



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

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

## Data Validatable Report

May 18, 2012

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

Attn: Max Solmssen

Title: Report of Data: Case 67512

Project: LTM Red Hill/1022-024

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

Dear Mr. Solmssen:

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

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

If you have any questions or require further information, please contact your APPL Project Manager, Cynthia Clark, at your convenience. Thank you for choosing APPL, Inc.

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

Sharon Dehmlow, Laboratory Director  
APPL, Inc.

SD/sdm  
Enclosure  
cc: File

Number of pages in this report: 473

Data Validation Package  
for  
LTM Red Hill Bulk Fuel Storage Facility  
SDG 67512

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# **SAMPLE RECEIPT INFORMATION**

## Sample receipt information

ARF: 67512

Project: Red Hill/1022-024

### Sample Receipt Information:

The samples were received on April 17, 2012, at 4.0°C and 4.0°C. The samples were assigned Analytical Request Form (ARF) number 67512. The sample numbers and requested analyses were compared to the chain of custody and email communications. The trip blank samples (ES074 and ES075) were not listed on the CoC; the client was notified. Both trip blank samples were added to the log in and their IDs were changed to Trip Blank-1 and Trip Blank-2, as instructed. No other exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
ES070	AY59184	WATER	04/16/12	04/17/12
ES071	AY59185	WATER	04/16/12	04/17/12
ES072	AY59186	WATER	04/16/12	04/17/12
ES073	AY59187	WATER	04/16/12	04/17/12
TRIP BLANK-1	AY59208	WATER	04/16/12	04/17/12
TRIP BLANK-2	AY59209	WATER	04/16/12	04/17/12

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

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

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

Measurement uncertainty can be reported upon request.

# **CASE NARRATIVE**

# **EPA Method 8015B**

## **Total Petroleum Hydrocarbons – Diesel**

### **Sample Preparation:**

The water samples were extracted according to EPA method 3510C. The 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 the detection limit in the method blank.

#### **Spikes:**

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

No sample was designated for MS/MSD analysis.

#### **Surrogates:**

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

### **Summary:**

No problem was encountered

# **EPA Method 8270D SIM**

## **Polynuclear Aromatic Hydrocarbons**

### **Sample Preparation:**

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

### **Sample Analysis Information:**

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

### **Quality Control/Assurance**

#### **Calibrations:**

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

#### **Blanks:**

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

#### **Spikes:**

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

No sample was designated for MS/MSD analysis.

#### **Surrogates**

Surrogate recoveries are summarized on the form 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 8260B

## Volatile Organic Analysis

### **Sample Preparation:**

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

### **Sample Analysis Information:**

The samples were analyzed according to the method using a Hewlett Packard Gas Chromatograph with a mass spectrometer detector. All holding times were met. The samples were received in unpreserved vials; they were analyzed within seven days of collection. Manual integrations were performed in accordance with APPL's Manual integration for gasoline was performed on every sample, LCS, method blank, second-source, and gasoline curve calibration point due to the computer integration not following the baseline. Chromatograms of before and after manual integration 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.

#### **Blanks:**

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

#### **Spikes:**

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

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

#### **Surrogates:**

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

#### **Tuning:**

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

#### **Internal Standards:**

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

### **Summary:**

No 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 ES073 was selected by the laboratory as the QC sample for the analytical batch. The MS/MSD, PDS, and DT met all acceptance criteria.

### **Summary:**

No analytical exception is noted.

## 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

67512

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 # 37947  
 RAD Screen (Y/N): Y pH (Y/N): Y  
 Turn Around Type: 2 WEEKS

Received by: TBV   
 Date Received: 04/17/12 Time: 09:40  
 Delivered by: FED EX  
 Shuttle Custody Seals (Y/N): N Time Zone: -10  
 Chest Temp(s): 4.0,4.0°C  
 Color: VOA,D-YELL,Q-ORYELL  
 Samples Chilled until Placed in Refrig/Freezer: Y  
 Project Manager: Cynthia Clark  
 QC Report Type: DVP4/ADRDOD/HI   
 Due Date: 05/01/12

Comments:

14 day TAT for Form 1s & 30 day TAT for full package.  
 OSDas@, MSolmssen@ & VDupra@environetinc.com  
 1 pdf on CD or FTP (no hard copy), NO hard copy to LDC per Stacy 2-24-11  
 Guidance: DOD QSM, DoD Forms, J flag to DL, U flag at LOD **IF**  
 EDD ADR A1/A3 (ADR 8.3a unchecked) to OSDas@ VDupra@ & MSolmssen@environetinc.com  
 metals 6020: report Lead with 0.5ug/L RL  
 TPH-Diesel only; VOCs: include gasoline by 8260B  
 Please see attached email for sample deficiencies  
 IDs for ES074 & ES075 changed per Max email - chc 4-23-12

Sample Distribution:

**GC: 4-\$SIMHC12W, 4-\$TPETD2**  
**Extractions: 4- SEP004S, 4- SEP011**  
**VOA: 6-\$86RHBF**  
**Metals: 4-\$602D(Pb)**  
**Other: 4- M3015**

Charges:

Invoice To:

**same**

Client ID	APPL ID	Sampled	Analyses Requested
1. ES070	AY59184W 	04/16/12 09:50	\$602D(Pb), \$86RHBF, \$SIMHC12W, \$TPETD2 -- un-preserved VOA vials
2. ES071	AY59185W 	04/16/12 11:10	\$602D(Pb), \$86RHBF, \$SIMHC12W, \$TPETD2 -- un-preserved VOA vials
3. ES072	AY59186W 	04/16/12 08:00	\$602D(Pb), \$86RHBF, \$SIMHC12W, \$TPETD2 -- un-preserved VOA vials
4. ES073	AY59187W 	04/16/12 12:45	\$602D(Pb), \$86RHBF, \$SIMHC12W, \$TPETD2 -- un-preserved VOA vials
5. TRIP BLANK-1	AY59208W 	04/16/12 00:00	\$86RHBF -- un-preserved VOA vials

# APPL - Analysis Request Form

67512

6. TRIP BLANK-2

AY59209W 04/16/12 00:00 \$86RHBF -- un-preserved VOA vials



# APPL Sample Receipt Form

ARF# 67512

Sample	Container Type	Count	pH
AY59184	<sup>6</sup> PL 500mL - HNO3	1	1.7
	<sup>15</sup> VOAs - NP	3	na
	<sup>17</sup> Amber Liter	4	na
AY59185	<sup>6</sup> PL 500mL - HNO3	1	1.7
	<sup>15</sup> VOAs - NP	3	na
	<sup>17</sup> Amber Liter	4	na
AY59186	<sup>6</sup> PL 500mL - HNO3	1	1.7
	<sup>15</sup> VOAs - NP	3	na
	<sup>17</sup> Amber Liter	4	na
AY59187	<sup>6</sup> PL 500mL - HNO3	1	1.7
	<sup>15</sup> VOAs - NP	3	na
	<sup>17</sup> Amber Liter	4	na
AY59208	<sup>15</sup> VOAs - NP	3	na
AY59209	<sup>15</sup> VOAs - NP	3	na

Sample    Container Type    Count    pH



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

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

CHAIN OF CUSTODY RECORD

62512-4.0

C.O.C. 37947

Report to: Max Solmsson PLEASE PRINT  
Company Name: Environment, Inc Phone: 808-833-2225  
Address: 650 Iwilei Rd, Suite 204  
Honolulu, HI 96817 Fax: 808-833-2231  
Attn: msolmsse@environmentinc.com

Invoice to: A. P. PLEASE PRINT  
Company Name: Environment, Inc Phone: 808-833-2225  
Address: 650 Iwilei Rd, Suite 204  
Honolulu, HI 96817 Fax: 808-833-2231  
Attn: A. P.

Project Name/Number		Sampler (Print)			Analysis Requested/Method Number					Date Shipped:				
Purchase Order Number		Sampler (Signature)			No. of Containers	Matrix			VOCs (8260B)	TPH-G (8260B)	TPH-D (8015B)	PAHs (290.314)	dissolved lead	Carrier:
Sample Identification		Location	Date Collected	Time Collected		Time Zone	Aq	Sed.						Soil
Red Hill/1022-024		Max Solmsson												Comments: <input checked="" type="checkbox"/>
1022-024		<i>Max R. Sol</i>												Lead samples have been field-filtered
ES070	Red Hill	4/16/12	950	H11	8	X								
ES071			1110											
ES072			800											
ES073			1245											

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 4/16/12 Time 2:30 pm Received by: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received by: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date \_\_\_\_\_ Time 1040 Received at lab by: \_\_\_\_\_

COOLER RECEIPT FORM

- 1) Project: LTM Red Hill / 1022-024 Date Received: 4/17/12
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) 87691243 3313 3)
9) YES NO NA Was the shipping slip scanned into the database?
10) YES NO NA If cooler belongs to APPL, has it been logged into the ice chest database?
11) Describe type of packing in cooler (bubble wrap, popcorn, type of ice, etc.): bubble bag in wet ice

- 12) YES NO NA For hand delivered samples was sufficient ice present to start the cooling process?
13) YES NO Was a temperature blank included in the cooler?
14) Serial number of certified NIST thermometer used: A39267 Correction factor: 0
15) Cooler temp(s): 1) 4.0 C 2) 4.0 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: AYS9185W02-W03, AYS9186W01-W03, AYS9187 W02-W03

Preservation & Hold time:

- 33) YES NO NA Was a sufficient amount of holding time remaining to analyze the samples?
34) YES NO NA Do the sample containers contain the same preservative as what is stated on the COC?
35) YES NO NA Was the pH taken of all non-VOA preserved samples and written on the sample container?
36) YES NO NA Was the pH of acid preserved non-VOA samples < 2 & sodium hydroxide preserved samples > 12?
37) YES NO NA Unpreserved VOA Vials received?
38) YES NO NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?

Lab notified if pH was not adequate:

Deficiencies: Received 2 Set of TRIP BLANK ID is ESO74 and ESO75 (3 voa vial) no collection time and not listed on COC. (Non-preserved Trip Blank) on label

Note: Both Set of Trip Blank have bubble smaller than pea

Signature of personnel receiving samples: [Signature] Second reviewer: [Signature]
Signature of project manager notified: [Signature] Date and Time of notification: 4/17 12:05
Name of client notified: Date and Time of notification:
Information given to client: by whom (Initials):

**EPA 8015 Modified  
Total Petroleum Hydrocarbons**

**EPA 8015 Modified  
Total Petroleum Hydrocarbons  
QC Summary**

**Method Blank**  
**TPH Diesel Water**

Blank Name/QCG: **120418W-59184 - 166388**  
Batch ID: #TPETD-120418B

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	04/18/12	04/20/12
BLANK	SURROGATE: OCTACOSANE (S)	92.7	28-142			%	04/18/12	04/20/12
BLANK	SURROGATE: ORTHO-TERPHEN	77.0	57-132			%	04/18/12	04/20/12

Quant Method: TPH0306.M  
Run #: 419039  
Instrument: Apollo  
Sequence: 120419  
Initials: TRL

Printed: 05/01/12 2:58:04 PM  
GC SC-Blank-REG MDLs

### Surrogate Recovery

Lab Name: APPL, Inc.  
 Case No: 67512  
 Matrix: WATER

SDG No: 67512  
 Date Analyzed: 04/20/12  
 Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
120418B-BLK	Blank	28-142	92.7		57-132	77.0	
120418B-LCS	Lab Control Spike	28-142	88.7		57-132	88.0	
AY59184	ES070	28-142	89.0		57-132	79.2	
AY59185	ES071	28-142	93.7		57-132	86.2	
AY59186	ES072	28-142	81.9		57-132	77.7	
AY59187	ES073	28-142	87.1		57-132	78.0	

Comments: Batch: #TPETD-120418B

# Laboratory Control Spike Recovery

## TPH Diesel Water

APPL ID: 120418W-59184 LCS - 166388  
 Batch ID: #TPETD-120418B

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	1540	77.0	61-143
SURROGATE: OCTACOSANE (S)	150	133	88.7	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	132	88.0	57-132

Comments: \_\_\_\_\_  
 \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>
Quant Method :	TPH0306.M
Extraction Date :	04/18/12
Analysis Date :	04/20/12
Instrument :	Apollo
Run :	419040
Initials :	TRL

Printed: 05/01/12 2:58:10 PM  
 APPL Standard LCS

# EPA 8015B-e

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 67512

Case No: 67512

Date Analyzed: 04/20/12

Matrix: WATER

Instrument: Apollo

Blank ID: 120418B-BLK

Time Analyzed: 1933

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
120418B-BLK	Blank	419039	04/20/12 1933
120418B-LCS	Lab Control Spike	419040	04/20/12 1958
AY59184	ES070	419041	04/20/12 2022
AY59185	ES071	419042	04/20/12 2046
AY59186	ES072	419043	04/20/12 2110
AY59187	ES073	419044	04/20/12 2135

Comments: Batch: #TPETD-120418B

Printed: 05/01/12 2:58:14 PM  
Form 4, Blank Summary

**EPA 8015 Modified  
Total Petroleum Hydrocarbons  
Sample Data**

# TPH Diesel Water

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

Attn: Max Solmssen  
Project: LTM Red Hill / 1022-024

**Sample ID: ES070**

Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

**APPL ID: AY59184**

QCG: #TPETD-120418B-166388

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	04/18/12	04/20/12
EPA 8015B-	SURROGATE: OCTACOSANE (S)	89.0	28-142			%	04/18/12	04/20/12
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S)	79.2	57-132			%	04/18/12	04/20/12

Quant Method: TPH0306.M  
Run #: 419041  
Instrument: Apollo  
Sequence: 120419  
Dilution Factor: 1  
Initials: TRL

Printed: 05/10/12 8:02:46 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : G:\APOLLO\DATA\120419\419041.D Vial: 41  
 Acq On : 4-20-12 20:22:35 Operator: LAC  
 Sample : AY59184W05 5/1050 Inst : Apollo  
 Misc : Water Multiplr: 4.76  
 IntFile : events.e  
 Quant Time: May 10 19:51 2012 Quant Results File: TPH0306.RES

Method : G:\APOLLO\DATA\120419\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 01 14:33:37 2012  
 Response via : Multiple Level Calibration

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

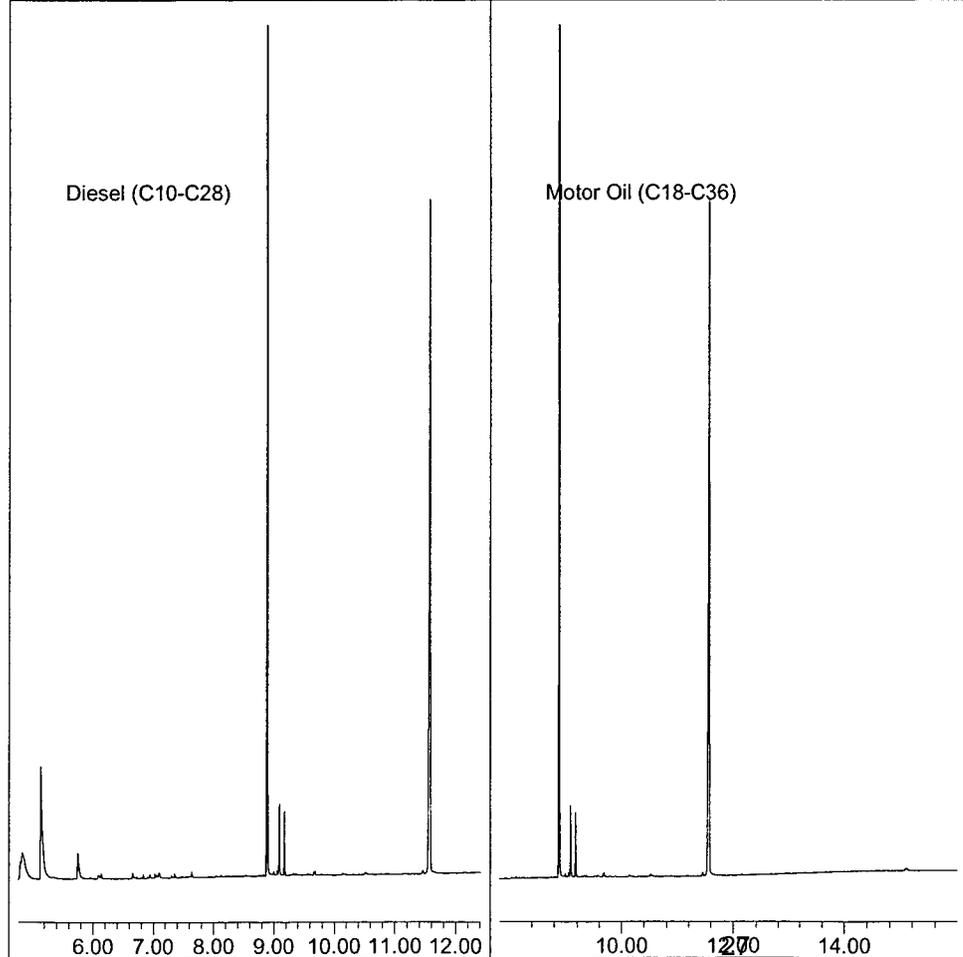
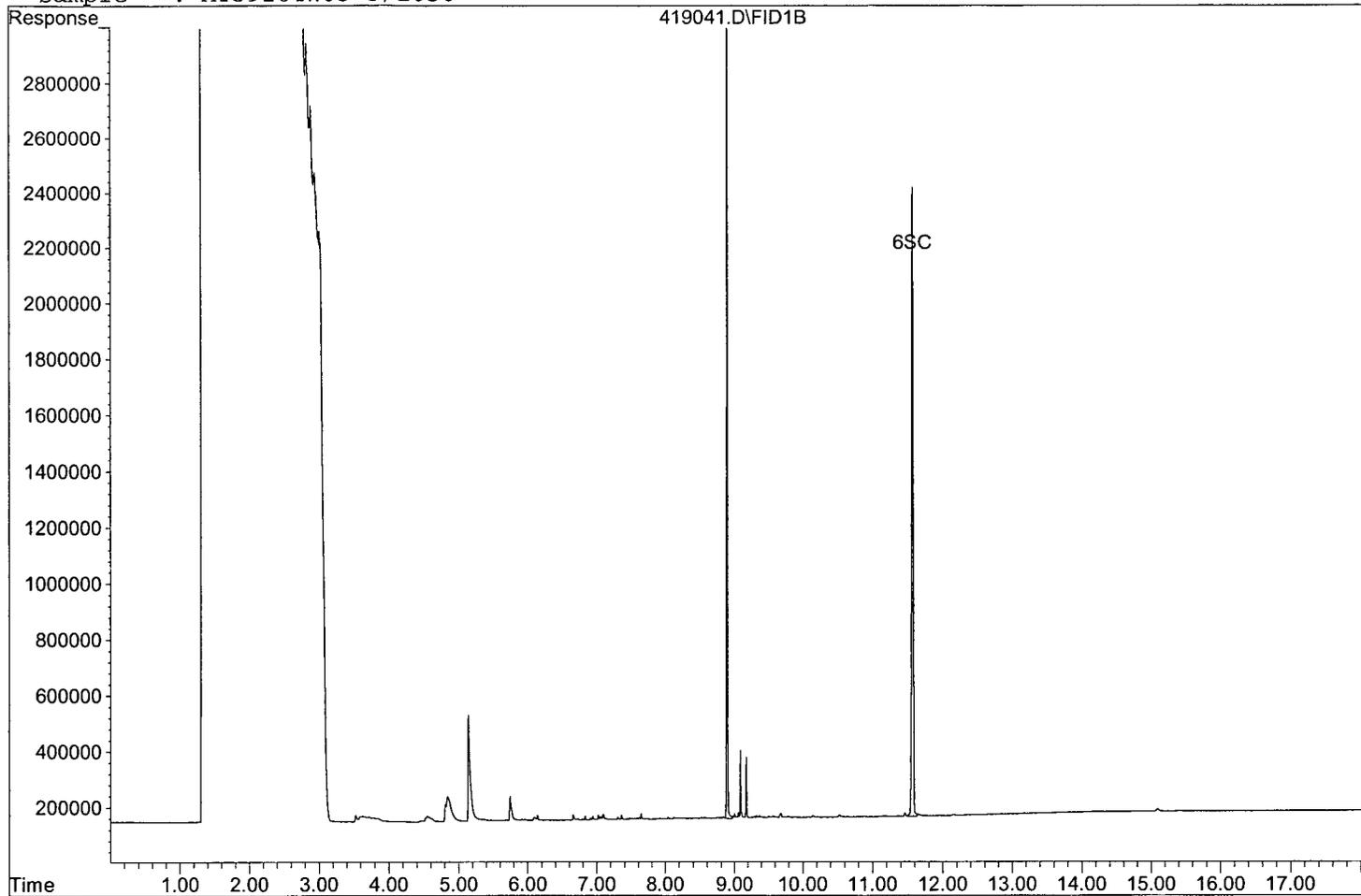
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.89	32826100	113.080 ppb
Surrogate Spike 142.857		Recovery =	79.16%
6) SC Octacosane(S)	11.57	31556739	127.204 ppb
Surrogate Spike 142.857		Recovery =	89.04%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\120419\419041.D

Sample : AY59184W05 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: 67512

**Sample ID: ES071**

**APPL ID: AY59185**

Sample Collection Date: 04/16/12

QCG: #TPETD-120418B-166388

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	1200 ++	150	80.8	40.4	ug/L	04/18/12	04/20/12
EPA 8015B-	SURROGATE: OCTACOSANE (S)	93.7	28-142			%	04/18/12	04/20/12
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S)	86.2	57-132			%	04/18/12	04/20/12

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: TPH0306.M
Run #: 419042
Instrument: Apollo
Sequence: 120419
Dilution Factor: 1
Initials: TRL

Printed: 05/10/12 8:02:47 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : G:\APOLLO\DATA\120419\419042.D Vial: 42  
 Acq On : 4-20-12 20:46:48 Operator: LAC  
 Sample : AY59185W07 5/1050 Inst : Apollo  
 Misc : Water Multiplr: 4.76  
 IntFile : events.e  
 Quant Time: May 10 19:49 2012 Quant Results File: TPH0306.RES

Method : G:\APOLLO\DATA\120419\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 01 14:33:37 2012  
 Response via : Multiple Level Calibration

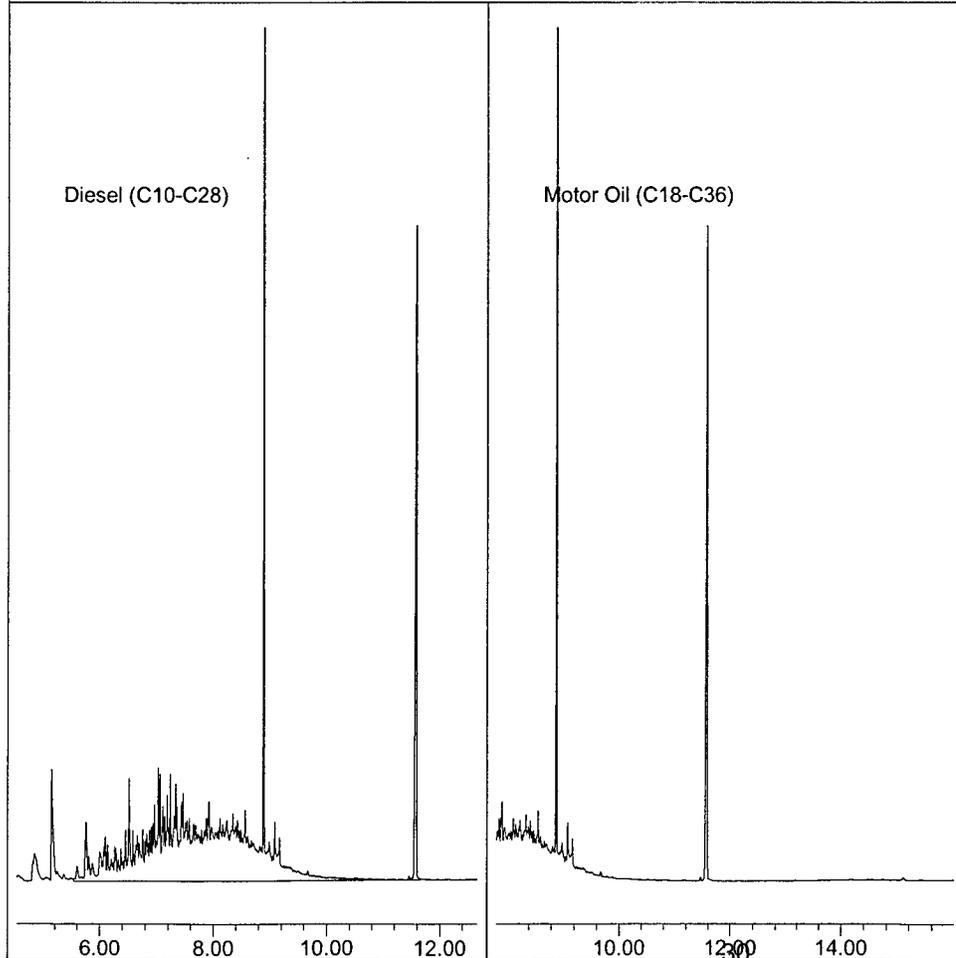
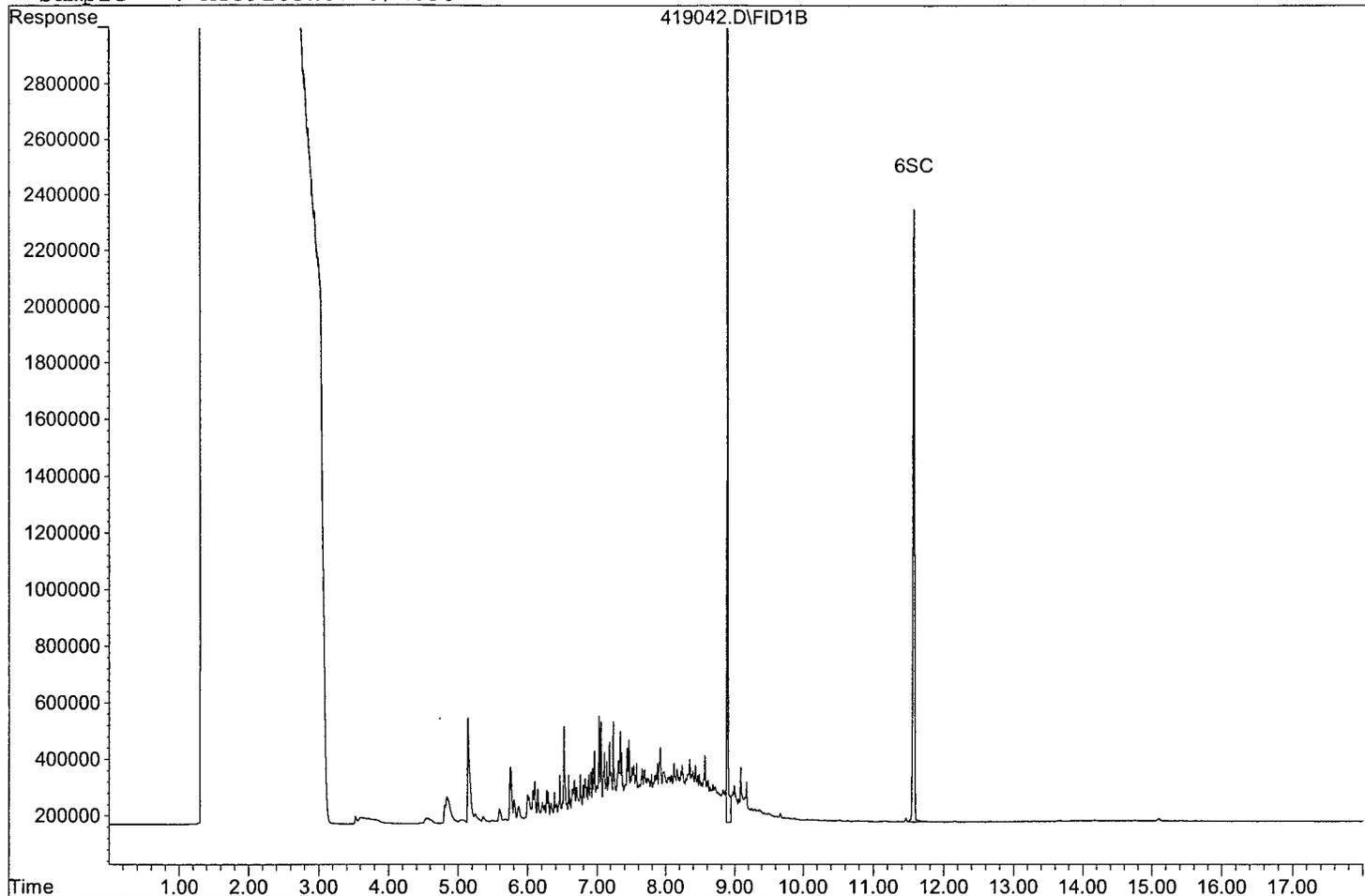
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.89	35754948	123.169 ppb
Surrogate Spike 142.857		Recovery =	86.22%
6) SC Octacosane(S)	11.57	33199002	133.824 ppb
Surrogate Spike 142.857		Recovery =	93.68%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	275364404	1198.569 ppb

*Tb*  
*5/10/12*

Data File: G:\APOLLO\DATA\120419\419042.D

Sample : AY59185W07 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: 67512

**Sample ID: ES072**

**APPL ID: AY59186**

Sample Collection Date: 04/16/12

QCG: #TPETD-120418B-166388

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	1100 ++	150	80.8	40.4	ug/L	04/18/12	04/20/12
EPA 8015B-	SURROGATE: OCTACOSANE (S)	81.9	28-142			%	04/18/12	04/20/12
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S)	77.7	57-132			%	04/18/12	04/20/12

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: TPH0306.M
Run #: 419043
Instrument: Apollo
Sequence: 120419
Dilution Factor: 1
Initials: TRL

Printed: 05/10/12 8:02:47 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : G:\APOLLO\DATA\120419\419043.D Vial: 43  
 Acq On : 4-20-12 21:10:59 Operator: LAC  
 Sample : AY59186W06 5/1050 Inst : Apollo  
 Misc : Water Multiplr: 4.76  
 IntFile : events.e  
 Quant Time: May 10 19:53 2012 Quant Results File: TPH0306.RES

Method : G:\APOLLO\DATA\120419\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 01 14:33:37 2012  
 Response via : Multiple Level Calibration

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

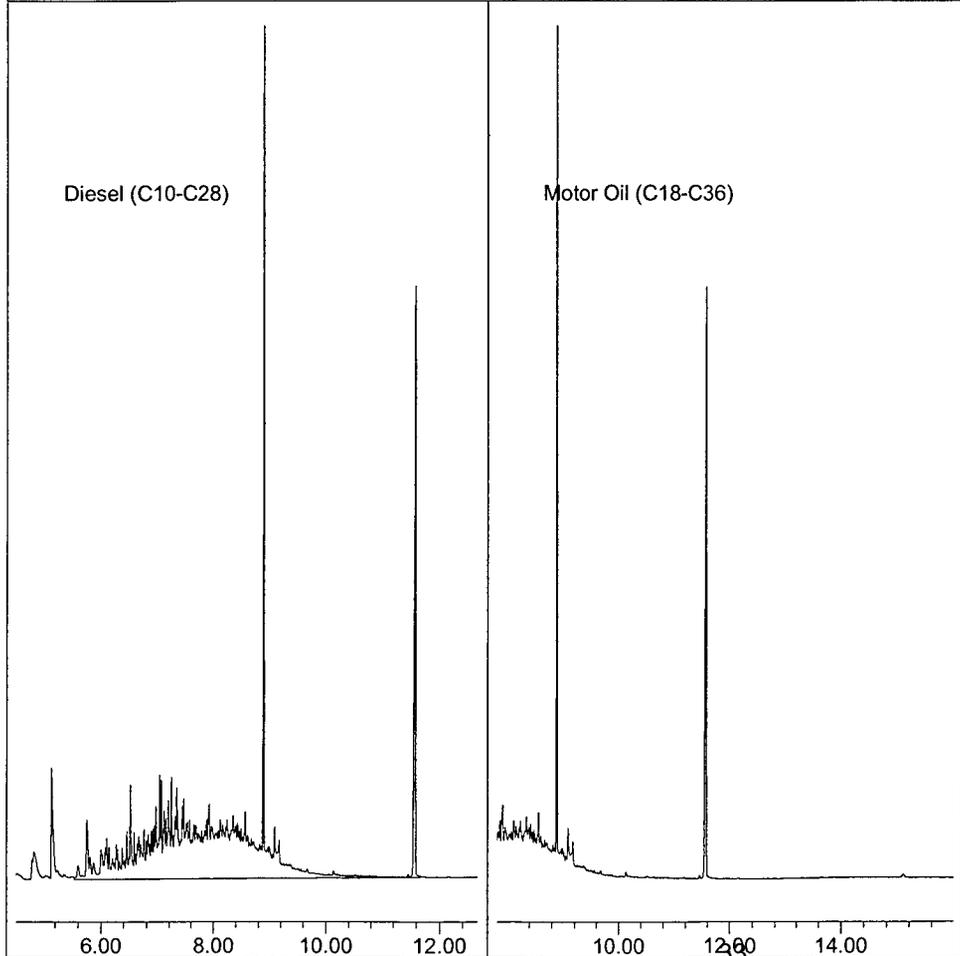
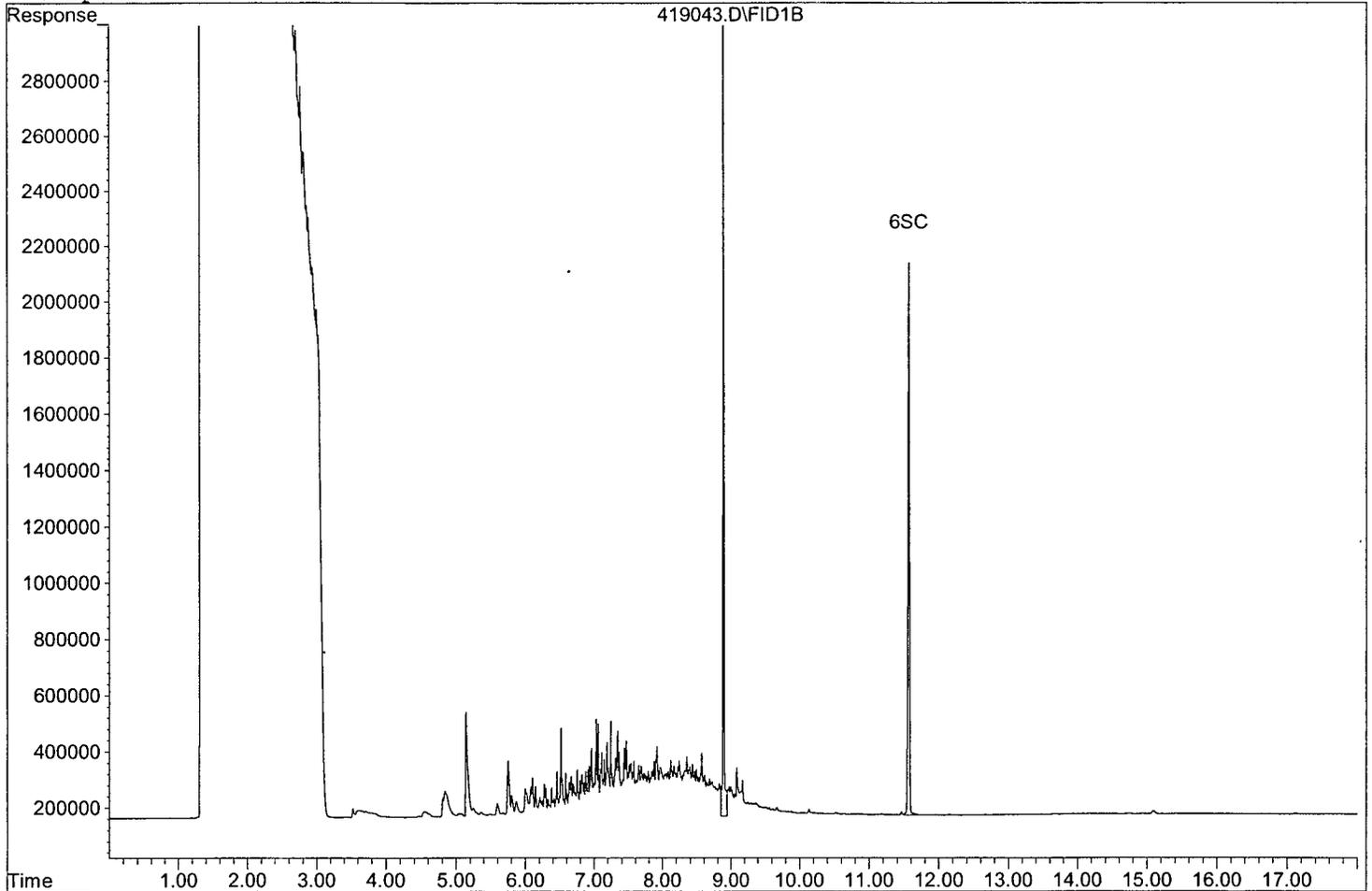
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.89	32212895	110.967 ppb
Surrogate Spike 142.857		Recovery =	77.68%
6) SC Octacosane(S)	11.57	29013156	116.951 ppb
Surrogate Spike 142.857		Recovery =	81.87%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	261492678	1138.190 ppb

*Handwritten signature and initials*  
 Te  
 5/10/12

Quantitation Report

Data File: G:\APOLLO\DATA\120419\419043.D

Sample : AY59186W06 5/1050



## TPH Diesel Water

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

Attn: Max Solmssen  
Project: LTM Red Hill / 1022-024

**Sample ID: ES073**

Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

**APPL ID: AY59187**

QCG: #TPETD-120418B-166388

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	04/18/12	04/20/12
EPA 8015B-	SURROGATE: OCTACOSANE (S)	87.1	28-142			%	04/18/12	04/20/12
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S)	78.0	57-132			%	04/18/12	04/20/12

Quant Method: TPH0306.M
Run #: 419044
Instrument: Apollo
Sequence: 120419
Dilution Factor: 1
Initials: TRL

Printed: 05/10/12 8:02:47 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : G:\APOLLO\DATA\120419\419044.D Vial: 44  
 Acq On : 4-20-12 21:35:08 Operator: LAC  
 Sample : AY59187W05 5/1050 Inst : Apollo  
 Misc : Water Multiplr: 4.76  
 IntFile : events.e  
 Quant Time: May 10 19:54 2012 Quant Results File: TPH0306.RES

Method : G:\APOLLO\DATA\120419\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 01 14:33:37 2012  
 Response via : Multiple Level Calibration

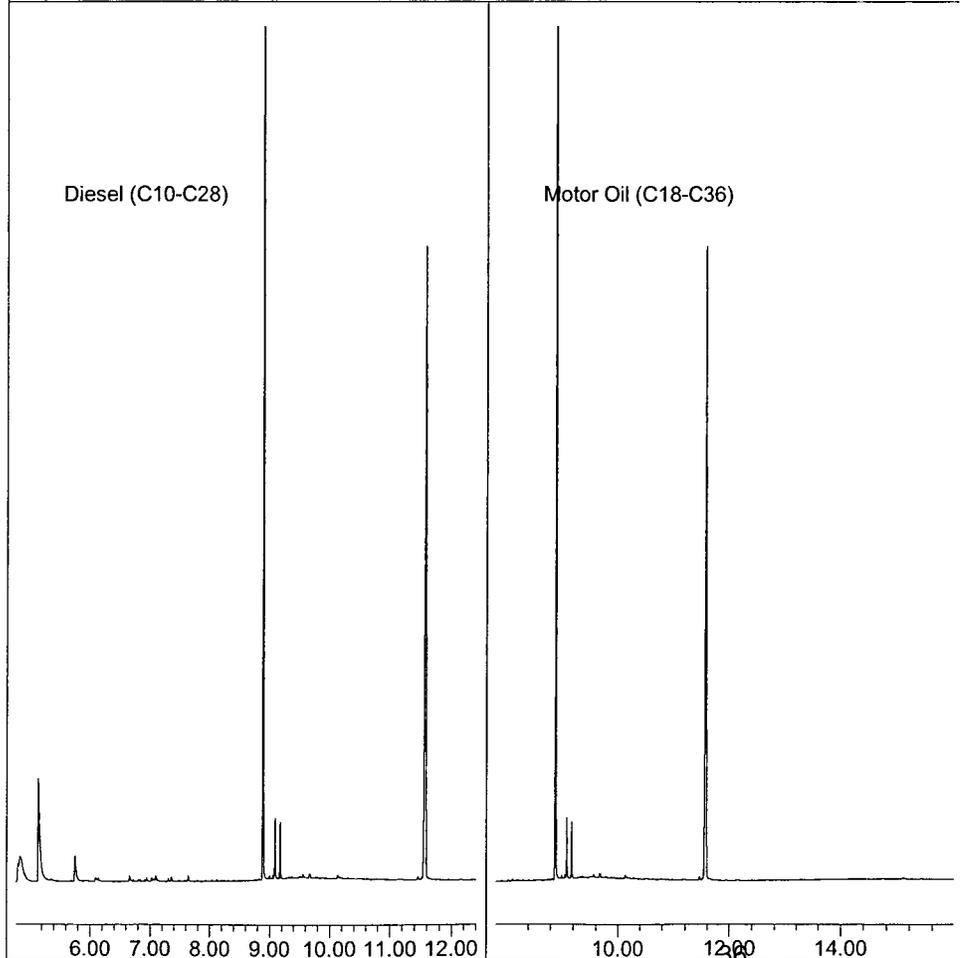
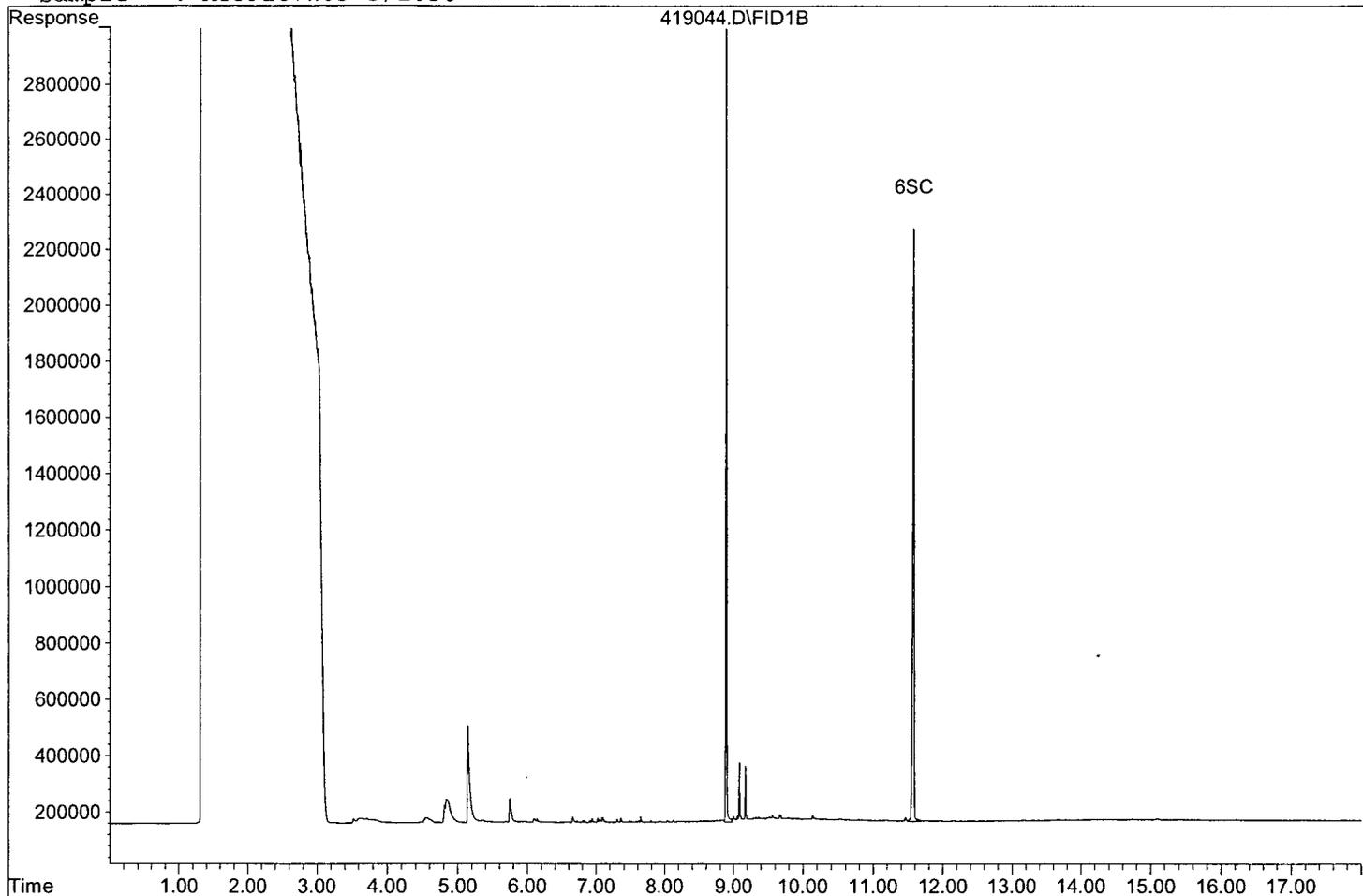
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.89	32340089	111.405 ppb
Surrogate Spike 142.857		Recovery =	77.98%
6) SC Octacosane(S)	11.57	30857566	124.385 ppb
Surrogate Spike 142.857		Recovery =	87.07%

Target Compounds

Data File: G:\APOLLO\DATA\120419\419044.D

Sample : AY59187W05 5/1050



**EPA 8015 Modified  
Total Petroleum Hydrocarbons  
Calibration Data**

TPH Extractables  
TPH0306

Form 6  
Initial Calibration

Lab Name: APPL, Inc.

SDG No: 67512

Case No: \_\_\_\_\_

Initial Cal. Date: 03/06/12

Matrix: \_\_\_\_\_

Instrument: Apollo

Initials: LAC

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

	Compound	1	2	3	4	5	6			Avg	%RSD	
1	HATM Diesel (C10-C28)	529470	572376	554327	532214	548865	544808			547010	2.9	HATM
2	HBTM Motor Oil (C18-C36)	330338	392850	386776	387626	385763	416808			383360	7.4	HBTM
3	SA Not Used(S)	818070	901397	771640	752170	778035	779206			800086	6.8	SA
4	SC Ortho-Terphenyl(S)		758155	695456	669026	662710	670505			691170	5.7	SC
5	SA Not Used2(S)	639279	629664	580197	560231	582428	580127			595321	5.3	SA
6	SC Octacosane(S)		649248	593354	568152	567907	574675			590667	5.8	SC
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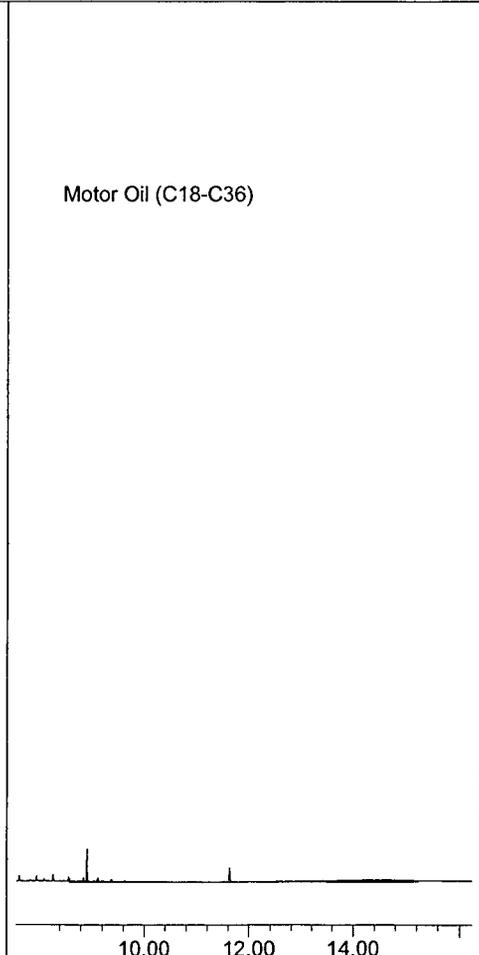
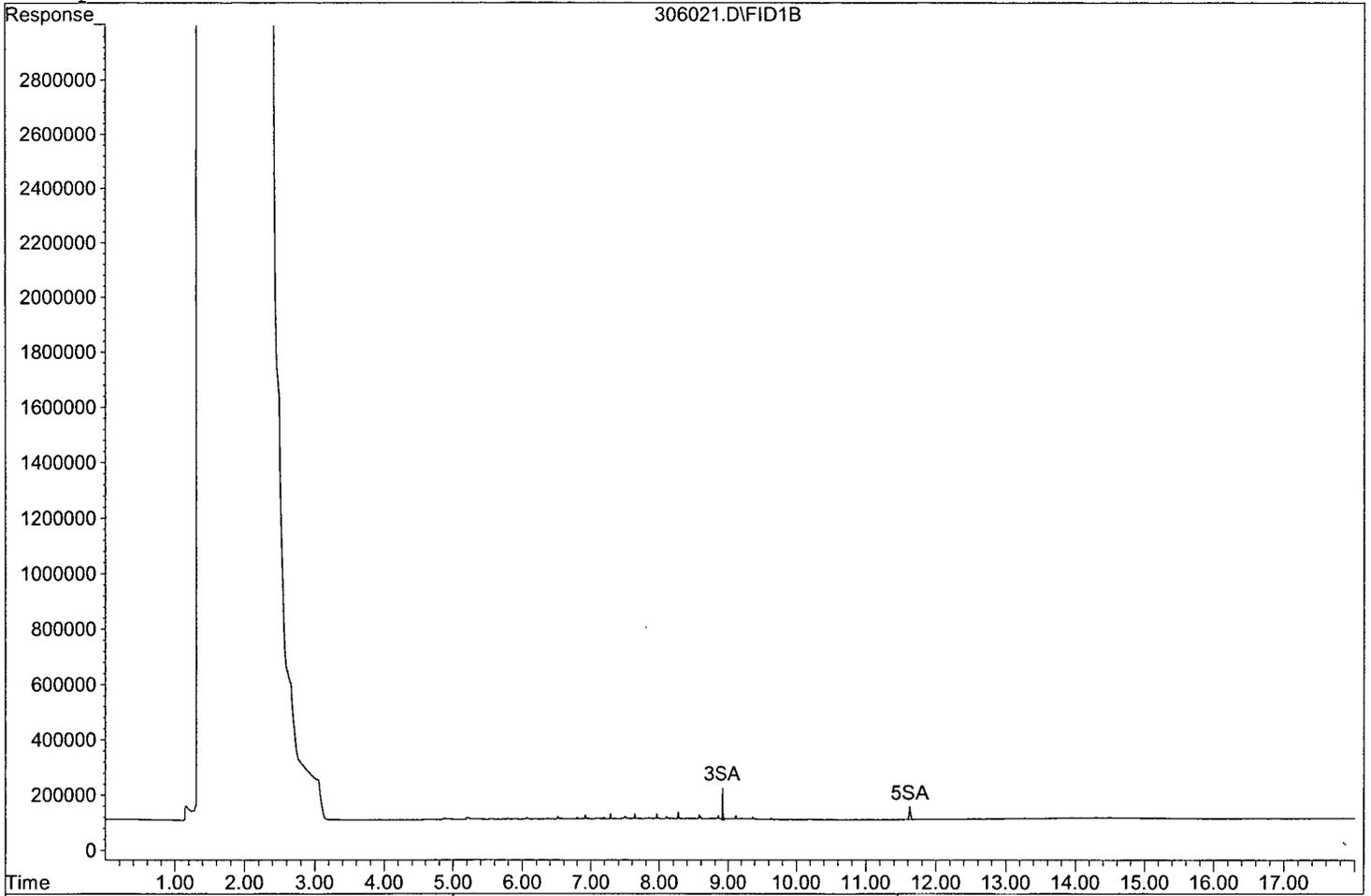
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Data File : G:\APOLLO\DATA\120306\306021.D Vial: 21  
 Acq On : 3-6-12 17:25:38 Operator: LAC  
 Sample : DIESEL 10/1000 3/6/12 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Mar 7 9:48 2012 Quant Results File: TPH0306.RES

Method : G:\APOLLO\DATA\120306\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Wed Mar 07 08:57:04 2012  
 Response via : Multiple Level Calibration

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

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



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

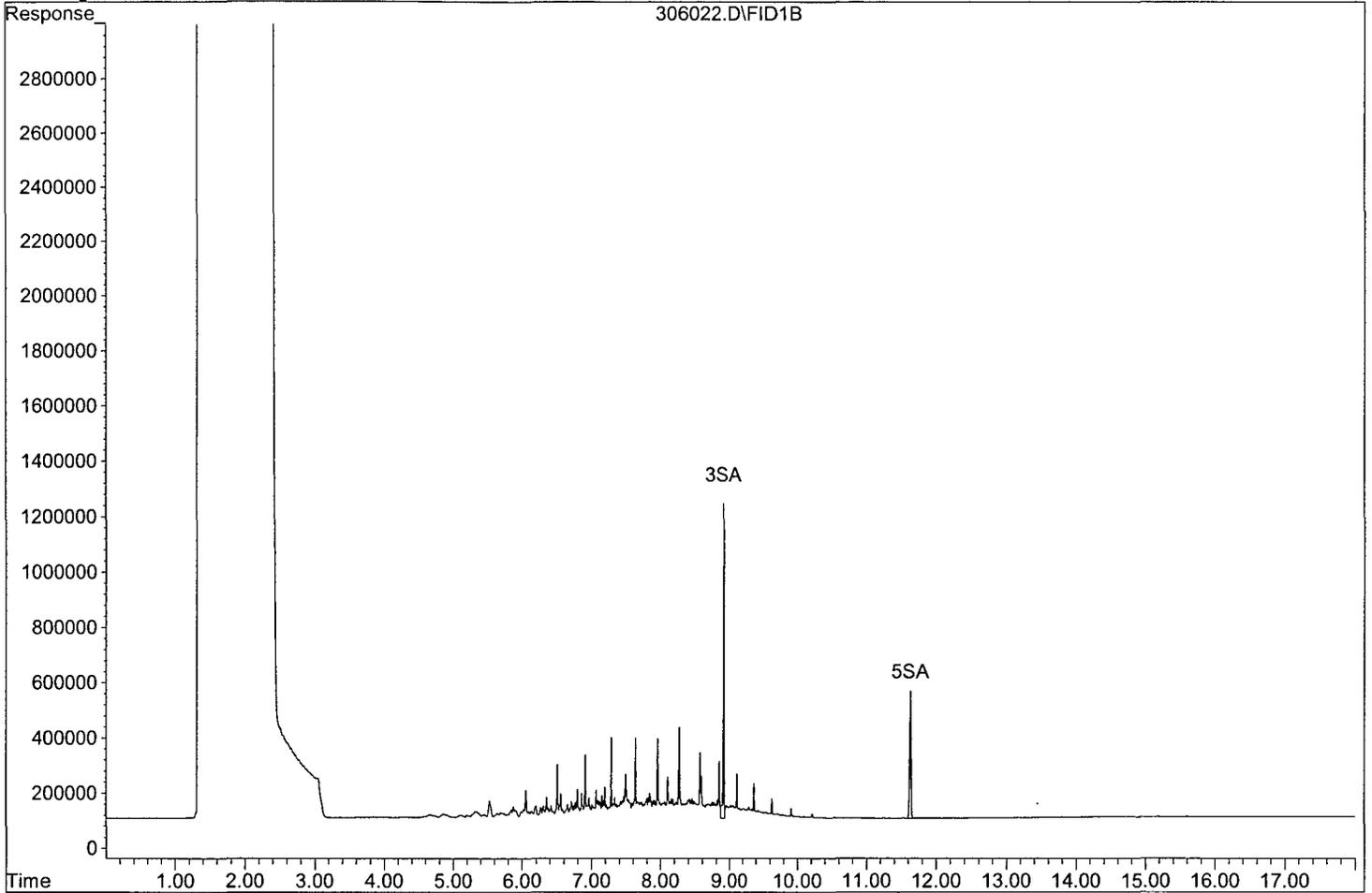
Method : G:\APOLLO\DATA\120306\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Wed Mar 07 08:57:04 2012  
 Response via : Multiple Level Calibration

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

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

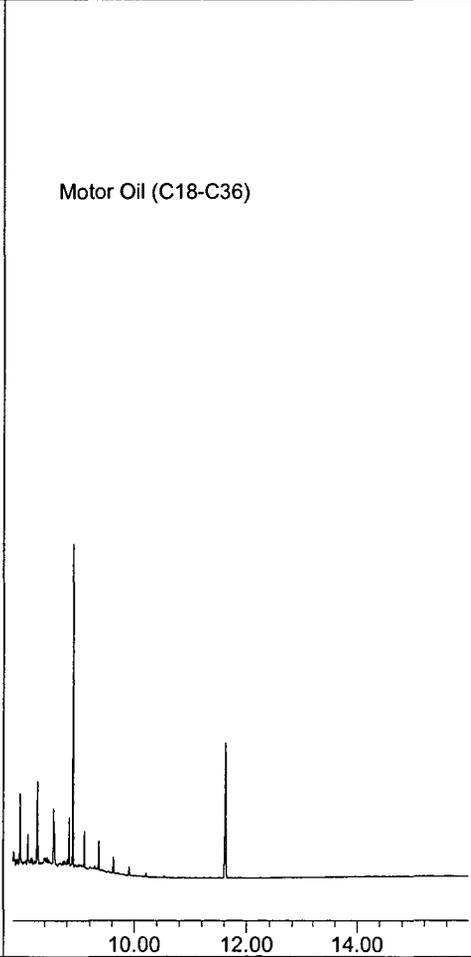
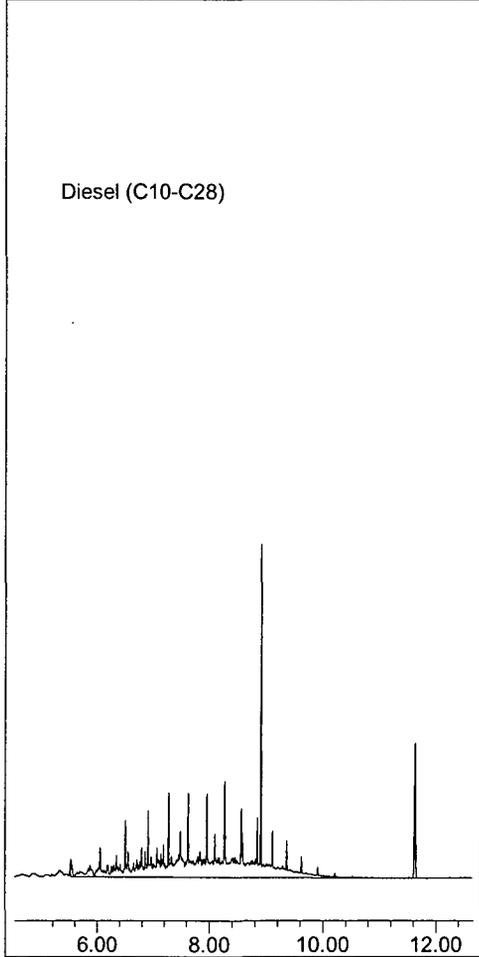
Sample : DIESEL 100/1000

306022.D\FID1B



Diesel (C10-C28)

Motor Oil (C18-C36)



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

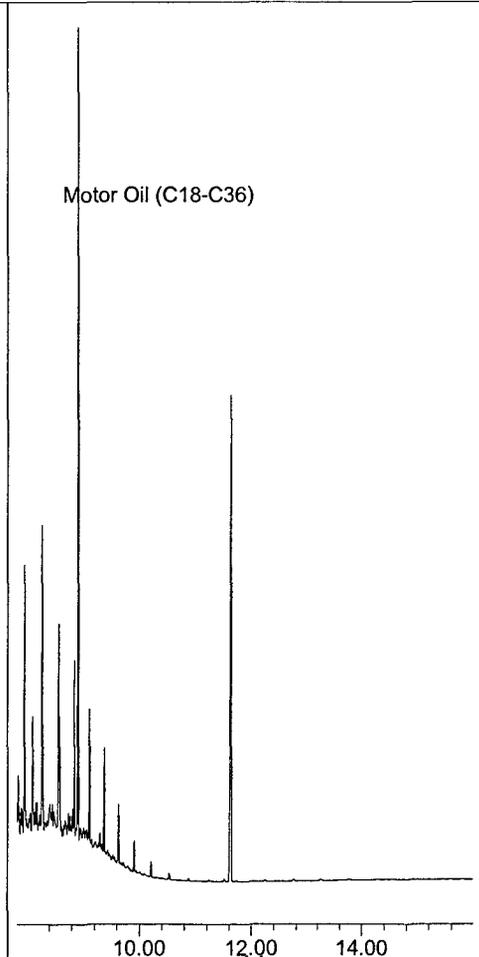
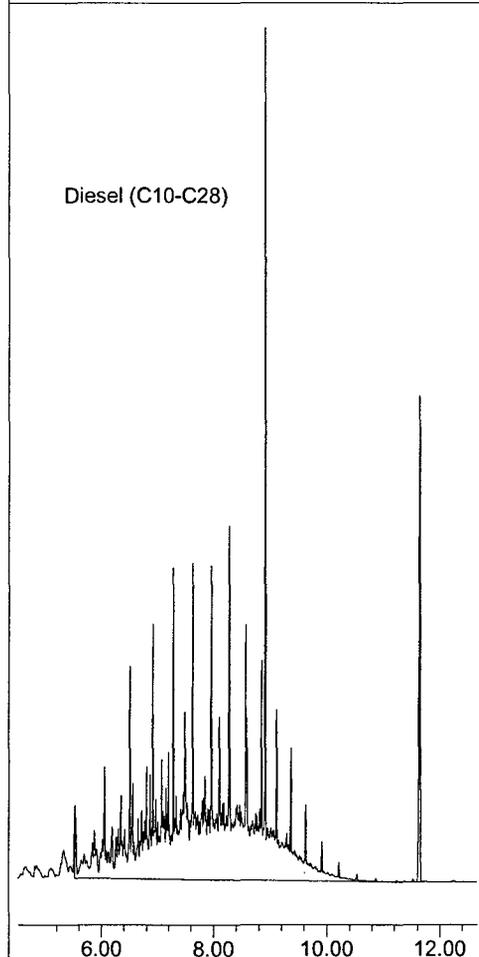
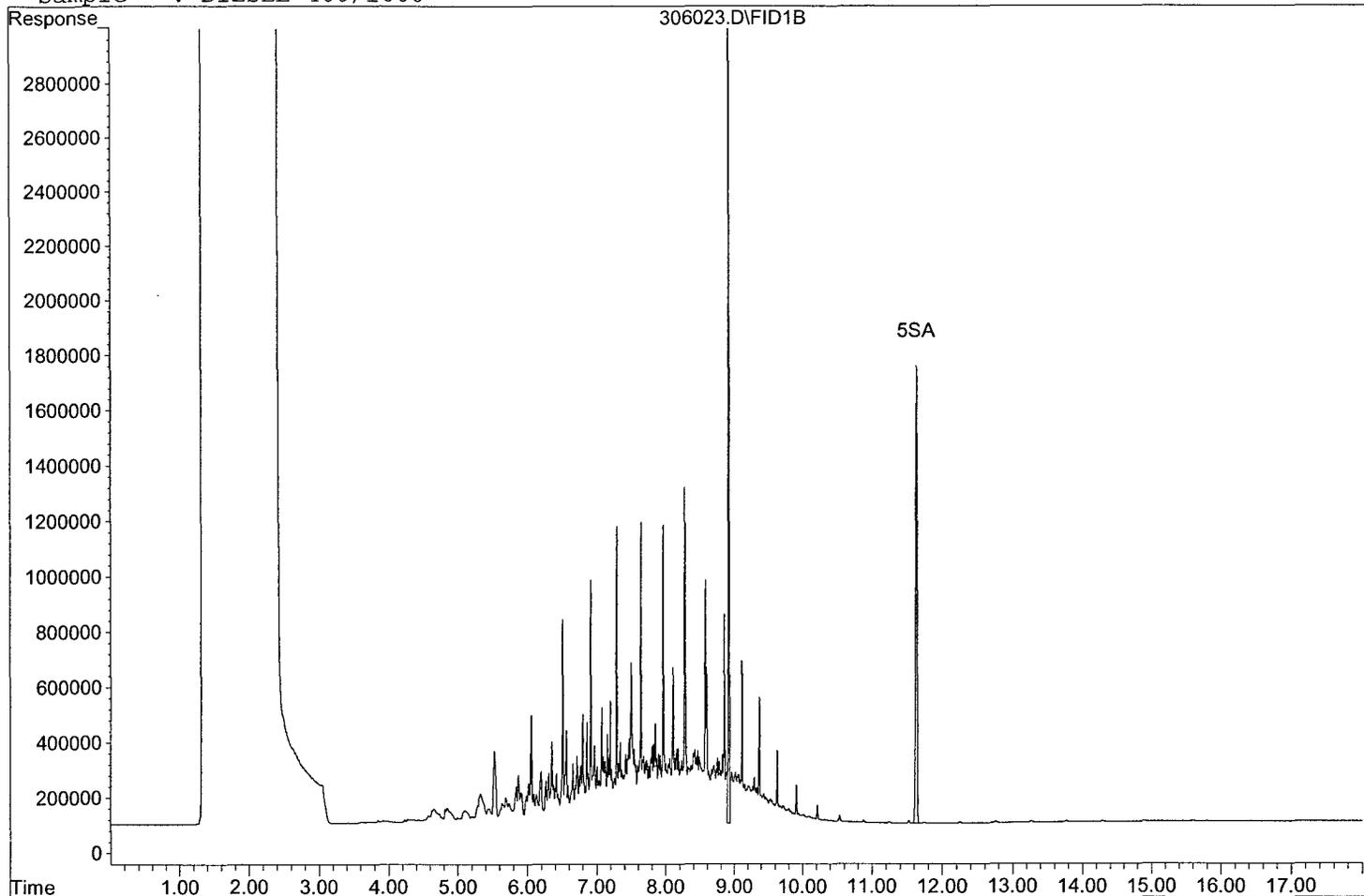
Method : G:\APOLLO\DATA\120306\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Wed Mar 07 08:57:04 2012  
 Response via : Multiple Level Calibration

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

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

Data File: G:\APOLLO\DATA\120306\306023.D

Sample : DIESEL 400/1000

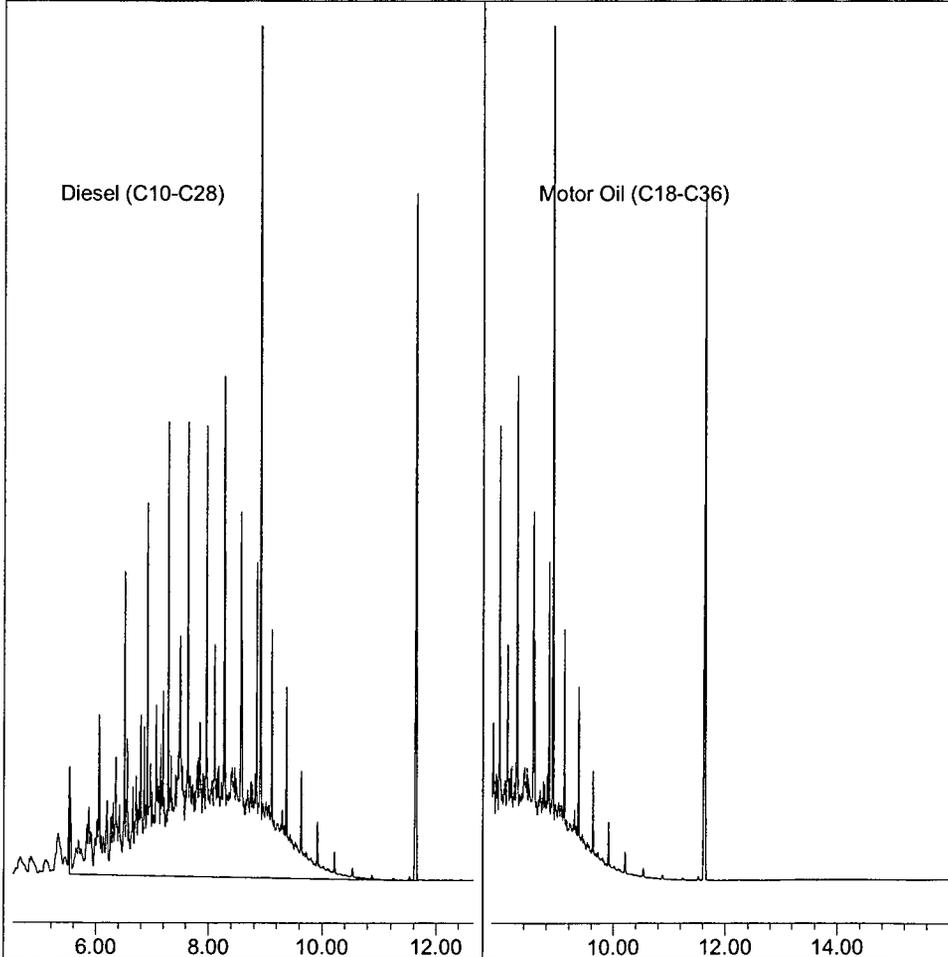
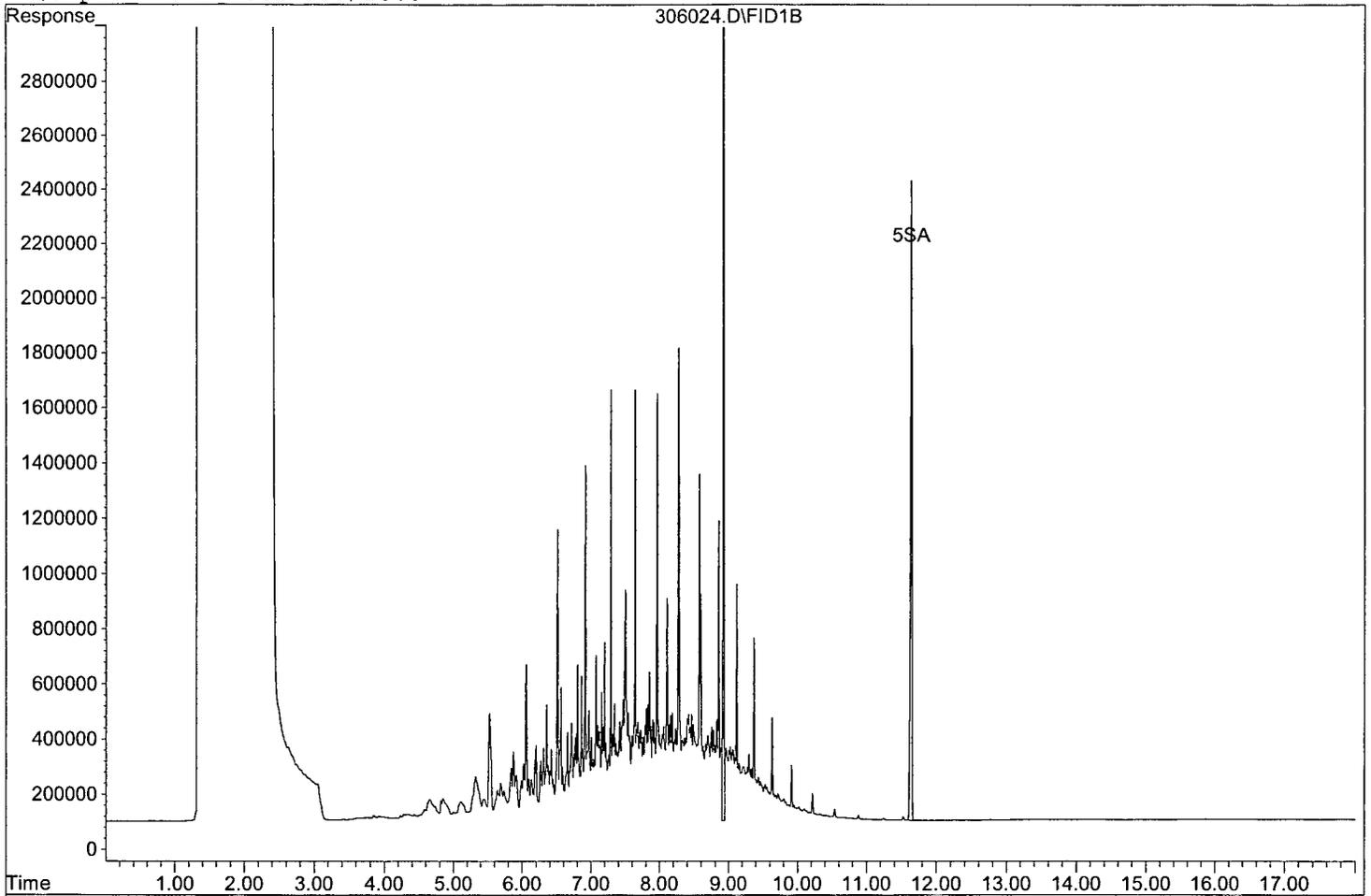


Data File : G:\APOLLO\DATA\120306\306024.D Vial: 24  
 Acq On : 3-6-12 18:36:31 Operator: LAC  
 Sample : DIESEL 600/1000 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Mar 7 9:49 2012 Quant Results File: TPH0306.RES

Method : G:\APOLLO\DATA\120306\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Wed Mar 07 08:57:04 2012  
 Response via : Multiple Level Calibration

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

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



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

Method : G:\APOLLO\DATA\120306\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Wed Mar 07 08:57:04 2012  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
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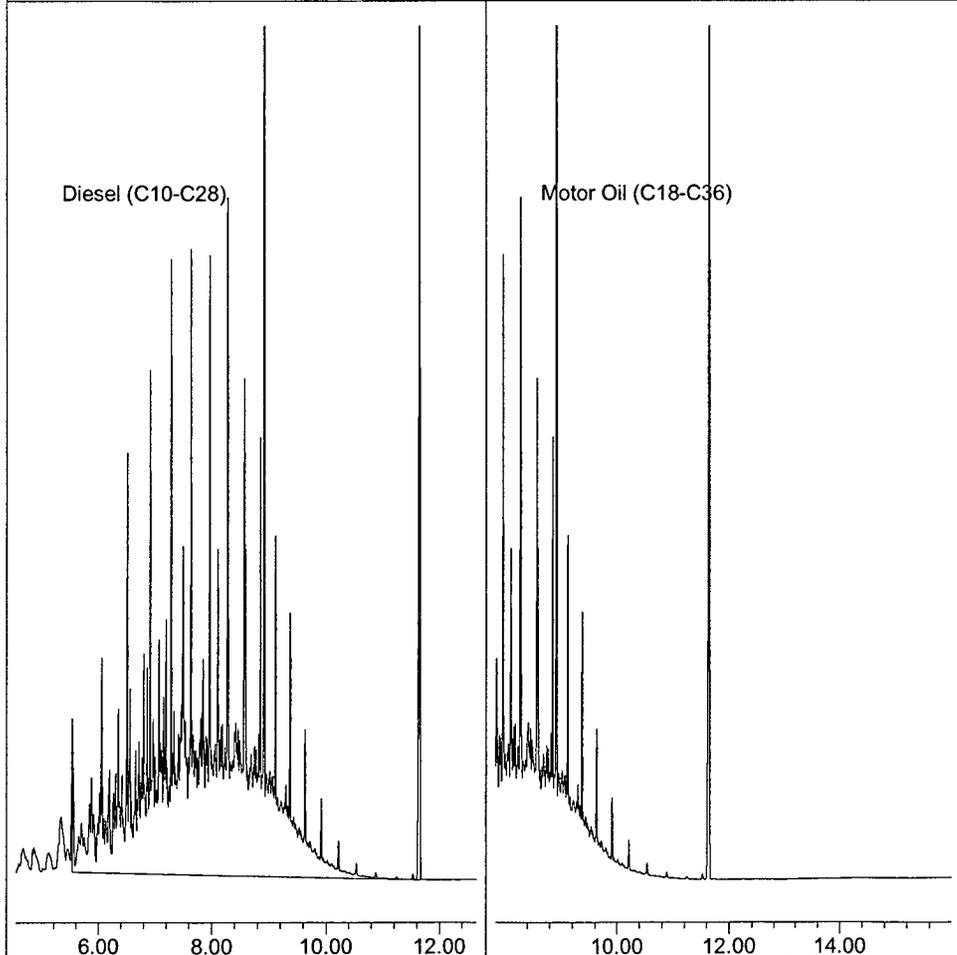
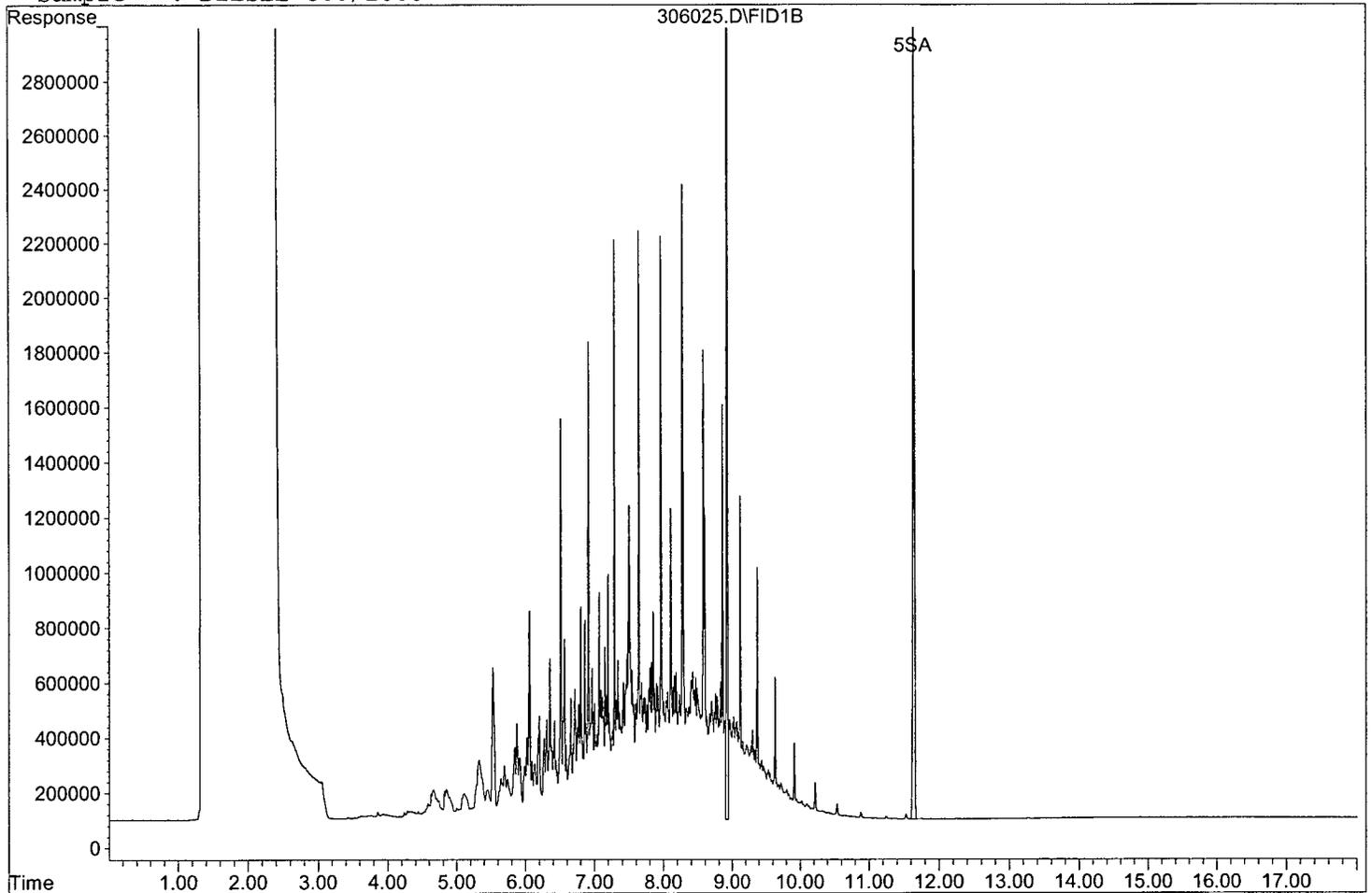
System Monitoring Compounds

3) SA Not Used(S)	8.92	62242769	38.383 ppb
Surrogate Spike 30.000		Recovery =	127.94%
5) SA Not Used2(S)	11.65	46594210	38.677 ppb
Surrogate Spike 30.000		Recovery =	128.92%

Target Compounds

1) HATM Diesel (C10-C28)	8.60	878183394	802.585 ppb
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Sample : DIESEL 800/1000



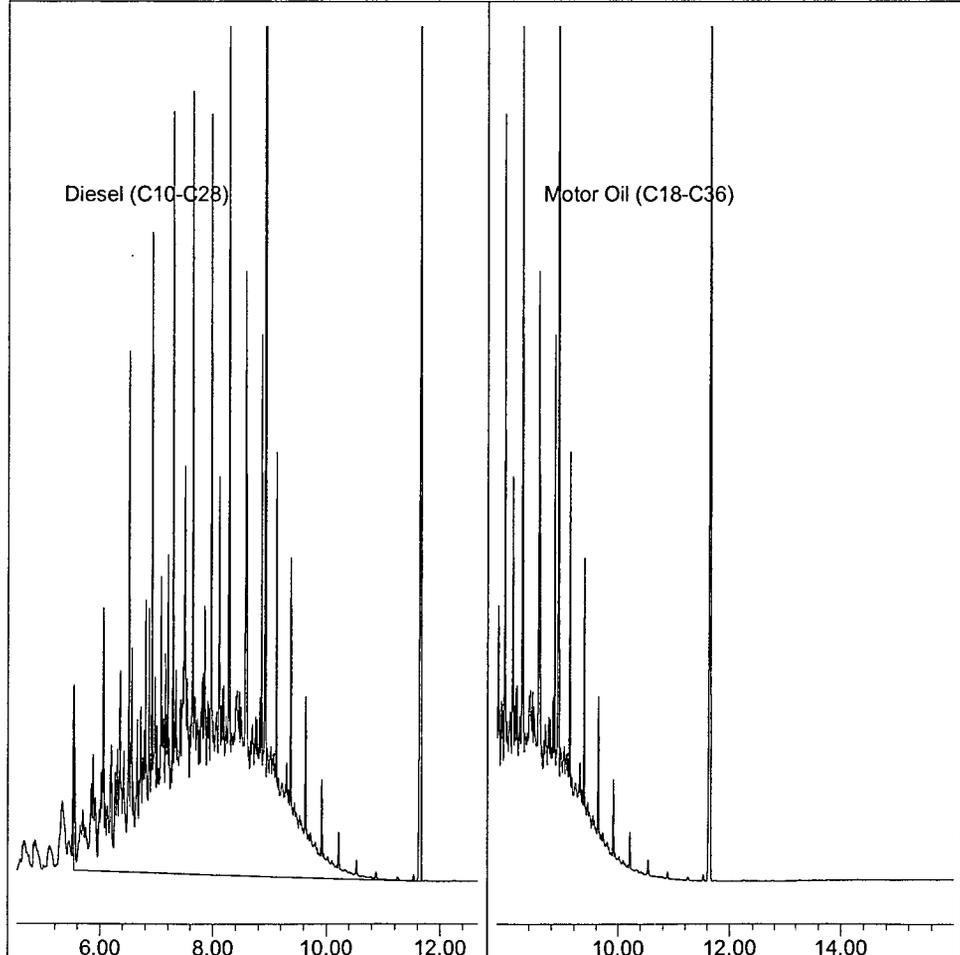
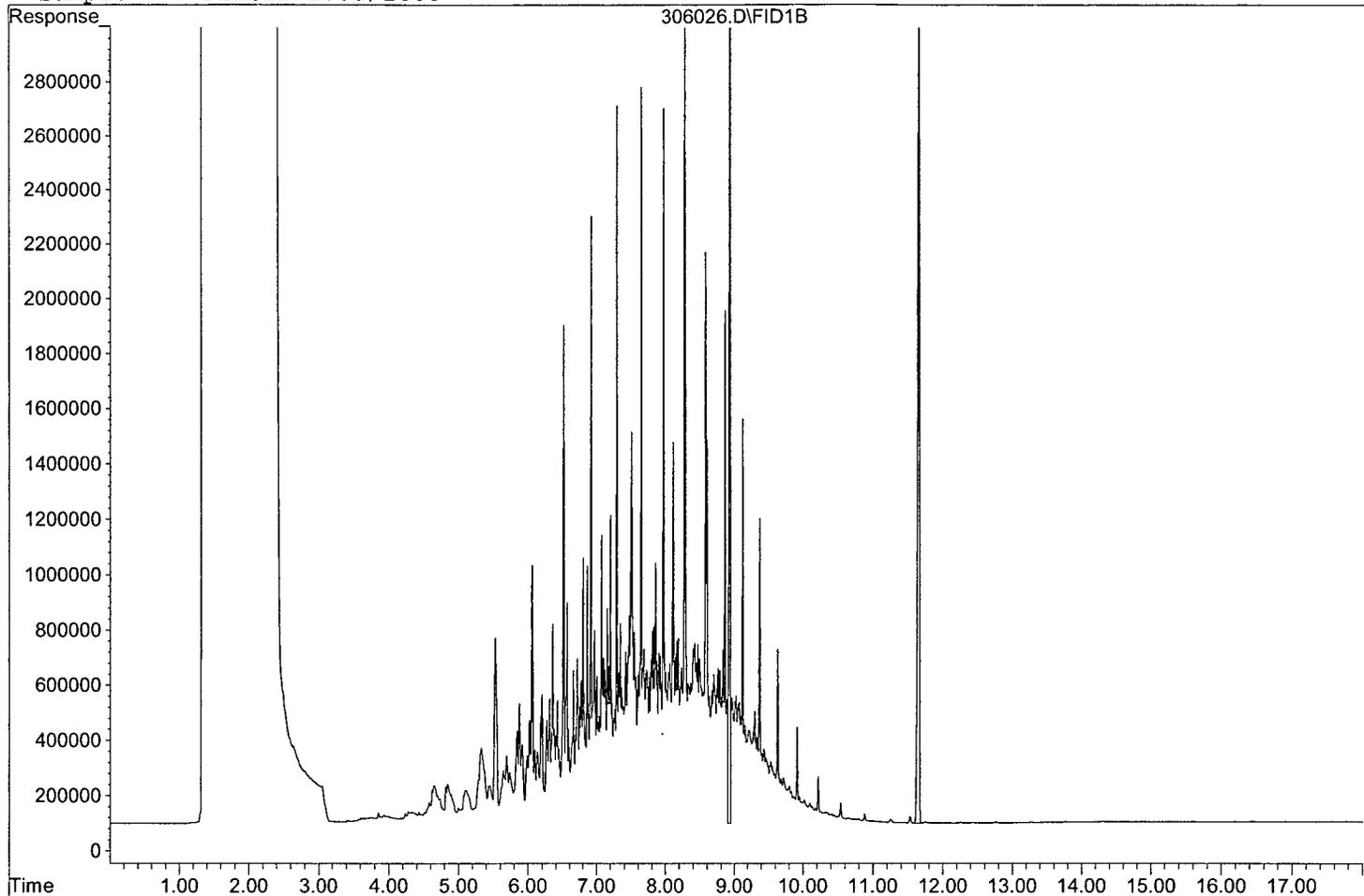
Data File : G:\APOLLO\DATA\120306\306026.D Vial: 26  
 Acq On : 3-6-12 19:23:45 Operator: LAC  
 Sample : DIESEL 1000/1000 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Mar 7 9:50 2012 Quant Results File: TPH0306.RES

Method : G:\APOLLO\DATA\120306\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Wed Mar 07 08:57:04 2012  
 Response via : Multiple Level Calibration

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

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

Sample : DIESEL 1000/1000



TPH Extractables  
TPH0306

Form 7

Second Source Calibration

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

SDG No: 67512  
Date Analyzed: 03/06/12  
Instrument: Apollo  
Initial Cal. Date: 03/06/12  
Data File: 306027.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C28)	547010	547335	0.06	HATM
2						
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Average

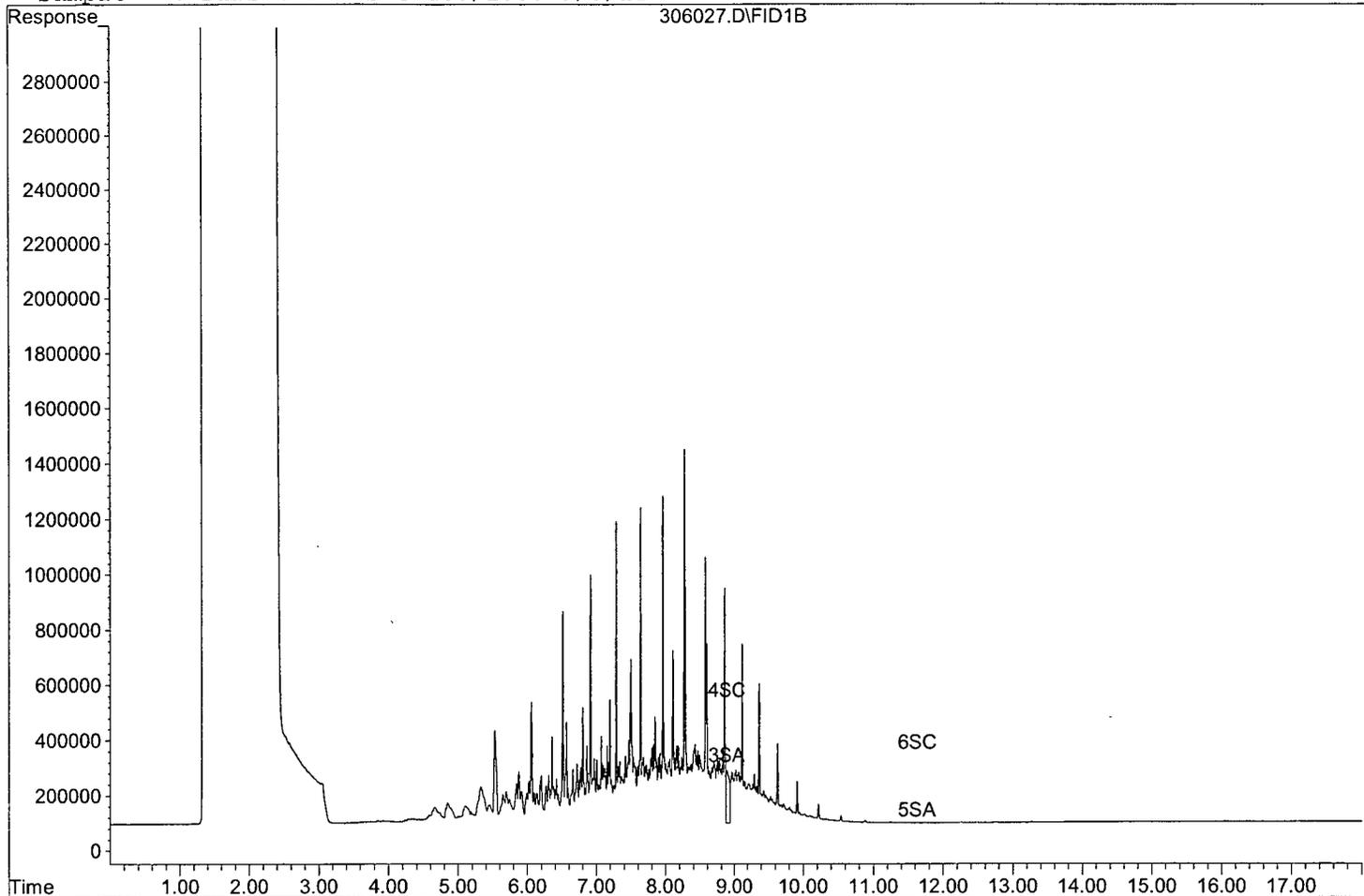
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Data File : G:\APOLLO\DATA\120306\306027.D Vial: 27  
 Acq On : 3-6-12 19:47:20 Operator: LAC  
 Sample : DIESEL 2ND SRC 400/1000 3/6/12 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Apr 3 12:39 2012 Quant Results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

Method : G:\APOLLO\DATA\120306\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Wed Mar 07 08:57:04 2012  
 Response via : Multiple Level Calibration

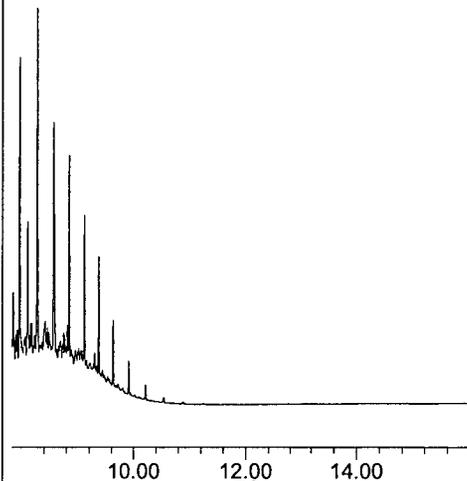
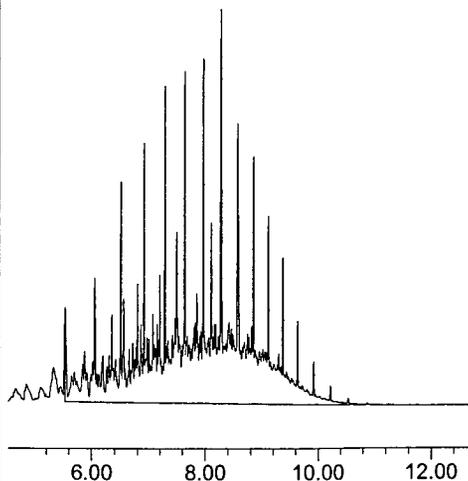
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

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



Diesel (C10-C28)

Motor Oil (C18-C36)



TPH Extractables  
TPH0306

Form 7

Continuing Calibration

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

SDG No: 67512  
Date Analyzed: 04/20/12  
Instrument: Apollo  
Initial Cal. Date: 04/19/12  
Data File: 419038.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C28)	547010	606894	11	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
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22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Average

11.0

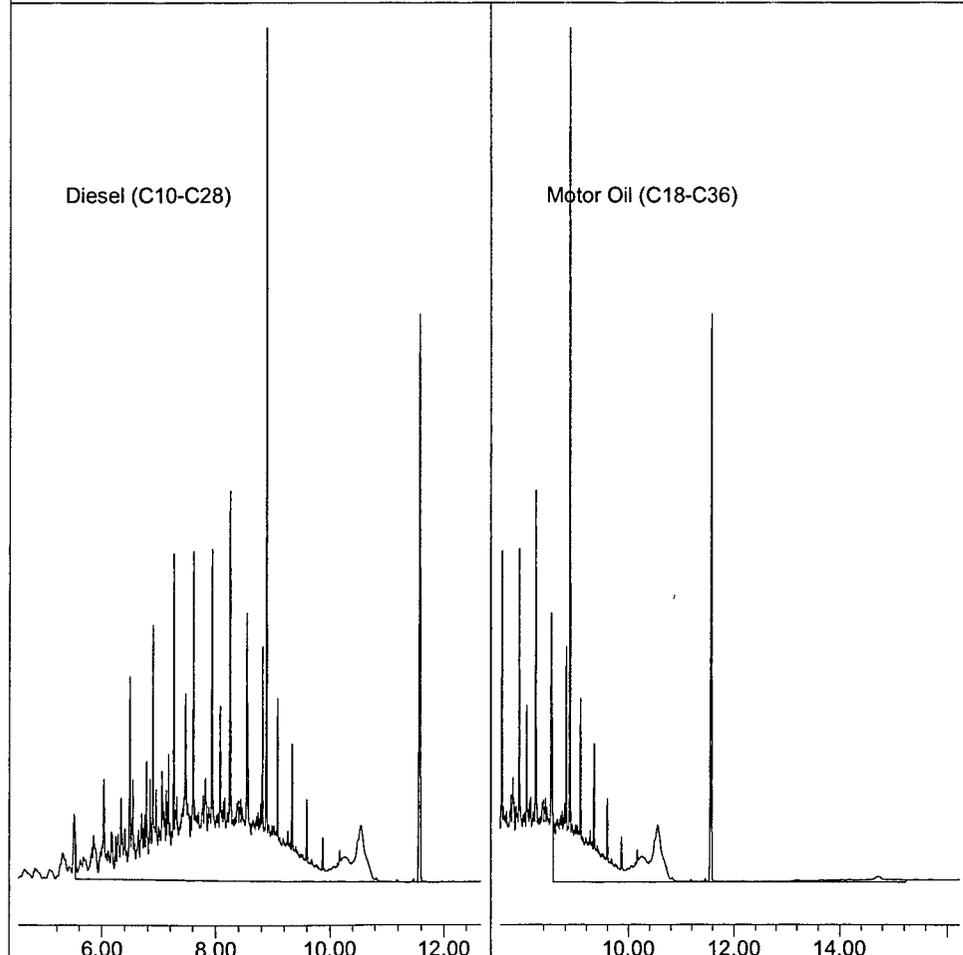
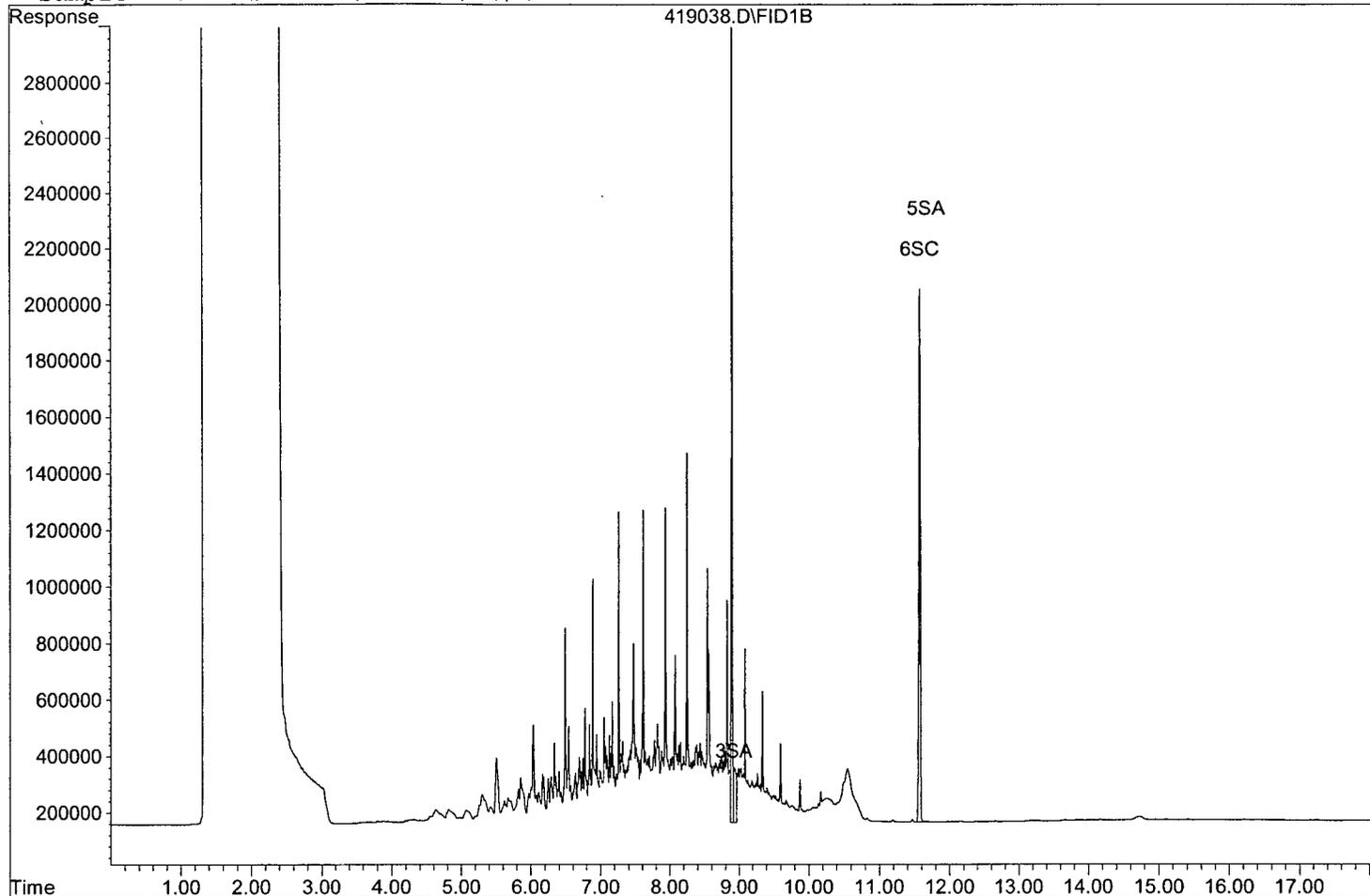
Data File : G:\APOLLO\DATA\120419\419038.D Vial: 38  
 Acq On : 4-20-12 19:09:41 Operator: LAC  
 Sample : DIESEL 400/1000 4/18/12 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: May 1 14:42 2012 Quant Results File: TPH0306.RES

Method : G:\APOLLO\DATA\120419\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 01 14:33:37 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)	8.93	5634471	3.521 ppb
Surrogate Spike 30.000		Recovery =	11.74%
4) SC Ortho-Terphenyl(S)	8.89	32315158	23.377 ppb
Surrogate Spike 30.000		Recovery =	77.92%
5) SA Not Used2(S)	11.67	106270	0.089 ppb
Surrogate Spike 30.000		Recovery =	0.30%
6) SC Octacosane(S)	11.57	26785254	22.674 ppb
Surrogate Spike 30.000		Recovery =	75.58%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	485515346	443.790 ppb
2) HBTM Motor Oil (C18-C36)	11.91	154706455	201.777 ppb

Sample : DIESEL 400/1000 4/18/12



TPH Extractables  
TPH0306

Form 7

Continuing Calibration

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

SDG No: 67512  
Date Analyzed: 04/20/12  
Instrument: Apollo  
Initial Cal. Date: 04/19/12  
Data File: 419046.D

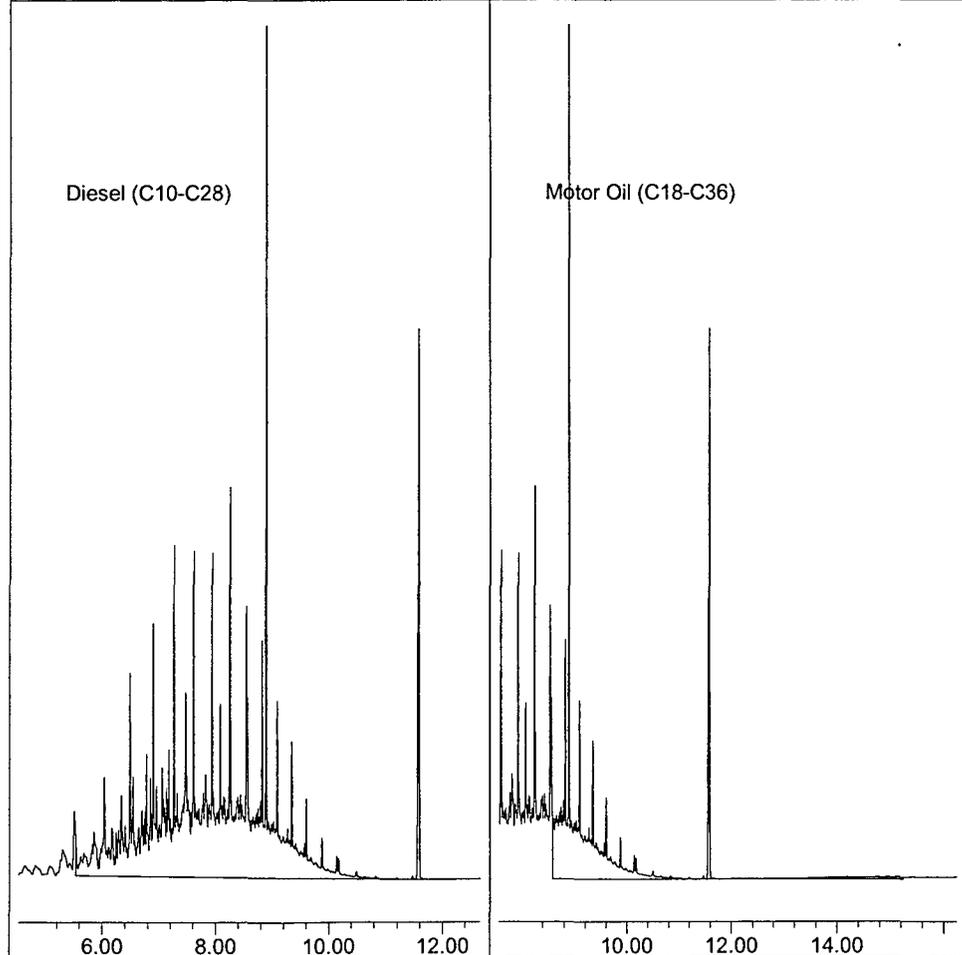
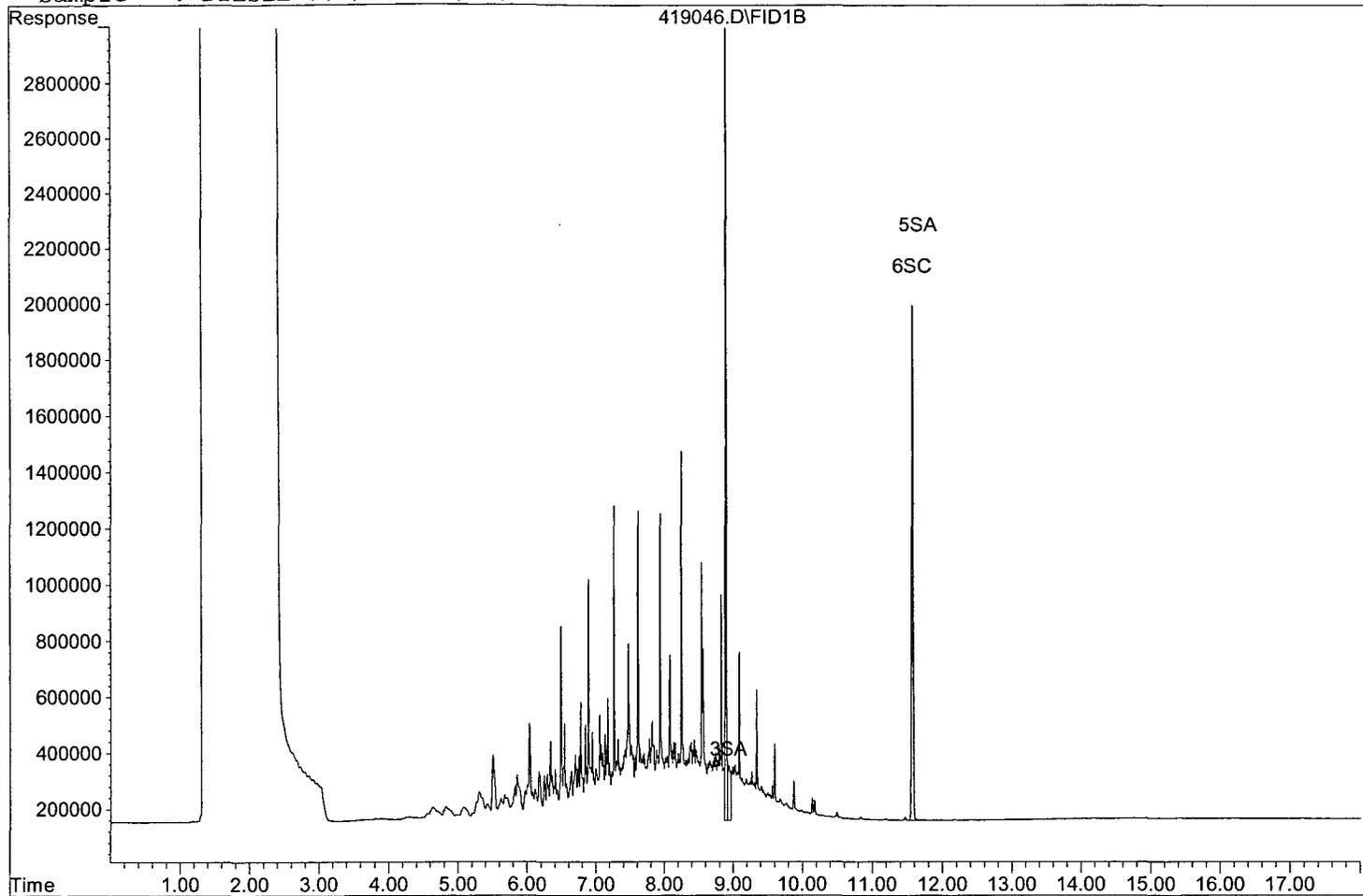
		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C28)	547010	568279	3.9	HATM
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40		Average			3.9	

Data File : G:\APOLLO\DATA\120419\419046.D Vial: 46  
 Acq On : 4-20-12 22:23:25 Operator: LAC  
 Sample : DIESEL 400/1000 4/18/12 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: May 1 14:44 2012 Quant Results File: TPH0306.RES

Method : G:\APOLLO\DATA\120419\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 01 14:33:37 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)	8.93	5621428	3.513 ppb
Surrogate Spike 30.000		Recovery =	11.71%
4) SC Ortho-Terphenyl(S)	8.89	32661854	23.628 ppb
Surrogate Spike 30.000		Recovery =	78.76%
5) SA Not Used2(S)	11.67	69163	0.058 ppb
Surrogate Spike 30.000		Recovery =	0.19%
6) SC Octacosane(S)	11.57	26306893	22.269 ppb
Surrogate Spike 30.000		Recovery =	74.23%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	454622867	415.553 ppb
2) HBTM Motor Oil (C18-C36)	11.91	122081613	159.226 ppb



**EPA 8015 Modified  
Total Petroleum Hydrocarbons  
Raw Data**

**Method Blank**  
**TPH Diesel Water**

Blank Name/QCG: **120418W-59184 - 166388**  
Batch ID: #TPETD-120418B

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	04/18/12	04/20/12
BLANK	SURROGATE: OCTACOSANE (S)	92.7	28-142			%	04/18/12	04/20/12
BLANK	SURROGATE: ORTHO-TERPHEN	77.0	57-132			%	04/18/12	04/20/12

Quant Method: TPH0306.M  
Run #: 419039  
Instrument: Apollo  
Sequence: 120419  
Initials: TRL

Printed: 05/01/12 2:58:05 PM  
GC SC-Blank-REG MDLs

Data File : G:\APOLLO\DATA\120419\419039.D Vial: 39  
 Acq On : 4-20-12 19:33:59 Operator: LAC  
 Sample : 120418B BLK 5/1000 Inst : Apollo  
 Misc : Water Multiplr: 5.00  
 IntFile : events.e  
 Quant Time: May 10 9:21 2012 Quant Results File: TPH0306.RES

Method : G:\APOLLO\DATA\120419\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 01 14:33:37 2012  
 Response via : Multiple Level Calibration

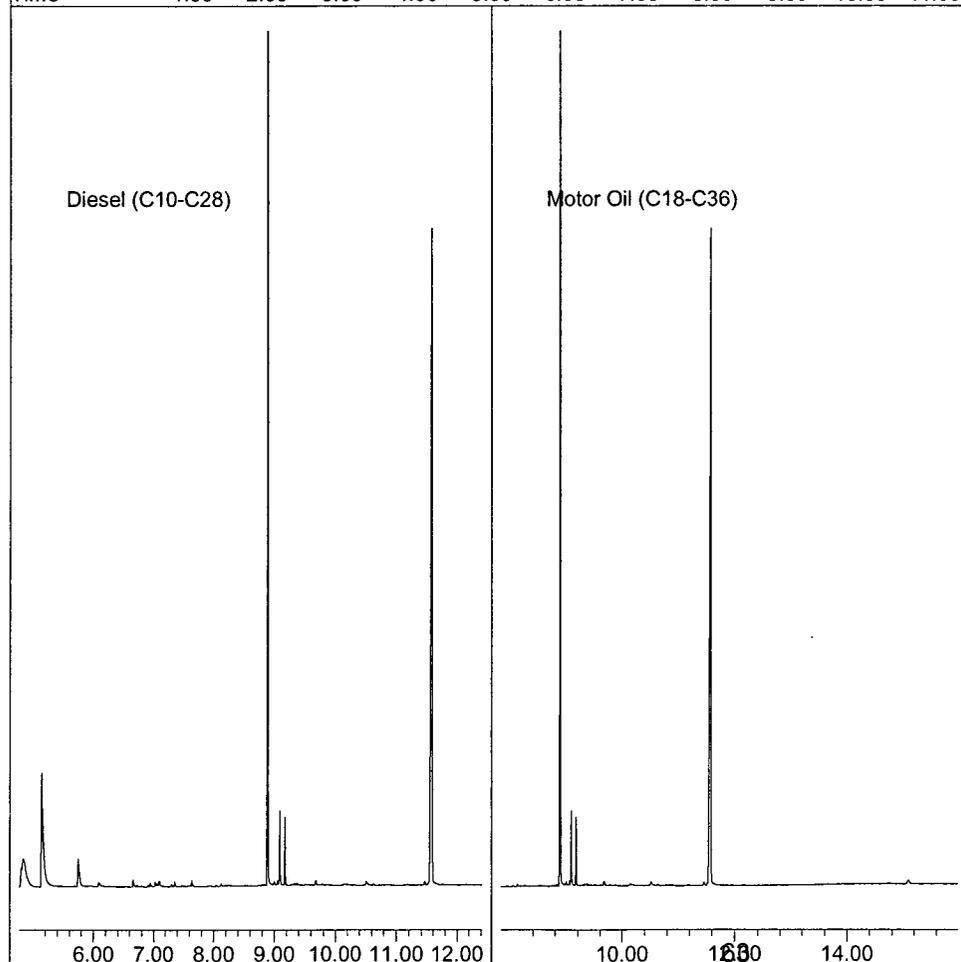
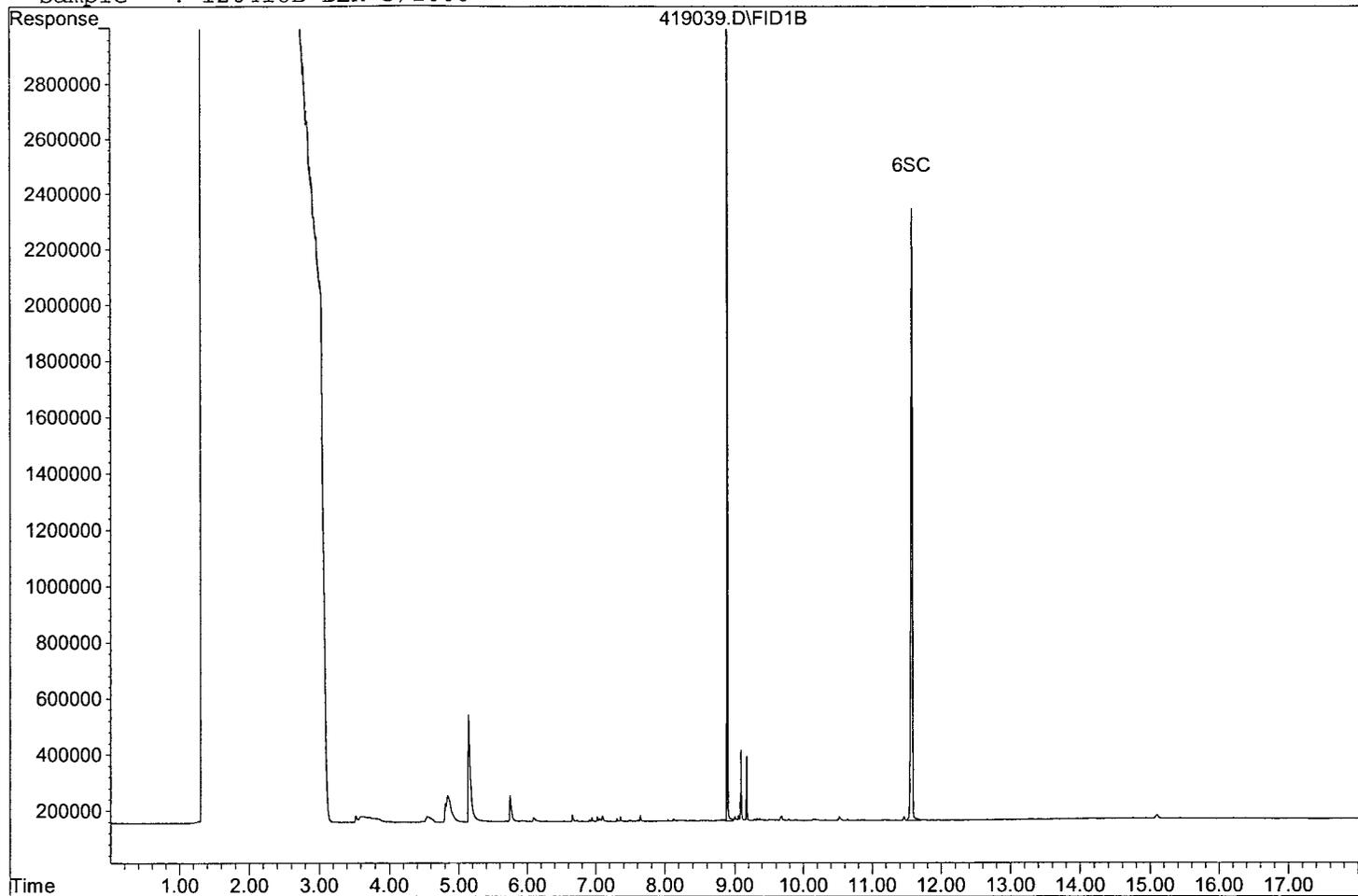
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.89	31931521	115.498 ppb
Surrogate Spike 150.000		Recovery =	77.00%
6) SC Octacosane(S)	11.57	32846406	139.022 ppb
Surrogate Spike 150.000		Recovery =	92.68%

Target Compounds

Data File: G:\APOLLO\DATA\120419\419039.D

Sample : 120418B BLK 5/1000



# Laboratory Control Spike Recovery

## TPH Diesel Water

APPL ID: 120418W-59184 LCS - 166388  
 Batch ID: #TPETD-120418B

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	1540	77.0	61-143
SURROGATE: OCTACOSANE (S)	150	133	88.7	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	132	88.0	57-132

Comments: \_\_\_\_\_  
 \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>
Quant Method :	TPH0306.M
Extraction Date :	04/18/12
Analysis Date :	04/20/12
Instrument :	Apollo
Run :	419040
Initials :	TRL

Printed: 05/01/12 2:58:11 PM  
 APPL Standard LCS

Data File : G:\APOLLO\DATA\120419\419040.D Vial: 40  
 Acq On : 4-20-12 19:58:18 Operator: LAC  
 Sample : 120418B LCS-1 5/1000 Inst : Apollo  
 Misc : Water Multiplr: 5.00  
 IntFile : events.e  
 Quant Time: May 10 9:21 2012 Quant Results File: TPH0306.RES

Method : G:\APOLLO\DATA\120419\TPH0306.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 01 14:33:37 2012  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	8.89	36425722	131.754 ppb
Surrogate Spike 150.000		Recovery =	87.84%
6) SC Octacosane(S)	11.57	31494774	133.302 ppb
Surrogate Spike 150.000		Recovery =	88.87%
Target Compounds			
1) HATM Diesel (C10-C28)	8.60	337949299	1544.530 ppb

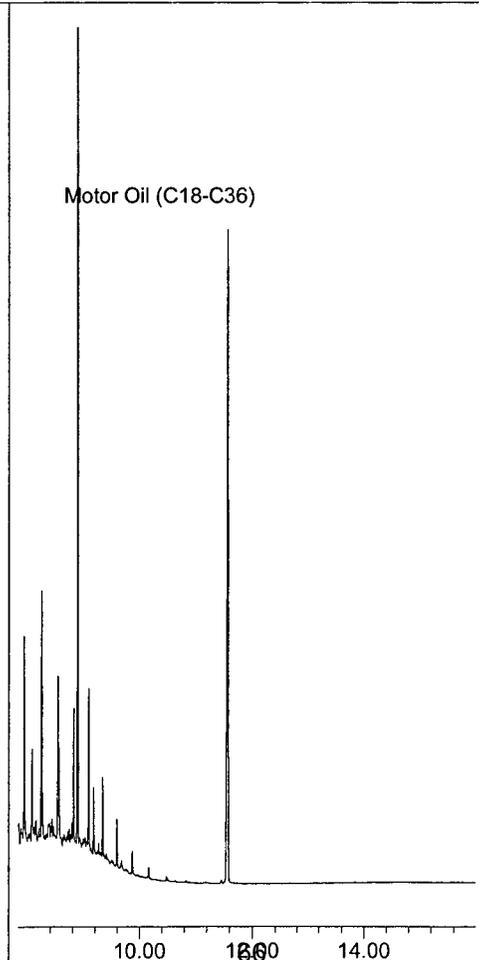
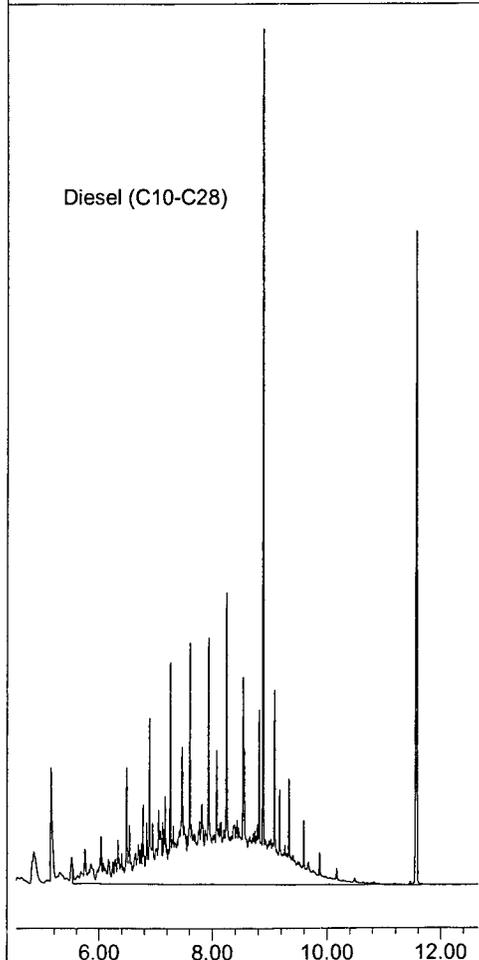
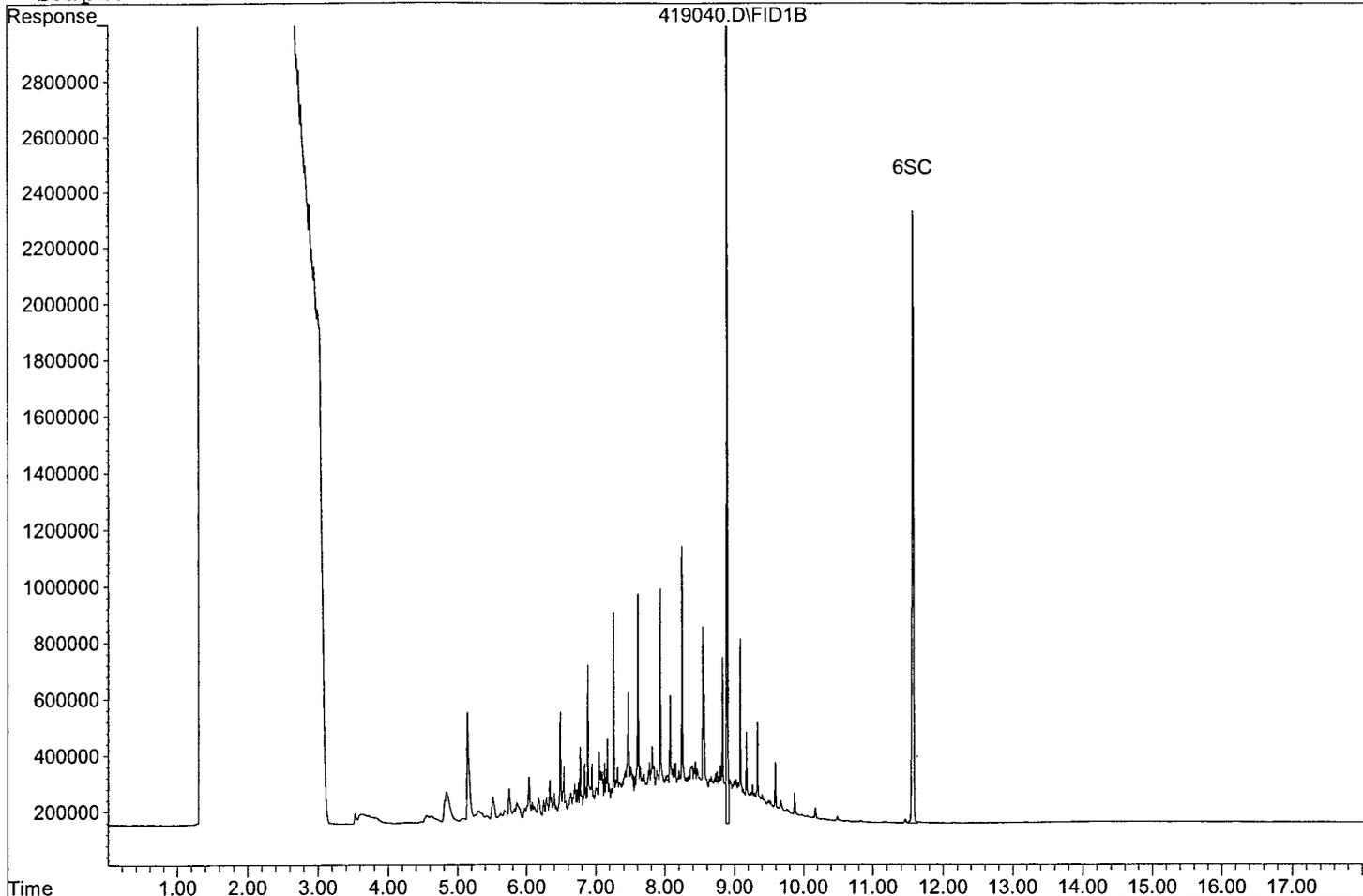
$$DL \text{ Alg } \checkmark = \frac{337949299(5)}{(2) 547010} = 1544.5298029286484$$

~~5~~ 51112

Data File: G:\APOLLO\DATA\120419\419040.D

Sample : 120418B LCS-1 5/1000

419040.D\FID1B



STANDARD

INITIAL CONC

SOURCE DATE

ALIQOT

FINAL VOL

FINAL CONC

SOLVENT LOT #

DATE / INITIALS  
045

TNRCC 400/1000 ug/ml CCV

TNRCC

1000/500 ug/ml

TNRCC STD

400ml

1ml

400 ug/ml Pentane

Ⓚ

Prep: 3/2/12

#5

3/5/12

EX: 4/2/12

EX: 4/2/12

DIESEL SPIKE

DIESEL

50,000 ug/ml

O2S1

2000 ml

50ml

2000 ug/ml MC

Ⓚ

FUEL #2

# 51306

3/6/12

EX: 6/6/12

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

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

011598-03  
Lot # Storage Expiry  
179635 5-10 Degree C 11/8/15  
Diesel Fuel #2 Composite  
Lot #: 179635 - 30224  
Rec: 1/10/12 MFR exp. 11/08/15

011598-03  
Lot # Storage Expiry  
179635 5-10 Degree C 11/8/15  
Diesel Fuel #2 Composite  
Lot #: 179635 - 30223  
Rec: 1/10/12 MFR exp. 11/08/15

DIESEL CAL STD.

STD.	INITIAL CONC.	SOURCE DATE	ALIQOT	FINAL VOL	FINAL CONC.	SOLVENT / LOT#
DIESEL FUEL #2	50,000 ug/mL	O2SI 179635-30224 CAT#011598-03 LOT#156524 27193 OP: 1/5/11 EXP: 1/5/12 3/6/12	1mL	50mL	1000ug/mL	MC LOT# 51306
O-TERPHENYL OCTACOSANE	600 ug/mL	O2SI CAT#110316-05 LOT#183766-30213 OP: 3/5/12 EXP: 3/5/13	4160 µL	50ug/mL	50ug/mL	

MOTOR OIL CAL STD

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

THC SURR CAL STD

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



DATE /  
INITIALS

STANDARD

INITIAL  
CONC

SOURCE  
DATE

ALIQOT

FINAL  
VOLUME

FINAL  
ONC

SOL. ENV.  
LOT #

DATE /  
INITIALS  
061

Q  
7/5/12  
EX:  
1/5/13

STANDARD	INITIAL CONC	SOURCE DATE	ALIQOT	FINAL VOLUME	FINAL ONC	SOL. ENV. LOT #	DATE / INITIALS
		THC Surrogate					* GAVE TO EXTRACTION *
D-TERPHEINOL	60mg/ml	0281	N/A	25ml	60mg/ml	NA	Q 3/20/12
OXTRACANE	CAT: 1103116-05						EX: 3/20/13
	LOT: 183766-						
	30215 THRU 30219						
	EX: 3/20/13						

Q  
3/16/12  
EX:  
9/16/12

Q  
1/20/12  
EX:  
9/20/12

Q  
3/20/12  
EX:  
6/20/12

NOT used Q 3/22/12

084

INITIAL SOURCE FINAL SOL. FN. DATE  
 CONC DATE ALIQUOT VOLUME CONC LOT # INITIALS

*B 4/18/12*

**Aromatic 250/1000 µg/mL CCV**

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

*B*  
 4/18/12  
 EX:  
 10/18/12

**Aliphatic 200/1000 µg/mL CCV**

Standard	Init Conc.	Source Date	Aliquot	Final Vol.	Final Conc.	Solvent
Aliphatic	200/100 µg/mL	Aromatic Std	200 µL	1 mL	40/20 µg/mL	Hexane
	Prep:	04/18/12				Lot:
	Exp:	10/18/12				082610B

*B 4/18/12*

**DIESEL CCV 600ug/ml**

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL.	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000UG/ML	O2SI	600µL	1 mL	600 µg/ml	MC
		07/22/11	01/22/12			051711B

*B*  
 4/18/12  
 EX:  
 7/22/12

**MOTOR OIL CCV 600UG/ML**

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL.	FINAL CONC.	SOLVENT /LOT#
	1000UG/ML	O2SI	600µL	1mL	600 µg/ml	MC
MOTOR OIL STD		07/22/11	01/22/12			051711B

*B 4/18/12*

**HERBICIDE CALIBRATION CURVE**

COMPOUND	CONC IN MIX (ug/ml)	CONC OF STOCK (ug/ml)	ALIQUOT (µL)	STOCK SOURCE	FINAL VOL. SOLVENT
HERBICIDE	15	VARIOUS	15 µL	HERB CAL. STD PREP	1 mL
CURVE	50		50 µL	PREP: 4/5/12	MTBE
	100		100 µL	EXP: 10/5/12	
	200		200 µL	CONC.: VARIOUS	Lot#
	300		300 µL		50223
	400		400 µL		
HERBICIDE		VARIOUS		HERB 2nd SOURCE	
SECOND SOURCE	200		200 µL	PREP: 11/17/11 EXP: 5/17/12	

*CJA*  
 4/18/12  
 EX: 10/5/12  
 4/18/12  
 EX: 5/17/12

*B 4/19/12*

PREP:	04/19/12											
PAC ECO CURVE												
EXP:	07/21/12											
PE Lot#	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL
	PAC ECO CAL STD	5		04/16/12	07/21/12	2	10	50	200	500	700	1000
VWR	Hexane		082610B			998	990	950	800	500	300	N/A
						Final VOL.	1000	1000	1000	1000	1000	1000
PAC ECO 2ND SRC												
Prep:	4/19/12	Exp:	10/6/12	5µg/ml	082610B	04/06/12	10/06/12	500/1000				

*B*  
 4/19/12  
 EX:  
 7/21/12  
*B*  
 4/19/12  
 EX: 10/6/12

*B 4/20/12*

PREP:	04/20/12											
PAC ECO CURVE												
EXP:	07/21/12											
PE Lot#	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL
	PAC ECO CAL STD	5		04/16/12	07/21/12	2	10	50	200	500	700	1000
VWR	Hexane		082610B			998	990	950	800	500	300	N/A
						Final VOL.	1000	1000	1000	1000	1000	1000
PAC ECO 2ND SRC												
Prep:	4/20/12	Exp:	10/6/12	5µg/ml	082610B	04/06/12	10/06/12	500/1000				

*B*  
 4/20/12  
 EX: 7/21/12  
*B*  
 4/20/12  
 EX: 10/6/12

# Organic Extraction Worksheet

<b>Method</b>	THC Separatory Funnel Extraction 3510C	<b>Extraction Set</b>	120418B	<b>Extraction Method</b>	SEP011	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 03/06/12 EX 06/06/12	Surrogate ID 1	THC Surrogate 183766-30215				
Spiked ID 2		Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:					
Spiked ID 8		Ext. End Time:					
		<b>GC Requires Extract By:</b>		05/01/12 0:00			
		pH1		Water Bath Temp Criteria		80 °C	
		pH2					
		pH3					

Spiked By: DL

Date 04/18/12

Witnessed By: DRA

Date 04/18/12

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	120418B Blk			0.250	1	1000	5	7	04/18/12 9:56	
					equip	E-WB5				
2	120418B LCS-1	1	1	0.250	1	1000	5	7	04/18/12 9:56	
					equip	E-WB5				
3	AY59184 AY59184W05			0.250	1	1050	5	7	04/18/12 9:56	67512-2 WEEK RUSH -- Amber Liter
					equip	E-WB7				
4	AY59185 AY59185W07			0.250	1	1050	5	7	04/18/12 9:56	67512-2 WEEK RUSH -- Amber Liter
					equip	E-WB7				
5	AY59186 AY59186W06			0.250	1	1050	5	7	04/18/12 9:56	67512-2 WEEK RUSH -- Amber Liter
					equip	E-WB7				
6	AY59187 AY59187W05			0.250	1	1050	5	7	04/18/12 9:56	67512-2 WEEK RUSH -- Amber Liter
					equip	E-WB7				

*DRA 4-19-12*

<b>Solvent and Lot#</b>	
VC	EMD51306
Na2SO4	3851C501

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	DRA
GC analyst's initials	GA
Date	4/19/12
Time	15:30
Refrigerator	Hobart

<b>Technician's Initials</b>	
Scanned By	FXR
Sample Preparation	IC
Extraction	DRA
Concentration	IC
Modified	04/18/12 9:20:14 AM

Reviewed By: DRA

Date 04/19/12

71

Ext\_ID

35682

## Injection Log

Directory: G:\APOLLO\DATA\120306\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	21	306021.D	1	DIESEL 10/1000 3/6/12	Mix(A)	3-6-12 17:25:38
2	22	306022.D	1	DIESEL 100/1000	Mix(A)	3-6-12 17:49:21
3	23	306023.D	1	DIESEL 400/1000	Mix(A)	3-6-12 18:12:55
4	24	306024.D	1	DIESEL 600/1000	Mix(A)	3-6-12 18:36:31
5	25	306025.D	1	DIESEL 800/1000	Mix(A)	3-6-12 19:00:08
6	26	306026.D	1	DIESEL 1000/1000	Mix(A)	3-6-12 19:23:45
7	27	306027.D	1	DIESEL 2ND SRC 400/1000 3/6/12	Mix(A)	3-6-12 19:47:20
1	38	419038.D	1	DIESEL 400/1000 4/18/12	Mix(A)	4-20-12 19:09:41
2	39	419039.D	5	120418B BLK 5/1000	Water	4-20-12 19:33:59
3	40	419040.D	5	120418B LCS-1 5/1000	Water	4-20-12 19:58:18
4	41	419041.D	4.7619	AY59184W05 5/1050	Water	4-20-12 20:22:35
5	42	419042.D	4.7619	AY59185W07 5/1050	Water	4-20-12 20:46:48
6	43	419043.D	4.7619	AY59186W06 5/1050	Water	4-20-12 21:10:59
7	44	419044.D	4.7619	AY59187W05 5/1050	Water	4-20-12 21:35:08
8	46	419046.D	1	DIESEL 400/1000 4/18/12	Mix(A)	4-20-12 22:23:25

**EPA METHOD 8270**  
**Polynuclear Aromatic Hydrocarbons**



**EPA METHOD 8270**  
**Polynuclear Aromatic Hydrocarbons**  
**QC Summary**

## Method Blank EPA 8270D SIM

Blank Name/QCG: 120418W-59184 - 166433  
Batch ID: #SIMHC-120418A

APPL Inc.  
908 North Temperance Avenue  
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	04/18/12	04/22/12
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
BLANK	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
BLANK	SURROGATE: 2-FLUORBIPHENY	50.4	50-110			%	04/18/12	04/22/12
BLANK	SURROGATE: NITROBENZENE-	58.2	40-110			%	04/18/12	04/22/12
BLANK	SURROGATE: TERPHENYL-D14 (	66.0	50-135			%	04/18/12	04/22/12

Quant Method: SIMB.M
Run #: 0422L003
Instrument: Linus
Sequence: L120229
Initials: LF

Printed: 05/02/12 1:09:04 PM  
GC SC-Blank-REG MDLs

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 67512

Case No: 67512

Date Analyzed: 04/22/12

Matrix: WATER

Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
120418A-BLK	Blank	50-110	50.4		40-110	58.2	
120418A-LCS	Lab Control Spike	50-110	51.5		40-110	56.5	
AY59184	ES070	50-110	56.0		40-110	56.3	
AY59185	ES071	50-110	54.0		40-110	49.8	
AY59186	ES072	50-110	60.2		40-110	52.1	
AY59187	ES073	50-110	60.7		40-110	55.2	

Comments: Batch: #SIMHC-120418A

**Surrogate Recovery**

Lab Name: APPL, Inc.  
 Case No: 67512  
 Matrix: WATER

SDG No: 67512  
 Date Analyzed: 04/22/12  
 Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
120418A-BLK	Blank	50-135	66.0				
120418A-LCS	Lab Control Spike	50-135	64.5				
AY59184	ES070	50-135	59.2				
AY59185	ES071	50-135	59.1				
AY59186	ES072	50-135	57.7				
AY59187	ES073	50-135	65.0				

Comments: Batch: #SIMHC-120418A

# Laboratory Control Spike Recovery

## EPA 8270D SIM

APPL ID: 120418W-59184 LCS - 166433  
 Batch ID: #SIMHC-120418A

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	2.28	57.0	45-105
2-METHYLNAPHTHALENE	4.00	2.17	54.3	45-105
ACENAPHTHENE	4.00	2.61	65.3	45-110
ACENAPHTHYLENE	4.00	2.50	62.5	50-105
ANTHRACENE	4.00	2.79	69.8	55-110
BENZO(A)ANTHRACENE	4.00	3.80	95.0	55-110
BENZO(A)PYRENE	4.00	3.28	82.0	55-110
BENZO(B)FLUORANTHENE	4.00	3.34	83.5	45-120
BENZO(GHI)PERYLENE	4.00	3.59	89.8	40-125
BENZO(K)FLUORANTHENE	4.00	3.94	98.5	45-125
CHRYSENE	4.00	3.28	82.0	55-110
DIBENZ(A,H)ANTHRACENE	4.00	3.78	94.5	40-125
FLUORANTHENE	4.00	3.60	90.0	55-115
FLUORENE	4.00	2.95	73.8	50-110
INDENO(1,2,3-CD)PYRENE	4.00	3.98	99.5	45-125
NAPHTHALENE	4.00	2.01	50.2	40-100
PHENANTHRENE	4.00	2.98	74.5	50-115
PYRENE	4.00	3.50	87.5	50-130
-----				
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.03	51.5	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.13	56.5	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.29	64.5	50-135
-----				

Comments: \_\_\_\_\_  
 \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>
Quant Method :	SIMB.M
Extraction Date :	04/18/12
Analysis Date :	04/22/12
Instrument :	Linus
Run :	0422L004
Initials :	LF

Printed: 05/02/12 1:09:11 PM  
 APPL Standard LCS

# 8270D-SIM

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 67512

Case No: 67512

Date Analyzed: 04/22/12

Matrix: WATER

Instrument: Linus

Blank ID: 120418A-BLK

Time Analyzed: 1132

APPL ID.	Client Sample No.	File ID.	Date Analyzed
120418A-BLK	Blank	0422L003	04/22/12 1132
120418A-LCS	Lab Control Spike	0422L004	04/22/12 1158
AY59184	ES070	0422L005	04/22/12 1224
AY59185	ES071	0422L006	04/22/12 1250
AY59186	ES072	0422L007	04/22/12 1315
AY59187	ES073	0422L008	04/22/12 1341

Comments: Batch: #SIMHC-120418A

Printed: 05/02/12 1:09:12 PM  
Form 4, Blank Summary

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 67512  
 Matrix: Water  
 ID: SVTUNE 2-28-12

SDG No: 67512  
 Date Analyzed: 04/22/12  
 Instrument: Linus  
 Time Analyzed: 10:48

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Blank	120418A BLK 1/1000	0422L003.D	04/22/12 11:32
2	Lab Control Spike	120418A LCS-1 1/1000	0422L004.D	04/22/12 11:58
3	ES070	AY59184W07 1/1050	0422L005.D	04/22/12 12:24
4	ES071	AY59185W05 1/1050	0422L006.D	04/22/12 12:50
5	ES072	AY59186W07 1/1050	0422L007.D	04/22/12 13:15
6	ES073	AY59187W06 1/1050	0422L008.D	04/22/12 13:41
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	<u>37.9</u>
68 0 - 2.05% of mass 69	<u>0.0</u>
70 0 - 2% of mass 69	<u>0.5</u>
127 40 - 60% of mass 198	<u>49.2</u>
197 0 - 1% of mass 198	<u>0.0</u>
198 100 - 100% of mass 198	<u>100.0</u>
199 5 - 9% of mass 198	<u>7.4</u>
275 10 - 30% of mass 198	<u>26.7</u>
365 1 - 100% of mass 198	<u>2.8</u>
441 0.01 - 100% of mass 443	<u>73.7</u>
442 40 - 150% of mass 198	<u>72.6</u>
443 17 - 23% of mass 442	<u>20.7</u>

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 67512  
 Lab File ID (Standard): 0229L007.D Date Analyzed: 1 Mar 12 1:59  
 Instrument ID: Linus Time Analyzed: 1 Mar 12 1:59  
 GC Column: \_\_\_\_\_ ID: Heated Purge: (Y/N) \_\_\_\_\_

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		5710	6.12	2760	8.13	4470	9.86
UPPER LIMIT		11420	6.62	5520	8.63	8940	10.36
LOWER LIMIT		2855	5.62	1380	7.63	2235	9.36
SAMPLE NO.							
01	120418A BLK 1/1000	6252	6.12	3283	8.12	5758	9.86
02	120418A LCS-1 1/1000	5596	6.12	3036	8.12	5168	9.86
03	AY59184W07 1/1050	5781	6.12	3191	8.12	5699	9.86
04	AY59185W05 1/1050	6443	6.12	3269	8.12	5600	9.86
05	AY59186W07 1/1050	6007	6.12	3290	8.12	5493	9.85
06	AY59187W06 1/1050	6343	6.12	3292	8.12	5815	9.86
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.: 67512  
 Lab File ID (Standard): 0229L007.D Date Analyzed: 1 Mar 12 1:59  
 Instrument ID: Linus Time Analyzed: 1 Mar 12 1:59  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		6006	12.93	5058	14.54		
UPPER LIMIT		12012	13.43	10116	15.04		
LOWER LIMIT		3003	12.43	2529	14.04		
SAMPLE NO.							
01	120418A BLK 1/1000	7397	12.94	6593	14.56		
02	120418A LCS-1 1/1000	6930	12.94	5907	14.56		
03	AY59184W07 1/1050	7437	12.94	6262	14.56		
04	AY59185W05 1/1050	7797	12.94	6826	14.56		
05	AY59186W07 1/1050	7635	12.94	6584	14.56		
06	AY59187W06 1/1050	7445	12.94	6471	14.56		
07							
08							
09							
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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**

# EPA 8270D SIM

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

Attn: Max Solmssen  
Project: LTM Red Hill / 1022-024

Sample ID: ES070

Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

APPL ID: AY59184

QCG: #SIMHC-120418A-166433

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	56.0	50-110			%	04/18/12	04/22/12
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	56.3	40-110			%	04/18/12	04/22/12
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	59.2	50-135			%	04/18/12	04/22/12

Quant Method: SIMB.M  
Run #: 0422L005  
Instrument: Linus  
Sequence: L120229  
Dilution Factor: 1  
Initials: LF

Printed: 05/02/12 1:09:16 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\LINUS\DATA\L120229\0422L005.D Vial: 5  
 Acq On : 22 Apr 12 12:24 Operator: LF  
 Sample : AY59184W07 1/1050 Inst : Linus  
 Misc : Multiplr: 0.95

Quant Time: Apr 23 16:08 2012 Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.12	136	5781	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.12	164	3191	2.50000	ppb	-0.01
12) Phenanthrene-D10 (IS)	9.86	188	5699	2.50000	ppb	0.00
16) Chrysene-D12 (IS)	12.94	240	7437	2.50000	ppb	0.01
22) Perylene-D12 (IS)	14.56	264	6262	2.50000	ppb	0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.33	82	639	1.07225	ppb	0.01
Spiked Amount	1.905		Recovery	=	56.280%	
7) Surrogate Recovery (FBP)	7.36	172	2263	1.06571	ppb	-0.01
Spiked Amount	1.905		Recovery	=	55.965%	
18) Surrogate Recovery (TPH)	11.73	244	2746	1.12698	ppb	0.00
Spiked Amount	1.905		Recovery	=	59.168%	

Target Compounds Qvalue

Quantitation Report

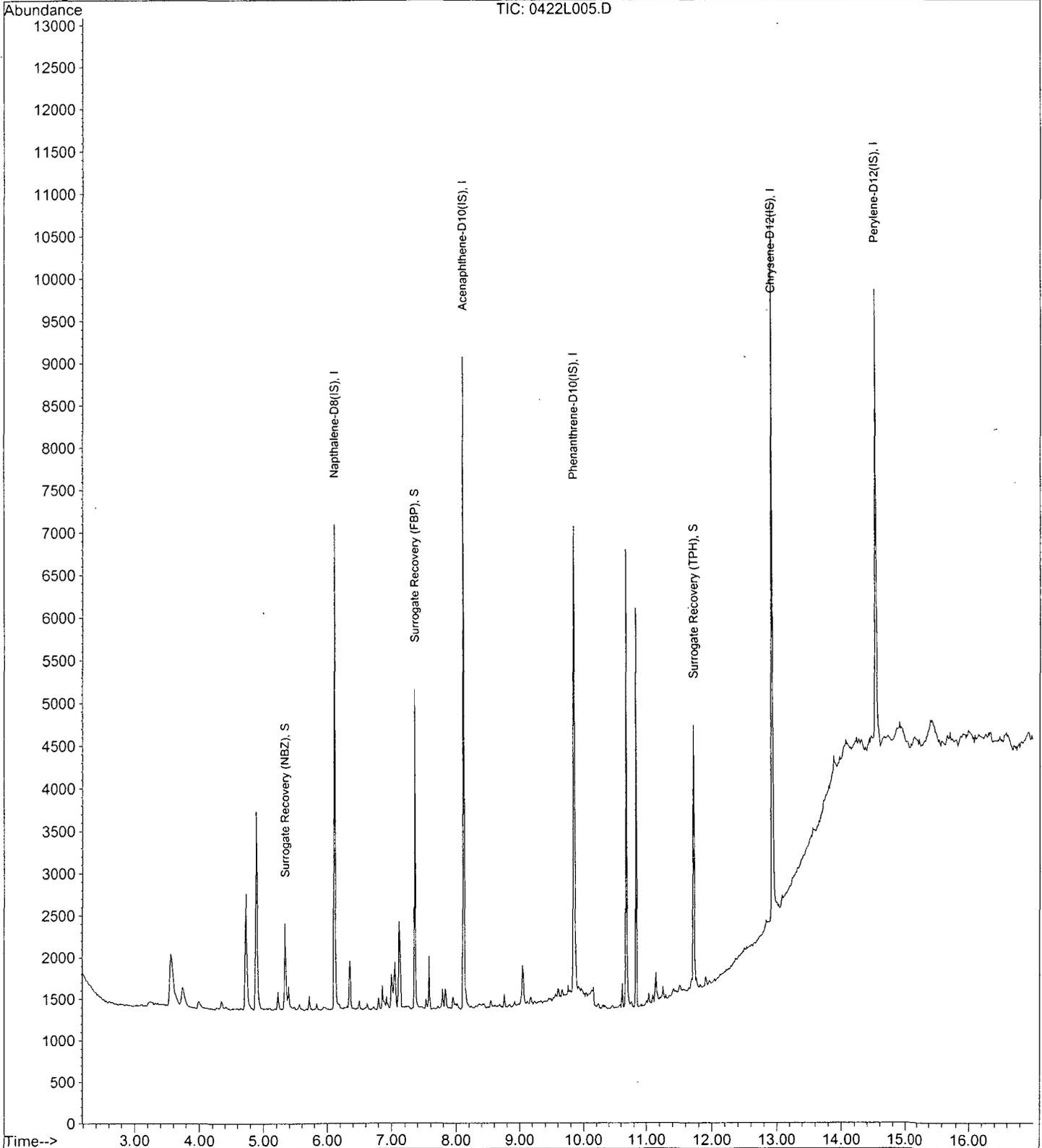
Data File : M:\LINUS\DATA\L120229\0422L005.D  
Acq On : 22 Apr 12 12:24  
Sample : AY59184W07 1/1050  
Misc :

Vial: 5  
Operator: LF  
Inst : Linus  
Multiplr: 0.95

Quant Time: Apr 23 16:08 2012

Quant Results File: SIMB.RES

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



# EPA 8270D SIM

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Max Solmssen  
Project: LTM Red Hill / 1022-024

ARF: 67512

Sample ID: ES071

APPL ID: AY59185

Sample Collection Date: 04/16/12

QCG: #SIMHC-120418A-166433

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.30	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	ACENAPHTHENE	0.26	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
8270D-SIM	FLUORENE	0.14 J	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	NAPHTHALENE	0.86	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	54.0	50-110			%	04/18/12	04/22/12
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	49.8	40-110			%	04/18/12	04/22/12
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	59.1	50-135			%	04/18/12	04/22/12

J = Estimated value.

Quant Method: SIMB.M  
Run #: 0422L006  
Instrument: Linus  
Sequence: L120229  
Dilution Factor: 1  
Initials: LF

Printed: 05/02/12 1:09:17 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\LINUS\DATA\L120229\0422L006.D Vial: 6  
 Acq On : 22 Apr 12 12:50 Operator: LF  
 Sample : AY59185W05 1/1050 Inst : Linus  
 Misc : Multiplr: 0.95

Quant Time: Apr 23 16:09 2012 Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	6443	2.50000	ppb	0.00
6) Acenaphthene-D10(IS)	8.12	164	3269	2.50000	ppb	-0.01
12) Phenanthrene-D10(IS)	9.86	188	5600	2.50000	ppb	0.00
16) Chrysene-D12(IS)	12.94	240	7797	2.50000	ppb	0.01
22) Perylene-D12(IS)	14.56	264	6826	2.50000	ppb	0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.33	82	630	0.94853	ppb	0.01
Spiked Amount	1.905		Recovery	=	49.823%	
7) Surrogate Recovery (FBP)	7.36	172	2237	1.02833	ppb	-0.01
Spiked Amount	1.905		Recovery	=	53.970%	
18) Surrogate Recovery (TPH)	11.73	244	2874	1.12505	ppb	0.00
Spiked Amount	1.905		Recovery	=	59.063%	
Target Compounds						
3) Napthalene	6.14	128	3302	0.85529	ppb	Qvalue # 43
5) 1-Methylnaphthalene	7.04	142	642	0.29644	ppb	85
10) Acenaphthene	8.16	154	492	0.25621	ppb	93
11) Fluorene	8.76	166	327	0.14052	ppb	99

Quantitation Report

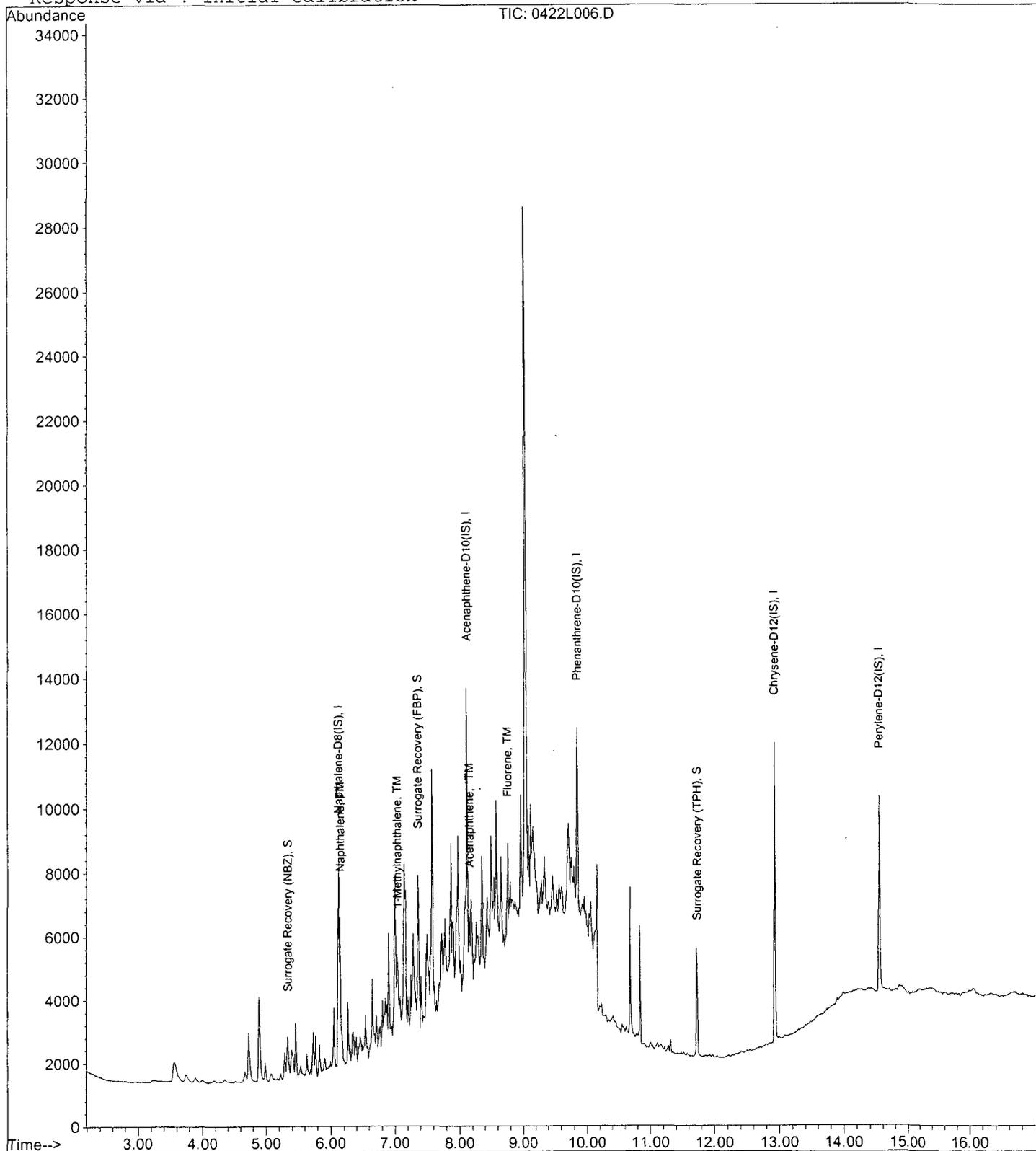
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Acq On : 22 Apr 12 12:50  
Sample : AY59185W05 1/1050  
Misc :

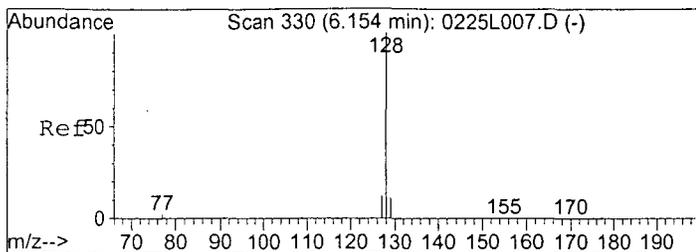
Vial: 6  
Operator: LF  
Inst : Linus  
Multiplr: 0.95

Quant Time: Apr 23 16:09 2012

Quant Results File: SIMB.RES

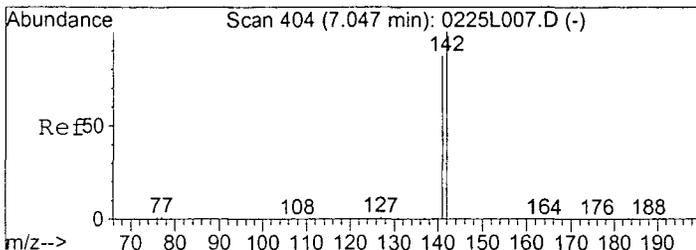
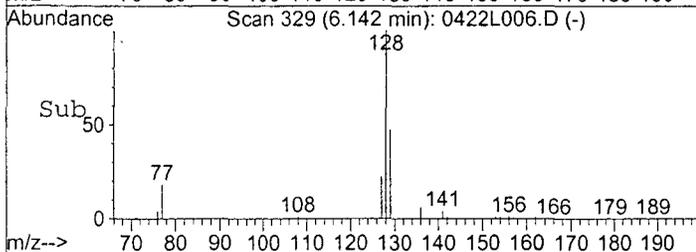
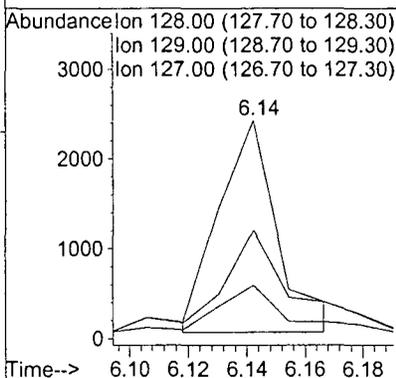
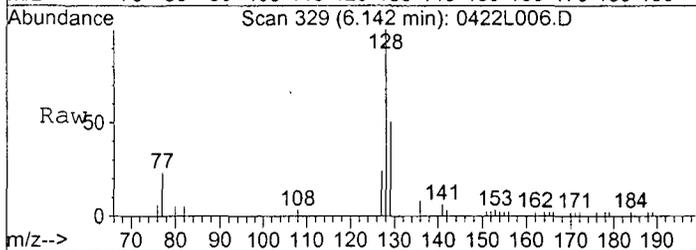
Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Mon Apr 23 16:14:14 2012  
Response via : Initial Calibration





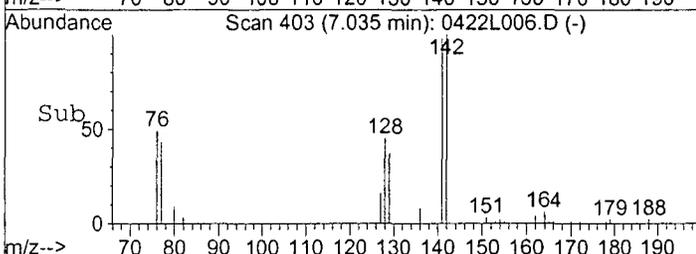
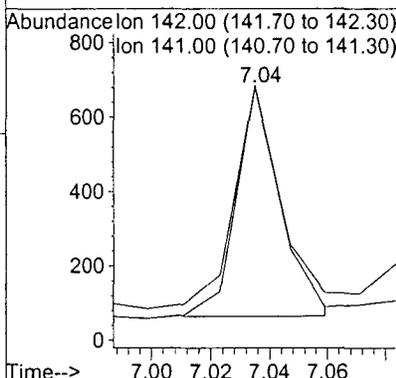
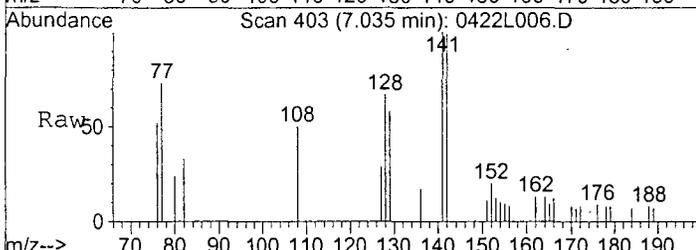
#3  
 Naphthalene  
 Concen: 0.85529 ppb  
 RT: 6.14 min Scan# 329  
 Delta R.T. 0.00 min  
 Lab File: 0422L006.D  
 Acq: 22 Apr 12 12:50

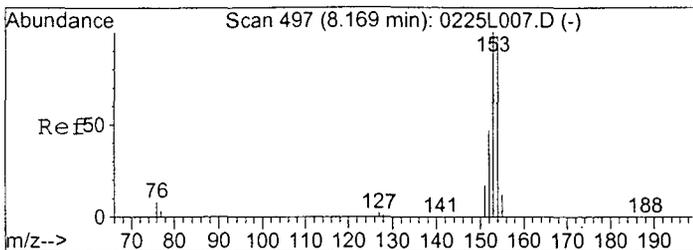
Tgt Ion	Resp	Ion Ratio	Lower	Upper
128	3302	100		
129		46.1	7.8	14.4#
127		22.0	8.6	16.0#



#5  
 1-Methylnaphthalene  
 Concen: 0.29644 ppb  
 RT: 7.04 min Scan# 403  
 Delta R.T. -0.01 min  
 Lab File: 0422L006.D  
 Acq: 22 Apr 12 12:50

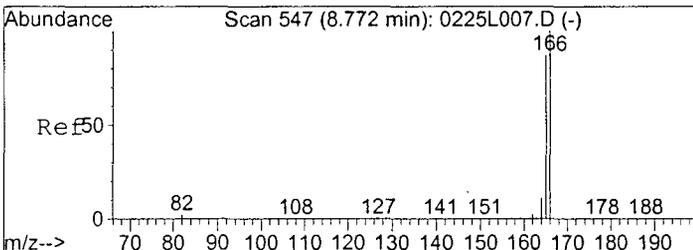
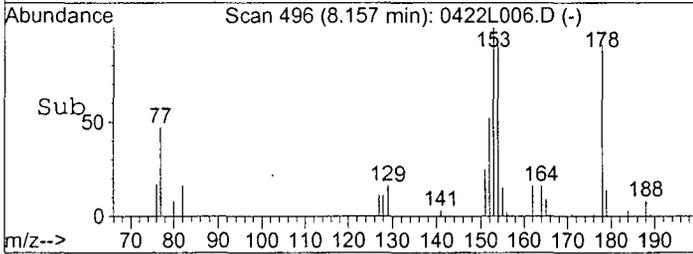
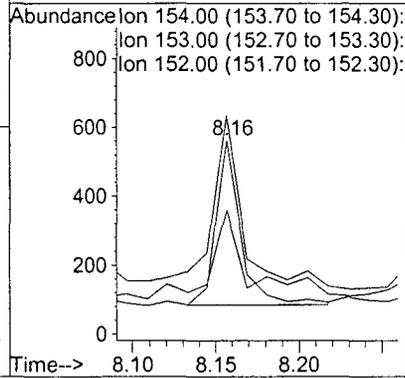
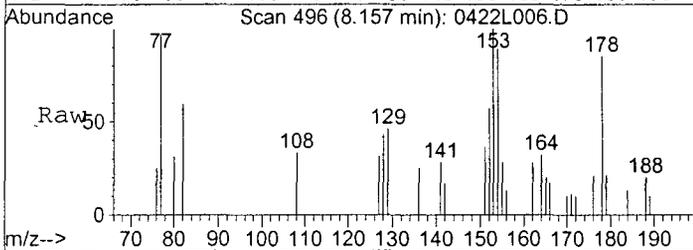
Tgt Ion	Resp	Ion Ratio	Lower	Upper
142	642	100		
141		96.4	57.8	107.3





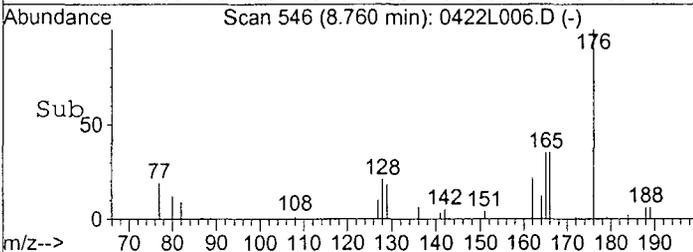
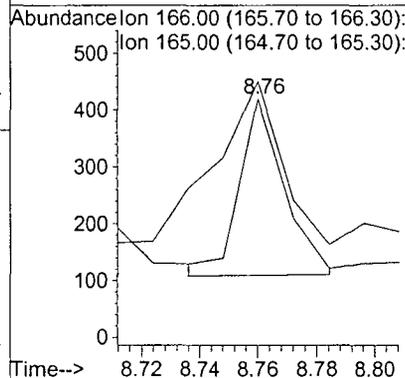
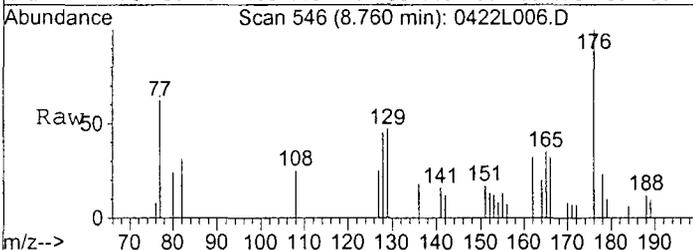
#10  
 Acenaphthene  
 Concen: 0.25621 ppb  
 RT: 8.16 min Scan# 496  
 Delta R.T. -0.01 min  
 Lab File: 0422L006.D  
 Acq: 22 Apr 12 12:50

Tgt Ion	Resp	Lower	Upper
154	100		
153	103.8	68.8	127.8
152	50.8	31.5	58.5



#11  
 Fluorene  
 Concen: 0.14052 ppb  
 RT: 8.76 min Scan# 546  
 Delta R.T. -0.00 min  
 Lab File: 0422L006.D  
 Acq: 22 Apr 12 12:50

Tgt Ion	Resp	Lower	Upper
166	100		
165	96.3	66.8	124.0



# EPA 8270D SIM

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

Attn: Max Solmssen  
Project: LTM Red Hill / 1022-024

Sample ID: ES072

Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

APPL ID: AY59186

QCG: #SIMHC-120418A-166433

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	1.2	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	2-METHYLNAPHTHALENE	0.61	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	ACENAPHTHENE	0.23	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
8270D-SIM	FLUORENE	0.12 J	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	NAPHTHALENE	2.9	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	60.2	50-110			%	04/18/12	04/22/12
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	52.1	40-110			%	04/18/12	04/22/12
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	57.7	50-135			%	04/18/12	04/22/12

J = Estimated value.

Quant Method: SIMB.M  
Run #: 0422L007  
Instrument: Linus  
Sequence: L120229  
Dilution Factor: 1  
Initials: LF

Printed: 05/02/12 1:09:17 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\LINUS\DATA\L120229\0422L007.D  
 Acq On : 22 Apr 12 13:15  
 Sample : AY59186W07 1/1050  
 Misc :

Vial: 7  
 Operator: LF  
 Inst : Linus  
 Multiplr: 0.95

Quant Time: Apr 23 16:10 2012

Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.12	136	6007	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.12	164	3290	2.50000	ppb	-0.01
12) Phenanthrene-D10 (IS)	9.85	188	5493	2.50000	ppb	-0.01
16) Chrysene-D12 (IS)	12.94	240	7635	2.50000	ppb	0.01
22) Perylene-D12 (IS)	14.56	264	6584	2.50000	ppb	0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.33	82	615	0.99315	ppb	0.01
Spiked Amount	1.905		Recovery	=	52.133%	
7) Surrogate Recovery (FBP)	7.36	172	2508	1.14555	ppb	-0.01
Spiked Amount	1.905		Recovery	=	60.165%	
18) Surrogate Recovery (TPH)	11.72	244	2748	1.09855	ppb	-0.01
Spiked Amount	1.905		Recovery	=	57.698%	
Target Compounds						
3) Naphthalene	6.14	128	10581	2.93964	ppb	Qvalue # 84
4) 2-Methylnaphthalene	6.93	142	1321	0.61027	ppb	94
5) 1-Methylnaphthalene	7.03	142	2346	1.16189	ppb	92
10) Acenaphthene	8.16	154	447	0.23129	ppb	98
11) Fluorene	8.76	166	291	0.12425	ppb	99

Quantitation Report

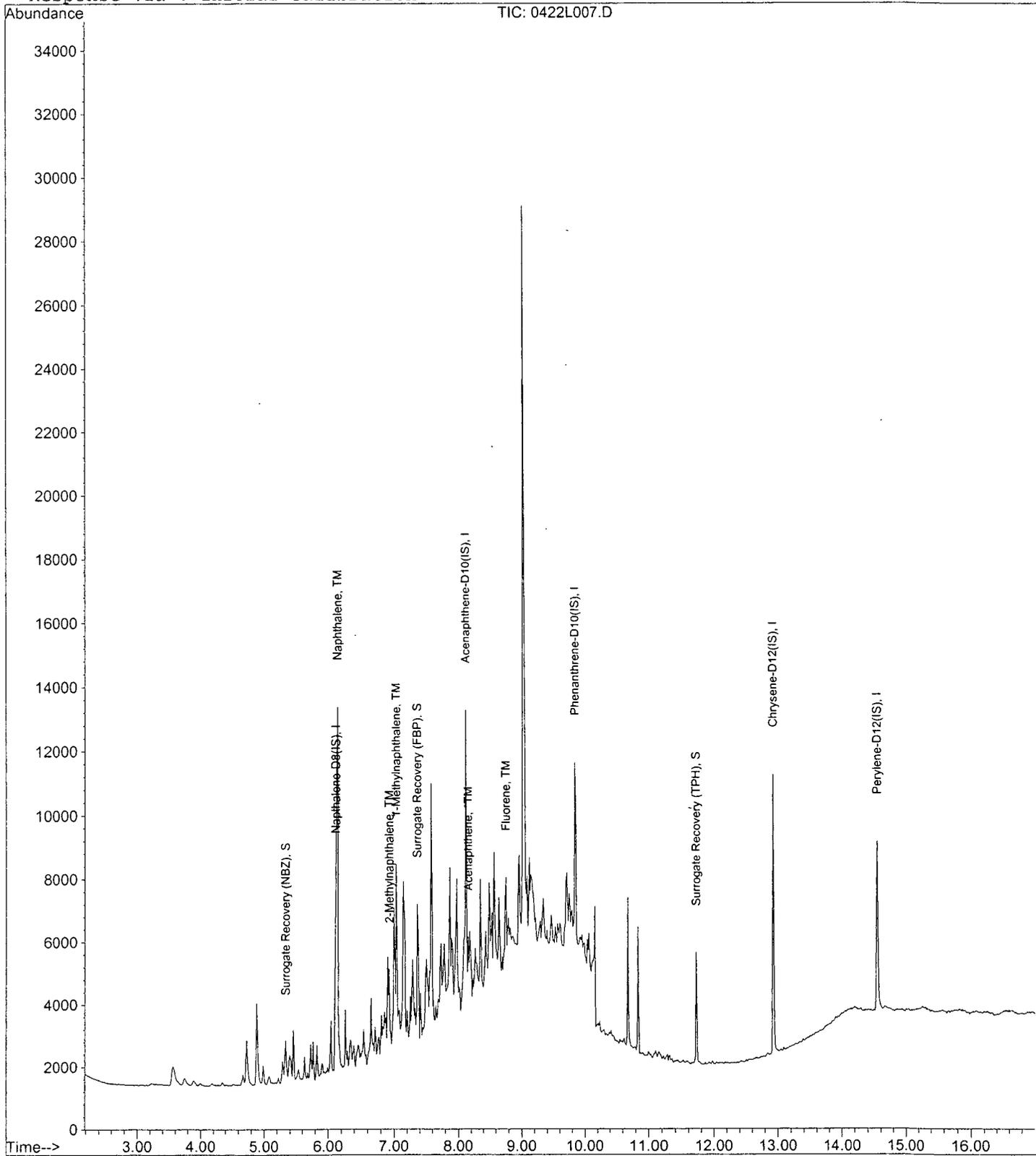
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Acq On : 22 Apr 12 13:15  
Sample : AY59186W07 1/1050  
Misc :

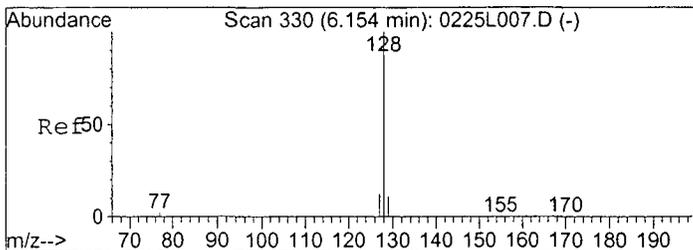
Vial: 7  
Operator: LF  
Inst : Linus  
Multiplr: 0.95

Quant Time: Apr 23 16:10 2012

Quant Results File: SIMB.RES

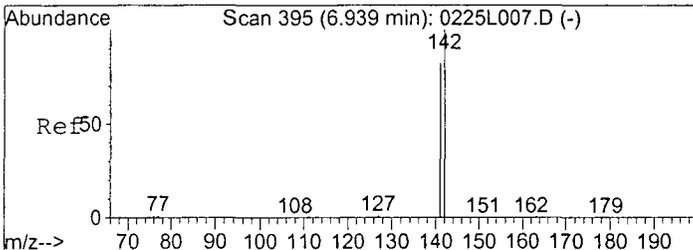
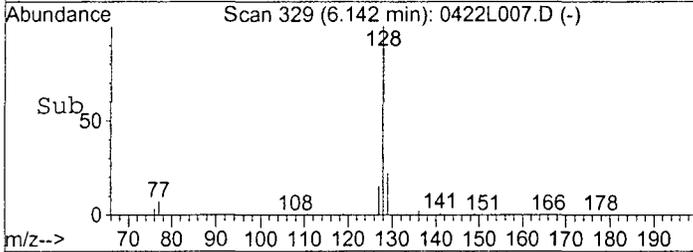
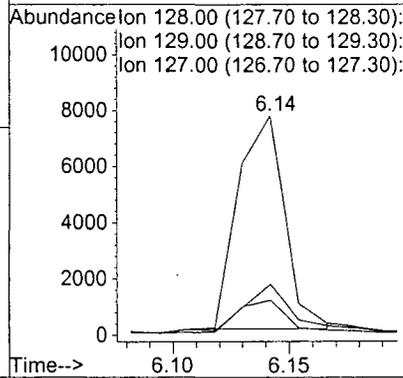
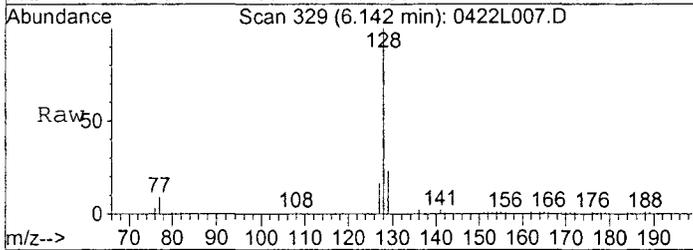
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Title : EPA 8270C  
Last Update : Mon Apr 23 16:14:14 2012  
Response via : Initial Calibration





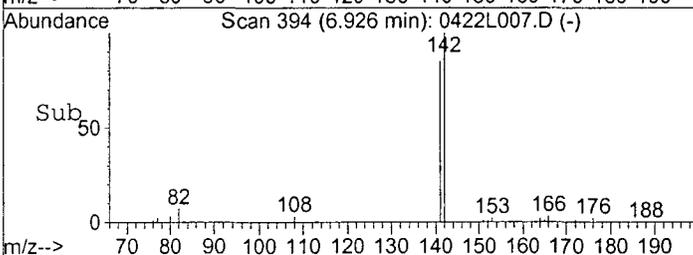
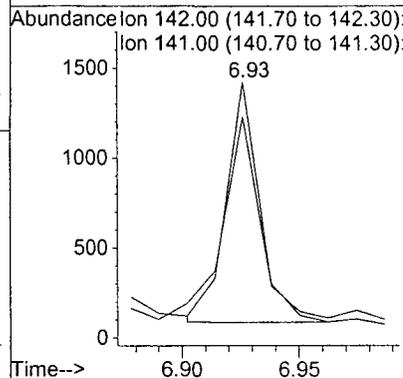
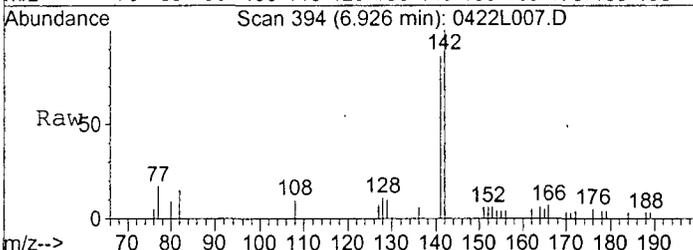
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 Naphthalene  
 Concen: 2.93964 ppb  
 RT: 6.14 min Scan# 329  
 Delta R.T. 0.00 min  
 Lab File: 0422L007.D  
 Acq: 22 Apr 12 13:15

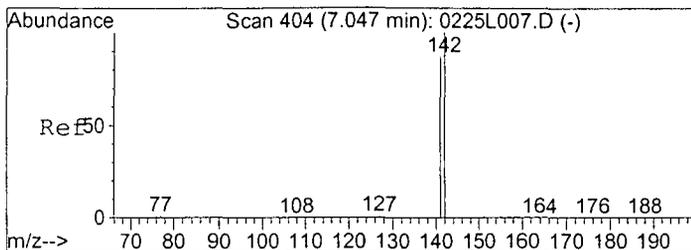
Tgt Ion	Resp	Lower	Upper
128	10581		
129	21.0	7.8	14.4#
127	14.8	8.6	16.0



#4  
 2-Methylnaphthalene  
 Concen: 0.61027 ppb  
 RT: 6.93 min Scan# 394  
 Delta R.T. -0.00 min  
 Lab File: 0422L007.D  
 Acq: 22 Apr 12 13:15

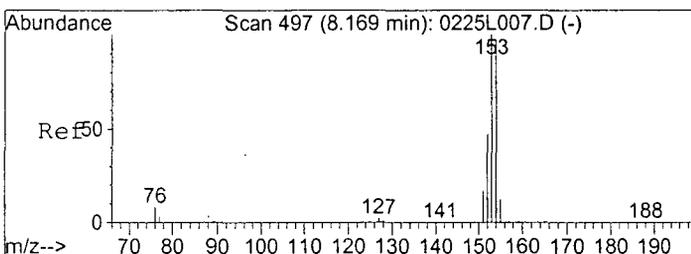
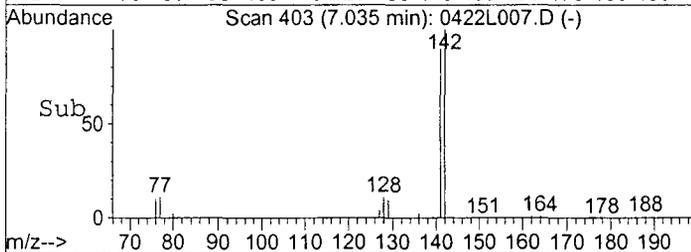
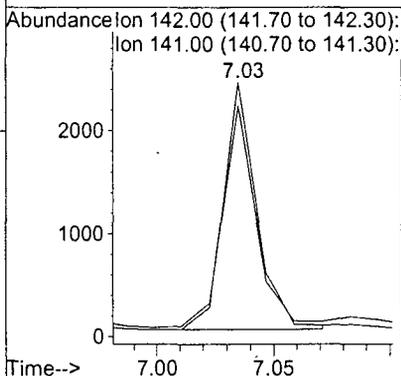
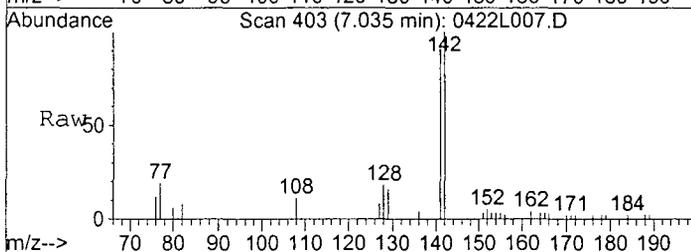
Tgt Ion	Resp	Lower	Upper
142	1321		
141	83.9	62.7	116.5





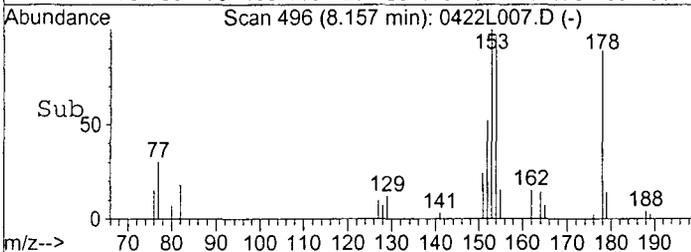
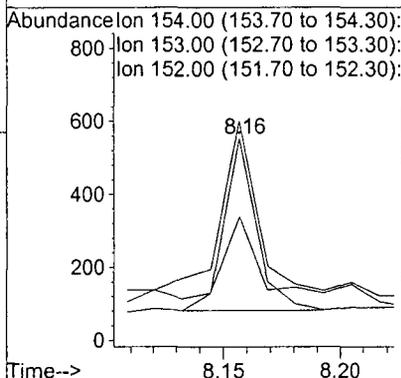
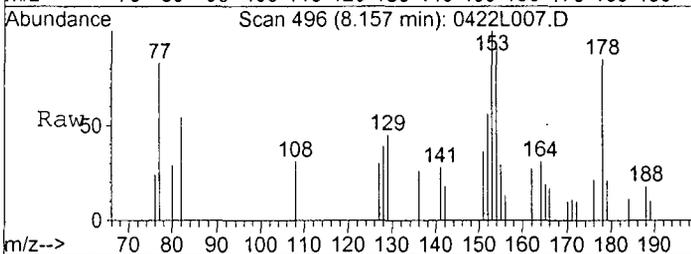
#5  
 1-Methylnaphthalene  
 Concen: 1.16189 ppb  
 RT: 7.03 min Scan# 403  
 Delta R.T. -0.01 min  
 Lab File: 0422L007.D  
 Acq: 22 Apr 12 13:15

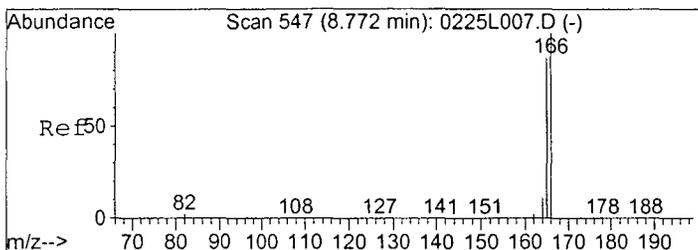
Tgt Ion:142 Resp: 2346  
 Ion Ratio Lower Upper  
 142 100  
 141 89.5 57.8 107.3



#10  
 Acenaphthene  
 Concen: 0.23129 ppb  
 RT: 8.16 min Scan# 496  
 Delta R.T. -0.01 min  
 Lab File: 0422L007.D  
 Acq: 22 Apr 12 13:15

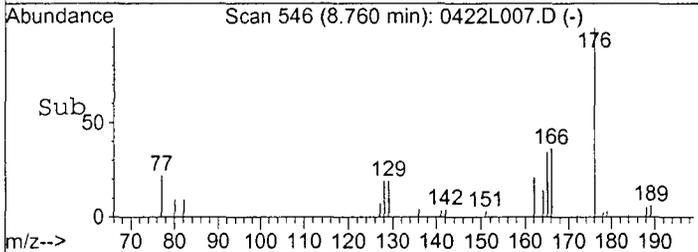
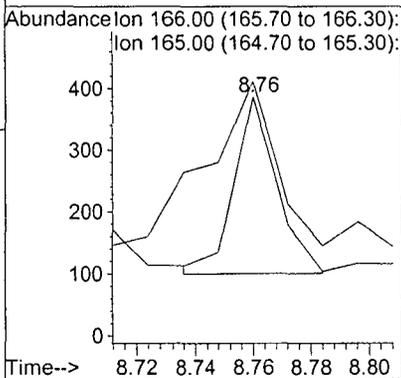
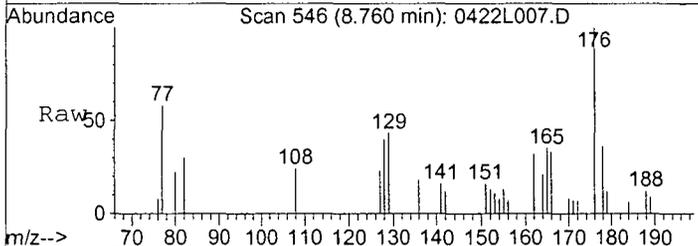
Tgt Ion:154 Resp: 447  
 Ion Ratio Lower Upper  
 154 100  
 153 98.7 68.8 127.8  
 152 47.8 31.5 58.5





#11  
 Fluorene  
 Concen: 0.12425 ppb  
 RT: 8.76 min Scan# 546  
 Delta R.T. -0.00 min  
 Lab File: 0422L007.D  
 Acq: 22 Apr 12 13:15

Tgt Ion	Resp	Lower	Upper
166	100		
165	94.7	66.8	124.0



# EPA 8270D SIM

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

Attn: Max Solmssen  
Project: LTM Red Hill / 1022-024

Sample ID: ES073  
Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512  
APPL ID: AY59187  
QCG: #SIMHC-120418A-166433

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	60.7	50-110			%	04/18/12	04/22/12
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	55.2	40-110			%	04/18/12	04/22/12
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	65.0	50-135			%	04/18/12	04/22/12

Quant Method: SIMB.M  
Run #: 0422L008  
Instrument: Linus  
Sequence: L120229  
Dilution Factor: 1  
Initials: LF

Printed: 05/02/12 1:09:17 PM  
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0422L008.D Vial: 8  
 Acq On : 22 Apr 12 13:41 Operator: LF  
 Sample : AY59187W06 1/1050 Inst : Linus  
 Misc : Multiplr: 0.95

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	6343	2.50000	ppb	0.00
6) Acenaphthene-D10(IS)	8.12	164	3292	2.50000	ppb	-0.01
12) Phenanthrene-D10(IS)	9.86	188	5815	2.50000	ppb	0.00
16) Chrysene-D12(IS)	12.94	240	7445	2.50000	ppb	0.01
22) Perylene-D12(IS)	14.56	264	6471	2.50000	ppb	0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.33	82	687	1.05065	ppb	0.01
Spiked Amount	1.905		Recovery	=	55.178%	
7) Surrogate Recovery (FBP)	7.36	172	2533	1.15627	ppb	-0.01
Spiked Amount	1.905		Recovery	=	60.690%	
18) Surrogate Recovery (TPH)	11.73	244	3023	1.23932	ppb	0.00
Spiked Amount	1.905		Recovery	=	65.048%	

Target Compounds Qvalue

Quantitation Report

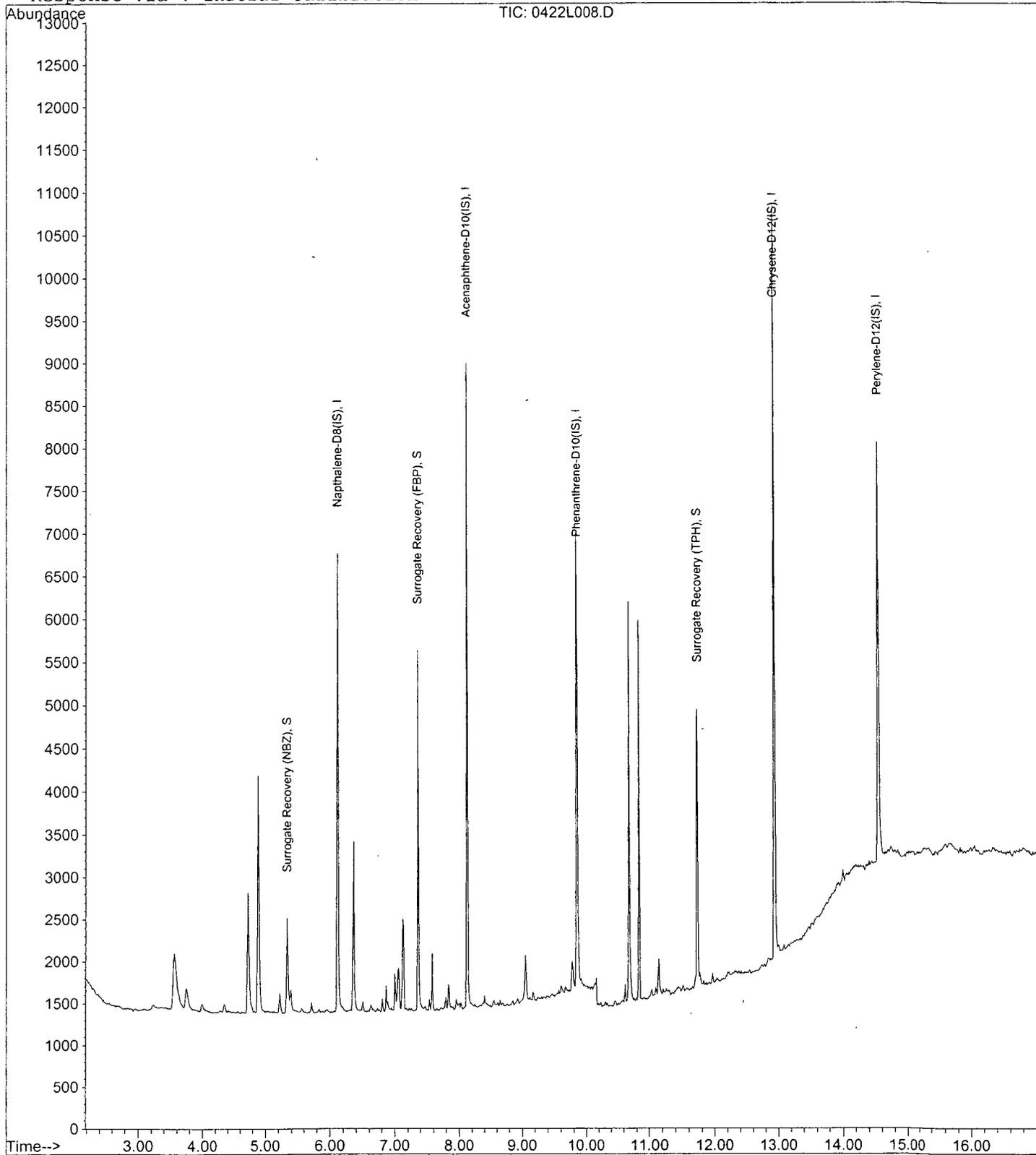
Data File : M:\LINUS\DATA\L120229\0422L008.D  
Acq On : 22 Apr 12 13:41  
Sample : AY59187W06 1/1050  
Misc :

Vial: 8  
Operator: LF  
Inst : Linus  
Multiplr: 0.95

Quant Time: Apr 23 16:10 2012

Quant Results File: SIMB.RES

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



**EPA METHOD 8270**  
**Polynuclear Aromatic Hydrocarbons**  
**Calibration Data**

**Form 6  
Initial Calibration**

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

SDG No: 67512  
Initial Cal. Date: 02/29/12  
Instrument: Linus

Initials: \_\_\_\_\_

0229L003.D    0229L004.D    0229L005.D    0229L006.D    0229L007.D    0229L008.D    0229L009.D    0229L010.D

	Compound	0.1	0.2	0.5	1	5	10	50	100			Avg	%RSD		r	
1	I	Naphthalene-D8(IS)														
2	S	Surrogate Recovery (NBZ)	0.2482	0.2256	0.2462	0.2440	0.2171	0.2327	0.2670	0.2827		0.25	8.7	S		
3	TM	Naphthalene	1.506	1.608	1.562	1.574	1.325	1.287	1.126			1.4	13	TM		
4	TM	2-Methylnaphthalene	0.8962	0.9576	0.9479	0.9511	0.8263	0.8144	0.7431	0.7273		0.86	11	TM		
5	TM	1-Methylnaphthalene	0.8541	0.8647	0.8796	0.8802	0.7838	0.7780	0.6922	0.6698		0.80	10	TM		
6	I	Acenaphthene-D10(IS)														
7	S	Surrogate Recovery (FBP)	1.606	1.554	1.731	1.634	1.565	1.629	1.553	1.403		1.6	5.9	S		
8	TM	1,1'-Biphenyl	2.138	2.145	2.246	2.082	1.979	1.931	1.704	1.571		2.0	12	TM		
9	TM	Acenaphthylene	2.594	2.556	2.650	2.501	2.372	2.428	2.200	1.916		2.4	10	TM		
10	*TM	Acenaphthene	1.563	1.492	1.519	1.435	1.390	1.363	1.267	1.160		1.4	9.6	*TM		
11	TM	Fluorene	1.795	1.796	1.859	1.726	1.669	1.690	1.582	1.441		1.7	7.9	TM		
12	I	Phenanthrene-D10(IS)														
13	TM	Phenanthrene	1.714	1.615	1.639	1.576	1.495	1.438	1.290	1.104		1.5	14	TM		
14	TM	Anthracene	1.369	1.458	1.377	1.380	1.423	1.368	1.259	1.082		1.3	8.9	TM		
15	*TM	Fluoranthene	1.923	1.896	1.919	1.851	1.865	1.835	1.685	1.576		1.8	6.8	*TM		
16	I	Chrysene-D12(IS)														
17	TM	Pyrene	1.588	1.532	1.612	1.507	1.443	1.392	1.268	1.182		1.4	11	TM		
18	S	Surrogate Recovery (TPH)	0.8061	0.7442	0.8201	0.7874	0.8133	0.8544	0.7588	0.6563		0.78	7.8	S		
19	TM	Benz (a) anthracene	1.403	1.361	1.365	1.258	1.212	1.147	1.063	1.065		1.2	11	TM		
20	TM	Chrysene	1.320	1.398	1.410	1.346	1.276	1.241	1.056	0.9180		1.2	14	TM		
21	TMQ	Indeno (1,2,3-cd) pyrene	7.776	4.408	2.527	1.790	1.291	0.9457	0.9123	0.9049		2.6	94	TMQ	1.00	
22	I	Perylene-D12(IS)														
23	TM	Benzo (b) fluoranthene	1.941	1.771	1.720	1.677	1.526	1.484	1.245	1.286		1.6	15	TM		
24	TM	Benzo (k) fluoranthene	1.461	1.239	1.438	1.321	1.364	1.390	1.356	0.9323		1.3	13	TM		
25	*TM	Benzo (a) pyrene	1.645	1.593	1.481	1.396	1.362	1.366	1.253	1.136		1.4	12	*TM		
26	TMQ	Dibenz (a,h) anthracene	2.398	1.892	1.442	1.259	1.148	1.160	1.097	1.028		1.4	34	TMQ	1.00	
27	TMQ	Benzo (g,h,i) perylene	12.9	7.045	3.555	2.361	1.431	1.308	1.150	1.082		3.9	108	TMQ	1.00	
28																
29																
30																
31																
32																
33																
34																
35																

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L003.D  
 Acq On : 1 Mar 12 00:20  
 Sample : 0.1ug/ml PAH 02-29-12  
 Misc :

Vial: 3  
 Operator: LF  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.12	136	5942	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.13	164	2911	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	9.86	188	5004	2.50000	ppb	0.00
16) Chrysene-D12 (IS)	12.93	240	6327	2.50000	ppb	0.00
22) Perylene-D12 (IS)	14.54	264	5577	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.32	82	59	0.11037	ppb	0.00
Spiked Amount	2.000		Recovery	=	5.500%	
7) Surrogate Recovery (FBP)	7.37	172	187	0.10055	ppb	0.00
Spiked Amount	2.000		Recovery	=	5.050%	
18) Surrogate Recovery (TPH)	11.73	244	204	0.09667	ppb	0.00
Spiked Amount	2.000		Recovery	=	4.850%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.14	128	358	0.11535	ppb	98
4) 2-Methylnaphthalene	6.93	142	213	0.10924	ppb	96
5) 1-Methylnaphthalene	7.05	142	203	0.10937	ppb	99
8) 1,1'-Biphenyl	7.47	154	249	0.10939	ppb	99
9) Acenaphthylene	7.96	152	302	0.10805	ppb	98
10) Acenaphthene	8.17	154	182	0.11354	ppb	93
11) Fluorene	8.76	166	209	0.10687	ppb	91
13) Phenanthrene	9.88	178	343	0.11685	ppb	98
14) Anthracene	9.94	178	274	0.09809	ppb	96
15) Fluoranthene	11.26	202	385	0.10399	ppb	97
17) Pyrene	11.51	202	402	0.11205	ppb	94
19) Benz-(a) anthracene	12.91	228	355	0.11892	ppb	98
20) Chrysene	12.96	228	334	0.10484	ppb	98
21) Indeno (1,2,3-cd) pyrene	15.99	276	1968	0.69525	ppb #	96
23) Benzo (b) fluoranthene	14.09	252	433	0.12898	ppb #	94
24) Benzo (k) fluoranthene	14.13	252	326	0.10614	ppb	98
25) Benzo (a) pyrene	14.47	252	367	0.12057	ppb	99
26) Dibenz (a,h) anthracene	16.04	278	535	0.20789	ppb	98
27) Benzo (g,h,i) perylene	16.41	276	2880	0.94271	ppb #	91

Quantitation Report

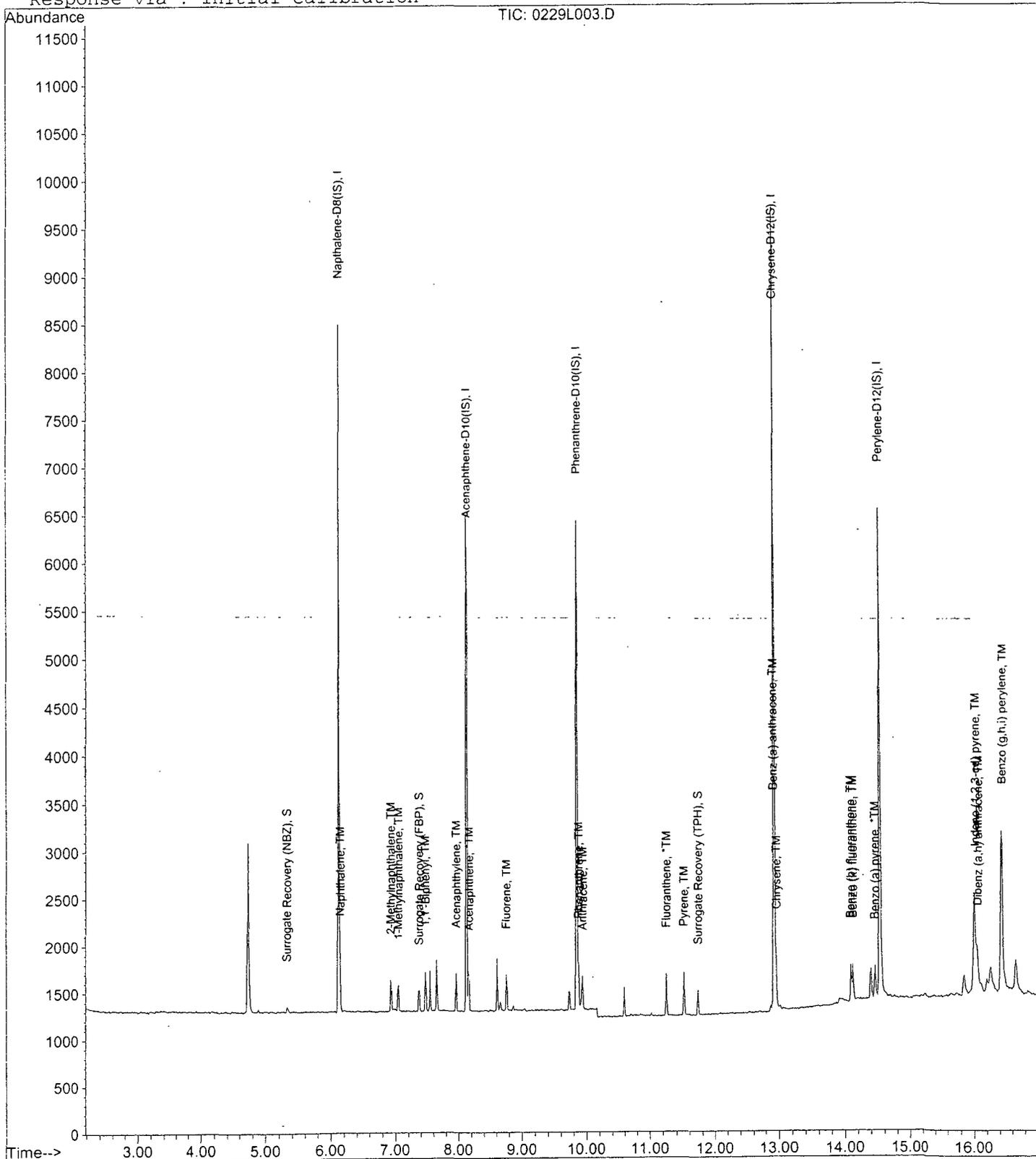
Data File : M:\LINUS\DATA\L120229\0229L003.D  
Acq On : 1 Mar 12 00:20  
Sample : 0.1ug/ml PAH 02-29-12  
Misc :

Vial: 3  
Operator: LF  
Inst : Linus  
Multiplr: 1.00

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L004.D  
 Acq On : 1 Mar 12 00:44  
 Sample : 0.2ug/ml PAH  
 Misc :

Vial: 4  
 Operator: LF  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.12	136	5652	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.13	164	2832	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	9.86	188	4715	2.50000	ppb	0.00
16) Chrysene-D12 (IS)	12.92	240	6080	2.50000	ppb	0.00
22) Perylene-D12 (IS)	14.53	264	5399	2.50000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	5.32	82	102	0.20060	ppb	0.00
Spiked Amount	2.000		Recovery	=	10.050%	
7) Surrogate Recovery (FBP)	7.37	172	352	0.19455	ppb	0.00
Spiked Amount	2.000		Recovery	=	9.750%	
18) Surrogate Recovery (TPH)	11.73	244	362	0.17851	ppb	0.00
Spiked Amount	2.000		Recovery	=	8.950%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.14	128	727	0.24627	ppb	97
4) 2-Methylnaphthalene	6.93	142	433	0.23347	ppb	94
5) 1-Methylnaphthalene	7.05	142	391	0.22147	ppb	97
8) 1,1'-Biphenyl	7.48	154	486	0.21945	ppb	# 84
9) Acenaphthylene	7.96	152	579	0.21294	ppb	100
10) Acenaphthene	8.17	154	338	0.21674	ppb	98
11) Fluorene	8.76	166	407	0.21392	ppb	95
13) Phenanthrene	9.88	178	609	0.22018	ppb	99
14) Anthracene	9.94	178	550	0.20897	ppb	97
15) Fluoranthene	11.26	202	715	0.20496	ppb	97
17) Pyrene	11.51	202	745	0.21610	ppb	97
19) Benz(a) anthracene	12.91	228	662	0.23077	ppb	98
20) Chrysene	12.96	228	680	0.22213	ppb	98
21) Indeno (1,2,3-cd) pyrene	15.99	276	2144	0.78820	ppb	# 93
23) Benzo (b) fluoranthene	14.09	252	765	0.23539	ppb	96
24) Benzo (k) fluoranthene	14.13	252	535	0.17993	ppb	# 96
25) Benzo (a) pyrene	14.46	252	688	0.23348	ppb	98
26) Dibenz (a,h) anthracene	16.03	278	817	0.32794	ppb	96
27) Benzo (g,h,i) perylene	16.41	276	3043	1.02890	ppb	95

Quantitation Report

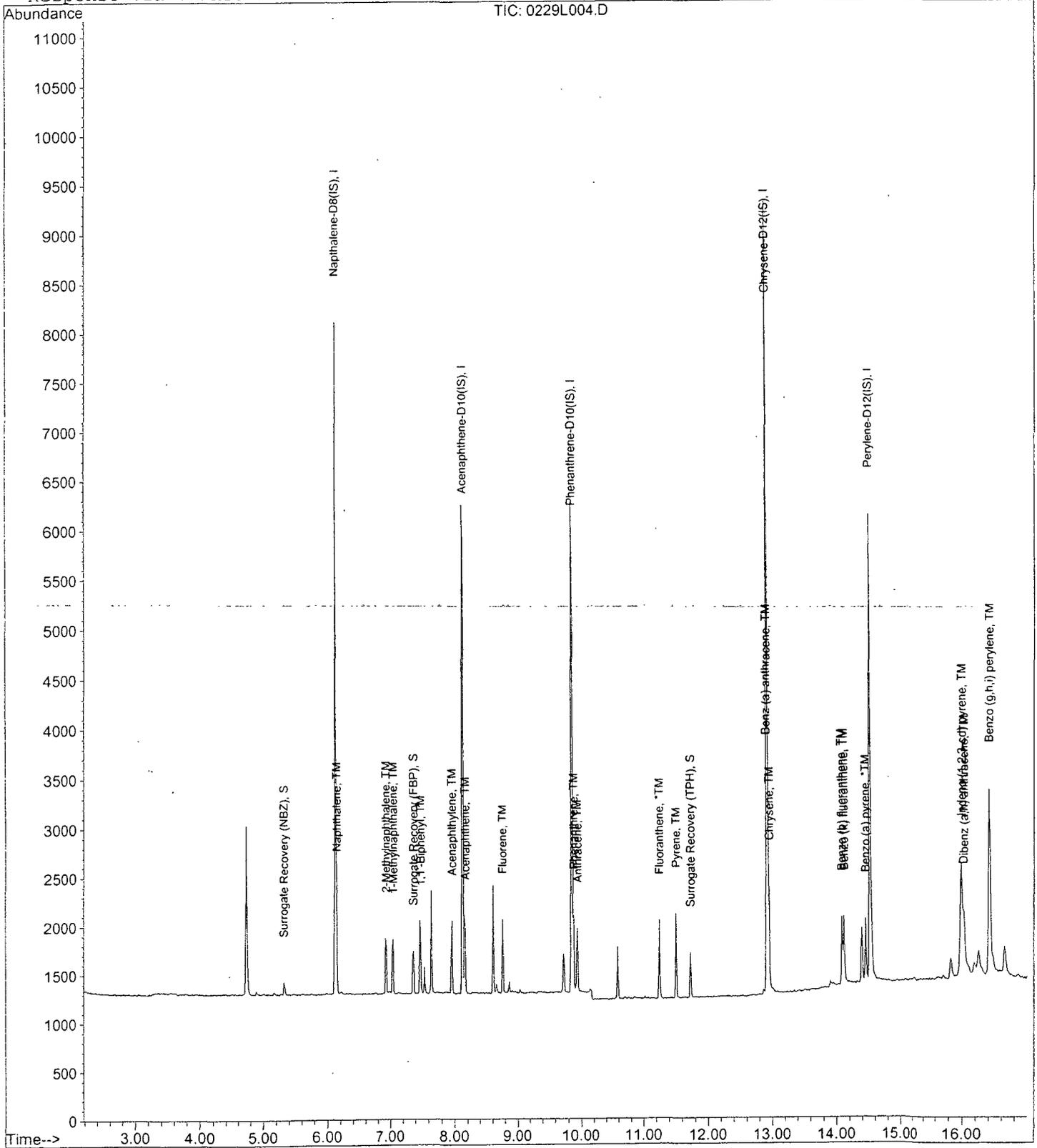
Data File : M:\LINUS\DATA\L120229\0229L004.D  
Acq On : 1 Mar 12 00:44  
Sample : 0.2ug/ml PAH  
Misc :

Vial: 4  
Operator: LF  
Inst : Linus  
Multiplr: 1.00

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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



Quantitation Report (QT Reviewed)

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

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

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.12	136	5565	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.13	164	2781	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	9.86	188	4739	2.50000	ppb	0.00
16) Chrysene-D12 (IS)	12.92	240	5969	2.50000	ppb	0.00
22) Perylene-D12 (IS)	14.54	264	5253	2.50000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	5.32	82	274	0.54730	ppb	0.00
Spiked Amount	2.000		Recovery	=	27.350%	
7) Surrogate Recovery (FBP)	7.37	172	963	0.54201	ppb	0.00
Spiked Amount	2.000		Recovery	=	27.100%	
18) Surrogate Recovery (TPH)	11.73	244	979	0.49173	ppb	0.00
Spiked Amount	2.000		Recovery	=	24.600%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.14	128	1738	0.59795	ppb	99
4) 2-Methylnaphthalene	6.93	142	1055	0.57775	ppb	98
5) 1-Methylnaphthalene	7.05	142	979	0.56319	ppb	97
8) 1,1'-Biphenyl	7.47	154	1249	0.57433	ppb	98
9) Acenaphthylene	7.96	152	1474	0.55203	ppb	99
10) Acenaphthene	8.16	154	845	0.55178	ppb	83
11) Fluorene	8.76	166	1034	0.55344	ppb	100
13) Phenanthrene	9.88	178	1553	0.55864	ppb	99
14) Anthracene	9.94	178	1305	0.49333	ppb	99
15) Fluoranthene	11.26	202	1819	0.51879	ppb	98
17) Pyrene	11.51	202	1925	0.56875	ppb	95
<del>19) Benz-(a)-anthracene</del>	<del>12.91</del>	<del>228</del>	<del>1629</del>	<del>0.57842</del>	<del>ppb</del>	<del>99</del>
20) Chrysene	12.96	228	1683	0.55999	ppb	99
21) Indeno (1,2,3-cd) pyrene	15.99	276	3017	1.12977	ppb	98
23) Benzo (b) fluoranthene	14.09	252	1807	0.57147	ppb	96
24) Benzo (k) fluoranthene	14.13	252	1511	0.52230	ppb	98
25) Benzo (a) pyrene	14.47	252	1556	0.54272	ppb	99
26) Dibenzo (a,h) anthracene	16.04	278	1515	0.62501	ppb	98
27) Benzo (g,h,i) perylene	16.41	276	3735	1.29798	ppb	94

Quantitation Report

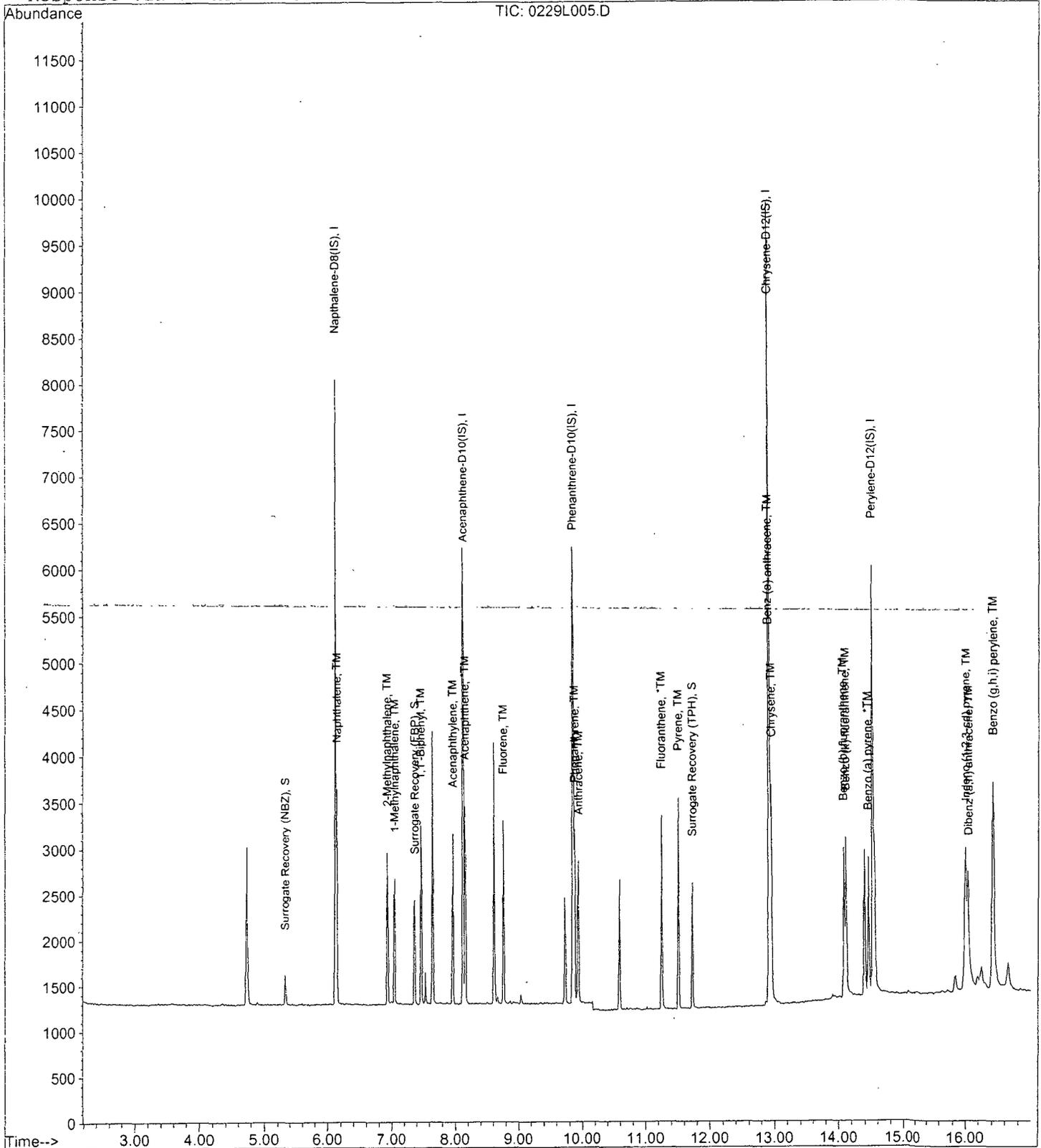
Data File : M:\LINUS\DATA\L120229\0229L005.D  
Acq On : 1 Mar 12 1:09  
Sample : 0.5ug/ml PAH  
Misc :

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

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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



Quantitation Report (QT Reviewed)

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

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

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.12	136	5215	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.13	164	2733	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	9.86	188	4543	2.50000	ppb	0.00
16) Chrysene-D12 (IS)	12.93	240	5902	2.50000	ppb	0.00
22) Perylene-D12 (IS)	14.54	264	5053	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.32	82	509	1.08494	ppb	0.00
Spiked Amount	2.000		Recovery	=	54.250%	
7) Surrogate Recovery (FBP)	7.37	172	1786	1.02288	ppb	0.00
Spiked Amount	2.000		Recovery	=	51.150%	
18) Surrogate Recovery (TPH)	11.73	244	1859	0.94434	ppb	0.00
Spiked Amount	2.000		Recovery	=	47.200%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.14	128	3283	1.20530	ppb	99
4) 2-Methylnaphthalene	6.93	142	1984	1.15942	ppb	98
5) 1-Methylnaphthalene	7.05	142	1836	1.12708	ppb	99
8) 1,1'-Biphenyl	7.48	154	2276	1.06496	ppb #	84
9) Acenaphthylene	7.96	152	2734	1.04189	ppb	99
10) Acenaphthene	8.16	154	1569	1.04254	ppb #	81
11) Fluorene	8.76	166	1887	1.02774	ppb	97
13) Phenanthrene	9.88	178	2864	1.07467	ppb	99
14) Anthracene	9.94	178	2508	0.98900	ppb	99
15) Fluoranthene	11.26	202	3364	1.00084	ppb	98
17) Pyrene	11.51	202	3558	1.06316	ppb	94
19) Benz(a) anthracene	12.91	228	2969	1.06618	ppb	100
20) Chrysene	12.96	228	3178	1.06942	ppb	99
21) Indeno (1,2,3-cd) pyrene	15.99	276	4226	1.60046	ppb #	98
23) Benzo (b) fluoranthene	14.09	252	3390	1.11454	ppb	98
24) Benzo (k) fluoranthene	14.13	252	2669	0.95910	ppb	99
25) Benzo (a) pyrene	14.47	252	2821	1.02288	ppb	97
26) Dibenz (a,h) anthracene	16.04	278	2545	1.09150	ppb	99
27) Benzo (g,h,i) perylene	16.41	276	4772	1.72400	ppb	94

Quantitation Report

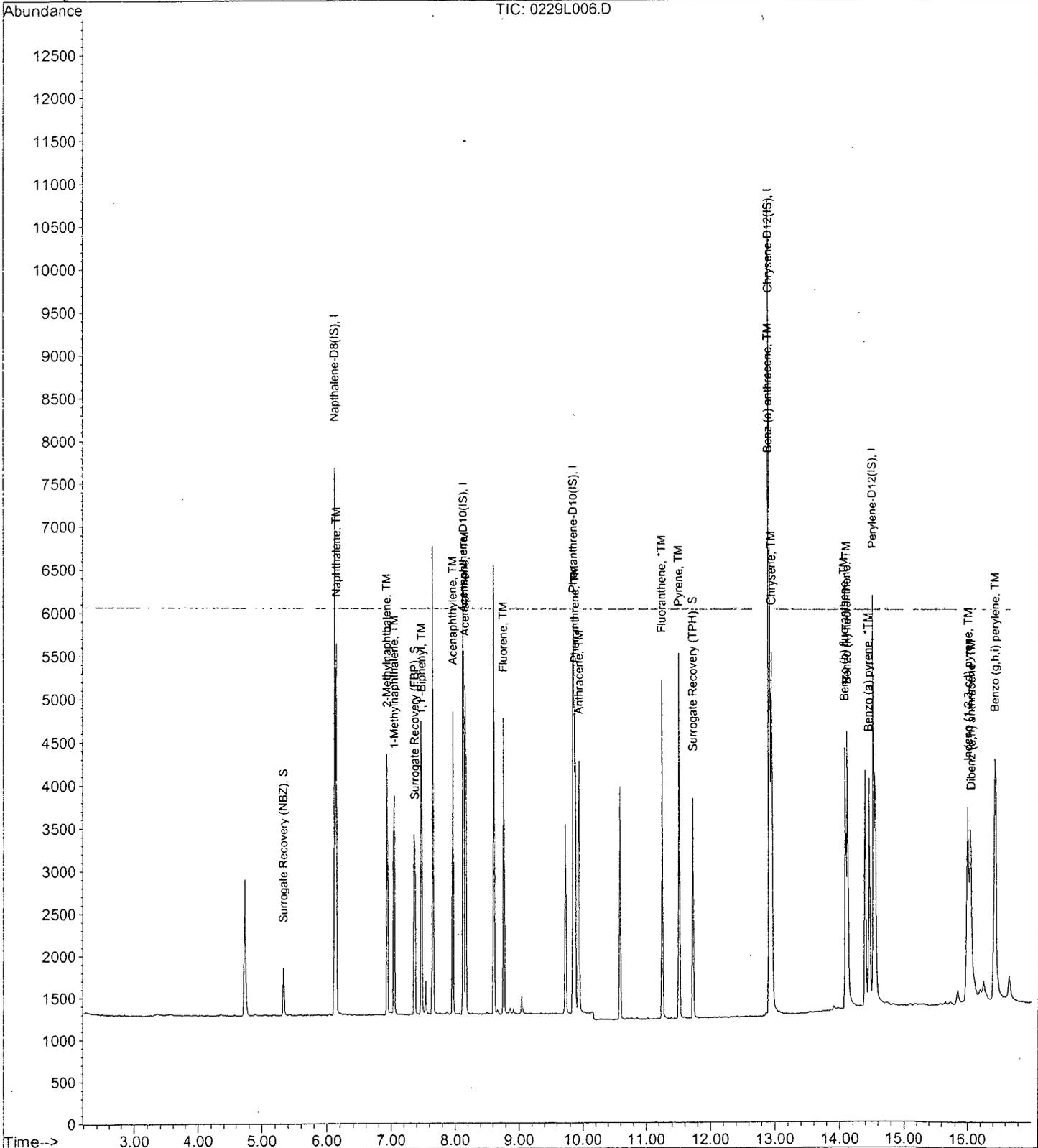
Data File : M:\LINUS\DATA\L120229\0229L006.D  
Acq On : 1 Mar 12 1:34  
Sample : 1.0ug/ml PAH  
Misc :

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

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L007.D  
 Acq On : 1 Mar 12 1:59  
 Sample : 5.0ug/ml PAH  
 Misc :

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

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.12	136	5710	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.13	164	2760	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	9.86	188	4470	2.50000	ppb	0.00
16) Chrysene-D12 (IS)	12.93	240	6006	2.50000	ppb	0.00
22) Perylene-D12 (IS)	14.54	264	5058	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.32	82	2479	4.82594	ppb	0.00
Spiked Amount	2.000		Recovery	= 241.300%		
7) Surrogate Recovery (FBP)	7.37	172	8641	4.90046	ppb	0.00
Spiked Amount	2.000		Recovery	= 245.000%		
18) Surrogate Recovery (TPH)	11.73	244	9769	4.87655	ppb	0.00
Spiked Amount	2.000		Recovery	= 243.850%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.14	128	15130	5.07319	ppb	100
4) 2-Methylnaphthalene	6.93	142	9436	5.03624	ppb	100
5) 1-Methylnaphthalene	7.05	142	8951	5.01847	ppb	100
8) 1,1'-Biphenyl	7.47	154	10923	5.06097	ppb	100
9) Acenaphthylene	7.96	152	13095	4.94152	ppb	100
10) Acenaphthene	8.17	154	7674	5.04922	ppb	100
11) Fluorene	8.76	166	9212	4.96816	ppb	100
13) Phenanthrene	9.88	178	13364	5.09651	ppb	100
14) Anthracene	9.94	178	12720	5.09789	ppb	100
15) Fluoranthene	11.26	202	16671	5.04085	ppb	100
17) Pyrene	11.51	202	17331	5.08899	ppb	100
19) Benz-(a) anthracene	12.91	228	14556	5.13662	ppb	100
20) Chrysene	12.96	228	15329	5.06901	ppb	100
21) Indeno (1,2,3-cd) pyrene	15.99	276	15511	5.77257	ppb #	100
23) Benzo (b) fluoranthene	14.09	252	15432	5.06859	ppb	100
24) Benzo (k) fluoranthene	14.13	252	13796	4.95267	ppb	100
25) Benzo (a) pyrene	14.47	252	13783	4.99271	ppb	100
26) Dibenz (a,h) anthracene	16.04	278	11610	4.97436	ppb	100
27) Benzo (g,h,i) perylene	16.43	276	14480	5.22607	ppb	100

Quantitation Report

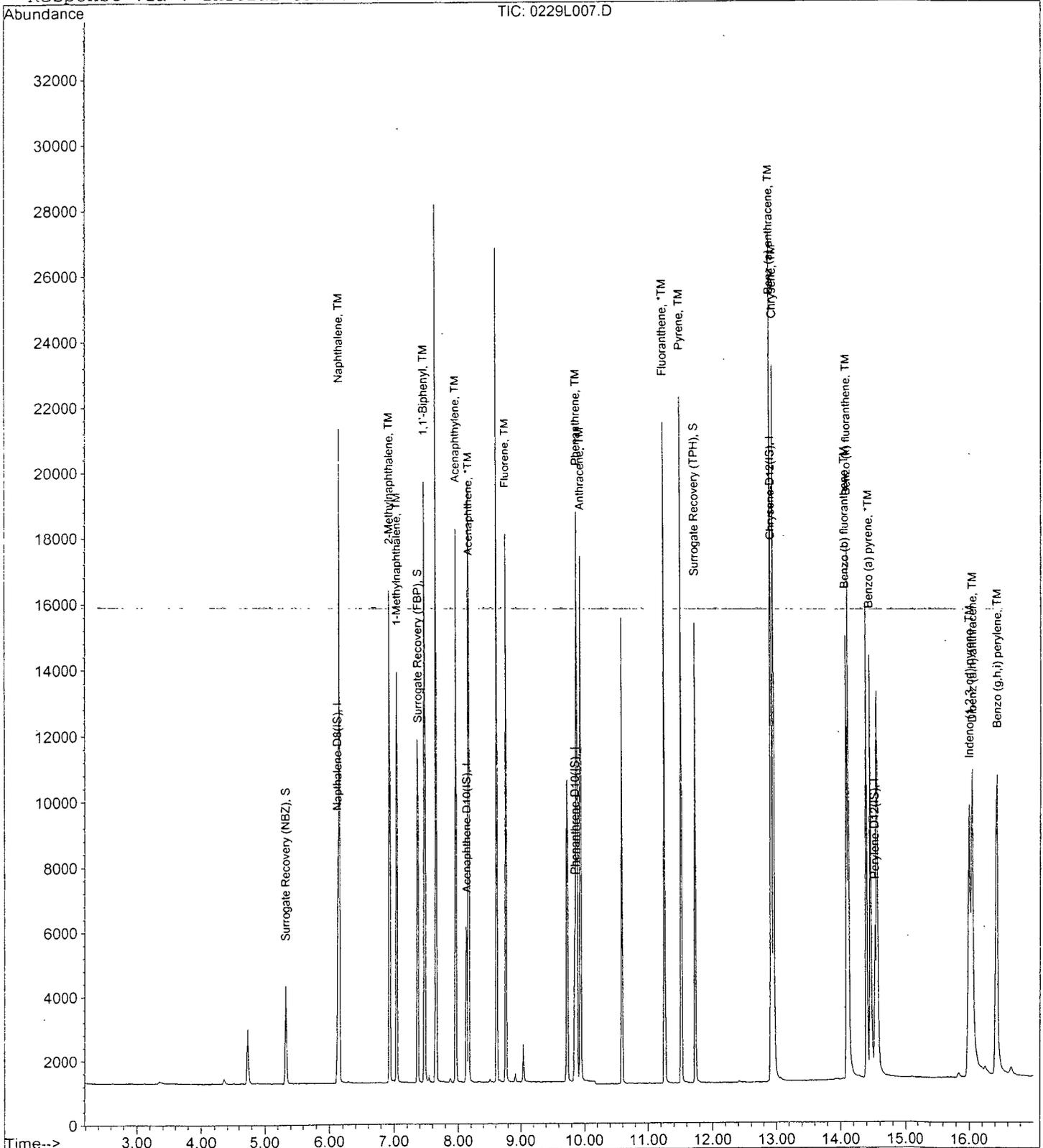
Data File : M:\LINUS\DATA\L120229\0229L007.D  
Acq On : 1 Mar 12 1:59  
Sample : 5.0ug/ml PAH  
Misc :

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

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L008.D  
 Acq On : 1 Mar 12 2:24  
 Sample : 10ug/ml PAH  
 Misc :

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

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.12	136	5922	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.13	164	2882	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	9.86	188	4817	2.50000	ppb	0.00
16) Chrysene-D12 (IS)	12.92	240	6477	2.50000	ppb	0.00
22) Perylene-D12 (IS)	14.53	264	5338	2.50000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	5.32	82	5513	10.34812	ppb	0.00
Spiked Amount 2.000			Recovery =	517.400%		
7) Surrogate Recovery (FBP)	7.37	172	18779	10.19907	ppb	0.00
Spiked Amount 2.000			Recovery =	509.950%		
18) Surrogate Recovery (TPH)	11.73	244	22137	10.24690	ppb	0.00
Spiked Amount 2.000			Recovery =	512.350%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.14	128	30478	9.85363	ppb	100
4) 2-Methylnaphthalene	6.93	142	19291	9.92752	ppb	99
5) 1-Methylnaphthalene	7.05	142	18430	9.96306	ppb	100
8) 1,1'-Biphenyl	7.48	154	22262	9.87805	ppb	# 83
9) Acenaphthylene	7.96	152	27995	10.11697	ppb	100
10) Acenaphthene	8.17	154	15714	9.90157	ppb	99
11) Fluorene	8.76	166	19485	10.06368	ppb	98
13) Phenanthrene	9.88	178	27712	9.80698	ppb	99
14) Anthracene	9.94	178	26362	9.80421	ppb	100
15) Fluoranthene	11.26	202	35348	9.91831	ppb	100
17) Pyrene	11.51	202	36073	9.82203	ppb	97
19) Benz-(a)-anthracene	12.91	228	29725	9.72677	ppb	99
20) Chrysene	12.96	228	32162	9.86198	ppb	99
21) Indeno (1,2,3-cd) pyrene	15.99	276	24500	8.45487	ppb	# 100
23) Benzo (b) fluoranthene	14.09	252	31691	9.86282	ppb	99
24) Benzo (k) fluoranthene	14.13	252	29676	10.09466	ppb	99
25) Benzo (a) pyrene	14.46	252	29177	10.01459	ppb	100
26) Dibenz (a,h) anthracene	16.04	278	24758	10.05127	ppb	99
27) Benzo (g,h,i) perylene	16.43	276	27919	9.54787	ppb	100

Quantitation Report

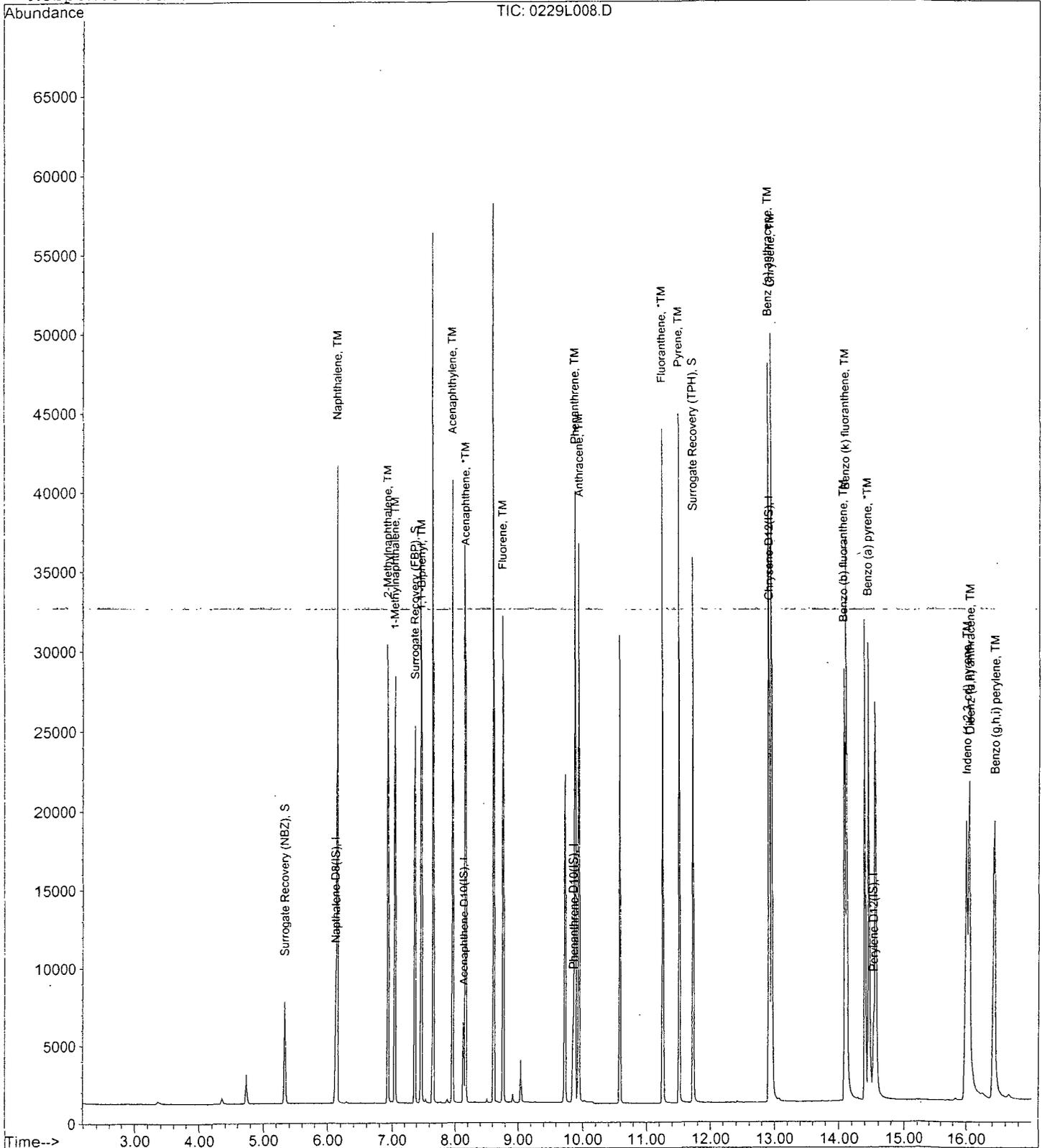
Data File : M:\LINUS\DATA\L120229\0229L008.D  
Acq On : 1 Mar 12 2:24  
Sample : 10ug/ml PAH  
Misc :

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

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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



Quantitation Report (QT Reviewed)

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

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

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.12	136	5719	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.13	164	2718	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	9.86	188	4593	2.50000	ppb	0.00
16) Chrysene-D12 (IS)	12.94	240	6372	2.50000	ppb	0.01
22) Perylene-D12 (IS)	14.54	264	5338	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.32	82	30540	59.35955	ppb	0.00
Spiked Amount	2.000		Recovery	= 2968.000%		
7) Surrogate Recovery (FBP)	7.37	172	84407	48.60839	ppb	0.00
Spiked Amount	2.000		Recovery	= 2430.400%		
18) Surrogate Recovery (TPH)	11.73	244	96696	45.49676	ppb	0.00
Spiked Amount	2.000		Recovery	= 2274.850%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.14	128	128767	43.10846	ppb	99
4) 2-Methylnaphthalene	6.94	142	84994	45.29212	ppb	87
5) 1-Methylnaphthalene	7.05	142	79171	44.31818	ppb	100
8) 1,1'-Biphenyl	7.48	154	92639	43.58586	ppb #	84
9) Acenaphthylene	7.96	152	119609	45.83300	ppb	98
10) Acenaphthene	8.17	154	68862	46.00885	ppb	98
11) Fluorene	8.77	166	86013	47.10480	ppb	90
13) Phenanthrene	9.88	178	118464	43.96772	ppb	98
14) Anthracene	9.94	178	115636	45.10324	ppb	98
15) Fluoranthene	11.26	202	154795	45.55225	ppb #	92
17) Pyrene	11.52	202	161556	44.71366	ppb #	81
19) Benz(a)anthracene	12.92	228	135460	45.05633	ppb	95
20) Chrysene	12.96	228	134623	41.96027	ppb #	96
21) Indeno (1,2,3-cd) pyrene	16.01	276	116267	40.78451	ppb	95
23) Benzo (b) fluoranthene	14.10	252	132868	41.35096	ppb #	92
24) Benzo (k) fluoranthene	14.14	252	144725	49.23001	ppb #	96
25) Benzo (a) pyrene	14.48	252	133729	45.90057	ppb	96
26) Dibenz (a,h) anthracene	16.05	278	117167	47.56756	ppb	99
27) Benzo (g,h,i) perylene	16.44	276	122767	41.98443	ppb	94

Quantitation Report

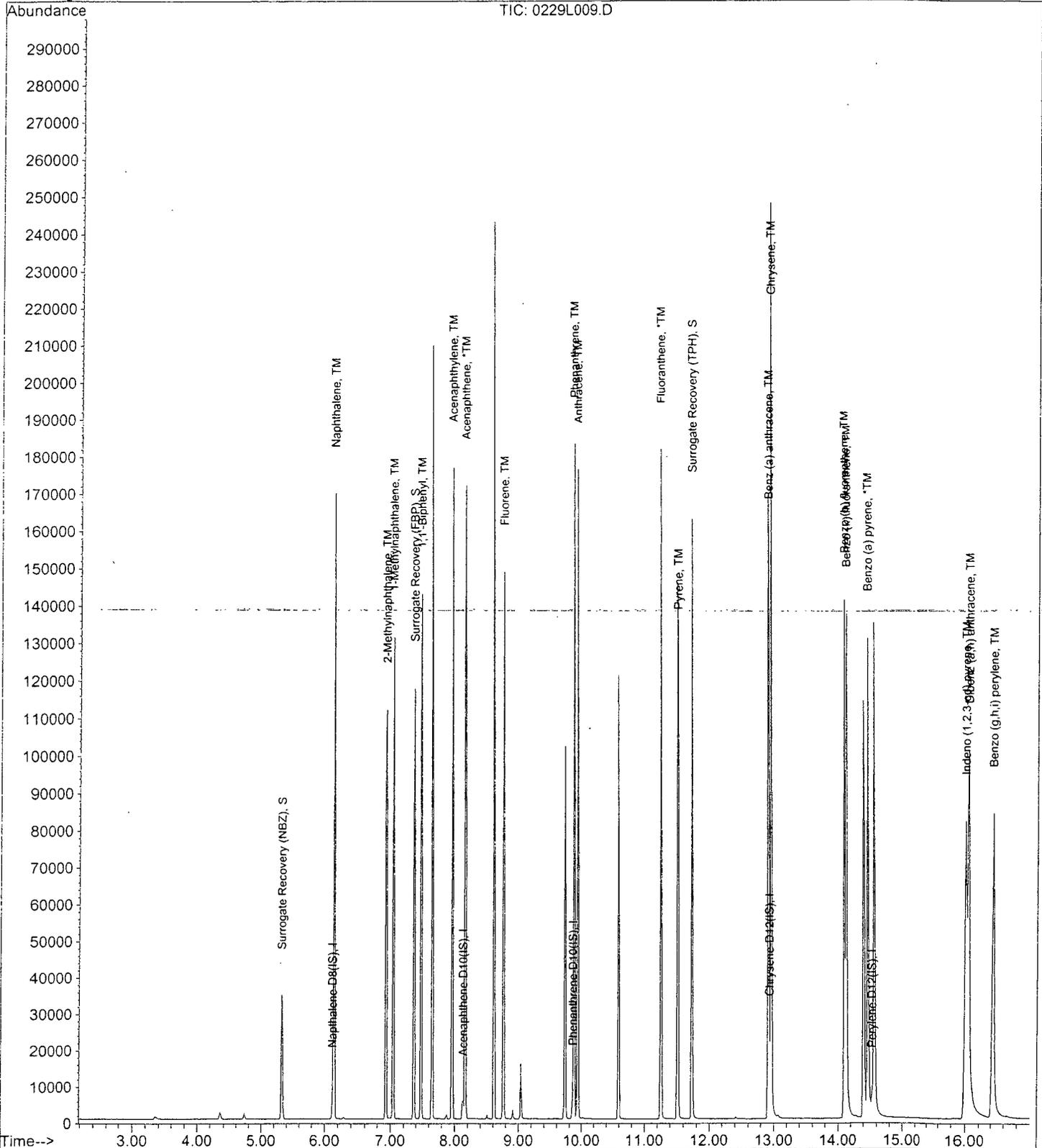
Data File : M:\LINUS\DATA\L120229\0229L009.D  
 Acq On : 1 Mar 12 2:49  
 Sample : 50ug/ml PAH  
 Misc :

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

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L010.D  
 Acq On : 1 Mar 12 3:14  
 Sample : 100ug/ml PAH  
 Misc :

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

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.12	136	5584	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.13	164	2832	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	9.86	188	4766	2.50000	ppb	0.00
16) Chrysene-D12 (IS)	12.94	240	6566	2.50000	ppb	0.01
22) Perylene-D12 (IS)	14.55	264	5654	2.50000	ppb	0.01

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.33	82	63151	125.71194	ppb	0.01
Spiked Amount	2.000		Recovery	= 6285.600%		
7) Surrogate Recovery (FBP)	7.37	172	158975	87.86538	ppb	0.00
Spiked Amount	2.000		Recovery	= 4393.250%		
18) Surrogate Recovery (TPH)	11.73	244	172379	78.71024	ppb	0.00
Spiked Amount	2.000		Recovery	= 3935.500%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.14	128	230712	79.10479	ppb	98
4) 2-Methylnaphthalene	6.94	142	162439	88.65422	ppb	89
5) 1-Methylnaphthalene	7.05	142	149617	85.77710	ppb	98
8) 1,1'-Biphenyl	7.48	154	177959	80.35777	ppb #	87
9) Acenaphthylene	7.96	152	217090	79.83814	ppb	97
10) Acenaphthene	8.17	154	131352	84.22765	ppb	96
11) Fluorene	8.77	166	163286	85.82351	ppb	93
13) Phenanthrene	9.88	178	210497	75.28975	ppb	97
14) Anthracene	9.94	178	206234	77.52064	ppb	97
15) Fluoranthene	11.27	202	300423	85.19782	ppb #	88
17) Pyrene	11.52	202	310532	83.40621	ppb #	89
<del>19) Benz(a) anthracene</del>	<del>12.93</del>	<del>228</del>	<del>279782</del>	<del>90.31073</del>	<del>ppb</del>	<del>97</del>
20) Chrysene	12.97	228	241095	72.92596	ppb	97
21) Indeno (1,2,3-cd) pyrene	16.02	276	237656	80.90259	ppb	92
23) Benzo (b) fluoranthene	14.10	252	290761	85.43269	ppb	97
24) Benzo (k) fluoranthene	14.14	252	210844	67.71274	ppb #	94
25) Benzo (a) pyrene	14.48	252	256847	83.23189	ppb #	94
26) Dibenz (a,h) anthracene	16.06	278	232404	89.07830	ppb	99
27) Benzo (g,h,i) perylene	16.46	276	244670	78.99690	ppb	96

Quantitation Report

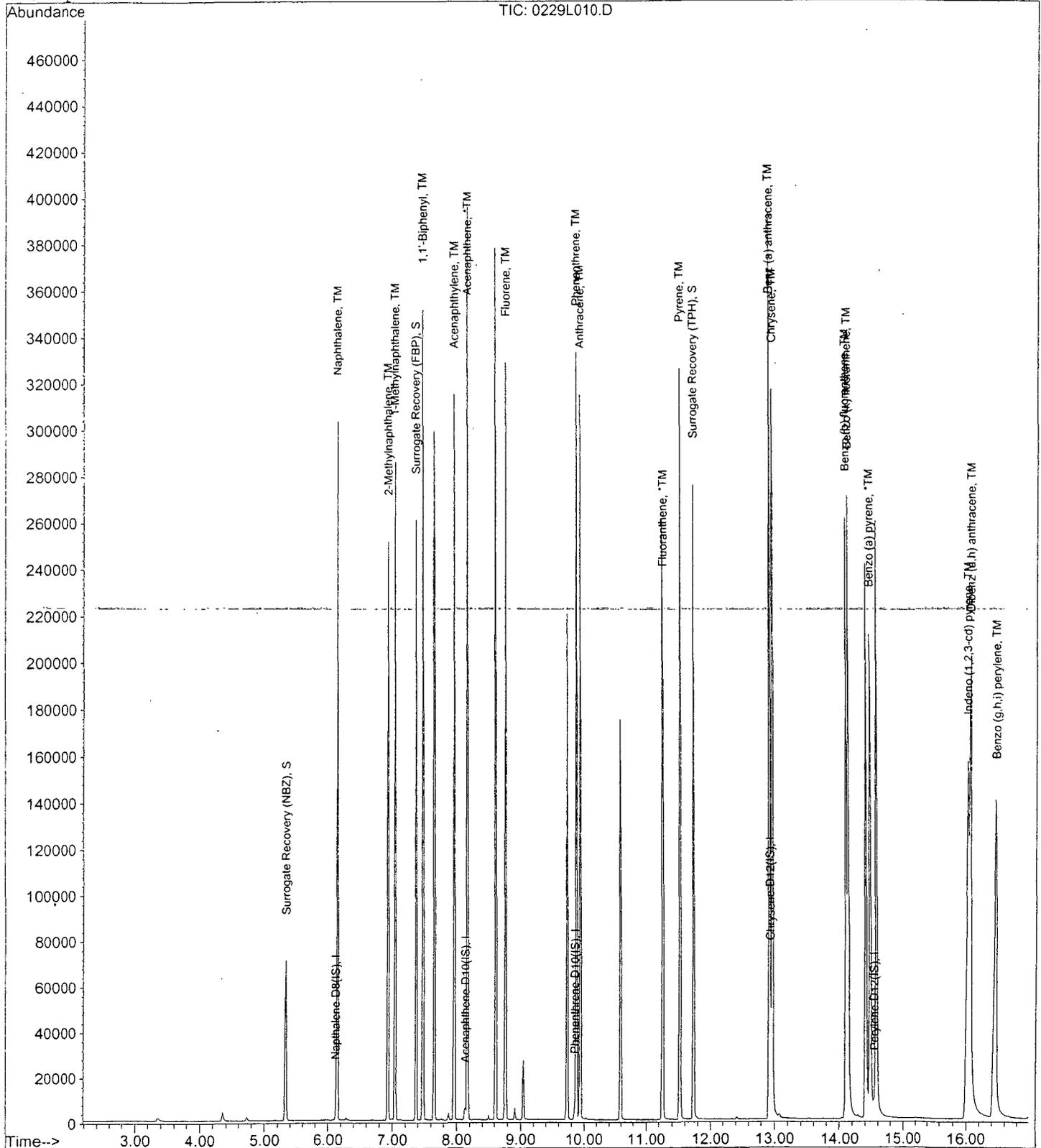
Data File : M:\LINUS\DATA\L120229\0229L010.D  
 Acq On : 1 Mar 12 3:14  
 Sample : 100ug/ml PAH  
 Misc :

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

Quant Time: Mar 1 8:01 2012

Quant Results File: SIMB.RES

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



EPA 8270C SIM

Form 7

Second Source Calibration

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

SDG No: 67512  
 Date Analyzed: 1 Mar 12 3:39  
 Instrument: Linus  
 Initial Cal. Date: 02/29/12  
 Data File: 0229L011.D

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

Average

10.6

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L120229\0229L011.D  
 Acq On : 1 Mar 12 3:39  
 Sample : 5.0ug/ml SS PAH 02-29-12  
 Misc :

Vial: 11  
 Operator: LF  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Mar 1 8:49 2012

Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.12	136	6095	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.12	164	2897	2.50000	ppb	-0.01
12) Phenanthrene-D10 (IS)	9.86	188	4786	2.50000	ppb	0.00
16) Chrysene-D12 (IS)	12.92	240	6313	2.50000	ppb	0.00
22) Perylene-D12 (IS)	14.53	264	5186	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	0.00	82	0d	0.00000	ppb	
Spiked Amount	2.000		Recovery	=	0.000%	
7) Surrogate Recovery (FBP)	0.00	172	0d	0.00000	ppb	
Spiked Amount	2.000		Recovery	=	0.000%	
18) Surrogate Recovery (TPH)	0.00	244	0d	0.00000	ppb	
Spiked Amount	2.000		Recovery	=	0.000%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.14	128	15266	4.38901	ppb	100
4) 2-Methylnaphthalene	6.93	142	9442	4.51396	ppb	100
5) 1-Methylnaphthalene	7.05	142	9103	4.66547	ppb	99
8) 1,1'-Biphenyl	7.47	154	10782	4.71225	ppb	100
9) Acenaphthylene	7.96	152	13210	4.74551	ppb	100
10) Acenaphthene	8.16	154	7765	4.79105	ppb	85
11) Fluorene	8.76	166	9540	4.85727	ppb	100
13) Phenanthrene	9.88	178	13730	4.83383	ppb	100
14) Anthracene	9.94	178	12504	4.87627	ppb	100
15) Fluoranthene	11.26	202	16883	4.84901	ppb	99
17) Pyrene	11.51	202	17602	4.83859	ppb	100
<del>19) Benz(a)anthracene</del>	<del>12.91</del>	<del>228</del>	<del>14301</del>	<del>4.58882</del>	<del>ppb</del>	<del>99</del>
20) Chrysene	12.96	228	15624	4.96689	ppb	99
21) Indeno (1,2,3-cd) pyrene	15.99	276	13708	5.79850	ppb	99
23) Benzo (b) fluoranthene	14.09	252	16432	5.00982	ppb	99
24) Benzo (k) fluoranthene	14.13	252	13837	5.08206	ppb	99
25) Benzo (a) pyrene	14.46	252	14485	4.97343	ppb	98
26) Dibenz (a,h) anthracene	16.04	278	13464	5.59460	ppb	100
27) Benzo (g,h,i) perylene	16.43	276	14534	5.68375	ppb	99

Quantitation Report

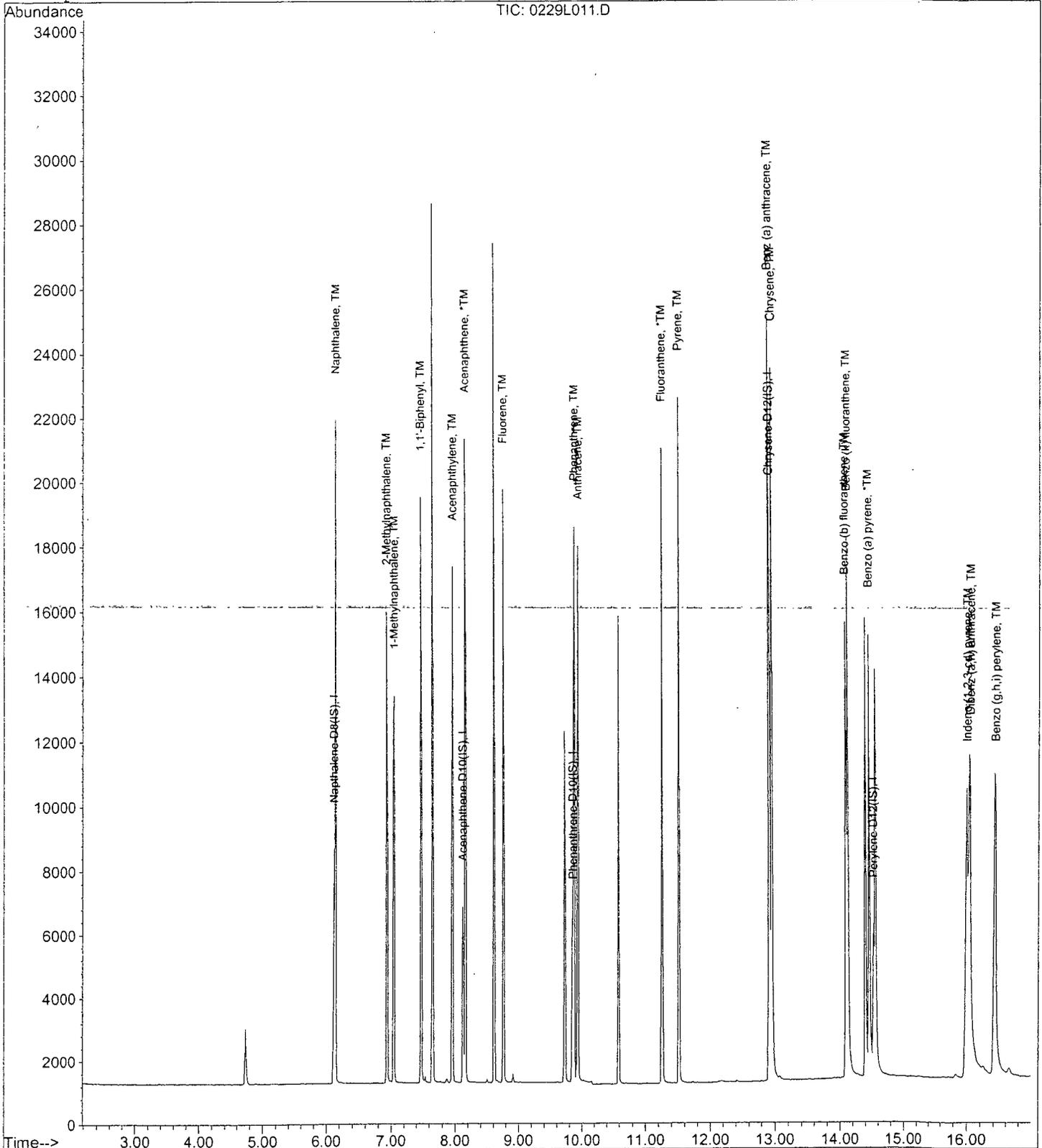
Data File : M:\LINUS\DATA\L120229\0229L011.D  
Acq On : 1 Mar 12 3:39  
Sample : 5.0ug/ml SS PAH 02-29-12  
Misc :

Vial: 11  
Operator: LF  
Inst : Linus  
Multiplr: 1.00

Quant Time: Mar 1 8:49 2012

Quant Results File: SIMB.RES

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



EPA 8270C SIM

Form 7

Continuing Calibration

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

SDG No: 6752  
 Date Analyzed: 04/22/12  
 Instrument: Linus  
 Initial Cal. Date: 02/29/12  
 Data File: 0422L002.D

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

Average

12.4

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

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8(IS)	6.12	136	6084	2.50000	ppb	0.00
6) Acenaphthene-D10(IS)	8.12	164	3082	2.50000	ppb	-0.01
12) Phenanthrene-D10(IS)	9.86	188	5219	2.50000	ppb	0.00
16) Chrysene-D12(IS)	12.94	240	6560	2.50000	ppb	0.01
22) Perylene-D12(IS)	14.56	264	5823	2.50000	ppb	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	5.33	82	3069	5.13801	ppb	0.01
Spiked Amount 2.000			Recovery =	256.900%		
7) Surrogate Recovery (FBP)	7.36	172	10789	5.52358	ppb	-0.01
Spiked Amount 2.000			Recovery =	276.200%		
18) Surrogate Recovery (TPH)	11.73	244	12177	5.94892	ppb	0.00
Spiked Amount 2.000			Recovery =	297.450%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.14	128	15020	4.32609	ppb	100
4) 2-Methylnaphthalene	6.93	142	10146	4.85930	ppb	95
5) 1-Methylnaphthalene	7.03	142	9448	4.85104	ppb	91
8) 1,1'-Biphenyl	7.47	154	11494	4.72189	ppb #	91
9) Acenaphthylene	7.96	152	14058	4.74700	ppb	100
10) Acenaphthene	8.16	154	8268	4.79518	ppb	89
11) Fluorene	8.76	166	9800	4.69014	ppb	99
13) Phenanthrene	9.88	178	14280	4.61036	ppb	98
14) Anthracene	9.94	178	13707	4.90192	ppb	98
15) Fluoranthene	11.27	202	19212	5.06013	ppb #	93
17) Pyrene	11.52	202	19890	5.26167	ppb #	89
19) Benz (a) anthracene	12.92	228	16682	5.15128	ppb	99
20) Chrysene	12.97	228	15523	4.74897	ppb	99
21) Indeno (1,2,3-cd) pyrene	16.05	276	13772	5.60583	ppb	99
23) Benzo (b) fluoranthene	14.11	252	15671	4.25515	ppb	95
24) Benzo (k) fluoranthene	14.15	252	16972	5.55158	ppb #	90
25) Benzo (a) pyrene	14.49	252	15539	4.75167	ppb	99
26) Dibenz (a,h) anthracene	16.08	278	13798	5.10315	ppb #	94
27) Benzo (g,h,i) perylene	16.50	276	14031	4.88167	ppb	98

Quantitation Report

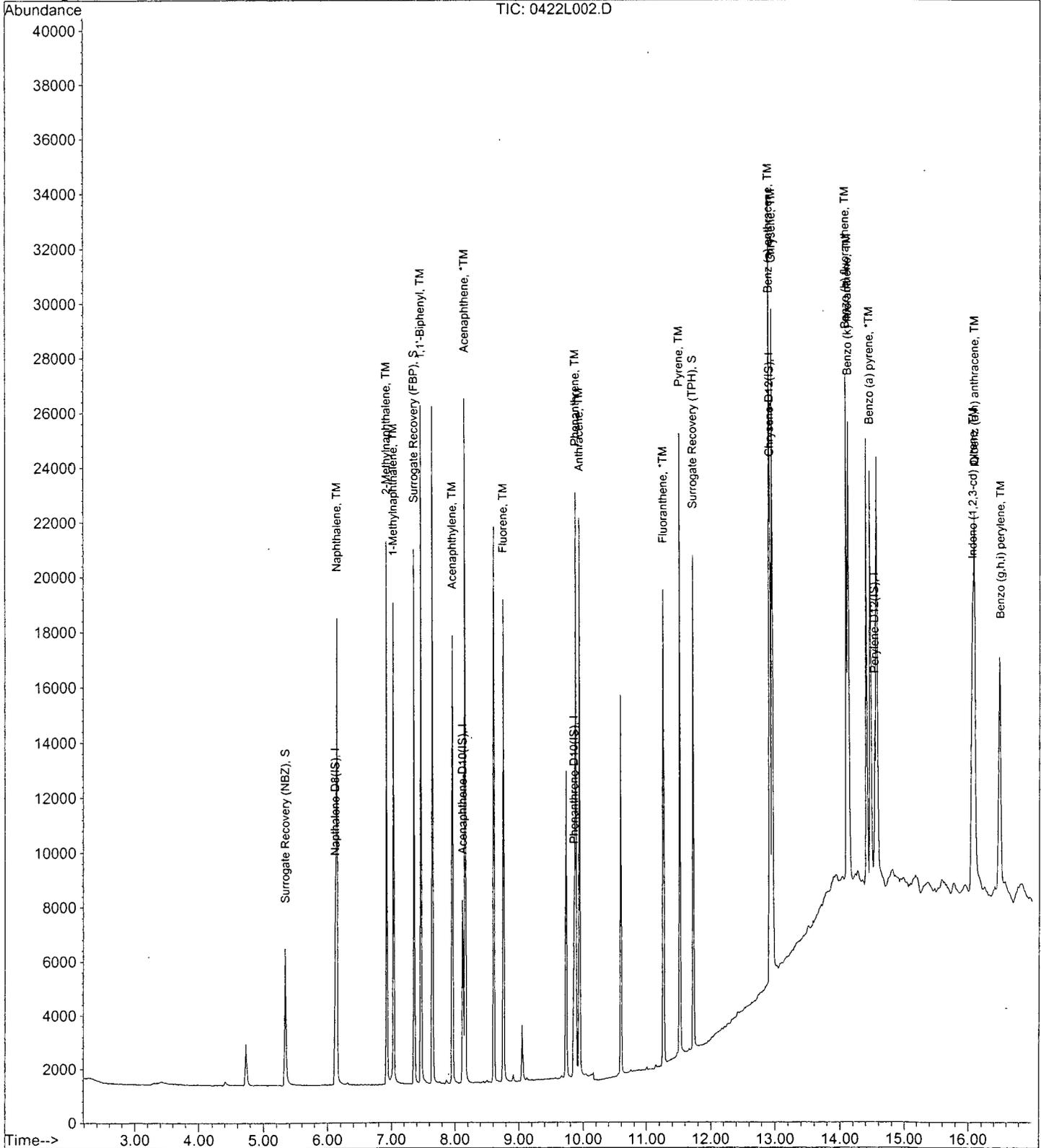
Data File : M:\LINUS\DATA\L120229\0422L002.D  
Acq On : 22 Apr 12 11:06  
Sample : 5.0ug/ml PAH 02-29-12  
Misc :

Vial: 2  
Operator: LF  
Inst : Linus  
Multiplr: 1.00

Quant Time: Apr 23 16:03 2012

Quant Results File: SIMB.RES

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



**EPA METHOD 8270**  
**Polynuclear Aromatic Hydrocarbons**  
**Raw Data**

**Method Blank**  
**EPA 8270D SIM**

Blank Name/QCG: **120418W-59184 - 166433**  
Batch ID: #SIMHC-120418A

APPL Inc.  
908 North Temperance Avenue  
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	04/18/12	04/22/12
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
BLANK	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	04/18/12	04/22/12
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	04/18/12	04/22/12
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/18/12	04/22/12
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/18/12	04/22/12
BLANK	SURROGATE: 2-FLUORBIPHENY	50.4	50-110			%	04/18/12	04/22/12
BLANK	SURROGATE: NITROBENZENE-	58.2	40-110			%	04/18/12	04/22/12
BLANK	SURROGATE: TERPHENYL-D14 (	66.0	50-135			%	04/18/12	04/22/12

Quant Method: SIMB.M  
Run #: 0422L003  
Instrument: Linus  
Sequence: L120229  
Initials: LF

Printed: 05/02/12 1:09:19 PM  
GC SC-Blank-REG MDLs

Data File : M:\LINUS\DATA\L120229\0422L003.D Vial: 3  
 Acq On : 22 Apr 12 11:32 Operator: LF  
 Sample : 120418A BLK 1/1000 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Apr 23 16:07 2012 Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.12	136	6252	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.12	164	3283	2.50000	ppb	-0.01
12) Phenanthrene-D10 (IS)	9.86	188	5758	2.50000	ppb	0.00
16) Chrysene-D12 (IS)	12.94	240	7397	2.50000	ppb	0.01
22) Perylene-D12 (IS)	14.56	264	6593	2.50000	ppb	0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.33	82	714	1.16323	ppb	0.01
Spiked Amount	2.000		Recovery	=	58.150%	
7) Surrogate Recovery (FBP)	7.36	172	2095	1.00690	ppb	-0.01
Spiked Amount	2.000		Recovery	=	50.350%	
18) Surrogate Recovery (TPH)	11.73	244	3046	1.31970	ppb	0.00
Spiked Amount	2.000		Recovery	=	66.000%	

Target Compounds Qvalue

Quantitation Report

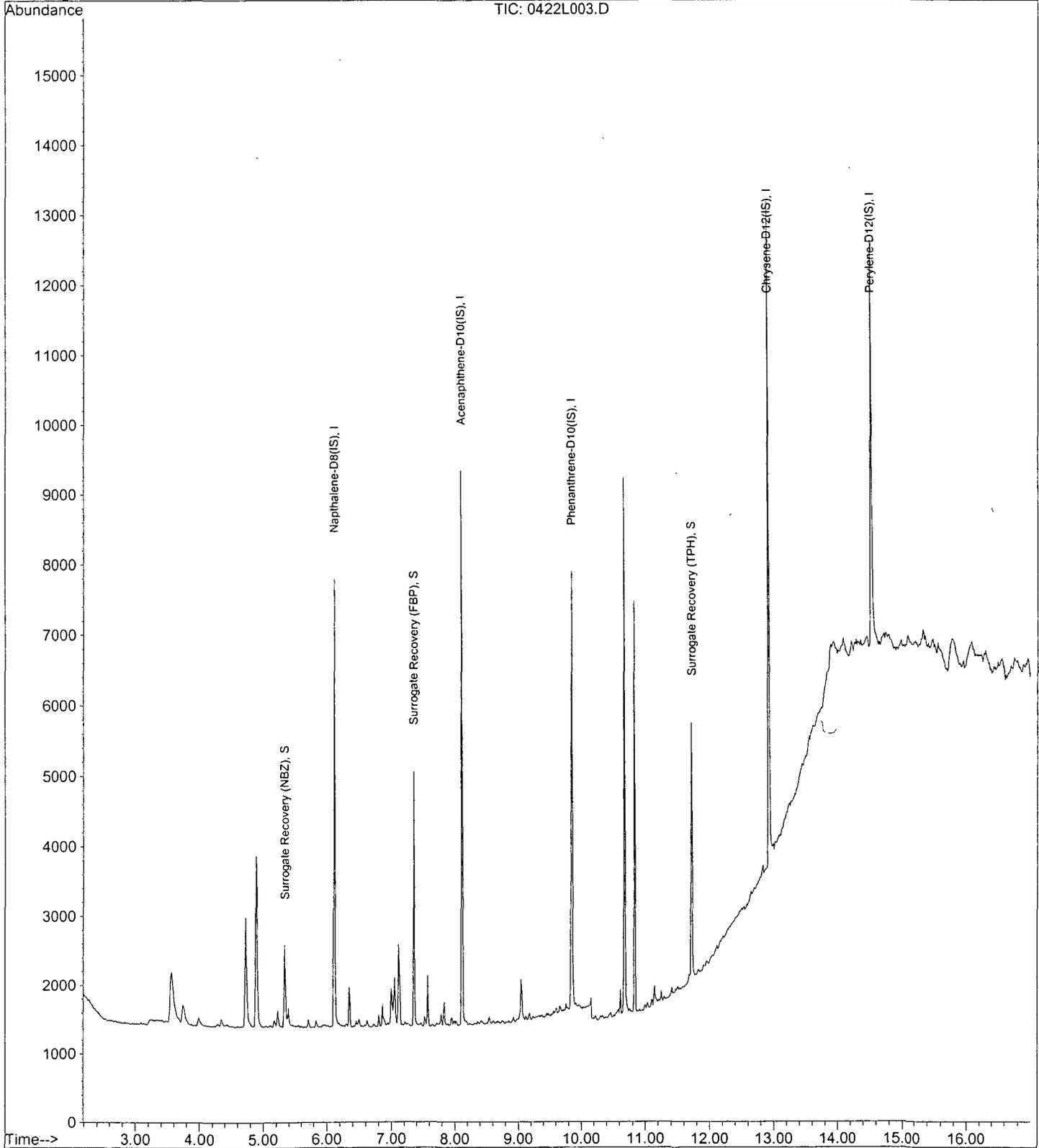
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Acq On : 22 Apr 12 11:32  
Sample : 120418A BLK 1/1000  
Misc :

Vial: 3  
Operator: LF  
Inst : Linus  
Multiplr: 1.00

Quant Time: Apr 23 16:07 2012

Quant Results File: SIMB.RES

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



# Laboratory Control Spike Recovery

## EPA 8270D SIM

APPL ID: 120418W-59184 LCS - 166433  
 Batch ID: #SIMHC-120418A

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	2.28	57.0	45-105
2-METHYLNAPHTHALENE	4.00	2.17	54.3	45-105
ACENAPHTHENE	4.00	2.61	65.3	45-110
ACENAPHTHYLENE	4.00	2.50	62.5	50-105
ANTHRACENE	4.00	2.79	69.8	55-110
BENZO(A)ANTHRACENE	4.00	3.80	95.0	55-110
BENZO(A)PYRENE	4.00	3.28	82.0	55-110
BENZO(B)FLUORANTHENE	4.00	3.34	83.5	45-120
BENZO(GHI)PERYLENE	4.00	3.59	89.8	40-125
BENZO(K)FLUORANTHENE	4.00	3.94	98.5	45-125
CHRYSENE	4.00	3.28	82.0	55-110
DIBENZ(A,H)ANTHRACENE	4.00	3.78	94.5	40-125
FLUORANTHENE	4.00	3.60	90.0	55-115
FLUORENE	4.00	2.95	73.8	50-110
INDENO(1,2,3-CD)PYRENE	4.00	3.98	99.5	45-125
NAPHTHALENE	4.00	2.01	50.2	40-100
PHENANTHRENE	4.00	2.98	74.5	50-115
PYRENE	4.00	3.50	87.5	50-130
-----				
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.03	51.5	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.13	56.5	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.29	64.5	50-135
-----				

Comments: \_\_\_\_\_  
 \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>
Quant Method :	SIMB.M
Extraction Date :	04/18/12
Analysis Date :	04/22/12
Instrument :	Linus
Run :	0422L004
Initials :	LF

Printed: 05/02/12 1:09:21 PM  
 APPL Standard LCS

Data File : M:\LINUS\DATA\L120229\0422L004.D  
 Acq On : 22 Apr 12 11:58  
 Sample : 120418A LCS-1 1/1000  
 Misc :

Vial: 4  
 Operator: LF  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Apr 23 16:08 2012

Quant Results File: SIMB.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.12	136	5596	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.12	164	3036	2.50000	ppb	-0.01
12) Phenanthrene-D10 (IS)	9.86	188	5168	2.50000	ppb	0.00
16) Chrysene-D12 (IS)	12.94	240	6930	2.50000	ppb	0.01
22) Perylene-D12 (IS)	14.56	264	5907	2.50000	ppb	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	5.33	82	620	1.12850	ppb	0.01
Spiked Amount	2.000					
Recovery				=	56.450%	
7) Surrogate Recovery (FBP)	7.36	172	1974	1.02593	ppb	-0.01
Spiked Amount	2.000					
Recovery				=	51.300%	
18) Surrogate Recovery (TPH)	11.73	244	2782	1.28655	ppb	0.00
Spiked Amount	2.000					
Recovery				=	64.350%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.14	128	6422	2.01098	ppb	100
4) 2-Methylnaphthalene	6.93	142	4172	2.17237	ppb	96
5) 1-Methylnaphthalene	7.03	142	4090	2.28313	ppb	92
8) 1,1'-Biphenyl	7.47	154	5540	2.31039	ppb	# 89
9) Acenaphthylene	7.96	152	7297	2.50133	ppb	99
10) Acenaphthene	8.16	154	4427	2.60642	ppb	91
11) Fluorene	8.76	166	6064	2.94612	ppb	99
13) Phenanthrene	9.88	178	9148	2.98262	ppb	99
14) Anthracene	9.94	178	7716	2.78664	ppb	99
15) Fluoranthene	11.26	202	13543	3.60221	ppb	# 90
17) Pyrene	11.52	202	13994	3.50430	ppb	# 86
19) Benz (a) anthracene	12.92	228	12994	3.79822	ppb	99
20) Chrysene	12.96	228	11337	3.28317	ppb	# 91
21) Indeno (1,2,3-cd) pyrene	16.04	276	10328	3.97713	ppb	96
23) Benzo (b) fluoranthene	14.12	252	12470	3.33783	ppb	# 93
24) Benzo (k) fluoranthene	14.14	252	12224	3.94163	ppb	97
25) Benzo (a) pyrene	14.49	252	10885	3.28119	ppb	98
26) Dibenz (a,h) anthracene	16.08	278	10387	3.78092	ppb	99
27) Benzo (g,h,i) perylene	16.48	276	10471	3.58519	ppb	98

$\frac{6422 \times 2.5}{5596 \times 1.427} = 2.9$   
 if 1/1000

Quantitation Report

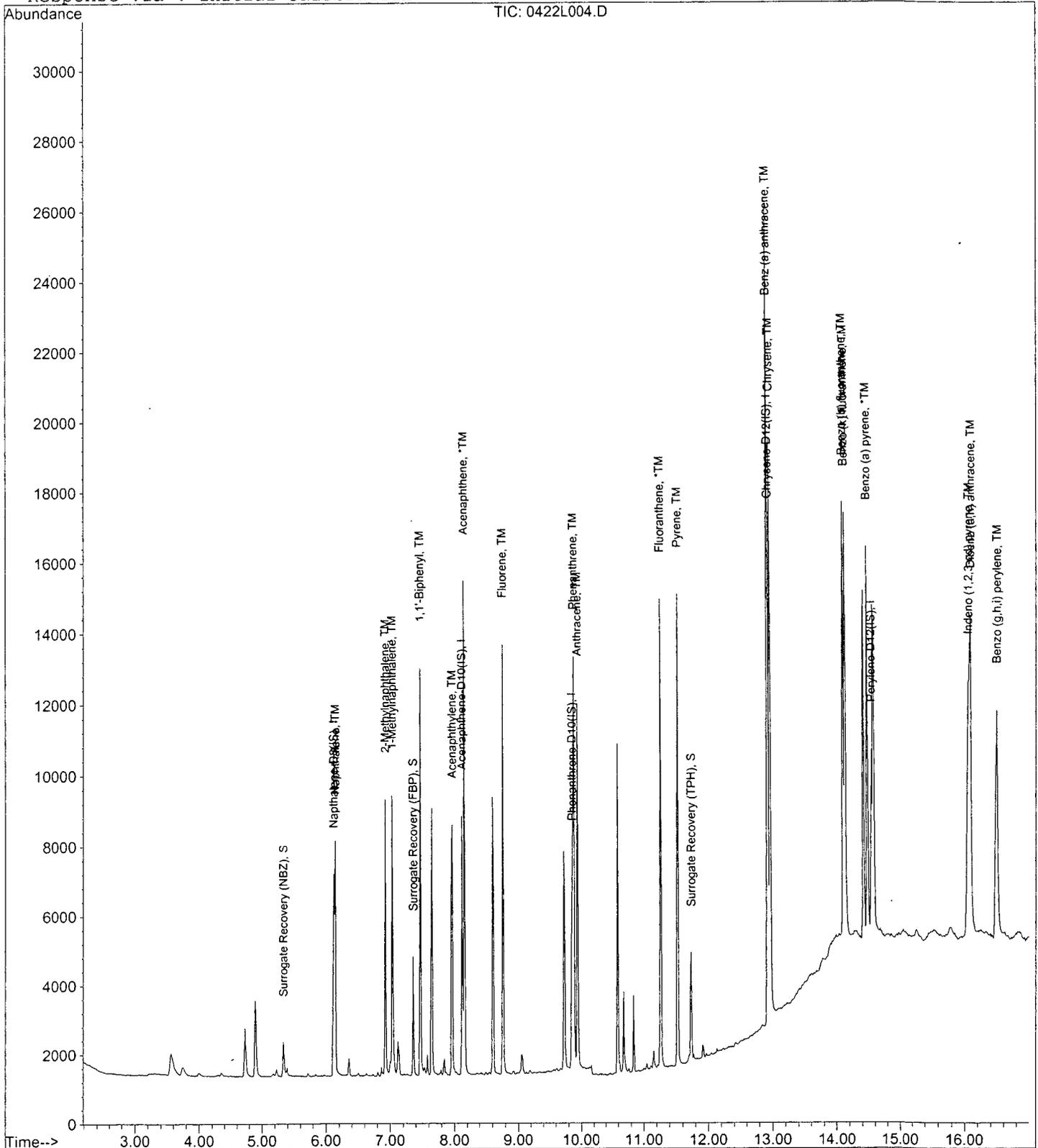
Data File : M:\LINUS\DATA\L120229\0422L004.D  
 Acq On : 22 Apr 12 11:58  
 Sample : 120418A LCS-1 1/1000  
 Misc :

Vial: 4  
 Operator: LF  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Apr 23 16:08 2012

Quant Results File: SIMB.RES

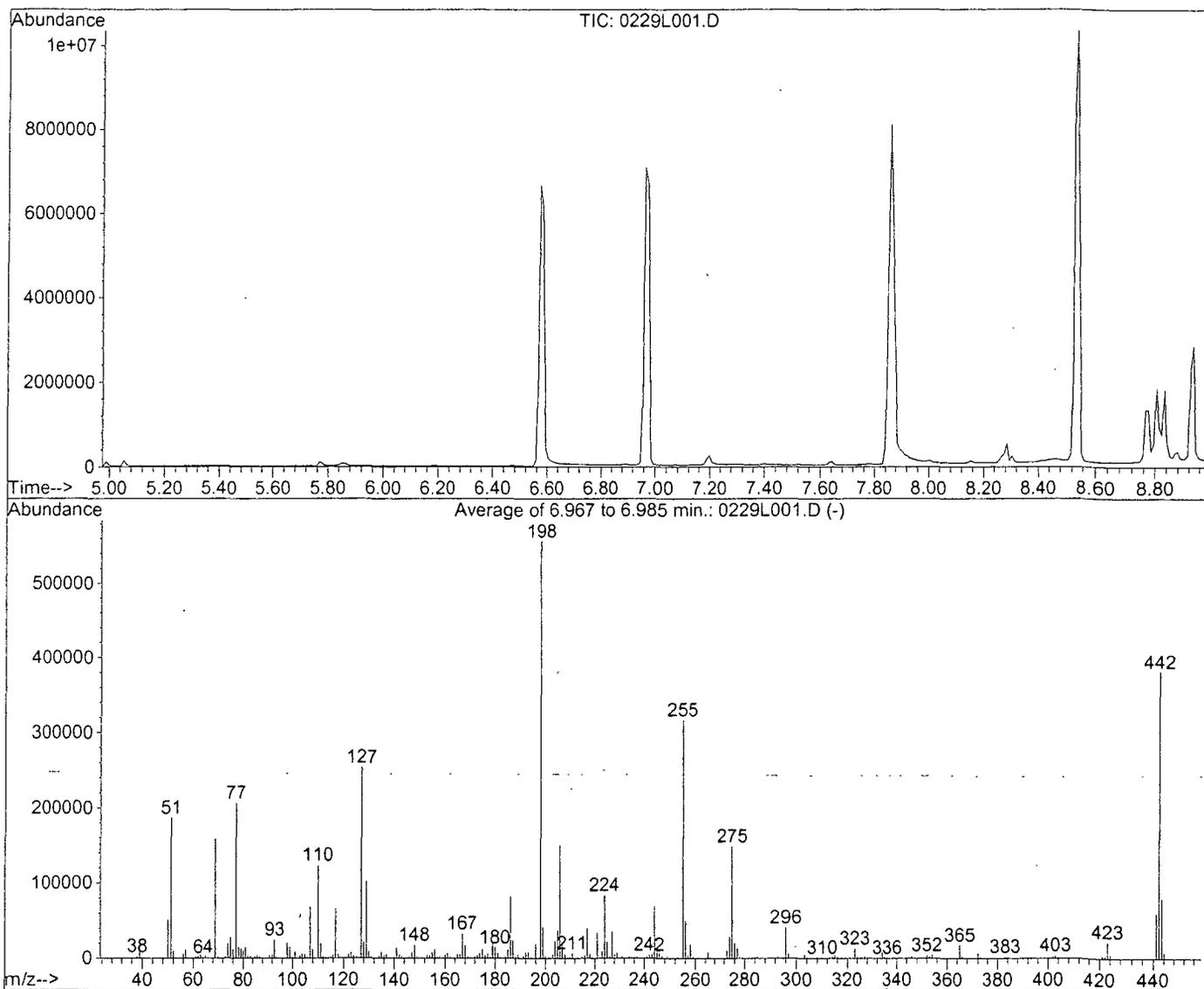
Method : M:\LINUS\DATA\L120229\SIMB.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Mon Apr 23 16:14:14 2012  
 Response via : Initial Calibration



Data File : M:\LINUS\DATA\L120229\0229L001.D  
 Acq On : 29 Feb 12 21:31  
 Sample : SVTUNE 2-28-12  
 Misc :

Vial: 1  
 Operator: LF  
 Inst : Linus  
 Multiplr: 1.00

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



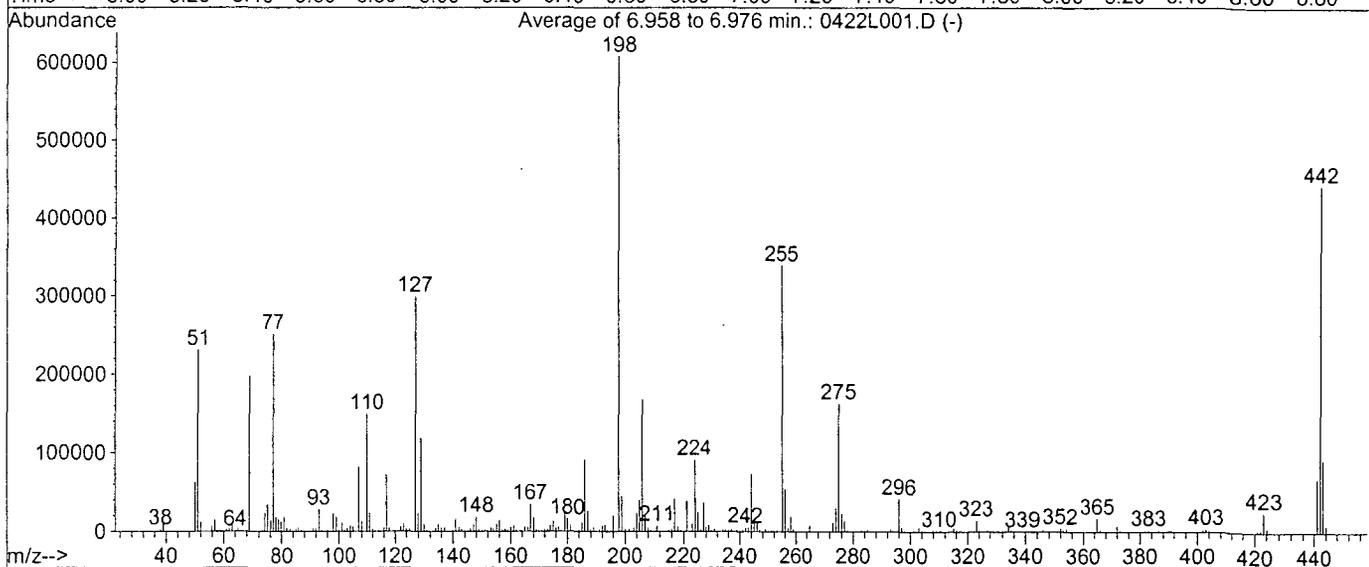
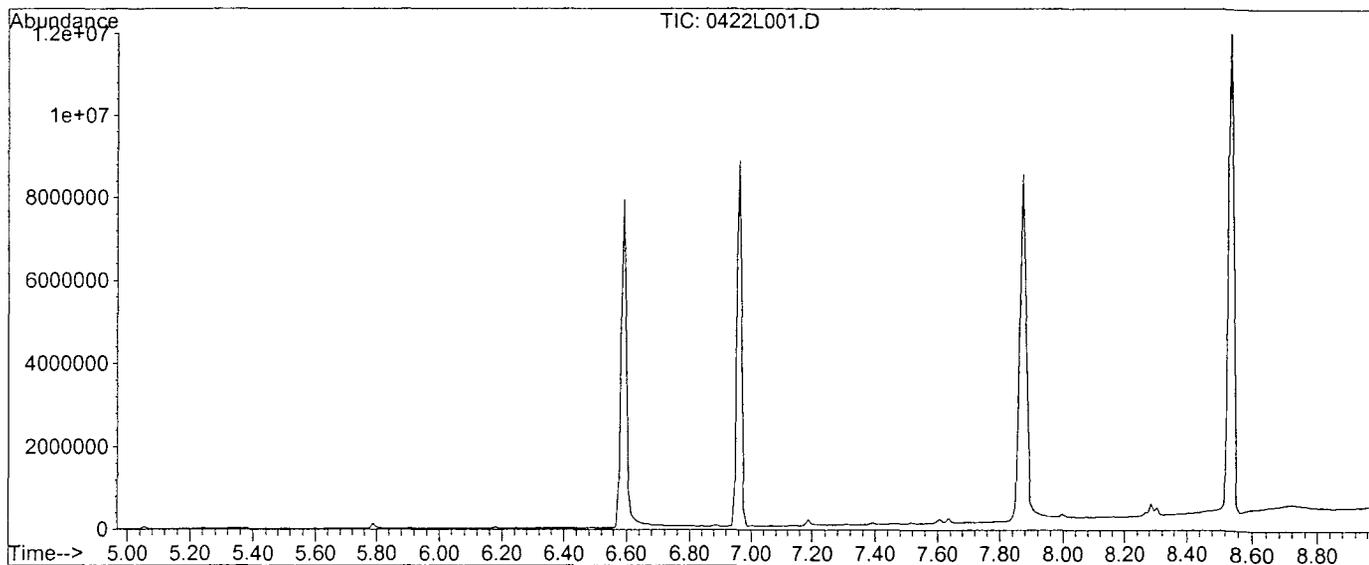
Spectrum Information: Average of 6.967 to 6.985 min.

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

Data File : M:\LINUS\DATA\L120229\0422L001.D  
 Acq On : 22 Apr 12 10:48  
 Sample : SVTUNE 2-28-12  
 Misc :

Vial: 1  
 Operator: LF  
 Inst : Linus  
 Multiplr: 1.00

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



Spectrum Information: Average of 6.958 to 6.976 min.

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

VF 11/7/11

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

VF 4/27/14

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

VF 1/27/14

PREP DATE:		01-25-11				
8270 Second Source (SS) 50ug/mL						
Exp:		02-24-11				
		Conc.		Date	CODE:	P
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
8270C SS	200		10/06/10	10-06-11		50
EM Science	Methylene Chloride	47080				75
				Final Vol.		100

VF 1/27/14

Method 8270 Internal  
Standard Solution, 2,000  
mg/L, 1 ml. **VF**  
118001-42  
Lot # Storage Expiry  
167766 5-10 Degrees C. 4/20/13  
Sol: Methylene Chloride  
8270 Internal Standard  
Lot #: 167766 - 28148  
Rec: 1/20/11 MFR exp. 04/20/13

exp 1/27/12

VF 1/27/14

Method 8270 Internal  
Standard Solution, 2,000  
mg/L, 1 ml. **VF**  
118001-42  
Lot # Storage Expiry  
167766 5-10 Degrees C. 4/20/13  
Sol: Methylene Chloride  
8270 Internal Standard  
Lot #: 167766 - 28147  
Rec: 1/20/11 MFR exp. 04/20/13

exp 1/27/12

WF 3/23/11

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

exp 5/29/11

WF 3/23/11

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

exp 5/29/11

WF 3/23/11

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

exp 5/29/11

WF 3/23/11

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

exp 5/29/11

WF 3/23/11

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

WF 3/23/11

Sim IS exp 4/25/12  
 1500µl EA Science MC Lot #47080 135  
 100µl 8270 IS opened 4/25/11 exp 4/25/12

WF 3/28/11

**o2si** smart solutions 110004-17  
 8270 BN:A (200:400) Surrogate Solution, 1 ml  
 Storage: <math>\le -10</math> Degrees C  
 Lot No: 160538  
 Solvent: Methylene Chloride  
 Made in USA  
 Exp: 4/10/2013  
 Date Opened: 8270 BN:A (200:400) Surrogate Solution  
 Lot #: 160538 - 27574  
 Rec: 10/18/10 MFR exp. 06/10/12

WF exp 3/28/12

WF 3/28/11

WF

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

WF 3/28/11

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

WF 4/18/11

**GCM-160-1** **ULTRA**  
 Lot: CF-2995  
 Exp 08/31/2011  
 Semi-Volatiles GC/MS Tuning Standard  
 Standard  
 4 analyte(s) at 1000  $\mu$ g/mL in dichloromethane  
 250 Smith St. No Kingstown, RI 02852 USA

WF exp 8/31/11

WF 4/13/11

WF

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

exp 8/31/11

WF 4/20/11

**8270D PAH SIM Solution,**  
 200 mg/L, 1 ml  
 Lot # 110780-01  
 Storage <math>\le -10</math> Degrees C  
 Expiry 3/3/13  
 Solv: Methylene Chloride  
 8270D PAH SIM  
 Lot #: 170253 - 28485  
 Rec: 3/10/11 MFR exp. 3/3/2013

exp 4/20/12

WF 4/20/11

**8270D PAH SIM Solution,**  
 Second Source, 200 mg/L, 1 ml  
 Lot # 110780-01-89  
 Storage <math>\le -10</math> Degrees C  
 Expiry 3/3/13  
 Solv: Methylene Chloride  
 8270D PAH SIM (SS)  
 Lot #: 170256 - 28487  
 Rec: 3/10/11 MFR exp. 3/3/2013

exp 4/20/12

VF 8/16/11

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

VF 8/22/11

8270 BN:A (200:400)  
 Surrogate Solution, 1 ml  
 110004-17  
 Lot # 167802 Storage 5-10 Degrees C Expiry 1/8/13  
 Solv: Methylene Chloride  
 8270 BN:A (200:400) Surrogate Solution  
 Lot #: 167802 - 29313  
 Rec: 8/8/11 MFR exp. 01/09/13

exp 8/22/12

VF 8/22/11

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

VF 8/22/11

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

VF 9/11/11

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

VF 10/11/11

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

VF

VF 10/11/11

8270 BN Solution 14-4, 2,000 mg/L, 1 ml  
**02si** Cat. No: 110391-01 Exp: 4/17/2013  
 Lot No: 158119 Storage: <=-10 Degrees C  
 SIM 8270BN Solution 14-4 Solvent: Methylene Chloride  
 Lot #: 158119 - 28021 For Research Use Only  
 Rec: 12/16/10 MFR exp. 04/17/13 d: \_\_\_\_\_

VF exp 10/11/12

VF 10/11/11

8270 BN Solution 14-3, 2,000 mg/L, 1 ml  
**02si** Cat. No: 110392-01 Exp: 4/17/2013  
 Lot No: 158120 Storage: <=-10 Degrees C  
 SIM 8270BN Solution 14-3 Solvent: Methylene Chloride  
 Lot #: 158120 - 28023 For Research Use Only  
 Rec: 12/16/10 MFR exp. 04/17/13 on \_\_\_\_\_  
 ended: \_\_\_\_\_

VF exp 10/11/12

VF 10/11/11

8270 Acid Solution 4-6, 2,000 mg/L, 1 ml  
**02si** Cat. No: 110393-01 Exp: 4/17/2013  
 Lot No: 158121 Storage: <=-10 Degrees C  
 SIM 8270B Acid Solution 4-6 Solvent: Methylene Chloride  
 Lot #: 158121 - 28025 For Research Use Only  
 Rec: 12/16/10 MFR exp 04/17/13 ned: \_\_\_\_\_

VF exp 10/11/12

VF 10/11/11

TCL Hazardous Substances Solution 2, 2,000 mg/L, 1 ml  
**02si** Cat. No: 110394-01 Exp: 4/17/2013  
 Lot No: 158122 Storage: <=-10 Degrees C  
 SIM TCL Hzd. Soln. 2 Solvent: Methylene Chloride  
 Lot #: 158122 - 28018 For Research Use Only  
 Rec: 12/16/10 MFR exp. 04/17/13 d: \_\_\_\_\_

VF exp 10/11/12

VF 10/11/11

PAH Solution 17-3, 2,000 mg/L, 1 ml  
**02si** Cat. No: 116070-02 Exp: 4/17/2013  
 Lot No: 158123 Storage: <=-10 Degrees C  
 SIM PAH Solution, Solvent: Methylene Chloride  
 Lot #: 158123 - 28027 For Research Use Only  
 Rec: 12/16/10 MFR exp. 07/17/13 d: \_\_\_\_\_

VF exp 10/11/12

VF 10/11/11

8270 Acid Solution 13-4, 2,000 mg/L, 1 ml  
**02si** Cat. No: 110396-01 Exp: 4/17/2013  
 Lot No: 158124 Storage: <=-10 Degrees C  
 SIM 8270 Acid Solution 13-4 Solvent: Methylene Chloride  
 Lot #: 158124 - 28029 For Research Use Only  
 Rec: 12/16/10 MFR exp. 04/17/13 d: \_\_\_\_\_

VF exp 10/11/12

W/10/11

8270 BN Solution 4-21, 2,000 mg/L, 1 ml  
**O2Si** Cat. No: 110395-01 Exp: 4/17/2013  
 Lot No: 158125 Storage: <math>\leq -10</math> Degrees C  
 8270BN Solution 4-21 Solvent: Methylene Chloride  
 Lot #: 158125 - 28031 ion For Research Use Only  
 Rec: 12/16/10 MFR exp. 04/17/13

W exp 4/17/13

W/10/11

8270 11 Compound Custom Mix, 200:2,000 mg/L, 1 ml  
**O2Si** Cat. No: 110397-01 Exp: 4/12/2012  
 Lot No: 158127 Storage: <math>\leq -10</math> Degrees C  
 8270 11 Compound Mix Solvent: Methylene Chloride  
 Lot #: 158127 - 28033 ion For Research Use Only  
 Rec: 12/16/10 MFR exp. 04/12/12

W exp 4/12/12

W/10/11

Atrazine Solution, 1,000 mg/L, 1 ml  
**O2Si** Cat. No: 010337-01 Exp: 4/12/2012  
 Lot No: 158126 Storage: <math>\leq -10</math> Degrees C  
 Atrazine Solvent: Methylene Chloride  
 Lot #: 158126 - 28019 ion For Research Use Only  
 Rec: 12/16/10 MFR exp. 04/12/12

W exp 4/12/12

W/10/11

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

W/10/11

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

W/10/11

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

W/10/11

GCM-160-1  
 Lot. CH-2137  
 Exp 07/31/2013  
 Semi-Volatiles GCMS Tuning Standard  
 4 analyte(s) at 1000  $\mu\text{g/mL}$  in dichloromethane  
 250 Smith St, #0 Kingstown, RI 02852 USA



50  $\mu\text{g/mL}$  SV Tune mix  
 1ml of 150 GCM - 1501 opened into 19mls EM Science MC Lot 47186  
 exp 10/11/11

10/18/12

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



CLP Semi-Volatiles Base/Neutrals Mix #1  
 14 components  
 2000 ug/mL in methy

CLP Semi-Volatiles Base/Neutrals Mix #1  
 Lot #: 042910 - 28440  
 Rec: 3/8/11 MFR exp. 4/29/2013

**ABSOLUTE STANDARD**

exp 10/18/12

10/18/12

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



CLP Semi-Volatiles Base/Neutrals Mix #1  
 14 components  
 2000 ug/mL in m

CLP Semi-Volatiles Base/Neutrals Mix #1  
 Lot #: 042910 - 29085  
 Rec: 8/4/11 MFR exp. 04/29/13

**ABSOLUTE STANDAR**

exp 10/18/12

10/18/12

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



CLP Semi-Volatiles Base/Neutrals Mix #2  
 14 components  
 2000 ug/mL in methyle

CLP Semi-Volatiles Base/Neutrals Mix #2  
 Lot #: 073109 - 28446  
 Rec: 3/8/11 MFR exp 7/31/2012

**ABSOLUTE STANDARDS**

exp 7/31/12

10/18/12

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



CLP Semi-Volatiles Base/Neutrals Mix #2  
 14 components  
 2000 ug/mL in met

CLP Semi-Volatiles Base Neutrals Mix #2  
 Lot #: 073109 - 29090  
 Rec: 8/4/11 MFR exp. 07/31/12

**ABSOLUTE STANDAR**

exp 7/31/12

10/18/12

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



CLP Semi-Volatiles Toxic Substances #1  
 4 components  
 2000 ug/mL in methyl

CLP Semi-Volatiles Toxic Substances #1  
 Lot #: 101509 - 28453  
 Rec: 3/8/11 MFR exp. 10/15/201

**ABSOLUTE STANDARD**

exp 10/18/12

10/18/12

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



CLP Semi-Volatiles Toxic Substances #1  
 4 components  
 2000 ug/mL in met

CLP Semi-Volatiles Toxic Substances #1  
 Lot #: 101509 - 29095  
 Rec: 8/4/11 MFR exp. 10/15/14

**ABSOLUTE STANDAR**

exp 10/18/12

10/18/12

Part #: 10005 Laboratory Use Only - See MSDS  
 Lot #: 061209 Exp: 061214 Storage 4 °C



CLP Semi-Volatiles Toxic Substances #2  
 8 components  
 2000 ug/mL in methy

CLP Semi-Volatiles Toxic Substances #2  
 Lot #: 061209 - 28458  
 Rec: 3/8/11 MFR exp. 6/12/2014

**ABSOLUTE STANDARD**

exp 10/18/12

10/18/12

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



CLP Semi-Volatiles Toxic Substances #2  
 8 components  
 2000 ug/mL in met

CLP Semi-Volatiles Toxic Substances #2  
 Lot #: 121208 - 29100  
 Rec: 8/4/11 MFR exp. 12/12/13

**ABSOLUTE STANDAR**

exp 10/18/12

VF 10/18/11

Part #: 10006 Laboratory Use Only - See MSDS  
 Lot #: 120810 Exp: 120813 Storage 4 °C

 **CLP Semi-Volatiles - Benzidines**  
 2 components  
 2000 ug/mL in metha

**ABSOLUTE STANDARD:**

CLP Semi-Volatiles - Benzidines  
 Lot # 120810 - 28462 *lm*  
 Rec 3/8/11 MFR exp. 12/8/2013 *BK*

exp 10/18/12

VF 10/18/11

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

 **CLP Semi-Volatiles - Benzidines**  
 2 components  
 2000 ug/mL in met

**ABSOLUTE STANDAR**

CLP Semi-Volatiles - Benzidines  
 Lot #: 071211 - 29105  
 Rec: 8/4/11 MFR exp. 07/12/14

exp 10/18/12

VF 10/18/11

Part #: 10007 Laboratory Use Only - See MSDS  
 Lot #: 100909 Exp: 100914 Storage 4 °C

 **CLP Semi-Volatiles - PAH Standard**  
 17 components  
 2000 ug/mL in meth

**ABSOLUTE STANDAR**

CLP Semi-Volatiles - PAH Mix  
 Lot #: 100909 - 28469 *lm*  
 Rec: 3/8/11 MFR exp. 10/9/2014 *BK*

exp 10/18/12

VF 10/18/11

Part #: 10007 Laboratory Use Only - See MSDS  
 Lot #: 100909 Exp: 100914 Storage 4 °C

 **CLP Semi-Volatiles - PAH Standard**  
 17 components  
 2000 ug/mL in met

**ABSOLUTE STANDAR**

CLP Semi-Volatiles - PAH Mix  
 Lot #: 100909 - 29110  
 Rec: 8/4/11 MFR exp. 10/09/14

exp 10/18/12

VF 10/18/11

Part #: 10018 Laboratory Use Only - See MSDS  
 Lot #: 073109 Exp: 073114 Storage 4 °C

 **EPA Method 8270A - Analytes Mix #8**  
 13 components - Pher  
 2000 ug/mL in methyl

**ABSOLUTE STANDARD**

EPA Method 8270A - Analytes Mix #8 - Phenols  
 Lot #: 073109 - 28410 *lm*  
 Rec: 3/8/11 MFR exp. 7/31/2014 *BK*

exp 10/18/12

VF 10/18/11

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

 **EPA Method 8270A - Analytes Mix #8**  
 13 components - Ph  
 2000 ug/mL in meth

**ABSOLUTE STANDAR**

EPA Method 8270A - Analytes Mix #8  
 Lot #: 062111 - 29115  
 Rec: 8/4/11 MFR exp. 06/21/16

VF 10/18/12

VF 10/18/11

Part #: 70023 Laboratory Use Only - See MSDS  
 Lot #: 080310 Exp: 080315 Storage 4 °C

 **Atrazine**  
 1000 ug/mL in aceto

**ABSOLUTE STANDAR**

Atrazine  
 Lot #: 080310 - 28416 *lm*  
 Rec: 3/8/11 MFR exp. 8/13/2015 *BK*

exp 10/18/12

VF 10/18/11

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

 **Atrazine**  
 1000 ug/mL in ace

**ABSOLUTE STANDAR**

Atrazine  
 Lot #: 031611 - 29120  
 Rec: 8/4/11 MFR exp. 03/16/14

exp 10/18/12

# Organic Extraction Worksheet

<b>Method</b>	SIM Separatory Funnel Extra 3510C	<b>Extraction Set</b>	120418A	<b>Extraction Method</b>	SEP004S	<b>Units</b>	mL
Spiked ID 1	SIM Spike 170745-30371	Surrogate ID 1	8270 SIM Surrogate 177982-29476				
Spiked ID 2		Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:					
Spiked ID 8		Ext. End Time:					
		<b>GC Requires Extract By:</b>		05/01/12 0:00			
pH1	2	4/18/12 10:05:00 AM		Water Bath Temp Criteria 80 °C			
pH2	14	04/18/12 4:00:00 PM					
pH3							

Spiked By: DL

Date 04/18/12

Witnessed By: DRA

Date 04/18/12

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	120418A BIK			0.025	1	1000	1	2/1	04/18/12 9:58	
						equip	E-WB7			
2	120418A LCS-1	0.025	1	0.025	1	1000	1	2/1	04/18/12 9:58	
						equip	E-WB7			
3	AY59184 AY59184W07			0.025	1	1050	1	2/1	04/18/12 9:58	67512-2 WEEK RUSH -- Amber Liter
						equip	E-WB7			
4	AY59185 AY59185W05			0.025	1	1050	1	2/1	04/18/12 9:58	67512-2 WEEK RUSH -- Amber Liter
						equip	E-WB7			
5	AY59186 AY59186W07			0.025	1	1050	1	2/1	04/18/12 9:58	67512-2 WEEK RUSH -- Amber Liter
						equip	E-WB7			
6	AY59187 AY59187W06			0.025	1	1050	1	2/1	04/18/12 9:58	67512-2 WEEK RUSH -- Amber Liter
						equip	E-WB7			

DRA 4-19-12

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

Extraction COC Transfer	
Extraction lab employee Initials	DRA
GC analyst's initials	LF
Date	4/19/12
Time	10:00
Refrigerator	W0007

Technician's Initials	
Scanned By	FXR
Sample Preparation	FXR
Extraction	GH
Concentration	IC
Modified	04/18/12 9:19:32 AM

Reviewed By: DRA

Date 04/19/12

## Injection Log

Directory: M:\LINUS\DATA\L120229\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0229L001.D	1	SVTUNE 2-28-12		29 Feb 12 21:31
2	3	0229L003.D	1	0.1ug/ml PAH 02-29-12		1 Mar 12 00:20
3	4	0229L004.D	1	0.2ug/ml PAH		1 Mar 12 00:44
4	5	0229L005.D	1	0.5ug/ml PAH		1 Mar 12 1:09
5	6	0229L006.D	1	1.0ug/ml PAH		1 Mar 12 1:34
6	7	0229L007.D	1	5.0ug/ml PAH		1 Mar 12 1:59
7	8	0229L008.D	1	10ug/ml PAH		1 Mar 12 2:24
8	9	0229L009.D	1	50ug/ml PAH		1 Mar 12 2:49
9	10	0229L010.D	1	100ug/ml PAH		1 Mar 12 3:14
10	11	0229L011.D	1	5.0ug/ml SS PAH 02-29-12		1 Mar 12 3:39
11	1	0422L001.D	1	SVTUNE 2-28-12		22 Apr 12 10:48
12	2	0422L002.D	1	5.0ug/ml PAH 02-29-12		22 Apr 12 11:06
13	3	0422L003.D	1	120418A BLK 1/1000		22 Apr 12 11:32
14	4	0422L004.D	1	120418A LCS-1 1/1000		22 Apr 12 11:58
15	5	0422L005.D	0.95238	AY59184W07 1/1050		22 Apr 12 12:24
16	6	0422L006.D	0.95238	AY59185W05 1/1050		22 Apr 12 12:50
17	7	0422L007.D	0.95238	AY59186W07 1/1050		22 Apr 12 13:15
18	8	0422L008.D	0.95238	AY59187W06 1/1050		22 Apr 12 13:41

**EPA METHOD 8260B**  
**Volatile Organic Compounds**



**EPA METHOD 8260B  
Volatile Organic Compounds  
QC Summary**



# Method Blank

## EPA 8260B VOCs + Gas Water

Blank Name/QCG: **120418W-59184 - 166402**  
 Batch ID: #86RHB-120418AC

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/18/12	04/18/12
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/18/12	04/18/12
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/18/12	04/18/12
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	04/18/12	04/18/12
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/18/12	04/18/12
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/18/12	04/18/12
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/18/12	04/18/12
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/18/12	04/18/12
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/18/12	04/18/12
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/18/12	04/18/12
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/18/12	04/18/12
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	04/18/12	04/18/12
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/18/12	04/18/12
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	04/18/12	04/18/12

Quant Method: CALLW3.M
Run #: 0418C10
Instrument: Chico
Sequence: C120410
Initials: ARS

Printed: 05/01/12 5:21:57 PM  
 GC SC-Blank-REG MDLs

**Method Blank**  
**EPA 8260B VOCs + Gas Water**

Blank Name/QCG: **120418W-59184 - 166402**  
 Batch ID: #86RHB-120418AC

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/18/12	04/18/12
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/18/12	04/18/12
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	04/18/12	04/18/12
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
BLANK	SURROGATE: 1,2-DICHLOROET	96.3	70-120			%	04/18/12	04/18/12
BLANK	SURROGATE: 4-BROMOFLUORO	101	75-120			%	04/18/12	04/18/12
BLANK	SURROGATE: DIBROMOFLUOR	100	85-115			%	04/18/12	04/18/12
BLANK	SURROGATE: TOLUENE-D8 (S)	93.4	85-120			%	04/18/12	04/18/12

Quant Method: CALLW3.M  
 Run #: 0418C10  
 Instrument: Chico  
 Sequence: C120410  
 Initials: ARS

Printed: 05/01/12 5:21:57 PM  
 GC SC-Blank-REG MDLs

# Method Blank

## EPA 8260B VOCs + Gas Water

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

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

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

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

Printed: 05/01/12 5:21:57 PM  
 GC SC-Blank-REG MDLs

**Method Blank**  
**EPA 8260B VOCs + Gas Water**

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

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

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

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

Printed: 05/01/12 5:21:57 PM  
 GC SC-Blank-REG MDLs

**Surrogate Recovery**

Lab Name: APPL, Inc.  
 Case No: 67512  
 Matrix: WATER

SDG No: 67512  
 Date Analyzed: 04/18/12  
 Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
120418AC-LCS	Lab Control Spike	70-120	91.7		75-120	99.2	
120418AC-BLK	Blank	70-120	96.3		75-120	101	
AY59208	TRIP BLANK-1	70-120	98.5		75-120	101	
AY59209	TRIP BLANK-2	70-120	102		75-120	99.5	
AY59184	ES070	70-120	104		75-120	103	
AY59185	ES071	70-120	101		75-120	102	
AY59186	ES072	70-120	90.1		75-120	98.8	

Comments: Batch: #86RHB-120418AC

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 67512

Case No: 67512

Date Analyzed: 04/18/12

Matrix: WATER

Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
120418AC-LCS	Lab Control Spike	85-115	101		85-120	94.3	
120418AC-BLK	Blank	85-115	100		85-120	93.4	
AY59208	TRIP BLANK-1	85-115	101		85-120	95.0	
AY59209	TRIP BLANK-2	85-115	103		85-120	90.8	
AY59184	ES070	85-115	104		85-120	94.3	
AY59185	ES071	85-115	104		85-120	94.2	
AY59186	ES072	85-115	94.5		85-120	93.0	

Comments: Batch: #86RHB-120418AC

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Form 2 &amp; 8, Surrogate Recovery Summary

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 67512

Case No: 67512

Date Analyzed: 04/19/12

Matrix: WATER

Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
120419AT-LCS	Lab Control Spike	70-120	105		75-120	102	
120419AT-BLK	Blank	70-120	105		75-120	96.2	
AY59187	ES073	70-120	107		75-120	91.8	

Comments: Batch: #86RHB-120419AT

**Surrogate Recovery**

Lab Name: APPL, Inc.  
 Case No: 67512  
 Matrix: WATER

SDG No: 67512  
 Date Analyzed: 04/19/12  
 Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
120419AT-LCS	Lab Control Spike	85-115	108		85-120	98.8	
120419AT-BLK	Blank	85-115	104		85-120	100	
AY59187	ES073	85-115	105		85-120	97.1	

Comments: Batch: #86RHB-120419AT

## Laboratory Control Spike Recovery

### EPA 8260B VOCs + Gas Water

APPL ID: 120418W-59184 LCS - 166402  
 Batch ID: #86RHB-120418AC

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	9.06	90.6	80-130
1,1,1-TRICHLOROETHANE	10.00	9.15	91.5	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	9.65	96.5	65-130
1,1,2-TRICHLOROETHANE	10.00	9.49	94.9	75-125
1,1-DICHLOROETHANE	10.00	9.34	93.4	70-135
1,1-DICHLOROETHENE	10.00	8.63	86.3	70-130
1,2,3-TRICHLOROPROPANE	10.00	8.57	85.7	75-125
1,2,4-TRICHLOROBENZENE	10.00	9.67	96.7	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	7.60	76.0	50-130
1,2-DIBROMOETHANE	10.00	9.04	90.4	70-130
1,2-DICHLOROBENZENE	10.00	9.70	97.0	70-120
1,2-DICHLOROETHANE	10.00	9.10	91.0	70-130
1,2-DICHLOROPROPANE	10.00	9.44	94.4	75-125
1,3-DICHLOROBENZENE	10.00	9.86	98.6	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	18.8	94.0	70-130
1,4-DICHLOROBENZENE	10.00	9.47	94.7	75-125
2-BUTANONE	10.00	8.34	83.4	30-150
4-METHYL-2-PENTANONE	10.00	10.5	105	60-135
ACETONE	10.00	9.15	91.5	40-140
BENZENE	10.00	9.07	90.7	80-120
BROMODICHLOROMETHANE	10.00	9.53	95.3	75-120
BROMOFORM	10.00	8.64	86.4	70-130
BROMOMETHANE	10.00	9.53	95.3	30-145
CARBON TETRACHLORIDE	10.00	8.97	89.7	65-140
CHLOROBENZENE	10.00	9.42	94.2	80-120
CHLORODIBROMOMETHANE	10.00	8.98	89.8	60-135
CHLOROETHANE	10.00	8.93	89.3	60-135
CHLOROFORM	10.00	9.40	94.0	65-135
CHLOROMETHANE	10.00	10.2	102	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.85	98.5	70-125
ETHYLBENZENE	10.00	9.18	91.8	75-125

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>
Quant Method :	CALLW3.M
Extraction Date :	04/18/12
Analysis Date :	04/18/12
Instrument :	Chico
Run :	0418C04
Initials :	ARS

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 APPL Standard LCS

## Laboratory Control Spike Recovery

### EPA 8260B VOCs + Gas Water

APPL ID: 120418W-59184 LCS - 166402  
 Batch ID: #86RHB-120418AC

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	286	95.3	75-125
HEXACHLOROBUTADIENE	10.00	9.18	91.8	50-140
METHYL TERT-BUTYL ETHER	10.00	9.21	92.1	65-125
METHYLENE CHLORIDE	10.00	9.56	95.6	55-140
STYRENE	10.00	9.46	94.6	65-135
TETRACHLOROETHENE	10.00	9.02	90.2	45-150
TOLUENE	10.00	9.59	95.9	75-120
TRANS-1,2-DICHLOROETHENE	10.00	9.17	91.7	60-140
TRICHLOROETHENE	10.00	9.43	94.3	70-125
VINYL CHLORIDE	10.00	10.3	103	50-145
XYLENES (TOTAL)	30.0	28.0	93.3	80-120
<hr style="border-top: 1px dashed black;"/>				
SURROGATE: 1,2-DICHLOROETHANE-D	21.0	19.3	91.7	70-120
SURROGATE: 4-BROMOFLUOROBENZE	27.0	26.8	99.2	75-120
SURROGATE: DIBROMOFLUOROMETH	20.9	21.0	101	85-115
SURROGATE: TOLUENE-D8 (S)	25.4	23.9	94.3	85-120

Comments: \_\_\_\_\_  
 \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>
Quant Method :	CALLW3.M
Extraction Date :	04/18/12
Analysis Date :	04/18/12
Instrument :	Chico
Run :	0418C04
Initials :	ARS

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 APPL Standard LCS

## Laboratory Control Spike Recovery

### EPA 8260B VOCs + Gas Water

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

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

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

Comments: \_\_\_\_\_

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

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 APPL Standard LCS

## Laboratory Control Spike Recovery

### EPA 8260B VOCs + Gas Water

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

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

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

Comments: \_\_\_\_\_  
 \_\_\_\_\_

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

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 APPL Standard LCS

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 67512

Case No: 67512

Date Analyzed: 04/18/12

Matrix: WATER

Instrument: Chico

Blank ID: 120418AC-BLK

Time Analyzed: 1720

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
120418AC-LCS	Lab Control Spike	0418C04	04/18/12 1118
120418AC-BLK	Blank	0418C10	04/18/12 1720
AY59208	TRIP BLANK-1	0418C11	04/18/12 1757
AY59209	TRIP BLANK-2	0418C12	04/18/12 1834
AY59184	ES070	0418C13	04/18/12 1911
AY59185	ES071	0418C14	04/18/12 1948
AY59186	ES072	0418C15	04/18/12 2025

Comments: Batch: #86RHB-120418AC

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Form 4, Blank Summary

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc. SDG No: 67512  
Case No: 67512 Date Analyzed: 04/19/12  
Matrix: WATER Instrument: Thor  
Blank ID: 120419AT-BLK Time Analyzed: 1232

APPL ID.	Client Sample No.	File ID.	Date Analyzed
120419AT-LCS	Lab Control Spike	0419T12	04/19/12 1013
120419AT-BLK	Blank	0419T17	04/19/12 1232
AY59187	ES073	0419T20	04/19/12 1355

Comments: Batch: #86RHB-120419AT

Form 5  
Tune Summary

Lab Name: APPL Inc.

SDG No: 67512

Case No: 67512

Date Analyzed: 04/18/12

Matrix: Water

Instrument: Chico

ID: 25ug/ml BFB STD 04-10-12

Time Analyzed: 8:55

Client Sample No.	APPL ID.	File ID.	Date Analyzed	
1	CCV gas 300ug/L	0418C01W.D	04/18/12 9:27	
2	Lab Control Spike	LCS gas 300ug/L	0418C02W.D	04/18/12 10:04
3	10ug/L Vol Std 04-18	0418C03W.D	04/18/12 10:41	
4	Lab Control Spike	120418A LCS-1WC	0418C04W.D	04/18/12 11:18
5	Blank	120418A BLK-1WC	0418C10W.D	04/18/12 17:20
6	TRIP BLANK-1	AY59208W01	0418C11W.D	04/18/12 17:57
7	TRIP BLANK-2	AY59209W01	0418C12W.D	04/18/12 18:34
8	ES070	AY59184W01	0418C13W.D	04/18/12 19:11
9	ES071	AY59185W01	0418C14W.D	04/18/12 19:48
10	ES072	AY59186W01	0418C15W.D	04/18/12 20:25
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

50 15 - 40% of mass 95	<u>19.1</u>
75 30 - 60% of mass 95	<u>42.1</u>
95 100 - 100% of mass 95	<u>100.0</u>
96 5 - 9% of mass 95	<u>6.6</u>
173 0 - 2% of mass 174	<u>0.0</u>
174 50 - 100% of mass 95	<u>72.0</u>
175 5 - 9% of mass 174	<u>7.0</u>
176 95 - 101% of mass 174	<u>98.3</u>
177 5 - 9% of mass 176	<u>6.7</u>

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 67512  
 Matrix: Water  
 ID: 5ng BFB 4-10-12

SDG No: 67512  
 Date Analyzed: 04/19/12  
 Instrument: Thor  
 Time Analyzed: 9:23

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	10ug/L Vol Std 04-19	0419T11W.D	04/19/12 9:45
2	Lab Control Spike	120419A LCS-1WT	04/19/12 10:13
3	Blank	120419A BLK-1WT	04/19/12 12:32
4	ES073	AY59187W03	04/19/12 13:55
5			
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11			
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14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

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

Form 5  
Tune Summary

Lab Name: APPL Inc.

SDG No: 67512

Case No: 67512

Date Analyzed: 04/19/12

Matrix: Water

Instrument: Chico

ID: 25ug/ml BFB STD 04-10-12

Time Analyzed: 6:16

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		CCV gas 300ug/L	0419C01W.D	04/19/12 6:48
2	Lab Control Spike	LCS gas 300 ug/L	0419C06W.D	04/19/12 9:52
3	Blank	120419A BLK-1WC	0419C09W.D	04/19/12 11:44
4	ES073	AY59187W02	0419C11W.D	04/19/12 12:58
5				
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9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

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

## INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc.Contract: Review

Lab Code: \_\_\_\_\_

SDG No.: 67512Lab File ID (Standard): 0410C08W.DDate Analyzed: 04/10/12Instrument ID: ChicoTime Analyzed: 19:04

GC Column: \_\_\_\_\_

ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		662519	12.85	480192	18.04	230016	22.23
UPPER LIMIT		1325038	13.35	960384	18.54	460032	22.73
LOWER LIMIT		331260	12.35	240096	17.54	115008	21.73
SAMPLE							
NO.							
01	10ug/L Vol Std 04-18-12	628509	12.81	502912	17.99	224960	22.19
02	120418A LCS-1WC	650996	12.80	518080	17.99	232832	22.19
03	120418A BLK-1WC	640057	12.81	467968	18.00	210496	22.20
04	AY59208W01	625597	12.81	462912	18.00	211392	22.20
05	AY59209W01	620075	12.82	479488	18.00	212224	22.20
06	AY59184W01	616356	12.81	460544	18.01	212800	22.19
07	AY59185W01	578828	12.82	461568	18.00	213440	22.20
08	AY59186W01	652138	12.81	500864	18.00	233984	22.20
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.: 67512  
 Lab File ID (Standard): 0125C32W.D Date Analyzed: 01/26/12  
 Instrument ID: Chico Time Analyzed: 21:24  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12 HOUR STD	1085220	12.79	1323770	17.98	1382630	22.18	
UPPER LIMIT	2170440	13.29	2647540	18.48	2765260	22.68	
LOWER LIMIT	542610	12.29	661885	17.48	691315	21.68	
SAMPLE NO.							
01	CCV gas 300ug/L	1270200	12.79	1364280	17.99	1270550	22.19
02	LCS gas 300ug/L	1221210	12.80	1331980	17.98	1273290	22.18
03	120419A BLK-1WC	1323980	12.80	1379510	17.99	1323330	22.19
04	AY59187W02	1324520	12.81	1407520	17.99	1308810	22.19
05							
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09							
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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.: 67512  
 Lab File ID (Standard): 0411T35W.D Date Analyzed: 04/12/12  
 Instrument ID: Thor Time Analyzed: 0:31  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		482688	6.75	391232	9.89	241024	12.21
UPPER LIMIT		965376	7.25	782464	10.39	482048	12.71
LOWER LIMIT		241344	6.25	195616	9.39	120512	11.71
SAMPLE NO.							
01	10ug/L Vol Std 04-19-12	499136	6.75	420608	9.89	266368	12.21
02	120419A LCS-1WT	439424	6.75	375360	9.89	233344	12.21
03	120419A BLK-1WT	474432	6.75	395840	9.89	232000	12.21
04	AY59187W03	454400	6.75	392640	9.89	209920	12.21
05							
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 8260B  
Volatile Organic Compounds  
Sample Data**



## 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

**Sample ID: ES070**

Sample Collection Date: 04/16/12

ARF: 67512

**APPL ID: AY59184**

QCG: #86RHB-120418AC-166402

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/18/12	04/18/12
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/18/12	04/18/12
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/18/12	04/18/12
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/18/12	04/18/12
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/18/12	04/18/12
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/18/12	04/18/12
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/18/12	04/18/12
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/18/12	04/18/12
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	04/18/12	04/18/12
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/18/12	04/18/12
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	04/18/12	04/18/12

Quant Method: CALLW3.M
Run #: 0418C13
Instrument: Chico
Sequence: C120410
Dilution Factor: 1
Initials: ARS

Printed: 05/01/12 5:22:04 PM  
APPL-F1-SC-NoMC-REG MDLs

## 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: ES070**

Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

**APPL ID: AY59184**

QCG: #86RHB-120418AC-166402

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/18/12	04/18/12
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/18/12	04/18/12
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	04/18/12	04/18/12
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	104	70-120			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	103	75-120			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	104	85-115			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	94.3	85-120			%	04/18/12	04/18/12

Quant Method: CALLW3.M
Run #: 0418C13
Instrument: Chico
Sequence: C120410
Dilution Factor: 1
Initials: ARS

Printed: 05/01/12 5:22:04 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\CHICO\DATA\C120410\0418C13W.D Vial: 1  
 Acq On : 18 Apr 12 19:11 Operator: SV  
 Sample : AY59184W01 Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 16:45 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.81	96	616356	25.00000	ppb	-0.04
54) Chlorobenzene-D5 (IS)	18.00	117	460544	25.00000	ppb	-0.03
70) 1,4-Dichlorobenzene-D (IS)	22.19	152	212800	25.00000	ppb	-0.03
System Monitoring Compounds						
32) Dibromofluoromethane(S)	11.40	111	388506	21.63608	ppb	-0.04
Spiked Amount	20.866					
					Recovery = 103.692%	
37) 1,2-DCA-D4(S)	12.20	65	312267	21.96316	ppb	-0.03
Spiked Amount	21.039					
					Recovery = 104.392%	
55) Toluene-D8(S)	15.47	98	1343723	23.91201	ppb	-0.03
Spiked Amount	25.355					
					Recovery = 94.308%	
63) 4-Bromofluorobenzene(S)	20.07	95	642192	27.85952	ppb	-0.03
Spiked Amount	27.007					
					Recovery = 103.158%	

Target Compounds Qvalue

Quantitation Report

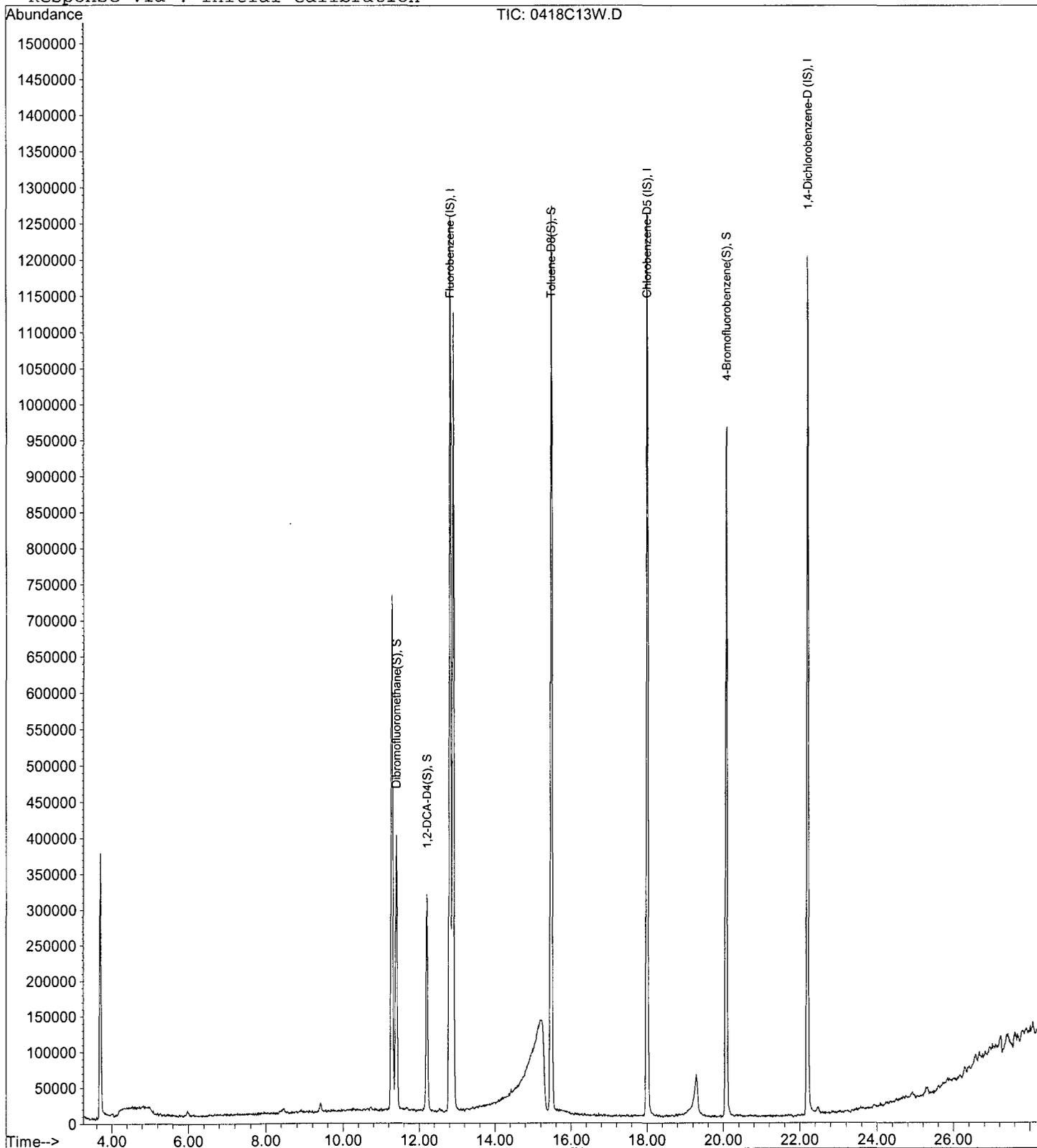
Data File : M:\CHICO\DATA\C120410\0418C13W.D  
Acq On : 18 Apr 12 19:11  
Sample : AY59184W01  
Misc : Water 10mL w/IS&S:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: May 1 16:45 2012

Quant Results File: CALLW3.RES

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 2012  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C120410\0418C13W.D Vial: 1  
 Acq On : 18 Apr 12 19:11 Operator: SV  
 Sample : AY59184W01 Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 19 11:13 2012 Quant Results File: CGAS.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.81	TIC	1244303	25.00000	ppb	0.02
3) Chlorobenzene-D5 (IS)	18.00	TIC	1254366	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1195001	25.00000	ppb	0.01

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	24404998m	33.56907	ppb	ND 100

*No gasoline pattern  
 ARS 5/1/12*

Quantitation Report

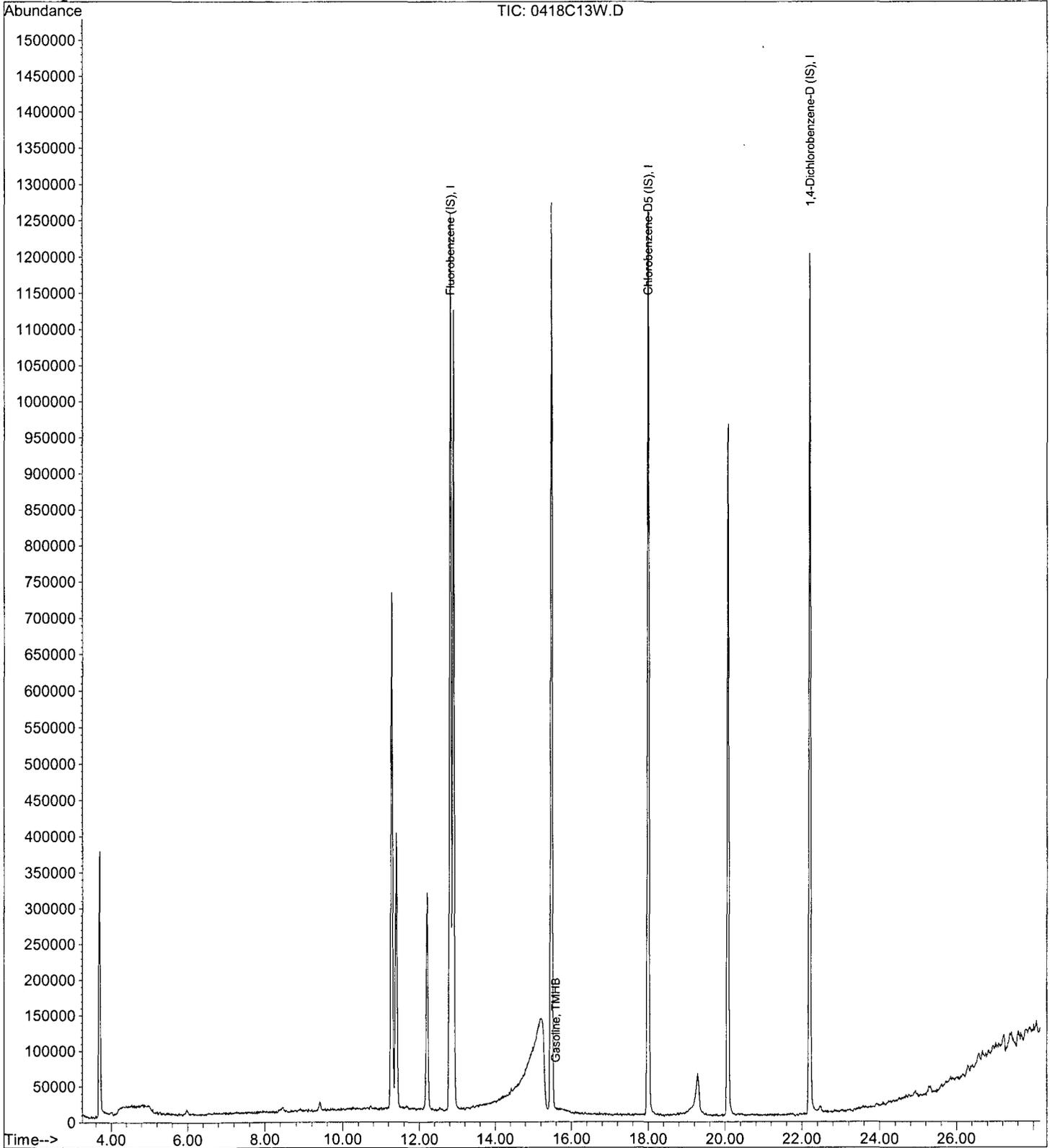
Data File : M:\CHICO\DATA\C120410\0418C13W.D  
Acq On : 18 Apr 12 19:11  
Sample : AY59184W01  
Misc : Water 10mL w/IS&S:04-10-12

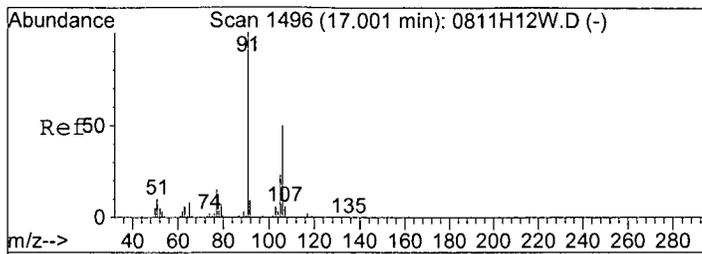
Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 19 11:13 2012

Quant Results File: CGAS.RES

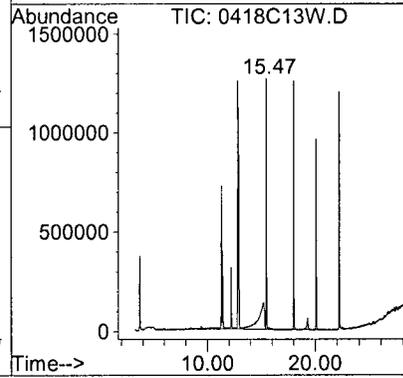
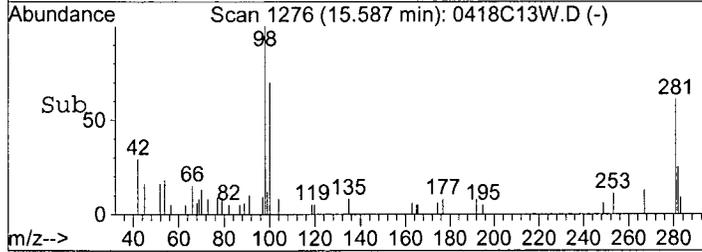
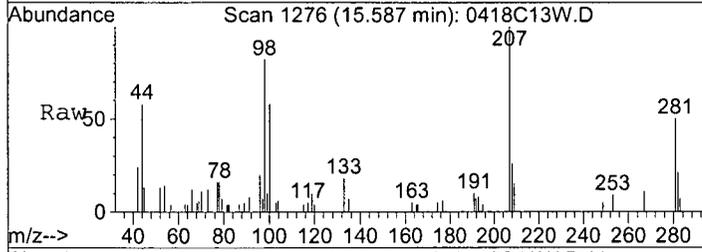
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Feb 07 09:36:43 2012  
Response via : Initial Calibration





#2  
 Gasoline  
 Concen: 33.56907 ppb m  
 RT: 15.58 min Scan# 1276  
 Delta R.T. 0.00 min  
 Lab File: 0418C13W.D  
 Acq: 18 Apr 12 19:11

Tgt Ion:TIC Resp:24404998



## 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: ES071**

Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

**APPL ID: AY59185**

QCG: #86RHB-120418AC-166402

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/18/12	04/18/12
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/18/12	04/18/12
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/18/12	04/18/12
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/18/12	04/18/12
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/18/12	04/18/12
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/18/12	04/18/12
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/18/12	04/18/12
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/18/12	04/18/12
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	04/18/12	04/18/12
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/18/12	04/18/12
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	04/18/12	04/18/12

Quant Method: CALLW3.M
Run #: 0418C14
Instrument: Chico
Sequence: C120410
Dilution Factor: 1
Initials: ARS

Printed: 05/01/12 5:22:04 PM  
APPL-F1-SC-NoMC-REG MDLs

## 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: ES071**

Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

**APPL ID: AY59185**

QCG: #86RHB-120418AC-166402

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/18/12	04/18/12
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/18/12	04/18/12
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	04/18/12	04/18/12
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	101	70-120			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	102	75-120			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	104	85-115			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	94.2	85-120			%	04/18/12	04/18/12

Quant Method: CALLW3.M  
Run #: 0418C14  
Instrument: Chico  
Sequence: C120410  
Dilution Factor: 1  
Initials: ARS

Printed: 05/01/12 5:22:04 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\CHICO\DATA\C120410\0418C14W.D Vial: 1  
 Acq On : 18 Apr 12 19:48 Operator: SV  
 Sample : AY59185W01 Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 16:47 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.82	96	578828	25.00000	ppb	-0.04
54) Chlorobenzene-D5 (IS)	18.00	117	461568	25.00000	ppb	-0.04
70) 1,4-Dichlorobenzene-D (IS)	22.20	152	213440	25.00000	ppb	-0.03
System Monitoring Compounds						
32) Dibromofluoromethane(S)	11.39	111	364343	21.60595	ppb	-0.05
Spiked Amount	20.866		Recovery	=	103.548%	
37) 1,2-DCA-D4(S)	12.20	65	284793	21.32948	ppb	-0.04
Spiked Amount	21.039		Recovery	=	101.378%	
55) Toluene-D8(S)	15.47	98	1345018	23.88196	ppb	-0.04
Spiked Amount	25.355		Recovery	=	94.190%	
63) 4-Bromofluorobenzene(S)	20.07	95	635735	27.51822	ppb	-0.03
Spiked Amount	27.007		Recovery	=	101.892%	
Target Compounds						
34) Cyclohexane	11.97	56	3197	0.16764	ppb	NT# 72
46) Methyl Cyclohexane	13.79	83	4332	0.26875	ppb	NT 71
72) Isopropylbenzene	19.69	105	303004	3.83456	ppb	NT 99
77) n-Propylbenzene	20.40	91	466494	5.04871	ppb	NT 98
82) Tert-Butylbenzene	21.31	119	54222	0.73244	ppb	NT 96
84) Sec-Butylbenzene	21.71	105	382815	4.29805	ppb	NT 98
90) n-Butylbenzene	22.65	91	196551	3.16469	ppb	NT 93
95) Naphthalene	25.90	128	48586	1.19556	ppb	NT 95

*MRS 5/1/12*

Quantitation Report

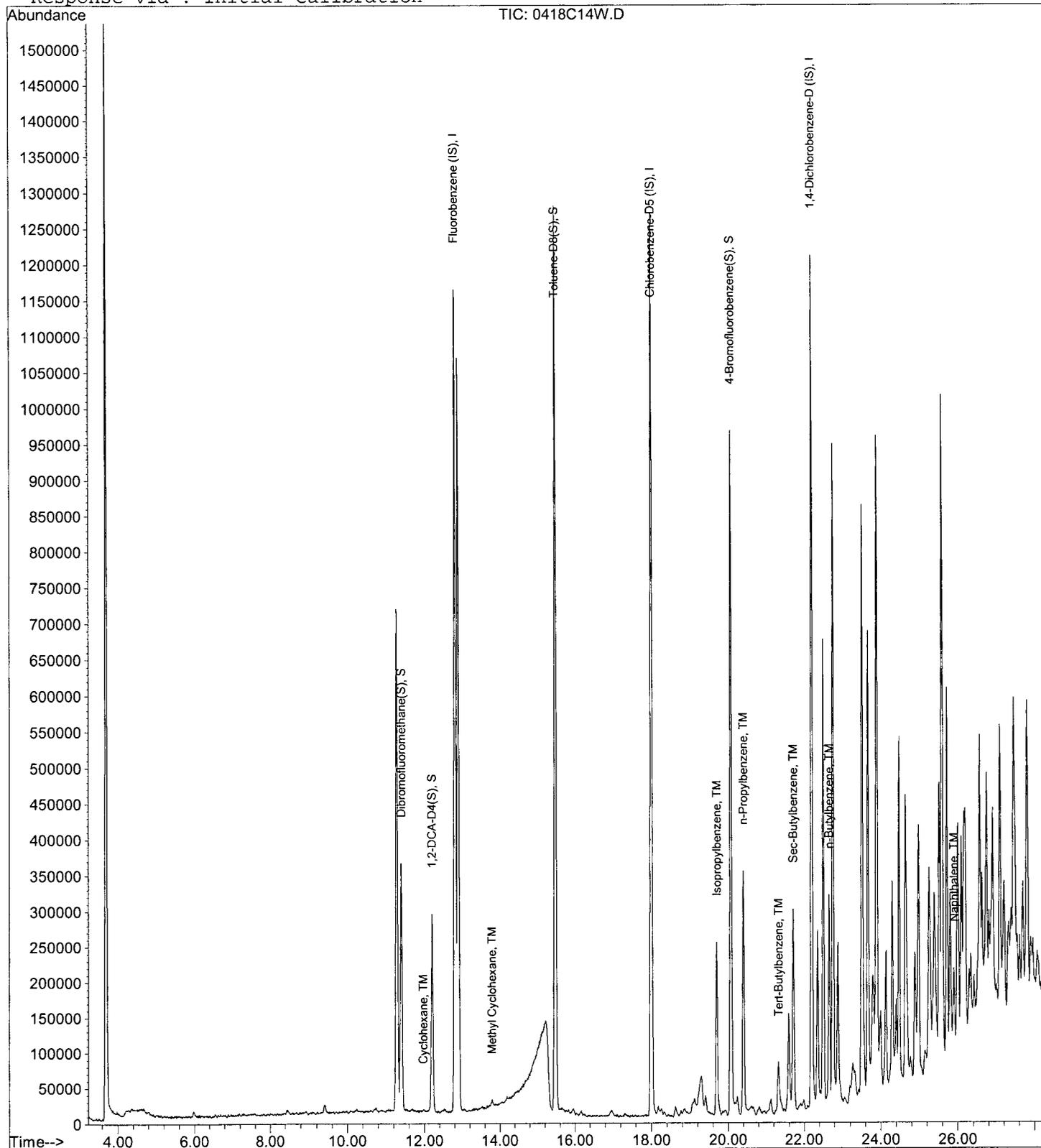
Data File : M:\CHICO\DATA\C120410\0418C14W.D  
Acq On : 18 Apr 12 19:48  
Sample : AY59185W01  
Misc : Water 10mL w/IS&S:04-10-12

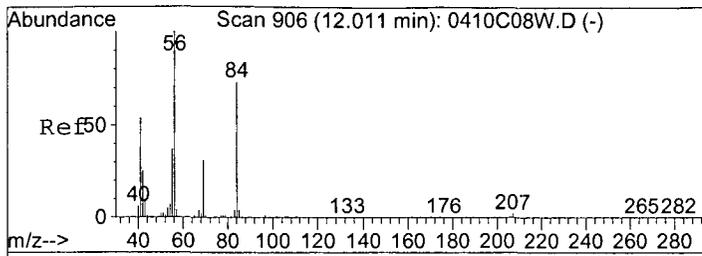
Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: May 1 16:47 2012

Quant Results File: CALLW3.RES

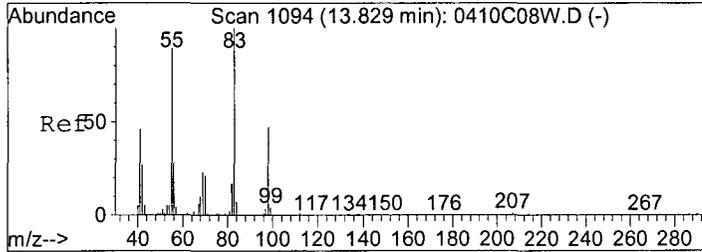
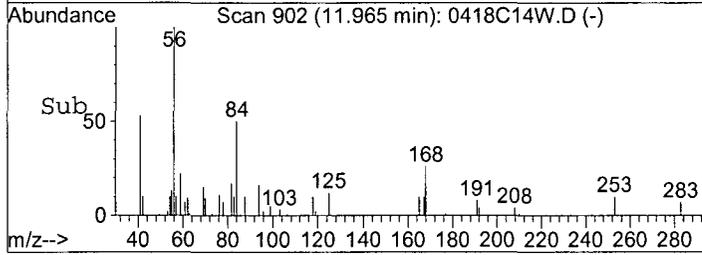
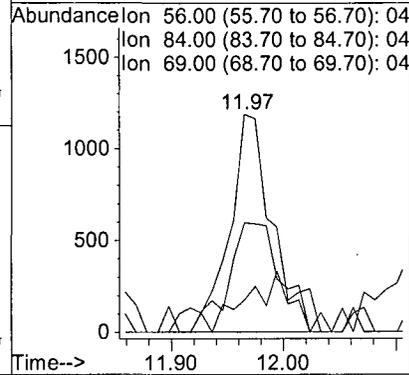
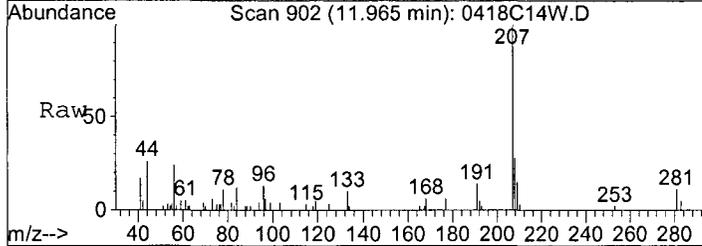
Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 2012  
Response via : Initial Calibration





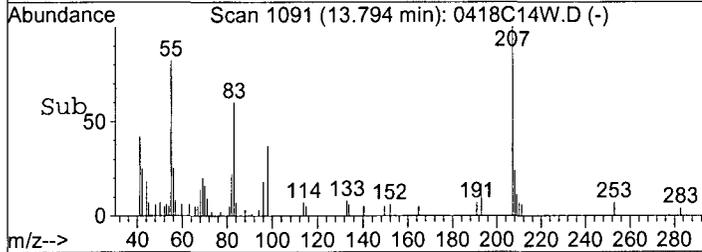
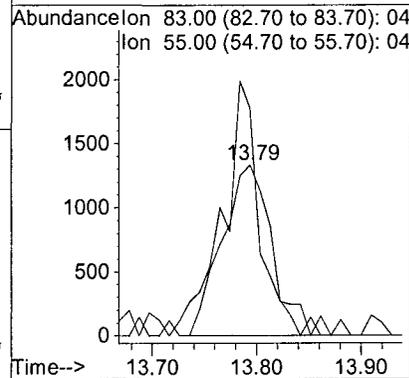
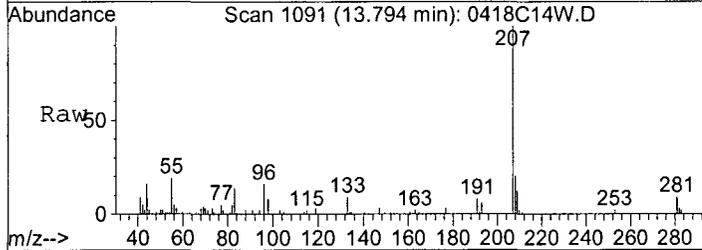
#34  
 Cyclohexane  
 Concen: 0.16764 ppb  
 RT: 11.97 min Scan# 902  
 Delta R.T. -0.05 min  
 Lab File: 0418C14W.D  
 Acq: 18 Apr 12 19:48

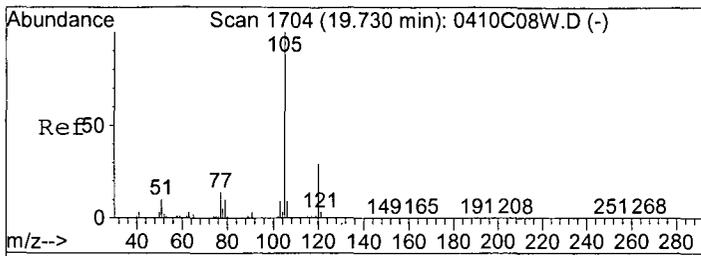
Tgt Ion	Resp	Lower	Upper
56	3197		
84	100	50.9	94.5#
69	14.9	21.8	40.4#



#46  
 Methyl Cyclohexane  
 Concen: 0.26875 ppb  
 RT: 13.79 min Scan# 1091  
 Delta R.T. -0.04 min  
 Lab File: 0418C14W.D  
 Acq: 18 Apr 12 19:48

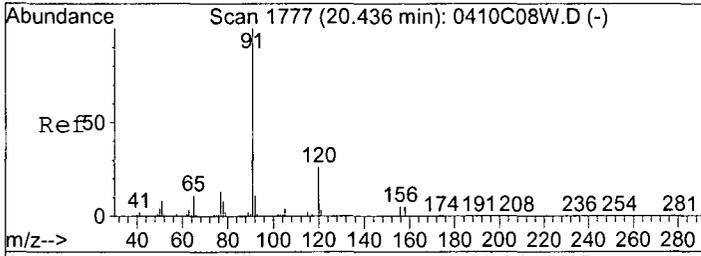
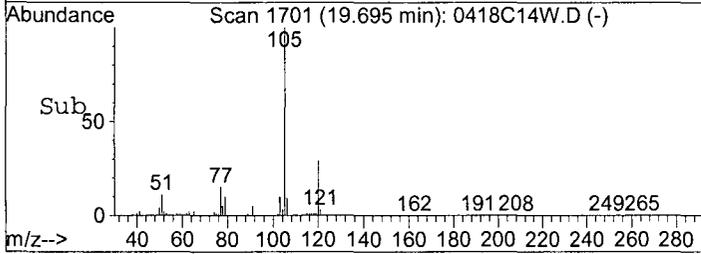
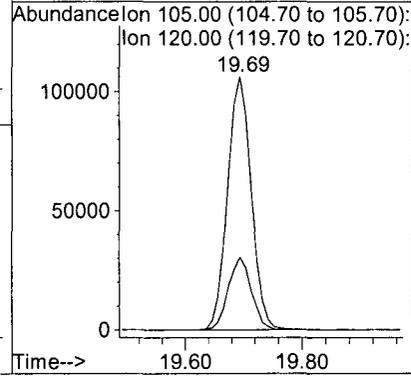
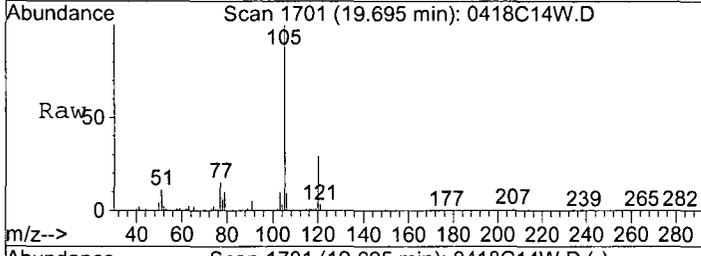
Tgt Ion	Resp	Lower	Upper
83	4332		
55	120.3	64.9	120.5





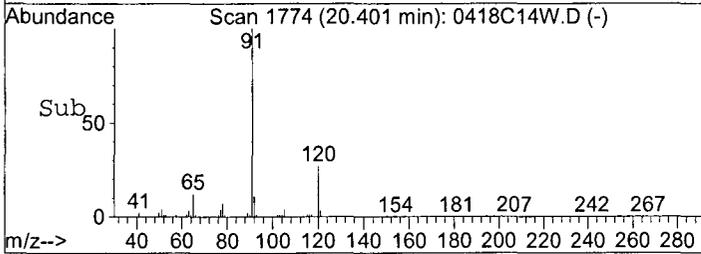
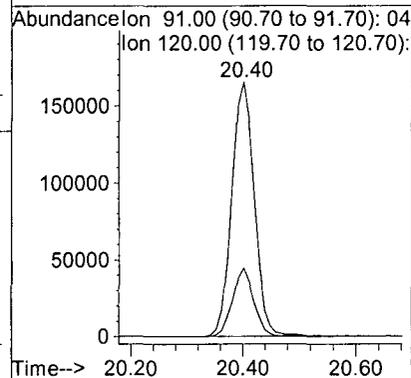
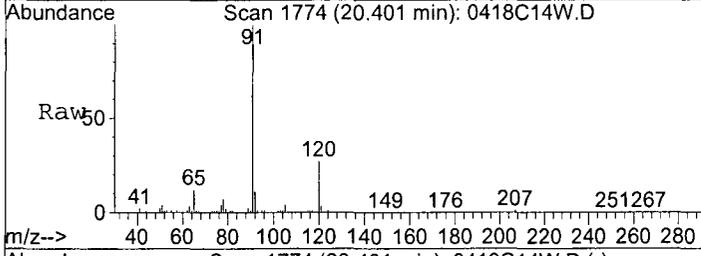
#72  
 Isopropylbenzene  
 Concen: 3.83456 ppb  
 RT: 19.69 min Scan# 1701  
 Delta R.T. -0.04 min  
 Lab File: 0418C14W.D  
 Acq: 18 Apr 12 19:48

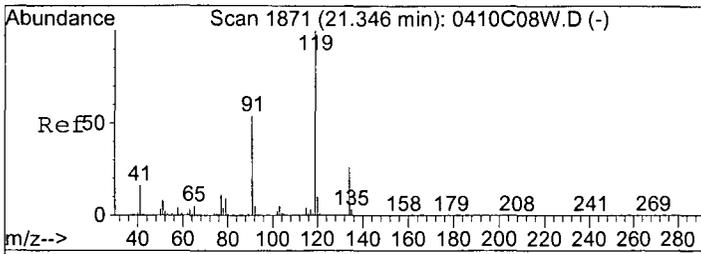
Tgt Ion: 105 Resp: 303004  
 Ion Ratio Lower Upper  
 105 100  
 120 28.7 23.4 35.0



#77  
 n-Propylbenzene  
 Concen: 5.04871 ppb  
 RT: 20.40 min Scan# 1774  
 Delta R.T. -0.04 min  
 Lab File: 0418C14W.D  
 Acq: 18 Apr 12 19:48

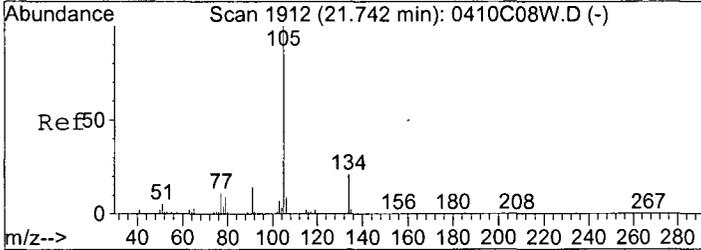
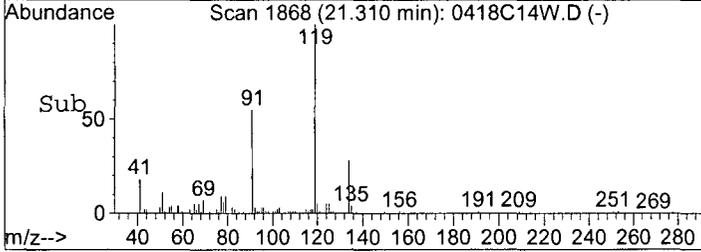
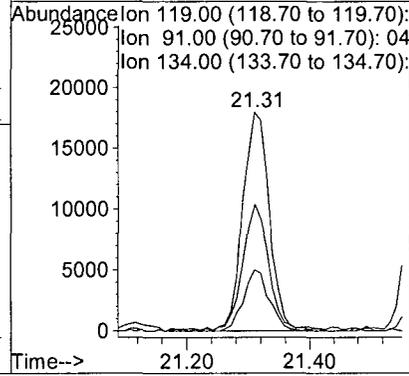
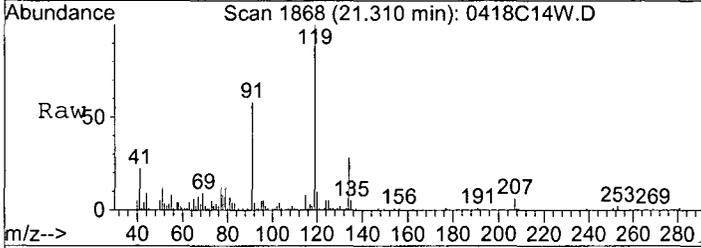
Tgt Ion: 91 Resp: 466494  
 Ion Ratio Lower Upper  
 91 100  
 120 27.0 18.1 33.5





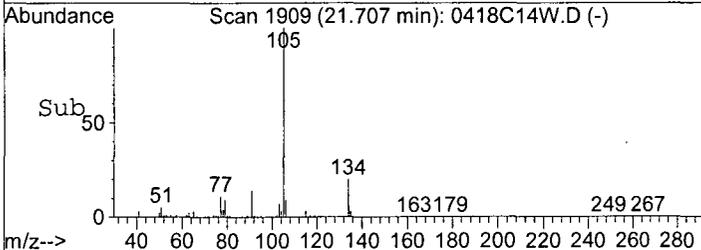
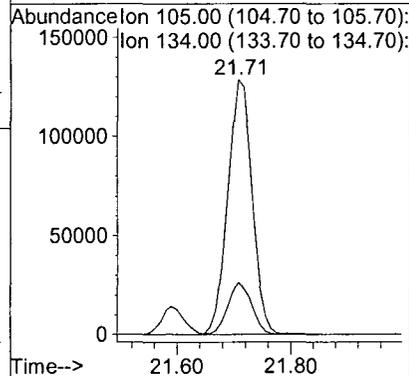
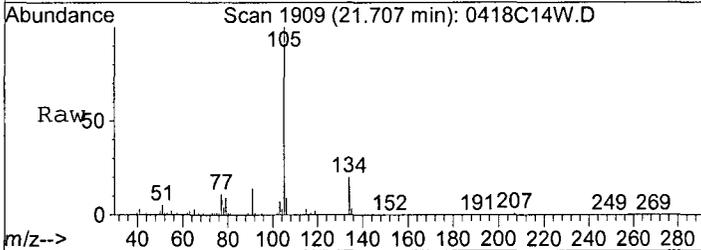
#82  
 Tert-Butylbenzene  
 Concen: 0.73244 ppb  
 RT: 21.31 min Scan# 1868  
 Delta R.T. -0.04 min  
 Lab File: 0418C14W.D  
 Acq: 18 Apr 12 19:48

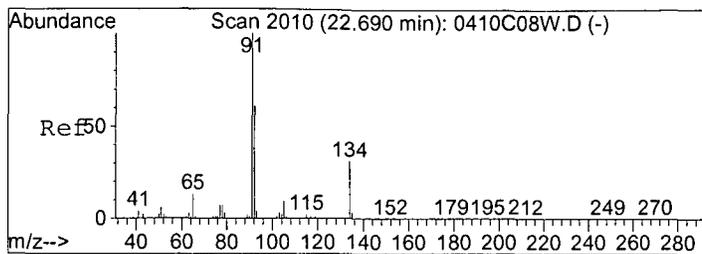
Tgt Ion	Resp	Lower	Upper
119	54222		
91	56.7	37.9	70.3
134	28.0	18.0	33.4



#84  
 Sec-Butylbenzene  
 Concen: 4.29805 ppb  
 RT: 21.71 min Scan# 1909  
 Delta R.T. -0.04 min  
 Lab File: 0418C14W.D  
 Acq: 18 Apr 12 19:48

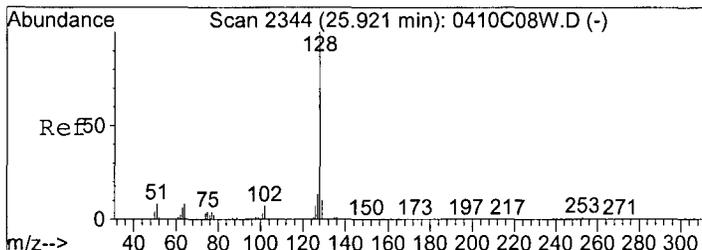
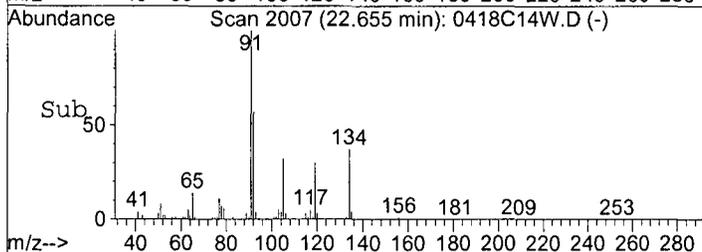
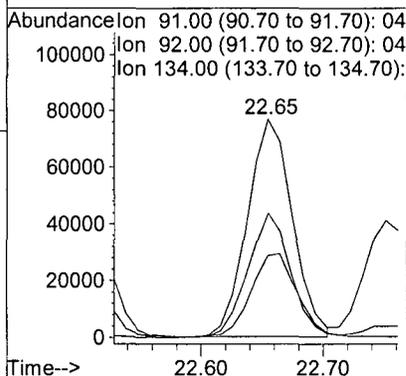
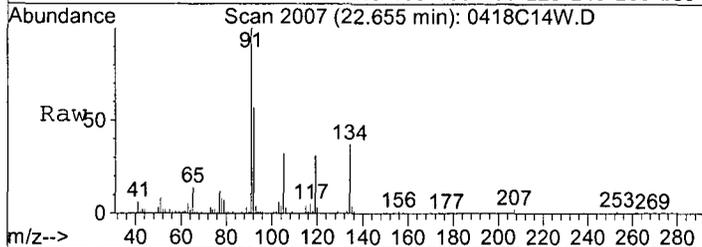
Tgt Ion	Resp	Lower	Upper
105	382815		
134	20.4	15.0	27.8





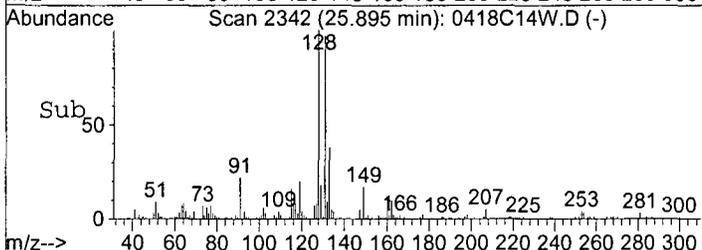
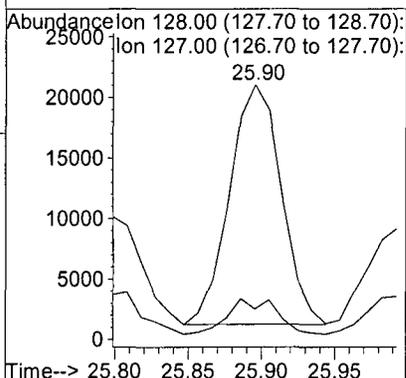
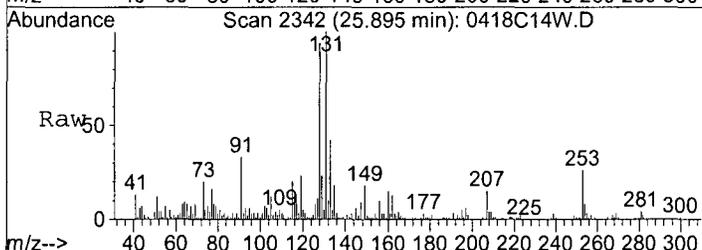
#90  
 n-Butylbenzene  
 Concen: 3.16469 ppb  
 RT: 22.65 min Scan# 2007  
 Delta R.T. -0.04 min  
 Lab File: 0418C14W.D  
 Acq: 18 Apr 12 19:48

Tgt Ion	Resp	Lower	Upper
91	196551		
92	57.0	42.6	79.2
134	37.2	21.6	40.2



#95  
 Naphthalene  
 Concen: 1.19556 ppb  
 RT: 25.90 min Scan# 2342  
 Delta R.T. -0.03 min  
 Lab File: 0418C14W.D  
 Acq: 18 Apr 12 19:48

Tgt Ion	Resp	Lower	Upper
128	48586		
127	10.6	8.9	16.5



Data File : M:\CHICO\DATA\C120410\0418C14W.D Vial: 1  
 Acq On : 18 Apr 12 19:48 Operator: SV  
 Sample : AY59185W01 Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 19 11:13 2012 Quant Results File: CGAS.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.81	TIC	1149577	25.00000	ppb	0.02
3) Chlorobenzene-D5 (IS)	18.00	TIC	1260294	25.00000	ppb	0.02
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1190259	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	26704745m	75.18494	ppb	ND 100

*No gasoline pattern  
 ARS 5/1/12*

Quantitation Report

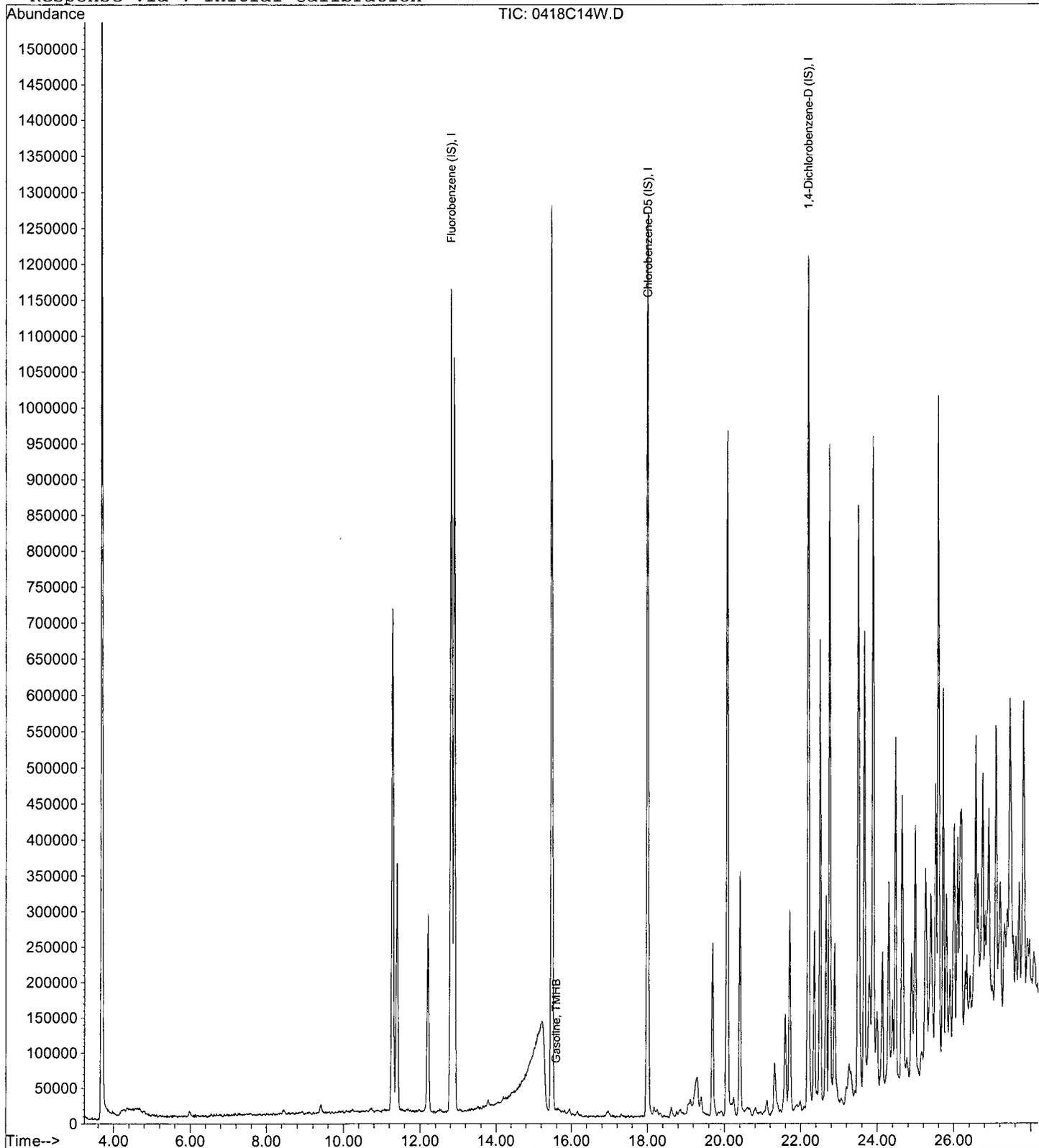
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Acq On : 18 Apr 12 19:48  
Sample : AY59185W01  
Misc : Water 10mL w/IS&S:04-10-12

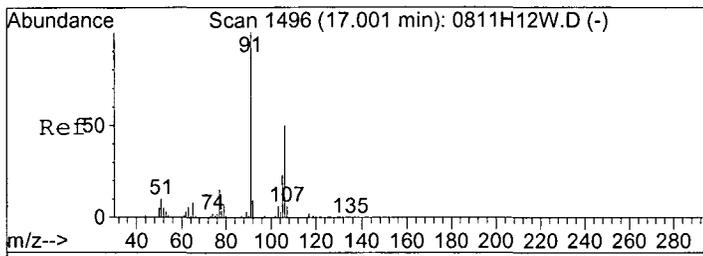
Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 19 11:13 2012

Quant Results File: CGAS.RES

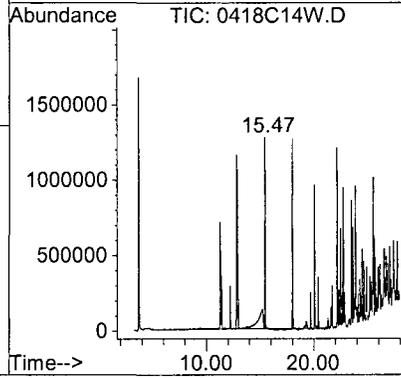
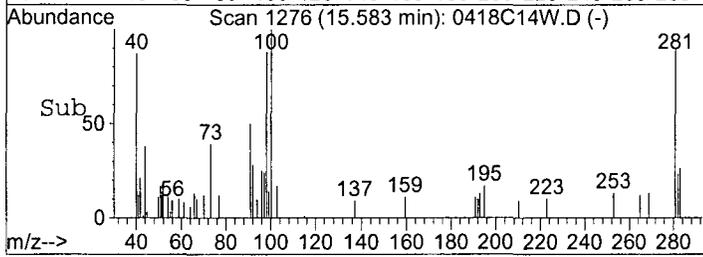
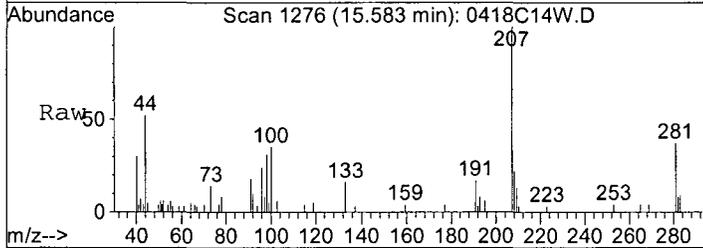
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Feb 07 09:36:43 2012  
Response via : Initial Calibration





#2  
 Gasoline  
 Concen: 75.18494 ppb m  
 RT: 15.58 min Scan# 1276  
 Delta R.T. 0.00 min  
 Lab File: 0418C14W.D  
 Acq: 18 Apr 12 19:48

Tgt Ion:TIC Resp:26704745



## 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: 67512

Sample ID: ES072

APPL ID: AY59186

Sample Collection Date: 04/16/12

QCG: #86RHB-120418AC-166402

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/18/12	04/18/12
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/18/12	04/18/12
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/18/12	04/18/12
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/18/12	04/18/12
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/18/12	04/18/12
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/18/12	04/18/12
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/18/12	04/18/12
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/18/12	04/18/12
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	04/18/12	04/18/12
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	ETHYLBENZENE	0.23 J	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/18/12	04/18/12
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	04/18/12	04/18/12

J = Estimated value.

Quant Method: CALLW3.M
Run #: 0418C15
Instrument: Chico
Sequence: C120410
Dilution Factor: 1
Initials: ARS

Printed: 05/01/12 5:22:04 PM  
APPL-F1-SC-NoMC-REG MDLs

## EPA 8260B VOCs + Gas Water

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Max Solmssen

Project: LTM Red Hill / 1022-024

**Sample ID: ES072**

Sample Collection Date: 04/16/12

ARF: 67512

**APPL ID: AY59186**

QCG: #86RHB-120418AC-166402

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/18/12	04/18/12
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/18/12	04/18/12
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	04/18/12	04/18/12
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	90.1	70-120			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	98.8	75-120			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	94.5	85-115			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	93.0	85-120			%	04/18/12	04/18/12

J = Estimated value.

Quant Method: CALLW3.M
Run #: 0418C15
Instrument: Chico
Sequence: C120410
Dilution Factor: 1
Initials: ARS

Printed: 05/01/12 5:22:04 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\CHICO\DATA\C120410\0418C15W.D Vial: 1  
 Acq On : 18 Apr 12 20:25 Operator: SV  
 Sample : AY59186W01 Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 17:00 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.81	96	652138	25.00000	ppb	-0.04
54) Chlorobenzene-D5 (IS)	18.00	117	500864	25.00000	ppb	-0.04
70) 1,4-Dichlorobenzene-D (IS)	22.20	152	233984	25.00000	ppb	-0.03
System Monitoring Compounds						
32) Dibromofluoromethane(S)	11.40	111	374474	19.71037	ppb	-0.04
Spiked Amount	20.866		Recovery	=	94.461%	
37) 1,2-DCA-D4(S)	12.20	65	285282	18.96423	ppb	-0.03
Spiked Amount	21.039		Recovery	=	90.137%	
55) Toluene-D8(S)	15.46	98	1440916	23.57743	ppb	-0.04
Spiked Amount	25.355		Recovery	=	92.987%	
63) 4-Bromofluorobenzene(S)	20.07	95	668827	26.67927	ppb	-0.03
Spiked Amount	27.007		Recovery	=	98.785%	
Target Compounds						
34) Cyclohexane	11.98	56	3958	0.18421	ppb <sup>NT</sup>	79
46) Methyl Cyclohexane	13.80	83	4679	0.25764	ppb <sup>NT</sup>	99
68) Ethylbenzene	18.18	91	19571	0.23150	ppb <sup>S</sup>	95 <i>CYLPOL</i>
77) n-Propylbenzene	20.40	91	503900	4.97472	ppb <sup>NT</sup>	98
82) Tert-Butylbenzene	21.32	119	56238	0.69297	ppb <sup>NT</sup>	95
84) Sec-Butylbenzene	21.71	105	401456	4.11160	ppb <sup>NT</sup>	97
90) n-Butylbenzene	22.65	91	209893	3.08278	ppb <sup>NT</sup>	93
95) Naphthalene	25.90	128	48974	1.09930	ppb <sup>NT</sup>	97

*APR 5/1/12*

Quantitation Report

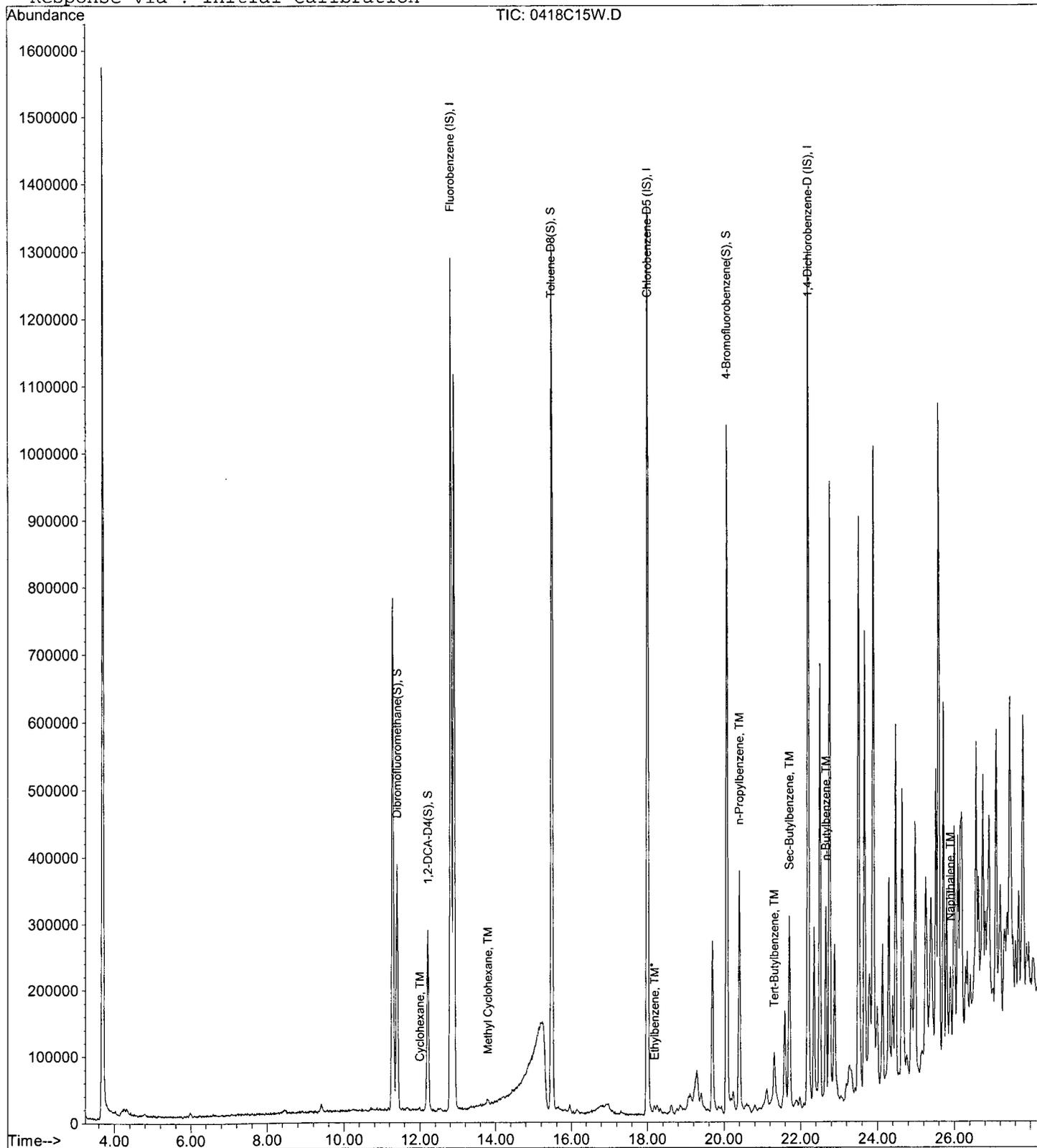
Data File : M:\CHICO\DATA\C120410\0418C15W.D  
Acq On : 18 Apr 12 20:25  
Sample : AY59186W01  
Misc : Water 10mL w/IS&S:04-10-12

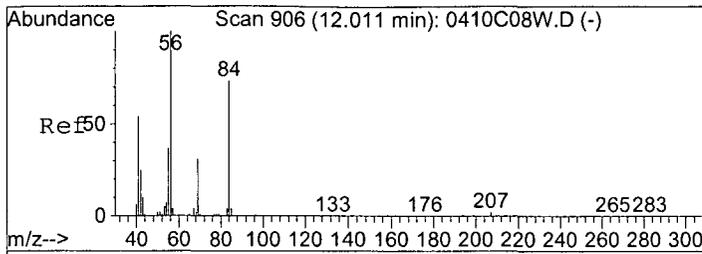
Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: May 1 17:00 2012

Quant Results File: CALLW3.RES

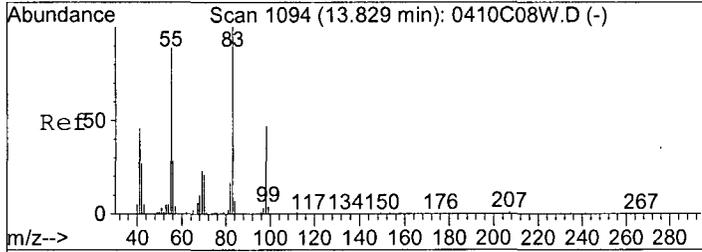
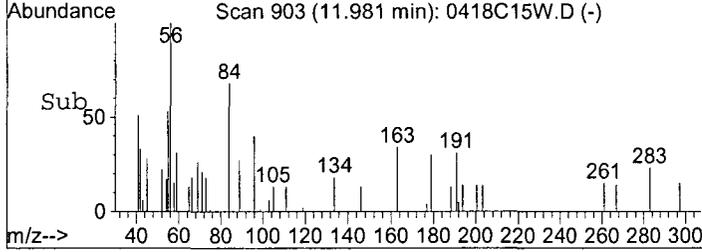
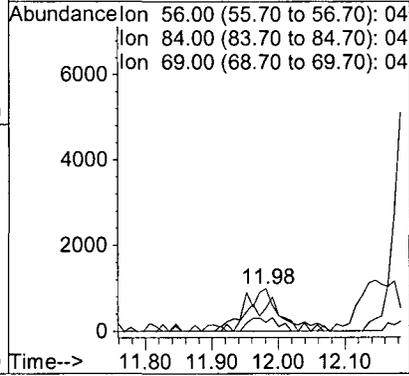
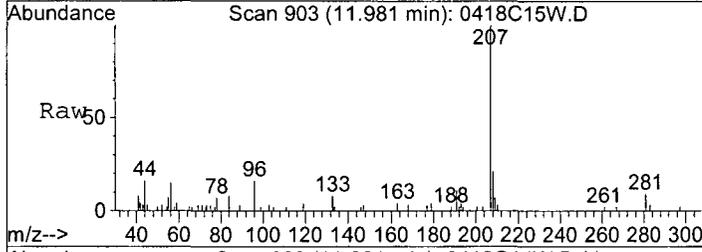
Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 2012  
Response via : Initial Calibration





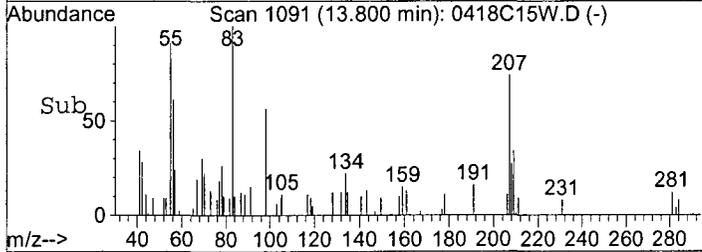
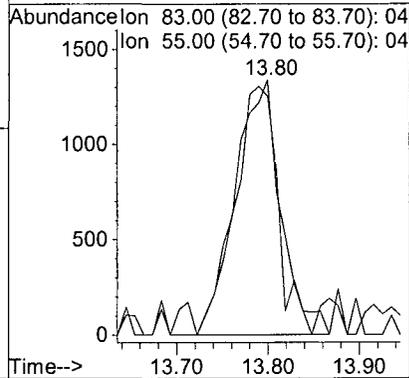
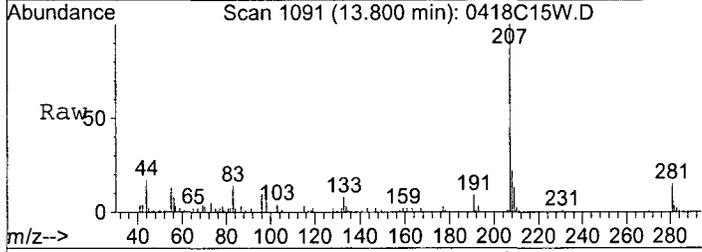
#34  
 Cyclohexane  
 Concen: 0.18421 ppb  
 RT: 11.98 min Scan# 903  
 Delta R.T. -0.03 min  
 Lab File: 0418C15W.D  
 Acq: 18 Apr 12 20:25

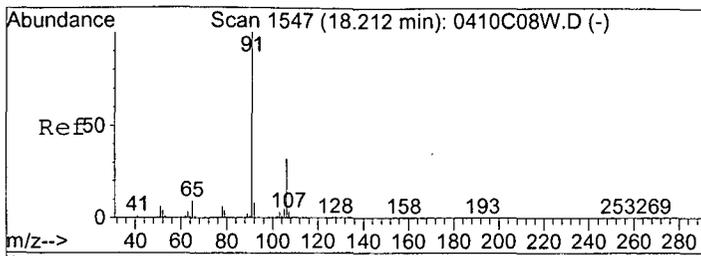
Tgt Ion	Resp	Lower	Upper
56	3958		
84	54.6	50.9	94.5
69	21.0	21.8	40.4#



#46  
 Methyl Cyclohexane  
 Concen: 0.25764 ppb  
 RT: 13.80 min Scan# 1091  
 Delta R.T. -0.03 min  
 Lab File: 0418C15W.D  
 Acq: 18 Apr 12 20:25

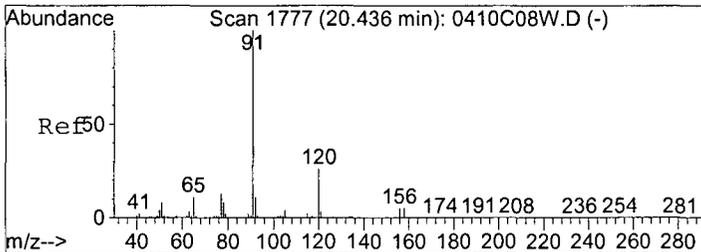
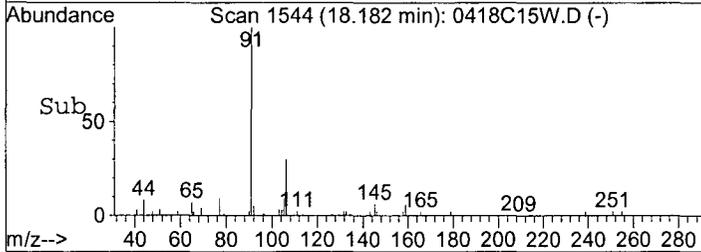
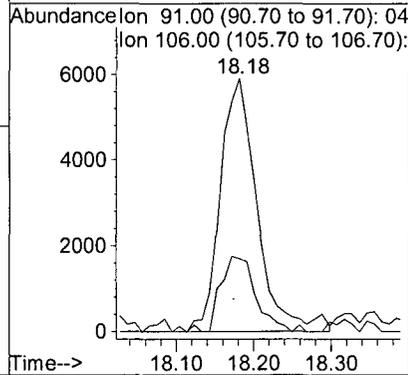
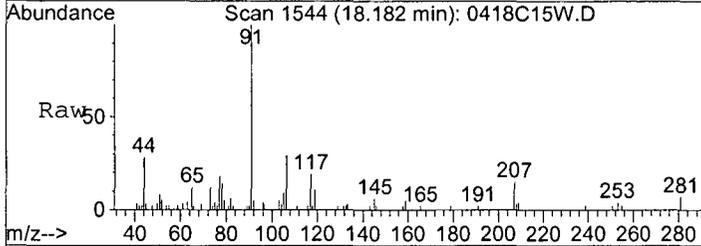
Tgt Ion	Resp	Lower	Upper
83	4679		
55	91.6	64.9	120.5





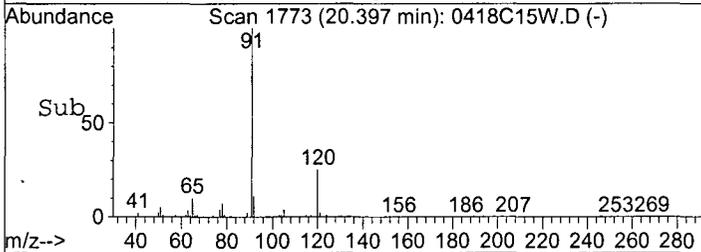
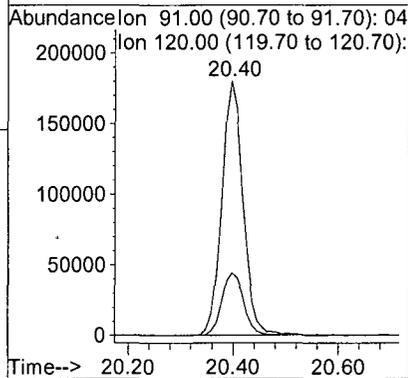
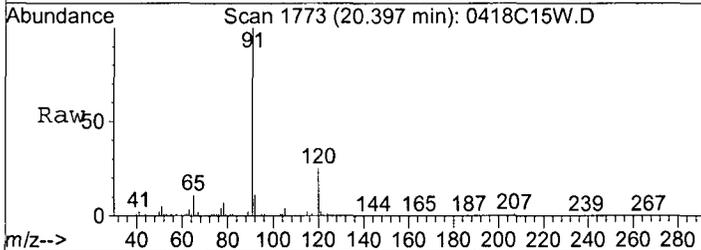
#68  
 Ethylbenzene  
 Concen: 0.23150 ppb  
 RT: 18.18 min Scan# 1544  
 Delta R.T. -0.03 min  
 Lab File: 0418C15W.D  
 Acq: 18 Apr 12 20:25

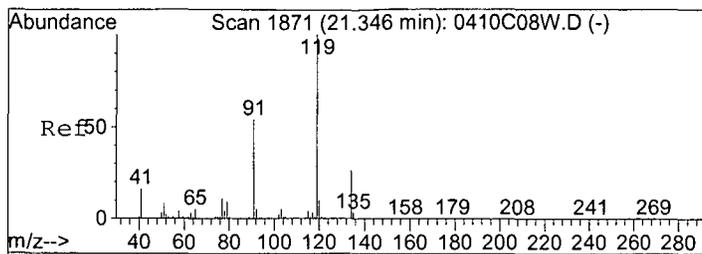
Tgt Ion: 91 Resp: 19571  
 Ion Ratio Lower Upper  
 91 100  
 106 28.7 22.2 41.2



#77  
 n-Propylbenzene  
 Concen: 4.97472 ppb  
 RT: 20.40 min Scan# 1773  
 Delta R.T. -0.04 min  
 Lab File: 0418C15W.D  
 Acq: 18 Apr 12 20:25

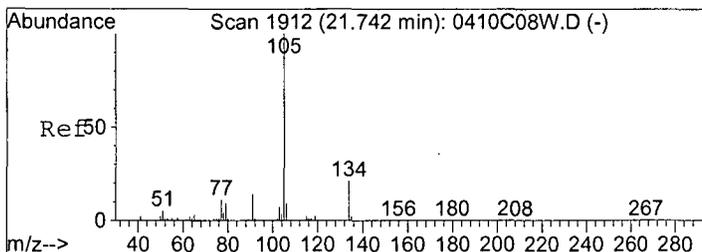
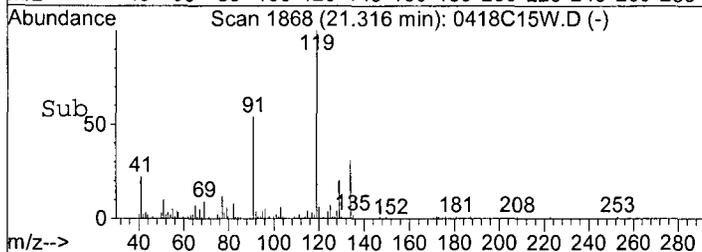
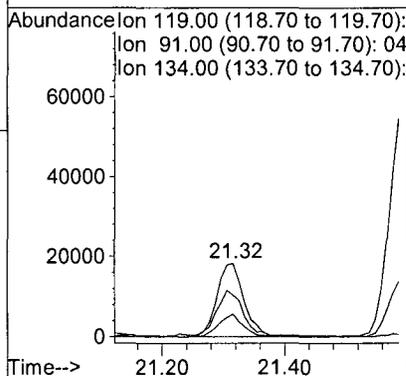
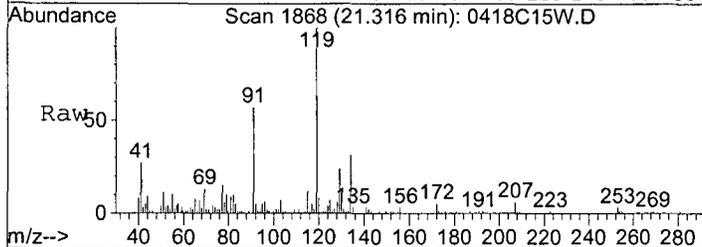
Tgt Ion: 91 Resp: 503900  
 Ion Ratio Lower Upper  
 91 100  
 120 24.6 18.1 33.5





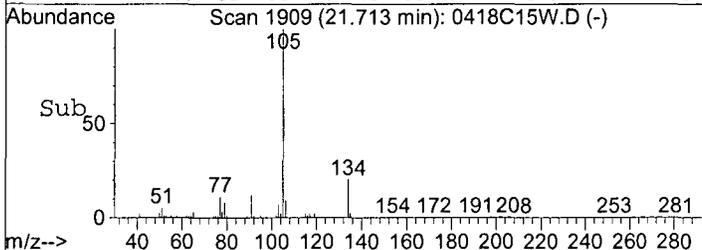
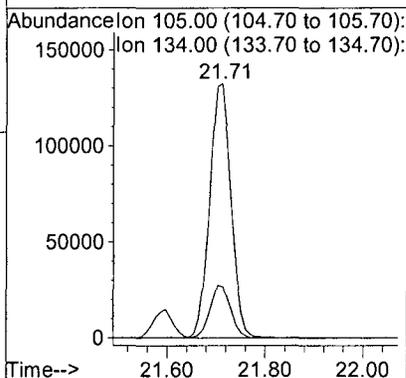
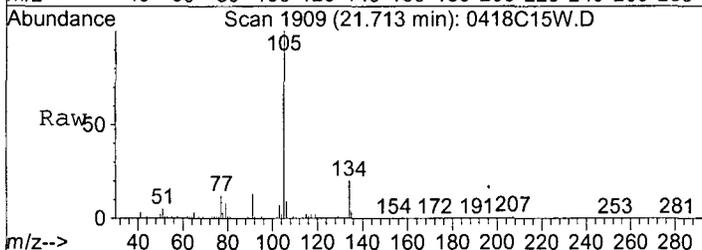
#82  
 Tert-Butylbenzene  
 Concen: 0.69297 ppb  
 RT: 21.32 min Scan# 1868  
 Delta R.T. -0.03 min  
 Lab File: 0418C15W.D  
 Acq: 18 Apr 12 20:25

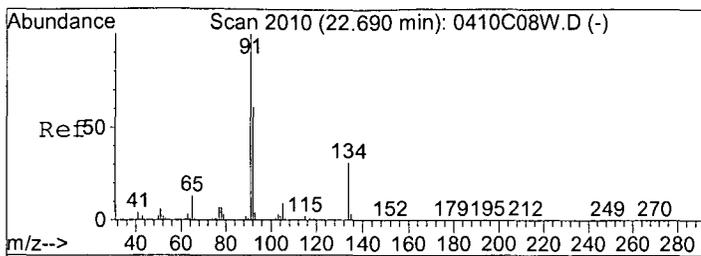
Tgt Ion	Resp	Ion Ratio	Lower	Upper
119	56238	100		
91		55.7	37.9	70.3
134		30.9	18.0	33.4



#84  
 Sec-Butylbenzene  
 Concen: 4.11160 ppb  
 RT: 21.71 min Scan# 1909  
 Delta R.T. -0.03 min  
 Lab File: 0418C15W.D  
 Acq: 18 Apr 12 20:25

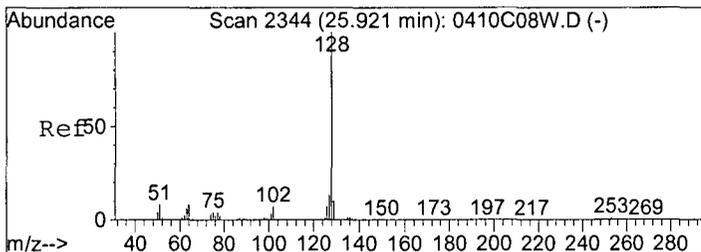
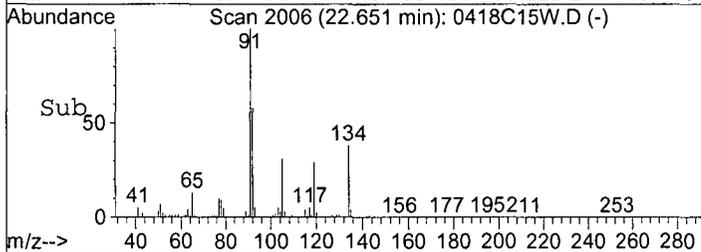
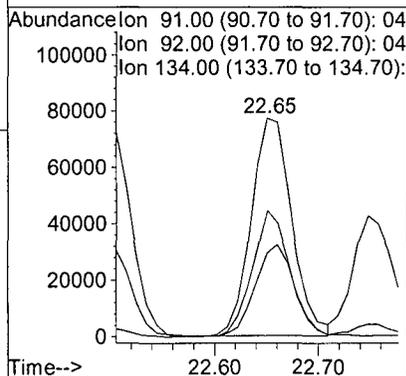
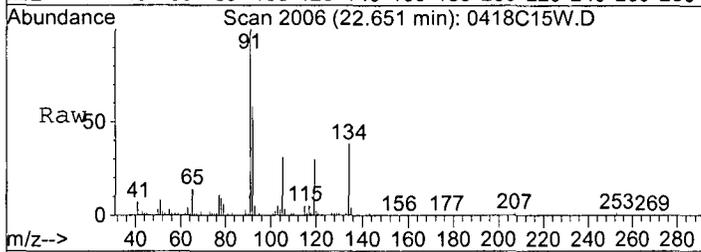
Tgt Ion	Resp	Ion Ratio	Lower	Upper
105	401456	100		
134		20.1	15.0	27.8





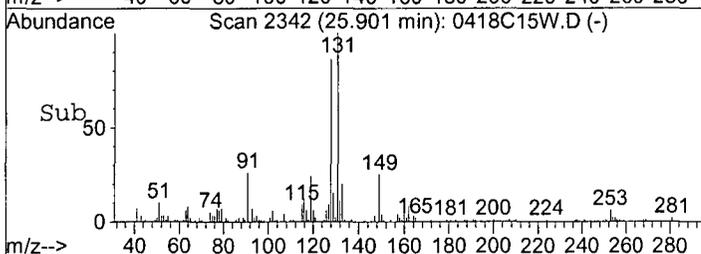
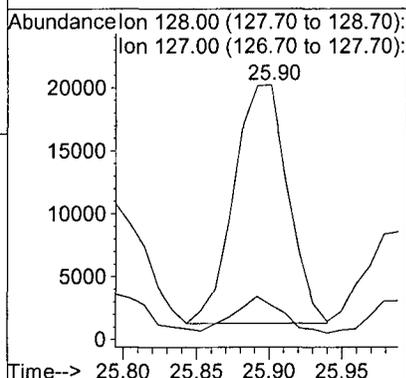
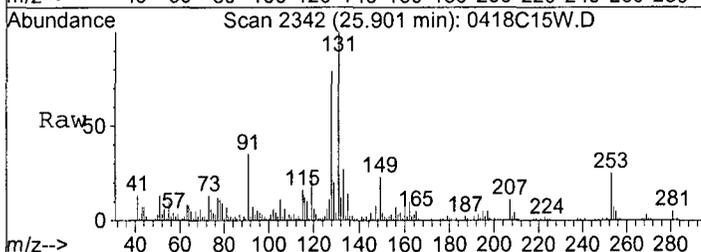
#90  
 n-Butylbenzene  
 Concen: 3.08278 ppb  
 RT: 22.65 min Scan# 2006  
 Delta R.T. -0.04 min  
 Lab File: 0418C15W.D  
 Acq: 18 Apr 12 20:25

Tgt Ion:	Resp:	Lower	Upper
91	209893		
92	57.9	42.6	79.2
134	38.0	21.6	40.2



#95  
 Naphthalene  
 Concen: 1.09930 ppb  
 RT: 25.90 min Scan# 2342  
 Delta R.T. -0.02 min  
 Lab File: 0418C15W.D  
 Acq: 18 Apr 12 20:25

Tgt Ion:	Resp:	Lower	Upper
128	48974		
127	11.6	8.9	16.5



Data File : M:\CHICO\DATA\C120410\0418C15W.D Vial: 1  
 Acq On : 18 Apr 12 20:25 Operator: SV  
 Sample : AY59186W01 Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 19 11:13 2012 Quant Results File: CGAS.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.81	TIC	1274310	25.00000	ppb	0.02
3) Chlorobenzene-D5 (IS)	18.00	TIC	1357574	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.20	TIC	1277217	25.00000	ppb	0.01

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	27651371m	57.56858	ppb	ND 100

*No Gasoline pattern  
RES 5/1/12*

Quantitation Report

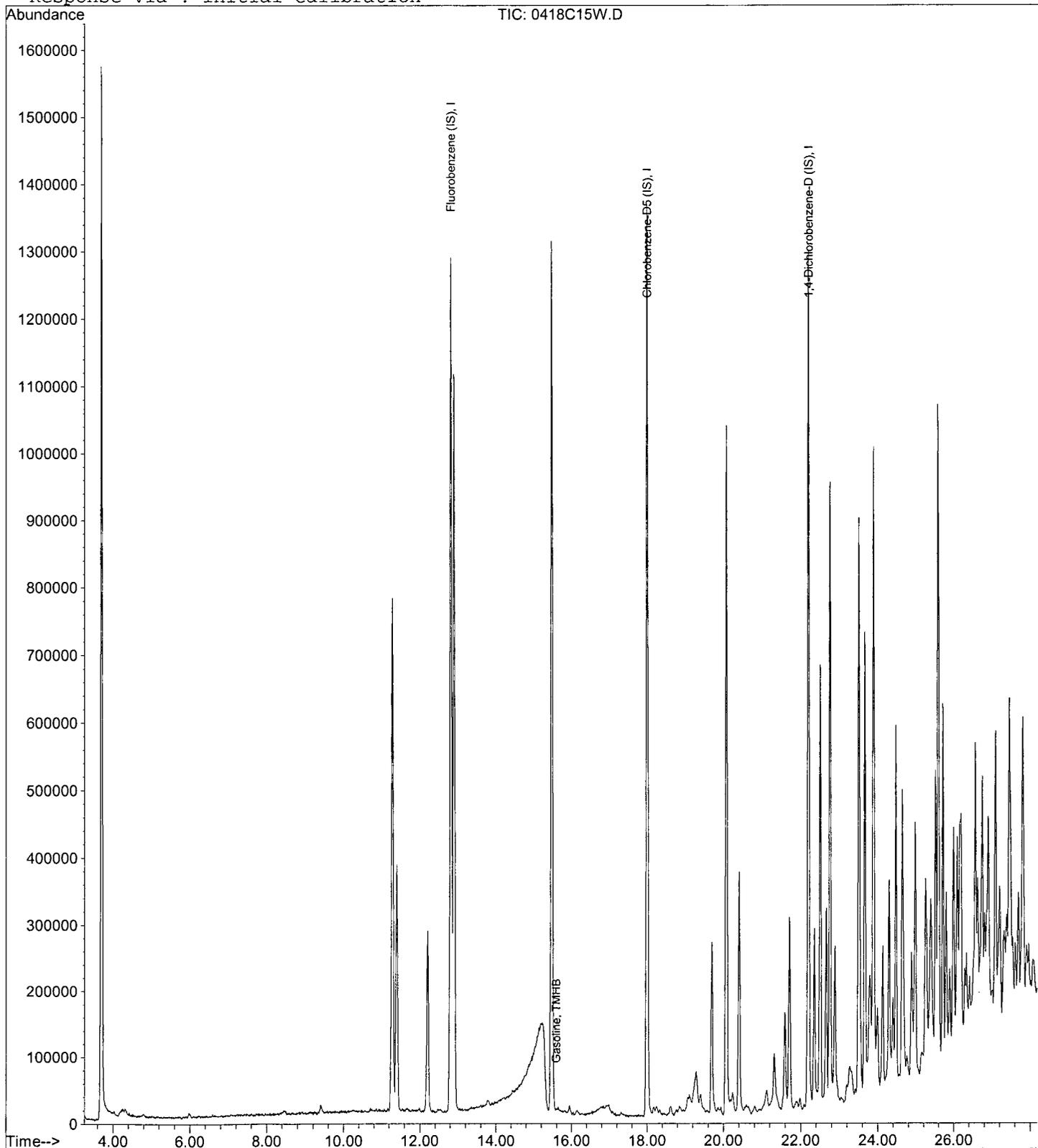
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Acq On : 18 Apr 12 20:25  
Sample : AY59186W01  
Misc : Water 10mL w/IS&S:04-10-12

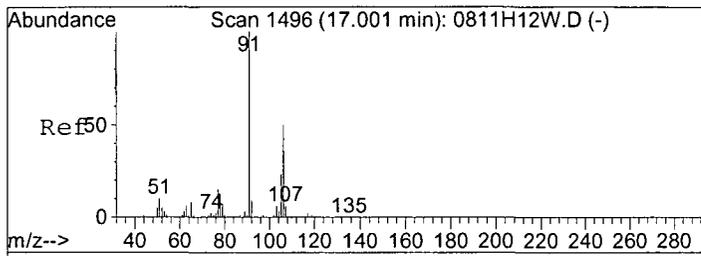
Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 19 11:13 2012

Quant Results File: CGAS.RES

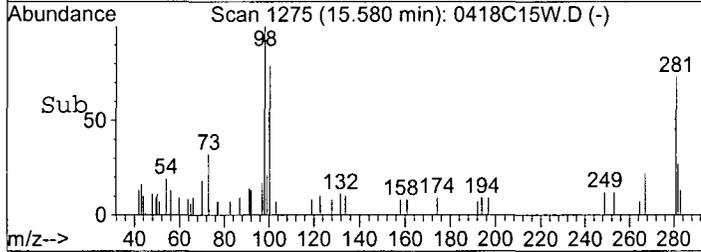
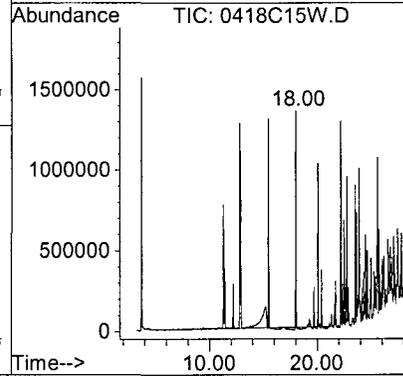
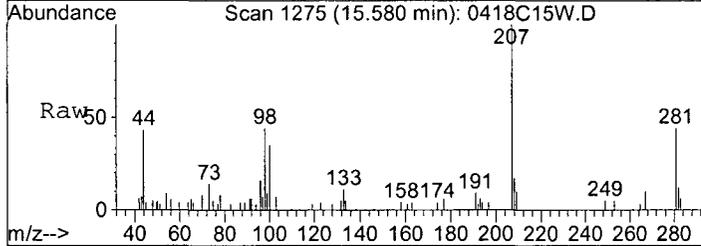
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Feb 07 09:36:43 2012  
Response via : Initial Calibration





#2  
 Gasoline  
 Concen: 57.56858 ppb m  
 RT: 15.58 min Scan# 1275  
 Delta R.T. 0.00 min  
 Lab File: 0418C15W.D  
 Acq: 18 Apr 12 20:25

Tgt Ion:TIC Resp:27651371



## 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: ES073**

Sample Collection Date: 04/16/12

APPL Inc.

908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

**APPL ID: AY59187**

QCG: #86RHB-120419AT-166110

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

Quant Method: TALLW.M
Run #: 0419T20
Instrument: Thor
Sequence: T120411
Dilution Factor: 1
Initials: DG

Printed: 05/01/12 5:22:04 PM  
APPL-F1-SC-NoMC-REG MDLs

## 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: ES073**

Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

**APPL ID: AY59187**

QCG: #86RHB-120419AT-166110

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/19/12	04/19/12
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/19/12	04/19/12
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	04/19/12	04/19/12
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/19/12	04/19/12
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/19/12	04/19/12
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/19/12	04/19/12
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/19/12	04/19/12
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	107	70-120			%	04/19/12	04/19/12
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	91.8	75-120			%	04/19/12	04/19/12
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	105	85-115			%	04/19/12	04/19/12
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	97.1	85-120			%	04/19/12	04/19/12

Quant Method: TALLW.M
Run #: 0419T20
Instrument: Thor
Sequence: T120411
Dilution Factor: 1
Initials: DG

Printed: 05/01/12 5:22:05 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\THOR\DATA\T120411\0419T20W.D Vial: 10  
 Acq On : 19 Apr 12 13:55 Operator: DG,RS,HW,ARS,SV  
 Sample : AY59187W03 Inst : Thor  
 Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 20 10:39 2012 Quant Results File: TALLW.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	454400	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	392640	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	209920	25.00000	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.96	111	237202	31.30483	ppb	0.00
Spiked Amount	29.720		Recovery	=	105.332%	
36) 1,2-DCA-D4(S)	6.34	65	219272	31.72684	ppb	0.00
Spiked Amount	29.608		Recovery	=	107.157%	
56) Toluene-D8(S)	8.44	98	813794	31.06506	ppb	0.00
Spiked Amount	31.981		Recovery	=	97.137%	
64) 4-Bromofluorobenzene(S)	11.06	95	292329	26.94009	ppb	0.00
Spiked Amount	29.353		Recovery	=	91.780%	

Target Compounds Qvalue

Quantitation Report

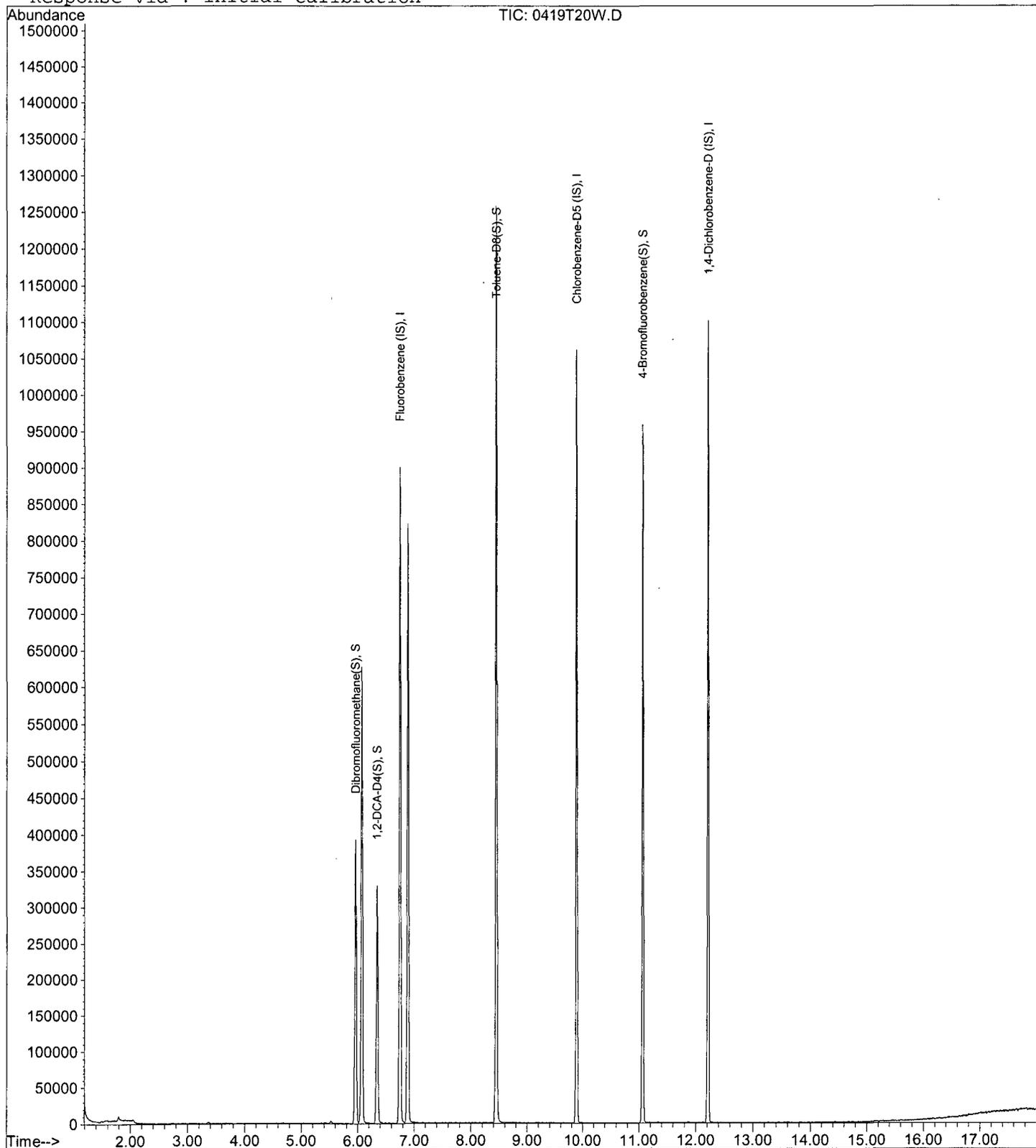
Data File : M:\THOR\DATA\T120411\0419T20W.D  
Acq On : 19 Apr 12 13:55  
Sample : AY59187W03  
Misc : 10ml w/5ul of IS&S: 03-26-12

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

Quant Time: Apr 20 10:39 2012

Quant Results File: TALLW.RES

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



Data File : M:\CHICO\DATA\C120410\0419C11W.D Vial: 1  
 Acq On : 19 Apr 12 12:58 Operator: SV  
 Sample : AY59187W02 Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.81	TIC	1324515	25.00000	ppb	0.02
3) Chlorobenzene-D5 (IS)	17.99	TIC	1407521	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1308809	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	25089432m	25.84769	ppb	ND 100

*No gasoline pattern detected.  
 ARES 5/1/12*

Quantitation Report

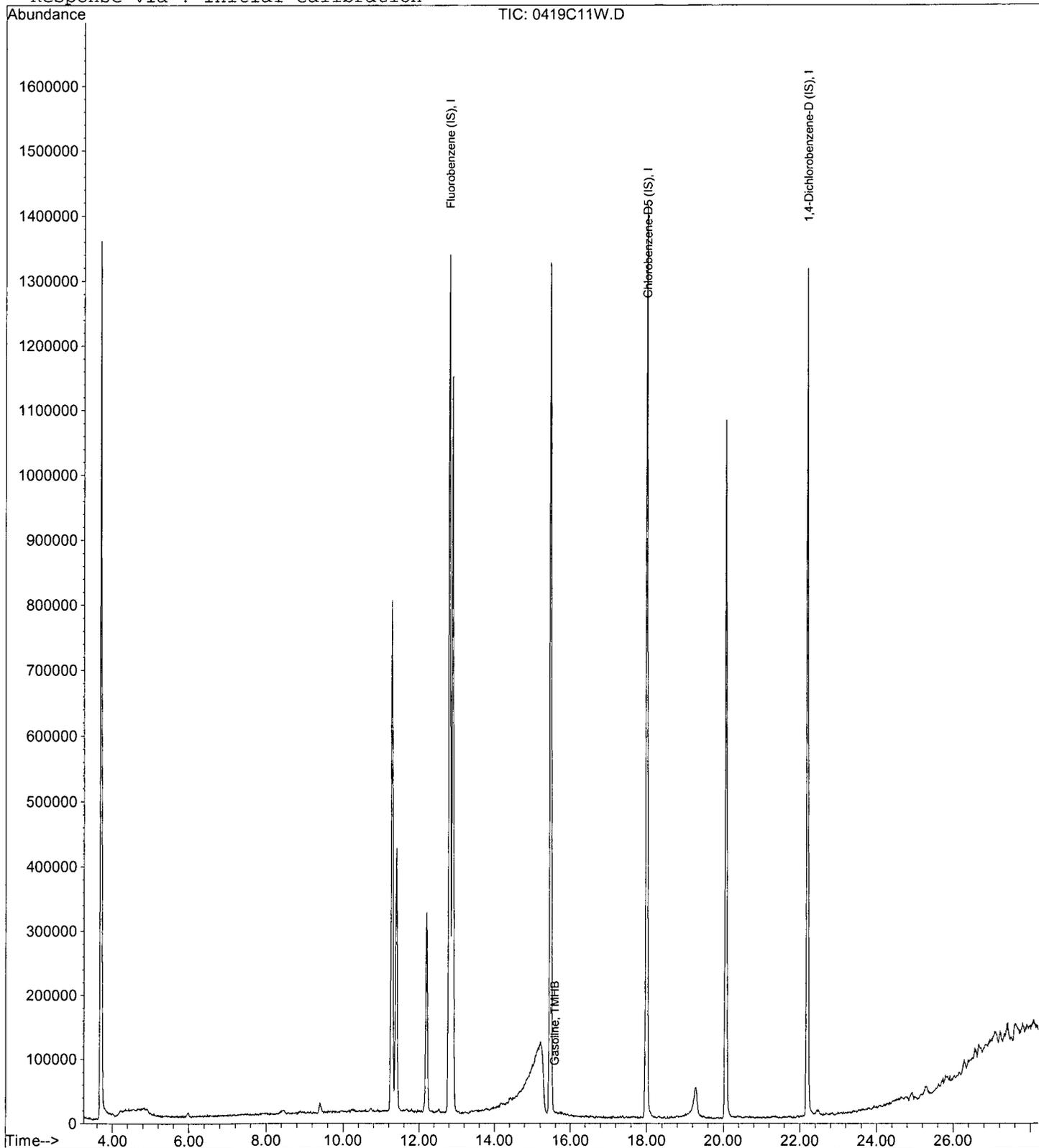
Data File : M:\CHICO\DATA\C120410\0419C11W.D  
Acq On : 19 Apr 12 12:58  
Sample : AY59187W02  
Misc : Water 10mL w/IS&S:04-10-12

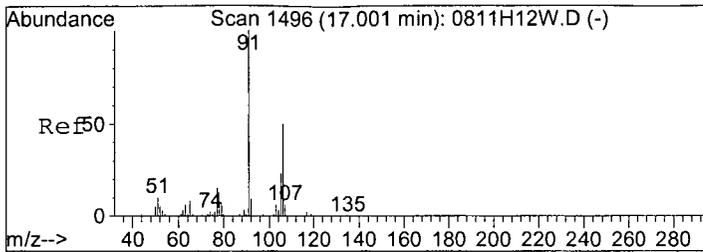
Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: May 1 14:00 2012

Quant Results File: CGAS.RES

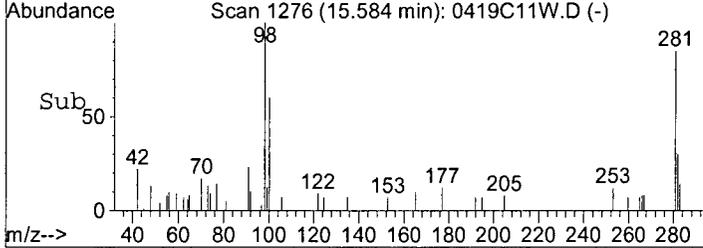
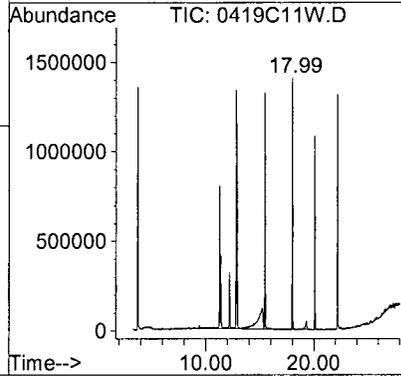
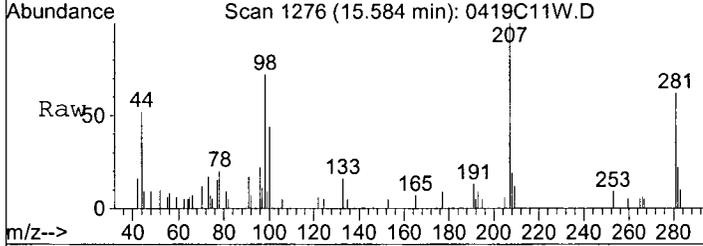
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Feb 07 09:36:43 2012  
Response via : Initial Calibration





#2  
 Gasoline  
 Concen: 25.84769 ppb m  
 RT: 15.58 min Scan# 1276  
 Delta R.T. 0.00 min  
 Lab File: 0419C11W.D  
 Acq: 19 Apr 12 12:58

Tgt Ion:TIC Resp:25089432



## 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: 67512

**Sample ID: TRIP BLANK-1**

**APPL ID: AY59208**

Sample Collection Date: 04/16/12

QCG: #86RHB-120418AC-166402

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/18/12	04/18/12
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/18/12	04/18/12
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/18/12	04/18/12
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/18/12	04/18/12
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/18/12	04/18/12
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/18/12	04/18/12
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/18/12	04/18/12
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/18/12	04/18/12
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	04/18/12	04/18/12
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/18/12	04/18/12
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	04/18/12	04/18/12

J = Estimated value.

Quant Method: CALLW3.M
Run #: 0418C11
Instrument: Chico
Sequence: C120410
Dilution Factor: 1
Initials: ARS

Printed: 05/01/12 5:22:05 PM  
APPL-F1-SC-NoMC-REG MDLs

## 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: TRIP BLANK-1**

Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

**APPL ID: AY59208**

QCG: #86RHB-120418AC-166402

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	METHYLENE CHLORIDE	0.47 J	5.0	0.70	0.35	ug/L	04/18/12	04/18/12
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/18/12	04/18/12
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	04/18/12	04/18/12
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	98.5	70-120			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	101	75-120			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	101	85-115			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	95.0	85-120			%	04/18/12	04/18/12

J = Estimated value.

Quant Method: CALLW3.M
Run #: 0418C11
Instrument: Chico
Sequence: C120410
Dilution Factor: 1
Initials: ARS

Printed: 05/01/12 5:22:05 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\CHICO\DATA\C120410\0418C11W.D Vial: 1  
 Acq On : 18 Apr 12 17:57 Operator: SV  
 Sample : AY59208W01 Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 19 11:22 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.81	96	625597	25.00000	ppb	-0.04
54) Chlorobenzene-D5 (IS)	18.00	117	462912	25.00000	ppb	-0.04
70) 1,4-Dichlorobenzene-D (IS)	22.20	152	211392	25.00000	ppb	-0.03
<b>System Monitoring Compounds</b>						
32) Dibromofluoromethane(S)	11.40	111	382378	20.98025	ppb	-0.04
Spiked Amount	20.866		Recovery	=	100.548%	
37) 1,2-DCA-D4(S)	12.20	65	298976	20.71773	ppb	-0.03
Spiked Amount	21.039		Recovery	=	98.474%	
55) Toluene-D8(S)	15.47	98	1360672	24.08976	ppb	-0.03
Spiked Amount	25.355		Recovery	=	95.010%	
63) 4-Bromofluorobenzene(S)	20.07	95	631193	27.24229	ppb	-0.03
Spiked Amount	27.007		Recovery	=	100.870%	
<b>Target Compounds</b>						
19) Methylene chloride	8.47	84	7539	0.46834	ppb	J 89 < 1/2 PQL

ARS 5/1/12

Quantitation Report

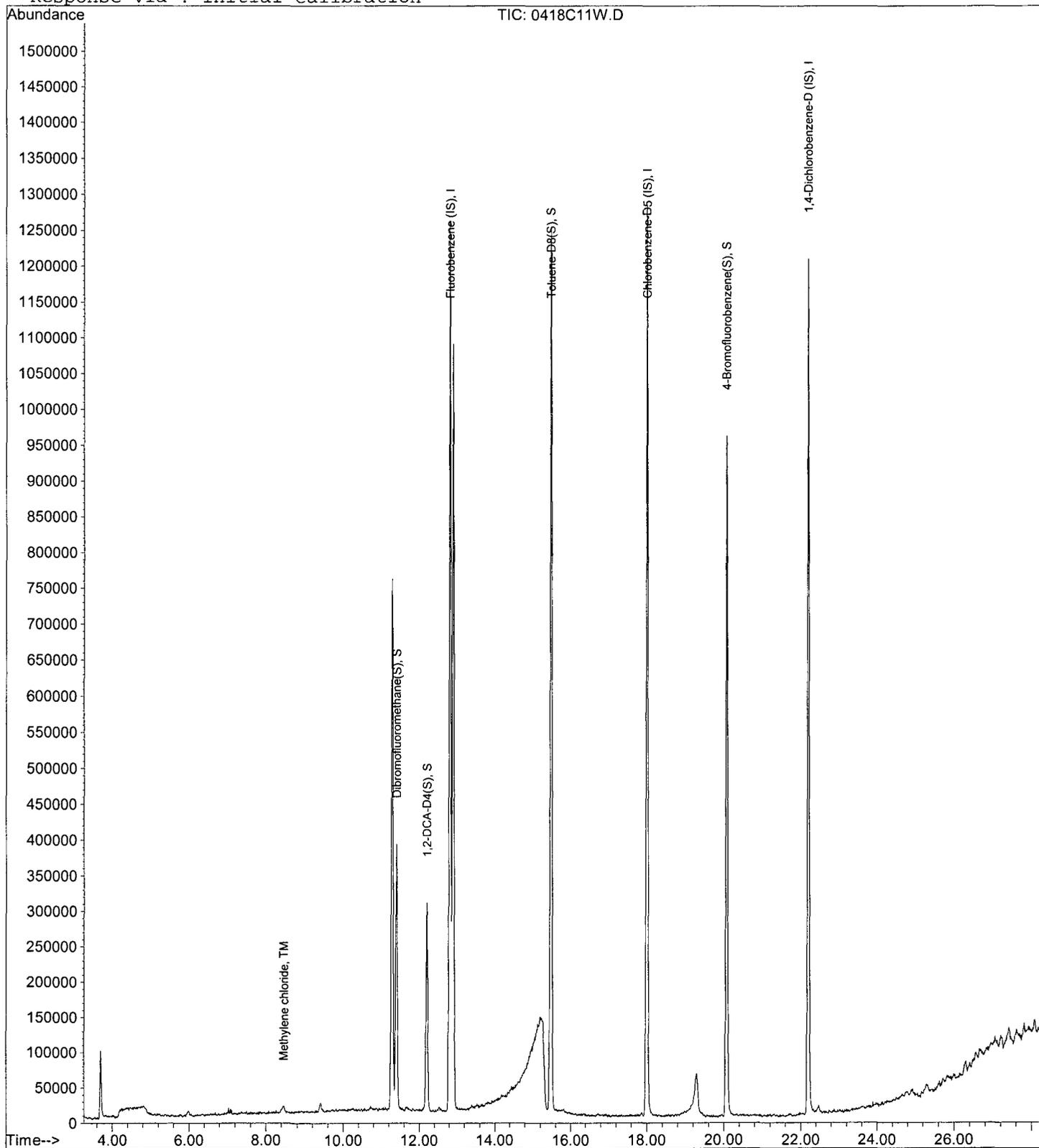
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Acq On : 18 Apr 12 17:57  
Sample : AY59208W01  
Misc : Water 10mL w/IS&S:04-10-12

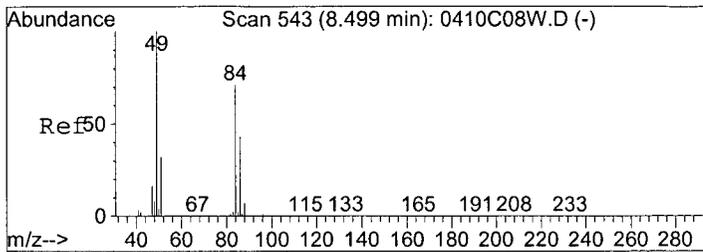
Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 19 11:22 2012

Quant Results File: CALLW3.RES

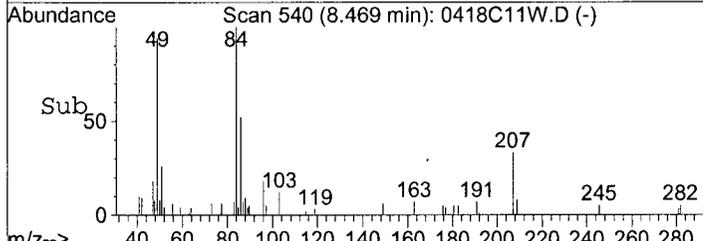
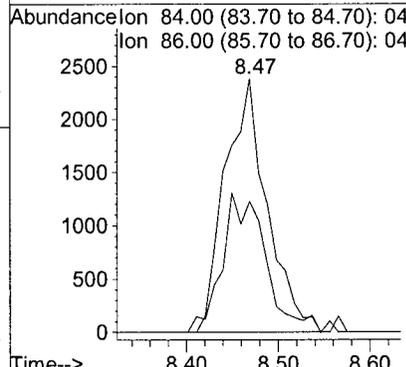
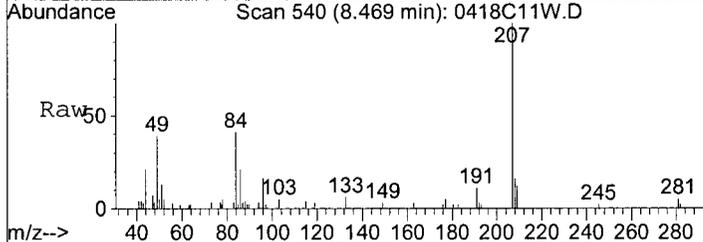
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Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 2012  
Response via : Initial Calibration





#19  
 Methylene chloride  
 Concen: 0.46834 ppb  
 RT: 8.47 min Scan# 540  
 Delta R.T. -0.03 min  
 Lab File: 0418C11W.D  
 Acq: 18 Apr 12 17:57

Tgt Ion: 84 Resp: 7539  
 Ion Ratio Lower Upper  
 84 100  
 86 51.6 42.1 78.1



Data File : M:\CHICO\DATA\C120410\0418C11W.D Vial: 1  
 Acq On : 18 Apr 12 17:57 Operator: SV  
 Sample : AY59208W01 Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 19 11:13 2012 Quant Results File: CGAS.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.81	TIC	1246665	25.00000	ppb	0.02
3) Chlorobenzene-D5 (IS)	18.00	TIC	1273503	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.20	TIC	1199326	25.00000	ppb	0.01

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	24605835m	34.99519	ppb	ND 100

*No gasoline pattern  
 Apr 5/1/12*

Quantitation Report

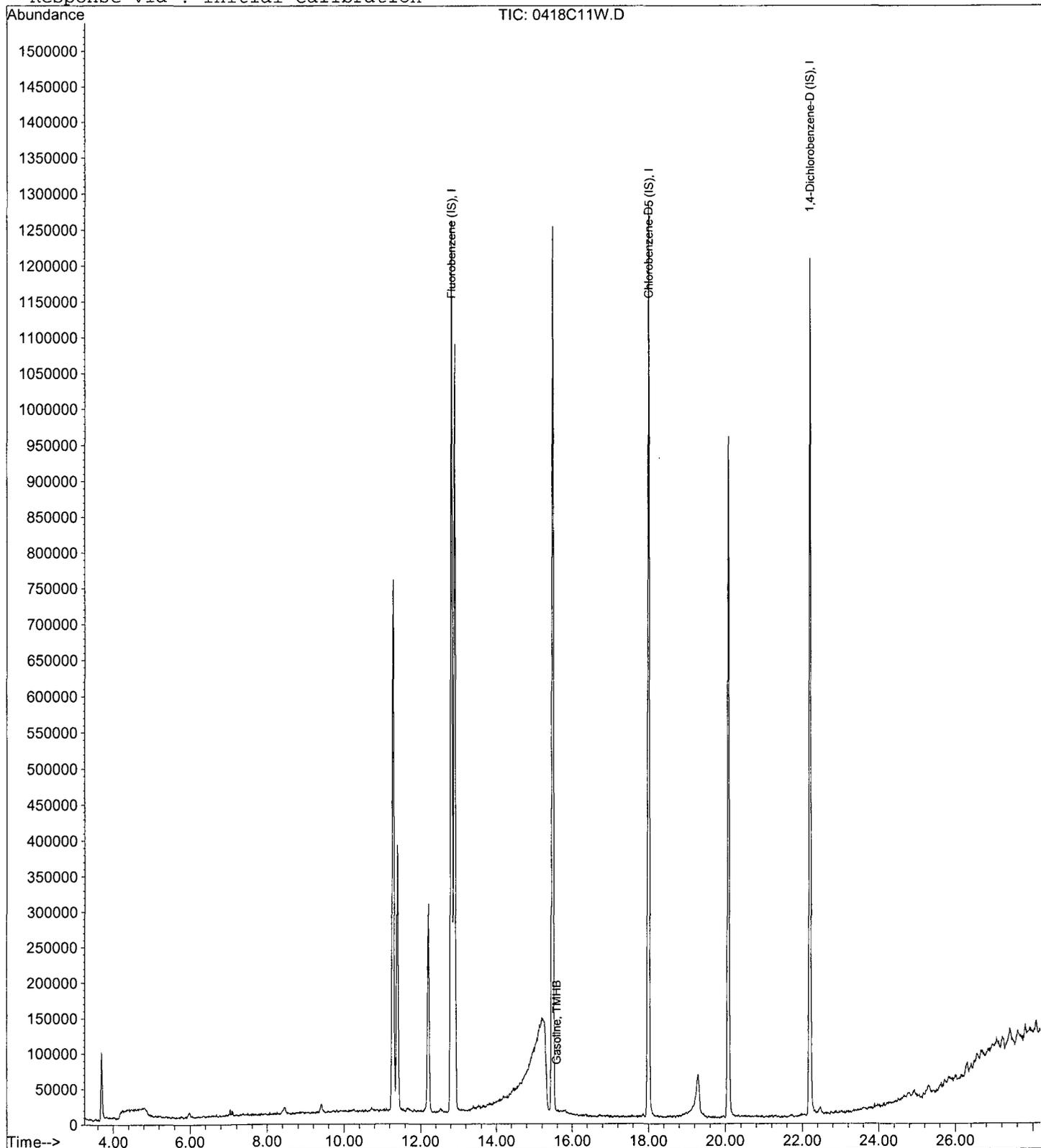
Data File : M:\CHICO\DATA\C120410\0418C11W.D  
Acq On : 18 Apr 12 17:57  
Sample : AY59208W01  
Misc : Water 10mL w/IS&S:04-10-12

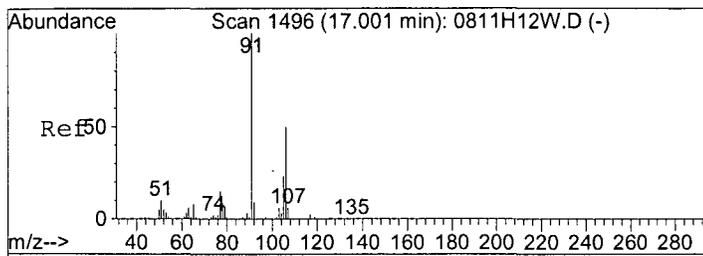
Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 19 11:13 2012

Quant Results File: CGAS.RES

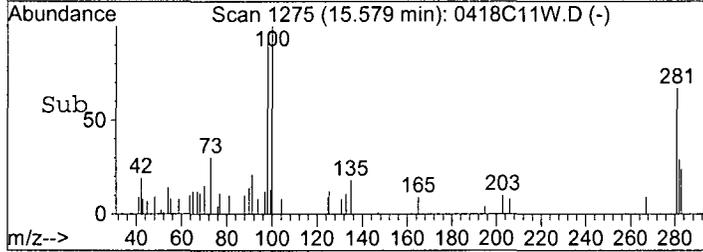
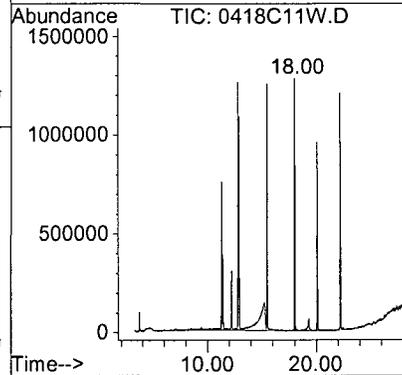
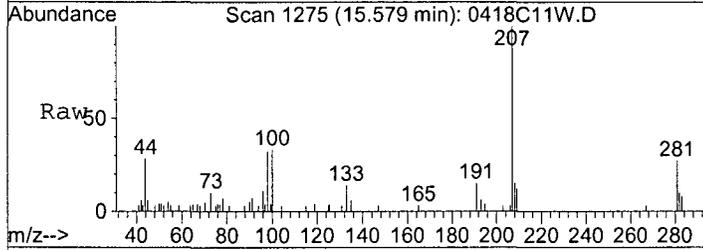
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Feb 07 09:36:43 2012  
Response via : Initial Calibration





#2  
 Gasoline  
 Concen: 34.99519 ppb m  
 RT: 15.58 min Scan# 1275  
 Delta R.T. 0.00 min  
 Lab File: 0418C11W.D  
 Acq: 18 Apr 12 17:57

Tgt Ion:TIC Resp:24605835



## 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: 67512

**Sample ID: TRIP BLANK-2**

**APPL ID: AY59209**

Sample Collection Date: 04/16/12

QCG: #86RHB-120418AC-166402

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/18/12	04/18/12
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/18/12	04/18/12
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/18/12	04/18/12
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/18/12	04/18/12
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/18/12	04/18/12
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/18/12	04/18/12
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/18/12	04/18/12
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/18/12	04/18/12
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/18/12	04/18/12
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	04/18/12	04/18/12
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/18/12	04/18/12
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	04/18/12	04/18/12

J = Estimated value.

Quant Method: CALLW3.M
Run #: 0418C12
Instrument: Chico
Sequence: C120410
Dilution Factor: 1
Initials: ARS

Printed: 05/01/12 5:22:05 PM  
APPL-F1-SC-NoMC-REG MDLs

## 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: TRIP BLANK-2**

Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

**APPL ID: AY59209**

QCG: #86RHB-120418AC-166402

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	METHYLENE CHLORIDE	0.46 J	5.0	0.70	0.35	ug/L	04/18/12	04/18/12
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/18/12	04/18/12
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	04/18/12	04/18/12
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	102	70-120			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	99.5	75-120			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	103	85-115			%	04/18/12	04/18/12
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	90.8	85-120			%	04/18/12	04/18/12

J = Estimated value.

Quant Method: CALLW3.M
Run #: 0418C12
Instrument: Chico
Sequence: C120410
Dilution Factor: 1
Initials: ARS

Printed: 05/01/12 5:22:05 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\CHICO\DATA\C120410\0418C12W.D Vial: 1  
 Acq On : 18 Apr 12 18:34 Operator: SV  
 Sample : AY59209W01 Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: May 1 16:42 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.82	96	620075	25.00000	ppb	-0.04
54) Chlorobenzene-D5 (IS)	18.00	117	479488	25.00000	ppb	-0.04
70) 1,4-Dichlorobenzene-D (IS)	22.20	152	212224	25.00000	ppb	-0.03
System Monitoring Compounds						
32) Dibromofluoromethane(S)	11.40	111	388693	21.51667	ppb	-0.04
Spiked Amount	20.866		Recovery	=	103.121%	
37) 1,2-DCA-D4(S)	12.21	65	307767	21.51683	ppb	-0.03
Spiked Amount	21.039		Recovery	=	102.272%	
55) Toluene-D8(S)	15.47	98	1347515	23.03209	ppb	-0.04
Spiked Amount	25.355		Recovery	=	90.838%	
63) 4-Bromofluorobenzene(S)	20.07	95	644763	26.86595	ppb	-0.03
Spiked Amount	27.007		Recovery	=	99.478%	
Target Compounds						
19) Methylene chloride	8.45	84	7371	0.46199	ppb	Qvalue 95 < 1/2 PQL
34) Cyclohexane	11.98	56	2068	0.10123	ppb	NT# 80

ARC 5/1/12

Quantitation Report

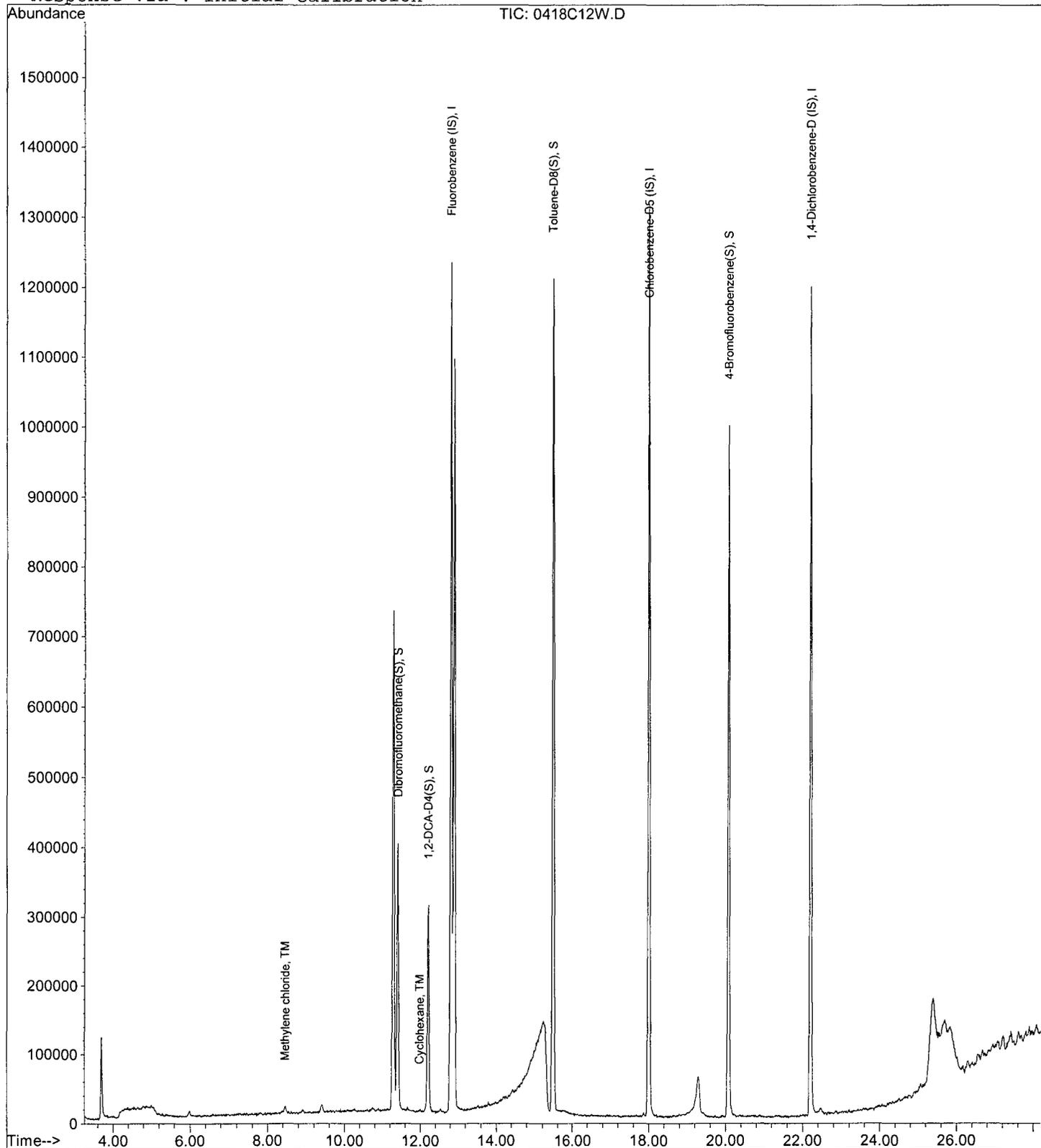
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Acq On : 18 Apr 12 18:34  
Sample : AY59209W01  
Misc : Water 10mL w/IS&S:04-10-12

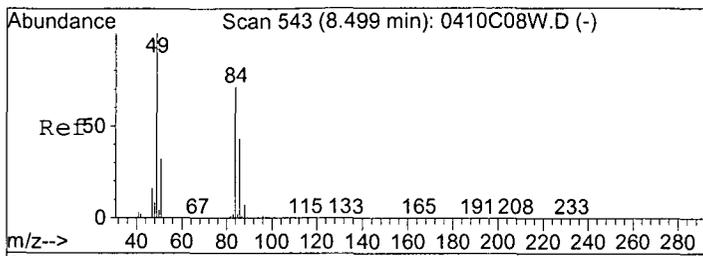
Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: May 1 16:42 2012

Quant Results File: CALLW3.RES

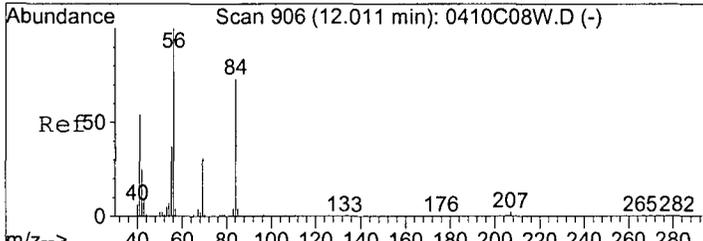
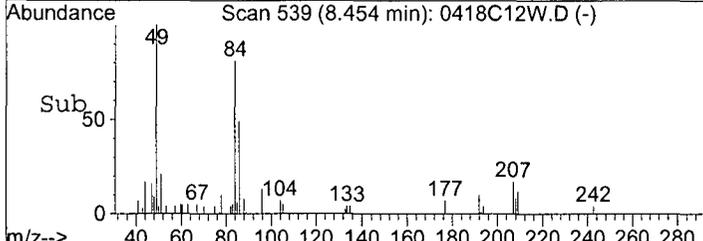
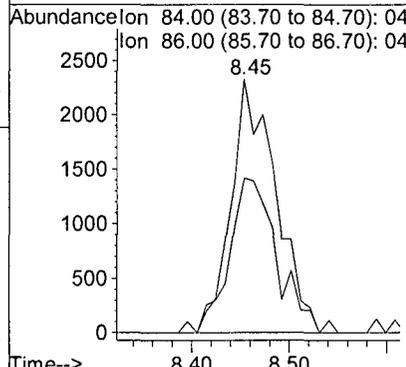
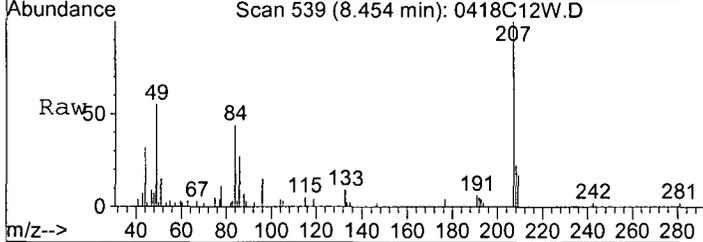
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Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 2012  
Response via : Initial Calibration





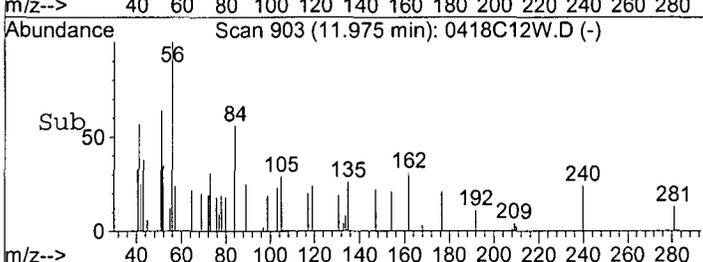
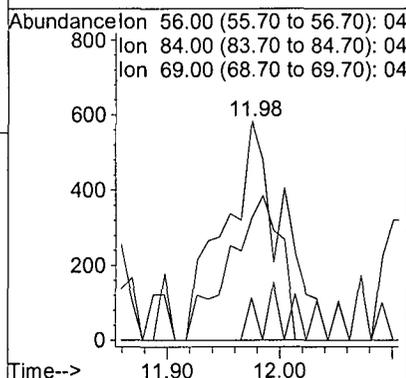
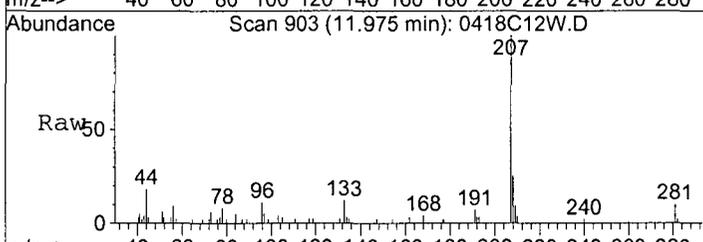
#19  
 Methylene chloride  
 Concen: 0.46199 ppb  
 RT: 8.45 min Scan# 539  
 Delta R.T. -0.05 min  
 Lab File: 0418C12W.D  
 Acq: 18 Apr 12 18:34

Tgt Ion:	84	Resp:	7371
Ion Ratio	100	Lower	Upper
86	56.4	42.1	78.1



#34  
 Cyclohexane  
 Concen: 0.10123 ppb  
 RT: 11.98 min Scan# 903  
 Delta R.T. -0.04 min  
 Lab File: 0418C12W.D  
 Acq: 18 Apr 12 18:34

Tgt Ion:	56	Resp:	2068
Ion Ratio	100	Lower	Upper
84	56.2	50.9	94.5
69	19.5	21.8	40.4#



Data File : M:\CHICO\DATA\C120410\0418C12W.D Vial: 1  
 Acq On : 18 Apr 12 18:34 Operator: SV  
 Sample : AY59209W01 Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 19 11:13 2012 Quant Results File: CGAS.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.82	TIC	1219757	25.00000	ppb	0.03
3) Chlorobenzene-D5 (IS)	18.00	TIC	1306725	25.00000	ppb	0.02
4) 1,4-Dichlorobenzene-D (IS)	22.20	TIC	1190634	25.00000	ppb	0.02

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	24363487m	37.71908	ppb	ND 100

*No gasoline pattern  
 ARS 5/1/12*

Quantitation Report

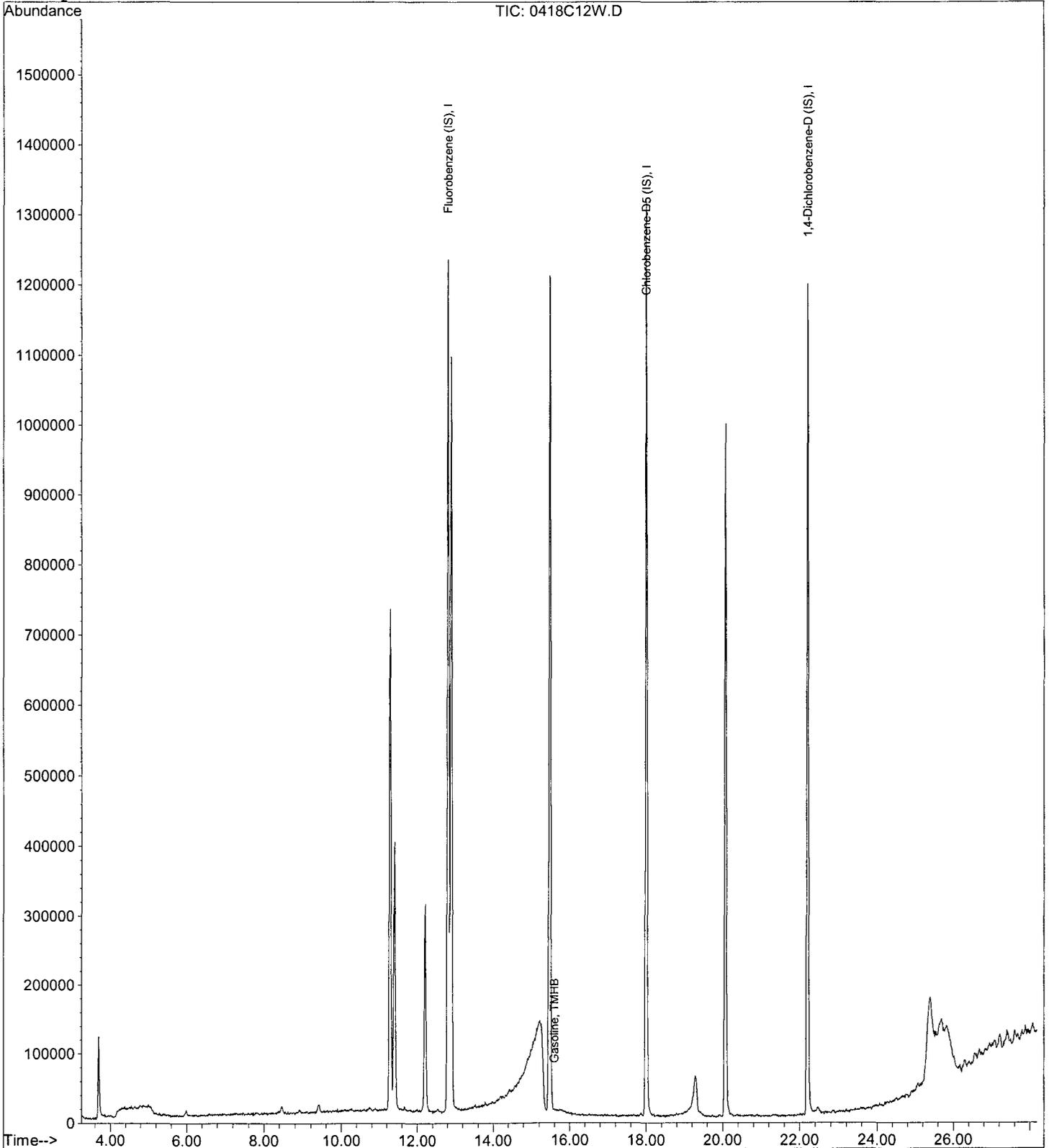
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Acq On : 18 Apr 12 18:34  
Sample : AY59209W01  
Misc : Water 10mL w/IS&S:04-10-12

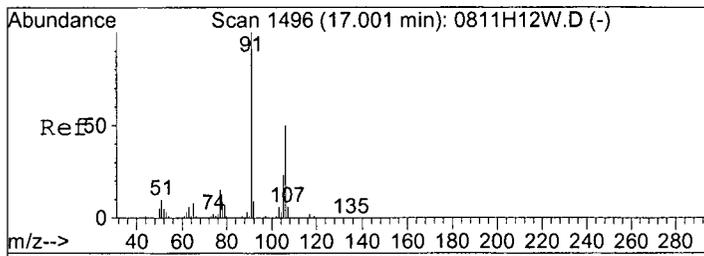
Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 19 11:13 2012

Quant Results File: CGAS.RES

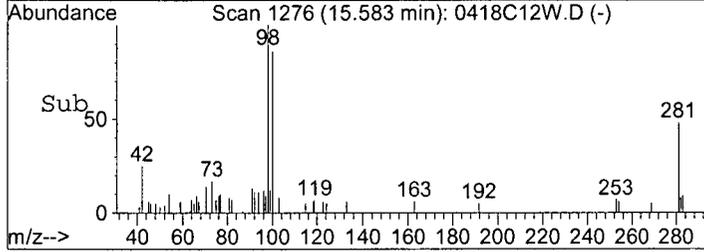
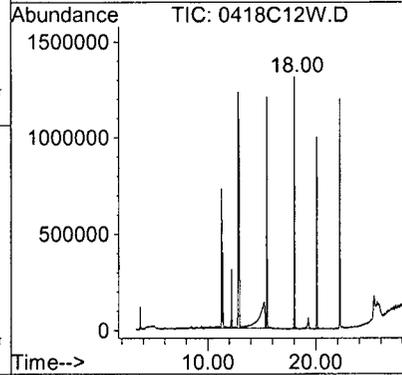
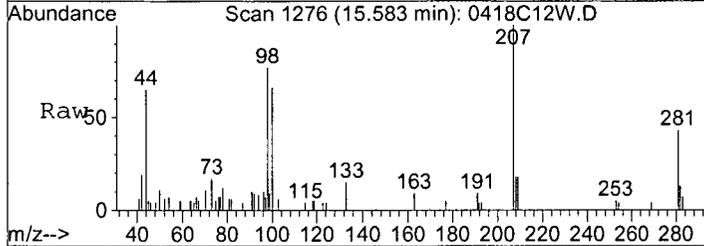
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Feb 07 09:36:43 2012  
Response via : Initial Calibration





#2  
 Gasoline  
 Concen: 37.71908 ppb m  
 RT: 15.58 min Scan# 1276  
 Delta R.T. 0.00 min  
 Lab File: 0418C12W.D  
 Acq: 18 Apr 12 18:34

Tgt Ion:TIC Resp:24363487



**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. \_\_\_\_\_  
Case No: \_\_\_\_\_  
Matrix: \_\_\_\_\_

SDG No: \_\_\_\_\_  
Initial Cal. Date: 01/25/12  
Instrument: Chico

Initials: \_\_\_\_\_

0125C29W.D    0125C30W.D    0125C31W.D    0125C32W.D    0125C33W.D    0125C34W.D    0125C35W.D

	Compound	20	50	100	300	600	800	1000				Avg	%RSD		r
1	I Fluorobenzene (IS)														
2	TMHBL Gasoline	23.6	10.6	5.907	3.541	2.892	2.841	2.494				7.4	104	TMHBL	0.997
3	I Chlorobenzene-D5 (IS)														
4	I 1,4-Dichlorobenzene-D (IS)														
5															
6															
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35															

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C29W.D Vial: 1  
 Acq On : 26 Jan 12 19:32 Operator: RS, ARS  
 Sample : Vol. Std. 01-26-12@20ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 7 9:34 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:01:13 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1053352	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1266647	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1287754	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	17.98	TIC	19858101m	31.82421	ppb	100

Quantitation Report

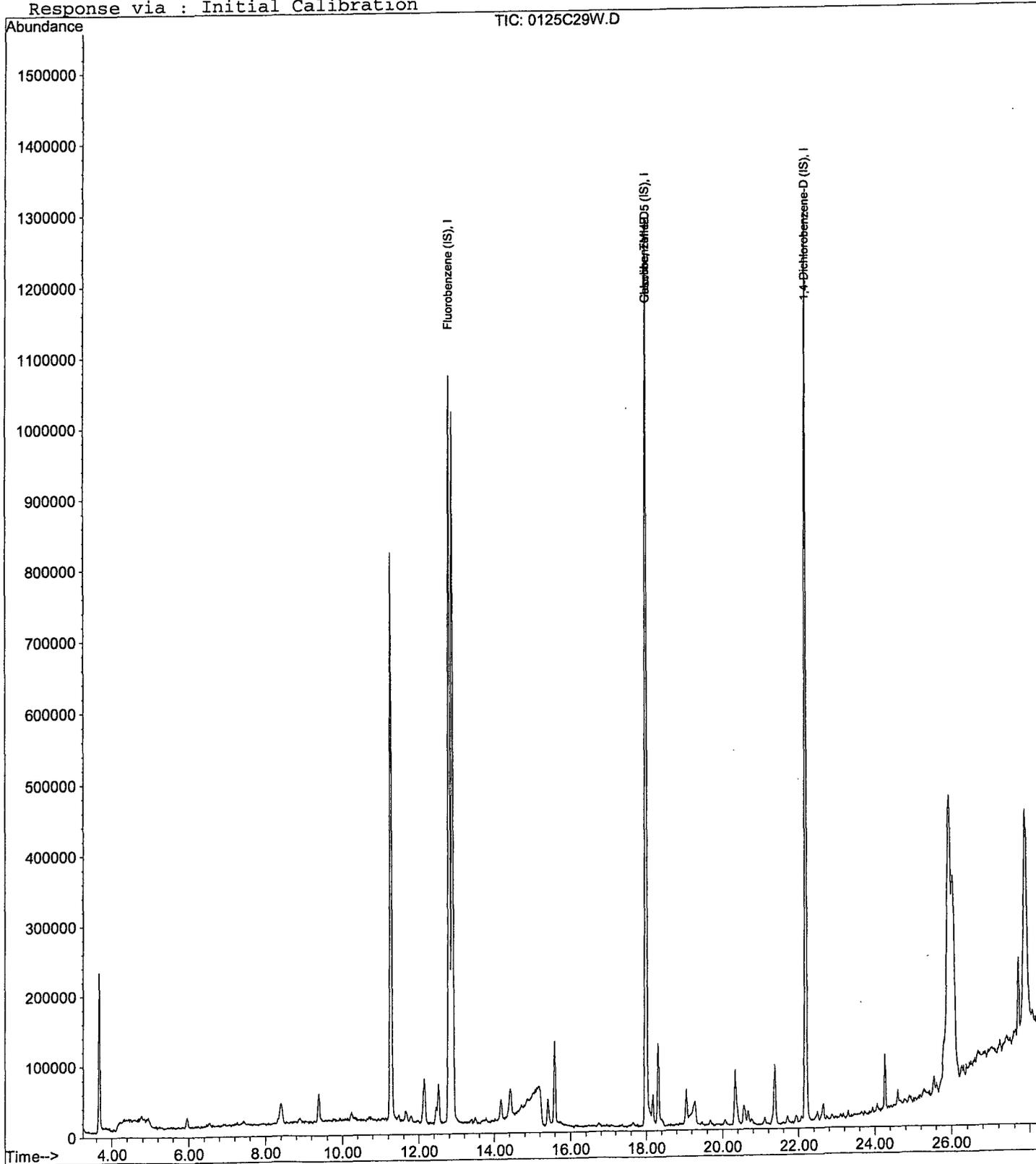
Data File : M:\CHICO\DATA\C120125\0125C29W.D  
Acq On : 26 Jan 12 19:32  
Sample : Vol. Std. 01-26-12@20ug/L  
Misc : Water 10mLw/ IS:12-06-11

Vial: 1  
Operator: RS, ARS  
Inst : Chico  
Multiplr: 1.00

Quant Time: Feb 7 9:34 2012

Quant Results File: CGAS.RES

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

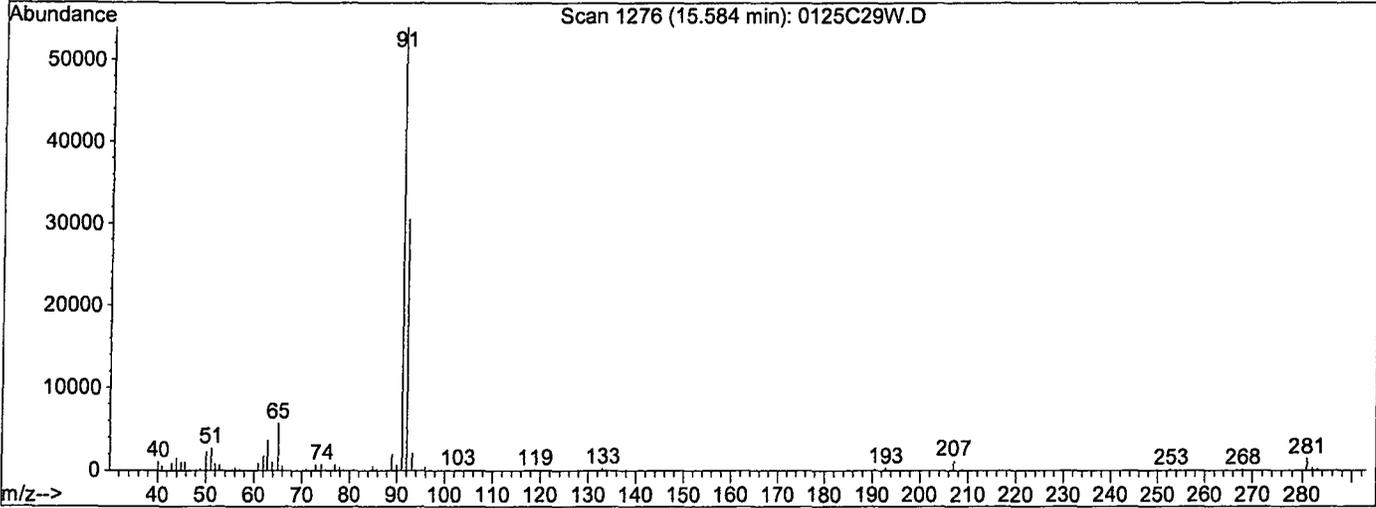
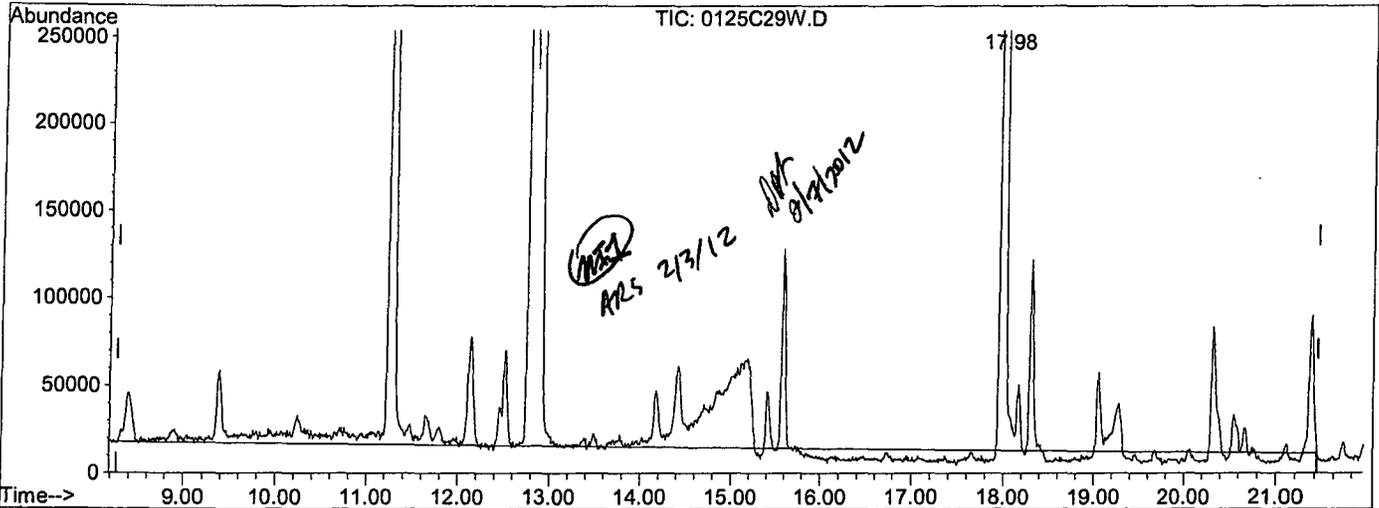


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C29W.D  
 Acq On : 26 Jan 12 19:32  
 Sample : Vol. Std. 01-26-12@20ug/L  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 3 12:07 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Single Level Calibration



TIC: 0125C29W.D

(2) Gasoline (TMHB)

15.58min -8.2763ppb m

response 16152794

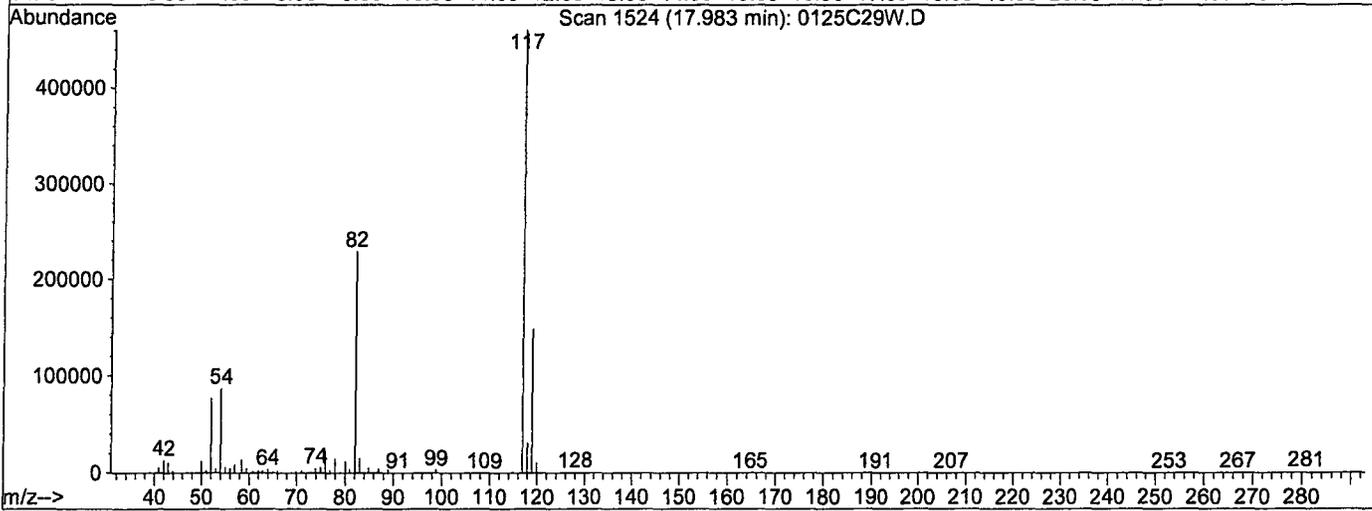
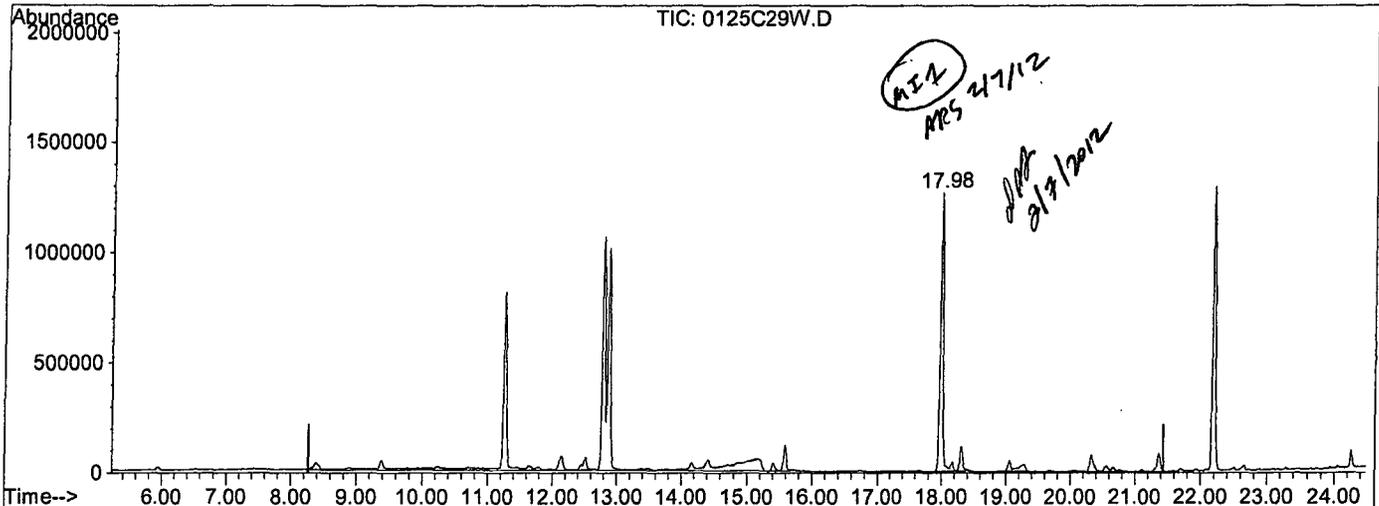
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TIC	100	100
0.00	0.00	0.79#
0.00	0.00	2.40#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C29W.D  
 Acq On : 26 Jan 12 19:32  
 Sample : Vol. Std. 01-26-12@20ug/L  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 7 9:34 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

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



TIC: 0125C29W.D

(2) Gasoline (TMHB)

17.98min 31.8242ppb m

response 19858101

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.64#
0.00	0.00	1.95#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C30W.D Vial: 1  
 Acq On : 26 Jan 12 20:09 Operator: RS, ARS  
 Sample : Vol. Std. 01-26-12@50ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 7 9:35 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1088272	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.99	TIC	1269196	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1282230	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	17.99	TIC	23136590m	59.27095	ppb	100

Quantitation Report

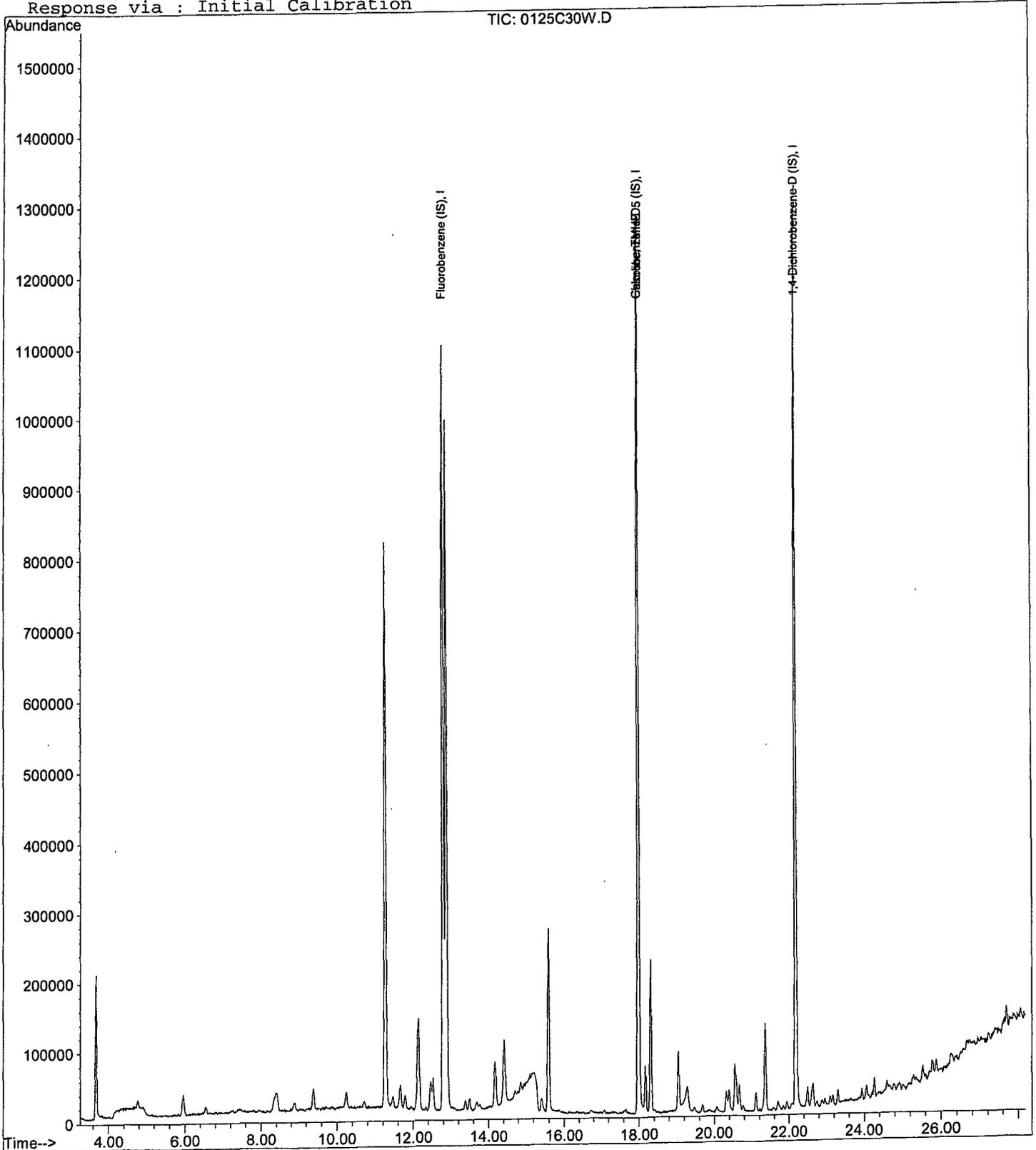
Data File : M:\CHICO\DATA\C120125\0125C30W.D  
Acq On : 26 Jan 12 20:09  
Sample : Vol. Std. 01-26-12@50ug/L  
Misc : Water 10mLw/ IS:12-06-11

Vial: 1  
Operator: RS, ARS  
Inst : Chico  
Multiplr: 1.00

Quant Time: Feb 7 9:35 2012

Quant Results File: CGAS.RES

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

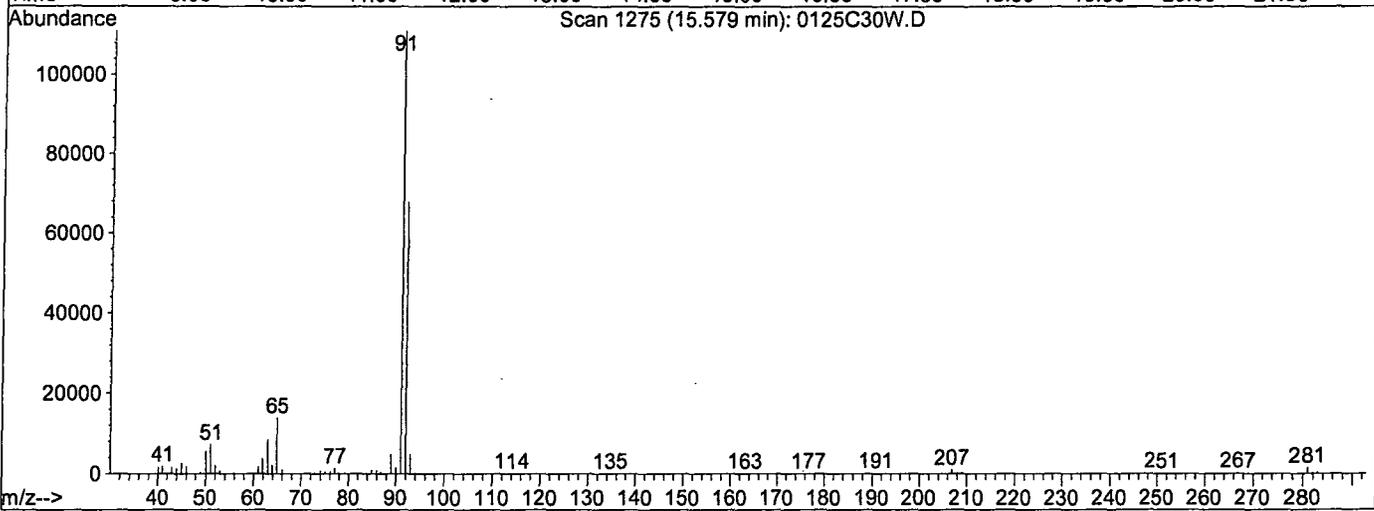
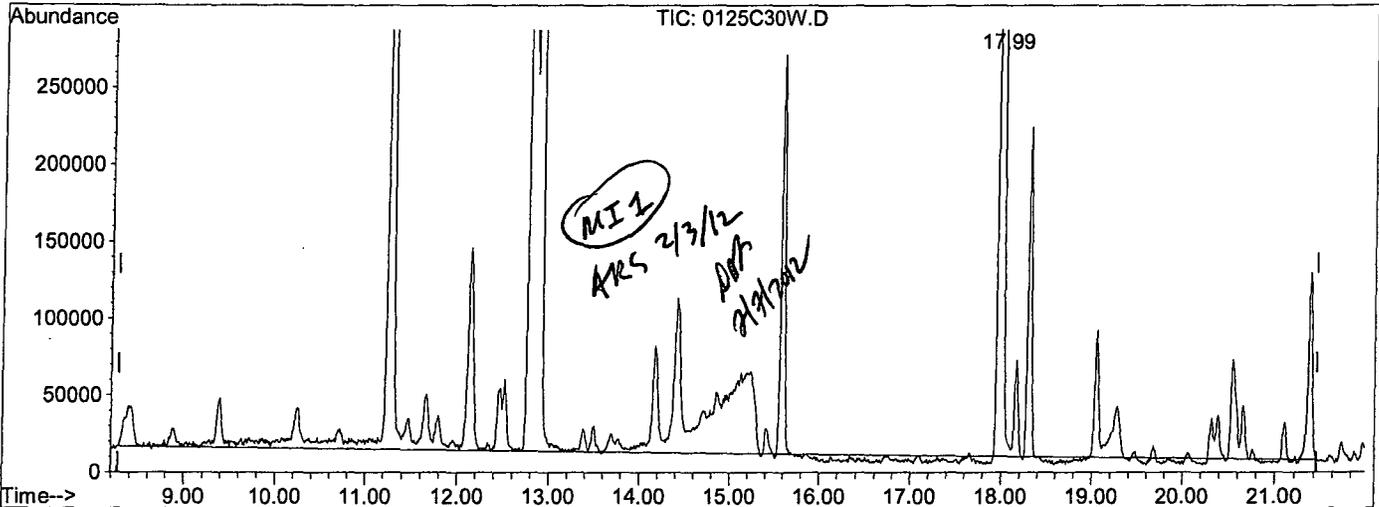


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C30W.D  
 Acq On : 26 Jan 12 20:09  
 Sample : Vol. Std. 01-26-12@50ug/L  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 3 12:07 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Single Level Calibration



TIC: 0125C30W.D

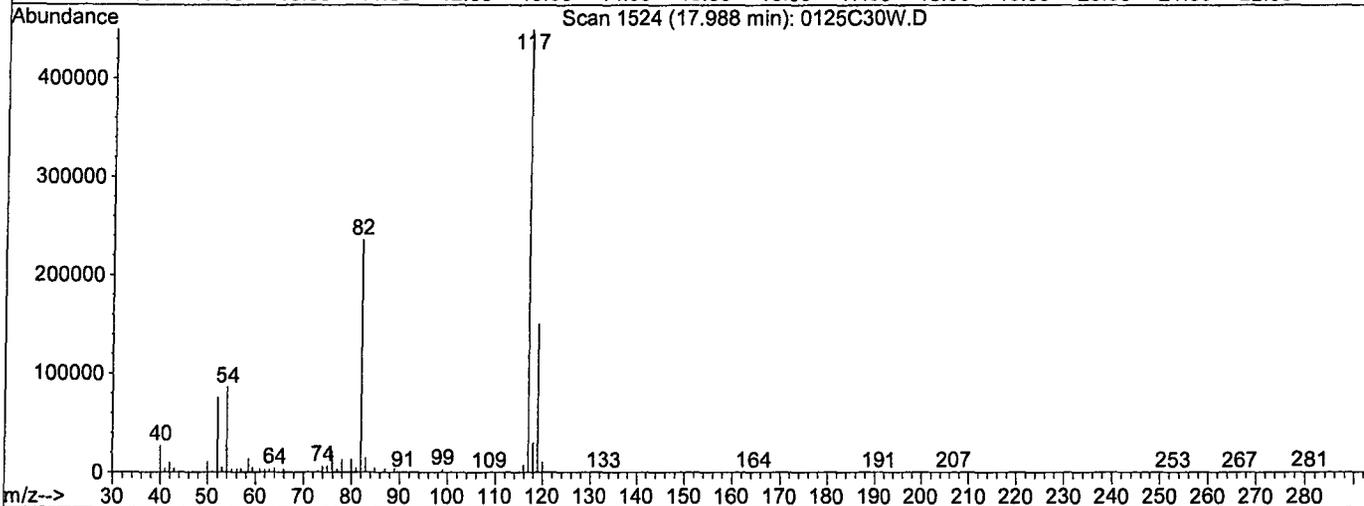
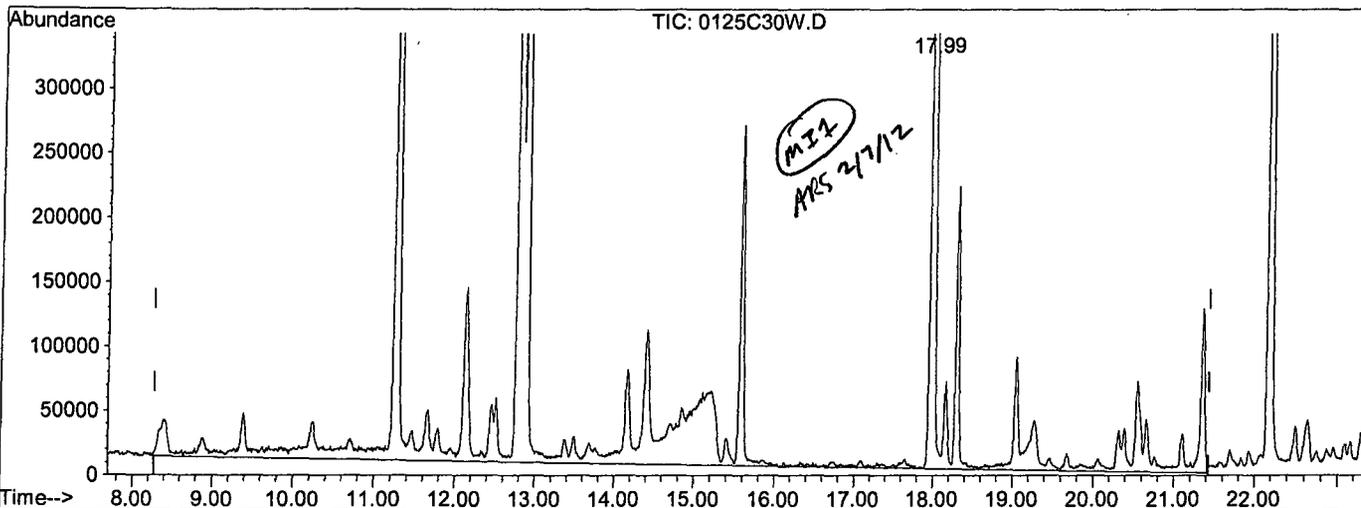
(2) Gasoline (TMHB)  
 15.58min -0.0275ppb m  
 response 17475741

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.72#
0.00	0.00	2.18#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C30W.D Vial: 1  
 Acq On : 26 Jan 12 20:09 Operator: RS, ARS  
 Sample : Vol. Std. 01-26-12@50ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00  
 Quant Time: Feb 7 9:35 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Single Level Calibration



TIC: 0125C30W.D

(2) Gasoline (TMHB)  
 17.99min 59.2710ppb m  
 response 23136590

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.54#
0.00	0.00	1.65#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C31W.D Vial: 1  
 Acq On : 26 Jan 12 20:46 Operator: RS, ARS  
 Sample : Vol. Std. 01-26-12@100ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 12:13 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1080126	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1280154	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1288106	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	17.98	TIC	26257782m	94.04042	ppb	100

Quantitation Report

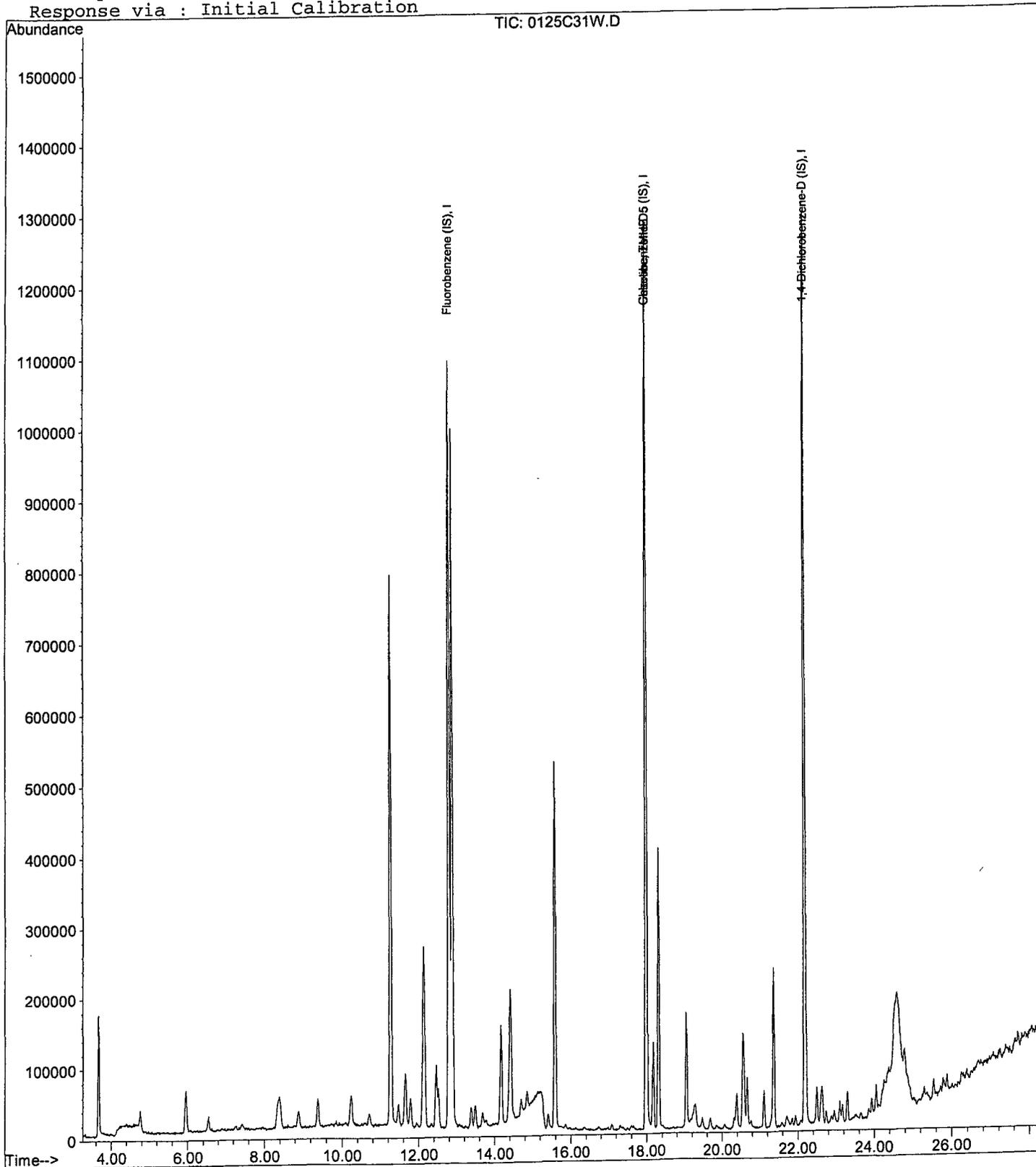
Data File : M:\CHICO\DATA\C120125\0125C31W.D  
Acq On : 26 Jan 12 20:46  
Sample : Vol. Std. 01-26-12@100ug/L  
Misc : Water 10mLw/ IS:12-06-11

Vial: 1  
Operator: RS, ARS  
Inst : Chico  
Multiplr: 1.00

Quant Time: Feb 3 12:13 2012

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Fri Feb 03 12:07:16 2012  
Response via : Initial Calibration

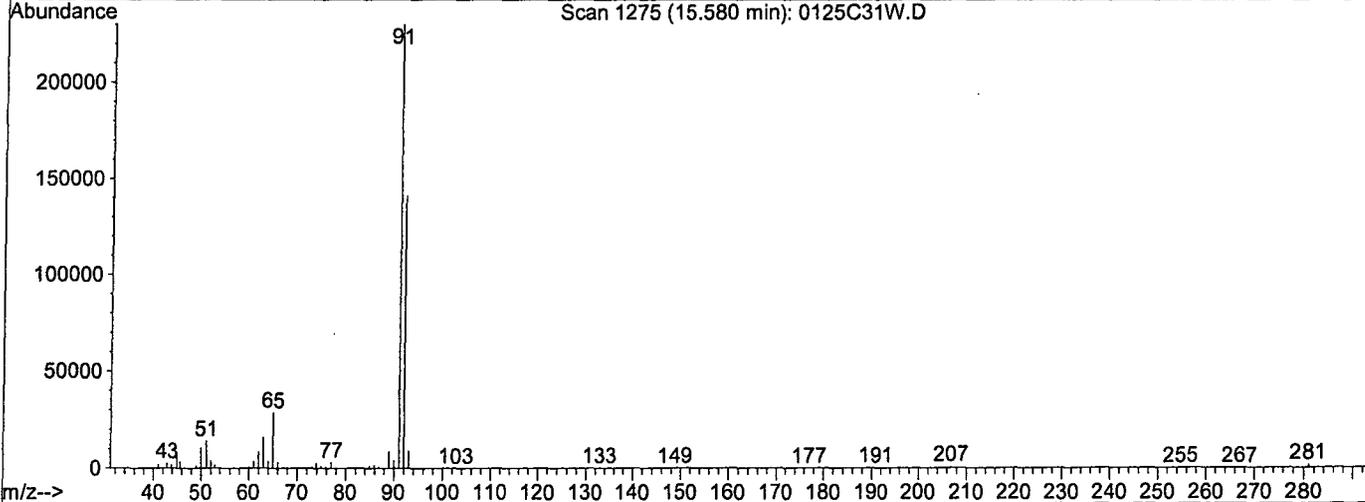
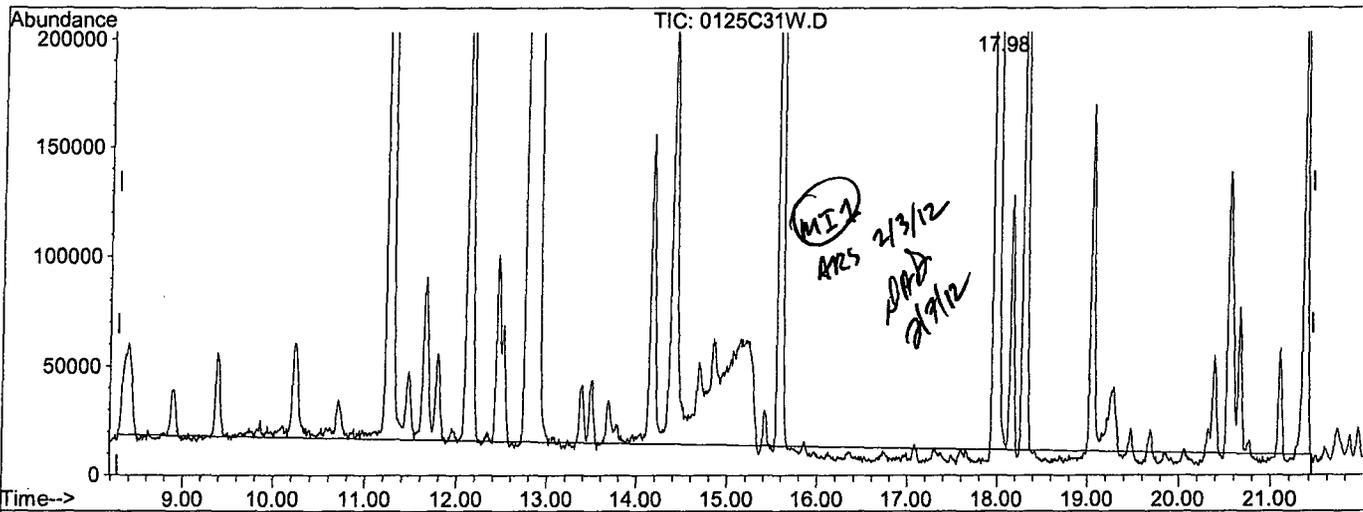


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C31W.D  
 Acq On : 26 Jan 12 20:46  
 Sample : Vol. Std. 01-26-12@100ug/L  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 3 12:07 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Single Level Calibration



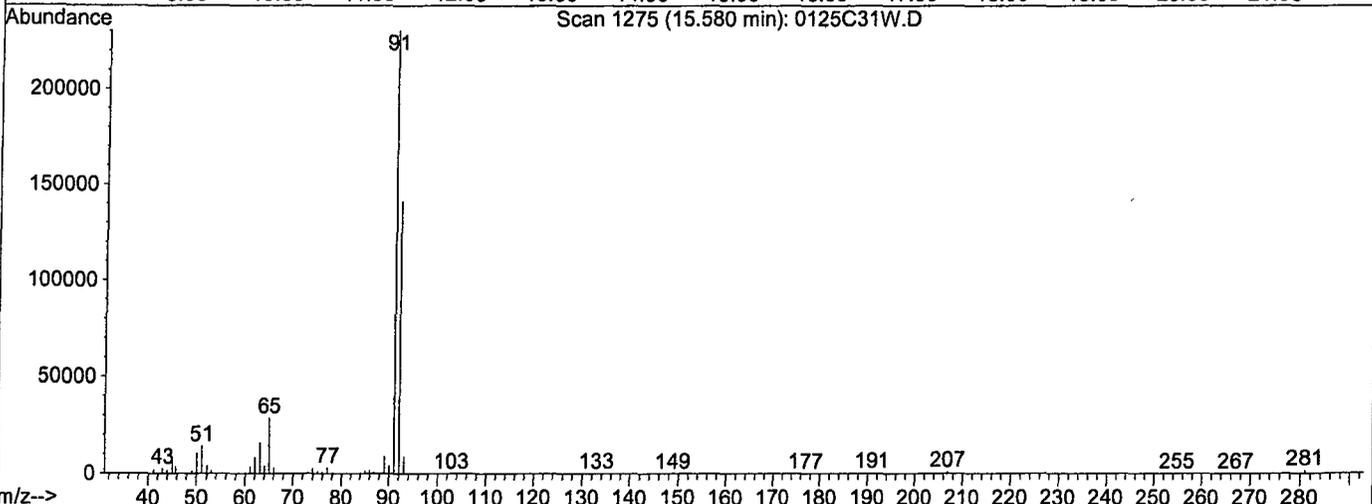
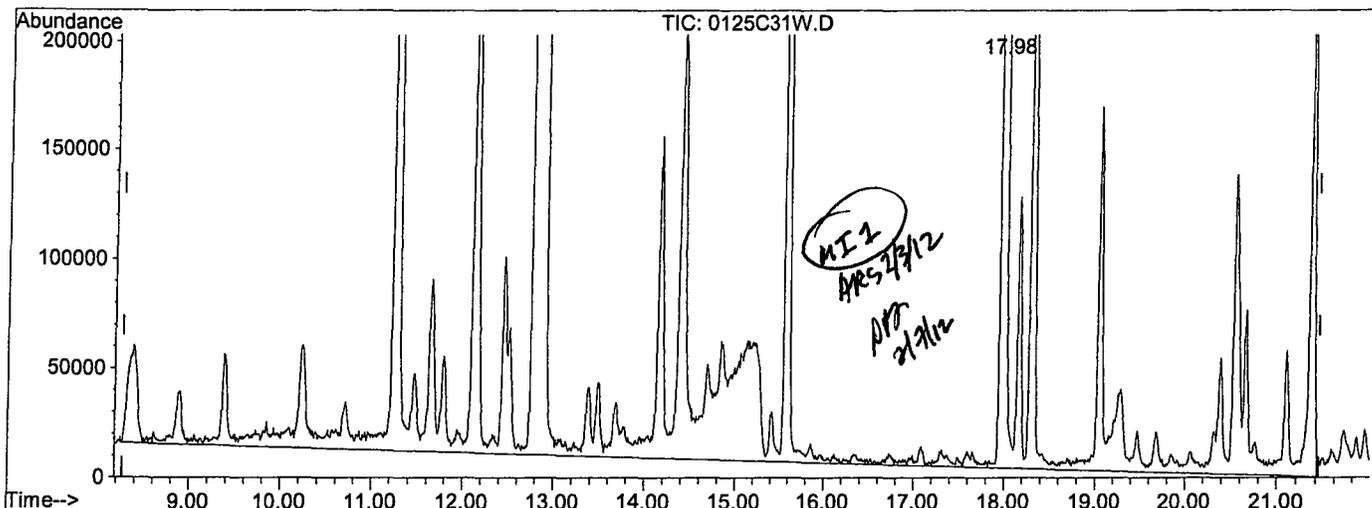
TIC: 0125C31W.D

(2) Gasoline (TMHB)		
15.58min	27.4179ppb m	
response	19945363	
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.64#
0.00	0.00	1.85#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C31W.D Vial: 1  
Acq On : 26 Jan 12 20:46 Operator: RS, ARS  
Sample : Vol. Std. 01-26-12@100ug/L Inst : Chico  
Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00  
Quant Time: Feb 3 12:13 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Fri Feb 03 12:07:16 2012  
Response via : Single Level Calibration



TIC: 0125C31W.D

(2) Gasoline (TMHB)

17.98min	94.0404ppb m	
response	26257782	
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.48#
0.00	0.00	1.40#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C32W.D Vial: 1  
 Acq On : 26 Jan 12 21:24 Operator: RS, ARS  
 Sample : Vol. Std. 01-26-12@300ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 12:09 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1085223	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1323772	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1382634	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	46451061m	304.86153	ppb	100

Quantitation Report

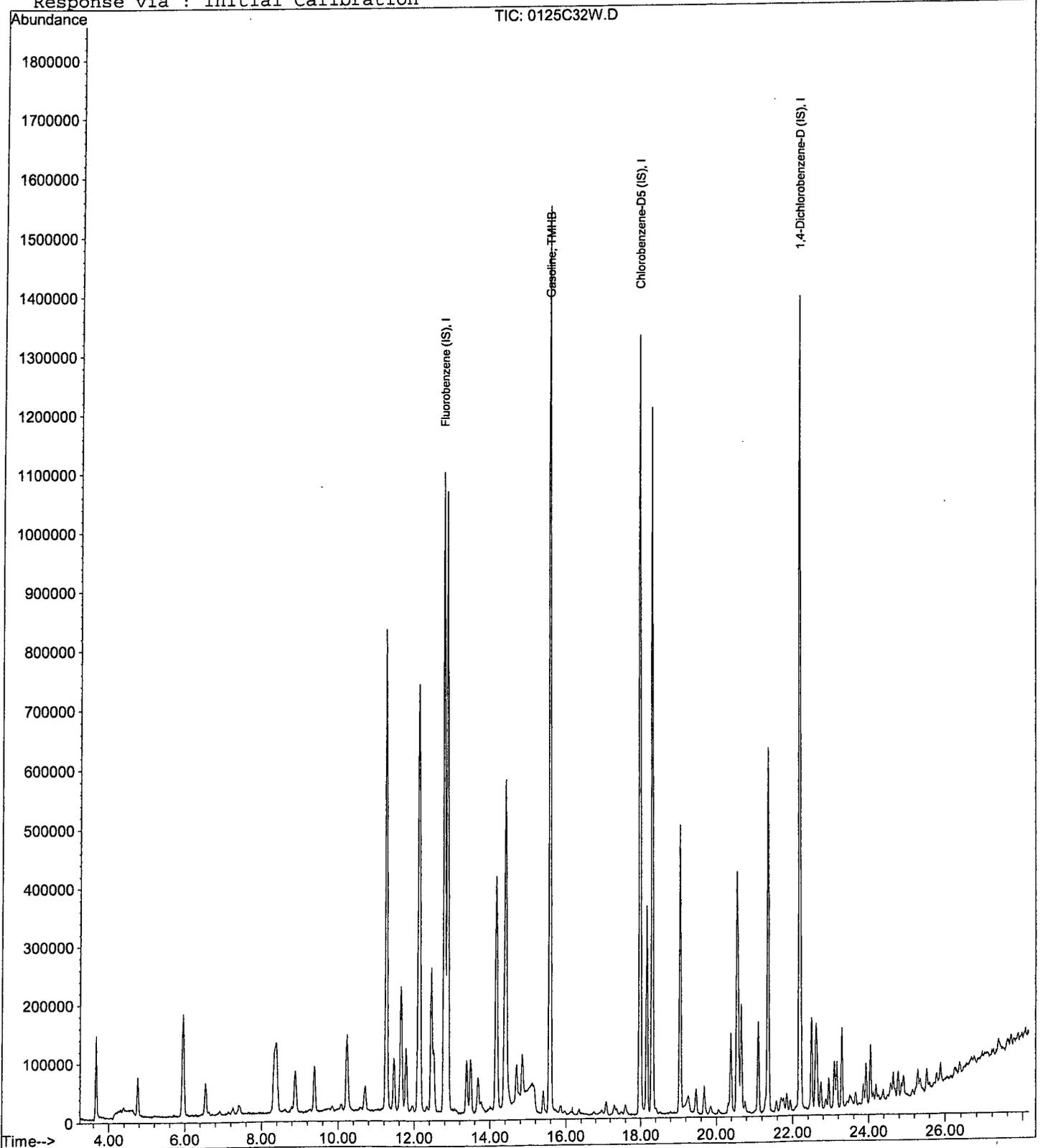
Data File : M:\CHICO\DATA\C120125\0125C32W.D  
Acq On : 26 Jan 12 21:24  
Sample : Vol. Std. 01-26-12@300ug/L  
Misc : Water 10mLw/ IS:12-06-11

Vial: 1  
Operator: RS, ARS  
Inst : Chico  
Multiplr: 1.00

Quant Time: Feb 3 12:09 2012

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Fri Feb 03 12:07:16 2012  
Response via : Initial Calibration

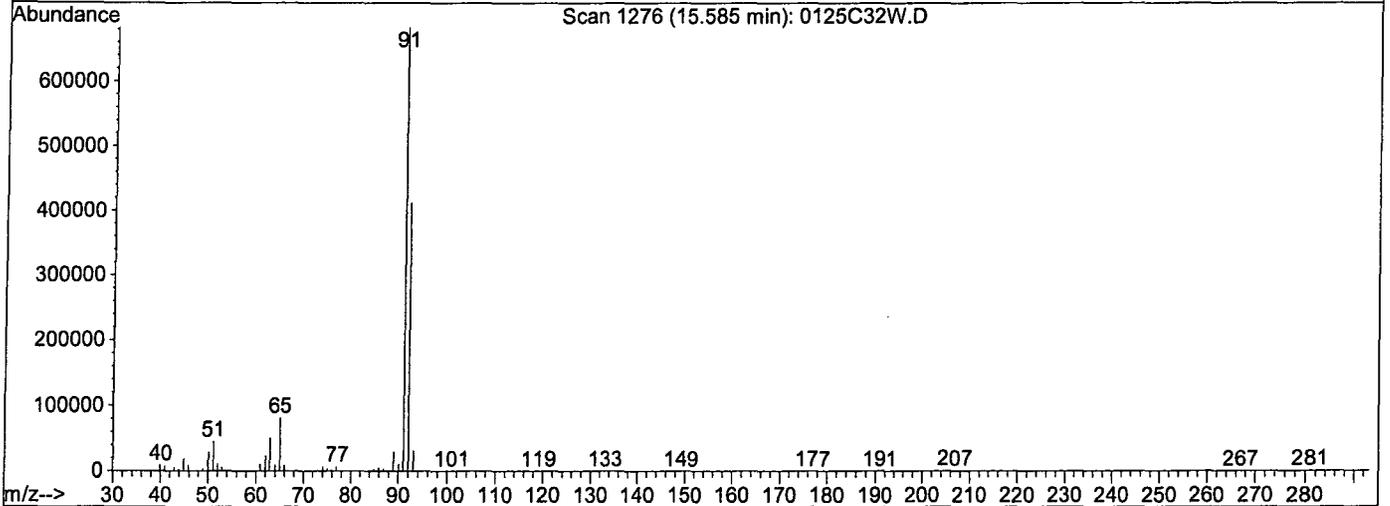
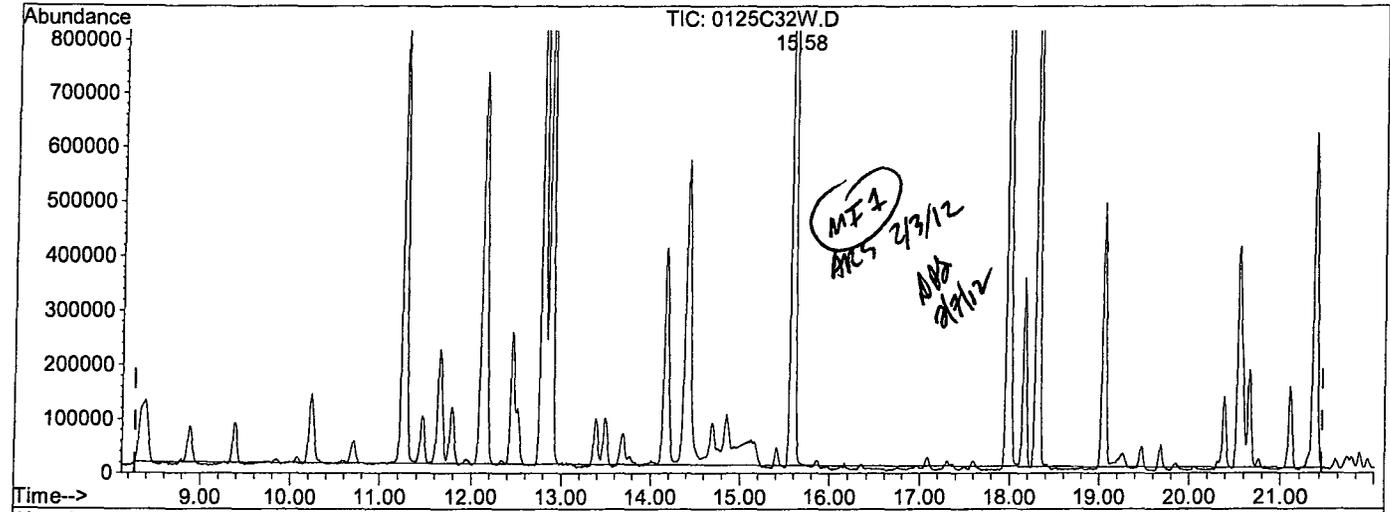


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C32W.D  
 Acq On : 26 Jan 12 21:24  
 Sample : Vol. Std. 01-26-12@300ug/L  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 3 12:07 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Single Level Calibration



TIC: 0125C32W.D

(2) Gasoline (TMHB)

15.58min 245.6055ppb m

response 40810111

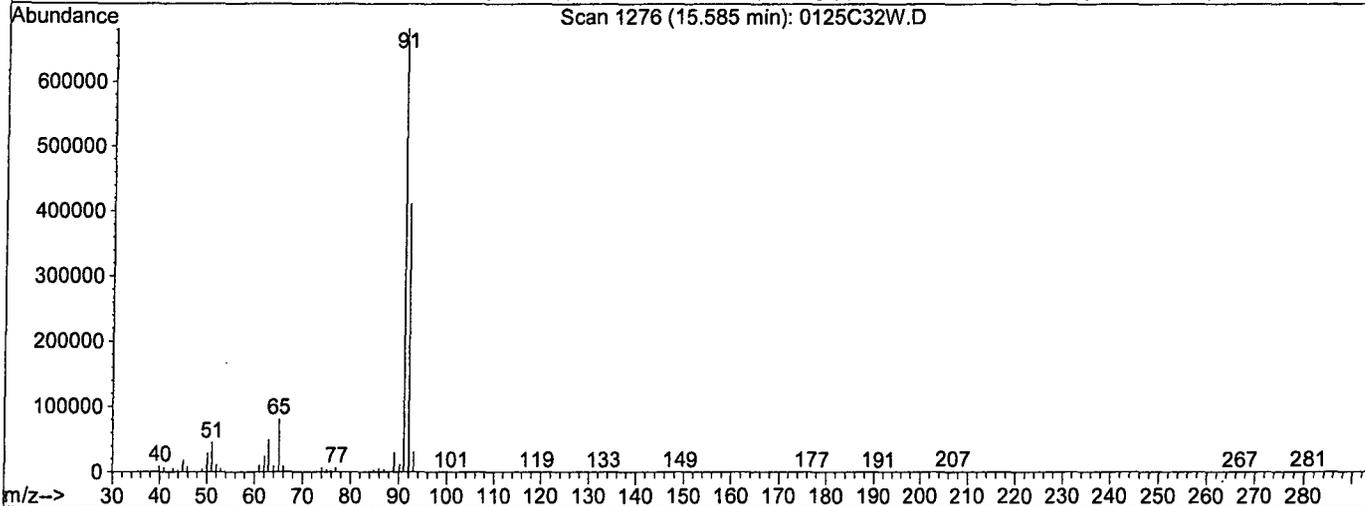
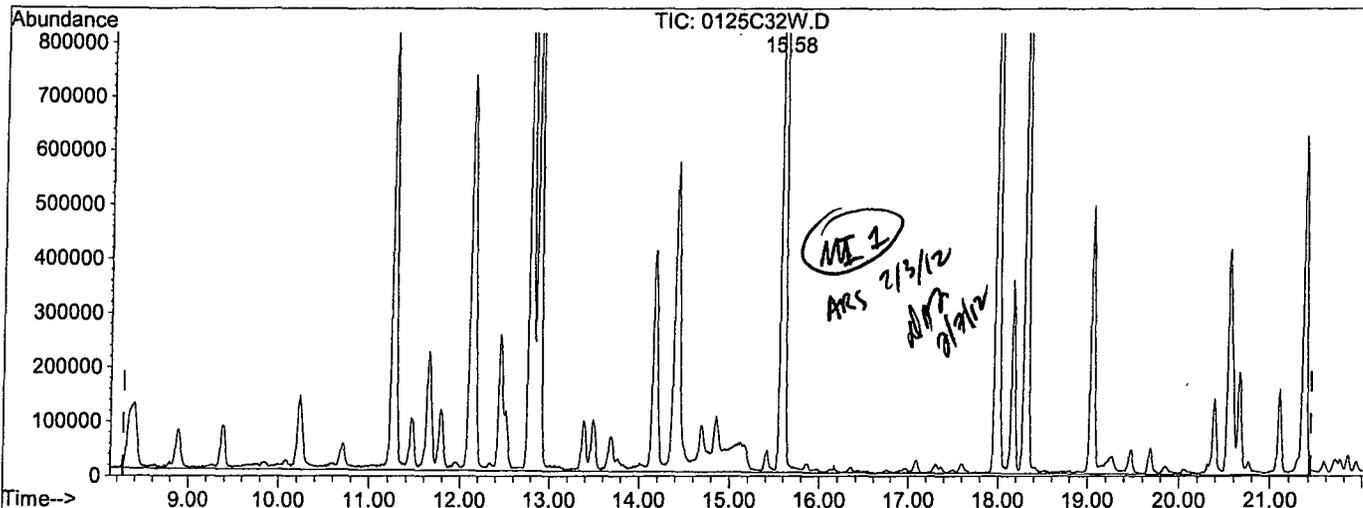
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.33#
0.00	0.00	0.94#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C32W.D  
 Acq On : 26 Jan 12 21:24  
 Sample : Vol. Std. 01-26-12@300ug/L  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 3 12:09 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Single Level Calibration



TIC: 0125C32W.D

(2) Gasoline (TMHB)  
 15.58min 304.8615ppb m  
 response 46451061

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.29#
0.00	0.00	0.83#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C33W.D Vial: 1  
 Acq On : 26 Jan 12 22:01 Operator: RS, ARS  
 Sample : Vol. Std. 01-26-12@600ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 12:07 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1115516	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1310876	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1420552	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	72391801m	556.70838	ppb	100

Quantitation Report

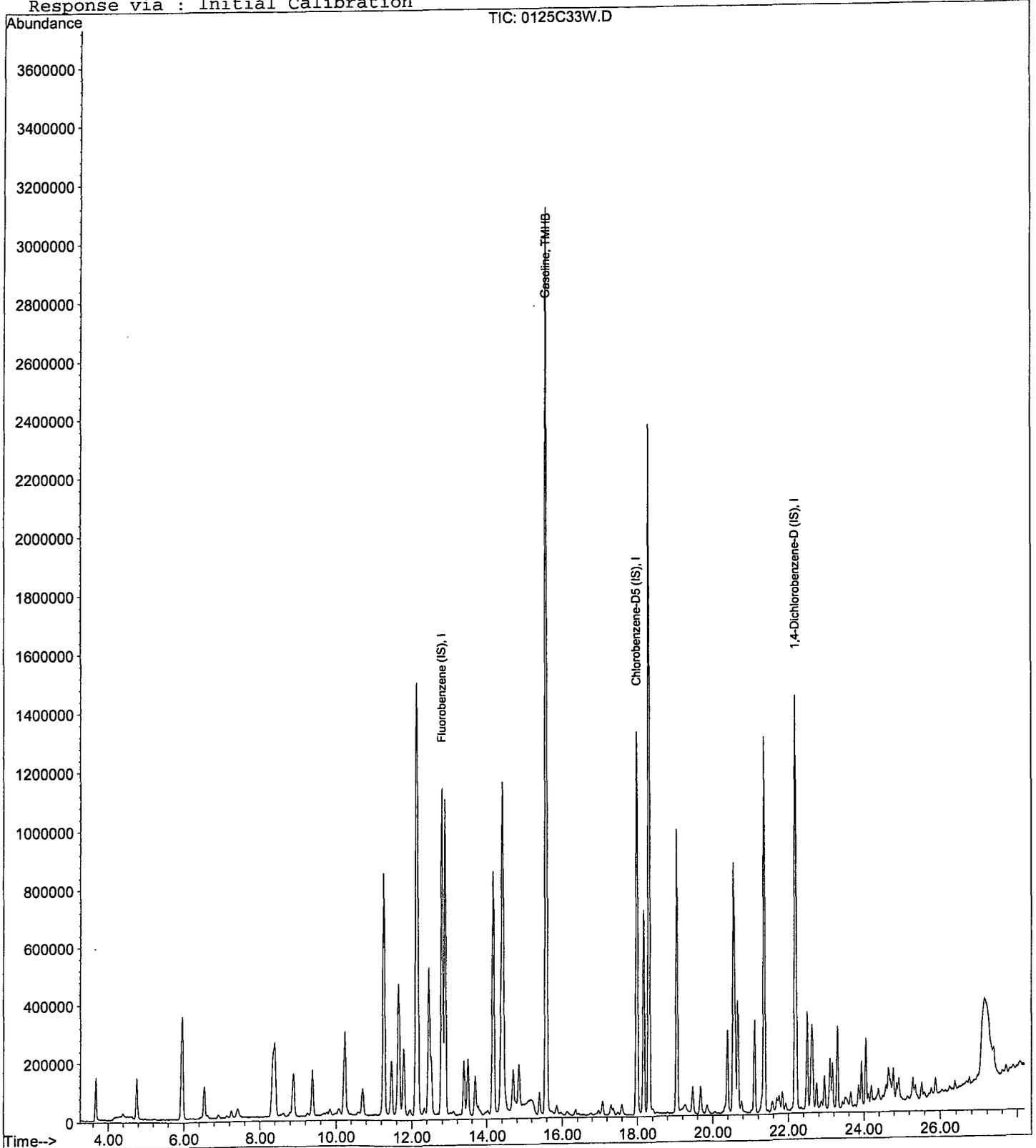
Data File : M:\CHICO\DATA\C120125\0125C33W.D  
Acq On : 26 Jan 12 22:01  
Sample : Vol. Std. 01-26-12@600ug/L  
Misc : Water 10mLw/ IS:12-06-11

Vial: 1  
Operator: RS, ARS  
Inst : Chico  
Multiplr: 1.00

Quant Time: Feb 3 12:07 2012

Quant Results File: CGAS.RES

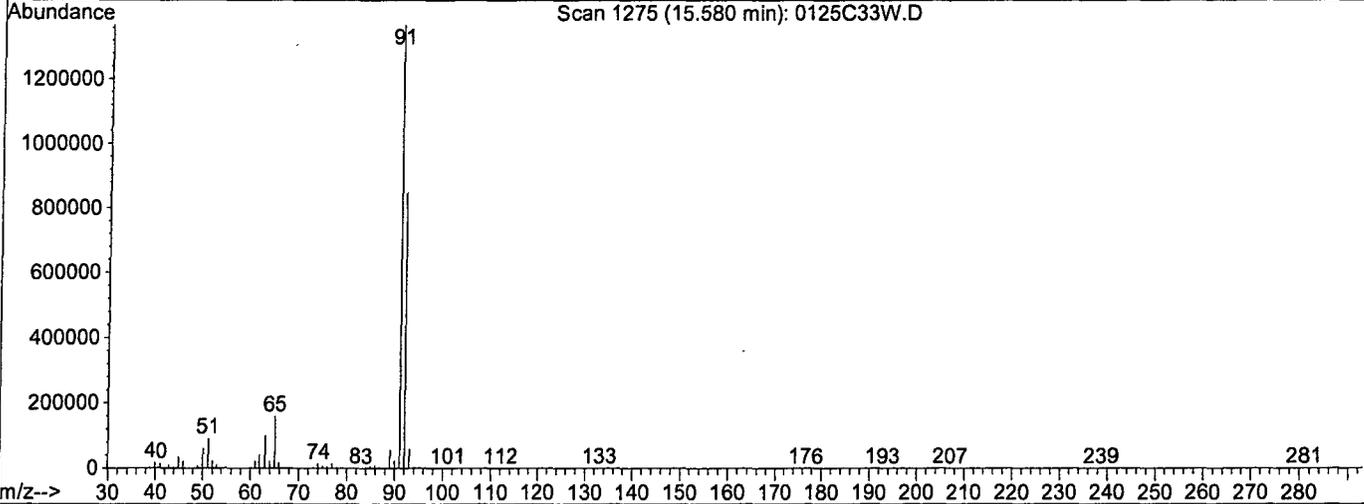
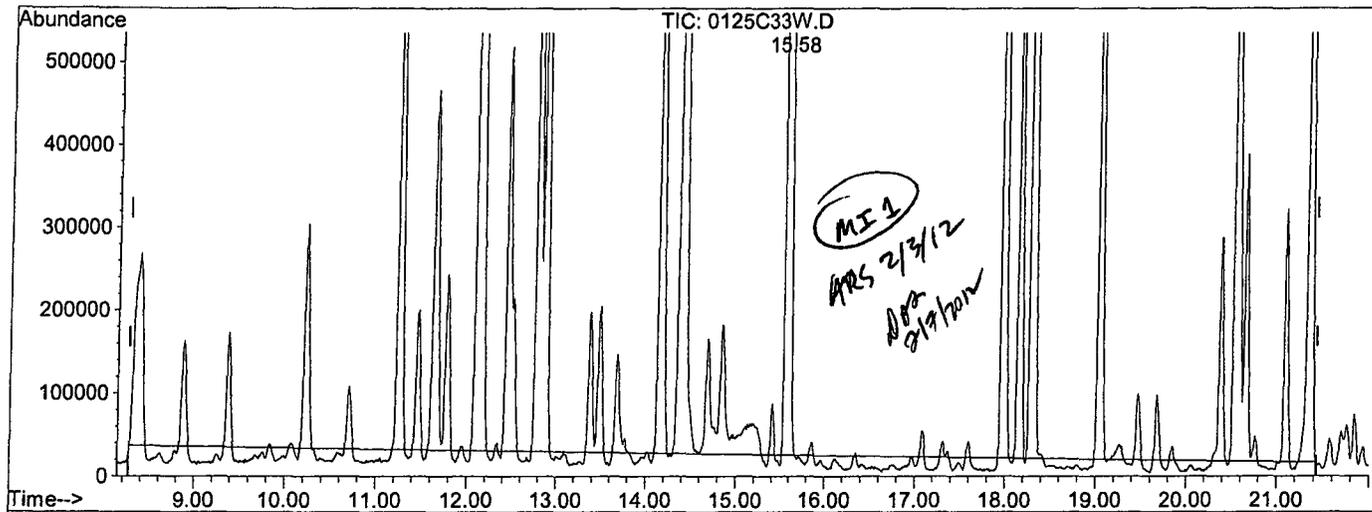
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Fri Feb 03 12:07:16 2012  
Response via : Initial Calibration



Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C33W.D Vial: 1  
 Acq On : 26 Jan 12 22:01 Operator: RS, ARS  
 Sample : Vol. Std. 01-26-12@600ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00  
 Quant Time: Feb 3 12:07 2012 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Single Level Calibration



TIC: 0125C33W.D

(2) Gasoline (TMHB)

15.58min 556.7084ppb m

response 72391801

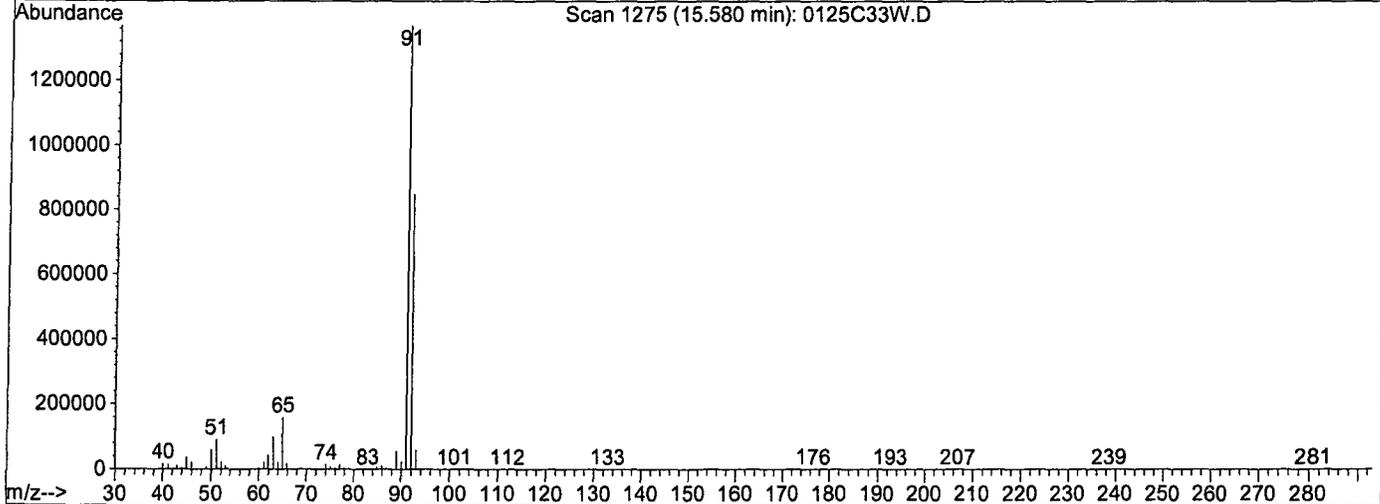
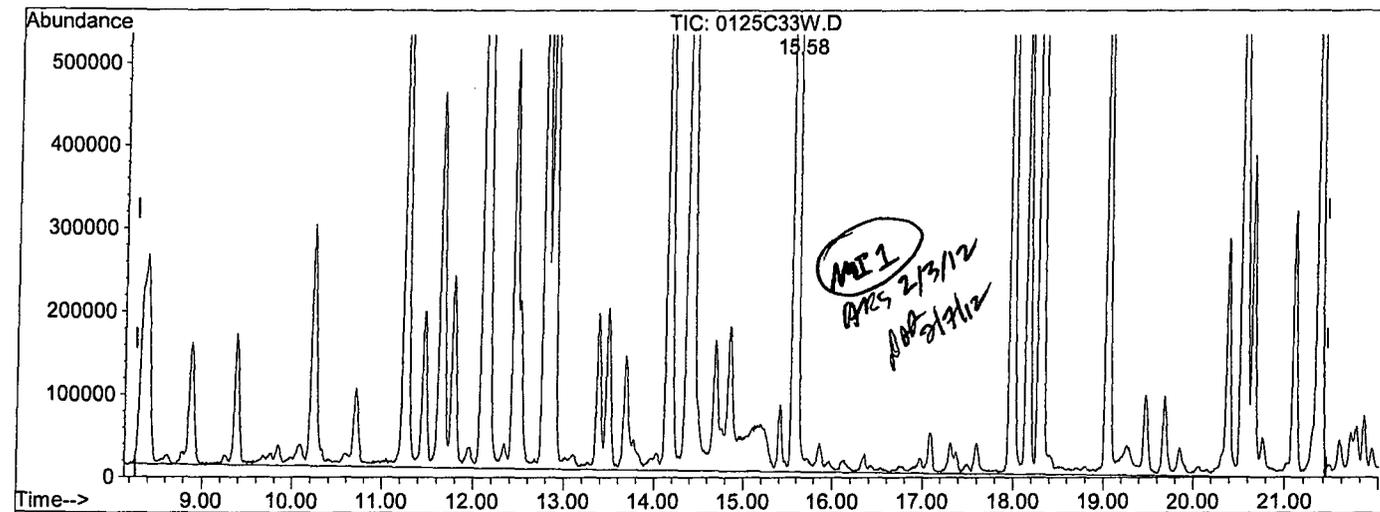
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.18#
0.00	0.00	0.53#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C33W.D  
 Acq On : 26 Jan 12 22:01  
 Sample : Vol. Std. 01-26-12@600ug/L  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 3 12:16 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Single Level Calibration



TIC: 0125C33W.D

(2) Gasoline (TMHB)  
 15.58min 621.4121ppb m  
 response 78723288

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.16#
0.00	0.00	0.49#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C34W.D Vial: 1  
 Acq On : 26 Jan 12 22:38 Operator: RS, ARS  
 Sample : Vol. Std. 01-26-12@800ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 12:17 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1172096	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1436710	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1528793	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	102155823m	810.48263	ppb	100

Quantitation Report

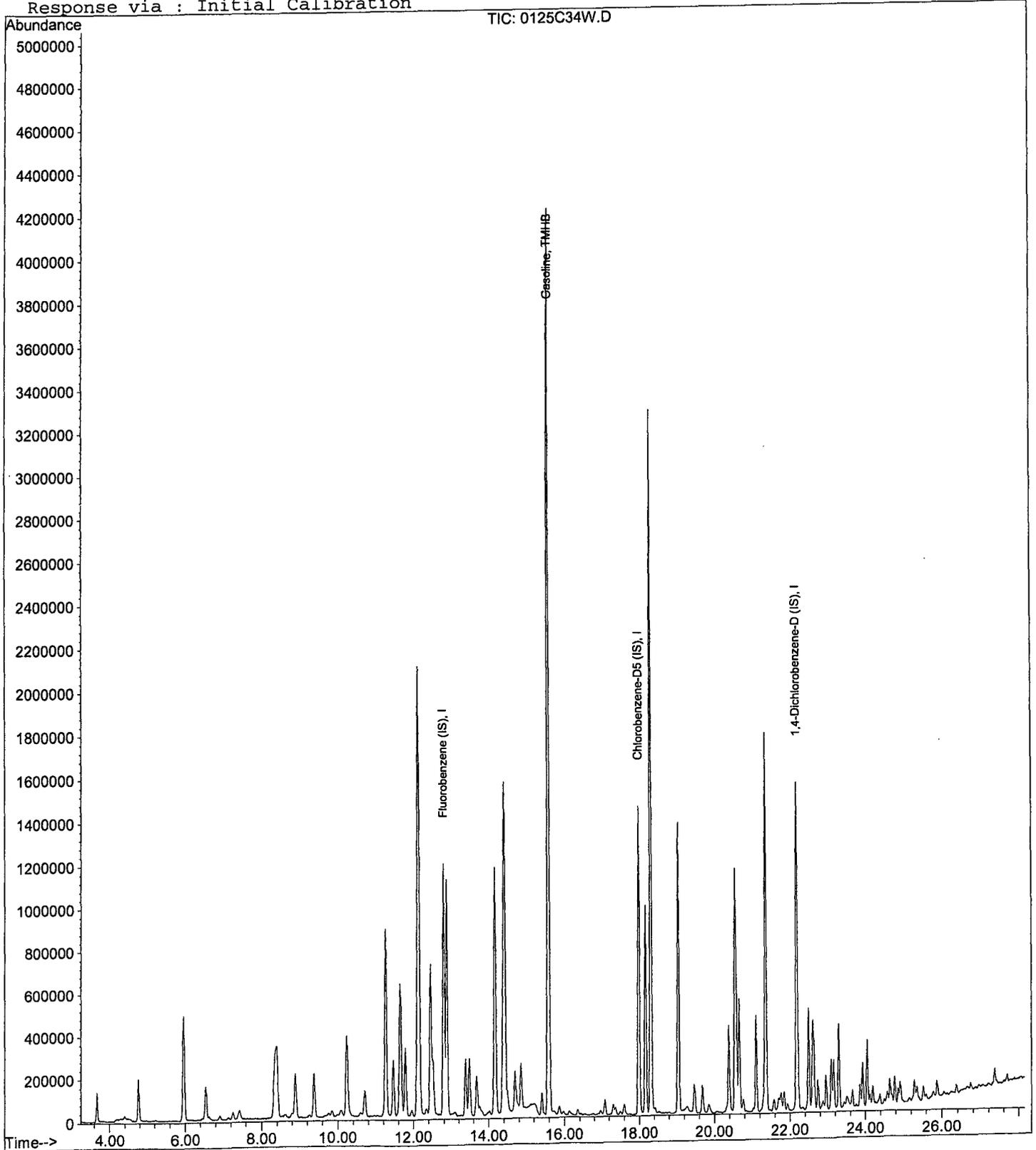
Data File : M:\CHICO\DATA\C120125\0125C34W.D  
Acq On : 26 Jan 12 22:38  
Sample : Vol. Std. 01-26-12@800ug/L  
Misc : Water 10mLw/ IS:12-06-11

Vial: 1  
Operator: RS, ARS  
Inst : Chico  
Multiplr: 1.00

Quant Time: Feb 3 12:17 2012

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Fri Feb 03 12:07:16 2012  
Response via : Initial Calibration

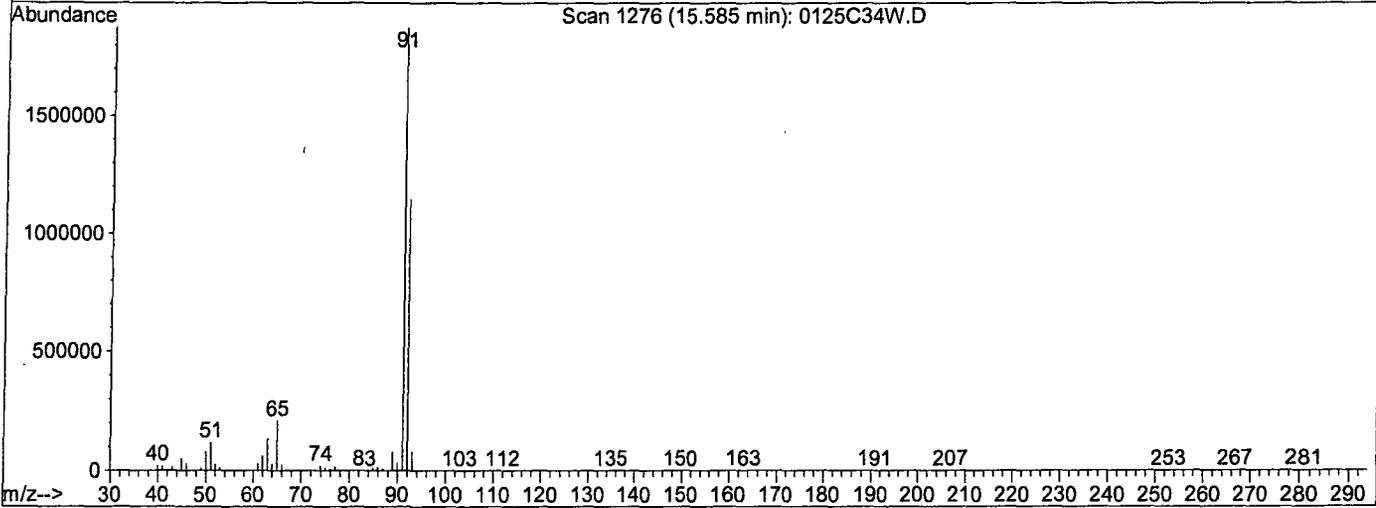
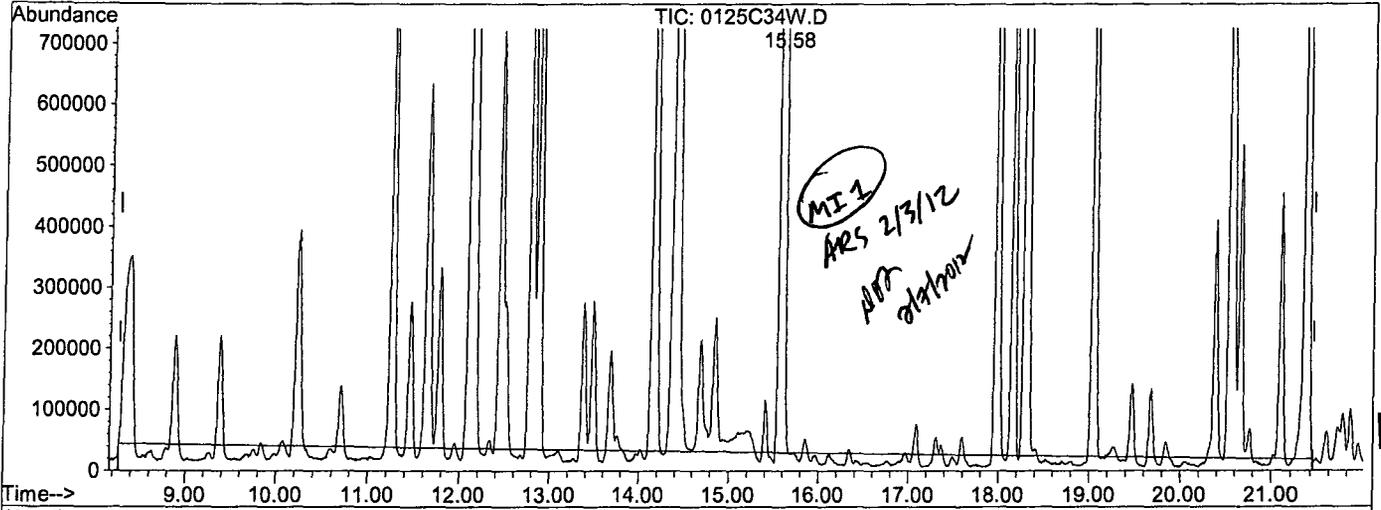


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C34W.D  
 Acq On : 26 Jan 12 22:38  
 Sample : Vol. Std. 01-26-12@800ug/L  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 3 12:07 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Single Level Calibration



TIC: 0125C34W.D

(2) Gasoline (TMHB)

15.58min 730.0328ppb m

response 93884232

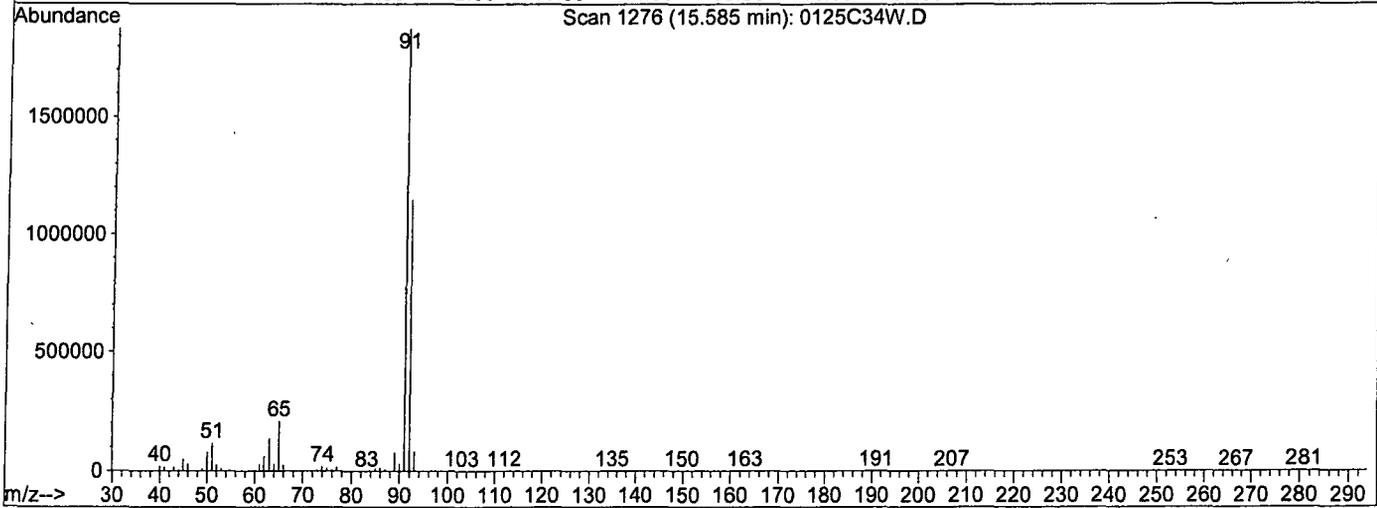
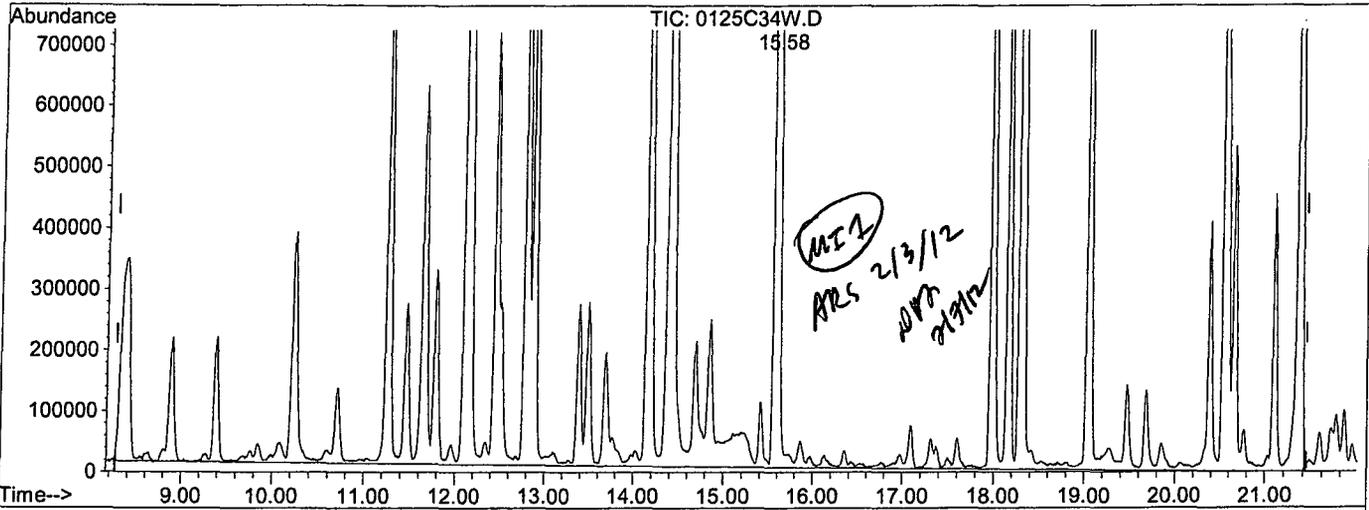
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.14#
0.00	0.00	0.44#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C34W.D  
 Acq On : 26 Jan 12 22:38  
 Sample : Vol. Std. 01-26-12@800ug/L  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 3 12:17 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Single Level Calibration



TIC: 0125C34W.D

(2) Gasoline (TMHB)  
 15.58min 810.4826ppb m  
 response 102155823

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.13#
0.00	0.00	0.41#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C35W.D Vial: 1  
 Acq On : 26 Jan 12 23:15 Operator: RS, ARS  
 Sample : Vol. Std. 01-26-12@1000ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 12:18 2012 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1232092	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1442206	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1630956	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	129481006m	1014.92580	ppb	100

Quantitation Report

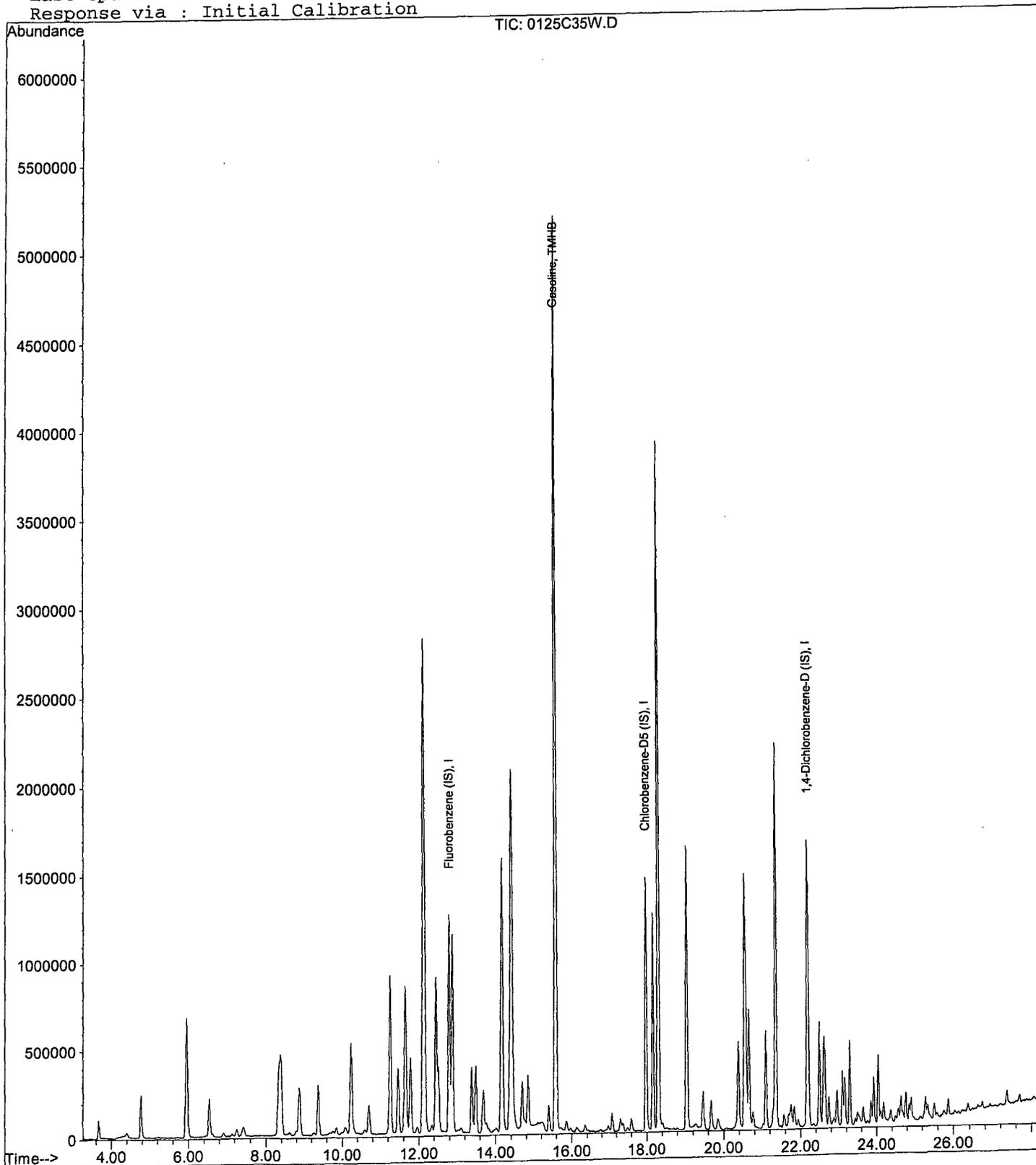
Data File : M:\CHICO\DATA\C120125\0125C35W.D  
Acq On : 26 Jan 12 23:15  
Sample : Vol. Std. 01-26-12@1000ug/L  
Misc : Water 10mLw/ IS:12-06-11

Vial: 1  
Operator: RS, ARS  
Inst : Chico  
Multiplr: 1.00

Quant Time: Feb 3 12:18 2012

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Fri Feb 03 12:07:16 2012  
Response via : Initial Calibration

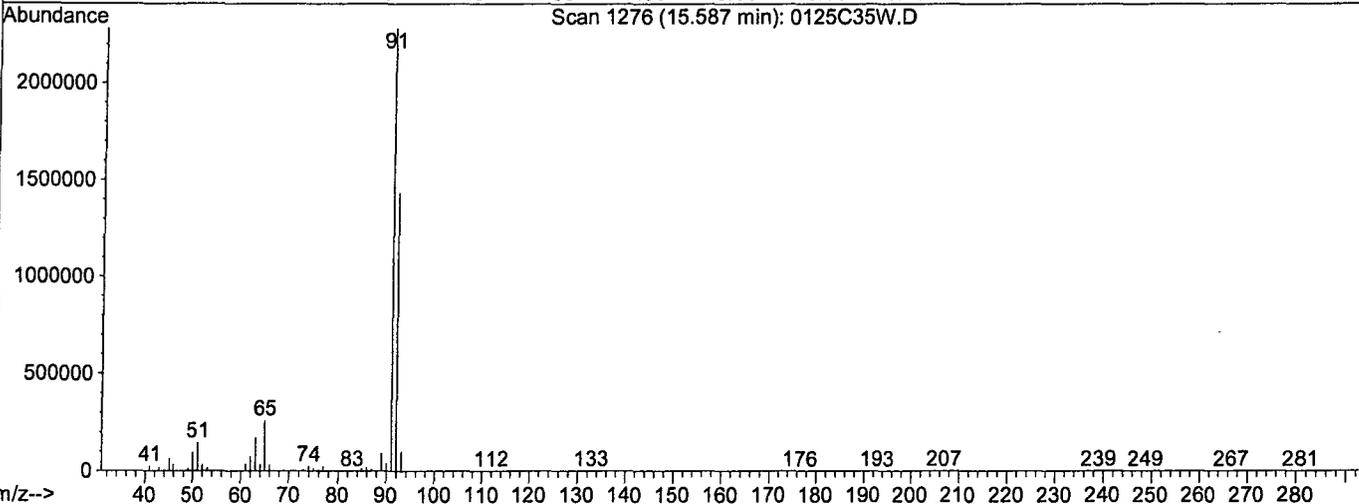
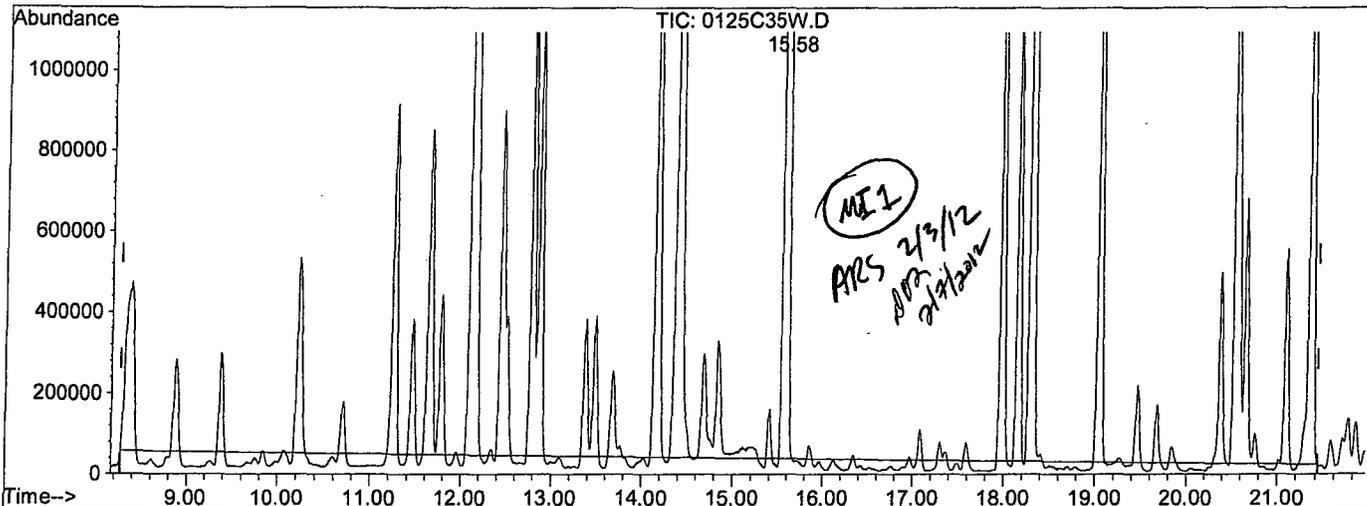


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C35W.D  
 Acq On : 26 Jan 12 23:15  
 Sample : Vol. Std. 01-26-12@1000ug/L  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 3 12:07 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Single Level Calibration



TIC: 0125C35W.D

(2) Gasoline (TMHB)  
 15.58min 923.0372ppb m  
 response 119549717

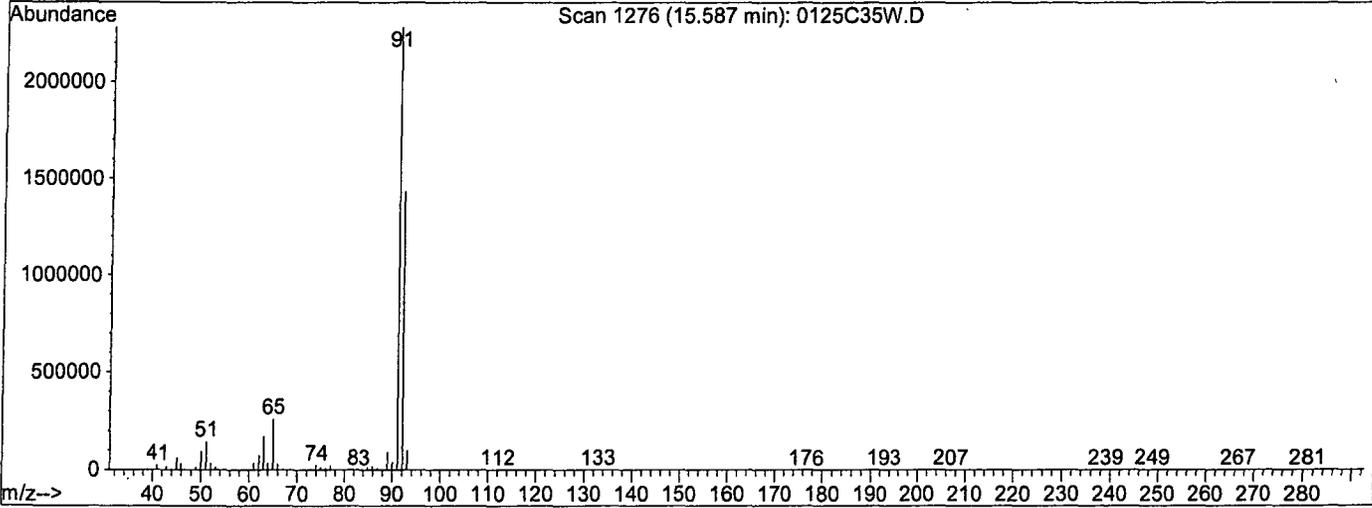
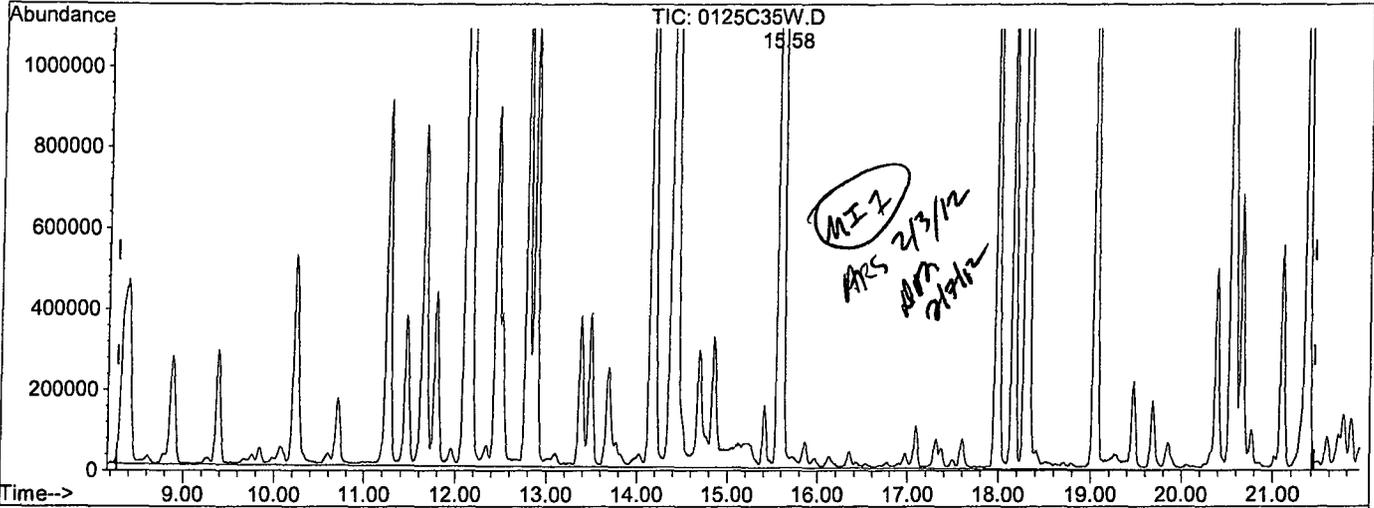
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.12#
0.00	0.00	0.35#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C35W.D  
 Acq On : 26 Jan 12 23:15  
 Sample : Vol. Std. 01-26-12@1000ug/L  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 3 12:18 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Feb 03 12:07:16 2012  
 Response via : Single Level Calibration



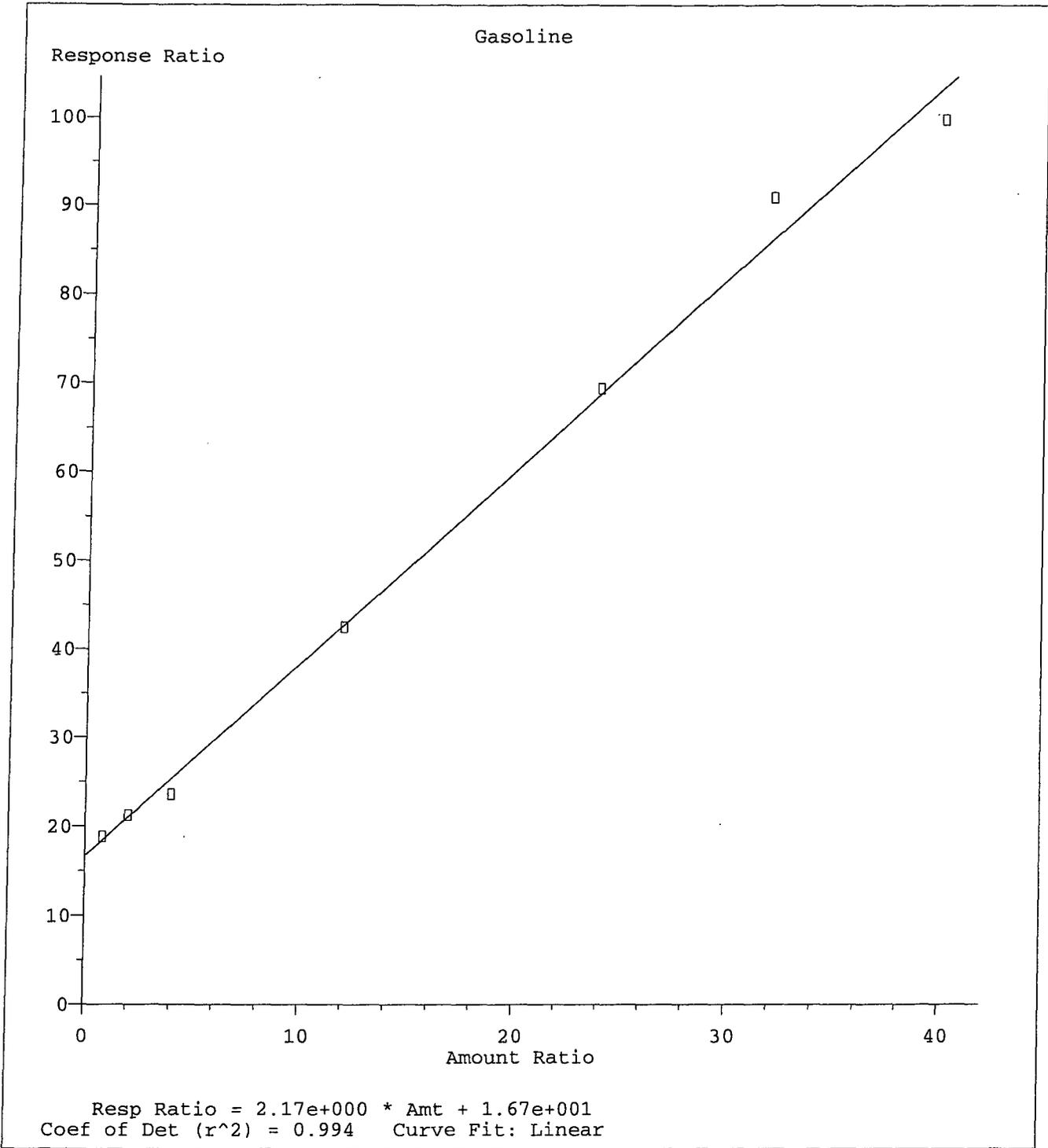
TIC: 0125C35W.D

(2) Gasoline (TMHB)

15.58min 1014.9258ppb m

response 129481006

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.11#
0.00	0.00	0.33#
0.00	0.00	0.00



Method Name: M:\CHICO\DATA\C120125\CGAS.M  
Calibration Table Last Updated: Tue Feb 07 09:36:43 2012



Quantitation Report

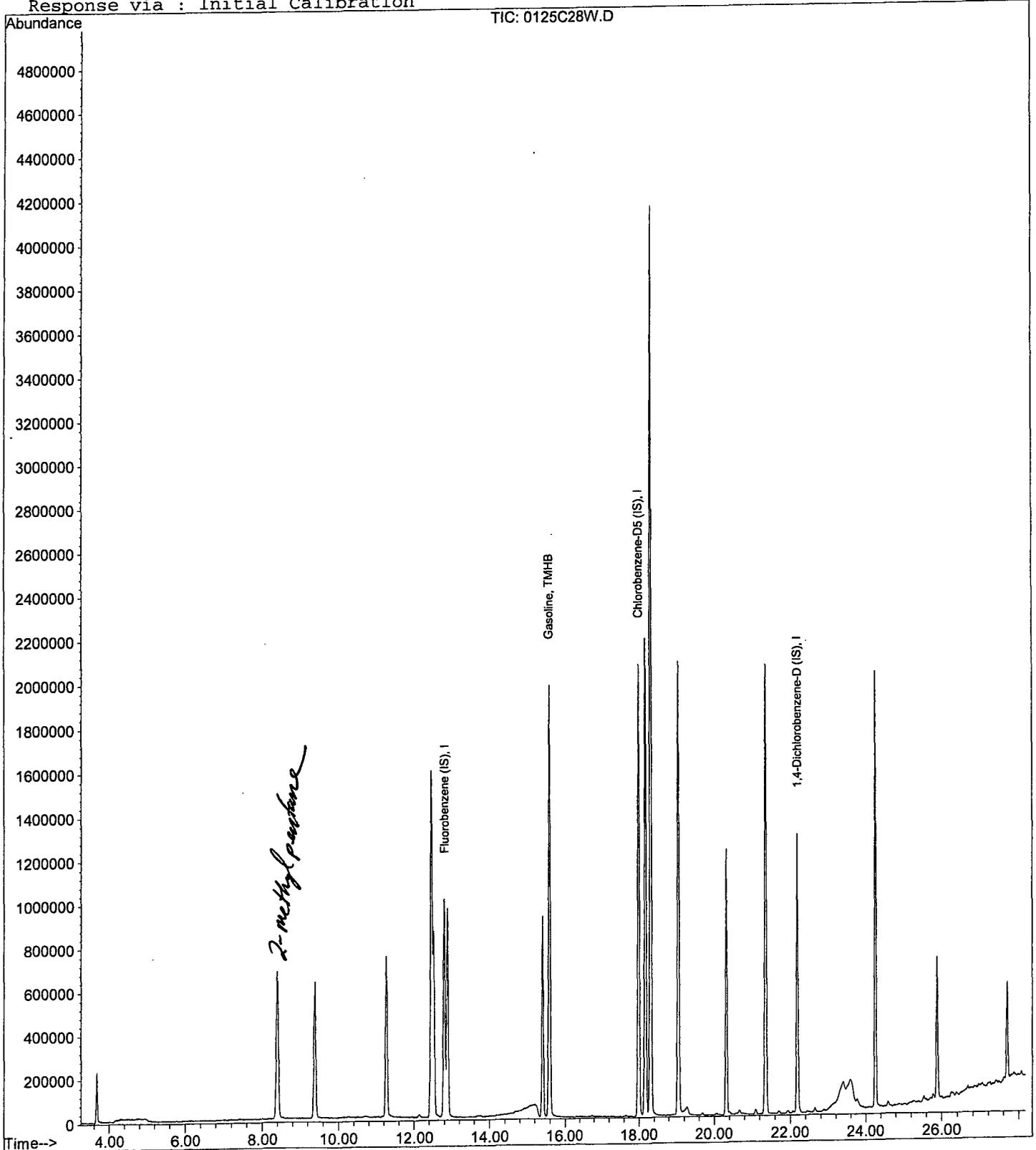
Data File : M:\CHICO\DATA\C120125\0125C28W.D  
Acq On : 26 Jan 12 18:55  
Sample : VOC Mix Marker  
Misc : Water 10mLw/ IS:12-06-11

Vial: 1  
Operator: RS, ARS  
Inst : Chico  
Multiplr: 1.00

Quant Time: Feb 7 9:41 2012

Quant Results File: CGAS.RES

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

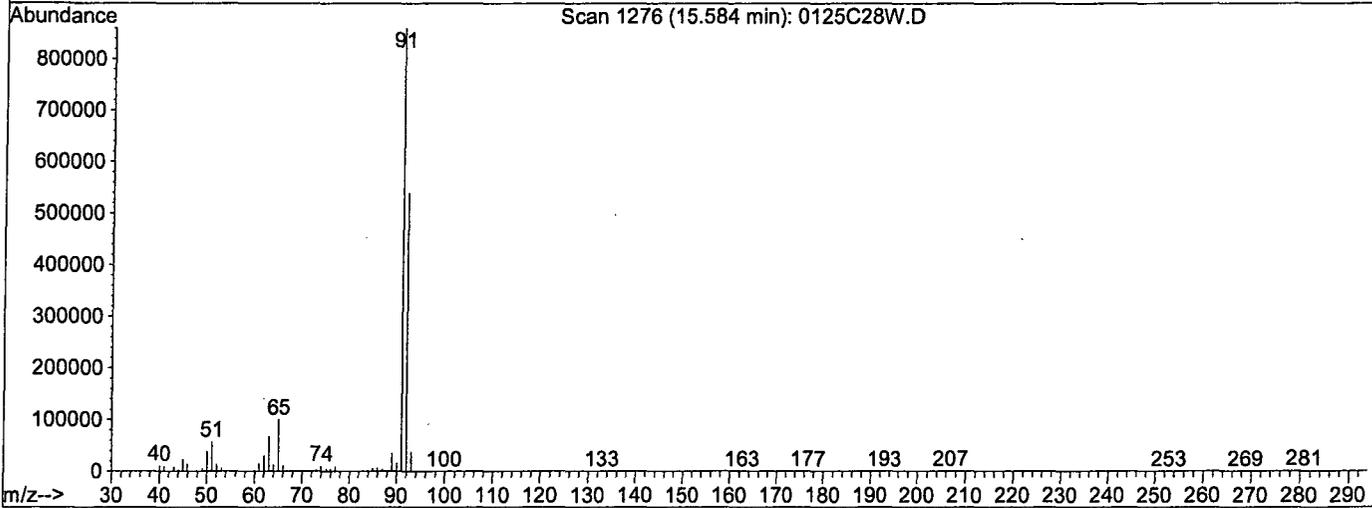
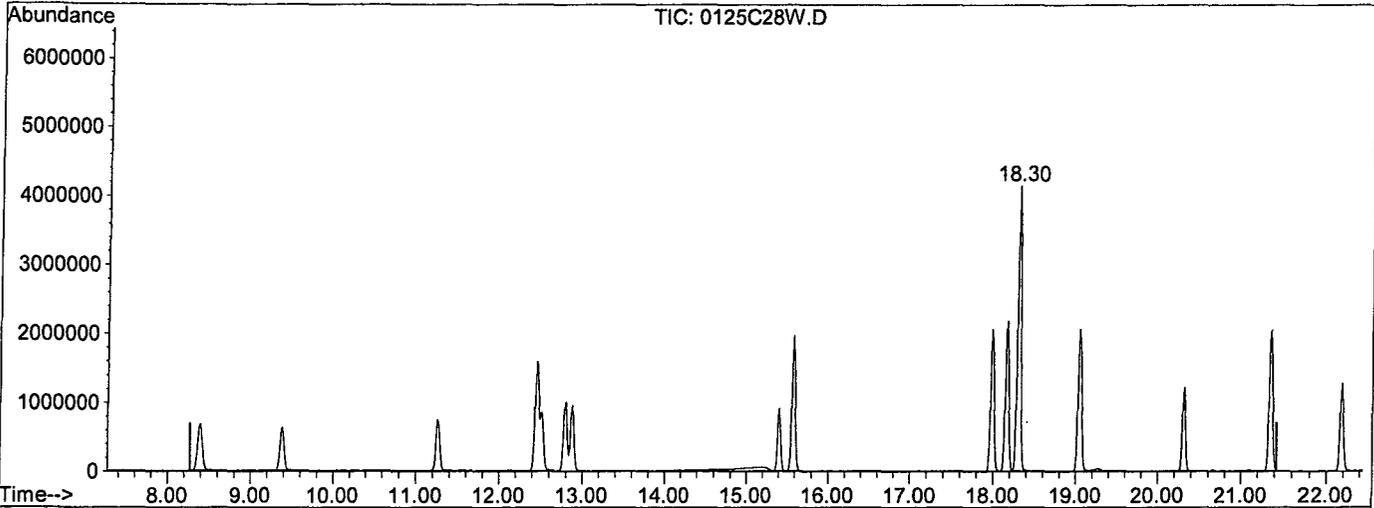


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C28W.D  
 Acq On : 26 Jan 12 18:55  
 Sample : VOC Mix Marker  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 7 9:41 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

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



TIC: 0125C28W.D

(2) Gasoline (TMHB)  
 15.58min 598.6549ppb m  
 response 68624186

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.19#
0.00	0.00	0.54#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C28W.D Vial: 1  
 Acq On : 26 Jan 12 18:55 Operator: RS, ARS  
 Sample : VOC Mix Marker Inst : Chico  
 Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 11:40 2012 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C120125\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Fri Jan 27 12:42:43 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.80	96	514344	25.00000	ppb	0.03
54) Chlorobenzene-D5 (IS)	17.98	117	426880	25.00000	ppb	0.02
70) 1,4-Dichlorobenzene-D (IS)	22.18	152	243008	25.00000	ppb	0.02

System Monitoring Compounds

32) Dibromofluoromethane(S)	11.40	111	814	0.05945	ppb	0.04
Spiked Amount	24.119		Recovery	=	0.245%	
37) 1,2-DCA-D4(S)	12.18	65	952	0.09637	ppb	0.02
Spiked Amount	22.874		Recovery	=	0.420%	
55) Toluene-D8(S)	15.46	98	5539	0.10268	ppb	0.03
Spiked Amount	24.755		Recovery	=	0.416%	
63) 4-Bromofluorobenzene(S)	20.05	95	5181	0.27480	ppb	0.02
Spiked Amount	26.777		Recovery	=	1.027%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.06	85	2596	0.82228	ppb	98
3) Freon 114	4.31	85	1957	0.24927	ppb	98
4) Chloromethane	4.53	50	497	-0.25189	ppb #	1
5) Vinyl chloride	4.81	62	636	0.11072	ppb #	55
6) Bromomethane	5.66	94	352	1.43494	ppb #	48
7) Chloroethane	5.89	64	688	0.17146	ppb #	88
9) Trichlorofluoromethane	6.48	103	598	0.15470	ppb #	42
11) Acrolein	7.16	56	139	1.20103	ppb	81
12) Acetone	7.25	43	1756	0.17301	ppb #	49
13) Freon-113	7.44	101	1265	0.10656	ppb	84
14) 1,1-DCE	7.63	96	2136	0.28441	ppb #	17
15) t-Butanol	7.75	59	112	1.98451	ppb #	80
17) Iodomethane	8.12	142	488	0.33050	ppb #	43
18) Acrylonitrile	8.40	53	18247	12.53629	ppb #	22
19) Methylene chloride	8.44	84	5961	-0.42807	ppb #	1
20) Carbon disulfide	8.51	76	565	0.07522	ppb #	75
22) Trans-1,2-DCE	9.06	96	3142	0.09631	ppb #	9
25) Vinyl Acetate	9.38	43	108176	52.11193	ppb	98
27) MEK (2-Butanone)	10.41	43	403	0.27118	ppb #	66
28) Cis-1,2-DCE	10.76	96	1544	0.11362	ppb #	23
34) Cyclohexane	11.97	56	2103	0.11787	ppb	99
35) 1,1-Dichloropropene	12.09	75	2011	0.15580	ppb #	45
36) 2,2,4-Trimethylpentane	12.13	57	18754	0.54048	ppb	99
38) Carbon Tetrachloride	12.23	117	80	0.91706	ppb #	41
40) 1,2-DCA	12.45	62	18764	2.04942	ppb #	75
41) Benzene	12.45	78	2517875	58.71375	ppb	98
42) TCE	13.49	95	1033	0.08724	ppb #	57
43) 2-Pentanone	13.09	43	1444	0.49565	ppb #	63
46) Methyl Cyclohexane	13.76	83	4236	0.25633	ppb	93
50) Cis-1,3-Dichloropropene	14.93	75	612	-0.23271	ppb	85
51) Toluene	15.58	91	2516540	49.99585	ppb	96
52) Trans-1,3-Dichloropropene	15.76	75	1112	0.10188	ppb #	60
57) Tetrachloroethene	16.75	164	1780	0.15371	ppb #	45
58) 1-Chlorohexane	17.66	91	4450	0.20898	ppb	89
60) m&p-Xylene	18.30	106	2213106	87.61936	ppb	97
61) o-Xylene	19.05	106	1078952	43.01267	ppb	93
62) Styrene	19.05	104	54491	1.45381	ppb #	1
64) 2-Hexanone	16.02	43	394	0.17017	ppb #	25
67) Chlorobenzene	18.06	112	2884	0.07867	ppb #	48

Data File : M:\CHICO\DATA\C120125\0125C28W.D Vial: 1  
 Acq On : 26 Jan 12 18:55 Operator: RS, ARS  
 Sample : VOC Mix Marker Inst : Chico  
 Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 3 11:40 2012

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C120125\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Fri Jan 27 12:42:43 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
68) Ethylbenzene	18.17	91	2939246	43.94023	ppb	100
71) MIBK (methyl isobutyl keto)	14.58	43	99	-0.18362	ppb #	31
72) Isopropylbenzene	19.69	105	9228	0.12704	ppb	92
75) t-1,4-Dichloro-2-Butene	20.31	53	19055	11.41330	ppb #	8
76) Bromobenzene	20.43	156	3594	0.20876	ppb #	47
77) n-Propylbenzene	20.39	91	18116	0.20048	ppb	98
78) 4-Ethyltoluene	20.59	105	8271	0.15756	ppb	90
79) 2-Chlorotoluene	20.68	91	7547	0.13199	ppb #	77
80) 1,3,5-Trimethylbenzene	20.66	105	19818	0.33532	ppb	92
81) 4-Chlorotoluene	20.77	91	9067	0.17883	ppb	97
82) Tert-Butylbenzene	21.36	119	276648	4.08833	ppb #	71
83) 1,2,4-Trimethylbenzene	21.36	105	2161299	36.78081	ppb	97
84) Sec-Butylbenzene	21.70	105	18537	0.22205	ppb #	76
85) p-Isopropyltoluene	21.93	119	13390	0.19972	ppb #	89
86) Benzyl Chloride	22.37	91	1446	0.10670	ppb #	90
87) 1,3-DCB	22.08	146	7950	0.23447	ppb	83
88) 1,4-DCB	22.25	146	8802	0.26702	ppb #	79
89) Hexachloroethane	23.52	117	2736	0.90342	ppb #	25
90) n-Butylbenzene	22.65	91	21345	0.34686	ppb #	94
91) 1,2-DCB	22.88	146	6887	0.24229	ppb #	79
92) 1,2-Dibromo-3-chloropropan	24.07	155	120	0.11615	ppb #	46
93) 1,2,4-Trichlorobenzene	25.53	180	5653	0.69548	ppb	79
94) Hexachlorobutadiene	25.78	223	5853	0.53769	ppb #	69
95) Naphthalene	25.89	128	857570	35.27522	ppb	99
96) 1,2,3-Trichlorobenzene	26.24	180	4574	0.69979	ppb	85

Quantitation Report

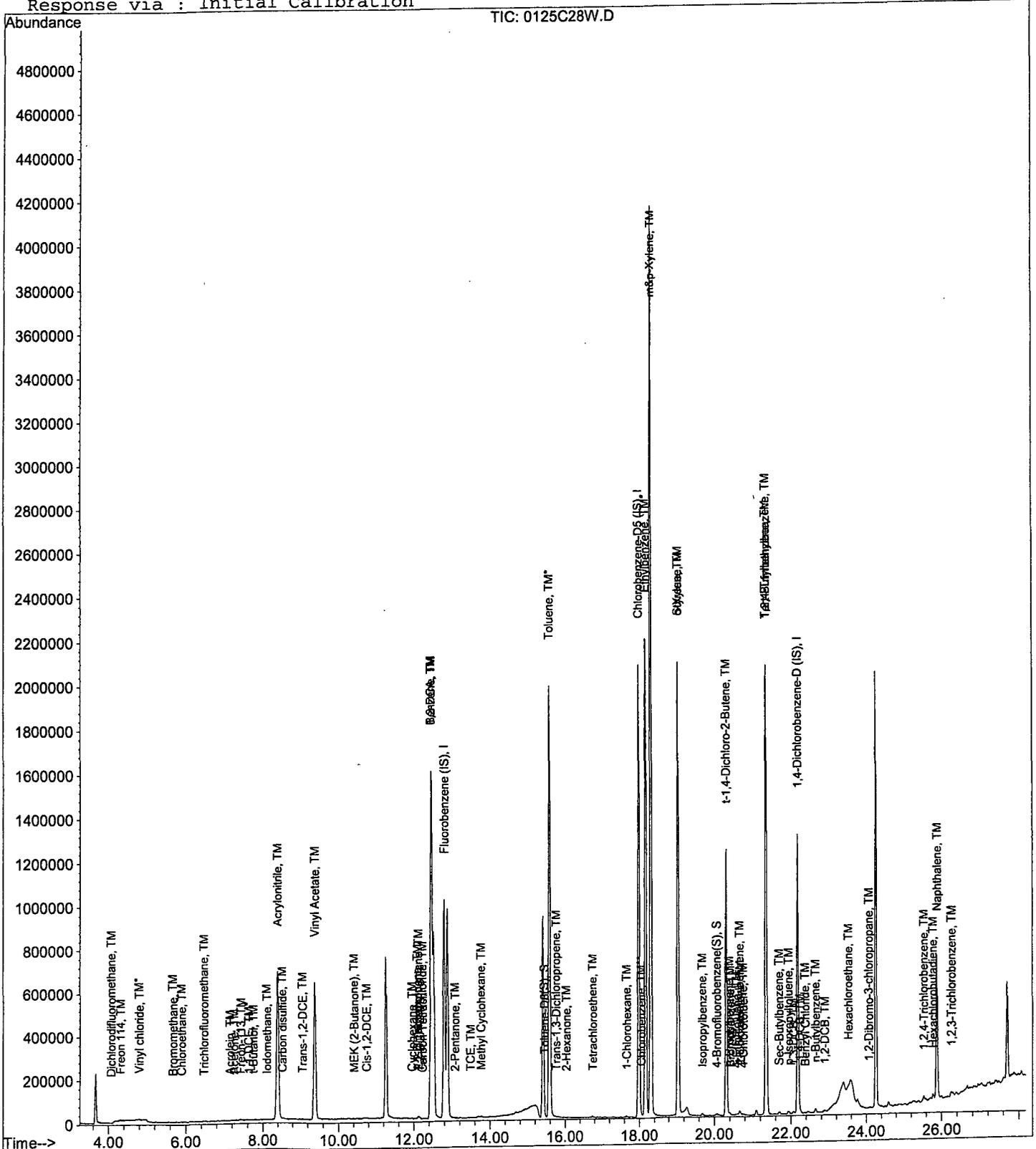
Data File : M:\CHICO\DATA\C120125\0125C28W.D  
Acq On : 26 Jan 12 18:55  
Sample : VOC Mix Marker  
Misc : Water 10mLw/ IS:12-06-11

Vial: 1  
Operator: RS, ARS  
Inst : Chico  
Multiplr: 1.00

Quant Time: Feb 3 11:40 2012

Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C120125\CALLW.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Fri Jan 27 12:42:43 2012  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 01/27/12  
Instrument: Chico  
Initial Cal. Date: 01/25/12  
Data File: 0125C38W.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline	7.410	3.556	52	TMHBL	0.36
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
8							
9							
10							
11							
12							
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36							
37							
38							
39							
40		Average			52.0		

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C120125\0125C38W.D Vial: 1  
 Acq On : 27 Jan 12 1:06 Operator: RS, ARS  
 Sample : Second Source 01-26-12 Inst : Chico  
 Misc : Water 10mLw/ IS:12-06-11 Multiplr: 1.00

Quant Time: Feb 7 9:37 2012 Quant Results File: CGAS.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1138336	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1375303	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1433410	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	48578324m	298.92978	ppb	100

Quantitation Report

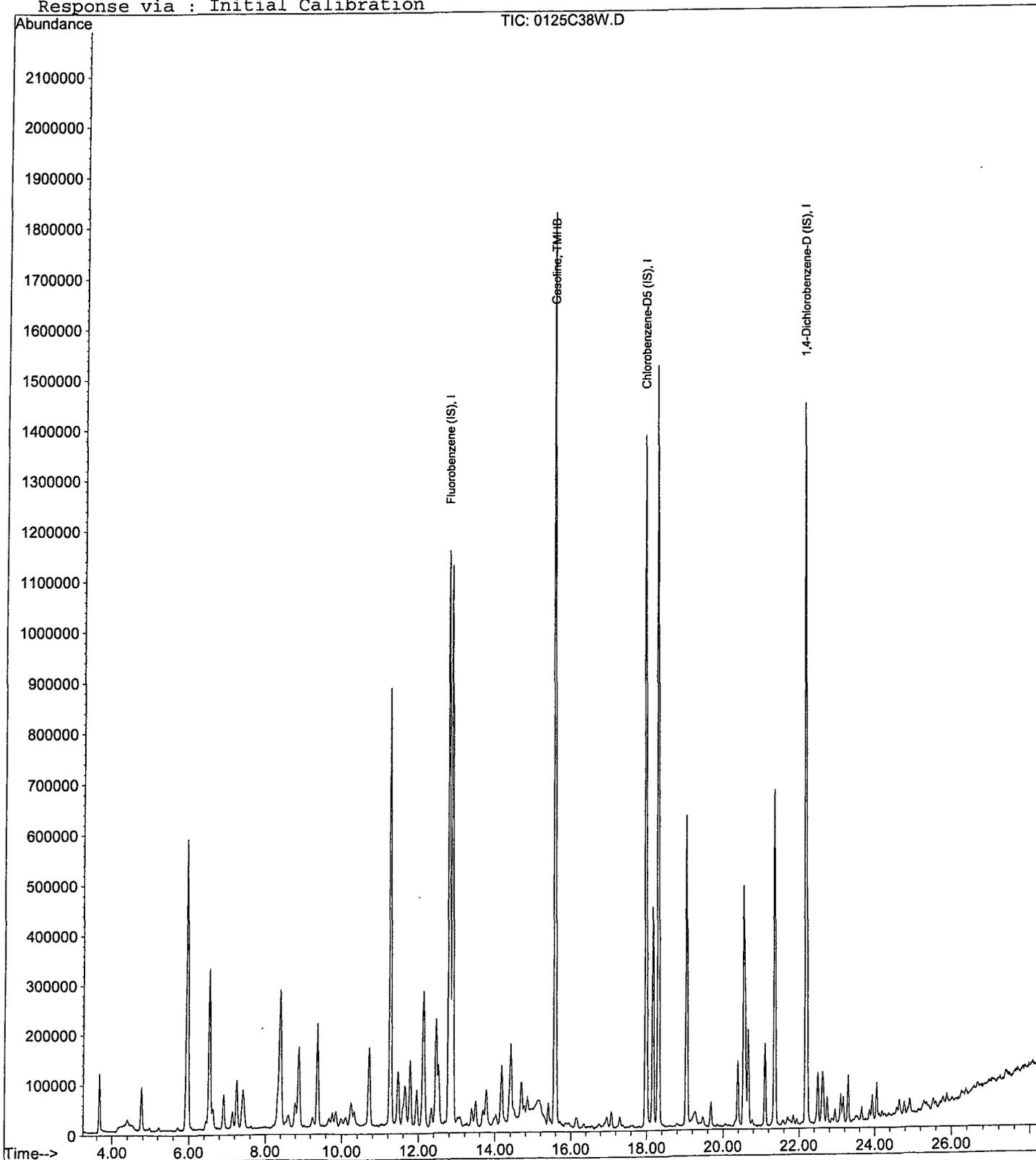
Data File : M:\CHICO\DATA\C120125\0125C38W.D  
Acq On : 27 Jan 12 1:06  
Sample : Second Source 01-26-12  
Misc : Water 10mLw/ IS:12-06-11

Vial: 1  
Operator: RS, ARS  
Inst : Chico  
Multiplr: 1.00

Quant Time: Feb 7 9:37 2012

Quant Results File: CGAS.RES

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

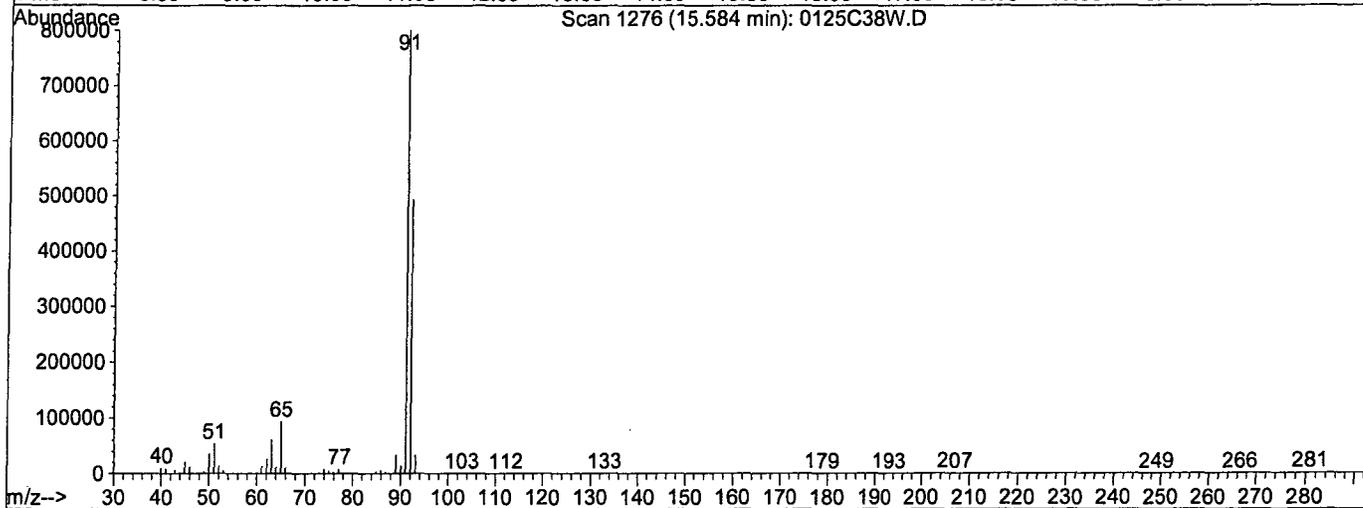
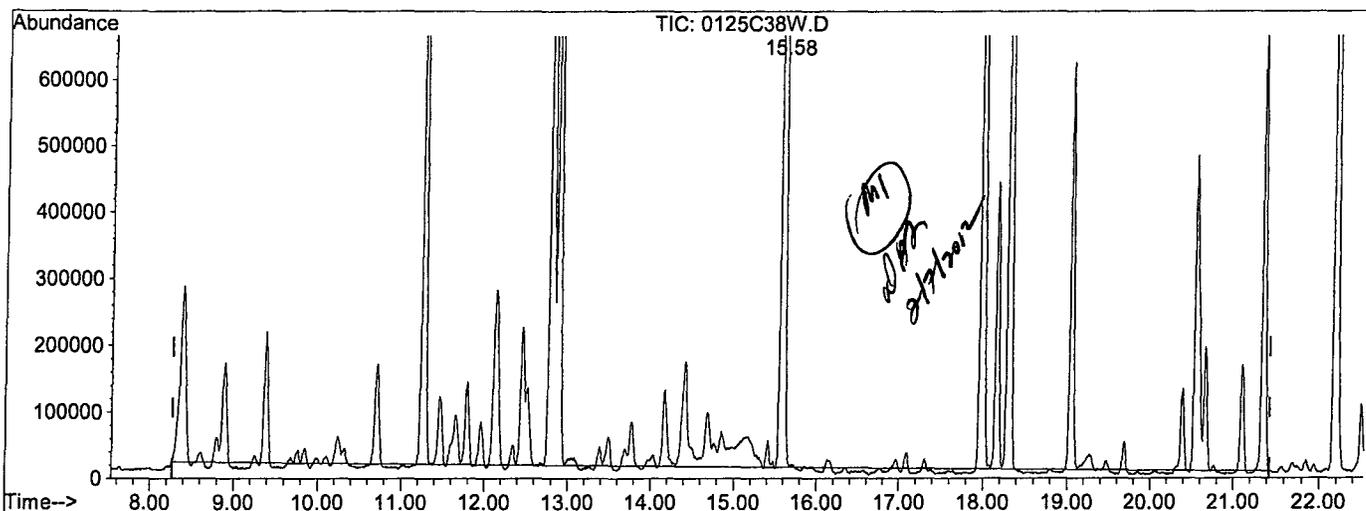


Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C38W.D  
 Acq On : 27 Jan 12 1:06  
 Sample : Second Source 01-26-12  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 7 9:37 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

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



TIC: 0125C38W.D

(2) Gasoline (TMHB)

15.58min 202.8575ppb m

response 39074056

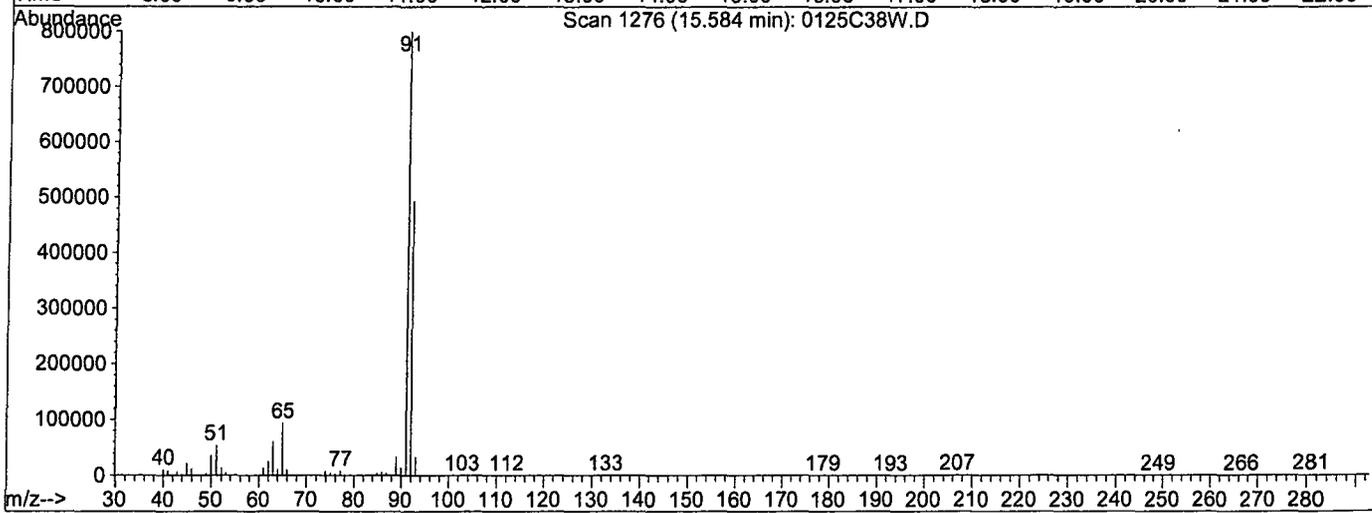
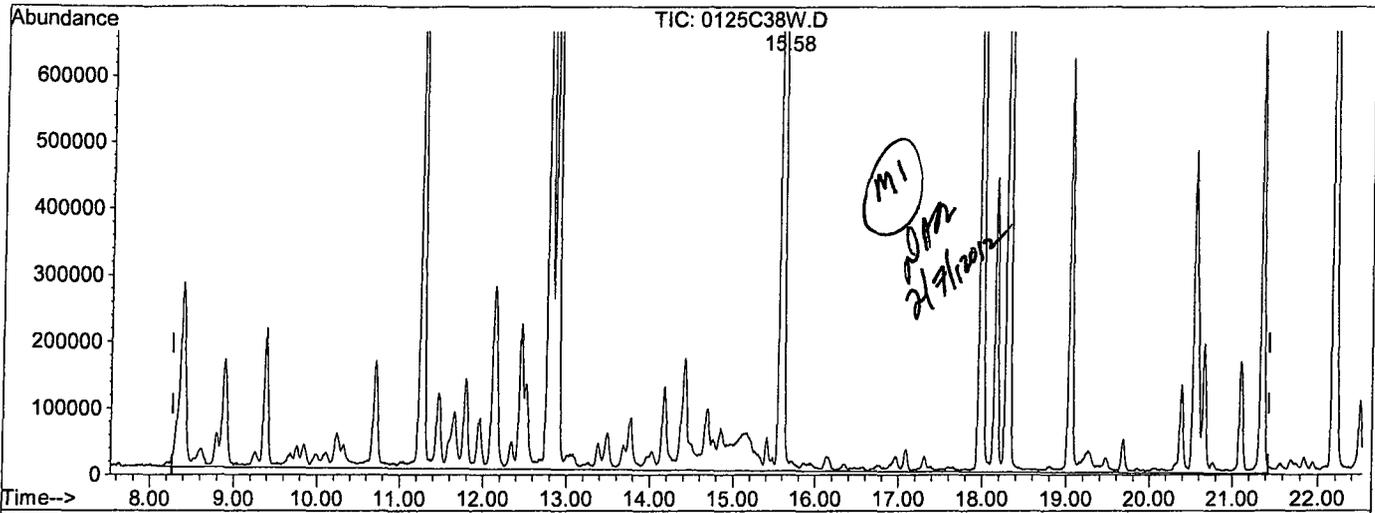
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.34#
0.00	0.00	1.04#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C120125\0125C38W.D  
 Acq On : 27 Jan 12 1:06  
 Sample : Second Source 01-26-12  
 Misc : Water 10mLw/ IS:12-06-11  
 Quant Time: Feb 7 9:37 2012

Vial: 1  
 Operator: RS, ARS  
 Inst : Chico  
 Multiplr: 1.00  
 Quant Results File: temp.res

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



TIC: 0125C38W.D

(2) Gasoline (TMHB)

15.58min 298.9298ppb m

response 48578324

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.28#
0.00	0.00	0.84#
0.00	0.00	0.00

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No: 67512  
Date Analyzed: 04/18/12  
Instrument: Chico  
Initial Cal. Date: 04/10/12  
Data File: 0418C01W.D

	Compound	MEAN	CCRF	%D	%Drift
1	Fluorobenzene (IS)	ISTD			
2	TMHB Gasoline	7.410	3.697	50	TMHBL 6.1
3	Chlorobenzene-D5 (IS)	ISTD			
4	1,4-Dichlorobenzene-D (IS)	ISTD			
5					
6					
7					
8					
9					
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36					
37					
38					
39					
40	Average			50.0	

Data File : M:\CHICO\DATA\C120410\0418C01W.D Vial: 1  
 Acq On : 18 Apr 12 9:27 Operator: SV  
 Sample : CCV gas 300ug/L Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 18 11:18 2012 Quant Results File: CGAS.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.80	TIC	1228181	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1307838	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1304626	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	54482163m	318.32069	ppb	100

Quantitation Report

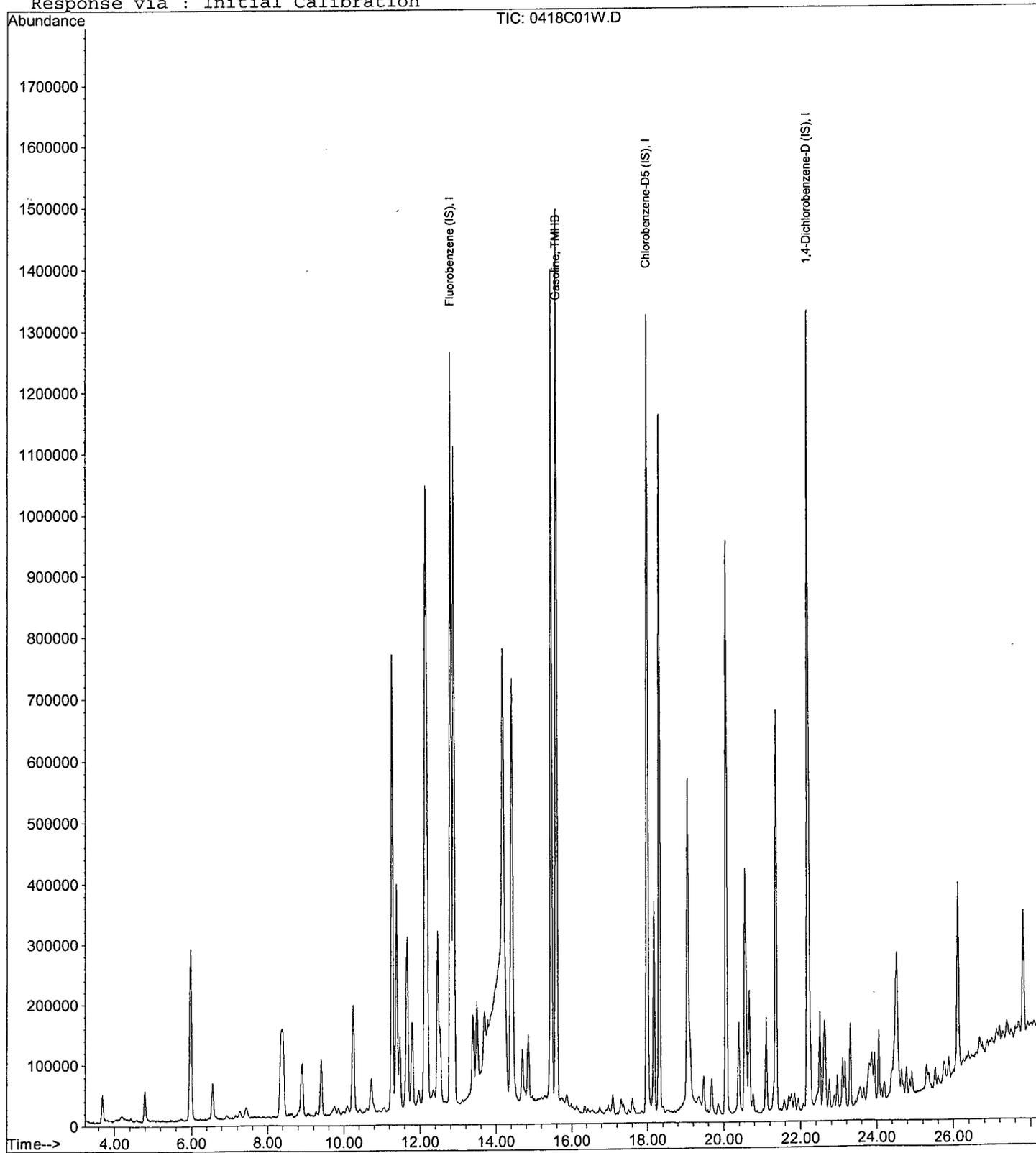
Data File : M:\CHICO\DATA\C120410\0418C01W.D  
Acq On : 18 Apr 12 9:27  
Sample : CCV gas 300ug/L  
Misc : Water 10mL w/IS&S:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 18 11:18 2012

Quant Results File: CGAS.RES

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



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 04/19/12  
Instrument: Chico  
Initial Cal. Date: 04/10/12  
Data File: 0419C01W.D

	Compound	MEAN	CCRF	%D	%Drift
1	I Fluorobenzene (IS)	ISTD			I
2	TMHB Gasoline	7.410	3.632	51	TMHBL 3.1
3	I Chlorobenzene-D5 (IS)	ISTD			I
4	I 1,4-Dichlorobenzene-D (IS)	ISTD			I
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
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18					
19					
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32					
33					
34					
35					
36					
37					
38					
39					
40	Average			51.0	

Data File : M:\CHICO\DATA\C120410\0419C01W.D Vial: 1  
 Acq On : 19 Apr 12 6:48 Operator: SV  
 Sample : CCV gas 300ug/L Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.79	TIC	1270199	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.99	TIC	1364281	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1270549	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	55359171m	309.38030	ppb	100

Quantitation Report

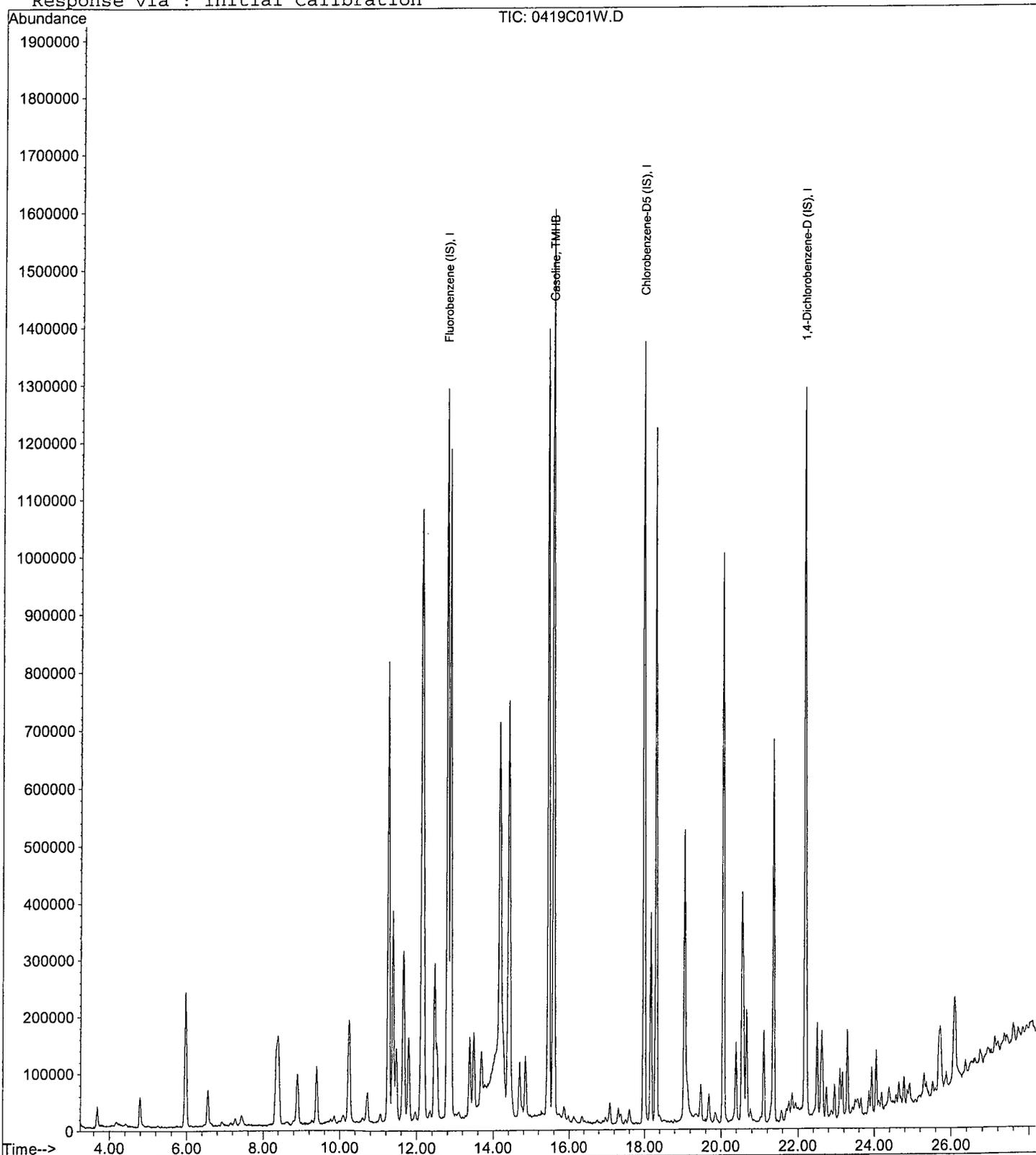
Data File : M:\CHICO\DATA\C120410\0419C01W.D  
Acq On : 19 Apr 12 6:48  
Sample : CCV gas 300ug/L  
Misc : Water 10mL w/IS&S:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: May 1 14:00 2012

Quant Results File: CGAS.RES

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



Data File : M:\CHICO\DATA\C120410\0419C06W.D Vial: 1  
 Acq On : 19 Apr 12 9:52 Operator: SV  
 Sample : LCS gas 300 ug/L Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.80	TIC	1333745	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1439521	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1368841	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	61479673m	338.29027	ppb	100

Quantitation Report

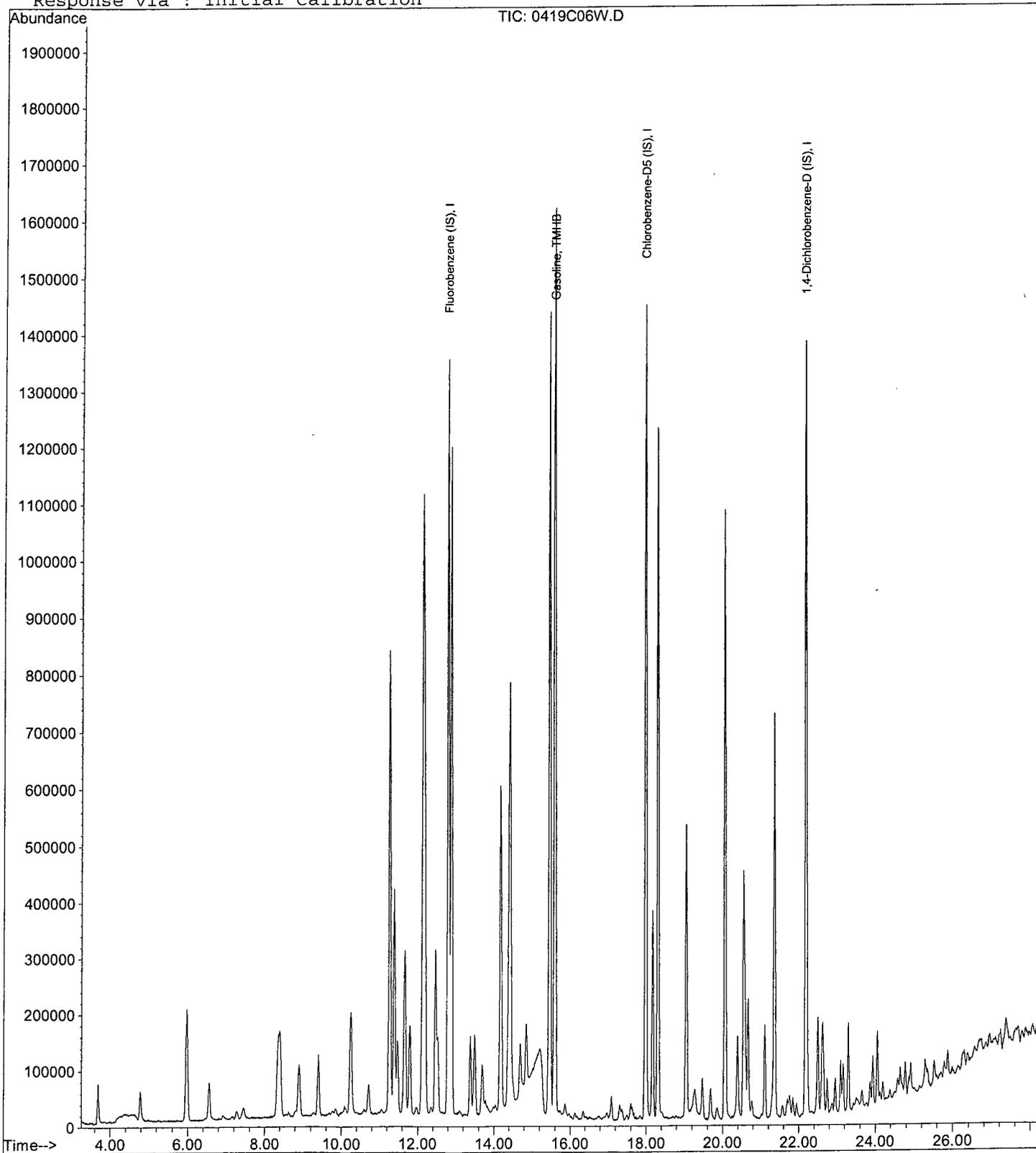
Data File : M:\CHICO\DATA\C120410\0419C06W.D  
Acq On : 19 Apr 12 9:52  
Sample : LCS gas 300 ug/L  
Misc : Water 10mL w/IS&S:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: May 1 14:00 2012

Quant Results File: CGAS.RES

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



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 6  
Initial Calibration

Lab Name: APPL, Inc.

Case No: \_\_\_\_\_

Matrix: Water

SDG No: \_\_\_\_\_

Initial Cal. Date: 04/10/12

Instrument: Chico

Initials: \_\_\_\_\_

0410C04W.D    0410C05W.D    0410C06W.D    0410C07W.D    0410C08W.D    0410C09W.D    0410C10W.D    0410C11W.D

Compound	0.3	0.5	1	5	10	20	40	100	Avg	%RSD		r2		
1	I	Fluorobenzene (IS)												
2	TM	Dichlorodifluoromethane	0.7223	0.8337	0.8725	0.7151	0.7614	0.8793	0.9029	0.8194	0.81	8.9	TM	
3	TM	Freon 114	0.3412	0.3865	0.2868	0.2781	0.2810	0.3209	0.3203	0.2914	0.31	12	TM	
4	TM**	Chloromethane		0.4169	0.3376	0.3496	0.3214	0.3147	0.3656	0.3422	0.35	9.8	TM**	/
5	TM*	Vinyl chloride	0.3352	0.2353	0.2449	0.2303	0.1987	0.2134	0.2066	0.1954	0.23	19	TM*	/
6	TM	Bromomethane	0.1468	0.1365	0.1581	0.1658	0.1661	0.1666	0.1713	0.1680	0.16	7.6	TM	
7	TM	Chloroethane	0.2048	0.2589	0.2215	0.1757	0.1960	0.1824	0.1804	0.1705	0.20	15	TM	
8	TM	Dichlorofluoromethane	1.568	1.583	1.547	1.519	1.436	1.442	1.403	1.352	1.5	5.7	TM	
9	TM	Trichlorofluoromethane	0.2111	0.1937	0.1896	0.1652	0.1705	0.1699	0.1670	0.1342	0.18	13	TM	
10		Acetonitrile	0.0360	0.0450	0.0500	0.0476	0.0458	0.0410	0.0455	0.0455	0.04	9.6		
11	TM	Acrolein	0.0449	0.0488	0.0503	0.0489	0.0470	0.0477	0.0475	0.0478	0.05	3.3	TM	
12	TML	Acetone	0.2279	0.2401	0.1685	0.1002	0.0980	0.0888	0.0917	0.0882	0.14	47	TML	1.000
13	TM	Freon-113	0.5708	0.5458	0.5472	0.5048	0.5065	0.5210	0.5027	0.4665	0.52	6.3	TM	
14	TM*	1,1-DCE	0.6087	0.6258	0.5545	0.5151	0.4906	0.4740	0.4698	0.4451	0.52	13	TM*	/
15	TM	t-Butanol	0.0214	0.0227	0.0218	0.0207	0.0203	0.0200	0.0185	0.0184	0.02	7.4	TM	
16	TML	Methyl Acetate	0.7394	0.6395	0.6318	0.3536	0.3270	0.3227	0.3183	0.3006	0.45	40	TML	1.000
17	TML	Iodomethane	0.2395	0.2456	0.3904	0.7307	0.7451	0.7915	0.7982	0.7664	0.59	43	TML	1.000
18	TM	Acrylonitrile		0.1516	0.1420	0.1252	0.1233	0.1221	0.1212	0.1199	0.13	9.6	TM	
19	TM	Methylene chloride			0.7984	0.6522	0.6124	0.6026	0.6110	0.5830	0.64	12	TM	
20	TM	Carbon disulfide	0.2342	0.2234	0.2197	0.2443	0.2239	0.2324	0.2268	0.2232	0.23	3.5	TM	
21	TM	Methyl t-butyl ether (MtBE)	1.594	1.442	1.297	1.386	1.320	1.288	1.237	1.181	1.3	9.7	TM	
22	TM	Trans-1,2-DCE		0.7728	0.6369	0.6218	0.5922	0.5685	0.5607	0.5353	0.61	13	TM	
23	TM	Diisopropyl Ether	2.848	2.918	2.785	2.781	2.672	2.576	2.501	2.340	2.7	7.3	TM	
24	TM**	1,1-DCA	1.516	1.578	1.492	1.466	1.377	1.315	1.292	1.237	1.4	8.6	TM**	/
25	TML	Vinyl Acetate	0.4399	0.3772	0.2611	0.1701	0.1749	0.1762	0.1677	0.1522	0.24	46	TML	0.998
26	TM	Ethyl tert Butyl Ether	2.227	2.050	2.125	2.012	1.937	1.895	1.843	1.744	2.0	7.9	TM	
27	TM	MEK (2-Butanone)	0.0899	0.0995	0.0855	0.0758	0.0811	0.0774	0.0736	0.0697	0.08	12	TM	
28	TML	Cis-1,2-DCE	1.027	1.105	0.8923	0.7915	0.7874	0.7623	0.7433	0.6914	0.85	17	TML	0.999
29	TM	2,2-Dichloropropane	1.073	1.011	1.013	0.9391	0.9443	0.9200	0.8843	0.8339	0.95	8.1	TM	
30	TM*	Chloroform		0.8330	0.8149	0.8018	0.7957	0.7753	0.7574	0.7362	0.79	4.3	TM*	/
31	TM	Bromochloromethane	0.3439	0.3571	0.3142	0.3268	0.3160	0.3091	0.3061	0.2913	0.32	6.6	TM	
32	S	Dibromofluoromethane(S)	0.7855	0.7765	0.7813	0.7084	0.7056	0.7027	0.6818	0.6848	0.73	6.1	S	
33	TM	1,1,1-TCA	1.037	1.054	1.043	0.9282	0.9419	0.9320	0.9056	0.8594	0.96	7.5	TM	
34	TM	Cyclohexane	0.8651	0.8869	0.8755	0.8214	0.7961	0.8151	0.7915	0.7379	0.82	6.1	TM	
35	TM	1,1-Dichloropropene	0.9540	0.9191	0.9213	0.8373	0.8027	0.8004	0.7542	0.7407	0.84	9.6	TM	

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VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

**Form 6**  
**Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 04/10/12  
Instrument: Chico

Initials: \_\_\_\_\_

		Compound	0.3	0.5	1	5	10	20	40	100			Avg	%RSD	TM	r2
36	TM	2,2,4-Trimethylpentane			1.883	1.653	1.583	1.591	1.592	1.494			1.6	8.1	TM	
37	S	1,2-DCA-D4(S)	0.6311	0.6592	0.6102	0.5627	0.5616	0.5489	0.5259	0.5139			0.58	8.9	S	
38	TM	Carbon Tetrachloride	0.8554	0.8723	0.9421	0.8436	0.8212	0.8067	0.8034	0.7669			0.84	6.3	TM	
39	TM	Tert Amyl Methyl Ether	1.884	1.583	1.594	1.589	1.482	1.488	1.447	1.398			1.6	9.6	TM	
40	TM	1,2-DCA	0.7226	0.6816	0.6460	0.6876	0.6361	0.6255	0.5957	0.5685			0.65	7.8	TM	
41	TM	Benzene	3.244	3.109	2.921	2.816	2.683	2.651	2.614	2.530			2.8	9.0	TM	
42	TM	TCE	0.6742	0.7380	0.6993	0.6812	0.6826	0.6741	0.6607	0.6185			0.68	5.0	TM	
43	TM	2-Pentanone	0.2151	0.2714	0.2631	0.2591	0.2495	0.2557	0.2484	0.2512			0.25	6.6	TM	
44	TM*	1,2-Dichloropropane	0.8935	0.8621	0.8665	0.8704	0.8261	0.8221	0.7885	0.7458			0.83	5.9	TM*	
45	TM	Bromodichloromethane	0.7791	0.7941	0.8152	0.8268	0.8285	0.8167	0.8213	0.7888			0.81	2.3	TM	
46	TM	Methyl Cyclohexane	0.6967	0.7825	0.7368	0.6655	0.6641	0.6883	0.6858	0.6498			0.70	6.3	TM	
47	TM	Dibromomethane	0.3138	0.3362	0.3487	0.3453	0.3239	0.3298	0.3103	0.3051			0.33	5.0	TM	
48	TM	2-Chloroethyl vinyl ether	0.2373	0.2927	0.2847	0.2880	0.2851	0.2986	0.2902	0.2902			0.28	6.8	TM	
49	TM	1-Bromo-2-chloroethane	0.7817	0.8480	0.7907	0.7742	0.7433	0.7339	0.7195	0.6895			0.76	6.5	TM	
50	TM	Cis-1,3-Dichloropropene	1.469	1.169	1.074	1.040	1.031	1.029	1.020	0.9704			1.1	15	TM	
51	TM*	Toluene	3.190	2.940	2.841	2.721	2.625	2.642	2.581	2.479			2.8	8.3	TM*	
52	TM	Trans-1,3-Dichloropropene	0.8661	0.8729	0.6766	0.7732	0.7701	0.7764	0.7730	0.7683			0.78	7.9	TM	
53	TM	1,1,2-TCA	0.4055	0.4361	0.4047	0.4053	0.3945	0.3834	0.3761	0.3635			0.40	5.6	TM	
54	I	Chlorobenzene-D5 (IS)														
55	S	Toluene-D8(S)	3.253	3.205	3.280	2.961	3.056	2.890	2.885	2.874			3.1	5.7	S	
56	TM	1,2-EDB	0.4958	0.6036	0.5604	0.6013	0.6055	0.5741	0.5993	0.5911			0.58	6.4	TM	
57	TM	Tetrachloroethene	0.8409	0.6986	0.7214	0.6993	0.7022	0.6591	0.6819	0.6335			0.70	8.7	TM	
58	TM	1-Chlorohexane	1.247	1.445	1.385	1.281	1.346	1.264	1.296	1.228			1.3	5.7	TM	
59	TM	1,1,1,2-Tetrachloroethane	0.9231	0.9333	0.9925	0.9721	0.9698	0.9285	0.9617	0.9455			0.95	2.6	TM	
60	TM	m&p-Xylene	1.743	1.823	1.748	1.730	1.755	1.617	1.641	1.599			1.7	4.6	TM	
61	TM	o-Xylene	1.949	1.795	1.812	1.791	1.810	1.701	1.731	1.640			1.8	5.2	TM	
62	TM	Styrene	2.846	2.920	2.813	2.898	2.852	2.734	2.766	2.634			2.8	3.3	TM	
63	S	4-Bromofluorobenzene(S)	1.435	1.316	1.339	1.189	1.236	1.173	1.163	1.159			1.3	8.1	S	
64	TM	2-Hexanone	0.2065	0.3405	0.2357	0.2717	0.2793	0.2802	0.2822	0.2845			0.27	14	TM	
65	TM	1,3-Dichloropropane	1.225	1.237	1.135	1.144	1.127	1.035	1.038	1.028			1.1	7.4	TM	
66	TM	Dibromochloromethane	0.6853	0.7250	0.7014	0.7712	0.8023	0.7797	0.8028	0.8086			0.76	6.4	TM	
67	TM**	Chlorobenzene	2.732	2.700	2.773	2.615	2.708	2.542	2.617	2.491			2.6	3.7	TM**	
68	TM*	Ethylbenzene	4.434	4.366	4.327	4.293	4.305	4.027	4.103	3.902			4.2	4.4	TM*	
69	TM**	Bromoform	0.2832	0.3014	0.3151	0.3265	0.3438	0.3596	0.3803	0.4005			0.34	12	TM**	
70	I	1,4-Dichlorobenzene-D (IS)														

ARS 4/11/12  
CALLW3.m

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 04/10/12 \_\_\_\_\_  
Instrument: Chico \_\_\_\_\_

Initials: \_\_\_\_\_

		Compound	0.3	0.5	1	5	10	20	40	100			Avg	%RSD	TM	r2
71	TM	MIBK (methyl isobutyl ketone)		0.6191	0.9061	1.044	0.9864	0.9844	0.9548	0.9462			0.92	15	TM	
72	TM	Isopropylbenzene	9.954	9.972	9.476	9.537	9.203	8.861	8.645	8.396			9.3	6.3	TM	
73	TM**	1,1,2,2-Tetrachloroethane	1.347	1.370	1.160	1.386	1.308	1.273	1.267	1.307			1.3	5.5	TM**	
74	TM	1,2,3-Trichloropropane	0.1509	0.1679	0.1377	0.1448	0.1279	0.1358	0.1193	0.1199			0.14	12	TM	
75	TM	t-1,4-Dichloro-2-Butene	0.3001	0.2988	0.2805	0.3159	0.2857	0.3091	0.3002	0.3134			0.30	4.2	TM	
76	TM	Bromobenzene		2.696	2.507	2.279	2.098	2.069	2.057	2.004			2.2	12	TM	
77	TM	n-Propylbenzene	12.0	11.5	11.1	11.2	10.5	10.4	10.1	9.754			11	7.0	TM	
78	TM	4-Ethyltoluene	7.178	6.227	6.779	6.434	6.372	6.162	6.013	5.888			6.4	6.6	TM	
79	TM	2-Chlorotoluene	8.086	7.252	7.439	7.457	6.836	6.786	6.675	6.367			7.1	7.7	TM	
80	TM	1,3,5-Trimethylbenzene	8.956	8.508	7.498	7.843	7.231	7.168	7.115	6.858			7.6	9.7	TM	
81	TM	4-Chlorotoluene	7.215	7.011	6.725	6.452	6.326	5.905	5.872	5.798			6.4	8.4	TM	
82	TM	Tert-Butylbenzene	10.4	9.026	9.250	8.666	8.334	8.138	7.855	7.717			8.7	10	TM	
83	TM	1,2,4-Trimethylbenzene	8.202	8.214	7.965	7.964	7.703	7.412	7.209	7.059			7.7	5.8	TM	
84	TM	Sec-Butylbenzene	11.9	10.9	10.7	10.5	10.2	9.999	9.705	9.472			10	7.5	TM	
85	TM	p-Isopropyltoluene	10.2	8.938	9.677	8.960	8.622	8.470	8.355	8.011			8.9	8.0	TM	
86	TM	Benzyl Chloride	2.298	2.287	2.278	1.958	1.959	1.981	1.960	2.060			2.1	7.7	TM	
87	TM	1,3-DCB	4.777	4.613	4.779	4.722	4.561	4.390	4.333	4.194			4.5	4.8	TM	
88	TM	1,4-DCB	4.765	4.680	4.453	4.540	4.313	4.242	4.137	4.102			4.4	5.6	TM	
89	TM	Hexachloroethane	1.658	1.505	1.613	1.849	1.882	1.941	1.940	1.958			1.8	9.8	TM	
90	TM	n-Butylbenzene	8.354	7.356	7.504	7.418	7.211	6.998	6.817	6.539			7.3	7.5	TM	
91	TM	1,2-DCB	3.934	4.161	4.074	4.247	4.007	3.925	3.772	3.695			4.0	4.7	TM	
92	TM	1,2-Dibromo-3-chloropropane		0.2149	0.1921	0.1796	0.1653	0.1727	0.1778	0.1895			0.18	8.8	TM	
93	TM	1,2,4-Trichlorobenzene	1.016	1.029	1.021	1.039	1.045	1.032	1.000	0.9538			1.0	2.9	TM	
94	TM	Hexachlorobutadiene		1.409	1.057	1.081	1.002	0.9969	0.9872	0.9681			1.1	14	TM	
95	TM	Naphthalene	5.284	5.295	4.608	5.017	4.610	4.545	4.396	4.325			4.8	8.1	TM	
96	TM	1,2,3-Trichlorobenzene	0.8383	0.9791	0.9398	0.9118	0.8990	0.9064	0.8504	0.8245			0.89	5.9	TM	
97																
98																
99																
100																
101																
102																
103																
104																
105																

ARS4/11/12  
CALLW 3.m

Data File : M:\CHICO\DATA\C120410\0410C04W.D Vial: 1  
 Acq On : 10 Apr 12 16:36 Operator: SV  
 Sample : 0.3ug/L Vol Std 04-10-12 Inst : Chico  
 Misc : Water 10mL w/IS:04-10-12 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	665847	25.00000	ppb	0.00
54) Chlorobenzene-D5 (IS)	18.04	117	495872	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	22.24	152	227456	25.00000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	11.45	111	12552	0.64707	ppb	0.00
Spiked Amount	20.866		Recovery	=	3.101%	
37) 1,2-DCA-D4 (S)	12.23	65	10085	0.65660	ppb	0.00
Spiked Amount	21.039		Recovery	=	3.123%	
55) Toluene-D8(S)	15.51	98	38713	0.63983	ppb	0.00
Spiked Amount	25.355		Recovery	=	2.524%	
63) 4-Bromofluorobenzene(S)	20.11	95	17082	0.68825	ppb	0.00
Spiked Amount	27.007		Recovery	=	2.547%	
Target Compounds						
2) Dichlorodifluoromethane	4.12	85	5771	0.26641	ppb	# 55
3) Freon 114	4.37	85	2726	0.32671	ppb	96
4) Chloromethane	4.60	52	5670	0.60873	ppb	# 7
5) Vinyl chloride	4.86	62	2678	0.43254	ppb	89
6) Bromomethane	5.77	94	1173	0.27541	ppb	73
7) Chloroethane	5.95	64	1636	0.30905	ppb	95
8) Dichlorofluoromethane	6.04	67	12529	0.31755	ppb	83
9) Trichlorofluoromethane	6.56	103	1687	0.36165	ppb	# 67
10) Acetonitrile	7.70	41	14367	12.10703	ug/l	100
11) Acrolein	7.20	56	17936	14.07076	ppb	96
13) Freon-113	7.49	101	4561	0.32889	ppb	92
14) 1,1-DCE	7.72	96	4864	0.34921	ppb	97
15) t-Butanol	7.81	59	8564	15.69887	ppb	# 89
16) Methyl Acetate	8.24	43	5908	-0.30934	ppb	96
17) Iodomethane	8.20	142	1914	0.15294	ppb	# 77
18) Acrylonitrile	8.58	53	1435	0.41656	ppb	# 56
19) Methylene chloride	8.50	84	11024	0.64344	ppb	83
20) Carbon disulfide	8.59	76	1871	0.30747	ppb	# 48
21) Methyl t-butyl ether (MtBE)	8.92	73	12736	0.35606	ppb	# 87
22) Trans-1,2-DCE	9.12	96	7659	0.46942	ppb	81
23) Diisopropyl Ether	9.78	45	22758	0.31914	ppb	# 85
24) 1,1-DCA	9.80	63	12111	0.32274	ppb	97
25) Vinyl Acetate	9.46	43	3515	-0.56371	ppb	96
26) Ethyl tert Butyl Ether	10.47	59	17794	0.33760	ppb	92
27) MEK (2-Butanone)	10.48	43	718	0.33052	ppb	# 66
28) Cis-1,2-DCE	10.84	96	8206	-0.53009	ppb	# 64
29) 2,2-Dichloropropane	10.83	77	8570	0.33789	ppb	# 63
30) Chloroform	11.12	85	12517	0.59658	ppb	97
31) Bromochloromethane	11.33	128	2748	0.32186	ppb	83
33) 1,1,1-TCA	11.86	97	8287	0.32322	ppb	# 79
34) Cyclohexane	12.00	56	6912	0.31507	ppb	# 66
35) 1,1-Dichloropropene	12.13	75	7623	0.34024	ppb	# 90
36) 2,2,4-Trimethylpentane	12.19	57	20794	0.47822	ppb	94
38) Carbon Tetrachloride	12.30	117	6835	0.30589	ppb	96
39) Tert Amyl Methyl Ether	12.37	73	15054	0.36276	ppb	# 89
40) 1,2-DCA	12.39	62	5774	0.33587	ppb	97
41) Benzene	12.51	78	25917	0.34497	ppb	95
42) TCE	13.54	95	5387	0.29806	ppb	# 72
43) 2-Pentanone	13.22	43	85921	12.81697	ppb	98

(#) = qualifier out of range (m) = manual integration  
 0410C04W.D CALLW3.M Thu Apr 12 17:35:49 2012

Data File : M:\CHICO\DATA\C120410\0410C04W.D  
 Acq On : 10 Apr 12 16:36  
 Sample : 0.3ug/L Vol Std 04-10-12  
 Misc : Water 10mL w/IS:04-10-12

Vial: 1  
 Operator: SV  
 Inst : Chico  
 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012

Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue	
44) 1,2-Dichloropropane	13.77	63	7139	0.32125	ppb	#	93
45) Bromodichloromethane	14.13	83	6225	0.28897	ppb		81
46) Methyl Cyclohexane	13.83	83	5567	0.30023	ppb		79
47) Dibromomethane	14.19	93	2507	0.28818	ppb		88
48) 2-Chloroethyl vinyl ether	14.58	63	1896	0.25123	ppb	#	82
49) 1-Bromo-2-chloroethane	14.90	63	6246	0.30853	ppb	#	72
50) Cis-1,3-Dichloropropene	15.02	75	11741	0.40069	ppb		84
51) Toluene	15.64	91	25488	0.34770	ppb		98
52) Trans-1,3-Dichloropropene	15.80	75	6920	0.33116	ppb	#	81
53) 1,1,2-TCA	16.08	83	3240	0.30709	ppb		79
56) 1,2-EDB	17.33	107	2950	0.25693	ppb	#	85
57) Tetrachloroethene	16.79	164	5004	0.35804	ppb		94
58) 1-Chlorohexane	17.71	91	7418	0.28517	ppb		88
59) 1,1,1,2-Tetrachloroethane	18.16	131	5493	0.29049	ppb	#	66
60) m&p-Xylene	18.36	106	20744	0.61261	ppb		96
61) o-Xylene	19.09	106	11596	0.32868	ppb		75
62) Styrene	19.12	104	16937	0.30412	ppb		83
64) 2-Hexanone	16.14	43	1229	0.22730	ppb	#	63
65) 1,3-Dichloropropane	16.50	76	7288	0.32778	ppb		86
66) Dibromochloromethane	16.96	129	4078	0.27069	ppb		90
67) Chlorobenzene	18.10	112	16259	0.30963	ppb		94
68) Ethylbenzene	18.21	91	26386	0.31526	ppb		85
69) Bromoform	19.63	173	1685	0.25076	ppb		92
71) MIBK (methyl isobutyl keto)	14.69	43	3087	0.36873	ppb	#	46
72) Isopropylbenzene	19.74	105	27170	0.32265	ppb		92
73) 1,1,2,2-Tetrachloroethane	19.89	83	3677	0.31038	ppb		86
74) 1,2,3-Trichloropropane	20.16	110	412	0.32810	ppb	#	60
75) t-1,4-Dichloro-2-Butene	20.22	53	819	0.29960	ppb	#	41
76) Bromobenzene	20.48	156	9051	0.44332	ppb		83
77) n-Propylbenzene	20.44	91	32700	0.33209	ppb		91
78) 4-Ethyltoluene	20.63	105	19593	0.33745	ppb		92
79) 2-Chlorotoluene	20.74	91	22071	0.34108	ppb		98
80) 1,3,5-Trimethylbenzene	20.71	105	24445	0.35135	ppb		91
81) 4-Chlorotoluene	20.81	91	19694	0.33753	ppb		90
82) Tert-Butylbenzene	21.36	119	28334	0.35916	ppb		93
83) 1,2,4-Trimethylbenzene	21.41	105	22386	0.31888	ppb		97
84) Sec-Butylbenzene	21.75	105	32556	0.34300	ppb		97
85) p-Isopropyltoluene	21.98	119	27785	0.34307	ppb		90
86) Benzyl Chloride	22.43	91	6272	0.32863	ppb	#	89
87) 1,3-DCB	22.12	146	13038	0.31521	ppb		95
88) 1,4-DCB	22.28	146	13006	0.32460	ppb	#	78
89) Hexachloroethane	23.59	117	4526	0.27744	ppb	#	84
90) n-Butylbenzene	22.69	91	22803	0.34453	ppb	#	88
91) 1,2-DCB	22.92	146	10739	0.29680	ppb		95
92) 1,2-Dibromo-3-chloropropan	24.15	155	896	0.53364	ppb	#	3
93) 1,2,4-Trichlorobenzene	25.57	180	2772	0.29959	ppb		88
94) Hexachlorobutadiene	25.83	223	3666	0.37601	ppb		73
95) Naphthalene	25.93	128	14423	0.33304	ppb		94
96) 1,2,3-Trichlorobenzene	26.29	180	2288	0.28140	ppb	#	90

(#) = qualifier out of range (m) = manual integration  
 0410C04W.D CALLW3.M Thu Apr 12 17:35:51 2012



Data File : M:\CHICO\DATA\C120410\0410C05W.D Vial: 1  
 Acq On : 10 Apr 12 17:13 Operator: SV  
 Sample : 0.5ug/L Vol Std 04-10-12 Inst : Chico  
 Misc : Water 10mL w/IS:04-10-12 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	643616	25.00000	ppb	0.00
54) Chlorobenzene-D5 (IS)	18.04	117	490560	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	22.24	152	225728	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	11.44	111	19991	1.06615	ppb	0.00
Spiked Amount 20.866			Recovery =	5.109%		
37) 1,2-DCA-D4(S)	12.24	65	16972	1.14316	ppb	0.00
Spiked Amount 21.039			Recovery =	5.433%		
55) Toluene-D8(S)	15.51	98	62897	1.05079	ppb	0.00
Spiked Amount 25.355			Recovery =	4.145%		
63) 4-Bromofluorobenzene(S)	20.11	95	25818	1.05150	ppb	0.00
Spiked Amount 27.007			Recovery =	3.895%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.11	85	10732	0.51254	ppb	83
3) Freon 114	4.36	85	4975	0.61685	ppb	86
4) Chloromethane	4.61	52	5367	0.59610	ppb	97
5) Vinyl chloride	4.85	62	3029	0.50613	ppb #	86
6) Bromomethane	5.75	94	1757	0.42678	ppb #	63
7) Chloroethane	5.95	64	3332	0.65117	ppb	99
8) Dichlorofluoromethane	6.04	67	20371	0.53414	ppb	94
9) Trichlorofluoromethane	6.57	103	2494	0.55312	ppb #	76
10) Acetonitrile	7.69	41	28941	25.23089	ug/l	100
11) Acrolein	7.19	56	31431	25.50925	ppb	92
12) Acetone	7.33	43	3090	0.52362	ppb	94
13) Freon-113	7.50	101	7026	0.52414	ppb	90
14) 1,1-DCE	7.70	96	8056	0.59836	ppb #	59
15) t-Butanol	7.79	59	14598	27.68425	ppb #	88
17) Iodomethane	8.21	142	3161	0.21891	ppb	87
18) Acrylonitrile	8.60	53	1952	0.58621	ppb #	42
19) Methylene chloride	8.51	84	15701	0.94808	ppb	97
20) Carbon disulfide	8.60	76	2876	0.48895	ppb #	82
21) Methyl t-butyl ether (MtBE)	8.93	73	18556	0.53668	ppb	90
22) Trans-1,2-DCE	9.12	96	9948	0.63078	ppb	88
23) Diisopropyl Ether	9.79	45	37555	0.54483	ppb	96
24) 1,1-DCA	9.81	63	20311	0.55995	ppb	97
25) Vinyl Acetate	9.45	43	4855	-0.19156	ppb #	85
26) Ethyl tert Butyl Ether	10.47	59	26388	0.51795	ppb	98
27) MEK (2-Butanone)	10.47	43	1281	0.61006	ppb #	84
28) Cis-1,2-DCE	10.84	96	14225	-0.17673	ppb	79
29) 2,2-Dichloropropane	10.84	77	13016	0.53090	ppb #	74
30) Chloroform	11.11	85	10723	0.52873	ppb	91
31) Bromochloromethane	11.34	128	4597	0.55703	ppb	94
33) 1,1,1-TCA	11.86	97	13570	0.54755	ppb	91
34) Cyclohexane	12.02	56	11416	0.53836	ppb	90
35) 1,1-Dichloropropene	12.13	75	11831	0.54629	ppb	93
36) 2,2,4-Trimethylpentane	12.20	57	31969	0.76062	ppb	97
38) Carbon Tetrachloride	12.32	117	11228	0.51985	ppb	91
39) Tert Amyl Methyl Ether	12.37	73	20372	0.50787	ppb	96
40) 1,2-DCA	12.40	62	8774	0.52801	ppb #	87
41) Benzene	12.51	78	40014	0.55100	ppb	92
42) TCE	13.54	95	9500	0.54379	ppb	87
43) 2-Pentanone	13.22	43	174708	26.96164	ppb	97

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

Data File : M:\CHICO\DATA\C120410\0410C05W.D  
 Acq On : 10 Apr 12 17:13  
 Sample : 0.5ug/L Vol Std 04-10-12  
 Misc : Water 10mL w/IS:04-10-12

Vial: 1  
 Operator: SV  
 Inst : Chico  
 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012

Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 1,2-Dichloropropane	13.77	63	11097	0.51661	ppb	# 94
45) Bromodichloromethane	14.13	83	10222	0.49091	ppb	# 93
46) Methyl Cyclohexane	13.83	83	10073	0.56200	ppb	100
47) Dibromomethane	14.19	93	4328	0.51469	ppb	97
48) 2-Chloroethyl vinyl ether	14.57	63	3768	0.51653	ppb	# 79
49) 1-Bromo-2-chloroethane	14.88	63	10916	0.55783	ppb	100
50) Cis-1,3-Dichloropropene	15.01	75	15042	0.53108	ppb	99
51) Toluene	15.64	91	37851	0.53419	ppb	97
52) Trans-1,3-Dichloropropene	15.81	75	11236	0.55628	ppb	99
53) 1,1,2-TCA	16.08	83	5613	0.55038	ppb	95
56) 1,2-EDB	17.33	107	5922	0.52136	ppb	# 79
57) Tetrachloroethene	16.79	164	6854	0.49573	ppb	83
58) 1-Chlorohexane	17.71	91	14176	0.55088	ppb	# 80
59) 1,1,1,2-Tetrachloroethane	18.16	131	9157	0.48951	ppb	81
60) m&p-Xylene	18.36	106	35781	1.06813	ppb	86
61) o-Xylene	19.10	106	17608	0.50450	ppb	97
62) Styrene	19.12	104	28646	0.51993	ppb	90
64) 2-Hexanone	16.13	43	3341	0.62460	ppb	85
65) 1,3-Dichloropropane	16.50	76	12136	0.55172	ppb	94
66) Dibromochloromethane	16.96	129	7113	0.47726	ppb	85
67) Chlorobenzene	18.10	112	26487	0.50987	ppb	90
68) Ethylbenzene	18.22	91	42836	0.51735	ppb	95
69) Bromoform	19.63	173	2957	0.44482	ppb	92
71) MIBK (methyl isobutyl keto)	14.60	43	2795	0.33641	ppb	82
72) Isopropylbenzene	19.73	105	45019	0.53871	ppb	98
73) 1,1,2,2-Tetrachloroethane	19.89	83	6183	0.52590	ppb	91
74) 1,2,3-Trichloropropane	20.16	110	758	0.60827	ppb	91
75) t-1,4-Dichloro-2-Butene	20.23	53	1349	0.49725	ppb	# 74
76) Bromobenzene	20.47	156	12169	0.60061	ppb	88
77) n-Propylbenzene	20.44	91	52127	0.53344	ppb	96
78) 4-Ethyltoluene	20.64	105	28111	0.48786	ppb	90
79) 2-Chlorotoluene	20.73	91	32738	0.50980	ppb	86
80) 1,3,5-Trimethylbenzene	20.72	105	38411	0.55631	ppb	96
81) 4-Chlorotoluene	20.81	91	31652	0.54664	ppb	96
82) Tert-Butylbenzene	21.35	119	40750	0.52049	ppb	94
83) 1,2,4-Trimethylbenzene	21.41	105	37084	0.53230	ppb	96
84) Sec-Butylbenzene	21.75	105	49160	0.52190	ppb	100
85) p-Isopropyltoluene	21.98	119	40353	0.50206	ppb	98
86) Benzyl Chloride	22.43	91	10324	0.54508	ppb	96
87) 1,3-DCB	22.12	146	20824	0.50731	ppb	99
88) 1,4-DCB	22.29	146	21126	0.53128	ppb	95
89) Hexachloroethane	23.59	117	6795	0.41971	ppb	89
90) n-Butylbenzene	22.70	91	33209	0.50559	ppb	95
91) 1,2-DCB	22.92	146	18785	0.52314	ppb	95
92) 1,2-Dibromo-3-chloropropan	24.13	155	970	0.58213	ppb	# 23
93) 1,2,4-Trichlorobenzene	25.58	180	4645	0.50586	ppb	94
94) Hexachlorobutadiene	25.83	223	6359	0.65722	ppb	79
95) Naphthalene	25.93	128	23903	0.55617	ppb	94
96) 1,2,3-Trichlorobenzene	26.30	180	4420	0.54778	ppb	91

(#) = qualifier out of range (m) = manual integration  
 0410C05W.D CALLW3.M Thu Apr 12 17:35:59 2012



Data File : M:\CHICO\DATA\C120410\0410C06W.D  
 Acq On : 10 Apr 12 17:50  
 Sample : 1.0ug/L Vol Std 04-10-12  
 Misc : Water 10mL w/IS:04-10-12

Vial: 1  
 Operator: SV  
 Inst : Chico  
 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012

Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	634869	25.00000	ppb	0.00
54) Chlorobenzene-D5 (IS)	18.04	117	468032	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	22.24	152	217728	25.00000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	11.44	111	39682	2.14547	ppb	0.00
Spiked Amount	20.866		Recovery	=	10.280%	
37) 1,2-DCA-D4(S)	12.24	65	30994	2.11638	ppb	0.00
Spiked Amount	21.039		Recovery	=	10.058%	
55) Toluene-D8(S)	15.51	98	122799	2.15029	ppb	0.00
Spiked Amount	25.355		Recovery	=	8.480%	
63) 4-Bromofluorobenzene(S)	20.11	95	50148	2.14071	ppb	0.00
Spiked Amount	27.007		Recovery	=	7.928%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.12	85	22157	1.07276	ppb	87
3) Freon 114	4.37	85	7283	0.91546	ppb	93
4) Chloromethane	4.61	52	8573	0.96530	ppb	86
5) Vinyl chloride	4.85	62	6219	1.05347	ppb #	85
6) Bromomethane	5.76	94	4016	0.98893	ppb	72
7) Chloroethane	5.95	64	5625	1.11444	ppb #	86
8) Dichlorofluoromethane	6.05	67	39290	1.04440	ppb	98
9) Trichlorofluoromethane	6.56	103	4814	1.08235	ppb	95
10) Acetonitrile	7.70	41	63549	56.16562	ug/l	100
11) Acrolein	7.19	56	63814	52.50469	ppb	97
12) Acetone	7.32	43	4278	1.07587	ppb #	51
13) Freon-113	7.50	101	13896	1.05093	ppb #	86
14) 1,1-DCE	7.71	96	14081	1.06029	ppb	93
15) t-Butanol	7.80	59	27671	53.19942	ppb #	82
16) Methyl Acetate	8.22	43	16044	1.05968	ppb	97
17) Iodomethane	8.21	142	9913	0.56559	ppb #	84
18) Acrylonitrile	8.60	53	3607	1.09815	ppb	80
19) Methylene chloride	8.51	84	20275	1.24115	ppb	89
20) Carbon disulfide	8.60	76	5578	0.96139	ppb	94
21) Methyl t-butyl ether (MtBE)	8.92	73	32942	0.96589	ppb	92
22) Trans-1,2-DCE	9.14	96	16173	1.03961	ppb	90
23) Diisopropyl Ether	9.79	45	70729	1.04023	ppb	96
24) 1,1-DCA	9.81	63	37878	1.05864	ppb #	91
25) Vinyl Acetate	9.46	43	6630	0.28503	ppb	96
26) Ethyl tert Butyl Ether	10.47	59	53962	1.07376	ppb	93
27) MEK (2-Butanone)	10.47	43	2171	1.04815	ppb #	82
28) Cis-1,2-DCE	10.83	96	22660	0.31444	ppb	94
29) 2,2-Dichloropropane	10.83	77	25729	1.06391	ppb	95
30) Chloroform	11.12	85	20694	1.03443	ppb	96
31) Bromochloromethane	11.33	128	7979	0.98016	ppb	78
33) 1,1,1-TCA	11.85	97	26479	1.08316	ppb	85
34) Cyclohexane	12.02	56	22232	1.06286	ppb	93
35) 1,1-Dichloropropene	12.13	75	23397	1.09523	ppb	95
36) 2,2,4-Trimethylpentane	12.20	57	47811	1.15321	ppb	96
38) Carbon Tetrachloride	12.31	117	23925	1.12298	ppb	84
39) Tert Amyl Methyl Ether	12.38	73	40483	1.02314	ppb #	93
40) 1,2-DCA	12.40	62	16404	1.00078	ppb	94
41) Benzene	12.51	78	74189	1.03568	ppb	100
42) TCE	13.55	95	17758	1.03050	ppb	92

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

Data File : M:\CHICO\DATA\C120410\0410C06W.D  
 Acq On : 10 Apr 12 17:50  
 Sample : 1.0ug/L Vol Std 04-10-12  
 Misc : Water 10mL w/IS:04-10-12

Vial: 1  
 Operator: SV  
 Inst : Chico  
 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012

Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	13.22	43	334120	52.27316	ppb	98
44) 1,2-Dichloropropane	13.78	63	22004	1.03848	ppb	97
45) Bromodichloromethane	14.13	83	20703	1.00795	ppb #	93
46) Methyl Cyclohexane	13.84	83	18711	1.05832	ppb	99
47) Dibromomethane	14.19	93	8854	1.06743	ppb	93
48) 2-Chloroethyl vinyl ether	14.58	63	7230	1.00477	ppb	94
49) 1-Bromo-2-chloroethane	14.89	63	20080	1.04028	ppb	85
50) Cis-1,3-Dichloropropene	15.01	75	27264	0.97586	ppb	94
51) Toluene	15.65	91	72147	1.03224	ppb	90
52) Trans-1,3-Dichloropropene	15.81	75	17181	0.86233	ppb	99
53) 1,1,2-TCA	16.09	83	10278	1.02168	ppb	98
56) 1,2-EDB	17.34	107	10491	0.96805	ppb #	94
57) Tetrachloroethene	16.80	164	13505	1.02378	ppb	92
58) 1-Chlorohexane	17.71	91	25923	1.05585	ppb	93
59) 1,1,1,2-Tetrachloroethane	18.15	131	18581	1.04110	ppb	97
60) m&p-Xylene	18.36	106	65454	2.04798	ppb	96
61) o-Xylene	19.10	106	33929	1.01891	ppb	97
62) Styrene	19.12	104	52671	1.00200	ppb	96
64) 2-Hexanone	16.14	43	4413	0.86472	ppb #	57
65) 1,3-Dichloropropane	16.50	76	21246	1.01237	ppb	96
66) Dibromochloromethane	16.97	129	13132	0.92352	ppb	92
67) Chlorobenzene	18.10	112	51911	1.04738	ppb	93
68) Ethylbenzene	18.22	91	81015	1.02554	ppb	100
69) Bromoform	19.63	173	5899	0.93009	ppb #	78
71) MIBK (methyl isobutyl keto)	14.70	43	7891	0.98467	ppb	84
72) Isopropylbenzene	19.74	105	82529	1.02385	ppb	95
73) 1,1,1,2-Tetrachloroethane	19.89	83	10100	0.89064	ppb #	95
74) 1,2,3-Trichloropropane	20.15	110	1199	0.99750	ppb	92
75) t-1,4-Dichloro-2-Butene	20.24	53	2443	0.93360	ppb #	40
76) Bromobenzene	20.47	156	21830	1.11702	ppb	83
77) n-Propylbenzene	20.44	91	97061	1.02977	ppb	96
78) 4-Ethyltoluene	20.64	105	59042	1.06232	ppb	98
79) 2-Chlorotoluene	20.74	91	64790	1.04599	ppb	97
80) 1,3,5-Trimethylbenzene	20.72	105	65302	0.98052	ppb	96
81) 4-Chlorotoluene	20.81	91	58567	1.04863	ppb	88
82) Tert-Butylbenzene	21.35	119	80558	1.06676	ppb	99
83) 1,2,4-Trimethylbenzene	21.41	105	69364	1.03222	ppb	90
84) Sec-Butylbenzene	21.75	105	93565	1.02981	ppb	99
85) p-Isopropyltoluene	21.98	119	84276	1.08707	ppb	99
86) Benzyl Chloride	22.42	91	19840	1.08600	ppb	93
87) 1,3-DCB	22.12	146	41619	1.05116	ppb	90
88) 1,4-DCB	22.29	146	38778	1.01104	ppb	97
89) Hexachloroethane	23.59	117	14044	0.89934	ppb	90
90) n-Butylbenzene	22.69	91	65351	1.03150	ppb	95
91) 1,2-DCB	22.92	146	35481	1.02442	ppb	94
92) 1,2-Dibromo-3-chloropropan	24.14	155	1673	1.04092	ppb #	69
93) 1,2,4-Trichlorobenzene	25.58	180	8894	1.00418	ppb	89
94) Hexachlorobutadiene	25.82	223	9209	0.98674	ppb	87
95) Naphthalene	25.93	128	40132	0.96809	ppb	95
96) 1,2,3-Trichlorobenzene	26.29	180	8185	1.05166	ppb	88

(#) = qualifier out of range (m) = manual integration  
 0410C06W.D CALLW3.M Thu Apr 12 17:36:07 2012

Quantitation Report

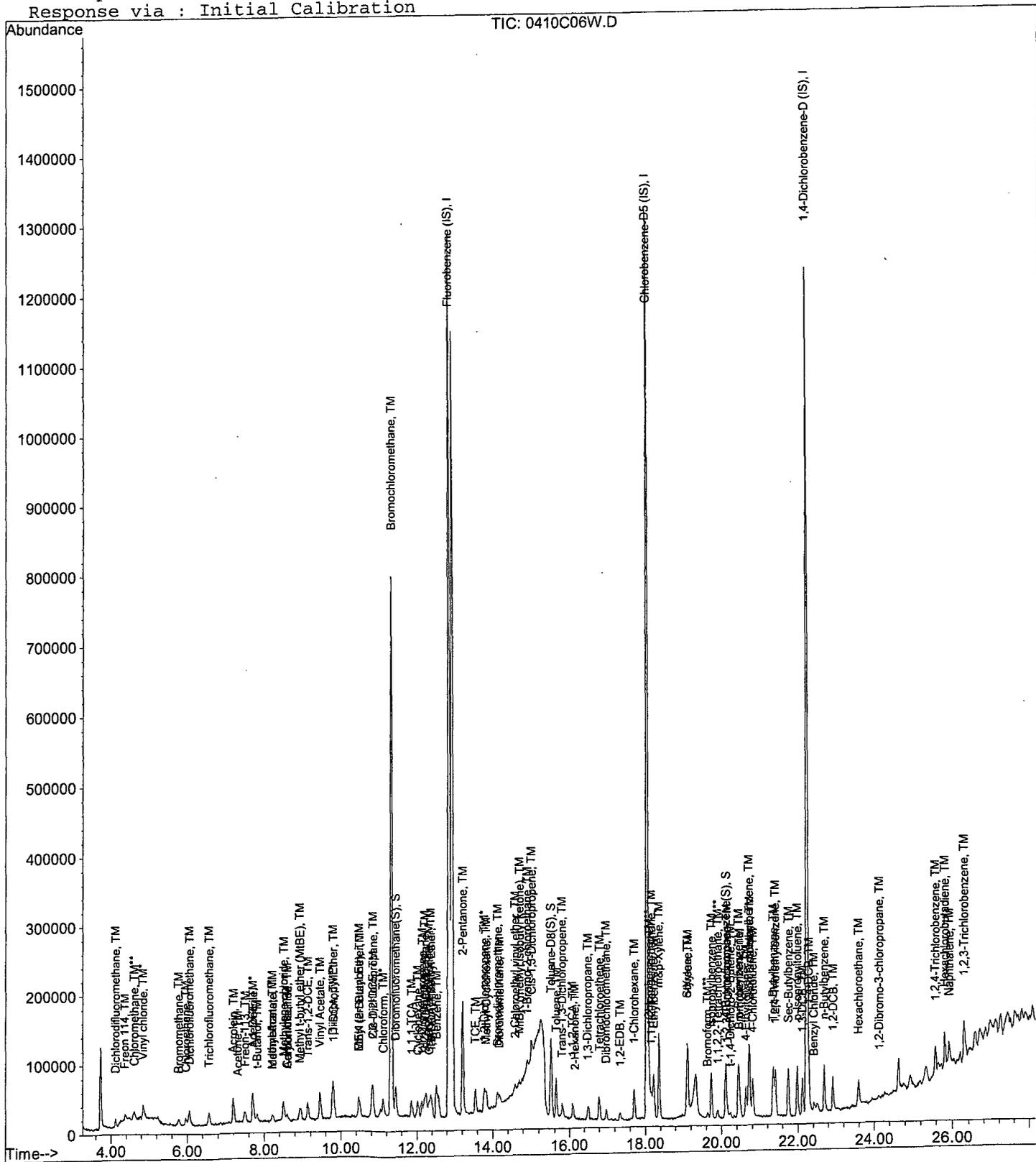
Data File : M:\CHICO\DATA\C120410\0410C06W.D  
Acq On : 10 Apr 12 17:50  
Sample : 1.0ug/L Vol Std 04-10-12  
Misc : Water 10mL w/IS:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 12 17:34 2012

Quant Results File: CALLW3.RES

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 2012  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C120410\0410C07W.D Vial: 1  
 Acq On : 10 Apr 12 18:27 Operator: SV  
 Sample : 5.0ug/L Vol Std 04-10-12 Inst : Chico  
 Misc : Water 10mL w/IS:04-10-12 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.85	96	653447	25.00000	ppb	0.00
54) Chlorobenzene-D5 (IS)	18.04	117	486272	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	22.23	152	222912	25.00000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	11.44	111	185151	9.72586	ppb	0.00
Spiked Amount	20.866		Recovery	=	46.612%	
37) 1,2-DCA-D4(S)	12.24	65	147069	9.75689	ppb	0.00
Spiked Amount	21.039		Recovery	=	46.376%	
55) Toluene-D8(S)	15.51	98	575910	9.70628	ppb	0.00
Spiked Amount	25.355		Recovery	=	38.280%	
63) 4-Bromofluorobenzene(S)	20.11	95	231236	9.50071	ppb	0.00
Spiked Amount	27.007		Recovery	=	35.180%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	4.13	85	93462	4.39641	ppb	91
3) Freon 114	4.38	85	36348	4.43896	ppb	85
4) Chloromethane	4.61	52	45683	4.99756	ppb	80
5) Vinyl chloride	4.87	62	30104	4.95450	ppb	99
6) Bromomethane	5.77	94	21672	5.18496	ppb	93
7) Chloroethane	5.95	64	22968	4.42110	ppb	# 88
8) Dichlorofluoromethane	6.05	67	198545	5.12765	ppb	97
9) Trichlorofluoromethane	6.56	103	21592	4.71660	ppb	99
10) Acetonitrile	7.69	41	124332	106.76244	ug/l	100
11) Acrolein	7.19	56	127774	102.14060	ppb	97
12) Acetone	7.32	43	13089	4.86480	ppb	# 66
13) Freon-113	7.49	101	65978	4.84792	ppb	97
14) 1,1-DCE	7.70	96	67319	4.92494	ppb	94
15) t-Butanol	7.80	59	54068	100.99412	ppb	96
16) Methyl Acetate	8.22	43	46211	4.85386	ppb	100
17) Iodomethane	8.20	142	95491	4.79326	ppb	95
18) Acrylonitrile	8.58	53	16361	4.83948	ppb	84
19) Methylene chloride	8.51	84	85236	5.06942	ppb	87
20) Carbon disulfide	8.59	76	31928	5.34644	ppb	94
21) Methyl t-butyl ether (MtBE)	8.92	73	181171	5.16106	ppb	96
22) Trans-1,2-DCE	9.13	96	81259	5.07489	ppb	92
23) Diisopropyl Ether	9.77	45	363423	5.19300	ppb	97
24) 1,1-DCA	9.81	63	191530	5.20083	ppb	97
25) Vinyl Acetate	9.45	43	22224	4.15838	ppb	91
26) Ethyl tert Butyl Ether	10.46	59	262890	5.08239	ppb	98
27) MEK (2-Butanone)	10.46	43	9907	4.64709	ppb	99
28) Cis-1,2-DCE	10.83	96	103439	4.74540	ppb	98
29) 2,2-Dichloropropane	10.83	77	122726	4.93051	ppb	98
30) Chloroform	11.11	85	104792	5.08931	ppb	97
31) Bromochloromethane	11.33	128	42704	5.09671	ppb	90
33) 1,1,1-TCA	11.85	97	121309	4.82122	ppb	97
34) Cyclohexane	12.01	56	107347	4.98610	ppb	95
35) 1,1-Dichloropropene	12.13	75	109422	4.97648	ppb	93
36) 2,2,4-Trimethylpentane	12.19	57	215976	5.06127	ppb	96
38) Carbon Tetrachloride	12.31	117	110247	5.02759	ppb	97
39) Tert Amyl Methyl Ether	12.37	73	207684	5.09964	ppb	98
40) 1,2-DCA	12.40	62	89863	5.32654	ppb	99
41) Benzene	12.51	78	368051	4.99191	ppb	97
42) TCE	13.55	95	89028	5.01943	ppb	99

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

Data File : M:\CHICO\DATA\C120410\0410C07W.D  
 Acq On : 10 Apr 12 18:27  
 Sample : 5.0ug/L Vol Std 04-10-12  
 Misc : Water 10mL w/IS:04-10-12

Vial: 1  
 Operator: SV  
 Inst : Chico  
 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012

Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	13.21	43	677270	102.94656	ppb	100
44) 1,2-Dichloropropane	13.77	63	113747	5.21568	ppb	97
45) Bromodichloromethane	14.13	83	108054	5.11118	ppb	93
46) Methyl Cyclohexane	13.83	83	86980	4.77984	ppb	97
47) Dibromomethane	14.18	93	45132	5.28639	ppb	95
48) 2-Chloroethyl vinyl ether	14.58	63	37641	5.08234	ppb #	92
49) 1-Bromo-2-chloroethane	14.89	63	101184	5.09296	ppb	95
50) Cis-1,3-Dichloropropene	15.01	75	135896	4.72582	ppb	96
51) Toluene	15.64	91	355580	4.94282	ppb	99
52) Trans-1,3-Dichloropropene	15.80	75	101046	4.92740	ppb	97
53) 1,1,2-TCA	16.08	83	52967	5.11548	ppb	93
56) 1,2-EDB	17.33	107	58481	5.19389	ppb	95
57) Tetrachloroethene	16.79	164	68011	4.96237	ppb	96
58) 1-Chlorohexane	17.71	91	124594	4.88438	ppb	95
59) 1,1,1,2-Tetrachloroethane	18.16	131	94537	5.09823	ppb	97
60) m&p-Xylene	18.36	106	336588	10.13641	ppb	98
61) o-Xylene	19.10	106	174205	5.03525	ppb	95
62) Styrene	19.12	104	281827	5.16033	ppb	99
64) 2-Hexanone	16.11	43	26421	4.98297	ppb	89
65) 1,3-Dichloropropane	16.50	76	111251	5.10227	ppb	98
66) Dibromochloromethane	16.97	129	75006	5.07702	ppb	97
67) Chlorobenzene	18.10	112	254359	4.93956	ppb	99
68) Ethylbenzene	18.22	91	417482	5.08654	ppb	97
69) Bromoform	19.63	173	31749	4.81805	ppb	96
71) MIBK (methyl isobutyl keto)	14.68	43	46553	5.67395	ppb	99
72) Isopropylbenzene	19.73	105	425167	5.15191	ppb	93
73) 1,1,2,2-Tetrachloroethane	19.89	83	61776	5.32084	ppb	97
74) 1,2,3-Trichloropropane	20.14	110	6454	5.24452	ppb	91
75) t-1,4-Dichloro-2-Butene	20.21	53	14082	5.25634	ppb	73
76) Bromobenzene	20.47	156	101590	5.07739	ppb	90
77) n-Propylbenzene	20.44	91	497702	5.15758	ppb	98
78) 4-Ethyltoluene	20.63	105	286857	5.04127	ppb	99
79) 2-Chlorotoluene	20.73	91	332439	5.24217	ppb	96
80) 1,3,5-Trimethylbenzene	20.71	105	349663	5.12816	ppb	94
81) 4-Chlorotoluene	20.81	91	287638	5.03031	ppb	96
82) Tert-Butylbenzene	21.34	119	386345	4.99707	ppb	99
83) 1,2,4-Trimethylbenzene	21.40	105	355033	5.16044	ppb	99
84) Sec-Butylbenzene	21.75	105	469436	5.04663	ppb	98
85) p-Isopropyltoluene	21.98	119	399463	5.03281	ppb	99
86) Benzyl Chloride	22.42	91	87311	4.66806	ppb #	89
87) 1,3-DCB	22.12	146	210540	5.19390	ppb	98
88) 1,4-DCB	22.28	146	202413	5.15467	ppb	95
89) Hexachloroethane	23.59	117	82414	5.15485	ppb	95
90) n-Butylbenzene	22.69	91	330699	5.09836	ppb	97
91) 1,2-DCB	22.92	146	189332	5.33932	ppb	96
92) 1,2-Dibromo-3-chloropropan	24.14	155	8005	4.86480	ppb	94
93) 1,2,4-Trichlorobenzene	25.57	180	46336	5.10991	ppb	99
94) Hexachlorobutadiene	25.82	223	48184	5.04285	ppb	88
95) Naphthalene	25.92	128	223688	5.27043	ppb	96
96) 1,2,3-Trichlorobenzene	26.29	180	40651	5.10161	ppb	96

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

0410C07W.D CALLW3.M Thu Apr 12 17:36:14 2012

Quantitation Report

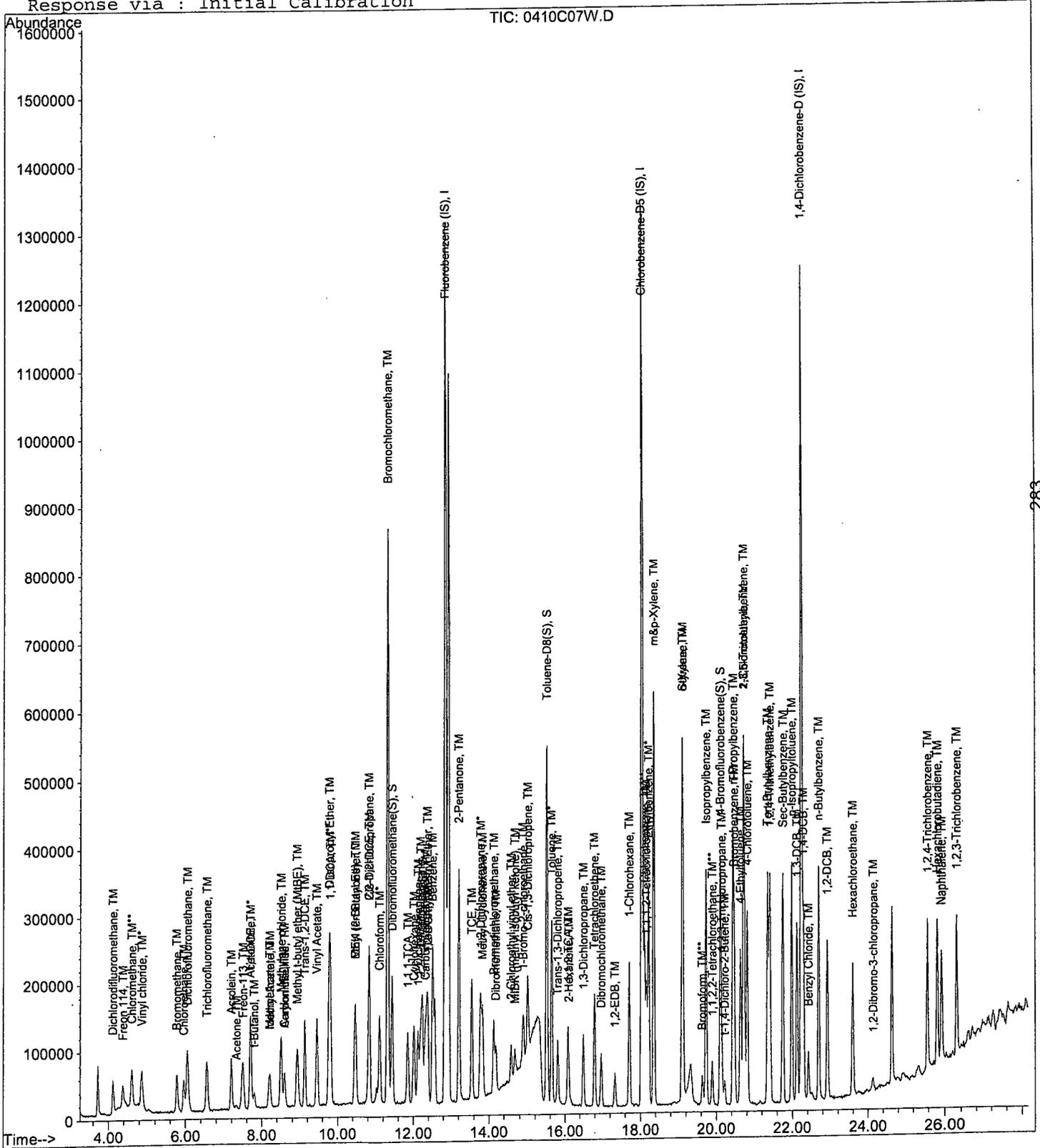
Data File : M:\CHICO\DATA\C120410\0410C07W.D  
Acq On : 10 Apr 12 18:27  
Sample : 5.0ug/L Vol Std 04-10-12  
Misc : Water 10mL w/IS:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 12 17:34 2012

Quant Results File: CALLW3.RES

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 2012  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C120410\0410C08W.D Vial: 1  
 Acq On : 10 Apr 12 19:04 Operator: SV  
 Sample : 10ug/L Vol Std 04-10-12 Inst : Chico  
 Misc : Water 10mL w/IS:04-10-12 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012

Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	662519	25.00000	ppb	0.00
54) Chlorobenzene-D5 (IS)	18.04	117	480192	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	22.23	152	230016	25.00000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	11.44	111	467495	24.22095	ppb	0.00
Spiked Amount	20.866		Recovery	=	116.080%	
37) 1,2-DCA-D4(S)	12.23	65	372076	24.34634	ppb	0.00
Spiked Amount	21.039		Recovery	=	115.718%	
55) Toluene-D8(S)	15.50	98	1467286	25.04248	ppb	0.00
Spiked Amount	25.355		Recovery	=	98.765%	
63) 4-Bromofluorobenzene(S)	20.10	95	593501	24.69371	ppb	0.00
Spiked Amount	27.007		Recovery	=	91.435%	
Target Compounds						
2) Dichlorodifluoromethane	4.12	85	201778	9.36159	ppb	100
3) Freon 114	4.38	85	74465	8.96943	ppb	100
4) Chloromethane	4.61	52	85185	9.19134	ppb	100
5) Vinyl chloride	4.85	62	52648	8.54613	ppb	100
6) Bromomethane	5.76	94	44024	10.38838	ppb	100
7) Chloroethane	5.96	64	51944	9.86176	ppb	100
8) Dichlorofluoromethane	6.05	67	380608	9.69503	ppb	100
9) Trichlorofluoromethane	6.55	103	45176	9.73320	ppb	100
10) Acetonitrile	7.69	41	151787	128.55298	ug/l	100
11) Acrolein	7.19	56	155810	122.84663	ppb	100
12) Acetone	7.32	43	25965	10.32648	ppb	100
13) Freon-113	7.49	101	134236	9.72830	ppb	100
14) 1,1-DCE	7.71	96	130016	9.38149	ppb	100
15) t-Butanol	7.80	59	67332	124.04788	ppb	100
16) Methyl Acetate	8.21	43	86667	9.87094	ppb	100
17) Iodomethane	8.19	142	197446	9.71308	ppb	100
18) Acrylonitrile	8.59	53	32684	9.53535	ppb	100
19) Methylene chloride	8.50	84	162296	9.52040	ppb	100
20) Carbon disulfide	8.59	76	59336	9.79994	ppb	100
21) Methyl t-butyl ether (MtBE)	8.92	73	349777	9.82774	ppb	100
22) Trans-1,2-DCE	9.12	96	156926	9.66635	ppb	100
23) Diisopropyl Ether	9.78	45	707991	9.97805	ppb	100
24) 1,1-DCA	9.81	63	364993	9.77535	ppb	100
25) Vinyl Acetate	9.45	43	46344	10.06534	ppb	100
26) Ethyl tert Butyl Ether	10.46	59	513211	9.78592	ppb	100
27) MEK (2-Butanone)	10.45	43	21487	9.94092	ppb	100
28) Cis-1,2-DCE	10.83	96	208668	10.40726	ppb	100
29) 2,2-Dichloropropane	10.83	77	250241	9.91575	ppb	100
30) Chloroform	11.11	85	210863	10.10052	ppb	100
31) Bromochloromethane	11.33	128	83740	9.85748	ppb	100
33) 1,1,1-TCA	11.85	97	249602	9.78416	ppb	100
34) Cyclohexane	12.01	56	210984	9.66569	ppb	100
35) 1,1-Dichloropropene	12.12	75	212732	9.54250	ppb	100
36) 2,2,4-Trimethylpentane	12.19	57	419531	9.69683	ppb	100
38) Carbon Tetrachloride	12.31	117	217612	9.78787	ppb	100
39) Tert Amyl Methyl Ether	12.36	73	392663	9.50974	ppb	100
40) 1,2-DCA	12.39	62	168560	9.85441	ppb	100
41) Benzene	12.51	78	710910	9.51010	ppb	100
42) TCE	13.55	95	180905	10.05982	ppb	100

(#) = qualifier out of range (m) = manual integration  
 0410C08W.D CALLW3.M Thu Apr 12 17:36:21 2012

Data File : M:\CHICO\DATA\C120410\0410C08W.D Vial: 1  
 Acq On : 10 Apr 12 19:04 Operator: SV  
 Sample : 10ug/L Vol Std 04-10-12 Inst : Chico  
 Misc : Water 10mL w/IS:04-10-12 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012

Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	13.21	43	826384	123.89219	ppb	100
44) 1,2-Dichloropropane	13.77	63	218922	9.90085	ppb	100
45) Bromodichloromethane	14.12	83	219550	10.24296	ppb	100
46) Methyl Cyclohexane	13.83	83	176001	9.53939	ppb	100
47) Dibromomethane	14.18	93	85846	9.91760	ppb	100
48) 2-Chloroethyl vinyl ether	14.57	63	75542	10.06011	ppb	100
49) 1-Bromo-2-chloroethane	14.88	63	196980	9.77896	ppb	100
50) Cis-1,3-Dichloropropene	15.01	75	273109	9.36739	ppb	100
51) Toluene	15.64	91	695535	9.53605	ppb	100
52) Trans-1,3-Dichloropropene	15.80	75	204079	9.81542	ppb	100
53) 1,1,2-TCA	16.08	83	104541	9.95818	ppb	100
56) 1,2-EDB	17.32	107	116295	10.45932	ppb	100
57) Tetrachloroethene	16.79	164	134877	9.96581	ppb	100
58) 1-Chlorohexane	17.70	91	258627	10.26717	ppb	100
59) 1,1,1,2-Tetrachloroethane	18.15	131	186278	10.17287	ppb	100
60) m&p-Xylene	18.36	106	674113	20.55808	ppb	100
61) o-Xylene	19.10	106	347697	10.17714	ppb	100
62) Styrene	19.12	104	547732	10.15610	ppb	100
64) 2-Hexanone	16.11	43	53655	10.24740	ppb	100
65) 1,3-Dichloropropane	16.49	76	216414	10.05101	ppb	100
66) Dibromochloromethane	16.97	129	154099	10.56275	ppb	100
67) Chlorobenzene	18.11	112	520165	10.22931	ppb	100
68) Ethylbenzene	18.21	91	826805	10.20122	ppb	100
69) Bromoform	19.63	173	66031	10.14737	ppb	100
71) MIBK (methyl isobutyl keto)	14.67	43	90757	10.71996	ppb	100
72) Isopropylbenzene	19.73	105	846695	9.94286	ppb	100
73) 1,1,2,2-Tetrachloroethane	19.89	83	120386	10.04874	ppb	100
74) 1,2,3-Trichloropropane	20.15	110	11765	9.26497	ppb	100
75) t-1,4-Dichloro-2-Butene	20.21	53	26288	9.50937	ppb	100
76) Bromobenzene	20.47	156	193045	9.35025	ppb	100
77) n-Propylbenzene	20.44	91	966883	9.71015	ppb	100
78) 4-Ethyltoluene	20.63	105	586227	9.98426	ppb	100
79) 2-Chlorotoluene	20.73	91	628947	9.61144	ppb	100
80) 1,3,5-Trimethylbenzene	20.71	105	665290	9.45579	ppb	100
81) 4-Chlorotoluene	20.80	91	582027	9.86432	ppb	100
82) Tert-Butylbenzene	21.35	119	766779	9.61137	ppb	100
83) 1,2,4-Trimethylbenzene	21.40	105	708748	9.98356	ppb	100
84) Sec-Butylbenzene	21.74	105	937752	9.76987	ppb	100
85) p-Isopropyltoluene	21.97	119	793275	9.68574	ppb	100
86) Benzyl Chloride	22.42	91	180203	9.33694	ppb	100
87) 1,3-DCB	22.12	146	419654	10.03289	ppb	100
88) 1,4-DCB	22.28	146	396791	9.79263	ppb	100
89) Hexachloroethane	23.59	117	173112	10.49344	ppb	100
90) n-Butylbenzene	22.69	91	663432	9.91219	ppb	100
91) 1,2-DCB	22.91	146	368700	10.07653	ppb	100
92) 1,2-Dibromo-3-chloropropan	24.13	155	15206	8.95559	ppb	100
93) 1,2,4-Trichlorobenzene	25.57	180	96168	10.27782	ppb	100
94) Hexachlorobutadiene	25.82	223	92218	9.35328	ppb	100
95) Naphthalene	25.92	128	424128	9.68447	ppb	100
96) 1,2,3-Trichlorobenzene	26.28	180	82712	10.05959	ppb	100

(#) = qualifier out of range (m) = manual integration  
 0410C08W.D CALLW3.M Thu Apr 12 17:36:22 2012



Data File : M:\CHICO\DATA\C120410\0410C09W.D Vial: 1  
 Acq On : 10 Apr 12 19:41 Operator: SV  
 Sample : 20ug/L Vol Std 04-10-12 Inst : Chico  
 Misc : Water 10mL w/IS:04-10-12 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	658995	25.00000	ppb	0.00
54) Chlorobenzene-D5 (IS)	18.03	117	510848	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	22.23	152	236736	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	11.43	111	740951	38.59401	ppb	0.00
Spiked Amount	20.866		Recovery	= 184.964%		
37) 1,2-DCA-D4(S)	12.24	65	578743	38.07186	ppb	0.00
Spiked Amount	21.039		Recovery	= 180.959%		
55) Toluene-D8(S)	15.51	98	2362086	37.89497	ppb	0.00
Spiked Amount	25.355		Recovery	= 149.457%		
63) 4-Bromofluorobenzene(S)	20.10	95	958939	37.50414	ppb	0.00
Spiked Amount	27.007		Recovery	= 138.867%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.12	85	463576	21.62284	ppb	98
3) Freon 114	4.37	85	169169	20.48565	ppb	84
4) Chloromethane	4.61	52	165907	17.99685	ppb	93
5) Vinyl chloride	4.85	62	112488	18.35735	ppb	98
6) Bromomethane	5.76	94	87816	20.83282	ppb	94
7) Chloroethane	5.96	64	96136	18.34938	ppb	97
8) Dichlorofluoromethane	6.05	67	760257	19.46919	ppb	99
9) Trichlorofluoromethane	6.56	103	89556	19.39808	ppb	96
10) Acetonitrile	7.69	41	162294	138.18671	ug/l	100
11) Acrolein	7.19	56	188527	149.43685	ppb	100
12) Acetone	7.31	43	46801	19.39878	ppb #	79
13) Freon-113	7.50	101	274681	20.01304	ppb	96
14) 1,1-DCE	7.70	96	249896	18.12803	ppb	92
15) t-Butanol	7.80	59	79158	146.61515	ppb #	86
16) Methyl Acetate	8.21	43	170152	20.50567	ppb	99
17) Iodomethane	8.19	142	417250	20.56852	ppb	98
18) Acrylonitrile	8.59	53	64362	18.87761	ppb	92
19) Methylene chloride	8.49	84	317690	18.73558	ppb	97
20) Carbon disulfide	8.59	76	122528	20.34494	ppb	96
21) Methyl t-butyl ether (MtBE)	8.92	73	678838	19.17541	ppb	98
22) Trans-1,2-DCE	9.12	96	299715	18.56061	ppb	96
23) Diisopropyl Ether	9.77	45	1358083	19.24245	ppb	100
24) 1,1-DCA	9.81	63	693460	18.67176	ppb	99
25) Vinyl Acetate	9.44	43	92904	21.73884	ppb	92
26) Ethyl tert Butyl Ether	10.47	59	999156	19.15382	ppb	100
27) MEK (2-Butanone)	10.46	43	40826	18.98908	ppb	97
28) Cis-1,2-DCE	10.82	96	401860	21.06303	ppb	97
29) 2,2-Dichloropropane	10.82	77	485005	19.32099	ppb	96
30) Chloroform	11.10	85	408735	19.68345	ppb	97
31) Bromochloromethane	11.33	128	162938	19.28287	ppb	92
33) 1,1,1-TCA	11.85	97	491354	19.36361	ppb	96
34) Cyclohexane	12.00	56	429712	19.79143	ppb	96
35) 1,1-Dichloropropene	12.12	75	421982	19.03003	ppb	97
36) 2,2,4-Trimethylpentane	12.19	57	838931	19.49433	ppb	98
38) Carbon Tetrachloride	12.31	117	425290	19.23122	ppb	100
39) Tert Amyl Methyl Ether	12.35	73	784496	19.10097	ppb	99
40) 1,2-DCA	12.38	62	329771	19.38227	ppb	99
41) Benzene	12.51	78	1397411	18.79364	ppb	99
42) TCE	13.54	95	355383	19.86792	ppb	97

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

Data File : M:\CHICO\DATA\C120410\0410C09W.D Vial: 1  
 Acq On : 10 Apr 12 19:41 Operator: SV  
 Sample : 20ug/L Vol Std 04-10-12 Inst : Chico  
 Misc : Water 10mL w/IS:04-10-12 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012

Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	13.20	43	1011164	152.40523	ppb	99
44) 1,2-Dichloropropane	13.76	63	433413	19.70613	ppb	98
45) Bromodichloromethane	14.12	83	430571	20.19543	ppb	99
46) Methyl Cyclohexane	13.82	83	362871	19.77307	ppb	99
47) Dibromomethane	14.17	93	173847	20.19156	ppb	98
48) 2-Chloroethyl vinyl ether	14.58	63	157439	21.07865	ppb	94
49) 1-Bromo-2-chloroethane	14.89	63	386885	19.30940	ppb	98
50) Cis-1,3-Dichloropropene	15.00	75	542375	18.70244	ppb	99
51) Toluene	15.63	91	1392739	19.19709	ppb	96
52) Trans-1,3-Dichloropropene	15.80	75	409338	19.79288	ppb	96
53) 1,1,2-TCA	16.08	83	202136	19.35767	ppb	96
56) 1,2-EDB	17.32	107	234625	19.83535	ppb	87
57) Tetrachloroethene	16.79	164	269340	18.70676	ppb	97
58) 1-Chlorohexane	17.70	91	516633	19.27889	ppb	98
59) 1,1,1,2-Tetrachloroethane	18.15	131	379469	19.47967	ppb	97
60) m&p-Xylene	18.35	106	1321488	37.88229	ppb	99
61) o-Xylene	19.09	106	695306	19.13040	ppb	99
62) Styrene	19.11	104	1117178	19.47173	ppb	97
64) 2-Hexanone	16.11	43	114531	20.56127	ppb	98
65) 1,3-Dichloropropane	16.49	76	423111	18.47148	ppb	96
66) Dibromochloromethane	16.97	129	318626	20.52965	ppb	99
67) Chlorobenzene	18.10	112	1038975	19.20584	ppb	97
68) Ethylbenzene	18.21	91	1645656	19.08584	ppb	94
69) Bromoform	19.63	173	146944	21.22661	ppb	99
71) MIBK (methyl isobutyl keto)	14.67	43	186437	21.39631	ppb	97
72) Isopropylbenzene	19.72	105	1678220	19.14816	ppb	100
73) 1,1,2,2-Tetrachloroethane	19.89	83	241073	19.55140	ppb	98
74) 1,2,3-Trichloropropane	20.14	110	25712	19.67350	ppb	94
75) t-1,4-Dichloro-2-Butene	20.21	53	58537	20.57398	ppb	98
76) Bromobenzene	20.47	156	391773	18.43711	ppb	98
77) n-Propylbenzene	20.43	91	1970504	19.22752	ppb	100
78) 4-Ethyltoluene	20.62	105	1167011	19.31163	ppb	98
79) 2-Chlorotoluene	20.73	91	1285218	19.08292	ppb	98
80) 1,3,5-Trimethylbenzene	20.70	105	1357519	18.74677	ppb	100
81) 4-Chlorotoluene	20.81	91	1118357	18.41612	ppb	97
82) Tert-Butylbenzene	21.34	119	1541286	18.77121	ppb	97
83) 1,2,4-Trimethylbenzene	21.41	105	1403681	19.21125	ppb	99
84) Sec-Butylbenzene	21.75	105	1893768	19.16996	ppb	100
85) p-Isopropyltoluene	21.98	119	1604195	19.03093	ppb	99
86) Benzyl Chloride	22.41	91	375200	18.88857	ppb	97
87) 1,3-DCB	22.11	146	831470	19.31412	ppb	99
88) 1,4-DCB	22.29	146	803459	19.26615	ppb	97
89) Hexachloroethane	23.58	117	367579	21.64887	ppb	92
90) n-Butylbenzene	22.68	91	1325278	19.23863	ppb	98
91) 1,2-DCB	22.92	146	743267	19.73678	ppb	98
92) 1,2-Dibromo-3-chloropropan	24.13	155	32713	18.71946	ppb	88
93) 1,2,4-Trichlorobenzene	25.57	180	195392	20.28947	ppb	98
94) Hexachlorobutadiene	25.83	223	188798	18.60541	ppb	96
95) Naphthalene	25.92	128	860845	19.09844	ppb	98
96) 1,2,3-Trichlorobenzene	26.28	180	171659	20.28485	ppb	99

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

0410C09W.D CALLW3.M Thu Apr 12 17:36:30 2012

Quantitation Report

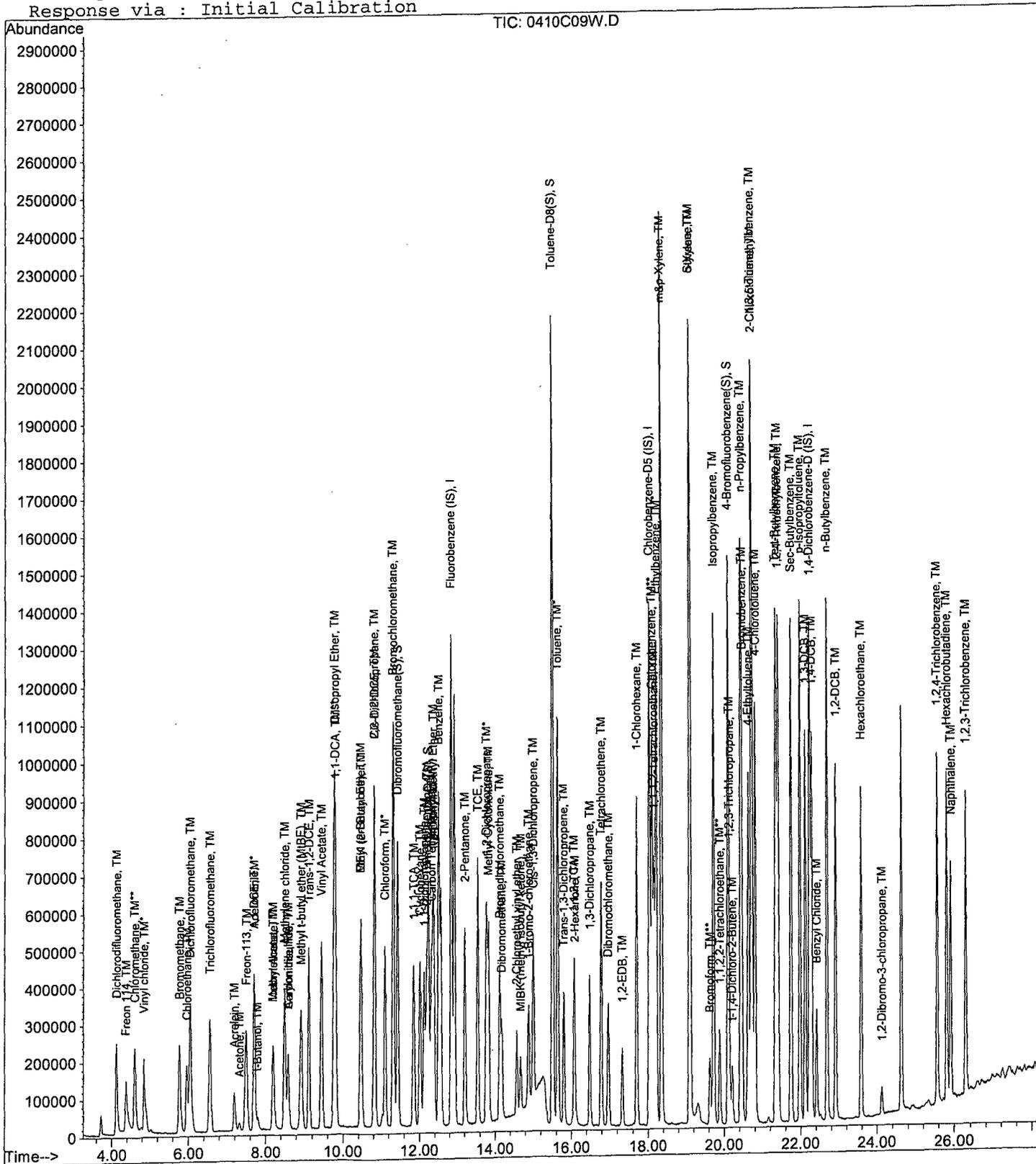
Data File : M:\CHICO\DATA\C120410\0410C09W.D  
Acq On : 10 Apr 12 19:41  
Sample : 20ug/L Vol Std 04-10-12  
Misc : Water 10mL w/IS:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 12 17:34 2012

Quant Results File: CALLW3.RES

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 2012  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C120410\0410C10W.D Vial: 1  
 Acq On : 10 Apr 12 20:18 Operator: SV  
 Sample : 40ug/L Vol Std 04-10-12 Inst : Chico  
 Misc : Water 10mL w/IS:04-10-12 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	680346	25.00000	ppb	0.00
54) Chlorobenzene-D5 (IS)	18.03	117	512064	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	22.23	152	246464	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	11.43	111	1484309	74.88710	ppb	0.00
Spiked Amount 20.866			Recovery =	358.900%		
37) 1,2-DCA-D4(S)	12.24	65	1144934	72.95433	ppb	0.00
Spiked Amount 21.039			Recovery =	346.756%		
55) Toluene-D8(S)	15.51	98	4727610	75.66498	ppb	0.00
Spiked Amount 25.355			Recovery =	298.421%		
63) 4-Bromofluorobenzene(S)	20.10	95	1906357	74.38063	ppb	0.00
Spiked Amount 27.007			Recovery =	275.413%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.12	85	982811	44.40318	ppb	98
3) Freon 114	4.37	85	348717	40.90293	ppb	91
4) Chloromethane	4.60	52	397973	41.81555	ppb	88
5) Vinyl chloride	4.84	62	224896	35.54986	ppb	100
6) Bromomethane	5.77	94	186481	42.85104	ppb	93
7) Chloroethane	5.96	64	196352	36.30137	ppb	96
8) Dichlorofluoromethane	6.05	67	1527720	37.89515	ppb	100
9) Trichlorofluoromethane	6.56	103	181760	38.13421	ppb	99
10) Acetonitrile	7.68	41	216869	178.86014	ug/l	100
11) Acrolein	7.19	56	226418	173.83907	ppb	99
12) Acetone	7.30	43	99800	40.96865	ppb	# 72
13) Freon-113	7.49	101	547182	38.61610	ppb	93
14) 1,1-DCE	7.70	96	511394	35.93347	ppb	99
15) t-Butanol	7.80	59	88050	157.96675	ppb	92
16) Methyl Acetate	8.21	43	346466	41.46462	ppb	100
17) Iodomethane	8.19	142	868884	41.42698	ppb	99
18) Acrylonitrile	8.59	53	131899	37.47238	ppb	97
19) Methylene chloride	8.50	84	665084	37.99203	ppb	96
20) Carbon disulfide	8.59	76	246848	39.70115	ppb	95
21) Methyl t-butyl ether (MtBE)	8.92	73	1346218	36.83377	ppb	97
22) Trans-1,2-DCE	9.12	96	610354	36.61153	ppb	98
23) Diisopropyl Ether	9.77	45	2722191	37.35984	ppb	100
24) 1,1-DCA	9.81	63	1406044	36.67035	ppb	97
25) Vinyl Acetate	9.44	43	182592	42.67783	ppb	100
26) Ethyl tert Butyl Ether	10.46	59	2005748	37.24352	ppb	100
27) MEK (2-Butanone)	10.45	43	80169	36.11818	ppb	97
28) Cis-1,2-DCE	10.82	96	809166	42.00760	ppb	99
29) 2,2-Dichloropropane	10.82	77	962607	37.14364	ppb	96
30) Chloroform	11.10	85	824519	38.46028	ppb	98
31) Bromochloromethane	11.33	128	333182	38.19294	ppb	95
33) 1,1,1-TCA	11.85	97	985796	37.62974	ppb	97
34) Cyclohexane	12.01	56	861596	38.43754	ppb	96
35) 1,1-Dichloropropene	12.12	75	820960	35.86079	ppb	96
36) 2,2,4-Trimethylpentane	12.19	57	1733309	39.01309	ppb	98
38) Carbon Tetrachloride	12.30	117	874570	38.30614	ppb	97
39) Tert Amyl Methyl Ether	12.35	73	1575294	37.15170	ppb	98
40) 1,2-DCA	12.39	62	648486	36.91859	ppb	96
41) Benzene	12.51	78	2845036	37.06182	ppb	99
42) TCE	13.54	95	719187	38.94484	ppb	97

(#) = qualifier out of range (m) = manual integration  
 0410C10W.D CALLW3.M Thu Apr 12 17:36:37 2012

Data File : M:\CHICO\DATA\C120410\0410C10W.D Vial: 1  
 Acq On : 10 Apr 12 20:18 Operator: SV  
 Sample : 40ug/L Vol Std 04-10-12 Inst : Chico  
 Misc : Water 10mL w/IS:04-10-12 Multiplr: 1.00

Quant Time: Apr 12 17:34 2012

Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	13.20	43	1182975	172.70548	ppb	100
44) 1,2-Dichloropropane	13.77	63	858345	37.80189	ppb	99
45) Bromodichloromethane	14.12	83	893998	40.61599	ppb	97
46) Methyl Cyclohexane	13.82	83	746542	39.40292	ppb	98
47) Dibromomethane	14.17	93	337775	37.99990	ppb	97
48) 2-Chloroethyl vinyl ether	14.58	63	315916	40.96890	ppb	95
49) 1-Bromo-2-chloroethane	14.89	63	783214	37.86340	ppb	96
50) Cis-1,3-Dichloropropene	15.00	75	1110480	37.09041	ppb	100
51) Toluene	15.63	91	2809279	37.50704	ppb	98
52) Trans-1,3-Dichloropropene	15.80	75	841486	39.41178	ppb	99
53) 1,1,2-TCA	16.08	83	409458	37.98141	ppb	98
56) 1,2-EDB	17.33	107	490973	41.40861	ppb	97
57) Tetrachloroethene	16.78	164	558676	38.71018	ppb	96
58) 1-Chlorohexane	17.70	91	1061474	39.51635	ppb	96
59) 1,1,1,2-Tetrachloroethane	18.16	131	787957	40.35295	ppb	100
60) m&p-Xylene	18.35	106	2689324	76.91013	ppb	100
61) o-Xylene	19.10	106	1418201	38.92721	ppb	97
62) Styrene	19.11	104	2266141	39.40365	ppb	99
64) 2-Hexanone	16.10	43	231218	41.41102	ppb	90
65) 1,3-Dichloropropane	16.49	76	850280	37.03198	ppb	96
66) Dibromochloromethane	16.97	129	657730	42.27810	ppb	99
67) Chlorobenzene	18.10	112	2144217	39.54253	ppb	98
68) Ethylbenzene	18.21	91	3361591	38.89417	ppb	97
69) Bromoform	19.63	173	311589	44.90331	ppb	99
71) MIBK (methyl isobutyl keto)	14.67	43	376505	41.50385	ppb	97
72) Isopropylbenzene	19.72	105	3409124	37.36214	ppb	99
73) 1,1,2,2-Tetrachloroethane	19.89	83	499491	38.91058	ppb	99
74) 1,2,3-Trichloropropane	20.14	110	47040	34.57194	ppb	78
75) t-1,4-Dichloro-2-Butene	20.21	53	118395	39.96980	ppb	91
76) Bromobenzene	20.47	156	811055	36.66228	ppb	95
77) n-Propylbenzene	20.43	91	3974080	37.24718	ppb	99
78) 4-Ethyltoluene	20.62	105	2371002	37.68657	ppb	100
79) 2-Chlorotoluene	20.73	91	2632307	37.54182	ppb	98
80) 1,3,5-Trimethylbenzene	20.70	105	2805556	37.21434	ppb	98
81) 4-Chlorotoluene	20.81	91	2315427	36.62348	ppb	97
82) Tert-Butylbenzene	21.35	119	3097684	36.23739	ppb	99
83) 1,2,4-Trimethylbenzene	21.41	105	2842868	37.37273	ppb	99
84) Sec-Butylbenzene	21.75	105	3827189	37.21219	ppb	100
85) p-Isopropyltoluene	21.98	119	3294696	37.54301	ppb	98
86) Benzyl Chloride	22.41	91	773083	37.38292	ppb	94
87) 1,3-DCB	22.11	146	1708729	38.12522	ppb	99
88) 1,4-DCB	22.29	146	1631436	37.57613	ppb	98
89) Hexachloroethane	23.58	117	764927	43.27283	ppb	97
90) n-Butylbenzene	22.68	91	2688346	37.48548	ppb	99
91) 1,2-DCB	22.92	146	1487584	37.94231	ppb	99
92) 1,2-Dibromo-3-chloropropan	24.13	155	70102	38.53133	ppb	# 83
93) 1,2,4-Trichlorobenzene	25.57	180	394368	39.33475	ppb	98
94) Hexachlorobutadiene	25.83	223	389299	36.84988	ppb	100
95) Naphthalene	25.92	128	1733380	36.93835	ppb	98
96) 1,2,3-Trichlorobenzene	26.28	180	335367	38.06593	ppb	98

(#) = qualifier out of range (m) = manual integration  
 0410C10W.D CALLW3.M Thu Apr 12 17:36:38 2012

Quantitation Report

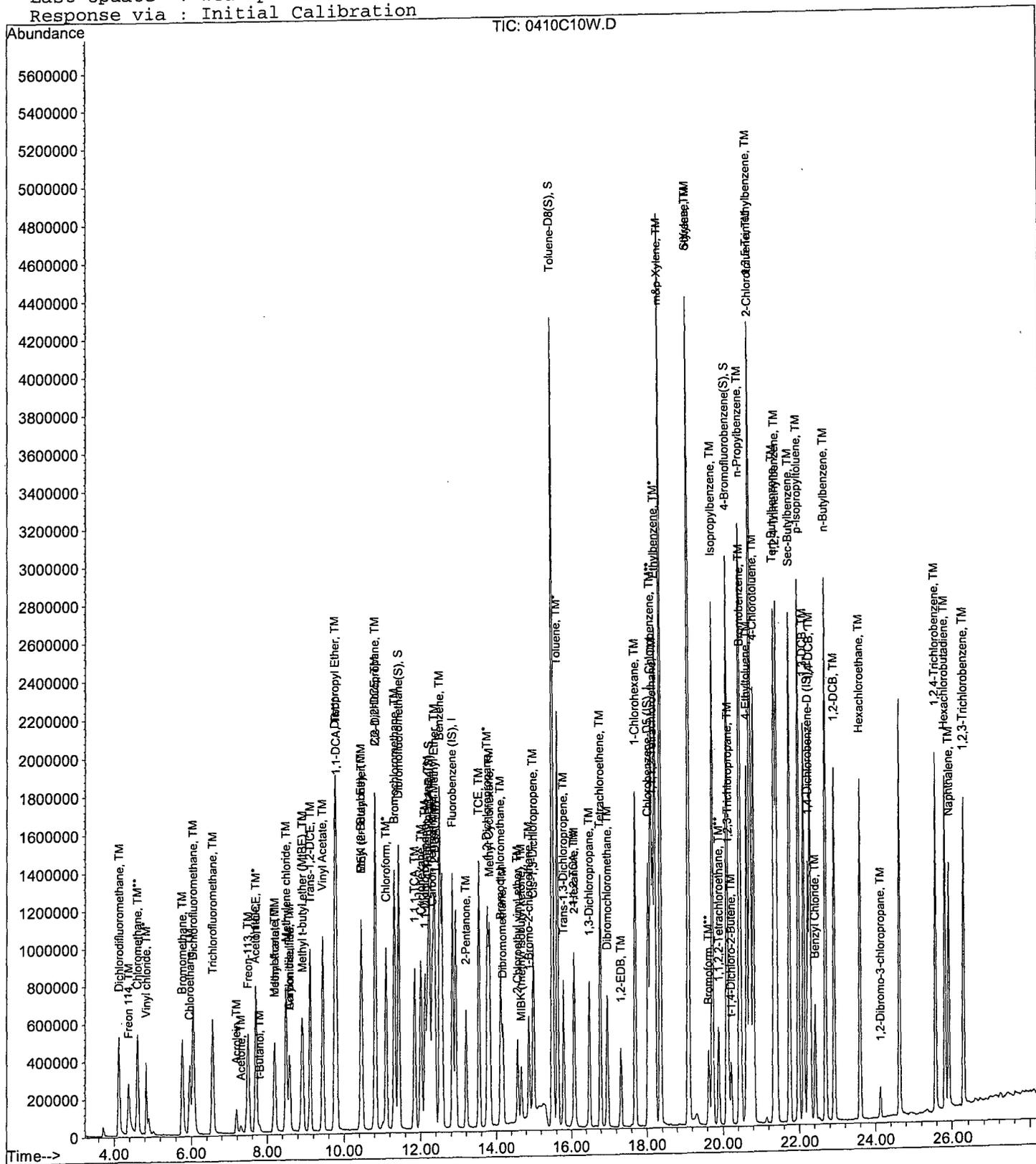
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Acq On : 10 Apr 12 20:18  
Sample : 40ug/L Vol Std 04-10-12  
Misc : Water 10mL w/IS:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 12 17:34 2012

Quant Results File: CALLW3.RES

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 2012  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C120410\0410C11W.D Vial: 1  
 Acq On : 10 Apr 12 20:55 Operator: SV  
 Sample : 100ug/L Vol Std 04-10-12 Inst : Chico  
 Misc : Water 10mL w/IS:04-10-12 Multiplr: 1.00

Quant Time: Apr 12 17:35 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	697893	25.00000	ppb	0.00
54) Chlorobenzene-D5 (IS)	18.03	117	526720	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	22.23	152	249024	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	11.43	111	1911799	94.02989	ppb	0.00
Spiked Amount	20.866			Recovery = 450.644%		
37) 1,2-DCA-D4(S)	12.24	65	1434461	89.10465	ppb	0.00
Spiked Amount	21.039			Recovery = 423.523%		
55) Toluene-D8(S)	15.51	98	6055238	94.21693	ppb	0.00
Spiked Amount	25.355			Recovery = 371.590%		
63) 4-Bromofluorobenzene(S)	20.10	95	2440901	92.58705	ppb	0.00
Spiked Amount	27.007			Recovery = 342.825%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.11	85	2287422	100.74682	ppb	98
3) Freon 114	4.37	85	813515	93.02248	ppb	88
4) Chloromethane	4.60	52	955410	97.86220	ppb	95
5) Vinyl chloride	4.84	62	545344	84.03645	ppb	98
6) Bromomethane	5.76	94	469056	105.07331	ppb	96
7) Chloroethane	5.95	64	475867	85.76582	ppb	94
8) Dichlorofluoromethane	6.04	67	3775420	91.29481	ppb	98
9) Trichlorofluoromethane	6.56	103	374528	76.60228	ppb	98
10) Acetonitrile	7.68	41	253971	204.19317	ug/l	100
11) Acrolein	7.19	56	266594	199.53901	ppb	97
12) Acetone	7.30	43	246186	99.70711	ppb	# 75
13) Freon-113	7.49	101	1302388	89.60207	ppb	97
14) 1,1-DCE	7.71	96	1242443	85.10616	ppb	99
15) t-Butanol	7.80	59	102876	179.92495	ppb	94
16) Methyl Acetate	8.21	43	839185	99.33687	ppb	99
17) Iodomethane	8.19	142	2139530	99.36072	ppb	98
18) Acrylonitrile	8.59	53	334822	92.73097	ppb	85
19) Methylene chloride	8.50	84	1627568	90.63503	ppb	95
20) Carbon disulfide	8.59	76	622976	97.67553	ppb	96
21) Methyl t-butyl ether (MtBE)	8.92	73	3296558	87.92906	ppb	99
22) Trans-1,2-DCE	9.12	96	1494463	87.39011	ppb	97
23) Diisopropyl Ether	9.77	45	6531146	87.38095	ppb	93
24) 1,1-DCA	9.81	63	3451795	87.76112	ppb	98
25) Vinyl Acetate	9.44	43	424891	98.62984	ppb	99
26) Ethyl tert Butyl Ether	10.46	59	4867894	88.11633	ppb	99
27) MEK (2-Butanone)	10.45	43	194462	85.40733	ppb	98
28) Cis-1,2-DCE	10.82	96	1930004	98.96909	ppb	97
29) 2,2-Dichloropropane	10.82	77	2327918	87.56773	ppb	98
30) Chloroform	11.10	85	2055116	93.45210	ppb	99
31) Bromochloromethane	11.33	128	813290	90.88413	ppb	95
33) 1,1,1-TCA	11.85	97	2399090	89.27538	ppb	97
34) Cyclohexane	12.01	56	2059965	89.58861	ppb	94
35) 1,1-Dichloropropene	12.12	75	2067743	88.05123	ppb	96
36) 2,2,4-Trimethylpentane	12.19	57	4169231	91.48108	ppb	99
38) Carbon Tetrachloride	12.30	117	2140952	91.41591	ppb	100
39) Tert Amyl Methyl Ether	12.36	73	3902217	89.71591	ppb	98
40) 1,2-DCA	12.39	62	1587022	88.07821	ppb	97
41) Benzene	12.51	78	7061842	89.68048	ppb	99
42) TCE	13.54	95	1726621	91.14779	ppb	95

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

Data File : M:\CHICO\DATA\C120410\0410C11W.D Vial: 1  
 Acq On : 10 Apr 12 20:55 Operator: SV  
 Sample : 100ug/L Vol Std 04-10-12 Inst : Chico  
 Misc : Water 10mL w/IS:04-10-12 Multiplr: 1.00

Quant Time: Apr 12 17:35 2012

Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	13.20	43	1402568	199.61605	ppb	98
44) 1,2-Dichloropropane	13.76	63	2082059	89.38932	ppb	99
45) Bromodichloromethane	14.12	83	2202083	97.52932	ppb	98
46) Methyl Cyclohexane	13.82	83	1813847	93.32883	ppb	96
47) Dibromomethane	14.17	93	851606	93.39738	ppb	96
48) 2-Chloroethyl vinyl ether	14.58	63	810056	102.40915	ppb	96
49) 1-Bromo-2-chloroethane	14.89	63	1924709	90.70792	ppb	97
50) Cis-1,3-Dichloropropene	15.00	75	2708975	88.20575	ppb	99
51) Toluene	15.63	91	6919934	90.06600	ppb	96
52) Trans-1,3-Dichloropropene	15.80	75	2144787	97.92743	ppb	100
53) 1,1,2-TCA	16.08	83	1014737	91.76060	ppb	95
56) 1,2-EDB	17.32	107	1245375	102.11220	ppb	94
57) Tetrachloroethene	16.79	164	1334796	89.91343	ppb	98
58) 1-Chlorohexane	17.70	91	2587255	93.63777	ppb	95
59) 1,1,1,2-Tetrachloroethane	18.16	131	1992159	99.18390	ppb	98
60) m&p-Xylene	18.35	106	6739488	187.37506	ppb	96
61) o-Xylene	19.09	106	3455270	92.20232	ppb	97
62) Styrene	19.11	104	5549262	93.80570	ppb	96
64) 2-Hexanone	16.11	43	599446	104.37315	ppb	93
65) 1,3-Dichloropropane	16.49	76	2164951	91.66583	ppb	96
66) Dibromochloromethane	16.97	129	1703554	106.45550	ppb	99
67) Chlorobenzene	18.10	112	5249107	94.10780	ppb	97
68) Ethylbenzene	18.21	91	8221967	92.48256	ppb	93
69) Bromoform	19.64	173	843800	118.21707	ppb	98
71) MIBK (methyl isobutyl keto)	14.67	43	942536	102.83190	ppb	96
72) Isopropylbenzene	19.72	105	8362851	90.71010	ppb	99
73) 1,1,2,2-Tetrachloroethane	19.89	83	1301677	100.35881	ppb	97
74) 1,2,3-Trichloropropane	20.14	110	119456	86.89139	ppb	86
75) t-1,4-Dichloro-2-Butene	20.22	53	312182	104.30828	ppb	91
76) Bromobenzene	20.47	156	1995695	89.28440	ppb	95
77) n-Propylbenzene	20.43	91	9716046	90.12777	ppb	98
78) 4-Ethyltoluene	20.63	105	5865255	92.26860	ppb	96
79) 2-Chlorotoluene	20.73	91	6342135	89.52133	ppb	100
80) 1,3,5-Trimethylbenzene	20.70	105	6831085	89.67955	ppb	100
81) 4-Chlorotoluene	20.81	91	5775317	90.41003	ppb	97
82) Tert-Butylbenzene	21.35	119	7687148	89.00151	ppb	98
83) 1,2,4-Trimethylbenzene	21.41	105	7031933	91.49242	ppb	98
84) Sec-Butylbenzene	21.74	105	9435029	90.79477	ppb	98
85) p-Isopropyltoluene	21.98	119	7980162	89.99900	ppb	98
86) Benzyl Chloride	22.41	91	2052074	98.20925	ppb	94
87) 1,3-DCB	22.11	146	4177941	92.26007	ppb	99
88) 1,4-DCB	22.29	146	4086303	93.15043	ppb	98
89) Hexachloroethane	23.58	117	1950108	109.18582	ppb	97
90) n-Butylbenzene	22.68	91	6513753	89.89209	ppb	100
91) 1,2-DCB	22.92	146	3680311	92.90499	ppb	98
92) 1,2-Dibromo-3-chloropropan	24.12	155	188794	102.70323	ppb	86
93) 1,2,4-Trichlorobenzene	25.57	180	950073	93.78730	ppb	98
94) Hexachlorobutadiene	25.82	223	964312	90.34052	ppb	99
95) Naphthalene	25.92	128	4307716	90.85378	ppb	98
96) 1,2,3-Trichlorobenzene	26.28	180	821270	92.26019	ppb	97

(#) = qualifier out of range (m) = manual integration  
 0410C11W.D CALLW3.M Thu Apr 12 17:36:46 2012

Quantitation Report

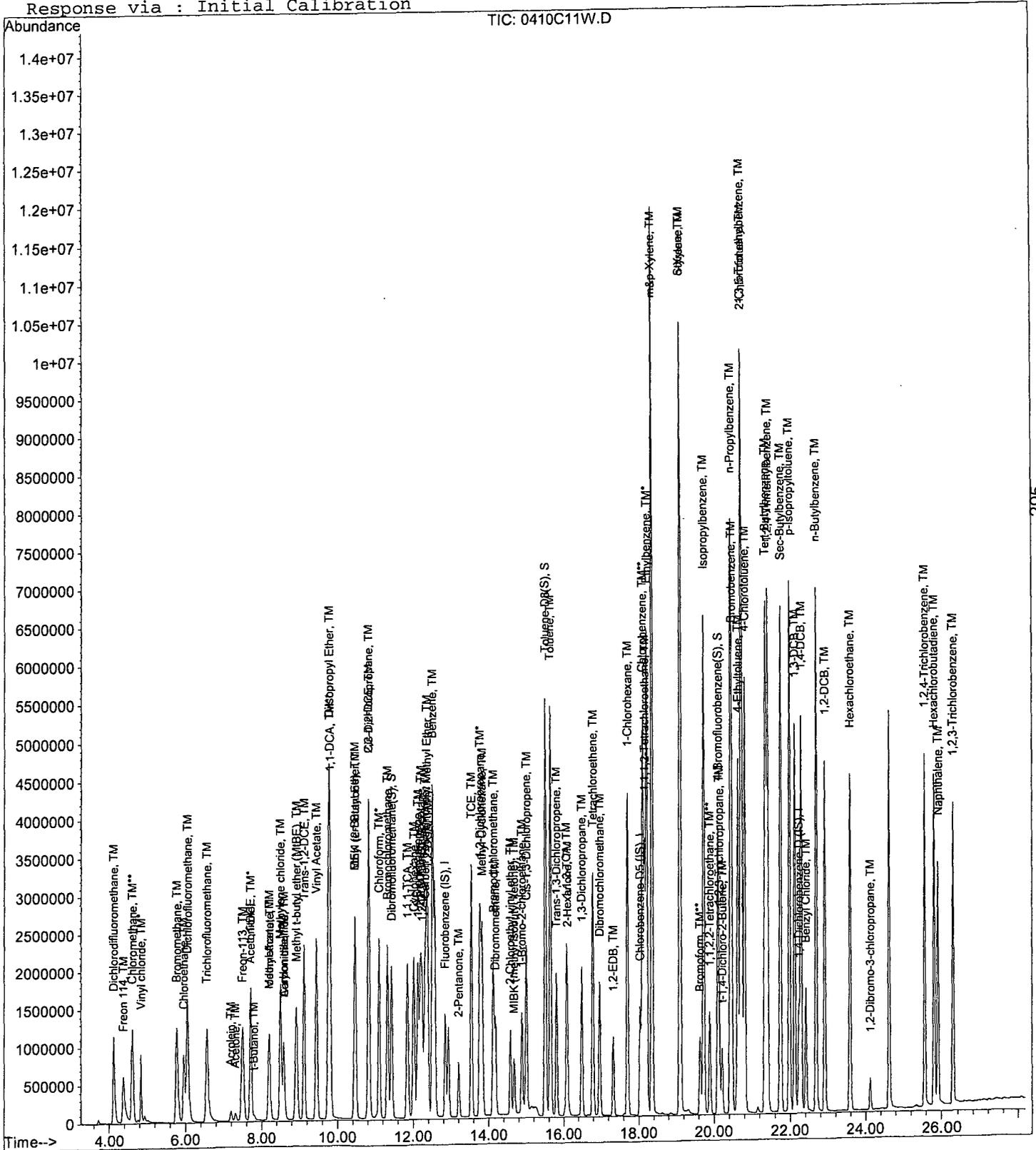
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Acq On : 10 Apr 12 20:55  
Sample : 100ug/L Vol Std 04-10-12  
Misc : Water 10mL w/IS:04-10-12

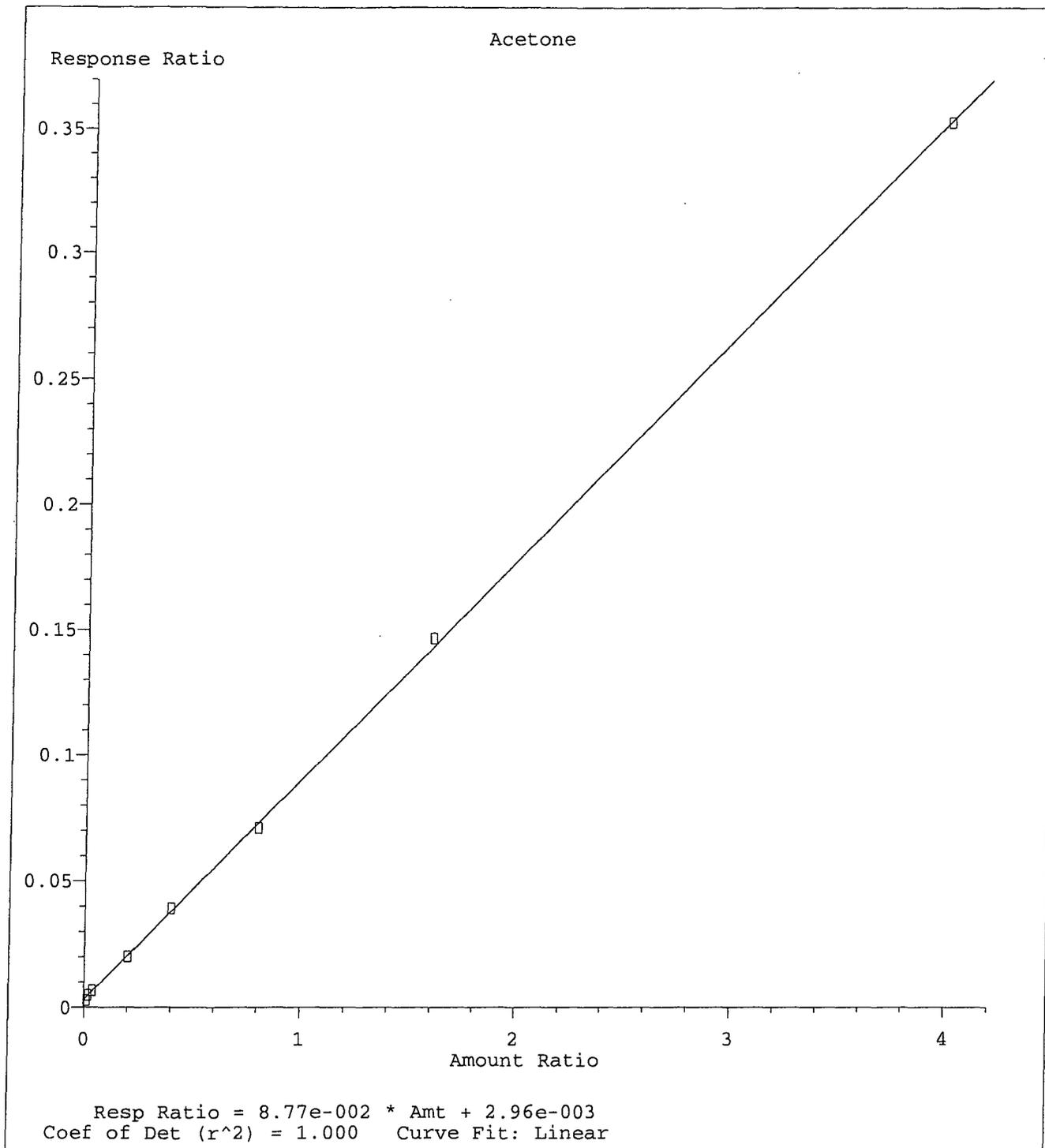
Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 12 17:35 2012

Quant Results File: CALLW3.RES

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 2012  
Response via : Initial Calibration

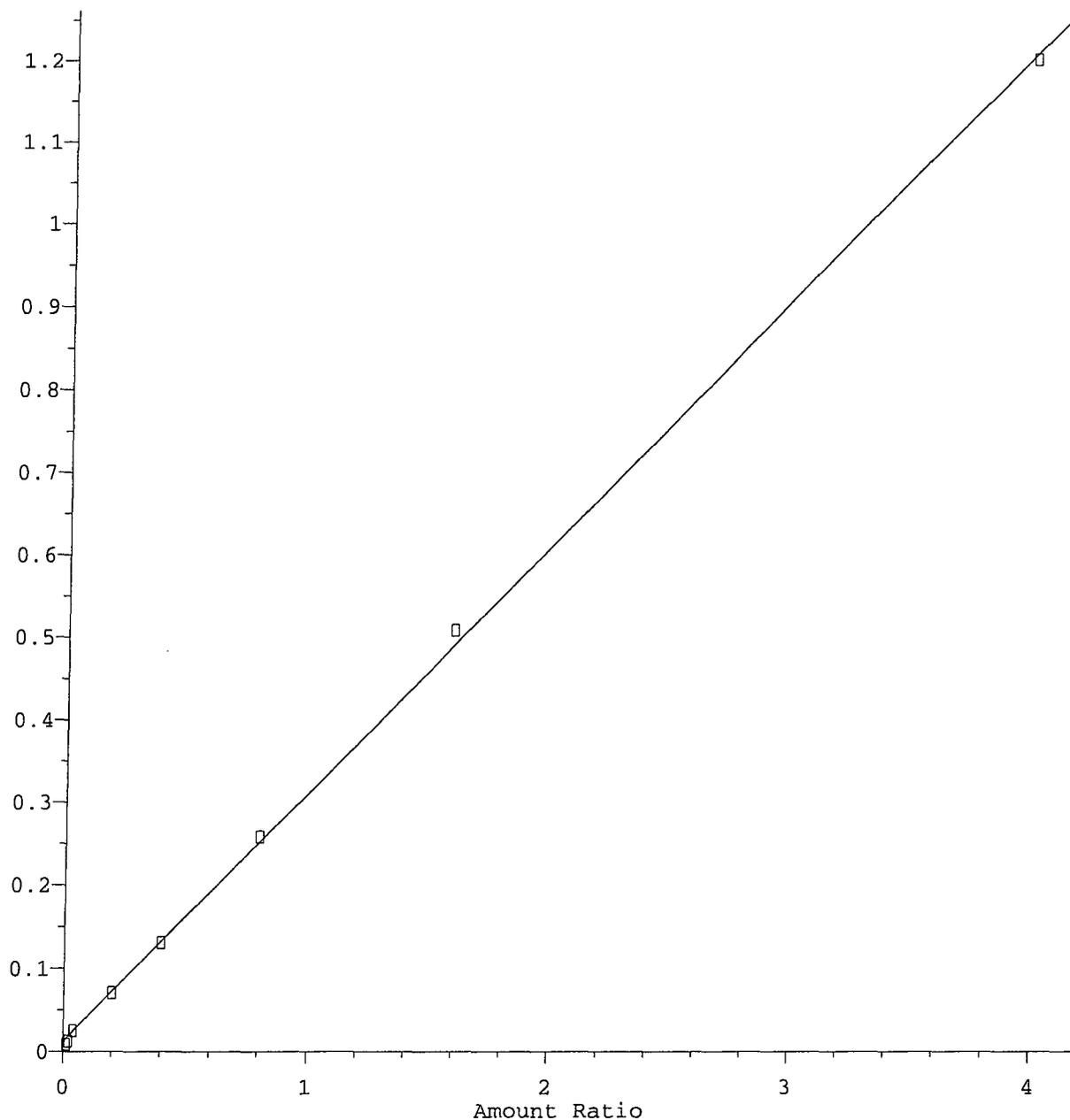




Method Name: M:\CHICO\DATA\C120410\CALLW3.M  
Calibration Table Last Updated: Wed Apr 11 14:32:33 2012

Methyl Acetate

Response Ratio

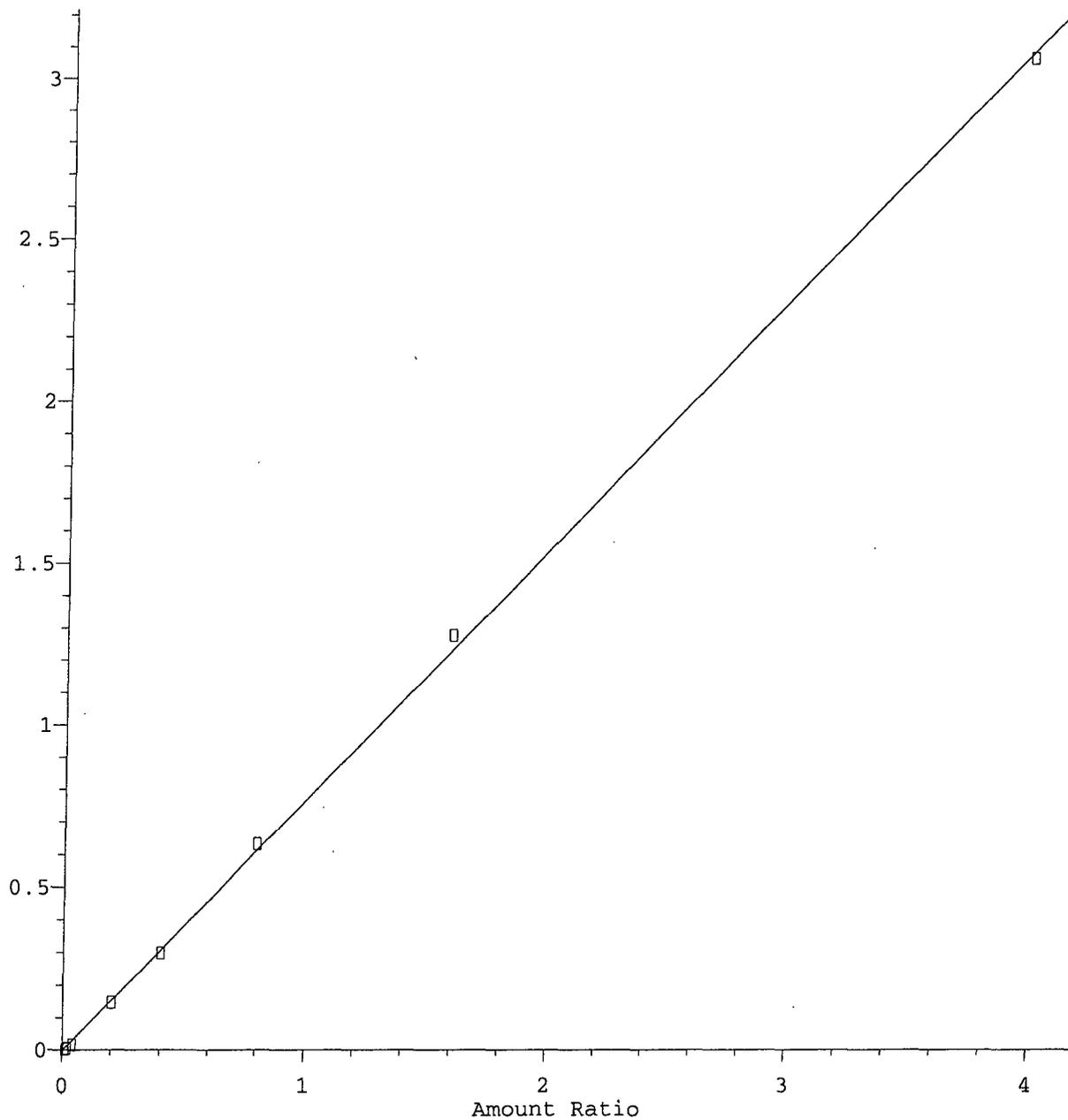


Resp Ratio = 2.99e-001 \* Amt + 1.26e-002  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\CHICO\DATA\C120410\CALLW3.M  
Calibration Table Last Updated: Wed Apr 11 14:32:33 2012

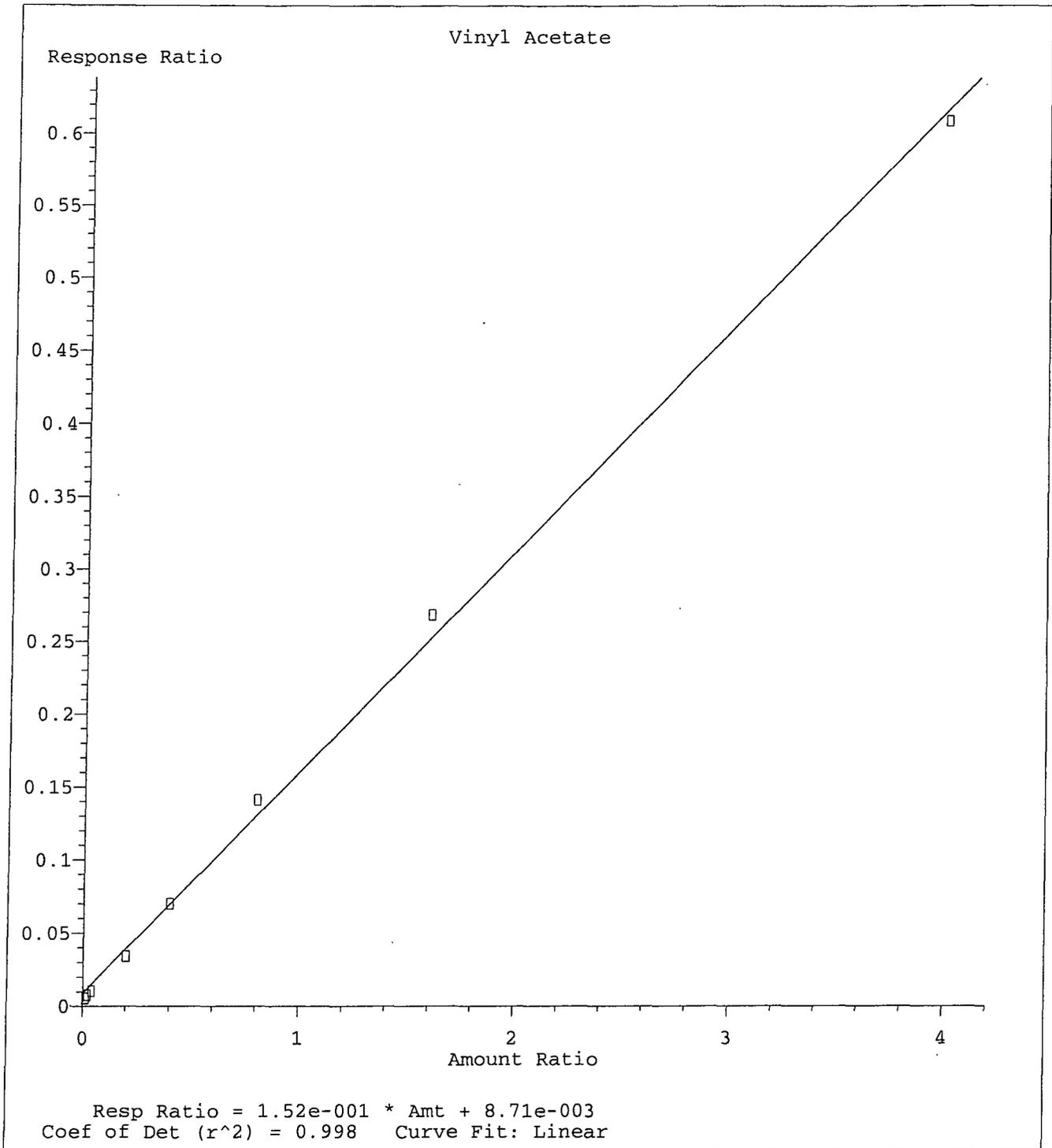
Iodomethane

Response Ratio



Resp Ratio = 7.72e-001 \* Amt - 1.85e-003  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

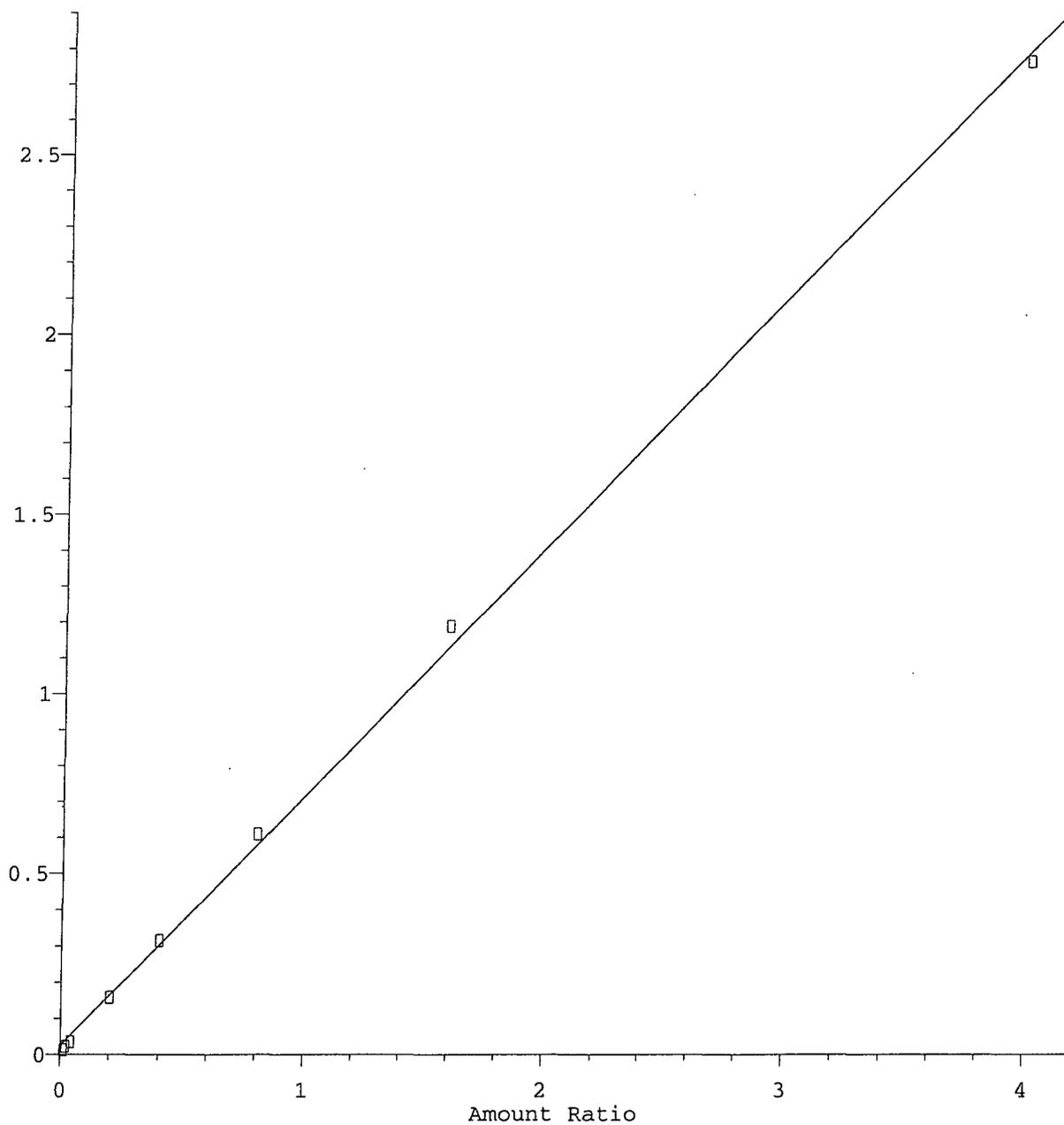
Method Name: M:\CHICO\DATA\C120410\CALLW3.M  
Calibration Table Last Updated: Wed Apr 11 14:32:33 2012



Method Name: M:\CHICO\DATA\C120410\CALLW3.M  
Calibration Table Last Updated: Wed Apr 11 14:32:33 2012

Cis-1,2-DCE

Response Ratio



Resp Ratio = 6.92e-001 \* Amt + 2.70e-002  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\CHICO\DATA\C120410\CALLW3.M  
Calibration Table Last Updated: Wed Apr 11 14:32:33 2012

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 04/11/12  
Instrument: Chico  
Initial Cal. Date: 04/10/12  
Data File: 0411C05W.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.8133	0.7744	4.8	TM	
3	TM	Freon 114	0.3133	0.2997	4.3	TM	
4	TM**	Chloromethane	0.3497	0.3961	13	TM**	✓
5	TM*	Vinyl chloride	0.2325	0.2339	0.61	TM*	✓
6	TM	Bromomethane	0.1599	0.1656	3.5	TM	
7	TM	Chloroethane	0.1988	0.1934	2.7	TM	
8	TM	Dichlorofluoromethane	1.481	1.496	1.0	TM	
9	TM	Trichlorofluoromethane	0.1751	0.1675	4.4	TM	
10		Acetonitrile	0.0446	0.0410	8.1		
11	TM	Acrolein	0.0479	0.0430	10	TM	
12	TML	Acetone	0.1379	0.0856	38	TML	11
13	TM	Freon-113	0.5207	0.4732	9.1	TM	
14	TM*	1,1-DCE	0.5230	0.4666	11	TM*	✓
15	TM	t-Butanol	0.0205	0.0207	0.88	TM	
16	TML	Methyl Acetate	0.4541	0.2896	36	TML	14
17	TML	Iodomethane	0.5884	0.8033	37	TML	4.7
18	TM	Acrylonitrile	0.1293	0.1128	13	TM	
19	TM	Methylene chloride	0.6433	0.6195	3.7	TM	
20	TM	Carbon disulfide	0.2285	0.2361	3.3	TM	
21	TM	Methyl t-butyl ether (MtBE)	1.343	1.228	8.6	TM	
22	TM	Trans-1,2-DCE	0.6126	0.5943	3.0	TM	
23	TM	Diisopropyl Ether	2.677	2.535	5.3	TM	
24	TM**	1,1-DCA	1.409	1.349	4.2	TM**	✓
25	TML	Vinyl Acetate	0.2399	0.1768	26	TML	1.9
26	TM	Ethyl tert Butyl Ether	1.979	1.826	7.7	TM	
27	TM	MEK (2-Butanone)	0.0816	0.0686	16	TM	
28	TML	Cis-1,2-DCE	0.8500	0.7711	9.3	TML	1.7
29	TM	2,2-Dichloropropane	0.9523	0.9533	0.10	TM	
30	TM*	Chloroform	0.7878	0.7667	2.7	TM*	✓
31	TM	Bromochloromethane	0.3206	0.2991	6.7	TM	
32	S	Dibromofluoromethane(S)	0.7283	0.6973	4.3	S	
33	TM	1,1,1-TCA	0.9626	0.8979	6.7	TM	
34	TM	Cyclohexane	0.8237	0.7197	13	TM	
35	TM	1,1-Dichloropropene	0.8412	0.8042	4.4	TM	
36	TM	2,2,4-Trimethylpentane	1.633	1.567	4.0	TM	
37	S	1,2-DCA-D4(S)	0.5767	0.5278	8.5	S	
38	TM	Carbon Tetrachloride	0.8389	0.7705	8.2	TM	
39	TM	Tert Amyl Methyl Ether	1.558	1.437	7.8	TM	
40	TM	1,2-DCA	0.6455	0.6033	6.5	TM	

Average

9.2

AR 4/19/12

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 04/11/12  
Instrument: Chico  
Cal. Date: 04/10/12  
Data File: 0411C05W.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	Benzene	2.821	2.732	3.2	TM
42	TM	TCE	0.6786	0.6656	1.9	TM
43	TM	2-Pentanone	0.2517	0.2206	12	TM
44	TM*	1,2-Dichloropropane	0.8344	0.8133	2.5	TM*
45	TM	Bromodichloromethane	0.8088	0.7769	3.9	TM
46	TM	Methyl Cyclohexane	0.6962	0.6649	4.5	TM
47	TM	Dibromomethane	0.3266	0.2954	9.5	TM
48	TM	2-Chloroethyl vinyl ether	0.2834	0.2673	5.7	TM
49	TM	1-Bromo-2-chloroethane	0.7601	0.6722	12	TM
50	TM	Cis-1,3-Dichloropropene	1.100	1.022	7.1	TM
51	TM*	Toluene	2.752	2.742	0.36	TM*
52	TM	Trans-1,3-Dichloropropene	0.7846	0.7579	3.4	TM
53	TM	1,1,2-TCA	0.3961	0.3700	6.6	TM
54	I	Chlorobenzene-D5 (IS)	ISTD			I
55	S	Toluene-D8(S)	3.050	2.804	8.1	S
56	TM	1,2-EDB	0.5789	0.5301	8.4	TM
57	TM	Tetrachloroethene	0.7046	0.6654	5.6	TM
58	TM	1-Chlorohexane	1.311	1.297	1.1	TM
59	TM	1,1,1,2-Tetrachloroethane	0.9533	0.9020	5.4	TM
60	TM	m&p-Xylene	1.707	1.667	2.3	TM
61	TM	o-Xylene	1.779	1.714	3.6	TM
62	TM	Styrene	2.808	2.713	3.4	TM
63	S	4-Bromofluorobenzene(S)	1.251	1.159	7.3	S
64	TM	2-Hexanone	0.2726	0.2256	17	TM
65	TM	1,3-Dichloropropane	1.121	0.9963	11	TM
66	TM	Dibromochloromethane	0.7595	0.6858	9.7	TM
67	TM**	Chlorobenzene	2.647	2.576	2.7	TM**
68	TM*	Ethylbenzene	4.220	4.129	2.2	TM*
69	TM**	Bromoform	0.3388	0.2965	12	TM**
70	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
71	TM	MIBK (methyl isobutyl ketone)	0.9202	0.8454	8.1	TM
72	TM	Isopropylbenzene	9.255	9.261	0.06	TM
73	TM**	1,1,2,2-Tetrachloroethane	1.302	1.201	7.8	TM**
74	TM	1,2,3-Trichloropropane	0.1380	0.1165	16	TM
75	TM	t-1,4-Dichloro-2-Butene	0.3005	0.2793	7.1	TM
76	TM	Bromobenzene	2.244	2.129	5.1	TM
77	TM	n-Propylbenzene	10.8	11.0	2.0	TM
78	TM	4-Ethyltoluene	6.382	6.516	2.1	TM
79	TM	2-Chlorotoluene	7.112	6.984	1.8	TM
80	TM	1,3,5-Trimethylbenzene	7.647	7.281	4.8	TM

Average

6.0

*ARS 4/19/12*

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 04/11/12

Matrix: Water

Instrument: Chico

Cal. Date: 04/10/12

Data File: 0411C05W.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	4-Chlorotoluene	6.413	6.251	2.5	TM
82	TM	Tert-Butylbenzene	8.671	8.331	3.9	TM
83	TM	1,2,4-Trimethylbenzene	7.716	7.679	0.48	TM
84	TM	Sec-Butylbenzene	10.4	10.5	1.1	TM
85	TM	p-Isopropyltoluene	8.902	8.801	1.1	TM
86	TM	Benzyl Chloride	2.098	2.002	4.6	TM
87	TM	1,3-DCB	4.546	4.626	1.8	TM
88	TM	1,4-DCB	4.404	4.368	0.82	TM
89	TM	Hexachloroethane	1.793	1.931	7.7	TM
90	TM	n-Butylbenzene	7.275	7.481	2.8	TM
91	TM	1,2-DCB	3.977	4.021	1.1	TM
92	TM	1,2-Dibromo-3-chloropropane	0.1845	0.1534	17	TM
93	TM	1,2,4-Trichlorobenzene	1.017	1.035	1.7	TM
94	TM	Hexachlorobutadiene	1.072	1.033	3.6	TM
95	TM	Naphthalene	4.760	4.309	9.5	TM
96	TM	1,2,3-Trichlorobenzene	0.8937	0.8729	2.3	TM
97						
98						
99						
100						
101						
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114						
115						
116						
117						
118						
119						
120						

Average

3.9

*RR 4/19/12*

Data File : M:\CHICO\DATA\C120410\0411C05W.D Vial: 1  
 Acq On : 11 Apr 12 13:39 Operator: SV  
 Sample : 120411A LCS-1WC (SS) Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 11 14:35 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.82	96	704941	25.00000	ppb	-0.04
54) Chlorobenzene-D5 (IS)	18.00	117	553280	25.00000	ppb	-0.04
70) 1,4-Dichlorobenzene-D (IS)	22.20	152	250880	25.00000	ppb	-0.03

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Dibromofluoromethane (S)	11.40	111	410295	19.97818	ppb	-0.04
Spiked Amount	20.866		Recovery	=	95.746%	
37) 1,2-DCA-D4 (S)	12.21	65	313140	19.25689	ppb	-0.03
Spiked Amount	21.039		Recovery	=	91.530%	
55) Toluene-D8 (S)	15.48	98	1573328	23.30515	ppb	-0.03
Spiked Amount	25.355		Recovery	=	91.914%	
63) 4-Bromofluorobenzene (S)	20.07	95	692955	25.02303	ppb	-0.03
Spiked Amount	27.007		Recovery	=	92.653%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
2) Dichlorodifluoromethane	4.10	85	218360	9.52126	ppb	100
3) Freon 114	4.35	85	84497	9.56532	ppb	85
4) Chloromethane	4.59	52	111678	11.32476	ppb	99
5) Vinyl chloride	4.85	62	65952	10.06146	ppb	99
6) Bromomethane	5.75	94	46688	10.35402	ppb	91
7) Chloroethane	5.93	64	54536	9.73079	ppb	95
8) Dichlorofluoromethane	6.03	67	421927	10.10076	ppb	95
9) Trichlorofluoromethane	6.53	103	47232	9.56379	ppb	99
10) Acetonitrile	7.66	41	144385	114.92519	ug/l	100
11) Acrolein	7.17	56	151425	112.20471	ppb	98
12) Acetone	7.27	43	24144	8.91787	ppb	# 73
13) Freon-113	7.47	101	133427	9.08777	ppb	96
14) 1,1-DCE	7.68	96	131561	8.92170	ppb	96
15) t-Butanol	7.76	59	72831	126.10423	ppb	94
16) Methyl Acetate	8.19	43	81652	8.61982	ppb	100
17) Iodomethane	8.16	142	226500	10.46715	ppb	98
18) Acrylonitrile	8.57	53	31818	8.72408	ppb	94
19) Methylene chloride	8.47	84	174672	9.62978	ppb	99
20) Carbon disulfide	8.56	76	66568	10.33275	ppb	96
21) Methyl t-butyl ether (MtBE)	8.89	73	346308	9.14472	ppb	97
22) Trans-1,2-DCE	9.09	96	167572	9.70096	ppb	98
23) Diisopropyl Ether	9.74	45	714692	9.46635	ppb	97
24) 1,1-DCA	9.78	63	380422	9.57544	ppb	98
25) Vinyl Acetate	9.41	43	49864	10.19416	ppb	94
26) Ethyl tert Butyl Ether	10.43	59	515023	9.22950	ppb	98
27) MEK (2-Butanone)	10.43	43	19338	8.40830	ppb	99
28) Cis-1,2-DCE	10.80	96	217442	10.17209	ppb	99
29) 2,2-Dichloropropane	10.80	77	268804	10.01033	ppb	100
30) Chloroform	11.08	85	216184	9.73223	ppb	96
31) Bromochloromethane	11.30	128	84348	9.33154	ppb	98
33) 1,1,1-TCA	11.82	97	253186	9.32741	ppb	97
34) Cyclohexane	11.98	56	202933	8.73739	ppb	96
35) 1,1-Dichloropropene	12.09	75	226754	9.55938	ppb	97
36) 2,2,4-Trimethylpentane	12.16	57	441876	9.59869	ppb	97
38) Carbon Tetrachloride	12.28	117	217260	9.18398	ppb	99
39) Tert Amyl Methyl Ether	12.33	73	405194	9.22268	ppb	97
40) 1,2-DCA	12.35	62	170115	9.34683	ppb	99
41) Benzene	12.48	78	770339	9.68496	ppb	99
42) TCE	13.51	95	187686	9.80883	ppb	99

Algorithm Check: (218360)(25) (704941)(6.81322) c1) = 9.521252 ✓  
 Qvalue  
 ARS 4/12/12

Data File : M:\CHICO\DATA\C120410\0411C05W.D Vial: 1  
 Acq On : 11 Apr 12 13:39 Operator: SV  
 Sample : 120411A LCS-1WC (SS) Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 11 14:35 2012

Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	13.17	43	777685	109.57496	ppb	99
44) 1,2-Dichloropropane	13.74	63	229328	9.74733	ppb	99
45) Bromodichloromethane	14.09	83	219067	9.60538	ppb	95
46) Methyl Cyclohexane	13.79	83	187480	9.55006	ppb	98
47) Dibromomethane	14.15	93	83309	9.04532	ppb	86
48) 2-Chloroethyl vinyl ether	14.55	63	75382	9.43469	ppb	95
49) 1-Bromo-2-chloroethane	14.86	63	189551	8.84387	ppb	100
50) Cis-1,3-Dichloropropene	14.97	75	288128	9.28781	ppb	99
51) Toluene	15.61	91	773304	9.96426	ppb	100
52) Trans-1,3-Dichloropropene	15.78	75	213711	9.66013	ppb	96
53) 1,1,2-TCA	16.05	83	104335	9.34047	ppb	92
56) 1,2-EDB	17.30	107	117326	9.15813	ppb	97
57) Tetrachloroethene	16.76	164	147262	9.44355	ppb	94
58) 1-Chlorohexane	17.67	91	287055	9.89035	ppb	99
59) 1,1,1,2-Tetrachloroethane	18.13	131	199613	9.46108	ppb	100
60) m&p-Xylene	18.32	106	738051	19.53467	ppb	99
61) o-Xylene	19.07	106	379303	9.63565	ppb	95
62) Styrene	19.09	104	600326	9.66086	ppb	99
64) 2-Hexanone	16.09	43	49931	8.27645	ppb	93
65) 1,3-Dichloropropane	16.46	76	220499	8.88793	ppb	97
66) Dibromochloromethane	16.94	129	151783	9.02963	ppb	100
67) Chlorobenzene	18.07	112	570127	9.73076	ppb	98
68) Ethylbenzene	18.19	91	913740	9.78457	ppb	97
69) Bromoform	19.61	173	65626	8.75289	ppb	98
71) MIBK (methyl isobutyl keto)	14.65	43	84840	9.18768	ppb	99
72) Isopropylbenzene	19.69	105	929316	10.00552	ppb	100
73) 1,1,2,2-Tetrachloroethane	19.86	83	120518	9.22315	ppb	100
74) 1,2,3-Trichloropropane	20.12	110	11690	8.44031	ppb	82
75) t-1,4-Dichloro-2-Butene	20.19	53	28026	9.29495	ppb	98
76) Bromobenzene	20.44	156	213613	9.48603	ppb	95
77) n-Propylbenzene	20.40	91	1107410	10.19654	ppb	97
78) 4-Ethyltoluene	20.60	105	653860	10.21003	ppb	100
79) 2-Chlorotoluene	20.70	91	700817	9.81908	ppb	98
80) 1,3,5-Trimethylbenzene	20.68	105	730642	9.52102	ppb	98
81) 4-Chlorotoluene	20.78	91	627270	9.74699	ppb	100
82) Tert-Butylbenzene	21.32	119	835991	9.60747	ppb	97
83) 1,2,4-Trimethylbenzene	21.38	105	770568	9.95168	ppb	99
84) Sec-Butylbenzene	21.72	105	1058030	10.10627	ppb	99
85) p-Isopropyltoluene	21.95	119	883167	9.88653	ppb	100
86) Benzyl Chloride	22.39	91	200859	9.54170	ppb	94
87) 1,3-DCB	22.09	146	464254	10.17612	ppb	98
88) 1,4-DCB	22.26	146	438304	9.91756	ppb	97
89) Hexachloroethane	23.56	117	193779	10.76935	ppb	96
90) n-Butylbenzene	22.66	91	750726	10.28364	ppb	98
91) 1,2-DCB	22.89	146	403534	10.11137	ppb	98
92) 1,2-Dibromo-3-chloropropan	24.11	155	15393	8.31179	ppb	# 78
93) 1,2,4-Trichlorobenzene	25.55	180	103816	10.17247	ppb	99
94) Hexachlorobutadiene	25.80	223	103702	9.64334	ppb	96
95) Naphthalene	25.90	128	432444	9.05318	ppb	99
96) 1,2,3-Trichlorobenzene	26.26	180	87594	9.76738	ppb	99

(#) = qualifier out of range (m) = manual integration  
 0411C05W.D CALLW3.M Wed Apr 11 14:42:08 2012

Quantitation Report

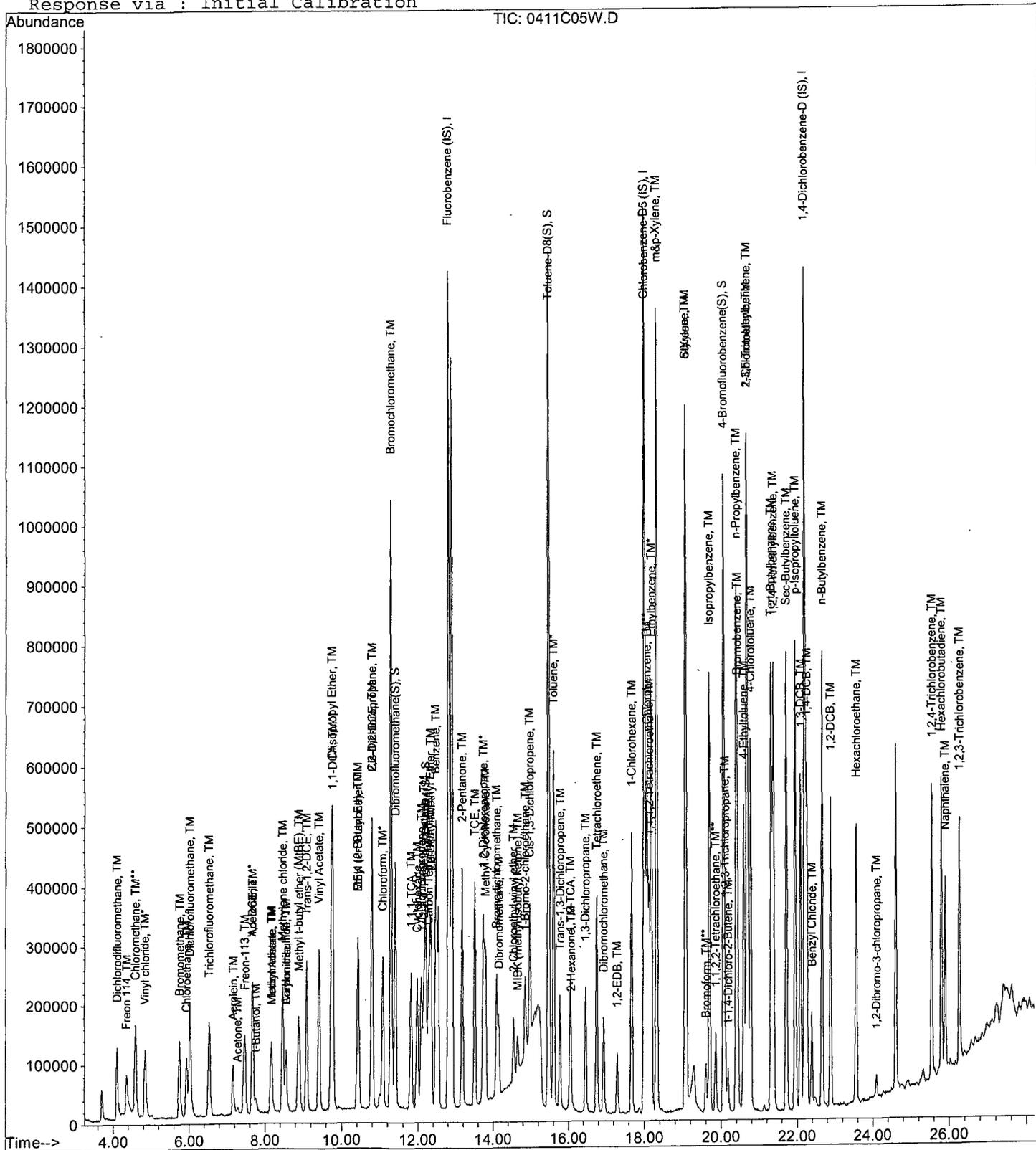
Data File : M:\CHICO\DATA\C120410\0411C05W.D  
Acq On : 11 Apr 12 13:39  
Sample : 120411A LCS-1WC (SS)  
Misc : Water 10mL w/IS&S:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 11 14:35 2012

Quant Results File: CALLW3.RES

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 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: \_\_\_\_\_  
Date Analyzed: 04/18/12  
Instrument: Chico  
Initial Cal. Date: 04/10/12  
Data File: 0418C03W.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.8133	0.6355	22	TM	*NT
3	TM	Freon 114	0.3133	0.2923	6.7	TM	
4	TM**	Chloromethane	0.3497	0.3826	9.4	TM**	
5	TM*	Vinyl chloride	0.2325	0.2387	2.7	TM*	
6	TM	Bromomethane	0.1599	0.1437	10	TM	
7	TM	Chloroethane	0.1988	0.1726	13	TM	
8	TM	Dichlorofluoromethane	1.481	1.509	1.9	TM	
9	TM	Trichlorofluoromethane	0.1751	0.1646	6.0	TM	
10		Acetonitrile	0.0446	0.0487	9.3		
11	TM	Acrolein	0.0479	0.0403	16	TM	
12	TML	Acetone	0.1379	0.0913	34	TML	4.3
13	TM	Freon-113	0.5207	0.4798	7.8	TM	
14	TM*	1,1-DCE	0.5230	0.4446	15	TM*	
15	TM	t-Butanol	0.0205	0.0198	3.5	TM	
16	TML	Methyl Acetate	0.4541	0.3261	28	TML	1.6
17	TML	Iodomethane	0.5884	0.6585	12	TML	14
18	TM	Acrylonitrile	0.1293	0.1220	5.7	TM	
19	TM	Methylene chloride	0.6433	0.6134	4.6	TM	
20	TM	Carbon disulfide	0.2285	0.1894	17	TM	
21	TM	Methyl t-butyl ether (MtBE)	1.343	1.220	9.2	TM	
22	TM	Trans-1,2-DCE	0.6126	0.5534	9.7	TM	
23	TM	Diisopropyl Ether	2.677	2.590	3.3	TM	
24	TM**	1,1-DCA	1.409	1.327	5.8	TM**	
25	TML	Vinyl Acetate	0.2399	0.1662	31	TML	5.1
26	TM	Ethyl tert Butyl Ether	1.979	1.835	7.3	TM	
27	TM	MEK (2-Butanone)	0.0816	0.0709	13	TM	
28	TML	Cis-1,2-DCE	0.8500	0.7736	9.0	TML	2.1
29	TM	2,2-Dichloropropane	0.9523	0.9532	0.09	TM	
30	TM*	Chloroform	0.7878	0.7590	3.7	TM*	
31	TM	Bromochloromethane	0.3206	0.2989	6.8	TM	
32	S	Dibromofluoromethane(S)	0.7283	0.7244	0.54	S	
33	TM	1,1,1-TCA	0.9626	0.8990	6.6	TM	
34	TM	Cyclohexane	0.8237	0.7466	9.4	TM	
35	TM	1,1-Dichloropropene	0.8412	0.7687	8.6	TM	
36	TM	2,2,4-Trimethylpentane	1.633	1.918	17	TM	
37	S	1,2-DCA-D4(S)	0.5767	0.5314	7.9	S	
38	TM	Carbon Tetrachloride	0.8389	0.7646	8.9	TM	
39	TM	Tert Amyl Methyl Ether	1.558	1.451	6.9	TM	
40	TM	1,2-DCA	0.6455	0.5941	8.0	TM	

Average

10.2

*RR 4/19/12*

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 04/18/12  
Instrument: Chico  
Cal. Date: 04/10/12  
Data File: 0418C03W.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	Benzene	2.821	2.618	7.2	TM
42	TM	TCE	0.6786	0.6487	4.4	TM
43	TM	2-Pentanone	0.2517	0.2427	3.6	TM
44	TM*	1,2-Dichloropropane	0.8344	0.7949	4.7	TM*
45	TM	Bromodichloromethane	0.8088	0.7837	3.1	TM
46	TM	Methyl Cyclohexane	0.6962	0.6543	6.0	TM
47	TM	Dibromomethane	0.3266	0.3053	6.5	TM
48	TM	2-Chloroethyl vinyl ether	0.2834	0.2743	3.2	TM
49	TM	1-Bromo-2-chloroethane	0.7601	0.6887	9.4	TM
50	TM	Cis-1,3-Dichloropropene	1.100	0.9934	9.7	TM
51	TM*	Toluene	2.752	2.684	2.5	TM*
52	TM	Trans-1,3-Dichloropropene	0.7846	0.7368	6.1	TM
53	TM	1,1,2-TCA	0.3961	0.3817	3.6	TM
54	I	Chlorobenzene-D5 (IS)	ISTD			I
55	S	Toluene-D8(S)	3.050	2.850	6.6	S
56	TM	1,2-EDB	0.5789	0.5315	8.2	TM
57	TM	Tetrachloroethene	0.7046	0.6070	14	TM
58	TM	1-Chlorohexane	1.311	1.255	4.3	TM
59	TM	1,1,1,2-Tetrachloroethane	0.9533	0.8861	7.1	TM
60	TM	m&p-Xylene	1.707	1.591	6.8	TM
61	TM	o-Xylene	1.779	1.647	7.4	TM
62	TM	Styrene	2.808	2.608	7.1	TM
63	S	4-Bromofluorobenzene(S)	1.251	1.236	1.2	S
64	TM	2-Hexanone	0.2726	0.2291	16	TM
65	TM	1,3-Dichloropropane	1.121	0.9930	11	TM
66	TM	Dibromochloromethane	0.7595	0.6886	9.3	TM
67	TM**	Chlorobenzene	2.647	2.510	5.2	TM**
68	TM*	Ethylbenzene	4.220	4.039	4.3	TM*
69	TM**	Bromoform	0.3388	0.2972	12	TM**
70	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
71	TM	MIBK (methyl isobutyl ketone)	0.9202	0.9304	1.1	TM
72	TM	Isopropylbenzene	9.255	9.075	2.0	TM
73	TM**	1,1,2,2-Tetrachloroethane	1.302	1.268	2.7	TM**
74	TM	1,2,3-Trichloropropane	0.1380	0.1211	12	TM
75	TM	t-1,4-Dichloro-2-Butene	0.3005	0.2821	6.1	TM
76	TM	Bromobenzene	2.244	2.030	9.5	TM
77	TM	n-Propylbenzene	10.8	10.8	0.42	TM
78	TM	4-Ethyltoluene	6.382	6.290	1.4	TM
79	TM	2-Chlorotoluene	7.112	6.743	5.2	TM
80	TM	1,3,5-Trimethylbenzene	7.647	7.360	3.7	TM

Average

6.2

*APPL 4/19/12*

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 04/18/12  
Instrument: Chico  
Cal. Date: 04/10/12  
Data File: 0418C03W.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	4-Chlorotoluene	6.413	6.219	3.0	TM
82	TM	Tert-Butylbenzene	8.671	8.261	4.7	TM
83	TM	1,2,4-Trimethylbenzene	7.716	7.614	1.3	TM
84	TM	Sec-Butylbenzene	10.4	10.1	3.0	TM
85	TM	p-Isopropyltoluene	8.902	8.581	3.6	TM
86	TM	Benzyl Chloride	2.098	2.078	0.94	TM
87	TM	1,3-DCB	4.546	4.370	3.9	TM
88	TM	1,4-DCB	4.404	4.264	3.2	TM
89	TM	Hexachloroethane	1.793	1.895	5.7	TM
90	TM	n-Butylbenzene	7.275	7.137	1.9	TM
91	TM	1,2-DCB	3.977	3.930	1.2	TM
92	TM	1,2-Dibromo-3-chloropropane	0.1845	0.1626	12	TM
93	TM	1,2,4-Trichlorobenzene	1.017	0.9559	6.0	TM
94	TM	Hexachlorobutadiene	1.072	0.9856	8.0	TM
95	TM	Naphthalene	4.760	4.126	13	TM
96	TM	1,2,3-Trichlorobenzene	0.8937	0.7780	13	TM
97						
98						
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117						
118						
119						
120						

Average

5.3

*ARS 4/18/12*

Data File : M:\CHICO\DATA\C120410\0418C03W.D Vial: 1  
 Acq On : 18 Apr 12 10:41 Operator: SV  
 Sample : 10ug/L Vol Std 04-18-12 Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 18 11:24 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.81	96	628509	25.00000	ppb	-0.05
54) Chlorobenzene-D5 (IS)	17.99	117	502912	25.00000	ppb	-0.05
70) 1,4-Dichlorobenzene-D (IS)	22.19	152	224960	25.00000	ppb	-0.04

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	11.38	111	379992	20.75274	ppb	-0.06
Spiked Amount	20.866		Recovery	=	99.460%	
37) 1,2-DCA-D4(S)	12.19	65	281073	19.38689	ppb	-0.05
Spiked Amount	21.039		Recovery	=	92.148%	
55) Toluene-D8(S)	15.46	98	1453844	23.69209	ppb	-0.05
Spiked Amount	25.355		Recovery	=	93.441%	
63) 4-Bromofluorobenzene(S)	20.06	95	671498	26.67673	ppb	-0.04
Spiked Amount	27.007		Recovery	=	98.778%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.09	85	159768	7.81362	ppb	98
3) Freon 114	4.34	85	73484	9.33023	ppb	93
4) Chloromethane	4.58	52	96178	10.93902	ppb	94
5) Vinyl chloride	4.84	62	60016	10.26932	ppb	96
6) Bromomethane	5.73	94	36120	8.98448	ppb	99
7) Chloroethane	5.91	64	43400	8.68552	ppb	97
8) Dichlorofluoromethane	6.01	67	379423	10.18783	ppb	98
9) Trichlorofluoromethane	6.52	103	41392	9.40051	ppb	100
10) Acetonitrile	7.64	41	153034	136.62254	ug/l	100
11) Acrolein	7.15	56	126649	105.25835	ppb	99
12) Acetone	7.27	43	22954	9.56541	ppb	# 80
13) Freon-113	7.45	101	120628	9.21516	ppb	96
14) 1,1-DCE	7.66	96	111785	8.50248	ppb	94
15) t-Butanol	7.75	59	62102	120.60359	ppb	# 86
16) Methyl Acetate	8.16	43	81985	9.83999	ppb	97
17) Iodomethane	8.14	142	165551	8.59169	ppb	100
18) Acrylonitrile	8.54	53	30668	9.43134	ppb	92
19) Methylene chloride	8.45	84	154213	9.53576	ppb	89
20) Carbon disulfide	8.54	76	47616	8.28981	ppb	97
21) Methyl t-butyl ether (MtBE)	8.88	73	306605	9.08089	ppb	97
22) Trans-1,2-DCE	9.07	96	139119	9.03318	ppb	99
23) Diisopropyl Ether	9.72	45	651101	9.67282	ppb	99
24) 1,1-DCA	9.76	63	333562	9.41697	ppb	99
25) Vinyl Acetate	9.40	43	41775	9.49268	ppb	94
26) Ethyl tert Butyl Ether	10.42	59	461215	9.27035	ppb	100
27) MEK (2-Butanone)	10.41	43	17830	8.69539	ppb	97
28) Cis-1,2-DCE	10.78	96	194488	10.20784	ppb	96
29) 2,2-Dichloropropane	10.78	77	239629	10.00906	ppb	97
30) Chloroform	11.07	85	190808	9.63444	ppb	98
31) Bromochloromethane	11.28	128	75134	9.32302	ppb	90
33) 1,1,1-TCA	11.80	97	226024	9.33936	ppb	98
34) Cyclohexane	11.97	56	187691	9.06387	ppb	96
35) 1,1-Dichloropropene	12.07	75	193256	9.13796	ppb	98
36) 2,2,4-Trimethylpentane	12.14	57	482071	11.74529	ppb	97
38) Carbon Tetrachloride	12.26	117	192220	9.11362	ppb	99
39) Tert Amyl Methyl Ether	12.31	73	364746	9.31164	ppb	97
40) 1,2-DCA	12.34	62	149355	9.20413	ppb	97
41) Benzene	12.47	78	658167	9.28097	ppb	99
42) TCE	13.49	95	163078	9.55921	ppb	97

Data File : M:\CHICO\DATA\C120410\0418C03W.D Vial: 1  
 Acq On : 18 Apr 12 10:41 Operator: SV  
 Sample : 10ug/L Vol Std 04-18-12 Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 18 11:24 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	13.16	43	762795	120.54709	ppb	100
44) 1,2-Dichloropropane	13.72	63	199832	9.52654	ppb	99
45) Bromodichloromethane	14.07	83	197023	9.68938	ppb	96
46) Methyl Cyclohexane	13.77	83	164488	9.39781	ppb	99
47) Dibromomethane	14.13	93	76748	9.34631	ppb	94
48) 2-Chloroethyl vinyl ether	14.53	63	68958	9.68023	ppb	91
49) 1-Bromo-2-chloroethane	14.84	63	173154	9.06129	ppb	100
50) <del>Cis-1,3-Dichloropropene</del>	14.96	75	249738	<del>9.02930</del>	<del>ppb</del>	95
51) Toluene	15.59	91	674702	9.75098	ppb	100
52) <u>Trans-1,3-Dichloropropene</u>	15.76	75	185228	<u>9.39083</u>	<u>ppb</u>	98
53) 1,1,2-TCA	16.04	83	95968	9.63622	ppb	95
56) 1,2-EDB	17.29	107	106922	9.18190	ppb	97
57) Tetrachloroethene	16.74	164	122112	8.61501	ppb	97
58) 1-Chlorohexane	17.66	91	252364	9.56593	ppb	93
59) 1,1,1,2-Tetrachloroethane	18.11	131	178251	9.29473	ppb	91
60) m&p-Xylene	18.31	106	640100	18.63891	ppb	98
61) o-Xylene	19.06	106	331341	9.26025	ppb	95
62) Styrene	19.08	104	524728	9.29001	ppb	100
64) 2-Hexanone	16.07	43	46077	8.40254	ppb	95
65) 1,3-Dichloropropane	16.44	76	199750	8.85797	ppb	98
66) Dibromochloromethane	16.93	129	138521	9.06600	ppb	92
67) Chlorobenzene	18.05	112	504880	9.48017	ppb	98
68) Ethylbenzene	18.17	91	812556	9.57250	ppb	96
69) Bromoform	19.59	173	59778	8.77142	ppb	90
71) MIBK (methyl isobutyl keto)	14.63	43	83722	10.11126	ppb	99
72) Isopropylbenzene	19.68	105	816596	9.80493	ppb	98
73) 1,1,2,2-Tetrachloroethane	19.84	83	114061	9.73476	ppb	97
74) 1,2,3-Trichloropropane	20.10	110	10893	8.77106	ppb	83
75) t-1,4-Dichloro-2-Butene	20.17	53	25381	9.38762	ppb	91
76) Bromobenzene	20.42	156	182664	9.04629	ppb	97
77) n-Propylbenzene	20.39	91	969779	9.95813	ppb	99
78) 4-Ethyltoluene	20.58	105	565992	9.85628	ppb	97
79) 2-Chlorotoluene	20.68	91	606719	9.48014	ppb	97
80) 1,3,5-Trimethylbenzene	20.66	105	662319	9.62513	ppb	98
81) 4-Chlorotoluene	20.77	91	559595	9.69729	ppb	100
82) Tert-Butylbenzene	21.30	119	743317	9.52669	ppb	97
83) 1,2,4-Trimethylbenzene	21.36	105	685142	9.86795	ppb	98
84) Sec-Butylbenzene	21.70	105	910955	9.70399	ppb	97
85) p-Isopropyltoluene	21.94	119	772143	9.63961	ppb	97
86) Benzyl Chloride	22.37	91	186990	9.90635	ppb	96
87) 1,3-DCB	22.07	146	393222	9.61225	ppb	99
88) 1,4-DCB	22.24	146	383707	9.68255	ppb	97
89) Hexachloroethane	23.54	117	170550	10.57049	ppb	97
90) n-Butylbenzene	22.64	91	642200	9.81062	ppb	98
91) 1,2-DCB	22.88	146	353622	9.88166	ppb	97
92) 1,2-Dibromo-3-chloropropan	24.09	155	14633	8.81181	ppb	# 77
93) 1,2,4-Trichlorobenzene	25.54	180	86013	9.39912	ppb	98
94) Hexachlorobutadiene	25.79	223	88686	9.19721	ppb	99
95) Naphthalene	25.89	128	371259	8.66780	ppb	99
96) 1,2,3-Trichlorobenzene	26.24	180	70012	8.70636	ppb	97

*1,3-dichloropropane, total  
18.42013 ppb*

Quantitation Report

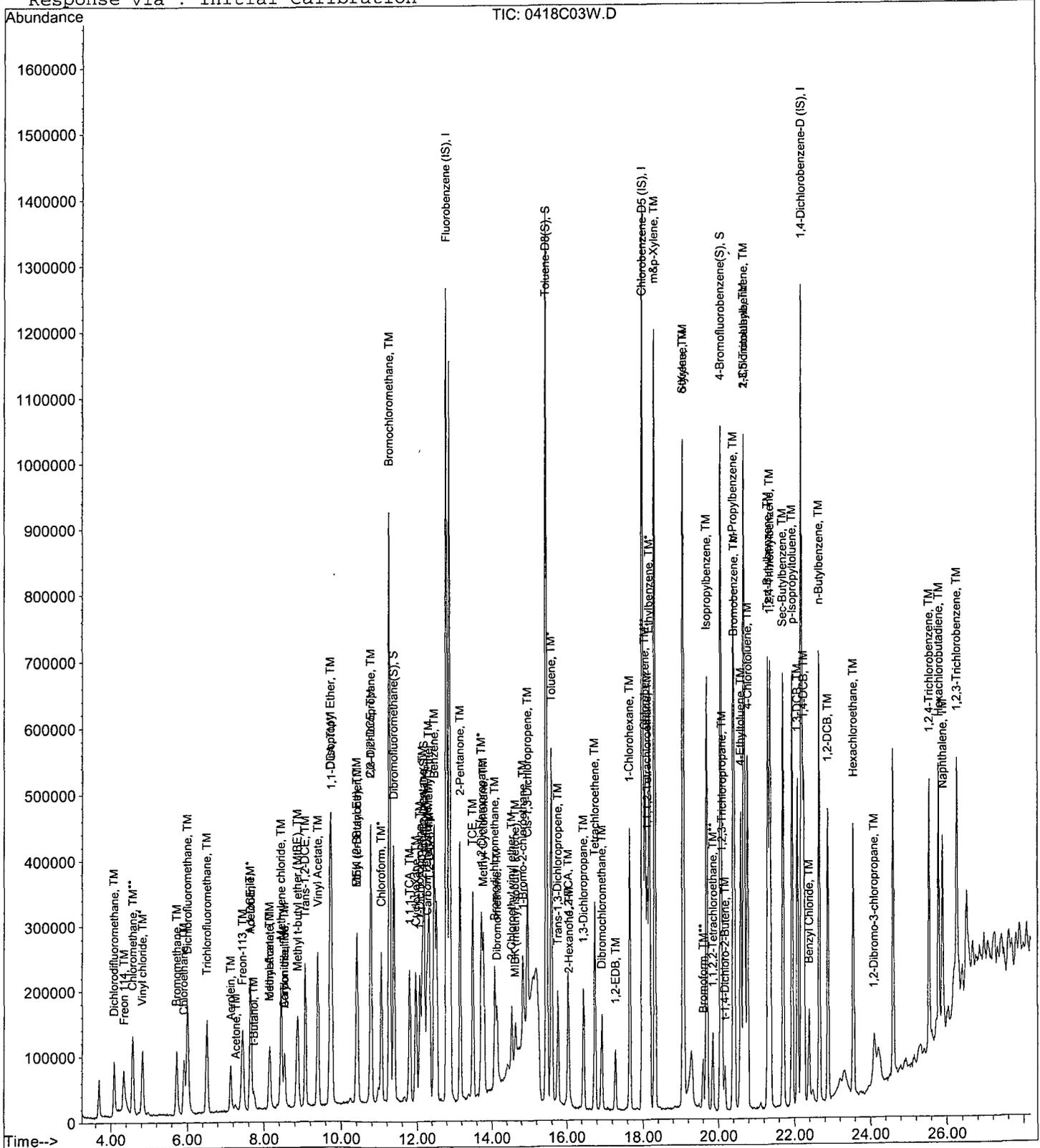
Data File : M:\CHICO\DATA\C120410\0418C03W.D  
Acq On : 18 Apr 12 10:41  
Sample : 10ug/L Vol Std 04-18-12  
Misc : Water 10mL w/IS&S:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 18 11:24 2012

Quant Results File: CALLW3.RES

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 2012  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 04/11/12  
Instrument: Thor

Initials: \_\_\_\_\_

0411T32W.D    0411T33W.D    0411T34W.D    0411T35W.D    0411T36W.D    0411T37W.D    0411T38W.D

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

ARS 4/12/12

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 04/11/12  
Instrument: Thor

Initials: \_\_\_\_\_

		Compound	0.5	1	5	10	20	40	100				Avg	%RSD		
36	S	1,2-DCA-D4(S)	0.4021	0.3921	0.3878	0.3648	0.3689	0.3637	0.3823				0.38	3.9	S	r2
37	TM	Carbon Tetrachloride	0.4284	0.4469	0.4076	0.4245	0.4302	0.4421	0.4956				0.44	6.3	TM	
38	TM	Tert Amyl Methyl Ether	0.7212	0.7513	0.7043	0.6886	0.6845	0.6709	0.6717				0.70	4.2	TM	
39	TM	1,2-DCA	0.4508	0.4302	0.4449	0.4378	0.4296	0.4149	0.4456				0.44	2.8	TM	
40	TM	Benzene	1.468	1.441	1.393	1.390	1.358	1.344	1.464				1.4	3.5	TM	
41	TM	TCE	0.4278	0.4235	0.3949	0.3868	0.3765	0.3714	0.4077				0.40	5.6	TM	
42	TM	2-Pentanone	0.1774	0.1766	0.1757	0.1736	0.1778	0.1785	0.1876				0.18	2.5	TM	
43	TM*	1,2-Dichloropropane	0.4530	0.4039	0.4191	0.4200	0.4038	0.3992	0.4305				0.42	4.5	TM*	✓
44	TM	Bromodichloromethane	0.5255	0.5098	0.5199	0.5034	0.5066	0.5028	0.5548				0.52	3.6	TM	
45	TM	Methyl Cyclohexane	0.3136	0.3328	0.2986	0.3321	0.3295	0.3450	0.3883				0.33	8.4	TM	
46	TM	Dibromomethane	0.2157	0.2295	0.2255	0.2173	0.2208	0.2110	0.2283				0.22	3.1	TM	
47	TML	2-Chloroethyl vinyl ether													TML	
48	TM	MIBK (methyl isobutyl ketone)	0.1441	0.1503	0.1319	0.1304	0.1278	0.1264	0.1369				0.14	6.6	TM	
49	TM	1-Bromo-2-chloroethane	0.2817	0.3012	0.2766	0.2633	0.2557	0.2585	0.2757				0.27	5.8	TM	
50	TM	Cis-1,3-Dichloropropene	0.5068	0.5408	0.5454	0.5355	0.5504	0.5560	0.6255				0.55	6.6	TM	
51	TM*	Toluene	1.720	1.706	1.588	1.620	1.583	1.593	1.755				1.7	4.4	TM*	✓
52	TM	Trans-1,3-Dichloropropene	0.4049	0.4580	0.4580	0.4572	0.4572	0.4735	0.5274				0.46	7.8	TM	
53	TM	1,1,2-TCA	0.3339	0.2861	0.3058	0.2880	0.2757	0.2754	0.2979				0.29	7.0	TM	
54	TM	2-Hexanone	0.1688	0.1443	0.1515	0.1473	0.1494	0.1449	0.1561				0.15	5.6	TM	
55	I	Chlorobenzene-D5 (IS)														
56	S	Toluene-D8(S)	1.700	1.637	1.626	1.643	1.691	1.645	1.734				1.7	2.4	S	
57	TM	1,2-EDB	0.3430	0.3529	0.3888	0.3881	0.3804	0.3681	0.3953				0.37	5.3	TM	
58	TM	Tetrachloroethene	0.5441	0.5656	0.5108	0.5439	0.5075	0.4983	0.5506				0.53	4.8	TM	
59	TM	1-Chlorohexane	0.6397	0.5987	0.4930	0.5409	0.5279	0.5290	0.6110				0.56	9.5	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.5054	0.4801	0.4963	0.5086	0.4944	0.4901	0.5458				0.50	4.2	TM	
61	TM	m&p-Xylene	0.8051	0.8242	0.8245	0.8658	0.8623	0.8617	0.9654				0.86	6.2	TM	
62	TM	o-Xylene	0.8295	0.7829	0.8351	0.8760	0.8568	0.8530	0.9571				0.86	6.2	TM	
63	TM	Styrene	1.258	1.332	1.368	1.462	1.475	1.489	1.684				1.4	9.6	TM	
64	S	4-Bromofluorobenzene(S)	0.7053	0.6824	0.6818	0.6834	0.6802	0.6767	0.7265				0.69	2.6	S	
65	TM	1,3-Dichloropropane	0.6519	0.7194	0.6736	0.6904	0.6435	0.6242	0.6670				0.67	4.7	TM	
66	TM	Dibromochloromethane	0.4218	0.5036	0.4719	0.4912	0.4718	0.4665	0.5172				0.48	6.5	TM	
67	TM**	Chlorobenzene	1.504	1.429	1.414	1.423	1.384	1.359	1.479				1.4	3.5	TM**	✓
68	TM*	Ethylbenzene	2.106	2.245	2.141	2.264	2.223	2.192	2.451				2.2	5.0	TM*	✓
69	TM**	Bromoform	0.3092	0.3060	0.3219	0.3251	0.3119	0.3097	0.3457				0.32	4.4	TM**	✓
70	I	1,4-Dichlorobenzene-D (IS)														

ARS 4/12/12

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 04/11/12  
Instrument: Thor

Initials: \_\_\_\_\_

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

ARS 4/12/12

Data File : M:\THOR\DATA\T120411\0411T31W.D Vial: 31  
 Acq On : 11 Apr 12 22:40 Operator: DG,RS,HW,ARS,SV  
 Sample : 0.3ug/L VOL STD 4-11-12 Inst : Thor  
 Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	456704	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	372672	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	210688	25.00000	ppb	0.00

System Monitoring Compounds

31) Dibromofluoromethane(S)	5.96	111	6110	0.80230	ppb	0.00
Spiked Amount	29.720		Recovery	=	2.698%	
36) 1,2-DCA-D4(S)	6.34	65	5320	0.76588	ppb	0.00
Spiked Amount	29.608		Recovery	=	2.587%	
56) Toluene-D8(S)	8.44	98	19356	0.77847	ppb	0.00
Spiked Amount	31.981		Recovery	=	2.433%	
64) 4-Bromofluorobenzene(S)	11.06	95	9435	0.91609	ppb	0.00
Spiked Amount	29.353		Recovery	=	3.121%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.31	85	1551	0.28201	ppb	91
3) Freon 114	1.42	85	1031	0.25977	ppb	94
4) Chloromethane	1.46	50	3014	1.05698	ppb	82
5) Vinyl chloride	1.57	62	2744	0.31464	ppb	83
6) Bromomethane	1.88	94	2980	0.47567	ppb	86
7) Chloroethane	1.98	64	1935	0.39893	ppb	96
8) Dichlorofluoromethane	2.19	67	114	1.15218	ppb	# 48
9) Trichlorofluoromethane	2.25	101	366	0.37986	ppb	# 20
10) Acrolein	2.71	55	6751	14.60290	ppb	83
11) Acetone	2.92	43	1407	-0.71772	ppb	# 68
12) Freon-113	2.87	101	1230	0.26745	ppb	92
13) 1,1-DCE	2.84	61	2318	0.30276	ppb	# 84
14) t-Butanol	3.72	59	1750	-25.00000	ppb	98
15) Methyl Acetate	3.36	43	3755	0.46335	ppb	91
16) Iodomethane	3.00	142	4292	0.53054	ppb	92
17) Acrylonitrile	3.84	52	112	0.08876	ppb	# 1
18) Methylene chloride	3.47	84	1861	0.75337	ppb	# 74
19) Carbon disulfide	3.08	76	1191	0.44323	ppb	# 82
20) Methyl t-butyl ether (MtBE)	3.93	73	4100	0.48827	ppb	93
21) Trans-1,2-DCE	3.89	96	2351	0.45491	ppb	95
22) Diisopropyl Ether	4.72	59	1031	0.46071	ppb	# 83
23) 1,1-DCA	4.53	63	5427	0.47879	ppb	95
24) Vinyl Acetate	4.72	87	2473	0.44363	ppb	93
25) Ethyl tert Butyl Ether	5.23	59	5139	0.44392	ppb	89
26) MEK (2-Butanone)	5.41	43	1588	0.75189	ppb	98
27) Cis-1,2-DCE	5.34	96	3696	0.49132	ppb	80
28) 2,2-Dichloropropane	5.34	77	1454	0.33882	ppb	# 76
29) Chloroform	5.77	83	5924	0.47462	ppb	96
30) Bromochloromethane	5.64	128	1629	0.45249	ppb	95
32) 1,1,1-TCA	5.98	97	3196	0.38945	ppb	88
33) Cyclohexane	6.05	41	1195	0.39147	ppb	# 1
34) 1,1-Dichloropropene	6.18	75	2495	0.34558	ppb	86
35) 2,2,4-Trimethylpentane	6.56	57	2916	0.30524	ppb	# 40
37) Carbon Tetrachloride	6.18	117	2718	0.33866	ppb	# 95
38) Tert Amyl Methyl Ether	6.61	73	5342	0.41839	ppb	# 89
39) 1,2-DCA	6.44	62	3713	0.46589	ppb	# 91
40) Benzene	6.42	78	13731	0.53369	ppb	93
41) TCE	7.16	95	3389	0.46567	ppb	89
42) 2-Pentanone	7.38	43	50570	15.53597	ppb	98

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

Data File : M:\THOR\DATA\T120411\0411T31W.D  
 Acq On : 11 Apr 12 22:40  
 Sample : 0.3ug/L VOL STD 4-11-12  
 Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 31  
 Operator: DG, RS, HW, ARS, SV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012

Quant Results File: TALLW.RES

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

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 1,2-Dichloropropane	7.39	63	3630	0.47479	ppb	97
44) Bromodichloromethane	7.69	83	4953	0.52387	ppb #	84
45) Methyl Cyclohexane	7.38	83	1765	0.28902	ppb	90
46) Dibromomethane	7.50	93	1707	0.42250	ppb #	84
48) MIBK (methyl isobutyl ket	8.34	43	1065	0.43050	ppb #	80
49) 1-Bromo-2-chloroethane	8.00	63	2197	0.44014	ppb	92
50) Cis-1,3-Dichloropropene	8.16	75	4443	0.44102	ppb	95
51) Toluene	8.51	91	13063	0.43279	ppb	98
52) Trans-1,3-Dichloropropene	8.74	75	3240	0.38363	ppb #	43
53) 1,1,2-TCA	8.92	83	2087	0.38768	ppb	88
54) 2-Hexanone	9.19	43	1371	0.49455	ppb	90
57) 1,2-EDB	9.41	107	2380	0.42710	ppb	86
58) Tetrachloroethene	9.07	166	2759	0.34820	ppb	90
59) 1-Chlorohexane	9.91	91	2481	0.29568	ppb	93
60) 1,1,1,2-Tetrachloroethane	10.00	131	3382	0.45109	ppb	100
61) m&p-Xylene	10.16	106	10235	0.79716	ppb	93
62) o-Xylene	10.55	106	5665	0.44408	ppb	98
63) Styrene	10.56	104	8347	0.38932	ppb	90
65) 1,3-Dichloropropane	9.08	76	4604	0.46292	ppb	98
66) Dibromochloromethane	9.30	129	2887	0.40540	ppb	91
67) Chlorobenzene	9.92	112	10717	0.50366	ppb	97
68) Ethylbenzene	10.04	91	14587	0.43847	ppb	92
69) Bromoform	10.73	173	1692	0.35638	ppb	90
71) Isopropylbenzene	10.92	105	10894	0.36998	ppb	97
72) 1,1,2,2-Tetrachloroethane	11.20	83	2918	0.45685	ppb #	78
73) 1,2,3-Trichloropropane	11.24	110	1036	0.51071	ppb	78
74) t-1,4-Dichloro-2-Butene	11.25	53	389	0.31687	ppb	99
75) Bromobenzene	11.21	156	4731	0.49934	ppb	87
76) n-Propylbenzene	11.33	91	12612	0.35152	ppb	95
77) 4-Ethyltoluene	11.45	105	7778	0.37949	ppb	95
78) 2-Chlorotoluene	11.40	91	11643	0.46887	ppb	95
79) 1,3,5-Trimethylbenzene	11.51	105	9635	0.36890	ppb	95
80) 4-Chlorotoluene	11.51	91	11768	0.45292	ppb	93
81) Tert-Butylbenzene	11.83	119	6976	0.30793	ppb	93
82) 1,2,4-Trimethylbenzene	11.88	105	10539	0.39890	ppb	83
83) Sec-Butylbenzene	12.05	105	9864	0.31689	ppb	98
84) p-Isopropyltoluene	12.20	119	8332	0.30861	ppb #	91
85) Benzyl Chloride	12.37	91	2833	0.36145	ppb #	91
86) 1,3-DCB	12.14	146	9041	0.48865	ppb	98
87) 1,4-DCB	12.24	146	9239	0.49902	ppb	93
88) n-Butylbenzene	12.61	91	7940	0.34487	ppb	99
89) 1,2-DCB	12.60	146	8667	0.50690	ppb	93
90) Hexachloroethane	12.86	117	2160	0.45004	ppb #	68
91) 1,2-Dibromo-3-chloropropan	13.38	157	417	0.33154	ppb	85
92) 1,2,4-Trichlorobenzene	14.21	180	3133	0.42712	ppb	96
93) Hexachlorobutadiene	14.40	223	1488	0.47393	ppb #	67
94) Naphthalene	14.45	128	6417	0.33456	ppb	93
95) 1,2,3-Trichlorobenzene	14.69	180	4225	0.40799	ppb	95

(#) = qualifier out of range (m) = manual integration  
 0411T31W.D TALLW.M Thu Apr 19 16:39:41 2012

Quantitation Report

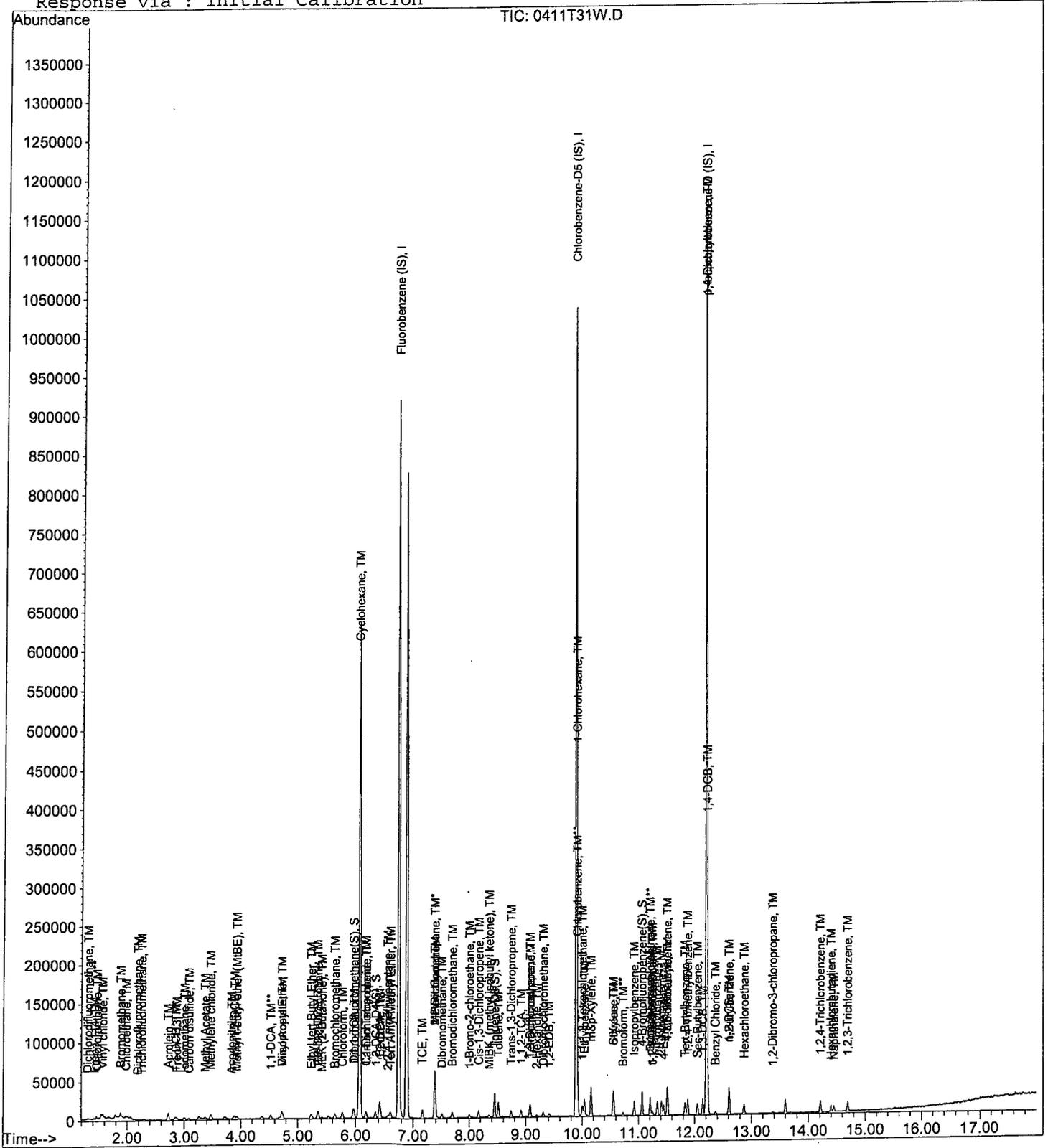
Data File : M:\THOR\DATA\T120411\0411T31W.D  
Acq On : 11 Apr 12 22:40  
Sample : 0.3ug/L VOL STD 4-11-12  
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 31  
Operator: DG,RS,HW,ARS,SV  
Inst : Thor  
Multiplr: 1.00

Quant Time: Apr 12 8:55 2012

Quant Results File: TALLW.RES

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



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

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	467648	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	388928	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	215808	25.00000	ppb	0.00

System Monitoring Compounds

31) Dibromofluoromethane(S)	5.96	111	7887	1.01140	ppb	0.00
Spiked Amount	29.720		Recovery	=	3.402%	
36) 1,2-DCA-D4 (S)	6.35	65	7521	1.05740	ppb	0.00
Spiked Amount	29.608		Recovery	=	3.570%	
56) Toluene-D8 (S)	8.44	98	26440	1.01893	ppb	0.00
Spiked Amount	31.981		Recovery	=	3.186%	
64) 4-Bromofluorobenzene(S)	11.06	95	10973	1.02089	ppb	0.00
Spiked Amount	29.353		Recovery	=	3.478%	

Target Compounds

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

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

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

Quant Time: Apr 12 8:55 2012

Quant Results File: TALLW.RES

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

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

(#) = qualifier out of range (m) = manual integration  
 0411T32W.D TALLW.M Thu Apr 19 16:39:49 2012

Quantitation Report

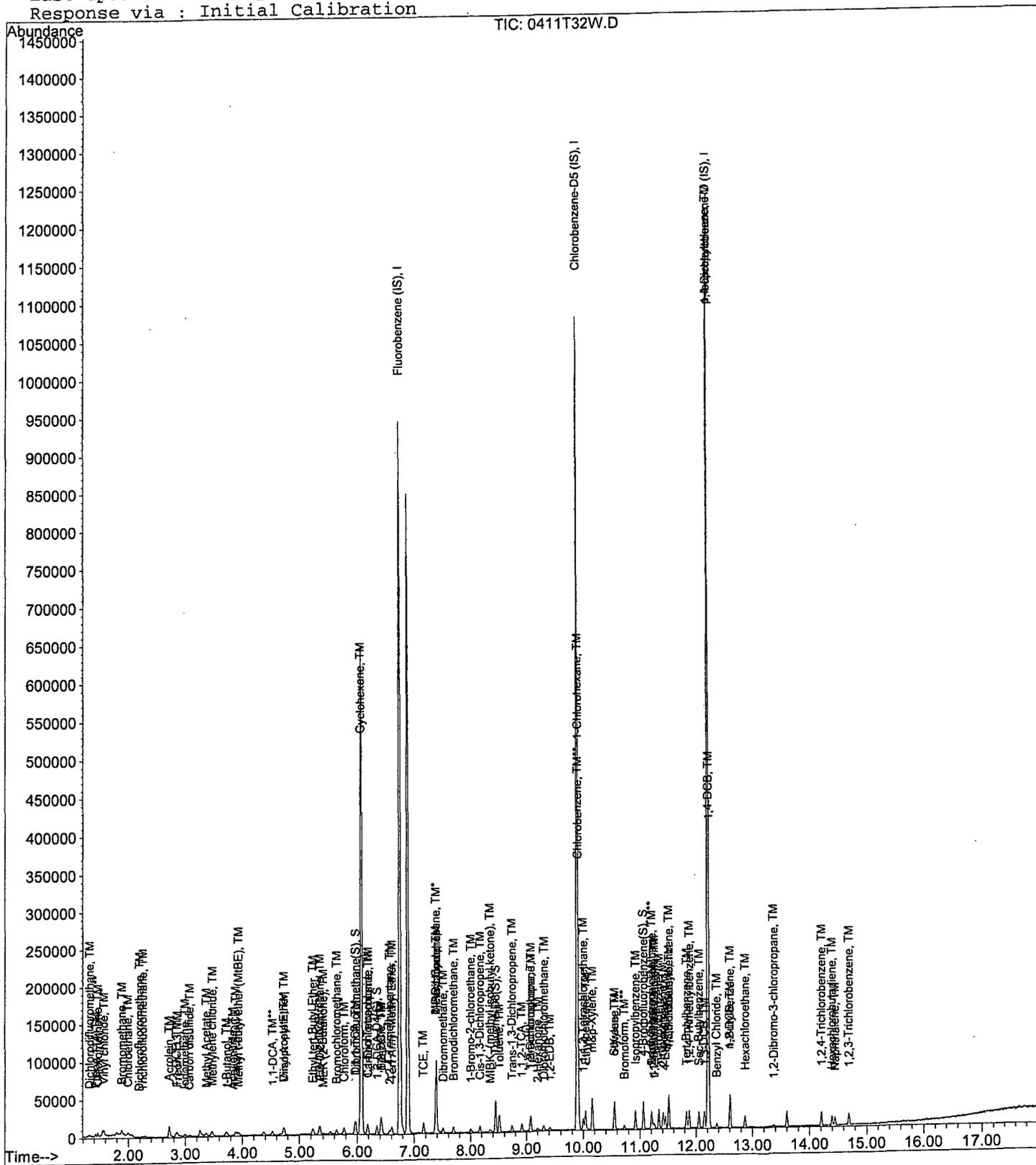
Data File : M:\THOR\DATA\T120411\0411T32W.D  
Acq On : 11 Apr 12 23:07  
Sample : 0.5ug/L VOL STD 4-11-12  
Misc : 10ml w/5ul of IS&S: 03-26-12

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

Quant Time: Apr 12 8:55 2012

Quant Results File: TALLW.RES

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



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

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	444352	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	371264	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	211712	25.00000	ppb	0.00

System Monitoring Compounds

31) Dibromofluoromethane(S)	5.96	111	15620	2.10807	ppb	0.00
Spiked Amount	29.720		Recovery	= 7.093%		
36) 1,2-DCA-D4(S)	6.34	65	13940	2.06261	ppb	0.00
Spiked Amount	29.608		Recovery	= 6.968%		
56) Toluene-D8(S)	8.44	98	48633	1.96336	ppb	0.00
Spiked Amount	31.981		Recovery	= 6.138%		
64) 4-Bromofluorobenzene(S)	11.06	95	20268	1.97538	ppb	0.00
Spiked Amount	29.353		Recovery	= 6.728%		

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.30	85	5171	0.96635	ppb	94
3) Freon 114	1.42	85	3703	0.95894	ppb	96
4) Chloromethane	1.45	50	6343	1.69716	ppb	91
5) Vinyl chloride	1.56	62	8578	1.01095	ppb	96
6) Bromomethane	1.88	94	6677	1.09542	ppb	94
7) Chloroethane	1.98	64	4449	0.94274	ppb	89
8) Dichlorofluoromethane	2.19	67	454	1.51866	ppb	# 83
9) Trichlorofluoromethane	2.25	101	2439	1.14420	ppb	93
10) Acrolein	2.70	55	20453	45.47112	ppb	85
11) Acetone	2.92	43	2731	0.34467	ppb	# 70
12) Freon-113	2.86	101	3989	0.89148	ppb	93
13) 1,1-DCE	2.83	61	7248	0.97300	ppb	93
14) t-Butanol	3.71	59	5339	57.50412	ppb	# 92
15) Methyl Acetate	3.36	43	9170	1.86324	ppb	85
16) Iodomethane	2.99	142	7453	0.94688	ppb	# 95
17) Acrylonitrile	3.83	52	1143	0.93101	ppb	96
18) Methylene chloride	3.47	84	2713	1.12881	ppb	83
19) Carbon disulfide	3.07	76	2642	1.01054	ppb	94
20) Methyl t-butyl ether (MtBE)	3.93	73	7925	0.97002	ppb	# 88
21) Trans-1,2-DCE	3.88	96	4632	0.92118	ppb	95
22) Diisopropyl Ether	4.72	59	2121	0.97414	ppb	# 54
23) 1,1-DCA	4.52	63	11550	1.04731	ppb	95
24) Vinyl Acetate	4.73	87	5345	0.98549	ppb	82
25) Ethyl tert Butyl Ether	5.23	59	11885	1.05520	ppb	95
26) MEK (2-Butanone)	5.41	43	2872	1.47108	ppb	84
27) Cis-1,2-DCE	5.34	96	7358	1.00532	ppb	92
28) 2,2-Dichloropropane	5.33	77	4222	1.01117	ppb	96
29) Chloroform	5.77	83	12617	1.03894	ppb	94
30) Bromochloromethane	5.64	128	3677	1.04976	ppb	90
32) 1,1,1-TCA	5.97	97	7923	0.99230	ppb	90
33) Cyclohexane	6.05	41	3102	1.04443	ppb	# 69
34) 1,1-Dichloropropene	6.18	75	7376	1.05005	ppb	97
35) 2,2,4-Trimethylpentane	6.56	57	8676	0.93343	ppb	93
37) Carbon Tetrachloride	6.18	117	7943	1.01719	ppb	92
38) Tert Amyl Methyl Ether	6.60	73	13354	1.07498	ppb	97
39) 1,2-DCA	6.43	62	7647	0.98618	ppb	94
40) Benzene	6.41	78	25620	1.02346	ppb	97
41) TCE	7.16	95	7528	1.06315	ppb	90
42) 2-Pentanone	7.38	43	156962	49.56187	ppb	99

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

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

Quant Time: Apr 12 8:55 2012

Quant Results File: TALLW.RES

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

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

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

0411T33W.D TALLW.M Thu Apr 19 16:39:57 2012

Quantitation Report

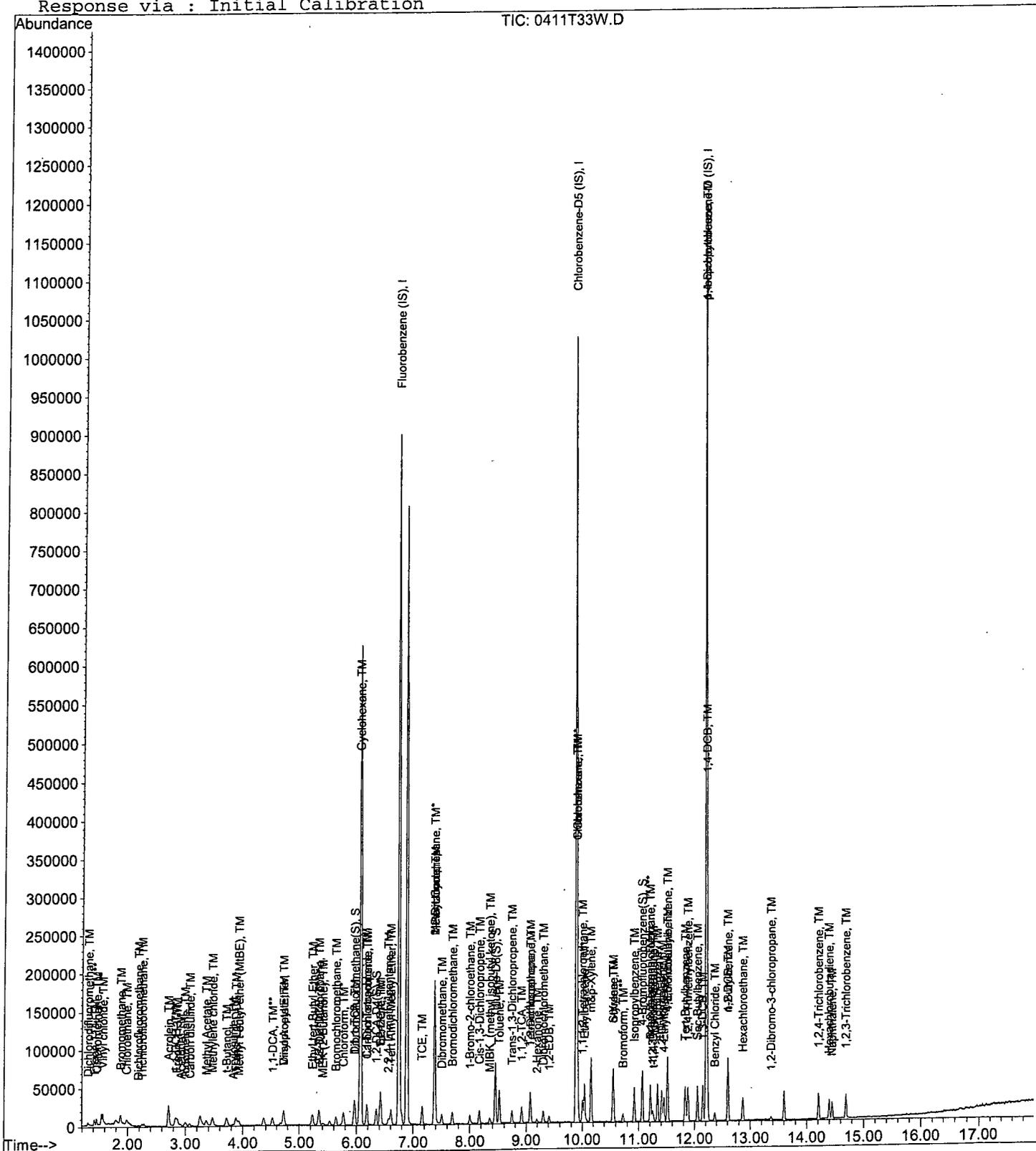
Data File : M:\THOR\DATA\T120411\0411T33W.D  
Acq On : 11 Apr 12 23:35  
Sample : 1.0ug/L VOL STD 4-11-12  
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 33  
Operator: DG,RS,HW,ARS,SV  
Inst : Thor  
Multiplr: 1.00

Quant Time: Apr 12 8:55 2012

Quant Results File: TALLW.RES

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



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

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	474816	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	397952	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	240384	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Dibromofluoromethane(S)	5.96	111	77152	9.74436	ppb	0.00
Spiked Amount				29.720		
				Recovery	=	32.786%
36) 1,2-DCA-D4(S)	6.34	65	73660	10.19972	ppb	0.00
Spiked Amount				29.608		
				Recovery	=	34.450%
56) Toluene-D8(S)	8.44	98	258761	9.74587	ppb	0.00
Spiked Amount				31.981		
				Recovery	=	30.475%
64) 4-Bromofluorobenzene(S)	11.06	95	108524	9.86772	ppb	0.00
Spiked Amount				29.353		
				Recovery	=	33.619%

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

(#) = qualifier out of range (m) = manual integration  
 0411T34W.D TALLW.M Thu Apr 19 16:40:04 2012

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

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

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

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

Quantitation Report

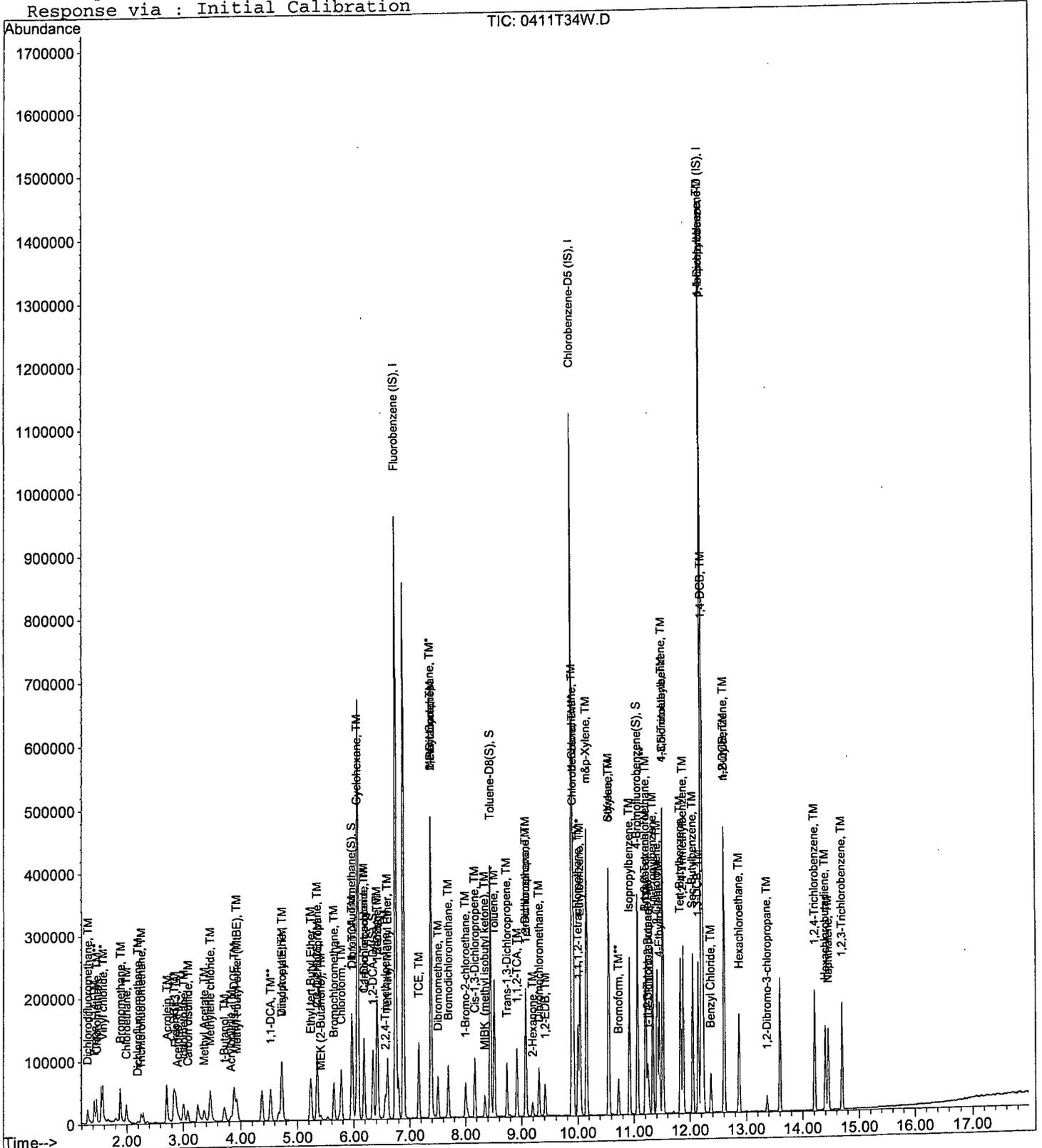
Data File : M:\THOR\DATA\T120411\0411T34W.D  
Acq On : 12 Apr 12 00:03  
Sample : 5.0ug/L VOL STD 4-11-12  
Misc : 10ml w/5ul of IS&S: 03-26-12

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

Quant Time: Apr 12 8:55 2012

Quant Results File: TALLW.RES

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



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

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	482688	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	391232	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	241024	25.00000	ppb	0.00

System Monitoring Compounds

31) Dibromofluoromethane(S)	5.96	111	190685	23.69089	ppb	0.00
Spiked Amount	29.720		Recovery	=	79.713%	
36) 1,2-DCA-D4 (S)	6.34	65	176098	23.98666	ppb	0.00
Spiked Amount	29.608		Recovery	=	81.015%	
56) Toluene-D8(S)	8.44	98	642685	24.62159	ppb	0.00
Spiked Amount	31.981		Recovery	=	76.990%	
64) 4-Bromofluorobenzene(S)	11.06	95	267387	24.73020	ppb	0.00
Spiked Amount	29.353		Recovery	=	84.251%	

Target Compounds

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

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

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

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

Quant Time: Apr 12 8:55 2012

Quant Results File: TALLW.RES

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

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

(#) = qualifier out of range (m) = manual integration  
 0411T35W.D TALLW.M Thu Apr 19 16:40:13 2012



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

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	476800	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	398720	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	243648	25.00000	ppb	0.00

System Monitoring Compounds

31) Dibromofluoromethane(S)	5.96	111	316087	39.75591	ppb	0.00
Spiked Amount	29.720			Recovery =	133.767%	
36) 1,2-DCA-D4(S)	6.34	65	281400	38.80340	ppb	0.00
Spiked Amount	29.608			Recovery =	131.056%	
56) Toluene-D8(S)	8.44	98	1078758	40.55163	ppb	0.00
Spiked Amount	31.981			Recovery =	126.802%	
64) 4-Bromofluorobenzene(S)	11.06	95	433924	39.37924	ppb	0.00
Spiked Amount	29.353			Recovery =	134.158%	

Target Compounds

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

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

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

Quant Time: Apr 12 8:55 2012

Quant Results File: TALLW.RES

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

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

Quantitation Report

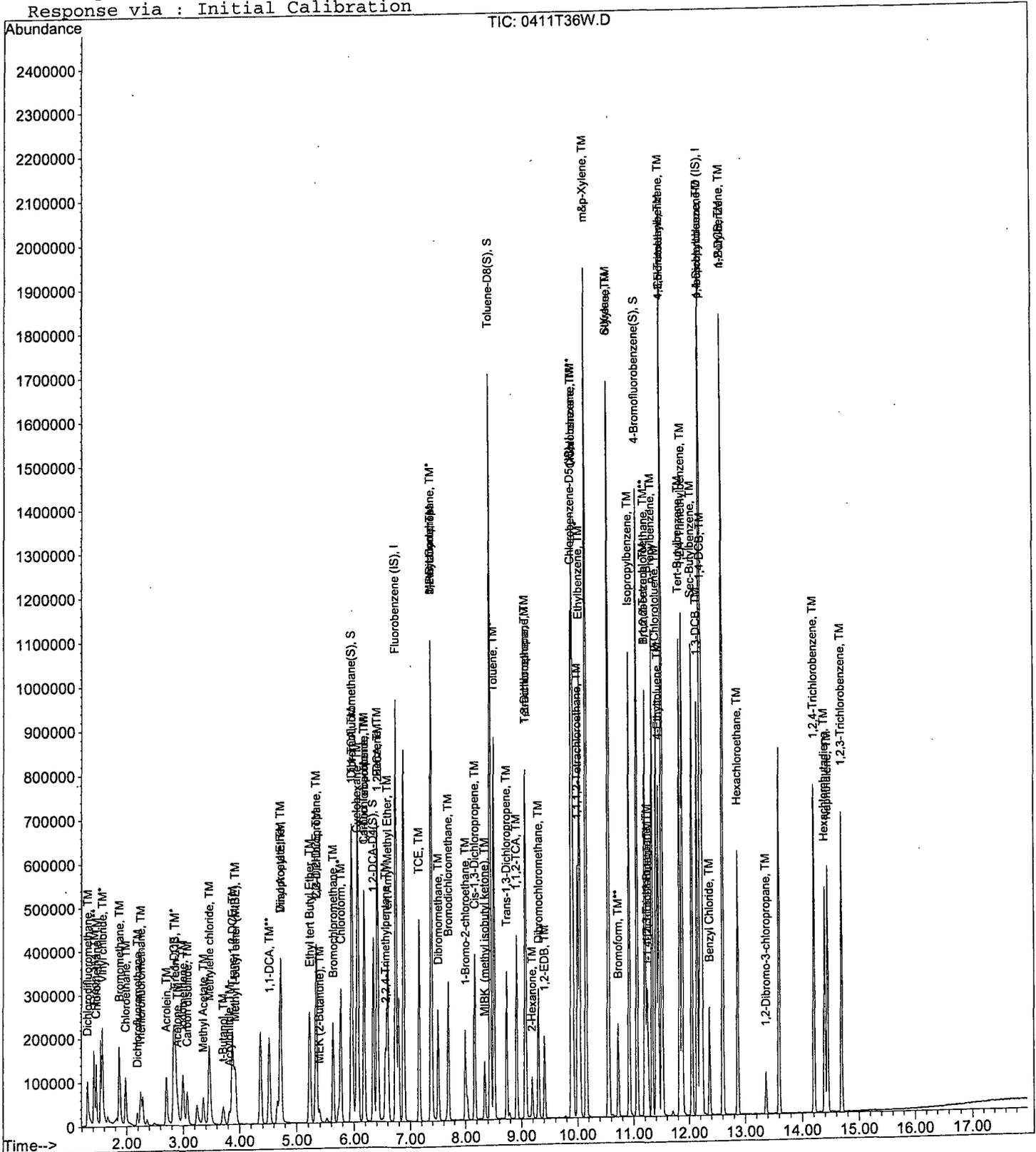
Data File : M:\THOR\DATA\T120411\0411T36W.D  
Acq On : 12 Apr 12 00:58  
Sample : 20ug/L VOL STD 4-11-12  
Misc : 10ml w/5ul of IS&S: 03-26-12

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

Quant Time: Apr 12 8:55 2012

Quant Results File: TALLW.RES

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



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

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	482496	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	411136	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	246912	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Dibromofluoromethane(S)	5.96	111	628249	78.08533	ppb	0.00
Spiked Amount	29.720		Recovery	= 262.732%		
36) 1,2-DCA-D4(S)	6.34	65	561508	76.51457	ppb	0.00
Spiked Amount	29.608		Recovery	= 258.427%		
56) Toluene-D8(S)	8.44	98	2164701	78.91593	ppb	0.00
Spiked Amount	31.981		Recovery	= 246.762%		
64) 4-Bromofluorobenzene(S)	11.06	95	890289	78.35508	ppb	0.00
Spiked Amount	29.353		Recovery	= 266.942%		

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

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

Data File : M:\THOR\DATA\T120411\0411T37W.D  
 Acq On : 12 Apr 12 1:26  
 Sample : 40ug/L VOL STD 4-11-12  
 Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 37  
 Operator: DG, RS, HW, ARS, SV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012

Quant Results File: TALLW.RES

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

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 1,2-Dichloropropane	7.39	63	308167	38.15255	ppb	99
44) Bromodichloromethane	7.69	83	388137	38.85815	ppb	98
45) Methyl Cyclohexane	7.37	83	266352	41.28451	ppb	95
46) Dibromomethane	7.50	93	162915	38.16795	ppb	97
48) MIBK (methyl isobutyl ket	8.34	43	97600	37.34308	ppb	98
49) 1-Bromo-2-chloroethane	8.00	63	199552	37.84036	ppb	100
50) Cis-1,3-Dichloropropene	8.17	75	429208	40.32636	ppb	96
51) Toluene	8.51	91	1230132	38.57693	ppb	98
52) Trans-1,3-Dichloropropene	8.74	75	365532	40.96686	ppb	99
53) 1,1,2-TCA	8.91	83	212622	37.38504	ppb	99
54) 2-Hexanone	9.19	43	111853	38.19118	ppb	96
57) 1,2-EDB	9.41	107	242130	39.38647	ppb	99
58) Tetrachloroethene	9.07	166	327777	37.49687	ppb	98
59) 1-Chlorohexane	9.92	91	347983	37.59174	ppb	99
60) 1,1,1,2-Tetrachloroethane	10.00	131	322428	38.98158	ppb	99
61) m&p-Xylene	10.16	106	1133680	80.03645	ppb	100
62) o-Xylene	10.55	106	561119	39.87128	ppb	98
63) Styrene	10.56	104	979430	41.40906	ppb	98
65) 1,3-Dichloropropane	9.08	76	410625	37.42501	ppb	97
66) Dibromochloromethane	9.31	129	306876	39.06083	ppb	97
67) Chlorobenzene	9.92	112	893888	38.07936	ppb	99
68) Ethylbenzene	10.04	91	1441837	39.28533	ppb	100
69) Bromoform	10.73	173	203730	38.89658	ppb	96
71) Isopropylbenzene	10.92	105	1398944	40.54031	ppb	99
72) 1,1,1,2-Tetrachloroethane	11.20	83	285659	38.16223	ppb	99
73) 1,2,3-Trichloropropane	11.24	110	84625	35.59663	ppb	97
74) t-1,4-Dichloro-2-Butene	11.26	53	57317	39.83922	ppb	90
75) Bromobenzene	11.21	156	421877	37.99502	ppb	98
76) n-Propylbenzene	11.33	91	1717520	40.84771	ppb	99
77) 4-Ethyltoluene	11.45	105	995916	41.46198	ppb	99
78) 2-Chlorotoluene	11.41	91	1156097	39.72620	ppb	100
79) 1,3,5-Trimethylbenzene	11.51	105	1271860	41.55194	ppb	100
80) 4-Chlorotoluene	11.51	91	1205584	39.59216	ppb	98
81) Tert-Butylbenzene	11.83	119	1084027	40.83027	ppb	99
82) 1,2,4-Trimethylbenzene	11.88	105	1285665	41.52319	ppb	100
83) Sec-Butylbenzene	12.05	105	1503607	41.21766	ppb	98
84) p-Isopropyltoluene	12.20	119	1308500	41.35587	ppb	99
85) Benzyl Chloride	12.37	91	361316	39.33590	ppb	98
86) 1,3-DCB	12.15	146	810718	37.38965	ppb	98
87) 1,4-DCB	12.24	146	824255	37.98862	ppb	99
88) n-Butylbenzene	12.61	91	1104682	40.94255	ppb	99
89) 1,2-DCB	12.60	146	760757	37.96614	ppb	96
90) Hexachloroethane	12.87	117	216790	38.54219	ppb	99
91) 1,2-Dibromo-3-chloropropan	13.37	157	61007	41.38807	ppb	90
92) 1,2,4-Trichlorobenzene	14.21	180	345088	40.14390	ppb	98
93) Hexachlorobutadiene	14.40	223	136894	37.20407	ppb	88
94) Naphthalene	14.45	128	957617	42.60191	ppb	99
95) 1,2,3-Trichlorobenzene	14.69	180	482671	39.77118	ppb	96



Data File : M:\THOR\DATA\T120411\0411T38W.D Vial: 38  
 Acq On : 12 Apr 12 1:53 Operator: DG,RS,HW,ARS,SV  
 Sample : 100ug/L VOL STD 4-11-12 Inst : Thor  
 Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	479168	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	413824	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	254336	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Dibromofluoromethane(S)	5.96	111	832997	104.25262	ppb	0.00
Spiked Amount				29.720		
				Recovery =	350.779%	
36) 1,2-DCA-D4(S)	6.34	65	732688	100.53405	ppb	0.00
Spiked Amount				29.608		
				Recovery =	339.550%	
56) Toluene-DB(S)	8.44	98	2870588	103.96986	ppb	0.00
Spiked Amount				31.981		
				Recovery =	325.103%	
64) 4-Bromofluorobenzene(S)	11.06	95	1202580	105.15258	ppb	0.00
Spiked Amount				29.353		
				Recovery =	358.238%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.30	85	715449	123.98706	ppb	99
3) Freon 114	1.42	85	480585	115.41057	ppb	99
4) Chloromethane	1.46	50	758768	132.58471	ppb	96
5) Vinyl chloride	1.57	62	994130	108.64915	ppb	98
6) Bromomethane	1.86	94	703424	107.01806	ppb	98
7) Chloroethane	1.97	64	547273	107.54030	ppb	97
8) Dichlorofluoromethane	2.19	67	404670	99.98707	ppb	90
9) Trichlorofluoromethane	2.24	101	498539	100.00335	ppb	95
10) Acrolein	2.70	55	283768	585.03437	ppb	# 21
11) Acetone	2.91	43	139132	98.85097	ppb	97
12) Freon-113	2.86	101	553462	114.70243	ppb	96
13) 1,1-DCE	2.83	61	883088	109.93500	ppb	97
14) t-Butanol	3.74	59	49256	236.40490	ppb	96
15) Methyl Acetate	3.36	43	430764	100.90515	ppb	95
16) Iodomethane	2.99	142	916547	107.98395	ppb	96
17) Acrylonitrile	3.83	52	144895	109.44575	ppb	99
18) Methylene chloride	3.47	84	243392	93.91117	ppb	97
19) Carbon disulfide	3.07	76	299968	106.39874	ppb	99
20) Methyl t-butyl ether (MtBE)	3.93	73	855894	97.14929	ppb	98
21) Trans-1,2-DCE	3.88	96	576758	106.36785	ppb	98
22) Diisopropyl Ether	4.72	59	252861	107.69659	ppb	94
23) 1,1-DCA	4.52	63	1235296	103.87282	ppb	98
24) Vinyl Acetate	4.72	87	619796	105.97243	ppb	97
25) Ethyl tert Butyl Ether	5.23	59	1154510	95.05441	ppb	99
26) MEK (2-Butanone)	5.39	43	200395	100.63431	ppb	96
27) Cis-1,2-DCE	5.34	96	822804	104.25070	ppb	99
28) 2,2-Dichloropropane	5.33	77	448937	99.70825	ppb	100
29) Chloroform	5.77	83	1352872	103.30717	ppb	97
30) Bromochloromethane	5.64	128	392612	103.94404	ppb	93
32) 1,1,1-TCA	5.97	97	924794	107.40817	ppb	99
33) Cyclohexane	6.05	41	351950	109.88989	ppb	92
34) 1,1-Dichloropropene	6.18	75	818187	108.01463	ppb	95
35) 2,2,4-Trimethylpentane	6.56	57	1198942	119.61855	ppb	94
37) Carbon Tetrachloride	6.18	117	949871	112.80308	ppb	97
38) Tert Amyl Methyl Ether	6.60	73	1287498	96.11139	ppb	95
39) 1,2-DCA	6.43	62	854060	102.13962	ppb	99
40) Benzene	6.42	78	2806241	103.95776	ppb	99
41) TCE	7.16	95	781473	102.34539	ppb	98
42) 2-Pentanone	7.38	43	719196	210.59097	ppb	99

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

Data File : M:\THOR\DATA\T120411\0411T38W.D Vial: 38  
 Acq On : 12 Apr 12 1:53 Operator: DG,RS,HW,ARS,SV  
 Sample : 100ug/L VOL STD 4-11-12 Inst : Thor  
 Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

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

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

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 1,2-Dichloropropane	7.39	63	825159	102.86816	ppb	99
44) Bromodichloromethane	7.69	83	1063435	107.20473	ppb	99
45) Methyl Cyclohexane	7.37	83	744183	116.14937	ppb	94
46) Dibromomethane	7.51	93	437581	103.22911	ppb	97
48) MIBK (methyl isobutyl ket	8.35	43	262421	101.10318	ppb	98
49) 1-Bromo-2-chloroethane	8.00	63	528384	100.89155	ppb	100
50) Cis-1,3-Dichloropropene	8.17	75	1198858	113.42136	ppb	97
51) Toluene	8.51	91	3364716	106.25033	ppb	99
52) Trans-1,3-Dichloropropene	8.74	75	1010775	114.06902	ppb	99
53) 1,1,2-TCA	8.92	83	570887	101.07546	ppb	98
54) 2-Hexanone	9.19	43	299229	102.87860	ppb	96
57) 1,2-EDB	9.41	107	654360	105.75114	ppb	98
58) Tetrachloroethene	9.07	166	911462	103.59170	ppb	99
59) 1-Chlorohexane	9.92	91	1011426	108.55214	ppb	96
60) 1,1,1,2-Tetrachloroethane	10.00	131	903393	108.51087	ppb	99
61) m&p-Xylene	10.16	106	3196175	224.18044	ppb	99
62) o-Xylene	10.55	106	1584273	111.84205	ppb	98
63) Styrene	10.56	104	2787649	117.09272	ppb	97
65) 1,3-Dichloropropane	9.08	76	1104141	99.97949	ppb	95
66) Dibromochloromethane	9.31	129	856174	108.27056	ppb	98
67) Chlorobenzene	9.92	112	2447723	103.59495	ppb	99
68) Ethylbenzene	10.04	91	4056777	109.81590	ppb	99
69) Bromoform	10.73	173	572169	108.53019	ppb	96
71) Isopropylbenzene	10.92	105	3954451	111.25187	ppb	100
72) 1,1,2,2-Tetrachloroethane	11.20	83	774559	100.45573	ppb	98
73) 1,2,3-Trichloropropane	11.24	110	228003	93.10759	ppb	96
74) t-1,4-Dichloro-2-Butene	11.26	53	160999	108.63878	ppb	90
75) Bromobenzene	11.21	156	1165453	101.89901	ppb	99
76) n-Propylbenzene	11.33	91	4831367	111.55020	ppb	99
77) 4-Ethyltoluene	11.45	105	2804023	113.32957	ppb	99
78) 2-Chlorotoluene	11.41	91	3217839	107.34490	ppb	99
79) 1,3,5-Trimethylbenzene	11.51	105	3577037	113.45137	ppb	100
80) 4-Chlorotoluene	11.51	91	3390276	108.08891	ppb	100
81) Tert-Butylbenzene	11.83	119	3109798	113.71262	ppb	99
82) 1,2,4-Trimethylbenzene	11.88	105	3642528	114.20894	ppb	99
83) Sec-Butylbenzene	12.05	105	4288136	114.11740	ppb	98
84) p-Isopropyltoluene	12.20	119	3748564	115.01717	ppb	99
85) Benzyl Chloride	12.37	91	1054108	111.40929	ppb	100
86) 1,3-DCB	12.15	146	2253891	100.91341	ppb	99
87) 1,4-DCB	12.24	146	2274733	101.77865	ppb	99
88) n-Butylbenzene	12.61	91	3182444	114.50718	ppb	99
89) 1,2-DCB	12.60	146	2102993	101.88792	ppb	98
90) Hexachloroethane	12.87	117	626446	108.12226	ppb	98
91) 1,2-Dibromo-3-chloropropan	13.37	157	170606	112.36321	ppb	93
92) 1,2,4-Trichlorobenzene	14.21	180	1019200	115.10218	ppb	100
93) Hexachlorobutadiene	14.40	223	391919	103.40386	ppb	88
94) Naphthalene	14.45	128	2802700	121.04537	ppb	98
95) 1,2,3-Trichlorobenzene	14.69	180	1375528	110.03251	ppb	97

Quantitation Report

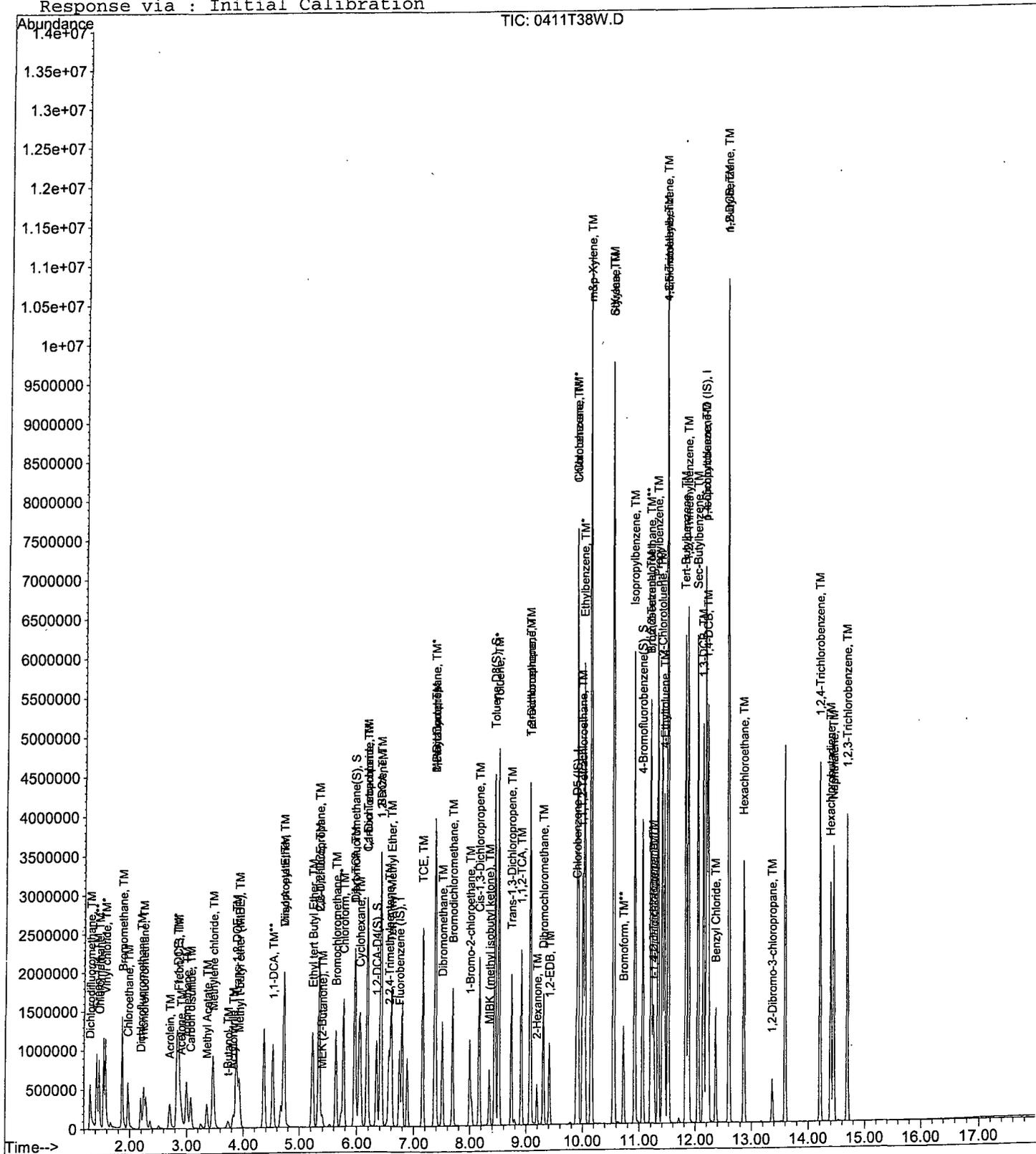
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Acq On : 12 Apr 12 1:53  
Sample : 100ug/L VOL STD 4-11-12  
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 38  
Operator: DG,RS,HW,ARS,SV  
Inst : Thor  
Multiplr: 1.00

Quant Time: Apr 12 8:55 2012

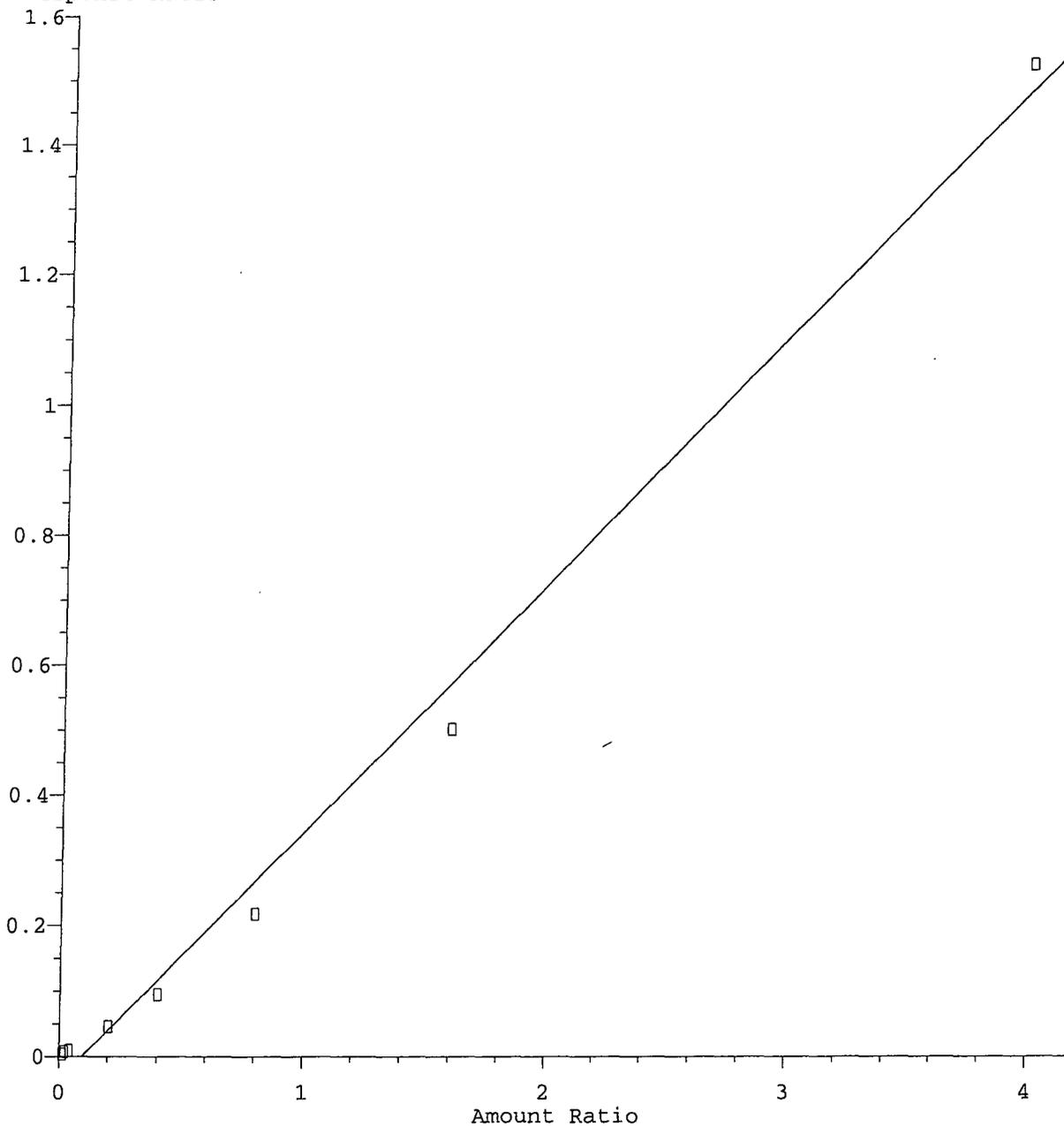
Quant Results File: TALLW.RES

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



Chloromethane

Response Ratio

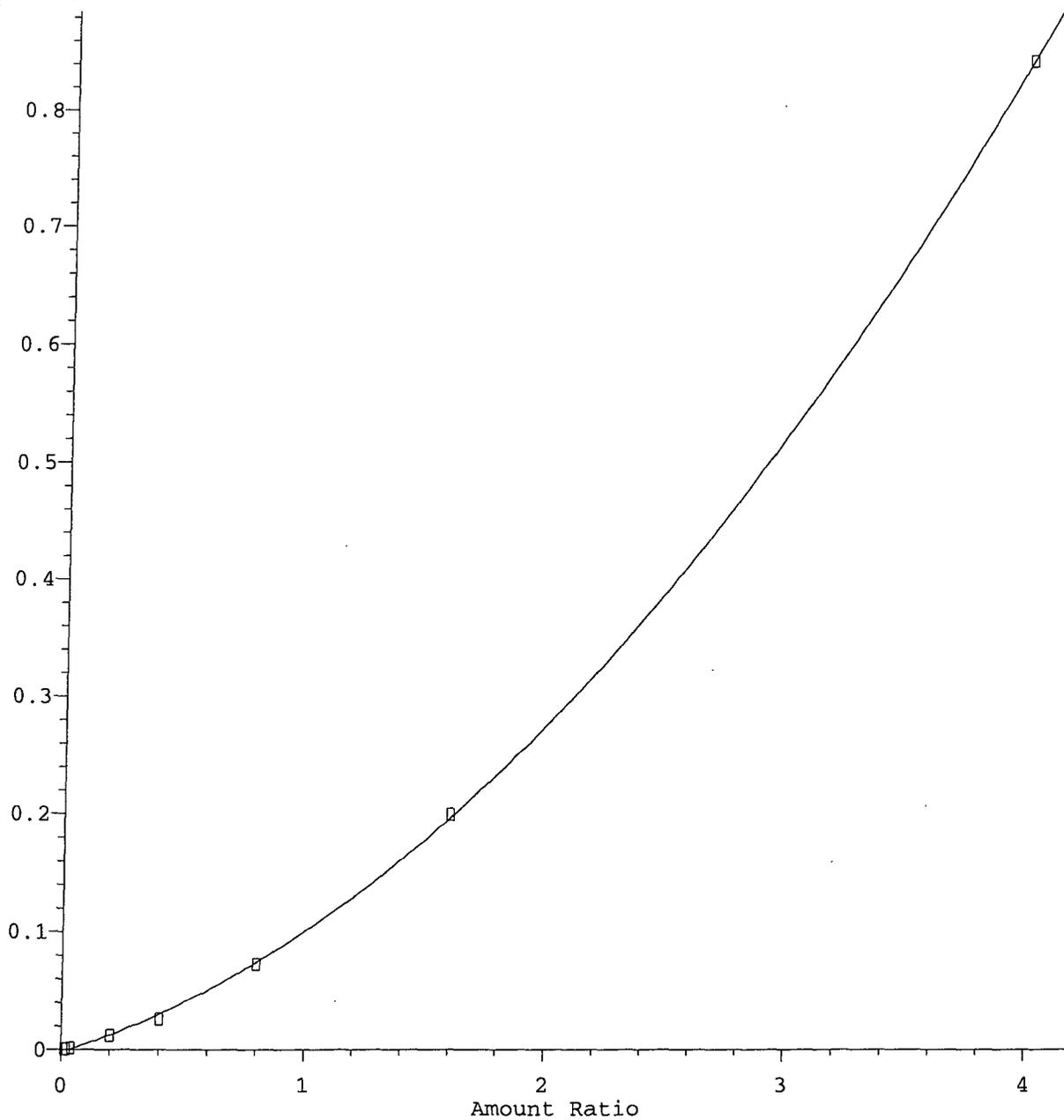


Resp Ratio = 3.80e-001 \* Amt - 3.53e-002  
Coef of Det (r^2) = 0.993 Curve Fit: Linear

Method Name: M:\THOR\DATA\T120402\TALLW.M  
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012

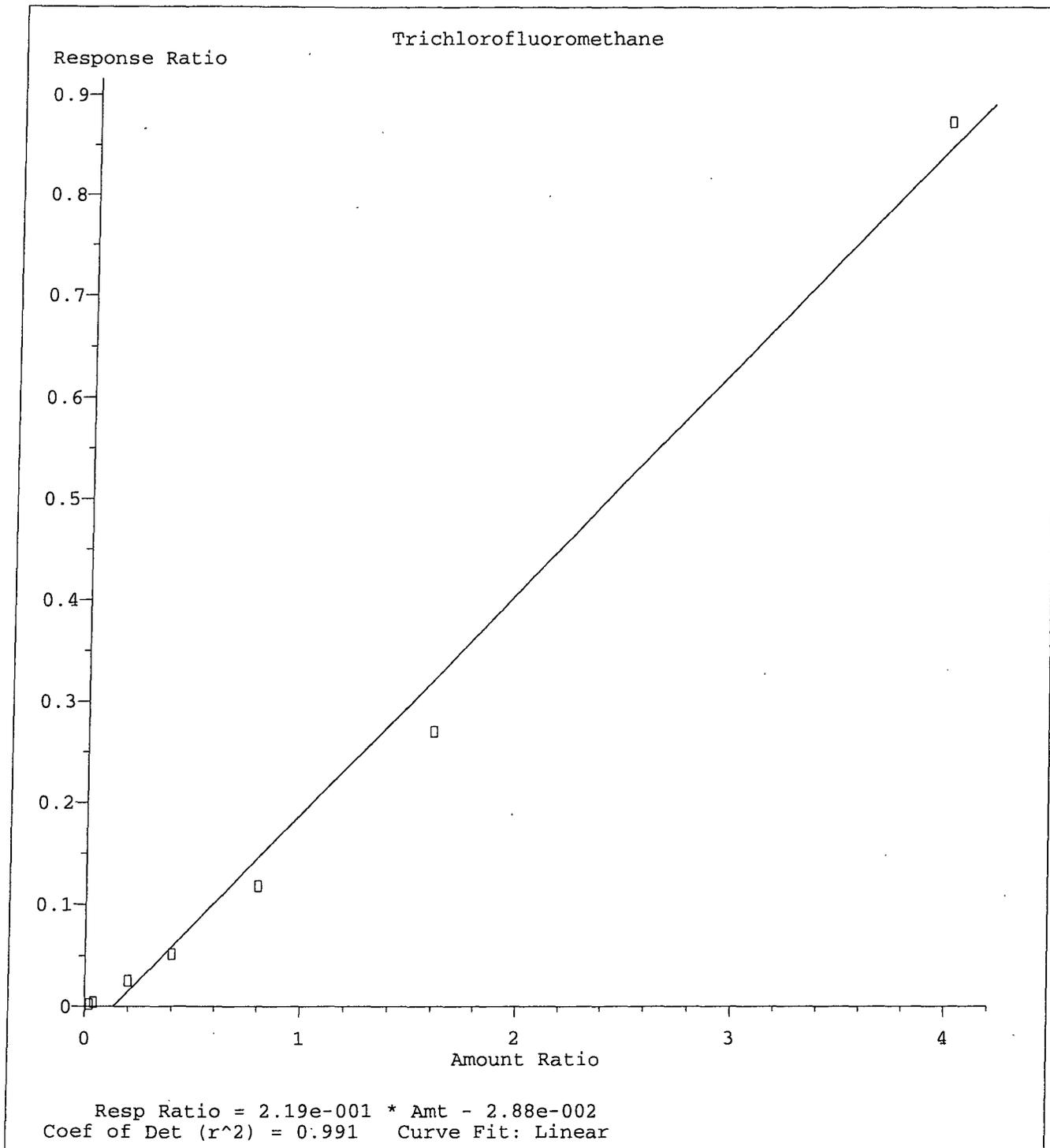
Dichlorofluoromethane

Response Ratio

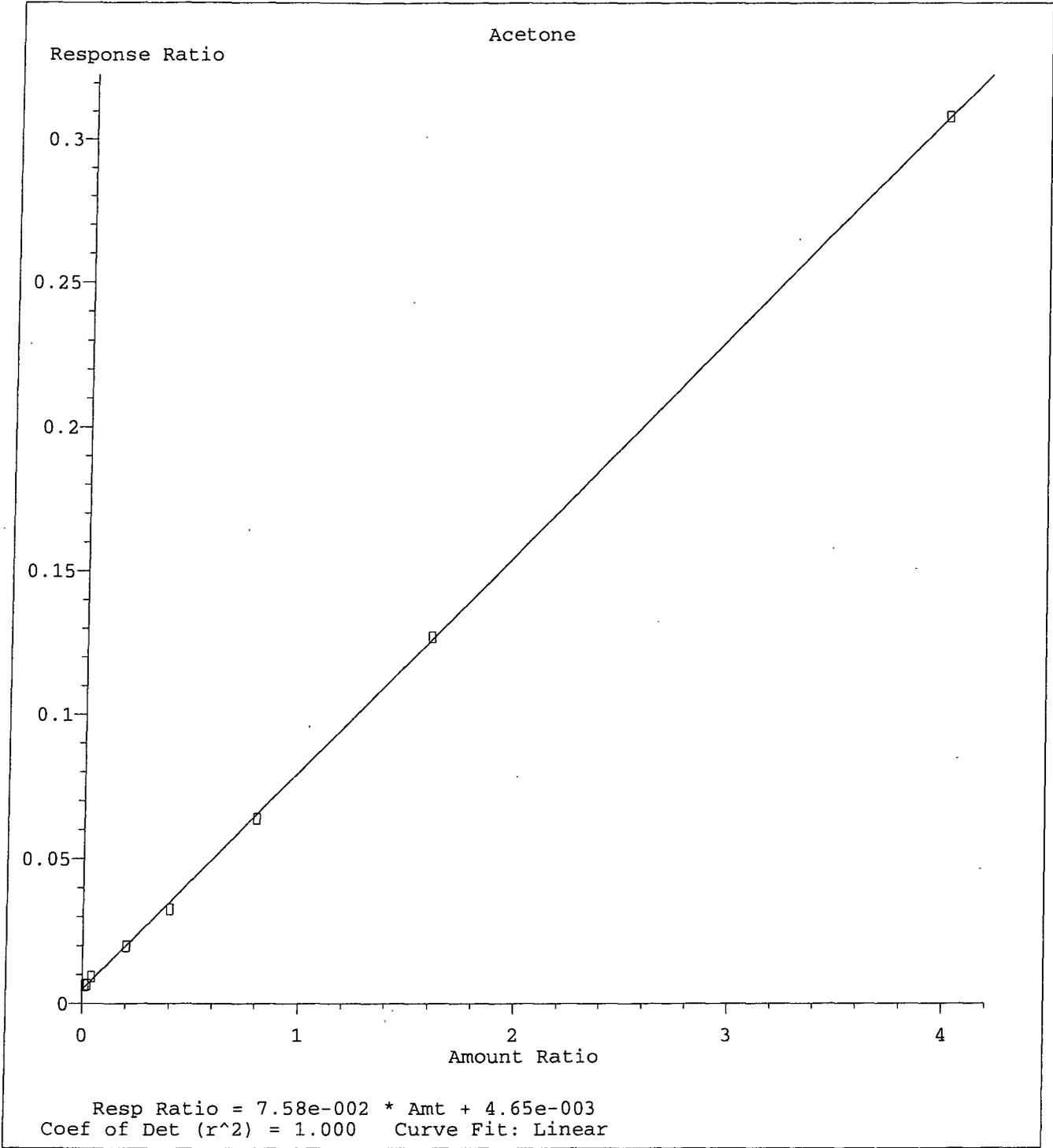


$R = 3.62e-002 A^2 + 6.65e-002 A - 2.18e-003$   
Curve Fit: Quadratic

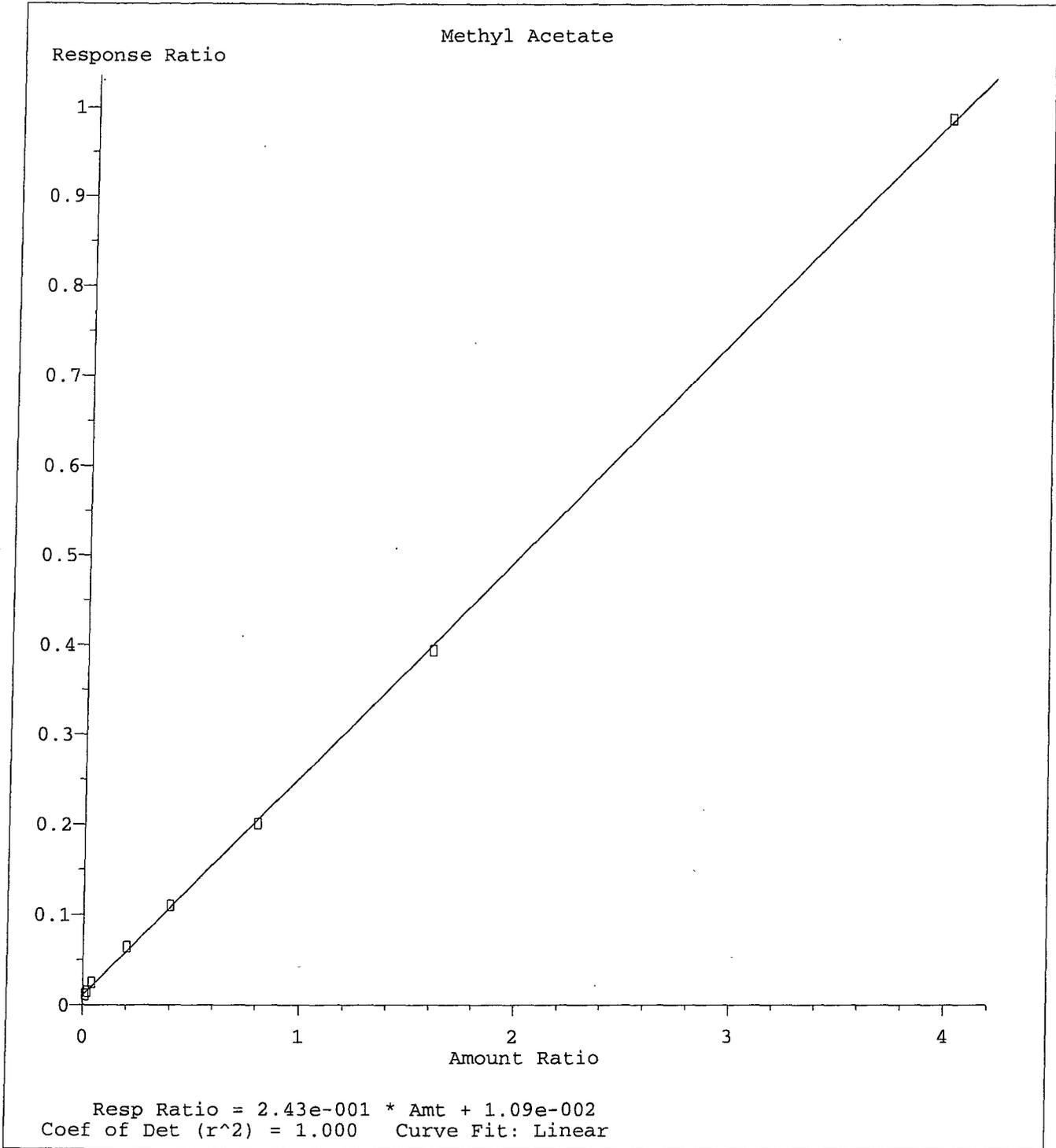
Method Name: M:\THOR\DATA\T120402\TALLW.M  
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012



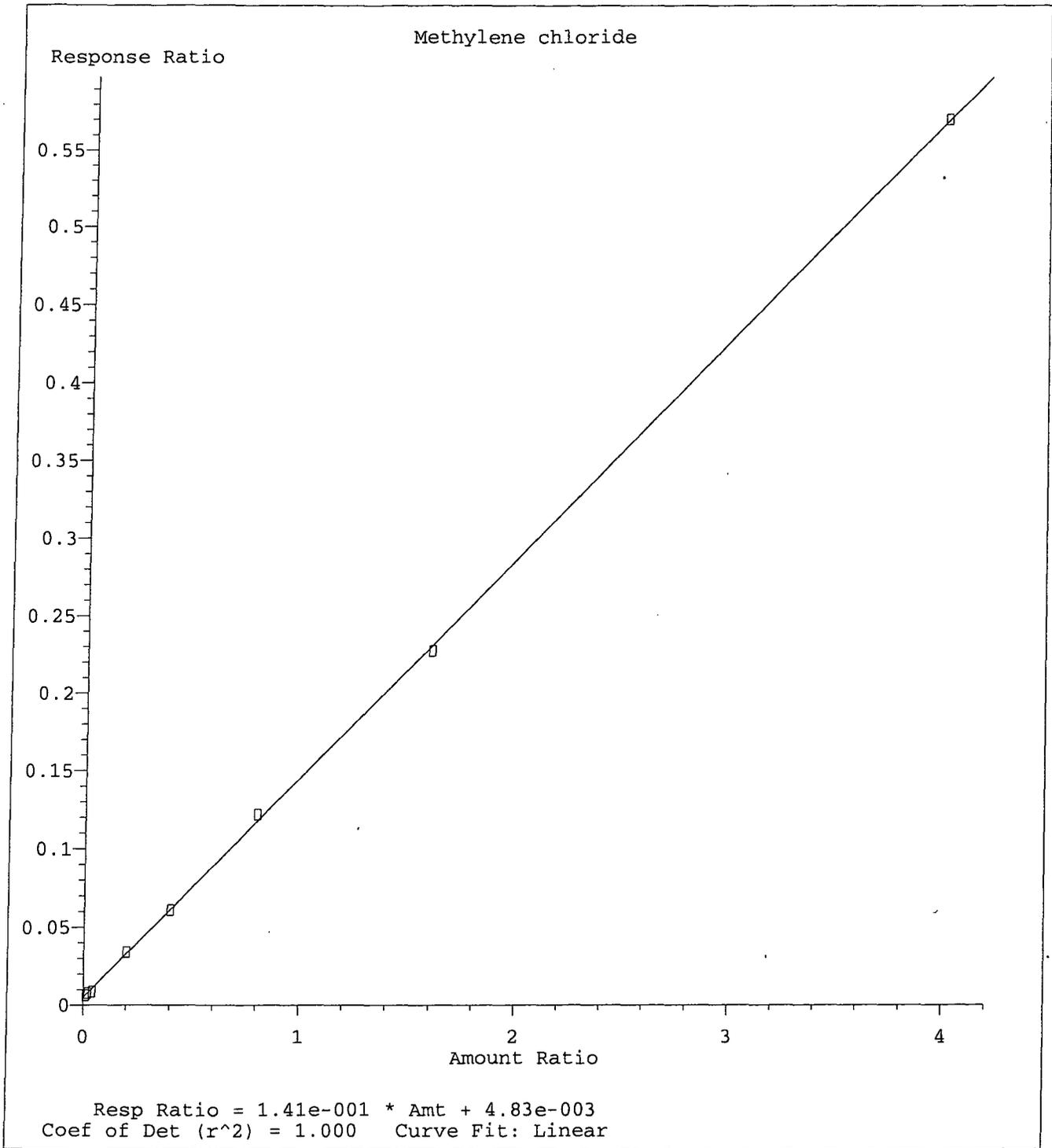
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Calibration Table Last Updated: Sat Apr 07 08:12:59 2012



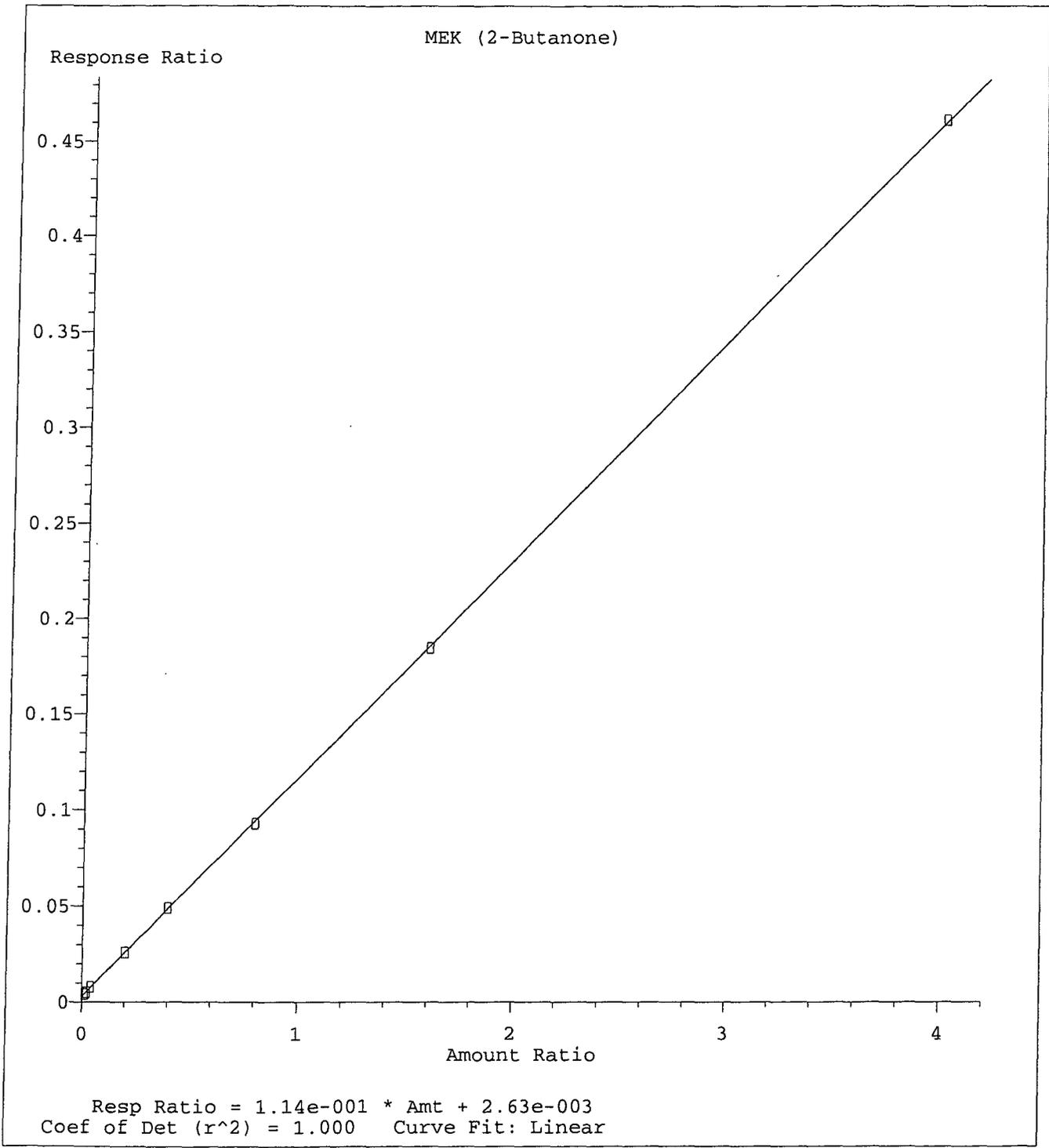
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Calibration Table Last Updated: Sat Apr 07 08:12:59 2012



Method Name: M:\THOR\DATA\T120402\TALLW.M  
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012



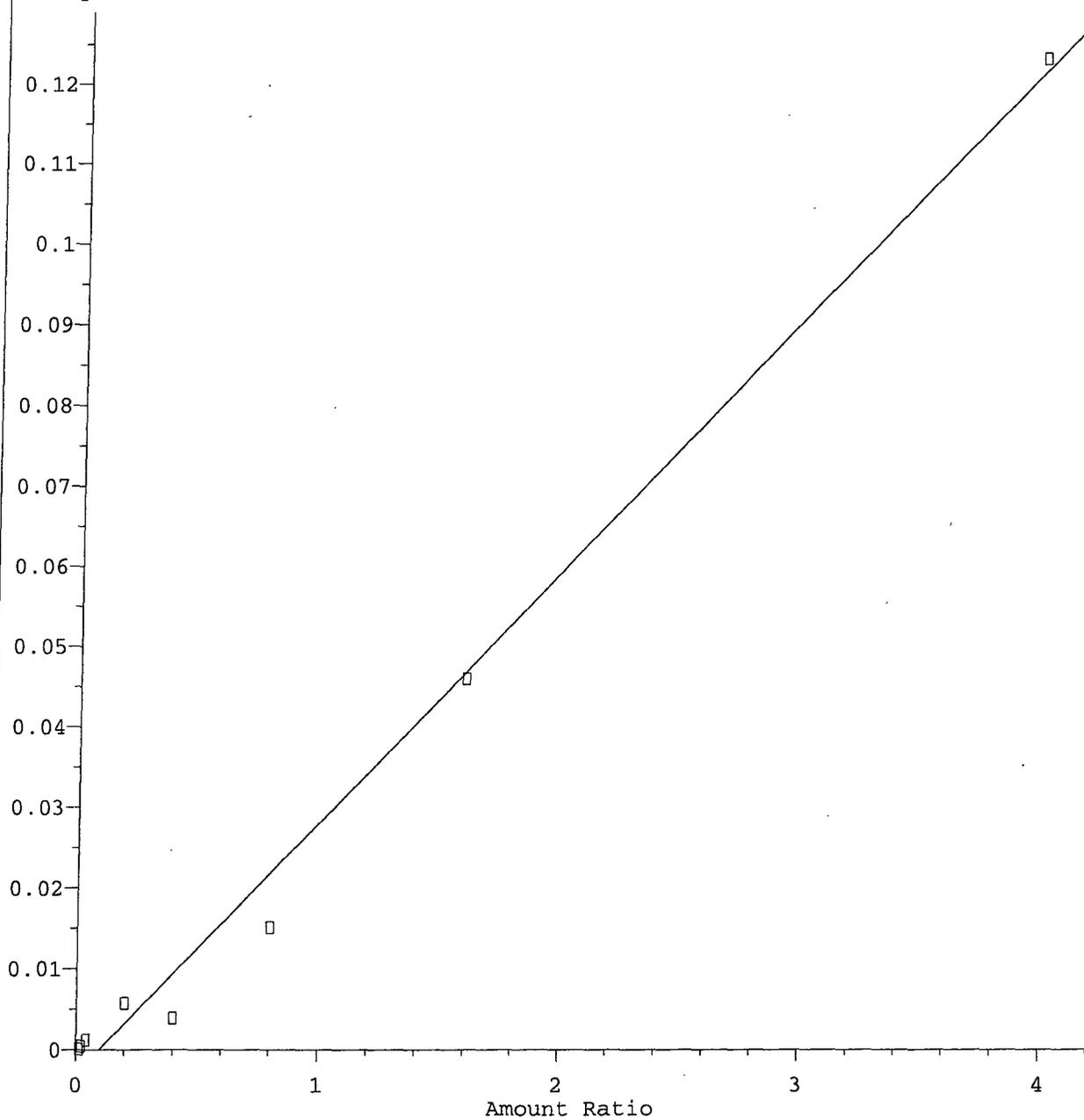
Method Name: M:\THOR\DATA\T120402\TALLW.M  
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012



Method Name: M:\THOR\DATA\T120402\TALLW.M  
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012

2-Chloroethyl vinyl ether

Response Ratio



Resp Ratio =  $3.11e-002 * Amt - 2.97e-003$   
Coef of Det ( $r^2$ ) = 0.991 Curve Fit: Linear

Method Name: M:\THOR\DATA\T120402\TALLW.M  
Calibration Table Last Updated: Sat Apr 07 08:12:59 2012

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 04/12/12  
Instrument: Thor  
Initial Cal. Date: 04/11/12  
Data File: 0412T12W.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.3011	0.3128	3.9	TM	
3	TM	Freon 114	0.2173	0.2160	0.56	TM	
4	TM**L	Chloromethane	0.3045	0.2786	8.5	TM**L	2.0
5	TM*	Vinyl chloride	0.4774	0.5239	9.7	TM*	
6	TM	Bromomethane	0.3429	0.3264	4.8	TM	
7	TM	Chloroethane	0.2655	0.2701	1.7	TM	
8	TMQ	Dichlorofluoromethane	0.0778	0.0640	18	TMQ	5.5
9	TMQ	Trichlorofluoromethane	0.1664	0.1691	1.6	TMQ	5.9
10	TM	Acrolein	0.0253	0.0271	7.1	TM	
11	TML	Acetone	0.1096	0.0894	18	TML	6.1
12	TM	Freon-113	0.2517	0.2775	10	TM	
13	TM*	1,1-DCE	0.4191	0.4234	1.0	TM*	
14	TMQ	t-Butanol	0.0068	0.0073	7.9	TMQ	5.1
15	TML	Methyl Acetate	0.3221	0.2389	26	TML	3.1
16	TM	Iodomethane	0.4428	0.4736	7.0	TM	
17	TM	Acrylonitrile	0.0691	0.0756	9.5	TM	
18	TM	Methylene chloride	0.1352	0.1305	3.5	TM	
19	TM	Carbon disulfide	0.1471	0.1627	11	TM	
20	TM	Methyl t-butyl ether (MtBE)	0.4597	0.4997	8.7	TM	
21	TM	Trans-1,2-DCE	0.2829	0.3022	6.8	TM	
22	TM	Diisopropyl Ether	0.1225	0.1267	3.4	TM	
23	TM**	1,1-DCA	0.6205	0.6383	2.9	TM**	
24	TM	Vinyl Acetate	0.3051	0.3087	1.2	TM	
25	TM	Ethyl tert Butyl Ether	0.6337	0.6762	6.7	TM	
26	TML	MEK (2-Butanone)	0.1220	0.1145	6.1	TML	9.5
27	TM	Cis-1,2-DCE	0.4118	0.4230	2.7	TM	
28	TM	2,2-Dichloropropane	0.2349	0.2417	2.9	TM	
29	TM*	Chloroform	0.6832	0.6942	1.6	TM*	
30	TM	Bromochloromethane	0.1971	0.2035	3.3	TM	
31	S	Dibromofluoromethane(S)	0.4169	0.4187	0.43	S	
32	TM	1,1,1-TCA	0.4492	0.4718	5.0	TM	
33	TM	Cyclohexane	0.1671	0.1669	0.10	TM	
34	TM	1,1-Dichloropropene	0.3952	0.4094	3.6	TM	
35	TM	2,2,4-Trimethylpentane	0.5229	0.5433	3.9	TM	
36	S	1,2-DCA-D4(S)	0.3802	0.3728	2.0	S	
37	TM	Carbon Tetrachloride	0.4393	0.4557	3.7	TM	
38	TM	Tert Amyl Methyl Ether	0.6989	0.7565	8.2	TM	
39	TM	1,2-DCA	0.4363	0.4538	4.0	TM	
40	TM	Benzene	1.408	1.436	2.0	TM	

Average

5.9

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 04/12/12  
Instrument: Thor  
Cal. Date: 04/11/12  
Data File: 0412T12W.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	TCE	0.3984	0.4211	5.7	TM
42	TM	2-Pentanone	0.1782	0.1894	6.3	TM
43	TM*	1,2-Dichloropropane	0.4185	0.4263	1.9	TM*
44	TM	Bromodichloromethane	0.5175	0.5269	1.8	TM
45	TM	Methyl Cyclohexane	0.3343	0.3462	3.6	TM
46	TM	Dibromomethane	0.2212	0.2309	4.4	TM
47	TML	2-Chloroethyl vinyl ether	0.0000	0.0000	0.00	TML
48	TM	MIBK (methyl isobutyl ketone)	0.1354	0.1344	0.78	TM
49	TM	1-Bromo-2-chloroethane	0.2732	0.2831	3.6	TM
50	TM	Cis-1,3-Dichloropropene	0.5515	0.5660	2.6	TM
51	TM*	Toluene	1.652	1.699	2.8	TM*
52	TM	Trans-1,3-Dichloropropene	0.4623	0.4742	2.6	TM
53	TM	1,1,2-TCA	0.2947	0.2997	1.7	TM
54	TM	2-Hexanone	0.1518	0.1466	3.4	TM
55	I	Chlorobenzene-D5 (IS)	ISTD			I
56	S	Toluene-D8(S)	1.668	1.679	0.68	S
57	TM	1,2-EDB	0.3738	0.3956	5.8	TM
58	TM	Tetrachloroethene	0.5315	0.5514	3.7	TM
59	TM	1-Chlorohexane	0.5629	0.5638	0.16	TM
60	TM	1,1,1,2-Tetrachloroethane	0.5030	0.5159	2.6	TM
61	TM	m&p-Xylene	0.8613	0.8987	4.3	TM
62	TM	o-Xylene	0.8558	0.8962	4.7	TM
63	TM	Styrene	1.438	1.485	3.3	TM
64	S	4-Bromofluorobenzene(S)	0.6909	0.7019	1.6	S
65	TM	1,3-Dichloropropane	0.6672	0.6750	1.2	TM
66	TM	Dibromochloromethane	0.4777	0.4999	4.6	TM
67	TM**	Chlorobenzene	1.427	1.465	2.7	TM**
68	TM*	Ethylbenzene	2.232	2.323	4.1	TM*
69	TM**	Bromoform	0.3185	0.3247	2.0	TM**
70	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
71	TM	Isopropylbenzene	3.494	3.624	3.7	TM
72	TM**	1,1,2,2-Tetrachloroethane	0.7579	0.7620	0.54	TM**
73	TM	1,2,3-Trichloropropane	0.2407	0.2347	2.5	TM
74	TM	t-1,4-Dichloro-2-Butene	0.1457	0.1509	3.6	TM
75	TM	Bromobenzene	1.124	1.133	0.81	TM
76	TM	n-Propylbenzene	4.257	4.388	3.1	TM
77	TM	4-Ethyltoluene	2.432	2.617	7.6	TM
78	TM	2-Chlorotoluene	2.947	3.101	5.2	TM
79	TM	1,3,5-Trimethylbenzene	3.099	3.261	5.2	TM
80	TM	4-Chlorotoluene	3.083	3.216	4.3	TM

Average

3.1

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 04/12/12  
Instrument: Thor  
Cal. Date: 04/11/12  
Data File: 0412T12W.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Tert-Butylbenzene	2.688	2.833	5.4	TM
82	TM	1,2,4-Trimethylbenzene	3.135	3.320	5.9	TM
83	TM	Sec-Butylbenzene	3.694	3.943	6.8	TM
84	TM	p-Isopropyltoluene	3.204	3.310	3.3	TM
85	TM	Benzyl Chloride	0.9300	0.8793	5.5	TM
86	TM	1,3-DCB	2.195	2.175	0.92	TM
87	TM	1,4-DCB	2.197	2.200	0.16	TM
88	TM	n-Butylbenzene	2.732	2.840	4.0	TM
89	TM	1,2-DCB	2.029	2.047	0.92	TM
90	TM	Hexachloroethane	0.5695	0.5452	4.3	TM
91	TM	1,2-Dibromo-3-chloropropane	0.1492	0.1575	5.5	TM
92	TM	1,2,4-Trichlorobenzene	0.8704	0.9120	4.8	TM
93	TM	Hexachlorobutadiene	0.3726	0.3742	0.44	TM
94	TM	Naphthalene	2.276	2.321	2.0	TM
95	TM	1,2,3-Trichlorobenzene	1.229	1.279	4.1	TM
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120						

Average

3.6

Data File : M:\THOR\DATA\T120411\0412T12W.D Vial: 42  
 Acq On : 12 Apr 12 3:44 Operator: DG,RS,HW,ARS,SV  
 Sample : 10ug/L VOC STD 4-11-12 (57) *DOB 4/19/12* Inst : Thor  
 Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	467840	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	389056	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	238272	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Dibromofluoromethane(S)	5.96	111	232857	29.84855	ppb	0.00
Spiked Amount 29.720			Recovery = 100.433%			
36) 1,2-DCA-D4(S)	6.34	65	206556	29.02835	ppb	0.00
Spiked Amount 29.608			Recovery = 98.041%			
56) Toluene-D8(S)	8.44	98	835757	32.19735	ppb	0.00
Spiked Amount 31.981			Recovery = 100.677%			
64) 4-Bromofluorobenzene(S)	11.06	95	320616	29.81911	ppb	0.00
Spiked Amount 29.353			Recovery = 101.588%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.31	85	58541	10.39078	ppb	98
3) Freon 114	1.42	85	40429	9.94395	ppb	93
4) Chloromethane	1.46	50	52128	9.80012	ppb	100
5) Vinyl chloride	1.57	62	98043	10.97464	ppb	99
6) Bromomethane	1.88	94	61078	9.51733	ppb	93
7) Chloroethane	1.98	64	50539	10.17148	ppb	92
8) Dichlorofluoromethane	2.20	67	11978	10.55213	ppb	94
9) Trichlorofluoromethane	2.25	101	31649	10.59495	ppb	100
10) Acrolein	2.71	55	63408	133.89133	ppb	99
11) Acetone	2.91	43	16729	10.60787	ppb	100
12) Freon-113	2.87	101	51932	11.02327	ppb	95
13) 1,1-DCE	2.84	61	79239	10.10326	ppb	96
14) t-Butanol	3.71	59	17112	131.33354	ppb	95
15) Methyl Acetate	3.36	43	44709	10.31208	ppb	94
16) Iodomethane	3.00	142	88633	10.69524	ppb	97
17) Acrylonitrile	3.83	52	14152	10.94848	ppb	100
18) Methylene chloride	3.47	84	24424	9.65202	ppb	99
19) Carbon disulfide	3.08	76	30448	11.06142	ppb	98
20) Methyl t-butyl ether (MtBE)	3.93	73	93508	10.87073	ppb	96
21) Trans-1,2-DCE	3.88	96	56551	10.68187	ppb	95
22) Diisopropyl Ether	4.73	59	23710	10.34290	ppb	98
23) 1,1-DCA	4.53	63	119447	10.28719	ppb	97
24) Vinyl Acetate	4.72	87	57764	10.11560	ppb	99
25) Ethyl tert Butyl Ether	5.23	59	126546	10.67120	ppb	96
26) MEK (2-Butanone)	5.40	43	21430	10.94615	ppb	93
27) Cis-1,2-DCE	5.34	96	79159	10.27243	ppb	97
28) 2,2-Dichloropropane	5.34	77	45235	10.28989	ppb	100
29) Chloroform	5.77	83	129901	10.15960	ppb	92
30) Bromochloromethane	5.64	128	38088	10.32796	ppb	94
32) 1,1,1-TCA	5.98	97	88285	10.50194	ppb	100
33) Cyclohexane	6.05	41	31238	9.98965	ppb	90
34) 1,1-Dichloropropene	6.18	75	76611	10.35885	ppb	95
35) 2,2,4-Trimethylpentane	6.57	57	101671	10.38934	ppb	100
37) Carbon Tetrachloride	6.18	117	85280	10.37275	ppb	93
38) Tert Amyl Methyl Ether	6.60	73	141562	10.82344	ppb	100
39) 1,2-DCA	6.43	62	84923	10.40211	ppb	98
40) Benzene	6.41	78	268704	10.19522	ppb	99
41) TCE	7.16	95	78804	10.57044	ppb	97
42) 2-Pentanone	7.38	43	443016	132.86248	ppb	99

(#) = qualifier out of range (m) = manual integration  
 0412T12W.D TALLW.M Thu Apr 12 09:00:00 2012

Data File : M:\THOR\DATA\T120411\0412T12W.D Vial: 42  
 Acq On : 12 Apr 12 3:44 Operator: DG,RS,HW,ARS,SV  
 Sample : 10ug/L VOC STD 4-11-12 Inst : Thor  
 Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 12 8:55 2012

Quant Results File: TALLW.RES

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

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 1,2-Dichloropropane	7.39	63	79768	10.18503	ppb	99
44) Bromodichloromethane	7.69	83	98596	10.18012	ppb	95
45) Methyl Cyclohexane	7.37	83	64779	10.35528	ppb	94
46) Dibromomethane	7.50	93	43218	10.44236	ppb	96
48) MIBK (methyl isobutyl ket	8.35	43	25144	9.92181	ppb	97
49) 1-Bromo-2-chloroethane	8.00	63	52984	10.36192	ppb	99
50) Cis-1,3-Dichloropropene	8.17	75	105913	10.26282	ppb	98
51) Toluene	8.51	91	317983	10.28434	ppb	100
52) Trans-1,3-Dichloropropene	8.74	75	88745	10.25764	ppb	100
53) 1,1,2-TCA	8.92	83	56091	10.17136	ppb	97
54) 2-Hexanone	9.19	43	27437	9.66159	ppb	99
57) 1,2-EDB	9.41	107	61559	10.58189	ppb	99
58) Tetrachloroethene	9.07	166	85805	10.37296	ppb	96
59) 1-Chlorohexane	9.92	91	87735	10.01569	ppb	99
60) 1,1,1,2-Tetrachloroethane	10.00	131	80293	10.25836	ppb	98
61) m&p-Xylene	10.16	106	279701	20.86723	ppb	99
62) o-Xylene	10.55	106	139464	10.47227	ppb	99
63) Styrene	10.56	104	231157	10.32767	ppb	98
65) 1,3-Dichloropropane	9.08	76	105041	10.11693	ppb	93
66) Dibromochloromethane	9.31	129	77794	10.46401	ppb	95
67) Chlorobenzene	9.92	112	228040	10.26576	ppb	99
68) Ethylbenzene	10.04	91	361467	10.40774	ppb	100
69) Bromoform	10.73	173	50532	10.19521	ppb	92
71) Isopropylbenzene	10.92	105	345420	10.37298	ppb	100
72) 1,1,2,2-Tetrachloroethane	11.20	83	72625	10.05405	ppb	99
73) 1,2,3-Trichloropropane	11.24	110	22366	9.74917	ppb	93
74) t-1,4-Dichloro-2-Butene	11.26	53	14383	10.35967	ppb	86
75) Bromobenzene	11.21	156	108015	10.08078	ppb	99
76) n-Propylbenzene	11.33	91	418167	10.30588	ppb	99
77) 4-Ethyltoluene	11.45	105	249432	10.76090	ppb	99
78) 2-Chlorotoluene	11.41	91	295571	10.52480	ppb	99
79) 1,3,5-Trimethylbenzene	11.51	105	310832	10.52318	ppb	100
80) 4-Chlorotoluene	11.51	91	306556	10.43256	ppb	98
81) Tert-Butylbenzene	11.83	119	269992	10.53810	ppb	99
82) 1,2,4-Trimethylbenzene	11.88	105	316455	10.59117	ppb	99
83) Sec-Butylbenzene	12.05	105	375806	10.67534	ppb	100
84) p-Isopropyltoluene	12.20	119	315519	10.33375	ppb	98
85) Benzyl Chloride	12.37	91	83805	9.45455	ppb	99
86) 1,3-DCB	12.15	146	207309	9.90761	ppb	100
87) 1,4-DCB	12.23	146	209716	10.01596	ppb	98
88) n-Butylbenzene	12.61	91	270707	10.39696	ppb	98
89) 1,2-DCB	12.60	146	195145	10.09200	ppb	98
90) Hexachloroethane	12.87	117	51961	9.57291	ppb	96
91) 1,2-Dibromo-3-chloropropan	13.37	157	15013	10.55437	ppb	85
92) 1,2,4-Trichlorobenzene	14.21	180	86920	10.47801	ppb	99
93) Hexachlorobutadiene	14.40	223	35665	10.04425	ppb	83
94) Naphthalene	14.45	128	221248	10.19966	ppb	98
95) 1,2,3-Trichlorobenzene	14.69	180	121944	10.41230	ppb	98

(#) = qualifier out of range (m) = manual integration  
 0412T12W.D TALLW.M Thu Apr 12 09:00:01 2012



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 4/19/12  
Instrument: Thor  
Initial Cal. Date: 4/11/12  
Data File: 0419T11W.D

	Compound	MEAN	CCRF	%D	%Drift
1	I Fluorobenzene (IS)	ISTD			I
2	TM Dichlorodifluoromethane	0.3011	0.3251	8.0	TM
3	TM Freon 114	0.2173	0.2142	1.4	TM
4	TM**L Chloromethane	0.3045	0.2923	4.0	TM**L 2.6
5	TM* Vinyl chloride	0.4774	0.4884	2.3	TM*
6	TM Bromomethane	0.3429	0.3394	1.0	TM
7	TM Chloroethane	0.2655	0.2779	4.7	TM
8	TMQ Dichlorofluoromethane	0.0778	0.0477	39	TMQ 15
9	TMQ Trichlorofluoromethane	0.1664	0.1620	2.7	TMQ 1.8
10	TM Acrolein	0.0253	0.0159	37	TM nt
11	TML Acetone	0.1096	0.0769	30	TML 11
12	TM Freon-113	0.2517	0.2754	9.4	TM
13	TM* 1,1-DCE	0.4191	0.3839	8.4	TM*
14	TMQ t-Butanol	0.0068	0.0023	66	TMQ 55 nt
15	TML Methyl Acetate	0.3221	0.2096	35	TML 10
16	TM Iodomethane	0.4428	0.4260	3.8	TM
17	TM Acrylonitrile	0.0691	0.0705	2.1	TM
18	TM Methylene chloride	0.1352	0.1095	19	TM
19	TM Carbon disulfide	0.1471	0.1287	13	TM
20	TM Methyl t-butyl ether (MtBE)	0.4597	0.4046	12	TM
21	TM Trans-1,2-DCE	0.2829	0.2761	2.4	TM
22	TM Diisopropyl Ether	0.1225	0.1125	8.1	TM
23	TM** 1,1-DCA	0.6205	0.5808	6.4	TM**
24	TM Vinyl Acetate	0.3051	0.2727	11	TM
25	TM Ethyl tert Butyl Ether	0.6337	0.5153	19	TM
26	TML MEK (2-Butanone)	0.1220	0.0933	24	TML 11
27	TM Cis-1,2-DCE	0.4118	0.3634	12	TM
28	TM 2,2-Dichloropropane	0.2349	0.2618	11	TM
29	TM* Chloroform	0.6832	0.6431	5.9	TM*
30	TM Bromochloromethane	0.1971	0.1925	2.3	TM
31	S Dibromofluoromethane(S)	0.4169	0.4366	4.7	S
32	TM 1,1,1-TCA	0.4492	0.4257	5.2	TM
33	TM Cyclohexane	0.1671	0.1367	18	TM
34	TM 1,1-Dichloropropene	0.3952	0.3463	12	TM
35	TM 2,2,4-Trimethylpentane	0.5229	0.5583	6.8	TM
36	S 1,2-DCA-D4(S)	0.3802	0.3847	1.2	S
37	TM Carbon Tetrachloride	0.4393	0.4311	1.9	TM
38	TM Tert Amyl Methyl Ether	0.6989	0.5900	16	TM
39	TM 1,2-DCA	0.4363	0.3826	12	TM
40	TM Benzene	1.408	1.245	12	TM

Average

12.6

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No: 0  
Date Analyzed: 4/19/12  
Instrument: Thor  
Cal. Date: 4/11/12  
Data File: 0419T11W.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	TCE	0.3984	0.3506	12	TM
42	TM	2-Pentanone	0.1782	0.1704	4.4	TM
43	TM*	1,2-Dichloropropane	0.4185	0.3830	8.5	TM*
44	TM	Bromodichloromethane	0.5175	0.4812	7.0	TM
45	TM	Methyl Cyclohexane	0.3343	0.3270	2.2	TM
46	TM	Dibromomethane	0.2212	0.2035	8.0	TM
47	TML	2-Chloroethyl vinyl ether	0.0000	0.0064	0.00	TML
48	TM	MIBK (methyl isobutyl ketone)	0.1354	0.1124	17	TM
49	TM	1-Bromo-2-chloroethane	0.2732	0.2381	13	TM
50	TM	Cis-1,3-Dichloropropene	0.5515	0.5148	6.6	TM
51	TM*	Toluene	1.652	1.493	9.6	TM*
52	TM	Trans-1,3-Dichloropropene	0.4623	0.4426	4.3	TM
53	TM	1,1,2-TCA	0.2947	0.2687	8.8	TM
54	TM	2-Hexanone	0.1518	0.1378	9.2	TM
55	I	Chlorobenzene-D5 (IS)	ISTD			I
56	S	Toluene-D8(S)	1.668	1.675	0.43	S
57	TM	1,2-EDB	0.3738	0.3585	4.1	TM
58	TM	Tetrachloroethene	0.5315	0.5024	5.5	TM
59	TM	1-Chlorohexane	0.5629	0.5127	8.9	TM
60	TM	1,1,1,2-Tetrachloroethane	0.5030	0.4925	2.1	TM
61	TM	m&p-Xylene	0.8613	0.8167	5.2	TM
62	TM	o-Xylene	0.8558	0.7763	9.3	TM
63	TM	Styrene	1.438	1.351	6.1	TM
64	S	4-Bromofluorobenzene(S)	0.6909	0.7210	4.3	S
65	TM	1,3-Dichloropropane	0.6672	0.5881	12	TM
66	TM	Dibromochloromethane	0.4777	0.4584	4.0	TM
67	TM**	Chlorobenzene	1.427	1.318	7.7	TM**
68	TM*	Ethylbenzene	2.232	2.056	7.9	TM*
69	TM**	Bromoform	0.3185	0.3043	4.5	TM**
70	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
71	TM	Isopropylbenzene	3.494	3.095	11	TM
72	TM**	1,1,2,2-Tetrachloroethane	0.7579	0.7168	5.4	TM**
73	TM	1,2,3-Trichloropropane	0.2407	0.2038	15	TM
74	TM	t-1,4-Dichloro-2-Butene	0.1457	0.1322	9.3	TM
75	TM	Bromobenzene	1.124	1.011	10	TM
76	TM	n-Propylbenzene	4.257	3.920	7.9	TM
77	TM	4-Ethyltoluene	2.432	2.332	4.1	TM
78	TM	2-Chlorotoluene	2.947	2.670	9.4	TM
79	TM	1,3,5-Trimethylbenzene	3.099	2.893	6.7	TM
80	TM	4-Chlorotoluene	3.083	2.811	8.8	TM

Average

7.4

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No: 0  
Date Analyzed: 4/19/12  
Instrument: Thor  
Cal. Date: 4/11/12  
Data File: 0419T11W.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Tert-Butylbenzene	2.688	2.445	9.0	TM
82	TM	1,2,4-Trimethylbenzene	3.135	2.885	8.0	TM
83	TM	Sec-Butylbenzene	3.694	3.465	6.2	TM
84	TM	p-Isopropyltoluene	3.204	3.027	5.5	TM
85	TM	Benzyl Chloride	0.9300	1.133	22	TM
86	TM	1,3-DCB	2.195	1.981	9.8	TM
87	TM	1,4-DCB	2.197	2.011	8.5	TM
88	TM	n-Butylbenzene	2.732	2.604	4.7	TM
89	TM	1,2-DCB	2.029	1.814	11	TM
90	TM	Hexachloroethane	0.5695	0.5493	3.6	TM
91	TM	1,2-Dibromo-3-chloropropane	0.1492	0.1477	1.1	TM
92	TM	1,2,4-Trichlorobenzene	0.8704	0.8328	4.3	TM
93	TM	Hexachlorobutadiene	0.3726	0.3709	0.44	TM
94	TM	Naphthalene	2.276	2.087	8.3	TM
95	TM	1,2,3-Trichlorobenzene	1.229	1.179	4.0	TM
96						
97						
98						
99						
100						
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118						
119						
120						

Average

7.1

Data File : M:\THOR\DATA\T120411\0419T11W.D Vial: 1  
 Acq On : 19 Apr 12 9:45 Operator: DG,RS,HW,ARS,SV  
 Sample : 10ug/L Vol Std 04-19-12 Inst : Thor  
 Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: May 8 14:39 2012 Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 08 14:20:01 2012  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	499136	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	420608	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	266368	25.00000	ppb	0.00

System Monitoring Compounds

31) Dibromofluoromethane(S)	5.96	111	259074	31.12693	ppb	0.00
Spiked Amount			29.720	Recovery = 104.733%		
36) 1,2-DCA-D4(S)	6.34	65	227385	29.95193	ppb	0.00
Spiked Amount			29.608	Recovery = 101.162%		
56) Toluene-D8(S)	8.44	98	901334	32.11889	ppb	0.00
Spiked Amount			31.981	Recovery = 100.433%		
64) 4-Bromofluorobenzene(S)	11.06	95	356040	30.62971	ppb	0.00
Spiked Amount			29.353	Recovery = 104.351%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.29	85	64912	10.79920	ppb	100
3) Freon 114	1.41	85	42766	9.85923	ppb	93
4) Chloromethane	1.45	50	58361	10.25898	ppb	98
5) Vinyl chloride	1.56	62	97507	10.23029	ppb	98
6) Bromomethane	1.87	94	67767	9.89754	ppb	98
7) Chloroethane	1.97	64	55487	10.46712	ppb	100
8) Dichlorofluoromethane	2.18	67	9532	8.50481	ppb	84
9) Trichlorofluoromethane	2.24	101	32335	10.18362	ppb	93
10) Acrolein	2.69	55	39595	78.36592	ppb	# 7
11) Acetone	2.95	43	15349m	8.87256	ppb	93
12) Freon-113	2.85	101	54981	10.93872	ppb	95
13) 1,1-DCE	2.82	61	76639	9.15906	ppb	93
14) t-Butanol	3.87	59	5822	55.80855	ppb	97
15) Methyl Acetate	3.37	43	41853	8.99123	ppb	95
16) Iodomethane	2.98	142	85051	9.61951	ppb	94
17) Acrylonitrile	3.85	52	14084	10.21270	ppb	97
18) Methylene chloride	3.46	84	21872	8.10155	ppb	90
19) Carbon disulfide	3.06	76	25696	8.74976	ppb	97
20) Methyl t-butyl ether (MtBE)	3.93	73	80779	8.80212	ppb	98
21) Trans-1,2-DCE	3.87	96	55134	9.76124	ppb	94
22) Diisopropyl Ether	4.73	59	22468	9.18657	ppb	99
23) 1,1-DCA	4.51	63	115960	9.36069	ppb	98
24) Vinyl Acetate	4.73	87	54440	8.93575	ppb	95
25) Ethyl tert Butyl Ether	5.24	59	102883	8.13181	ppb	97
26) MEK (2-Butanone)	5.43	43	18624	8.90056	ppb	100
27) Cis-1,2-DCE	5.34	96	72548	8.82423	ppb	95
28) 2,2-Dichloropropane	5.32	77	52273	11.14531	ppb	95
29) Chloroform	5.77	83	128388	9.41168	ppb	94
30) Bromochloromethane	5.64	128	38440	9.76986	ppb	79
32) 1,1,1-TCA	5.97	97	85001	9.47731	ppb	97
33) Cyclohexane	6.04	41	27292	8.18052	ppb	97
34) 1,1-Dichloropropene	6.18	75	69140	8.76251	ppb	93
35) 2,2,4-Trimethylpentane	6.56	57	111459	10.67541	ppb	100
37) Carbon Tetrachloride	6.17	117	86062	9.81153	ppb	90
38) Tert Amyl Methyl Ether	6.61	73	117793	8.44144	ppb	98
39) 1,2-DCA	6.43	62	76395	8.77081	ppb	100
40) Benzene	6.41	78	248623	8.84183	ppb	100
41) TCE	7.16	95	69991	8.79965	ppb	98
42) 2-Pentanone	7.39	43	425179	119.51797	ppb	99

(#) = qualifier out of range (m) = manual integration  
 0419T11W.D TALLW.M Tue May 08 14:40:33 2012

Data File : M:\THOR\DATA\T120411\0419T11W.D  
 Acq On : 19 Apr 12 9:45  
 Sample : 10ug/L Vol Std 04-19-12  
 Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 1  
 Operator: DG,RS,HW,ARS,SV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: May 8 14:39 2012

Quant Results File: TALLW.RES

Quant Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 08 14:20:01 2012  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 1,2-Dichloropropane	7.39	63	76469	9.15161	ppb	98
44) Bromodichloromethane	7.69	83	96075	9.29785	ppb	99
45) Methyl Cyclohexane	7.37	83	65290	9.78256	ppb	89
46) Dibromomethane	7.50	93	40638	9.20333	ppb	94
48) MIBK (methyl isobutyl ket	8.35	43	22432	8.29666	ppb	97
49) 1-Bromo-2-chloroethane	8.00	63	47544	8.71505	ppb	100
50) Cis-1,3-Dichloropropene	8.17	75	102786	9.33534	ppb	95
51) Toluene	8.51	91	298093	9.03655	ppb	99
52) Trans-1,3-Dichloropropene	8.74	75	88369	9.57375	ppb	98
53) 1,1,2-TCA	8.92	83	53642	9.11737	ppb	98
54) 2-Hexanone	9.20	43	27517	9.08221	ppb	95
57) 1,2-EDB	9.41	107	60311	9.58966	ppb	99
58) Tetrachloroethene	9.07	166	84527	9.45192	ppb	96
59) 1-Chlorohexane	9.92	91	86259	9.10850	ppb	97
60) 1,1,1,2-Tetrachloroethane	10.00	131	82859	9.79207	ppb	98
61) m&p-Xylene	10.16	106	274798	18.96352	ppb	95
62) o-Xylene	10.55	106	130605	9.07137	ppb	95
63) Styrene	10.56	104	227212	9.38991	ppb	96
65) 1,3-Dichloropropane	9.08	76	98940	8.81447	ppb	93
66) Dibromochloromethane	9.31	129	77123	9.59556	ppb	96
67) Chlorobenzene	9.92	112	221715	9.23229	ppb	99
68) Ethylbenzene	10.04	91	345872	9.21165	ppb	99
69) Bromoform	10.73	173	51195	9.55415	ppb	92
71) Isopropylbenzene	10.92	105	329772	8.85851	ppb	99
72) 1,1,2,2-Tetrachloroethane	11.20	83	76375	9.45795	ppb	97
73) 1,2,3-Trichloropropane	11.24	110	21716	8.46740	ppb	96
74) t-1,4-Dichloro-2-Butene	11.26	53	14083	9.07366	ppb	91
75) Bromobenzene	11.21	156	107715	8.99243	ppb	98
76) n-Propylbenzene	11.33	91	417619	9.20675	ppb	99
77) 4-Ethyltoluene	11.45	105	248440	9.58758	ppb	100
78) 2-Chlorotoluene	11.41	91	284530	9.06298	ppb	99
79) 1,3,5-Trimethylbenzene	11.51	105	308242	9.33478	ppb	99
80) 4-Chlorotoluene	11.51	91	299480	9.11674	ppb	100
81) Tert-Butylbenzene	11.83	119	260511	9.09554	ppb	98
82) 1,2,4-Trimethylbenzene	11.88	105	307414	9.20336	ppb	99
83) Sec-Butylbenzene	12.05	105	369141	9.37997	ppb	96
84) p-Isopropyltoluene	12.20	119	322515	9.44873	ppb	98
85) Benzyl Chloride	12.37	91	120705	12.18112	ppb	98
86) 1,3-DCB	12.15	146	211093	9.02434	ppb	97
87) 1,4-DCB	12.23	146	214236	9.15260	ppb	98
88) n-Butylbenzene	12.61	91	277441	9.53166	ppb	99
89) 1,2-DCB	12.60	146	193280	8.94124	ppb	99
90) Hexachloroethane	12.87	117	58525	9.64492	ppb	99
91) 1,2-Dibromo-3-chloropropan	13.37	157	15734	9.89452	ppb	91
92) 1,2,4-Trichlorobenzene	14.21	180	88728	9.56777	ppb	98
93) Hexachlorobutadiene	14.40	223	39521	9.95621	ppb	87
94) Naphthalene	14.45	128	222363	9.16980	ppb	100
95) 1,2,3-Trichlorobenzene	14.69	180	125663	9.59809	ppb	97

Quantitation Report

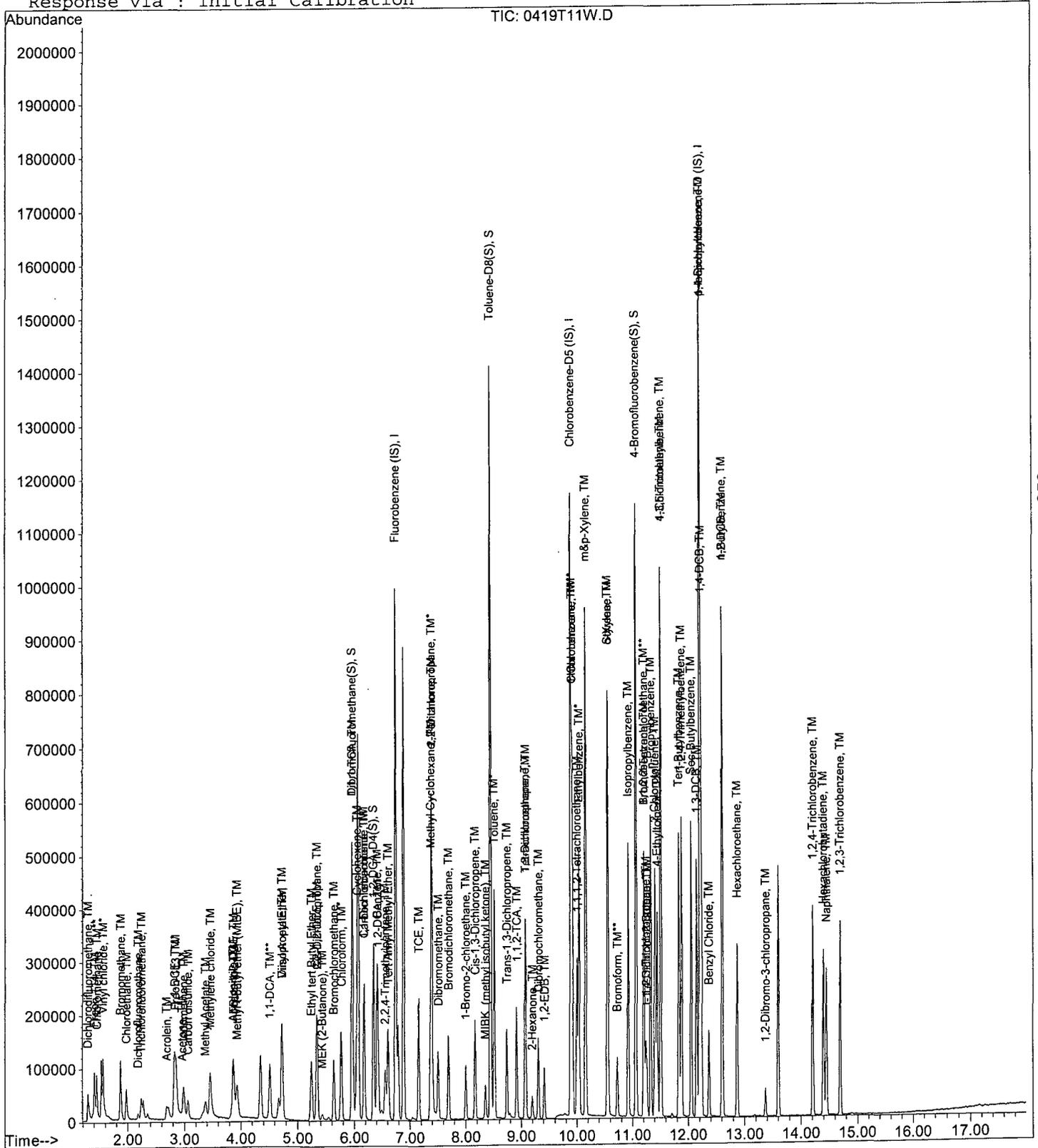
Data File : M:\THOR\DATA\T120411\0419T11W.D  
Acq On : 19 Apr 12 9:45  
Sample : 10ug/L Vol Std 04-19-12  
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 1  
Operator: DG, RS, HW, ARS, SV  
Inst : Thor  
Multiplr: 1.00

Quant Time: May 8 14:39 2012

Quant Results File: TALLW.RES

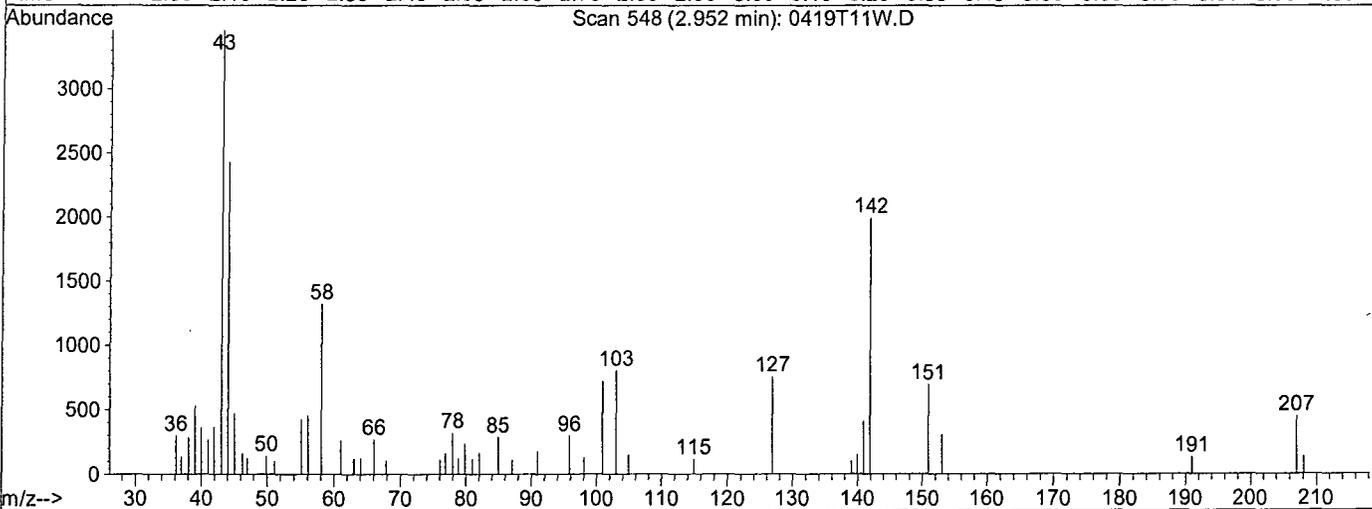
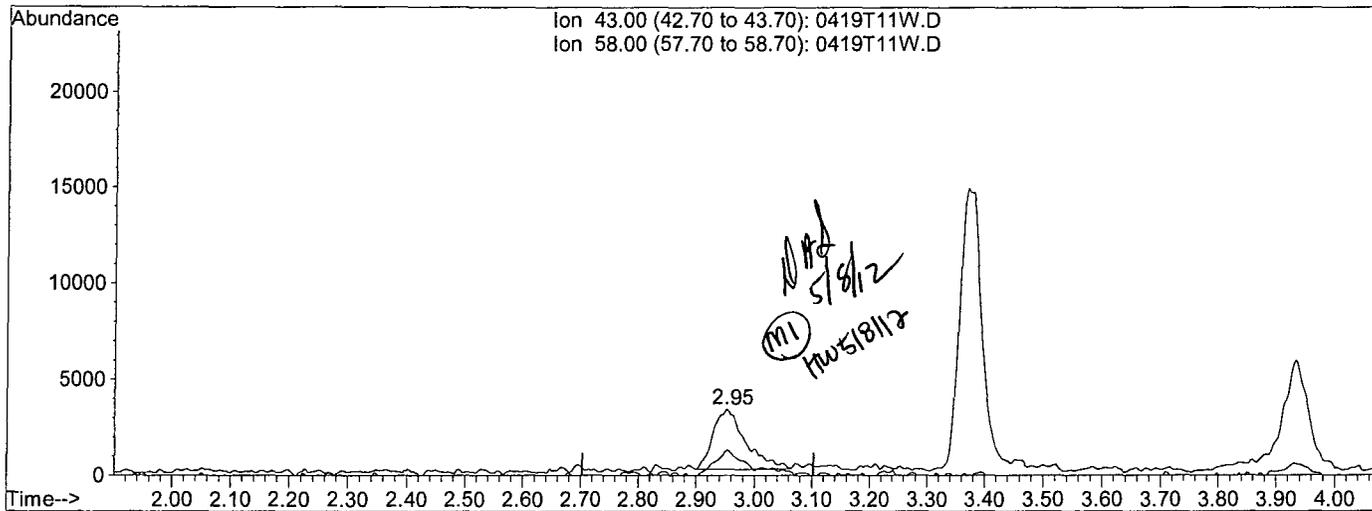
Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue May 08 14:20:01 2012  
Response via : Initial Calibration



Quantitation Report

Data File : M:\THOR\DATA\T120411\0419T11W.D Vial: 1  
 Acq On : 19 Apr 12 9:45 Operator: DG,RS,HW,ARS,SV  
 Sample : 10ug/L Vol Std 04-19-12 Inst : Thor  
 Misc : 10ml w/Sul of IS&S: 03-26-12 Multiplr: 1.00  
 Quant Time: May 8 14:38 2012 Quant Results File: temp.res

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 08 14:20:01 2012  
 Response via : Multiple Level Calibration



TIC: 0419T11W.D

(11) Acetone (TM)

2.95min 6.7290ppb

response 12262

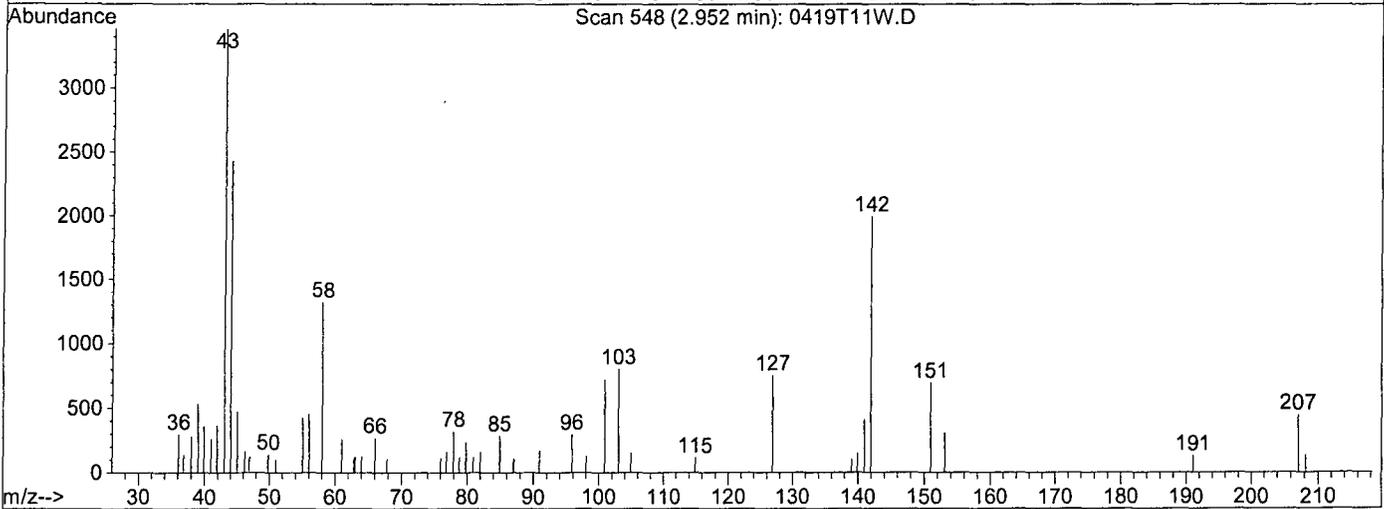
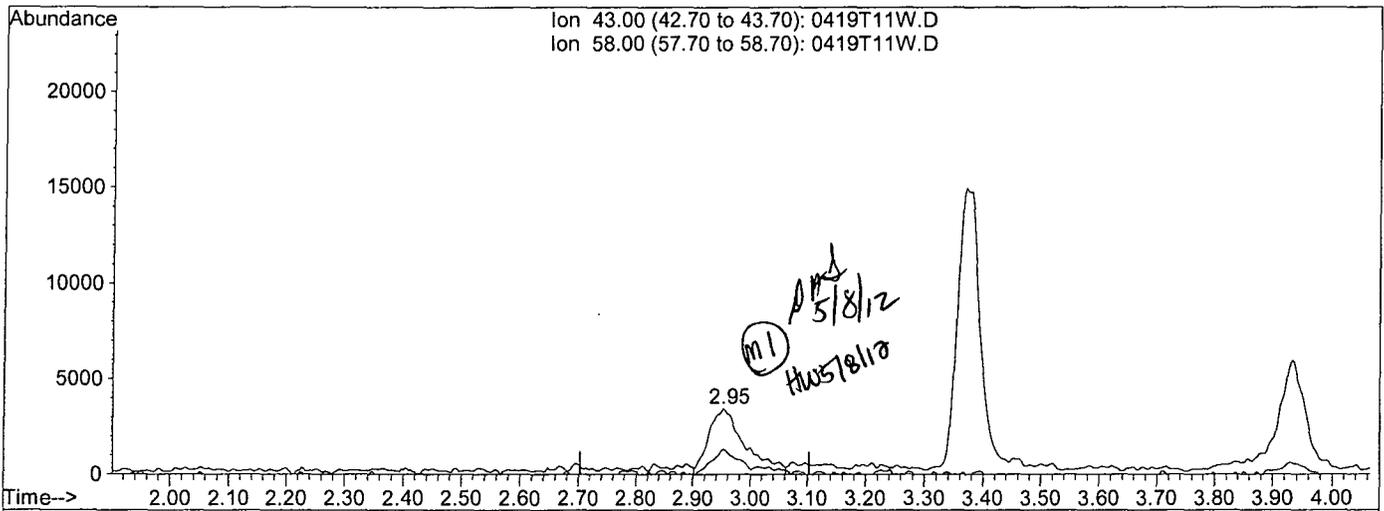
Ion	Exp%	Act%
43.00	100	100
58.00	37.80	42.25
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\THOR\DATA\T120411\0419T11W.D  
 Acq On : 19 Apr 12 9:45  
 Sample : 10ug/L Vol Std 04-19-12  
 Misc : 10ml w/5ul of IS&S: 03-26-12  
 Quant Time: May 8 14:39 2012

Vial: 1  
 Operator: DG,RS,HW,ARS,SV  
 Inst : Thor  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 08 14:20:01 2012  
 Response via : Multiple Level Calibration



TIC: 0419T11W.D

(11) Acetone (TM)

2.95min 8.8726ppb m

response 15349

Ion	Exp%	Act%
43.00	100	100
58.00	37.80	38.26
0.00	0.00	0.00
0.00	0.00	0.00

**EPA METHOD 8260B  
Volatile Organic Compounds  
Raw Data**

**APPL, INC.**

# Method Blank

## EPA 8260B VOCs + Gas Water

Blank Name/QCG: **120418W-59184 - 166402**  
 Batch ID: #86RHB-120418AC

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/18/12	04/18/12
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/18/12	04/18/12
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/18/12	04/18/12
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	04/18/12	04/18/12
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/18/12	04/18/12
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/18/12	04/18/12
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/18/12	04/18/12
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/18/12	04/18/12
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/18/12	04/18/12
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/18/12	04/18/12
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/18/12	04/18/12
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/18/12	04/18/12
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/18/12	04/18/12
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/18/12	04/18/12
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/18/12	04/18/12
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	04/18/12	04/18/12
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/18/12	04/18/12
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	04/18/12	04/18/12

Quant Method: CALLW3.M  
 Run #: 0418C10  
 Instrument: Chico  
 Sequence: C120410  
 Initials: ARS

Printed: 05/01/12 5:21:59 PM  
 GC SC-Blank-REG MDLs

**Method Blank**  
**EPA 8260B VOCs + Gas Water**

Blank Name/QCG: **120418W-59184 - 166402**  
 Batch ID: #86RHB-120418AC

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/18/12	04/18/12
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/18/12	04/18/12
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	04/18/12	04/18/12
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/18/12	04/18/12
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/18/12	04/18/12
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/18/12	04/18/12
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/18/12	04/18/12
BLANK	SURROGATE: 1,2-DICHLOROET	96.3	70-120			%	04/18/12	04/18/12
BLANK	SURROGATE: 4-BROMOFLUORO	101	75-120			%	04/18/12	04/18/12
BLANK	SURROGATE: DIBROMOFLUOR	100	85-115			%	04/18/12	04/18/12
BLANK	SURROGATE: TOLUENE-D8 (S)	93.4	85-120			%	04/18/12	04/18/12

Quant Method: CALLW3.M  
 Run #: 0418C10  
 Instrument: Chico  
 Sequence: C120410  
 Initials: ARS

Printed: 05/01/12 5:21:59 PM  
 GC SC-Blank-REG MDLs

Data File : M:\CHICO\DATA\C120410\0418C10W.D Vial: 1  
 Acq On : 18 Apr 12 17:20 Operator: SV  
 Sample : 120418A BLK-1WC Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 19 11:19 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.81	96	640057	25.00000	ppb	-0.04
54) Chlorobenzene-D5 (IS)	18.00	117	467968	25.00000	ppb	-0.04
70) 1,4-Dichlorobenzene-D (IS)	22.20	152	210496	25.00000	ppb	-0.03
System Monitoring Compounds						
32) Dibromofluoromethane(S)	11.40	111	390814	20.95868	ppb	-0.04
Spiked Amount	20.866					
				Recovery	=	100.447%
37) 1,2-DCA-D4(S)	12.20	65	299077	20.25652	ppb	-0.04
Spiked Amount	21.039					
				Recovery	=	96.283%
55) Toluene-D8(S)	15.47	98	1352589	23.68794	ppb	-0.04
Spiked Amount	25.355					
				Recovery	=	93.425%
63) 4-Bromofluorobenzene(S)	20.07	95	638380	27.25480	ppb	-0.03
Spiked Amount	27.007					
				Recovery	=	100.918%

Target Compounds Qvalue

Quantitation Report

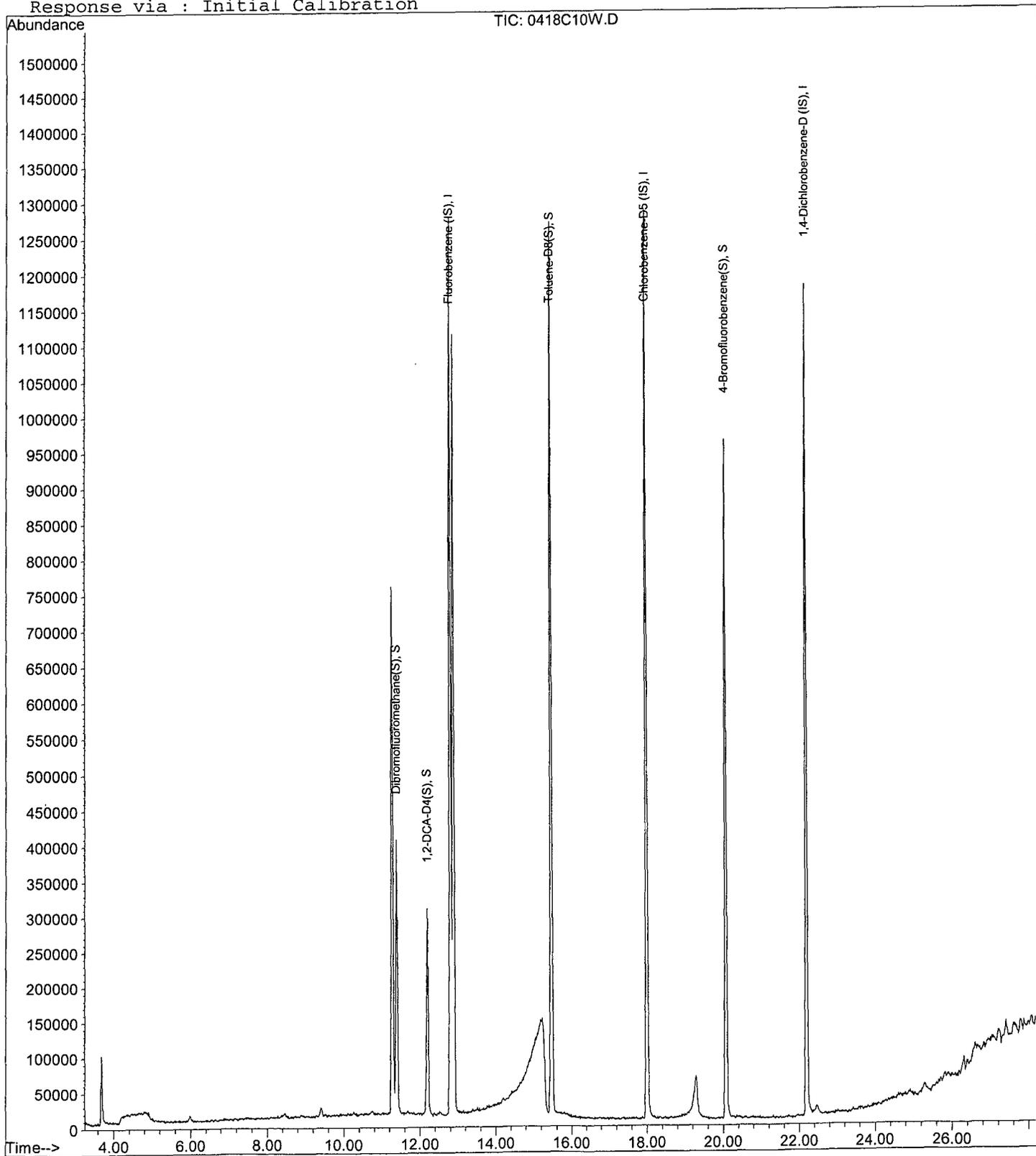
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Acq On : 18 Apr 12 17:20  
Sample : 120418A BLK-1WC  
Misc : Water 10mL w/IS&S:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 19 11:19 2012

Quant Results File: CALLW3.RES

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 2012  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C120410\0418C10W.D Vial: 1  
 Acq On : 18 Apr 12 17:20 Operator: SV  
 Sample : 120418A BLK-1WC Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 19 11:12 2012 Quant Results File: CGAS.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.81	TIC	1262483	25.00000	ppb	0.02
3) Chlorobenzene-D5 (IS)	18.00	TIC	1277666	25.00000	ppb	0.02
4) 1,4-Dichlorobenzene-D (IS)	22.20	TIC	1171131	25.00000	ppb	0.02

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	24725600m	33.24123	ppb	ND 100

*No gasoline pattern  
 ARS 5/1/12*

Quantitation Report

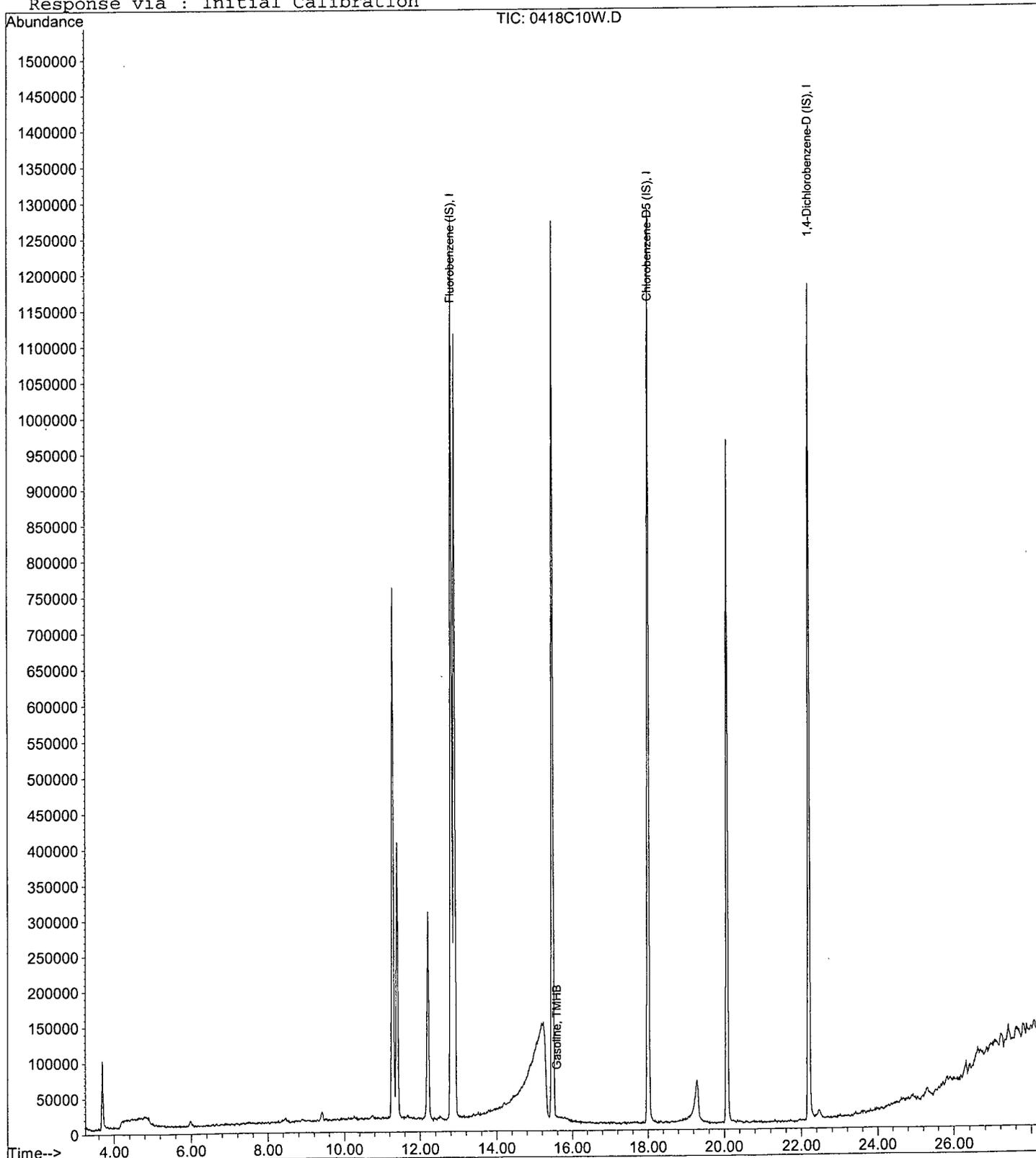
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Acq On : 18 Apr 12 17:20  
Sample : 120418A BLK-1WC  
Misc : Water 10mL w/IS&S:04-10-12

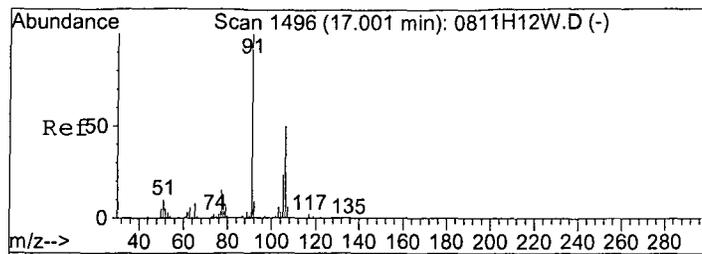
Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 19 11:12 2012

Quant Results File: CGAS.RES

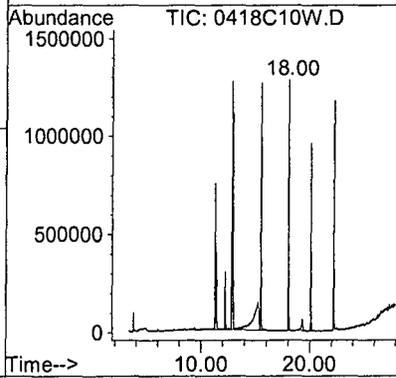
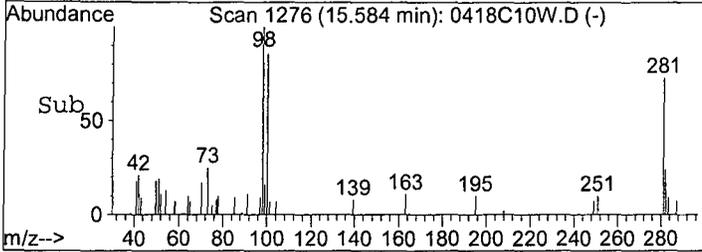
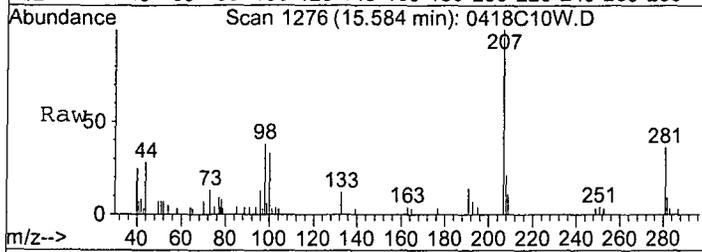
Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Feb 07 09:36:43 2012  
Response via : Initial Calibration





#2  
 Gasoline  
 Concen: 33.24123 ppb m  
 RT: 15.58 min Scan# 1276  
 Delta R.T. 0.00 min  
 Lab File: 0418C10W.D  
 Acq: 18 Apr 12 17:20

Tgt Ion:TIC Resp:24725600



**Method Blank**  
**EPA 8260B VOCs + Gas Water**

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

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

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

Printed: 05/01/12 5:21:59 PM  
GC SC-Blank-REG MDLs

**Method Blank**  
**EPA 8260B VOCs + Gas Water**

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

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

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

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

Printed: 05/01/12 5:21:59 PM  
 GC SC-Blank-REG MDLs

Data File : M:\THOR\DATA\T120411\0419T17W.D Vial: 7  
 Acq On : 19 Apr 12 12:32 Operator: DG,RS,HW,ARS,SV  
 Sample : 120419A BLK-1WT Inst : Thor  
 Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 20 10:30 2012 Quant Results File: TALLW.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	474432	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	395840	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	232000	25.00000	ppb	0.00
System Monitoring Compounds						
31) Dibromofluoromethane(S)	5.96	111	245593	31.04369	ppb	0.00
Spiked Amount	29.720				Recovery = 104.454%	
36) 1,2-DCA-D4(S)	6.34	65	223389	30.95777	ppb	0.00
Spiked Amount	29.608				Recovery = 104.560%	
56) Toluene-D8(S)	8.44	98	845144	32.00098	ppb	0.00
Spiked Amount	31.981				Recovery = 100.064%	
64) 4-Bromofluorobenzene(S)	11.06	95	308916	28.23855	ppb	0.00
Spiked Amount	29.353				Recovery = 96.205%	

Target Compounds Qvalue

Quantitation Report

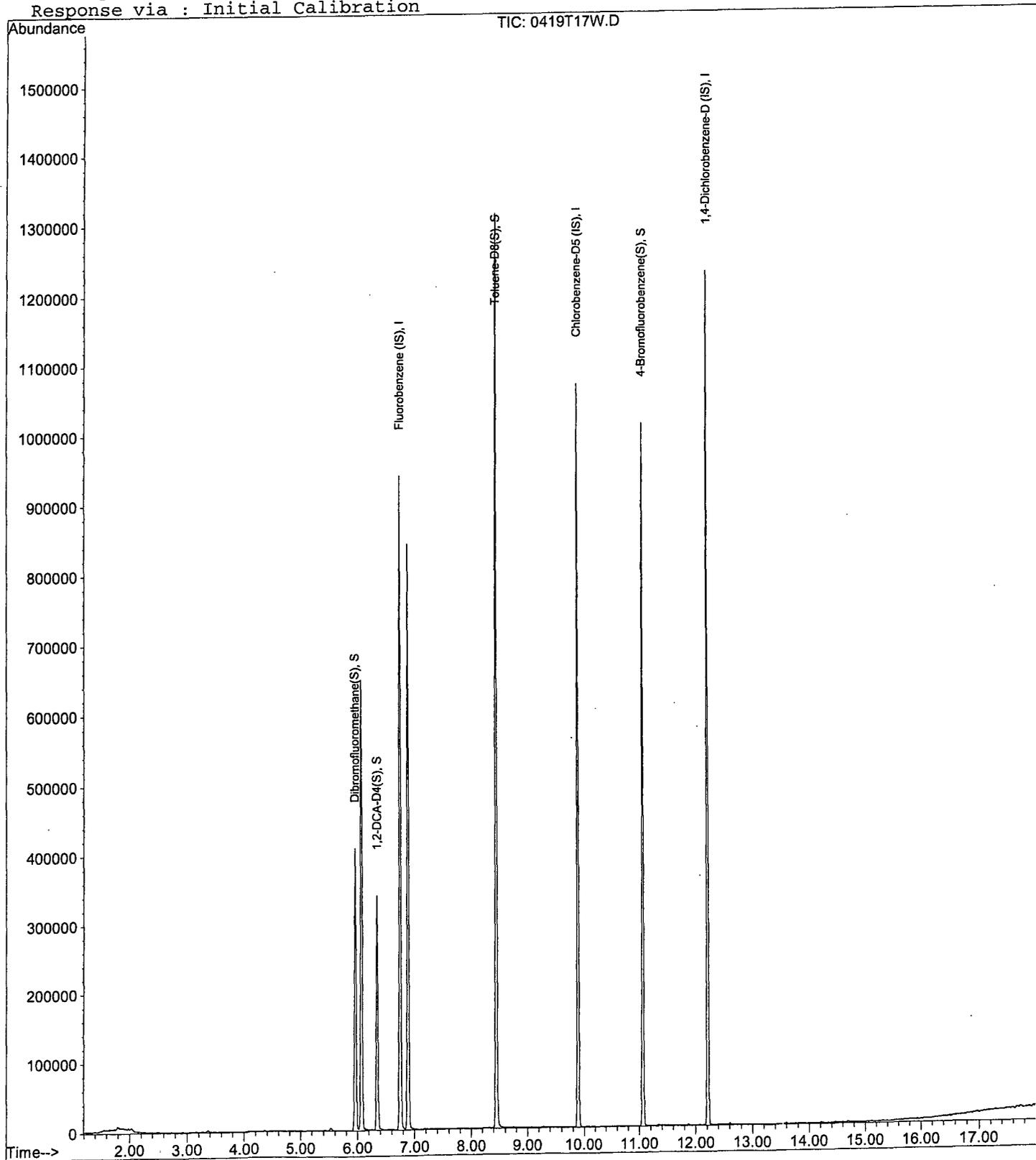
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Acq On : 19 Apr 12 12:32  
Sample : 120419A BLK-1WT  
Misc : 10ml w/5ul of IS&S: 03-26-12

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

Quant Time: Apr 20 10:30 2012

Quant Results File: TALLW.RES

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



Data File : M:\CHICO\DATA\C120410\0419C09W.D Vial: 1  
 Acq On : 19 Apr 12 11:44 Operator: SV  
 Sample : 120419A BLK-1WC Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.80	TIC	1323975	25.00000	ppb	0.01
3) Chlorobenzene-D5 (IS)	17.99	TIC	1379507	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1323331	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	24653554m	22.14838	ppb	ND 100

*No gasoline pattern detected.  
 ARS 5/1/12*

Quantitation Report

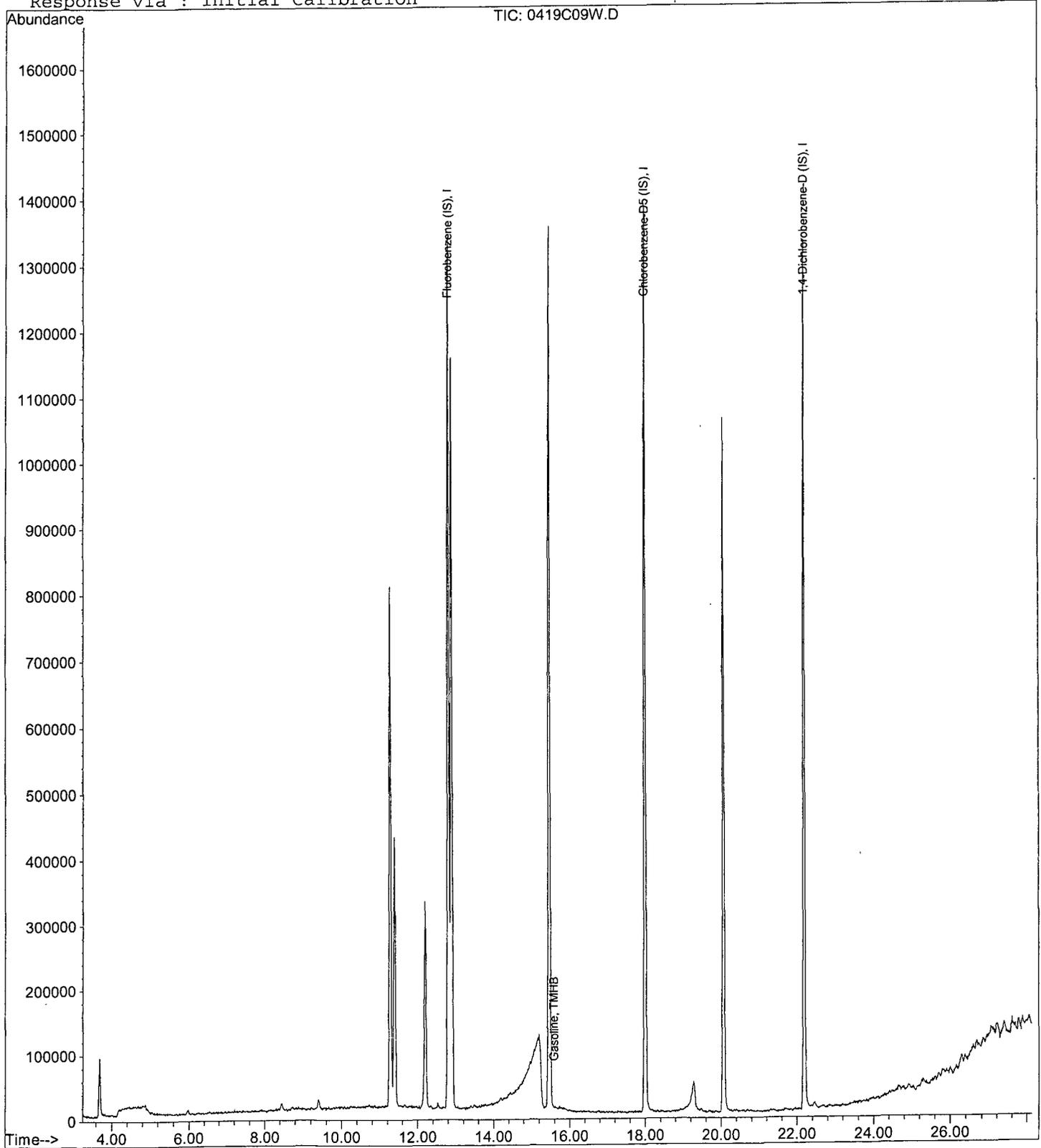
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Sample : 120419A BLK-1WC  
Misc : Water 10mL w/IS&S:04-10-12

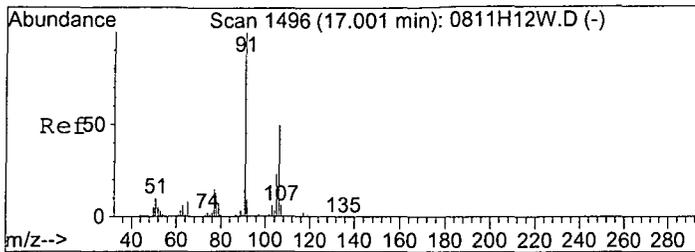
Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: May 1 14:00 2012

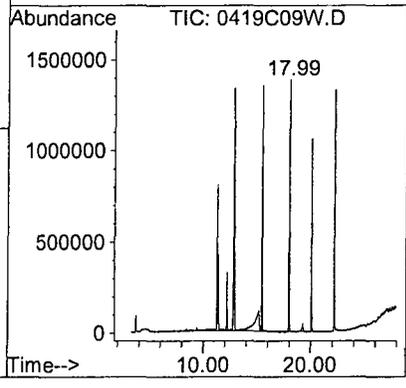
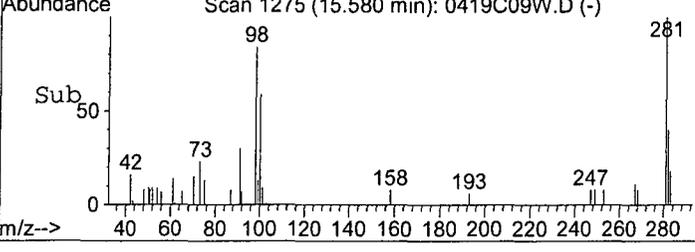
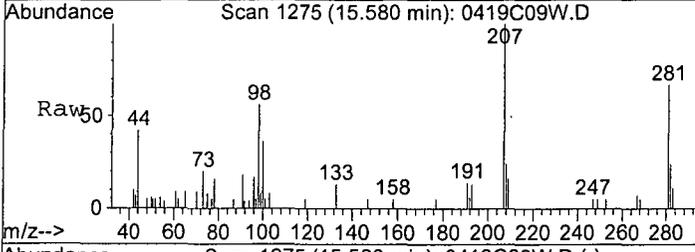
Quant Results File: CGAS.RES

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





#2  
 Gasoline  
 Concen: 22.14838 ppb m  
 RT: 15.58 min Scan# 1275  
 Delta R.T. 0.00 min  
 Lab File: 0419C09W.D  
 Acq: 19 Apr 12 11:44  
 Tgt Ion:TIC Resp:24653554



## Laboratory Control Spike Recovery

### EPA 8260B VOCs + Gas Water

APPL ID: 120418W-59184 LCS - 166402  
 Batch ID: #86RHB-120418AC

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	9.06	90.6	80-130
1,1,1-TRICHLOROETHANE	10.00	9.15	91.5	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	9.65	96.5	65-130
1,1,2-TRICHLOROETHANE	10.00	9.49	94.9	75-125
1,1-DICHLOROETHANE	10.00	9.34	93.4	70-135
1,1-DICHLOROETHENE	10.00	8.63	86.3	70-130
1,2,3-TRICHLOROPROPANE	10.00	8.57	85.7	75-125
1,2,4-TRICHLOROBENZENE	10.00	9.67	96.7	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	7.60	76.0	50-130
1,2-DIBROMOETHANE	10.00	9.04	90.4	70-130
1,2-DICHLOROBENZENE	10.00	9.70	97.0	70-120
1,2-DICHLOROETHANE	10.00	9.10	91.0	70-130
1,2-DICHLOROPROPANE	10.00	9.44	94.4	75-125
1,3-DICHLOROBENZENE	10.00	9.86	98.6	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	18.8	94.0	70-130
1,4-DICHLOROBENZENE	10.00	9.47	94.7	75-125
2-BUTANONE	10.00	8.34	83.4	30-150
4-METHYL-2-PENTANONE	10.00	10.5	105	60-135
ACETONE	10.00	9.15	91.5	40-140
BENZENE	10.00	9.07	90.7	80-120
BROMODICHLOROMETHANE	10.00	9.53	95.3	75-120
BROMOFORM	10.00	8.64	86.4	70-130
BROMOMETHANE	10.00	9.53	95.3	30-145
CARBON TETRACHLORIDE	10.00	8.97	89.7	65-140
CHLOROBENZENE	10.00	9.42	94.2	80-120
CHLORODIBROMOMETHANE	10.00	8.98	89.8	60-135
CHLOROETHANE	10.00	8.93	89.3	60-135
CHLOROFORM	10.00	9.40	94.0	65-135
CHLOROMETHANE	10.00	10.2	102	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.85	98.5	70-125
ETHYLBENZENE	10.00	9.18	91.8	75-125

Comments: \_\_\_\_\_  
 \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>
Quant Method :	CALLW3.M
Extraction Date :	04/18/12
Analysis Date :	04/18/12
Instrument :	Chico
Run :	0418C04
Initials :	ARS

Printed: 05/01/12 5:21:43 PM  
 APPL Standard LCS

## Laboratory Control Spike Recovery

### EPA 8260B VOCs + Gas Water

APPL ID: 120418W-59184 LCS - 166402  
 Batch ID: #86RHB-120418AC

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	286	95.3	75-125
HEXACHLOROBUTADIENE	10.00	9.18	91.8	50-140
METHYL TERT-BUTYL ETHER	10.00	9.21	92.1	65-125
METHYLENE CHLORIDE	10.00	9.56	95.6	55-140
STYRENE	10.00	9.46	94.6	65-135
TETRACHLOROETHENE	10.00	9.02	90.2	45-150
TOLUENE	10.00	9.59	95.9	75-120
TRANS-1,2-DICHLOROETHENE	10.00	9.17	91.7	60-140
TRICHLOROETHENE	10.00	9.43	94.3	70-125
VINYL CHLORIDE	10.00	10.3	103	50-145
XYLENES (TOTAL)	30.0	28.0	93.3	80-120
SURROGATE: 1,2-DICHLOROETHANE-D	21.0	19.3	91.7	70-120
SURROGATE: 4-BROMOFLUOROBENZE	27.0	26.8	99.2	75-120
SURROGATE: DIBROMOFLUOROMETH	20.9	21.0	101	85-115
SURROGATE: TOLUENE-D8 (S)	25.4	23.9	94.3	85-120

Comments: \_\_\_\_\_  
 \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>
Quant Method :	CALLW3.M
Extraction Date :	04/18/12
Analysis Date :	04/18/12
Instrument :	Chico
Run :	0418C04
Initials :	ARS

Printed: 05/01/12 5:21:43 PM  
 APPL Standard LCS

Data File : M:\CHICO\DATA\C120410\0418C04W.D Vial: 1  
 Acq On : 18 Apr 12 11:18 Operator: SV  
 Sample : 120418A LCS-1WC Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 18 11:43 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.80	96	650996	25.00000	ppb	-0.06
54) Chlorobenzene-D5 (IS)	17.99	117	518080	25.00000	ppb	-0.05
70) 1,4-Dichlorobenzene-D (IS)	22.19	152	232832	25.00000	ppb	-0.04
System Monitoring Compounds						
32) Dibromofluoromethane(S)	11.38	111	398577	21.01582	ppb	-0.06
Spiked Amount	20.866		Recovery	=	100.720%	
37) 1,2-DCA-D4(S)	12.19	65	289552	19.28185	ppb	-0.05
Spiked Amount	21.039		Recovery	=	91.649%	
55) Toluene-D8(S)	15.46	98	1509444	23.87799	ppb	-0.05
Spiked Amount	25.355		Recovery	=	94.174%	
63) 4-Bromofluorobenzene(S)	20.06	95	693865	26.75827	ppb	-0.04
Spiked Amount	27.007		Recovery	=	99.078%	
Target Compounds						
2) Dichlorodifluoromethane	4.09	85	164136	7.74996	ppb	96
3) Freon 114	4.34	85	74162	9.09106	ppb	83
4) Chloromethane	4.57	52	93193	10.23338	ppb	98
5) Vinyl chloride	4.84	62	62312	10.29389	ppb	99
6) Bromomethane	5.73	94	39704	9.53482	ppb	97
7) Chloroethane	5.91	64	46199	8.92631	ppb	100
8) Dichlorofluoromethane	6.00	67	380018	9.85134	ppb	96
9) Trichlorofluoromethane	6.52	103	39888	8.74601	ppb	95
10) Acetonitrile	7.64	41	155843	134.32440	ug/l	100
11) Acrolein	7.14	56	138831	111.39723	ppb	95
12) Acetone	7.26	43	22817	9.14583	ppb	# 61
13) Freon-113	7.44	101	127297	9.38872	ppb	98
14) 1,1-DCE	7.66	96	117565	8.63323	ppb	99
15) t-Butanol	7.74	59	64108	120.19878	ppb	# 87
16) Methyl Acetate	8.17	43	82203	9.49178	ppb	100
17) Iodomethane	8.14	142	178665	8.94948	ppb	96
18) Acrylonitrile	8.54	53	31047	9.21809	ppb	91
19) Methylene chloride	8.45	84	160102	9.55794	ppb	88
20) Carbon disulfide	8.54	76	51720	8.69328	ppb	100
21) Methyl t-butyl ether (MtBE)	8.87	73	322232	9.21406	ppb	98
22) Trans-1,2-DCE	9.07	96	146315	9.17226	ppb	98
23) Diisopropyl Ether	9.72	45	658710	9.44783	ppb	99
24) 1,1-DCA	9.76	63	342824	9.34413	ppb	100
25) Vinyl Acetate	9.39	43	42856	9.38825	ppb	98
26) Ethyl tert Butyl Ether	10.42	59	485199	9.41555	ppb	97
27) MEK (2-Butanone)	10.41	43	17704	8.33570	ppb	90
28) Cis-1,2-DCE	10.79	96	195035	9.85191	ppb	95
29) 2,2-Dichloropropane	10.78	77	241481	9.73800	ppb	98
30) Chloroform	11.06	85	192834	9.40041	ppb	97
31) Bromochloromethane	11.28	128	77138	9.24105	ppb	87
33) 1,1,1-TCA	11.80	97	229242	9.14513	ppb	98
34) Cyclohexane	11.97	56	190447	8.87928	ppb	96
35) 1,1-Dichloropropene	12.07	75	200756	9.16469	ppb	98
36) 2,2,4-Trimethylpentane	12.14	57	456260	10.73243	ppb	96
38) Carbon Tetrachloride	12.27	117	196031	8.97326	ppb	98
39) Tert Amyl Methyl Ether	12.31	73	373383	9.20287	ppb	98
40) 1,2-DCA	12.34	62	152939	9.09943	ppb	97
41) Benzene	12.46	78	666078	9.06808	ppb	99
42) TCE	13.49	95	166627	9.42985	ppb	97

Data File : M:\CHICO\DATA\C120410\0418C04W.D Vial: 1  
 Acq On : 18 Apr 12 11:18 Operator: SV  
 Sample : 120418A LCS-1WC Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 18 11:43 2012 Quant Results File: CALLW3.RES

Quant Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Wed Apr 11 14:32:33 2012  
 Response via : Initial Calibration  
 DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	13.16	43	786862	120.05511	ppb	100
44) 1,2-Dichloropropane	13.73	63	205110	9.44039	ppb	99
45) Bromodichloromethane	14.07	83	200783	9.53321	ppb	94
46) Methyl Cyclohexane	13.77	83	171962	9.48546	ppb	100
47) Dibromomethane	14.13	93	78965	9.28413	ppb	94
48) 2-Chloroethyl vinyl ether	14.53	63	71800	9.73103	ppb	98
49) 1-Bromo-2-chloroethane	14.84	63	178446	9.01566	ppb	99
50) <u>Cis-1,3-Dichloropropene</u>	14.96	75	265286	9.26012	ppb	99
51) Toluene	15.59	91	687237	9.58906	ppb	99
52) <u>Trans-1,3-Dichloropropene</u>	15.76	75	193918	9.49181	ppb	99
53) <u>1,1,2-TCA</u>	16.04	83	97929	9.49346	ppb	98
56) 1,2-EDB	17.28	107	108450	9.04045	ppb	97
57) Tetrachloroethene	16.74	164	131708	9.01996	ppb	95
58) 1-Chlorohexane	17.65	91	256737	9.44677	ppb	97
59) 1,1,1,2-Tetrachloroethane	18.11	131	178911	9.05602	ppb	95
60) m&p-Xylene	18.31	106	659023	18.62809	ppb	95
61) o-Xylene	19.06	106	344238	9.33903	ppb	97
62) Styrene	19.08	104	550369	9.45869	ppb	99
64) 2-Hexanone	16.07	43	48292	8.54864	ppb	98
65) 1,3-Dichloropropane	16.44	76	200082	8.61292	ppb	93
66) Dibromochloromethane	16.93	129	141272	8.97535	ppb	99
67) Chlorobenzene	18.05	112	516629	9.41677	ppb	97
68) Ethylbenzene	18.17	91	802676	9.17925	ppb	98
69) Bromoform	19.59	173	60674	8.64224	ppb	100
71) MIBK (methyl isobutyl keto)	14.64	43	89655	10.46172	ppb	98
72) Isopropylbenzene	19.68	105	840230	9.74761	ppb	100
73) 1,1,2,2-Tetrachloroethane	19.84	83	116968	9.64535	ppb	97
74) 1,2,3-Trichloropropane	20.10	110	11015	8.56943	ppb	# 77
75) t-1,4-Dichloro-2-Butene	20.17	53	26110	9.33075	ppb	97
76) Bromobenzene	20.42	156	194924	9.32707	ppb	97
77) n-Propylbenzene	20.39	91	988511	9.80729	ppb	99
78) 4-Ethyltoluene	20.58	105	573460	9.64870	ppb	99
79) 2-Chlorotoluene	20.68	91	628506	9.48853	ppb	96
80) 1,3,5-Trimethylbenzene	20.66	105	681630	9.57086	ppb	99
81) 4-Chlorotoluene	20.76	91	566781	9.48975	ppb	100
82) Tert-Butylbenzene	21.30	119	765617	9.48074	ppb	97
83) 1,2,4-Trimethylbenzene	21.36	105	704137	9.79865	ppb	100
84) Sec-Butylbenzene	21.70	105	942768	9.70333	ppb	98
85) p-Isopropyltoluene	21.94	119	792687	9.56150	ppb	99
86) Benzyl Chloride	22.37	91	195140	9.98859	ppb	97
87) 1,3-DCB	22.07	146	417477	9.86013	ppb	99
88) 1,4-DCB	22.24	146	388378	9.46907	ppb	99
89) Hexachloroethane	23.54	117	174112	10.42641	ppb	96
90) n-Butylbenzene	22.65	91	677114	9.99426	ppb	97
91) 1,2-DCB	22.88	146	359290	9.70059	ppb	100
92) 1,2-Dibromo-3-chloropropan	24.10	155	13055	7.59576	ppb	78
93) 1,2,4-Trichlorobenzene	25.54	180	91583	9.66942	ppb	97
94) Hexachlorobutadiene	25.79	223	91641	9.18234	ppb	96
95) Naphthalene	25.89	128	396310	8.93984	ppb	97
96) 1,2,3-Trichlorobenzene	26.24	180	77954	9.36624	ppb	97

*1,3-dichloropropene total  
18.75193 ppb*

Quantitation Report

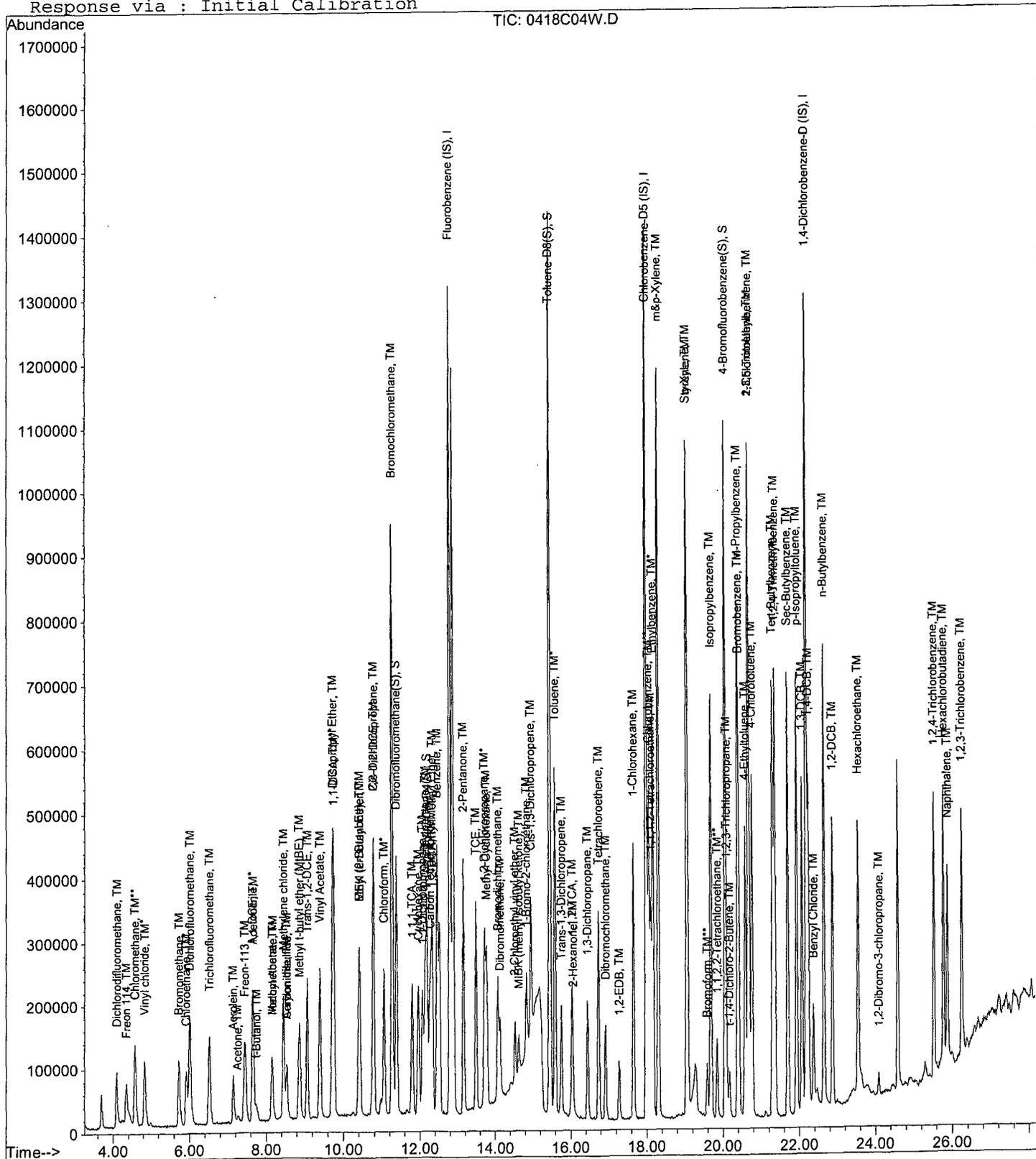
Data File : M:\CHICO\DATA\C120410\0418C04W.D  
Acq On : 18 Apr 12 11:18  
Sample : 120418A LCS-1WC  
Misc : Water 10mL w/IS&S:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 18 11:43 2012

Quant Results File: CALLW3.RES

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Wed Apr 11 14:32:33 2012  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C120410\0418C02W.D Vial: 1  
 Acq On : 18 Apr 12 10:04 Operator: SV  
 Sample : LCS gas 300ug/L Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

Quant Time: Apr 18 11:18 2012 Quant Results File: CGAS.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.80	TIC	1243671	25.00000	ppb	0.01
3) Chlorobenzene-D5 (IS)	17.99	TIC	1374752	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.19	TIC	1342497	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	51632977m	285.60198	ppb	100

Quantitation Report

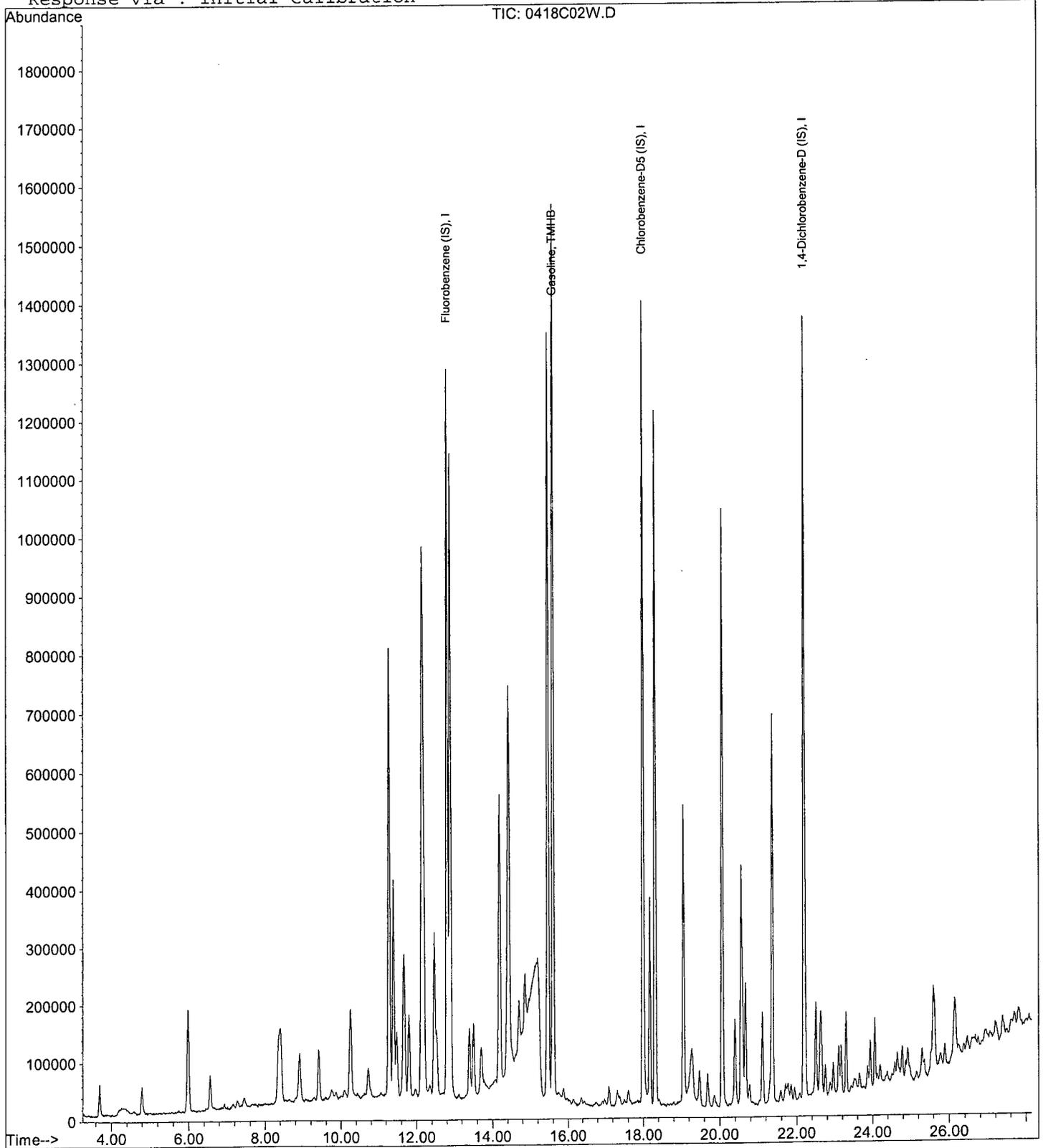
Data File : M:\CHICO\DATA\C120410\0418C02W.D  
Acq On : 18 Apr 12 10:04  
Sample : LCS gas 300ug/L  
Misc : Water 10mL w/IS&S:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 18 11:18 2012

Quant Results File: CGAS.RES

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



## Laboratory Control Spike Recovery

### EPA 8260B VOCs + Gas Water

APPL ID: 120419W-59236 LCS - 166110

Batch ID: #86RHB-120419AT

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

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

Comments: \_\_\_\_\_

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

Printed: 05/01/12 5:21:43 PM

APPL Standard LCS

## Laboratory Control Spike Recovery

### EPA 8260B VOCs + Gas Water

APPL ID: 120419W-59236 LCS - 166110

Batch ID: #86RHB-120419AT

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

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

Comments: \_\_\_\_\_

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

Printed: 05/01/12 5:21:43 PM

APPL Standard LCS

Data File : M:\THOR\DATA\T120411\0419T12W.D Vial: 2  
 Acq On : 19 Apr 12 10:13 Operator: DG,RS,HW,ARS,SV  
 Sample : 120419A LCS-1WT Inst : Thor  
 Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 20 10:06 2012 Quant Results File: TALLW.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.75	96	439424	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	9.89	117	375360	25.00000	ppb	0.00
70) 1,4-Dichlorobenzene-D (IS)	12.21	152	233344	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Dibromofluoromethane(S)	5.96	111	234443	31.99520	ppb	0.00
Spiked Amount	29.720		Recovery	=	107.653%	
36) 1,2-DCA-D4(S)	6.34	65	208330	31.17094	ppb	0.00
Spiked Amount	29.608		Recovery	=	105.279%	
56) Toluene-D8(S)	8.44	98	790791	31.57665	ppb	0.00
Spiked Amount	31.981		Recovery	=	98.738%	
64) 4-Bromofluorobenzene(S)	11.06	95	311312	30.01024	ppb	0.00
Spiked Amount	29.353		Recovery	=	102.239%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.30	85	56966	10.76508	ppb	100
3) Freon 114	1.42	85	36271	9.49815	ppb	96
4) Chloromethane	1.46	50	48860	9.78079	ppb	100
5) Vinyl chloride	1.57	62	86298	10.28461	ppb	99
6) Bromomethane	1.88	94	60602	10.05382	ppb	97
7) Chloroethane	1.98	64	48195	10.32698	ppb	95
8) Dichlorofluoromethane	2.19	67	6033	6.66903	ppb	87
9) Trichlorofluoromethane	2.25	101	24698	8.94042	ppb	88
10) Acrolein	2.70	55	35878	80.65851	ppb	# 62
11) Acetone	2.91	43	14435	9.59994	ppb	95
12) Freon-113	2.86	101	47145	10.65429	ppb	95
13) 1,1-DCE	2.83	61	68422	9.28820	ppb	97
14) t-Butanol	3.71	59	13687	118.84435	ppb	99
15) Methyl Acetate	3.36	43	42055	10.32788	ppb	98
16) Iodomethane	3.00	142	75890	9.74974	ppb	94
17) Acrylonitrile	3.83	52	13569	11.17628	ppb	90
18) Methylene chloride	3.46	84	20152	8.47878	ppb	93
19) Carbon disulfide	3.07	76	22488	8.69794	ppb	100
20) Methyl t-butyl ether (MtBE)	3.93	73	74723	9.24864	ppb	97
21) Trans-1,2-DCE	3.88	96	47307	9.51363	ppb	94
22) Diisopropyl Ether	4.72	59	20092	9.33141	ppb	95
23) 1,1-DCA	4.52	63	99676	9.13956	ppb	95
24) Vinyl Acetate	4.72	87	50509	9.41709	ppb	84
25) Ethyl tert Butyl Ether	5.23	59	97609	8.76332	ppb	99
26) MEK (2-Butanone)	5.40	43	18626	10.12275	ppb	99
27) Cis-1,2-DCE	5.34	96	68005	9.39566	ppb	97
28) 2,2-Dichloropropane	5.33	77	45569	11.03619	ppb	99
29) Chloroform	5.77	83	115732	9.63676	ppb	97
30) Bromochloromethane	5.64	128	34254	9.88898	ppb	98
32) 1,1,1-TCA	5.97	97	75801	9.60000	ppb	96
33) Cyclohexane	6.04	41	25029	8.52166	ppb	91
34) 1,1-Dichloropropene	6.18	75	60279	8.67761	ppb	93
35) 2,2,4-Trimethylpentane	6.56	57	92107	10.02068	ppb	98
37) Carbon Tetrachloride	6.18	117	74701	9.67357	ppb	94
38) Tert Amyl Methyl Ether	6.60	73	113060	9.20325	ppb	99
39) 1,2-DCA	6.43	62	75306	9.82063	ppb	99
40) Benzene	6.42	78	231183	9.33882	ppb	99
41) TCE	7.16	95	62586	8.93790	ppb	97
42) 2-Pentanone	7.38	43	408121	130.31231	ppb	98

(#) = qualifier out of range (m) = manual integration  
 0419T12W.D TALLW.M Mon Apr 23 14:14:10 2012

Data File : M:\THOR\DATA\T120411\0419T12W.D Vial: 2  
 Acq On : 19 Apr 12 10:13 Operator: DG, RS, HW, ARS, SV  
 Sample : 120419A LCS-1WT Inst : Thor  
 Misc : 10ml w/5ul of IS&S: 03-26-12 Multiplr: 1.00

Quant Time: Apr 20 10:06 2012 Quant Results File: TALLW.RES

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

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 1,2-Dichloropropane	7.39	63	70049	9.52246	ppb	97
44) Bromodichloromethane	7.69	83	87410	9.60878	ppb	98
45) Methyl Cyclohexane	7.37	83	55500	9.44570	ppb	95
46) Dibromomethane	7.51	93	38726	9.96209	ppb	94
48) MIBK (methyl isobutyl ket	8.34	43	22808	9.58203	ppb	99
49) 1-Bromo-2-chloroethane	8.00	63	46504	9.68277	ppb	97
50) <u>Cis-1,3-Dichloropropene</u>	8.17	75	94950	<u>9.79549</u>	<u>ppb</u>	96
51) Toluene	8.51	91	270905	9.32831	ppb	99
52) <u>Trans-1,3-Dichloropropene</u>	8.74	75	83061	<u>10.22149</u>	<u>ppb</u>	96
53) 1,1,2-TCA	8.91	83	51385	9.92056	ppb	99
54) 2-Hexanone	9.19	43	24503	9.18639	ppb	93
57) 1,2-EDB	9.41	107	58015	10.33657	ppb	98
58) Tetrachloroethene	9.07	166	76445	9.57862	ppb	97
59) 1-Chlorohexane	9.92	91	73855	8.73880	ppb	95
60) 1,1,1,2-Tetrachloroethane	10.00	131	76155	10.08469	ppb	100
61) m&p-Xylene	10.16	106	238338	18.43012	ppb	98
62) o-Xylene	10.55	106	116140	9.03909	ppb	96
63) Styrene	10.56	104	204283	9.46001	ppb	98
65) 1,3-Dichloropropane	9.08	76	94757	9.45944	ppb	94
66) Dibromochloromethane	9.31	129	74848	10.43509	ppb	99
67) Chlorobenzene	9.92	112	198784	9.27525	ppb	97
68) Ethylbenzene	10.04	91	298054	8.89502	ppb	98
69) Bromoform	10.73	173	51435	10.75605	ppb	96
71) Isopropylbenzene	10.92	105	286048	8.77145	ppb	99
72) 1,1,2,2-Tetrachloroethane	11.20	83	76317	10.78829	ppb	96
73) 1,2,3-Trichloropropane	11.24	110	22000	9.79216	ppb	92
74) t-1,4-Dichloro-2-Butene	11.26	53	13845	10.18277	ppb	87
75) Bromobenzene	11.21	156	100146	9.54377	ppb	98
76) n-Propylbenzene	11.33	91	356974	8.98355	ppb	97
77) 4-Ethyltoluene	11.45	105	215636	9.49936	ppb	99
78) 2-Chlorotoluene	11.41	91	254004	9.23568	ppb	99
79) 1,3,5-Trimethylbenzene	11.51	105	264731	9.15171	ppb	98
80) 4-Chlorotoluene	11.51	91	264969	9.20772	ppb	99
81) Tert-Butylbenzene	11.83	119	226943	9.04492	ppb	97
82) 1,2,4-Trimethylbenzene	11.88	105	268510	9.17633	ppb	99
83) Sec-Butylbenzene	12.05	105	314837	9.13230	ppb	97
84) p-Isopropyltoluene	12.20	119	271486	9.07938	ppb	98
85) Benzyl Chloride	12.37	91	111655	12.86251	ppb	99
86) 1,3-DCB	12.15	146	187484	9.14937	ppb	99
87) 1,4-DCB	12.23	146	191603	9.34415	ppb	99
88) n-Butylbenzene	12.61	91	228352	8.95546	ppb	99
89) 1,2-DCB	12.60	146	177046	9.34937	ppb	97
90) Hexachloroethane	12.87	117	49433	9.29950	ppb	97
91) 1,2-Dibromo-3-chloropropan	13.37	157	15717	11.28264	ppb	# 82
92) 1,2,4-Trichlorobenzene	14.21	180	78896	9.71159	ppb	99
93) Hexachlorobutadiene	14.40	223	32320	9.29443	ppb	85
94) Naphthalene	14.45	128	203963	9.60139	ppb	100
95) 1,2,3-Trichlorobenzene	14.69	180	113934	9.93382	ppb	97

*1,3-dichloropropene, total  
 20.01698 ppb  
 ARS 5/1/12*



Data File : M:\CHICO\DATA\C120410\0419C06W.D Vial: 1  
 Acq On : 19 Apr 12 9:52 Operator: SV  
 Sample : LCS gas 300 ug/L Inst : Chico  
 Misc : Water 10mL w/IS&S:04-10-12 Multiplr: 1.00

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

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.80	TIC	1333745	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	17.98	TIC	1439521	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.18	TIC	1368841	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.58	TIC	61479673m	338.29027	ppb	100

Quantitation Report

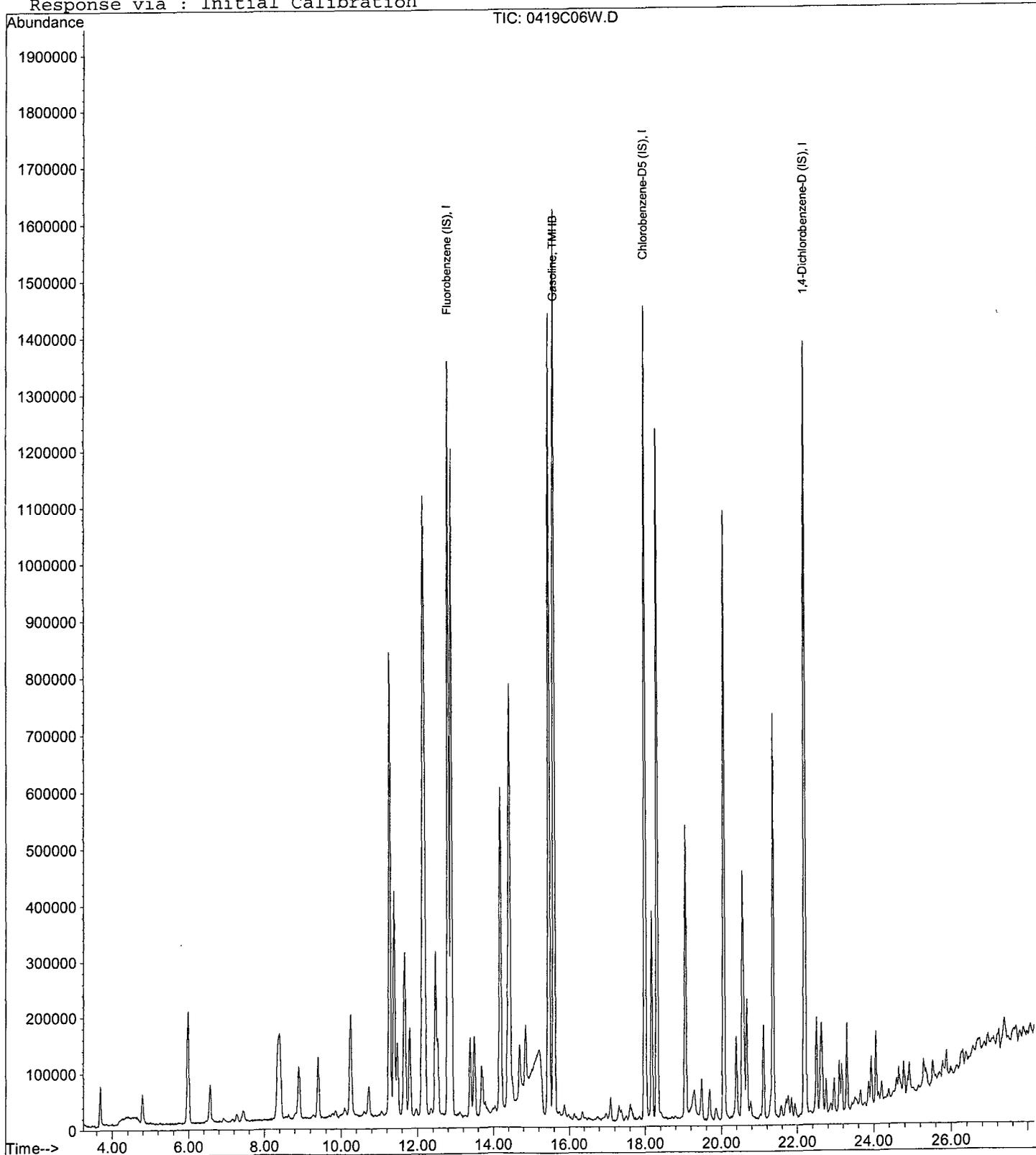
Data File : M:\CHICO\DATA\C120410\0419C06W.D  
Acq On : 19 Apr 12 9:52  
Sample : LCS gas 300 ug/L  
Misc : Water 10mL w/IS&S:04-10-12

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Quant Time: May 1 14:00 2012

Quant Results File: CGAS.RES

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

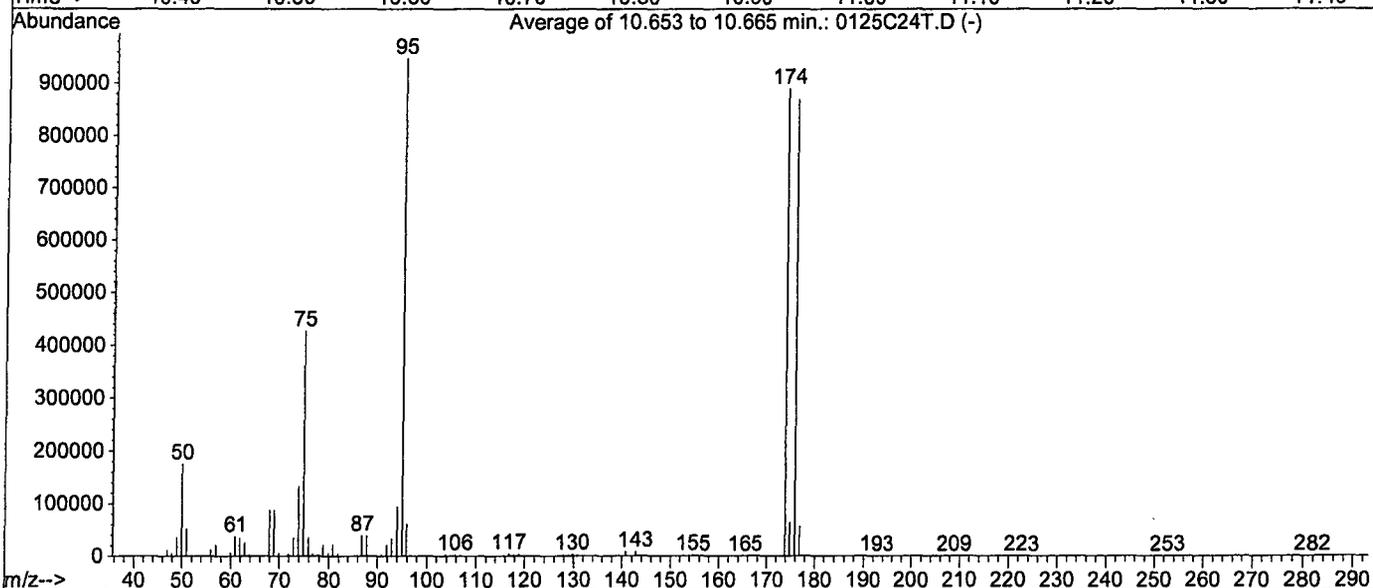
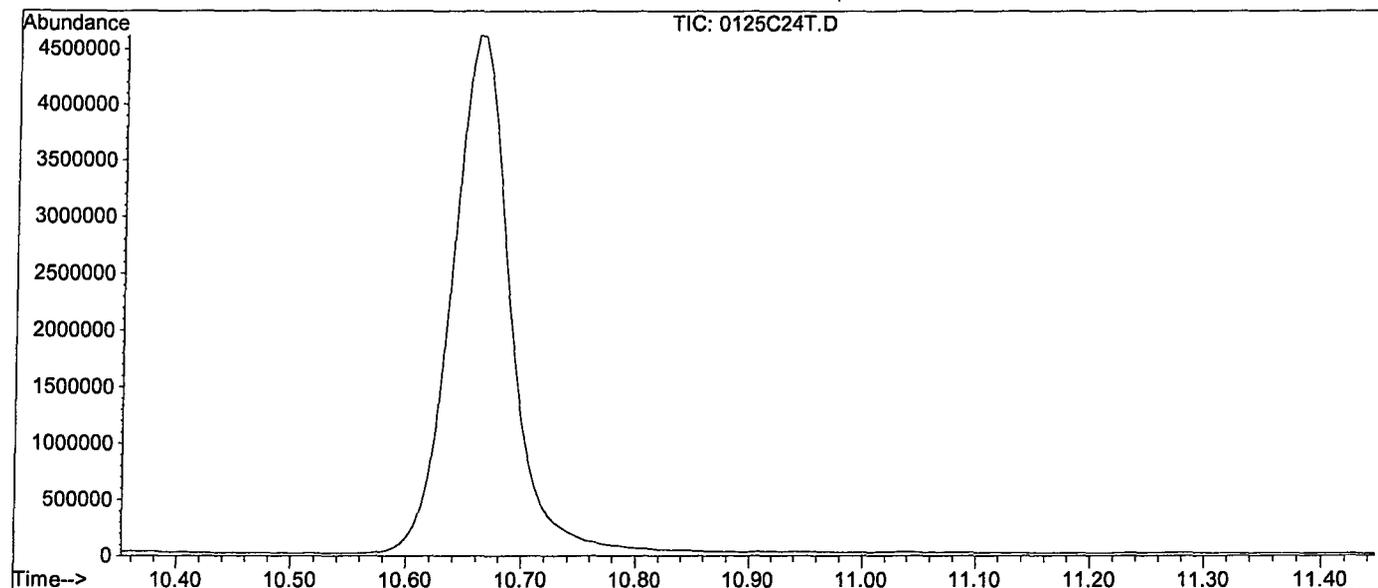


BFB

Data File : M:\CHICO\DATA\C120125\0125C24T.D  
Acq On : 26 Jan 12 16:30  
Sample : 25ug/mL BFB Std. 01-12-12  
Misc : 2uL

Vial: 1  
Operator: RS, ARS  
Inst : Chico  
Multiplr: 1.00

Method : M:\CHICO\DATA\C120125\CGAS.M (RTE Integrator)  
Title : METHOD 8260B



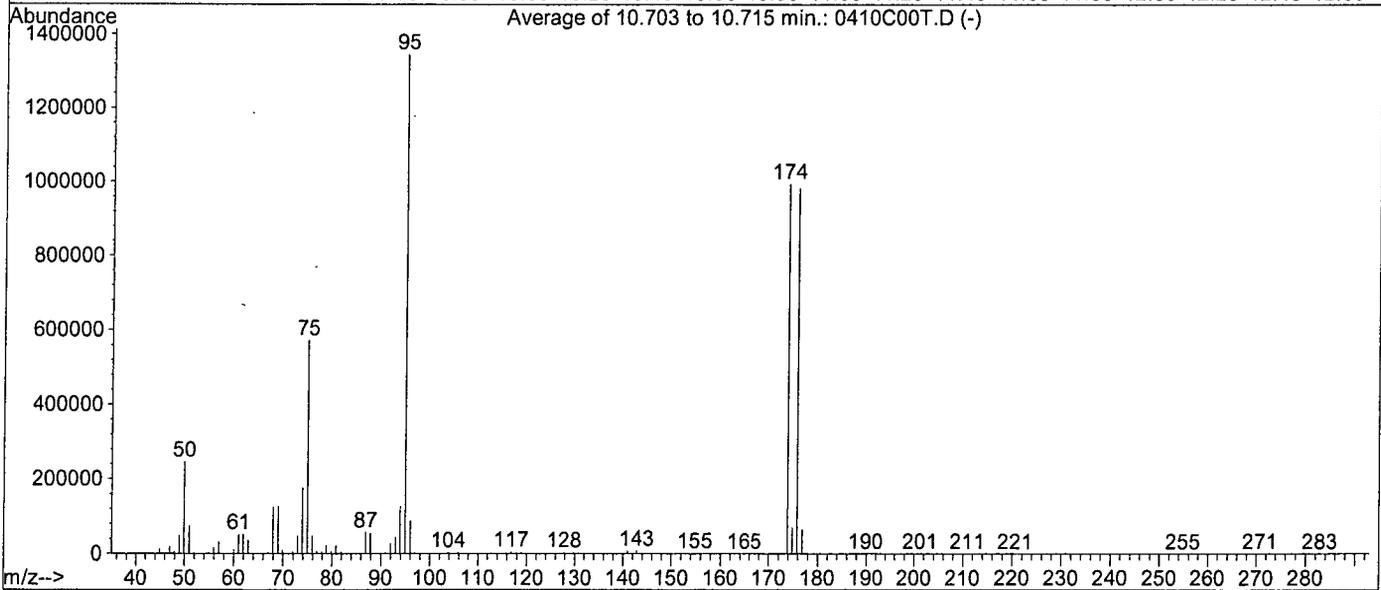
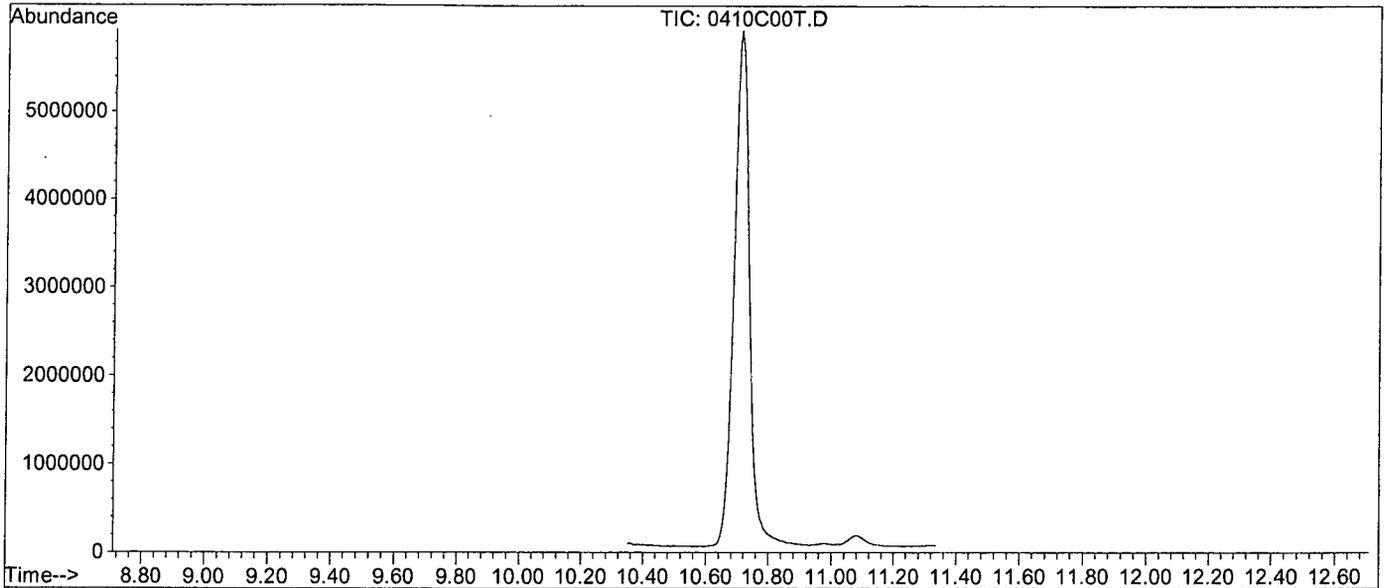
Spectrum Information: Average of 10.653 to 10.665 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	175569	PASS
75	95	30	60	45.1	426726	PASS
95	95	100	100	100.0	947029	PASS
96	95	5	9	6.5	61164	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	93.9	889685	PASS
175	174	5	9	7.3	64552	PASS
176	174	95	101	97.7	869568	PASS
177	176	5	9	6.5	56475	PASS

Data File : M:\CHICO\DATA\C120410\0410C00T.D  
 Acq On : 10 Apr 12 14:14  
 Sample : 25ug/ml BFB STD 04-10-12  
 Misc : 2uL

Vial: 1  
 Operator: SV  
 Inst : Chico  
 Multiplr: 1.00

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260



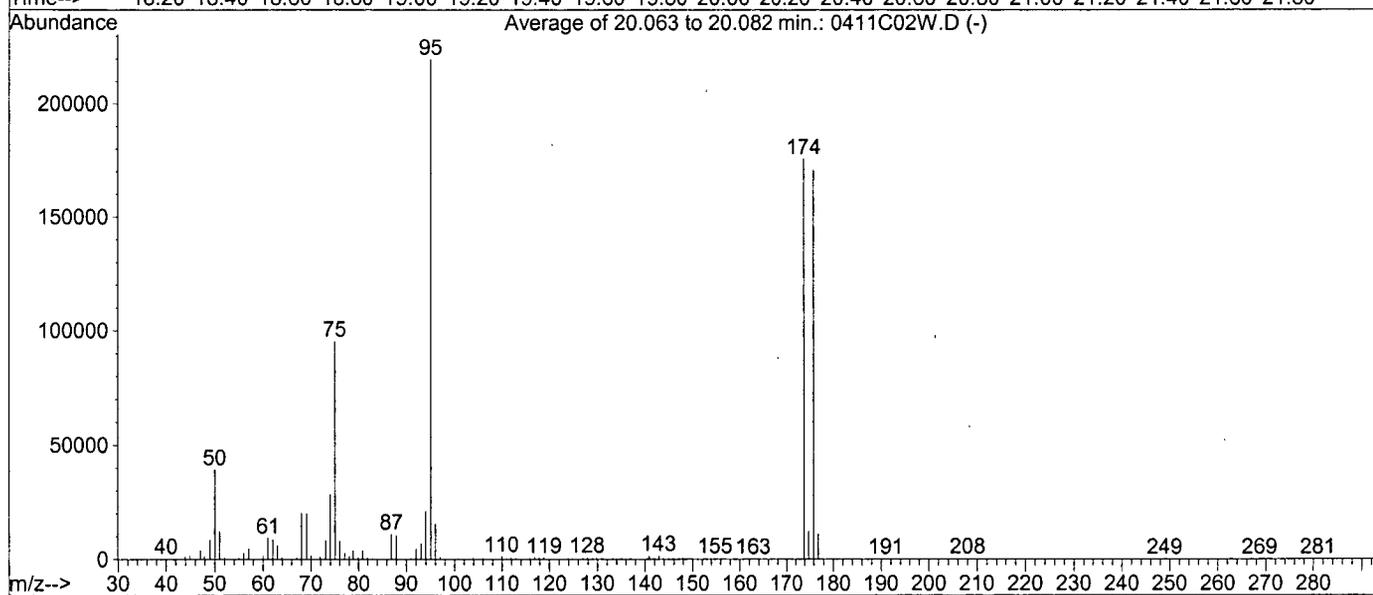
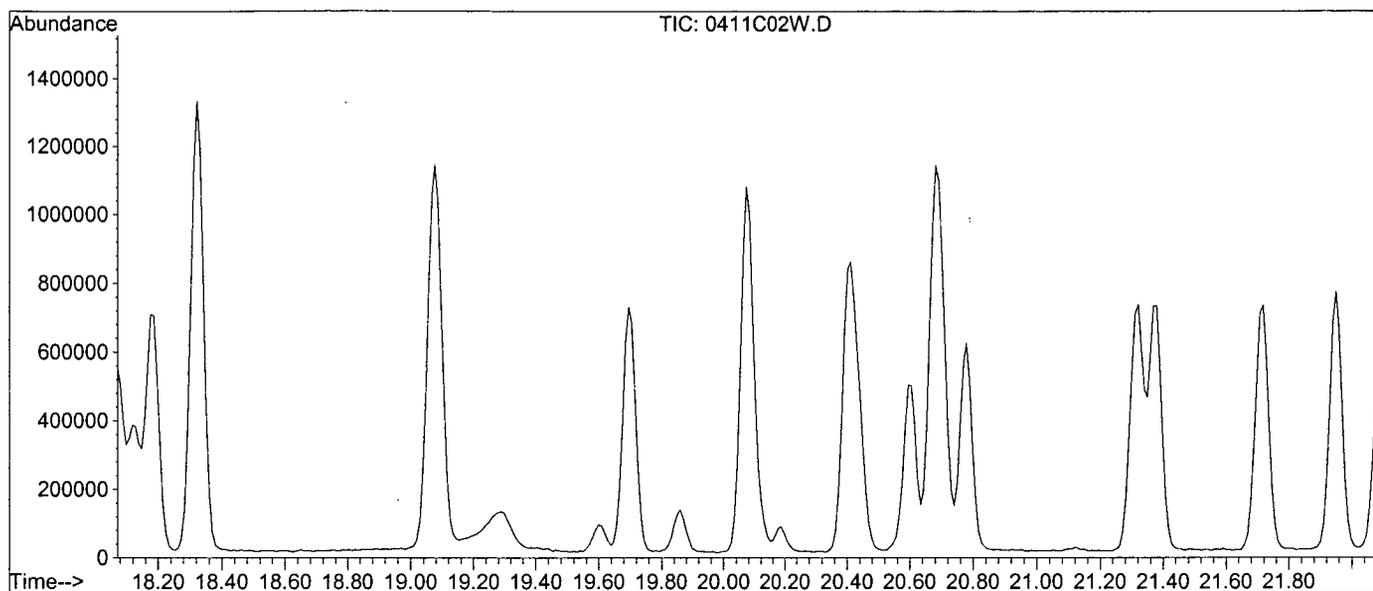
Spectrum Information: Average of 10.703 to 10.715 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	246633	PASS
75	95	30	60	42.6	573121	PASS
95	95	100	100	100.0	1345707	PASS
96	95	5	9	6.6	88371	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	73.9	994283	PASS
175	174	5	9	7.1	70472	PASS
176	174	95	101	98.7	981772	PASS
177	176	5	9	6.6	64529	PASS

Data File : M:\CHICO\DATA\C120410\0411C02W.D  
 Acq On : 11 Apr 12 11:47  
 Sample : 25ug/ml BFB STD 04-10-12  
 Misc : 2uL

Vial: 1  
 Operator: SV  
 Inst : Chico  
 Multiplr: 1.00

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
 Title : METHOD 8260



Spectrum Information: Average of 20.063 to 20.082 min.

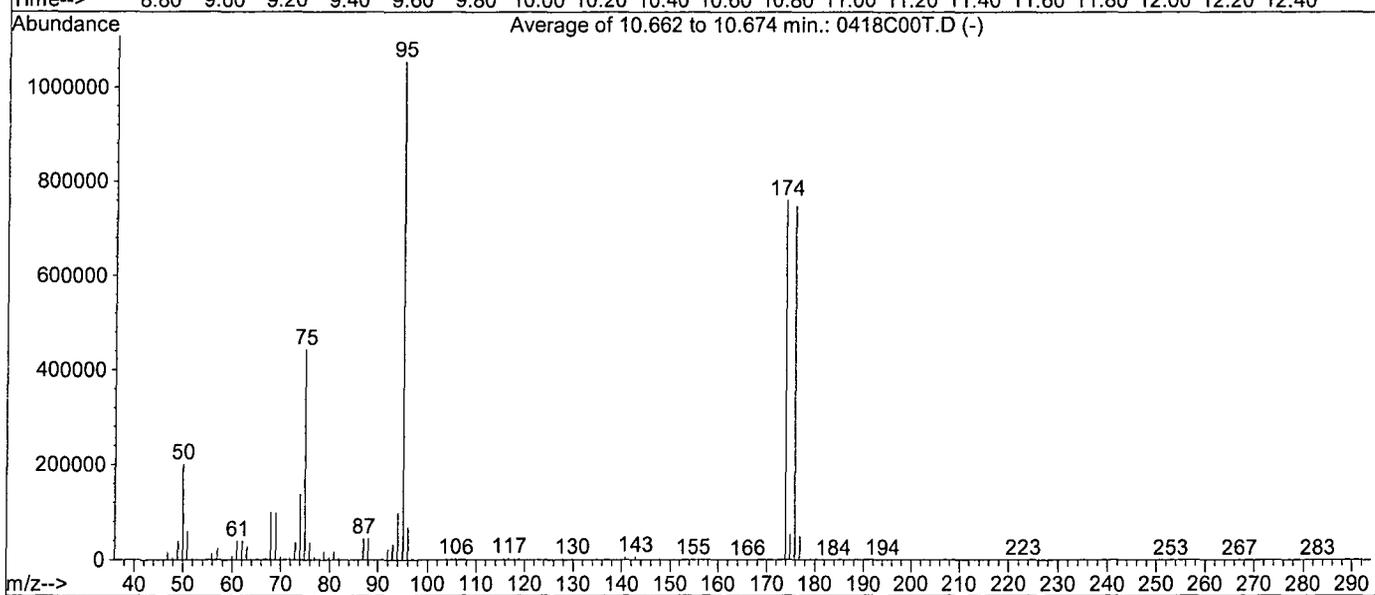
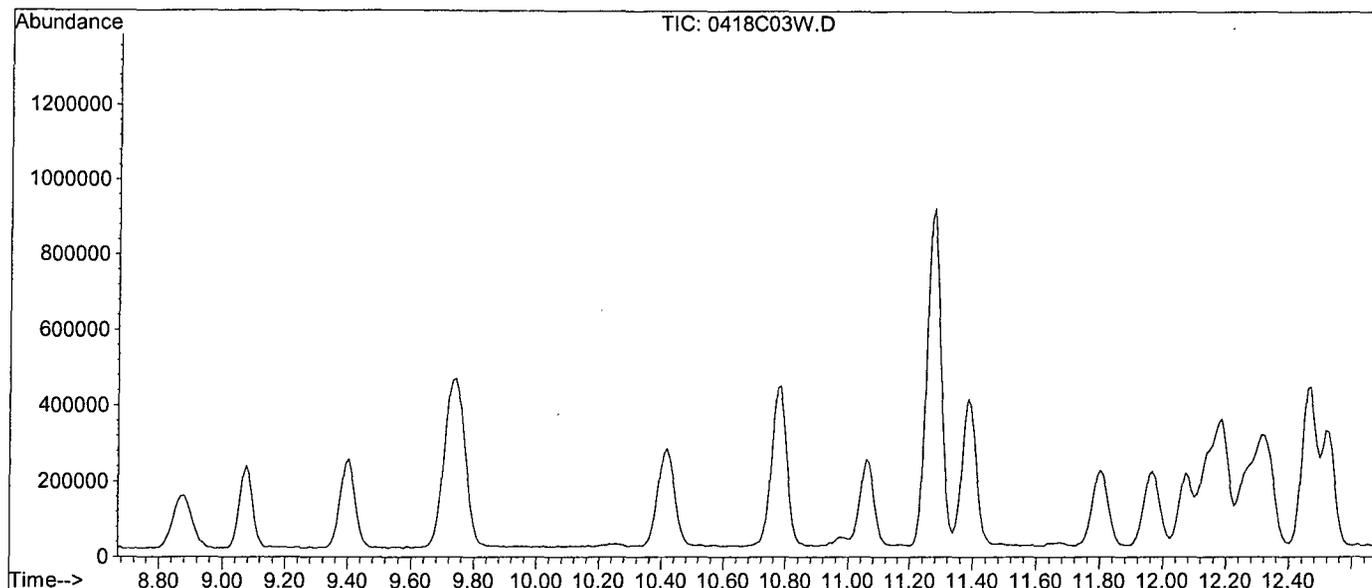
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	39272	PASS
75	95	30	60	43.4	95400	PASS
95	95	100	100	100.0	219819	PASS
96	95	5	9	7.1	15549	PASS
173	174	0.00	2	0.2	340	PASS
174	95	50	100	80.0	175765	PASS
175	174	5	9	7.0	12248	PASS
176	174	95	101	97.2	170837	PASS
177	176	5	9	6.6	11216	PASS

BFB

Data File : M:\CHICO\DATA\C120410\0418C00T.D  
Acq On : 18 Apr 12 8:55  
Sample : 25ug/ml BFB STD 04-10-12  
Misc : 2uL

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260



Spectrum Information: Average of 10.662 to 10.674 min.

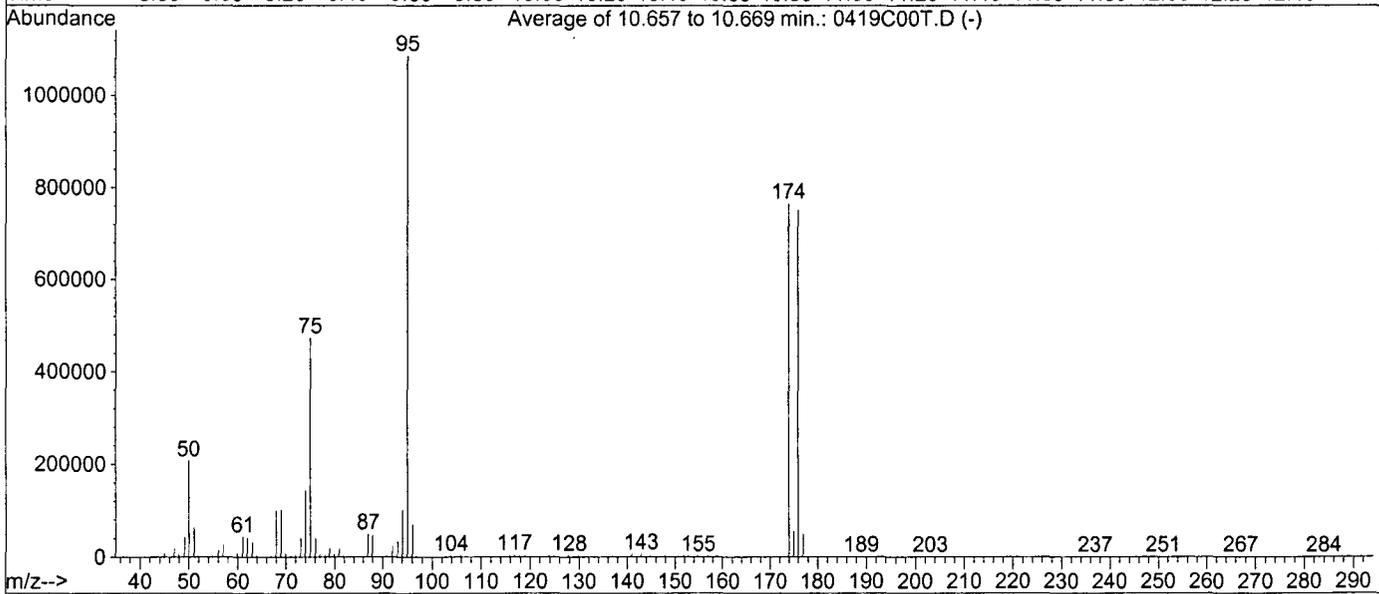
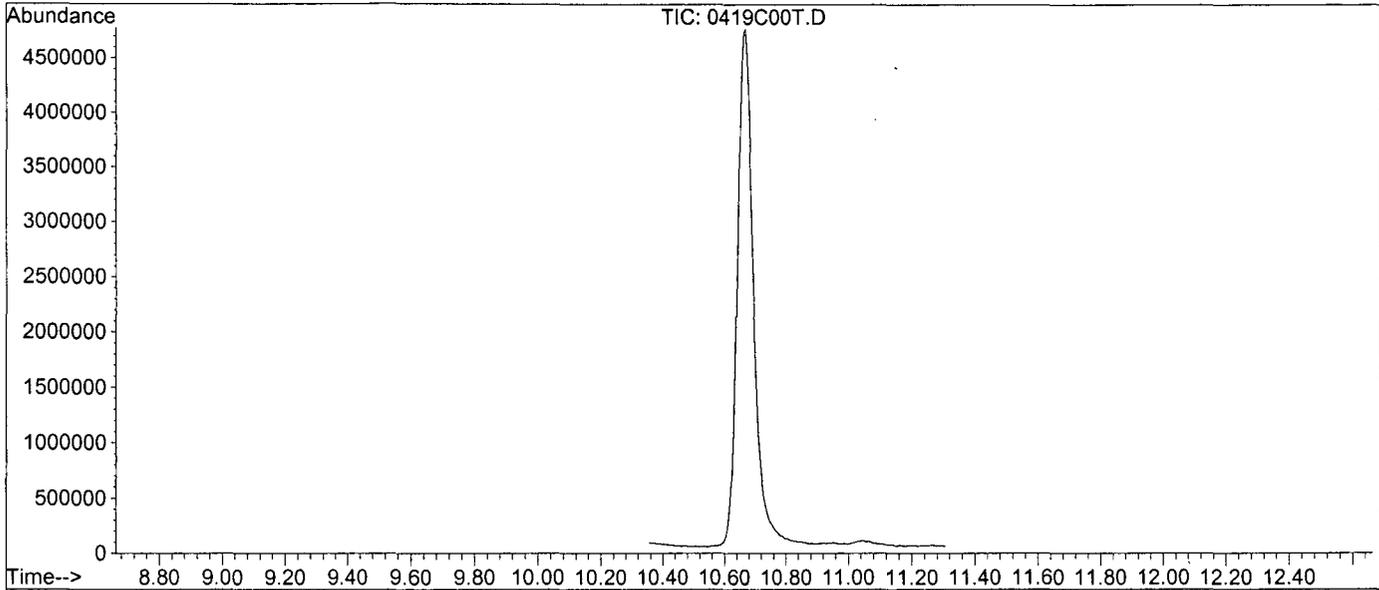
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	201334	PASS
75	95	30	60	42.1	444492	PASS
95	95	100	100	100.0	1055936	PASS
96	95	5	9	6.6	70160	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	72.0	760043	PASS
175	174	5	9	7.0	53360	PASS
176	174	95	101	98.3	747272	PASS
177	176	5	9	6.7	50324	PASS

BFB

Data File : M:\CHICO\DATA\C120410\0419C00T.D  
Acq On : 19 Apr 12 6:16  
Sample : 25ug/ml BFB STD 04-10-12  
Misc : 2uL

Vial: 1  
Operator: SV  
Inst : Chico  
Multiplr: 1.00

Method : M:\CHICO\DATA\C120410\CALLW3.M (RTE Integrator)  
Title : METHOD 8260



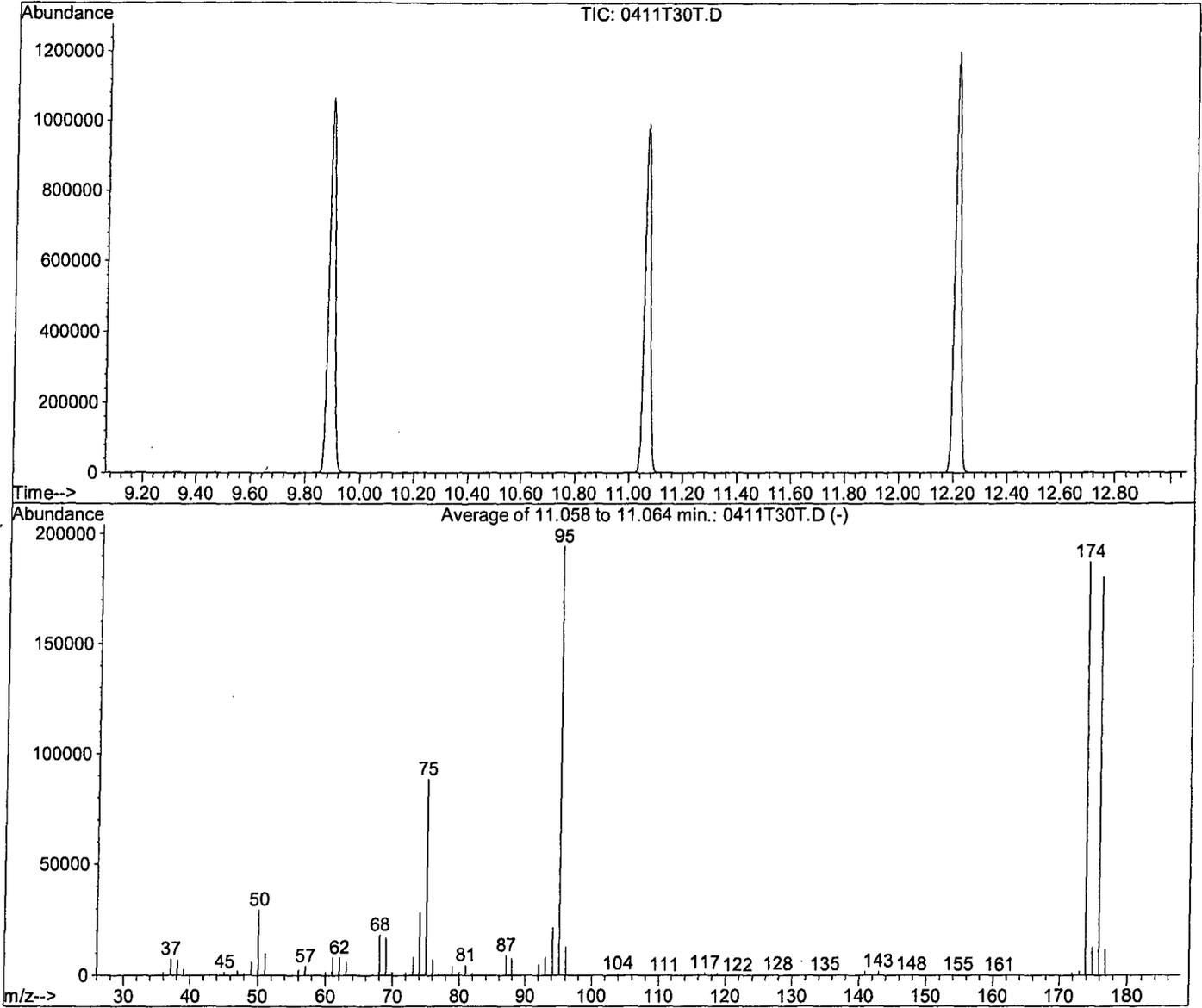
Spectrum Information: Average of 10.657 to 10.669 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.0	206741	PASS
75	95	30	60	43.5	473581	PASS
95	95	100	100	100.0	1087659	PASS
96	95	5	9	6.4	70085	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	70.4	765781	PASS
175	174	5	9	7.2	54891	PASS
176	174	95	101	98.1	751296	PASS
177	176	5	9	6.6	49875	PASS

Data File : M:\THOR\DATA\T120411\0411T30T.D  
 Acq On : 11 Apr 12 22:12  
 Sample : 5ng BFB STD 4-10-12  
 Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 30  
 Operator: DG,RS,HW,ARS,SV  
 Inst : Thor  
 Multiplr: 1.00

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)  
 Title : METHOD 8260B



Spectrum Information: Average of 11.058 to 11.064 min.

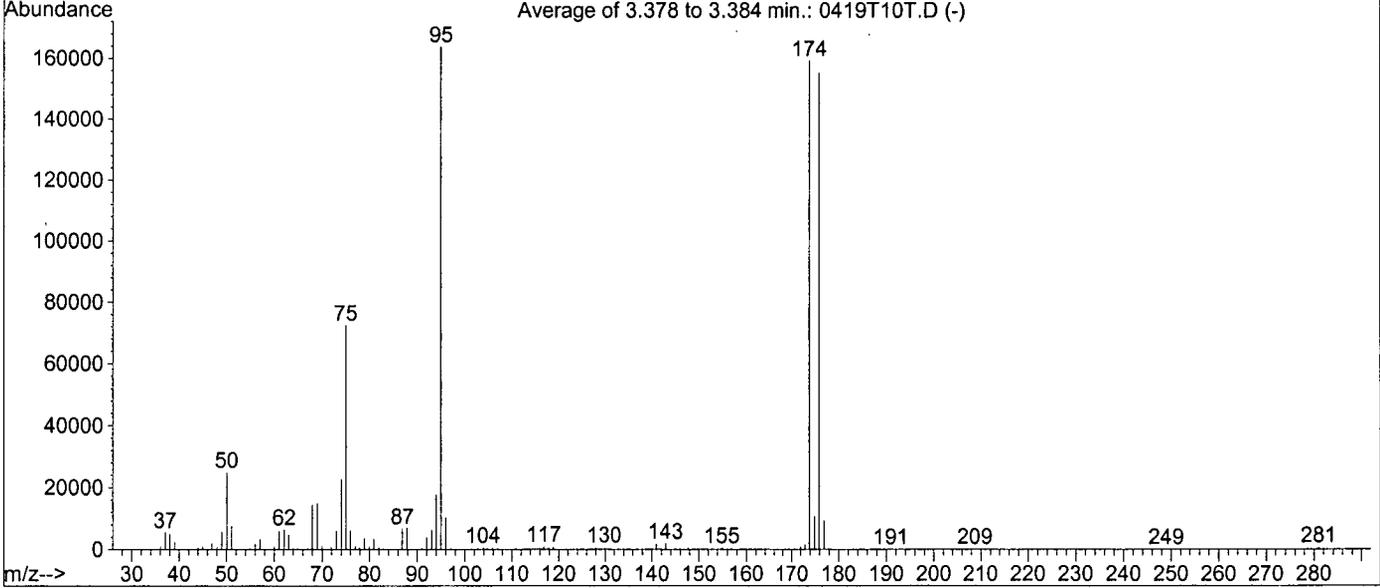
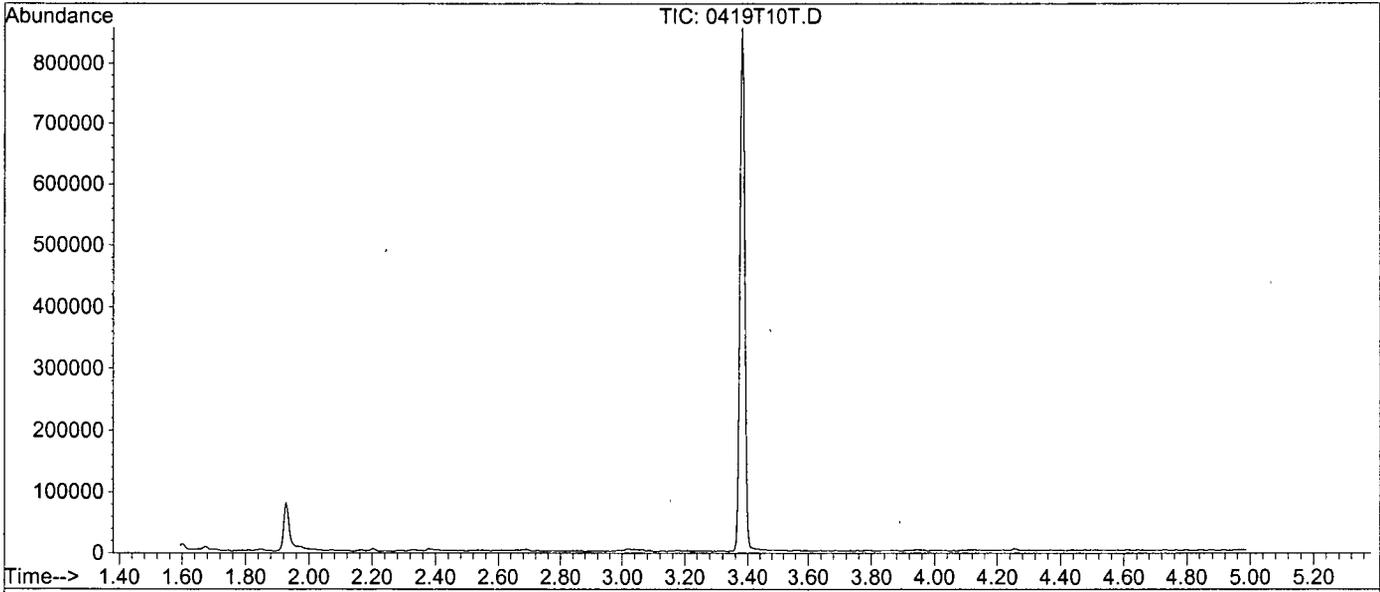
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.2	29645	PASS
75	95	30	60	45.7	88797	PASS
95	95	100	100	100.0	194411	PASS
96	95	5	9	6.6	12734	PASS
173	174	0.00	2	1.0	1853	PASS
174	95	50	100	96.3	187221	PASS
175	174	5	9	6.8	12729	PASS
176	174	95	101	96.4	180416	PASS
177	176	5	9	6.6	11857	PASS

BFB

Data File : M:\THOR\DATA\T120411\0419T10T.D  
Acq On : 19 Apr 12 9:23  
Sample : 5ng BFB 4-10-12  
Misc : 10ml w/5ul of IS&S: 03-26-12

Vial: 1  
Operator: DG,RS,HW,ARS,SV  
Inst : Thor  
Multiplr: 1.00

Method : M:\THOR\DATA\T120411\TALLW.M (RTE Integrator)  
Title : METHOD 8260B



Spectrum Information: Average of 3.378 to 3.384 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.2	24875	PASS
75	95	30	60	44.3	72627	PASS
95	95	100	100	100.0	163861	PASS
96	95	5	9	6.3	10363	PASS
173	174	0.00	2	0.9	1450	PASS
174	95	50	100	97.3	159360	PASS
175	174	5	9	6.6	10583	PASS
176	174	95	101	97.5	155413	PASS
177	176	5	9	6.0	9394	PASS

4/05/12 RS

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-SWEETPEA

Date	Conc.	Expiration Date: 04/06/12									
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	5µg/mL Vol Std #2	50µg/mL Vol Std #11	
04-05-12A	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a	
04-05-12B	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a	
04-05-12C	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a	
04-05-12D	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a	
04-05-12E	50	n/a	n/a	5	5	5	n/a	5	10	n/a	
04-05-12F	100	n/a	n/a	10	10	10	n/a	10	20	n/a	
04-05-12G	200	n/a	n/a	20	20	20	n/a	20	n/a	20	

250µg/mL TBA	Final Vol
04-01-12AC	w/P&T H2O
Exp:04-07-12	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

4/06/12 RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-MAX

Date	Conc.	Expiration Date: 04/07/12									
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	50µg/mL Vol Std #2	5µg/mL Vol Std #11	
04-06-12A	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3	
04-06-12B	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5	
04-06-12C	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10	
04-06-12D	5	n/a	n/a	5	5	10	n/a	5	10	n/a	
04-06-12E	10	n/a	n/a	10	10	25	n/a	10	20	n/a	
04-06-12F	20	n/a	n/a	20	20	40	n/a	20	40	n/a	
04-06-12G	40	n/a	n/a	40	40	80	n/a	40	100	n/a	
04-06-12H	100	n/a	n/a	100	100	100	n/a	100	200	n/a	
04-06-12I	200	n/a	n/a	200	200	125	n/a	200	200	n/a	

250µg/mL TAPD	Final Vol
04-01-12P	w/P&T H2O
Exp:04-07-12	mL
3	50
5	50
10	50
20	50
25	50
30	50
35	50
40	50
45	50

4/06/12 RS

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-SWEETPEA

Date	Conc.	Expiration Date: 04/07/12									
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	5µg/mL Vol Std #2	50µg/mL Vol Std #11	
04-06-12J	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a	
04-06-12K	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a	
04-06-12L	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a	
04-06-12M	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a	
04-06-12N	50	n/a	n/a	5	5	5	n/a	5	10	n/a	
04-06-12O	100	n/a	n/a	10	10	10	n/a	10	20	n/a	
04-06-12P	200	n/a	n/a	20	20	20	n/a	20	n/a	20	

250µg/mL TBA	Final Vol
04-01-12AC	w/P&T H2O
Exp:04-07-12	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

4/09/12 RS

A-RS

Method 8260 Gases, 2,000 mg/L, 2 X 0.6 ml

120016-03

Lot # 180013 Storage Expiry 5 -10 Degrees C 10/17/14

Solv: PVI Methanol

Method 8260 Gases

Lot #: 180013 - 29771

Rec: 10/24/11 MFR exp. 10/17/14

RS

µg/mL Vol Std #12
04-01-12Z
Exp: 04-07-12
n/a
n/a
n/a
n/a
5
10
20
Final Vol
w/P&T H2O
mL
5
5
5
5
5
5
5

4/09/12 B-  
RS

Hexachloroethane Solution,  
1000 mg/L, 1 ml

Lot # 020049-02  
Storage Expiry  
176700 -10 Degrees C 7/31/13

Solv: P/T Methanol

Hexachloroethane  
Lot #: 176700 - 29159  
Rec: 8/5/11 MFR exp. 07/31/13

RS

µg/mL Vol Std #12
04-01-12M
Exp: 04-07-12
3
5
10
n/a
Final Vol
w/P&T H2O
mL
50
50
50
50
50
50
50

4/09/12 C-  
RS

Benzyl Chloride Solution,  
1000 mg/L, 1 ml

Lot # 020228-02  
Storage Expiry  
176701 -10 Degrees C 7/31/13

Solv: P/T Methanol

Benzyl Chloride  
Lot #: 176701 - 29162  
Rec: 8/5/11 MFR exp. 07/31/13

RS

µg/mL Vol Std #12
04-01-12Z
Exp: 04-07-12
n/a
n/a
n/a
5
10
20
Final Vol
w/P&T H2O
mL
50
50
50
50
50
50
50

4/09/12 D-  
RS

n-Hexane Solution, 1,000  
mg/L, 1 ml

Lot # 020620-02  
Storage Expiry  
163378 -10 Degrees C 8/29/13

Solv: P/T Methanol

n-Hexane Solution  
Lot #: 163378 - 29227  
Rec: 8/5/11 MFR exp. 08/29/13

RS

µg/mL Vol Std #12
04-01-12Z
Exp: 04-07-12
n/a
n/a
n/a
5
10
20
Final Vol
w/P&T H2O
mL
5
5
5
5
5
5
5

4/09/12 E-  
RS

Heptane Solution, 1000  
mg/L, 1 ml

Lot # 020546-02  
Storage Expiry  
169174 -5-10 Degrees C 2/18/14

Solv: P/T Methanol

Heptane Solution  
Lot #: 169174 - 29253  
Rec: 8/5/11 MFR exp. 02/18/14

RS

4/09/12 F-  
RS

VOC Mix 4-3, 2,000 mg/L, 1  
ml

Lot # 120166-01  
Storage Expiry  
178651 -5 Degrees C 9/11/13

Solv: P/T Methanol

VOC Mix 4-3, 2000mg/L  
Lot #: 178651 - 30411  
Rec: 2/20/12 MFR exp. 09/11/13

RS

4/09/12  
RS G-

Acroline Solution, 10,000 mg/L, 2 x 0.6 ml  
020229-09-01  
Lot# Storage Expiry  
186936 ≤ 6 Degrees C 4/23/12  
Solv: Water, HPLC Grade  
ACROLINE SOLUTION  
Lot #: 186936 - 30514  
Rec: 3/19/12 MFR exp. 04/23/12

4/09/12  
RS H-

Method 8260 Gases (Second Source), 2,000 mg/L, 2 X 0.6 ml  
129016-03-88  
Lot# Storage Expiry  
178557 ≤ -10 Degrees C 9/13/14  
Solv: P/T Methanol  
Method 8260 Gases (SS)  
Lot #: 178557 - 29521  
Rec: 9/20/11 MFR exp. 09/13/14

4/09/12  
RS I-

Vinyl Acetate Solution (Second Source), 2,000 mg/L, 1ml  
020232-02-88  
Lot# Storage Expiry  
184399 ≤ -10 Degrees C 4/15/12  
Solv: P/T Methanol  
Vinyl Acetate (SS)  
Lot #: 184399 - 30240  
Rec: 1/19/12 MFR exp. 04/15/12

4/09/12  
RS

Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
04-09-12J							
50ug/ml Vol Work Std #7							
Exp: 04/16/12							
02SI	120016-03	Gas Mix	2000	180013-29771	04-09-12A	04/16/12	100
02SI	020049-02	HEXACHLOROETHANE	1000	176700-29159	04-01-12B	06/08/12	200
02SI	020228-02	Benzyl Chloride	1000	176701-29162	04-01-12C	06/08/12	200
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	3500
04-09-12K							
50ug/ml Vol Work Std #1							
Exp: 04/16/12							
02SI	020145-02-02	2-CEVE	2000	176770-29831	04-01-12D	06/08/12	50
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	1950
04-09-12L							
50ug/ml Vol Work Std #8							
Exp: 04/16/12							
02SI	122039-02	Volatile Mix, 20-29	2000	176771-29200	03-22-12D	06/08/12	100
02SI	120023-03	VOC'S-54 COMP	2000	164454-27878	03-22-12E	06/08/12	100
02SI	020232-02	Vinyl Acetate	2000	185696-30409	03-22-12F	05/13/12	100
02SI	020620-02	n-Hexane	1000	163378-29227	04-09-12D	06/08/12	200
02SI	020546-02	Heptane	1000	169174-29253	04-09-12E	06/08/12	200
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	3300
04-09-12M							
50ug/ml Vol Work Std #2							
Exp: 04/16/12							
02SI	121020-05	HSL'S-Ketone Solution	2000	169173-29217	03-22-12H	02/08/12	100
J&T Brand		Purge & Trap MeOH		04/05/12	06/08/12	06/08/12	3900

4/09/12  
RS

04-09-12N		Exp: 04/16/12					
50ug/ml Vol Work Std #9							
SOURCES		Lot	APPL Code	APPL Exp Date	ul		
50ug/ml Vol Work Std #7		04-09-12J		04/16/12	200		
50ug/ml Vol Work Std #8		04-09-12L		04/16/12	200		
J&T Brand		04/05/12		06/08/12	1600		
04-09-12O		Exp: 04/16/12					
50ug/ml Vol Work Std #10							
SOURCES		Lot	APPL Code	APPL Exp Date	ul		
50ug/ml Vol Work Std #1		04-09-12K		04/16/12	200		
J&T Brand		04/05/12		06/08/12	1800		
04-09-12P		Exp: 04/16/12					
50ug/ml Vol Work Std #12							
SOURCES		Lot	APPL Code	APPL Exp Date	ul		
50ug/ml Vol Work Std #2		04-09-12M		04/16/12	200		
J&T Brand		04/05/12		06/08/12	1800		
04-09-12Q							
50ug/ml 8260 Surrogate		Conc.		Date	Exp.		
Exp: 04/16/12		ug/ml	Lot #	Code	Date	uL	
02SI 120002-01		8260B Surr Solution	2000	164585-30466	04-02-12C	04/16/12	100
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/26/12	3900
04-09-12R		Exp: 04/16/12					
5.0ug/ml 8260 Surrogate		Lot	APPL Code	APPL Exp Date	ul		
J&T Brand		50ug/ml 8260 Surrogate		04-09-12Q	200		
J&T Brand		Purge & Trap MeOH		04/05/12	1800		
04-09-12S							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P							
Exp: 04/16/12		Conc.		Date	Exp.		
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	uL
02SI	120166-01	Volatile Mix 4-3	2000	178651-30411	04-09-12F	05/14/12	500
02SI	020229-09	Acrolein	10000	186936-30514	04-09-12G	04/24/12	100
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	3400

4/09/12  
RS

04-09-12T							
50ug/ml VOC Std#5							
Exp: 04/16/12							
Supplier		ID #	ID	ug/ml	Lot #	Date	Exp.
02SI		120016-03-SS	8260 Gases (SS)	2000	178557-29521	04-09-12H	04/16/12
02SI		020145-02-02	2-CEVE	2000	181404-30009	02-20-12I	05/14/12
J&T Brand		Purge & Trap MeOH			K14E06-00605	04/05/12	06/08/12
04-09-12U							
50ug/ml VOC Std#6							
Exp: 04/16/12		ID #	ID	ug/ml	Lot #	Date	Exp.
02SI		120023-03-SS	VOC'S 54 COMP.	2000	176822-29263	03-22-12L	05/14/12
02SI		120296-01	Custom 8260 Solution	2000	166038-27767	03-22-12M	05/18/12
02SI		020232-02-SS	Vinyl Acetate(SS)	2000	184399-30240	04-09-12I	04/05/12
02SI		020620-02-SS	n-HEXANE	1000	179199-29614	03-22-12O	06/14/12
02SI		020049-02-SS	HEXACHLOROETHANE	1000	183795-30439	03-22-12P	06/14/12
02SI		020546-02-SS	Heptane(SS)	1000	185762-30449	03-22-12Q	06/14/12
J&T Brand		Purge & Trap MeOH			K14E06-00605	04/05/12	06/08/12
04-09-12V							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P							
Exp: 04/16/12		Conc.		Date	Exp.		
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	uL
02SI	120166-01-SS	VOC Mix 4-3 (SS)	2000	163778-29837	03-22-12R	06/14/12	250
02SI	020229-09-SS	Acrolein SOLUTION (SS)	10000	186938-30515	03-22-12S	04/23/12	50
J&T Brand		Purge & Trap MeOH			K14E06-00605	04/05/12	06/08/12

04-09-12W							
50ug/ml Vol Work Std #7							
Exp:04/16/12							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	
			ug/ml		Code	Date	ul
O2SI	120016-03	Gas Mix	2000	180013-29771	04-09-12A	04/16/12	100
O2SI	020049-02	HEXACHLOROETHANE	1000	176700-29159	04-01-12B	06/08/12	200
O2SI	020228-02	Benzyl Chloride	1000	176701-29162	04-01-12C	06/08/12	200
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	3500
04-09-12X							
50ug/ml Vol Work Std #1							
Exp:04/16/12							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
O2SI	020145-02-02	2-CEVE	2000	176770-29831	04-01-12D	06/08/12	50
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	1950
04-09-12Y							
50ug/ml Vol Work Std #8							
Exp:04/16/12							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	
			ug/ml		Code	Date	ul
O2SI	122039-02	Volatile Mix, 20-29	2000	176771-29200	03-22-12D	06/08/12	100
O2SI	120023-03	VOC'S-54 COMP	2000	164454-27878	03-22-12E	06/08/12	100
O2SI	020232-02	Vinyl Acetate	2000	185696-30409	03-22-12F	05/13/12	100
O2SI	020620-02	n-Hexane	1000	163378-29227	04-09-12D	06/08/12	200
O2SI	020546-02	Heptane	1000	169174-29253	04-09-12E	06/08/12	200
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	3300
04-09-12Z							
50ug/ml Vol Work Std #2							
Exp:04/16/12							
Supplier	ID #	ID	ug/ml				
O2SI	121020-05	HSL'S-Ketone Solution	2000	169173-29217	03-22-12H	02/08/12	100
J&T Brand		Purge & Trap MeOH		04/05/12	06/08/12	06/08/12	3900
4/09/12 RS							
04-09-12AA							
Exp: 04/16/12							
5ug/ml Vol Work Std #9							
SOURCES	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #7		04-09-12W	04/16/12	200			
50ug/ml Vol Work Std #8		04-09-12Y	04/16/12	200			
J&T Brand		04/05/12	06/08/12	1600			
04-09-12AB		Exp: 04/16/12					
5ug/ml Vol Work Std #10							
SOURCES	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #1		04-09-12X	04/16/12	200			
J&T Brand		04/05/12	06/08/12	1800			
04-09-12AC		Exp: 04/16/12					
5ug/ml Vol Work Std #12							
SOURCES	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #2		04-09-12Z	04/16/12	200			
J&T Brand		04/05/12	06/08/12	1800			
04-09-12AD							
50ug/ml 8260 Surrogate							
Exp:04/16/12							
O2SI	120002-01	8260B Surr Solution	2000	164585-30466	04-02-12C	04/16/12	100
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/26/12	3900
04-09-12AE							
Exp: 04/16/12							
5.0ug/ml 8260 Surrogate							
		Lot	APPL Code	APPL Exp Date	ul		
J&T Brand		50ug/ml 8260 Surrogate	04-09-12AD	04/16/12	200		
		Purge & Trap MeOH	04/05/12	06/08/12	1800		
04-09-12AF							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acroleins/2-P							
Exp:04/16/12							
Supplier	ID #		Conc.	Lot #	Date	Exp.	
			ug/ml		Code	Date	uL
O2SI	120166-01	Volatile Mix 4-3	2000	178651-30411	04-09-12F	05/14/12	500
O2SI	020229-09	Acroleins	10000	186936-30514	04-09-12G	04/24/12	100
J&T Brand		Purge & Trap MeOH		K14E06-00605	04/05/12	06/08/12	3400

4/09/12  
RS  
AG

EPA Method 502/524  
Fortification Solution, 3-1,  
1000 ug/L, 1 ml  
122450-02  
Lot# Storage Expiry  
166726 -10 Degrees C 12/2/12  
Solv: P/T Methanol  
EPA Method 502/524 Fortification  
Lot #: 166726 - 27968  
Rec: 12/15/10 MFR exp. 12/02/12

RS

**CHICO**

04-09-12AH						
50ug/ml 524 Internal Standard w/ Surrogate						
	Conc.			Date		Exp.
	ug/ml	Lot #	Code	Date		uL
02SI	1000	122450-02	524 Fortification Sol	04-09-12AG	03/10/12	200
J&T Baker			Purge & Trap MeOH	K14E06-00605	04/05/11	10/22/12 3800

4/09/12  
RS

Volatlie Standard Curve Preparation for 10mL Purge (524 water)-CHICO

Date	Conc.	Expiration Date: 04/10/12						Final Vol w/P&T H2O
		5ug/mL Vol Std #9	5ug/mL Vol Std #12	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Vol Std #2	250ug/mL TAPD	
04-09-12AI	0.2	2	2	n/a	n/a	n/a	2	
04-09-12AJ	0.5	5	5	n/a	n/a	n/a	5	
04-09-12AK	1	10	10	n/a	n/a	n/a	10	
04-09-12AL	2	20	20	n/a	n/a	n/a	15	
04-09-12AM	5	n/a	n/a	5	5	5	20	
04-09-12AN	40	n/a	n/a	40	40	40	35	
04-09-12AO	100	n/a	n/a	100	100	100	40	

4/09/12  
RS

Volatlie Standard Curve Preparation for 5mL Purge (8260 soil)-SWEETPEA

Date	Conc.	Expiration Date: 04/10/12									
		5ug/mL Vol Std #9	5ug/mL Surr	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Surr	5ug/mL Vol Std #10	50ug/mL Vol Std #1	5ug/mL Vol Std #2	50ug/mL Vol Std #12	
04-09-12AP	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a	
04-09-12AQ	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a	
04-09-12AR	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a	
04-09-12AS	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a	
04-09-12AT	50	n/a	n/a	5	5	5	n/a	5	n/a	5	
04-09-12AU	100	n/a	n/a	10	10	10	n/a	10	n/a	10	
04-09-12AV	200	n/a	n/a	20	20	20	n/a	20	n/a	20	

4/09/12  
RS

250ug/mL TBA	Final Vol
04-09-12AF	w/P&T H2O
Exp:04-16-12	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

Volatlie Standard Curve Preparation for 10mL Purge (8260 water)-MAX

Date	Conc.	Expiration Date: 04/11/12									
		5ug/mL Vol Std #9	5ug/mL Surr	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Surr	5ug/mL Vol Std #10	50ug/mL Vol Std #1	50ug/mL Vol Std #2	5ug/mL Vol Std #12	
04-10-12A	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3	
04-10-12B	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5	
04-10-12C	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10	
04-10-12D	5	n/a	n/a	5	5	10	n/a	5	5	n/a	
04-10-12E	10	n/a	n/a	10	10	25	n/a	10	10	n/a	
04-10-12F	20	n/a	n/a	20	20	40	n/a	20	20	n/a	
04-10-12G	40	n/a	n/a	40	40	80	n/a	40	40	n/a	
04-10-12H	100	n/a	n/a	100	100	100	n/a	100	100	n/a	
04-10-12I	200	n/a	n/a	200	200	125	n/a	200	200	n/a	

7/10/12  
RS

250ug/mL TAPD	Final Vol
04-09-12S	w/P&T H2O
Exp:04-16-12	mL
3	50
5	50
10	50
20	50
25	50
30	50
35	50
40	50
45	50

<b>CHICO</b>								
04-10-12J								
250ug/ml 8260 Internal Standard - Chico								
				Conc.			Date	Exp.
Supplier	ID #			ug/ml	Lot #	Code	Date	uL
O2SI	120302-03	Internal Standard Mix		2000	166255-2858	04-02-12A	07/23/12	500
O2SI	020132-02	Fluorobenzene Standard		2000	169170-29853	04-02-12B	07/23/12	500
J&T Baker		Purge & Trap MeOH			K14E06-00613	04/09/12	11/14/12	3000
04-10-12K								
250ug/ml 8260 Surrogate - Chico								
				Conc.			Date	Exp.
Supplier	ID #			ug/ml	Lot #	Code	Date	uL
O2SI	120002-01	Surrogate Standard		2000	164585-30466	04-02-12C	10/23/12	500
J&T Baker		Purge & Trap MeOH			K07E34-00543	08/12/11	11/14/12	3500

4/10/12 RS

**Volatile Standard Curve Preparation for 10mL Purge (8260 water)-CHICO**

Expiration Date: 04/11/12												
Date	Conc.	5ug/mL Vol Std #9	5ug/mL Surr	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Surr	50ug/mL Vol Std #10	50ug/mL Vol Std #1	50ug/mL Vol Std #2	50ug/mL Vol Std #12	50ug/mL Vol Std #11	50ug/mL Vol Std #12
Code	ug/L	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12
04-10-12L	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	n/a	n/a	n/a
04-10-12M	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	n/a	n/a	n/a
04-10-12N	1	10	20	n/a	n/a	n/a	10	n/a	n/a	n/a	n/a	n/a
04-10-12O	5	n/a	n/a	5	5	10	n/a	5	5	5	n/a	n/a
04-10-12P	10	n/a	n/a	10	10	25	n/a	10	10	10	n/a	n/a
04-10-12Q	20	n/a	n/a	20	20	40	n/a	20	20	20	n/a	n/a
04-10-12R	40	n/a	n/a	40	40	80	n/a	40	40	40	n/a	n/a
04-10-12S	100	n/a	n/a	100	100	100	n/a	100	100	100	n/a	n/a

4/10/12 RS

4/10/12 - BFB on pg. 120 RS.

250ug/mL TAPD	Final Vol
04-09-12S w/P&T H2O	mL
Exp:04-16-12	
3	50
5	50
10	50
20	50
25	50
30	50
35	50
40	50

**Volatile Standard Curve Preparation for 10mL Purge (8260 water)-THOR**

Expiration Date: 04/12/12												
Date	Conc.	5ug/mL Vol Std #9	5ug/mL Surr	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Surr	50ug/mL Vol Std #10	50ug/mL Vol Std #1	50ug/mL Vol Std #2	50ug/mL Vol Std #12	50ug/mL Vol Std #11	50ug/mL Vol Std #12
Code	ug/L	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12
04-11-12A	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	n/a	n/a	n/a
04-11-12B	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	n/a	n/a	n/a
04-11-12C	1	10	20	n/a	n/a	n/a	10	n/a	n/a	n/a	n/a	n/a
04-11-12D	5	n/a	n/a	5	5	10	n/a	5	5	5	n/a	n/a
04-11-12E	10	n/a	n/a	10	10	25	n/a	10	10	10	n/a	n/a
04-11-12F	20	n/a	n/a	20	20	40	n/a	20	20	20	n/a	n/a
04-11-12G	40	n/a	n/a	40	40	80	n/a	40	40	40	n/a	n/a
04-11-12H	100	n/a	n/a	100	100	100	n/a	100	100	100	n/a	n/a

4/11/12 RS

\* Sweetpea's soil curve on 4/11/12 RS. on page 120.

250ug/mL TAPD	Final Vol
04-09-12AF w/P&T H2O	mL
Exp:04-16-12	
3	50
5	50
10	50
20	50
25	50
30	50
35	50
40	50

<b>Max 524</b>								
04-12-12A								
50ug/ml 524 Internal Standard w/ Surrogate								
				Conc.			Date	Exp.
Supplier	ID #			ug/ml	Lot #	Code	Date	uL
O2SI	122450-02	524 Fortification Sol		1000	166726-27968	04-09-12AG	08/04/12	150
J.T Baker		Purge & Trap MeOH			K14E06-00613	04/09/12	12/14/12	14850

4/12/12 RS

**Volatile Standard Curve Preparation for 10mL Purge (524 water)-MAX**

Expiration Date: 04/13/12								
Date	Conc.	5ug/mL Vol Std #9	5ug/mL Vol Std #12	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Vol Std #2	250ug/mL TAPD	Final Vol
Code	ug/L	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	Exp:04-16-12	w/P&T H2O mL
04-12-12B	0.2	2	2	n/a	n/a	n/a	2	50
04-12-12C	0.5	5	5	n/a	n/a	n/a	5	50
04-12-12D	1	10	10	n/a	n/a	n/a	10	50
04-12-12E	10	n/a	n/a	10	10	10	25	50
04-12-12F	20	n/a	n/a	20	20	20	30	50

4/12/12 RS

4/17/12 A-  
RS

Method 8260 Gases, 2,000 mg/L, 2 X 0.6 ml  
120016-03  
Lot# Storage Expiry  
180013 ≤ -10 Degrees C 10/17/14  
Solv: P/T Methanol  
Method 8260 Gases  
Lot #: 180013 - 29770  
Rec: 10/24/11 MFR exp. 10/17/14

RS

4/17/12 B-  
RS

Volatile Mix, 20-29, 2,000 mg/L, 1 ml  
122039-02  
Lot# Storage Expiry  
180114 ≤ -10 Degrees C 10/17/13  
Solv: P/T Methanol  
Volatile Mix, 20-29  
Lot #: 180114 - 29791  
Rec: 10/24/11 MFR exp. 10/17/13

RS

4/17/12 C.  
RS

Method 8260 VOC Liquids, 54 Compounds, 2,000 mg/L, 1 ml  
120023-03  
Lot# Storage Expiry  
164454 ≤ -10 Degrees C 10/4/12  
Solv: P/T Methanol  
8260 VOC Liquids, 54 Comp.  
Lot #: 164454 - 27879  
Rec: 12/15/10 MFR exp. 10/04/12

RS

4/17/12 D.  
RS

Vinyl Acetate Solution, 2,000 mg/L, 1 ml  
020232-02  
Lot# Storage Expiry  
185696 ≤ -10 Degrees C 5/13/12  
Solv: P/T Methanol  
Vinyl Acetate  
Lot #: 185696 - 30408  
Rec: 2/20/12 MFR exp. 05/13/12

RS

4/17/12 E.  
RS

Ketones Solution, 2,000 mg/L, 1 ml  
121020-05  
Lot# Storage Expiry  
169173 ≤ -10 Degrees C 2/13/13  
Solv: P/T MeOH:Water 9:1  
Ketones  
Lot #: 169173 - 29218  
Rec: 8/5/11 MFR exp. 02/13/13

RS

4/17/12  
RS

E.

8260B Surrogate Solution,  
2,000 mg/L, 5 x 1 ml  
120002-01-SPAK  
Lot # Storage Expiry  
178653 ≤ -10 Degrees C 9/11/13  
8260B Surrogate Solution  
Lot #: 178653 - 29565  
Rec: 9/22/11 MFR exp. 09/11/13

RS

4/17/12  
RS

E.G

VOC Mix 4-3, 2,000 mg/L,  
ml  
120166-01  
Lot # Storage Expiry  
185760 ≤ 6 Degrees C 2/14/14  
Solvent: RT Methanol  
VOC Mix 4-3, 2000mg/L  
Lot #: 185760 - 30413  
Rec: 2/20/12 MFR exp. 02/14/14

RS

4/17/12  
RS

RS  
FF  
H.

Method 8260 Gases (Second  
Source), 2,000 mg/L, 2 X 0.6  
ml  
120016-03-SS  
Lot # Storage Expiry  
178557 ≤ -10 Degrees C 9/13/14  
Solvent: RT Methanol  
Method 8260 Gases (SS)  
Lot #: 178557 - 29530  
Rec: 9/20/11 MFR exp. 09/13/14

RS

4/19/12  
RS

04-17-12I							
50ug/ml Vol Work Std #7							
Exp: 04/24/12							
Supplier	ID #	ID	Conc. ug/ml	Lot #	Date Code	Exp. Date	ul
02SI	120016-03	Gas Mix	2000	180013-29770	04-17-12A	04/24/12	100
02SI	020049-02	HEXACHLOROETHANE	1000	176700-29159	04-01-12B	06/08/12	200
02SI	020228-02	Benzyl Chloride	1000	176701-29162	04-01-12C	06/08/12	200
J&T Brand		Purge & Trap MeOH		K14E06-00608	04/13/12	06/08/12	3500
04-17-12J							
50ug/ml Vol Work Std #1							
Exp: 04/24/12							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	020145-02-02	2-CEVE	2000	176770-29831	04-01-12D	06/08/12	50
J&T Brand		Purge & Trap MeOH		K14E06-00608	04/13/12	06/08/12	1950
04-17-12K							
50ug/ml Vol Work Std #8							
Exp: 04/24/12							
Supplier	ID #	ID	Conc. ug/ml	Lot #	Date Code	Exp. Date	ul
02SI	122039-02	Volatile Mix, 20-29	2000	180114-29791	04-17-12B	06/08/12	100
02SI	120023-03	VOC'S-54 COMP	2000	164454-27879	04-17-12C	06/08/12	100
02SI	020232-02	Vinyl Acetate	2000	185696-30408	04-17-12D	05/13/12	100
02SI	020620-02	n-Hexane	1000	163378-29227	04-09-12D	06/08/12	200
02SI	020546-02	Heptane	1000	169174-29253	04-09-12E	06/08/12	200
J&T Brand		Purge & Trap MeOH		K14E06-00608	04/13/12	06/08/12	3300
04-17-12L							
50ug/ml Vol Work Std #2							
Exp: 04/24/12							
Supplier	ID #	ID	ug/ml				
02SI	121020-05	HSL'S-Ketone Solution	2000	169173-29218	04-17-12E	08/08/12	100
J&T Brand		Purge & Trap MeOH		04/13/12	06/08/12	06/08/12	3900

RS

4/17/12  
RS

		04-17-12M	Exp: 04/24/12					
		50ug/ml Vol Work Std #9						
SOURCES		Lot	APPL Code	APPL Exp Date	u1			
50ug/ml Vol Work Std #7		04-17-12I	04/24/12	200				
50ug/ml Vol Work Std #8		04-17-12K	04/24/12	200				
J&T Brand		04/13/12	06/08/12	1600				
04-17-12N		Exp: 04/24/12						
		50ug/ml Vol Work Std #10						
SOURCES		Lot	APPL Code	APPL Exp Date	u1			
50ug/ml Vol Work Std #1		04-17-12J	04/24/12	200				
J&T Brand		04/13/12	06/08/12	1800				
04-17-12O		Exp: 04/24/12						
		50ug/ml Vol Work Std #12						
SOURCES		Lot	APPL Code	APPL Exp Date	u1			
50ug/ml Vol Work Std #2		04-17-12L	04/24/12	200				
J&T Brand		04/13/12	06/08/12	1800				
04-17-12P		Exp: 04/24/12						
50ug/ml 8260 Surrogate		Conc.	Date	Exp.				
Exp: 04/24/12		ug/ml	Lot #	Code	Date	uL		
O2SI	120002-01	8260B Surr Solution	2000	164585-30465	04-17-12F	04/24/12	100	
J&T Brand		Purge & Trap MeOH		K14E06-00608	04/13/12	06/26/12	3900	
04-17-12Q		Exp: 04/24/12						
5.0ug/ml 8260 Surrogate		Lot	APPL Code	APPL Exp Date	u1			
J&T Brand		50ug/ml 8260 Surrogate	04-17-12P	04/24/12	200			
		Purge & Trap MeOH	04/13/12	06/08/12	1800			
04-17-12R		Exp: 04/24/12						
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P								
Exp: 04/24/12		Conc.	Date	Exp.				
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	uL	
O2SI	120166-01	Volatile Mix 4-3	2000	178651-30413	04-17-12G	05/14/12	500	
O2SI	020229-09	Acrolein	10000	186936-30514	04-09-12G	04/24/12	100	
J&T Brand		Purge & Trap MeOH		K14E06-00608	04/13/12	06/08/12	3400	

RS

4/17/12  
RS

		04-17-12S						
		50ug/ml VOC Std#5						
Exp: 04/24/12		Conc.	Date	Exp.				
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	uL	
O2SI	120016-03-SS	8260 Gases(SS)	2000	178557-29530	04-17-12H	04/16/12	50	
O2SI	020145-02-02	2-CEVE	2000	181404-30009	02-20-12I	05/14/12	50	
J&T Brand		Purge & Trap MeOH		K14E06-00608	04/13/12	06/08/12	1900	
04-17-12T		Exp: 04/24/12						
50ug/ml VOC Std#6		ID #	ID	ug/ml	Lot #	Code	Date	uL
O2SI	120023-03-SS	VOC'S 54 COMP.	2000	176822-29263	03-22-12L	05/14/12	50	
O2SI	120296-01	Custom 8260 Solution	2000	166038-27767	03-22-12M	05/18/12	50	
O2SI	020232-02-SS	Vinyl Acetate(SS)	2000	184399-30240	04-09-12I	04/05/12	50	
O2SI	020620-02-SS	n-HEXANE	1000	179199-29614	03-22-12O	06/14/12	100	
O2SI	020049-02-SS	HEXACHLOROETHANE	1000	183795-30439	03-22-12P	06/14/12	100	
O2SI	020546-02-SS	Heptane(SS)	1000	185762-30449	03-22-12Q	06/14/12	100	
J&T Brand		Purge & Trap MeOH		K14E06-00608	04/13/12	06/08/12	1550	
04-17-12U		Exp: 04/24/12						
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P		Conc.	Date	Exp.				
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	uL	
O2SI	120166-01-SS	VOC Mix 4-3 (SS)	2000	163778-29837	03-22-12R	06/14/12	250	
O2SI	020229-09-SS	Acrolein SOLUTION (SS)	10000	186938-30515	03-22-12S	04/23/12	50	
J&T Brand		Purge & Trap MeOH		K14E06-00608	04/13/12	06/08/12	1700	

RS

04-17-12V									
50ug/ml Vol Work Std #7									
Exp:04/24/12									
Supplier	ID #	ID	ug/ml	Lot #	Date	Code	Exp. Date	ul	
02SI	120016-03	Gas Mix	2000	180013-29770	04-17-12A		04/24/12	100	
02SI	020049-02	HEXACHLOROETHANE	1000	176700-29159	04-01-12B		06/08/12	200	
02SI	020228-02	Benzyl Chloride	1000	176701-29162	04-01-12C		06/08/12	200	
J&T Brand		Purge & Trap MeOH		K14E06-00608	04/13/12		06/08/12	3500	
04-17-12W									
50ug/ml Vol Work Std #1									
Exp:04/24/12									
Supplier	ID #	ID	ug/ml	Lot #	Date	Code	Exp. Date	ul	
02SI	020145-02-02	2-CEVE	2000	176770-29831	04-01-12D		06/08/12	50	
J&T Brand		Purge & Trap MeOH		K14E06-00608	04/13/12		06/08/12	1950	
04-17-12X									
50ug/ml Vol Work Std #8									
Exp:04/24/12									
Supplier	ID #	ID	ug/ml	Lot #	Date	Code	Exp. Date	ul	
02SI	122039-02	Volatile Mix, 20-29	2000	180114-29791	04-17-12B		06/08/12	100	
02SI	120023-03	VOC'S-54 COMP	2000	164454-27879	04-17-12C		06/08/12	100	
02SI	020232-02	Vinyl Acetate	2000	185696-30408	04-17-12D		05/13/12	100	
02SI	020620-02	n-Hexane	1000	163378-29227	04-09-12D		06/08/12	200	
02SI	020546-02	Heptane	1000	169174-29253	04-09-12E		06/08/12	200	
J&T Brand		Purge & Trap MeOH		K14E06-00608	04/13/12		06/08/12	3300	
04-17-12Y									
50ug/ml Vol Work Std #2									
Exp:04/24/12									
Supplier	ID #	ID	ug/ml	Lot #	Date	Code	Exp. Date	ul	
02SI	121020-05	HSL'S-Ketone Solution	2000	169173-29218	04-17-12E		08/08/12	100	
J&T Brand		Purge & Trap MeOH		04/13/12	06/08/12		06/08/12	3900	
04-17-12Z									
Exp: 04/24/12									
5ug/ml Vol Work Std #9									
SOURCES	Lot	APPL Code	APPL Exp Date	ul					
50ug/ml Vol Work Std #7		04-17-12V	04/24/12	200					
50ug/ml Vol Work Std #8		04-17-12X	04/24/12	200					
J&T Brand		04/13/12	06/08/12	1600					
04-17-12AA		Exp: 04/24/12							
5ug/ml Vol Work Std #10									
SOURCES	Lot	APPL Code	APPL Exp Date	ul					
50ug/ml Vol Work Std #1		04-17-12W	04/24/12	200					
J&T Brand		04/13/12	06/08/12	1800					
04-17-12AB		Exp: 04/24/12							
5ug/ml Vol Work Std #12									
SOURCES	Lot	APPL Code	APPL Exp Date	ul					
50ug/ml Vol Work Std #2		04-17-12Y	04/24/12	200					
J&T Brand		04/13/12	06/08/12	1800					
04-17-12AC									
50ug/ml 8260 Surrogate									
Exp:04/24/12									
Supplier	ID #	ID	ug/ml	Lot #	Date	Code	Exp. Date	ul	
02SI	120002-01	8260B Surr Solution	2000	164585-30465	04-17-12F		04/24/12	100	
J&T Brand		Purge & Trap MeOH		K14E06-00608	04/13/12		06/26/12	3900	
04-17-12AD									
Exp: 04/24/12									
5.0ug/ml 8260 Surrogate									
SOURCES	Lot	APPL Code	APPL Exp Date	ul					
50ug/ml 8260 Surrogate		04-17-12AC	04/24/12	200					
J&T Brand		04/13/12	06/08/12	1800					
04-17-12AE									
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P									
Exp:04/24/12									
Supplier	ID #	ID	ug/ml	Lot #	Date	Code	Exp. Date	ul	
02SI	120166-01	Volatile Mix 4-3	2000	178651-30413	04-17-12G		05/14/12	500	
02SI	020229-09	Acrolein	10000	186936-30514	04-09-12G		04/24/12	100	
J&T Brand		Purge & Trap MeOH		K14E06-00608	04/13/12		06/08/12	3400	

4/17/12  
RS

4/17/12 RS

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-THOR										
Date	Conc.	Expiration Date: 04/18/12		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
		5µg/mL Vol Std #9	5µg/mL Surr							
04-17-12AF	2	04-17-12Z	04-17-12AD	04-17-12V	04-17-12X	04-17-12AC	04-17-12AA	04-17-12W	04-17-12Y	04-17-12AB
Code	µg/L	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12
04-17-12AG	5	2	5	n/a	n/a	n/a	2	n/a	2	n/a
04-17-12AH	10	5	10	n/a	n/a	n/a	5	n/a	5	n/a
04-17-12AI	20	10	20	n/a	n/a	n/a	10	n/a	10	n/a
04-17-12AJ	50	20	50	n/a	n/a	n/a	20	n/a	20	n/a
04-17-12AK	100	n/a	n/a	5	5	5	n/a	5	n/a	5
04-17-12AL	200	n/a	n/a	10	10	10	n/a	10	n/a	10

250µg/mL TBA	Final Vol
04-17-12AE	w/P&T H2O
Exp:04-24-12	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

4/17/12 RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-SWEETPEA										
Date	Conc.	Expiration Date: 04/18/12		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	50µg/mL Vol Std #12
		5µg/mL Vol Std #9	5µg/mL Surr							
04-17-12AM	0.3	04-17-12Z	04-17-12AD	04-17-12V	04-17-12X	04-17-12AC	04-17-12AA	04-17-12W	04-17-12Y	04-17-12AB
Code	µg/L	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12
04-17-12AN	1	3	6	n/a	n/a	n/a	3	n/a	n/a	3
04-17-12AO	5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
04-17-12AP	10	10	20	n/a	n/a	n/a	10	n/a	n/a	10
04-17-12AQ	50	n/a	n/a	5	5	10	n/a	5	5	n/a
04-17-12AR	100	n/a	n/a	10	10	25	n/a	10	10	n/a
04-17-12AS	200	n/a	n/a	40	40	80	n/a	40	40	n/a
04-17-12AT	200	n/a	n/a	100	100	100	n/a	100	100	n/a
				200	200	125	n/a	200	200	n/a

250µg/mL TAPD	Final Vol
04-17-12AE	w/P&T H2O
Exp:04-24-12	mL
3	50
5	50
10	50
20	50
25	50
35	50
40	50
45	50

4/19/12 RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-NEO										
Date	Conc.	Expiration Date: 04/20/12		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	50µg/mL Vol Std #12
		5µg/mL Vol Std #9	5µg/mL Surr							
04-19-12A	0.3	04-17-12M	04-17-12Q	04-17-12I	04-17-12K	04-17-12P	04-17-12N	04-17-12J	04-17-12L	04-17-12O
Code	µg/L	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12
04-19-12B	0.5	3	6	n/a	n/a	n/a	3	n/a	n/a	3
04-19-12C	1	5	10	n/a	n/a	n/a	5	n/a	n/a	5
04-19-12D	5	10	20	n/a	n/a	n/a	10	n/a	n/a	10
04-19-12E	10	n/a	n/a	5	5	10	n/a	5	5	n/a
04-19-12F	40	n/a	n/a	10	10	25	n/a	10	10	n/a
04-19-12G	100	n/a	n/a	40	40	80	n/a	40	40	n/a
04-19-12H	200	n/a	n/a	100	100	100	n/a	100	100	n/a
				200	200	125	n/a	200	200	n/a

250µg/mL TAPD	Final Vol
04-17-12R	w/P&T H2O
Exp:04-24-12	mL
3	50
5	50
10	50
20	50
25	50
35	50
40	50
45	50

4/20/12 RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-CHICO										
Date	Conc.	Expiration Date: 04/21/12		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	50µg/mL Vol Std #12
		5µg/mL Vol Std #9	5µg/mL Surr							
04-20-12A	0.3	04-17-12M	04-17-12Q	04-17-12I	04-17-12K	04-17-12P	04-17-12N	04-17-12J	04-17-12L	04-17-12O
Code	µg/L	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12	Exp:04-24-12
04-20-12B	0.5	3	6	n/a	n/a	n/a	3	n/a	n/a	3
04-20-12C	1	5	10	n/a	n/a	n/a	5	n/a	n/a	5
04-20-12D	5	10	20	n/a	n/a	n/a	10	n/a	n/a	10
04-20-12E	10	n/a	n/a	5	5	10	n/a	5	5	n/a
04-20-12F	40	n/a	n/a	10	10	25	n/a	10	10	n/a
04-20-12G	100	n/a	n/a	40	40	80	n/a	40	40	n/a
04-20-12H	200	n/a	n/a	100	100	100	n/a	100	100	n/a
				200	200	125	n/a	200	200	n/a

250µg/mL TAPD	Final Vol
04-17-12R	w/P&T H2O
Exp:04-24-12	mL
3	50
5	50
10	50
20	50
25	50
35	50
40	50
45	50

## Injection Log

Directory: M:\CHICO\DATA\C120125\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0125C24T.D	1	25ug/mL BFB Std. 01-12-12	2uL	26 Jan 12 16:30
2	1	0125C29W.D	1	Vol. Std. 01-26-12@20ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 19:32
3	1	0125C30W.D	1	Vol. Std. 01-26-12@50ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 20:09
4	1	0125C31W.D	1	Vol. Std. 01-26-12@100ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 20:46
5	1	0125C32W.D	1	Vol. Std. 01-26-12@300ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 21:24
6	1	0125C33W.D	1	Vol. Std. 01-26-12@600ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 22:01
7	1	0125C34W.D	1	Vol. Std. 01-26-12@800ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 22:38
8	1	0125C35W.D	1	Vol. Std. 01-26-12@1000ug/L	Water 10mLw/ IS:12-06-11	26 Jan 12 23:15
9	1	0125C38W.D	1	Second Source 01-26-12	Water 10mLw/ IS:12-06-11	27 Jan 12 1:06
10	1	0410C00T.D	1	25ug/ml BFB STD 04-10-12	2uL	10 Apr 12 14:14
11	1	0410C04W.D	1	0.3ug/L Vol Std 04-10-12	Water 10mL w/IS:04-10-12	10 Apr 12 16:36
12	1	0410C05W.D	1	0.5ug/L Vol Std 04-10-12	Water 10mL w/IS:04-10-12	10 Apr 12 17:13
13	1	0410C06W.D	1	1.0ug/L Vol Std 04-10-12	Water 10mL w/IS:04-10-12	10 Apr 12 17:50
14	1	0410C07W.D	1	5.0ug/L Vol Std 04-10-12	Water 10mL w/IS:04-10-12	10 Apr 12 18:27
15	1	0410C08W.D	1	10ug/L Vol Std 04-10-12	Water 10mL w/IS:04-10-12	10 Apr 12 19:04
16	1	0410C09W.D	1	20ug/L Vol Std 04-10-12	Water 10mL w/IS:04-10-12	10 Apr 12 19:41
17	1	0410C10W.D	1	40ug/L Vol Std 04-10-12	Water 10mL w/IS:04-10-12	10 Apr 12 20:18
18	1	0410C11W.D	1	100ug/L Vol Std 04-10-12	Water 10mL w/IS:04-10-12	10 Apr 12 20:55
19	1	0411C02W.D	1	25ug/ml BFB STD 04-10-12	2uL	11 Apr 12 11:47
20	1	0411C05W.D	1	120411A LCS-1WC (SS)	Water 10mL w/IS&S:04-10-1	11 Apr 12 13:39
21	1	0418C00T.D	1	25ug/ml BFB STD 04-10-12	2uL	18 Apr 12 8:55
22	1	0418C01W.D	1	CCV gas 300ug/L	Water 10mL w/IS&S:04-10-1	18 Apr 12 9:27
23	1	0418C02W.D	1	LCS gas 300ug/L	Water 10mL w/IS&S:04-10-1	18 Apr 12 10:04
24	1	0418C03W.D	1	10ug/L Vol Std 04-18-12	Water 10mL w/IS&S:04-10-1	18 Apr 12 10:41
25	1	0418C04W.D	1	120418A LCS-1WC	Water 10mL w/IS&S:04-10-1	18 Apr 12 11:18
26	1	0418C10W.D	1	120418A BLK-1WC	Water 10mL w/IS&S:04-10-1	18 Apr 12 17:20
27	1	0418C11W.D	1	AY59208W01	Water 10mL w/IS&S:04-10-1	18 Apr 12 17:57
28	1	0418C12W.D	1	AY59209W01	Water 10mL w/IS&S:04-10-1	18 Apr 12 18:34
29	1	0418C13W.D	1	AY59184W01	Water 10mL w/IS&S:04-10-1	18 Apr 12 19:11
30	1	0418C14W.D	1	AY59185W01	Water 10mL w/IS&S:04-10-1	18 Apr 12 19:48
31	1	0418C15W.D	1	AY59186W01	Water 10mL w/IS&S:04-10-1	18 Apr 12 20:25
32	1	0419C00T.D	1	25ug/ml BFB STD 04-10-12	2uL	19 Apr 12 6:16
33	1	0419C01W.D	1	CCV gas 300ug/L	Water 10mL w/IS&S:04-10-1	19 Apr 12 6:48
34	1	0419C06W.D	1	LCS gas 300 ug/L	Water 10mL w/IS&S:04-10-1	19 Apr 12 9:52
35	1	0419C09W.D	1	120419A BLK-1WC	Water 10mL w/IS&S:04-10-1	19 Apr 12 11:44
36	1	0419C11W.D	1	AY59187W02	Water 10mL w/IS&S:04-10-1	19 Apr 12 12:58

## Injection Log

Directory: M:\THOR\DATA\T120411\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	30	0411T30T.D	1	5ng BFB STD 4-10-12	10ml w/5ul of IS&S: 03-26-1:	11 Apr 12 22:12
2	32	0411T32W.D	1	0.5ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	11 Apr 12 23:07
3	33	0411T33W.D	1	1.0ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	11 Apr 12 23:35
4	34	0411T34W.D	1	5.0ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	12 Apr 12 00:03
5	35	0411T35W.D	1	10ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	12 Apr 12 00:31
6	36	0411T36W.D	1	20ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	12 Apr 12 00:58
7	37	0411T37W.D	1	40ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	12 Apr 12 1:26
8	38	0411T38W.D	1	100ug/L VOL STD 4-11-12	10ml w/5ul of IS&S: 03-26-1:	12 Apr 12 1:53
9	42	0412T12W.D	1	10ug/L VOC STD 4-11-12 (SS)	10ml w/5ul of IS&S: 03-26-1:	12 Apr 12 3:44
10	1	0419T10T.D	1	5ng BFB 4-10-12	10ml w/5ul of IS&S: 03-26-1:	19 Apr 12 9:23
11	1	0419T11W.D	1	10ug/L Vol Std 04-19-12	10ml w/5ul of IS&S: 03-26-1:	19 Apr 12 9:45
12	2	0419T12W.D	1	120419A LCS-1WT	10ml w/5ul of IS&S: 03-26-1:	19 Apr 12 10:13
13	7	0419T17W.D	1	120419A BLK-1WT	10ml w/5ul of IS&S: 03-26-1:	19 Apr 12 12:32
14	10	0419T20W.D	1	AY59187W03	10ml w/5ul of IS&S: 03-26-1:	19 Apr 12 13:55

**METALS**  
**EPA SW846 - 6020**

**APPL, INC.**

**METALS**  
**EPA SW846 - 6020**  
**QC Summary**

**APPL, INC.**

# METALS BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.22 U	0.5	0.22	0.11	ug/L	04/18/12	04/29/12	#602D-120418A-AY59187

# 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	52.3	105	80-120	04/18/12	04/29/12	#602D-120418A-AY59187

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Matrix Spike Recoveries

## METALS

APPL ID: 120418W-59187 MS - 166407

APPL Inc.

908 North Temperance Avenue

Sample ID: AY59187

Clovis, CA 93611

Client ID: ES073

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	1.4	49.3	49.1	95.8	95.4	0.4	20	80-120	04/18/12	04/30/12	04/18/12	04/30/12	166407	AY59187

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**METALS**  
**EPA SW846 - 6020**  
**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: ES070**  
Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

**APPL ID: AY59184**

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22U	0.5	0.22	0.11	ug/L	1	04/18/12	04/30/12

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\133SMPL.D\133SMPL.D#  
 Date Acquired: Apr 30 2012 05:26 am  
 Operator: SDM  
 Sample Name: AY59184W08  
 Misc Info: 120418A-3015  
 Vial Number: 4208  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l	#VALUE!	-----	0	
9 Be	0.00 ug/l	0.00	186.51	1000	
11 B	195.60 ug/l	217.31	0.02	1000	
23 Na	41950.00 ug/l	46606.45	0.33	25000	>Cal
24 Mg	11200.00 ug/l	12443.20	1.33	50000	
27 Al	15.44 ug/l	17.15	6.71	20000	
39 K	2066.00 ug/l	2295.33	0.95	20000	
44 Ca	9207.00 ug/l	10228.98	0.56	50000	
47 Ti	0.60 ug/l	0.67	15.23	1000	
51 V	23.12 ug/l	25.69	1.37	1000	
52 Cr	2.78 ug/l	3.08	2.43	1000	
55 Mn	0.95 ug/l	1.06	3.34	1000	
56 Fe	8.01 ug/l	8.90	1.14	20000	
59 Co	0.61 ug/l	0.67	5.01	1000	
60 Ni	0.79 ug/l	0.87	6.17	1000	
63 Cu	0.45 ug/l	0.50	4.28	1000	
65 Cu	0.46 ug/l	0.51	13.16	1000	
66 Zn	2.45 ug/l	2.72	5.90	1000	
75 As	0.24 ug/l	0.26	5.33	1000	
78 Se	0.23 ug/l	0.26	20.48	1000	
78 Se	2.08 ug/l	2.31	21.90	1000	
88 Sr	75.81 ug/l	84.22	1.68	1000	
88 Sr	75.41 ug/l	83.78	0.51	1000	
95 Mo	0.77 ug/l	0.86	4.34	1000	
106 (Cd)	ug/l	#VALUE!	-----	#####	
107 Ag	0.00 ug/l	0.00	42.77	500	
108 (Cd)	ug/l	#VALUE!	-----	#####	
111 Cd	0.17 ug/l	0.19	14.15	1000	
118 Sn	0.93 ug/l	1.04	4.10	#####	
118 Sn	1.03 ug/l	1.15	11.11	#####	
118 Sn	0.98 ug/l	1.09	3.08	1000	
121 Sb	1.84 ug/l	2.05	3.89	1000	
137 Ba	4.00 ug/l	4.44	1.13	1000	
205 Tl	0.02 ug/l	0.02	7.58	1000	
206 (Pb)	ug/l	#VALUE!	-----	#####	
207 (Pb)	ug/l	#VALUE!	-----	#####	
208 Pb	-0.25 ug/l	-0.27	2.72	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2839268.00	0.78	3376647.30	84.1	70 - 120	
45 Sc	1227760.60	1.13	1470535.00	83.5	70 - 120	
45 Sc	190650.91	2.65	211970.81	89.9	70 - 120	
45 Sc	4512307.00	0.77	5338272.50	84.5	70 - 120	
72 Ge	274431.44	0.15	357467.25	76.8	70 - 120	
72 Ge	120673.53	3.46	134894.38	89.5	70 - 120	
72 Ge	926559.25	1.59	1118516.60	82.8	70 - 120	
115 In	2005765.60	1.81	2502525.50	80.1	70 - 120	
115 In	1220688.40	4.19	1421320.90	85.9	70 - 120	
115 In	6237191.00	0.75	7622565.50	81.8	70 - 120	
159 Tb	7837156.50	0.81	9867540.00	79.4	70 - 120	
165 Ho	7542349.50	1.40	9489315.00	79.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

## Metals Analysis

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

Attn: Max Solmssen  
Project: LTM Red Hill / 1022-024

**Sample ID: ES071**

Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

**APPL ID: AY59185**

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.44J	0.5	0.22	0.11	ug/L	1	04/18/12	04/30/12

J = Estimated value.

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\134SMPL.D\134SMPL.D#  
 Date Acquired: Apr 30 2012 05:33 am  
 Operator: SDM  
 Sample Name: AY59185W08  
 Misc Info: 120418A-3015  
 Vial Number: 4209  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	0.01 ug/l	0.01	42.24	1000	
11 B	140.50 ug/l	156.10	0.12	1000	
23 Na	61570.00 ug/l	68404.27	0.22	25000	>Cal
24 Mg	24920.00 ug/l	27686.12	1.50	50000	
27 Al	12.40 ug/l	13.78	17.35	20000	
39 K	2777.00 ug/l	3085.25	1.15	20000	
44 Ca	13920.00 ug/l	15465.12	1.23	50000	
47 Ti	1.31 ug/l	1.46	13.99	1000	
51 V	1.07 ug/l	1.19	0.69	1000	
52 Cr	0.36 ug/l	0.40	3.91	1000	
55 Mn	1427.00 ug/l	1585.40	1.15	1000	>Cal
56 Fe	1468.00 ug/l	1630.95	1.33	20000	
59 Co	0.43 ug/l	0.48	1.27	1000	
60 Ni	0.70 ug/l	0.78	1.88	1000	
63 Cu	0.29 ug/l	0.32	3.23	1000	
65 Cu	0.32 ug/l	0.36	8.50	1000	
66 Zn	3.38 ug/l	3.75	1.58	1000	
75 As	0.10 ug/l	0.11	5.11	1000	
78 Se	0.08 ug/l	0.09	22.73	1000	
78 Se	1.69 ug/l	1.87	3.43	1000	
88 Sr	116.40 ug/l	129.32	0.66	1000	
88 Sr	115.20 ug/l	127.99	2.02	1000	
95 Mo	0.26 ug/l	0.29	2.48	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.00 ug/l	0.00	519.28	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.30 ug/l	0.33	8.59	1000	
118 Sn	0.55 ug/l	0.62	3.55	#####	
118 Sn	0.64 ug/l	0.71	2.13	#####	
118 Sn	0.65 ug/l	0.73	4.33	1000	
121 Sb	0.64 ug/l	0.71	6.03	1000	
137 Ba	23.54 ug/l	26.15	0.29	1000	
205 Tl	0.02 ug/l	0.02	18.10	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	0.40 ug/l	0.44	0.53	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2701483.80	1.23	3376647.30	80.0	70 - 120	
45 Sc	1398129.80	1.43	1470535.00	95.1	70 - 120	
45 Sc	192173.30	0.95	211970.81	90.7	70 - 120	
45 Sc	4359655.00	1.36	5338272.50	81.7	70 - 120	
72 Ge	315692.25	1.50	357467.25	88.3	70 - 120	
72 Ge	120737.55	0.87	134894.38	89.5	70 - 120	
72 Ge	876948.31	0.57	1118516.60	78.4	70 - 120	
115 In	2305805.50	0.22	2502525.50	92.1	70 - 120	
115 In	1229292.10	1.92	1421320.90	86.5	70 - 120	
115 In	5939088.00	0.67	7622565.50	77.9	70 - 120	
159 Tb	7538502.50	0.41	9867540.00	76.4	70 - 120	
165 Ho	7321239.50	2.06	9489315.00	77.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

## Metals Analysis

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

Attn: Max Solmssen  
Project: LTM Red Hill / 1022-024

**Sample ID: ES072**

Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

**APPL ID: AY59186**

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22U	0.5	0.22	0.11	ug/L	1	04/18/12	04/30/12

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\135SMPL.D\135SMPL.D#  
 Date Acquired: Apr 30 2012 05:40 am  
 Operator: SDM  
 Sample Name: AY59186W08  
 Misc Info: 120418A-3015  
 Vial Number: 4210  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	0.01 ug/l	0.01	35.48	1000	
11 B	134.60 ug/l	149.54	0.84	1000	
23 Na	60930.00 ug/l	67693.23	1.80	25000	>Cal
24 Mg	24720.00 ug/l	27463.92	1.37	50000	
27 Al	19.33 ug/l	21.48	5.28	20000	
39 K	2734.00 ug/l	3037.47	1.25	20000	
44 Ca	13670.00 ug/l	15187.37	1.04	50000	
47 Ti	1.23 ug/l	1.37	6.21	1000	
51 V	1.05 ug/l	1.17	0.20	1000	
52 Cr	0.37 ug/l	0.41	15.09	1000	
55 Mn	1405.00 ug/l	1560.96	3.34	1000	>Cal
56 Fe	1442.00 ug/l	1602.06	2.76	20000	
59 Co	1.05 ug/l	1.17	1.93	1000	
60 Ni	0.71 ug/l	0.79	11.28	1000	
63 Cu	0.26 ug/l	0.28	2.23	1000	
65 Cu	0.31 ug/l	0.34	11.58	1000	
66 Zn	2.99 ug/l	3.32	2.94	1000	
75 As	0.11 ug/l	0.12	14.71	1000	
78 Se	0.06 ug/l	0.07	70.16	1000	
78 Se	1.74 ug/l	1.94	20.99	1000	
88 Sr	115.80 ug/l	128.65	1.58	1000	
88 Sr	113.80 ug/l	126.43	1.74	1000	
95 Mo	0.26 ug/l	0.29	3.27	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.01 ug/l	0.01	58.05	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.17 ug/l	0.18	11.72	1000	
118 Sn	0.39 ug/l	0.44	6.63	#####	
118 Sn	0.35 ug/l	0.39	13.95	#####	
118 Sn	0.42 ug/l	0.47	4.91	1000	
121 Sb	0.38 ug/l	0.42	1.45	1000	
137 Ba	23.04 ug/l	25.60	1.55	1000	
205 Tl	0.01 ug/l	0.01	12.54	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	-0.32 ug/l	-0.36	0.58	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2776528.50	0.41	3376647.30	82.2	70 - 120	
45 Sc	1388805.90	0.86	1470535.00	94.4	70 - 120	
45 Sc	187395.02	2.68	211970.81	88.4	70 - 120	
45 Sc	4558854.50	0.88	5338272.50	85.4	70 - 120	
72 Ge	307988.16	0.89	357467.25	86.2	70 - 120	
72 Ge	116867.09	1.78	134894.38	86.6	70 - 120	
72 Ge	924503.81	0.96	1118516.60	82.7	70 - 120	
115 In	2261259.80	1.16	2502525.50	90.4	70 - 120	
115 In	1191034.00	2.48	1421320.90	83.8	70 - 120	
115 In	6241777.00	2.14	7622565.50	81.9	70 - 120	
159 Tb	7873098.50	0.15	9867540.00	79.8	70 - 120	
165 Ho	7579158.00	0.70	9489315.00	79.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

## Metals Analysis

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

Attn: Max Solmssen  
Project: LTM Red Hill / 1022-024

**Sample ID: ES073**

Sample Collection Date: 04/16/12

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 67512

**APPL ID: AY59187**

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	1.4	0.5	0.22	0.11	ug/L	1	04/18/12	04/30/12

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\136SMPL.D\136SMPL.D#  
 Date Acquired: Apr 30 2012 05:47 am  
 Operator: SDM  
 Sample Name: AY59187W08  
 Misc Info: 120418A-3015  
 Vial Number: 4211  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

## QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	0.00 ug/l	0.00	92.91	1000	
11 B	200.60 ug/l	222.87	0.06	1000	
23 Na	79670.00 ug/l	88513.37	1.31	25000	>Cal
24 Mg	26380.00 ug/l	29308.18	0.78	50000	
27 Al	5.90 ug/l	6.55	2.87	20000	
39 K	3376.00 ug/l	3750.74	1.32	20000	
44 Ca	22690.00 ug/l	25208.59	0.76	50000	
47 Ti	0.40 ug/l	0.44	11.98	1000	
51 V	18.57 ug/l	20.63	1.15	1000	
52 Cr	1.05 ug/l	1.17	1.11	1000	
55 Mn	38.82 ug/l	43.13	1.83	1000	
56 Fe	25.01 ug/l	27.79	0.61	20000	
59 Co	0.46 ug/l	0.51	7.02	1000	
60 Ni	3.28 ug/l	3.64	1.28	1000	
63 Cu	0.81 ug/l	0.90	4.01	1000	
65 Cu	0.87 ug/l	0.96	3.61	1000	
66 Zn	5.11 ug/l	5.67	5.32	1000	
75 As	0.54 ug/l	0.60	3.32	1000	
78 Se	0.15 ug/l	0.17	10.09	1000	
78 Se	1.43 ug/l	1.59	16.47	1000	
88 Sr	142.30 ug/l	158.10	0.14	1000	
88 Sr	139.00 ug/l	154.43	1.39	1000	
95 Mo	10.93 ug/l	12.14	0.94	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.01 ug/l	0.01	59.28	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.56 ug/l	0.62	10.53	1000	
118 Sn	0.48 ug/l	0.54	12.03	#####	
118 Sn	0.48 ug/l	0.53	7.46	#####	
118 Sn	0.50 ug/l	0.56	6.46	1000	
121 Sb	0.27 ug/l	0.31	1.83	1000	
137 Ba	11.49 ug/l	12.77	0.44	1000	
205 Tl	0.02 ug/l	0.02	3.63	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	1.28 ug/l	1.42	1.25	1000	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2849814.30	0.90	3376647.30	84.4	70 - 120	
45 Sc	1383947.90	0.33	1470535.00	94.1	70 - 120	
45 Sc	203965.77	0.32	211970.81	96.2	70 - 120	
45 Sc	4646480.50	0.73	5338272.50	87.0	70 - 120	
72 Ge	313463.06	0.68	357467.25	87.7	70 - 120	
72 Ge	126649.98	2.18	134894.38	93.9	70 - 120	
72 Ge	933652.31	0.48	1118516.60	83.5	70 - 120	
115 In	2287655.30	1.58	2502525.50	91.4	70 - 120	
115 In	1299876.80	0.13	1421320.90	91.5	70 - 120	
115 In	6315046.50	0.96	7622565.50	82.8	70 - 120	
159 Tb	8024685.00	1.23	9867540.00	81.3	70 - 120	
165 Ho	7723608.00	1.09	9489315.00	81.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Fail  
 ISTD: Pass

**METALS**  
**EPA SW846 - 6020**  
**Calibration Data**

**APPL, INC.**

A.P.P.L. INC.  
2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 67512 SDG: 67512

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 04/29/12 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 15:32	%R(1)	True CCV1	Found 15:59	%R(1)	True CCV1	Found 19:00	%R(1)	
Lead (Pb)	100	99.5	99.5	50	50.87	102	50	50.86	102	P

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 67512 SDG: 67512

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 04/29/12 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 15:32	%R(1)	True CCV1	Found 20:34	%R(1)	True CCV1	Found 4:26	%R(1)	
Lead (Pb)	100	99.5	99.5	50	49.63	99.3	50	49.26	98.5	P

A.P.P.L. INC.  
2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 67512 SDG: 67512

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 04/29/12 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 15:32	%R(1)	True CCVI	Found 6:00	%R(1)	True CCVI	Found 8:15	%R(1)	
Lead (Pb)	100	99.5	99.5	50	49.43	98.9	50	49.88	99.8	P

A.P.P.L. INC.

3

BLANKS

Lab Name: A.P.P.L. INC.

Contract: Environet, Inc.

ARF No.: 67512

SDG: 67512

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 04/29/12

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	15:52		16:06		19:13		20:48		20:14		
Lead (Pb)	.20	U	.20	U	.20	U	.20	U	.20	U	P

A.P.P.L. INC.

3

BLANKS

Lab Name: A.P.P.L. INC.

Contract: Environet, Inc.

ARF No.: 67512

SDG: 67512

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 04/29/12

Analyte	Initial Calibration Blank (ug/L) C	Continuing Calibration Blank (ug/L)						Preparation Blank C	M
		1 C	2 C	3 C	4 C	5 C	6 C		
	15:52	04:39	06:13	08:22			20:14		
Lead (Pb)	.20 U	.20 U	.20 U	.20 U	.20 U	.20 U	.20 U	P	

## ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC.Contract: Environet, Inc.ARF No.: 67512SDG: 67512ICP ID Number: OptimusICS Source: Environmental Express

Analysis Date: 04/29/12

Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 16:26	Sol AB 16:32	%R(1)
Lead (Pb)		500	0.09073	512.1	102

(1) Control Limits: Metals 80-120

A.P.P.L. INC.  
9  
ICP SERIAL DILUTION

CLIENT SAMPLE NO.

ES073

Lab Name: A.P.P.L. INC.

Contract: Environet, Inc.

ARF No.: 67512

SDG: 67512

Matrix: water

Analysis Date: 04/30/12

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	Serial Dilution Result (S)	%D	Q	M
Lead (Pb)	1.41858	ND	NA		

Comments:

04/30/12 05:47 AY59187W08

04/30/12 06:40 AY59187W08-1/5

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\144SMPL.D\144SMPL.D#  
 Date Acquired: Apr 30 2012 06:40 am  
 Operator: SDM  
 Sample Name: AY59187W08-1/5  
 Misc Info: 120418A-3015  
 Vial Number: 4303  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: Sample  
 Prep Dil Factor: 5.56  
 Total Dil Factor: 5.56

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	0.03 ug/l	0.17	17.53	1000	
11 B	55.92 ug/l	310.69	1.69	1000	
23 Na	16390.00 ug/l	91062.84	2.11	25000	
24 Mg	5762.00 ug/l	32013.67	1.61	50000	
27 Al	5.60 ug/l	31.09	9.25	20000	
39 K	694.90 ug/l	3860.86	2.75	20000	
44 Ca	4515.00 ug/l	25085.34	2.33	50000	
47 Ti	0.25 ug/l	1.42	50.65	1000	
51 V	3.82 ug/l	21.21	3.11	1000	
52 Cr	0.24 ug/l	1.33	9.69	1000	
55 Mn	7.54 ug/l	41.90	1.47	1000	
56 Fe	6.85 ug/l	38.05	2.13	20000	
59 Co	0.11 ug/l	0.59	10.60	1000	
60 Ni	1.21 ug/l	6.70	4.87	1000	
63 Cu	0.28 ug/l	1.58	3.08	1000	
65 Cu	0.32 ug/l	1.77	14.13	1000	
66 Zn	2.32 ug/l	12.88	3.06	1000	
75 As	0.40 ug/l	2.25	4.13	1000	
78 Se	0.66 ug/l	3.65	13.24	1000	
78 Se	1.12 ug/l	6.22	21.99	1000	
88 Sr	28.38 ug/l	157.68	1.33	1000	
88 Sr	29.39 ug/l	163.29	1.28	1000	
95 Mo	2.70 ug/l	15.01	2.98	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.69 ug/l	3.83	2.70	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.14 ug/l	0.78	15.51	1000	
118 Sn	4.13 ug/l	22.92	4.15	#####	
118 Sn	3.42 ug/l	19.02	5.37	#####	
118 Sn	2.52 ug/l	13.97	5.61	1000	
121 Sb	6.16 ug/l	34.23	5.31	1000	
137 Ba	2.32 ug/l	12.86	0.90	1000	
205 Tl	0.06 ug/l	0.35	10.67	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	0.00 ug/l	-0.01	329.03	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3165249.30	1.06	3376647.30	93.7	70 - 120	
45 Sc	1529105.80	2.88	1470535.00	104.0	70 - 120	
45 Sc	206970.11	2.47	211970.81	97.6	70 - 120	
45 Sc	4775627.50	0.32	5338272.50	89.5	70 - 120	
72 Ge	340448.75	1.82	357467.25	95.2	70 - 120	
72 Ge	128754.98	1.00	134894.38	95.4	70 - 120	
72 Ge	992414.69	0.58	1118516.60	88.7	70 - 120	
115 In	2489082.80	1.34	2502525.50	99.5	70 - 120	
115 In	1336357.50	0.97	1421320.90	94.0	70 - 120	
115 In	6673926.00	1.22	7622565.50	87.6	70 - 120	
159 Tb	8340122.00	0.92	9867540.00	84.5	70 - 120	
165 Ho	8057368.00	0.75	9489315.00	84.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass  
 ISTD: Pass

A.P.P.L. INC.  
5B  
POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMPLE NO.

ES073

Lab Name: A.P.P.L. INC.  
ARF No.: 67512

Contract: Environet, Inc.  
SDG: 67512

Analysis Date: 04/30/12

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	253.191	1.41858	277.500	90.7		

Comments:

04/30/12 05:47 AY59187W08

04/30/12 06:34 AY59187W08-A

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\143SMPL.D\143SMPL.D#  
 Date Acquired: Apr 30 2012 06:34 am  
 Operator: SDM  
 Sample Name: AY59187W08-A  
 Misc Info: 120418A-3015  
 Vial Number: 4302  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

**QC Elements**

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l	#VALUE!	-----	0	
9 Be	42.60 ug/l	47.33	0.56	1000	
11 B	431.40 ug/l	479.29	1.68	1000	
23 Na	99450.00 ug/l	110488.95	0.39	25000	>Cal
24 Mg	46970.00 ug/l	52183.67	0.88	50000	
27 Al	1920.00 ug/l	2133.12	1.03	20000	
39 K	7762.00 ug/l	8623.58	0.58	20000	
44 Ca	45690.00 ug/l	50761.59	0.84	50000	
47 Ti	247.40 ug/l	274.86	3.49	1000	
51 V	262.80 ug/l	291.97	0.75	1000	
52 Cr	242.20 ug/l	269.08	0.96	1000	
55 Mn	281.50 ug/l	312.75	1.19	1000	
56 Fe	980.00 ug/l	1088.78	0.51	20000	
59 Co	230.80 ug/l	256.42	1.36	1000	
60 Ni	232.90 ug/l	258.75	0.24	1000	
63 Cu	225.10 ug/l	250.09	0.35	1000	
65 Cu	225.50 ug/l	250.53	0.79	1000	
66 Zn	415.70 ug/l	461.84	0.42	1000	
75 As	216.70 ug/l	240.75	0.10	1000	
78 Se	168.50 ug/l	187.20	3.31	1000	
78 Se	176.80 ug/l	196.42	1.10	1000	
88 Sr	390.40 ug/l	433.73	1.31	1000	
88 Sr	376.00 ug/l	417.74	0.71	1000	
95 Mo	262.40 ug/l	291.53	0.13	1000	
106 (Cd)	ug/l	#VALUE!	-----	#####	
107 Ag	62.64 ug/l	69.59	1.58	500	
108 (Cd)	ug/l	#VALUE!	-----	#####	
111 Cd	44.49 ug/l	49.43	0.88	1000	
118 Sn	248.70 ug/l	276.31	2.30	#####	
118 Sn	263.70 ug/l	292.97	0.71	#####	
118 Sn	252.10 ug/l	280.08	0.23	1000	
121 Sb	259.40 ug/l	288.19	0.44	1000	
137 Ba	260.40 ug/l	289.30	0.10	1000	
205 Tl	224.90 ug/l	249.86	0.43	1000	
206 (Pb)	ug/l	#VALUE!	-----	#####	
207 (Pb)	ug/l	#VALUE!	-----	#####	
208 Pb	228.10 ug/l	253.42	0.39	1000	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2635270.00	0.79	3376647.30	78.0	70 - 120	
45 Sc	1218946.80	2.23	1470535.00	82.9	70 - 120	
45 Sc	169408.34	2.91	211970.81	79.9	70 - 120	
45 Sc	4387175.00	0.61	5338272.50	82.2	70 - 120	
72 Ge	269299.88	1.66	357467.25	75.3	70 - 120	
72 Ge	107222.90	2.97	134894.38	79.5	70 - 120	
72 Ge	886254.06	0.90	1118516.60	79.2	70 - 120	
115 In	1996906.30	1.16	2502525.50	79.8	70 - 120	
115 In	1081396.30	3.39	1421320.90	76.1	70 - 120	
115 In	6014338.00	0.66	7622565.50	78.9	70 - 120	
159 Tb	7841627.00	0.58	9867540.00	79.5	70 - 120	
165 Ho	7522084.50	0.35	9489315.00	79.3	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Fail  
 ISTD: Pass

## Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\004CAL  
 Date Acquired: Apr 29 2012 02:59 pm  
 Operator: SDM  
 Sample Name: Calibration Blank  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 02:56 pm  
 Sample Type: CalBlk  
 Total Dil Factor: 1.00

## QC&amp;ISTD Elements

Element	CPS Mean	SD	RSD(%)
6 Li	3376647.00 A	30990.00	0.92
7 (Li)	233074.50 P	3000.00	1.29
9 Be	26.67 P	14.53	54.49
11 B	10419.50 P	324.30	3.11
23 Na	61878.77 P	701.20	1.13
24 Mg	65.56 P	20.37	31.07
27 Al	48.89 P	11.71	23.95
39 K	32976.43 P	953.10	2.89
44 Ca	325.75 P	31.90	9.79
45 Sc	1470535.00 A	41050.00	2.79
45 Sc	211970.80 A	1561.00	0.74
45 Sc	5338273.00 A	46900.00	0.88
47 Ti	2.67 P	2.31	86.59
51 V	40.45 P	5.39	13.32
52 Cr	226.23 P	37.29	16.48
55 Mn	392.01 P	48.46	12.36
56 Fe	1653.45 P	51.97	3.14
59 Co	28.44 P	9.08	31.91
60 Ni	23.56 P	4.07	17.29
63 Cu	166.67 P	8.33	5.00
65 Cu	62.22 P	3.36	5.39
66 Zn	135.56 P	16.99	12.53
72 Ge	357467.19 A	11570.00	3.24
72 Ge	134894.41 A	1296.00	0.96
72 Ge	1118517.00 A	7347.00	0.66
75 As	13.67 P	1.67	12.20
78 Se	13.67 P	1.20	8.80
78 Se	147.33 P	7.62	5.17
88 Sr	62.22 P	7.70	12.37
88 Sr	603.37 P	70.56	11.69
95 Mo	83.34 P	24.04	28.85
106 (Cd)	11.11 P	1.93	17.32
107 Ag	605.59 P	23.41	3.87
108 (Cd)	5.56 P	5.09	91.65
111 Cd	19.73 P	6.43	32.59
115 In	2502525.00 A	13690.00	0.55
115 In	1421321.00 A	12230.00	0.86
115 In	7622565.00 A	47760.00	0.63
118 Sn	136.67 P	37.86	27.70
118 Sn	102.23 P	30.97	30.30
118 Sn	458.91 P	37.47	8.16
121 Sb	242.23 P	18.36	7.58
137 Ba	44.45 P	11.71	26.35
159 Tb	9867540.00 A	30360.00	0.31
165 Ho	9489315.00 A	52760.00	0.56
205 Tl	261.12 P	28.74	11.01
206 (Pb)	2439.21 P	121.00	4.96
207 (Pb)	2128.04 P	80.66	3.79
208 Pb	9675.08 P	375.80	3.88

## Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\005CALB.D\005CALB.D#  
 Date Acquired: Apr 29 2012 03:05 pm  
 Operator: SDM  
 Sample Name: 120429 Standard 1  
 Misc Info:  
 Vial Number: 1103  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:03 pm  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

## QC&amp;ISTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	3146043.00 A	54010.00	1.72	0.0000
7 (Li)	214355.50 P	3594.00	1.68	0.0000
9 Be	312.24 P	15.40	4.93	0.0000
11 B	13895.74 P	355.00	2.55	0.0000
23 Na	65545.48 P	1332.00	2.03	0.0000
24 Mg	697.82 P	32.72	4.69	0.0000
27 Al	162.23 P	11.71	7.22	0.0000
39 K	33476.42 P	988.90	2.95	0.0000
44 Ca	365.12 P	32.20	8.82	0.0000
45 Sc	1314536.00 A	10880.00	0.83	0.0000
45 Sc	181257.50 A	3355.00	1.85	0.0000
45 Sc	4768675.00 A	11960.00	0.25	0.0000
47 Ti	6.67 P	3.53	52.92	0.0000
51 V	263.12 P	28.04	10.66	0.0000
52 Cr	360.45 P	48.30	13.40	0.0000
55 Mn	376.90 P	40.39	10.72	0.0000
56 Fe	5389.95 P	46.45	0.86	0.0000
59 Co	235.12 P	26.00	11.06	0.0000
60 Ni	94.67 P	12.72	13.44	0.0000
63 Cu	368.90 P	23.90	6.48	0.0000
65 Cu	184.45 P	33.26	18.03	0.0000
66 Zn	491.57 P	41.79	8.50	0.0000
72 Ge	307672.91 A	2615.00	0.85	0.0000
72 Ge	119422.20 A	943.90	0.79	0.0000
72 Ge	1010240.00 A	24340.00	2.41	0.0000
75 As	45.22 P	3.72	8.22	0.0000
78 Se	22.00 P	4.41	20.05	0.0000
78 Se	142.76 P	7.07	4.95	0.0000
88 Sr	326.68 P	34.80	10.65	0.0000
88 Sr	3156.02 P	91.70	2.91	0.0000
95 Mo	388.91 P	53.89	13.86	0.0000
106 (Cd)	32.22 P	1.93	5.97	0.0000
107 Ag	1102.31 P	20.10	1.82	0.0000
108 (Cd)	20.00 P	3.33	16.66	0.0000
111 Cd	258.16 P	32.45	12.57	0.0000
115 In	2279892.00 A	31040.00	1.36	0.0000
115 In	1212405.00 A	15100.00	1.25	0.0000
115 In	6857579.00 A	87190.00	1.27	0.0000
118 Sn	765.61 P	49.49	6.46	0.0000
118 Sn	462.25 P	45.38	9.82	0.0000
118 Sn	2338.06 P	45.26	1.94	0.0000
121 Sb	1550.14 P	72.36	4.67	0.0000
137 Ba	362.24 P	5.09	1.41	0.0000
159 Tb	8772410.00 A	196900.00	2.24	0.0000
165 Ho	8486631.00 A	127900.00	1.51	0.0000
205 Tl	1810.19 P	60.65	3.35	0.0000
206 (Pb)	972.30 P	51.03	5.25	0.0000
207 (Pb)	874.51 P	32.03	3.66	0.0000
208 Pb	3970.38 P	78.41	1.97	0.0000

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3146043.00	1.72	3376647.30	93.2	70 -	120
45 Sc	1314535.60	0.83	1470535.00	89.4	70 -	120
45 Sc	181257.50	1.85	211970.81	85.5	70 -	120
45 Sc	4768675.50	0.25	5338272.50	89.3	70 -	120
72 Ge	307672.88	0.85	357467.25	86.1	70 -	120
72 Ge	119422.18	0.79	134894.38	88.5	70 -	120
72 Ge	1010240.30	2.41	1118516.60	90.3	70 -	120
115 In	2279892.30	1.36	2502525.50	91.1	70 -	120
115 In	1212405.30	1.25	1421320.90	85.3	70 -	120
115 In	6857579.00	1.27	7622565.50	90.0	70 -	120
159 Tb	8772410.00	2.24	9867540.00	88.9	70 -	120
165 Ho	8486631.00	1.51	9489315.00	89.4	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass

## Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\12D29001.B\006CALC.D\006CALC.D#  
 Date Acquired: Apr 29 2012 03:12 pm  
 Operator: SDM  
 Sample Name: 120429 Standard 2  
 Misc Info:  
 Vial Number: 1104  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:09 pm  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

## QC&amp;ISTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	3118485.00 A	29760.00	0.95	0.0000
7 (Li)	214045.09 P	1393.00	0.65	-1.0000
9 Be	2711.45 P	124.00	4.57	1.0000
11 B	14438.48 P	228.70	1.58	1.0000
23 Na	70000.10 P	779.10	1.11	1.0000
24 Mg	5192.19 P	95.84	1.85	1.0000
27 Al	952.28 P	27.96	2.94	1.0000
39 K	34947.60 P	641.10	1.83	1.0000
44 Ca	668.72 P	58.96	8.82	1.0000
45 Sc	1319250.00 A	12430.00	0.94	0.0000
45 Sc	182634.70 A	632.90	0.35	0.0000
45 Sc	4794841.00 A	7917.00	0.17	0.0000
47 Ti	36.00 P	9.61	26.71	1.0000
51 V	1298.74 P	20.83	1.60	1.0000
52 Cr	1572.11 P	34.87	2.22	1.0000
55 Mn	1189.84 P	60.99	5.13	1.0000
56 Fe	27685.45 P	281.80	1.02	1.0000
59 Co	1982.83 P	31.19	1.57	1.0000
60 Ni	536.91 P	32.12	5.98	1.0000
63 Cu	1496.99 P	42.19	2.82	1.0000
65 Cu	730.25 P	18.97	2.60	1.0000
66 Zn	649.36 P	33.49	5.16	1.0000
72 Ge	309559.59 A	1969.00	0.64	0.0000
72 Ge	118594.70 A	2977.00	2.51	0.0000
72 Ge	1008078.00 A	10070.00	1.00	0.0000
75 As	216.22 P	19.41	8.98	1.0000
78 Se	121.89 P	2.22	1.82	1.0000
78 Se	171.67 P	12.98	7.56	1.0000
88 Sr	1865.74 P	75.83	4.06	1.0000
88 Sr	19434.90 P	212.10	1.09	1.0000
95 Mo	2918.18 P	118.80	4.07	1.0000
106 (Cd)	174.45 P	15.40	8.83	1.0000
107 Ag	4801.00 P	26.48	0.55	1.0000
108 (Cd)	138.89 P	10.18	7.33	1.0000
111 Cd	1907.60 P	43.62	2.29	1.0000
115 In	2288758.00 A	16140.00	0.71	0.0000
115 In	1215674.00 A	9280.00	0.76	0.0000
115 In	6946601.00 A	95660.00	1.38	0.0000
118 Sn	2053.56 P	73.57	3.58	1.0000
118 Sn	1228.99 P	56.41	4.59	1.0000
118 Sn	6747.41 P	53.19	0.79	1.0000
121 Sb	5998.17 P	110.30	1.84	1.0000
137 Ba	2741.48 P	123.90	4.52	1.0000
159 Tb	8857915.00 A	22430.00	0.25	0.0000
165 Ho	8569195.00 A	37030.00	0.43	0.0000
205 Tl	15302.67 P	153.20	1.00	1.0000
206 (Pb)	5654.74 P	173.40	3.07	-1.0000
207 (Pb)	4755.46 P	148.60	3.12	-1.0000
208 Pb	22135.81 P	357.00	1.61	-1.0000

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3118484.50	0.95	3376647.30	92.4	70 -	120
45 Sc	1319249.60	0.94	1470535.00	89.7	70 -	120
45 Sc	182634.73	0.35	211970.81	86.2	70 -	120
45 Sc	4794841.00	0.17	5338272.50	89.8	70 -	120
72 Ge	309559.63	0.64	357467.25	86.6	70 -	120
72 Ge	118594.73	2.51	134894.38	87.9	70 -	120
72 Ge	1008078.00	1.00	1118516.60	90.1	70 -	120
115 In	2288758.00	0.71	2502525.50	91.5	70 -	120
115 In	1215673.60	0.76	1421320.90	85.5	70 -	120
115 In	6946601.50	1.38	7622565.50	91.1	70 -	120
159 Tb	8857915.00	0.25	9867540.00	89.8	70 -	120
165 Ho	8569195.00	0.43	9489315.00	90.3	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29001.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass

## Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\12D29e01.B\007CAL.S.D\007CAL.S.D#  
 Date Acquired: Apr 29 2012 03:19 pm  
 Operator: SDM  
 Sample Name: 120429 Standard 3  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:16 pm  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

## QC&amp;ISTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	3192696.00 A	9418.00	0.29	0.0000
7 (Li)	217660.50 P	1533.00	0.70	-0.5881
9 Be	137263.09 P	1460.00	1.06	1.0000
11 B	91937.46 P	727.40	0.79	0.6425
23 Na	319351.19 P	1819.00	0.57	0.7456
24 Mg	256667.91 P	1133.00	0.44	0.9997
27 Al	43536.76 P	327.00	0.75	0.9995
39 K	174935.30 P	1277.00	0.73	0.7090
44 Ca	17988.93 P	250.60	1.39	0.9923
45 Sc	1339230.00 A	16240.00	1.21	0.0000
45 Sc	186806.80 A	2568.00	1.37	0.0000
45 Sc	4863141.00 A	44340.00	0.91	0.0000
47 Ti	2149.07 P	46.43	2.16	0.9996
51 V	57035.36 P	183.50	0.32	0.9967
52 Cr	66463.94 P	280.30	0.42	0.9998
55 Mn	48881.48 P	435.80	0.89	0.9989
56 Fe	1166878.00 A	2608.00	0.22	0.9987
59 Co	94812.93 P	612.10	0.65	1.0000
60 Ni	23738.59 P	121.80	0.51	0.9990
63 Cu	65234.74 P	225.00	0.34	0.9977
65 Cu	31405.97 P	105.10	0.33	0.9956
66 Zn	14290.27 P	126.00	0.88	0.7853
72 Ge	313606.69 A	1656.00	0.53	0.0000
72 Ge	120532.90 A	1410.00	1.17	0.0000
72 Ge	1018812.00 A	6373.00	0.63	0.0000
75 As	9802.77 P	34.62	0.35	0.9980
78 Se	5491.84 P	96.73	1.76	0.9999
78 Se	1609.65 P	18.48	1.15	0.9583
88 Sr	90064.01 P	421.30	0.47	0.9988
88 Sr	872416.38 A	9650.00	1.11	0.9992
95 Mo	152294.20 P	1251.00	0.82	0.9999
106 (Cd)	8322.75 P	316.60	3.80	0.9996
107 Ag	210981.41 P	1775.00	0.84	0.9995
108 (Cd)	6176.00 P	101.00	1.64	1.0000
111 Cd	91122.56 P	414.90	0.46	0.9996
115 In	2339964.00 A	20890.00	0.89	0.0000
115 In	1262965.00 A	12110.00	0.96	0.0000
115 In	6999441.00 A	86090.00	1.23	0.0000
118 Sn	73197.49 P	1065.00	1.46	0.9707
118 Sn	44339.85 P	322.00	0.73	0.9717
118 Sn	241858.91 P	2338.00	0.97	0.9771
121 Sb	266695.09 P	2042.00	0.77	0.9910
137 Ba	132514.50 P	353.80	0.27	0.9998
159 Tb	9006218.00 A	96330.00	1.07	0.0000
165 Ho	8788406.00 A	83670.00	0.95	0.0000
205 Tl	749022.13 P	4175.00	0.56	1.0000
206 (Pb)	258423.91 P	2470.00	0.96	0.9202
207 (Pb)	217324.80 P	2312.00	1.06	0.9160
208 Pb	1016936.00 P	4296.00	0.42	0.9421

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3192696.30	0.29	3376647.30	94.6	70 -	120
45 Sc	1339230.10	1.21	1470535.00	91.1	70 -	120
45 Sc	186806.84	1.37	211970.81	88.1	70 -	120
45 Sc	4863141.50	0.91	5338272.50	91.1	70 -	120
72 Ge	313606.66	0.53	357467.25	87.7	70 -	120
72 Ge	120532.87	1.17	134894.38	89.4	70 -	120
72 Ge	1018812.40	0.63	1118516.60	91.1	70 -	120
115 In	2339963.80	0.89	2502525.50	93.5	70 -	120
115 In	1262965.00	0.96	1421320.90	88.9	70 -	120
115 In	6999441.00	1.23	7622565.50	91.8	70 -	120
159 Tb	9006219.00	1.07	9867540.00	91.3	70 -	120
165 Ho	8788406.00	0.95	9489315.00	92.6	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29e01.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass

## Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\008CAL.S.D\008CAL.S.D#  
 Date Acquired: Apr 29 2012 03:26 pm  
 Operator: SDM  
 Sample Name: 120429 Standard 4  
 Misc Info:  
 Vial Number: 1106  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:23 pm  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

## QC&amp;ISTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	3168863.00 A	75720.00	2.39	0.0000
7 (Li)	213895.30 P	1399.00	0.65	-0.1676
9 Be	273620.59 P	2407.00	0.88	1.0000
11 B	177402.59 P	1564.00	0.88	0.9988
23 Na	570026.19 P	1779.00	0.31	0.9990
24 Mg	515284.69 P	8170.00	1.59	1.0000
27 Al	87512.07 P	1407.00	1.61	1.0000
39 K	317692.59 P	414.20	0.13	0.9995
44 Ca	35650.82 P	77.29	0.22	1.0000
45 Sc	1345688.00 A	6261.00	0.47	0.0000
45 Sc	187371.80 A	1806.00	0.96	0.0000
45 Sc	4848522.00 A	53920.00	1.11	0.0000
47 Ti	4321.14 P	67.37	1.56	1.0000
51 V	114968.90 P	595.90	0.52	1.0000
52 Cr	133981.50 P	479.20	0.36	1.0000
55 Mn	98714.57 P	761.10	0.77	1.0000
56 Fe	2299299.00 A	22190.00	0.97	1.0000
59 Co	190321.50 P	1128.00	0.59	1.0000
60 Ni	47346.44 P	424.60	0.90	1.0000
63 Cu	129678.00 P	1022.00	0.79	1.0000
65 Cu	63058.22 P	582.90	0.92	1.0000
66 Zn	28108.62 P	130.70	0.46	0.9997
72 Ge	313095.41 A	2413.00	0.77	0.0000
72 Ge	122174.20 A	2457.00	2.01	0.0000
72 Ge	1014220.00 A	2417.00	0.24	0.0000
75 As	19754.32 P	69.11	0.35	1.0000
78 Se	11133.74 P	130.70	1.17	1.0000
78 Se	3089.12 P	31.98	1.04	0.9999
88 Sr	181557.59 P	787.40	0.43	1.0000
88 Sr	1749212.00 A	11860.00	0.68	1.0000
95 Mo	312322.00 P	644.10	0.21	1.0000
106 (Cd)	16525.73 P	116.30	0.70	1.0000
107 Ag	418027.09 P	1844.00	0.44	1.0000
108 (Cd)	12101.15 P	222.40	1.84	1.0000
111 Cd	182482.59 P	601.00	0.33	1.0000
115 In	2326261.00 A	33490.00	1.44	0.0000
115 In	1255491.00 A	7071.00	0.56	0.0000
115 In	6972278.00 A	61840.00	0.89	0.0000
118 Sn	151128.30 P	1789.00	1.18	1.0000
118 Sn	90873.54 P	869.80	0.96	1.0000
118 Sn	490358.81 P	2588.00	0.53	1.0000
121 Sb	541916.19 P	7083.00	1.31	1.0000
137 Ba	264718.00 P	1822.00	0.69	1.0000
159 Tb	8913186.00 A	80430.00	0.90	0.0000
165 Ho	8695783.00 A	80420.00	0.92	0.0000
205 Tl	1466200.00 A	12970.00	0.88	1.0000
206 (Pb)	511181.59 P	3956.00	0.77	1.0000
207 (Pb)	431954.19 P	2850.00	0.66	1.0000
208 Pb	1985059.00 A	16320.00	0.82	1.0000

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%) QC	Range(%)	Flag
6 Li	3168863.30	2.39	3376647.30	93.8	70 -	120
45 Sc	1345687.90	0.47	1470535.00	91.5	70 -	120
45 Sc	187371.83	0.96	211970.81	88.4	70 -	120
45 Sc	4848522.00	1.11	5338272.50	90.8	70 -	120
72 Ge	313095.44	0.77	357467.25	87.6	70 -	120
72 Ge	122174.26	2.01	134894.38	90.6	70 -	120
72 Ge	1014220.30	0.24	1118516.60	90.7	70 -	120
115 In	2326261.00	1.44	2502525.50	93.0	70 -	120
115 In	1255490.90	0.56	1421320.90	88.3	70 -	120
115 In	6972278.00	0.89	7522565.50	91.5	70 -	120
159 Tb	8913186.00	0.90	9867540.00	90.3	70 -	120
165 Ho	8695784.00	0.92	9489315.00	91.6	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass



CCB QC Report

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\012\_CCB.D\012\_CCB.D#  
 Date Acquired: Apr 29 2012 03:52 pm  
 Operator: SDM  
 Sample Name: ICB 120429  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#####	
9 Be	0.00 ug/l	551.25	0.12	
11 B	-0.66 ug/l	2.18	15.00	
23 Na	-18.43 ug/l	33.12	77.10	
24 Mg	0.33 ug/l	12.13	7.50	
27 Al	-0.31 ug/l	34.04	3.96	
39 K	-27.19 ug/l	15.93	19.20	
44 Ca	-14.45 ug/l	30.57	90.00	
47 Ti	-0.02 ug/l	157.68	0.78	
51 V	-0.00 ug/l	10485.00	0.21	
52 Cr	-0.01 ug/l	117.10	0.12	
55 Mn	-0.06 ug/l	42.38	0.18	
56 Fe	0.01 ug/l	531.47	40.80	
59 Co	0.00 ug/l	157.72	0.09	
60 Ni	0.01 ug/l	43.08	-0.48	
63 Cu	-0.01 ug/l	68.17	0.39	
65 Cu	0.02 ug/l	83.36	0.39	
66 Zn	0.03 ug/l	162.68	6.90	
75 As	0.01 ug/l	117.42	0.27	
78 Se	0.01 ug/l	250.65	0.30	
78 Se	-0.27 ug/l	28.24	0.30	
88 Sr	0.00 ug/l	178.68	0.03	
88 Sr	0.00 ug/l	944.02	0.03	
95 Mo	0.09 ug/l	2.66	0.21	
106 (Cd)	----- ug/l	-----	#####	
107 Ag	0.01 ug/l	28.92	0.09	
108 (Cd)	----- ug/l	-----	#####	
111 Cd	0.00 ug/l	271.13	0.06	
118 Sn	0.03 ug/l	25.87	#####	
118 Sn	0.00 ug/l	391.45	#####	
118 Sn	0.04 ug/l	138.24	0.30	
121 Sb	0.07 ug/l	18.37	0.03	Fail
137 Ba	0.00 ug/l	250.11	0.12	
205 Tl	0.01 ug/l	18.74	0.03	
206 (Pb)	----- ug/l	-----	#####	
207 (Pb)	----- ug/l	-----	#####	
208 Pb	0.04 ug/l	22.34	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3120835.30	1.24	3376647.30	92.4	70 - 120	
45 Sc	1496764.50	1.86	1470535.00	101.8	70 - 120	
45 Sc	218600.33	0.99	211970.81	103.1	70 - 120	
45 Sc	5112487.50	1.53	5338272.50	95.8	70 - 120	
72 Ge	364010.16	0.18	357467.25	101.8	70 - 120	
72 Ge	139267.33	0.88	134894.38	103.2	70 - 120	
72 Ge	1098100.90	1.26	1118516.60	98.2	70 - 120	
115 In	2585124.30	0.54	2502525.50	103.3	70 - 120	
115 In	1486285.40	1.27	1421320.90	104.6	70 - 120	
115 In	7654269.50	0.90	7622565.50	100.4	70 - 120	
159 Tb	9988171.00	0.38	9867540.00	101.2	70 - 120	
165 Ho	9594655.00	1.47	9489315.00	101.1	70 - 120	

ISTD Ref File C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

**CCV QC Report**

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\013\_CCV.D\013\_CCV.D#  
 Date Acquired: Apr 29 2012 03:59 pm  
 Operator: SDM  
 Sample Name: CCV 120429  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	ug/l	-----	50.00	90 - 110	
9 Be	49.49 ug/l	2.46	50.00	90 - 110	
11 B	48.77 ug/l	1.64	50.00	90 - 110	
23 Na	1232.00 ug/l	1.92	1250.00	90 - 110	
24 Mg	2457.00 ug/l	1.63	2500.00	90 - 110	
27 Al	981.00 ug/l	2.38	1000.00	90 - 110	
39 K	989.50 ug/l	2.36	1000.00	90 - 110	
44 Ca	2475.00 ug/l	1.81	2500.00	90 - 110	
47 Ti	49.14 ug/l	1.59	50.00	90 - 110	
51 V	48.83 ug/l	1.19	50.00	90 - 110	
52 Cr	48.81 ug/l	1.63	50.00	90 - 110	
55 Mn	48.81 ug/l	1.29	50.00	90 - 110	
56 Fe	997.00 ug/l	1.15	1000.00	90 - 110	
59 Co	48.80 ug/l	1.24	50.00	90 - 110	
60 Ni	49.40 ug/l	1.79	50.00	90 - 110	
63 Cu	48.98 ug/l	1.40	50.00	90 - 110	
65 Cu	49.44 ug/l	1.13	50.00	90 - 110	
66 Zn	50.59 ug/l	1.53	50.00	90 - 110	
75 As	49.60 ug/l	0.12	50.00	90 - 110	
78 Se	49.32 ug/l	1.09	50.00	90 - 110	
78 Se	49.16 ug/l	2.59	50.00	90 - 110	
88 Sr	49.86 ug/l	0.43	50.00	90 - 110	
88 Sr	49.79 ug/l	1.49	50.00	90 - 110	
95 Mo	49.12 ug/l	1.60	50.00	90 - 110	
106 (Cd)	ug/l	-----	50.00	90 - 110	
107 Ag	24.89 ug/l	1.96	25.00	90 - 110	
108 (Cd)	ug/l	-----	50.00	90 - 110	
111 Cd	49.47 ug/l	1.10	50.00	90 - 110	
118 Sn	49.63 ug/l	0.99	---	##### - #####	
118 Sn	49.77 ug/l	1.74	---	##### - #####	
118 Sn	49.41 ug/l	1.31	50.00	90 - 110	
121 Sb	49.74 ug/l	1.07	50.00	90 - 110	
137 Ba	50.21 ug/l	2.47	50.00	90 - 110	
205 Tl	50.93 ug/l	1.44	50.00	90 - 110	
206 (Pb)	ug/l	-----	50.00	90 - 110	
207 (Pb)	ug/l	-----	50.00	90 - 110	
208 Pb	50.87 ug/l	0.42	50.00	90 - 110	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3106888.50	1.38	3376647.30	92.0	70 - 120	
45 Sc	1345761.80	1.12	1470535.00	91.5	70 - 120	
45 Sc	191077.67	1.63	211970.81	90.1	70 - 120	
45 Sc	4774637.00	1.40	5338272.50	89.4	70 - 120	
72 Ge	310528.69	1.97	357467.25	86.9	70 - 120	
72 Ge	122808.61	1.93	134894.38	91.0	70 - 120	
72 Ge	1005796.40	0.28	1118516.60	89.9	70 - 120	
115 In	2333582.50	0.96	2502525.50	93.2	70 - 120	
115 In	1271369.40	0.38	1421320.90	89.4	70 - 120	
115 In	6909954.00	1.56	7622565.50	90.7	70 - 120	
159 Tb	8833338.00	0.73	9867540.00	89.5	70 - 120	
165 Ho	8618807.00	0.77	9489315.00	90.8	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Pass  
 ISTD: Pass

**CCB QC Report**

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\014\_CCB.D\014\_CCB.D#  
 Date Acquired: Apr 29 2012 04:06 pm  
 Operator: SDM  
 Sample Name: CCB 120429  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#####	
9 Be	0.00 ug/l	176.81	0.12	
11 B	0.08 ug/l	284.70	15.00	
23 Na	-31.53 ug/l	21.39	77.10	
24 Mg	0.17 ug/l	35.98	7.50	
27 Al	-0.28 ug/l	41.33	3.96	
39 K	-27.53 ug/l	16.97	19.20	
44 Ca	-10.23 ug/l	25.21	90.00	
47 Ti	-0.03 ug/l	1.23	0.78	
51 V	0.00 ug/l	266.00	0.21	
52 Cr	0.00 ug/l	30438.00	0.12	
55 Mn	-0.09 ug/l	38.42	0.18	
56 Fe	0.03 ug/l	96.61	40.80	
59 Co	0.00 ug/l	60.99	0.09	
60 Ni	0.02 ug/l	75.64	0.48	
63 Cu	-0.03 ug/l	34.96	0.39	
65 Cu	0.01 ug/l	205.06	0.39	
66 Zn	0.03 ug/l	174.79	6.90	
75 As	0.02 ug/l	91.45	0.27	
78 Se	0.09 ug/l	9.69	0.30	
78 Se	-0.02 ug/l	962.79	0.30	
88 Sr	0.01 ug/l	89.41	0.03	
88 Sr	0.00 ug/l	166.72	0.03	
95 Mo	0.35 ug/l	5.93	0.21	Fail
106 (Cd)	----- ug/l	-----	#####	
107 Ag	0.01 ug/l	20.71	0.09	
108 (Cd)	----- ug/l	-----	#####	
111 Cd	0.00 ug/l	355.70	0.06	
118 Sn	0.14 ug/l	19.33	#####	
118 Sn	0.05 ug/l	19.08	#####	
118 Sn	0.06 ug/l	17.90	0.30	
121 Sb	0.52 ug/l	4.32	0.03	Fail
137 Ba	0.01 ug/l	35.00	0.12	
205 Tl	0.02 ug/l	21.38	0.03	
206 (Pb)	----- ug/l	-----	#####	
207 (Pb)	----- ug/l	-----	#####	
208 Pb	-0.03 ug/l	32.02	0.33	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3051166.50	0.42	3376647.30	90.4	70 - 120	
45 Sc	1489764.80	1.23	1470535.00	101.3	70 - 120	
45 Sc	223230.92	1.36	211970.81	105.3	70 - 120	
45 Sc	5130215.50	0.14	5338272.50	96.1	70 - 120	
72 Ge	361118.47	1.26	357467.25	101.0	70 - 120	
72 Ge	137921.89	1.19	134894.38	102.2	70 - 120	
72 Ge	1084900.60	0.54	1118516.60	97.0	70 - 120	
115 In	2570952.50	1.26	2502525.50	102.7	70 - 120	
115 In	1509315.80	0.11	1421320.90	106.2	70 - 120	
115 In	7597001.00	0.34	7622565.50	99.7	70 - 120	
159 Tb	9881883.00	0.91	9867540.00	100.1	70 - 120	
165 Ho	9629127.00	0.29	9489315.00	101.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Fail  
 ISTD: Pass

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12D29001.B\015SMPL.D\015SMPL.D#  
 Date Acquired: Apr 29 2012 04:13 pm  
 Operator: SDM  
 Sample Name: LDR-1000ppb 120429  
 Misc Info:  
 Vial Number: 2101  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.00  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	874.80 ug/l	874.80	0.77	1000	
11 B	964.30 ug/l	964.30	1.46	1000	
23 Na	21930.00 ug/l	21930.00	1.17	25000	
24 Mg	45060.00 ug/l	45060.00	0.33	50000	
27 Al	19300.00 ug/l	19300.00	0.39	20000	
39 K	17780.00 ug/l	17780.00	1.93	20000	
44 Ca	49320.00 ug/l	49320.00	0.38	50000	
47 Ti	987.70 ug/l	987.70	0.87	1000	
51 V	912.10 ug/l	912.10	1.51	1000	
52 Cr	895.20 ug/l	895.20	1.74	1000	
55 Mn	911.30 ug/l	911.30	0.88	1000	
56 Fe	18690.00 ug/l	18690.00	0.43	20000	
59 Co	876.00 ug/l	876.00	0.41	1000	
60 Ni	929.00 ug/l	929.00	0.54	1000	
63 Cu	867.80 ug/l	867.80	0.94	1000	
65 Cu	934.60 ug/l	934.60	0.75	1000	
66 Zn	891.80 ug/l	891.80	1.85	1000	
75 As	945.90 ug/l	945.90	1.82	1000	
78 Se	918.20 ug/l	918.20	1.72	1000	
78 Se	907.60 ug/l	907.60	1.03	1000	
88 Sr	919.60 ug/l	919.60	1.39	1000	
88 Sr	939.90 ug/l	939.90	0.78	1000	
95 Mo	923.30 ug/l	923.30	1.22	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	412.20 ug/l	412.20	2.44	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	883.10 ug/l	883.10	0.56	1000	
118 Sn	920.50 ug/l	920.50	1.45	#####	
118 Sn	984.00 ug/l	984.00	1.39	#####	
118 Sn	907.40 ug/l	907.40	0.61	1000	
121 Sb	907.10 ug/l	907.10	1.83	1000	
137 Ba	940.00 ug/l	940.00	0.78	1000	
205 Tl	908.80 ug/l	908.80	0.59	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	900.70 ug/l	900.70	0.25	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2918665.00	0.53	3376647.30	86.4	70 - 120	
45 Sc	1296454.50	1.47	1470535.00	88.2	70 - 120	
45 Sc	180100.05	1.11	211970.81	85.0	70 - 120	
45 Sc	4503144.50	1.17	5338272.50	84.4	70 - 120	
72 Ge	303364.97	1.15	357467.25	84.9	70 - 120	
72 Ge	116848.66	1.00	134894.38	86.6	70 - 120	
72 Ge	964082.69	1.10	1118516.60	86.2	70 - 120	
115 In	2240127.50	1.11	2502525.50	89.5	70 - 120	
115 In	1207821.40	1.93	1421320.90	85.0	70 - 120	
115 In	6553753.00	1.40	7622565.50	86.0	70 - 120	
159 Tb	8608572.00	0.50	9867540.00	87.2	70 - 120	
165 Ho	8228064.00	0.90	9489315.00	86.7	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29001.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass  
 ISTD: Pass

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\017SMPL.D\017SMPL.D#  
 Date Acquired: Apr 29 2012 04:26 pm  
 Operator: SDM  
 Sample Name: ICSA 120429  
 Misc Info:  
 Vial Number: 2105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.00  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	0.01 ug/l	0.01	12.16	1000	
11 B	26.58 ug/l	26.58	4.05	1000	
23 Na	92430.00 ug/l	92430.00	2.54	25000	>Cal
24 Mg	92080.00 ug/l	92080.00	2.60	50000	>Cal
27 Al	91050.00 ug/l	91050.00	1.69	20000	>Cal
39 K	92510.00 ug/l	92510.00	2.49	20000	>Cal
44 Ca	101600.00 ug/l	101600.00	2.78	50000	>Cal
47 Ti	2127.00 ug/l	2127.00	2.50	1000	>Cal
51 V	0.44 ug/l	0.44	8.11	1000	
52 Cr	1.29 ug/l	1.29	5.65	1000	
55 Mn	5.42 ug/l	5.42	2.93	1000	
56 Fe	95260.00 ug/l	95260.00	3.18	20000	>Cal
59 Co	1.42 ug/l	1.42	2.86	1000	
60 Ni	2.01 ug/l	2.01	4.16	1000	
63 Cu	1.03 ug/l	1.03	1.68	1000	
65 Cu	1.09 ug/l	1.09	5.23	1000	
66 Zn	1.95 ug/l	1.95	9.71	1000	
75 As	0.56 ug/l	0.56	3.11	1000	
78 Se	0.25 ug/l	0.25	8.57	1000	
78 Se	1.12 ug/l	1.12	29.10	1000	
88 Sr	0.53 ug/l	0.53	1.48	1000	
88 Sr	0.56 ug/l	0.56	1.00	1000	
95 Mo	1849.00 ug/l	1849.00	0.72	1000	>Cal
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.15 ug/l	0.15	7.37	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.38 ug/l	0.38	20.89	1000	
118 Sn	4.14 ug/l	4.14	5.33	#####	
118 Sn	4.99 ug/l	4.99	7.05	#####	
118 Sn	5.07 ug/l	5.07	2.40	1000	
121 Sb	6.59 ug/l	6.59	1.95	1000	
137 Ba	2.34 ug/l	2.34	2.17	1000	
205 Tl	0.19 ug/l	0.19	2.43	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	0.09 ug/l	0.09	12.50	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3029842.00	2.18	3376647.30	89.7	70 - 120	
45 Sc	1199464.30	1.69	1470535.00	81.6	70 - 120	
45 Sc	163871.88	3.19	211970.81	77.3	70 - 120	
45 Sc	4370775.00	0.63	5338272.50	81.9	70 - 120	
72 Ge	298302.25	0.94	357467.25	83.4	70 - 120	
72 Ge	116355.88	0.67	134894.38	86.3	70 - 120	
72 Ge	1028614.90	1.27	1118516.60	92.0	70 - 120	
115 In	2177284.00	0.29	2502525.50	87.0	70 - 120	
115 In	1159143.50	0.32	1421320.90	81.6	70 - 120	
115 In	6420831.00	0.68	7622565.50	84.2	70 - 120	
159 Tb	7734300.00	0.82	9867540.00	78.4	70 - 120	
165 Ho	7408320.50	1.41	9489315.00	78.1	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

8 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

## ICS-AB QC Report

Data File: C:\ICPCHEM\1\DATA\12D29001.B\018ICSB.D\018ICSB.D#  
 Date Acquired: Apr 29 2012 04:32 pm  
 Acq. Method: 62A0429A.M  
 Operator: SDM  
 Sample Name: ICSAB 120429  
 Misc Info:  
 Vial Number: 2103  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal. Update: Apr 29 2012 03:29 pm  
 Sample Type: ICSAB  
 Dilution Factor: 1.00

Data Results:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
7 (Li)	---	3	-----	-----	---	---	-	-
9 Be	45	3	242.80	3.46	250	97.1	80 - 120	-
11 B	45	3	18.59	1.95	---	---	-	-
23 Na	45	2	93460.00	1.56	---	---	-	-
24 Mg	45	2	93290.00	0.56	---	---	-	-
27 Al	45	2	91890.00	0.97	---	---	-	-
39 K	45	2	93080.00	1.02	---	---	-	-
44 Ca	45	2	102500.00	0.87	---	---	-	-
47 Ti	45	2	2150.00	1.01	2000	107.5	80 - 120	-
51 V	45	2	279.60	0.98	250	111.8	80 - 120	-
52 Cr	45	2	269.00	0.95	250	107.6	80 - 120	-
55 Mn	45	2	274.70	0.99	250	109.9	80 - 120	-
56 Fe	45	2	95110.00	1.43	---	---	-	-
59 Co	45	2	258.10	1.45	250	103.2	80 - 120	-
60 Ni	45	2	512.60	0.76	500	102.5	80 - 120	-
63 Cu	45	2	251.60	1.71	250	100.6	80 - 120	-
65 Cu	45	2	252.50	1.44	250	101.0	80 - 120	-
66 Zn	115	2	450.20	1.08	500	90.0	80 - 120	-
75 As	115	2	245.70	0.89	250	98.3	80 - 120	-
78 Se	115	1	220.60	1.03	250	88.2	80 - 120	-
78 Se	115	2	220.50	0.94	250	88.2	80 - 120	-
88 Sr	115	2	0.57	2.11	---	---	-	-
88 Sr	115	3	0.59	1.30	---	---	-	-
95 Mo	115	3	2123.00	1.35	2000	106.2	80 - 120	-
106 (Cd)	---	3	-----	-----	---	---	-	-
107 Ag	115	3	467.00	5.48	500	93.4	80 - 120	-
108 (Cd)	---	3	-----	-----	---	---	-	-
111 Cd	115	3	468.00	0.54	500	93.6	80 - 120	-
118 Sn	115	1	1.83	2.93	---	---	-	-
118 Sn	115	2	2.52	6.77	---	---	-	-
118 Sn	115	3	2.56	0.36	---	---	-	-
121 Sb	115	3	243.80	1.10	250	97.5	80 - 120	-
137 Ba	115	3	261.20	0.52	250	104.5	80 - 120	-
205 Tl	159	3	253.00	0.79	250	101.2	80 - 120	-
206 (Pb)	---	3	-----	-----	---	---	-	-
207 (Pb)	---	3	-----	-----	---	---	-	-
208 Pb	159	3	512.10	1.02	500	102.4	80 - 120	-

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3	3173016	1.19	3376647	94.0	70 - 120	-
45 Sc	1	1214374	0.58	1470535	82.6	70 - 120	-
45 Sc	2	169847	1.24	211971	80.1	70 - 120	-
45 Sc	3	4431124	0.29	5338273	83.0	70 - 120	-
72 Ge	1	304164	1.07	357467	85.1	70 - 120	-
72 Ge	2	119773	2.33	134894	86.8	70 - 120	-
72 Ge	3	1038917	0.69	1118517	92.9	70 - 120	-
115 In	1	2213476	1.43	2502526	88.4	70 - 120	-
115 In	2	1173905	0.75	1421321	82.6	70 - 120	-
115 In	3	6485618	0.83	7622566	85.1	70 - 120	-
159 Tb	3	7787618	0.26	9867540	78.9	70 - 120	-
165 Ho	3	7477252	0.63	9489315	78.8	70 - 120	-

Tune File# 1 c:\icpchem\1\7500\h2\_hm1.u  
 Tune File# 2 c:\icpchem\1\7500\he\_hm1.u  
 Tune File# 3 c:\icpchem\1\7500\ng\_hm1.u

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29001.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**CCV QC Report**

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\040\_CCV.D\040\_CCV.D#  
 Date Acquired: Apr 29 2012 07:00 pm  
 Operator: SDM  
 Sample Name: CCV 120429  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	ug/l		50.00	90 - 110	
9 Be	51.77 ug/l	0.27	50.00	90 - 110	
11 B	65.50 ug/l	1.64	50.00	90 - 110	Fail
23 Na	1390.00 ug/l	1.34	1250.00	90 - 110	Fail
24 Mg	2529.00 ug/l	1.02	2500.00	90 - 110	
27 Al	1009.00 ug/l	1.01	1000.00	90 - 110	
39 K	1046.00 ug/l	1.54	1000.00	90 - 110	
44 Ca	2490.00 ug/l	1.74	2500.00	90 - 110	
47 Ti	50.48 ug/l	2.02	50.00	90 - 110	
51 V	48.29 ug/l	1.16	50.00	90 - 110	
52 Cr	48.05 ug/l	1.73	50.00	90 - 110	
55 Mn	48.16 ug/l	0.77	50.00	90 - 110	
56 Fe	969.80 ug/l	2.00	1000.00	90 - 110	
59 Co	47.85 ug/l	1.62	50.00	90 - 110	
60 Ni	47.78 ug/l	0.65	50.00	90 - 110	
63 Cu	47.87 ug/l	2.12	50.00	90 - 110	
65 Cu	48.05 ug/l	2.09	50.00	90 - 110	
66 Zn	51.45 ug/l	1.98	50.00	90 - 110	
75 As	49.71 ug/l	1.41	50.00	90 - 110	
78 Se	50.79 ug/l	2.97	50.00	90 - 110	
78 Se	51.82 ug/l	3.19	50.00	90 - 110	
88 Sr	49.99 ug/l	0.24	50.00	90 - 110	
88 Sr	51.39 ug/l	0.70	50.00	90 - 110	
95 Mo	49.98 ug/l	0.76	50.00	90 - 110	
106 (Cd)	ug/l		50.00	90 - 110	
107 Ag	25.22 ug/l	1.36	25.00	90 - 110	
108 (Cd)	ug/l		50.00	90 - 110	
111 Cd	50.04 ug/l	0.86	50.00	90 - 110	
118 Sn	48.78 ug/l	1.66	---	##### - #####	
118 Sn	49.06 ug/l	2.55	---	##### - #####	
118 Sn	49.32 ug/l	1.33	50.00	90 - 110	
121 Sb	49.64 ug/l	1.85	50.00	90 - 110	
137 Ba	50.57 ug/l	1.22	50.00	90 - 110	
205 Tl	51.13 ug/l	0.58	50.00	90 - 110	
206 (Pb)	ug/l		50.00	90 - 110	
207 (Pb)	ug/l		50.00	90 - 110	
208 Pb	50.86 ug/l	1.29	50.00	90 - 110	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3599266.80	1.46	3376647.30	106.6	70 - 120	
45 Sc	1279150.60	1.40	1470535.00	87.0	70 - 120	
45 Sc	180990.47	1.34	211970.81	85.4	70 - 120	
45 Sc	4947416.00	0.78	5338272.50	92.7	70 - 120	
72 Ge	294487.06	0.97	357467.25	82.4	70 - 120	
72 Ge	114463.32	3.37	134894.38	84.9	70 - 120	
72 Ge	1021466.50	1.18	1118516.60	91.3	70 - 120	
115 In	2148336.80	1.32	2502525.50	85.8	70 - 120	
115 In	1153497.80	1.15	1421320.90	81.2	70 - 120	
115 In	6757549.50	0.73	7622565.50	88.7	70 - 120	
159 Tb	8508272.00	0.19	9867540.00	86.2	70 - 120	
165 Ho	8343297.50	0.51	9489315.00	87.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Fail  
 ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\12D29001.B\042\_CCB.D\042\_CCB.D#  
 Date Acquired: Apr 29 2012 07:13 pm  
 Operator: SDM  
 Sample Name: CCB 120429  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#####	
9 Be	0.00 ug/l	64.88	0.12	
11 B	5.80 ug/l	3.88	15.00	
23 Na	62.40 ug/l	10.86	77.10	
24 Mg	0.58 ug/l	49.17	7.50	
27 Al	-0.17 ug/l	101.95	3.96	
39 K	18.42 ug/l	26.82	19.20	
44 Ca	-0.06 ug/l	4697.60	90.00	
47 Ti	-0.04 ug/l	38.29	0.78	
51 V	0.00 ug/l	86.54	0.21	
52 Cr	0.01 ug/l	260.57	0.12	
55 Mn	-0.10 ug/l	31.85	0.18	
56 Fe	0.10 ug/l	34.13	40.80	
59 Co	0.00 ug/l	94.61	0.09	
60 Ni	0.00 ug/l	128.39	0.48	
63 Cu	0.00 ug/l	661.79	0.39	
65 Cu	0.02 ug/l	51.17	0.39	
66 Zn	0.03 ug/l	114.65	6.90	
75 As	0.01 ug/l	139.03	0.27	
78 Se	0.04 ug/l	106.43	0.30	
78 Se	1.05 ug/l	13.54	0.30	Fail
88 Sr	0.01 ug/l	50.69	0.03	
88 Sr	0.00 ug/l	261.57	0.03	
95 Mo	0.12 ug/l	13.57	0.21	
106 (Cd)	----- ug/l	-----	#####	
107 Ag	0.02 ug/l	16.06	0.09	
108 (Cd)	----- ug/l	-----	#####	
111 Cd	0.00 ug/l	1374.60	0.06	
118 Sn	0.04 ug/l	55.96	#####	
118 Sn	0.02 ug/l	29.35	#####	
118 Sn	0.02 ug/l	40.32	0.30	
121 Sb	0.17 ug/l	1.87	0.03	Fail
137 Ba	0.01 ug/l	7.91	0.12	
205 Tl	0.01 ug/l	27.16	0.03	
206 (Pb)	----- ug/l	-----	#####	
207 (Pb)	----- ug/l	-----	#####	
208 Pb	-0.11 ug/l	2.12	0.33	

ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3776893.30	0.19	3376647.30	111.9	70 - 120		
45 Sc	1333430.10	1.73	1470535.00	90.7	70 - 120		
45 Sc	199110.20	1.39	211970.81	93.9	70 - 120		
45 Sc	5322873.00	1.11	5338272.50	99.7	70 - 120		
72 Ge	325249.13	1.02	357467.25	91.0	70 - 120		
72 Ge	125278.34	1.04	134894.38	92.9	70 - 120		
72 Ge	1113328.80	0.45	1118516.60	99.5	70 - 120		
115 In	2238391.30	0.40	2502525.50	89.4	70 - 120		
115 In	1269218.10	1.04	1421320.90	89.3	70 - 120		
115 In	7462363.00	1.00	7622565.50	97.9	70 - 120		
159 Tb	9592049.00	1.63	9867540.00	97.2	70 - 120		
165 Ho	9171246.00	1.38	9489315.00	96.6	70 - 120		

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29001.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\12D29001.B\054\_CCV.D\054\_CCV.D#  
 Date Acquired: Apr 29 2012 08:34 pm  
 Operator: SDM  
 Sample Name: CCV 120429  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	ug/l		50.00	90 - 110	
9 Be	51.57 ug/l	0.74	50.00	90 - 110	
11 B	59.22 ug/l	1.14	50.00	90 - 110	Fail
23 Na	1395.00 ug/l	0.89	1250.00	90 - 110	Fail
24 Mg	2581.00 ug/l	1.01	2500.00	90 - 110	
27 Al	1037.00 ug/l	1.54	1000.00	90 - 110	
39 K	1061.00 ug/l	1.99	1000.00	90 - 110	
44 Ca	2498.00 ug/l	1.29	2500.00	90 - 110	
47 Ti	50.54 ug/l	4.73	50.00	90 - 110	
51 V	49.18 ug/l	1.08	50.00	90 - 110	
52 Cr	48.86 ug/l	1.61	50.00	90 - 110	
55 Mn	48.80 ug/l	0.40	50.00	90 - 110	
56 Fe	986.20 ug/l	1.00	1000.00	90 - 110	
59 Co	48.31 ug/l	1.52	50.00	90 - 110	
60 Ni	48.19 ug/l	1.38	50.00	90 - 110	
63 Cu	48.17 ug/l	1.04	50.00	90 - 110	
65 Cu	48.57 ug/l	2.23	50.00	90 - 110	
66 Zn	51.86 ug/l	2.10	50.00	90 - 110	
75 As	50.35 ug/l	0.85	50.00	90 - 110	
78 Se	51.16 ug/l	2.00	50.00	90 - 110	
78 Se	52.43 ug/l	1.71	50.00	90 - 110	
88 Sr	50.42 ug/l	1.62	50.00	90 - 110	
88 Sr	50.93 ug/l	1.60	50.00	90 - 110	
95 Mo	46.98 ug/l	0.66	50.00	90 - 110	
106 (Cd)	ug/l		50.00	90 - 110	
107 Ag	25.00 ug/l	1.85	25.00	90 - 110	
108 (Cd)	ug/l		50.00	90 - 110	
111 Cd	49.14 ug/l	0.58	50.00	90 - 110	
118 Sn	49.46 ug/l	1.70	---	##### - #####	
118 Sn	49.36 ug/l	1.26	---	##### - #####	
118 Sn	49.19 ug/l	0.67	50.00	90 - 110	
121 Sb	50.04 ug/l	1.95	50.00	90 - 110	
137 Ba	49.55 ug/l	1.69	50.00	90 - 110	
205 Tl	49.95 ug/l	1.31	50.00	90 - 110	
206 (Pb)	ug/l		50.00	90 - 110	
207 (Pb)	ug/l		50.00	90 - 110	
208 Pb	49.63 ug/l	1.59	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	4084479.50	1.24	3376647.30	121.0	70 - 120	IS Fail
45 Sc	1325304.80	0.38	1470535.00	90.1	70 - 120	
45 Sc	184027.44	0.77	211970.81	86.8	70 - 120	
45 Sc	5750532.00	0.95	5338272.50	107.7	70 - 120	
72 Ge	309222.06	1.46	357467.25	86.5	70 - 120	
72 Ge	120337.91	1.77	134894.38	89.2	70 - 120	
72 Ge	1202986.10	0.62	1118516.60	107.6	70 - 120	
115 In	2240788.00	0.11	2502525.50	89.5	70 - 120	
115 In	1182942.40	1.49	1421320.90	83.2	70 - 120	
115 In	8053842.50	1.20	7622565.50	105.7	70 - 120	
159 Tb	10253045.00	0.95	9867540.00	103.9	70 - 120	
165 Ho	9863840.00	0.42	9489315.00	103.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29001.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

**CCB QC Report**

Data File: C:\ICPCHEM\1\DATA\12D29001.B\056\_CCB.D\056\_CCB.D#  
 Date Acquired: Apr 29 2012 08:48 pm  
 Operator: SDM  
 Sample Name: CCB 120429  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#####	
9 Be	0.00 ug/l	331.77	0.12	
11 B	1.71 ug/l	8.78	15.00	
23 Na	11.62 ug/l	79.20	77.10	
24 Mg	0.64 ug/l	37.84	7.50	
27 Al	-0.33 ug/l	24.05	3.96	
39 K	-19.53 ug/l	26.04	19.20	
44 Ca	-6.74 ug/l	46.46	90.00	
47 Ti	0.01 ug/l	274.63	0.78	
51 V	0.00 ug/l	392.17	0.21	
52 Cr	-0.03 ug/l	11.84	0.12	
55 Mn	-0.18 ug/l	10.43	0.18	
56 Fe	-0.09 ug/l	28.07	40.80	
59 Co	0.00 ug/l	89.18	0.09	
60 Ni	0.01 ug/l	52.29	0.48	
63 Cu	-0.03 ug/l	16.66	0.39	
65 Cu	-0.01 ug/l	287.34	0.39	
66 Zn	0.03 ug/l	256.83	6.90	
75 As	0.01 ug/l	109.68	0.27	
78 Se	0.02 ug/l	87.42	0.30	
78 Se	-0.16 ug/l	103.64	0.30	
88 Sr	0.01 ug/l	65.00	0.03	
88 Sr	0.00 ug/l	112.20	0.03	
95 Mo	0.10 ug/l	10.78	0.21	
106 (Cd)	----- ug/l	-----	#####	
107 Ag	0.01 ug/l	94.09	0.09	
108 (Cd)	----- ug/l	-----	#####	
111 Cd	0.00 ug/l	117.60	0.06	
118 Sn	0.04 ug/l	23.66	#####	
118 Sn	-0.02 ug/l	115.30	#####	
118 Sn	0.01 ug/l	21.59	0.30	
121 Sb	0.17 ug/l	6.19	0.03	Fail
137 Ba	0.00 ug/l	257.67	0.12	
205 Tl	0.00 ug/l	30.36	0.03	
206 (Pb)	----- ug/l	-----	#####	
207 (Pb)	----- ug/l	-----	#####	
208 Pb	-0.16 ug/l	6.23	0.33	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	4085288.80	0.97	3376647.30	121.0	70 - 120	IS Fail
45 Sc	1586272.80	0.73	1470535.00	107.9	70 - 120	
45 Sc	237369.17	4.80	211970.81	112.0	70 - 120	
45 Sc	6151997.00	0.54	5338272.50	115.2	70 - 120	
72 Ge	384889.41	1.22	357467.25	107.7	70 - 120	
72 Ge	149314.09	2.80	134894.38	110.7	70 - 120	
72 Ge	1271881.50	0.43	1118516.60	113.7	70 - 120	
115 In	2714494.30	0.76	2502525.50	108.5	70 - 120	
115 In	1535405.60	2.02	1421320.90	108.0	70 - 120	
115 In	8577557.00	0.91	7622565.50	112.5	70 - 120	
159 Tb	10979286.00	1.58	9867540.00	111.3	70 - 120	
165 Ho	10664691.00	0.73	9489315.00	112.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29001.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\12D29o01.B\124\_CCV.D\124\_CCV.D#  
 Date Acquired: Apr 30 2012 04:26 am  
 Operator: SDM  
 Sample Name: CCV 120429  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	----- ug/l	-----	50.00	90 - 110	
9 Be	48.92 ug/l	0.94	50.00	90 - 110	
11 B	60.37 ug/l	0.66	50.00	90 - 110	Fail
23 Na	1530.00 ug/l	1.55	1250.00	90 - 110	Fail
24 Mg	2576.00 ug/l	1.05	2500.00	90 - 110	
27 Al	1035.00 ug/l	0.98	1000.00	90 - 110	
39 K	1092.00 ug/l	1.34	1000.00	90 - 110	
44 Ca	2560.00 ug/l	2.21	2500.00	90 - 110	
47 Ti	50.68 ug/l	2.35	50.00	90 - 110	
51 V	49.29 ug/l	1.39	50.00	90 - 110	
52 Cr	49.09 ug/l	0.75	50.00	90 - 110	
55 Mn	49.44 ug/l	1.84	50.00	90 - 110	
56 Fe	987.40 ug/l	1.90	1000.00	90 - 110	
59 Co	48.51 ug/l	1.66	50.00	90 - 110	
60 Ni	48.22 ug/l	1.67	50.00	90 - 110	
63 Cu	48.18 ug/l	1.77	50.00	90 - 110	
65 Cu	47.86 ug/l	1.78	50.00	90 - 110	
66 Zn	51.75 ug/l	2.59	50.00	90 - 110	
75 As	50.80 ug/l	1.20	50.00	90 - 110	
78 Se	49.99 ug/l	0.37	50.00	90 - 110	
78 Se	52.15 ug/l	2.55	50.00	90 - 110	
88 Sr	51.09 ug/l	0.99	50.00	90 - 110	
88 Sr	50.99 ug/l	0.93	50.00	90 - 110	
95 Mo	49.34 ug/l	1.41	50.00	90 - 110	
106 (Cd)	----- ug/l	-----	50.00	90 - 110	
107 Ag	24.91 ug/l	1.38	25.00	90 - 110	
108 (Cd)	----- ug/l	-----	50.00	90 - 110	
111 Cd	49.42 ug/l	0.25	50.00	90 - 110	
118 Sn	50.08 ug/l	1.06	---	##### - #####	
118 Sn	49.75 ug/l	1.56	---	##### - #####	
118 Sn	49.59 ug/l	0.80	50.00	90 - 110	
121 Sb	50.55 ug/l	0.36	50.00	90 - 110	
137 Ba	50.02 ug/l	0.82	50.00	90 - 110	
205 Tl	49.65 ug/l	1.59	50.00	90 - 110	
206 (Pb)	----- ug/l	-----	50.00	90 - 110	
207 (Pb)	----- ug/l	-----	50.00	90 - 110	
208 Pb	49.26 ug/l	1.76	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3400222.30	1.04	3376647.30	100.7	70 - 120	
45 Sc	1302554.30	0.78	1470535.00	88.6	70 - 120	
45 Sc	180802.42	0.86	211970.81	85.3	70 - 120	
45 Sc	5052986.00	0.27	5338272.50	94.7	70 - 120	
72 Ge	301966.13	1.66	357467.25	84.5	70 - 120	
72 Ge	113243.97	1.57	134894.38	84.0	70 - 120	
72 Ge	1054173.50	0.71	1118516.60	94.2	70 - 120	
115 In	2165327.50	1.24	2502525.50	86.5	70 - 120	
115 In	1160966.40	1.30	1421320.90	81.7	70 - 120	
115 In	6928449.50	0.19	7622565.50	90.9	70 - 120	
159 Tb	8709664.00	1.20	9867540.00	88.3	70 - 120	
165 Ho	6371190.00	0.54	9489315.00	88.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

**CCB QC Report**

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\126\_CCB.D\126\_CCB.D#  
 Date Acquired: Apr 30 2012 04:39 am  
 Operator: SDM  
 Sample Name: CCB 120429  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#####	
9 Be	0.00 ug/l	1505.20	0.12	
11 B	4.85 ug/l	3.30	15.00	
23 Na	75.21 ug/l	20.74	77.10	
24 Mg	0.25 ug/l	67.63	7.50	
27 Al	0.00 ug/l	25204.00	3.96	
39 K	-6.90 ug/l	167.37	19.20	
44 Ca	-4.06 ug/l	126.65	90.00	
47 Ti	-0.04 ug/l	36.08	0.78	
51 V	0.00 ug/l	287.84	0.21	
52 Cr	-0.06 ug/l	22.18	0.12	
55 Mn	-0.24 ug/l	9.84	0.18	
56 Fe	-0.09 ug/l	19.93	40.80	
59 Co	0.00 ug/l	129.50	0.09	
60 Ni	0.00 ug/l	252.15	0.48	
63 Cu	-0.04 ug/l	21.24	0.39	
65 Cu	0.00 ug/l	367.84	0.39	
66 Zn	0.02 ug/l	295.47	6.90	
75 As	0.01 ug/l	100.43	0.27	
78 Se	0.05 ug/l	28.44	0.30	
78 Se	0.37 ug/l	86.38	0.30	Fail
88 Sr	0.01 ug/l	45.81	0.03	
88 Sr	0.01 ug/l	23.18	0.03	
95 Mo	0.10 ug/l	2.17	0.21	
106 (Cd)	----- ug/l	-----	#####	
107 Ag	0.01 ug/l	38.83	0.09	
108 (Cd)	----- ug/l	-----	#####	
111 Cd	0.00 ug/l	120.43	0.06	
118 Sn	0.05 ug/l	37.55	#####	
118 Sn	0.02 ug/l	69.96	#####	
118 Sn	0.02 ug/l	17.14	0.30	
121 Sb	0.18 ug/l	9.88	0.03	Fail
137 Ba	0.01 ug/l	47.83	0.12	
205 Tl	0.01 ug/l	6.79	0.03	
206 (Pb)	----- ug/l	-----	#####	
207 (Pb)	----- ug/l	-----	#####	
208 Pb	-0.29 ug/l	1.42	0.33	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3433924.50	0.81	3376647.30	101.7	70 - 120	
45 Sc	1377849.80	2.20	1470535.00	93.7	70 - 120	
45 Sc	245378.52	2.88	211970.81	115.8	70 - 120	
45 Sc	5232968.00	0.80	5338272.50	98.0	70 - 120	
72 Ge	345661.78	0.86	357467.25	96.7	70 - 120	
72 Ge	153369.84	3.41	134894.38	113.7	70 - 120	
72 Ge	1103968.80	0.66	1118516.60	98.7	70 - 120	
115 In	2337431.50	1.00	2502525.50	93.4	70 - 120	
115 In	1591212.00	2.87	1421320.90	112.0	70 - 120	
115 In	7361426.50	1.18	7622565.50	96.6	70 - 120	
159 Tb	9214957.00	0.42	9867540.00	93.4	70 - 120	
165 Ho	8903479.00	0.71	9489315.00	93.8	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Fail  
 ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\12D29001.B\138\_CCV.D\138\_CCV.D#  
 Date Acquired: Apr 30 2012 06:00 am  
 Operator: SDM  
 Sample Name: CCV 120429  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	ug/l		50.00	90 - 110	
9 Be	49.03 ug/l	1.66	50.00	90 - 110	
11 B	58.73 ug/l	1.44	50.00	90 - 110	Fail
23 Na	1413.00 ug/l	0.79	1250.00	90 - 110	Fail
24 Mg	2492.00 ug/l	1.73	2500.00	90 - 110	
27 Al	1006.00 ug/l	2.74	1000.00	90 - 110	
39 K	1036.00 ug/l	0.86	1000.00	90 - 110	
44 Ca	2536.00 ug/l	2.71	2500.00	90 - 110	
47 Ti	49.28 ug/l	3.11	50.00	90 - 110	
51 V	48.53 ug/l	1.50	50.00	90 - 110	
52 Cr	48.38 ug/l	1.07	50.00	90 - 110	
55 Mn	48.76 ug/l	1.19	50.00	90 - 110	
56 Fe	974.90 ug/l	1.19	1000.00	90 - 110	
59 Co	48.49 ug/l	1.19	50.00	90 - 110	
60 Ni	48.32 ug/l	2.10	50.00	90 - 110	
63 Cu	48.03 ug/l	2.19	50.00	90 - 110	
65 Cu	48.30 ug/l	2.29	50.00	90 - 110	
66 Zn	51.81 ug/l	1.39	50.00	90 - 110	
75 As	50.38 ug/l	1.18	50.00	90 - 110	
78 Se	50.17 ug/l	1.89	50.00	90 - 110	
78 Se	51.71 ug/l	1.13	50.00	90 - 110	
88 Sr	50.22 ug/l	0.61	50.00	90 - 110	
88 Sr	50.29 ug/l	1.15	50.00	90 - 110	
95 Mo	48.68 ug/l	1.56	50.00	90 - 110	
106 (Cd)	ug/l		50.00	90 - 110	
107 Ag	24.67 ug/l	0.78	25.00	90 - 110	
108 (Cd)	ug/l		50.00	90 - 110	
111 Cd	49.27 ug/l	0.24	50.00	90 - 110	
118 Sn	49.88 ug/l	0.74	---	##### - #####	
118 Sn	49.99 ug/l	2.21	---	##### - #####	
118 Sn	49.34 ug/l	0.14	50.00	90 - 110	
121 Sb	50.31 ug/l	1.53	50.00	90 - 110	
137 Ba	49.87 ug/l	0.58	50.00	90 - 110	
205 Tl	49.64 ug/l	0.49	50.00	90 - 110	
206 (Pb)	ug/l		50.00	90 - 110	
207 (Pb)	ug/l		50.00	90 - 110	
208 Pb	49.43 ug/l	1.03	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3361374.30	1.10	3376647.30	99.5	70 - 120	
45 Sc	1306382.30	1.27	1470535.00	88.8	70 - 120	
45 Sc	187246.45	0.49	211970.81	88.3	70 - 120	
45 Sc	4973403.50	1.02	5338272.50	93.2	70 - 120	
72 Ge	304093.44	1.12	357467.25	85.1	70 - 120	
72 Ge	120386.41	2.92	134894.38	89.2	70 - 120	
72 Ge	1043649.60	0.59	1118516.60	93.3	70 - 120	
115 In	2188951.30	0.84	2502525.50	87.5	70 - 120	
115 In	1217913.90	0.67	1421320.90	85.7	70 - 120	
115 In	6930506.00	0.67	7622565.50	90.9	70 - 120	
159 Tb	8701002.00	0.90	9867540.00	88.2	70 - 120	
165 Ho	8410236.00	1.16	9489315.00	88.6	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29001.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

**CCB QC Report**

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\140\_CCB.D\140\_CCB.D#  
 Date Acquired: Apr 30 2012 06:13 am  
 Operator: SDM  
 Sample Name: CCB 120429  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#####	
9 Be	0.00 ug/l	84.28	0.12	
11 B	3.18 ug/l	6.23	15.00	
23 Na	63.04 ug/l	12.38	77.10	
24 Mg	0.26 ug/l	56.10	7.50	
27 Al	-0.07 ug/l	1097.60	3.96	
39 K	2.93 ug/l	327.90	19.20	
44 Ca	-2.61 ug/l	31.17	90.00	
47 Ti	-0.01 ug/l	123.94	0.78	
51 V	-0.01 ug/l	168.32	0.21	
52 Cr	-0.06 ug/l	6.23	0.12	
55 Mn	-0.27 ug/l	2.24	0.18	
56 Fe	0.02 ug/l	653.14	40.80	
59 Co	0.00 ug/l	11.22	0.09	
60 Ni	0.00 ug/l	540.91	0.48	
63 Cu	-0.03 ug/l	13.69	0.39	
65 Cu	-0.02 ug/l	39.72	0.39	
66 Zn	0.01 ug/l	355.92	6.90	
75 As	0.01 ug/l	332.81	0.27	
78 Se	0.01 ug/l	116.17	0.30	
78 Se	0.35 ug/l	94.23	0.30	Fail
88 Sr	0.01 ug/l	82.89	0.03	
88 Sr	0.00 ug/l	81.26	0.03	
95 Mo	0.09 ug/l	24.73	0.21	
106 (Cd)	----- ug/l	-----	#####	
107 Ag	0.01 ug/l	59.85	0.09	
108 (Cd)	----- ug/l	-----	#####	
111 Cd	0.00 ug/l	1075.20	0.06	
118 Sn	0.04 ug/l	43.32	#####	
118 Sn	0.00 ug/l	5126.70	#####	
118 Sn	0.00 ug/l	65.56	0.30	
121 Sb	0.17 ug/l	9.84	0.03	Fail
137 Ba	0.01 ug/l	75.17	0.12	
205 Tl	0.01 ug/l	90.26	0.03	
206 (Pb)	----- ug/l	-----	#####	
207 (Pb)	----- ug/l	-----	#####	
208 Pb	-0.31 ug/l	2.04	0.33	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3356934.30	1.42	3376647.30	99.4	70 - 120	
45 Sc	1499579.00	3.36	1470535.00	102.0	70 - 120	
45 Sc	228556.16	3.87	211970.81	107.8	70 - 120	
45 Sc	5179125.50	1.41	5338272.50	97.0	70 - 120	
72 Ge	375921.34	1.27	357467.25	105.2	70 - 120	
72 Ge	142462.67	2.65	134894.38	105.6	70 - 120	
72 Ge	1094626.30	1.62	1118516.60	97.9	70 - 120	
115 In	2599630.30	0.59	2502525.50	103.9	70 - 120	
115 In	1484259.60	3.07	1421320.90	104.4	70 - 120	
115 In	7267902.00	0.53	7622565.50	95.3	70 - 120	
159 Tb	9185472.00	0.37	9867540.00	93.1	70 - 120	
165 Ho	8830879.00	0.33	9489315.00	93.1	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Fail  
 ISTD: Pass

## CCV QC Report

Data File: C:\ICPCHEM\1\DATA\12D30i00.B\003\_CCV.D\003\_CCV.D#  
 Date Acquired: Apr 30 2012 08:15 am  
 Operator: SDM  
 Sample Name: CCV 120429  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 30 2012 08:06 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	48.93 ug/l	1.00	50.00	90 - 110	
11 B	49.34 ug/l	0.85	50.00	90 - 110	
23 Na	1292.00 ug/l	0.56	1250.00	90 - 110	
24 Mg	2539.00 ug/l	0.86	2500.00	90 - 110	
27 Al	1011.00 ug/l	0.42	1000.00	90 - 110	
39 K	1009.00 ug/l	0.14	1000.00	90 - 110	
44 Ca	2520.00 ug/l	0.71	2500.00	90 - 110	
47 Ti	49.25 ug/l	2.67	50.00	90 - 110	
51 V	49.63 ug/l	0.40	50.00	90 - 110	
52 Cr	49.24 ug/l	0.31	50.00	90 - 110	
55 Mn	49.66 ug/l	0.53	50.00	90 - 110	
56 Fe	995.90 ug/l	1.23	1000.00	90 - 110	
59 Co	49.37 ug/l	0.96	50.00	90 - 110	
60 Ni	49.16 ug/l	0.92	50.00	90 - 110	
63 Cu	49.07 ug/l	1.03	50.00	90 - 110	
65 Cu	49.33 ug/l	0.89	50.00	90 - 110	
66 Zn	50.22 ug/l	1.43	50.00	90 - 110	
75 As	49.17 ug/l	1.70	50.00	90 - 110	
78 Se	47.52 ug/l	3.45	50.00	90 - 110	
78 Se	47.72 ug/l	3.58	50.00	90 - 110	
88 Sr	50.02 ug/l	2.05	50.00	90 - 110	
88 Sr	50.71 ug/l	0.69	50.00	90 - 110	
95 Mo	48.95 ug/l	0.54	50.00	90 - 110	
106 (Cd)	----- ug/l	-----	50.00	90 - 110	
107 Ag	24.92 ug/l	1.23	25.00	90 - 110	
108 (Cd)	----- ug/l	-----	50.00	90 - 110	
111 Cd	49.45 ug/l	0.21	50.00	90 - 110	
118 Sn	48.10 ug/l	1.54	---	##### - #####	
118 Sn	48.94 ug/l	1.52	---	##### - #####	
118 Sn	49.15 ug/l	1.13	50.00	90 - 110	
121 Sb	50.15 ug/l	2.08	50.00	90 - 110	
137 Ba	49.94 ug/l	2.09	50.00	90 - 110	
205 Tl	49.97 ug/l	0.88	50.00	90 - 110	
206 (Pb)	----- ug/l	-----	50.00	90 - 110	
207 (Pb)	----- ug/l	-----	50.00	90 - 110	
208 Pb	49.88 ug/l	0.56	50.00	90 - 110	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3517271.30	0.45	3441458.50	102.2	70 - 120	
45 Sc	1692182.40	1.82	1751436.00	96.6	70 - 120	
45 Sc	221414.05	0.59	243714.48	90.8	70 - 120	
45 Sc	5288677.00	0.26	5411131.50	97.7	70 - 120	
72 Ge	411650.03	1.38	422531.00	97.4	70 - 120	
72 Ge	148849.44	0.96	157013.34	94.8	70 - 120	
72 Ge	1125733.80	0.64	1171430.50	96.1	70 - 120	
115 In	2775916.80	0.68	2958692.50	93.8	70 - 120	
115 In	1488046.00	1.24	1612758.60	92.3	70 - 120	
115 In	7403881.50	0.92	7741434.00	95.6	70 - 120	
159 Tb	9345039.00	0.22	9705795.00	96.3	70 - 120	
165 Ho	9000266.00	1.21	9312349.00	96.6	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D30i00.B\001CALB.D\001CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\12D30i00.B\004\_CCB.D\004\_CCB.D#  
 Date Acquired: Apr 30 2012 08:22 am  
 Operator: SDM  
 Sample Name: CCB 120429  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 30 2012 08:06 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	66.10	0.12	
11 B	-2.14 ug/l	1.76	15.00	
23 Na	22.25 ug/l	42.14	77.10	
24 Mg	-0.42 ug/l	7.98	7.50	
27 Al	-1.00 ug/l	42.21	3.96	
39 K	-1.77 ug/l	436.81	19.20	
44 Ca	-5.73 ug/l	83.41	90.00	
47 Ti	-0.04 ug/l	35.68	0.78	
51 V	-0.02 ug/l	14.08	0.21	
52 Cr	-0.04 ug/l	14.59	0.12	
55 Mn	0.01 ug/l	45.19	0.18	
56 Fe	-0.71 ug/l	55.96	40.80	
59 Co	0.00 ug/l	30.83	0.09	
60 Ni	-0.01 ug/l	153.79	0.48	
63 Cu	-0.07 ug/l	12.75	0.39	
65 Cu	-0.07 ug/l	3.10	0.39	
66 Zn	-0.16 ug/l	18.27	6.90	
75 As	0.00 ug/l	450.85	0.27	
78 Se	0.11 ug/l	6.32	0.30	
78 Se	-0.31 ug/l	72.60	0.30	
88 Sr	-0.01 ug/l	18.23	0.03	
88 Sr	-0.02 ug/l	7.35	0.03	
95 Mo	0.16 ug/l	10.01	0.21	
106 (Cd)	----- ug/l	-----	#####	
107 Ag	-0.01 ug/l	30.94	0.09	
108 (Cd)	----- ug/l	-----	#####	
111 Cd	-0.01 ug/l	20.44	0.06	
118 Sn	-0.36 ug/l	4.99	#####	
118 Sn	-0.42 ug/l	5.84	#####	
118 Sn	-0.42 ug/l	1.21	0.30	
121 Sb	0.12 ug/l	8.70	0.03	Fail
137 Ba	-0.01 ug/l	25.33	0.12	
205 Tl	0.01 ug/l	20.69	0.03	
206 (Pb)	----- ug/l	-----	#####	
207 (Pb)	----- ug/l	-----	#####	
208 Pb	-0.07 ug/l	10.69	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3561747.30	0.77	3441458.50	103.5	70 - 120	
45 Sc	1665296.10	2.46	1751436.00	95.1	70 - 120	
45 Sc	245946.92	2.03	243714.48	100.9	70 - 120	
45 Sc	5604244.00	0.66	5411131.50	103.6	70 - 120	
72 Ge	422115.81	1.79	422531.00	99.9	70 - 120	
72 Ge	159716.84	1.42	157013.34	101.7	70 - 120	
72 Ge	1202943.40	0.88	1171430.50	102.7	70 - 120	
115 In	2885431.50	1.14	2958692.50	97.5	70 - 120	
115 In	1656872.90	0.54	1612758.60	102.7	70 - 120	
115 In	8077047.50	0.73	7741434.00	104.3	70 - 120	
159 Tb	10226458.00	1.01	9705795.00	105.4	70 - 120	
165 Ho	9850090.00	0.18	9312349.00	105.8	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D30i00.B\001CALB.D\001CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

**METALS**  
**EPA SW846 - 6020**  
**Raw Data**

**APPL, INC.**

# METALS BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.22 U	0.5	0.22	0.11	ug/L	04/18/12	04/29/12	#602D-120418A-AY59187

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\051SMPL.D\051SMPL.D#  
 Date Acquired: Apr 29 2012 08:14 pm  
 Operator: SDM  
 Sample Name: 120418A-3015-BLK  
 Misc Info: 120418A-3015  
 Vial Number: 4205  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	0.00 ug/l	0.00	383.62	1000	
11 B	27.41 ug/l	30.45	5.11	1000	
23 Na	174.70 ug/l	194.09	6.23	25000	
24 Mg	4.09 ug/l	4.54	6.80	50000	
27 Al	3.55 ug/l	3.94	8.60	20000	
39 K	82.22 ug/l	91.35	15.90	20000	
44 Ca	7.74 ug/l	8.60	72.22	50000	
47 Ti	0.14 ug/l	0.16	31.50	1000	
51 V	0.02 ug/l	0.02	19.39	1000	
52 Cr	0.10 ug/l	0.11	13.34	1000	
55 Mn	0.33 ug/l	0.37	57.37	1000	
56 Fe	1.07 ug/l	1.19	11.68	20000	
59 Co	0.45 ug/l	0.50	19.13	1000	
60 Ni	0.10 ug/l	0.12	16.14	1000	
63 Cu	0.00 ug/l	0.00	308.20	1000	
65 Cu	0.03 ug/l	0.03	89.60	1000	
66 Zn	0.34 ug/l	0.38	16.28	1000	
75 As	0.04 ug/l	0.04	32.15	1000	
78 Se	0.09 ug/l	0.10	42.20	1000	
78 Se	2.74 ug/l	3.04	6.53	1000	
88 Sr	0.12 ug/l	0.13	6.34	1000	
88 Sr	0.08 ug/l	0.08	3.80	1000	
95 Mo	0.09 ug/l	0.10	3.10	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.21 ug/l	0.23	3.88	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.18 ug/l	0.19	10.35	1000	
118 Sn	0.23 ug/l	0.25	7.42	#####	
118 Sn	0.23 ug/l	0.25	7.49	#####	
118 Sn	0.23 ug/l	0.25	1.40	1000	
121 Sb	0.14 ug/l	0.15	4.76	1000	
137 Ba	0.01 ug/l	0.01	92.35	1000	
205 Tl	0.03 ug/l	0.03	10.84	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	-0.33 ug/l	-0.37	0.50	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec (%)	QC Range (%)	Flag
6 Li	3234817.30	0.90	3376647.30	95.8	70 - 120	
45 Sc	1041155.50	0.50	1470535.00	70.8	70 - 120	
45 Sc	155228.02	1.58	211970.81	73.2	70 - 120	
45 Sc	4946234.00	1.09	5338272.50	92.7	70 - 120	
72 Ge	243592.73	0.94	357467.25	68.1	70 - 120	IS Fai
72 Ge	97860.04	1.33	134894.38	72.5	70 - 120	
72 Ge	1028130.90	0.76	1118516.60	91.9	70 - 120	
115 In	1738743.10	0.69	2502525.50	69.5	70 - 120	IS Fai
115 In	951975.19	0.69	1421320.90	67.0	70 - 120	IS Fai
115 In	6917858.50	1.07	7622565.50	90.8	70 - 120	
159 Tb	8818295.00	0.55	9867540.00	89.4	70 - 120	
165 Ho	8494737.00	0.76	9489315.00	89.5	70 - 120	

NT NBS 05/03/12

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 3 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass  
 ISTD: Fail

**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	52.3	105	80-120	04/18/12	04/29/12	#602D-120418A-AY59187

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\052SMPL.D\052SMPL.D#  
 Date Acquired: Apr 29 2012 08:21 pm  
 Operator: SDM  
 Sample Name: 120418A-3015-LCS  
 Misc Info: 120418A-3015  
 Vial Number: 4206  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

## QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	8.62 ug/l	9.58	2.05	1000	
11 B	65.21 ug/l	72.45	2.38	1000	
23 Na	4623.00 ug/l	5136.15	1.39	25000	
24 Mg	4585.00 ug/l	5093.94	0.72	50000	
27 Al	378.80 ug/l	420.85	0.70	20000	
39 K	981.60 ug/l	1090.56	1.66	20000	
44 Ca	4556.00 ug/l	5061.72	0.46	50000	
47 Ti	45.95 ug/l	51.05	4.38	1000	
51 V	45.86 ug/l	50.95	1.62	1000	
52 Cr	45.27 ug/l	50.29	1.26	1000	
55 Mn	46.41 ug/l	51.56	0.96	1000	
56 Fe	193.60 ug/l	215.09	1.02	20000	
59 Co	44.59 ug/l	49.54	1.05	1000	
60 Ni	44.70 ug/l	49.66	1.38	1000	
63 Cu	42.66 ug/l	47.40	0.65	1000	
65 Cu	42.56 ug/l	47.28	0.65	1000	
66 Zn	81.87 ug/l	90.96	0.98	1000	
75 As	41.15 ug/l	45.72	1.00	1000	
78 Se	36.30 ug/l	40.33	1.90	1000	
78 Se	38.00 ug/l	42.22	0.46	1000	
88 Sr	46.89 ug/l	52.09	1.82	1000	
88 Sr	48.59 ug/l	53.98	2.32	1000	
95 Mo	46.94 ug/l	52.15	1.47	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	17.26 ug/l	19.18	1.09	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	8.53 ug/l	9.47	1.72	1000	
118 Sn	49.59 ug/l	55.09	3.30	#####	
118 Sn	48.20 ug/l	53.55	2.61	#####	
118 Sn	49.09 ug/l	54.54	1.53	1000	
121 Sb	48.51 ug/l	53.89	2.12	1000	
137 Ba	46.43 ug/l	51.58	1.53	1000	
205 Tl	47.15 ug/l	52.38	1.11	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	47.11 ug/l	52.34	0.69	1000	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3175039.00	0.45	3376647.30	94.0	70 - 120	
45 Sc	1108480.10	0.29	1470535.00	75.4	70 - 120	
45 Sc	162455.11	1.24	211970.81	76.6	70 - 120	
45 Sc	4832960.50	0.78	5338272.50	90.5	70 - 120	
72 Ge	258131.75	1.57	357467.25	72.2	70 - 120	
72 Ge	103289.38	0.25	134894.38	76.6	70 - 120	
72 Ge	998274.75	0.24	1118516.60	89.2	70 - 120	
115 In	1837555.50	0.70	2502525.50	73.4	70 - 120	
115 In	1034382.90	0.57	1421320.90	72.8	70 - 120	
115 In	6863728.00	1.82	7622565.50	90.0	70 - 120	
159 Tb	8682474.00	0.46	9867540.00	88.0	70 - 120	
165 Ho	8390024.00	0.41	9489315.00	88.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass

# Matrix Spike Recoveries

## METALS

APPL ID: 120418W-59187 MS - 166407

APPL Inc.

908 North Temperance Avenue

Sample ID: AY59187

Clovis, CA 93611

Client ID: ES073

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	1.4	49.3	49.1	95.8	95.4	0.4	20	80-120	04/18/12	04/30/12	04/18/12	04/30/12	166407	AY59187

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\12D29o01.B\141SMPL.D\141SMPL.D#  
 Date Acquired: Apr 30 2012 06:20 am  
 Operator: SDM  
 Sample Name: AY59187W08 MS  
 Misc Info: 120418A-3015  
 Vial Number: 4212  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	7.92 ug/l	8.80	1.85	1000	
11 B	234.30 ug/l	260.31	0.90	1000	
23 Na	83130.00 ug/l	92357.43	1.64	25000	>Cal
24 Mg	30230.00 ug/l	33585.53	2.48	50000	
27 Al	362.70 ug/l	402.96	1.98	20000	
39 K	4284.00 ug/l	4759.52	1.51	20000	
44 Ca	26480.00 ug/l	29419.28	1.71	50000	
47 Ti	47.45 ug/l	52.72	3.59	1000	
51 V	63.89 ug/l	70.98	2.89	1000	
52 Cr	45.89 ug/l	50.98	2.34	1000	
55 Mn	82.94 ug/l	92.15	1.72	1000	
56 Fe	209.90 ug/l	233.20	1.91	20000	
59 Co	43.72 ug/l	48.57	1.66	1000	
60 Ni	46.59 ug/l	51.76	1.68	1000	
63 Cu	42.83 ug/l	47.58	2.44	1000	
65 Cu	42.98 ug/l	47.75	2.97	1000	
66 Zn	79.44 ug/l	88.26	0.66	1000	
75 As	41.27 ug/l	45.85	0.95	1000	
78 Se	34.26 ug/l	38.06	0.60	1000	
78 Se	36.14 ug/l	40.15	2.04	1000	
88 Sr	187.10 ug/l	207.87	0.78	1000	
88 Sr	184.30 ug/l	204.76	0.49	1000	
95 Mo	57.64 ug/l	64.04	0.35	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	16.63 ug/l	18.48	0.42	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	8.28 ug/l	9.20	1.15	1000	
118 Sn	49.58 ug/l	55.08	0.12	#####	
118 Sn	49.53 ug/l	55.03	0.59	#####	
118 Sn	49.50 ug/l	54.99	0.55	1000	
121 Sb	52.69 ug/l	58.54	0.84	1000	
137 Ba	56.98 ug/l	63.30	1.12	1000	
205 Tl	44.06 ug/l	48.95	0.95	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	44.41 ug/l	49.34	0.78	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2687667.00	0.63	3376647.30	79.6	70 - 120	
45 Sc	1088059.30	1.50	1470535.00	74.0	70 - 120	
45 Sc	162736.78	3.16	211970.81	76.8	70 - 120	
45 Sc	4377063.50	1.23	5338272.50	82.0	70 - 120	
72 Ge	246695.91	0.78	357467.25	69.0	70 - 120	IS Fai
72 Ge	103302.95	2.73	134894.38	76.6	70 - 120	NT
72 Ge	880783.94	1.79	1118516.60	78.7	70 - 120	NBS 05/03/12
115 In	1798285.60	0.94	2502525.50	71.9	70 - 120	
115 In	1049557.60	1.98	1421320.90	73.8	70 - 120	
115 In	5912653.50	0.42	7622565.50	77.6	70 - 120	
159 Tb	7520766.00	1.02	9867540.00	76.2	70 - 120	
165 Ho	7300470.50	0.61	9489315.00	76.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29o01.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\12D29001.B\142SMPL.D\142SMPL.D#  
 Date Acquired: Apr 30 2012 06:27 am  
 Operator: SDM  
 Sample Name: AY59187W08 MSD  
 Misc Info: 120418A-3015  
 Vial Number: 4301  
 Current Method: C:\ICPCHEM\1\METHODS\62A0429A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0429A.C  
 Last Cal Update: Apr 29 2012 03:29 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	8.03 ug/l	8.93	0.50	1000	
11 B	238.60 ug/l	265.08	1.07	1000	
23 Na	82690.00 ug/l	91868.59	0.73	25000	>Cal
24 Mg	30240.00 ug/l	33596.64	1.26	50000	
27 Al	364.50 ug/l	404.96	1.22	20000	
39 K	4278.00 ug/l	4752.86	0.87	20000	
44 Ca	26550.00 ug/l	29497.05	0.80	50000	
47 Ti	46.52 ug/l	51.68	4.05	1000	
51 V	63.70 ug/l	70.77	0.95	1000	
52 Cr	45.76 ug/l	50.84	0.76	1000	
55 Mn	82.87 ug/l	92.07	1.24	1000	
56 Fe	216.90 ug/l	240.98	1.01	20000	
59 Co	43.48 ug/l	48.31	0.85	1000	
60 Ni	46.41 ug/l	51.56	1.85	1000	
63 Cu	42.76 ug/l	47.51	0.91	1000	
65 Cu	43.53 ug/l	48.36	1.22	1000	
66 Zn	81.51 ug/l	90.56	1.21	1000	
75 As	40.65 ug/l	45.16	1.75	1000	
78 Se	34.00 ug/l	37.77	2.53	1000	
78 Se	34.13 ug/l	37.92	0.92	1000	
88 Sr	186.80 ug/l	207.53	0.12	1000	
88 Sr	184.10 ug/l	204.54	0.96	1000	
95 Mo	57.54 ug/l	63.93	0.87	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	16.54 ug/l	18.38	0.81	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	8.41 ug/l	9.34	0.43	1000	
118 Sn	49.08 ug/l	54.53	2.44	#####	
118 Sn	49.67 ug/l	55.18	0.28	#####	
118 Sn	49.16 ug/l	54.62	0.79	1000	
121 Sb	52.08 ug/l	57.86	0.48	1000	
137 Ba	56.99 ug/l	63.32	0.55	1000	
205 Tl	44.20 ug/l	49.11	0.44	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	44.21 ug/l	49.12	0.68	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2666541.00	2.04	3376647.30	79.0	70 - 120	
45 Sc	1163994.30	1.19	1470535.00	79.2	70 - 120	
45 Sc	165654.41	3.09	211970.81	78.1	70 - 120	
45 Sc	4371544.50	2.61	5338272.50	81.9	70 - 120	
72 Ge	262923.75	1.35	357467.25	73.6	70 - 120	
72 Ge	103743.34	1.79	134894.38	76.9	70 - 120	
72 Ge	879649.81	2.82	1118516.60	78.6	70 - 120	
115 In	1922906.30	1.00	2502525.50	76.8	70 - 120	
115 In	1074117.00	1.52	1421320.90	75.6	70 - 120	
115 In	5981312.50	1.94	7622565.50	78.5	70 - 120	
159 Tb	7653753.00	1.77	9867540.00	77.6	70 - 120	
165 Ho	7446132.50	2.69	9489315.00	78.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\12D29001.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

# Metals Standards Log Book # 34 Page # 115

NBS 04/27/12

NBS 04/27/12  
6020/6020 A  
(A)

ICP-MS STANDARDS 6020/6020A/3015/3051A			
Today's Date:		04/27/12	
Expires:		05/04/12	
Prep 1% HNO3/1.0% HCL			
20 mL HNO3 / 2000 mL DI Water			
Lot # K23022			
20mL HCL / 2000mL DI Water			
Lot #K43032			
Expires:		05/04/12	
Internal Standard Mix: Prep 04/25/2012			
<b>Standard 4</b>			
Amount	STD	Manufacturer	Lot #
50 uL	CCV-A	Env. Express	1036407-28139
50 uL	CCV-B	Env. Express	1036410-28140
50 uL	CCV-C	Env. Express	1100309-28141
Prepared in 100 mL of 1% HNO3/1.0% HCL 04/27/12			
<b>Standard 3</b> 05/04/12			
Amount	STD	Manufacturer	Lot #
25 uL	CCV-A	Env. Express	1036407-28139
25 uL	CCV-B	Env. Express	1036410-28140
25 uL	CCV-C	Env. Express	1100309-28141
Prepared in 100 mL of 1% HNO3/1.0% HCL 04/27/12			
Intermediate-Sb 05/04/12			
100 uL of Sb STD (CPI 12A011-30298) in 10 mL of 1% HNO3/1.0% HCL			
ICV-Sb 05/04/12			
100 uL of Intermediate-Sb in 10 mL of 1% HNO3/1.0% HCL			
<b>Standard 2</b> 05/04/12			
Amount	STD		
500 uL	Standard 4	04/27/12	
Prepared in 50 mL of 1% HNO3/1.0% HCL 04/27/12			
<b>Standard 1</b> 05/04/12			
Amount	STD		
50 uL	Standard 4	04/27/12	
Prepared in 50 mL of 1% HNO3/1.0% HCL 04/27/12			
ICP-MS ICV 05/04/12			
Amount	STD		
50 uL	QCS ICV A	CPI	11C174-28548
50 uL	QCS ICV B	CPI	11C174-28549
Prepared in 50 mL of 1% HNO3/1.0% HCL 04/27/12			
ICSA Prep: 05/04/12			
1 mL	ICSA	CPI	11C086-28529
Prepared in 5 mL of 1% HNO3/1.0% HCL 04/27/12			
ICSAB Prep: 05/04/12			
1mL	ICSA	CPI	11C086-28529
0.025mL	INT	O2SI	1023805-28210
Prepared in 5 mL of 1% HNO3/1.0% HCL 04/27/12			
ICP-LDR 05/04/12			
Amount	STD		
50 uL	CCV-A	Env. Express	1036407-28139
50 uL	CCV-B	Env. Express	1036410-28140
50 uL	CCV-C	Env. Express	1100309-28141
Prepared in 10 mL of 1% HNO3/1.0% HCL 04/27/12			

S 04/29/12

NBS 04/29/12

Internal Standard Concentration						
Amt	STD	Element	Vendor	Lot#	Final Conc. in Std	Expires
500uL	1000 ug/mL	Li	CPI	10L079-27839	5000 ug/L	08/10/12
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: 04/29/12 NBS Prep in - 1% HNO3/1.0% HCL: Lot #KK23022/43032 in 100mL						
Expires: 05/29/12						

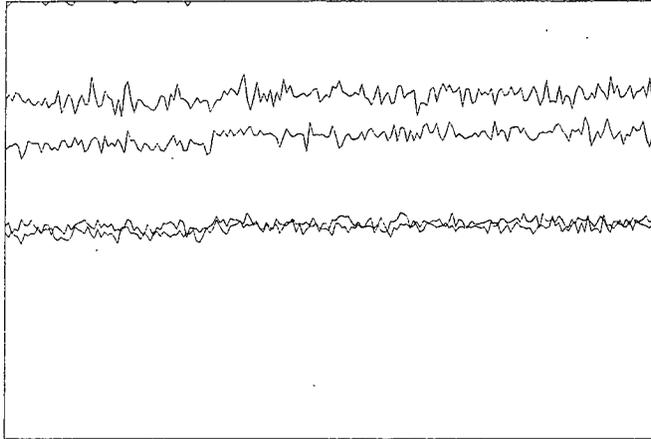
S 04/29/12  
20/600A  
(A)

NBS 04/29/12

ICP-MS STANDARDS 6020/6020A/3015/3051A			
Today's Date:		04/29/12	
Expires:		05/08/12	
Prep 1% HNO3/1.0% HCL			
20 mL HNO3 / 2000 mL DI Water			
Lot # K23022			
20mL HCL / 2000mL DI Water			
Lot #K43032			
Expires:		05/08/12	
Internal Standard Mix: Prep 04/29/2012			
<b>Standard 4</b>			
Amount	STD	Manufacturer	Lot #
50 uL	CCV-A	Env. Express	1036407-28139
50 uL	CCV-B	Env. Express	1036410-28140
50 uL	CCV-C	Env. Express	1100309-28141
Prepared in 100 mL of 1% HNO3/1.0% HCL 04/29/12			
<b>Standard 3</b> 05/08/12			
Amount	STD	Manufacturer	Lot #
25 uL	CCV-A	Env. Express	1036407-28139
25 uL	CCV-B	Env. Express	1036410-28140
25 uL	CCV-C	Env. Express	1100309-28141
Prepared in 100 mL of 1% HNO3/1.0% HCL 04/29/12			
Intermediate-Sb 05/08/12			
100 uL of Sb STD (CPI 12A011-30298) in 10 mL of 1% HNO3/1.0% HCL			
ICV-Sb 05/08/12			
100 uL of Intermediate-Sb in 10 mL of 1% HNO3/1.0% HCL			
<b>Standard 2</b> 05/08/12			
Amount	STD		
500 uL	Standard 4	04/29/12	
Prepared in 50 mL of 1% HNO3/1.0% HCL 04/29/12			
<b>Standard 1</b> 05/08/12			
Amount	STD		
50 uL	Standard 4	04/29/12	
Prepared in 50 mL of 1% HNO3/1.0% HCL 04/29/12			
ICP-MS ICV 05/08/12			
Amount	STD		
50 uL	QCS ICV A	CPI	11C174-28548
50 uL	QCS ICV B	CPI	11C174-28549
Prepared in 50 mL of 1% HNO3/1.0% HCL 04/29/12			
ICSA Prep: 05/08/12			
1 mL	ICSA	CPI	11C086-28529
Prepared in 5 mL of 1% HNO3/1.0% HCL 04/29/12			
ICSAB Prep: 05/08/12			
1mL	ICSA	CPI	11C086-28529
0.025mL	INT	O2SI	1023805-28210
Prepared in 5 mL of 1% HNO3/1.0% HCL 04/29/12			
ICP-LDR 05/08/12			
Amount	STD		
50 uL	CCV-A	Env. Express	1036407-28139
50 uL	CCV-B	Env. Express	1036410-28140
50 uL	CCV-C	Env. Express	1100309-28141
Prepared in 10 mL of 1% HNO3/1.0% HCL 04/29/12			

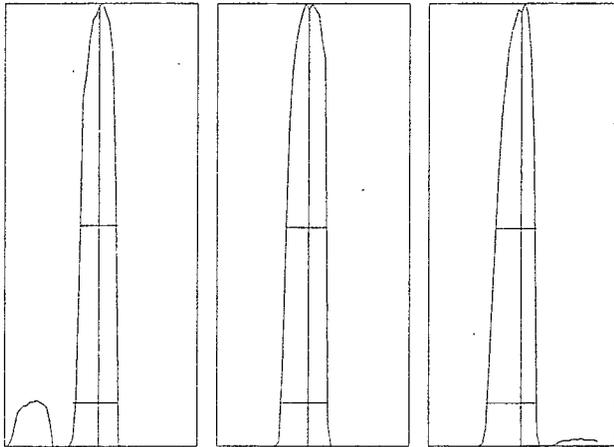
Tune Report

Tune File : NG\_HMI.u  
 Comment : 120429



Integration Time: 0.1000 sec  
 Sampling Period: 0.7200 sec  
 n: 200  
 Oxide: 156/140 0.614%  
 Doubly Charged: 70/140 1.333%

m/z	Range	Count	Mean	RSD%	Background
7	10,000	10835.0	10711.4	3.67	0.80
89	50,000	24499.0	23873.6	2.60	0.90
205	20,000	15652.0	15616.2	2.43	7.70
156/140	2	0.692%	0.618%	8.49	
70/140	2	1.325%	1.319%	7.46	
140	50,000	25139.0	24505.2	2.28	4.70
59	20,000	13838.0	13741.4	2.65	1.80



m/z:	7	89	205
Height:	11,003	24,018	15,647
Axis:	7.00	88.95	205.00
W-50%:	0.60	0.65	0.65
W-10%:	0.700	0.7500	0.800

Integration Time: 0.1000 sec  
 Acquisition Time: 22.7600 sec

Y axis : Linear

Tune Report

Tune File : NG\_HMI.u  
Comment : 120429

Tuning Parameters

===Plasma Condition===

RF Power : 1600 W  
RF Matching : 1.84 V  
Smpl Depth : 8 mm  
Torch-H : -0.1 mm  
Torch-V : 0 mm  
Carrier Gas : 0.5 L/min  
Makeup Gas : 0.5 L/min  
Optional Gas : --- %  
Nebulizer Pump : 0.1 rps  
Sample Pump : --- rps  
S/C Temp : 2 degC

===Ion Lenses===

Extract 1 : 0 V  
Extract 2 : -145 V  
Omega Bias-ce : -18 V  
Omega Lens-ce : 0.2 V  
Cell Entrance : -30 V  
QP Focus : 5 V  
Cell Exit : -30 V

===Octopole Parameters===

OctP RF : 180 V  
OctP Bias : -6 V

===Q-Pole Parameters===

AMU Gain : 126  
AMU Offset : 127  
Axis Gain : 1.0002  
Axis Offset : -0.05  
QP Bias : -3 V

===Detector Parameters===

Discriminator : 8 mV  
Analog HV : 1710 V  
Pulse HV : 1260 V

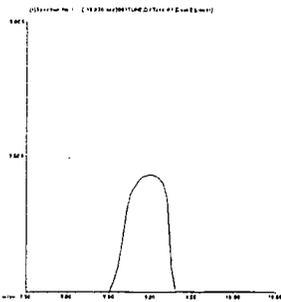
===Reaction Cell===

Reaction Mode : OFF  
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : --- %

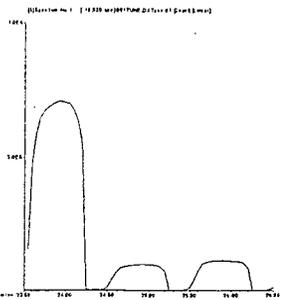
## 200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\12D29001.B\001TUNE.D  
 Date Acquired: Apr 29 2012 02:40 pm  
 Acq. Method: TN200\_8.M  
 Operator: SDM  
 Sample Name: 100ppb Tune sol  
 Misc Info:  
 Vial Number: 1303  
 Current Method: C:\ICPCHEM\1\METHODS\TN200\_8.M

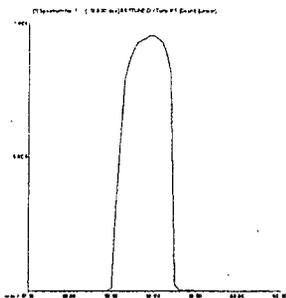
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
9 Be	1188618	1184538	1186137	1185188	1192323	1194902	0.33	5.00	
24 Mg	4318915	4272462	4294700	4328542	4336538	4362331	0.96	5.00	
59 Co	5864135	5804865	5888918	5860280	5876306	5890308	0.76	5.00	
115 In	24775930	24694378	24698708	24730360	24791936	24964266	0.40	5.00	
208 Pb	4672319	4633447	4657455	4690072	4680141	4700482	0.80	5.00	



**9 Be**  
**Mass Calib.**  
 Actual: 9.00  
 Required: 8.90 - 9.10  
 Flag:  
**Peak Width**  
 Actual: 0.65  
 Required: 0.90  
 Flag:



**24 Mg**  
**Mass Calib.**  
 Actual: 23.95  
 Required: 23.90 - 24.10  
 Flag:  
**Peak Width**  
 Actual: 0.65  
 Required: 0.80  
 Flag:



59 Co

Mass Calib.

Actual: 58.95

Required: 58.90 - 59.10

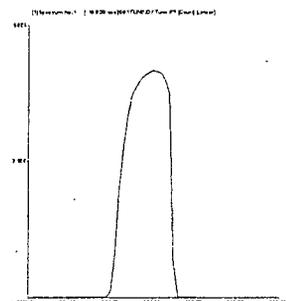
Flag:

Peak Width

Actual: 0.65

Required: 0.90

Flag:



115 In

Mass Calib.

Actual: 115.00

Required: 114.90 - 115.10

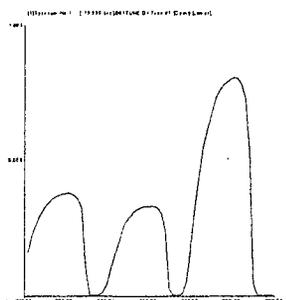
Flag:

Peak Width

Actual: 0.65

Required: 0.90

Flag:



208 Pb

Mass Calib.

Actual: 208.00

Required: 207.90 - 208.10

Flag:

Peak Width

Actual: 0.65

Required: 0.80

Flag:

Tune Result:

Pass

# Metals Digestion Worksheet

Method Name 3015 Digestion

Prep Method M3015

Set 120418A

Units mL

Spikes	
Spiked ID 1	LCSW LOT# 1034534-30503
Spiked ID 2	LCSW LOT# 1034538-30505
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 04/18/12 9:20:00 AM
Witnessed By	BC Date: 04/18/12 9:20:00 AM

Starting Temp:	20 c
Ending Temp:	170 c
Temperature Type:	Microwave
Sufficient Vol for Matrix QC:	Yes
End Date/Time	04/18/12 10:30

Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1   120418A BIK				45mL	50mL	04/18/12 9:20	equip: Venus
2   120418A LCS		90uL	1+2	45mL	50mL	04/18/12 9:20	equip: Venus
3   AY59184	AY59184W08			45mL	50mL	04/18/12 9:20	equip: Venus
4   AY59185	AY59185W08			45mL	50mL	04/18/12 9:20	equip: Venus
5   AY59186	AY59186W08			45mL	50mL	04/18/12 9:20	equip: Venus
6   AY59187	AY59187W08			45mL	50mL	04/18/12 9:20	equip: Venus
7   AY59187 MS	AY59187W08	90uL	1+2	45mL	50mL	04/18/12 9:20	equip: Venus
8   AY59187 MSD	AY59187W08	90uL	1+2	45mL	50mL	04/18/12 9:20	equip: Venus
9   AY59201	AY59201W10			45mL	50mL	04/18/12 9:20	equip: Venus
10   AY59202	AY59202W10			45mL	50mL	04/18/12 9:20	equip: Venus
11   AY59203	AY59203W10			45mL	50mL	04/18/12 9:20	equip: Venus

Solvent and Lot#
HNO3 J.T.B L02030 0177

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	EA
Date	4-18-12
Time	10:30
Moved to	Metals

Technician's Initials	
Scanned By	lo
Sample Preparation	nm
Digestion	nm
Bring up to volume	lo
Modified	04/18/12 8:44:11 AM

Reviewed By: NBS

Date: 05/03/12

## 6020/200.8 Injection Log

Directory: K:\ICP-MS Optimus\raw data output csv\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	29 Apr 2012	14:59	Calibration Blank		120429Arev	1.
2	29 Apr 2012	15:05	120429 Standard 1		120429Arev	1.
3	29 Apr 2012	15:12	120429 Standard 2		120429Arev	1.
4	29 Apr 2012	15:19	120429 Standard 3		120429Arev	1.
5	29 Apr 2012	15:26	120429 Standard 4		120429Arev	1.
6	29 Apr 2012	15:32	ICV 120429		120429Arev	1.
8	29 Apr 2012	15:52	ICB 120429		120429Arev	1.
9	29 Apr 2012	15:59	CCV 120429		120429Arev	1.
10	29 Apr 2012	16:06	CCB 120429		120429Arev	1.
11	29 Apr 2012	16:13	LDR-1000ppb 120429		120429Arev	1.
12	29 Apr 2012	16:26	ICSA 120429		120429Arev	1.
13	29 Apr 2012	16:32	ICSAB 120429		120429Arev	1.
34	29 Apr 2012	19:00	CCV 120429		120429Arev	1.
35	29 Apr 2012	19:13	CCB 120429		120429Arev	1.
44	29 Apr 2012	20:14	120418A-3015-BLK		120429Arev	1.
45	29 Apr 2012	20:21	120418A-3015-LCS		120429Arev	1.
47	29 Apr 2012	20:34	CCV 120429		120429Arev	1.
48	29 Apr 2012	20:48	CCB 120429		120429Arev	1.
112	30 Apr 2012	04:26	CCV 120429		120429Arev	1.
113	30 Apr 2012	04:39	CCB 120429		120429Arev	1.
120	30 Apr 2012	05:26	AY59184W08		120429Arev	1.
121	30 Apr 2012	05:33	AY59185W08		120429Arev	1.
122	30 Apr 2012	05:40	AY59186W08		120429Arev	1.
123	30 Apr 2012	05:47	AY59187W08		120429Arev	1.
125	30 Apr 2012	06:00	CCV 120429		120429Arev	1.
126	30 Apr 2012	06:13	CCB 120429		120429Arev	1.
127	30 Apr 2012	06:20	AY59187W08 MS		120429Arev	1.
128	30 Apr 2012	06:27	AY59187W08 MSD		120429Arev	1.
129	30 Apr 2012	06:34	AY59187W08-A		120429Arev	1.
130	30 Apr 2012	06:40	AY59187W08-1/5		120429Arev	5.
132	30 Apr 2012	08:15	CCV 120429		120429Arev	1.
133	30 Apr 2012	08:22	CCB 120429		120429Arev	1.