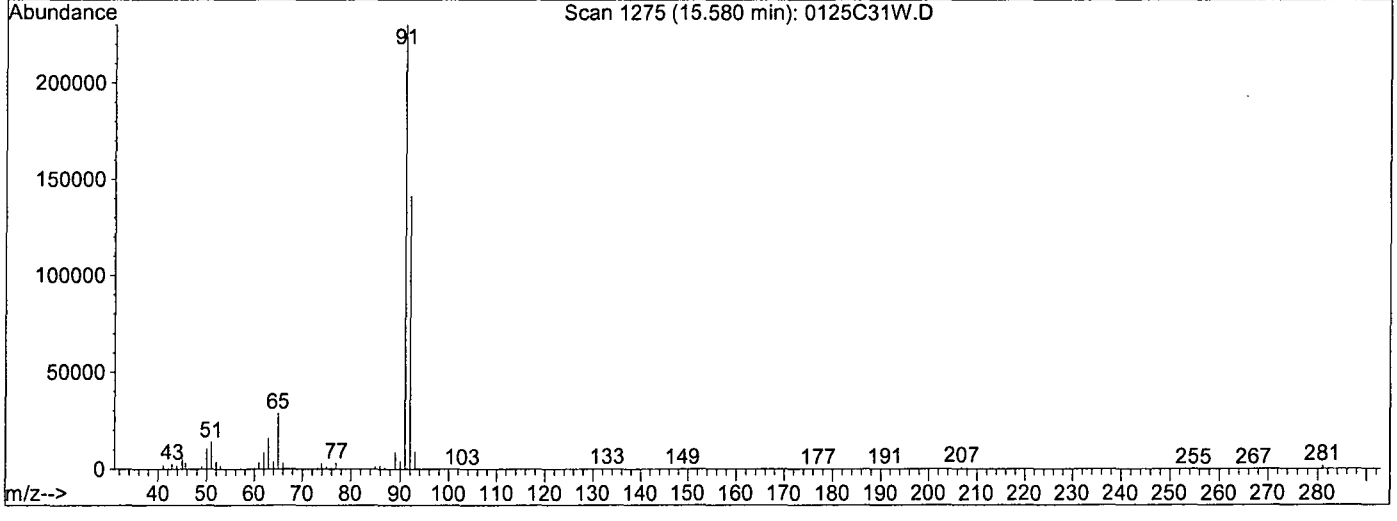


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C31W.D Vial: 1
Acq On : 26 Jan 12 20:46 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 3 12:07 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Single Level Calibration





TIC: 0125C31W.D

(2) Gasoline (TMHB)

15.58min 27.4179ppb m

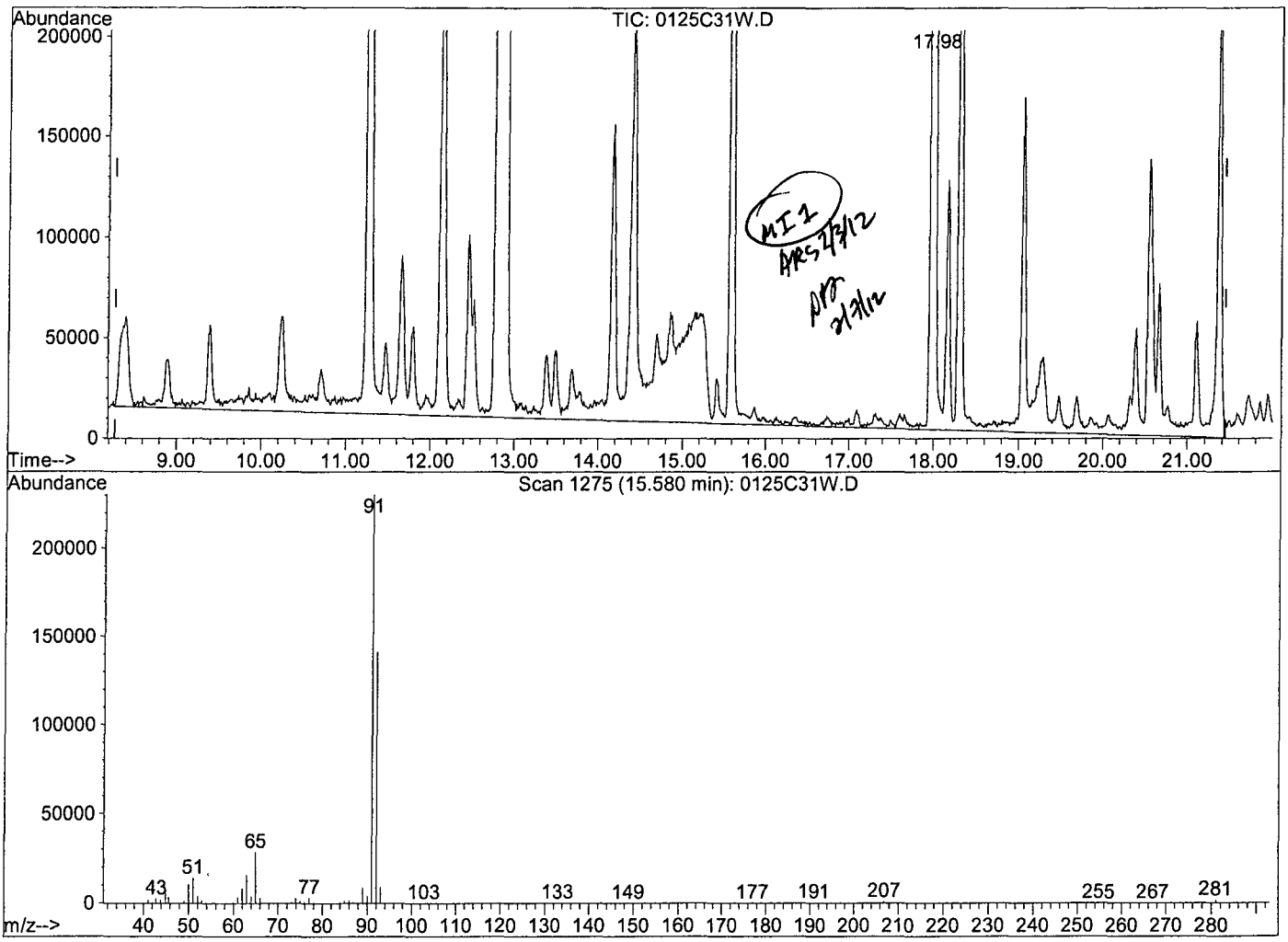
response 19945363

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.64#
0.00	0.00	1.85#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C31W.D Vial: 1
Acq On : 26 Jan 12 20:46 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 3 12:13 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Single Level Calibration



TIC: 0125C31W.D

(2) Gasoline (TMHB)

17.98min 94.0404ppb m

response 26257782

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.48#
0.00	0.00	1.40#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C32W.D Vial: 1
Acq On : 26 Jan 12 21:24 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 12:09 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1085223	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1323772	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1382634	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.58	TIC	46451061m	304.86153	ppb	100

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

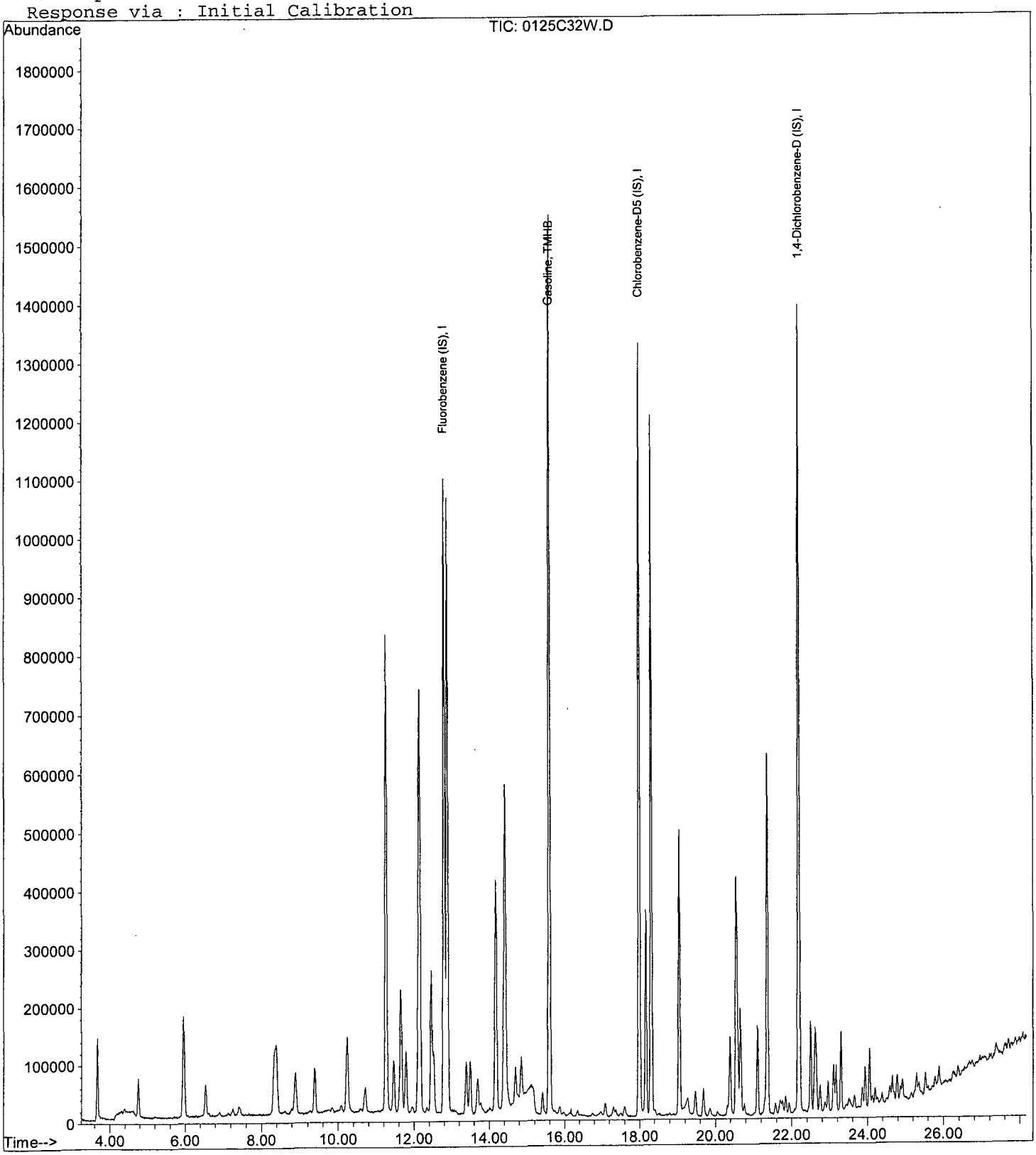
Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C32W.D
Acq On : 26 Jan 12 21:24
Sample : Vol. Std. 01-26-12@300ug/L
Misc : Water 10mLw/ IS:12-06-11

Vial: 1
Operator: RS, ARS
Inst : Chico
Multiplr: 1.00

Quant Time: Feb 3 12:09 2012 Quant Results File: CGAS.RES

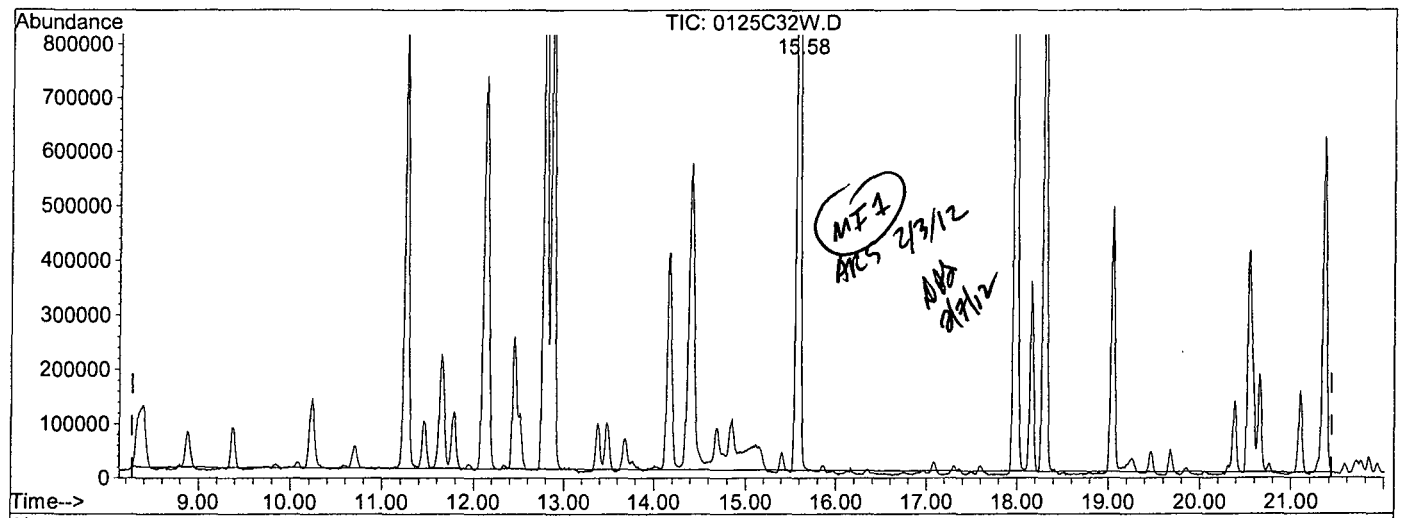
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Initial Calibration

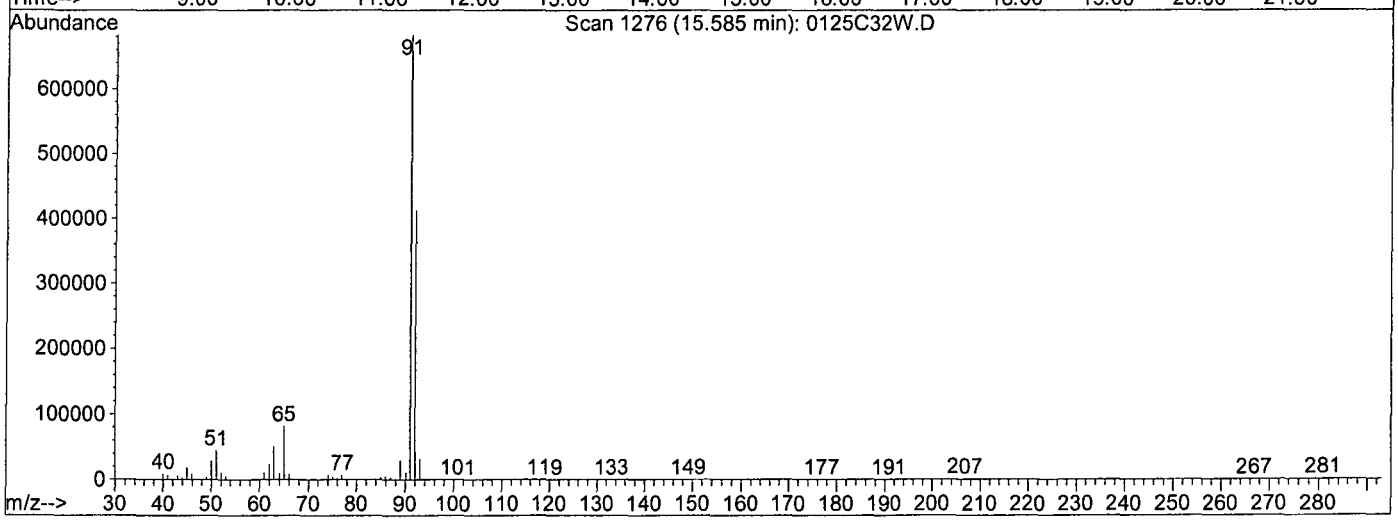


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C32W.D Vial: 1
Acq On : 26 Jan 12 21:24 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 3 12:07 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Single Level Calibration





TIC: 0125C32W.D

(2) Gasoline (TMHB)

15.58min 245.6055ppb m

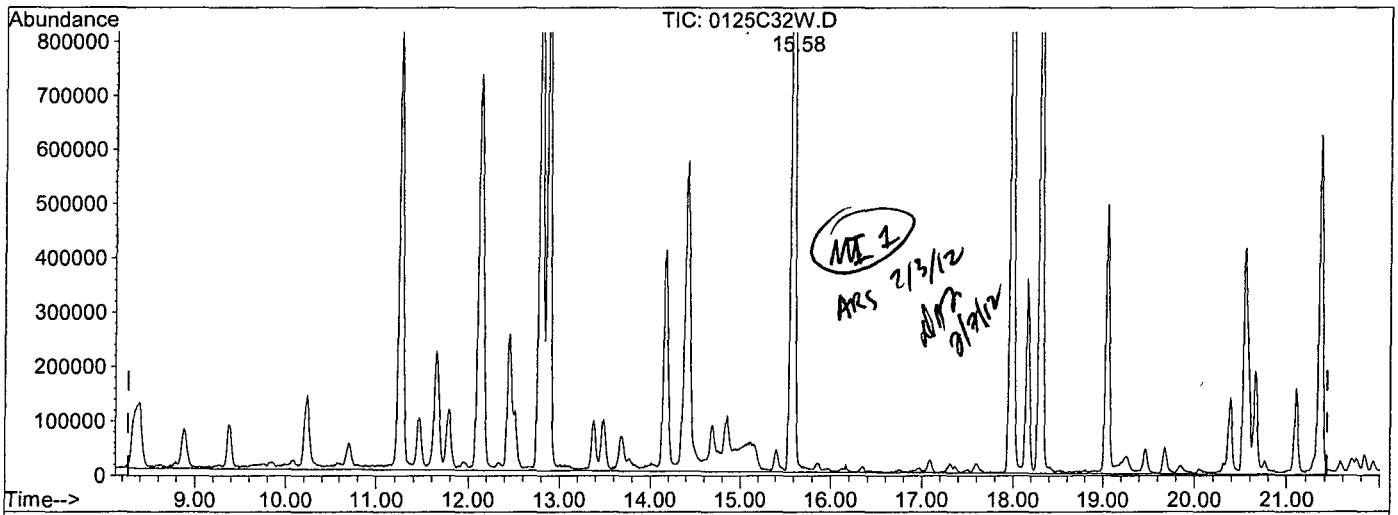
response 40810111

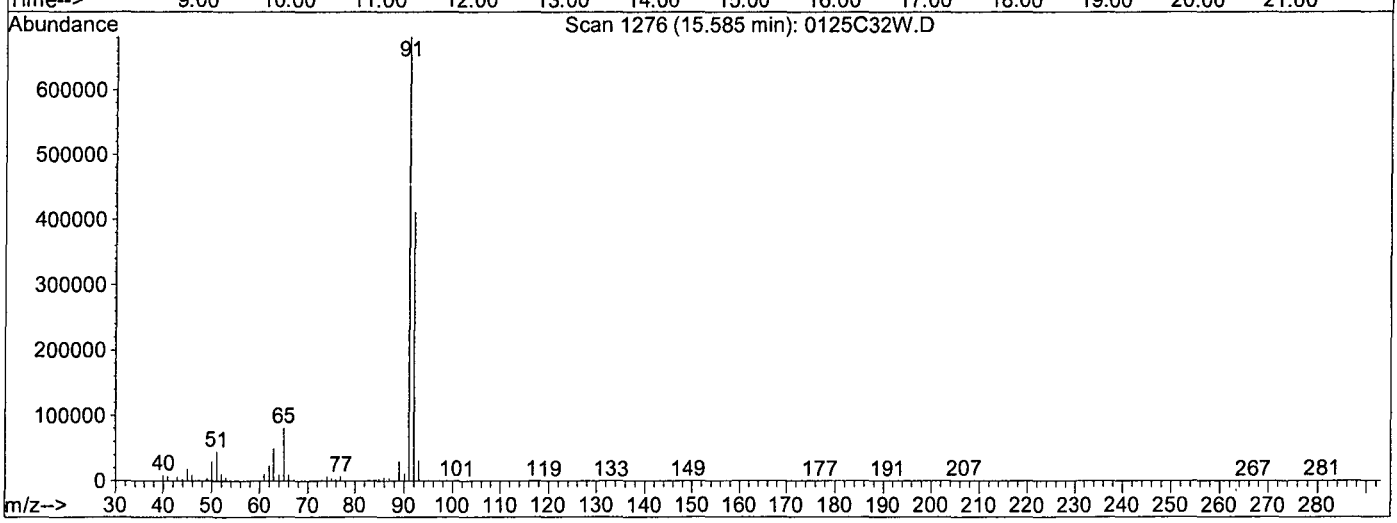
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.33#
0.00	0.00	0.94#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C32W.D Vial: 1
Acq On : 26 Jan 12 21:24 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 3 12:09 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Single Level Calibration





TIC: 0125C32W.D

(2) Gasoline (TMHB)

15.58min 304.8615ppb m

response 46451061

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.29#
0.00	0.00	0.83#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C33W.D Vial: 1
Acq On : 26 Jan 12 22:01 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 12:07 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1115516	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1310876	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1420552	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline	15.58	TIC	72391801m	556.70838	ppb	100

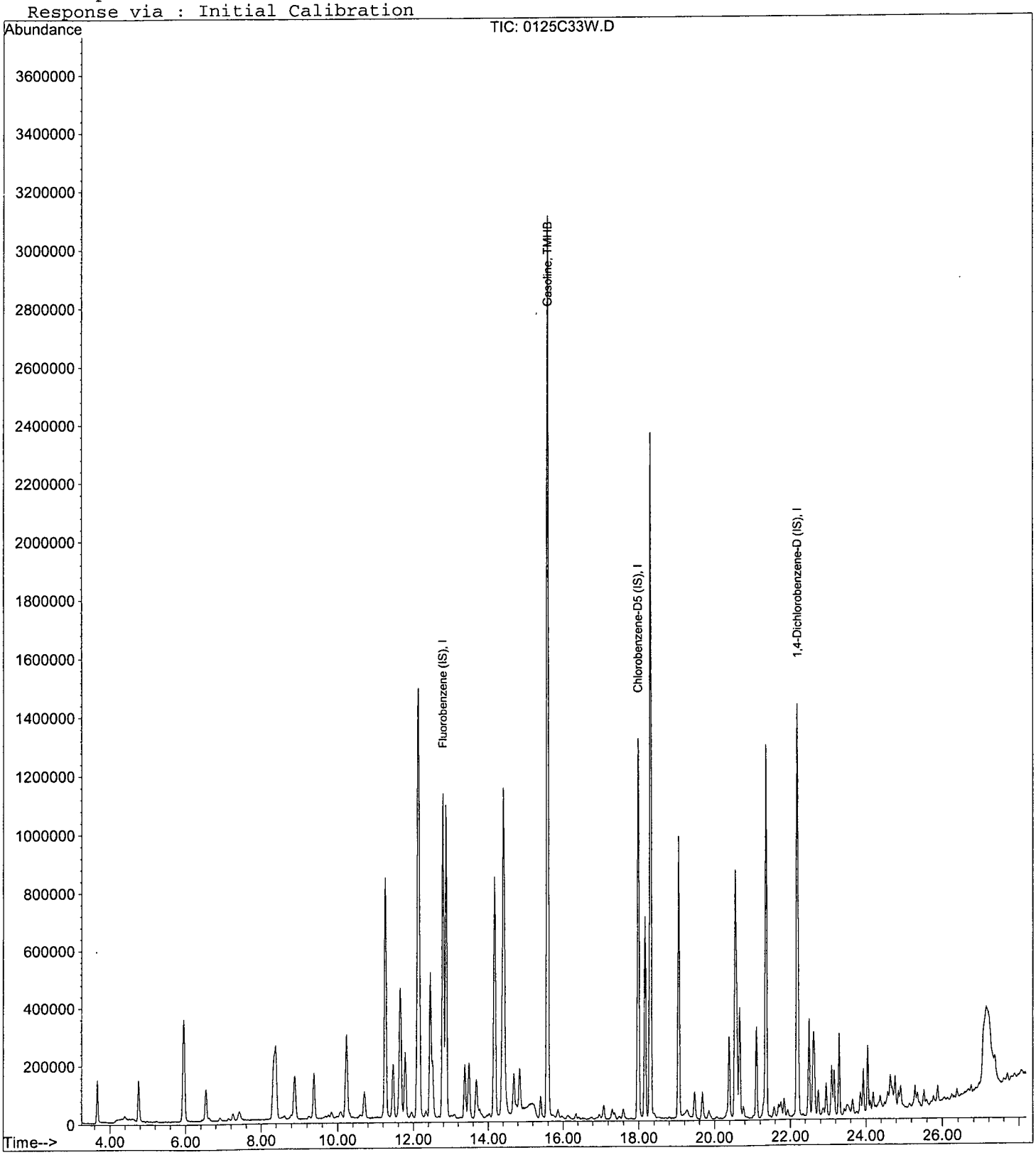
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C33W.D Vial: 1
Acq On : 26 Jan 12 22:01 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 12:07 2012 Quant Results File: CGAS.RES

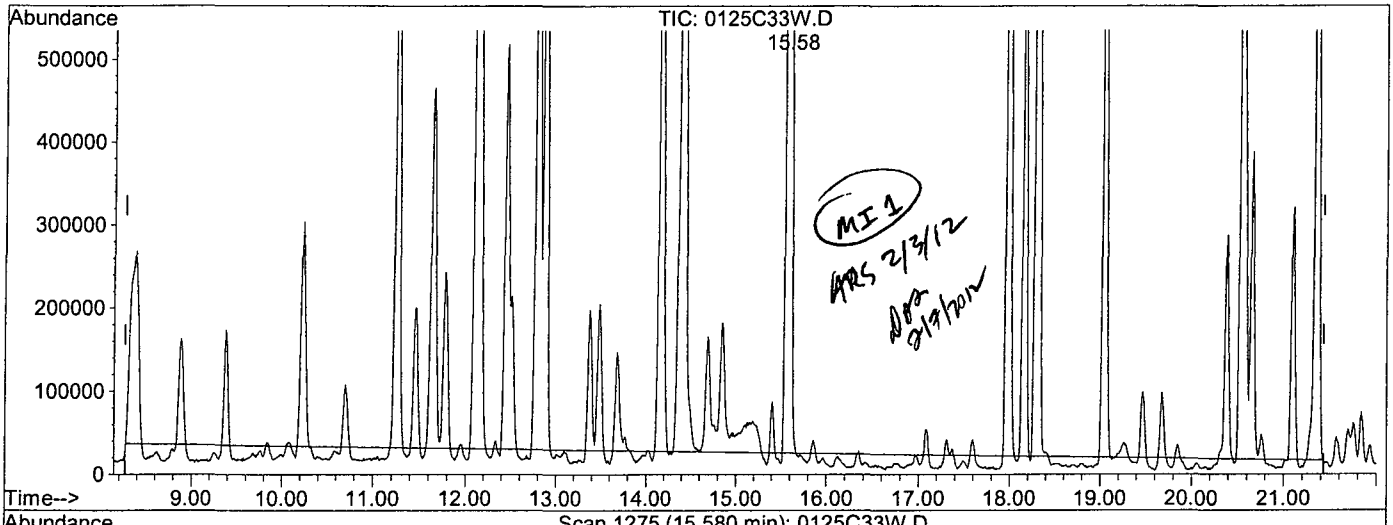
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Initial Calibration

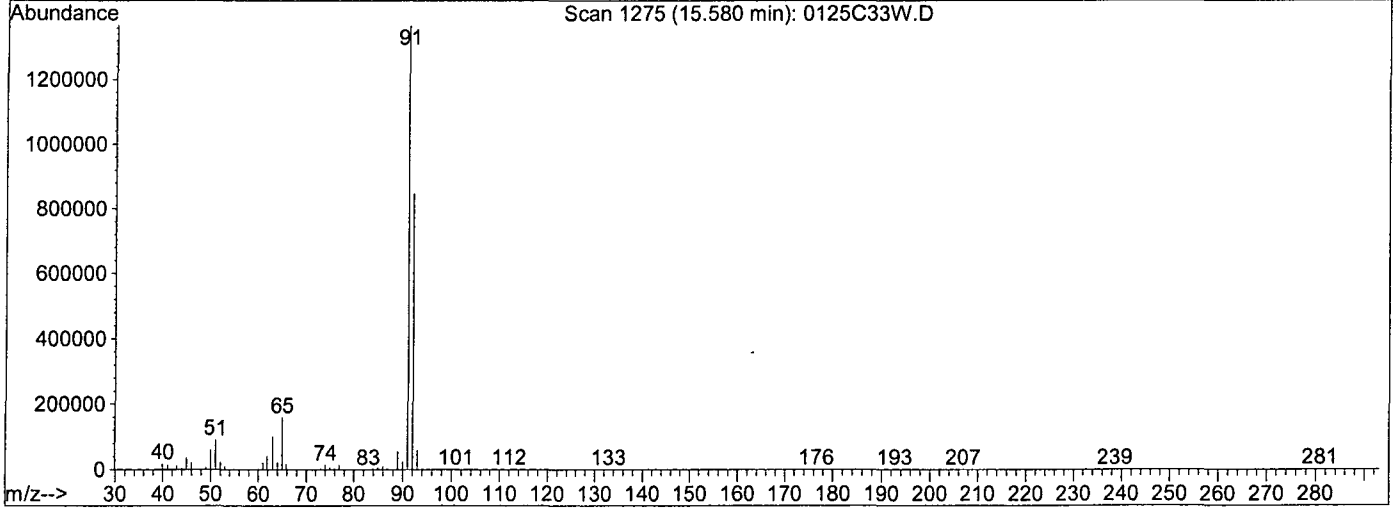


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C33W.D Vial: 1
Acq On : 26 Jan 12 22:01 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 3 12:07 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Single Level Calibration





TIC: 0125C33W.D

(2) Gasoline (TMHB)

15.58min 556.7084ppb m

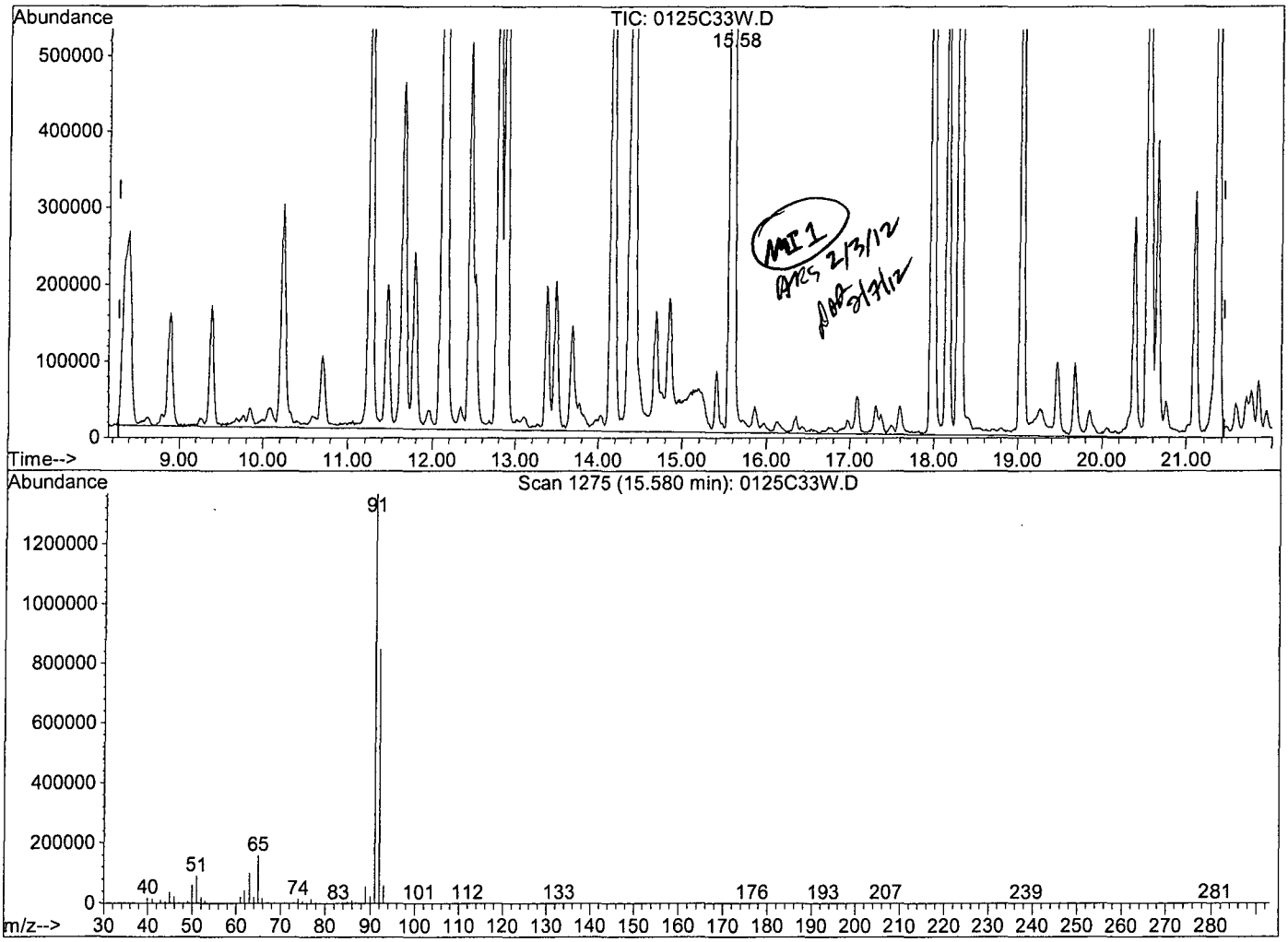
response 72391801

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.18#
0.00	0.00	0.53#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C33W.D Vial: 1
Acq On : 26 Jan 12 22:01 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 3 12:16 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Single Level Calibration



TIC: 0125C33W.D

(2) Gasoline (TMHB)

15.58min 621.4121ppb m

response 78723288

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.16#
0.00	0.00	0.49#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C34W.D Vial: 1
Acq On : 26 Jan 12 22:38 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@800ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 12:17 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1172096	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1436710	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1528793	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.58	TIC	102155823m	810.48263	ppb	100

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

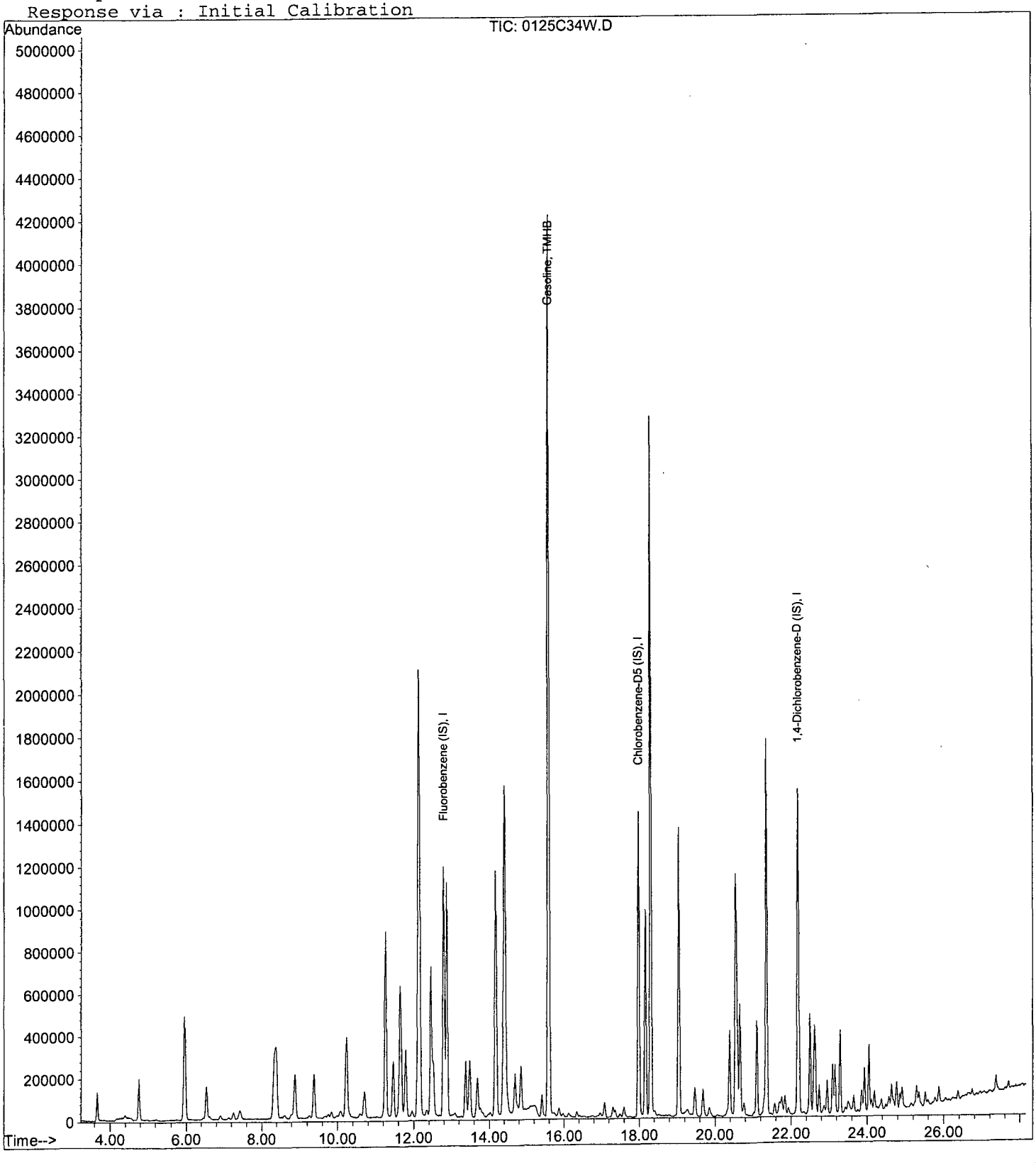
Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C34W.D
Acq On : 26 Jan 12 22:38
Sample : Vol. Std. 01-26-12@800ug/L
Misc : Water 10mLw/ IS:12-06-11

Vial: 1
Operator: RS, ARS
Inst : Chico
Multiplr: 1.00

Quant Time: Feb 3 12:17 2012 Quant Results File: CGAS.RES

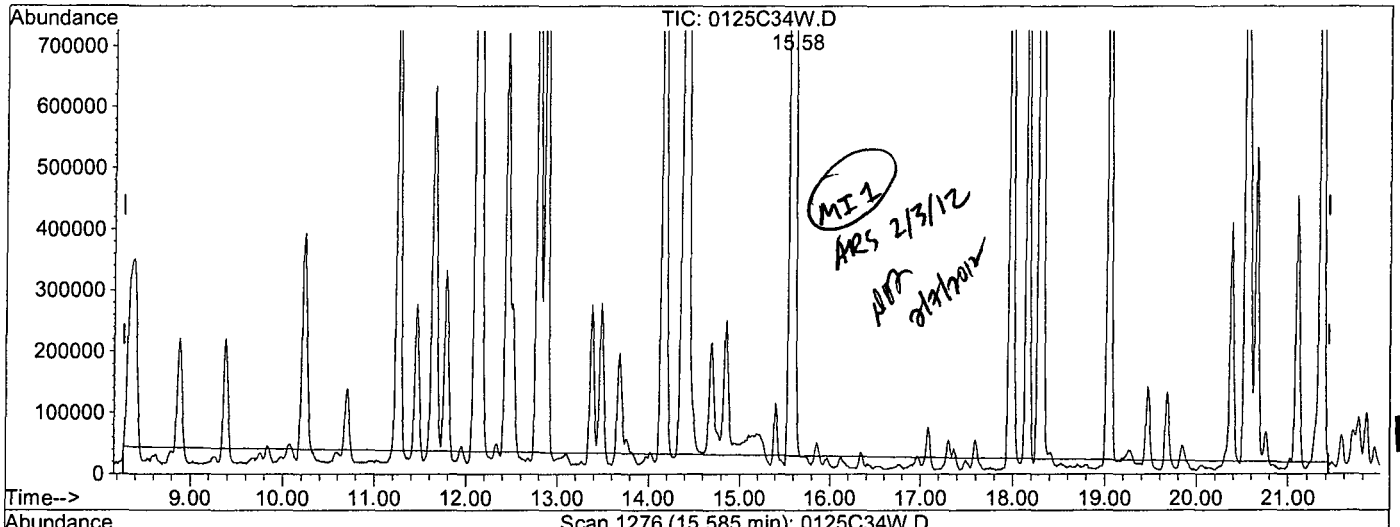
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Initial Calibration

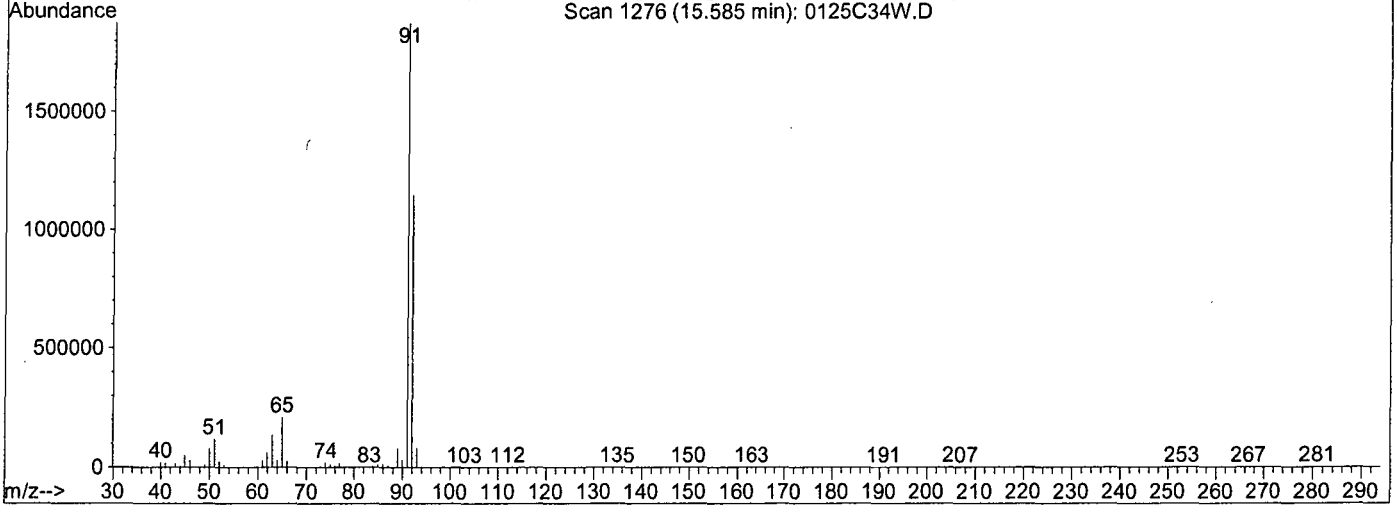


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C34W.D Vial: 1
Acq On : 26 Jan 12 22:38 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@800ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 3 12:07 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Single Level Calibration





TIC: 0125C34W.D

(2) Gasoline (TMHB)

15.58min 730.0328ppb m

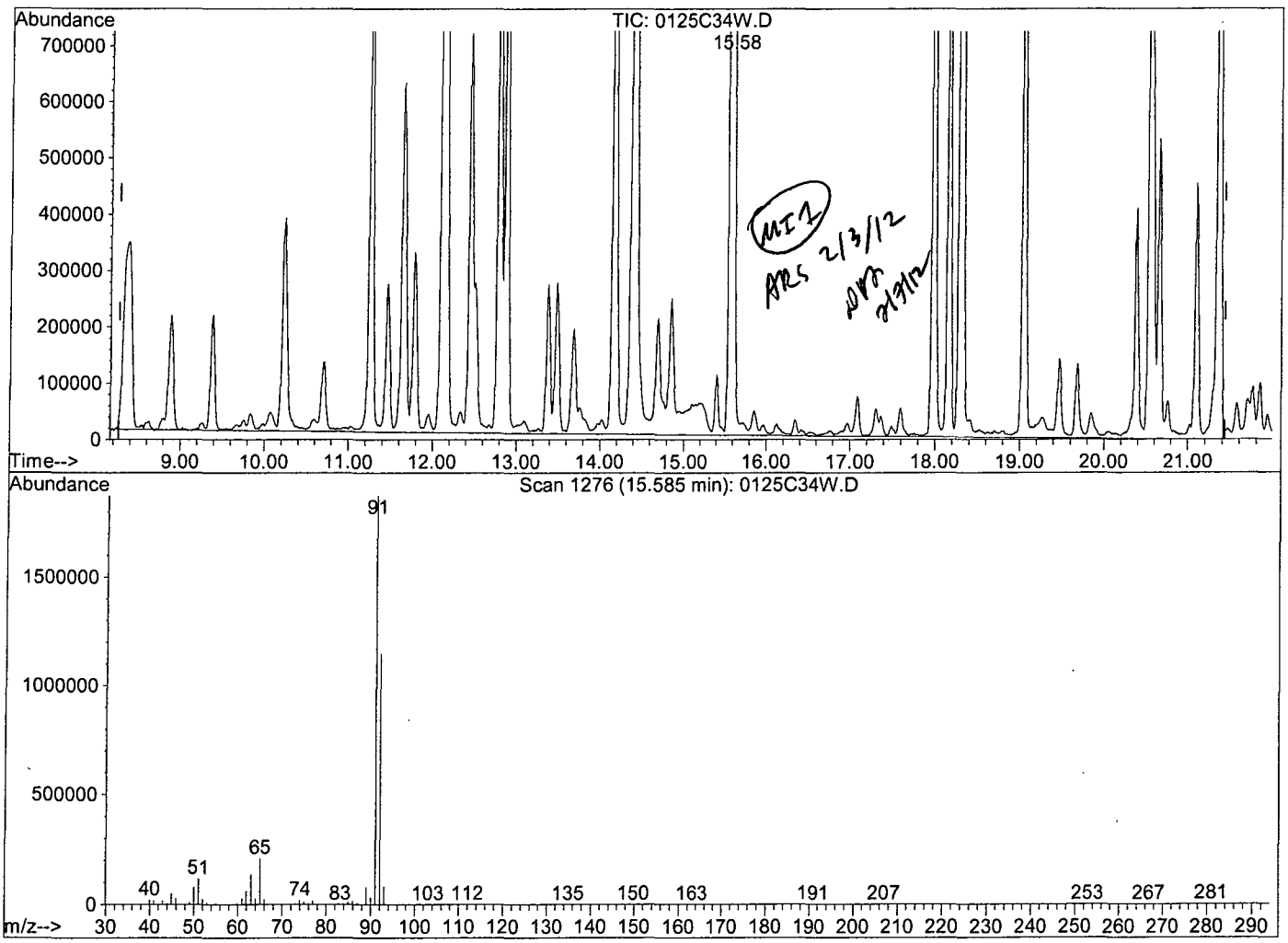
response 93884232

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.14#
0.00	0.00	0.44#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C34W.D Vial: 1
Acq On : 26 Jan 12 22:38 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@800ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 3 12:17 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Single Level Calibration



TIC: 0125C34W.D

(2) Gasoline (TMHB)

15.58min 810.4826ppb m

response 102155823

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.13#
0.00	0.00	0.41#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C35W.D Vial: 1
Acq On : 26 Jan 12 23:15 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@1000ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 12:18 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1232092	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1442206	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1630956	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.58	TIC	129481006m	1014.92580	ppb	100

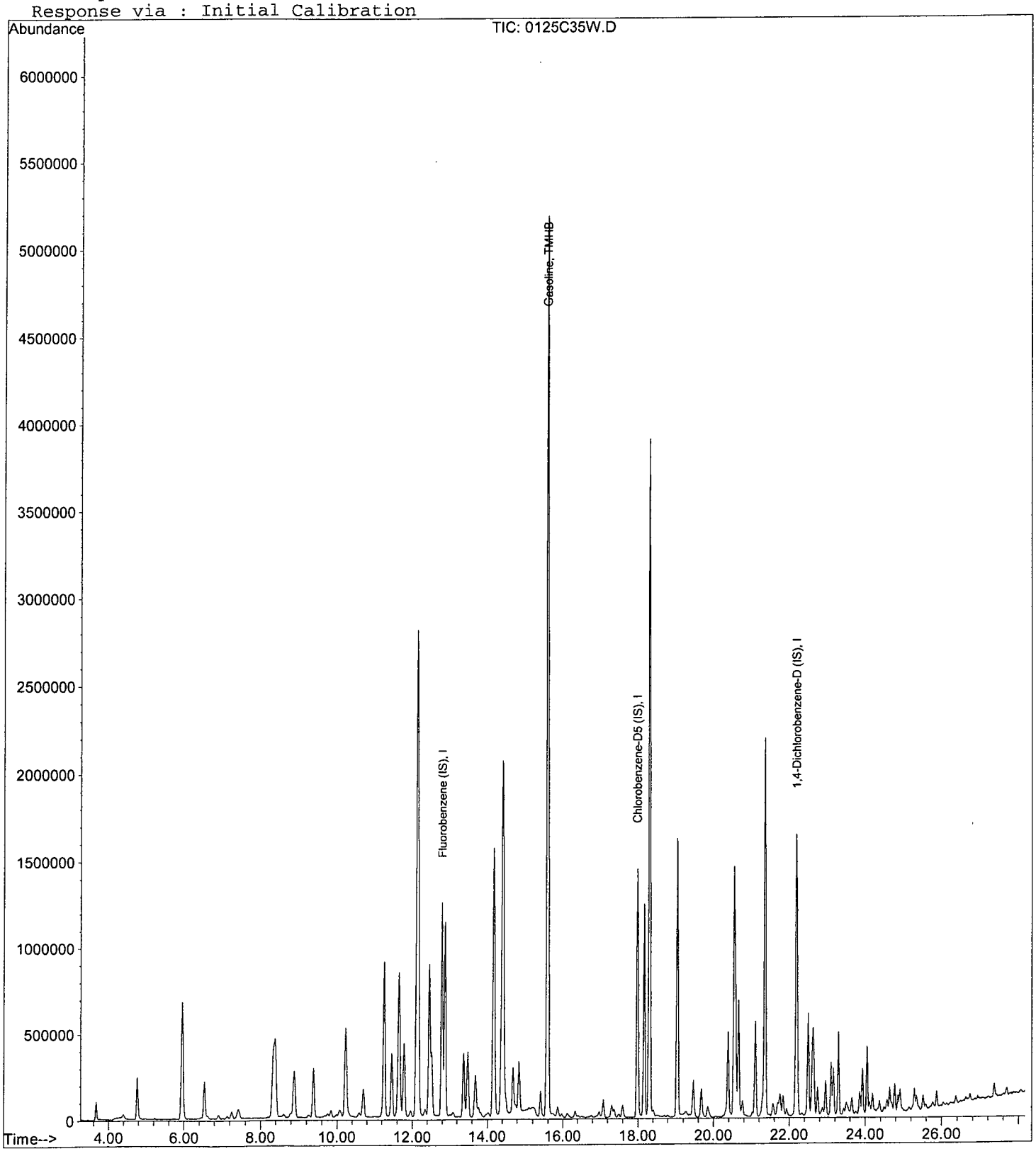
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C35W.D Vial: 1
Acq On : 26 Jan 12 23:15 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@1000ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 12:18 2012 Quant Results File: CGAS.RES

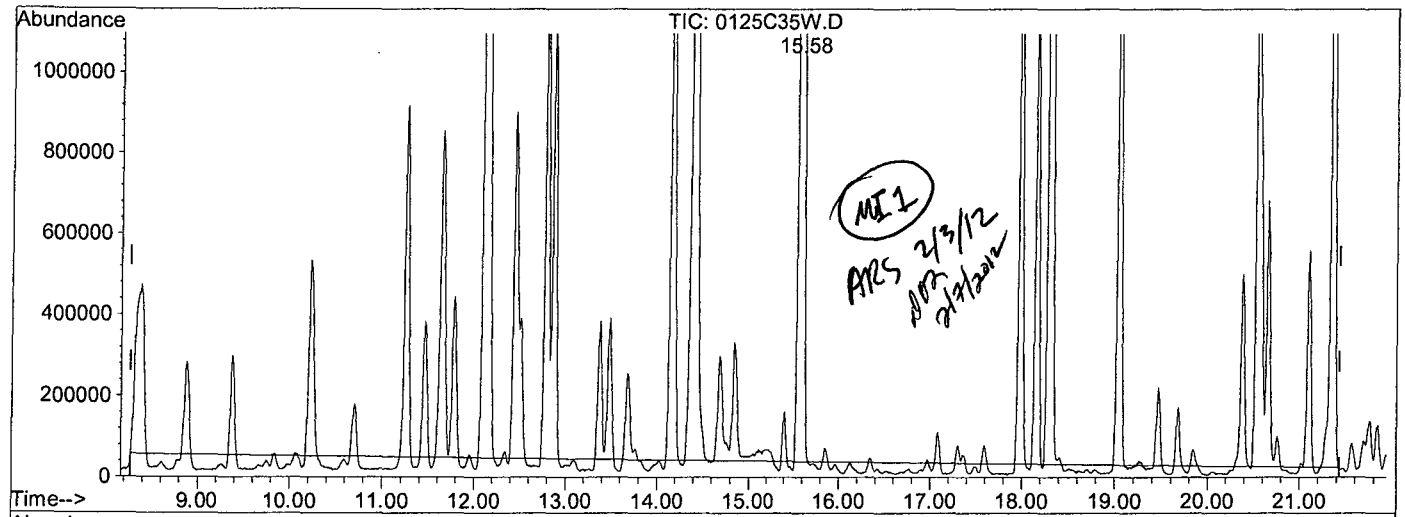
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Initial Calibration



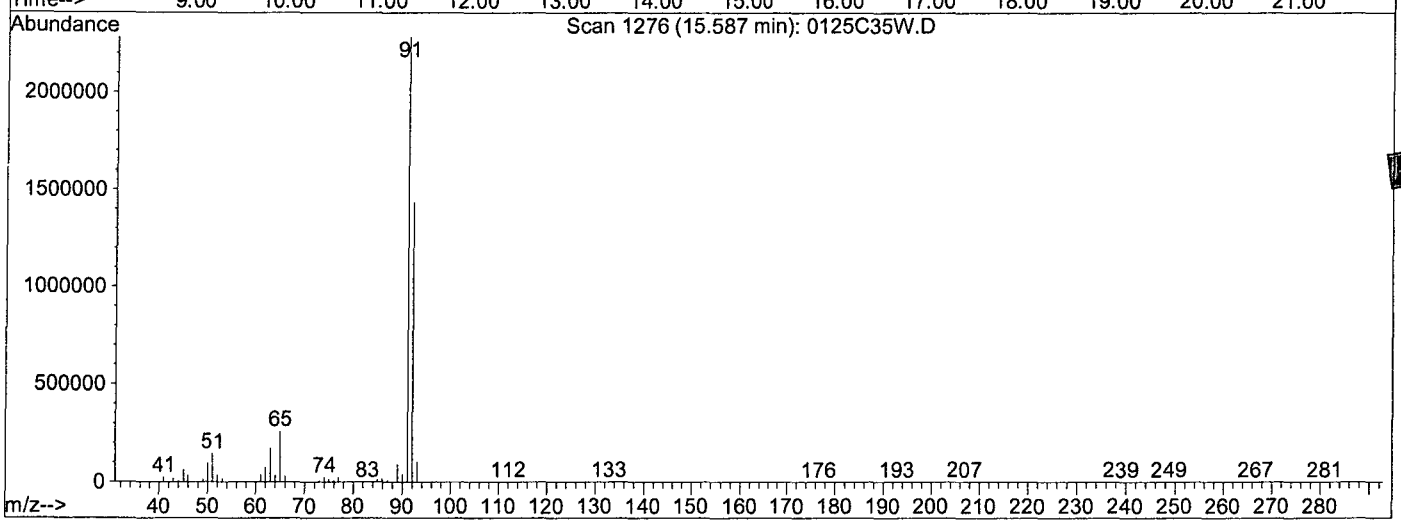
Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C35W.D Vial: 1
Acq On : 26 Jan 12 23:15 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@1000ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 3 12:07 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Single Level Calibration



MI 1
ARS 2/3/12



TIC: 0125C35W.D

(2) Gasoline (TMHB)

15.58min 923.0372ppb m

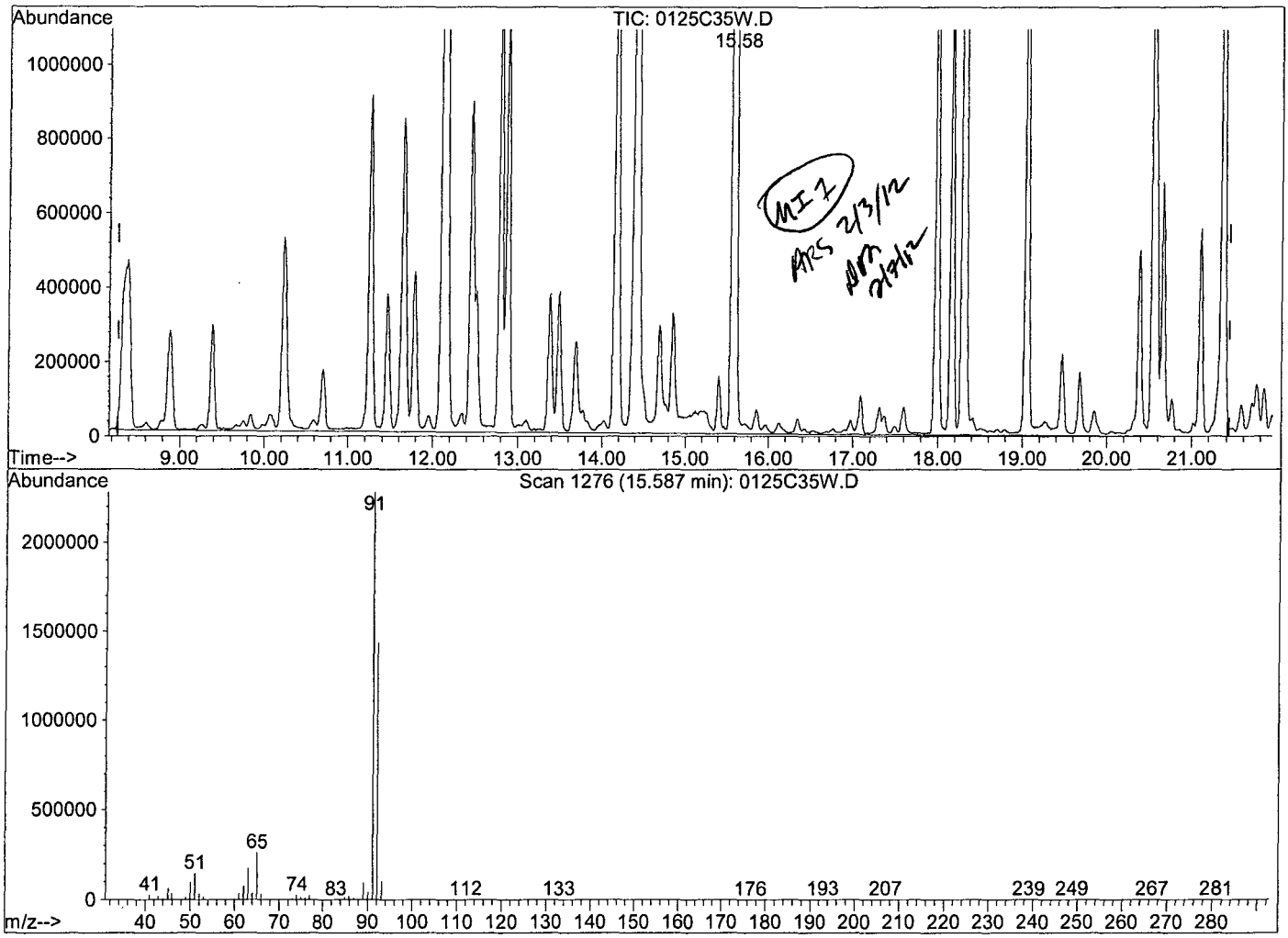
response 119549717

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.12#
0.00	0.00	0.35#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C35W.D Vial: 1
Acq On : 26 Jan 12 23:15 Operator: RS, ARS
Sample : Vol. Std. 01-26-12@1000ug/L Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 3 12:18 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Feb 03 12:07:16 2012
Response via : Single Level Calibration



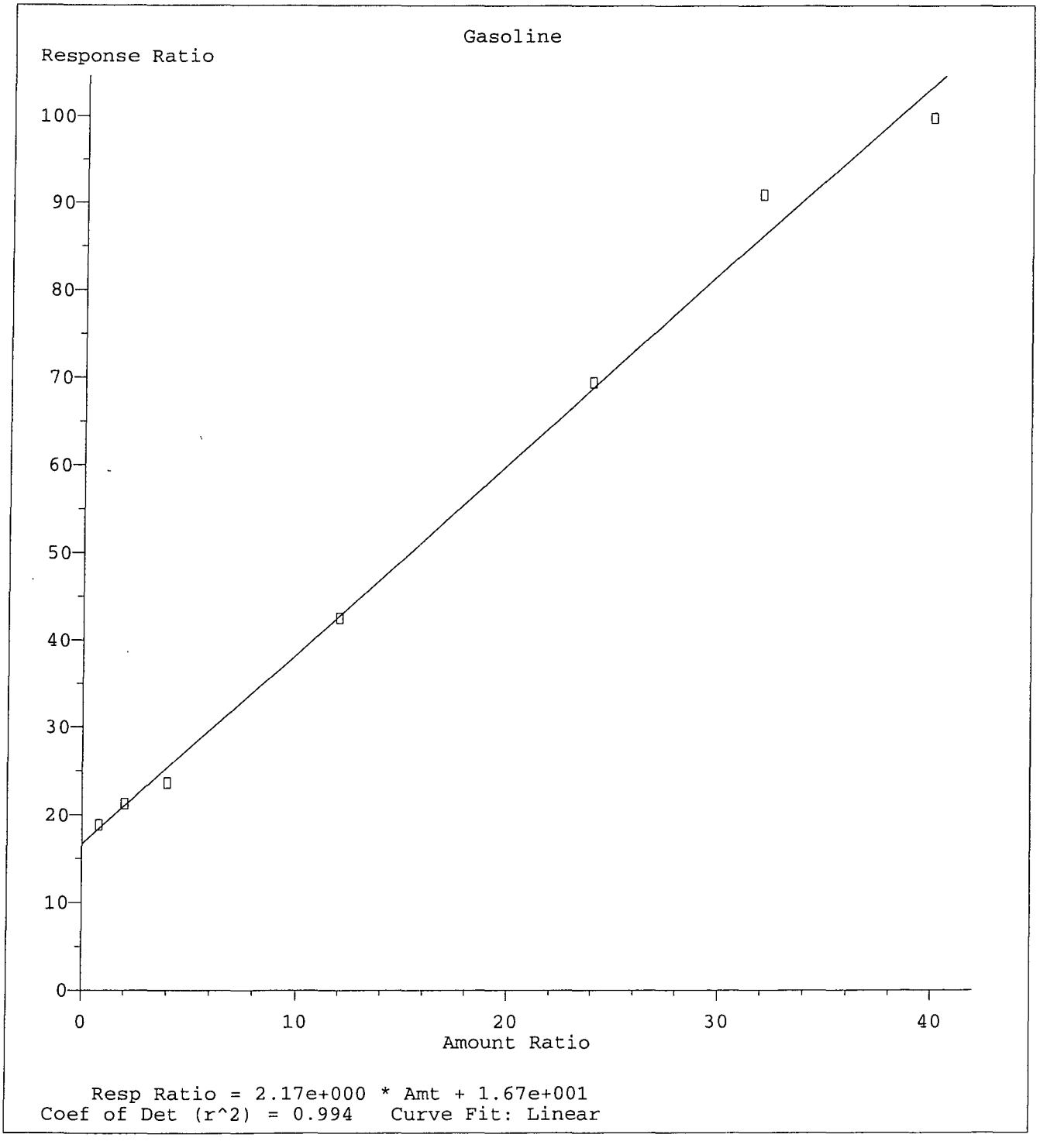
TIC: 0125C35W.D

(2) Gasoline (TMHB)

15.58min 1014.9258ppb m

response 129481006

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.11#
0.00	0.00	0.33#
0.00	0.00	0.00



Method Name: M:\CHICO\DATA\C120125\CGAS.M
Calibration Table Last Updated: Tue Feb 07 09:36:43 2012

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C28W.D Vial: 1
Acq On : 26 Jan 12 18:55 Operator: RS, ARS
Sample : VOC Mix Marker Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 7 9:41 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.80	TIC	998565	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	2063547	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1276666	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.58	TIC	68624186m	598.65494	ppb	100

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

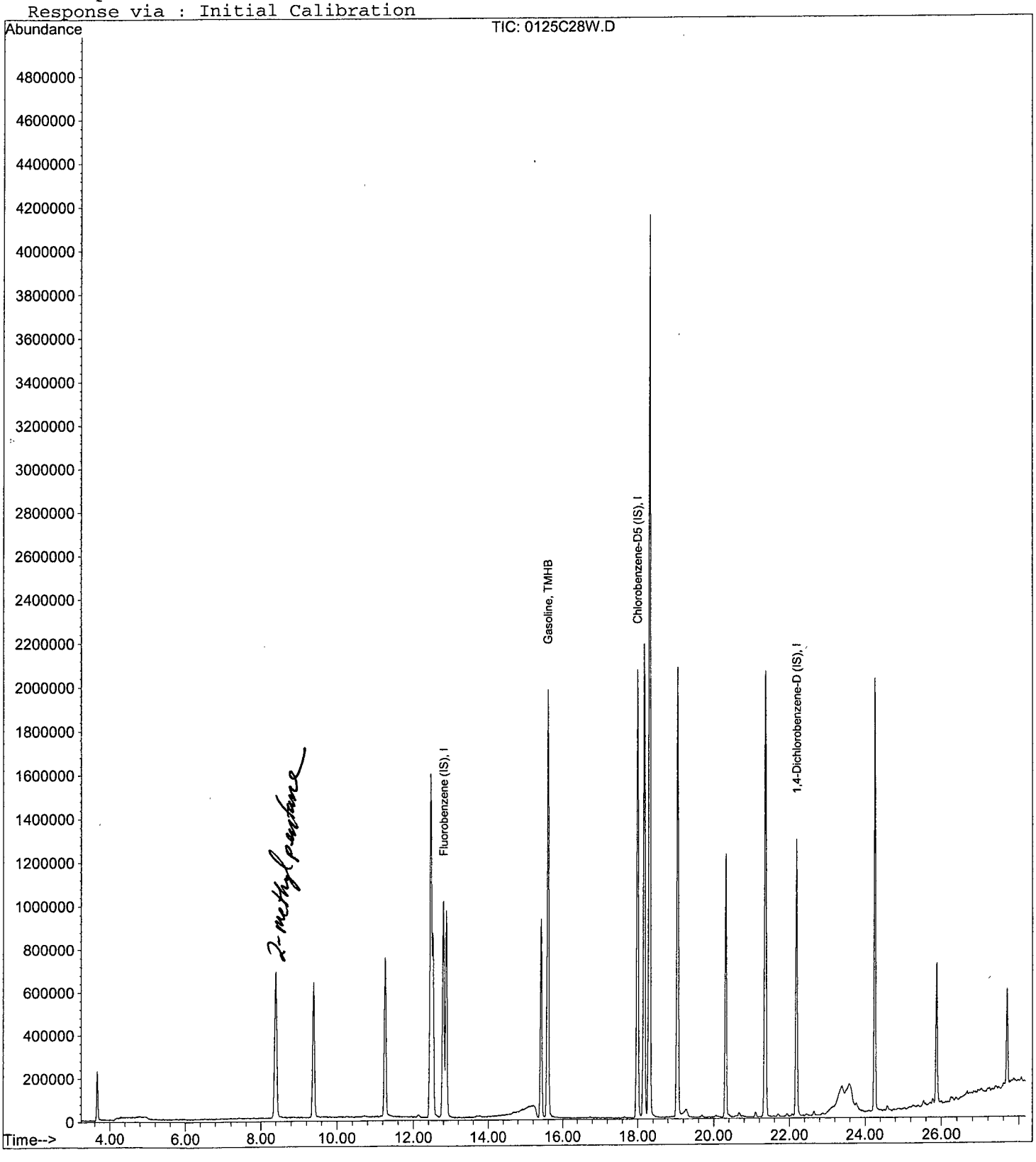
Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C28W.D
Acq On : 26 Jan 12 18:55
Sample : VOC Mix Marker
Misc : Water 10mLw/ IS:12-06-11

Vial: 1
Operator: RS, ARS
Inst : Chico
Multiplr: 1.00

Quant Time: Feb 7 9:41 2012 Quant Results File: CGAS.RES

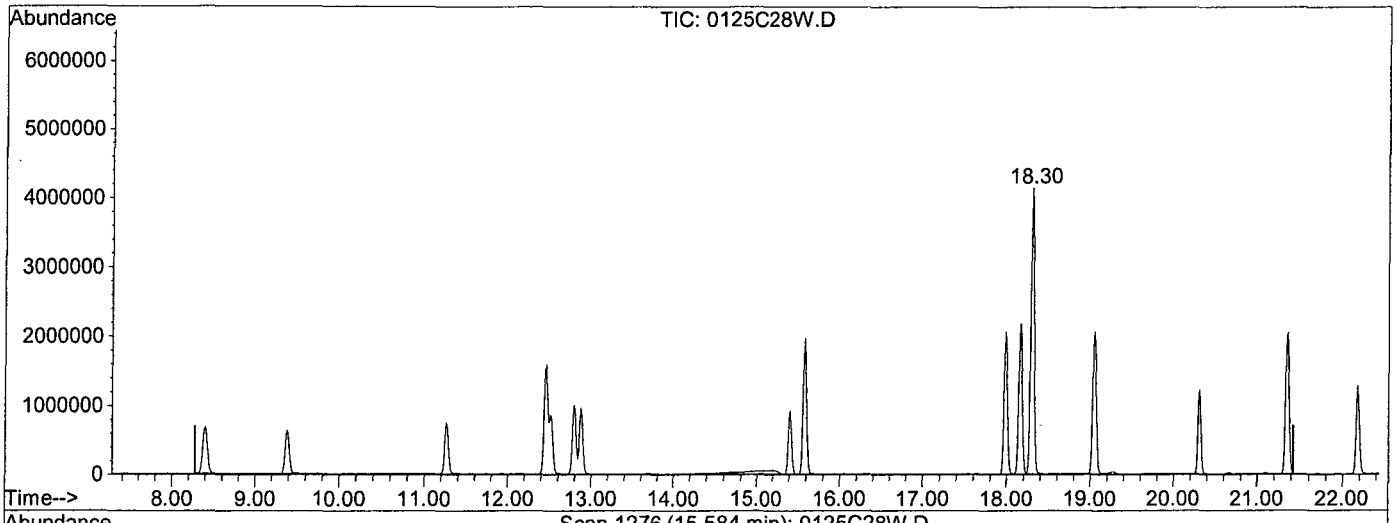
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration

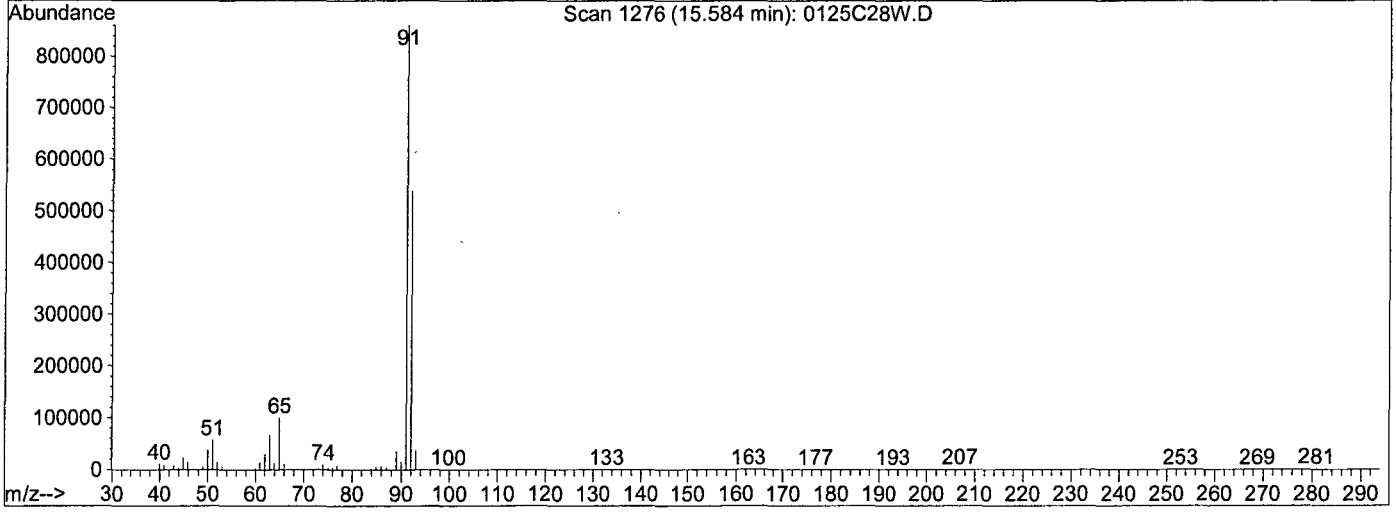


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C28W.D Vial: 1
Acq On : 26 Jan 12 18:55 Operator: RS, ARS
Sample : VOC Mix Marker Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 7 9:41 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Single Level Calibration





TIC: 0125C28W.D

(2) Gasoline (TMHB)

15.58min 598.6549ppb m

response 68624186

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.19#
0.00	0.00	0.54#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C28W.D Vial: 1
Acq On : 26 Jan 12 18:55 Operator: RS, ARS
Sample : VOC Mix Marker Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 11:40 2012 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C120125\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Jan 27 12:42:43 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.80	96	514344	25.00000 ppb		0.03
54) Chlorobenzene-D5 (IS)	17.98	117	426880	25.00000 ppb		0.02
70) 1,4-Dichlorobenzene-D (IS)	22.18	152	243008	25.00000 ppb		0.02
System Monitoring Compounds						
32) Dibromofluoromethane(S)	11.40	111	814	0.05945 ppb		0.04
Spiked Amount 24.119			Recovery = 0.245%			
37) 1,2-DCA-D4(S)	12.18	65	952	0.09637 ppb		0.02
Spiked Amount 22.874			Recovery = 0.420%			
55) Toluene-D8(S)	15.46	98	5539	0.10268 ppb		0.03
Spiked Amount 24.755			Recovery = 0.416%			
63) 4-Bromofluorobenzene(S)	20.05	95	5181	0.27480 ppb		0.02
Spiked Amount 26.777			Recovery = 1.027%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.06	85	2596	0.82228 ppb		98
3) Freon 114	4.31	85	1957	0.24927 ppb		98
4) Chloromethane	4.53	50	497	-0.25189 ppb	#	1
5) Vinyl chloride	4.81	62	636	0.11072 ppb	#	55
6) Bromomethane	5.66	94	352	1.43494 ppb	#	48
7) Chloroethane	5.89	64	688	0.17146 ppb	#	88
9) Trichlorofluoromethane	6.48	103	598	0.15470 ppb	#	42
11) Acrolein	7.16	56	139	1.20103 ppb		81
12) Acetone	7.25	43	1756	0.17301 ppb	#	49
13) Freon-113	7.44	101	1265	0.10656 ppb		84
14) 1,1-DCE	7.63	96	2136	0.28441 ppb	#	17
15) t-Butanol	7.75	59	112	1.98451 ppb	#	80
17) Iodomethane	8.12	142	488	0.33050 ppb	#	43
18) Acrylonitrile	8.40	53	18247	12.53629 ppb	#	22
19) Methylene chloride	8.44	84	5961	-0.42807 ppb	#	1
20) Carbon disulfide	8.51	76	565	0.07522 ppb	#	75
22) Trans-1,2-DCE	9.06	96	3142	0.09631 ppb	#	9
25) Vinyl Acetate	9.38	43	108176	52.11193 ppb		98
27) MEK (2-Butanone)	10.41	43	403	0.27118 ppb	#	66
28) Cis-1,2-DCE	10.76	96	1544	0.11362 ppb	#	23
34) Cyclohexane	11.97	56	2103	0.11787 ppb		99
35) 1,1-Dichloropropene	12.09	75	2011	0.15580 ppb	#	45
36) 2,2,4-Trimethylpentane	12.13	57	18754	0.54048 ppb		99
38) Carbon Tetrachloride	12.23	117	80	0.91706 ppb	#	41
40) 1,2-DCA	12.45	62	18764	2.04942 ppb	#	75
41) Benzene	12.45	78	2517875	58.71375 ppb		98
42) TCE	13.49	95	1033	0.08724 ppb	#	57
43) 2-Pentanone	13.09	43	1444	0.49565 ppb	#	63
46) Methyl Cyclohexane	13.76	83	4236	0.25633 ppb		93
50) Cis-1,3-Dichloropropene	14.93	75	612	-0.23271 ppb		85
51) Toluene	15.58	91	2516540	49.99585 ppb		96
52) Trans-1,3-Dichloropropene	15.76	75	1112	0.10188 ppb	#	60
57) Tetrachloroethene	16.75	164	1780	0.15371 ppb	#	45
58) 1-Chlorohexane	17.66	91	4450	0.20898 ppb		89
60) m&p-Xylene	18.30	106	2213106	87.61936 ppb		97
61) o-Xylene	19.05	106	1078952	43.01267 ppb		93
62) Styrene	19.05	104	54491	1.45381 ppb	#	1
64) 2-Hexanone	16.02	43	394	0.17017 ppb	#	25
67) Chlorobenzene	18.06	112	2884	0.07867 ppb	#	48

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

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C28W.D Vial: 1
Acq On : 26 Jan 12 18:55 Operator: RS, ARS
Sample : VOC Mix Marker Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 11:40 2012 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C120125\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Jan 27 12:42:43 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
68) Ethylbenzene	18.17	91	2939246	43.94023	ppb		100
71) MIBK (methyl isobutyl keto	14.58	43	99	-0.18362	ppb	#	31
72) Isopropylbenzene	19.69	105	9228	0.12704	ppb		92
75) t-1,4-Dichloro-2-Butene	20.31	53	19055	11.41330	ppb	#	8
76) Bromobenzene	20.43	156	3594	0.20876	ppb	#	47
77) n-Propylbenzene	20.39	91	18116	0.20048	ppb		98
78) 4-Ethyltoluene	20.59	105	8271	0.15756	ppb		90
79) 2-Chlorotoluene	20.68	91	7547	0.13199	ppb	#	77
80) 1,3,5-Trimethylbenzene	20.66	105	19818	0.33532	ppb		92
81) 4-Chlorotoluene	20.77	91	9067	0.17883	ppb		97
82) Tert-Butylbenzene	21.36	119	276648	4.08833	ppb	#	71
83) 1,2,4-Trimethylbenzene	21.36	105	2161299	36.78081	ppb		97
84) Sec-Butylbenzene	21.70	105	18537	0.22205	ppb	#	76
85) p-Isopropyltoluene	21.93	119	13390	0.19972	ppb	#	89
86) Benzyl Chloride	22.37	91	1446	0.10670	ppb	#	90
87) 1,3-DCB	22.08	146	7950	0.23447	ppb		83
88) 1,4-DCB	22.25	146	8802	0.26702	ppb	#	79
89) Hexachloroethane	23.52	117	2736	0.90342	ppb	#	25
90) n-Butylbenzene	22.65	91	21345	0.34686	ppb	#	94
91) 1,2-DCB	22.88	146	6887	0.24229	ppb	#	79
92) 1,2-Dibromo-3-chloropropan	24.07	155	120	0.11615	ppb	#	46
93) 1,2,4-Trichlorobenzene	25.53	180	5653	0.69548	ppb		79
94) Hexachlorobutadiene	25.78	223	5853	0.53769	ppb	#	69
95) Naphthalene	25.89	128	857570	35.27522	ppb		99
96) 1,2,3-Trichlorobenzene	26.24	180	4574	0.69979	ppb		85

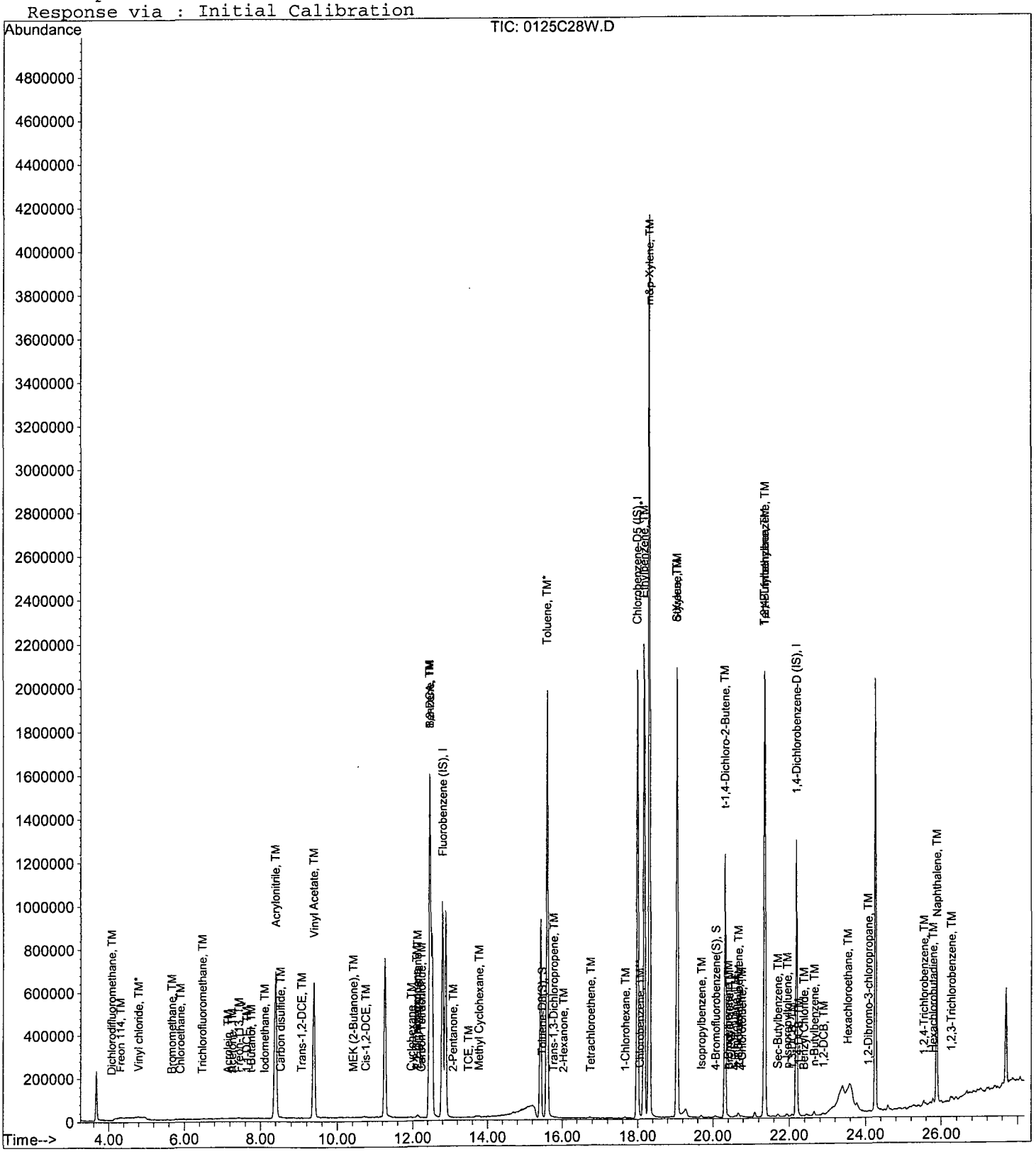
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C28W.D Vial: 1
Acq On : 26 Jan 12 18:55 Operator: RS, ARS
Sample : VOC Mix Marker Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 11:40 2012 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C120125\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Jan 27 12:42:43 2012
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No: 67525
Matrix: Water

SDG No: 67525
Date Analyzed: 01/27/12
Instrument: Chico
Initial Cal. Date: 01/25/12
Data File: 0125C38W.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline	7.410	3.556	52	TMHBL	0.36
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			52.0		

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C38W.D Vial: 1
Acq On : 27 Jan 12 1:06 Operator: RS, ARS
Sample : Second Source 01-26-12 Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 7 9:37 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1138336	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1375303	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1433410	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.58	TIC	48578324m	298.92978	ppb	100

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

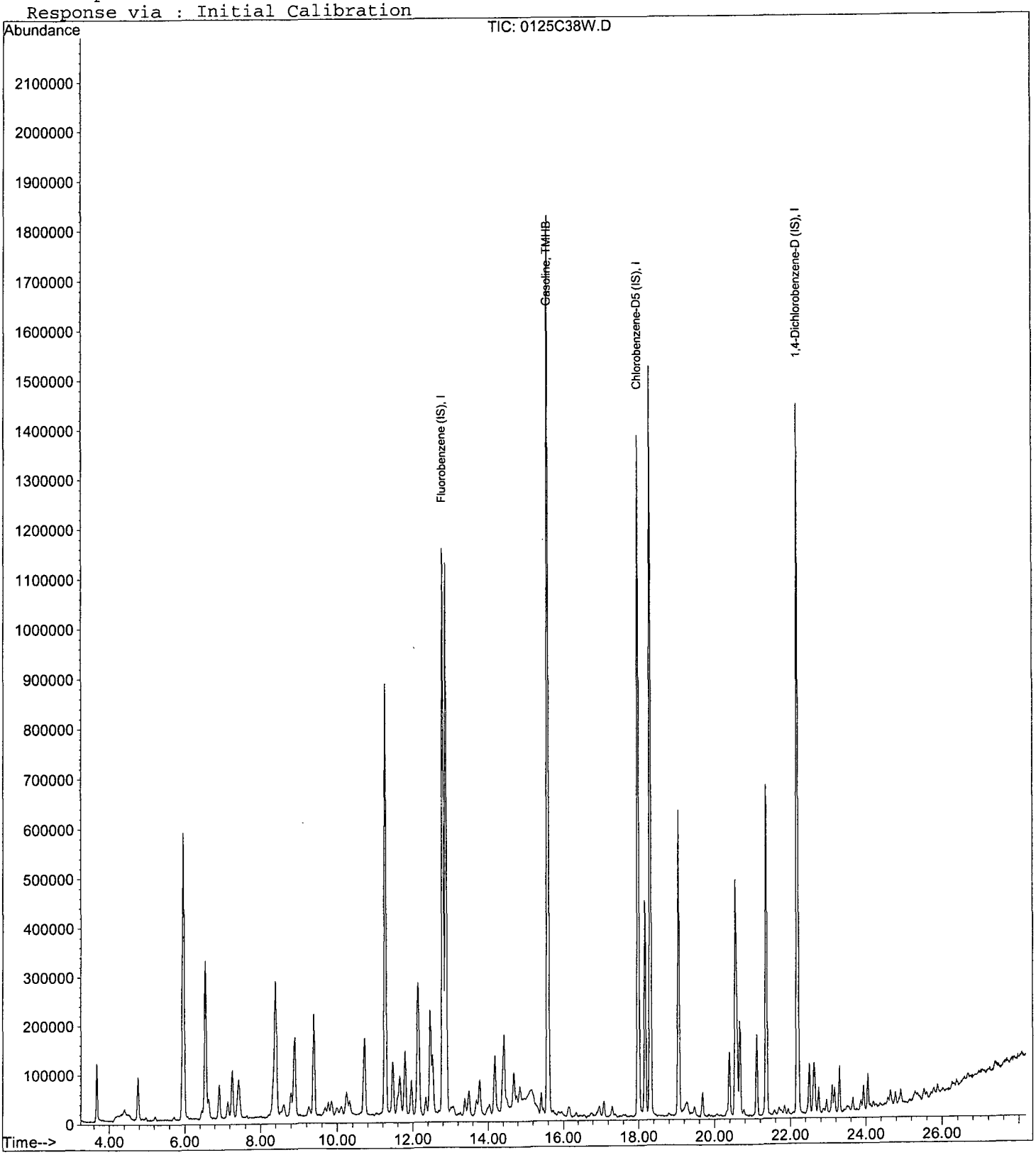
Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C38W.D
Acq On : 27 Jan 12 1:06
Sample : Second Source 01-26-12
Misc : Water 10mLw/ IS:12-06-11

Vial: 1
Operator: RS, ARS
Inst : Chico
Multiplr: 1.00

Quant Time: Feb 7 9:37 2012 Quant Results File: CGAS.RES

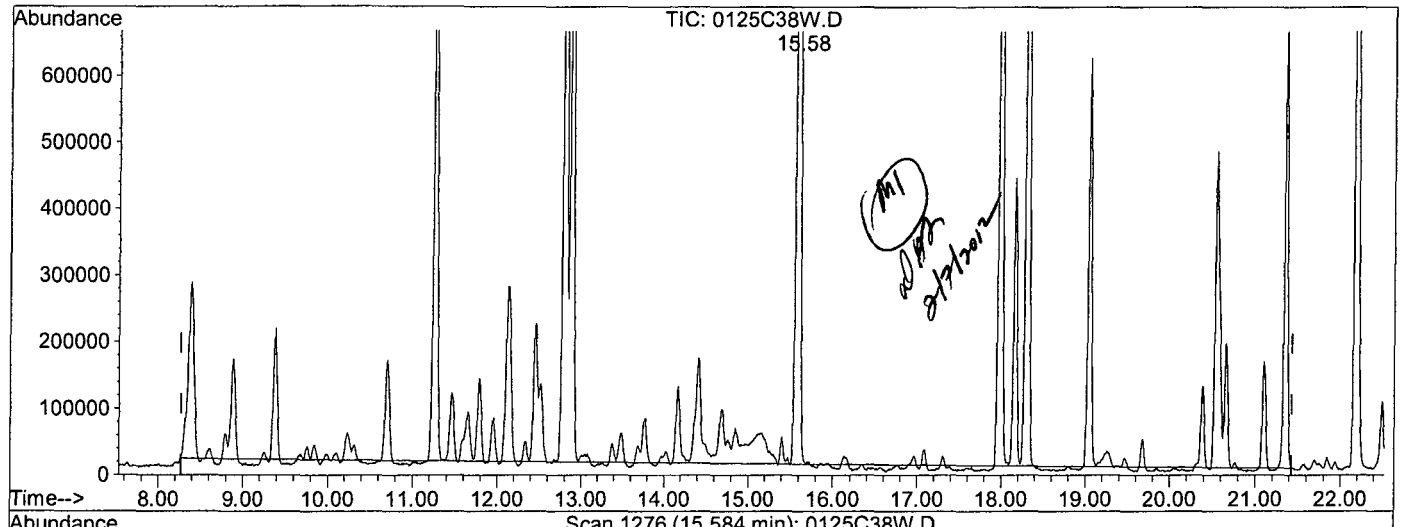
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration

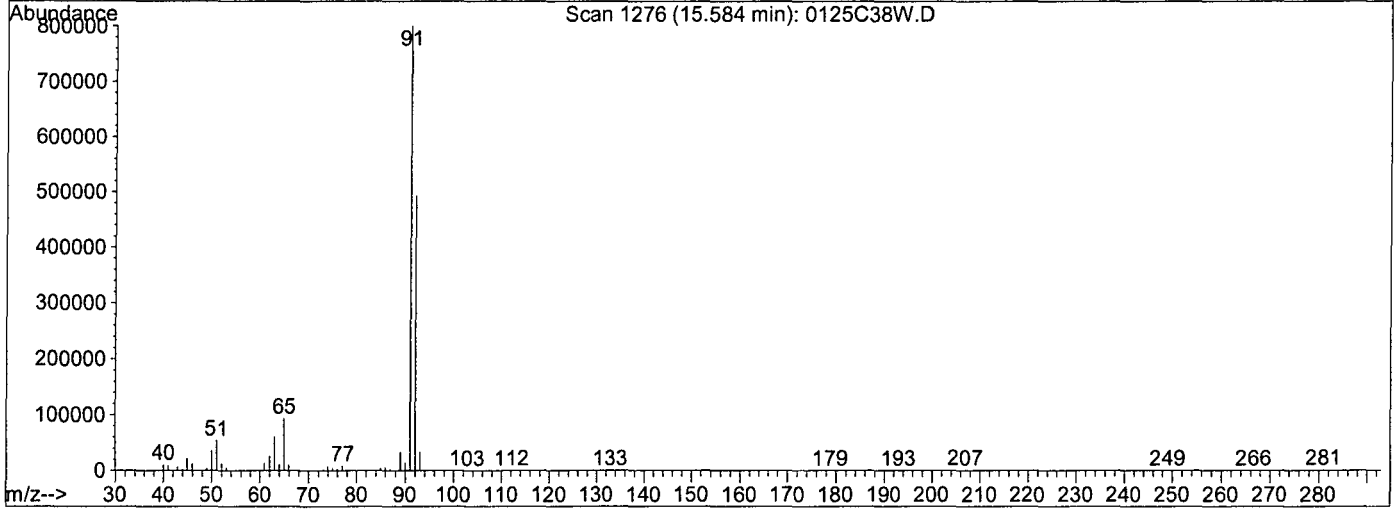


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C38W.D Vial: 1
Acq On : 27 Jan 12 1:06 Operator: RS, ARS
Sample : Second Source 01-26-12 Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 7 9:37 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Single Level Calibration





TIC: 0125C38W.D

(2) Gasoline (TMHB)

15.58min 202.8575ppb m

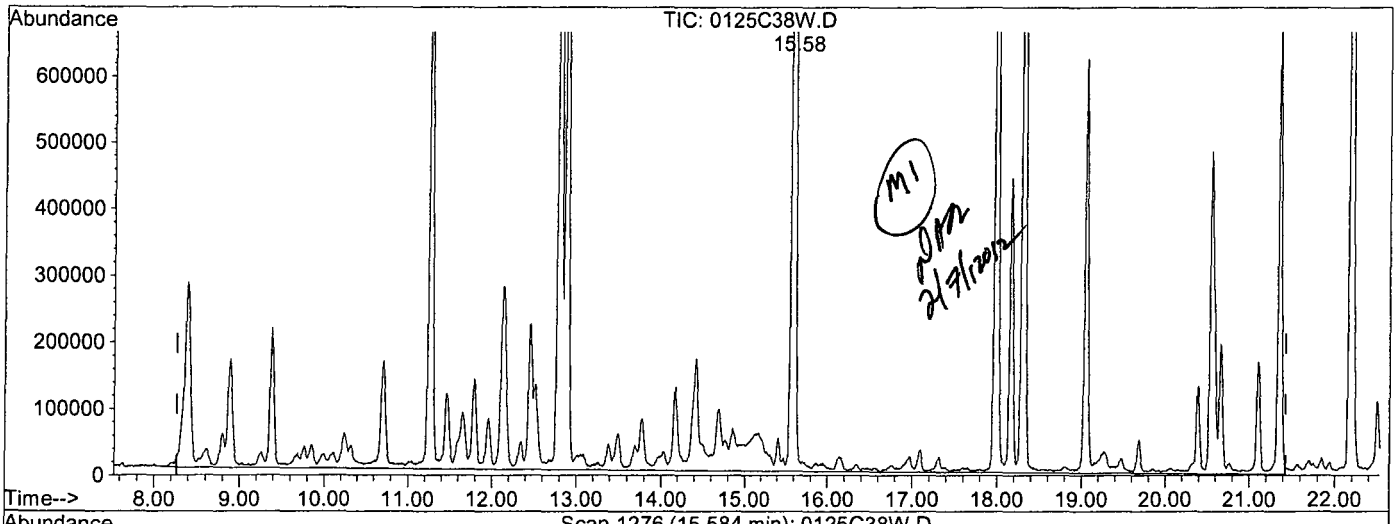
response 39074056

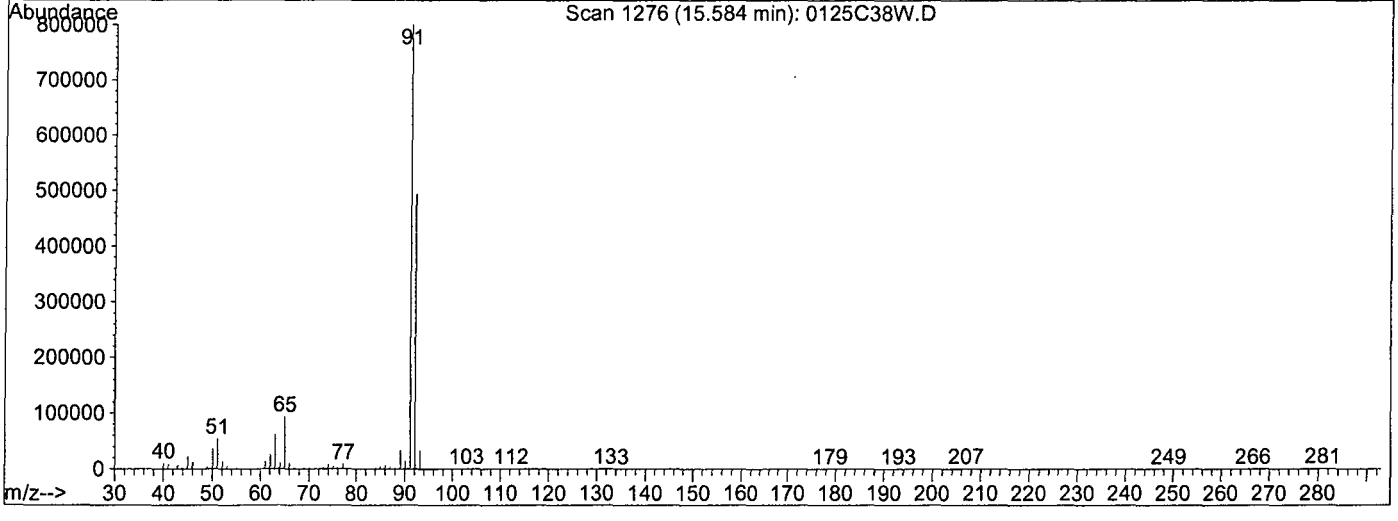
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.34#
0.00	0.00	1.04#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C38W.D Vial: 1
Acq On : 27 Jan 12 1:06 Operator: RS, ARS
Sample : Second Source 01-26-12 Inst : Chico
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00
Quant Time: Feb 7 9:37 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Single Level Calibration





TIC: 0125C38W.D

(2) Gasoline (TMHB)

15.58min 298.9298ppb m

response 48578324

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.28#
0.00	0.00	0.84#
0.00	0.00	0.00

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No: 67525
Matrix: Water

SDG No: 67525
Date Analyzed: 04/19/12
Instrument: Chico
Initial Cal. Date: 04/10/12
Data File: 0419C01W.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline	7.410	3.632	51	TMHBL	3.1
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			51.0		

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C120410\0419C01W.D Vial: 1
Acq On : 19 Apr 12 6:48 Operator: SV
Sample : CCV gas 300ug/L Inst : Chico
Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 14:00 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1270199	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.99	TIC	1364281	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1270549	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.58	TIC	55359171m	309.38030	ppb	100

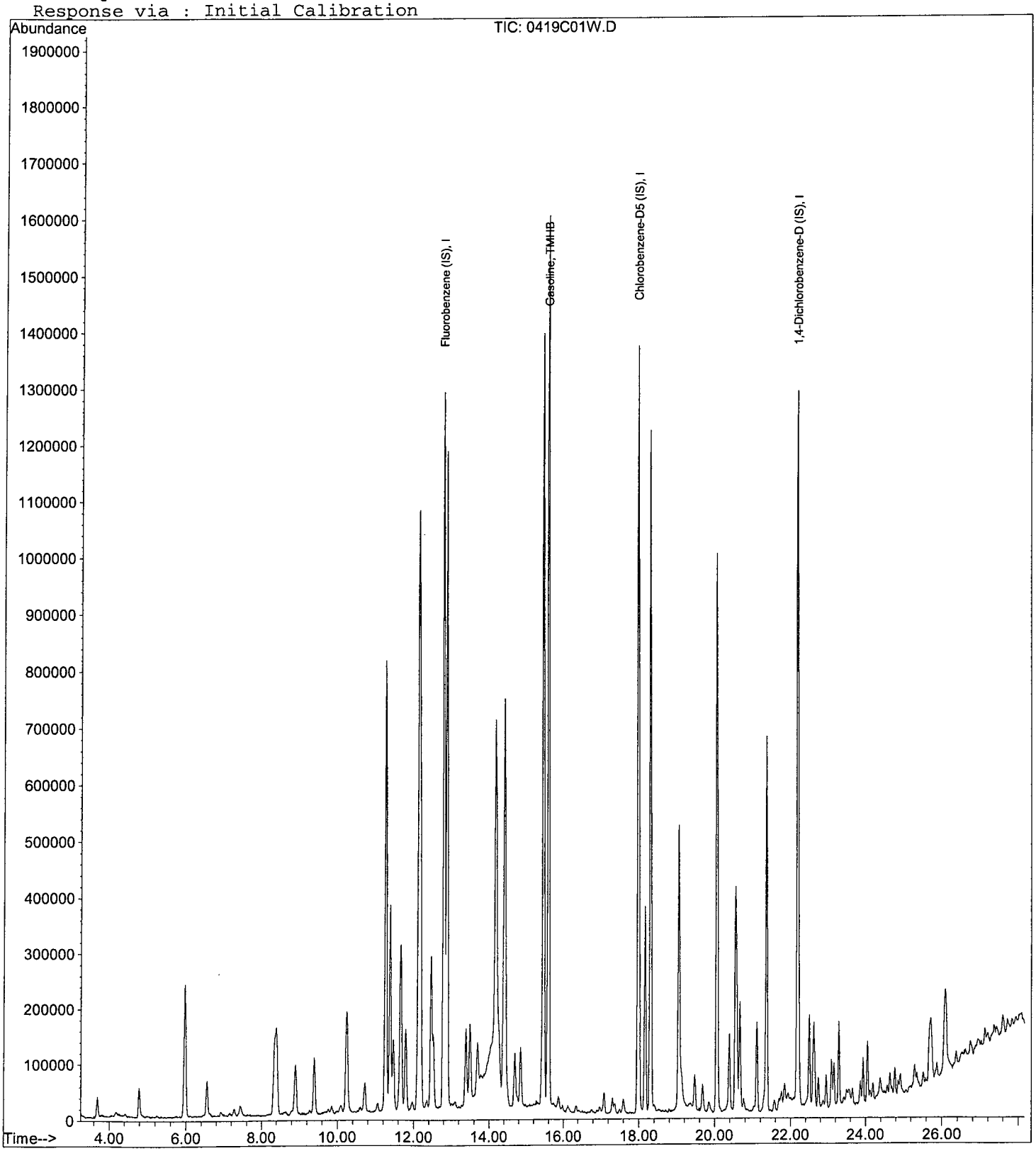
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C120410\0419C01W.D Vial: 1
Acq On : 19 Apr 12 6:48 Operator: SV
Sample : CCV gas 300ug/L Inst : Chico
Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 14:00 2012 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration



EPA METHOD 8260B
Volatile Organic Compounds
Raw Data

APPL, INC.

Method Blank

EPA 8260B VOCs + Gas Water

Blank Name/QCG: **120419W-59236 - 166110**
Batch ID: #86RHB-120419AT

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/19/12	04/19/12
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/19/12	04/19/12
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/19/12	04/19/12
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/19/12	04/19/12
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/19/12	04/19/12
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	04/19/12	04/19/12
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/19/12	04/19/12
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/19/12	04/19/12
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/19/12	04/19/12
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/19/12	04/19/12
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/19/12	04/19/12
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/19/12	04/19/12
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/19/12	04/19/12
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/19/12	04/19/12
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/19/12	04/19/12
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/19/12	04/19/12
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/19/12	04/19/12
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	04/19/12	04/19/12
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/19/12	04/19/12
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/19/12	04/19/12
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	04/19/12	04/19/12

Quant Method: TALLW.M
Run #: 0419T17
Instrument: Thor
Sequence: T120411
Initials: DG

Printed: 05/01/12 3:52:48 PM
GC SC-Blank-REG MDLs

Method Blank
EPA 8260B VOCs + Gas Water

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **120419W-59236 - 166110**
Batch ID: #86RHB-120419AT

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/19/12	04/19/12
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/19/12	04/19/12
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	04/19/12	04/19/12
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/19/12	04/19/12
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
BLANK	SURROGATE: 1,2-DICHLOROET	105	70-120			%	04/19/12	04/19/12
BLANK	SURROGATE: 4-BROMOFLUORO	96.2	75-120			%	04/19/12	04/19/12
BLANK	SURROGATE: DIBROMOFLUOR	104	85-115			%	04/19/12	04/19/12
BLANK	SURROGATE: TOLUENE-D8 (S)	100	85-120			%	04/19/12	04/19/12

Quant Method: TALLW.M
Run #: 0419T17
Instrument: Thor
Sequence: T120411
Initials: DG

Printed: 05/01/12 3:52:48 PM
GC SC-Blank-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120411\0419T17W.D Vial: 7
Acq On : 19 Apr 12 12:32 Operator: DG,RS,HW,ARS,SV
Sample : 120419A BLK-1WT Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 20 10:30 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	474432	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	395840	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	232000	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	5.96	111	245593	31.04369 ppb	0.00
Spiked Amount 29.720			Recovery = 104.454%		
36) 1,2-DCA-D4(S)	6.34	65	223389	30.95777 ppb	0.00
Spiked Amount 29.608			Recovery = 104.560%		
56) Toluene-D8(S)	8.44	98	845144	32.00098 ppb	0.00
Spiked Amount 31.981			Recovery = 100.064%		
64) 4-Bromofluorobenzene(S)	11.06	95	308916	28.23855 ppb	0.00
Spiked Amount 29.353			Recovery = 96.205%		

Target Compounds Qvalue

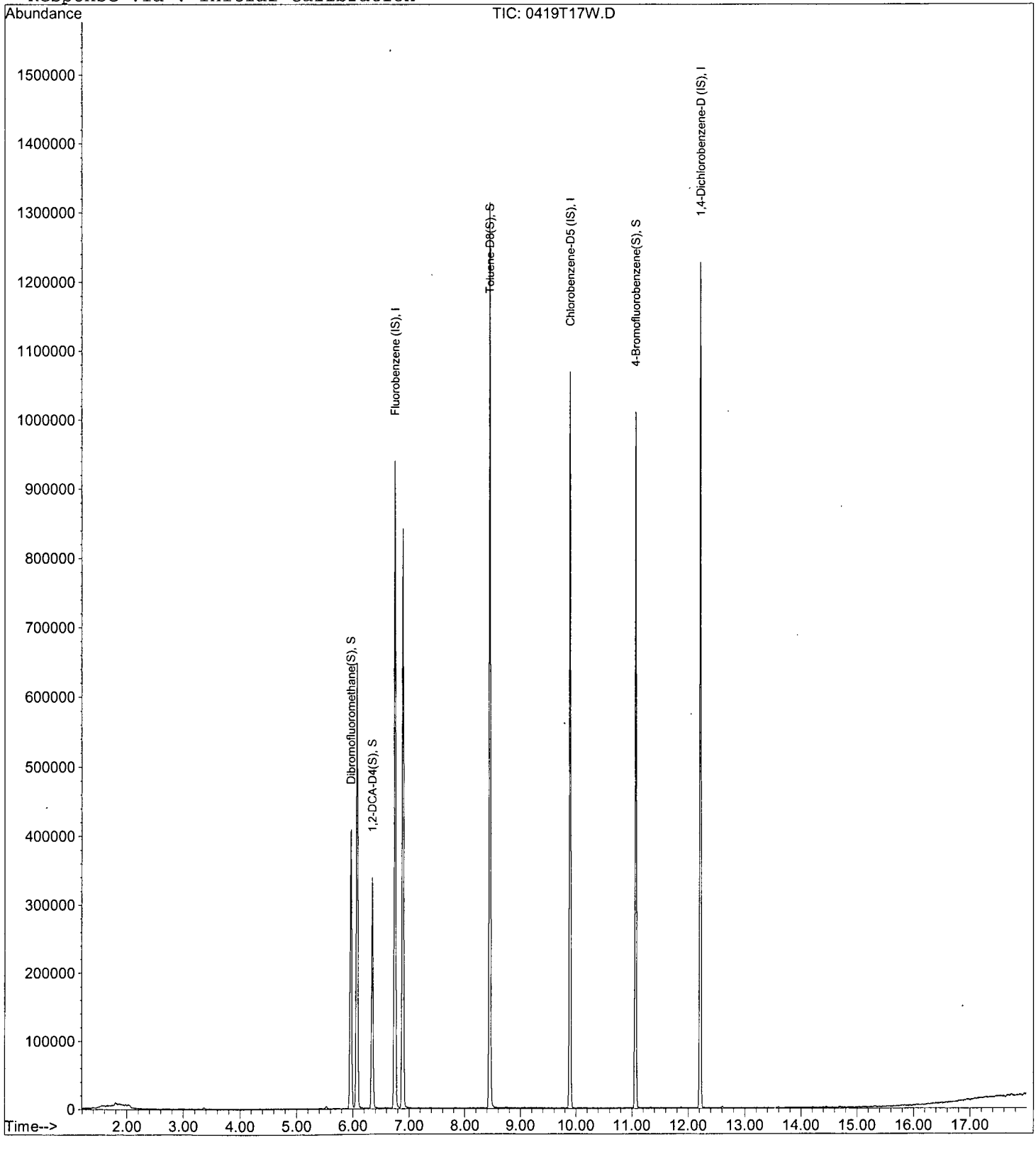
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T120411\0419T17W.D Vial: 7
Acq On : 19 Apr 12 12:32 Operator: DG,RS,HW,ARS,SV
Sample : 120419A BLK-1WT Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 20 10:30 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C120410\0419C09W.D Vial: 1
Acq On : 19 Apr 12 11:44 Operator: SV
Sample : 120419A BLK-1WC Inst : Chico
Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 14:00 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.80	TIC	1323975	25.00000	ppb	0.01
3) Chlorobenzene-D5 (IS)	17.99	TIC	1379507	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1323331	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.58	TIC	24653554m	22.14838	ppb ND	100

No gasoline pattern detected.
ARS 5/1/12

(#) = qualifier out of range (m) = manual integration
0419C09W.D CGAS.M Tue May 01 14:04:51 2012

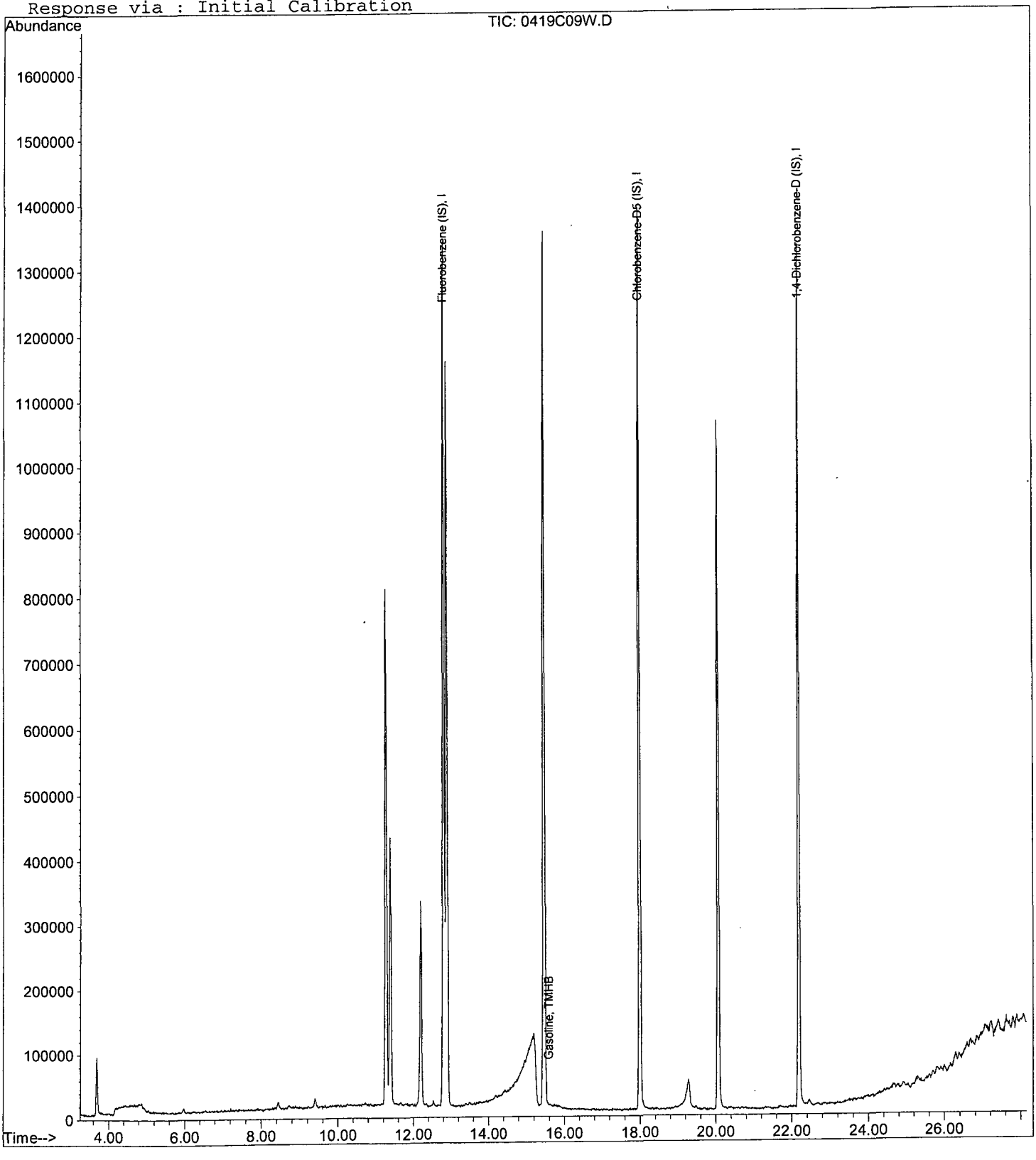
Quantitation Report

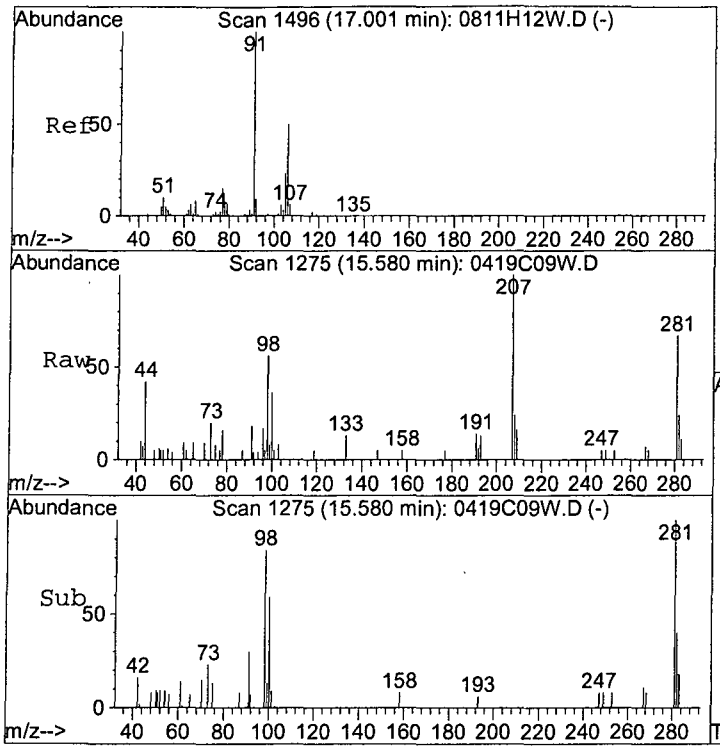
Data File : M:\CHICO\DATA\C120410\0419C09W.D
Acq On : 19 Apr 12 11:44
Sample : 120419A BLK-1WC
Misc : Water 10mL w/IS&S:04-10-12

Vial: 1
Operator: SV
Inst : Chico
Multiplr: 1.00

Quant Time: May 1 14:00 2012 Quant Results File: CGAS.RES

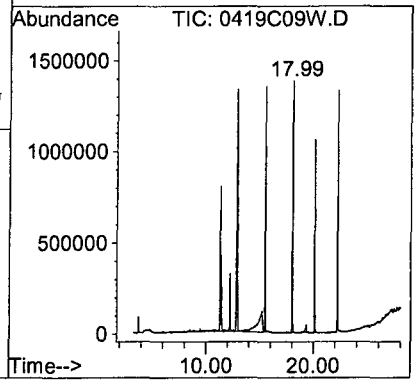
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration





#2
Gasoline
Concen: 22.14838 ppb m
RT: 15.58 min Scan# 1275
Delta R.T. 0.00 min
Lab File: 0419C09W.D
Acq: 19 Apr 12 11:44

Tgt Ion:TIC Resp:24653554



Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **120419W-59236 LCS - 166110**
Batch ID: #86RHB-120419AT

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,1,1,2-TETRACHLOROETHANE	10.00	10.1	101	80-130
1,1,1-TRICHLOROETHANE	10.00	9.60	96.0	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	10.8	108	65-130
1,1,2-TRICHLOROETHANE	10.00	9.92	99.2	75-125
1,1-DICHLOROETHANE	10.00	9.14	91.4	70-135
1,1-DICHLOROETHENE	10.00	9.29	92.9	70-130
1,2,3-TRICHLOROPROPANE	10.00	9.79	97.9	75-125
1,2,4-TRICHLOROBENZENE	10.00	9.71	97.1	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	11.3	113	50-130
1,2-DIBROMOETHANE	10.00	10.3	103	70-130
1,2-DICHLOROBENZENE	10.00	9.35	93.5	70-120
1,2-DICHLOROETHANE	10.00	9.82	98.2	70-130
1,2-DICHLOROPROPANE	10.00	9.52	95.2	75-125
1,3-DICHLOROBENZENE	10.00	9.15	91.5	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	20.0	100	70-130
1,4-DICHLOROBENZENE	10.00	9.34	93.4	75-125
2-BUTANONE	10.00	10.1	101	30-150
4-METHYL-2-PENTANONE	10.00	9.58	95.8	60-135
ACETONE	10.00	9.60	96.0	40-140
BENZENE	10.00	9.34	93.4	80-120
BROMODICHLOROMETHANE	10.00	9.61	96.1	75-120
BROMOFORM	10.00	10.8	108	70-130
BROMOMETHANE	10.00	10.1	101	30-145
CARBON TETRACHLORIDE	10.00	9.67	96.7	65-140
CHLOROBENZENE	10.00	9.28	92.8	80-120
CHLORODIBROMOMETHANE	10.00	10.4	104	60-135
CHLOROETHANE	10.00	10.3	103	60-135
CHLOROFORM	10.00	9.64	96.4	65-135
CHLOROMETHANE	10.00	9.78	97.8	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.40	94.0	70-125
ETHYLBENZENE	10.00	8.90	89.0	75-125

Primary	SPK
Quant Method :	TALLW.M
Extraction Date :	04/19/12
Analysis Date :	04/19/12
Instrument :	Thor
Run :	0419T12
Initials :	DG

Comments: _____

Printed: 05/01/12 3:52:39 PM
APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **120419W-59236 LCS - 166110**
Batch ID: #86RHB-120419AT

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
GASOLINE	300	338	113	75-125
HEXACHLOROBUTADIENE	10.00	9.29	92.9	50-140
METHYL TERT-BUTYL ETHER	10.00	9.25	92.5	65-125
METHYLENE CHLORIDE	10.00	8.48	84.8	55-140
STYRENE	10.00	9.46	94.6	65-135
TETRACHLOROETHENE	10.00	9.58	95.8	45-150
TOLUENE	10.00	9.33	93.3	75-120
TRANS-1,2-DICHLOROETHENE	10.00	9.51	95.1	60-140
TRICHLOROETHENE	10.00	8.94	89.4	70-125
VINYL CHLORIDE	10.00	10.3	103	50-145
XYLENES (TOTAL)	30.0	27.5	91.7	80-120
SURROGATE: 1,2-DICHLOROETHANE-D	29.6	31.2	105	70-120
SURROGATE: 4-BROMOFLUOROBENZE	29.4	30.0	102	75-120
SURROGATE: DIBROMOFLUOROMETH	29.7	32.0	108	85-115
SURROGATE: TOLUENE-D8 (S)	32.0	31.6	98.8	85-120

Comments: _____

Primary	SPK
Quant Method :	TALLW.M
Extraction Date :	04/19/12
Analysis Date :	04/19/12
Instrument :	Thor
Run :	0419T12
Initials :	DG

Printed: 05/01/12 3:52:39 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0419T12W.D Vial: 2
Acq On : 19 Apr 12 10:13 Operator: DG,RS,HW,ARS,SV
Sample : 120419A LCS-1WT Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 20 10:06 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.75	96	439424	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.89	117	375360	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	233344	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.96	111	234443	31.99520 ppb		0.00
Spiked Amount 29.720			Recovery = 107.653%			
36) 1,2-DCA-D4(S)	6.34	65	208330	31.17094 ppb		0.00
Spiked Amount 29.608			Recovery = 105.279%			
56) Toluene-D8(S)	8.44	98	790791	31.57665 ppb		0.00
Spiked Amount 31.981			Recovery = 98.738%			
64) 4-Bromofluorobenzene(S)	11.06	95	311312	30.01024 ppb		0.00
Spiked Amount 29.353			Recovery = 102.239%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.30	85	56966	10.76508 ppb		100
3) Freon 114	1.42	85	36271	9.49815 ppb		96
4) Chloromethane	1.46	50	48860	9.78079 ppb		100
5) Vinyl chloride	1.57	62	86298	10.28461 ppb		99
6) Bromomethane	1.88	94	60602	10.05382 ppb		97
7) Chloroethane	1.98	64	48195	10.32698 ppb		95
8) Dichlorofluoromethane	2.19	67	6033	6.66903 ppb		87
9) Trichlorofluoromethane	2.25	101	24698	8.94042 ppb		88
10) Acrolein	2.70	55	35878	80.65851 ppb	#	62
11) Acetone	2.91	43	14435	9.59994 ppb		95
12) Freon-113	2.86	101	47145	10.65429 ppb		95
13) 1,1-DCE	2.83	61	68422	9.28820 ppb		97
14) t-Butanol	3.71	59	13687	118.84435 ppb		99
15) Methyl Acetate	3.36	43	42055	10.32788 ppb		98
16) Iodomethane	3.00	142	75890	9.74974 ppb		94
17) Acrylonitrile	3.83	52	13569	11.17628 ppb		90
18) Methylene chloride	3.46	84	20152	8.47878 ppb		93
19) Carbon disulfide	3.07	76	22488	8.69794 ppb		100
20) Methyl t-butyl ether (MtBE	3.93	73	74723	9.24864 ppb		97
21) Trans-1,2-DCE	3.88	96	47307	9.51363 ppb		94
22) Diisopropyl Ether	4.72	59	20092	9.33141 ppb		95
23) 1,1-DCA	4.52	63	99676	9.13956 ppb		95
24) Vinyl Acetate	4.72	87	50509	9.41709 ppb		84
25) Ethyl tert Butyl Ether	5.23	59	97609	8.76332 ppb		99
26) MEK (2-Butanone)	5.40	43	18626	10.12275 ppb		99
27) Cis-1,2-DCE	5.34	96	68005	9.39566 ppb		97
28) 2,2-Dichloropropane	5.33	77	45569	11.03619 ppb		99
29) Chloroform	5.77	83	115732	9.63676 ppb		97
30) Bromochloromethane	5.64	128	34254	9.88898 ppb		98
32) 1,1,1-TCA	5.97	97	75801	9.60000 ppb		96
33) Cyclohexane	6.04	41	25029	8.52166 ppb		91
34) 1,1-Dichloropropene	6.18	75	60279	8.67761 ppb		93
35) 2,2,4-Trimethylpentane	6.56	57	92107	10.02068 ppb		98
37) Carbon Tetrachloride	6.18	117	74701	9.67357 ppb		94
38) Tert Amyl Methyl Ether	6.60	73	113060	9.20325 ppb		99
39) 1,2-DCA	6.43	62	75306	9.82063 ppb		99
40) Benzene	6.42	78	231183	9.33882 ppb		99
41) TCE	7.16	95	62586	8.93790 ppb		97
42) 2-Pentanone	7.38	43	408121	130.31231 ppb		98

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120411\0419T12W.D Vial: 2
Acq On : 19 Apr 12 10:13 Operator: DG,RS,HW,ARS,SV
Sample : 120419A LCS-1WT Inst : Thor
Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 20 10:06 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
43)	1,2-Dichloropropane	7.39	63	70049	9.52246	ppb		97
44)	Bromodichloromethane	7.69	83	87410	9.60878	ppb		98
45)	Methyl Cyclohexane	7.37	83	55500	9.44570	ppb		95
46)	Dibromomethane	7.51	93	38726	9.96209	ppb		94
48)	MIBK (methyl isobutyl ket	8.34	43	22808	9.58203	ppb		99
49)	1-Bromo-2-chloroethane	8.00	63	46504	9.68277	ppb		97
50)	Cis-1,3-Dichloropropene	8.17	75	94950	9.79549	ppb		96
51)	Toluene	8.51	91	270905	9.32831	ppb		99
52)	Trans-1,3-Dichloropropene	8.74	75	83061	10.22149	ppb		96
53)	1,1,2-TCA	8.91	83	51385	9.92056	ppb		99
54)	2-Hexanone	9.19	43	24503	9.18639	ppb		93
57)	1,2-EDB	9.41	107	58015	10.33657	ppb		98
58)	Tetrachloroethene	9.07	166	76445	9.57862	ppb		97
59)	1-Chlorohexane	9.92	91	73855	8.73880	ppb		95
60)	1,1,1,2-Tetrachloroethane	10.00	131	76155	10.08469	ppb		100
61)	m&p-Xylene	10.16	106	238338	18.43012	ppb		98
62)	o-Xylene	10.55	106	116140	9.03909	ppb		96
63)	Styrene	10.56	104	204283	9.46001	ppb		98
65)	1,3-Dichloropropane	9.08	76	94757	9.45944	ppb		94
66)	Dibromochloromethane	9.31	129	74848	10.43509	ppb		99
67)	Chlorobenzene	9.92	112	198784	9.27525	ppb		97
68)	Ethylbenzene	10.04	91	298054	8.89502	ppb		98
69)	Bromoform	10.73	173	51435	10.75605	ppb		96
71)	Isopropylbenzene	10.92	105	286048	8.77145	ppb		99
72)	1,1,2,2-Tetrachloroethane	11.20	83	76317	10.78829	ppb		96
73)	1,2,3-Trichloropropane	11.24	110	22000	9.79216	ppb		92
74)	t-1,4-Dichloro-2-Butene	11.26	53	13845	10.18277	ppb		87
75)	Bromobenzene	11.21	156	100146	9.54377	ppb		98
76)	n-Propylbenzene	11.33	91	356974	8.98355	ppb		97
77)	4-Ethyltoluene	11.45	105	215636	9.49936	ppb		99
78)	2-Chlorotoluene	11.41	91	254004	9.23568	ppb		99
79)	1,3,5-Trimethylbenzene	11.51	105	264731	9.15171	ppb		98
80)	4-Chlorotoluene	11.51	91	264969	9.20772	ppb		99
81)	Tert-Butylbenzene	11.83	119	226943	9.04492	ppb		97
82)	1,2,4-Trimethylbenzene	11.88	105	268510	9.17633	ppb		99
83)	Sec-Butylbenzene	12.05	105	314837	9.13230	ppb		97
84)	p-Isopropyltoluene	12.20	119	271486	9.07938	ppb		98
85)	Benzyl Chloride	12.37	91	111655	12.86251	ppb		99
86)	1,3-DCB	12.15	146	187484	9.14937	ppb		99
87)	1,4-DCB	12.23	146	191603	9.34415	ppb		99
88)	n-Butylbenzene	12.61	91	228352	8.95546	ppb		99
89)	1,2-DCB	12.60	146	177046	9.34937	ppb		97
90)	Hexachloroethane	12.87	117	49433	9.29950	ppb		97
91)	1,2-Dibromo-3-chloropropan	13.37	157	15717	11.28264	ppb	#	82
92)	1,2,4-Trichlorobenzene	14.21	180	78896	9.71159	ppb		99
93)	Hexachlorobutadiene	14.40	223	32320	9.29443	ppb		85
94)	Naphthalene	14.45	128	203963	9.60139	ppb		100
95)	1,2,3-Trichlorobenzene	14.69	180	113934	9.93382	ppb		97

1,3-dichloropropene, total 20.01698 ppb ARS 5/1/12

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

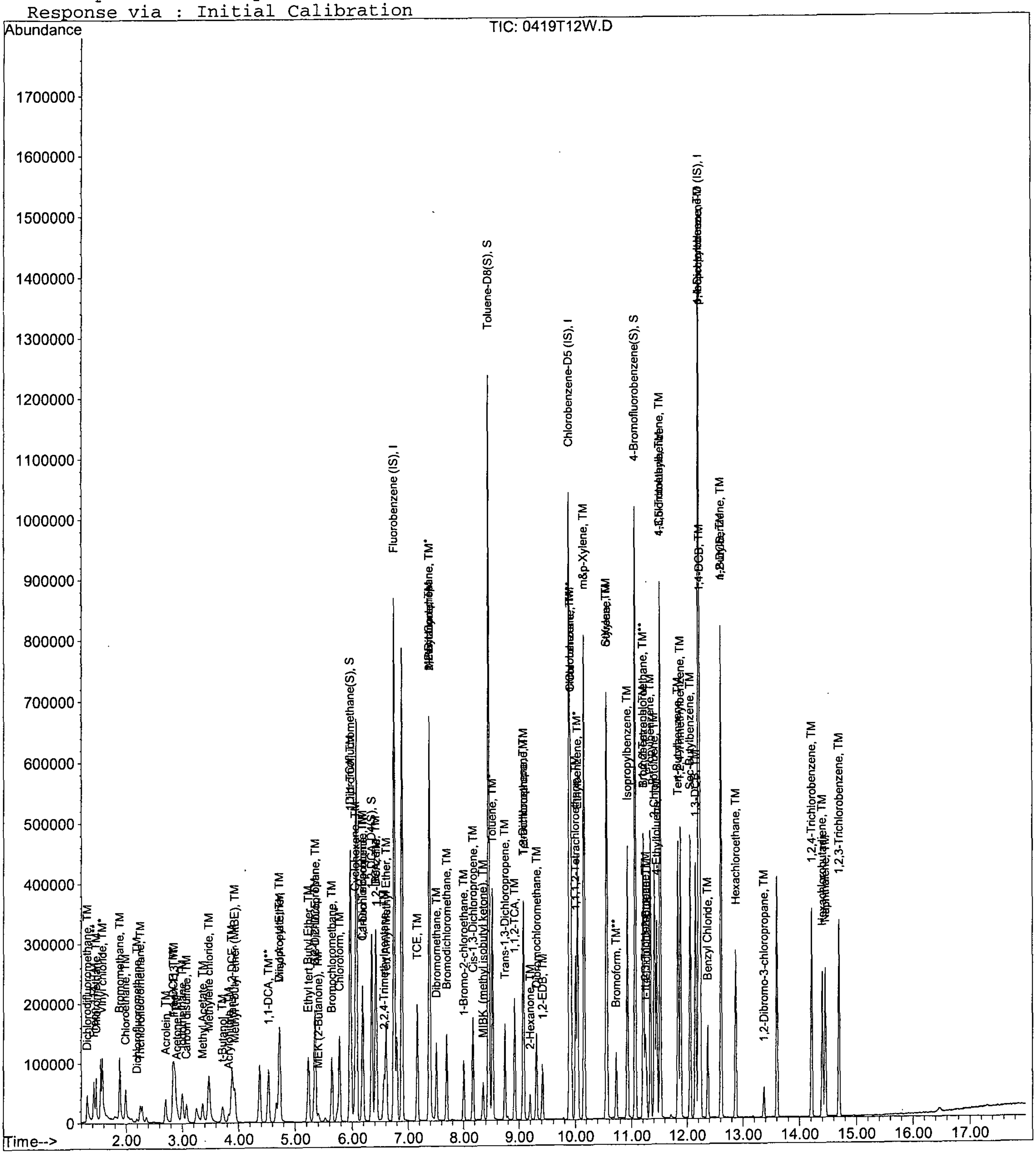
Quantitation Report

Data File : M:\THOR\DATA\T120411\0419T12W.D
Acq On : 19 Apr 12 10:13
Sample : 120419A LCS-1WT
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 2
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Apr 20 10:06 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Apr 12 08:54:39 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C120410\0419C06W.D Vial: 1
Acq On : 19 Apr 12 9:52 Operator: SV
Sample : LCS gas 300 ug/L Inst : Chico
Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 14:00 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.80	TIC	1333745	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1439521	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1368841	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.58	TIC	61479673m	338.29027	ppb	100

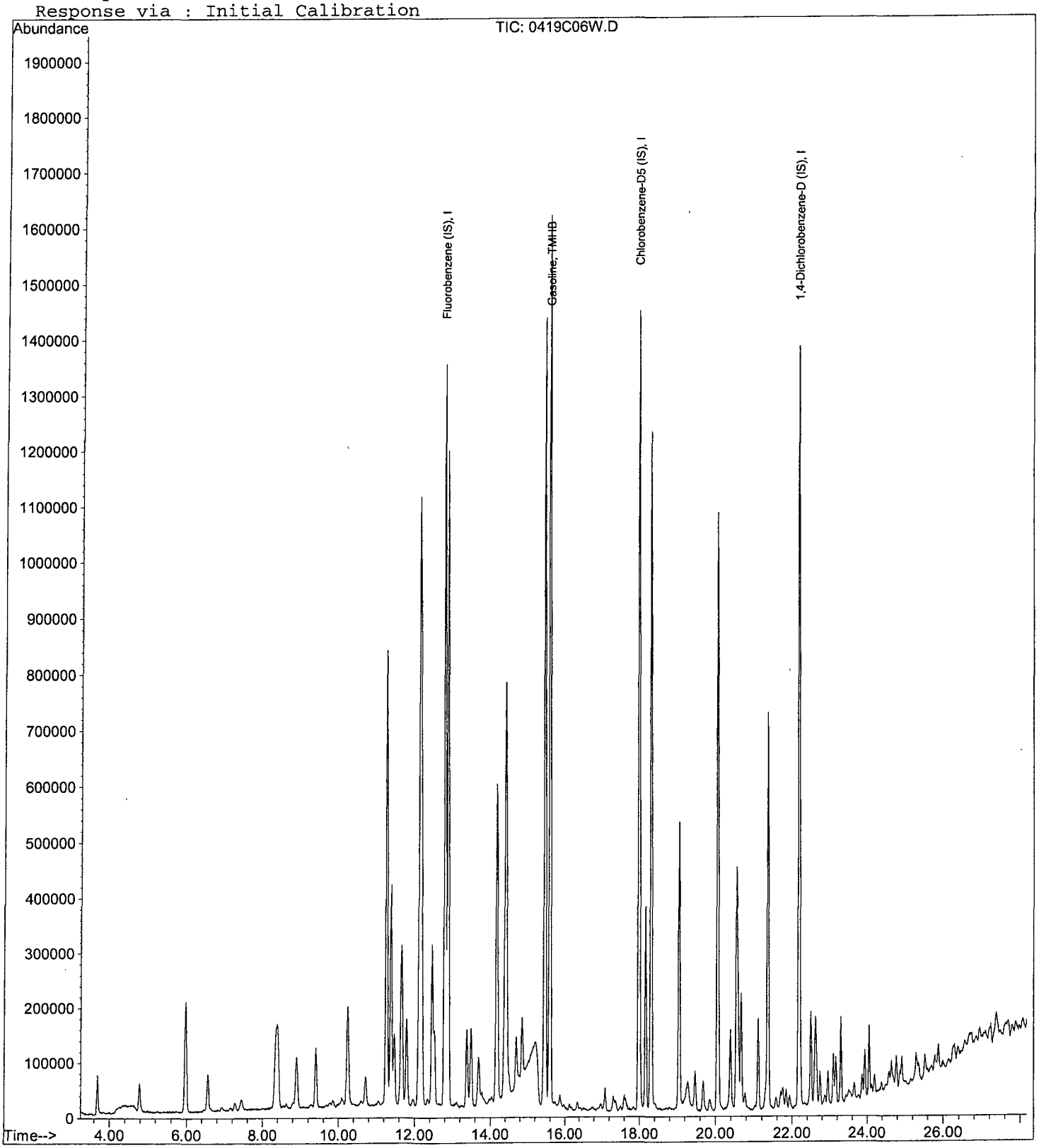
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C120410\0419C06W.D Vial: 1
Acq On : 19 Apr 12 9:52 Operator: SV
Sample : LCS gas 300 ug/L Inst : Chico
Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 14:00 2012 Quant Results File: CGAS.RES

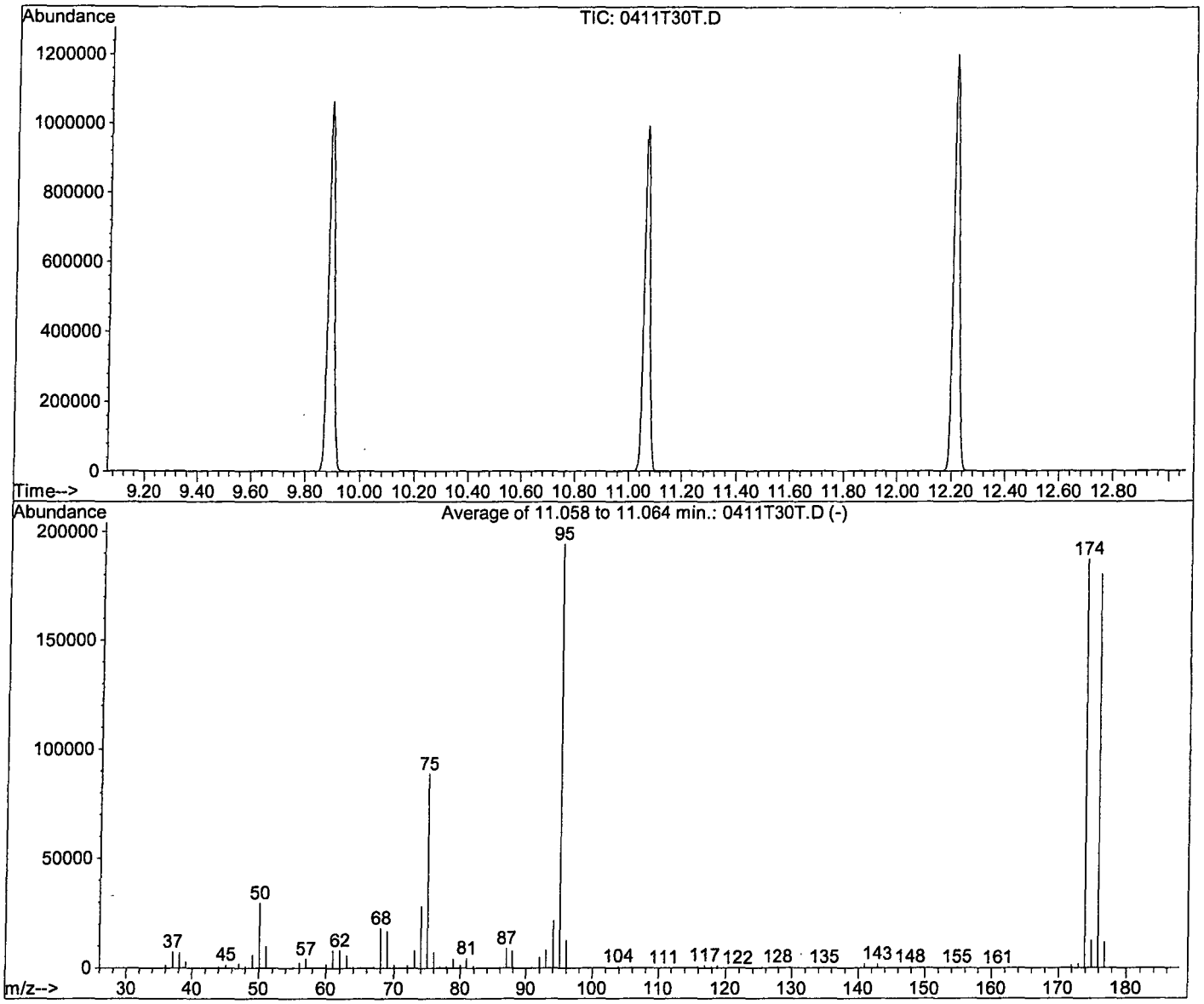
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Tue Feb 07 09:36:43 2012
Response via : Initial Calibration



Data File : M:\THOR\DATA\T120411\0411T30T.D
Acq On : 11 Apr 12 22:12
Sample : 5ng BFB STD 4-10-12
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 30
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B



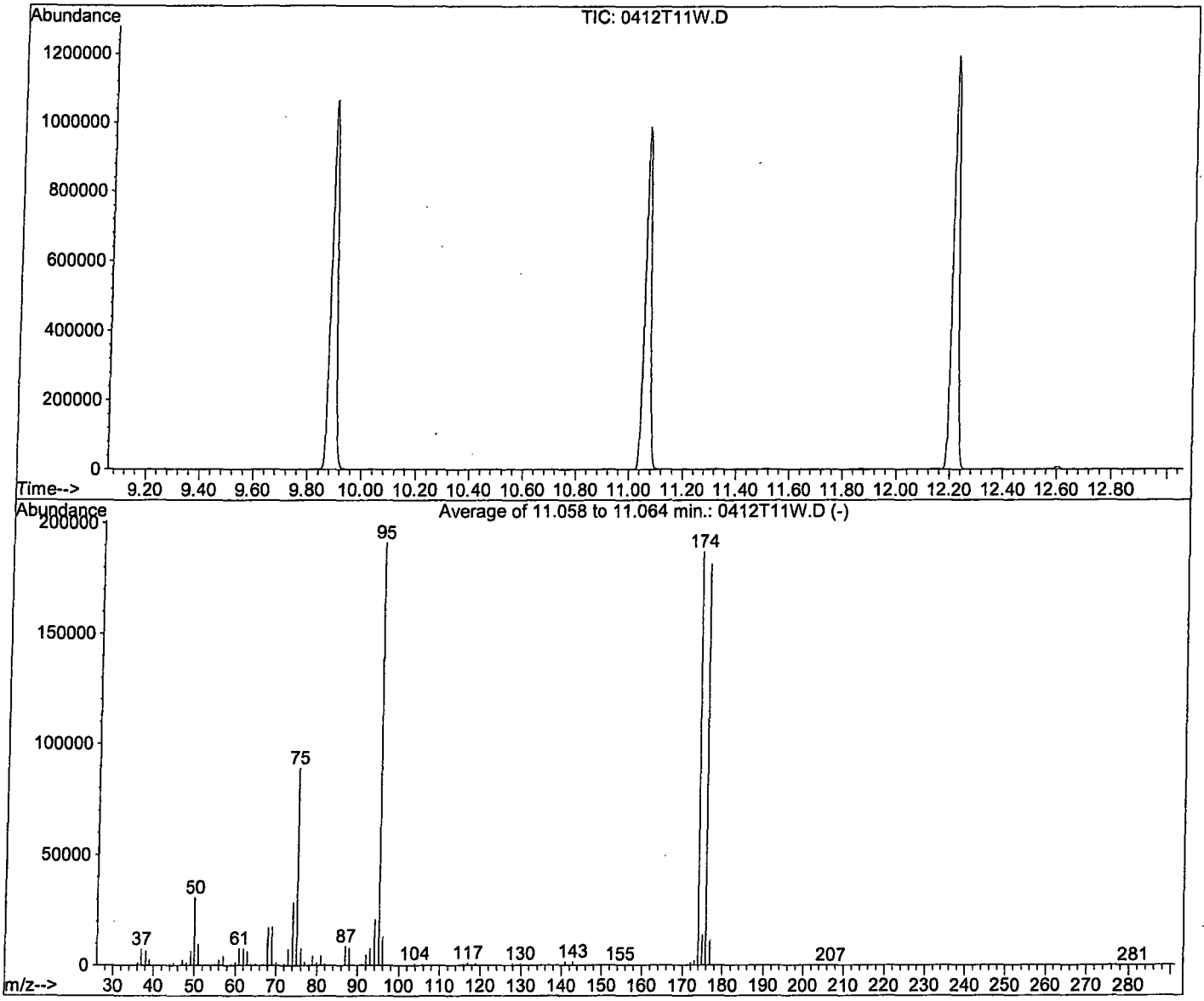
Spectrum Information: Average of 11.058 to 11.064 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.2	29645	PASS
75	95	30	60	45.7	88797	PASS
95	95	100	100	100.0	194411	PASS
96	95	5	9	6.6	12734	PASS
173	174	0.00	2	1.0	1853	PASS
174	95	50	100	96.3	187221	PASS
175	174	5	9	6.8	12729	PASS
176	174	95	101	96.4	180416	PASS
177	176	5	9	6.6	11857	PASS

Data File : M:\THOR\DATA\T120411\0412T11W.D
Acq On : 12 Apr 12 3:16
Sample : 5ng BFB STD 04-10-12
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 41
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B



AutoFind: Scans 3069, 3070, 3071; Background Corrected with Scan 3054

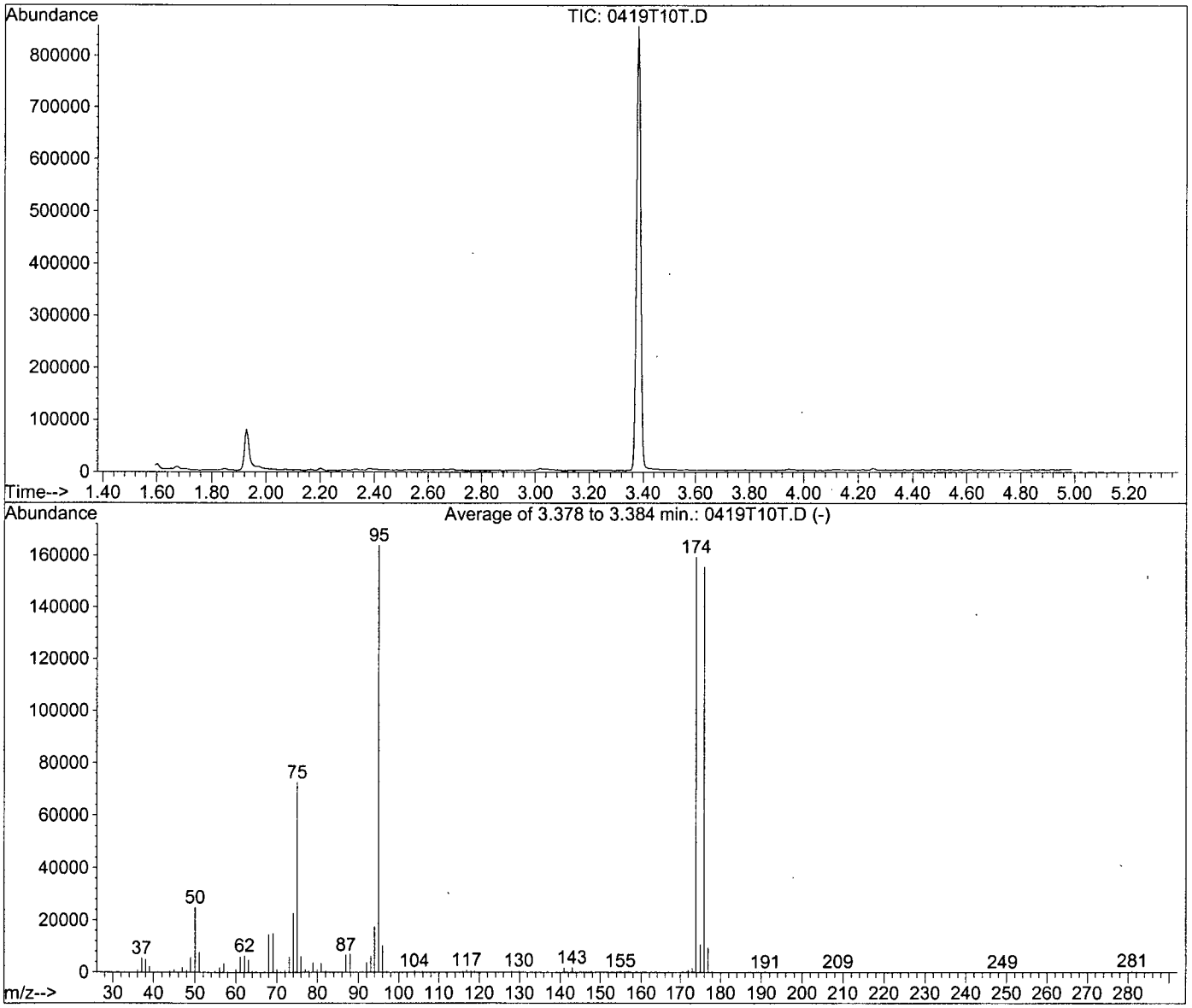
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.1	30760	PASS
75	95	30	60	46.6	89045	PASS
95	95	100	100	100.0	191189	PASS
96	95	5	9	6.9	13167	PASS
173	174	0.00	2	1.0	1953	PASS
174	95	50	100	97.8	186923	PASS
175	174	5	9	7.4	13754	PASS
176	174	95	101	97.1	181419	PASS
177	176	5	9	6.3	11409	PASS

0412T11W.D TALLW.M Thu Apr 12 08:57:16 2012

Data File : M:\THOR\DATA\T120411\0419T10T.D
Acq On : 19 Apr 12 9:23
Sample : 5ng BFB 4-10-12
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 1
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)
Title : METHOD 8260B



Spectrum Information: Average of 3.378 to 3.384 min.

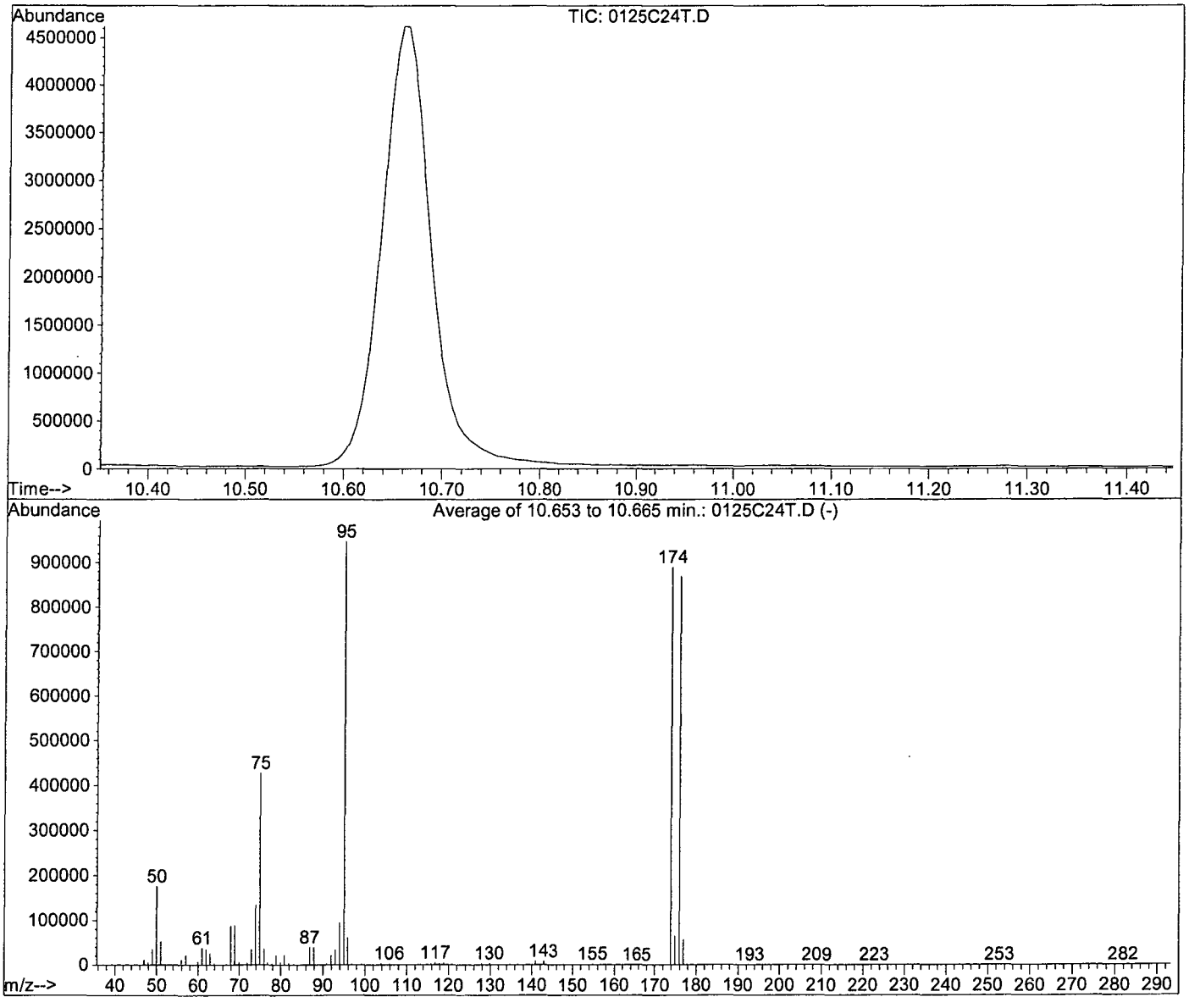
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.2	24875	PASS
75	95	30	60	44.3	72627	PASS
95	95	100	100	100.0	163861	PASS
96	95	5	9	6.3	10363	PASS
173	174	0.00	2	0.9	1450	PASS
174	95	50	100	97.3	159360	PASS
175	174	5	9	6.6	10583	PASS
176	174	95	101	97.5	155413	PASS
177	176	5	9	6.0	9394	PASS

BFB

Data File : M:\CHICO\DATA\C120125\0125C24T.D
Acq On : 26 Jan 12 16:30
Sample : 25ug/mL BFB Std. 01-12-12
Misc : 2uL

Vial: 1
Operator: RS, ARS
Inst : Chico
Multiplr: 1.00

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B



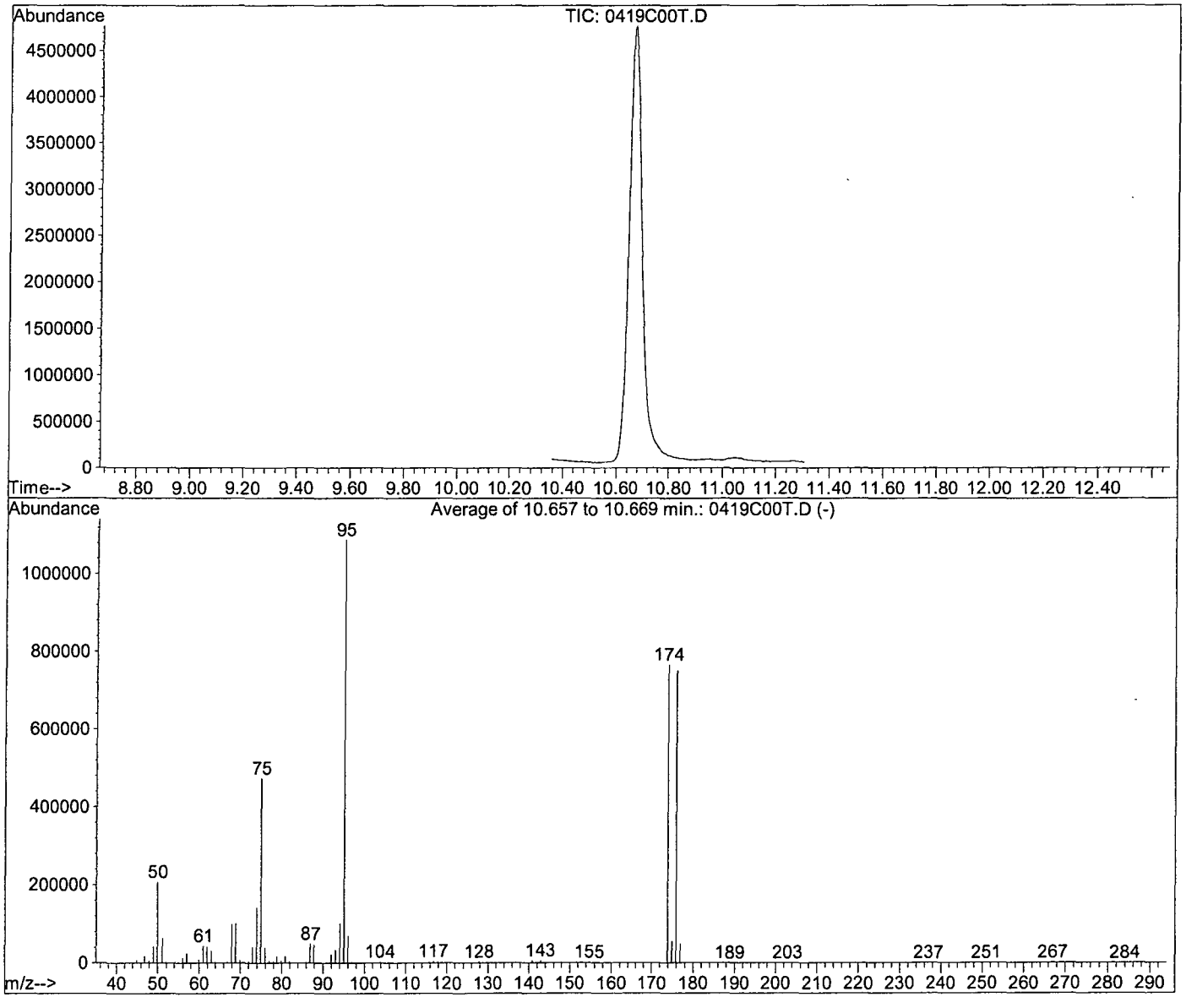
Spectrum Information: Average of 10.653 to 10.665 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	175569	PASS
75	95	30	60	45.1	426726	PASS
95	95	100	100	100.0	947029	PASS
96	95	5	9	6.5	61164	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	93.9	889685	PASS
175	174	5	9	7.3	64552	PASS
176	174	95	101	97.7	869568	PASS
177	176	5	9	6.5	56475	PASS

BFB

Data File : M:\CHICO\DATA\C120410\0419C00T.D Vial: 1
Acq On : 19 Apr 12 6:16 Operator: SV
Sample : 25ug/ml BFB STD 04-10-12 Inst : Chico
Misc : 2uL Multiplr: 1.00

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)
Title : METHOD 8260B



Spectrum Information: Average of 10.657 to 10.669 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.0	206741	PASS
75	95	30	60	43.5	473581	PASS
95	95	100	100	100.0	1087659	PASS
96	95	5	9	6.4	70085	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	70.4	765781	PASS
175	174	5	9	7.2	54891	PASS
176	174	95	101	98.1	751296	PASS
177	176	5	9	6.6	49875	PASS

GC/MS STANDARD PREPARATION BOOK # _____ PAGE # 057

NOTEBOOK INSERT LABEL

Gasoline **47516-U**
Lot: LB82077 EXP: FEB/2014 STORAGE: ROOM TEMP. 1 x 1ml

1/26/12 A- RS.

DATE RECEIVED:_____

SUPELCO Analytical
595 North Harrison Road • Bellefonte, PA
16823-0048 USA • Phone 814-359-3441

RS.

STANDARD TRANSFER LABEL

Date of Preparation: **Exp. Date:**
Reference Number: **Storage:** EXP: FEB/2014
Description: ROOM TEMP.
Lot #: LB82077 - 29979
Rec: 11/11/11 MFR exp. 02/28/14
gasoline

1/26/12 B- RS.

RESTEK Catalog # 3
Unleaded gasoline composite
Lot #: A081012 - 29980
Rec: 11/14/11 MFR exp. 05/30/18

Unleaded Gasoline Composite Standard

50000 ug/mL each in P&T Methanol
Lot# A081012 Exp. Date: 05/2018 Store 0°C or colder

RS.

01/26/12C							
2000ug/ml Gasoline						APPL	
			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
Supelco	LB82077	Gasoline	20,000	LB82077-29979	01-26-12A	02/01/14	200
J&T Brand		Purge & Trap MeOH		K07E34-00570	01/23/12	08/02/12	1800
01/26/12D							
2000ug/ml Unleaded Gasoline						APPL	
			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
Restek	30205	Unleaded Gasoline	50,000	A081012-29980	01-26-12B	02/01/14	80
J&T Brand		Purge & Trap MeOH		K07E34-00570	01/23/12	08/02/12	1920

1/26/12 RS.

RS

Gasoline Curve Preparation for 100mL Purge (water)-CHICO			
	Expiration Date:		01/27/12
		50µg/mL Gasoline	Final Vol
Date	Conc.	01-26-12C	w/P&T H2O
Code	µg/L	Exp.01-03-12	mL
01-26-12E	20	1	100
01-26-12F	50	2.5	100
01-26-12G	100	5	100
01-26-12H	300	15	100
01-26-12I	600	30	100
01-26-12J	800	40	100
01-26-12K	1000	50	100

RS.

1/26/12 RS.

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-THOR											
	Expiration Date.		01/27/12								
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	5µg/mL Vol Std #2	50µg/mL Vol Std #12	
Date	Conc.	01-25-12AH	01-25-12AL	01-25-12AD	01-25-12AF	01-25-12AK	01-25-12AI	01-25-12AE	01-25-12AG	01-25-12AJ	
Code	µg/L	Exp:02-01-12	Exp:02-01-12	Exp:02-01-12	Exp:02-01-12	Exp:02-01-12	Exp:02-01-12	Exp:02-01-12	Exp:02-01-12	Exp 02-01-12	
01-26-12L	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a	
01-26-12M	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a	
01-26-12N	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a	
01-26-12O	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a	
01-26-12P	50	n/a	n/a	5	5	5	n/a	5	n/a	5	
01-26-12Q	100	n/a	n/a	10	10	10	n/a	10	n/a	10	
01-26-12R	200	n/a	n/a	20	20	20	n/a	20	n/a	20	

1/26/12 RS

250µg/mL TBA	Final Vol
01-25-12AM	w/P&T H2O
Exp.02-01-12	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

RS

3/26/12 RS

A =

8260B Surrogate Solution,
2,000 mg/L, 5 x 1 ml
120002-01-5PAK
Lot # 178653 Storage ≤ -10 Degrees C Expiry 9/11/13
Solv: P/T Methanol
Made in the USA
For D only, not human consump

8260B Surrogate Solution
Lot #: 178653 - 29566
Rec: 9/22/11 MFR exp. 09/11/13

RS

Thor

03-26-12B

50ug/ml 8260 Internal Standard			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
O2SI	120302-03	Internal Standard Mix	2000	166255-28857	03-23-12A	12/13/12	375
O2SI	020132-02	Fluorobenzene Standard	2000	169170-29852	03-23-12B	12/13/12	375
J.T. Baker		Purge & Trap MeOH		K14E06-00611	03/26/12	08/10/12	14250

3/26/12 RS

03-26-12C

50ug/ml 8260B Surrogate-Thor			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
O2SI	8260B Surr	Surrogate Standards	2000	178653-29566	03-26-12A	12/13/12	375
J.T Baker		Purge & Trap MeOH		K14E06-00611	03/26/12	08/10/12	14625

3/26/12 RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-THOR

	Expiration Date:	03/27/12								
	5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	50µg/mL Vol Std #2	5µg/mL Vol Std #12
Date	Conc. 03-22-12X	03-22-12AB	03-22-12T	03-22-12V	03-22-12AA	03-22-12Y	03-22-12U	03-22-12W	03-22-12Z
Code	µg/L Exp:03-29-12	Exp:03-29-12	Exp:03-29-12	Exp:03-29-12	Exp:03-29-12	Exp:03-29-12	Exp:03-29-12	Exp:03-29-12	Exp:03-29-12
03-26-12B	0.3 3	6	n/a	n/a	n/a	3	n/a	n/a	3
03-26-12C	0.5 5	10	n/a	n/a	n/a	5	n/a	n/a	5
03-26-12D	1 10	20	n/a	n/a	n/a	10	n/a	n/a	10
03-26-12E	5 n/a	n/a	5	5	10	n/a	5	5	n/a
03-26-12F	10 n/a	n/a	10	10	25	n/a	10	10	n/a
03-26-12G	20 n/a	n/a	20	20	40	n/a	20	20	n/a
03-26-12H	40 n/a	n/a	40	40	80	n/a	40	40	n/a
03-26-12I	100 n/a	n/a	100	100	100	n/a	100	100	n/a

250µg/mL TAPD 03-22-12AC Exp:03-29-12	Final Vol w/P&T H2O mL
3	50
5	50
10	50
20	50
25	50
30	50
35	50
40	50

3/26/12 RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-MAX

	Expiration Date:	03/27/12							
	5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	50µg/mL Vol Std #2	5µg/mL Vol Std #12
Date	Conc. 03-22-12X	03-22-12AB	03-22-12T	03-22-12V	03-22-12AA	03-22-12Y	03-22-12U	03-22-12W	03-22-12Z
Code	µg/L Exp:03-29-12	Exp:03-29-12	Exp:03-29-12	Exp:03-29-12	Exp:03-29-12	Exp:03-29-12	Exp:03-29-12	Exp:03-29-12	Exp:03-29-12
03-26-12J	0.3 3	6	n/a	n/a	n/a	3	n/a	n/a	3
03-26-12K	0.5 5	10	n/a	n/a	n/a	5	n/a	n/a	5
03-26-12L	1 10	20	n/a	n/a	n/a	10	n/a	n/a	10
03-26-12M	5 n/a	n/a	5	5	10	n/a	5	5	n/a
03-26-12N	10 n/a	n/a	10	10	25	n/a	10	10	n/a
03-26-12O	20 n/a	n/a	20	20	40	n/a	20	20	n/a
03-26-12P	40 n/a	n/a	40	40	80	n/a	40	40	n/a
03-26-12Q	100 n/a	n/a	100	100	100	n/a	100	100	n/a

250µg/mL TAPD 03-22-12AC Exp:03-29-12	Final Vol w/P&T H2O mL
3	50
5	50
10	50
20	50
25	50
30	50
35	50
40	50

4/01/12 RS A-

Method 8260 Gases, 2,000 mg/L, 2 X 0.6 ml
120016-03
Lot # 180013 | Storage ≤ -10 Degrees C | Expiry 10/17/14
Solv: P/T Methanol
R&D only, not human consump. Made in the USA

Method 8260 Gases
Lot #: 180013 - 29753
Rec: 10/24/11 MFR exp. 10/17/14 RS

4/01/12 RS B-

Hexachloroethane Solution, 1000 mg/L, 1 ml
020049-02
Lot # 176700 | Storage ≤ -10 Degrees C | Expiry 7/31/13
Solv: P/T Methanol
R&D only, not human consump. Made in the USA

Hexachloroethane
Lot #: 176700 - 29158
Rec: 8/5/11 MFR exp. 07/31/13 RS

4/01/12 RS C-

Benzyl Chloride Solution, 1000 mg/L, 1 ml
020228-02
Lot # 176701 | Storage ≤ -10 Degrees C | Expiry 7/31/13
Solv: P/T Methanol
R&D only, not human consump. Made in the USA

Benzyl Chloride
Lot #: 176701 - 29161
Rec: 8/5/11 MFR exp. 07/31/13 RS

4/01/12 RS D-

2-Chloroethyl Vinyl Ether Solution, 2,000 mg/L, 2 X 0.6 ml
020145-02-02
Lot # 176770 | Storage ≤ -10 Degrees C | Expiry 7/31/13
Solv: P/T Methanol
R&D only, not human consump. Made in the USA

2-Chloroethyl vinyl ether
Lot #: 176770 - 29831
Rec: 10/24/11 MFR exp. 07/31/13 RS

4/01/12 RS E-

VOC Mix 4-3, 2,000 mg/L, 1 ml
120166-01
Lot # 178651 | Storage ≤ 6 Degrees C | Expiry 9/11/13
Solv: P/T Methanol
Made in the USA

VOC Mix 4-3, 2000mg/L
Lot #: 178651 - 30412
Rec: 2/20/12 MFR exp. 09/11/13 RS

4/05/12 RS

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-SWEETPEA

	Expiration Date:		04/06/12							
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	5µg/mL Vol Std #2	50µg/mL Vol Std #12
Date	Conc.	04-01-12X	04-01-12AB	04-01-12T	04-01-12V	04-01-12AA	04-01-12Y	04-01-12U	04-01-12W	04-01-12Z
Code	µg/L	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12
04-05-12A	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a
04-05-12B	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a
04-05-12C	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a
04-05-12D	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a
04-05-12E	50	n/a	n/a	5	5	5	n/a	5	n/a	5
04-05-12F	100	n/a	n/a	10	10	10	n/a	10	n/a	10
04-05-12G	200	n/a	n/a	20	20	20	n/a	20	n/a	20

250µg/mL TBA	Final Vol
04-01-12AC	w/P&T H2O
Exp:04-07-12	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

4/06/12 RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-MAX

	Expiration Date:		04/07/12							
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	50µg/mL Vol Std #2	5µg/mL Vol Std #11
Date	Conc.	04-01-12K	04-01-12O	04-01-12G	04-01-12I	04-01-12N	04-01-12L	04-01-12H	04-01-12J	04-01-12M
Code	µg/L	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12	Exp.04-07-12	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12
04-06-12A	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3
04-06-12B	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
04-06-12C	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
04-06-12D	5	n/a	n/a	5	5	10	n/a	5	5	n/a
04-06-12E	10	n/a	n/a	10	10	25	n/a	10	10	n/a
04-06-12F	20	n/a	n/a	20	20	40	n/a	20	20	n/a
04-06-12G	40	n/a	n/a	40	40	80	n/a	40	40	n/a
04-06-12H	100	n/a	n/a	100	100	100	n/a	100	100	n/a
04-06-12I	200	n/a	n/a	200	200	125	n/a	200	200	n/a

250µg/mL TAPD	Final Vol
04-01-12P	w/P&T H2O
Exp:04-07-12	mL
3	50
5	50
10	50
20	50
25	50
30	50
35	50
40	50
45	50

4/06/12 RS

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-SWEETPEA

	Expiration Date:		04/07/12							
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	5µg/mL Vol Std #2	50µg/mL Vol Std #12
Date	Conc.	04-01-12X	04-01-12AB	04-01-12T	04-01-12V	04-01-12AA	04-01-12Y	04-01-12U	04-01-12W	04-01-12Z
Code	µg/L	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12	Exp.04-07-12	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12	Exp:04-07-12
04-06-12J	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a
04-06-12K	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a
04-06-12L	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a
04-06-12M	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a
04-06-12N	50	n/a	n/a	5	5	5	n/a	5	n/a	5
04-06-12O	100	n/a	n/a	10	10	10	n/a	10	n/a	10
04-06-12P	200	n/a	n/a	20	20	20	n/a	20	n/a	20

250µg/mL TBA	Final Vol
04-01-12AC	w/P&T H2O
Exp:04-07-12	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

A - RS

4/09/12 RS - RS

Method 8260 Gases, 2,000 mg/L, 2 X 0.6 ml

120016-03

Lot #	Storage	Expiry
180013	≤ -10 Degrees C	10/17/14

Solv: P/T Methanol

Method 8260 Gases

Lot #: 180013 - 29771

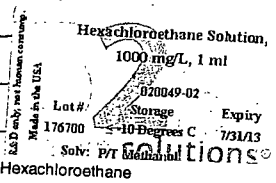
Rec: 10/24/11 MFR exp. 10/17/14

R&D only, not human consump. Made in the USA

Dermal Chloride

4/09/12 RS

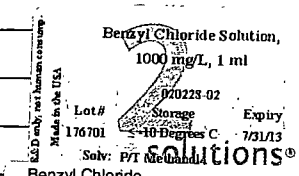
B-



Hexachloroethane
Lot #: 176700 - 29159
Rec: 8/5/11 MFR exp. 07/31/13 RS

4/09/12 RS

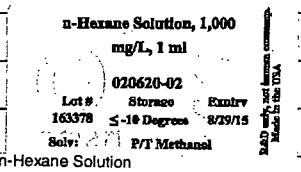
C-



Benzyl Chloride
Lot #: 176701 - 29162
Rec: 8/5/11 MFR exp. 07/31/13 RS

4/09/12 RS

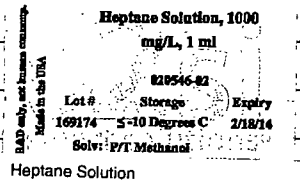
D-



n-Hexane Solution
Lot #: 163378 - 29227
Rec: 8/5/11 MFR exp. 08/29/15 RS

4/09/12 RS

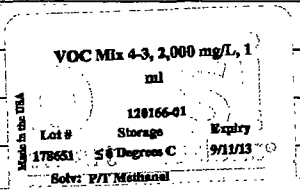
E-



Heptane Solution
Lot #: 169174 - 29253
Rec: 8/5/11 MFR exp. 02/18/14 RS

4/09/12 RS

F-



VOC Mix 4-3, 2000mg/L
Lot #: 178651 - 30411
Rec: 2/20/12 MFR exp. 09/11/13 RS

4/09/12 G - RS

Acrolein Solution, 10,000 mg/L, 2 x 0.6 ml
020229-09-02
Lot # 186936 Storage ≤ 6 Degrees C Expiry 4/23/12
Solv: Water, HPLC Grade
R&D only, not human consump. Made in the USA

Acrolein solution
Lot #: 186936 - 30514
Rec: 3/19/12 MFR exp. 04/23/12 RS

4/09/12 H - RS

Method 8260 Gases (Second Source), 2,000 mg/L, 2 X 0.6 ml
120016-03-SS
Lot # 178557 Storage ≤-10 Degrees C Expiry 9/13/14
Solv: P/T Methanol
R&D only, not human consump. Made in the USA

Method 8260 Gases (SS)
Lot #: 178557 - 29521
Rec: 9/20/11 MFR exp. 09/13/14 RS

4/09/12 I - RS.

Vinyl Acetate Solution (Second Source), 2,000 mg/L, 1ml
020232-02-SS
Lot # 184399 Storage ≤-10 Degrees C Expiry 4/15/12
Solv: P/T Methanol
R&D only, not human consump. Made in the USA

Vinyl Acetate (SS)
Lot #: 184399 - 30240
Rec: 1/19/12 MFR exp. 04/15/12 RS

04-09-12J							
50ug/ml Vol Work Std #7							
Exp:04/16/12							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03	Gas Mix	2000	180013-29771	04-09-12A	04/16/12	100
02SI	020049-02	HEXACHLOROETHANE	1000	176700-29159	04-01-12B	06/08/12	200
02SI	020228-02	Benzyl Chloride	1000	176701-29162	04-01-12C	06/08/12	200
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	3500
04-09-12K							
50ug/ml Vol Work Std #1							
Exp:04/16/12							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	020145-02-02	2-CEVE	2000	176770-29831	04-01-12D	06/08/12	50
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	1950
04-09-12L							
50ug/ml Vol Work Std #8							
Exp:04/16/12							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	122039-02	Volatile Mix, 20-29	2000	176771-29200	03-22-12D	06/08/12	100
02SI	120023-03	VOC'S-54 COMP	2000	164454-27878	03-22-12E	06/08/12	100
02SI	020232-02	Vinyl Acetate	2000	185696-30409	03-22-12F	05/13/12	100
02SI	020620-02	n-Hexane	1000	163378-29227	04-09-12D	06/08/12	200
02SI	020546-02	Heptane	1000	169174-29253	04-09-12E	06/08/12	200
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	3300
04-09-12M							
50ug/ml Vol Work Std #2							
Exp:04/16/12							
Supplier	ID #	ID	ug/ml				
02SI	121020-05	HSL'S-Ketone Solution	2000	169173-29217	03-22-12H	02/08/12	100
J&T Brand		Purge & Trap MeOH		04/05/12	06/08/12	06/08/12	3900

4/09/12 RS.

		04-09-12N	Exp:	04/16/12			
		5ug/ml Vol Work Std #9					
		SOURCES	**Lot**	**APPL Code**	APPL Exp Date	ul	
		50ug/ml Vol Work Std #7		04-09-12J	04/16/12	200	
		50ug/ml Vol Work Std #8		04-09-12L	04/16/12	200	
		J&T Brand		04/05/12	06/08/12	1600	
		04-09-12O	Exp:	04/16/12			
		5ug/ml Vol Work Std #10					
		SOURCES	**Lot**	**APPL Code**	APPL Exp Date	ul	
		50ug/ml Vol Work Std #1		04-09-12K	04/16/12	200	
		J&T Brand		04/05/12	06/08/12	1800	
		04-09-12P	Exp:	04/16/12			
		5ug/ml Vol Work Std #12					
		SOURCES	**Lot**	**APPL Code**	APPL Exp Date	ul	
		50ug/ml Vol Work Std #2		04-09-12M	04/16/12	200	
		J&T Brand		04/05/12	06/08/12	1800	
04-09-12Q							
50ug/ml 8260 Surrogate			Conc.		Date	Exp.	
Exp:04/16/12			ug/ml	Lot #	Code	Date	uL
O2SI	120002-01	8260B Surr Solution	2000	164585-30466	04-02-12C	04/16/12	100
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/26/12	3900
04-09-12R			Exp:	04/16/12			
5.0ug/ml 8260 Surrogate			**Lot**	**APPL Code**	APPL Exp Date	ul	
		50ug/ml 8260 Surrogate		04-09-12Q	04/16/12	200	
J&T Brand		Purge & Trap MeOH		04/05/12	06/08/12	1800	
04-09-12S							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P							
Exp:04/16/12			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
O2SI	120166-01	Volatile Mix 4-3	2000	178651-30411	04-09-12F	05/14/12	500
O2SI	020229-09	Acrolein	10000	186936-30514	04-09-12G	04/24/12	100
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	3400

4/09/12 RS

04-09-12T							
50ug/ml VOC Std#5							
Exp:04/16/12							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
O2SI	120016-03-SS	8260 Gases(SS)	2000	178557-29521	04-09-12H	04/16/12	50
O2SI	020145-02-02-	2-CEVE	2000	181404-30009	02-20-12I	05/14/12	50
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	1900
04-09-12U							
50ug/ml VOC Std#6							
Exp:04/16/12							
	ID #	ID	ug/ml	Lot #	Code	Date	ul
O2SI	120023-03-SS	VOC'S 54 COMP.	2000	176822-29263	03-22-12L	05/14/12	50
O2SI	120296-01	Custom 8260 Solution	2000	166038-27767	03-22-12M	05/18/12	50
O2SI	020232-02-SS	Vinyl Acetate(SS)	2000	184399-30240	04-09-12I	04/05/12	50
O2SI	020620-02-SS	n-HEXANE	1000	179199-29614	03-22-12O	06/14/12	100
O2SI	020049-02-SS	HEXACHLOROETHANE	1000	183795-30439	03-22-12P	06/14/12	100
O2SI	020546-02-SS	Heptane(SS)	1000	185762-30449	03-22-12Q	06/14/12	100
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	1550
04-09-12V							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P							
Exp:04/16/12			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
O2SI	120166-01-SS	VOC Mix 4-3 (SS)	2000	163778-29837	03-22-12R	06/14/12	250
O2SI	020229-09-SS	Acrolein SOLUTION (SS)	10000	186938-30515	03-22-12S	04/23/12	50
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	1700

4/09/12 RS

04-09-12W							
50ug/ml Vol Work Std #7							
Exp:04/16/12							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03	Gas Mix	2000	180013-29771	04-09-12A	04/16/12	100
02SI	020049-02	HEXACHLOROETHANE	1000	176700-29159	04-01-12B	06/08/12	200
02SI	020228-02	Benzyl Chloride	1000	176701-29162	04-01-12C	06/08/12	200
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	3500
04-09-12X							
50ug/ml Vol Work Std #1							
Exp:04/16/12							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	020145-02-02	2-CEVE	2000	176770-29831	04-01-12D	06/08/12	50
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	1950
04-09-12Y							
50ug/ml Vol Work Std #8							
Exp:04/16/12							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	122039-02	Volatile Mix, 20-29	2000	176771-29200	03-22-12D	06/08/12	100
02SI	120023-03	VOC'S-54 COMP	2000	164454-27878	03-22-12E	06/08/12	100
02SI	020232-02	Vinyl Acetate	2000	185696-30409	03-22-12F	05/13/12	100
02SI	020620-02	n-Hexane	1000	163378-29227	04-09-12D	06/08/12	200
02SI	020546-02	Heptane	1000	169174-29253	04-09-12E	06/08/12	200
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	3300
04-09-12Z							
50ug/ml Vol Work Std #2							
Exp:04/16/12							
Supplier	ID #	ID	ug/ml				
02SI	121020-05	HSL'S-Ketone Solution	2000	169173-29217	03-22-12H	02/08/12	100
J&T Brand		Purge & Trap MeOH		04/05/12	06/08/12	06/08/12	3900
		04-09-12AA	Exp:	04/16/12			
		5ug/ml Vol Work Std #9					
		SOURCES	**Lot**	**APPL Code**	APPL Exp Date	ul	
		50ug/ml Vol Work Std #7		04-09-12W	04/16/12	200	
		50ug/ml Vol Work Std #8		04-09-12Y	04/16/12	200	
		J&T Brand		04/05/12	06/08/12	1600	
		04-09-12AB	Exp:	04/16/12			
		5ug/ml Vol Work Std #10					
		SOURCES	**Lot**	**APPL Code**	APPL Exp Date	ul	
		50ug/ml Vol Work Std #1		04-09-12X	04/16/12	200	
		J&T Brand		04/05/12	06/08/12	1800	
		04-09-12AC	Exp:	04/16/12			
		5ug/ml Vol Work Std #12					
		SOURCES	**Lot**	**APPL Code**	APPL Exp Date	ul	
		50ug/ml Vol Work Std #2		04-09-12Z	04/16/12	200	
		J&T Brand		04/05/12	06/08/12	1800	
04-09-12AD							
50ug/ml 8260 Surrogate			Conc.		Date	Exp.	
Exp:04/16/12			ug/ml	Lot #	Code	Date	uL
O2SI	120002-01	8260B Surr Solution	2000	164585-30466	04-02-12C	04/16/12	100
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/26/12	3900
04-09-12AE			Exp:	04/16/12			
5.0ug/ml 8260 Surrogate			**Lot**	**APPL Code**	APPL Exp Date	ul	
		50ug/ml 8260 Surrogate		04-09-12AD	04/16/12	200	
J&T Brand		Purge & Trap MeOH		04/05/12	06/08/12	1800	
04-09-12AF							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P							
Exp:04/16/12			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120166-01	Volatile Mix 4-3	2000	178651-30411	04-09-12F	05/14/12	500
02SI	020229-09	Acrolein	10000	186936-30514	04-09-12G	04/24/12	100
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	3400

4/09/12
RS

4/10/12 RS

CHICO							
04-10-12J							
250ug/ml 8260 Internal Standard - Chico			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120302-03	Internal Standard Mix	2000	166255-2858	04-02-12A	07/23/12	500
02SI	020132-02	Fluorobenzene Standard	2000	169170-29853	04-02-12B	07/23/12	500
J&T Baker		Purge & Trap MeOH		K14E06-00613	04/09/12	11/14/12	3000
04-10-12K							
250ug/ml 8260 Surrogate - Chico			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120002-01	Surrogate Standard	2000	164585-30466	04-02-12C	10/23/12	500
J&T Baker		Purge & Trap MeOH		K07E34-00543	08/12/11	11/14/12	3500

4/10/12 RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-CHICO

		Expiration Date:		04/11/12							
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	50µg/mL Vol Std #2	5µg/mL Vol Std #12
Date	Conc.	04-09-12N	04-09-12R	04-09-12J	04-09-12L	04-09-12Q	04-09-12O	04-09-12K	04-09-12M	04-09-12P
Code	µg/L	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12
04-10-12L	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3
04-10-12M	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
04-10-12N	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
04-10-12O	5	n/a	n/a	5	5	10	n/a	5	5	n/a
04-10-12P	10	n/a	n/a	10	10	25	n/a	10	10	n/a
04-10-12Q	20	n/a	n/a	20	20	40	n/a	20	20	n/a
04-10-12R	40	n/a	n/a	40	40	80	n/a	40	40	n/a
04-10-12S	100	n/a	n/a	100	100	100	n/a	100	100	n/a

250µg/mL TAPD	Final Vol
04-09-12S	w/P&T H2O
Exp:04-16-12	mL
3	50
5	50
10	50
20	50
25	50
30	50
35	50
40	50

4/10/12 - BFB on pg. 120 RS.

4/11/12 RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-THOR

		Expiration Date:		04/12/12						
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	50µg/mL Vol Std #2	5µg/mL Vol Std #12
Date	Conc.	04-09-12AA	04-09-12AE	04-09-12W	04-09-12Y	04-09-12AD	04-09-12AB	04-09-12X	04-09-12Z	04-09-12AC
Code	µg/L	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12
04-11-12A	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3
04-11-12B	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
04-11-12C	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
04-11-12D	5	n/a	n/a	5	5	10	n/a	5	5	n/a
04-11-12E	10	n/a	n/a	10	10	25	n/a	10	10	n/a
04-11-12F	20	n/a	n/a	20	20	40	n/a	20	20	n/a
04-11-12G	40	n/a	n/a	40	40	80	n/a	40	40	n/a
04-11-12H	100	n/a	n/a	100	100	100	n/a	100	100	n/a

250µg/mL TAPD	Final Vol
04-09-12AF	w/P&T H2O
Exp:04-16-12	mL
3	50
5	50
10	50
20	50
25	50
30	50
35	50
40	50

* Sweetpea's soil curve on 4/11/12 RS. on page 120.

4/12/12 RS

Max 524							
04-12-12A							
50ug/ml 524 Internal Standard w/ Surrogate			Conc.		Date	Exp.	
			ug/ml	Lot #	Code	Date	uL
02SI	122450-02	524 Fortification Sol	1000	166726-27968	04-09-12AG	08/04/12	150
J.T Baker		Purge & Trap MeOH		K14E06-00613	04/09/12	12/14/12	14850

4/12/12 RS

Volatile Standard Curve Preparation for 10mL Purge (524 water)-MAX

	Expiration Date:		04/13/12					
		5µg/mL Vol Std #9	5µg/mL Vol Std #12	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Vol Std #2	250µg/mL TAPD	Final Vol
Date	Conc.	04-09-12N	04-09-12P	04-09-12J	04-09-12L	04-09-12M	04-09-12S	w/P&T H2O
Code	µg/L	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	mL
04-12-12B	0.2	2	2	n/a	n/a	n/a	2	50
04-12-12C	0.5	5	5	n/a	n/a	n/a	5	50
04-12-12D	1	10	10	n/a	n/a	n/a	10	50
04-12-12E	10	n/a	n/a	10	10	10	25	50
04-12-12F	20	n/a	n/a	20	20	20	30	50

Injection Log

Directory: M:\CHICO\DATA\C120125\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0125C24T.D	1	25ug/mL BFB Std. 01-12-12	2uL	26 Jan 12 16:30
2	1	0125C28W.D	1	VOC Mix Marker	Water 10mLw/ IS:12-06-11	26 Jan 12 18:55
3	1	0125C29W.D	1	Vol. Std. 01-26-12@20ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 19:32
4	1	0125C30W.D	1	Vol. Std. 01-26-12@50ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 20:09
5	1	0125C31W.D	1	Vol. Std. 01-26-12@100ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 20:46
6	1	0125C32W.D	1	Vol. Std. 01-26-12@300ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 21:24
7	1	0125C33W.D	1	Vol. Std. 01-26-12@600ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 22:01
8	1	0125C34W.D	1	Vol. Std. 01-26-12@800ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 22:38
9	1	0125C35W.D	1	Vol. Std. 01-26-12@1000ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 23:15
10	1	0125C38W.D	1	Second Source 01-26-12	Water 10mLw/ IS:12-06-11	27 Jan 12 1:06
11	1	0419C00T.D	1	25ug/ml BFB STD 04-10-12	2uL	19 Apr 12 6:16
12	1	0419C01W.D	1	CCV gas 300ug/L	Water 10mL w/IS&S:04-10-1	19 Apr 12 6:48
13	1	0419C06W.D	1	LCS gas 300 ug/L	Water 10mL w/IS&S:04-10-1	19 Apr 12 9:52
14	1	0419C09W.D	1	120419A BLK-1WC	Water 10mL w/IS&S:04-10-1	19 Apr 12 11:44
15	1	0419C10W.D	1	AY59238W01	Water 10mL w/IS&S:04-10-1	19 Apr 12 12:21
16	1	0419C12W.D	1	AY59236W01	Water 10mL w/IS&S:04-10-1	19 Apr 12 13:35
17	1	0419C13W.D	1	AY59237W01	Water 10mL w/IS&S:04-10-1	19 Apr 12 14:11

Injection Log

Directory: M:\THOR\DATA\T120411\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	30	0411T30T.D	1	5ng BFB STD 4-10-12	10ml w/5ul of IS&S: 03-26-1:	11 Apr 12 22:12
2	32	0411T32W.D	1	0.5ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	11 Apr 12 23:07
3	33	0411T33W.D	1	1.0ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	11 Apr 12 23:35
4	34	0411T34W.D	1	5.0ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	12 Apr 12 00:03
5	35	0411T35W.D	1	10ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	12 Apr 12 00:31
6	36	0411T36W.D	1	20ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	12 Apr 12 00:58
7	37	0411T37W.D	1	40ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	12 Apr 12 1:26
8	38	0411T38W.D	1	100ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	12 Apr 12 1:53
9	41	0412T11W.D	1	5ng BFB STD 04-10-12	10ml w/5ul of IS&S: 03-26-1:	12 Apr 12 3:16
10	42	0412T12W.D	1	10ug/L VOC STD 4-11-12 (SS)	10ml w/5ul of IS&S: 03-26-1:	12 Apr 12 3:44
11	1	0419T10T.D	1	5ng BFB 4-10-12	10ml w/5ul of IS&S: 03-26-1:	19 Apr 12 9:23
12	1	0419T11W.D	1	10ug/L Vol Std 04-19-12	10ml w/5ul of IS&S: 03-26-1:	19 Apr 12 9:45
13	2	0419T12W.D	1	120419A LCS-1WT	10ml w/5ul of IS&S: 03-26-1:	19 Apr 12 10:13
14	7	0419T17W.D	1	120419A BLK-1WT	10ml w/5ul of IS&S: 03-26-1:	19 Apr 12 12:32
15	9	0419T19W.D	1	AY59238W02	10ml w/5ul of IS&S: 03-26-1:	19 Apr 12 13:27
16	22	0419T32W.D	1	AY59236W02	10ml w/5ul of IS&S: 03-26-1:	19 Apr 12 19:28
17	23	0419T33W.D	1	AY59237W02	10ml w/5ul of IS&S: 03-26-1:	19 Apr 12 19:56

METALS
EPA SW846 - 6020

APPL, INC.

METALS
EPA SW846 - 6020
QC Summary

APPL, INC.

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.22 U	0.5	0.22	0.11	ug/L	04/25/12	05/07/12	#602D-120425A-AY59236

Laboratory Control Spike Recoveries
METALS DISSOLVED

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
6020	LEAD (PB) (DISSOLVED)	50.0	49.2	49.7	98.4	99.4	1.0	20	80-120	04/25/12	05/07/12	04/25/12	05/07/12	#602D-120425A-AY59236

Comments: _____

Matrix Spike Recoveries

METALS

APPL ID: **120425W-59236 MS - 166569**

Sample ID: AY59236

Client ID: ES074

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	Matrix Res ug/L	SPK Res ug/L	DUP Res ug/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
6020	LEAD (PB) (DISSOLVE	50.0	ND	48.6	50.0	97.2	100	2.8	20	80-120	04/25/12	05/07/12	04/25/12	05/07/12	166569	AY59236

Comments: _____

METALS
EPA SW846 - 6020
Sample Data

APPL, INC.

Metals Analysis

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Max Solmssen

Project: LTM Red Hill / 1022-024

ARF: 67525

Sample ID: ES074

APPL ID: AY59236

Sample Collection Date: 04/17/12

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22U	0.5	0.22	0.11	ug/L	1	04/25/12	05/07/12

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\117SMPL.D\117SMPL.D#
Date Acquired: May 7 2012 01:25 am
Operator: NBS
Sample Name: AY59236W15
Misc Info: 120425A-3015
Vial Number: 4101
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	0.00	ug/l	0.00	67.63	1000	
11 B	45.87	ug/l	50.96	1.13	1000	
23 Na	38160.00	ug/l	42395.76	1.83	25000	>Cal
24 Mg	17980.00	ug/l	19975.78	1.03	50000	
27 Al	6.51	ug/l	7.23	25.57	20000	
39 K	2616.00	ug/l	2906.38	1.30	20000	
44 Ca	19940.00	ug/l	22153.34	2.07	50000	
47 Ti	0.61	ug/l	0.67	34.03	1000	
51 V	13.39	ug/l	14.88	0.66	1000	
52 Cr	2.09	ug/l	2.32	2.60	1000	
55 Mn	0.54	ug/l	0.60	8.04	1000	
56 Fe	13.43	ug/l	14.92	0.78	20000	
59 Co	0.30	ug/l	0.34	4.92	1000	
60 Ni	0.31	ug/l	0.34	10.65	1000	
63 Cu	0.19	ug/l	0.21	9.36	1000	
65 Cu	0.21	ug/l	0.23	26.05	1000	
66 Zn	7.07	ug/l	7.85	3.25	1000	
75 As	0.20	ug/l	0.22	41.88	1000	
78 Se	0.32	ug/l	0.36	7.90	1000	
78 Se	2.11	ug/l	2.34	9.34	1000	
88 Sr	157.00	ug/l	174.43	0.21	1000	
88 Sr	149.30	ug/l	165.87	0.94	1000	
95 Mo	0.44	ug/l	0.49	7.93	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	0.00	ug/l	0.01	53.72	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	0.14	ug/l	0.16	25.96	1000	
118 Sn	0.94	ug/l	1.04	8.64	#######	
118 Sn	1.02	ug/l	1.14	4.46	#######	
118 Sn	0.94	ug/l	1.05	1.66	1000	
121 Sb	1.46	ug/l	1.62	9.31	1000	
137 Ba	7.54	ug/l	8.38	2.69	1000	
205 Tl	0.04	ug/l	0.04	7.04	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	-0.09	ug/l	-0.10	5.57	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3559850.30	1.38	5002703.50	71.2	70 - 120	
45 Sc	1019263.10	0.91	1428201.80	71.4	70 - 120	
45 Sc	135163.47	1.08	189458.30	71.3	70 - 120	
45 Sc	4461999.00	0.62	5488810.50	81.3	70 - 120	
72 Ge	236647.20	0.58	346291.34	68.3	70 - 120	IS Fai NT
72 Ge	93266.88	0.51	127768.43	73.0	70 - 120	
72 Ge	899154.63	1.18	1135874.50	79.2	70 - 120	
115 In	1857307.00	0.06	2601614.30	71.4	70 - 120	
115 In	1007109.20	1.22	1447050.60	69.6	70 - 120	IS Fai NT
115 In	6279846.00	0.86	7726454.50	81.3	70 - 120	
159 Tb	7899679.50	0.93	10002252.00	79.0	70 - 120	
165 Ho	7645913.00	0.99	9695601.00	78.9	70 - 120	

SDM 5.8.12

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
2 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

Metals Analysis

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Max Solmssen

Project: LTM Red Hill / 1022-024

ARF: 67525

Sample ID: ES075

APPL ID: AY59237

Sample Collection Date: 04/17/12

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22 U	0.5	0.22	0.11	ug/L	1	04/25/12	05/07/12

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\126SMPL.D\126SMPL.D#
Date Acquired: May 7 2012 02:26 am
Operator: NBS
Sample Name: AY59237W08
Misc Info: 120425A-3015
Vial Number: 4106
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	#VALUE!	--------	0	
9 Be	0.00 ug/l	0.00	46.23	1000	
11 B	62.70 ug/l	69.66	0.90	1000	
23 Na	29930.00 ug/l	33252.23	2.56	25000	>Cal
24 Mg	9383.00 ug/l	10424.51	1.62	50000	
27 Al	6.81 ug/l	7.56	11.41	20000	
39 K	1935.00 ug/l	2149.79	0.88	20000	
44 Ca	12890.00 ug/l	14320.79	1.34	50000	
47 Ti	0.81 ug/l	0.90	31.35	1000	
51 V	0.26 ug/l	0.29	3.55	1000	
52 Cr	0.23 ug/l	0.26	9.38	1000	
55 Mn	771.60 ug/l	857.25	2.31	1000	
56 Fe	445.20 ug/l	494.62	2.37	20000	
59 Co	1.15 ug/l	1.28	5.27	1000	
60 Ni	0.82 ug/l	0.91	11.87	1000	
63 Cu	0.25 ug/l	0.28	6.05	1000	
65 Cu	0.27 ug/l	0.30	14.81	1000	
66 Zn	3.83 ug/l	4.26	4.01	1000	
75 As	0.11 ug/l	0.12	24.81	1000	
78 Se	0.11 ug/l	0.12	16.56	1000	
78 Se	2.14 ug/l	2.37	5.56	1000	
88 Sr	83.65 ug/l	92.94	1.81	1000	
88 Sr	80.11 ug/l	89.00	1.43	1000	
95 Mo	0.44 ug/l	0.49	6.44	1000	
106 (Cd)	-------- ug/l	#VALUE!	--------	#######	
107 Ag	0.00 ug/l	0.00	83.49	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	#######	
111 Cd	0.15 ug/l	0.17	13.08	1000	
118 Sn	0.47 ug/l	0.53	14.73	#######	
118 Sn	0.58 ug/l	0.64	2.37	#######	
118 Sn	0.57 ug/l	0.63	4.42	1000	
121 Sb	0.72 ug/l	0.80	4.30	1000	
137 Ba	9.83 ug/l	10.92	1.64	1000	
205 Tl	0.02 ug/l	0.03	4.67	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	#######	
207 (Pb)	-------- ug/l	#VALUE!	--------	#######	
208 Pb	-0.08 ug/l	-0.09	3.49	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3487089.00	0.54	5002703.50	69.7	70 - 120	IS Fai NT
45 Sc	1009642.10	1.04	1428201.80	70.7	70 - 120	
45 Sc	132647.69	1.88	189458.30	70.0	70 - 120	
45 Sc	4341895.00	0.71	5488810.50	79.1	70 - 120	
72 Ge	236392.08	1.20	346291.34	68.3	70 - 120	IS Fai NT SDH 5.8.12
72 Ge	92264.81	3.10	127768.43	72.2	70 - 120	
72 Ge	901514.69	1.20	1135874.50	79.4	70 - 120	
115 In	1843334.10	1.27	2601614.30	70.9	70 - 120	
115 In	992963.06	0.49	1447050.60	68.6	70 - 120	IS Fai NT
115 In	6141030.00	0.16	7726454.50	79.5	70 - 120	
159 Tb	7824918.50	1.09	10002252.00	78.2	70 - 120	
165 Ho	7528078.50	1.77	9695601.00	77.6	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
3 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

METALS
EPA SW846 - 6020
Calibration Data

APPL, INC.

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.
ARF No: 67525 SDG: 67525
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 05/06/12 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:23	%R(1)	True CCV1	Found 14:04	%R(1)	True CCV1	Found 15:04	%R(1)	
Lead (Pb)	100	102.3	102	50	49.77	99.5	50	49.51	99.0	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.
ARF No: 67525 SDG: 67525
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 05/06/12 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:23	%R(1)	True CCV1	Found 0:25	%R(1)	True CCV1	Found 1:59	%R(1)	
Lead (Pb)	100	102.3	102	50	47.52	95.0	50	47.5	95.0	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 67525 SDG: 67525

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 05/06/12 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:23	%R(1)	True CCV1	Found 3:13	%R(1)	True	Found	%R(1)	
Lead (Pb)	100	102.3	102	50	47.14	94.3				P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 67525 SDG: 67525

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 05/06/12

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)								Preparation Blank		M
		C	1	C	2	C	3	C		C			
	13:57		14:11		15:18		00:38		01:05				
Lead (Pb)	.50	U	.50	U	.50	U	.50	U	.50	U	P		

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 67525 SDG: 67525

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 05/06/12

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	13:57		02:13		03:27				01:05		
Lead (Pb)	.50	U	.50	U	.50	U			.50	U	P

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name:	A.P.P.L. INC.	Contract:	Environet, Inc.
ARF No.:	67525	SDG:	67525
ICP ID Number:	Optimus	ICS Source:	Environmental Express

Analysis Date: 05/06/12 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 14:30	Sol AB 14:37	%R(1)
Lead (Pb)		500	0.2959	509.7	102

(1) Control Limits: Metals 80-120

A.P.P.L. INC.
9
ICP SERIAL DILUTION

CLIENT SAMPLE NO.
ES074

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 67525 SDG: 67525

Matrix: water

Analysis Date: 05/07/12 Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	%D	Q	M
Lead (Pb)	ND		ND		NA		

Comments:

05/07/12 01:25 AY59236W15

05/07/12 02:19 AY59236W15-1/5

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\125SMPL.D\125SMPL.D#
Date Acquired: May 7 2012 02:19 am
Operator: NBS
Sample Name: AY59236W15-1/5
Misc Info: 120425A-3015
Vial Number: 4105
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: Sample
Prep Dil Factor: 5.56
Total Dil Factor: 5.56

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	#VALUE!	--------	0	
9 Be	0.00 ug/l	0.01	353.75	1000	
11 B	12.57 ug/l	69.84	1.37	1000	
23 Na	8111.00 ug/l	45064.72	1.33	25000	
24 Mg	3763.00 ug/l	20907.23	0.52	50000	
27 Al	2.21 ug/l	12.26	38.33	20000	
39 K	559.70 ug/l	3109.69	0.56	20000	
44 Ca	3925.00 ug/l	21807.30	0.72	50000	
47 Ti	0.12 ug/l	0.68	18.73	1000	
51 V	2.89 ug/l	16.04	2.70	1000	
52 Cr	0.47 ug/l	2.63	2.23	1000	
55 Mn	-0.10 ug/l	-0.54	50.12	1000	
56 Fe	4.54 ug/l	25.20	2.38	20000	
59 Co	0.04 ug/l	0.23	23.39	1000	
60 Ni	0.07 ug/l	0.40	25.11	1000	
63 Cu	0.06 ug/l	0.35	11.96	1000	
65 Cu	0.09 ug/l	0.48	18.88	1000	
66 Zn	1.91 ug/l	10.60	7.90	1000	
75 As	0.22 ug/l	1.23	8.02	1000	
78 Se	0.10 ug/l	0.55	6.50	1000	
78 Se	1.39 ug/l	7.71	5.79	1000	
88 Sr	30.35 ug/l	168.62	1.05	1000	
88 Sr	30.75 ug/l	170.85	1.27	1000	
95 Mo	0.13 ug/l	0.70	9.60	1000	
106 (Cd)	-------- ug/l	#VALUE!	--------	#######	
107 Ag	0.03 ug/l	0.15	22.12	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	#######	
111 Cd	0.05 ug/l	0.28	37.40	1000	
118 Sn	1.31 ug/l	7.29	8.50	#######	
118 Sn	1.66 ug/l	9.20	6.70	#######	
118 Sn	1.44 ug/l	7.99	0.79	1000	
121 Sb	1.92 ug/l	10.66	3.11	1000	
137 Ba	1.55 ug/l	8.62	0.17	1000	
205 Tl	0.01 ug/l	0.08	9.04	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	#######	
207 (Pb)	-------- ug/l	#VALUE!	--------	#######	
208 Pb	-0.16 ug/l	-0.91	1.25	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	4098817.30	0.97	5002703.50	81.9	70 - 120	
45 Sc	1122244.00	1.03	1428201.80	78.6	70 - 120	
45 Sc	140591.77	0.15	189458.30	74.2	70 - 120	
45 Sc	4512308.00	0.62	5488810.50	82.2	70 - 120	
72 Ge	264400.19	1.16	346291.34	76.4	70 - 120	
72 Ge	99520.74	2.26	127768.43	77.9	70 - 120	
72 Ge	946386.13	0.51	1135874.50	83.3	70 - 120	
115 In	2064423.10	0.59	2601614.30	79.4	70 - 120	
115 In	1082982.60	1.25	1447050.60	74.8	70 - 120	
115 In	6391700.50	0.93	7726454.50	82.7	70 - 120	
159 Tb	8127752.50	1.75	10002252.00	81.3	70 - 120	
165 Ho	7875537.50	1.58	9695601.00	81.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

A.P.P.L. INC.

5B

POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMPLE NO.

ES074

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 67525 SDG: 67525

Analysis Date: 05/07/12 Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Lead (Pb)	75-125	248.196		ND		277.500	89.4		

Comments:

05/07/12 01:25 AY59236W15

05/07/12 01:46 AY59236W15-A

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\120SMPL.D\120SMPL.D#
Date Acquired: May 7 2012 01:46 am
Operator: NBS
Sample Name: AY59236W15-A
Misc Info: 120425A-3015
Vial Number: 4104
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	40.82	ug/l	45.35	0.97	1000	
11 B	262.30	ug/l	291.42	0.51	1000	
23 Na	56740.00	ug/l	63038.14	3.05	25000	>Cal
24 Mg	38060.00	ug/l	42284.66	2.45	50000	
27 Al	1834.00	ug/l	2037.57	4.08	20000	
39 K	7125.00	ug/l	7915.88	2.68	20000	
44 Ca	41740.00	ug/l	46373.14	2.28	50000	
47 Ti	232.20	ug/l	257.97	4.04	1000	
51 V	245.70	ug/l	272.97	3.44	1000	
52 Cr	231.10	ug/l	256.75	2.76	1000	
55 Mn	231.60	ug/l	257.31	2.28	1000	
56 Fe	906.00	ug/l	1006.57	2.98	20000	
59 Co	218.60	ug/l	242.86	3.16	1000	
60 Ni	217.60	ug/l	241.75	2.12	1000	
63 Cu	213.30	ug/l	236.98	2.53	1000	
65 Cu	212.70	ug/l	236.31	2.54	1000	
66 Zn	407.40	ug/l	452.62	0.70	1000	
75 As	214.00	ug/l	237.75	0.91	1000	
78 Se	183.10	ug/l	203.42	1.59	1000	
78 Se	182.20	ug/l	202.42	1.97	1000	
88 Sr	399.50	ug/l	443.84	0.56	1000	
88 Sr	376.60	ug/l	418.40	1.22	1000	
95 Mo	239.50	ug/l	266.08	0.44	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	73.57	ug/l	81.74	8.30	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	42.34	ug/l	47.04	0.49	1000	
118 Sn	261.80	ug/l	290.86	1.91	#######	
118 Sn	260.70	ug/l	289.64	1.32	#######	
118 Sn	250.70	ug/l	278.53	0.60	1000	
121 Sb	249.90	ug/l	277.64	0.31	1000	
137 Ba	244.70	ug/l	271.86	1.02	1000	
205 Tl	223.00	ug/l	247.75	0.53	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	223.60	ug/l	248.42	0.27	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3412141.30	0.14	5002703.50	68.2	70 - 120	IS Fai
45 Sc	1016975.50	1.23	1428201.80	71.2	70 - 120	
45 Sc	135261.36	2.36	189458.30	71.4	70 - 120	
45 Sc	4332606.00	1.49	5488810.50	78.9	70 - 120	
72 Ge	238401.05	2.58	346291.34	68.8	70 - 120	IS Fai
72 Ge	91890.38	0.17	127768.43	71.9	70 - 120	
72 Ge	873439.69	0.75	1135874.50	76.9	70 - 120	
115 In	1838817.10	1.56	2601614.30	70.7	70 - 120	
115 In	991565.75	0.54	1447050.60	68.5	70 - 120	IS Fai
115 In	6033482.00	0.35	7726454.50	78.1	70 - 120	
159 Tb	7810792.50	1.45	10002252.00	78.1	70 - 120	
165 Ho	7483336.00	0.87	9695601.00	77.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
3 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\005CAL
Date Acquired: May 6 2012 12:48 pm
Operator: NBS
Sample Name: Calibration Blank
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 12:45 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	4365905.00	A	22210.00	0.51
7	(Li)	275064.50	P	3258.00	1.18
9	Be	25.56	P	13.47	52.71
11	B	14323.93	P	185.20	1.29
23	Na	57357.56	P	849.50	1.48
24	Mg	114.45	P	18.95	16.56
27	Al	21.11	P	5.09	24.12
39	K	19722.64	P	689.40	3.50
44	Ca	253.53	P	24.78	9.77
45	Sc	1387378.00	A	22800.00	1.64
45	Sc	178485.80	A	970.60	0.54
45	Sc	5341512.00	A	52470.00	0.98
47	Ti	33.81	P	58.56	173.19
51	V	25.78	P	5.39	20.91
52	Cr	133.78	P	21.60	16.15
55	Mn	256.01	P	23.44	9.16
56	Fe	1477.13	P	143.00	9.68
59	Co	38.67	P	8.74	22.61
60	Ni	110.22	P	2.78	2.52
63	Cu	103.56	P	14.26	13.77
65	Cu	44.89	P	12.10	26.96
66	Zn	102.22	P	6.71	6.57
72	Ge	328299.91	A	6602.00	2.01
72	Ge	120925.80	A	2612.00	2.16
72	Ge	1098502.00	A	13940.00	1.27
75	As	12.22	P	2.55	20.83
78	Se	11.56	P	0.77	6.66
78	Se	80.22	P	4.83	6.03
88	Sr	135.56	P	25.46	18.78
88	Sr	1329.00	P	8.39	0.63
95	Mo	74.45	P	22.20	29.82
106	(Cd)	4.44	P	5.09	114.57
107	Ag	127.78	P	9.62	7.53
108	(Cd)	4.44	P	5.09	114.57
111	Cd	18.40	P	9.65	52.47
115	In	2460399.00	A	45570.00	1.85
115	In	1354997.00	A	1826.00	0.13
115	In	7443787.00	A	108800.00	1.46
118	Sn	202.36	P	139.80	69.09
118	Sn	55.56	P	10.18	18.32
118	Sn	275.68	P	93.23	33.82
121	Sb	196.68	P	13.33	6.78
137	Ba	1112.31	P	28.35	2.55
159	Tb	9639542.00	A	76780.00	0.80
165	Ho	9263706.00	A	106600.00	1.15
205	Tl	202.23	P	12.62	6.24
206	(Pb)	1239.00	P	116.60	9.41
207	(Pb)	1054.53	P	87.71	8.32
208	Pb	4887.20	P	255.00	5.22

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\006CALS.D\006CALS.D#
Date Acquired: May 6 2012 12:55 pm
Operator: NBS
Sample Name: 120506 Standard 1
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 12:52 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	4566288.00	A	73030.00	1.60	0.0000
7 (Li)	284871.19	P	1408.00	0.49	0.0000
9 Be	400.02	P	13.33	3.33	0.0000
11 B	21297.93	P	1032.00	4.85	0.0000
23 Na	73774.75	P	757.00	1.03	0.0000
24 Mg	565.59	P	42.99	7.60	0.0000
27 Al	111.12	P	25.02	22.52	0.0000
39 K	20310.08	P	115.30	0.57	0.0000
44 Ca	298.37	P	16.67	5.59	0.0000
45 Sc	1291333.00	A	12040.00	0.93	0.0000
45 Sc	162876.70	A	4702.00	2.89	0.0000
45 Sc	5223058.00	A	36860.00	0.71	0.0000
47 Ti	7.56	P	2.04	26.96	0.0000
51 V	215.56	P	8.88	4.12	0.0000
52 Cr	263.56	P	6.01	2.28	0.0000
55 Mn	222.67	P	16.17	7.26	0.0000
56 Fe	4485.64	P	152.80	3.41	0.0000
59 Co	252.45	P	6.30	2.50	0.0000
60 Ni	79.56	P	11.65	14.64	0.0000
63 Cu	255.12	P	14.01	5.49	0.0000
65 Cu	136.45	P	20.71	15.18	0.0000
66 Zn	142.23	P	16.88	11.87	0.0000
72 Ge	305619.31	A	4376.00	1.43	0.0000
72 Ge	111463.90	A	991.30	0.89	0.0000
72 Ge	1086787.00	A	8802.00	0.81	0.0000
75 As	32.56	P	1.50	4.62	0.0000
78 Se	19.67	P	1.76	8.97	0.0000
78 Se	88.45	P	5.59	6.32	0.0000
88 Sr	257.79	P	28.74	11.15	0.0000
88 Sr	2857.06	P	90.76	3.18	0.0000
95 Mo	388.91	P	21.17	5.44	0.0000
106 (Cd)	31.11	P	13.88	44.61	0.0000
107 Ag	604.48	P	30.25	5.00	0.0000
108 (Cd)	22.22	P	5.09	22.91	0.0000
111 Cd	231.65	P	10.72	4.63	0.0000
115 In	2424190.00	A	12150.00	0.50	0.0000
115 In	1250161.00	A	19740.00	1.58	0.0000
115 In	7307136.00	A	22150.00	0.30	0.0000
118 Sn	430.02	P	24.04	5.59	0.0000
118 Sn	245.57	P	19.53	7.95	0.0000
118 Sn	1295.66	P	56.41	4.35	0.0000
121 Sb	1821.29	P	76.49	4.20	0.0000
137 Ba	350.02	P	66.59	19.03	0.0000
159 Tb	9320361.00	A	92000.00	0.99	0.0000
165 Ho	9039696.00	A	95070.00	1.05	0.0000
205 Tl	1929.10	P	47.18	2.45	0.0000
206 (Pb)	857.83	P	32.38	3.77	0.0000
207 (Pb)	744.49	P	45.50	6.11	0.0000
208 Pb	3339.17	P	62.05	1.86	0.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	4566288.00	1.60	4365905.50	104.6	70 -	120	
45 Sc	1291333.00	0.93	1387378.10	93.1	70 -	120	
45 Sc	162876.72	2.89	178485.84	91.3	70 -	120	
45 Sc	5223058.00	0.71	5341512.00	97.8	70 -	120	
72 Ge	305619.28	1.43	328299.91	93.1	70 -	120	
72 Ge	111463.94	0.89	120925.76	92.2	70 -	120	
72 Ge	1086787.40	0.81	1098501.80	98.9	70 -	120	
115 In	2424190.00	0.50	2460398.80	98.5	70 -	120	
115 In	1250161.40	1.58	1354997.10	92.3	70 -	120	
115 In	7307136.50	0.30	7443787.00	98.2	70 -	120	
159 Tb	9320361.00	0.99	9639542.00	96.7	70 -	120	
165 Ho	9039696.00	1.05	9263706.00	97.6	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\005CALB.D\005CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\007CALS.D\007CALS.D#
Date Acquired: May 6 2012 01:03 pm
Operator: NBS
Sample Name: 120506 Standard 2
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 01:01 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	4576075.00	A	42510.00	0.93	0.0000
7 (Li)	282661.00	P	1057.00	0.37	1.0000
9 Be	3589.45	P	64.33	1.79	1.0000
11 B	23853.95	P	1015.00	4.26	1.0000
23 Na	77102.23	P	575.10	0.75	1.0000
24 Mg	4680.89	P	128.10	2.74	1.0000
27 Al	784.49	P	42.35	5.40	1.0000
39 K	21853.30	P	663.30	3.04	1.0000
44 Ca	572.24	P	41.64	7.28	1.0000
45 Sc	1298005.00	A	8778.00	0.68	0.0000
45 Sc	162606.20	A	1470.00	0.90	0.0000
45 Sc	5235066.00	A	45560.00	0.87	0.0000
47 Ti	44.89	P	12.39	27.60	-1.0000
51 V	1136.50	P	38.70	3.41	1.0000
52 Cr	1406.76	P	31.75	2.26	1.0000
55 Mn	1007.16	P	37.84	3.76	-1.0000
56 Fe	27589.09	P	3436.00	12.45	1.0000
59 Co	1961.05	P	47.27	2.41	1.0000
60 Ni	508.46	P	16.29	3.20	-1.0000
63 Cu	1499.65	P	44.33	2.96	1.0000
65 Cu	692.03	P	11.62	1.68	1.0000
66 Zn	384.01	P	25.75	6.71	1.0000
72 Ge	300871.91	A	5617.00	1.87	0.0000
72 Ge	110901.30	A	957.00	0.86	0.0000
72 Ge	1075543.00	A	2736.00	0.25	0.0000
75 As	188.67	P	6.64	3.52	1.0000
78 Se	132.90	P	28.54	21.48	1.0000
78 Se	108.56	P	3.60	3.31	1.0000
88 Sr	1704.61	P	46.72	2.74	1.0000
88 Sr	19904.49	P	205.50	1.03	1.0000
95 Mo	3390.52	P	173.50	5.12	1.0000
106 (Cd)	180.01	P	8.82	4.90	1.0000
107 Ag	4688.71	P	148.80	3.17	1.0000
108 (Cd)	154.45	P	13.47	8.72	1.0000
111 Cd	2008.22	P	35.25	1.76	1.0000
115 In	2385158.00	A	17310.00	0.73	0.0000
115 In	1239147.00	A	10190.00	0.82	0.0000
115 In	7176865.00	A	25550.00	0.36	0.0000
118 Sn	1759.06	P	100.80	5.73	1.0000
118 Sn	1006.74	P	91.35	9.07	1.0000
118 Sn	5646.89	P	88.37	1.56	1.0000
121 Sb	6619.56	P	191.60	2.89	1.0000
137 Ba	2838.17	P	134.20	4.73	-1.0000
159 Tb	9290087.00	A	113200.00	1.22	0.0000
165 Ho	8969833.00	A	39200.00	0.44	0.0000
205 Tl	16497.47	P	352.60	2.14	1.0000
206 (Pb)	5944.89	P	102.20	1.72	-1.0000
207 (Pb)	5082.29	P	65.55	1.29	-1.0000
208 Pb	23448.96	P	88.41	0.38	-1.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	4576075.00	0.93	4365905.50	104.8	70 -	120	
45 Sc	1298005.30	0.68	1387378.10	93.6	70 -	120	
45 Sc	162606.25	0.90	178485.84	91.1	70 -	120	
45 Sc	5235066.00	0.87	5341512.00	98.0	70 -	120	
72 Ge	300871.91	1.87	328299.91	91.6	70 -	120	
72 Ge	110901.30	0.86	120925.76	91.7	70 -	120	
72 Ge	1075542.80	0.25	1098501.80	97.9	70 -	120	
115 In	2385158.00	0.73	2460398.80	96.9	70 -	120	
115 In	1239146.80	0.82	1354997.10	91.5	70 -	120	
115 In	7176865.50	0.36	7443787.00	96.4	70 -	120	
159 Tb	9290087.00	1.22	9639542.00	96.4	70 -	120	
165 Ho	8969833.00	0.44	9263706.00	96.8	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\005CALB.D\005CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\008CALS.D\008CALS.D#
Date Acquired: May 6 2012 01:10 pm
Operator: NBS
Sample Name: 120506 Standard 3
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 01:07 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	4554557.00	A	24000.00	0.53	0.0000
7 (Li)	280282.00	P	1938.00	0.69	0.3876
9 Be	174831.91	P	1818.00	1.04	1.0000
11 B	137155.59	P	401.70	0.29	0.7593
23 Na	305384.91	P	3121.00	1.02	0.6751
24 Mg	236038.09	P	3027.00	1.28	1.0000
27 Al	36682.74	P	359.50	0.98	0.9998
39 K	136246.91	P	1116.00	0.82	0.8555
44 Ca	14799.65	P	235.70	1.59	0.9955
45 Sc	1262012.00	A	7483.00	0.59	0.0000
45 Sc	163893.41	A	2058.00	1.26	0.0000
45 Sc	5121448.00	A	44680.00	0.87	0.0000
47 Ti	1884.15	P	77.62	4.12	0.7318
51 V	53356.68	P	219.50	0.41	0.9975
52 Cr	64427.48	P	231.30	0.36	1.0000
55 Mn	44280.24	P	354.20	0.80	0.9947
56 Fe	1133046.00	A	2555.00	0.23	0.9998
59 Co	93277.75	P	590.80	0.63	0.9999
60 Ni	23547.15	P	38.32	0.16	0.9910
63 Cu	65608.41	P	272.70	0.42	0.9999
65 Cu	32081.72	P	141.20	0.44	0.9990
66 Zn	13372.07	P	141.50	1.06	0.9980
72 Ge	297930.69	A	3695.00	1.24	0.0000
72 Ge	111803.50	A	1867.00	1.67	0.0000
72 Ge	1071627.00	A	17650.00	1.65	0.0000
75 As	9032.95	P	40.67	0.45	0.9998
78 Se	5155.15	P	29.33	0.57	0.9995
78 Se	1272.73	P	25.84	2.03	0.9470
88 Sr	82194.24	P	379.50	0.46	0.9999
88 Sr	931248.63	A	6492.00	0.70	0.9999
95 Mo	164069.09	P	2680.00	1.63	1.0000
106 (Cd)	8660.72	P	240.10	2.77	0.9987
107 Ag	222875.41	P	1161.00	0.52	1.0000
108 (Cd)	6692.93	P	50.06	0.75	0.9998
111 Cd	96486.23	P	320.80	0.33	1.0000
115 In	2382651.00	A	31580.00	1.33	0.0000
115 In	1243403.00	A	17330.00	1.39	0.0000
115 In	7238932.00	A	75760.00	1.05	0.0000
118 Sn	76126.20	P	298.30	0.39	0.9991
118 Sn	44445.93	P	463.00	1.04	0.9949
118 Sn	250350.70	P	848.40	0.34	0.9963
121 Sb	279910.50	P	2530.00	0.90	0.9887
137 Ba	137867.41	P	1133.00	0.82	0.9291
159 Tb	9339868.00	A	75800.00	0.81	0.0000
165 Ho	8996681.00	A	56260.00	0.63	0.0000
205 Tl	809873.50	P	1415.00	0.17	1.0000
206 (Pb)	278317.81	P	618.50	0.22	0.9875
207 (Pb)	235224.00	P	1016.00	0.43	0.9880
208 Pb	1102132.00	P	5457.00	0.50	0.9884

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	4554557.50	0.53	4365905.50	104.3	70 -	120	
45 Sc	1262012.30	0.59	1387378.10	91.0	70 -	120	
45 Sc	163893.36	1.26	178485.84	91.8	70 -	120	
45 Sc	5121448.00	0.87	5341512.00	95.9	70 -	120	
72 Ge	297930.72	1.24	328299.91	90.7	70 -	120	
72 Ge	111803.46	1.67	120925.76	92.5	70 -	120	
72 Ge	1071626.60	1.65	1098501.80	97.6	70 -	120	
115 In	2382651.30	1.33	2460398.80	96.8	70 -	120	
115 In	1243403.00	1.39	1354997.10	91.8	70 -	120	
115 In	7238932.50	1.05	7443787.00	97.2	70 -	120	
159 Tb	9339869.00	0.81	9639542.00	96.9	70 -	120	
165 Ho	8996681.00	0.63	9263706.00	97.1	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\005CALB.D\005CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\009CALS.D\009CALS.D#
Date Acquired: May 6 2012 01:17 pm
Operator: NBS
Sample Name: 120506 Standard 4
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 01:14 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	4548555.00	A	41120.00	0.90	0.0000
7 (Li)	281723.00	P	625.50	0.22	-0.0623
9 Be	355888.00	P	2065.00	0.58	1.0000
11 B	266311.50	P	2021.00	0.76	0.9984
23 Na	536680.81	P	3933.00	0.73	0.9966
24 Mg	469457.69	P	3401.00	0.72	1.0000
27 Al	73150.01	P	618.10	0.84	1.0000
39 K	251291.09	P	2182.00	0.87	0.9999
44 Ca	30017.63	P	329.30	1.10	1.0000
45 Sc	1303325.00	A	13950.00	1.07	0.0000
45 Sc	160170.30	A	3180.00	1.99	0.0000
45 Sc	5160895.00	A	5248.00	0.10	0.0000
47 Ti	3870.96	P	198.20	5.12	0.9999
51 V	106389.20	P	485.50	0.46	1.0000
52 Cr	127116.30	P	847.70	0.67	1.0000
55 Mn	88197.47	P	825.70	0.94	1.0000
56 Fe	2225099.00	A	43110.00	1.94	1.0000
59 Co	187582.30	P	940.80	0.50	1.0000
60 Ni	47222.51	P	207.20	0.44	1.0000
63 Cu	130250.20	P	1863.00	1.43	1.0000
65 Cu	63681.88	P	694.70	1.09	1.0000
66 Zn	26117.38	P	137.10	0.52	1.0000
72 Ge	304949.00	A	4909.00	1.61	0.0000
72 Ge	110460.90	A	1256.00	1.14	0.0000
72 Ge	1072004.00	A	7617.00	0.71	0.0000
75 As	17999.39	P	183.10	1.02	1.0000
78 Se	10343.49	P	85.11	0.82	1.0000
78 Se	2484.11	P	23.37	0.94	1.0000
88 Sr	165495.09	P	1252.00	0.76	1.0000
88 Sr	1871947.00	A	4204.00	0.22	1.0000
95 Mo	331278.00	P	791.70	0.24	1.0000
106 (Cd)	17599.31	P	234.70	1.33	1.0000
107 Ag	449017.09	P	1660.00	0.37	1.0000
108 (Cd)	13445.73	P	312.90	2.33	1.0000
111 Cd	191715.20	P	2350.00	1.23	1.0000
115 In	2441419.00	A	40070.00	1.64	0.0000
115 In	1245256.00	A	9868.00	0.79	0.0000
115 In	7196137.00	A	64600.00	0.90	0.0000
118 Sn	154292.30	P	2166.00	1.40	1.0000
118 Sn	90766.01	P	1050.00	1.16	1.0000
118 Sn	510110.81	P	4297.00	0.84	1.0000
121 Sb	574499.19	P	5817.00	1.01	1.0000
137 Ba	276043.59	P	2427.00	0.88	1.0000
159 Tb	9335886.00	A	44010.00	0.47	0.0000
165 Ho	9144357.00	A	60830.00	0.67	0.0000
205 Tl	1610670.00	A	5783.00	0.36	1.0000
206 (Pb)	554043.50	P	2332.00	0.42	1.0000
207 (Pb)	472408.09	P	1134.00	0.24	1.0000
208 Pb	2188474.00	A	10630.00	0.49	1.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	4548555.00	0.90	4365905.50	104.2	70 -	120	
45 Sc	1303324.50	1.07	1387378.10	93.9	70 -	120	
45 Sc	160170.31	1.99	178485.84	89.7	70 -	120	
45 Sc	5160895.50	0.10	5341512.00	96.6	70 -	120	
72 Ge	304949.03	1.61	328299.91	92.9	70 -	120	
72 Ge	110460.91	1.14	120925.76	91.3	70 -	120	
72 Ge	1072004.00	0.71	1098501.80	97.6	70 -	120	
115 In	2441419.00	1.64	2460398.80	99.2	70 -	120	
115 In	1245255.60	0.79	1354997.10	91.9	70 -	120	
115 In	7196137.00	0.90	7443787.00	96.7	70 -	120	
159 Tb	9335886.00	0.47	9639542.00	96.8	70 -	120	
165 Ho	9144357.00	0.67	9263706.00	98.7	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\005CALB.D\005CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

QCS QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\010_QCS.D\010_QCS.D#
Date Acquired: May 6 2012 01:23 pm
Operator: NBS
Sample Name: ICV 120506
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 01:21 pm
Sample Type: QCS
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	100.00	90 -	110	
9 Be	100.90	ug/l	0.80	100.00	90 -	110	
11 B	104.60	ug/l	0.72	100.00	90 -	110	
23 Na	2452.00	ug/l	1.18	2500.00	90 -	110	
24 Mg	2475.00	ug/l	0.86	2500.00	90 -	110	
27 Al	2494.00	ug/l	1.26	2500.00	90 -	110	
39 K	2456.00	ug/l	0.98	2500.00	90 -	110	
44 Ca	2479.00	ug/l	1.30	2500.00	90 -	110	
47 Ti	96.62	ug/l	3.05	100.00	90 -	110	
51 V	102.60	ug/l	0.27	100.00	90 -	110	
52 Cr	103.10	ug/l	0.41	100.00	90 -	110	
55 Mn	102.30	ug/l	0.38	100.00	90 -	110	
56 Fe	2425.00	ug/l	1.39	2500.00	90 -	110	
59 Co	100.40	ug/l	1.06	100.00	90 -	110	
60 Ni	102.50	ug/l	0.80	100.00	90 -	110	
63 Cu	100.90	ug/l	0.27	100.00	90 -	110	
65 Cu	100.20	ug/l	0.76	100.00	90 -	110	
66 Zn	101.60	ug/l	0.81	100.00	90 -	110	
75 As	100.70	ug/l	0.58	100.00	90 -	110	
78 Se	105.40	ug/l	0.71	100.00	90 -	110	
78 Se	102.70	ug/l	0.42	100.00	90 -	110	
88 Sr	100.20	ug/l	0.30	100.00	90 -	110	
88 Sr	97.80	ug/l	1.49	100.00	90 -	110	
95 Mo	99.93	ug/l	1.36	100.00	90 -	110	
106 (Cd)	--------	ug/l	--------	100.00	90 -	110	
107 Ag	50.27	ug/l	1.79	50.00	90 -	110	
108 (Cd)	--------	ug/l	--------	100.00	90 -	110	
111 Cd	100.50	ug/l	2.12	100.00	90 -	110	
118 Sn	60.59	ug/l	2.60	50.00	90 -	110	Fail
118 Sn	50.23	ug/l	9.19	50.00	90 -	110	
118 Sn	49.48	ug/l	1.37	50.00	90 -	110	
121 Sb	120.60	ug/l	1.04	100.00	90 -	110	Fail
137 Ba	98.38	ug/l	1.39	100.00	90 -	110	
205 Tl	100.90	ug/l	0.94	100.00	90 -	110	
206 (Pb)	--------	ug/l	--------	100.00	90 -	110	
207 (Pb)	--------	ug/l	--------	100.00	90 -	110	
208 Pb	102.30	ug/l	0.30	100.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	4569029.50	1.83	4365905.50	104.7	70 -	120	
45 Sc	1298295.60	0.51	1387378.10	93.6	70 -	120	
45 Sc	162394.17	0.48	178485.84	91.0	70 -	120	
45 Sc	5172767.00	0.19	5341512.00	96.8	70 -	120	
72 Ge	299287.84	1.43	328299.91	91.2	70 -	120	
72 Ge	111745.26	1.82	120925.76	92.4	70 -	120	
72 Ge	1065647.10	0.56	1098501.80	97.0	70 -	120	
115 In	2391467.80	0.94	2460398.80	97.2	70 -	120	
115 In	1250055.60	0.69	1354997.10	92.3	70 -	120	
115 In	7278412.00	1.39	7443787.00	97.8	70 -	120	
159 Tb	9390171.00	0.25	9639542.00	97.4	70 -	120	
165 Ho	9088226.00	0.36	9263706.00	98.1	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\005CALB.D\005CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\015_CCB.D\015_CCB.D#
Date Acquired: May 6 2012 01:57 pm
Operator: NBS
Sample Name: ICB 120506
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 01:21 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	--------	#######	
9 Be	0.00	ug/l	61.64	0.12	
11 B	0.16	ug/l	85.36	15.00	
23 Na	-19.52	ug/l	28.54	77.10	
24 Mg	0.03	ug/l	83.22	7.50	
27 Al	-0.07	ug/l	347.20	3.96	
39 K	-13.93	ug/l	4.25	19.20	
44 Ca	-2.31	ug/l	192.21	90.00	
47 Ti	-0.76	ug/l	3.98	0.78	
51 V	0.01	ug/l	121.68	0.21	
52 Cr	0.00	ug/l	234.48	0.12	
55 Mn	-0.07	ug/l	17.80	0.18	
56 Fe	0.08	ug/l	35.78	40.80	
59 Co	0.00	ug/l	296.66	0.09	
60 Ni	0.08	ug/l	77.37	0.48	
63 Cu	0.01	ug/l	23.34	0.39	
65 Cu	0.03	ug/l	89.51	0.39	
66 Zn	0.09	ug/l	16.62	6.90	
75 As	0.01	ug/l	66.61	0.27	
78 Se	-0.03	ug/l	21.08	0.30	
78 Se	0.00	ug/l	37583.00	0.30	
88 Sr	-0.02	ug/l	45.90	0.03	
88 Sr	0.00	ug/l	899.71	0.03	
95 Mo	0.04	ug/l	10.20	0.21	
106 (Cd)	--------	ug/l	--------	#######	
107 Ag	0.00	ug/l	317.32	0.09	
108 (Cd)	--------	ug/l	--------	#######	
111 Cd	0.00	ug/l	843.57	0.06	
116 Sn	-0.04	ug/l	81.30	#######	
118 Sn	0.03	ug/l	3.62	#######	
118 Sn	0.65	ug/l	169.37	0.30	Fail
121 Sb	0.05	ug/l	13.38	0.03	Fail
137 Ba	-0.03	ug/l	71.88	0.12	
205 Tl	0.01	ug/l	160.91	0.03	
206 (Pb)	--------	ug/l	--------	#######	
207 (Pb)	--------	ug/l	--------	#######	
208 Pb	-0.09	ug/l	5.54	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	4433633.00	0.78	4365905.50	101.6	70 - 120	
45 Sc	1406959.10	1.61	1387378.10	101.4	70 - 120	
45 Sc	185245.84	0.83	178485.84	103.8	70 - 120	
45 Sc	5400796.00	0.96	5341512.00	101.1	70 - 120	
72 Ge	338700.75	1.82	328299.91	103.2	70 - 120	
72 Ge	122726.15	1.60	120925.76	101.5	70 - 120	
72 Ge	1119906.80	0.77	1098501.80	101.9	70 - 120	
115 In	2535470.00	1.20	2460398.80	103.1	70 - 120	
115 In	1400925.40	1.23	1354997.10	103.4	70 - 120	
115 In	7561984.00	0.97	7443787.00	101.6	70 - 120	
159 Tb	9706947.00	0.52	9639542.00	100.7	70 - 120	
165 Ho	9490577.00	0.27	9263706.00	102.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\005CALB.D\005CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\016_CCV.D\016_CCV.D#
Date Acquired: May 6 2012 02:04 pm
Operator: NBS
Sample Name: CCV 120506
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 01:21 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	--------	ug/l	--------	50.00	90 - 110	
9 Be	49.02	ug/l	1.83	50.00	90 - 110	
11 B	48.87	ug/l	0.82	50.00	90 - 110	
23 Na	1228.00	ug/l	0.91	1250.00	90 - 110	
24 Mg	2496.00	ug/l	0.48	2500.00	90 - 110	
27 Al	1005.00	ug/l	0.54	1000.00	90 - 110	
39 K	995.70	ug/l	1.36	1000.00	90 - 110	
44 Ca	2514.00	ug/l	4.20	2500.00	90 - 110	
47 Ti	47.04	ug/l	3.83	50.00	90 - 110	
51 V	48.82	ug/l	0.50	50.00	90 - 110	
52 Cr	48.75	ug/l	0.82	50.00	90 - 110	
55 Mn	48.98	ug/l	0.70	50.00	90 - 110	
56 Fe	996.30	ug/l	1.35	1000.00	90 - 110	
59 Co	48.75	ug/l	0.70	50.00	90 - 110	
60 Ni	48.72	ug/l	0.81	50.00	90 - 110	
63 Cu	48.71	ug/l	0.82	50.00	90 - 110	
65 Cu	48.74	ug/l	1.70	50.00	90 - 110	
66 Zn	49.92	ug/l	0.64	50.00	90 - 110	
75 As	49.93	ug/l	0.58	50.00	90 - 110	
78 Se	50.85	ug/l	0.72	50.00	90 - 110	
78 Se	49.66	ug/l	0.36	50.00	90 - 110	
88 Sr	50.04	ug/l	1.67	50.00	90 - 110	
88 Sr	49.31	ug/l	1.93	50.00	90 - 110	
95 Mo	48.73	ug/l	0.64	50.00	90 - 110	
106 (Cd)	--------	ug/l	--------	50.00	90 - 110	
107 Ag	24.66	ug/l	0.64	25.00	90 - 110	
108 (Cd)	--------	ug/l	--------	50.00	90 - 110	
111 Cd	49.54	ug/l	0.98	50.00	90 - 110	
118 Sn	50.11	ug/l	1.23	---	##### - #####	
118 Sn	48.62	ug/l	0.76	---	##### - #####	
118 Sn	48.33	ug/l	1.06	50.00	90 - 110	
121 Sb	48.60	ug/l	0.90	50.00	90 - 110	
137 Ba	48.42	ug/l	1.23	50.00	90 - 110	
205 Tl	50.01	ug/l	1.14	50.00	90 - 110	
206 (Pb)	--------	ug/l	--------	50.00	90 - 110	
207 (Pb)	--------	ug/l	--------	50.00	90 - 110	
208 Pb	49.77	ug/l	1.58	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	4525227.50	1.38	4365905.50	103.6	70 - 120	
45 Sc	1283033.40	0.19	1387378.10	92.5	70 - 120	
45 Sc	167369.95	0.82	178485.84	93.8	70 - 120	
45 Sc	5149297.50	2.11	5341512.00	96.4	70 - 120	
72 Ge	301569.41	0.62	328299.91	91.9	70 - 120	
72 Ge	113556.34	0.76	120925.76	93.9	70 - 120	
72 Ge	1062281.10	1.87	1098501.80	96.7	70 - 120	
115 In	2373715.30	0.43	2460398.80	96.5	70 - 120	
115 In	1269850.10	0.60	1354997.10	93.7	70 - 120	
115 In	7235172.50	1.53	7443787.00	97.2	70 - 120	
159 Tb	9264735.00	2.05	9639542.00	96.1	70 - 120	
165 Ho	8997807.00	1.54	9263706.00	97.1	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\017_CCB.D\017_CCB.D#
Date Acquired: May 6 2012 02:11 pm
Operator: NBS
Sample Name: CCB 120506
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 01:21 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	--------	#######	
9 Be	0.01	ug/l	34.00	0.12	
11 B	0.90	ug/l	36.32	15.00	
23 Na	-30.58	ug/l	9.45	77.10	
24 Mg	0.15	ug/l	107.62	7.50	
27 Al	2.74	ug/l	176.07	3.96	
39 K	-15.04	ug/l	19.22	19.20	
44 Ca	6.33	ug/l	127.74	90.00	
47 Ti	-0.77	ug/l	2.21	0.78	
51 V	0.00	ug/l	107.83	0.21	
52 Cr	0.00	ug/l	1420.80	0.12	
55 Mn	0.00	ug/l	4218.10	0.18	
56 Fe	0.57	ug/l	102.54	40.80	
59 Co	0.01	ug/l	38.38	0.09	
60 Ni	0.12	ug/l	43.66	0.48	
63 Cu	-0.01	ug/l	93.54	0.39	
65 Cu	-0.01	ug/l	151.45	0.39	
66 Zn	0.09	ug/l	78.48	6.90	
75 As	0.02	ug/l	32.55	0.27	
78 Se	0.09	ug/l	10.43	0.30	
78 Se	-0.04	ug/l	738.99	0.30	
88 Sr	0.00	ug/l	5232.70	0.03	
88 Sr	0.01	ug/l	25.23	0.03	
95 Mo	0.32	ug/l	7.22	0.21	Fail
106 (Cd)	--------	ug/l	--------	#######	
107 Ag	0.01	ug/l	15.57	0.09	
108 (Cd)	--------	ug/l	--------	#######	
111 Cd	0.01	ug/l	62.58	0.06	
118 Sn	0.09	ug/l	58.08	#######	
118 Sn	0.12	ug/l	15.36	#######	
118 Sn	0.10	ug/l	15.91	0.30	
121 Sb	0.36	ug/l	2.72	0.03	Fail
137 Ba	0.00	ug/l	424.60	0.12	
205 Tl	0.03	ug/l	7.14	0.03	
206 (Pb)	--------	ug/l	--------	#######	
207 (Pb)	--------	ug/l	--------	#######	
208 Pb	-0.06	ug/l	19.63	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	4219134.50	1.38	4365905.50	96.6	70 - 120	
45 Sc	1390973.10	1.40	1387378.10	100.3	70 - 120	
45 Sc	187282.52	2.33	178485.84	104.9	70 - 120	
45 Sc	5191476.00	0.20	5341512.00	97.2	70 - 120	
72 Ge	335010.69	0.35	328299.91	102.0	70 - 120	
72 Ge	123890.20	2.67	120925.76	102.5	70 - 120	
72 Ge	1087991.10	1.43	1098501.80	99.0	70 - 120	
115 In	2469277.80	0.86	2460398.80	100.4	70 - 120	
115 In	1418535.10	0.98	1354997.10	104.7	70 - 120	
115 In	7402642.50	0.27	7443787.00	99.4	70 - 120	
159 Tb	9641716.00	0.81	9639542.00	100.0	70 - 120	
165 Ho	9256100.00	0.87	9263706.00	99.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\005CALB.D\005CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\018SMPL.D\018SMPL.D#
Date Acquired: May 6 2012 02:17 pm
Operator: NBS
Sample Name: LDR-1000ppb 120506
Misc Info:
Vial Number: 2101
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 01:21 pm
Sample Type: Sample
Prep Dil Factor: 1.00
Total Dil Factor: 1.00

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	919.80	ug/l	919.80	0.98	1000	
11 B	964.30	ug/l	964.30	0.60	1000	
23 Na	22940.00	ug/l	22940.00	1.33	25000	
24 Mg	47340.00	ug/l	47340.00	0.39	50000	
27 Al	20330.00	ug/l	20330.00	1.49	20000	>Cal
39 K	18920.00	ug/l	18920.00	0.85	20000	
44 Ca	50150.00	ug/l	50150.00	1.42	50000	>Cal
47 Ti	998.10	ug/l	998.10	0.83	1000	
51 V	951.60	ug/l	951.60	1.14	1000	
52 Cr	941.90	ug/l	941.90	0.78	1000	
55 Mn	953.20	ug/l	953.20	1.34	1000	
56 Fe	19030.00	ug/l	19030.00	0.89	20000	
59 Co	924.10	ug/l	924.10	1.09	1000	
60 Ni	956.00	ug/l	956.00	0.79	1000	
63 Cu	919.40	ug/l	919.40	0.97	1000	
65 Cu	955.60	ug/l	955.60	0.94	1000	
66 Zn	959.80	ug/l	959.80	0.62	1000	
75 As	995.30	ug/l	995.30	0.53	1000	
78 Se	991.70	ug/l	991.70	1.64	1000	
78 Se	960.40	ug/l	960.40	1.17	1000	
88 Sr	975.50	ug/l	975.50	0.94	1000	
88 Sr	978.60	ug/l	978.60	0.16	1000	
95 Mo	985.70	ug/l	985.70	0.50	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	447.50	ug/l	447.50	5.28	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	932.50	ug/l	932.50	0.13	1000	
118 Sn	1028.00	ug/l	1028.00	1.15	#######	
118 Sn	1018.00	ug/l	1018.00	1.09	#######	
118 Sn	963.90	ug/l	963.90	0.31	1000	
121 Sb	954.60	ug/l	954.60	0.68	1000	
137 Ba	980.80	ug/l	980.80	1.44	1000	
205 Tl	953.90	ug/l	953.90	0.39	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	942.20	ug/l	942.20	0.25	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	4359654.00	0.83	4365905.50	99.9	70 - 120	
45 Sc	1244120.90	0.88	1387378.10	89.7	70 - 120	
45 Sc	157924.97	1.16	178485.84	88.5	70 - 120	
45 Sc	4914877.00	1.10	5341512.00	92.0	70 - 120	
72 Ge	292694.41	0.80	328299.91	89.2	70 - 120	
72 Ge	109252.23	2.37	120925.76	90.3	70 - 120	
72 Ge	1043480.80	1.10	1098501.80	95.0	70 - 120	
115 In	2279897.30	0.74	2460398.80	92.7	70 - 120	
115 In	1184903.10	0.72	1354997.10	87.4	70 - 120	
115 In	6780718.50	0.58	7443787.00	91.1	70 - 120	
159 Tb	8985671.00	0.61	9639542.00	93.2	70 - 120	
165 Ho	8654408.00	0.69	9263706.00	93.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\005CALB.D\005CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\020SMPL.D\020SMPL.D#
Date Acquired: May 6 2012 02:30 pm
Operator: NBS
Sample Name: ICSA 120506
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 01:21 pm
Sample Type: Sample
Prep Dil Factor: 1.00
Total Dil Factor: 1.00

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	0.03	ug/l	0.03	26.64	1000	
11 B	16.64	ug/l	16.64	4.58	1000	
23 Na	94530.00	ug/l	94530.00	2.02	25000	>Cal
24 Mg	96980.00	ug/l	96980.00	1.11	50000	>Cal
27 Al	97220.00	ug/l	97220.00	1.69	20000	>Cal
39 K	96580.00	ug/l	96580.00	1.83	20000	>Cal
44 Ca	102000.00	ug/l	102000.00	0.59	50000	>Cal
47 Ti	2135.00	ug/l	2135.00	1.32	1000	>Cal
51 V	0.37	ug/l	0.37	11.91	1000	
52 Cr	1.25	ug/l	1.25	1.97	1000	
55 Mn	5.61	ug/l	5.61	2.55	1000	
56 Fe	95600.00	ug/l	95600.00	1.22	20000	>Cal
59 Co	1.43	ug/l	1.43	1.23	1000	
60 Ni	1.69	ug/l	1.69	6.08	1000	
63 Cu	0.94	ug/l	0.94	3.05	1000	
65 Cu	1.01	ug/l	1.01	2.43	1000	
66 Zn	1.25	ug/l	1.25	5.76	1000	
75 As	0.47	ug/l	0.47	4.46	1000	
78 Se	0.24	ug/l	0.24	9.28	1000	
78 Se	0.69	ug/l	0.69	33.46	1000	
88 Sr	0.50	ug/l	0.50	9.50	1000	
88 Sr	0.50	ug/l	0.50	3.22	1000	
95 Mo	1941.00	ug/l	1941.00	0.55	1000	>Cal
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	0.16	ug/l	0.16	5.56	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	0.69	ug/l	0.69	5.28	1000	
118 Sn	2.39	ug/l	2.39	4.24	#######	
118 Sn	2.78	ug/l	2.78	7.13	#######	
118 Sn	2.82	ug/l	2.82	2.69	1000	
121 Sb	3.12	ug/l	3.12	2.73	1000	
137 Ba	2.06	ug/l	2.06	3.68	1000	
205 Tl	0.19	ug/l	0.19	2.50	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	0.30	ug/l	0.30	2.71	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	4621015.50	0.55	4365905.50	105.8	70 - 120	
45 Sc	1230656.80	0.44	1387378.10	88.7	70 - 120	
45 Sc	160627.97	0.81	178485.84	90.0	70 - 120	
45 Sc	5002497.50	0.40	5341512.00	93.7	70 - 120	
72 Ge	316484.78	2.10	328299.91	96.4	70 - 120	
72 Ge	124204.50	0.81	120925.76	102.7	70 - 120	
72 Ge	1236457.50	0.39	1098501.80	112.6	70 - 120	
115 In	2366717.30	0.74	2460398.80	96.2	70 - 120	
115 In	1253572.00	0.69	1354997.10	92.5	70 - 120	
115 In	7051469.50	0.61	7443787.00	94.7	70 - 120	
159 Tb	8756634.00	0.16	9639542.00	90.8	70 - 120	
165 Ho	8343739.00	0.53	9263706.00	90.1	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\005CALB.D\005CALB.D#

8 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

ICS-AB QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\021ICSB.D\021ICSB.D#
Date Acquired: May 6 2012 02:37 pm
Acq. Method: 62A0506A.M
Operator: NBS
Sample Name: ICSAB 120506
Misc Info:
Vial Number: 2103
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal. Update: May 06 2012 01:21 pm
Sample Type: ICSAB
Dilution Factor: 1.00

Data Results:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
7 (Li)	---	3	----------	------	---		-	
9 Be	45	3	242.40	0.08	250	97.0	80 - 120	
11 B	45	3	12.07	3.48	---		-	
23 Na	45	2	98930.00	0.69	---		-	
24 Mg	45	2	99940.00	0.48	---		-	
27 Al	45	2	99960.00	0.58	---		-	
39 K	45	2	99670.00	1.29	---		-	
44 Ca	45	2	104900.00	0.17	---		-	
47 Ti	45	2	2201.00	0.23	2000	110.1	80 - 120	
51 V	45	2	283.70	0.81	250	113.5	80 - 120	
52 Cr	45	2	272.10	0.97	250	108.8	80 - 120	
55 Mn	45	2	277.10	0.74	250	110.8	80 - 120	
56 Fe	45	2	98230.00	0.36	---		-	
59 Co	45	2	258.00	0.48	250	103.2	80 - 120	
60 Ni	45	2	512.00	0.33	500	102.4	80 - 120	
63 Cu	45	2	252.30	0.50	250	100.9	80 - 120	
65 Cu	45	2	251.10	1.34	250	100.4	80 - 120	
66 Zn	115	2	467.50	0.90	500	93.5	80 - 120	
75 As	115	2	252.20	0.69	250	100.9	80 - 120	
78 Se	115	1	243.20	1.08	250	97.3	80 - 120	
78 Se	115	2	233.40	0.68	250	93.4	80 - 120	
88 Sr	115	2	0.49	6.00	---		-	
88 Sr	115	3	0.50	4.64	---		-	
95 Mo	115	3	2246.00	0.70	2000	112.3	80 - 120	
106 (Cd)	---	3	----------	------	---		-	
107 Ag	115	3	536.70	2.32	500	107.3	80 - 120	
108 (Cd)	---	3	----------	------	---		-	
111 Cd	115	3	469.30	1.12	500	93.9	80 - 120	
118 Sn	115	1	1.01	5.22	---		-	
118 Sn	115	2	1.38	3.88	---		-	
118 Sn	115	3	1.43	2.97	---		-	
121 Sb	115	3	222.90	1.24	250	89.2	80 - 120	
137 Ba	115	3	265.20	1.03	250	106.1	80 - 120	
205 Tl	159	3	252.40	0.21	250	101.0	80 - 120	
206 (Pb)	---	3	----------	------	---		-	
207 (Pb)	---	3	----------	------	---		-	
208 Pb	159	3	509.70	0.07	500	101.9	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3	4811882	1.35	4365906	110.2	70 - 120	
45 Sc	1	1253287	0.32	1387378	90.3	70 - 120	
45 Sc	2	159353	0.61	178486	89.3	70 - 120	
45 Sc	3	5105276	0.65	5341512	95.6	70 - 120	
72 Ge	1	328254	1.54	328300	100.0	70 - 120	
72 Ge	2	122527	1.60	120926	101.3	70 - 120	
72 Ge	3	1264198	1.12	1098502	115.1	70 - 120	
115 In	1	2444015	1.64	2460399	99.3	70 - 120	
115 In	2	1269212	0.75	1354997	93.7	70 - 120	
115 In	3	7126671	0.80	7443767	95.7	70 - 120	
159 Tb	3	8852310	0.31	9639542	91.8	70 - 120	
165 Ho	3	8531356	0.67	9263706	92.1	70 - 120	

Tune File# 1 c:\icpchem\1\7500\h2_hmi.u
Tune File# 2 c:\icpchem\1\7500\he_hmi.u
Tune File# 3 c:\icpchem\1\7500\ng_hmi.u

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\025_CCV.D\025_CCV.D#
Date Acquired: May 6 2012 03:04 pm
Operator: NBS
Sample Name: CCV 120506
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 07 2012 10:11 am
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	--------	ug/l	--------	50.00	90 - 110	
9 Be	51.62	ug/l	0.66	50.00	90 - 110	
11 B	53.30	ug/l	0.69	50.00	90 - 110	
23 Na	1273.00	ug/l	1.39	1250.00	90 - 110	
24 Mg	2507.00	ug/l	0.85	2500.00	90 - 110	
27 Al	988.40	ug/l	1.25	1000.00	90 - 110	
39 K	973.70	ug/l	0.64	1000.00	90 - 110	
44 Ca	2420.00	ug/l	0.85	2500.00	90 - 110	
47 Ti	47.31	ug/l	0.90	50.00	90 - 110	
51 V	49.68	ug/l	1.89	50.00	90 - 110	
52 Cr	49.36	ug/l	1.35	50.00	90 - 110	
55 Mn	48.36	ug/l	0.90	50.00	90 - 110	
56 Fe	997.50	ug/l	1.93	1000.00	90 - 110	
59 Co	49.61	ug/l	0.75	50.00	90 - 110	
60 Ni	49.65	ug/l	1.64	50.00	90 - 110	
63 Cu	49.76	ug/l	0.36	50.00	90 - 110	
65 Cu	49.31	ug/l	2.08	50.00	90 - 110	
66 Zn	49.26	ug/l	1.78	50.00	90 - 110	
75 As	48.70	ug/l	0.73	50.00	90 - 110	
78 Se	50.24	ug/l	0.45	50.00	90 - 110	
78 Se	48.77	ug/l	1.68	50.00	90 - 110	
88 Sr	48.58	ug/l	1.87	50.00	90 - 110	
88 Sr	49.39	ug/l	1.42	50.00	90 - 110	
95 Mo	48.75	ug/l	1.82	50.00	90 - 110	
106 (Cd)	--------	ug/l	--------	50.00	90 - 110	
107 Ag	24.73	ug/l	1.40	25.00	90 - 110	
108 (Cd)	--------	ug/l	--------	50.00	90 - 110	
111 Cd	49.55	ug/l	0.06	50.00	90 - 110	
118 Sn	50.71	ug/l	0.47	---	##### - #####	
118 Sn	49.40	ug/l	1.86	---	##### - #####	
118 Sn	49.31	ug/l	1.32	50.00	90 - 110	
121 Sb	51.16	ug/l	2.31	50.00	90 - 110	
137 Ba	48.85	ug/l	2.03	50.00	90 - 110	
205 Tl	49.44	ug/l	1.01	50.00	90 - 110	
206 (Pb)	--------	ug/l	--------	50.00	90 - 110	
207 (Pb)	--------	ug/l	--------	50.00	90 - 110	
208 Pb	49.51	ug/l	1.78	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	5281672.50	0.53	4365905.50	121.0	70 - 120	IS Fail
45 Sc	1321143.90	1.46	1387378.10	95.2	70 - 120	
45 Sc	166759.47	0.96	178485.84	93.4	70 - 120	
45 Sc	5420571.50	0.65	5341512.00	101.5	70 - 120	
72 Ge	329304.88	8.00	328299.91	100.3	70 - 120	
72 Ge	115003.63	0.81	120925.76	95.1	70 - 120	
72 Ge	1122428.60	0.13	1098501.80	102.2	70 - 120	
115 In	2543000.00	0.67	2460398.80	103.4	70 - 120	
115 In	1311773.00	1.03	1354997.10	96.8	70 - 120	
115 In	7598278.00	1.05	7443787.00	102.1	70 - 120	
159 Tb	9951752.00	1.22	9639542.00	103.2	70 - 120	
165 Ho	9590783.00	2.18	9263706.00	103.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
1 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Fail

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\027_CCB.D\027_CCB.D#
Date Acquired: May 6 2012 03:18 pm
Operator: NBS
Sample Name: CCB 120506
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 07 2012 10:11 am
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	--------	#######	
9 Be	0.00	ug/l	116.13	0.12	
11 B	-0.55	ug/l	44.32	15.00	
23 Na	-19.02	ug/l	35.97	77.10	
24 Mg	-0.36	ug/l	23.35	7.50	
27 Al	-0.44	ug/l	19.72	3.96	
39 K	2.56	ug/l	99.41	19.20	
44 Ca	-1.83	ug/l	173.89	90.00	
47 Ti	-0.02	ug/l	88.45	0.78	
51 V	0.00	ug/l	104.87	0.21	
52 Cr	0.01	ug/l	321.52	0.12	
55 Mn	0.19	ug/l	3.48	0.18	Fail
56 Fe	-0.13	ug/l	7.83	40.80	
59 Co	0.00	ug/l	217.34	0.09	
60 Ni	-0.04	ug/l	116.18	0.48	
63 Cu	-0.01	ug/l	113.22	0.39	
65 Cu	0.00	ug/l	488.90	0.39	
66 Zn	-0.11	ug/l	82.05	6.90	
75 As	-0.01	ug/l	48.18	0.27	
78 Se	-0.03	ug/l	104.91	0.30	
78 Se	0.09	ug/l	220.43	0.30	
88 Sr	-0.01	ug/l	93.86	0.03	
88 Sr	0.00	ug/l	111.61	0.03	
95 Mo	-0.33	ug/l	0.82	0.21	
106 (Cd)	--------	ug/l	--------	#######	
107 Ag	-0.01	ug/l	58.38	0.09	
108 (Cd)	--------	ug/l	--------	#######	
111 Cd	0.00	ug/l	44.77	0.06	
118 Sn	-0.02	ug/l	102.85	#######	
118 Sn	-0.01	ug/l	325.22	#######	
118 Sn	0.00	ug/l	79.01	0.30	
121 Sb	-0.17	ug/l	1.25	0.03	
137 Ba	-0.04	ug/l	11.18	0.12	
205 Tl	-0.01	ug/l	28.60	0.03	
206 (Pb)	--------	ug/l	--------	#######	
207 (Pb)	--------	ug/l	--------	#######	
208 Pb	0.11	ug/l	3.34	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	5310933.00	0.89	4365905.50	121.6	70 - 120	IS Fai.
45 Sc	1430058.10	0.73	1387378.10	103.1	70 - 120	
45 Sc	186255.63	1.41	178485.84	104.4	70 - 120	
45 Sc	5630586.50	0.76	5341512.00	105.4	70 - 120	
72 Ge	346755.06	1.46	328299.91	105.6	70 - 120	
72 Ge	126047.59	1.91	120925.76	104.2	70 - 120	
72 Ge	1166041.90	0.33	1098501.80	106.1	70 - 120	
115 In	2646840.30	0.33	2460398.80	107.6	70 - 120	
115 In	1465362.00	0.50	1354997.10	108.1	70 - 120	
115 In	7914889.00	1.08	7443787.00	106.3	70 - 120	
159 Tb	10183894.00	0.72	9639542.00	105.6	70 - 120	
165 Ho	9858218.00	1.17	9263706.00	106.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\005CALB.D\005CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
1 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\108_CCV.D\108_CCV.D#
Date Acquired: May 7 2012 12:25 am
Operator: NBS
Sample Name: CCV 120506
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	--------	ug/l	--------	50.00	90 - 110	
9 Be	47.21	ug/l	0.78	50.00	90 - 110	
11 B	42.57	ug/l	0.79	50.00	90 - 110	Fail
23 Na	1181.00	ug/l	2.19	1250.00	90 - 110	
24 Mg	2384.00	ug/l	2.50	2500.00	90 - 110	
27 Al	976.90	ug/l	3.45	1000.00	90 - 110	
39 K	1000.00	ug/l	2.51	1000.00	90 - 110	
44 Ca	2433.00	ug/l	3.24	2500.00	90 - 110	
47 Ti	49.80	ug/l	2.64	50.00	90 - 110	
51 V	48.06	ug/l	2.70	50.00	90 - 110	
52 Cr	47.63	ug/l	1.79	50.00	90 - 110	
55 Mn	47.78	ug/l	2.14	50.00	90 - 110	
56 Fe	977.20	ug/l	2.15	1000.00	90 - 110	
59 Co	47.60	ug/l	2.12	50.00	90 - 110	
60 Ni	47.62	ug/l	2.22	50.00	90 - 110	
63 Cu	47.53	ug/l	3.06	50.00	90 - 110	
65 Cu	47.18	ug/l	3.16	50.00	90 - 110	
66 Zn	48.37	ug/l	1.38	50.00	90 - 110	
75 As	49.60	ug/l	1.48	50.00	90 - 110	
78 Se	50.13	ug/l	0.83	50.00	90 - 110	
78 Se	50.44	ug/l	2.16	50.00	90 - 110	
88 Sr	49.05	ug/l	1.46	50.00	90 - 110	
88 Sr	48.42	ug/l	1.69	50.00	90 - 110	
95 Mo	47.86	ug/l	1.40	50.00	90 - 110	
106 (Cd)	--------	ug/l	--------	50.00	90 - 110	
107 Ag	23.99	ug/l	1.33	25.00	90 - 110	
108 (Cd)	--------	ug/l	--------	50.00	90 - 110	
111 Cd	48.23	ug/l	0.51	50.00	90 - 110	
118 Sn	49.18	ug/l	1.41	---	##### - #####	
118 Sn	48.25	ug/l	1.41	---	##### - #####	
118 Sn	48.06	ug/l	0.76	50.00	90 - 110	
121 Sb	48.89	ug/l	0.36	50.00	90 - 110	
137 Ba	47.79	ug/l	0.91	50.00	90 - 110	
205 Tl	47.40	ug/l	1.46	50.00	90 - 110	
206 (Pb)	--------	ug/l	--------	50.00	90 - 110	
207 (Pb)	--------	ug/l	--------	50.00	90 - 110	
208 Pb	47.52	ug/l	1.57	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	4418294.00	1.48	5002703.50	88.3	70 - 120	
45 Sc	1222284.30	0.51	1428201.80	85.6	70 - 120	
45 Sc	158296.78	1.95	189458.30	83.6	70 - 120	
45 Sc	4982711.50	1.18	5488810.50	90.8	70 - 120	
72 Ge	289677.59	1.57	346291.34	83.7	70 - 120	
72 Ge	110111.70	1.66	127768.43	86.2	70 - 120	
72 Ge	1047001.10	1.40	1135874.50	92.2	70 - 120	
115 In	2275108.50	2.34	2601614.30	87.4	70 - 120	
115 In	1211932.90	0.96	1447050.60	83.8	70 - 120	
115 In	7013286.00	0.69	7726454.50	90.8	70 - 120	
159 Tb	8850827.00	1.59	10002252.00	88.5	70 - 120	
165 Ho	8605060.00	0.47	9695601.00	88.8	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\110_CCB.D\110_CCB.D#
Date Acquired: May 7 2012 12:38 am
Operator: NBS
Sample Name: CCB 120506
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#######	
9 Be	0.00 ug/l	111.85	0.12	
11 B	-2.10 ug/l	3.16	15.00	
23 Na	0.85 ug/l	327.04	77.10	
24 Mg	0.38 ug/l	44.18	7.50	
27 Al	0.09 ug/l	158.95	3.96	
39 K	26.09 ug/l	6.77	19.20	Fail
44 Ca	13.44 ug/l	11.70	90.00	
47 Ti	0.05 ug/l	1.67	0.78	
51 V	-0.01 ug/l	15.04	0.21	
52 Cr	-0.01 ug/l	91.13	0.12	
55 Mn	-0.13 ug/l	12.44	0.18	
56 Fe	0.41 ug/l	7.45	40.80	
59 Co	0.00 ug/l	26.21	0.09	
60 Ni	0.00 ug/l	661.12	0.48	
63 Cu	-0.01 ug/l	83.65	0.39	
65 Cu	-0.02 ug/l	39.34	0.39	
66 Zn	0.08 ug/l	32.04	6.90	
75 As	0.02 ug/l	30.57	0.27	
78 Se	0.01 ug/l	190.50	0.30	
78 Se	0.77 ug/l	23.52	0.30	Fail
88 Sr	0.01 ug/l	23.48	0.03	
88 Sr	0.01 ug/l	50.57	0.03	
95 Mo	0.04 ug/l	32.44	0.21	
106 (Cd)	-------- ug/l	--------	#######	
107 Ag	0.00 ug/l	148.69	0.09	
108 (Cd)	-------- ug/l	--------	#######	
111 Cd	0.00 ug/l	176.68	0.06	
118 Sn	0.04 ug/l	21.59	#######	
118 Sn	0.04 ug/l	47.12	#######	
118 Sn	0.02 ug/l	16.31	0.30	
121 Sb	0.12 ug/l	4.95	0.03	Fail
137 Ba	0.01 ug/l	37.97	0.12	
205 Tl	0.00 ug/l	38.22	0.03	
206 (Pb)	-------- ug/l	--------	#######	
207 (Pb)	-------- ug/l	--------	#######	
208 Pb	-0.11 ug/l	2.78	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	4053400.80	0.88	5002703.50	81.0	70 - 120	
45 Sc	1280684.10	2.07	1428201.80	89.7	70 - 120	
45 Sc	174710.42	1.41	189458.30	92.2	70 - 120	
45 Sc	5023384.00	0.60	5488810.50	91.5	70 - 120	
72 Ge	312364.00	1.13	346291.34	90.2	70 - 120	
72 Ge	120757.94	1.56	127768.43	94.5	70 - 120	
72 Ge	1053005.60	0.78	1135874.50	92.7	70 - 120	
115 In	2301543.00	1.14	2601614.30	88.5	70 - 120	
115 In	1304040.00	0.70	1447050.60	90.1	70 - 120	
115 In	7151688.50	1.02	7726454.50	92.6	70 - 120	
159 Tb	8941167.00	0.79	10002252.00	89.4	70 - 120	
165 Ho	8620432.00	0.82	9695601.00	88.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\122_CCV.D\122_CCV.D#
Date Acquired: May 7 2012 01:59 am
Operator: NBS
Sample Name: CCV 120506
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	--------	ug/l	--------	50.00	90 - 110	
9 Be	46.74	ug/l	0.76	50.00	90 - 110	
11 B	48.25	ug/l	1.34	50.00	90 - 110	
23 Na	1195.00	ug/l	1.31	1250.00	90 - 110	
24 Mg	2431.00	ug/l	1.94	2500.00	90 - 110	
27 Al	996.40	ug/l	3.34	1000.00	90 - 110	
39 K	1023.00	ug/l	0.89	1000.00	90 - 110	
44 Ca	2492.00	ug/l	0.86	2500.00	90 - 110	
47 Ti	47.90	ug/l	1.87	50.00	90 - 110	
51 V	48.02	ug/l	0.73	50.00	90 - 110	
52 Cr	47.96	ug/l	0.49	50.00	90 - 110	
55 Mn	48.14	ug/l	1.01	50.00	90 - 110	
56 Fe	976.20	ug/l	0.80	1000.00	90 - 110	
59 Co	47.62	ug/l	0.88	50.00	90 - 110	
60 Ni	47.11	ug/l	0.40	50.00	90 - 110	
63 Cu	47.17	ug/l	0.89	50.00	90 - 110	
65 Cu	47.42	ug/l	0.69	50.00	90 - 110	
66 Zn	48.82	ug/l	1.09	50.00	90 - 110	
75 As	48.98	ug/l	0.09	50.00	90 - 110	
78 Se	50.19	ug/l	1.30	50.00	90 - 110	
78 Se	50.49	ug/l	1.58	50.00	90 - 110	
88 Sr	48.96	ug/l	0.67	50.00	90 - 110	
88 Sr	48.24	ug/l	2.39	50.00	90 - 110	
95 Mo	47.69	ug/l	1.96	50.00	90 - 110	
106 (Cd)	--------	ug/l	--------	50.00	90 - 110	
107 Ag	24.06	ug/l	1.87	25.00	90 - 110	
108 (Cd)	--------	ug/l	--------	50.00	90 - 110	
111 Cd	48.49	ug/l	0.71	50.00	90 - 110	
118 Sn	49.37	ug/l	0.83	---	##### - #####	
118 Sn	49.03	ug/l	0.87	---	##### - #####	
118 Sn	48.24	ug/l	1.10	50.00	90 - 110	
121 Sb	50.55	ug/l	1.40	50.00	90 - 110	
137 Ba	47.96	ug/l	1.56	50.00	90 - 110	
205 Tl	47.66	ug/l	1.33	50.00	90 - 110	
206 (Pb)	--------	ug/l	--------	50.00	90 - 110	
207 (Pb)	--------	ug/l	--------	50.00	90 - 110	
208 Pb	47.50	ug/l	1.38	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	4127576.50	0.81	5002703.50	82.5	70 - 120	
45 Sc	1165663.30	0.16	1428201.80	81.6	70 - 120	
45 Sc	149885.61	0.92	189458.30	79.1	70 - 120	
45 Sc	4707600.00	0.20	5488810.50	85.8	70 - 120	
72 Ge	275713.78	0.89	346291.34	79.6	70 - 120	
72 Ge	102305.75	1.41	127768.43	80.1	70 - 120	
72 Ge	987541.19	0.39	1135874.50	86.9	70 - 120	
115 In	2176095.50	0.81	2601614.30	83.6	70 - 120	
115 In	1158107.40	0.85	1447050.60	80.0	70 - 120	
115 In	6651868.50	1.27	7726454.50	86.1	70 - 120	
159 Tb	8499466.00	1.52	10002252.00	85.0	70 - 120	
165 Ho	8148825.00	0.20	9695601.00	84.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\124_CCB.D\124_CCB.D#
Date Acquired: May 7 2012 02:13 am
Operator: NBS
Sample Name: CCB 120506
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	--------	########	
9 Be	0.00	ug/l	87.51	0.12	
11 B	0.32	ug/l	60.03	15.00	
23 Na	14.04	ug/l	25.31	77.10	
24 Mg	0.43	ug/l	36.50	7.50	
27 Al	-0.04	ug/l	381.25	3.96	
39 K	31.58	ug/l	18.71	19.20	Fail
44 Ca	18.70	ug/l	19.18	90.00	
47 Ti	0.02	ug/l	140.46	0.78	
51 V	0.00	ug/l	30.04	0.21	
52 Cr	-0.01	ug/l	142.36	0.12	
55 Mn	-0.14	ug/l	23.16	0.18	
56 Fe	0.23	ug/l	6.00	40.80	
59 Co	0.00	ug/l	127.16	0.09	
60 Ni	0.00	ug/l	313.38	0.48	
63 Cu	-0.02	ug/l	43.89	0.39	
65 Cu	-0.01	ug/l	59.07	0.39	
66 Zn	0.03	ug/l	62.83	6.90	
75 As	0.03	ug/l	61.21	0.27	
78 Se	0.04	ug/l	38.05	0.30	
78 Se	0.84	ug/l	11.17	0.30	Fail
88 Sr	0.00	ug/l	631.28	0.03	
88 Sr	0.01	ug/l	19.37	0.03	
95 Mo	0.05	ug/l	14.77	0.21	
106 (Cd)	--------	ug/l	--------	########	
107 Ag	0.01	ug/l	9.99	0.09	
108 (Cd)	--------	ug/l	--------	########	
111 Cd	0.00	ug/l	252.70	0.06	
118 Sn	0.08	ug/l	8.34	########	
118 Sn	0.05	ug/l	10.43	########	
118 Sn	0.05	ug/l	51.48	0.30	
121 Sb	0.20	ug/l	11.56	0.03	Fail
137 Ba	0.01	ug/l	32.41	0.12	
205 Tl	0.01	ug/l	12.06	0.03	
206 (Pb)	--------	ug/l	--------	########	
207 (Pb)	--------	ug/l	--------	########	
208 Pb	-0.11	ug/l	0.62	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3944267.00	1.31	5002703.50	78.8	70 - 120	
45 Sc	1210340.50	1.80	1428201.80	84.7	70 - 120	
45 Sc	166165.28	0.44	189458.30	87.7	70 - 120	
45 Sc	4784901.50	0.62	5488810.50	87.2	70 - 120	
72 Ge	301373.44	0.41	346291.34	87.0	70 - 120	
72 Ge	110956.60	2.68	127768.43	86.8	70 - 120	
72 Ge	1011309.20	0.21	1135874.50	89.0	70 - 120	
115 In	2201221.00	0.57	2601614.30	84.6	70 - 120	
115 In	1269167.30	1.35	1447050.60	87.7	70 - 120	
115 In	6839988.50	0.71	7726454.50	88.5	70 - 120	
159 Tb	8751294.00	0.92	10002252.00	87.5	70 - 120	
165 Ho	8341214.00	0.76	9695601.00	86.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\133_CCV.D\133_CCV.D#
Date Acquired: May 7 2012 03:13 am
Operator: NBS
Sample Name: CCV 120506
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	50.00	90 -	110	
9 Be	46.09	ug/l	1.25	50.00	90 -	110	
11 B	45.14	ug/l	1.27	50.00	90 -	110	
23 Na	1145.00	ug/l	8.07	1250.00	90 -	110	
24 Mg	2342.00	ug/l	7.85	2500.00	90 -	110	
27 Al	959.00	ug/l	7.81	1000.00	90 -	110	
39 K	976.70	ug/l	7.73	1000.00	90 -	110	
44 Ca	2425.00	ug/l	6.30	2500.00	90 -	110	
47 Ti	45.81	ug/l	6.69	50.00	90 -	110	
51 V	46.79	ug/l	8.30	50.00	90 -	110	
52 Cr	46.80	ug/l	7.59	50.00	90 -	110	
55 Mn	46.54	ug/l	7.06	50.00	90 -	110	
56 Fe	937.30	ug/l	7.96	1000.00	90 -	110	
59 Co	46.00	ug/l	6.98	50.00	90 -	110	
60 Ni	45.82	ug/l	6.58	50.00	90 -	110	
63 Cu	45.87	ug/l	7.67	50.00	90 -	110	
65 Cu	46.57	ug/l	7.53	50.00	90 -	110	
66 Zn	47.85	ug/l	7.20	50.00	90 -	110	
75 As	47.74	ug/l	7.35	50.00	90 -	110	
78 Se	47.92	ug/l	2.17	50.00	90 -	110	
78 Se	49.30	ug/l	8.98	50.00	90 -	110	
88 Sr	47.73	ug/l	7.26	50.00	90 -	110	
88 Sr	47.45	ug/l	0.61	50.00	90 -	110	
95 Mo	46.44	ug/l	0.60	50.00	90 -	110	
106 (Cd)	--------	ug/l	--------	50.00	90 -	110	
107 Ag	23.45	ug/l	0.55	25.00	90 -	110	
108 (Cd)	--------	ug/l	--------	50.00	90 -	110	
111 Cd	47.41	ug/l	0.65	50.00	90 -	110	
118 Sn	48.13	ug/l	0.83	---	##### -	#####	
118 Sn	47.49	ug/l	7.63	---	##### -	#####	
118 Sn	47.27	ug/l	0.14	50.00	90 -	110	
121 Sb	47.87	ug/l	0.68	50.00	90 -	110	
137 Ba	47.35	ug/l	0.55	50.00	90 -	110	
205 Tl	47.24	ug/l	0.81	50.00	90 -	110	
206 (Pb)	--------	ug/l	--------	50.00	90 -	110	
207 (Pb)	--------	ug/l	--------	50.00	90 -	110	
208 Pb	47.14	ug/l	0.72	50.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3940759.50	1.67	5002703.50	78.8	70 -	120	
45 Sc	1169249.90	0.57	1428201.80	81.9	70 -	120	
45 Sc	152341.31	6.33	189458.30	80.4	70 -	120	
45 Sc	4566200.00	0.21	5488810.50	83.2	70 -	120	
72 Ge	277499.66	0.97	346291.34	80.1	70 -	120	
72 Ge	103541.58	6.29	127768.43	81.0	70 -	120	
72 Ge	958888.06	0.46	1135874.50	84.4	70 -	120	
115 In	2197675.50	0.46	2601614.30	84.5	70 -	120	
115 In	1174148.90	6.44	1447050.60	81.1	70 -	120	
115 In	6549112.00	0.64	7726454.50	84.8	70 -	120	
159 Tb	8302611.50	0.24	10002252.00	83.0	70 -	120	
165 Ho	8009867.50	1.05	9695601.00	82.6	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\135_CCB.D\135_CCB.D#
Date Acquired: May 7 2012 03:27 am
Operator: NBS
Sample Name: CCB 120506
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	--------	#######	
9 Be	0.00	ug/l	148.00	0.12	
11 B	0.18	ug/l	44.63	15.00	
23 Na	4.75	ug/l	74.29	77.10	
24 Mg	0.55	ug/l	49.53	7.50	
27 Al	-0.06	ug/l	384.79	3.96	
39 K	29.33	ug/l	14.54	19.20	Fail
44 Ca	17.94	ug/l	5.08	90.00	
47 Ti	0.04	ug/l	146.86	0.78	
51 V	0.00	ug/l	250.11	0.21	
52 Cr	-0.01	ug/l	197.38	0.12	
55 Mn	-0.17	ug/l	8.47	0.18	
56 Fe	0.33	ug/l	7.70	40.80	
59 Co	0.00	ug/l	478.28	0.09	
60 Ni	0.01	ug/l	68.56	0.48	
63 Cu	-0.01	ug/l	27.54	0.39	
65 Cu	-0.01	ug/l	48.94	0.39	
66 Zn	0.03	ug/l	170.24	6.90	
75 As	0.02	ug/l	32.82	0.27	
78 Se	0.12	ug/l	31.03	0.30	
78 Se	0.58	ug/l	46.44	0.30	Fail
88 Sr	0.01	ug/l	104.18	0.03	
88 Sr	0.02	ug/l	35.90	0.03	
95 Mo	0.08	ug/l	28.86	0.21	
106 (Cd)	--------	ug/l	--------	#######	
107 Ag	0.00	ug/l	244.66	0.09	
108 (Cd)	--------	ug/l	--------	#######	
111 Cd	0.00	ug/l	18266.00	0.06	
118 Sn	0.37	ug/l	27.48	#######	
118 Sn	0.05	ug/l	18.76	#######	
118 Sn	0.03	ug/l	31.30	0.30	
121 Sb	0.33	ug/l	6.51	0.03	Fail
137 Ba	0.01	ug/l	57.64	0.12	
205 Tl	0.01	ug/l	15.08	0.03	
206 (Pb)	--------	ug/l	--------	#######	
207 (Pb)	--------	ug/l	--------	#######	
208 Pb	-0.13	ug/l	1.22	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3719454.30	1.20	5002703.50	74.3	70 - 120	
45 Sc	1174018.00	0.56	1428201.80	82.2	70 - 120	
45 Sc	164135.48	1.26	189458.30	86.6	70 - 120	
45 Sc	4658791.00	0.67	5488810.50	84.9	70 - 120	
72 Ge	300148.25	1.01	346291.34	86.7	70 - 120	
72 Ge	114316.83	0.84	127768.43	89.5	70 - 120	
72 Ge	982015.81	1.09	1135874.50	86.5	70 - 120	
115 In	2252657.30	0.51	2601614.30	86.6	70 - 120	
115 In	1255550.50	1.35	1447050.60	86.8	70 - 120	
115 In	6682013.00	1.31	7726454.50	86.5	70 - 120	
159 Tb	8459088.00	1.42	10002252.00	84.6	70 - 120	
165 Ho	8146820.00	0.85	9695601.00	84.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

METALS
EPA SW846 - 6020
Raw Data

APPL, INC.

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.22 U	0.5	0.22	0.11	ug/L	04/25/12	05/07/12	#602D-120425A-AY59236

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\114SMPL.D\114SMPL.D#
Date Acquired: May 7 2012 01:05 am
Operator: NBS
Sample Name: 120425A-3015-BLK
Misc Info: 120425A-3015
Vial Number: 3510
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	0.00	ug/l	-0.01	41.35	1000	
11 B	5.67	ug/l	6.29	9.58	1000	
23 Na	49.62	ug/l	55.13	8.40	25000	
24 Mg	2.33	ug/l	2.59	17.91	50000	
27 Al	3.33	ug/l	3.70	5.26	20000	
39 K	60.51	ug/l	67.23	11.75	20000	
44 Ca	41.23	ug/l	45.81	12.02	50000	
47 Ti	3.18	ug/l	3.54	11.11	1000	
51 V	0.01	ug/l	0.01	56.20	1000	
52 Cr	0.14	ug/l	0.15	5.04	1000	
55 Mn	-0.04	ug/l	-0.05	68.23	1000	
56 Fe	25.02	ug/l	27.80	10.42	20000	
59 Co	0.11	ug/l	0.12	13.92	1000	
60 Ni	0.12	ug/l	0.13	26.77	1000	
63 Cu	0.05	ug/l	0.05	5.07	1000	
65 Cu	0.06	ug/l	0.07	37.63	1000	
66 Zn	2.23	ug/l	2.48	0.20	1000	
75 As	0.25	ug/l	0.28	1.64	1000	
78 Se	0.24	ug/l	0.27	29.08	1000	
78 Se	2.24	ug/l	2.48	13.65	1000	
88 Sr	0.04	ug/l	0.04	10.79	1000	
88 Sr	0.02	ug/l	0.03	15.43	1000	
95 Mo	0.67	ug/l	0.74	5.98	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	0.00	ug/l	0.00	274.06	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	0.15	ug/l	0.17	15.42	1000	
118 Sn	2.31	ug/l	2.57	4.25	#######	
118 Sn	2.36	ug/l	2.62	5.77	#######	
118 Sn	2.02	ug/l	2.25	4.41	1000	
121 Sb	4.38	ug/l	4.87	7.12	1000	
137 Ba	0.02	ug/l	0.03	75.77	1000	
205 Tl	0.08	ug/l	0.09	2.75	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	-0.13	ug/l	-0.14	5.65	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3515755.30	1.88	5002703.50	70.3	70 - 120	
45 Sc	1013013.00	1.27	1428201.80	70.9	70 - 120	
45 Sc	139023.03	1.21	189458.30	73.4	70 - 120	
45 Sc	4425202.50	1.04	5488810.50	80.6	70 - 120	
72 Ge	243271.64	1.02	346291.34	70.3	70 - 120	
72 Ge	95730.79	0.92	127768.43	74.9	70 - 120	
72 Ge	922989.63	0.32	1135874.50	81.3	70 - 120	
115 In	1866788.10	0.39	2601614.30	71.8	70 - 120	
115 In	1031513.50	1.32	1447050.60	71.3	70 - 120	
115 In	6281645.50	0.64	7726454.50	81.3	70 - 120	
159 Tb	7943024.50	1.56	10002252.00	79.4	70 - 120	
165 Ho	7615629.50	0.81	9695601.00	78.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Laboratory Control Spike Recoveries

METALS DISSOLVED

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
6020	LEAD (PB) (DISSOLVED)	50.0	49.2	49.7	98.4	99.4	1.0	20	80-120	04/25/12	05/07/12	04/25/12	05/07/12	#602D-120425A-AY59236

Comments: _____

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\115SMPL.D\115SMPL.D#
Date Acquired: May 7 2012 01:12 am
Operator: NBS
Sample Name: 120425A-3015-LCS
Misc Info: 120425A-3015
Vial Number: 3511
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	7.59	ug/l	8.43	0.58	1000	
11 B	42.17	ug/l	46.85	2.31	1000	
23 Na	3921.00	ug/l	4356.23	0.81	25000	
24 Mg	4146.00	ug/l	4606.21	1.89	50000	
27 Al	350.40	ug/l	389.29	2.18	20000	
39 K	919.00	ug/l	1021.01	1.88	20000	
44 Ca	4381.00	ug/l	4867.29	2.39	50000	
47 Ti	43.73	ug/l	48.58	3.79	1000	
51 V	43.69	ug/l	48.54	1.96	1000	
52 Cr	43.35	ug/l	48.16	2.28	1000	
55 Mn	44.52	ug/l	49.46	2.08	1000	
56 Fe	182.30	ug/l	202.54	1.57	20000	
59 Co	42.02	ug/l	46.68	1.94	1000	
60 Ni	42.30	ug/l	47.00	2.00	1000	
63 Cu	40.84	ug/l	45.37	2.39	1000	
65 Cu	40.82	ug/l	45.35	1.49	1000	
66 Zn	92.44	ug/l	102.70	1.26	1000	
75 As	41.29	ug/l	45.87	0.66	1000	
78 Se	37.05	ug/l	41.16	2.69	1000	
78 Se	38.71	ug/l	43.01	2.26	1000	
88 Sr	47.08	ug/l	52.31	0.09	1000	
88 Sr	45.82	ug/l	50.91	1.63	1000	
95 Mo	45.74	ug/l	50.82	1.37	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	16.54	ug/l	18.38	0.62	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	8.35	ug/l	9.28	0.76	1000	
118 Sn	51.04	ug/l	56.71	1.27	#######	
118 Sn	49.96	ug/l	55.51	1.42	#######	
118 Sn	49.61	ug/l	55.12	1.28	1000	
121 Sb	48.93	ug/l	54.36	1.18	1000	
137 Ba	44.51	ug/l	49.45	0.57	1000	
205 Tl	43.99	ug/l	48.87	0.75	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	44.32	ug/l	49.24	0.10	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3507917.00	1.49	5002703.50	70.1	70 - 120	
45 Sc	1030053.40	0.12	1428201.80	72.1	70 - 120	
45 Sc	143335.09	1.75	189458.30	75.7	70 - 120	
45 Sc	4435016.50	1.51	5488810.50	80.8	70 - 120	
72 Ge	242630.45	0.39	346291.34	70.1	70 - 120	
72 Ge	97096.62	1.42	127768.43	76.0	70 - 120	
72 Ge	922902.25	0.60	1135874.50	81.3	70 - 120	
115 In	1886989.60	1.55	2601614.30	72.5	70 - 120	
115 In	1033309.60	1.03	1447050.60	71.4	70 - 120	
115 In	6298906.50	1.23	7726454.50	81.5	70 - 120	
159 Tb	7992496.00	0.71	10002252.00	79.9	70 - 120	
165 Ho	7672455.50	1.21	9695601.00	79.1	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\116SMPL.D\116SMPL.D#
Date Acquired: May 7 2012 01:19 am
Operator: NBS
Sample Name: 120425A-3015-LCSD
Misc Info: 120425A-3015
Vial Number: 3512
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	7.85	ug/l	8.72	0.88	1000	
11 B	43.65	ug/l	48.50	1.44	1000	
23 Na	4090.00	ug/l	4543.99	1.96	25000	
24 Mg	4293.00	ug/l	4769.52	1.54	50000	
27 Al	361.70	ug/l	401.85	4.94	20000	
39 K	953.70	ug/l	1059.56	3.05	20000	
44 Ca	4522.00	ug/l	5023.94	1.25	50000	
47 Ti	47.52	ug/l	52.79	4.43	1000	
51 V	45.30	ug/l	50.33	1.70	1000	
52 Cr	44.81	ug/l	49.78	3.29	1000	
55 Mn	45.37	ug/l	50.41	1.85	1000	
56 Fe	185.50	ug/l	206.09	1.42	20000	
59 Co	43.38	ug/l	48.20	2.24	1000	
60 Ni	43.60	ug/l	48.44	1.91	1000	
63 Cu	42.30	ug/l	47.00	1.11	1000	
65 Cu	42.45	ug/l	47.16	2.84	1000	
66 Zn	87.37	ug/l	97.07	1.68	1000	
75 As	42.36	ug/l	47.06	1.76	1000	
78 Se	37.48	ug/l	41.64	0.90	1000	
78 Se	39.84	ug/l	44.26	2.35	1000	
88 Sr	47.41	ug/l	52.67	0.37	1000	
88 Sr	46.09	ug/l	51.21	1.42	1000	
95 Mo	46.14	ug/l	51.26	1.54	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	16.44	ug/l	18.26	1.21	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	8.22	ug/l	9.13	1.95	1000	
118 Sn	51.79	ug/l	57.54	0.50	#######	
118 Sn	51.22	ug/l	56.91	2.17	#######	
118 Sn	49.12	ug/l	54.57	1.82	1000	
121 Sb	49.23	ug/l	54.69	2.18	1000	
137 Ba	44.88	ug/l	49.86	1.88	1000	
205 Tl	44.88	ug/l	49.86	1.22	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	44.76	ug/l	49.73	0.85	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3443677.30	0.83	5002703.50	68.8	70 - 120	IS Fai NT
45 Sc	1003241.80	2.05	1428201.80	70.2	70 - 120	
45 Sc	138163.55	2.85	189458.30	72.9	70 - 120	
45 Sc	4375139.50	0.09	5488810.50	79.7	70 - 120	
72 Ge	239664.03	1.25	346291.34	69.2	70 - 120	IS Fai NT
72 Ge	95621.17	1.24	127768.43	74.8	70 - 120	
72 Ge	921213.44	1.86	1135874.50	81.1	70 - 120	
115 In	1840195.90	1.19	2601614.30	70.7	70 - 120	
115 In	1009084.20	1.69	1447050.60	69.7	70 - 120	IS Fai NT
115 In	6318881.00	1.31	7726454.50	81.8	70 - 120	
159 Tb	7982293.50	0.43	10002252.00	79.8	70 - 120	
165 Ho	7618731.50	0.94	9695601.00	78.6	70 - 120	

SNM 5.8.12

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
3 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Fail

Matrix Spike Recoveries

METALS

APPL ID: **120425W-59236 MS - 166569**

Sample ID: AY59236

Client ID: ES074

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	Matrix Res ug/L	SPK Res ug/L	DUP Res ug/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
6020	LEAD (PB) (DISSOLVE	50.0	ND	48.6	50.0	97.2	100	2.8	20	80-120	04/25/12	05/07/12	04/25/12	05/07/12	166569	AY59236

Comments: _____

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\118SMPL.D\118SMPL.D#
Date Acquired: May 7 2012 01:32 am
Operator: NBS
Sample Name: AY59236W16 MS
Misc Info: 120425A-3015
Vial Number: 4102
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	#VALUE!	--------	0	
9 Be	7.78 ug/l	8.64	1.13	1000	
11 B	87.53 ug/l	97.25	0.63	1000	
23 Na	42250.00 ug/l	46939.75	1.16	25000	>Cal
24 Mg	22140.00 ug/l	24597.54	1.28	50000	
27 Al	365.90 ug/l	406.51	0.53	20000	
39 K	3502.00 ug/l	3890.72	1.34	20000	
44 Ca	24370.00 ug/l	27075.07	1.75	50000	
47 Ti	45.42 ug/l	50.46	5.76	1000	
51 V	58.27 ug/l	64.74	1.82	1000	
52 Cr	46.89 ug/l	52.09	2.35	1000	
55 Mn	45.55 ug/l	50.61	2.21	1000	
56 Fe	188.50 ug/l	209.42	1.59	20000	
59 Co	43.43 ug/l	48.25	1.23	1000	
60 Ni	43.61 ug/l	48.45	1.00	1000	
63 Cu	42.22 ug/l	46.91	1.09	1000	
65 Cu	41.83 ug/l	46.47	2.46	1000	
66 Zn	81.38 ug/l	90.41	1.03	1000	
75 As	40.93 ug/l	45.47	1.38	1000	
78 Se	35.54 ug/l	39.48	0.68	1000	
78 Se	37.76 ug/l	41.95	1.25	1000	
88 Sr	200.90 ug/l	223.20	1.18	1000	
88 Sr	195.00 ug/l	216.65	0.87	1000	
95 Mo	46.06 ug/l	51.17	1.16	1000	
106 (Cd)	-------- ug/l	#VALUE!	--------	#######	
107 Ag	16.59 ug/l	18.43	1.25	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	#######	
111 Cd	8.28 ug/l	9.20	2.38	1000	
118 Sn	50.72 ug/l	56.35	1.14	#######	
118 Sn	50.13 ug/l	55.69	1.61	#######	
118 Sn	49.83 ug/l	55.36	0.95	1000	
121 Sb	49.97 ug/l	55.52	0.30	1000	
137 Ba	52.98 ug/l	58.86	1.29	1000	
205 Tl	43.89 ug/l	48.76	0.84	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	#######	
207 (Pb)	-------- ug/l	#VALUE!	--------	#######	
208 Pb	43.82 ug/l	48.68	0.37	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3545767.00	0.59	5002703.50	70.9	70 - 120	
45 Sc	1022958.50	0.54	1428201.80	71.6	70 - 120	
45 Sc	134032.64	1.67	189458.30	70.7	70 - 120	
45 Sc	4435677.00	0.65	5488810.50	80.8	70 - 120	
72 Ge	236785.91	1.49	346291.34	68.4	70 - 120	IS Fai NT
72 Ge	91854.48	2.29	127768.43	71.9	70 - 120	
72 Ge	884910.50	0.88	1135874.50	77.9	70 - 120	
115 In	1839723.60	0.98	2601614.30	70.7	70 - 120	
115 In	1009021.10	0.47	1447050.60	69.7	70 - 120	IS Fai NT
115 In	6164115.50	0.44	7726454.50	79.8	70 - 120	
159 Tb	7955074.00	0.86	10002252.00	79.5	70 - 120	
165 Ho	7652199.00	0.98	9695601.00	78.9	70 - 120	

> SM 5.7.12

ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
2 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12E06m00.B\119SMPL.D\119SMPL.D#
Date Acquired: May 7 2012 01:39 am
Operator: NBS
Sample Name: AY59236W16 MSD
Misc Info: 120425A-3015
Vial Number: 4103
Current Method: C:\ICPCHEM\1\METHODS\62A0506A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0506A.C
Last Cal Update: May 06 2012 04:31 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	7.75	ug/l	8.61	0.40	1000	
11 B	87.59	ug/l	97.31	1.47	1000	
23 Na	41500.00	ug/l	46106.50	0.86	25000	>Cal
24 Mg	21860.00	ug/l	24286.46	0.22	50000	
27 Al	366.80	ug/l	407.51	1.28	20000	
39 K	3464.00	ug/l	3848.50	0.34	20000	
44 Ca	23960.00	ug/l	26619.56	0.46	50000	
47 Ti	44.76	ug/l	49.73	2.07	1000	
51 V	58.00	ug/l	64.44	0.42	1000	
52 Cr	46.69	ug/l	51.87	0.94	1000	
55 Mn	45.16	ug/l	50.17	0.37	1000	
56 Fe	186.20	ug/l	206.87	0.43	20000	
59 Co	42.65	ug/l	47.38	0.35	1000	
60 Ni	42.56	ug/l	47.28	0.95	1000	
63 Cu	41.44	ug/l	46.04	0.26	1000	
65 Cu	41.94	ug/l	46.60	0.84	1000	
66 Zn	82.16	ug/l	91.28	0.74	1000	
75 As	40.80	ug/l	45.33	0.33	1000	
78 Se	35.26	ug/l	39.17	1.53	1000	
78 Se	38.05	ug/l	42.27	0.73	1000	
88 Sr	204.10	ug/l	226.76	0.63	1000	
88 Sr	195.50	ug/l	217.20	1.22	1000	
95 Mo	46.29	ug/l	51.43	1.60	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	16.73	ug/l	18.59	2.07	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	8.49	ug/l	9.44	2.83	1000	
118 Sn	50.46	ug/l	56.06	1.24	#######	
118 Sn	50.65	ug/l	56.27	0.42	#######	
118 Sn	49.74	ug/l	55.26	0.25	1000	
121 Sb	50.43	ug/l	56.03	0.51	1000	
137 Ba	53.45	ug/l	59.38	2.12	1000	
205 Tl	43.78	ug/l	48.64	0.24	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	45.08	ug/l	50.08	0.55	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3482610.80	1.34	5002703.50	69.6	70 - 120	IS Fai NT
45 Sc	1027976.40	0.87	1428201.80	72.0	70 - 120	
45 Sc	135329.20	1.36	189458.30	71.4	70 - 120	
45 Sc	4419838.00	0.91	5488810.50	80.5	70 - 120	
72 Ge	235089.33	1.21	346291.34	67.9	70 - 120	IS Fai NT
72 Ge	92349.22	0.62	127768.43	72.3	70 - 120	
72 Ge	890665.75	0.39	1135874.50	78.4	70 - 120	
115 In	1857287.00	0.67	2601614.30	71.4	70 - 120	
115 In	991023.50	0.40	1447050.60	68.5	70 - 120	IS Fai NT
115 In	6121245.00	1.76	7726454.50	79.2	70 - 120	
159 Tb	7916078.50	0.12	10002252.00	79.1	70 - 120	
165 Ho	7578459.00	0.70	9695601.00	78.2	70 - 120	

SDM 5.8.12

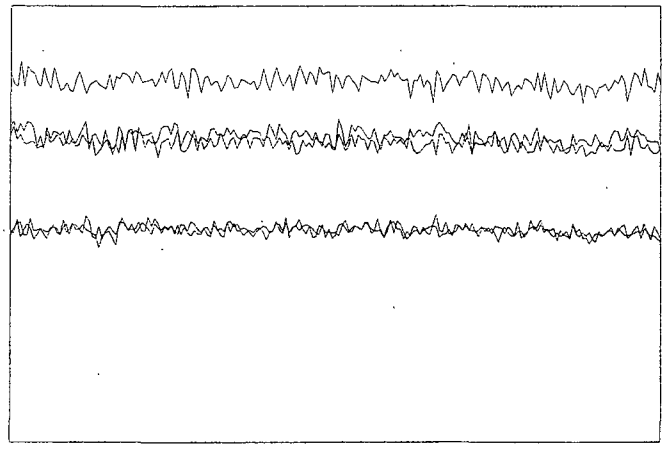
ISTD Ref File : C:\ICPCHEM\1\DATA\12E06m00.B\037CALB.D\037CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
3 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

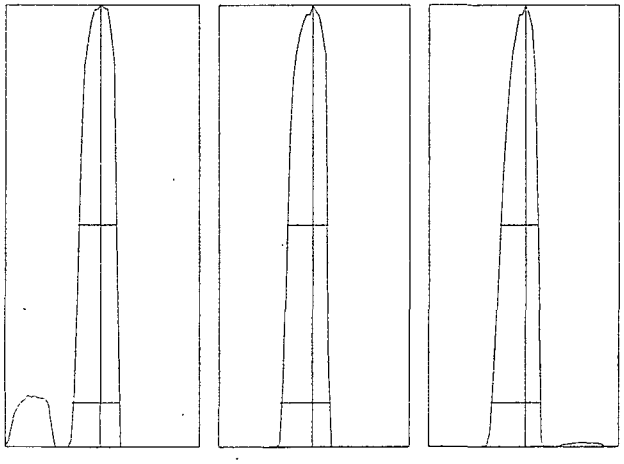
Tune Report

Tune File : NG_HMI.u
Comment : 120506



Integration Time:	0.1000 sec	
Sampling Period:	0.7200 sec	
n:	200	
Oxide:	156/140	1.159%
Doubly Charged:	70/140	1.645%

m/z	Range	Count	Mean	RSD%	Background
7	20,000	13420.0	13612.5	2.19	0.50
89	50,000	23052.0	24081.1	2.49	0.90
205	20,000	16211.0	16496.8	2.25	3.60
156/140	2	1.203%	1.160%	7.33	
70/140	5	1.749%	1.631%	6.73	
140	50,000	22870.0	24217.2	2.51	3.60
59	20,000	13232.0	13956.7	2.49	1.10



m/z:	7	89	205
Height:	13,486	24,272	16,467
Axis:	7.00	89.00	205.05
W-50%:	0.60	0.65	0.60
W-10%:	0.7500	0.800	0.800

Integration Time:	0.1000 sec
Acquisition Time:	22.7600 sec

Y axis : Linear

Generated : May 06, 2012 12:08:07
Printed : May 06, 2012 12:08:09

Tune Report

Tune File : NG_HMI.u
Comment : 120506

Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===		
RF Power	:	1600 W	Extract 1	:	0 V	AMU Gain	:	126
RF Matching	:	1.84 V	Extract 2	:	-145 V	AMU Offset	:	127
Smpl Depth	:	8 mm	Omega Bias-ce	:	-18 V	Axis Gain	:	1.0002
Torch-H	:	-0.2 mm	Omega Lens-ce	:	0.2 V	Axis Offset	:	-0.05
Torch-V	:	0 mm	Cell Entrance	:	-30 V	QP Bias	:	-3 V
Carrier Gas	:	0.5 L/min	QP Focus	:	5 V			
Makeup Gas	:	0.5 L/min	Cell Exit	:	-30 V	===Detector Parameters===		
Optional Gas	:	--- %				Discriminator	:	8 mV
Nebulizer Pump	:	0.1 rps	===Octopole Parameters===			Analog HV	:	1710 V
Sample Pump	:	--- rps	OctP RF	:	180 V	Pulse HV	:	1260 V
S/C Temp	:	2 degC	OctP Bias	:	-6 V			

===Reaction Cell===

Reaction Mode	:	OFF						
H2 Gas	:	0 mL/min	He Gas	:	0 mL/min	Optional Gas	:	--- %

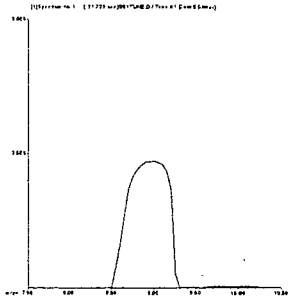
Generated : May 06, 2012 12:08:07
Printed : May 06, 2012 12:08:11

200.8 QC Tune Report

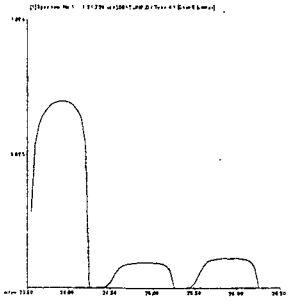
Data File: C:\ICPCHEM\1\DATA\12E06m00.B\001TUNE.D
Date Acquired: May 6 2012 12:23 pm
Acq. Method: TN200_8.M
Operator: NBS
Sample Name: 100ppb Tune sol
Misc Info:
Vial Number: 1303
Current Method: C:\ICPCHEM\1\METHODS\TN200_8.M

RSD (%)

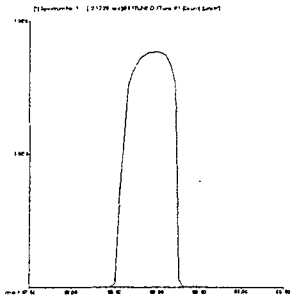
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
9 Be	1346600	1319226	1353303	1352143	1353336	1354991	**1.07**	5.00	
24 Mg	4402460	4334595	4404182	4422165	4415721	4435638	**1.37**	5.00	
59 Co	5525479	5490213	5530687	5528385	5541918	5536195	**0.84**	5.00	
115 In	22552691	22335960	22523642	22590646	22697672	22615532	**0.65**	5.00	
208 Pb	3745432	3712751	3736697	3766770	3756352	3754591	**0.72**	5.00	



9 Be
Mass Calib.
Actual: 9.00
Required: 8.90 - 9.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



24 Mg
Mass Calib.
Actual: 23.95
Required: 23.90 - 24.10
Flag:
Peak Width
Actual: 0.65
Required: 0.80
Flag:



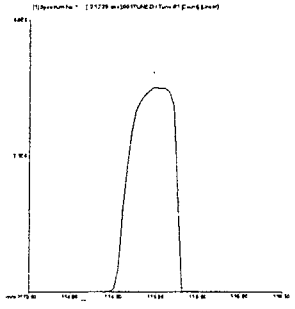
59 Co

Mass Calib.

Actual:	58.95		
Required:	58.90	-	59.10
Flag:			

Peak Width

Actual:	0.65		
Required:	0.90		
Flag:			



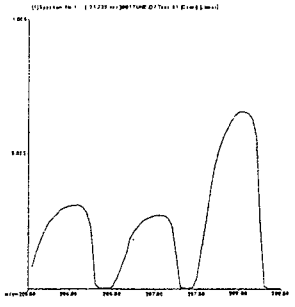
115 In

Mass Calib.

Actual:	115.00		
Required:	114.90	-	115.10
Flag:			

Peak Width

Actual:	0.65		
Required:	0.90		
Flag:			



208 Pb

Mass Calib.

Actual:	208.05		
Required:	207.90	-	208.10
Flag:			

Peak Width

Actual:	0.70		
Required:	0.80		
Flag:			

Tune Result: Pass

Metals Standards Log Book # 35 Page # 001

NBS 05/06/12
6020/6020A
(A)

ICP-MS STANDARDS 6020/6020A/3015/3051A
Today's Date: 05/06/12
Expires: 05/13/12
Prep 1% HNO3/1.0%HCL
20 mL HNO3 / 2000 mL Di Water
Lot #K23022
20mL HCL / 2000mL Di Water
Lot #K43032
Expires: 05/13/12

Internal Standard Mix: Prep 05/06/2012

Standard 4

Amount	STD	Manufacturer	Lot #
50 uL	CCV-A	Env. Express	1036407-28139
50 uL	CCV-B	Env. Express	1036410-28140
50 uL	CCV-C	Env. Express	1100309-28141

Prepared in 100 mL of 1% HNO3/1.0% HCL 05/06/12

Standard 3 05/13/12

Amount	STD	Manufacturer	Lot #
25 uL	CCV-A	Env. Express	1036407-28139
25 uL	CCV-B	Env. Express	1036410-28140
25 uL	CCV-C	Env. Express	1100309-28141

Prepared in 100 mL of 1% HNO3/1.0% HCL 05/06/12

Intermediate-Sb 05/13/12
100 uL of Sb STD (CPI 12A011-30298) in 10 mL of 1% HNO3/1.0% HCL
ICV-Sb 05/13/12
100 uL of Intermediate-Sb in 10 mL of 1% HNO3/1.0% HCL

NBS 05/06/12

Standard 2 05/13/12

Amount	STD	
500 uL	Standard 4	05/06/12

Prepared in 50 mL of 1% HNO3/1.0% HCL 05/06/12

Standard 1 05/13/12

Amount	STD	
50 uL	Standard 4	05/06/12

Prepared in 50 mL of 1% HNO3/1.0% HCL 05/06/12

ICP-MS ICV 05/13/12

Amount	STD		
50 uL	QCS ICV A	CPI	11C174-28548
50 uL	QCS ICV B	CPI	11C174-28549

Prepared in 50 mL of 1% HNO3/1.0% HCL 05/06/12

ICSA Prep: 05/13/12

1 mL	ICSA	CPI	11C066-28529

Prepared in 5 mL of 1% HNO3/1.0% HCL 05/06/12

ICSAB Prep: 05/13/12

1mL	ICSA	CPI	11C066-28529
0.025mL	INT	O2Si	1023805-28210

Prepared in 5 mL of 1% HNO3/1.0% HCL 05/06/12

ICP-LDR 05/13/12

Amount	STD		
50 uL	CCV-A	Env. Express	1036407-28139
50 uL	CCV-B	Env. Express	1036410-28140
50 uL	CCV-C	Env. Express	1100309-28141

Prepared in 10 mL of 1% HNO3/1.0% HCL 05/06/12

NBS 05/06/12

NBS 05/06/12

Internal Standard Concentration

Amt	STD	Element	Vendor	Lot#	Final Conc. in Std	Expires
500uL	1000 ug/mL	Lr	CPI	10L079-27839	5000 ug/L	06/10/12
500uL	1000 ug/mL	In	CPI	10J155-28574	5000 ug/L	09/25/12
500uL	1000 ug/mL	Ho	CPI	10A107-28576	5000 ug/L	09/25/12
500uL	1000 ug/mL	Tb	CPI	11B054-28575	5000 ug/L	09/25/12
500uL	1000 ug/mL	Sc	o2si	1024073-28527	5000 ug/L	08/18/12
500uL	1000 ug/mL	Ge	Environmental Express	1116011-29381	5000 ug/L	02/08/13

Prep:	05/06/12	NBS	Prep in -	1%HNO3/1.0%HCL:	Lot #KK23022/43032	in 100mL
Expires:	06/05/12					

Metals Digestion Worksheet

Method Name 3015 Digestion **Prep Method** M3015 **Set** 120425A **Units** mL

Spikes			
Spiked ID 1	LCSW LOT# 1034534-30503		
Spiked ID 2	LCSW LOT# 1034538-30505		
Spiked ID 3			
Spiked ID 4			
Spiked By	NM	Date:	04/25/12 12:30:00 PM
Witnessed By	LO	Date:	04/25/12 12:30:00 PM

Starting Temp:	20 c
Ending Temp:	170 c
Temperature Type:	Microwave
Sufficient Vol for Matrix QC:	Yes
End Date/Time	04/25/12 13:30

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	120425A Blk				45mL	50mL	04/25/12 12:30	equip: Venus
2	120425A LCS		90uL	1+2	45mL	50mL	04/25/12 12:30	equip: Venus
3	120425A LCSD		90uL	1+2	45mL	50mL	04/25/12 12:30	equip: Venus
4	AY59234	AY59234W12			45mL	50mL	04/25/12 12:30	equip: Venus Total
5	AY59234 D	AY59234W11			45mL	50mL	04/25/12 12:30	equip: Venus Dissolve
6	AY59236	AY59236W15			45mL	50mL	04/25/12 12:30	equip: Venus
7	AY59236 MS	AY59236W16	90uL		45mL	50mL	04/25/12 12:30	equip: Venus
8	AY59236 MSD	AY59236W16	90uL		45mL	50mL	04/25/12 12:30	equip: Venus
9	AY59237	AY59237W08			45mL	50mL	04/25/12 12:30	equip: Venus Total
10	AY59447	AY59447W17			45mL	50mL	04/25/12 12:30	equip: Venus Dissolve
11	AY59447 D	AY59447W16			45mL	50mL	04/25/12 12:30	equip: Venus
12	AY59674	AY59674W07			45mL	50mL	04/25/12 12:30	equip: Venus Total
13	AY59674 D	AY59674W06			45mL	50mL	04/25/12 12:30	equip: Venus Dissolve
14	AY59676	AY59676W10			45mL	50mL	04/25/12 12:30	equip: Venus Total
15	AY59676 D	AY59676W09			45mL	50mL	04/25/12 12:30	equip: Venus Dissolve
16	AY59718	AY59718W16			45mL	50mL	04/25/12 12:30	equip: Venus
17	AY59718 MS	AY59718W16	90uL	1+2	45mL	50mL	04/25/12 12:30	equip: Venus
18	AY59718 MSD	AY59718W16	90uL	1+2	45mL	50mL	04/25/12 12:30	equip: Venus

Solvent and Lot#
HNO3 J.T.B L02030 0182

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	EA
Date	4-25-12
Time	13:30
Moved to	Metals

Technician's Initials	
Scanned By	lo
Sample Preparation	nm
Digestion	nm
Bring up to volume	lo
Modified	05/04/12 11:56:41 AM

Reviewed By: NBS **Date:** 05/07/12

6020/200.8 Injection Log

Directory: K:\ICP-MS Optimus\raw data output csv\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	06 May 2012	12:48	Calibration Blank		120506Arev	1.
2	06 May 2012	12:55	120506 Standard 1		120506Arev	1.
3	06 May 2012	13:03	120506 Standard 2		120506Arev	1.
4	06 May 2012	13:10	120506 Standard 3		120506Arev	1.
5	06 May 2012	13:17	120506 Standard 4		120506Arev	1.
6	06 May 2012	13:23	ICV 120506		120506Arev	1.
10	06 May 2012	13:57	ICB 120506		120506Arev	1.
11	06 May 2012	14:04	CCV 120506		120506Arev	1.
12	06 May 2012	14:11	CCB 120506		120506Arev	1.
13	06 May 2012	14:17	LDR-1000ppb 120506		120506Arev	1.
14	06 May 2012	14:30	ICSA 120506		120506Arev	1.
15	06 May 2012	14:37	ICSAB 120506		120506Arev	1.
16	06 May 2012	15:04	CCV 120506		120506Arev	1.
17	06 May 2012	15:18	CCB 120506		120506Arev	1.
85	07 May 2012	00:25	CCV 120506		120506Arev	1.
86	07 May 2012	00:38	CCB 120506		120506Arev	1.
90	07 May 2012	01:05	120425A-3015-BLK		120506Arev	1.
91	07 May 2012	01:12	120425A-3015-LCS		120506Arev	1.
92	07 May 2012	01:19	120425A-3015-LCSD		120506Arev	1.
93	07 May 2012	01:25	AY59236W15		120506Arev	1.
94	07 May 2012	01:32	AY59236W16 MS		120506Arev	1.
95	07 May 2012	01:39	AY59236W16 MSD		120506Arev	1.
96	07 May 2012	01:46	AY59236W15-A		120506Arev	1.
98	07 May 2012	01:59	CCV 120506		120506Arev	1.
99	07 May 2012	02:13	CCB 120506		120506Arev	1.
100	07 May 2012	02:19	AY59236W15-1/5		120506Arev	5.
101	07 May 2012	02:26	AY59237W08		120506Arev	1.
108	07 May 2012	03:13	CCV 120506		120506Arev	1.
109	07 May 2012	03:27	CCB 120506		120506Arev	1.