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

August 10, 2012

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

Attn: Max Solmssen

Title: Report of Data: Case 68248

Project: LTM Red Hill/1022-024

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

Dear Mr. Solmssen:

Four water samples were received July 18, 2012, in good condition. Written results for the requested analyses are provided on this August 10, 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/cm
Enclosure
cc: File

Number of pages in this report: 361

Data Validation Package
for
LTM Red Hill / 1022-024
SDG 68248

TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

SAMPLE RECEIPT INFORMATION

Sample receipt information

ARF: 68248

Project: Red Hill/1022-024

Sample Receipt Information:

The samples were received on July 18, 2012, at 2.0°C and 2.0°C. The samples were assigned Analytical Request Form (ARF) number 68248. The sample numbers and requested analyses were compared to the chain of custody. No exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
ES077	AY65041	WATER	07/17/12	07/18/12
ES078 TRIP BLANK	AY65042	WATER	07/17/12	07/18/12
ES079	AY65043	WATER	07/17/12	07/18/12
ES080	AY65044	WATER	07/17/12	07/18/12

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 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 one-half the limit of quantitation (LOQ? in the method blank.

Spikes:

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

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

Surrogates

Surrogate recoveries are summarized on the forms 2&8. All surrogate recoveries were within the 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 problem was encountered.

EPA Method 8015B

Total Petroleum Hydrocarbons – Diesel

Sample Preparation:

The water samples were extracted according to EPA method 3510C. The samples 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 one-half the limit of quantitation (LOQ? in the method blank.

Spikes:

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

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

Surrogates:

The surrogate recoveries are summarized on the form 2 & 8. . For the method blank, Ortho-Terphenyl recovered below the 57% lower control limit at 48.6%. The Octacosane surrogate was acceptable. All other surrogate recoveries were within the control limits.

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. The vials were analyzed within seven days of collection. Manual integrations were performed in accordance with APPL's SOP. All injections for gasoline were manually integrated due to the original integration not following the baseline. A summary of the manual integrations on the samples, blank and LCS is included in the QC Summary section of the report. Chromatograms from before and after the manual integrations are enclosed.

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 except for CCV 0724T09.D, which recovered gasoline above the 120% upper control limit at 137%.

Blanks:

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

Spikes:

A lab control spike (LCS) was used for quality assurance. An second source standard was used for the LCS. Gasoline recovered above the 125% upper control limit at 140%. All other LCS acceptance 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:

The gasoline recoveries in the SS, CCV, and LCS were above their respective upper recovery limits because the initial calibration curve was made without the injection of surrogate. The samples could not be re-injected within holding time. The samples were re-injected outside of holding time with an initial calibration curve that contained surrogate and with acceptable SS, CCV, and LCS recoveries. Gasoline was not detected in the initial injections nor in the re-injections. No other 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 (DT) were used for quality assurance. All LCS recoveries were within the acceptance limits.

Sample ES080 was selected by the laboratory for QC analysis. All acceptance criteria were met in the MS/MSD, PDS, and DT.

Summary:

No analytical exception is noted. 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
MI1	Manual integration: integration does not follow baseline
MI2	Manual integration: non-target peak interference
MI3	Manual integration: to split a peak that was integrated as one peak by the computer
MI4	Manual integration: to integrate a split peak
MI5	Manual integration: the whole peak or part of the peak was not integrated
MI6	Manual integration: computer integrated wrong peak
MI7	Manual integration: other - explain
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel.
Y	Percent difference between primary and confirmation column > 40%

CHAIN OF CUSTODY,
ARF, CRF, AND
CLIENT COMMUNICATION

APPL - Analysis Request Form 68248

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** # **36499**
RAD Screen (Y/N): **Y** pH (Y/N): **N**
Turn Around Type: **2 WEEKS**

Received by: **TBV**
Date Received: **07/18/12** Time: **11:10**
Delivered by: **FED EX**
Shuttle Custody Seals (Y/N): **Y** Time Zone: **-10**
Chest Temp(s): **2.0,2.0°C**
Color: **VOA, I-PRPRED,Q-ORYW**
Samples Chilled until Placed in Refrig/Freezer: **Y**
Project Manager: **Cynthia Clark**
QC Report Type: **DVP4/ADRDOD/HI**
Due Date: **08/01/12**

Comments:
14 day TAT for Form 1s & 21 day TAT for full package;
prelims to OSDas@, MSolmssen@ & VDupra@environetinc.com
1 pdf on CD or FTP (no hard copy), possible hard copy to LDC
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

Sample Distribution:
GC: 3-$SIMHC12W, 3-$TPETD2
Extractions: 3-_SEP004S, 3-_SEP011
VOA: 4-$86RHBF
Metals: 3-$602D(Pb)
Other: 3-_M3015

Charges:

Invoice To:
same

	Client ID	APPL ID	Sampled	Analyses Requested
1.	ES077	AY65041W	07/17/12 09:15	$602D(Pb), $86RHBF, $SIMHC12W, $TPETD2 -- Unpreserved VOA
2.	ES078 TRIP BLANK	AY65042W	07/17/12 07:00	$86RHBF -- Unpreserved VOA
3.	ES079	AY65043W	07/17/12 11:45	$602D(Pb), $86RHBF, $SIMHC12W, $TPETD2 -- Unpreserved VOA
4.	ES080	AY65044W	07/17/12 08:00	$602D(Pb), $86RHBF, $SIMHC12W, $TPETD2 -- Unpreserved VOA

APPL Sample Receipt Form

ARF# **68248**

Sample	Container Type	Count	pH
AY65041	[6] PL 500mL - HNO3	1	1.7
	[15] VOAs - NP	3	NA
	[17] Amber Liter	4	NA
AY65042	[15] VOAs - NP	3	NA
AY65043	[6] PL 500mL - HNO3	1	1.7
	[15] VOAs - NP	3	NA
	[17] Amber Liter	4	NA
AY65044	[6] PL 500mL - HNO3	1	1.7
	[15] VOAs - NP	3	NA
	[17] Amber Liter	4	NA

Sample	Container Type	Count	pH

68248 2.0,20

APPL LABS

CHAIN OF CUSTODY RECORD

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

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

C.O.C. 36499

Report to: PLEASE PRINT		Invoice to: A. P. PLEASE PRINT	
Company Name: Environet, Inc.	Phone: 808-833-2225	Company Name: Environet, Inc.	Phone: 808-833-2225
Address: 650 Iwilei Road, Suite 204 Honolulu, HI 96817	Fax: 808-833-2231	Address: 650 Iwilei Road, Suite 204 Honolulu, HI 96817	Fax: 808-833-2291
Attn: Max Solmssen (msolmssen@environetinc.com)		Attn: A. P.	

Project Name/Number	Sampler (Print)	Purchase Order Number	Sampler (Signature)
Red Hill / 1022024	Max Solmssen		Max Solmssen

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Sed.	Soil	TPH-GRO (8260B)	VOCs (8260B)	TPH-DRO (8015B)	PAHs (8270 SIM)	lead* (6020)
ES077	Red Hill	7/17/12	915	HI	8	X			X	X	X	X	X
ES078 trip blank			7:00		3				X	X			
ES079			1145		8				X	X	X	X	X
ES080			800		8				X	X	X	X	X

Analysis Requested/Method Number

Date Shipped: 7/17/12
Carrier: Fed Ex
Waybill No.: 876412433265
Comments: * lead
Samples have been field-filtered.

Shuttle Temperature:

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

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

Relinquished by sampler:	Date	Time	Received by:
MS	7/17/12	13:40	
Relinquished by:	Date	Time	Received by:

Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received at lab by:
	7/18/12	1110	

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: RED HILL /1022-024 Date Received: 7/18/12

2) Coolers: Number of Coolers: 2

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) MASTER 2) 8764 1243 3265 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: 43926 7 Correction factor: 0

15) Cooler temp(s): 1) 2.0°C 2) 2.0°C 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: _____

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: _____

Signature of personnel receiving samples: Yang Xu Second reviewer: Will Lee

Signature of project manager notified: _____ Date and Time of notification: _____

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

Information given to client: _____

_____ by whom (Initials): _____

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons

APPL, INC.

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
QC Summary

APPL, INC.

Method Blank
EPA 8270D SIM

Blank Name/QCG: **120723W-65144 - 169459**
Batch ID: #SIMHC-120723A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
BLANK	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
BLANK	SURROGATE: 2-FLUORBIPHENY	56.8	50-110			%	07/23/12	07/24/12
BLANK	SURROGATE: NITROBENZENE-	51.8	40-110			%	07/23/12	07/24/12
BLANK	SURROGATE: TERPHENYL-D14 (	59.6	50-135			%	07/23/12	07/24/12

Quant Method: SIMB.M
Run #: 0724L003
Instrument: Linus
Sequence: L120613
Initials: LF

Printed: 07/27/12 5:33:46 PM
GC SC-Blank-REG MDLs

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 68248

Case No: 68248 Date Analyzed: 07/24/12

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
120723A-BLK	Blank	50-110	56.8		40-110	51.8	
120723A-LCS	Lab Control Spike	50-110	63.0		40-110	74.5	
AY65041	ES077	50-110	61.2		40-110	54.6	
AY65043	ES079	50-110	58.5		40-110	65.8	
AY65044	ES080	50-110	63.9		40-110	74.8	

Comments: Batch: #SIMHC-120723A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 68248

Case No: 68248 Date Analyzed: 07/24/12

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
120723A-BLK	Blank	50-135	59.6				
120723A-LCS	Lab Control Spike	50-135	58.0				
AY65041	ES077	50-135	61.9				
AY65043	ES079	50-135	58.1				
AY65044	ES080	50-135	58.9				

Comments: Batch: #SIMHC-120723A

Laboratory Control Spike Recovery

EPA 8270D SIM

APPL ID: **120723W-65144 LCS - 169459**
Batch ID: #SIMHC-120723A

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	2.22	55.5	45-105
2-METHYLNAPHTHALENE	4.00	2.18	54.5	45-105
ACENAPHTHENE	4.00	2.18	54.5	45-110
ACENAPHTHYLENE	4.00	2.33	58.3	50-105
ANTHRACENE	4.00	2.39	59.8	55-110
BENZO(A)ANTHRACENE	4.00	2.21	55.3	55-110
BENZO(A)PYRENE	4.00	2.24	56.0	55-110
BENZO(B)FLUORANTHENE	4.00	2.23	55.8	45-120
BENZO(GHI)PERYLENE	4.00	2.46	61.5	40-125
BENZO(K)FLUORANTHENE	4.00	2.57	64.3	45-125
CHRYSENE	4.00	2.67	66.8	55-110
DIBENZ(A,H)ANTHRACENE	4.00	2.29	57.3	40-125
FLUORANTHENE	4.00	3.03	75.8	55-115
FLUORENE	4.00	2.75	68.8	50-110
INDENO(1,2,3-CD)PYRENE	4.00	2.25	56.3	45-125
NAPHTHALENE	4.00	2.15	53.8	40-100
PHENANTHRENE	4.00	2.78	69.5	50-115
PYRENE	4.00	2.45	61.3	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.26	63.0	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.49	74.5	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.16	58.0	50-135

Comments: _____

Primary	SPK
Quant Method :	SIMB.M
Extraction Date :	07/23/12
Analysis Date :	07/24/12
Instrument :	Linus
Run :	0724L004
Initials :	LF

Printed: 07/27/12 5:33:52 PM
APPL Standard LCS

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 68248

Case No: 68248 Date Analyzed: 07/24/12

Matrix: WATER Instrument: Linus

Blank ID: 120723A-BLK Time Analyzed: 1850

APPL ID.	Client Sample No.	File ID.	Date Analyzed
120723A-BLK	Blank	0724L003	07/24/12 1850
120723A-LCS	Lab Control Spike	0724L004	07/24/12 1916
AY65041	ES077	0724L005	07/24/12 1942
AY65043	ES079	0724L006	07/24/12 2007
AY65044	ES080	0724L007	07/24/12 2034

Comments: Batch: #SIMHC-120723A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 68248
Matrix: Water
ID: SVTUNE 2-28-12

SDG No: 68248
Date Analyzed: 07/24/12
Instrument: Linus
Time Analyzed: 18:05

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Blank	120723A BLK 1/1000	0724L003.D	07/24/12 18:50
2	Lab Control Spike	120723A LCS-1 1/1000	0724L004.D	07/24/12 19:16
3	ES077	AY65041W07 1/1050	0724L005.D	07/24/12 19:42
4	ES079	AY65043W05 1/1060	0724L006.D	07/24/12 20:07
5	ES080	AY65044W04 1/1060	0724L007.D	07/24/12 20:34
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	56.9
68	0 - 2.05% of mass 69	0.1
70	0 - 2% of mass 69	0.8
127	40 - 60% of mass 198	54.7
197	0 - 1% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.1
275	10 - 30% of mass 198	23.7
365	1 - 100% of mass 198	3.1
441	0.01 - 100% of mass 443	76.8
442	40 - 150% of mass 198	72.0
443	17 - 23% of mass 442	20.2

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 68248

Lab File ID (Standard): 0613L007.D Date Analyzed: 06/13/12

Instrument ID: Linus Time Analyzed: 15:33

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

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2713	6.09	1189	8.10	2090	9.82
	UPPER LIMIT	5426	6.59	2378	8.60	4180	10.32
	LOWER LIMIT	1357	5.59	595	7.60	1045	9.32
	SAMPLE NO.						
01	120723A BLK 1/1000	2273	6.07	1022	8.08	2049	9.82
02	120723A LCS-1 1/1000	2043	6.07	992	8.08	1998	9.82
03	AY65041W07 1/1050	2190	6.08	1069	8.08	2160	9.82
04	AY65043W05 1/1060	2232	6.08	1038	8.08	2082	9.82
05	AY65044W04 1/1060	2216	6.08	1020	8.08	2138	9.82
06							
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.: 68248

Lab File ID (Standard): 0613L007.D Date Analyzed: 06/13/12

Instrument ID: Linus Time Analyzed: 15:33

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

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2430	12.91	2133	14.52		
	UPPER LIMIT	4860	13.41	4266	15.02		
	LOWER LIMIT	1215	12.41	1067	14.02		
	SAMPLE NO.						
01	120723A BLK 1/1000	2655	12.91	2331	14.54		
02	120723A LCS-1 1/1000	2829	12.90	2395	14.52		
03	AY65041W07 1/1050	2809	12.91	2386	14.54		
04	AY65043W05 1/1060	2675	12.91	2253	14.54		
05	AY65044W04 1/1060	2598	12.91	2213	14.54		
06							
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: ES077
Sample Collection Date: 07/17/12

ARF: 68248
APPL ID: AY65041
QCG: #SIMHC-120723A-169459

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	07/23/12	07/24/12
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	61.2	50-110			%	07/23/12	07/24/12
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	54.6	40-110			%	07/23/12	07/24/12
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	61.9	50-135			%	07/23/12	07/24/12

Quant Method: SIMB.M
Run #: 0724L005
Instrument: Linus
Sequence: L120613
Dilution Factor: 1
Initials: LF

Printed: 07/27/12 5:33:58 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0724L005.D Vial: 5
Acq On : 24 Jul 12 19:42 Operator: LF
Sample : AY65041W07 1/1050 Inst : Linus
Misc : Multiplr: 0.95

Quant Time: Jul 27 7:50 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jul 25 18:38:43 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.08	136	2190	2.50000 ppb	-0.04
6) Acenaphthene-D10(IS)	8.08	164	1069	2.50000 ppb	-0.05
12) Phenanthrene-D10(IS)	9.82	188	2160	2.50000 ppb	-0.04
16) Chrysene-D12(IS)	12.91	240	2809	2.50000 ppb	0.01
22) Perylene-D12(IS)	14.54	264	2386	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.32	82	447	1.03951 ppb	-0.01
Spiked Amount 1.905			Recovery = 54.600%		
7) Surrogate Recovery (FBP)	7.32	172	1225	1.16577 ppb	-0.05
Spiked Amount 1.905			Recovery = 61.215%		
18) Surrogate Recovery (TPH)	11.69	244	1740	1.17923 ppb	-0.05
Spiked Amount 1.905			Recovery = 61.898%		

Target Compounds Qvalue

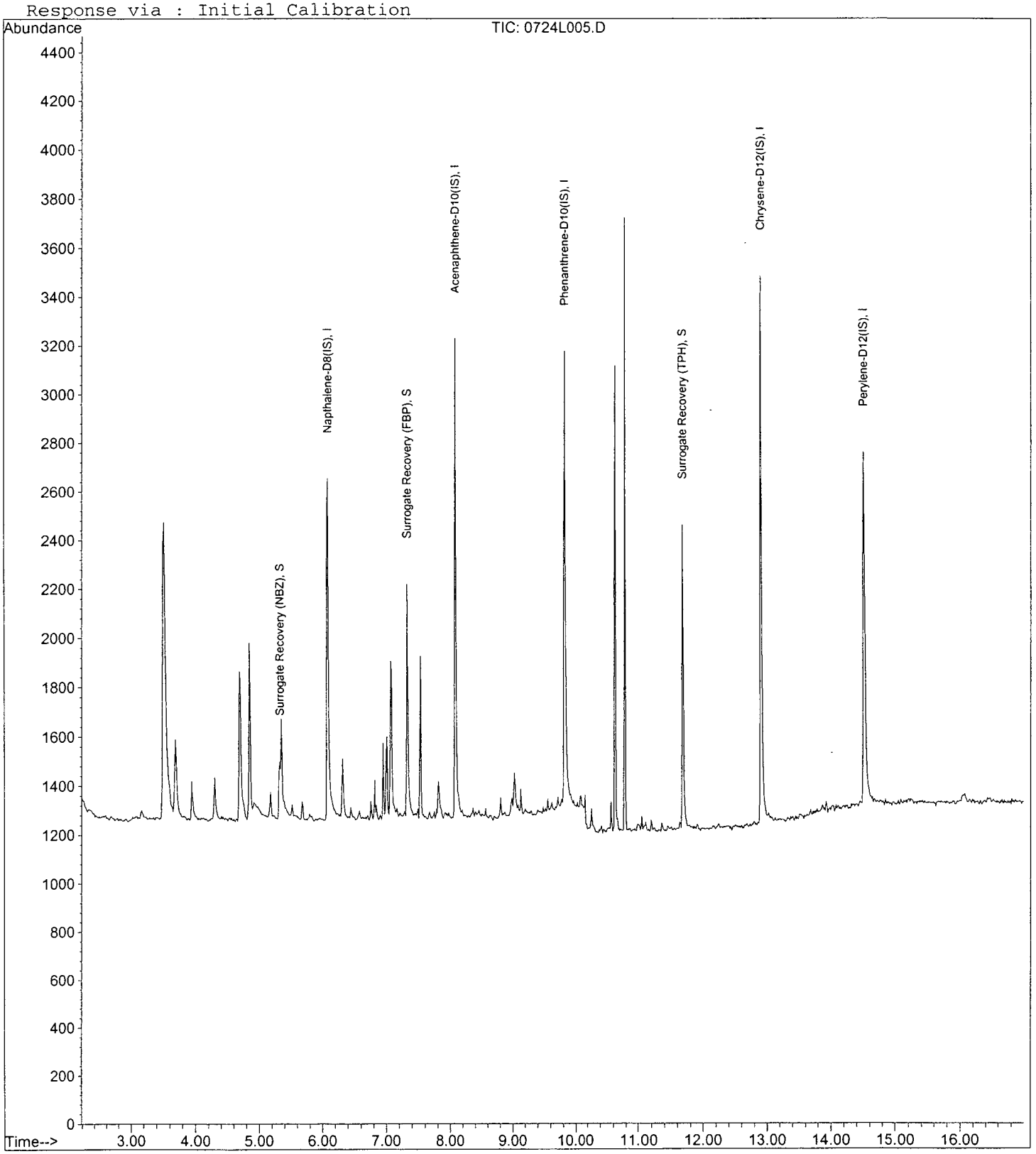
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120613\0724L005.D Vial: 5
Acq On : 24 Jul 12 19:42 Operator: LF
Sample : AY65041W07 1/1050 Inst : Linus
Misc : Multiplr: 0.95

Quant Time: Jul 27 7:50 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jul 25 18:38:43 2012
Response via : Initial Calibration



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: ES079
Sample Collection Date: 07/17/12

ARF: 68248
APPL ID: AY65043
QCG: #SIMHC-120723A-169459

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	07/23/12	07/24/12
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	58.5	50-110			%	07/23/12	07/24/12
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	65.8	40-110			%	07/23/12	07/24/12
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	58.1	50-135			%	07/23/12	07/24/12

Quant Method: SIMB.M
Run #: 0724L006
Instrument: Linus
Sequence: L120613
Dilution Factor: 1
Initials: LF

Printed: 07/27/12 5:33:58 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0724L006.D Vial: 6
Acq On : 24 Jul 12 20:07 Operator: LF
Sample : AY65043W05 1/1060 Inst : Linus
Misc : Multiplr: 0.94

Quant Time: Jul 27 7:51 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jul 25 18:38:43 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.08	136	2232	2.50000 ppb	-0.04
6) Acenaphthene-D10(IS)	8.08	164	1038	2.50000 ppb	-0.05
12) Phenanthrene-D10(IS)	9.82	188	2082	2.50000 ppb	-0.04
16) Chrysene-D12(IS)	12.91	240	2675	2.50000 ppb	0.01
22) Perylene-D12(IS)	14.54	264	2253	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.32	82	549	1.24088 ppb	-0.01
Spiked Amount 1.887			Recovery = 65.773%		
7) Surrogate Recovery (FBP)	7.32	172	1136	1.10287 ppb	-0.05
Spiked Amount 1.887			Recovery = 58.459%		
18) Surrogate Recovery (TPH)	11.69	244	1556	1.09691 ppb	-0.05
Spiked Amount 1.887			Recovery = 58.141%		
Target Compounds					Qvalue

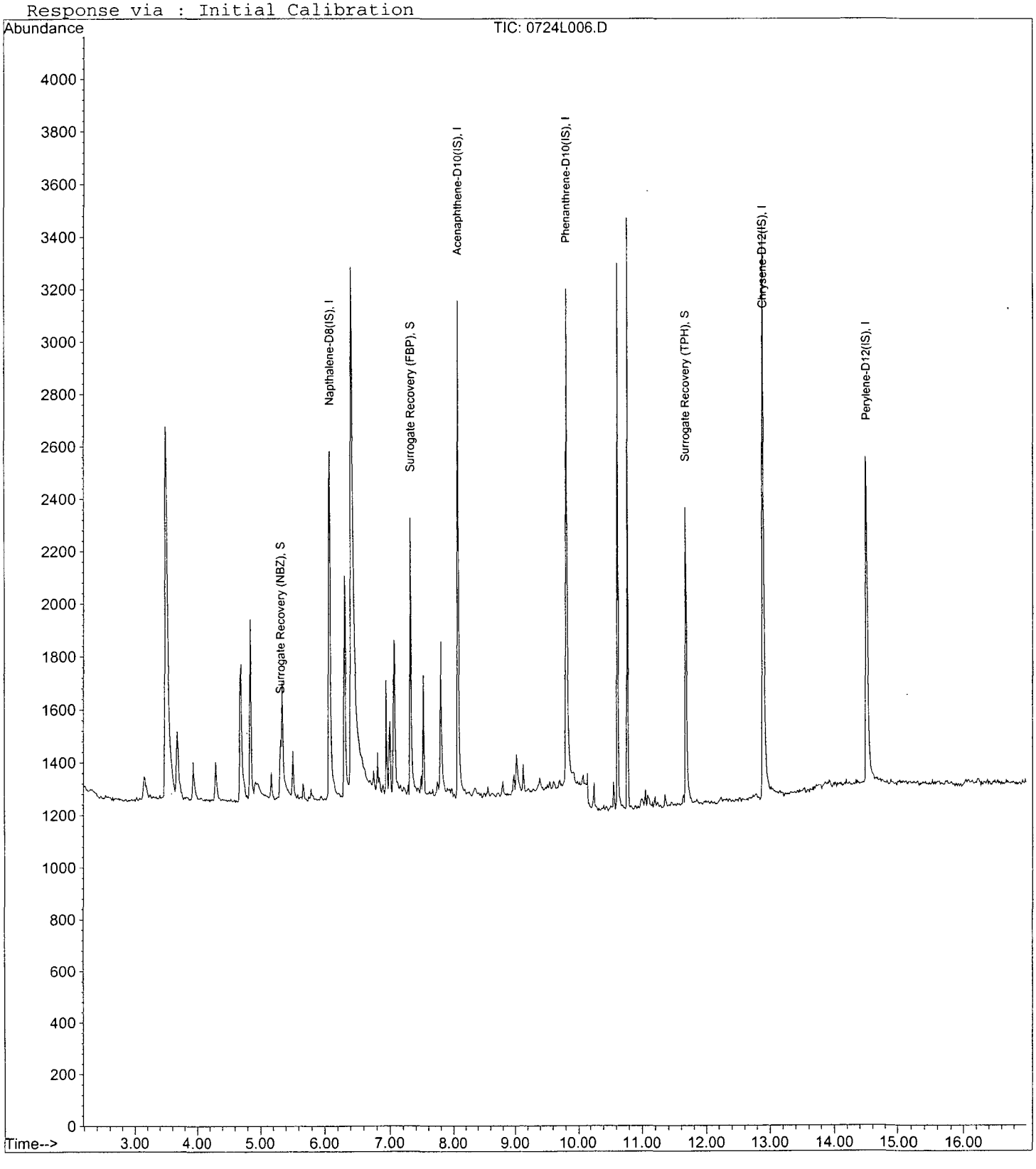
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120613\0724L006.D Vial: 6
Acq On : 24 Jul 12 20:07 Operator: LF
Sample : AY65043W05 1/1060 Inst : Linus
Misc : Multiplr: 0.94

Quant Time: Jul 27 7:51 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jul 25 18:38:43 2012
Response via : Initial Calibration



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

ARF: 68248

Sample ID: ES080

APPL ID: AY65044

Sample Collection Date: 07/17/12

QCG: #SIMHC-120723A-169459

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	07/23/12	07/24/12
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	63.9	50-110			%	07/23/12	07/24/12
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	74.8	40-110			%	07/23/12	07/24/12
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	58.9	50-135			%	07/23/12	07/24/12

Quant Method: SIMB.M
Run #: 0724L007
Instrument: Linus
Sequence: L120613
Dilution Factor: 1
Initials: LF

Printed: 07/27/12 5:33:58 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0724L007.D Vial: 7
Acq On : 24 Jul 12 20:34 Operator: LF
Sample : AY65044W04 1/1060 Inst : Linus
Misc : Multiplr: 0.94

Quant Time: Jul 27 7:52 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jul 25 18:38:43 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.08	136	2216	2.50000 ppb	-0.04
6) Acenaphthene-D10(IS)	8.08	164	1020	2.50000 ppb	-0.05
12) Phenanthrene-D10(IS)	9.82	188	2138	2.50000 ppb	-0.04
16) Chrysene-D12(IS)	12.91	240	2598	2.50000 ppb	0.01
22) Perylene-D12(IS)	14.54	264	2213	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.32	82	620	1.41148 ppb	-0.01
Spiked Amount 1.887			Recovery = 74.783%		
7) Surrogate Recovery (FBP)	7.32	172	1221	1.20630 ppb	-0.05
Spiked Amount 1.887			Recovery = 63.918%		
18) Surrogate Recovery (TPH)	11.69	244	1530	1.11055 ppb	-0.05
Spiked Amount 1.887			Recovery = 58.883%		

Target Compounds Qvalue

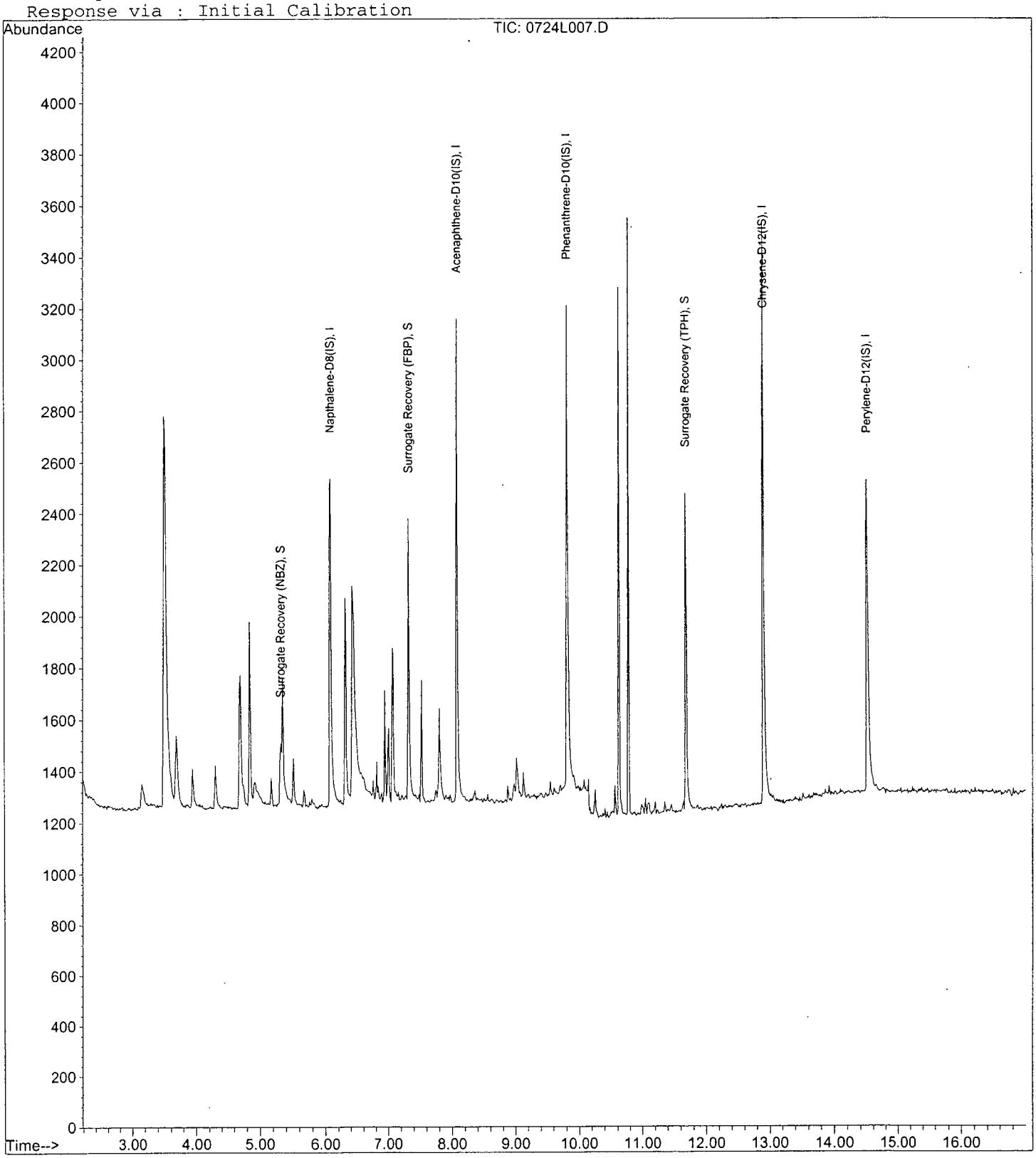
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120613\0724L007.D Vial: 7
Acq On : 24 Jul 12 20:34 Operator: LF
Sample : AY65044W04 1/1060 Inst : Linus
Misc : Multiplr: 0.94

Quant Time: Jul 27 7:52 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jul 25 18:38:43 2012
Response via : Initial Calibration



EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Calibration Data

APPL, INC.

EPA 8270C SIM

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 68248
Case No: Initial Cal. Date: 06/13/12
Matrix: Instrument: Linus Initials:

		Compound	0613L003.D 0.1	0613L004.D 0.2	0613L005 D 0.5	0613L006 D 1	0613L007.D 5	0613L008.D 10	0613L009.D 50	0613L010.D 100			Avg	%RSD		
1	I	Napthalene-D8(IS)														
2	S	Surrogate Recovery (NBZ)	0.4582	0.4160	0.5318	0.4779	0.4460	0.4748	0.4769	0.4584			0.47	7.1	S	
3	TM	Naphthalene	1.842	1.750	1.792	1.659	1.423	1.727	1.409	1.279			1.6	13	TM	
4	TM	2-Methylnaphthalene	1.241	1.076	1.116	1.120	0.9307	1.112	0.9262	0.8257			1.0	13	TM	
5	TM	1-Methylnaphthalene	1.126	1.172	1.203	1.088	0.8644	1.036	0.8585				1.0	13	TM	
6	I	Acenaphthene-D10(IS)														
7	S	Surrogate Recovery (FBP)	2.582	2.805	2.664	2.529	2.150	2.143	1.969	1.882			2.3	15	S	
8	TM	1,1'-Biphenyl	2.787	2.890	2.770	2.823	2.494	2.718	2.250	2.042			2.6	12	TM	
9	TM	Acenaphthylene	3.955	4.033	3.713	3.520	3.060	3.526	2.830	2.701			3.4	15	TM	
10	*TM	Acenaphthene	2.090	2.180	2.070	2.027	1.756	1.959	1.627	1.454			1.9	13	*TM	
11	TM	Fluorene	2.398	2.371	2.439	2.352	2.050	2.300	1.873	1.659			2.2	13	TM	
12	I	Phenanthrene-D10(IS)														
13	TM	Phenanthrene	2.047	1.950	2.033	1.897	1.652	1.874	1.503	1.377			1.8	14	TM	
14	TM	Anthracene	2.130	1.841	1.997	1.890	1.692	1.793	1.496	1.348			1.8	14	TM	
15	*TM	Fluoranthene	3.076	2.754	2.876	2.744	2.354	2.691	2.122	2.002			2.6	15	*TM	
16	I	Chrysene-D12(IS)														
17	TM	Pyrene	2.479	2.491	2.445	2.361	2.151	2.307	1.879	1.969			2.3	10	TM	
18	S	Surrogate Recovery (TPH)	1.440	1.456	1.389	1.283	1.203	1.197	0.9916	1.046			1.3	14	S	
19	TM	Benz (a) anthracene	2.260	2.204	2.209	2.058	1.786	1.987	1.662	1.724			2.0	12	TM	
20	TM	Chrysene	2.088	2.135	2.151	2.031	1.970	1.967	1.407	1.602			1.9	14	TM	
21	TM	Indeno (1,2,3-cd) pyrene	2.365	2.214	2.159	2.037	1.899	2.069	1.653	1.810			2.0	11	TM	
22	I	Perylene-D12(IS)														
23	TM	Benzo (b) fluoranthene	2.382	2.407	2.462	2.408	1.885	2.105	2.227	1.721			2.2	12	TM	
24	TM	Benzo (k) fluoranthene	2.745	2.558	2.205	2.115	2.223	2.494	1.828	1.795			2.2	15	TM	
25	*TM	Benzo (a) pyrene	2.358	2.547	2.297	2.164	1.908	2.189	1.901	1.547			2.1	15	*TM	
26	TM	Dibenz (a,h) anthracene	2.206	2.196	2.054	1.889	1.755	1.968	1.762	1.529			1.9	12	TM	
27	TM	Benzo (g,h,i) perylene	2.288	2.284	2.189	1.980	1.781	2.022	1.834	1.643			2.0	12	TM	
28																
29																
30																
31																
32																
33																
34																
35																

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0613L003.D Vial: 3
Acq On : 13 Jun 12 13:51 Operator: LF
Sample : 0.1ug/ml PAH 06-13-12 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 16:10 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 13:28:43 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.09	136	2619	2.50000 ppb		-0.02
6) Acenaphthene-D10(IS)	8.10	164	1220	2.50000 ppb		-0.04
12) Phenanthrene-D10(IS)	9.83	188	2113	2.50000 ppb		-0.02
16) Chrysene-D12(IS)	12.91	240	2622	2.50000 ppb		-0.01
22) Perylene-D12(IS)	14.52	264	2131	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.35	82	48	0.18668 ppb		0.01
Spiked Amount 2.000			Recovery = 9.350%			
7) Surrogate Recovery (FBP)	7.34	172	126	0.16296 ppb		-0.04
Spiked Amount 2.000			Recovery = 8.150%			
18) Surrogate Recovery (TPH)	11.70	244	151	0.18456 ppb		-0.03
Spiked Amount 2.000			Recovery = 9.250%			
Target Compounds						Qvalue
3) Naphthalene	6.12	128	193	0.12913 ppb		97
4) 2-Methylnaphthalene	6.91	142	130	0.14464 ppb		90
5) 1-Methylnaphthalene	7.01	142	118	0.14074 ppb		84
8) 1,1'-Biphenyl	7.46	154	136	0.14114 ppb	#	86
9) Acenaphthylene	7.94	152	193	0.16464 ppb		99
10) Acenaphthene	8.13	154	102	0.14944 ppb		84
11) Fluorene	8.75	166	117	0.14146 ppb		95
13) Phenanthrene	9.86	178	173	0.13796 ppb		99
14) Anthracene	9.92	178	180	0.15900 ppb		94
15) Fluoranthene	11.24	202	260	0.16914 ppb		97
17) Pyrene	11.50	202	260	0.17208 ppb		95
19) Benz (a) anthracene	12.90	228	237	0.18310 ppb		98
20) Chrysene	12.94	228	219	0.16763 ppb	#	88
21) Indeno (1,2,3-cd) pyrene	16.02	276	248	0.09203 ppb	#	76
23) Benzo (b) fluoranthene	14.09	252	203	0.15062 ppb	#	83
24) Benzo (k) fluoranthene	14.11	252	234	0.20915 ppb	#	92
25) Benzo (a) pyrene	14.46	252	201	0.16795 ppb	#	93
26) Dibenz (a,h) anthracene	16.03	278	188	0.15446 ppb	#	76
27) Benzo (g,h,i) perylene	16.45	276	195	0.05934 ppb		90

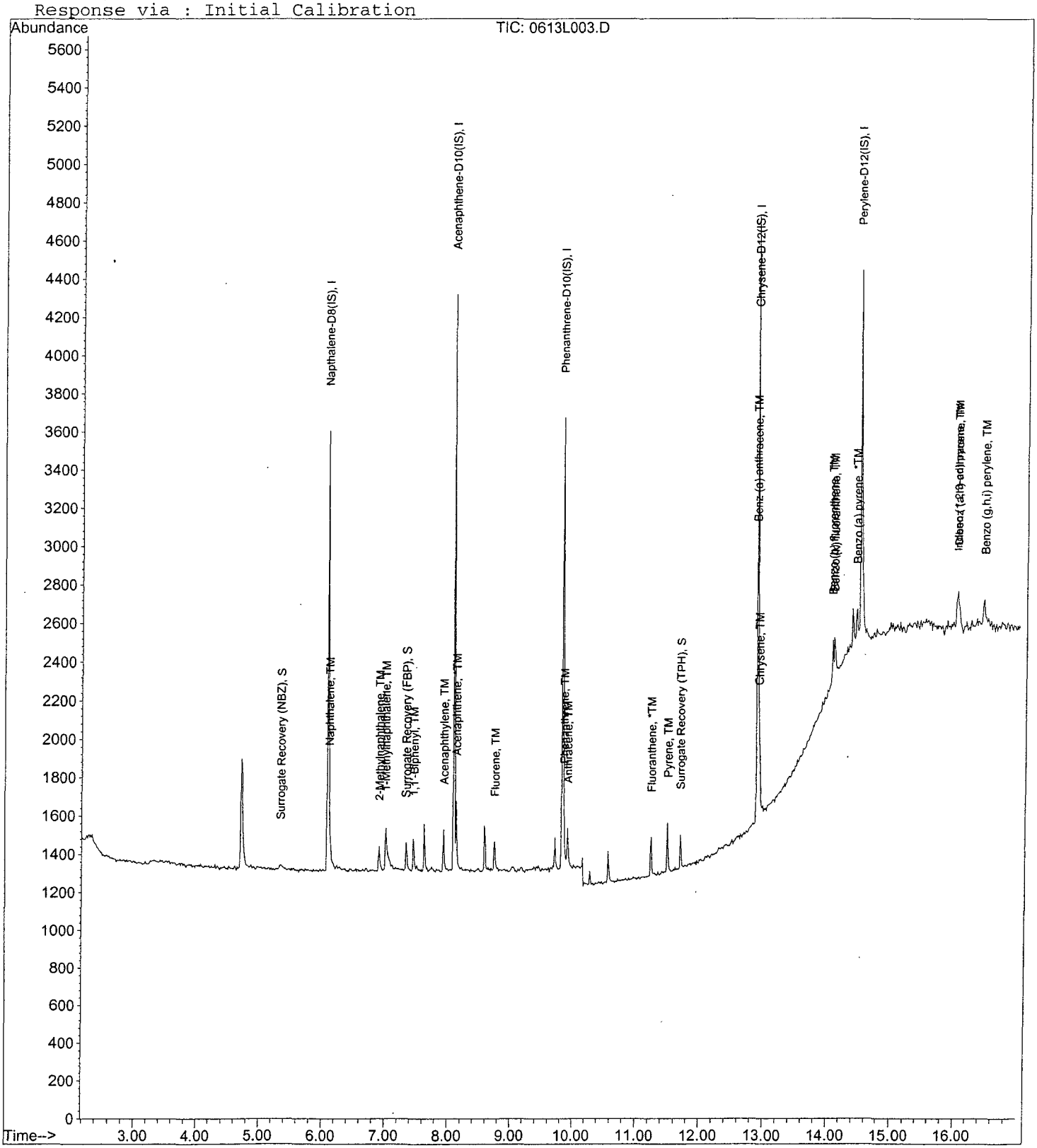
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120613\0613L003.D Vial: 3
Acq On : 13 Jun 12 13:51 Operator: LF
Sample : 0.1ug/ml PAH 06-13-12 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 16:10 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 17:38:06 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0613L004.D Vial: 4
Acq On : 13 Jun 12 14:16 Operator: LF
Sample : 0.2ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 16:10 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 14:51:32 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.09	136	2614	2.50000 ppb		-0.02
6) Acenaphthene-D10(IS)	8.10	164	1181	2.50000 ppb		-0.04
12) Phenanthrene-D10(IS)	9.83	188	2179	2.50000 ppb		-0.02
16) Chrysene-D12(IS)	12.91	240	2524	2.50000 ppb		-0.01
22) Perylene-D12(IS)	14.52	264	2140	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.33	82	87	0.19035 ppb		0.00
Spiked Amount 2.000			Recovery = 9.500%			
7) Surrogate Recovery (FBP)	7.34	172	265	0.20827 ppb		-0.04
Spiked Amount 2.000			Recovery = 10.400%			
18) Surrogate Recovery (TPH)	11.70	244	294	0.20112 ppb		-0.03
Spiked Amount 2.000			Recovery = 10.050%			
Target Compounds						Qvalue
3) Naphthalene	6.12	128	366	0.19487 ppb		98
4) 2-Methylnaphthalene	6.91	142	225	0.18576 ppb		98
5) 1-Methylnaphthalene	7.01	142	245	0.20393 ppb		86
8) 1,1'-Biphenyl	7.45	154	273	0.20362 ppb		98
9) Acenaphthylene	7.94	152	381	0.20195 ppb		99
10) Acenaphthene	8.13	154	206	0.20422 ppb		91
11) Fluorene	8.75	166	224	0.19888 ppb		96
13) Phenanthrene	9.86	178	340	0.19518 ppb		97
14) Anthracene	9.92	178	321	0.18548 ppb		96
15) Fluoranthene	11.24	202	480	0.18893 ppb	#	97
17) Pyrene	11.50	202	503	0.20049 ppb		91
19) Benz (a) anthracene	12.90	228	445	0.19750 ppb		98
20) Chrysene	12.94	228	431	0.20220 ppb	#	92
21) Indeno (1,2,3-cd) pyrene	16.01	276	447	0.19341 ppb	#	87
23) Benzo (b) fluoranthene	14.09	252	412	0.20307 ppb	#	83
24) Benzo (k) fluoranthene	14.11	252	438	0.19501 ppb	#	92
25) Benzo (a) pyrene	14.46	252	436	0.20968 ppb		99
26) Dibenz (a,h) anthracene	16.03	278	376	0.20161 ppb	#	93
27) Benzo (g,h,i) perylene	16.44	276	391	0.17158 ppb		89

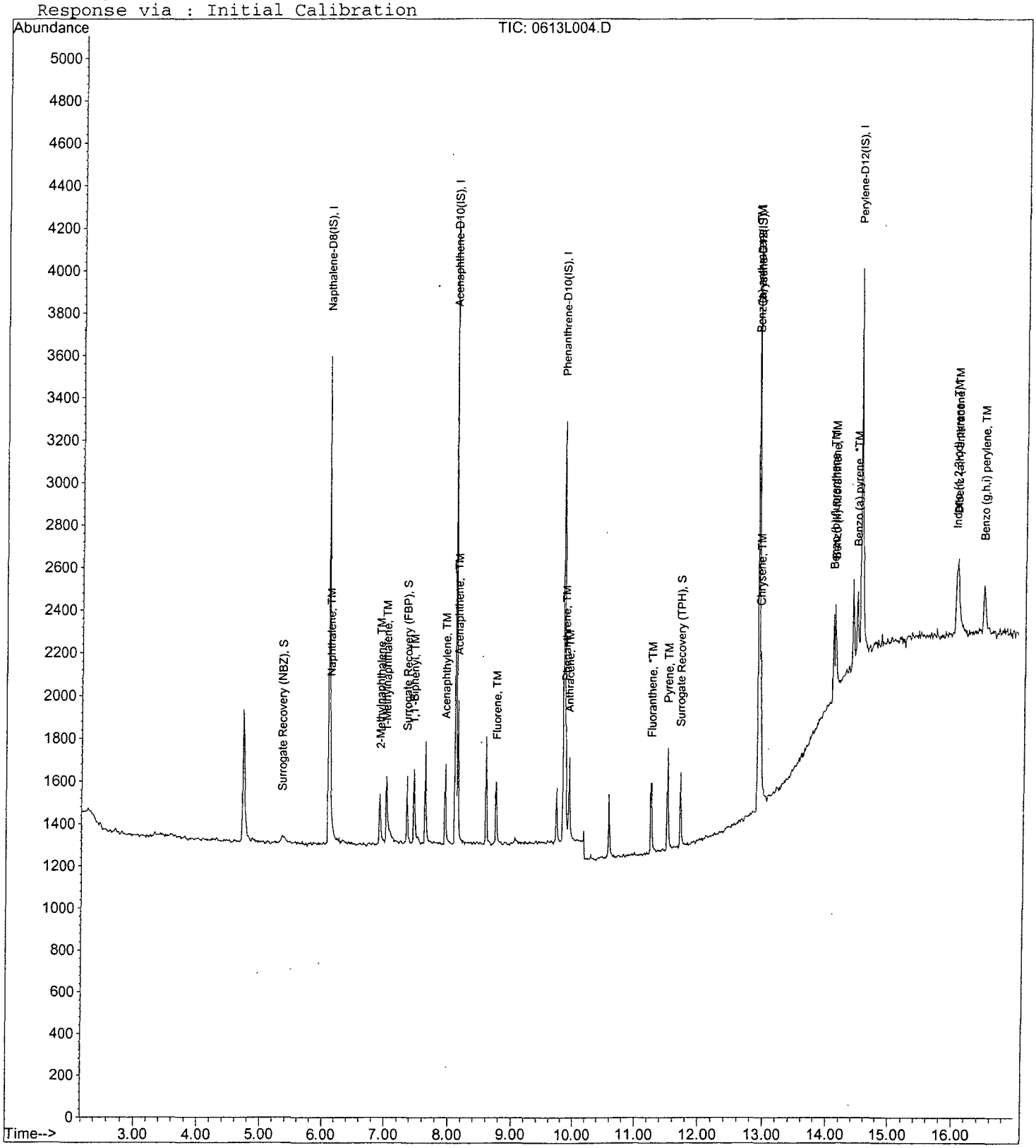
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120613\0613L004.D Vial: 4
Acq On : 13 Jun 12 14:16 Operator: LF
Sample : 0.2ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 16:10 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 17:38:06 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0613L005.D Vial: 5
Acq On : 13 Jun 12 14:41 Operator: LF
Sample : 0.5ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 15:40 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 14:51:32 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.09	136	2576	2.50000 ppb		-0.02
6) Acenaphthene-D10(IS)	8.10	164	1220	2.50000 ppb		-0.04
12) Phenanthrene-D10(IS)	9.83	188	2083	2.50000 ppb		-0.02
16) Chrysene-D12(IS)	12.91	240	2571	2.50000 ppb		-0.01
22) Perylene-D12(IS)	14.52	264	2220	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.33	82	274	0.60835 ppb		0.00
Spiked Amount 2.000			Recovery = 30.400%			
7) Surrogate Recovery (FBP)	7.34	172	650	0.49453 ppb		-0.04
Spiked Amount 2.000			Recovery = 24.750%			
18) Surrogate Recovery (TPH)	11.70	244	714	0.47952 ppb		-0.03
Spiked Amount 2.000			Recovery = 24.000%			
Target Compounds						Qvalue
3) Naphthalene	6.12	128	923	0.49869 ppb		100
4) 2-Methylnaphthalene	6.90	142	575	0.48172 ppb		100
5) 1-Methylnaphthalene	7.01	142	620	0.52369 ppb		94
8) 1,1'-Biphenyl	7.44	154	676	0.48807 ppb	#	94
9) Acenaphthylene	7.94	152	906	0.46486 ppb		99
10) Acenaphthene	8.13	154	505	0.48464 ppb		91
11) Fluorene	8.74	166	595	0.51139 ppb		99
13) Phenanthrene	9.86	178	847	0.50863 ppb		98
14) Anthracene	9.92	178	832	0.50291 ppb		96
15) Fluoranthene	11.23	202	1198	0.49327 ppb	#	86
17) Pyrene	11.50	202	1257	0.49186 ppb	#	89
19) Benz (a) anthracene	12.90	228	1136	0.49495 ppb		98
20) Chrysene	12.94	228	1106	0.50938 ppb	#	93
21) Indeno (1,2,3-cd) pyrene	16.00	276	1110	0.47150 ppb	#	92
23) Benzo (b) fluoranthene	14.08	252	1093	0.51930 ppb	#	90
24) Benzo (k) fluoranthene	14.11	252	979	0.42017 ppb	#	95
25) Benzo (a) pyrene	14.45	252	1020	0.47286 ppb	#	95
26) Dibenz (a,h) anthracene	16.03	278	912	0.47138 ppb	#	95
27) Benzo (g,h,i) perylene	16.44	276	972	0.41115 ppb		93

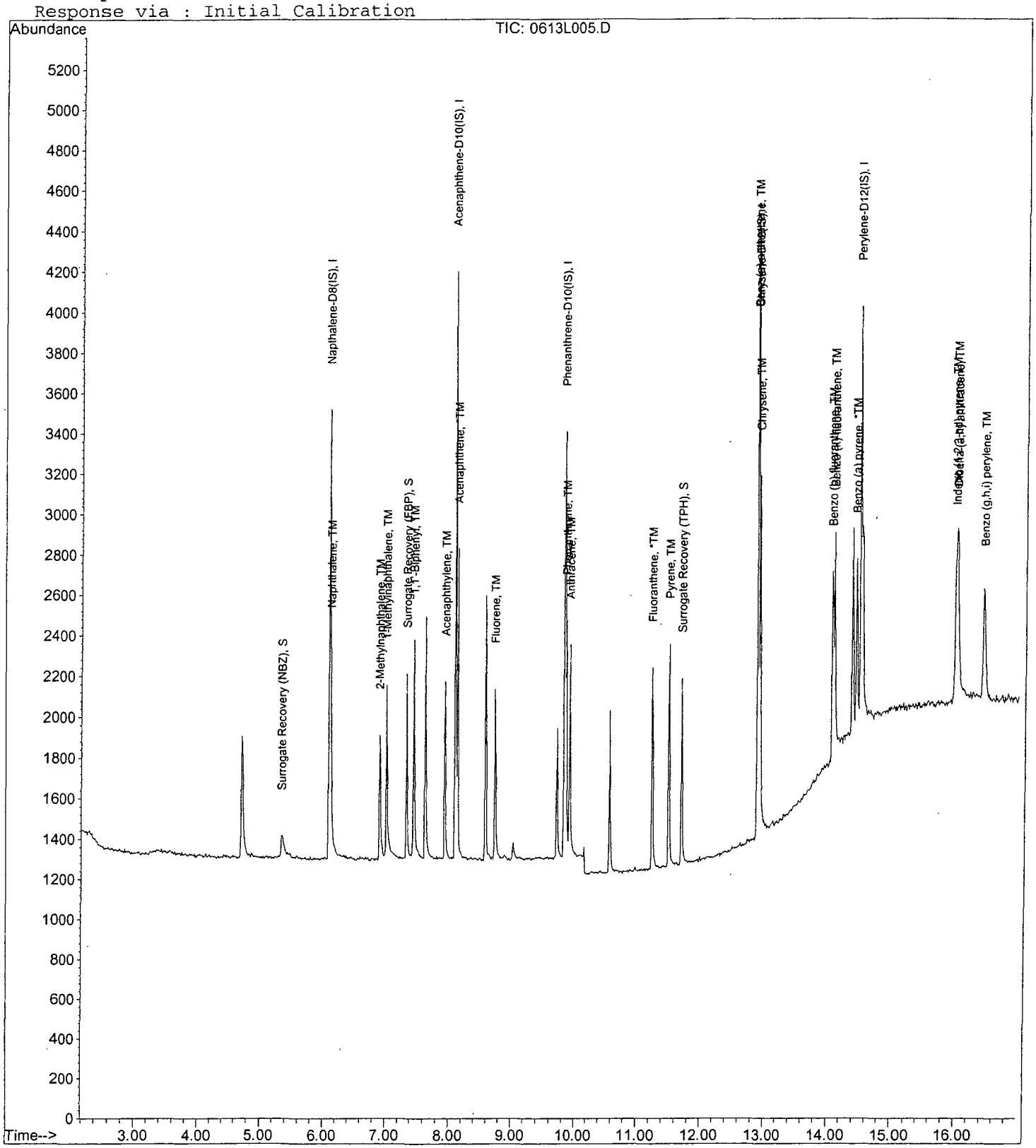
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120613\0613L005.D Vial: 5
Acq On : 13 Jun 12 14:41 Operator: LF
Sample : 0.5ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 15:40 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 17:38:06 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0613L006.D Vial: 6
Acq On : 13 Jun 12 15:07 Operator: LF
Sample : 1.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 15:40 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 14:51:32 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.09	136	2621	2.50000 ppb		-0.02
6) Acenaphthene-D10(IS)	8.10	164	1201	2.50000 ppb		-0.04
12) Phenanthrene-D10(IS)	9.83	188	2124	2.50000 ppb		-0.02
16) Chrysene-D12(IS)	12.91	240	2585	2.50000 ppb		-0.01
22) Perylene-D12(IS)	14.52	264	2229	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.33	82	501	1.01960 ppb		0.00
Spiked Amount 2.000			Recovery	= 51.000%		
7) Surrogate Recovery (FBP)	7.34	172	1215	0.94245 ppb		-0.04
Spiked Amount 2.000			Recovery	= 47.100%		
18) Surrogate Recovery (TPH)	11.70	244	1327	0.89865 ppb		-0.03
Spiked Amount 2.000			Recovery	= 44.950%		
Target Compounds						Qvalue
3) Naphthalene	6.12	128	1739	0.92424 ppb		99
4) 2-Methylnaphthalene	6.90	142	1174	0.97858 ppb		98
5) 1-Methylnaphthalene	7.01	142	1141	0.93248 ppb		94
8) 1,1'-Biphenyl	7.45	154	1356	1.00249 ppb	#	91
9) Acenaphthylene	7.94	152	1691	0.90251 ppb		99
10) Acenaphthene	8.13	154	974	0.95935 ppb		89
11) Fluorene	8.74	166	1130	0.97914 ppb		98
13) Phenanthrene	9.86	178	1612	0.94390 ppb		99
14) Anthracene	9.92	178	1606	0.95018 ppb		98
15) Fluoranthene	11.23	202	2331	0.94550 ppb	#	88
17) Pyrene	11.50	202	2441	0.95516 ppb	#	88
19) Benz (a) anthracene	12.90	228	2128	0.92526 ppb		97
20) Chrysene	12.94	228	2100	0.95596 ppb	#	94
21) Indeno (1,2,3-cd) pyrene	15.99	276	2106	0.90696 ppb	#	82
23) Benzo (b) fluoranthene	14.08	252	2147	1.00305 ppb	#	88
24) Benzo (k) fluoranthene	14.11	252	1886	0.85148 ppb	#	94
25) Benzo (a) pyrene	14.45	252	1929	0.90706 ppb	#	95
26) Dibenz (a,h) anthracene	16.03	278	1684	0.88374 ppb		97
27) Benzo (g,h,i) perylene	16.44	276	1765	0.79039 ppb		95

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

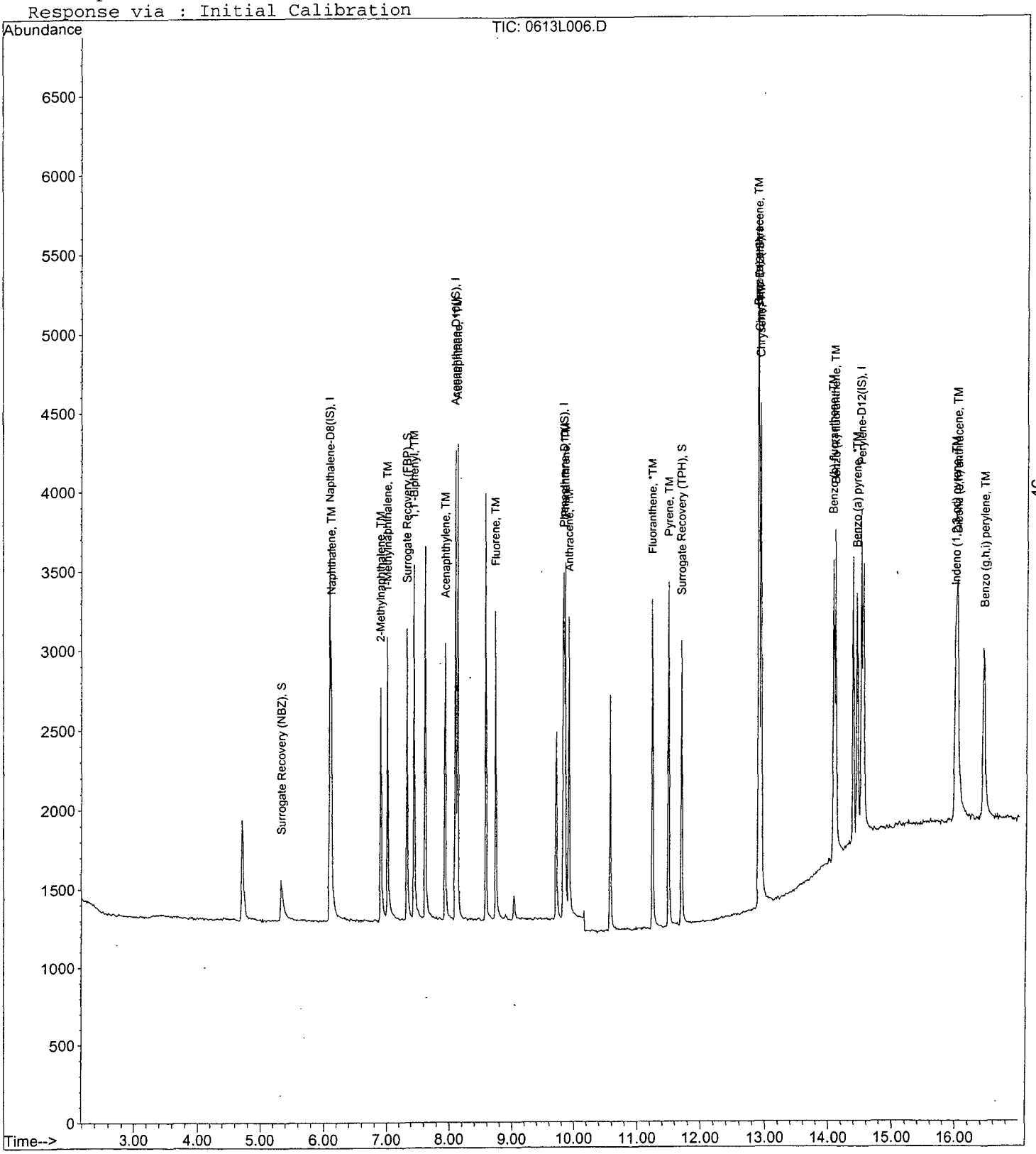
Quantitation Report

Data File : M:\LINUS\DATA\L120613\0613L006.D
Acq On : 13 Jun 12 15:07
Sample : 1.0ug/ml PAH
Misc :

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

Quant Time: Jun 13 15:40 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 17:38:06 2012
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0613L007.D Vial: 7
Acq On : 13 Jun 12 15:33 Operator: LF
Sample : 5.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 16:08 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 14:51:32 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.09	136	2713	2.50000 ppb		-0.02
6) Acenaphthene-D10(IS)	8.10	164	1189	2.50000 ppb		-0.04
12) Phenanthrene-D10(IS)	9.82	188	2090	2.50000 ppb		-0.04
16) Chrysene-D12(IS)	12.91	240	2430	2.50000 ppb		-0.01
22) Perylene-D12(IS)	14.52	264	2133	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.32	82	2420	4.73481 ppb		-0.01
Spiked Amount 2.000			Recovery	= 236.750%		
7) Surrogate Recovery (FBP)	7.34	172	5112	4.06377 ppb		-0.04
Spiked Amount 2.000			Recovery	= 203.200%		
18) Surrogate Recovery (TPH)	11.70	244	5848	4.32241 ppb		-0.03
Spiked Amount 2.000			Recovery	= 216.100%		
Target Compounds						Qvalue
3) Naphthalene	6.12	128	7720	4.04041 ppb		100
4) 2-Methylnaphthalene	6.90	142	5050	4.08854 ppb		95
5) 1-Methylnaphthalene	7.01	142	4690	3.76651 ppb		93
8) 1,1'-Biphenyl	7.45	154	5931	4.42630 ppb	#	89
9) Acenaphthylene	7.93	152	7276	4.02049 ppb		97
10) Acenaphthene	8.13	154	4176	4.19734 ppb		93
11) Fluorene	8.74	166	4875	4.28917 ppb		98
13) Phenanthrene	9.86	178	6907	4.16861 ppb		99
14) Anthracene	9.92	178	7071	4.30520 ppb		98
15) Fluoranthene	11.23	202	9839	4.11183 ppb		95
17) Pyrene	11.49	202	10454	4.40089 ppb	#	90
19) Benz (a) anthracene	12.90	228	8681	4.09173 ppb		96
20) Chrysene	12.94	228	9575	4.68837 ppb	#	96
21) Indeno (1,2,3-cd) pyrene	15.99	276	9227	4.32779 ppb	#	88
23) Benzo (b) fluoranthene	14.08	252	8043	3.92370 ppb	#	84
24) Benzo (k) fluoranthene	14.12	252	9483	4.64656 ppb	#	92
25) Benzo (a) pyrene	14.45	252	8141	4.09554 ppb		98
26) Dibenz (a,h) anthracene	16.02	278	7487	4.22884 ppb	#	91
27) Benzo (g,h,i) perylene	16.43	276	7598	3.75225 ppb		96

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

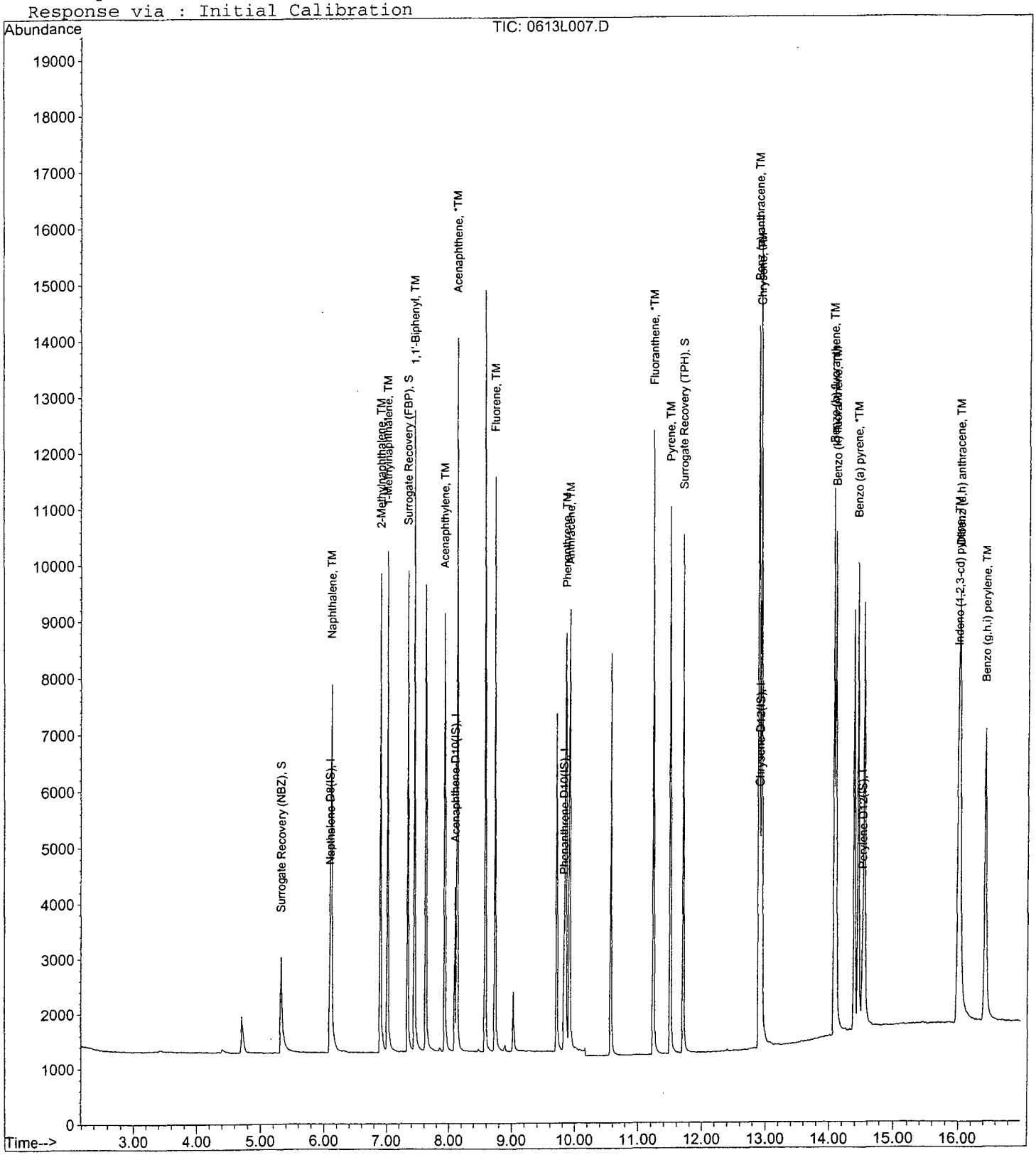
Quantitation Report

Data File : M:\LINUS\DATA\L120613\0613L007.D
Acq On : 13 Jun 12 15:33
Sample : 5.0ug/ml PAH
Misc :

Vial: 7
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Jun 13 16:08 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 17:38:06 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0613L008.D Vial: 8
Acq On : 13 Jun 12 15:59 Operator: LF
Sample : 10ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 17:35 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 14:51:32 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	6.09	136	2467	2.50000	ppb		-0.02
6) Acenaphthene-D10(IS)	8.10	164	1136	2.50000	ppb		-0.04
12) Phenanthrene-D10(IS)	9.82	188	2001	2.50000	ppb		-0.04
16) Chrysene-D12(IS)	12.90	240	2373	2.50000	ppb		-0.02
22) Perylene-D12(IS)	14.52	264	2033	2.50000	ppb		-0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.31	82	4685	10.18847	ppb		-0.02
Spiked Amount 2.000			Recovery = 509.400%				
7) Surrogate Recovery (FBP)	7.34	172	9738	8.41759	ppb		-0.04
Spiked Amount 2.000			Recovery = 420.900%				
18) Surrogate Recovery (TPH)	11.70	244	11363	8.84002	ppb		-0.03
Spiked Amount 2.000			Recovery = 442.000%				
Target Compounds							Qvalue
3) Naphthalene	6.12	128	17040	10.19897	ppb		99
4) 2-Methylnaphthalene	6.90	142	10976	10.14218	ppb		94
5) 1-Methylnaphthalene	7.01	142	10222	9.49636	ppb		94
8) 1,1'-Biphenyl	7.45	154	12349	9.87257	ppb	#	88
9) Acenaphthylene	7.93	152	16024	9.64536	ppb		98
10) Acenaphthene	8.13	154	8901	9.67450	ppb		93
11) Fluorene	8.74	166	10449	9.90386	ppb		97
13) Phenanthrene	9.86	178	14996	9.77834	ppb		99
14) Anthracene	9.92	178	14348	9.38520	ppb		99
15) Fluoranthene	11.23	202	21536	9.74671	ppb		99
17) Pyrene	11.49	202	21902	9.67353	ppb		92
19) Benz (a) anthracene	12.89	228	18864	9.44825	ppb		97
20) Chrysene	12.94	228	18670	9.47946	ppb	#	96
21) Indeno (1,2,3-cd) pyrene	15.99	276	19639	9.69329	ppb	#	90
23) Benzo (b) fluoranthene	14.08	252	17117	9.11749	ppb	#	86
24) Benzo (k) fluoranthene	14.12	252	20282	10.52648	ppb	#	92
25) Benzo (a) pyrene	14.45	252	17798	9.70662	ppb		99
26) Dibenz (a,h) anthracene	16.02	278	16005	9.74367	ppb	#	94
27) Benzo (g,h,i) perylene	16.43	276	16439	9.60673	ppb		97

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

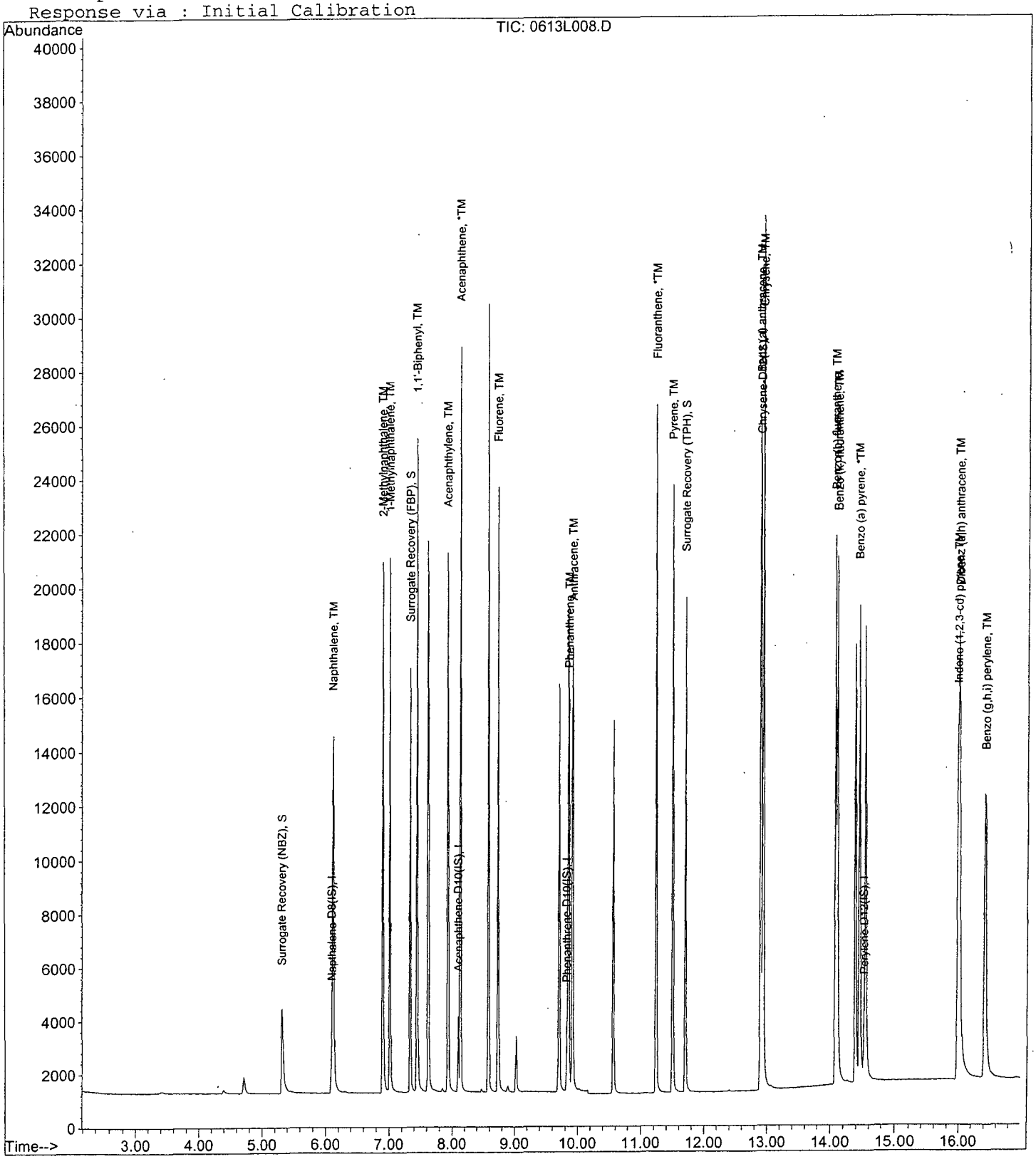
Quantitation Report

Data File : M:\LINUS\DATA\L120613\0613L008.D
Acq On : 13 Jun 12 15:59
Sample : 10ug/ml PAH
Misc :

Vial: 8
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Jun 13 17:35 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 17:38:06 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0613L009.D Vial: 9
Acq On : 13 Jun 12 16:25 Operator: LF
Sample : 50ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 17:37 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 14:51:32 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.09	136	2323	2.50000 ppb		-0.02
6) Acenaphthene-D10(IS)	8.10	164	1076	2.50000 ppb		-0.04
12) Phenanthrene-D10(IS)	9.82	188	1906	2.50000 ppb		-0.04
16) Chrysene-D12(IS)	12.91	240	2336	2.50000 ppb		-0.01
22) Perylene-D12(IS)	14.52	264	1770	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.31	82	22158	51.01380 ppb		-0.02
Spiked Amount 2.000			Recovery = 2550.700%			
7) Surrogate Recovery (FBP)	7.34	172	42363	39.70801 ppb		-0.04
Spiked Amount 2.000			Recovery = 1985.400%			
18) Surrogate Recovery (TPH)	11.70	244	46329	37.33504 ppb		-0.03
Spiked Amount 2.000			Recovery = 1866.750%			
Target Compounds						Qvalue
3) Naphthalene	6.11	128	65485	41.48686 ppb		98
4) 2-Methylnaphthalene	6.90	142	43032	42.12800 ppb		92
5) 1-Methylnaphthalene	7.01	142	39886	39.68464 ppb		95
8) 1,1'-Biphenyl	7.45	154	48419	40.95469 ppb	#	87
9) Acenaphthylene	7.93	152	60904	38.93445 ppb		97
10) Acenaphthene	8.13	154	35017	40.40146 ppb		92
11) Fluorene	8.74	166	40304	40.39620 ppb		97
13) Phenanthrene	9.86	178	57308	39.37645 ppb		98
14) Anthracene	9.92	178	57012	39.55630 ppb		99
15) Fluoranthene	11.23	202	80905	38.60379 ppb	#	91
17) Pyrene	11.50	202	87777	39.59828 ppb	#	83
19) Benz (a) anthracene	12.90	228	77651	39.87510 ppb		99
20) Chrysene	12.94	228	65735	34.20150 ppb	#	92
21) Indeno (1,2,3-cd) pyrene	15.99	276	77220	38.91637 ppb	#	80
23) Benzo (b) fluoranthene	14.09	252	78843	48.95647 ppb	#	80
24) Benzo (k) fluoranthene	14.12	252	64724	38.24790 ppb		94
25) Benzo (a) pyrene	14.45	252	67281	42.35279 ppb	#	96
26) Dibenz (a,h) anthracene	16.03	278	62359	43.79148 ppb		97
27) Benzo (g,h,i) perylene	16.44	276	64939	43.87588 ppb		99

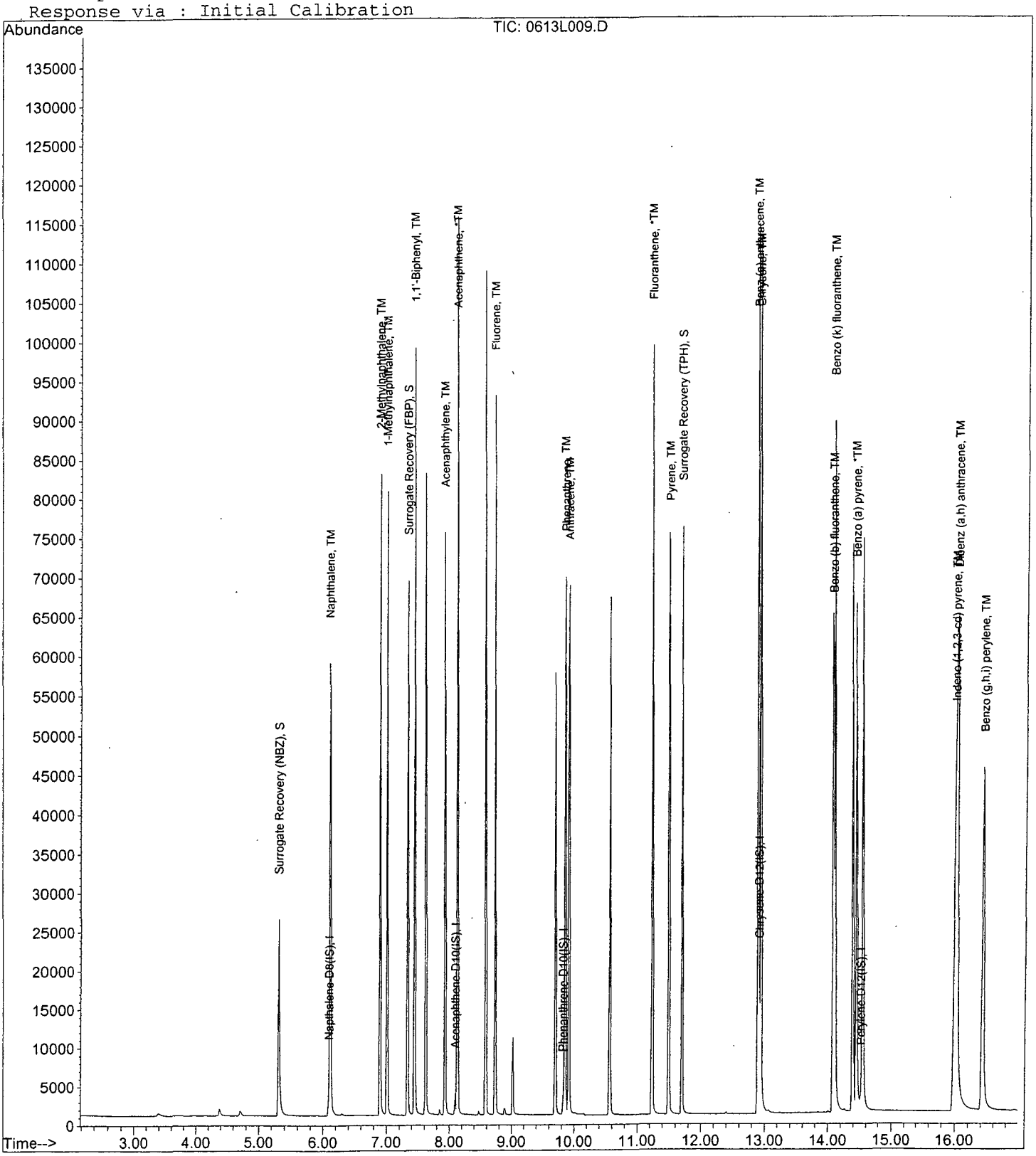
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120613\0613L009.D Vial: 9
Acq On : 13 Jun 12 16:25 Operator: LF
Sample : 50ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 17:37 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 17:38:06 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0613L010.D Vial: 10
Acq On : 13 Jun 12 16:51 Operator: LF
Sample : 100ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 17:37 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 14:51:32 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.09	136	2546	2.50000 ppb		-0.02
6) Acenaphthene-D10(IS)	8.10	164	1146	2.50000 ppb		-0.04
12) Phenanthrene-D10(IS)	9.82	188	2043	2.50000 ppb		-0.04
16) Chrysene-D12(IS)	12.91	240	2154	2.50000 ppb		-0.01
22) Perylene-D12(IS)	14.52	264	2023	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.31	82	46683	97.78012 ppb		-0.02
Spiked Amount 2.000			Recovery	= 4889.000%		
7) Surrogate Recovery (FBP)	7.34	172	86281	78.23418 ppb		-0.04
Spiked Amount 2.000			Recovery	= 3911.700%		
18) Surrogate Recovery (TPH)	11.70	244	90106	81.70547 ppb		-0.03
Spiked Amount 2.000			Recovery	= 4085.250%		
Target Compounds						Qvalue
3) Naphthalene	6.12	128	130271	77.17939 ppb		99
4) 2-Methylnaphthalene	6.90	142	84094	76.84481 ppb		94
5) 1-Methylnaphthalene	7.01	142	77537	72.52602 ppb		94
8) 1,1'-Biphenyl	7.45	154	93605	76.31079 ppb	#	91
9) Acenaphthylene	7.94	152	123810	76.74039 ppb		99
10) Acenaphthene	8.13	154	66674	74.26410 ppb		89
11) Fluorene	8.74	166	76061	73.59790 ppb		99
13) Phenanthrene	9.86	178	112505	74.37620 ppb		97
14) Anthracene	9.92	178	110199	73.52547 ppb		97
15) Fluoranthene	11.23	202	163589	75.27303 ppb	#	83
17) Pyrene	11.50	202	169609	85.52128 ppb	#	90
19) Benz (a) anthracene	12.90	228	148541	85.18770 ppb		98
20) Chrysene	12.95	228	138030	81.56593 ppb		97
21) Indeno (1,2,3-cd) pyrene	16.02	276	155909	87.99871 ppb	#	87
23) Benzo (b) fluoranthene	14.09	252	139278	76.65546 ppb	#	85
24) Benzo (k) fluoranthene	14.13	252	145240	79.13503 ppb		89
25) Benzo (a) pyrene	14.47	252	125203	71.12137 ppb		96
26) Dibenz (a,h) anthracene	16.04	278	123729	78.09989 ppb	#	94
27) Benzo (g,h,i) perylene	16.45	276	132960	80.72903 ppb	#	89

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

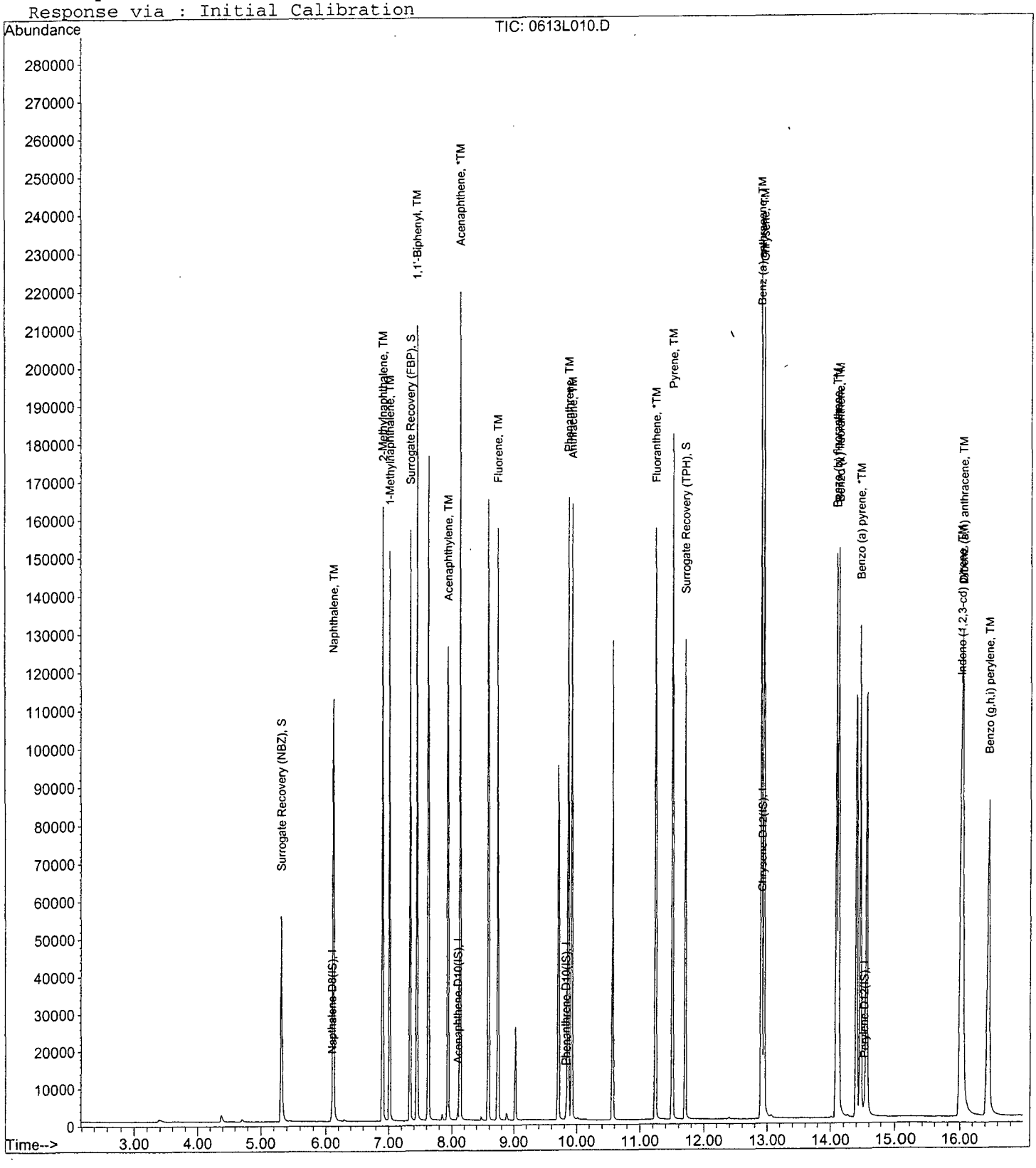
Quantitation Report

Data File : M:\LINUS\DATA\L120613\0613L010.D
Acq On : 13 Jun 12 16:51
Sample : 100ug/ml PAH
Misc :

Vial: 10
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Jun 13 17:37 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 17:38:06 2012
Response via : Initial Calibration



Form 7

Second Source Calibration

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

SDG No: 69248
Date Analyzed: 06/13/12
Instrument: Linus
Initial Cal. Date: 06/13/12
Data File: 0613L011.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	TM	Naphthalene	1.610	1.637	1.7	TM	
3	TM	2-Methylnaphthalene	1.043	1.049	0.54	TM	
4	TM	1-Methylnaphthalene	1.050	1.039	1.1	TM	
5	I	Acenaphthene-D10(IS)	ISTD			I	
6	TM	1,1'-Biphenyl	2.597	2.752	6.0	TM	
7	TM	Acenaphthylene	3.417	3.382	1.0	TM	
8	*TM	Acenaphthene	1.896	1.964	3.6	*TM	
9	TM	Fluorene	2.180	2.312	6.0	TM	
10	I	Phenanthrene-D10(IS)	ISTD			I	
11	TM	Phenanthrene	1.792	1.916	6.9	TM	
12	TM	Anthracene	1.773	1.884	6.2	TM	
13	*TM	Fluoranthene	2.577	2.638	2.4	*TM	
14	I	Chrysene-D12(IS)	ISTD			I	
15	TM	Pyrene	2.260	2.408	6.6	TM	
16	TM	Benz (a) anthracene	1.986	2.024	1.9	TM	
17	TM	Chrysene	1.919	2.238	17	TM	
18	TM	Indeno (1,2,3-cd) pyrene	2.025	2.112	4.3	TM	
19	I	Perylene-D12(IS)	ISTD			I	
20	TM	Benzo (b) fluoranthene	2.200	2.149	2.3	TM	
21	TM	Benzo (k) fluoranthene	2.246	2.481	11	TM	
22	*TM	Benzo (a) pyrene	2.114	2.200	4.1	*TM	
23	TM	Dibenz (a,h) anthracene	1.920	2.027	5.6	TM	
24	TM	Benzo (g,h,i) perylene	2.003	2.072	3.5	TM	
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.8		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0613L011.D Vial: 11
Acq On : 13 Jun 12 17:17 Operator: LF
Sample : 5.0ug/ml SS PAH 06-13-12 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 17:38 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 17:38:06 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.09	136	2569	2.50000 ppb		-0.02
6) Acenaphthene-D10(IS)	8.10	164	1144	2.50000 ppb		-0.04
12) Phenanthrene-D10(IS)	9.82	188	1967	2.50000 ppb		-0.04
16) Chrysene-D12(IS)	12.90	240	2262	2.50000 ppb		-0.02
22) Perylene-D12(IS)	14.52	264	1992	2.50000 ppb		-0.01
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	6.12	128	8410	5.08291 ppb		100
4) 2-Methylnaphthalene	6.90	142	5390	5.02676 ppb		95
5) 1-Methylnaphthalene	7.01	142	5336	4.94647 ppb		94
8) 1,1'-Biphenyl	7.45	154	6296	5.29864 ppb	#	88
9) Acenaphthylene	7.93	152	7739	4.94910 ppb		97
10) Acenaphthene	8.13	154	4494	5.18102 ppb		93
11) Fluorene	8.74	166	5289	5.30164 ppb		98
13) Phenanthrene	9.86	178	7536	5.34571 ppb		99
14) Anthracene	9.92	178	7411	5.31149 ppb		98
15) Fluoranthene	11.23	202	10378	5.11798 ppb		96
17) Pyrene	11.49	202	10896	5.32816 ppb	#	90
19) Benz (a) anthracene	12.90	228	9158	5.09566 ppb		96
20) Chrysene	12.94	228	10125	5.83187 ppb	#	96
21) Indeno (1,2,3-cd) pyrene	15.99	276	9556	5.21433 ppb	#	91
23) Benzo (b) fluoranthene	14.08	252	8563	4.88587 ppb	#	84
24) Benzo (k) fluoranthene	14.12	252	9886	5.52530 ppb	#	92
25) Benzo (a) pyrene	14.45	252	8766	5.20460 ppb		98
26) Dibenz (a,h) anthracene	16.02	278	8077	5.28014 ppb		95
27) Benzo (g,h,i) perylene	16.43	276	8254	5.17286 ppb		97

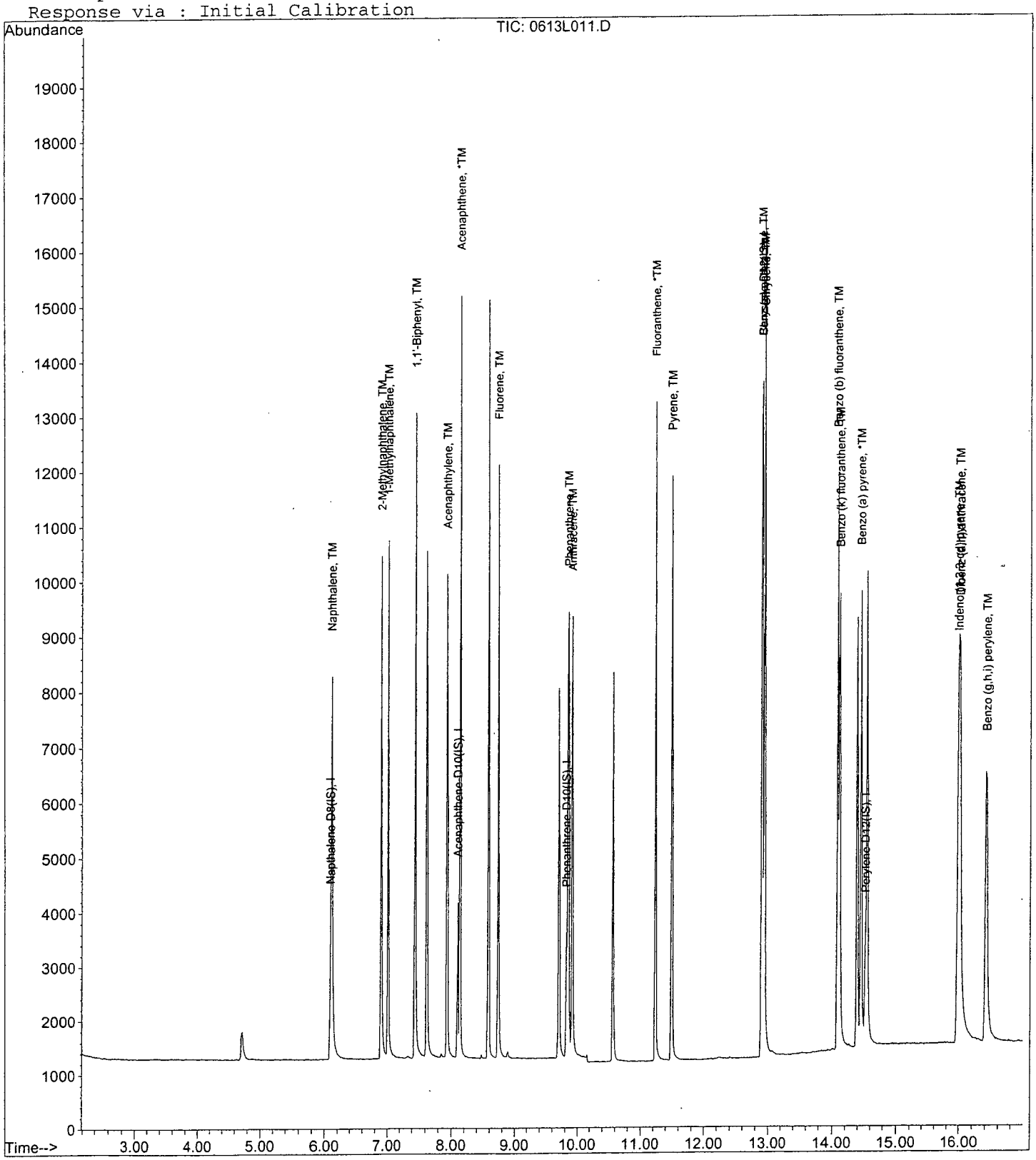
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120613\0613L011.D Vial: 11
Acq On : 13 Jun 12 17:17 Operator: LF
Sample : 5.0ug/ml SS PAH 06-13-12 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 13 17:38 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 13 17:38:06 2012
Response via : Initial Calibration



Form 7

Continuing Calibration

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

SDG No: 68248
Date Analyzed: 07/24/12
Instrument: Linus
Initial Cal. Date: 06/13/12
Data File: 0724L002.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4675	0.4917	5.2	S	
3	TM	Naphthalene	1.610	1.635	1.6	TM	
4	TM	2-Methylnaphthalene	1.043	1.021	2.1	TM	
5	TM	1-Methylnaphthalene	1.050	1.009	3.8	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	2.340	2.514	7.4	S	
8	TM	1,1'-Biphenyl	2.597	2.910	12	TM	
9	TM	Acenaphthylene	3.417	3.777	11	TM	
10	*TM	Acenaphthene	1.896	2.038	7.5	*TM	
11	TM	Fluorene	2.180	2.387	9.5	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.792	2.108	18	TM	
14	TM	Anthracene	1.773	2.054	16	TM	
15	*TM	Fluoranthene	2.577	2.968	15	*TM	
16	I	Chrysene-D12(IS)	ISTD			I	
17	TM	Pyrene	2.260	2.410	6.6	TM	
18	S	Surrogate Recovery (TPH)	1.251	1.410	13	S	
19	TM	Benz (a) anthracene	1.986	1.933	2.7	TM	
20	TM	Chrysene	1.919	1.988	3.6	TM	
21	TM	Indeno (1,2,3-cd) pyrene	2.025	1.648	19	TM	
22	I	Perylene-D12(IS)	ISTD			I	
23	TM	Benzo (b) fluoranthene	2.200	2.040	7.3	TM	
24	TM	Benzo (k) fluoranthene	2.246	2.293	2.1	TM	
25	*TM	Benzo (a) pyrene	2.114	1.964	7.1	*TM	
26	TM	Dibenz (a,h) anthracene	1.920	1.569	18	TM	
27	TM	Benzo (g,h,i) perylene	2.003	1.675	16	TM	
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			9.3		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0724L002.D Vial: 2
Acq On : 24 Jul 12 18:24 Operator: LF
Sample : 5.0ug/ml PAH 06-13-12 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jul 27 7:44 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jul 13 13:02:51 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.07	136	2955	2.50000 ppb		-0.05
6) Acenaphthene-D10(IS)	8.08	164	1209	2.50000 ppb		-0.05
12) Phenanthrene-D10(IS)	9.81	188	1981	2.50000 ppb		-0.05
16) Chrysene-D12(IS)	12.90	240	2531	2.50000 ppb		0.00
22) Perylene-D12(IS)	14.52	264	2136	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.30	82	2906	5.25890 ppb		-0.04
Spiked Amount 2.000			Recovery	= 262.950%		
7) Surrogate Recovery (FBP)	7.31	172	6080	5.37184 ppb		-0.06
Spiked Amount 2.000			Recovery	= 268.600%		
18) Surrogate Recovery (TPH)	11.69	244	7139	5.63813 ppb		-0.05
Spiked Amount 2.000			Recovery	= 281.900%		
Target Compounds						Qvalue
3) Naphthalene	6.09	128	9664	5.07785 ppb		99
4) 2-Methylnaphthalene	6.89	142	6037	4.89471 ppb		90
5) 1-Methylnaphthalene	7.00	142	5966	4.80805 ppb		97
8) 1,1'-Biphenyl	7.43	154	7037	5.60386 ppb	#	86
9) Acenaphthylene	7.92	152	9132	5.52595 ppb		99
10) Acenaphthene	8.12	154	4929	5.37700 ppb		96
11) Fluorene	8.72	166	5771	5.47378 ppb		96
13) Phenanthrene	9.83	178	8351	5.88197 ppb		96
14) Anthracene	9.91	178	8138	5.79131 ppb		98
15) Fluoranthene	11.22	202	11760	5.75853 ppb		96
17) Pyrene	11.48	202	12200	5.33176 ppb	#	88
19) Benz (a) anthracene	12.89	228	9785	4.86588 ppb		99
20) Chrysene	12.92	228	10065	5.18116 ppb	#	93
21) Indeno (1,2,3-cd) pyrene	16.01	276	8340	4.06714 ppb	#	79
23) Benzo (b) fluoranthene	14.08	252	8713	4.63630 ppb	#	83
24) Benzo (k) fluoranthene	14.10	252	9795	5.10538 ppb		98
25) Benzo (a) pyrene	14.45	252	8389	4.64499 ppb		99
26) Dibenz (a,h) anthracene	16.03	278	6703	4.08651 ppb	#	94
27) Benzo (g,h,i) perylene	16.45	276	7156	4.18239 ppb		94

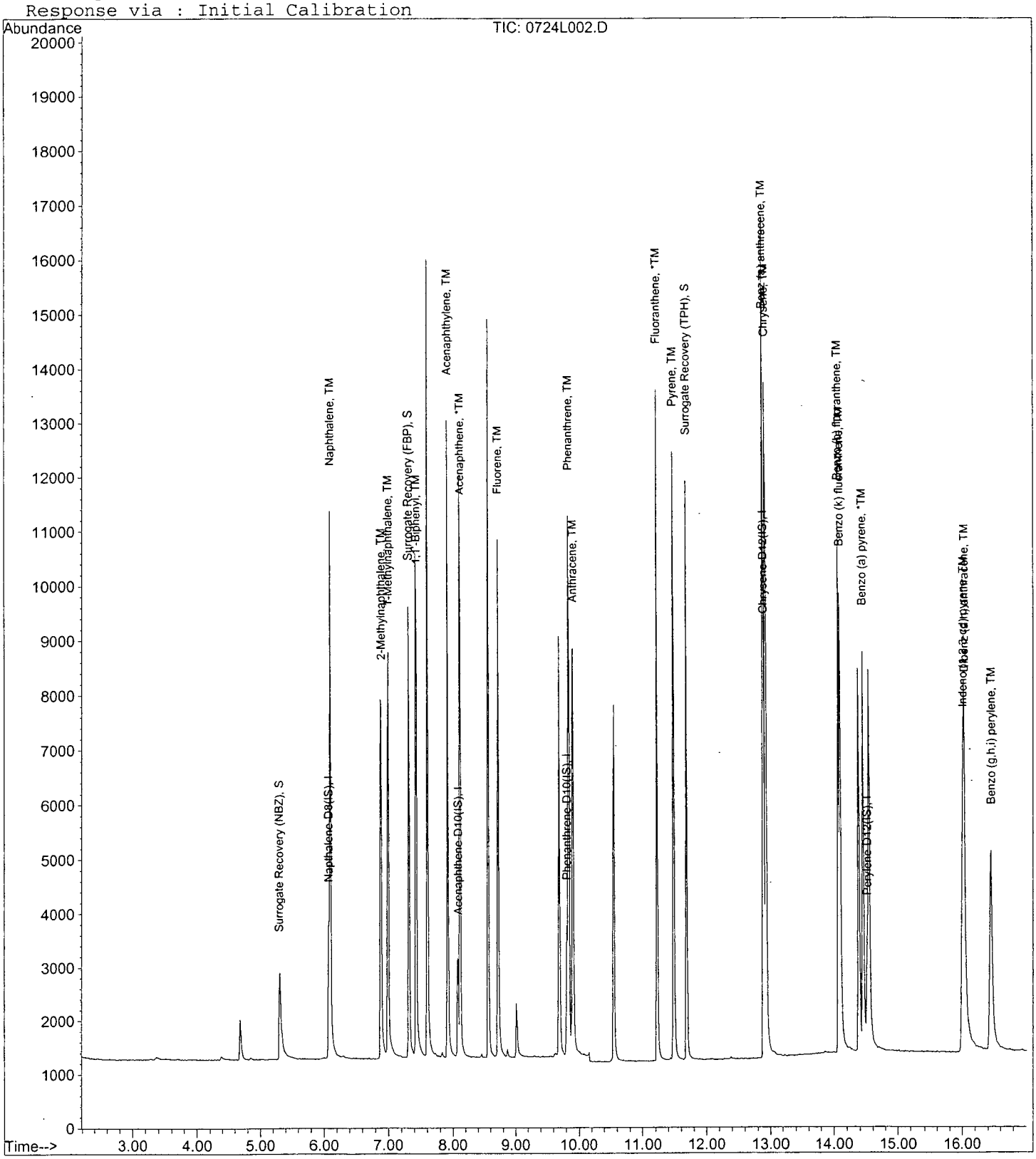
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120613\0724L002.D Vial: 2
Acq On : 24 Jul 12 18:24 Operator: LF
Sample : 5.0ug/ml PAH 06-13-12 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jul 27 7:44 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jul 25 18:38:43 2012
Response via : Initial Calibration



EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Raw Data

APPL, INC.

Method Blank
EPA 8270D SIM

Blank Name/QCG: **120723W-65144 - 169459**
Batch ID: #SIMHC-120723A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
BLANK	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	07/23/12	07/24/12
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	07/23/12	07/24/12
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	07/23/12	07/24/12
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	07/23/12	07/24/12
BLANK	SURROGATE: 2-FLUORBIPHENY	56.8	50-110			%	07/23/12	07/24/12
BLANK	SURROGATE: NITROBENZENE-	51.8	40-110			%	07/23/12	07/24/12
BLANK	SURROGATE: TERPHENYL-D14 (	59.6	50-135			%	07/23/12	07/24/12

Quant Method: SIMB.M
Run #: 0724L003
Instrument: Linus
Sequence: L120613
Initials: LF

Printed: 07/27/12 5:34:01 PM
GC SC-Blank-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0724L003.D Vial: 3
Acq On : 24 Jul 12 18:50 Operator: LF
Sample : 120723A BLK 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jul 27 7:45 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jul 25 18:38:43 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.07	136	2273	2.50000 ppb	-0.05
6) Acenaphthene-D10(IS)	8.08	164	1022	2.50000 ppb	-0.05
12) Phenanthrene-D10(IS)	9.82	188	2049	2.50000 ppb	-0.04
16) Chrysene-D12(IS)	12.91	240	2655	2.50000 ppb	0.01
22) Perylene-D12(IS)	14.54	264	2331	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.32	82	440	1.03517 ppb	-0.01
Spiked Amount 2.000			Recovery = 51.750%		
7) Surrogate Recovery (FBP)	7.32	172	1086	1.13508 ppb	-0.05
Spiked Amount 2.000			Recovery = 56.750%		
18) Surrogate Recovery (TPH)	11.69	244	1583	1.19181 ppb	-0.05
Spiked Amount 2.000			Recovery = 59.600%		

Target Compounds Qvalue

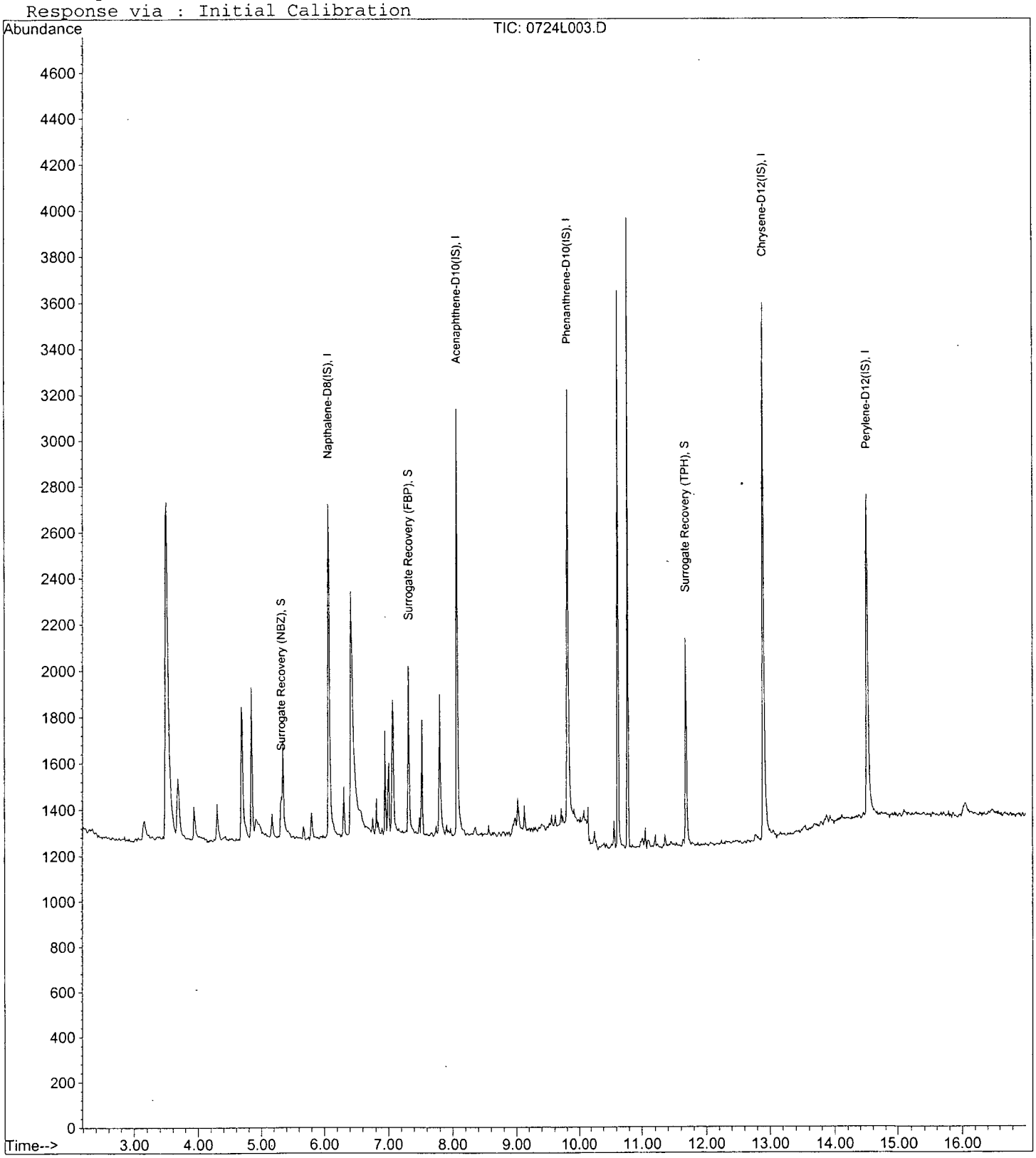
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120613\0724L003.D Vial: 3
Acq On : 24 Jul 12 18:50 Operator: LF
Sample : 120723A BLK 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jul 27 7:45 2012 Quant Results File: SIMB.RES

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jul 25 18:38:43 2012
Response via : Initial Calibration



Laboratory Control Spike Recovery

EPA 8270D SIM

APPL ID: **120723W-65144 LCS - 169459**
Batch ID: #SIMHC-120723A

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	2.22	55.5	45-105
2-METHYLNAPHTHALENE	4.00	2.18	54.5	45-105
ACENAPHTHENE	4.00	2.18	54.5	45-110
ACENAPHTHYLENE	4.00	2.33	58.3	50-105
ANTHRACENE	4.00	2.39	59.8	55-110
BENZO(A)ANTHRACENE	4.00	2.21	55.3	55-110
BENZO(A)PYRENE	4.00	2.24	56.0	55-110
BENZO(B)FLUORANTHENE	4.00	2.23	55.8	45-120
BENZO(GHI)PERYLENE	4.00	2.46	61.5	40-125
BENZO(K)FLUORANTHENE	4.00	2.57	64.3	45-125
CHRYSENE	4.00	2.67	66.8	55-110
DIBENZ(A,H)ANTHRACENE	4.00	2.29	57.3	40-125
FLUORANTHENE	4.00	3.03	75.8	55-115
FLUORENE	4.00	2.75	68.8	50-110
INDENO(1,2,3-CD)PYRENE	4.00	2.25	56.3	45-125
NAPHTHALENE	4.00	2.15	53.8	40-100
PHENANTHRENE	4.00	2.78	69.5	50-115
PYRENE	4.00	2.45	61.3	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.26	63.0	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.49	74.5	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.16	58.0	50-135

Comments: _____

Primary	SPK
Quant Method :	SIMB.M
Extraction Date :	07/23/12
Analysis Date :	07/24/12
Instrument :	Linus
Run :	0724L004
Initials :	LF

Printed: 07/27/12 5:34:02 PM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120613\0724L004.D Vial: 4
Acq On : 24 Jul 12 19:16 Operator: LF
Sample : 120723A LCS-1 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jul 27 7:48 2012 Quant Results File: SIMB.RES

Quant Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jul 25 18:38:43 2012
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.07	136	2043	2.50000 ppb		-0.05
6) Acenaphthene-D10(IS)	8.08	164	992	2.50000 ppb		-0.05
12) Phenanthrene-D10(IS)	9.82	188	1998	2.50000 ppb		-0.04
16) Chrysene-D12(IS)	12.90	240	2829	2.50000 ppb		0.00
22) Perylene-D12(IS)	14.52	264	2395	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.31	82	570	1.49198 ppb		-0.02
Spiked Amount 2.000			Recovery	= 74.600%		
7) Surrogate Recovery (FBP)	7.32	172	1171	1.26093 ppb		-0.05
Spiked Amount 2.000			Recovery	= 63.050%		
18) Surrogate Recovery (TPH)	11.69	244	1642	1.16019 ppb		-0.05
Spiked Amount 2.000			Recovery	= 58.000%		
Target Compounds						Qvalue
3) Naphthalene	6.09	128	2835	2.15459 ppb		99
4) 2-Methylnaphthalene	6.89	142	1857	2.17775 ppb		91
5) 1-Methylnaphthalene	7.00	142	1904	2.21943 ppb		97
8) 1,1'-Biphenyl	7.43	154	2358	2.28854 ppb		89
9) Acenaphthylene	7.92	152	3161	2.33120 ppb		97
10) Acenaphthene	8.12	154	1637	2.17643 ppb		97
11) Fluorene	8.72	166	2378	2.74892 ppb		99
13) Phenanthrene	9.85	178	3979	2.77873 ppb		99
14) Anthracene	9.91	178	3390	2.39193 ppb		99
15) Fluoranthene	11.22	202	6232	3.02567 ppb	#	90
17) Pyrene	11.49	202	6273	2.45271 ppb	#	90
19) Benz (a) anthracene	12.89	228	4978	2.21470 ppb		97
20) Chrysene	12.94	228	5791	2.66702 ppb		99
21) Indeno (1,2,3-cd) pyrene	16.02	276	5164	2.25304 ppb		79
23) Benzo (b) fluoranthene	14.08	252	4702	2.23142 ppb		84
24) Benzo (k) fluoranthene	14.12	252	5525	2.56833 ppb	#	93
25) Benzo (a) pyrene	14.45	252	4531	2.23751 ppb		97
26) Dibenz (a,h) anthracene	16.03	278	4217	2.29289 ppb		90
27) Benzo (g,h,i) perylene	16.45	276	4720	2.46032 ppb		92

$\frac{2835 \times 2.5}{2043 \times 1.610} = 2.15$

LF 8/10/12

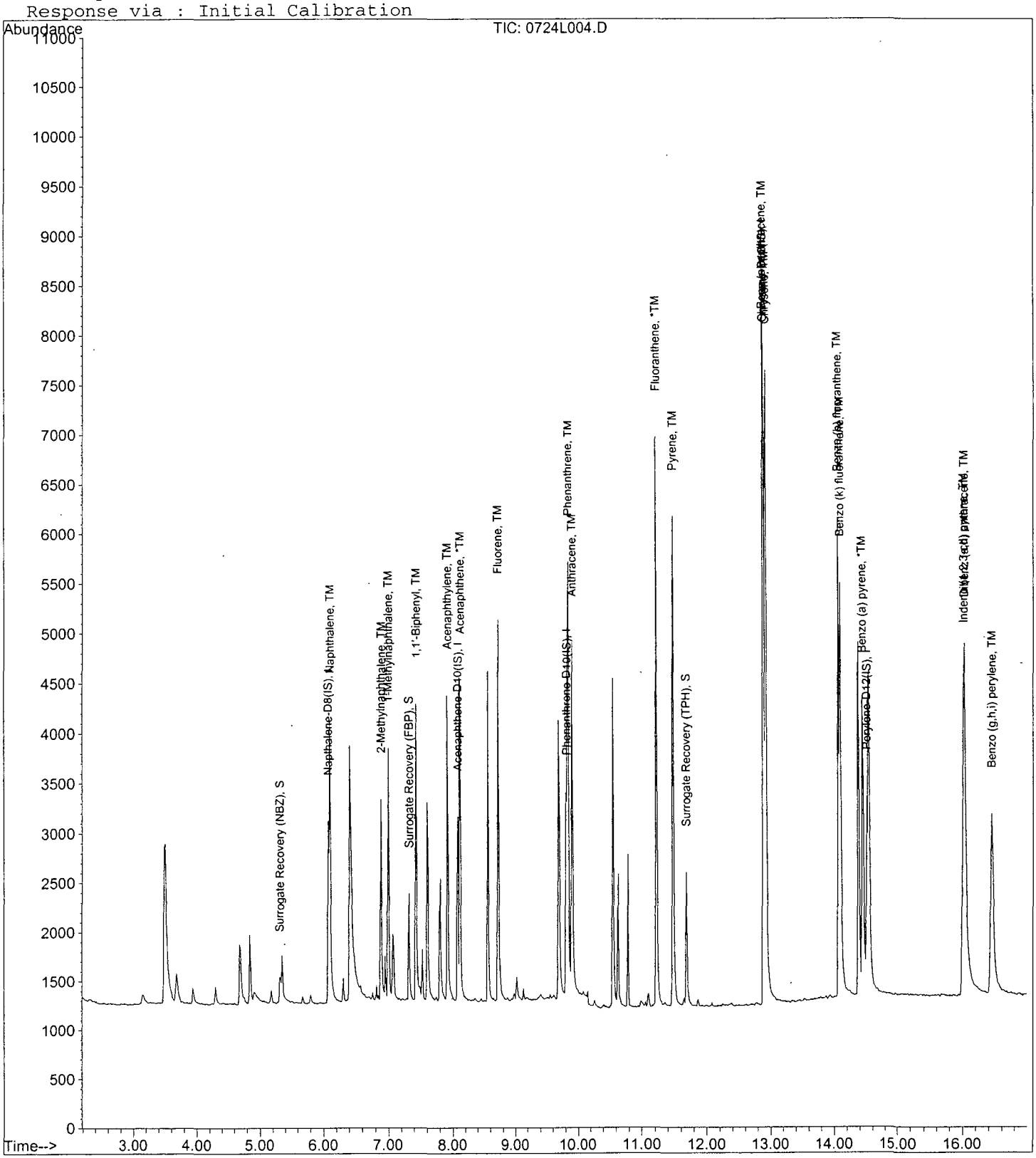
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L120613\0724L004.D Vial: 4
Acq On : 24 Jul 12 19:16 Operator: LF
Sample : 120723A LCS-1 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jul 27 7:48 2012 Quant Results File: SIMB.RES

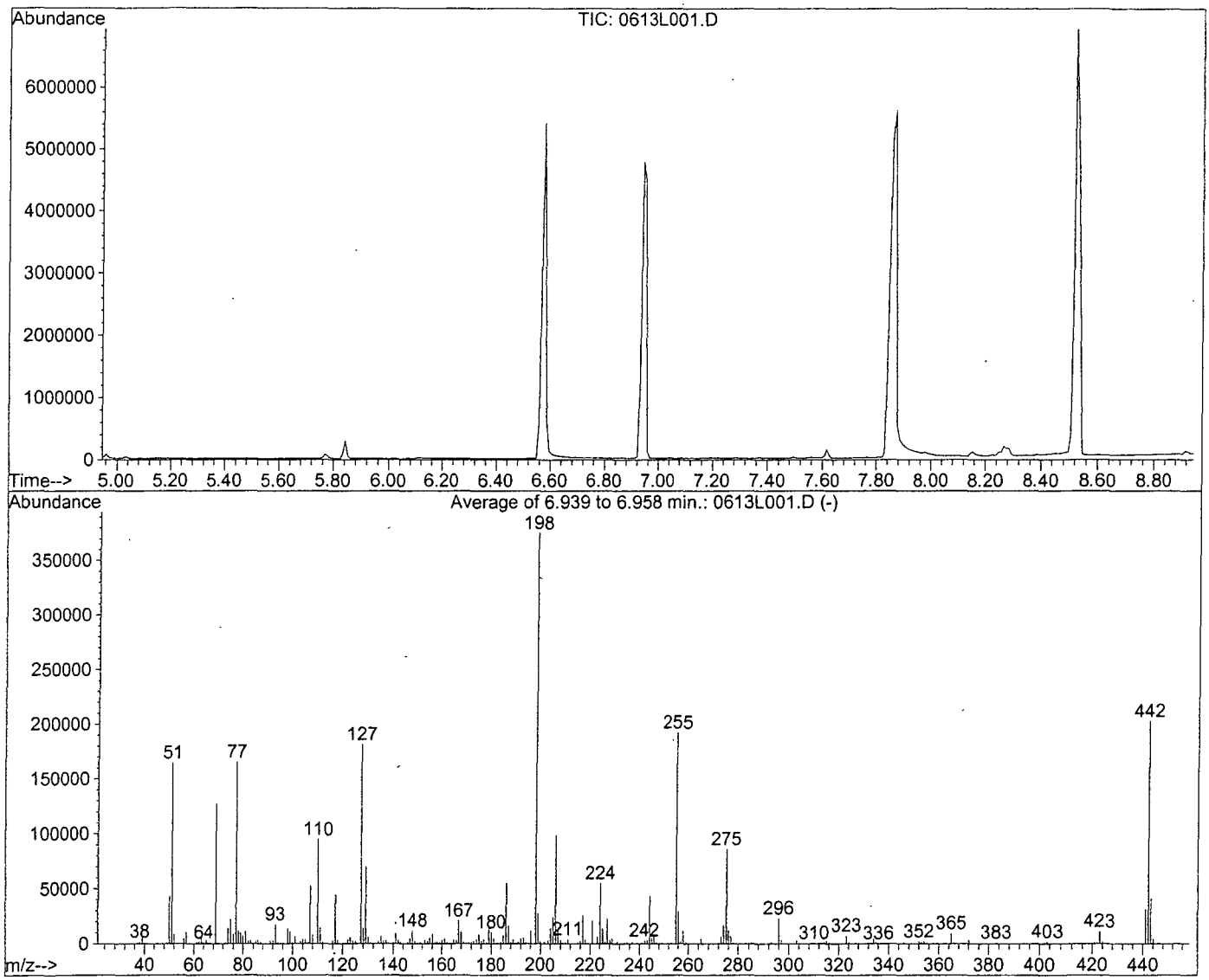
Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jul 25 18:38:43 2012
Response via : Initial Calibration



DFTPP

Data File : M:\LINUS\DATA\L120613\0613L001.D Vial: 1
Acq On : 13 Jun 12 13:07 Operator: LF
Sample : SVTUNE 2-28-12 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C

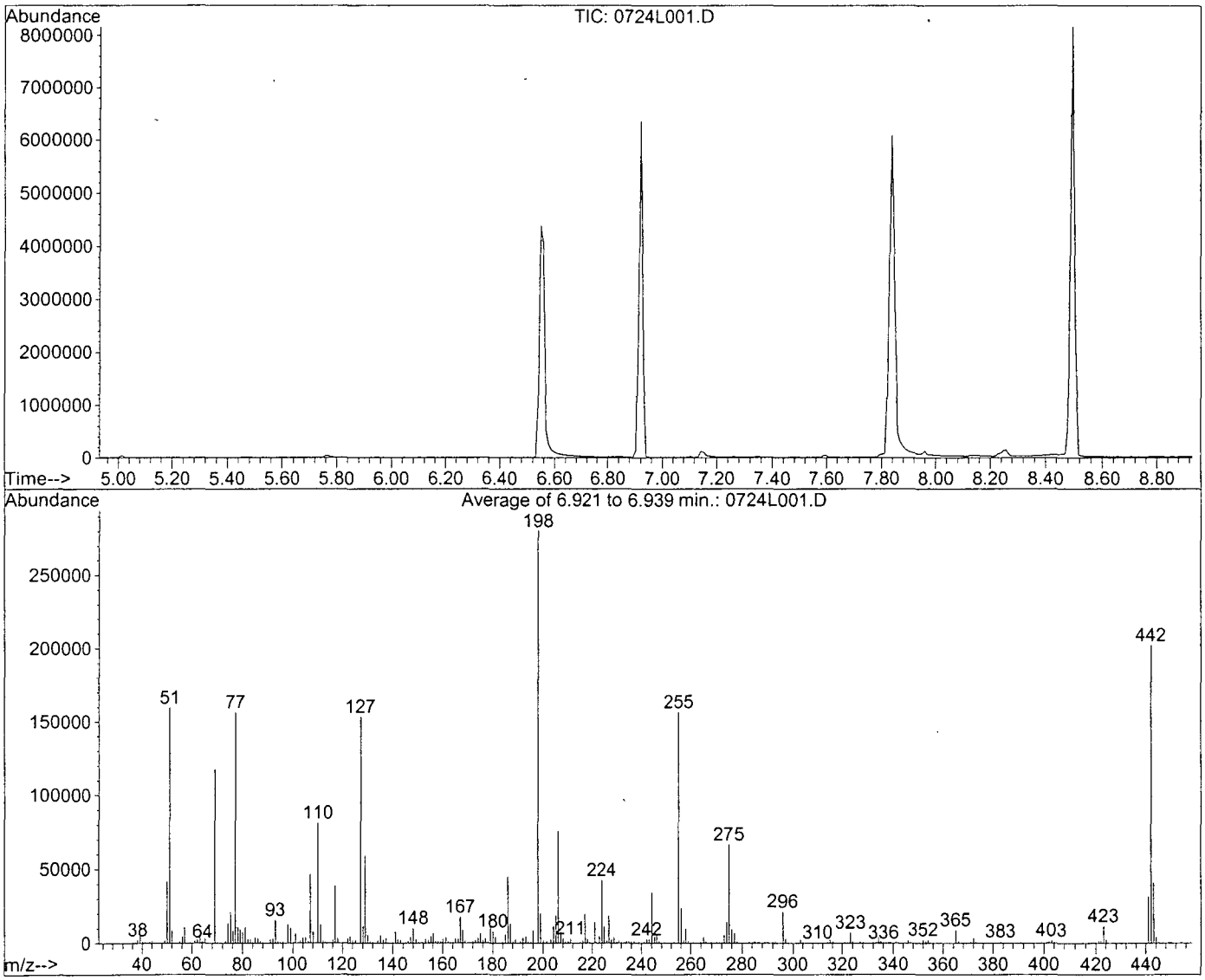


Spectrum Information: Average of 6.939 to 6.958 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.8	164628	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	681	PASS
127	198	40	60	48.3	181462	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	375479	PASS
199	198	5	9	7.2	27064	PASS
275	198	10	30	22.8	85713	PASS
365	198	1	100	2.5	9250	PASS
441	443	0.01	100	75.8	30917	PASS
442	198	40	150	53.9	202264	PASS
443	442	17	23	20.2	40782	PASS

Data File : M:\LINUS\DATA\L120613\0724L001.D Vial: 1
Acq On : 24 Jul 12 18:05 Operator: LF
Sample : SVTUNE 2-28-12 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L120613\SIMB.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 6.921 to 6.939 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	56.9	159505	PASS
68	69	0.00	2	0.1	140	PASS
70	69	0.00	2	0.8	952	PASS
127	198	40	60	54.7	153315	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	280338	PASS
199	198	5	9	7.1	20025	PASS
275	198	10	30	23.7	66402	PASS
365	198	1	100	3.1	8553	PASS
441	443	0.01	100	76.8	31366	PASS
442	198	40	150	72.0	201931	PASS
443	442	17	23	20.2	40841	PASS

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

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

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

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

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

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

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

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

2/24/12

8270D PAH SIM Solution,
200 mg/L, 1 ml
110780-01

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

Solv: Methylene Chloride

Per R&D only, not human consump. Made in the USA

8270D PAH SIM
Lot # 170253 - 28478
Rec. 3/10/11 MFR exp 3/3/2013

exp 3/3/13

2/24/12

8270D PAH SIM Solution,
Second Source, 200 mg/L, 1 ml
110780-01-SS

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

Solv: Methylene Chloride

Per R&D only, not human consump. Made in the USA

8270D PAH SIM (SS)
Lot #. 170256 - 28490
Rec 3/10/11 MFR exp 3/3/2013

exp 3/3/13

2/24/12

8270 BN:A (200:400)
Surrogate Solution, 1 ml
110004-17

Lot #	Storage	Expiry
167802	≤-10 Degrees C	1/9/13

Solv: Methylene Chloride

R&D only, not human consump. Made in the USA

8270 BN:A (200:400) Surrogate Solution
Lot # 167802 - 29314
Rec: 8/8/11 MFR exp 01/09/13

exp 1/9/13

2/24/12

Method 8270 Internal
Standard Solution, 2,000
mg/L, 1 ml
110001-82

Lot #	Storage	Expiry
167766	≤-10 Degrees C	4/20/13

Solv: Methylene Chloride

R&D only, not human consump. Made in the USA

8270 Internal Standard
Lot # 167766 - 28151
Rec 1/20/11 MFR exp. 04/20/13

exp 4/20/13

2/24/12

PREP DATE:	02-25-12						
SIM Semivolitile Int. Std. Mix 125 ug/ml							
Exp:	08-25-12						
		Conc.		Date	CODE:	B	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	
O2SI	Int. Std.	2000	167766-28151	02/25/12	02-25-13	100	
EM Science	MeCl2		47186			1500	
						1600	

2/24/12

PREP DATE:	02-25-12												
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	170253-28478	02/25/12	02-25-13	0	0	0	0	5	5	25	50
	5 0ug/mL	5		02/25/12		0	0	10	20	0	0	0	0
	1 0ug/mL	1		02/25/12		10	20	0	0	0	0	0	0
	Surrogate Stock	VAR	167802-29314	02/25/12	01-09-13	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

UF 2/27/12

PREP DATE:	02-25-12						
SIM 8270 Second Source (5µg/mL)							
Exp:	03-10-12						
				Conc.	Date	CODE:	
Supplier	ID #		Lot #	µg/mL	Code	Exp.Date	µL
	8270D PAH SIM (SS)		170256-28490	200	02/25/12	02-25-13	5
	MeCl2			Lot#47186			195
					Final Volume		200

UF 2/28/12

GCM-160-1
Lot CH-2137
Exp: 07/31/2013
Semi-Volatiles GC/MS Tuning Standard
4 analyte(s) at 1000 µg/mL in dichloromethane
250 Smith St, N Kingstown, RI 02852 USA
ULTRA 1 mL
For Lab Use

UF 2/28/13

UF 2/28/12

PREP DATE:	02-28-12					
SV Tune Mix 50ug/ml						
Exp:	02-28-13					
		Conc.		Date	CODE:	B
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
U Scientific	GCM-150	1000	CH-2137	02/28/12	07-31-13	1000
EM Science	MeCl2		47080			19000
					Final Vol	20000

UF 2/29/12

PREP DATE:	02-29-12												
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	170253-28478	02/25/12	02-25-13	0	0	0	0	5	5	25	50
	5.0ug/mL	5		02/29/12		0	0	10	20	0	0	0	0
	1.0ug/mL	1		02/29/12		10	20	0	0	0	0	0	0
	Surrogate Stock	VAR	167802-29314	02/25/12	01-09-13	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

UF 2/29/12

PREP DATE:	02-29-12					
SIM 8270 Second Source (5µg/mL)						
Exp:	03-14-12					
				Conc.	Date	CODE:
Supplier	ID #		Lot #	µg/mL	Code	Exp.Date	µL
	8270D PAH SIM (SS)		170256-28490	200	02/25/12	02-25-13	5
	MeCl2			Lot#47186			195
					Final Volume		200

UF 3/18/12

PREP DATE:	03-18-12												
8270 STANDARD CURVE													
						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		02/13/12	07-31-12	5	5	10	20	25	30	40	50
	Surrogate Stock	VAR	167802-29314	02/25/12	01-09-13	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

UF 3/19/12

PREP DATE:	03-18-12					
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	10-11-12	25
EM Science	Methylene Chloride		47186			75

VF 5/1/12

Part #: 10001
Lot #: 042910
Laboratory Use Only - See MSDS
Exp: 042913 Storage 0 °C

CLP Semi-Volatiles Base/Neutrals Mix #1
14 components
2000 ug/mL in me
ABSOLUTE STANDA
CLP Semi-Volatiles Base/Neutrals Mix #1
Lot #: 042910 - 29081
Rec: 8/4/11 MFR exp. 04/29/13

Exp 4/29/13

VF 5/1/12

Part #: 10002
Lot #: 073109
Laboratory Use Only - See MSDS
Exp: 073112 Storage 4 °C

CLP Semi-Volatiles Base/Neutrals Mix #2
14 components
2000 ug/mL in metl
ABSOLUTE STANDAR
CLP Semi-Volatiles Base Neutrals Mix #2
Lot #: 073109 - 29086
Rec: 8/4/11 MFR exp. 07/31/12

Exp 7/31/12

VF 5/1/12

Part #: 10004
Lot #: 101509
Laboratory Use Only - See MSDS
Exp: 101514 Storage 4 °C

CLP Semi-Volatiles Toxic Substances #1
4 components
2000 ug/mL in meth
ABSOLUTE STANDARI
CLP Semi-Volatiles Toxic Substances #1
Lot #: 101509 - 29091
Rec: 8/4/11 MFR exp. 10/15/14

Exp 10/15/14

VF 5/1/12

Part #: 10005
Lot #: 121208
Laboratory Use Only - See MSDS
Exp: 121213 Storage 4 °C

CLP Semi-Volatiles Toxic Substances #2
8 components
2000 ug/mL in me
ABSOLUTE STANDA
CLP Semi-Volatiles Toxic Substances #2
Lot #: 121208 - 29097
Rec: 8/4/11 MFR exp. 12/12/13

Exp 12/12/13

VF 5/1/12

Part #: 10006
Lot #: 071211
Laboratory Use Only - See MSDS
Exp: 071214 Storage 4 °C

CLP Semi-Volatiles - Benzidines
2 components
2000 ug/mL in metl
ABSOLUTE STANDAR
CLP Semi-Volatiles - Benzidines
Lot #: 071211 - 29102
Rec: 8/4/11 MFR exp. 07/12/14

Exp 7/12/14

VF 5/1/12

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 STANDARI
CLP Semi-Volatiles - PAH Mix
Lot #: 100909 - 29107
Rec: 8/4/11 MFR exp. 10/09/14

Exp 10/9/14

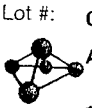
VF 5/1/12

Part #: 10018
Lot #: 062111
Laboratory Use Only - See MSDS
Exp: 062116 Storage 4 °C

EPA Method 8270A - Analytes Mix #8
13 components - P(
2000 ug/mL in metl
ABSOLUTE STANDAR
EPA Method 8270A - Analytes Mix #8
Lot #: 062111 - 29112
Re 1 MFR exp. 06/21/16

Exp 6/21/16

VF 5/1/12

Part #: 70023
Lot #: 031611
Laboratory Use Only - See MSDS
Exp: 031616 Storage 4 °C

Atrazine
1000 ug/mL in ac
ABSOLUTE STANDA
Atrazine
Lot #: 031611 - 29117
Rec: 9/4/11 MFR exp. 03/16/16

Exp 3/16/16

VF 5/1/12

Part #: 82705 Laboratory Use Only - See MSDS
Lot #: 041911 Exp: 041914 Storage 4 °C

EPA Method 8270A
4 components
2000 ug/mL in acet

EPA Method 8270A - Mix #18
Lot #: 041911 - 29122
Rec: 8/4/11 MFR exp. 04/19/14

ABSOLUTE STANDAR

Exp 4/19/14

VF 5/1/12

Part #: 94552 Laboratory Use Only - See MSDS
Lot #: 030411 Exp: 030414 Storage 4 °C

Semi-Volatile Standard
11 components
Varied ug/mL in m

Semi-Volatile Standard
Lot #: 030411 - 29127
Rec: 8/4/11 MFR exp. 03/04/14

ABSOLUTE STANDAR

Exp 3/4/14

VF 5/1/12

PREP DATE:	05-01-12					
8270C Stock/Spike Standard						
Exp:	07-31-12					
		Conc.		Date	CODE:	P
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	10001	2000	042910-29081	05/01/12	04-29-13	1000
Absolute	10002	2000	073109-29086	05/01/12	07-31-12	1000
Absolute	10004	2000	101509-29091	05/01/12	10-15-14	1000
Absolute	10005	2000	121208-29097	05/01/12	12-12-13	1000
Absolute	10006	2000	071211-29102	05/01/12	07-12-14	1000
Absolute	10007	2000	100909-29107	05/01/12	10-09-14	1000
Absolute	10018	2000	062111-29112	05/01/12	06-21-16	1000
Absolute	70023	1000	031611-29117	05/01/12	03-16-16	1000
Absolute	82705	2000	041911-29122	05/01/12	04-19-14	1000
Absolute	94552	2000	030411-29127	05/01/12	03-14-14	1000
					Final Vol	10000

VF 5/4/12

PREP DATE.	05-04-12													
8270 STANDARD CURVE														
						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		05/01/12	07-31-12	5	5	10	20	25	30	40	50
	Surrogate Stock	VAR	167802-29314	02/25/12	01-09-13	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

VF 5/4/12

PREP DATE:	05-04-12					
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	10-11-12	25
						75
EM Science	Methylene Chloride		47186			
					Final Vol.	100

7/23/12

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 mel

CLP Semi-Volatiles Base/Neutrals Mix #1
Lot #: 042910 - 29082
Rec: 8/4/11 MFR exp. 04/29/13

ABSOLUTE STANDAR

exp 4/29/13

7/31/12

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 me

CLP Semi-Volatiles Base Neutrals Mix #2
Lot #: 073109 - 29087
Rec: 8/4/11 MFR exp. 07/31/12

ABSOLUTE STANDAI

exp 7/31/12

Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	120723A	Extraction Method	SEP004S	Units	mL

Spiked ID 1	SIM Spike 170745-30363		Surrogate ID 1	8270 SIM Surrogate 188684-30653	
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:	07/23/12 16:30	
Spiked ID 8			Ext. End Time:	07/24/12 15:13	
			GC Requires Extract By:	**08/01/12 0:00**	

pH1	2	07/23/12 4:45:00 PM	Water Bath Temp Criteria	78,80,78 °
pH2	14	7/24/12 10:55:00 AM		
pH3				

Spiked By: DL **Date** 07/23/12 **Witnessed By:** JM **Date** 07/23/12

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	120723A Blk				0.025	1	1000	1	2/1	07/23/12 16:30	
						equip	E-WB7,78				
2	120723A LCS-1		0.025	1	0.025	1	1000	1	2/1	07/23/12 16:30	
						equip	E-WB7,78				
3	AY65041	AY65041W07			0.025	1	1050	1	2/1	07/23/12 16:30	68248-2 WEEK RUSH -- Amber Liter
						equip	E-WB7,78				
4	AY65043	AY65043W05			0.025	1	1060	1	2/1	07/23/12 16:30	68248-2 WEEK RUSH -- Amber Liter
						equip	E-WB7,78				
5	AY65044	AY65044W04			0.025	1	1060	1	2/1	07/23/12 16:30	68248-2 WEEK RUSH -- Amber Liter
						equip	E-WB7,78				
6	AY65112	AY65112W07			0.025	1	1030	1	2/1	07/23/12 16:30	68258-2 WEEK RUSH -- Amber Liter
						equip	E-WB7,78				
7	AY65113	AY65113W06			0.025	1	1050	1	2/1	07/23/12 16:30	68258-2 WEEK RUSH -- Amber Liter
						equip	E-WB7,78				
8	AY65144 MS-1	AY65144W09	0.025	1	0.025	1	1050	1	2/1	07/23/12 16:30	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB7,78				
9	AY65144 MSD-1	AY65144W10	0.025	1	0.025	1	1060	1	2/1	07/23/12 16:30	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB7,78				
10	AY65144	AY65144W12			0.025	1	1040	1	2/1	07/23/12 16:30	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB6,80				
11	AY65145	AY65145W03			0.025	1	1060	1	2/1	07/23/12 16:30	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB6,80				
12	AY65146	AY65146W07			0.025	1	1050	1	2/1	07/23/12 16:30	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB6,80				
13	AY65147	AY65147W05			0.025	1	1040	1	2/1	07/23/12 16:30	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB6,80				

Solvent and Lot#	
MC	EMD52104
Na2SO4	2351C512
10N NaOH	07/06/12
1+1 Acid	06/27/12
A. Na2SO4	06/28/12

Extraction COC Transfer	
Extraction lab employee Initials	DRA
GC analyst's initials	LF
Date	7/24/12
Time	1700
Refrigerator	Hood 7

	Technician's Initials
Scanned By	JM
Sample Preparation	JM
Extraction	JM/DL/GH
Concentration	IC
Modified	07/24/12 3:52:10 PM

Reviewed By: DRA **Date** 07/24/12

Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	120723A	Extraction Method	SEP004S	Units	mL

Spiked ID 1	SIM Spike 170745-30363		Surrogate ID 1	8270 SIM Surrogate 188684-30653	
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:	07/23/12 16:30	
Spiked ID 8			Ext. End Time:	07/24/12 15:13	
			GC Requires Extract By:	08/01/12 0:00	

pH1	2	07/23/12 4:45:00 PM	Water Bath Temp Criteria 78,80,78 °
pH2	14	7/24/12 10:55:00 AM	
pH3			

Spiked By: DL **Date** 07/23/12 **Witnessed By:** JM **Date** 07/23/12

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
14	AY65148	AY65148W06			0.025	1	1050	1	2/1	07/23/12 16:30	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB5,78				
15	AY65149	AY65149W03			0.025	1	1060	1	2/1	07/23/12 16:30	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB5,78				
16	AY65150	AY65150W06			0.025	1	1060	1	2/1	07/23/12 16:30	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB5,78				
17	AY65151	AY65151W04			0.025	1	1060	1	2/1	07/23/12 16:30	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB5,78				

DRA 7/24/12

Solvent and Lot#	
MC	EMD52104
Na2SO4	2351C512
10N NaOH	07/06/12
1+1 Acid	06/27/12
A. Na2SO4	06/28/12

Extraction COC Transfer	
Extraction lab employee Initials	DRA
GC analyst's initials	LF
Date	7/24/12
Time	1700
Refrigerator	Hobart

	Technician's Initials
Scanned By	JM
Sample Preparation	JM
Extraction	JM/DL/GH
Concentration	IC
Modified	07/24/12 3:52:10 PM

Reviewed By: DRA **Date** 07/24/12

Injection Log

Directory: M:\LINUS\DATA\L120613\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0613L001.D	1	SVTUNE 2-28-12		13 Jun 12 13:07
2	3	0613L003.D	1	0.1ug/ml PAH 06-13-12		13 Jun 12 13:51
3	4	0613L004.D	1	0.2ug/ml PAH		13 Jun 12 14:16
4	5	0613L005.D	1	0.5ug/ml PAH		13 Jun 12 14:41
5	6	0613L006.D	1	1.0ug/ml PAH		13 Jun 12 15:07
6	7	0613L007.D	1	5.0ug/ml PAH		13 Jun 12 15:33
7	8	0613L008.D	1	10ug/ml PAH		13 Jun 12 15:59
8	9	0613L009.D	1	50ug/ml PAH		13 Jun 12 16:25
9	10	0613L010.D	1	100ug/ml PAH		13 Jun 12 16:51
10	11	0613L011.D	1	5.0ug/ml SS PAH 06-13-12		13 Jun 12 17:17
11	1	0724L001.D	1	SVTUNE 2-28-12		24 Jul 12 18:05
12	2	0724L002.D	1	5.0ug/ml PAH 06-13-12		24 Jul 12 18:24
13	3	0724L003.D	1	120723A BLK 1/1000		24 Jul 12 18:50
14	4	0724L004.D	1	120723A LCS-1 1/1000		24 Jul 12 19:16
15	5	0724L005.D	0.95238	AY65041W07 1/1050		24 Jul 12 19:42
16	6	0724L006.D	0.9434	AY65043W05 1/1060		24 Jul 12 20:07
17	7	0724L007.D	0.9434	AY65044W04 1/1060		24 Jul 12 20:34

EPA 8015B
Total Petroleum Hydrocarbons

EPA 8015B
Total Petroleum Hydrocarbons -

QC Summary

Method Blank
TPH Diesel Water

Blank Name/QCG: **120723W-65041 - 169578**
Batch ID: #TPETD-120723A

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	07/23/12	07/31/12
BLANK	SURROGATE: OCTACOSANE (S)	40.6	28-142			%	07/23/12	07/31/12
BLANK	SURROGATE: ORTHO-TERPHEN	48.6 #	57-132			%	07/23/12	07/31/12

= Recovery (or RPD) is outside QC limits.

Quant Method: TPH0719.M
Run #: 731013
Instrument: Apollo
Sequence: 120731
Initials: SD

Printed: 08/02/12 6:04:26 PM
GC SC-Blank-REG MDLs

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 68248

Case No: 68248 Date Analyzed: 07/31/12

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
120723A-BLK	Blank	28-142	40.6		57-132	48.6	#
120723A-LCS	Lab Control Spike	28-142	58.5		57-132	91.3	
AY65041	ES077	28-142	59.7		57-132	70.7	
AY65043	ES079	28-142	59.3		57-132	71.3	
AY65044	ES080	28-142	54.5		57-132	65.1	

Comments: Batch: #TPETD-120723A

= Recovery outside of Control Limits on Sample.

Laboratory Control Spike Recovery

TPH Diesel Water

APPL ID: **120723W-65041 LCS - 169578**
Batch ID: #TPETD-120723A

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	1440	72.0	61-143
LUBE OIL	2000	1400	70.0	61-143
SURROGATE: OCTACOSANE (S)	150	87.7	58.5	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	137	91.3	57-132

Comments: _____

Primary	SPK
Quant Method :	TPH0719.M
Extraction Date :	07/23/12
Analysis Date :	07/31/12
Instrument :	Apollo
Run :	731014
Initials :	SD

Printed: 08/02/12 5:59:14 PM
APPL Standard LCS

EPA 8015B-e

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 68248

Case No: 68248 Date Analyzed: 07/31/12

Matrix: WATER Instrument: Apollo

Blank ID: 120723A-BLK Time Analyzed: 1439

APPL ID.	Client Sample No.	File ID.	Date Analyzed
120723A-BLK	Blank	731013	07/31/12 1439
120723A-LCS	Lab Control Spike	731014	07/31/12 1503
AY65041	ES077	731016	07/31/12 1551
AY65043	ES079	731017	07/31/12 1615
AY65044	ES080	731018	07/31/12 1639

Comments: Batch: #TPETD-120723A

EPA 8015B
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: 68248

Sample ID: ES077

APPL ID: AY65041

Sample Collection Date: 07/17/12

QCG: #TPETD-120723A-169578

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	07/23/12	07/31/12
EPA 8015B-	SURROGATE: OCTACOSANE (S)	59.7	28-142			%	07/23/12	07/31/12
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S	70.7	57-132			%	07/23/12	07/31/12

Quant Method: TPH0719.M
Run #: 731016
Instrument: Apollo
Sequence: 120731
Dilution Factor: 1
Initials: SD

Printed: 08/02/12 6:04:25 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\120731\731016.D Vial: 16
Acq On : 7-31-12 15:51:47 Operator: LAC
Sample : AY65041W05 5/1050 Inst : Apollo
Misc : Water Multiplr: 4.76
IntFile : events.e
Quant Time: Aug 1 16:23 2012 Quant Results File: TPH0719.RES

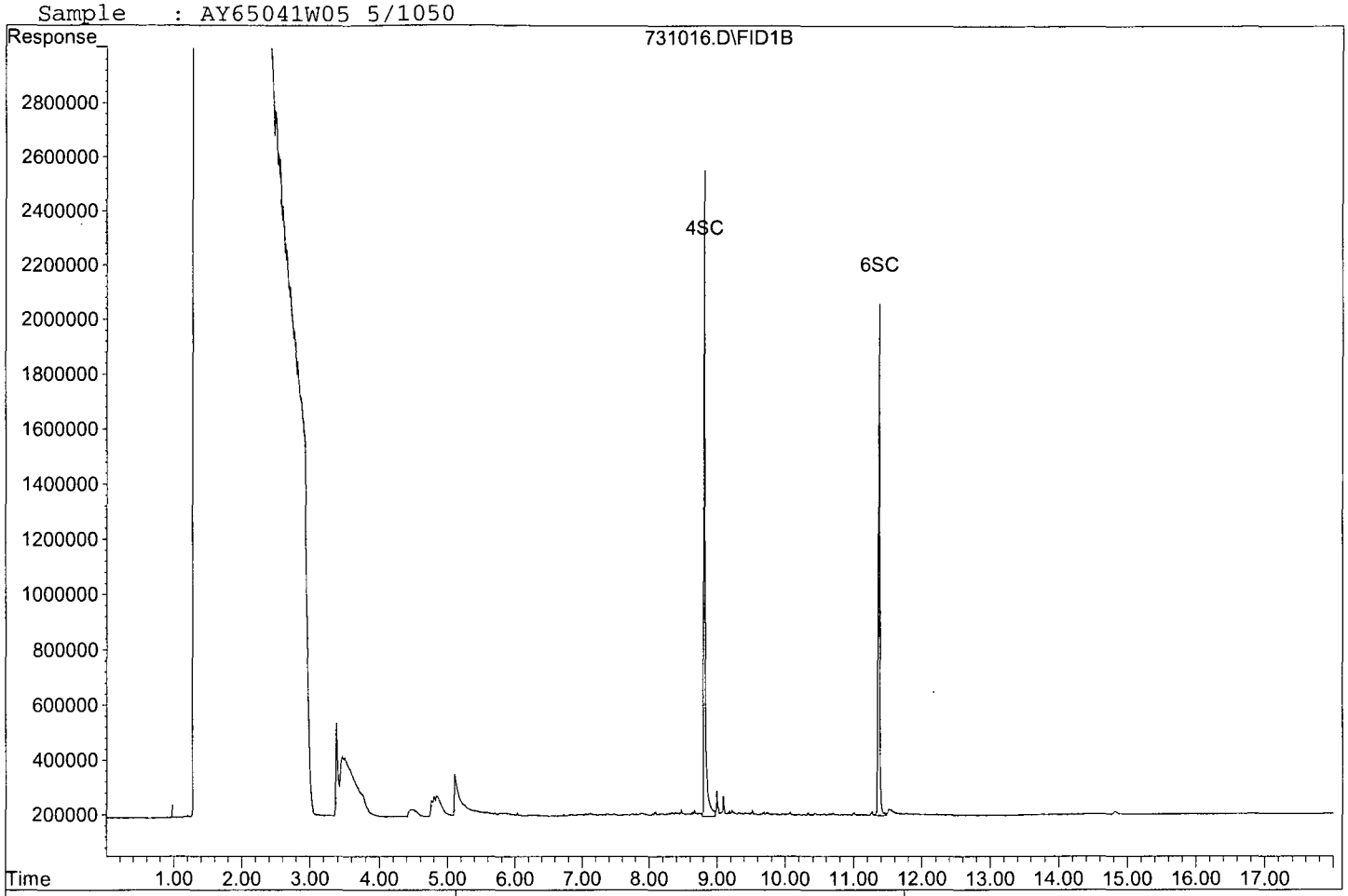
Method : G:\APOLLO\DATA\120731\TPH0719.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Aug 02 17:43:25 2012
Response via : Multiple Level Calibration

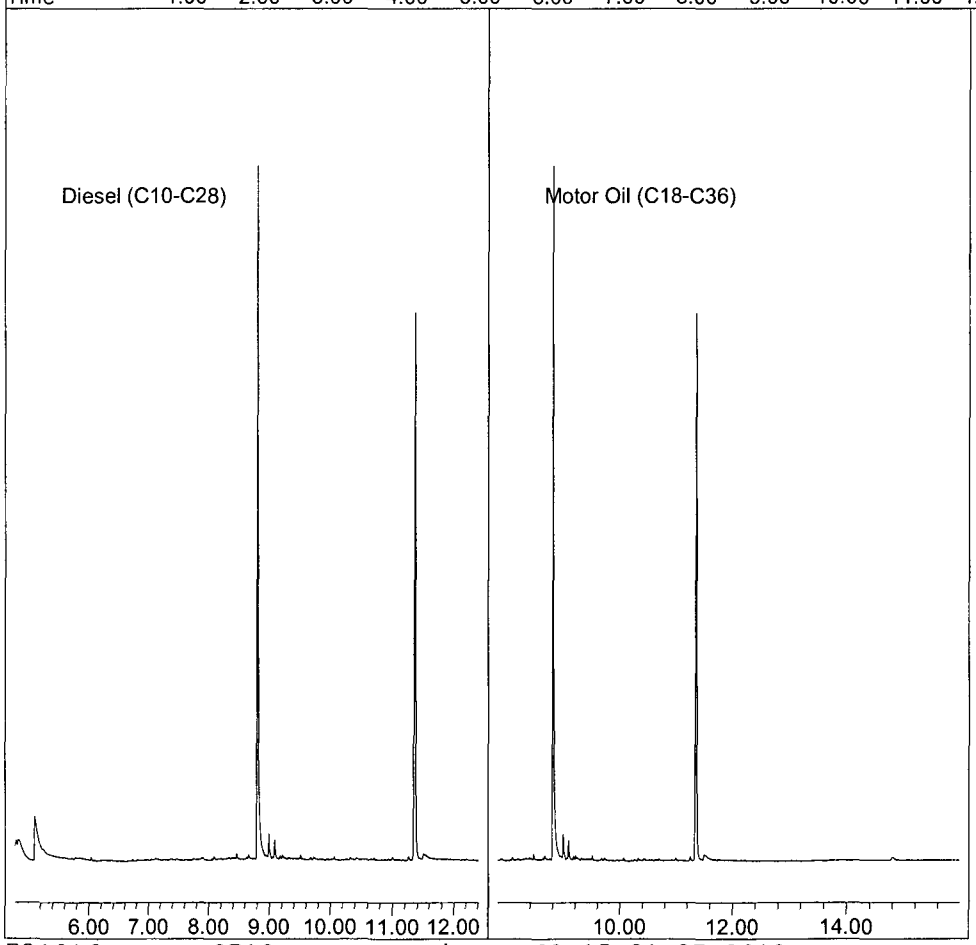
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.80	29907231	101.054 ppb
Surrogate Spike 142.857		Recovery =	70.74%
6) SC Octacosane(S)	11.37	27008446	85.334 ppb
Surrogate Spike 142.857		Recovery =	59.73%
Target Compounds			

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

Data File: G:\APOLLO\DATA\120731\731016.D
Sample : AY65041W05 5/1050





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: 68248

Sample ID: ES079

APPL ID: AY65043

Sample Collection Date: 07/17/12

QCG: #TPETD-120723A-169578

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	07/23/12	07/31/12
EPA 8015B-	SURROGATE: OCTACOSANE (S)	59.3	28-142			%	07/23/12	07/31/12
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S	71.3	57-132			%	07/23/12	07/31/12

Quant Method: TPH0719.M
Run #: 731017
Instrument: Apollo
Sequence: 120731
Dilution Factor: 1
Initials: SD

Printed: 08/02/12 6:04:25 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\120731\731017.D Vial: 17
Acq On : 7-31-12 16:15:48 Operator: LAC
Sample : AY65043W06 5/1050 Inst : Apollo
Misc : Water Multiplr: 4.76
IntFile : events.e
Quant Time: Aug 1 16:23 2012 Quant Results File: TPH0719.RES

Method : G:\APOLLO\DATA\120731\TPH0719.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Aug 02 17:43:25 2012
Response via : Multiple Level Calibration

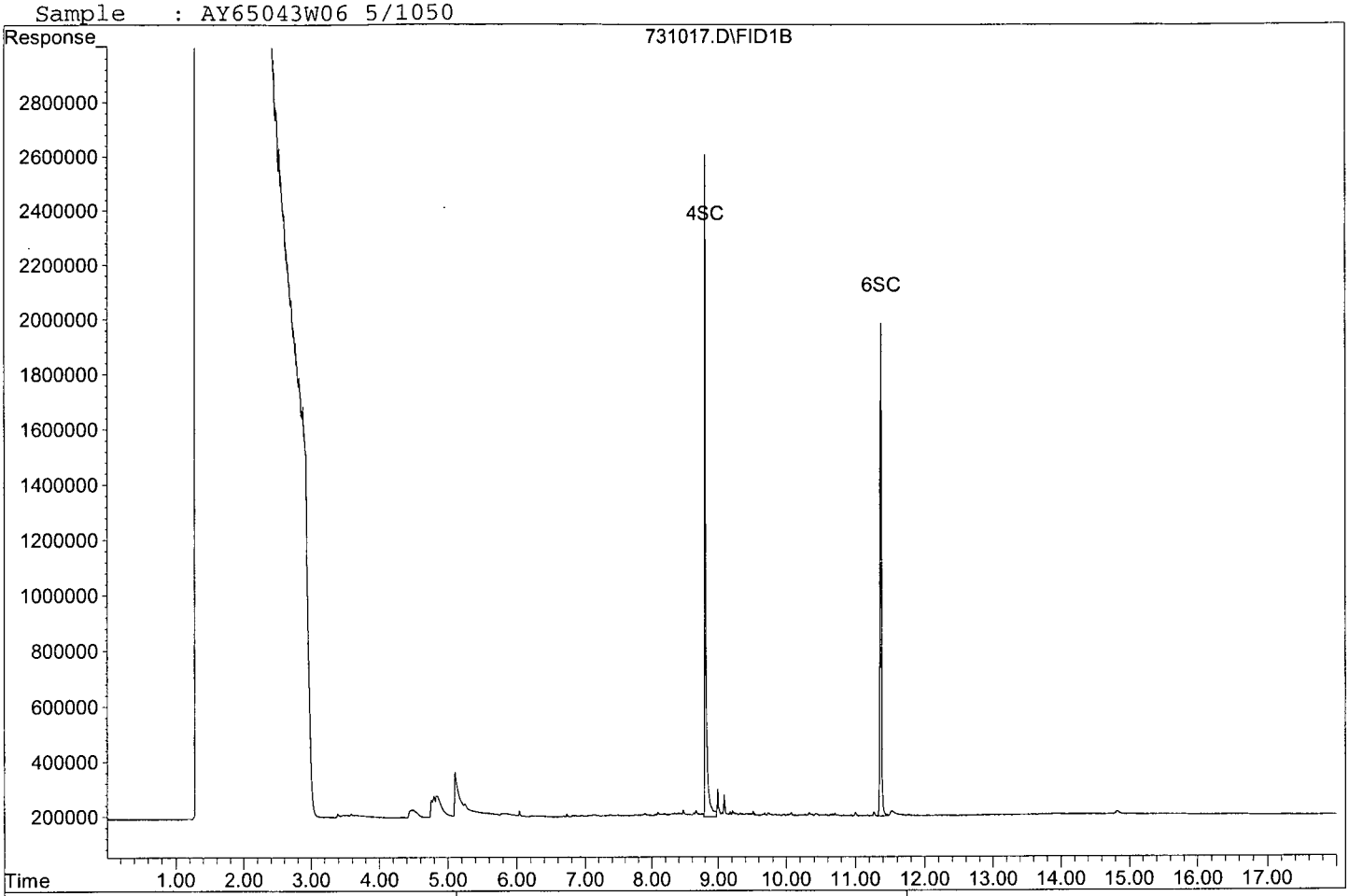
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

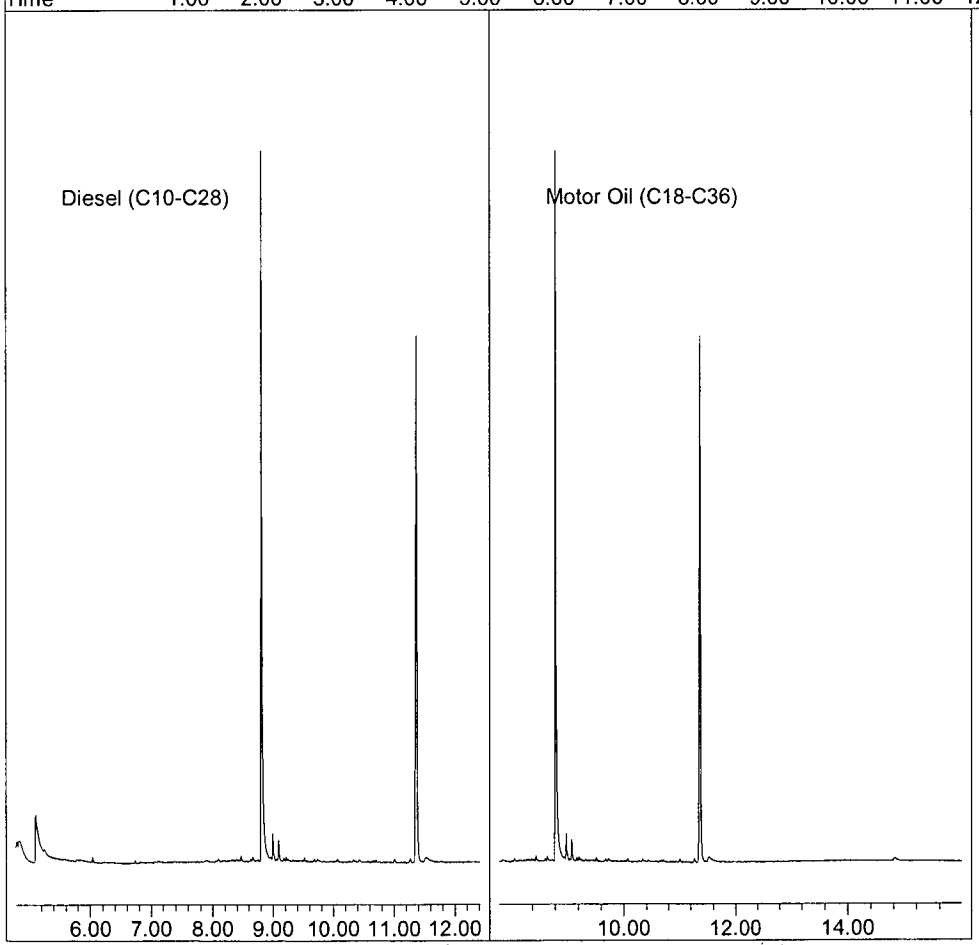
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.80	30157075	101.899 ppb
Surrogate Spike 142.857		Recovery =	71.33%
6) SC Octacosane(S)	11.37	26810341	84.708 ppb
Surrogate Spike 142.857		Recovery =	59.30%
Target Compounds			

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

Quantitation Report

Data File: G:\APOLLO\DATA\120731\731017.D
Sample : AY65043W06 5/1050





731017.D TPH0719.M Fri Aug 03 15:21:35 2012

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: 68248

Sample ID: ES080

APPL ID: AY65044

Sample Collection Date: 07/17/12

QCG: #TPETD-120723A-169578

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	07/23/12	07/31/12
EPA 8015B-	SURROGATE: OCTACOSANE (S)	54.5	28-142			%	07/23/12	07/31/12
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S	65.1	57-132			%	07/23/12	07/31/12

Quant Method: TPH0719.M
Run #: 731018
Instrument: Apollo
Sequence: 120731
Dilution Factor: 1
Initials: SD

Printed: 08/02/12 6:04:25 PM

APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\120731\731018.D Vial: 18
Acq On : 7-31-12 16:39:36 Operator: LAC
Sample : AY65044W07 5/1040 Inst : Apollo
Misc : Water Multiplr: 4.81
IntFile : events.e
Quant Time: Aug 1 16:23 2012 Quant Results File: TPH0719.RES

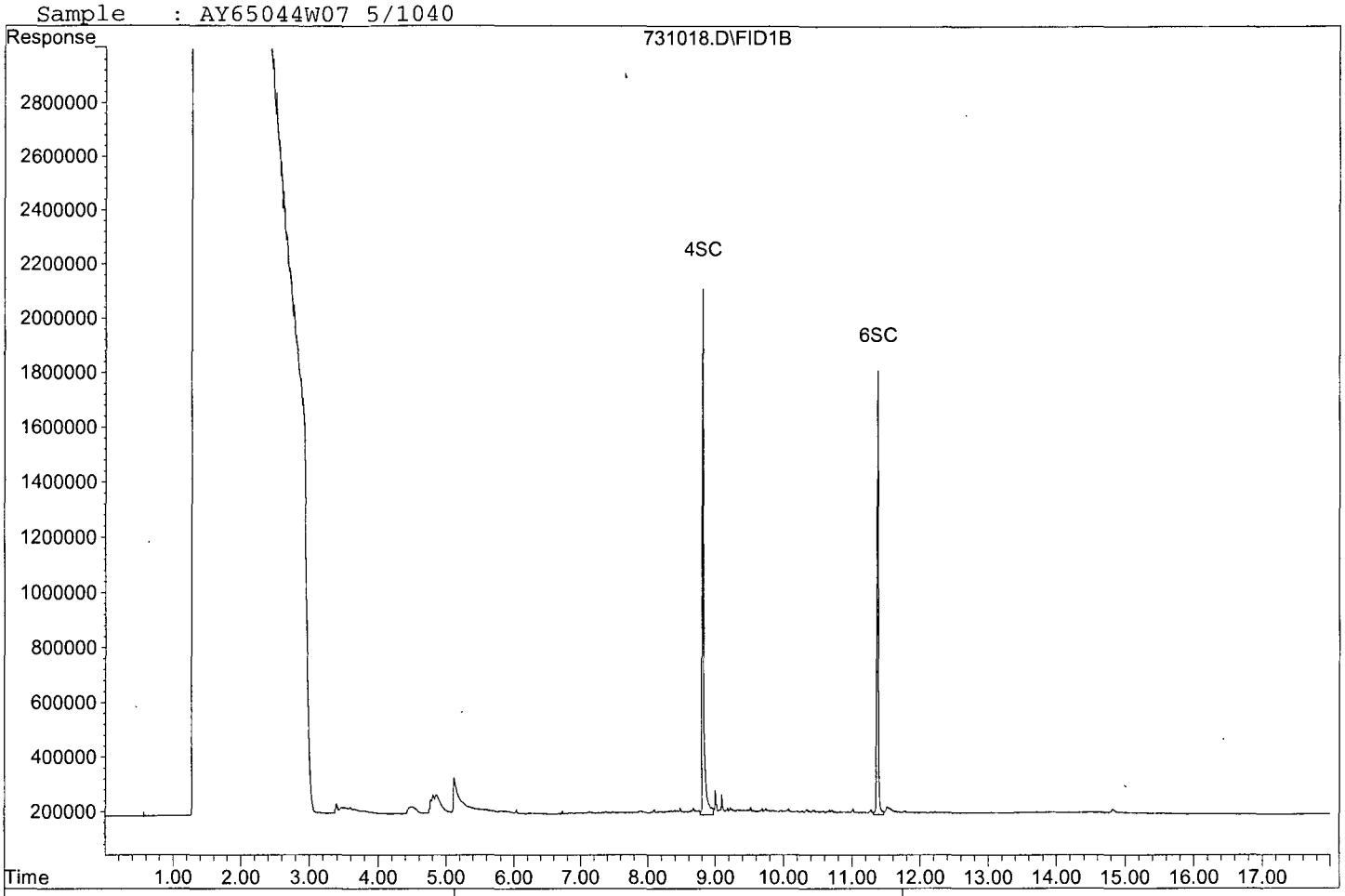
Method : G:\APOLLO\DATA\120731\TPH0719.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Aug 02 17:43:25 2012
Response via : Multiple Level Calibration

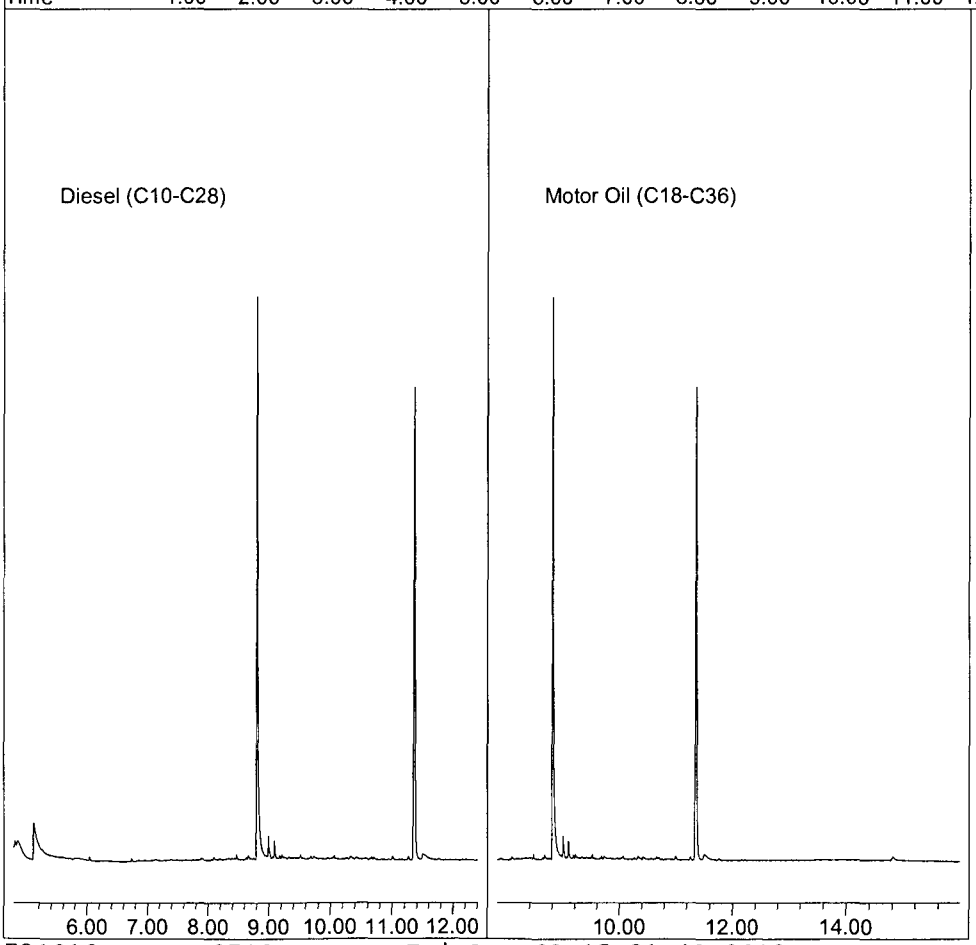
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.81	27521446	93.887 ppb
Surrogate Spike 144.231		Recovery =	65.09%
6) SC Octacosane(S)	11.37	24659973	78.663 ppb
Surrogate Spike 144.231		Recovery =	54.54%
Target Compounds			

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

Data File: G:\APOLLO\DATA\120731\731018.D
Sample : AY65044W07 5/1040





EPA 8015B
Total Petroleum Hydrocarbons -

Calibration Data

TPH Extractables
TPH0719

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 68248
Case No: Initial Cal. Date: 06/22/2012 and 7/19/12
Matrix: Instrument: Apollo Initials: sd

Surrogate	*	622004.D	622005.D	622006.D	622007.D	622008.D	
DRO	622009.D	622010.D	622011.D	622012.D	622013.D	622014.D	
MO	719003.D	719004.D	719005.D	719006.D	719007.D	719008.D	

		Compound	1	2	3	4	5	6		Avg	%RSD		
1	HATM	Diesel (C10-C28)	642703	509920	531557	542684	530047	540036		549491	8.6	HATM	
2	HBTM	Motor Oil (C18-C36)	415224	409753	447761	467949	423444	430885		432503	5.1	HBTM	
3	SC	Ortho-Terphenyl(S)	*	700048	705066	717492	699409	701217		704646	1.1	SC	
4	SC	Octacosane(S)	*	754341	750395	766254	747028	749884		753580	1.0	SC	
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33													

* Not Used

0.475552

Quantitation Report (QT Reviewed)

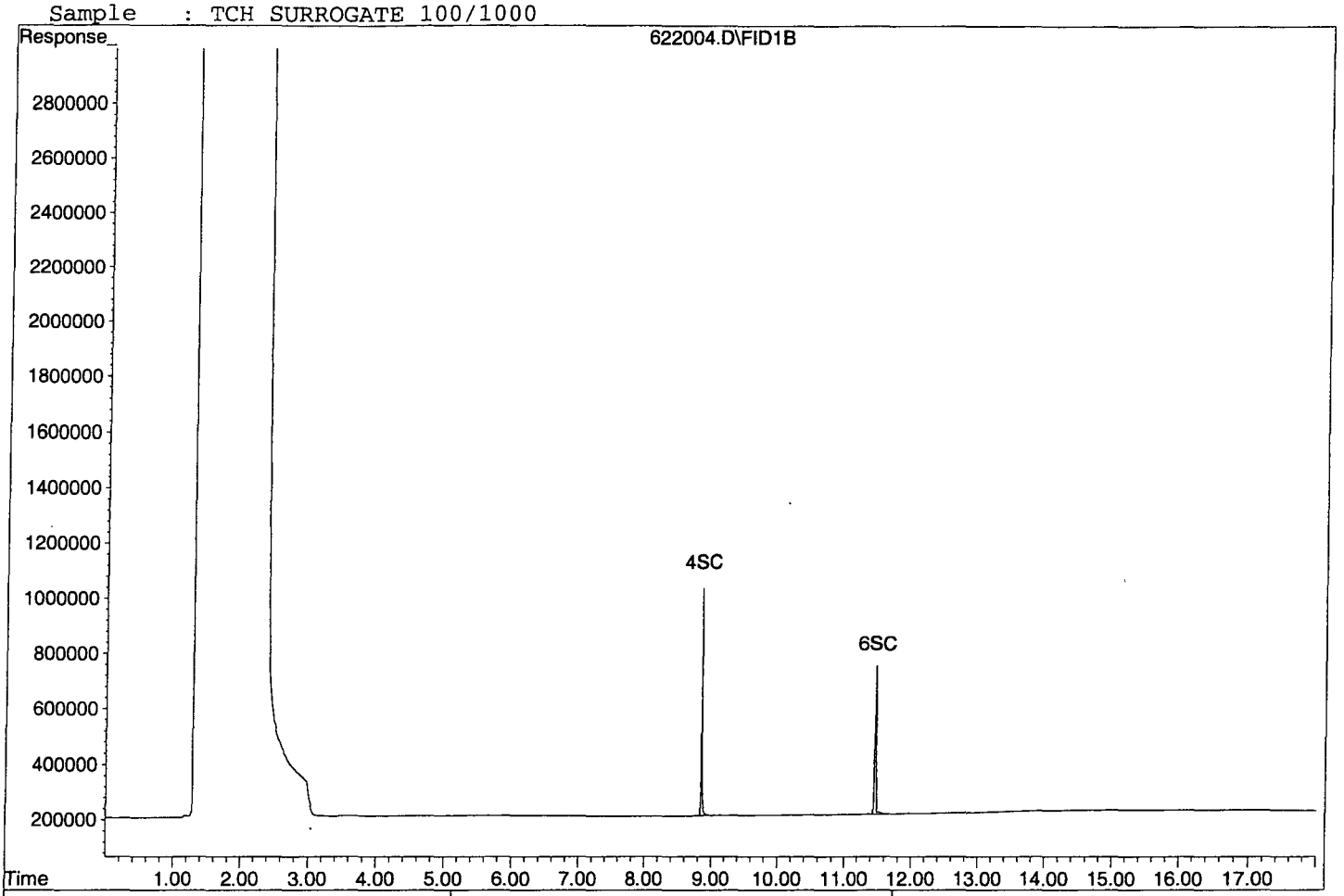
Data File : G:\APOLLO\DATA\120622\622004.D Vial: 4
Acq On : 6-22-12 18:22:29 Operator: LAC
Sample : TCH SURROGATE 100/1000 Inst : Apollo
Misc : Mix(c) Multiplr: 1.00
IntFile : events.e
Quant Time: Jun 25 9:37 2012 Quant Results File: TPH0622.RES

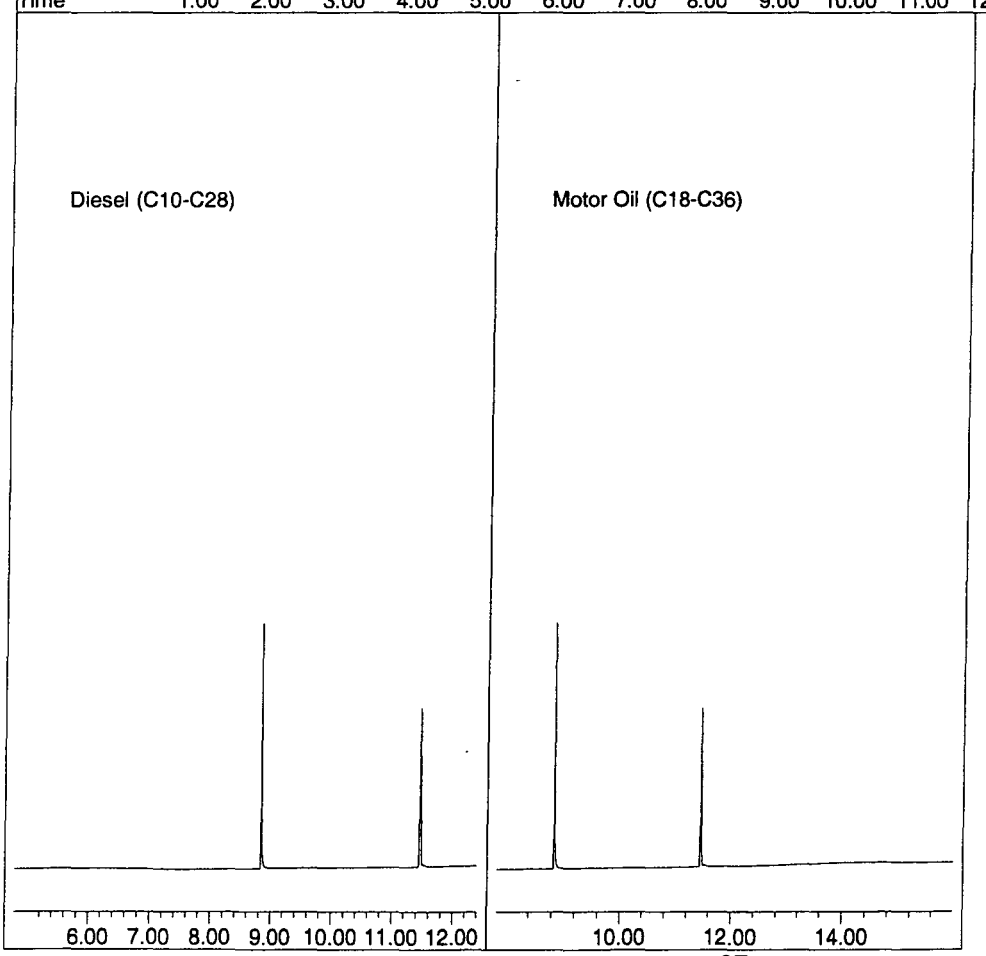
Method : G:\APOLLO\DATA\120622\TPH0622.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Jun 25 09:48:29 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	8.84	7000476	2.493	ppb
Surrogate Spike 30.000	Recovery =		8.31%	
6) SC Octacosane(S)	11.46	7543411	3.161	ppb
Surrogate Spike 30.000	Recovery =		10.54%	
Target Compounds				

Data File: G:\APOLLO\DATA\120622\622004.D
Sample : TCH SURROGATE 100/1000





Quantitation Report (QT Reviewed)

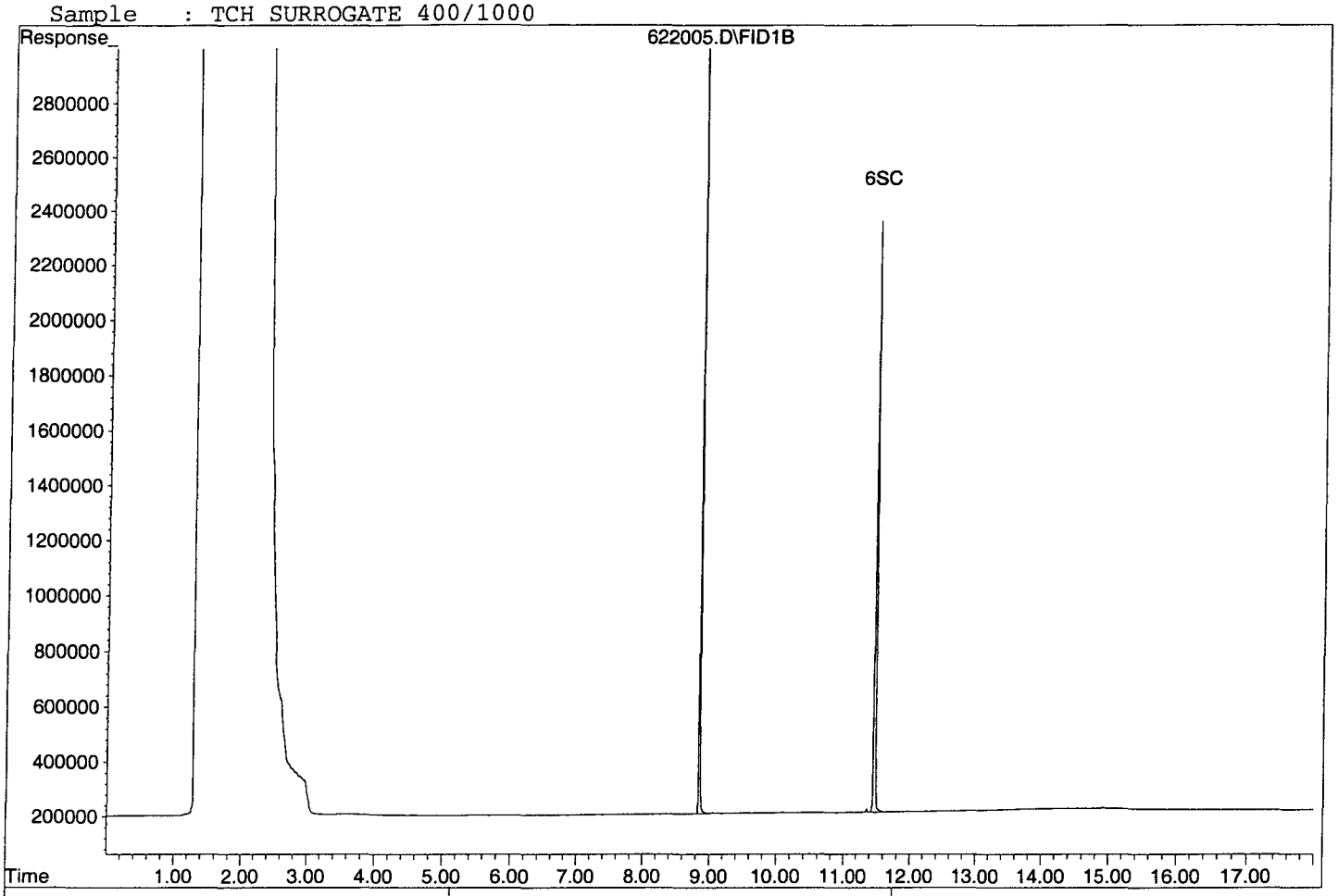
Data File : G:\APOLLO\DATA\120622\622005.D Vial: 5
Acq On : 6-22-12 18:46:55 Operator: LAC
Sample : TCH SURROGATE 400/1000 Inst : Apollo
Misc : Mix(c) Multiplr: 1.00
IntFile : events.e
Quant Time: Jun 25 9:37 2012 Quant Results File: TPH0622.RES

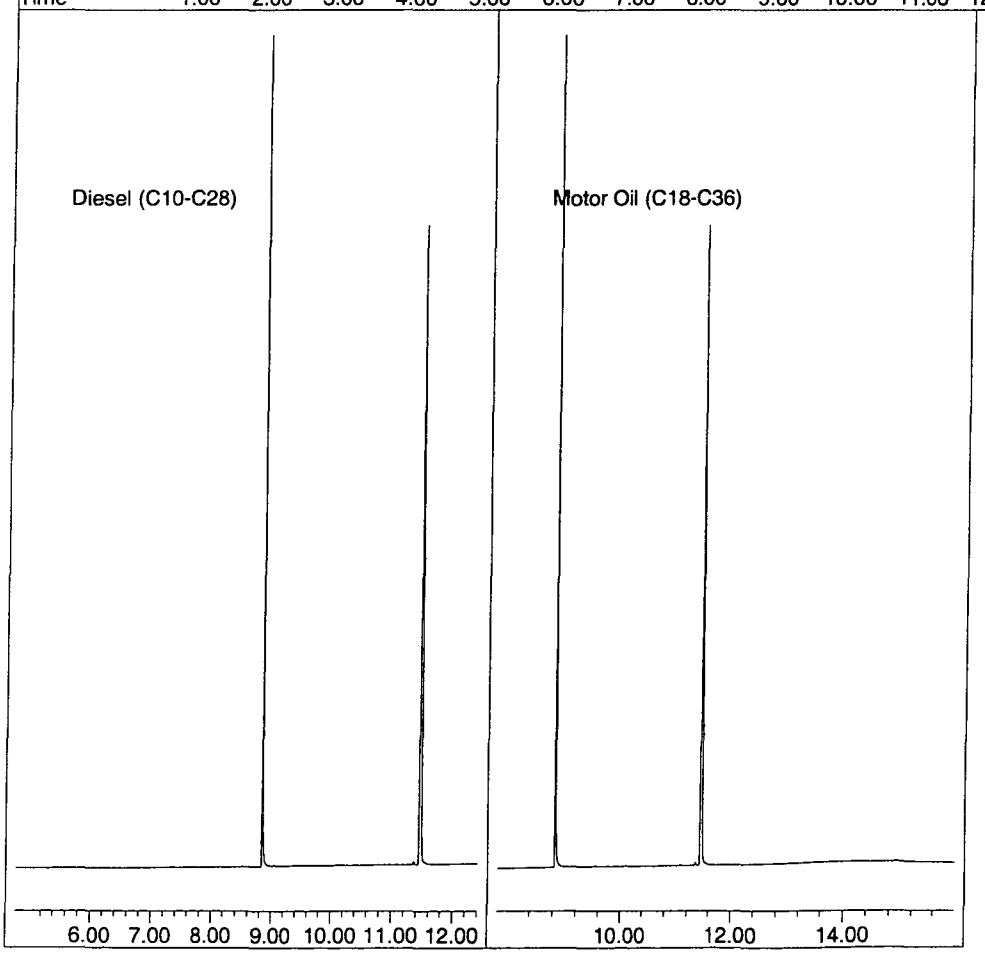
Method : G:\APOLLO\DATA\120622\TPH0622.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Jun 25 09:48:29 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	8.84	28202647	10.113	ppb
Surrogate Spike 30.000		Recovery =	33.71%	
6) SC Octacosane(S)	11.47	30015782	12.394	ppb
Surrogate Spike 30.000		Recovery =	41.31%	
Target Compounds				

Data File: G:\APOLLO\DATA\120622\622005.D
Sample : TCH SURROGATE 400/1000





Quantitation Report (QT Reviewed)

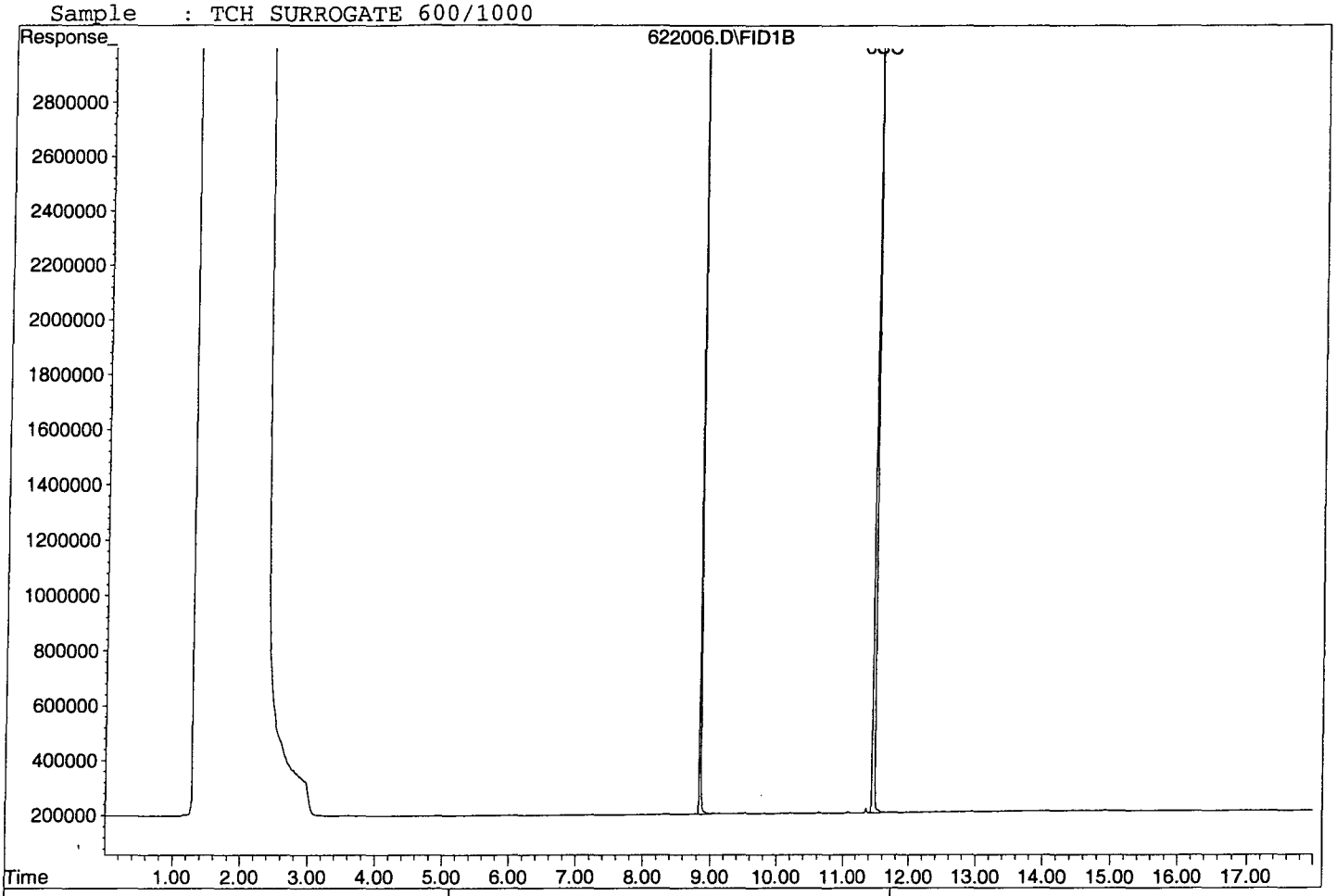
Data File : G:\APOLLO\DATA\120622\622006.D Vial: 6
Acq On : 6-22-12 19:10:46 Operator: LAC
Sample : TCH SURROGATE 600/1000 Inst : Apollo
Misc : Mix(c) Multiplr: 1.00
IntFile : events.e
Quant Time: Jun 25 9:38 2012 Quant Results File: TPH0622.RES

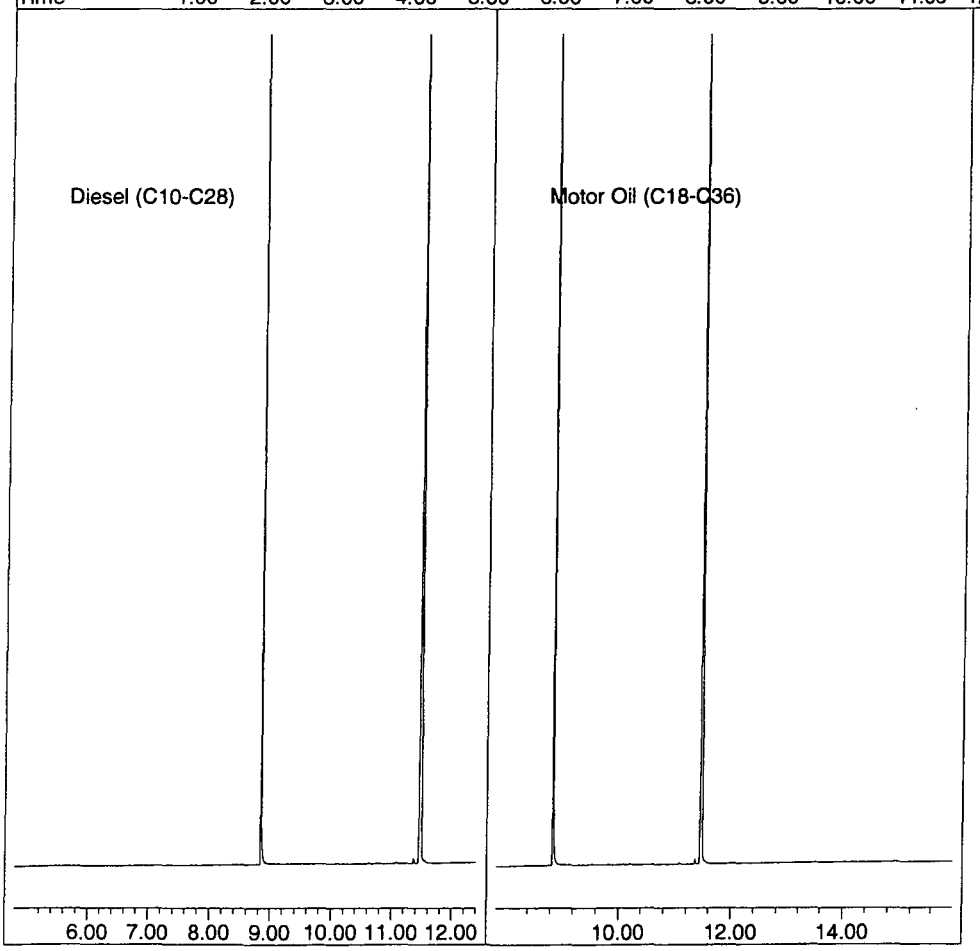
Method : G:\APOLLO\DATA\120622\TPH0622.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Jun 25 09:48:29 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.84	43049549	15.420 ppb
Surrogate Spike 30.000	Recovery	=	51.40%
6) SC Octacosane(S)	11.48	45975259	18.583 ppb
Surrogate Spike 30.000	Recovery	=	61.94%
Target Compounds			

Data File: G:\APOLLO\DATA\120622\622006.D
Sample : TCH SURROGATE 600/1000





Quantitation Report (QT Reviewed)

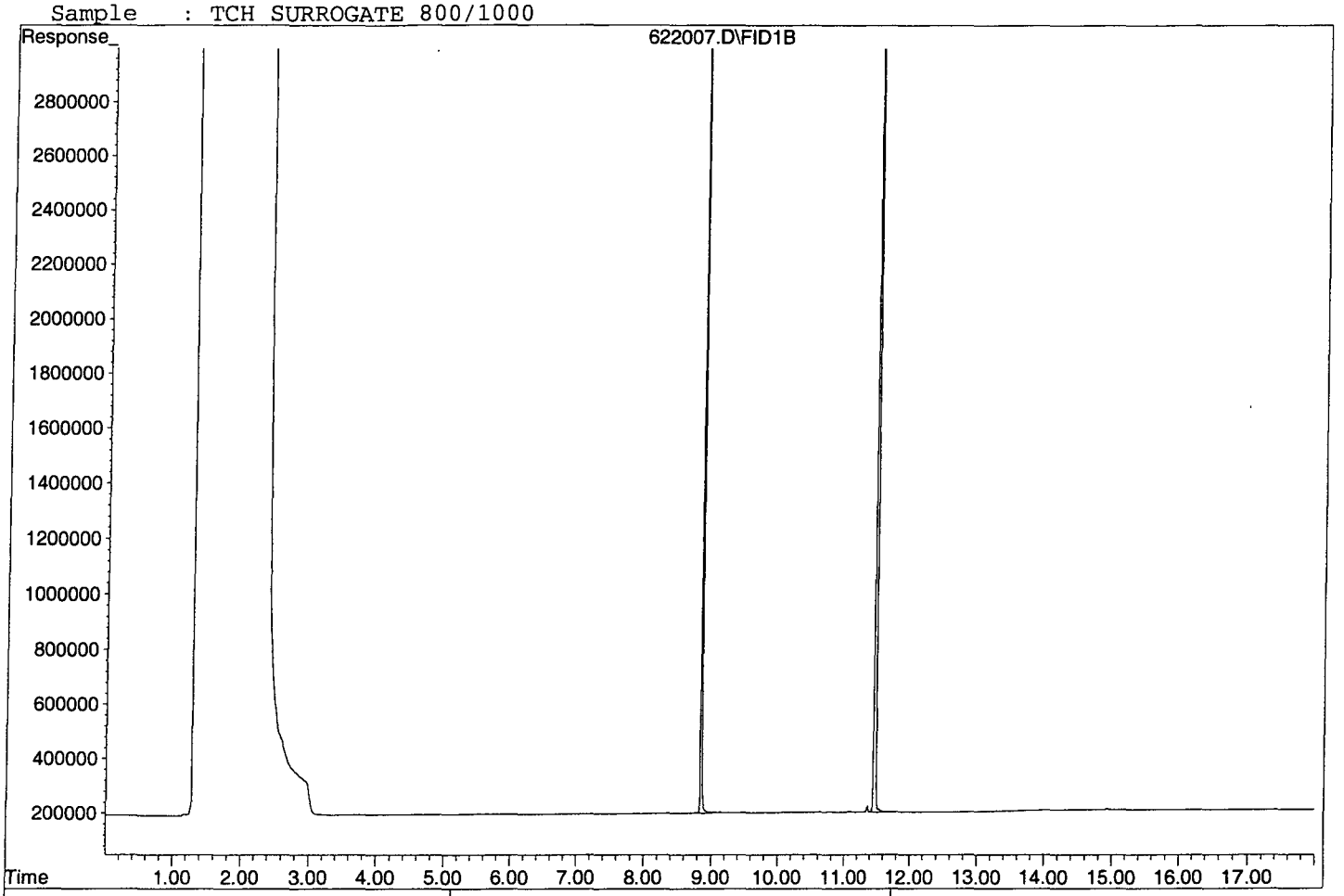
Data File : G:\APOLLO\DATA\120622\622007.D Vial: 7
Acq On : 6-22-12 19:34:47 Operator: LAC
Sample : TCH SURROGATE 800/1000 Inst : Apollo
Misc : Mix(c) Multiplr: 1.00
IntFile : events.e
Quant Time: Jun 25 9:38 2012 Quant Results File: TPH0622.RES

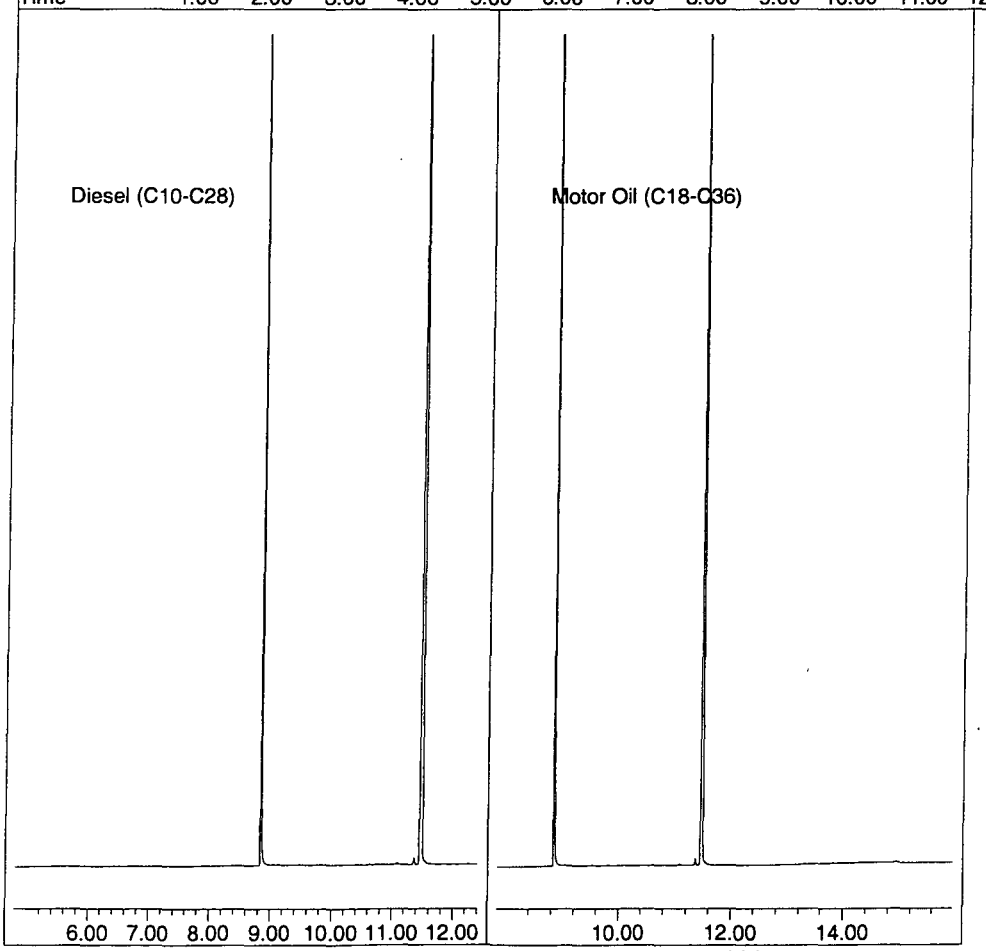
Method : G:\APOLLO\DATA\120622\TPH0622.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Jun 25 09:48:29 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	8.85	55952695	19.926	ppb
Surrogate Spike 30.000	Recovery =		66.42%	
6) SC Octacosane(S)	11.48	59762243	23.528	ppb
Surrogate Spike 30.000	Recovery =		78.43%	
Target Compounds				

Data File: G:\APOLLO\DATA\120622\622007.D
Sample : TCH SURROGATE 800/1000





Quantitation Report (QT Reviewed)

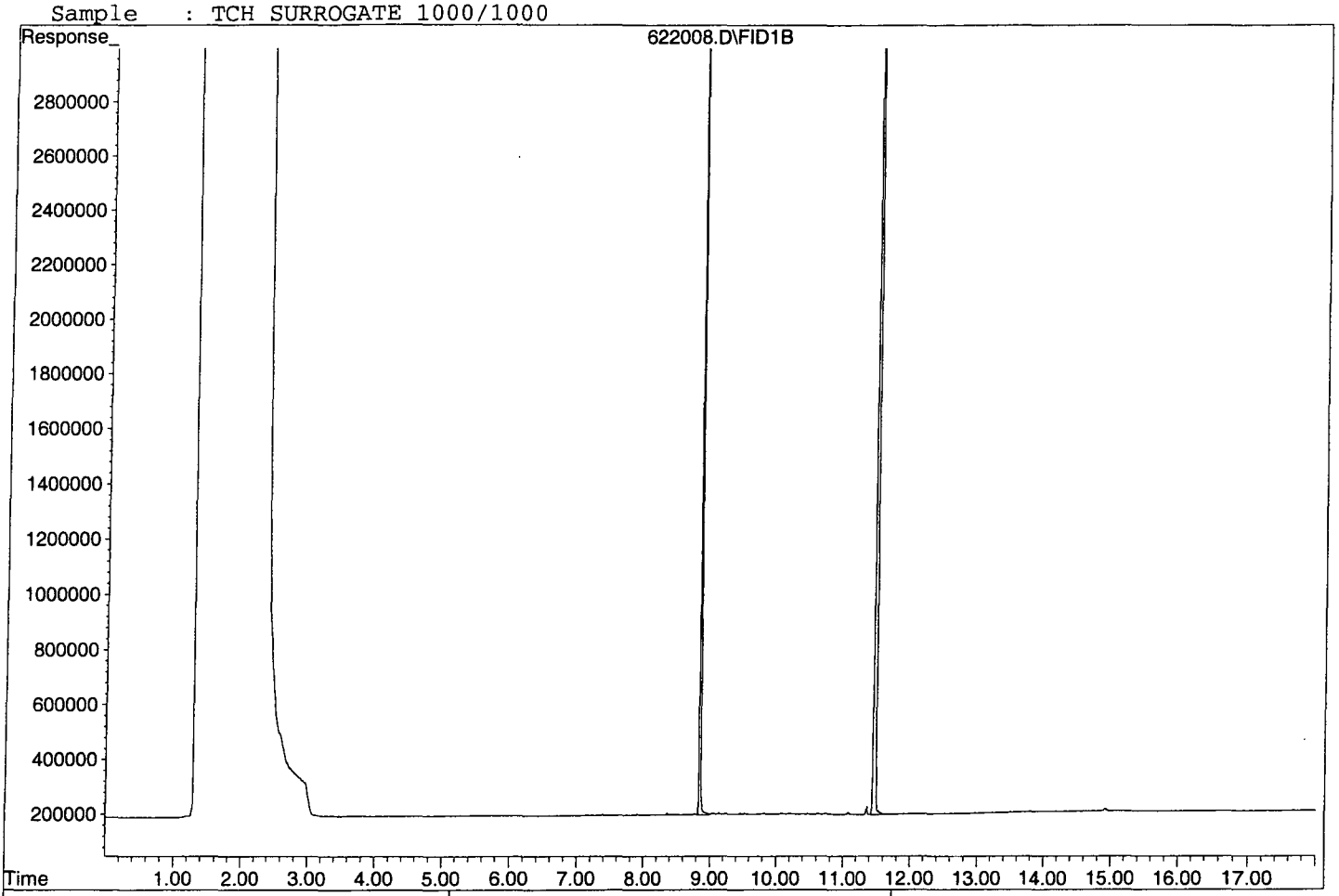
Data File : G:\APOLLO\DATA\120622\622008.D Vial: 8
Acq On : 6-22-12 19:58:49 Operator: LAC
Sample : TCH SURROGATE 1000/1000 Inst : Apollo
Misc : Mix(c) Multiplr: 1.00
IntFile : events.e
Quant Time: Jun 25 9:39 2012 Quant Results File: TPH0622.RES

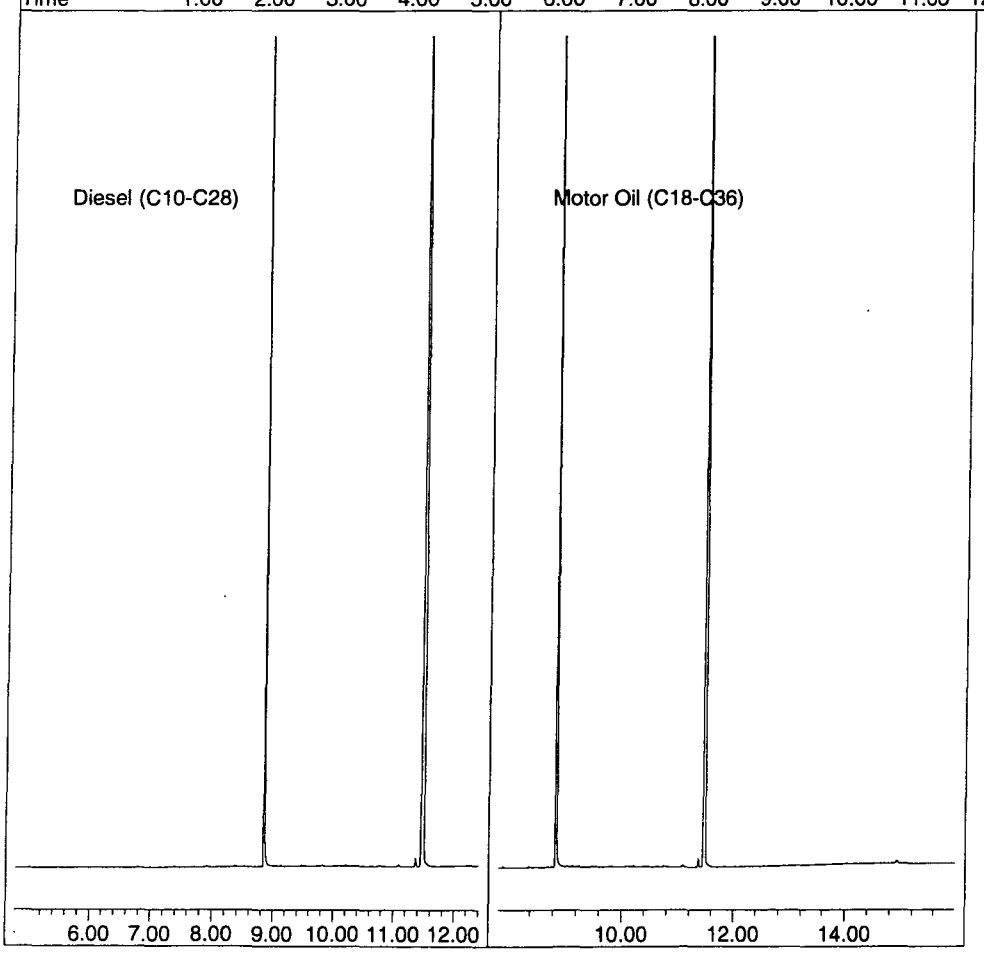
Method : G:\APOLLO\DATA\120622\TPH0622.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Jun 25 09:48:29 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.85	70121711	24.864 ppb
Surrogate Spike 30.000		Recovery =	82.88%
6) SC Octacosane(S)	11.48	74988351	28.844 ppb
Surrogate Spike 30.000		Recovery =	96.15%
Target Compounds			

Data File: G:\APOLLO\DATA\120622\622008.D
Sample : TCH SURROGATE 1000/1000





Quantitation Report (QT Reviewed)

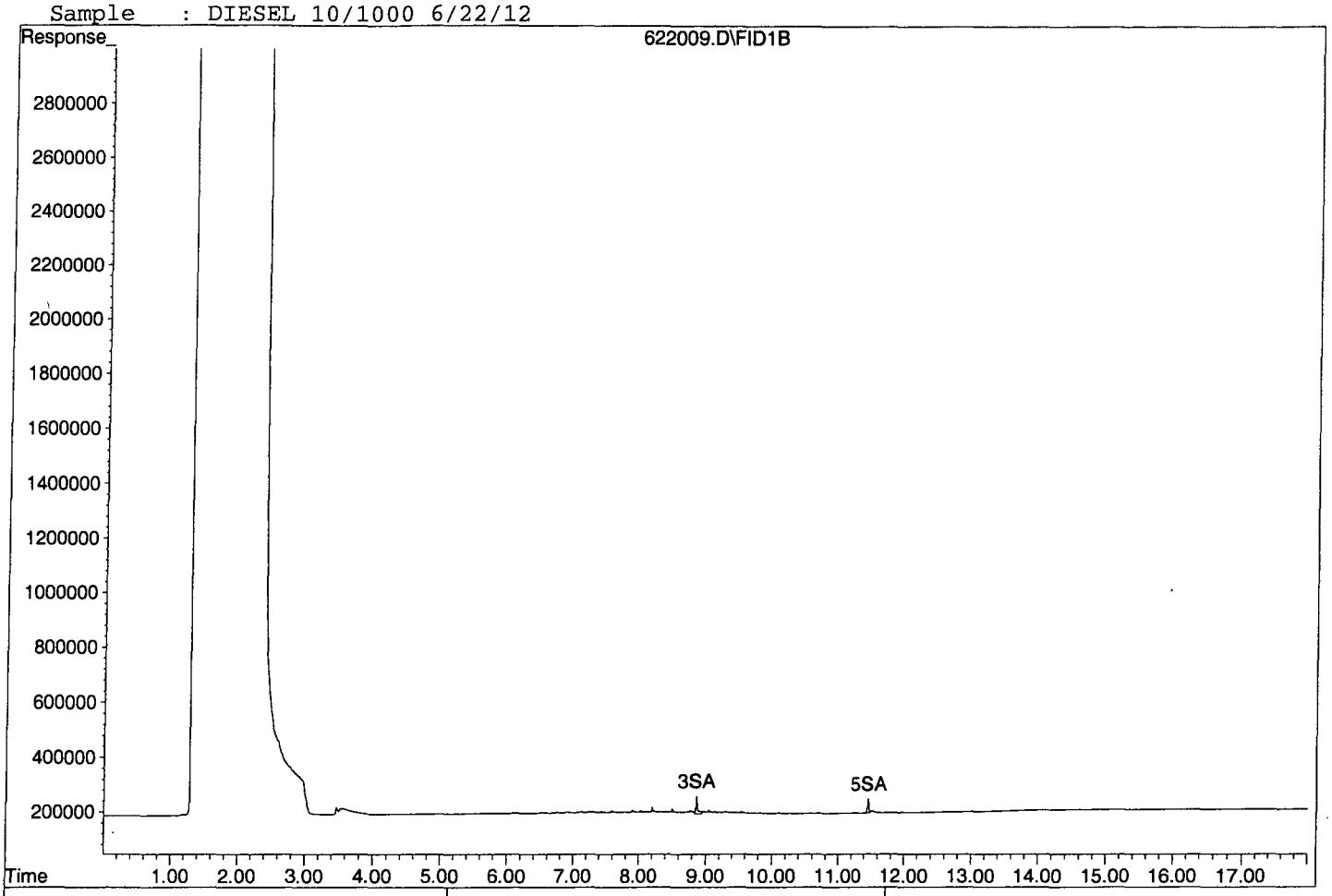
Data File : G:\APOLLO\DATA\120622\622009.D Vial: 9
Acq On : 6-22-12 20:22:56 Operator: LAC
Sample : DIESEL 10/1000 6/22/12 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Jun 25 9:08 2012 Quant Results File: TPH0622.RES

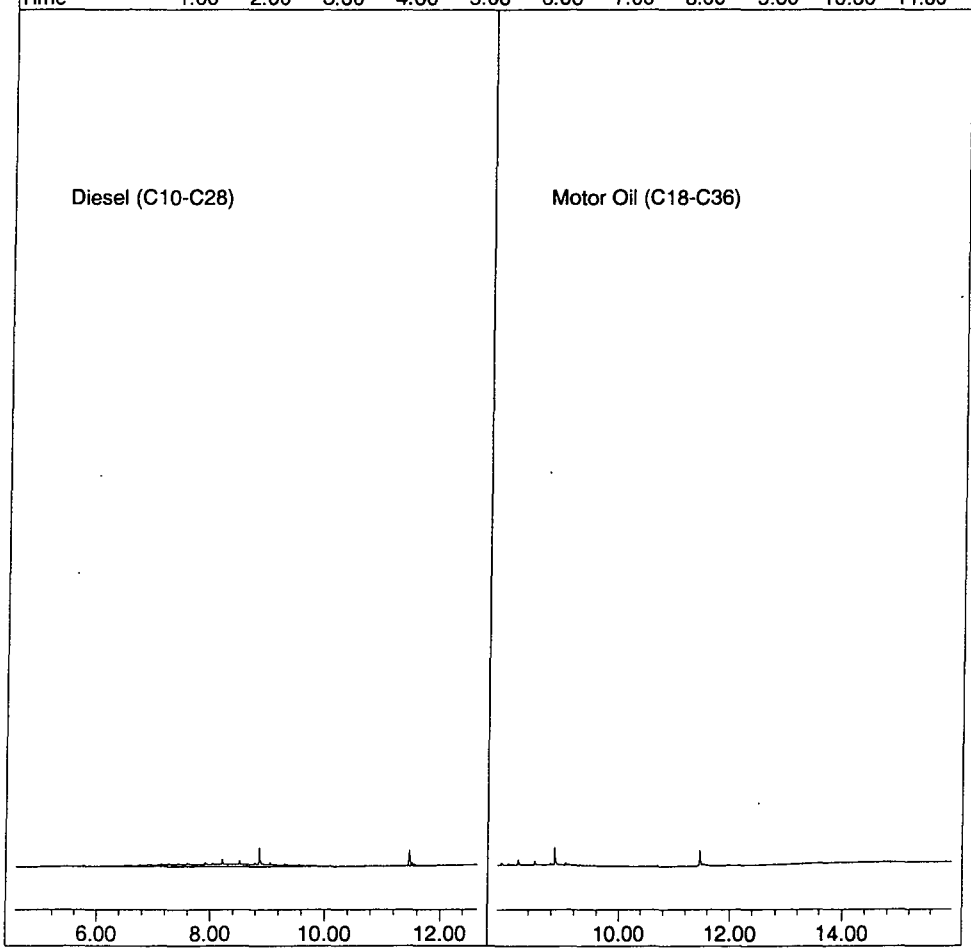
Method : G:\APOLLO\DATA\120622\TPH0622.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Jun 25 09:48:29 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.85	1100828	0.688 ppb
Surrogate Spike 30.000	Recovery	=	2.29%
5) SA Not Used2(S)	11.46	755848	0.635 ppb
Surrogate Spike 30.000	Recovery	=	2.12%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	12854065	11.749 ppb

Data File: G:\APOLLO\DATA\120622\622009.D
Sample : DIESEL 10/1000 6/22/12





Quantitation Report (Not Reviewed)

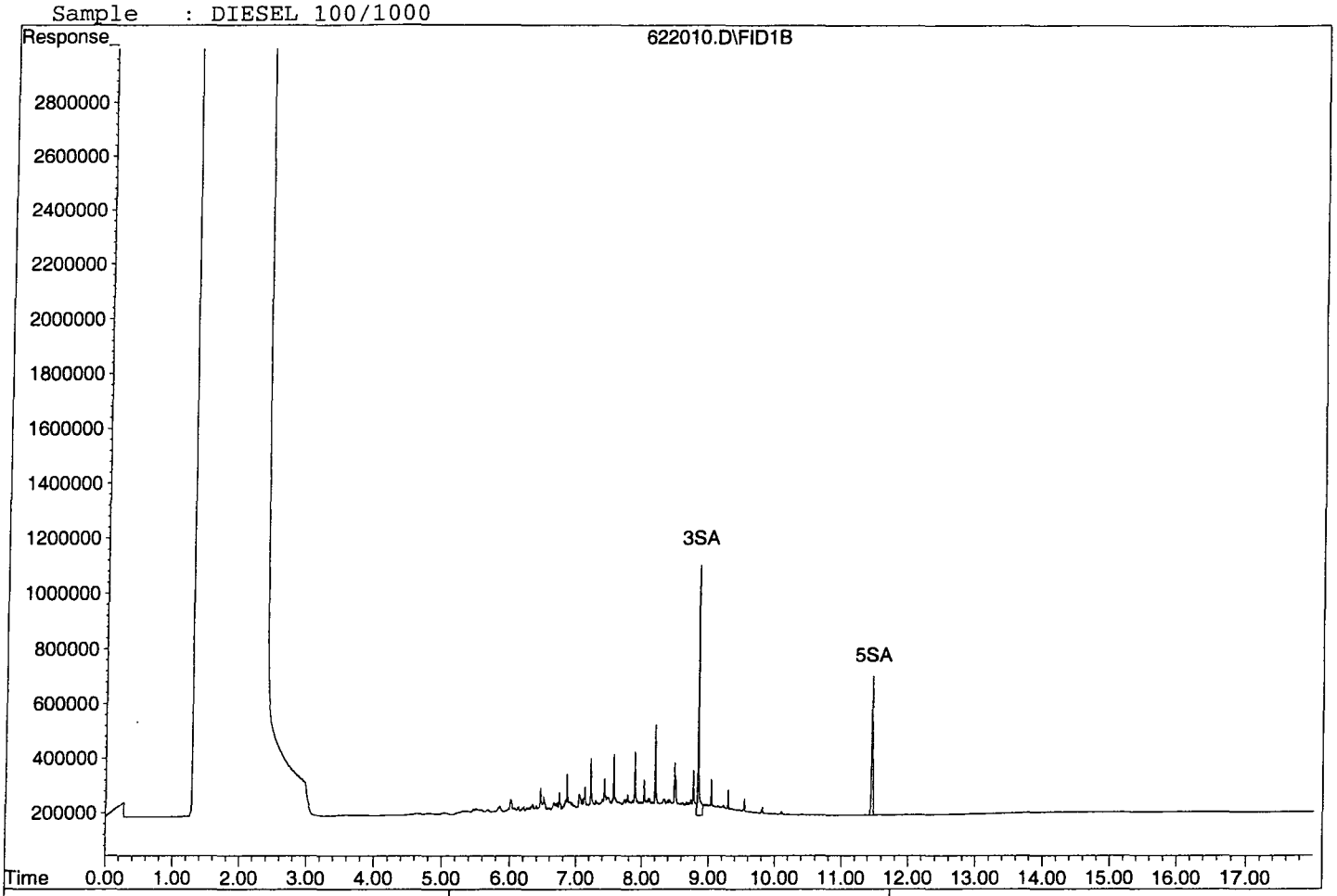
Data File : G:\APOLLO\DATA\120622\622010.D Vial: 10
Acq On : 6-22-12 20:47:06 Operator: LAC
Sample : DIESEL 100/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Jun 25 9:05 2012 Quant Results File: TPH0622.RES

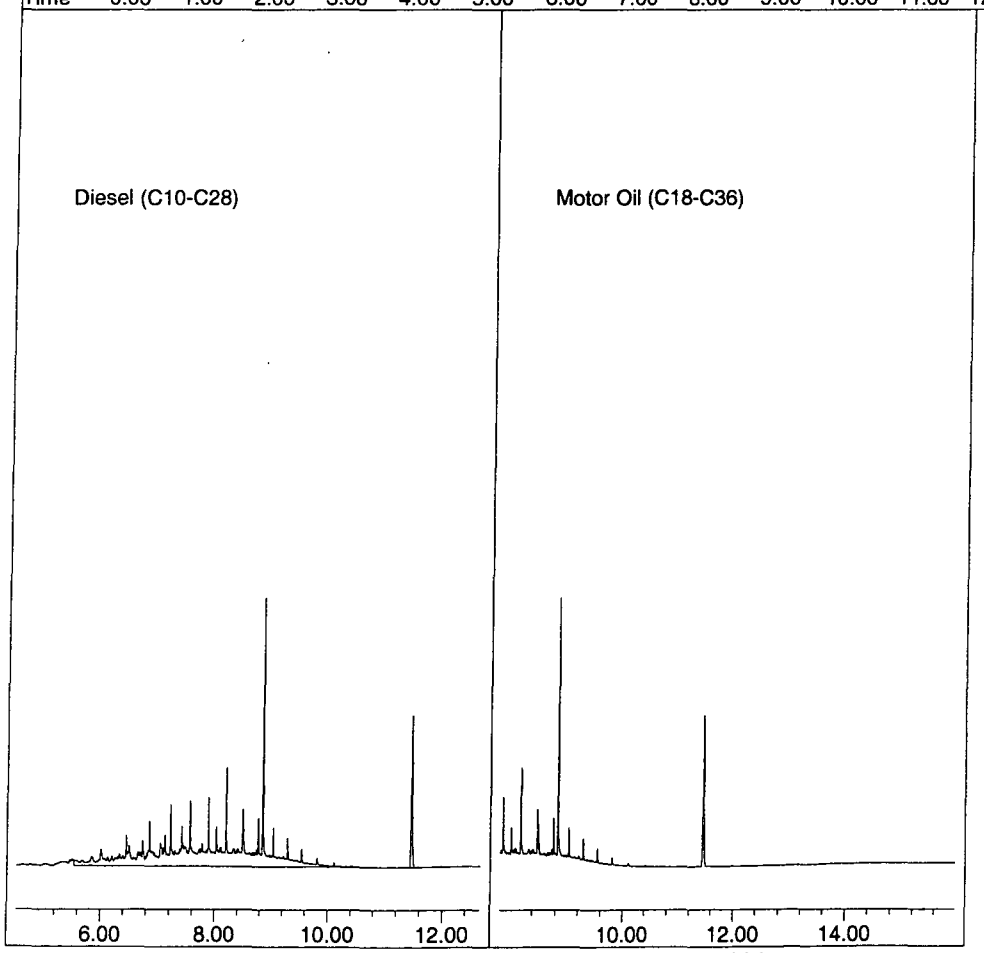
Method : G:\APOLLO\DATA\120622\TPH0622.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Jun 25 09:48:29 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.84	8996588	5.622 ppb
Surrogate Spike 30.000	Recovery =		18.74%
5) SA Not Used2(S)	11.46	7054012	5.925 ppb
Surrogate Spike 30.000	Recovery =		19.75%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	101984030	93.220 ppb

Data File: G:\APOLLO\DATA\120622\622010.D
Sample : DIESEL 100/1000





Quantitation Report (Not Reviewed)

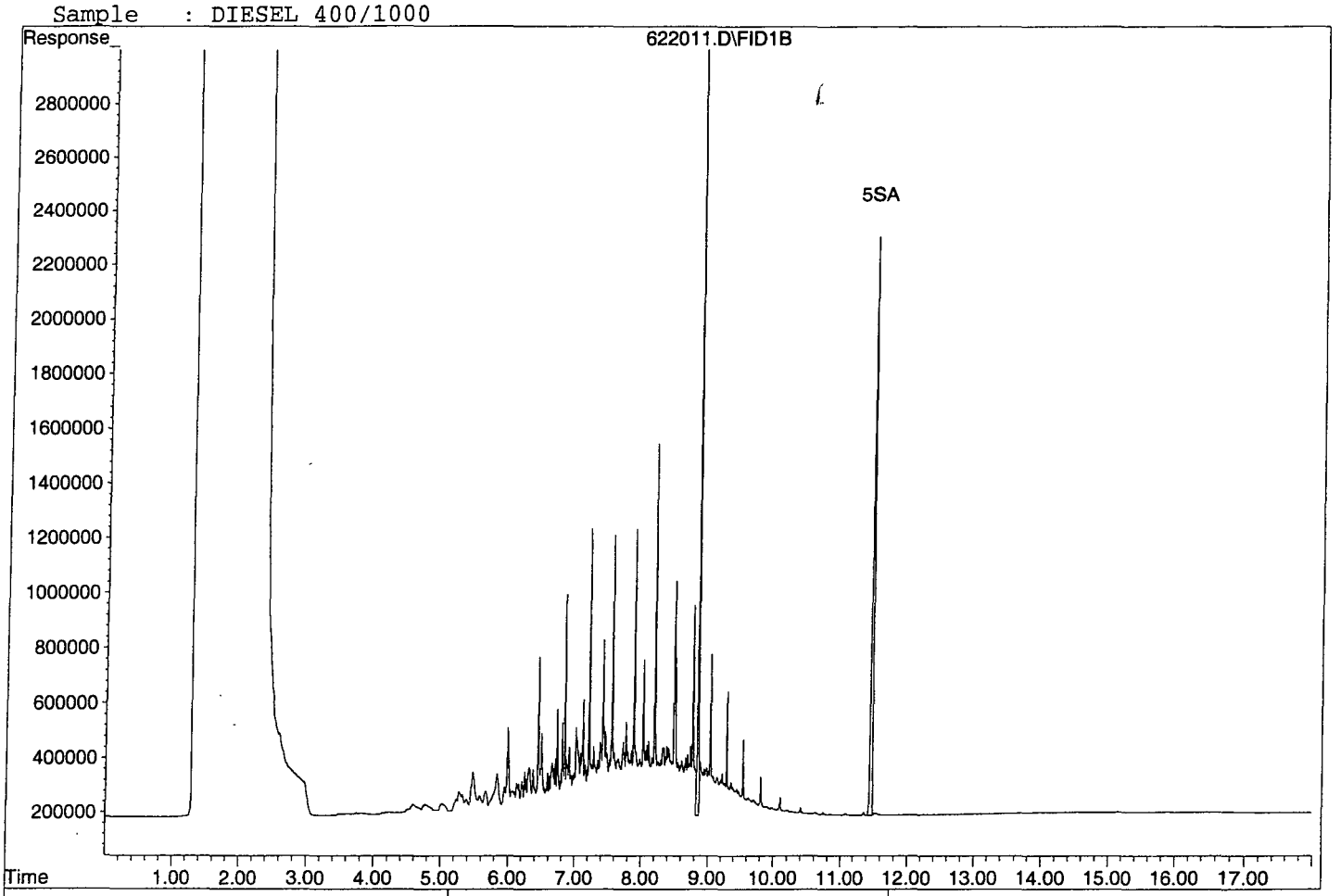
Data File : G:\APOLLO\DATA\120622\622011.D Vial: 11
Acq On : 6-22-12 21:11:13 Operator: LAC
Sample : DIESEL 400/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Jun 25 9:05 2012 Quant Results File: TPH0622.RES

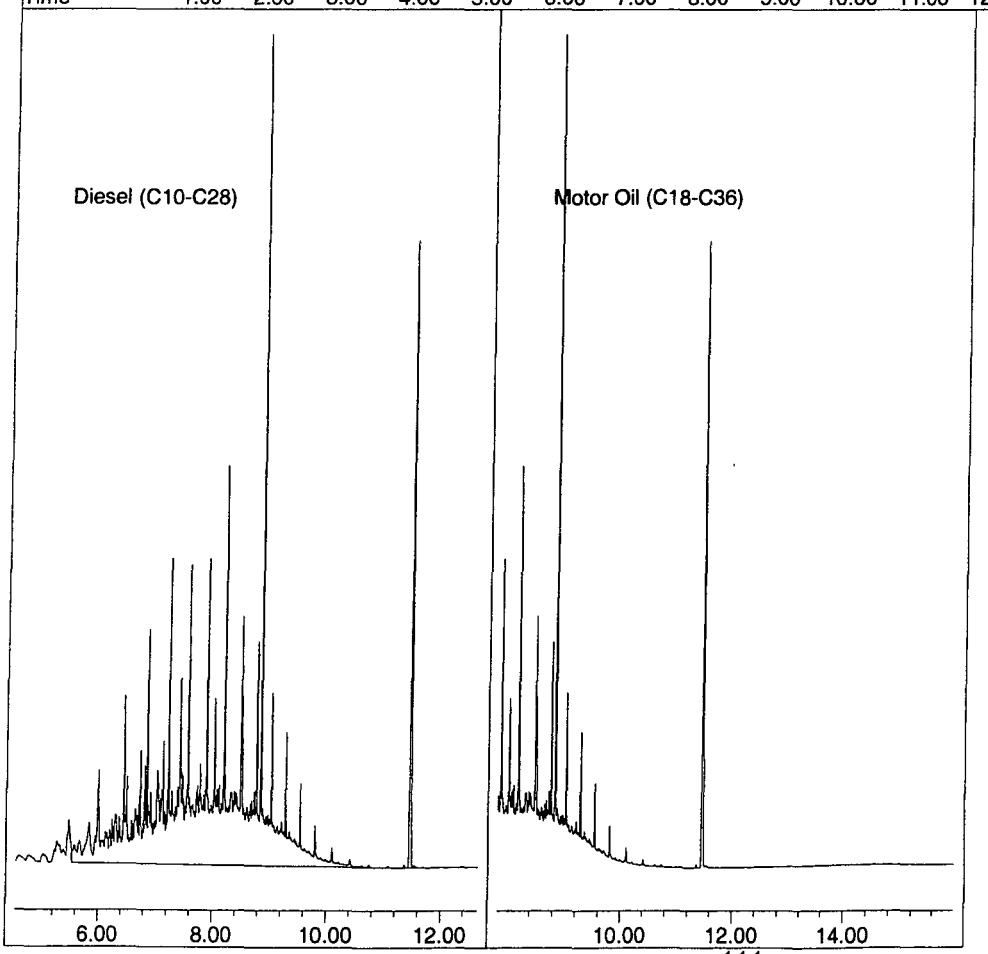
Method : G:\APOLLO\DATA\120622\TPH0622.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Jun 25 09:48:29 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.84	31783742	19.863 ppb
Surrogate Spike 30.000	Recovery =		66.21%
5) SA Not Used2(S)	11.47	28563798	23.990 ppb
Surrogate Spike 30.000	Recovery =		79.97%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	425245865	388.700 ppb

Data File: G:\APOLLO\DATA\120622\622011.D
Sample : DIESEL 400/1000





Quantitation Report (Not Reviewed)

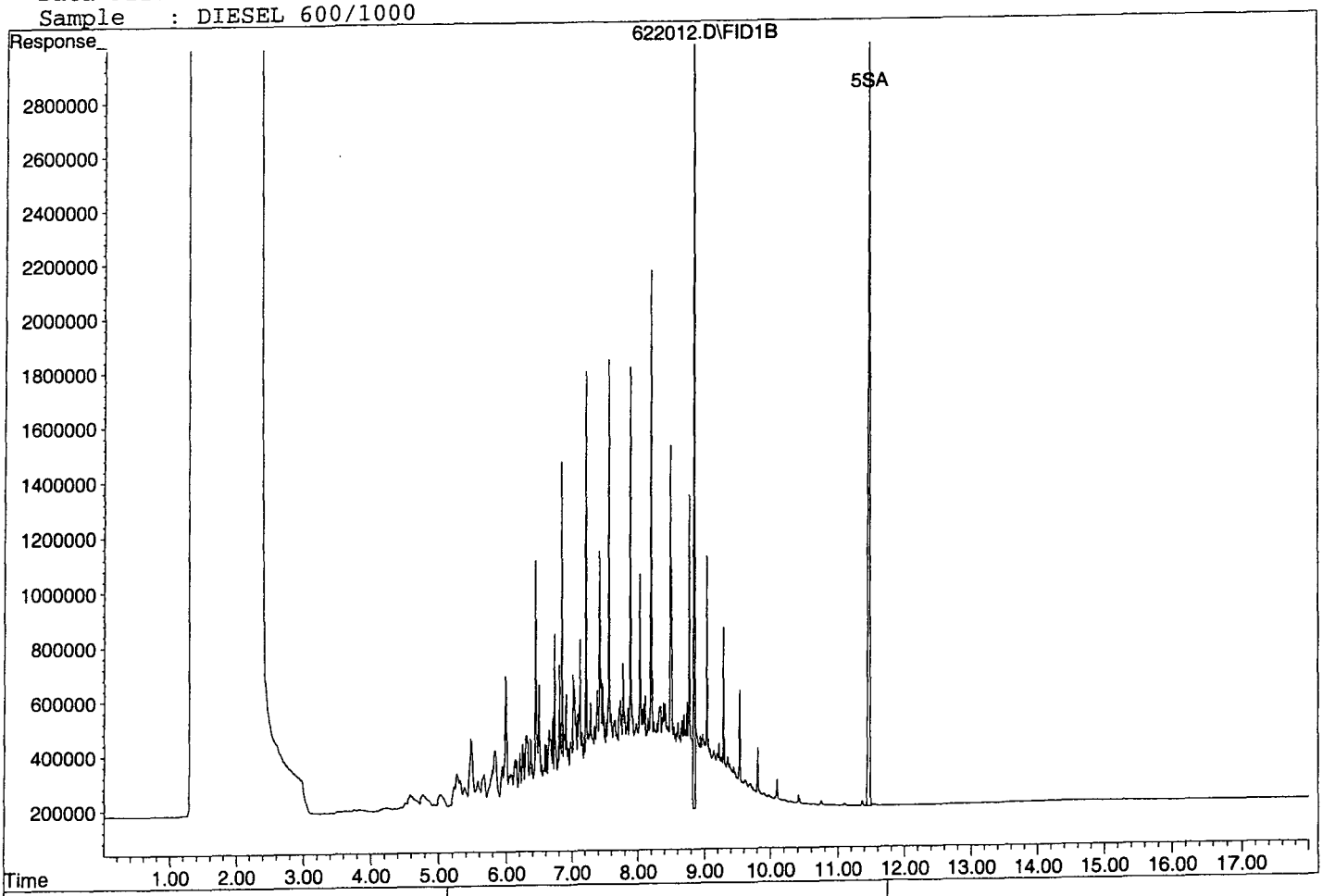
Data File : G:\APOLLO\DATA\120622\622012.D Vial: 12
Acq On : 6-22-12 21:35:18 Operator: LAC
Sample : DIESEL 600/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Jun 25 9:05 2012 Quant Results File: TPH0622.RES

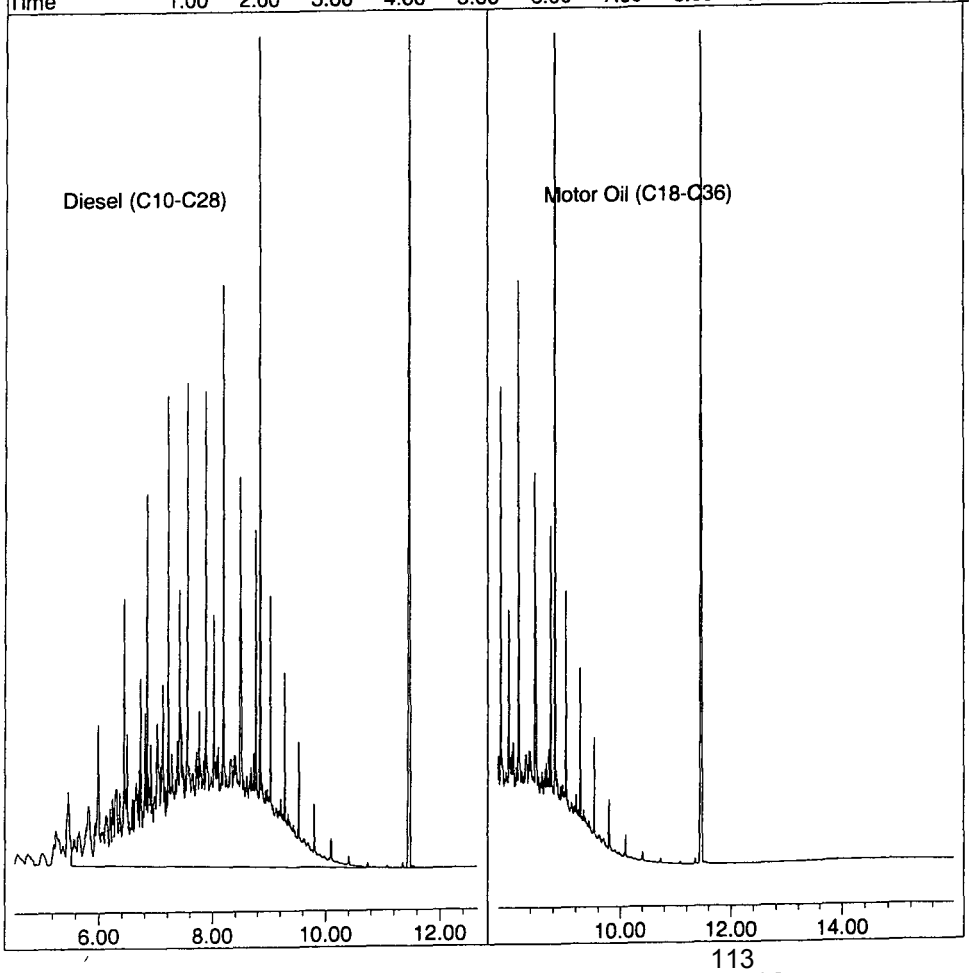
Method : G:\APOLLO\DATA\120622\TPH0622.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Jun 25 09:48:29 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.84	48229746	30.140 ppb
Surrogate Spike 30.000	Recovery =		100.47%
5) SA Not Used2(S)	11.47	43434321	36.480 ppb
Surrogate Spike 30.000	Recovery =		121.60%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	651220989	595.255 ppb

Data File: G:\APOLLO\DATA\120622\622012.D
Sample : DIESEL 600/1000





Quantitation Report (Not Reviewed)

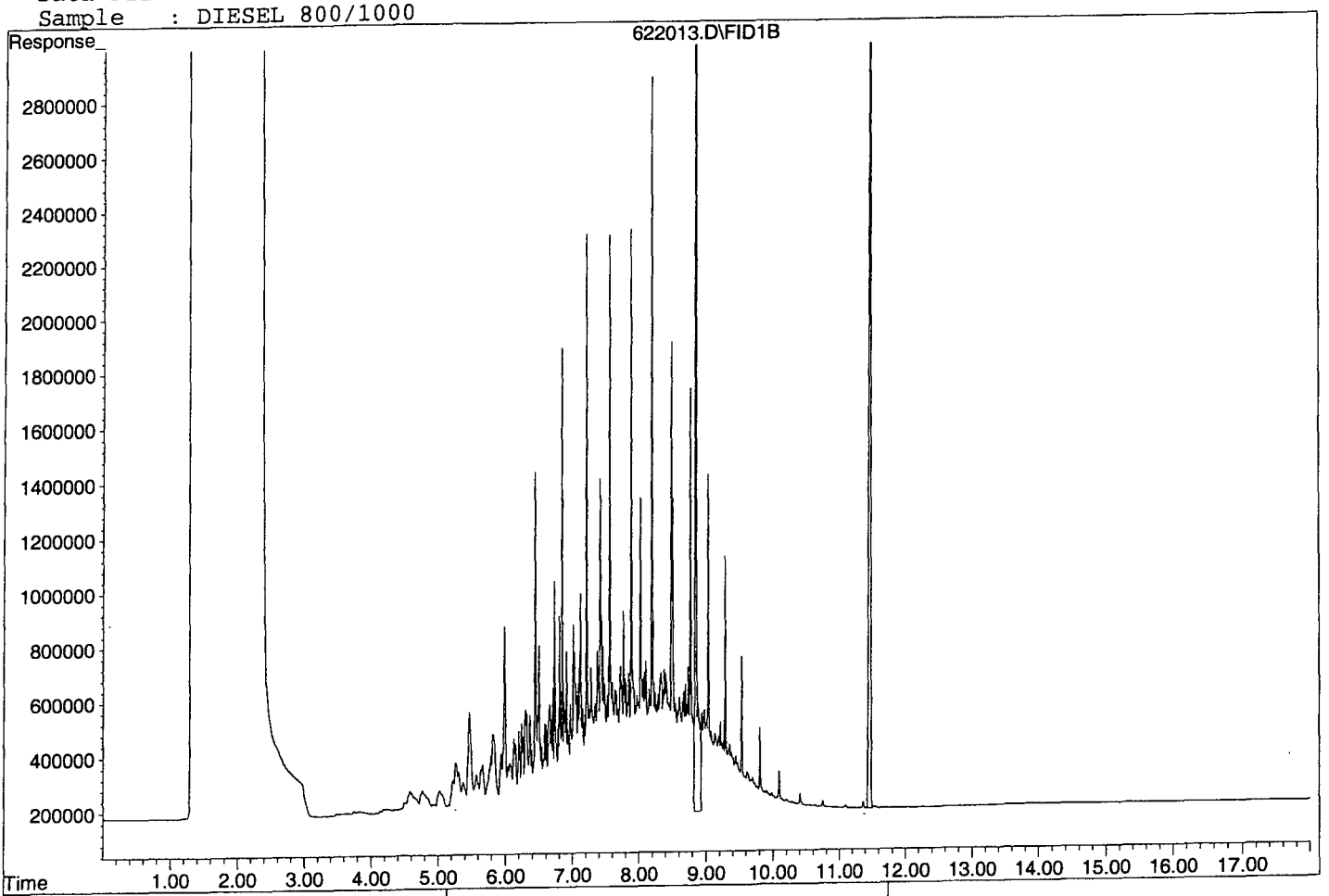
Data File : G:\APOLLO\DATA\120622\622013.D Vial: 13
Acq On : 6-22-12 21:59:20 Operator: LAC
Sample : DIESEL 800/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Jun 25 9:05 2012 Quant Results File: TPH0622.RES

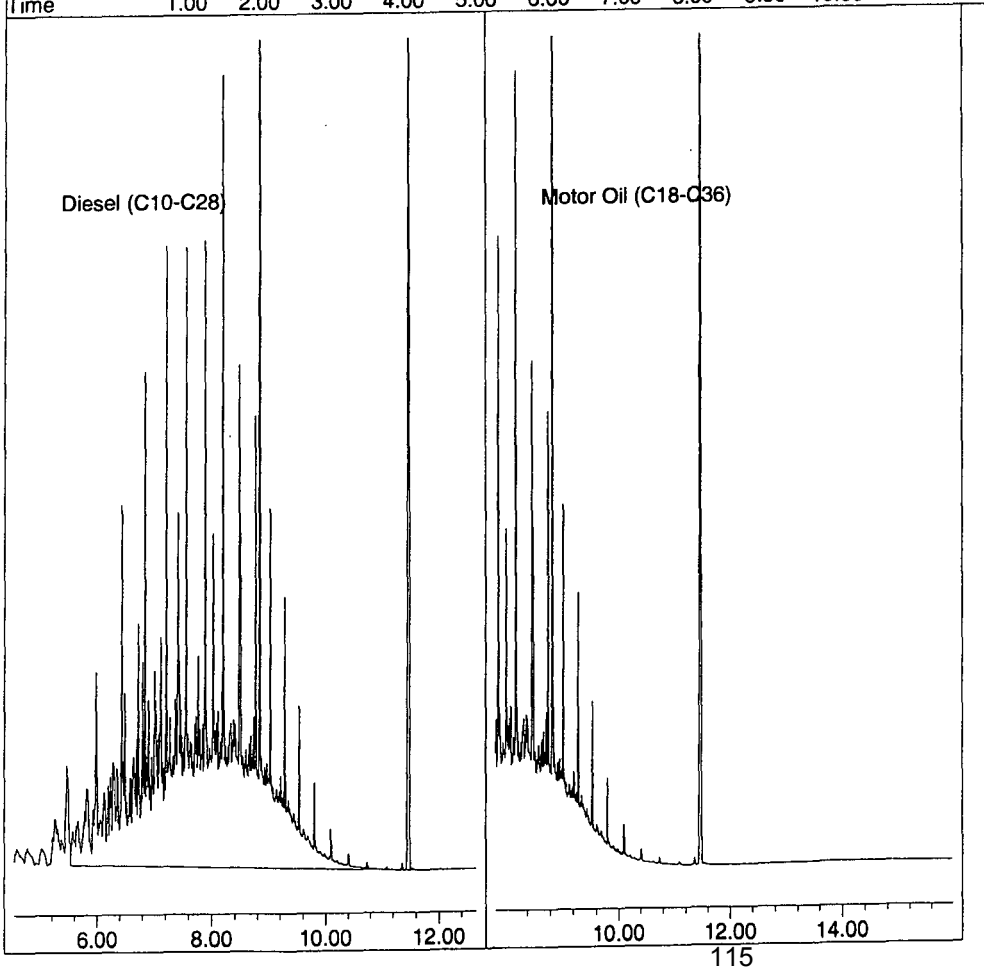
Method : G:\APOLLO\DATA\120622\TPH0622.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Jun 25 09:48:29 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	8.85	76202842	47.622 ppb
Surrogate Spike 30.000	Recovery =		158.74%
5) SA Not Used2(S)	11.48	57498014	48.292 ppb
Surrogate Spike 30.000	Recovery =		160.97%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	848074829	775.192 ppb

Data File: G:\APOLLO\DATA\120622\622013.D
Sample : DIESEL 800/1000





Quantitation Report (Not Reviewed)

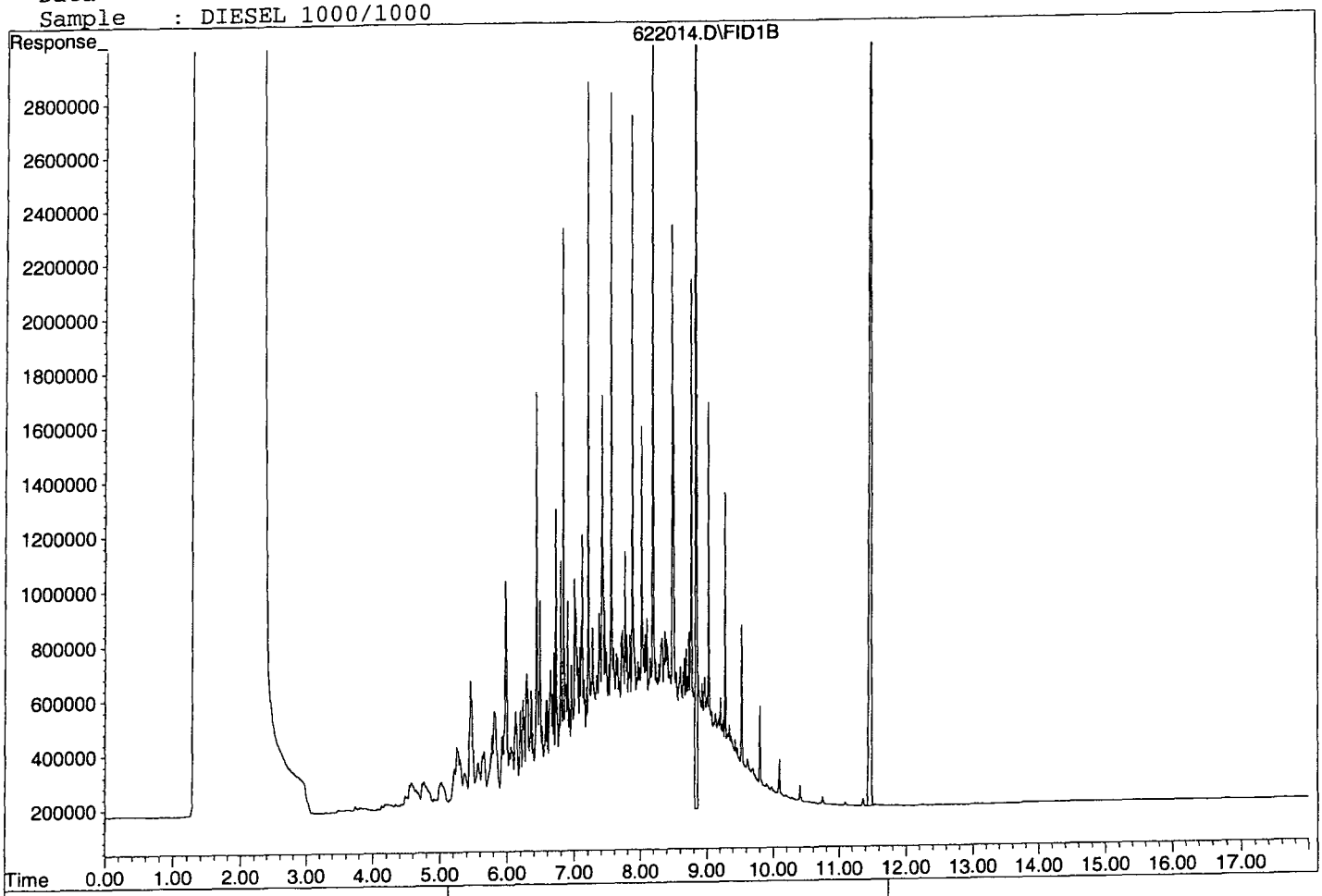
Data File : G:\APOLLO\DATA\120622\622014.D Vial: 14
Acq On : 6-22-12 22:23:21 Operator: LAC
Sample : DIESEL 1000/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Jun 25 9:05 2012 Quant Results File: TPH0622.RES

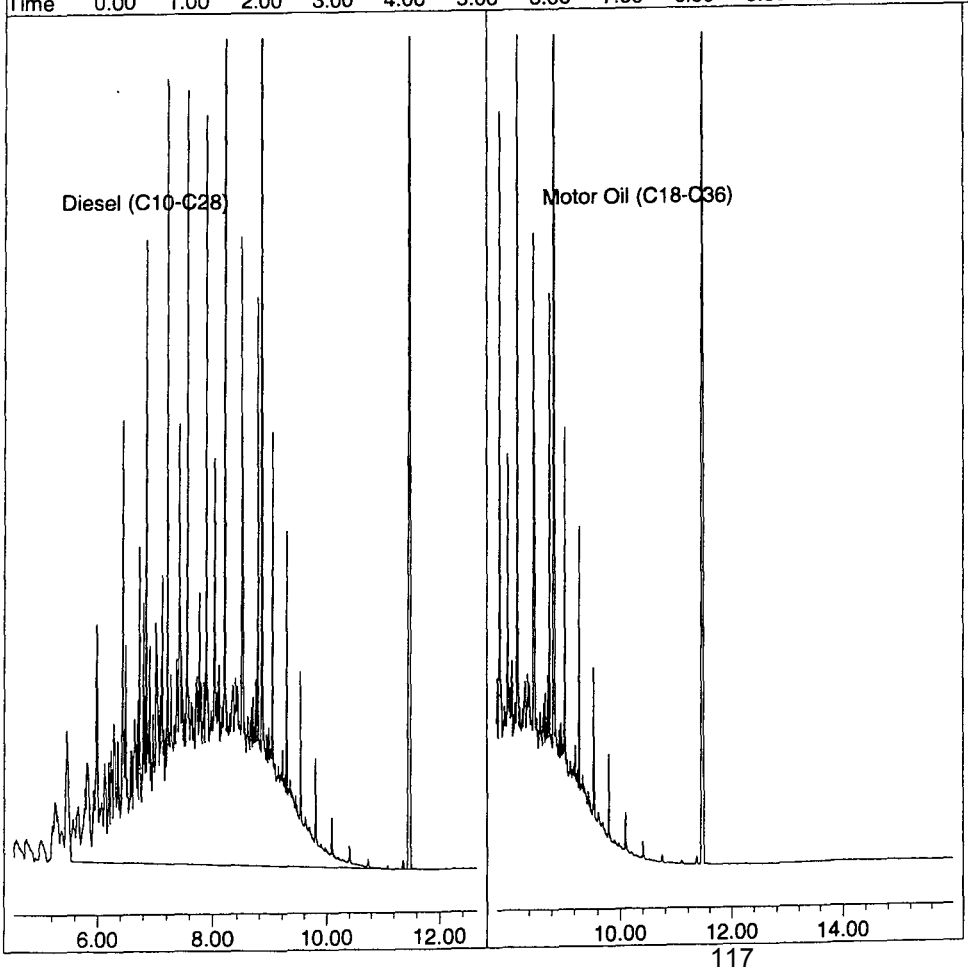
Method : G:\APOLLO\DATA\120622\TPH0622.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Jun 25 09:48:29 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	8.85	80954970	50.591	ppb
Surrogate Spike 30.000	Recovery =		168.64%	
5) SA Not Used2(S)	11.48	71709415	60.228	ppb
Surrogate Spike 30.000	Recovery =		200.76%	
Target Compounds				
1) HATM Diesel (C10-C28)	8.60	1080072891	987.252	ppb

Data File: G:\APOLLO\DATA\120622\622014.D
Sample : DIESEL 1000/1000





TPH Extractables
TPH622

Form 7
Second Source

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

SDG No: 68248
Date Analyzed: 06/22/12
Instrument: Apollo
Initial Cal. Date: 06/22/12
Data File: 622015.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C28)	549491	516614	6.0	HATM	
2							
3							
4							
5							
6							
7							
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32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			6.0		

Quantitation Report (QT Reviewed)

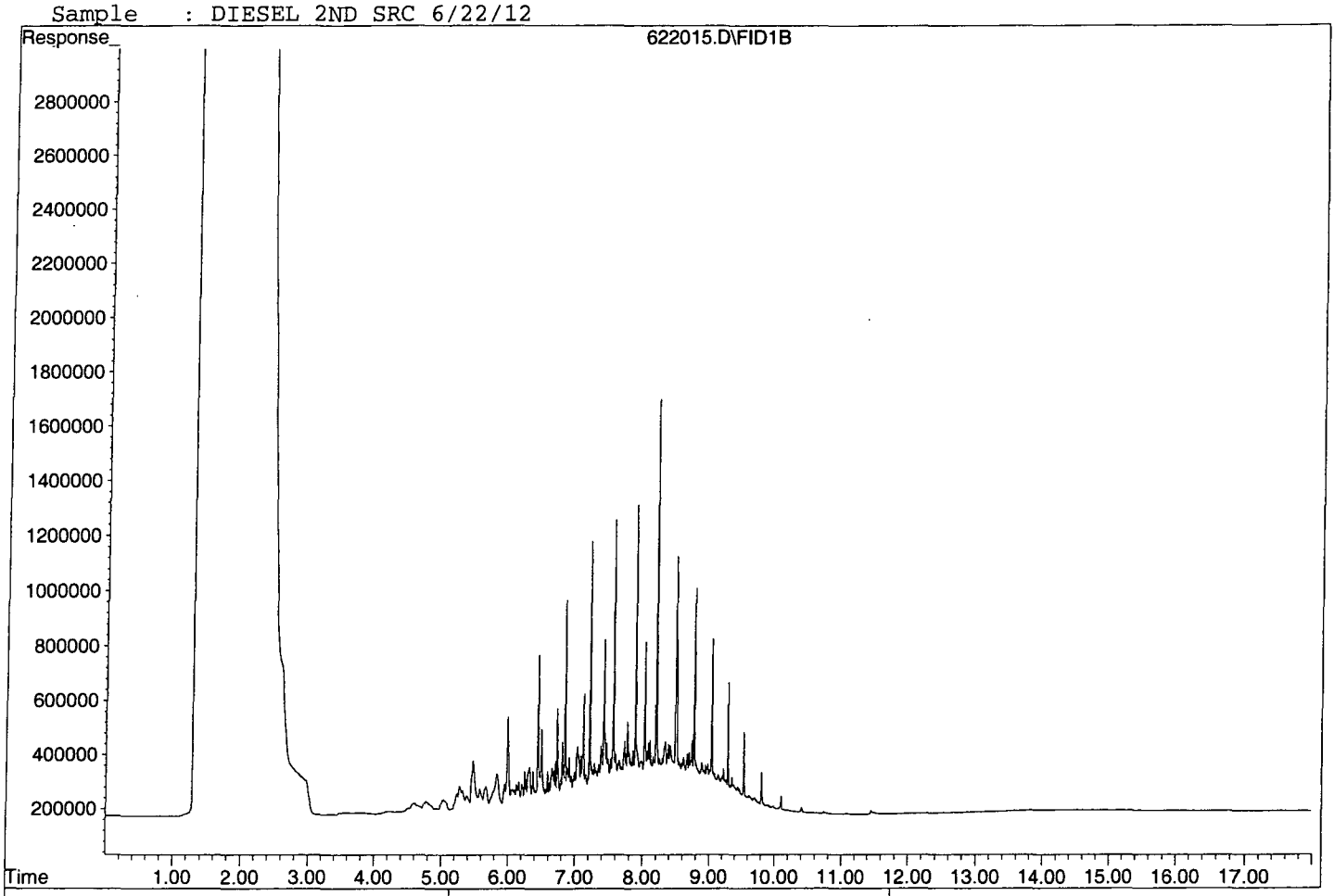
Data File : G:\APOLLO\DATA\120622\622015.D Vial: 15
Acq On : 6-22-12 22:47:20 Operator: LAC
Sample : DIESEL 2ND SRC 6/22/12 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Jun 25 9:28 2012 Quant Results File: TPH0622.RES

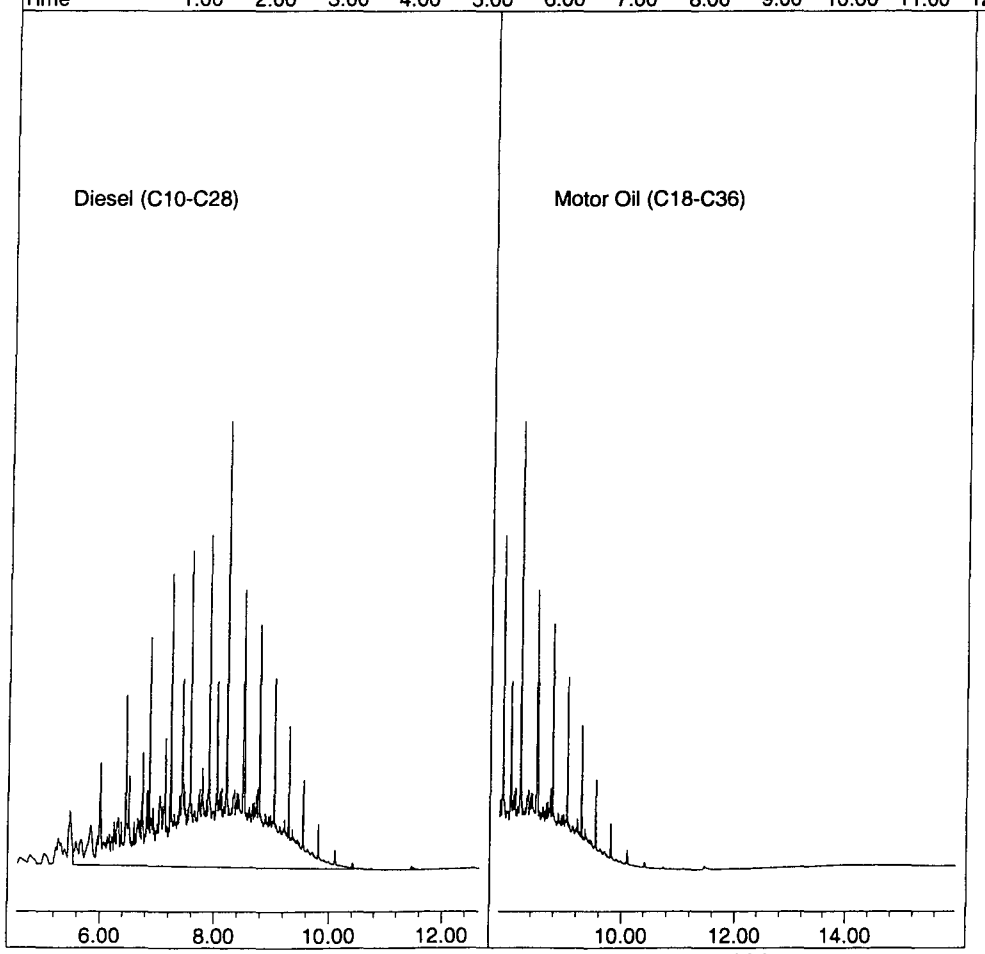
Method : G:\APOLLO\DATA\120622\TPH0622.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Jun 25 09:48:29 2012
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	413291584	376.067 ppb

Data File: G:\APOLLO\DATA\120622\622015.D
Sample : DIESEL 2ND SRC 6/22/12





TPH Extractables
TPH0719

Form 7

Continuing Calibration

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

SDG No: 68248
Date Analyzed: 07/31/12
Instrument: Apollo
Initial Cal. Date: 07/31/12
Data File: 731002.D, 003.d

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	549491	494592	10	HATM	
2	HBTM	Motor Oil (C18-C36)	432503	381666	12	HBTM	
3							
4							
5							
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37							
38							
39							
40							
		Average			11.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\120731\731002.D Vial: 2
Acq On : 7-31-12 10:15:07 Operator: LAC
Sample : DIESEL 400ppm 7/31/12 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Aug 2 17:32 2012 Quant Results File: TPH0719.RES

Method : G:\APOLLO\DATA\120731\TPH0719.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Aug 02 17:43:25 2012
Response via : Multiple Level Calibration

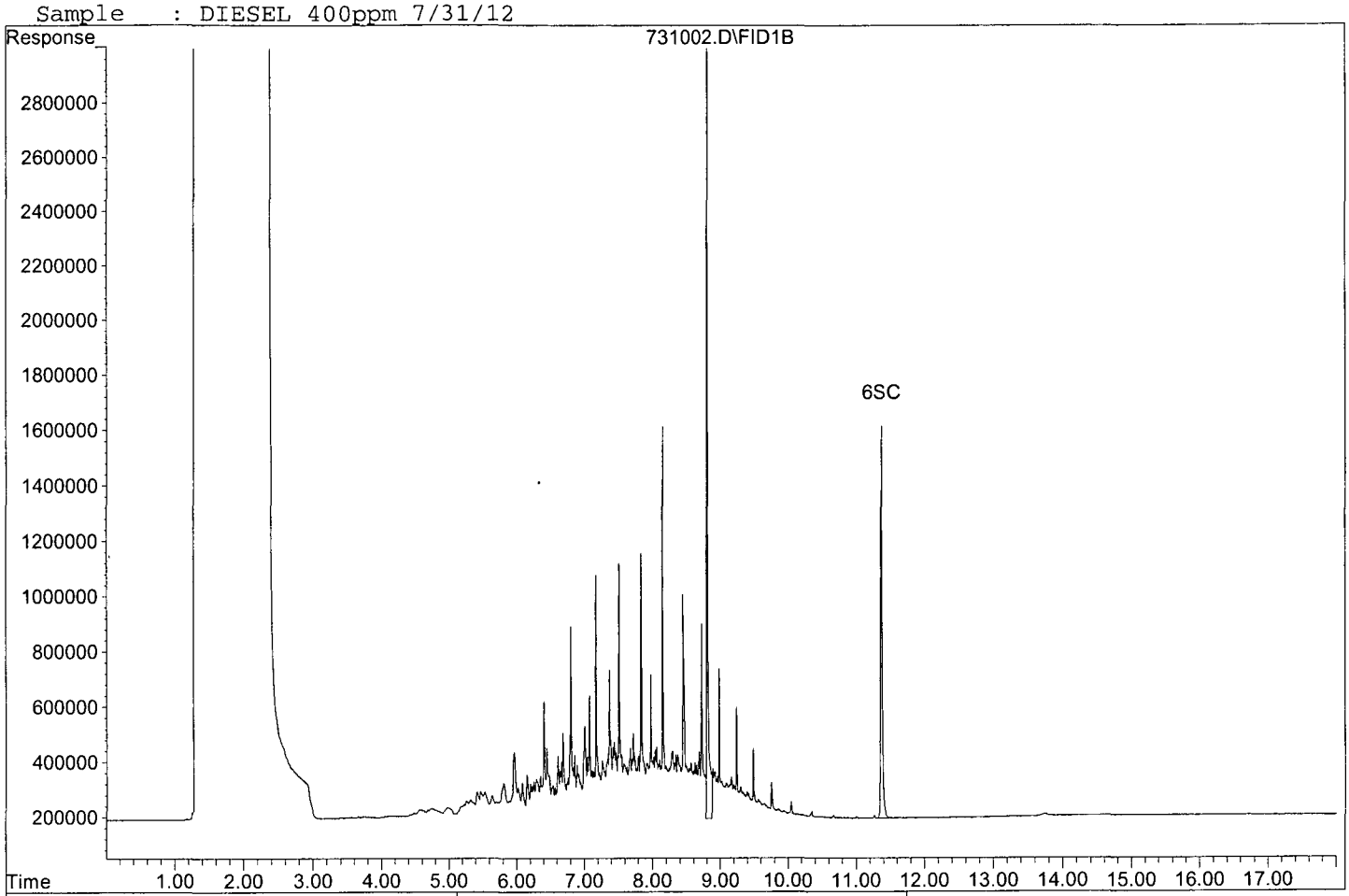
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

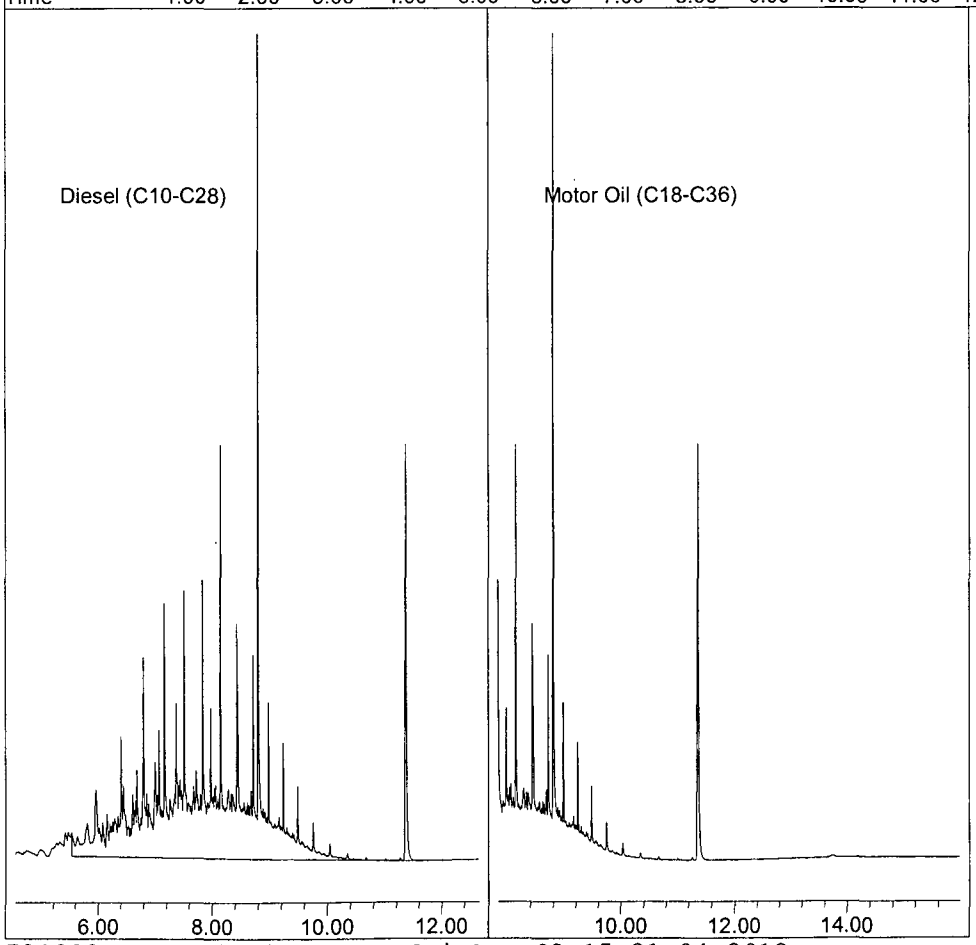
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.80	34641855	24.581 ppb
Surrogate Spike 30.000		Recovery =	81.94%
6) SC Octacosane(S)	11.37	23218499	15.405 ppb
Surrogate Spike 30.000		Recovery =	51.35%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	395673584	360.036 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\120731\731002.D
Sample : DIESEL 400ppm 7/31/12





TPH Extractables
TPH0719

Form 7

Continuing Calibration

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

SDG No: 68248
Date Analyzed: 07/31/12
Instrument: Apollo
Initial Cal. Date: 07/31/12
Data File: 731020.D, 021.d

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C28)	549491	509123	7.3	HATM	
2	HBTM	Motor Oil (C18-C36)	432503	394077	8.9	HBTM	
3							
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36							
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38							
39							
40							
		Average			8.1		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\120731\731020.D Vial: 20
Acq On : 7-31-12 17:28:05 Operator: LAC
Sample : DIESEL 400ppm 7/30/12 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Aug 2 17:33 2012 Quant Results File: TPH0719.RES

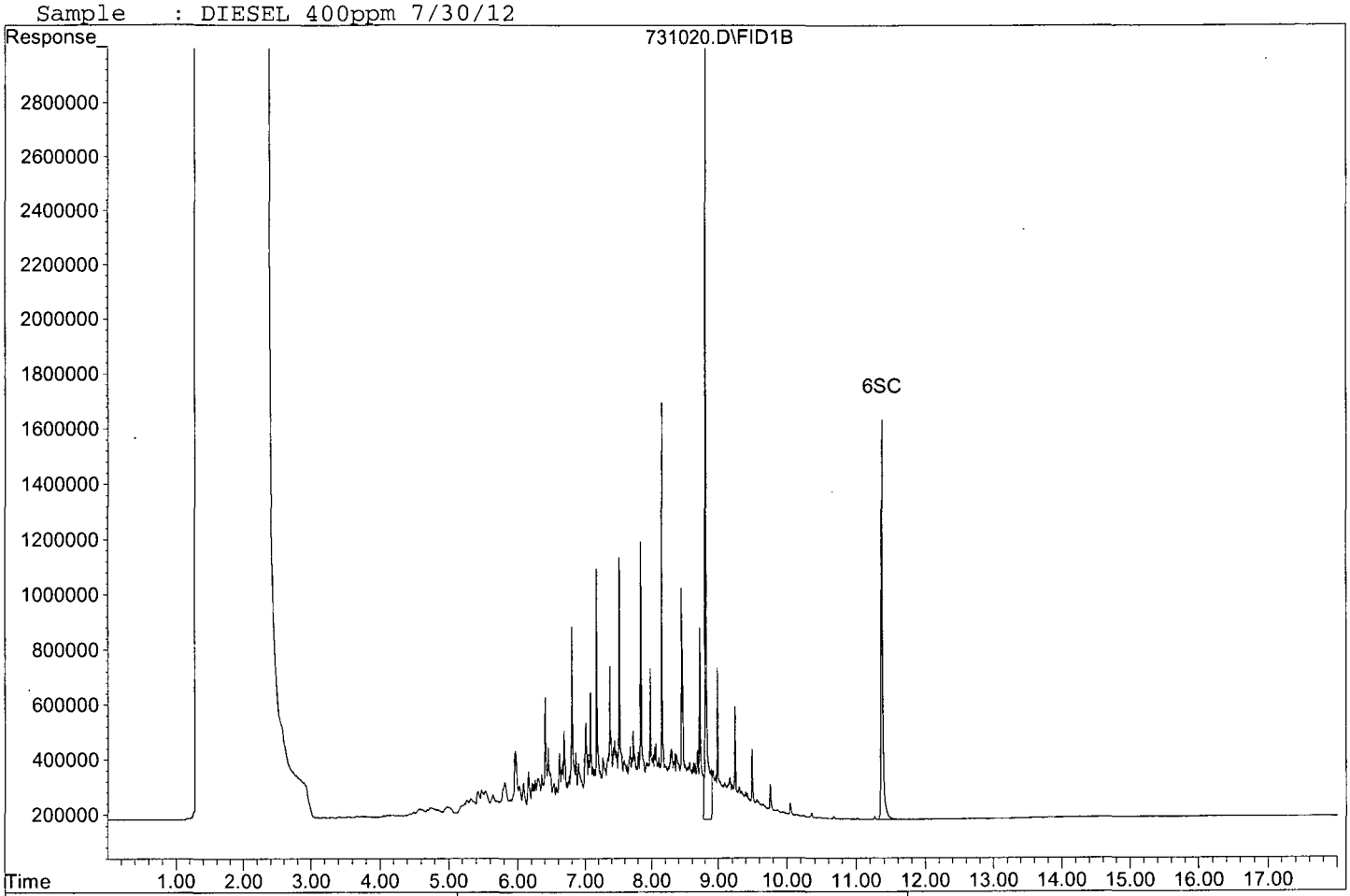
Method : G:\APOLLO\DATA\120731\TPH0719.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Aug 02 17:43:25 2012
Response via : Multiple Level Calibration

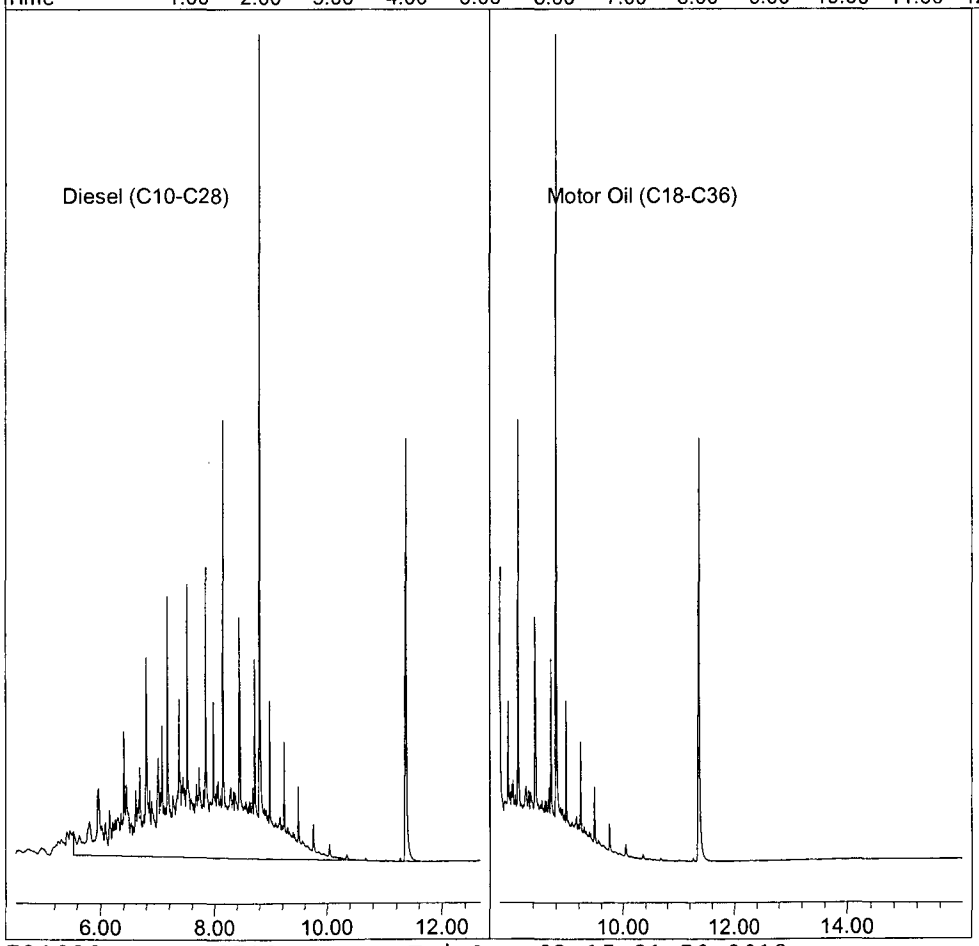
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.80	38819888	27.546 ppb
Surrogate Spike 30.000		Recovery =	91.82%
6) SC Octacosane(S)	11.36	23947613	15.889 ppb
Surrogate Spike 30.000		Recovery =	52.96%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	407298733	370.614 ppb

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

Data File: G:\APOLLO\DATA\120731\731020.D
Sample : DIESEL 400ppm 7/30/12





731020.D TPH0719.M Fri Aug 03 15:21:50 2012

EPA 8015B
Total Petroleum Hydrocarbons -

Raw Data

Method Blank
TPH Diesel Water

Blank Name/QCG: **120723W-65041 - 169578**
Batch ID: #TPETD-120723A

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	07/23/12	07/31/12
BLANK	SURROGATE: OCTACOSANE (S)	40.6	28-142			%	07/23/12	07/31/12
BLANK	SURROGATE: ORTHO-TERPHEN	48.6 #	57-132			%	07/23/12	07/31/12

= Recovery (or RPD) is outside QC limits.

Quant Method: TPH0719.M
Run #: 731013
Instrument: Apollo
Sequence: 120731
Initials: SD

Printed: 08/02/12 6:04:27 PM
GC SC-Blank-REG MDLs

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\120731\731013.D Vial: 13
Acq On : 7-31-12 14:39:54 Operator: LAC
Sample : 120723A BLK 5/1000 Inst : Apollo
Misc : Water Multiplr: 5.00
IntFile : events.e
Quant Time: Aug 1 15:55 2012 Quant Results File: TPH0719.RES

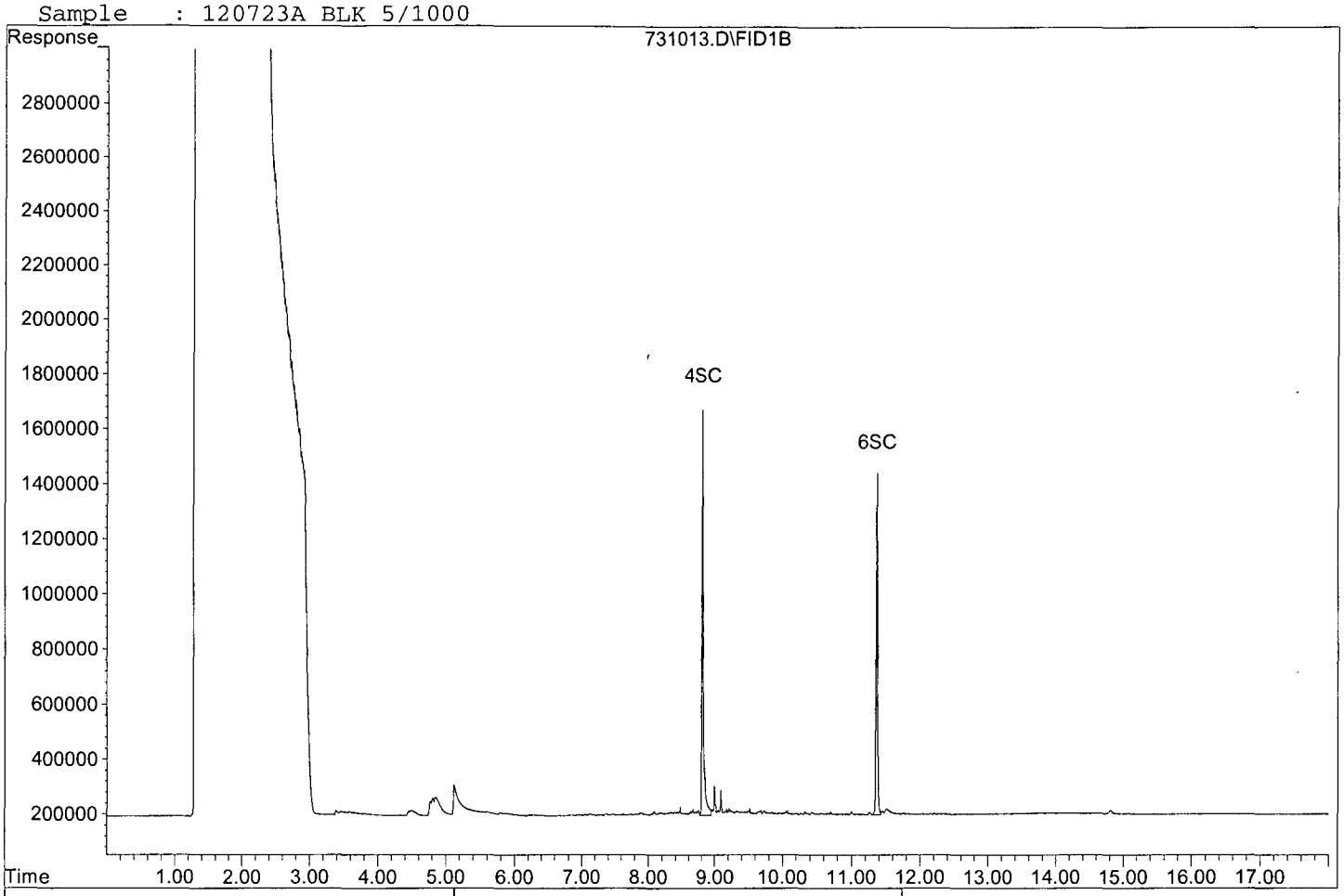
Method : G:\APOLLO\DATA\120731\TPH0719.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Aug 02 17:43:25 2012
Response via : Multiple Level Calibration

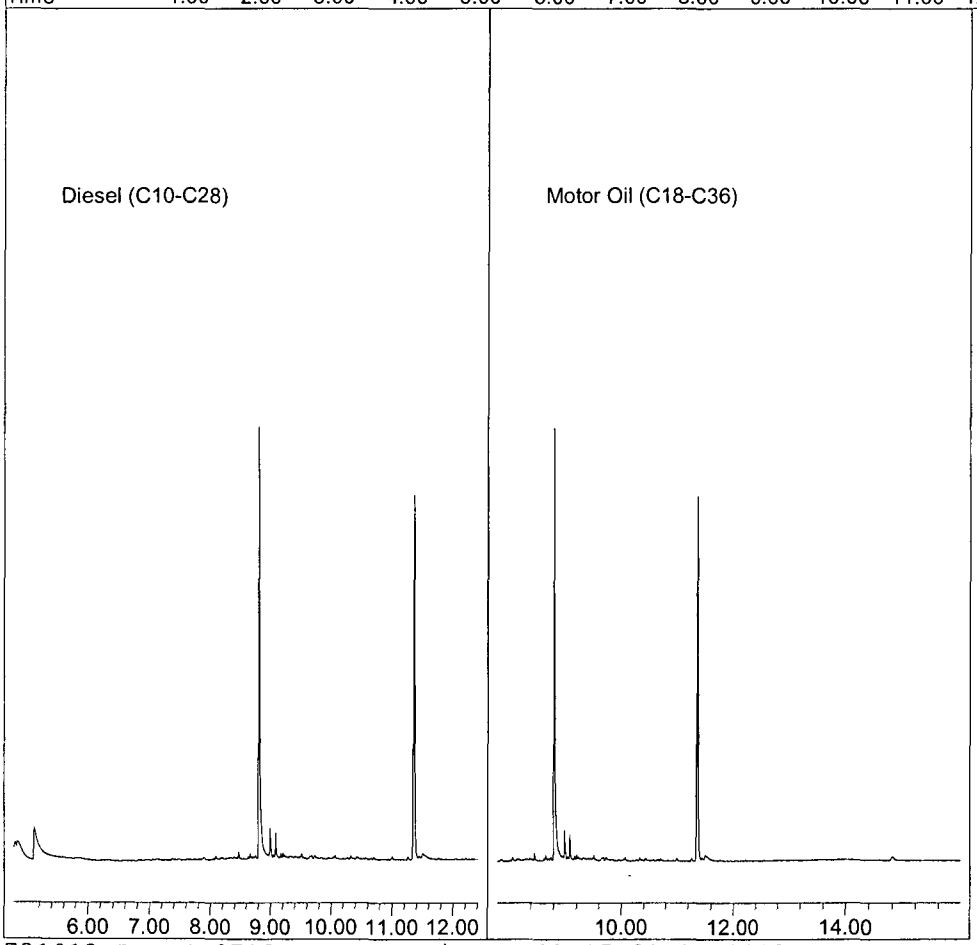
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.81	20557348	72.935 ppb
Surrogate Spike 150.000		Recovery =	48.62%
6) SC Octacosane(S)	11.36	18363331	60.920 ppb
Surrogate Spike 150.000		Recovery =	40.61%
Target Compounds			

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

Data File: G:\APOLLO\DATA\120731\731013.D
Sample : 120723A BLK 5/1000





Laboratory Control Spike Recovery
TPH Diesel Water

APPL ID: **120723W-65041 LCS - 169578**
Batch ID: #TPETD-120723A

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	1440	72.0	61-143
LUBE OIL	2000	1400	70.0	61-143
SURROGATE: OCTACOSANE (S)	150	87.7	58.5	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	137	91.3	57-132

Comments: _____

Primary	SPK
Quant Method :	TPH0719.M
Extraction Date :	07/23/12
Analysis Date :	07/31/12
Instrument :	Apollo
Run :	731014
Initials :	SD

Printed: 08/02/12 5:59:14 PM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\120731\731014.D Vial: 14
Acq On : 7-31-12 15:03:52 Operator: LAC
Sample : 120723A LCS-1 5/1000 Inst : Apollo
Misc : Water Multiplr: 5.00
IntFile : events.e
Quant Time: Aug 1 15:55 2012 Quant Results File: TPH0719.RES

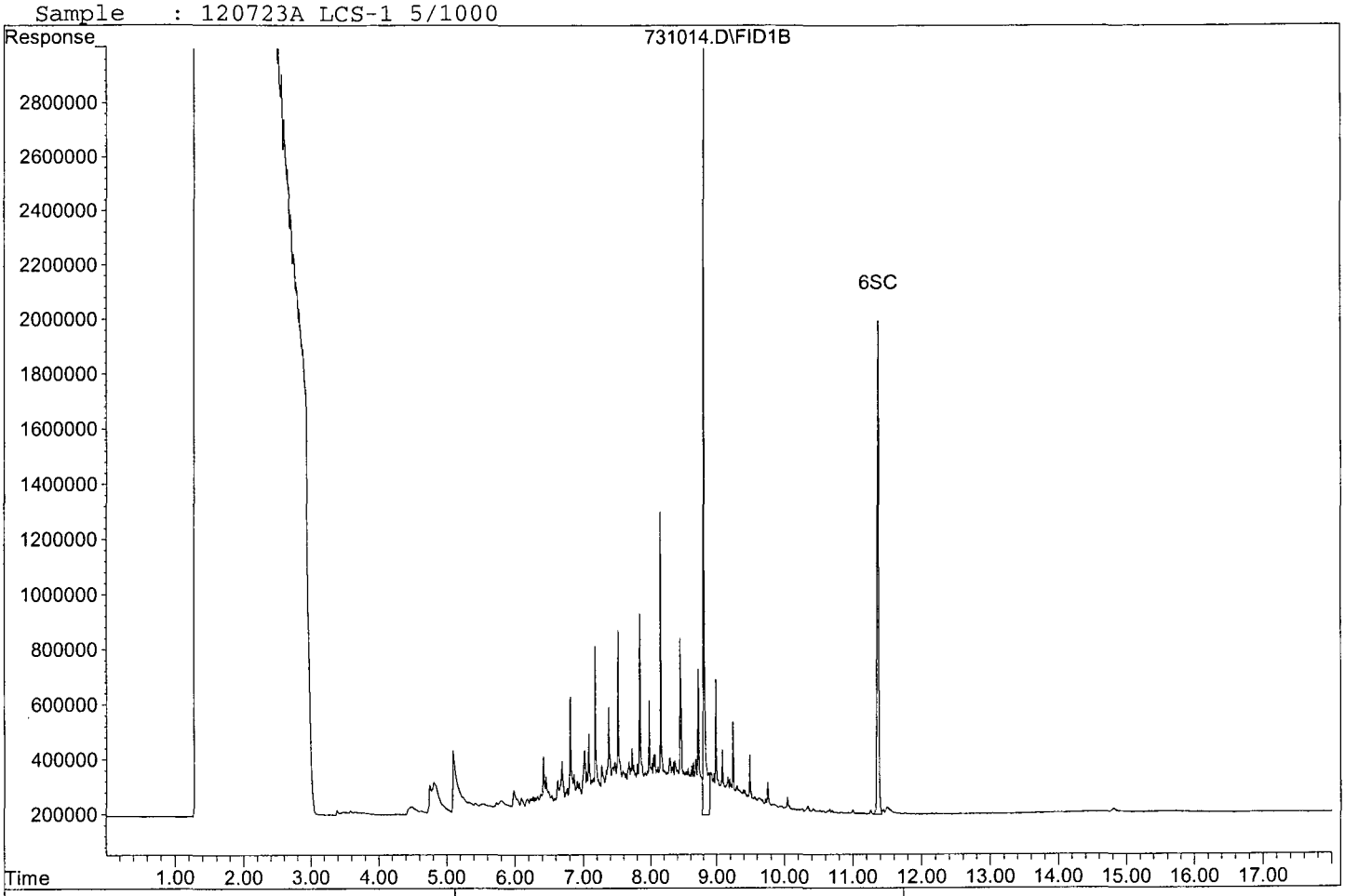
Method : G:\APOLLO\DATA\120731\TPH0719.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Aug 02 17:43:25 2012
Response via : Multiple Level Calibration

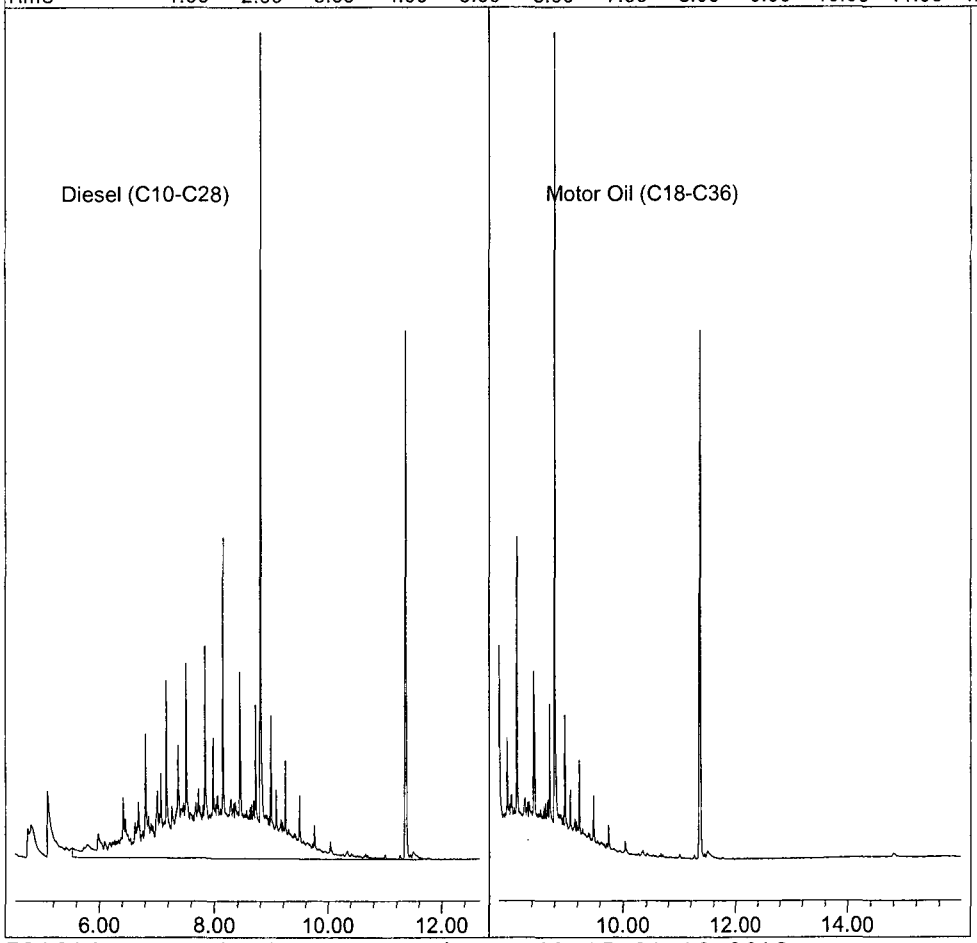
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.80	38496498	136.581 ppb
Surrogate Spike 150.000		Recovery =	91.05%
6) SC Octacosane(S)	11.36	26424152	87.662 ppb
Surrogate Spike 150.000		Recovery =	58.44%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	317227952	1443.280 ppb

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

Data File: G:\APOLLO\DATA\120731\731014.D
Sample : 120723A LCS-1 5/1000





STANDARD | CONC | DATE | ALIQUOT | VOLUME | FINAL CONC | LOT# | INITIALS

STANDARD | INITIAL CONC | SOURCE DATE | ALIQUOT | FINAL VOLUME | FINAL CONC | SOLVENT LOT# | 005 INITIALS

PCB Soil Spike

AR1016 | 1,000 mg/L | 02SI | 1250 mL | 25mL | 50 ug/mL | Acetone | CM

AR1260

Aroclor 1016 + 1260 Solution, 1,000 mg/L, 1 ml
130011-03
Lot# 163759 | Storage ≤ Ambient | Expiry 9/14/13
Solv: Hexane
R&D only, not for human consumption. Made in the USA

Aroclor 1016 + 1260 op. 6-21-12
Lot #: 163759 - 29969 ex. 6-21-13
Rec: 11/10/11 MFR exp. 09/14/13 CM
CM 6-21-12

1
AND LOT: 163759-29971
163759 op. 2-14-12 CM 6-21-12 ex. 2-14-13

#022912B | 6-21-12
ex. 9-21-12

OCL Soil Surrogate

DECA | 5,000 mg/mL | 02SI | 1mL | 250mL | 20 mg/mL | Acetone | CM

DBC

TCMX

Pesticide Surrogate Solution, 5,000 mg/L, 1 ml
02si
Cat. No: 130070-02
Lot No: 154164
Pesticide Surr. Soln, 5000mg/L
Lot #: 154164 - 29418
Rec: 8/26/11 MFR exp. 12/19/12
Exp: 12/19/2012
Storage: </= Ambient
Solvent: Tol.:Hex. 1:1
ption For Research Use Only
Opened: 6-21-12
ex. 6-21-13
CM 6-21-12

#022912B | 6-21-12
ex 9-21-12

DIESEL CAL STD.						
STD.	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT / LOT#
DIESEL FUEL #2	50,000 ug/mL	O2SI CAT#011598-03 LOT#183767-30909 OP:6/22/12 EXP:6/22/13	1mL	50mL	1000ug/mL	MC LOT# 51306
O-TERPHENYL OCTACOSANE	600 ug/mL	O2SI CAT#110316-05 LOT#183766-30661 OP:3/5/12EXP:3/5/13	4160 µL		50ug/mL	

CM 6-22-12
ex. 12-22-12

Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml
011598-03
Lot# 183767 | Storage ≤ -10 Degrees C | Expiry 2/11/16
Solv: Methylene Chloride
R&D only, not for human consumption. Made in the USA

Diesel Fuel #2 Composite sp. 6-22-12
Lot #: 183767 - 30909 ex. 6-22-13
Rec: 5/30/12 MFR exp. 02/11/16 CM
CM 6-22-12

CM 6-22-12

DIESEL SECOND SOURCE						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT / LOT#
DIESEL FUEL #2	50,000 ug/mL	O2SI CAT#011598-03 LOT#167769-29398 OP:6/22/12 EXP:6/22/13	200uL	10mL	1000ug/mL	MC #51306

CM 6-22-12

CM 6-22-12
ex. 12-22-12

CM 6-22-12

GCMS STANDARD PREP LOG# _____ PAGE# _____

006

STANDARD | INITIAL CONC | SOURCE DATE | ALIQUOT | FINAL VOLUME | FINAL CONC | SOL'VENT LOT# | DATE/ INITIALS

MOTOR OIL CAL STD

STD.	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT / LOT#
MOTOR OIL	50,000 ug/mL	Motor Oil Composite, 50,000 mg/L, 1 ml 116390-02 Lot#: 183768 Storage: ≤ -10 Degrees C Expiry: 1/3/15 Solv: Methylene Chloride R&D only, not human or drug. Made in the USA	1mL	50mL	1000ug/mL	MC LOT# 51306

CM 6-22-12

Motor oil composite op. 6-22-12

Lot #: 183768 - 30232 cx. 6-22-13 CM

Rec: 1/10/12 MFR exp. 01/08/15

CM 6-22-12

CM 6-22-12 cx. 12-22-12

CM 6-22-12

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#183766-30661 OP:6/12/12 EXP:6/12/13	834 µL	10mL	50ug/mL	MC LOT# 51306

CM 6-22-12

CM 6-22-12 cx. 12-22-12

TCH SURROGATE CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
THC SURR	50		06/22/12	12/22/12	50	100	400	600	800	1000
MC		51306			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

DIESEL CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
DIESEL	1000		06/22/12	12/22/12	10	100	400	600	800	1000
MC		51306			990	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

MOTOR OIL CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
MOTOR OIL	1000		06/22/12	12/22/12	50	100	400	600	800	1000
MC		51306			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

DIESEL 2ND SOURCE

STD	Init. Conc	Source	Aliquot	Final Vol.	Final Conc.	Solvent
DIESEL 2ND SRC	1000µg/ml	O2SI	400µL	1 mL	400 µg/mL	MC
	Prep:	06/22/12				51306
	Exp:	12/22/12				

CM 6-22-12

GC/MS STANDARD PREP LOG# _____ PAGE# _____ 039

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	OCL EN... LOT #	DATE / INITIALS
			MOTOR OIL CCV 500ppm				CM
MOTOR OIL STD	2000 ug/mL	0251 M.O. STD prep. 7-19-12	250uL ex. 1-19-13	1mL ↓	500 ug/mL ↓	MC # 51306	7-31-12 ex. 1-19-13
			DIESEL CCV 400ppm				
DIESEL STD	1000 ug/mL	Diesel STD prep. 6-22-12	400uL ex. 12/22/12	1mL ↓	400 ug/mL ↓	MC #57306	CM 7-31-12 ~~ex. 1-19-13~~

OCL Second Source

Compounds	Conc in mix	Conc in stock	Aliquot	Source stock	Final Vol
a-BHC	.10 ug/mL	100 ~~10~~ ug/mL	100 ~~250~~ ul	OCL 2nd Src Stk	10 ~~25~~ mL
b-BHC			~~Prep:~~	~~06/23/11~~	Hexane
d-BHC			~~Exp:~~	~~06/23/12~~	~~# 801908D~~
g-BHC			Prep:	~~7~~ 7/30/12	082610B
aldrin				12/12/12	
heptachlor					LH 8/3/12
heptachlor-epoxide isomer B					
a-chlordane					
g-chlordane					
pp-DDD					
pp-DDE					
pp-DDT					
dieldrin					
endrin					
endrin aldehyde					
endrin ketone					
endosulfan I					
endosulfan II					
endosulfan sulfate					
methoxychlor					

LH 8/1/12 exp: 12/12/12

LH 8/1/12

LH 8/1/12

OCL CALIBRATION CURVE

Compound	Conc. In Mix	Conc. Of Stock	Aliquot	stock source	Final Vol.
Various	1A: 0.0025 ug/ml	10 ug/ml	2.5 ul	OCL Stock	10 mL
Analytes	1 - 0.005 ug/ml	10 ug/ml	5 ul	~~prep: 2/13/12~~	10 mL
	2 - 0.050 ug/ml	10 ug/ml	250 ul	~~exp: 11/2/12~~	50 mL
	3 - 0.100 ug/ml	10 ug/ml	500 ul	Prep: 7/30/12	50 mL
	4 - 0.150 ug/ml	10 ug/ml	375 ul	7/30/13	25 mL
	5 - 0.200 ug/ml	10 ug/ml	200ul	LH 8/3/12	10 mL
	6 - 0.250 ug/ml	10 ug/ml	250 ul		10 mL
	1B - 0.001 ug/mL	0.005 ug/mL	1000 ul	Lvl 1	5 mL
				prep: ~~2/13/12~~	8/1/12
		082610B		exp: ~~8/13/12~~	2/1/13
Solvent:	Hexane	Lot: ~~010711A~~	LH 8/3/12		LH 8/3/12

LH 8/1/12 exp 2/1/13

LC/MS STANDARD PREP LOG# _____ PAGE# _____

020

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

AR 1248 CALIBRATION CURVE

AR1248 Prep:3/26/12
Exp: 9/26/12

7/18/12 DAT

LEVELS ID	initial conc.	final conc. (ug/ml)		Aliquot (uL)		Solvent	Final Vol. Solvent (ml)
LEVEL 10	1ug/ml	0.010		10 µL			1.0
LEVEL 50		0.050		50 µL		HEXANE	1.0
LEVEL 100		0.100		100 µL		EM SCIENCE	1.0
LEVEL 250		0.250		250 µL		LOT #082612B	1.0
LEVEL 1000		1.000		1000 µL			1.0

Diesel Spike

DAT
OP: 7/18/12
EX: 7/18/13

R&D only, not for human consump
Made in the USA

Diesel Fuel #2 Composite,
50,000 mg/L, 1 ml

011598-03

Lot #	Storage	Expiry
183767	≤ -10 Degrees C	2/11/16

Solv: Methylene Chloride

Diesel Fuel #2 Composite
Lot #: 183767 - 30901
Rec: 5/30/12 MFR exp. 02/11/16

7/18/12 DAT

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

THC Surrogate (Gave to Extractions)

CM 7-6-12 12-12-12	O-Terphenyl Octacosane	600 mg/L	025E CAT: 110316-05 LOT: 188683-306E4 thru 668 Op. 7-9-12 ex. 7-9-13	N/A	25mL	600 mg/mL	N/A	CM 7-9-12 ex. 7-9-13

MSE002 Surrogate

CM 7-6-12 ex. 7-28-12	1,3-DBP	100 mg/mL	1,3 DBP STK prep. 5-14-12 ex. 5-14-13	35 mL	10 mL	Methanol 0.35 mg/mL		CM 7-9-12 ex. 10-9-12

CM 7-6-12 ex. 7-20-12

OP FAMPHUR CURVE												
PREP:	07/09/12	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 ST	5		07/09/12	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:	07/09/12	5		DATE	EXP. DATE	500						
EXP:	09/23/12	Hexane Lot	082610B	05/11/12	09/23/12	1000						

CM 7-9-12

CM 7-9-12 ex. 7-28-12

PREP DATE:	07/09/12										
OPC CURVE											
EXP:	10/06/12										
						1	2	3	4	5	6
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
	OPC STD	5		06/19/12	10/06/12	10	50	200	500	700	1000
	Hexane		082610B			990	950	800	500	300	NA
					Final VOL.	1000	1000	1000	1000	1000	1000

CM 7-9-12

CM 7-9-12 ex. 10-6-12

SEP011

Organic Extraction Worksheet

Method	THC Separatory Funnel Extraction 3510C	Extraction Set	120723A	Extraction Method	SEP011	Units	mL

piked ID 1	Diesel Ampule 183767-30901		Surrogate ID 1	THC Surrogate 188683-30667	
piked ID 2	Motor Oil Ampule 183768-30234		Surrogate ID 2		
piked ID 3			Surrogate ID 3		
piked ID 4			Surrogate ID 4		
piked ID 5			Surrogate ID 5		
piked ID 6			Sufficient Vol for Matrix QC:	YES	
piked ID 7			Ext. Start Time:	07/23/12 14:15	
piked ID 8			Ext. End Time:	07/24/12 10:27	
			GC Requires Extract By:	08/01/12 0:00	

pH1			Water Bath Temp Criteria	78,76,80 °
pH2				
pH3				

Spiked By: IC **Date** 07/23/12 **Witnessed By:** JM **Date** 07/23/12

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
120723A Blk				0.250	1 equip	1000 E-WB7,78	5	7	07/23/12 14:15	
120723A LCS-1		0.040	1	0.250	1 equip	1000 E-WB7,78	5	7	07/23/12 14:15	
120723A LCS-2		0.040	2	0.250	1 equip	1000 E-WB7,78	5	7	07/23/12 14:15	
AY65041	AY65041W05			0.250	1 equip	1050 E-WB7,78	5	7	07/23/12 14:15	68248-2 WEEK RUSH -- Amber Liter
AY65043	AY65043W06			0.250	1 equip	1050 E-WB7,78	5	7	07/23/12 14:15	68248-2 WEEK RUSH -- Amber Liter
AY65044	AY65044W07			0.250	1 equip	1040 E-WB7,78	5	7	07/23/12 14:15	68248-2 WEEK RUSH -- Amber Liter
AY65112	AY65112W04			0.250	1 equip	1030 E-WB7,78	5	7	07/23/12 14:15	68258-2 WEEK RUSH -- Amber Liter
AY65113	AY65113W05			0.250	1 equip	1030 E-WB7,78	5	7	07/23/12 14:15	68258-2 WEEK RUSH -- Amber Liter
AY65144 MS-1	AY65144W15	0.040	1	0.250	1 equip	1000 E-WB7,78	5	7	07/23/12 14:15	68266-2 WEEK RUSH -- Amber Liter
AY65144 MSD-1	AY65144W07	0.040	1	0.250	1 equip	1020 E-WB5,76	5	7	07/23/12 14:15	68266-2 WEEK RUSH -- Amber Liter
AY65144 MS-2	AY65144W17	0.040	2	0.250	1 equip	1010 E-WB5,76	5	7	07/23/12 14:15	68266-2 WEEK RUSH -- Amber Liter
AY65144 MSD-2	AY65144W19	0.040	2	0.250	1 equip	1050 E-WB5,76	5	7	07/23/12 14:15	68266-2 WEEK RUSH -- Amber Liter
AY65144	AY65144W05			0.250	1 equip	1010 E-WB5,76	5	7	07/23/12 14:15	68266-2 WEEK RUSH -- Amber Liter

t and Lot#	
	EMD52104
4	2351C512

Extraction COC Transfer	
Extraction lab employee Initials	DRA
GC analyst's initials	LH
Date	7/30/12
Time	1200
Refrigerator	Hobart

	Technician's Initials
Scanned By	JM
Sample Preparation	JM
Extraction	JM/IC
Concentration	IC

Modified	07/25/12 1:07:07 PM

Reviewed By: DRA **Date** 07/25/12

Organic Extraction Worksheet

Method	THC Separatory Funnel Extraction 3510C	Extraction Set	120723A	Extraction Method	SEP011	Units	mL

Spiked ID 1	Diesel Ampule 183767-30901		Surrogate ID 1	THC Surrogate 188683-30667	
Spiked ID 2	Motor Oil Ampule 183768-30234		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:	07/23/12 14:15	
Spiked ID 8			Ext. End Time:	07/24/12 10:27	
			GC Requires Extract By:	**08/01/12 0:00**	

pH1			Water Bath Temp Criteria	78,76,80 °
pH2				
pH3				

Spiked By: IC **Date** 07/23/12 **Witnessed By:** JM **Date** 07/23/12

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
14	AY65145	AY65145W04			0.250	1	1010	5	7	07/23/12 14:15	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB5,76				
15	AY65146	AY65146W02			0.250	1	1020	5	7	07/23/12 14:15	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB5,76				
16	AY65147	AY65147W02			0.250	1	1060	5	7	07/23/12 14:15	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB5,76				
17	AY65148	AY65148W03			0.250	1	1050	5	7	07/23/12 14:15	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB5,76				
18	AY65149	AY65149W04			0.250	1	1050	5	7	07/23/12 14:15	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB6,80				
19	AY65150	AY65150W03			0.250	1	1070	5	7	07/23/12 14:15	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB6,80				
20	AY65151	AY65151W05			0.250	1	1070	5	7	07/23/12 14:15	68266-2 WEEK RUSH -- Amber Liter
						equip	E-WB6,80				
21	AY65169	AY65169W01			0.250	1	1050	5	7	07/23/12 14:15	68269-2 WEEK RUSH -- Amber Liter
						equip	E-WB6,80				
22	AY65170	AY65170W01			0.250	1	1050	5	7	07/23/12 14:15	68269-2 WEEK RUSH -- Amber Liter
						equip	E-WB6,80				

DRA 7/25/12

vent and Lot#	
:	EMD52104
2SO4	2351C512

Extraction COC Transfer	
Extraction lab employee Initials	DRA
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	JM
Sample Preparation	JM
Extraction	JM/IC
Concentration	IC

Modified	07/25/12 1:07:07 PM

Reviewed By: DRA **Date** 07/25/12

Injection Log

Directory: G:\APOLLO\DATA\120622\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	4	622004.D	1	TCH SURROGATE 100/1000	Mix(c)	6-22-12 18:22:29
2	5	622005.D	1	TCH SURROGATE 400/1000	Mix(c)	6-22-12 18:46:55
3	6	622006.D	1	TCH SURROGATE 600/1000	Mix(c)	6-22-12 19:10:46
4	7	622007.D	1	TCH SURROGATE 800/1000	Mix(c)	6-22-12 19:34:47
5	8	622008.D	1	TCH SURROGATE 1000/1000	Mix(c)	6-22-12 19:58:49
6	9	622009.D	1	DIESEL 10/1000 6/22/12	Mix(A)	6-22-12 20:22:56
7	10	622010.D	1	DIESEL 100/1000	Mix(A)	6-22-12 20:47:06
8	11	622011.D	1	DIESEL 400/1000	Mix(A)	6-22-12 21:11:13
9	12	622012.D	1	DIESEL 600/1000	Mix(A)	6-22-12 21:35:18
10	13	622013.D	1	DIESEL 800/1000	Mix(A)	6-22-12 21:59:20
11	14	622014.D	1	DIESEL 1000/1000	Mix(A)	6-22-12 22:23:21
12	15	622015.D	1	DIESEL 2ND SRC 6/22/12	Mix(A)	6-22-12 22:47:20
13	2	731002.D	1	DIESEL 400ppm 7/31/12	Mix(A)	7-31-12 10:15:07
14	13	731013.D	5	120723A BLK 5/1000	Water	7-31-12 14:39:54
15	14	731014.D	5	120723A LCS-1 5/1000	Water	7-31-12 15:03:52
16	16	731016.D	4.7619	AY65041W05 5/1050	Water	7-31-12 15:51:47
17	17	731017.D	4.7619	AY65043W06 5/1050	Water	7-31-12 16:15:48
18	18	731018.D	4.80769	AY65044W07 5/1040	Water	7-31-12 16:39:36
19	20	731020.D	1	DIESEL 400ppm 7/30/12	Mix(A)	7-31-12 17:28:05

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: **120719W-65041 - 169331**
Batch ID: #86RHB-120719AT

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	07/20/12	07/20/12
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	07/20/12	07/20/12
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	07/20/12	07/20/12
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	07/20/12	07/20/12
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	07/20/12	07/20/12
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	07/20/12	07/20/12
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	07/20/12	07/20/12
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	07/20/12	07/20/12
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	07/20/12	07/20/12
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	07/20/12	07/20/12
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	07/20/12	07/20/12
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	07/20/12	07/20/12
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	07/20/12	07/20/12
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	07/20/12	07/20/12
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	07/20/12	07/20/12
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	07/20/12	07/20/12
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	07/20/12	07/20/12
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	07/20/12	07/20/12
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	07/20/12	07/20/12

Quant Method: TALLW.M
Run #: 0719T38
Instrument: Thor
Sequence: T120719
Initials: HW

Printed: 07/31/12 9:19:21 AM
GC SC-Blank-REG MDLs

Method Blank
EPA 8260B VOCs + Gas Water

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **120719W-65041 - 169331**
Batch ID: #86RHB-120719AT

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	07/20/12	07/20/12
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	07/20/12	07/20/12
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	07/20/12	07/20/12
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	07/20/12	07/20/12
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
BLANK	SURROGATE: 1,2-DICHLOROET	102	70-120			%	07/20/12	07/20/12
BLANK	SURROGATE: 4-BROMOFLUORO	101	75-120			%	07/20/12	07/20/12
BLANK	SURROGATE: DIBROMOFLUOR	100	85-115			%	07/20/12	07/20/12
BLANK	SURROGATE: TOLUENE-D8 (S)	99.7	85-120			%	07/20/12	07/20/12

Quant Method: TALLW.M
Run #: 0719T38
Instrument: Thor
Sequence: T120719
Initials: HW

Printed: 07/31/12 9:19:21 AM
GC SC-Blank-REG MDLs

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 68248

Case No: 68248 Date Analyzed: 07/19/12

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
120719AT-LCS	Lab Control Spike	70-120	97.8		75-120	102	
120719AT-BLK	Blank	70-120	102		75-120	101	
AY65042	ES078 TRIP BLANK	70-120	99.9		75-120	97.5	
AY65041	ES077	70-120	100		75-120	99.9	
AY65043	ES079	70-120	100		75-120	99.8	
AY65044	ES080	70-120	101		75-120	99.3	

Comments: Batch: #86RHB-120719AT

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 68248

Case No: 68248 Date Analyzed: 07/19/12

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
120719AT-LCS	Lab Control Spike	85-115	98.2		85-120	98.0	
120719AT-BLK	Blank	85-115	100		85-120	99.7	
AY65042	ES078 TRIP BLANK	85-115	100		85-120	98.8	
AY65041	ES077	85-115	99.0		85-120	101	
AY65043	ES079	85-115	101		85-120	101	
AY65044	ES080	85-115	101		85-120	99.8	

Comments: Batch: #86RHB-120719AT

Laboratory Control Spike Recovery

EPA 8260B VOCs + Gas Water

APPL ID: **120719W-65041 LCS - 169331**
Batch ID: #86RHB-120719AT

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	9.79	97.9	80-130
1,1,1-TRICHLOROETHANE	10.00	9.62	96.2	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	9.22	92.2	65-130
1,1,2-TRICHLOROETHANE	10.00	9.61	96.1	75-125
1,1-DICHLOROETHANE	10.00	10.1	101	70-135
1,1-DICHLOROETHENE	10.00	9.64	96.4	70-130
1,2,3-TRICHLOROPROPANE	10.00	10.3	103	75-125
1,2,4-TRICHLOROBENZENE	10.00	9.98	99.8	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	10.1	101	50-130
1,2-DIBROMOETHANE	10.00	9.79	97.9	70-130
1,2-DICHLOROBENZENE	10.00	9.83	98.3	70-120
1,2-DICHLOROETHANE	10.00	9.76	97.6	70-130
1,2-DICHLOROPROPANE	10.00	10.1	101	75-125
1,3-DICHLOROBENZENE	10.00	10.2	102	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	18.7	93.5	70-130
1,4-DICHLOROBENZENE	10.00	9.82	98.2	75-125
2-BUTANONE	10.00	10.3	103	30-150
4-METHYL-2-PENTANONE	10.00	10.2	102	60-135
ACETONE	10.00	11.8	118	40-140
BENZENE	10.00	9.47	94.7	80-120
BROMODICHLOROMETHANE	10.00	9.57	95.7	75-120
BROMOFORM	10.00	9.70	97.0	70-130
BROMOMETHANE	10.00	9.36	93.6	30-145
CARBON TETRACHLORIDE	10.00	10.0	100	65-140
CHLOROBENZENE	10.00	9.82	98.2	80-120
CHLORODIBROMOMETHANE	10.00	9.73	97.3	60-135
CHLOROETHANE	10.00	9.84	98.4	60-135
CHLOROFORM	10.00	9.60	96.0	65-135
CHLOROMETHANE	10.00	9.80	98.0	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.99	99.9	70-125
ETHYLBENZENE	10.00	10.1	101	75-125

= Recovery is outside QC limits.

Comments: _____

Primary	SPK
Quant Method :	TALLW.M
Extraction Date :	07/19/12
Analysis Date :	07/19/12
Instrument :	Thor
Run :	0719T31
Initials :	HW

Printed: 07/31/12 9:19:12 AM
APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **120719W-65041 LCS - 169331**
Batch ID: #86RHB-120719AT

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	419	140 #	75-125
HEXACHLOROBUTADIENE	10.00	9.23	92.3	50-140
METHYL TERT-BUTYL ETHER	10.00	9.48	94.8	65-125
METHYLENE CHLORIDE	10.00	9.45	94.5	55-140
STYRENE	10.00	10.4	104	65-135
TETRACHLOROETHENE	10.00	10.1	101	45-150
TOLUENE	10.00	10.1	101	75-120
TRANS-1,2-DICHLOROETHENE	10.00	9.79	97.9	60-140
TRICHLOROETHENE	10.00	10.6	106	70-125
VINYL CHLORIDE	10.00	10.1	101	50-145
XYLENES (TOTAL)	30.0	31.3	104	80-120
SURROGATE: 1,2-DICHLOROETHANE-D	33.6	32.9	97.8	70-120
SURROGATE: 4-BROMOFLUOROBENZE	29.5	30.2	102	75-120
SURROGATE: DIBROMOFLUOROMETH	31.9	31.3	98.2	85-115
SURROGATE: TOLUENE-D8 (S)	37.3	36.6	98.0	85-120

= Recovery is outside QC limits.

Comments: _____

Primary	SPK
Quant Method :	TALLW.M
Extraction Date :	07/19/12
Analysis Date :	07/19/12
Instrument :	Thor
Run :	0719T31
Initials :	HW

Printed: 07/31/12 9:19:12 AM
APPL Standard LCS

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 68248

Case No: 68248 Date Analyzed: 07/20/12

Matrix: WATER Instrument: Thor

Blank ID: 120719AT-BLK Time Analyzed: 0218

APPL ID.	Client Sample No.	File ID.	Date Analyzed
120719AT-LCS	Lab Control Spike	0719T31	07/19/12 2303
120719AT-BLK	Blank	0719T38	07/20/12 0218
AY65042	ES078 TRIP BLANK	0719T40	07/20/12 0313
AY65041	ES077	0719T43	07/20/12 0436
AY65043	ES079	0719T44	07/20/12 0503
AY65044	ES080	0719T45	07/20/12 0531

Comments: Batch: #86RHB-120719AT

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 0719T28.D
Matrix: Water
ID: 5ng- BFB Std 07-16-12B

SDG No: 68248
Date Analyzed: 07/19/12
Instrument: Thor
Time Analyzed: 21:40

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		10ug/L Vol Std 07-19	0719T30.D	07/19/12 22:35
2	Lab Control Spike	120719A LCS-1WT (SS)	0719T31.D	07/19/12 23:03
3	Blank	120719A BLK-1WT	0719T38.D	07/20/12 2:18
4	ES078 TRIP BLANK	AY65042W01	0719T40.D	07/20/12 3:13
5	ES077	AY65041W01	0719T43.D	07/20/12 4:36
6	ES079	AY65043W01	0719T44.D	07/20/12 5:03
7	ES080	AY65044W01	0719T45.D	07/20/12 5:31
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	14.9 - 40% of mass 95	16.9
75	30 - 60% of mass 95	47.3
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.8
173	0 - 2% of mass 174	1.0
174	50 - 100.49% of mass 95	95.8
175	5 - 9% of mass 174	7.5
176	95 - 101.49% of mass 174	96.9
177	5 - 9% of mass 176	6.2

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 0724T01T.D
Matrix: Water
ID: 5ng- BFB STD 07-16-12B

SDG No: 68248
Date Analyzed: 07/24/12
Instrument: Thor
Time Analyzed: 16:11

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		CCV gas 300ug/L	0724T09.D	07/24/12 19:48
2	Lab Control Spike	LCS gas 300ug/L (SS)	0724T10.D	07/24/12 20:15
3	Blank	120724A BLK-1WT	0724T13.D	07/24/12 21:39
4	ES078 TRIP BLANK	AY65042W02	0724T14.D	07/24/12 22:06
5	ES077	AY65041W02	0724T15.D	07/24/12 22:34
6	ES079	AY65043W02	0724T16.D	07/24/12 23:02
7	ES080	AY65044W02	0724T17.D	07/24/12 23:30
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	16.9
75	30 - 60% of mass 95	47.3
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.8
173	0 - 2% of mass 174	0.0
174	50 - 100% of mass 95	98.5
175	5 - 9% of mass 174	7.4
176	95 - 101% of mass 174	95.1
177	5 - 9% of mass 176	6.5

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 68248

Lab File ID (Standard): 0719T10.D Date Analyzed: 07/19/12

Instrument ID: Thor Time Analyzed: 13:20

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	461760	6.74	382656	9.88	222464	12.20
	UPPER LIMIT	923520	7.24	765312	10.38	444928	12.70
	LOWER LIMIT	230880	6.24	191328	9.38	111232	11.70
	SAMPLE NO.						
01	10ug/L Vol Std 07-19-12	452736	6.73	376000	9.87	220224	12.20
02	120719A LCS-1WT (SS)	459584	6.73	371008	9.87	216768	12.20
03	120719A BLK-1WT	441792	6.73	355584	9.87	206976	12.20
04	AY65042W01	442624	6.72	362944	9.87	210560	12.20
05	AY65041W01	438144	6.73	347712	9.87	196160	12.20
06	AY65043W01	446848	6.72	361216	9.87	204224	12.20
07	AY65044W01	442624	6.73	361088	9.88	211648	12.20
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.: 68248

Lab File ID (Standard): 0724T05.D Date Analyzed: 07/24/12

Instrument ID: Thor Time Analyzed: 17:57

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	608785	6.73	680507	9.87	762779	12.20
	UPPER LIMIT	1217570	7.23	1361014	10.37	1525558	12.70
	LOWER LIMIT	304393	6.23	340254	9.37	381390	11.70
	SAMPLE NO.						
01	CCV gas 300ug/L	776087	6.73	877174	9.87	1014330	12.20
02	LCS gas 300ug/L (SS)	776734	6.73	880394	9.87	1005630	12.20
03	120724A BLK-1WT	740452	6.73	841778	9.87	916024	12.20
04	AY65042W02	739647	6.73	846857	9.87	923625	12.20
05	AY65041W02	715388	6.73	832454	9.87	906776	12.20
06	AY65043W02	751510	6.73	857518	9.87	946952	12.20
07	AY65044W02	776366	6.73	876186	9.87	969361	12.20
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.

Manual Integration Summary

ARF: 68248

APPL ID	Client ID	Method	Analyte	Type	Comment
AY65041	Blank	EPA 8260B	GASOLINE	Blank	(MI1) Integration does not follow baseline.
AY65041	LCS	EPA 8260B	GASOLINE	LCS	(MI1) Integration does not follow baseline.
AY65041	ES077	EPA 8260B	GASOLINE	Parent	(MI1) Integration does not follow baseline.
AY65042	ES078 TRIP BLANK	EPA 8260B	GASOLINE	Parent	(MI1) Integration does not follow baseline.
AY65043	ES079	EPA 8260B	GASOLINE	Parent	(MI1) Integration does not follow baseline.
AY65044	ES080	EPA 8260B	GASOLINE	Parent	(MI1) Integration does not follow baseline.

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: LTM Red Hill / 1022-024

ARF: 68248

Sample ID: ES077

APPL ID: AY65041

Sample Collection Date: 07/17/12

QCG: #86RHB-120719AT-169331

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	07/20/12	07/20/12
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	07/20/12	07/20/12
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	07/20/12	07/20/12
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	07/20/12	07/20/12
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	07/20/12	07/20/12
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	07/20/12	07/20/12
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	07/20/12	07/20/12
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	07/20/12	07/20/12
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	07/20/12	07/20/12
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	07/20/12	07/20/12
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	07/20/12	07/20/12
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	07/20/12	07/20/12
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	07/20/12	07/20/12
EPA 8260B	GASOLINE	12.12 U MI1	20.0	12.12	6.06	ug/L	07/20/12	07/20/12
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	07/20/12	07/20/12

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

(MI1) Manual integration: Integration does not follow baseline.

Quant Method: TALLW.M
Run #: 0719T43
Instrument: Thor
Sequence: T120719
Dilution Factor: 1
Initials: HW

Printed: 07/31/12 9:28:53 AM

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: 68248

Sample ID: ES077

APPL ID: AY65041

Sample Collection Date: 07/17/12

QCG: #86RHB-120719AT-169331

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	07/20/12	07/20/12
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	07/20/12	07/20/12
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	07/20/12	07/20/12
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	07/20/12	07/20/12
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	100	70-120			%	07/20/12	07/20/12
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	99.9	75-120			%	07/20/12	07/20/12
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	99.0	85-115			%	07/20/12	07/20/12
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	101	85-120			%	07/20/12	07/20/12

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
(MI1) Manual integration: Integration does not follow baseline.

Quant Method: TALLW.M
Run #: 0719T43
Instrument: Thor
Sequence: T120719
Dilution Factor: 1
Initials: HW

Printed: 07/31/12 9:28:54 AM
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\THOR\DATA\T120719\0719T43.D Vial: 43
Acq On : 20 Jul 12 4:36 Operator: DG,RS,HW,ARS,SV
Sample : AY65041W01 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 24 12:14 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	96	438144	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.87	117	347712	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	196160	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	5.95	111	216402	31.56216 ppb	0.00
Spiked Amount 31.881			Recovery = 98.999%		
36) 1,2-DCA-D4(S)	6.33	65	214499	33.66298 ppb	0.00
Spiked Amount 33.647			Recovery = 100.048%		
56) Toluene-D8(S)	8.43	98	777272	37.81169 ppb	0.00
Spiked Amount 37.345			Recovery = 101.251%		
64) 4-Bromofluorobenzene(S)	11.05	95	286566	29.47771 ppb	0.00
Spiked Amount 29.515			Recovery = 99.874%		

Target Compounds Qvalue

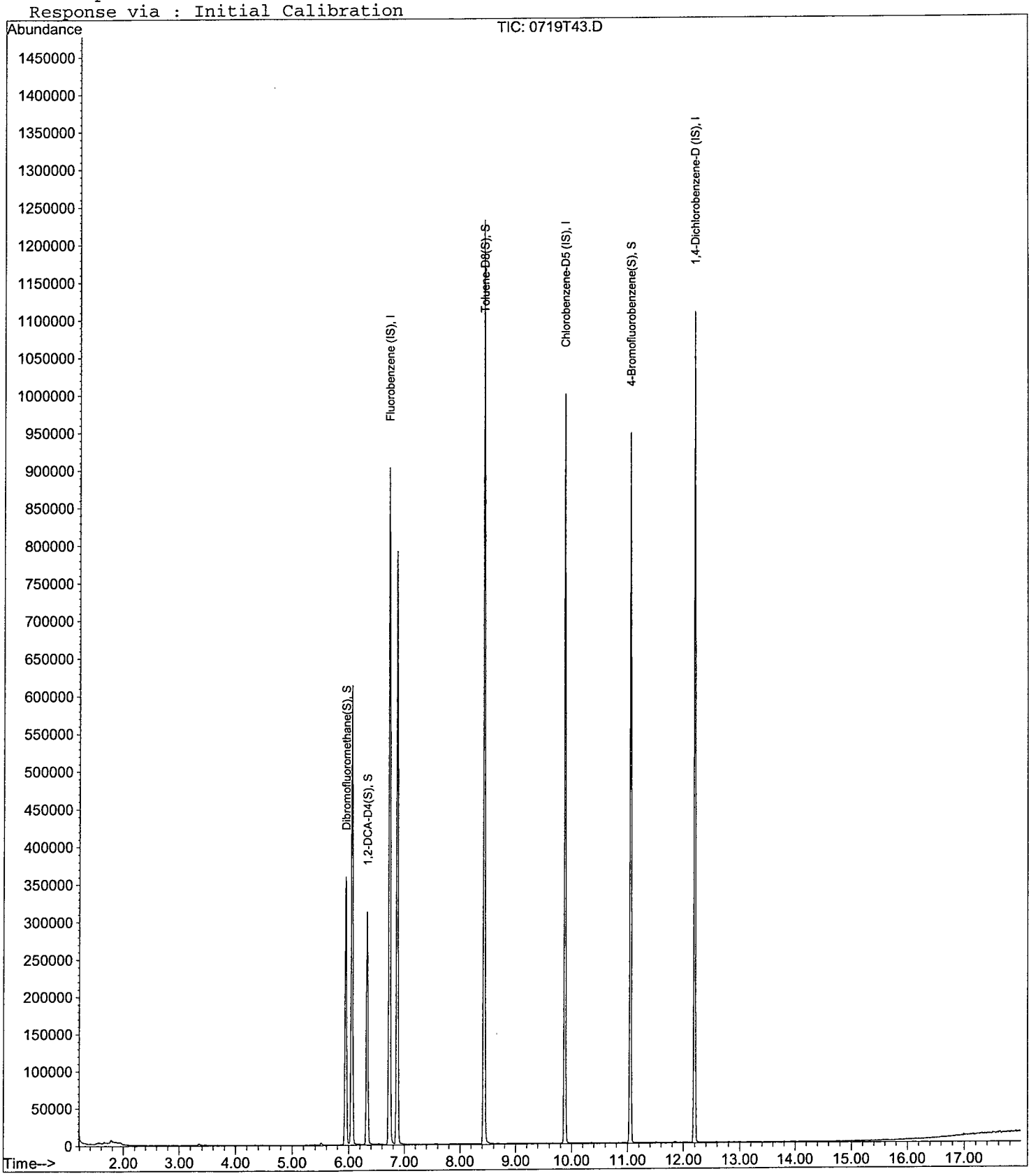
(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T120719\0719T43.D
Acq On : 20 Jul 12 4:36
Sample : AY65041W01
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 43
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 24 12:14 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120724\0724T15.D Vial: 14
Acq On : 24 Jul 12 22:34 Operator: DG,RS,HW,ARS,SV
Sample : AY65041W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 26 14:51 2012 Quant Results File: TGAS.RES

Quant Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	TIC	715388	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.87	TIC	832454	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.20	TIC	906776	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	8.43	TIC	8901617m	128.24353	ppb	ND 100

No gasoline pattern detected.
ARS 7/26/12

(#) = qualifier out of range (m) = manual integration
0724T15.D TGAS.M Thu Jul 26 14:53:21 2012

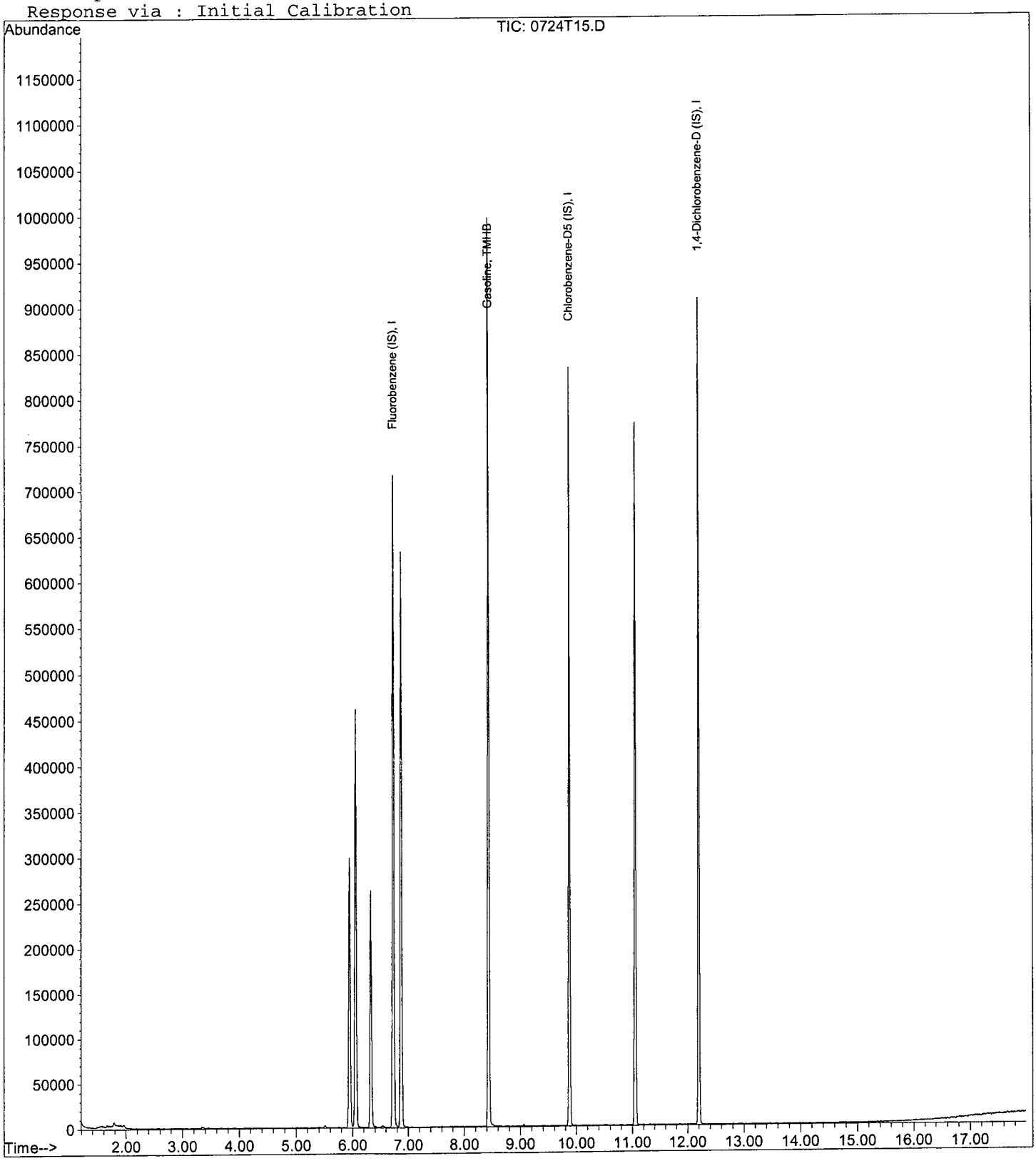
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T15.D
Acq On : 24 Jul 12 22:34
Sample : AY65041W02
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 14
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 26 14:51 2012 Quant Results File: TGAS.RES

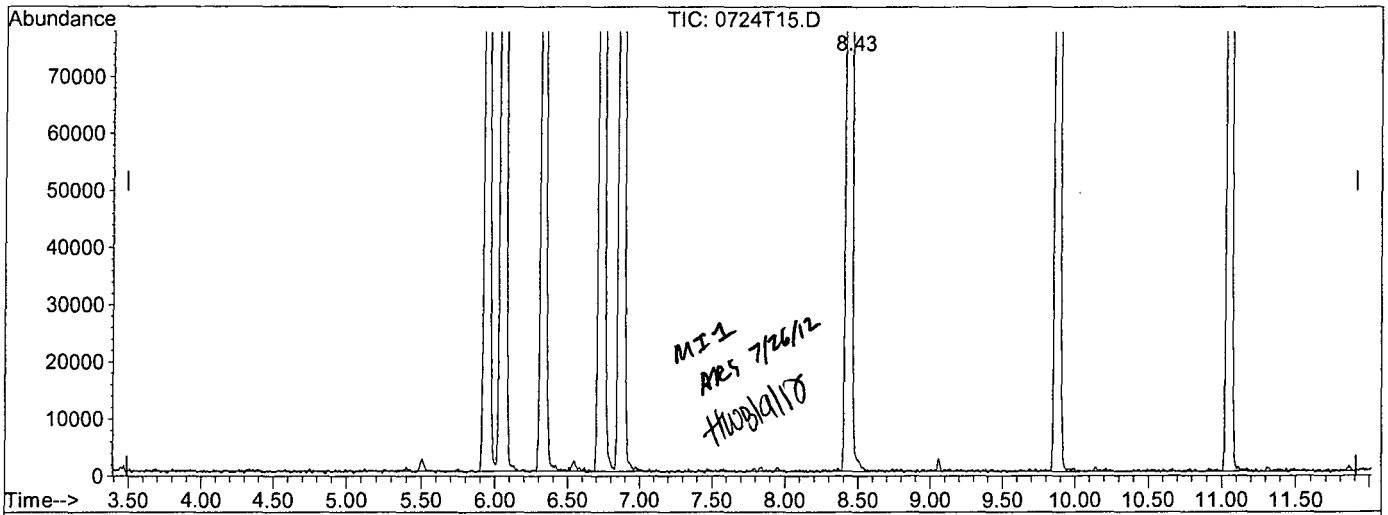
Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration

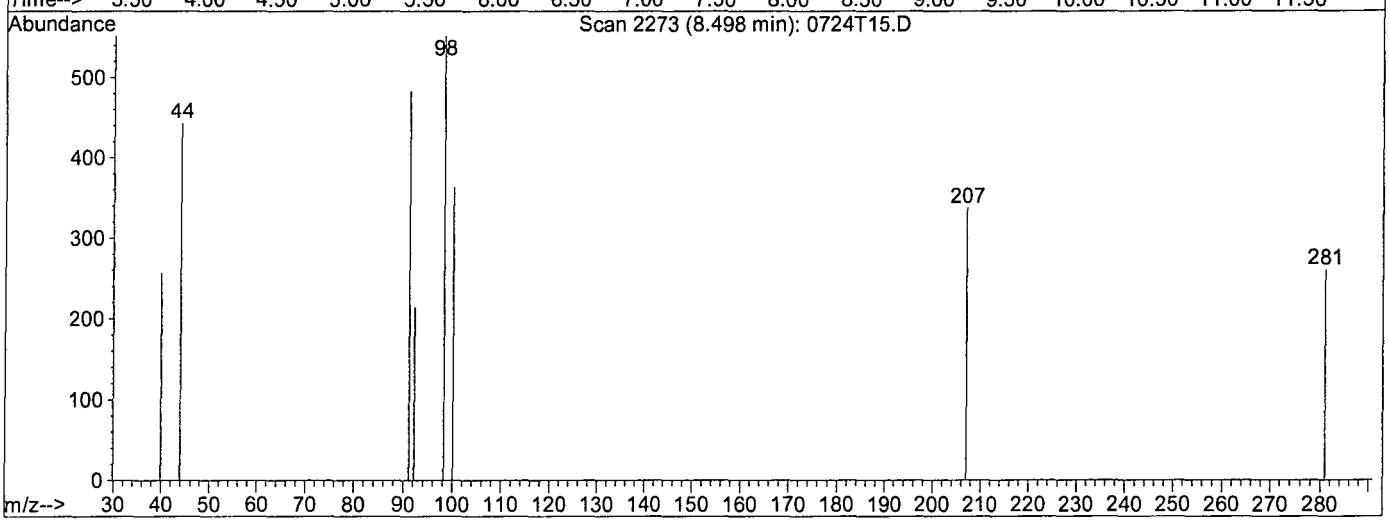


Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T15.D Vial: 14
Acq On : 24 Jul 12 22:34 Operator: DG,RS,HW,ARS,SV
Sample : AY65041W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:28 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T15.D

(2) Gasoline (TMHB)

8.50min 64.7132ppb m

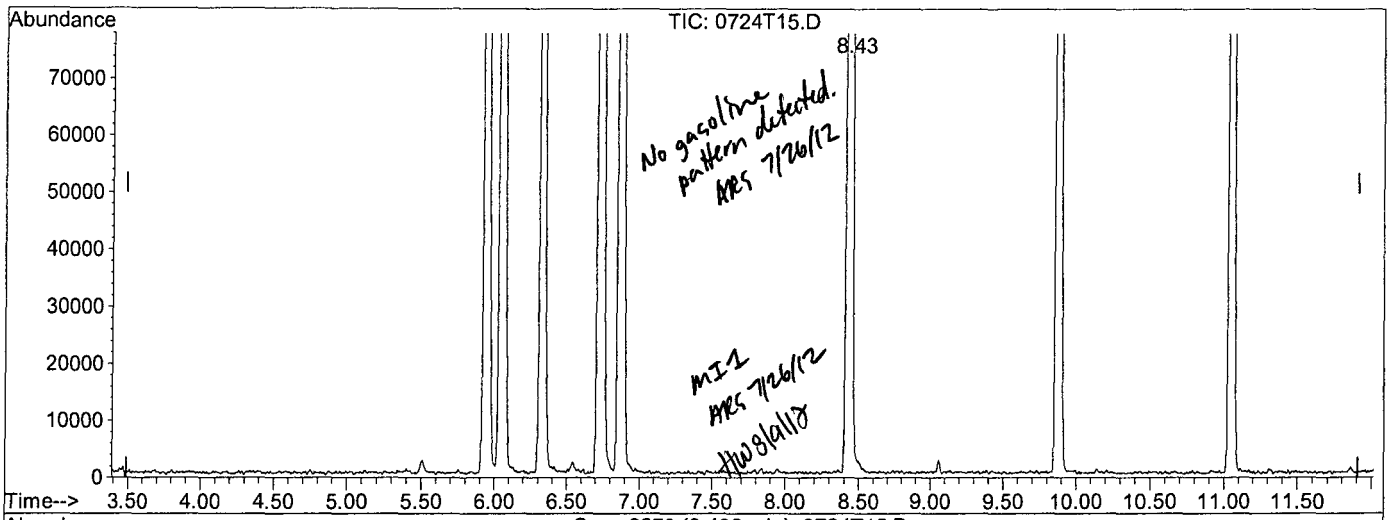
response 6862466

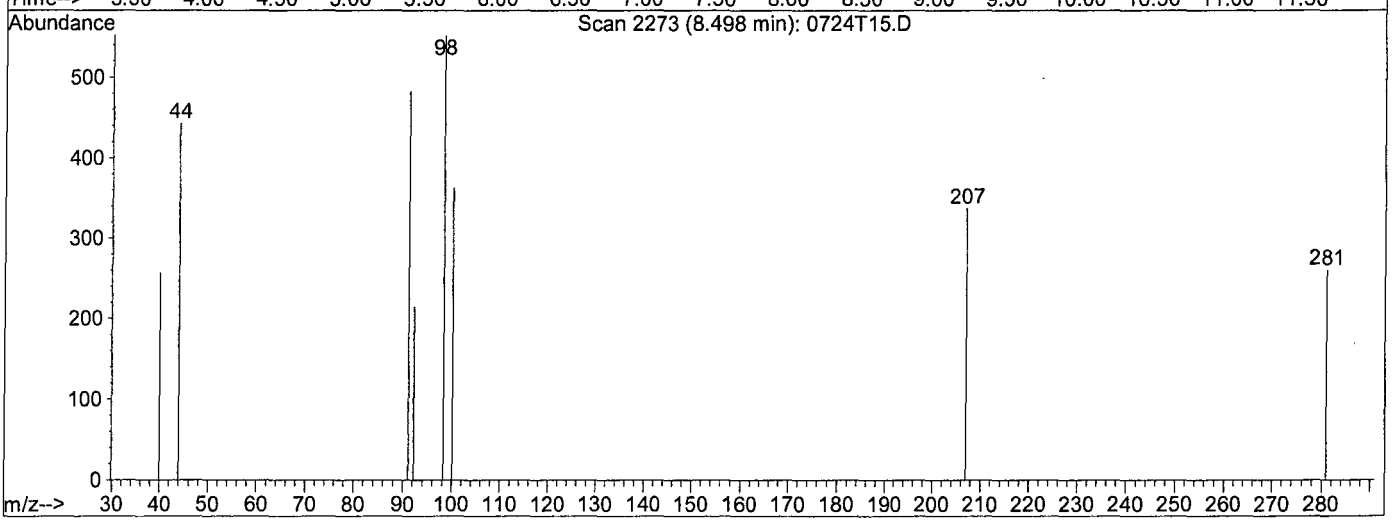
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	1.27#
0.00	0.00	3.72#
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T15.D Vial: 14
Acq On : 24 Jul 12 22:34 Operator: DG,RS,HW,ARS,SV
Sample : AY65041W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:51 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T15.D

(2) Gasoline (TMHB)

8.43min 128.2435ppb m

response 8901617

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.98#
0.00	0.00	2.87#
0.00	0.00	0.00

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: 68248

Sample ID: ES078 TRIP BLANK

APPL ID: AY65042

Sample Collection Date: 07/17/12

QCG: #86RHB-120719AT-169331

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	07/20/12	07/20/12
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	07/20/12	07/20/12
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	07/20/12	07/20/12
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	07/20/12	07/20/12
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	07/20/12	07/20/12
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	07/20/12	07/20/12
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	07/20/12	07/20/12
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	07/20/12	07/20/12
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	07/20/12	07/20/12
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	07/20/12	07/20/12
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	07/20/12	07/20/12
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	07/20/12	07/20/12
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	07/20/12	07/20/12
EPA 8260B	GASOLINE	12.12 U MI1	20.0	12.12	6.06	ug/L	07/20/12	07/20/12
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	07/20/12	07/20/12

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

(MI1) Manual integration: Integration does not follow baseline.

Quant Method: TALLW.M
Run #: 0719T40
Instrument: Thor
Sequence: T120719
Dilution Factor: 1
Initials: HW

Printed: 07/31/12 9:28:54 AM

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: 68248

Sample ID: ES078 TRIP BLANK

APPL ID: AY65042

Sample Collection Date: 07/17/12

QCG: #86RHB-120719AT-169331

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	07/20/12	07/20/12
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	07/20/12	07/20/12
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	07/20/12	07/20/12
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	07/20/12	07/20/12
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	99.9	70-120			%	07/20/12	07/20/12
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	97.5	75-120			%	07/20/12	07/20/12
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	100	85-115			%	07/20/12	07/20/12
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	98.8	85-120			%	07/20/12	07/20/12

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
(MI1) Manual integration: Integration does not follow baseline.

Quant Method: TALLW.M
Run #: 0719T40
Instrument: Thor
Sequence: T120719
Dilution Factor: 1
Initials: HW

Printed: 07/31/12 9:28:54 AM
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\THOR\DATA\T120719\0719T40.D Vial: 40
Acq On : 20 Jul 12 3:13 Operator: DG,RS,HW,ARS,SV
Sample : AY65042W01 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 24 12:09 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.72	96	442624	25.00000 ppb	-0.01
55) Chlorobenzene-D5 (IS)	9.87	117	362944	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	210560	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	5.93	111	220763	31.87231 ppb	-0.02
Spiked Amount 31.881			Recovery = 99.971%		
36) 1,2-DCA-D4(S)	6.32	65	216419	33.62053 ppb	-0.02
Spiked Amount 33.647			Recovery = 99.924%		
56) Toluene-D8(S)	8.42	98	791579	36.89159 ppb	0.00
Spiked Amount 37.345			Recovery = 98.787%		
64) 4-Bromofluorobenzene(S)	11.05	95	292058	28.78182 ppb	0.00
Spiked Amount 29.515			Recovery = 97.516%		

Target Compounds Qvalue

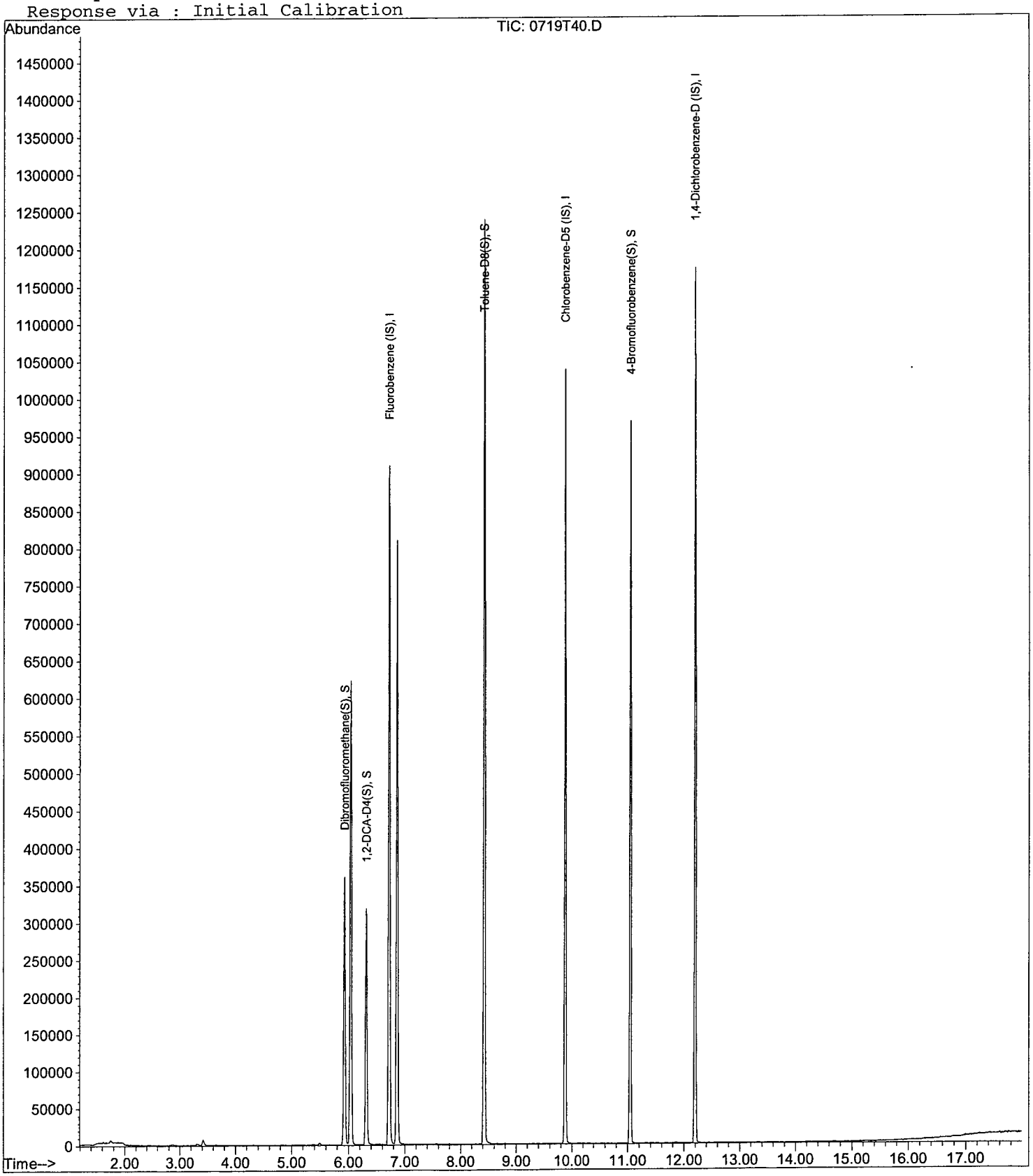
(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T120719\0719T40.D
Acq On : 20 Jul 12 3:13
Sample : AY65042W01
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 40
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 24 12:09 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120724\0724T14.D Vial: 13
Acq On : 24 Jul 12 22:06 Operator: DG,RS,HW,ARS,SV
Sample : AY65042W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 26 14:50 2012 Quant Results File: TGAS.RES

Quant Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	TIC	739647	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.87	TIC	846857	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.20	TIC	923625	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	8.43	TIC	9058284m	123.86848	ppb	ND 100

No gasoline pattern detected.
ARS 7/26/12

(#) = qualifier out of range (m) = manual integration
0724T14.D TGAS.M Thu Jul 26 14:53:17 2012

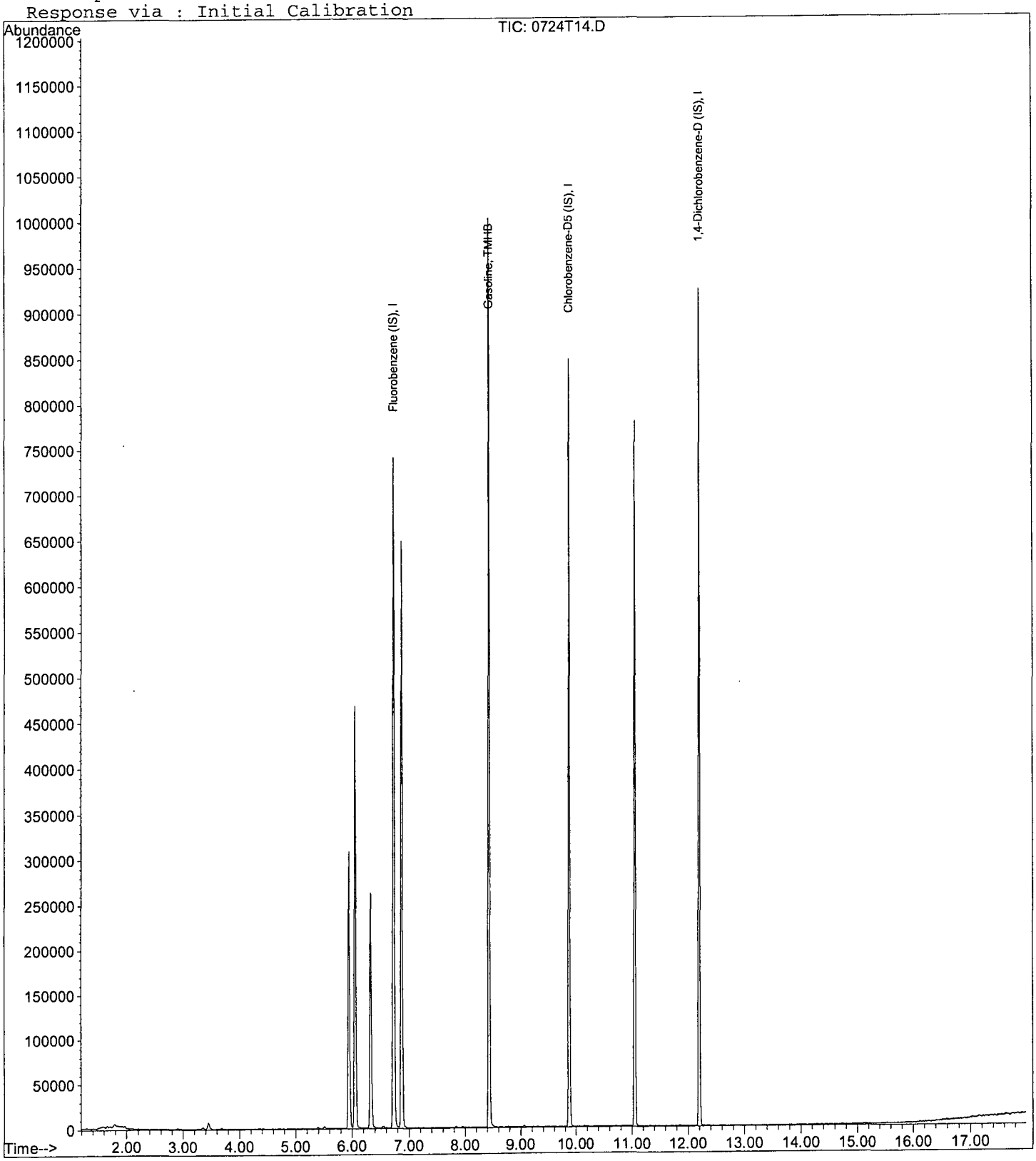
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T14.D
Acq On : 24 Jul 12 22:06
Sample : AY65042W02
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 13
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 26 14:50 2012 Quant Results File: TGAS.RES

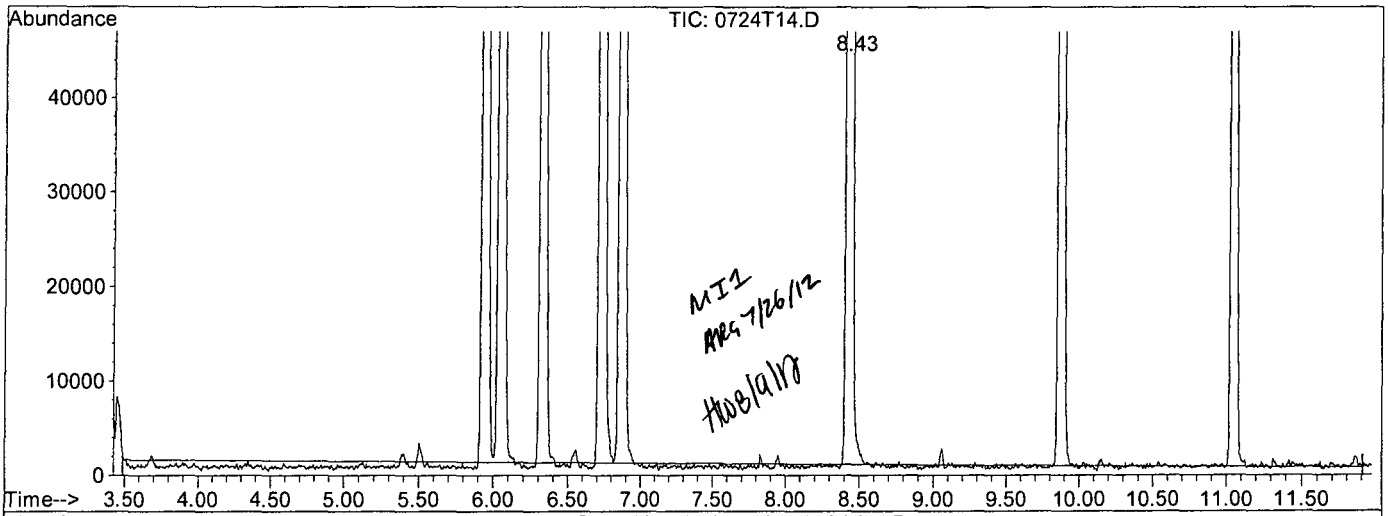
Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration

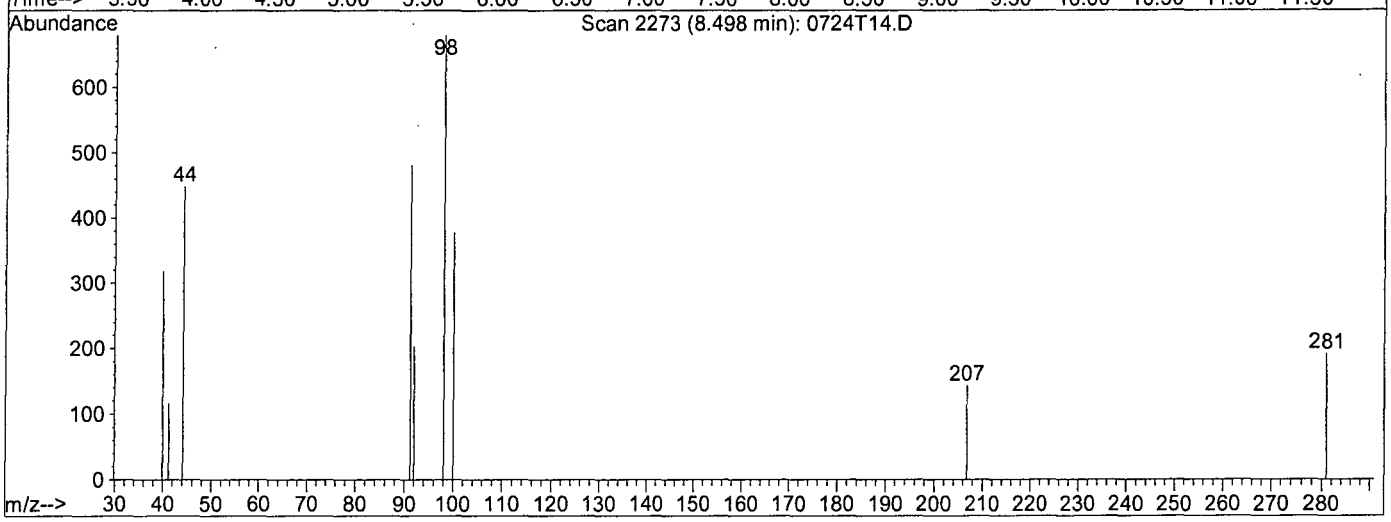


Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T14.D Vial: 13
Acq On : 24 Jul 12 22:06 Operator: DG,RS,HW,ARS,SV
Sample : AY65042W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:28 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T14.D

(2) Gasoline (TMHB)

8.50min 61.2586ppb m

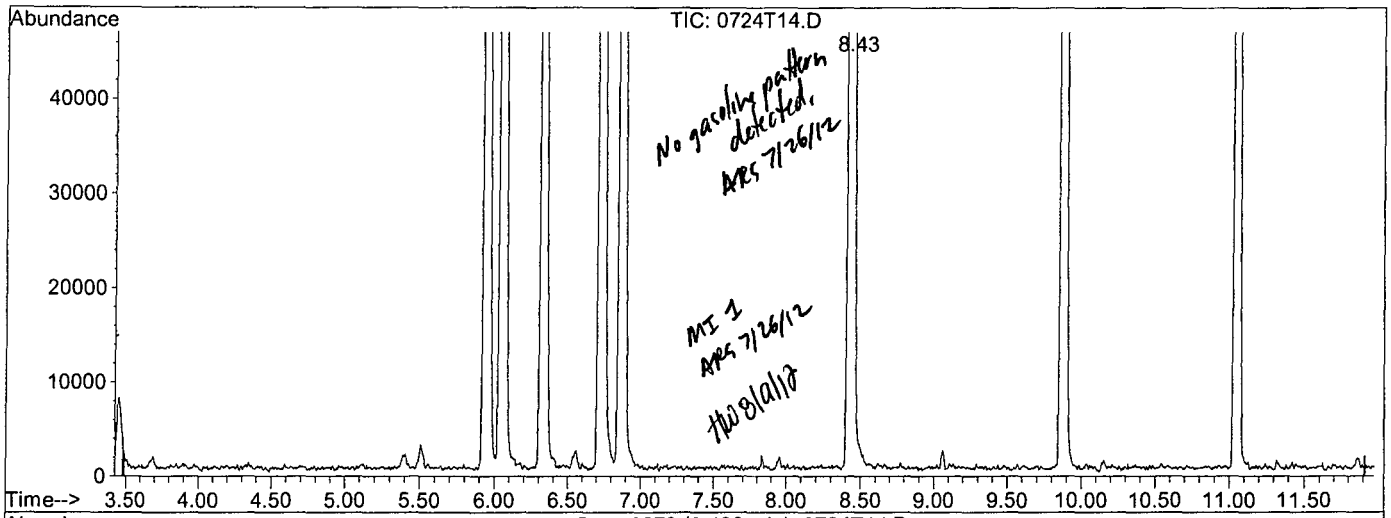
response 6980528

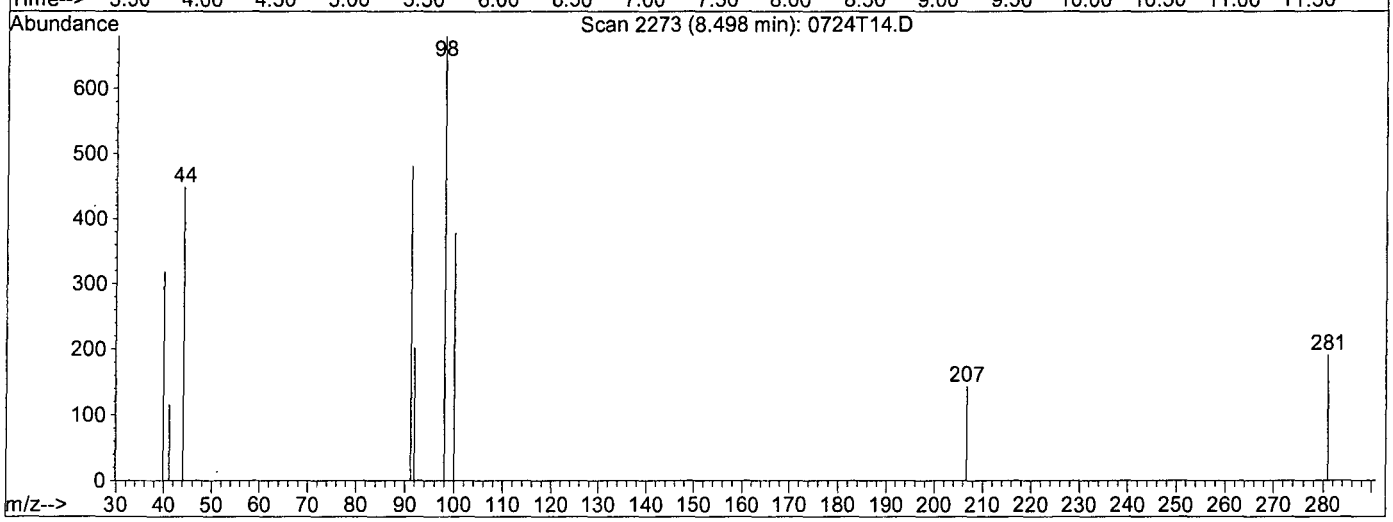
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	1.29#
0.00	0.00	3.69#
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T14.D Vial: 13
Acq On : 24 Jul 12 22:06 Operator: DG,RS,HW,ARS,SV
Sample : AY65042W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:50 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T14.D

(2) Gasoline (TMHB)

8.43min 123.8685ppb m

response 9058284

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	1.00#
0.00	0.00	2.84#
0.00	0.00	0.00

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: ES079

Sample Collection Date: 07/17/12

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 68248

APPL ID: AY65043

QCG: #86RHB-120719AT-169331

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	07/20/12	07/20/12
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	07/20/12	07/20/12
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	07/20/12	07/20/12
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	07/20/12	07/20/12
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	07/20/12	07/20/12
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	07/20/12	07/20/12
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	07/20/12	07/20/12
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	07/20/12	07/20/12
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	07/20/12	07/20/12
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	07/20/12	07/20/12
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	07/20/12	07/20/12
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	07/20/12	07/20/12
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	07/20/12	07/20/12
EPA 8260B	GASOLINE	12.12 U MI1	20.0	12.12	6.06	ug/L	07/20/12	07/20/12
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	07/20/12	07/20/12

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
(MI1) Manual integration: Integration does not follow baseline.

Quant Method: TALLW.M
Run #: 0719T44
Instrument: Thor
Sequence: T120719
Dilution Factor: 1
Initials: HW

Printed: 07/31/12 9:28:54 AM
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: 68248

Sample ID: ES079

APPL ID: AY65043

Sample Collection Date: 07/17/12

QCG: #86RHB-120719AT-169331

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	07/20/12	07/20/12
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	07/20/12	07/20/12
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	07/20/12	07/20/12
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	07/20/12	07/20/12
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	100	70-120			%	07/20/12	07/20/12
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	99.8	75-120			%	07/20/12	07/20/12
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	101	85-115			%	07/20/12	07/20/12
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	101	85-120			%	07/20/12	07/20/12

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
(MI1) Manual integration: Integration does not follow baseline.

Quant Method: TALLW.M
Run #: 0719T44
Instrument: Thor
Sequence: T120719
Dilution Factor: 1
Initials: HW

Printed: 07/31/12 9:28:54 AM
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\THOR\DATA\T120719\0719T44.D Vial: 44
Acq On : 20 Jul 12 5:03 Operator: DG,RS,HW,ARS,SV
Sample : AY65043W01 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 24 12:16 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.72	96	446848	25.00000	ppb	-0.02
55) Chlorobenzene-D5 (IS)	9.87	117	361216	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	204224	25.00000	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.93	111	225526	32.25218	ppb	-0.02
Spiked Amount 31.881			Recovery = 101.163%			
36) 1,2-DCA-D4(S)	6.32	65	218859	33.67819	ppb	-0.02
Spiked Amount 33.647			Recovery = 100.093%			
56) Toluene-D8(S)	8.42	98	806688	37.77560	ppb	0.00
Spiked Amount 37.345			Recovery = 101.154%			
64) 4-Bromofluorobenzene(S)	11.05	95	297492	29.45758	ppb	0.00
Spiked Amount 29.515			Recovery = 99.806%			

Target Compounds Qvalue

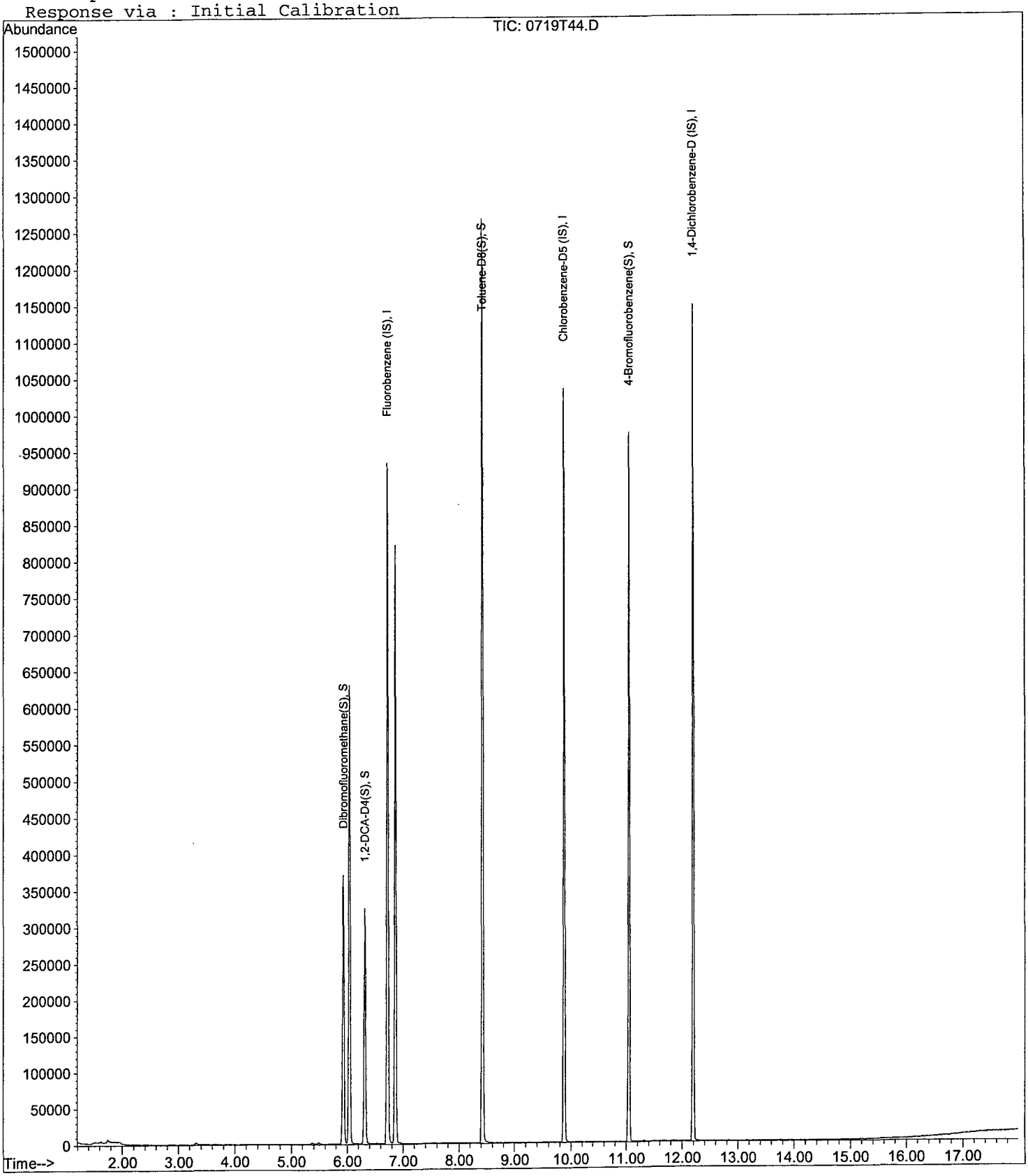
(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T120719\0719T44.D
Acq On : 20 Jul 12 5:03
Sample : AY65043W01
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 44
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 24 12:16 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120724\0724T16.D Vial: 15
Acq On : 24 Jul 12 23:02 Operator: DG,RS,HW,ARS,SV
Sample : AY65043W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 26 14:51 2012 Quant Results File: TGAS.RES

Quant Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	TIC	751510	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.87	TIC	857518	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.20	TIC	946952	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	8.43	TIC	9326019m	127.50012	ppb	NO 100

No gasoline pattern detected.
ARS 7/26/12

(#) = qualifier out of range (m) = manual integration
0724T16.D TGAS.M Thu Jul 26 14:53:25 2012

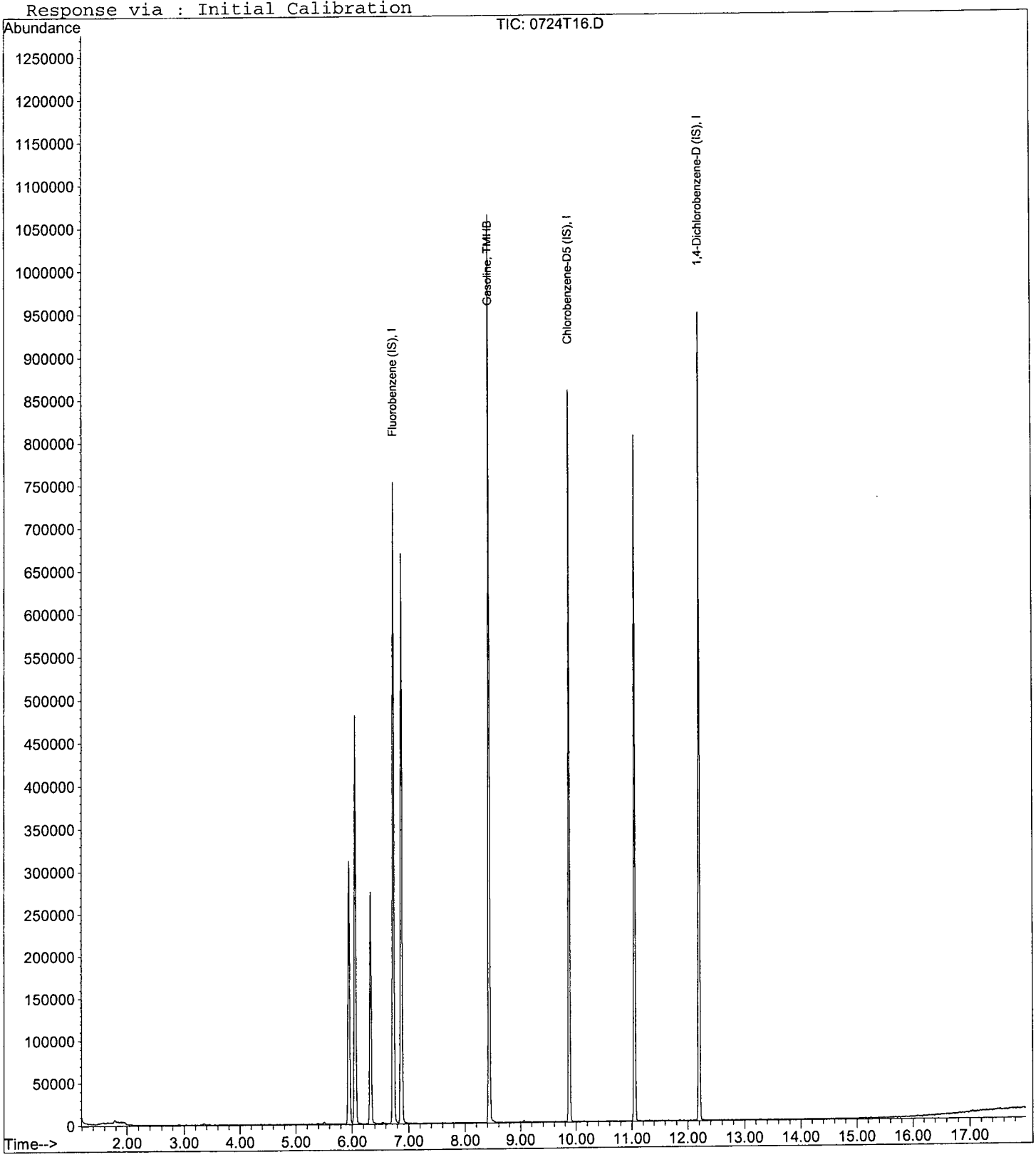
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T16.D
Acq On : 24 Jul 12 23:02
Sample : AY65043W02
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 15
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 26 14:51 2012 Quant Results File: TGAS.RES

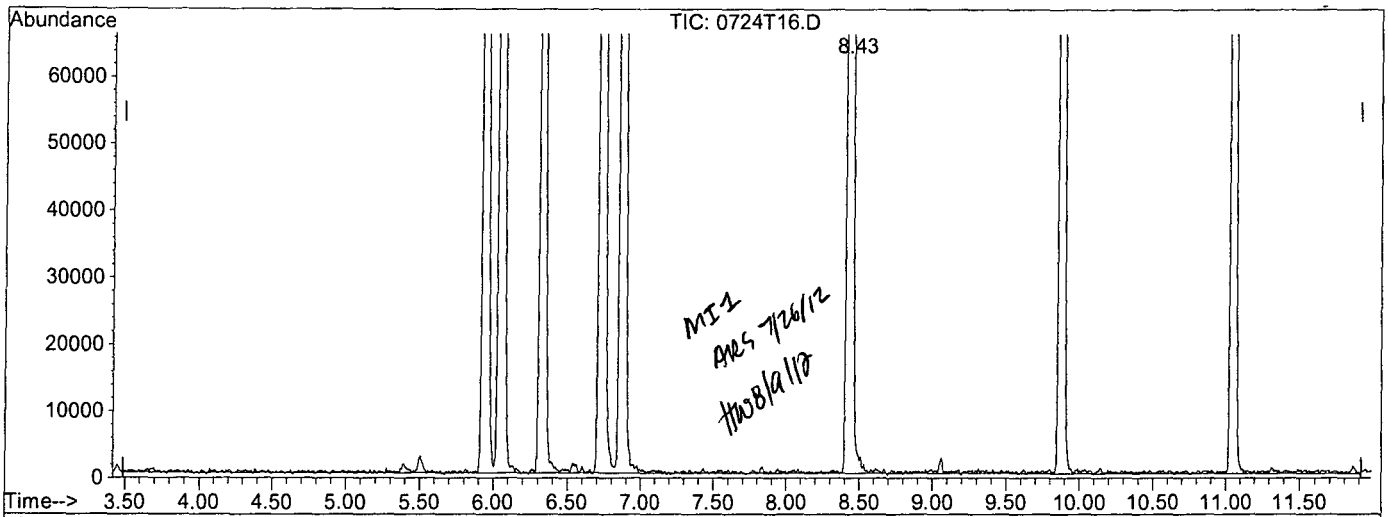
Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration

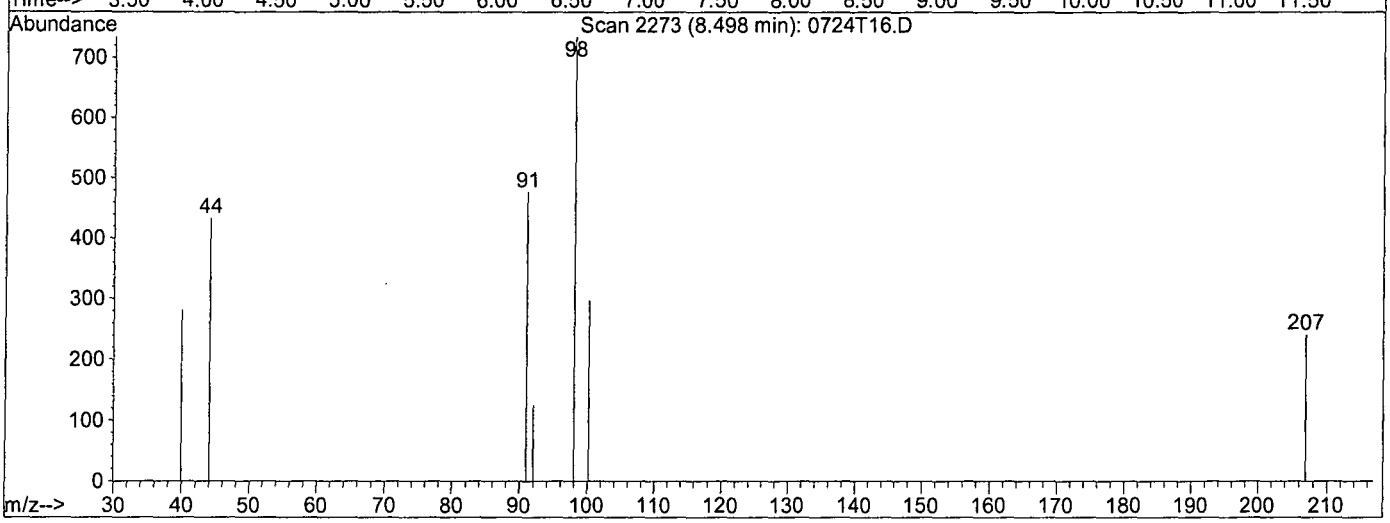


Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T16.D Vial: 15
Acq On : 24 Jul 12 23:02 Operator: DG,RS,HW,ARS,SV
Sample : AY65043W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:28 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T16.D

(2) Gasoline (TMHB)

8.50min 65.4258ppb m

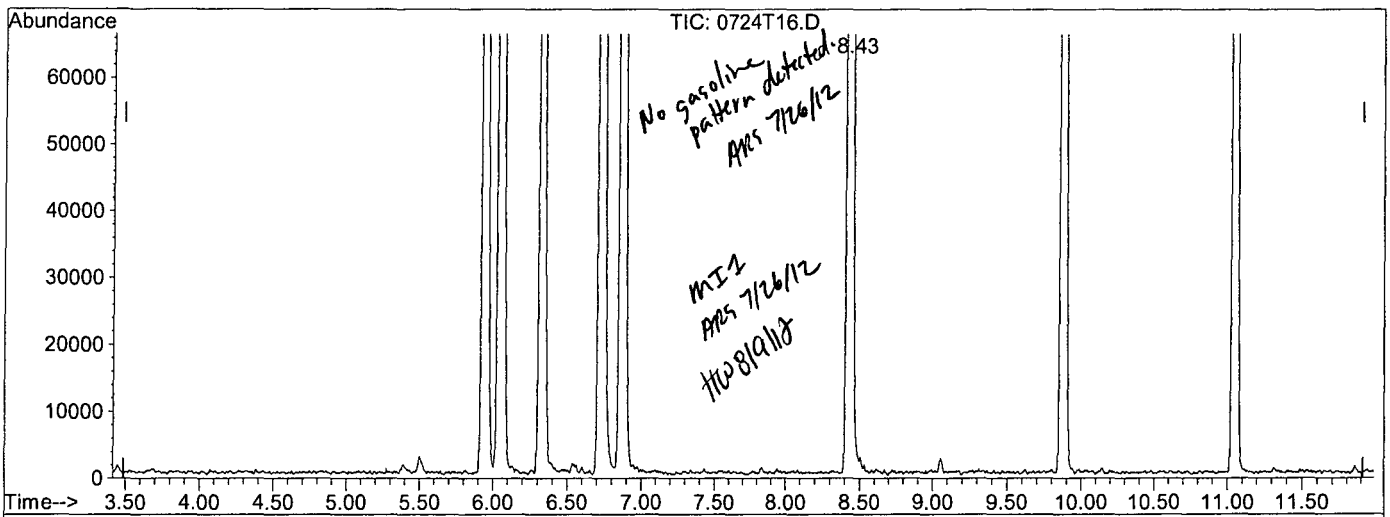
response 7232998

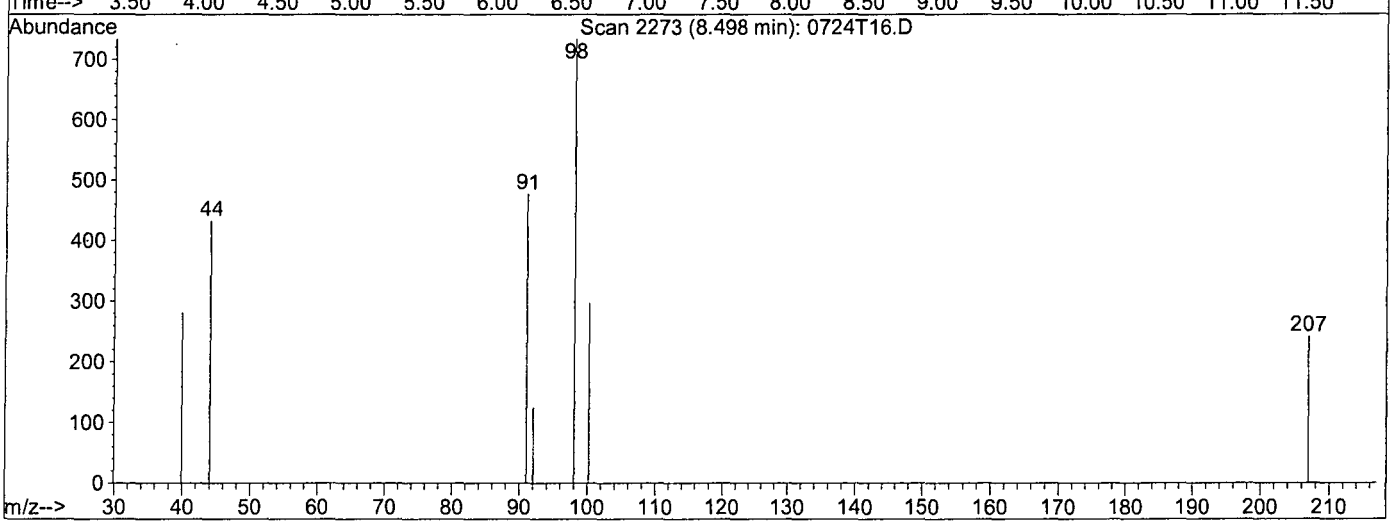
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	1.27#
0.00	0.00	3.73#
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T16.D Vial: 15
Acq On : 24 Jul 12 23:02 Operator: DG,RS,HW,ARS,SV
Sample : AY65043W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:51 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T16.D

(2) Gasoline (TMHB)

8.43min 127.5001ppb m

response 9326019

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.99#
0.00	0.00	2.90#
0.00	0.00	0.00

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: 68248

Sample ID: ES080

APPL ID: AY65044

Sample Collection Date: 07/17/12

QCG: #86RHB-120719AT-169331

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	07/20/12	07/20/12
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	07/20/12	07/20/12
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	07/20/12	07/20/12
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	07/20/12	07/20/12
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	07/20/12	07/20/12
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	07/20/12	07/20/12
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	07/20/12	07/20/12
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	07/20/12	07/20/12
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	07/20/12	07/20/12
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	07/20/12	07/20/12
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	07/20/12	07/20/12
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	07/20/12	07/20/12
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	07/20/12	07/20/12
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	07/20/12	07/20/12
EPA 8260B	GASOLINE	12.12 U MI1	20.0	12.12	6.06	ug/L	07/20/12	07/20/12
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	07/20/12	07/20/12

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

(MI1) Manual integration: Integration does not follow baseline.

Quant Method: TALLW.M
Run #: 0719T45
Instrument: Thor
Sequence: T120719
Dilution Factor: 1
Initials: HW

Printed: 07/31/12 9:28:54 AM

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: 68248

Sample ID: ES080

APPL ID: AY65044

Sample Collection Date: 07/17/12

QCG: #86RHB-120719AT-169331

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	07/20/12	07/20/12
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	07/20/12	07/20/12
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	07/20/12	07/20/12
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	07/20/12	07/20/12
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	101	70-120			%	07/20/12	07/20/12
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	99.3	75-120			%	07/20/12	07/20/12
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	101	85-115			%	07/20/12	07/20/12
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.8	85-120			%	07/20/12	07/20/12

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
(MI1) Manual integration: Integration does not follow baseline.

Quant Method: TALLW.M
Run #: 0719T45
Instrument: Thor
Sequence: T120719
Dilution Factor: 1
Initials: HW

Printed: 07/31/12 9:28:54 AM
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\THOR\DATA\T120719\0719T45.D Vial: 45
Acq On : 20 Jul 12 5:31 Operator: DG,RS,HW,ARS,SV
Sample : AY65044W01 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 24 12:17 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	96	442624	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.88	117	361088	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	211648	25.00000	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.95	111	222267	32.08945	ppb	0.00
Spiked Amount 31.881			Recovery = 100.652%			
36) 1,2-DCA-D4(S)	6.33	65	218632	33.96432	ppb	0.00
Spiked Amount 33.647			Recovery = 100.943%			
56) Toluene-D8(S)	8.43	98	795517	37.26569	ppb	0.00
Spiked Amount 37.345			Recovery = 99.789%			
64) 4-Bromofluorobenzene(S)	11.05	95	295853	29.30567	ppb	0.00
Spiked Amount 29.515			Recovery = 99.291%			

Target Compounds Qvalue

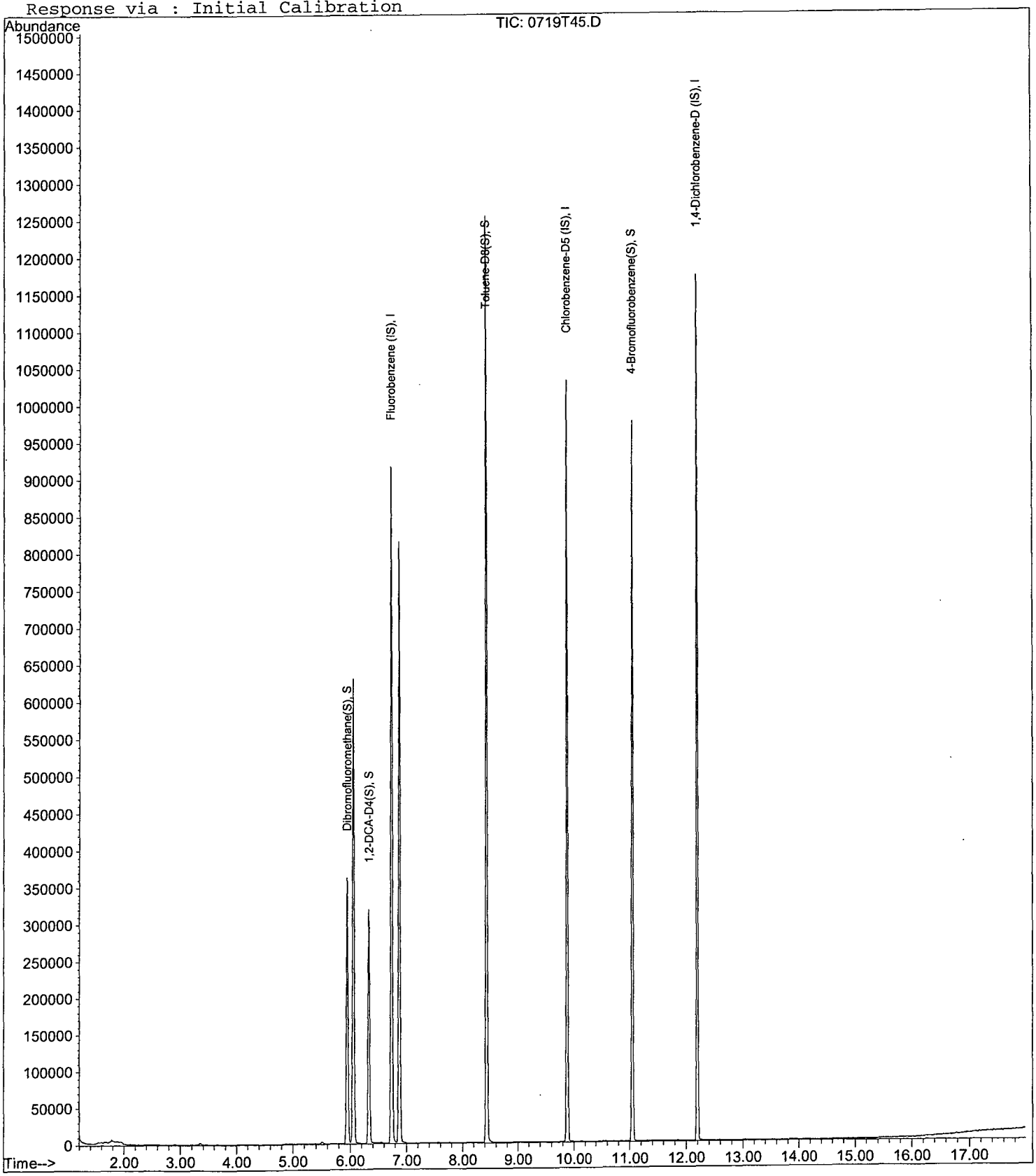
(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T120719\0719T45.D
Acq On : 20 Jul 12 5:31
Sample : AY65044W01
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 45
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 24 12:17 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120724\0724T17.D Vial: 16
Acq On : 24 Jul 12 23:30 Operator: DG,RS,HW,ARS,SV
Sample : AY65044W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 26 14:52 2012 Quant Results File: TGAS.RES

Quant Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	TIC	776366	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.87	TIC	876186	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.20	TIC	969361	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	8.43	TIC	9462760m	122.57049	ppb	ND 100

No gasoline pattern detected.
ARS 7/26/12

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

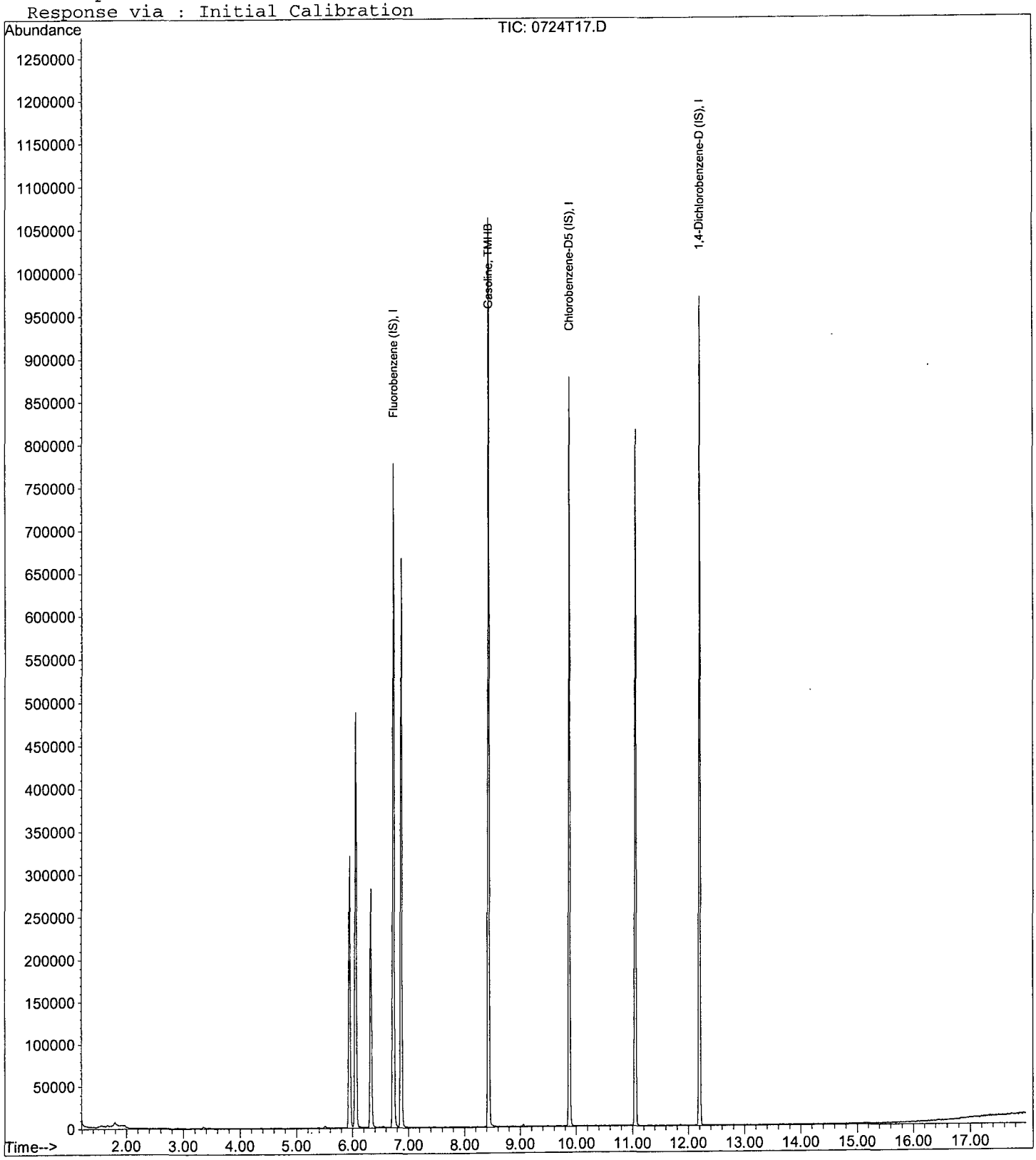
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T17.D
Acq On : 24 Jul 12 23:30
Sample : AY65044W02
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 16
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 26 14:52 2012 Quant Results File: TGAS.RES

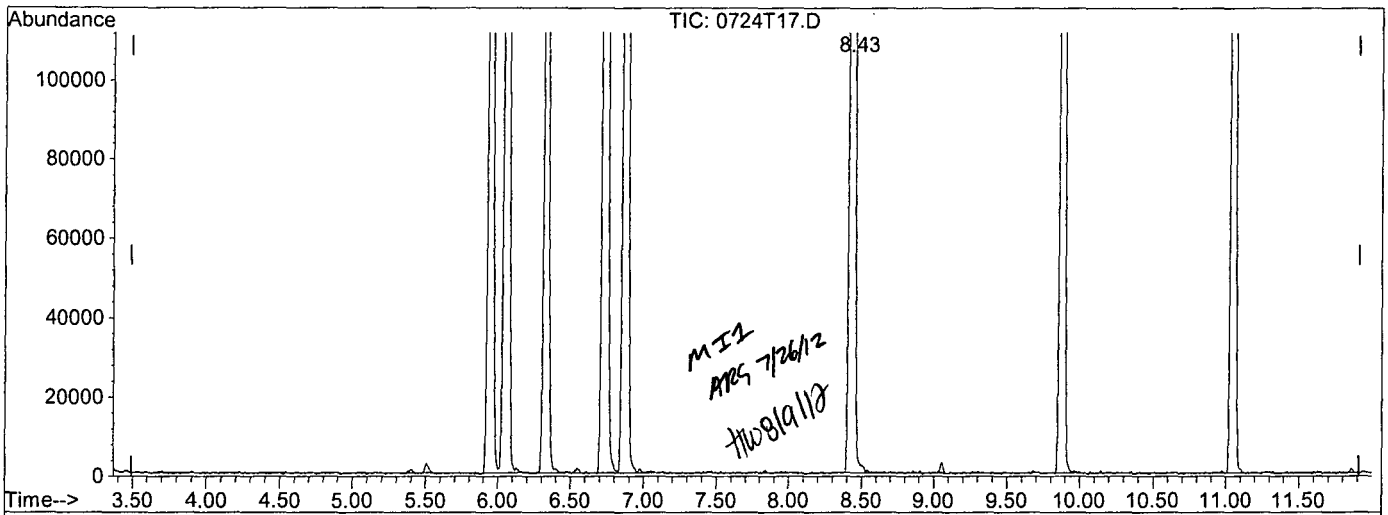
Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration

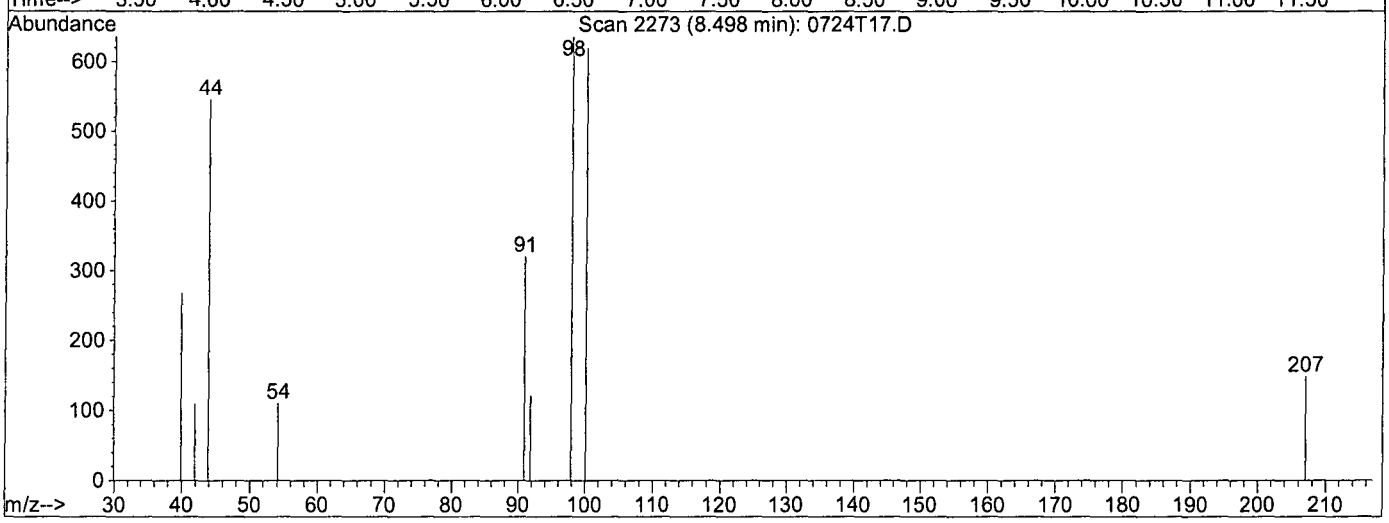


Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T17.D Vial: 16
Acq On : 24 Jul 12 23:30 Operator: DG,RS,HW,ARS,SV
Sample : AY65044W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:28 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T17.D

(2) Gasoline (TMHB)

8.50min 61.1024ppb m

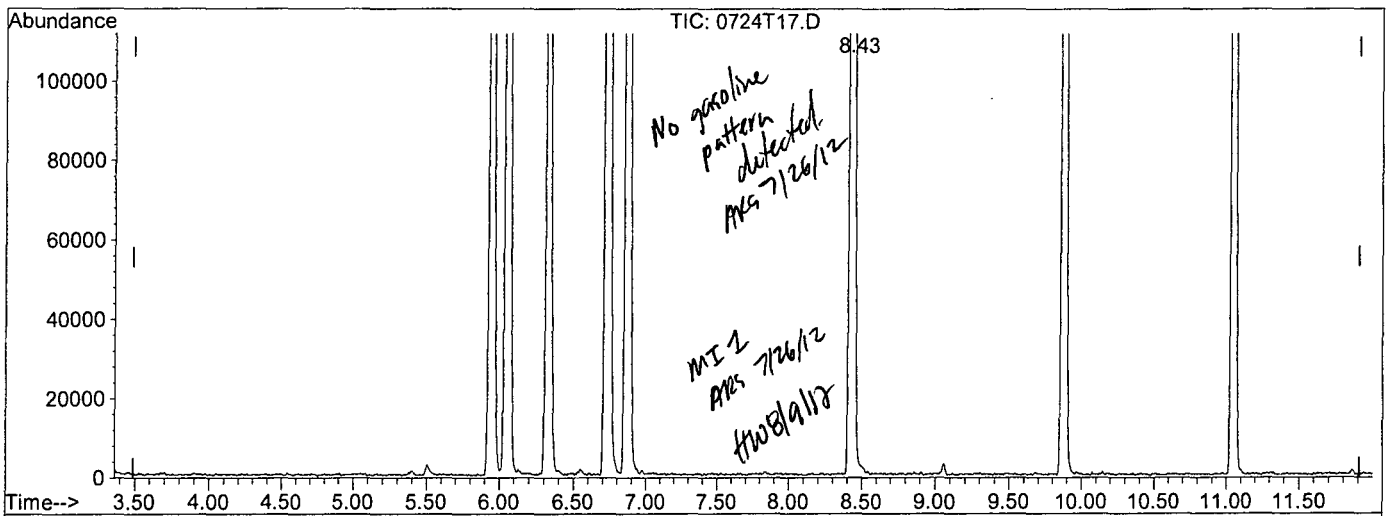
response 7321628

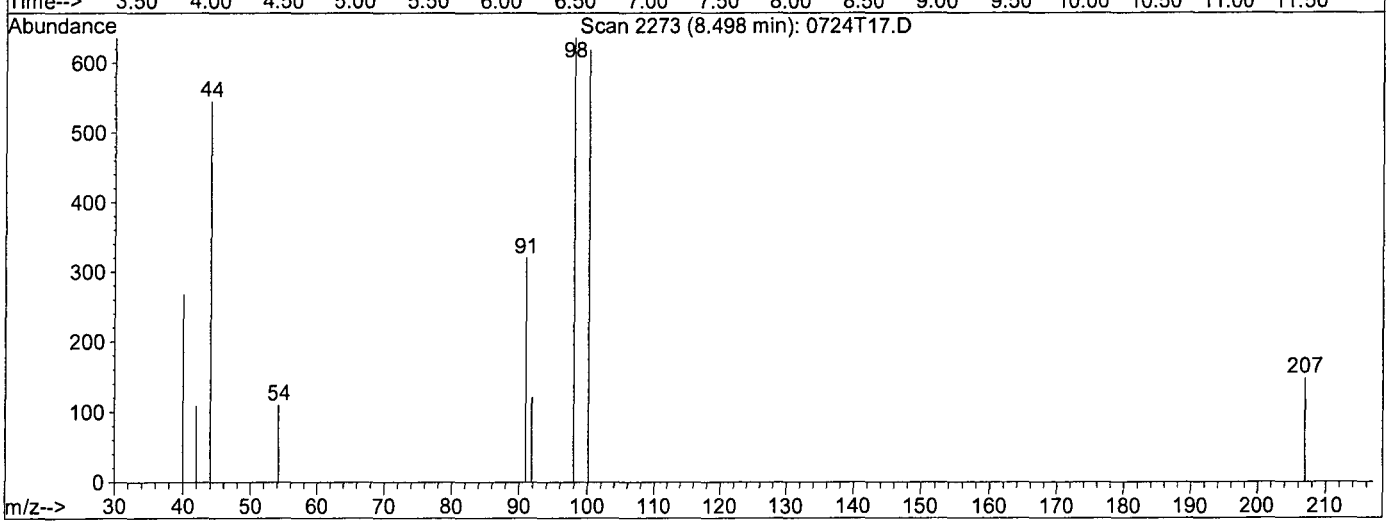
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	1.31#
0.00	0.00	3.72#
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T17.D Vial: 16
Acq On : 24 Jul 12 23:30 Operator: DG,RS,HW,ARS,SV
Sample : AY65044W02 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:52 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T17.D

(2) Gasoline (TMHB)

8.43min 122.5705ppb m

response 9462760

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	1.01#
0.00	0.00	2.88#
0.00	0.00	0.00

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: 68248
Case No: Initial Cal. Date: 07/19/12
Matrix: Water Instrument: Thor (TALLW.M) Initials:

			0719T05.D	0719T06.D	0719T07.D	0719T08.D	0719T09.D	0719T10.D	0719T11.D	0719T12.D	0719T13.D					
		Compound	0.3	0.5	1	2	5	10	20	40	100		Avg	%RSD		r2
1	I	Fluorobenzene (IS)														
2	TM	Dichlorodifluoromethane	0.1200	0.1240	0.1418	0.1356	0.1268	0.1115					0.13	8.6	TM	
3	TML	Freon 114	0.1415	0.1046	0.1361	0.1772	0.1673	0.1621	0.1749	0.1896	0.1665		0.16	17	TML	0.997
4	TM**L	Chloromethane		0.4629	0.4159	0.3768	0.3605	0.2990	0.3105				0.37	17	TM**L	0.998
5	TM*	Vinyl chloride	0.5005	0.4852	0.4531	0.5101	0.5250	0.4769	0.4974	0.4968	0.5019		0.49	4.2	TM*	
6	TM	Bromomethane		0.3766	0.3596	0.3226	0.3472	0.3041	0.2931	0.2684	0.2549		0.32	14	TM	
7	TM	Chloroethane	0.2747	0.3114	0.2850	0.2613	0.2962	0.2719	0.2859	0.2914	0.2834		0.28	5.1	TM	
8	TMQ	Dichlorofluoromethane	0.0090	0.0202	0.0126	0.0164	0.0152	0.0196	0.0254	0.0336	0.0648		0.02	70	TMQ	1.000
9	TM	Trichlorofluoromethane		0.0842	0.0966	0.1000	0.1198	0.1100					0.10	13	TM	
10	TMQ	Acrolein													TMQ	NT
11	TML	Acetone	0.3965	0.2944	0.1679	0.1468	0.1007	0.0866	0.0926	0.0801	0.0821		0.16	70	TML	0.999
12	TM	Freon-113	0.1778	0.1747	0.1931	0.2265	0.2246	0.2168	0.2084	0.2210	0.2060		0.21	9.5	TM	
13	TM*	1,1-DCE	0.3007	0.2729	0.2644	0.2720	0.2744	0.2696	0.2660	0.2835	0.2775		0.28	4.0	TM*	
14	TM	t-Butanol		0.0075	0.0074	0.0072	0.0076	0.0077	0.0092	0.0102			0.01	14	TM	
15	TML	Methyl Acetate	0.8726	0.6035	0.5101	0.4714	0.2802	0.2330	0.2248	0.2202	0.2132		0.40	57	TML	1.000
16	TM	Iodomethane	0.2492	0.2575	0.2660	0.2419	0.2622	0.2432	0.2408	0.2414	0.2418		0.25	4.0	TM	
17	TM	Acrylonitrile	0.0874	0.0549	0.0692	0.0728	0.0933	0.0806	0.0840	0.0846	0.0838		0.08	15	TM	
18	TML	Methylene chloride	0.3676	0.2647	0.1440	0.1292	0.1165	0.0964	0.0956	0.0949	0.0918		0.16	62	TML	1.000
19	TML	Carbon disulfide	0.0466	0.0453	0.0322	0.0318	0.0301	0.0270	0.0292	0.0278	0.0258		0.03	23	TML	0.999
20	TM	Methyl t-butyl ether (MtBE)	0.6119	0.5783	0.5229	0.5275	0.5662	0.5222	0.5070	0.4911	0.4631		0.53	8.6	TM	
21	TM	Trans-1,2-DCE	0.2297	0.2354	0.1695	0.1842	0.1947	0.1734	0.1779	0.1766	0.1709		0.19	13	TM	
22	TM	Diisopropyl Ether	0.1003	0.1361	0.1126	0.1164	0.1317	0.1212	0.1179	0.1198	0.1168		0.12	8.7	TM	
23	TM**	1,1-DCA	0.5526	0.4780	0.4682	0.4954	0.5506	0.5086	0.4958	0.5067	0.4843		0.50	5.9	TM**	
24	TM	Vinyl Acetate	0.2861	0.3189	0.2551	0.2716	0.3128	0.2787	0.2776	0.2848	0.2788		0.28	6.9	TM	
25	TM	Ethyl tert Butyl Ether	0.7356	0.6599	0.6680	0.6558	0.7593	0.6522	0.6460	0.6381	0.5738		0.67	8.2	TM	
26	TML	MEK (2-Butanone)	0.2041	0.1795	0.1594	0.1391	0.1113	0.1135	0.1203	0.1216	0.1272		0.14	23	TML	1.000
27	TM	Cis-1,2-DCE	0.3407	0.3327	0.3111	0.3113	0.3441	0.3184	0.3199	0.3183	0.3119		0.32	4.0	TM	
28	TM	2,2-Dichloropropane		0.2047	0.2143	0.2086	0.2158	0.2037	0.1976	0.1966	0.1845		0.20	5.0	TM	
29	TM*	Chloroform	0.7181	0.6349	0.6028	0.6230	0.6647	0.6037	0.5996	0.6037	0.5876		0.63	6.6	TM*	
30	TM	Bromochloromethane	0.1510	0.1457	0.1513	0.1633	0.1810	0.1595	0.1543	0.1538	0.1561		0.16	6.5	TM	
31	S	Dibromofluoromethane(S)	0.5051	0.3961	0.3766	0.3856	0.3635	0.3650	0.3693	0.3784	0.3815		0.39	11	S	
32	TM	1,1,1-TCA	0.4433	0.4047	0.3367	0.3737	0.3876	0.3695	0.3618	0.3671	0.3480		0.38	8.5	TM	
33	TM	Cyclohexane	0.1075	0.0984	0.0973	0.1087	0.1023	0.1026	0.0982	0.1080	0.0976		0.10	4.6	TM	
34	TM	1,1-Dichloropropene	0.2952	0.2623	0.2578	0.2666	0.2963	0.2712	0.2714	0.2756	0.2672		0.27	4.9	TM	
35	TM	2,2,4-Trimethylpentane	0.4193	0.3897	0.3643	0.3992	0.4174	0.3920	0.3860	0.4075	0.3655		0.39	5.1	TM	

ARS 7/27/12

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 68248
Case No: Initial Cal. Date: 07/19/12
Matrix: Water Instrument: Thor (TALLW.M) Initials:

		Compound	0.3	0.5	1	2	5	10	20	40	100		Avg	%RSD		r2
36	S	1,2-DCA-D4(S)	0.4628	0.4074	0.3542	0.3471	0.3446	0.3369	0.3408	0.3392	0.3393		0.36	12	S	
37	TM	Carbon Tetrachloride	0.3583	0.3585	0.3356	0.3521	0.3730	0.3393	0.3467	0.3628	0.3533		0.35	3.3	TM	
38	TM	Tert Amyl Methyl Ether	0.8104	0.7185	0.6881	0.6883	0.7716	0.7091	0.6860	0.6745	0.6278		0.71	7.6	TM	
39	TM	1,2-DCA	0.4427	0.3989	0.4073	0.4206	0.4411	0.4013	0.4023	0.3957	0.3873		0.41	4.8	TM	
40	TM	Benzene	1.330	1.229	1.037	1.104	1.170	1.075	1.059	1.066	1.029		1.1	9.1	TM	
41	TM	TCE	0.3220	0.3196	0.3000	0.3036	0.3233	0.2996	0.2973	0.2966	0.2829		0.30	4.5	TM	
42	TM	2-Pentanone	0.2622	0.2195	0.2350	0.2329	0.2443	0.2273	0.2432	0.2426	0.2555		0.24	5.6	TM	
43	TM*	1,2-Dichloropropane	0.3696	0.3784	0.3475	0.3772	0.4017	0.3593	0.3586	0.3516	0.3511		0.37	4.8	TM*	
44	TM	Bromodichloromethane	0.5464	0.5022	0.4808	0.4813	0.5587	0.4945	0.4955	0.4994	0.4996		0.51	5.4	TM	
45	TM	Methyl Cyclohexane	0.2160	0.2253	0.1988	0.2361	0.2203	0.2228	0.2114	0.2222	0.2069		0.22	5.1	TM	
46	TM	Dibromomethane	0.2224	0.1871	0.1941	0.1966	0.2119	0.1946	0.1959	0.1962	0.1934		0.20	5.5	TM	
47	TML	2-Chloroethyl vinyl ether			0.0023	0.0050	0.0079	0.0074	0.0077	0.0064	0.0063		0.01	32	TML	0.998
48	TM	MIBK (methyl isobutyl ketone	0.1836	0.1952	0.1595	0.1697	0.1709	0.1619	0.1669	0.1687	0.1789		0.17	6.5	TM	
49	TM	1-Bromo-2-chloroethane	0.2615	0.2802	0.2197	0.2499	0.2843	0.2418	0.2534	0.2519	0.2500		0.25	7.6	TM	
50	TM	Cis-1,3-Dichloropropene	0.5288	0.5220	0.4508	0.4775	0.5235	0.4876	0.4899	0.5108	0.5199		0.50	5.3	TM	
51	TM*	Toluene	1.349	1.351	1.277	1.293	1.418	1.314	1.307	1.310	1.296		1.3	3.2	TM*	
52	TM	Trans-1,3-Dichloropropene	0.5060	0.4246	0.3998	0.3819	0.4704	0.4238	0.4402	0.4550	0.4756		0.44	8.8	TM	
53	TM	1,1,2-TCA	0.3231	0.2925	0.2917	0.2877	0.3215	0.2847	0.2839	0.2826	0.2852		0.29	5.4	TM	
54	TM	2-Hexanone	0.2109	0.1986	0.1812	0.1996	0.1958	0.1884	0.1957	0.2026	0.2106		0.20	4.8	TM	
55	I	Chlorobenzene-D5 (IS)														
56	S	Toluene-D8(S)	1.945	1.553	1.390	1.493	1.349	1.331	1.429	1.411	1.401		1.5	13	S	
57	TM	1,2-EDB	0.4293	0.3708	0.3376	0.3631	0.4033	0.3618	0.3677	0.3665	0.3733		0.37	7.1	TM	
58	TM	Tetrachloroethene	0.5273	0.3800	0.4081	0.4402	0.4287	0.4130	0.4140	0.4108	0.3923		0.42	10	TM	
59	TM	1-Chlorohexane		0.4233	0.5404	0.5484	0.5087	0.4910	0.5018	0.5163	0.5060		0.50	7.5	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.5093	0.4750	0.4800	0.4853	0.5228	0.4867	0.5034	0.4895	0.5042		0.50	3.2	TM	
61	TM	m&p-Xylene	0.7775	0.7225	0.7109	0.7529	0.8468	0.7684	0.7958	0.7959	0.7812		0.77	5.3	TM	
62	TM	o-Xylene	0.8379	0.7723	0.6766	0.7783	0.8551	0.8049	0.8293	0.8221	0.8148		0.80	6.6	TM	
63	TM	Styrene	1.301	1.205	1.181	1.300	1.477	1.358	1.464	1.458	1.474		1.4	8.6	TM	
64	S	4-Bromofluorobenzene(S)	0.8941	0.6924	0.6735	0.7021	0.6390	0.6351	0.6830	0.6795	0.6919		0.70	11	S	
65	TM	1,3-Dichloropropane	0.6702	0.6903	0.6119	0.6806	0.6923	0.6397	0.6502	0.6458	0.6339		0.66	4.2	TM	
66	TM	Dibromochloromethane	0.5324	0.4622	0.4816	0.4777	0.5198	0.4771	0.5014	0.4950	0.5058		0.49	4.5	TM	
67	TM**	Chlorobenzene	1.394	1.309	1.286	1.325	1.349	1.240	1.255	1.250	1.223		1.3	4.4	TM**	
68	TM*	Ethylbenzene	2.124	2.073	1.840	2.023	2.142	1.972	2.058	2.044	2.014		2.0	4.4	TM*	
69	TM**	Bromoform	0.3594	0.3044	0.3153	0.3283	0.3636	0.3252	0.3395	0.3493	0.3641		0.34	6.4	TM**	
70	I	1,4-Dichlorobenzene-D (IS)														

AMS 7/27/12

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 68248
Case No: Initial Cal. Date: 07/19/12
Matrix: Water Instrument: Thor (TALLW.M) Initials:

		Compound	0.3	0.5	1	2	5	10	20	40	100		Avg	%RSD		r2
71	TM	Isopropylbenzene	3.467	3.050	3.049	3.087	3.489	3.289	3.342	3.375	3.271		3.3	5.2	TM	
72	TM**	1,1,2,2-Tetrachloroethane	0.8851	0.9679	0.8759	0.9162	0.9988	0.8592	0.8910	0.8858	0.8834		0.91	5.1	TM**	
73	TM	1,2,3-Trichloropropane	0.3011	0.2573	0.2216	0.2692	0.2788	0.2452	0.2476	0.2483	0.2478		0.26	8.9	TM	
74	TM	t-1,4-Dichloro-2-Butene	0.1233	0.1619	0.1587	0.1593	0.1955	0.1733	0.1868	0.1920	0.1997		0.17	14	TM	
75	TM	Bromobenzene	1.091	1.144	1.005	1.075	1.155	1.068	1.071	1.055	1.035		1.1	4.4	TM	
76	TM	n-Propylbenzene	4.174	3.908	3.893	4.133	4.515	4.215	4.378	4.400	4.261		4.2	5.0	TM	
77	TM	4-Ethyltoluene	3.403	3.468	3.298	3.466	3.887	3.743	3.772	3.801	3.689		3.6	5.7	TM	
78	TM	2-Chlorotoluene	3.081	2.980	2.812	2.959	3.223	3.008	3.013	3.014	2.922		3.0	3.7	TM	
79	TM	1,3,5-Trimethylbenzene	2.835	2.688	2.726	2.902	3.286	3.099	3.174	3.182	3.072		3.0	7.2	TM	
80	TM	4-Chlorotoluene	2.900	2.859	2.765	2.855	3.310	3.011	3.062	3.033	2.941		3.0	5.4	TM	
81	TM	Tert-Butylbenzene	2.860	2.656	2.519	2.623	2.937	2.735	2.783	2.826	2.764		2.7	4.7	TM	
82	TM	1,2,4-Trimethylbenzene	3.036	2.836	2.905	2.957	3.327	3.187	3.242	3.250	3.161		3.1	5.6	TM	
83	TM	Sec-Butylbenzene	3.394	3.341	3.380	3.572	4.054	3.748	3.858	3.877	3.756		3.7	6.9	TM	
84	TM	p-Isopropyltoluene	2.818	2.824	2.797	3.020	3.405	3.187	3.271	3.320	3.225		3.1	7.6	TM	
85	TM	Benzyl Chloride	1.053	0.8317	0.9028	0.8503	0.9797	0.8739	0.8908	0.9346	1.011		0.93	8.1	TM	
86	TM	1,3-DCB	2.012	2.075	1.942	2.040	2.212	2.027	2.054	2.010	1.970		2.0	3.8	TM	
87	TM	1,4-DCB	2.332	2.267	2.134	2.043	2.254	2.079	2.072	2.042	1.986		2.1	5.7	TM	
88	TM	n-Butylbenzene	2.593	2.637	2.640	2.648	2.950	2.837	2.897	2.936	2.840		2.8	5.2	TM	
89	TM	1,2-DCB	2.109	2.010	1.946	1.881	2.124	1.970	1.946	1.916	1.874		2.0	4.6	TM	
90	TM	Hexachloroethane	0.6385	0.6103	0.5276	0.5154	0.5816	0.5288	0.5569	0.5673	0.5792		0.57	7.1	TM	
91	TM	1,2-Dibromo-3-chloropropane	0.1427	0.1282	0.1718	0.1498	0.1896	0.1710	0.1873	0.1886	0.2003		0.17	14	TM	
92	TM	1,2,4-Trichlorobenzene	0.9309	0.8325	0.8167	0.8383	0.9761	0.9144	0.9363	0.9319	0.9714		0.91	6.7	TM	
93	TM	Hexachlorobutadiene	0.4199	0.3460	0.4009	0.3612	0.4008	0.3697	0.3737	0.3684	0.3634		0.38	6.3	TM	
94	TM	Naphthalene	2.301	2.300	2.079	2.264	2.715	2.596	2.749	2.843	2.906		2.5	12	TM	
95	TM	1,2,3-Trichlorobenzene	1.232	1.180	1.271	1.218	1.424	1.312	1.335	1.325	1.313		1.3	5.7	TM	
96																
97																
98																
99																
100																
101																
102																
103																
104																
105																

ARS 7/27/12

Data File : M:\THOR\DATA\T120719\0719T05.D Vial: 5
Acq On : 19 Jul 12 11:01 Operator: DG,RS,HW,ARS,SV
Sample : 0.3ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.74	96	427072	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.88	117	343424	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	202048	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.95	111	5177	0.77464 ppb		0.00
Spiked Amount 29.744			Recovery	= 2.606%		
36) 1,2-DCA-D4(S)	6.33	65	4744	0.76381 ppb		0.00
Spiked Amount 29.083			Recovery	= 2.627%		
56) Toluene-D8(S)	8.43	98	16030	0.78954 ppb		0.00
Spiked Amount 30.231			Recovery	= 2.613%		
64) 4-Bromofluorobenzene(S)	11.05	95	7369	0.76748 ppb		0.00
Spiked Amount 28.321			Recovery	= 2.708%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.30	85	615	0.27612 ppb		95
3) Freon 114	1.42	85	725	-0.13478 ppb	#	68
4) Chloromethane	1.45	50	2617	0.40957 ppb		87
5) Vinyl chloride	1.56	62	2565	0.30389 ppb		92
6) Bromomethane	1.87	94	2507	0.46469 ppb		98
7) Chloroethane	1.98	64	1408	0.28963 ppb		99
9) Trichlorofluoromethane	2.24	101	407	0.23329 ppb		93
11) Acetone	2.91	43	2032	0.21001 ppb	#	82
12) Freon-113	2.85	101	911	0.25960 ppb	#	62
13) 1,1-DCE	2.82	61	1541	0.32723 ppb	#	78
14) t-Butanol	3.69	59	2213	15.97947 ppb		92
15) Methyl Acetate	3.35	43	4472	-0.20827 ppb	#	84
16) Iodomethane	2.99	142	1277	0.29980 ppb	#	77
17) Acrylonitrile	3.84	52	448	0.33215 ppb	#	42
18) Methylene chloride	3.45	84	1884	0.26546 ppb		79
19) Carbon disulfide	3.07	76	239	-0.34303 ppb	#	65
20) Methyl t-butyl ether (MtBE	3.91	73	3136	0.34491 ppb	#	79
21) Trans-1,2-DCE	3.87	96	1177	0.36216 ppb	#	64
22) Diisopropyl Ether	4.71	59	514	0.25243 ppb	#	40
23) 1,1-DCA	4.51	63	2832	0.32862 ppb	#	79
24) Vinyl Acetate	4.71	87	1466	0.30118 ppb		75
25) Ethyl tert Butyl Ether	5.21	59	3770	0.33165 ppb		100
26) MEK (2-Butanone)	5.40	43	1046	0.82334 ppb		91
27) Cis-1,2-DCE	5.32	96	1746	0.31627 ppb		76
28) 2,2-Dichloropropane	5.32	77	1192	0.74979 ppb		93
29) Chloroform	5.76	83	3680	0.34387 ppb		87
30) Bromochloromethane	5.63	128	774	0.28796 ppb		75
32) 1,1,1-TCA	5.96	97	2272	0.35284 ppb		87
33) Cyclohexane	6.03	41	551	0.31531 ppb	#	6
34) 1,1-Dichloropropene	6.16	75	1513	0.32355 ppb	#	82
35) 2,2,4-Trimethylpentane	6.55	57	2149	0.31975 ppb		81
37) Carbon Tetrachloride	6.16	117	1836	0.30422 ppb		83
38) Tert Amyl Methyl Ether	6.59	73	4153	0.34325 ppb	#	92
39) 1,2-DCA	6.42	62	2269	0.32331 ppb	#	74
40) Benzene	6.40	78	6818	0.35570 ppb		94
41) TCE	7.14	95	1650	0.31670 ppb		90
42) 2-Pentanone	7.36	43	67186	16.36852 ppb		95
43) 1,2-Dichloropropane	7.37	63	1894	0.30283 ppb	#	85
44) Bromodichloromethane	7.68	83	2800	0.32362 ppb		87
45) Methyl Cyclohexane	7.36	83	1107	0.29759 ppb	#	41
46) Dibromomethane	7.50	93	1140	0.33509 ppb	#	65

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

Data File : M:\THOR\DATA\T120719\0719T05.D Vial: 5
Acq On : 19 Jul 12 11:01 Operator: DG,RS,HW,ARS,SV
Sample : 0.3ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
48)	MIBK (methyl isobutyl ket	8.33	43	941	0.31878 ppb	#	95
49)	1-Bromo-2-chloroethane	7.99	63	1340	0.30794 ppb		93
50)	Cis-1,3-Dichloropropene	8.15	75	2710	0.31652 ppb		96
51)	Toluene	8.50	91	6911	0.30559 ppb		97
52)	Trans-1,3-Dichloropropene	8.72	75	2593	0.34348 ppb		94
53)	1,1,2-TCA	8.90	83	1656	0.32887 ppb		92
54)	2-Hexanone	9.18	43	1081	0.31934 ppb	#	88
57)	1,2-EDB	9.40	107	1769	0.34356 ppb		92
58)	Tetrachloroethene	9.06	166	2173	0.37324 ppb		90
59)	1-Chlorohexane	9.90	91	3169	0.45728 ppb		98
60)	1,1,1,2-Tetrachloroethane	9.99	131	2099	0.30859 ppb		97
61)	m&p-Xylene	10.14	106	6408	0.60392 ppb		98
62)	o-Xylene	10.54	106	3453	0.31458 ppb		79
63)	Styrene	10.55	104	5361	0.28746 ppb		90
65)	1,3-Dichloropropane	9.07	76	2762	0.30594 ppb		85
66)	Dibromochloromethane	9.29	129	2194	0.32279 ppb		80
67)	Chlorobenzene	9.91	112	5744	0.32352 ppb		86
68)	Ethylbenzene	10.03	91	8755	0.31360 ppb		98
69)	Bromoform	10.71	173	1481	0.31823 ppb		97
71)	Isopropylbenzene	10.91	105	8406	0.31819 ppb		96
72)	1,1,2,2-Tetrachloroethane	11.19	83	2146	0.29274 ppb	#	84
73)	1,2,3-Trichloropropane	11.22	110	730	0.35086 ppb	#	56
74)	t-1,4-Dichloro-2-Butene	11.24	53	299	0.21473 ppb	#	27
75)	Bromobenzene	11.19	156	2644	0.30360 ppb		94
76)	n-Propylbenzene	11.32	91	10120	0.29752 ppb		93
77)	4-Ethyltoluene	11.43	105	8252	0.28250 ppb		97
78)	2-Chlorotoluene	11.40	91	7471	0.30802 ppb		92
79)	1,3,5-Trimethylbenzene	11.50	105	6874	0.28388 ppb		93
80)	4-Chlorotoluene	11.50	91	7031	0.29285 ppb		85
81)	Tert-Butylbenzene	11.82	119	6934	0.31259 ppb		87
82)	1,2,4-Trimethylbenzene	11.86	105	7361	0.29378 ppb		100
83)	Sec-Butylbenzene	12.04	105	8228	0.27783 ppb		96
84)	p-Isopropyltoluene	12.19	119	6833	0.27307 ppb	#	88
85)	Benzyl Chloride	12.36	91	2552	0.34128 ppb		95
86)	1,3-DCB	12.13	146	4878	0.29617 ppb		90
87)	1,4-DCB	12.22	146	5654	0.32779 ppb		98
88)	n-Butylbenzene	12.59	91	6287	0.28031 ppb		93
89)	1,2-DCB	12.59	146	5114	0.32036 ppb		94
90)	Hexachloroethane	12.86	117	1548	0.33764 ppb		85
91)	1,2-Dibromo-3-chloropropan	13.36	157	346	0.25194 ppb		83
92)	1,2,4-Trichlorobenzene	14.20	180	2257	0.30845 ppb		85
93)	Hexachlorobutadiene	14.38	223	1018	0.33304 ppb		93
94)	Naphthalene	14.43	128	5580	0.27311 ppb		94
95)	1,2,3-Trichlorobenzene	14.68	180	2988	0.28660 ppb		98

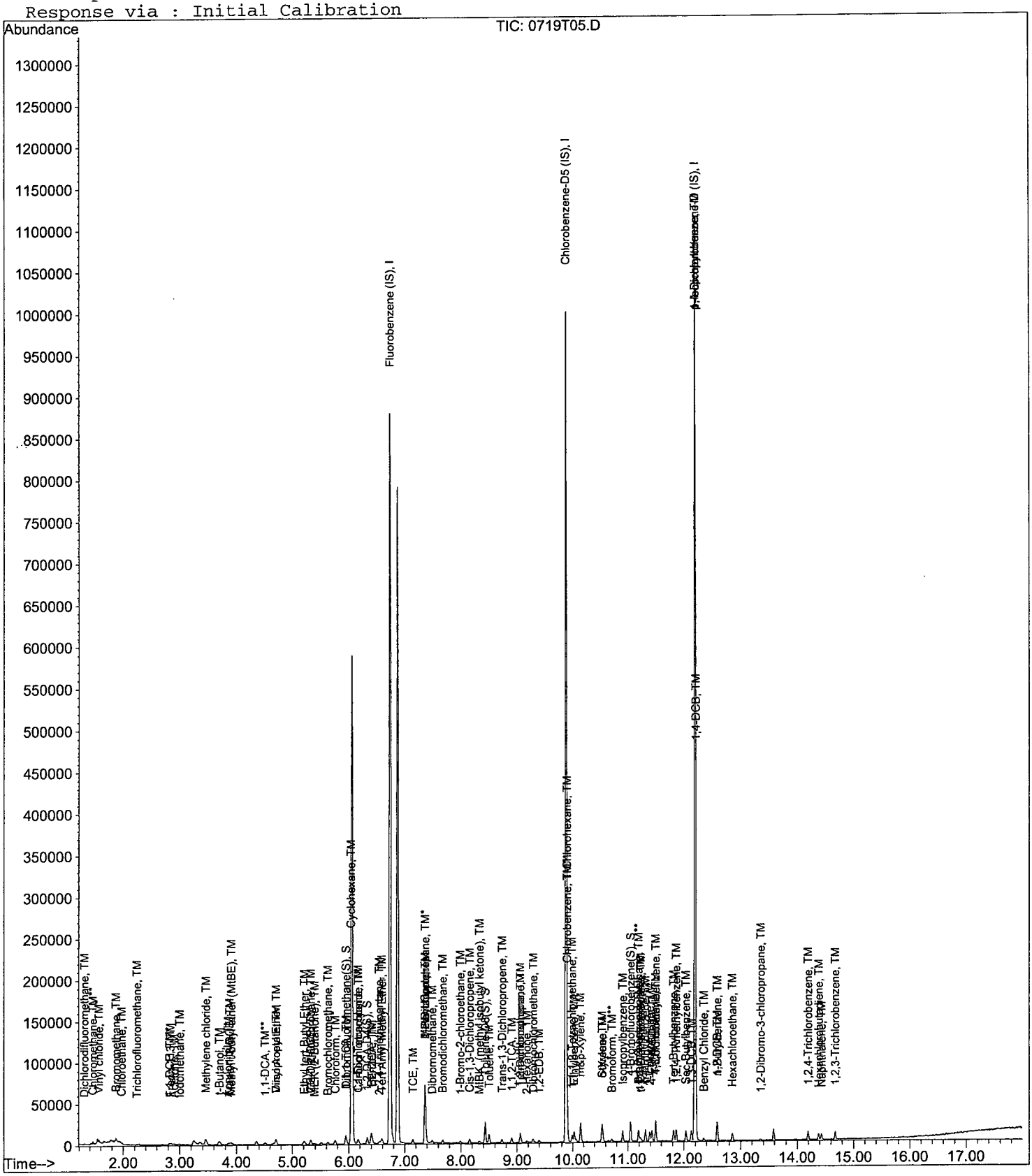
(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T120719\0719T05.D
Acq On : 19 Jul 12 11:01
Sample : 0.3ug/L Vol Std 07-19-12
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 5
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 08:28:10 2012
Response via : Initial Calibration



195

Data File : M:\THOR\DATA\T120719\0719T06.D Vial: 6
Acq On : 19 Jul 12 11:29 Operator: DG,RS,HW,ARS,SV
Sample : 0.5ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.73	96	440576	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.88	117	363776	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	205952	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.95	111	6980	1.01241 ppb		0.00
Spiked Amount 29.744			Recovery =	3.402%		
36) 1,2-DCA-D4(S)	6.33	65	7179	1.12044 ppb		0.00
Spiked Amount 29.083			Recovery =	3.851%		
56) Toluene-D8(S)	8.43	98	22596	1.05068 ppb		0.00
Spiked Amount 30.231			Recovery =	3.477%		
64) 4-Bromofluorobenzene(S)	11.05	95	10075	0.99060 ppb		0.00
Spiked Amount 28.321			Recovery =	3.499%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.30	85	1093	0.47570 ppb		85
3) Freon 114	1.42	85	922	-0.07628 ppb		90
4) Chloromethane	1.45	50	4079	0.61881 ppb		92
5) Vinyl chloride	1.56	62	4275	0.49095 ppb		97
6) Bromomethane	1.87	94	3318	0.59617 ppb		96
7) Chloroethane	1.98	64	2744	0.54714 ppb		97
8) Dichlorofluoromethane	2.18	67	178	0.48209 ppb	#	41
9) Trichlorofluoromethane	2.24	101	742	0.41227 ppb		86
11) Acetone	2.90	43	2594	0.55965 ppb		96
12) Freon-113	2.86	101	1539	0.42512 ppb	#	88
13) 1,1-DCE	2.82	61	2405	0.49505 ppb		96
14) t-Butanol	3.69	59	3316	23.21003 ppb		95
16) Iodomethane	2.98	142	2269	0.51637 ppb	#	76
17) Acrylonitrile	3.82	52	484	0.34784 ppb	#	38
18) Methylene chloride	3.46	84	2332	0.50714 ppb		95
20) Methyl t-butyl ether (MtBE	3.91	73	5096	0.54331 ppb	#	93
21) Trans-1,2-DCE	3.86	96	2074	0.61860 ppb	#	74
22) Diisopropyl Ether	4.70	59	1199	0.57079 ppb	#	86
23) 1,1-DCA	4.51	63	4212	0.47377 ppb	#	92
24) Vinyl Acetate	4.70	87	2810	0.55961 ppb		62
25) Ethyl tert Butyl Ether	5.21	59	5815	0.49588 ppb		97
26) MEK (2-Butanone)	5.39	43	1582	1.04859 ppb	#	79
27) Cis-1,2-DCE	5.33	96	2932	0.51483 ppb		90
28) 2,2-Dichloropropane	5.32	77	1804	1.09997 ppb		93
29) Chloroform	5.76	83	5594	0.50670 ppb		93
30) Bromochloromethane	5.62	128	1284	0.46305 ppb		86
32) 1,1,1-TCA	5.96	97	3566	0.53682 ppb		84
33) Cyclohexane	6.03	41	867	0.48093 ppb	#	20
34) 1,1-Dichloropropene	6.16	75	2311	0.47905 ppb	#	87
35) 2,2,4-Trimethylpentane	6.55	57	3434	0.49528 ppb		94
37) Carbon Tetrachloride	6.17	117	3159	0.50739 ppb		79
38) Tert Amyl Methyl Ether	6.59	73	6331	0.50723 ppb	#	88
39) 1,2-DCA	6.42	62	3515	0.48550 ppb	#	91
40) Benzene	6.40	78	10831	0.54774 ppb		95
41) TCE	7.14	95	2816	0.52393 ppb		86
42) 2-Pentanone	7.36	43	96700	22.83691 ppb		100
43) 1,2-Dichloropropane	7.37	63	3334	0.51674 ppb	#	85
44) Bromodichloromethane	7.68	83	4425	0.49576 ppb	#	92
45) Methyl Cyclohexane	7.36	83	1985	0.51726 ppb		81
46) Dibromomethane	7.50	93	1649	0.46985 ppb		78
48) MIBK (methyl isobutyl ket	8.33	43	1720	0.56481 ppb	#	91

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

Data File : M:\THOR\DATA\T120719\0719T06.D Vial: 6
Acq On : 19 Jul 12 11:29 Operator: DG,RS,HW,ARS,SV
Sample : 0.5ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
49)	1-Bromo-2-chloroethane	7.99	63	2469	0.55000 ppb		98
50)	Cis-1,3-Dichloropropene	8.15	75	4600	0.52080 ppb		92
51)	Toluene	8.50	91	11904	0.51023 ppb		98
52)	Trans-1,3-Dichloropropene	8.72	75	3741	0.48036 ppb		84
53)	1,1,2-TCA	8.90	83	2577	0.49609 ppb		92
54)	2-Hexanone	9.18	43	1750	0.50113 ppb	#	95
57)	1,2-EDB	9.40	107	2698	0.49467 ppb		98
58)	Tetrachloroethene	9.05	166	2765	0.44835 ppb		85
59)	1-Chlorohexane	9.90	91	3080	0.41958 ppb	#	69
60)	1,1,1,2-Tetrachloroethane	9.99	131	3456	0.47967 ppb		97
61)	m&p-Xylene	10.14	106	10513	0.93536 ppb		95
62)	o-Xylene	10.54	106	5619	0.48328 ppb		97
63)	Styrene	10.55	104	8769	0.44389 ppb		95
65)	1,3-Dichloropropane	9.07	76	5022	0.52516 ppb		95
66)	Dibromochloromethane	9.29	129	3363	0.46710 ppb		98
67)	Chlorobenzene	9.91	112	9525	0.50646 ppb		95
68)	Ethylbenzene	10.03	91	15081	0.50998 ppb		95
69)	Bromoform	10.71	173	2215	0.44932 ppb		80
71)	Isopropylbenzene	10.91	105	12562	0.46649 ppb		98
72)	1,1,2,2-Tetrachloroethane	11.19	83	3987	0.53357 ppb		83
73)	1,2,3-Trichloropropane	11.23	110	1060	0.49981 ppb		90
74)	t-1,4-Dichloro-2-Butene	11.25	53	667	0.46994 ppb		84
75)	Bromobenzene	11.20	156	4714	0.53102 ppb		86
76)	n-Propylbenzene	11.32	91	16098	0.46430 ppb		98
77)	4-Ethyltoluene	11.43	105	14285	0.47977 ppb		98
78)	2-Chlorotoluene	11.39	91	12273	0.49640 ppb		94
79)	1,3,5-Trimethylbenzene	11.50	105	11071	0.44855 ppb		96
80)	4-Chlorotoluene	11.50	91	11777	0.48124 ppb		99
81)	Tert-Butylbenzene	11.82	119	10940	0.48383 ppb		97
82)	1,2,4-Trimethylbenzene	11.86	105	11683	0.45743 ppb		95
83)	Sec-Butylbenzene	12.04	105	13762	0.45588 ppb		96
84)	p-Isopropyltoluene	12.19	119	11631	0.45600 ppb		98
85)	Benzyl Chloride	12.36	91	3426	0.44948 ppb	#	91
86)	1,3-DCB	12.14	146	8549	0.50922 ppb		92
87)	1,4-DCB	12.22	146	9338	0.53111 ppb		93
88)	n-Butylbenzene	12.59	91	10860	0.47502 ppb		91
89)	1,2-DCB	12.59	146	8278	0.50874 ppb		90
90)	Hexachloroethane	12.86	117	2514	0.53795 ppb	#	49
91)	1,2-Dibromo-3-chloropropan	13.35	157	528	0.37717 ppb		90
92)	1,2,4-Trichlorobenzene	14.20	180	3429	0.45974 ppb		97
93)	Hexachlorobutadiene	14.38	223	1425	0.45735 ppb		86
94)	Naphthalene	14.43	128	9474	0.45490 ppb		99
95)	1,2,3-Trichlorobenzene	14.68	180	4860	0.45732 ppb		86

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

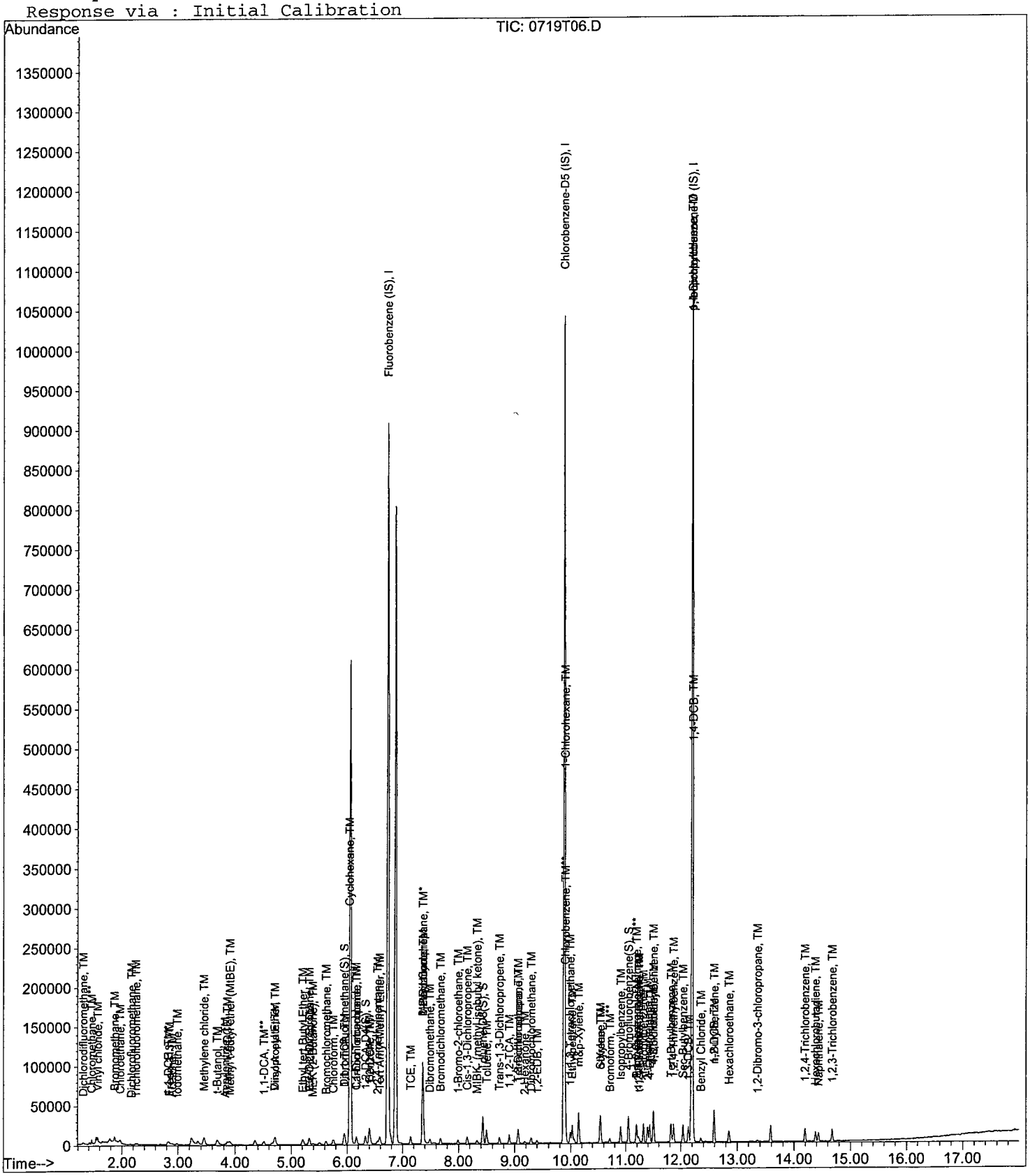
Quantitation Report

Data File : M:\THOR\DATA\T120719\0719T06.D
Acq On : 19 Jul 12 11:29
Sample : 0.5ug/L Vol Std 07-19-12
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 6
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 08:28:10 2012
Response via : Initial Calibration



Data File : M:\THOR\DATA\T120719\0719T07.D Vial: 7
Acq On : 19 Jul 12 11:57 Operator: DG,RS,HW,ARS,SV
Sample : 1.0ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.74	96	442240	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	9.88	117	361536	25.00000	ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	203840	25.00000	ppb		0.00
System Monitoring Compounds							
31) Dibromofluoromethane(S)	5.95	111	13324	1.92530	ppb		0.00
Spiked Amount 29.744			Recovery = 6.472%				
36) 1,2-DCA-D4(S)	6.33	65	12530	1.94822	ppb		0.00
Spiked Amount 29.083			Recovery = 6.698%				
56) Toluene-D8(S)	8.43	98	40197	1.88068	ppb		0.00
Spiked Amount 30.231			Recovery = 6.222%				
64) 4-Bromofluorobenzene(S)	11.05	95	19479	1.92710	ppb		0.00
Spiked Amount 28.321			Recovery = 6.804%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.31	85	2509	1.08786	ppb		90
3) Freon 114	1.42	85	2408	0.42008	ppb		95
4) Chloromethane	1.45	50	7357	1.11191	ppb		88
5) Vinyl chloride	1.56	62	8016	0.91712	ppb		91
6) Bromomethane	1.87	94	6361	1.13863	ppb		87
7) Chloroethane	1.98	64	5042	1.00157	ppb		95
8) Dichlorofluoromethane	2.18	67	223	0.65944	ppb	#	41
9) Trichlorofluoromethane	2.24	101	1709	0.94597	ppb		98
11) Acetone	2.90	43	2970	0.81592	ppb		89
12) Freon-113	2.86	101	3415	0.93978	ppb	#	73
13) 1,1-DCE	2.83	61	4677	0.95909	ppb		93
14) t-Butanol	3.69	59	6579	45.87583	ppb		98
15) Methyl Acetate	3.35	43	9023	0.97185	ppb		97
16) Iodomethane	2.98	142	4706	1.06694	ppb		95
17) Acrylonitrile	3.83	52	1224	0.87635	ppb	#	55
18) Methylene chloride	3.46	84	2548	0.63556	ppb		95
19) Carbon disulfide	3.07	76	570	0.36158	ppb	#	65
20) Methyl t-butyl ether (MtBE	3.91	73	9249	0.98236	ppb	#	88
21) Trans-1,2-DCE	3.87	96	2998	0.89083	ppb		94
22) Diisopropyl Ether	4.70	59	1992	0.94474	ppb		97
23) 1,1-DCA	4.51	63	8283	0.92818	ppb	#	90
24) Vinyl Acetate	4.70	87	4513	0.89537	ppb		98
25) Ethyl tert Butyl Ether	5.21	59	11816	1.00382	ppb		97
26) MEK (2-Butanone)	5.39	43	2819	1.59789	ppb		87
27) Cis-1,2-DCE	5.33	96	5504	0.96281	ppb		89
28) 2,2-Dichloropropane	5.32	77	3790	2.30222	ppb		89
29) Chloroform	5.76	83	10664	0.96229	ppb		98
30) Bromochloromethane	5.62	128	2677	0.96179	ppb		97
32) 1,1,1-TCA	5.96	97	5956	0.89324	ppb		87
33) Cyclohexane	6.03	41	1722	0.95160	ppb	#	36
34) 1,1-Dichloropropene	6.17	75	4561	0.94189	ppb		89
35) 2,2,4-Trimethylpentane	6.56	57	6445	0.92606	ppb		83
37) Carbon Tetrachloride	6.16	117	5937	0.95000	ppb		98
38) Tert Amyl Methyl Ether	6.59	73	12173	0.97161	ppb	#	90
39) 1,2-DCA	6.42	62	7205	0.99143	ppb		93
40) Benzene	6.40	78	18340	0.92399	ppb		97
41) TCE	7.15	95	5307	0.98367	ppb		92
42) 2-Pentanone	7.36	43	207854	48.90262	ppb		98
43) 1,2-Dichloropropane	7.37	63	6147	0.94914	ppb		99
44) Bromodichloromethane	7.68	83	8505	0.94929	ppb		94
45) Methyl Cyclohexane	7.36	83	3516	0.91277	ppb	#	49

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120719\0719T07.D Vial: 7
Acq On : 19 Jul 12 11:57 Operator: DG,RS,HW,ARS,SV
Sample : 1.0ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
46)	Dibromomethane	7.49	93	3434	0.97477 ppb		85
47)	2-Chloroethyl vinyl ether	8.00	106	40	-0.85622 ppb		100
48)	MIBK (methyl isobutyl ket	8.33	43	2821	0.92287 ppb		94
49)	1-Bromo-2-chloroethane	7.99	63	3886	0.86240 ppb		98
50)	Cis-1,3-Dichloropropene	8.16	75	7974	0.89940 ppb		98
51)	Toluene	8.50	91	22594	0.96478 ppb		99
52)	Trans-1,3-Dichloropropene	8.72	75	7072	0.90466 ppb		90
53)	1,1,2-TCA	8.90	83	5160	0.98960 ppb		93
54)	2-Hexanone	9.18	43	3205	0.91433 ppb	#	88
57)	1,2-EDB	9.40	107	4882	0.90064 ppb		93
58)	Tetrachloroethene	9.06	166	5902	0.96294 ppb		92
59)	1-Chlorohexane	9.90	91	7815	1.07120 ppb		90
60)	1,1,1,2-Tetrachloroethane	9.99	131	6942	0.96947 ppb		97
61)	m&p-Xylene	10.15	106	20562	1.84077 ppb		98
62)	o-Xylene	10.54	106	9784	0.84671 ppb		82
63)	Styrene	10.55	104	17077	0.86980 ppb		96
65)	1,3-Dichloropropane	9.07	76	8849	0.93108 ppb		100
66)	Dibromochloromethane	9.29	129	6965	0.97340 ppb		81
67)	Chlorobenzene	9.90	112	18604	0.99534 ppb		97
68)	Ethylbenzene	10.03	91	26613	0.90552 ppb		97
69)	Bromoform	10.71	173	4560	0.93074 ppb		93
71)	Isopropylbenzene	10.91	105	24857	0.93263 ppb		98
72)	1,1,2,2-Tetrachloroethane	11.19	83	7142	0.96570 ppb		99
73)	1,2,3-Trichloropropane	11.22	110	1807	0.86086 ppb		97
74)	t-1,4-Dichloro-2-Butene	11.25	53	1294	0.92115 ppb		84
75)	Bromobenzene	11.19	156	8191	0.93226 ppb		95
76)	n-Propylbenzene	11.32	91	31739	0.92491 ppb		98
77)	4-Ethyltoluene	11.43	105	26890	0.91247 ppb		98
78)	2-Chlorotoluene	11.39	91	22924	0.93681 ppb		96
79)	1,3,5-Trimethylbenzene	11.49	105	22226	0.90982 ppb		99
80)	4-Chlorotoluene	11.50	91	22548	0.93091 ppb		98
81)	Tert-Butylbenzene	11.82	119	20536	0.91763 ppb		94
82)	1,2,4-Trimethylbenzene	11.86	105	23690	0.93716 ppb		93
83)	Sec-Butylbenzene	12.04	105	27557	0.92232 ppb		97
84)	p-Isopropyltoluene	12.19	119	22802	0.90322 ppb		99
85)	Benzyl Chloride	12.35	91	7361	0.97575 ppb		95
86)	1,3-DCB	12.13	146	15833	0.95287 ppb		97
87)	1,4-DCB	12.22	146	17403	1.00007 ppb		95
88)	n-Butylbenzene	12.59	91	21527	0.95135 ppb		90
89)	1,2-DCB	12.59	146	15870	0.98542 ppb		99
90)	Hexachloroethane	12.85	117	4302	0.93008 ppb		87
91)	1,2-Dibromo-3-chloropropan	13.35	157	1401	1.01116 ppb		85
92)	1,2,4-Trichlorobenzene	14.20	180	6659	0.90204 ppb		90
93)	Hexachlorobutadiene	14.39	223	3269	1.06005 ppb		89
94)	Naphthalene	14.43	128	16948	0.82221 ppb		94
95)	1,2,3-Trichlorobenzene	14.68	180	10365	0.98545 ppb		94

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

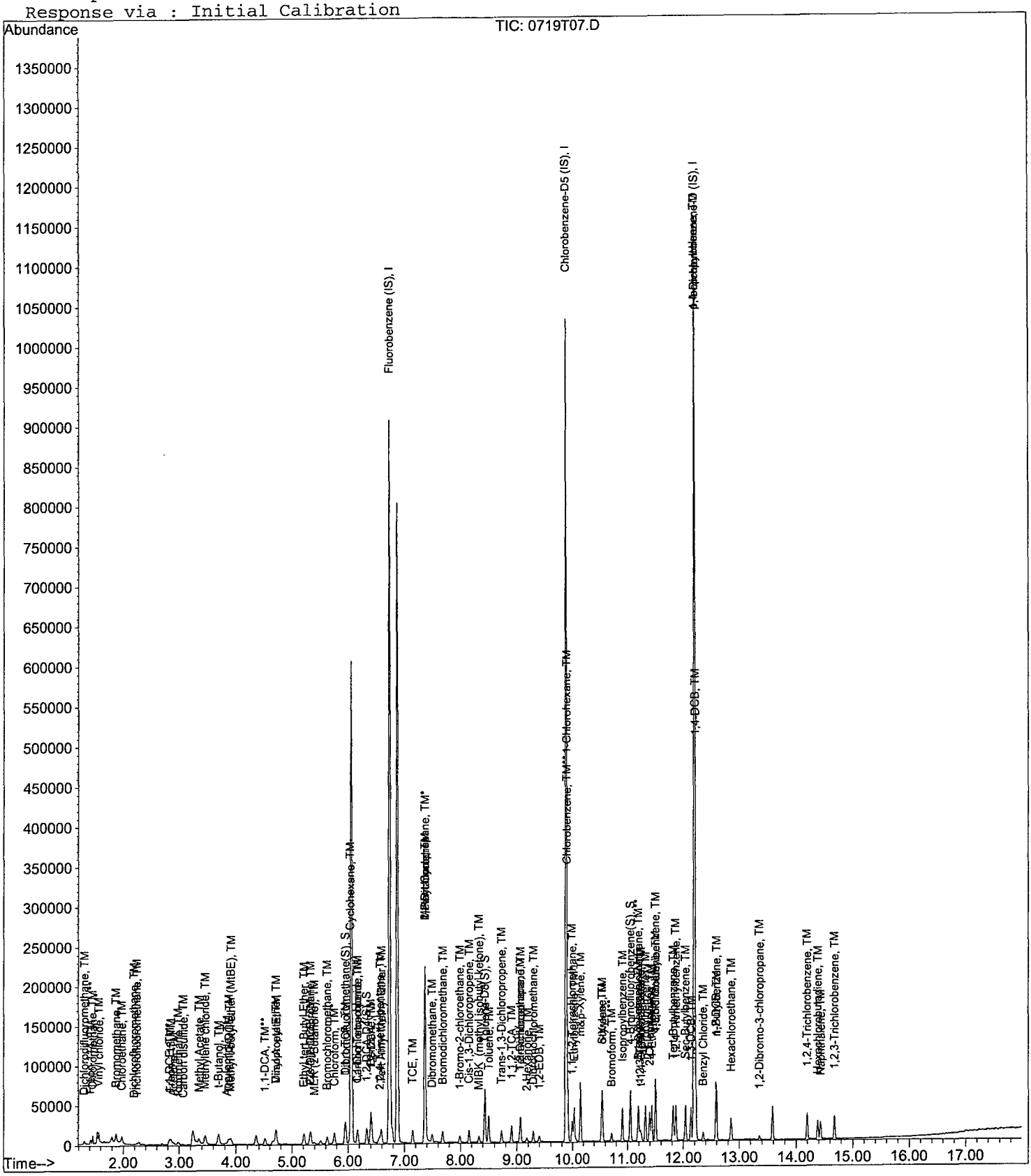
Quantitation Report

Data File : M:\THOR\DATA\T120719\0719T07.D
Acq On : 19 Jul 12 11:57
Sample : 1.0ug/L Vol Std 07-19-12
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 7
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 08:28:10 2012
Response via : Initial Calibration



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Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120719\0719T08.D Vial: 8
Acq On : 19 Jul 12 12:25 Operator: DG,RS,HW,ARS,SV
Sample : 2.0ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.73	96	436352	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.87	117	342912	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	204992	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.95	111	26923	3.94284 ppb		0.00
Spiked Amount 29.744			Recovery = 13.256%			
36) 1,2-DCA-D4(S)	6.33	65	24230	3.81822 ppb		0.00
Spiked Amount 29.083			Recovery = 13.128%			
56) Toluene-D8(S)	8.43	98	81925	4.04116 ppb		0.00
Spiked Amount 30.231			Recovery = 13.367%			
64) 4-Bromofluorobenzene(S)	11.05	95	38521	4.01794 ppb		0.00
Spiked Amount 28.321			Recovery = 14.187%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.30	85	4734	2.08028 ppb		100
3) Freon 114	1.41	85	6187	1.71327 ppb		100
4) Chloromethane	1.45	50	13155	2.01503 ppb		94
5) Vinyl chloride	1.56	62	17805	2.06457 ppb		100
6) Bromomethane	1.87	94	11262	2.04311 ppb		88
7) Chloroethane	1.97	64	9122	1.83649 ppb		94
8) Dichlorofluoromethane	2.18	67	573	2.01540 ppb		91
9) Trichlorofluoromethane	2.24	101	3492	1.95899 ppb		95
11) Acetone	2.90	43	5124	2.37170 ppb		95
12) Freon-113	2.86	101	7906	2.20502 ppb		91
13) 1,1-DCE	2.82	61	9495	1.97338 ppb		91
14) t-Butanol	3.69	59	9378	66.27585 ppb		96
15) Methyl Acetate	3.34	43	16454	3.02813 ppb		94
16) Iodomethane	2.98	142	8446	1.94071 ppb		98
17) Acrylonitrile	3.81	52	2540	1.84311 ppb		82
18) Methylene chloride	3.45	84	4510	1.88941 ppb		93
19) Carbon disulfide	3.06	76	1111	1.57628 ppb	#	87
20) Methyl t-butyl ether (MtBE	3.90	73	18413	1.98209 ppb		93
21) Trans-1,2-DCE	3.86	96	6430	1.93640 ppb		99
22) Diisopropyl Ether	4.70	59	4063	1.95295 ppb		91
23) 1,1-DCA	4.51	63	17292	1.96386 ppb		95
24) Vinyl Acetate	4.70	87	9481	1.90640 ppb		92
25) Ethyl tert Butyl Ether	5.21	59	22892	1.97102 ppb		94
26) MEK (2-Butanone)	5.39	43	4855	2.53560 ppb		91
27) Cis-1,2-DCE	5.33	96	10866	1.92643 ppb		91
28) 2,2-Dichloropropane	5.32	77	7282	4.48311 ppb		100
29) Chloroform	5.76	83	21749	1.98906 ppb		98
30) Bromochloromethane	5.62	128	5699	2.07515 ppb		93
32) 1,1,1-TCA	5.96	97	13045	1.98279 ppb		100
33) Cyclohexane	6.04	41	3794	2.12491 ppb	#	44
34) 1,1-Dichloropropene	6.17	75	9305	1.94750 ppb		97
35) 2,2,4-Trimethylpentane	6.55	57	13935	2.02928 ppb		93
37) Carbon Tetrachloride	6.16	117	12292	1.99343 ppb		89
38) Tert Amyl Methyl Ether	6.59	73	24026	1.94355 ppb		97
39) 1,2-DCA	6.42	62	14684	2.04783 ppb		98
40) Benzene	6.40	78	38526	1.96717 ppb		99
41) TCE	7.14	95	10599	1.99108 ppb		93
42) 2-Pentanone	7.36	43	304878	72.69773 ppb		99
43) 1,2-Dichloropropane	7.37	63	13169	2.06083 ppb		98
44) Bromodichloromethane	7.68	83	16800	1.90044 ppb		95
45) Methyl Cyclohexane	7.36	83	8243	2.16879 ppb		82

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

Data File : M:\THOR\DATA\T120719\0719T08.D Vial: 8
Acq On : 19 Jul 12 12:25 Operator: DG,RS,HW,ARS,SV
Sample : 2.0ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	Dibromomethane	7.49	93	6864	1.97470	ppb		89
47)	2-Chloroethyl vinyl ether	7.99	106	173	0.37233	ppb	#	100
48)	MIBK (methyl isobutyl ket	8.33	43	5923	1.96382	ppb	#	93
49)	1-Bromo-2-chloroethane	7.99	63	8723	1.96198	ppb		97
50)	Cis-1,3-Dichloropropene	8.15	75	16667	1.90525	ppb		95
51)	Toluene	8.50	91	45119	1.95261	ppb		99
52)	Trans-1,3-Dichloropropene	8.73	75	13333	1.72859	ppb		98
53)	1,1,2-TCA	8.90	83	10044	1.95226	ppb		94
54)	2-Hexanone	9.18	43	6966	2.01409	ppb		94
57)	1,2-EDB	9.40	107	9962	1.93762	ppb		99
58)	Tetrachloroethene	9.06	166	12075	2.07710	ppb		92
59)	1-Chlorohexane	9.90	91	15043	2.17393	ppb		99
60)	1,1,1,2-Tetrachloroethane	9.99	131	13314	1.96031	ppb		97
61)	m&p-Xylene	10.14	106	41306	3.89866	ppb		100
62)	o-Xylene	10.54	106	21351	1.94808	ppb		92
63)	Styrene	10.55	104	35671	1.91554	ppb		97
65)	1,3-Dichloropropane	9.07	76	18670	2.07113	ppb		96
66)	Dibromochloromethane	9.29	129	13106	1.93111	ppb		100
67)	Chlorobenzene	9.90	112	36362	2.05107	ppb		99
68)	Ethylbenzene	10.03	91	55504	1.99112	ppb		95
69)	Bromoform	10.71	173	9006	1.93804	ppb		97
71)	Isopropylbenzene	10.91	105	50633	1.88907	ppb		99
72)	1,1,2,2-Tetrachloroethane	11.19	83	15025	2.02018	ppb		91
73)	1,2,3-Trichloropropane	11.23	110	4415	2.09150	ppb		94
74)	t-1,4-Dichloro-2-Butene	11.24	53	2613	1.84963	ppb		81
75)	Bromobenzene	11.19	156	17628	1.99506	ppb		97
76)	n-Propylbenzene	11.32	91	67771	1.96381	ppb		98
77)	4-Ethyltoluene	11.43	105	56841	1.91798	ppb		98
78)	2-Chlorotoluene	11.39	91	48533	1.97220	ppb		97
79)	1,3,5-Trimethylbenzene	11.50	105	47598	1.93748	ppb		100
80)	4-Chlorotoluene	11.50	91	46827	1.92242	ppb		99
81)	Tert-Butylbenzene	11.82	119	43022	1.91160	ppb		96
82)	1,2,4-Trimethylbenzene	11.86	105	48500	1.90785	ppb		99
83)	Sec-Butylbenzene	12.04	105	58577	1.94952	ppb		97
84)	p-Isopropyltoluene	12.19	119	49518	1.95046	ppb		98
85)	Benzyl Chloride	12.35	91	13945	1.83811	ppb		97
86)	1,3-DCB	12.14	146	33447	2.00162	ppb		99
87)	1,4-DCB	12.22	146	33507	1.91467	ppb		96
88)	n-Butylbenzene	12.59	91	43428	1.90843	ppb		97
89)	1,2-DCB	12.59	146	30854	1.90506	ppb		96
90)	Hexachloroethane	12.85	117	8452	1.81703	ppb		87
91)	1,2-Dibromo-3-chloropropan	13.35	157	2457	1.76335	ppb		96
92)	1,2,4-Trichlorobenzene	14.19	180	13747	1.85173	ppb		99
93)	Hexachlorobutadiene	14.38	223	5924	1.91020	ppb		98
94)	Naphthalene	14.43	128	37126	1.79099	ppb		99
95)	1,2,3-Trichlorobenzene	14.68	180	19978	1.88873	ppb		98

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

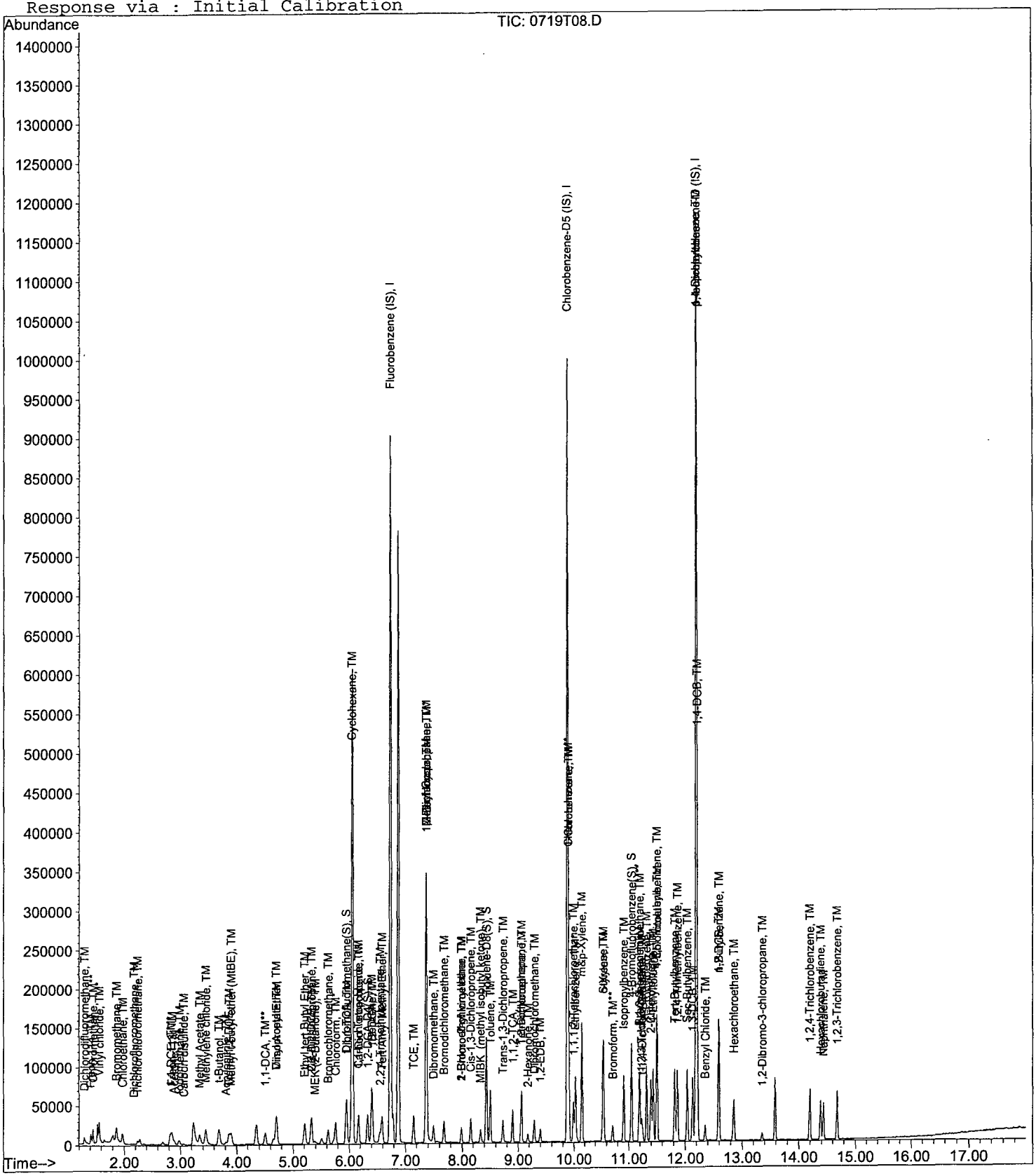
Quantitation Report

Data File : M:\THOR\DATA\T120719\0719T08.D
Acq On : 19 Jul 12 12:25
Sample : 2.0ug/L Vol Std 07-19-12
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 8
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 08:28:10 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120719\0719T09.D Vial: 9
Acq On : 19 Jul 12 12:53 Operator: DG,RS,HW,ARS,SV
Sample : 5.0ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.73	96	435456	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.87	117	363264	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	212352	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.95	111	63312	9.29103 ppb		0.00
Spiked Amount 29.744			Recovery = 31.237%			
36) 1,2-DCA-D4(S)	6.33	65	60027	9.47865 ppb		0.00
Spiked Amount 29.083			Recovery = 32.593%			
56) Toluene-D8(S)	8.43	98	196082	9.13037 ppb		0.00
Spiked Amount 30.231			Recovery = 30.201%			
64) 4-Bromofluorobenzene(S)	11.05	95	92855	9.14264 ppb		0.00
Spiked Amount 28.321			Recovery = 32.283%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.30	85	11045	4.86354 ppb		99
3) Freon 114	1.41	85	14571	4.56836 ppb		98
4) Chloromethane	1.45	50	31396	4.81900 ppb		99
5) Vinyl chloride	1.56	62	45723	5.31271 ppb		98
6) Bromomethane	1.87	94	30238	5.49696 ppb		94
7) Chloroethane	1.97	64	25795	5.20387 ppb		97
8) Dichlorofluoromethane	2.17	67	1323	4.56544 ppb		86
9) Trichlorofluoromethane	2.24	101	10436	5.86657 ppb		95
11) Acetone	2.89	43	8768	4.96901 ppb		95
12) Freon-113	2.85	101	19563	5.46744 ppb		89
13) 1,1-DCE	2.82	61	23901	4.97764 ppb		92
14) t-Butanol	3.68	59	13164	93.22355 ppb		98
15) Methyl Acetate	3.34	43	24407	5.20751 ppb		97
16) Iodomethane	2.98	142	22834	5.25755 ppb		94
17) Acrylonitrile	3.81	52	8122	5.90572 ppb		96
18) Methylene chloride	3.45	84	10146	5.44308 ppb		94
19) Carbon disulfide	3.06	76	2620	4.92947 ppb		96
20) Methyl t-butyl ether (MtBE	3.90	73	49307	5.31863 ppb		94
21) Trans-1,2-DCE	3.86	96	16955	5.11653 ppb		95
22) Diisopropyl Ether	4.70	59	11471	5.52507 ppb	#	86
23) 1,1-DCA	4.51	63	47950	5.45691 ppb		98
24) Vinyl Acetate	4.70	87	27238	5.48818 ppb		89
25) Ethyl tert Butyl Ether	5.21	59	66131	5.70565 ppb		100
26) MEK (2-Butanone)	5.38	43	9697	4.73433 ppb		96
27) Cis-1,2-DCE	5.32	96	29969	5.32411 ppb		99
28) 2,2-Dichloropropane	5.32	77	18795	11.59481 ppb		95
29) Chloroform	5.75	83	57887	5.30497 ppb		100
30) Bromochloromethane	5.62	128	15767	5.75298 ppb		100
32) 1,1,1-TCA	5.96	97	33756	5.14134 ppb		98
33) Cyclohexane	6.03	41	8909	4.99995 ppb		92
34) 1,1-Dichloropropene	6.17	75	25809	5.41283 ppb		95
35) 2,2,4-Trimethylpentane	6.55	57	36348	5.30407 ppb		98
37) Carbon Tetrachloride	6.16	117	32482	5.27854 ppb		92
38) Tert Amyl Methyl Ether	6.59	73	67201	5.44732 ppb		99
39) 1,2-DCA	6.42	62	38420	5.36908 ppb		99
40) Benzene	6.40	78	101885	5.21303 ppb		99
41) TCE	7.14	95	28157	5.30032 ppb		95
42) 2-Pentanone	7.36	43	425511	101.67128 ppb		99
43) 1,2-Dichloropropane	7.37	63	34984	5.48594 ppb		98
44) Bromodichloromethane	7.68	83	48662	5.51605 ppb		97
45) Methyl Cyclohexane	7.36	83	19188	5.05888 ppb		83

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

Data File : M:\THOR\DATA\T120719\0719T09.D Vial: 9
Acq On : 19 Jul 12 12:53 Operator: DG,RS,HW,ARS,SV
Sample : 5.0ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
46) Dibromomethane	7.49	93	18456	5.32052 ppb	99
47) 2-Chloroethyl vinyl ether	7.98	106	691	5.15121 ppb	100
48) MIBK (methyl isobutyl ket	8.33	43	14880	4.94374 ppb	94
49) 1-Bromo-2-chloroethane	7.99	63	24760	5.58047 ppb	100
50) Cis-1,3-Dichloropropene	8.15	75	45589	5.22214 ppb	96
51) Toluene	8.50	91	123530	5.35699 ppb	98
52) Trans-1,3-Dichloropropene	8.72	75	40971	5.32272 ppb	95
53) 1,1,2-TCA	8.90	83	27996	5.45280 ppb	95
54) 2-Hexanone	9.18	43	17051	4.94013 ppb	99
57) 1,2-EDB	9.40	107	29304	5.38033 ppb	97
58) Tetrachloroethene	9.05	166	31143	5.05699 ppb	95
59) 1-Chlorohexane	9.90	91	36955	5.04133 ppb	99
60) 1,1,1,2-Tetrachloroethane	9.99	131	37984	5.27931 ppb	95
61) m&p-Xylene	10.14	106	123042	10.96265 ppb	99
62) o-Xylene	10.54	106	62129	5.35109 ppb	94
63) Styrene	10.55	104	107306	5.43951 ppb	99
65) 1,3-Dichloropropane	9.07	76	50296	5.26692 ppb	99
66) Dibromochloromethane	9.29	129	37767	5.25303 ppb	94
67) Chlorobenzene	9.90	112	98026	5.21957 ppb	97
68) Ethylbenzene	10.03	91	155624	5.26999 ppb	98
69) Bromoform	10.71	173	26416	5.36609 ppb	93
71) Isopropylbenzene	10.91	105	148182	5.33691 ppb	99
72) 1,1,2,2-Tetrachloroethane	11.19	83	42420	5.50589 ppb	98
73) 1,2,3-Trichloropropane	11.23	110	11840	5.41452 ppb	94
74) t-1,4-Dichloro-2-Butene	11.25	53	8302	5.67296 ppb	93
75) Bromobenzene	11.19	156	49040	5.35777 ppb	99
76) n-Propylbenzene	11.32	91	191768	5.36430 ppb	100
77) 4-Ethyltoluene	11.43	105	165084	5.37733 ppb	97
78) 2-Chlorotoluene	11.39	91	136861	5.36875 ppb	100
79) 1,3,5-Trimethylbenzene	11.50	105	139561	5.48395 ppb	99
80) 4-Chlorotoluene	11.50	91	140582	5.57138 ppb	97
81) Tert-Butylbenzene	11.82	119	124728	5.34996 ppb	98
82) 1,2,4-Trimethylbenzene	11.86	105	141302	5.36577 ppb	99
83) Sec-Butylbenzene	12.04	105	172196	5.53229 ppb	99
84) p-Isopropyltoluene	12.19	119	144604	5.49839 ppb	99
85) Benzyl Chloride	12.35	91	41610	5.29458 ppb	97
86) 1,3-DCB	12.13	146	93935	5.42665 ppb	99
87) 1,4-DCB	12.22	146	95715	5.27981 ppb	96
88) n-Butylbenzene	12.59	91	125282	5.31467 ppb	98
89) 1,2-DCB	12.59	146	90224	5.37775 ppb	98
90) Hexachloroethane	12.86	117	24699	5.12581 ppb	98
91) 1,2-Dibromo-3-chloropropan	13.35	157	8054	5.57989 ppb	94
92) 1,2,4-Trichlorobenzene	14.20	180	41456	5.39062 ppb	97
93) Hexachlorobutadiene	14.38	223	17021	5.29823 ppb	85
94) Naphthalene	14.43	128	115311	5.36991 ppb	98
95) 1,2,3-Trichlorobenzene	14.68	180	60463	5.51807 ppb	98

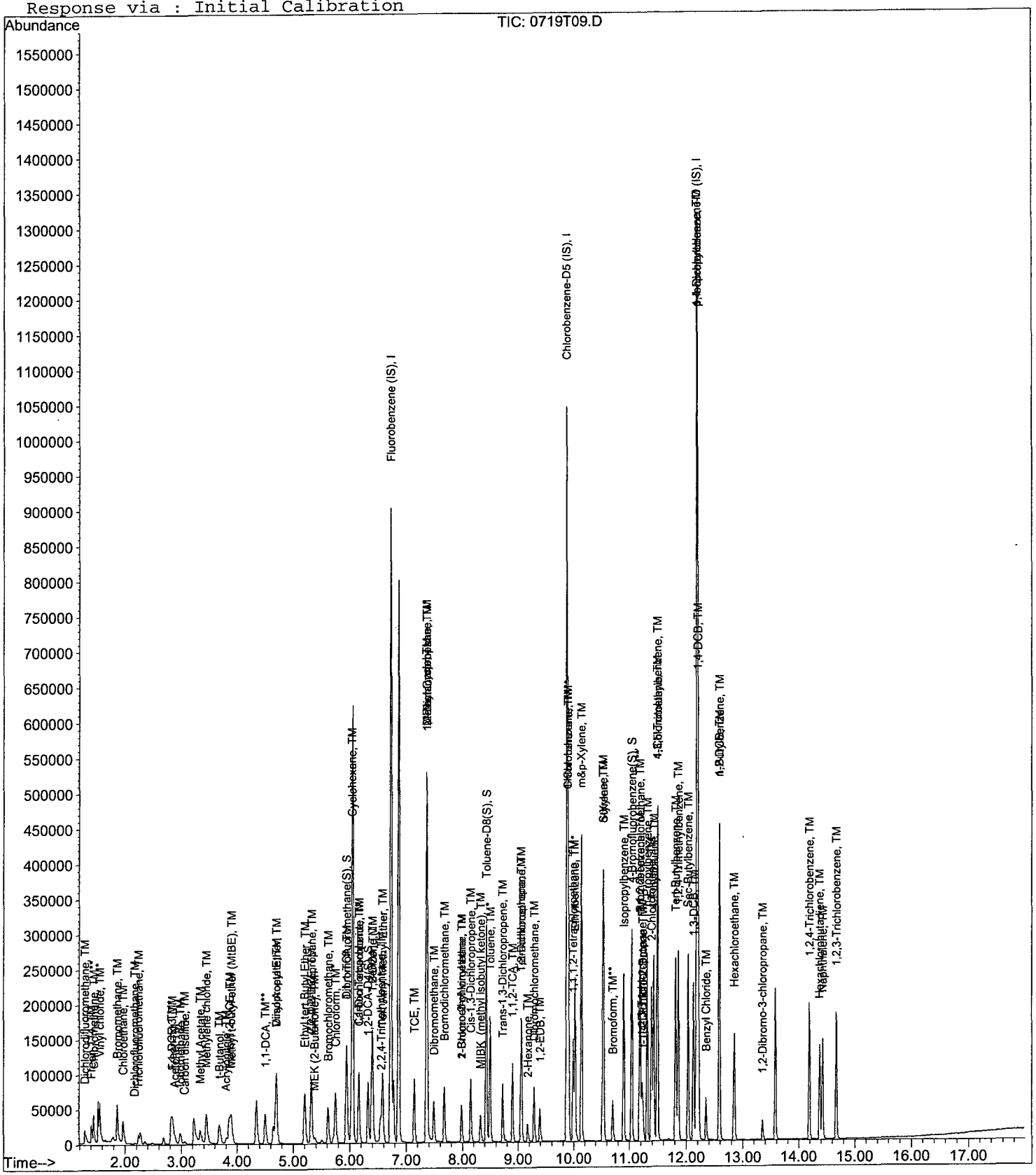
(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T120719\0719T09.D
Acq On : 19 Jul 12 12:53
Sample : 5.0ug/L Vol Std 07-19-12
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 9
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 08:28:10 2012
Response via : Initial Calibration



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Data File : M:\THOR\DATA\T120719\0719T10.D Vial: 10
Acq On : 19 Jul 12 13:20 Operator: DG,RS,HW,ARS,SV
Sample : 10ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.74	96	461760	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	9.88	117	382656	25.00000 ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	222464	25.00000 ppb	0.00
System Monitoring Compounds					
31) Dibromofluoromethane(S)	5.95	111	168520	23.32155 ppb	0.00
Spiked Amount 29.744			Recovery = 78.409%		
36) 1,2-DCA-D4(S)	6.33	65	155567	23.16569 ppb	0.00
Spiked Amount 29.083			Recovery = 79.654%		
56) Toluene-D8(S)	8.43	98	509225	22.50992 ppb	0.00
Spiked Amount 30.231			Recovery = 74.460%		
64) 4-Bromofluorobenzene(S)	11.05	95	243014	22.71494 ppb	0.00
Spiked Amount 28.321			Recovery = 80.206%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.30	85	20592	8.55092 ppb	100
3) Freon 114	1.41	85	29943	9.21523 ppb	100
4) Chloromethane	1.46	50	55224	7.99352 ppb	100
5) Vinyl chloride	1.57	62	88092	9.65263 ppb	100
6) Bromomethane	1.87	94	56164	9.62843 ppb	100
7) Chloroethane	1.97	64	50219	9.55403 ppb	100
8) Dichlorofluoromethane	2.18	67	3626	10.26166 ppb	100
9) Trichlorofluoromethane	2.24	101	20310	10.76684 ppb	100
11) Acetone	2.89	43	15999	9.46044 ppb	100
12) Freon-113	2.86	101	40039	10.55261 ppb	100
13) 1,1-DCE	2.83	61	49796	9.77980 ppb	100
14) t-Butanol	3.69	59	17712	118.28599 ppb	100
15) Methyl Acetate	3.34	43	43037	9.62218 ppb	100
16) Iodomethane	2.99	142	44928	9.75544 ppb	100
17) Acrylonitrile	3.81	52	14890	10.21016 ppb	100
18) Methylene chloride	3.45	84	17800	9.62295 ppb	100
19) Carbon disulfide	3.07	76	4992	9.56146 ppb	100
20) Methyl t-butyl ether (MtBE	3.91	73	96445	9.81068 ppb	100
21) Trans-1,2-DCE	3.87	96	32035	9.11655 ppb	100
22) Diisopropyl Ether	4.71	59	22379	10.16494 ppb	100
23) 1,1-DCA	4.51	63	93949	10.08273 ppb	100
24) Vinyl Acetate	4.70	87	51479	9.78163 ppb	100
25) Ethyl tert Butyl Ether	5.21	59	120470	9.80182 ppb	100
26) MEK (2-Butanone)	5.38	43	20960	9.29722 ppb	100
27) Cis-1,2-DCE	5.33	96	58803	9.85150 ppb	100
28) 2,2-Dichloropropane	5.32	77	37619	21.88550 ppb	100
29) Chloroform	5.76	83	111509	9.63695 ppb	100
30) Bromochloromethane	5.62	128	29461	10.13722 ppb	100
32) 1,1,1-TCA	5.96	97	68253	9.80337 ppb	100
33) Cyclohexane	6.03	41	18945	10.02673 ppb	100
34) 1,1-Dichloropropene	6.17	75	50092	9.90716 ppb	100
35) 2,2,4-Trimethylpentane	6.55	57	72402	9.96339 ppb	100
37) Carbon Tetrachloride	6.17	117	62675	9.60491 ppb	100
38) Tert Amyl Methyl Ether	6.59	73	130972	10.01183 ppb	100
39) 1,2-DCA	6.42	62	74124	9.76853 ppb	100
40) Benzene	6.40	78	198603	9.58283 ppb	100
41) TCE	7.15	95	55341	9.82406 ppb	100
42) 2-Pentanone	7.36	43	524739	118.23847 ppb	100
43) 1,2-Dichloropropane	7.37	63	66363	9.81377 ppb	100
44) Bromodichloromethane	7.68	83	91332	9.76313 ppb	100
45) Methyl Cyclohexane	7.36	83	41159	10.23335 ppb	100

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

Data File : M:\THOR\DATA\T120719\0719T10.D Vial: 10
Acq On : 19 Jul 12 13:20 Operator: DG,RS,HW,ARS,SV
Sample : 10ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Dibromomethane	7.49	93	35941	9.77089	ppb	100
47) 2-Chloroethyl vinyl ether	7.99	106	1370	10.69163	ppb	100
48) MIBK (methyl isobutyl ket	8.33	43	29904	9.36937	ppb	100
49) 1-Bromo-2-chloroethane	7.99	63	44656	9.49135	ppb	100
50) Cis-1,3-Dichloropropene	8.15	75	90066	9.72920	ppb	100
51) Toluene	8.50	91	242745	9.92720	ppb	100
52) Trans-1,3-Dichloropropene	8.73	75	78273	9.58952	ppb	100
53) 1,1,2-TCA	8.90	83	52576	9.65694	ppb	100
54) 2-Hexanone	9.18	43	34789	9.50513	ppb	100
57) 1,2-EDB	9.40	107	55383	9.65321	ppb	100
58) Tetrachloroethene	9.06	166	63218	9.74509	ppb	100
59) 1-Chlorohexane	9.90	91	75160	9.73357	ppb	100
60) 1,1,1,2-Tetrachloroethane	9.99	131	74500	9.82985	ppb	100
61) m&p-Xylene	10.15	106	235221	19.89538	ppb	100
62) o-Xylene	10.54	106	123202	10.07348	ppb	100
63) Styrene	10.55	104	207845	10.00206	ppb	100
65) 1,3-Dichloropropane	9.07	76	97910	9.73339	ppb	100
66) Dibromochloromethane	9.29	129	73026	9.64248	ppb	100
67) Chlorobenzene	9.90	112	189743	9.59121	ppb	100
68) Ethylbenzene	10.03	91	301792	9.70186	ppb	100
69) Bromoform	10.71	173	49779	9.59955	ppb	100
71) Isopropylbenzene	10.91	105	292683	10.06209	ppb	100
72) 1,1,2,2-Tetrachloroethane	11.19	83	76457	9.47264	ppb	100
73) 1,2,3-Trichloropropane	11.23	110	21819	9.52445	ppb	100
74) t-1,4-Dichloro-2-Butene	11.25	53	15421	10.05857	ppb	100
75) Bromobenzene	11.19	156	95023	9.90967	ppb	100
76) n-Propylbenzene	11.32	91	375107	10.01587	ppb	100
77) 4-Ethyltoluene	11.43	105	333095	10.35682	ppb	100
78) 2-Chlorotoluene	11.39	91	267654	10.02222	ppb	100
79) 1,3,5-Trimethylbenzene	11.50	105	275791	10.34442	ppb	100
80) 4-Chlorotoluene	11.50	91	267918	10.13519	ppb	100
81) Tert-Butylbenzene	11.82	119	243344	9.96331	ppb	100
82) 1,2,4-Trimethylbenzene	11.86	105	283593	10.27959	ppb	100
83) Sec-Butylbenzene	12.04	105	333541	10.22887	ppb	100
84) p-Isopropyltoluene	12.19	119	283601	10.29343	ppb	100
85) Benzyl Chloride	12.35	91	77761	9.44478	ppb	100
86) 1,3-DCB	12.13	146	180339	9.94467	ppb	100
87) 1,4-DCB	12.22	146	184984	9.74023	ppb	100
88) n-Butylbenzene	12.59	91	252451	10.22261	ppb	100
89) 1,2-DCB	12.59	146	175322	9.97497	ppb	100
90) Hexachloroethane	12.86	117	47057	9.32190	ppb	100
91) 1,2-Dibromo-3-chloropropan	13.35	157	15219	10.06460	ppb	100
92) 1,2,4-Trichlorobenzene	14.20	180	81368	10.09953	ppb	100
93) Hexachlorobutadiene	14.38	223	32894	9.77369	ppb	100
94) Naphthalene	14.43	128	230968	10.26703	ppb	100
95) 1,2,3-Trichlorobenzene	14.67	180	116755	10.17114	ppb	100

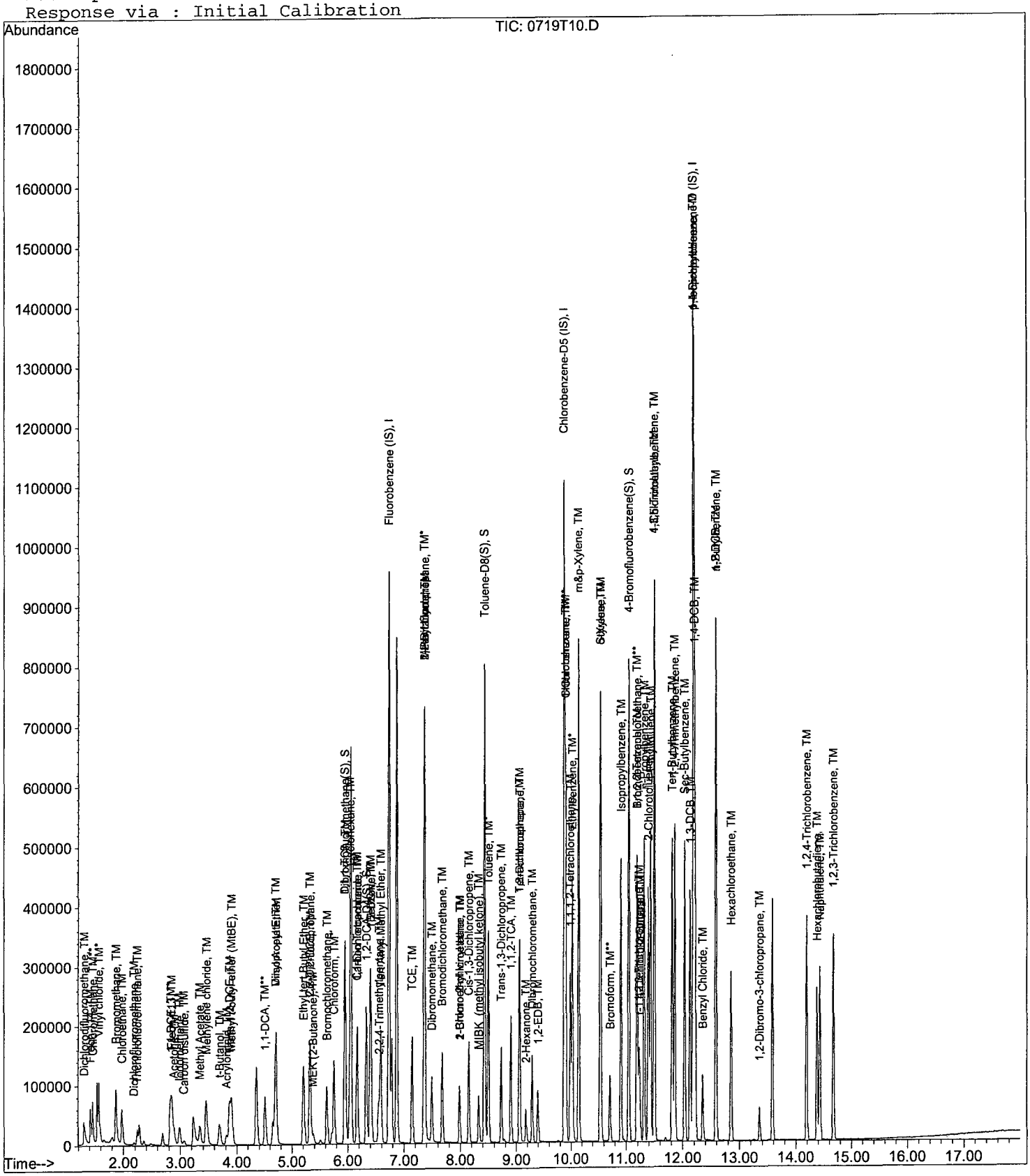
(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T120719\0719T10.D
Acq On : 19 Jul 12 13:20
Sample : 10ug/L Vol Std 07-19-12
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 10
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 08:28:10 2012
Response via : Initial Calibration



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Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120719\0719T11.D Vial: 11
Acq On : 19 Jul 12 13:48 Operator: DG,RS,HW,ARS,SV
Sample : 20ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.73	96	450944	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.88	117	363136	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	216512	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.95	111	266433	37.75615 ppb		0.00
Spiked Amount 29.744			Recovery = 126.937%			
36) 1,2-DCA-D4(S)	6.33	65	245856	37.48887 ppb		0.00
Spiked Amount 29.083			Recovery = 128.902%			
56) Toluene-D8(S)	8.43	98	830396	38.68020 ppb		0.00
Spiked Amount 30.231			Recovery = 127.949%			
64) 4-Bromofluorobenzene(S)	11.05	95	396858	39.08900 ppb		0.00
Spiked Amount 28.321			Recovery = 138.021%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.30	85	46664	19.84222 ppb		93
3) Freon 114	1.41	85	63081	20.32626 ppb		89
4) Chloromethane	1.45	50	112002	16.60083 ppb		96
5) Vinyl chloride	1.56	62	179429	20.13240 ppb		98
6) Bromomethane	1.86	94	105711	18.55715 ppb		99
7) Chloroethane	1.97	64	103142	20.09314 ppb		95
8) Dichlorofluoromethane	2.18	67	9181	20.87155 ppb		97
9) Trichlorofluoromethane	2.24	101	47356	25.70675 ppb		96
11) Acetone	2.89	43	33405	21.66341 ppb		94
12) Freon-113	2.85	101	75190	20.29226 ppb		97
13) 1,1-DCE	2.82	61	95955	19.29731 ppb		99
14) t-Butanol	3.69	59	24824	169.75836 ppb		100
15) Methyl Acetate	3.34	43	81096	19.91643 ppb		98
16) Iodomethane	2.98	142	86855	19.31159 ppb		99
17) Acrylonitrile	3.81	52	30307	21.28014 ppb		98
18) Methylene chloride	3.45	84	34488	20.02062 ppb		98
19) Carbon disulfide	3.06	76	10542	21.70326 ppb	#	88
20) Methyl t-butyl ether (MtBE	3.90	73	182893	19.05066 ppb		99
21) Trans-1,2-DCE	3.87	96	64188	18.70481 ppb		97
22) Diisopropyl Ether	4.70	59	42535	19.78355 ppb	#	88
23) 1,1-DCA	4.51	63	178878	19.65788 ppb		98
24) Vinyl Acetate	4.70	87	100156	19.48731 ppb		96
25) Ethyl tert Butyl Ether	5.21	59	233058	19.41715 ppb		97
26) MEK (2-Butanone)	5.37	43	43408	19.33524 ppb		88
27) Cis-1,2-DCE	5.33	96	115419	19.80041 ppb		97
28) 2,2-Dichloropropane	5.32	77	71286	42.46656 ppb		98
29) Chloroform	5.76	83	216322	19.14362 ppb		99
30) Bromochloromethane	5.62	128	55667	19.61385 ppb		91
32) 1,1,1-TCA	5.96	97	130522	19.19690 ppb		97
33) Cyclohexane	6.03	41	35439	19.20613 ppb		98
34) 1,1-Dichloropropene	6.17	75	97918	19.83066 ppb		97
35) 2,2,4-Trimethylpentane	6.55	57	139234	19.61985 ppb		96
37) Carbon Tetrachloride	6.17	117	125056	19.62444 ppb		99
38) Tert Amyl Methyl Ether	6.59	73	247478	19.37158 ppb		99
39) 1,2-DCA	6.42	62	145135	19.58557 ppb		98
40) Benzene	6.40	78	382065	18.87726 ppb		98
41) TCE	7.14	95	107237	19.49316 ppb		98
42) 2-Pentanone	7.36	43	658133	151.85280 ppb		100
43) 1,2-Dichloropropane	7.37	63	129354	19.58769 ppb		97
44) Bromodichloromethane	7.68	83	178755	19.56672 ppb		98
45) Methyl Cyclohexane	7.36	83	76247	19.41196 ppb		99

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

Data File : M:\THOR\DATA\T120719\0719T11.D Vial: 11
Acq On : 19 Jul 12 13:48 Operator: DG,RS,HW,ARS,SV
Sample : 20ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	Dibromomethane	7.49	93	70661	19.67060	ppb		97
47)	2-Chloroethyl vinyl ether	7.99	106	2760	23.35204	ppb	#	100
48)	MIBK (methyl isobutyl ket	8.33	43	60201	19.31427	ppb		100
49)	1-Bromo-2-chloroethane	7.99	63	91400	19.89245	ppb		99
50)	Cis-1,3-Dichloropropene	8.15	75	176747	19.55069	ppb		99
51)	Toluene	8.50	91	471607	19.74924	ppb		98
52)	Trans-1,3-Dichloropropene	8.72	75	158806	19.92258	ppb		97
53)	1,1,2-TCA	8.90	83	102413	19.26196	ppb		100
54)	2-Hexanone	9.18	43	70616	19.75664	ppb		98
57)	1,2-EDB	9.40	107	106822	19.61984	ppb		99
58)	Tetrachloroethene	9.06	166	120268	19.53595	ppb		97
59)	1-Chlorohexane	9.90	91	145778	19.89376	ppb		99
60)	1,1,1,2-Tetrachloroethane	9.99	131	146253	20.33456	ppb		98
61)	m&p-Xylene	10.15	106	462394	41.21236	ppb		99
62)	o-Xylene	10.54	106	240916	20.75709	ppb		99
63)	Styrene	10.55	104	425446	21.57415	ppb		98
65)	1,3-Dichloropropane	9.07	76	188875	19.78566	ppb		99
66)	Dibromochloromethane	9.29	129	145665	20.26776	ppb		100
67)	Chlorobenzene	9.90	112	364549	19.41792	ppb		98
68)	Ethylbenzene	10.03	91	598003	20.25768	ppb		98
69)	Bromoform	10.71	173	98619	20.04032	ppb		96
71)	Isopropylbenzene	10.91	105	578914	20.44949	ppb		98
72)	1,1,2,2-Tetrachloroethane	11.19	83	154333	19.64672	ppb		98
73)	1,2,3-Trichloropropane	11.23	110	42893	19.23842	ppb		91
74)	t-1,4-Dichloro-2-Butene	11.25	53	32354	21.68350	ppb		96
75)	Bromobenzene	11.19	156	185530	19.88027	ppb		98
76)	n-Propylbenzene	11.32	91	758387	20.80665	ppb		98
77)	4-Ethyltoluene	11.43	105	653339	20.87252	ppb		98
78)	2-Chlorotoluene	11.39	91	521845	20.07749	ppb		100
79)	1,3,5-Trimethylbenzene	11.50	105	549841	21.19049	ppb		98
80)	4-Chlorotoluene	11.50	91	530306	20.61267	ppb		99
81)	Tert-Butylbenzene	11.82	119	482018	20.27796	ppb		98
82)	1,2,4-Trimethylbenzene	11.86	105	561538	20.91400	ppb		99
83)	Sec-Butylbenzene	12.04	105	668260	21.05726	ppb		99
84)	p-Isopropyltoluene	12.19	119	566536	21.12796	ppb		99
85)	Benzyl Chloride	12.35	91	154299	19.25622	ppb		98
86)	1,3-DCB	12.14	146	355716	20.15495	ppb		99
87)	1,4-DCB	12.22	146	358848	19.41437	ppb		100
88)	n-Butylbenzene	12.59	91	501731	20.87533	ppb		99
89)	1,2-DCB	12.59	146	337069	19.70479	ppb		99
90)	Hexachloroethane	12.86	117	96458	19.63343	ppb		96
91)	1,2-Dibromo-3-chloropropan	13.36	157	32448	22.04834	ppb		94
92)	1,2,4-Trichlorobenzene	14.20	180	162176	20.68292	ppb		100
93)	Hexachlorobutadiene	14.38	223	64729	19.76145	ppb		95
94)	Naphthalene	14.43	128	476108	21.74583	ppb		99
95)	1,2,3-Trichlorobenzene	14.68	180	231177	20.69267	ppb		99

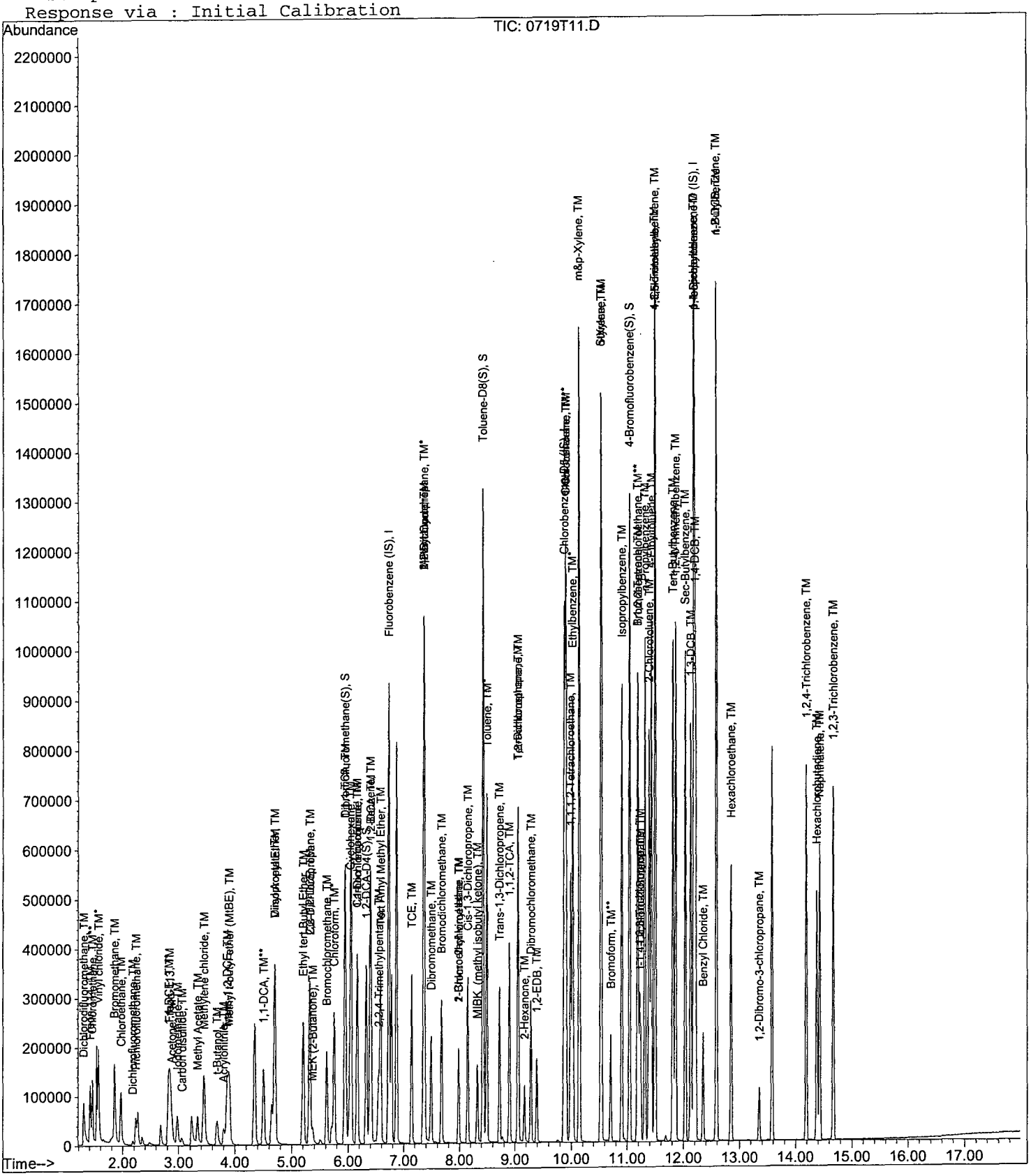
(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T120719\0719T11.D
Acq On : 19 Jul 12 13:48
Sample : 20ug/L Vol Std 07-19-12
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 11
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 08:28:10 2012
Response via : Initial Calibration



Data File : M:\THOR\DATA\T120719\0719T12.D Vial: 12
Acq On : 19 Jul 12 14:16 Operator: DG,RS,HW,ARS,SV
Sample : 40ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.73	96	450048	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.88	117	369920	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	219712	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.95	111	544884	77.36909 ppb		0.00
Spiked Amount 29.744			Recovery = 260.117%			
36) 1,2-DCA-D4(S)	6.33	65	488560	74.64543 ppb		0.00
Spiked Amount 29.083			Recovery = 256.659%			
56) Toluene-D8(S)	8.43	98	1669961	76.36095 ppb		0.00
Spiked Amount 30.231			Recovery = 252.593%			
64) 4-Bromofluorobenzene(S)	11.05	95	804405	77.77781 ppb		0.00
Spiked Amount 28.321			Recovery = 274.630%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.30	85	101464	43.22988 ppb		97
3) Freon 114	1.42	85	136520	44.52891 ppb		88
4) Chloromethane	1.46	50	282736	41.99030 ppb		99
5) Vinyl chloride	1.57	62	357763	40.22185 ppb		100
6) Bromomethane	1.86	94	193264	33.99428 ppb		99
7) Chloroethane	1.97	64	209796	40.95183 ppb		98
8) Dichlorofluoromethane	2.18	67	24179	39.62174 ppb		96
9) Trichlorofluoromethane	2.24	101	112595	61.24281 ppb		99
11) Acetone	2.89	43	57659	38.38775 ppb		99
12) Freon-113	2.85	101	159138	43.03364 ppb		95
13) 1,1-DCE	2.82	61	204122	41.13228 ppb		99
14) t-Butanol	3.69	59	32184	220.52773 ppb		100
15) Methyl Acetate	3.34	43	158595	40.42076 ppb		96
16) Iodomethane	2.98	142	173847	38.73060 ppb		98
17) Acrylonitrile	3.81	52	60943	42.87649 ppb		91
18) Methylene chloride	3.45	84	68312	40.66407 ppb		93
19) Carbon disulfide	3.06	76	20048	42.15606 ppb	#	85
20) Methyl t-butyl ether (MtBE	3.90	73	353652	36.91075 ppb		98
21) Trans-1,2-DCE	3.87	96	127159	37.12876 ppb		95
22) Diisopropyl Ether	4.70	59	86276	40.20793 ppb		95
23) 1,1-DCA	4.51	63	364882	40.17871 ppb		98
24) Vinyl Acetate	4.70	87	205079	39.98158 ppb		95
25) Ethyl tert Butyl Ether	5.21	59	459486	38.35814 ppb		98
26) MEK (2-Butanone)	5.38	43	87533	38.72047 ppb		94
27) Cis-1,2-DCE	5.33	96	229166	39.39224 ppb		97
28) 2,2-Dichloropropane	5.32	77	141557	84.49635 ppb		96
29) Chloroform	5.76	83	434710	38.54666 ppb		98
30) Bromochloromethane	5.62	128	110740	39.09610 ppb		91
32) 1,1,1-TCA	5.96	97	264324	38.95361 ppb		96
33) Cyclohexane	6.04	41	77803	42.24920 ppb		96
34) 1,1-Dichloropropene	6.17	75	198474	40.27560 ppb		100
35) 2,2,4-Trimethylpentane	6.55	57	293410	41.42752 ppb		94
37) Carbon Tetrachloride	6.17	117	261231	41.07535 ppb		96
38) Tert Amyl Methyl Ether	6.59	73	485700	38.09434 ppb		97
39) 1,2-DCA	6.42	62	284928	38.52680 ppb		99
40) Benzene	6.40	78	767359	37.98954 ppb		99
41) TCE	7.15	95	213589	38.90274 ppb		97
42) 2-Pentanone	7.36	43	764190	176.67466 ppb		98
43) 1,2-Dichloropropane	7.37	63	253205	38.41842 ppb		97
44) Bromodichloromethane	7.68	83	359604	39.44102 ppb		99
45) Methyl Cyclohexane	7.36	83	159998	40.81549 ppb		97

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

Data File : M:\THOR\DATA\T120719\0719T12.D Vial: 12
Acq On : 19 Jul 12 14:16 Operator: DG,RS,HW,ARS,SV
Sample : 40ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

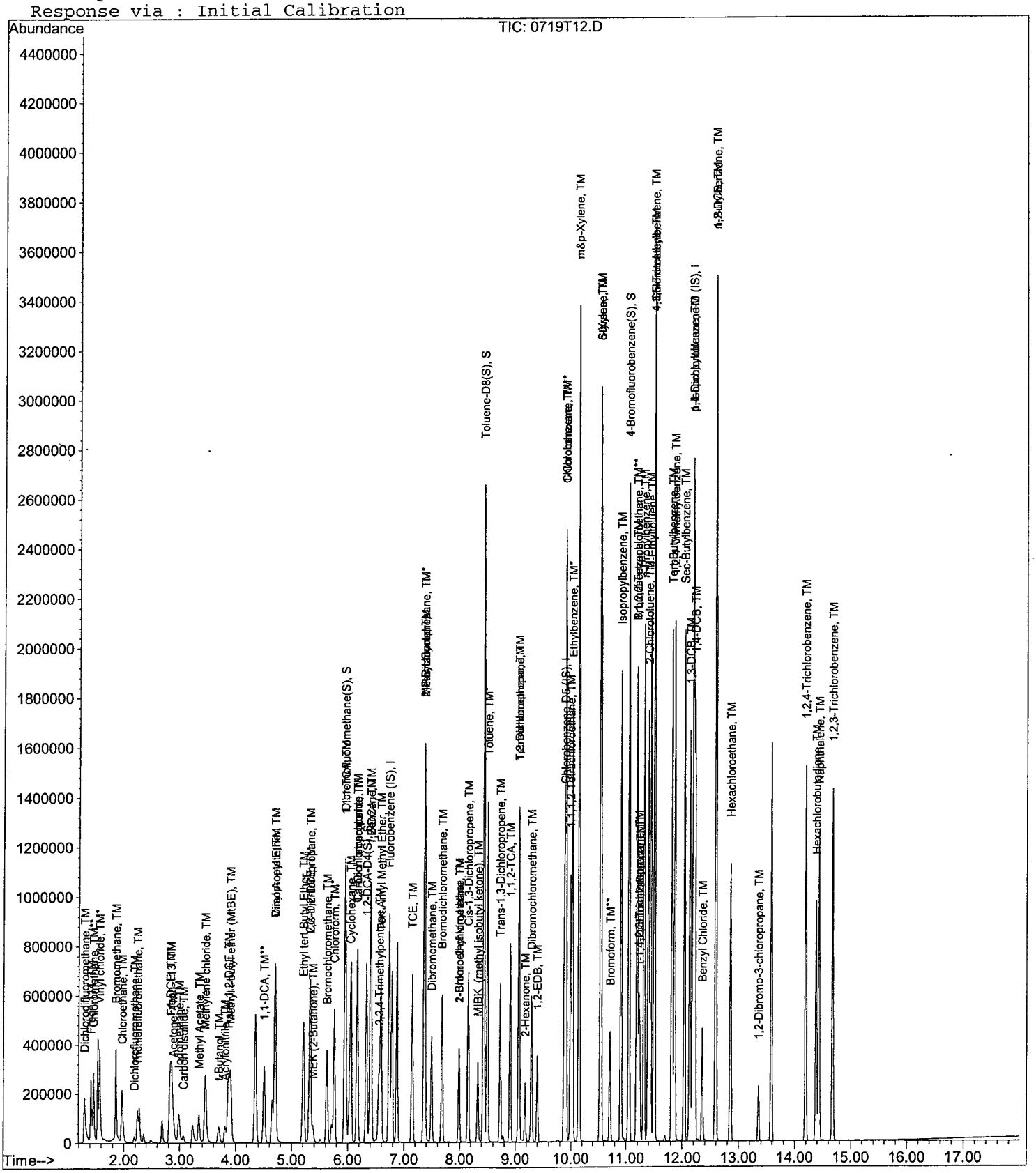
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	Dibromomethane	7.49	93	141296	39.41227	ppb		93
47)	2-Chloroethyl vinyl ether	7.99	106	4618	39.97505	ppb	#	100
48)	MIBK (methyl isobutyl ket	8.33	43	121497	39.05746	ppb		99
49)	1-Bromo-2-chloroethane	7.99	63	181376	39.55356	ppb		99
50)	Cis-1,3-Dichloropropene	8.15	75	367817	40.76670	ppb		100
51)	Toluene	8.50	91	942978	39.56722	ppb		100
52)	Trans-1,3-Dichloropropene	8.72	75	327606	41.18075	ppb		97
53)	1,1,2-TCA	8.90	83	203529	38.35620	ppb		97
54)	2-Hexanone	9.18	43	145904	40.90166	ppb		99
57)	1,2-EDB	9.40	107	216913	39.10946	ppb		98
58)	Tetrachloroethene	9.06	166	243143	38.77105	ppb		95
59)	1-Chlorohexane	9.90	91	305567	40.93481	ppb		97
60)	1,1,1,2-Tetrachloroethane	9.99	131	289716	39.54248	ppb		95
61)	m&p-Xylene	10.15	106	942114	82.42904	ppb		98
62)	o-Xylene	10.54	106	486606	41.15663	ppb		98
63)	Styrene	10.55	104	862890	42.95425	ppb		100
65)	1,3-Dichloropropane	9.07	76	382242	39.30755	ppb		98
66)	Dibromochloromethane	9.29	129	292949	40.01326	ppb		96
67)	Chlorobenzene	9.90	112	739958	38.69148	ppb		99
68)	Ethylbenzene	10.03	91	1209652	40.22613	ppb		98
69)	Bromoform	10.71	173	206749	41.24287	ppb		99
71)	Isopropylbenzene	10.91	105	1186391	41.29757	ppb		98
72)	1,1,2,2-Tetrachloroethane	11.19	83	311389	39.06275	ppb		100
73)	1,2,3-Trichloropropane	11.23	110	87283	38.57810	ppb		93
74)	t-1,4-Dichloro-2-Butene	11.25	53	67511	44.58657	ppb		97
75)	Bromobenzene	11.19	156	370849	39.15918	ppb		99
76)	n-Propylbenzene	11.32	91	1546930	41.82252	ppb		99
77)	4-Ethyltoluene	11.43	105	1336329	42.07052	ppb		99
78)	2-Chlorotoluene	11.39	91	1059468	40.16835	ppb		99
79)	1,3,5-Trimethylbenzene	11.50	105	1118597	42.48207	ppb		99
80)	4-Chlorotoluene	11.50	91	1066136	40.83649	ppb		100
81)	Tert-Butylbenzene	11.82	119	993558	41.18911	ppb		99
82)	1,2,4-Trimethylbenzene	11.86	105	1142659	41.93753	ppb		99
83)	Sec-Butylbenzene	12.04	105	1362846	42.31861	ppb		100
84)	p-Isopropyltoluene	12.19	119	1167081	42.89031	ppb		99
85)	Benzyl Chloride	12.35	91	328559	40.40634	ppb		98
86)	1,3-DCB	12.13	146	706591	39.45252	ppb		99
87)	1,4-DCB	12.22	146	717680	38.26236	ppb		100
88)	n-Butylbenzene	12.59	91	1032004	42.31282	ppb		99
89)	1,2-DCB	12.59	146	673414	38.79389	ppb		98
90)	Hexachloroethane	12.86	117	199424	40.00032	ppb		95
91)	1,2-Dibromo-3-chloropropan	13.35	157	66284	44.38384	ppb		95
92)	1,2,4-Trichlorobenzene	14.20	180	327616	41.17358	ppb		100
93)	Hexachlorobutadiene	14.38	223	129523	38.96681	ppb		98
94)	Naphthalene	14.43	128	999454	44.98436	ppb		99
95)	1,2,3-Trichlorobenzene	14.68	180	465877	41.09332	ppb		98

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

Data File : M:\THOR\DATA\T120719\0719T12.D Vial: 12
Acq On : 19 Jul 12 14:16 Operator: DG,RS,HW,ARS,SV
Sample : 40ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 08:28:10 2012
Response via : Initial Calibration



Data File : M:\THOR\DATA\T120719\0719T13.D Vial: 13
Acq On : 19 Jul 12 14:44 Operator: DG,RS,HW,ARS,SV
Sample : 100ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.73	96	444096	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.88	117	369984	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	225280	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.94	111	677704	97.51815 ppb		0.00
Spiked Amount 29.744			Recovery = 327.859%			
36) 1,2-DCA-D4(S)	6.33	65	602641	93.30952 ppb		0.00
Spiked Amount 29.083			Recovery = 320.837%			
56) Toluene-D8(S)	8.43	98	2073207	94.78345 ppb		0.00
Spiked Amount 30.231			Recovery = 313.531%			
64) 4-Bromofluorobenzene(S)	11.05	95	1023987	98.99204 ppb		0.00
Spiked Amount 28.321			Recovery = 349.536%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.29	85	254656	109.95320 ppb		99
3) Freon 114	1.41	85	295808	98.23896 ppb		92
4) Chloromethane	1.45	50	771844	116.16609 ppb		98
5) Vinyl chloride	1.56	62	891545	101.57617 ppb		98
6) Bromomethane	1.85	94	452818	80.71617 ppb		98
7) Chloroethane	1.95	64	503433	99.58633 ppb		94
8) Dichlorofluoromethane	2.18	67	115020	100.01762 ppb		99
9) Trichlorofluoromethane	2.23	101	328219	180.91796 ppb		99
11) Acetone	2.89	43	145827	100.36210 ppb		98
12) Freon-113	2.84	101	365975	100.29230 ppb		97
13) 1,1-DCE	2.81	61	492964	100.66770 ppb		98
14) t-Butanol	3.70	59	53864	374.02770 ppb		99
15) Methyl Acetate	3.33	43	378645	99.85965 ppb		99
16) Iodomethane	2.97	142	429518	96.97290 ppb		97
17) Acrylonitrile	3.80	52	148837	106.11781 ppb		92
18) Methylene chloride	3.45	84	163136	99.75173 ppb		96
19) Carbon disulfide	3.05	76	45848	98.86363 ppb	#	88
20) Methyl t-butyl ether (MtBE	3.90	73	822710	87.01727 ppb		98
21) Trans-1,2-DCE	3.86	96	303532	89.81519 ppb		95
22) Diisopropyl Ether	4.70	59	207477	97.98816 ppb		93
23) 1,1-DCA	4.50	63	860226	95.99267 ppb		97
24) Vinyl Acetate	4.70	87	495299	97.85616 ppb		96
25) Ethyl tert Butyl Ether	5.21	59	1019255	86.22835 ppb		99
26) MEK (2-Butanone)	5.37	43	225877	100.70732 ppb		92
27) Cis-1,2-DCE	5.32	96	554128	96.52785 ppb		96
28) 2,2-Dichloropropane	5.32	77	327819	198.30000 ppb		99
29) Chloroform	5.75	83	1043860	93.80183 ppb		98
30) Bromochloromethane	5.62	128	277342	99.22624 ppb		93
32) 1,1,1-TCA	5.96	97	618230	92.33007 ppb		94
33) Cyclohexane	6.03	41	173334	95.38672 ppb		97
34) 1,1-Dichloropropene	6.16	75	474643	97.60846 ppb		99
35) 2,2,4-Trimethylpentane	6.55	57	649315	92.90765 ppb		94
37) Carbon Tetrachloride	6.16	117	627649	100.01275 ppb		97
38) Tert Amyl Methyl Ether	6.59	73	1115219	88.64096 ppb		96
39) 1,2-DCA	6.42	62	688055	94.28291 ppb		98
40) Benzene	6.40	78	1827390	91.68086 ppb		99
41) TCE	7.14	95	502537	92.75799 ppb		98
42) 2-Pentanone	7.36	43	907754	212.67824 ppb		98
43) 1,2-Dichloropropane	7.37	63	623762	95.91093 ppb		97
44) Bromodichloromethane	7.68	83	887397	98.63330 ppb		99
45) Methyl Cyclohexane	7.36	83	367578	95.02589 ppb		97

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

Data File : M:\THOR\DATA\T120719\0719T13.D Vial: 13
Acq On : 19 Jul 12 14:44 Operator: DG,RS,HW,ARS,SV
Sample : 100ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 07:59:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	Dibromomethane	7.49	93	343569	97.11750	ppb		95
47)	2-Chloroethyl vinyl ether	7.99	106	11121	99.31396	ppb	#	100
48)	MIBK (methyl isobutyl ket	8.33	43	317753	103.51662	ppb		98
49)	1-Bromo-2-chloroethane	7.99	63	444096	98.14420	ppb		99
50)	Cis-1,3-Dichloropropene	8.15	75	923494	103.72652	ppb		98
51)	Toluene	8.50	91	2302514	97.90801	ppb		100
52)	Trans-1,3-Dichloropropene	8.72	75	844862	107.62424	ppb		97
53)	1,1,2-TCA	8.90	83	506640	96.75885	ppb		98
54)	2-Hexanone	9.18	43	374170	106.29789	ppb		96
57)	1,2-EDB	9.40	107	552458	99.59106	ppb		98
58)	Tetrachloroethene	9.06	166	580637	92.57110	ppb		96
59)	1-Chlorohexane	9.90	91	748840	100.29983	ppb		96
60)	1,1,1,2-Tetrachloroethane	9.99	131	746191	101.82778	ppb		98
61)	m&p-Xylene	10.14	106	2312256	202.27283	ppb		97
62)	o-Xylene	10.54	106	1205888	101.97512	ppb		97
63)	Styrene	10.55	104	2181574	108.57892	ppb		97
65)	1,3-Dichloropropane	9.07	76	938122	96.45434	ppb		100
66)	Dibromochloromethane	9.29	129	748578	102.22894	ppb		99
67)	Chlorobenzene	9.90	112	1810618	94.65857	ppb		99
68)	Ethylbenzene	10.03	91	2980271	99.08969	ppb		98
69)	Bromoform	10.71	173	538782	107.45915	ppb		100
71)	Isopropylbenzene	10.91	105	2947712	100.07206	ppb		98
72)	1,1,2,2-Tetrachloroethane	11.19	83	796018	97.38982	ppb		99
73)	1,2,3-Trichloropropane	11.23	110	223287	96.25110	ppb		93
74)	t-1,4-Dichloro-2-Butene	11.25	53	179952	115.90904	ppb		99
75)	Bromobenzene	11.19	156	932826	96.06567	ppb		100
76)	n-Propylbenzene	11.32	91	3839951	101.25032	ppb		100
77)	4-Ethyltoluene	11.43	105	3324604	102.07879	ppb		99
78)	2-Chlorotoluene	11.40	91	2632771	97.35098	ppb		100
79)	1,3,5-Trimethylbenzene	11.50	105	2768017	102.52551	ppb		98
80)	4-Chlorotoluene	11.50	91	2649819	98.98815	ppb		100
81)	Tert-Butylbenzene	11.82	119	2490617	100.69949	ppb		99
82)	1,2,4-Trimethylbenzene	11.86	105	2848266	101.95249	ppb		99
83)	Sec-Butylbenzene	12.04	105	3384214	102.48812	ppb		100
84)	p-Isopropyltoluene	12.19	119	2906241	104.16479	ppb		99
85)	Benzyl Chloride	12.35	91	910665	109.22596	ppb		96
86)	1,3-DCB	12.14	146	1775349	96.67663	ppb		99
87)	1,4-DCB	12.22	146	1789528	93.04875	ppb		100
88)	n-Butylbenzene	12.59	91	2558982	102.32670	ppb		99
89)	1,2-DCB	12.59	146	1688312	94.85606	ppb		99
90)	Hexachloroethane	12.86	117	521928	102.10049	ppb		95
91)	1,2-Dibromo-3-chloropropan	13.35	157	180474	117.85879	ppb		94
92)	1,2,4-Trichlorobenzene	14.20	180	875328	107.28908	ppb		100
93)	Hexachlorobutadiene	14.38	223	327441	96.07540	ppb		95
94)	Naphthalene	14.43	128	2618767	114.95471	ppb		99
95)	1,2,3-Trichlorobenzene	14.68	180	1182785	101.75059	ppb		98

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

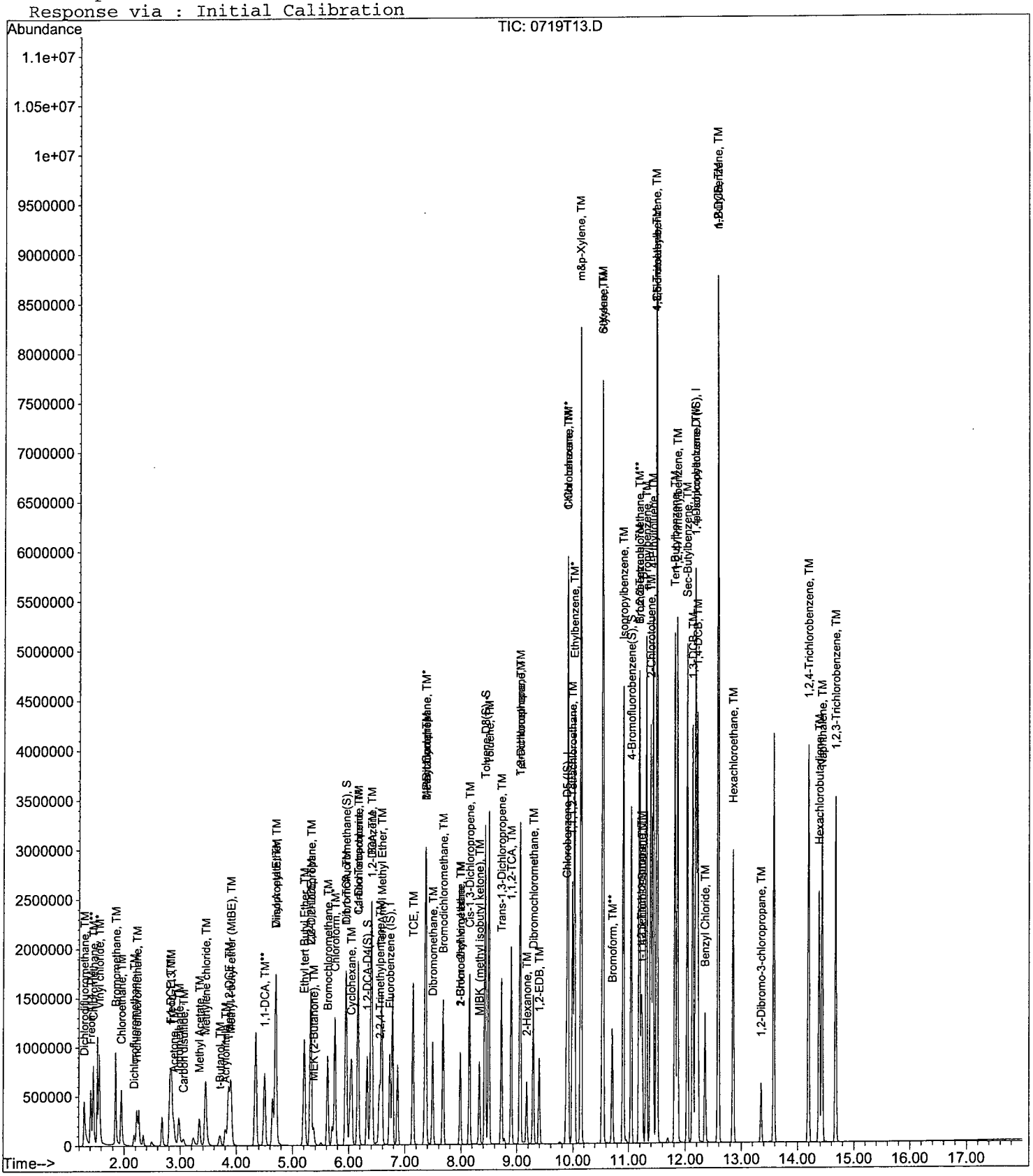
Quantitation Report

Data File : M:\THOR\DATA\T120719\0719T13.D
Acq On : 19 Jul 12 14:44
Sample : 100ug/L Vol Std 07-19-12
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 13
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 20 8:00 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 08:28:10 2012
Response via : Initial Calibration



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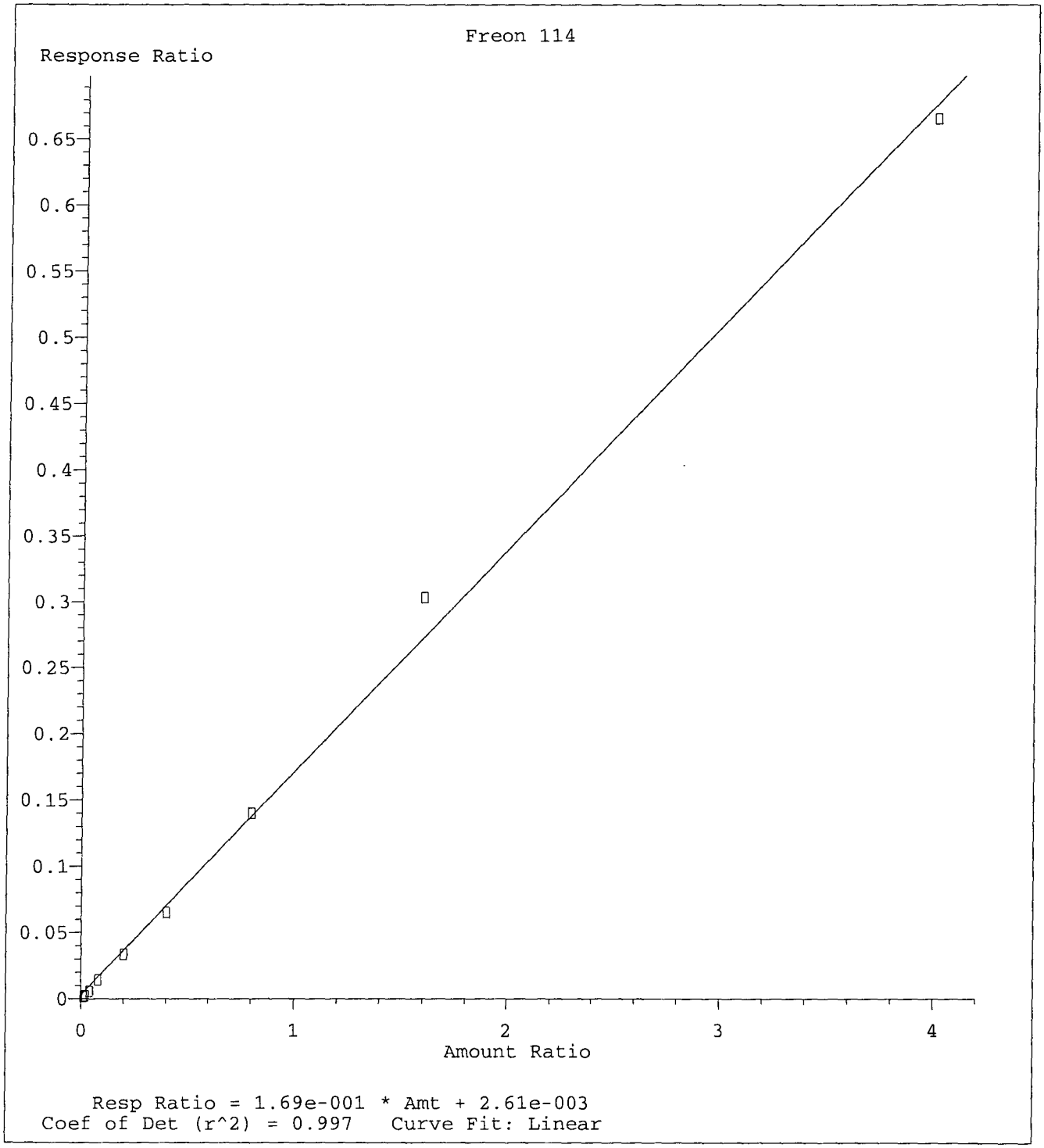
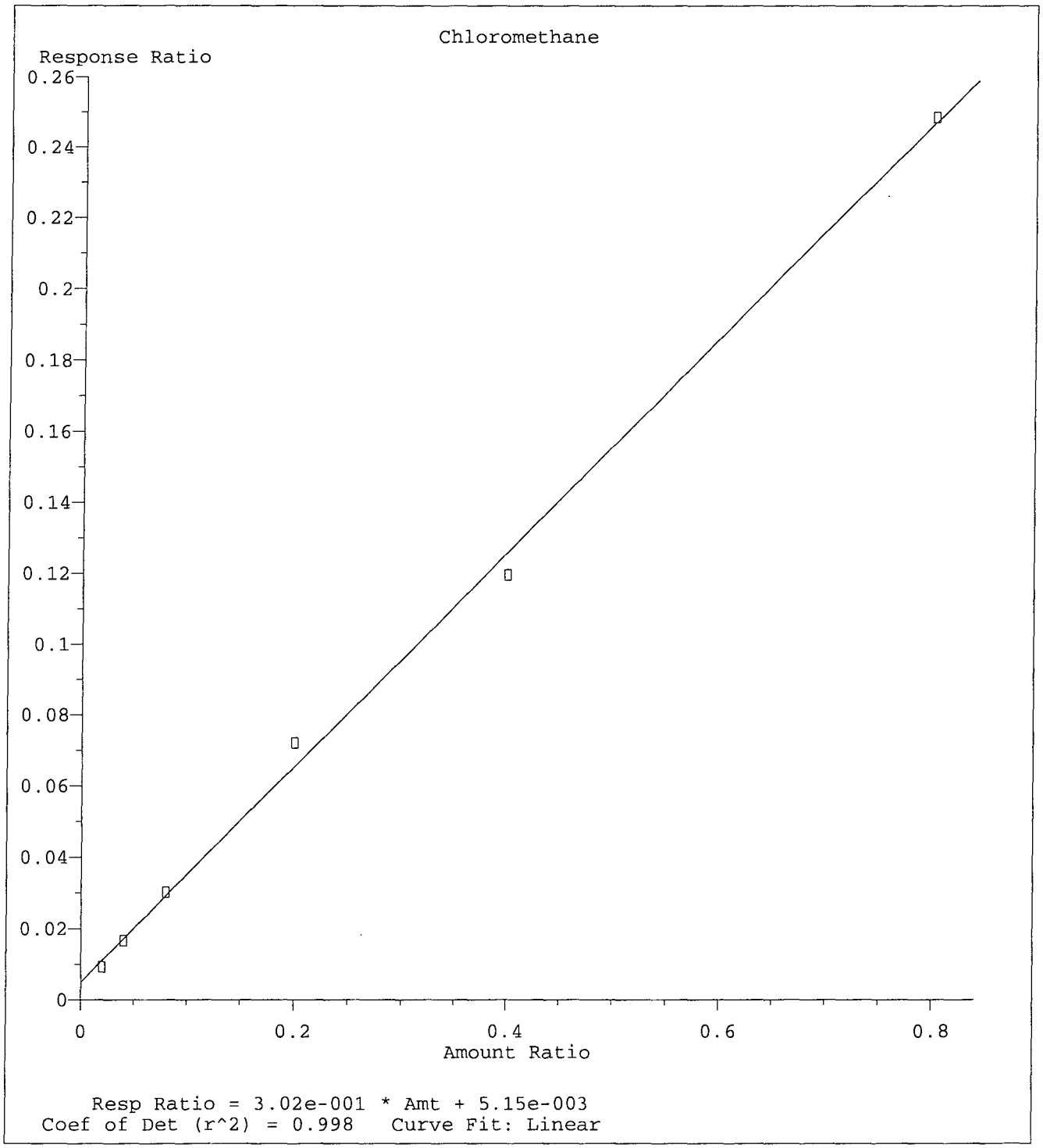
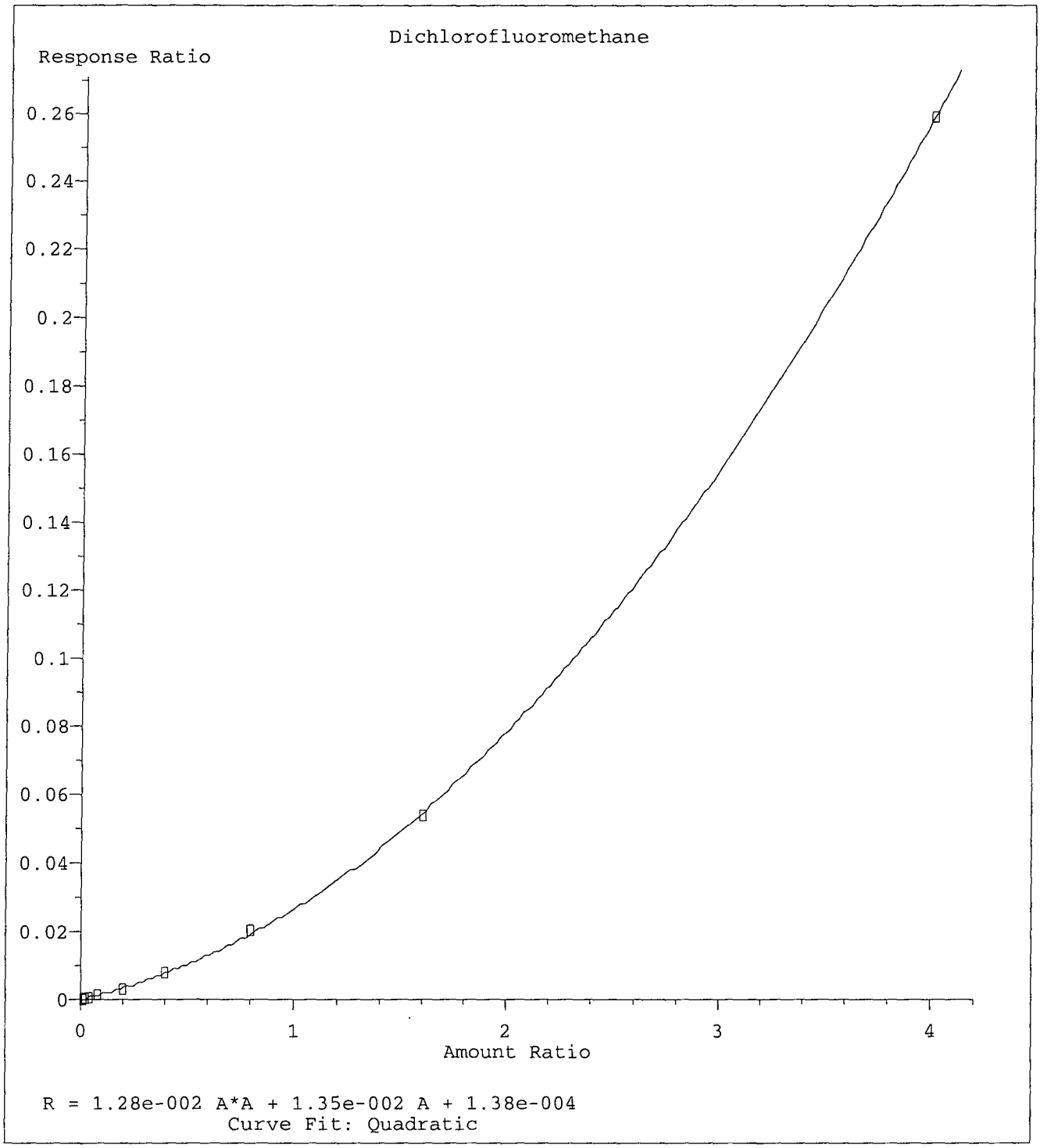


Method Name: M:\THOR\DATA\T120719\TALLW.M
Calibration Table Last Updated: Fri Jul 20 10:40:23 2012



Method Name: M:\THOR\DATA\T120719\TALLW.M
Calibration Table Last Updated: Fri Jul 20 10:40:23 2012



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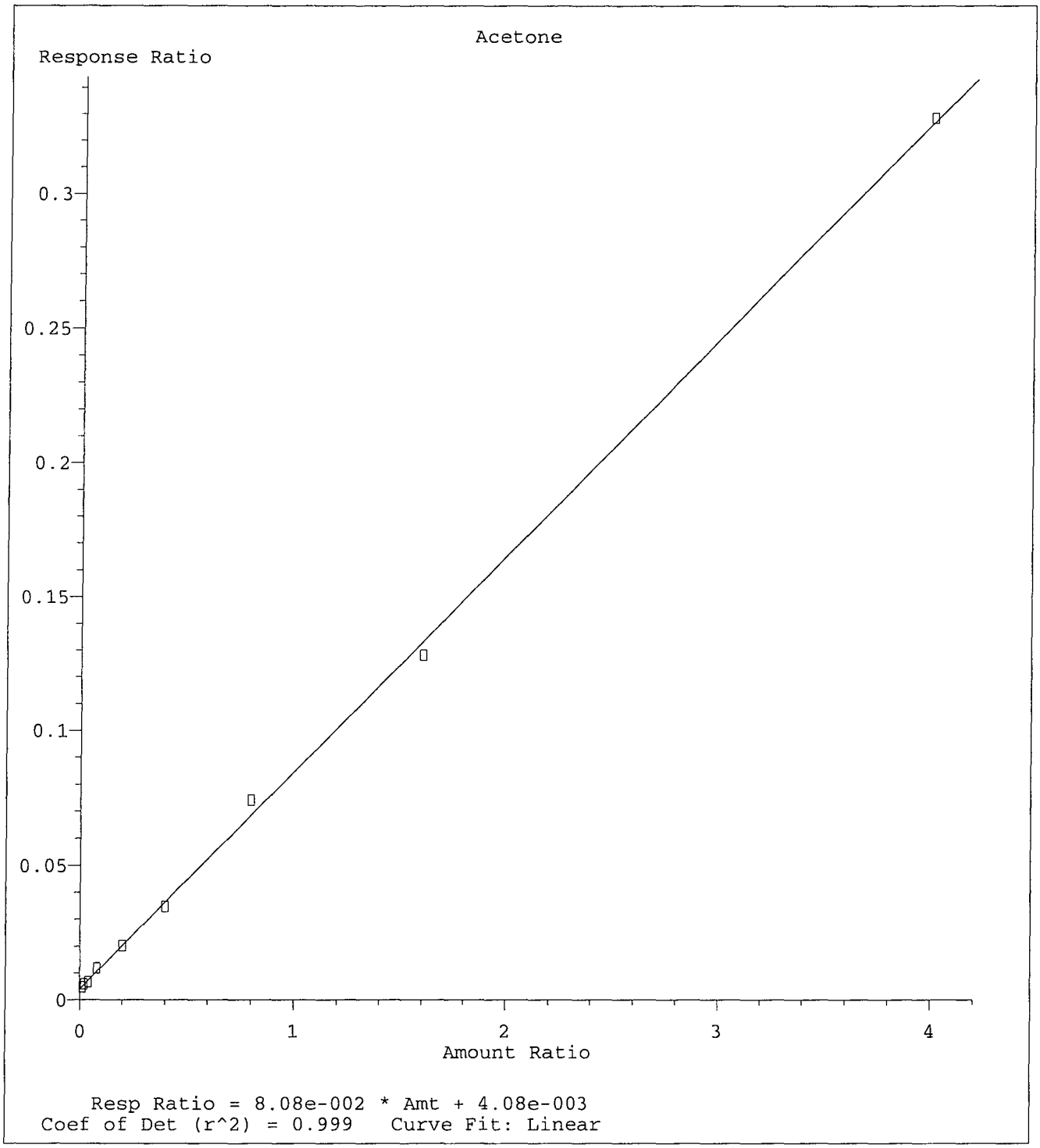
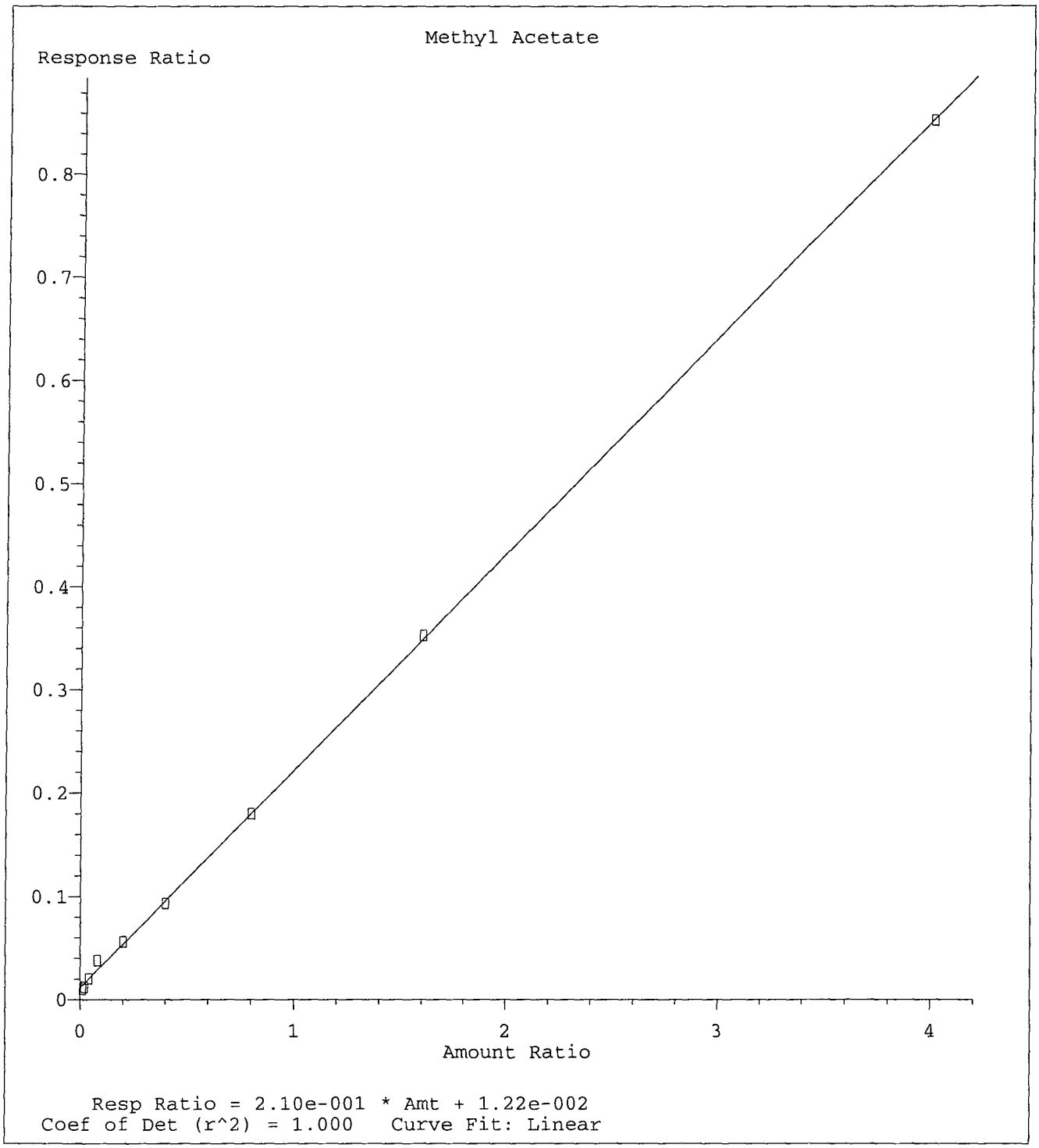
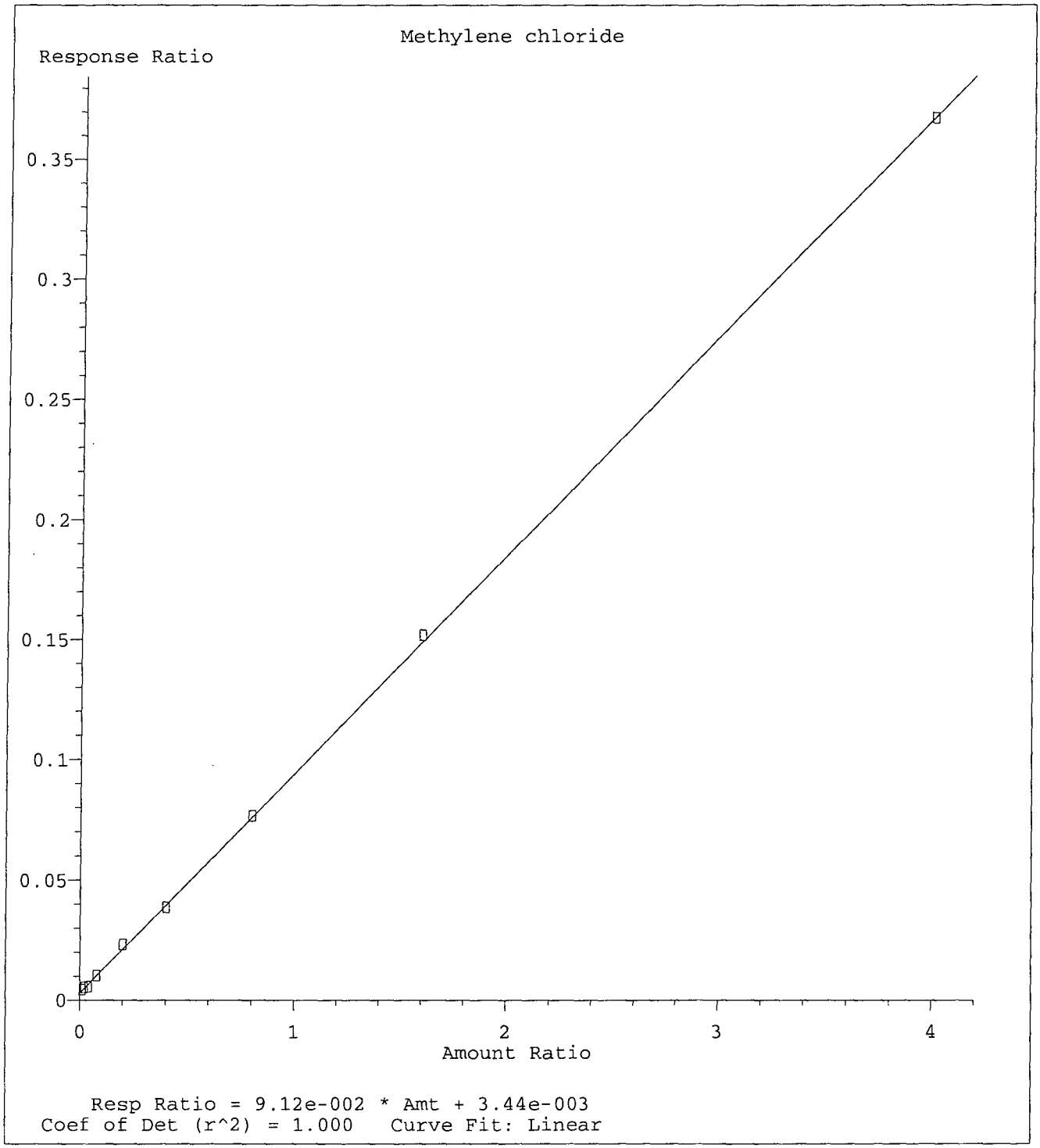
Calibration Table Last Updated: Fri Jul 20 10:40:23 2012



Method Name: M:\THOR\DATA\T120719\TALLW.M
Calibration Table Last Updated: Fri Jul 20 10:40:23 2012



Method Name: M:\THOR\DATA\T120719\TALLW.M
Calibration Table Last Updated: Fri Jul 20 10:40:23 2012



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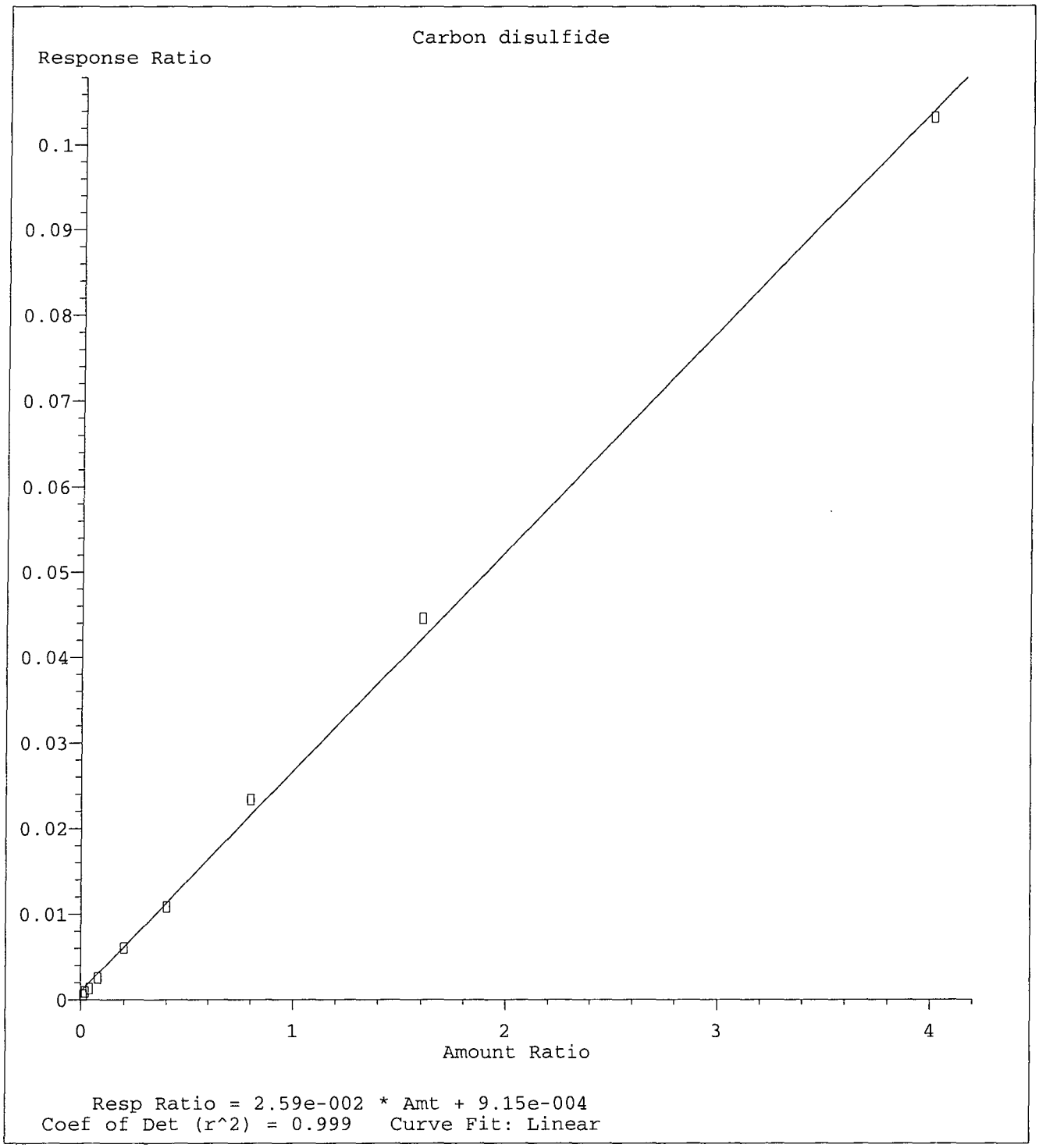
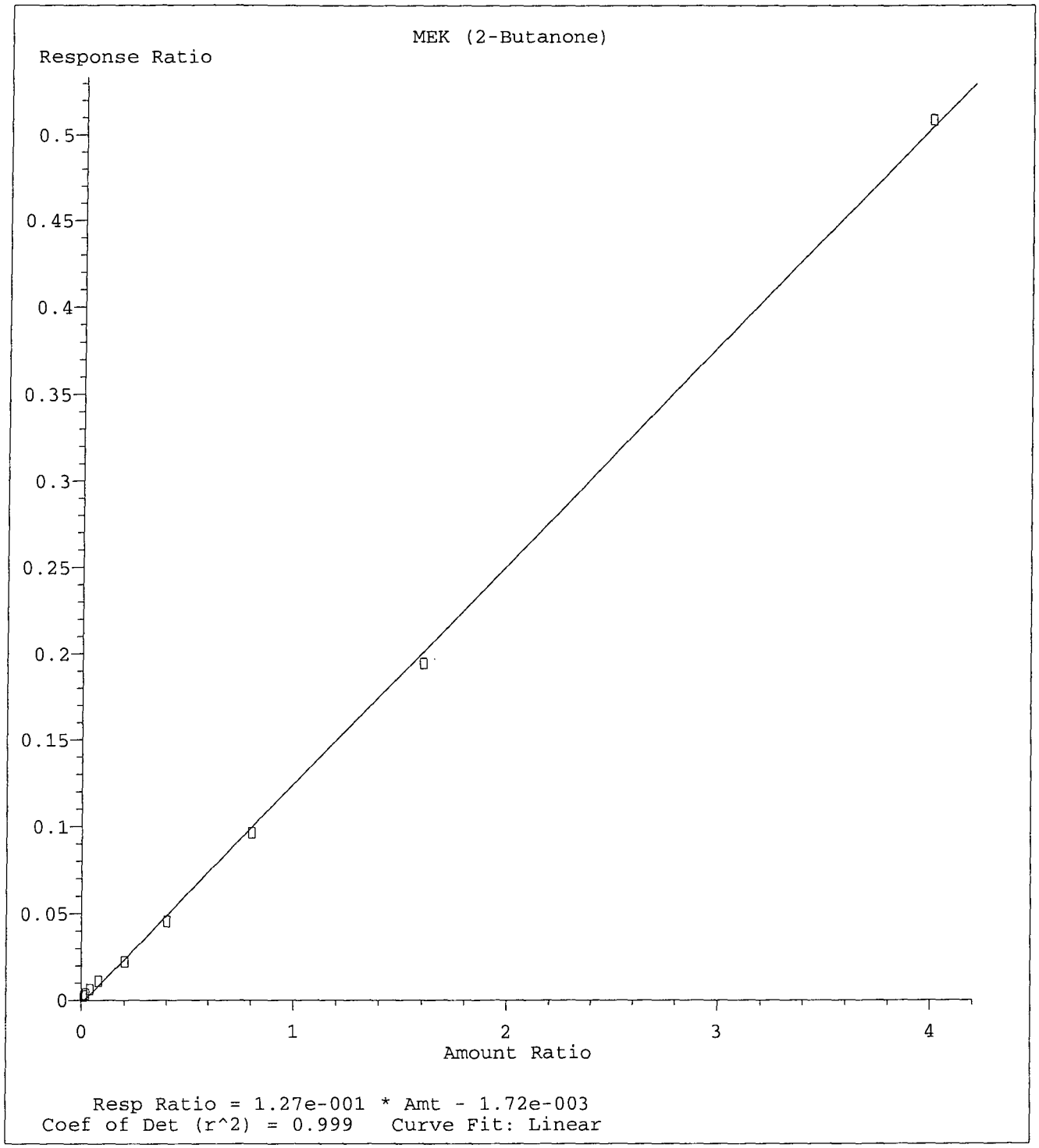
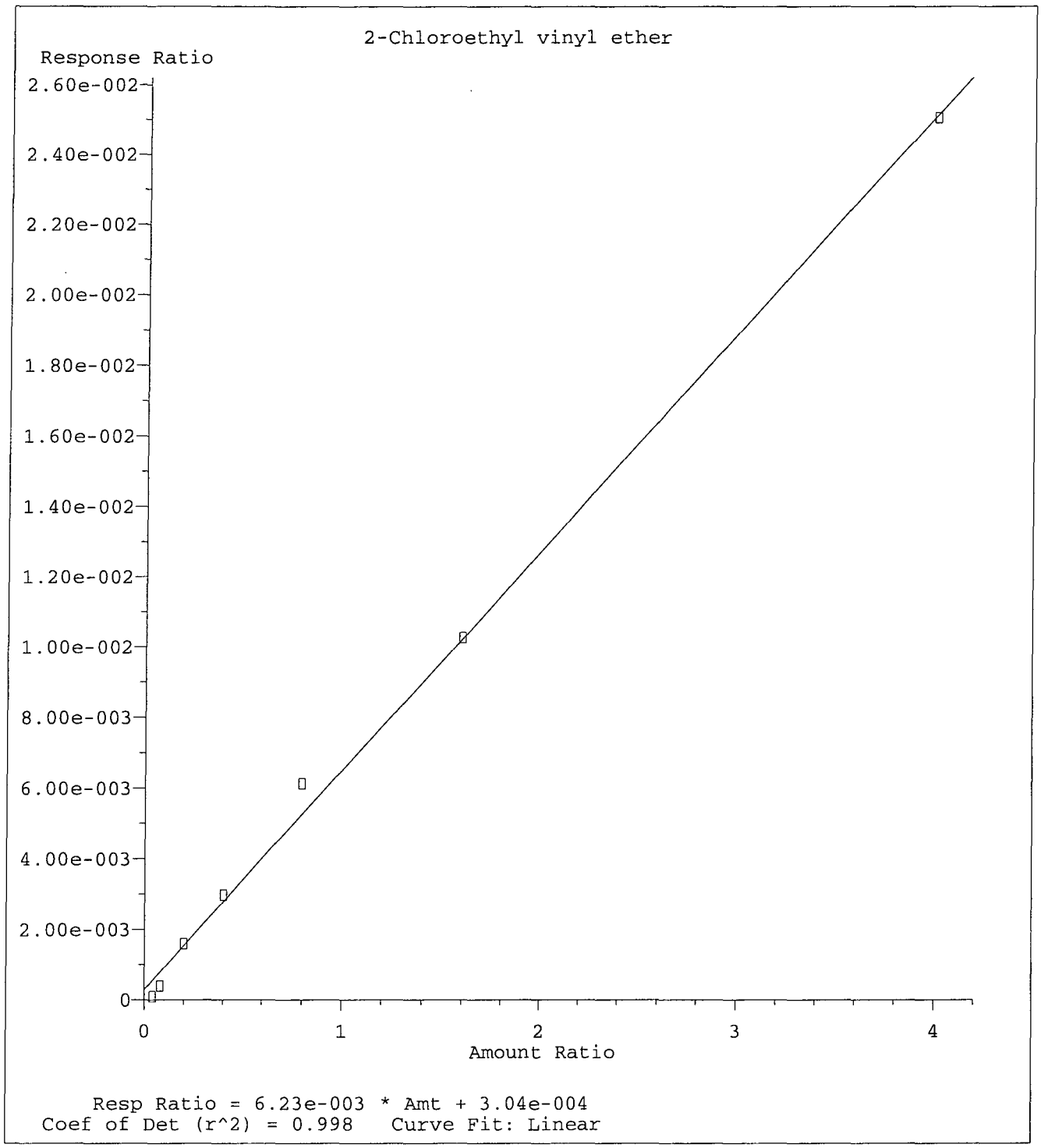
Calibration Table Last Updated: Fri Jul 20 10:40:23 2012



Method Name: M:\THOR\DATA\T120719\TALLW.M
Calibration Table Last Updated: Fri Jul 20 10:40:23 2012



Method Name: M:\THOR\DATA\T120719\TALLW.M
Calibration Table Last Updated: Fri Jul 20 10:40:23 2012



Method Name: M:\THOR\DATA\T120719\TALLW.M
Calibration Table Last Updated: Fri Jul 20 10:40:23 2012

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: 68248
Date Analyzed: 07/19/12
Instrument: Thor
Initial Cal. Date: 07/19/12
Data File: 0719T31.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.1266	0.1014	20	TM	
3	TML	Freon 114	0.1578	0.1581	0.22	TML	10
4	TM**L	Chloromethane	0.3709	0.3090	17	TM**L	2.0
5	TM*	Vinyl chloride	0.4941	0.4993	1.1	TM*	
6	TM	Bromomethane	0.3158	0.2956	6.4	TM	
7	TM	Chloroethane	0.2846	0.2799	1.6	TM	
8	TMQ	Dichlorofluoromethane	0.0241	0.0169	30	TMQ	9.1
9	TM	Trichlorofluoromethane	0.1021	0.1035	1.3	TM	
10	TMQ	Acrolein	0.0000	0.0065	0.00	TMQ	
11	TML	Acetone	0.1608	0.1059	34	TML	18
12	TM	Freon-113	0.2054	0.2048	0.31	TM	
13	TM*	1,1-DCE	0.2757	0.2657	3.6	TM*	
14	TM	t-Butanol	0.0081	0.0083	2.3	TM	
15	TML	Methyl Acetate	0.4032	0.2447	39	TML	1.8
16	TM	Iodomethane	0.2493	0.2358	5.4	TM	
17	TM	Acrylonitrile	0.0790	0.0808	2.3	TM	
18	TML	Methylene chloride	0.1556	0.0948	39	TML	5.5
19	TML	Carbon disulfide	0.0329	0.0300	8.9	TML	7.0
20	TM	Methyl t-butyl ether (MtBE)	0.5322	0.5046	5.2	TM	
21	TM	Trans-1,2-DCE	0.1902	0.1862	2.1	TM	
22	TM	Diisopropyl Ether	0.1192	0.1196	0.38	TM	
23	TM**	1,1-DCA	0.5045	0.5081	0.73	TM**	
24	TM	Vinyl Acetate	0.2849	0.2762	3.1	TM	
25	TM	Ethyl tert Butyl Ether	0.6654	0.6504	2.3	TM	
26	TML	MEK (2-Butanone)	0.1418	0.1260	11	TML	2.9
27	TM	Cis-1,2-DCE	0.3232	0.3228	0.12	TM	
28	TM	2,2-Dichloropropane	0.2032	0.1629	20	TM	
29	TM*	Chloroform	0.6265	0.6014	4.0	TM*	
30	TM	Bromochloromethane	0.1573	0.1601	1.8	TM	
31	S	Dibromofluoromethane(S)	0.3912	0.3840	1.8	S	
32	TM	1,1,1-TCA	0.3769	0.3627	3.8	TM	
33	TM	Cyclohexane	0.1023	0.1023	0.01	TM	
34	TM	1,1-Dichloropropene	0.2737	0.2734	0.13	TM	
35	TM	2,2,4-Trimethylpentane	0.3934	0.3395	14	TM	
36	S	1,2-DCA-D4(S)	0.3636	0.3559	2.1	S	
37	TM	Carbon Tetrachloride	0.3533	0.3549	0.46	TM	
38	TM	Tert Amyl Methyl Ether	0.7083	0.6971	1.6	TM	
39	TM	1,2-DCA	0.4108	0.4011	2.4	TM	
40	TM	Benzene	1.122	1.062	5.3	TM	
		Average			7.6		

ARS 7/27/12

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: 68248
Date Analyzed: 07/19/12
Instrument: Thor
Cal. Date: 07/19/12
Data File: 0719T31.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	TCE	0.3050	0.3245	6.4	TM	
42	TM	2-Pentanone	0.2403	0.2373	1.2	TM	
43	TM*	1,2-Dichloropropane	0.3661	0.3693	0.88	TM*	
44	TM	Bromodichloromethane	0.5065	0.4847	4.3	TM	
45	TM	Methyl Cyclohexane	0.2178	0.2085	4.3	TM	
46	TM	Dibromomethane	0.1991	0.1999	0.37	TM	
47	TML	2-Chloroethyl vinyl ether	0.0061	0.0063	2.4	TML	11
48	TM	MIBK (methyl isobutyl ketone)	0.1728	0.1759	1.8	TM	
49	TM	1-Bromo-2-chloroethane	0.2547	0.2495	2.1	TM	
50	TM	Cis-1,3-Dichloropropene	0.5012	0.4724	5.7	TM	
51	TM*	Toluene	1.324	1.341	1.3	TM*	
52	TM	Trans-1,3-Dichloropropene	0.4419	0.4104	7.1	TM	
53	TM	1,1,2-TCA	0.2948	0.2833	3.9	TM	
54	TM	2-Hexanone	0.1982	0.2000	0.95	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	1.478	1.447	2.1	S	
57	TM	1,2-EDB	0.3748	0.3669	2.1	TM	
58	TM	Tetrachloroethene	0.4238	0.4269	0.73	TM	
59	TM	1-Chlorohexane	0.5045	0.5027	0.36	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.4952	0.4849	2.1	TM	
61	TM	m&p-Xylene	0.7724	0.8080	4.6	TM	
62	TM	o-Xylene	0.7990	0.8295	3.8	TM	
63	TM	Styrene	1.358	1.406	3.5	TM	
64	S	4-Bromofluorobenzene(S)	0.6990	0.7156	2.4	S	
65	TM	1,3-Dichloropropane	0.6572	0.6637	0.99	TM	
66	TM	Dibromochloromethane	0.4948	0.4812	2.7	TM	
67	TM**	Chlorobenzene	1.292	1.269	1.8	TM**	
68	TM*	Ethylbenzene	2.032	2.056	1.2	TM*	
69	TM**	Bromoform	0.3388	0.3286	3.0	TM**	
70	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
71	TM	Isopropylbenzene	3.269	3.409	4.3	TM	
72	TM**	1,1,2,2-Tetrachloroethane	0.9070	0.8367	7.8	TM**	
73	TM	1,2,3-Trichloropropane	0.2574	0.2664	3.5	TM	
74	TM	t-1,4-Dichloro-2-Butene	0.1723	0.1823	5.8	TM	
75	TM	Bromobenzene	1.078	1.079	0.15	TM	
76	TM	n-Propylbenzene	4.209	4.445	5.6	TM	
77	TM	4-Ethyltoluene	3.614	3.749	3.7	TM	
78	TM	2-Chlorotoluene	3.001	3.080	2.6	TM	
79	TM	1,3,5-Trimethylbenzene	2.996	3.186	6.3	TM	
80	TM	4-Chlorotoluene	2.971	3.080	3.7	TM	
		Average			3.1		

ARS 7/27/12

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: 68248
Date Analyzed: 07/19/12
Instrument: Thor
Cal. Date: 07/19/12
Data File: 0719T31.D

		Compound	MEAN	CCRF	%D	%Drift		
81	TM	Tert-Butylbenzene	2.745	2.818	2.7	TM		
82	TM	1,2,4-Trimethylbenzene	3.100	3.213	3.6	TM		
83	TM	Sec-Butylbenzene	3.664	3.850	5.1	TM		
84	TM	p-Isopropyltoluene	3.096	3.241	4.7	TM		
85	TM	Benzyl Chloride	0.9252	0.6126	34	TM		*NT
86	TM	1,3-DCB	2.038	2.081	2.1	TM		
87	TM	1,4-DCB	2.134	2.096	1.8	TM		
88	TM	n-Butylbenzene	2.775	2.837	2.2	TM		
89	TM	1,2-DCB	1.975	1.941	1.7	TM		
90	TM	Hexachloroethane	0.5673	0.5516	2.8	TM		
91	TM	1,2-Dibromo-3-chloropropane	0.1699	0.1722	1.4	TM		
92	TM	1,2,4-Trichlorobenzene	0.9054	0.9040	0.15	TM		
93	TM	Hexachlorobutadiene	0.3782	0.3490	7.7	TM		
94	TM	Naphthalene	2.528	2.684	6.1	TM		
95	TM	1,2,3-Trichlorobenzene	1.290	1.318	2.2	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			5.2			

KRS 7/27/12

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120719\0719T31.D Vial: 31
Acq On : 19 Jul 12 23:03 Operator: DG,RS,HW,ARS,SV
Sample : 120719A LCS-1WT (SS) Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 10:45 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.73	96	459584	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.87	117	371008	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	216768	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.95	111	225058	31.29333 ppb		0.00
Spiked Amount 31.881			Recovery = 98.155%			
36) 1,2-DCA-D4(S)	6.33	65	220138	32.93626 ppb		0.00
Spiked Amount 33.647			Recovery = 97.888%			
56) Toluene-D8(S)	8.43	98	802051	36.56718 ppb		0.00
Spiked Amount 37.345			Recovery = 97.917%			
64) 4-Bromofluorobenzene(S)	11.05	95	313456	30.21914 ppb		0.00
Spiked Amount 29.515			Recovery = 102.384%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.30	85	18648	8.01049 ppb		98
3) Freon 114	1.41	85	29065	8.97783 ppb		92
4) Chloromethane	1.45	50	56808	9.80339 ppb		99
5) Vinyl chloride	1.56	62	91788	10.10524 ppb		99
6) Bromomethane	1.87	94	54346	9.36087 ppb		98
7) Chloroethane	1.97	64	51463	9.83706 ppb		96
8) Dichlorofluoromethane	2.18	67	3106	9.09488 ppb		97
9) Trichlorofluoromethane	2.24	101	19028	10.13498 ppb		100
11) Acetone	2.88	43	19460	11.84185 ppb		98
12) Freon-113	2.85	101	37646	9.96889 ppb		94
13) 1,1-DCE	2.82	61	48838	9.63706 ppb		93
14) t-Butanol	3.69	59	19056	127.86417 ppb		98
15) Methyl Acetate	3.34	43	44993	10.18034 ppb		95
16) Iodomethane	2.98	142	43340	9.45518 ppb		97
17) Acrylonitrile	3.81	52	14853	10.23301 ppb		95
18) Methylene chloride	3.45	84	17424	9.44871 ppb		95
19) Carbon disulfide	3.06	76	5510	10.69990 ppb	#	86
20) Methyl t-butyl ether (MtBE	3.90	73	92761	9.48061 ppb		98
21) Trans-1,2-DCE	3.87	96	34225	9.78590 ppb		97
22) Diisopropyl Ether	4.70	59	21995	10.03782 ppb		95
23) 1,1-DCA	4.51	63	93412	10.07257 ppb		98
24) Vinyl Acetate	4.70	87	50781	9.69469 ppb		95
25) Ethyl tert Butyl Ether	5.21	59	119561	9.77392 ppb		99
26) MEK (2-Butanone)	5.38	43	23166	10.28682 ppb		95
27) Cis-1,2-DCE	5.32	96	59336	9.98787 ppb		96
28) 2,2-Dichloropropane	5.32	77	29940	8.01402 ppb		99
29) Chloroform	5.75	83	110557	9.59991 ppb		94
30) Bromochloromethane	5.62	128	29433	10.17554 ppb		98
32) 1,1,1-TCA	5.96	97	66682	9.62307 ppb		96
33) Cyclohexane	6.03	41	18804	9.99923 ppb		94
34) 1,1-Dichloropropene	6.17	75	50257	9.98686 ppb		98
35) 2,2,4-Trimethylpentane	6.55	57	62413	8.62945 ppb		97
37) Carbon Tetrachloride	6.16	117	65247	10.04641 ppb		95
38) Tert Amyl Methyl Ether	6.59	73	128152	9.84264 ppb		100
39) 1,2-DCA	6.41	62	73737	9.76354 ppb		99
40) Benzene	6.40	78	195282	9.46720 ppb		97
41) TCE	7.14	95	59649	10.63894 ppb		98
42) 2-Pentanone	7.36	43	545318	123.45728 ppb		100
43) 1,2-Dichloropropane	7.37	63	67896	10.08801 ppb		96

Algorithm Check: $\frac{(91788)(25)}{(459584)(0.4941)}$ (1) = 10.10522903 ✓ ARS 7/27/12

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120719\0719T31.D Vial: 31
Acq On : 19 Jul 12 23:03 Operator: DG,RS,HW,ARS,SV
Sample : 120719A LCS-1WT (SS) Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 10:45 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	Bromodichloromethane	7.68	83	89098	9.56942	ppb		98
45)	Methyl Cyclohexane	7.36	83	38326	9.57410	ppb		95
46)	Dibromomethane	7.49	93	36747	10.03731	ppb		99
47)	2-Chloroethyl vinyl ether	7.99	106	1154	8.86120	ppb	#	100
48)	MIBK (methyl isobutyl ket	8.33	43	32328	10.17680	ppb		97
49)	1-Bromo-2-chloroethane	7.99	63	45864	9.79426	ppb		99
50)	Cis-1,3-Dichloropropene	8.15	75	86842	9.42535	ppb		98
51)	Toluene	8.50	91	246468	10.12718	ppb		98
52)	Trans-1,3-Dichloropropene	8.72	75	75443	9.28657	ppb		98
53)	1,1,2-TCA	8.90	83	52073	9.60983	ppb		98
54)	2-Hexanone	9.18	43	36772	10.09450	ppb		96
57)	1,2-EDB	9.40	107	54442	9.78712	ppb		99
58)	Tetrachloroethene	9.06	166	63354	10.07267	ppb		96
59)	1-Chlorohexane	9.90	91	74600	9.96437	ppb		98
60)	1,1,1,2-Tetrachloroethane	9.99	131	71965	9.79349	ppb		96
61)	m&p-Xylene	10.14	106	239826	20.92173	ppb		98
62)	o-Xylene	10.54	106	123104	10.38148	ppb		98
63)	Styrene	10.55	104	208582	10.35266	ppb		98
65)	1,3-Dichloropropane	9.07	76	98494	10.09885	ppb		97
66)	Dibromochloromethane	9.29	129	71411	9.72527	ppb		99
67)	Chlorobenzene	9.90	112	188318	9.81804	ppb		99
68)	Ethylbenzene	10.03	91	305101	10.11617	ppb		99
69)	Bromoform	10.71	173	48764	9.69905	ppb		99
71)	Isopropylbenzene	10.91	105	295625	10.43029	ppb		98
72)	1,1,2,2-Tetrachloroethane	11.19	83	72548	9.22452	ppb		99
73)	1,2,3-Trichloropropane	11.23	110	23096	10.34681	ppb		85
74)	t-1,4-Dichloro-2-Butene	11.25	53	15810	10.58327	ppb		89
75)	Bromobenzene	11.19	156	93573	10.01488	ppb		99
76)	n-Propylbenzene	11.32	91	385440	10.56221	ppb		98
77)	4-Ethyltoluene	11.43	105	325068	10.37283	ppb		98
78)	2-Chlorotoluene	11.39	91	267062	10.26282	ppb		100
79)	1,3,5-Trimethylbenzene	11.50	105	276230	10.63314	ppb		99
80)	4-Chlorotoluene	11.50	91	267095	10.36956	ppb		100
81)	Tert-Butylbenzene	11.82	119	244365	10.26802	ppb		99
82)	1,2,4-Trimethylbenzene	11.86	105	278601	10.36400	ppb		99
83)	Sec-Butylbenzene	12.04	105	333801	10.50584	ppb		100
84)	p-Isopropyltoluene	12.19	119	281061	10.46929	ppb		99
85)	Benzyl Chloride	12.35	91	53118	6.62120	ppb		97
86)	1,3-DCB	12.13	146	180466	10.21317	ppb		99
87)	1,4-DCB	12.22	146	181734	9.82055	ppb		99
88)	n-Butylbenzene	12.59	91	245949	10.22102	ppb		98
89)	1,2-DCB	12.59	146	168341	9.82946	ppb		97
90)	Hexachloroethane	12.86	117	47831	9.72421	ppb		93
91)	1,2-Dibromo-3-chloropropan	13.35	157	14935	10.13631	ppb		95
92)	1,2,4-Trichlorobenzene	14.20	180	78384	9.98480	ppb		100
93)	Hexachlorobutadiene	14.38	223	30261	9.22762	ppb		89
94)	Naphthalene	14.43	128	232681	10.61496	ppb		98
95)	1,2,3-Trichlorobenzene	14.68	180	114268	10.21606	ppb		99

1,3-dichloropropene, total: 18.71192 ppb

ARS 7/27/12

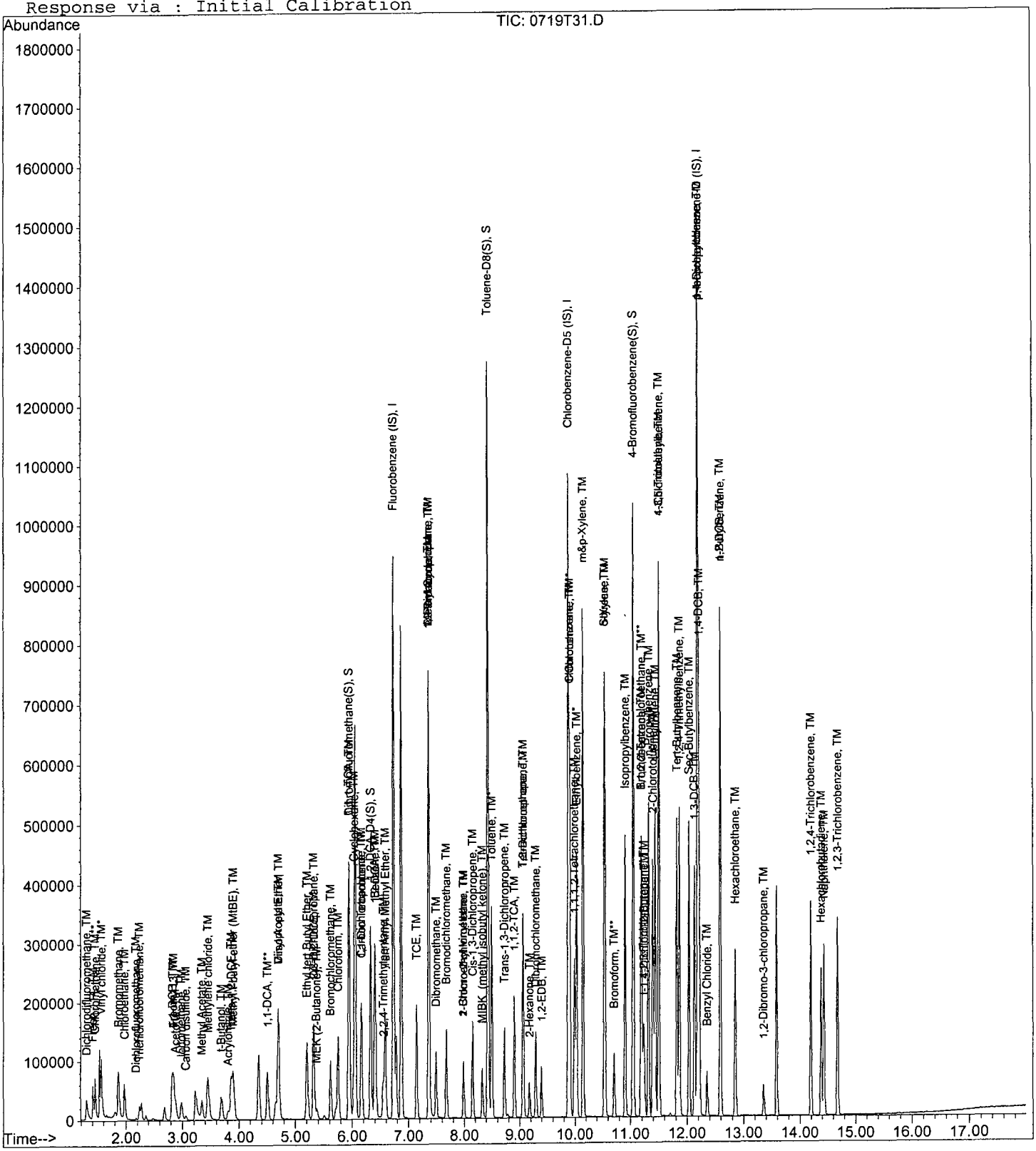
(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T120719\0719T31.D
Acq On : 19 Jul 12 23:03
Sample : 120719A LCS-1WT (SS)
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 31
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 20 10:45 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No: 68248
Date Analyzed: 07/19/12
Instrument: Thor
Initial Cal. Date: 07/19/12
Data File: 0719T30.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.1266	0.1166	7.9	TM		
3	TML	Freon 114	0.1578	0.1597	1.2	TML	9.3	
4	TM**L	Chloromethane	0.3709	0.2977	20	TM**L	5.7	
5	TM*	Vinyl chloride	0.4941	0.4702	4.8	TM*		
6	TM	Bromomethane	0.3158	0.2902	8.1	TM		
7	TM	Chloroethane	0.2846	0.2732	4.0	TM		
8	TMQ	Dichlorofluoromethane	0.0241	0.0166	31	TMQ	11	
9	TM	Trichlorofluoromethane	0.1021	0.0978	4.2	TM		
10	TMQ	Acrolein	0.0000	0.0068	0.00	TMQ		
11	TML	Acetone	0.1608	0.0967	40	TML	7.0	
12	TM	Freon-113	0.2054	0.1875	8.7	TM		
13	TM*	1,1-DCE	0.2757	0.2609	5.3	TM*		
14	TM	t-Butanol	0.0081	0.0087	7.1	TM		
15	TML	Methyl Acetate	0.4032	0.2359	41	TML	2.4	
16	TM	Iodomethane	0.2493	0.2420	2.9	TM		
17	TM	Acrylonitrile	0.0790	0.0833	5.5	TM		
18	TML	Methylene chloride	0.1556	0.0889	43	TML	12	
19	TML	Carbon disulfide	0.0329	0.0275	16	TML	2.7	
20	TM	Methyl t-butyl ether (MtBE)	0.5322	0.5055	5.0	TM		
21	TM	Trans-1,2-DCE	0.1902	0.1709	10	TM		
22	TM	Diisopropyl Ether	0.1192	0.1231	3.2	TM		
23	TM**	1,1-DCA	0.5045	0.5008	0.73	TM**		
24	TM	Vinyl Acetate	0.2849	0.2716	4.7	TM		
25	TM	Ethyl tert Butyl Ether	0.6654	0.6458	2.9	TM		
26	TML	MEK (2-Butanone)	0.1418	0.1240	13	TML	1.3	
27	TM	Cis-1,2-DCE	0.3232	0.3160	2.2	TM		
28	TM	2,2-Dichloropropane	0.2032	0.1621	20	TM		
29	TM*	Chloroform	0.6265	0.6125	2.2	TM*		
30	TM	Bromochloromethane	0.1573	0.1554	1.2	TM		
31	S	Dibromofluoromethane(S)	0.3912	0.3908	0.10	S		
32	TM	1,1,1-TCA	0.3769	0.3636	3.6	TM		
33	TM	Cyclohexane	0.1023	0.0982	4.0	TM		
34	TM	1,1-Dichloropropene	0.2737	0.2587	5.5	TM		
35	TM	2,2,4-Trimethylpentane	0.3934	0.3120	21	TM		*NT
36	S	1,2-DCA-D4(S)	0.3636	0.3700	1.8	S		
37	TM	Carbon Tetrachloride	0.3533	0.3368	4.7	TM		
38	TM	Tert Amyl Methyl Ether	0.7083	0.6804	3.9	TM		
39	TM	1,2-DCA	0.4108	0.3911	4.8	TM		
40	TM	Benzene	1.122	1.067	4.9	TM		
		Average			9.5			

ARS 7/27/12

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No: 68248
Case No: Date Analyzed: 07/19/12
Matrix: Water Instrument: Thor
Cal. Date: 07/19/12
Data File: 0719T30.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	TCE	0.3050	0.3112	2.1	TM	
42	TM	2-Pentanone	0.2403	0.2399	0.15	TM	
43	TM*	1,2-Dichloropropane	0.3661	0.3596	1.8	TM*	
44	TM	Bromodichloromethane	0.5065	0.4910	3.1	TM	
45	TM	Methyl Cyclohexane	0.2178	0.1937	11	TM	
46	TM	Dibromomethane	0.1991	0.1997	0.25	TM	
47	TML	2-Chloroethyl vinyl ether	0.0061	0.0058	5.7	TML	19
48	TM	MIBK (methyl isobutyl ketone)	0.1728	0.1756	1.6	TM	
49	TM	1-Bromo-2-chloroethane	0.2547	0.2460	3.4	TM	
50	TM	Cis-1,3-Dichloropropene	0.5012	0.4681	6.6	TM	
51	TM*	Toluene	1.324	1.294	2.3	TM*	
52	TM	Trans-1,3-Dichloropropene	0.4419	0.3995	9.6	TM	
53	TM	1,1,2-TCA	0.2948	0.2755	6.5	TM	
54	TM	2-Hexanone	0.1982	0.2041	3.0	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	1.478	1.440	2.6	S	
57	TM	1,2-EDB	0.3748	0.3528	5.9	TM	
58	TM	Tetrachloroethene	0.4238	0.3958	6.6	TM	
59	TM	1-Chlorohexane	0.5045	0.4696	6.9	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.4952	0.4733	4.4	TM	
61	TM	m&p-Xylene	0.7724	0.7473	3.3	TM	
62	TM	o-Xylene	0.7990	0.7871	1.5	TM	
63	TM	Styrene	1.358	1.344	1.0	TM	
64	S	4-Bromofluorobenzene(S)	0.6990	0.6978	0.17	S	
65	TM	1,3-Dichloropropane	0.6572	0.6315	3.9	TM	
66	TM	Dibromochloromethane	0.4948	0.4681	5.4	TM	
67	TM**	Chlorobenzene	1.292	1.221	5.5	TM**	
68	TM*	Ethylbenzene	2.032	1.929	5.1	TM*	
69	TM**	Bromoform	0.3388	0.3250	4.1	TM**	
70	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
71	TM	Isopropylbenzene	3.269	3.171	3.0	TM	
72	TM**	1,1,2,2-Tetrachloroethane	0.9070	0.8329	8.2	TM**	
73	TM	1,2,3-Trichloropropane	0.2574	0.2445	5.0	TM	
74	TM	t-1,4-Dichloro-2-Butene	0.1723	0.1719	0.22	TM	
75	TM	Bromobenzene	1.078	1.022	5.2	TM	
76	TM	n-Propylbenzene	4.209	4.123	2.0	TM	
77	TM	4-Ethyltoluene	3.614	3.563	1.4	TM	
78	TM	2-Chlorotoluene	3.001	2.895	3.5	TM	
79	TM	1,3,5-Trimethylbenzene	2.996	2.997	0.01	TM	
80	TM	4-Chlorotoluene	2.971	2.935	1.2	TM	
		Average			3.8		

AR 7/27/12

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No: 68248
Date Analyzed: 07/19/12
Instrument: Thor
Cal. Date: 07/19/12
Data File: 0719T30.D

		Compound	MEAN	CCRF	%D	%Drift		
81	TM	Tert-Butylbenzene	2.745	2.626	4.3	TM		
82	TM	1,2,4-Trimethylbenzene	3.100	3.057	1.4	TM		
83	TM	Sec-Butylbenzene	3.664	3.593	2.0	TM		
84	TM	p-Isopropyltoluene	3.096	3.026	2.3	TM		
85	TM	Benzyl Chloride	0.9252	0.5995	35	TM		*NT
86	TM	1,3-DCB	2.038	1.945	4.5	TM		
87	TM	1,4-DCB	2.134	1.972	7.6	TM		
88	TM	n-Butylbenzene	2.775	2.582	7.0	TM		
89	TM	1,2-DCB	1.975	1.872	5.2	TM		
90	TM	Hexachloroethane	0.5673	0.5003	12	TM		
91	TM	1,2-Dibromo-3-chloropropane	0.1699	0.1792	5.4	TM		
92	TM	1,2,4-Trichlorobenzene	0.9054	0.8728	3.6	TM		
93	TM	Hexachlorobutadiene	0.3782	0.3394	10	TM		
94	TM	Naphthalene	2.528	2.547	0.74	TM		
95	TM	1,2,3-Trichlorobenzene	1.290	1.249	3.1	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			6.9			

ARS 7/27/12

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120719\0719T30.D Vial: 30
Acq On : 19 Jul 12 22:35 Operator: DG,RS,HW,ARS,SV
Sample : 10ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 10:45 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.73	96	452736	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.87	117	376000	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	220224	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.95	111	225646	31.84967 ppb		0.00
Spiked Amount 31.881			Recovery = 99.902%			
36) 1,2-DCA-D4(S)	6.33	65	225427	34.23774 ppb		0.00
Spiked Amount 33.647			Recovery = 101.757%			
56) Toluene-D8(S)	8.43	98	808613	36.37690 ppb		0.00
Spiked Amount 37.345			Recovery = 97.408%			
64) 4-Bromofluorobenzene(S)	11.05	95	309746	29.46501 ppb		0.00
Spiked Amount 29.515			Recovery = 99.830%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.30	85	21112	9.20611 ppb		98
3) Freon 114	1.41	85	28914	9.07008 ppb		93
4) Chloromethane	1.45	50	53915	9.42929 ppb		99
5) Vinyl chloride	1.56	62	85149	9.51612 ppb		100
6) Bromomethane	1.87	94	52548	9.18808 ppb		97
7) Chloroethane	1.97	64	49476	9.60029 ppb		90
8) Dichlorofluoromethane	2.18	67	2999	8.94765 ppb	#	79
9) Trichlorofluoromethane	2.24	101	17719	9.58052 ppb		99
11) Acetone	2.89	43	17505	10.70365 ppb		99
12) Freon-113	2.85	101	33955	9.12750 ppb		95
13) 1,1-DCE	2.82	61	47256	9.46594 ppb		97
14) t-Butanol	3.69	59	19648	133.83058 ppb		98
15) Methyl Acetate	3.34	43	42726	9.76130 ppb		99
16) Iodomethane	2.98	142	43831	9.70694 ppb		98
17) Acrylonitrile	3.81	52	15078	10.54515 ppb		82
18) Methylene chloride	3.45	84	16095	8.80124 ppb		99
19) Carbon disulfide	3.06	76	4973	9.72911 ppb	#	82
20) Methyl t-butyl ether (MtBE	3.90	73	91548	9.49816 ppb		98
21) Trans-1,2-DCE	3.87	96	30943	8.98131 ppb		90
22) Diisopropyl Ether	4.71	59	22285	10.32400 ppb		99
23) 1,1-DCA	4.51	63	90691	9.92708 ppb		98
24) Vinyl Acetate	4.71	87	49188	9.53261 ppb		93
25) Ethyl tert Butyl Ether	5.21	59	116957	9.70566 ppb		98
26) MEK (2-Butanone)	5.38	43	22460	10.12955 ppb		91
27) Cis-1,2-DCE	5.33	96	57221	9.77754 ppb		95
28) 2,2-Dichloropropane	5.32	77	29359	7.97737 ppb		98
29) Chloroform	5.76	83	110917	9.77685 ppb		96
30) Bromochloromethane	5.62	128	28139	9.87532 ppb		92
32) 1,1,1-TCA	5.96	97	65837	9.64484 ppb		99
33) Cyclohexane	6.04	41	17788	9.60203 ppb		98
34) 1,1-Dichloropropene	6.17	75	46858	9.45227 ppb		97
35) 2,2,4-Trimethylpentane	6.55	57	56506	7.93090 ppb		93
37) Carbon Tetrachloride	6.17	117	60992	9.53330 ppb		96
38) Tert Amyl Methyl Ether	6.59	73	123225	9.60738 ppb		98
39) 1,2-DCA	6.42	62	70817	9.51873 ppb		98
40) Benzene	6.40	78	193154	9.50568 ppb		99
41) TCE	7.15	95	56364	10.20509 ppb		97
42) 2-Pentanone	7.36	43	543080	124.81033 ppb		99
43) 1,2-Dichloropropane	7.37	63	65114	9.82099 ppb		97

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120719\0719T30.D Vial: 30
Acq On : 19 Jul 12 22:35 Operator: DG,RS,HW,ARS,SV
Sample : 10ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 10:45 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	Bromodichloromethane	7.68	83	88920	9.69476	ppb	99
45)	Methyl Cyclohexane	7.36	83	35085	8.89704	ppb	99
46)	Dibromomethane	7.49	93	36156	10.02526	ppb	91
47)	2-Chloroethyl vinyl ether	7.99	106	1046	8.05600	ppb	100
48)	MIBK (methyl isobutyl ket	8.33	43	31800	10.16200	ppb	99
49)	1-Bromo-2-chloroethane	7.99	63	44552	9.65799	ppb	98
50)	Cis-1,3-Dichloropropene	8.15	75	84767	9.33930	ppb	99
51)	Toluene	8.50	91	234345	9.77470	ppb	99
52)	Trans-1,3-Dichloropropene	8.72	75	72356	9.04130	ppb	99
53)	1,1,2-TCA	8.90	83	49884	9.34511	ppb	96
54)	2-Hexanone	9.18	43	36953	10.29763	ppb	92
57)	1,2-EDB	9.40	107	53068	9.41345	ppb	98
58)	Tetrachloroethene	9.06	166	59525	9.33824	ppb	95
59)	1-Chlorohexane	9.90	91	70621	9.30765	ppb	98
60)	1,1,1,2-Tetrachloroethane	9.99	131	71180	9.55805	ppb	98
61)	m&p-Xylene	10.14	106	224782	19.34899	ppb	97
62)	o-Xylene	10.54	106	118374	9.85006	ppb	97
63)	Styrene	10.55	104	202135	9.89948	ppb	99
65)	1,3-Dichloropropane	9.07	76	94972	9.60845	ppb	100
66)	Dibromochloromethane	9.29	129	70401	9.46043	ppb	99
67)	Chlorobenzene	9.90	112	183635	9.44678	ppb	98
68)	Ethylbenzene	10.03	91	290081	9.49046	ppb	99
69)	Bromoform	10.71	173	48885	9.59403	ppb	93
71)	Isopropylbenzene	10.91	105	279290	9.69932	ppb	97
72)	1,1,2,2-Tetrachloroethane	11.19	83	73373	9.18301	ppb	99
73)	1,2,3-Trichloropropane	11.23	110	21535	9.49610	ppb	91
74)	t-1,4-Dichloro-2-Butene	11.25	53	15144	9.97836	ppb	95
75)	Bromobenzene	11.19	156	89995	9.48078	ppb	98
76)	n-Propylbenzene	11.32	91	363226	9.79728	ppb	99
77)	4-Ethyltoluene	11.43	105	313892	9.85902	ppb	98
78)	2-Chlorotoluene	11.39	91	254998	9.64544	ppb	99
79)	1,3,5-Trimethylbenzene	11.50	105	263962	10.00144	ppb	100
80)	4-Chlorotoluene	11.50	91	258569	9.88101	ppb	100
81)	Tert-Butylbenzene	11.82	119	231316	9.56718	ppb	98
82)	1,2,4-Trimethylbenzene	11.86	105	269333	9.86200	ppb	99
83)	Sec-Butylbenzene	12.04	105	316488	9.80462	ppb	99
84)	p-Isopropyltoluene	12.19	119	266591	9.77446	ppb	99
85)	Benzyl Chloride	12.35	91	52811	6.47962	ppb	100
86)	1,3-DCB	12.13	146	171365	9.54592	ppb	99
87)	1,4-DCB	12.22	146	173724	9.24038	ppb	98
88)	n-Butylbenzene	12.59	91	227452	9.30400	ppb	99
89)	1,2-DCB	12.59	146	164890	9.47686	ppb	97
90)	Hexachloroethane	12.86	117	44069	8.81878	ppb	96
91)	1,2-Dibromo-3-chloropropan	13.35	157	15783	10.54375	ppb	90
92)	1,2,4-Trichlorobenzene	14.20	180	76888	9.64054	ppb	96
93)	Hexachlorobutadiene	14.38	223	29896	8.97326	ppb	94
94)	Naphthalene	14.43	128	224347	10.07414	ppb	99
95)	1,2,3-Trichlorobenzene	14.68	180	110057	9.68516	ppb	98

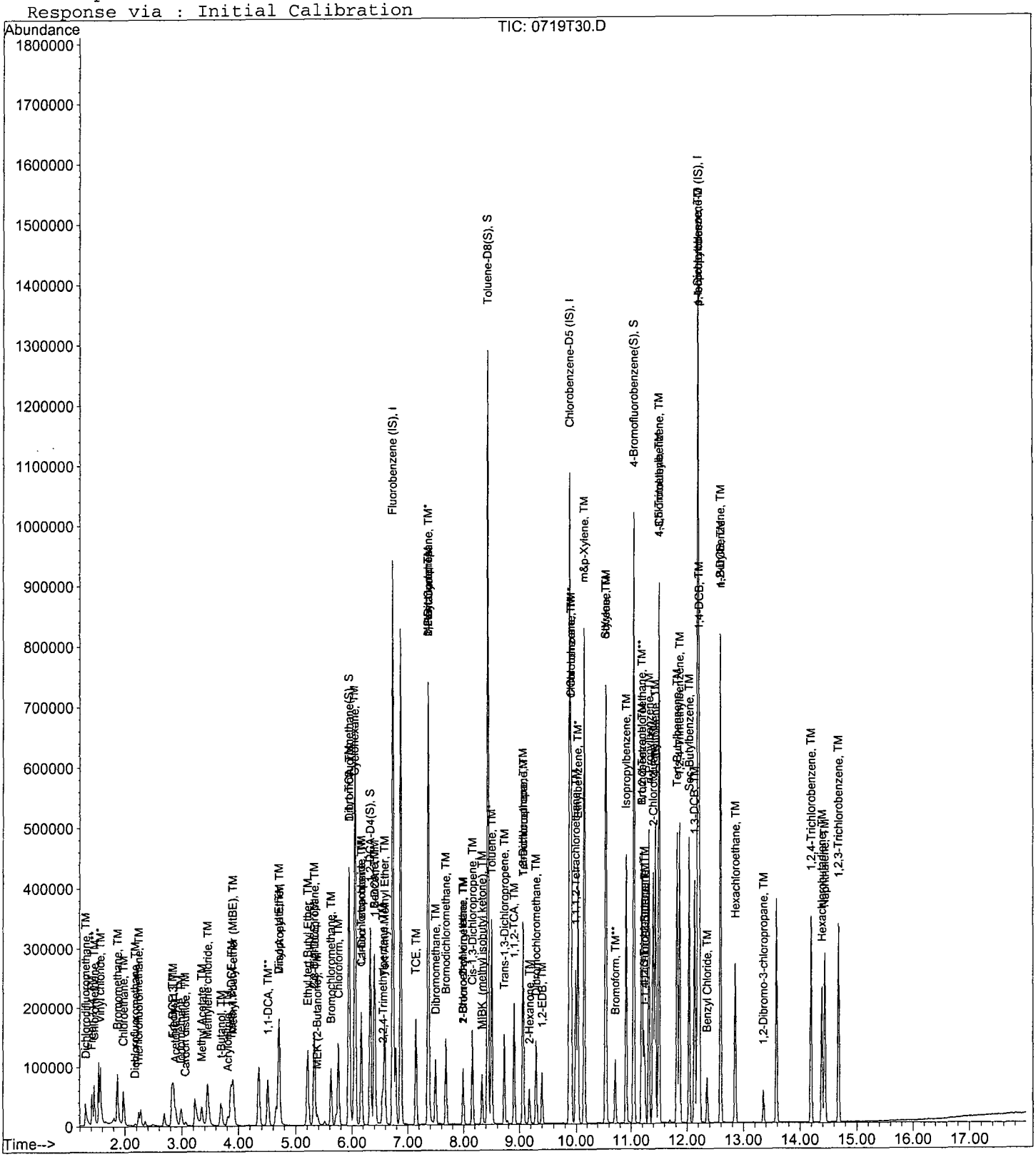
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T120719\0719T30.D Vial: 30
Acq On : 19 Jul 12 22:35 Operator: DG,RS,HW,ARS,SV
Sample : 10ug/L Vol Std 07-19-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 10:45 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 68248
Case No: Initial Cal. Date: 07/24/12
Matrix: Water Instrument: Thor (TGAS.M) Initials:

0724T03.D 0724T04.D 0724T05.D 0724T06.D 0724T07.D

		Compound	20	100	300	600	800						Avg	%RSD		r2
1	I	Fluorobenzene (IS)														
2	TMHBL	Gasoline	10.3	2.788	1.606	1.383	1.350						3.5	111	TMHBL	0.998
3	I	Chlorobenzene-D5 (IS)														
4	I	1,4-Dichlorobenzene-D (IS)														
5																
6																
7																
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10																
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35																

ARS 7/26/12

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T120724\0724T02.D Vial: 1
Acq On : 24 Jul 12 16:33 Operator: DG,RS,HW,ARS,SV
Sample : VOC MIX MARKER Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 26 14:33 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.73	96	407680	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.87	117	339456	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	197888	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.95	111	1481	0.23214 ppb		0.00
Spiked Amount 31.881			Recovery = 0.728%			
36) 1,2-DCA-D4(S)	6.33	65	1574	0.26548 ppb		0.00
Spiked Amount 33.647			Recovery = 0.788%			
56) Toluene-D8(S)	8.43	98	6919	0.34477 ppb		0.00
Spiked Amount 37.345			Recovery = 0.924%			
64) 4-Bromofluorobenzene(S)	11.05	95	5962	0.62820 ppb		0.00
Spiked Amount 29.515			Recovery = 2.128%			
Target Compounds						Qvalue
4) Chloromethane	1.46	50	229	-0.37974 ppb	#	41
11) Acetone	2.90	43	2395	0.55562 ppb		95
15) Methyl Acetate	3.52	43	268342	76.75986 ppb	#	52
18) Methylene chloride	3.45	84	1624	0.14816 ppb		91
19) Carbon disulfide	3.06	76	110	-0.62303 ppb	#	65
23) 1,1-DCA	4.34	63	1127	0.13700 ppb	#	1
26) MEK (2-Butanone)	5.39	43	833	0.74323 ppb	#	46
34) 1,1-Dichloropropene	6.05	75	22909	5.13197 ppb	#	51
35) 2,2,4-Trimethylpentane	6.54	57	1049	0.16350 ppb	#	80
37) Carbon Tetrachloride	6.05	117	32481	5.63800 ppb	#	13
38) Tert Amyl Methyl Ether	6.73	73	8906	0.77111 ppb	#	32
39) 1,2-DCA	6.40	62	7694	1.14847 ppb	#	74
40) Benzene	6.40	78	959236	52.42403 ppb		98
42) 2-Pentanone	7.37	43	6145	1.56832 ppb		94
45) Methyl Cyclohexane	7.35	83	427	0.12025 ppb		95
48) MIBK (methyl isobutyl ket	8.33	43	603	0.21399 ppb	#	78
51) Toluene	8.50	91	1012976	46.92157 ppb		99
54) 2-Hexanone	9.18	43	883	0.27326 ppb	#	73
58) Tetrachloroethene	9.05	166	610	0.10600 ppb	#	77
59) 1-Chlorohexane	10.03	91	1126802	164.49710 ppb	#	17
61) m&p-Xylene	10.14	106	893103	85.15353 ppb		97
62) o-Xylene	10.54	106	438466	40.41314 ppb		98
63) Styrene	10.54	104	24145	1.30979 ppb	#	1
68) Ethylbenzene	10.03	91	1127198	40.84815 ppb		99
71) Isopropylbenzene	10.91	105	2280	0.08812 ppb		91
76) n-Propylbenzene	11.32	91	4055	0.12172 ppb		98
77) 4-Ethyltoluene	11.43	105	3102	0.10843 ppb		95
78) 2-Chlorotoluene	11.50	91	3947	0.16615 ppb		86
79) 1,3,5-Trimethylbenzene	11.50	105	5817	0.24528 ppb		94
80) 4-Chlorotoluene	11.50	91	3947	0.16786 ppb		92
81) Tert-Butylbenzene	11.82	119	2102	0.09675 ppb		85
82) 1,2,4-Trimethylbenzene	11.86	105	937262	38.19280 ppb		99
83) Sec-Butylbenzene	11.86	105	909973	31.37237 ppb	#	55
84) p-Isopropyltoluene	12.19	119	3544	0.14461 ppb		97
86) 1,3-DCB	12.13	146	2384	0.14779 ppb		96
87) 1,4-DCB	12.22	146	2584	0.15296 ppb	#	84
88) n-Butylbenzene	12.59	91	5311	0.24177 ppb		93
89) 1,2-DCB	12.59	146	1944	0.12434 ppb	#	81
92) 1,2,4-Trichlorobenzene	14.19	180	2130	0.29721 ppb	#	87

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

ARS 7/26/12

Data File : M:\THOR\DATA\T120724\0724T02.D Vial: 1
Acq On : 24 Jul 12 16:33 Operator: DG,RS,HW,ARS,SV
Sample : VOC MIX MARKER Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 26 14:33 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
93) Hexachlorobutadiene	14.38	223	1101	0.36776	ppb	#	81
94) Naphthalene	14.43	128	709292	35.44526	ppb		100
95) 1,2,3-Trichlorobenzene	14.68	180	4306	0.42170	ppb		91

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

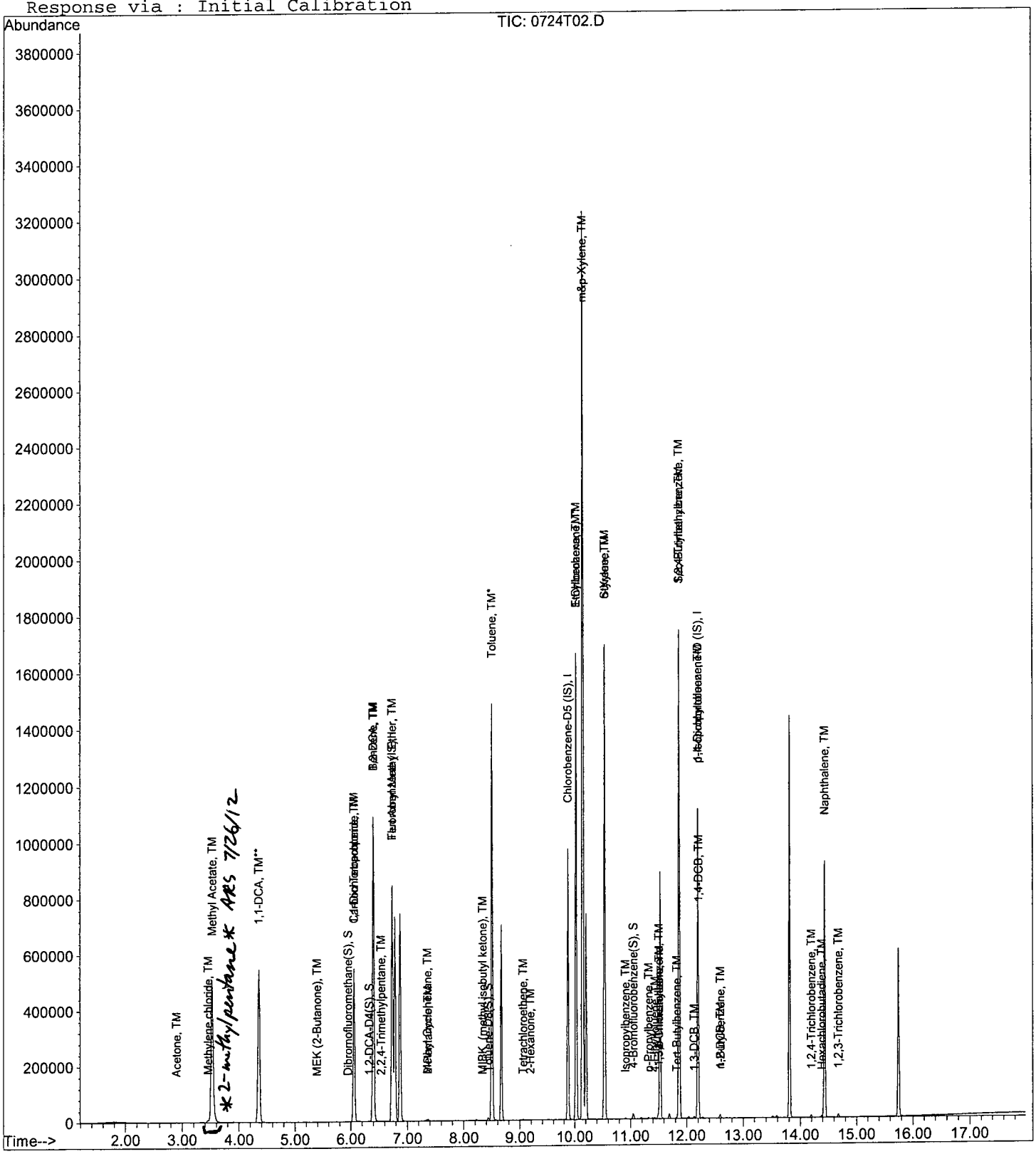
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T02.D
Acq On : 24 Jul 12 16:33
Sample : VOC MIX MARKER
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 1
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 26 14:33 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120724\0724T03.D Vial: 2
Acq On : 24 Jul 12 17:01 Operator: DG,RS,HW,ARS,SV
Sample : 20ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 25 8:10 2012 Quant Results File: TGAS.RES

Quant Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	TIC	501496	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.87	TIC	556350	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.20	TIC	638639	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	9.87	TIC	4150901m	35.99979	ppb	100

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

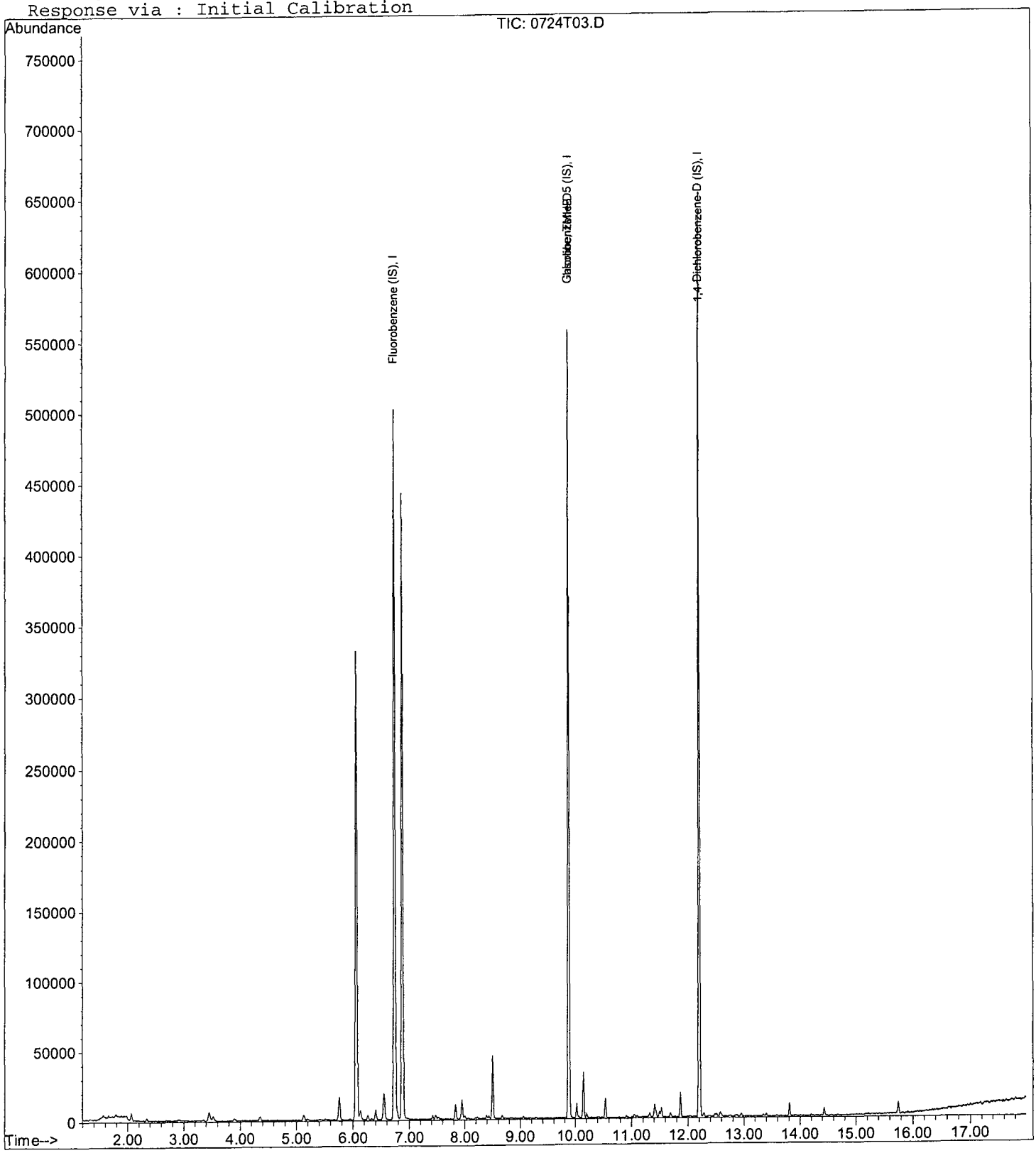
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T03.D
Acq On : 24 Jul 12 17:01
Sample : 20ug/L Vol Std 07-24-12
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 2
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 25 8:10 2012 Quant Results File: TGAS.RES

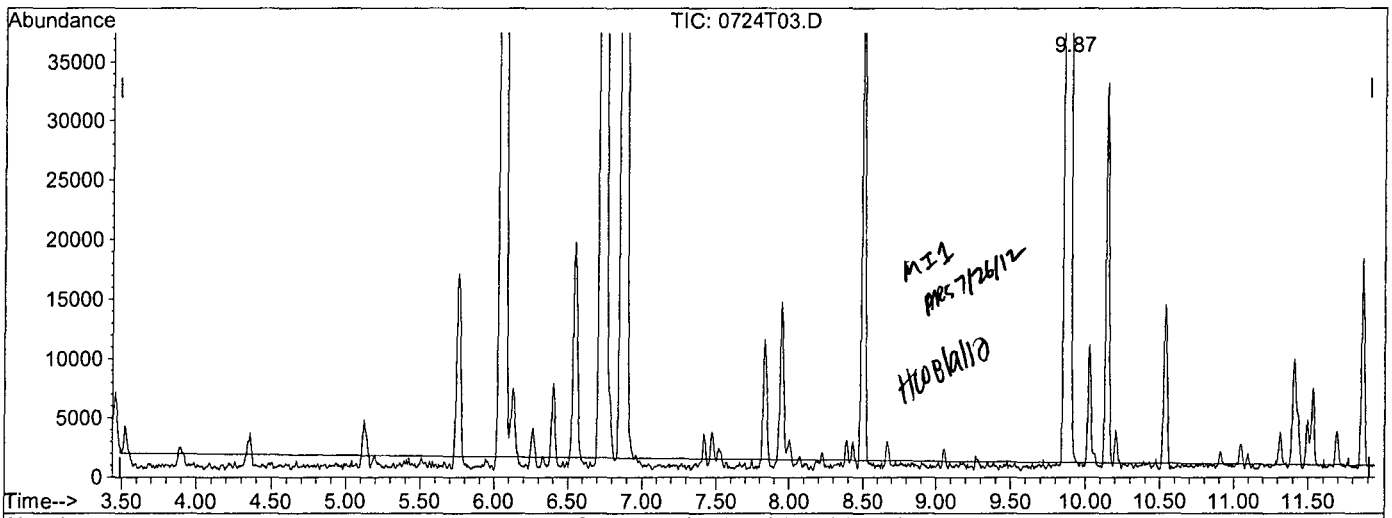
Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration

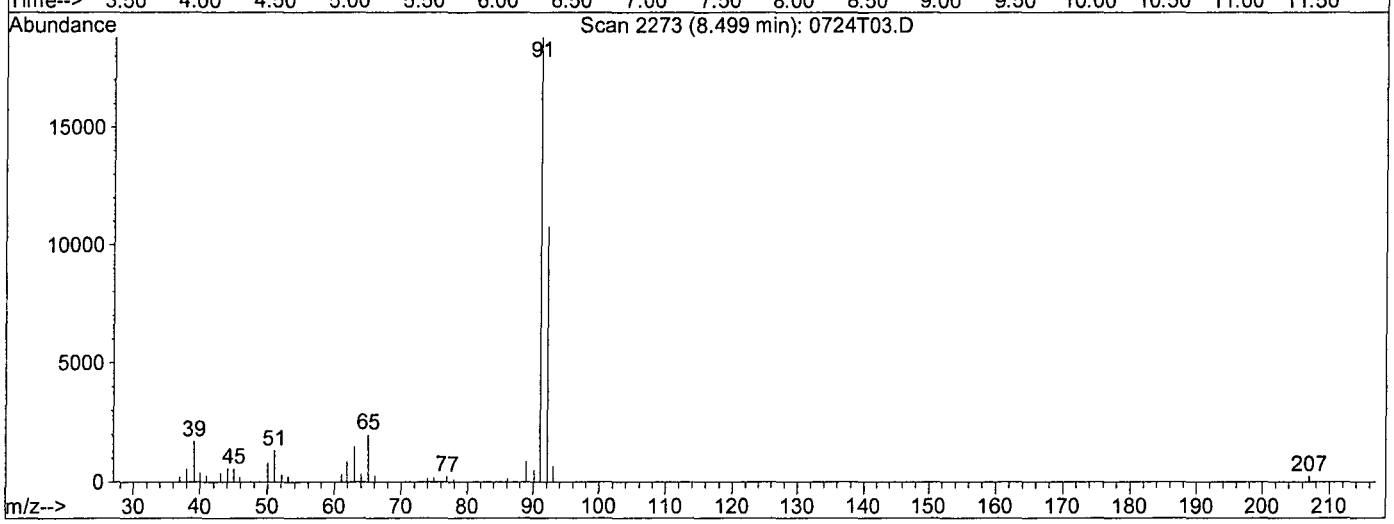


Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T03.D Vial: 2
Acq On : 24 Jul 12 17:01 Operator: DG,RS,HW,ARS,SV
Sample : 20ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 25 8:05 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Single Level Calibration





TIC: 0724T03.D

(2) Gasoline (TMHB)

8.50min -39.7992ppb m

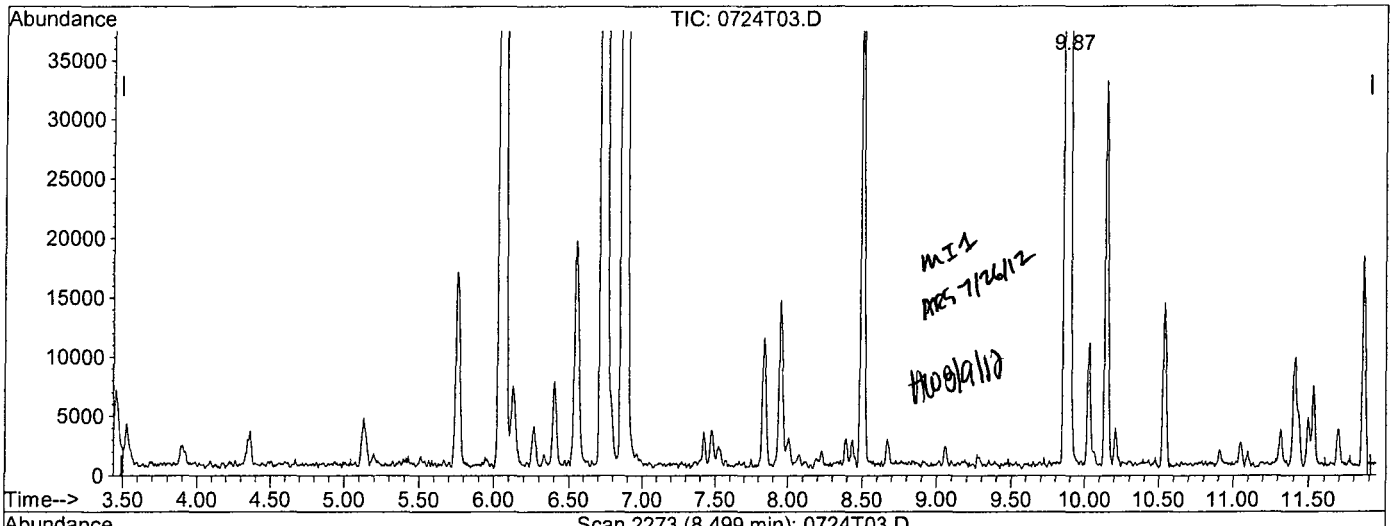
response 2510316

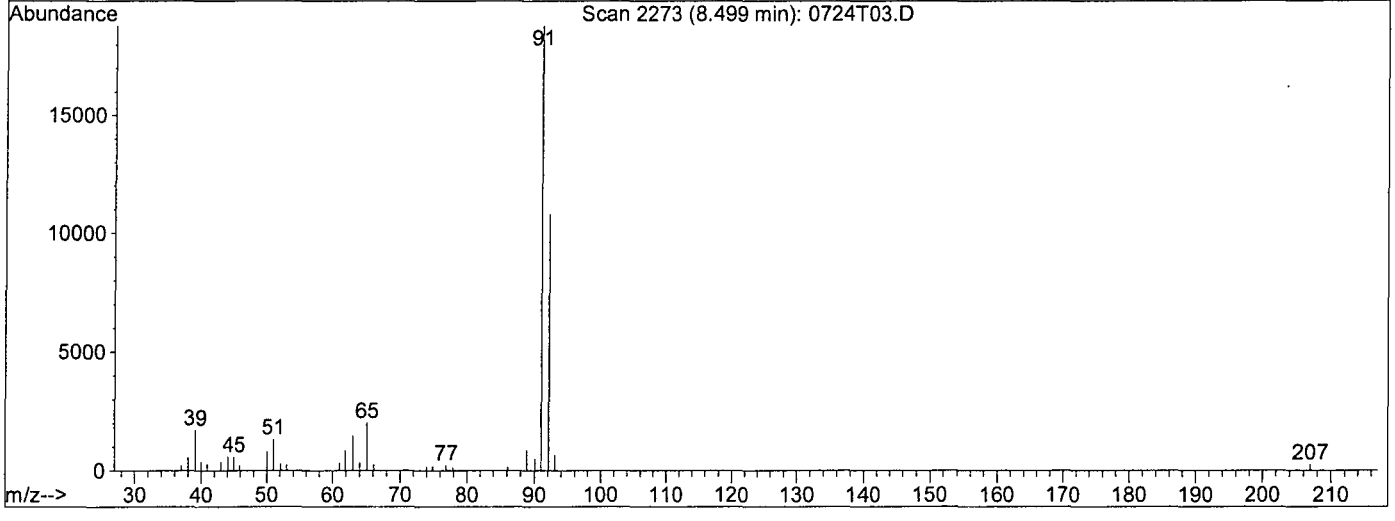
Ion	Exp%	Act%
TIC	100	100
0.00	0.60	2.49#
0.00	1.80	7.14#
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T03.D Vial: 2
Acq On : 24 Jul 12 17:01 Operator: DG,RS,HW,ARS,SV
Sample : 20ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 25 8:10 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Single Level Calibration





TIC: 0724T03.D

(2) Gasoline (TMHB)

9.87min 35.9998ppb m

response 4150901

Ion	Exp%	Act%
TIC	100	100
0.00	0.60	1.50#
0.00	1.80	4.32#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120724\0724T04.D Vial: 3
Acq On : 24 Jul 12 17:29 Operator: DG,RS,HW,ARS,SV
Sample : 100ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 25 8:08 2012 Quant Results File: TGAS.RES

Quant Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	TIC	546001	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.87	TIC	600883	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.20	TIC	672310	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	9.87	TIC	6089943m	102.65354	ppb	100

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

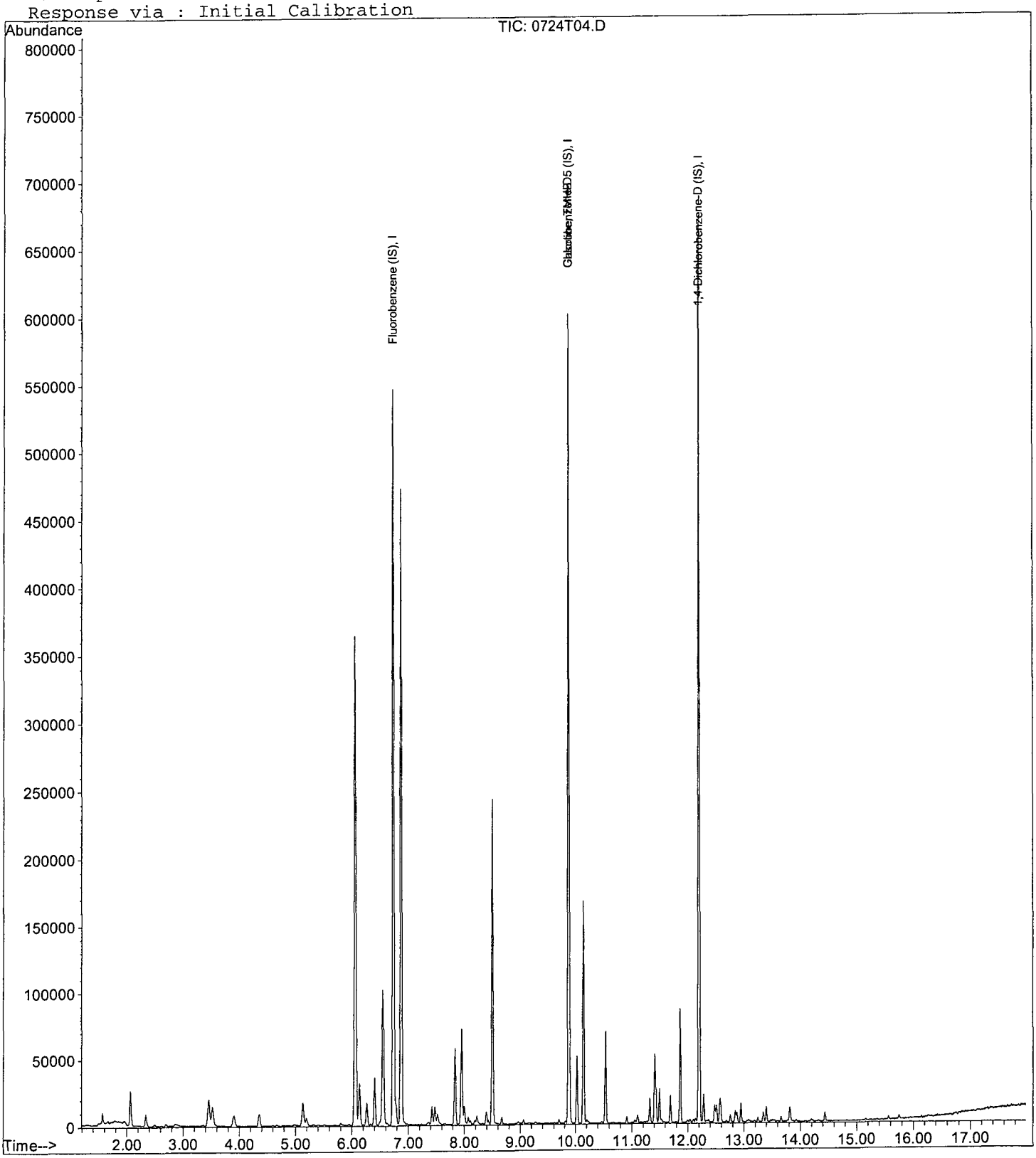
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T04.D
Acq On : 24 Jul 12 17:29
Sample : 100ug/L Vol Std 07-24-12
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 3
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 25 8:08 2012 Quant Results File: TGAS.RES

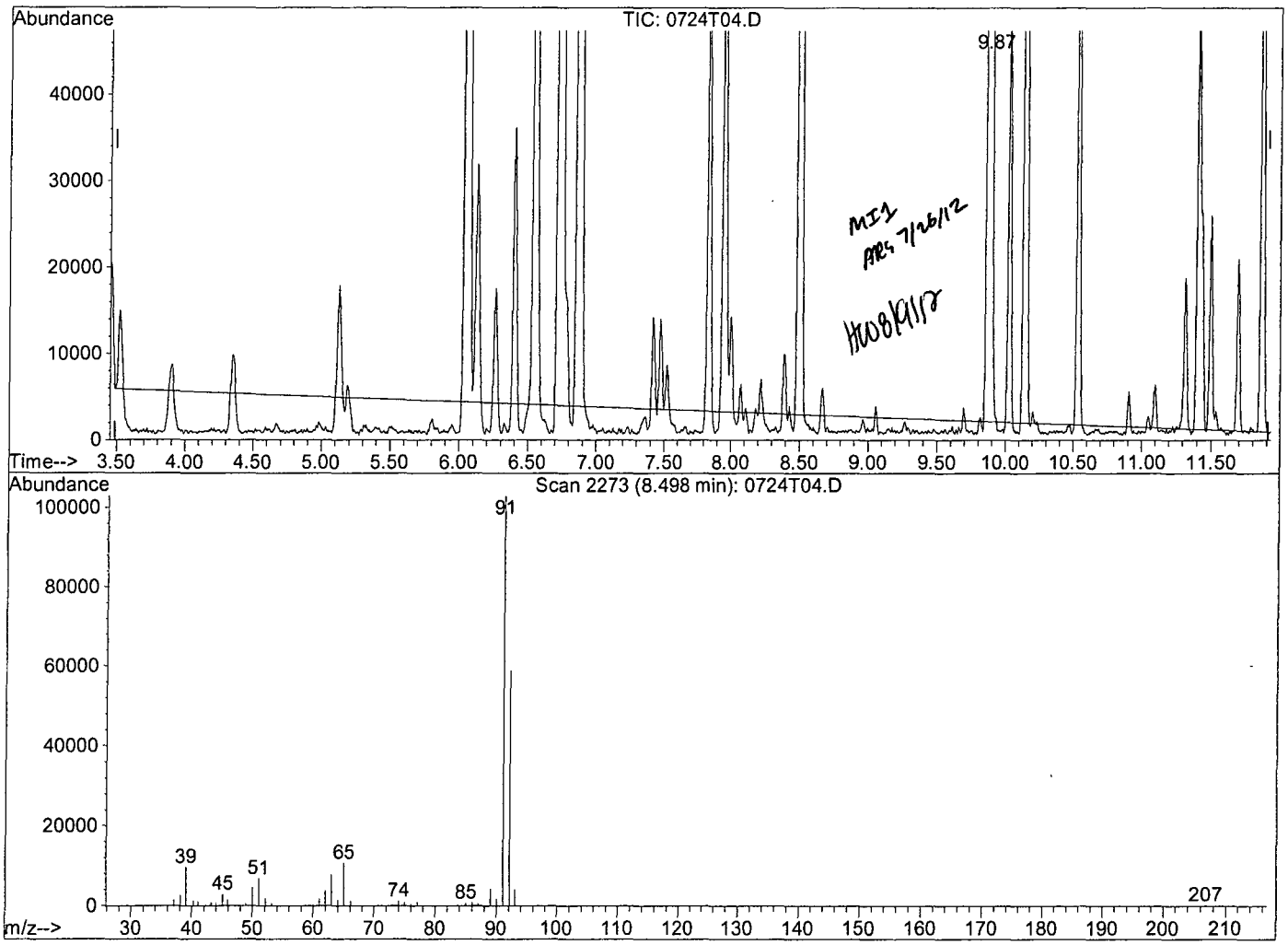
Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration



Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T04.D Vial: 3
Acq On : 24 Jul 12 17:29 Operator: DG,RS,HW,ARS,SV
Sample : 100ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 25 8:05 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Single Level Calibration



TIC: 0724T04.D

(2) Gasoline (TMHB)

8.50min 30.2598ppb m

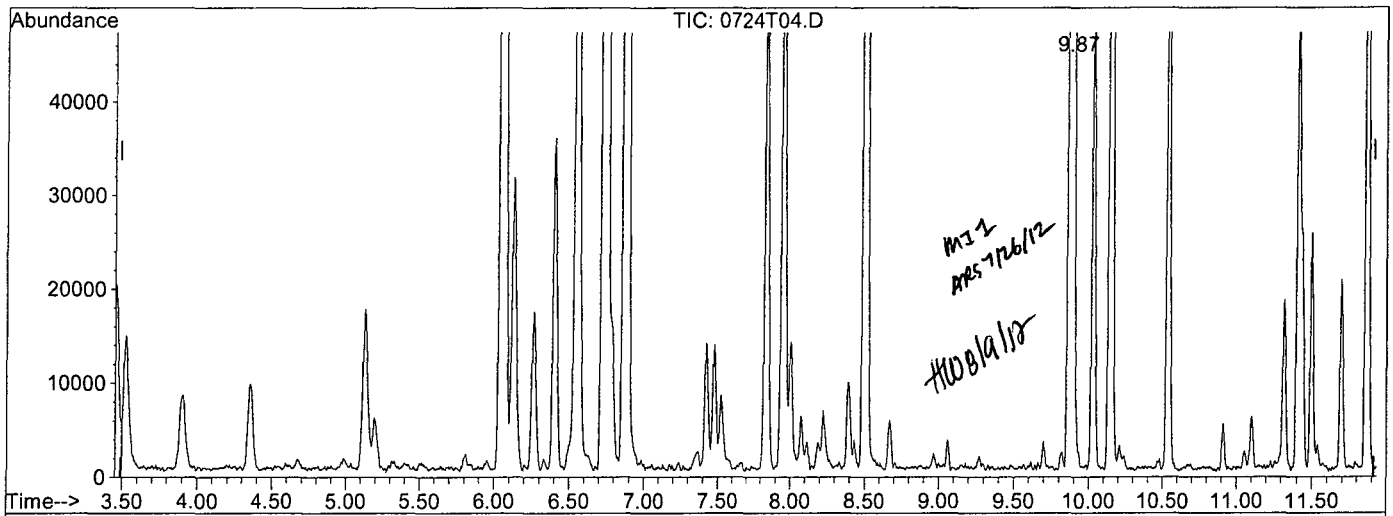
response 4384009

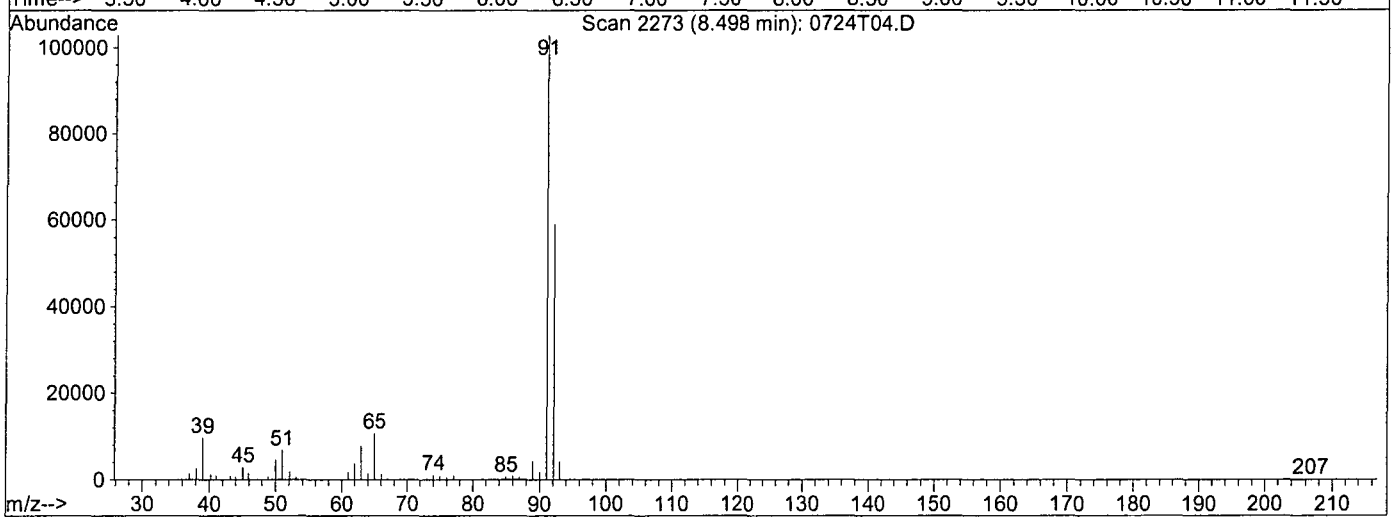
Ion	Exp%	Act%
TIC	100	100
0.00	0.60	1.47#
0.00	1.80	4.27#
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T04.D Vial: 3
Acq On : 24 Jul 12 17:29 Operator: DG,RS,HW,ARS,SV
Sample : 100ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 25 8:08 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Single Level Calibration





TIC: 0724T04.D

(2) Gasoline (TMHB)

9.87min 102.6535ppb m

response 6089943

Ion	Exp%	Act%
TIC	100	100
0.00	0.60	1.06#
0.00	1.80	3.07#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120724\0724T05.D Vial: 4
Acq On : 24 Jul 12 17:57 Operator: DG,RS,HW,ARS,SV
Sample : 300ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 25 8:03 2012 Quant Results File: TGAS.RES

Quant Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	TIC	608785	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.87	TIC	680507	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.20	TIC	762779	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	8.50	TIC	11731974m	288.59877	ppb	100

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

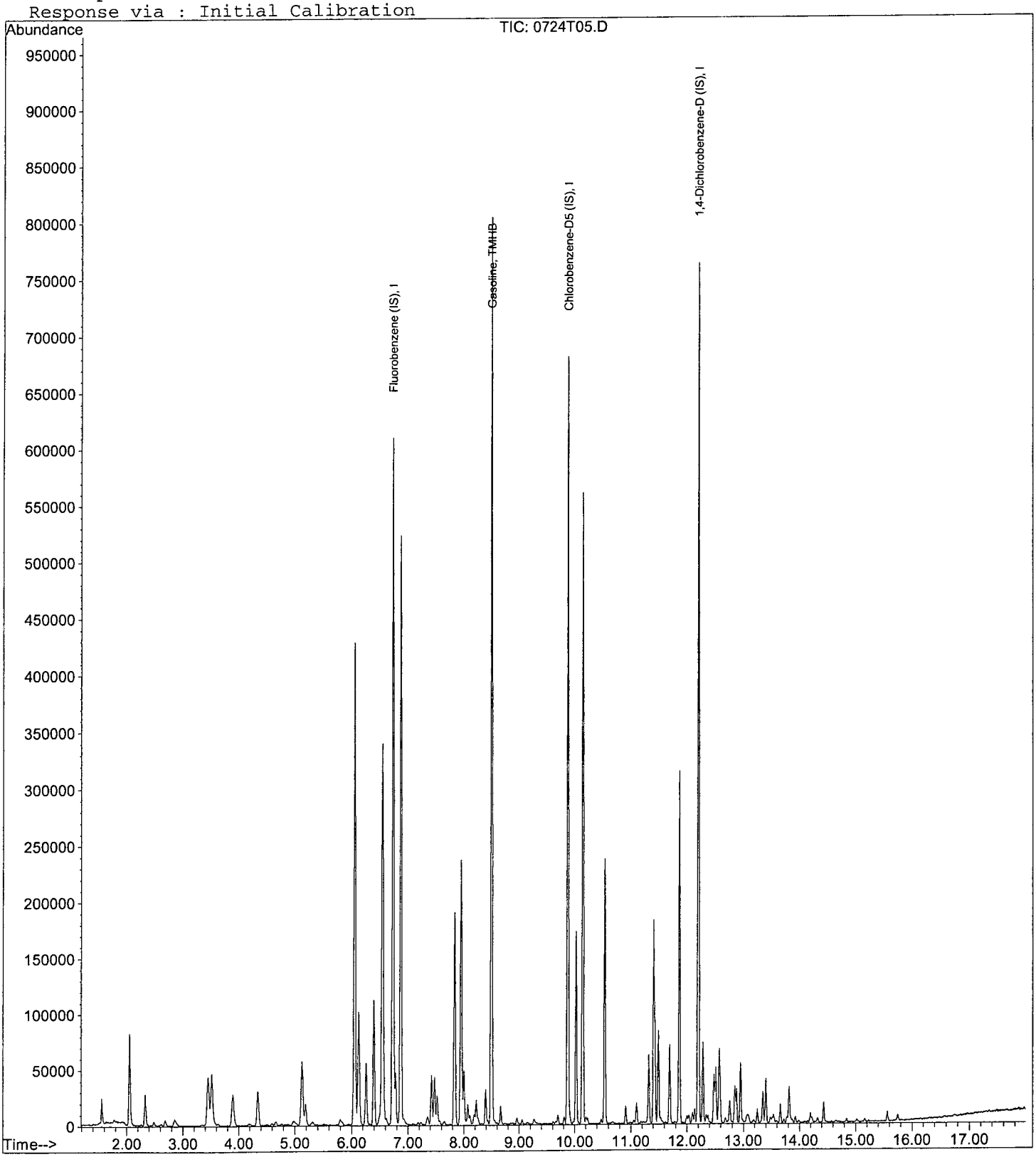
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T05.D
Acq On : 24 Jul 12 17:57
Sample : 300ug/L Vol Std 07-24-12
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 4
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 25 8:03 2012 Quant Results File: TGAS.RES

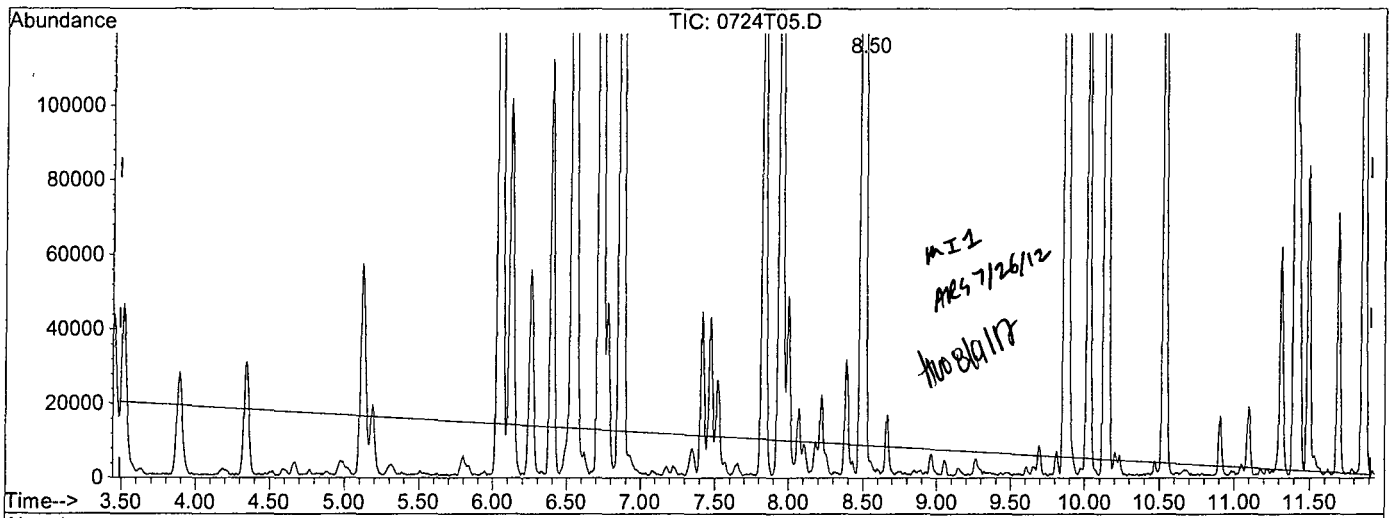
Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration



Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T05.D Vial: 4
Acq On : 24 Jul 12 17:57 Operator: DG,RS,HW,ARS,SV
Sample : 300ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 25 8:03 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Single Level Calibration



TIC: 0724T05.D

(2) Gasoline (TMHB)

8.50min 214.5236ppb m

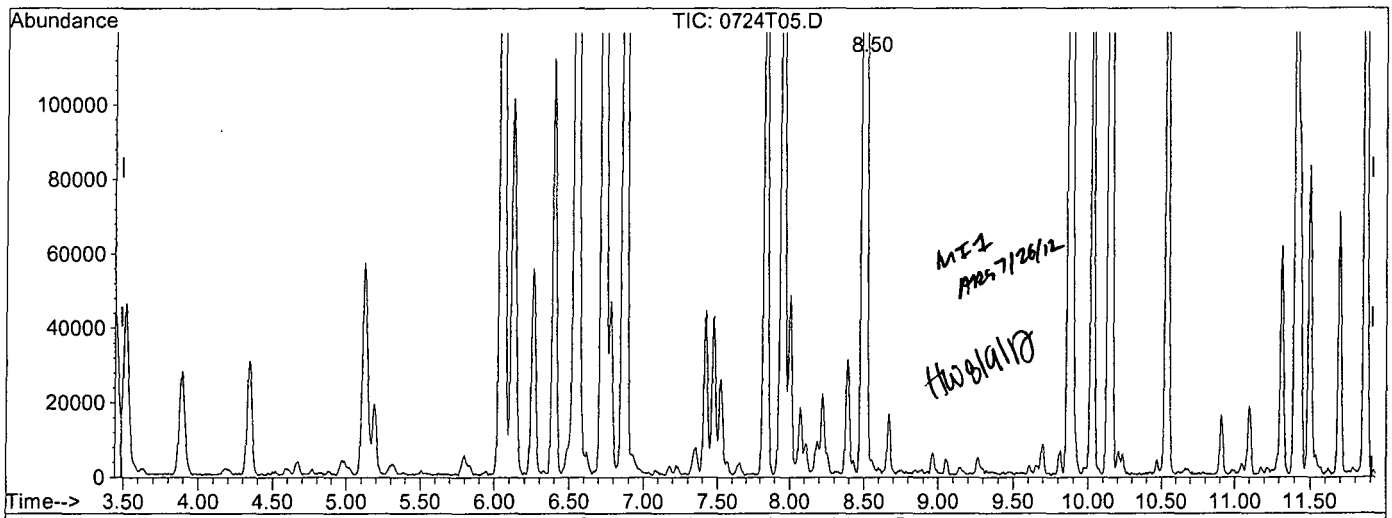
response 9788840

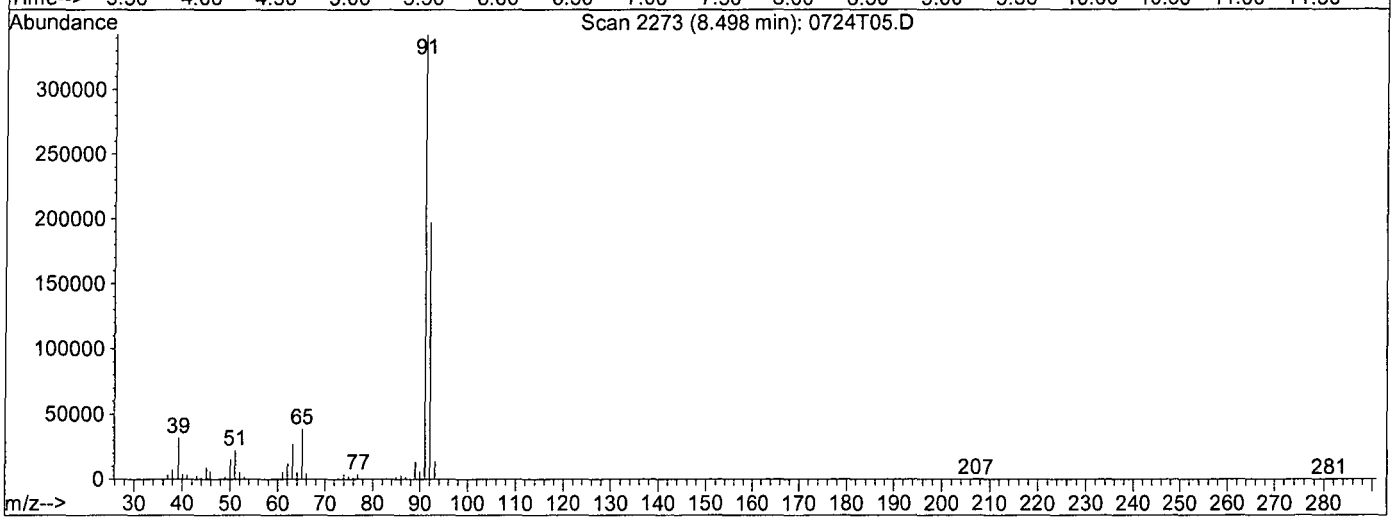
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.73#
0.00	0.00	2.20#
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T05.D Vial: 4
Acq On : 24 Jul 12 17:57 Operator: DG,RS,HW,ARS,SV
Sample : 300ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 25 8:03 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Single Level Calibration





TIC: 0724T05.D

(2) Gasoline (TMHB)

8.50min 288.5988ppb m

response 11731974

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.61#
0.00	0.00	1.83#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120724\0724T06.D Vial: 5
Acq On : 24 Jul 12 18:24 Operator: DG,RS,HW,ARS,SV
Sample : 600ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 25 8:07 2012 Quant Results File: TGAS.RES

Quant Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	TIC	769988	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.87	TIC	871478	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.20	TIC	990742	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	8.50	TIC	25555181m	613.21989	ppb	100

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

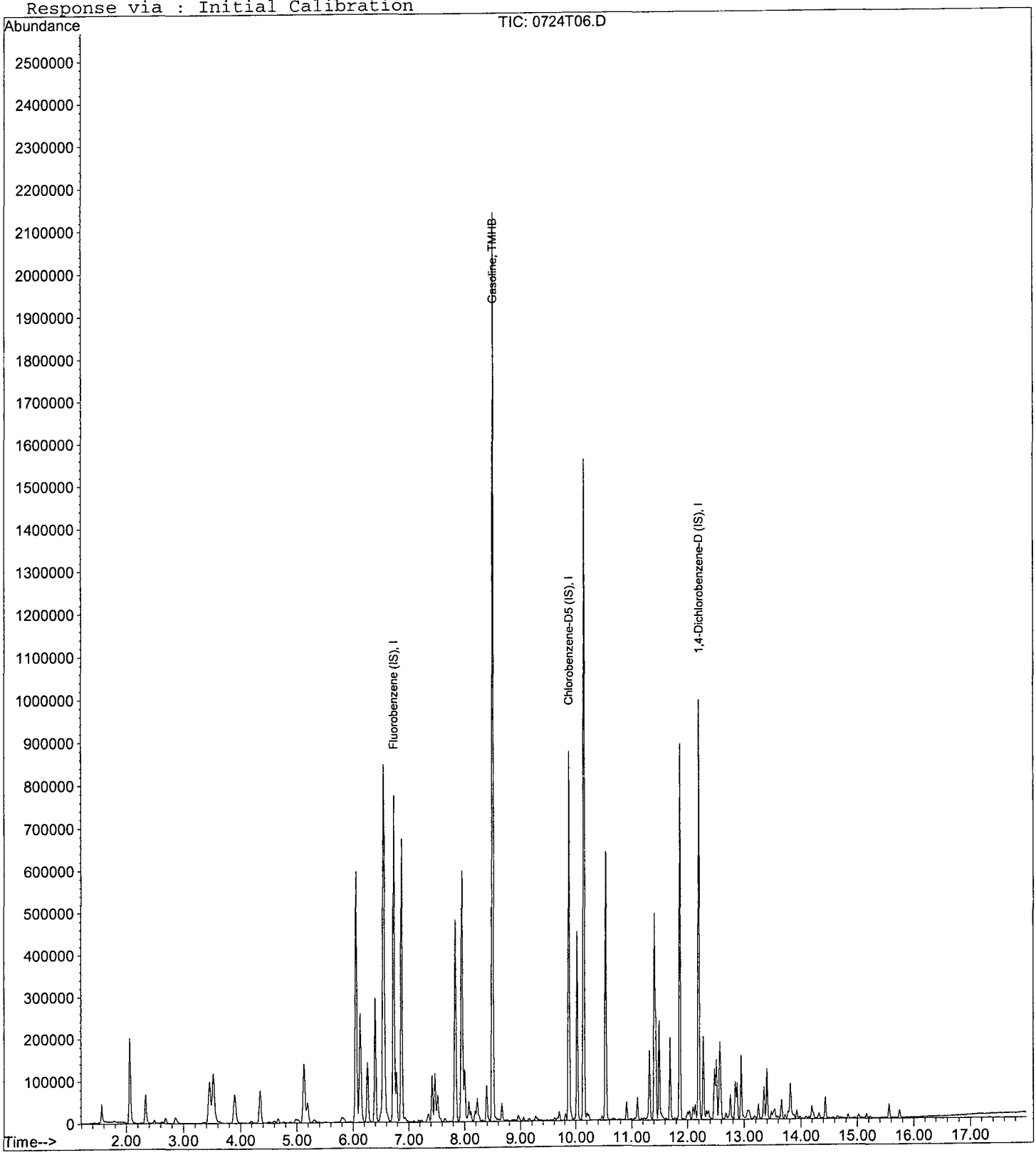
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T06.D
Acq On : 24 Jul 12 18:24
Sample : 600ug/L Vol Std 07-24-12
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 5
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 25 8:07 2012 Quant Results File: TGAS.RES

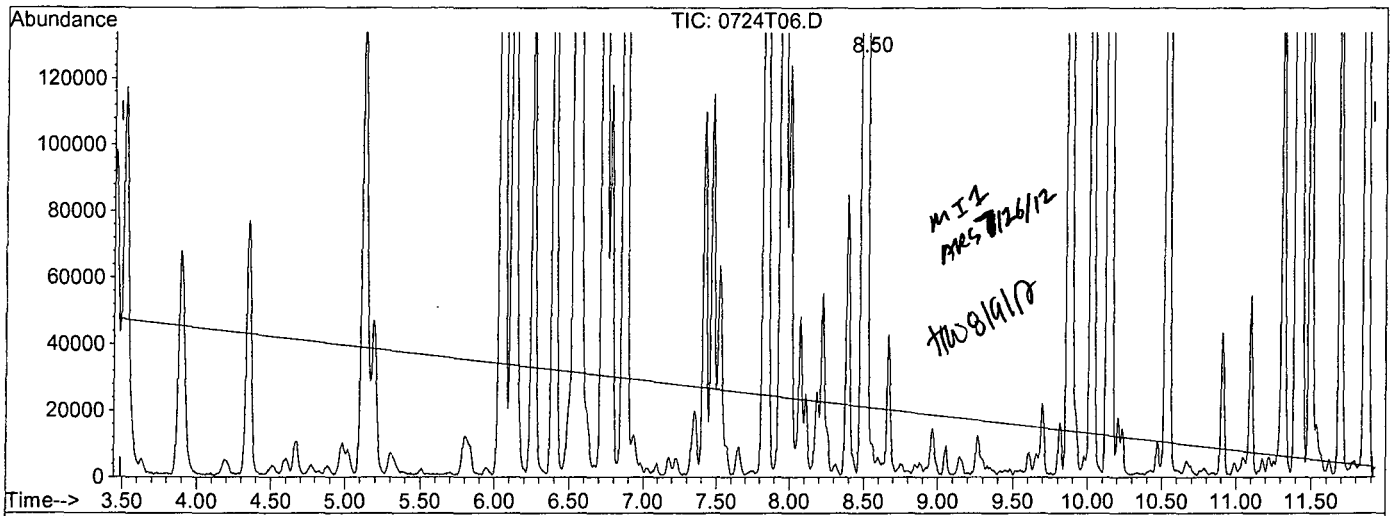
Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration

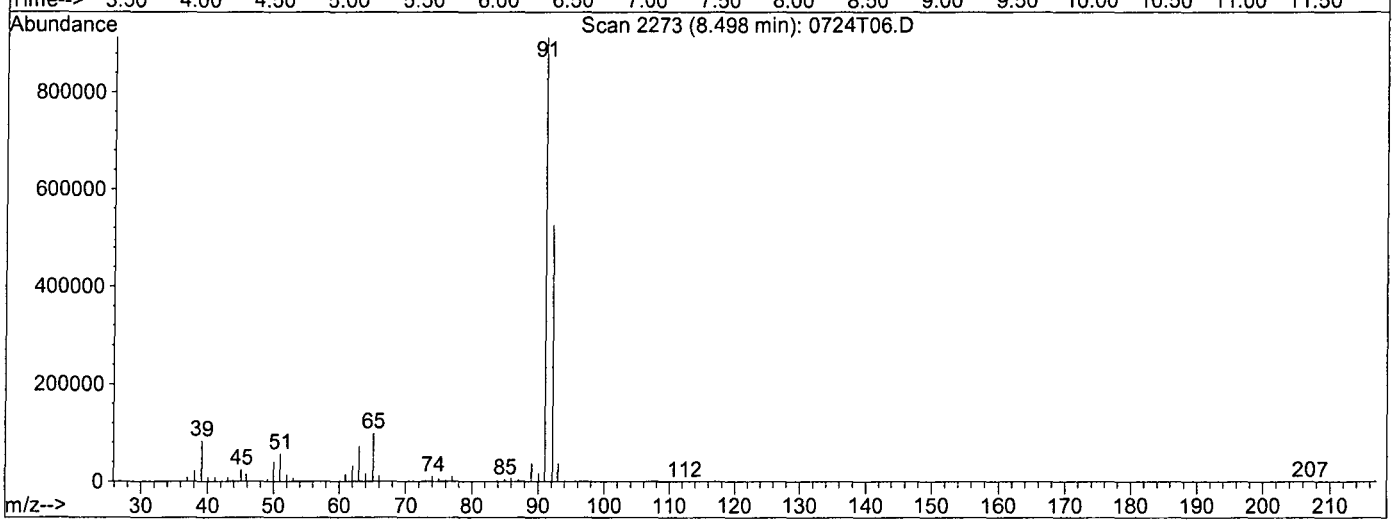


Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T06.D Vial: 5
Acq On : 24 Jul 12 18:24 Operator: DG,RS,HW,ARS,SV
Sample : 600ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 25 8:05 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Single Level Calibration





TIC: 0724T06.D

(2) Gasoline (TMHB)

8.50min 518.4393ppb m

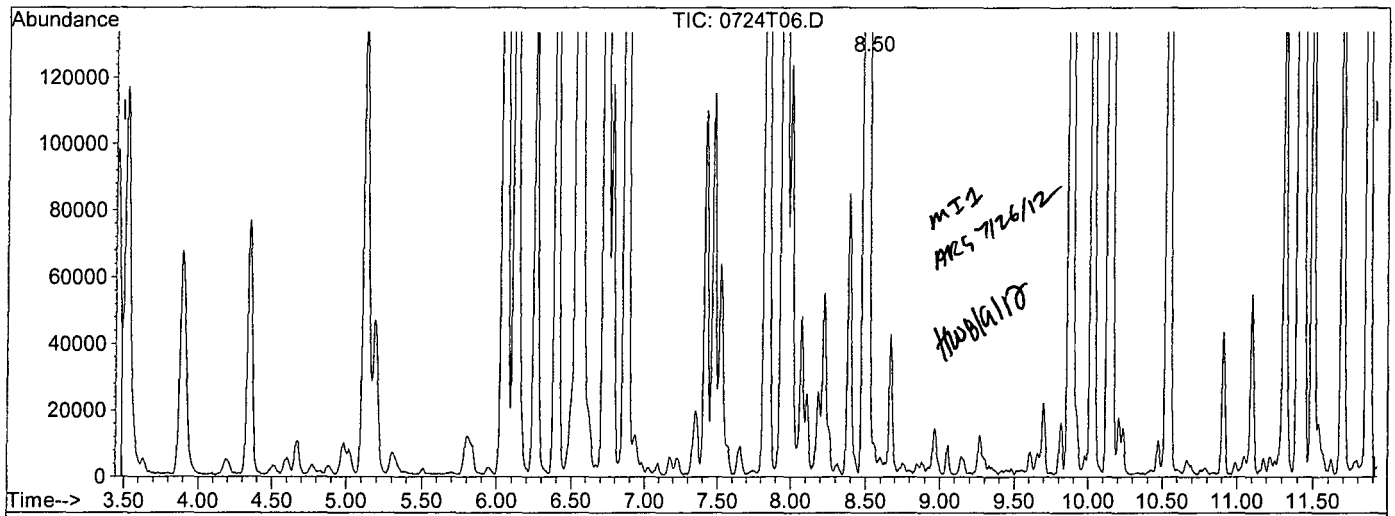
response 22405468

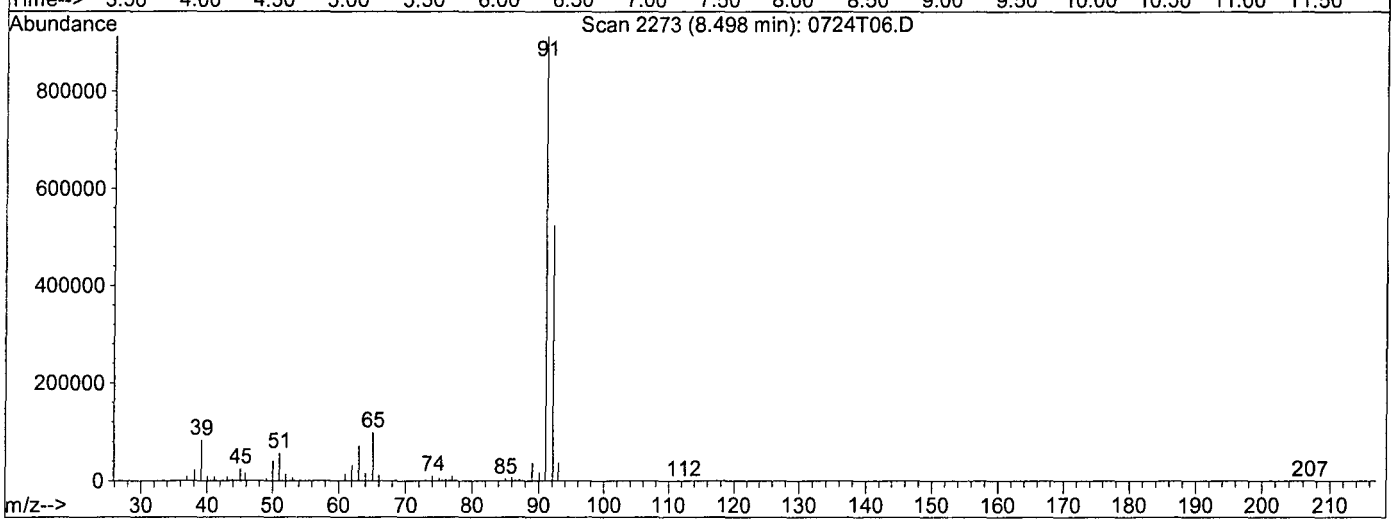
Ion	Exp%	Act%
TIC	100	100
0.00	0.60	0.43#
0.00	1.80	1.23#
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T06.D Vial: 5
Acq On : 24 Jul 12 18:24 Operator: DG,RS,HW,ARS,SV
Sample : 600ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 25 8:07 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Single Level Calibration





TIC: 0724T06.D

(2) Gasoline (TMHB)

8.50min 613.2199ppb m

response 25555181

Ion	Exp%	Act%
TIC	100	100
0.00	0.60	0.38#
0.00	1.80	1.08#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120724\0724T07.D Vial: 6
Acq On : 24 Jul 12 18:52 Operator: DG,RS,HW,ARS,SV
Sample : 800ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 25 8:06 2012 Quant Results File: TGAS.RES

Quant Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	TIC	757783	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.87	TIC	855876	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.20	TIC	963340	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	8.50	TIC	32745899m	845.47245	ppb	100

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

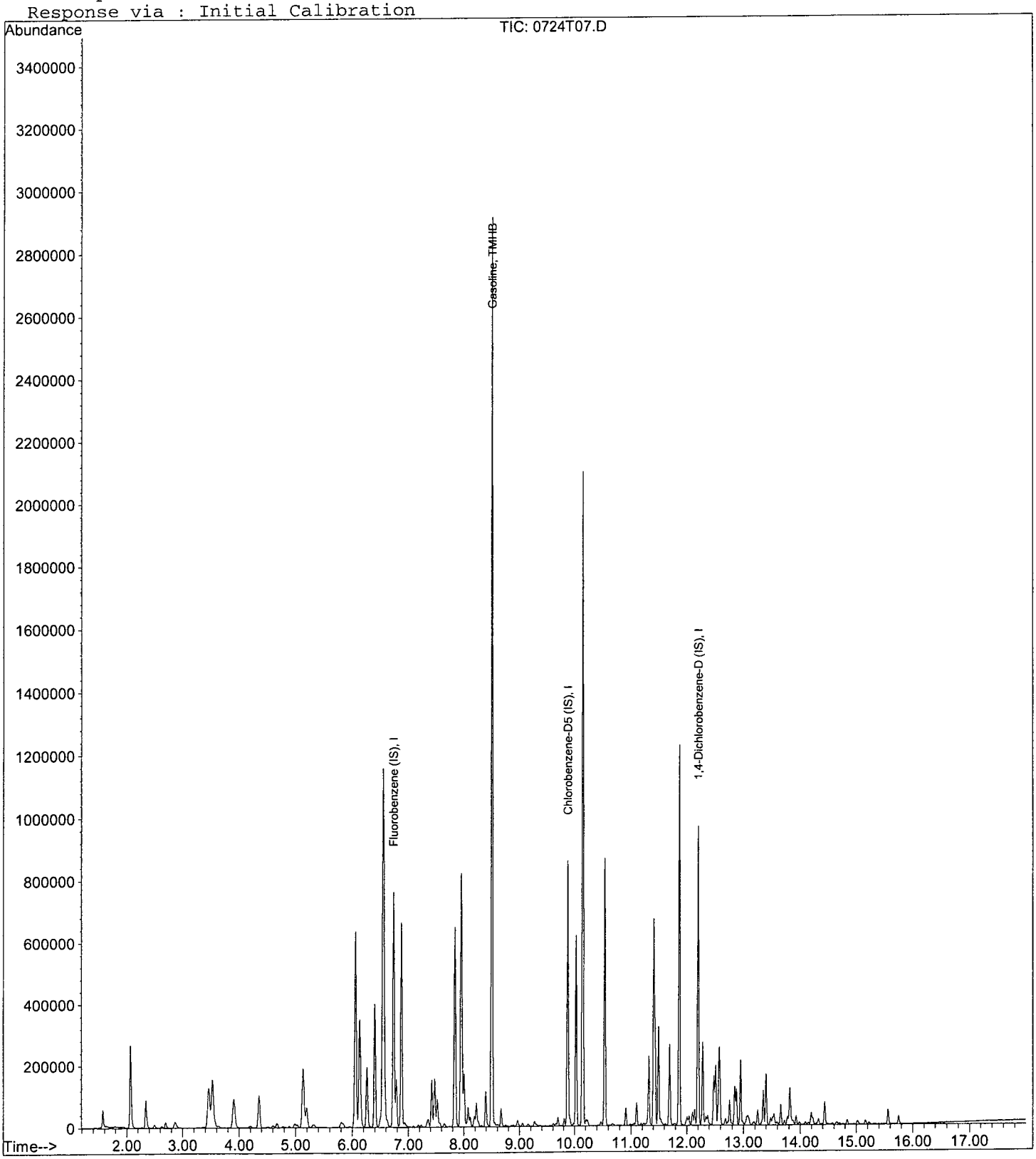
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T07.D
Acq On : 24 Jul 12 18:52
Sample : 800ug/L Vol Std 07-24-12
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 6
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 25 8:06 2012 Quant Results File: TGAS.RES

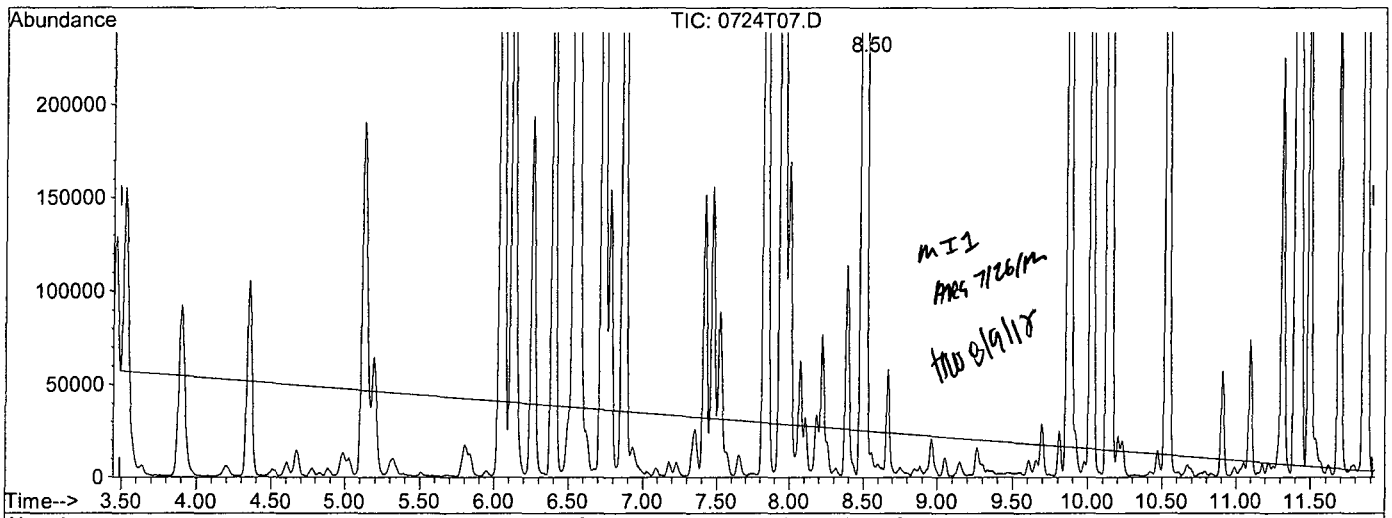
Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration

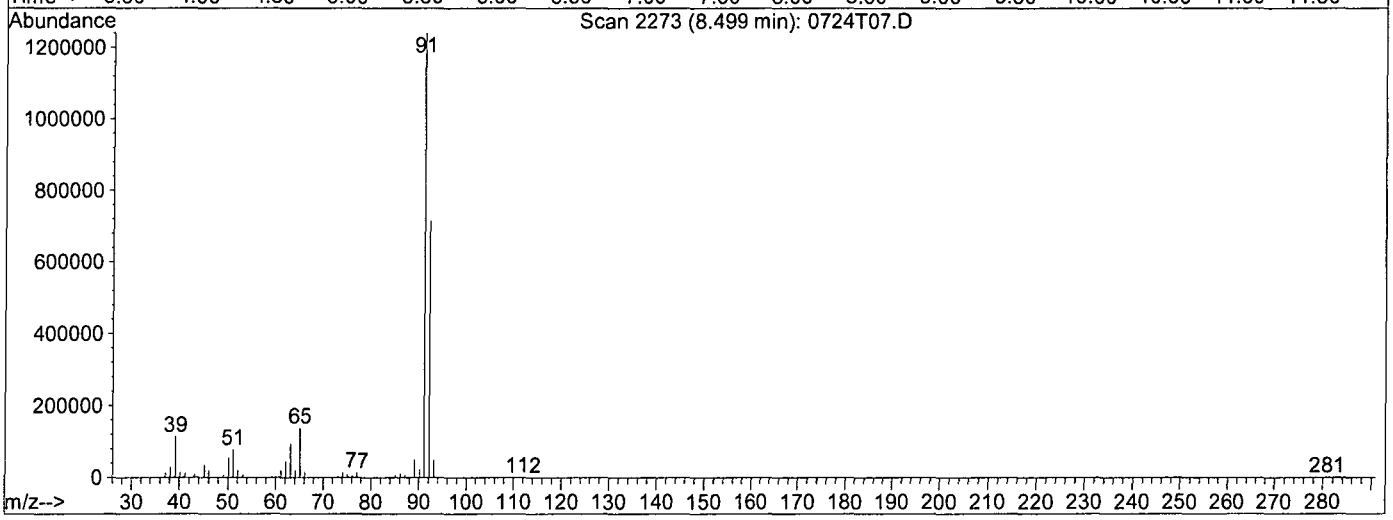


Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T07.D Vial: 6
Acq On : 24 Jul 12 18:52 Operator: DG,RS,HW,ARS,SV
Sample : 800ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 25 8:05 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Single Level Calibration





TIC: 0724T07.D

(2) Gasoline (TMHB)

8.50min 743.4027ppb m

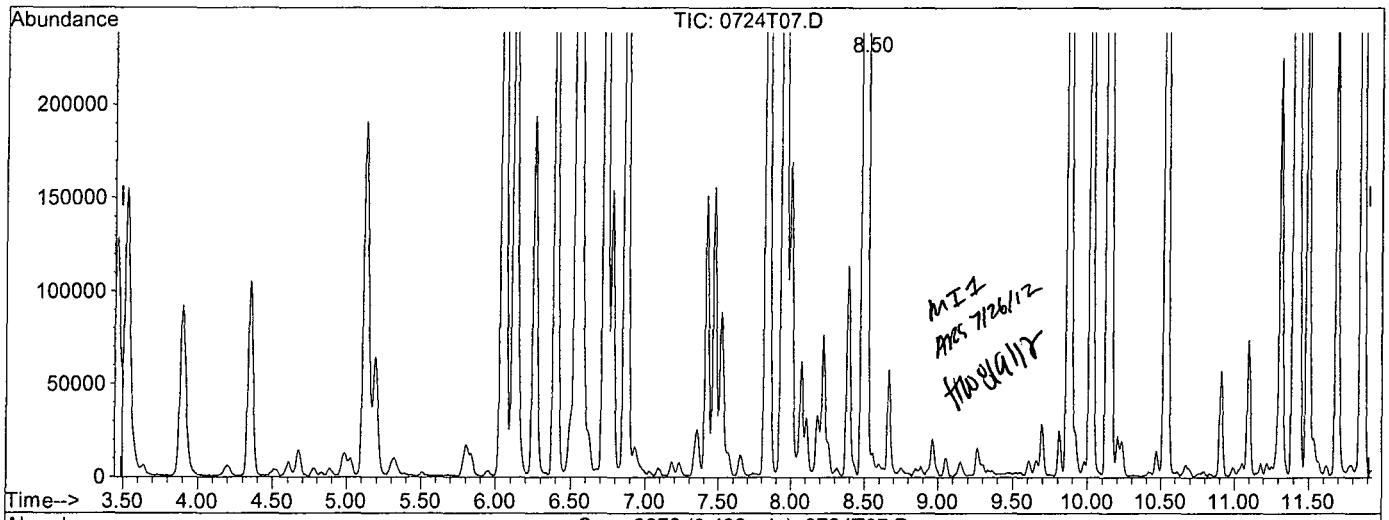
response 29407721

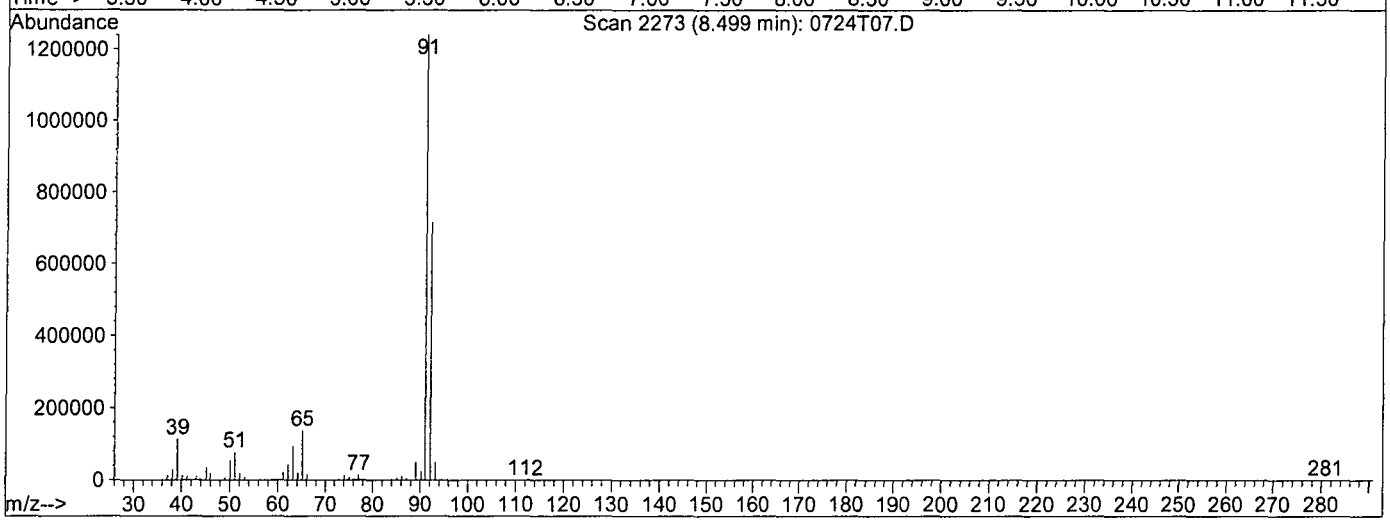
Ion	Exp%	Act%
TIC	100	100
0.00	0.60	0.32#
0.00	1.80	0.91#
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T07.D Vial: 6
Acq On : 24 Jul 12 18:52 Operator: DG,RS,HW,ARS,SV
Sample : 800ug/L Vol Std 07-24-12 Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 25 8:06 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:02:47 2012
Response via : Single Level Calibration





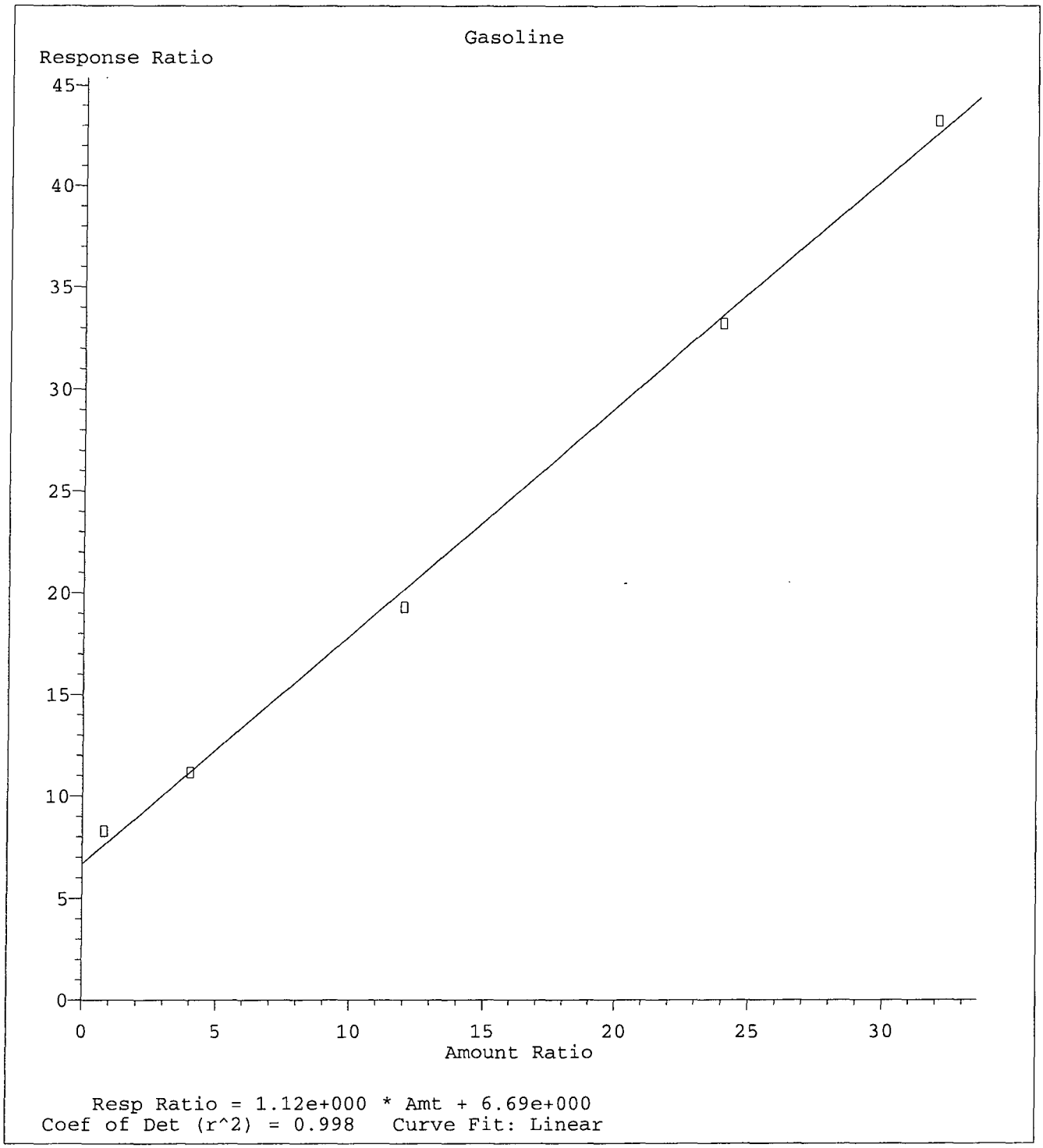
TIC: 0724T07.D

(2) Gasoline (TMHB)

8.50min 845.4724ppb m

response 32745899

Ion	Exp%	Act%
TIC	100	100
0.00	0.60	0.29#
0.00	1.80	0.81#
0.00	0.00	0.00



Method Name: M:\THOR\DATA\T120724\TGAS.M
Calibration Table Last Updated: Wed Jul 25 08:14:32 2012

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: 68248
Date Analyzed: 07/24/12
Instrument: Thor
Initial Cal. Date: 07/24/12
Data File: 0724T10.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TMHB	Gasoline	3.495	2.123	39	TMHBL	40	*
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			39.0			

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120724\0724T10.D Vial: 9
Acq On : 24 Jul 12 20:15 Operator: DG,RS,HW,ARS,SV
Sample : LCS gas 300ug/L (SS) Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 26 14:48 2012 Quant Results File: TGAS.RES

Quant Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	TIC	776734	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.87	TIC	880394	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.20	TIC	1005627	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline	8.50	TIC	19788320m	418.73004	ppb	100

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

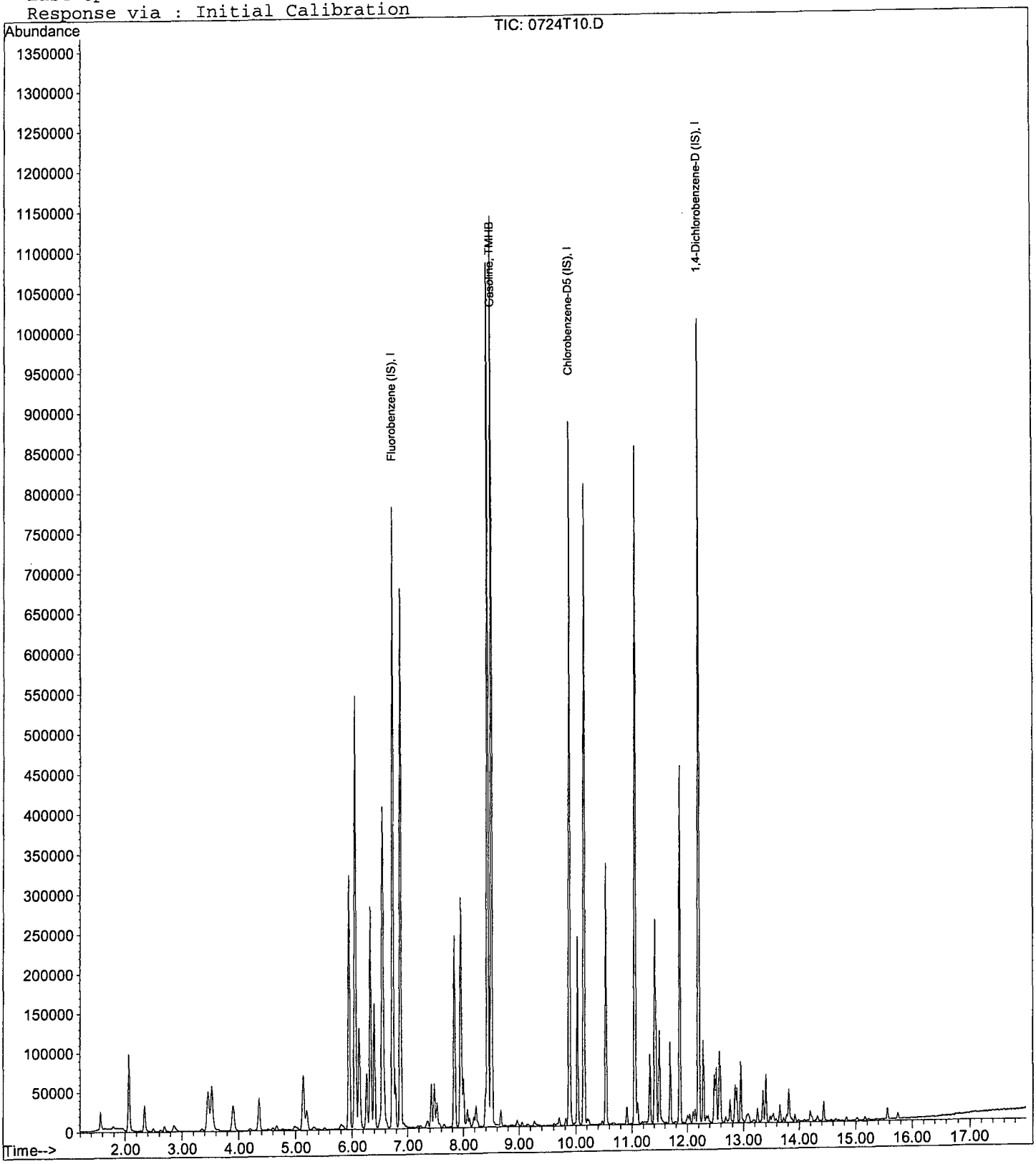
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T10.D
Acq On : 24 Jul 12 20:15
Sample : LCS gas 300ug/L (SS)
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 9
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 26 14:48 2012 Quant Results File: TGAS.RES

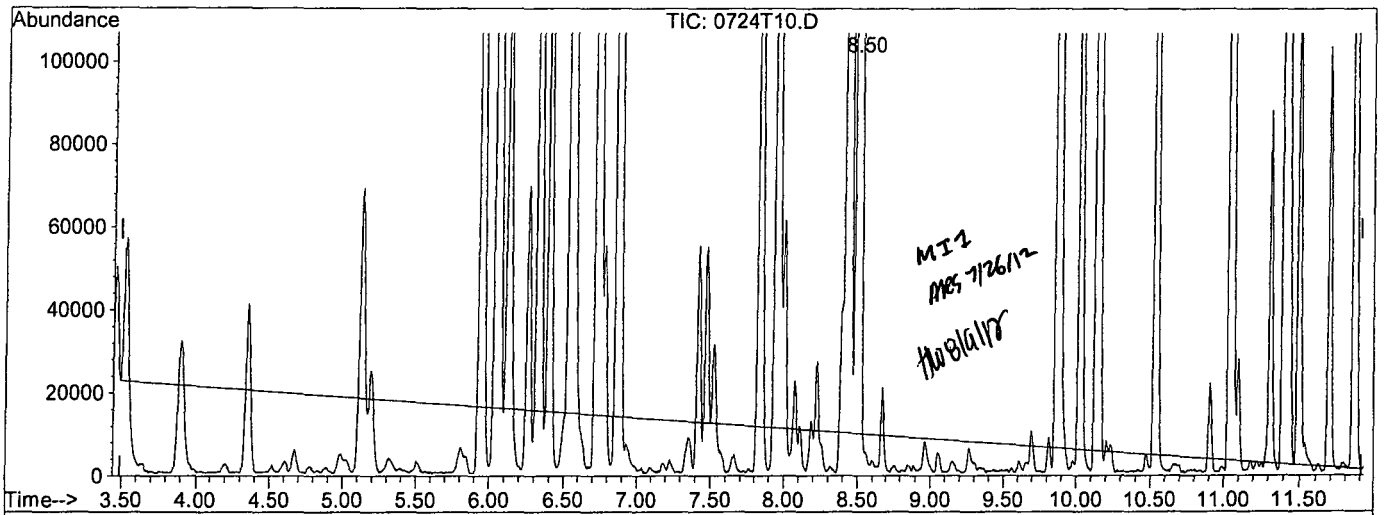
Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration

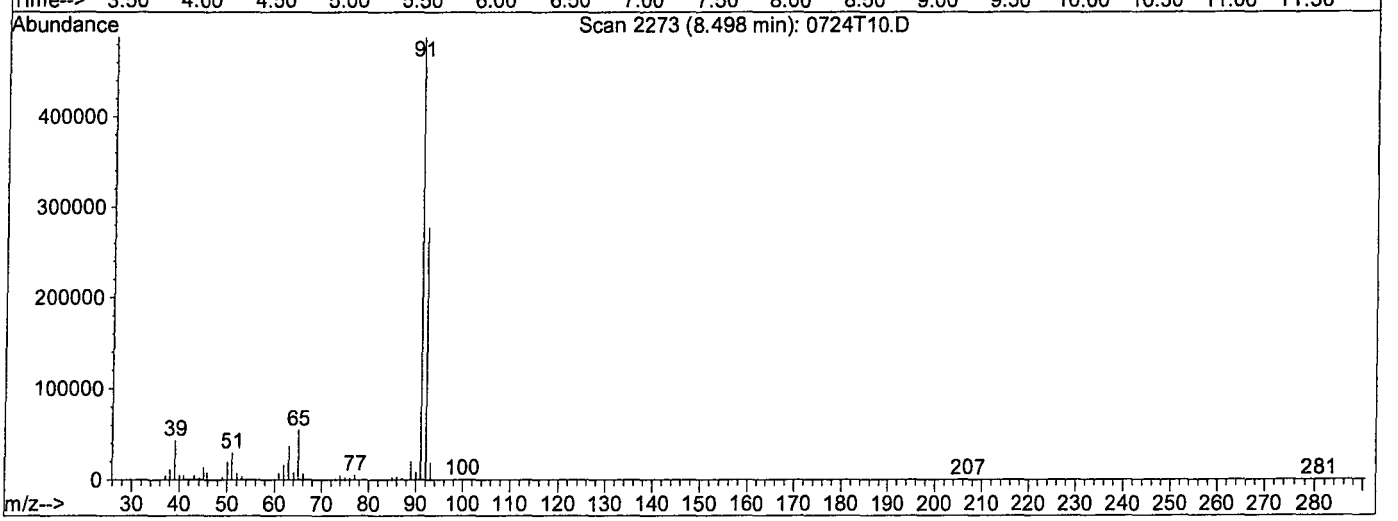


Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T10.D Vial: 9
Acq On : 24 Jul 12 20:15 Operator: DG,RS,HW,ARS,SV
Sample : LCS gas 300ug/L (SS) Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:28 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T10.D

(2) Gasoline (TMHB)

8.50min 344.3603ppb m

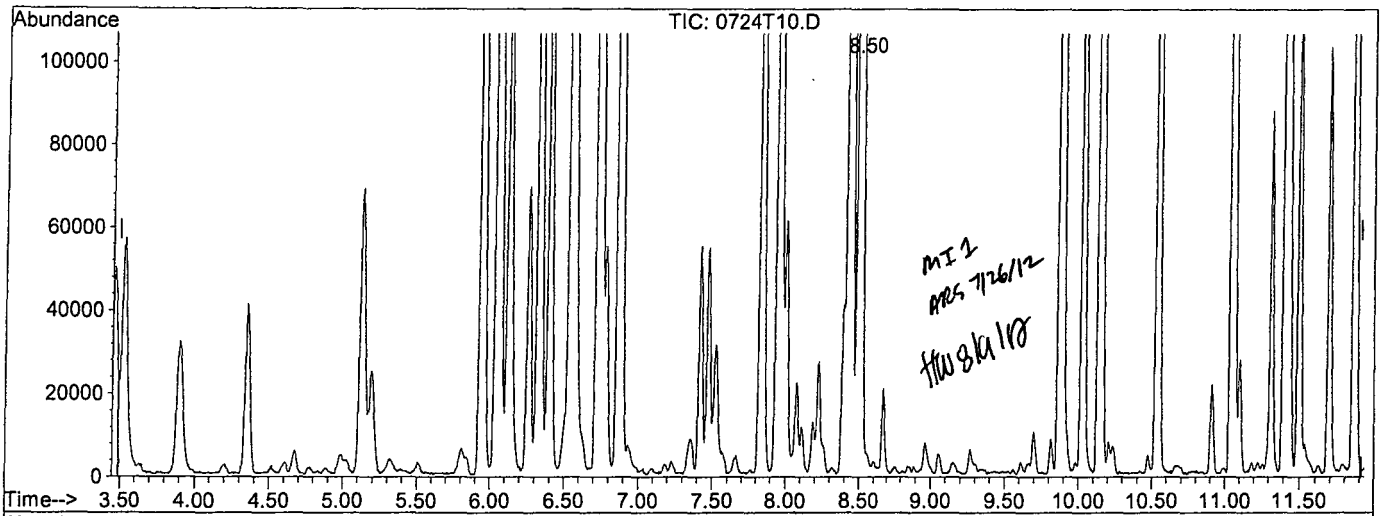
response 17196555

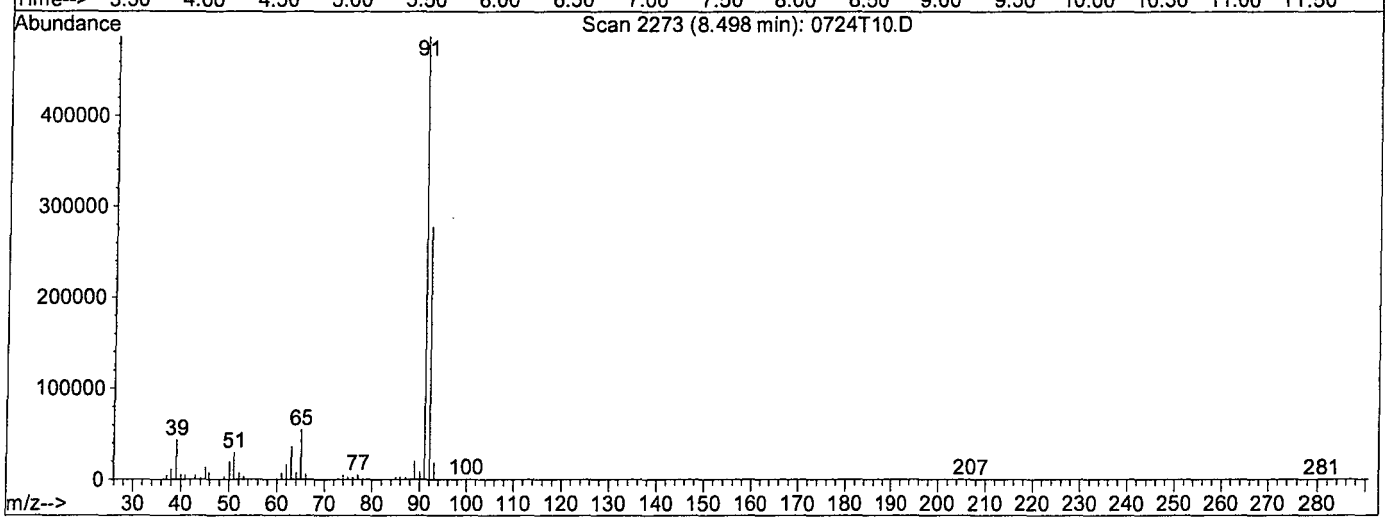
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.56#
0.00	0.00	1.64#
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T10.D Vial: 9
Acq On : 24 Jul 12 20:15 Operator: DG,RS,HW,ARS,SV
Sample : LCS gas 300ug/L (SS) Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:48 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T10.D

(2) Gasoline (TMHB)

8.50min 418.7300ppb m

response 19788320

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.49#
0.00	0.00	1.42#
0.00	0.00	0.00

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No: 68248
Date Analyzed: 07/24/12
Instrument: Thor
Initial Cal. Date: 07/24/12
Data File: 0724T09.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TMHB	Gasoline	3.495	2.089	40	TMHBL	37	*
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			40.0			

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120724\0724T09.D Vial: 8
Acq On : 24 Jul 12 19:48 Operator: DG,RS,HW,ARS,SV
Sample : CCV gas 300ug/L Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 26 14:47 2012 Quant Results File: TGAS.RES

Quant Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	TIC	776087	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.87	TIC	877174	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.20	TIC	1014328	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	8.43	TIC	19450673m	409.50667	ppb	100

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

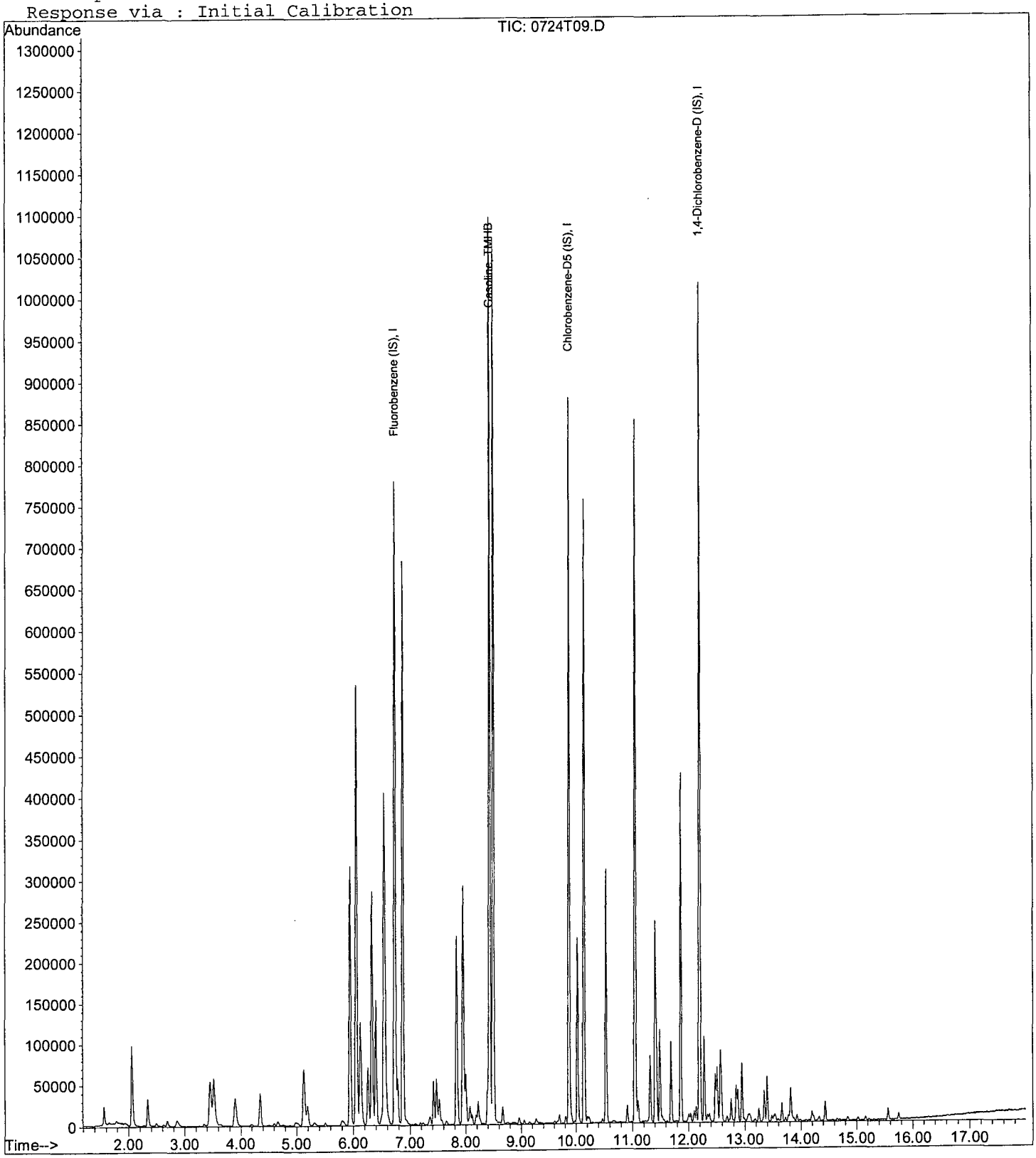
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T09.D
Acq On : 24 Jul 12 19:48
Sample : CCV gas 300ug/L
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 8
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 26 14:47 2012 Quant Results File: TGAS.RES

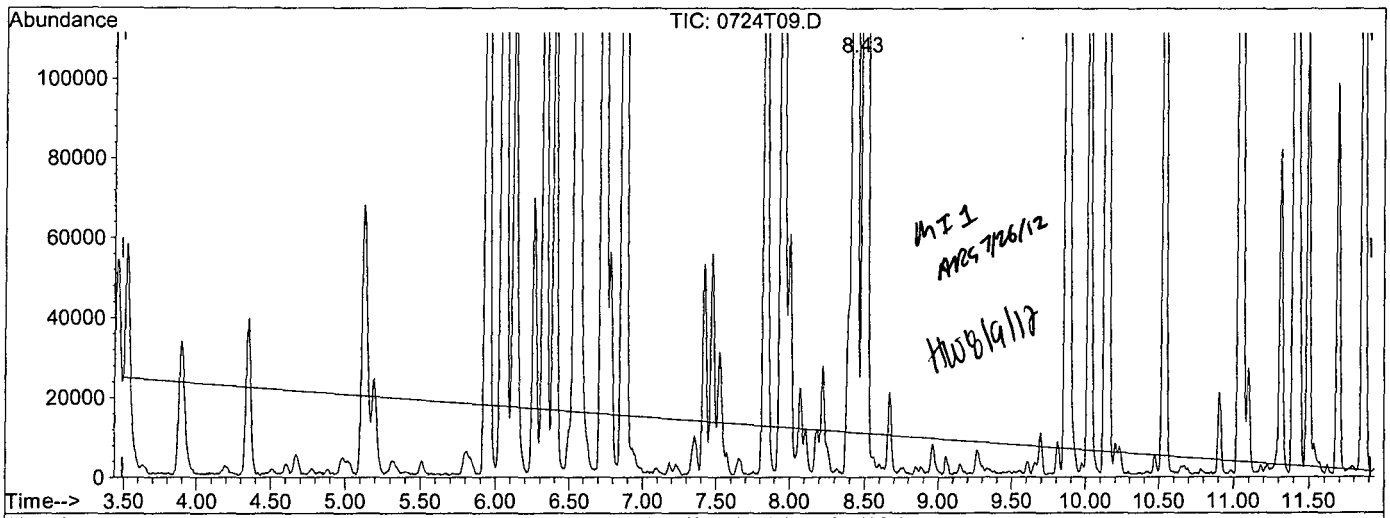
Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration

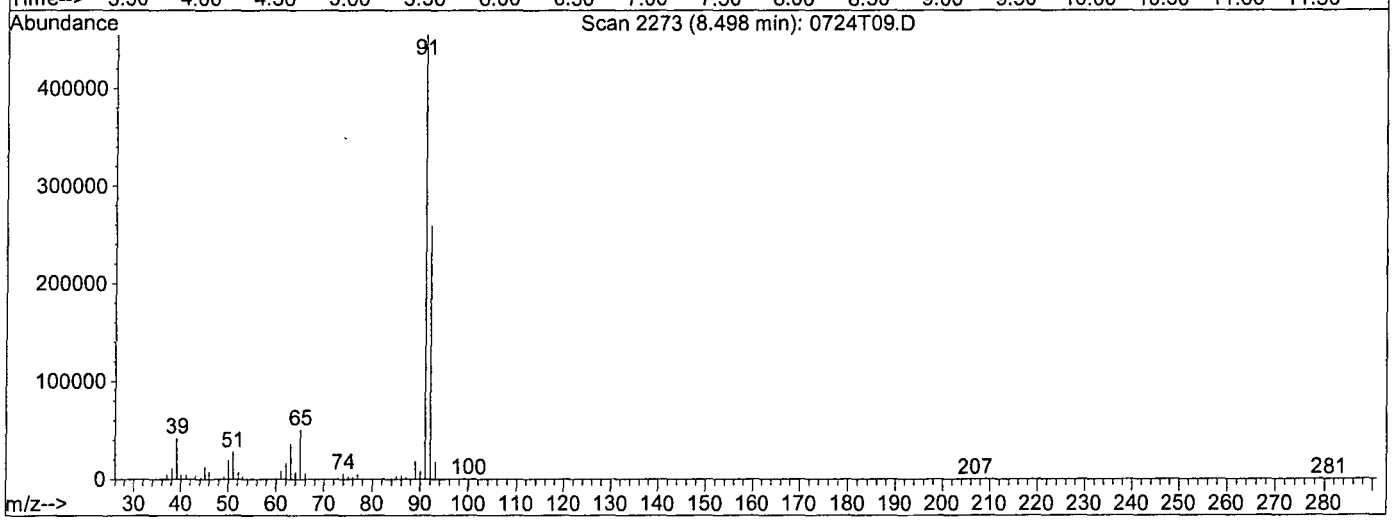


Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T09.D Vial: 8
Acq On : 24 Jul 12 19:48 Operator: DG,RS,HW,ARS,SV
Sample : CCV gas 300ug/L Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:28 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T09.D

(2) Gasoline (TMHB)

8.50min 338.2810ppb m

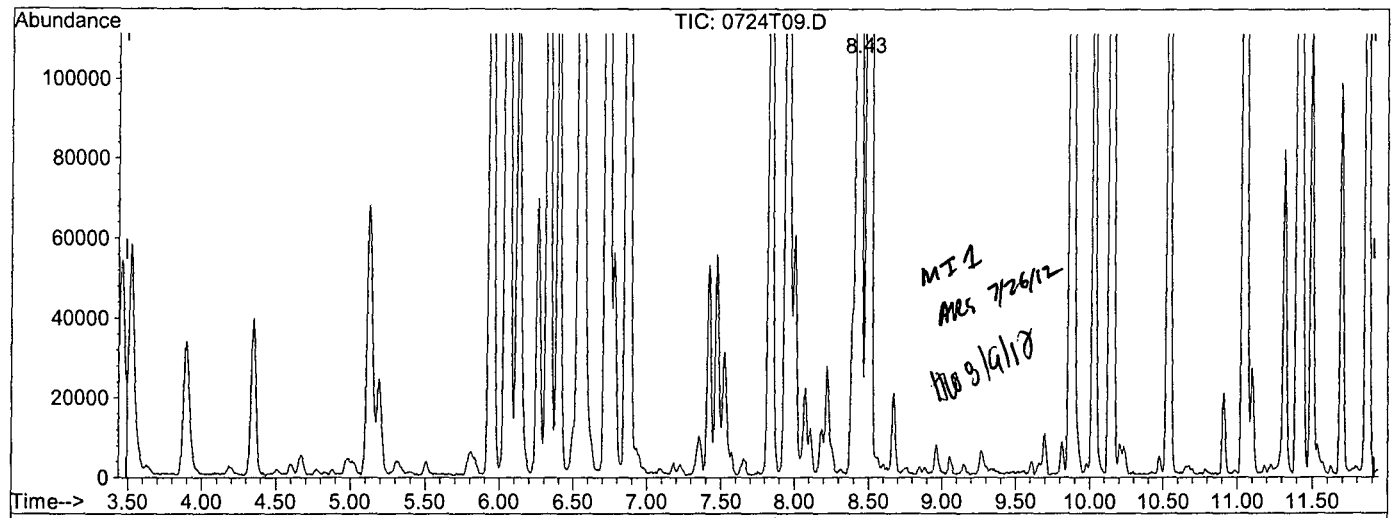
response 16970545

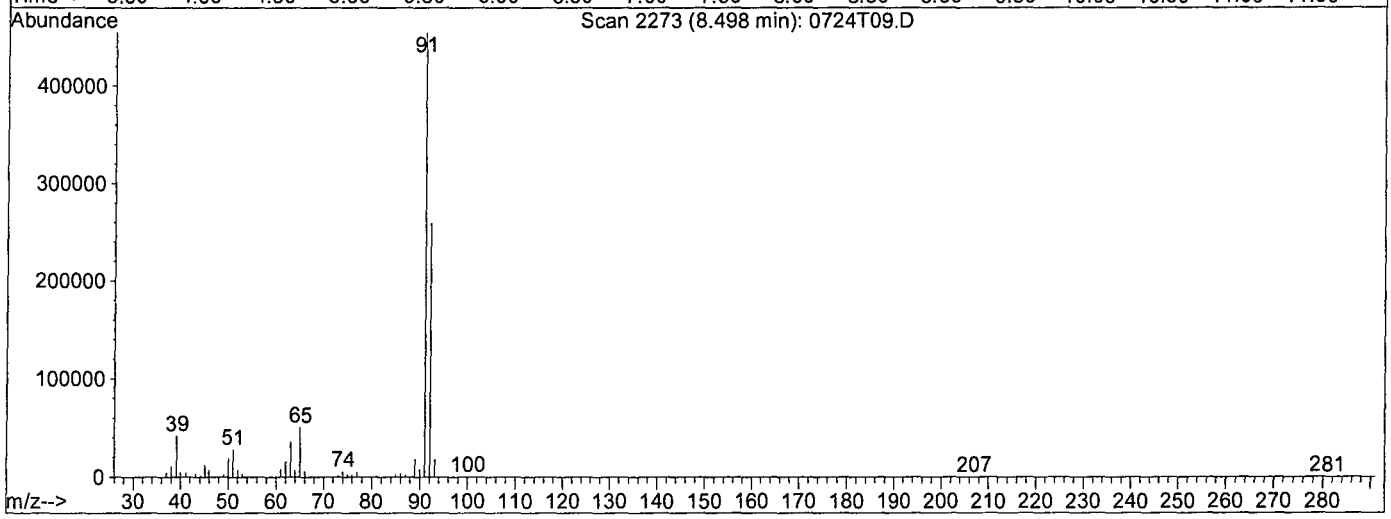
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.57#
0.00	0.00	1.67#
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T09.D Vial: 8
Acq On : 24 Jul 12 19:48 Operator: DG,RS,HW,ARS,SV
Sample : CCV gas 300ug/L Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:47 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T09.D

(2) Gasoline (TMHB)

8.43min 409.5067ppb m

response 19450673

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.50#
0.00	0.00	1.46#
0.00	0.00	0.00

EPA METHOD 8260B
Volatile Organic Compounds
Raw Data

APPL, INC.

Method Blank
EPA 8260B VOCs + Gas Water

Blank Name/QCG: **120719W-65041 - 169331**
Batch ID: #86RHB-120719AT

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	07/20/12	07/20/12
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	07/20/12	07/20/12
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	07/20/12	07/20/12
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	07/20/12	07/20/12
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	07/20/12	07/20/12
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	07/20/12	07/20/12
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	07/20/12	07/20/12
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	07/20/12	07/20/12
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	07/20/12	07/20/12
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	07/20/12	07/20/12
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	07/20/12	07/20/12
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	07/20/12	07/20/12
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	07/20/12	07/20/12
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	07/20/12	07/20/12
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	07/20/12	07/20/12
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	07/20/12	07/20/12
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	07/20/12	07/20/12
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	07/20/12	07/20/12
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	07/20/12	07/20/12
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	07/20/12	07/20/12
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	07/20/12	07/20/12

Quant Method: TALLW.M
Run #: 0719T38
Instrument: Thor
Sequence: T120719
Initials: HW

Printed: 07/31/12 9:19:22 AM
GC SC-Blank-REG MDLs

Method Blank
EPA 8260B VOCs + Gas Water

Blank Name/QCG: **120719W-65041 - 169331**
Batch ID: #86RHB-120719AT

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	07/20/12	07/20/12
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	07/20/12	07/20/12
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	07/20/12	07/20/12
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	07/20/12	07/20/12
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	07/20/12	07/20/12
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	07/20/12	07/20/12
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	07/20/12	07/20/12
BLANK	SURROGATE: 1,2-DICHLOROET	102	70-120			%	07/20/12	07/20/12
BLANK	SURROGATE: 4-BROMOFLUORO	101	75-120			%	07/20/12	07/20/12
BLANK	SURROGATE: DIBROMOFLUOR	100	85-115			%	07/20/12	07/20/12
BLANK	SURROGATE: TOLUENE-D8 (S)	99.7	85-120			%	07/20/12	07/20/12

Quant Method: TALLW.M
Run #: 0719T38
Instrument: Thor
Sequence: T120719
Initials: HW

Printed: 07/31/12 9:19:22 AM
GC SC-Blank-REG MDLs

Data File : M:\THOR\DATA\T120719\0719T38.D Vial: 38
Acq On : 20 Jul 12 2:18 Operator: DG,RS,HW,ARS,SV
Sample : 120719A BLK-1WT Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 23 10:44 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	96	441792	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.87	117	355584	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	206976	25.00000	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.95	111	220986	31.96459	ppb	0.00
Spiked Amount 31.881			Recovery = 100.263%			
36) 1,2-DCA-D4(S)	6.33	65	221504	34.47528	ppb	0.00
Spiked Amount 33.647			Recovery = 102.462%			
56) Toluene-D8(S)	8.43	98	782720	37.23377	ppb	0.00
Spiked Amount 37.345			Recovery = 99.703%			
64) 4-Bromofluorobenzene(S)	11.05	95	294956	29.66906	ppb	0.00
Spiked Amount 29.515			Recovery = 100.521%			
Target Compounds						Qvalue

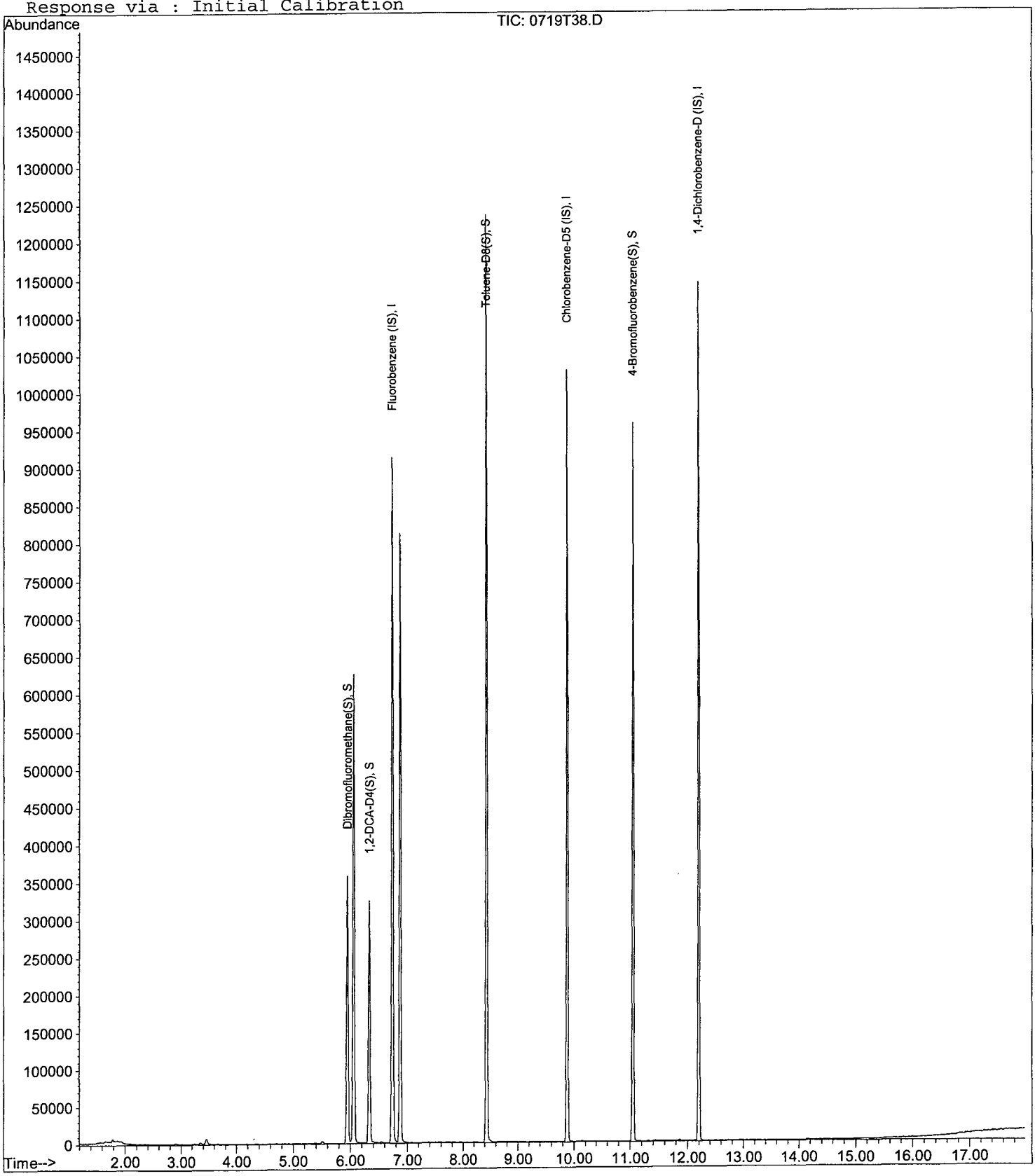
(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T120719\0719T38.D
Acq On : 20 Jul 12 2:18
Sample : 120719A BLK-1WT
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 38
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 23 10:44 2012 Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120724\0724T13.D Vial: 12
Acq On : 24 Jul 12 21:39 Operator: DG,RS,HW,ARS,SV
Sample : 120724A BLK-1WT Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 26 14:49 2012 Quant Results File: TGAS.RES

Quant Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	TIC	740452	25.00000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.87	TIC	841778	25.00000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.20	TIC	916024	25.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Gasoline	8.43	TIC	9145730m	126.20391 ppb	ND 100

No gasoline pattern detected.
HRS 7/26/12

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

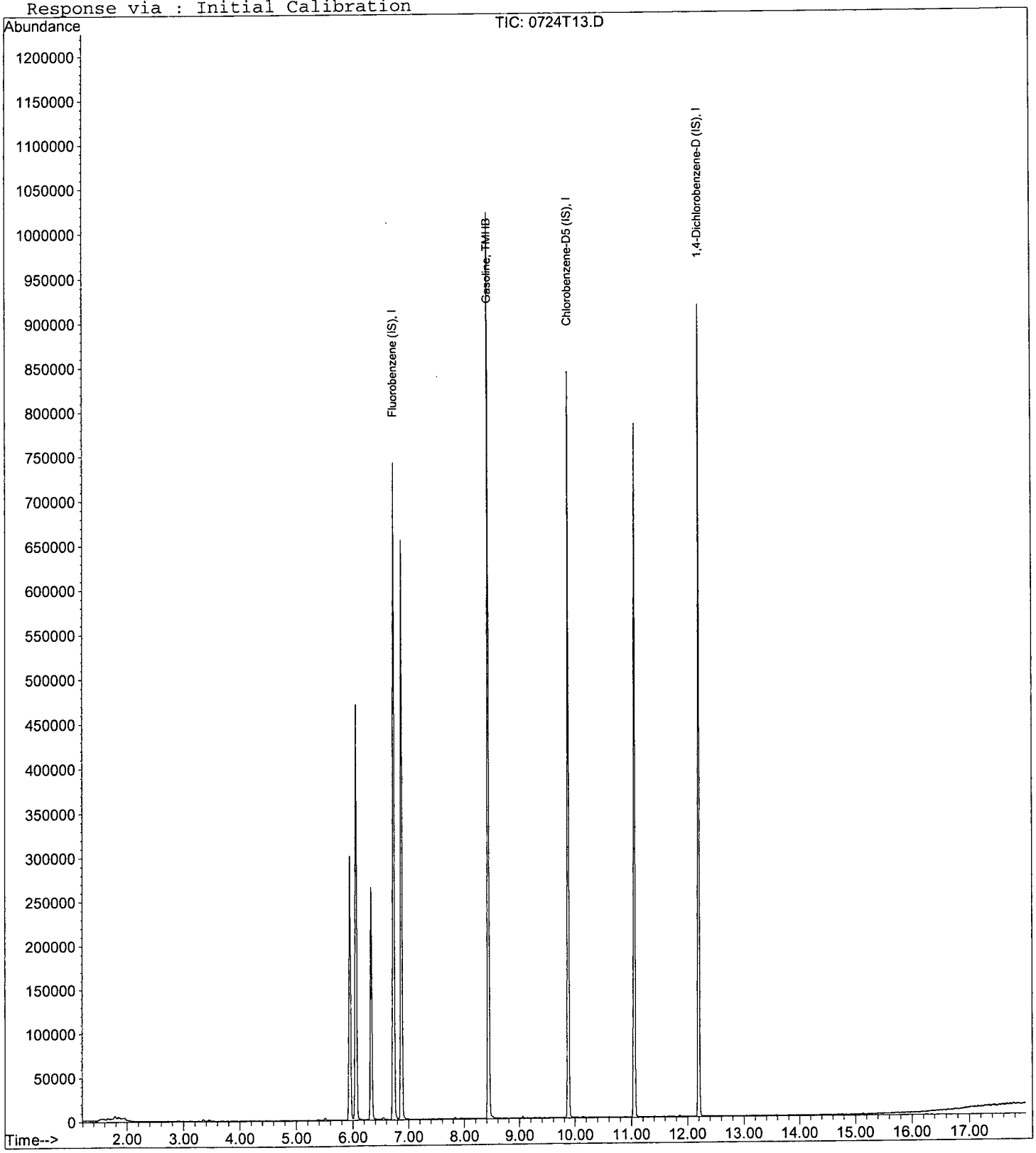
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T13.D
Acq On : 24 Jul 12 21:39
Sample : 120724A BLK-1WT
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 12
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 26 14:49 2012 Quant Results File: TGAS.RES

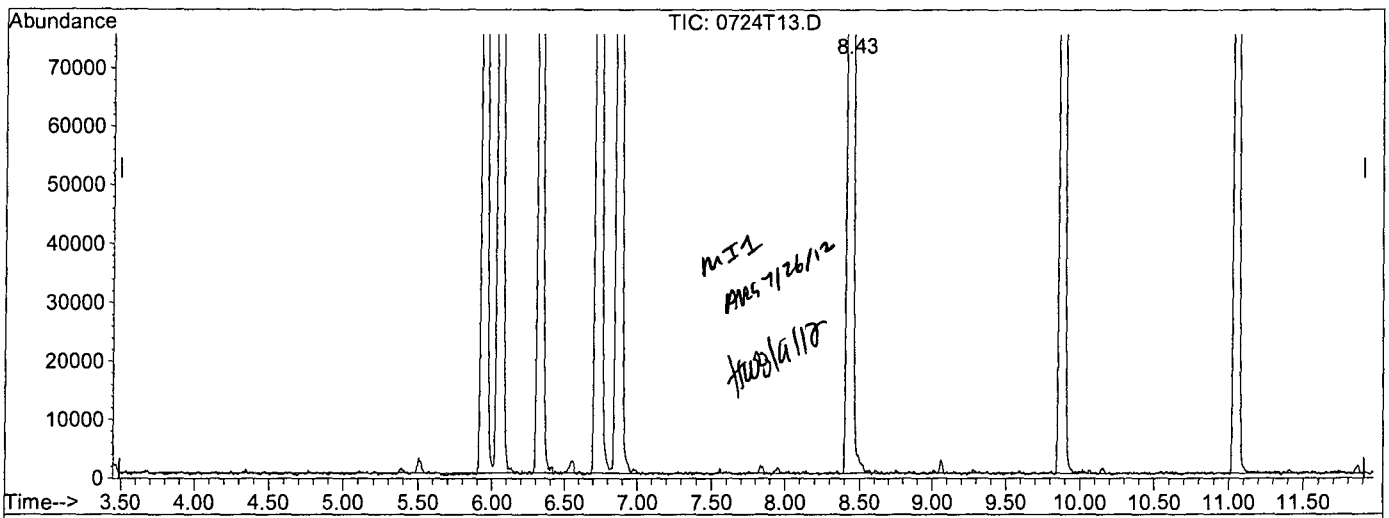
Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration

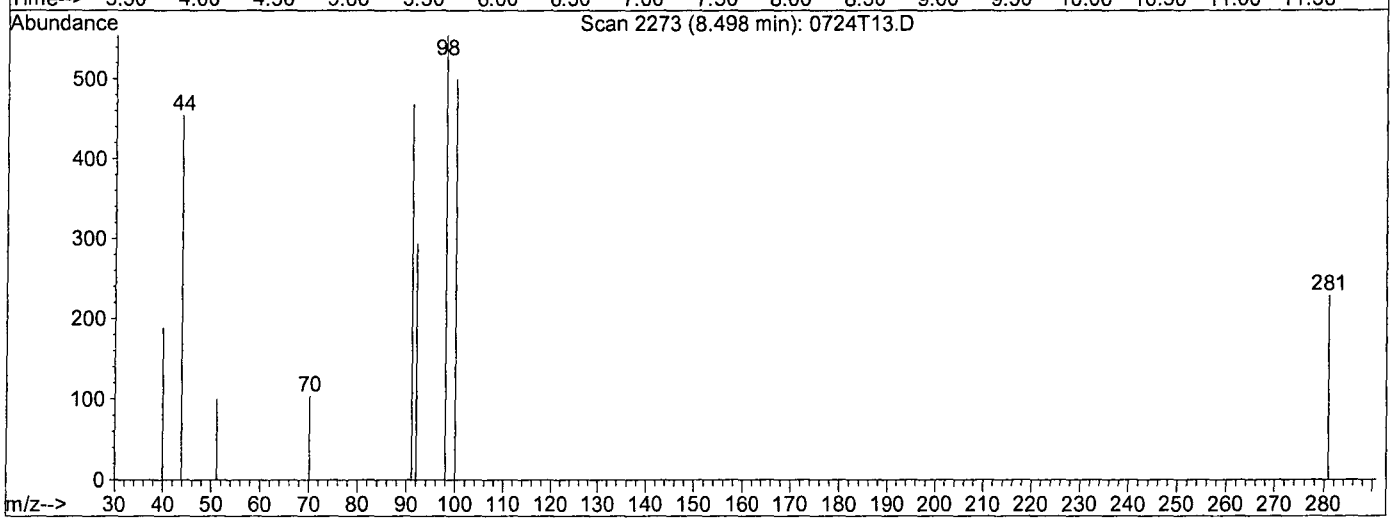


Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T13.D Vial: 12
Acq On : 24 Jul 12 21:39 Operator: DG,RS,HW,ARS,SV
Sample : 120724A BLK-1WT Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:28 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T13.D

(2) Gasoline (TMHB)

8.50min 63.6707ppb m

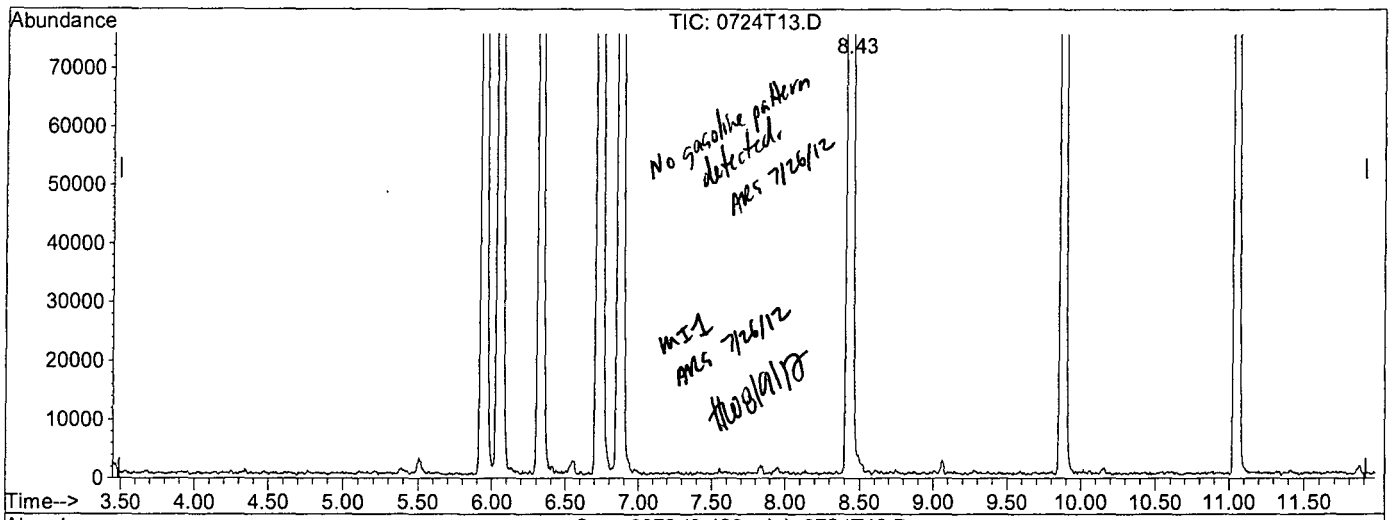
response 7068262

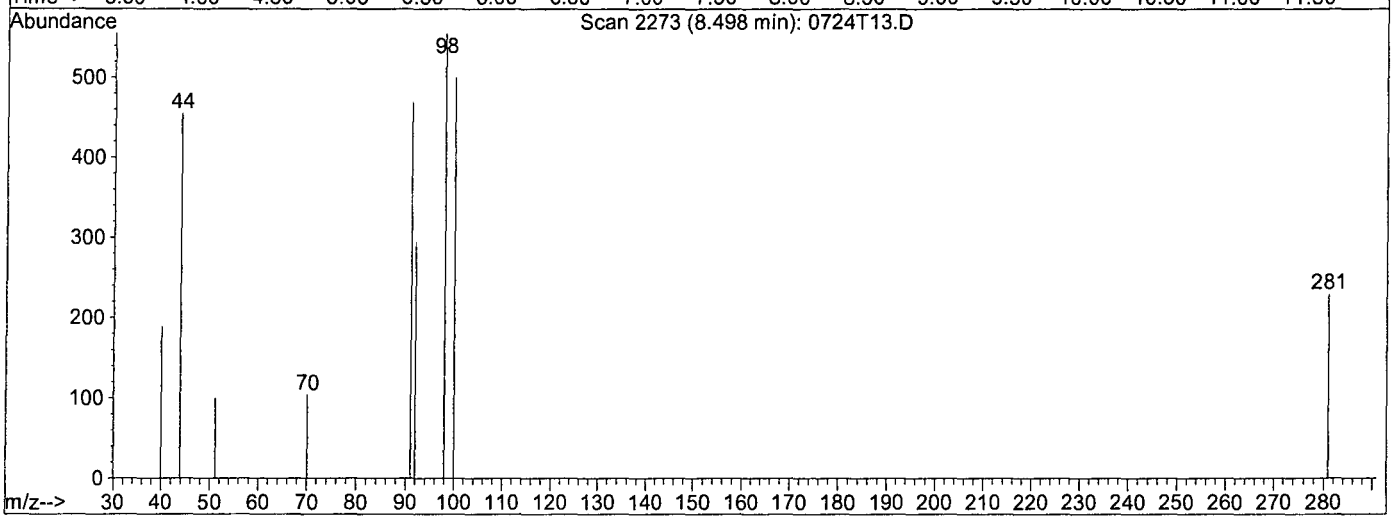
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	1.24#
0.00	0.00	3.65#
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T13.D Vial: 12
Acq On : 24 Jul 12 21:39 Operator: DG,RS,HW,ARS,SV
Sample : 120724A BLK-1WT Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:49 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T13.D

(2) Gasoline (TMHB)

8.43min 126.2039ppb m

response 9145730

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.96#
0.00	0.00	2.82#
0.00	0.00	0.00

Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **120719W-65041 LCS - 169331**
Batch ID: #86RHB-120719AT

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	9.79	97.9	80-130
1,1,1-TRICHLOROETHANE	10.00	9.62	96.2	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	9.22	92.2	65-130
1,1,2-TRICHLOROETHANE	10.00	9.61	96.1	75-125
1,1-DICHLOROETHANE	10.00	10.1	101	70-135
1,1-DICHLOROETHENE	10.00	9.64	96.4	70-130
1,2,3-TRICHLOROPROPANE	10.00	10.3	103	75-125
1,2,4-TRICHLOROBENZENE	10.00	9.98	99.8	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	10.1	101	50-130
1,2-DIBROMOETHANE	10.00	9.79	97.9	70-130
1,2-DICHLOROBENZENE	10.00	9.83	98.3	70-120
1,2-DICHLOROETHANE	10.00	9.76	97.6	70-130
1,2-DICHLOROPROPANE	10.00	10.1	101	75-125
1,3-DICHLOROBENZENE	10.00	10.2	102	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	18.7	93.5	70-130
1,4-DICHLOROBENZENE	10.00	9.82	98.2	75-125
2-BUTANONE	10.00	10.3	103	30-150
4-METHYL-2-PENTANONE	10.00	10.2	102	60-135
ACETONE	10.00	11.8	118	40-140
BENZENE	10.00	9.47	94.7	80-120
BROMODICHLOROMETHANE	10.00	9.57	95.7	75-120
BROMOFORM	10.00	9.70	97.0	70-130
BROMOMETHANE	10.00	9.36	93.6	30-145
CARBON TETRACHLORIDE	10.00	10.0	100	65-140
CHLOROBENZENE	10.00	9.82	98.2	80-120
CHLORODIBROMOMETHANE	10.00	9.73	97.3	60-135
CHLOROETHANE	10.00	9.84	98.4	60-135
CHLOROFORM	10.00	9.60	96.0	65-135
CHLOROMETHANE	10.00	9.80	98.0	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.99	99.9	70-125
ETHYLBENZENE	10.00	10.1	101	75-125

= Recovery is outside QC limits.

Comments: _____

Primary	SPK
Quant Method :	TALLW.M
Extraction Date :	07/19/12
Analysis Date :	07/19/12
Instrument :	Thor
Run :	0719T31
Initials :	HW

Printed: 07/31/12 9:19:15 AM
APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **120719W-65041 LCS - 169331**
Batch ID: #86RHB-120719AT

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	419	140 #	75-125
HEXACHLOROBUTADIENE	10.00	9.23	92.3	50-140
METHYL TERT-BUTYL ETHER	10.00	9.48	94.8	65-125
METHYLENE CHLORIDE	10.00	9.45	94.5	55-140
STYRENE	10.00	10.4	104	65-135
TETRACHLOROETHENE	10.00	10.1	101	45-150
TOLUENE	10.00	10.1	101	75-120
TRANS-1,2-DICHLOROETHENE	10.00	9.79	97.9	60-140
TRICHLOROETHENE	10.00	10.6	106	70-125
VINYL CHLORIDE	10.00	10.1	101	50-145
XYLENES (TOTAL)	30.0	31.3	104	80-120
SURROGATE: 1,2-DICHLOROETHANE-D	33.6	32.9	97.8	70-120
SURROGATE: 4-BROMOFLUOROBENZE	29.5	30.2	102	75-120
SURROGATE: DIBROMOFLUOROMETH	31.9	31.3	98.2	85-115
SURROGATE: TOLUENE-D8 (S)	37.3	36.6	98.0	85-120

= Recovery is outside QC limits.

Comments: _____

Primary	SPK
Quant Method :	TALLW.M
Extraction Date :	07/19/12
Analysis Date :	07/19/12
Instrument :	Thor
Run :	0719T31
Initials :	HW

Printed: 07/31/12 9:19:15 AM
APPL Standard LCS

Data File : M:\THOR\DATA\T120719\0719T31.D Vial: 31
Acq On : 19 Jul 12 23:03 Operator: DG,RS,HW,ARS,SV
Sample : 120719A LCS-1WT (SS) Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 10:45 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.73	96	459584	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	9.87	117	371008	25.00000 ppb		0.00
70) 1,4-Dichlorobenzene-D (IS)	12.20	152	216768	25.00000 ppb		0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.95	111	225058	31.29333 ppb		0.00
Spiked Amount 31.881			Recovery = 98.155%			
36) 1,2-DCA-D4(S)	6.33	65	220138	32.93626 ppb		0.00
Spiked Amount 33.647			Recovery = 97.888%			
56) Toluene-D8(S)	8.43	98	802051	36.56718 ppb		0.00
Spiked Amount 37.345			Recovery = 97.917%			
64) 4-Bromofluorobenzene(S)	11.05	95	313456	30.21914 ppb		0.00
Spiked Amount 29.515			Recovery = 102.384%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.30	85	18648	8.01049 ppb		98
3) Freon 114	1.41	85	29065	8.97783 ppb		92
4) Chloromethane	1.45	50	56808	9.80339 ppb		99
5) Vinyl chloride	1.56	62	91788	10.10524 ppb		99
6) Bromomethane	1.87	94	54346	9.36087 ppb		98
7) Chloroethane	1.97	64	51463	9.83706 ppb		96
8) Dichlorofluoromethane	2.18	67	3106	9.09488 ppb		97
9) Trichlorofluoromethane	2.24	101	19028	10.13498 ppb		100
11) Acetone	2.88	43	19460	11.84185 ppb		98
12) Freon-113	2.85	101	37646	9.96889 ppb		94
13) 1,1-DCE	2.82	61	48838	9.63706 ppb		93
14) t-Butanol	3.69	59	19056	127.86417 ppb		98
15) Methyl Acetate	3.34	43	44993	10.18034 ppb		95
16) Iodomethane	2.98	142	43340	9.45518 ppb		97
17) Acrylonitrile	3.81	52	14853	10.23301 ppb		95
18) Methylene chloride	3.45	84	17424	9.44871 ppb		95
19) Carbon disulfide	3.06	76	5510	10.69990 ppb	#	86
20) Methyl t-butyl ether (MtBE	3.90	73	92761	9.48061 ppb		98
21) Trans-1,2-DCE	3.87	96	34225	9.78590 ppb		97
22) Diisopropyl Ether	4.70	59	21995	10.03782 ppb		95
23) 1,1-DCA	4.51	63	93412	10.07257 ppb		98
24) Vinyl Acetate	4.70	87	50781	9.69469 ppb		95
25) Ethyl tert Butyl Ether	5.21	59	119561	9.77392 ppb		99
26) MEK (2-Butanone)	5.38	43	23166	10.28682 ppb		95
27) Cis-1,2-DCE	5.32	96	59336	9.98787 ppb		96
28) 2,2-Dichloropropane	5.32	77	29940	8.01402 ppb		99
29) Chloroform	5.75	83	110557	9.59991 ppb		94
30) Bromochloromethane	5.62	128	29433	10.17554 ppb		98
32) 1,1,1-TCA	5.96	97	66682	9.62307 ppb		96
33) Cyclohexane	6.03	41	18804	9.99923 ppb		94
34) 1,1-Dichloropropene	6.17	75	50257	9.98686 ppb		98
35) 2,2,4-Trimethylpentane	6.55	57	62413	8.62945 ppb		97
37) Carbon Tetrachloride	6.16	117	65247	10.04641 ppb		95
38) Tert Amyl Methyl Ether	6.59	73	128152	9.84264 ppb		100
39) 1,2-DCA	6.41	62	73737	9.76354 ppb		99
40) Benzene	6.40	78	195282	9.46720 ppb		97
41) TCE	7.14	95	59649	10.63894 ppb		98
42) 2-Pentanone	7.36	43	545318	123.45728 ppb		100
43) 1,2-Dichloropropane	7.37	63	67896	10.08801 ppb		96

Algorithm Check: $\frac{(91788)(25)}{(459584)(0.4941)}$ (1) = 10.10522903 ✓ ARS 7/27/12

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

Data File : M:\THOR\DATA\T120719\0719T31.D Vial: 31
Acq On : 19 Jul 12 23:03 Operator: DG,RS,HW,ARS,SV
Sample : 120719A LCS-1WT (SS) Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 20 10:45 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44) Bromodichloromethane	7.68	83	89098	9.56942 ppb		98
45) Methyl Cyclohexane	7.36	83	38326	9.57410 ppb		95
46) Dibromomethane	7.49	93	36747	10.03731 ppb		99
47) 2-Chloroethyl vinyl ether	7.99	106	1154	8.86120 ppb	#	100
48) MIBK (methyl isobutyl ket	8.33	43	32328	10.17680 ppb		97
49) 1-Bromo-2-chloroethane	7.99	63	45864	9.79426 ppb		99
50) Cis-1,3-Dichloropropene	8.15	75	86842	9.42535 ppb		98
51) Toluene	8.50	91	246468	10.12718 ppb		98
52) Trans-1,3-Dichloropropene	8.72	75	75443	9.28657 ppb		98
53) 1,1,2-TCA	8.90	83	52073	9.60983 ppb		98
54) 2-Hexanone	9.18	43	36772	10.09450 ppb		96
57) 1,2-EDB	9.40	107	54442	9.78712 ppb		99
58) Tetrachloroethene	9.06	166	63354	10.07267 ppb		96
59) 1-Chlorohexane	9.90	91	74600	9.96437 ppb		98
60) 1,1,1,2-Tetrachloroethane	9.99	131	71965	9.79349 ppb		96
61) m&p-Xylene	10.14	106	239826	20.92173 ppb		98
62) o-Xylene	10.54	106	123104	10.38148 ppb		98
63) Styrene	10.55	104	208582	10.35266 ppb		98
65) 1,3-Dichloropropane	9.07	76	98494	10.09885 ppb		97
66) Dibromochloromethane	9.29	129	71411	9.72527 ppb		99
67) Chlorobenzene	9.90	112	188318	9.81804 ppb		99
68) Ethylbenzene	10.03	91	305101	10.11617 ppb		99
69) Bromoform	10.71	173	48764	9.69905 ppb		99
71) Isopropylbenzene	10.91	105	295625	10.43029 ppb		98
72) 1,1,2,2-Tetrachloroethane	11.19	83	72548	9.22452 ppb		99
73) 1,2,3-Trichloropropane	11.23	110	23096	10.34681 ppb		85
74) t-1,4-Dichloro-2-Butene	11.25	53	15810	10.58327 ppb		89
75) Bromobenzene	11.19	156	93573	10.01488 ppb		99
76) n-Propylbenzene	11.32	91	385440	10.56221 ppb		98
77) 4-Ethyltoluene	11.43	105	325068	10.37283 ppb		98
78) 2-Chlorotoluene	11.39	91	267062	10.26282 ppb		100
79) 1,3,5-Trimethylbenzene	11.50	105	276230	10.63314 ppb		99
80) 4-Chlorotoluene	11.50	91	267095	10.36956 ppb		100
81) Tert-Butylbenzene	11.82	119	244365	10.26802 ppb		99
82) 1,2,4-Trimethylbenzene	11.86	105	278601	10.36400 ppb		99
83) Sec-Butylbenzene	12.04	105	333801	10.50584 ppb		100
84) p-Isopropyltoluene	12.19	119	281061	10.46929 ppb		99
85) Benzyl Chloride	12.35	91	53118	6.62120 ppb		97
86) 1,3-DCB	12.13	146	180466	10.21317 ppb		99
87) 1,4-DCB	12.22	146	181734	9.82055 ppb		99
88) n-Butylbenzene	12.59	91	245949	10.22102 ppb		98
89) 1,2-DCB	12.59	146	168341	9.82946 ppb		97
90) Hexachloroethane	12.86	117	47831	9.72421 ppb		93
91) 1,2-Dibromo-3-chloropropan	13.35	157	14935	10.13631 ppb		95
92) 1,2,4-Trichlorobenzene	14.20	180	78384	9.98480 ppb		100
93) Hexachlorobutadiene	14.38	223	30261	9.22762 ppb		89
94) Naphthalene	14.43	128	232681	10.61496 ppb		98
95) 1,2,3-Trichlorobenzene	14.68	180	114268	10.21606 ppb		99

1,3-dichloropropene, total: 18.71192 ppb

ARS 7/27/12

(#) = qualifier out of range (m) = manual integration
0719T31.D TALLW.M Fri Jul 20 10:53:42 2012 Page 2

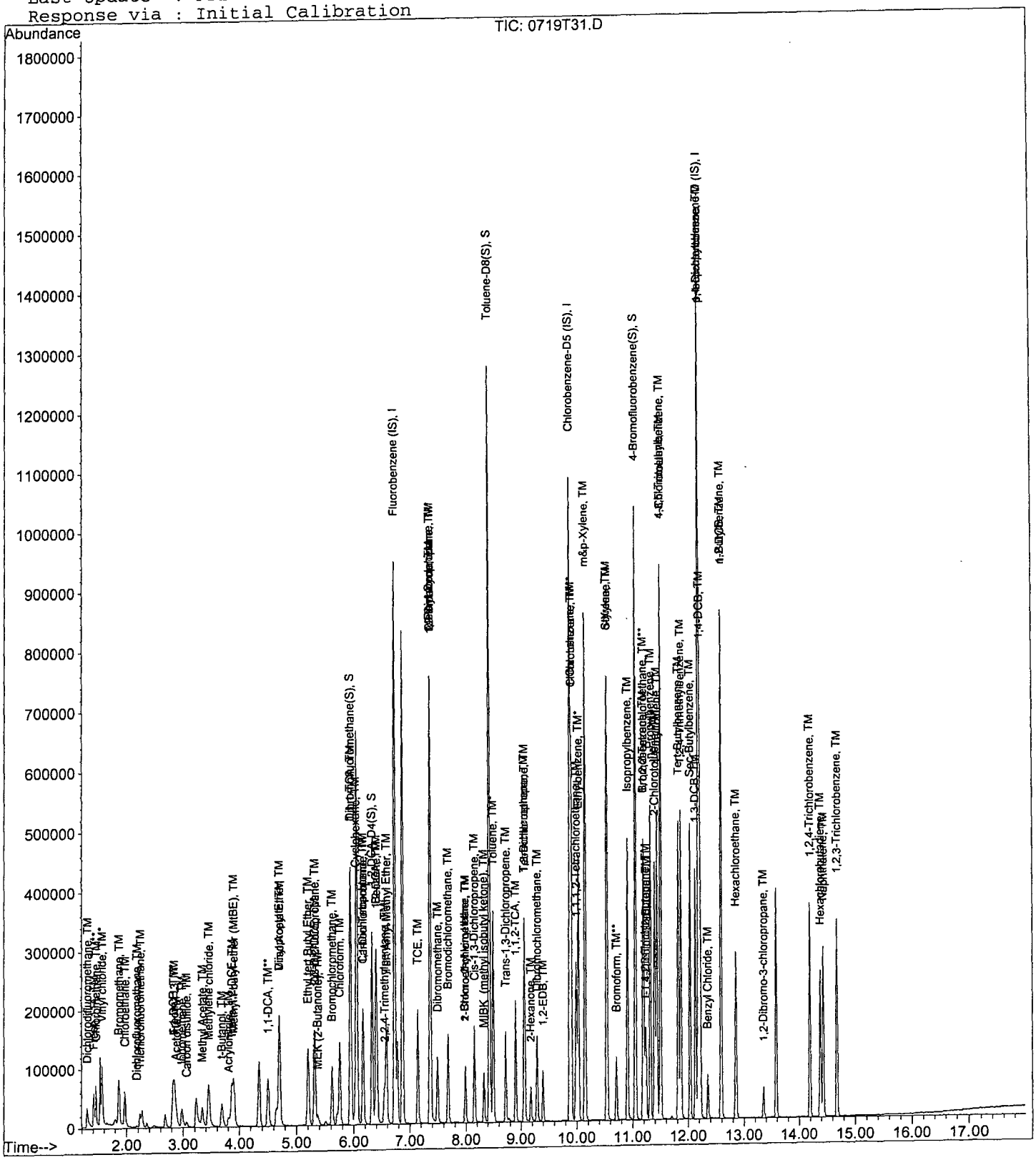
Data File : M:\THOR\DATA\T120719\0719T31.D
Acq On : 19 Jul 12 23:03
Sample : 120719A LCS-1WT (SS)
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 31
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 20 10:45 2012

Quant Results File: TALLW.RES

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Jul 20 10:40:23 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T120724\0724T10.D Vial: 9
Acq On : 24 Jul 12 20:15 Operator: DG,RS,HW,ARS,SV
Sample : LCS gas 300ug/L (SS) Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00

Quant Time: Jul 26 14:48 2012 Quant Results File: TGAS.RES

Quant Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration
DataAcq Meth : 8260_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.73	TIC	776734	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.87	TIC	880394	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.20	TIC	1005627	25.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline	8.50	TIC	19788320m	418.73004	ppb	100

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

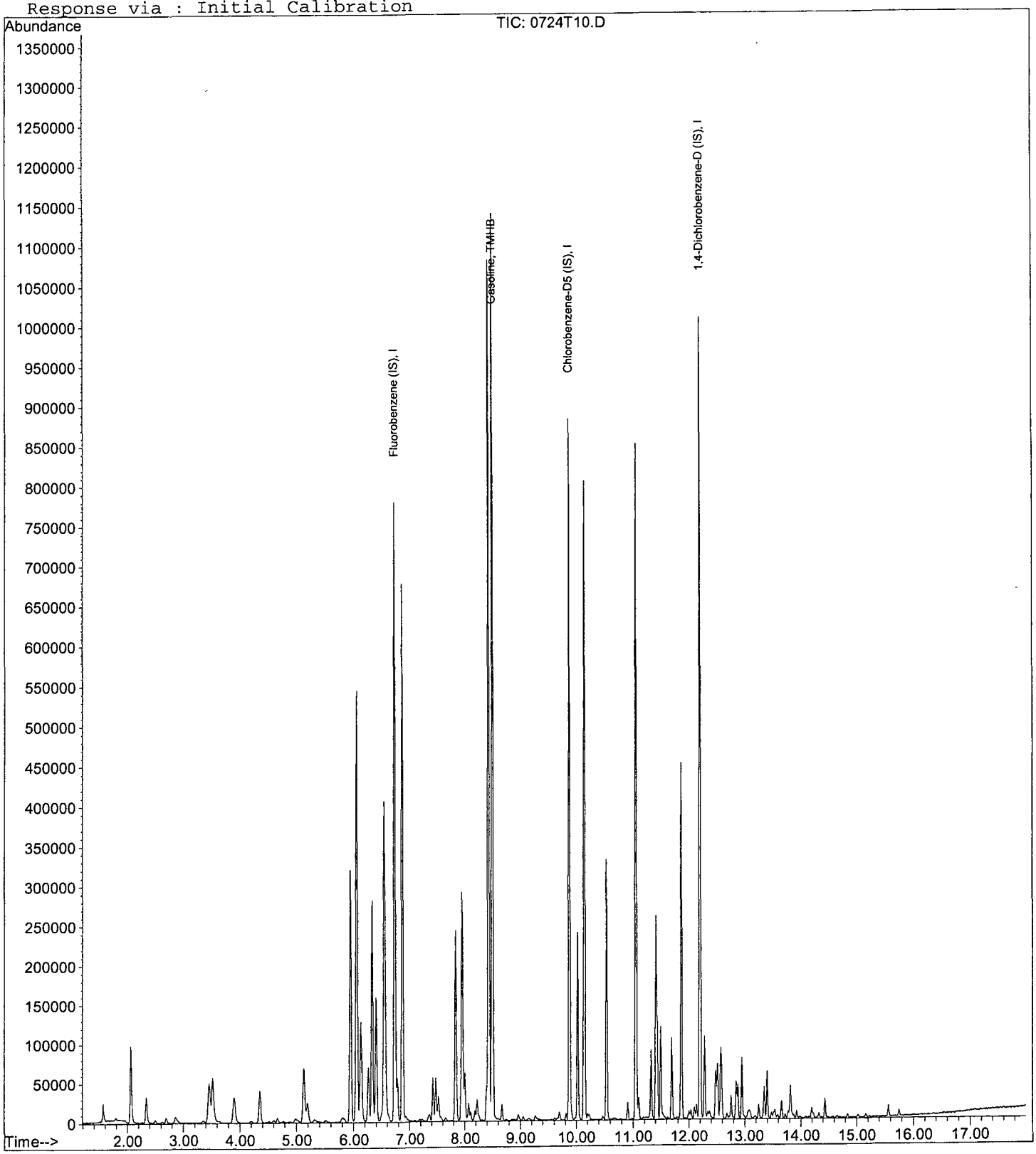
Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T10.D
Acq On : 24 Jul 12 20:15
Sample : LCS gas 300ug/L (SS)
Misc : 10ml w/5ul of IS&S: 06-7-12

Vial: 9
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Quant Time: Jul 26 14:48 2012 Quant Results File: TGAS.RES

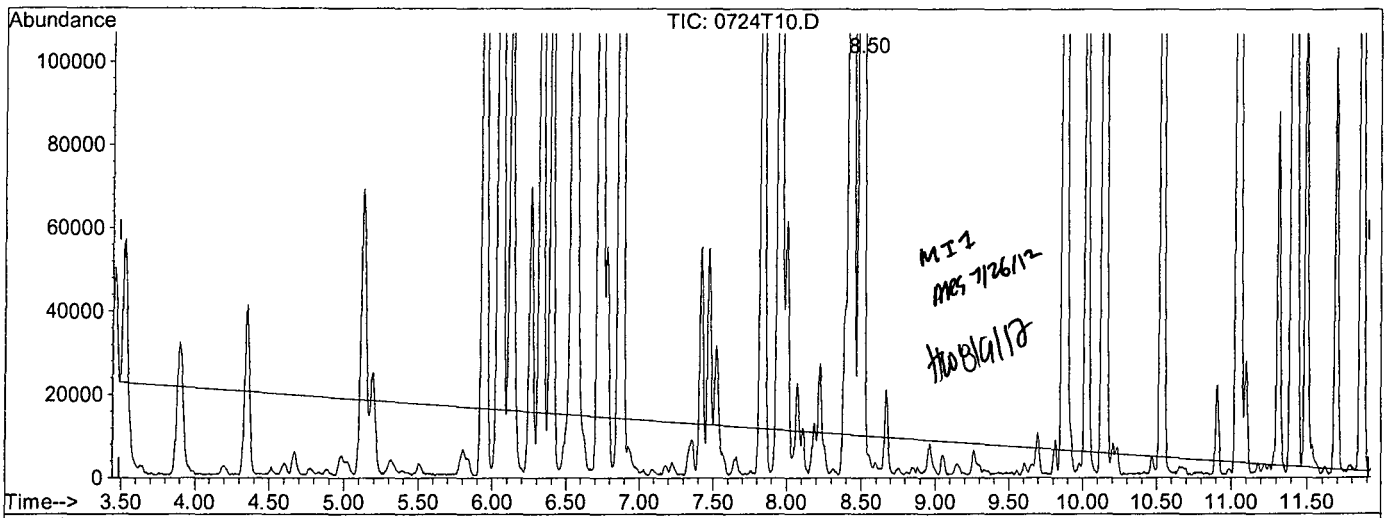
Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Initial Calibration

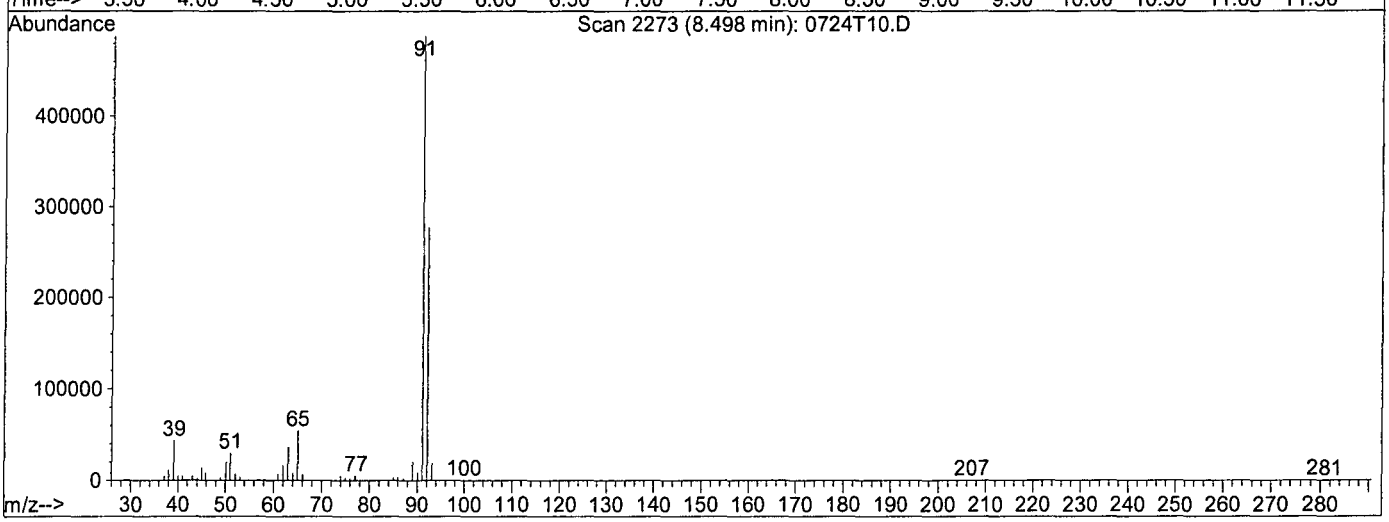


Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T10.D Vial: 9
Acq On : 24 Jul 12 20:15 Operator: DG,RS,HW,ARS,SV
Sample : LCS gas 300ug/L (SS) Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:28 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T10.D

(2) Gasoline (TMHB)

8.50min 344.3603ppb m

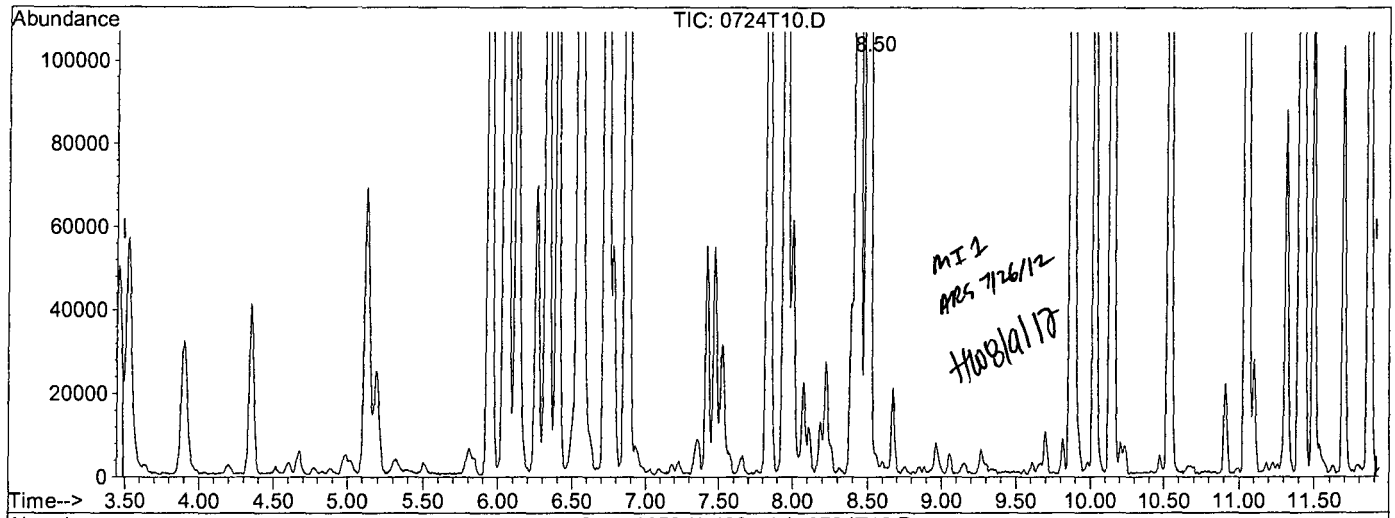
response 17196555

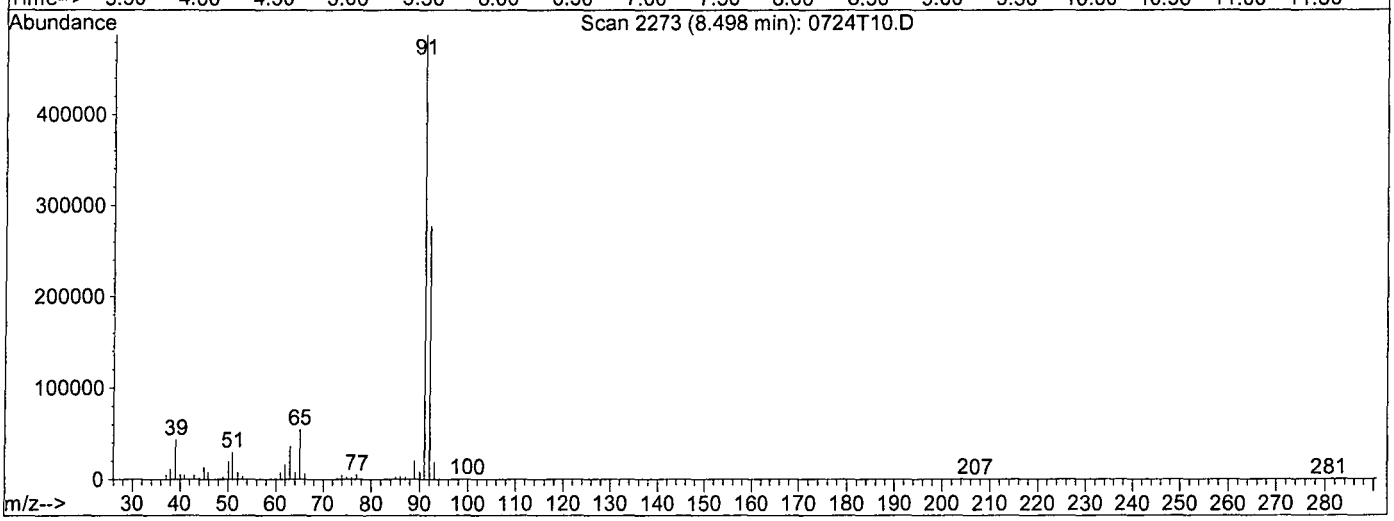
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.56#
0.00	0.00	1.64#
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120724\0724T10.D Vial: 9
Acq On : 24 Jul 12 20:15 Operator: DG,RS,HW,ARS,SV
Sample : LCS gas 300ug/L (SS) Inst : Thor
Misc : 10ml w/5ul of IS&S: 06-7-12 Multiplr: 1.00
Quant Time: Jul 26 14:48 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Wed Jul 25 08:14:32 2012
Response via : Single Level Calibration





TIC: 0724T10.D

(2) Gasoline (TMHB)

8.50min 418.7300ppb m

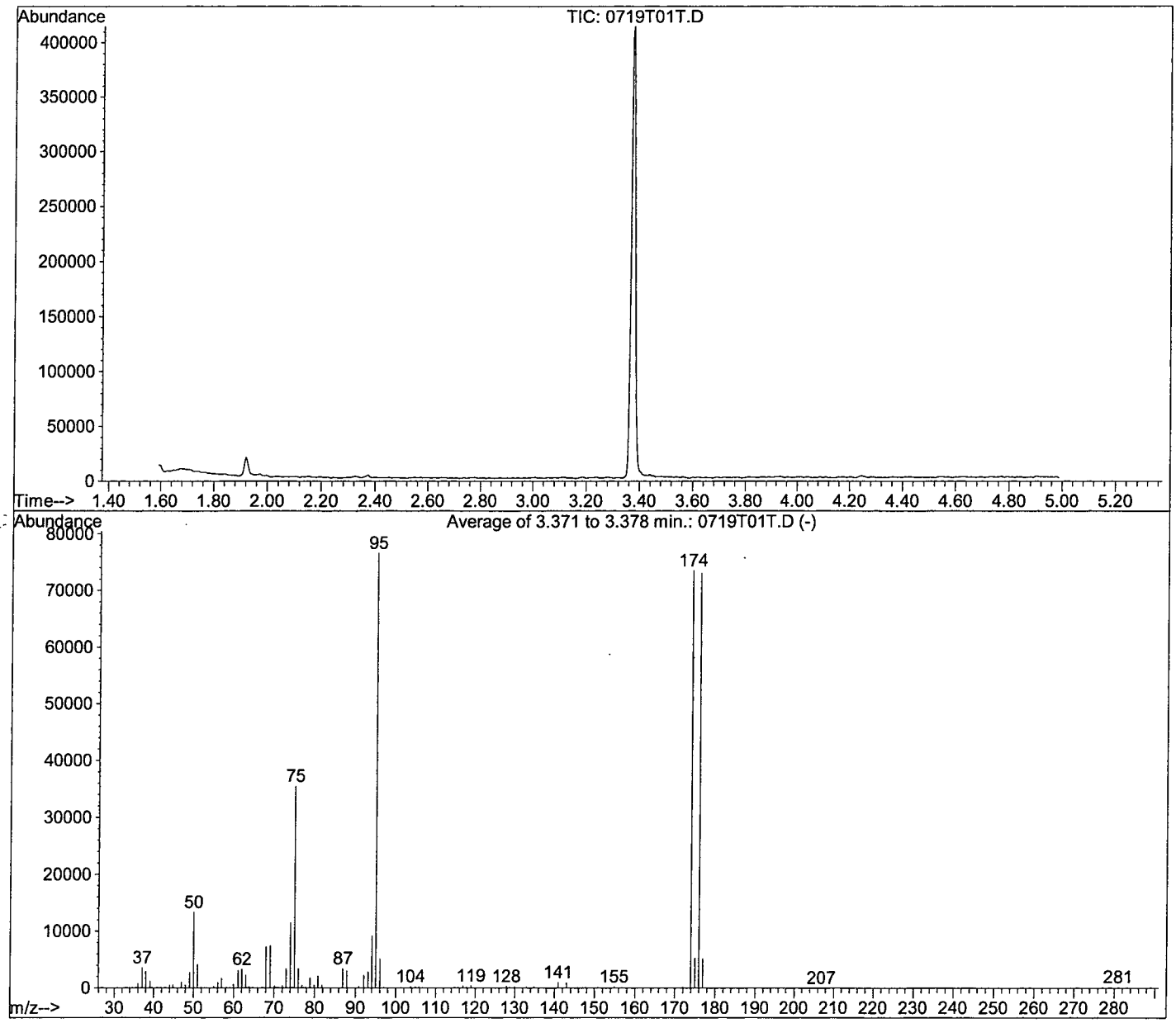
response 19788320

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.49#
0.00	0.00	1.42#
0.00	0.00	0.00

Data File : M:\THOR\DATA\T120719\0719T01T.D
Acq On : 19 Jul 12 9:15
Sample : 5ng- BFB STD 07-16-12B
Misc : 2ul

Vial: 1
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B



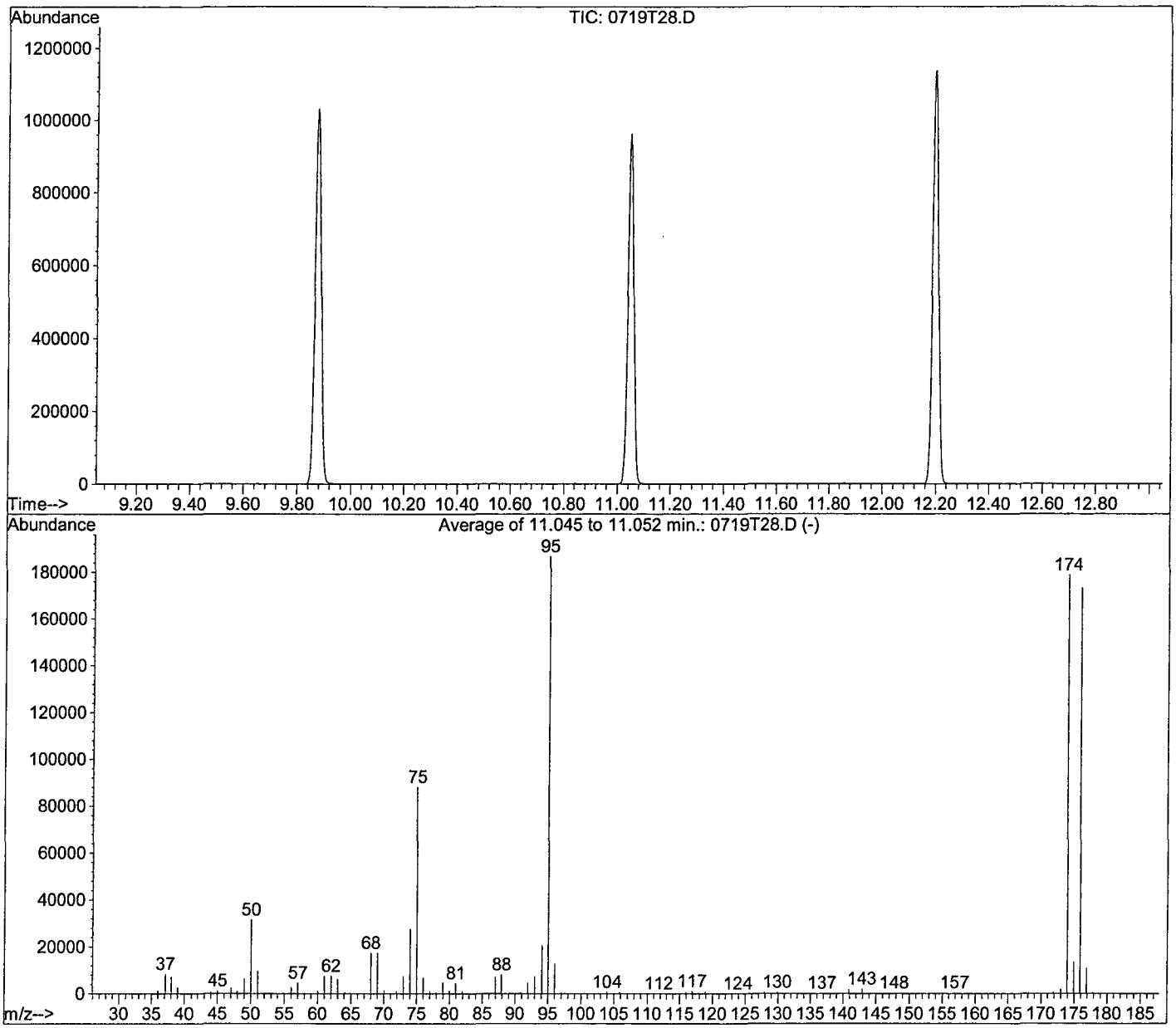
AutoFind: Scans 554, 555, 556; Background Corrected with Scan 544

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	13331	PASS
75	95	30	60	46.4	35536	PASS
95	95	100	100	100.0	76600	PASS
96	95	5	9	6.7	5096	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	96.0	73547	PASS
175	174	5	9	7.2	5311	PASS
176	174	95	101	99.3	73019	PASS
177	176	5	9	7.0	5141	PASS

Data File : M:\THOR\DATA\T120719\0719T28.D
Acq On : 19 Jul 12 21:40
Sample : 5ng- BFB Std 07-16-12B
Misc : 2uL

Vial: 28
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Method : M:\THOR\DATA\T120719\TALLW.M (RTE Integrator)
Title : METHOD 8260B



AutoFind: Scans 3065, 3066, 3067; Background Corrected with Scan 3051

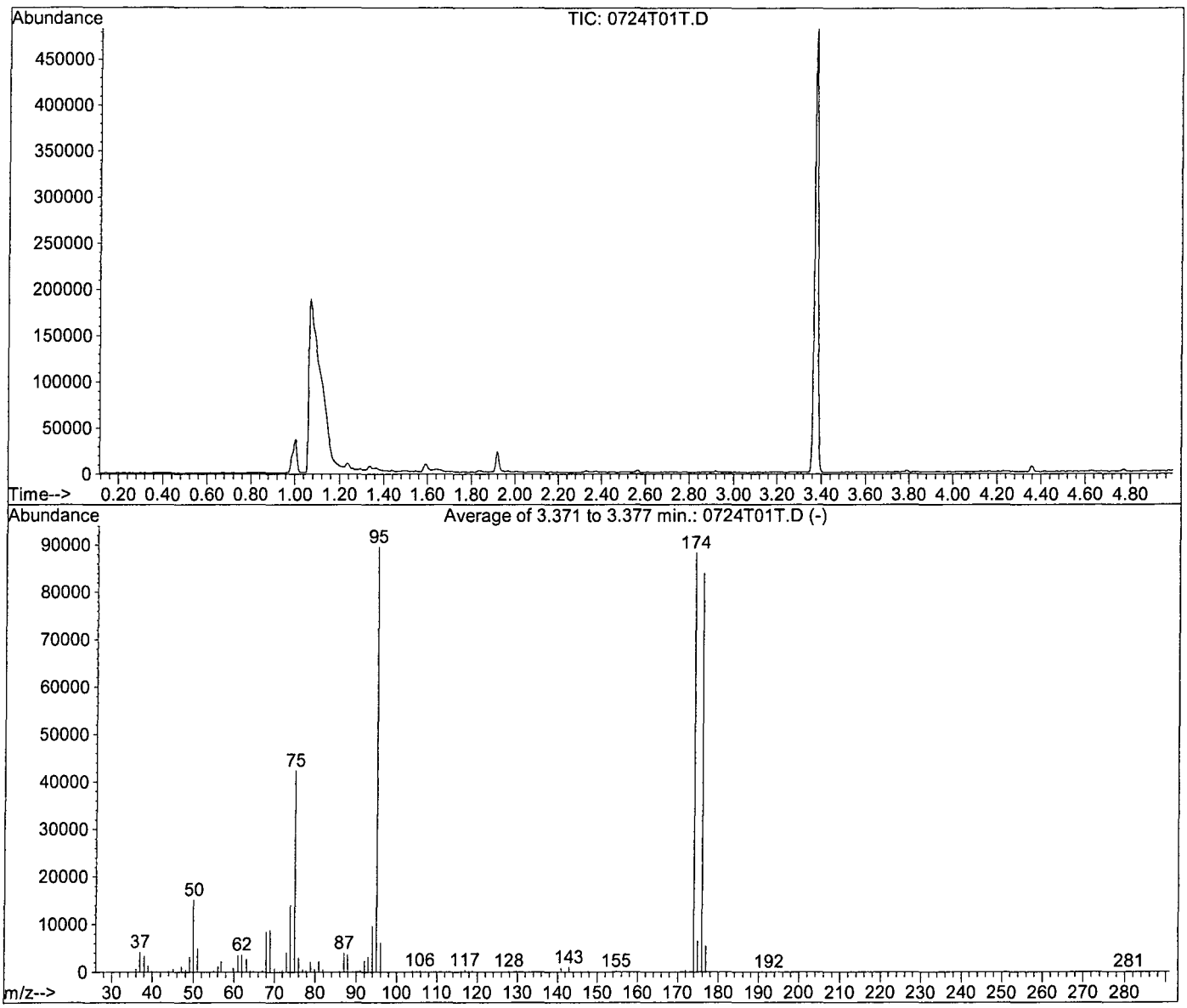
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	31552	PASS
75	95	30	60	47.3	88245	PASS
95	95	100	100	100.0	186709	PASS
96	95	5	9	6.8	12716	PASS
173	174	0.00	2	1.0	1785	PASS
174	95	50	100	95.8	178816	PASS
175	174	5	9	7.5	13428	PASS
176	174	95	101	96.9	173248	PASS
177	176	5	9	6.2	10814	PASS

BFB

Data File : M:\THOR\DATA\T120724\0724T01T.D
Acq On : 24 Jul 12 16:11
Sample : 5ng- BFB STD 07-16-12B
Misc : 2ul

Vial: 1
Operator: DG,RS,HW,ARS,SV
Inst : Thor
Multiplr: 1.00

Method : M:\THOR\DATA\T120724\TGAS.M (RTE Integrator)
Title : METHOD 8260B



Spectrum Information: Average of 3.371 to 3.377 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	15177	PASS
75	95	30	60	47.3	42376	PASS
95	95	100	100	100.0	89616	PASS
96	95	5	9	6.8	6078	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	98.5	88291	PASS
175	174	5	9	7.4	6537	PASS
176	174	95	101	95.1	83963	PASS
177	176	5	9	6.5	5489	PASS

GC/MS STANDARD PREPARATION BOOK # _____ PAGE # _____

6/08/12 RS

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-SWEETPEA

		Expiration Date:	06/09/12							
		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.	06-02-12Z	06-02-12AD	06-02-12V	06-02-12X	06-02-12AC	06-02-12AA	06-02-12W	06-02-12Y	06-02-12AB
Code	µg/L	Exp:06-09-12	Exp:06-09-12	Exp:06-09-12	Exp:06-09-12	Exp:06-09-12	Exp:06-09-12	Exp:06-09-12	Exp:06-09-12	Exp:06-09-12
06-08-12A	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a
06-08-12B	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a
06-08-12C	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a
06-08-12D	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a
06-08-12E	50	n/a	n/a	5	5	5	n/a	5	n/a	5
06-08-12F	100	n/a	n/a	10	10	10	n/a	10	n/a	10
06-08-12G	200	n/a	n/a	20	20	20	n/a	20	n/a	20

6/10/12 RS

250µg/mL TBA	Final Vol
06-02-12AE	w/P&T-H2O
Exp:06-09-12	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

06-11-12A							
25ug/ml BFB STD			Conc.		Date	EXP:	
EXP:07-11-12			ug/ml	Lot#	CODE	Date	ul
02SI	020135-03	4-Bromofluorobenzene	2500	163173-29065	05-09-12A	12/11/12	20
J&T Baker		Purge & Trap MeOH		K14E06-00626	06/11/12	09/28/12	1980
06-11-12B							
25ug/ml BFB STD			Conc.		Date	EXP:	
EXP:07-11-12			ug/ml	Lot#	CODE	Date	ul
02SI	020135-03	4-Bromofluorobenzene	2500	163173-29065	05-09-12A	12/11/12	20
J&T Baker		Purge & Trap MeOH		K14E06-00626	06/11/12	09/28/12	1980
06-11-12C							
25ug/ml BFB STD			Conc.		Date	EXP:	
EXP:07-11-12			ug/ml	Lot#	CODE	Date	ul
02SI	020135-03	4-Bromofluorobenzene	2500	163173-29065	05-09-12A	12/11/12	20
J&T Baker		Purge & Trap MeOH		K14E06-00626	06/11/12	09/28/12	1980

6/11/12 RS

6/11/12 RS

Volatile Standard Cu	
	Expiratio
Date	Conc.
Code	µg/L
06-11-12I	0.3
06-11-12J	0.5
06-11-12K	1
06-11-12L	2
06-11-12M	5
06-11-12N	10
06-11-12O	20
06-11-12P	40
06-11-12Q	100

6/11/12 RS

D-

Method 8260 Internal Standard Solution, 2,000 mg/L, 1 ml
120302-03
Lot# 166255 Storage ≤ -10 Degrees C Expiry 11/18/12
Solv: P/T Methanol
For D only, not human consump. Made in the USA

Method 8260 Internal Standard
Lot #: 166255 - 29275
Rec: 8/5/11 MFR exp. 11/18/12

RS

6/11/12 RS

E-

Fluorobenzene Solution, 2,000 mg/L, 1 ml
120132-02
Lot # 169170 Storage ≤ 6 Degrees C Expiry 2/13/14
Solv: P/T Methanol
For BAD only, not human consump. Made in the USA

Fluorobenzene
Lot #: 169170 - 28869
Rec: 5/25/11 MFR exp. 02/13/14

RS

Volatile Standard Cu	
	Expiratio
Date	Conc.
Code	µg/L
06-11-12R	2
06-11-12S	5
06-11-12T	10
06-11-12U	20
06-11-12V	50
06-11-12W	100
06-11-12X	200

#2	50µg/mL Vol Std #12
	06-02-12AB
	Exp:06-09-12
	n/a
	n/a
	n/a
	n/a
	5
	10
	20

6/11/12 RS F-

/mL TBA	Final Vol
2-12AE	w/P&T H2O
6-09-12	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

P:	
te	ul
1/12	20
8/12	1980
P:	
te	ul
1/12	20
8/12	1980
P:	
te	ul
1/12	20
8/12	1980

6/11/12 RS

Method 8260B Surrogate Solution, 2,000 mg/L, 1 ml

Made in the USA. U.S.D. only, not human consump.

Lot# 185763 | Storage 120002-01 = 10 Degrees C | Expiry 2/19/15

Solv: P/T Methanol

Method 8260B Surrogate

Lot #: 185763 - 30467

Rec: 2/20/12 MFR exp 02/19/15

RS

Thor

06-11-12G

50ug/ml 8260 Internal Standard			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
O2SI	120302-03	Internal Standard Mix	2000	166255-29275	06-11-12D	12/13/12	375
O2SI	020132-02	Fluorobenzene Standard	2000	169170-28869	06-11-12E	12/13/12	375
J.T Baker		Purge & Trap MeOH		K14E06-00626	06/11/12	08/10/12	14250

06-11-12H

50ug/ml 8260B Surrogate-Thor			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
O2SI	8260B Surr	Surrogate Standards	2000	178653-30467	06-11-12F	12/13/12	375
J.T Baker		Purge & Trap MeOH		K14E06-00626	06/11/12	08/10/12	14625

6/11/12 RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-THOR

	Expiration Date		06/12/12							
		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.	06-02-12Z	06-02-12AD	06-02-12V	06-02-12X	06-02-12AC	06-02-12AA	06-02-12W	06-02-12Y	06-02-12AB
Code	µg/L	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12
06-11-12I	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3
06-11-12J	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
06-11-12K	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
06-11-12L	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20
06-11-12M	5	n/a	n/a	5	5	10	n/a	5	5	n/a
06-11-12N	10	n/a	n/a	10	10	25	n/a	10	10	n/a
06-11-12O	20	n/a	n/a	20	20	40	n/a	20	20	n/a
06-11-12P	40	n/a	n/a	40	40	80	n/a	40	40	n/a
06-11-12Q	100	n/a	n/a	100	100	100	n/a	100	100	n/a

250µg/mL TAPD	Final Vol
06-02-12AE	w/P&T H2O
Exp 06-09-12	mL
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

6/12/12 RS

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-SWEETPEA

	Expiration Date		06/12/12							
		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	5µg/mL Vol Std #2	50µg/mL Vol Std #12
Date	Conc	06-02-12Z	06-02-12AD	06-02-12V	06-02-12X	06-02-12AC	06-02-12AA	06-02-12W	06-02-12Y	06-02-12AB
Code	µg/L	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12	Exp 06-09-12
06-11-12R	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a
06-11-12S	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a
06-11-12T	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a
06-11-12U	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a
06-11-12V	50	n/a	n/a	5	5	5	n/a	5	n/a	5
06-11-12W	100	n/a	n/a	10	10	10	n/a	10	n/a	10
06-11-12X	200	n/a	n/a	20	20	20	n/a	20	n/a	20

250µg/mL TBA	Final Vol
06-02-12AE	w/P&T H2O
Exp 06-09-12	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-SWEETPEA

Expiration Date:		07/12/12								
		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	5µg/mL Vol Std #2	50µg/mL Vol Std #12
Date	Conc.	07-05-12I	07-05-12M	07-05-12E	07-05-12G	07-05-12L	07-05-12J	07-05-12F	07-05-12H	07-05-12K
Code	µg/L	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12
07-11-12F	2	2	n/a	n/a	n/a	n/a	2	n/a	2	n/a
07-11-12G	5	5	n/a	n/a	n/a	n/a	5	n/a	5	n/a
07-11-12H	10	10	n/a	n/a	n/a	n/a	10	n/a	10	n/a
07-11-12I	20	20	n/a	n/a	n/a	n/a	20	n/a	20	n/a
07-11-12J	50	n/a	n/a	5	5	5	n/a	5	n/a	5
07-11-12K	100	n/a	n/a	10	10	10	n/a	10	n/a	10

250µg/mL TBA	Final Vol
07-05-12N	w/P&T H2O
Exp:07-12-12	mL
1	5
2	5
3	5
4	5
5	5
6	5

CHICO

07-12-12A							
50ug/ml 524 Internal Standard w/ Surrogate			Conc.		Date	Exp.	
			ug/ml	Lot #	Code	Date	uL
02SI	122450-02	524 Fortification Sol	1000	176776-29295	06-07-12A	10/10/12	200
J&T Baker		Purge & Trap MeOH		K14E06-00643	07/09/12	12/22/13	3800

Volatile Standard Curve Preparation for 10mL Purge (524 water)-CHICO

	Expiration Date:		07/13/12						
		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.	07-05-12I	07-05-12K	07-05-12E	07-05-12G	07-05-12H	07-05-12N	w/P&T H2O
Code	µg/L	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	mL
07-12-12B	0.2	2	2	n/a	n/a	n/a	2	50
07-12-12C	0.5	5	5	n/a	n/a	n/a	5	50
07-12-12D	1	10	10	n/a	n/a	n/a	10	50
07-12-12E	2	20	20	n/a	n/a	n/a	15	50
07-12-12F	5	n/a	n/a	5	5	5	20	50
07-12-12G	10	n/a	n/a	10	10	10	25	50
07-12-12H	20	n/a	n/a	20	20	20	30	50
07-12-12I	40	n/a	n/a	40	40	40	35	50
07-02-12H	100	n/a	n/a	100	100	100	40	50

4-Bromofluorobenzene
Solution, 2,500 mg/L, 1 ml

020135-03

Lot #	Storage	Expiry
163173	≤ -10 Degrees	8/24/13

Solv: P/T Methanol

* R&D only, not manufactured or sold in the USA

4-Bromofluorobenzene
Lot #: 163173 - 29063
Rec: 8/1/11 MFR exp. 08/24/13

A-

RS

07-16-12B							
25ug/ml BFB STD			Conc.		Date	EXP:	
EXP:08-16-12			ug/ml	Lot#	CODE	Date	ul
02SI	020135-03	4-Bromofluorobenzene	2500	163173-29063	07-16-12A	12/11/12	20
J&T Baker		Purge & Trap MeOH		K08E01-00643	07/16/12	09/28/13	1980
07-16-12C							
25ug/ml BFB STD			Conc.		Date	EXP:	
EXP:08-16-12			ug/ml	Lot#	CODE	Date	ul
02SI	020135-03	4-Bromofluorobenzene	2500	163173-29063	07-16-12A	12/11/12	20
J&T Baker		Purge & Trap MeOH		K08E01-00643	07/16/12	09/28/13	1980
07-16-12D							
25ug/ml BFB STD			Conc.		Date	EXP:	
EXP:08-16-12			ug/ml	Lot#	CODE	Date	ul
02SI	020135-03	4-Bromofluorobenzene	2500	163173-29063	07-16-12A	12/11/12	20
J&T Baker		Purge & Trap MeOH		K08E01-00643	07/16/12	09/28/13	1980
07-16-12E							
25ug/ml BFB STD			Conc.		Date	EXP:	
EXP:08-16-12			ug/ml	Lot#	CODE	Date	ul
02SI	020135-03	4-Bromofluorobenzene	2500	163173-29063	07-16-12A	12/11/12	20
J&T Baker		Purge & Trap MeOH		K08E01-00643	07/16/12	09/28/13	1980

7/17/12 RS

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-SWEETPEA

	Expiration Date:		07/18/12								
		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.	07-05-12I	07-05-12M	07-05-12E	07-05-12G	07-05-12L	07-05-12J	07-05-12F	07-05-12H	07-05-12K
Code	µg/L	Exp:07-12-12	Exp.07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	Exp 07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12
07-17-12A	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a
07-17-12B	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a
07-17-12C	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a
07-17-12D	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a
07-17-12E	50	n/a	n/a	5	5	5	n/a	5	n/a	5
07-17-12F	100	n/a	n/a	10	10	10	n/a	10	n/a	10
07-17-12G	200	n/a	n/a	20	20	20	n/a	20	n/a	20

— Thor 524 curve on pg. 74 RS 7/18/12 RS.

250µg/mL TBA	Final Vol
07-05-12N	(w/P&T H2O)
Exp:07-12-12	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

7/18/12 RS

7/18/12 RS

7/18/12 RS

7/18/12 RS

7/18/12 RS

7/18/12 RS

7/18/12 RS

7/18/12 RS

A-

Method 8260 Gases, 2,000 mg/L, 2 X 0.6 ml

R&D only, not human consump. Made in the USA

120016-03

Lot #	Storage	Expiry
180013	≤ -10 Degrees C	10/17/14

Solv: P/T Methanol

Method 8260 Gases

Lot #: 180013 - 29760

Rec: 10/24/11 MFR exp. 10/17/14

RS

B-

Hexachloroethane Solution, 1000 mg/L, 1 ml

R&D only, not human consump. Made in the USA

020049-02

Lot #	Storage	Expiry
176700	≤ -10 Degrees C	7/31/13

Solv: P/T Methanol

Hexachloroethane

Lot #: 176700 - 30724

Rec: 5/9/12 MFR exp. 07/31/13

RS

C-

Benzyl Chloride Solution, 1000 mg/L, 1 ml

R&D only, not human consump. Made in the USA

020228-02

Lot #	Storage	Expiry
176701	≤ -10 Degrees C	7/31/13

Solv: P/T Methanol

Benzyl Chlonde

Lot #: 176701 - 31019

Rec: 6/19/12 MFR exp. 07/31/13

RS

D-

n-Hexane Solution, 1,000 mg/L, 1 ml

R&D only, not human consump. Made in the USA

020620-02

Lot #	Storage	Expiry
176773	≤ -10 Degrees C	7/30/16

Solv: P/T Methanol

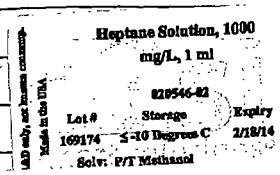
n-Hexane Solution

Lot #: 176773 - 31024

Rec: 6/19/12 MFR exp. 07/30/16

RS

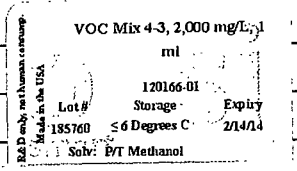
E-



Heptane Solution
Lot #: 169174 - 31039
Rec: 6/19/12 MFR exp. 02/18/14

RS

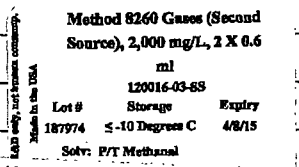
F-



VOC Mix 4-3, 2000mg/L
Lot #: 185760 - 30739
Rec: 5/9/12 MFR exp. 02/14/14

RS

G-



Method 8260 Gases (SS)
Lot #: 187974 - 31061
Rec: 6/19/12 MFR exp. 04/08/15

RS

07-18-12H							
50ug/ml Vol Work Std #7							
Exp:07/25/12							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03	Gas Mix	2000	180013-29760	07-18-12A	07/25/12	100
02SI	020049-02	HEXACHLOROETHANE	1000	176700-30724	07-18-12B	08/08/12	200
02SI	020228-02	Benzyl Chloride	1000	176701-31019	07-18-12C	08/08/12	200
J&T Brand		Purge & Trap MeOH		K14E06-00640	07/18/12	10/08/12	3500
07-18-12I							
50ug/ml Vol Work Std #1							
Exp:07/25/12							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	020145-02-02	2-CEVE	2000	176770-29827	06-19-12D	08/08/12	50
J&T Brand		Purge & Trap MeOH		K14E06-00640	07/18/12	10/08/12	1950
07-18-12J							
50ug/ml Vol Work Std #8							
Exp:07/25/12							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	122039-02	Volatile Mix, 20-29	2000	180114-29786	06-19-12E	08/08/12	100
02SI	120023-03	VOC'S-54 COMP	2000	176392-29207	06-19-12F	08/08/12	100
02SI	020232-02	Vinyl Acetate	2000	189764-30727	06-19-12G	05/13/12	100
02SI	020620-02	n-Hexane	1000	176773-31024	07-18-12D	08/08/12	200
02SI	020546-02	Heptane	1000	169174-31039	07-18-12E	08/08/12	200
J&T Brand		Purge & Trap MeOH		K14E06-00640	07/18/12	10/08/12	3300
07-18-12K							
50ug/ml Vol Work Std #2							
Exp:07/25/12							
Supplier	ID #	ID	ug/ml				
02SI	121020-05	HSL'S-Ketone Solution	2000	163375-27145	06-19-12J	08/08/12	100
J&T Brand		Purge & Trap MeOH		K14E06-00640	07/18/12	10/08/12	3900

		07-18-12L	Exp:	07/25/12			
		5ug/ml Vol Work Std #9					
		SOURCES	**Lot**	**APPL Code**	APPL Exp Date	ul	
		50ug/ml Vol Work Std #7		07-18-12H	07/25/12	200	
		50ug/ml Vol Work Std #8		07-18-12J	07/25/12	200	
		J&T Brand		06/18/12	10/08/12	1600	
		07-18-12M	Exp:	07/25/12			
		5ug/ml Vol Work Std #10					
		SOURCES	**Lot**	**APPL Code**	APPL Exp Date	ul	
		50ug/ml Vol Work Std #1		07-18-12I	07/25/12	200	
		J&T Brand		06/18/12	10/08/12	1800	
		07-18-12N	Exp:	07/25/12			
		5ug/ml Vol Work Std #12					
		SOURCES	**Lot**	**APPL Code**	APPL Exp Date	ul	
		50ug/ml Vol Work Std #2		07-18-12K	07/25/12	200	
		J&T Brand		06/18/12	10/08/12	1800	
07-18-12O							
50ug/ml 8260 Surrogate			Conc.		Date	Exp:	
Exp:07/25/12			ug/ml	Lot #	Code	Date	uL
O2SI	120002-01	8260B Surr Solution	2000	185763-30471	07-05-12B	08/08/12	100
J&T Brand		Purge & Trap MeOH		K14E06-00640	07/18/12	10/08/12	3900
07-18-12P			Exp:	07/25/12			
5.0ug/ml 8260 Surrogate			**Lot**	**APPL Code**	APPL Exp Date	ul	
		50ug/ml 8260 Surrogate		07-18-12O	07/25/12	200	
J&T Brand		Purge & Trap MeOH		06/18/12	10/08/12	1800	
07-18-12Q							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P							
Exp:07/25/12			Conc.		Date	Exp:	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120166-01	Volatile Mix 4-3	2000	185760-30739	07-18-12F	08/08/12	500
02SI	020229-09	Acrolein	10000	191590-39077	06-19-12L	07/21/12	100
J&T Brand		Purge & Trap MeOH		K14E06-00640	07/18/12	10/08/12	3400

7/18/12 RS

07-18-12R							
50ug/ml VOC Std#5							
Exp:07/25/12					Date	Exp:	
			Conc.		Code	Date	ul
Supplier	ID #	ID	ug/ml	Lot #	07-18-12G	07/25/12	50
O2SI	120016-03-SS	8260 Gases(SS)	2000	187974-31061	06-19-12N	08/08/12	50
O2SI	020145-02-02-S	2-CEVE	2000	181404-30001	07/18/12	10/08/12	1900
J&T Brand		Purge & Trap MeOH		K14E06-00640			
07-18-12S							
50ug/ml VOC Std#6							
Exp:07/25/12					Code	Date	ul
	ID #	ID	ug/ml	Lot #	06-19-12O	08/08/12	50
02SI	120023-03-SS	VOC'S 54 COMP.	2000	176822-29269	06-19-12P	08/08/12	50
O2SI	120296-01	Custom 8260 Solution	2000	185766-60426	05-08-12J	08/12/12	50
02SI	020232-02-SS	Vinyl Acetate(SS)	2000	189765-30729	05-15-12K	08/08/12	100
02SI	020620-02-SS	n-HEXANE	1000	179199-29616	05-15-12L	08/08/12	100
02SI	020049-02-SS	HEXACHLOROETHANE	1000	183795-30438	05-15-12M	08/08/12	100
02SI	020546-02-SS	Heptane(SS)	1000	185762-30448	07/18/12	10/08/12	1550
J&T Brand		Purge & Trap MeOH		K14E06-00640			
07-18-12T							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P							
Exp:07/25/12			Conc.		Date	Exp:	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
O2SI	120166-01-SS	VOC Mix 4-3 (SS)	2000	163778-29840	06-19-12Q	08/08/12	250
02SI	020229-09-SS	Acrolein SOLUTION (SS)	10000	151591-30979	06-19-12R	07/21/12	50
J&T Brand		Purge & Trap MeOH		K14E06-00640	07/18/12	10/08/12	1700

7/18/12 RS

Volatile Standard Curve Preparation for 10mL Purge (524 water)-THOR

	Expiration Date:		07/18/12					Final Vol.
		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	w/P&T H2O
Date	Conc.	07-05-12I	07-05-12K	07-05-12E	07-05-12G	07-05-12H	07-05-12N	mL
Code	µg/L	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	Exp:07-12-12	50
07-17-12A	0.2	2	2	n/a	n/a	n/a	2	50
07-17-12B	0.5	5	5	n/a	n/a	n/a	5	50
07-17-12C	1	10	10	n/a	n/a	n/a	10	50
07-17-12D	2	20	20	n/a	n/a	n/a	15	50
07-17-12E	5	n/a	n/a	5	5	5	20	50
07-17-12F	10	n/a	n/a	10	10	10	25	50
07-17-12G	40	n/a	n/a	40	40	40	35	50
07-17-12H	100	n/a	n/a	100	100	100	40	50

7/18/12 RS

07/19/12A							
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		K08E01-00640	07/18/12	08/02/13	1800
07/19/12B							
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		K08E01-00640	07/18/12	08/02/13	1920

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-THOR

	Expiration Date:		07/20/12							
	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	5µg/mL Vol Std #12
Date	Conc.	07-18-12L	07-18-12P	07-18-12H	07-18-12J	07-18-12O	07-18-12M	07-18-12I	07-18-12K	07-18-12N
Code	µg/L	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp.07-25-12	Exp.07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12
07-19-12C	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3
07-19-12D	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
07-19-12E	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
07-19-12F	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20
07-19-12G	5	n/a	n/a	5	5	10	n/a	5	5	n/a
07-19-12H	10	n/a	n/a	10	10	25	n/a	10	10	n/a
07-19-12I	20	n/a	n/a	20	20	40	n/a	20	20	n/a
07-19-12J	40	n/a	n/a	40	40	80	n/a	40	40	n/a
07-19-12K	100	n/a	n/a	100	100	100	n/a	100	100	n/a

250µg/mL TAPD	Final Vol
07-18-12Q	w/P&T H2O
Exp:07-25-12	mL
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

Gasoline Curve Preparation for 100mL Purge (water)-THOR

	Expiration Date.		07/20/12
		50µg/mL Gasoline	Final Vol
Date	Conc.	07-19-12A	w/P&T H2O
Code	µg/L	Exp 01-03-13	mL
07-19-12L	20	1	100
07-19-12M	50	2.5	100
07-19-12N	100	5	100
07-19-12O	300	15	100
07-19-12P	600	30	100
07-19-12Q	800	40	100
07-19-12R	1000	50	100

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-SWEETPEA

	Expiration Date:		07/20/12						
	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.	07-18-12L	07-18-12P	07-18-12H	07-18-12J	07-18-12O	07-18-12M	07-18-12I	07-18-12K	07-18-12N
Code	µg/L	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12
07-19-12S	2	2	n/a	n/a	n/a	2	n/a	2	n/a
07-19-12T	5	5	n/a	n/a	n/a	5	n/a	5	n/a
07-19-12U	10	10	n/a	n/a	n/a	10	n/a	10	n/a
07-19-12V	20	20	n/a	n/a	n/a	20	n/a	20	n/a
07-19-12W	50	n/a	5	5	5	n/a	5	n/a	5
07-19-12X	100	n/a	10	10	10	n/a	10	n/a	10
07-19-12Y	200	n/a	20	20	20	n/a	20	n/a	20

250µg/mL TBA	Final Vol
07-18-12Q	w/P&T H2O
Exp:07-25-12	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-NEO

	Expiration Date:		07/24/12						
	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.	07-18-12L	07-18-12P	07-18-12H	07-18-12J	07-18-12O	07-18-12M	07-18-12I	07-18-12K	07-18-12N
Code	µg/L	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12
07-23-12A	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3
07-23-12B	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
07-23-12C	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
07-23-12D	5	n/a	n/a	5	5	10	n/a	5	5	n/a
07-23-12E	10	n/a	n/a	10	10	25	n/a	10	10	n/a
07-23-12F	20	n/a	n/a	20	20	40	n/a	20	20	n/a
07-23-12G	40	n/a	n/a	40	40	80	n/a	40	40	n/a
07-23-12H	100	n/a	n/a	100	100	100	n/a	100	100	n/a
07-23-12I	200	n/a	n/a	200	200	125	n/a	200	200	n/a

250µg/mL TAPD	Final Vol
07-18-12Q	w/P&T H2O
Exp:07-25-12	mL
3	50
5	50
10	50
20	50
25	50
30	50
35	50
40	50
45	50

Neo 524

07-24-12A

7/24/12 RS

10ug/ml Neo-524 Internal Standard w/ Surrogate

			Conc.		Date	Exp
			ug/ml	Lot #	Code	Date
02SI	122450-02	524 Fortification Sol	1000	176776-29295	06-07-12A	09/10/12
J.T.Baker		Purge & Trap MeOH		K08E01-00645	07/20/12	12/12/12

7/30/12 RS

Volatile Standard Curve Preparation for 10mL Purge (524 water)-NEO

	Expiration Date:		07/25/12						
		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	07-18-12L	07-18-12N	07-18-12H	07-18-12J	07-18-12K	07-18-12Q	w/P&T H2O
Code	µg/L	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	mL
07-24-12B	0.2	2	2	n/a	n/a	n/a	2	50
07-24-12C	0.5	5	5	n/a	n/a	n/a	5	50
07-24-12D	1	10	10	n/a	n/a	n/a	10	50
07-24-12E	2	20	20	n/a	n/a	n/a	15	50
07-24-12F	5	n/a	n/a	5	5	5	20	50
07-24-12G	10	n/a	n/a	10	10	10	25	50
07-24-12H	40	n/a	n/a	40	40	40	35	50

7/24/12 RS

7/30/12 RS

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-SWEETPEA

	Expiration Date:		07/25/12								
		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 #1B	5µg/mL Vol Std #2	50µg/mL Vol Std #1
Date	Conc	07-18-12L	07-18-12P	07-18-12H	07-18-12J	07-18-12O	07-18-12M	07-18-12I	07-18-12K	07-18-12N
Code	µg/L	Exp:07-25-12	Exp.07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12	Exp:07-25-12
07-24-12I	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a
07-24-12J	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a
07-24-12K	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a
07-24-12L	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a
07-24-12M	50	n/a	n/a	5	5	5	n/a	5	n/a	5
07-24-12N	100	n/a	n/a	10	10	10	n/a	10	n/a	10
07-24-12O	200	n/a	n/a	20	20	20	n/a	20	n/a	20

7/24/12 RS

250µg/mL TBA	Final Vol
07-18-12Q	w/P&T H2O
Exp:07-25-12	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

7/30/12 RS

Gasoline Curve Preparation for 100mL Purge (water)-THOR

	Expiration Date:	50µg/mL Gasoline	07/25/12 Final Vol
Date	Conc.	07-19-12A	w/P&T H2O
Code	µg/L	Exp.01-03-13	mL
07-24-12P	20	1	100
07-24-12Q	100	5	100
07-24-12R	300	15	100
07-24-12S	600	30	100
07-24-12T	800	40	100

7/24/12 RS

7/30/12 RS

Gasoline Curve Preparation for 100mL Purge (water)-THOR

	Expiration Date:	50µg/mL Gasoline	07/26/12 Final Vol
Date	Conc.	07-19-12A	w/P&T H2O
Code	µg/L	Exp.01-03-13	mL
07-25-12A	20	1	100
07-25-12B	50	2.5	100
07-25-12C	100	5	100
07-25-12D	300	15	100
07-25-12E	600	30	100
07-25-12F	800	40	100
07-25-12G	1000	50	100

7/25/12 RS

7/30/12 RS

Custom VOC Mix, 16-4, 100 mg/L, 4 x 1 ml

122725-03-4PAK

Lot#	Storage	Expiry
181120	≤ -10 Degrees C	11/6/13

Solv: P/T Methanol

R&D only, not human consump. Made in the USA

Custom VOC Mix 16-4

Lot #: 181120 - 30032

Rec: 11/16/11 MFR exp. 11/06/13

7/30/12 RS

Injection Log

Directory: M:\THOR\DATA\T120719

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0719T01T.D	1	5ng- BFB STD 07-16-12B	2ul	07/19/2012 09:15
2	5	0719T05.D	1	0.3ug/L Vol Std 07-19-12	10ml w/5ul of IS&S: 06-7	07/19/2012 11:01
3	6	0719T06.D	1	0.5ug/L Vol Std 07-19-12	10ml w/5ul of IS&S: 06-7	07/19/2012 11:29
4	7	0719T07.D	1	1.0ug/L Vol Std 07-19-12	10ml w/5ul of IS&S: 06-7	07/19/2012 11:57
5	8	0719T08.D	1	2.0ug/L Vol Std 07-19-12	10ml w/5ul of IS&S: 06-7	07/19/2012 12:25
6	9	0719T09.D	1	5.0ug/L Vol Std 07-19-12	10ml w/5ul of IS&S: 06-7	07/19/2012 12:53
7	10	0719T10.D	1	10ug/L Vol Std 07-19-12	10ml w/5ul of IS&S: 06-7	07/19/2012 13:20
8	11	0719T11.D	1	20ug/L Vol Std 07-19-12	10ml w/5ul of IS&S: 06-7	07/19/2012 13:48
9	12	0719T12.D	1	40ug/L Vol Std 07-19-12	10ml w/5ul of IS&S: 06-7	07/19/2012 14:16
10	13	0719T13.D	1	100ug/L Vol Std 07-19-12	10ml w/5ul of IS&S: 06-7	07/19/2012 14:44
11	28	0719T28.D	1	5ng- BFB Std 07-16-12B	2uL	07/19/2012 21:40
12	31	0719T31.D	1	120719A LCS-1WT (SS)	10ml w/5ul of IS&S: 06-7	07/19/2012 23:03
13	40	0719T40.D	1	AY65042W01	10ml w/5ul of IS&S: 06-7	07/20/2012 03:13
14	43	0719T43.D	1	AY65041W01	10ml w/5ul of IS&S: 06-7	07/20/2012 04:36
15	44	0719T44.D	1	AY65043W01	10ml w/5ul of IS&S: 06-7	07/20/2012 05:03
16	45	0719T45.D	1	AY65044W01	10ml w/5ul of IS&S: 06-7	07/20/2012 05:31

Injection Log

Directory: M:\THOR\DATA\T120724

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0724T01T.D	1	5ng- BFB STD 07-16-12B	2ul	07/24/2012 16:11
2	1	0724T02.D	1	VOC MIX MARKER	10ml w/5ul of IS&S: 06-7	07/24/2012 16:33
3	2	0724T03.D	1	20ug/L Vol Std 07-24-12	10ml w/5ul of IS&S: 06-7	07/24/2012 17:01
4	3	0724T04.D	1	100ug/L Vol Std 07-24-12	10ml w/5ul of IS&S: 06-7	07/24/2012 17:29
5	4	0724T05.D	1	300ug/L Vol Std 07-24-12	10ml w/5ul of IS&S: 06-7	07/24/2012 17:57
6	5	0724T06.D	1	600ug/L Vol Std 07-24-12	10ml w/5ul of IS&S: 06-7	07/24/2012 18:24
7	6	0724T07.D	1	800ug/L Vol Std 07-24-12	10ml w/5ul of IS&S: 06-7	07/24/2012 18:52
8	8	0724T09.D	1	CCV gas 300ug/L	10ml w/5ul of IS&S: 06-7	07/24/2012 19:48
9	9	0724T10.D	1	LCS gas 300ug/L (SS)	10ml w/5ul of IS&S: 06-7	07/24/2012 20:15
10	12	0724T13.D	1	120724A BLK-1WT	10ml w/5ul of IS&S: 06-7	07/24/2012 21:39
11	13	0724T14.D	1	AY65042W02	10ml w/5ul of IS&S: 06-7	07/24/2012 22:06
12	14	0724T15.D	1	AY65041W02	10ml w/5ul of IS&S: 06-7	07/24/2012 22:34
13	15	0724T16.D	1	AY65043W02	10ml w/5ul of IS&S: 06-7	07/24/2012 23:02
14	16	0724T17.D	1	AY65044W02	10ml w/5ul of IS&S: 06-7	07/24/2012 23:30

METALS

APPL, INC.

METALS
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	07/19/12	07/20/12	#602D-120719A-AY65044

Laboratory Control Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOLVED)	50.0	53.0	106	80-120	07/19/12	07/20/12	#602D-120719A-AY65044

Comments: _____

Matrix Spike Recoveries

METALS

APPL ID: **120719W-65044 MS - 169266**

Sample ID: AY65044

Client ID: ES080

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	0.21	50.9	51.5	101	103	1.2	20	80-120	07/19/12	07/20/12	07/19/12	07/20/12	169266	AY65044

Comments: _____

METALS
Sample Data

APPL, INC.

Metals Analysis

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

Attn: Max Solmssen

Project: LTM Red Hill / 1022-024

Sample ID: ES077

Sample Collection Date: 07/17/12

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 68248

APPL ID: AY65041

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	2.2	0.5	0.22	0.11	ug/L	1	07/19/12	07/20/12

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12G20K00.B\034SMPL.D\034SMPL.D#
Date Acquired: Jul 20 2012 01:49 pm
Operator: NBS
Sample Name: AY65041W08
Misc Info: 120719A-3015
Vial Number: 3201
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 am
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	86.45	1000	
11 B	50.81	ug/l	56.45	1.42	1000	
23 Na	45340.00	ug/l	50372.74	1.33	25000	>Cal
24 Mg	19630.00	ug/l	21808.93	0.91	50000	
27 Al	22.69	ug/l	25.21	6.07	20000	
39 K	2642.00	ug/l	2935.26	0.78	20000	
44 Ca	21850.00	ug/l	24275.35	0.82	50000	
47 Ti	2.73	ug/l	3.04	6.71	1000	
51 V	13.72	ug/l	15.24	0.86	1000	
52 Cr	2.11	ug/l	2.34	2.05	1000	
55 Mn	0.89	ug/l	0.99	1.67	1000	
56 Fe	12.31	ug/l	13.68	0.42	20000	
59 Co	0.55	ug/l	0.61	1.77	1000	
60 Ni	0.32	ug/l	0.35	5.58	1000	
63 Cu	0.55	ug/l	0.61	1.56	1000	
65 Cu	0.56	ug/l	0.62	5.92	1000	
66 Zn	4.51	ug/l	5.01	2.18	1000	
75 As	0.11	ug/l	0.12	6.44	1000	
78 Se	0.31	ug/l	0.34	31.49	1000	
78 Se	0.84	ug/l	0.93	10.85	1000	
88 Sr	168.60	ug/l	187.31	0.34	1000	
88 Sr	161.00	ug/l	178.87	1.13	1000	
95 Mo	0.33	ug/l	0.37	7.03	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	0.01	ug/l	0.01	14.87	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	0.38	ug/l	0.42	5.34	1000	
118 Sn	0.55	ug/l	0.62	14.94	#######	
118 Sn	0.43	ug/l	0.48	2.25	#######	
118 Sn	0.37	ug/l	0.42	3.05	1000	
121 Sb	0.33	ug/l	0.36	3.49	1000	
137 Ba	8.95	ug/l	9.94	1.28	1000	
205 Tl	0.04	ug/l	0.04	4.24	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	1.98	ug/l	2.20	1.35	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-40996.51	9.43	-29895.57	137.1	70 - 120	IS Fai
45 Sc	2520551.30	11.18	2830107.80	89.1	70 - 120	
45 Sc	433565.97	0.53	373389.06	116.1	70 - 120	
45 Sc	9316079.00	1.08	7835315.00	118.9	70 - 120	
72 Ge	684287.50	10.25	735211.94	93.1	70 - 120	
72 Ge	279032.97	1.12	261572.13	106.7	70 - 120	
72 Ge	1963621.00	0.62	1727774.30	113.7	70 - 120	
115 In	4456321.00	13.37	5361365.50	83.1	70 - 120	
115 In	2944505.30	0.36	2785210.00	105.7	70 - 120	
115 In	12274897.00	1.15	10908714.00	112.5	70 - 120	
159 Tb	16378610.00	1.21	14663948.00	111.7	70 - 120	
165 Ho	16089183.00	0.54	14116038.00	114.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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

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: 68248

Sample ID: ES079

APPL ID: AY65043

Sample Collection Date: 07/17/12

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.17J	0.5	0.22	0.11	ug/L	1	07/19/12	07/20/12

J = Estimated value.

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\12G20k00.B\038SMPL.D\038SMPL.D#
Date Acquired:	Jul 20 2012 02:16 pm
Operator:	NBS
Sample Name:	AY65043W08
Misc Info:	120719A-3015
Vial Number:	3202
Current Method:	C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File:	C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update:	Jul 20 2012 11:00 am
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	220.37	1000	
11 B	461.00 ug/l	512.17	0.97	1000	
23 Na	121500.00 ug/l	134986.50	1.12	25000	>Cal
24 Mg	20660.00 ug/l	22953.26	1.02	50000	
27 Al	27.80 ug/l	30.89	1.71	20000	
39 K	3139.00 ug/l	3487.43	0.49	20000	
44 Ca	14610.00 ug/l	16231.71	1.10	50000	
47 Ti	4.30 ug/l	4.77	9.36	1000	
51 V	35.12 ug/l	39.02	1.13	1000	
52 Cr	6.47 ug/l	7.19	2.53	1000	
55 Mn	0.51 ug/l	0.57	3.18	1000	
56 Fe	20.83 ug/l	23.14	1.75	20000	
59 Co	0.20 ug/l	0.22	2.33	1000	
60 Ni	1.21 ug/l	1.34	5.56	1000	
63 Cu	1.30 ug/l	1.44	2.85	1000	
65 Cu	1.34 ug/l	1.48	1.19	1000	
66 Zn	8.99 ug/l	9.98	1.82	1000	
75 As	0.40 ug/l	0.45	4.21	1000	
78 Se	0.32 ug/l	0.36	5.05	1000	
78 Se	0.86 ug/l	0.95	9.57	1000	
88 Sr	152.10 ug/l	168.98	0.20	1000	
88 Sr	144.90 ug/l	160.98	1.06	1000	
95 Mo	1.94 ug/l	2.15	2.83	1000	
106 (Cd)	-------- ug/l	#VALUE!	--------	########	
107 Ag	0.00 ug/l	0.00	18.42	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	########	
111 Cd	0.04 ug/l	0.05	24.25	1000	
118 Sn	0.37 ug/l	0.41	2.68	########	
118 Sn	0.37 ug/l	0.41	4.44	########	
118 Sn	0.29 ug/l	0.32	4.91	1000	
121 Sb	0.26 ug/l	0.29	4.65	1000	
137 Ba	11.85 ug/l	13.17	1.95	1000	
205 Tl	0.04 ug/l	0.04	4.85	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	########	
207 (Pb)	-------- ug/l	#VALUE!	--------	########	
208 Pb	0.15 ug/l	0.17	4.91	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-39970.72	12.96	-29895.57	133.7	70 - 120	IS Fai NT NBS 07/23/12
45 Sc	3172666.50	1.67	2830107.80	112.1	70 - 120	
45 Sc	433928.22	0.99	373389.06	116.2	70 - 120	
45 Sc	9420520.00	1.20	7835315.00	120.2	70 - 120	IS Fai NT NBS 07/23/12
72 Ge	785387.13	0.39	735211.94	106.8	70 - 120	
72 Ge	279600.34	1.17	261572.13	106.9	70 - 120	
72 Ge	1983955.30	0.67	1727774.30	114.8	70 - 120	
115 In	5540059.00	1.42	5361365.50	103.3	70 - 120	
115 In	2927575.00	0.59	2785210.00	105.1	70 - 120	
115 In	12295342.00	0.50	10908714.00	112.7	70 - 120	
159 Tb	16416978.00	0.98	14663948.00	112.0	70 - 120	
165 Ho	15952934.00	1.16	14116038.00	113.0	70 - 120	

Tb159 is associated with Pb.
-NBS 07/23/12

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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: 68248

Sample ID: ES080

APPL ID: AY65044

Sample Collection Date: 07/17/12

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.21 J	0.5	0.22	0.11	ug/L	1	07/19/12	07/20/12

J = Estimated value.

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12G20k00.B\039SMPL.D\039SMPL.D#
Date Acquired: Jul 20 2012 02:23 pm
Operator: NBS
Sample Name: AY65044W08
Misc Info: 120719A-3015
Vial Number: 3203
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 am
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	63.72	1000	
11 B	458.50 ug/l	509.39	1.33	1000	
23 Na	122200.00 ug/l	135764.20	1.54	25000	>Cal
24 Mg	20870.00 ug/l	23186.57	1.17	50000	
27 Al	35.57 ug/l	39.52	7.14	20000	
39 K	3182.00 ug/l	3535.20	1.12	20000	
44 Ca	14740.00 ug/l	16376.14	1.44	50000	
47 Ti	2.39 ug/l	2.66	10.06	1000	
51 V	35.17 ug/l	39.07	1.41	1000	
52 Cr	6.49 ug/l	7.21	1.40	1000	
55 Mn	1.66 ug/l	1.85	1.78	1000	
56 Fe	24.03 ug/l	26.70	1.21	20000	
59 Co	0.82 ug/l	0.91	2.92	1000	
60 Ni	1.28 ug/l	1.42	4.53	1000	
63 Cu	1.37 ug/l	1.52	1.65	1000	
65 Cu	1.36 ug/l	1.51	1.42	1000	
66 Zn	12.96 ug/l	14.40	1.19	1000	
75 As	0.39 ug/l	0.43	6.13	1000	
78 Se	0.47 ug/l	0.52	4.88	1000	
78 Se	1.00 ug/l	1.11	4.53	1000	
88 Sr	153.30 ug/l	170.32	0.89	1000	
88 Sr	146.30 ug/l	162.54	0.20	1000	
95 Mo	1.97 ug/l	2.19	2.91	1000	
106 (Cd)	-------- ug/l	#VALUE!	--------	#######	
107 Ag	0.00 ug/l	0.00	95.34	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	#######	
111 Cd	0.05 ug/l	0.06	15.35	1000	
118 Sn	0.29 ug/l	0.33	8.47	#######	
118 Sn	0.20 ug/l	0.23	4.89	#######	
118 Sn	0.19 ug/l	0.21	3.93	1000	
121 Sb	0.18 ug/l	0.20	3.45	1000	
137 Ba	11.97 ug/l	13.30	0.71	1000	
205 Tl	0.04 ug/l	0.04	7.08	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	#######	
207 (Pb)	-------- ug/l	#VALUE!	--------	#######	
208 Pb	0.19 ug/l	0.21	3.45	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-39160.43	21.55	-29895.57	131.0	70 - 120	IS Fai
45 Sc	2372152.80	8.31	2830107.80	83.8	70 - 120	
45 Sc	438536.59	1.72	373389.06	117.4	70 - 120	
45 Sc	9508099.00	0.16	7835315.00	121.3	70 - 120	IS Fai
72 Ge	632287.56	11.44	735211.94	86.0	70 - 120	
72 Ge	285020.94	0.87	261572.13	109.0	70 - 120	
72 Ge	1980289.60	0.52	1727774.30	114.6	70 - 120	
115 In	3969487.00	10.89	5361365.50	74.0	70 - 120	
115 In	2966220.50	0.80	2785210.00	106.5	70 - 120	
115 In	12340703.00	0.12	10908714.00	113.1	70 - 120	
159 Tb	16588778.00	0.76	14663948.00	113.1	70 - 120	
165 Ho	16147580.00	0.55	14116038.00	114.4	70 - 120	

NT NBS 07/23/12

NT NBS 07/23/12

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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
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: 68248 SDG: 68248
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 07/20/12 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 11:03	%R(1)	True CCV1	Found 11:23	%R(1)	True CCV1	Found 12:50	%R(1)	
Lead (Pb)	100	100.7	101	50	51.64	103	50	50.96	102	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: 68248 SDG: 68248
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 07/20/12 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 11:03	%R(1)	True CCV1	Found 13:56	%R(1)	True CCV1	Found 14:56	%R(1)	
Lead (Pb)	100	100.7	101	50	50.98	102	50	50.8	102	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.: 68248 SDG: 68248

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 07/20/12

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)								Preparation Blank		M
		C	1	C	2	C	3	C				C	
	11:16		11:30		13:03		14:09				12:03		
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.: 68248 SDG: 68248

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 07/20/12

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	11:16		15:10						12:03		
Lead (Pb)	.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.:	68248	SDG:	68248
ICP ID Number:	Optimus	ICS Source:	Environmental Express

Analysis Date: 07/20/12 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 11:36	Sol AB 11:43	%R(1)
Lead (Pb)		500	0.4106	433.9	86.8

(1) Control Limits: Metals 80-120

A.P.P.L. INC.

9

ICP SERIAL DILUTION

CLIENT SAMPLE NO.

ES080

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 68248 SDG: 68248

Matrix: water

Analysis Date: 07/20/12 Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	%D	Q	M
Lead (Pb)	0.206127		0.2317964		NA		

Comments:

07/20/12 14:23 AY65044W08

07/20/12 14:49 AY65044W08-1/5

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\12G20k00.B\043SMPL.D\043SMPL.D#
Date Acquired:	Jul 20 2012 02:49 pm
Operator:	NBS
Sample Name:	AY65044W08-1/5
Misc Info:	120719A-3015
Vial Number:	3207
Current Method:	C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File:	C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update:	Jul 20 2012 11:00 am
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	0.00	5976.30	1000	
11 B	109.20	ug/l	606.72	0.76	1000	
23 Na	25570.00	ug/l	142066.92	1.66	25000	>Cal
24 Mg	4545.00	ug/l	25252.02	2.89	50000	
27 Al	7.54	ug/l	41.88	2.79	20000	
39 K	682.10	ug/l	3789.75	1.33	20000	
44 Ca	3012.00	ug/l	16734.67	2.56	50000	
47 Ti	0.54	ug/l	3.01	17.23	1000	
51 V	7.12	ug/l	39.53	1.13	1000	
52 Cr	1.32	ug/l	7.31	1.25	1000	
55 Mn	0.33	ug/l	1.85	5.94	1000	
56 Fe	5.16	ug/l	28.65	1.75	20000	
59 Co	0.19	ug/l	1.06	2.01	1000	
60 Ni	0.26	ug/l	1.45	13.02	1000	
63 Cu	0.31	ug/l	1.72	1.45	1000	
65 Cu	0.31	ug/l	1.75	1.16	1000	
66 Zn	2.90	ug/l	16.13	1.56	1000	
75 As	0.13	ug/l	0.73	8.55	1000	
78 Se	0.10	ug/l	0.56	4.78	1000	
78 Se	0.48	ug/l	2.66	43.02	1000	
88 Sr	30.94	ug/l	171.90	0.40	1000	
88 Sr	30.44	ug/l	169.12	0.90	1000	
95 Mo	0.47	ug/l	2.63	4.40	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	0.09	ug/l	0.49	5.02	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	0.00	ug/l	0.02	306.87	1000	
118 Sn	0.45	ug/l	2.51	5.50	#######	
118 Sn	0.43	ug/l	2.36	8.46	#######	
118 Sn	0.35	ug/l	1.92	9.36	1000	
121 Sb	0.13	ug/l	0.71	1.70	1000	
137 Ba	2.44	ug/l	13.54	1.76	1000	
205 Tl	0.03	ug/l	0.16	3.46	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	0.04	ug/l	0.23	2.07	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-40223.52	12.94	-29895.57	134.5	70 - 120	IS Fai
45 Sc	3360235.30	0.60	2830107.80	118.7	70 - 120	
45 Sc	453760.09	1.66	373389.06	121.5	70 - 120	IS Fai
45 Sc	9541783.00	0.77	7835315.00	121.8	70 - 120	IS Fai
72 Ge	853571.63	0.65	735211.94	116.1	70 - 120	
72 Ge	297711.91	0.39	261572.13	113.8	70 - 120	
72 Ge	2050779.00	0.29	1727774.30	118.7	70 - 120	
115 In	6019070.50	0.54	5361365.50	112.3	70 - 120	
115 In	3115347.80	0.48	2785210.00	111.9	70 - 120	
115 In	12696071.00	0.76	10908714.00	116.4	70 - 120	
159 Tb	16751240.00	0.74	14663948.00	114.2	70 - 120	
165 Ho	16198755.00	0.46	14116038.00	114.8	70 - 120	

NT NBS 07/23/12

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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

A.P.P.L. INC.

5B

POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMPLE NO.

ES080

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 68248 SDG: 68248

Analysis Date: 07/20/12 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	241.647		0.206127		277.500	87.0		

Comments:

07/20/12 14:23 AY65044W08

07/20/12 14:43 AY65044W08-A

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\12G20k00.B\042SMPL.D\042SMPL.D#
Date Acquired:	Jul 20 2012 02:43 pm
Operator:	NBS
Sample Name:	AY65044W08-A
Misc Info:	120719A-3015
Vial Number:	3206
Current Method:	C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File:	C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update:	Jul 20 2012 11:00 am
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	47.23	ug/l	52.47	1.10	1000	
11 B	701.40	ug/l	779.26	1.12	1000	
23 Na	145500.00	ug/l	161650.50	1.30	25000	>Cal
24 Mg	43370.00	ug/l	48184.07	1.70	50000	
27 Al	2033.00	ug/l	2258.66	1.69	20000	
39 K	7654.00	ug/l	8503.59	0.30	20000	
44 Ca	39270.00	ug/l	43628.97	0.34	50000	
47 Ti	245.90	ug/l	273.19	1.41	1000	
51 V	275.40	ug/l	305.97	3.23	1000	
52 Cr	242.40	ug/l	269.31	0.52	1000	
55 Mn	243.40	ug/l	270.42	0.36	1000	
56 Fe	945.50	ug/l	1050.45	1.31	20000	
59 Co	212.40	ug/l	235.98	1.80	1000	
60 Ni	223.30	ug/l	248.09	1.20	1000	
63 Cu	221.60	ug/l	246.20	0.64	1000	
65 Cu	218.90	ug/l	243.20	0.84	1000	
66 Zn	473.70	ug/l	526.28	1.20	1000	
75 As	242.30	ug/l	269.20	1.39	1000	
78 Se	218.20	ug/l	242.42	0.75	1000	
78 Se	224.30	ug/l	249.20	0.75	1000	
88 Sr	380.60	ug/l	422.85	0.78	1000	
88 Sr	386.30	ug/l	429.18	0.28	1000	
95 Mo	233.20	ug/l	259.09	1.31	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	73.35	ug/l	81.49	4.18	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	46.67	ug/l	51.85	0.84	1000	
118 Sn	235.40	ug/l	261.53	0.91	#######	
118 Sn	255.30	ug/l	283.64	0.80	#######	
118 Sn	232.60	ug/l	258.42	0.80	1000	
121 Sb	232.90	ug/l	258.75	0.65	1000	
137 Ba	239.90	ug/l	266.53	1.54	1000	
205 Tl	222.90	ug/l	247.64	0.32	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	217.70	ug/l	241.86	0.77	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-43038.52	9.53	-29895.57	144.0	70 - 120	IS Fai
45 Sc	3265639.00	0.31	2830107.80	115.4	70 - 120	
45 Sc	439850.38	0.68	373389.06	117.8	70 - 120	
45 Sc	9618463.00	0.62	7835315.00	122.8	70 - 120	IS Fai
72 Ge	807098.69	0.14	735211.94	109.8	70 - 120	
72 Ge	283830.00	1.07	261572.13	108.5	70 - 120	
72 Ge	1982567.10	0.28	1727774.30	114.7	70 - 120	
115 In	5647796.00	0.38	5361365.50	105.3	70 - 120	
115 In	2915070.30	1.28	2785210.00	104.7	70 - 120	
115 In	12322294.00	0.28	10908714.00	113.0	70 - 120	
159 Tb	16564629.00	0.26	14663948.00	113.0	70 - 120	
165 Ho	16098688.00	0.13	14116038.00	114.0	70 - 120	

NT > NBS 07/23/12

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\12G20k00.B\004CAL
Date Acquired:	Jul 20 2012 10:30 am
Operator:	NBS
Sample Name:	Calibration Blank
Misc Info:	
Vial Number:	1102
Current Method:	C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File:	C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update:	Jul 20 2012 10:27 am
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	-29895.57	A	877.00	2.93
7	(Li)	4576693.00	A	37990.00	0.83
9	Be	42.22	P	21.69	51.37
11	B	11861.70	P	29.08	0.25
23	Na	57175.73	P	949.50	1.66
24	Mg	157.78	P	35.64	22.59
27	Al	63.34	P	26.67	42.11
39	K	35388.66	P	317.50	0.90
44	Ca	207.09	P	5.53	2.67
45	Sc	2830108.00	A	21570.00	0.76
45	Sc	373389.00	A	655.30	0.18
45	Sc	7835315.00	A	58030.00	0.74
47	Ti	7.56	P	8.57	113.45
51	V	51.56	P	13.15	25.51
52	Cr	400.01	P	18.81	4.70
55	Mn	330.68	P	8.11	2.45
56	Fe	3806.36	P	31.23	0.82
59	Co	102.22	P	8.15	7.97
60	Ni	96.00	P	6.11	6.36
63	Cu	184.45	P	21.72	11.78
65	Cu	84.89	P	3.08	3.63
66	Zn	277.34	P	1.33	0.48
72	Ge	735211.88	A	1902.00	0.26
72	Ge	261572.09	A	6168.00	2.36
72	Ge	1727774.00	A	4855.00	0.28
75	As	24.89	P	3.17	12.73
78	Se	15.22	P	1.17	7.69
78	Se	130.45	P	7.88	6.04
88	Sr	194.45	P	16.44	8.45
88	Sr	514.47	P	15.40	2.99
95	Mo	97.78	P	22.20	22.70
106	(Cd)	6.67	P	3.33	49.99
107	Ag	78.89	P	13.88	17.59
108	(Cd)	7.78	P	8.39	107.85
111	Cd	24.18	P	6.68	27.61
115	In	5361365.00	A	37120.00	0.69
115	In	2785210.00	A	12280.00	0.44
115	In	10908710.00	A	98570.00	0.90
118	Sn	162.23	P	32.38	19.96
118	Sn	84.45	P	25.46	30.15
118	Sn	275.57	P	5.09	1.85
121	Sb	162.23	P	19.53	12.04
137	Ba	77.78	P	3.85	4.95
159	Tb	14663950.00	A	57970.00	0.40
165	Ho	14116040.00	A	108000.00	0.77
205	Tl	255.57	P	28.74	11.25
206	(Pb)	304.46	P	10.72	3.52
207	(Pb)	307.79	P	30.97	10.06
208	Pb	1353.42	P	60.65	4.48

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\12G20k00.B\005CALS.D\005CALS.D#
Date Acquired: Jul 20 2012 10:36 am
Operator: NBS
Sample Name: 120720 Standard 1
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 10:33 am
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	-31051.38	A	5106.00	16.44	0.0000
7 (Li)	5035299.00	A	26300.00	0.52	0.0000
9 Be	458.91	P	27.76	6.05	0.0000
11 B	13107.25	P	76.41	0.58	0.0000
23 Na	56419.59	P	192.20	0.34	0.0000
24 Mg	1200.09	P	14.53	1.21	0.0000
27 Al	255.57	P	13.47	5.27	0.0000
39 K	36784.31	P	607.50	1.65	0.0000
44 Ca	276.20	P	47.75	17.29	0.0000
45 Sc	2941895.00	A	12430.00	0.42	0.0000
45 Sc	389038.81	A	2209.00	0.57	0.0000
45 Sc	8560630.00	A	61690.00	0.72	0.0000
47 Ti	11.56	P	4.07	35.26	0.0000
51 V	435.12	P	57.66	13.25	0.0000
52 Cr	866.71	P	54.47	6.28	0.0000
55 Mn	535.57	P	44.75	8.36	0.0000
56 Fe	10807.66	P	159.50	1.48	0.0000
59 Co	558.24	P	2.78	0.50	0.0000
60 Ni	216.89	P	12.39	5.71	0.0000
63 Cu	649.80	P	12.10	1.86	0.0000
65 Cu	281.78	P	35.51	12.60	0.0000
66 Zn	320.90	P	15.16	4.72	0.0000
72 Ge	759093.50	A	9576.00	1.26	0.0000
72 Ge	267863.41	A	5756.00	2.15	0.0000
72 Ge	1866921.00	A	4611.00	0.25	0.0000
75 As	86.89	P	5.52	6.35	0.0000
78 Se	37.78	P	2.52	6.68	0.0000
78 Se	144.78	P	8.63	5.96	0.0000
88 Sr	624.48	P	40.19	6.44	0.0000
88 Sr	3827.31	P	16.68	0.44	0.0000
95 Mo	645.59	P	8.39	1.30	0.0000
106 (Cd)	40.00	P	12.02	30.05	0.0000
107 Ag	835.61	P	43.51	5.21	0.0000
108 (Cd)	31.11	P	6.94	22.30	0.0000
111 Cd	351.78	P	72.06	20.48	0.0000
115 In	5460909.00	A	37880.00	0.69	0.0000
115 In	2893795.00	A	11630.00	0.40	0.0000
115 In	11736690.00	A	45250.00	0.39	0.0000
118 Sn	1170.09	P	60.83	5.20	0.0000
118 Sn	718.93	P	21.69	3.02	0.0000
118 Sn	2010.22	P	59.26	2.95	0.0000
121 Sb	1744.62	P	143.70	8.24	0.0000
137 Ba	608.93	P	47.42	7.79	0.0000
159 Tb	15779030.00	A	194600.00	1.23	0.0000
165 Ho	15335980.00	A	100600.00	0.66	0.0000
205 Tl	3031.57	P	5.09	0.17	0.0000
206 (Pb)	1116.76	P	56.67	5.07	0.0000
207 (Pb)	948.96	P	48.58	5.12	0.0000
208 Pb	4339.32	P	133.60	3.08	0.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	-31051.38	16.44	-29895.57	103.9	70 -	120	IS Fail
45 Sc	2941895.50	0.42	2830107.80	103.9	70 -	120	
45 Sc	389038.78	0.57	373389.06	104.2	70 -	120	
45 Sc	8560630.00	0.72	7835315.00	109.3	70 -	120	
72 Ge	759093.50	1.26	735211.94	103.2	70 -	120	
72 Ge	267863.41	2.15	261572.13	102.4	70 -	120	
72 Ge	1866920.80	0.25	1727774.30	108.1	70 -	120	
115 In	5460908.50	0.69	5361365.50	101.9	70 -	120	
115 In	2893795.30	0.40	2785210.00	103.9	70 -	120	
115 In	11736691.00	0.39	10908714.00	107.6	70 -	120	
159 Tb	15779035.00	1.23	14663948.00	107.6	70 -	120	
165 Ho	15335983.00	0.66	14116038.00	108.6	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
1 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Fail

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\12G20k00.B\006CALS.D\006CALS.D#
Date Acquired: Jul 20 2012 10:43 am
Operator: NBS
Sample Name: 120720 Standard 2
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 10:40 am
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	-32630.78	A	6201.00	19.00	0.0000
7 (Li)	5094434.00	A	28330.00	0.56	1.0000
9 Be	4314.09	P	155.60	3.61	1.0000
11 B	14150.46	P	167.10	1.18	1.0000
23 Na	65670.47	P	439.60	0.67	-1.0000
24 Mg	10415.07	P	325.00	3.12	1.0000
27 Al	1807.95	P	81.48	4.51	1.0000
39 K	42169.65	P	283.20	0.67	-1.0000
44 Ca	900.67	P	68.60	7.62	1.0000
45 Sc	2965088.00	A	12140.00	0.41	0.0000
45 Sc	402870.09	A	13630.00	3.38	0.0000
45 Sc	8531616.00	A	113300.00	1.33	0.0000
47 Ti	80.45	P	5.39	6.70	1.0000
51 V	2760.74	P	151.10	5.47	1.0000
52 Cr	3570.71	P	80.60	2.26	1.0000
55 Mn	2531.37	P	69.76	2.76	1.0000
56 Fe	62362.08	P	372.90	0.60	1.0000
59 Co	4726.60	P	3.36	0.07	1.0000
60 Ni	1268.07	P	37.81	2.98	1.0000
63 Cu	3497.36	P	99.13	2.83	1.0000
65 Cu	1639.67	P	29.25	1.78	1.0000
66 Zn	932.49	P	12.60	1.35	1.0000
72 Ge	769750.88	A	1493.00	0.19	0.0000
72 Ge	273122.31	A	12020.00	4.40	0.0000
72 Ge	1865040.00	A	19870.00	1.07	0.0000
75 As	526.90	P	20.92	3.97	1.0000
78 Se	243.56	P	1.17	0.48	1.0000
78 Se	185.67	P	2.60	1.40	1.0000
88 Sr	4329.70	P	103.30	2.39	1.0000
88 Sr	31779.42	P	243.90	0.77	1.0000
95 Mo	5878.08	P	109.80	1.87	1.0000
106 (Cd)	360.02	P	14.53	4.04	1.0000
107 Ag	7757.96	P	117.00	1.51	1.0000
108 (Cd)	208.90	P	22.20	10.63	1.0000
111 Cd	3416.04	P	151.20	4.43	1.0000
115 In	5514178.00	A	40050.00	0.73	0.0000
115 In	2978857.00	A	134400.00	4.51	0.0000
115 In	11703870.00	A	38410.00	0.33	0.0000
118 Sn	4706.50	P	104.50	2.22	1.0000
118 Sn	2684.80	P	89.22	3.32	1.0000
118 Sn	9832.68	P	35.67	0.36	1.0000
121 Sb	12993.17	P	92.16	0.71	1.0000
137 Ba	4805.45	P	60.51	1.26	1.0000
159 Tb	15798180.00	A	79100.00	0.50	0.0000
165 Ho	15386980.00	A	192100.00	1.25	0.0000
205 Tl	28000.36	P	85.31	0.30	1.0000
206 (Pb)	9803.97	P	100.80	1.03	1.0000
207 (Pb)	8203.95	P	67.41	0.82	1.0000
208 Pb	38118.30	P	279.20	0.73	1.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	-32630.78	19.00	-29895.57	109.1	70 -	120	IS Fail
45 Sc	2965088.00	0.41	2830107.80	104.8	70 -	120	
45 Sc	402870.09	3.38	373389.06	107.9	70 -	120	
45 Sc	8531616.00	1.33	7835315.00	108.9	70 -	120	
72 Ge	769750.94	0.19	735211.94	104.7	70 -	120	
72 Ge	273122.31	4.40	261572.13	104.4	70 -	120	
72 Ge	1865039.90	1.07	1727774.30	107.9	70 -	120	
115 In	5514178.00	0.73	5361365.50	102.9	70 -	120	
115 In	2978857.00	4.51	2785210.00	107.0	70 -	120	
115 In	11703867.00	0.33	10908714.00	107.3	70 -	120	
159 Tb	15798183.00	0.50	14663948.00	107.7	70 -	120	
165 Ho	15386983.00	1.25	14116038.00	109.0	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
1 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Fail

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\12G20k00.B\007CALS.D\007CALS.D#
Date Acquired: Jul 20 2012 10:50 am
Operator: NBS
Sample Name: 120720 Standard 3
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 10:47 am
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	-33498.63	A	5876.00	17.54	0.0000
7 (Li)	5127803.00	A	23530.00	0.46	0.6587
9 Be	218849.41	P	525.50	0.24	1.0000
11 B	144161.91	P	2264.00	1.57	0.9998
23 Na	538122.50	P	1856.00	0.34	0.8502
24 Mg	501853.69	P	4116.00	0.82	1.0000
27 Al	85695.06	P	870.10	1.02	0.9999
39 K	316496.19	P	2033.00	0.64	0.9939
44 Ca	35672.18	P	298.60	0.84	1.0000
45 Sc	3026527.00	A	18880.00	0.62	0.0000
45 Sc	399481.91	A	8490.00	2.13	0.0000
45 Sc	8669169.00	A	72640.00	0.84	0.0000
47 Ti	4748.38	P	122.20	2.57	0.9990
51 V	132534.20	P	1079.00	0.81	0.9990
52 Cr	155519.70	P	2657.00	1.71	0.9989
55 Mn	108733.20	P	1538.00	1.41	1.0000
56 Fe	2607702.00	A	17060.00	0.65	0.9998
59 Co	229250.30	P	1857.00	0.81	1.0000
60 Ni	57714.10	P	145.70	0.25	1.0000
63 Cu	156662.91	P	340.50	0.22	0.9991
65 Cu	76628.08	P	328.40	0.43	0.9996
66 Zn	31714.75	P	272.10	0.86	0.9990
72 Ge	779218.50	A	3228.00	0.41	0.0000
72 Ge	272185.41	A	2541.00	0.93	0.0000
72 Ge	1865774.00	A	32950.00	1.77	0.0000
75 As	24955.54	P	275.40	1.10	0.9997
78 Se	11163.88	P	50.83	0.46	1.0000
78 Se	2713.60	P	11.14	0.41	0.9945
88 Sr	203971.59	P	329.10	0.16	1.0000
88 Sr	1464976.00	A	26700.00	1.82	1.0000
95 Mo	294256.91	P	2244.00	0.76	1.0000
106 (Cd)	14784.87	P	115.10	0.78	1.0000
107 Ag	377319.91	P	2436.00	0.65	1.0000
108 (Cd)	11002.44	P	105.80	0.96	0.9999
111 Cd	161631.50	P	485.30	0.30	1.0000
115 In	5540690.00	A	7963.00	0.14	0.0000
115 In	2893345.00	A	40480.00	1.40	0.0000
115 In	11769930.00	A	110600.00	0.94	0.0000
118 Sn	203834.80	P	1659.00	0.81	0.9924
118 Sn	115303.20	P	1410.00	1.22	0.9885
118 Sn	449979.19	P	4723.00	1.05	0.9970
121 Sb	645486.00	P	4788.00	0.74	0.9998
137 Ba	235048.91	P	1729.00	0.74	0.9999
159 Tb	15746990.00	A	53370.00	0.34	0.0000
165 Ho	15323640.00	A	22390.00	0.15	0.0000
205 Tl	1275197.00	A	12460.00	0.98	1.0000
206 (Pb)	467574.69	P	569.80	0.12	0.9999
207 (Pb)	391731.50	P	2253.00	0.58	0.9998
208 Pb	1839336.00	P	6700.00	0.36	0.9998

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	-33498.63	17.54	-29895.57	112.1	70 -	120	IS Fail
45 Sc	3026527.50	0.62	2830107.80	106.9	70 -	120	
45 Sc	399481.91	2.13	373389.06	107.0	70 -	120	
45 Sc	8669169.00	0.84	7835315.00	110.6	70 -	120	
72 Ge	779218.50	0.41	735211.94	106.0	70 -	120	
72 Ge	272185.38	0.93	261572.13	104.1	70 -	120	
72 Ge	1865773.90	1.77	1727774.30	108.0	70 -	120	
115 In	5540690.00	0.14	5361365.50	103.3	70 -	120	
115 In	2893345.00	1.40	2785210.00	103.9	70 -	120	
115 In	11769925.00	0.94	10908714.00	107.9	70 -	120	
159 Tb	15746994.00	0.34	14663948.00	107.4	70 -	120	
165 Ho	15323643.00	0.15	14116038.00	108.6	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
1 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Fail

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\12G20k00.B\008CALS.D\008CALS.D#
Date Acquired: Jul 20 2012 10:56 am
Operator: NBS
Sample Name: 120720 Standard 4
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 10:54 am
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	-27932.82	A	6488.00	23.23	0.0000
7 (Li)	5227297.00	A	34630.00	0.66	0.4489
9 Be	441213.09	P	3353.00	0.76	1.0000
11 B	280818.41	P	3386.00	1.21	1.0000
23 Na	1028440.00	A	7563.00	0.74	0.9999
24 Mg	1001851.00	A	12140.00	1.21	1.0000
27 Al	173431.91	P	903.70	0.52	1.0000
39 K	610255.38	P	1671.00	0.27	1.0000
44 Ca	72554.98	P	650.90	0.90	1.0000
45 Sc	3047910.00	A	7499.00	0.25	0.0000
45 Sc	400844.41	A	4274.00	1.07	0.0000
45 Sc	8796261.00	A	12070.00	0.14	0.0000
47 Ti	9623.25	P	164.20	1.71	1.0000
51 V	269495.81	P	1109.00	0.41	1.0000
52 Cr	313814.81	P	922.70	0.29	1.0000
55 Mn	218807.70	P	1128.00	0.52	1.0000
56 Fe	5249172.00	A	39100.00	0.74	1.0000
59 Co	459136.19	P	3604.00	0.78	1.0000
60 Ni	115446.30	P	847.10	0.73	1.0000
63 Cu	313562.31	P	2375.00	0.76	1.0000
65 Cu	153588.59	P	1522.00	0.99	1.0000
66 Zn	63188.26	P	67.00	0.11	1.0000
72 Ge	789040.38	A	6047.00	0.77	0.0000
72 Ge	270885.00	A	3982.00	1.47	0.0000
72 Ge	1900538.00	A	9262.00	0.49	0.0000
75 As	50176.98	P	107.00	0.21	1.0000
78 Se	22494.79	P	202.30	0.90	1.0000
78 Se	5399.13	P	67.54	1.25	1.0000
88 Sr	412688.81	P	3271.00	0.79	1.0000
88 Sr	2913105.00	A	21820.00	0.75	1.0000
95 Mo	594246.31	P	3628.00	0.61	1.0000
106 (Cd)	29876.79	P	252.40	0.84	1.0000
107 Ag	776321.31	P	3545.00	0.46	1.0000
108 (Cd)	21872.05	P	194.90	0.89	1.0000
111 Cd	324455.91	P	1592.00	0.49	1.0000
115 In	5586248.00	A	38860.00	0.70	0.0000
115 In	2906573.00	A	4561.00	0.16	0.0000
115 In	11893100.00	A	51960.00	0.44	0.0000
118 Sn	409229.00	P	4072.00	1.00	1.0000
118 Sn	231592.91	P	2043.00	0.88	1.0000
118 Sn	904775.69	P	3794.00	0.42	1.0000
121 Sb	1202547.00	A	10310.00	0.86	1.0000
137 Ba	469947.00	P	1278.00	0.27	1.0000
159 Tb	15988670.00	A	84370.00	0.53	0.0000
165 Ho	15439330.00	A	108100.00	0.70	0.0000
205 Tl	2499272.00	A	23800.00	0.95	1.0000
206 (Pb)	936012.38	P	6168.00	0.66	1.0000
207 (Pb)	787186.38	P	5632.00	0.72	1.0000
208 Pb	3525704.00	A	9976.00	0.28	1.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	-27932.83	23.23	-29895.57	93.4	70 -	120	IS Fail
45 Sc	3047910.00	0.25	2830107.80	107.7	70 -	120	
45 Sc	400844.41	1.07	373389.06	107.4	70 -	120	
45 Sc	8796261.00	0.14	7835315.00	112.3	70 -	120	
72 Ge	789040.38	0.77	735211.94	107.3	70 -	120	
72 Ge	270885.00	1.47	261572.13	103.6	70 -	120	
72 Ge	1900538.00	0.49	1727774.30	110.0	70 -	120	
115 In	5586248.00	0.70	5361365.50	104.2	70 -	120	
115 In	2906573.30	0.16	2785210.00	104.4	70 -	120	
115 In	11893096.00	0.44	10908714.00	109.0	70 -	120	
159 Tb	15988672.00	0.53	14663948.00	109.0	70 -	120	
165 Ho	15439329.00	0.70	14116038.00	109.4	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
1 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Fail

QCS QC Report

Data File: C:\ICPCHEM\1\DATA\12G20k00.B\009_QCS.D\009_QCS.D#
Date Acquired: Jul 20 2012 11:03 am
Operator: NBS
Sample Name: ICV 120720
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 am
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	101.90	ug/l	0.57	100.00	90 -	110	
11 B	102.40	ug/l	0.38	100.00	90 -	110	
23 Na	2450.00	ug/l	1.08	2500.00	90 -	110	
24 Mg	2474.00	ug/l	0.75	2500.00	90 -	110	
27 Al	2450.00	ug/l	0.32	2500.00	90 -	110	
39 K	2451.00	ug/l	0.53	2500.00	90 -	110	
44 Ca	2427.00	ug/l	1.22	2500.00	90 -	110	
47 Ti	97.19	ug/l	0.78	100.00	90 -	110	
51 V	100.40	ug/l	0.61	100.00	90 -	110	
52 Cr	101.10	ug/l	1.04	100.00	90 -	110	
55 Mn	100.60	ug/l	0.54	100.00	90 -	110	
56 Fe	2397.00	ug/l	0.82	2500.00	90 -	110	
59 Co	99.25	ug/l	1.63	100.00	90 -	110	
60 Ni	101.10	ug/l	0.86	100.00	90 -	110	
63 Cu	98.71	ug/l	1.01	100.00	90 -	110	
65 Cu	97.75	ug/l	1.23	100.00	90 -	110	
66 Zn	102.00	ug/l	0.92	100.00	90 -	110	
75 As	99.56	ug/l	1.08	100.00	90 -	110	
78 Se	101.40	ug/l	0.33	100.00	90 -	110	
78 Se	100.80	ug/l	0.74	100.00	90 -	110	
88 Sr	98.35	ug/l	0.94	100.00	90 -	110	
88 Sr	99.14	ug/l	0.55	100.00	90 -	110	
95 Mo	99.98	ug/l	0.19	100.00	90 -	110	
106 (Cd)	--------	ug/l	--------	100.00	90 -	110	
107 Ag	50.24	ug/l	0.69	50.00	90 -	110	
108 (Cd)	--------	ug/l	--------	100.00	90 -	110	
111 Cd	101.00	ug/l	0.53	100.00	90 -	110	
118 Sn	53.32	ug/l	6.19	50.00	90 -	110	
118 Sn	51.28	ug/l	9.27	50.00	90 -	110	
118 Sn	42.05	ug/l	1.94	50.00	90 -	110	Fail
121 Sb	101.00	ug/l	0.61	100.00	90 -	110	
137 Ba	98.34	ug/l	0.95	100.00	90 -	110	
205 Tl	98.87	ug/l	0.49	100.00	90 -	110	
206 (Pb)	--------	ug/l	--------	100.00	90 -	110	
207 (Pb)	--------	ug/l	--------	100.00	90 -	110	
208 Pb	100.70	ug/l	0.40	100.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	-33155.02	14.51	-29895.57	110.9	70 -	120	IS Fail
45 Sc	3035328.30	0.34	2830107.80	107.3	70 -	120	
45 Sc	410321.50	0.60	373389.06	109.9	70 -	120	
45 Sc	8778832.00	0.39	7835315.00	112.0	70 -	120	
72 Ge	777997.38	0.84	735211.94	105.8	70 -	120	
72 Ge	275433.97	0.48	261572.13	105.3	70 -	120	
72 Ge	1909040.60	0.76	1727774.30	110.5	70 -	120	
115 In	5573972.50	0.59	5361365.50	104.0	70 -	120	
115 In	2936688.00	0.74	2785210.00	105.4	70 -	120	
115 In	11974508.00	0.21	10908714.00	109.8	70 -	120	
159 Tb	16012065.00	0.44	14663948.00	109.2	70 -	120	
165 Ho	15490376.00	0.82	14116038.00	109.7	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\12G20k00.B\011_CCB.D\011_CCB.D#
Date Acquired: Jul 20 2012 11:16 am
Operator: NBS
Sample Name: ICB 120720
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 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	129.00	0.12	
11 B	0.40 ug/l	44.58	15.00	
23 Na	-5.25 ug/l	6.03	77.10	
24 Mg	0.00 ug/l	3261.40	7.50	
27 Al	0.20 ug/l	157.08	3.96	
39 K	0.48 ug/l	135.59	19.20	
44 Ca	-2.16 ug/l	87.92	90.00	
47 Ti	-0.06 ug/l	35.96	0.78	
51 V	0.01 ug/l	19.87	0.21	
52 Cr	0.00 ug/l	406.05	0.12	
55 Mn	-0.02 ug/l	43.41	0.18	
56 Fe	0.23 ug/l	7.13	40.80	
59 Co	0.00 ug/l	282.21	0.09	
60 Ni	0.01 ug/l	346.30	0.48	
63 Cu	0.01 ug/l	40.99	0.39	
65 Cu	0.01 ug/l	211.00	0.39	
66 Zn	0.03 ug/l	136.20	6.90	
75 As	0.01 ug/l	49.23	0.27	
78 Se	0.01 ug/l	287.08	0.30	
78 Se	0.17 ug/l	33.49	0.30	
88 Sr	0.01 ug/l	51.47	0.03	
88 Sr	0.01 ug/l	15.21	0.03	
95 Mo	0.04 ug/l	21.58	0.21	
106 (Cd)	-------- ug/l	--------	#######	
107 Ag	0.00 ug/l	47.97	0.09	
108 (Cd)	-------- ug/l	--------	#######	
111 Cd	0.00 ug/l	74.27	0.06	
118 Sn	0.04 ug/l	11.21	#######	
118 Sn	0.03 ug/l	34.53	#######	
118 Sn	0.02 ug/l	21.66	0.30	
121 Sb	0.03 ug/l	11.60	0.03	Fail
137 Ba	0.01 ug/l	116.78	0.12	
205 Tl	0.01 ug/l	15.37	0.03	
206 (Pb)	-------- ug/l	--------	#######	
207 (Pb)	-------- ug/l	--------	#######	
208 Pb	0.00 ug/l	186.48	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-37797.43	9.71	-29895.57	126.4	70 - 120	IS Fail
45 Sc	2964903.00	0.41	2830107.80	104.8	70 - 120	
45 Sc	393056.03	1.36	373389.06	105.3	70 - 120	
45 Sc	8044231.50	0.75	7835315.00	102.7	70 - 120	
72 Ge	770790.31	0.77	735211.94	104.8	70 - 120	
72 Ge	267440.63	0.25	261572.13	102.2	70 - 120	
72 Ge	1768565.40	0.65	1727774.30	102.4	70 - 120	
115 In	5440735.00	0.88	5361365.50	101.5	70 - 120	
115 In	2828303.00	0.65	2785210.00	101.5	70 - 120	
115 In	11077833.00	1.50	10908714.00	101.6	70 - 120	
159 Tb	14747504.00	1.02	14663948.00	100.6	70 - 120	
165 Ho	14279663.00	0.19	14116038.00	101.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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\12G20k00.B\012_CCV.D\012_CCV.D#
Date Acquired: Jul 20 2012 11:23 am
Operator: NBS
Sample Name: CCV 120720
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 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	49.73	ug/l	0.45	50.00	90 - 110	
11 B	49.88	ug/l	0.38	50.00	90 - 110	
23 Na	1265.00	ug/l	1.04	1250.00	90 - 110	
24 Mg	2557.00	ug/l	0.86	2500.00	90 - 110	
27 Al	1008.00	ug/l	0.49	1000.00	90 - 110	
39 K	1009.00	ug/l	0.48	1000.00	90 - 110	
44 Ca	2495.00	ug/l	1.48	2500.00	90 - 110	
47 Ti	49.70	ug/l	1.16	50.00	90 - 110	
51 V	49.72	ug/l	1.19	50.00	90 - 110	
52 Cr	49.61	ug/l	0.88	50.00	90 - 110	
55 Mn	49.94	ug/l	0.29	50.00	90 - 110	
56 Fe	1005.00	ug/l	0.06	1000.00	90 - 110	
59 Co	49.65	ug/l	0.66	50.00	90 - 110	
60 Ni	49.57	ug/l	0.48	50.00	90 - 110	
63 Cu	49.76	ug/l	0.19	50.00	90 - 110	
65 Cu	49.77	ug/l	0.27	50.00	90 - 110	
66 Zn	50.38	ug/l	0.90	50.00	90 - 110	
75 As	50.11	ug/l	0.73	50.00	90 - 110	
78 Se	50.73	ug/l	0.63	50.00	90 - 110	
78 Se	49.35	ug/l	0.36	50.00	90 - 110	
88 Sr	50.15	ug/l	0.44	50.00	90 - 110	
88 Sr	50.19	ug/l	0.97	50.00	90 - 110	
95 Mo	49.83	ug/l	0.43	50.00	90 - 110	
106 (Cd)	--------	ug/l	--------	50.00	90 - 110	
107 Ag	24.38	ug/l	0.64	25.00	90 - 110	
108 (Cd)	--------	ug/l	--------	50.00	90 - 110	
111 Cd	50.38	ug/l	0.32	50.00	90 - 110	
118 Sn	50.06	ug/l	0.71	---	##### - #####	
118 Sn	49.42	ug/l	0.90	---	##### - #####	
118 Sn	49.88	ug/l	0.74	50.00	90 - 110	
121 Sb	52.35	ug/l	0.18	50.00	90 - 110	
137 Ba	49.61	ug/l	1.30	50.00	90 - 110	
205 Tl	50.52	ug/l	1.09	50.00	90 - 110	
206 (Pb)	--------	ug/l	--------	50.00	90 - 110	
207 (Pb)	--------	ug/l	--------	50.00	90 - 110	
208 Pb	51.64	ug/l	0.92	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-35043.24	18.39	-29895.57	117.2	70 - 120	IS Fail
45 Sc	3061517.80	0.74	2830107.80	108.2	70 - 120	
45 Sc	403225.16	0.43	373389.06	108.0	70 - 120	
45 Sc	8909548.00	0.57	7835315.00	113.7	70 - 120	
72 Ge	782340.63	0.29	735211.94	106.4	70 - 120	
72 Ge	275283.34	1.30	261572.13	105.2	70 - 120	
72 Ge	1920962.30	0.67	1727774.30	111.2	70 - 120	
115 In	5501277.50	0.95	5361365.50	102.6	70 - 120	
115 In	2902767.50	0.61	2785210.00	104.2	70 - 120	
115 In	12034912.00	0.53	10908714.00	110.3	70 - 120	
159 Tb	15928094.00	1.00	14663948.00	108.6	70 - 120	
165 Ho	15429876.00	0.50	14116038.00	109.3	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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\12G20k00.B\013_CCB.D\013_CCB.D#
Date Acquired: Jul 20 2012 11:30 am
Operator: NBS
Sample Name: CCB 120720
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 am
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	54.74	0.12	
11 B	0.69 ug/l	2.66	15.00	
23 Na	-7.65 ug/l	16.88	77.10	
24 Mg	0.61 ug/l	17.01	7.50	
27 Al	0.48 ug/l	39.87	3.96	
39 K	-0.63 ug/l	323.05	19.20	
44 Ca	-3.63 ug/l	49.67	90.00	
47 Ti	-0.01 ug/l	441.18	0.78	
51 V	0.02 ug/l	16.76	0.21	
52 Cr	-0.01 ug/l	31.81	0.12	
55 Mn	-0.02 ug/l	70.96	0.18	
56 Fe	0.36 ug/l	23.29	40.80	
59 Co	0.01 ug/l	30.68	0.09	
60 Ni	0.02 ug/l	70.08	0.48	
63 Cu	0.00 ug/l	406.93	0.39	
65 Cu	0.01 ug/l	94.34	0.39	
66 Zn	0.03 ug/l	41.05	6.90	
75 As	0.02 ug/l	49.17	0.27	
78 Se	0.01 ug/l	65.30	0.30	
78 Se	0.23 ug/l	42.98	0.30	
88 Sr	0.03 ug/l	17.03	0.03	
88 Sr	0.02 ug/l	9.92	0.03	
95 Mo	0.07 ug/l	8.37	0.21	
106 (Cd)	-------- ug/l	--------	#######	
107 Ag	0.00 ug/l	34.32	0.09	
108 (Cd)	-------- ug/l	--------	#######	
111 Cd	0.01 ug/l	110.54	0.06	
118 Sn	0.11 ug/l	6.97	#######	
118 Sn	0.08 ug/l	25.27	#######	
118 Sn	0.05 ug/l	18.90	0.30	
121 Sb	0.10 ug/l	6.77	0.03	Fail
137 Ba	0.01 ug/l	60.68	0.12	
205 Tl	0.02 ug/l	12.93	0.03	
206 (Pb)	-------- ug/l	--------	#######	
207 (Pb)	-------- ug/l	--------	#######	
208 Pb	0.00 ug/l	38.95	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-33367.50	10.88	-29895.57	111.6	70 - 120	IS Fail
45 Sc	2981742.00	0.87	2830107.80	105.4	70 - 120	
45 Sc	397301.16	0.98	373389.06	106.4	70 - 120	
45 Sc	8063781.50	0.02	7835315.00	102.9	70 - 120	
72 Ge	765724.19	0.93	735211.94	104.2	70 - 120	
72 Ge	271125.00	0.91	261572.13	103.7	70 - 120	
72 Ge	1767881.50	0.79	1727774.30	102.3	70 - 120	
115 In	5464792.00	0.61	5361365.50	101.9	70 - 120	
115 In	2859749.00	0.93	2785210.00	102.7	70 - 120	
115 In	11112685.00	0.29	10908714.00	101.9	70 - 120	
159 Tb	14788974.00	0.56	14663948.00	100.9	70 - 120	
165 Ho	14382564.00	0.33	14116038.00	101.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12G20k00.B\014SMPL.D\014SMPL.D#
Date Acquired: Jul 20 2012 11:36 am
Operator: NBS
Sample Name: ICSA 120720
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 am
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	0.01 ug/l	0.01	32.63	1000	
11 B	1.02 ug/l	1.02	6.96	1000	
23 Na	91690.00 ug/l	91690.00	0.40	25000	>Cal
24 Mg	88640.00 ug/l	88640.00	0.99	50000	>Cal
27 Al	89800.00 ug/l	89800.00	1.13	20000	>Cal
39 K	89950.00 ug/l	89950.00	1.46	20000	>Cal
44 Ca	92330.00 ug/l	92330.00	2.14	50000	>Cal
47 Ti	1724.00 ug/l	1724.00	1.46	1000	>Cal
51 V	0.09 ug/l	0.09	6.05	1000	
52 Cr	1.53 ug/l	1.53	5.74	1000	
55 Mn	5.75 ug/l	5.75	1.37	1000	
56 Fe	89780.00 ug/l	89780.00	1.98	20000	>Cal
59 Co	1.96 ug/l	1.96	0.81	1000	
60 Ni	1.92 ug/l	1.92	2.92	1000	
63 Cu	0.75 ug/l	0.75	0.96	1000	
65 Cu	0.83 ug/l	0.83	1.57	1000	
66 Zn	1.29 ug/l	1.29	5.01	1000	
75 As	0.29 ug/l	0.29	6.86	1000	
78 Se	0.10 ug/l	0.10	11.94	1000	
78 Se	0.79 ug/l	0.79	5.70	1000	
88 Sr	1.30 ug/l	1.30	3.80	1000	
88 Sr	1.36 ug/l	1.36	1.41	1000	
95 Mo	1850.00 ug/l	1850.00	0.52	1000	>Cal
106 (Cd)	-------- ug/l	#VALUE!	--------	#######	
107 Ag	0.07 ug/l	0.07	2.51	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	#######	
111 Cd	0.89 ug/l	0.89	10.78	1000	
118 Sn	0.23 ug/l	0.23	4.06	#######	
118 Sn	0.25 ug/l	0.25	3.95	#######	
118 Sn	0.23 ug/l	0.23	3.48	1000	
121 Sb	1.09 ug/l	1.09	2.82	1000	
137 Ba	2.53 ug/l	2.53	1.76	1000	
205 Tl	0.07 ug/l	0.07	1.69	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	#######	
207 (Pb)	-------- ug/l	#VALUE!	--------	#######	
208 Pb	0.41 ug/l	0.41	2.25	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-38401.96	12.20	-29895.57	128.5	70 - 120	IS Fai
45 Sc	3083390.50	0.85	2830107.80	108.9	70 - 120	
45 Sc	417569.25	0.92	373389.06	111.8	70 - 120	
45 Sc	8856958.00	0.89	7835315.00	113.0	70 - 120	
72 Ge	764578.50	0.80	735211.94	104.0	70 - 120	
72 Ge	277761.69	1.87	261572.13	106.2	70 - 120	
72 Ge	1917863.40	0.91	1727774.30	111.0	70 - 120	
115 In	5330861.00	0.75	5361365.50	99.4	70 - 120	
115 In	2756140.30	0.55	2785210.00	99.0	70 - 120	
115 In	11358396.00	0.88	10908714.00	104.1	70 - 120	
159 Tb	15860718.00	0.50	14663948.00	108.2	70 - 120	
165 Ho	15379126.00	0.39	14116038.00	108.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.D#

8 :Element Failures 0 :Max. Number of Failures Allowed
1 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

ICS-AB QC Report

Data File: C:\ICPCHEM\1\DATA\12G20k00.B\015ICSB.D\015ICSB.D#
Date Acquired: Jul 20 2012 11:43 am
Acq. Method: 62A0720A.M
Operator: NBS
Sample Name: ICSAB 120720
Misc Info:
Vial Number: 2103
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal. Update: Jul 20 2012 11:00 am
Sample Type: ICSAB
Dilution Factor: 1.00

Data Results:
Analytes: Pass
ISTD: Fail

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
7 (Li)	---	3	---	---	---		-	
9 Be	45	3	237.70	0.25	250	95.1	80 - 120	
11 B	45	3	2.12	149.53	---		-	
23 Na	45	2	95170.00	0.93	---		-	
24 Mg	45	2	91470.00	1.08	---		-	
27 Al	45	2	92370.00	1.30	---		-	
39 K	45	2	93290.00	0.33	---		-	
44 Ca	45	2	95840.00	1.07	---		-	
47 Ti	45	2	1772.00	0.91	2000	88.6	80 - 120	
51 V	45	2	261.80	1.16	250	104.7	80 - 120	
52 Cr	45	2	249.10	0.35	250	99.6	80 - 120	
55 Mn	45	2	256.10	0.85	250	102.4	80 - 120	
56 Fe	45	2	93000.00	0.74	---		-	
59 Co	45	2	223.30	0.61	250	89.3	80 - 120	
60 Ni	45	2	467.50	0.87	500	93.5	80 - 120	
63 Cu	45	2	227.20	0.76	250	90.9	80 - 120	
65 Cu	45	2	226.90	0.74	250	90.8	80 - 120	
66 Zn	115	2	504.20	0.65	500	100.8	80 - 120	
75 As	115	2	274.20	0.75	250	109.7	80 - 120	
78 Se	115	1	263.30	0.75	250	105.3	80 - 120	
78 Se	115	2	265.80	0.88	250	106.3	80 - 120	
88 Sr	115	2	1.40	0.78	---		-	
88 Sr	115	3	1.42	0.80	---		-	
95 Mo	115	3	2164.00	0.23	2000	108.2	80 - 120	
106 (Cd)	---	3	---	---	---		-	
107 Ag	115	3	466.30	3.09	500	93.3	80 - 120	
108 (Cd)	---	3	---	---	---		-	
111 Cd	115	3	461.60	0.58	500	92.3	80 - 120	
118 Sn	115	1	0.24	4.71	---		-	
118 Sn	115	2	0.21	14.06	---		-	
118 Sn	115	3	0.22	4.36	---		-	
121 Sb	115	3	252.00	0.79	250	100.8	80 - 120	
137 Ba	115	3	251.10	0.90	250	100.4	80 - 120	
205 Tl	159	3	224.50	0.19	250	89.8	80 - 120	
206 (Pb)	---	3	---	---	---		-	
207 (Pb)	---	3	---	---	---		-	
208 Pb	159	3	433.90	0.48	500	86.8	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3	-35127	8.50	-29896	117.5	70 - 120	IS Fail
45 Sc	1	3151850	0.39	2830108	111.4	70 - 120	
45 Sc	2	417038	0.62	373389	111.7	70 - 120	
45 Sc	3	9122212	0.98	7835315	116.4	70 - 120	
72 Ge	1	782875	1.00	735212	106.5	70 - 120	
72 Ge	2	277274	0.33	261572	106.0	70 - 120	
72 Ge	3	1970595	1.29	1727774	114.1	70 - 120	
115 In	1	5418989	0.35	5361366	101.1	70 - 120	
115 In	2	2772493	0.70	2785210	99.5	70 - 120	
115 In	3	11532447	0.84	10908714	105.7	70 - 120	
159 Tb	3	16121317	0.17	14663948	109.9	70 - 120	
165 Ho	3	15657963	0.42	14116038	110.9	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\12G20k00.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
1 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\12G20k00.B\025_CCV.D\025_CCV.D#
Date Acquired: Jul 20 2012 12:50 pm
Operator: NBS
Sample Name: CCV 120720
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 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	49.48	ug/l	0.75	50.00	90 -	110	
11 B	48.35	ug/l	1.30	50.00	90 -	110	
23 Na	1264.00	ug/l	1.26	1250.00	90 -	110	
24 Mg	2565.00	ug/l	1.24	2500.00	90 -	110	
27 Al	1014.00	ug/l	1.08	1000.00	90 -	110	
39 K	1030.00	ug/l	0.55	1000.00	90 -	110	
44 Ca	2503.00	ug/l	1.07	2500.00	90 -	110	
47 Ti	49.92	ug/l	0.73	50.00	90 -	110	
51 V	49.63	ug/l	0.19	50.00	90 -	110	
52 Cr	49.84	ug/l	0.62	50.00	90 -	110	
55 Mn	50.23	ug/l	0.24	50.00	90 -	110	
56 Fe	1003.00	ug/l	0.56	1000.00	90 -	110	
59 Co	49.89	ug/l	0.40	50.00	90 -	110	
60 Ni	49.67	ug/l	1.00	50.00	90 -	110	
63 Cu	49.60	ug/l	1.12	50.00	90 -	110	
65 Cu	49.17	ug/l	0.43	50.00	90 -	110	
66 Zn	51.08	ug/l	0.86	50.00	90 -	110	
75 As	51.17	ug/l	0.51	50.00	90 -	110	
78 Se	50.05	ug/l	1.17	50.00	90 -	110	
78 Se	50.84	ug/l	0.67	50.00	90 -	110	
88 Sr	51.13	ug/l	0.96	50.00	90 -	110	
88 Sr	50.78	ug/l	1.30	50.00	90 -	110	
95 Mo	49.74	ug/l	0.74	50.00	90 -	110	
106 (Cd)	--------	ug/l	--------	50.00	90 -	110	
107 Ag	24.52	ug/l	1.02	25.00	90 -	110	
108 (Cd)	--------	ug/l	--------	50.00	90 -	110	
111 Cd	50.32	ug/l	0.29	50.00	90 -	110	
118 Sn	49.83	ug/l	1.17	---	##### -	#####	
118 Sn	50.00	ug/l	1.35	---	##### -	#####	
118 Sn	49.54	ug/l	1.27	50.00	90 -	110	
121 Sb	52.57	ug/l	0.74	50.00	90 -	110	
137 Ba	49.55	ug/l	0.86	50.00	90 -	110	
205 Tl	50.11	ug/l	0.55	50.00	90 -	110	
206 (Pb)	--------	ug/l	--------	50.00	90 -	110	
207 (Pb)	--------	ug/l	--------	50.00	90 -	110	
208 Pb	50.96	ug/l	0.92	50.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	-33461.59	25.16	-29895.57	111.9	70 -	120	IS Fail
45 Sc	3266000.30	1.15	2830107.80	115.4	70 -	120	
45 Sc	428942.34	1.01	373389.06	114.9	70 -	120	
45 Sc	9263519.00	0.19	7835315.00	118.2	70 -	120	
72 Ge	834660.69	0.23	735211.94	113.5	70 -	120	
72 Ge	291520.09	1.14	261572.13	111.4	70 -	120	
72 Ge	1996612.90	0.20	1727774.30	115.6	70 -	120	
115 In	5888556.00	0.43	5361365.50	109.8	70 -	120	
115 In	3031474.50	0.70	2785210.00	108.8	70 -	120	
115 In	12402791.00	0.96	10908714.00	113.7	70 -	120	
159 Tb	16386850.00	0.82	14663948.00	111.7	70 -	120	
165 Ho	15926537.00	0.95	14116038.00	112.8	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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\12G20k00.B\027_CCB.D\027_CCB.D#
Date Acquired: Jul 20 2012 01:03 pm
Operator: NBS
Sample Name: CCB 120720
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 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	166.77	0.12	
11 B	-1.35 ug/l	5.55	15.00	
23 Na	-8.49 ug/l	18.28	77.10	
24 Mg	0.19 ug/l	46.09	7.50	
27 Al	0.06 ug/l	39.64	3.96	
39 K	4.27 ug/l	38.94	19.20	
44 Ca	-2.50 ug/l	43.86	90.00	
47 Ti	-0.05 ug/l	57.52	0.78	
51 V	0.01 ug/l	6.51	0.21	
52 Cr	-0.05 ug/l	7.92	0.12	
55 Mn	-0.08 ug/l	5.35	0.18	
56 Fe	0.05 ug/l	41.38	40.80	
59 Co	-0.01 ug/l	32.53	0.09	
60 Ni	-0.03 ug/l	36.33	0.48	
63 Cu	-0.01 ug/l	87.94	0.39	
65 Cu	0.01 ug/l	31.34	0.39	
66 Zn	-0.01 ug/l	143.61	6.90	
75 As	0.00 ug/l	75.36	0.27	
78 Se	0.00 ug/l	413.25	0.30	
78 Se	0.45 ug/l	17.65	0.30	Fail
88 Sr	0.01 ug/l	6.04	0.03	
88 Sr	0.01 ug/l	23.17	0.03	
95 Mo	0.03 ug/l	6.60	0.21	
106 (Cd)	-------- ug/l	--------	#######	
107 Ag	0.00 ug/l	66.68	0.09	
108 (Cd)	-------- ug/l	--------	#######	
111 Cd	0.00 ug/l	459.82	0.06	
118 Sn	0.03 ug/l	12.76	#######	
118 Sn	0.03 ug/l	38.90	#######	
118 Sn	0.02 ug/l	18.10	0.30	
121 Sb	0.04 ug/l	12.08	0.03	Fail
137 Ba	0.00 ug/l	130.02	0.12	
205 Tl	0.00 ug/l	85.66	0.03	
206 (Pb)	-------- ug/l	--------	#######	
207 (Pb)	-------- ug/l	--------	#######	
208 Pb	-0.01 ug/l	12.82	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-32803.70	20.65	-29895.57	109.7	70 - 120	IS Fai.
45 Sc	3155918.50	0.87	2830107.80	111.5	70 - 120	
45 Sc	420031.06	1.59	373389.06	112.5	70 - 120	
45 Sc	8523010.00	1.60	7835315.00	108.8	70 - 120	
72 Ge	797850.25	0.31	735211.94	108.5	70 - 120	
72 Ge	281855.75	1.00	261572.13	107.8	70 - 120	
72 Ge	1851627.10	1.60	1727774.30	107.2	70 - 120	
115 In	5682842.00	0.81	5361365.50	106.0	70 - 120	
115 In	2960577.00	0.49	2785210.00	106.3	70 - 120	
115 In	11516044.00	0.28	10908714.00	105.6	70 - 120	
159 Tb	15107972.00	0.43	14663948.00	103.0	70 - 120	
165 Ho	14616279.00	0.76	14116038.00	103.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.D#

2 :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\12G20k00.B\035_CCV.D\035_CCV.D#
Date Acquired: Jul 20 2012 01:56 pm
Operator: NBS
Sample Name: CCV 120720
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 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	49.21	ug/l	0.44	50.00	90 - 110	
11 B	51.61	ug/l	1.43	50.00	90 - 110	
23 Na	1286.00	ug/l	0.87	1250.00	90 - 110	
24 Mg	2600.00	ug/l	0.11	2500.00	90 - 110	
27 Al	1036.00	ug/l	0.60	1000.00	90 - 110	
39 K	1042.00	ug/l	0.66	1000.00	90 - 110	
44 Ca	2547.00	ug/l	0.42	2500.00	90 - 110	
47 Ti	50.28	ug/l	1.54	50.00	90 - 110	
51 V	49.72	ug/l	1.45	50.00	90 - 110	
52 Cr	49.90	ug/l	1.37	50.00	90 - 110	
55 Mn	50.37	ug/l	0.93	50.00	90 - 110	
56 Fe	1003.00	ug/l	0.96	1000.00	90 - 110	
59 Co	49.70	ug/l	1.14	50.00	90 - 110	
60 Ni	49.04	ug/l	0.57	50.00	90 - 110	
63 Cu	49.08	ug/l	1.08	50.00	90 - 110	
65 Cu	48.99	ug/l	1.07	50.00	90 - 110	
66 Zn	50.88	ug/l	0.69	50.00	90 - 110	
75 As	51.03	ug/l	0.43	50.00	90 - 110	
78 Se	49.74	ug/l	1.32	50.00	90 - 110	
78 Se	50.58	ug/l	0.80	50.00	90 - 110	
88 Sr	51.36	ug/l	0.48	50.00	90 - 110	
88 Sr	50.85	ug/l	1.13	50.00	90 - 110	
95 Mo	50.30	ug/l	0.76	50.00	90 - 110	
106 (Cd)	--------	ug/l	--------	50.00	90 - 110	
107 Ag	24.64	ug/l	0.57	25.00	90 - 110	
108 (Cd)	--------	ug/l	--------	50.00	90 - 110	
111 Cd	50.16	ug/l	0.24	50.00	90 - 110	
118 Sn	50.14	ug/l	0.81	--- #####	- #####	
118 Sn	50.04	ug/l	0.37	--- #####	- #####	
118 Sn	50.06	ug/l	0.82	50.00	90 - 110	
121 Sb	52.94	ug/l	0.21	50.00	90 - 110	
137 Ba	50.13	ug/l	0.56	50.00	90 - 110	
205 Tl	50.06	ug/l	0.48	50.00	90 - 110	
206 (Pb)	--------	ug/l	--------	50.00	90 - 110	
207 (Pb)	--------	ug/l	--------	50.00	90 - 110	
208 Pb	50.98	ug/l	0.74	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-32786.82	13.80	-29895.57	109.7	70 - 120	IS Fail
45 Sc	3320781.30	0.60	2830107.80	117.3	70 - 120	
45 Sc	436744.19	1.01	373389.06	117.0	70 - 120	
45 Sc	9302661.00	0.54	7835315.00	118.7	70 - 120	
72 Ge	847294.50	0.73	735211.94	115.2	70 - 120	
72 Ge	295756.72	0.89	261572.13	113.1	70 - 120	
72 Ge	2005152.30	0.24	1727774.30	116.1	70 - 120	
115 In	5943993.00	0.99	5361365.50	110.9	70 - 120	
115 In	3092284.50	0.47	2785210.00	111.0	70 - 120	
115 In	12518871.00	0.60	10908714.00	114.8	70 - 120	
159 Tb	16569519.00	0.72	14663948.00	113.0	70 - 120	
165 Ho	16227099.00	0.31	14116038.00	115.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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\12G20k00.B\037_CCB.D\037_CCB.D#
Date Acquired: Jul 20 2012 02:09 pm
Operator: NBS
Sample Name: CCB 120720
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 am
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	28.59	0.12	
11 B	0.22 ug/l	28.67	15.00	
23 Na	-9.28 ug/l	5.07	77.10	
24 Mg	0.07 ug/l	50.90	7.50	
27 Al	0.38 ug/l	45.95	3.96	
39 K	3.18 ug/l	27.59	19.20	
44 Ca	-1.54 ug/l	152.11	90.00	
47 Ti	-0.05 ug/l	40.43	0.78	
51 V	0.00 ug/l	37.08	0.21	
52 Cr	-0.06 ug/l	11.99	0.12	
55 Mn	-0.07 ug/l	22.57	0.18	
56 Fe	-0.01 ug/l	361.07	40.80	
59 Co	0.00 ug/l	546.22	0.09	
60 Ni	-0.02 ug/l	103.56	0.48	
63 Cu	0.00 ug/l	87.04	0.39	
65 Cu	0.00 ug/l	38523.00	0.39	
66 Zn	-0.02 ug/l	246.24	6.90	
75 As	0.02 ug/l	27.92	0.27	
78 Se	0.00 ug/l	158.84	0.30	
78 Se	0.45 ug/l	56.68	0.30	Fail
88 Sr	0.02 ug/l	24.71	0.03	
88 Sr	0.01 ug/l	12.50	0.03	
95 Mo	0.03 ug/l	15.13	0.21	
106 (Cd)	-------- ug/l	--------	#######	
107 Ag	0.00 ug/l	89.69	0.09	
108 (Cd)	-------- ug/l	--------	#######	
111 Cd	0.00 ug/l	711.06	0.06	
118 Sn	0.05 ug/l	17.92	#######	
118 Sn	0.05 ug/l	22.63	#######	
118 Sn	0.03 ug/l	14.22	0.30	
121 Sb	0.04 ug/l	9.81	0.03	Fail
137 Ba	0.00 ug/l	158.10	0.12	
205 Tl	0.01 ug/l	24.46	0.03	
206 (Pb)	-------- ug/l	--------	#######	
207 (Pb)	-------- ug/l	--------	#######	
208 Pb	-0.01 ug/l	23.86	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-35172.29	10.48	-29895.57	117.7	70 - 120	IS Fail
45 Sc	3151319.30	0.81	2830107.80	111.3	70 - 120	
45 Sc	426215.50	1.07	373389.06	114.1	70 - 120	
45 Sc	8646691.00	0.80	7835315.00	110.4	70 - 120	
72 Ge	810620.44	0.98	735211.94	110.3	70 - 120	
72 Ge	289498.59	1.12	261572.13	110.7	70 - 120	
72 Ge	1877512.00	0.49	1727774.30	108.7	70 - 120	
115 In	5730131.50	1.73	5361365.50	106.9	70 - 120	
115 In	2981464.00	0.95	2785210.00	107.0	70 - 120	
115 In	11722050.00	0.26	10908714.00	107.5	70 - 120	
159 Tb	15373301.00	0.28	14663948.00	104.8	70 - 120	
165 Ho	14948807.00	0.70	14116038.00	105.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.D#

2 :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\12G20k00.B\044_CCV.D\044_CCV.D#
Date Acquired: Jul 20 2012 02:56 pm
Operator: NBS
Sample Name: CCV 120720
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 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	49.55	ug/l	0.34	50.00	90 -	110	
11 B	67.20	ug/l	0.46	50.00	90 -	110	Fail
23 Na	1299.00	ug/l	1.81	1250.00	90 -	110	
24 Mg	2570.00	ug/l	1.42	2500.00	90 -	110	
27 Al	1015.00	ug/l	2.00	1000.00	90 -	110	
39 K	1033.00	ug/l	1.77	1000.00	90 -	110	
44 Ca	2532.00	ug/l	1.49	2500.00	90 -	110	
47 Ti	48.95	ug/l	1.14	50.00	90 -	110	
51 V	48.77	ug/l	1.58	50.00	90 -	110	
52 Cr	49.02	ug/l	1.52	50.00	90 -	110	
55 Mn	49.60	ug/l	1.29	50.00	90 -	110	
56 Fe	992.00	ug/l	1.68	1000.00	90 -	110	
59 Co	48.70	ug/l	1.65	50.00	90 -	110	
60 Ni	48.32	ug/l	0.70	50.00	90 -	110	
63 Cu	48.54	ug/l	1.59	50.00	90 -	110	
65 Cu	48.09	ug/l	1.43	50.00	90 -	110	
66 Zn	50.85	ug/l	0.29	50.00	90 -	110	
75 As	50.74	ug/l	0.62	50.00	90 -	110	
78 Se	50.09	ug/l	1.20	50.00	90 -	110	
78 Se	50.84	ug/l	1.71	50.00	90 -	110	
88 Sr	51.17	ug/l	0.75	50.00	90 -	110	
88 Sr	50.53	ug/l	0.95	50.00	90 -	110	
95 Mo	49.63	ug/l	0.43	50.00	90 -	110	
106 (Cd)	--------	ug/l	--------	50.00	90 -	110	
107 Ag	24.48	ug/l	0.76	25.00	90 -	110	
108 (Cd)	--------	ug/l	--------	50.00	90 -	110	
111 Cd	49.71	ug/l	0.69	50.00	90 -	110	
118 Sn	49.89	ug/l	0.34	---	##### -	#####	
118 Sn	50.43	ug/l	1.42	---	##### -	#####	
118 Sn	49.71	ug/l	0.63	50.00	90 -	110	
121 Sb	52.57	ug/l	0.47	50.00	90 -	110	
137 Ba	49.40	ug/l	1.55	50.00	90 -	110	
205 Tl	49.87	ug/l	0.32	50.00	90 -	110	
206 (Pb)	--------	ug/l	--------	50.00	90 -	110	
207 (Pb)	--------	ug/l	--------	50.00	90 -	110	
208 Pb	50.80	ug/l	0.75	50.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	-35740.07	10.23	-29895.57	119.5	70 -	120	IS Fail NT
45 Sc	3359929.50	0.54	2830107.80	118.7	70 -	120	
45 Sc	446610.56	1.31	373389.06	119.6	70 -	120	
45 Sc	9498687.00	0.82	7835315.00	121.2	70 -	120	IS Fail NT
72 Ge	849823.94	1.67	735211.94	115.6	70 -	120	
72 Ge	292269.16	1.32	261572.13	111.7	70 -	120	
72 Ge	2055978.50	1.31	1727774.30	119.0	70 -	120	
115 In	6007832.00	1.15	5361365.50	112.1	70 -	120	
115 In	3096709.00	0.58	2785210.00	111.2	70 -	120	
115 In	12709739.00	0.12	10908714.00	116.5	70 -	120	
159 Tb	16811392.00	1.11	14663948.00	114.6	70 -	120	
165 Ho	16348404.00	1.54	14116038.00	115.8	70 -	120	

NBS 07/23/12

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\12G20k00.B\046_CCB.D\046_CCB.D#
Date Acquired: Jul 20 2012 03:10 pm
Operator: NBS
Sample Name: CCB 120720
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 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	922.30	0.12	
11 B	10.25 ug/l	3.05	15.00	
23 Na	10.63 ug/l	22.00	77.10	
24 Mg	0.36 ug/l	57.34	7.50	
27 Al	0.51 ug/l	63.43	3.96	
39 K	8.05 ug/l	24.53	19.20	
44 Ca	-3.61 ug/l	19.10	90.00	
47 Ti	-0.04 ug/l	64.74	0.78	
51 V	0.01 ug/l	82.35	0.21	
52 Cr	-0.06 ug/l	7.92	0.12	
55 Mn	-0.06 ug/l	25.39	0.18	
56 Fe	0.21 ug/l	8.15	40.80	
59 Co	0.00 ug/l	51.68	0.09	
60 Ni	-0.03 ug/l	25.25	0.48	
63 Cu	0.00 ug/l	167.00	0.39	
65 Cu	0.00 ug/l	5611.40	0.39	
66 Zn	0.02 ug/l	59.48	6.90	
75 As	0.01 ug/l	35.74	0.27	
78 Se	0.00 ug/l	409.04	0.30	
78 Se	0.34 ug/l	43.89	0.30	Fail
88 Sr	0.02 ug/l	20.71	0.03	
88 Sr	0.01 ug/l	12.63	0.03	
95 Mo	0.03 ug/l	8.16	0.21	
106 (Cd)	-------- ug/l	--------	#######	
107 Ag	0.00 ug/l	81.93	0.09	
108 (Cd)	-------- ug/l	--------	#######	
111 Cd	0.00 ug/l	1477.30	0.06	
118 Sn	0.06 ug/l	9.73	#######	
118 Sn	0.06 ug/l	24.96	#######	
118 Sn	0.04 ug/l	10.73	0.30	
121 Sb	0.04 ug/l	4.45	0.03	Fail
137 Ba	0.01 ug/l	36.69	0.12	
205 Tl	0.01 ug/l	5.27	0.03	
206 (Pb)	-------- ug/l	--------	#######	
207 (Pb)	-------- ug/l	--------	#######	
208 Pb	-0.01 ug/l	6.35	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-29421.22	25.04	-29895.57	98.4	70 - 120	IS Fai
45 Sc	3182231.00	1.52	2830107.80	112.4	70 - 120	
45 Sc	431615.88	0.87	373389.06	115.6	70 - 120	
45 Sc	8794947.00	0.63	7835315.00	112.2	70 - 120	
72 Ge	821033.88	1.48	735211.94	111.7	70 - 120	
72 Ge	289164.22	0.85	261572.13	110.5	70 - 120	
72 Ge	1891629.60	0.99	1727774.30	109.5	70 - 120	
115 In	5799300.00	0.95	5361365.50	108.2	70 - 120	
115 In	3045099.00	0.32	2785210.00	109.3	70 - 120	
115 In	11841903.00	0.64	10908714.00	108.6	70 - 120	
159 Tb	15537319.00	0.47	14663948.00	106.0	70 - 120	
165 Ho	15093237.00	0.95	14116038.00	106.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
1 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

METALS
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	07/19/12	07/20/12	#602D-120719A-AY65044

Printed: 07/23/12 8:24:24 AM
Metals SC-Blank-REG MDLs

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\12G20K00.B\018SMPL.D\018SMPL.D#
Date Acquired:	Jul 20 2012 12:03 pm
Operator:	NBS
Sample Name:	120719A-3015-BLK
Misc Info:	120719A-3015
Vial Number:	3101
Current Method:	C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File:	C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update:	Jul 20 2012 11:00 am
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	0.01 ug/l	0.01	56.86	1000	
11 B	-1.25 ug/l	-1.39	6.97	1000	
23 Na	-11.38 ug/l	-12.64	5.22	25000	
24 Mg	1.32 ug/l	1.46	19.00	50000	
27 Al	2.26 ug/l	2.51	19.29	20000	
39 K	1.04 ug/l	1.15	149.57	20000	
44 Ca	1.16 ug/l	1.29	175.90	50000	
47 Ti	0.20 ug/l	0.23	13.84	1000	
51 V	0.01 ug/l	0.01	69.63	1000	
52 Cr	0.10 ug/l	0.11	5.26	1000	
55 Mn	-0.06 ug/l	-0.07	16.20	1000	
56 Fe	4.37 ug/l	4.86	12.80	20000	
59 Co	0.07 ug/l	0.07	20.32	1000	
60 Ni	-0.03 ug/l	-0.03	55.96	1000	
63 Cu	0.09 ug/l	0.09	2.42	1000	
65 Cu	0.10 ug/l	0.11	15.50	1000	
66 Zn	0.03 ug/l	0.03	131.28	1000	
75 As	0.02 ug/l	0.02	34.32	1000	
78 Se	0.01 ug/l	0.02	43.62	1000	
78 Se	0.38 ug/l	0.42	18.64	1000	
88 Sr	0.02 ug/l	0.02	14.60	1000	
88 Sr	0.00 ug/l	0.00	10.44	1000	
95 Mo	0.35 ug/l	0.39	3.45	1000	
106 (Cd)	-------- ug/l	#VALUE!	--------	#######	
107 Ag	0.26 ug/l	0.28	11.64	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	#######	
111 Cd	0.03 ug/l	0.04	11.63	1000	
118 Sn	0.15 ug/l	0.16	3.16	#######	
118 Sn	0.13 ug/l	0.15	11.46	#######	
118 Sn	0.11 ug/l	0.12	12.13	1000	
121 Sb	0.25 ug/l	0.28	6.65	1000	
137 Ba	0.01 ug/l	0.01	65.79	1000	
205 Tl	0.04 ug/l	0.05	8.58	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	#######	
207 (Pb)	-------- ug/l	#VALUE!	--------	#######	
208 Pb	-0.02 ug/l	-0.02	4.13	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-39464.26	16.99	-29895.57	132.0	70 - 120	IS Fai
45 Sc	3149458.30	1.49	2830107.80	111.3	70 - 120	
45 Sc	417940.50	0.43	373389.06	111.9	70 - 120	
45 Sc	9336729.00	0.52	7835315.00	119.2	70 - 120	
72 Ge	798498.94	1.11	735211.94	108.6	70 - 120	
72 Ge	276248.34	1.51	261572.13	105.6	70 - 120	
72 Ge	1978956.00	0.71	1727774.30	114.5	70 - 120	
115 In	5623417.00	0.66	5361365.50	104.9	70 - 120	
115 In	2927802.00	0.34	2785210.00	105.1	70 - 120	
115 In	12377385.00	1.11	10908714.00	113.5	70 - 120	
159 Tb	16551154.00	0.60	14663948.00	112.9	70 - 120	
165 Ho	16019232.00	0.38	14116038.00	113.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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

Laboratory Control Spike Recovery
METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOLVED)	50.0	53.0	106	80-120	07/19/12	07/20/12	#602D-120719A-AY65044

Comments:

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\12G20k00.B\022SMPL.D\022SMPL.D#
Date Acquired:	Jul 20 2012 12:29 pm
Operator:	NBS
Sample Name:	120719A-3015-LCS
Misc Info:	120719A-3015
Vial Number:	3105
Current Method:	C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File:	C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update:	Jul 20 2012 11:00 am
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	9.01	ug/l	10.01	0.91	1000	
11 B	45.31	ug/l	50.34	1.07	1000	
23 Na	4524.00	ug/l	5026.16	0.25	25000	
24 Mg	4574.00	ug/l	5081.71	1.10	50000	
27 Al	375.10	ug/l	416.74	1.86	20000	
39 K	942.40	ug/l	1047.01	1.00	20000	
44 Ca	4872.00	ug/l	5412.79	0.56	50000	
47 Ti	47.19	ug/l	52.43	2.69	1000	
51 V	47.33	ug/l	52.58	0.30	1000	
52 Cr	47.26	ug/l	52.51	0.96	1000	
55 Mn	47.49	ug/l	52.76	0.81	1000	
56 Fe	201.40	ug/l	223.76	0.18	20000	
59 Co	45.55	ug/l	50.61	0.48	1000	
60 Ni	45.79	ug/l	50.87	0.62	1000	
63 Cu	44.32	ug/l	49.24	0.99	1000	
65 Cu	43.99	ug/l	48.87	0.62	1000	
66 Zn	92.04	ug/l	102.26	1.41	1000	
75 As	44.10	ug/l	49.00	1.26	1000	
78 Se	41.09	ug/l	45.65	1.27	1000	
78 Se	42.21	ug/l	46.90	2.39	1000	
88 Sr	47.93	ug/l	53.25	1.47	1000	
88 Sr	47.91	ug/l	53.23	0.61	1000	
95 Mo	46.56	ug/l	51.73	0.21	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	17.66	ug/l	19.62	0.35	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	8.96	ug/l	9.95	0.96	1000	
118 Sn	48.52	ug/l	53.91	0.28	#######	
118 Sn	48.11	ug/l	53.45	0.74	#######	
118 Sn	48.34	ug/l	53.71	0.37	1000	
121 Sb	47.90	ug/l	53.22	0.42	1000	
137 Ba	46.19	ug/l	51.32	0.27	1000	
205 Tl	46.14	ug/l	51.26	0.80	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	47.79	ug/l	53.09	0.29	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-40171.81	7.90	-29895.57	134.4	70 - 120	IS Fai
45 Sc	3158251.30	0.48	2830107.80	111.6	70 - 120	
45 Sc	430667.94	0.57	373389.06	115.3	70 - 120	
45 Sc	9357612.00	0.87	7835315.00	119.4	70 - 120	
72 Ge	796678.25	0.61	735211.94	108.4	70 - 120	
72 Ge	278973.75	1.32	261572.13	106.7	70 - 120	
72 Ge	1976016.00	0.89	1727774.30	114.4	70 - 120	
115 In	5724514.00	0.83	5361365.50	106.8	70 - 120	
115 In	3027750.50	0.98	2785210.00	108.7	70 - 120	
115 In	12522802.00	0.43	10908714.00	114.8	70 - 120	
159 Tb	16726869.00	0.59	14663948.00	114.1	70 - 120	
165 Ho	16191016.00	0.41	14116038.00	114.7	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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

Matrix Spike Recoveries

METALS

APPL ID: **120719W-65044 MS - 169266**

Sample ID: AY65044

Client ID: ES080

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	0.21	50.9	51.5	101	103	1.2	20	80-120	07/19/12	07/20/12	07/19/12	07/20/12	169266	AY65044

Comments: _____

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12G20k00.B\040SMPL.D\040SMPL.D#
Date Acquired: Jul 20 2012 02:29 pm
Operator: NBS
Sample Name: AY65044W08 MS
Misc Info: 120719A-3015
Vial Number: 3204
Current Method: C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update: Jul 20 2012 11:00 am
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	9.02	ug/l	10.02	2.25	1000	
11 B	508.00	ug/l	564.39	0.99	1000	
23 Na	127100.00	ug/l	141208.10	0.91	25000	>Cal
24 Mg	25030.00	ug/l	27808.33	0.84	50000	
27 Al	395.50	ug/l	439.40	1.71	20000	
39 K	4048.00	ug/l	4497.33	1.68	20000	
44 Ca	19380.00	ug/l	21531.18	0.96	50000	
47 Ti	47.10	ug/l	52.33	2.21	1000	
51 V	80.84	ug/l	89.81	0.96	1000	
52 Cr	50.89	ug/l	56.54	0.62	1000	
55 Mn	46.79	ug/l	51.98	0.82	1000	
56 Fe	209.60	ug/l	232.87	0.96	20000	
59 Co	44.11	ug/l	49.01	0.35	1000	
60 Ni	43.64	ug/l	48.48	0.88	1000	
63 Cu	43.12	ug/l	47.91	0.40	1000	
65 Cu	43.09	ug/l	47.87	1.16	1000	
66 Zn	104.60	ug/l	116.21	0.59	1000	
75 As	45.59	ug/l	50.65	0.56	1000	
78 Se	41.46	ug/l	46.06	0.29	1000	
78 Se	42.90	ug/l	47.66	1.54	1000	
88 Sr	201.80	ug/l	224.20	0.26	1000	
88 Sr	194.40	ug/l	215.98	1.08	1000	
95 Mo	49.05	ug/l	54.49	0.59	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	17.13	ug/l	19.03	0.82	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	8.91	ug/l	9.90	0.97	1000	
118 Sn	48.84	ug/l	54.26	0.44	#######	
118 Sn	48.43	ug/l	53.81	1.03	#######	
118 Sn	48.69	ug/l	54.09	0.26	1000	
121 Sb	49.14	ug/l	54.59	0.35	1000	
137 Ba	58.97	ug/l	65.52	0.18	1000	
205 Tl	44.21	ug/l	49.12	0.11	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	45.83	ug/l	50.92	0.25	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-36027.67	3.46	-29895.57	120.5	70 - 120	IS Fai NT
45 Sc	3248716.00	0.86	2830107.80	114.8	70 - 120	
45 Sc	444680.38	0.78	373389.06	119.1	70 - 120	
45 Sc	9567347.00	1.00	7835315.00	122.1	70 - 120	IS Fai NT
72 Ge	800150.81	0.47	735211.94	108.8	70 - 120	
72 Ge	285320.19	0.64	261572.13	109.1	70 - 120	
72 Ge	1972646.90	1.99	1727774.30	114.2	70 - 120	
115 In	5640091.00	0.86	5361365.50	105.2	70 - 120	
115 In	2963479.50	0.63	2785210.00	106.4	70 - 120	
115 In	12205671.00	0.43	10908714.00	111.9	70 - 120	
159 Tb	16610334.00	0.12	14663948.00	113.3	70 - 120	
165 Ho	16193127.00	0.49	14116038.00	114.7	70 - 120	

> NBS 07/23/12

ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.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\12G20k00.B\041SMPL.D\041SMPL.D#
Date Acquired:	Jul 20 2012 02:36 pm
Operator:	NBS
Sample Name:	AY65044W08 MSD
Misc Info:	120719A-3015
Vial Number:	3205
Current Method:	C:\ICPCHEM\1\METHODS\62A0720A.M
Calibration File:	C:\ICPCHEM\1\CALIB\62A0720A.C
Last Cal Update:	Jul 20 2012 11:00 am
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	9.12 ug/l	10.13	0.83	1000	
11 B	516.20 ug/l	573.50	0.56	1000	
23 Na	129500.00 ug/l	143874.50	1.31	25000	>Cal
24 Mg	25440.00 ug/l	28263.84	1.99	50000	
27 Al	443.90 ug/l	493.17	2.18	20000	
39 K	4107.00 ug/l	4562.88	1.34	20000	
44 Ca	22190.00 ug/l	24653.09	1.19	50000	
47 Ti	53.77 ug/l	59.74	1.35	1000	
51 V	82.33 ug/l	91.47	0.88	1000	
52 Cr	52.14 ug/l	57.93	0.79	1000	
55 Mn	49.05 ug/l	54.49	1.14	1000	
56 Fe	297.30 ug/l	330.30	1.25	20000	
59 Co	44.83 ug/l	49.81	1.54	1000	
60 Ni	45.01 ug/l	50.01	1.06	1000	
63 Cu	44.58 ug/l	49.53	1.18	1000	
65 Cu	44.40 ug/l	49.33	1.03	1000	
66 Zn	99.26 ug/l	110.28	1.31	1000	
75 As	46.03 ug/l	51.14	0.96	1000	
78 Se	41.97 ug/l	46.63	1.46	1000	
78 Se	42.58 ug/l	47.31	1.95	1000	
88 Sr	214.90 ug/l	238.75	0.40	1000	
88 Sr	219.70 ug/l	244.09	0.23	1000	
95 Mo	48.94 ug/l	54.37	0.46	1000	
106 (Cd)	-------- ug/l	#VALUE!	--------	#######	
107 Ag	17.04 ug/l	18.93	0.77	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	#######	
111 Cd	9.02 ug/l	10.02	2.12	1000	
118 Sn	49.19 ug/l	54.65	0.90	#######	
118 Sn	48.66 ug/l	54.06	1.24	#######	
118 Sn	48.32 ug/l	53.68	0.71	1000	
121 Sb	48.89 ug/l	54.32	0.99	1000	
137 Ba	58.81 ug/l	65.34	0.86	1000	
205 Tl	44.40 ug/l	49.33	0.22	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	#######	
207 (Pb)	-------- ug/l	#VALUE!	--------	#######	
208 Pb	46.43 ug/l	51.58	0.74	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	-39213.74	4.52	-29895.57	131.2	70 - 120	IS Fai NT
45 Sc	3253422.30	1.35	2830107.80	115.0	70 - 120	
45 Sc	440604.63	1.73	373389.06	118.0	70 - 120	
45 Sc	9684490.00	0.45	7835315.00	123.6	70 - 120	IS Fai NT
72 Ge	804434.69	0.71	735211.94	109.4	70 - 120	
72 Ge	286202.91	1.58	261572.13	109.4	70 - 120	
72 Ge	1994535.00	0.93	1727774.30	115.4	70 - 120	
115 In	5670486.00	0.75	5361365.50	105.8	70 - 120	
115 In	2965847.50	0.88	2785210.00	106.5	70 - 120	
115 In	12435346.00	1.07	10908714.00	114.0	70 - 120	
159 Tb	16671569.00	0.72	14663948.00	113.7	70 - 120	
165 Ho	16184047.00	0.88	14116038.00	114.7	70 - 120	

> NDS 7/23/12

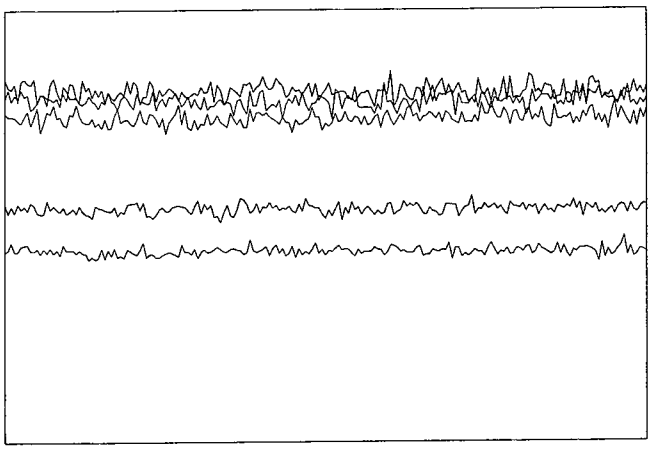
ISTD Ref File : C:\ICPCHEM\1\DATA\12G20k00.B\004CALB.D\004CALB.D#

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

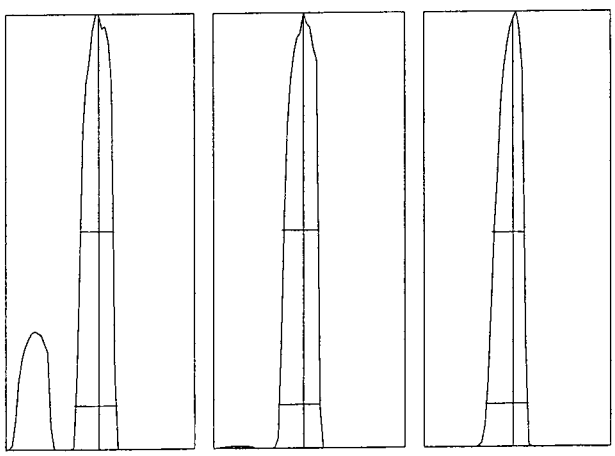
Tune Report

Tune File : NG_HMI.u
Comment : 120720



Integration Time:	0.1000 sec	
Sampling Period:	0.7200 sec	
n:	200	
Oxide:	156/140	0.655%
Doubly Charged:	70/140	1.066%

m/z	Range	Count	Mean	RSD%	Background
7	20,000	16457.0	16188.5	2.17	2.10
89	50,000	38547.0	37345.4	2.01	2.30
205	50,000	27128.0	26819.1	2.02	7.60
156/140	2	0.736%	0.673%	7.08	
70/140	2	0.945%	1.039%	6.57	
140	50,000	39670.0	39402.0	2.02	4.50
59	50,000	21764.0	21930.1	2.17	2.80



m/z:	7	89	205
Height:	16,449	38,512	26,457
Axis:	7.00	88.95	204.95
W-50%:	0.55	0.60	0.55
W-10%:	0.700	0.6500	0.700

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Generated : Jul 20, 2012 09:45:58
Printed : Jul 20, 2012 09:46:00

Tune Report

Tune File : NG_HMI.u
Comment : 120720

Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===		
RF Power	:	1600 W	Extract 1	:	0 V	AMU Gain	:	128
RF Matching	:	1.7 V	Extract 2	:	-140 V	AMU Offset	:	129
Smpl Depth	:	8 mm	Omega Bias-ce	:	-24 V	Axis Gain	:	0.9999
Torch-H	:	0.2 mm	Omega Lens-ce	:	-0.4 V	Axis Offset	:	-0.05
Torch-V	:	-0.2 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	:	1720 V
Sample Pump	:	--- rps	OctP RF	:	180 V	Pulse HV	:	1350 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	:	--- %

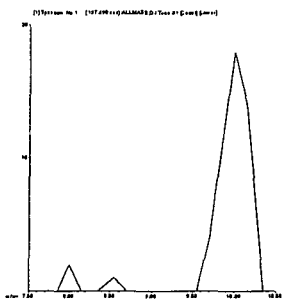
Generated : Jul 20, 2012 09:45:58
Printed : Jul 20, 2012 09:46:02

200.8 QC Tune Report

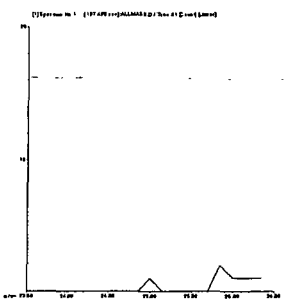
Data File: C:\ICPCHEM\1\DATA\12G20k00.B\001TUNE.D
Date Acquired: Jul 20 2012 10:07 am
Acq. Method: TN200_8.M
Operator: NBS
Sample Name: 100ppb Tune sol
Misc Info:
Vial Number: 1303
Current Method: C:\ICPCHEM\1\METHODS\TN200_8.M

RSD (%)

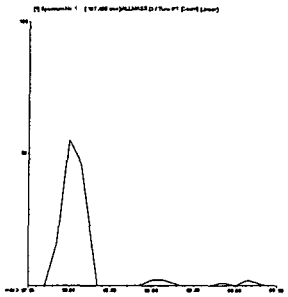
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
9 Be	881336	876428	880775	880066	884445	884964	**0.35**	5.00	
24 Mg	2705169	2672077	2695643	2721240	2710985	2725898	**0.92**	5.00	
59 Co	4714078	4698461	4751401	4707923	4707726	4704877	**0.66**	5.00	
115 In	23506640	23537396	23487156	23544216	23442286	23522144	**0.15**	5.00	
208 Pb	3863011	3846994	3888961	3871960	3867395	3839743	**0.95**	5.00	



9 Be
Mass Calib.
Actual: 9.00
Required: 8.90 - 9.10
Flag:
Peak Width
Actual: 0.55
Required: 0.90
Flag:



24 Mg
Mass Calib.
Actual: 23.95
Required: 23.90 - 24.10
Flag:
Peak Width
Actual: 0.60
Required: 0.80
Flag:



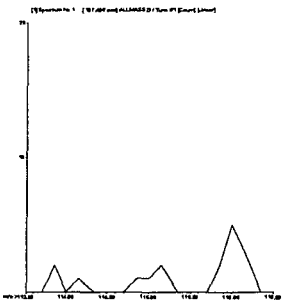
59 Co

Mass Calib.

Actual:	58.95		
Required:	58.90	-	59.10
Flag:			

Peak Width

Actual:	0.55		
Required:	0.90		
Flag:			



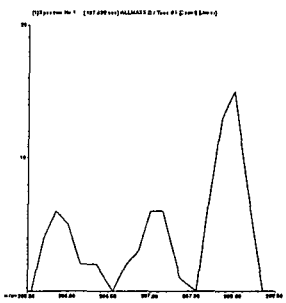
115 In

Mass Calib.

Actual:	115.00		
Required:	114.90	-	115.10
Flag:			

Peak Width

Actual:	0.55		
Required:	0.90		
Flag:			



208 Pb

Mass Calib.

Actual:	207.95		
Required:	207.90	-	208.10
Flag:			

Peak Width

Actual:	0.55		
Required:	0.80		
Flag:			

Tune Result: Pass

Metals Standards Log Book # 35 Page # 055

SQM 7/16/12
6020 / 6020A
(A)

ICP-MS STANDARDS 6020/6020A/3015/3051A
Today's Date: 07/16/12
Expires: 07/23/12
Prep 1% HNO3/1.0%HCL
20 mL HNO3 / 2000 mL DI Water
Lot #L08023
20mL HCL / 2000mL DI Water
Lot #51305
Expires: 07/23/12

Internal Standard Mix: Prep 07/12/2012

Standard 4

Amount	STD	Manufacturer	Lot #
50 uL	CCV-A	ABS STDS	012512-30306
50 uL	CCV-B	ABS STDS	021312-30337
50 uL	CCV-C	ABS STDS	012512-30307

Prepared in 100 mL of 1% HNO3/1.0% HCL 07/17/12

Standard 3 07/23/12

Amount	STD	Manufacturer	Lot #
25 uL	CCV-A	ABS STDS	012512-30306
25 uL	CCV-B	ABS STDS	021312-30337
25 uL	CCV-C	ABS STDS	012512-30307

Prepared in 100 mL of 1% HNO3/1.0% HCL 07/17/12

Intermediate-Sb 07/23/12
100 uL of Sb STD (CPI 12A011-30298) in 10 mL of 1% HNO3/1.0% HCL
ICV-Sb 07/23/12
100 uL of Intermediate-Sb in 10 mL of 1% HNO3/1.0% HCL

SQM 7/16/12

Standard 2 07/23/12

Amount	STD	
500 uL	Standard 4	07/17/12

Prepared in 50 mL of 1% HNO3/1.0% HCL 07/17/12

Standard 1 07/23/12

Amount	STD	
50 uL	Standard 4	07/17/12

Prepared in 50 mL of 1% HNO3/1.0% HCL 07/17/12

ICP-MS ICV 07/23/12

Amount	STD		
50 uL	QCS ICV A	CPI	11C184-30611
50 uL	QCS ICV B	CPI	11C184-30612

Prepared in 50 mL of 1% HNO3/1.0% HCL 07/16/12

ICSA Prep: 07/23/12

1 mL	ICSA	CPI	12E134

Prepared in 5 mL of 1% HNO3/1.0% HCL 07/16/12

ICSAB Prep: 07/23/12

1mL	ICSA	CPI	12E134
0.025mL	INT	O2SI	1032370-30265

Prepared in 5 mL of 1% HNO3/1.0% HCL 07/16/12

ICP-LDR 07/23/12

Amount	STD		
50 uL	CCV-A	ABS STDS	012512-30306
50 uL	CCV-B	ABS STDS	021312-30337
50 uL	CCV-C	ABS STDS	012512-30307

Prepared in 10 mL of 1% HNO3/1.0% HCL 07/16/12

RJS 7/16/12

Hg WORKING STANDARD

1ml X 10ug/ml Hg STOCK STD. (07/13/12RJS)/200ml 1% HNO3 Lot#L02030
1ml X 10ug/ml Hg STOCK ICV (07/13/12RJS)/200ml 1% HNO3 Lot#L02030
Final concentration is 50 ug/L. Expires.....7/16/12.....

SQM 7/17/12
6020 / 6020A
(A)

ICP-MS STANDARDS 6020/6020A/3015/3051A
Today's Date: 07/17/12
Expires: 07/24/12
Prep 1% HNO3/1.0%HCL
20 mL HNO3 / 2000 mL DI Water
Lot #L08023
20mL HCL / 2000mL DI Water
Lot #51305
Expires: 07/24/12

Internal Standard Mix: Prep 07/12/2012 (RJS 07/18/12)

Standard 4

Amount	STD	Manufacturer	Lot #
50 uL	CCV-A	ABS STDS	012512-30306
50 uL	CCV-B	ABS STDS	021312-30337
50 uL	CCV-C	ABS STDS	012512-30307

Prepared in 100 mL of 1% HNO3/1.0% HCL 07/17/12

Standard 3 07/24/12

Amount	STD	Manufacturer	Lot #
25 uL	CCV-A	ABS STDS	012512-30306
25 uL	CCV-B	ABS STDS	021312-30337
25 uL	CCV-C	ABS STDS	012512-30307

Prepared in 100 mL of 1% HNO3/1.0% HCL 07/17/12

Intermediate-Sb 07/24/12
100 uL of Sb STD (CPI 12A011-30298) in 10 mL of 1% HNO3/1.0% HCL
ICV-Sb 07/24/12
100 uL of Intermediate-Sb in 10 mL of 1% HNO3/1.0% HCL

SQM 7/17/12

Standard 2 07/24/12

Amount	STD	
500 uL	Standard 4	07/17/12

Prepared in 50 mL of 1% HNO3/1.0% HCL 07/17/12

Standard 1 07/24/12

Amount	STD	
50 uL	Standard 4	07/17/12

Prepared in 50 mL of 1% HNO3/1.0% HCL 07/17/12

ICP-MS ICV 07/24/12

Amount	STD		
50 uL	QCS ICV A	CPI	11C184-30611
50 uL	QCS ICV B	CPI	11C184-30612

Prepared in 50 mL of 1% HNO3/1.0% HCL 07/17/12

ICSA Prep: 07/24/12

1 mL	ICSA	CPI	12E134

Prepared in 5 mL of 1% HNO3/1.0% HCL 07/17/12

ICSAB Prep: 07/24/12

1mL	ICSA	CPI	12E134
0.025mL	INT	O2Si	1032370-30265

Prepared in 5 mL of 1% HNO3/1.0% HCL 07/17/12

ICP-LDR 07/24/12

Amount	STD		
50 uL	CCV-A	ABS STDS	012512-30306
50 uL	CCV-B	ABS STDS	021312-30337
50 uL	CCV-C	ABS STDS	012512-30307

Prepared in 10 mL of 1% HNO3/1.0% HCL 07/17/12

SQM 7/17/12

Internal Standard Concentration

Amt	STD	Element	Vendor	Lot#	Final Conc. In Std	Expires
500uL	1000 ug/mL	Li	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:	07/17/12	NBS	Prep in -	1%HNO3/1.0%HCL:	Lot #L08023/51305	in 100mL
Expires:	08/16/12					

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Metals Standards Log Book # 35 Page # 058

RJS 7/20/12

Hg WORKING STANDARD

1ml X 10ug/ml Hg STOCK STD. (07/13/12RJS)/200ml 1% HNO3 Lot#L02030
1ml X 10ug/ml Hg STOCK ICV (07/13/12RJS)/200ml,1% HNO3 Lot#L02030
Final concentration is 50 ug/L. Expires.....7/20/12.....

RJS 7/20/12

NBS 07/20/12

6010/6020A

(A)

NBS 07/20/12

ICP-MS STANDARDS 6020/6020A/3015/3051A

Today's Date: 07/20/12
Expires: 07/27/12
Prep 1% HNO3/1.0%HCL
20 mL HNO3 / 2000 mL DI Water
Lot #L08023
20mL HCL / 2000mL DI Water
Lot #51305
Expires: 07/27/12

Internal Standard Mix: Prep 07/17/2012

Standard 4

Amount	STD	Manufacturer	Lot #
50 uL	CCV-A	ABS STDS	012512-30306
50 uL	CCV-B	ABS STDS	021312-30337
50 uL	CCV-C	ABS STDS	012512-30307

Prepared in 100 mL of 1% HNO3/1.0% HCL 07/20/12

Standard 3 07/27/12

Amount	STD	Manufacturer	Lot #
25 uL	CCV-A	ABS STDS	012512-30306
25 uL	CCV-B	ABS STDS	021312-30337
25 uL	CCV-C	ABS STDS	012512-30307

Prepared in 100 mL of 1% HNO3/1.0% HCL 07/20/12

Intermediate-Sb 07/27/12
100 uL of Sb STD (CPI 12A011-30298) in 10 mL of 1% HNO3/1.0% HCL
ICV-Sb 07/27/12
100 uL of Intermediate-Sb in 10 mL of 1% HNO3/1.0% HCL

Standard 2 07/27/12

Amount	STD	
500 uL	Standard 4	07/20/12

Prepared in 50 mL of 1% HNO3/1.0% HCL 07/20/12

Standard 1 07/27/12

Amount	STD	
50 uL	Standard 4	07/20/12

Prepared in 50 mL of 1% HNO3/1.0% HCL 07/20/12

ICP-MS ICV 07/27/12

Amount	STD		
50 uL	QCS ICV A	CPI	11C184-30811
50 uL	QCS ICV B	CPI	11C184-30812

Prepared in 50 mL of 1% HNO3/1.0% HCL 07/20/12

ICSA Prep: 07/27/12

1 mL	ICSA	CPI	12E134

Prepared in 5 mL of 1% HNO3/1.0% HCL 07/20/12

ICSAB Prep: 07/27/12

1mL	ICSA	CPI	12E134
0.025mL	INT	O2SI	1032370-30265

Prepared in 5 mL of 1% HNO3/1.0% HCL 07/20/12

ICP-LDR 07/27/12

Amount	STD		
50 uL	CCV-A	ABS STDS	012512-30306
50 uL	CCV-B	ABS STDS	021312-30337
50 uL	CCV-C	ABS STDS	012512-30307

Prepared in 10 mL of 1% HNO3/1.0% HCL 07/20/12

Metals Digestion Worksheet

Method Name 3015 Digestion **Prep Method** M3015 **Set** 120719A **Units** mL

Spikes			
Spiked ID 1	LCSW LOT# 1036660-30911		
Spiked ID 2	LCSW LOT# 1036821-30981		
Spiked ID 3			
Spiked ID 4			
Spiked By	NM	Date:	07/19/12 8:30:00 AM
Witnessed By	BC	Date:	07/19/12 8:30:00 AM

Starting Temp:	20 c
Ending Temp:	170 c
Temperature Type:	Microwave
Sufficient Vol for Matrix QC:	Yes
End Date/Time	07/19/12 9:30

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	120719A Blk				45mL	50mL	07/19/12 8:30	equip: Venus
2	120719A LCS		90uL	1+2	45mL	50mL	07/19/12 8:30	equip: Venus
3	AY65041	AY65041W08			45mL	50mL	07/19/12 8:30	equip: Venus
4	AY65043	AY65043W08			45mL	50mL	07/19/12 8:30	equip: Venus
5	AY65044	AY65044W08			45mL	50mL	07/19/12 8:30	equip: Venus
6	AY65044 MS	AY65044W08	90uL	1+2	45mL	50mL	07/19/12 8:30	equip: Venus
7	AY65044 MSD	AY65044W08	90uL	1+2	45mL	50mL	07/19/12 8:30	equip: Venus

Solvent and Lot#
HNO3 J.T.B L10023 0226

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	EA
Date	7-19-12
Time	9:30
Moved to	Metals

Technician's Initials	
Scanned By	lo
Sample Preparation	nm
Digestion	nm
Bring up to volume	nm
Modified	07/19/12 7:58:27 AM

Reviewed By: EA **Date:** 7-19-12

6020/200.8 Injection Log

Directory: K:\ICP-MS Optimus\raw data output csv\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	20 Jul 2012	10:30	Calibration Blank		120720Arev	1.
2	20 Jul 2012	10:36	120720 Standard 1		120720Arev	1.
3	20 Jul 2012	10:43	120720 Standard 2		120720Arev	1.
4	20 Jul 2012	10:50	120720 Standard 3		120720Arev	1.
5	20 Jul 2012	10:56	120720 Standard 4		120720Arev	1.
6	20 Jul 2012	11:03	ICV 120720		120720Arev	1.
8	20 Jul 2012	11:16	ICB 120720		120720Arev	1.
9	20 Jul 2012	11:23	CCV 120720		120720Arev	1.
10	20 Jul 2012	11:30	CCB 120720		120720Arev	1.
11	20 Jul 2012	11:36	ICSA 120720		120720Arev	1.
12	20 Jul 2012	11:43	ICSAB 120720		120720Arev	1.
13	20 Jul 2012	12:03	120719A-3015-BLK		120720Arev	1.
17	20 Jul 2012	12:29	120719A-3015-LCS		120720Arev	1.
20	20 Jul 2012	12:50	CCV 120720		120720Arev	1.
21	20 Jul 2012	13:03	CCB 120720		120720Arev	1.
28	20 Jul 2012	13:49	AY65041W08		120720Arev	1.
29	20 Jul 2012	13:56	CCV 120720		120720Arev	1.
30	20 Jul 2012	14:09	CCB 120720		120720Arev	1.
31	20 Jul 2012	14:16	AY65043W08		120720Arev	1.
32	20 Jul 2012	14:23	AY65044W08		120720Arev	1.
33	20 Jul 2012	14:29	AY65044W08 MS		120720Arev	1.
34	20 Jul 2012	14:36	AY65044W08 MSD		120720Arev	1.
35	20 Jul 2012	14:43	AY65044W08-A		120720Arev	1.
36	20 Jul 2012	14:49	AY65044W08-1/5		120720Arev	5.
37	20 Jul 2012	14:56	CCV 120720		120720Arev	1.
38	20 Jul 2012	15:10	CCB 120720		120720Arev	1.