



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

December 12, 2011

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

Attn: Stacey Fineran

Title: Report of Data: Case 66186

Project: 1022-024 LTM Red Hill Bulk Fuel Storage Facility

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

Dear Ms. Fineran:

Samples were received November 3, 2011, in good condition. Written results for the requested analyses are provided on this December 12, 2011.

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.

The MADEP-EPH and VPH analyses were subcontracted to Gulf coast Analytical Laboratories, Inc.

If you have any questions or require further information, please contact your APPL Project Manager, Diane Anderson, 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: 327

Data Validation Package  
for  
**LTM Red Hill Bulk Fuel Storage Facility**  
**SDG 66186**

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Gulf Coast Analytical Laboratories report

## **SAMPLE RECEIPT INFORMATION**

# Sample receipt information

ARF: 66186

Project: 1022-024 LTM Red Hill Bulk Fuel Storage Facility

## Sample Receipt Information:

The samples were received on November 3, 2011, at 3.0°C. The samples were assigned Analytical Request Form (ARF) number 66186. The sample numbers and requested analysis were compared to the chains of custody and email communications. No other exception was encountered.

## Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
ES056	AY50004	WATER	11/2/2011	11/3/2011
ES057	AY50005	WATER	11/2/2011	11/3/2011

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 a Hewlett Packard 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 control limits.

### **Summary:**

No other problem was encountered

# **EPA Method 8270D SIM**

## **Polynuclear Aromatic Hydrocarbons**

### **Sample Preparation:**

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

### **Sample Analysis Information:**

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

### **Quality Control/Accuracy**

#### **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 forms 2&8. All surrogate recoveries were within control limits.

#### **Tuning:**

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

#### **Internal Standards**

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

#### **Summary:**

No 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.

### **Quality Control/Accuracy:**

#### **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 the detection limits in the method blanks.

#### **Spikes:**

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

There was no sample designated 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 methods 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 serial dilution were used for quality assurance. All LCS recoveries were within the acceptance limits.

Sample ES053 (ARF 66133) was designated by the laboratory as QC sample for the analytical batch. The PDS and DT are reported in ARF 66133.

#### **Summary:**

No analytical exception is noted.

### **CERTIFICATION**

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 his designee, as verified by the following signature.

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Sharon Dehmlow, Laboratory Director / Date

## Abbreviations and Flags

FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
M1	Manual Integration: integration does not follow baseline
M2	Manual Integration: non-target peak interference
M3	Manual Integration: to split a peak that was integrated as one peak by the computer
M4	Manual Integration: to integrate a split peak
M5	Manual Integration: the whole peak or part of the peak was not integrated
M6	Manual Integration: computer integrated wrong peak
M7	Manual integration: other - explain
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel.
Y	Percent difference between primary and confirmation column > 40%

**CHAIN OF CUSTODY,  
ARF, CRF, AND  
CLIENT COMMUNICATION**

## APPL - Analysis Request Form

66186

Client: Environet, Inc.  
 Address: 650 Iwilei Rd, #204  
Honolulu, HI 96817  
 Attn: Stacey Fineran  
 Phone: 808-833-2225 Fax: 808-833-2231  
 Job: RED HILL/1022-024  
 PO #: 1022-024  
 Chain of Custody (Y/N): Y # 1853  
 RAD Screen (Y/N): Y pH (Y/N): Y  
 Turn Around Type: 2 WEEKS

Received by: TBV   
 Date Received: 11/03/11 Time: 10:15  
 Delivered by: FED EX  
 Shuttle Custody Seals (Y/N): Y Time Zone: HAST  
 Chest Temp(s): 3.0°C  
 Color: VOA,A-GRN,SUB,R-OYEL  
 Samples Chilled until Placed in Refrig/Freezer: Y  
 Project Manager: Cynthia Clark *cm*  
 QC Report Type: DVP4/ADRDOD/HI  
 Due Date: 11/17/11

**Comments:**

14 day TAT for Form 1s & 30 day TAT for full package. [VDupra@environetinc.com](mailto:VDupra@environetinc.com)  
 1 pdf on CD or FTP (no hard copy), NO hard copy to LDC per Stacy 2-24-11  
 Guidance: DOD QSM, DoD Forms, J flag to DL, U flag at LOD  
 EDD ADR A1/A3 (ADR 8.3a unchecked) to [VDupra@environetinc.com](mailto:VDupra@environetinc.com) & [sfineran@environetinc.com](mailto:sfineran@environetinc.com)  
 metals 6020: report Lead with 0.5ug/L RL  
 TPH-Diesel only; VOCs: include gasoline by 8260B  
 MA-EPH & VPH subcontracted to Gulf Coast Analytical.

Sample Distribution:

GC/1-\$SIMHC12W, 1-\$TPETD2  
 Extractions: 1- SEP004S, 1- SEP011  
 VOA 2-\$86RHBF 12/09  
 Metals: 1-\$602D(Pb) 11-15  
 Other: 1- M3015, 1-SUB

Charges:Invoice To:

same

Client ID	APPL ID	Sampled	Analyses Requested
1. ES056	AY50004	11/02/11 07:00	\$86RHBF -- unpreserved VOA vials
2. ES057	AY50005	11/02/11 11:05	\$602D(Pb), \$86RHBF, \$SIMHC12W, \$TPETD2, SUB -- unpreserved VOA vials

## APPL Sample Receipt Form

ARF# 66186

Sample	Container Type	Count	pH	Sample	Container Type	Count	pH
AY50004	<sup>15</sup> VOAs - NP	1	NA				
AY50005	<sup>6</sup> PL 500mL - HNO3	1	1.7				
	<sup>13</sup> VOAs - HCL	3	NA				
	<sup>15</sup> VOAs - NP	4	NA				
	<sup>17</sup> Amber Liter	3	NA				
	<sup>26</sup> Other	2	NA				



APPL, Inc. 908 N Temperance Ave, Clovis, CA 93611  
Phone: 559-275-2175 Fax: 559-275-4422

## CHAIN OF CUSTODY RECORD

Client <b>EnviroNet INC.</b>			Person, Geographic Lead										Date <b>11-2-11</b>	Chain of Custody Number <b>1233</b>									
Address <b>650 Iwilei Road</b>			Telephone Number (Area Code)/Fax Number <b>808 - 833-2225</b>										Lab Number <b>559 275-2175</b>	Page <b>1 of 1</b>									
City <b>Honolulu</b>	State <b>HI</b>	Zip Code <b>96817</b>	Site Contact			Lab Contact: <b>Diane Anderson</b>			Analysis (Attach list if more space is needed)							Special Instructions/ Conditions of Receipt							
Project Name and Location (State) <b>Red Hill Bulk Storage Facility HI</b>			Carrier/Waybill Number																				
Contract/Purchase Order/Quote No. <b>1022-024</b>			Matrix			Containers & Preservatives							Firing Point	High Lead	HE Site								
Sample I.D. No. and Description (Containers for each sample may be combined on one line)			Date	Time	Aq	sed.	Soil		Unpres.	Head	HRM	HCl	NaOH	ZnAc	NH4OH	TPH-GRO	VOCs	TPH-PRO	PATTS	dissolved lead	MADEP-VDT	MADEP-EPT	
<b>ES056</b>			11-2-11	0700	X				1							X							
<b>ES057</b>			11-2-11	1105	X				5	17						XX	XX	XX	XX				
<b>Temp Blank</b>					X				1														
1. Relinquished By			Date <b>11-2-11</b>	Time <b>13:22</b>	1. Received By										Date <b>11/3/11</b>	Time <b>1015</b>							
2. Relinquished By			Date	Time	2. Received By										Date	Time							
Comments <b>Fed Ex Priority Overnight</b>															# of Coolers this Shipment								

## COOLER RECEIPT FORM

- 1) Project: LTM Red Hill Bulk Fuel Storage facility Date Received: 11/3/11
- 2) Coolers: Number of Coolers: 1
- 3) YES NO Were coolers and samples screened for radioactivity?
- 4) YES NO Were custody seals on outside of cooler? How many? 1 Date on seal? 11/2/11
- 5) Name on seal? See label below
- 6) YES NO NA Were custody seals unbroken and intact at the time of arrival?
- 7) YES NO Did the cooler come with a shipping slip (air bill, etc.)? Carrier name: Fed Ex
- 8) Shipping slip numbers: 1) 8764-1243-24102 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.):  
Zip lock bubble wrapped - 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) 3.0° 2) 3) 4) 5) 6) 7) 8)

## Chain of custody:

- 16) YES NO Was a chain of custody received?
- 17) YES NO Were the custody papers signed in the appropriate places?
- 18) YES NO Was the project identifiable from custody papers?
- 19) YES NO Did the chain of custody include date and time of sampling?
- 20) YES NO Is location where sample was taken listed on the chain of custody?

## Sample Labels:

- 21) YES NO Were container labels in good condition?
- 22) YES NO Was the client ID on the label?
- 23) YES NO Was the date of sampling on the label?
- 24) YES NO Was the time of sampling on the label?
- 25) YES NO Did all container labels agree with custody papers?

## Sample Containers:

- 26) YES NO Were all containers sealed in separate bags?
- 27) YES NO Did all containers arrive unbroken?
- 28) YES NO Was there any leakage from samples?
- 29) YES NO Were any of the lids cracked or broken?
- 30) YES NO Were correct containers used for the tests indicated?
- 31) YES NO Was a sufficient amount of sample sent for tests indicated?
- 32) YES NO NA Were bubbles present in volatile samples? If yes, the following were received with air bubbles:  
Larger than a pea:  
Smaller than a pea:

## Preservation &amp; 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?  
None
- 38) YES NO NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF? None

Lab notified if pH was not adequate:

Deficiencies:

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Signature of personnel receiving samples:

Signature of project manager notified:

Name of client notified:

Information given to client:

Second reviewer:

Date and Time of notification:

Date and Time of notification:

by whom (Initials):

CUSTODY SEAL

(559) 275-2175

APPL, Inc.

Date 11-2-11

Initials: JL

**EPA 8015 Modified  
Total Petroleum Hydrocarbons**

**APPL, INC.**

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

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

APPL Inc.

908 North Temperance Avenue  
Clovis, CA 93611

Blank Name/QCG: 111108W-50005 - 161797  
Batch ID: #TPETD-111108A

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	11/08/11	11/11/11
BLANK	SURROGATE: OCTACOSANE (S)	78.6	28-142			%	11/08/11	11/11/11
BLANK	SURROGATE: ORTHO-TERPHEN	78.5	57-132			%	11/08/11	11/11/11

Quant Method: TPH1108.M  
Run #: 1111052  
Instrument: APOLLO  
Sequence: 111110  
Initials: LA

GC SC-Blank-REG MDLs  
Printed: 11/30/11 2:44:01 PM

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 66186

Case No: 66186

Date Analyzed: 11/11/11

Matrix: WATER

Instrument: APOLLO

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111108A-BLK	Blank	28-142	78.6		57-132	78.5	
111108A-LCS	Lab Control Spike	28-142	82.7		57-132	94.0	
AY50005	ES057	28-142	73.2		57-132	70.9	

Comments: Batch: #TPETD-111108A

# Laboratory Control Spike Recovery

## TPH Diesel Water

APPL ID: 111108W-50005 LCS - 161797

Batch ID: #TPETD-111108A

APPL Inc.

908 North Temperance Avenue  
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL FUEL	2000	1620	81.0	61-143
SURROGATE: OCTACOSANE (S)	150	124	82.7	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	141	94.0	57-132

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

Primary	SPK
Quant Method :	TPH1108.M
Extraction Date :	11/08/11
Analysis Date :	11/11/11
Instrument :	APOLLO
Run :	1110053
Initials :	LA

Printed: 11/30/11 2:43:55 PM

APPL Standard LCS

# EPA 8015B-e

## Form 4

### Blank Summary

Lab Name: APPL, Inc.  
Case No: 66186  
Matrix: WATER  
Blank ID: 111108A-BLK

SDG No: 66186  
Date Analyzed: 11/11/11  
Instrument: APOLLO  
Time Analyzed: 0605

APPL ID.	Client Sample No.	File ID.	Date Analyzed
111108A-BLK	Blank	1110052	11/11/11 0605
111108A-LCS	Lab Control Spike	1110053	11/11/11 0628
AY50005	ES057	1110055	11/11/11 0715

Comments: Batch: #TPETD-111108A

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

## TPH Diesel Water

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Stacey Fineran  
Project: RED HILL/1022-024  
**Sample ID: ES057**  
Sample Collection Date: 11/02/11

ARF: 66186  
**APPL ID: AY50005**  
QCG: #TPETD-111108A-161797

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B- DIESEL FUEL		210 ++	150	80.8	40.4	ug/L	11/08/11	11/11/11
EPA 8015B- SURROGATE: OCTACOSANE (S)		73.2	28-142			%	11/08/11	11/11/11
EPA 8015B- SURROGATE: ORTHO-TERPHENYL (S)		70.9	57-132			%	11/08/11	11/11/11

++(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: TPH1108.M
Run #: 1110055
Instrument: APOLLO
Sequence: 111110
Dilution Factor: 1
Initials: LA

## Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\111110\1110055.D Vial: 55  
Acq On : 11-11-11 7:15:54 Operator: LAC  
Sample : AY50005W07 5/1030 Inst : Apollo  
Misc : Water Multipllr: 4.85  
IntFile : events.e  
Quant Time: Nov 30 14:31 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111110\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Mon Nov 14 13:54:20 2011  
Response via : Multiple Level Calibration

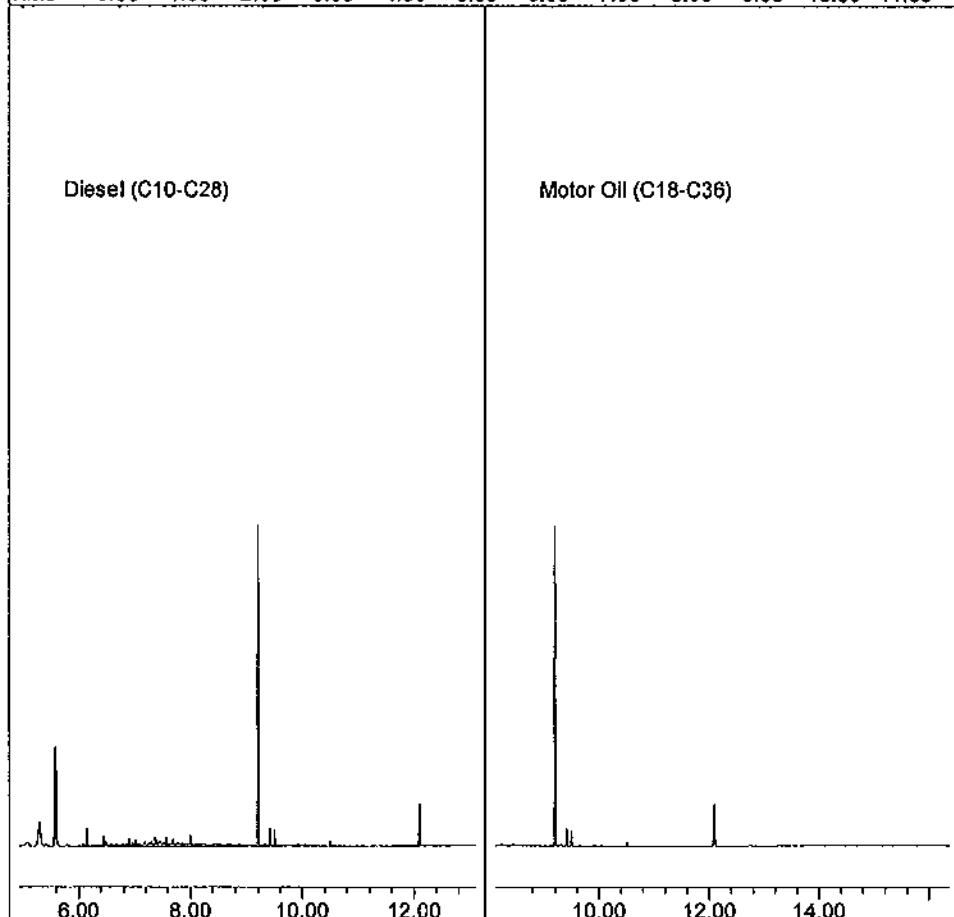
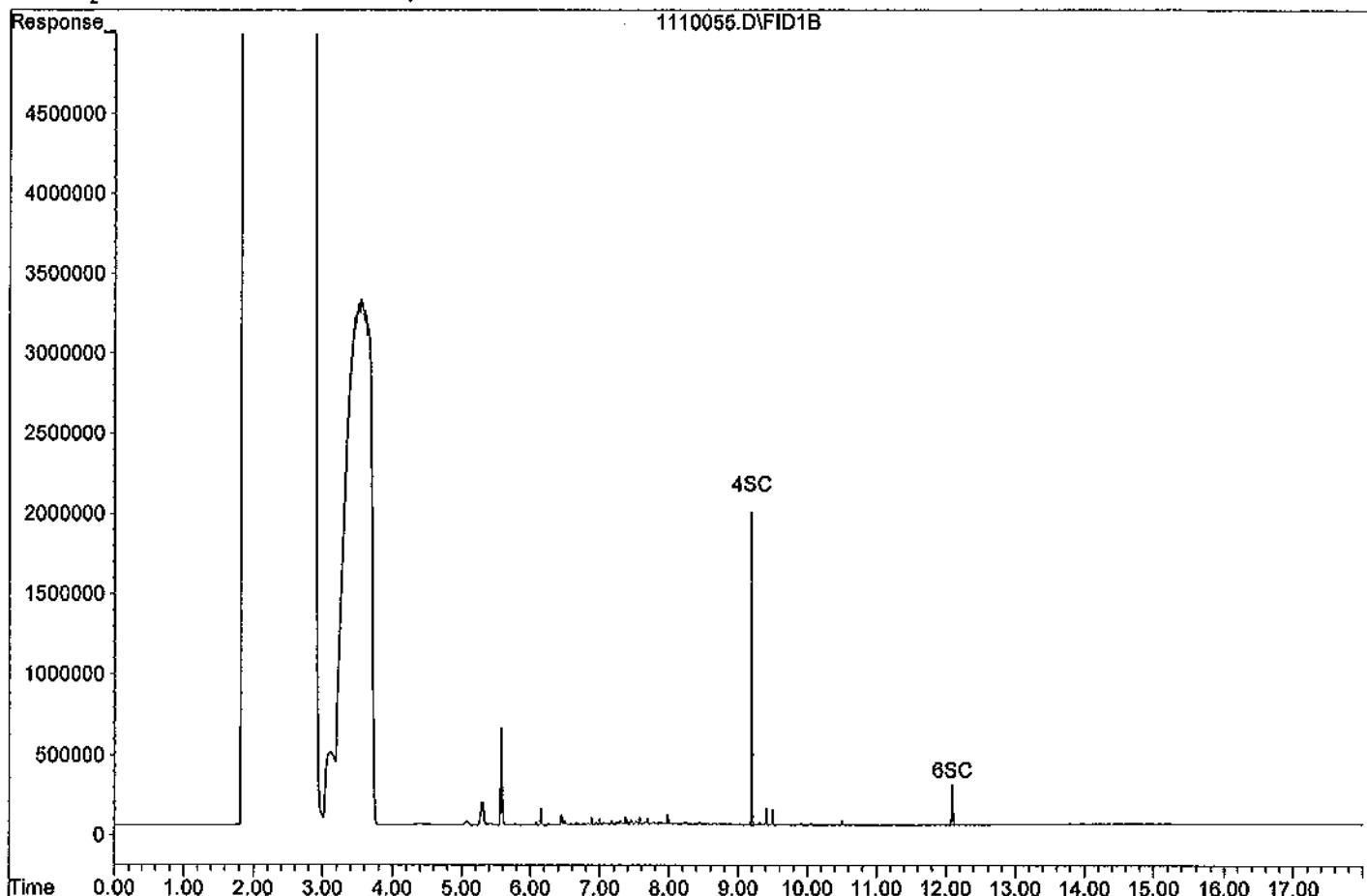
Volume Inj. : 2UL  
Signal Phase : DB-5  
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
<hr/>				
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.20	12911497	103.246	ppb
Surrogate Spike 145.631		Recovery	=	70.90%
6) SC Octacosane(S)	12.10	3378806	106.609	ppb
Surrogate Spike 145.631		Recovery	=	73.20%
<hr/>				
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	24041572	211.437	ppb T6 Ac n/36/u

Quantitation Report

Data File: G:\APOLLO\DATA\111110\1110055.D

Sample : AY50005W07 5/1030



**EPA 8015 Modified  
Total Petroleum Hydrocarbons**

**Calibration Data**

## TPH Extractables

TPH1108

**Form 6**  
**Initial Calibration**

Lab Name: APPL, Inc.

SDG No: 66186

Case No:

Initial Cal. Date: 11/08/11

Matrix:

Instrument: Apollo

Initials: LAC

1108089.D 1108018.D 1108019.D 1108020.D 1108021.D 1108022.D

		Compound	1	2	3	4	5	6					Avg	%RSD	
1	HATML	Diesel (C10-C28)	613132	243101	243681	243678	244044	245201					305473	49	HATML 1.000
2	HBTM	Motor Oil (C18-C36)	140437	99632	104190	111186	116539	125373					116226	13	HBTM
3	SA	Not Used(S)	302444	320737	318016	323983	383528	387566					339379	11	SA
4	SC	Ortho-Terphenyl(S)	292692	322827	291343	308250	301021	305069					303534	3.8	SC
5	SA	Not Used2(S)		81698	75651	78041	78921	79877					78838	2.8	SA
6	SC	Octacosane(S)	74061	79772	73618	77274	77396	79433					76925	3.4	SC
7															
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34															
35															

2.3712952

## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108005.D Vial: 5  
Acq On : 11-8-11 15:50:59 Operator: LAC  
Sample : DIESEL 100/1000 Inst : Apollo  
Misc : Mix(A) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

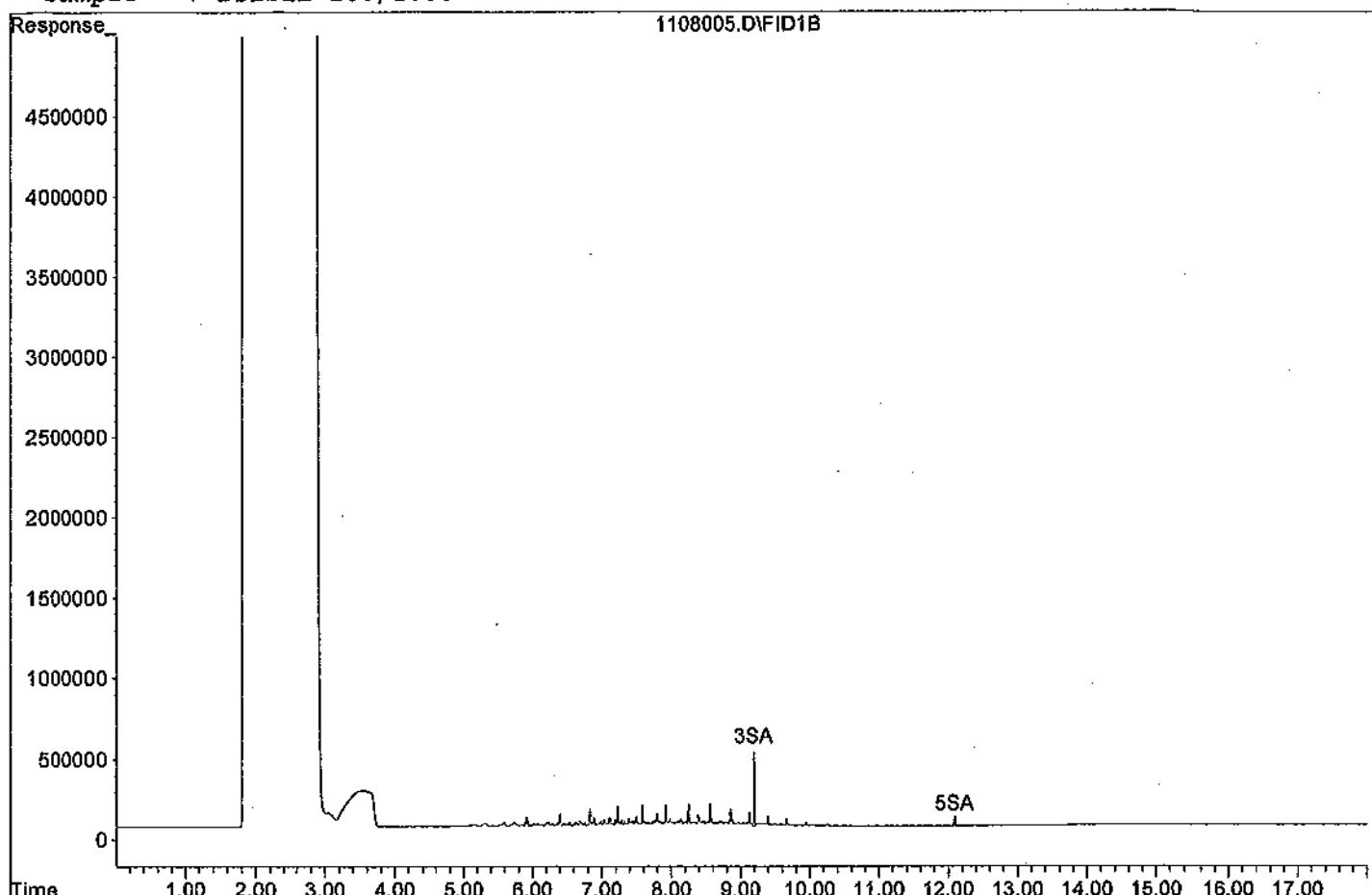
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
<hr/>			
System Monitoring Compounds			
3) SA Not Used(S)	9.20	3207373	2.983 ppb
Surrogate Spike 30.000		Recovery	= 9.94%
5) SA Not Used2(S)	12.09	816983	1.649 ppb
Surrogate Spike 30.000		Recovery	= 5.50%
<hr/>			
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	48620150	57.751 ppb

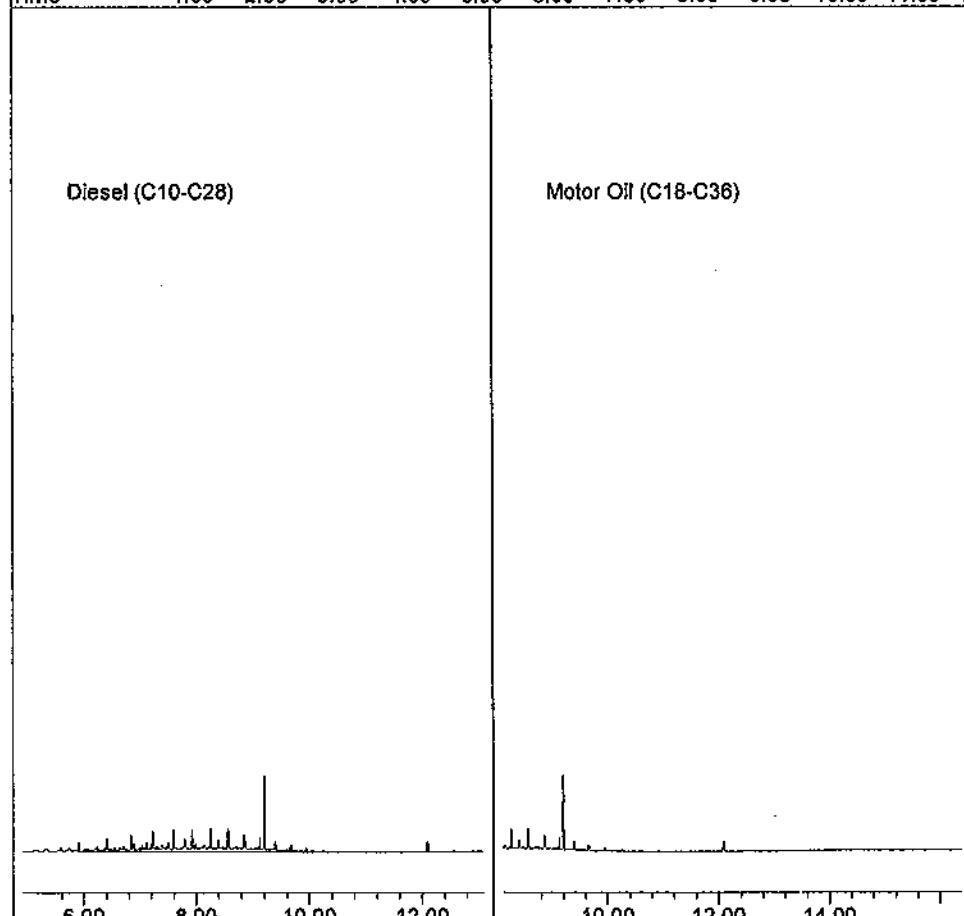
Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108005.D  
Sample : DIESEL 100/1000



Diesel (C10-C28)

Motor Oil (C18-C36)



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108006.D Vial: 6  
Acq On : 11-8-11 16:14:36 Operator: LAC  
Sample : DIESEL 400/1000 Inst : Apollo  
Misc : Mix(A) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

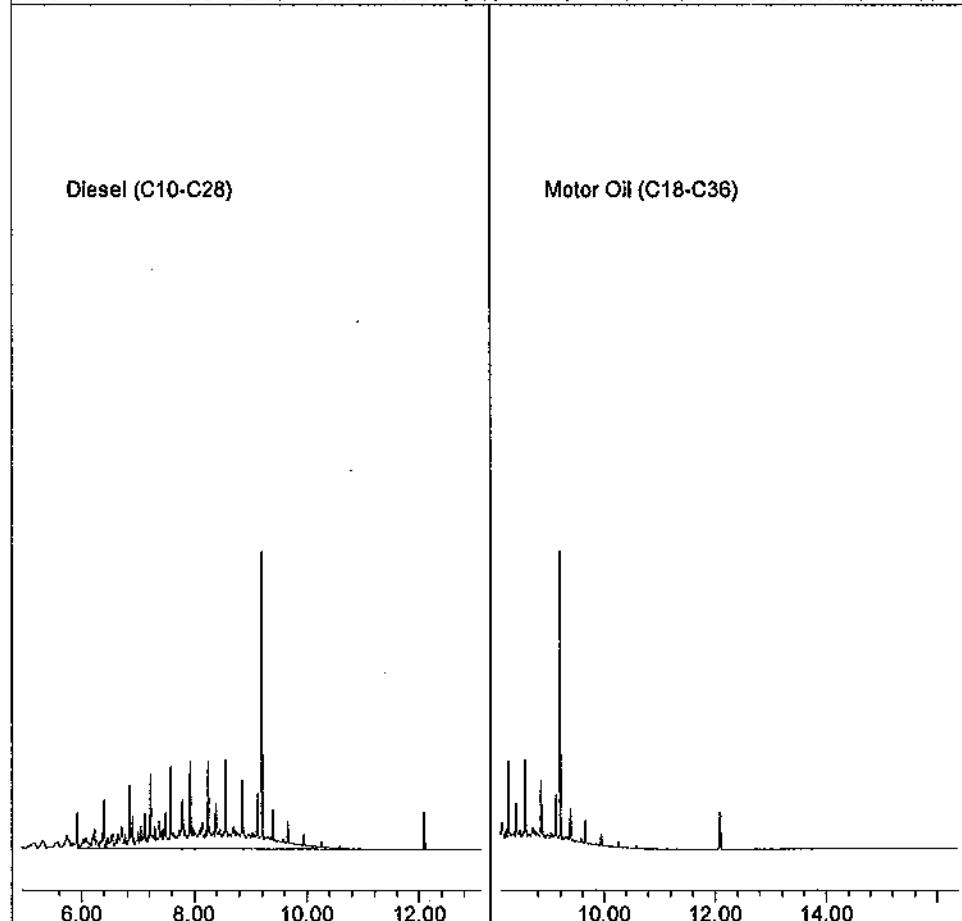
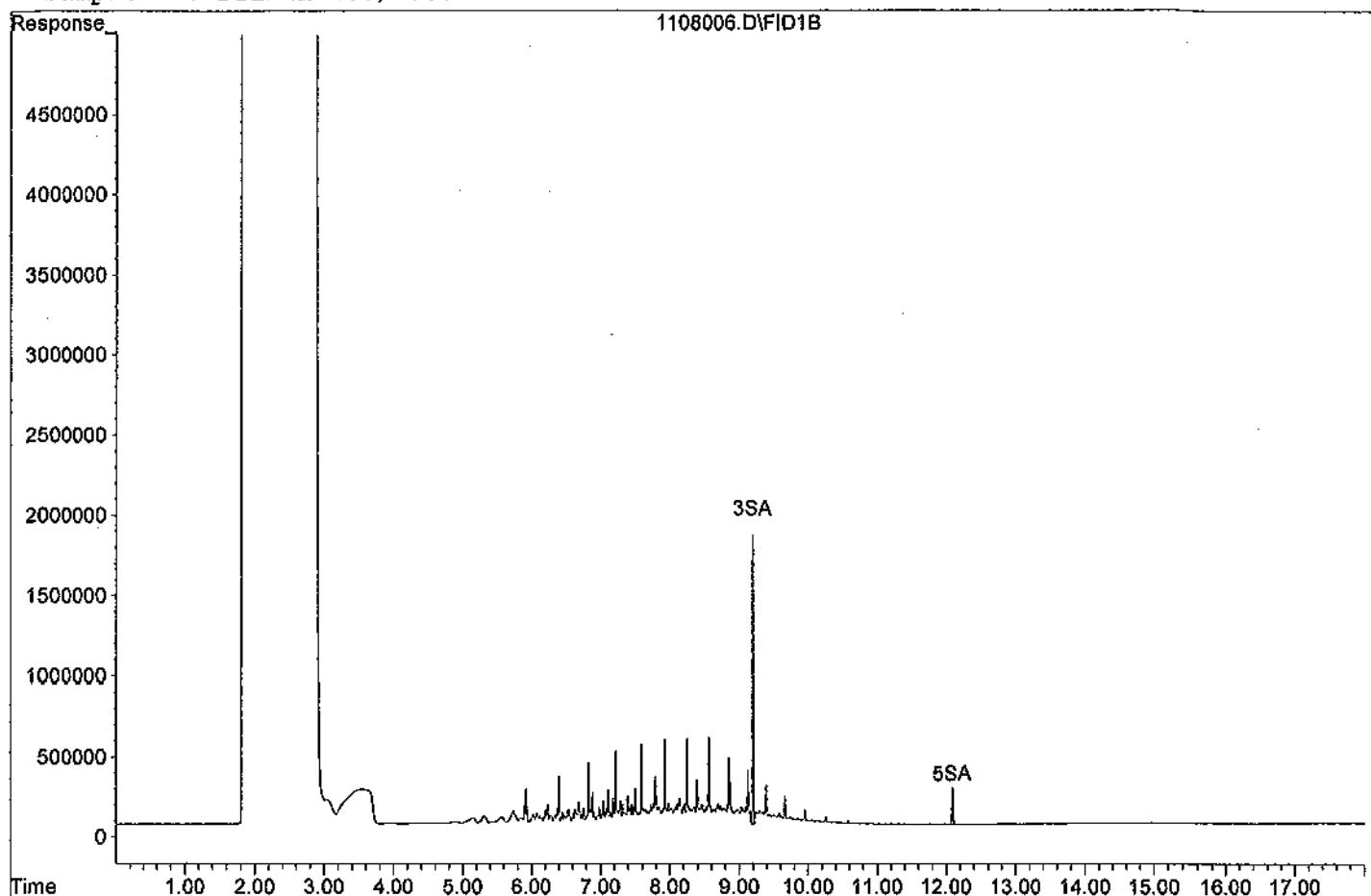
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
<hr/>			
System Monitoring Compounds			
3) SA Not Used(S)	9.20	12720627	11.832 ppb
Surrogate Spike 30.000		Recovery	= 39.44%
5) SA Not Used2(S)	12.09	3026041	6.108 ppb
Surrogate Spike 30.000		Recovery	= 20.36%
<hr/>			
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	194945056	231.556 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108006.D  
Sample : DIESEL 400/1000



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108007.D Vial: 7  
Acq On : 11-8-11 16:38:14 Operator: LAC  
Sample : DIESEL 600/1000 Inst : Apollo  
Misc : Mix(A) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

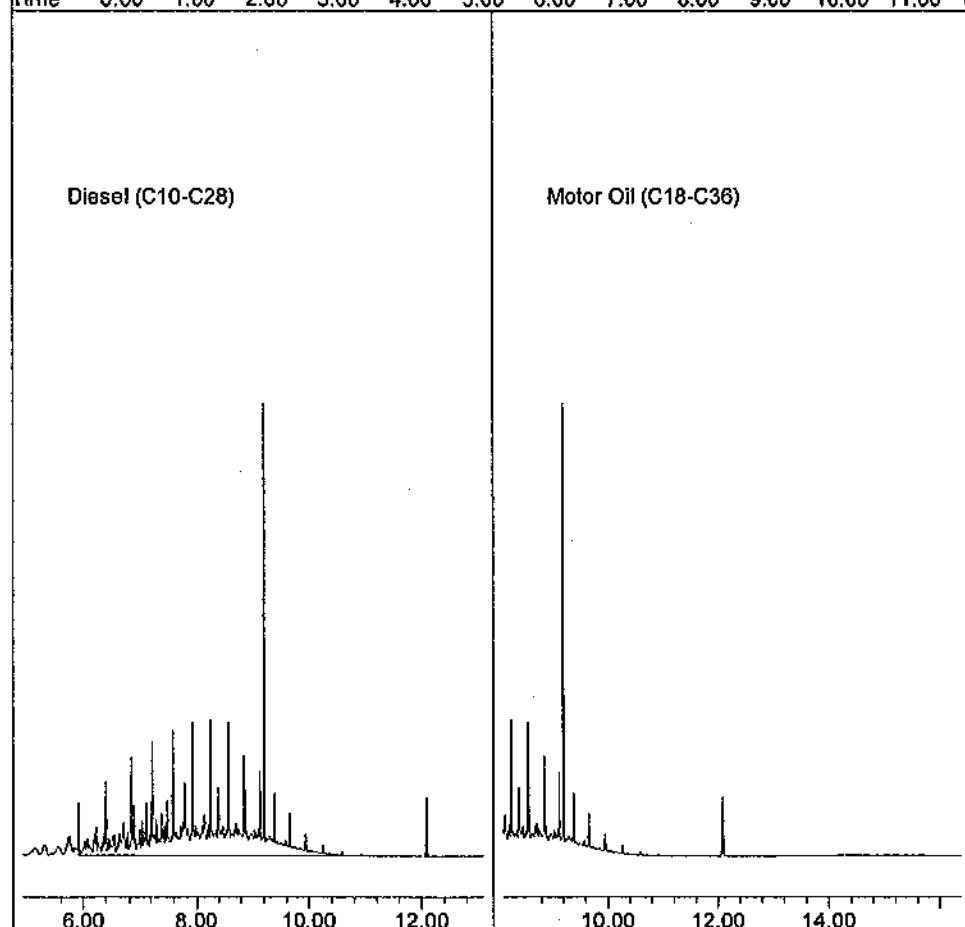
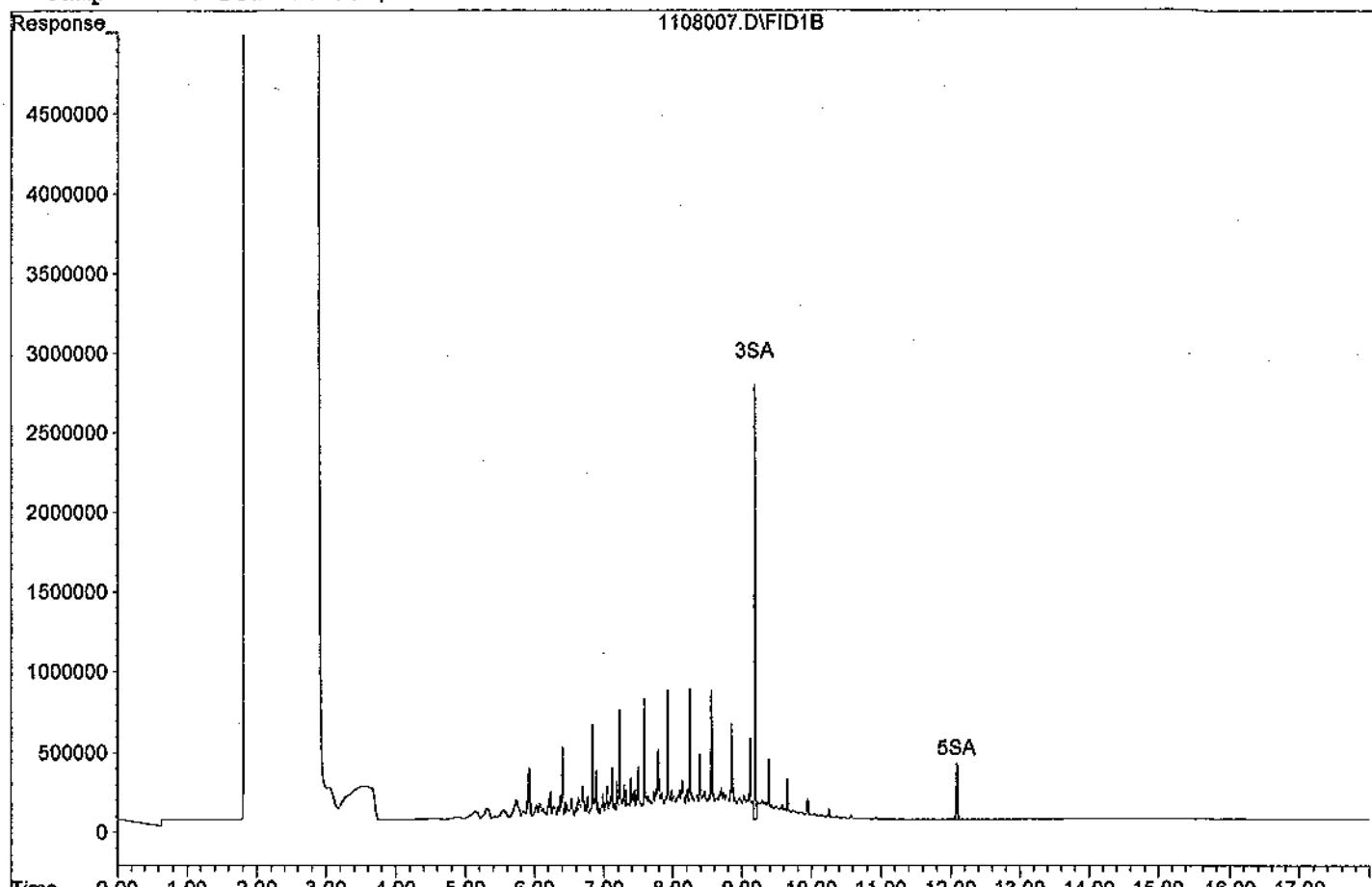
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
<hr/>				
System Monitoring Compounds				
3) SA Not Used(S)	9.20	19438997	18.081	ppb
Surrogate Spike 30.000		Recovery	=	60.27%
5) SA Not Used2(S)	12.09	4682445	9.451	ppb
Surrogate Spike 30.000		Recovery	=	31.50%
<hr/>				
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	292413883	347.330	ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108007.D  
Sample : DIESEL 600/1000



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108008.D Vial: 8  
Acq On : 11-8-11 17:01:53 Operator: LAC  
Sample : DIESEL 800/1000 Inst : Apollo  
Misc : Mix(A) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
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

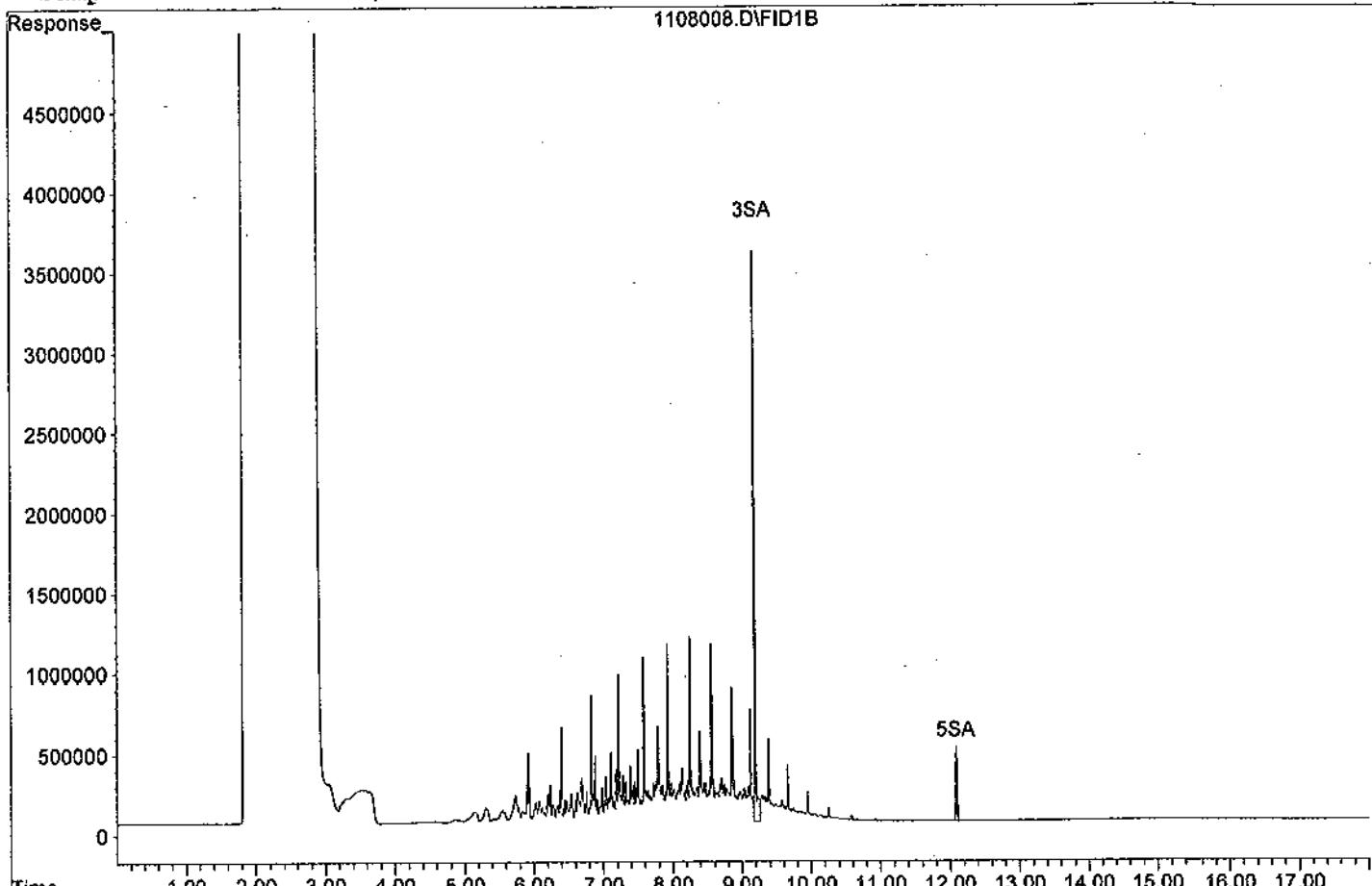
3) SA Not Used(S)	9.20	30682231	28.538 ppb
Surrogate Spike 30.000		Recovery	= 95.13%
5) SA Not Used2(S)	12.09	6313667	12.744 ppb
Surrogate Spike 30.000		Recovery	= 42.48%

Target Compounds

1) HATM Diesel (C10-C28)	9.01	390470225	463.801 ppb
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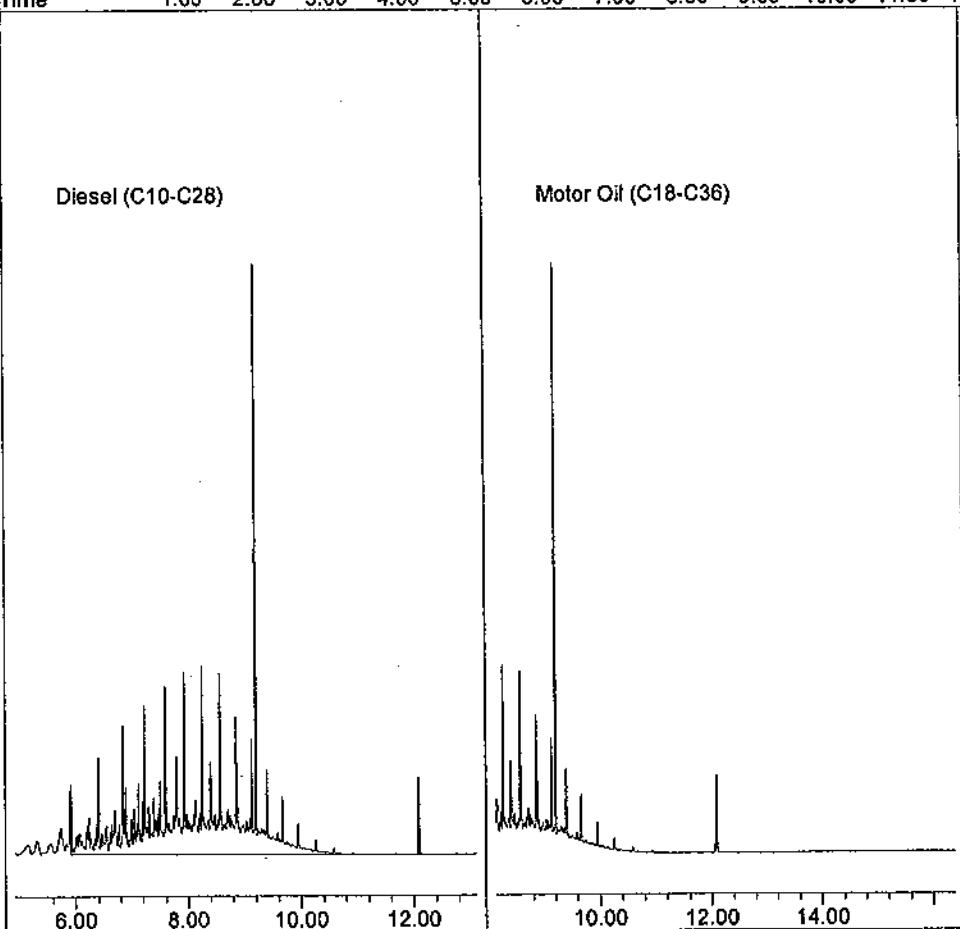
Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108008.D  
Sample : DIESEL 800/1000



Diesel (C10-C28)

Motor Oil (C18-C36)



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108009.D Vial: 9  
Acq On : 11-8-11 17:25:32 Operator: LAC  
Sample : DIESEL 1000/1000 Inst : Apollo  
Misc : Mix(A) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

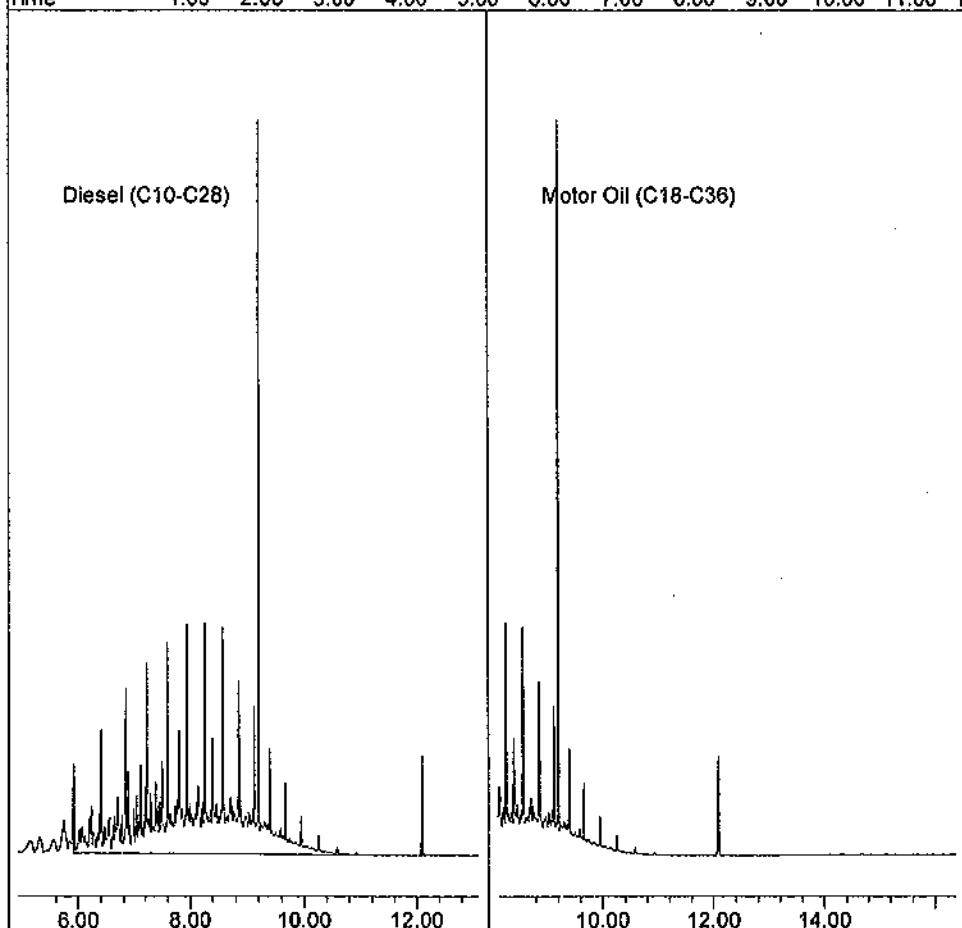
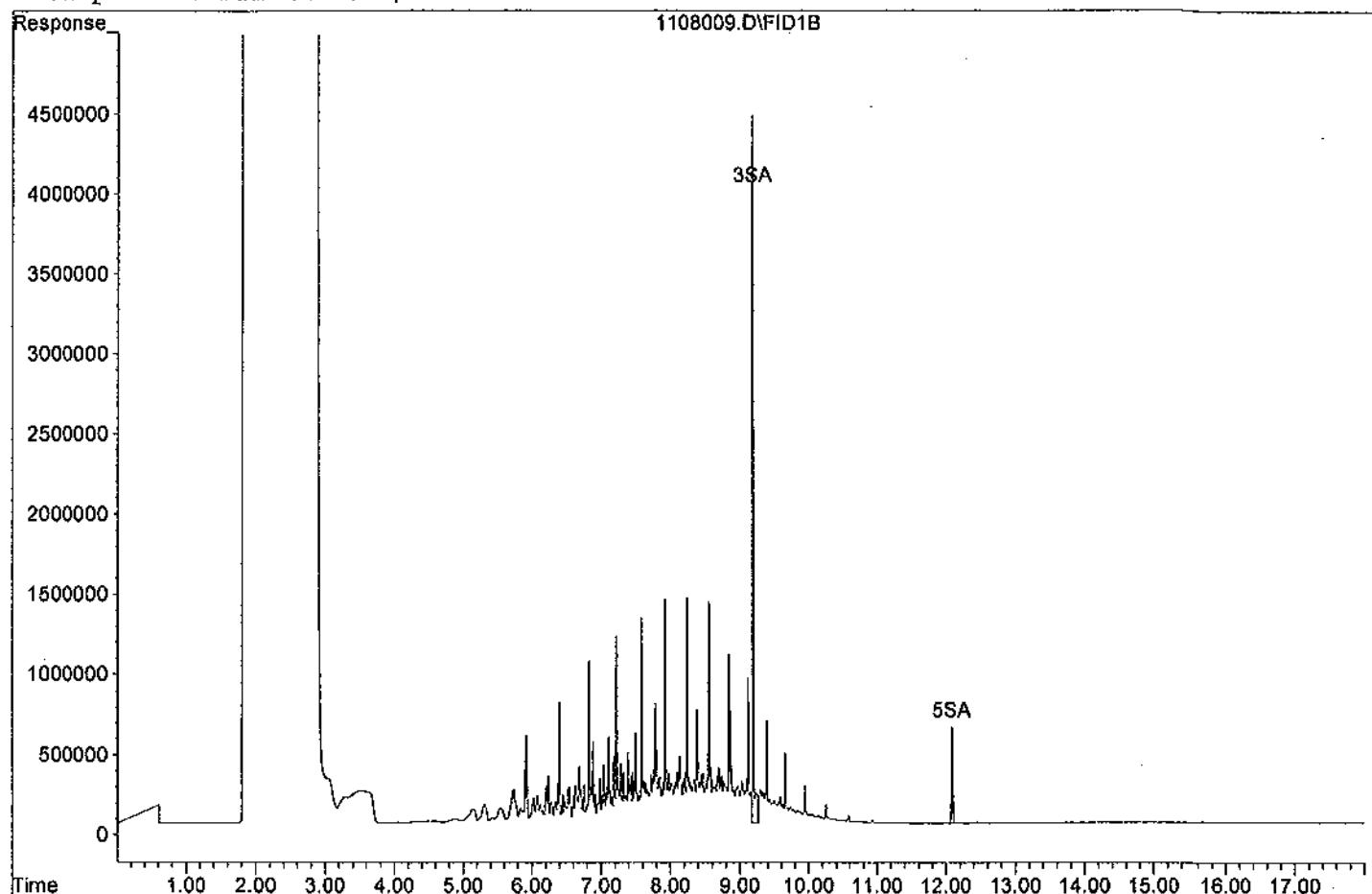
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
<hr/>			
System Monitoring Compounds			
3) SA Not Used(S)	9.20	38756601	36.048 ppb
Surrogate Spike 30.000		Recovery	= 120.16%
5) SA Not Used2(S)	12.09	7987688	16.122 ppb
Surrogate Spike 30.000		Recovery	= 53.74%
<hr/>			
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	490402243	582.501 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108009.D  
Sample : DIESEL 1000/1000



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108011.D Vial: 11  
Acq On : 11-8-11 18:12:45 Operator: LAC  
Sample : MOTOR OIL 50/1000 11/8/11 Inst : Apollo  
Misc : Mix(B) Multiplr: 1.00  
IntFile : events.e

Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
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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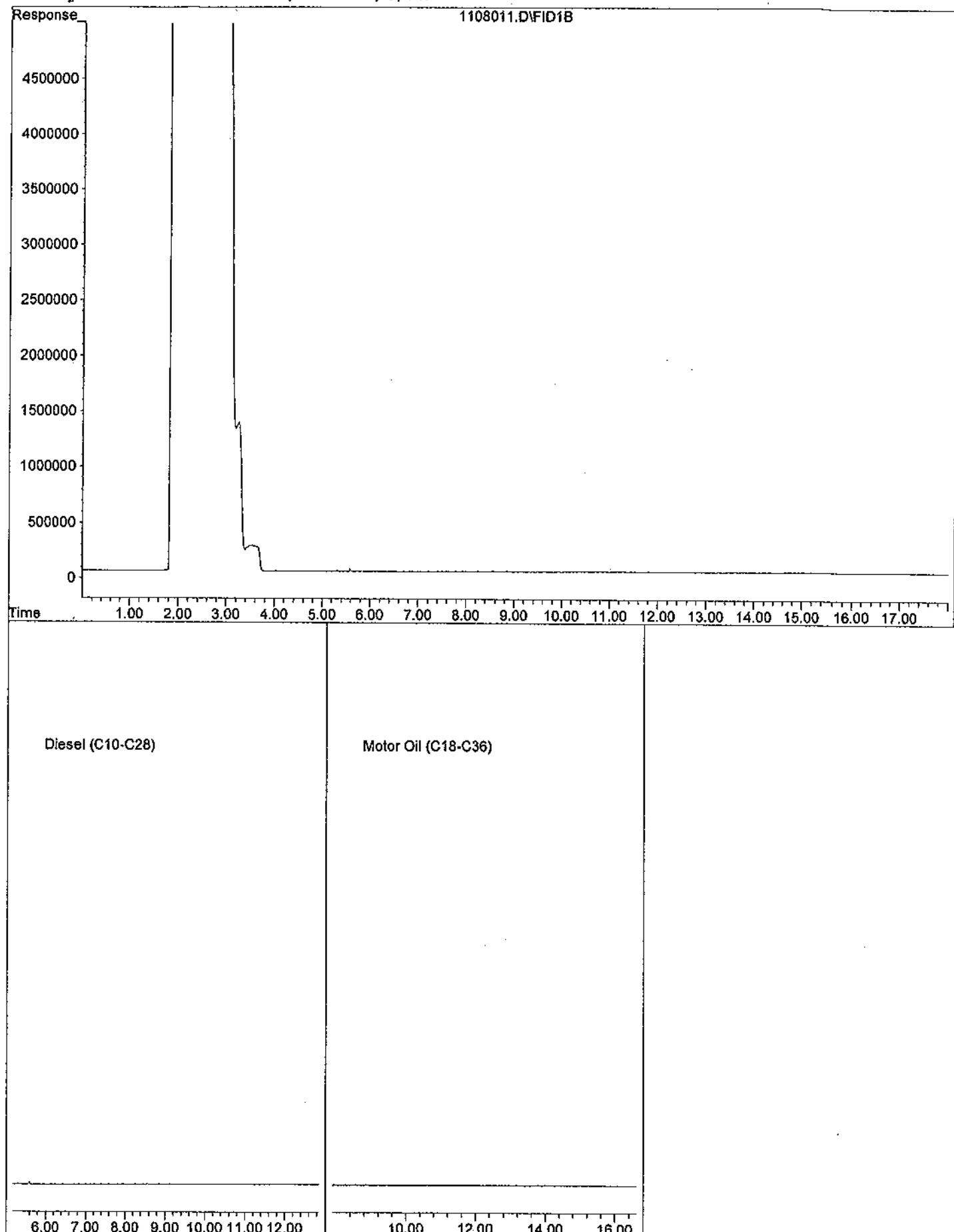
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C18-C36)	12.24	14043686	38.736 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108011.D  
Sample : MOTOR OIL 50/1000 11/8/11



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108012.D Vial: 12  
Acq On : 11-8-11 18:36:14 Operator: LAC  
Sample : MOTOR OIL 100/1000 Inst : Apollo  
Misc : Mix(B) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
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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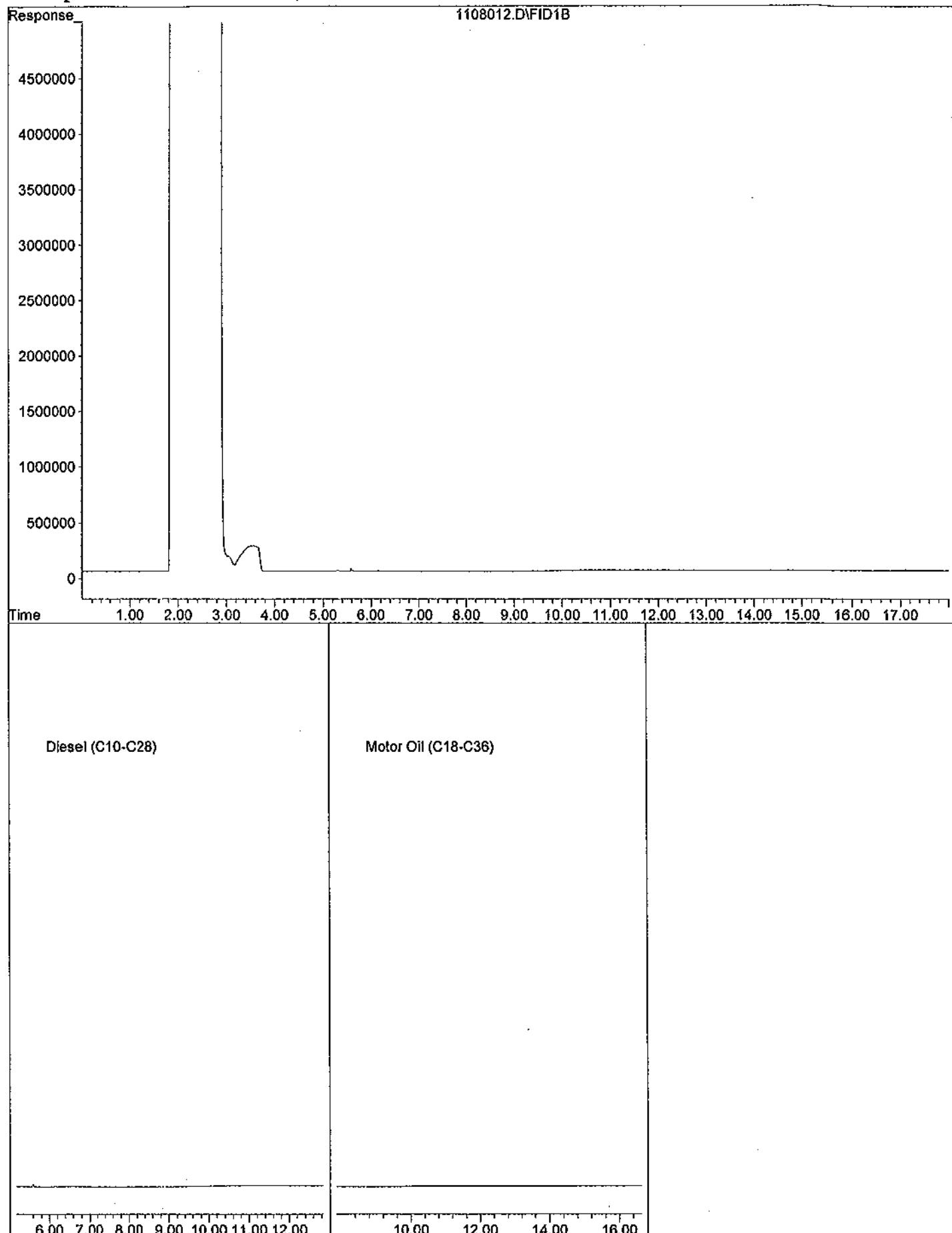
## System Monitoring Compounds

## Target Compounds

2) HBTM Motor Oil (C18-C36)	12.24	19926419	54.963 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108012.D  
Sample : MOTOR OIL 100/1000



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108013.D Vial: 13  
Acq On : 11-8-11 18:59:47 Operator: LAC  
Sample : MOTOR OIL 400/1000 Inst : Apollo  
Misc : Mix(B) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
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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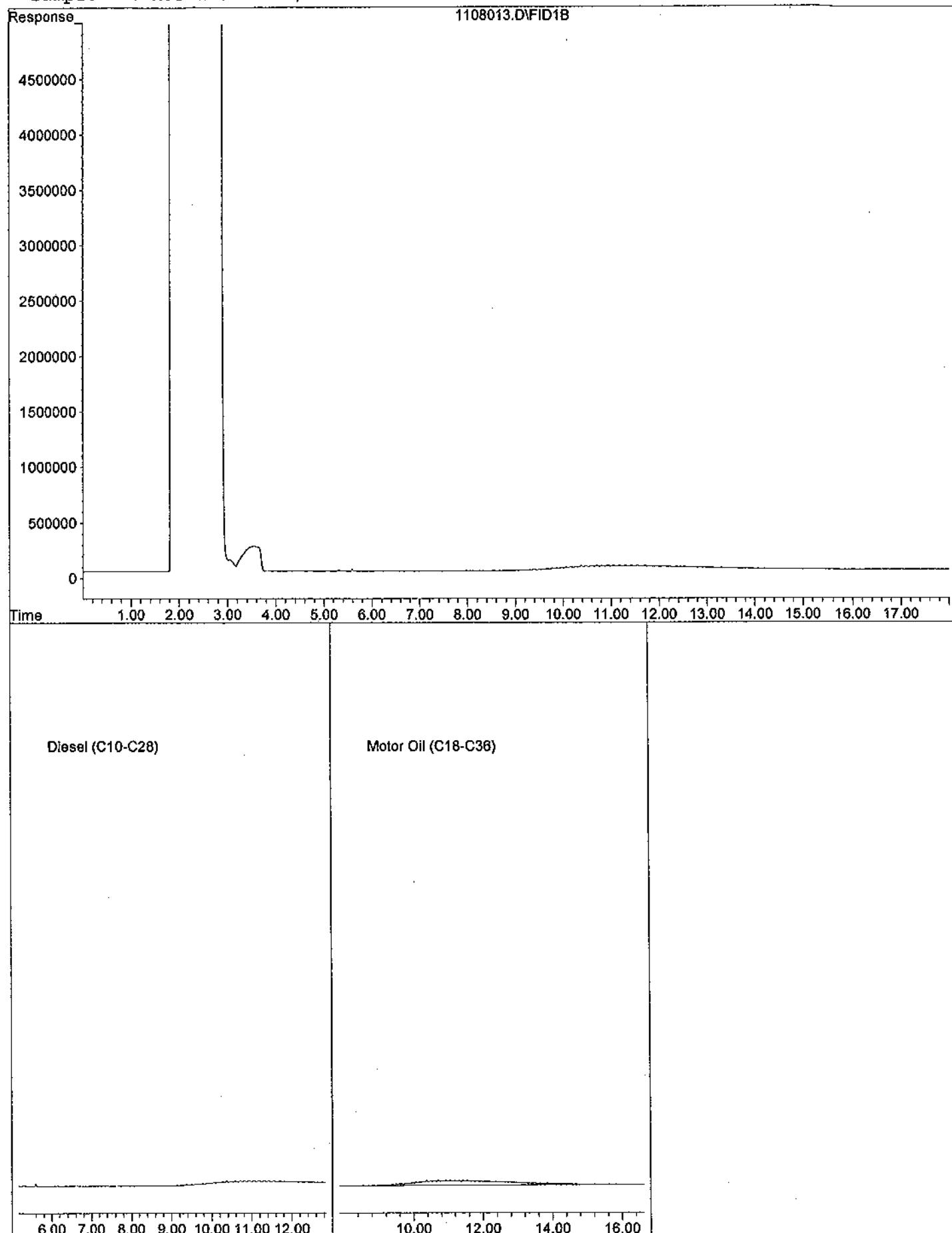
## System Monitoring Compounds

## Target Compounds

2) HBTM Motor Oil (C18-C36)	12.24	83351892	229.908 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108013.D  
Sample : MOTOR OIL 400/1000



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108014.D Vial: 14  
Acq On : 11-8-11 19:23:20 Operator: LAC  
Sample : MOTOR OIL 600/1000 Inst : Apollo  
Misc : Mix(B) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
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

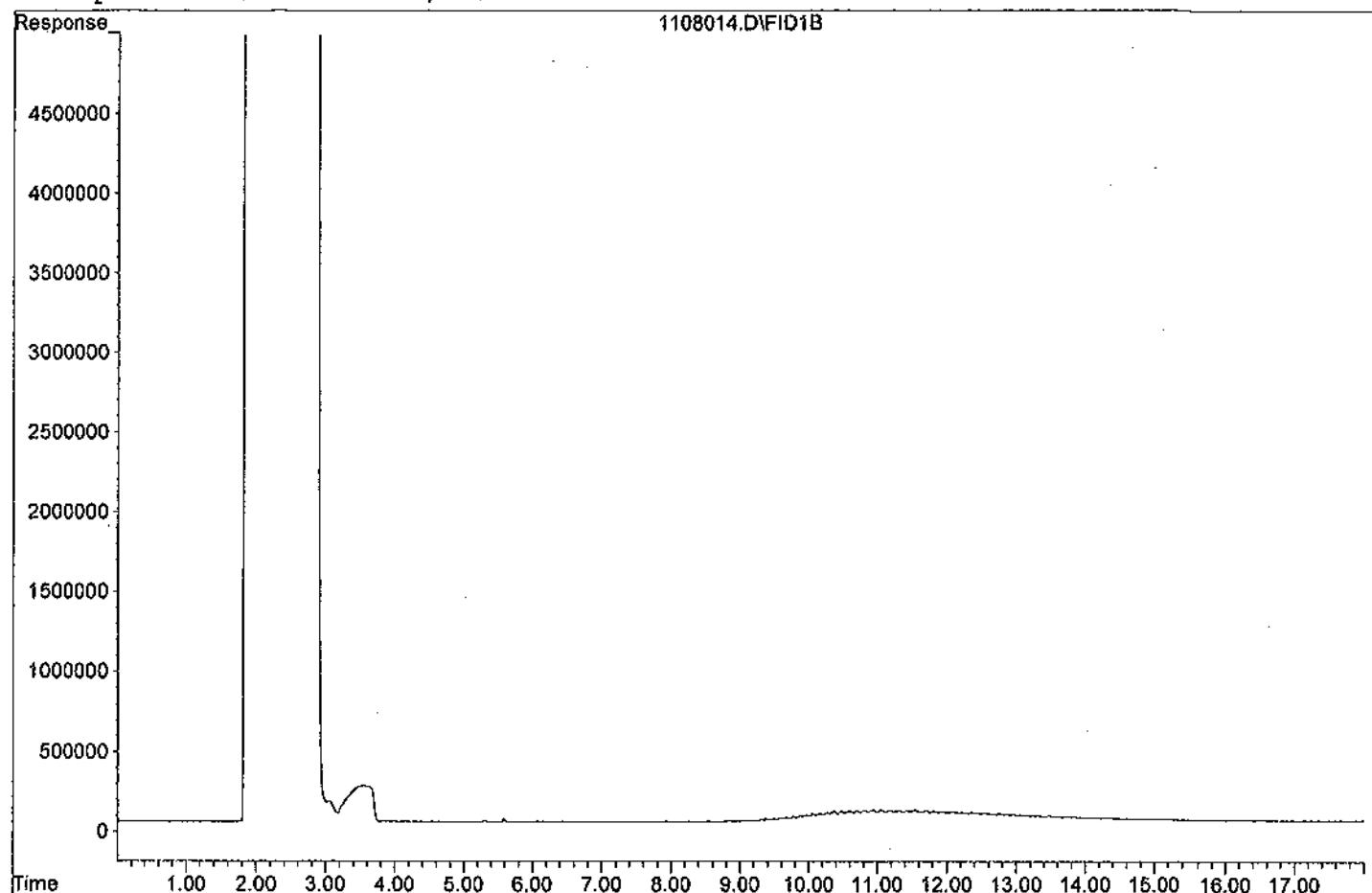
## Target Compounds

2) HBTM Motor Oil (C18-C36)	12.24	133423372	368.019 ppb
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Quantitation Report

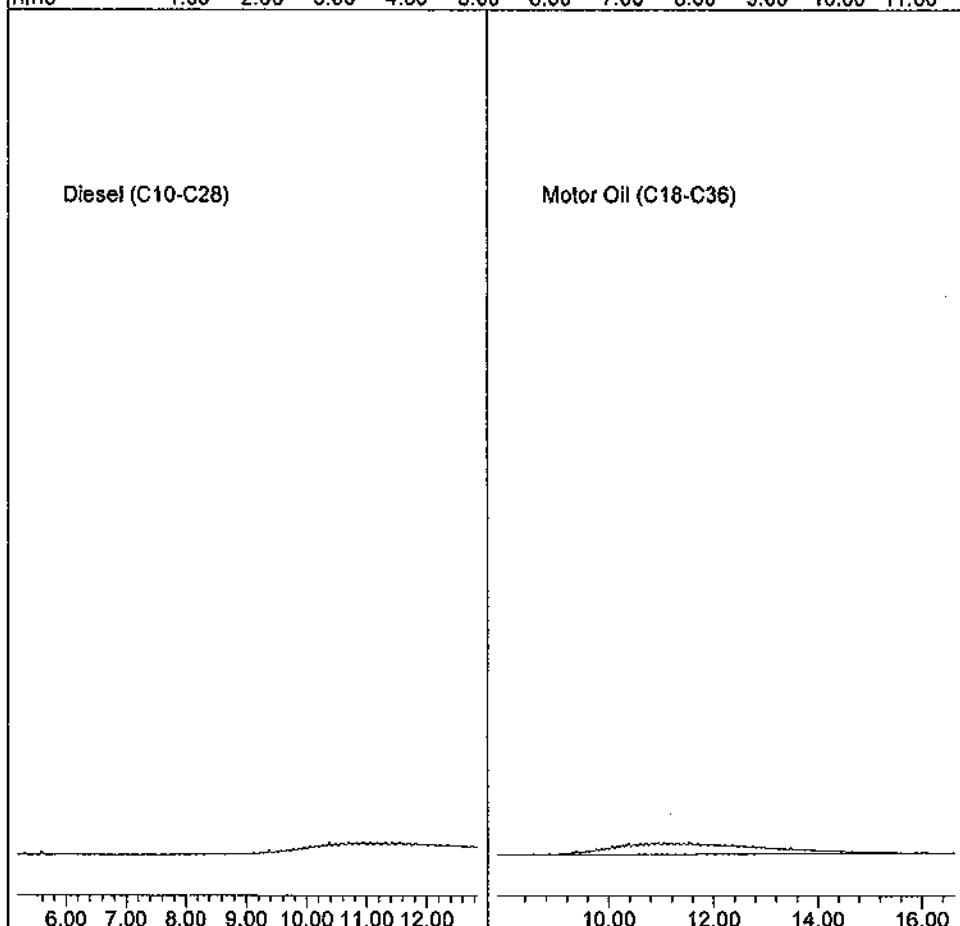
Data File: G:\APOLLO\DATA\111108\1108014.D

Sample : MOTOR OIL 600/1000



Diesel (C10-C28)

Motor Oil (C18-C36)



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108015.D Vial: 15  
Acq On : 11-8-11 19:46:53 Operator: LAC  
Sample : MOTOR OIL 800/1000 Inst : Apollo  
Misc : Mix(B) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
Response via : Multiple Level Calibration

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

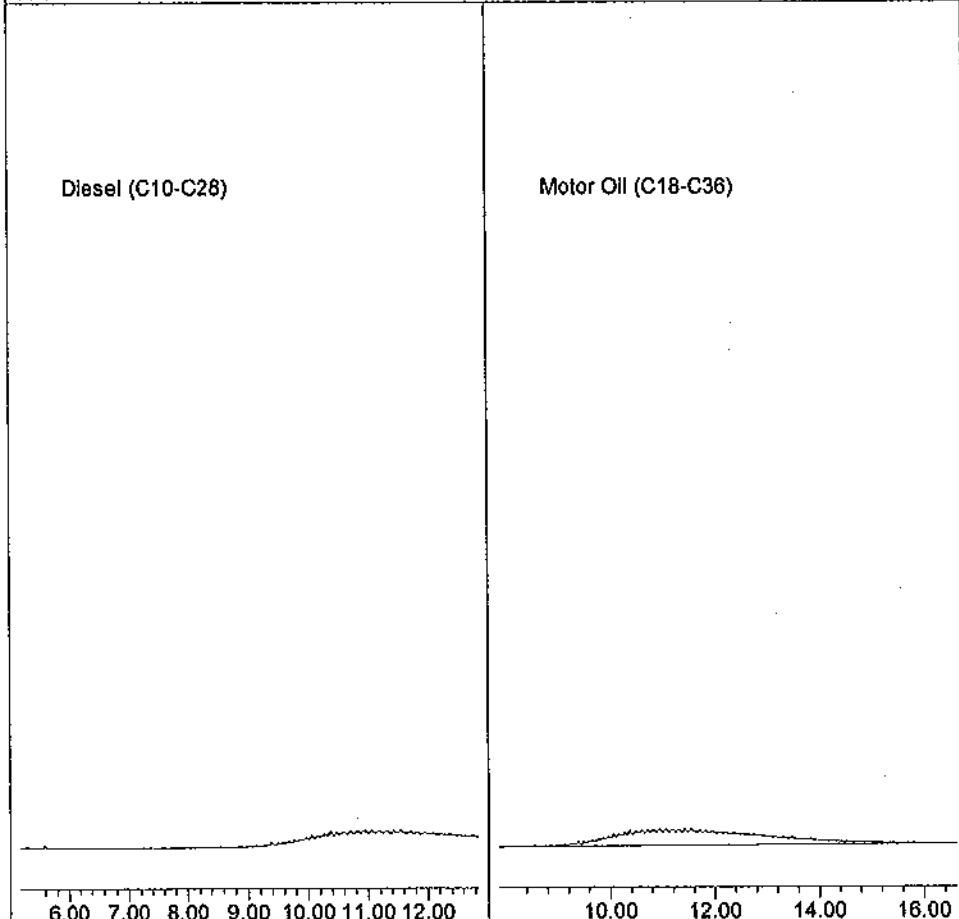
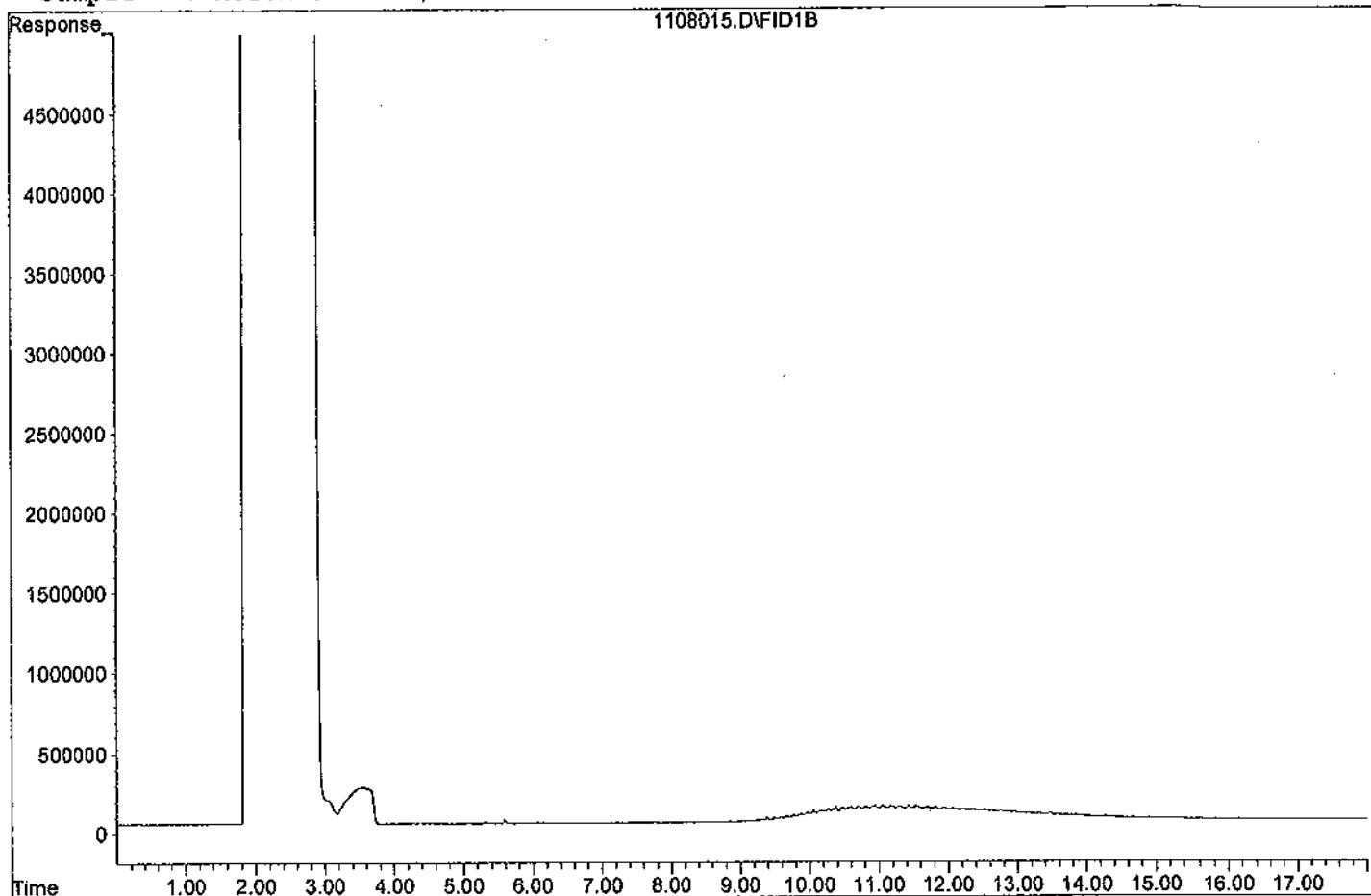
Compound	R.T.	Response	Conc Units
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## System Monitoring Compounds

Target Compounds  
2) HBTM Motor Oil (C18-C36) 12.24 186462551 514.316 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108015.D  
Sample : MOTOR OIL 800/1000



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108016.D Vial: 16  
Acq On : 11-8-11 20:10:21 Operator: LAC  
Sample : MOTOR OIL 1000/1000 Inst : Apollo  
Misc : Mix(B) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 08:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
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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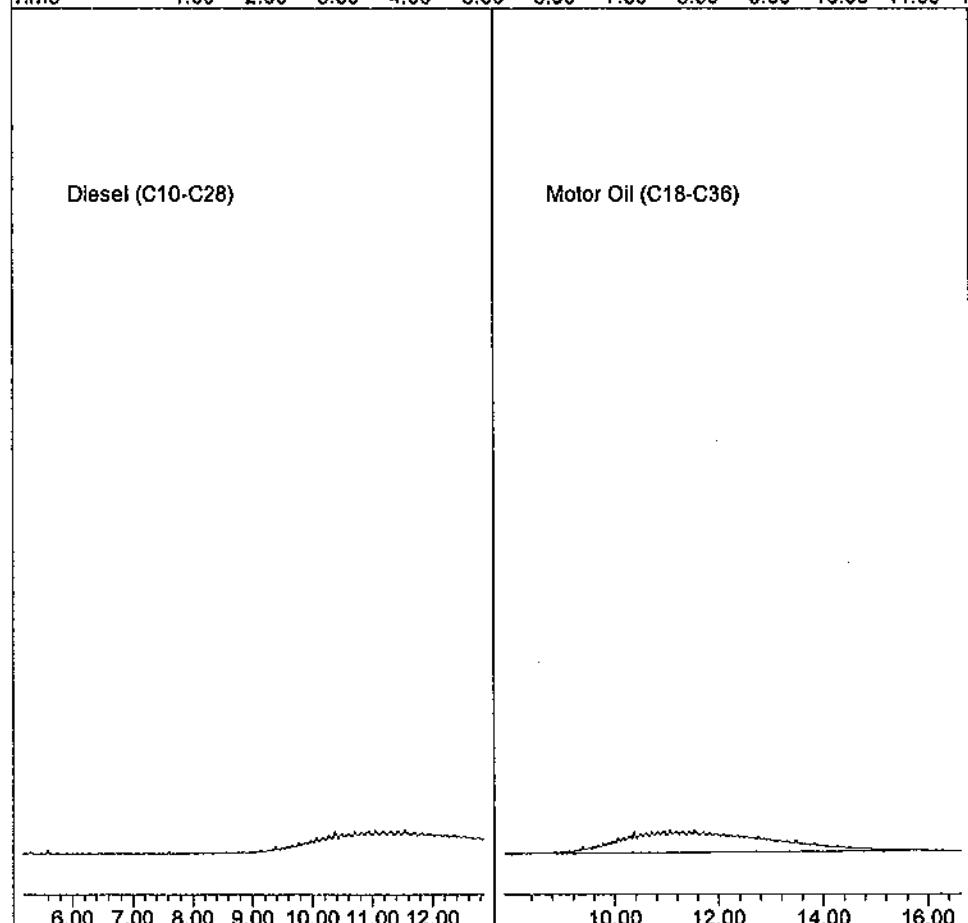
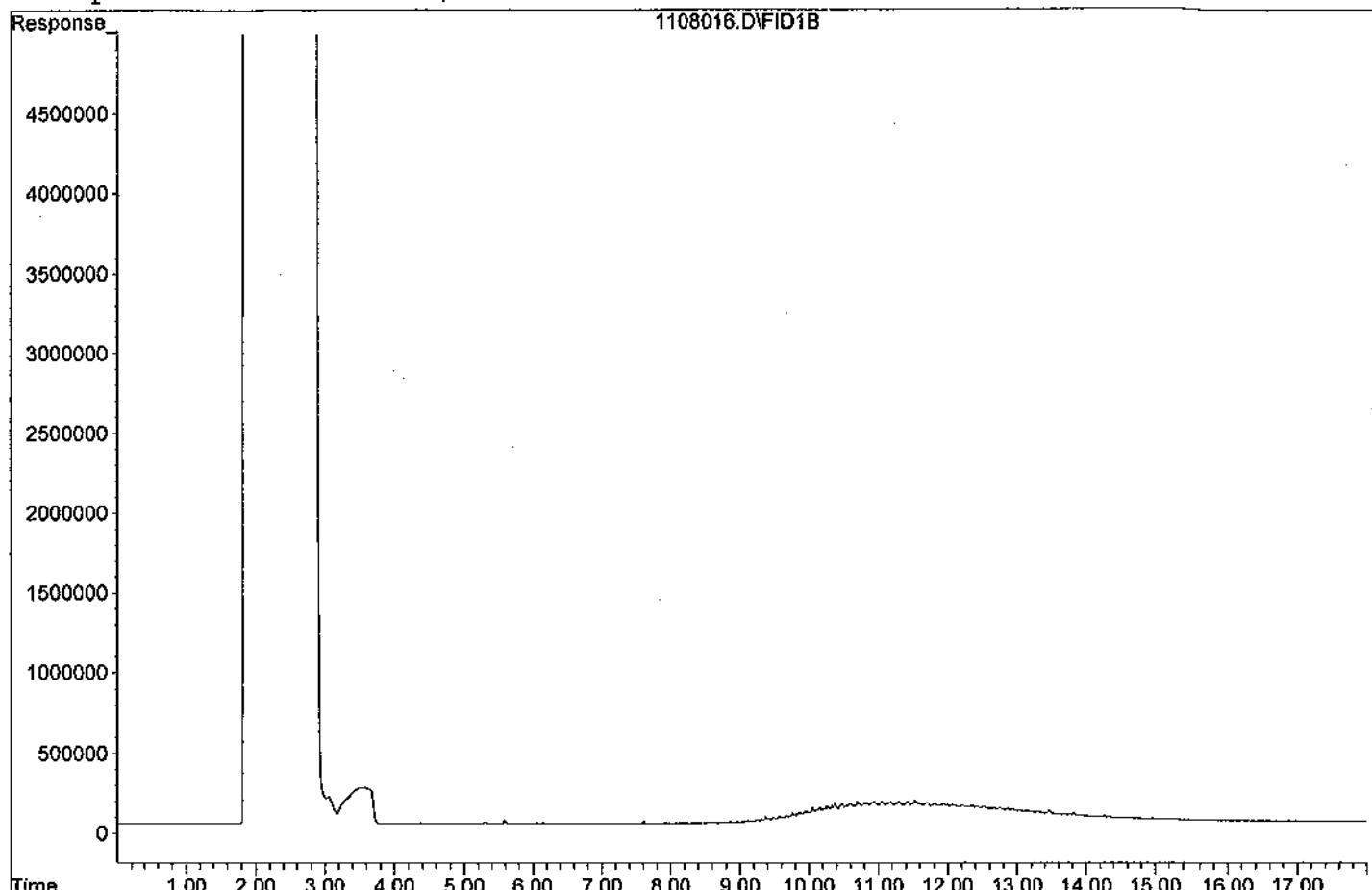
## System Monitoring Compounds

## Target Compounds

2) HBTM Motor Oil (C18-C36)	12.24	250746792	691.631 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108016.D  
Sample : MOTOR OIL 1000/1000



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108017.D Vial: 17  
Acq On : 11-8-11 20:33:47 Operator: LAC  
Sample : THC SURR 10/1000 11/8/11 Inst : Apollo  
Misc : Mix(C) Multipllr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
Response via : Multiple Level Calibration

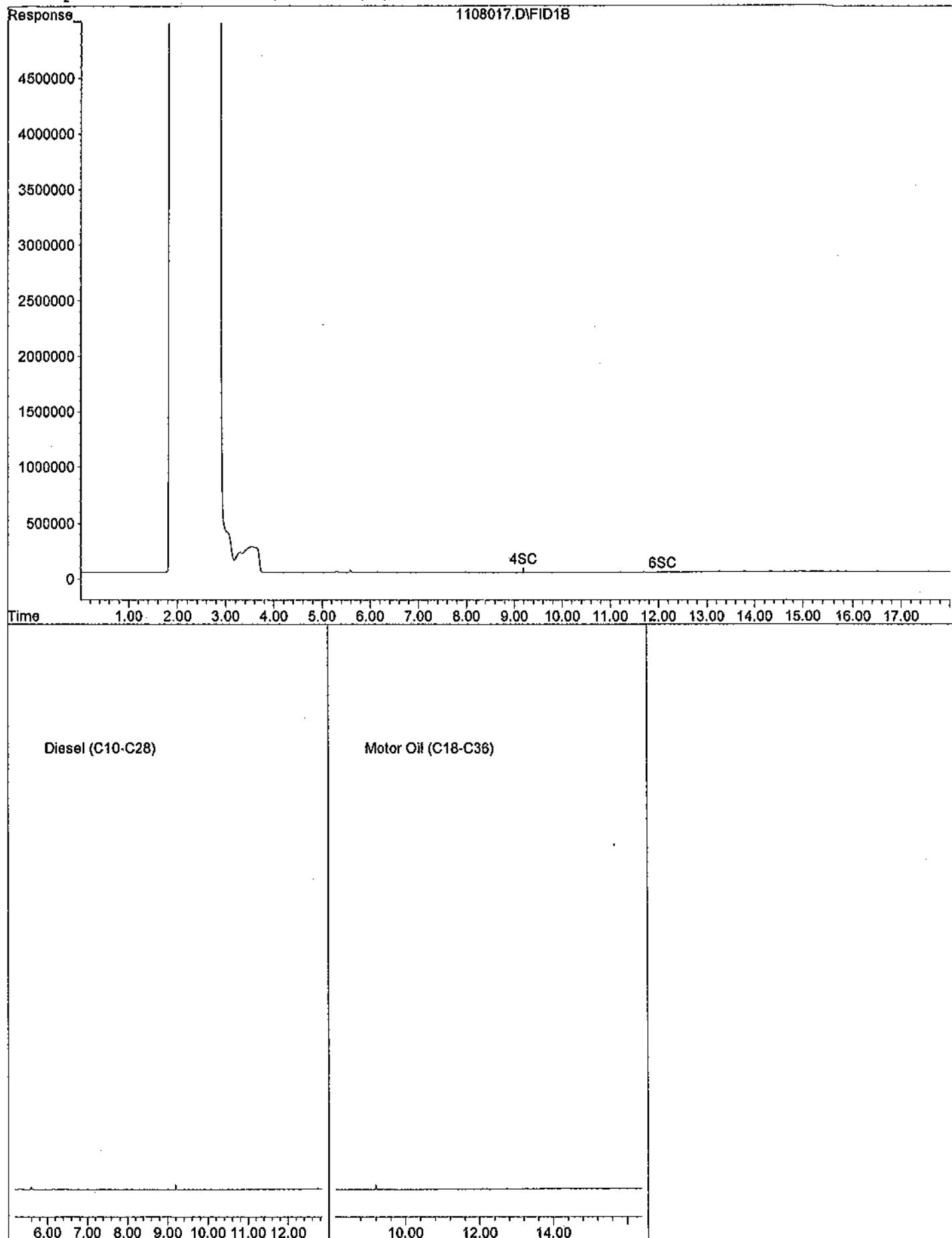
Volume Inj. : 2UL  
Signal Phase : DB-5  
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
<hr/>			
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.19	292692	0.336 ppb
Surrogate Spike 30.000		Recovery	= 1.12%
6) SC Octacosane(S)	12.08	74061	0.159 ppb
Surrogate Spike 30.000		Recovery	= 0.53%

## Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108017.D  
Sample : THC SURR 10/1000 11/8/11



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108018.D Vial: 18  
Acq On : 11-8-11 20:57:14 Operator: LAC  
Sample : THC SURR 100/1000 Inst : Apollo  
Misc : Mix(C) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
Response via : Multiple Level Calibration

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

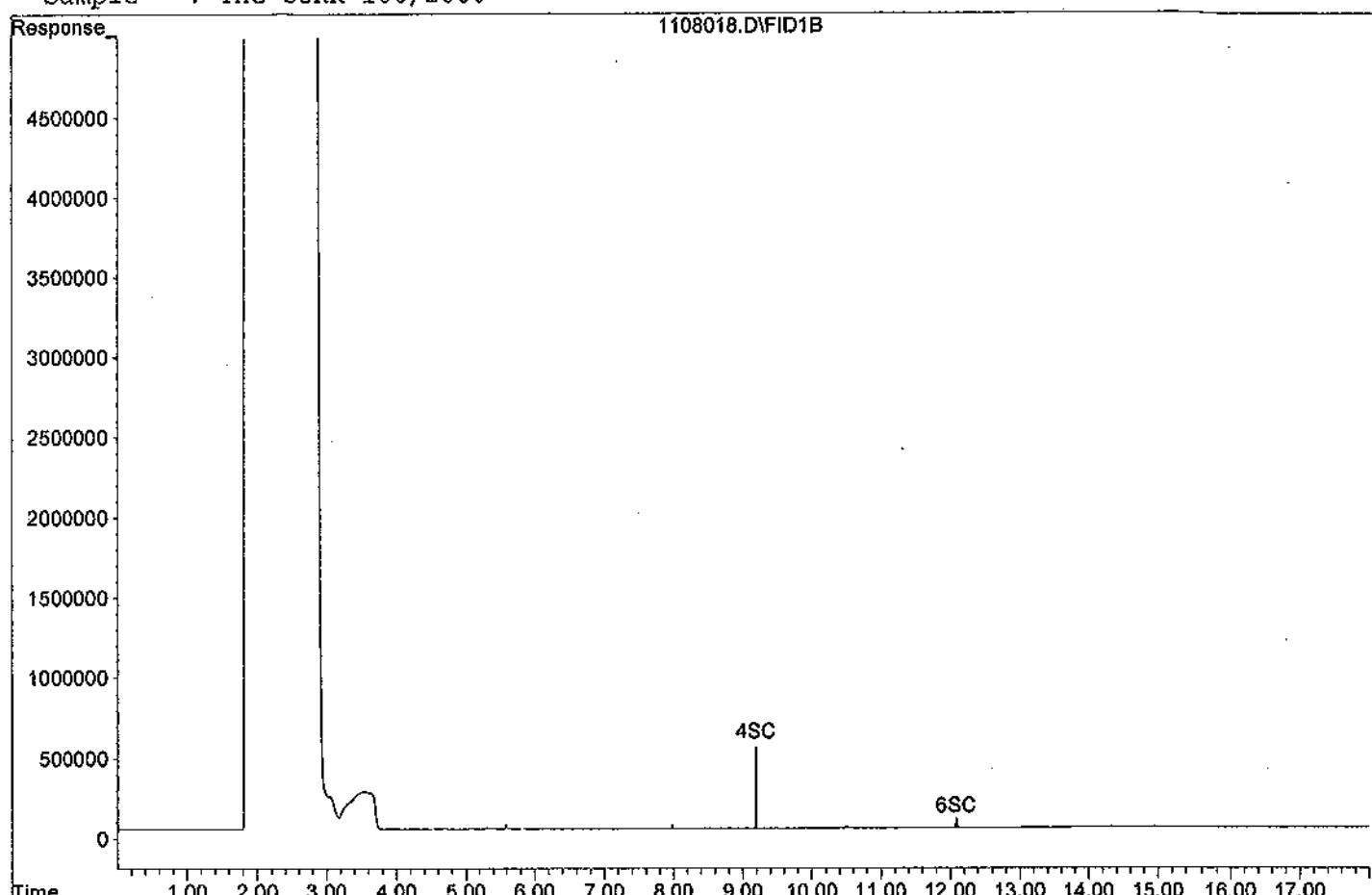
Compound	R.T.	Response	Conc Units
<hr/>			
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.19	3228266	3.702 ppb
Surrogate Spike 30.000		Recovery	= 12.34%
6) SC Octacosane(S)	12.08	797717	1.714 ppb
Surrogate Spike 30.000		Recovery	= 5.71%

## Target Compounds

Quantitation Report

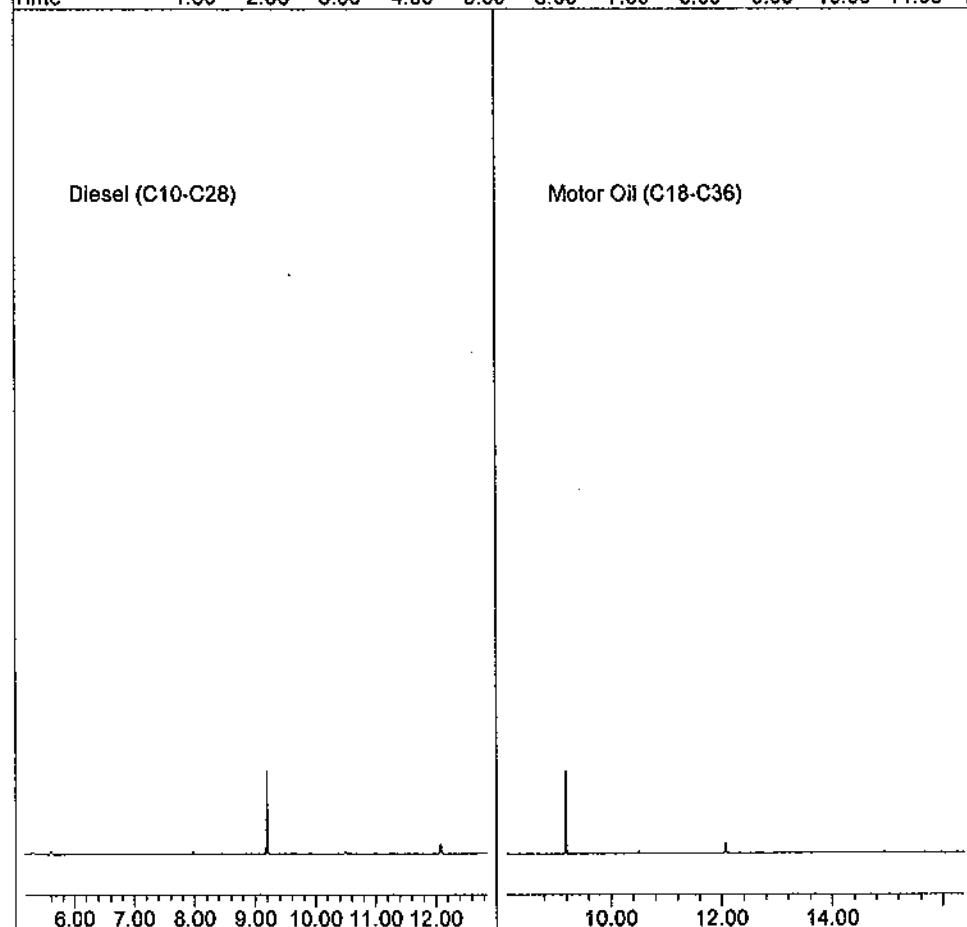
Data File: G:\APOLLO\DATA\111108\1108018.D

Sample : THC SURR 100/1000



Diesel (C10-C28)

Motor Oil (C18-C36)



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108019.D Vial: 19  
Acq On : 11-8-11 21:20:36 Operator: LAC  
Sample : THC SURR 400/1000 Inst : Apollo  
Misc : Mix(C) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
Response via : Multiple Level Calibration

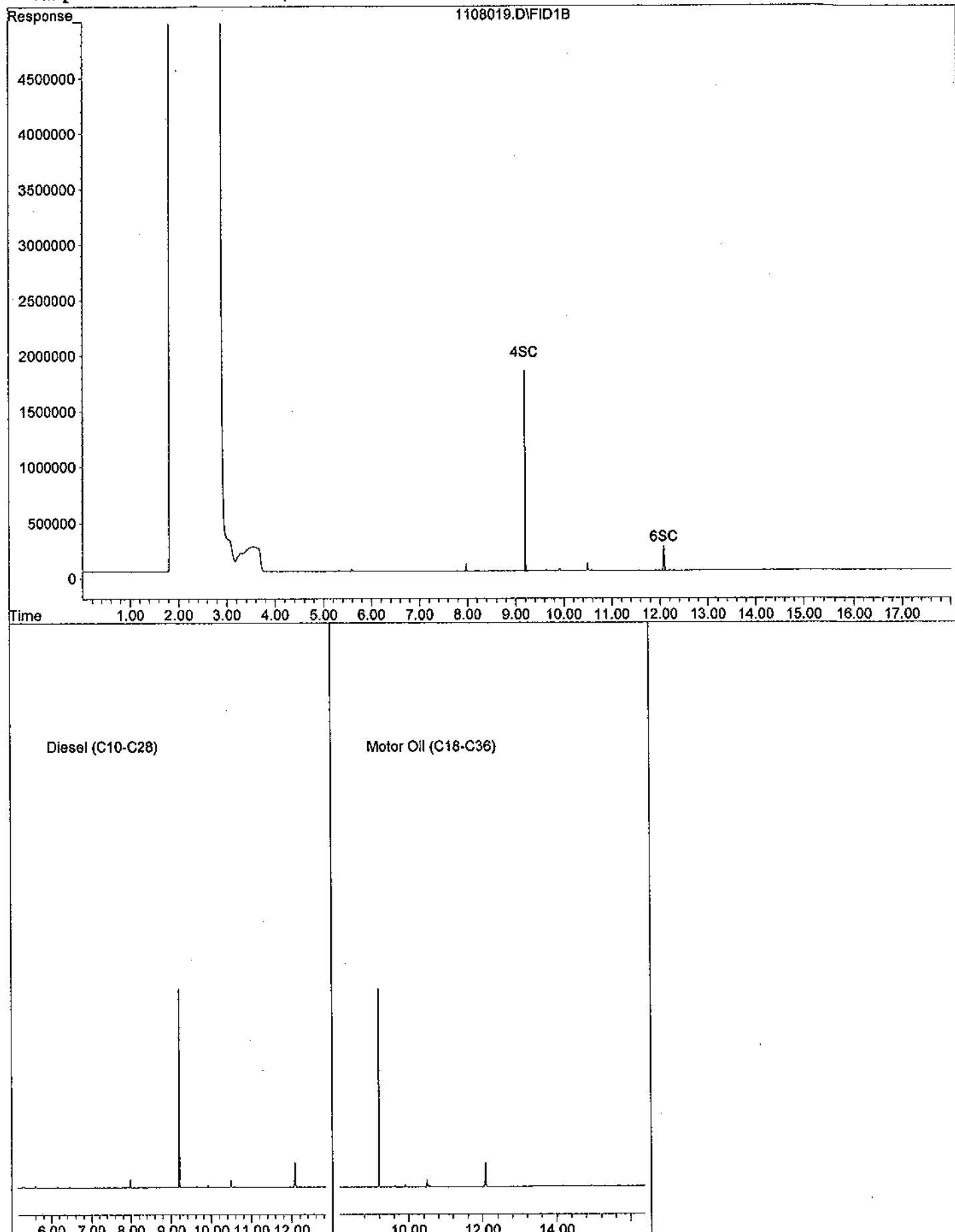
Volume Inj. : 2UL  
Signal Phase : DB-5  
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
<hr/>				
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.19	11653711	13.365	ppb
Surrogate Spike 30.000		Recovery	=	44.55%
6) SC Octacosane(S)	12.08	2944724	6.328	ppb
Surrogate Spike 30.000		Recovery	=	21.09%

## Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108019.D  
Sample : THC SURR 400/1000



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108020.D Vial: 20  
Acq On : 11-8-11 21:43:59 Operator: LAC  
Sample : THC SURR 600/1000 Inst : Apollo  
Misc : Mix(C) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
Response via : Multiple Level Calibration

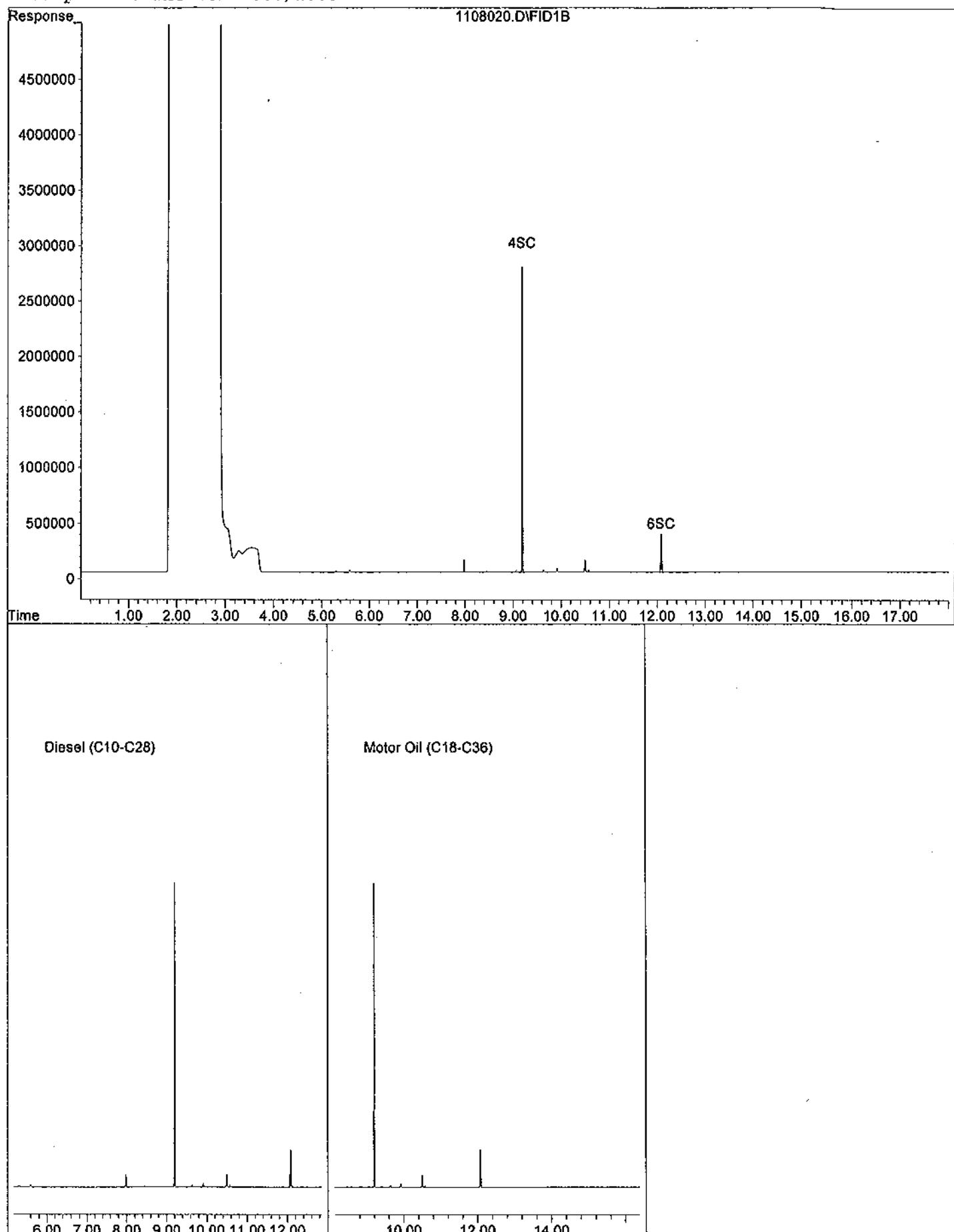
Volume Inj. : 2UL  
Signal Phase : DB-5  
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
<hr/>			
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.19	18494984	21.210 ppb
Surrogate Spike 30.000		Recovery	= 70.70%
6) SC Octacosane(S)	12.08	4636415	9.963 ppb
Surrogate Spike 30.000		Recovery	= 33.21%

## Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108020.D  
Sample : THC SURR 600/1000



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108021.D Vial: 21  
Acq On : 11-8-11 22:07:20 Operator: LAC  
Sample : THC SURR 800/1000 Inst : Apollo  
Misc : Mix(C) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
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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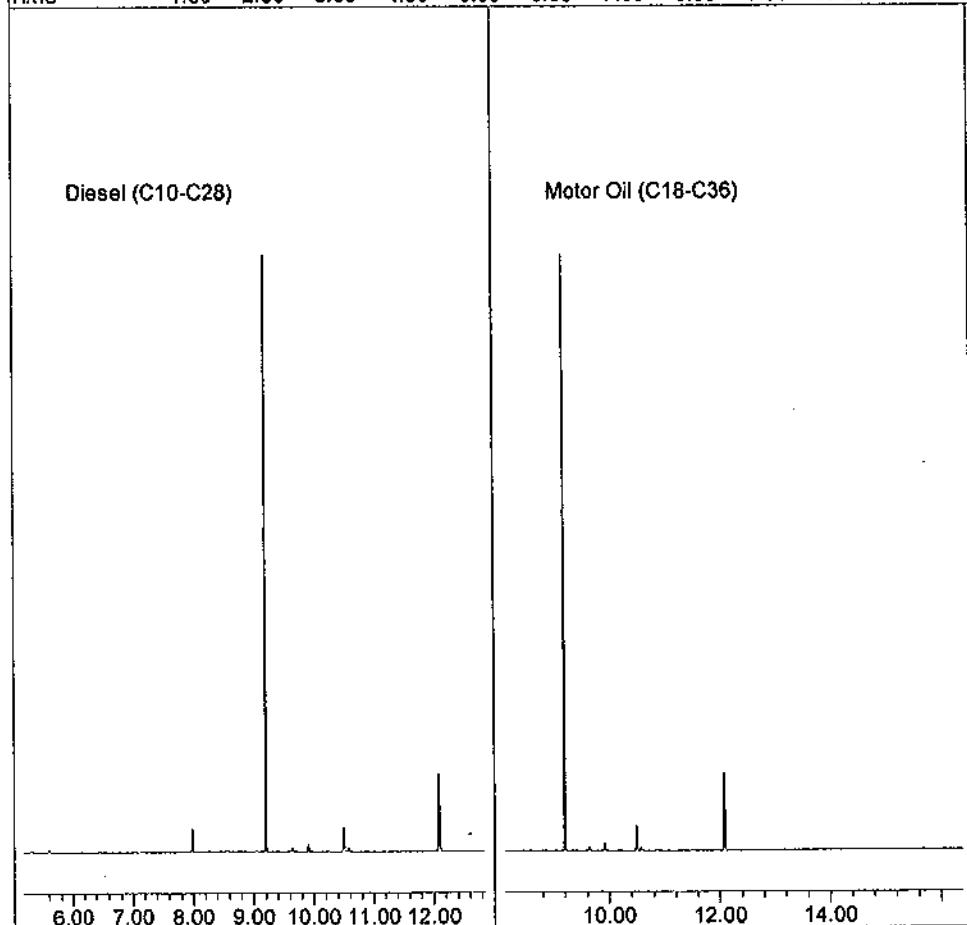
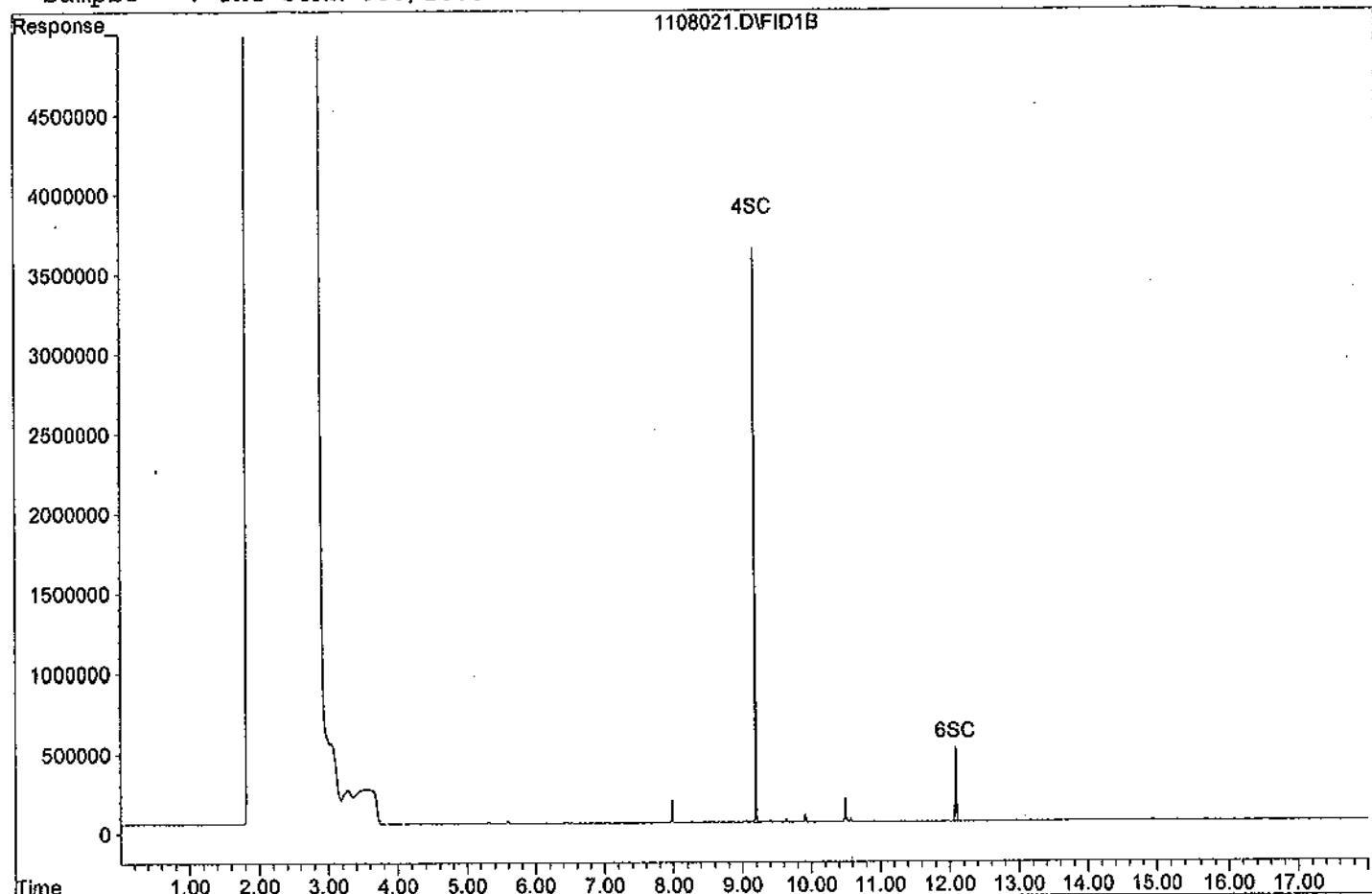
System Monitoring Compounds

4) SC Ortho-Terphenyl(S)	9.20	24081673	27.617	ppb
Surrogate Spike 30.000		Recovery	=	92.06%
6) SC Octacosane(S)	12.09	6191678	13.305	ppb
Surrogate Spike 30.000		Recovery	=	44.35%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108021.D  
Sample : THC SURR 800/1000



Data File : G:\APOLLO\DATA\111108\1108022.D Vial: 22  
Acq On : 11-8-11 22:30:39 Operator: LAC  
Sample : THC SURR 1000/1000 Inst : Apollo  
Misc : Mix(C) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
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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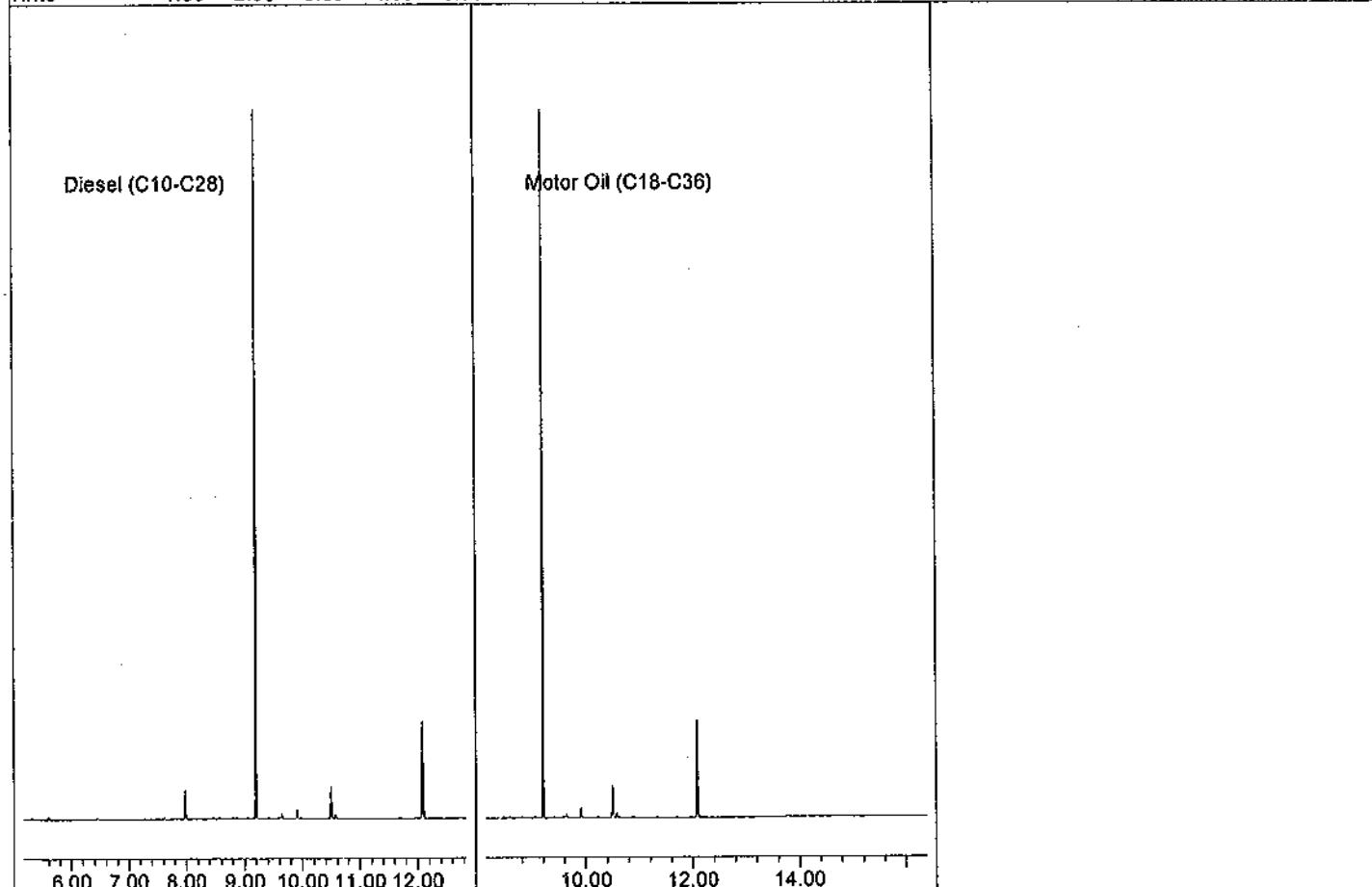
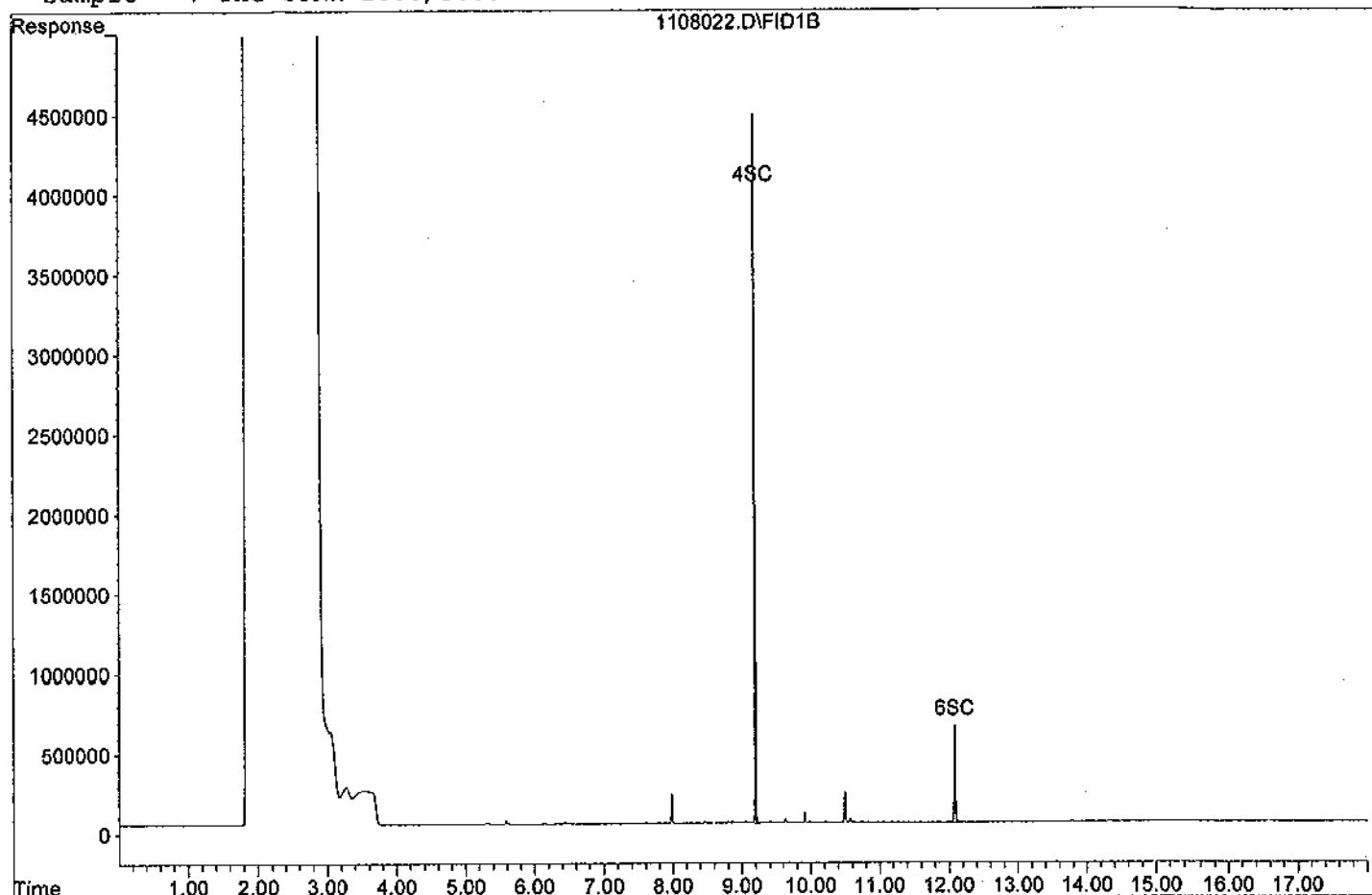
System Monitoring Compounds

4) SC Ortho-Terphenyl(S)	9.20	30506918	34.986 ppb
Surrogate Spike 30.000		Recovery	= 116.62%
6) SC Octacosane(S)	12.09	7943255	17.069 ppb
Surrogate Spike 30.000		Recovery	= 56.90%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108022.D  
Sample : THC SURR 1000/1000



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108069.D Vial: 69  
Acq On : 11-9-11 17:18:58 Operator: LAC  
Sample : DIESEL 10/1000 11/8/11 Inst : Apollo  
Misc : Mix(A) Multiplrx: 1.00  
IntFile : events.e  
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

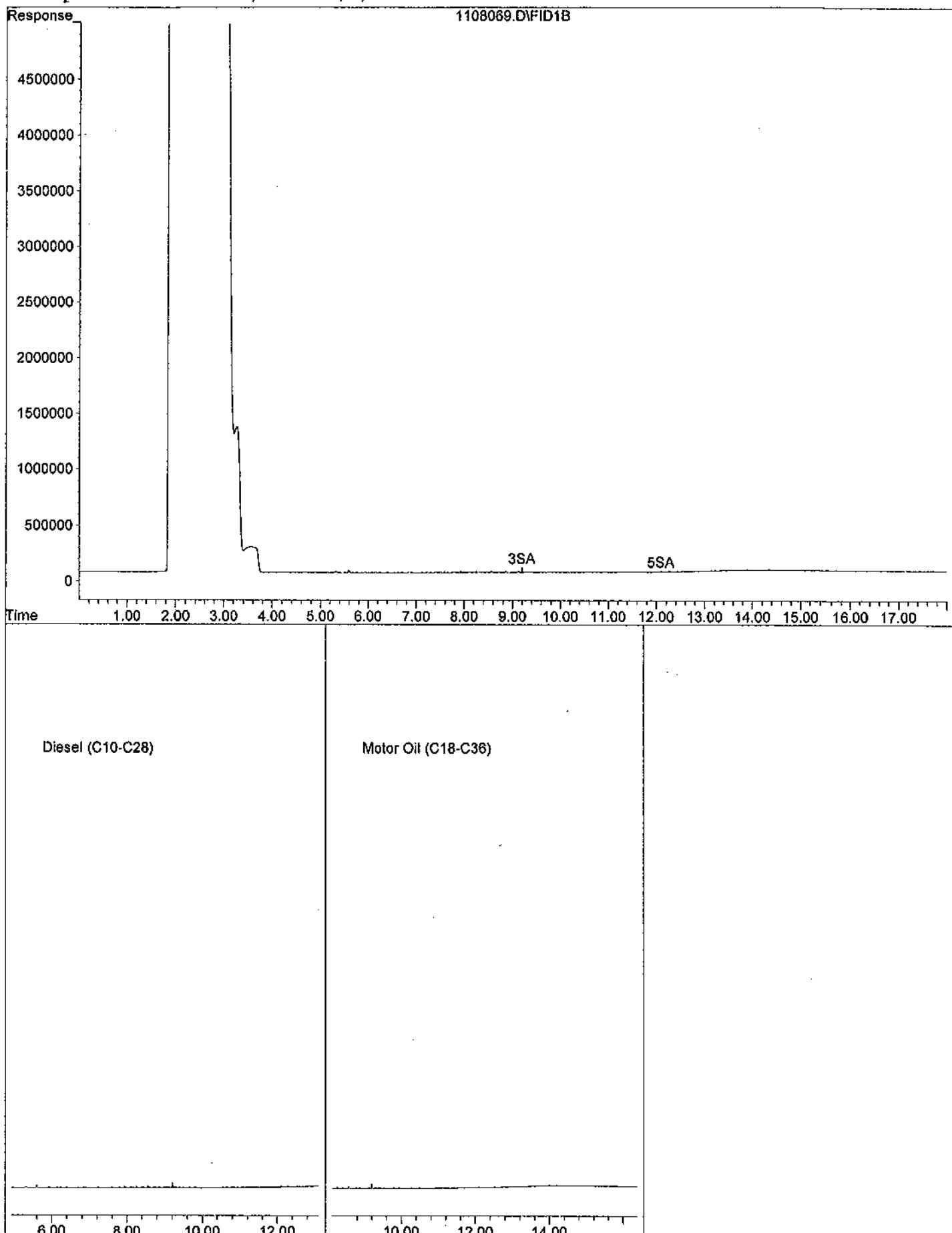
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Thu Nov 10 08:39:08 2011  
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
<hr/>			
System Monitoring Compounds			
3) SA Not Used(S)	9.20	302444	0.281 ppb
Surrogate Spike 30.000		Recovery =	0.94%
5) SA Not Used2(S)	12.10	625179	1.262 ppb
Surrogate Spike 30.000		Recovery =	4.21%
<hr/>			
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	12262633	14.566 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108069.D  
Sample : DIESEL 10/1000 11/8/11



TPH Extractables  
TPH1108

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: 66186

Case No:                   

Date Analyzed: 11/09/11

Matrix:                   

Instrument: Apollo

Initial Cal. Date: 11/08/11

Data File: 1108070.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	305473	233788	23	HATML	5.1
2							
3							
4							
5							
6							
7							
8							
9							
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36							
37							
38							
39							
40							

Average

23.0

## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108070.D Vial: 70  
 Acq On : 11-9-11 17:42:38 Operator: LAC  
 Sample : DIESEL 400 2ND SRC 11/8/11 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 10 8:39 2011 Quant Results File: TPH1108.RES

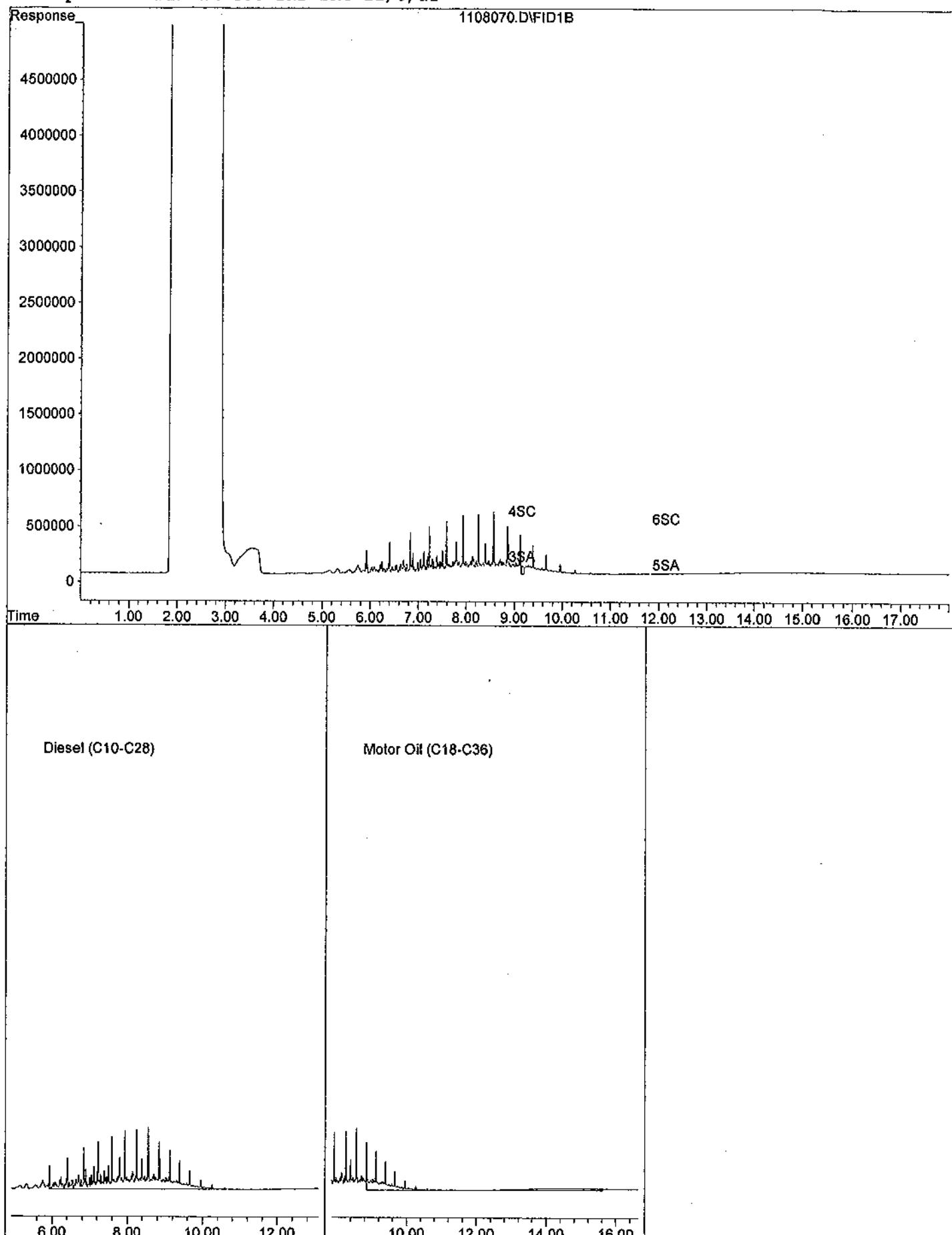
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Thu Nov 10 08:39:08 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
3) SA Not Used(S)	9.17	2636236	3.884 ppb
Surrogate Spike 30.000		Recovery	= 12.95%
4) SC Ortho-Terphenyl(S)	9.17	2636236	4.343 ppb
Surrogate Spike 30.000		Recovery	= 14.48%
5) SA Not Used2(S)	12.16	136311	0.865 ppb
Surrogate Spike 30.000		Recovery	= 2.88%
6) SC Octacosane(S)	12.16	136311	0.886 ppb
Surrogate Spike 30.000		Recovery	= 2.95%
<b>Target Compounds</b>			
1) HATM Diesel (C10-C28)	9.01	187030011	379.546 ppb
2) HBTM Motor Oil (C18-C36)	12.24	65049118	279.838 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108070.D  
Sample : DIESEL 400 2ND SRC 11/8/11



TPH Extractables  
TPH1108

Form 7  
Continuing Calibration

Lab Name: APPL, Inc.

SDG No: 66186

Case No:                 

Date Analyzed: 11/11/11

Matrix:                 

Instrument: Apollo

Initial Cal. Date: 11/08/11

Data File: 1110047.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C28)	305473	256572	16	HATML	4.3
2							
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39							
40							

Average

16.0

## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111110\1110047.D Vial: 47  
 Acq On : 11-11-11 4:07:11 Operator: LAC  
 Sample : DIESEL 400/1000 11/8/11 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 11 13:41 2011 Quant Results File: TPH1108.RES

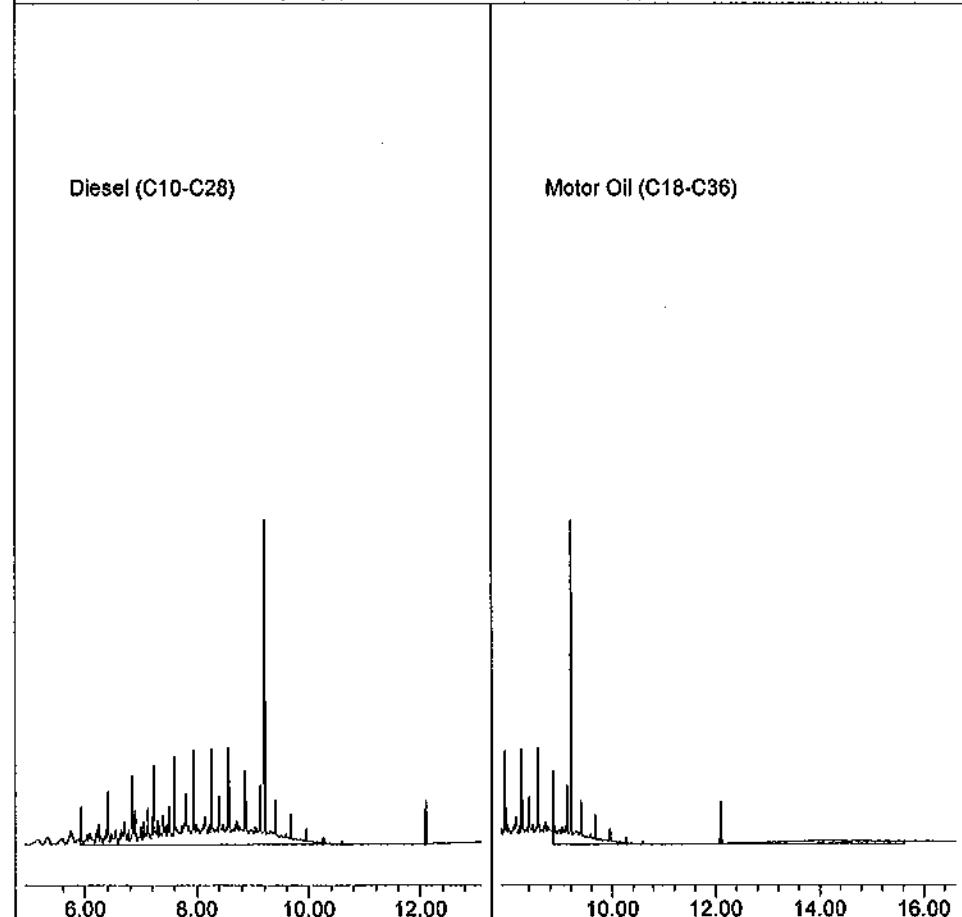
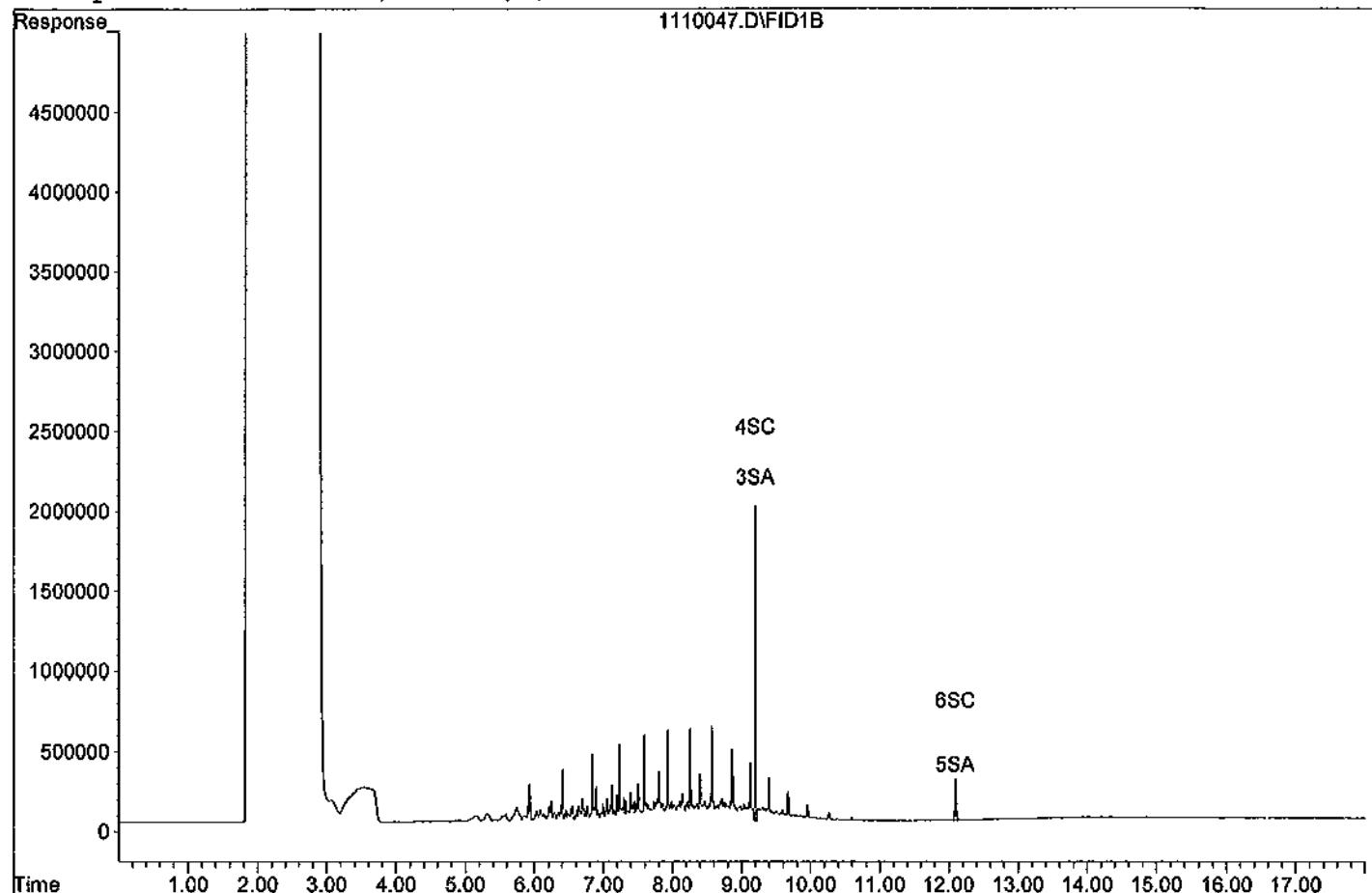
Method : G:\APOLLO\DATA\111110\TPH1108.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Mon Nov 14 13:54:20 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
<hr/>				
System Monitoring Compounds				
3) SA Not Used(S)	9.20	13963929	20.573	ppb
Surrogate Spike 30.000		Recovery	=	68.58%
4) SC Ortho-Terphenyl(S)	9.20	13963929	23.002	ppb
Surrogate Spike 30.000		Recovery	=	76.67%
5) SA Not Used2(S)	12.10	3538118	22.439	ppb
Surrogate Spike 30.000		Recovery	=	74.80%
6) SC Octacosane(S)	12.10	3538118	22.997	ppb
Surrogate Spike 30.000		Recovery	=	76.66%
<hr/>				
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	205257553	417.121	ppb
2) HBTM Motor Oil (C18-C36)	12.24	71360796	306.991	ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111110\1110047.D  
Sample : DIESEL 400/1000 11/8/11



## Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111110\1110059.D Vial: 59  
Acq On : 11-11-11 8:50:25 Operator: LAC  
Sample : DIESEL 400/1000 11/8/11 Inst : Apollo  
Misc : Mix(A) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Nov 14 11:26 2011 Quant Results File: TPH1108.RES

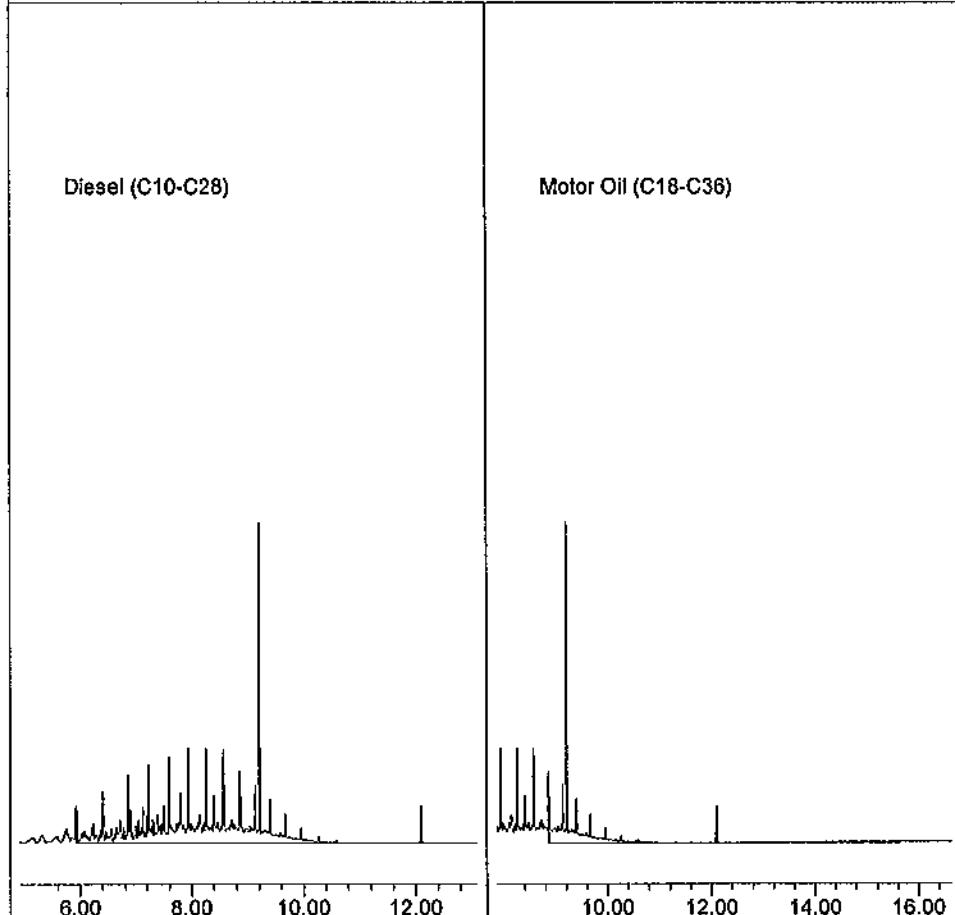
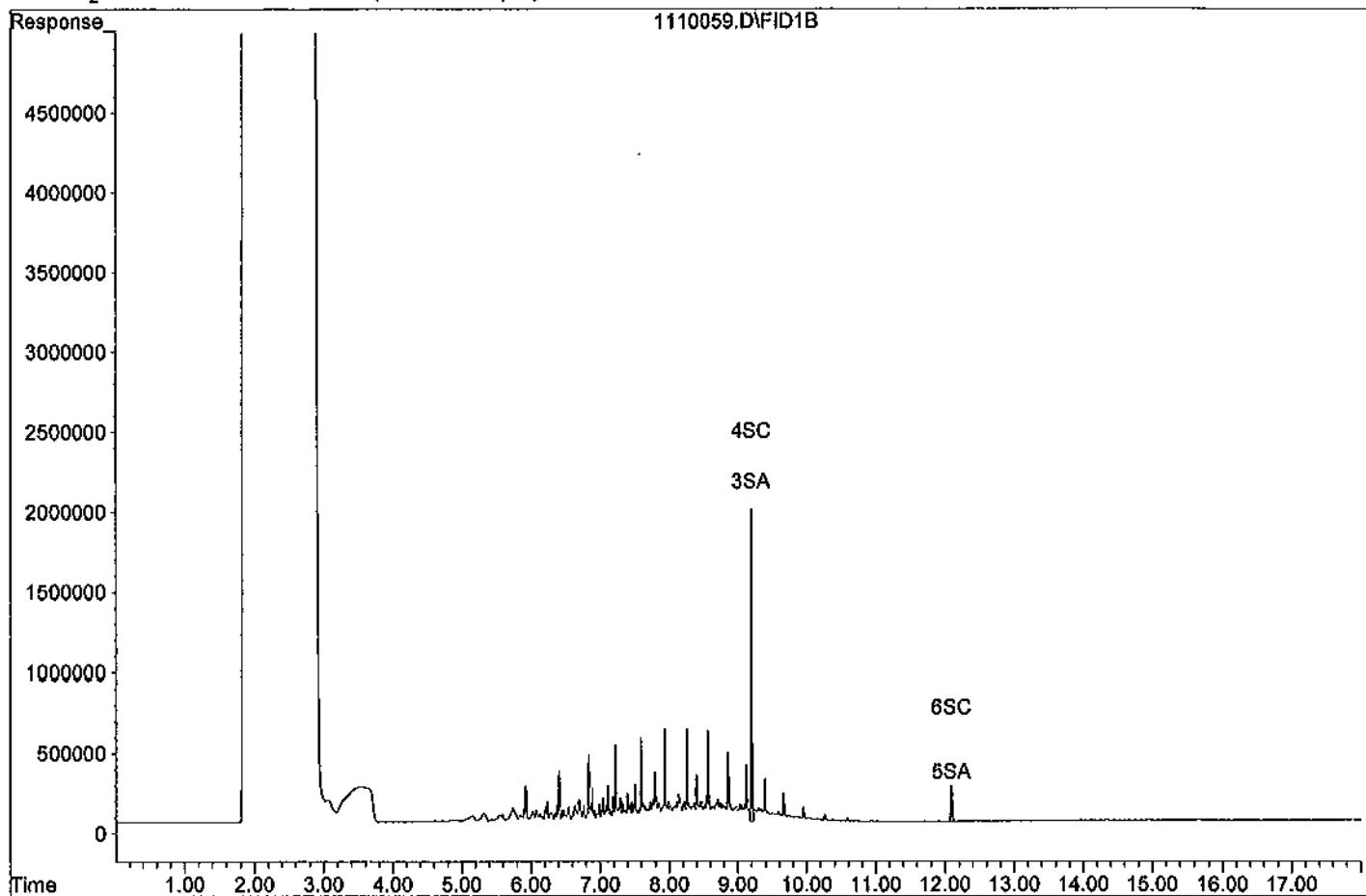
Method : G:\APOLLO\DATA\111110\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Mon Nov 14 13:54:20 2011  
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
<hr/>				
System Monitoring Compounds				
3) SA Not Used(S)	9.20	13744549	20.250	ppb
Surrogate Spike 30.000		Recovery =	67.50%	
4) SC Ortho-Terphenyl(S)	9.20	13744549	22.641	ppb
Surrogate Spike 30.000		Recovery =	75.47%	
5) SA Not Used2(S)	12.09	3093601	19.620	ppb
Surrogate Spike 30.000		Recovery =	65.40%	
6) SC Octacosane(S)	12.09	3093601	20.108	ppb
Surrogate Spike 30.000		Recovery =	67.03%	
<hr/>				
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	199903834	406.084	ppb
2) HBTM Motor Oil (C18-C36)	12.24	58700378	252.526	ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111110\1110059.D  
Sample : DIESEL 400/1000 11/8/11



TPH Extractables  
TPH1108

Form 7  
Continuing Calibration

Lab Name: APPL, Inc.

SDG No: 66186

Case No:                   

Date Analyzed: 11/11/11

Matrix:                   

Instrument: Apollo

Initial Cal. Date: 11/08/11

Data File: 1110059.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C28)	305473	249880	18	HATML
2	HBTM	Motor Oil (C18-C36)	116226	119457	2.8	HBTM
3						
4						
5						
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40						

Average

10.4

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

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

APPL Inc.

908 North Temperance Avenue  
Clovis, CA 93611

Blank Name/QCG: 111108W-50005 - 161797  
Batch ID: #TPETD-111108A

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	11/08/11	11/11/11
BLANK	SURROGATE: OCTACOSANE (S)	78.6	28-142			%	11/08/11	11/11/11
BLANK	SURROGATE: ORTHO-TERPHEN	78.5	57-132			%	11/08/11	11/11/11

Quant Method:TPH1108.M  
Run #:1110052  
Instrument:APOLLO  
Sequence:111110  
Initials:LA

GC SC-Blank-REG MDLs  
Printed: 11/30/11 2:44:00 PM

## Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\111110\1110052.D Vial: 52  
Acq On : 11-11-11 6:05:10 Operator: LAC  
Sample : 111108A BLK 5/1000 Inst : Apollo  
Misc : Water Multiplr: 5.00  
IntFile : events.e  
Quant Time: Nov 30 14:30 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111110\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Mon Nov 14 13:54:20 2011  
Response via : Multiple Level Calibration

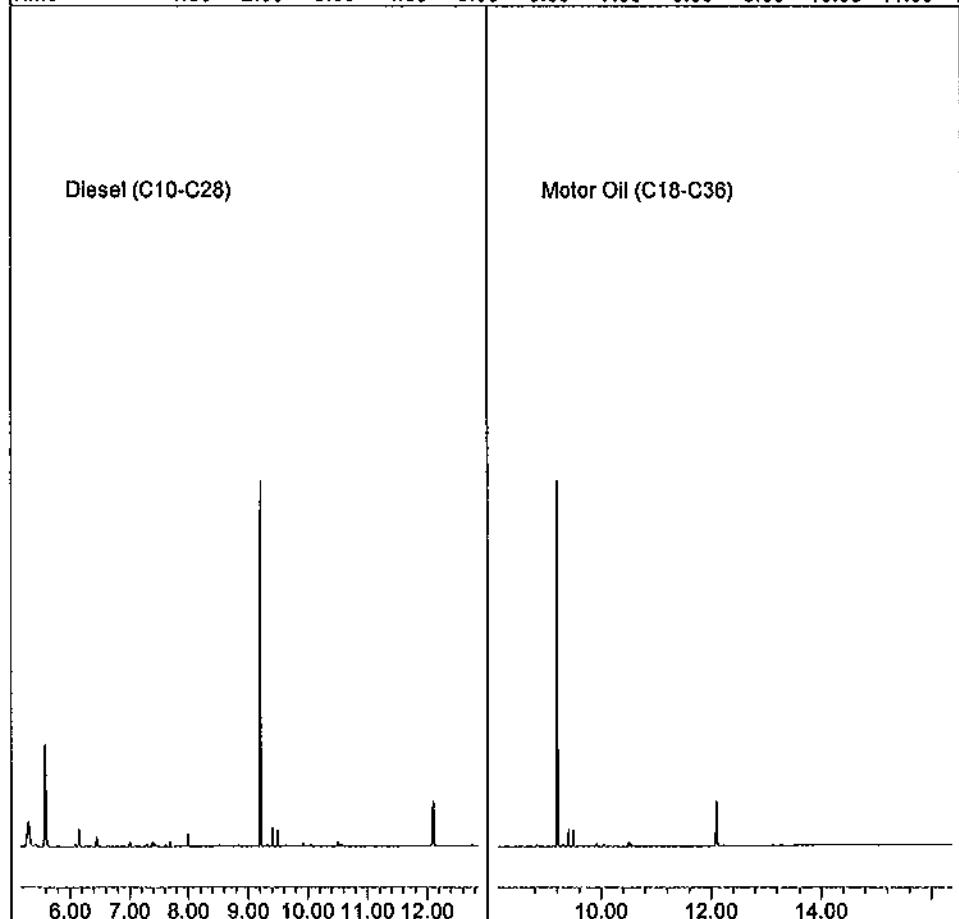
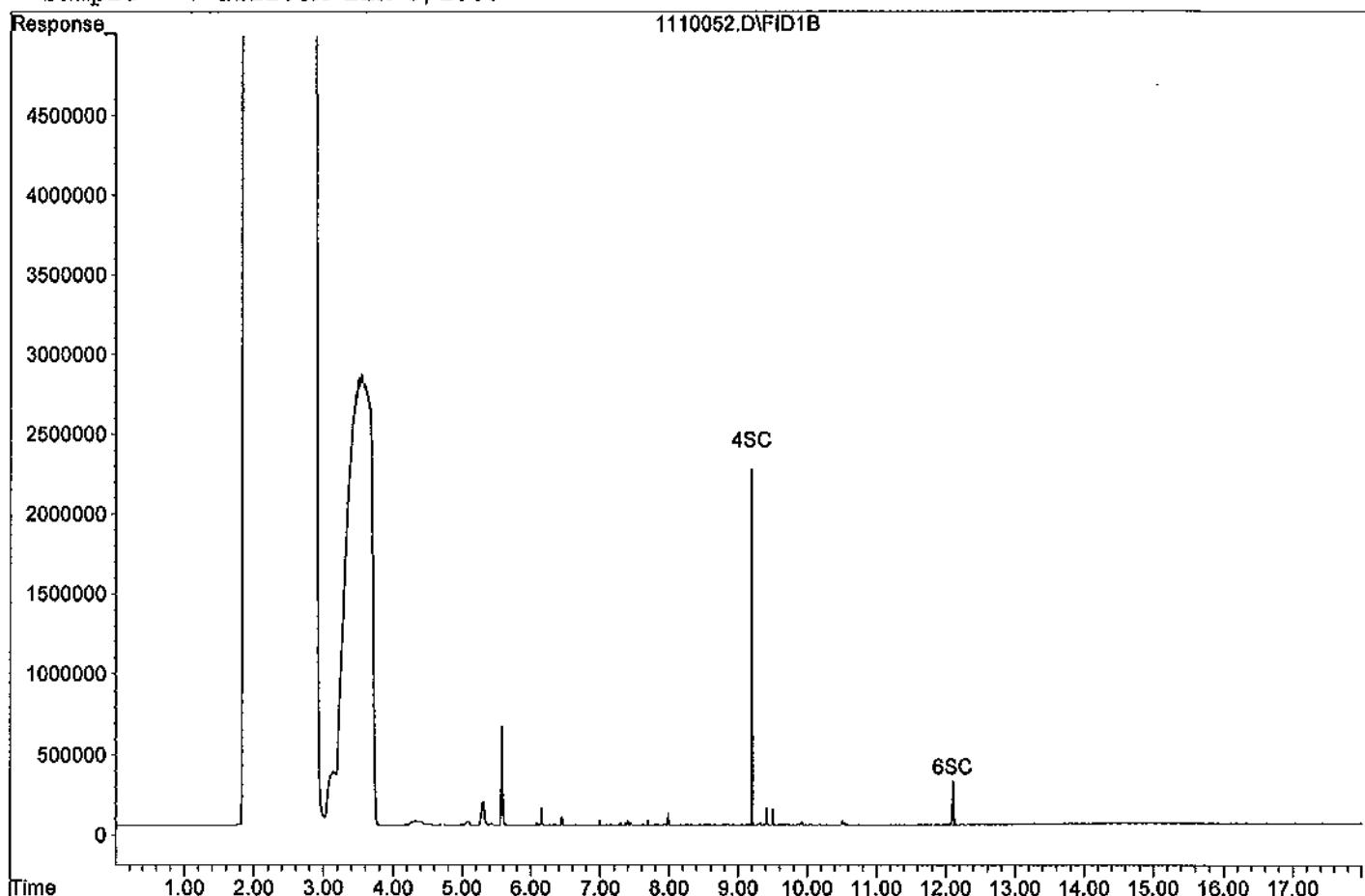
Volume Inj. : 2UL  
Signal Phase : DB-5  
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
<hr/>			
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.20	14295665	117.744 ppb
Surrogate Spike 150.000		Recovery	= 78.50%
6) SC Octacosane(S)	12.10	3627288	117.883 ppb
Surrogate Spike 150.000		Recovery	= 78.59%

## Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\111110\1110052.D  
Sample : 111108A BLK 5/1000



# Laboratory Control Spike Recovery

## TPH Diesel Water

APPL ID: 111108W-50005 LCS - 161797

Batch ID: #TPETD-111108A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL FUEL	2000	1620	81.0	61-143
SURROGATE: OCTACOSANE (S)	150	124	82.7	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	141	94.0	57-132

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

Primary	SPK
Quant Method :	TPH1108.M
Extraction Date :	11/08/11
Analysis Date :	11/11/11
Instrument :	APOLLO
Run :	1110053
Initials :	LA

Printed: 11/30/11 2:43:56 PM

APPL Standard LCS

## Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\111110\1110053.D Vial: 53  
Acq On : 11-11-11 6:28:45 Operator: LAC  
Sample : 111108A LCS-1 5/1000 Inst : Apollo  
Misc : Water Multiplr: 5.00  
IntFile : events.e  
Quant Time: Nov 30 14:30 2011 Quant Results File: TPH1108.RES

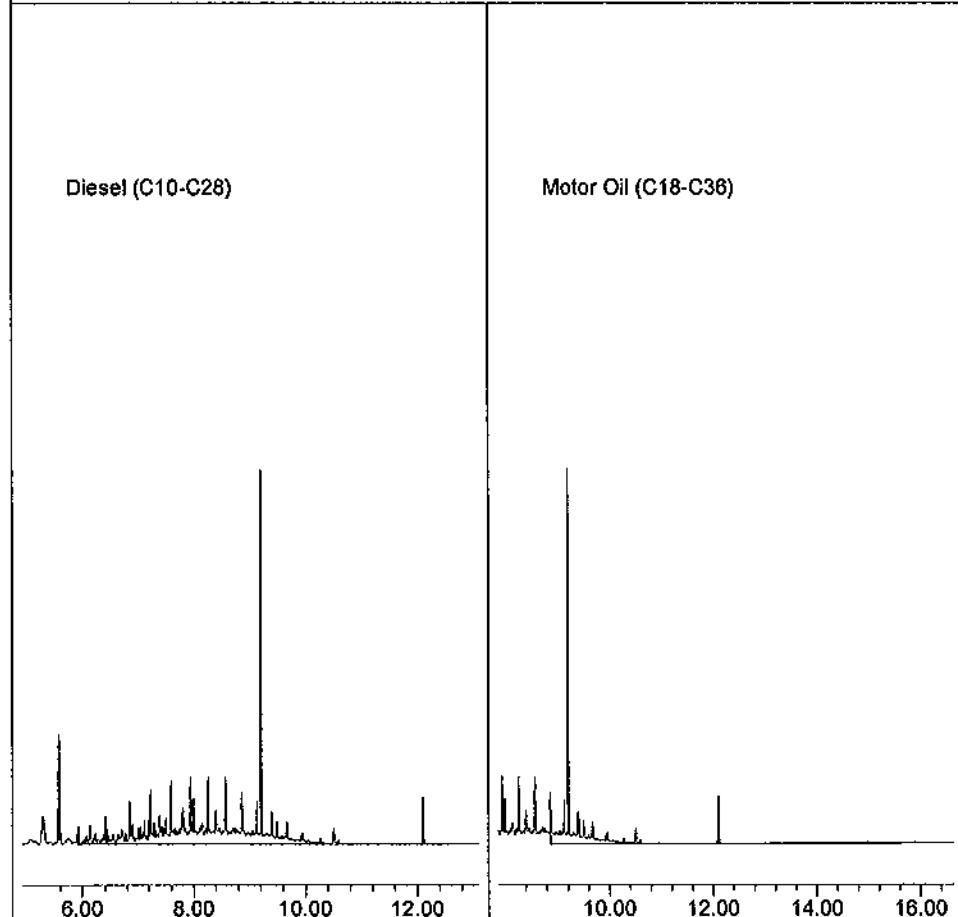
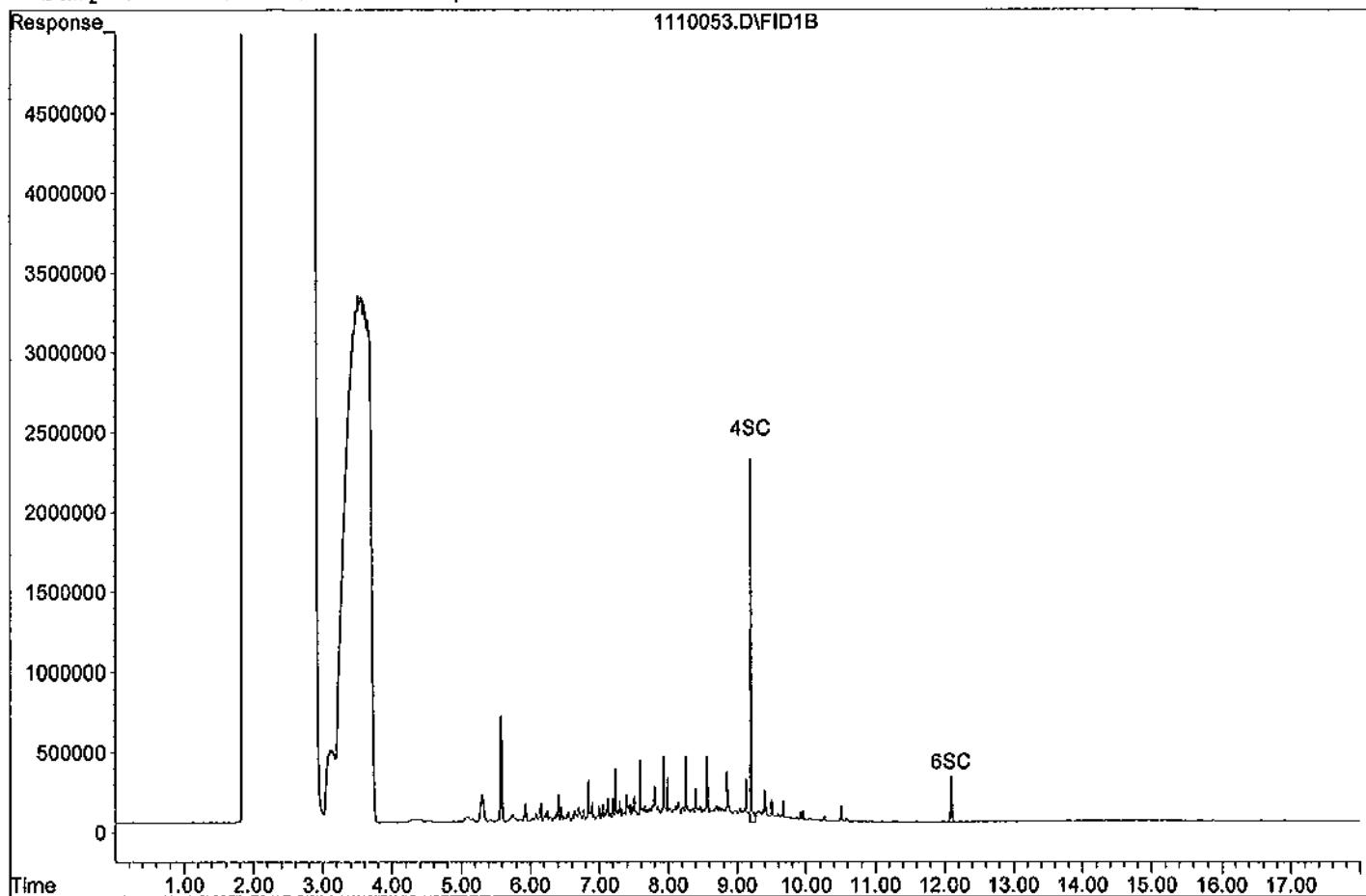
Method : G:\APOLLO\DATA\111110\TPH1108.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Mon Nov 14 13:54:20 2011  
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
<hr/>			
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.20	17106977	140.899 ppb
Surrogate Spike 150.000		Recovery	= 93.93%
6) SC Octacosane(S)	12.10	3821271	124.187 ppb
Surrogate Spike 150.000		Recovery	= 82.79%
<hr/>			
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	160007121	1619.200 ppb
2) HBTM Motor Oil (C18-C36)	12.24	52632663	1132.117 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111110\1110053.D  
Sample : 111108A LCS-1 S/1000



STANDARD  
052INITIAL SOURCE FINAL FINAL SOLVENT DATE LOT# INITIALS  
CONC DATE ALIQUOT VOLUME CONCDIESEL  
FUEL #2DIESEL STANDARD

50.000mg/L 0251 100ml 50ml 100mg/L MC

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

01159843

Lot #: 167768 Storage: Expiry:

5-10 Degrees C 2/15/13

Solvent: Methylene Chloride

Diesel Fuel #2 Composite OP: 9/1/11

Lot #: 167768-28176 EX: 9/1/12

Rec: 1/20/11 MFR exp. 02/15/15

# 051711B 9/1/11

EX:

3/1/12

OCTANOSANNE  
O-TOLUENATE

50.000mg/L 0251 4170ml

50mg/L

CAT: 110316-05

LOT: 170405-29337

OP: 9/1/11

EX: 9/1/12

MOTOR OIL STANDARD

MOTOR OIL

50.000mg/L 0251 100ml 50ml 100mg/L MC

# 051711B 9/1/11

EX:

3/1/12

0251

STANOL SOLUTIONS

116390-02

Made in USA

Lot No: 161898

Exp: 7/23/2013

Dil: Motor oil composite

Lot #: 161898-28615

Rec: 4/14/11 MFR exp. 07/23/13

OP: 9/1/11

EX: 9/1/12

# 051711B

DIESEL  
FUEL #2

50.000mg/L 0251 100ml 50ml 100mg/L MC

# 051711B 9/1/11

EX:

3/1/12

DIESEL 2ND SOURCEDiesel Fuel #2 Composite  
50,000 mg/L, 1 ml

01159843

Lot #: 167769 Storage: Expiry:

5-10 Degrees C 2/15/13

Solvent: Methylene Chloride

Diesel Fuel #2 Composite OP: 9/1/11

Lot #: 167769-29397 EX: 9/1/12

Rec: 8/28/11 MFR exp. 02/15/15

STANDARD

INITIAL CONC	SOURCE DATE	FINAL ALIQUOT	FINAL VOLUME	SOLVENTS/ LOT #	DATE/ INSTR.
-----------------	----------------	------------------	-----------------	--------------------	-----------------

## DIESEL STANDARD

DIESEL FUEL #2 50,000 mg/L D251 600mL 50mL 1000mL MC  
 50,000 mg/L, 1 mL  
 Diesel Fuel #2 Composite  
 Lot #: 167768-29406 Ex: 10/26/11  
 Rec: 8/28/11 MFR exp. 02/15/15

PPHENTYL	600mg/ml	0251	4170ml	50mg/ml
MOSANE		CAT: 110316-05		
		UDT: 176405-29338		
		DP: 101011		
		EX: 1010112		

## MOTOR OIL STANDARD

Motor oil 50,000 mg/L 1 mL 100mL 50mL 100mL MC  
 O2S Motor Oil Composite, 50,000 mg/L, 1 mL OP: 10/26/11  
 116390-02 Ex: 10/26/12  
 Storage: <= -10 Degrees C  
 Lot No: 161898 Solvent: Methylene Chloride  
 Made in USA Exp: 7/23/2013  
 Date: Motor oil composite  
 Lot #: 161898-28816  
 Rec: 4/14/11 MFR exp. 07/23/13

		PAC ECO 2ND SOURCE			
DIAZINON	8ug/ml	200ug/ml	2604	O2SI	10ml
DISULFOTON		200	CAT:	130169-01	HEXANE
MALATHION		200	LOT:	178204-29481	LOT#
MOLINATE		200	OP:	10/28/2011	082610B
PHORATE		200	EXP:	3/11/2012	
THIOBENCARB		200			
TRIBUTYL PHOSPHATE		200			
DEMETON		200			
DISCHLORVOS		200			
EPTC		200			
PARATHION		200			
AZINPHOS METHYL		200			
CHLORPYRIFOS		200			
DIMETHOATE		200			
METHIDATHION		200			
METHYL PARATHION		200			
ATRAZINE		200			
CYANIZINE		200			
TRIPHENYL PHOSPHATE		200			
PENDIMETHALIN (PROWL)		200			
TRIFLURALIN		200			
SIMAZINE		200			

STANDARD	INITIAL CONC	SOURCE DATE	FINAL ALIQUOT	FINAL VOLUME	SOLVENT	DATE / LOT#
						10/2/11
<b>Technical Chlordane Standard / Spike</b>						
STANDARD	INIT CONC.	SOURCE DATE	ALIQUOT	FINAL VOL.	FINAL CONC.	SOLVENT
Technical	100 ug/ml	Absolute	500 µL	5 mL	10 µg/mL	Hexane
Chlordane	Part:	81824				Lot#
	Lot:	121008-28981				082810B
	open:	7/15/2011				
	exp:	7/15/2012				

### DIESEL SPIKE

DIESEL 50,000ug/L 0251 200mL 50mL 200ug/L MC # 51204 11/2/11  
 PFB #2 OP: 11/2/11 EX: 11/2/12 Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml  
 Lot #: 179635 Storage: <-10 Degrees C Expiry: 11/08/15 Solv: Methylene Chloride  
 Diesel Fuel #2 Composite  
 Lot #: 179635 - 29643 Rec: 10/13/11 MFR exp. 11/08/15  
 11/1/11

### MOTOR OIL SPIKE

MOTOR OIL 50,000ug/L 0251 200mL 50mL 200ug/L MC # 51204 11/2/11  
 Motor Oil Composite, 50,000 mg/L, 1 ml  
 02si  
 116390-02 Storage: <-10 Degrees C  
 Lot No: 161698 Solvent: Methylene Chloride  
 Exp: 7/23/2013 OP: 11/2/11  
 Motor oil composite Ex: 11/2/12  
 Lot #: 161698 - 28617 Rec: 4/14/11 MFR exp. 07/23/13  
 116390-03 Storage: <-10 Degrees C Expiry: 4/9/14  
 Lot #: 171363 Solvent: Methylene Chloride  
 Motor oil composite OP: 11/2/11  
 Lot #: 171363 - 28639 Ex: 11/2/12  
 Rec: 4/29/11 MFR exp. 04/09/14  
 11/1/11

### OCL SOIL SURROGATE

DECA Strong 0251 400mL 100mL 20ug/L ACETONE # 011011C 11/2/11  
 TMX CAT: 130010-02  
 DBC LDT: 154164-29416  
 OP: 11/2/11  
 AX: 11/2/12

Various 100ug/L 0251 1000mL 50mL 20ug/L Acetone # 011011C 11/2/11  
 CAT: 130015-05  
 AX: 148748  
 OP: 11/2/11  
 AX: 11/2/12

STANDARD	INITIAL CONC	SOURCE DATE	FINAL ALIQUOT	FINAL VOLUME	SOLVENT	DATE	LOT#
						11/7/11	1005
PREP:	11/7/2011						
PAC ECO CURVE							
EXP:	2/25/2012						
ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL
PAC ECO CAL STD	5	010711A	10/26/2011	2/25/2012	2	10	50
VWR	Hexane				998	990	950
					Final VOL.	1000	1000
PAC ECO 2ND SRC					1000	1000	1000
Prep: 11/7/11	Exp: 12/17/11	6	010711A	10/28/2011	12/17/2011	500/1000	
<b>TCH SURROGATE CURVE</b>							
STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL
THC SURR	50	176405	10/17/2011	4/17/2012	50	100	400
MC		51204			950	900	600
					Final VOL.	1000	1000
DIESEL CURVE							
STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL
DIESEL	1000		10/26/2011	4/26/2012	10	100	400
MC		51204			880	900	600
					Final VOL.	1000	1000
MOTOR OIL CURVE							
STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL
MOTOR OIL	1000		10/26/2011	4/26/2012	50	100	400
MC		51204			950	900	600
					Final VOL.	1000	1000
DIESEL 2ND SOURCE							
STD	Init. Conc	Source	Aliquot	Final Vol.	Final Conc.	Solvent	
DIESEL 2ND SRC	1000 µg/ml	O2SI	400 µL	1 mL	400 µg/ml	MC	
	Prep: 9/1/2011					51204	
	Exp: 3/1/2012						
PREP DATE:	11/9/2011						
TERBACIL CURVE							
EXP:	3/13/2012						
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL
	TERBACIL STD	5		9/13/2011	3/13/2012	10	50
VWR	HEXANE		082610B			960	920
						Final VOL.	1000
PREP DATE:	11/9/2011						
OP 2ND SOURCE							
EXP:	4/19/2012						
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL
	OP 2ND SRC	5		10/19/2011	4/19/2012	500	
VWR	HEXANE		082610B			500	
						Final VOL.	1000
PREP DATE:	11/9/2011						
OPF CURVE							
EXP:	2/7/2012						
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL
	OPF STD	5		11/3/2011	2/7/2012	2	10
VWR	HEXANE		082610B			998	990
						Final VOL.	1000

STANDARD	INITIAL CONC	SOURCE DATE	FINAL ALIQUOT	FINAL VOLUME	SOLVENT CONC	DATE / LOT#	DETAILS
<u>PCB SOIL SPIKE</u>							
AR1260	1000ng/ml	CATI 130011-03	0251	1250ml	25ml	50ng/ml ACETONE	# 11/10/11
AR1016							ex: 2/10/12
<u>PCB WATER SPIKE</u>							
AR1016	1000ng/ml	CATI 130011-03	0251	125ml	25ML	5ng/ml ACETONE	# 11/10/11
AR1260							ex: 2/10/12
<u>HERB 100/1000 (LVL 3) CCV</u>							
various SEE PL 075	various	various	HERB STD.	10ml	1ml	100ng/ml MTBE	# 11/10/11
			PREP:	10/11/11			ex: 4/11/12
			EX:	4/11/12			
<u>THC SURROGATE CAL. STD.</u>							
D-TERPENTIN D-THYMOL	100ng/ml	CATI 110316-05	0251	833ml	10ml	50ng/ml MC	# 11/15/11
ICHAUSANNE							ex: 5/15/12
			LOT#	176405-29342			
			DP:	10/10/11			
			EX:	10/10/12			

TCH SURROGATE CURVE							TAG 11/15/11		ZAC	
STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
THC SURR	50	176405	11/15/2011	5/15/2012	50	100	400	800	800	1000
MC		51204				950	900	600	400	200
					Final VOL.	1000	1000	1,000	1000	1000

EX 5/15/12

# Organic Extraction Worksheet

Method	THC Separatory Funnel Extraction 3510C	Extraction Set	111108A	Extraction Method	SEP011	Units	mL
Spiked ID 1	Diesel Spike 11/2/11 EX 2/2/12		Surrogate ID 1	THC Surrogate 176405-29338			
Spiked ID 2	Motor Oil Spike 11/2/11 EX 2/2/12		Surrogate ID 2				
Spiked ID 3			Surrogate ID 3				
Spiked ID 4			Surrogate ID 4				
Spiked ID 5			Surrogate ID 5				
Spiked ID 6			Sufficient Vol for Matrix QC:	no			
Spiked ID 7			Ext. Start Time:				
Spiked ID 8			Ext. End Time:				
			GC Requires Extract By:	11/17/11 0:00			
		pH1					Water Bath Temp Criteria 80 °C
		pH2					
		pH3					

Spiked By: HW

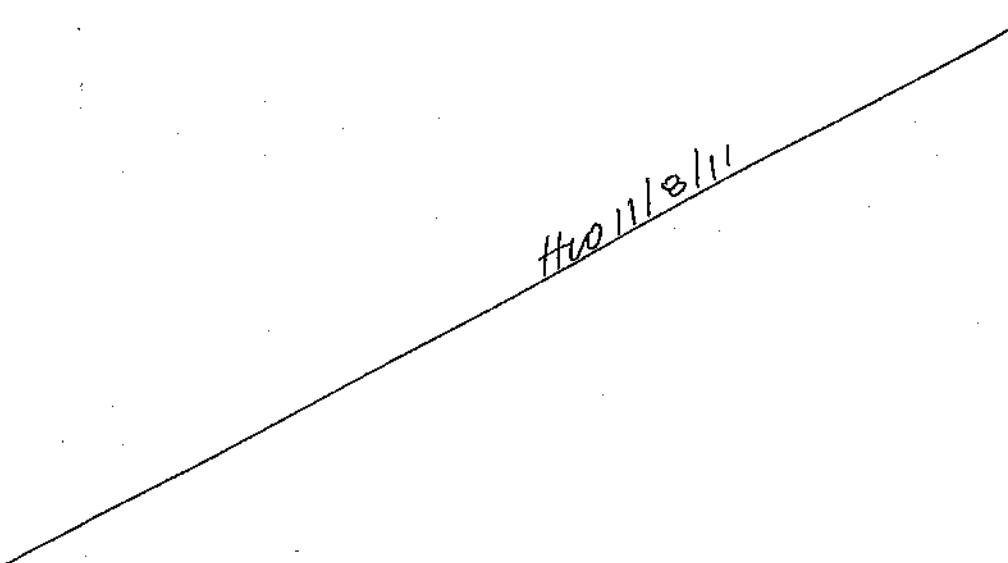
Date 11/8/2011

Witnessed By: CC

Date 11/8/2011

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
111108A Blk				0.250	1 equip	1000	5	7	11/08/11 12:40	
211108A LCS-1		1	1	0.250	1 equip	1000	5	7	11/08/11 12:40	
311108A LCS-2		1	2	0.250	1 equip	1000	5	7	11/08/11 12:40	
4AY50005	AY50005W07			0.250	1 equip	1030	5	7	11/08/11 12:40	66186-2 week rush -- Amber Liter
5AY50011	AY50011W09			0.250	1 equip	1050	5	7	11/08/11 12:40	66187-2 week rush -- Amber Liter
6AY50017	AY50017W08			0.250	1 equip	1050	5	7	11/08/11 12:40	66187-2 week rush -- Amber Liter
7AY50141	AY50141W06			0.250	1 equip	1050	5	7	11/08/11 12:40	66206-2 week rush -- Amber Liter

HW 11/8/11



Solvent and Lot#	
MC	BMD 51204
Na2SO4	3581C501

Extraction COC Transfer	
Extraction lab employee Initials	HW
GC analyst's initials	
Date	11/9/11
Time	16:49
Refrigerator	HRCBCT

Scanned By	Technician's Initials
Sample Preparation	HW
Extraction	HW
Concentration	HW
Modified	11/8/2011 12:09:28 PM

Reviewed By: HW

Date 11/8/2011

## Injection Log

Directory: G:\APOLLO\DATA\111108\111110

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	5	1108005.D	1	DIESEL 100/1000	Mix(A)	11-8-11 15:50:59
2	6	1108006.D	1	DIESEL 400/1000	Mix(A)	11-8-11 16:14:36
3	7	1108007.D	1	DIESEL 600/1000	Mix(A)	11-8-11 16:38:14
4	8	1108008.D	1	DIESEL 800/1000	Mix(A)	11-8-11 17:01:53
5	9	1108009.D	1	DIESEL 1000/1000	Mix(A)	11-8-11 17:25:32
6	11	1108011.D	1	MOTOR OIL 50/1000 11/8/11	Mix(B)	11-8-11 18:12:45
7	12	1108012.D	1	MOTOR OIL 100/1000	Mix(B)	11-8-11 18:36:14
8	13	1108013.D	1	MOTOR OIL 400/1000	Mix(B)	11-8-11 18:59:47
9	14	1108014.D	1	MOTOR OIL 600/1000	Mix(B)	11-8-11 19:23:20
10	15	1108015.D	1	MOTOR OIL 800/1000	Mix(B)	11-8-11 19:46:53
11	16	1108016.D	1	MOTOR OIL 1000/1000	Mix(B)	11-8-11 20:10:21
12	17	1108017.D	1	THC SURN 10/1000 11/8/11	Mix(C)	11-8-11 20:33:47
13	18	1108018.D	1	THC SURN 100/1000	Mix(C)	11-8-11 20:57:14
14	19	1108019.D	1	THC SURN 400/1000	Mix(C)	11-8-11 21:20:36
15	20	1108020.D	1	THC SURN 600/1000	Mix(C)	11-8-11 21:43:59
16	21	1108021.D	1	THC SURN 800/1000	Mix(C)	11-8-11 22:07:20
17	22	1108022.D	1	THC SURN 1000/1000	Mix(C)	11-8-11 22:30:39
18	69	1108069.D	1	DIESEL 10/1000 11/8/11	Mix(A)	11-9-11 17:18:58
19	70	1108070.D	1	DIESEL 400 2ND SRC 11/8/11	Mix(A)	11-9-11 17:42:38
20	47	1110047.D	1	DIESEL 400/1000 11/8/11	Mix(A)	11-11-11 4:07:11
21	52	1110052.D	5	111108A BLK 5/1000	Water	11-11-11 6:05:10
22	53	1110053.D	5	111108A LCS-1 5/1000	Water	11-11-11 6:28:45
23	55	1110055.D	4.85437	AY50005W07 5/1030	Water	11-11-11 7:15:54
24	59	1110059.D	1	DIESEL 400/1000 11/8/11	Mix(A)	11-11-11 8:50:25

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

**APPL, INC.**

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

**APPL, INC.**

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

APPL Inc.

Blank Name/QCG: 111108W-50005 - 162179

908 North Temperance Avenue  
 Clovis, CA 93611

Batch ID: #SIMHC-111108A

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	11/08/11	11/10/11
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
BLANK	SURROGATE: 2-FLUORBIPHENY	55.5	50-110			%	11/08/11	11/10/11
BLANK	SURROGATE: NITROBENZENE-	54.3	40-110			%	11/08/11	11/10/11
BLANK	SURROGATE: TERPHENYL-D14 (	118	50-135			%	11/08/11	11/10/11

Quant Method:SIM2.M
Run #:1110L003
Instrument:Linus
Sequence:L111027
Initials:LF

GC SC-Blank-REG MDLs  
 Printed: 12/09/11 6:52:02 PM

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 66186

Case No: 66186

Date Analyzed: 11/10/11

Matrix: WATER

Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111108A-BLK	Blank	50-110	55.5		40-110	54.3	
111108A-LCS	Lab Control Spike	50-110	52.5		40-110	65.5	
AY50005	ES057	50-110	62.7		40-110	72.6	

Comments: Batch: #SIMHC-111108A

Printed: 12/12/11 3:01:07 PM

Form 2 & 8, Surrogate Recovery Summary

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 66186

Case No: 66186

Date Analyzed: 11/10/11

Matrix: WATER

Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
111108A-BLK	Blank	50-135	118				
111108A-LCS	Lab Control Spike	50-135	122				
AY50005	ES057	50-135	111				

Comments: Batch: #SIMHC-111108A

# Laboratory Control Spike Recovery

## EPA 8270D SIM

APPL ID: 111108W-50005 LCS - 162179

Batch ID: #SIMHC-111108A

APPL Inc.

908 North Temperance Avenue  
Clovis, CA 93611

Compound Name	Spike Level	SPK Result	SPK % Recovery	Recovery Limits
	ug/L	ug/L		
1-METHYLNAPHTHALENE	4.00	2.49	62.3	45-105
2-METHYLNAPHTHALENE	4.00	2.53	63.2	45-105
ACENAPHTHENE	4.00	2.74	68.5	45-110
ACENAPHTHYLENE	4.00	2.50	62.5	50-105
ANTHRACENE	4.00	2.86	71.5	55-110
BENZO(A)ANTHRACENE	4.00	3.45	86.3	55-110
BENZO(A)PYRENE	4.00	2.73	68.3	55-110
BENZO(B)FLUORANTHENE	4.00	3.28	82.0	45-120
BENZO(GHI)PERYLENE	4.00	2.98	74.5	40-125
BENZO(K)FLUORANTHENE	4.00	2.78	69.5	45-125
CHRYSENE	4.00	2.69	64.8	55-110
DIBENZ(A,H)ANTHRACENE	4.00	3.11	77.8	40-125
FLUORANTHENE	4.00	3.05	76.3	55-115
FLUORENE	4.00	2.69	67.3	50-110
INDENO(1,2,3-CD)PYRENE	4.00	3.14	78.5	45-125
NAPHTHALENE	4.00	2.22	55.5	40-100
PHENANTHRENE	4.00	2.60	65.0	50-115
PYRENE	4.00	2.73	68.3	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.05	52.5	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.31	65.5	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	2.43	122	50-135

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

Primary	SPK
Quant Method :	SIM2.M
Extraction Date :	11/08/11
Analysis Date :	11/10/11
Instrument :	Linus
Run :	1110L004
Initials :	LF

Printed: 12/09/11 6:52:11 PM

APPL Standard LCS

# 8270D-SIM

## Form 4

### Blank Summary

Lab Name: APPL, Inc.  
Case No: 66186  
Matrix: WATER  
Blank ID: 111108A-BLK

SDG No: 66186  
Date Analyzed: 11/10/11  
Instrument: Linus  
Time Analyzed: 1947

APPL ID.	Client Sample No.	File ID.	Date Analyzed
111108A-BLK	Blank	1110L003	11/10/11 1947
111108A-LCS	Lab Control Spike	1110L004	11/10/11 2012
AY50005	ES057	1110L005	11/10/11 2038

Comments: Batch: #SIMHC-111108A

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 66186  
Matrix: Water  
ID: SVTUNE 10-27-11

SDG No: 66186  
Date Analyzed: 11/10/11  
Instrument: Linus  
Time Analyzed: 19:03

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1 Blank	111108A BLK 1/1000	1110L003.D	11/10/11 19:47
2 Lab Control Spike	111108A LCS-1 1/1000	1110L004.D	11/10/11 20:12
3 ES057	AY50005W05 1/1050	1110L005.D	11/10/11 20:38
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

51 29.95 - 60% of mass 198	52.6
68 0 - 2.05% of mass 69	0.0
70 0 - 2% of mass 69	0.1
127 40 - 60% of mass 198	49.8
197 0 - 1% of mass 198	0.0
198 100 - 100% of mass 198	100.0
199 5 - 9% of mass 198	6.9
275 10 - 30% of mass 198	28.8
365 1 - 100% of mass 198	2.8
441 0.01 - 100% of mass 443	74.8
442 40 - 150% of mass 198	79.8
443 17 - 23% of mass 442	20.1

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code:  SDG No.: 66186  
 Lab File ID (Standard): 1028L007.D Date Analyzed: 10/28/11  
 Instrument ID: Linus Time Analyzed: 11:58  
 GC Column:  ID:  Heated Purge: (Y/N)

	Naphthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12 HOUR STD	2479	6.12	1083	8.11	1851	9.85	
UPPER LIMIT	4958	6.62	2166	8.61	3702	10.35	
LOWER LIMIT	1240	5.62	542	7.61	926	9.35	
SAMPLE NO.							
01 111108A BLK 1/1000	2288	6.12	1021	8.12	1840	9.86	
02 111108A LCS-1 1/1000	2376	6.12	1055	8.12	1891	9.86	
03 AY50005W05 1/1050	2197	6.12	977	8.12	1765	9.86	
04							
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.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: <u>APPL Inc.</u>	Contract: <u>Review</u>
Lab Code: _____	SDG No.: <u>66186</u>
Lab File ID (Standard): <u>1028L007.D</u>	Date Analyzed: <u>10/28/11</u>
Instrument ID: <u>Linus</u>	Time Analyzed: <u>11:58</u>
GC Column: _____	ID: _____ Heated Purge: (Y/N) _____

Chrysene-D12(IS)		Perylene-D12(IS)					
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12 HOUR STD	2378	12.93	1871	14.56			
UPPER LIMIT	4756	13.43	3742	15.06			
LOWER LIMIT	1189	12.43	936	14.06			
SAMPLE NO.							
01 111108A BLK 1/1000	2623	12.95	2235	14.59			
02 111108A LCS-1 1/1000	2640	12.95	2275	14.58			
03 AY50005W05 1/1050	2529	12.96	2146	14.59			
04							
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 8270**  
**Polynuclear Aromatic Hydrocarbons**  
**Sample Data**

**APPL, INC.**

# EPA 8270D SIM

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Stacey Fineran  
Project: RED HILL/1022-024  
Sample ID: ES057  
Sample Collection Date: 11/02/11

ARF: 66186  
APPL ID: AY50005  
QCG: #SIMHC-111108A-162179

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	11/08/11	11/10/11
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
8270D-SIM	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	62.7	50-110			%	11/08/11	11/10/11
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	72.6	40-110			%	11/08/11	11/10/11
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	111	50-135			%	11/08/11	11/10/11

Quant Method: SIM2.M  
Run #: 1110L005  
Instrument: Linus  
Sequence: L111027  
Dilution Factor: 1  
Initials: LF

Printed: 12/09/11 6:52:16 PM  
APPL-F1-SC-NoMC-REG MDLs

## Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1110L005.D Vial: 5  
 Acq On : 10 Nov 11 20:38 Operator: LF  
 Sample : AY50005W05 1/1050 Inst : Linus  
 Misc :

Quant Time: Nov 16 15:49 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed Nov 09 14:09:04 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.12	136	2197	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.12	164	977	2.50000	ppb	0.01
11) Phenanthrene-D10 (IS)	9.86	188	1765	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.96	240	2529	2.50000	ppb	0.03
21) Perylene-D12 (IS)	14.59	264	2146	2.50000	ppb	0.03

## System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.42	82	571	1.38207	ppb	0.02
Spiked Amount	1.905		Recovery	=	72.555%	
7) Surrogate Recovery (FBP)	7.36	172	1093	1.19518	ppb	0.01
Spiked Amount	1.905		Recovery	=	62.738%	
17) Surrogate Recovery (TPH)	11.72	244	2419	2.11556	ppb	0.01
Spiked Amount	1.905		Recovery	=	111.090%	

## Target Compounds

Qvalue

## Quantitation Report

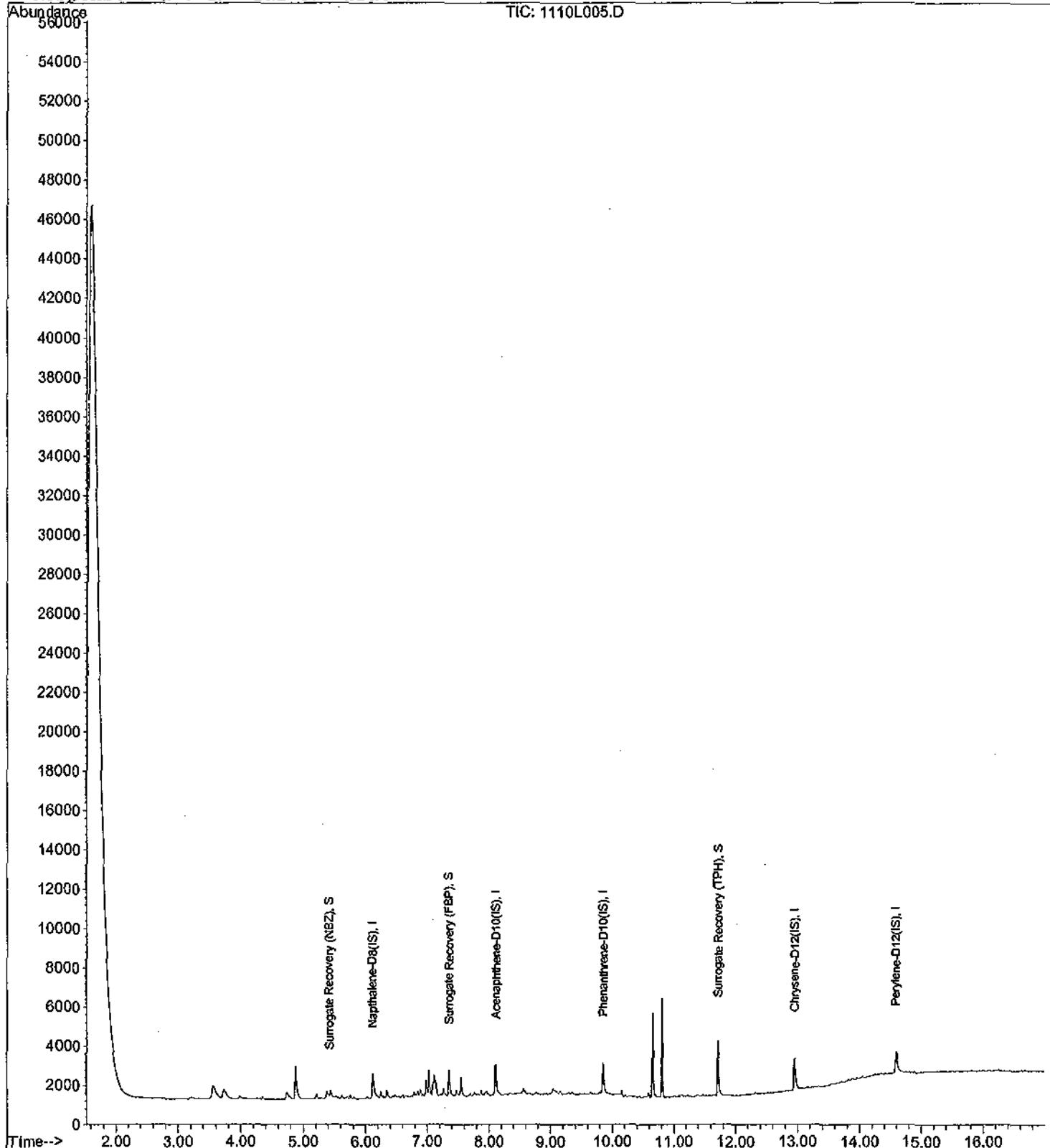
Data File : M:\LINUS\DATA\L111027\1110L005.D  
Acq On : 10 Nov 11 20:38  
Sample : AY50005W05 1/1050  
Misc :

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

Quant Time: Nov 16 15:49 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Fri Nov 11 16:40:11 2011  
Response via : Initial Calibration



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

**APPL, INC.**

EPA 8270C SIM

Form 6  
Initial Calibration

Lab Name: APPL. Inc.

Case No:

#### **Matrix**

SDG No: 6

Initial Cal. Date: 10/27/11

Instrument: Linus

**Initials:**

## Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1027L003.D Vial: 3  
 Acq On : 27 Oct 11 19:12 Operator: DF  
 Sample : 0.1ug/ml PAH 10-27-11 Inst : Linus  
 Misc :

Quant Time: Oct 30 11:15 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Sun Oct 30 10:57:42 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.14	136	2908	2.50000	ppb	0.02
6) Acenaphthene-D10 (IS)	8.12	164	1434	2.50000	ppb	0.01
11) Phenanthrene-D10 (IS)	9.87	188	2391	2.50000	ppb	0.02
15) Chrysene-D12 (IS)	12.95	240	2986	2.50000	ppb	0.02
21) Perylene-D12 (IS)	14.58	264	2411	2.50000	ppb	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	5.61	82	48	0.74306	ppb	0.19
Spiked Amount 2.000			Recovery	=	37.150%	
7) Surrogate Recovery (FBP)	7.40	172	130	0.09815	ppb	0.05
Spiked Amount 2.000			Recovery	=	4.900%	
17) Surrogate Recovery (TPH)	11.74	244	137	0.09107	ppb	0.02
Spiked Amount 2.000			Recovery	=	4.550%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.17	128	215	0.10425	ppb	93
4) 2-Methylnaphthalene	7.01	142	97	0.09198	ppb	99
5) 1-Methylnaphthalene	7.08	142	117	0.09071	ppb	97
8) Acenaphthylene	7.99	152	204	0.10524	ppb	99
9) Acenaphthene	8.16	154	126	0.11351	ppb	94
10) Fluorene	8.81	166	125	0.10297	ppb	98
12) Phenanthrene	9.90	178	177	0.11216	ppb	95
13) Anthracene	9.99	178	166	0.10145	ppb	95
14) Fluoranthene	11.30	202	298	0.10883	ppb	# 90
16) Pyrene	11.56	202	303	0.11040	ppb	99
18) Benz (a) anthracene	12.95	228	211	0.11702	ppb	96
19) Chrysene	12.98	228	255	0.09385	ppb	98
20) Indeno (1,2,3-cd) pyrene	16.19	276	218	0.11665	ppb	# 93
22) Benzo (b) fluoranthene	14.15	252	165	0.09422	ppb	# 95
23) Benzo (k) fluoranthene	14.19	252	206	0.11693	ppb	65
24) Benzo (a) pyrene	14.54	252	193	0.11081	ppb	95
25) Dibenz (a,h) anthracene	16.17	278	171	0.11827	ppb	92
26) Benzo (g,h,i) perylene	16.64	276	136	0.08955	ppb	# 89

## Quantitation Report

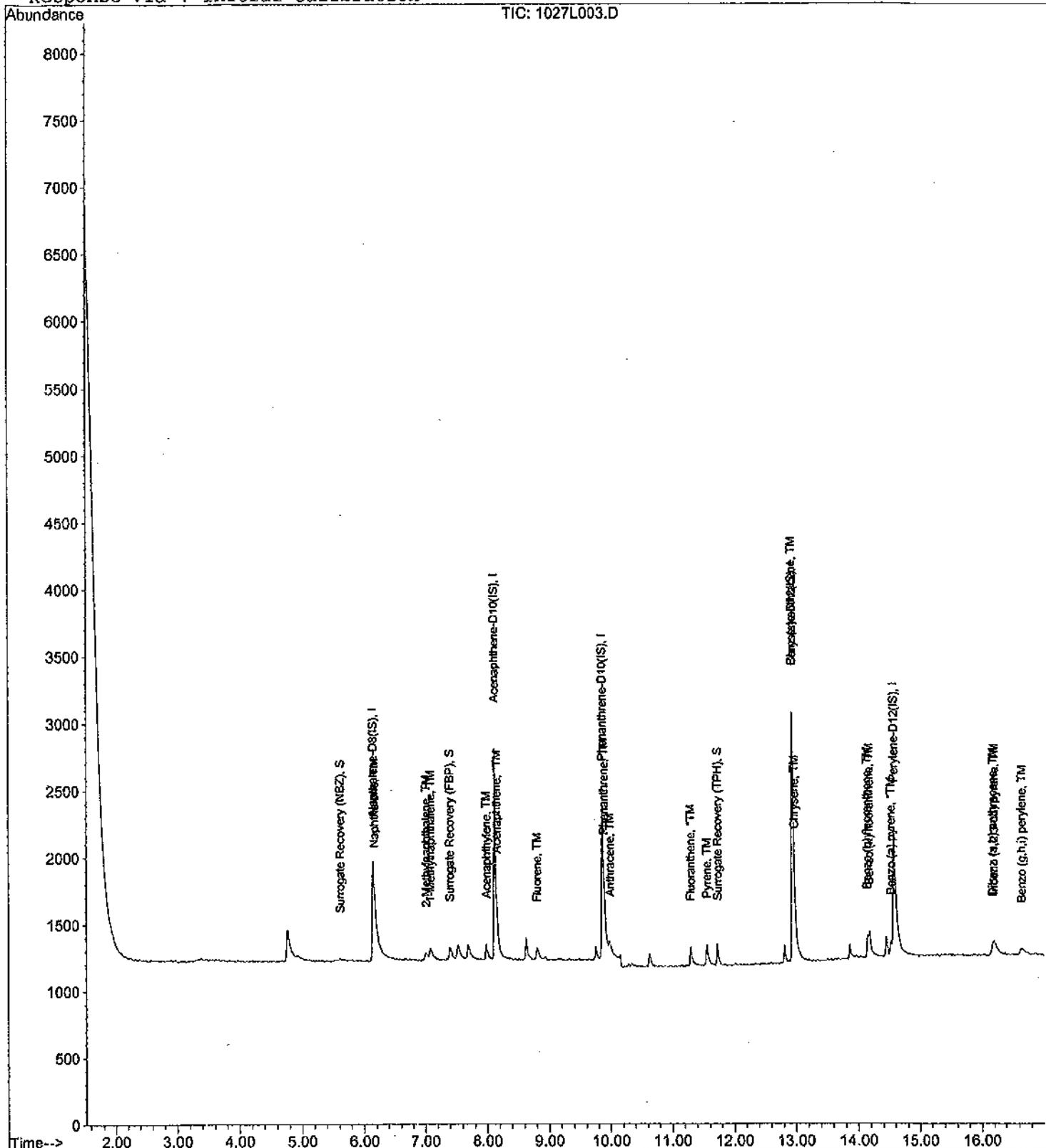
Data File : M:\LINUS\DATA\L111027\1027L003.D  
 Acq On : 27 Oct 11 19:12  
 Sample : 0.1ug/ml PAH 10-27-11  
 Misc :

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

Quant Time: Oct 30 11:15 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Tue Nov 01 17:14:29 2011  
 Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1027L004.D                          Vial: 4  
 Acq On : 27 Oct 11 19:38                                  Operator: LF  
 Sample : 0.2ug/ml PAH                                  Inst : Linus  
 Misc :    Multiplr: 1.00

Quant Time: Oct 30 11:13 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Sun Oct 30 10:57:42 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Napthalene-D8 (IS)	6.14	136	2862	2.50000	ppb	0.02
6) Acenaphthene-D10 (IS)	8.12	164	1317	2.50000	ppb	0.01
11) Phenanthrene-D10 (IS)	9.87	188	2305	2.50000	ppb	0.02
15) Chrysene-D12 (IS)	12.95	240	2814	2.50000	ppb	0.02
21) Perylene-D12 (IS)	14.58	264	2323	2.50000	ppb	0.02
<b>System Monitoring Compounds</b>						
2) Surrogate Recovery (NBZ)	5.60	82	107	0.84083	ppb	0.18
Spiked Amount 2.000			Recovery	= 42.050%		
7) Surrogate Recovery (FBP)	7.40	172	250	0.20995	ppb	0.05
Spiked Amount 2.000			Recovery	= 10.500%		
17) Surrogate Recovery (TPH)	11.72	244	260	0.18421	ppb	0.01
Spiked Amount 2.000			Recovery	= 9.200%		
<b>Target Compounds</b>						
3) Naphthalene	6.17	128	470	0.23025	ppb	94
4) 2-Methylnaphthalene	7.00	142	193	0.18513	ppb	92
5) 1-Methylnaphthalene	7.07	142	261	0.20451	ppb	98
8) Acenaphthylene	7.99	152	366	0.20677	ppb	98
9) Acenaphthene	8.16	154	211	0.20826	ppb	87
10) Fluorene	8.81	166	232	0.20927	ppb	99
12) Phenanthrene	9.90	178	308	0.20239	ppb	96
13) Anthracene	9.99	178	310	0.19992	ppb	95
14) Fluoranthene	11.29	202	554	0.20981	ppb	95
16) Pyrene	11.55	202	542	0.21034	ppb	# 91
18) Benz (a) anthracene	12.95	228	323	0.19084	ppb	97
19) Chrysene	12.98	228	465	0.18296	ppb	99
20) Indeno (1,2,3-cd) pyrene	16.17	276	342	0.19494	ppb	# 96
22) Benzo (b) fluoranthene	14.15	252	307	0.18266	ppb	97
23) Benzo (k) fluoranthene	14.19	252	334	0.18857	ppb	64
24) Benzo (a) pyrene	14.54	252	353	0.21468	ppb	96
25) Dibenz (a,h) anthracene	16.16	278	293	0.21252	ppb	92
26) Benzo (g,h,i) perylene	16.64	276	326	0.22362	ppb	88

## Quantitation Report

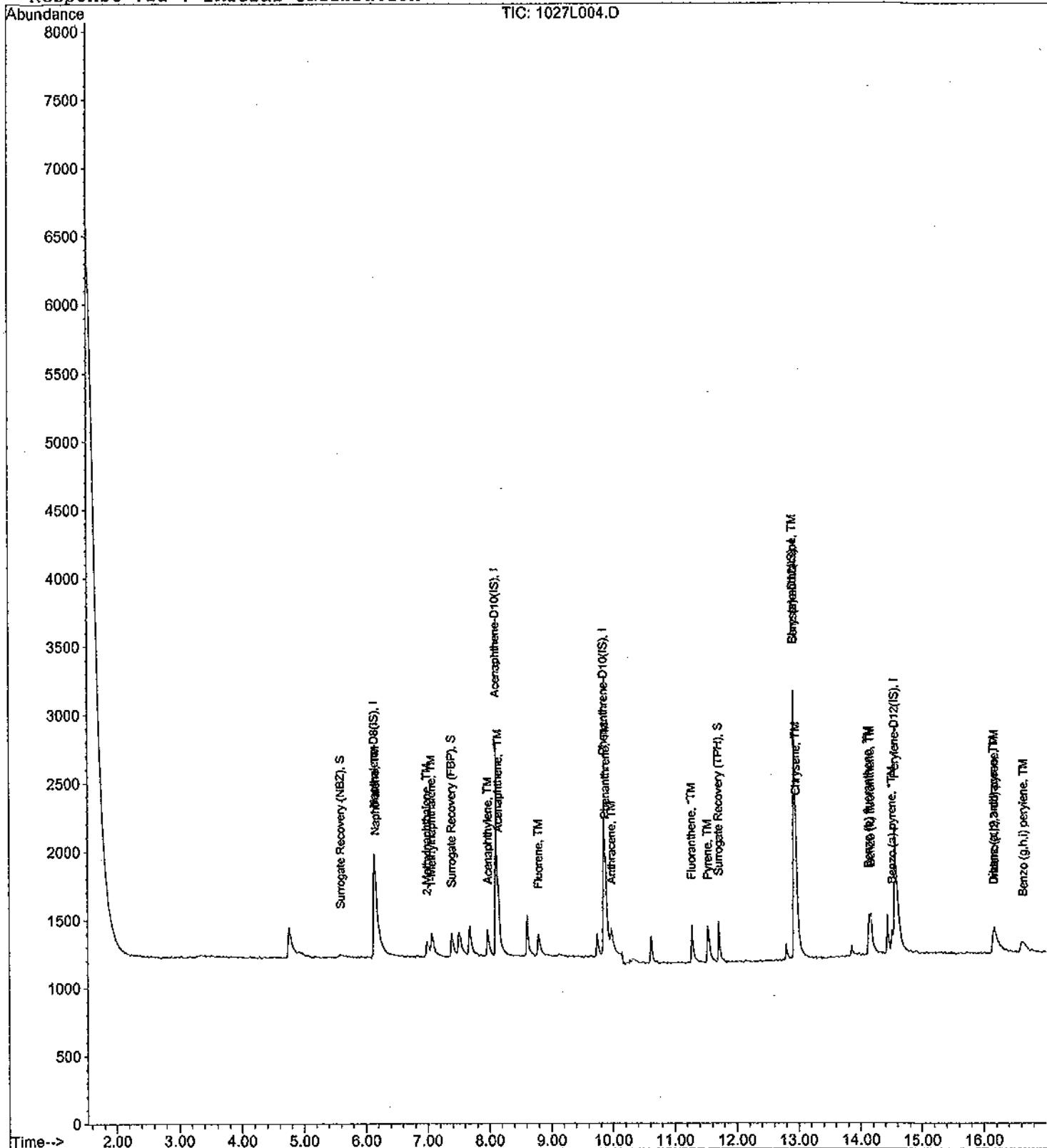
Data File : M:\LINUS\DATA\L111027\1027L004.D  
 Acq On : 27 Oct 11 19:38  
 Sample : 0.2ug/ml PAH  
 Misc :

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

Quant Time: Oct 30 11:13 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Tue Nov 01 17:14:29 2011  
 Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L005.D Vial: 5  
 Acq On : 28 Oct 11 11:07 Operator: LF  
 Sample : 0.5ug/ml PAH Inst : Linus  
 Misc :

Quant Time: Oct 30 11:12 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Sep 29 11:47:40 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.14	136	2409	2.50000	ppb	0.02
6) Acenaphthene-D10 (IS)	8.12	164	1104	2.50000	ppb	-0.01
11) Phenanthrene-D10 (IS)	9.87	188	1819	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.95	240	2477	2.50000	ppb	-0.01
21) Perylene-D12 (IS)	14.57	264	2043	2.50000	ppb	-0.02
<b>System Monitoring Compounds</b>						
2) Surrogate Recovery (NBZ)	5.60	82	240	1.15802	ppb	0.25
Spiked Amount 2.000			Recovery =	57.900%		
7) Surrogate Recovery (FBP)	7.39	172	547	0.79241	ppb	0.01
Spiked Amount 2.000			Recovery =	39.600%		
17) Surrogate Recovery (TPH)	11.74	244	530	0.66674	ppb	-0.02
Spiked Amount 2.000			Recovery =	33.350%		
<b>Target Compounds</b>						
3) Naphthalene	6.17	128	914	0.46769	ppb	98
4) 2-Methylnaphthalene	6.99	142	390	0.33945	ppb	96
5) 1-Methylnaphthalene	7.06	142	543	0.44086	ppb	95
8) Acenaphthylene	7.98	152	766	0.43771	ppb	99
9) Acenaphthene	8.16	154	445	0.43164	ppb	89
10) Fluorene	8.80	166	496	0.42124	ppb	99
12) Phenanthrene	9.90	178	642	0.38630	ppb	97
13) Anthracene	9.98	178	680	0.37229	ppb	95
14) Fluoranthene	11.29	202	1109	0.36672	ppb	96
16) Pyrene	11.55	202	1135	0.35574	ppb	97
18) Benz (a) anthracene	12.95	228	616	0.34309	ppb	98
19) Chrysene	12.98	228	1009	0.43128	ppb	99
20) Indeno (1,2,3-cd) pyrene	16.15	276	636	0.45186	ppb	# 96
22) Benzo (b) fluoranthene	14.14	252	746	0.48527	ppb	98
23) Benzo (k) fluoranthene	14.17	252	769	0.37285	ppb	98
24) Benzo (a) pyrene	14.52	252	674	0.41516	ppb	94
25) Dibenz (a,h) anthracene	16.14	278	480	0.46345	ppb	95
26) Benzo (g,h,i) perylene	16.59	276	614	0.46797	ppb	92

## Quantitation Report

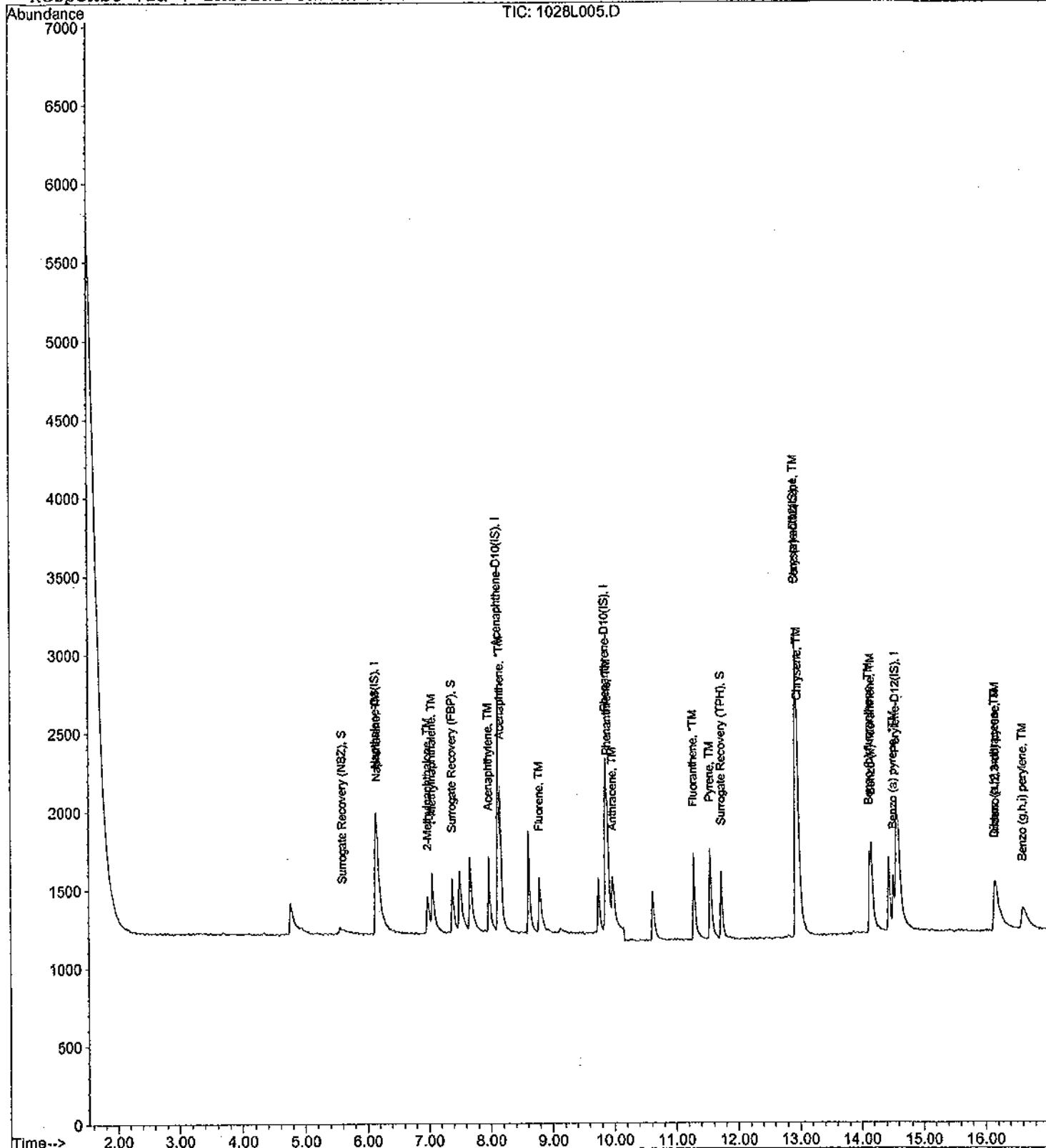
Data File : M:\LINUS\DATA\L111027\1028L005.D  
 Acq On : 28 Oct 11 11:07  
 Sample : 0.5ug/ml PAH  
 Misc :

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

Quant Time: Oct 30 11:12 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Tue Nov 01 17:14:29 2011  
 Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L006.D Vial: 6  
 Acq. On : 28 Oct 11 11:32 Operator: LF  
 Sample : 1.0ug/ml PAH Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 30 11:10 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Sun Oct 30 10:38:04 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	6.13	136	2381	2.50000	ppb	0.01
6) Acenaphthene-D10(IS)	8.12	164	1089	2.50000	ppb	-0.01
11) Phenanthrene-D10(IS)	9.86	188	1865	2.50000	ppb	-0.01
15) Chrysene-D12(IS)	12.95	240	2449	2.50000	ppb	-0.01
21) Perylene-D12(IS)	14.57	264	2032	2.50000	ppb	-0.02

## System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.54	82	437	1.90266	ppb	0.00
Spiked Amount	2.000		Recovery	=	95.150%	
7) Surrogate Recovery (FBP)	7.37	172	1135	1.66686	ppb	0.00
Spiked Amount	2.000		Recovery	=	83.350%	
17) Surrogate Recovery (TPH)	11.72	244	1210	1.53959	ppb	-0.04
Spiked Amount	2.000		Recovery	=	77.000%	

## Target Compounds

					Qvalue
3) Naphthalene	6.16	128	1881	0.97382	ppb
4) 2-Methylnaphthalene	6.96	142	916	0.80665	ppb
5) 1-Methylnaphthalene	7.05	142	1202	0.98738	ppb
8) Acenaphthylene	7.96	152	1632	0.94540	ppb
9) Acenaphthene	8.16	154	938	0.92237	ppb
10) Fluorene	8.79	166	1027	0.88422	ppb
12) Phenanthrene	9.90	178	1324	0.77703	ppb
13) Anthracene	9.97	178	1377	0.73529	ppb
14) Fluoranthene	11.28	202	2277	0.73437	ppb
16) Pyrene	11.54	202	2363	0.74909	ppb
18) Benz (a) anthracene	12.94	228	1529	0.86133	ppb
19) Chrysene	12.97	228	2071	0.89534	ppb
20) Indeno (1,2,3-cd) pyrene	16.12	276	1501	1.07861	ppb
22) Benzo (b) fluoranthene	14.13	252	1509	0.98690	ppb
23) Benzo (k) fluoranthene	14.16	252	1507	0.73463	ppb
24) Benzo (a) pyrene	14.51	252	1370	0.84844	ppb
25) Dibenz (a,h) anthracene	16.12	278	1169	1.13481	ppb
26) Benzo (g,h,i) perylene	16.58	276	1332	1.02070	ppb

## Quantitation Report

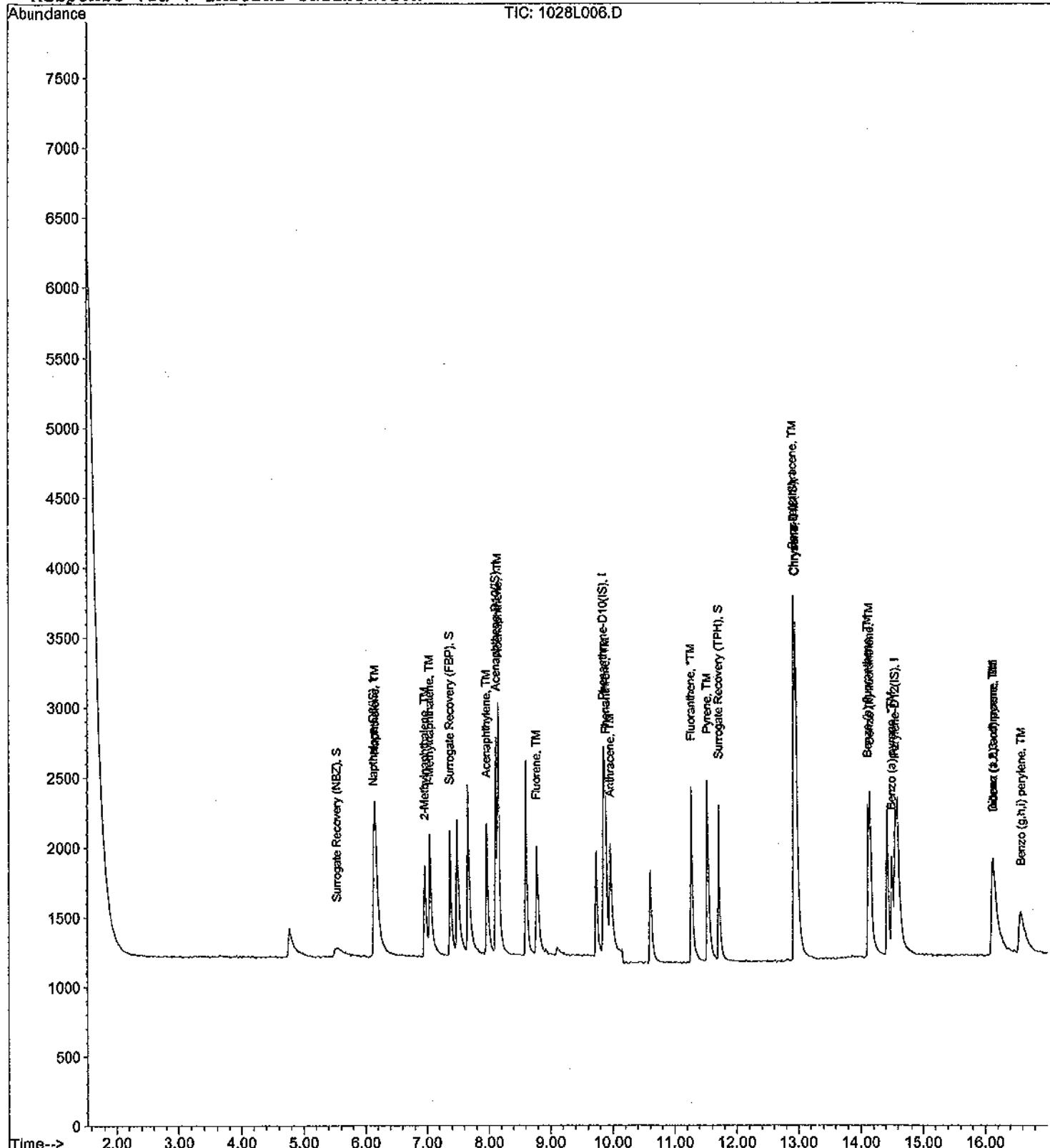
Data File : M:\LINUS\DATA\L111027\1028L006.D  
 Acq On : 28 Oct 11 11:32  
 Sample : 1.0ug/ml PAH  
 Misc :

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

Quant Time: Oct 30 11:10 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Tue Nov 01 17:14:29 2011  
 Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L007.D Vial: 7  
 Acq On : 28 Oct 11 11:58 Operator: LF  
 Sample : 5.0ug/ml PAH Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 30 10:40 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Sun Oct 30 10:38:04 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Naphthalene-D8 (IS)	6.12	136	2479	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.11	164	1083	2.50000	ppb	-0.02
11) Phenanthrene-D10 (IS)	9.85	188	1851	2.50000	ppb	-0.02
15) Chrysene-D12 (IS)	12.93	240	2378	2.50000	ppb	-0.04
21) Perylene-D12 (IS)	14.56	264	1871	2.50000	ppb	-0.04
<b>System Monitoring Compounds</b>						
2) Surrogate Recovery (NBZ)	5.42	82	1947	7.24379	ppb	-0.12
Spiked Amount 2.000			Recovery =	362.200%		
7) Surrogate Recovery (FBP)	7.35	172	4731	6.98644	ppb	-0.02
Spiked Amount 2.000			Recovery =	349.300%		
17) Surrogate Recovery (TPH)	11.71	244	5216	6.83493	ppb	-0.05
Spiked Amount 2.000			Recovery =	341.750%		
<b>Target Compounds</b>						
3) Naphthalene	6.14	128	7358	3.65875	ppb	99
4) 2-Methylnaphthalene	6.93	142	4331	3.66320	ppb	98
5) 1-Methylnaphthalene	7.04	142	4683	3.69477	ppb	97
8) Acenaphthylene	7.95	152	6597	3.84274	ppb	100
9) Acenaphthene	8.15	154	3814	3.77124	ppb	92
10) Fluorene	8.76	166	4219	3.65257	ppb	99
12) Phenanthrene	9.87	178	5443	3.21854	ppb	98
13) Anthracene	9.94	178	5527	2.97363	ppb	99
14) Fluoranthene	11.26	202	9367	3.04387	ppb	98
16) Pyrene	11.51	202	9724	3.17462	ppb	97
18) Benz (a) anthracene	12.91	228	6027	3.49657	ppb	98
19) Chrysene	12.96	228	9422	4.19498	ppb	99
20) Indeno (1,2,3-cd) pyrene	16.06	276	6554	4.85029	ppb	95
22) Benzo (b) fluoranthene	14.10	252	6693	4.75397	ppb	# 96
23) Benzo (k) fluoranthene	14.14	252	6995	3.70332	ppb	99
24) Benzo (a) pyrene	14.49	252	6259	4.20974	ppb	98
25) Dibenz (a,h) anthracene	16.08	278	5075	5.35048	ppb	97
26) Benzo (g,h,i) perylene	16.51	276	5423	4.51321	ppb	98

## Quantitation Report

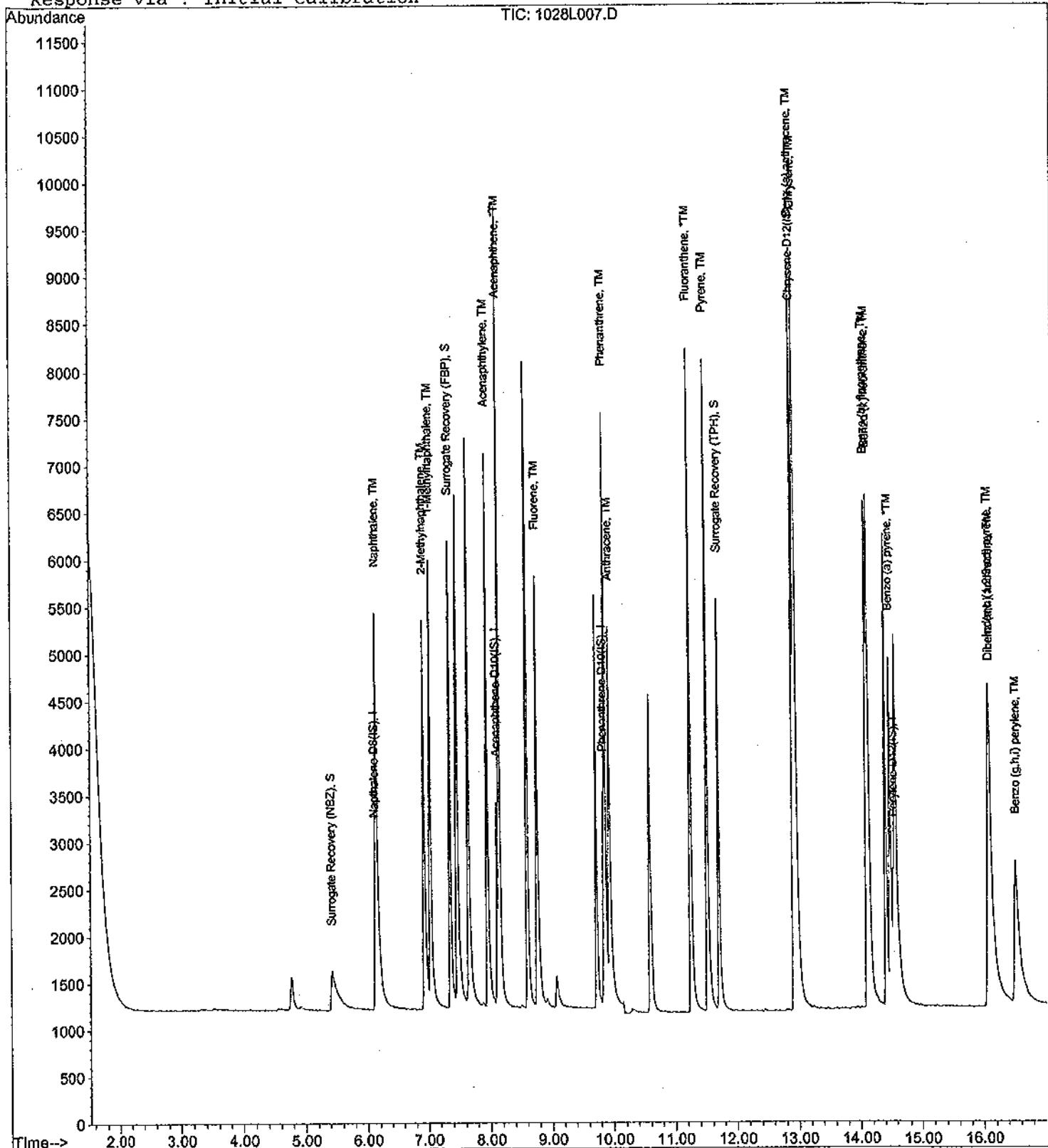
Data File : M:\LINUS\DATA\L111027\1028L007.D  
 Acq On : 28 Oct 11 11:58  
 Sample : 5.0ug/ml PAH  
 Misc :

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

Quant Time: Oct 30 10:40 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Tue Nov 01 17:14:29 2011  
 Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L008.D Vial: 8  
 Acq On : 28 Oct 11 12:23 Operator: LF  
 Sample : 10ug/ml PAH Inst : Linus  
 Misc :

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Sun Oct 30 10:38:04 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Naphthalene-D8 (IS)	6.12	136	2419	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.11	164	1154	2.50000	ppb	-0.02
11) Phenanthrene-D10 (IS)	9.85	188	1800	2.50000	ppb	-0.02
15) Chrysene-D12 (IS)	12.91	240	2580	2.50000	ppb	-0.05
21) Perylene-D12 (IS)	14.55	264	2113	2.50000	ppb	-0.05

## System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.38	82	3973	14.84926	ppb	-0.16
Spiked Amount	2.000		Recovery	= 742.450%		
7) Surrogate Recovery (FBP)	7.35	172	9747	13.50818	ppb	-0.02
Spiked Amount	2.000		Recovery	= 675.400%		
17) Surrogate Recovery (TPH)	11.70	244	11014	13.30251	ppb	-0.06
Spiked Amount	2.000		Recovery	= 665.150%		

## Target Compounds

				Qvalue	
3) Naphthalene	6.13	128	16688	8.50390	ppb 99
4) 2-Methylnaphthalene	6.92	142	9930	8.60721	ppb 100
5) 1-Methylnaphthalene	7.02	142	10317	8.34175	ppb 92
8) Acenaphthylene	7.95	152	15071	8.23870	ppb 99
9) Acenaphthene	8.15	154	8403	7.79759	ppb 97
10) Fluorene	8.75	166	9496	7.71528	ppb 98
12) Phenanthrene	9.87	178	12375	7.52487	ppb 99
13) Anthracene	9.93	178	12631	6.98825	ppb 99
14) Fluoranthene	11.25	202	21698	7.25069	ppb # 93
16) Pyrene	11.50	202	22373	6.73230	ppb # 85
18) Benz (a) anthracene	12.91	228	14154	7.56854	ppb 100
19) Chrysene	12.95	228	21503	8.82425	ppb 99
20) Indeno (1,2,3-cd) pyrene	16.03	276	15698	10.70773	ppb # 96
22) Benzo (b) fluoranthene	14.09	252	15772	9.91966	ppb 96
23) Benzo (k) fluoranthene	14.13	252	16351	7.66517	ppb 98
24) Benzo (a) pyrene	14.48	252	14853	8.84584	ppb 98
25) Dibenz (a,h) anthracene	16.05	278	12481	11.65147	ppb 96
26) Benzo (g,h,i) perylene	16.47	276	13167	9.70302	ppb 97

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

1028L008.D SIM2.M Tue Nov 01 17:34:19 2011

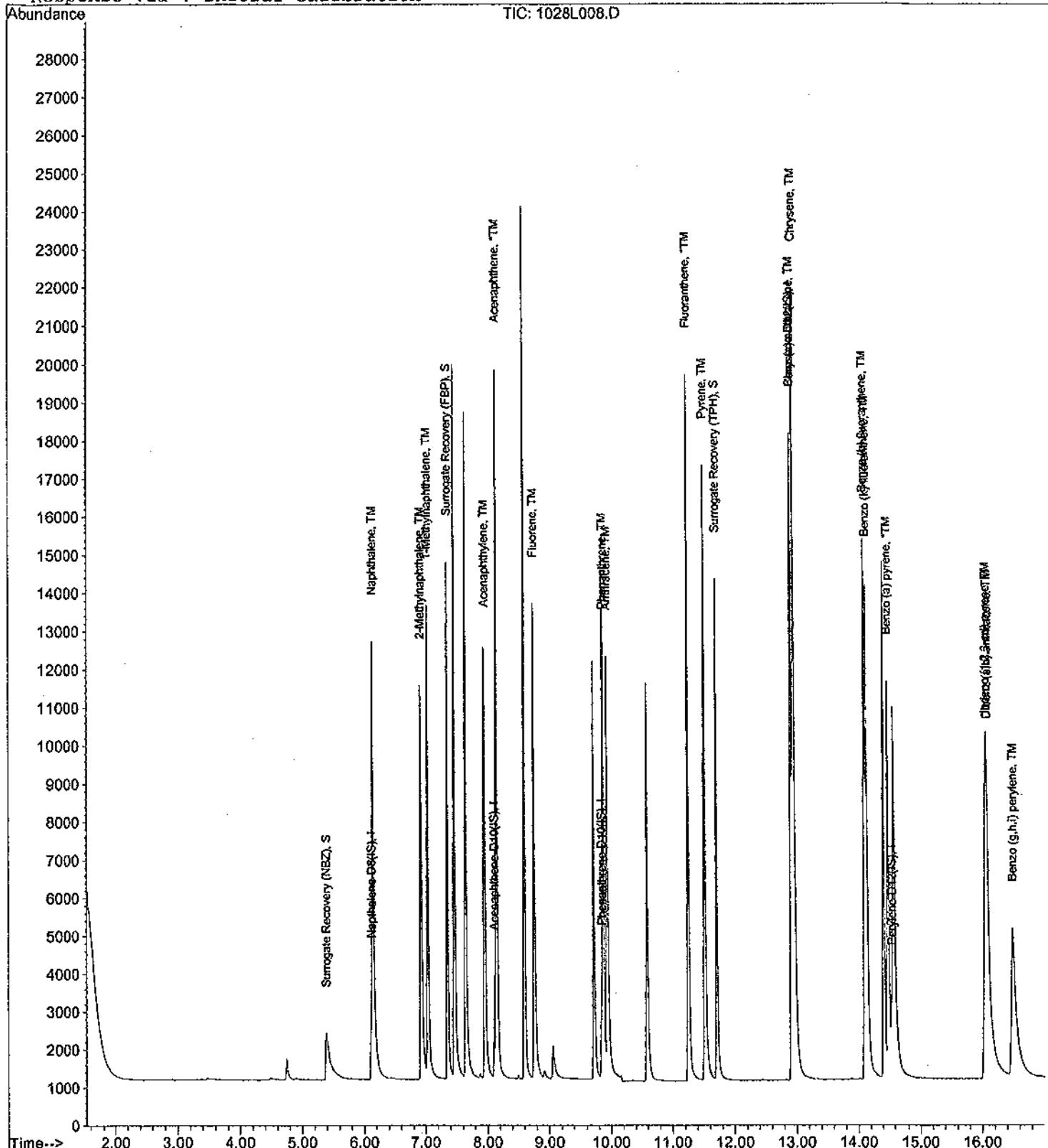
## Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L008.D Vial: 8  
 Acq On : 28 Oct 11 12:23 Operator: LF  
 Sample : 10ug/ml PAH Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 30 10:41 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Tue Nov 01 17:14:29 2011  
 Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L009.D Vial: 9  
 Acq On : 28 Oct 11 12:49 Operator: LF  
 Sample : 50ug/ml PAH Inst : Linus  
 Misc :

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Sun Oct 30 10:41:31 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.11	136	2170	2.50000	ppb	-0.01
6) Acenaphthene-D10 (IS)	8.11	164	955	2.50000	ppb	-0.02
11) Phenanthrene-D10 (IS)	9.84	188	1764	2.50000	ppb	-0.04
15) Chrysene-D12 (IS)	12.91	240	2325	2.50000	ppb	-0.05
21) Perylene-D12 (IS)	14.54	264	1951	2.50000	ppb	-0.06

## System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.34	82	19569	80.30257	ppb	0.00
Spiked Amount	2.000		Recovery	= 4015.150%		
7) Surrogate Recovery (FBP)	7.34	172	37203	62.30259	ppb	-0.04
Spiked Amount	2.000		Recovery	= 3115.150%		
17) Surrogate Recovery (TPH)	11.70	244	43552	58.37048	ppb	-0.06
Spiked Amount	2.000		Recovery	= 2918.500%		

## Target Compounds

				Qvalue	
3) Naphthalene	6.12	128	64981	36.91273	ppb
4) 2-Methylnaphthalene	6.92	142	39285	37.95912	ppb
5) 1-Methylnaphthalene	7.02	142	37731	34.00777	ppb
8) Acenaphthylene	7.94	152	59152	39.07406	ppb
9) Acenaphthene	8.13	154	32228	36.13782	ppb
10) Fluorene	8.75	166	36584	35.91740	ppb
12) Phenanthrene	9.86	178	48574	30.13920	ppb
13) Anthracene	9.92	178	49934	28.19038	ppb
14) Fluoranthene	11.23	202	84927	28.95874	ppb
16) Pyrene	11.50	202	87985	29.37950	ppb
18) Benz (a) anthracene	12.90	228	63776	37.84310	ppb
19) Chrysene	12.94	228	76944	35.03889	ppb
20) Indeno (1,2,3-cd) pyrene	16.01	276	67886	51.38427	ppb
22) Benzo (b) fluoranthene	14.09	252	68863	46.90706	ppb
23) Benzo (k) fluoranthene	14.12	252	60905	30.92236	ppb
24) Benzo (a) pyrene	14.45	252	61841	39.88811	ppb
25) Dibenz (a,h) anthracene	16.02	278	54590	55.19334	ppb
26) Benzo (g,h,i) perylene	16.44	276	56362	44.98303	ppb

## Quantitation Report

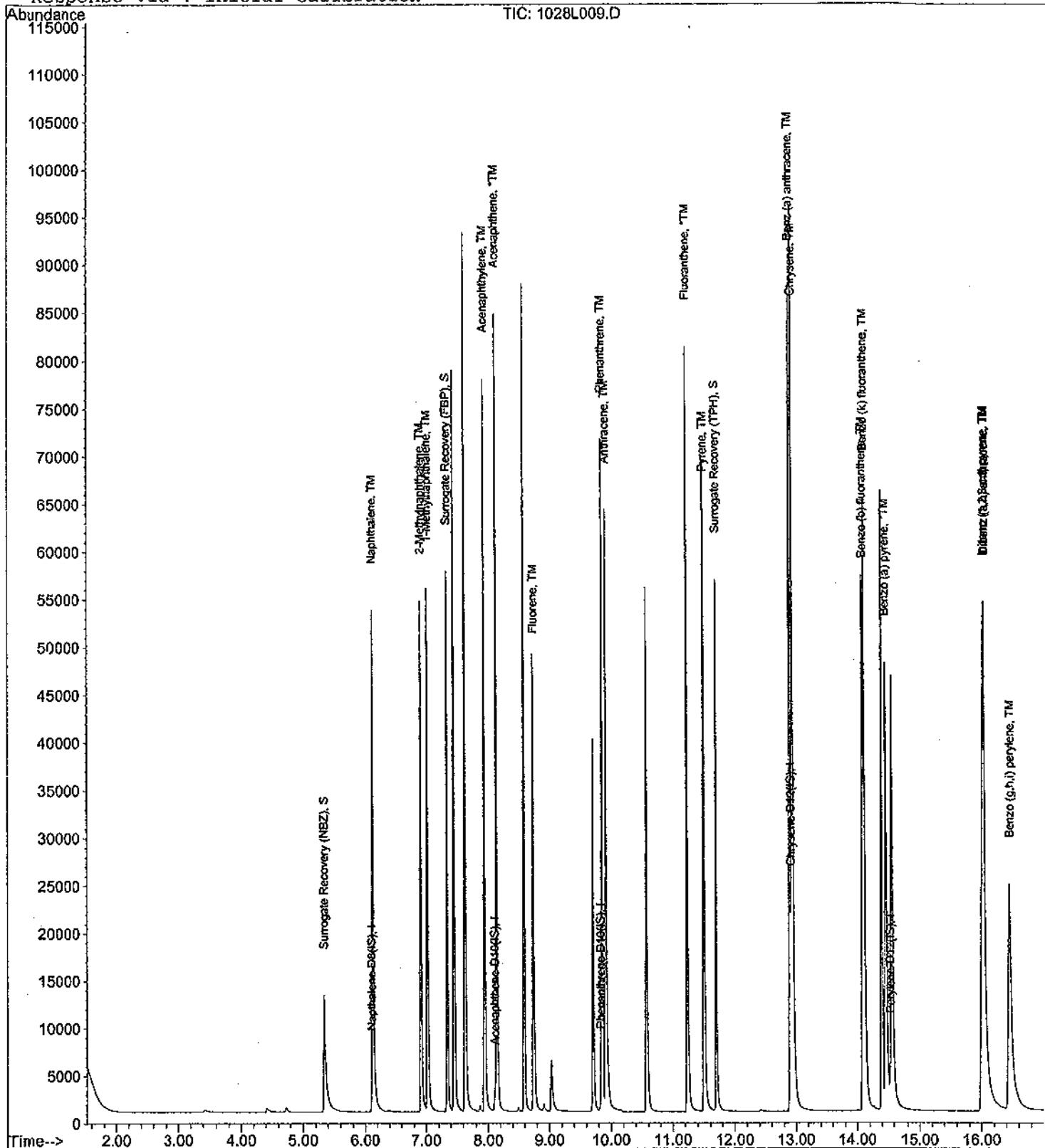
Data File : M:\LINUS\DATA\L111027\1028L009.D  
 Acq On : 28 Oct 11 12:49  
 Sample : 50ug/ml PAH  
 Misc :

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

Quant Time: Oct 30 10:41 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Tue Nov 01 17:14:29 2011  
 Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L010.D Vial: 10  
 Acq On : 28 Oct 11 13:14 Operator: LF  
 Sample : 100ug/ml PAH Inst : Linus  
 Misc :

Quant Time: Oct 30 10:42 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Sun Oct 30 10:41:31 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Napthalene-D8 (IS)	6.11	136	2028	2.50000	ppb	-0.01
6) Acenaphthene-D10 (IS)	8.11	164	919	2.50000	ppb	-0.02
11) Phenanthrene-D10 (IS)	9.84	188	1786	2.50000	ppb	-0.04
15) Chrysene-D12 (IS)	12.91	240	2218	2.50000	ppb	-0.05
21) Perylene-D12 (IS)	14.54	264	1949	2.50000	ppb	-0.06
<b>System Monitoring Compounds</b>						
2) Surrogate Recovery (NBZ)	5.32	82	39811	174.48341	ppb	-0.01
Spiked Amount 2.000			Recovery	= 8724.150%		
7) Surrogate Recovery (FBP)	7.34	172	68503	119.21355	ppb	-0.04
Spiked Amount 2.000			Recovery	= 5960.700%		
17) Surrogate Recovery (TPH)	11.70	244	80239	112.72808	ppb	-0.06
Spiked Amount 2.000			Recovery	= 5636.400%		
<b>Target Compounds</b>						
3) Naphthalene	6.12	128	118023	71.73782	ppb	98
4) 2-Methylnaphthalene	6.92	142	72350	74.80311	ppb	91
5) 1-Methylnaphthalene	7.02	142	67525	65.12327	ppb	99
8) Acenaphthylene	7.94	152	108807	74.69023	ppb	99
9) Acenaphthene	8.13	154	58631	68.31936	ppb	89
10) Fluorene	8.75	166	64716	66.02573	ppb	95
12) Phenanthrene	9.86	178	89156	54.63809	ppb	98
13) Anthracene	9.92	178	91266	50.88980	ppb	98
14) Fluoranthene	11.23	202	154470	52.02296	ppb	# 84
16) Pyrene	11.50	202	164055	57.42311	ppb	# 90
18) Benz (a) anthracene	12.90	228	140011	87.08694	ppb	99
19) Chrysene	12.94	228	127613	60.91607	ppb	# 95
20) Indeno (1,2,3-cd) pyrene	16.02	276	133093	105.60065	ppb	# 87
22) Benzo (b) fluoranthene	14.09	252	126697	86.39011	ppb	96
23) Benzo (k) fluoranthene	14.12	252	120651	61.31914	ppb	# 94
24) Benzo (a) pyrene	14.47	252	119503	77.15982	ppb	95
25) Dibenz (a,h) anthracene	16.03	278	107509	108.80876	ppb	91
26) Benzo (g,h,i) perylene	16.44	276	112699	90.03841	ppb	99

## Quantitation Report

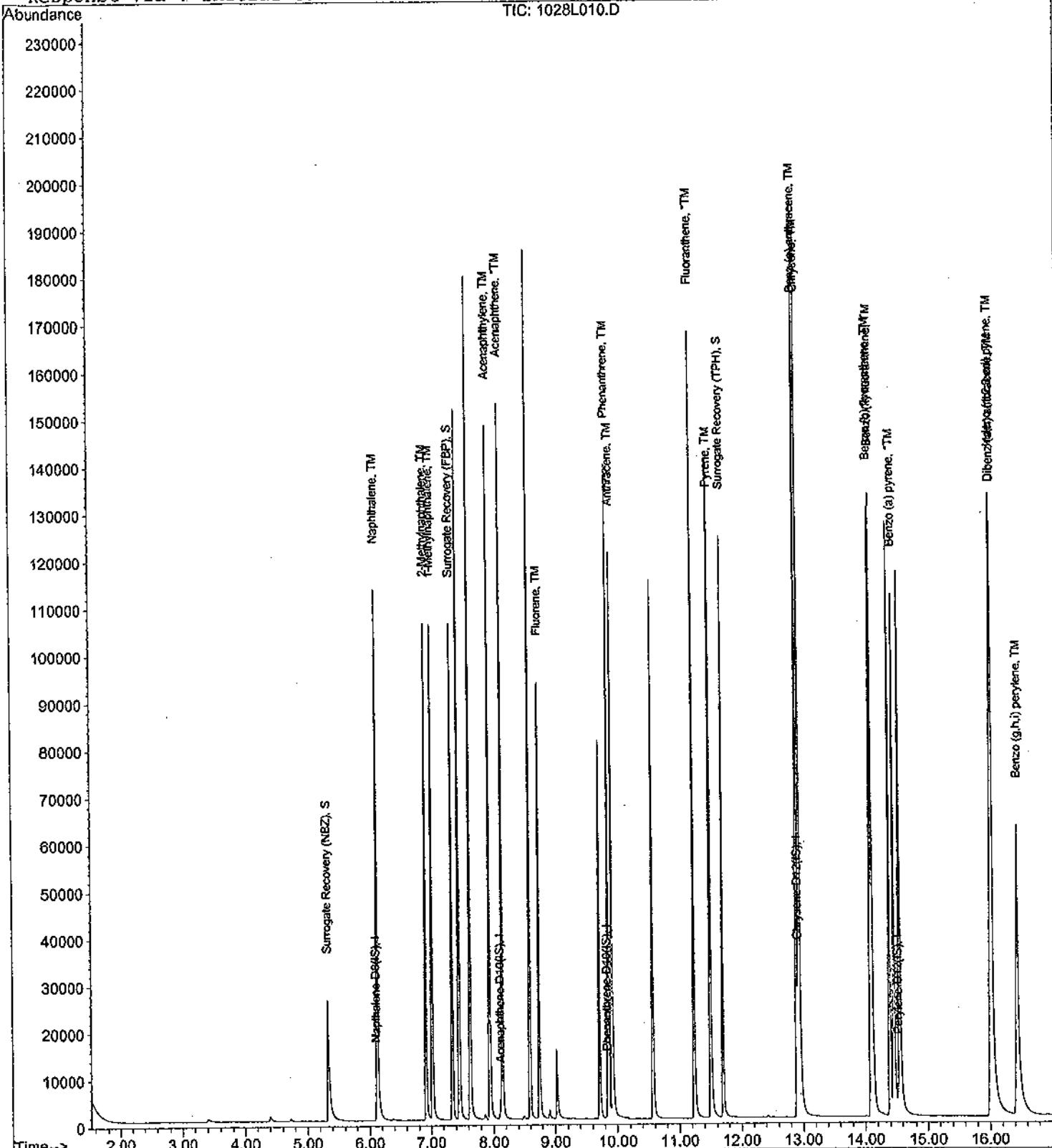
Data File : M:\LINUS\DATA\L111027\1028L010.D  
 Acq On : 28 Oct 11 13:14  
 Sample : 100ug/ml PAH  
 Misc :

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

Quant Time: Oct 30 10:42 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Tue Nov 01 17:14:29 2011  
 Response via : Initial Calibration



## EPA 8270C SIM

Form 7

## Second Source Calibration

Lab Name: APPL, Inc.

SDG No: 66B6

Case No:

Date Analyzed: 10/28/11

Matrix:

Instrument: Linus

Initial Cal. Date: 10/27/11

Data File: 1028L011.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Naphthalene-D8(IS)	ISTD			I
2	TM	Naphthalene	1.742	1.546	11	TM
3	TM	2-Methylnaphthalene	0.8931	0.8782	1.7	TM
4	TM	1-Methylnaphthalene	1.031	1.007	2.4	TM
5	I	Acenaphthene-D10(IS)	ISTD			I
6	TM	Acenaphthylene	3.327	3.132	5.8	TM
7	*TM	Acenaphthene	1.904	1.812	4.8	*TM
8	TM	Fluorene	2.083	1.993	4.3	TM
9	I	Phenanthrene-D10(IS)	ISTD			I
10	TM	Phenanthrene	1.609	1.555	3.4	TM
11	TM	Anthracene	1.634	1.624	0.64	TM
12	*TM	Fluoranthene	2.792	2.916	4.4	*TM
13	I	Chrysene-D12(IS)	ISTD			I
14	TM	Pyrene	2.200	2.429	10	TM
15	TM	Benz (a) anthracene	1.449	1.392	3.9	TM
16	TM	Chrysene	1.939	2.190	13	TM
17	TM	Indeno (1,2,3-cd) pyrene	1.502	1.468	2.3	TM
18	I	Perylene-D12(IS)	ISTD			I
19	TM	Benzo (b) fluoranthene	1.761	1.686	4.3	TM
20	TM	Benzo (k) fluoranthene	1.823	2.176	19	TM
21	*TM	Benzo (a) pyrene	1.723	1.689	1.9	*TM
22	TM	Dibenz (a,h) anthracene	1.447	1.354	6.4	TM
23	TM	Benzo (g,h,i) perylene	1.525	1.483	2.8	TM
24						
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38						
39						
40						

Average

5.7

## Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L011.D Vial: 11  
 Acq On : 28 Oct 11 13:40 Operator: LF  
 Sample : 5.0ug/ml SS PAH 10-27-11 Inst : Linus  
 Misc :

Quant Time: Oct 30 11:17 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Sun Oct 30 11:15:17 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	6.13	136	2295	2.50000	ppb	0.01
6) Acenaphthene-D10(IS)	8.11	164	1033	2.50000	ppb	0.00
11) Phenanthrene-D10(IS)	9.85	188	1773	2.50000	ppb	0.00
15) Chrysene-D12(IS)	12.93	240	2205	2.50000	ppb	0.00
21) Perylene-D12(IS)	14.56	264	1840	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%
17) Surrogate Recovery (TPH)	0.00	244	0d	0.00000	ppb
Spiked Amount	2.000		Recovery	=	0.000%

## Target Compounds

				Qvalue
3) Naphthalene	6.14	128	7095	4.43732 ppb 99
4) 2-Methylnaphthalene	6.93	142	4031	4.91655 ppb 99
5) 1-Methylnaphthalene	7.04	142	4620	4.88168 ppb 94
8) Acenaphthylene	7.95	152	6471	4.70758 ppb 99
9) Acenaphthene	8.15	154	3744	4.75904 ppb 91
10) Fluorene	8.76	166	4117	4.78272 ppb 99
12) Phenanthrene	9.87	178	5514	4.83130 ppb 99
13) Anthracene	9.94	178	5757	4.96794 ppb 98
14) Fluoranthene	11.26	202	10339	5.22192 ppb 93
16) Pyrene	11.51	202	10711	5.51952 ppb # 91
18) Benz (a) anthracene	12.93	228	6140	4.80346 ppb 99
19) Chrysene	12.96	228	9659	5.64891 ppb 99
20) Indeno (1,2,3-cd) pyrene	16.06	276	6475	4.88617 ppb # 91
22) Benzo (b) fluoranthene	14.12	252	6204	4.78607 ppb 99
23) Benzo (k) fluoranthene	14.14	252	8006	5.96784 ppb # 65
24) Benzo (a) pyrene	14.49	252	6217	4.90268 ppb 97
25) Dibenz (a,h) anthracene	16.08	278	4984	4.68078 ppb 96
26) Benzo (g,h,i) perylene	16.52	276	5458	4.86160 ppb 99

## Quantitation Report

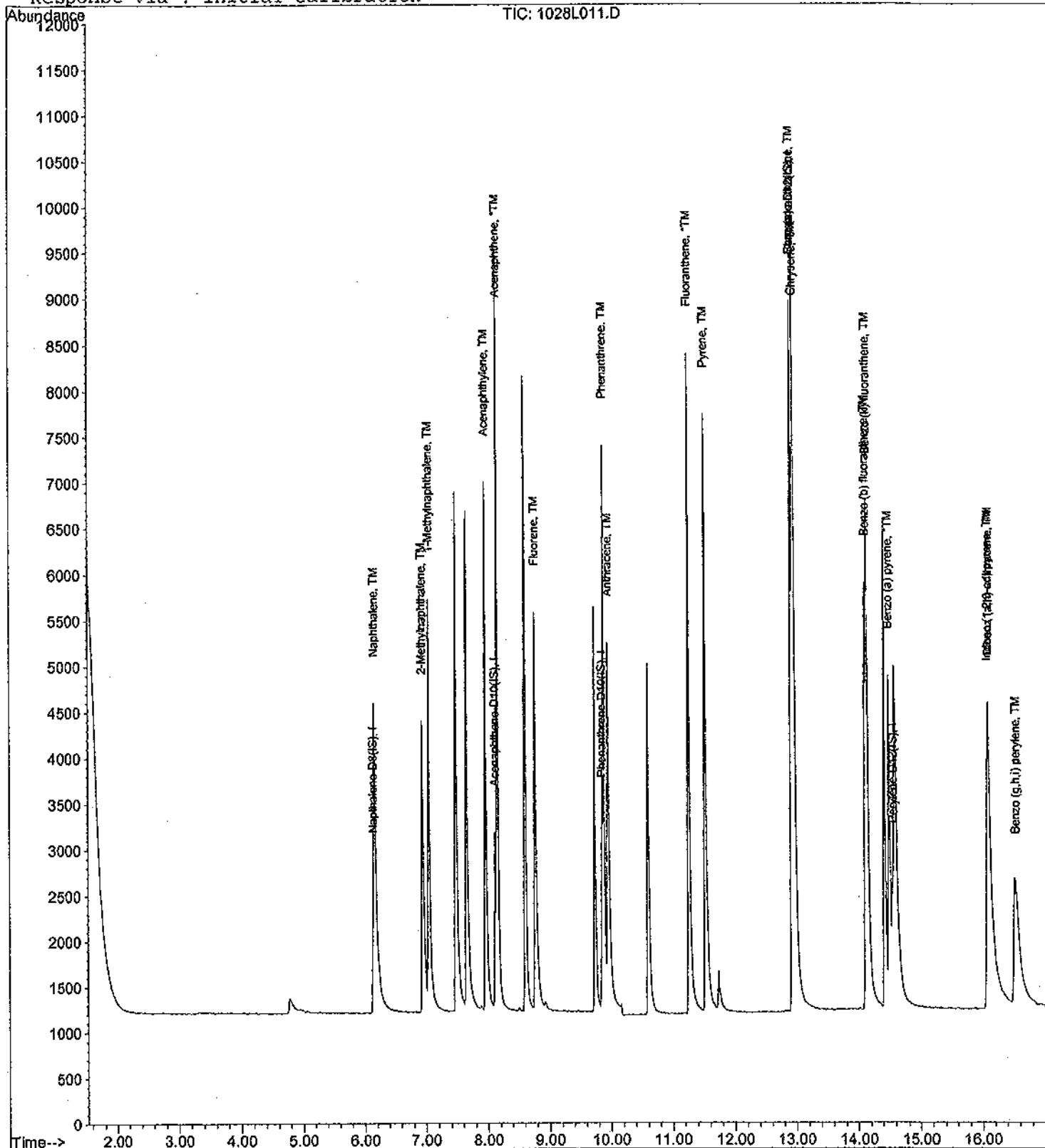
Data File : M:\LINUS\DATA\L111027\1028L011.D  
 Acq On : 28 Oct 11 13:40  
 Sample : 5.0ug/ml SS PAH 10-27-11  
 Misc :

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

Quant Time: Oct 30 11:17 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Tue Nov 01 17:14:29 2011  
 Response via : Initial Calibration



## EPA 8270C SIM

Form 7  
Continuing Calibration

Lab Name: APPL, Inc.

SDG No: 66186

Case No:

Date Analyzed: 11/10/11

Matrix:

Instrument: Linus

Initial Cal. Date: 10/27/11

Data File: 1110L002.D

	Compound	MEAN	CCRF	%D	%Drift
1 I	Naphthalene-D8(IS)	ISTD			I
2 S	Surrogate Recovery (NBZ)	0.4477	0.4015	10	S
3 TM	Naphthalene	1.742	1.470	16	TM
4 TM	2-MethylNaphthalene	0.8931	0.8840	1.0	TM
5 TM	1-MethylNaphthalene	1.031	0.9079	12	TM
6 I	Acenaphthene-D10(IS)	ISTD			I
7 S	Surrogate Recovery (FBP)	2.229	2.071	7.1	S
8 TM	Acenaphthylene	3.327	3.238	2.7	TM
9 *TM	Acenaphthene	1.904	1.746	8.3	*TM
10 TM	Fluorene	2.083	2.044	1.9	TM
11 I	Phenanthrene-D10(IS)	ISTD			I
12 TM	Phenanthrene	1.609	1.508	6.3	TM
13 TM	Anthracene	1.634	1.617	1.0	TM
14 *TM	Fluoranthene	2.792	2.787	0.19	*TM
15 I	Chrysene-D12(IS)	ISTD			I
16 TM	Pyrene	2.200	2.083	5.3	TM
17 S	Surrogate Recovery (TPH)	1.077	1.022	5.0	S
18 TM	Benz (a) anthracene	1.449	1.573	8.6	TM
19 TM	Chrysene	1.939	1.844	4.9	TM
20 TM	Indeno (1,2,3-cd) pyrene	1.502	1.639	9.1	TM
21 I	Perylene-D12(IS)	ISTD			I
22 TM	Benzo (b) fluoranthene	1.761	1.584	10	TM
23 TM	Benzo (k) fluoranthene	1.823	2.060	13	TM
24 *TM	Benzo (a) pyrene	1.723	1.711	0.72	*TM
25 TM	Dibenz (a,h) anthracene	1.447	1.553	7.4	TM
26 TM	Benzo (g,h,i) perylene	1.525	1.540	0.94	TM
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Average

6.3

## Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1110L002.D  
 Acq On : 10 Nov 11 19:22  
 Sample : 5.0ug/ml PAH 10-27-11  
 Misc :

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

Quant Time: Nov 11 15:32 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed Nov 09 14:09:04 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.12	136	2263	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.12	164	971	2.50000	ppb	0.01
11) Phenanthrene-D10 (IS)	9.86	188	1712	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.94	240	2411	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.58	264	2087	2.50000	ppb	0.02

## System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.40	82	1817	4.48316	ppb	0.00
Spiked Amount	2.000		Recovery	= 224.150%		
7) Surrogate Recovery (FBP)	7.35	172	4021	4.64528	ppb	0.00
Spiked Amount	2.000		Recovery	= 232.250%		
17) Surrogate Recovery (TPH)	11.72	244	4930	4.74872	ppb	0.01
Spiked Amount	2.000		Recovery	= 237.450%		

## Target Compounds

				Qvalue		
3) Naphthalene	6.14	128	6653	4.21973	ppb	99
4) 2-Methylnaphthalene	6.93	142	4001	4.94897	ppb	87
5) 1-Methylnaphthalene	7.04	142	4109	4.40313	ppb	88
8) Acenaphthylene	7.95	152	6288	4.86653	ppb	99
9) Acenaphthene	8.16	154	3390	4.58421	ppb	98
10) Fluorene	8.76	166	3969	4.90520	ppb	100
12) Phenanthrene	9.88	178	5165	4.68676	ppb	100
13) Anthracene	9.94	178	5537	4.94834	ppb	99
14) Fluoranthene	11.27	202	9541	4.99057	ppb	99
16) Pyrene	11.53	202	10042	4.73263	ppb	98
18) Benz (a) anthracene	12.93	228	7587	5.42835	ppb	96
19) Chrysene	12.97	228	8894	4.75709	ppb	98
20) Indeno (1,2,3-cd) pyrene	16.11	276	7902	5.45352	ppb	98
22) Benzo (b) fluoranthene	14.13	252	6610	4.49577	ppb	93
23) Benzo (k) fluoranthene	14.16	252	8599	5.65126	ppb	94
24) Benzo (a) pyrene	14.51	252	7140	4.96417	ppb	97
25) Dibenz (a,h) anthracene	16.11	278	6483	5.36798	ppb	94
26) Benzo (g,h,i) perylene	16.56	276	6427	5.04719	ppb	98

## Quantitation Report

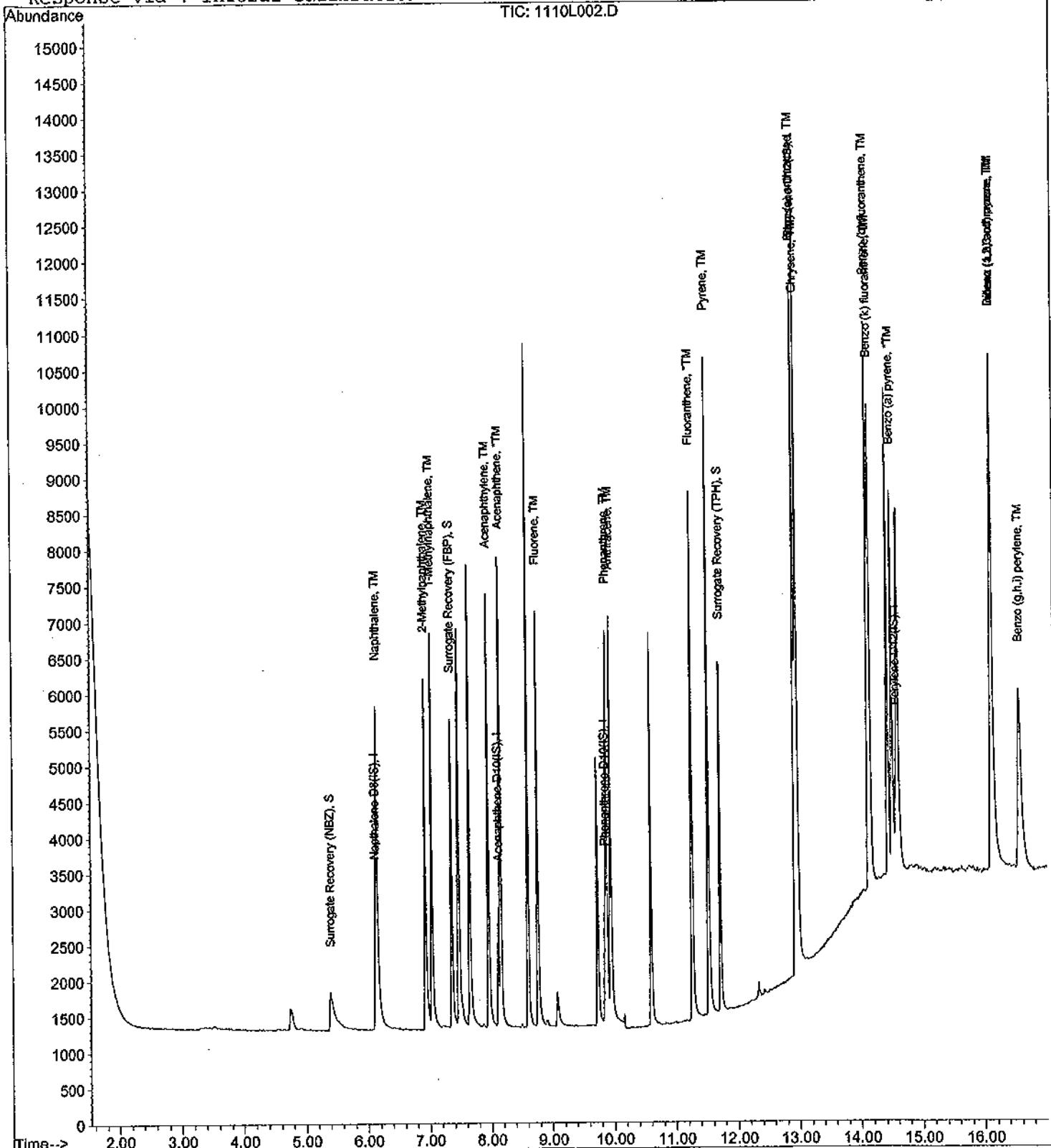
Data File : M:\LINUS\DATA\L111027\1110L002.D  
 Acq On : 10 Nov 11 19:22  
 Sample : 5.0ug/ml PAH 10-27-11  
 Misc :

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

Quant Time: Nov 11 15:32 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Fri Nov 11 16:40:11 2011  
 Response via : Initial Calibration



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

**APPL, INC.**

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

Blank Name/QCG: 111108W-50005 - 162179  
 Batch ID: #SIMHC-111108A

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	11/08/11	11/10/11
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
BLANK	SURROGATE: 2-FLUORBIPHENY	55.5	50-110			%	11/08/11	11/10/11
BLANK	SURROGATE: NITROBENZENE-	54.3	40-110			%	11/08/11	11/10/11
BLANK	SURROGATE: TERPHENYL-D14 (	118	50-135			%	11/08/11	11/10/11

Quant Method:SIM2.M
Run #:1110L003
Instrument:Linus
Sequence:L111027
Initials:LF

GC SC-Blank-REG MDLS  
 Printed: 12/09/11 6:52:19 PM

## Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1110L003.D Vial: 3  
 Acq On : 10 Nov 11 19:47 Operator: LF  
 Sample : 111108A BLK 1/1000 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Nov 16 15:47 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed Nov 09 14:09:04 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.12	136	2288	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.12	164	1021	2.50000	ppb	0.01
11) Phenanthrene-D10 (IS)	9.86	188	1840	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.95	240	2623	2.50000	ppb	0.02
21) Perylene-D12 (IS)	14.59	264	2235	2.50000	ppb	0.04

System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.42	82	445	1.08597	ppb	0.02
Spiked Amount	2.000		Recovery	=	54.300%	
7) Surrogate Recovery (FBP)	7.36	172	1010	1.10967	ppb	0.01
Spiked Amount	2.000		Recovery	=	55.500%	
17) Surrogate Recovery (TPH)	11.72	244	2658	2.35334	ppb	0.01
Spiked Amount	2.000		Recovery	=	117.650%	

Target Compounds	Qvalue
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Quantitation Report.

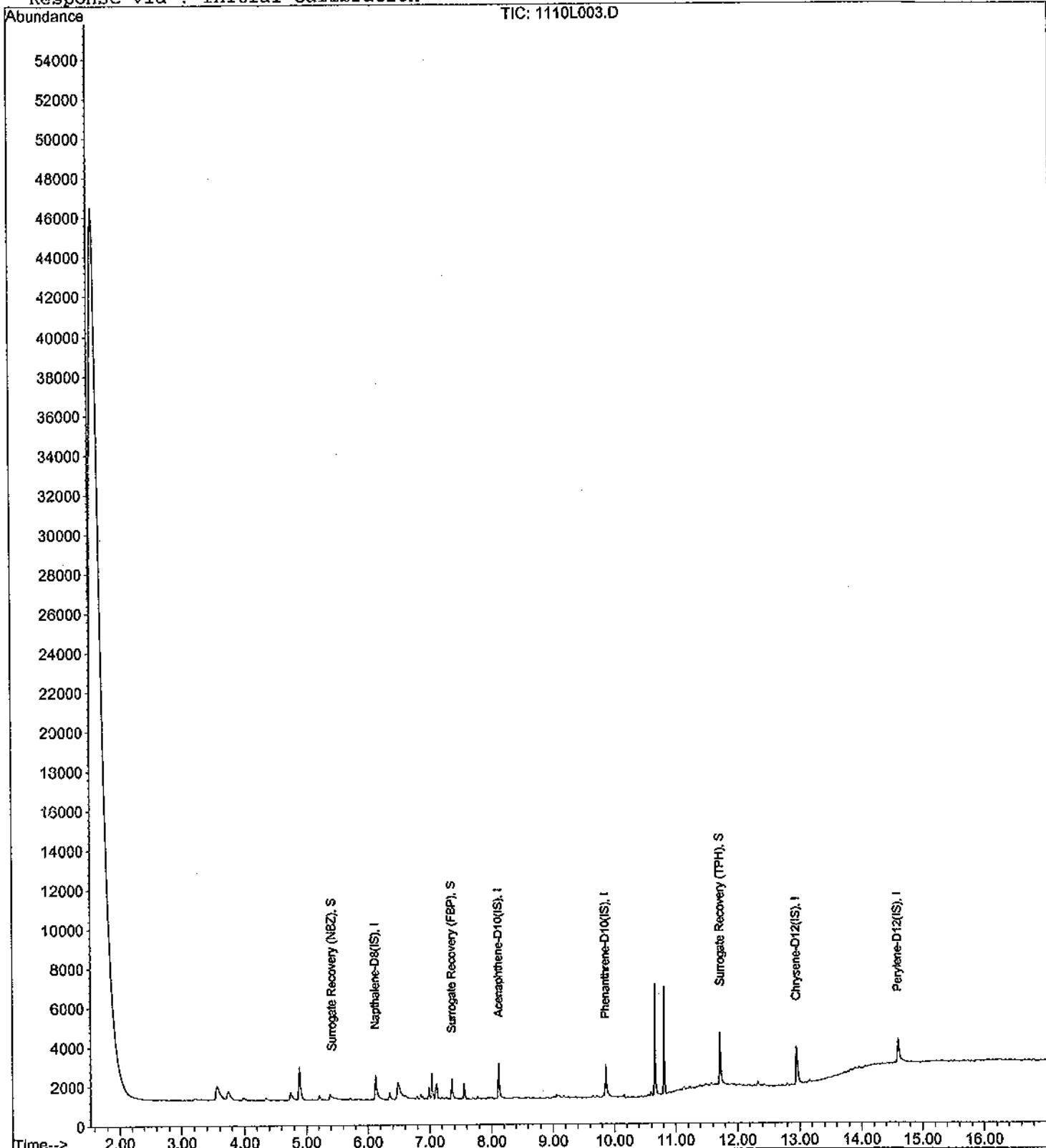
Data File : M:\LINUS\DATA\L111027\1110L003.D  
Acq On : 10 Nov 11 19:47  
Sample : 111108A BLK 1/1000  
Misc :

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

Quant Time: Nov 16 15:47 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Fri Nov 11 16:40:11 2011  
Response via : Initial Calibration



# Laboratory Control Spike Recovery

## EPA 8270D SIM

APPL ID: 111108W-50005 LCS - 162179

Batch ID: #SIMHC-111108A

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	2.49	62.3	45-105
2-METHYLNAPHTHALENE	4.00	2.53	63.2	45-105
ACENAPHTHENE	4.00	2.74	68.5	45-110
ACENAPHTHYLENE	4.00	2.50	62.5	50-105
ANTHRACENE	4.00	2.86	71.5	55-110
BENZO(A)ANTHRACENE	4.00	3.45	86.3	55-110
BENZO(A)PYRENE	4.00	2.73	68.3	55-110
BENZO(B)FLUORANTHENE	4.00	3.28	82.0	45-120
BENZO(GHI)PERYLENE	4.00	2.98	74.5	40-125
BENZO(K)FLUORANTHENE	4.00	2.78	69.5	45-125
CHRYSENE	4.00	2.59	64.8	55-110
DIBENZ(A,H)ANTHRACENE	4.00	3.11	77.8	40-125
FLUORANTHENE	4.00	3.05	76.3	55-115
FLUORENE	4.00	2.69	67.3	50-110
INDENO(1,2,3-CD)PYRENE	4.00	3.14	78.5	45-125
NAPHTHALENE	4.00	2.22	55.5	40-100
PHENANTHRENE	4.00	2.60	65.0	50-115
PYRENE	4.00	2.73	68.3	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.05	52.5	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.31	65.5	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	2.43	122	50-135

Comments:

Primary	SPK
Quant Method :	SIM2.M
Extraction Date :	11/08/11
Analysis Date :	11/10/11
Instrument :	Linus
Run :	1110L004
Initials :	LF

Printed: 12/09/11 6:52:20 PM

APPL Standard LCS

## Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1110L004.D  
 Acq On : 10 Nov 11 20:12  
 Sample : 111108A LCS-1 1/1000  
 Misc :

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

Quant Time: Nov 16 15:48 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed Nov 09 14:09:04 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8(IS)	6.12	136	2376	2.50000	ppb	0.00
6) Acenaphthene-D10(IS)	8.12	164	1055	2.50000	ppb	0.01
11) Phenanthrene-D10(IS)	9.86	188	1891	2.50000	ppb	0.01
15) Chrysene-D12(IS)	12.95	240	2640	2.50000	ppb	0.02
21) Perylene-D12(IS)	14.58	264	2275	2.50000	ppb	0.02

## System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.42	82	558	1.31130	ppb	0.02
Spiked Amount	2.000		Recovery	=	65.550%	
7) Surrogate Recovery (FBP)	7.36	172	984	1.04626	ppb	0.01
Spiked Amount	2.000		Recovery	=	52.300%	
17) Surrogate Recovery (TPH)	11.72	244	2766	2.43319	ppb	0.01
Spiked Amount	2.000		Recovery	=	121.650%	

## Target Compounds

				Qvalue	
3) Naphthalene	6.14	128	3669	2.21642	ppb
4) 2-Methylnaphthalene	6.93	142	2150	2.53293	ppb
5) 1-Methylnaphthalene	7.04	142	2442	2.49235	ppb
8) Acenaphthylene	7.95	152	3516	2.50451	ppb
9) Acenaphthene	8.16	154	2201	2.73938	ppb
10) Fluorene	8.76	166	2362	2.68672	ppb
12) Phenanthrene	9.88	178	3163	2.59845	ppb
13) Anthracene	9.94	178	3529	2.85528	ppb
14) Fluoranthene	11.27	202	6451	3.05489	ppb
16) Pyrene	11.53	202	6336	2.72704	ppb
18) Benz (a) anthracene	12.94	228	5275	3.44678	ppb
19) Chrysene	12.97	228	5311	2.59426	ppb
20) Indeno (1,2,3-cd) pyrene	16.12	276	4985	3.14194	ppb
22) Benzo (b) fluoranthene	14.13	252	5262	3.28318	ppb
23) Benzo (k) fluoranthene	14.16	252	4619	2.78475	ppb
24) Benzo (a) pyrene	14.52	252	4276	2.72726	ppb
25) Dibenz (a,h) anthracene	16.12	278	4100	3.11430	ppb
26) Benzo (g,h,i) perylene	16.58	276	4130	2.97531	ppb

*3669 X 2.5 // 2.82  
1.742 X 236 // 2.82  
16/11/11*

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

1110L004.D SIM2.M Wed Nov 16 16:04:51 2011

Page 1

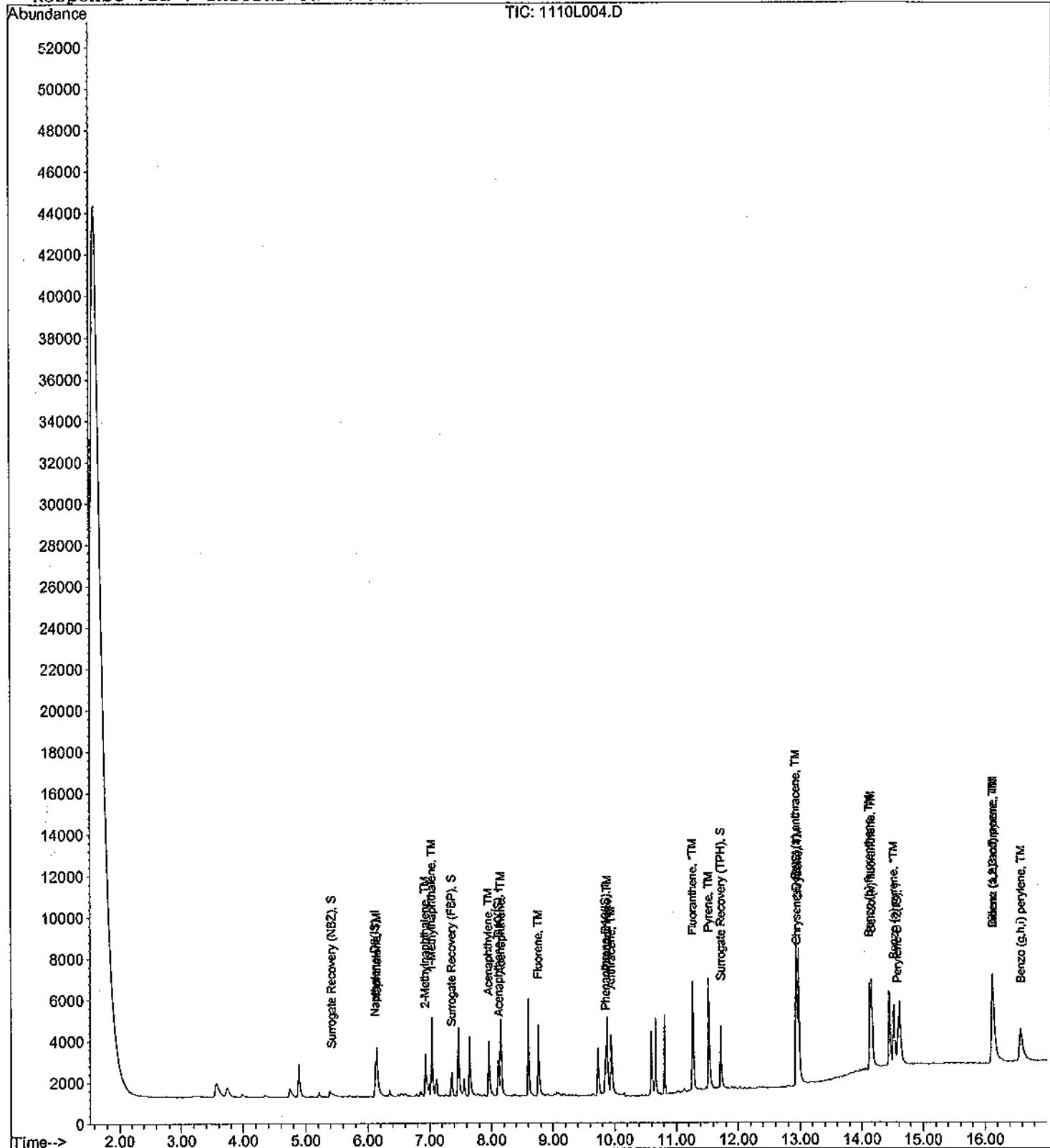
## Quantitation Report

Data File : M:\LINUS\DATA\L111027\1110L004.D Vial: 4  
 Acq On : 10 Nov 11 20:12 Operator: LF  
 Sample : 111108A LCS-1 1/1000 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Nov 16 15:48 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Fri Nov 11 16:40:11 2011  
 Response via : Initial Calibration

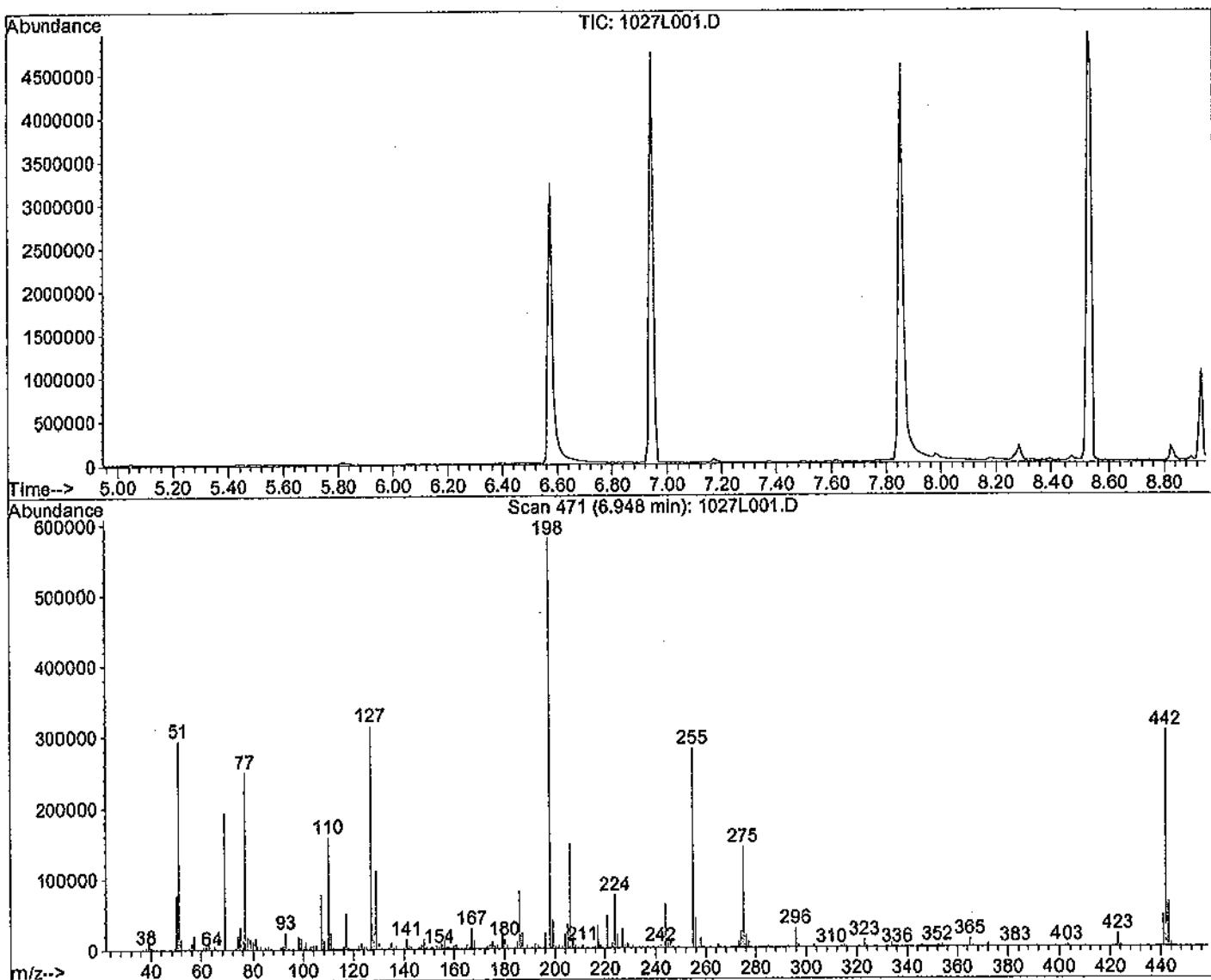


## DFTPP

Data File : M:\LINUS\DATA\L111027\1027L001.D  
 Acq On : 27 Oct 11 18:29  
 Sample : SVTUNE 10-27-11  
 Misc :

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

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C



## Spectrum Information: Scan 471

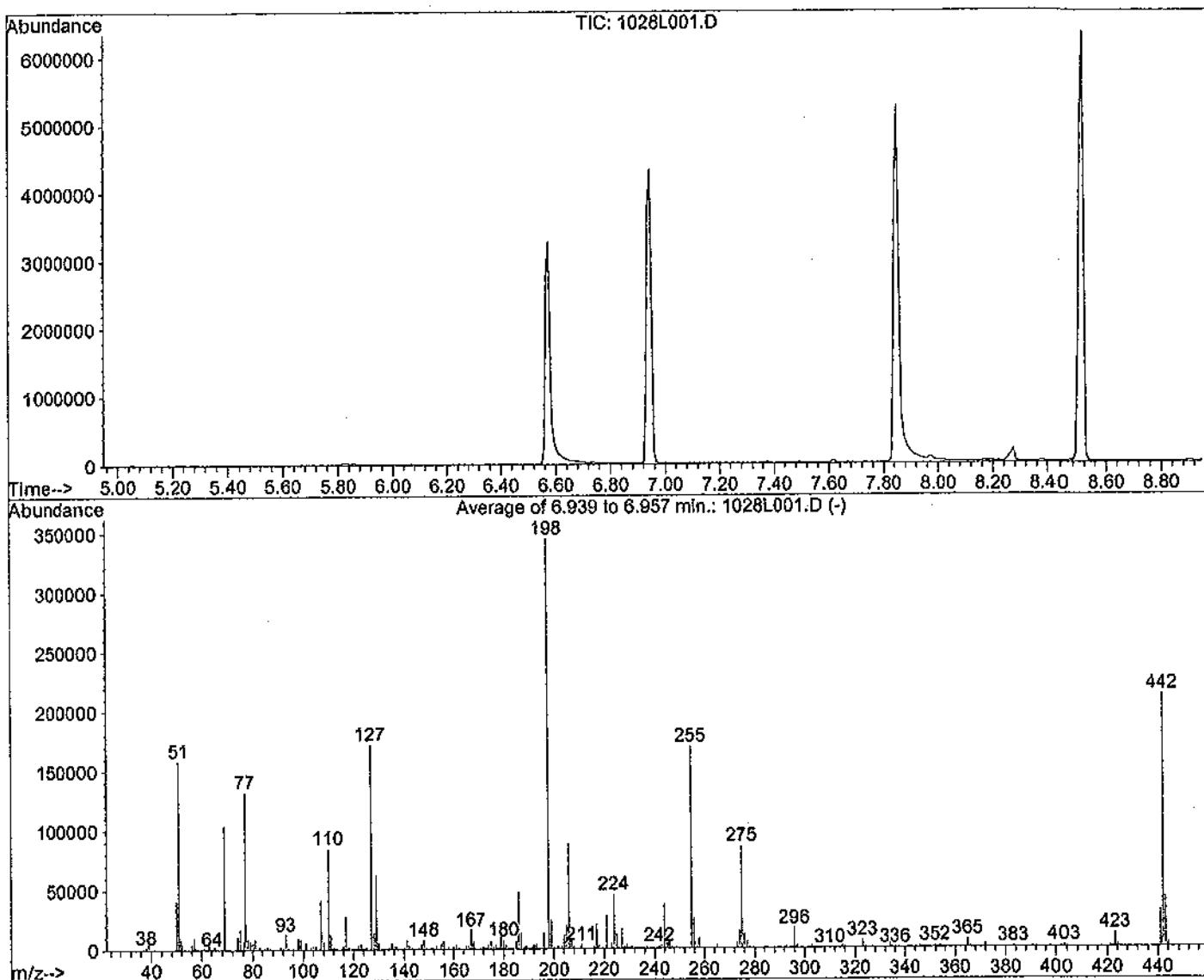
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	50.7	294016	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	1188	PASS
127	198	40	60	54.3	314624	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	579520	PASS
199	198	5	9	7.0	40304	PASS
275	198	10	30	24.5	141888	PASS
365	198	1	100	2.0	11470	PASS
441	443	0.01	100	70.8	44728	PASS
442	198	40	150	52.6	304768	PASS
443	442	17	23	20.7	63176	PASS

## DFTPP

Data File : M:\LINUS\DATA\L111027\1028L001.D  
 Acq On : 28 Oct 11 9:32  
 Sample : SVTUNE 10-27-11  
 Misc :

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

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)  
 Title : EPA 8270C



Spectrum Information: Average of 6.939 to 6.957 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.8	158326	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	519	PASS
127	198	40	60	49.8	171922	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	345360	PASS
199	198	5	9	7.1	24580	PASS
275	198	10	30	24.8	85541	PASS
365	198	1	100	2.0	6987	PASS
441	443	0.01	100	74.7	31248	PASS
442	198	40	150	61.5	212309	PASS
443	442	17	23	19.7	41843	PASS

## DFTPP

Data File : M:\LINUS\DATA\L111027\1110L001.D

Acq On : 10 Nov 11 19:03

Sample : SVTUNE 10-27-11

Misc :

Vial: 1

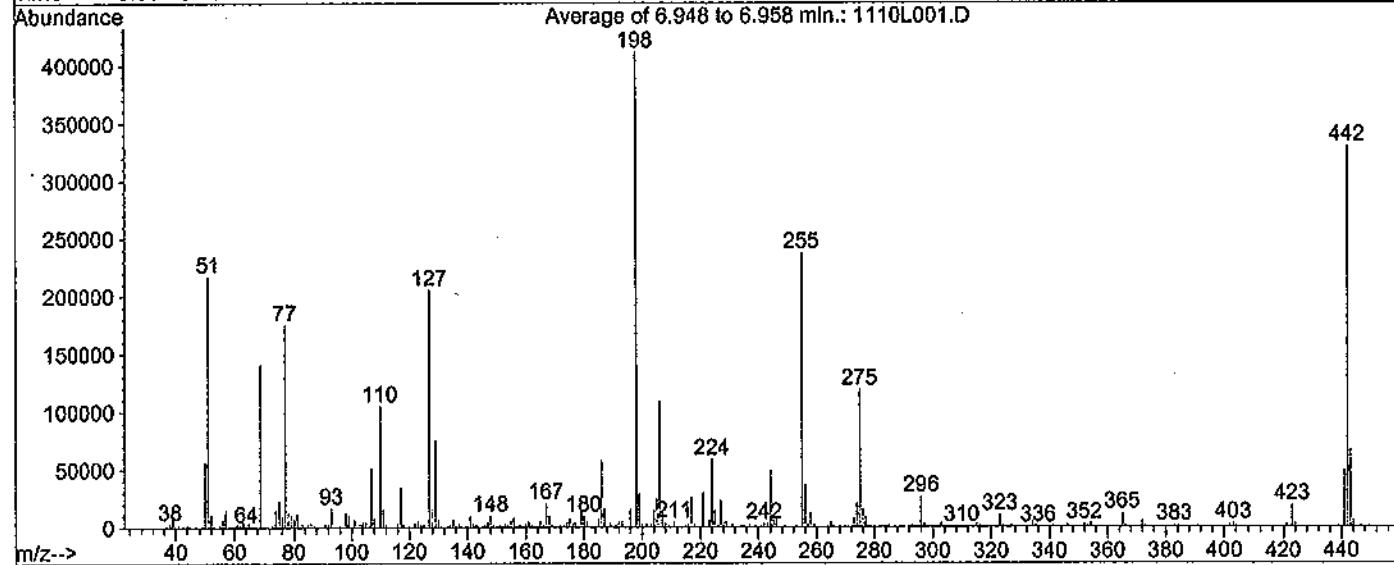
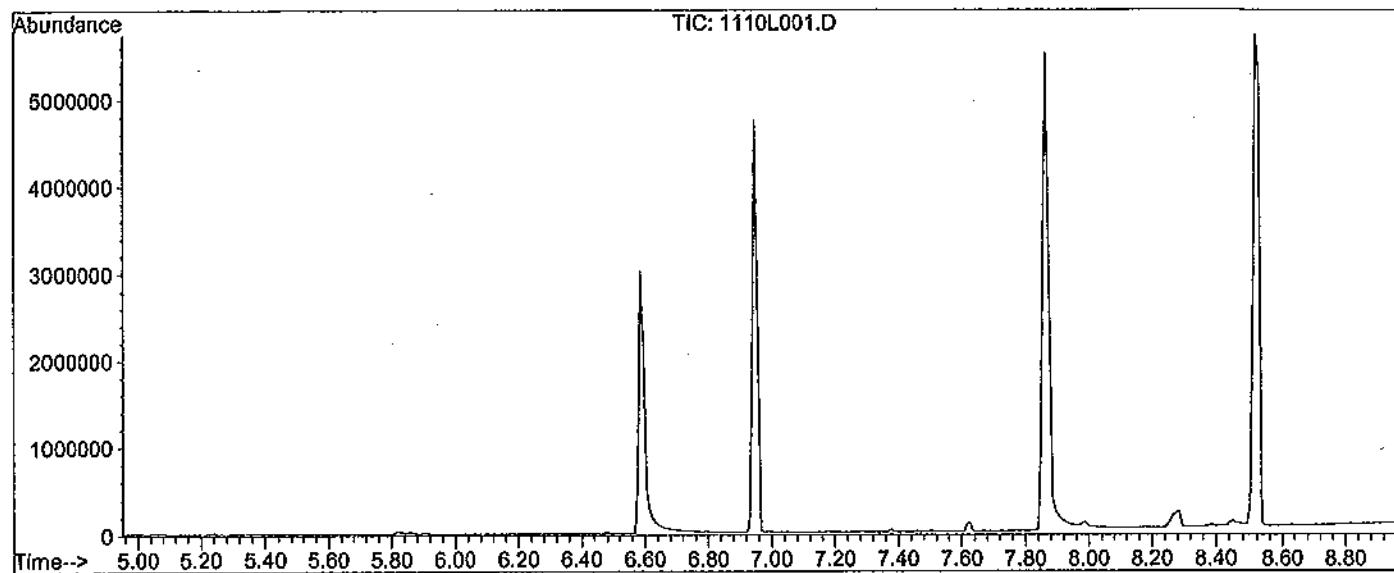
Operator: LF

Inst : Linus

Multiplr: 1.00

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)

Title : EPA 8270C



Spectrum Information: Average of 6.948 to 6.958 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	52.6	216764	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.1	196	PASS
127	198	40	60	49.8	205180	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	411840	PASS
199	198	5	9	6.9	28568	PASS
275	198	10	30	28.8	118564	PASS
365	198	1	100	2.8	11726	PASS
441	443	0.01	100	74.8	49384	PASS
442	198	40	150	79.8	328608	PASS
443	442	17	23	20.1	66016	PASS

GC/MS STANDARD PREPARATION BOOK # J PAGE # 84

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

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 #	Date	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL	
		200		12/17/10	05-29-11	0	0	0	5	5	10	20	25	30	
5.0ug/mL				01/25/11		0	0	20	0	0	0	0	0	50	
1.0ug/mL				01/25/11		10	20	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	
EN Science	Methylene Chloride	47080				90	80	80	190	90	80	60	50	40	
						Final Vol.			100	200	100	100	100	100	

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

Method 8270 Internal  
Standard Solution, 2,000  
µg/L, 1 mL  
118001-2  
Lot #: Storage: Exp.  
167766 3-10 Degree C 4/20/13  
Solt: Methylene Chloride  
8270 Internal Standard  
Lot #: 167766-28148  
Rec: 1/20/11 MFR exp. 04/20/13

app 1/25/12

Method 8270 Internal  
Standard Solution, 2,000  
µg/L, 1 mL  
118001-2  
Lot #: Storage: Exp.  
167766 3-10 Degree C 4/20/13  
Solt: Methylene Chloride  
8270 Internal Standard  
Lot #: 167766-28147  
Rec: 1/20/11 MFR exp. 04/20/13

app 1/25/12

GC/MS STANDARD PREPARATION BOOK # 5 PAGE # 89

*exp 5/29/11*

1/23/11

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

1/23/11

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

*exp 5/29/11*

1/23/11

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

*exp 5/29/11*

1/23/11

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

*exp 5/29/11*

1/23/11

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

9AM IS exp 1/25/12

1500nt EM Science MC lot #47080

(60)µl 8270 IS opened 1/25/11 exp 1/25/12

GC/MS STANDARD PREPARATION BOOK # J PAGE # 90

WF 3/28/11

**O2Si** 8270 BN-A (200:400) Surrogate Solution, 1 mL  
Prod. Date: 11/0084-17 Storage: <= -10 Degrees C

Made in USA Lot No: 160538 Solvent: Methylene Chloride  
Expiry: 10/18/11

Date Opened: 8270 BN-A (200:400) Surrogate Solution

Lot #: 160538 - 27574

Rec: 10/18/10 MFR exp. 08/10/12

exp 3/28/12

WF 3/28/11

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

WF 3/28/11

PREP DATE: 03-28-11						WF				
B270 Second Source (SS) 50ug/mL										
Supplier	ID #	Conc.	µg/mL	Lot #	Date	Code	Exp.Date	µL	Final Vol.	
	8270C SS	200			10/06/10	10-06-11	25			
EM Science	Methylene Chloride		47080					75		
								Final Vol.	100	

WF 4/13/11

GCM-160-1  
Lot: CF-2995 1 mL  
Exp: 08/31/2011  
Semi-volatiles GC/MS Tuning Standard  
Standard  
4 analyte(s) at 1000 µg/mL in  
dichloromethane  
250 Smith St, Keweenaw, MI 49902 USA

exp 8/31/11

WF 4/13/11

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

WF 4/20/11

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

Lot #: 110780-01-01  
Storage: Expby  
-10°C - < -10 Degrees C 3/3/13  
Soln: Methylene Chloride

exp 4/20/12

WF 4/20/11

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

ml  
110780-01-01  
Lot #: 170256 Storage: Expby  
-10°C - < -10 Degrees C 3/3/13  
Soln: Methylene Chloride

exp 4/20/12

8270D PAH SIM (SS)

Lot #: 170256 - 28487

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

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*V8/16/11*

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

*V8/20/11*

8270 BN:A (200:400)									
Surrogate Solution, 1 mL									
110004-17									
1418 Storage Expiry									
167801 5-10 Degrees C 10/13									
80% Methylene Chloride									
8270 BN:A (200:400) Surrogate Solution									
Lot #: 167802-29313									
Rec: 8/8/11 MFR exp. 01/09/13									

*exp 8/20/12*

*V8/22/11*

PREP DATE:	08-22-11	Conc.	Date	5	10	20	40	50	60	80	100
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL
8270T Stock	200			07/26/11	01-26-12	5	5	10	20	25	30
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	50	40	20
						Final Vol.	200	100	100	100	100

*V8/22/11*

PREP DATE:	08-22-11	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

*V8/21/11*

PREP DATE:	09-21-11	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
8270D PAH SIM	200	170251-28485	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
1.0ug/mL	1		09/21/11			10	20	0	0	0	0	0
Surrogate Stock VAR	167802-29313	08/22/11	08-22-11	0	0	0	0	0	5	5	25	50
EM Science Methylene Chloride	47186					90	80	90	80	190	90	50
						Final Vol.	100	100	100	100	100	100

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PRP DATE:	09-21-11					
<b>SIM 8270 Second Source (5µg/mL)</b>						
Exp:	10-05-11					
Supplier	ID #	Lot #	Conc.	Date	CODE:	
			µg/mL	Code	Exp.Date	µL
	8270D PAH SIM (SS)	170256-28487	200	04/20/11	04-20-12	5
	MeCl2		Lot#47185			195
				Final Volume		200

8270 BN Solution 14-4, 2,000 mg/L, 1 ml  
**O2Si** Cat. No: 110391-01 Exp: 4/17/2013  
 Lot No: 158119 Storage: <= -10 Degrees C  
 Sm 8270BN Solution 14-4 Solvent: Methylene Chloride  
 Lot #: 158119 - 28021 For Research Use Only  
 Rec: 12/16/10 MFR exp. 04/17/13 d: \_\_\_\_\_

8270 BN Solution 14-3, 2,000 mg/L, 1 ml  
**O2Si** Cat. No: 110392-01 Exp: 4/17/2013  
 Lot No: 158120 Storage: <= -10 Degrees C  
 Sm 8270BN Solution 14-3 Solvent: Methylene Chloride  
 Lot #: 158120 - 28023 For Research Use Only  
 Rec: 12/16/10 MFR exp. 04/17/13 end: \_\_\_\_\_

8270 Acid Solution 4-6, 2,000 mg/L, 1 ml  
**O2Si** Cat. No: 110393-01 Exp: 4/17/2013  
 Lot No: 158121 Storage: <= -10 Degrees C  
 Sm 8270B Acid Solution 4-6 Solvent: Methylene Chloride  
 Lot #: 158121 - 28025 For Research Use Only  
 Rec: 12/16/10 MFR exp. 04/17/13 end: \_\_\_\_\_

TCL Hazardous Substances Solution 2, 2,000 mg/L, 1 ml  
**O2Si** Cat. No: 110394-01 Exp: 4/17/2013  
 Lot No: 158122 Storage: <= -10 Degrees C  
 Sm 8270 Hzd. Solt. 2 Solvent: Methylene Chloride  
 Lot #: 158122 - 28018 For Research Use Only  
 Rec: 12/16/10 MFR exp. 04/17/13 d: \_\_\_\_\_

PAH Solution 17-3, 2,000 mg/L, 1 ml  
**O2Si** Cat. No: 116070-02 Exp: 4/17/2013  
 Lot No: 15R123 Storage: <= -10 Degrees C  
 Sm PAH Solution Solvent: Methylene Chloride  
 Lot #: 158123 - 28027 For Research Use Only  
 Rec: 12/16/10 MFR exp. 07/17/13 d: \_\_\_\_\_

8270 Acid Solution 13-4, 2,000 mg/L, 1 ml  
**O2Si** Cat. No: 110396-01 Exp: 4/17/2013  
 Lot No: 158124 Storage: <= -10 Degrees C  
 Sm 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: \_\_\_\_\_

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**O2Si** 8270 BN Solution 4-21, 2,000 mg/L, 1 ml  
Cat. No: 110395-01 Exp: 4/17/2013  
Lot No: 158125 Storage: <= -10 Degrees C  
8270BN Solution 4-21 Solvent: Methylene Chloride  
Lot #: 158125 - 28091 ion For Research Use Only  
Rec: 12/18/10 MFR exp: 04/17/13 opened: \_\_\_\_\_

**O2S** 8270 11 Compound Custom Mix, 200:2,000 mg/L, 1 ml  
Cat. No: 110397-01 Exp: 4/12/2012  
Lot No: 158127 Storage: <= -10 Degrees C  
8270 11 Compound Mix Solvent: Methylene Chloride  
lot #: 158127 - 28033 m For Research Use Only  
Rec: 12/16/10 MFR exp. 04/12/12 used: \_\_\_\_\_

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

**O2S** Cat. No: 010337-01      Exp: 4/12/2012  
sn Atrazine      Lot No: 158126      Storage: <= -10 Degrees C  
ss:      Solvent: Methylene Chloride  
Lot #: 158126 - 28019      For Research Use Only  
Rec: 12/16/10 MFR exp. 04/12/12      ed: \_\_\_\_\_

PREP DATE:	10-11-11						
9270C Second Source Stock Standard							
Exp:	04-12-12						
Supplier	ID #	Conc.		Date	Code#	P	
		µg/mL	Lot #		Code	Exp.Date	µL
02SI	110391-01	2000	158119-28021	10-11-11	04-17-13	1000	
02SI	110392-01	2000	158120-28023	10-11-11	04-17-13	1000	
02SI	110393-01	2000	158121-28025	10-11-11	04-17-13	1000	
02SI	110394-01	2000	158122-28018	10-11-11	04-17-13	1000	
02SI	116070-02	2000	158123-28027	10-11-11	04-17-13	1000	
02SI	110395-01	2000	158125-28031	10-11-11	04-17-13	1000	
02SI	110396-01	2000	158124-28029	10-11-11	04-17-13	1000	
02SI	110397-01	2000	158127-28033	10-11-11	04-12-12	1000	
02SI	010337-01	1000	158126-28019	10-11-11	04-12-12	1000	
EM Science	MeCl2		47186			Final Vol	10000

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

<b>PREP DATE:</b>	10-11-11				
<b>B270 Second Source (88) 50ug/mL</b>					50
	CONC.		Date	CODE:	
<b>Supplier</b>	<b>ID #</b>	<b>µg/mL</b>	<b>Lot #</b>	<b>Code</b>	<b>Exp. Date</b>
	B270C SS	200	10/11/11	04-12-12	25
<b>EK Science</b>	<b>Methylene Chloride</b>		<b>47186</b>		75
				<b>Final Vol.</b>	<b>100</b>

A white rectangular label with the word "ULTRA" in large, bold, black, sans-serif letters at the top. Below it, "1 mL" is written in a smaller font. At the bottom right corner, the words "Sample Only" are printed vertically.

50μg/ml SV TNE mix

1ml of GCM-150-1 opened bottle into Frank BM Service MC lot #100 exp 10/2012

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*10/18/11*

Part #: 10001 Lot #: 042910	Laboratory Use Only - See MSDS Exp: 042913 Storage 0 °C
 CLP Semi-Volatiles Base/Neutrals Mix #1	
14 components 2000 ug/mL in methyl	CLP Semi-Volatiles Base/Neutrals Mix #1 Lot #: 042910-28440 <i>un</i>
<b>ABSOLUTE STANDARD</b>	Rec: 3/8/11 MFR exp. 4/29/2013 <i>BA</i>
<i>exp 10/18/12</i>	

*10/18/11*

Part #: 10001 Lot #: 042910	Laboratory Use Only - See MSDS Exp: 042913 Storage 0 °C
 CLP Semi-Volatiles Base/Neutrals Mix #1	
14 components 2000 ug/mL in m	CLP Semi-Volatiles Base/Neutrals Mix #1 Lot #: 042910-29085
<b>ABSOLUTE STANDA</b>	

*exp 10/18/12*

*10/18/11*

Part #: 10002 Lot #: 073109	Laboratory Use Only - See MSDS Exp: 073112 Storage 4 °C
 CLP Semi-Volatiles Base/Neutrals Mix #2	
14 components 2000 ug/mL in methyl	CLP Semi-Volatiles Base/Neutrals Mix #2 Lot #: 073109-28446 <i>un</i>
<b>ABSOLUTE STANDARDS</b>	

*exp 10/18/12*

*10/18/11*

Part #: 10002 Lot #: 073109	Laboratory Use Only - See MSDS Exp: 073112 Storage 4 °C
 CLP Semi-Volatiles Base/Neutrals Mix #2	
14 components 2000 ug/mL in met	CLP Semi-Volatiles Base/Neutrals Mix #2 Lot #: 073109-29090
<b>ABSOLUTE STANDAF</b>	

*exp 7/31/12*

*10/18/11*

Part #: 10004 Lot #: 101509	Laboratory Use Only - See MSDS Exp: 101514 Storage 4 °C
 CLP Semi-Volatiles Toxic Substances #1	
4 components 2000 ug/mL in methyl	CLP Semi-Volatiles Toxic Substances #1 Lot #: 101509-28453 <i>un</i>
<b>ABSOLUTE STANDARD!</b>	

*exp 10/18/12*

*10/18/11*

Part #: 10004 Lot #: 101509	Laboratory Use Only - See MSDS Exp: 101514 Storage 4 °C
 CLP Semi-Volatiles Toxic Substances #1	
4 components 2000 ug/mL in met	CLP Semi-Volatiles Toxic Substances #1 Lot #: 101509-29095
<b>ABSOLUTE STANDAR</b>	

*exp 10/18/12*

*10/18/11*

Part #: 10005 Lot #: 061209	Laboratory Use Only - See MSDS Exp: 061214 Storage 4 °C
 CLP Semi-Volatiles Toxic Substances #2	
8 components 2000 ug/mL in methyl	CLP Semi-Volatiles Toxic Substances #2 Lot #: 061209-28458 <i>un</i>
<b>ABSOLUTE STANDARD</b>	

*exp 10/18/12*

*10/18/11*

Part #: 10005 Lot #: 121208	Laboratory Use Only - See MSDS Exp: 121213 Storage 4 °C
 CLP Semi-Volatiles Toxic Substances #2	
8 components 2000 ug/mL in met	CLP Semi-Volatiles Toxic Substances #2 Lot #: 121208-29100
<b>ABSOLUTE STANDAH</b>	

*exp 10/18/12*

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

*exp 10/18/12*

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

*exp 10/18/12*

Part #: <b>10007</b>	Laboratory Use Only - See MSDS
Lot #: <b>100909</b>	Exp: <b>100914</b> Storage 4 °C
<b>CLP Semi-Volatiles - PAH Standard</b>	
	17 components
2000 ug/mL in methanol	CLP Semi-Volatiles - PAH Mix
	Lot #: <b>100909-28469</b> <i>cur</i>
<b>ABSOLUTE STANDARD</b>	Rec: 3/8/11 MFR exp. 10/9/2014 <b>bx</b>

*exp 10/18/12*

Part #: <b>10007</b>	Laboratory Use Only - See MSDS
Lot #: <b>100909</b>	Exp: <b>100914</b> Storage 4 °C
<b>CLP Semi-Volatiles - PAH Standard</b>	
	17 components
2000 ug/mL in methanol	CLP Semi-Volatiles - PAH Mix
	Lot #: <b>100909-29110</b>
<b>ABSOLUTE STANDARD</b>	Rec: 8/4/11 MFR exp. 10/9/14

*exp 10/18/12*

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

*exp 10/18/12*

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

*exp 10/18/12*

Part #: <b>70023</b>	Laboratory Use Only - See MSDS
Lot #: <b>080310</b>	Exp: <b>080315</b> Storage 4 °C
<b>Atrazine</b>	
	1000 ug/mL in acetone
	Lot #: <b>080310-28416</b> <i>cur</i>
<b>ABSOLUTE STANDARD</b>	Rec: 3/8/11 MFR exp. 8/13/2015 <b>bx</b>

*exp 10/18/12*

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

*exp 10/18/12*

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10/18/11

Part #: 82705 Lot #: 121010 	Laboratory Use Only - See MSDS Exp: 121013 Storage 4 °C EPA Method 8270A - Mix #11 4 components 2000 ug/mL in acet. ABSOLUTE STANDAR
	EPA Method 8270A - Mix #18 Lot #: 121010 - 28428 <i>cm</i> Rec: 3/8/11 MFR exp. 12/10/2011

exp 10/18/12

10/18/11

Part #: 82705 Lot #: 041911 	Laboratory Use Only - See MSDS Exp: 041914 Storage 4 °C EPA Method 8270A - Mix #11 4 components 2000 ug/mL in acet. ABSOLUTE STANDAR
	Lot #: 041911 - 29125 Rec: 8/4/11 MFR exp. 04/19/14

exp 10/18/12

10/18/11

Part #: 94552 Lot #: 030411 	Laboratory Use Only - See MSDS Exp: 030414 Storage 4 °C Semi-Volatile Standard 11 components Varied ug/mL in met ABSOLUTE STANDAR
	Semi-Volatile Standard Lot #: 030411 - 28423 Rec: 3/8/11 MFR exp. 3/4/2014

exp 10/18/12

10/18/11

Part #: 94552 Lot #: 030411 	Laboratory Use Only - See MSDS Exp: 030414 Storage 4 °C Semi-Volatile Standard 11 components Varied ug/mL in met ABSOLUTE STANDAR
	Semi-Volatile Standard Lot #: 030411 - 29130 Rec: 8/4/11 MFR exp. 03/04/14

exp 10/18/12

10/18/11

PREP DATE:	10-18-11	Conc.	Date	CODE:	P
8270C Stock/Spike Standard					
Exp:	04-18-12				
Supplier	ID #	µg/mL	Lot #	Code	Exp. Date
Absolute	10001	2000	042910-28440	10/18/11	04-29-13
Absolute	10001	2000	042910-29085	10/18/11	04-29-13
Absolute	10002	2000	073109-28446	10/18/11	07-31-12
Absolute	10002	2000	073109-29090	10/18/11	07-31-12
Absolute	10004	2000	101509-28453	10/18/11	10-15-14
Absolute	10004	2000	101509-29095	10/18/11	10-15-14
Absolute	10005	2000	081209-28458	10/18/11	08-12-14
Absolute	10005	2000	121208-29100	10/18/11	12-12-13
Absolute	10006	2000	120810-28462	10/18/11	12-08-13
Absolute	10006	2000	071211-29105	10/18/11	07-12-14
Absolute	10007	2000	100909-28469	10/18/11	10-09-14
Absolute	10007	2000	100909-29110	10/18/11	10-09-14
Absolute	10018	2000	073109-28410	10/18/11	07-31-14
Absolute	10018	2000	062111-29115	10/18/11	06-21-16
Absolute	70023	1000	080310-28416	10/18/11	08-03-15
Absolute	70023	1000	031811-29120	10/18/11	03-16-16
Absolute	82705	2000	121010-28428	10/18/11	12-10-13
Absolute	82705	2000	041911-29125	10/18/11	04-19-14
Absolute	94552	2000	030411-28423	10/18/11	03-04-14
Absolute	94552	2000	030411-29130	10/18/11	03-04-14
				Final Vol	20000

GC/MS STANDARD PREPARATION BOOK 2 J PAGE # 106

10/18/11

Method 8270 Internal Standard Solution, 2,000 mg/L, 1 mL				
111001-42				
Lot #: 167766	Storage: 5-10 Degree C	Expiry: 4/20/13		
Soln: Methylene Chloride				
8270 Internal Standard				
Lot #: 167766 - 28149				
Rec: 1/20/11 MFR exp. 04/20/13				

Method 8270 Internal Standard Solution, 2,000 mg/L, 1 mL				
111003-42				
Lot #: 167766	Storage: 5-10 Degree C	Expiry: 4/20/13		
Soln: Methylene Chloride				
8270 Internal Standard				
Lot #: 167766 - 28150				
Rec: 1/20/11 MFR exp. 04/20/13				

exp 10/18/12

10/27/11

GCM-160-1  
Lot: CH-2137  
Exp: 07/31/2013  
Semi-Volatiles GC/MS Tuning  
Standard  
4 analyte(s) at 1000 µg/mL in  
dichloromethane  
250 Smith St. No Kingstown, RI 02882 USA

ULTRA  
1 mL  
For Lab Use

exp 10/27/12

50µg/mL SV Tune Mix 1mL of GCM-160-1 Lot # CH-2137 into  
19mL of 1mL Source MC lot # 47186.

10/27/11

PREP DATE: 10-27-11							
8270 SIM STANDARD CURVE							
	Conc.	Date	CODE:	0.10	0.20	0.50	1.00
Supplier ID #	µg/mL	Lot #	Code	µL	µL	µL	µL
8270D PAH SIM	200	170253-28485	04/20/11	04-20-12	0	0	0
5.0ug/mL	5		10/27/11		0	10	20
1.0ug/mL	1		10/27/11		10	20	0
Surrogate Stock	VAR	167802-29313	08/22/11	08-22-12	0	0	0
EM Science Methylene Chloride	47186				90	80	80
				Final Vol.	100	100	100
					190	90	50
					200	100	100
						100	100
							100

10/27/11

PREP DATE: 10-27-11							
SIM 8270 Second Source (5µg/mL)							
Exp:	11-10-11						
Supplier ID #	Lot #	Conc.	Date	CODE:			
8270D PAH SIM (SS)	170256-28487	200	04/20/11	04-20-12	5		
MgCl2	Lot#47186				195		
				Final Volume	200		

10/28/11

PREP DATE: 11-08-11							
8270 STANDARD CURVE							
Exp:	11-15-11						
Supplier ID #	µg/mL	Lot #	Date	5	10	20	40
8270T Stock	200	10/18/11	04-18-12	5	5	10	20
Surrogate Stock	VAR	167802-29313	08/22/11	08-22-12	5	5	10
EM Science Methylene Chloride	47186				190	90	60
				Final Vol.	200	100	100
					100	100	100
						100	100

10/28/11

PREP DATE: 11-08-11							
8270 Second Source (SS) 50µg/mL							
Supplier ID #	µg/mL	Lot #	Date	CODE:	50		
8270C SS	200	10/11/11	04-12-12	25			
EM Science Methylene Chloride	47186				75		
				Final Vol.	100		

# Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	I11108A	Extraction Method	SEP004S	Units	mL
Spiked ID 1	SIM Spike 178987-29587	Surrogate ID 1	8270 SIM Surrogate 172835-28827				
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:					
		GC Requires Extract By:	11/17/11 0:00				
		pH1	2	/8/2011 12:40:00 PM		Water Bath Temp Criteria	80 °C
		pH2	14	/8/2011 2:00:00 PM			
		pH3					

Spiked By: HW

Date 11/8/2011

Witnessed By: CC

Date 11/8/2011

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1111108A Blk				0.025	1	1000	1	2/1	11/08/11 12:40	
					equip	E-WB5				
2111108A LCS-1		0.025	1	0.025	1	1000	1	2/1	11/08/11 12:40	
					equip	E-WB5				
3AY50005	AY50005W05			0.025	1	1050	1	2/1	11/08/11 12:40	66186-2 week rush -- Amber Liter
					equip	E-WB5				
4AY50011	AY50011W07			0.025	1	1050	1	2/1	11/08/11 12:40	66187-2 week rush -- Amber Liter
					equip	E-WB5				
5AY50017	AY50017W07			0.025	1	1050	1	2/1	11/08/11 12:40	66187-2 week rush -- Amber Liter
					equip	E-WB5				

HW 11/8/11

Solvent and Lot#	
MC	EMD 51204
Na2SO4	3581C501
10N NaOH	10/31/11
1+1 Acid	09/15/11
A. Na2SO4	10/31/11

Extraction COC Transfer	
Extraction lab employee Initials	HW
GC analyst's initials	if
Date	11/8/11
Time	1700
Refrigerator	1000

Technician's Initials	
Scanned By	HW
Sample Preparation	HW
Extraction	HW
Concentration	HW
Modified	11/8/2011 12:08:05 PM

Reviewed By: HW Date 11/8/2011

## Injection Log

Directory: M:\LINUS\DATA\L111027\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1027L001.D	1	SVTUNE 10-27-11		27 Oct 11 18:29
2	3	1027L003.D	1	0.1ug/ml PAH 10-27-11		27 Oct 11 19:12
3	4	1027L004.D	1	0.2ug/ml PAH		27 Oct 11 19:38
4	1	1028L001.D	1	SVTUNE 10-27-11		28 Oct 11 9:32
5	5	1028L005.D	1	0.5ug/ml PAH		28 Oct 11 11:07
6	6	1028L006.D	1	1.0ug/ml PAH		28 Oct 11 11:32
7	7	1028L007.D	1	5.0ug/ml PAH		28 Oct 11 11:58
8	8	1028L008.D	1	10ug/ml PAH		28 Oct 11 12:23
9	9	1028L009.D	1	50ug/ml PAH		28 Oct 11 12:49
10	10	1028L010.D	1	100ug/ml PAH		28 Oct 11 13:14
11	11	1028L011.D	1	5.0ug/ml SS PAH 10-27-11		28 Oct 11 13:40
12	1	1110L001.D	1	SVTUNE 10-27-11		10 Nov 11 19:03
13	2	1110L002.D	1	5.0ug/ml PAH 10-27-11		10 Nov 11 19:22
14	3	1110L003.D	1	111108A BLK 1/1000		10 Nov 11 19:47
15	4	1110L004.D	1	111108A LCS-1 1/1000		10 Nov 11 20:12
16	5	1110L005.D	0.95238	AY50005W05 1/1050		10 Nov 11 20:38

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

**APPL, INC.**

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

**APPL, INC.**

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

Blank Name/QCG: 111105W-50004 - 160965  
 Batch ID: #86RHB-111105AC

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	11/05/11	11/05/11
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	11/05/11	11/05/11
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	11/05/11	11/05/11
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	11/05/11	11/05/11
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	11/05/11	11/05/11
BLANK	1,3-DICHLOROPROPENE, TOTA	0.36 U	1.0	0.36	0.18	ug/L	11/05/11	11/05/11
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	11/05/11	11/05/11
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	11/05/11	11/05/11
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	11/05/11	11/05/11
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	11/05/11	11/05/11
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	11/05/11	11/05/11
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	11/05/11	11/05/11
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	11/05/11	11/05/11
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	11/05/11	11/05/11

Quant Method: CALLW.M  
 Run #: 1105C09  
 Instrument: Chico  
 Sequence: C111104  
 Initials: DG

GC SC-Blank-REG MDLs  
 Printed: 12/08/11 4:17:25 PM

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

APPL Inc.

Blank Name/QCG: 111105W-50004 - 160965

908 North Temperance Avenue  
 Clovis, CA 93611

Batch ID: #86RHB-111105AC

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	11/05/11	11/05/11
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	11/05/11	11/05/11
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	11/05/11	11/05/11
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	SURROGATE: 1,2-DICHLOROET	87.0	70-120			%	11/05/11	11/05/11
BLANK	SURROGATE: 4-BROMOFLUOR	96.5	75-120			%	11/05/11	11/05/11
BLANK	SURROGATE: DIBROMOFLUOR	90.3	85-115			%	11/05/11	11/05/11
BLANK	SURROGATE: TOLUENE-D8 (S)	93.8	85-120			%	11/05/11	11/05/11

Quant Method: CALLW.M
Run #: 1105C09
Instrument: Chico
Sequence: C111104
Initials: DG

GC SC-Blank-REG MDLs  
 Printed: 12/08/11 4:17:25 PM

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 66186

Case No: 66186

Date Analyzed: 11/05/11

Matrix: WATER

Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111105AC-LCS	Lab Control Spike	70-120	90.5		75-120	98.2	
111105AC-BLK	Blank	70-120	87.0		75-120	96.5	
AY50004	ES056	70-120	89.3		75-120	101	
AY50005	ES057	70-120	84.1		75-120	100	

Comments: Batch: #86RHB-111105AC

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.  
Case No: 66186  
Matrix: WATER

SDG No: 66186  
Date Analyzed: 11/05/11  
Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111105AC-LCS	Lab Control Spike	85-115	98.1		85-120	93.0	
111105AC-BLK	Blank	85-115	90.3		85-120	93.8	
AY50004	ES056	85-115	91.9		85-120	97.8	
AY50005	ES057	85-115	86.7		85-120	95.9	

Comments: Batch: #86RHB-111105AC

**Laboratory Control Spike Recovery**  
**EPA 8260B VOCs + Gas Water**

APPL ID: 111105W-50004 LCS - 160965

Batch ID: #86RHB-111105AC

APPL Inc.

908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Level	SPK Result	SPK % Recovery	Recovery Limits
	ug/L	ug/L	Recovery	
1,1,1,2-TETRACHLOROETHANE	10.00	9.01	90.1	80-130
1,1,1-TRICHLOROETHANE	10.00	8.38	83.8	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	10.2	102	65-130
1,1,2-TRICHLOROETHANE	10.00	9.78	97.8	75-125
1,1-DICHLOROETHANE	10.00	10.5	105	70-135
1,1-DICHLOROETHENE	10.00	9.57	95.7	70-130
1,2,3-TRICHLOROPROPANE	10.00	8.50	85.0	75-125
1,2,4-TRICHLOROBENZENE	10.00	9.38	93.8	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	8.45	84.5	50-130
1,2-DIBROMOETHANE	10.00	8.37	83.7	70-130
1,2-DICHLOROBENZENE	10.00	9.72	97.2	70-120
1,2-DICHLOROETHANE	10.00	8.20	82.0	70-130
1,2-DICHLOROPROPANE	10.00	11.6	116	75-125
1,3-DICHLOROBENZENE	10.00	9.98	99.8	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	20.3	102	70-130
1,4-DICHLOROBENZENE	10.00	10.1	101	75-125
2-BUTANONE	10.00	9.57	95.7	30-150
4-METHYL-2-PENTANONE	10.00	10.7	107	60-135
ACETONE	10.00	10.8	108	40-140
BENZENE	10.00	11.0	110	80-120
BROMODICHLOROMETHANE	10.00	8.69	86.9	75-120
BROMOFORM	10.00	7.75	77.5	70-130
BROMOMETHANE	10.00	9.21	92.1	30-145
CARBON TETRACHLORIDE	10.00	8.10	81.0	65-140
CHLOROBENZENE	10.00	9.18	91.8	80-120
CHLORODIBROMOMETHANE	10.00	8.29	82.9	60-135

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

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	11/05/11
Analysis Date :	11/05/11
Instrument :	Chlco
Run :	1105C03
Initials :	DG

Printed: 12/08/11 4:17:34 PM

APPL Standard LCS

**Laboratory Control Spike Recovery**  
**EPA 8260B VOCs + Gas Water**

APPL ID: 111105W-50004 LCS - 160965

Batch ID: #86RHB-111105AC

APPL Inc.

908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
CHLOROETHANE	10.00	11.7	117	60-135
CHLOROFORM	10.00	9.27	92.7	65-135
CHLOROMETHANE	10.00	9.41	94.1	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.24	92.4	70-125
ETHYLBENZENE	10.00	9.72	97.2	75-125
GASOLINE	300	285	95.0	75-125
HEXACHLOROBUTADIENE	10.00	8.51	85.1	50-140
METHYL TERT-BUTYL ETHER	10.00	9.18	91.8	65-125
METHYLENE CHLORIDE	10.00	9.48	94.8	55-140
STYRENE	10.00	9.74	97.4	65-135
TETRACHLOROETHENE	10.00	8.71	87.1	45-150
TOLUENE	10.00	10.0	100	75-120
TRANS-1,2-DICHLOROETHENE	10.00	9.57	95.7	60-140
TRICHLOROETHENE	10.00	9.37	93.7	70-125
VINYL CHLORIDE	10.00	9.11	91.1	50-145
XYLENES (TOTAL)	30.0	29.1	97.0	80-120
SURROGATE: 1,2-DICHLOROETHANE-	21.2	19.2	90.5	70-120
SURROGATE: 4-BROMOFLUOROBENZ	25.5	25.0	98.2	75-120
SURROGATE: DIBROMOFLUOROMETH	21.1	20.7	98.1	85-115
SURROGATE: TOLUENE-D8 (S)	25.8	24.0	93.0	85-120

Comments:

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	11/05/11
Analysis Date :	11/05/11
Instrument :	Chico
Run :	1105C03
Initials :	DG

Printed: 12/08/11 4:17:35 PM

APPL Standard LCS

# **EPA 8260B**

## Form 4

### **Blank Summary**

Lab Name: APPL, Inc.  
Case No: 66186  
Matrix: WATER  
Blank ID: 111105AC-BLK

SDG No: 66186  
Date Analyzed: 11/05/11  
Instrument: Chico  
Time Analyzed: 1704

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
111105AC-LCS	Lab Control Spike	1105C03	11/05/11 1245
111105AC-BLK	Blank	1105C09	11/05/11 1704
AY50004	ES056	1105C10	11/05/11 1748
AY50005	ES057	1105C11	11/05/11 1831

Comments: Batch: #86RHB-111105AC

Form 5  
Tune Summary

Lab Name: APPL Inc.

Case No: 66186

Matrix: Water

ID: 20ug/ml BFB Std 02-17-10D

SDG No: 66186

Date Analyzed: 11/05/11

Instrument: Chico

Time Analyzed: 10:47

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	VOC STD 11-5-11@10ug	1105C02W.D	11/05/11 12:02
2	Lab Control Spike	111105A LCS-1WC	11/05/11 12:45
3		Gas CCV 11-05-11@300	11/05/11 14:11
4	Lab Control Spike	111105A LCS-1WC (GAS)	11/05/11 14:54
5	Blank	111105A BLK-1WC	11/05/11 17:04
6	ES056	AY50004W01	11/05/11 17:48
7	ES057	AY50005W01	11/05/11 18:31
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50 15 - 40% of mass 95	22.3
75 30 - 60% of mass 95	49.5
95 100 - 100% of mass 95	100.0
96 5 - 9% of mass 95	6.2
173 0 - 2% of mass 174	0.0
174 50 - 100% of mass 95	83.1
175 5 - 9% of mass 174	7.1
176 95 - 101% of mass 174	96.8
177 5 - 9% of mass 176	6.2

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc.

Contract: Review

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

SDG No.: 66186

Lab File ID (Standard): 1104C09W.D

Date Analyzed: 4 Nov 11 15:53

Instrument ID: Chico

Time Analyzed: 4 Nov 11 15:53

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	379520	12.88	242112	18.07	128488	22.28
UPPER LIMIT	759040	13.38	484224	18.57	256976	22.78
LOWER LIMIT	189760	12.38	121056	17.57	64244	21.78
SAMPLE NO.						
01 VOC STD 11-5-11@10u	595584	12.84	402432	18.05	212800	22.24
02 111105A LCS-1WC	598784	12.85	432320	18.04	227456	22.25
03 111105A BLK-1WC	639936	12.85	438336	18.05	229504	22.25
04 AY50004W01	620800	12.85	411008	18.05	224768	22.25
05 AY50005W01	638720	12.85	426432	18.05	222400	22.25
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc.

Contract: Review

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

SDG No.: 66186

Lab File ID (Standard): 1030C08W.D

Date Analyzed: 10/30/11

Instrument ID: Chico

Time Analyzed: 18:26

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

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

	Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		4-Dichlorobenzene-D (IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	1085670	12.84	1080400	18.04	1118270	22.24
UPPER LIMIT	2171340	13.34	2160800	18.54	2236540	22.74
LOWER LIMIT	542835	12.34	540200	17.54	559135	21.74
SAMPLE NO.						
01 Gas CCV 11-05-11@300ug/L	1284530	12.85	1273280	18.04	1316870	22.25
02 111105A LCS-1WC (GAS)	1341940	12.85	1285560	18.04	1316050	22.25
03 111105A BLK-1WC	1344860	12.85	1284530	18.05	1297790	22.25
04 AY50004W01	1298000	12.85	1242540	18.05	1255780	22.25
05 AY50005W01	1331270	12.85	1269390	18.05	1253510	22.25
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**

**APPL, INC.**

# EPA 8260B VOCs + Gas Water

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Stacey Fineran  
Project: RED HILL/1022-024  
**Sample ID: ES056**  
Sample Collection Date: 11/02/11

ARF: 66186  
**APPL ID: AY50004**  
**QCG: #86RHB-111105AC-160965**

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	11/05/11	11/05/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	11/05/11	11/05/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	11/05/11	11/05/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	11/05/11	11/05/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	11/05/11	11/05/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	11/05/11	11/05/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	11/05/11	11/05/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	11/05/11	11/05/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	11/05/11	11/05/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROFORM	0.13 J	1.0	0.14	0.07	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	11/05/11	11/05/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	11/05/11	11/05/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	11/05/11	11/05/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	11/05/11	11/05/11

J = Estimated value.

Quant Method: CALLW.M  
Run #: 1105C10  
Instrument: Chico  
Sequence: C111104  
Dilution Factor: 1  
Initials: DG

Printed: 12/08/11 4:17:43 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: Stacey Fineran  
Project: RED HILL/1022-024  
**Sample ID: ES056**  
Sample Collection Date: 11/02/11

ARF: 66186  
**APPL ID: AY50004**  
**QCG: #86RHB-111105AC-160965**

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	11/05/11	11/05/11
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	11/05/11	11/05/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	89.3	70-120			%	11/05/11	11/05/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	101	75-120			%	11/05/11	11/05/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	91.9	85-115			%	11/05/11	11/05/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	97.8	85-120			%	11/05/11	11/05/11

J = Estimated value.

Quant Method: CALLW.M  
Run #: 1105C10  
Instrument: Chico  
Sequence: C111104  
Dilution Factor: 1  
Initials: DG

Printed: 12/08/11 4:17:43 PM  
APPL-F1-SC-NoMC-REG MDLs

## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C10W.D Vial: 1  
 Acq On : 5 Nov 11 17:48 Operator: STC  
 Sample : AY50004W01 Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:20 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.85	96	620800	25.00000	ppb	-0.03
55) Chlorobenzene-D5 (IS)	18.05	117	411008	25.00000	ppb	-0.03
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	224768	25.00000	ppb	-0.03
<b>System Monitoring Compounds</b>						
33) Dibromofluoromethane(S)	11.43	111	418625	19.39064	ppb	-0.03
Spiked Amount 21.097			Recovery	=	91.912%	
38) 1,2-DCA-D4 (S)	12.23	65	357977	18.94703	ppb	-0.03
Spiked Amount 21.225			Recovery	=	89.266%	
56) Toluene-D8 (S)	15.51	98	1528328	25.23984	ppb	-0.03
Spiked Amount 25.808			Recovery	=	97.798%	
64) 4-Bromofluorobenzene(S)	20.13	95	551484	25.81893	ppb	-0.03
Spiked Amount 25.459			Recovery	=	101.412%	
<b>Target Compounds</b>						
31) Chloroform	11.10	83	4911	0.12995	ppb	95

## Quantitation Report

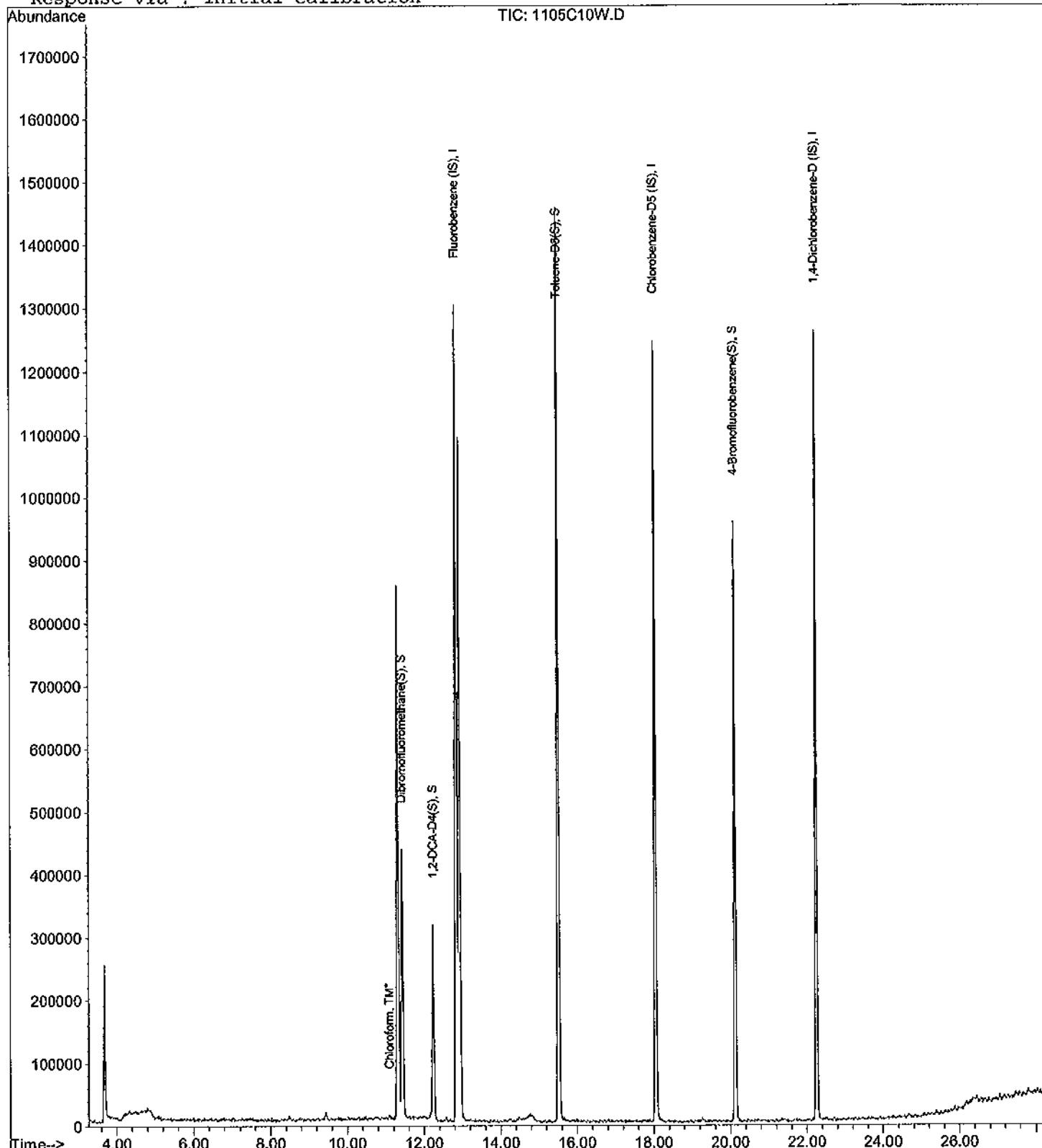
Data File : M:\CHICO\DATA\C111104\1105C10W.D  
Acq On : 5 Nov 11 17:48  
Sample : AY50004W01  
Misc : Water 10mLw/ IS:10-30-11

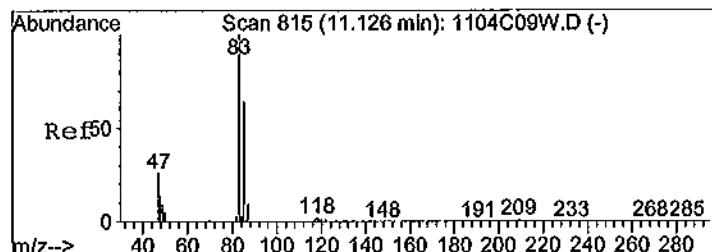
Vial: 1  
Operator: STC  
Inst : Chico  
Multiplr: 1.00

Quant Time: Nov 8 16:20 2011

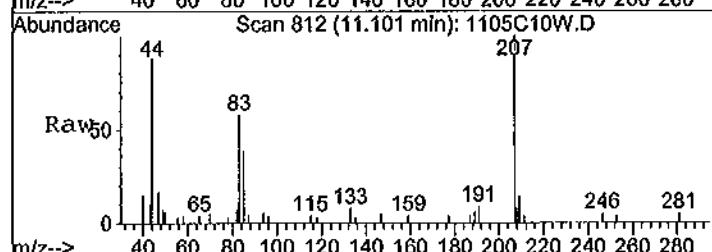
Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Tue Nov 08 15:56:36 2011  
Response via : Initial Calibration

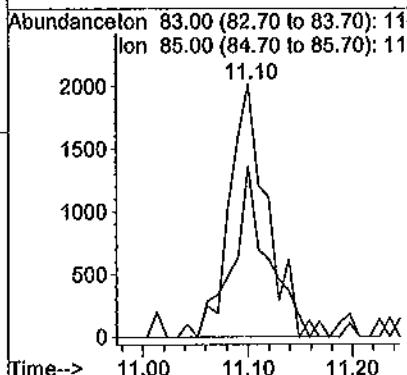
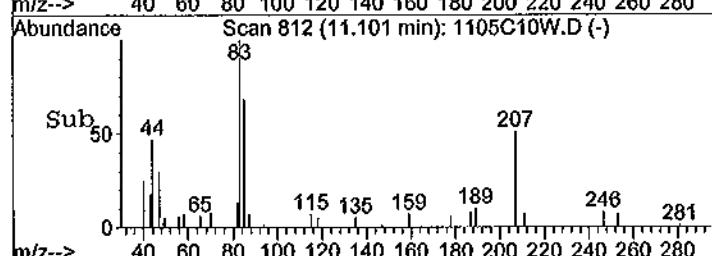




#31  
Chloroform  
Concen: 0.12995 ppb  
RT: 11.10 min Scan# 812  
Delta R.T. -0.03 min  
Lab File: 1105C10W.D  
Acq: 5 Nov 11 17:48



Tgt Ion: 83 Resp: 4911  
Ion Ratio Lower Upper  
83 100  
85 67.5 44.7 83.1



## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C10W.D Vial: 1  
Acq On : 5 Nov 11 17:48 Operator: STC  
Sample : AY50004W01 Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:44 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration  
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1297996	25.00000	ppb	0.01
3) Chlorobenzene-D5 (IS)	18.05	TIC	1242539	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1255775	25.00000	ppb	0.01

## System Monitoring Compounds

Target Compounds	Qvalue
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## Quantitation Report

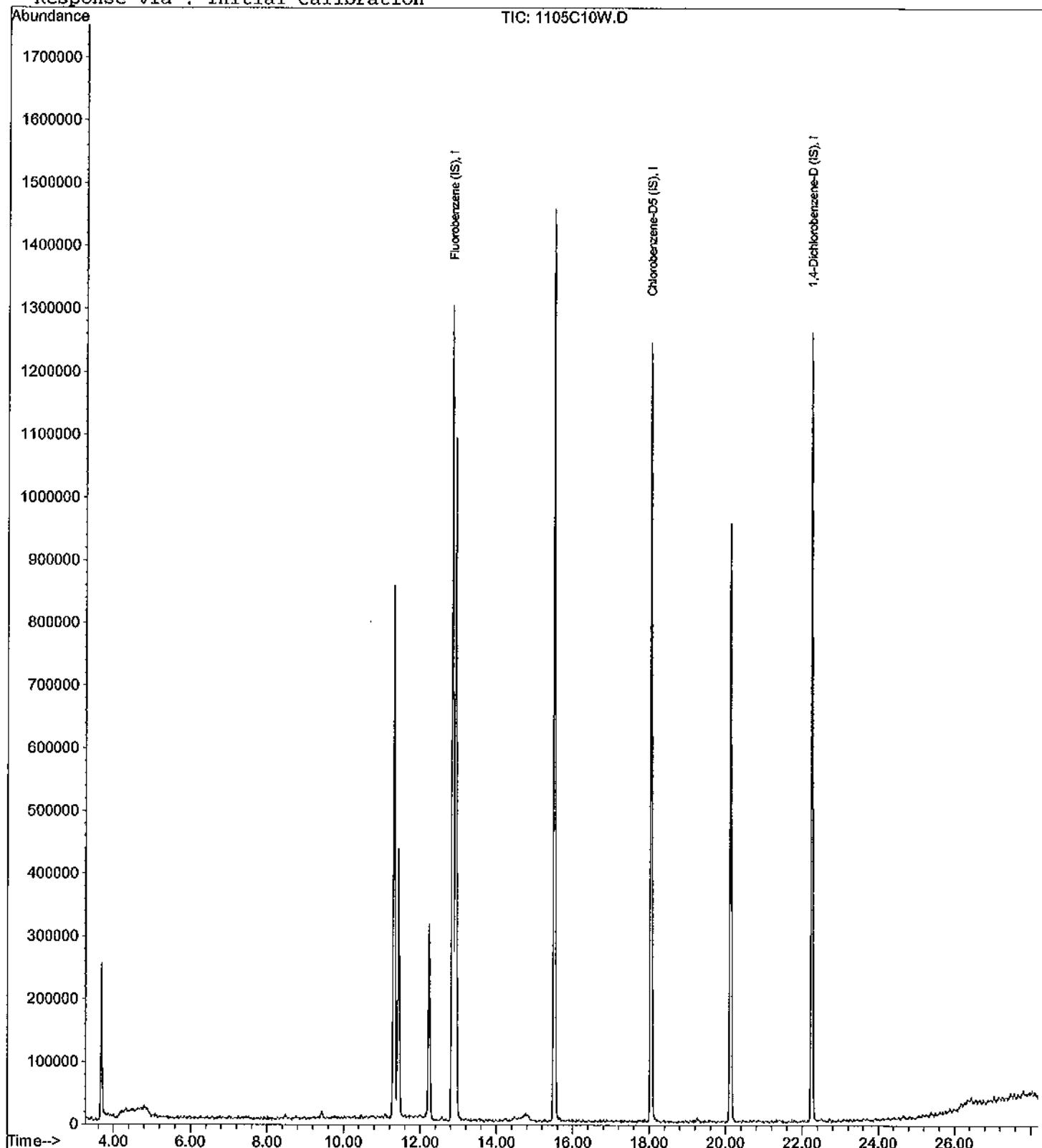
Data File : M:\CHICO\DATA\C111104\1105C10W.D  
Acq On : 5 Nov 11 17:48  
Sample : AY50004W01  
Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 16:44 2011

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration



# EPA 8260B VOCs + Gas Water

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Stacey Fineran  
Project: RED HILL/1022-024  
**Sample ID: ES057**  
Sample Collection Date: 11/02/11

ARF: 66186  
**APPL ID: AY50005**  
**QCG: #86RHB-111105AC-160965**

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	11/05/11	11/05/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	11/05/11	11/05/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	11/05/11	11/05/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	11/05/11	11/05/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	11/05/11	11/05/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	11/05/11	11/05/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	11/05/11	11/05/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	11/05/11	11/05/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	11/05/11	11/05/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROFORM	0.13 J	1.0	0.14	0.07	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	11/05/11	11/05/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	11/05/11	11/05/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	11/05/11	11/05/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	11/05/11	11/05/11

J = Estimated value.

Quant Method: CALLW.M  
Run #: 1105C11  
Instrument: Chico  
Sequence: C111104  
Dilution Factor: 1  
Initials: DG

Printed: 12/08/11 4:17:43 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: Stacey Fineran  
Project: RED HILL/1022-024  
**Sample ID: ES057**  
Sample Collection Date: 11/02/11

ARF: 66186  
**APPL ID: AY50005**  
QCG: #86RHB-111105AC-160965

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	11/05/11	11/05/11
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	11/05/11	11/05/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	84.1	70-120			%	11/05/11	11/05/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZENE	100	75-120			%	11/05/11	11/05/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMETANE	86.7	85-115			%	11/05/11	11/05/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	95.9	85-120			%	11/05/11	11/05/11

J = Estimated value.

Quant Method: CALLW.M
Run #: 1105C11
Instrument: Chico
Sequence: C111104
Dilution Factor: 1
Initials: DG

Printed: 12/08/11 4:17:43 PM  
APPL-F1-SC-NoMC-REG MDLs

## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C11W.D Vial: 1  
 Acq On : 5 Nov 11 18:31 Operator: SMC  
 Sample : AY50005W01 Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:37 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.85	96	638720	25.00000	ppb	-0.03
55) Chlorobenzene-D5 (IS)	18.05	117	426432	25.00000	ppb	-0.02
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	222400	25.00000	ppb	-0.03
<b>System Monitoring Compounds</b>						
33) Dibromofluoromethane(S)	11.44	111	406408	18.29660	ppb	-0.03
Spiked Amount 21.097			Recovery =	86.727%		
38) 1,2-DCA-D4 (S)	12.24	65	346833	17.84217	ppb	-0.03
Spiked Amount 21.225			Recovery =	84.060%		
56) Toluene-D8 (S)	15.52	98	1554381	24.74162	ppb	-0.03
Spiked Amount 25.808			Recovery =	95.868%		
64) 4-Bromofluorobenzene(S)	20.12	95	565450	25.51527	ppb	-0.03
Spiked Amount 25.459			Recovery =	100.218%		
<b>Target Compounds</b>						
31) Chloroform	11.12	83	4995	0.12847	ppb	# 75
83) Tert-Butylbenzene	21.38	119	11822	0.16145	ppb	91

## Quantitation Report

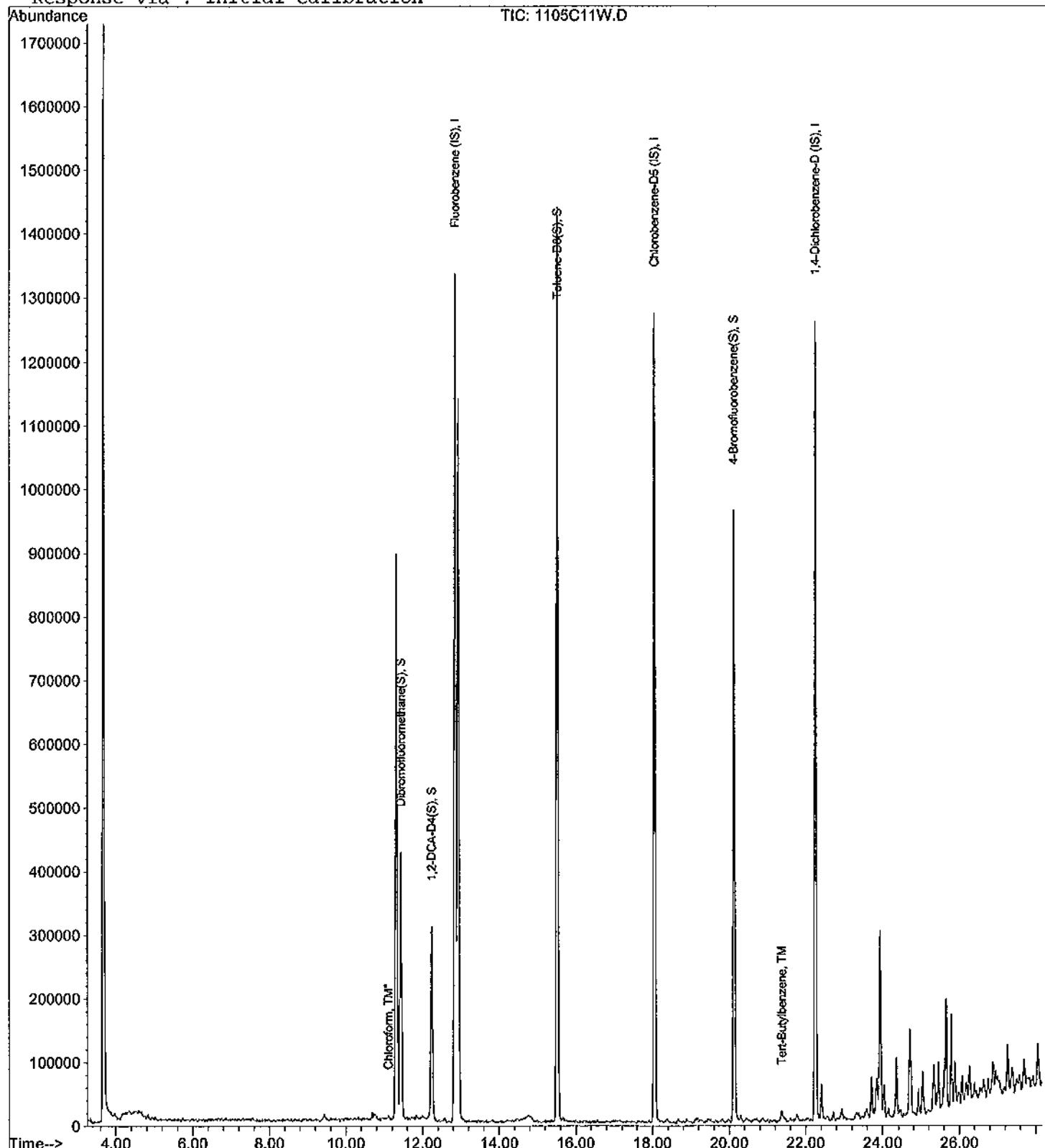
Data File : M:\CHICO\DATA\C111104\1105C11W.D  
Acq On : 5 Nov 11 18:31  
Sample : AY50005W01  
Misc : Water 10mLw/ IS:10-30-11

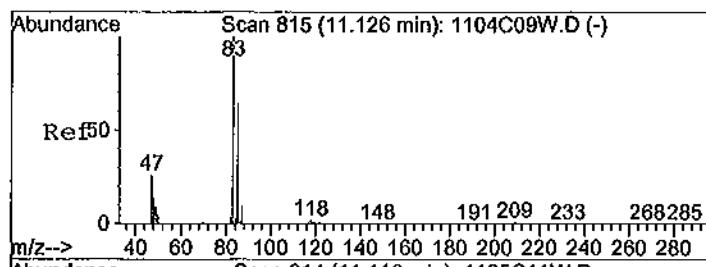
Vial: 1  
Operator: STC  
Inst : Chico  
Multiplr: 1.00

Quant Time: Nov 8 16:37 2011

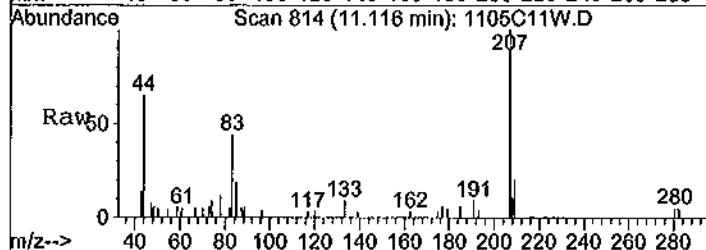
Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Tue Nov 08 15:56:36 2011  
Response via : Initial Calibration

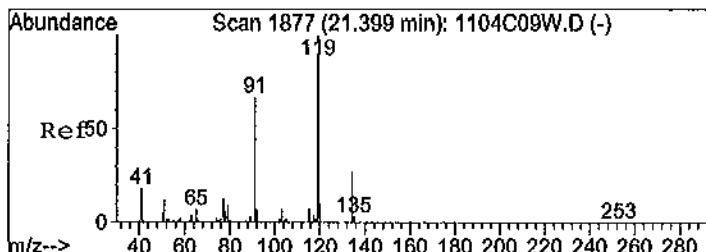
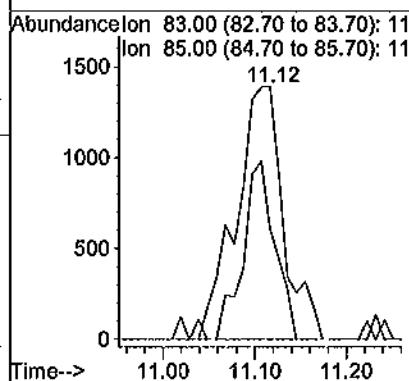
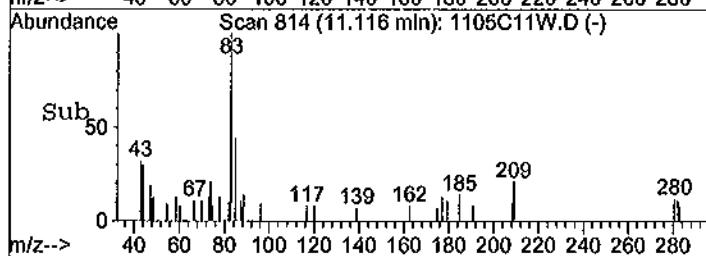




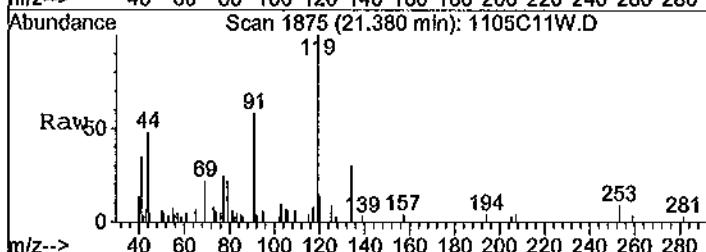
#31  
Chloroform  
Concen: 0.12847 ppb  
RT: 11.12 min Scan# 814  
Delta R.T. -0.01 min  
Lab File: 1105C11W.D  
Acq: 5 Nov 11 18:31



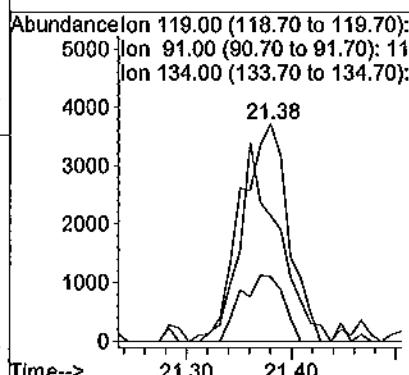
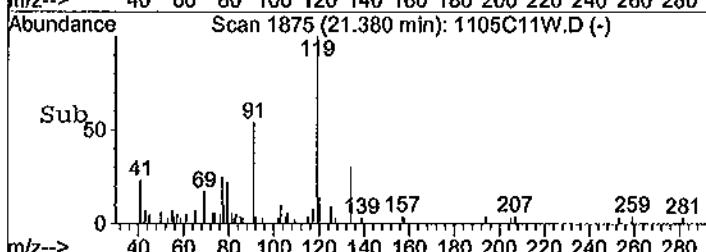
Tgt Ion: 83 Resp: 4995  
Ion Ratio Lower Upper  
83 100  
85 44.0 44.7 83.1#



#83  
Tert-Butylbenzene  
Concen: 0.16145 ppb  
RT: 21.38 min Scan# 1875  
Delta R.T. -0.02 min  
Lab File: 1105C11W.D  
Acq: 5 Nov 11 18:31



Tgt Ion: 119 Resp: 11822  
Ion Ratio Lower Upper  
119 100  
91 57.8 46.6 86.6  
134 29.6 18.7 34.7



## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C11W.D Vial: 1  
Acq On : 5 Nov 11 18:31 Operator: STC  
Sample : AY50005W01 Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:46 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration  
DataAccq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.85	TIC	1331266	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.05	TIC	1269387	25.00000	ppb	0.02
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1253511	25.00000	ppb	0.00

## System Monitoring Compounds

Target Compounds	Qvalue
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Quantitation Report

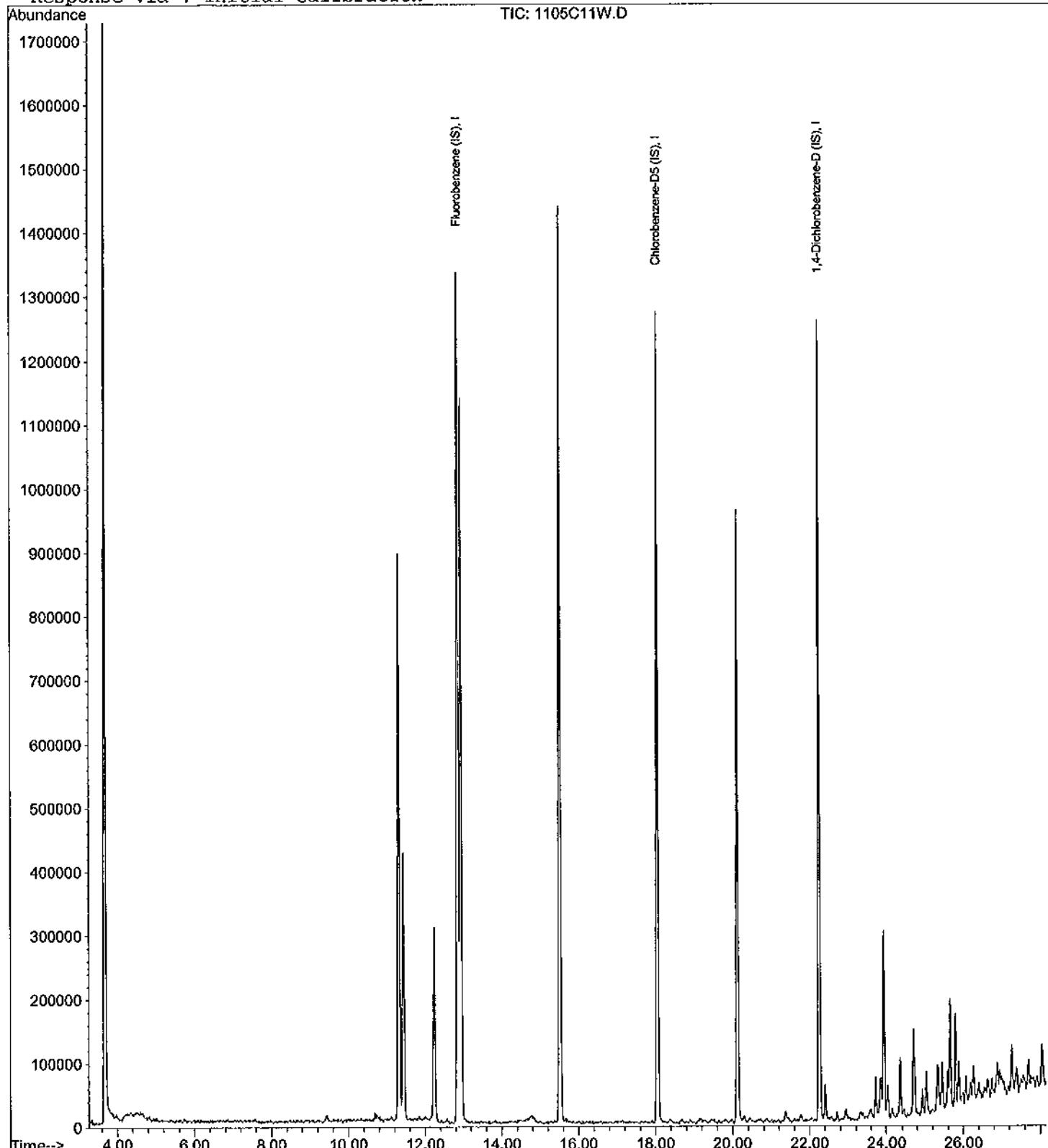
Data File : M:\CHICO\DATA\C111104\1105C11W.D  
Acq On : 5 Nov 11 18:31  
Sample : AY50005W01  
Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 16:46 2011

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration



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

**APPL, INC.**

**VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B**

**Form 6  
Initial Calibration**

Lab Name: APPL, Inc.

Case No:

Matrix:

SDG No:

Initial Cal. Date: 11/04/11

Instrument: Chico

Initials:

1104C04W.D    1104C05W.D    1104C06W.D    1104C07W.D    1104C08W.D    1104C09W.D    1104C10W.D    1104C11W.D    1104C12W.D

	Compound	0.3	0.5	1	2	5	10	20	40	100	Avg	%RSD		r
1	I Fluorobenzene (IS)	ISTD												
2	TM Dichlorodifluoromethane		0.8203	0.7786	0.8343	0.6533	0.8377	0.8642	1.005	0.9017	0.84	12	TM	
3	TM Freon 114		0.7810	0.6563	0.6257	0.5963	0.7144	0.6619	0.7653	0.7274	0.69	9.6	TM	
4	TM** Chloromethane	1.273	1.294	1.122	0.9987	1.107	0.9571	0.9515	1.017	1.024	1.1	12	TM**	✓
5	TM* Vinyl chloride	1.017	0.8062	0.9171	0.7933	0.9243	0.8889	0.8400	0.8838	0.7832	0.87	8.7	TM*	✓
6	TM 1,3-Butadiene													TM
7	TM Bromomethane		0.5466	0.5350	0.5622	0.5576	0.4723	0.4939	0.4871	0.5280	0.52	6.5	TM	
8	TM Chloroethane		0.1468	0.1595	0.1305	0.1476	0.1460	0.1286	0.1648	0.1364	0.15	8.9	TM	
9	TM Dichlorodifluoromethane	2.086	1.836	1.758	1.685	1.955	1.731	1.666	1.804	1.657	1.8	8.0	TM	
10	TM Trichlorodifluoromethane	1.177	1.247	1.202	1.200	1.117	1.244	1.155	1.278	1.224	1.2	4.2	TM	
11	Acetonitrile		0.0265	0.0209	0.0186	0.0228	0.0197	0.0204	0.0243		0.02	13		
12	TM Acrolein	0.0126	0.0095	0.0095	0.0089	0.0099	0.0108	0.0115	0.0116	0.0111	0.01	12	TM	
13	TML Acetone		0.5173	0.3001	0.1522	0.1136	0.0984	0.0748	0.0831		0.19	85	TML	0.996
14	TM Freon-113	0.5180	0.6959	0.6470	0.6691	0.6093	0.7054	0.6541	0.7721	0.6988	0.66	11	TM	
15	TM* 1,1-DCE		0.9172	0.7282	0.6314	0.7153	0.6536	0.6031	0.6749	0.6154	0.69	15	TM*	
16	TM t-Butanol		0.0035	0.0038	0.0026	0.0033	0.0034	0.0034	0.0033		0.00	11	TM	
17	TML Methyl Acetate		0.3214	0.3178	0.2851	0.2299	0.1879	0.1762	0.1859	0.1838	0.24	27	TML	1.000
18	TML Iodomethane			0.3261	0.3361	0.3900	0.4347	0.5079	0.5793	0.6347	0.46	26	TML	0.999
19	TM Acrylonitrile	0.0755	0.0573	0.0867	0.0792	0.0832	0.0712	0.0730	0.0732	0.0673	0.07	12	TM	
20	TML Methylene chloride	6.662	3.188	1.751	0.9167	0.6969	0.6006	0.5908	0.6006	0.5474	1.7	118	TML	0.999
21	TM Carbon disulfide	0.6983	0.6197	0.5526	0.4423	0.6771	0.5390	0.5229	0.5785	0.5137	0.57	14	TM	
22	TM Methyl t-butyl ether (MtBE)	1.210	1.127	1.098	1.055	1.251	1.120	1.065	1.136	1.062	1.1	6.0	TM	
23	TM Trans-1,2-DCE		0.9172	0.7282	0.6314	0.7153	0.6536	0.6031	0.6749	0.6154	0.69	15	TM	
24	TM Diisopropyl Ether	2.209	2.032	1.971	1.863	2.346	2.115	2.028	2.012	1.884	2.1	7.5	TM	
25	TM** 1,1-DCA	1.663	1.479	1.496	1.305	1.634	1.440	1.324	1.349	1.245	1.4	10	TM**	✓
26	TM Vinyl Acetate			0.1362	0.1346	0.0987	0.1146	0.1039	0.1079	0.0997	0.11	14	TM	
27	TM Ethyl tert Butyl Ether	1.773	1.767	1.709	1.593	1.989	1.793	1.713	1.718	1.562	1.7	7.1	TM	
28	TM MEK (2-Butanone)			0.4170	0.3115	0.3452	0.3214	0.3018	0.3036	0.2724	0.32	14	TM	
29	TM Cis-1,2-DCE		1.147	0.9876	0.9207	0.9064	0.8254	0.8055	0.8290	0.7302	0.89	14	TM	
30	TM 2,2-Dichloropropane	1.405	1.569	1.407	1.217	1.470	1.293	1.237	1.233	1.118	1.3	11	TM	
31	TM* Chloroform	1.397	1.681	1.570	1.416	1.704	1.534	1.487	1.545	1.364	1.5	7.9	TM*	✓
32	TM Bromochloromethane	0.2439	0.2855	0.3091	0.2465	0.3172	0.2632	0.2733	0.2606	0.2274	0.27	11	TM	
33	S Dibromofluoromethane(S)	0.6513	0.8765	0.9185	0.8004	0.8512	0.7568	0.7683	1.042	0.9600	0.87	11	S	
34	TM 1,1,1-TCA	1.331	1.576	1.493	1.410	1.670	1.461	1.473	1.410	1.469	1.5	6.7	TM	
35	TM Cyclohexane	1.009	0.9029	1.029	0.9328	0.9606	0.9467	0.9730	0.8798	0.9394	0.95	5.0	TM	

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 6  
Initial Calibration

Lab Name: APPL, Inc.

Case No:

Matrix:

SDG No:

Initial Cal. Date: 11/04/11

Instrument: Chico

Initials:

	Compound	0.3	0.5	1	2	5	10	20	40	100		Avg	%RSD		r
36	TM 1,1-Dichloropropene	1.284	1.003	1.056	1.050	1.139	1.054	1.039	0.9451	0.9838		1.1	9.4	TM	
37	TML 2,2,4-Trimethylpentane		2.380	1.798	1.701	1.570	1.677	1.678	1.446	1.580		1.7	16	TML	0.999
38	S 1,2-DCA-D4(S)	0.8725	0.7074	0.7848	0.6932	0.7648	0.6805	0.6697	0.8325	0.8423		0.76	10	S	
39	TM Carbon Tetrachloride	0.9592	1.167	1.148	0.9879	1.148	1.188	1.161	1.153	1.244		1.1	8.2	TM	
40	TM Tert Amyl Methyl Ether	1.611	1.409	1.234	1.174	1.344	1.181	1.228	1.052	1.130		1.3	13	TM	
41	TM 1,2-DCA	1.149	0.8266	0.8636	0.8047	0.9407	0.8568	0.8173	0.7530	0.7842		0.87	14	TM	
42	TM Benzene	3.004	3.057	2.758	2.596	2.877	2.607	2.598	2.318	2.501		2.7	9.0	TM	
43	TM TCE	0.7995	0.8821	0.8688	0.7890	0.9676	0.8726	0.8612	0.8183	0.8378		0.86	6.3	TM	
44	TM 2-Pentanone	0.1540	0.1452	0.1447	0.1394	0.1700	0.1601	0.1606	0.1502	0.1549		0.15	6.2	TM	
45	TM* 1,2-Dichloropropane	0.6561	0.5852	0.6013	0.6039	0.6714	0.6241	0.6280	0.5876	0.5893		0.62	5.0	TM*	✓
46	TM Bromodichloromethane	0.9744	0.9437	0.9067	0.7807	1.015	0.9484	0.9367	0.9244	0.9235		0.93	6.9	TM	
47	TM Methyl Cyclohexane	0.8200	0.9241	0.7771	0.8829	0.8642	0.9381	0.9383	0.8797	0.9284		0.88	6.4	TM	
48	TM Dibromomethane	0.2535	0.3727	0.2911	0.3909	0.3279	0.3290	0.3132	0.3112			0.32	13	TM	
49	TMQ 2-Chloroethyl vinyl ether	0.2390	0.1445	0.1062	0.1563	0.1938	0.1563	0.1709	0.1585	0.1709		0.17	22	TMQ	1.000
50	TM 1-Bromo-2-chloroethane	0.4932	0.4441	0.6188	0.4869	0.6377	0.5642	0.5837	0.5106	0.5203		0.54	12	TM	
51	TM Cis-1,3-Dichloropropene	0.8316	0.6857	0.7235	0.6927	0.8886	0.8130	0.7369	0.7338	0.7333		0.76	9.0	TM	
52	TM* Toluene	3.168	3.066	3.081	2.669	3.253	2.773	2.638	2.556	2.592		2.9	9.5	TM*	✓
53	TM Trans-1,3-Dichloropropene	0.5625	0.5719	0.5136	0.5343	0.6799	0.5865	0.5777	0.5859	0.5852		0.58	8.0	TM	
54	TM 1,1,2-TCA	0.3007	0.3033	0.3189	0.2217	0.3438	0.2787	0.2635	0.2719	0.2614		0.28	13	TM	
55	I Chlorobenzene-D5 (IS)	1STD													
56	S Toluene-D8(S)	3.706	3.419	3.827	3.414	3.733	3.633	3.248	4.084	4.083		3.7	7.9	S	
57	TM 1,2-EDB	0.5758	0.5216	0.4377	0.5085	0.5640	0.5215	0.5541	0.5283	0.5240		0.53	5.3	TM	
58	TM Tetrachloroethene		1.457	1.386	1.384	1.386	1.315	1.104	1.069	1.057		1.3	13	TM	
59	TM 1-Chlorohexane	1.492	1.395	1.285	1.343	1.353	1.340	1.335	1.311	1.345		1.4	4.4	TM	
60	TM 1,1,1,2-Tetrachloroethane	0.9141	0.7592	0.9299	0.8543	0.9809	1.044	0.9994	0.9859	0.9825		0.94	9.3	TM	
61	TM m&p-Xylene	2.087	1.798	1.638	1.934	1.887	1.846	1.681	1.701	1.750		1.8	7.8	TM	
62	TM o-Xylene	1.865	1.433	1.718	1.820	1.853	1.779	1.714	1.690	1.684		1.7	7.5	TM	
63	TM Styrene	3.167	2.407	2.696	2.785	2.853	2.770	2.677	2.615	2.604		2.7	7.6	TM	
64	S 4-Bromofluorobenzene(S)	1.434	1.328	1.259	1.252	1.220	1.144	1.142	1.480	1.435		1.3	9.8	S	
65	TM 2-Hexanone			0.2308	0.2343	0.2091	0.2098	0.1969	0.1900	0.1766		0.21	10	TM	
66	TM 1,3-Dichloropropane	0.6843	0.8877	0.8291	0.9278	0.9606	1.016	0.8892	0.8393	0.8096		0.87	11	TM	
67	TM Dibromochloromethane		0.6557	0.5976	0.7618	0.7728	0.7772	0.7616	0.7979	0.8144		0.74	10	TM	
68	TM** Chlorobenzene	3.209	2.710	2.562	2.560	2.907	2.827	2.608	2.502	2.535		2.7	8.5	TM**	✓
69	TM* Ethylbenzene	5.443	4.363	4.940	4.855	4.849	4.809	4.474	4.418	4.473		4.7	7.2	TM*	✓
70	TM**Q Bromoform	0.0982	0.1161	0.2855	0.2791	0.3149	0.3757	0.3780	0.3873	0.4250		0.30	40	TM**Q	1.00

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 6  
Initial Calibration

Lab Name: APPL. Inc.

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

**Matrix:**

SDG No:

Initial Cal. Date: 11/04/11

**Instrument: Chico**

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

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C04W.D Vial: 1  
 Acq On : 4 Nov 11 12:17 Operator: STC  
 Sample : VOL STD 11-04-11@0.3ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.87	96	373056	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	18.07	117	251968	25.00000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.27	152	137408	25.00000	ppb	-0.01
<b>System Monitoring Compounds</b>						
33) Dibromofluoromethane(S)	11.45	111	7622	0.58751	ppb	-0.01
Spiked Amount	21.097		Recovery	=	2.787%	
38) 1,2-DCA-D4 (S)	12.26	65	7812	0.68806	ppb	0.00
Spiked Amount	21.225		Recovery	=	3.241%	
56) Toluene-D8 (S)	15.52	98	22413	0.60377	ppb	-0.02
Spiked Amount	25.808		Recovery	=	2.340%	
64) 4-Bromofluorobenzene(S)	20.15	95	8671	0.66219	ppb	0.00
Spiked Amount	25.459		Recovery	=	2.600%	
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	4.10	85	2521	0.20188	ppb	94
3) Freon 114	4.34	85	1171	0.11356	ppb	# 70
4) Chloromethane	4.56	50	5699	0.35273	ppb	# 76
5) Vinyl chloride	4.84	62	4553	0.34964	ppb	84
7) Bromomethane	5.74	94	3479	0.44592	ppb	87
8) Chloroethane	5.94	64	526	0.24307	ppb	92
9) Dichlorofluoromethane	6.03	67	9337	0.34808	ppb	# 75
10) Trichlorofluoromethane	6.56	101	5271	0.29315	ppb	# 57
11) Acetonitrile	7.69	41	6625	20.29369	ug/l	100
12) Acrolein	7.19	56	2827	17.89727	ppb	# 66
13) Acetone	7.30	43	4047	3.27164	ppb	96
14) Freon-113	7.48	101	2319	0.23430	ppb	86
15) 1,1-DCE	7.71	96	4680	0.45297	ppb	# 67
16) t-Butanol	7.78	59	648	13.08262	ppb	# 80
18) Iodomethane	8.21	142	1677	2.45643	ppb	# 29
19) Acrylonitrile	8.60	53	338	0.30580	ppb	90
20) Methylene chloride	8.49	84	29825	1.47076	ppb	86
21) Carbon disulfide	8.59	76	3126	0.36652	ppb	100
22) Methyl t-butyl ether (MtBE	8.95	73	5416	0.32263	ppb	# 59
23) Trans-1,2-DCE	7.71	96	4680	0.45297	ppb	# 63
24) Diisopropyl Ether	9.79	45	9890	0.32313	ppb	# 73
25) 1,1-DCA	9.82	63	7444	0.34711	ppb	# 84
26) Vinyl Acetate	9.45	43	1320	0.77833	ppb	# 59
27) Ethyl tert Butyl Ether	10.47	59	7935	0.30647	ppb	# 70
28) MEK (2-Butanone)	10.47	43	2503	0.51658	ppb	# 70
29) Cis-1,2-DCE	10.85	96	6279	0.47070	ppb	# 23
30) 2,2-Dichloropropane	10.86	77	6290	0.31748	ppb	# 84
31) Chloroform	11.11	83	6253	0.27534	ppb	98
32) Bromochloromethane	11.34	128	1092	0.27139	ppb	# 1
34) 1,1,1-TCA	11.88	97	5959	0.27034	ppb	# 86
35) Cyclohexane	12.04	56	4517	0.31778	ppb	# 35
36) 1,1-Dichloropropene	12.15	75	5750	0.36295	ppb	# 75
37) 2,2,4-Trimethylpentane	12.21	57	12107	0.42595	ppb	# 79
39) Carbon Tetrachloride	12.34	117	4294	0.25502	ppb	# 88
40) Tert Amyl Methyl Ether	12.37	73	7211	0.38274	ppb	# 70
41) 1,2-DCA	12.41	62	5143	0.39789	ppb	99
42) Benzene	12.53	78	13448	0.33355	ppb	90
43) TCE	13.57	95	3579	0.28045	ppb	# 57
44) 2-Pentanone	13.23	43	34461	15.07079	ppb	96

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

1104C04W.D CALLW.M Thu Dec 08 16:56:19 2011

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C04W.D  
 Acq On : 4 Nov 11 12:17  
 Sample : VOL STD 11-04-11@0.3ug/L  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 1,2-Dichloropropane	13.78	63	2937	0.31932	ppb	# 84
46) Bromodichloromethane	14.14	83	4362	0.31492	ppb	# 82
47) Methyl Cyclohexane	13.87	83	3671	0.27840	ppb	92
48) Dibromomethane	14.19	93	1070	0.22153	ppb	# 70
49) 2-Chloroethyl vinyl ether	14.59	63	1070	0.20368	ppb	# 85
50) 1-Bromo-2-chloroethane	14.92	63	2208	0.27404	ppb	90
51) Cis-1,3-Dichloropropene	15.02	75	3723	0.32832	ppb	92
52) Toluene	15.67	91	14182	0.33158	ppb	82
53) Trans-1,3-Dichloropropene	15.84	75	2518	0.29219	ppb	# 82
54) 1,1,2-TCA	16.09	83	1346	0.31664	ppb	# 65
57) 1,2-EDB	17.37	107	1741	0.32487	ppb	# 1
58) Tetrachloroethene	16.82	164	5236	0.40996	ppb	# 75
59) 1-Chlorohexane	17.74	91	4512	0.33029	ppb	96
60) 1,1,1,2-Tetrachloroethane	18.19	131	2764	0.29209	ppb	# 71
61) m&p-Xylene	18.40	106	12622	0.69049	ppb	96
62) o-Xylene	19.13	106	5639	0.32370	ppb	86
63) Styrene	19.15	104	9576	0.34798	ppb	# 61
65) 2-Hexanone	16.13	43	303	0.14539	ppb	# 19
66) 1,3-Dichloropropane	16.53	76	2069	0.23555	ppb	87
67) Dibromochloromethane	17.02	129	1473	0.19687	ppb	82
68) Chlorobenzene	18.13	112	9702	0.35478	ppb	92
69) Ethylbenzene	18.25	91	16457	0.34461	ppb	85
70) Bromoform	19.68	173	297	0.41115	ppb	# 73
72) MIBK (methyl isobutyl keto	14.69	43	1837	-1.06803	ppb	84
73) Isopropylbenzene	19.76	105	17317	0.33750	ppb	91
74) 1,1,2,2-Tetrachloroethane	19.92	83	1385	0.31740	ppb	# 58
75) 1,2,3-Trichloropropane	20.20	110	168	14228.99424	ppb	94
76) t-1,4-Dichloro-2-Butene	20.25	53	204	-0.16580	ppb	# 1
77) Bromobenzene	20.51	156	3451	0.30623	ppb	84
78) n-Propylbenzene	20.48	91	20811	0.35632	ppb	89
79) 4-Ethyltoluene	20.67	105	12885	0.31538	ppb	95
80) 2-Chlorotoluene	20.77	91	12555	0.32181	ppb	93
81) 1,3,5-Trimethylbenzene	20.75	105	13400	0.31457	ppb	91
82) 4-Chlorotoluene	20.85	91	11792	0.34403	ppb	94
83) Tert-Butylbenzene	21.40	119	14224	0.31441	ppb	# 74
84) 1,2,4-Trimethylbenzene	21.45	105	13893	0.33203	ppb	88
85) Sec-Butylbenzene	21.78	105	17783	0.32528	ppb	95
86) p-Isopropyltoluene	22.02	119	16629	0.34595	ppb	90
87) Benzyl Chloride	22.45	91	2909	0.35717	ppb	# 87
88) 1,3-DCB	22.16	146	6918	0.31246	ppb	# 59
89) 1,4-DCB	22.31	146	6355	0.30638	ppb	# 89
90) Hexachloroethane	23.63	117	1330	0.70462	ppb	# 50
91) n-Butylbenzene	22.73	91	14476	0.35770	ppb	82
92) 1,2-DCB	22.96	146	5043	0.27509	ppb	95
93) 1,2-Dibromo-3-chloropropan	24.11	155	66	0.09928	ppb	# 1
94) 1,2,4-Trichlorobenzene	25.62	145	6430	2.77968	ppb	# 1
95) Hexachlorobutadiene	25.89	223	3585	-0.09482	ppb	# 63
96) Naphthalene	26.00	128	6049	0.30993	ppb	# 91
97) 1,2,3-Trichlorobenzene	26.37	180	2096	1297.24030	ppb	81

(#) = qualifier out of range (m) = manual integration  
 1104C04W.D CALLW.M Thu Dec 08 16:56:20 2011

Quantitation Report

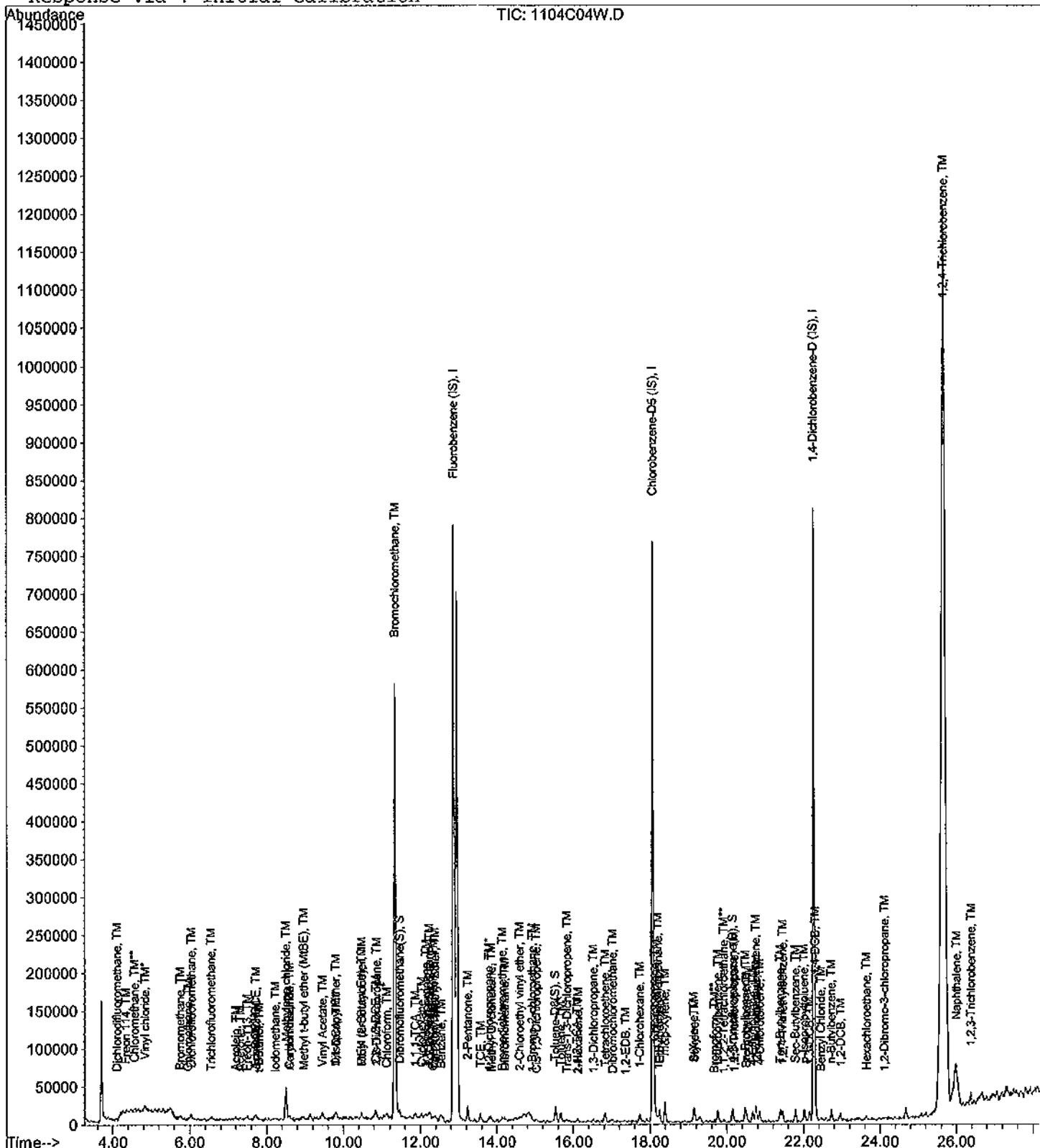
Data File : M:\CHICO\DATA\C111104\1104C04W.D  
 Acq On : 4 Nov 11 12:17  
 Sample : VOL STD 11-04-11@0.3ug/L  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration



## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C05W.D Vial: 1  
 Acq On : 4 Nov 11 13:00 Operator: STC  
 Sample : VOL STD 11-04-11@0.5ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.88	96	379456	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	18.07	117	274368	25.00000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.27	152	122072	25.00000	ppb	0.00

System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.45	111	13304	1.00818	ppb	0.00
Spiked Amount	21.097		Recovery	=	4.778%	
38) 1,2-DCA-D4 (S)	12.26	65	10737	0.92974	ppb	0.00
Spiked Amount	21.225		Recovery	=	4.382%	
56) Toluene-D8 (S)	15.54	98	37528	0.92842	ppb	0.00
Spiked Amount	25.808		Recovery	=	3.596%	
64) 4-Bromofluorobenzene(S)	20.15	95	14569	1.02177	ppb	0.00
Spiked Amount	25.459		Recovery	=	4.014%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.09	85	6225	0.49007	ppb	# 56
3) Freon 114	4.34	85	5927	0.56509	ppb	# 40
4) Chloromethane	4.57	50	9824	0.59779	ppb	89
5) Vinyl chloride	4.86	62	6118	0.46190	ppb	99
7) Bromomethane	5.77	94	4148	0.52270	ppb	# 53
8) Chloroethane	5.93	64	1114	0.50610	ppb	# 77
9) Dichlorofluoromethane	6.04	67	13931	0.51059	ppb	88
10) Trichlorofluoromethane	6.57	101	9466	0.51758	ppb	# 57
11) Acetonitrile	7.68	41	10055	30.28098	ug/l	100
12) Acrolein	7.19	56	3593	22.36303	ppb	87
13) Acetone	7.31	43	3926	3.12029	ppb	# 73
14) Freon-113	7.50	101	5281	0.52456	ppb	85
15) 1,1-DCE	7.69	96	6961	0.66237	ppb	70
16) t-Butanol	7.79	59	1332	26.43849	ppb	95
17) Methyl Acetate	8.23	43	2439	0.29578	ppb	# 63
18) Iodomethane	8.20	142	2398	2.52742	ppb	# 93
19) Acrylonitrile	8.59	53	435	0.38692	ppb	85
20) Methylene chloride	8.51	84	24194	0.72008	ppb	88
21) Carbon disulfide	8.59	76	4703	0.54211	ppb	# 88
22) Methyl t-butyl ether (MtBE	8.93	73	8555	0.50103	ppb	# 86
23) Trans-1,2-DCE	7.69	96	6961	0.66237	ppb	# 66
24) Diisopropyl Ether	9.78	45	15422	0.49537	ppb	# 95
25) 1,1-DCA	9.82	63	11227	0.51467	ppb	# 83
26) Vinyl Acetate	9.46	43	1673	0.96984	ppb	# 67
27) Ethyl tert Butyl Ether	10.49	59	13411	0.50924	ppb	99
28) MEK (2-Butanone)	10.45	43	1614	0.32749	ppb	# 73
29) Cis-1,2-DCE	10.85	96	8702	0.64134	ppb	90
30) 2,2-Dichloropropane	10.84	77	11904	0.59071	ppb	# 87
31) Chloroform	11.13	83	12758	0.55231	ppb	99
32) Bromochloromethane	11.35	128	2167	0.52948	ppb	# 34
34) 1,1,1-TCA	11.87	97	11964	0.53361	ppb	# 72
35) Cyclohexane	12.04	56	6852	0.47392	ppb	# 83
36) 1,1-Dichloropropene	12.14	75	7611	0.47232	ppb	90
37) 2,2,4-Trimethylpentane	12.22	57	18060	0.66787	ppb	# 90
39) Carbon Tetrachloride	12.33	117	8856	0.51708	ppb	97
40) Tert Amyl Methyl Ether	12.39	73	10694	0.55804	ppb	# 84
41) 1,2-DCA	12.41	62	6273	0.47713	ppb	97
42) Benzene	12.54	78	23197	0.56566	ppb	# 88
43) TCE	13.56	95	6694	0.51570	ppb	# 76

(#) = qualifier out of range (m) = manual integration  
 1104C05W.D CALLW.M Thu Dec 08 16:56:25 2011

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C05W.D Vial: 1  
 Acq On : 4 Nov 11 13:00 Operator: STC  
 Sample : VOL STD 11-04-11@0.5ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)

Title : METHOD 8260

Last Update : Tue Nov 08 15:56:36 2011

Response via : Initial Calibration

DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2-Pentanone	13.23	43	55093	23.68739	ppb	98
45) 1,2-Dichloropropane	13.80	63	4441	0.47470	ppb	97
46) Bromodichloromethane	14.15	83	7162	0.50836	ppb	94
47) Methyl Cyclohexane	13.86	83	7013	0.52288	ppb	100
48) Dibromomethane	14.20	93	1924	0.39162	ppb	# 74
49) 2-Chloroethyl vinyl ether	14.62	63	1097	0.20735	ppb	# 85
50) 1-Bromo-2-chloroethane	14.93	63	3370	0.41121	ppb	# 56
51) Cis-1,3-Dichloropropene	15.04	75	5204	0.45118	ppb	# 75
52) Toluene	15.66	91	23272	0.53492	ppb	98
53) Trans-1,3-Dichloropropene	15.83	75	4340	0.49513	ppb	83
54) 1,1,2-TCA	16.13	83	2302	0.53240	ppb	# 56
57) 1,2-EDB	17.37	107	2862	0.49045	ppb	# 81
58) Tetrachloroethene	16.83	164	7995	0.57488	ppb	# 78
59) 1-Chlorohexane	17.74	91	7655	0.51461	ppb	# 81
60) 1,1,1,2-Tetrachloroethane	18.20	131	4166	0.40430	ppb	# 77
61) m,p-Xylene	18.38	106	19729	0.99117	ppb	65
62) o-Xylene	19.14	106	7864	0.41457	ppb	87
63) Styrene	19.15	104	13209	0.44081	ppb	94
65) 2-Hexanone	16.15	43	1303	0.57416	ppb	# 59
66) 1,3-Dichloropropane	16.53	76	4871	0.50927	ppb	98
67) Dibromochloromethane	17.00	129	3598	0.44162	ppb	79
68) Chlorobenzene	18.14	112	14870	0.49937	ppb	87
69) Ethylbenzene	18.25	91	24052	0.46253	ppb	89
70) Bromoform	19.69	173	637	0.48847	ppb	# 34
72) MIBK (methyl isobutyl keto	14.70	43	2659	-0.64769	ppb	97
73) Isopropylbenzene	19.76	105	23939	0.52518	ppb	# 88
74) 1,1,2,2-Tetrachloroethane	19.94	83	2158	0.55668	ppb	# 89
75) 1,2,3-Trichloropropane	20.19	110	662	0.06423	ppb	# 40
76) t-1,4-Dichloro-2-Butene	20.27	53	677	0.35958	ppb	# 52
77) Bromobenzene	20.51	156	5539	0.55327	ppb	97
78) n-Propylbenzene	20.47	91	27836	0.53648	ppb	# 84
79) 4-Ethyltoluene	20.66	105	19354	0.53324	ppb	94
80) 2-Chlorotoluene	20.77	91	20569	0.59346	ppb	85
81) 1,3,5-Trimethylbenzene	20.75	105	22352	0.59065	ppb	95
82) 4-Chlorotoluene	20.85	91	15880	0.52150	ppb	84
83) Tert-Butylbenzene	21.40	119	20852	0.51882	ppb	92
84) 1,2,4-Trimethylbenzene	21.45	105	19787	0.53230	ppb	87
85) Sec-Butylbenzene	21.79	105	26453	0.54466	ppb	91
86) p-Isopropyltoluene	22.02	119	23380	0.54751	ppb	# 99
87) Benzyl Chloride	22.46	91	3833	0.52975	ppb	# 66
88) 1,3-DCB	22.16	146	10678	0.54287	ppb	96
89) 1,4-DCB	22.33	146	9762	0.52976	ppb	86
90) Hexachloroethane	23.60	117	1904	0.79427	ppb	# 57
91) n-Butylbenzene	22.72	91	20460	0.56908	ppb	# 83
92) 1,2-DCB	22.96	146	8345	0.51240	ppb	98
93) 1,2-Dibromo-3-chloropropan	24.17	155	254	0.43006	ppb	# 7
94) 1,2,4-Trichlorobenzene	25.64	145	1233	-0.72416	ppb	# 50
95) Hexachlorobutadiene	25.89	223	4625	0.14590	ppb	# 80
96) Naphthalene	25.99	128	9406	0.54248	ppb	# 82
97) 1,2,3-Trichlorobenzene	26.36	180	2378	0.07698	ppb	# 84

Quantitation Report

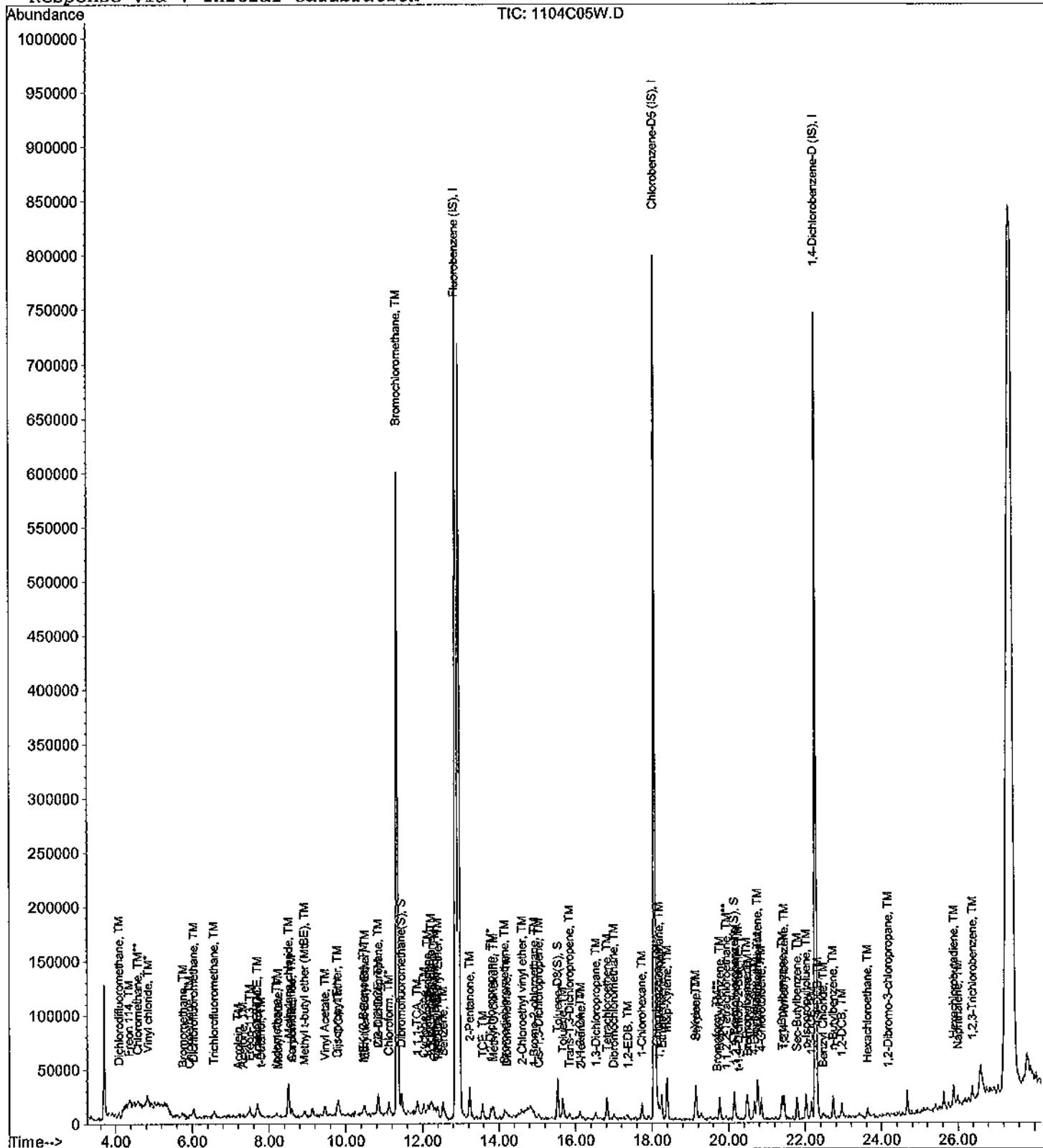
Data File : M:\CHICO\DATA\C111104\1104C05W.D  
 Acq On : 4 Nov 11 13:00  
 Sample : VOL STD 11-04-11@0.5ug/L  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration



## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C06W.D Vial: 1  
 Acq On : 4 Nov 11 13:43 Operator: STC  
 Sample : VOL STD 11-04-1101.0ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.87	96	363392	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	18.07	117	242560	25.00000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.28	152	120560	25.00000	ppb	0.00

## System Monitoring Compounds

33) Dibromofluoromethane (S)	11.46	111	26701	2.11286	ppb	0.00
Spiked Amount	21.097		Recovery	=	10.016%	
38) 1,2-DCA-D4 (S)	12.25	65	22815	2.06292	ppb	-0.01
Spiked Amount	21.225		Recovery	=	9.720%	
56) Toluene-D8 (S)	15.53	98	74261	2.07808	ppb	-0.01
Spiked Amount	25.808		Recovery	=	8.052%	
64) 4-Bromofluorobenzene (S)	20.15	95	24424	1.93755	ppb	0.00
Spiked Amount	25.459		Recovery	=	7.612%	

## Target Compounds

				QValue		
2) Dichlorodifluoromethane	4.09	85	11317	0.93034	ppb	88
3) Freon 114	4.37	85	9540	0.94976	ppb	92
4) Chloromethane	4.58	50	16314	1.03659	ppb	99
5) Vinyl chloride	4.84	62	13331	1.05097	ppb	# 68
7) Bromomethane	5.75	94	7776	1.02318	ppb	96
8) Chloroethane	5.96	64	2319	1.10012	ppb	92
9) Dichlorofluoromethane	6.03	67	25557	0.97810	ppb	100
10) Trichlorofluoromethane	6.57	101	17467	0.99729	ppb	96
11) Acetonitrile	7.69	41	15197	47.78941	ug/l	100
12) Acrolein	7.19	56	6910	44.90944	ppb	96
13) Acetone	7.29	43	4362	3.62007	ppb	# 1
14) Freon-113	7.50	101	9404	0.97539	ppb	# 89
15) 1,1-DCE	7.71	96	10585	1.05174	ppb	91
16) t-Butanol	7.80	59	2733	56.64454	ppb	# 82
17) Methyl Acetate	8.23	43	4620	1.15730	ppb	# 88
18) Iodomethane	8.19	142	4740	2.78908	ppb	87
19) Acrylonitrile	8.58	53	1260	1.17027	ppb	# 36
20) Methylene chloride	8.50	84	25453	1.01144	ppb	98
21) Carbon disulfide	8.59	76	8033	0.96689	ppb	# 77
22) Methyl t-butyl ether (MtBE	8.92	73	15960	0.97603	ppb	# 80
23) Trans-1,2-DCE	7.71	96	10585	1.05174	ppb	92
24) Diisopropyl Ether	9.79	45	28656	0.96115	ppb	# 86
25) 1,1-DCA	9.83	63	21752	1.04124	ppb	# 87
26) Vinyl Acetate	9.46	43	1980	1.19855	ppb	85
27) Ethyl tert Butyl Ether	10.47	59	24840	0.98491	ppb	92
28) MEK (2-Butanone)	10.48	43	6062	1.28438	ppb	# 91
29) Cis-1,2-DCE	10.85	96	14356	1.10481	ppb	# 64
30) 2,2-Dichloropropane	10.85	77	20456	1.05995	ppb	# 85
31) Chloroform	11.13	83	22815	1.03135	ppb	92
32) Bromochloromethane	11.34	128	4493	1.14633	ppb	# 72
34) 1,1,1-TCA	11.87	97	21709	1.01106	ppb	# 76
35) Cyclohexane	12.03	56	14954	1.08002	ppb	# 74
36) 1,1-Dichloropropene	12.14	75	15352	0.99482	ppb	# 88
37) 2,2,4-Trimethylpentane	12.22	57	26136	1.05657	ppb	96
39) Carbon Tetrachloride	12.34	117	16684	1.01720	ppb	# 75
40) Tert Amyl Methyl Ether	12.37	73	17931	0.97704	ppb	# 92
41) 1,2-DCA	12.41	62	12553	0.99700	ppb	96
42) Benzene	12.53	78	40089	1.02078	ppb	93
43) TCE	13.58	95	12629	1.01594	ppb	# 76

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

1104C06W.D CALLW.M Thu Dec 08 16:56:32 2011

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C06W.D Vial: 1  
 Acq On : 4 Nov 11 13:43 Operator: STC  
 Sample : VOL STD 11-04-11@1.0ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2-Pentanone	13.24	43	105157	47.21120	ppb	# 88
45) 1,2-Dichloropropane	13.80	63	8747	0.97629	ppb	# 94
46) Bromodichloromethane	14.15	83	13180	0.97687	ppb	# 77
47) Methyl Cyclohexane	13.85	83	11296	0.87945	ppb	# 70
48) Dibromomethane	14.20	93	5418	1.15155	ppb	# 59
49) 2-Chloroethyl vinyl ether	14.60	63	1544	0.42607	ppb	# 46
50) 1-Bromo-2-chloroethane	14.91	63	8994	1.14597	ppb	# 99
51) Cis-1,3-Dichloropropene	15.05	75	10517	0.95212	ppb	# 60
52) Toluene	15.68	91	44786	1.07495	ppb	88
53) Trans-1,3-Dichloropropene	15.83	75	7466	0.88941	ppb	83
54) 1,1,2-TCA	16.10	83	4636	1.11960	ppb	# 53
57) 1,2-EDB	17.36	107	4732	0.91725	ppb	# 81
58) Tetrachloroethene	16.83	164	13253	1.07791	ppb	92
59) 1-Chlorohexane	17.74	91	12463	0.94771	ppb	# 71
60) 1,1,1,2-Tetrachloroethane	18.19	131	9022	0.99038	ppb	# 78
61) m,p-Xylene	18.39	106	31780	1.80597	ppb	99
62) o-Xylene	19.13	106	16664	0.99369	ppb	85
63) Styrene	19.15	104	26160	0.98748	ppb	92
65) 2-Hexanone	16.14	43	2239	1.11599	ppb	# 72
66) 1,3-Dichloropropane	16.54	76	8044	0.95130	ppb	# 77
67) Dibromochloromethane	17.01	129	5798	0.80497	ppb	# 65
68) Chlorobenzene	18.15	112	24859	0.94429	ppb	88
69) Ethylbenzene	18.24	91	47931	1.04259	ppb	# 81
70) Bromoform	19.69	173	2770	1.10330	ppb	# 70
72) MIBK (methyl isobutyl keto	14.72	43	3902	-0.11892	ppb	# 61
73) Isopropylbenzene	19.77	105	44501	0.98851	ppb	95
74) 1,1,2,2-Tetrachloroethane	19.93	83	4000	1.04479	ppb	# 49
75) 1,2,3-Trichloropropane	20.19	110	863	0.54942	ppb	# 60
76) t-1,4-Dichloro-2-Butene	20.25	53	974	0.68726	ppb	# 72
77) Bromobenzene	20.52	156	10924	1.10484	ppb	95
78) n-Propylbenzene	20.48	91	51506	1.00512	ppb	93
79) 4-Ethyltoluene	20.68	105	35145	0.98045	ppb	95
80) 2-Chlorotoluene	20.77	91	34051	0.99476	ppb	92
81) 1,3,5-Trimethylbenzene	20.76	105	38780	1.03761	ppb	88
82) 4-Chlorotoluene	20.84	91	33630	1.11826	ppb	93
83) Tert-Butylbenzene	21.40	119	42596	1.07314	ppb	98
84) 1,2,4-Trimethylbenzene	21.45	105	35102	0.95614	ppb	92
85) Sec-Butylbenzene	21.79	105	45560	0.94983	ppb	# 86
86) p-Isopropyltoluene	22.02	119	40247	0.95432	ppb	96
87) Benzyl Chloride	22.47	91	5644	0.78983	ppb	# 75
88) 1,3-DCB	22.16	146	19204	0.98858	ppb	# 90
89) 1,4-DCB	22.32	146	17561	0.96494	ppb	# 78
90) Hexachloroethane	23.63	117	4579	1.13327	ppb	91
91) n-Butylbenzene	22.74	91	36370	1.02430	ppb	87
92) 1,2-DCB	22.95	146	16350	1.01651	ppb	84
93) 1,2-Dibromo-3-chloropropan	24.18	155	582	0.99778	ppb	# 59
94) 1,2,4-Trichlorobenzene	25.62	145	2064	-0.05389	ppb	79
95) Hexachlorobutadiene	25.89	223	8162	0.75407	ppb	95
96) Naphthalene	25.99	128	19449	1.13577	ppb	99
97) 1,2,3-Trichlorobenzene	26.38	180	3944	0.47493	ppb	82

(#) = qualifier out of range (m) = manual integration  
 1104C06W.D CALLW.M Thu Dec 08 16:56:33 2011

# Quantitation Report

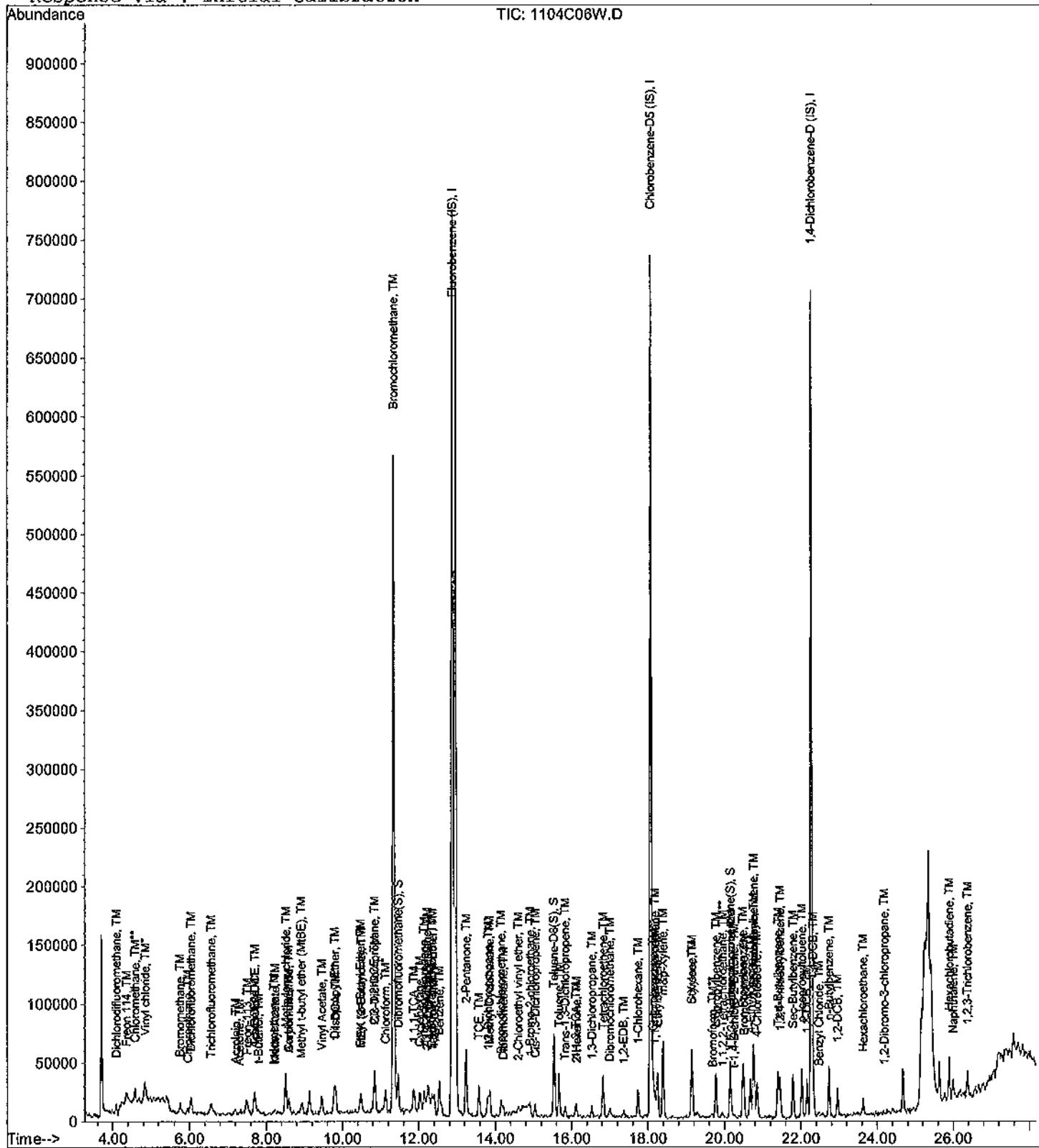
Data File : M:\CHICO\DATA\C111104\1104C06W.D  
 Acq On : 4 Nov 11 13:43  
 Sample : VOL STD 11-04-11@1.0ug/L  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration



## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C07W.D  
 Acq On : 4 Nov 11 14:26  
 Sample : VOL STD 11-04-11@2.0ug/L  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.88	96	405440	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	18.07	117	254080	25.00000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.28	152	128752	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
33) Dibromofluoromethane(S)	11.46	111	51919	3.68229	ppb	0.00
Spiked Amount	21.097		Recovery	=	17.452%	
38) 1,2-DCA-D4(S)	12.26	65	44969	3.64439	ppb	0.00
Spiked Amount	21.225		Recovery	=	17.168%	
56) Toluene-D8(S)	15.54	98	138796	3.70789	ppb	0.00
Spiked Amount	25.808		Recovery	=	14.367%	
64) 4-Bromofluorobenzene(S)	20.15	95	50883	3.85352	ppb	0.00
Spiked Amount	25.459		Recovery	=	15.138%	
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	4.10	85	27062	1.99397	ppb	99
3) Freon 114	4.36	85	20296	1.81103	ppb	95
4) Chloromethane	4.58	50	32393	1.84478	ppb	91
5) Vinyl chloride	4.84	62	25730	1.81809	ppb	98
7) Bromomethane	5.76	94	18236	2.15068	ppb	90
8) Chloroethane	5.94	64	4232	1.79943	ppb	98
9) Dichlorofluoromethane	6.03	67	54646	1.87447	ppb	96
10) Trichlorofluoromethane	6.56	101	38915	1.99144	ppb	95
11) Acetonitrile	7.69	41	22571	63.61703	ug/l	100
12) Acrolein	7.20	56	10810	62.97005	ppb	84
13) Acetone	7.32	43	4938	3.67309	ppb	# 73
14) Freon-113	7.50	101	21701	2.01741	ppb	89
15) 1,1-DCE	7.71	96	20479	1.82379	ppb	95
16) t-Butanol	7.80	59	3146	58.44211	ppb	# 80
17) Methyl Acetate	8.24	43	9246	2.54036	ppb	99
18) Iodomethane	8.20	142	10901	3.32776	ppb	83
19) Acrylonitrile	8.58	53	2568	2.13776	ppb	# 46
20) Methylene chloride	8.49	84	29733	1.16412	ppb	94
21) Carbon disulfide	8.59	76	14346	1.54768	ppb	97
22) Methyl t-butyl ether (MtBE	8.93	73	34227	1.87606	ppb	# 91
23) Trans-1,2-DCE	7.71	96	20479	1.82379	ppb	93
24) Diisopropyl Ether	9.79	45	60417	1.81628	ppb	# 93
25) 1,1-DCA	9.83	63	42340	1.81658	ppb	92
26) Vinyl Acetate	9.46	43	4367	2.36931	ppb	83
27) Ethyl tert Butyl Ether	10.48	59	51673	1.83636	ppb	95
28) MEK (2-Butanone)	10.49	43	10102	1.91838	ppb	95
29) Cis-1,2-DCE	10.85	96	29863	2.05986	ppb	83
30) 2,2-Dichloropropane	10.85	77	39482	1.83364	ppb	91
31) Chloroform	11.13	83	45920	1.86053	ppb	96
32) Bromochloromethane	11.36	128	7996	1.82851	ppb	94
34) 1,1,1-TCA	11.87	97	45731	1.90896	ppb	96
35) Cyclohexane	12.03	56	30255	1.95849	ppb	# 74
36) 1,1-Dichloropropene	12.14	75	34068	1.97867	ppb	93
37) 2,2,4-Trimethylpentane	12.21	57	55159	2.08114	ppb	# 85
39) Carbon Tetrachloride	12.33	117	32043	1.75101	ppb	95
40) Tert Amyl Methyl Ether	12.38	73	38088	1.86013	ppb	95
41) 1,2-DCA	12.41	62	26100	1.85795	ppb	# 93
42) Benzene	12.54	78	84212	1.92190	ppb	95
43) TCE	13.57	95	25590	1.84509	ppb	96

(#) = qualifier out of range (m) = manual integration  
 1104C07W.D CALLW.M Thu Dec 08 16:56:39 2011

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C07W.D Vial: 1  
 Acq On : 4 Nov 11 14:26 Operator: STC  
 Sample : VOL STD 11-04-1102.0ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)

Title : METHOD 8260

Last Update : Tue Nov 08 15:56:36 2011

Response via : Initial Calibration

DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2-Pentanone	13.23	43	169607	68.24948	ppb	97
45) 1,2-Dichloropropane	13.80	63	19588	1.95957	ppb	# 91
46) Bromodichloromethane	14.15	83	25321	1.68209	ppb	# 90
47) Methyl Cyclohexane	13.85	83	28638	1.99837	ppb	96
48) Dibromomethane	14.21	93	9441	1.79851	ppb	76
49) 2-Chloroethyl vinyl ether	14.62	63	5069	1.75350	ppb	# 78
50) 1-Bromo-2-chloroethane	14.91	63	15793	1.80357	ppb	93
51) Cis-1,3-Dichloropropene	15.03	75	22467	1.82302	ppb	99
52) Toluene	15.67	91	86572	1.86239	ppb	97
53) Trans-1,3-Dichloropropene	15.85	75	17331	1.85048	ppb	# 77
54) 1,1,2-TCA	16.12	83	7190	1.55632	ppb	# 65
57) 1,2-EDB	17.36	107	10335	1.91250	ppb	# 72
58) Tetrachloroethene	16.82	164	28124	2.18371	ppb	95
59) 1-Chlorohexane	17.74	91	27299	1.98174	ppb	94
60) 1,1,1,2-Tetrachloroethane	18.20	131	17365	1.81980	ppb	93
61) m&p-Xylene	18.39	106	78641	4.26633	ppb	98
62) o-Xylene	19.14	106	36995	2.10602	ppb	98
63) Styrene	19.16	104	56601	2.03969	ppb	96
65) 2-Hexanone	16.14	43	4763	2.26639	ppb	89
66) 1,3-Dichloropropane	16.53	76	18858	2.12907	ppb	88
67) Dibromochloromethane	17.02	129	15484	2.05227	ppb	89
68) Chlorobenzene	18.14	112	52036	1.88701	ppb	87
69) Ethylbenzene	18.26	91	98687	2.04931	ppb	95
70) Bromoform	19.68	173	5673	1.83889	ppb	95
72) MIBK (methyl isobutyl keto	14.70	43	7800	1.29079	ppb	99
73) Isopropylbenzene	19.77	105	100142	2.08295	ppb	96
74) 1,1,2,2-Tetrachloroethane	19.93	83	8802	2.15277	ppb	# 63
75) 1,2,3-Trichloropropane	20.19	110	1198	1.14964	ppb	# 46
76) t-1,4-Dichloro-2-Butene	20.27	53	1703	1.35322	ppb	# 61
77) Bromobenzene	20.52	156	23264	2.20318	ppb	84
78) n-Propylbenzene	20.48	91	116443	2.12776	ppb	96
79) 4-Ethyltoluene	20.67	105	86828	2.26815	ppb	93
80) 2-Chlorotoluene	20.77	91	79320	2.16981	ppb	92
81) 1,3,5-Trimethylbenzene	20.75	105	80883	2.02644	ppb	93
82) 4-Chlorotoluene	20.86	91	69620	2.16771	ppb	85
83) Tert-Butylbenzene	21.40	119	89897	2.12071	ppb	85
84) 1,2,4-Trimethylbenzene	21.46	105	80754	2.05969	ppb	93
85) Sec-Butylbenzene	21.80	105	102495	2.00084	ppb	100
86) p-Isopropyltoluene	22.03	119	92643	2.05693	ppb	91
87) Benzyl Chloride	22.47	91	13240	1.73493	ppb	98
88) 1,3-DCB	22.16	146	39095	1.88448	ppb	98
89) 1,4-DCB	22.33	146	37516	1.93026	ppb	90
90) Hexachloroethane	23.62	117	8791	1.59199	ppb	93
91) n-Butylbenzene	22.73	91	70934	1.87062	ppb	95
92) 1,2-DCB	22.97	146	35979	2.09456	ppb	# 80
93) 1,2-Dibromo-3-chloropropan	24.18	155	1017	1.63261	ppb	# 52
94) 1,2,4-Trichlorobenzene	25.64	145	2812	0.39684	ppb	# 56
95) Hexachlorobutadiene	25.90	223	14897	1.73280	ppb	89
96) Naphthalene	25.99	128	32493	1.77677	ppb	94
97) 1,2,3-Trichlorobenzene	26.37	180	9996	1.82764	ppb	89

(#) = qualifier out of range (m) = manual integration  
 1104C07W.D CALLW.M Thu Dec 08 16:56:40 2011

# Quantitation Report

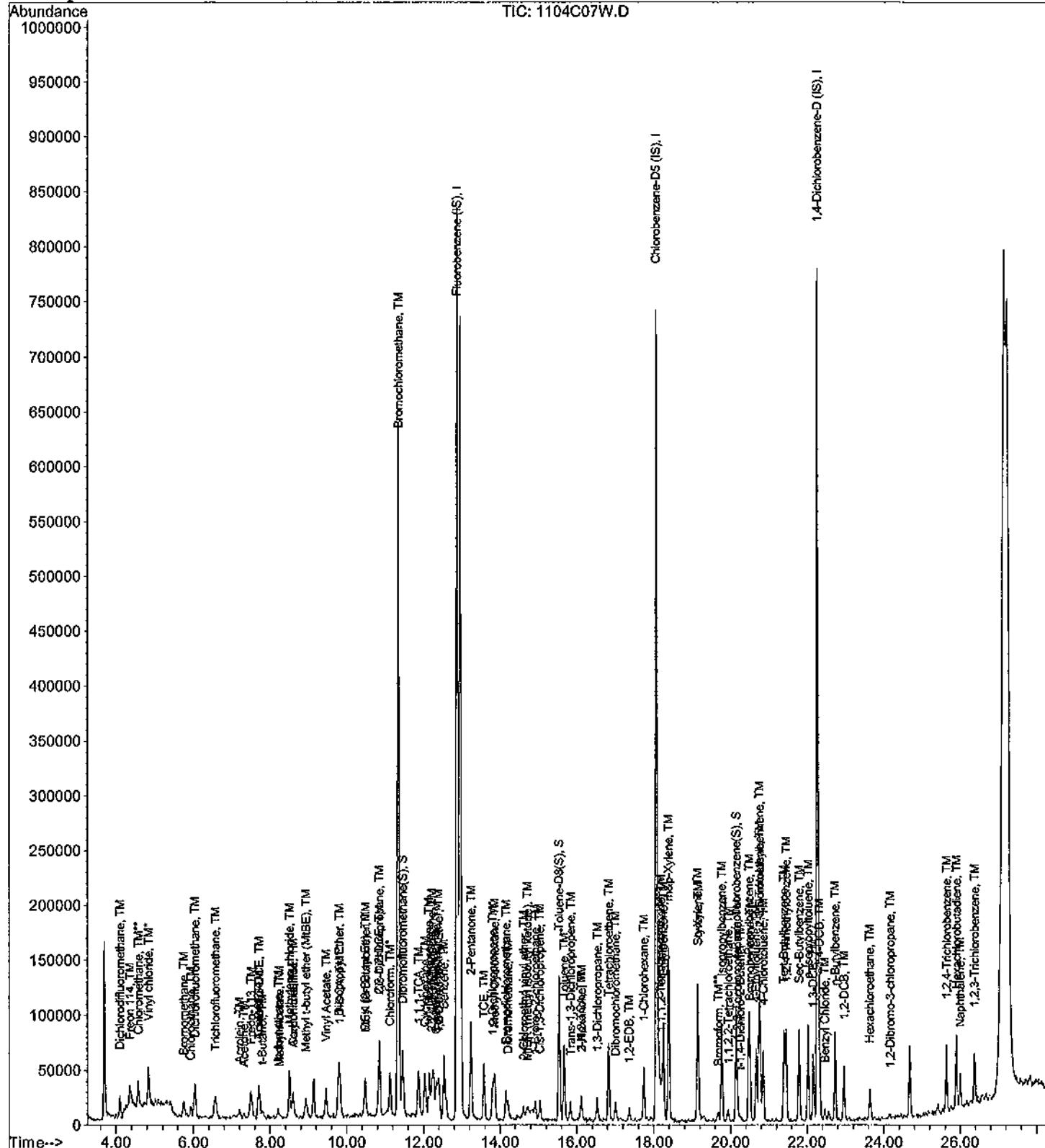
Data File : M:\CHICO\DATA\C111104\1104C07W.D  
 Acq On : 4 Nov 11 14:26  
 Sample : VOL STD 11-04-11@2.0ug/L  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration



## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C08W.D Vial: 1  
 Acq On : 4 Nov 11 15:10 Operator: STC  
 Sample : VOL STD 11-04-11@5.0ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.88	96	342528	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	18.07	117	236800	25.00000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.27	152	124656	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
33) Dibromofluoromethane(S)	11.47	111	116622	9.79046	ppb	0.00
Spiked Amount 21.097			Recovery	= 46.404%		
38) 1,2-DCA-D4(S)	12.26	65	104785	10.05173	ppb	0.00
Spiked Amount 21.225			Recovery	= 47.359%		
56) Toluene-D8(S)	15.54	98	353632	10.13655	ppb	0.00
Spiked Amount 25.808			Recovery	= 39.278%		
64) 4-Bromofluorobenzene(S)	20.14	95	115574	9.39148	ppb	0.00
Spiked Amount 25.459			Recovery	= 36.886%		
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	4.10	85	44758	3.90355	ppb	99
3) Freon 114	4.37	85	40847	4.31426	ppb	89
4) Chloromethane	4.58	50	75808	5.11022	ppb	98
5) Vinyl chloride	4.85	62	63322	5.29617	ppb	98
7) Bromomethane	5.75	94	38201	5.33275	ppb	100
8) Chloroethane	5.95	64	10110	5.08828	ppb	# 90
9) Dichlorofluoromethane	6.03	67	133932	5.43796	ppb	99
10) Trichlorofluoromethane	6.55	101	76503	4.63403	ppb	86
11) Acetonitrile	7.68	41	31305	104.43999	ug/l	100
12) Acrolein	7.19	56	13534	93.31791	ppb	99
13) Acetone	7.32	43	7782	6.85175	ppb	# 71
14) Freon-113	7.50	101	41742	4.59322	ppb	93
15) 1,1-DCE	7.72	96	49004	5.16569	ppb	95
16) t-Butanol	7.81	59	4581	100.72981	ppb	# 61
17) Methyl Acetate	8.23	43	15748	5.71604	ppb	# 80
18) Iodomethane	8.20	142	26716	5.31661	ppb	# 86
19) Acrylonitrile	8.60	53	5699	5.61556	ppb	77
20) Methylene chloride	8.51	84	47744	4.22712	ppb	97
21) Carbon disulfide	8.59	76	46384	5.92310	ppb	96
22) Methyl t-butyl ether (MtBE	8.94	73	85722	5.56162	ppb	96
23) Trans-1,2-DCE	7.72	96	49004	5.16569	ppb	95
24) Diisopropyl Ether	9.79	45	160710	5.71870	ppb	98
25) 1,1-DCA	9.82	63	111916	5.68362	ppb	# 90
26) Vinyl Acetate	9.46	43	6763	4.34318	ppb	# 76
27) Ethyl tert Butyl Ether	10.48	59	136225	5.73034	ppb	98
28) MEK (2-Butanone)	10.47	43	23651	5.31628	ppb	99
29) Cis-1,2-DCE	10.86	96	62091	5.06949	ppb	93
30) 2,2-Dichloropropane	10.85	77	100729	5.53732	ppb	96
31) Chloroform	11.13	83	116745	5.59892	ppb	93
32) Bromochloromethane	11.35	128	21732	5.88239	ppb	79
34) 1,1,1-TCA	11.87	97	114421	5.65356	ppb	85
35) Cyclohexane	12.04	56	65806	5.04221	ppb	89
36) 1,1-Dichloropropene	12.14	75	78057	5.36623	ppb	91
37) 2,2,4-Trimethylpentane	12.22	57	107532	4.92340	ppb	96
39) Carbon Tetrachloride	12.34	117	78677	5.08900	ppb	92
40) Tert Amyl Methyl Ether	12.40	73	92058	5.32167	ppb	99
41) 1,2-DCA	12.42	62	64446	5.43027	ppb	# 89
42) Benzene	12.53	78	197081	5.32392	ppb	98
43) TCE	13.58	95	66285	5.65709	ppb	87

(#) = qualifier out of range (m) = manual integration  
 1104C08W.D CALLW.M Thu Dec 08 16:56:45 2011

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C08W.D Vial: 1  
 Acq On : 4 Nov 11 15:10 Operator: STC  
 Sample : VOL STD 11-04-11@5.0ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R. T.	QIon	Response	Conc	Unit	Qvalue
44) 2-Pentanone	13.24	43	232888	110.92596	ppb	99
45) 1,2-Dichloropropane	13.80	63	45996	5.44654	ppb	# 90
46) Bromodichloromethane	14.16	83	69553	5.46908	ppb	# 95
47) Methyl Cyclohexane	13.86	83	59203	4.88999	ppb	99
48) Dibromomethane	14.21	93	26776	6.03768	ppb	98
49) 2-Chloroethyl vinyl ether	14.62	63	13278	5.95454	ppb	# 75
50) 1-Bromo-2-chloroethane	14.92	63	43687	5.90542	ppb	97
51) Cis-1,3-Dichloropropene	15.05	75	60874	5.84667	ppb	# 81
52) Toluene	15.68	91	222841	5.67439	ppb	100
53) Trans-1,3-Dichloropropene	15.85	75	46577	5.88658	ppb	99
54) 1,1,2-TCA	16.11	83	23550	6.03379	ppb	82
57) 1,2-EDB	17.37	107	26711	5.30358	ppb	# 81
58) Tetrachloroethene	16.84	164	65659	5.47017	ppb	95
59) 1-Chlorohexane	17.75	91	64058	4.98955	ppb	94
60) 1,1,1,2-Tetrachloroethane	18.21	131	46457	5.22383	ppb	82
61) m&p-Xylene	18.39	106	178767	10.40596	ppb	99
62) o-Xylene	19.15	106	87743	5.35947	ppb	94
63) Styrene	19.16	104	135120	5.22456	ppb	100
65) 2-Hexanone	16.15	43	9905	5.05705	ppb	# 74
66) 1,3-Dichloropropane	16.54	76	45496	5.51134	ppb	90
67) Dibromochloromethane	17.01	129	36601	5.20514	ppb	100
68) Chlorobenzene	18.14	112	137665	5.35653	ppb	97
69) Ethylbenzene	18.26	91	229662	5.11712	ppb	100
70) Bromoform	19.68	173	14913	4.56560	ppb	81
72) MIBK (methyl isobutyl keto	14.70	43	16221	4.76536	ppb	# 70
73) Isopropylbenzene	19.78	105	243877	5.23930	ppb	97
74) 1,1,2,2-Tetrachloroethane	19.94	83	19338	4.88505	ppb	# 68
75) 1,2,3-Trichloropropane	20.20	110	2914	5.08581	ppb	97
76) t-1,4-Dichloro-2-Butene	20.25	53	4188	3.98826	ppb	# 75
77) Bromobenzene	20.51	156	52962	5.18049	ppb	96
78) n-Propylbenzene	20.48	91	274382	5.17853	ppb	92
79) 4-Ethyltoluene	20.68	105	195340	5.27042	ppb	95
80) 2-Chlorotoluene	20.77	91	190818	5.39137	ppb	96
81) 1,3,5-Trimethylbenzene	20.75	105	207757	5.37617	ppb	97
82) 4-Chlorotoluene	20.85	91	168165	5.40808	ppb	98
83) Tert-Butylbenzene	21.39	119	218550	5.32509	ppb	89
84) 1,2,4-Trimethylbenzene	21.46	105	211097	5.56109	ppb	99
85) Sec-Butylbenzene	21.80	105	270260	5.44920	ppb	99
86) p-Isopropyltoluene	22.03	119	231392	5.30636	ppb	99
87) Benzyl Chloride	22.47	91	38003	5.14343	ppb	95
88) 1,3-DCB	22.17	146	111833	5.56777	ppb	97
89) 1,4-DCB	22.33	146	102082	5.42488	ppb	97
90) Hexachloroethane	23.64	117	35887	4.91173	ppb	79
91) n-Butylbenzene	22.74	91	199976	5.44691	ppb	91
92) 1,2-DCB	22.97	146	93313	5.61082	ppb	94
93) 1,2-Dibromo-3-chloropropan	24.18	155	3619	6.00053	ppb	# 55
94) 1,2,4-Trichlorobenzene	25.63	145	9382	5.49802	ppb	91
95) Hexachlorobutadiene	25.90	223	37379	5.48193	ppb	91
96) Naphthalene	26.00	128	96790	5.46655	ppb	95
97) 1,2,3-Trichlorobenzene	26.37	180	25856	5.75152	ppb	93

(#) = qualifier out of range (m) = manual integration  
 1104C08W.D CALLW.M Thu Dec 08 16:56:46 2011

Quantitation Report

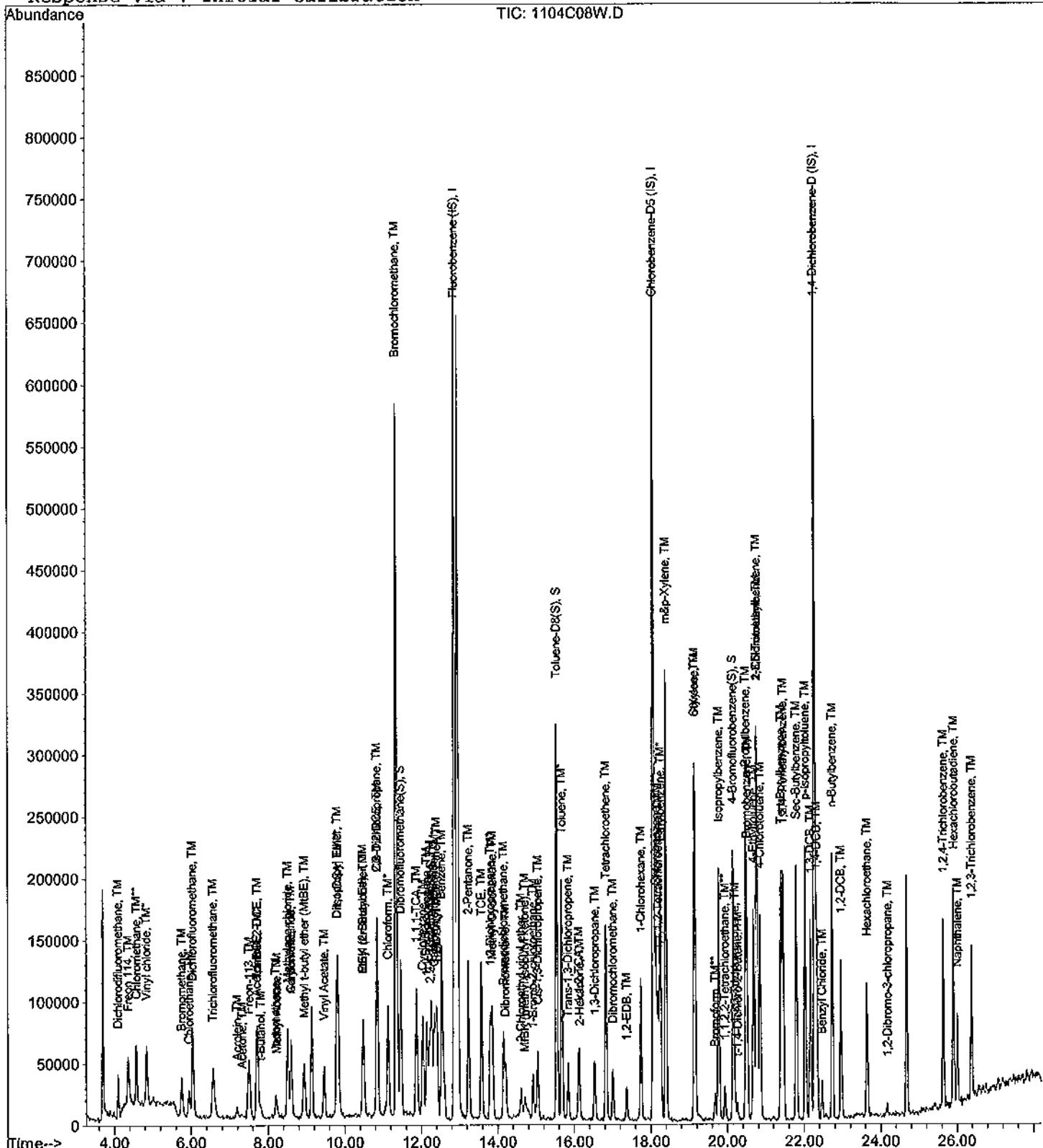
Data File : M:\CHICO\DATA\C111104\1104C08W.D  
 Acq On : 4 Nov 11 15:10  
 Sample : VOL STD 11-04-11@5.0ug/L  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration



## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C09W.D Vial: 1  
 Acq On : 4 Nov 11 15:53 Operator: STC  
 Sample : VOL STD 11-04-11@10ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.88	96	379520	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	18.07	117	242112	25.00000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.28	152	128488	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
33) Dibromofluoromethane(S)	11.46	111	287229	21.76268	ppb	0.00
Spiked Amount 21.097				Recovery = 103.156%		
38) 1,2-DCA-D4 (S)	12.27	65	258245	22.35810	ppb	0.00
Spiked Amount 21.225				Recovery = 105.337%		
56) Toluene-D8 (S)	15.55	98	879576	24.65911	ppb	0.00
Spiked Amount 25.808				Recovery = 95.547%		
64) 4-Bromofluorobenzene(S)	20.15	95	277092	22.02233	ppb	0.00
Spiked Amount 25.459				Recovery = 86.498%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.09	85	127173	10.01025	ppb	100
3) Freon 114	4.36	85	108450	10.33801	ppb	100
4) Chloromethane	4.58	50	145302	8.84010	ppb	100
5) Vinyl chloride	4.84	62	134944	10.18643	ppb	100
7) Bromomethane	5.76	94	71701	9.03366	ppb	100
8) Chloroethane	5.95	64	22160	10.06586	ppb	100
9) Dichlorofluoromethane	6.04	67	262793	9.63001	ppb	100
10) Trichlorofluoromethane	6.55	101	188786	10.32076	ppb	100
11) Acetonitrile	7.68	41	37382	112.55818	ug/l	100
12) Acrolein	7.19	56	20448	127.24803	ppb	100
13) Acetone	7.31	43	14935	11.86799	ppb	100
14) Freon-113	7.50	101	107086	10.63502	ppb	100
15) 1,1-DCE	7.72	96	99219	9.43959	ppb	100
16) t-Butanol	7.81	59	6419	127.38741	ppb	100
17) Methyl Acetate	8.22	43	28532	9.71849	ppb	100
18) Iodomethane	8.19	142	65986	9.04723	ppb	100
19) Acrylonitrile	8.59	53	10812	9.61528	ppb	100
20) Methylene chloride	8.50	84	91172	8.90345	ppb	100
21) Carbon disulfide	8.59	76	81832	9.43117	ppb	100
22) Methyl t-butyl ether (MtBE)	8.93	73	169951	9.95163	ppb	100
23) Trans-1,2-DCE	7.72	96	99219	9.43959	ppb	100
24) Diisopropyl Ether	9.79	45	321134	10.31340	ppb	100
25) 1,1-DCA	9.83	63	218554	10.01736	ppb	100
26) Vinyl Acetate	9.46	43	17392	10.08044	ppb	100
27) Ethyl tert Butyl Ether	10.49	59	272154	10.33237	ppb	100
28) MEK (2-Butanone)	10.47	43	48790	9.89807	ppb	100
29) Cis-1,2-DCE	10.85	96	125309	9.23377	ppb	100
30) 2,2-Dichloropropane	10.85	77	196268	9.73769	ppb	100
31) Chloroform	11.13	83	232875	10.07976	ppb	100
32) Bromochloromethane	11.36	128	39959	9.76180	ppb	100
34) 1,1,1-TCA	11.88	97	221848	9.89312	ppb	100
35) Cyclohexane	12.04	56	143720	9.93880	ppb	100
36) 1,1-Dichloropropene	12.15	75	159974	9.92586	ppb	100
37) 2,2,4-Trimethylpentane	12.22	57	254541	10.62353	ppb	100
39) Carbon Tetrachloride	12.33	117	180276	10.52408	ppb	100
40) Tert Amyl Methyl Ether	12.38	73	179275	9.35336	ppb	100
41) 1,2-DCA	12.41	62	130074	9.89184	ppb	100
42) Benzene	12.54	78	395767	9.64913	ppb	100
43) TCE	13.57	95	132470	10.20369	ppb	100

(#) = qualifier out of range (m) = manual integration  
 1104C09W.D CALLW.M Thu Dec 08 16:56:52 2011

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C09W.D Vial: 1  
 Acq On : 4 Nov 11 15:53 Operator: STC  
 Sample : VOL STD 11-04-11@10ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2-Pentanone	13.23	43	303865	130.62557	ppb	100
45) 1,2-Dichloropropane	13.81	63	94743	10.12532	ppb	100
46) Bromodichloromethane	14.15	83	143971	10.21728	ppb	100
47) Methyl Cyclohexane	13.85	83	142413	10.61635	ppb	100
48) Dibromomethane	14.21	93	49780	10.13073	ppb	100
49) 2-Chloroethyl vinyl ether	14.61	63	23727	9.72506	ppb	100
50) 1-Bromo-2-chloroethane	14.92	63	85645	10.44869	ppb	100
51) Cis-1,3-Dichloropropene	15.04	75	123425	10.69896	ppb	100
52) Toluene	15.67	91	420896	9.67298	ppb	100
53) Trans-1,3-Dichloropropene	15.84	75	89040	10.15636	ppb	100
54) 1,1,2-TCA	16.13	83	42304	9.78232	ppb	100
57) 1,2-EDB	17.37	107	50509	9.80873	ppb	100
58) Tetrachloroethene	16.83	164	127344	10.37649	ppb	100
59) 1-Chlorohexane	17.74	91	129788	9.88754	ppb	100
60) 1,1,1,2-Tetrachloroethane	18.20	131	101087	11.11729	ppb	100
61) m&p-Xylene	18.39	106	357586	20.35825	ppb	100
62) o-Xylene	19.15	106	172306	10.29378	ppb	100
63) Styrene	19.16	104	268277	10.14562	ppb	100
65) 2-Hexanone	16.15	43	20316	10.14486	ppb	100
66) 1,3-Dichloropropane	16.53	76	98404	11.65902	ppb	100
67) Dibromochloromethane	17.02	129	75267	10.46910	ppb	100
68) Chlorobenzene	18.14	112	273822	10.42062	ppb	100
69) Ethylbenzene	18.26	91	465715	10.14897	ppb	100
70) Bromoform	19.68	173	36380	10.34509	ppb	100
72) MIBK (methyl isobutyl keto	14.71	43	31808	10.63237	ppb	100
73) Isopropylbenzene	19.77	105	486728	10.14471	ppb	100
74) 1,1,2,2-Tetrachloroethane	19.94	83	39745	9.74072	ppb	100
75) 1,2,3-Trichloropropane	20.20	110	6223	12.10002	ppb	100
76) t-1,4-Dichloro-2-Butene	20.26	53	11077	10.79450	ppb	100
77) Bromobenzene	20.52	156	97097	9.21431	ppb	100
78) n-Propylbenzene	20.48	91	533031	9.76009	ppb	100
79) 4-Ethyltoluene	20.67	105	366054	9.58185	ppb	100
80) 2-Chlorotoluene	20.77	91	347971	9.53836	ppb	100
81) 1,3,5-Trimethylbenzene	20.75	105	384305	9.64814	ppb	100
82) 4-Chlorotoluene	20.86	91	291395	9.09160	ppb	100
83) Tert-Butylbenzene	21.40	119	412330	9.74701	ppb	100
84) 1,2,4-Trimethylbenzene	21.46	105	388890	9.93928	ppb	100
85) Sec-Butylbenzene	21.80	105	511951	10.01452	ppb	100
86) p-Isopropyltoluene	22.03	119	442619	9.84757	ppb	100
87) Benzyl Chloride	22.46	91	75328	9.89104	ppb	100
88) 1,3-DCB	22.16	146	208337	10.06303	ppb	100
89) 1,4-DCB	22.33	146	195945	10.10243	ppb	100
90) Hexachloroethane	23.63	117	78859	9.82085	ppb	100
91) n-Butylbenzene	22.73	91	354209	9.36014	ppb	100
92) 1,2-DCB	22.96	146	174981	10.20765	ppb	100
93) 1,2-Dibromo-3-chloropropan	24.18	155	5583	8.98089	ppb	100
94) 1,2,4-Trichlorobenzene	25.64	145	18480	12.04496	ppb	100
95) Hexachlorobutadiene	25.90	223	73499	11.00683	ppb	100
96) Naphthalene	26.00	128	189823	10.40116	ppb	100
97) 1,2,3-Trichlorobenzene	26.38	180	49368	11.13597	ppb	100

(#) = qualifier out of range (m) = manual integration  
 1104C09W.D CALLW.M Thu Dec 08 16:56:53 2011

## Quantitation Report

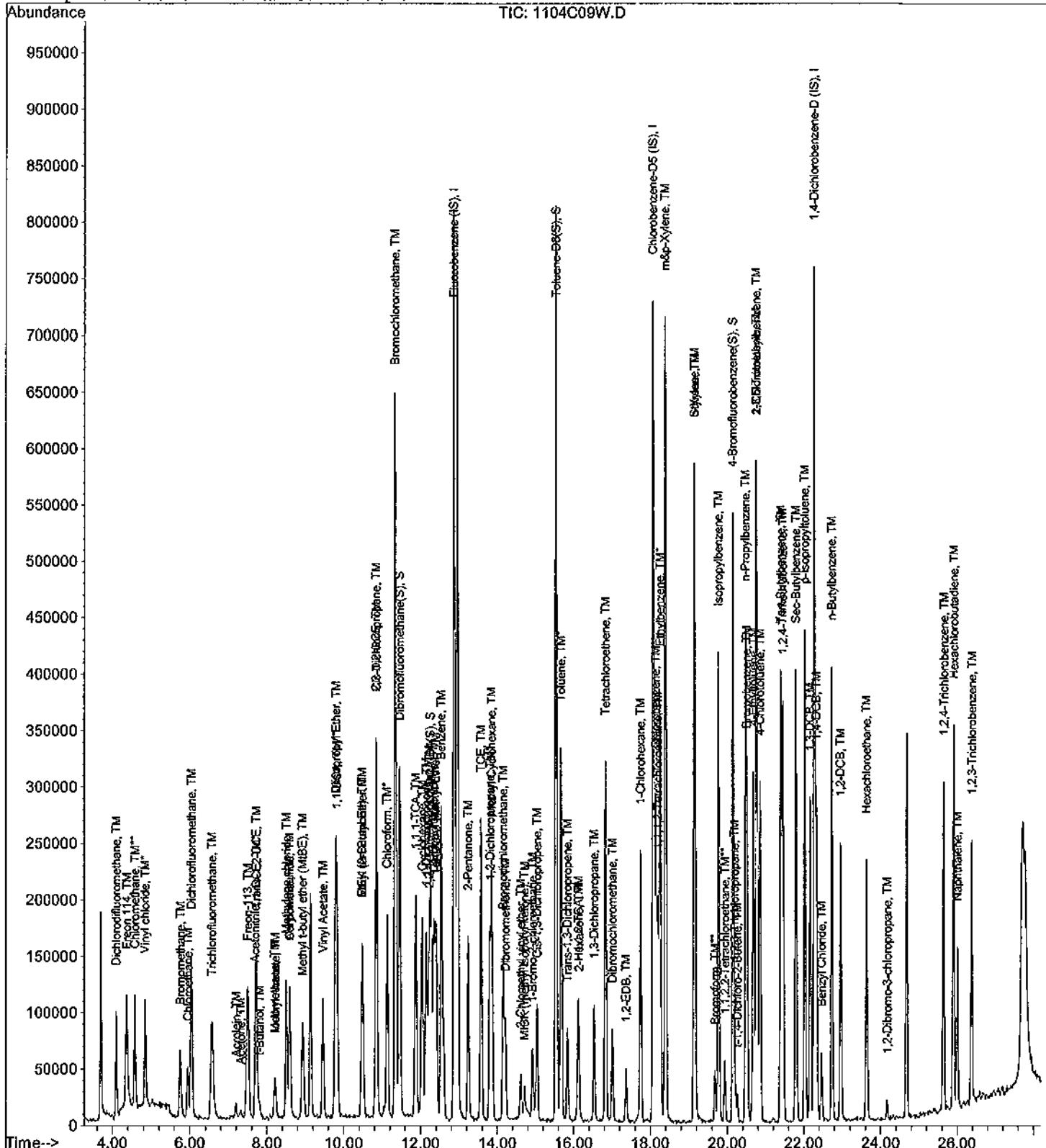
Data File : M:\CHICO\DATA\C111104\1104C09W.D  
 Acq On : 4 Nov 11 15:53  
 Sample : VOL STD 11-04-11@10ug/L  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration



## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C10W.D Vial: 1  
 Acq On : 4 Nov 11 16:36 Operator: STC  
 Sample : VOL STD 11-04-11@20ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.88	96	400704	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	18.08	117	269632	25.00000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.28	152	142144	25.00000	ppb	0.00

## System Monitoring Compounds

33) Dibromofluoromethane (S)	11.46	111	492580	35.34857	ppb	0.00
Spiked Amount	21.097		Recovery	= 167.553%		
38) 1,2-DCA-D4 (S)	12.27	65	429376	35.20885	ppb	0.00
Spiked Amount	21.225		Recovery	= 165.882%		
56) Toluene-D8 (S)	15.54	98	1401114	35.27138	ppb	-0.01
Spiked Amount	25.808		Recovery	= 136.665%		
64) 4-Bromofluorobenzene (S)	20.15	95	492835	35.17109	ppb	0.00
Spiked Amount	25.459		Recovery	= 138.145%		

## Target Compounds

				Qvalue	
2) Dichlorodifluoromethane	4.09	85	277038	20.65381	ppb
3) Freon 114	4.36	85	212178	19.15661	ppb
4) Chloromethane	4.58	50	305030	17.57678	ppb
5) Vinyl chloride	4.84	62	269268	19.25148	ppb
7) Bromomethane	5.75	94	158325	18.89291	ppb
8) Chloroethane	5.94	64	41240	17.74233	ppb
9) Dichlorofluoromethane	6.04	67	534205	18.54095	ppb
10) Trichlorofluoromethane	6.57	101	370398	19.17881	ppb
11) Acetonitrile	7.69	41	48933	139.54921	ug/l
12) Acrolein	7.19	56	27545	162.35064	ppb
13) Acetone	7.31	43	23983	18.05038	ppb
14) Freon-113	7.50	101	209677	19.72275	ppb
15) 1,1-DCE	7.71	96	193323	17.42019	ppb
16) t-Butanol	7.80	59	8107	152.38082	ppb
17) Methyl Acetate	8.21	43	56490	18.73637	ppb
18) Iodomethane	8.20	142	162809	18.09224	ppb
19) Acrylonitrile	8.60	53	23414	19.72162	ppb
20) Methylene chloride	8.50	84	189403	19.68257	ppb
21) Carbon disulfide	8.59	76	167616	18.29653	ppb
22) Methyl t-butyl ether (MtBE)	8.94	73	341468	18.93789	ppb
23) Trans-1,2-DCE	7.71	96	193323	17.42019	ppb
24) Diisopropyl Ether	9.79	45	650045	19.77289	ppb
25) 1,1-DCA	9.83	63	424316	18.42022	ppb
26) Vinyl Acetate	9.46	43	33304	18.28258	ppb
27) Ethyl tert Butyl Ether	10.48	59	549179	19.74741	ppb
28) MEK (2-Butanone)	10.49	43	96745	18.58914	ppb
29) Cis-1,2-DCE	10.85	96	258223	18.02199	ppb
30) 2,2-Dichloropropane	10.84	77	396661	18.63962	ppb
31) Chloroform	11.14	83	476659	19.54096	ppb
32) Bromochloromethane	11.35	128	87599	20.26869	ppb
34) 1,1,1-TCA	11.88	97	472342	19.95011	ppb
35) Cyclohexane	12.03	56	311907	20.42926	ppb
36) 1,1-Dichloropropene	12.14	75	333060	19.57277	ppb
37) 2,2,4-Trimethylpentane	12.22	57	537763	21.35021	ppb
39) Carbon Tetrachloride	12.33	117	372078	20.57270	ppb
40) Tert Amyl Methyl Ether	12.38	73	393706	19.45499	ppb
41) 1,2-DCA	12.42	62	262003	18.87139	ppb
42) Benzene	12.54	78	832901	19.23325	ppb
43) TCE	13.57	95	276062	20.13989	ppb

(#) = qualifier out of range (m) = manual integration  
 1104C10W.D CALLW.M Thu Dec 08 16:56:59 2011

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C10W.D Vial: 1  
 Acq On : 4 Nov 11 16:36 Operator: STC  
 Sample : VOL STD 11-04-11@20ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2-Pentanone	13.23	43	386206	157.24524	ppb	97
45) 1,2-Dichloropropane	13.80	63	201302	20.37609	ppb	# 94
46) Bromodichloromethane	14.15	83	300285	20.18388	ppb	98
47) Methyl Cyclohexane	13.85	83	300797	21.23782	ppb	99
48) Dibromomethane	14.21	93	105461	20.32771	ppb	96
49) 2-Chloroethyl vinyl ether	14.61	63	54793	21.33442	ppb	# 90
50) 1-Bromo-2-chloroethane	14.92	63	187103	21.61980	ppb	88
51) Cis-1,3-Dichloropropene	15.04	75	236230	19.39476	ppb	92
52) Toluene	15.67	91	845512	18.40417	ppb	98
53) Trans-1,3-Dichloropropene	15.84	75	185182	20.00611	ppb	95
54) 1,1,2-TCA	16.12	83	84462	18.49835	ppb	93
57) 1,2-EDB	17.36	107	119526	20.84258	ppb	88
58) Tetrachloroethene	16.83	164	238177	17.42677	ppb	94
59) 1-Chlorohexane	17.74	91	287922	19.69578	ppb	99
60) 1,1,1,2-Tetrachloroethane	18.20	131	215585	21.28957	ppb	96
61) m&p-Xylene	18.39	106	725284	37.07772	ppb	99
62) o-Xylene	19.14	106	369712	19.83275	ppb	97
63) Styrene	19.15	104	577362	19.60597	ppb	97
65) 2-Hexanone	16.15	43	42472	19.04388	ppb	77
66) 1,3-Dichloropropane	16.53	76	191805	20.40582	ppb	94
67) Dibromochloromethane	17.01	129	164277	20.51760	ppb	86
68) Chlorobenzene	18.14	112	562549	19.22340	ppb	94
69) Ethylbenzene	18.25	91	965000	18.88314	ppb	91
70) Bromoform	19.68	173	81528	20.18417	ppb	83
72) MIBK (methyl isobutyl keto	14.70	43	68857	22.46635	ppb	85
73) Isopropylbenzene	19.77	105	1032484	19.45229	ppb	95
74) 1,1,2,2-Tetrachloroethane	19.93	83	88491	19.60386	ppb	# 87
75) 1,2,3-Trichloropropane	20.19	110	11105	20.42107	ppb	86
76) t-1,4-Dichloro-2-Butene	20.27	53	23197	20.75321	ppb	# 92
77) Bromobenzene	20.51	156	217177	18.62965	ppb	87
78) n-Propylbenzene	20.48	91	1129933	18.70200	ppb	99
79) 4-Ethyltoluene	20.67	105	804794	19.04246	ppb	98
80) 2-Chlorotoluene	20.78	91	761688	18.87304	ppb	95
81) 1,3,5-Trimethylbenzene	20.75	105	848428	19.25382	ppb	99
82) 4-Chlorotoluene	20.86	91	637571	17.98128	ppb	99
83) Tert-Butylbenzene	21.40	119	901333	19.25954	ppb	98
84) 1,2,4-Trimethylbenzene	21.46	105	842813	19.47124	ppb	92
85) Sec-Butylbenzene	21.80	105	1113421	19.68771	ppb	98
86) p-Isopropyltoluene	22.03	119	951945	19.14453	ppb	98
87) Benzyl Chloride	22.46	91	174943	20.76424	ppb	96
88) 1,3-DCB	22.16	146	452920	19.77506	ppb	95
89) 1,4-DCB	22.34	146	424749	19.79511	ppb	97
90) Hexachloroethane	23.63	117	187585	20.38843	ppb	88
91) n-Butylbenzene	22.73	91	771350	18.42503	ppb	95
92) 1,2-DCB	22.96	146	365396	19.26782	ppb	96
93) 1,2-Dibromo-3-chloropropan	24.18	155	14686	21.35450	ppb	# 51
94) 1,2,4-Trichlorobenzene	25.64	145	35456	22.12940	ppb	83
95) Hexachlorobutadiene	25.90	223	146997	20.34366	ppb	97
96) Naphthalene	25.99	128	391636	19.39768	ppb	97
97) 1,2,3-Trichlorobenzene	26.38	180	96168	20.13990	ppb	95

(#) = qualifier out of range (m) = manual integration  
 1104C10W.D CALLW.M Thu Dec 08 16:57:00 2011

# Quantitation Report

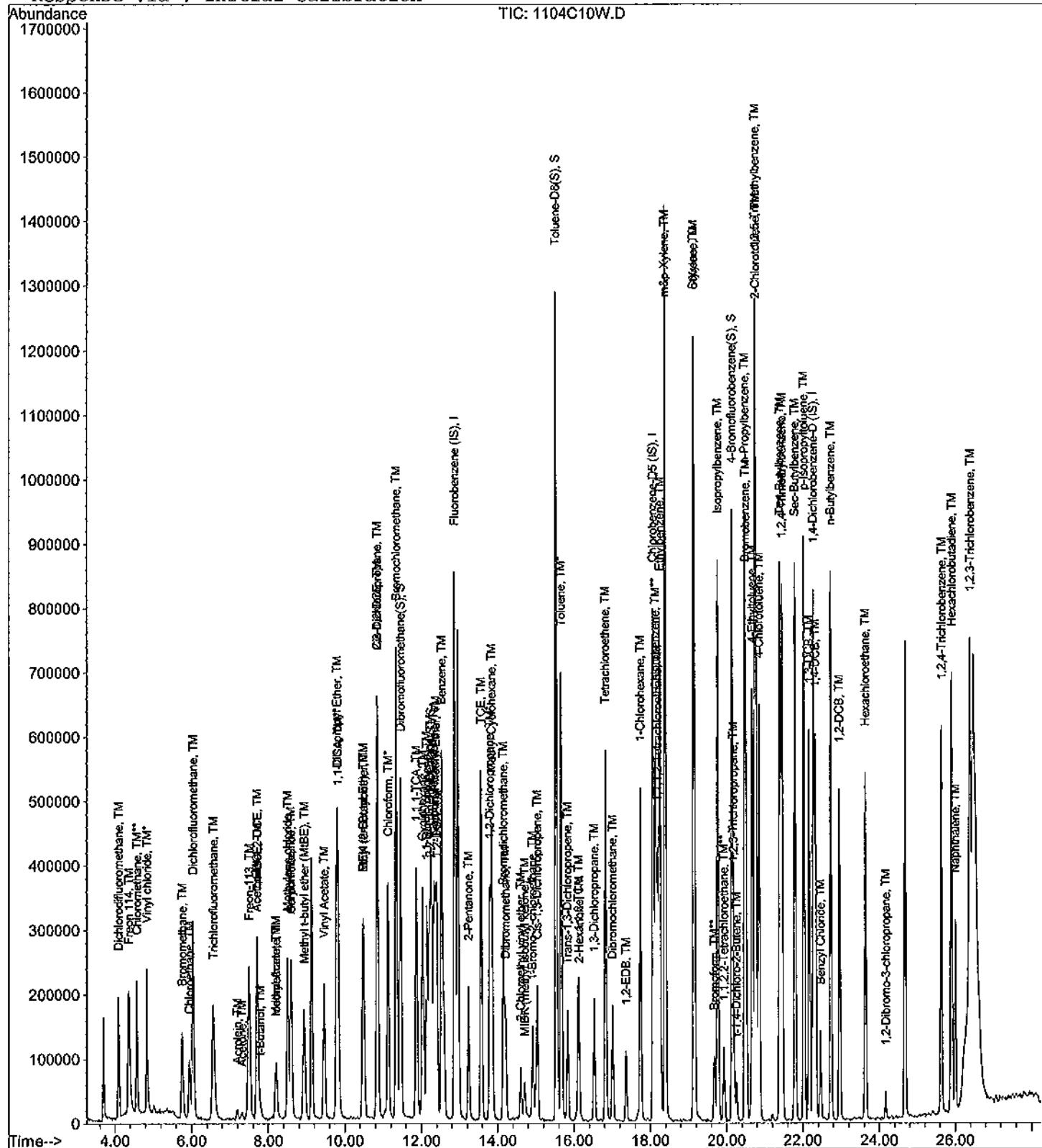
Data File : M:\CHICO\DATA\C111104\1104C10W.D  
 Acq On : 4 Nov 11 16:36  
 Sample : VOL STD 11-04-11@20ug/L  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration



## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C11W.D Vial: 1  
 Acq On : 4 Nov 11 17:19 Operator: STC  
 Sample : VOL STD 11-04-11@40ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.88	96	376384	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	18.07	117	260992	25.00000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.28	152	143232	25.00000	ppb	0.00

## System Monitoring Compounds

33) Dibromofluoromethane(S)	11.45	111	1254684	95.85659	ppb	0.00
Spiked Amount	21.097			Recovery	= 454.357%	
38) 1,2-DCA-D4(S)	12.27	65	1002700	87.53416	ppb	0.00
Spiked Amount	21.225			Recovery	= 412.405%	
56) Toluene-D8(S)	15.54	98	3411003	88.71055	ppb	0.00
Spiked Amount	25.808			Recovery	= 343.731%	
64) 4-Bromofluorobenzene(S)	20.15	95	1235737	91.10758	ppb	0.00
Spiked Amount	25.459			Recovery	= 357.855%	

## Target Compounds

				Value	
2) Dichlorodifluoromethane	4.09	85	605060	48.02329	ppb
3) Freon 114	4.35	85	460858	44.29737	ppb
4) Chloromethane	4.58	50	612547	37.57756	ppb
5) Vinyl chloride	4.83	62	532243	40.51183	ppb
7) Bromomethane	5.75	94	293365	37.26920	ppb
8) Chloroethane	5.94	64	99216	45.44293	ppb
9) Dichlorofluoromethane	6.04	67	1086636	40.15139	ppb
10) Trichlorofluoromethane	6.55	101	769775	42.43354	ppb
11) Acetonitrile	7.68	41	63954	194.17163	ug/l
12) Acrolein	7.20	56	30557	191.74077	ppb
13) Acetone	7.30	43	50039	40.09443	ppb
14) Freon-113	7.49	101	464944	46.55967	ppb
15) 1,1-DCE	7.71	96	406405	38.98709	ppb
16) t-Butanol	7.82	59	8641	172.91260	ppb
17) Methyl Acetate	8.22	43	111923	40.16991	ppb
18) Iodomethane	8.19	142	348877	38.35087	ppb
19) Acrylonitrile	8.60	53	44097	39.54290	ppb
20) Methylene chloride	8.50	84	361708	42.32780	ppb
21) Carbon disulfide	8.59	76	348352	40.48219	ppb
22) Methyl t-butyl ether (MtBE)	8.93	73	684249	40.40065	ppb
23) Trans-1,2-DCE	7.71	96	406405	38.98709	ppb
24) Diisopropyl Ether	9.79	45	1211492	39.23194	ppb
25) 1,1-DCA	9.83	63	812380	37.54544	ppb
26) Vinyl Acetate	9.46	43	64963	37.96642	ppb
27) Ethyl tert Butyl Ether	10.49	59	1034351	39.59649	ppb
28) MEK (2-Butanone)	10.47	43	182834	37.40074	ppb
29) Cis-1,2-DCE	10.86	96	499248	37.09510	ppb
30) 2,2-Dichloropropane	10.85	77	742249	37.13297	ppb
31) Chloroform	11.13	83	930213	40.59879	ppb
32) Bromochloromethane	11.36	128	156949	38.66140	ppb
34) 1,1,1-TCA	11.87	97	848866	38.16985	ppb
35) Cyclohexane	12.04	56	529850	36.94648	ppb
36) 1,1-Dichloropropene	12.14	75	569170	35.60938	ppb
37) 2,2,4-Trimethylpentane	12.21	57	870992	36.88147	ppb
39) Carbon Tetrachloride	12.34	117	694484	40.88011	ppb
40) Tert Amyl Methyl Ether	12.38	73	633811	33.34351	ppb
41) 1,2-DCA	12.41	62	453448	34.77103	ppb
42) Benzene	12.54	78	1396040	34.32020	ppb
43) TCE	13.57	95	492796	38.27456	ppb

(#) = qualifier out of range (m) = manual integration  
 1104C11W.D CALLW.M Thu Dec 08 16:57:05 2011

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C11W.D Vial: 1  
 Acq On : 4 Nov 11 17:19 Operator: STC  
 Sample : VOL STD 11-04-11@40ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2-Pentanone	13.23	43	395797	171.56295	ppb	98
45) 1,2-Dichloropropane	13.80	63	353869	38.13360	ppb	98
46) Bromodichloromethane	14.15	83	556707	39.83734	ppb	96
47) Methyl Cyclohexane	13.85	83	529745	39.81951	ppb	99
48) Dibromomethane	14.20	93	188591	38.69993	ppb	97
49) 2-Chloroethyl vinyl ether	14.61	63	95435	39.10879	ppb	# 82
50) 1-Bromo-2-chloroethane	14.92	63	307506	37.82832	ppb	87
51) Cis-1,3-Dichloropropene	15.04	75	441921	38.62661	ppb	87
52) Toluene	15.67	91	1539538	35.67626	ppb	97
53) Trans-1,3-Dichloropropene	15.84	75	352858	40.58413	ppb	99
54) 1,1,2-TCA	16.12	83	163761	38.18340	ppb	94
57) 1,2-EDB	17.37	107	220606	39.74208	ppb	85
58) Tetrachloroethene	16.83	164	446353	33.73959	ppb	95
59) 1-Chlorohexane	17.74	91	547442	38.68840	ppb	99
60) 1,1,1,2-Tetrachloroethane	18.20	131	411716	42.00398	ppb	94
61) m,p-Xylene	18.39	106	1420921	75.04454	ppb	99
62) o-Xylene	19.14	106	705769	39.11345	ppb	100
63) Styrene	19.16	104	1092027	38.31049	ppb	95
65) 2-Hexanone	16.14	43	79341	36.75315	ppb	82
66) 1,3-Dichloropropane	16.53	76	350477	38.52103	ppb	94
67) Dibromochloromethane	17.01	129	333179	42.99042	ppb	90
68) Chlorobenzene	18.14	112	1044892	36.88804	ppb	97
69) Ethylbenzene	18.26	91	1844976	37.29768	ppb	96
70) Bromoform	19.68	173	161724	39.84973	ppb	# 77
72) MIBK (methyl isobutyl keto	14.71	43	117182	39.13908	ppb	82
73) Isopropylbenzene	19.77	105	1927340	36.03580	ppb	95
74) 1,1,2,2-Tetrachloroethane	19.93	83	167829	36.89758	ppb	# 76
75) 1,2,3-Trichloropropane	20.19	110	20672	39.00837	ppb	83
76) t-1,4-Dichloro-2-Butene	20.26	53	46026	41.21119	ppb	77
77) Bromobenzene	20.51	156	428125	36.44601	ppb	97
78) n-Propylbenzene	20.48	91	2145819	35.24658	ppb	99
79) 4-Ethyltoluene	20.67	105	1540904	36.18282	ppb	95
80) 2-Chlorotoluene	20.77	91	1384392	34.04178	ppb	96
81) 1,3,5-Trimethylbenzene	20.75	105	1575661	35.48568	ppb	97
82) 4-Chlorotoluene	20.86	91	1280059	35.82701	ppb	98
83) Tert-Butylbenzene	21.40	119	1729822	36.68179	ppb	95
84) 1,2,4-Trimethylbenzene	21.46	105	1570551	36.00832	ppb	96
85) Sec-Butylbenzene	21.80	105	2069310	36.31198	ppb	100
86) p-Isopropyltoluene	22.03	119	1766966	35.26547	ppb	99
87) Benzyl Chloride	22.46	91	344931	40.62939	ppb	# 91
88) 1,3-DCB	22.16	146	845275	36.62544	ppb	94
89) 1,4-DCB	22.33	146	812894	37.59655	ppb	99
90) Hexachloroethane	23.63	117	377515	39.84876	ppb	90
91) n-Butylbenzene	22.73	91	1482665	35.14699	ppb	99
92) 1,2-DCB	22.96	146	714195	37.37439	ppb	96
93) 1,2-Dibromo-3-chloropropan	24.18	155	29222	42.16812	ppb	# 61
94) 1,2,4-Trichlorobenzene	25.63	145	62072	39.69232	ppb	84
95) Hexachlorobutadiene	25.90	223	284075	39.35271	ppb	96
96) Naphthalene	25.99	128	709385	34.86885	ppb	100
97) 1,2,3-Trichlorobenzene	26.37	180	184256	39.35224	ppb	96

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

1104C11W.D CALLW.M Thu Dec 08 16:57:06 2011

Quantitation Report

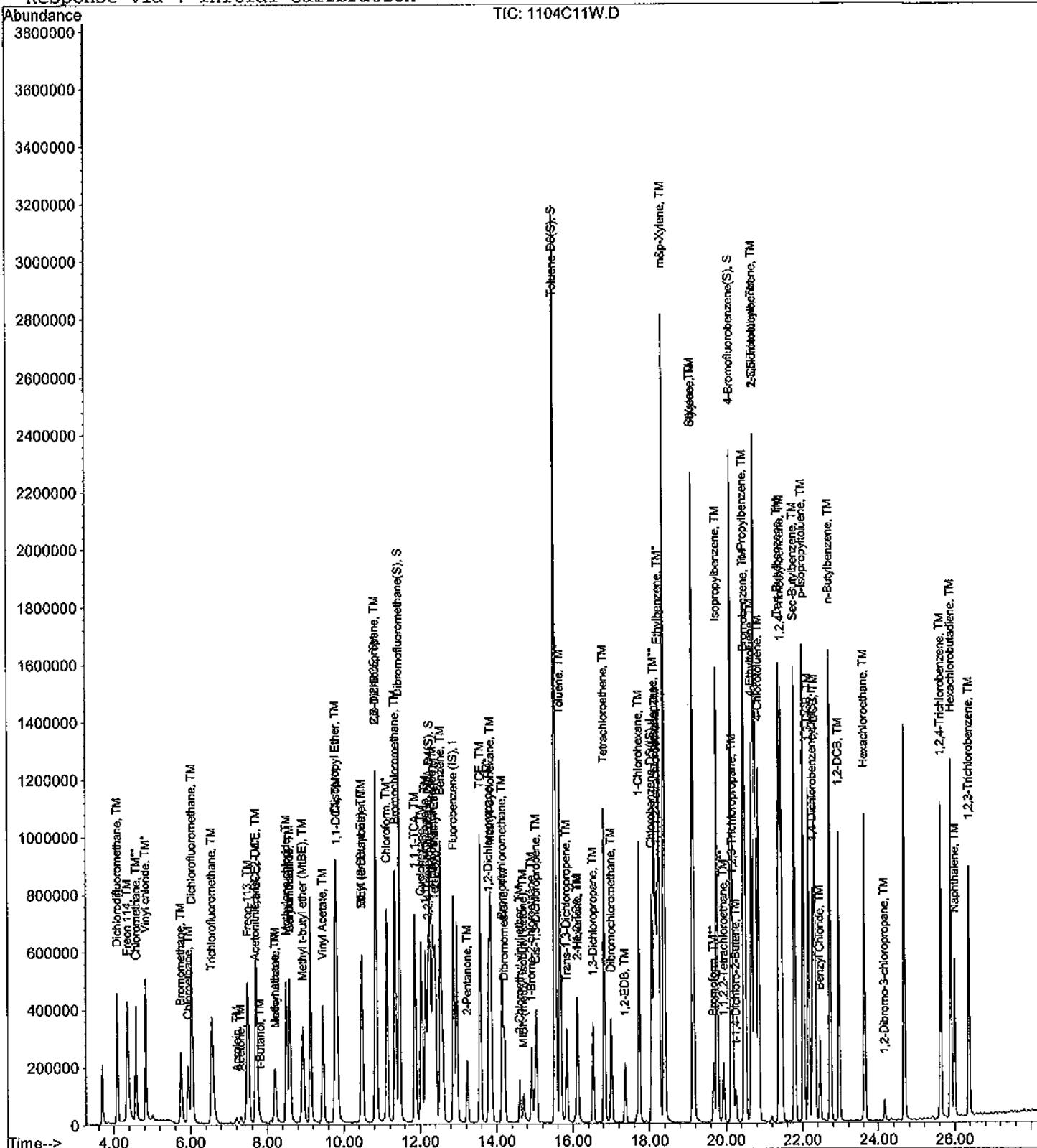
Data File : M:\CHICO\DATA\C111104\1104C11W.D  
 Acq On : 4 Nov 11 17:19  
 Sample : VOL STD 11-04-11@40ug/L  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration



## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C12W.D Vial: 1  
 Acq On : 4 Nov 11 18:02 Operator: STC  
 Sample : VOL STD 11-04-11@100ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.87	96	387584	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	18.08	117	270976	25.00000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.27	152	152832	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
33) Dibromofluoromethane(S)	11.46	111	1488258	110.41578	ppb	0.00
Spiked Amount 21.097				Recovery =	523.366%	
38) 1,2-DCA-D4 (S)	12.26	65	1305852	110.70464	ppb	0.00
Spiked Amount 21.225				Recovery =	521.572%	
56) Toluene-D8 (S)	15.54	98	4425716	110.85954	ppb	0.00
Spiked Amount 25.808				Recovery =	429.552%	
64) 4-Bromofluorobenzene(S)	20.15	95	1555073	110.42709	ppb	0.00
Spiked Amount 25.459				Recovery =	433.737%	
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	4.10	85	1398001	107.75223	ppb	98
3) Freon 114	4.36	85	1127717	105.26312	ppb	91
4) Chloromethane	4.57	50	1586844	94.53416	ppb	94
5) Vinyl chloride	4.82	62	1214149	89.74479	ppb	100
7) Bromomethane	5.75	94	818509	100.97889	ppb	98
8) Chloroethane	5.94	64	211456	94.05241	ppb	# 83
9) Dichlorofluoromethane	6.03	67	2568939	92.17977	ppb	99
10) Trichlorofluoromethane	6.56	101	1897913	101.59844	ppb	82
11) Acetonitrile	7.69	41	58460	172.36226	ug/l	100
12) Acrolein	7.20	56	34311	209.07516	ppb	95
13) Acetone	7.31	43	107600	83.72459	ppb	# 69
14) Freon-113	7.49	101	1083350	105.35213	ppb	90
15) 1,1-DCE	7.72	96	954098	88.88329	ppb	99
16) t-Butanol	7.72	59	18592	361.28844	ppb	# 80
17) Methyl Acetate	8.22	43	284919	100.16575	ppb	91
18) Iodomethane	8.20	142	984016	101.07620	ppb	90
19) Acrylonitrile	8.60	53	104316	90.83971	ppb	# 69
20) Methylene chloride	8.51	84	848586	99.29266	ppb	93
21) Carbon disulfide	8.60	76	796352	89.87029	ppb	98
22) Methyl t-butyl ether (MtBE	8.93	73	1646449	94.40342	ppb	99
23) Trans-1,2-DCE	7.72	96	954098	88.88329	ppb	96
24) Diisopropyl Ether	9.79	45	2920305	91.83596	ppb	97
25) 1,1-DCA	9.82	63	1929536	86.59965	ppb	95
26) Vinyl Acetate	9.46	43	154496	87.68314	ppb	90
27) Ethyl tert Butyl Ether	10.48	59	2421698	90.02727	ppb	97
28) MEK (2-Butanone)	10.47	43	422294	83.88869	ppb	93
29) Cis-1,2-DCE	10.85	96	1132038	81.68204	ppb	92
30) 2,2-Dichloropropane	10.84	77	1733161	84.20042	ppb	91
31) Chloroform	11.13	83	2114438	89.61710	ppb	98
32) Bromochloromethane	11.35	128	352484	84.31866	ppb	83
34) 1,1,1-TCA	11.88	97	2277083	99.43185	ppb	99
35) Cyclohexane	12.03	56	1456353	98.61707	ppb	92
36) 1,1-Dichloropropene	12.15	75	1525242	92.66729	ppb	93
37) 2,2,4-Trimethylpentane	12.21	57	2450244	100.91582	ppb	98
39) Carbon Tetrachloride	12.33	117	1928236	110.22377	ppb	92
40) Tert Amyl Methyl Ether	12.38	73	1751916	89.50147	ppb	98
41) 1,2-DCA	12.42	62	1215844	90.53850	ppb	97
42) Benzene	12.53	78	3877684	92.57413	ppb	99
43) TCE	13.57	95	1298818	97.96179	ppb	94

(#) = qualifier out of range (m) = manual integration  
 1104C12W.D CALLW.M Thu Dec 08 16:57:12 2011

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C12W.D Vial: 1  
 Acq On : 4 Nov 11 18:02 Operator: STC  
 Sample : VOL STD 11-04-11@100ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2-Pentanone	13.23	43	480188	202.12854	ppb	97
45) 1,2-Dichloropropane	13.80	63	913679	95.61461	ppb	100
46) Bromodichloromethane	14.15	83	1431779	99.49584	ppb	95
47) Methyl Cyclohexane	13.85	83	1439261	105.05916	ppb	97
48) Dibromomethane	14.21	93	482479	96.14637	ppb	98
49) 2-Chloroethyl vinyl ether	14.60	63	264911	100.08249	ppb	# 86
50) 1-Bromo-2-chloroethane	14.92	63	806701	96.36990	ppb	90
51) Cis-1,3-Dichloropropene	15.04	75	1136888	96.49948	ppb	# 84
52) Toluene	15.67	91	4019173	90.44633	ppb	98
53) Trans-1,3-Dichloropropene	15.84	75	907198	101.32666	ppb	99
54) 1,1,2-TCA	16.11	83	405197	91.74780	ppb	96
57) 1,2-EDB	17.37	107	567927	98.54217	ppb	# 93
58) Tetrachloroethene	16.83	164	1145494	83.39701	ppb	92
59) 1-Chlorohexane	17.74	91	1458222	99.25734	ppb	99
60) 1,1,1,2-Tetrachloroethane	18.19	131	1064914	104.64141	ppb	99
61) m,p-Xylene	18.40	106	3793857	192.98630	ppb	99
62) o-Xylene	19.14	106	1825474	97.43962	ppb	96
63) Styrene	19.16	104	2822183	95.35991	ppb	91
65) 2-Hexanone	16.14	43	191388	85.39019	ppb	78
66) 1,3-Dichloropropane	16.53	76	877537	92.89668	ppb	93
67) Dibromochloromethane	17.01	129	882767	109.70755	ppb	90
68) Chlorobenzene	18.14	112	2747264	93.41378	ppb	97
69) Ethylbenzene	18.25	91	4848703	94.40892	ppb	95
70) Bromoform	19.67	173	460692	100.01282	ppb	91
72) MIBK (methyl isobutyl keto	14.71	43	310673	99.82496	ppb	84
73) Isopropylbenzene	19.77	105	4901130	85.88114	ppb	96
74) 1,1,2,2-Tetrachloroethane	19.93	83	414354	85.37451	ppb	# 82
75) 1,2,3-Trichloropropane	20.19	110	55136	100.12191	ppb	98
76) t-1,4-Dichloro-2-Butene	20.25	53	117801	99.35278	ppb	# 77
77) Bromobenzene	20.51	156	1085585	86.61018	ppb	93
78) n-Propylbenzene	20.48	91	5471690	84.23084	ppb	99
79) 4-Ethyltoluene	20.68	105	4084011	89.87511	ppb	93
80) 2-Chlorotoluene	20.78	91	3618605	83.39117	ppb	92
81) 1,3,5-Trimethylbenzene	20.76	105	3929624	82.94058	ppb	97
82) 4-Chlorotoluene	20.85	91	3136042	82.25991	ppb	95
83) Tert-Butylbenzene	21.39	119	4332803	86.10807	ppb	96
84) 1,2,4-Trimethylbenzene	21.45	105	4015207	86.27491	ppb	92
85) Sec-Butylbenzene	21.79	105	5428141	89.26912	ppb	100
86) p-Isopropyltoluene	22.03	119	4726869	88.41394	ppb	98
87) Benzyl Chloride	22.46	91	924796	102.08918	ppb	93
88) 1,3-DCB	22.17	146	2259784	91.76509	ppb	95
89) 1,4-DCB	22.33	146	2224628	96.42667	ppb	98
90) Hexachloroethane	23.63	117	1044668	100.01050	ppb	90
91) n-Butylbenzene	22.73	91	3981630	88.45691	ppb	99
92) 1,2-DCB	22.96	146	1944735	95.37695	ppb	98
93) 1,2-Dibromo-3-chloropropan	24.17	155	81757	110.56688	ppb	82
94) 1,2,4-Trichlorobenzene	25.63	145	161984	99.51652	ppb	80
95) Hexachlorobutadiene	25.89	223	777993	100.07622	ppb	97
96) Naphthalene	26.00	128	1916255	88.27439	ppb	99
97) 1,2,3-Trichlorobenzene	26.38	180	472249	100.09338	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1104C12W.D CALLW.M Thu Dec 08 16:57:13 2011

Quantitation Report

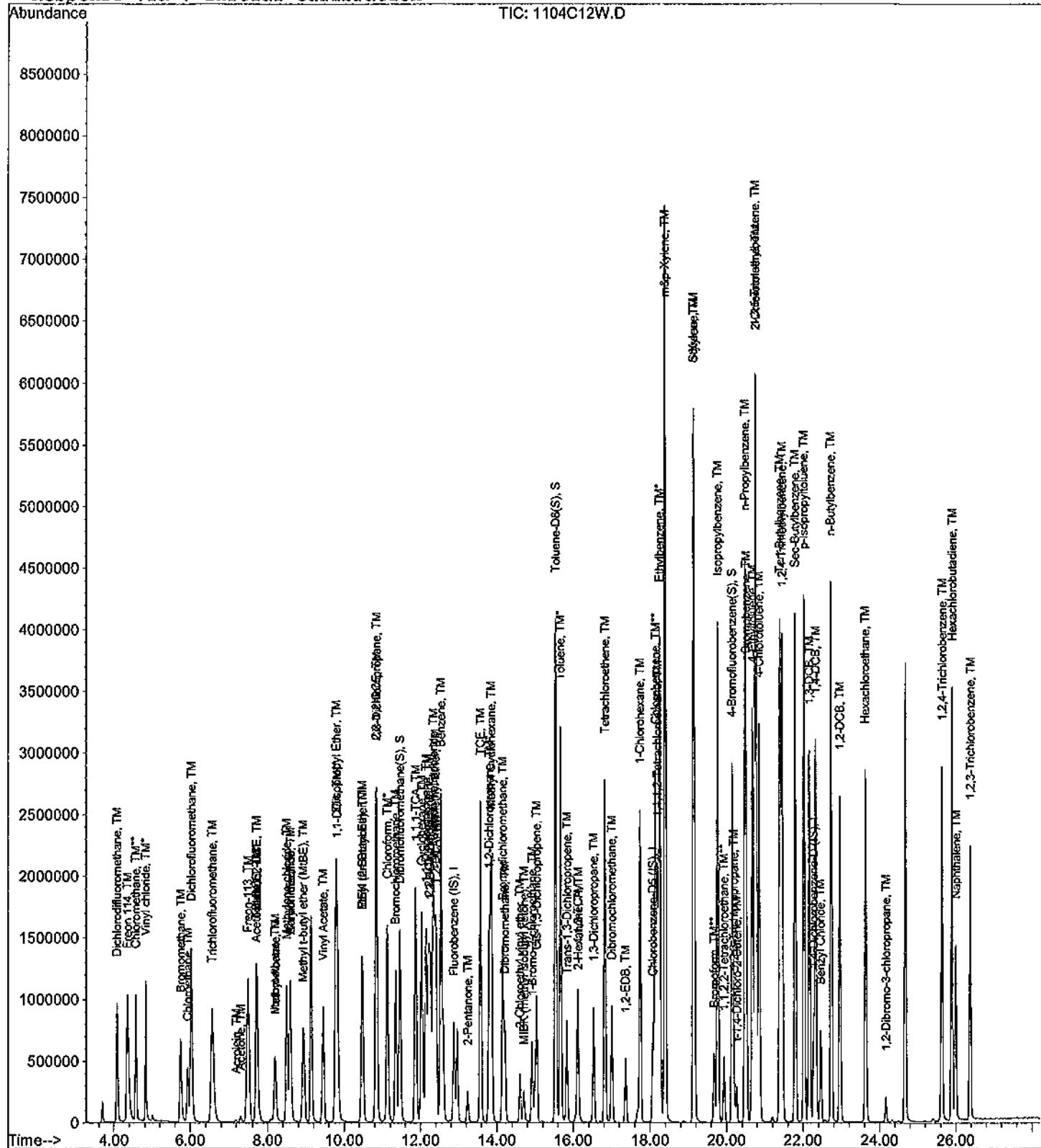
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 Misc : Water 10mLw/ IS:10-30-11

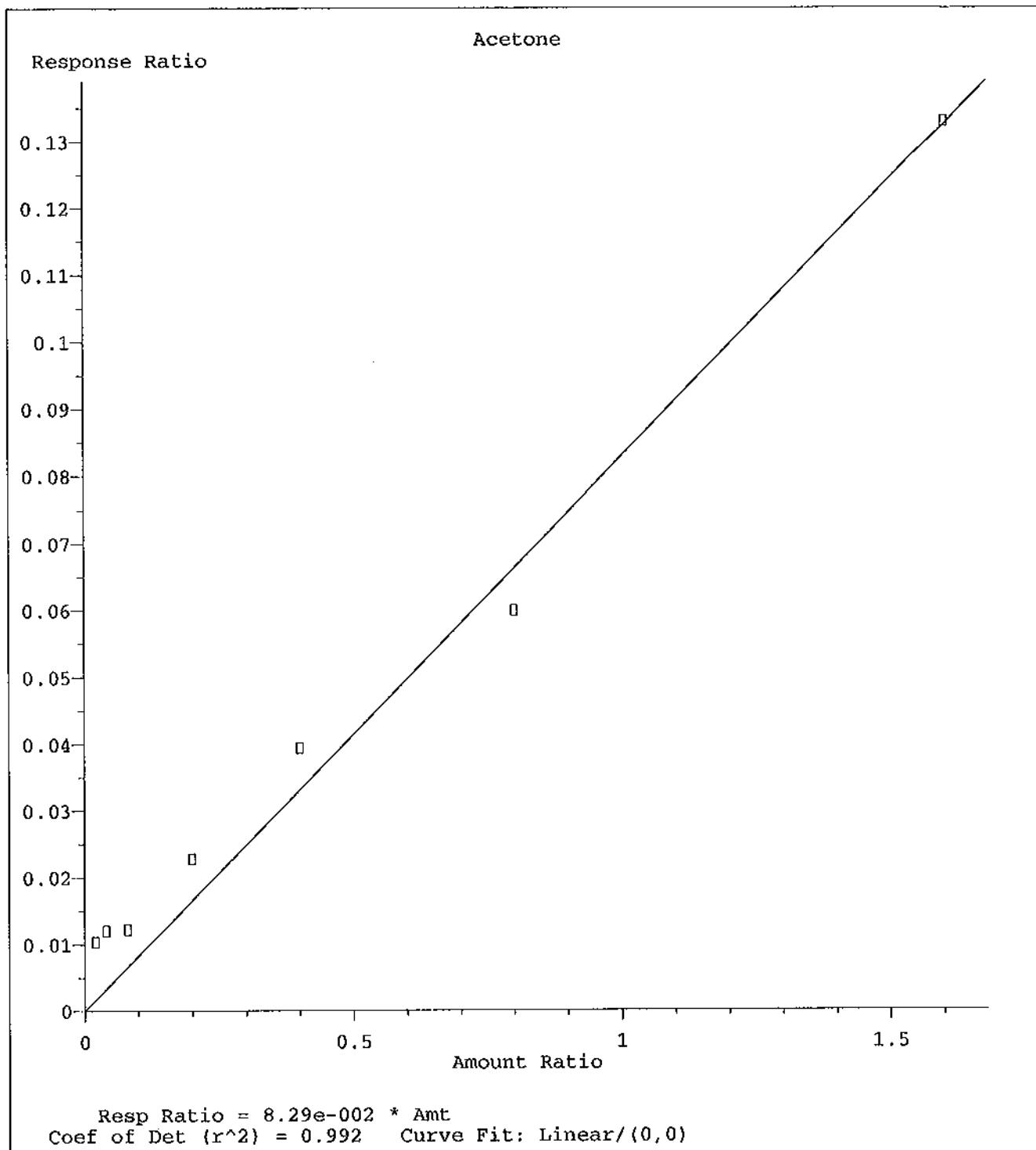
Vial: 1  
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 Inst : Chico  
 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011

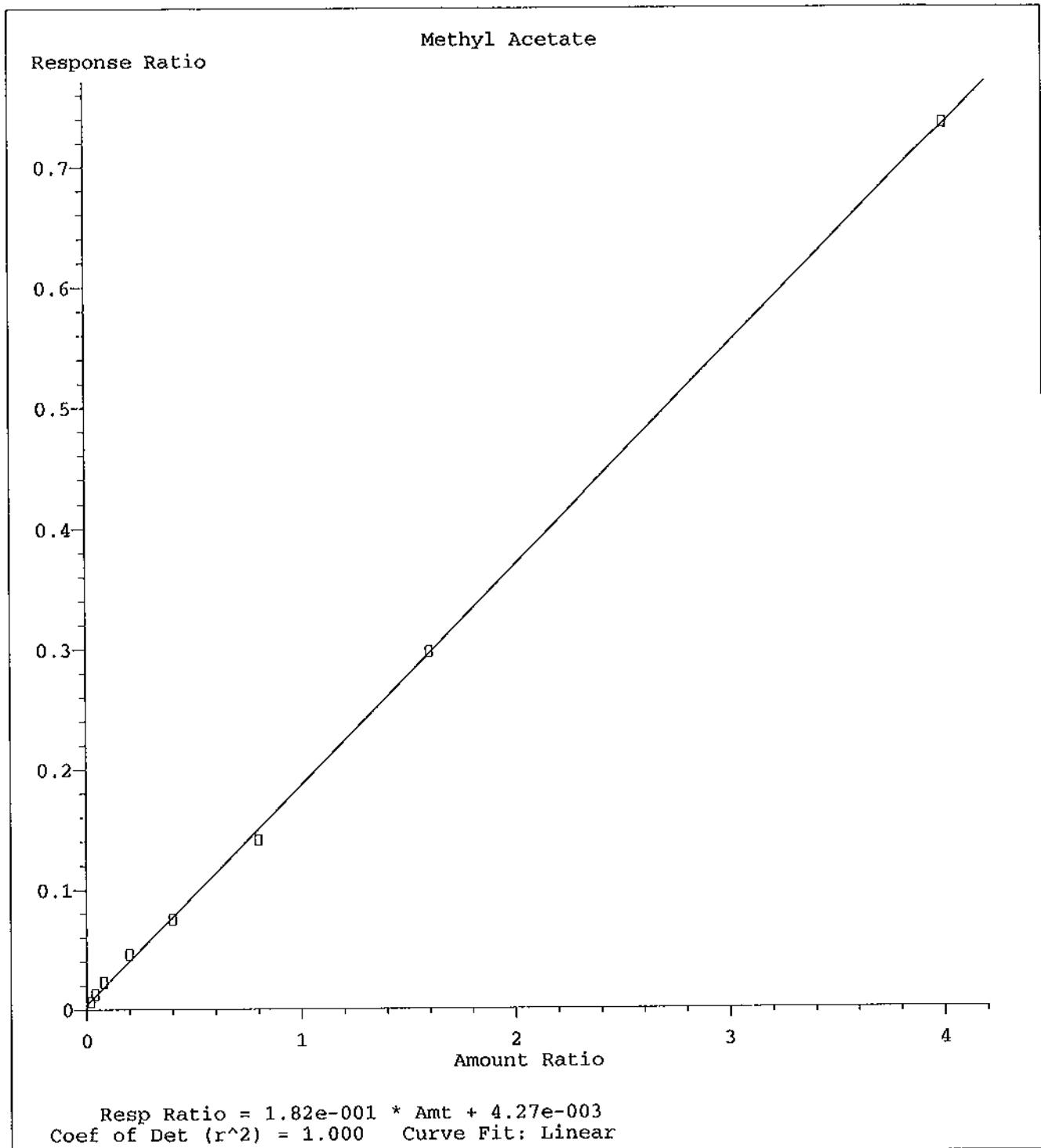
Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration

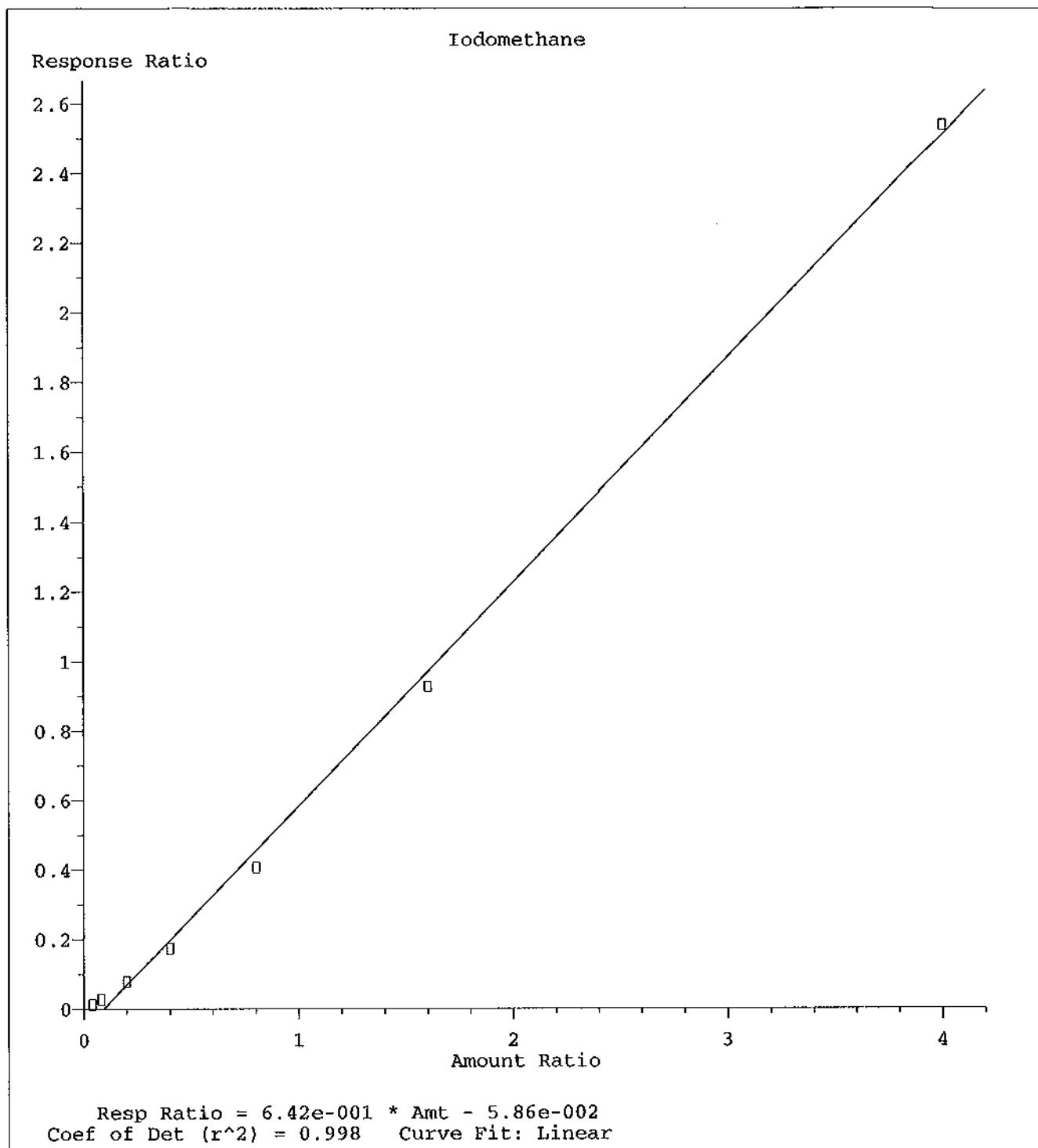




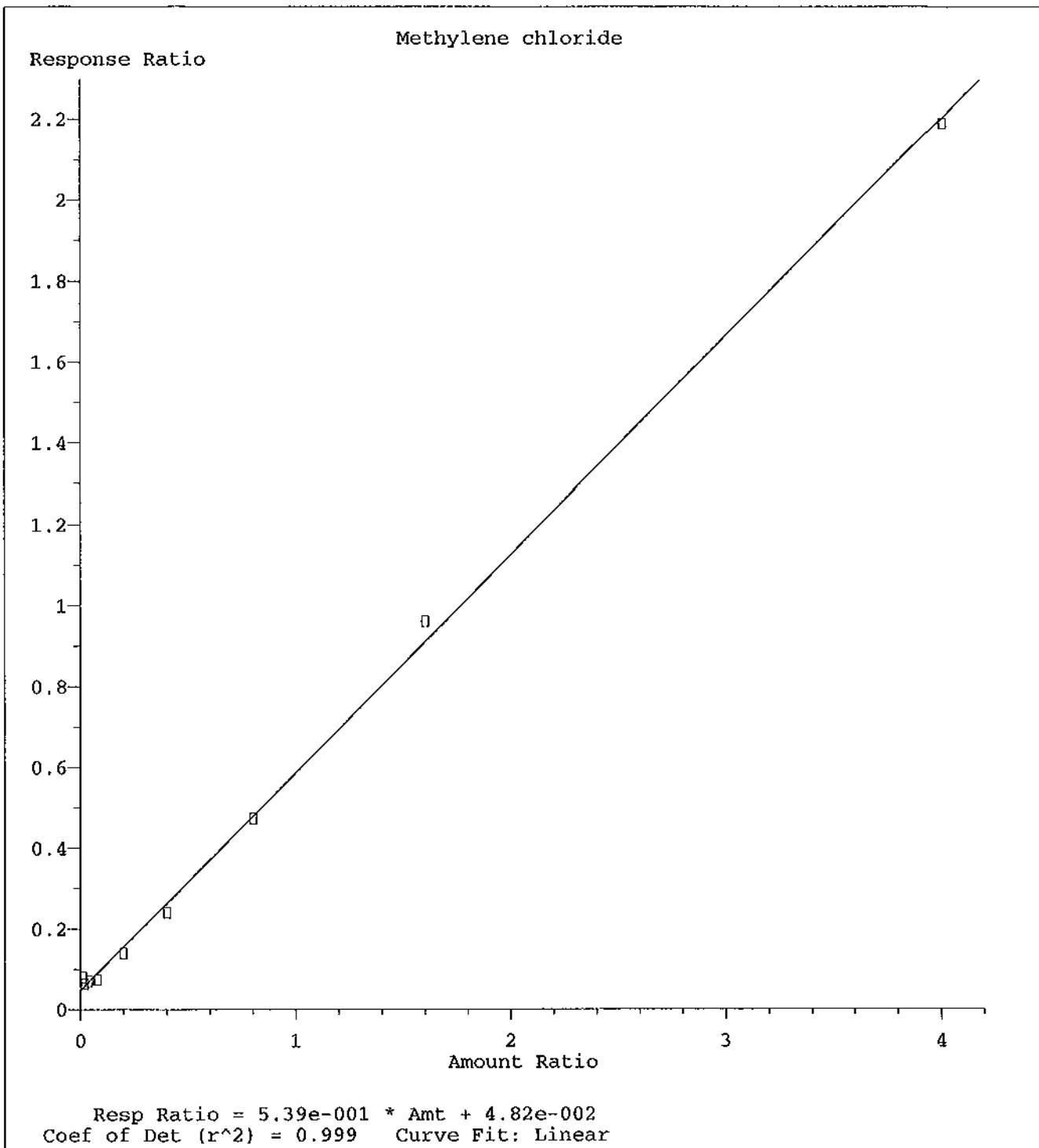
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Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



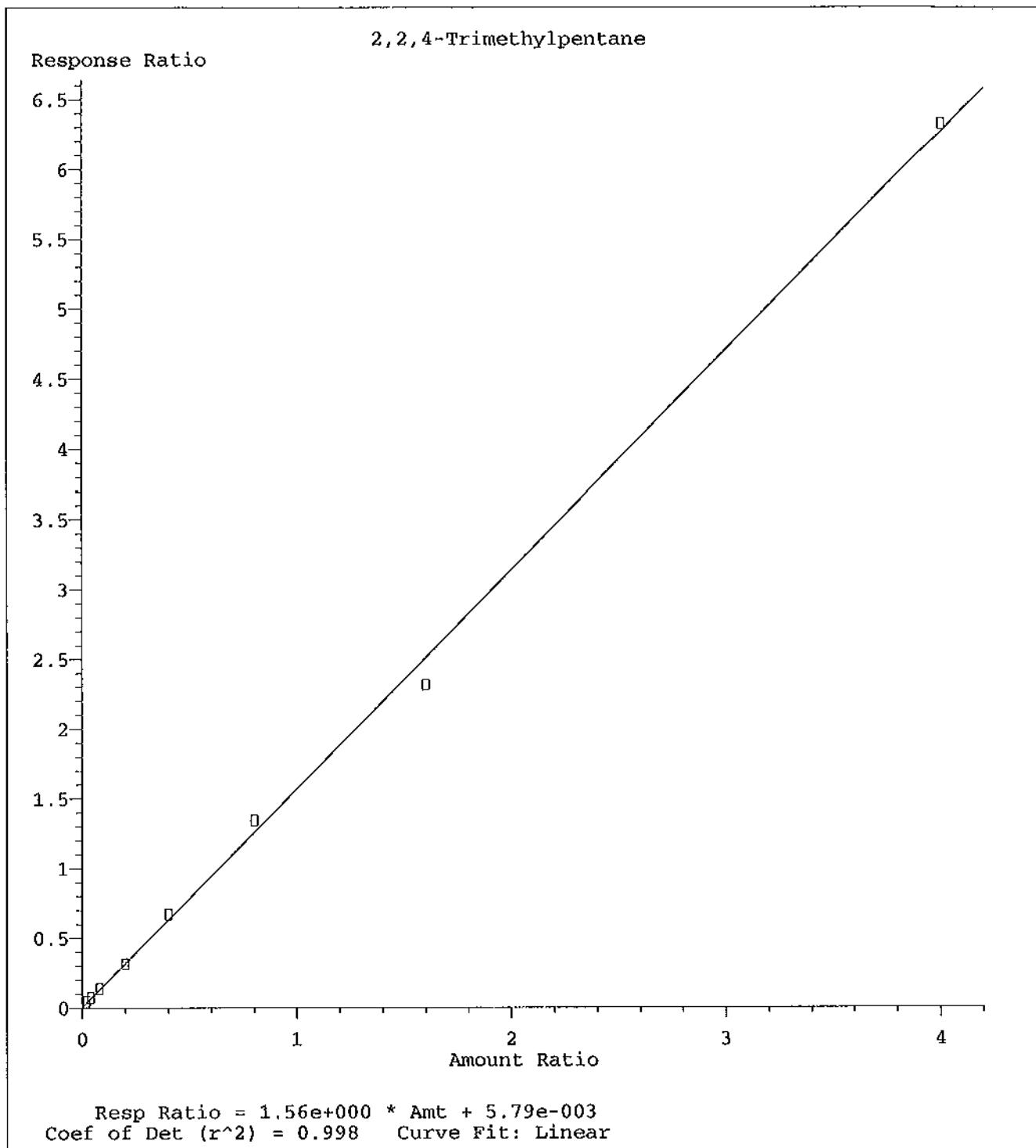
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Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



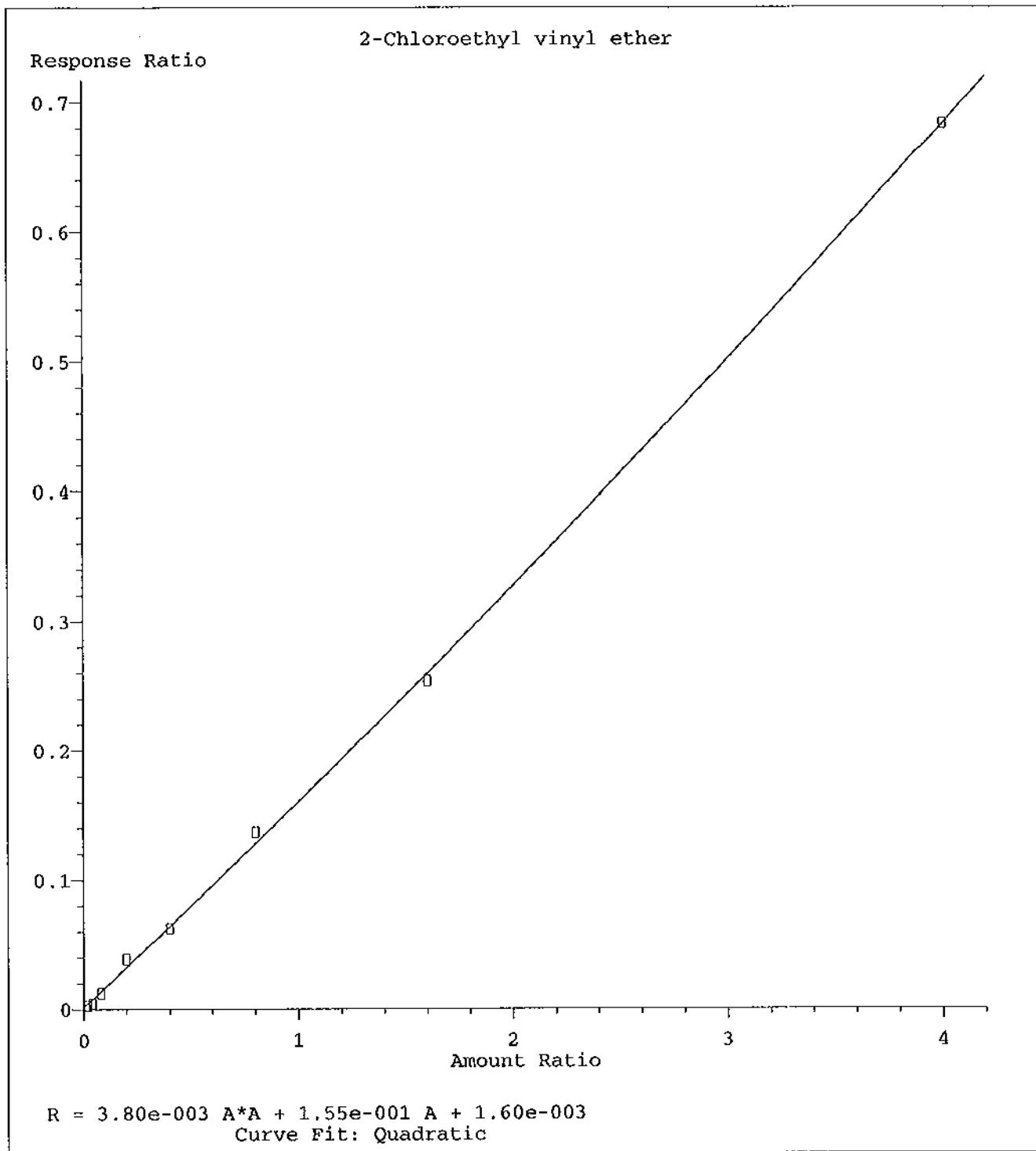
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Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



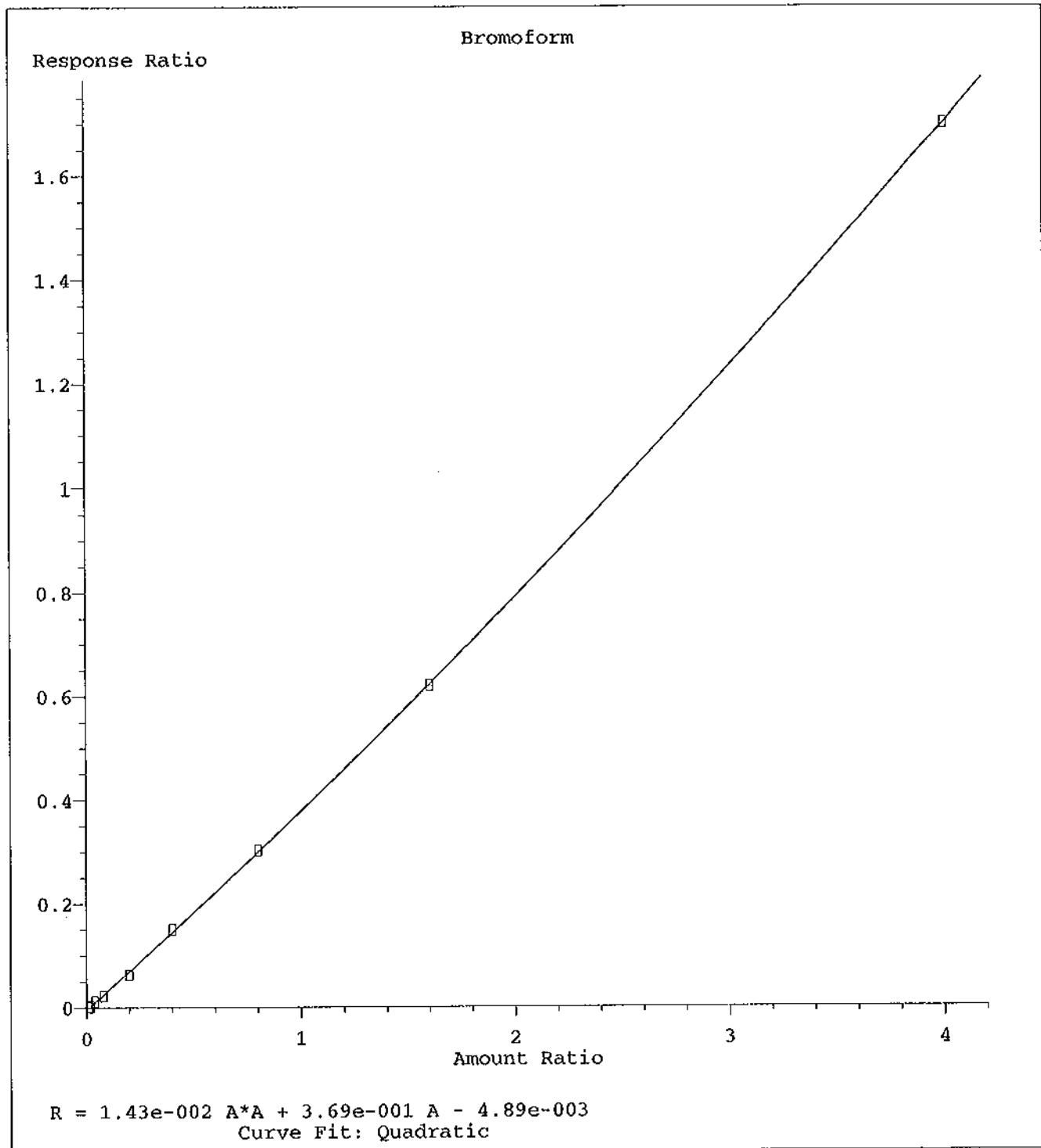
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Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



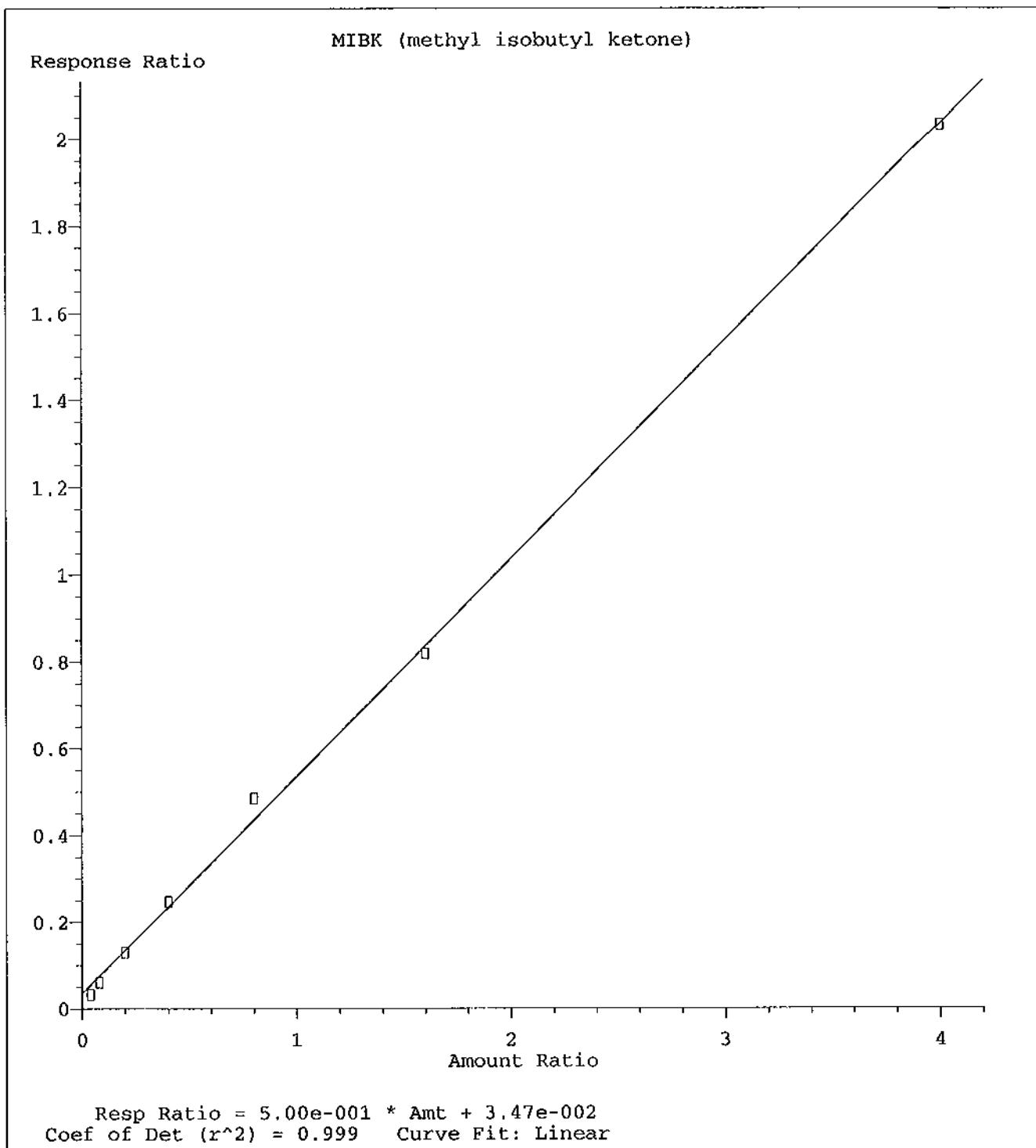
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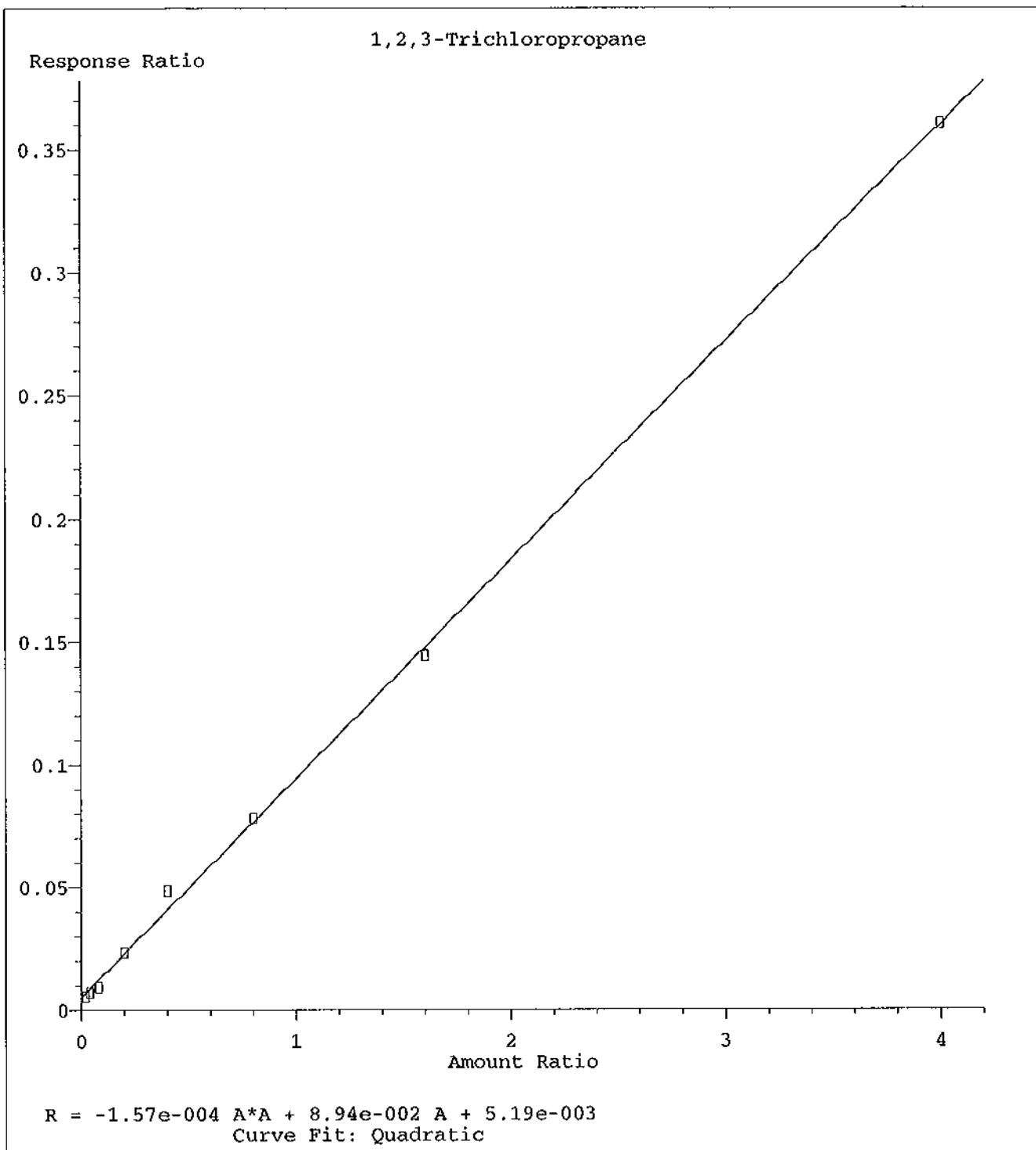
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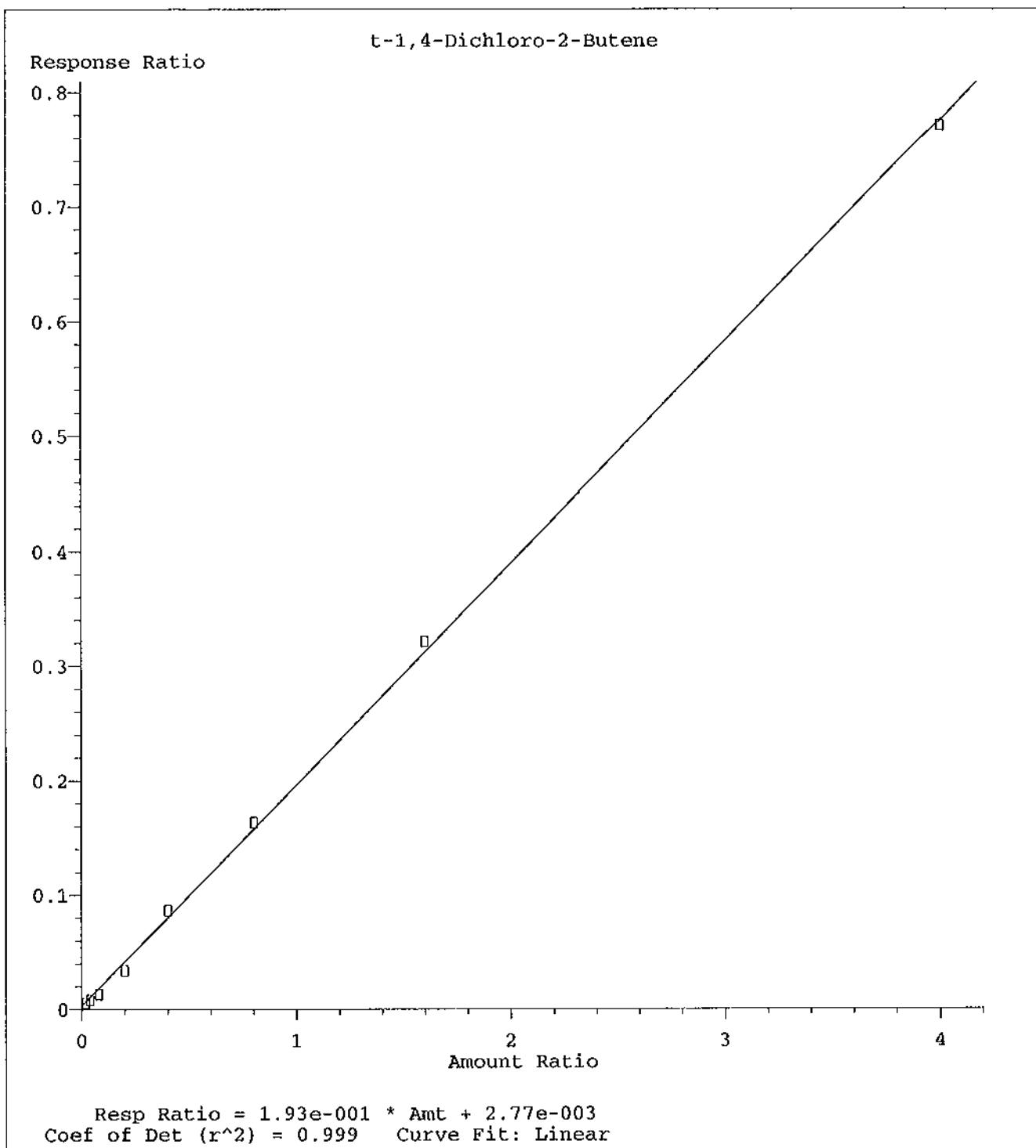
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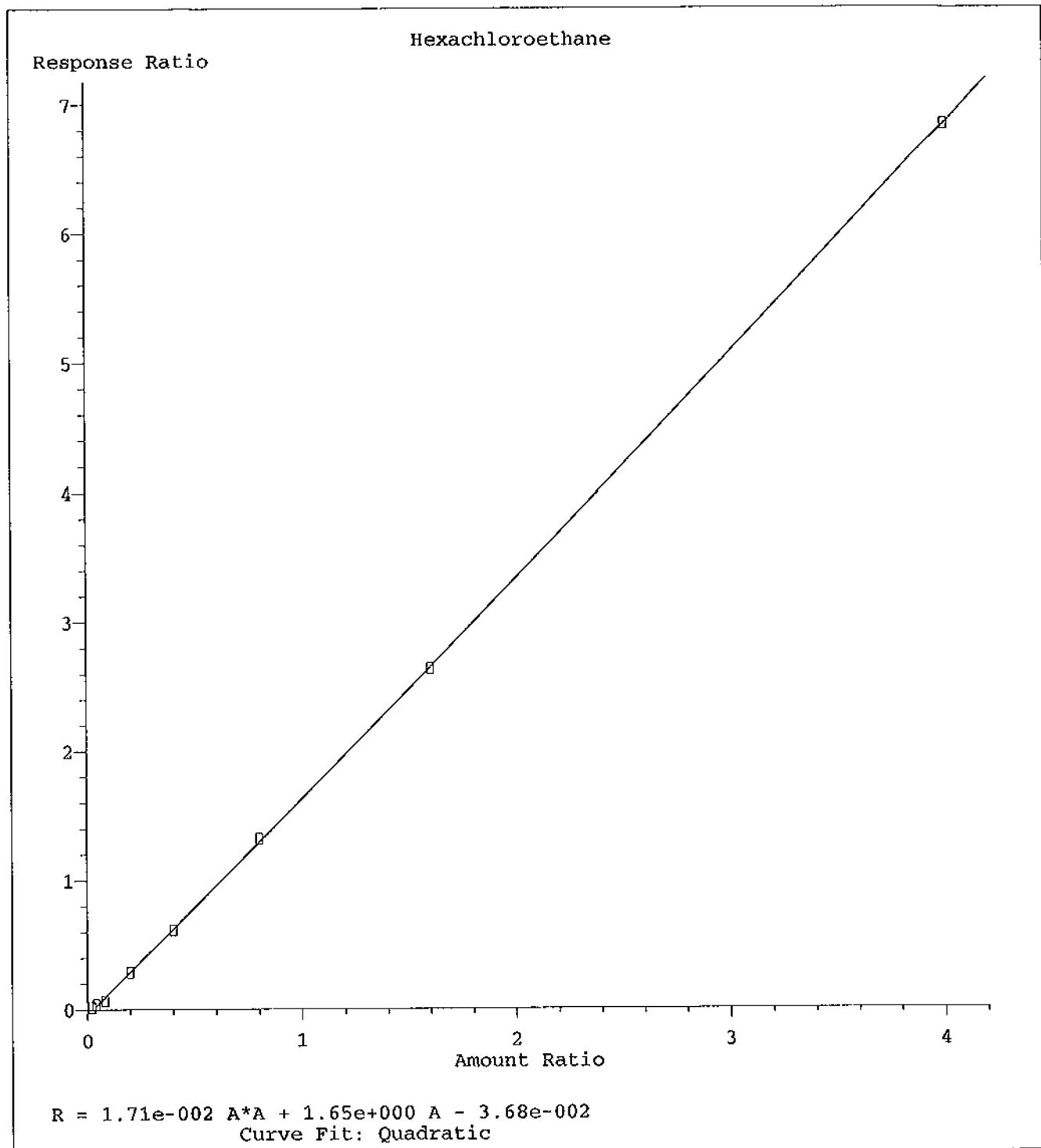
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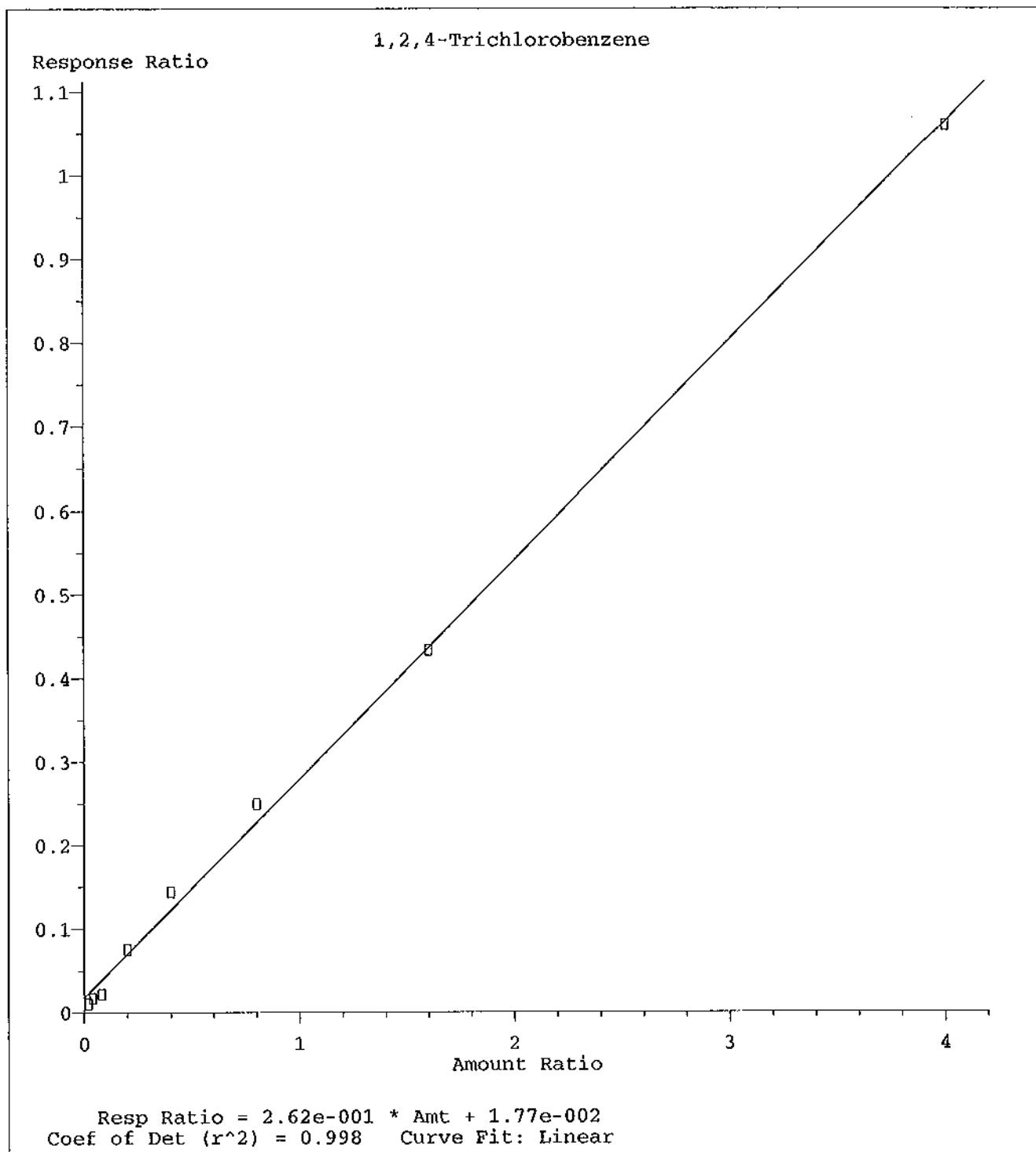
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Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



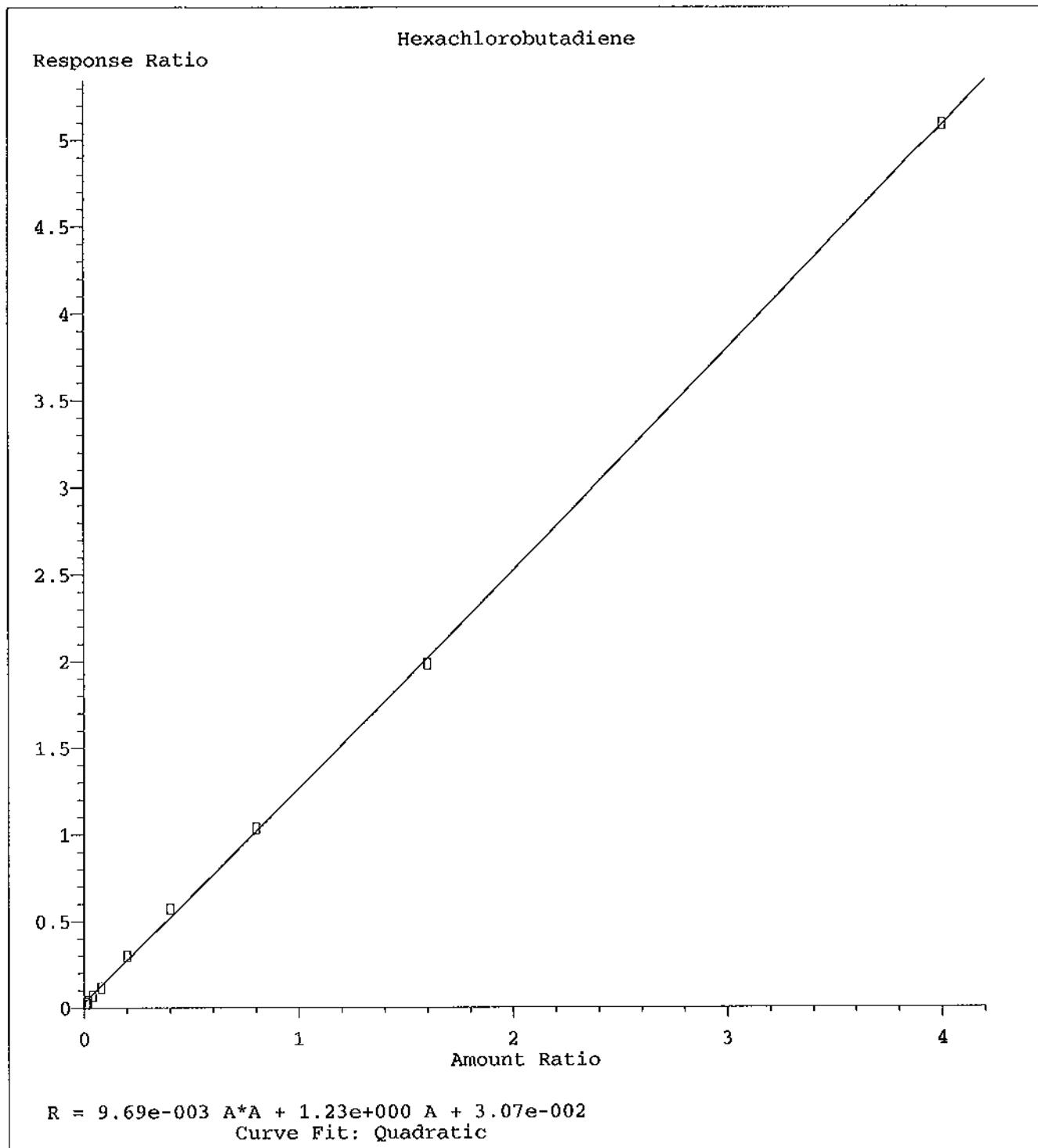
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Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



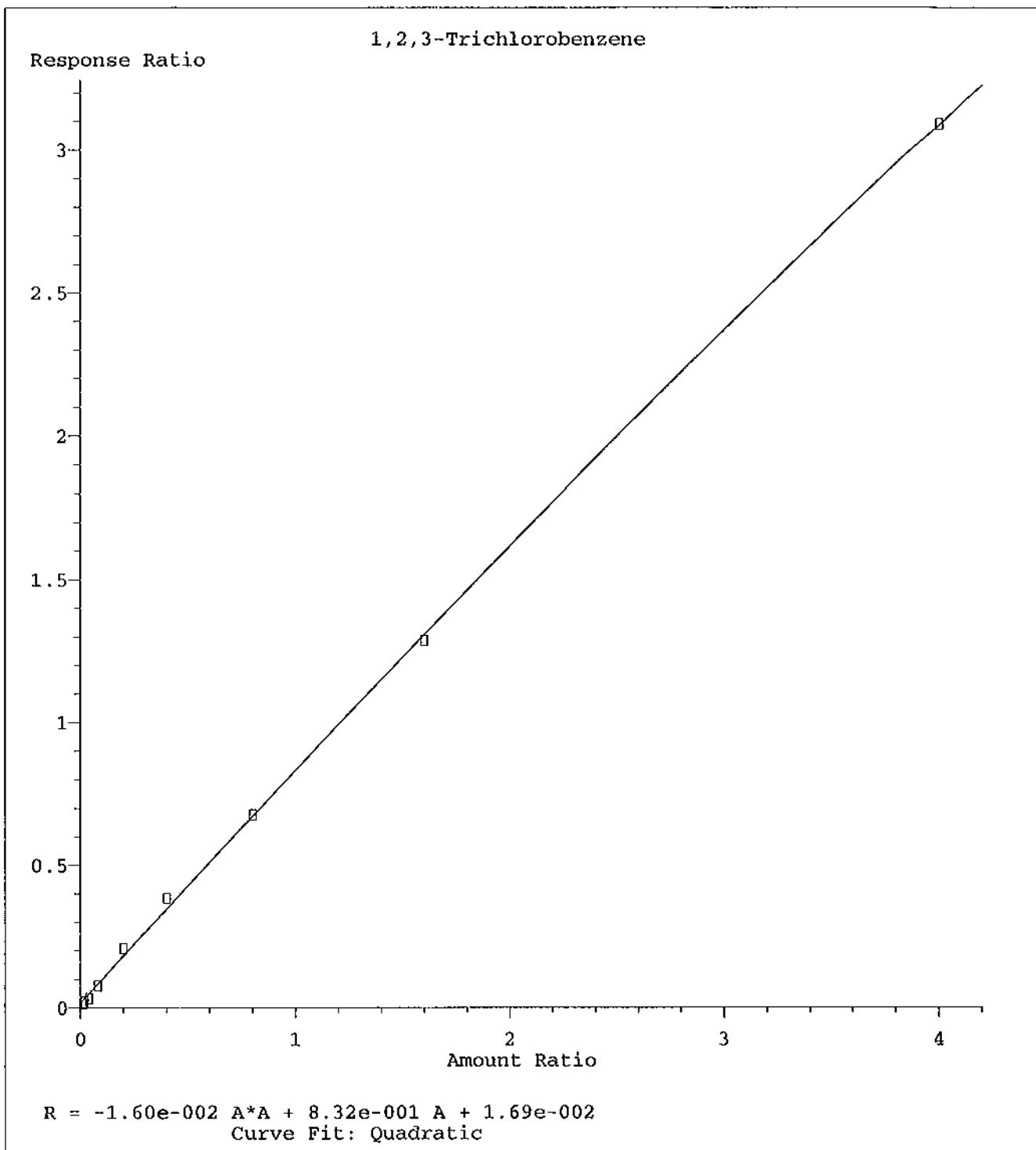
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Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



Method Name: M:\CHICO\DATA\C111104\CALLW.M  
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



Method Name: M:\CHICO\DATA\C111104\CALLW.M  
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



Method Name: M:\CHICO\DATA\C111104\CALLW.M  
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011

**VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B**

Form 7  
**Second Source Calibration**

Lab Name: APPL, Inc.

SDG No: 66186

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

Date Analyzed: 4 Nov 11 21:38

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

Instrument: Chico

Initial Cal. Date: 11/04/11

Data File: 1104C17W.D

	Compound	MEAN	CCRF	%D	%Drift
1 I	Fluorobenzene (IS)	ISTD			I
2 TM	Dichlorodifluoromethane	0.8369	1.083	29	TM nt
3 TM	Freon 114	0.6910	0.8405	22	TM nt
4 TM**	Chloromethane	1.083	1.032	4.7	TM** ✓
5 TM*	Vinyl chloride	0.8726	0.9581	9.8	TM* ✓
6 TM	1,3-Butadiene	0.0000	0.0008	0.00	TM
7 TM	Bromomethane	0.5228	0.5289	1.2	TM
8 TM	Chloroethane	0.1450	0.1469	1.3	TM
9 TM	Dichlorofluoromethane	1.798	1.938	7.8	TM
10 TM	Trichlorofluoromethane	1.205	1.390	15	TM nt
11	Acetonitrile	0.0219	0.0271	24	
12 TM	Acrolein	0.0106	0.0097	8.1	TM
13 TML	Acetone	0.1914	0.0967	49	TML 17 nt
14 TM	Freon-113	0.6633	0.8222	24	TM nt
15 TM*	1,1-DCE	0.6924	0.7816	13	TM* ✓
16 TM	t-Butanol	0.0033	0.0036	7.3	TM
17 TML	Methyl Acetate	0.2360	0.2065	13	TML 7.3
18 TML	Iodomethane	0.4584	0.7873	72	TML 45 nt
19 TM	Acrylonitrile	0.0741	0.0786	6.2	TM
20 TML	Methylene chloride	1.728	0.7369	57	TML 14
21 TM	Carbon disulfide	0.5716	0.6567	15	TM
22 TM	Methyl t-butyl ether (MtBE)	1.125	1.241	10	TM
23 TM	Trans-1,2-DCE	0.6924	0.7816	13	TM
24 TM	Diisopropyl Ether	2.051	2.498	22	TM nt
25 TM**	1,1-DCA	1.437	1.638	14	TM** ✓
26 TM	Vinyl Acetate	0.1137	0.1488	31	TM nt
27 TM	Ethyl tert Butyl Ether	1.735	1.825	5.2	TM
28 TM	MEK (2-Butanone)	0.3247	0.3166	2.5	TM
29 TM	Cis-1,2-DCE	0.8939	0.8818	1.4	TM
30 TM	2,2-Dichloropropane	1.328	1.345	1.3	TM
31 TM*	Chloroform	1.522	1.520	0.09	TM* ✓
32 TM	Bromochloromethane	0.2696	0.2605	3.4	TM
33 S	Dibromofluoromethane(S)	0.8694	0.8084	7.0	S
34 TM	1,1,1-TCA	1.477	1.547	4.8	TM
35 TM	Cyclohexane	0.9526	1.001	5.1	TM
36 TM	1,1-Dichloropropene	1.062	1.028	3.2	TM
37 TML	2,2,4-Trimethylpentane	1.729	1.778	2.8	TML 13
38 S	1,2-DCA-D4(S)	0.7609	0.6945	8.7	S
39 TM	Carbon Tetrachloride	1.128	1.202	6.6	TM
40 TM	Tert Amyl Methyl Ether	1.263	1.121	11	TM

Average

13.7

**VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B**

Form 7  
**Second Source Calibration**

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

SDG No: 66186  
 Date Analyzed: 4 Nov 11 21:38  
 Instrument: Chico  
 Cal. Date: 11/04/11  
 Data File: 1104C17W.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	1,2-DCA	0.8662	0.8041	7.2	TM	
42	TM	Benzene	2.702	2.556	5.4	TM	
43	TM	TCE	0.8552	0.8459	1.1	TM	
44	TM	2-Pentanone	0.1532	0.1385	9.6	TM	
45	TM*	1,2-Dichloropropane	0.6164	0.5698	7.6	TM*	✓
46	TM	Bromodichloromethane	0.9282	0.8470	8.8	TM	
47	TM	Methyl Cyclohexane	0.8836	0.9409	6.5	TM	
48	TM	Dibromomethane	0.3237	0.2947	9.0	TM	
49	TMQ	2-Chloroethyl vinyl ether	0.1663	0.1298	22	TMQ	20
50	TM	1-Bromo-2-chloroethane	0.5399	0.4958	8.2	TM	
51	TM	Cis-1,3-Dichloropropene	0.7599	0.7321	3.7	TM	
52	TM*	Toluene	2.866	2.709	5.5	TM*	✓
53	TM	Trans-1,3-Dichloropropene	0.5775	0.5529	4.3	TM	
54	TM	1,1,2-TCA	0.2849	0.2632	7.6	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	3.683	3.333	9.5	S	
57	TM	1,2-EDB	0.5317	0.4851	8.8	TM	
58	TM	Tetrachloroethene	1.267	1.206	4.9	TM	
59	TM	1-Chlorohexane	1.355	1.453	7.2	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.9389	0.9030	3.8	TM	
61	TM	m&p-Xylene	1.814	1.797	0.90	TM	
62	TM	o-Xylene	1.728	1.793	3.8	TM	
63	TM	Styrene	2.730	2.716	0.55	TM	
64	S	4-Bromofluorobenzene(S)	1.299	1.275	1.9	S	
65	TM	2-Hexanone	0.2068	0.1624	21	TM	nt
66	TM	1,3-Dichloropropane	0.8715	0.7889	9.5	TM	
67	TM	Dibromochloromethane	0.7424	0.6921	6.8	TM	
68	TM**	Chlorobenzene	2.713	2.644	2.5	TM**	✓
69	TM*	Ethylbenzene	4.738	4.779	0.86	TM*	✓
70	TM**Q	Bromoform	0.2955	0.3240	9.6	TM**Q	10
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
72	TML	MIBK (methyl isobutyl ketone)	0.6373	0.5287	17	TML	12
73	TM	Isopropylbenzene	9.335	9.530	2.1	TM	
74	TM**	1,1,2,2-Tetrachloroethane	0.7939	0.7892	0.60	TM**	✓
75	TMQ	1,2,3-Trichloropropane	0.1353	0.1026	24	TMQ	0.29
76	TML	t-1,4-Dichloro-2-Butene	0.2032	0.1804	11	TML	10
77	TM	Bromobenzene	2.050	2.051	0.05	TM	
78	TM	n-Propylbenzene	10.6	11.0	3.2	TM	
79	TM	4-Ethyltoluene	7.433	7.608	2.4	TM	
80	TM	2-Chlorotoluene	7.098	7.129	0.43	TM	

Average

6.8

**VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B**

Form 7

**Second Source Calibration**

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

SDG No: 66186  
 Date Analyzed: 4 Nov 11 21:38  
 Instrument: Chico  
 Cal. Date: 11/04/11  
 Data File: 1104C17W.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	1,3,5-Trimethylbenzene	7.750	7.845	1.2	TM
82	TM	4-Chlorotoluene	6.236	5.954	4.5	TM
83	TM	Tert-Butylbenzene	8.231	8.534	3.7	TM
84	TM	1,2,4-Trimethylbenzene	7.613	7.807	2.5	TM
85	TM	Sec-Butylbenzene	9.947	10.2	2.8	TM
86	TM	p-Isopropyltoluene	8.745	8.884	1.6	TM
87	TM	Benzyl Chloride	1.482	1.410	4.8	TM
88	TM	1,3-DCB	4.028	4.083	1.4	TM
89	TM	1,4-DCB	3.774	3.939	4.4	TM
90	TMQ	Hexachloroethane	1.320	1.519	15	TMQ
91	TM	n-Butylbenzene	7.363	7.453	1.2	TM
92	TM	1,2-DCB	3.335	3.299	1.1	TM
93	TM	1,2-Dibromo-3-chloropropane	0.1210	0.1039	14	TM
94	TML	1,2,4-Trichlorobenzene	0.3487	0.2875	18	TML
95	TMQ	Hexachlorobutadiene	1.549	1.333	14	TMQ
96	TM	Naphthalene	3.551	2.941	17	TM
97	TMQ	1,2,3-Trichlorobenzene	0.9393	0.8264	12	TMQ
98						
99						
100						
101						
102						
103						
104						
105						
106						
107						
108						
109						
110						
111						
112						
113						
114						
115						
116						
117						
118						
119						
120						

Average

7.0

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C17W.D  
 Acq On : 4 Nov 11 21:38  
 Sample : 111104A LCS-1WC  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 15:57 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)

Title : METHOD 8260

Last Update : Tue Nov 08 15:56:36 2011

146874X25 = 10-98  
383232+08726  
SV 12-9-11

Response via : Initial Calibration

DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.87	96	383232	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	18.06	117	285952	25.00000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.27	152	145408	25.00000	ppb	0.00

## System Monitoring Compounds

33) Dibromofluoromethane(S)	11.45	111	309786	23.24442	ppb	-0.02
Spiked Amount	21.097		Recovery	= 110.175%		
38) 1,2-DCA-D4(S)	12.26	65	266154	22.81965	ppb	0.00
Spiked Amount	21.225		Recovery	= 107.513%		
56) Toluene-D8(S)	15.53	98	953139	22.62473	ppb	-0.02
Spiked Amount	25.808		Recovery	= 87.666%		
64) 4-Bromofluorobenzene(S)	20.14	95	364641	24.53737	ppb	0.00
Spiked Amount	25.459		Recovery	= 96.377%		

## Target Compounds

				Qvalue	
2) Dichlorodifluoromethane	4.09	85	166034	12.94255	ppb
3) Freon 114	4.36	85	128839	12.16263	ppb
4) Chloromethane	4.57	50	158139	9.52791	ppb
5) Vinyl chloride	4.84	62	146874	10.97959	ppb
7) Bromomethane	5.75	94	81078	10.11613	ppb
8) Chloroethane	5.94	64	22520	10.13030	ppb
9) Dichlorofluoromethane	6.03	67	297115	10.78228	ppb
10) Trichlorofluoromethane	6.55	101	213021	11.53287	ppb
11) Acetonitrile	7.67	41	51847	154.60056	ug/l
12) Acrolein	7.18	56	18650	114.93491	ppb
13) Acetone	7.29	43	14816	11.65939	ppb
14) Freon-113	7.49	101	126039	12.39606	ppb
15) 1,1-DCE	7.71	96	119819	11.28904	ppb
16) t-Butanol	7.79	59	6826	134.15236	ppb
17) Methyl Acetate	8.21	43	31649	10.73342	ppb
18) Iodomethane	8.19	142	120681	14.53541	ppb
19) Acrylonitrile	8.59	53	12053	10.61510	ppb
20) Methylene chloride	8.49	84	112959	11.43186	ppb
21) Carbon disulfide	8.58	76	100664	11.48919	ppb
22) Methyl t-butyl ether (MtBE)	8.91	73	190222	11.03073	ppb
23) Trans-1,2-DCE	7.71	96	119819	11.28904	ppb
24) Diisopropyl Ether	9.77	45	382971	12.18020	ppb
25) 1,1-DCA	9.82	63	251053	11.39548	ppb
26) Vinyl Acetate	9.45	43	22816	13.09611	ppb
27) Ethyl tert Butyl Ether	10.47	59	279686	10.51547	ppb
28) MEK (2-Butanone)	10.46	43	48540	9.75197	ppb
29) Cis-1,2-DCE	10.84	96	135177	9.86444	ppb
30) 2,2-Dichloropropane	10.84	77	206251	10.13387	ppb
31) Chloroform	11.12	83	233072	9.99057	ppb
32) Bromochloromethane	11.35	128	39929	9.65999	ppb
34) 1,1,1-TCA	11.86	97	237216	10.47598	ppb
35) Cyclohexane	12.03	56	153520	10.51367	ppb
36) 1,1-Dichloropropene	12.12	75	157550	9.68078	ppb
37) 2,2,4-Trimethylpentane	12.21	57	272496	11.26831	ppb
39) Carbon Tetrachloride	12.33	117	184323	10.65611	ppb
40) Tert Amyl Methyl Ether	12.37	73	171861	8.87970	ppb
41) 1,2-DCA	12.40	62	123260	9.28286	ppb
42) Benzene	12.53	78	391892	9.46210	ppb
43) TCE	13.56	95	129673	9.89150	ppb

(#) = qualifier out of range (m) = manual integration  
 1104C17W.D CALLW.M Thu Dec 08 16:57:19 2011

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C17W.D Vial: 1  
 Acq On : 4 Nov 11 21:38 Operator: STC  
 Sample : 111104A LCS-1WC Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 15:57 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2-Pentanone	13.23	43	265441	113.00259	ppb	97
45) 1,2-Dichloropropane	13.79	63	87350	9.24480	ppb	96
46) Bromodichloromethane	14.14	83	129834	9.12476	ppb	93
47) Methyl Cyclohexane	13.84	83	144231	10.64773	ppb	98
48) Dibromomethane	14.20	93	45174	9.10431	ppb	96
49) 2-Chloroethyl vinyl ether	14.60	63	19893	8.04430	ppb	# 75
50) 1-Bromo-2-chloroethane	14.91	63	76001	9.18232	ppb	98
51) Cis-1,3-Dichloropropene	15.03	75	112225	9.63387	ppb	88
52) Toluene	15.66	91	415293	9.45177	ppb	97
53) Trans-1,3-Dichloropropene	15.84	75	84755	9.57395	ppb	92
54) 1,1,2-TCA	16.11	83	40341	9.23805	ppb	96
57) 1,2-EDB	17.35	107	55485	9.12311	ppb	# 81
58) Tetrachloroethene	16.81	164	137909	9.51454	ppb	98
59) 1-Chlorohexane	17.73	91	166225	10.72193	ppb	93
60) 1,1,1,2-Tetrachloroethane	18.19	131	103282	9.61726	ppb	96
61) m,p-Xylene	18.38	106	411158	19.81947	ppb	98
62) o-Xylene	19.13	106	205121	10.37547	ppb	99
63) Styrene	19.16	104	310601	9.94538	ppb	90
65) 2-Hexanone	16.14	43	18579	7.85513	ppb	78
66) 1,3-Dichloropropane	16.51	76	90236	9.05216	ppb	98
67) Dibromochloromethane	17.00	129	79166	9.32324	ppb	89
68) Chlorobenzene	18.13	112	302445	9.74529	ppb	95
69) Ethylbenzene	18.25	91	546628	10.08595	ppb	89
70) Bromoform	19.68	173	37064	8.98718	ppb	93
72) MIBK (methyl isobutyl keto	14.71	43	30749	8.82929	ppb	85
73) Isopropylbenzene	19.76	105	554319	10.20910	ppb	93
74) 1,1,2,2-Tetrachloroethane	19.93	83	45901	9.94042	ppb	89
75) 1,2,3-Trichloropropane	20.18	110	5967	10.02879	ppb	79
76) t-1,4-Dichloro-2-Butene	20.26	53	10493	8.97723	ppb	95
77) Bromobenzene	20.50	156	119307	10.00454	ppb	96
78) n-Propylbenzene	20.47	91	637698	10.31789	ppb	98
79) 4-Ethyltoluene	20.66	105	442515	10.23544	ppb	96
80) 2-Chlorotoluene	20.76	91	414623	10.04288	ppb	99
81) 1,3,5-Trimethylbenzene	20.74	105	456304	10.12270	ppb	100
82) 4-Chlorotoluene	20.85	91	346309	9.54764	ppb	96
83) Tert-Butylbenzene	21.39	119	496340	10.36765	ppb	92
84) 1,2,4-Trimethylbenzene	21.45	105	454065	10.25464	ppb	94
85) Sec-Butylbenzene	21.79	105	594456	10.27533	ppb	99
86) p-Isopropyltoluene	22.02	119	516723	10.15853	ppb	100
87) Benzyl Chloride	22.45	91	82013	9.51574	ppb	98
88) 1,3-DCB	22.15	146	237502	10.13687	ppb	94
89) 1,4-DCB	22.33	146	229121	10.43832	ppb	95
90) Hexachloroethane	23.62	117	88323	9.72566	ppb	93
91) n-Butylbenzene	22.72	91	433510	10.12269	ppb	98
92) 1,2-DCB	22.95	146	191902	9.89210	ppb	95
93) 1,2-Dibromo-3-chloropropan	24.17	155	6044	8.59114	ppb	# 66
94) 1,2,4-Trichlorobenzene	25.62	145	16720	9.29112	ppb	99
95) Hexachlorobutadiene	25.89	223	77536	10.22041	ppb	97
96) Naphthalene	25.99	128	171072	8.28298	ppb	95
97) 1,2,3-Trichlorobenzene	26.37	180	48064	9.49647	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1104C17W.D CALLW.M Thu Dec 08 16:57:20 2011

## Quantitation Report

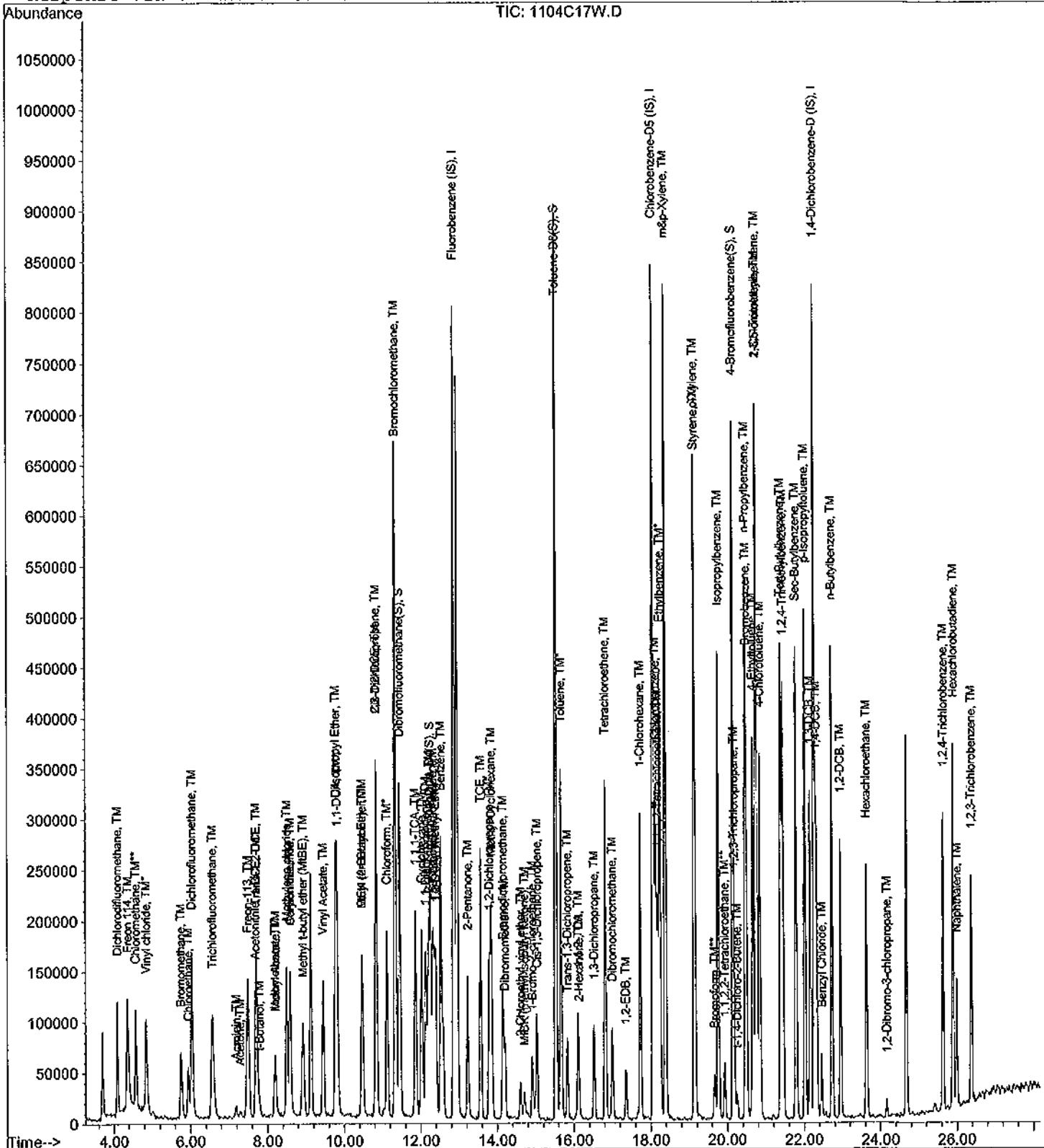
Data File : M:\CHICO\DATA\C111104\1104C17W.D  
Acq On : 4 Nov 11 21:38  
Sample : 111104A LCS-1WC  
Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 15:57 2011

Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Tue Nov 08 15:56:36 2011  
Response via : Initial Calibration



**VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B**

Form 7  
Continuing Calibration

Lab Name: APPL, Inc.

SDG No: 66186

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

Date Analyzed: 5 Nov 11 12:02

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

Instrument: Chico

Initial Cal. Date: 11/04/11

Data File: 1105C02W.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			
2	TM	Dichlorodifluoromethane	0.8369	0.7851	6.2	TM
3	TM	Freon 114	0.6910	0.6254	9.5	TM
4	TM**	Chloromethane	1.083	0.9432	13	TM** ✓
5	TM*	Vinyl chloride	0.8728	0.7242	17	TM*
6	TM	1,3-Butadiene	0.0000	0.0010	0.00	TM
7	TM	Bromomethane	0.5228	0.4681	10	TM
8	TM	Chloroethane	0.1450	0.1743	20	TM
9	TM	Dichlorofluoromethane	1.798	1.742	3.1	TM
10	TM	Trichlorofluoromethane	1.205	1.033	14	TM
11		Acetonitrile	0.0219	0.0297	36	nt
12	TM	Acrolein	0.0106	0.0108	2.0	TM
13	TML	Acetone	0.1914	0.0970	49	TML 17
14	TM	Freon-113	0.6633	0.6448	2.8	TM
15	TM*	1,1-DCE	0.6924	0.6238	9.9	TM* ✓
16	TM	t-Butanol	0.0033	0.0039	18	TM
17	TML	Methyl Acetate	0.2360	0.2042	13	TML 6.1
18	TML	Iodomethane	0.4584	0.4445	3.0	TML 8.0
19	TM	Acrylonitrile	0.0741	0.0792	6.9	TM
20	TML	Methylene chloride	1.728	0.6257	64	TML 6.3
21	TM	Carbon disulfide	0.5716	0.6036	5.6	TM
22	TM	Methyl t-butyl ether (MTBE)	1.125	1.021	9.2	TM
23	TM	Trans-1,2-DCE	0.6924	0.6238	9.9	TM
24	TM	Diisopropyl Ether	2.051	2.325	13	TM
25	TM**	1,1-DCA	1.437	1.441	0.26	TM** ✓
26	TM	Vinyl Acetate	0.1137	0.1472	30	TM nt
27	TM	Ethyl tert Butyl Ether	1.735	1.623	6.5	TM
28	TM	MEK (2-Butanone)	0.3247	0.2920	10	TM
29	TM	Cis-1,2-DCE	0.8939	0.7986	11	TM
30	TM	2,2-Dichloropropane	1.328	1.186	11	TM
31	TM*	Chloroform	1.522	1.354	11	TM* ✓
32	TM	Bromochloromethane	0.2696	0.2307	14	TM
33	S	Dibromofluoromethane(S)	0.8694	0.8279	4.8	S
34	TM	1,1,1-TCA	1.477	1.252	15	TM
35	TM	Cyclohexane	0.9526	1.154	21	TM
36	TM	1,1-Dichloropropene	1.062	1.012	4.7	TM
37	TML	2,2,4-Trimethylpentane	1.729	1.864	7.8	TML 18
38	S	1,2-DCA-D4(S)	0.7609	0.6699	12	S
39	TM	Carbon Tetrachloride	1.128	0.9233	18	TM
40	TM	Tert Amyl Methyl Ether	1.263	1.145	9.3	TM

Average

13.4

**VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B**

Form 7  
Continuing Calibration

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

SDG No: 66186  
 Date Analyzed: 5 Nov 11 12:02  
 Instrument: Chico  
 Cal. Date: 11/04/11  
 Data File: 1105C02W.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	1,2-DCA	0.8662	0.6991	19	TM
42	TM	Benzene	2.702	2.863	5.9	TM
43	TM	TCE	0.8552	0.7844	8.3	TM
44	TM	2-Pentanone	0.1532	0.1741	14	TM
45	TM*	1,2-Dichloropropane	0.6164	0.6905	12	TM* ✓
46	TM	Bromodichloromethane	0.9282	0.8244	11	TM
47	TM	Methyl Cyclohexane	0.8836	0.9955	13	TM
48	TM	Dibromomethane	0.3237	0.2887	11	TM
49	TMQ	2-Chloroethyl vinyl ether	0.1663	0.1509	9.2	TMQ 6.1
50	TM	1-Bromo-2-chloroethane	0.5399	0.5788	7.2	TM
51	TM	Cis-1,3-Dichloropropene	0.7599	0.7813	2.8	TM
52	TM*	Toluene	2.866	2.831	1.2	TM* ✓
53	TM	Trans-1,3-Dichloropropene	0.5775	0.5443	5.7	TM
54	TM	1,1,2-TCA	0.2849	0.2931	2.9	TM
55	I	Chlorobenzene-D5 (IS)	ISTD			I
56	S	Toluene-D8(S)	3.683	3.519	4.5	S
57	TM	1,2-EDB	0.5317	0.4671	12	TM
58	TM	Tetrachloroethene	1.267	1.135	10	TM
59	TM	1-Chlorohexane	1.355	1.455	7.4	TM
60	TM	1,1,1,2-Tetrachloroethane	0.9389	0.8573	8.7	TM
61	TM	m&p-Xylene	1.814	1.772	2.3	TM
62	TM	o-Xylene	1.728	1.765	2.1	TM
63	TM	Styrene	2.730	2.670	2.2	TM
64	S	4-Bromofluorobenzene(S)	1.299	1.319	1.5	S
65	TM	2-Hexanone	0.2068	0.2246	8.6	TM
66	TM	1,3-Dichloropropane	0.8715	0.9196	5.5	TM
67	TM	Dibromochloromethane	0.7424	0.6310	15	TM
68	TM**	Chlorobenzene	2.713	2.573	5.2	TM** ✓
69	TM*	Ethylbenzene	4.738	4.712	0.56	TM* ✓
70	TM**Q	Bromoform	0.2955	0.2923	1.1	TM**Q 19
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
72	TML	MBK (methyl isobutyl ketone)	0.6373	0.6498	2.0	TML 12
73	TM	Isopropylbenzene	9.335	8.879	4.9	TM
74	TM**	1,1,2,2-Tetrachloroethane	0.7939	0.8756	10	TM** ✓
75	TMQ	1,2,3-Trichloropropene	0.1353	0.0906	33	TMQ 13
76	TML	t-1,4-Dichloro-2-Butene	0.2032	0.1862	8.4	TML 7.2
77	TM	Bromobenzene	2.050	1.944	5.2	TM
78	TM	n-Propylbenzene	10.6	10.8	1.6	TM
79	TM	4-Ethyltoluene	7.433	7.612	2.4	TM
80	TM	2-Chlorotoluene	7.098	7.077	0.30	TM
Average					7.3	

**VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B**

Form 7  
Continuing Calibration

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

SDG No: 66186  
 Date Analyzed: 5 Nov 11 12:02  
 Instrument: Chico  
 Cal. Date: 11/04/11  
 Data File: 1105C02W.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	1,3,5-Trimethylbenzene	7.750	7.247	6.5	TM	
82	TM	4-Chlorotoluene	6.236	6.078	2.5	TM	
83	TM	Tert-Butylbenzene	8.231	8.192	0.47	TM	
84	TM	1,2,4-Trimethylbenzene	7.613	7.471	1.9	TM	
85	TM	Sec-Butylbenzene	9.947	10.1	1.9	TM	
86	TM	p-Isopropyltoluene	8.745	8.532	2.4	TM	
87	TM	Benzyl Chloride	1.482	1.565	5.6	TM	
88	TM	1,3-DCB	4.028	4.213	4.6	TM	
89	TM	1,4-DCB	3.774	4.014	6.4	TM	
90	TMQ	Hexachloroethane	1.320	1.402	6.2	TMQ	9.8
91	TM	n-Butylbenzene	7.363	7.398	0.47	TM	
92	TM	1,2-DCB	3.335	3.392	1.7	TM	
93	TM	1,2-Dibromo-3-chloropropane	0.1210	0.1330	10.0	TM	
94	TML	1,2,4-Trichlorobenzene	0.3487	0.2630	25	TML	16
95	TMQ	Hexachlorobutadiene	1.549	1.156	25	TMQ	12
96	TM	Naphthalene	3.551	3.109	12	TM	
97	TMQ	1,2,3-Trichlorobenzene	0.9393	0.6883	27	TMQ	22 nt
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							

Average

8.2

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C02W.D Vial: 1  
 Acq On : 5 Nov 11 12:02 Operator: STC  
 Sample : VOC STD 11-5-11@10ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 15:57 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.84	96	595584	25.00000	ppb	-0.03
55) Chlorobenzene-D5 (IS)	18.05	117	402432	25.00000	ppb	-0.02
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	212800	25.00000	ppb	-0.03
<b>System Monitoring Compounds</b>						
33) Dibromofluoromethane(S)	11.43	111	416096	20.08951	ppb	-0.03
Spiked Amount 21.097			Recovery	= 95.226%		
38) 1,2-DCA-D4 (S)	12.23	65	338741	18.68798	ppb	-0.03
Spiked Amount 21.225			Recovery	= 88.046%		
56) Toluene-D8 (S)	15.51	98	1461966	24.65841	ppb	-0.03
Spiked Amount 25.808			Recovery	= 95.543%		
64) 4-Bromofluorobenzene(S)	20.12	95	540544	25.84605	ppb	-0.03
Spiked Amount 25.459			Recovery	= 101.518%		
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	4.08	85	187041	9.38163	ppb	100
3) Freon 114	4.33	85	148987	9.04997	ppb	85
4) Chloromethane	4.55	50	224711	8.71168	ppb	# 85
5) Vinyl chloride	4.81	62	172524	8.29869	ppb	97
7) Bromomethane	5.73	94	111513	8.95273	ppb	99
8) Chloroethane	5.92	64	41520	12.01794	ppb	# 90
9) Dichlorofluoromethane	6.01	67	415073	9.69235	ppb	99
10) Trichlorofluoromethane	6.53	101	246137	8.57453	ppb	89
11) Acetonitrile	7.66	41	88515	169.83338	ug/l	100
12) Acrolein	7.15	56	32139	127.44542	ppb	93
13) Acetone	7.28	43	23106	11.70007	ppb	# 87
14) Freon-113	7.46	101	153621	9.72183	ppb	91
15) 1,1-DCE	7.69	96	148600	9.00884	ppb	85
16) t-Butanol	7.76	59	11630	147.07217	ppb	98
17) Methyl Acetate	8.19	43	48642	10.60824	ppb	97
18) Iodomethane	8.16	142	105892	9.20009	ppb	90
19) Acrylonitrile	8.56	53	18858	10.68669	ppb	99
20) Methylene chloride	8.48	84	149070	9.37007	ppb	98
21) Carbon disulfide	8.57	76	143808	10.56129	ppb	99
22) Methyl t-butyl ether (MtBE	8.90	73	243242	9.07613	ppb	91
23) Trans-1,2-DCE	7.69	96	148600	9.00884	ppb	83
24) Diisopropyl Ether	9.76	45	553895	11.33535	ppb	92
25) 1,1-DCA	9.79	63	343267	10.02578	ppb	# 91
26) Vinyl Acetate	9.43	43	35066	12.95114	ppb	# 77
27) Ethyl tert Butyl Ether	10.45	59	386566	9.35191	ppb	97
28) MEK (2-Butanone)	10.45	43	69554	8.99153	ppb	# 92
29) Cis-1,2-DCE	10.82	96	190260	8.93379	ppb	95
30) 2,2-Dichloropropane	10.81	77	282489	8.93099	ppb	99
31) Chloroform	11.09	83	322565	8.89684	ppb	97
32) Bromochloromethane	11.32	128	54954	8.55473	ppb	88
34) 1,1,1-TCA	11.84	97	298251	8.47523	ppb	95
35) Cyclohexane	12.00	56	274837	12.11110	ppb	83
36) 1,1-Dichloropropene	12.11	75	240980	9.52778	ppb	94
37) 2,2,4-Trimethylpentane	12.18	57	443989	11.81828	ppb	99
39) Carbon Tetrachloride	12.30	117	219963	8.18253	ppb	97
40) Tert Amyl Methyl Ether	12.35	73	272887	9.07241	ppb	98
41) 1,2-DCA	12.38	62	166546	8.07072	ppb	99
42) Benzene	12.50	78	681947	10.59475	ppb	98
43) TCE	13.54	95	186872	9.17224	ppb	88

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

1105C02W.D CALLW.M Thu Dec 08 16:57:25 2011

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C02W.D Vial: 1  
 Acq On : 5 Nov 11 12:02 Operator: STC  
 Sample : VOC STD 11-5-11@10ug/L Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 15:57 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)

Title : METHOD 8260

Last Update : Tue Nov 08 15:56:36 2011

Response via : Initial Calibration

DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2-Pentanone	13.20	43	518357	141.99339	ppb	99
45) 1,2-Dichloropropane	13.77	63	164490	11.20193	ppb	# 93
46) Bromodichloromethane	14.12	83	196399	8.88160	ppb	96
47) Methyl Cyclohexane	13.82	83	237152	11.26533	ppb	95
48) Dibromomethane	14.18	93	68773	8.91857	ppb	96
49) 2-Chloroethyl vinyl ether	14.57	63	35959	9.38611	ppb	# 87
50) 1-Bromo-2-chloroethane	14.89	63	137887	10.71951	ppb	89
51) Cis-1,3-Dichloropropene	15.01	75	186126	10.28104	ppb	89
52) Toluene	15.64	91	674495	9.87770	ppb	99
53) Trans-1,3-Dichloropropene	15.81	75	129670	9.42506	ppb	95
54) 1,1,2-TCA	16.08	83	69828	10.28921	ppb	88
57) 1,2-EDB	17.33	107	75185	8.78414	ppb	89
58) Tetrachloroethene	16.80	164	182629	8.95294	ppb	92
59) 1-Chlorohexane	17.72	91	234240	10.73590	ppb	95
60) 1,1,1,2-Tetrachloroethane	18.16	131	138000	9.13075	ppb	95
61) m,p-Xylene	18.37	106	570391	19.53694	ppb	96
62) o-Xylene	19.11	106	284102	10.21110	ppb	94
63) Styrene	19.13	104	429791	9.77859	ppb	98
65) 2-Hexanone	16.11	43	36154	10.86145	ppb	81
66) 1,3-Dichloropropane	16.50	76	148029	10.55164	ppb	99
67) Dibromochloromethane	16.98	129	101571	8.49960	ppb	86
68) Chlorobenzene	18.11	112	414257	9.48459	ppb	97
69) Ethylbenzene	18.22	91	758442	9.94370	ppb	89
70) Bromoform	19.64	173	47045	8.14812	ppb	99
72) MIBK (methyl isobutyl keto	14.68	43	55310	11.24986	ppb	85
73) Isopropylbenzene	19.74	105	755753	9.51095	ppb	96
74) 1,1,2,2-Tetrachloroethane	19.90	83	74527	11.02841	ppb	77
75) 1,2,3-Trichloropropane	20.17	110	7715	8.69010	ppb	# 67
76) t-1,4-Dichloro-2-Butene	20.24	53	15851	9.27804	ppb	95
77) Bromobenzene	20.48	156	165490	9.48243	ppb	86
78) n-Propylbenzene	20.45	91	919293	10.16357	ppb	97
79) 4-Ethyltoluene	20.65	105	647894	10.23998	ppb	95
80) 2-Chlorotoluene	20.75	91	602388	9.97006	ppb	96
81) 1,3,5-Trimethylbenzene	20.73	105	616868	9.35085	ppb	97
82) 4-Chlorotoluene	20.82	91	517389	9.74689	ppb	100
83) Tert-Butylbenzene	21.36	119	697318	9.95287	ppb	96
84) 1,2,4-Trimethylbenzene	21.42	105	635940	9.81376	ppb	91
85) Sec-Butylbenzene	21.76	105	862804	10.19072	ppb	97
86) p-Isopropyltoluene	22.00	119	726226	9.75577	ppb	96
87) Benzyl Chloride	22.44	91	133182	10.55898	ppb	95
88) 1,3-DCB	22.14	146	358645	10.45967	ppb	97
89) 1,4-DCB	22.30	146	341697	10.63711	ppb	89
90) Hexachloroethane	23.61	117	119303	9.02207	ppb	92
91) n-Butylbenzene	22.71	91	629702	10.04728	ppb	94
92) 1,2-DCB	22.93	146	288763	10.17108	ppb	92
93) 1,2-Dibromo-3-chloropropan	24.15	155	11323	10.99776	ppb	82
94) 1,2,4-Trichlorobenzene	25.61	145	22384	8.35546	ppb	94
95) Hexachlorobutadiene	25.87	223	98370	8.78100	ppb	96
96) Naphthalene	25.97	128	264651	8.75584	ppb	99
97) 1,2,3-Trichlorobenzene	26.36	180	58584	7.81347	ppb	95

Quantitation Report

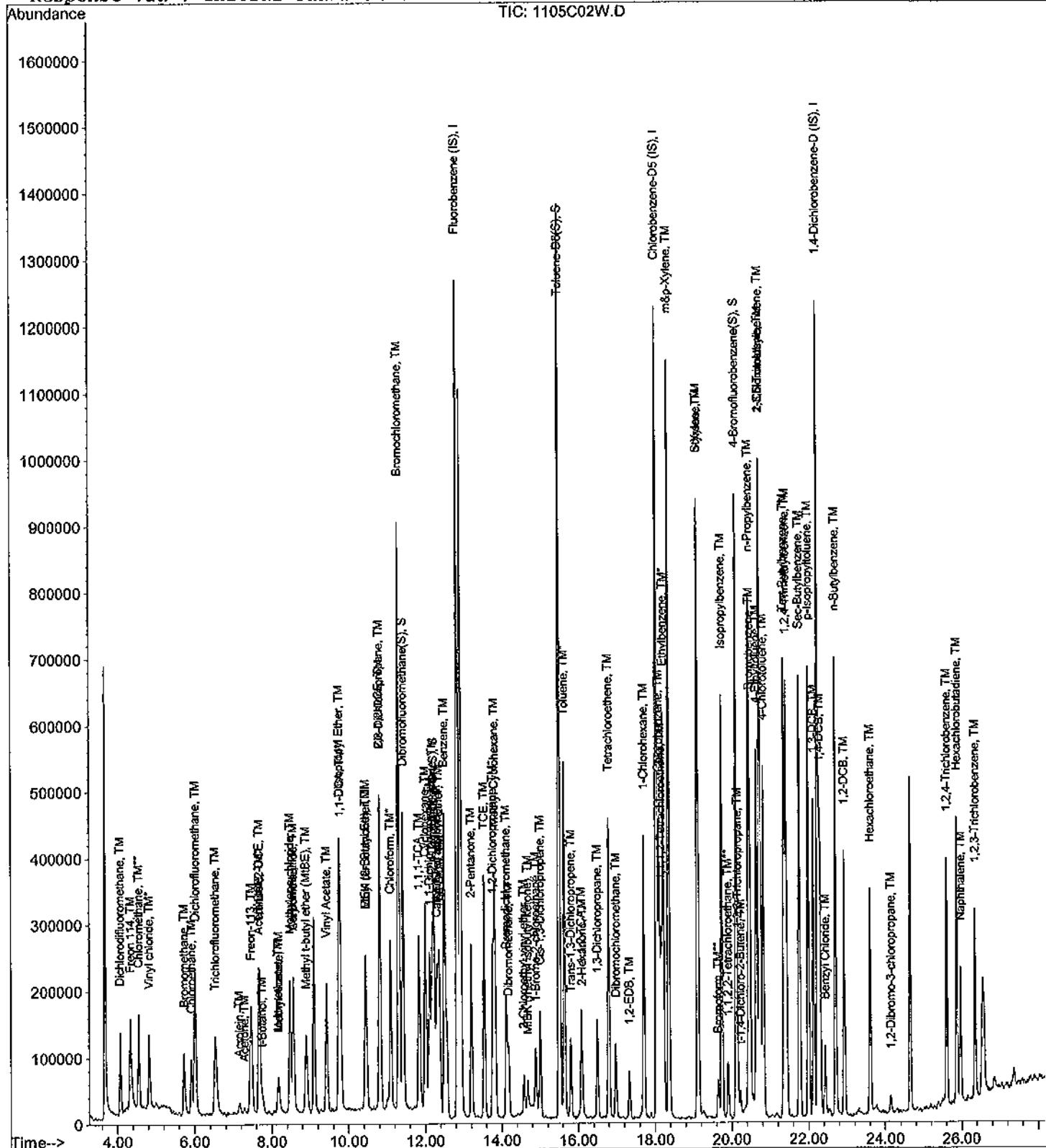
Data File : M:\CHICO\DATA\C111104\1105C02W.D  
 Acq On : 5 Nov 11 12:02  
 Sample : VOC STD 11-5-11@10ug/L  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 15:57 2011

Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

**Form 6**  
**Initial Calibration**

Lab Name: APPL, Inc.

SDG No: 66186

**Case No:**

Initial Cal. Date: 10/30/11

**Matrix:**

**Instrument:** Chico

**Initials:**

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C04W.D Vial: 1  
Acq On : 30 Oct 11 15:33 Operator: STC  
Sample : VOC MIX MARKER Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Oct 31 8:20 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 31 09:19:23 2011  
Response via : Initial Calibration  
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.85	TIC	1053416	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1584235	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1040375	25.00000	ppb	0.01

## System Monitoring Compounds

Target Compounds			Qvalue
2) Gasoline	14.31	TIC 19553836m	92.16198 ppb 0

## Quantitation Report

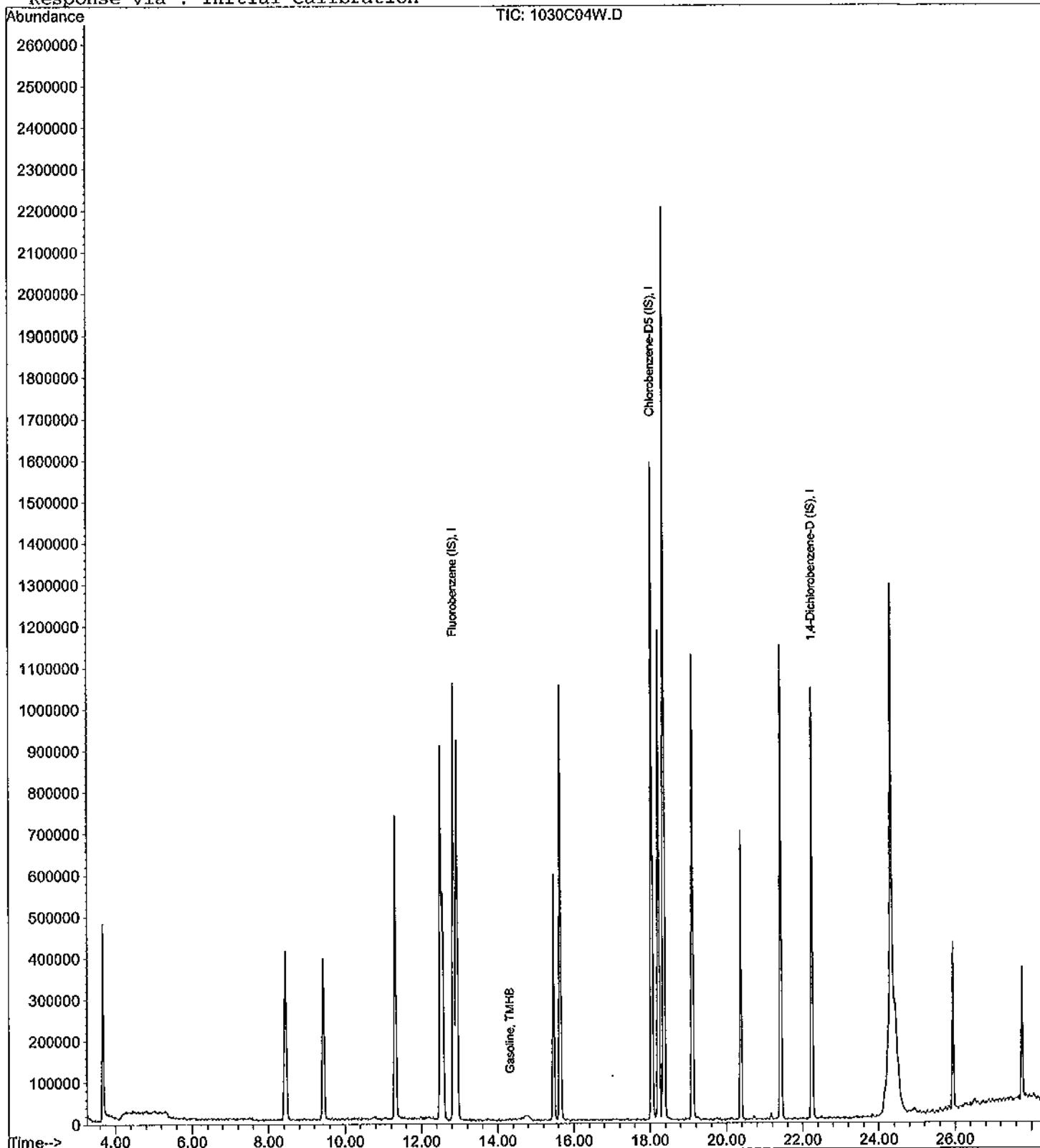
Data File : M:\CHICO\DATA\C111030\1030C04W.D  
Acq On : 30 Oct 11 15:33  
Sample : VOC MIX MARKER  
Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Oct 31 8:20 2011

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C05W.D Vial: 1  
Acq On : 30 Oct 11 16:17 Operator: STC  
Sample : Vol Std 10-30-11@20ug/L Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:29 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 31 09:32:18 2011  
Response via : Initial Calibration  
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.86	TIC	1064868	25.00000	ppb	0.02
3) Chlorobenzene-D5 (IS)	18.05	TIC	1075283	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.26	TIC	1031464	25.00000	ppb	0.02

## System Monitoring Compounds

Target Compounds				Qvalue
2) Gasoline	18.05	TIC	15186538m	62.79631 ppb 100

## Quantitation Report

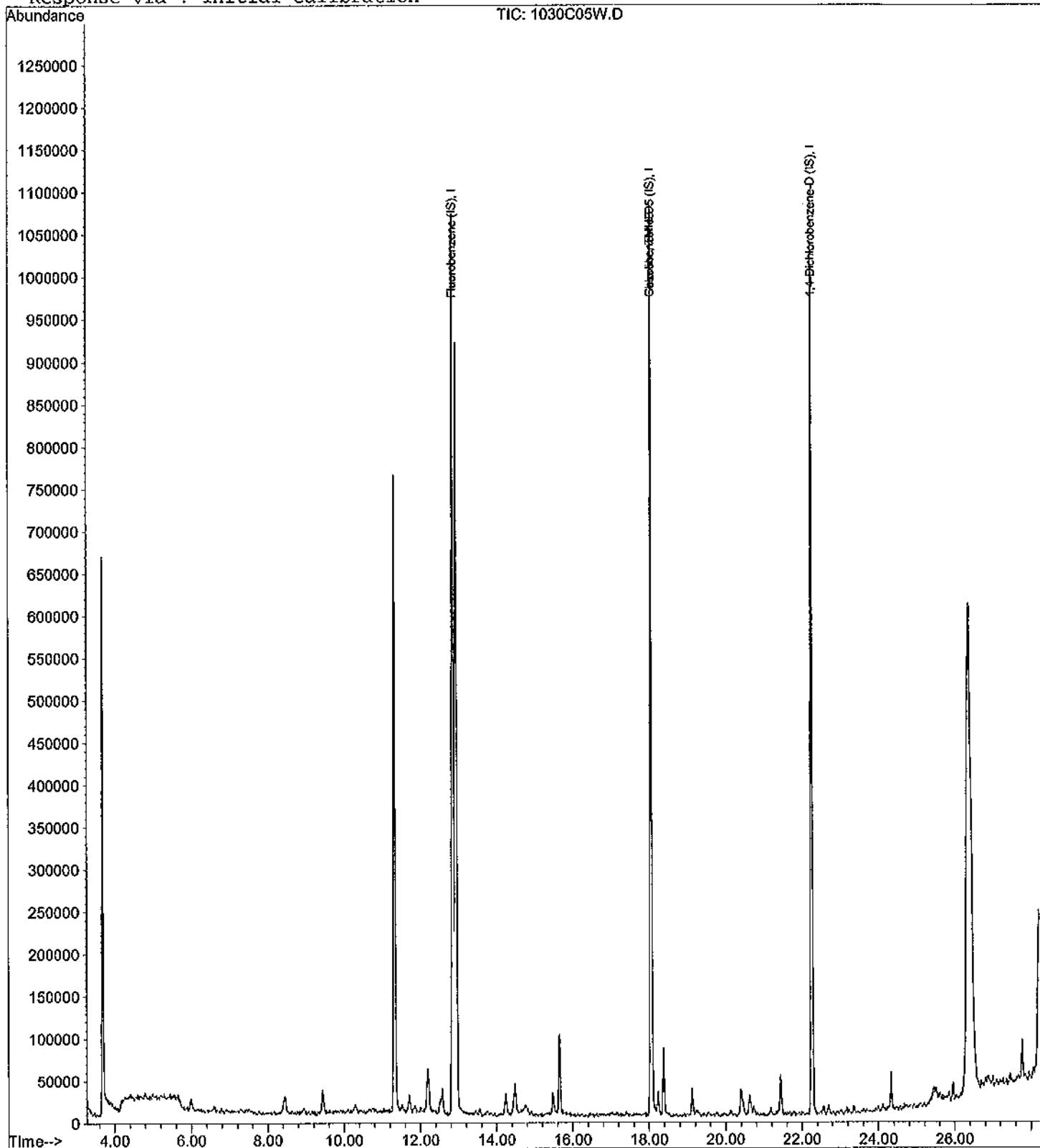
Data File : M:\CHICO\DATA\C111030\1030C05W.D  
Acq On : 30 Oct 11 16:17  
Sample : Vol Std 10-30-11@20ug/L  
Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 3 9:29 2011

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C06W.D Vial: 1  
Acq On : 30 Oct 11 17:00 Operator: STC  
Sample : Vol Std 10-30-11@50ug/L Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:30 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 31 09:32:18 2011  
Response via : Initial Calibration  
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1074535	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1105653	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1049854	25.00000	ppb	0.00

## System Monitoring Compounds

Target Compounds			Qvalue
2) Gasoline	18.04	TIC 17501250m	71.71659 ppb 100

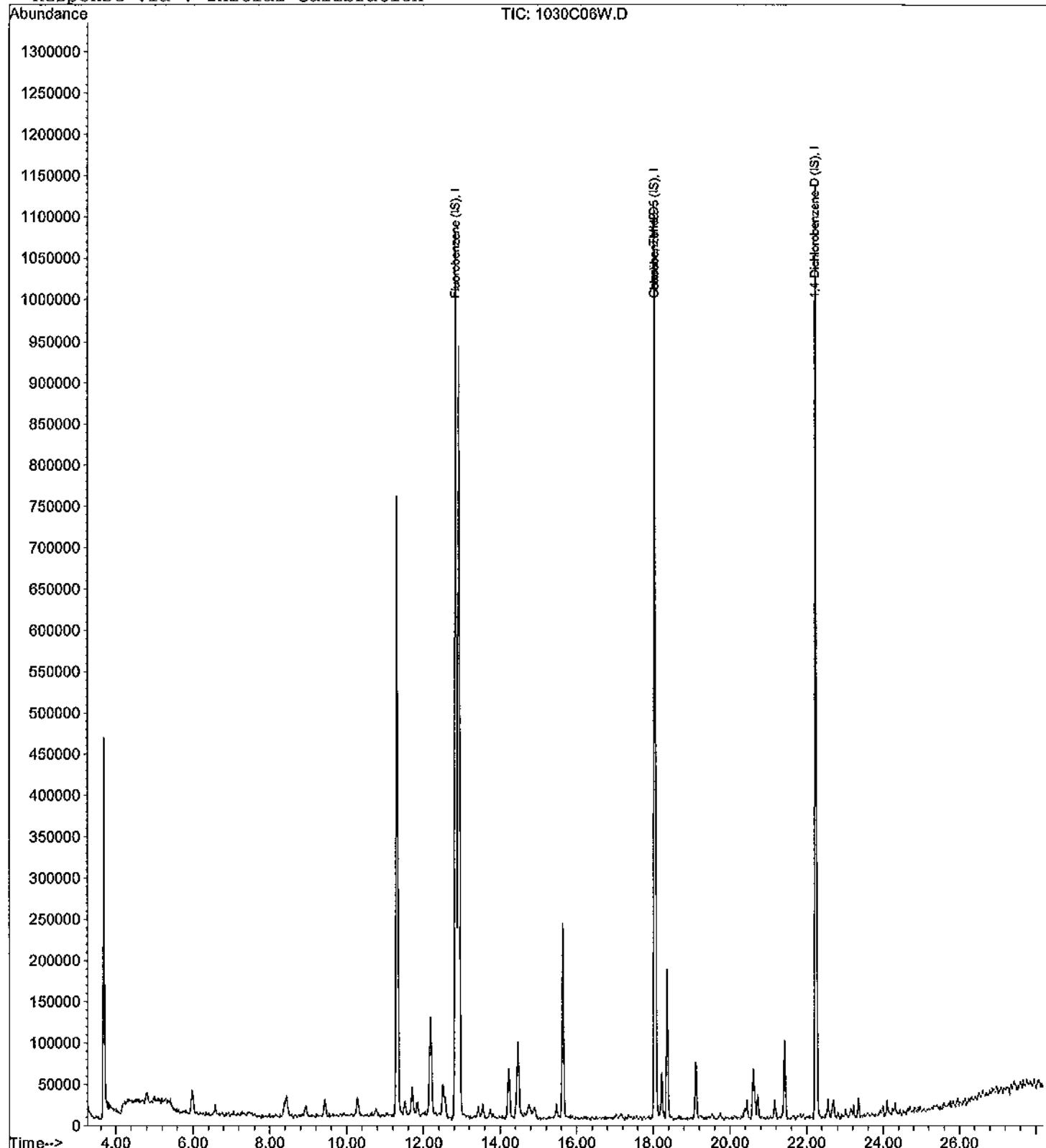
## Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C06W.D Vial: 1  
Acq On : 30 Oct 11 17:00 Operator: STC  
Sample : Vol Std 10-30-11@50ug/L Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:30 2011

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C07W.D Vial: 1  
Acq On : 30 Oct 11 17:43 Operator: STC  
Sample : Vol Std 10-30-11@100ug/L Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:38 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 31 09:32:18 2011  
Response via : Initial Calibration  
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.85	TIC	1049972	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1057194	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1054110	25.00000	ppb	0.00

## System Monitoring Compounds

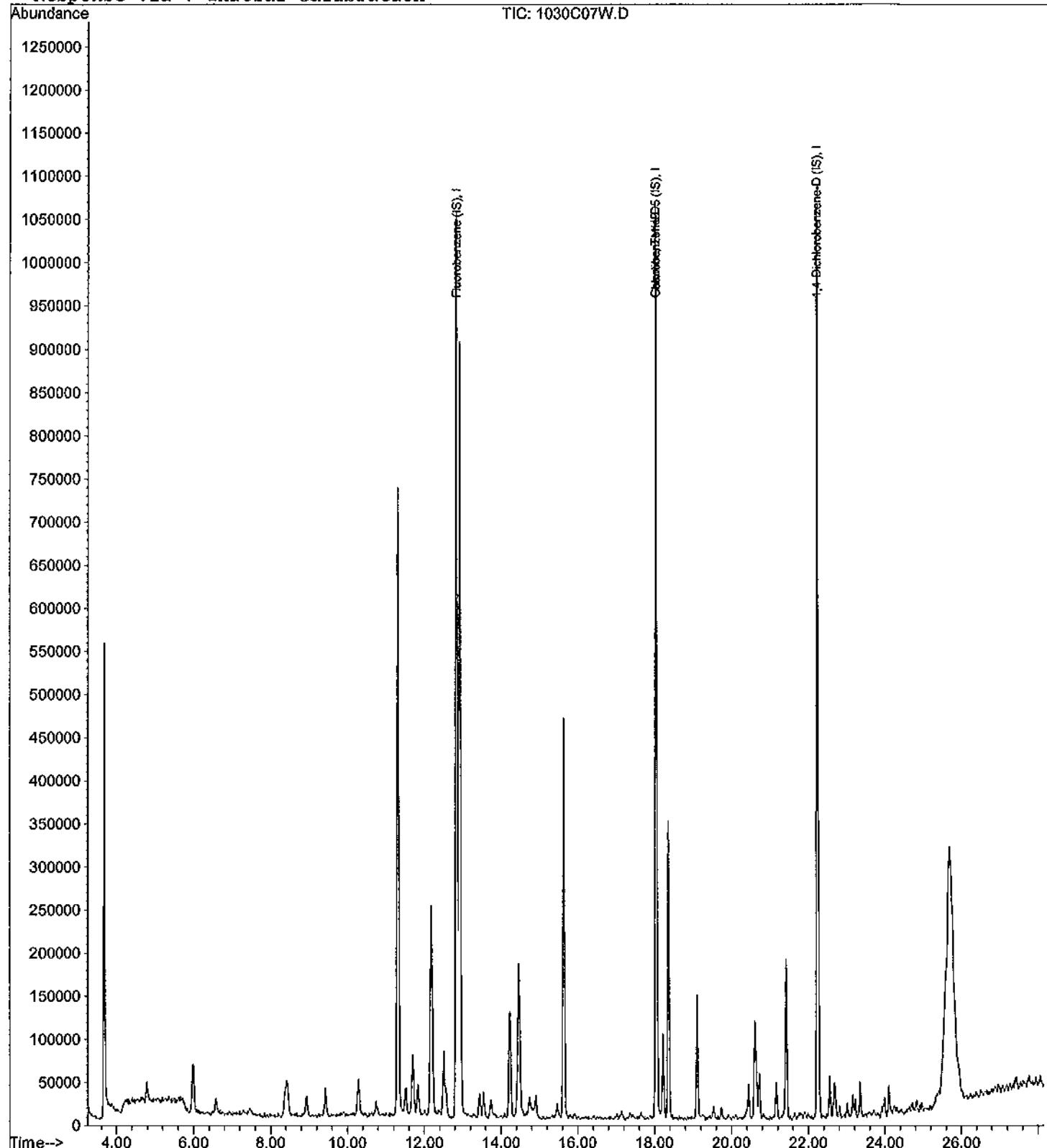
Target Compounds	QValue
2) Gasoline	100

## Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C07W.D Vial: 1  
Acq On : 30 Oct 11 17:43 Operator: STC  
Sample : Vol Std 10-30-11@100ug/L Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:38 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C08W.D Vial: 1  
Acq On : 30 Oct 11 18:26 Operator: STC  
Sample : Vol Std 10-30-11@300ug/L Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:40 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 31 09:32:18 2011  
Response via : Initial Calibration  
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.84	TIC	1085666	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1080398	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1118273	25.00000	ppb	0.00

## System Monitoring Compounds

Target Compounds				Qvalue
2) Gasoline	15.64	TIC	39740510m	161.17894 ppb
				100

## Quantitation Report

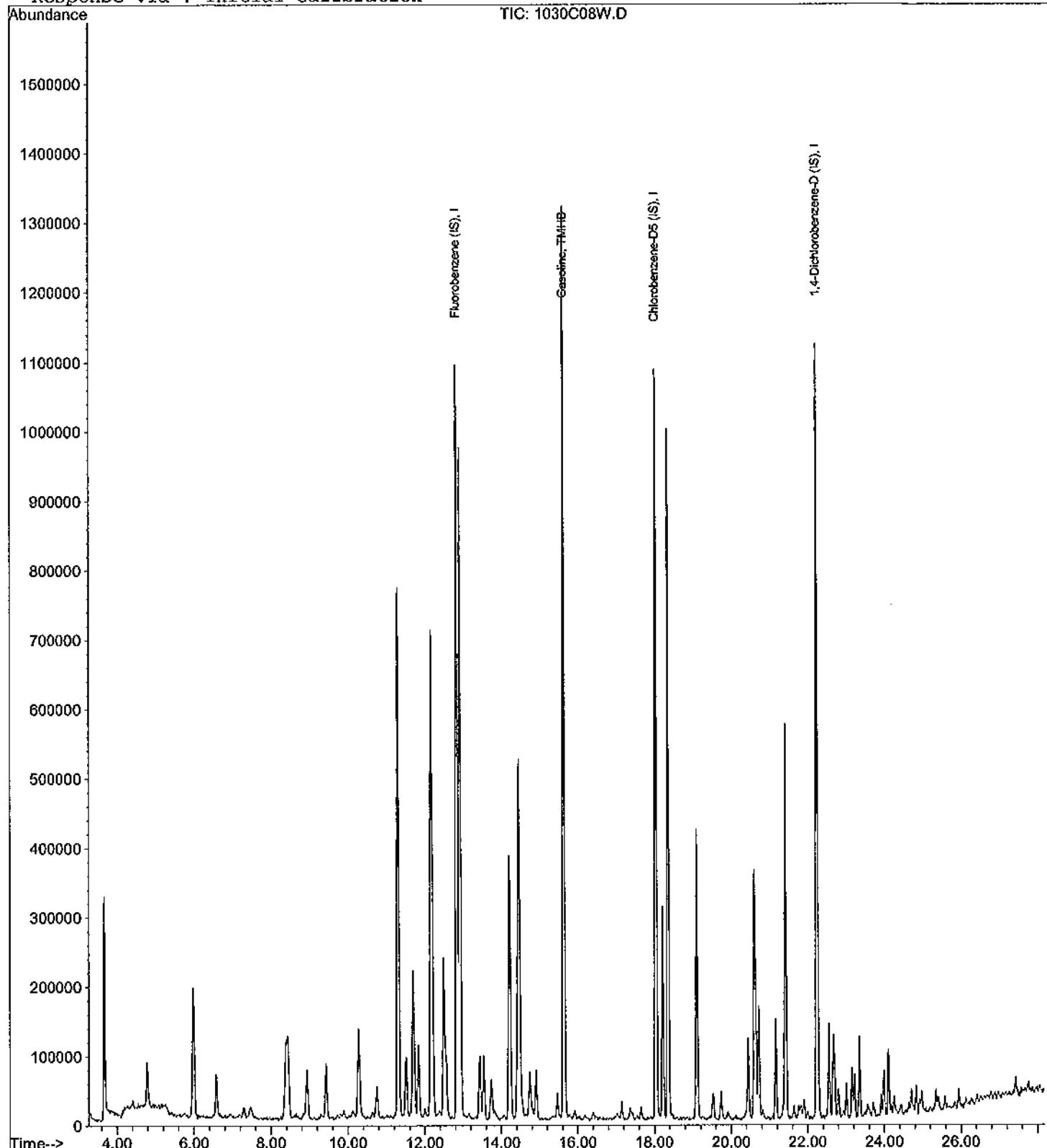
Data File : M:\CHICO\DATA\C111030\1030C08W.D  
Acq On : 30 Oct 11 18:26  
Sample : Vol Std 10-30-11@300ug/L  
Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 3 9:40 2011

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C09W.D Vial: 1  
Acq On : 30 Oct 11 19:09 Operator: STC  
Sample : Vol Std 10-30-11@600ug/L Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:41 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 31 09:32:18 2011  
Response via : Initial Calibration  
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.84	TIC	1104080	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1114811	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1175050	25.00000	ppb	0.00

## System Monitoring Compounds

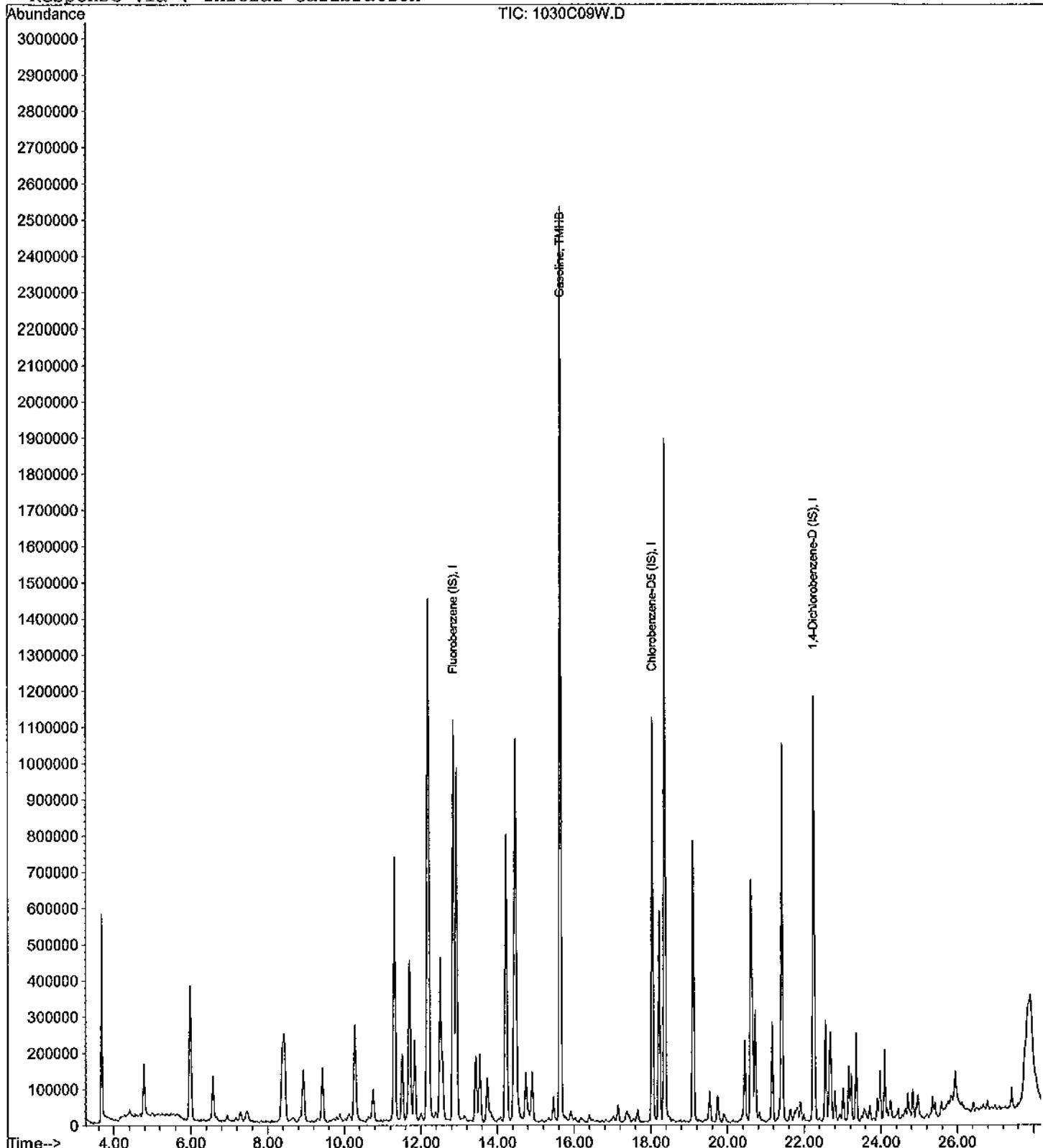
Target Compounds Qvalue  
2) Gasoline 15.64 TIC 65808275m 262.45271 ppb 100

## Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C09W.D Vial: 1  
Acq On : 30 Oct 11 19:09 Operator: STC  
Sample : Vol Std 10-30-11@600ug/L Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:41 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C10W.D Vial: 1  
Acq On : 30 Oct 11 19:52 Operator: STC  
Sample : Vol Std 10-30-11@800ug/L Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:42 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 31 09:32:18 2011  
Response via : Initial Calibration  
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.84	TIC	1129347	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.03	TIC	1159453	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1268278	25.00000	ppb	0.00

## System Monitoring Compounds

Target Compounds	Qvalue
2) Gasoline	100

## Quantitation Report

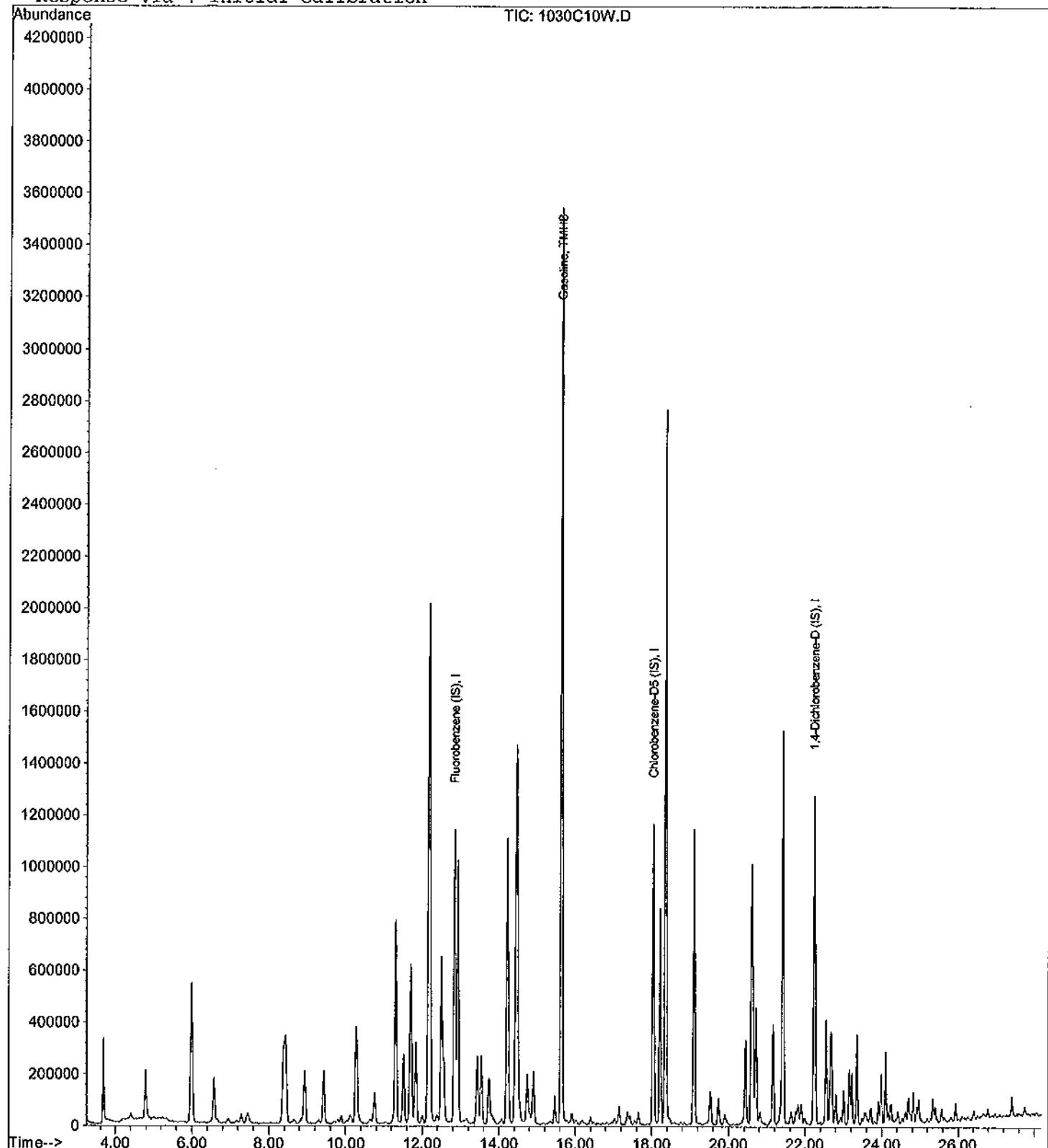
Data File : M:\CHICO\DATA\C111030\1030C10W.D  
Acq On : 30 Oct 11 19:52  
Sample : Vol Std 10-30-11@800ug/L  
Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 3 9:42 2011

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C11W.D Vial: 1  
Acq On : 30 Oct 11 20:35 Operator: STC  
Sample : Vol Std 10-30-11@1000ug/L Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:43 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 31 09:32:18 2011  
Response via : Initial Calibration  
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.84	TIC	1162372	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.03	TIC	1207961	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1354742	25.00000	ppb	0.00

## System Monitoring Compounds

Target Compounds				Qvalue	
2) Gasoline	15.63	TIC	105748641m	400.59060	ppb 100

## Quantitation Report

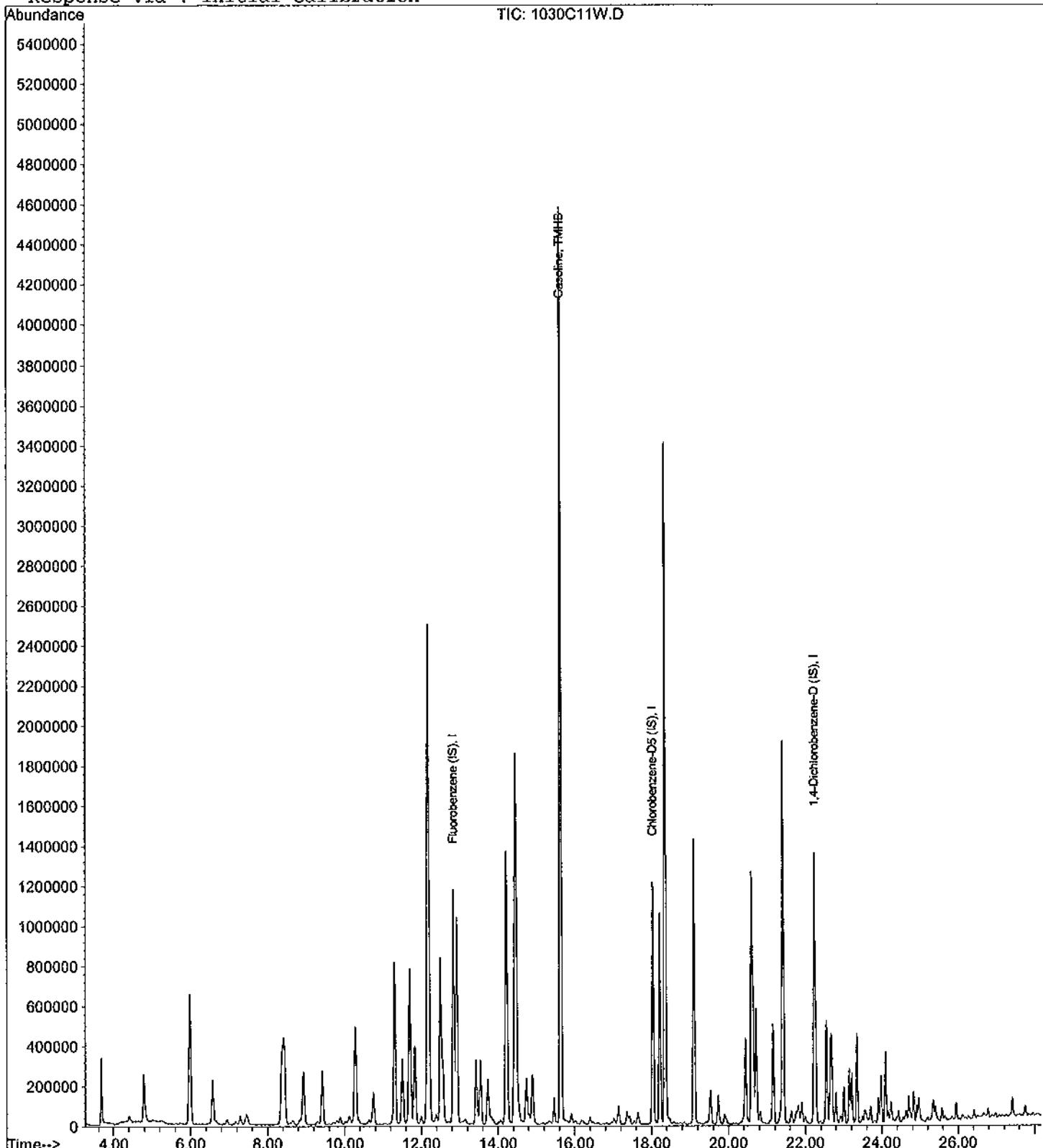
Data File : M:\CHICO\DATA\C111030\1030C11W.D  
Acq On : 30 Oct 11 20:35  
Sample : Vol Std 10-30-11@1000ug/L  
Misc : Water 10mLw/ IS:10-30-11

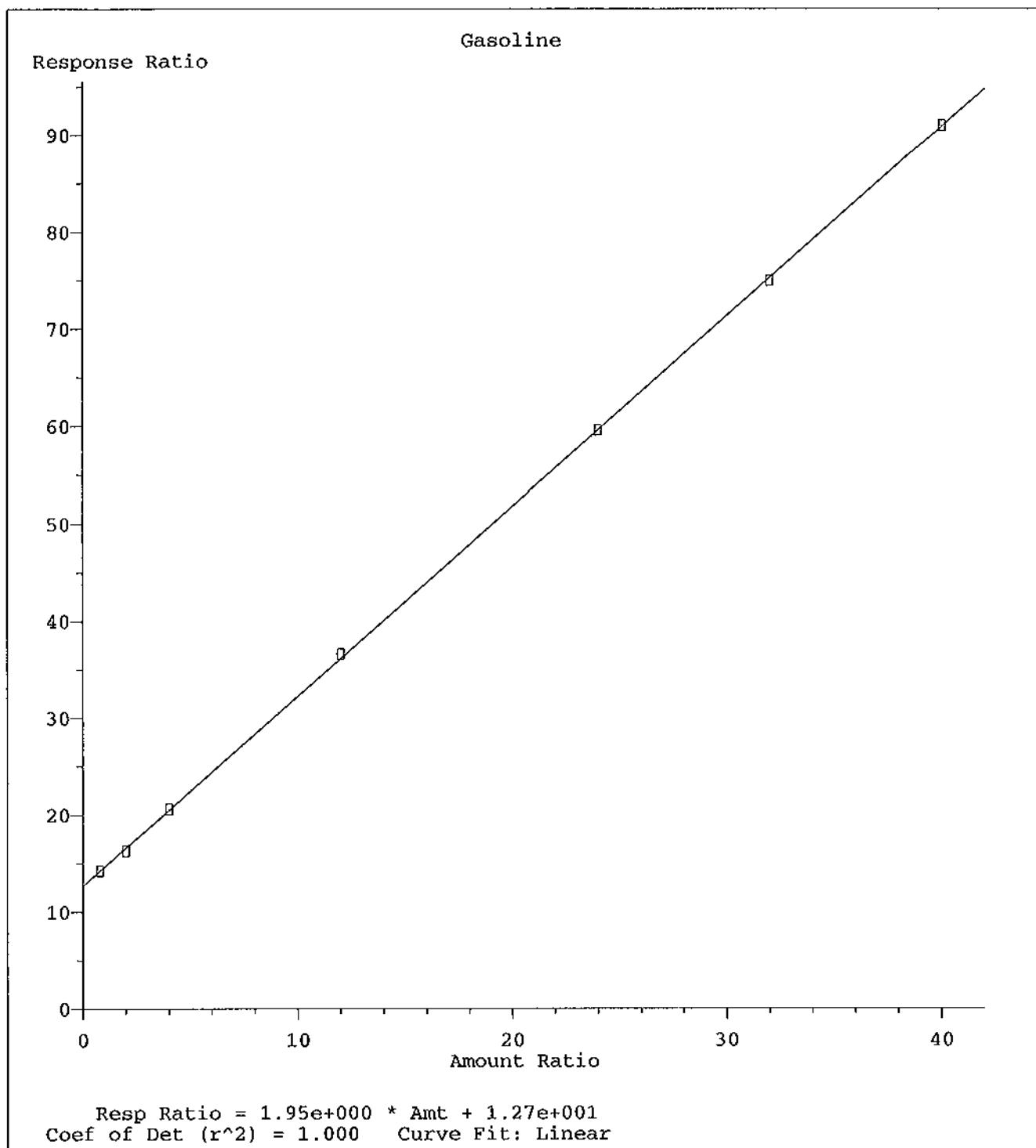
Vial: 1  
Operator: STC  
Inst : Chico  
Multiplr: 1.00

Quant Time: Nov 3 9:43 2011

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration





Method Name: M:\CHICO\DATA\C111030\CGAS.M  
Calibration Table Last Updated: Thu Nov 03 10:47:02 2011

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: 66186

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

Date Analyzed: 10/31/11

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

Instrument: Chico

Initial Cal. Date: 10/30/11

Data File: 1030C29W.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TMHB	Gasoline	5.897	3.226	45	TMHBL 11
3	I	Chlorobenzene-D5 (IS)	ISTD			I
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
5						
6						
7						
8						
9						
10						
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31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
Average					45.0	

## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C29W.D Vial: 1  
Acq On : 31 Oct 11 9:31 Operator: STC  
Sample : GAS 300ug/L (SS) Inst : Chico  
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 9:51 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration  
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.84	TIC	1211423	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.03	TIC	1191079	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1217266	25.00000	ppb	0.00

## System Monitoring Compounds

Target Compounds				Qvalue
2) Gasoline	15.63	TIC	46900368m	332.66187 ppb 100

## Quantitation Report

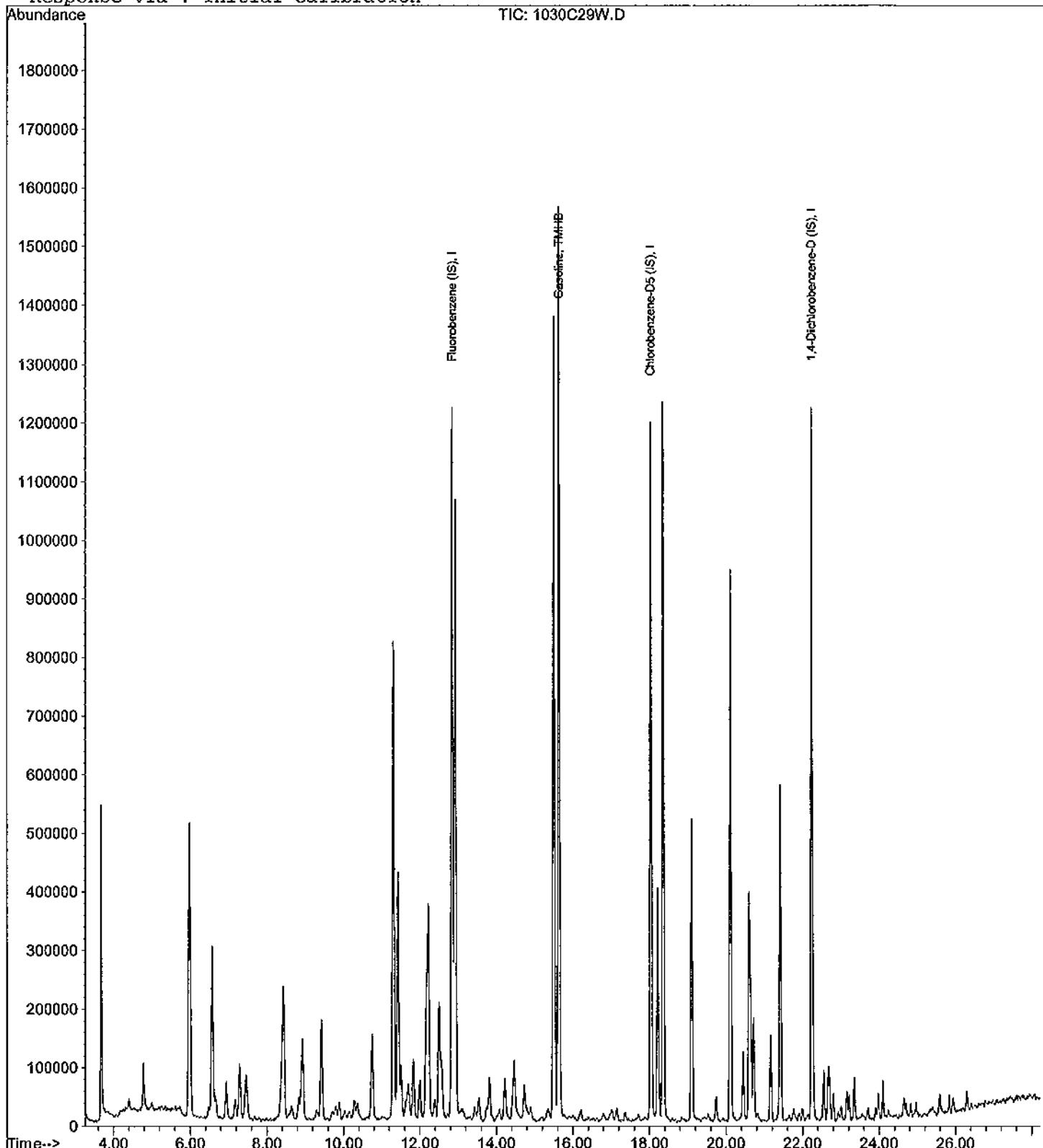
Data File : M:\CHICO\DATA\C111030\1030C29W.D  
Acq On : 31 Oct 11 9:31  
Sample : GAS 300ug/L (SS)  
Misc : Water 10mLw/ IS&S:10-30/10-26-11

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

Quant Time: Nov 3 9:51 2011

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7  
Continuing Calibration

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

SDG No: 66186  
Date Analyzed: 5 Nov 11 14:11  
Instrument: Chico  
Initial Cal. Date: 11/04/11  
Data File: 1105C05W.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			
2	TMHB	Gasoline	5.897	3.063	48	TMHBL 2.5
3	I	Chlorobenzene-D5 (IS)	ISTD			
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
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29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
Average					48.0	

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C05W.D Vial: 1  
Acq On : 5 Nov 11 14:11 Operator: STC  
Sample : Gas CCV 11-05-11@300ug/L Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 5 14:41 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration  
DataAcq Meth : PC8260~1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.85	TIC	1284529	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1273277	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1316872	25.00000	ppb	0.00

## System Monitoring Compounds

Target Compounds				Qvalue
2) Gasoline	15.64	TIC	47212524m	307.58180 ppb
				100

## Quantitation Report

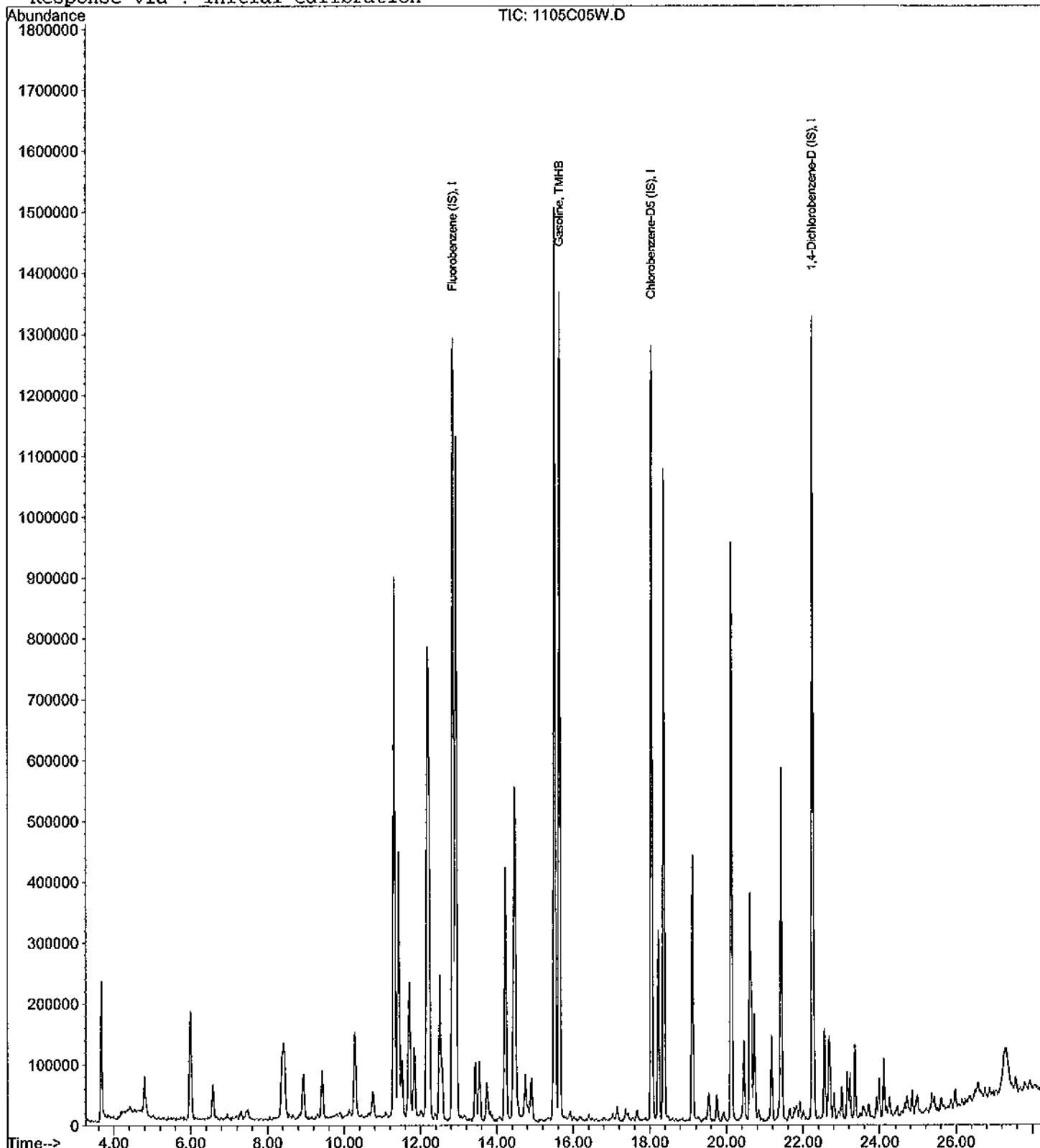
Data File : M:\CHICO\DATA\C11104\1105C05W.D  
Acq On : 5 Nov 11 14:11  
Sample : Gas CCV 11-05-11@300ug/L  
Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 5 14:41 2011

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration



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

**APPL, INC.**

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

Blank Name/QCG: 111105W-50004 - 160965  
 Batch ID: #86RHB-111105AC

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	11/05/11	11/05/11
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	11/05/11	11/05/11
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	11/05/11	11/05/11
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	11/05/11	11/05/11
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	11/05/11	11/05/11
BLANK	1,3-DICHLOROPROPENE, TOTA	0.36 U	1.0	0.36	0.18	ug/L	11/05/11	11/05/11
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	11/05/11	11/05/11
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	11/05/11	11/05/11
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	11/05/11	11/05/11
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	11/05/11	11/05/11
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	11/05/11	11/05/11
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	11/05/11	11/05/11
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	11/05/11	11/05/11
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	11/05/11	11/05/11

Quant Method: CALLW.M  
 Run #: 1105C09  
 Instrument: Chico  
 Sequence: C111104  
 Initials: DG

GC SC-Blank-REG MDLs  
 Printed: 12/08/11 4:17:47 PM

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

APPL Inc.

Blank Name/QCG: 111105W-50004 - 160965

908 North Temperance Avenue  
Clovis, CA 93611

Batch ID: #86RHB-111105AC

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	11/05/11	11/05/11
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	11/05/11	11/05/11
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	11/05/11	11/05/11
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	SURROGATE: 1,2-DICHLOROET	87.0	70-120			%	11/05/11	11/05/11
BLANK	SURROGATE: 4-BROMOFLUOR	96.5	75-120			%	11/05/11	11/05/11
BLANK	SURROGATE: DIBROMOFLUOR	90.3	85-115			%	11/05/11	11/05/11
BLANK	SURROGATE: TOLUENE-D8 (S)	93.8	85-120			%	11/05/11	11/05/11

Quant Method: CALLW.M  
Run #: 1105C09  
Instrument: Chico  
Sequence: C111104  
Initials: DG

GC SC-Blank-REG MDLs  
Printed: 12/08/11 4:17:47 PM

## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C09W.D Vial: 1  
 Acq On : 5 Nov 11 17:04 Operator: STC  
 Sample : 111105A BLK-1WC Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:18 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.85	96	639936	25.00000	ppb	-0.03
55) Chlorobenzene-D5 (IS)	18.05	117	438336	25.00000	ppb	-0.02
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	229504	25.00000	ppb	-0.03
<b>System Monitoring Compounds</b>						
33) Dibromofluoromethane(S)	11.44	111	423902	19.04793	ppb	-0.03
Spiked Amount	21.097		Recovery	=	90.287%	
38) 1,2-DCA-D4 (S)	12.24	65	359754	18.47170	ppb	-0.03
Spiked Amount	21.225		Recovery	=	87.028%	
56) Toluene-D8 (S)	15.52	98	1563511	24.21108	ppb	-0.03
Spiked Amount	25.808		Recovery	=	93.811%	
64) 4-Bromofluorobenzene(S)	20.12	95	559686	24.56931	ppb	-0.03
Spiked Amount	25.459		Recovery	=	96.502%	

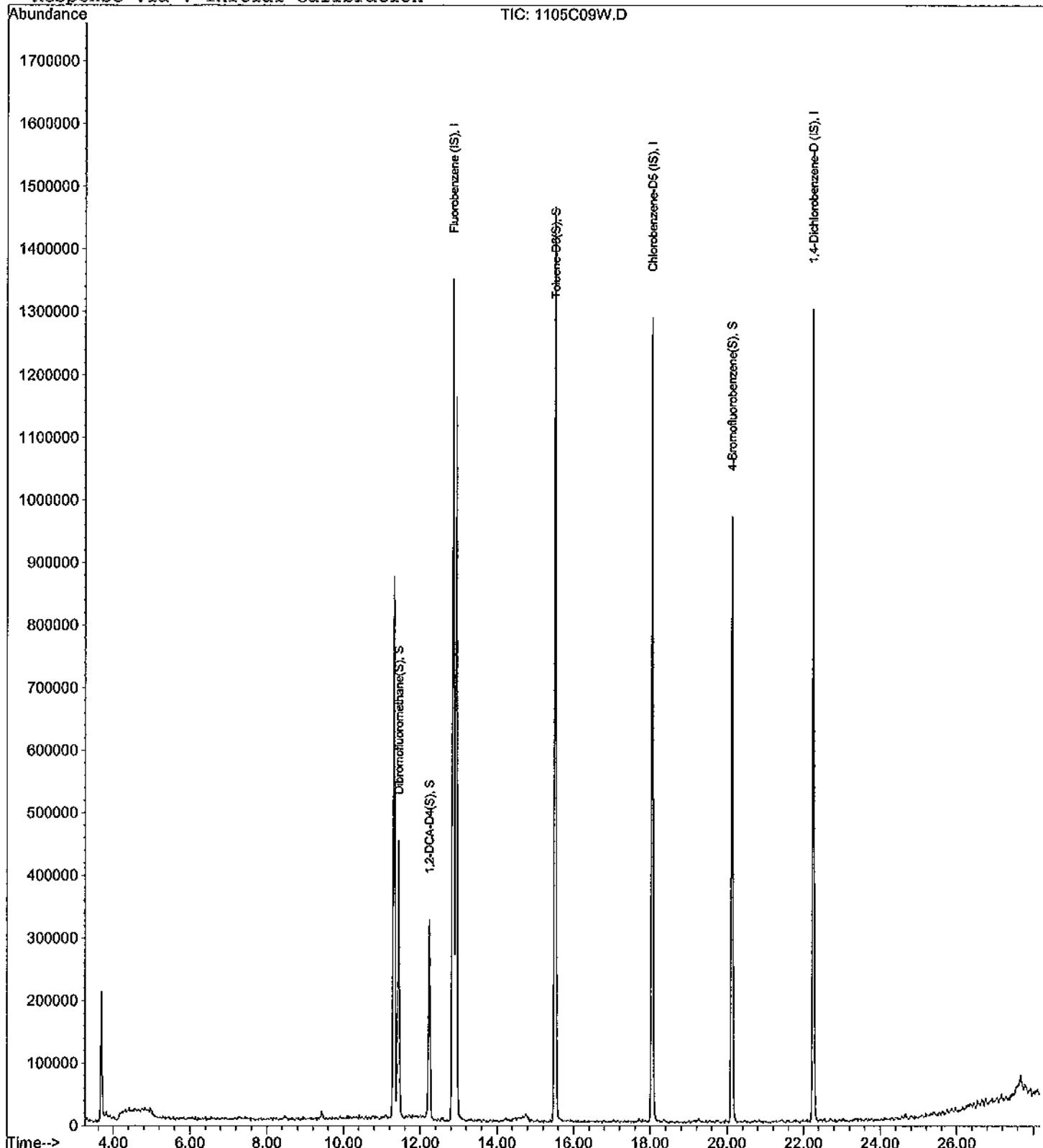
Target Compounds	Qvalue
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## Quantitation Report

Data File : M:\CHICO\DATA\C111104\1105C09W.D Vial: 1  
Acq On : 5 Nov 11 17:04 Operator: STC  
Sample : 111105A BLK-1WC Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:18 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
Title : METHOD 8260  
Last Update : Tue Nov 08 15:56:36 2011  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C09W.D Vial: 1  
Acq On : 5 Nov 11 17:04 Operator: STC  
Sample : 111105A BLK-1WC Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:44 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration  
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1344857	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.05	TIC	1284528	25.00000	ppb	0.02
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1297788	25.00000	ppb	0.00

## System Monitoring Compounds

Target Compounds	Qvalue
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## Quantitation Report

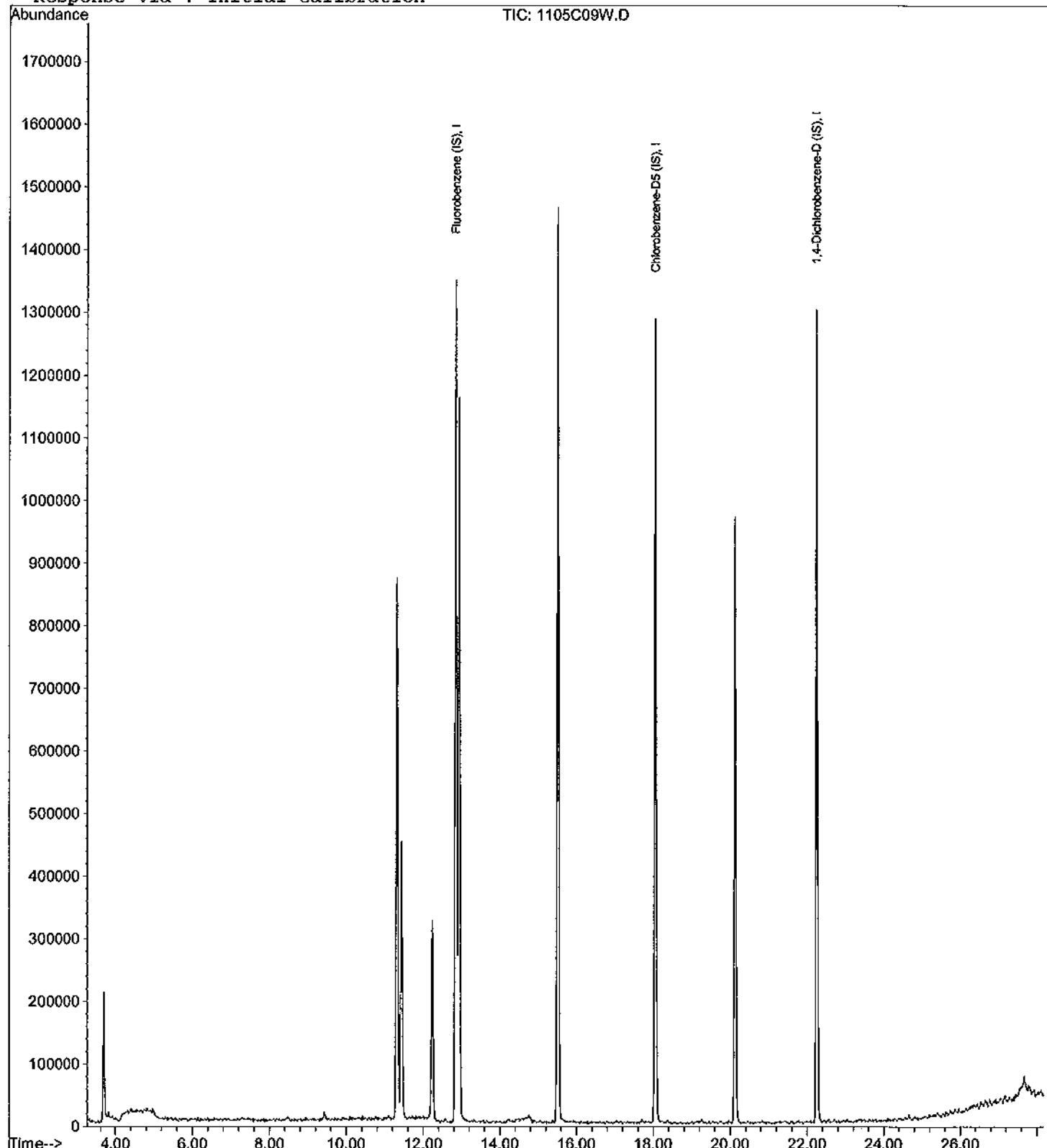
Data File : M:\CHICO\DATA\C111104\1105C09W.D  
Acq On : 5 Nov 11 17:04  
Sample : 111105A BLK-1WC  
Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 16:44 2011

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration



**Laboratory Control Spike Recovery**  
**EPA 8260B VOCs + Gas Water**

APPL ID: 111105W-50004 LCS - 160965

Batch ID: #86RHB-111105AC

APPL Inc.

908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Level	SPK Result	SPK % Recovery	Recovery Limits
	ug/L	ug/L	Recovery	Limits
1,1,1,2-TETRACHLOROETHANE	10.00	9.01	90.1	80-130
1,1,1-TRICHLOROETHANE	10.00	8.38	83.8	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	10.2	102	65-130
1,1,2-TRICHLOROETHANE	10.00	9.78	97.8	75-125
1,1-DICHLOROETHANE	10.00	10.5	105	70-135
1,1-DICHLOROETHENE	10.00	9.57	95.7	70-130
1,2,3-TRICHLOROPROPANE	10.00	8.50	85.0	75-125
1,2,4-TRICHLOROBENZENE	10.00	9.38	93.8	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	8.45	84.5	50-130
1,2-DIBROMOETHANE	10.00	8.37	83.7	70-130
1,2-DICHLOROBENZENE	10.00	9.72	97.2	70-120
1,2-DICHLOROETHANE	10.00	8.20	82.0	70-130
1,2-DICHLOROPROPANE	10.00	11.6	116	75-125
1,3-DICHLOROBENZENE	10.00	9.98	99.8	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	20.3	102	70-130
1,4-DICHLOROBENZENE	10.00	10.1	101	75-125
2-BUTANONE	10.00	9.57	95.7	30-150
4-METHYL-2-PENTANONE	10.00	10.7	107	60-135
ACETONE	10.00	10.8	108	40-140
BENZENE	10.00	11.0	110	80-120
BROMODICHLOROMETHANE	10.00	8.69	86.9	75-120
BROMOFORM	10.00	7.75	77.5	70-130
BROMOMETHANE	10.00	9.21	92.1	30-145
CARBON TETRACHLORIDE	10.00	8.10	81.0	65-140
CHLOROBENZENE	10.00	9.18	91.8	80-120
CHLORODIBROMOMETHANE	10.00	8.29	82.9	60-135

Comments:

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	11/05/11
Analysis Date :	11/05/11
Instrument :	Chico
Run :	1105C03
Initials :	DG

Printed: 12/08/11 4:17:51 PM

APPL Standard LCS

# Laboratory Control Spike Recovery

## EPA 8260B VOCs + Gas Water

APPL ID: 111105W-50004 LCS - 160965

Batch ID: #86RHB-111105AC

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
CHLOROETHANE	10.00	11.7	117	60-135
CHLOROFORM	10.00	9.27	92.7	65-135
CHLOROMETHANE	10.00	9.41	94.1	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.24	92.4	70-125
ETHYLBENZENE	10.00	9.72	97.2	75-125
GASOLINE	300	285	95.0	75-125
HEXACHLOROBUTADIENE	10.00	8.51	85.1	50-140
METHYL TERT-BUTYL ETHER	10.00	9.18	91.8	65-125
METHYLENE CHLORIDE	10.00	9.48	94.8	55-140
STYRENE	10.00	9.74	97.4	65-135
TETRACHLOROETHENE	10.00	8.71	87.1	45-150
TOLUENE	10.00	10.0	100	75-120
TRANS-1,2-DICHLOROETHENE	10.00	9.57	95.7	60-140
TRICHLOROETHENE	10.00	9.37	93.7	70-125
VINYL CHLORIDE	10.00	9.11	91.1	50-145
XYLENES (TOTAL)	30.0	29.1	97.0	80-120
SURROGATE: 1,2-DICHLOROETHANE-	21.2	19.2	90.5	70-120
SURROGATE: 4-BROMOFLUOROBENZ	25.5	25.0	98.2	75-120
SURROGATE: DIBROMOFLUOROMETH	21.1	20.7	98.1	85-115
SURROGATE: TOLUENE-D8 (S)	25.8	24.0	93.0	85-120

Comments:

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	11/05/11
Analysis Date :	11/05/11
Instrument :	Chico
Run :	1105C03
Initials :	DG

Printed: 12/08/11 4:17:51 PM

APPL Standard LCS

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C03W.D Vial: 1  
 Acq On : 5 Nov 11 12:45 Operator: STC  
 Sample : 111105A LCS-1WC Inst : Chico  
 Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 15:57 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.85	96	598784	25.00000	ppb	-0.03
55) Chlorobenzene-D5 (IS)	18.04	117	432320	25.00000	ppb	-0.03
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	227456	25.00000	ppb	-0.03

## System Monitoring Compounds

33) Dibromofluoromethane(S)	11.43	111	430194	20.65917	ppb	-0.04
Spiked Amount	21.097		Recovery	=	97.923%	
38) 1,2-DCA-D4(S)	12.23	65	350461	19.23124	ppb	-0.04
Spiked Amount	21.225		Recovery	=	90.604%	
56) Toluene-D8(S)	15.51	98	1526114	23.96084	ppb	-0.04
Spiked Amount	25.808		Recovery	=	92.842%	
64) 4-Bromofluorobenzene(S)	20.12	95	561629	24.99769	ppb	-0.03
Spiked Amount	25.459		Recovery	=	98.187%	

## Target Compounds

				QValue	
2) Dichlorodifluoromethane	4.07	85	200438	9.99987	ppb
3) Freon 114	4.34	85	158173	9.55662	ppb
4) Chloromethane	4.56	50	243905	9.40526	ppb
5) Vinyl chloride	4.82	62	190389	9.10909	ppb
7) Bromomethane	5.73	94	115295	9.20690	ppb
8) Chloroethane	5.92	64	40768	11.73721	ppb
9) Dichlorofluoromethane	6.01	67	429753	9.98151	ppb
10) Trichlorofluoromethane	6.54	101	254008	8.80144	ppb
11) Acetonitrile	7.66	41	91825	175.24271	ug/l
12) Acrolein	7.15	56	36334	143.31047	ppb
13) Acetone	7.28	43	21380	10.76822	ppb
14) Freon-113	7.47	101	158655	9.98674	ppb
15) 1,1-DCE	7.69	96	158725	9.57124	ppb
16) t-Butanol	7.77	59	12156	152.90240	ppb
17) Methyl Acetate	8.19	43	49077	10.64799	ppb
18) Iodomethane	8.17	142	116518	9.85367	ppb
19) Acrylonitrile	8.57	53	19799	11.15999	ppb
20) Methylene chloride	8.48	84	151276	9.47889	ppb
21) Carbon disulfide	8.56	76	141888	10.36460	ppb
22) Methyl t-butyl ether (MtBE)	8.90	73	247260	9.17675	ppb
23) Trans-1,2-DCE	7.69	96	158725	9.57124	ppb
24) Diisopropyl Ether	9.76	45	555595	11.30937	ppb
25) 1,1-DCA	9.79	63	359912	10.45575	ppb
26) Vinyl Acetate	9.42	43	35752	13.13393	ppb
27) Ethyl tert Butyl Ether	10.45	59	406811	9.78909	ppb
28) MEK (2-Butanone)	10.44	43	74398	9.56633	ppb
29) Cis-1,2-DCE	10.82	96	197945	9.24498	ppb
30) 2,2-Dichloropropane	10.82	77	291298	9.16027	ppb
31) Chloroform	11.10	83	337951	9.27140	ppb
32) Bromochloromethane	11.32	128	54373	8.41905	ppb
34) 1,1,1-TCA	11.84	97	296442	8.37880	ppb
35) Cyclohexane	12.00	56	280256	12.28389	ppb
36) 1,1-Dichloropropene	12.11	75	258971	10.18438	ppb
37) 2,2,4-Trimethylpentane	12.18	57	486067	12.87742	ppb
39) Carbon Tetrachloride	12.30	117	218797	8.09566	ppb
40) Tert Amyl Methyl Ether	12.35	73	289560	9.57527	ppb
41) 1,2-DCA	12.38	62	170145	8.20107	ppb
42) Benzene	12.50	78	712677	11.01300	ppb
43) TCE	13.54	95	191886	9.36801	ppb

(#) = qualifier out of range (m) = manual integration  
 1105C03W.D CALLW.M Thu Dec 08 16:57:32 2011

## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C03W.D  
 Acq On : 5 Nov 11 12:45  
 Sample : 111105A LCS-1WC  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 15:57 2011

Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2-Pentanone	13.21	43	535634	145.94194	ppb	99
45) 1,2-Dichloropropane	13.78	63	171253	11.60017	ppb	# 95
46) Bromodichloromethane	14.12	83	193300	8.69474	ppb	95
47) Methyl Cyclohexane	13.83	83	247837	11.70998	ppb	95
48) Dibromomethane	14.18	93	68528	8.83931	ppb	97
49) 2-Chloroethyl vinyl ether	14.58	63	39880	10.37045	ppb	# 84
50) 1-Bromo-2-chloroethane	14.89	63	146260	11.30967	ppb	89
51) Cis-1,3-Dichloropropene	15.01	75	191769	10.53614	ppb	89
52) Toluene	15.64	91	688147	10.02377	ppb	99
53) Trans-1,3-Dichloropropene	15.81	75	134829	9.74766	ppb	97
54) 1,1,2-TCA	16.09	83	66730	9.78017	ppb	98
57) 1,2-EDB	17.34	107	76932	8.36685	ppb	# 99
58) Tetrachloroethene	16.79	164	190918	8.71224	ppb	93
59) 1-Chlorohexane	17.71	91	255927	10.91894	ppb	95
60) 1,1,1,2-Tetrachloroethane	18.17	131	146280	9.00947	ppb	98
61) m,p-Xylene	18.36	106	602678	19.21571	ppb	93
62) o-Xylene	19.12	106	295792	9.89628	ppb	97
63) Styrene	19.13	104	459874	9.73969	ppb	99
65) 2-Hexanone	16.11	43	35471	9.91956	ppb	88
66) 1,3-Dichloropropane	16.50	76	154497	10.25133	ppb	87
67) Dibromochloromethane	16.98	129	106362	8.28519	ppb	85
68) Chlorobenzene	18.11	112	430960	9.18487	ppb	91
69) Ethylbenzene	18.23	91	796342	9.71880	ppb	91
70) Bromoform	19.64	173	47964	7.75433	ppb	89
72) MIBK (methyl isobutyl keto	14.68	43	56527	10.68044	ppb	99
73) Isopropylbenzene	19.75	105	787241	9.26886	ppb	93
74) 1,1,2,2-Tetrachloroethane	19.90	83	73576	10.18614	ppb	79
75) 1,2,3-Trichloropropane	20.16	110	8091	8.49890	ppb	88
76) t-1,4-Dichloro-2-Butene	20.24	53	16873	9.23840	ppb	85
77) Bromobenzene	20.49	156	173944	9.32463	ppb	97
78) n-Propylbenzene	20.45	91	954567	9.87354	ppb	98
79) 4-Ethyltoluene	20.64	105	640562	9.47176	ppb	96
80) 2-Chlorotoluene	20.74	91	628165	9.72679	ppb	94
81) 1,3,5-Trimethylbenzene	20.72	105	652161	9.24885	ppb	96
82) 4-Chlorotoluene	20.83	91	526794	9.28462	ppb	99
83) Tert-Butylbenzene	21.37	119	717774	9.58472	ppb	99
84) 1,2,4-Trimethylbenzene	21.43	105	659968	9.52832	ppb	96
85) Sec-Butylbenzene	21.77	105	909078	10.04542	ppb	95
86) p-Isopropyltoluene	22.00	119	758748	9.53590	ppb	98
87) Benzyl Chloride	22.43	91	135784	10.07162	ppb	98
88) 1,3-DCB	22.13	146	365632	9.97635	ppb	97
89) 1,4-DCB	22.31	146	346675	10.09669	ppb	95
90) Hexachloroethane	23.61	117	116005	8.26021	ppb	97
91) n-Butylbenzene	22.71	91	667118	9.95842	ppb	98
92) 1,2-DCB	22.94	146	294947	9.71950	ppb	95
93) 1,2-Dibromo-3-chloropropan	24.16	155	9302	8.45266	ppb	# 64
94) 1,2,4-Trichlorobenzene	25.61	145	26360	9.37742	ppb	79
95) Hexachlorobutadiene	25.87	223	102054	8.50521	ppb	95
96) Naphthalene	25.98	128	277822	8.59934	ppb	100
97) 1,2,3-Trichlorobenzene	26.35	180	63720	7.96078	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1105C03W.D CALLW.M Thu Dec 08 16:57:33 2011

Quantitation Report

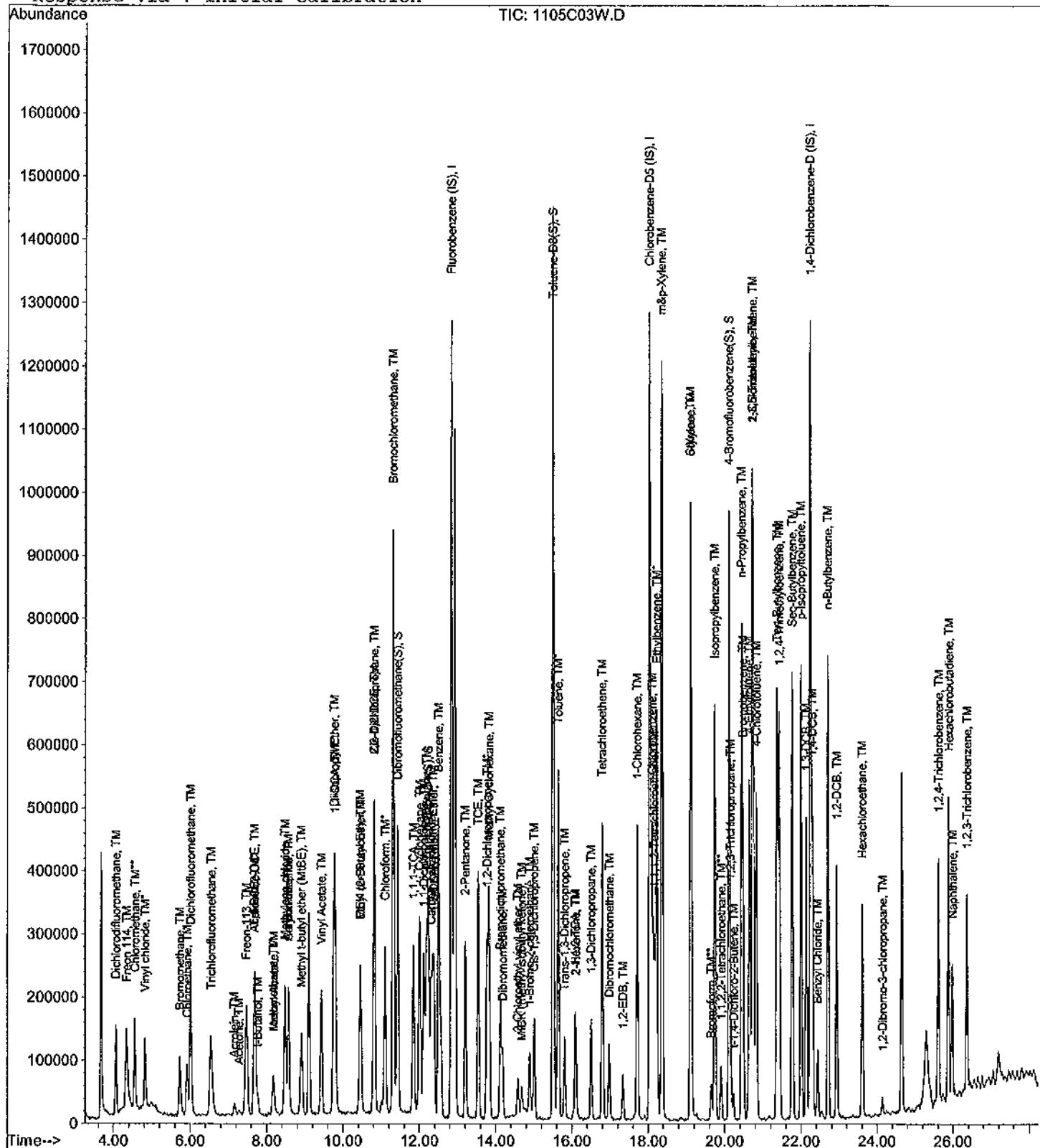
Data File : M:\CHICO\DATA\C111104\1105C03W.D  
 Acq On : 5 Nov 11 12:45  
 Sample : 111105A LCS-1WC  
 Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 8 15:57 2011

Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260  
 Last Update : Tue Nov 08 15:56:36 2011  
 Response via : Initial Calibration



## Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C06W.D Vial: 1  
Acq On : 5 Nov 11 14:54 Operator: STC  
Sample : 111105A LCS-1WC (GAS) Inst : Chico  
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 5 14:41 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration  
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.85	TIC	1341937	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1285562	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1316053	25.00000	ppb	0.00

## System Monitoring Compounds

Target Compounds				Qvalue
2) Gasoline	15.64	TIC	46958625m	285.04507 ppb
				100

## Quantitation Report

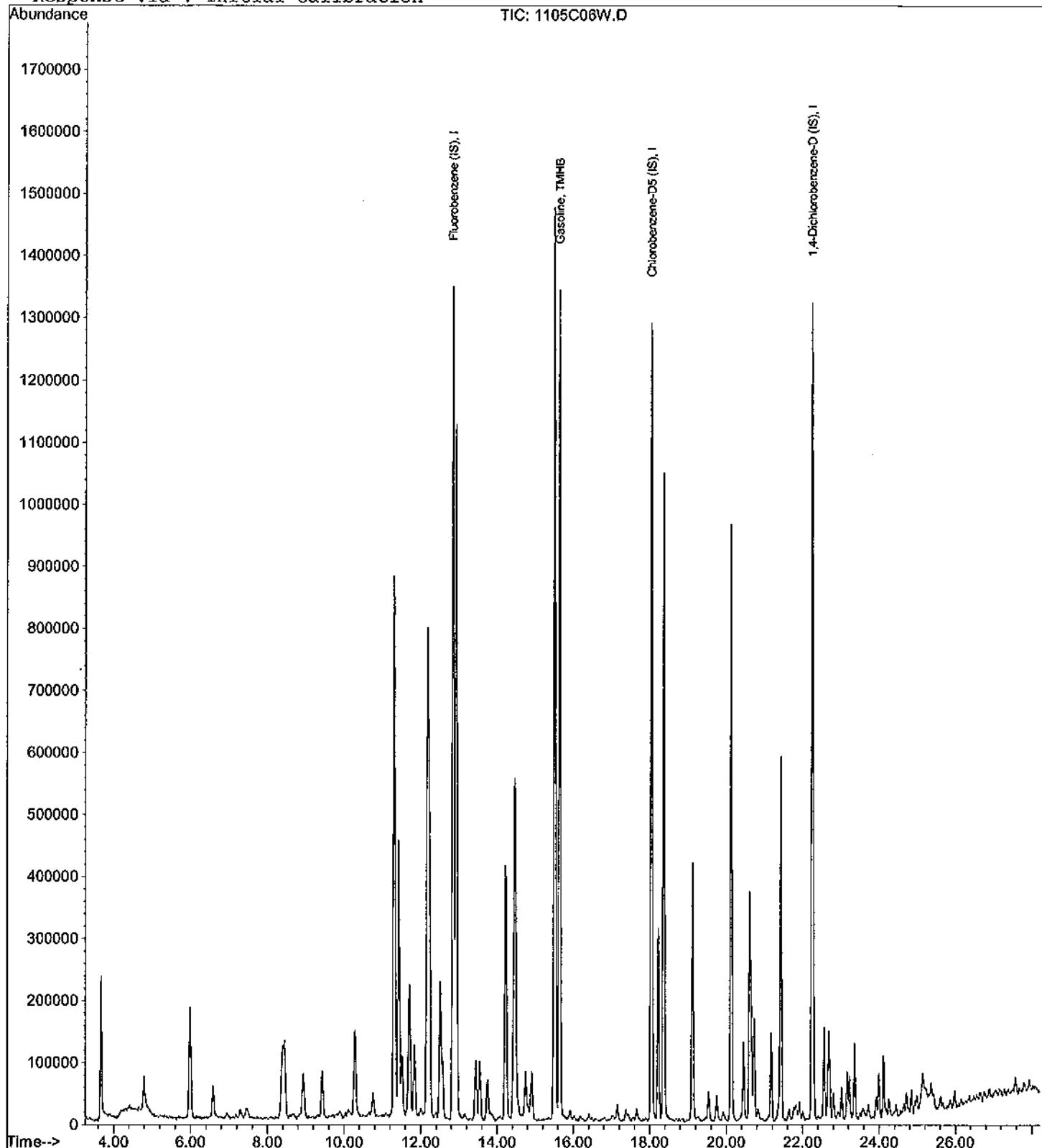
Data File : M:\CHICO\DATA\C111104\1105C06W.D  
Acq On : 5 Nov 11 14:54  
Sample : 111105A LCS-1WC (GAS)  
Misc : Water 10mLw/ IS:10-30-11

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

Quant Time: Nov 5 14:41 2011

Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Nov 03 10:47:02 2011  
Response via : Initial Calibration

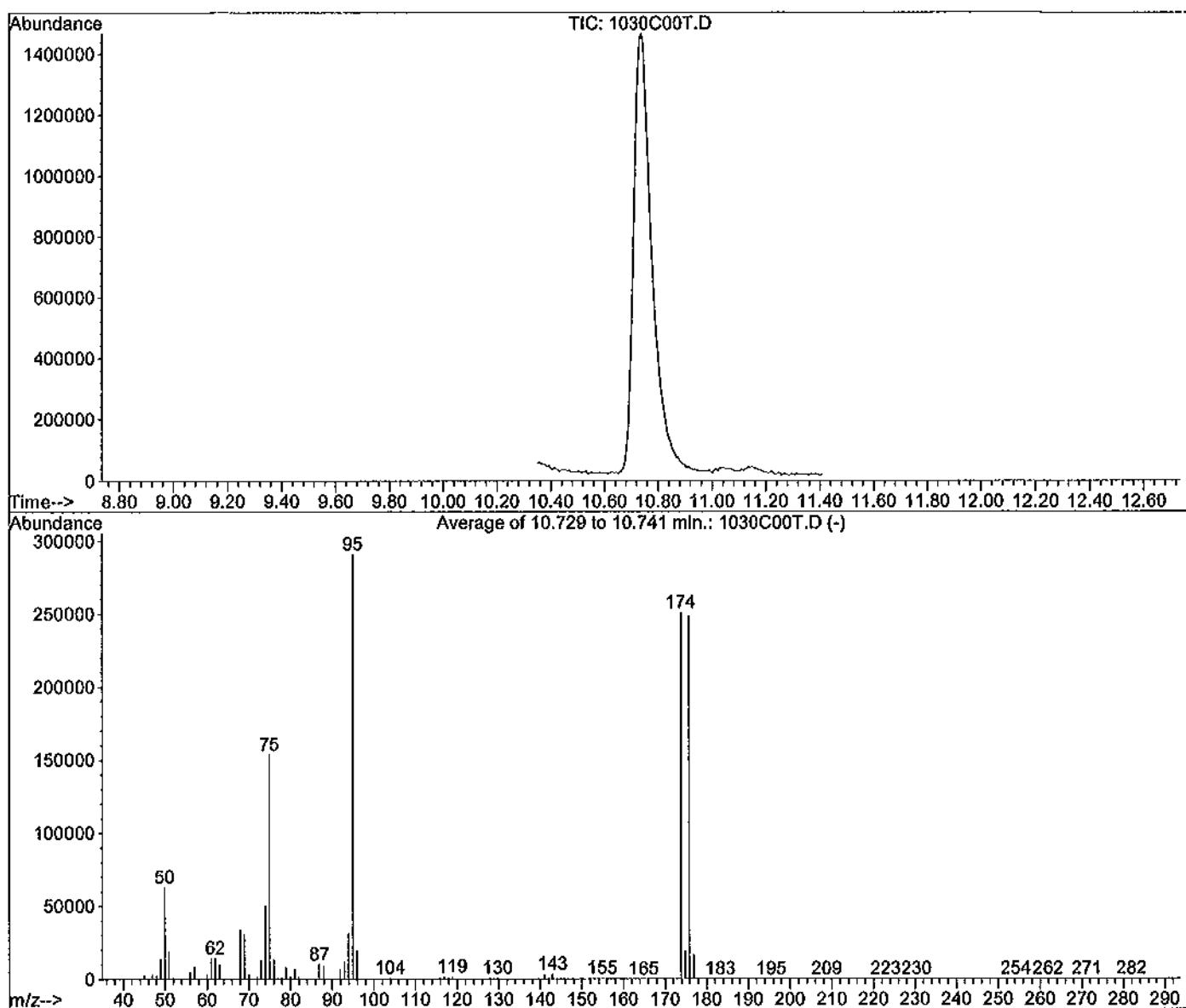


## BFB

Data File : M:\CHICO\DATA\C111030\1030C00T.D  
 Acq On : 30 Oct 11 12:52  
 Sample : 20ug/mL BFB STD 10-19-11B  
 Misc : 2ul

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

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B

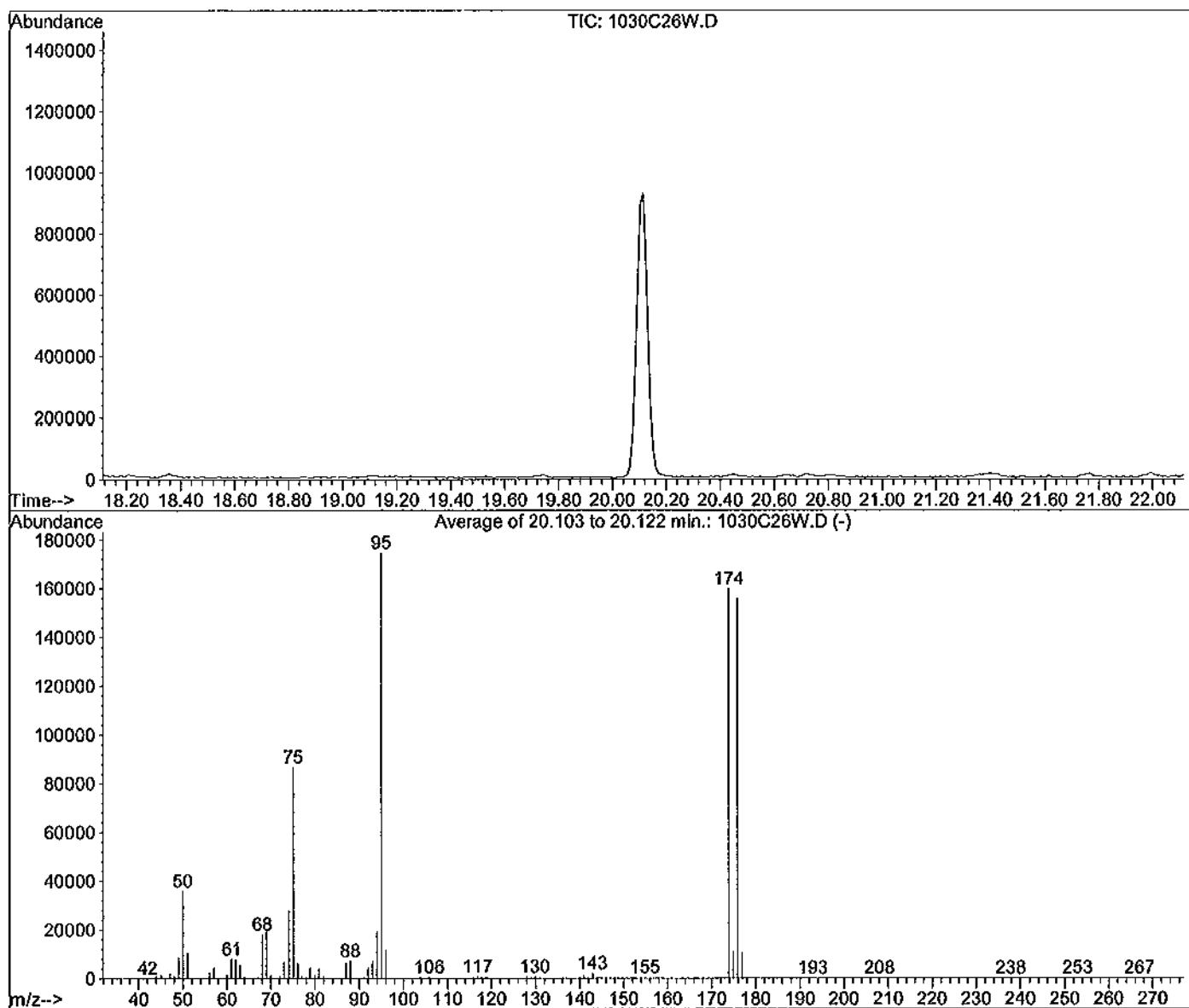


Spectrum Information: Average of 10.729 to 10.741 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.7	63088	PASS
75	95	30	60	52.9	153777	PASS
95	95	100	100	100.0	290880	PASS
96	95	5	9	6.8	19771	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	86.3	250924	PASS
175	174	5	9	7.5	18885	PASS
176	174	95	101	99.0	248405	PASS
177	176	5	9	6.7	16664	PASS

## BFB

Data File : M:\CHICO\DATA\C111030\1030C26W.D                          Vial: 1  
 Acq On : 31 Oct 11 7:21    Operator: STC  
 Sample : 20ug/mL BFB STD 10-19-11                                  Inst : Chico  
 Misc : Water 2ul    Multiplir: 1.00  
  
 Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)  
 Title : METHOD 8260B



Spectrum Information: Average of 20.103 to 20.122 min.

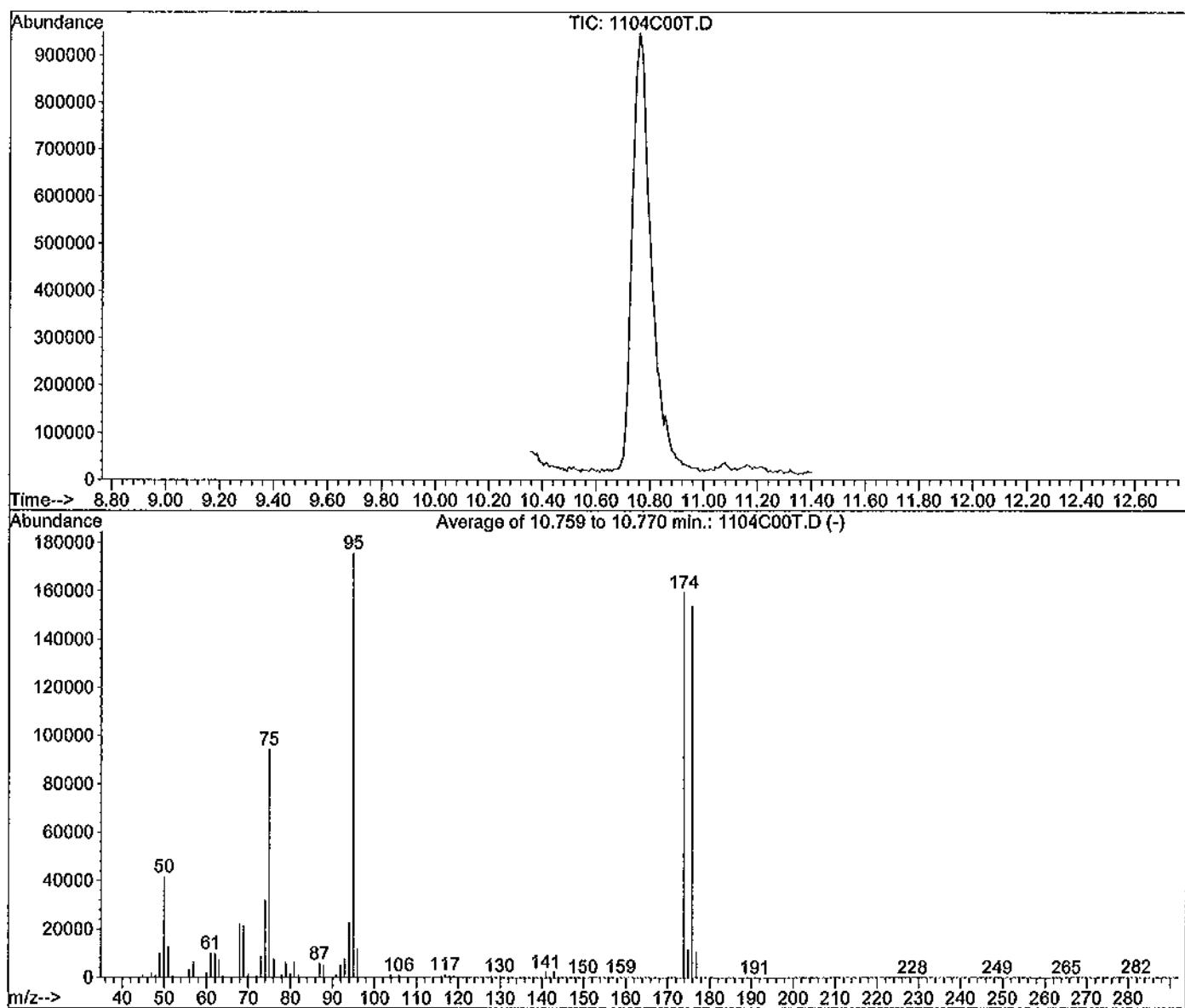
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	35941	PASS
75	95	30	60	49.7	86725	PASS
95	95	100	100	100.0	174635	PASS
96	95	5	9	6.6	11458	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	91.6	159913	PASS
175	174	5	9	6.9	11031	PASS
176	174	95	101	97.7	156203	PASS
177	176	5	9	6.7	10398	PASS

## BFB

Data File : M:\CHICO\DATA\C111104\1104C00T.D  
 Acq On : 4 Nov 11 8:59  
 Sample : 20ug/ml BFB Std 02-17-10D  
 Misc : 2ul

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

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260

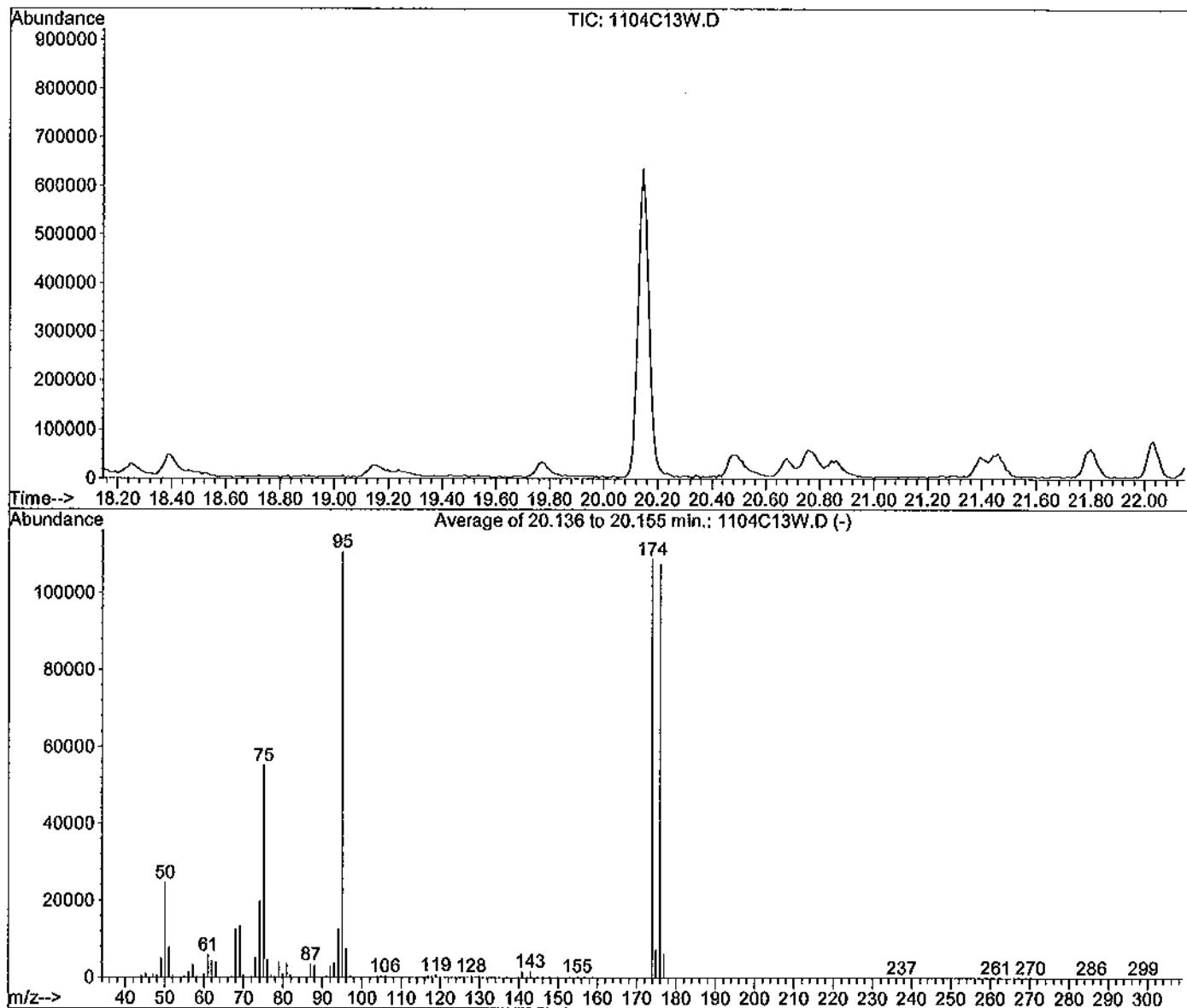


Spectrum Information: Average of 10.759 to 10.770 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.8	41779	PASS
75	95	30	60	53.8	94494	PASS
95	95	100	100	100.0	175723	PASS
96	95	5	9	6.7	11852	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	90.8	159509	PASS
175	174	5	9	7.3	11657	PASS
176	174	95	101	96.4	153771	PASS
177	176	5	9	6.9	10576	PASS

## BFB

Data File : M:\CHICO\DATA\C111104\1104C13W.D                          Vial: 1  
 Acq On : 4 Nov 11 18:46    Operator: STC  
 Sample : 20ug/mL BFB STD 10-19-11B                                  Inst : Chico  
 Misc : 2ul    Multiplr: 1.00  
  
 Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260



Spectrum Information: Average of 20.136 to 20.155 min.

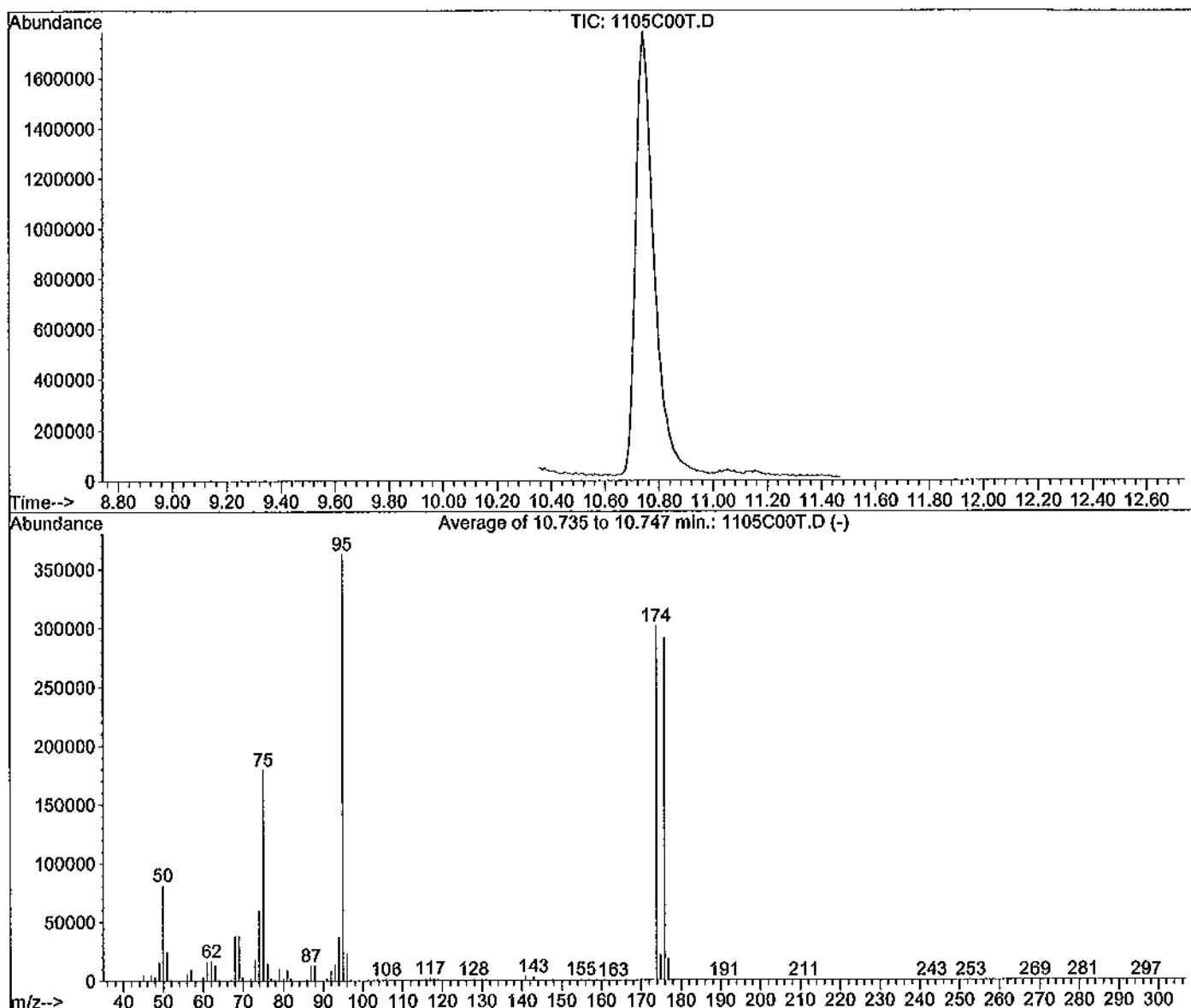
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.3	24648	PASS
75	95	30	60	49.8	55173	PASS
95	95	100	100	100.0	110765	PASS
96	95	5	9	6.8	7499	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	98.3	108845	PASS
175	174	5	9	6.7	7323	PASS
176	174	95	101	98.9	107653	PASS
177	176	5	9	5.9	6344	PASS

## BFB

Data File : M:\CHICO\DATA\C111104\1105C00T.D  
 Acq On : 5 Nov 11 10:47  
 Sample : 20ug/ml BFB Std 02-17-10D  
 Misc : 2ul

vial: 1  
 Operator: STC  
 Inst : Chico  
 Multiplr: 1.00

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)  
 Title : METHOD 8260



Spectrum Information: Average of 10.735 to 10.747 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.3	81078	PASS
75	95	30	60	49.5	179691	PASS
95	95	100	100	100.0	362816	PASS
96	95	5	9	6.2	22561	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.1	301376	PASS
175	174	5	9	7.1	21389	PASS
176	174	95	101	96.8	291605	PASS
177	176	5	9	6.2	17986	PASS

092

## GC/MS STANDARD PREPARATION BOOK # PAGE #

10-28-11

B-

RS

Hexachloroethane Solution,  
1000 mg/L, 1 ml020049-02  
Lot # Storage Expiry  
161816 ≤ 10 Degrees C 10/14/12  
Solv: R/T MethanolHexachloroethane  
Lot #: 164816 - 28687  
Rec: 4/20/11 MFR exp. 10/14/12

10-28-11

RS

PK

10-28-11

C-

RS

Benzyl Chloride Solution, 1000  
mg/L, 1 ml020728-02  
Lot # Storage Expiry  
163373 ≤ 10 Degrees C 08/29/12  
Solv: R/T MethanolBenzyl Chloride  
Lot #: 163373 - 29166  
Rec: 8/5/11 MFR exp. 08/29/12

PK

10-28-11

D-

RS

Volatile Mix, 20-29, 2,000  
mg/L, 1 ml121039-02  
Lot # Storage Expiry  
163374 ≤ 10 Degrees C 08/29/12  
Solv: R/T MethanolVolatile Mix, 20-29  
Lot #: 163374 - 28300  
Rec: 2/17/11 MFR exp. 08/29/12

PK

10-28-11

E-

RS

Method 8260 VOC Liquids, 54  
Compounds, 2,000 mg/L, 1 ml120023-03  
Lot # Storage Expiry  
164454 ≤ 10 Degrees C 10/4/12  
Solv: R/T Methanol8260 VOC Liquids, 54 Comp.  
Lot #: 164454 - 27872  
Rec: 12/15/10 MFR exp. 10/04/12

PK

10-28-11

F-

RS

Vinyl Acetate Solution,  
2,000 mg/L, 1 ml#18332-02  
Lot # Storage Expiry  
178902 ≤ 10 Degrees C 12/15/11  
Solv: R/T MethanolVinyl Acetate  
Lot #: 178902 - 29552  
Rec: 9/22/11 MFR exp. 12/15/11

PK

## GC/MS STANDARD PREPARATION BOOK # PAGE #

093

10-28-11

B-

RS.

Hepiane Solution, 1000  
mg/L, 1 ml  
110005-01-SS  
Lot #: 169174      Storage: 5-10 Degrees C      Expiry: 2/10/14  
Solv: P/T Methanol  
Hepiane Solution  
Lot #: 169174 - 29248  
Rec: 8/5/11 MFR exp. 02/18/14

RS

10-28-11

H-

RS.

8260B Surrogate Solution,  
2,000 mg/L, 5 x 1 ml  
110005-01-SSAN  
Lot #: 173249      Storage: 5-10 Degrees C      Expiry: 5/17/13  
Solv: P/T Methanol  
8260B Surrogate Solution  
Lot #: 173249 - 28847  
Rec: 5/25/11 MFR exp. 05/17/13

RS

10-28-11

I-

RS.

VOC Mix 4-3, 2,000 mg/L, 1  
ml  
110165-01-  
Lot #: 178651      Storage: 5-10 Degrees C      Expiry: 9/11/13  
Solv: P/T Methanol  
VOC Mix 4-3, 2000mg/L  
Lot #: 178651 - 29510  
Rec: 9/20/11 MFR exp. 09/11/13

RS

10-28-11

J-

RS.

Method 8260 Gases (Second  
Source), 2,000 mg/L, 2 X 0.6  
ml  
110015-03-SS  
Lot #: 168038      Storage: 5-10 Degrees C      Expiry: 1/21/14  
Solv: P/T Methanol  
8260 Gases (SS)  
Lot #: 168038 - 28743  
Rec: 4/20/11 MFR exp. 01/21/14

RS.

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## GC/MS STANDARD PREPARATION BOOK # PAGE #

10-28-11K							
50ug/ml Vol Work Std #7							
Exp:11/04/11							
Supplier	ID #	ID	Conc.		Date	Exp.	
028I	120016-01	Gas Mix	ug/ml	Lot #	Code	Date	U1
028I	020049-02	Hexamchlororthanes	2000	169230-28682	10-28-11A	11/30/2011	100
028I	020228-02	Benzyl Chloride	1000	164816-28687	10-28-11B	12/14/2011	200
J&T Brand		Purge & Trap MeOH	1000	161173-29156	10-28-11C	12/14/2011	200
				K14B06-00556	10/27/2011	6/8/2012	3500
10-28-11L							
50ug/ml Vol Work Std #1							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	U1
028I	020145-02-02	2-CyBr	2000	160092-26627	10-06-11B	12/3/2011	50
J&T Brand		Purge & Trap MeOH		K14B06-00556	10/27/2011	6/8/2012	1950
10-28-11M							
50ug/ml Vol Work Std #8							
Exp:11/04/11							
Supplier	ID #	ID	Conc.		Date	Exp.	
028I	122039-02	Volatile Mix, 20-29	ug/ml	Lot #	Code	Date	U1
028I	120023-03	VOC's-ss COMP	2000	164454-27872	10-28-11B	2/14/2012	100
028I	020232-02	Vinyl Acetate	2000	178902-29552	10-28-11C	11/16/2011	100
028I	020620-02	n-Hexane	1000	163378-29889	10-26-11B	11/14/2011	200
028I	020546-02	Heptane	1000	169174-29248	10-28-11D	11/14/2011	200
J&T Brand		Purge & Trap MeOH		K14B06-00556	10/27/2011	6/8/2012	3300
10-28-11N							
50ug/ml Vol Work Std #2							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	U1
028I	121020-05	HSL's-Ketone Solution	2000	169173-28307	10-12-11B	11/14/2011	100
J&T Brand		Purge & Trap MeOH		K14B06-00556	10/27/2011	10/14/2012	3900
10-28-11O			Exp:	11/4/2011			
50ug/ml Vol Work Std #9			SOURCE#	Lot	APPL Code	APPL Exp Date	U1
50ug/ml Vol Work Std #7						10/28-11K	200
50ug/ml Vol Work Std #8						10/28-11M	200
J&T Brand						10/6/2011	6/8/2012
10-28-11P			Exp:	11/4/2011			
50ug/ml Vol Work Std #10			SOURCE#	Lot	APPL Code	APPL Exp Date	U1
50ug/ml Vol Work Std #1						10/28-11L	200
J&T Brand						10/27/2011	6/8/2012
10-28-11Q			Exp:	11/4/2011			
50ug/ml Vol Work Std #12			SOURCE#	Lot	APPL Code	APPL Exp Date	U1
50ug/ml Vol Work Std #2						10/28-11N	200
J&T Brand						10/27/2011	6/8/2012
10-28-11R							
50ug/ml #260 Surrogate			Conc.		Date	Exp.	
Exp:11/04/11			ug/ml		Code	Date	U1
028I	120002-01	#260B Sur Solution	2000	173249-28547	10-28-11H	11/14/2011	100
J&T Brand		Purge & Trap MeOH		K14B06-00556	10/27/2011	6/8/2012	3900
10-28-11S			Exp:	11/4/2011			
5.0ug/ml #260 Surrogate			SOURCE#	Lot	APPL Code	APPL Exp Date	U1
5.0ug/ml #260 Surrogate						10/28-11R	200
J&T Brand		Purge & Trap MeOH		K14B06-00556	10/27/2011	10/27/2011	1800
10-28-11T							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P			Conc.		Date	Exp.	
Exp:11/04/11			ug/ml		Code	Date	U1
Supplier	ID #	ID					
028I	120166-01	Volatile Mix 4-3	2000	178651-29510	10-28-11I	12/17/2011	500
028I	020229-09	Acrolein	10000	179911-29661	10-19-11H	11/21/2011	100
J&T Brand		Purge & Trap MeOH		K14B06-00556	10/27/2011	6/8/2012	3400

## GC/MS STANDARD PREPARATION BOOK #

PAGE #

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10-28-11U							
50ug/ml VOC Std#5							
Exp:11/04/11							
Supplier	ID #	ID	Conc.		Date	Exp.	
0281	120016-03-88	8260 Gaspe(S5)	ug/ml	Lot #	Code	Date	uL
0281	020145-02-02-S2-CBVR		2000	168038-28743	10-28-11J	11/30/2011	50
JET Brand		Purge & Trap MeOH		162530-27273	10-19-11J	11/3/2011	50
				K14B06-00556	10/27/2011	6/8/2012	1500
10-28-11V							
50ug/ml VOC Std#5							
Exp:11/04/11							
10/28/11 R5	ID #	ID	ug/ml	Lot #	Code	Date	uL
0281	120023-03-88	VOC'S 54 COMP.	2000	163271-27773	09-12-11P	11/14/2011	50
0281	120296-01	Cyton 8260 Solution	2000	166038-27763	09-12-11Q	11/14/2011	50
0281	020232-02-88	Vinyl Acetate(S5)	2000	162774-29257	09-12-11R	11/30/2011	50
0281	020620-02-88	n-HXANE	1000	179199-29615	10-12-11F	12/14/2011	100
0281	020049-02-88	HEXAChloroTHAnE	1000	154525-25913	09-11-11B	12/29/2011	100
0281	020546-02-88	Heptane(S5)	1000	142276-23593	09-11-11C	12/19/2011	100
JET Brand		Purge & Trap MeOH		K14B06-00556	10/27/2011	6/8/2012	1550
10-28-11W							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P							APPL
Exp:11/04/11							
Supplier	ID #	ID	Conc.		Date	Exp.	
0281	120166-01-88	VOC Mix 4-3 (S5)	ug/ml	Lot #	Code	Date	uL
0281	020229-09-88	Acrolein SOLUTION (S5)	10000	152531-28468	10-02-11G	11/3/2011	250
JET Brand		Purge & Trap MeOH		178607-29549	10-02-11H	11/21/2011	50
				K14B06-00556	10/27/2011	6/8/2012	1700

10-28-11X							
50ug/ml Vol Work Std #7							
Exp:11/04/11							
Supplier	ID #	ID	Conc.		Date	Exp.	
0281	120016-03	Gas Mix	ug/ml	Lot #	Code	Date	uL
0281	020049-02	HexachloroTHAnE	1000	164816-28682	10-28-11A	11/30/2011	100
0281	020228-02	Benzyl Chloride	1000	164816-28682	10-28-11B	12/14/2011	200
JET Brand		Purge & Trap MeOH		163273-29166	10-28-11C	12/14/2011	200
				K14B06-00556	10/27/2011	6/8/2012	3500
10-28-11Y							
50ug/ml Vol Work Std #1							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	uL
0281	020145-02-02	2-CBVR	2000	160092-26537	10-06-11B	12/7/2011	50
JET Brand		Purge & Trap MeOH		K14B06-00556	10/27/2011	6/8/2012	1550
10-28-11Z							
50ug/ml Vol Work Std #8							
Exp:11/04/11							
Supplier	ID #	ID	Conc.		Date	Exp.	
0281	122039-02	Volatile Mix, 20-29	ug/ml	Lot #	Code	Date	uL
0281	120023-03	VOC'S 54 COMP.	2000	163374-26300	10-28-11D	2/14/2012	100
0281	020232-02	Vinyl Acetate	2000	164454-27872	10-28-11E	2/14/2012	100
0281	020620-02	n-Hexane	1000	178902-29552	10-28-11F	11/15/2011	100
0281	020546-02	Heptane	1000	163378-27889	10-28-11B	11/14/2011	200
JET Brand		Purge & Trap MeOH		169174-29246	10-28-11G	11/14/2011	200
				K14B06-00556	10/27/2011	6/8/2012	3300
10-28-11AA							
50ug/ml Vol Work Std #2							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml				
0281	121020-05	HSL'S-Ketone Solution	2000	169123-28307	10-12-11B	11/14/2011	100
JET Brand		Purge & Trap MeOH		K14B06-00556	10/27/2011	10/14/2011	3900
10-28-11AB							
Sug/ml Vol Work Std #9							
0281		SOURCE#	Lot	APPL Code	APPL Exp Date	uL	
50ug/ml Vol Work Std #7			10-28-11X	10/31/2011	200		
50ug/ml Vol Work Std #8			10-28-11Z	10/31/2011	200		
JET Brand			10/6/2011	6/8/2012	1600		
10-28-11AC							
Sug/ml Vol Work Std #10							
0281		SOURCE#	Lot	APPL Code	APPL Exp Date	uL	
50ug/ml Vol Work Std #1			10-28-11Y	10/31/2011	200		
JET Brand			10/27/2011	6/8/2012	1800		

096

## GCMS STANDARD PREPARATION BOOK # PAGE #

		10-28-11AD	Exp:	11/4/2011			
		Sug/ml Vol Work Std #12					
		SOURCE#	Lot	APPL Code	APPL Exp Date	u1	
		50ug/ml Vol Work Std #2	10-28-11AA	10/31/2011	200		
		J&T Brand	10/27/2011	6/8/2012	1800		
		10-28-11AE					
		50ug/ml #260 Surrogate	Cone.		Date	Exp.	
		Exp:11/04/11	ug/ml	Lot #	Code	Date	u1
	0281	120002-01	8260B Surf Solution	2000	173249-28847	10-28-11H	11/14/2011
	J&T Brand	Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3000
		10-28-11AF	Exp:	11/4/2011			
		5.0ug/ml #260 Surrogate	Lot	APPL Code	APPL Exp Date	u1	
		J&T Brand	10-28-11AB	10/31/2011	200		
		Purge & Trap MeOH		K14E06-00556	10/27/2011	1800	
		10-28-11AG					
		250ug/ml TBA/TBA/Acetonitrile/Cyclohexanone/Acrolein/2-P				APPL	
		Exp:11/04/11				Date	Exp.
	Supplier	ID #	Cone.	Lot #	Code	Date	u1
	0281	120166-01	ug/ml	178851-29510	10-28-11I	12/17/2011	600
	0281	020229-09	Volatile Mix 4-3	2000	179941-29661	10-19-11H	11/21/2011
	J&T Brand	Acrolein	10000	K14E06-00556	10/27/2011	6/8/2012	3000
		Purge & Trap MeOH					

## NOTEBOOK INSERT LABEL

Gasoline 47816-U  
Lot: LB82077 EXP: FEB/2014 STORAGE: ROOM TBMP. 1 x 1ml

DATE RECEIVED: \_\_\_\_\_

 **Supelco**  
695 North Harrison Road • Beloit, WI  
15823-0048 USA • Phone 814-399-3441

10/30/11 A-

## STANDARD TRANSFER LABEL

RS.

Date of Preparation: \_\_\_\_\_ Exp. Date: \_\_\_\_\_  
 Reference Number: \_\_\_\_\_ Storage: EXP: FEB/2014 \_\_\_\_\_  
 Description: \_\_\_\_\_ Gasoline \_\_\_\_\_  
 Lot #: LB82077 - 29133 ROOM TBMP.  
 Rec: 8/4/11 MFR exp. 02/28/14

Unleaded gasoline composite

**REST**  
Cat# 30205

Lot #: A076842 - 29141  
Rec: 8/4/11 MFR exp. 10/31/17

10/30/11 B-  
RS.

Unleaded Gasoline Composite Standard  
50000 ug/mL each in P&T Methanol  
Lot# A076842 By Date: 10/2017 Store: Freezer  
Rest Corporation, 110 Berlin Circle • Beloit, WI 15823

10/30/11C						APPL	
20000ug/ml Gasoline		Cone.			Date	Exp.	
Supplier	ID #	ug/ml	Lot #	Code	Date	u1	
Supelco	LB82077	Gasoline	LB82077-29133	10-30-11A	11/2/2012	200	
J&T Brand		Purge & Trap MeOH	K14E06-00556	10/27/2011	3/2/2012	1800	
10/30/11D						APPL	
20000ug/ml Unleaded Gasoline		Cone.			Date	Exp.	
Supplier	ID #	ug/ml	Lot #	Code	Date	u1	
Supelco	30205	Unleaded Gasoline	A076842-29141	10-30-11B	11/10/2012	60	
J&T Brand		Purge & Trap MeOH	X14E05-00556	10/27/2011	3/2/2012	1920	

10/30/11 RS.

**GOMS STANDARD PREPARATION BOOK #** \_\_\_\_\_ **PAGE #** 101

**Volatile Standard Curve Preparation for 10mL Purge (8260 Water)-CHICO**

Expiration Date	11/04/2011	50µg/ml Vol Std #3	50µg/ml Vol Std #7	50µg/ml Vol Std #8	50µg/ml Surrogate	50µg/ml Std #10	50µg/ml Std #11	50µg/ml Std #12	50µg/ml Std #13
Date	Conc.	10-28-11AB	10-28-11AF	10-28-11K	10-28-11Z	10-28-11AF	10-28-11Y	10-28-11A	10-28-11AD
Code	Vol.	Exp.11-04-11	Exp.11-04-11	Exp.11-04-11	Exp.11-04-11	Exp.11-04-11	Exp.11-04-11	Exp.11-04-11	Exp.11-04-11
11-04-11A	0.3	3	6	n/a	n/a	3	n/a	3	5
11-04-11B	0.5	5	10	n/a	n/a	5	n/a	5	10
11-04-11C	1	10	20	n/a	n/a	10	n/a	n/a	20
11-04-11D	2	20	40	n/a	n/a	20	n/a	n/a	40
11-04-11E	5	n/a	n/a	5	10	n/a	5	5	n/a
11-04-11F	10	n/a	n/a	10	10	25	n/a	10	20
11-04-11G	20	n/a	n/a	20	20	40	n/a	20	n/a
11-04-11H	40	n/a	n/a	40	40	80	n/a	40	n/a
11-04-11I	100	n/a	n/a	100	100	n/a	100	100	n/a

250µg/ml TAPD	Final Vol
10-28-11AG	w/PAT1201
Exp.11-04-11	ml
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

**Volatile Standard Curve Preparation for 10mL Purge (8260 water)-MAX**

Expiration Date	11/04/2011	50µg/ml Vol Std #3	50µg/ml Vol Std #7	50µg/ml Vol Std #8	50µg/ml Surrogate	50µg/ml Std #10	50µg/ml Std #11	50µg/ml Std #12	50µg/ml Std #13
Date	Conc.	10-28-11AB	10-28-11AF	10-28-11K	10-28-11Z	10-28-11AF	10-28-11Y	10-28-11A	10-28-11AD
Code	Vol.	Exp.11-04-11	Exp.11-04-11	Exp.11-04-11	Exp.11-04-11	Exp.11-04-11	Exp.11-04-11	Exp.11-04-11	Exp.11-04-11
11-04-11J	0.3	3	6	n/a	n/a	3	n/a	3	5
11-04-11K	0.5	5	10	n/a	n/a	5	n/a	5	10
11-04-11L	1	10	20	n/a	n/a	10	n/a	10	20
11-04-11M	2	20	40	n/a	n/a	20	n/a	20	n/a
11-04-11N	5	n/a	n/a	5	5	10	n/a	5	n/a
11-04-11O	10	n/a	n/a	10	10	25	n/a	10	20
11-04-11P	20	n/a	n/a	20	20	40	n/a	20	n/a
11-04-11Q	40	n/a	n/a	40	40	80	n/a	40	n/a
11-04-11R	100	n/a	n/a	100	100	n/a	100	100	n/a

250µg/ml TAPD	Final Vol
10-28-11AG	w/PAT1201
Exp.11-04-11	ml
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

**Method 8260 Gases, 2,000**

mg/L 2 X 0.5 ml

120016-01

Lot# Storage Expiry  
169238 S-10 Degrees 2/19/12  
Shelf P/T Matheron

**Method 8260 Gases**

Lot #: 169238 - 28863

Rec: 4/20/11 MFR exp. 02/19/14

**Hexachloroethane Solution,**

1000 mg/L 1 ml

020218-02

Lot# Storage Expiry  
163373 S-10 Degrees 8/29/12  
Shelf P/T Matheron

**Hexachloroethane**

Lot #: 164816 - 29151

Rec: 8/5/11 MFR exp. 10/14/12

**Benzyl Chloride Solution, 1000**

mg/L 1 ml

020218-02

Lot# Storage Expiry  
163373 S-10 Degrees 8/29/12  
Shelf P/T Matheron

**Benzyl Chloride**

Lot #: 163373 - 29187

Rec: 8/5/11 MFR exp. 08/29/12

## Injection Log

Directory: M:\CHICO\DATA\C111030\ and M:\CHICO\DATA\C111104\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1030C00T.D	1	20ug/mL BFB STD 10-19-11B	2ul	30 Oct 11 12:52
2	1	1030C05W.D	1	Vol Std 10-30-11@20ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 16:17
3	1	1030C06W.D	1	Vol Std 10-30-11@50ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 17:00
4	1	1030C07W.D	1	Vol Std 10-30-11@100ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 17:43
5	1	1030C08W.D	1	Vol Std 10-30-11@300ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 18:26
6	1	1030C09W.D	1	Vol Std 10-30-11@600ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 19:09
7	1	1030C10W.D	1	Vol Std 10-30-11@800ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 19:52
8	1	1030C11W.D	1	Vol Std 10-30-11@1000ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 20:35
9	1	1030C26W.D	1	20ug/mL BFB STD 10-19-11	Water 2ul	31 Oct 11 7:21
10	1	1030C29W.D	1	GAS 300ug/L (SS)	Water 10mLw/ IS&S:10-30/10-26-11	31 Oct 11 9:31
11	1	1104C00T.D	1	20ug/ml BFB Std 02-17-10D	2ul	4 Nov 11 8:59
12	1	1104C04W.D	1	VOL STD 11-04-11@0.3ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 12:17
13	1	1104C05W.D	1	VOL STD 11-04-11@0.5ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 13:00
14	1	1104C06W.D	1	VOL STD 11-04-11@1.0ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 13:43
15	1	1104C07W.D	1	VOL STD 11-04-11@2.0ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 14:26
16	1	1104C08W.D	1	VOL STD 11-04-11@5.0ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 15:10
17	1	1104C09W.D	1	VOL STD 11-04-11@10ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 15:53
18	1	1104C10W.D	1	VOL STD 11-04-11@20ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 16:36
19	1	1104C11W.D	1	VOL STD 11-04-11@40ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 17:19
20	1	1104C12W.D	1	VOL STD 11-04-11@100ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 18:02
21	1	1104C13W.D	1	20ug/mL BFB STD 10-19-11B	2ul	4 Nov 11 18:46
22	1	1104C17W.D	1	111104A LCS-1WC	Water 10mLw/ IS:10-30-11	4 Nov 11 21:38
23	1	1105C00T.D	1	20ug/ml BFB Std 02-17-10D	2ul	5 Nov 11 10:47
24	1	1105C02W.D	1	VOC STD 11-5-11@10ug/L	Water 10mLw/ IS:10-30-11	5 Nov 11 12:02
25	1	1105C03W.D	1	111105A LCS-1WC	Water 10mLw/ IS:10-30-11	5 Nov 11 12:45
26	1	1105C05W.D	1	Gas CCV 11-05-11@300ug/L	Water 10mLw/ IS:10-30-11	5 Nov 11 14:11
27	1	1105C06W.D	1	111105A LCS-1WC (GAS)	Water 10mLw/ IS:10-30-11	5 Nov 11 14:54
28	1	1105C09W.D	1	111105A BLK-1WC	Water 10mLw/ IS:10-30-11	5 Nov 11 17:04
29	1	1105C10W.D	1	AY50004W01	Water 10mLw/ IS:10-30-11	5 Nov 11 17:48
30	1	1105C11W.D	1	AY50005W01	Water 10mLw/ IS:10-30-11	5 Nov 11 18:31

**METALS**

**APPL, INC.**

**METALS**  
**QC Summary**

**APPL, INC.**

# METALS BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.19 J	0.5	0.22	0.11	ug/L	11/10/11	11/11/11	#602D-111110A-AY49334

J = Estimated value.

# 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	50.0	100	80-120	11/10/2011	1/11/2011	#602D-111110A-AY49334

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

\_\_\_\_\_

\_\_\_\_\_

**METALS**  
**Sample Data**

**APPL, INC.**

## Metals Analysis

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Stacey Fineran  
Project: RED HILL/1022-024  
**Sample ID: ES057**  
Sample Collection Date: 11/2/2011

ARF: 66186  
**APPL ID: AY50005**

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	11/10/2011	11/11/2011

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\11K11100.B\067SMPL.D\067SMPL.DS  
 Date Acquired: Nov 11 2011 06:46 pm  
 Operator: NBS  
 Sample Name: AY5000SW08  
 Misc Info: 111110A-3015  
 Vial Number: 3306  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 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	10.03	1000	
11 B	34.60 ug/l	38.44	1.01	1000	
23 Na	30780.00 ug/l	34196.58	0.62	25000	>Cal
24 Mg	9018.00 ug/l	10019.00	0.81	50000	
27 Al	9.35 ug/l	10.38	5.11	20000	
39 K	1865.00 ug/l	2072.02	1.10	20000	
44 Ca	14170.00 ug/l	15742.87	0.68	50000	
47 Ti	0.98 ug/l	1.09	9.48	1000	
51 V	-0.25 ug/l	-0.27	9.33	1000	
52 Cr	0.08 ug/l	0.09	8.97	1000	
55 Mn	832.50 ug/l	924.91	1.02	1000	
56 Fe	460.70 ug/l	511.84	0.09	20000	
59 Co	0.63 ug/l	0.70	2.59	1000	
60 Ni	0.70 ug/l	0.78	4.54	1000	
63 Cu	0.01 ug/l	0.02	54.35	1000	
65 Cu	0.03 ug/l	0.03	87.59	1000	
66 Zn	3.94 ug/l	4.37	2.72	1000	
75 As	-0.36 ug/l	-0.40	5.37	1000	
78 Se	0.02 ug/l	0.02	64.15	1000	
78 Se	0.07 ug/l	0.07	82.23	1000	
88 Sr	88.98 ug/l	98.86	0.41	1000	
88 Sr	90.71 ug/l	100.78	0.28	1000	
95 Mo	0.15 ug/l	0.17	3.57	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.00 ug/l	0.00	70.06	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.01 ug/l	0.01	81.65	1000	
118 Sn	0.12 ug/l	0.13	13.45	1000	
121 Sb	0.12 ug/l	0.13	5.87	1000	
137 Ba	10.65 ug/l	11.83	0.30	1000	
205 Tl	0.01 ug/l	0.01	29.17	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	-0.16 ug/l	-0.18	1.21	1000	

**ISTD Elements**

Element	CP8 Mean	RSD(%)	Ref Value	Rec(t)	QC Range(%)	Flag
6 Li	2761134.00	0.73	2775704.50	99.5	70 - 120	
45 Sc	630742.81	1.52	500780.41	126.0	70 - 120	IS Fai
45 Sc	102167.70	0.46	95494.08	107.0	70 - 120	
45 Sc	2003765.60	1.31	1460980.80	137.2	70 - 120	IS Fai
72 Ge	105359.95	1.32	96219.04	109.5	70 - 120	
72 Ge	47048.36	0.72	43611.78	107.9	70 - 120	
72 Ge	234247.27	0.62	213204.63	109.9	70 - 120	
115 In	1539035.80	1.11	1381264.00	111.4	70 - 120	
159 Tb	2074430.00	0.47	1843940.90	112.5	70 - 120	
165 Ho	2051384.50	0.92	1844184.90	111.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.DS

1 :Element Failures      0 :Max. Number of Failures Allowed  
 2 :ISTD Failures      0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Fail  
 ISTD: Fail

**METALS**  
**Calibration Data**

**APPL, INC.**

A.P.P.L. INC.  
2A  
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.  
 ARF No: 66186 SDG: 66186  
 Initial Calibration Source: CPI  
 Continuing Calibration Source: Environmental Express  
 Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M	
	True	Found 12:39	%R(1)	True CCVI	Found 13:03	%R(1)	True CCVI	Found 13:33		
Lead (Pb)	100	106.3	106	50	50.31	101	50	50.34	101	P

A.P.P.L. INC.  
2A  
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 66186 SDG: 66186

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	True	Found	
Lead (Pb)	100	106.3	106	50	49.96	99.9	50	48.04	96.1 P

A.P.P.L. INC.  
2A  
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.  
ARF No: 66186 SDG: 66186

Initial Calibration Source: CPI  
Continuing Calibration Source: Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 12:39	%R(1)	True CCV1	Found 18:59	%R(1)	True	Found	%R(1)	
Lead (Pb)	100	106.3	106	50	47.78	95.6				P

A.P.P.L. INC.

3

BLANKS

Lab Name: A.P.P.L. INC.

Contract: Environet, Inc.

ARF No.: 66186

SDG: 66186

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 11/11/2011

Analyte	Initial Calibration Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		1	C	2	C	3	C		
Lead (Pb)	12:57		13:09		13:46		15:17		14:16
		.50	U	.50	U	.50	U	.50	U
								.19	J P

## A.P.P.L. INC.

3

## BLANKS

Lab Name: A.P.P.L. INC.Contract: Environet, Inc.ARF No.: 66186SDG: 66186Preparation Blank Matrix (soil/water): waterPreparation Blank Concentration Units (ug/L or mg/kg): ug/LAnalysis Date: 11/11/2011

Analyte	Initial Calibration Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		C	1	C	2	C	3		
Lead (Pb)	.50 U	12:57		18:16		19:11			14:16

## A.P.P.L. INC.

4

## ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC.Contract: Environet, Inc.ARF No.: 66186SDG: 66186ICP ID Number: OptimusICS Source: Environmental ExpressAnalysis Date: 11/11/2011Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 13:15	Sol AB 13:21	%R(1)
Lead (Pb)		500	3.499	502	100

(1) Control Limits: Metals 80-120

50005\_602D\_Opti\_11111A

FORM V - IN

ILM02.0

**Calibration Blank QC Report**

Data File: C:\ICPCHEM\1\DATA\11K11100.B\004CAL  
 Date Acquired: Nov 11 2011 12:08 pm  
 Operator: NBS  
 Sample Name: Calibration Blank  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:06 pm  
 Sample Type: CalBlk  
 Total Dil Factor: 1.00

**QC&ISTD Elements**

Element	CPS Mean	SD	RSD(%)
6 Li	2775705.00 A	31080.00	1.12
7 (Li)	152897.91 P	508.10	0.33
9 Be	164.45 P	15.75	9.58
11 B	9503.37 P	213.80	2.25
23 Na	81958.40 P	248.30	0.30
24 Mg	134.45 P	6.94	5.16
27 Al	111.12 P	16.78	15.10
39 K	60334.78 P	2276.00	3.77
44 Ca	384.84 P	48.59	12.63
45 Sc	500780.41 P	2032.00	0.41
45 Sc	95494.08 P	252.60	0.26
45 Sc	1460981.00 A	25510.00	1.75
47 Ti	4.89 P	0.77	15.75
51 V	3955.25 P	110.20	2.79
52 Cr	547.13 P	20.02	3.66
55 Mn	165.78 P	8.57	5.17
56 Fe	5746.57 P	137.00	2.38
59 Co	1492.99 P	62.44	4.18
60 Ni	69.78 P	22.72	32.56
63 Cu	2222.87 P	55.11	2.48
65 Cu	1076.95 P	27.98	2.60
66 Zn	207.12 P	12.10	5.84
72 Ge	96219.04 P	484.10	0.50
72 Ge	43611.78 P	490.40	1.12
72 Ge	213204.59 P	1657.00	0.78
75 As	266.34 P	7.21	2.71
78 Se	4.67 P	1.53	32.74
78 Se	30.00 P	1.16	3.85
88 Sr	48.89 P	8.39	17.16
88 Sr	188.90 P	11.71	6.20
95 Mo	111.12 P	22.69	20.42
106 (Cd)	31.11 P	10.18	32.72
107 Ag	35.56 P	13.47	37.88
108 (Cd)	27.78 P	5.09	18.33
111 Cd	0.12 P	4.33	3513.10
115 In	1381264.00 A	15790.00	1.14
118 Sn	495.58 P	60.50	12.21
121 Sb	323.35 P	35.28	10.91
137 Ba	91.12 P	13.47	14.78
159 Tb	1843941.00 A	33820.00	1.83
165 Ho	1844185.00 A	22050.00	1.20
205 Tl	78.89 P	5.09	6.45
206 (Pb)	1670.17 P	51.97	3.11
207 (Pb)	1455.69 P	79.06	5.43
208 Pb	6738.71 P	70.43	1.05

## Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\005CALB.D\005CALB.DH  
 Date Acquired: Nov 11 2011 12:14 pm  
 Operator: NBS  
 Sample Name: 111111 Standard 1  
 Miss Info:  
 Vial Number: 1103  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:12 pm  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

## QC&amp;ISTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	2934478.00 A	12100.00	0.41	0.0000
7 {Li}	160812.41 P	1256.00	0.79	0.0000
9 Be	1031.18 P	27.15	2.63	0.0000
11 B	10014.79 P	224.80	2.24	0.0000
23 Na	101764.30 P	5296.00	5.20	0.0000
24 Mg	2435.84 P	56.81	2.33	0.0000
27 Al	465.58 P	50.04	10.75	0.0000
39 K	63486.74 P	1758.00	2.77	0.0000
44 Ca	441.03 P	5.03	1.14	0.0000
45 Sc	483714.81 P	17820.00	3.68	0.0000
45 Sc	96706.18 P	602.60	0.62	0.0000
45 Sc	1494561.00 A	14240.00	0.95	0.0000
47 Ti	16.89 P	3.36	19.87	0.0000
51 V	4556.33 P	51.66	1.13	0.0000
52 Cr	876.48 P	32.73	3.73	0.0000
55 Mn	7451.77 P	52.30	0.70	0.0000
56 Fe	12699.44 P	213.90	1.68	0.0000
59 Co	1820.58 P	82.65	4.54	0.0000
60 Ni	166.23 P	12.10	7.28	0.0000
63 Cu	3334.65 P	61.70	1.85	0.0000
65 Cu	1647.67 P	94.43	5.73	0.0000
66 Zn	231.56 P	11.34	4.90	0.0000
72 Ge	93081.49 P	2181.00	2.34	0.0000
72 Ge	43620.24 P	387.20	0.89	0.0000
72 Ge	210910.70 P	1414.00	0.67	0.0000
75 As	300.78 P	7.07	2.35	0.0000
78 Se	21.00 P	2.60	12.40	0.0000
78 Se	30.33 P	6.33	20.98	0.0000
88 Sr	303.35 P	25.17	8.30	0.0000
88 Sr	1913.54 P	79.67	4.16	0.0000
95 Ho	385.58 P	18.36	4.76	0.0000
106 (Cd)	51.11 P	6.94	13.58	0.0000
107 Ag	447.80 P	37.47	8.37	0.0000
108 (Cd)	28.89 P	17.10	59.19	0.0000
111 Cd	182.07 P	18.49	10.16	0.0000
115 In	1383497.00 A	12980.00	0.94	0.0000
110 Sn	901.17 P	20.10	2.23	0.0000
121 Sb	988.96 P	26.95	2.73	0.0000
137 Ba	304.46 P	49.48	16.25	0.0000
159 Tb	1838841.00 A	19950.00	1.08	0.0000
165 Ho	1842078.00 A	20850.00	1.13	0.0000
205 Tl	1497.92 P	40.19	2.68	0.0000
206 (Pb)	2154.70 P	105.60	4.90	0.0000
207 (Pb)	1842.42 P	104.10	5.65	0.0000
208 Pb	8565.85 P	320.10	3.74	0.0000

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(t)	QC Range(t)	Flag
6 Li	2934478.30	0.41	2775704.50	105.7	70 -	120
45 Sc	483714.78	3.68	500780.41	96.6	70 -	120
45 Sc	96706.18	0.62	95494.08	101.3	70 -	120
45 Sc	1494561.00	0.95	1460980.80	102.3	70 -	120
72 Ge	93081.49	2.34	96219.04	95.7	70 -	120
72 Ge	43620.24	0.89	43611.78	100.0	70 -	120
72 Ge	210910.72	0.67	213204.63	98.9	70 -	120
115 In	1383496.90	0.94	1381264.00	100.2	70 -	120
159 Tb	1838841.50	1.08	1843940.90	99.7	70 -	120
165 Ho	1842078.10	1.13	1844184.90	99.9	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.DH

--- :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\11K11100.B\005CALS.D\006CALS.DB  
 Date Acquired: Nov 11 2011 12:20 pm  
 Operator: NBS  
 Sample Name: 111111 Standard 2  
 Misc Info:  
 Vial Number: 1104  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:18 pm  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

**QC&ISTD Elements**

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	3013436.00 A	14250.00	0.47	0.0000
7 (Li)	162843.41 P	655.10	0.40	1.0000
9 Be	10180.43 P	411.30	4.04	1.0000
11 B	16379.42 P	483.40	2.95	1.0000
23 Na	196689.50 P	7056.00	3.59	1.0000
24 Mg	23141.91 P	43.26	0.19	1.0000
27 Al	4021.80 P	226.90	5.64	1.0000
39 K	76357.12 P	2463.00	3.23	1.0000
44 Ca	1793.11 P	71.50	3.99	1.0000
45 Sc	510541.00 P	4569.00	0.89	0.0000
45 Sc	97262.66 P	635.50	0.65	0.0000
45 Sc	1465690.00 A	21530.00	1.47	0.0000
47 Ti	156.45 P	19.06	12.18	1.0000
51 V	8092.54 P	134.80	1.67	1.0000
52 Cr	4117.09 P	42.23	1.03	1.0000
55 Mn	61442.06 P	651.50	1.06	1.0000
56 Fe	82436.35 P	925.30	1.12	1.0000
59 Co	6109.79 P	52.36	0.86	1.0000
60 Ni	1393.64 P	28.30	2.05	1.0000
63 Cu	15516.40 P	233.60	1.51	1.0000
65 Cu	7559.83 P	73.09	0.97	1.0000
66 Zn	1430.31 P	74.87	5.23	1.0000
72 Ge	96818.69 P	1004.00	1.04	0.0000
72 Ge	44609.64 P	326.50	0.73	0.0000
72 Ge	203708.30 P	1751.00	0.86	0.0000
75 As	639.35 P	17.53	2.74	1.0000
78 Se	175.22 P	7.34	4.19	1.0000
78 Se	81.11 P	6.83	8.43	1.0000
88 Sr	3138.24 P	234.10	7.46	1.0000
88 Sr	17034.09 P	556.30	3.27	1.0000
95 Mo	3096.01 P	35.02	1.13	1.0000
106 (Cd)	180.01 P	18.56	10.31	1.0000
107 Ag	4028.49 P	77.05	1.91	1.0000
108 (Cd)	138.89 P	13.47	9.70	1.0000
111 Cd	1685.97 P	41.67	2.47	1.0000
115 In	1324038.00 A	6932.00	0.52	0.0000
118 Sn	5423.48 P	180.10	3.32	1.0000
121 Sb	6328.31 P	130.20	2.06	1.0000
137 Ba	2328.05 P	139.60	6.00	1.0000
159 Tb	1820559.00 A	17780.00	0.98	0.0000
165 Ho	1818461.00 A	19460.00	1.07	0.0000
205 Tl	15160.28 P	220.10	1.45	1.0000
206 (Pb)	7664.74 P	91.74	1.20	1.0000
207 (Pb)	7014.34 P	72.68	1.04	1.0000
208 Pb	31156.53 P	401.40	1.29	1.0000

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3013436.30	0.47	2775704.50	106.6	70 -	120
45 Sc	510541.06	0.89	500780.41	101.9	70 -	120
45 Sc	97262.66	0.65	95494.08	101.9	70 -	120
45 Sc	1465690.00	1.47	1460980.80	100.3	70 -	120
72 Ge	96818.70	1.04	95219.04	100.6	70 -	120
72 Ge	44609.64	0.73	43611.78	102.3	70 -	120
72 Ge	203708.33	0.86	213204.63	95.5	70 -	120
115 In	1324038.00	0.52	1381264.00	95.9	70 -	120
159 Tb	1820559.10	0.98	1843940.90	98.7	70 -	120
165 Ho	1818460.60	1.07	1844184.90	98.6	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.DB

--: 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\11K11100.B\007CALB.D\007CALB.D#  
 Date Acquired: Nov 11 2011 12:27 pm  
 Operator: NBS  
 Sample Name: 111111 Standard 3  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Updated: Nov 11 2011 12:24 pm  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

**QC&ISTD Elements**

Element	CPS Mean	SD	RSD(%)	Cal Coef	
6 Li	3129745.00	A	45260.00	1.45	0.0000
7 (Li)	169858.91	P	576.50	0.34	0.7236
9 Be	529831.50	P	2404.00	0.45	0.9999
11 B	352525.41	P	4097.00	1.16	0.9985
23 Na	1470286.00	A	17010.00	1.16	0.9979
24 Mg	1292682.00	A	17130.00	1.33	1.0000
27 Al	182025.00	P	2356.00	1.29	1.0000
39 K	502725.09	P	1262.00	0.25	0.9983
44 Ca	52265.13	P	789.60	1.51	0.9983
45 Sc	522323.31	P	4813.00	0.92	0.0000
45 Sc	98761.96	P	1402.00	1.42	0.0000
45 Sc	1523925.00	A	17440.00	1.14	0.0000
47 Ti	6316.10	P	62.52	0.99	0.9998
51 V	161320.00	P	2272.00	1.41	0.9994
52 Cr	179336.20	P	1262.00	0.70	1.0000
55 Mn	136966.41	P	606.40	0.59	0.9998
56 Fe	3466730.00	A	34680.00	1.00	1.0000
59 Co	254063.59	P	2599.00	1.02	0.9995
60 Ni	64869.85	P	659.40	1.02	0.9997
63 Cu	172209.41	P	983.40	0.57	0.9999
65 Cu	82567.48	P	346.90	0.42	1.0000
66 Zn	30294.80	P	353.70	1.17	0.9973
72 Ge	98255.19	P	550.50	0.56	0.0000
72 Ge	46262.58	P	34.38	0.07	0.0000
72 Ge	211131.20	P	2095.00	0.99	0.0000
75 As	20258.79	P	48.21	0.24	1.0000
78 Se	8196.34	P	137.70	1.68	1.0000
78 Se	2382.20	P	19.65	0.84	0.9963
88 Sr	152226.41	P	2676.00	1.76	0.9999
88 Sr	853159.19	P	3826.00	0.45	1.0000
95 Mo	152546.09	P	1308.00	0.86	0.9999
106 (Cd)	7779.08	P	43.36	0.56	0.9995
107 Ag	203275.00	P	1362.00	0.67	1.0000
108 (Cd)	5050.30	P	115.70	1.98	0.9966
111 Cd	85595.10	P	417.50	0.49	1.0000
115 In	1359449.00	A	15030.00	1.11	0.0000
110 Sn	233787.30	P	2145.00	0.92	0.9998
121 Sb	303264.81	P	1162.00	0.38	1.0000
137 Ba	112289.00	P	1153.00	1.03	1.0000
159 Tb	1852128.00	A	3859.00	0.21	0.0000
165 Ho	1866389.00	A	18420.00	0.99	0.0000
205 Tl	767163.63	P	3647.00	0.48	1.0000
208 (Pb)	267422.81	P	439.20	0.16	0.9998
207 (Pb)	229702.30	P	967.40	0.42	0.9996
208 Pb	1066559.00	P	3421.00	0.32	0.9997

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3129745.00	1.45	2775704.50	112.8	70 -	120
45 Sc	522323.34	0.92	500780.41	104.3	70 -	120
45 Sc	98761.96	1.42	95494.08	103.4	70 -	120
45 Sc	1523925.40	1.14	1460980.80	104.3	70 -	120
72 Ge	98255.19	0.56	96219.04	102.1	70 -	120
72 Ge	46262.59	0.07	43611.78	106.1	70 -	120
72 Ge	211131.19	0.99	213204.63	99.0	70 -	120
115 In	1359449.00	1.11	1381264.00	98.4	70 -	120
159 Tb	1852128.10	0.21	1843940.90	100.4	70 -	120
165 Ho	1866389.00	0.99	1844184.90	101.2	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.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\11K11100.B\008CALS.D\008CALS.DH  
 Date Acquired: Nov 11 2011 12:33 pm  
 Operator: NBS  
 Sample Name: 111111 Standard 4  
 Misc Info:  
 Vial Number: 1106  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:30 pm  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

## QCSTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef	
6 Li	3091825.00	A	34660.00	1.12	0.0000
7 (Li)	169207.09	P	2476.00	1.46	0.7966
9 Be	1184909.00	A	5168.00	0.44	1.0000
11 B	825041.63	A	8516.00	1.03	1.0000
23 Na	2686206.00	A	10730.00	0.40	0.9984
24 Mg	2535966.00	A	10300.00	0.41	1.0000
27 Al	366543.31	P	3283.00	0.90	1.0000
39 K	1039409.00	A	8793.00	0.85	0.9999
44 Ca	104146.20	P	1221.00	1.17	1.0000
45 Sc	526807.38	P	1501.00	0.28	0.0000
45 Sc	100637.20	P	272.50	0.27	0.0000
45 Sc	1546820.00	A	41280.00	2.67	0.0000
47 Ti	12883.09	P	335.40	2.60	1.0000
51 V	324487.59	P	1452.00	0.45	1.0000
52 Cr	360663.69	P	2389.00	0.66	1.0000
55 Mn	247566.30	P	2652.00	1.16	0.9063
56 Fe	6831163.00	A	89870.00	1.32	1.0000
59 Co	505973.59	P	1092.00	0.22	1.0000
60 Ni	128756.60	P	486.80	0.38	1.0000
63 Cu	331294.91	P	1236.00	0.37	0.9984
65 Cu	158678.41	P	595.70	0.38	0.9983
66 Zn	58476.31	P	247.90	0.42	0.9998
72 Ge	100101.50	P	582.20	0.58	0.0000
72 Ge	46752.66	P	94.61	0.20	0.0000
72 Ge	215920.09	P	4942.00	2.29	0.0000
75 As	41314.20	P	335.50	0.81	1.0000
78 Se	16782.66	P	111.00	0.66	1.0000
78 Se	4841.04	P	45.62	0.94	1.0000
88 Sr	308415.19	P	2179.00	0.71	1.0000
88 Sr	1836004.00	A	12020.00	0.65	1.0000
95 Mo	308376.41	P	620.60	0.20	1.0000
106 (Cd)	15606.90	P	85.03	0.54	1.0000
107 Ag	402429.69	P	2133.00	0.53	1.0000
108 (Cd)	11381.61	P	175.20	1.54	1.0000
111 Cd	169137.09	P	1111.00	0.66	1.0000
115 In	1356694.00	A	39030.00	2.88	0.0000
118 Sn	461432.81	P	1252.00	0.27	1.0000
121 Sb	616792.50	P	2811.00	0.46	1.0000
137 Ra	224905.80	P	424.60	0.19	1.0000
159 Tb	1896056.00	A	51090.00	2.69	0.0000
165 Ho	1892444.00	A	47210.00	2.49	0.0000
205 Tl	1621888.00	A	15450.00	0.95	1.0000
206 (Pb)	524239.50	P	2392.00	0.46	1.0000
207 (Pb)	484785.81	P	2844.00	0.63	1.0000
208 Pb	2164409.00	A	4337.00	0.20	1.0000

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	OC Range(%)	Flag
6 Li	3091824.50	1.12	2775704.60	111.4	70 -	120
45 Sc	526807.44	0.28	500780.41	105.2	70 -	120
45 Sc	100637.22	0.27	95494.08	105.4	70 -	120
45 Sc	1546819.50	2.67	1460980.80	105.9	70 -	120
72 Ge	100101.52	0.58	96219.04	104.0	70 -	120
72 Ge	46752.66	0.20	43611.78	107.2	70 -	120
72 Ge	215920.11	2.29	213204.63	101.3	70 -	120
115 In	1356693.50	2.88	1391264.00	98.2	70 -	120
159 Tb	1896055.90	2.69	1843940.90	102.8	70 -	120
165 Ho	1892443.90	2.49	1844184.90	102.6	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.DH

-- :Element Failures --- :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass

## QCS QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\009\_QCS.D\009\_QCS.D#  
 Date Acquired: Nov 11 2011 12:39 pm  
 Operator: NBS  
 Sample Name: ICV 11111  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 pm  
 Sample Type: QCS  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	Expected QC	Range(%)	Flag
7 Li	----- ug/l	-----	100.00	90 - 110	
9 Be	107.60 ug/l	0.95	100.00	90 - 110	
11 B	105.70 ug/l	0.67	100.00	90 - 110	
23 Na	2518.00 ug/l	0.81	2500.00	90 - 110	
24 Mg	2533.00 ug/l	0.67	2500.00	90 - 110	
27 Al	2547.00 ug/l	1.32	2500.00	90 - 110	
39 K	2615.00 ug/l	0.71	2500.00	90 - 110	
44 Ca	2519.00 ug/l	0.47	2500.00	90 - 110	
47 Ti	97.29 ug/l	0.90	100.00	90 - 110	
51 V	103.40 ug/l	0.55	100.00	90 - 110	
52 Cr	106.50 ug/l	0.63	100.00	90 - 110	
55 Mn	106.70 ug/l	0.21	100.00	90 - 110	
56 Fe	2516.00 ug/l	1.06	2500.00	90 - 110	
59 Co	104.60 ug/l	0.25	100.00	90 - 110	
60 Ni	104.70 ug/l	0.28	100.00	90 - 110	
63 Cu	102.50 ug/l	1.70	100.00	90 - 110	
65 Cu	102.20 ug/l	1.45	100.00	90 - 110	
66 Zn	104.10 ug/l	1.10	100.00	90 - 110	
75 As	98.86 ug/l	1.38	100.00	90 - 110	
78 Se	103.60 ug/l	1.81	100.00	90 - 110	
78 Se	104.10 ug/l	2.03	100.00	90 - 110	
88 Sr	101.20 ug/l	1.63	100.00	90 - 110	
88 Sr	104.30 ug/l	0.60	100.00	90 - 110	
95 Mo	96.15 ug/l	1.35	100.00	90 - 110	
106 (Cd)	----- ug/l	-----	100.00	90 - 110	
107 Ag	46.26 ug/l	0.71	50.00	90 - 110	
108 (Cd)	----- ug/l	-----	100.00	90 - 110	
111 Cd	103.60 ug/l	0.47	100.00	90 - 110	
118 Sn	43.82 ug/l	0.17	50.00	90 - 110	Fail
121 Sb	102.70 ug/l	0.18	100.00	90 - 110	
137 Ba	99.56 ug/l	0.34	100.00	90 - 110	
205 Tl	106.40 ug/l	1.20	100.00	90 - 110	
206 (Pb)	----- ug/l	-----	100.00	90 - 110	
207 (Pb)	----- ug/l	-----	100.00	90 - 110	
208 Pb	106.30 ug/l	0.89	100.00	90 - 110	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3157481.00	0.39	2775704.50	113.8	70 - 120	
45 Sc	523431.13	0.16	500780.41	104.5	70 - 120	
45 Sc	100384.52	0.40	95494.08	105.1	70 - 120	
45 Sc	1532510.60	0.50	1460980.80	104.9	70 - 120	
72 Ge	99727.78	0.25	96219.04	103.6	70 - 120	
72 Ge	46938.75	0.91	43611.78	107.6	70 - 120	
72 Ge	212917.78	0.32	213204.63	99.9	70 - 120	
115 In	1371120.50	0.09	1381264.00	99.3	70 - 120	
159 Tb	1873353.00	0.83	1843940.90	101.6	70 - 120	
165 Ho	1868336.50	1.05	1844184.90	101.3	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.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

## CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\012\_CCB.D\012\_CCB.D#  
 Date Acquired: Nov 11 2011 12:57 pm  
 Operator: NBS  
 Sample Name: ICB 111111  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD (%)	High Limit	Flag
7 Li	----- ug/l	-----	#VALUE!	
9 Be	0.00 ug/l	64.25	0.12	
11 B	0.03 ug/l	45.15	15.00	
23 Na	7.71 ug/l	0.18	77.10	
24 Mg	0.10 ug/l	55.44	7.50	
27 Al	0.09 ug/l	51.89	3.96	
39 K	-16.07 ug/l	31.35	19.20	
44 Ca	2.26 ug/l	102.26	90.00	
47 Ti	0.02 ug/l	221.48	0.78	
51 V	0.57 ug/l	2.59	0.21	Fail
52 Cr	0.01 ug/l	92.18	0.12	
55 Mn	0.00 ug/l	249.24	0.18	
56 Fe	0.25 ug/l	4.89	40.80	
59 Co	-0.25 ug/l	1.58	0.09	
60 Ni	0.00 ug/l	280.61	0.48	
63 Cu	-0.13 ug/l	3.22	0.39	
65 Cu	-0.13 ug/l	16.74	0.39	
66 Zn	-0.01 ug/l	406.21	6.90	
75 As	-0.09 ug/l	15.13	0.27	
78 Se	0.01 ug/l	58.10	0.30	
79 Se	0.05 ug/l	139.53	0.30	
88 Sr	0.00 ug/l	1034.40	0.03	
89 Sr	0.00 ug/l	24.09	0.03	
95 Mo	0.03 ug/l	16.72	0.21	
106 (Cd)	----- ug/l	-----	#VALUE!	
107 Ag	0.00 ug/l	50.39	0.09	
108 (Cd)	----- ug/l	-----	#VALUE!	
111 Cd	0.01 ug/l	58.78	0.06	
118 Sn	0.03 ug/l	55.51	0.30	
121 Sb	0.13 ug/l	5.57	0.03	Fail
137 Ba	0.01 ug/l	116.79	0.12	
205 Tl	0.01 ug/l	38.28	0.03	
206 (Pb)	----- ug/l	-----	#VALUE!	
207 (Pb)	----- ug/l	-----	#VALUE!	
208 Pb	-0.20 ug/l	0.78	0.33	

## ISTD Elements

Element	CPS Mean	RSD (%)	Ref Value	Rec (%)	QC Range (%)	Flag
6 Li	3073279.00	0.84	2775704.50	110.7	70 - 120	
45 Sc	545909.38	3.12	500780.41	109.0	70 - 120	
45 Sc	100165.70	0.44	95494.08	104.9	70 - 120	
45 Sc	1499557.30	0.22	1460980.80	102.6	70 - 120	
72 Ge	101795.60	2.62	96219.04	105.8	70 - 120	
72 Ge	46734.16	0.18	43611.78	107.2	70 - 120	
72 Ge	210654.83	0.54	213204.63	98.8	70 - 120	
115 In	1336860.30	0.89	1381264.00	96.8	70 - 120	
159 Tb	1857728.00	1.11	1843940.90	100.7	70 - 120	
165 Ho	1856236.60	1.27	1844184.90	100.7	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.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\11K11100.B\013\_CCV.D\013\_CCV.D#  
 Date Acquired: Nov 11 2011 01:03 pm  
 Operator: NBS  
 Sample Name: CCV 111111  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 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	45.86 ug/l	1.99	50.00 90 - 110	
11 B	43.69 ug/l	2.15	50.00 90 - 110	Fail
23 Na	1276.00 ug/l	1.53	1250.00 90 - 110	
24 Mg	2559.00 ug/l	1.05	2500.00 90 - 110	
27 Al	1001.00 ug/l	1.70	1000.00 90 - 110	
39 K	917.90 ug/l	1.26	1000.00 90 - 110	
44 Ca	2498.00 ug/l	1.41	2500.00 90 - 110	
47 Ti	49.40 ug/l	0.95	50.00 90 - 110	
51 V	50.61 ug/l	1.18	50.00 90 - 110	
52 Cr	50.27 ug/l	1.38	50.00 90 - 110	
55 Mn	54.78 ug/l	1.56	50.00 90 - 110	
56 Fe	1027.00 ug/l	1.77	1000.00 90 - 110	
59 Co	50.74 ug/l	0.93	50.00 90 - 110	
60 Ni	50.88 ug/l	1.81	50.00 90 - 110	
63 Cu	50.81 ug/l	0.58	50.00 90 - 110	
65 Cu	50.69 ug/l	0.50	50.00 90 - 110	
66 Zn	51.32 ug/l	0.03	50.00 90 - 110	
75 As	49.12 ug/l	0.62	50.00 90 - 110	
78 Se	50.32 ug/l	1.71	50.00 90 - 110	
78 Se	49.06 ug/l	1.10	50.00 90 - 110	
88 Sr	49.93 ug/l	0.31	50.00 90 - 110	
88 Sr	47.83 ug/l	0.44	50.00 90 - 110	
95 Mo	50.08 ug/l	0.70	50.00 90 - 110	
106 (Cd)	----- ug/l	-----	50.00 90 - 110	
107 Ag	24.63 ug/l	0.57	25.00 90 - 110	
108 (Cd)	----- ug/l	-----	50.00 90 - 110	
111 Cd	50.07 ug/l	1.49	50.00 90 - 110	
118 Sn	50.35 ug/l	0.28	50.00 90 - 110	
121 Sb	49.48 ug/l	0.77	50.00 90 - 110	
137 Ba	49.18 ug/l	0.66	50.00 90 - 110	
205 Tl	48.89 ug/l	0.40	50.00 90 - 110	
206 (Pb)	----- ug/l	-----	50.00 90 - 110	
207 (Pb)	----- ug/l	-----	50.00 90 - 110	
208 Pb	50.31 ug/l	0.14	50.00 90 - 110	

**ISTD Elements**

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3009330.80	0.85	2775704.50	108.4	70 - 120		
45 Sc	502422.56	3.92	500780.41	100.3	70 - 120		
45 Sc	98428.88	1.42	95494.08	103.1	70 - 120		
45 Sc	1480640.80	1.02	1460980.80	101.3	70 - 120		
72 Ge	97237.93	2.52	96219.04	101.1	70 - 120		
72 Ge	46537.16	0.17	43611.78	106.7	70 - 120		
72 Ge	206334.70	0.20	213204.63	96.8	70 - 120		
115 In	1333758.10	0.36	1381264.00	96.6	70 - 120		
159 Tb	1832635.60	0.51	1843940.90	99.4	70 - 120		
165 Ho	1824652.90	0.58	1844184.90	98.9	70 - 120		

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.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

## CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\014\_CCB.D\014\_CCB.D#  
 Date Acquired: Nov 11 2011 01:09 pm  
 Operator: NB8  
 Sample Name: CCB 111111  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#VALUE!	
9 Be	0.00 ug/l	75.05	0.12	
11 B	0.19 ug/l	2.24	15.00	
23 Na	3.09 ug/l	28.12	77.10	
24 Mg	0.17 ug/l	59.53	7.50	
27 Al	0.11 ug/l	49.92	3.96	
39 K	-13.77 ug/l	41.47	19.20	
44 Ca	1.49 ug/l	82.56	90.00	
47 Ti	0.00 ug/l	584.34	0.78	
51 V	0.76 ug/l	2.01	0.21	Fail
52 Cr	0.02 ug/l	22.00	0.12	
55 Mn	0.01 ug/l	26.62	0.18	
56 Fe	0.44 ug/l	10.30	40.80	
59 Co	-0.27 ug/l	0.49	0.09	
60 Ni	0.00 ug/l	169.21	0.48	
63 Cu	-0.16 ug/l	12.22	0.39	
65 Cu	-0.16 ug/l	4.20	0.39	
66 Zn	0.03 ug/l	67.54	6.90	
75 As	-0.03 ug/l	60.04	0.27	
78 Se	0.10 ug/l	23.77	0.30	
78 Se	0.02 ug/l	138.81	0.30	
88 Sr	0.00 ug/l	574.89	0.03	
88 Sr	0.00 ug/l	33.45	0.03	
95 Mo	0.10 ug/l	2.35	0.21	
106 (Cd)	----- ug/l	-----	#VALUE!	
107 Ag	0.00 ug/l	6.78	0.09	
108 (Cd)	----- ug/l	-----	#VALUE!	
111 Cd	0.01 ug/l	137.32	0.06	
118 Sn	0.06 ug/l	31.67	0.30	
121 Sb	0.69 ug/l	6.56	0.03	Fail
137 Ba	0.01 ug/l	127.23	0.12	
205 Tl	0.02 ug/l	7.09	0.03	
206 (Pb)	----- ug/l	-----	#VALUE!	
207 (Pb)	----- ug/l	-----	#VALUE!	
208 Pb	-0.21 ug/l	0.72	0.33	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2980962.00	0.72	2775704.50	107.4	70 - 120	
45 Sc	505025.28	3.19	500780.41	100.8	70 - 120	
45 Sc	97675.82	0.75	95494.08	102.3	70 - 120	
45 Sc	1485366.30	0.36	1460980.80	101.7	70 - 120	
72 Ge	97202.46	2.05	96219.04	101.0	70 - 120	
72 Ge	45665.85	0.21	43611.78	104.7	70 - 120	
72 Ge	205716.23	0.30	213204.63	96.5	70 - 120	
115 In	1321174.40	0.50	1381264.00	95.6	70 - 120	
159 Tb	1807747.90	0.40	1843940.90	98.0	70 - 120	
165 Ho	1813776.00	0.73	1844184.90	98.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.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

## ICS-A QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\015ICSA.D\015ICSA.DS  
 Date Acquired: Nov 11 2011 01:15 pm  
 Acq. Method: 62A1111A.M  
 Operator: NBS  
 Sample Name: ICSA 111111  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal. Update: Nov 11 2011 12:36 pm  
 Sample Type: ICSA  
 Dilution Factor: 1.00

Data Results:  
 Analytes: Pass  
 ISTD: Pass

## QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
7 Li	---	3	----- ug/l	-----		
9 Be	45	3	0.83 ug/l	2.55		
11 B	45	3	1.56 ug/l	2.76		
23 Na	45	2	93250.00 ug/l	0.74		
24 Mg	45	2	91170.00 ug/l	1.03		
27 Al	45	2	104800.00 ug/l	1.31		
39 K	45	2	95010.00 ug/l	0.86		
44 Ca	45	2	101900.00 ug/l	1.03		
47 Ti	45	2	1961.00 ug/l	0.73		
51 V	45	2	2.53 ug/l	1.39		
52 Cr	45	2	2.35 ug/l	1.68		
55 Mn	45	2	7.50 ug/l	0.84		
56 Fe	45	2	92610.00 ug/l	0.44		
59 Co	45	2	20.49 ug/l	0.58		
60 Ni	45	2	3.86 ug/l	0.68		
63 Cu	72	2	1.60 ug/l	2.77		
65 Cu	72	2	1.70 ug/l	4.01		
66 Zn	72	2	5.11 ug/l	1.25		
75 As	72	2	1.55 ug/l	3.09		
78 Se	72	1	1.07 ug/l	5.94		
78 Se	72	2	1.16 ug/l	9.00		
88 Sr	72	2	1.41 ug/l	4.62		
88 Sr	72	3	1.37 ug/l	1.32		
95 Mo	72	3	1834.00 ug/l	1.74		
106 (cd)	---	3	----- ug/l	-----		
107 Ag	115	3	1.97 ug/l	1.05		
108 (cd)	---	3	----- ug/l	-----		
111 Cd	115	3	2.42 ug/l	3.67		
118 Sn	115	3	1.18 ug/l	1.50		
121 Sb	115	3	1.93 ug/l	2.34		
137 Ba	115	3	3.88 ug/l	2.04		
205 Tl	159	3	1.62 ug/l	1.90		
206 (Pb)	---	3	----- ug/l	-----		
207 (Pb)	---	3	----- ug/l	-----		
208 Pb	159	3	3.50 ug/l	0.41		

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3	2777926	0.73	2775705	100.1	70 - 120	
45 Sc	1	527613	3.31	500780	105.3	70 - 120	
45 Sc	2	94664	0.69	95494	99.1	70 - 120	
45 Sc	3	1465735	0.50	1460981	100.3	70 - 120	
72 Ge	1	98457	2.56	96219	102.3	70 - 120	
72 Ge	2	46798	1.22	43612	107.3	70 - 120	
72 Ge	3	216093	0.53	213205	101.4	70 - 120	
115 In	3	1235992	0.56	1381264	89.5	70 - 120	
159 Tb	3	1778881	0.42	1843941	96.5	70 - 120	
165 Ho	3	17803575	1.04	1844185	96.7	70 - 120	

 Tune File# 1 c:\icpcchem\1\7500\h2.u  
 Tune File# 2 c:\icpcchem\1\7500\he.u  
 Tune File# 3 c:\icpcchem\1\7500\nogas.u

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.DS

 0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## ICS-AB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\016ICSB.D\016ICSB.D  
 Date Acquired: Nov 11 2011 01:21 pm  
 Acq. Method: 62A1111A.M  
 Operator: NBS  
 Sample Name: ICSAB 111111  
 Misc Info:  
 Vial Number: 2103  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal. Update: Nov 11 2011 12:36 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	246.60	1.11	250	98.6	80 - 120	-
11 B	45	3	1.63	0.34	---	---	-	-
23 Na	45	2	96100.00	0.19	---	---	-	-
24 Mg	45	2	93890.00	0.39	---	---	-	-
27 Al	45	2	107500.00	1.06	---	---	-	-
39 K	45	2	97710.00	0.66	---	---	-	-
44 Ca	45	2	105500.00	1.05	---	---	-	-
47 Ti	45	2	2014.00	0.31	2000	100.7	80 - 120	-
51 V	45	2	267.30	0.98	250	108.9	80 - 120	-
52 Cr	45	2	270.40	2.94	250	108.2	80 - 120	-
55 Mn	45	2	264.30	0.56	250	105.7	80 - 120	-
56 Fe	45	2	94360.00	0.20	---	---	-	-
59 Co	45	2	282.40	0.78	250	113.0	80 - 120	-
60 Ni	45	2	481.90	0.90	500	98.4	80 - 120	-
63 Cu	72	2	218.20	1.17	250	87.3	80 - 120	-
65 Cu	72	2	218.60	0.91	250	87.4	80 - 120	-
66 Zn	72	2	513.60	0.37	500	102.7	80 - 120	-
75 As	72	2	239.20	0.52	250	95.7	80 - 120	-
78 Se	72	1	251.50	0.86	250	100.6	80 - 120	-
78 Se	72	2	233.50	0.80	250	93.4	80 - 120	-
88 Sr	72	2	1.62	0.60	---	---	-	-
88 Sr	72	3	1.51	0.87	---	---	-	-
95 Mo	72	3	2131.00	0.52	2000	106.6	80 - 120	-
106 (Cd)	---	3	-----	-----	---	---	-	-
107 Ag	115	3	535.90	1.10	500	107.2	80 - 120	-
108 (Cd)	---	3	-----	-----	---	---	-	-
111 Cd	115	3	495.00	0.98	500	99.0	80 - 120	-
118 Sn	115	3	1.45	2.79	---	---	-	-
121 Sb	115	3	274.60	0.82	250	109.8	80 - 120	-
137 Ba	115	3	271.00	0.98	250	108.4	80 - 120	-
205 Tl	159	3	252.50	0.03	250	101.0	80 - 120	-
206 (Pb)	---	3	-----	-----	---	---	-	-
207 (Pb)	---	3	-----	-----	---	---	-	-
208 Pb	159	3	502.00	0.13	500	100.4	80 - 120	-

## ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3	2732517	0.30	2775705	98.4	70 - 120	-
45 Sc	1	511020	0.99	500780	102.0	70 - 120	-
45 Sc	2	93932	0.16	95494	98.4	70 - 120	-
45 Sc	3	1410244	0.91	1480981	97.1	70 - 120	-
72 Ge	1	96432	0.78	96219	100.2	70 - 120	-
72 Ge	2	46105	0.98	43612	105.9	70 - 120	-
72 Ge	3	209601	0.65	213205	98.3	70 - 120	-
115 In	3	1203221	0.93	1381264	87.1	70 - 120	-
159 Tb	3	1775149	0.42	1843941	96.3	70 - 120	-
165 Ho	3	1779108	0.39	1844185	96.5	70 - 120	-

 Tune File# 1 c:\icpcchem\1\7500\h2.u  
 Tune File# 2 c:\icpcchem\1\7500\he.u  
 Tune File# 3 c:\icpcchem\1\7500\nogas.u

1STD Ref File : C:\ICPCHEM\1\DATA\11K11100.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\11K11100.B\018\_CCV.D\018\_CCV.D#  
 Date Acquired: Nov 11 2011 01:33 pm  
 Operator: NBS  
 Sample Name: CCV 111111  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 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	45.54 ug/l	0.43	50.00 90 - 110	
11 B	42.52 ug/l	0.69	50.00 90 - 110	Fail
23 Na	1232.00 ug/l	0.90	1250.00 90 - 110	
24 Mg	2553.00 ug/l	1.13	2500.00 90 - 110	
27 Al	1002.00 ug/l	1.24	1000.00 90 - 110	
39 K	910.10 ug/l	0.77	1000.00 90 - 110	
44 Ca	2506.00 ug/l	0.99	2500.00 90 - 110	
47 Ti	49.11 ug/l	2.38	50.00 90 - 110	
51 V	50.62 ug/l	1.42	50.00 90 - 110	
52 Cr	49.48 ug/l	1.20	50.00 90 - 110	
55 Mn	54.25 ug/l	1.47	50.00 90 - 110	
56 Fe	1014.00 ug/l	0.73	1000.00 90 - 110	
59 Co	50.51 ug/l	0.59	50.00 90 - 110	
60 Ni	50.70 ug/l	1.36	50.00 90 - 110	
63 Cu	49.70 ug/l	0.40	50.00 90 - 110	
65 Cu	49.73 ug/l	0.19	50.00 90 - 110	
66 Zn	49.96 ug/l	0.97	50.00 90 - 110	
75 As	48.64 ug/l	0.06	50.00 90 - 110	
78 Se	48.54 ug/l	0.17	50.00 90 - 110	
78 Se	48.82 ug/l	0.30	50.00 90 - 110	
88 Sr	49.77 ug/l	0.41	50.00 90 - 110	
88 Sr	48.29 ug/l	0.56	50.00 90 - 110	
95 Mo	51.00 ug/l	1.55	50.00 90 - 110	
106 Cd	----- ug/l	-----	50.00 90 - 110	
107 Ag	25.03 ug/l	0.97	25.00 90 - 110	
108 Cd	----- ug/l	-----	50.00 90 - 110	
111 Cd	49.94 ug/l	1.03	50.00 90 - 110	
118 Sn	51.03 ug/l	1.26	50.00 90 - 110	
121 Sb	50.47 ug/l	0.55	50.00 90 - 110	
137 Ba	50.01 ug/l	0.80	50.00 90 - 110	
205 Tl	48.64 ug/l	0.31	50.00 90 - 110	
206 Pb	----- ug/l	-----	50.00 90 - 110	
207 Pb	----- ug/l	-----	50.00 90 - 110	
208 Pb	50.34 ug/l	1.15	50.00 90 - 110	

## ISTD Elements

Element	CP8 Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3132762.00	0.73	2775704.50	112.9	70 - 120	
45 Sc	534639.31	0.21	500780.41	106.8	70 - 120	
45 Sc	99077.84	0.49	95494.08	103.8	70 - 120	
45 Sc	1513729.60	0.46	1460980.80	103.6	70 - 120	
72 Ge	102211.11	0.47	96219.04	106.2	70 - 120	
72 Ge	47244.57	0.27	43611.78	108.3	70 - 120	
72 Ge	214737.88	0.60	213204.63	100.7	70 - 120	
115 In	1389034.00	1.09	1381264.00	100.6	70 - 120	
159 Tb	1908915.90	0.41	1843940.90	103.5	70 - 120	
165 Ho	1921136.40	0.48	1844184.90	104.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.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

## CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\020\_CCB.D\020\_CCB.D#  
 Date Acquired: Nov 11 2011 01:46 pm  
 Operator: NBS  
 Sample Name: CCB 111111  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 Li	----- ug/l	-----	#VALUE!	
9 Be	0.00 ug/l	342.89	0.12	
11 B	-0.21 ug/l	27.87	15.00	
23 Na	-22.55 ug/l	2.00	77.10	
24 Mg	0.32 ug/l	24.61	7.50	
27 Al	0.31 ug/l	30.94	3.96	
39 K	-13.04 ug/l	28.54	19.20	
44 Ca	-2.47 ug/l	54.66	90.00	
47 Ti	0.02 ug/l	115.52	0.78	
51 V	1.17 ug/l	4.59	0.21	Fail
52 Cr	0.01 ug/l	119.76	0.12	
55 Mn	0.00 ug/l	605.19	0.18	
56 Fe	0.83 ug/l	6.77	40.80	
59 Co	-0.30 ug/l	0.59	0.09	
60 Ni	0.00 ug/l	211.25	0.48	
63 Cu	-0.31 ug/l	1.69	0.39	
65 Cu	-0.31 ug/l	4.87	0.39	
66 Zn	0.00 ug/l	866.90	6.90	
75 As	-0.07 ug/l	27.14	0.27	
78 Se	0.03 ug/l	41.10	0.30	
78 Se	0.07 ug/l	100.62	0.30	
88 Sr	0.00 ug/l	114.02	0.03	
88 Sr	0.00 ug/l	18.44	0.03	
95 Mo	0.09 ug/l	4.01	0.21	
106 Cd	----- ug/l	-----	#VALUE!	
107 Ag	0.01 ug/l	12.14	0.09	
108 Cd	----- ug/l	-----	#VALUE!	
111 Cd	0.00 ug/l	1077.10	0.06	
118 Sn	0.03 ug/l	30.18	0.30	
121 Sb	0.29 ug/l	4.29	0.03	Fail
137 Ba	0.01 ug/l	115.49	0.12	
205 Tl	0.01 ug/l	19.13	0.03	
206 Pb	----- ug/l	-----	#VALUE!	
207 Pb	----- ug/l	-----	#VALUE!	
208 Pb	-0.21 ug/l	1.63	0.33	

## ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3042523.00	0.11	2775704.50	109.6	70 -	120	
45 Sc	529492.56	0.66	500780.41	105.7	70 -	120	
45 Sc	97690.27	0.93	95494.08	102.3	70 -	120	
45 Sc	1482243.40	0.75	1460980.80	101.5	70 -	120	
72 Ge	101254.01	0.60	96219.04	105.2	70 -	120	
72 Ge	46065.66	0.31	43611.78	105.6	70 -	120	
72 Ge	210454.86	0.84	213204.63	98.7	70 -	120	
115 In	1353362.30	0.71	1391264.00	98.0	70 -	120	
159 Tb	1859786.10	0.52	1843940.90	100.9	70 -	120	
165 Ho	1863063.90	0.81	1844184.90	101.0	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.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\11K11100.B\032\_CCV.D\032\_CCV.D#  
 Date Acquired: Nov 11 2011 03:05 pm  
 Operator: NBS  
 Sample Name: CCV 111111  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 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	45.98 ug/l	0.90	50.00 90 - 110	
11 B	43.38 ug/l	1.83	50.00 90 - 110	Fail
23 Na	1250.00 ug/l	2.32	1250.00 90 - 110	
24 Mg	2541.00 ug/l	1.13	2500.00 90 - 110	
27 Al	992.10 ug/l	1.33	1000.00 90 - 110	
39 K	905.50 ug/l	1.76	1000.00 90 - 110	
44 Ca	2473.00 ug/l	1.61	2500.00 90 - 110	
47 Ti	49.01 ug/l	0.71	50.00 90 - 110	
51 V	50.64 ug/l	0.61	50.00 90 - 110	
52 Cr	49.61 ug/l	0.94	50.00 90 - 110	
55 Mn	54.01 ug/l	0.87	50.00 90 - 110	
56 Fe	1013.00 ug/l	1.52	1000.00 90 - 110	
59 Co	50.36 ug/l	0.94	50.00 90 - 110	
60 Ni	51.02 ug/l	1.41	50.00 90 - 110	
63 Cu	49.96 ug/l	0.98	50.00 90 - 110	
65 Cu	49.87 ug/l	0.48	50.00 90 - 110	
66 Zn	50.14 ug/l	1.34	50.00 90 - 110	
75 As	40.56 ug/l	0.79	50.00 90 - 110	
78 Se	47.94 ug/l	1.13	50.00 90 - 110	
78 Se	48.27 ug/l	2.37	50.00 90 - 110	
88 Sr	50.07 ug/l	0.24	50.00 90 - 110	
88 Sr	46.85 ug/l	0.80	50.00 90 - 110	
95 Mo	48.88 ug/l	0.75	50.00 90 - 110	
106 Cd	----- ug/l	-----	50.00 90 - 110	
107 Ag	24.26 ug/l	1.57	25.00 90 - 110	
108 Cd	----- ug/l	-----	50.00 90 - 110	
111 Cd	49.33 ug/l	0.71	50.00 90 - 110	
118 Sn	50.24 ug/l	1.40	50.00 90 - 110	
121 Sb	49.54 ug/l	1.18	50.00 90 - 110	
137 Ba	49.63 ug/l	2.49	50.00 90 - 110	
205 Tl	48.65 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	49.96 ug/l	0.90	50.00 90 - 110	

## ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3188763.30	1.52	2775704.50	114.9	70 - 120		
45 Sc	530164.38	0.11	500780.41	105.9	70 - 120		
45 Sc	96337.35	1.21	95494.08	100.9	70 - 120		
45 Sc	1476239.00	1.18	1460980.80	101.0	70 - 120		
72 Ge	102958.30	0.45	95219.04	107.0	70 - 120		
72 Ge	45995.51	1.09	43611.78	105.5	70 - 120		
72 Ge	211979.86	0.56	213204.63	99.4	70 - 120		
115 In	1355180.90	1.54	1381264.00	98.1	70 - 120		
159 Tb	1863114.30	0.80	1843940.90	101.0	70 - 120		
165 Ho	1880561.90	0.45	1844184.90	102.0	70 - 120		

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.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

**CCB QC Report**

Data File: C:\ICPCHEM\1\DATA\11K11100.B\034\_CCB.D\034\_CCB.D#  
 Date Acquired: Nov 11 2011 03:17 pm  
 Operator: NBS  
 Sample Name: CCB\_111111  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	High Limit	Flag
7 Li	----- ug/l	-----	#VALUE!	
9 Be	0.00 ug/l	69.30	0.12	
11 B	-0.21 ug/l	1.18	15.00	
23 Na	-12.29 ug/l	7.14	77.10	
24 Mg	0.25 ug/l	17.30	7.50	
27 Al	0.17 ug/l	52.39	3.96	
39 K	-13.38 ug/l	34.73	19.20	
44 Ca	-0.64 ug/l	345.23	90.00	
47 Ti	0.01 ug/l	249.07	0.78	
51 V	1.42 ug/l	3.15	0.21	Fail
52 Cr	0.03 ug/l	9.62	0.12	
55 Mn	0.01 ug/l	149.75	0.18	
56 Fe	0.83 ug/l	6.84	40.80	
59 Co	-0.29 ug/l	0.85	0.09	
60 Ni	-0.01 ug/l	222.72	0.48	
63 Cu	-0.38 ug/l	4.80	0.39	
65 Cu	-0.41 ug/l	3.73	0.39	
66 Zn	0.00 ug/l	2620.40	6.90	
75 As	0.07 ug/l	32.28	0.27	
78 Se	0.02 ug/l	97.30	0.30	
78 Se	0.10 ug/l	82.67	0.30	
88 Sr	0.00 ug/l	540.84	0.03	
88 Sr	0.00 ug/l	24.02	0.03	
95 Mo	0.03 ug/l	20.10	0.21	
106 (Cd)	----- ug/l	-----	#VALUE!	
107 Ag	0.00 ug/l	72.34	0.09	
108 (Cd)	----- ug/l	-----	#VALUE!	
111 Cd	0.00 ug/l	426.65	0.06	
118 Sn	0.05 ug/l	13.48	0.30	
121 Sb	0.29 ug/l	11.14	0.03	Fail
137 Ba	0.02 ug/l	76.66	0.12	
205 Tl	0.01 ug/l	1.73	0.03	
206 (Pb)	----- ug/l	-----	#VALUE!	
207 (Pb)	----- ug/l	-----	#VALUE!	
208 Pb	-0.25 ug/l	1.69	0.33	

**ISTD Elements**

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3085836.80	0.28	2775704.50	111.2	70 -	120	
45 Sc	543008.13	0.74	500780.41	108.4	70 -	120	
45 Sc	96730.10	0.69	95494.08	101.3	70 -	120	
45 Sc	1456386.00	1.14	1460980.80	99.7	70 -	120	
72 Ge	104225.84	0.21	96219.04	108.3	70 -	120	
72 Ge	45874.70	1.25	43611.78	105.2	70 -	120	
72 Ge	211968.23	0.39	213204.63	99.4	70 -	120	
115 In	1335750.50	0.67	1301264.00	96.7	70 -	120	
159 Tb	1825624.90	0.43	1843940.90	99.0	70 -	120	
165 Ho	1821355.50	0.60	1844184.90	98.8	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.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\11K11100.B\060\_CCV.D\060\_CCV.D#  
 Date Acquired: Nov 11 2011 06:04 pm  
 Operator: NBS  
 Sample Name: CCV 111111  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 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	43.59 ug/l	0.52	50.00	90 - 110	Fail
11 B	39.89 ug/l	0.37	50.00	90 - 110	Fail
23 Na	1206.00 ug/l	0.25	1250.00	90 - 110	
24 Mg	2492.00 ug/l	1.14	2500.00	90 - 110	
27 Al	998.60 ug/l	0.65	1000.00	90 - 110	
39 K	883.40 ug/l	0.62	1000.00	90 - 110	Fail
44 Ca	2445.00 ug/l	1.17	2500.00	90 - 110	
47 Ti	49.55 ug/l	0.70	50.00	90 - 110	
51 V	52.18 ug/l	0.86	50.00	90 - 110	
52 Cr	49.10 ug/l	0.91	50.00	90 - 110	
55 Mn	53.67 ug/l	0.37	50.00	90 - 110	
56 Fe	999.40 ug/l	0.75	1000.00	90 - 110	
59 Co	49.93 ug/l	0.37	50.00	90 - 110	
60 Ni	50.18 ug/l	0.47	50.00	90 - 110	
63 Cu	48.01 ug/l	1.08	50.00	90 - 110	
65 Cu	47.95 ug/l	1.23	50.00	90 - 110	
66 Zn	48.48 ug/l	0.85	50.00	90 - 110	
75 As	48.40 ug/l	0.84	50.00	90 - 110	
78 Se	44.75 ug/l	1.93	50.00	90 - 110	Fail
78 Se	46.76 ug/l	2.40	50.00	90 - 110	
88 Sr	49.65 ug/l	0.75	50.00	90 - 110	
88 Sr	43.83 ug/l	0.41	50.00	90 - 110	Fail
95 Mo	45.84 ug/l	0.72	50.00	90 - 110	
106 (Cd)	----- ug/l	-----	50.00	90 - 110	
107 Ag	24.47 ug/l	1.71	25.00	90 - 110	
108 (Cd)	----- ug/l	-----	50.00	90 - 110	
111 Cd	48.94 ug/l	2.42	50.00	90 - 110	
118 Sn	49.84 ug/l	1.46	50.00	90 - 110	
121 Sb	50.04 ug/l	0.62	50.00	90 - 110	
137 Ba	50.55 ug/l	2.58	50.00	90 - 110	
205 Tl	46.49 ug/l	1.08	50.00	90 - 110	
206 (Pb)	----- ug/l	-----	50.00	90 - 110	
207 (Pb)	----- ug/l	-----	50.00	90 - 110	
208 Pb	48.04 ug/l	0.60	50.00	90 - 110	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3120885.30	0.68	2775704.50	112.4	70 - 120	
45 Sc	528291.50	1.60	500780.41	105.5	70 - 120	
45 Sc	94943.62	0.72	95494.08	99.4	70 - 120	
45 Sc	1497531.60	0.60	1460980.80	102.5	70 - 120	
72 Ge	107482.91	1.52	96219.04	111.7	70 - 120	
72 Ge	46381.07	0.48	43611.78	106.3	70 - 120	
72 Ge	233866.19	0.20	213204.63	109.7	70 - 120	
115 In	1403864.60	1.34	1381264.00	101.6	70 - 120	
159 Tb	1927869.00	0.42	1843940.90	104.6	70 - 120	
165 Ho	1902582.90	0.32	1844184.90	103.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

5 :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\11K11100.B\062\_CCB.D\062\_CCB.D#  
 Date Acquired: Nov 11 2011 06:16 pm  
 Operator: NBS  
 Sample Name: CCB 111111  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 Li	----- ug/l	-----	#VALUE!	
9 Be	0.00 ug/l	48.82	0.12	
11 B	-0.52 ug/l	3.32	15.00	
23 Na	-14.13 ug/l	1.97	77.10	
24 Mg	0.40 ug/l	18.80	7.50	
27 Al	0.37 ug/l	36.41	3.96	
39 K	-25.01 ug/l	22.10	19.20	
44 Ca	-5.06 ug/l	39.41	90.00	
47 Ti	-0.01 ug/l	153.32	0.78	
51 V	3.23 ug/l	1.14	0.21	Fail
52 Cr	0.11 ug/l	18.29	0.12	
55 Mn	0.56 ug/l	2.13	0.18	Fail
56 Fe	0.91 ug/l	1.90	40.80	
59 Co	-0.29 ug/l	0.95	0.09	
60 Ni	-0.01 ug/l	26.61	0.48	
63 Cu	-0.57 ug/l	1.33	0.39	
65 Cu	-0.57 ug/l	1.17	0.39	
66 Zn	0.10 ug/l	36.98	6.90	
75 As	0.63 ug/l	2.54	0.27	Fail
78 Se	0.03 ug/l	36.72	0.30	
78 Se	0.20 ug/l	17.06	0.30	
88 Sr	0.01 ug/l	140.22	0.03	
88 Sr	0.00 ug/l	12.28	0.03	
95 Mo	0.01 ug/l	62.46	0.21	
106 Cd	----- ug/l	-----	#VALUE!	
107 Ag	0.00 ug/l	55.01	0.09	
108 Cd	----- ug/l	-----	#VALUE!	
111 Cd	0.01 ug/l	225.87	0.06	
118 Sn	0.05 ug/l	34.43	0.30	
121 Sb	0.19 ug/l	1.47	0.03	Fail
137 Ba	0.00 ug/l	114.50	0.12	
205 Tl	0.01 ug/l	8.77	0.03	
206 Pb	----- ug/l	-----	#VALUE!	
207 Pb	----- ug/l	-----	#VALUE!	
208 Pb	-0.25 ug/l	1.47	0.33	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3025901.00	0.96	2775704.50	109.0	70 - 120	
45 Sc	540897.69	0.43	500780.41	108.0	70 - 120	
45 Sc	95060.94	0.12	95494.08	99.5	70 - 120	
45 Sc	1475771.40	0.55	1460980.80	101.0	70 - 120	
72 Ge	108235.30	0.84	96219.04	112.5	70 - 120	
72 Ge	46007.31	1.05	43611.78	105.5	70 - 120	
72 Ge	232509.75	0.78	213204.63	109.1	70 - 120	
115 In	1409864.80	1.11	1381264.00	102.1	70 - 120	
159 Tb	1904300.90	0.32	1843940.90	103.3	70 - 120	
165 Ho	1879356.80	0.14	1844184.90	101.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

4 :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\11K11100.B\069\_CCV.D\069\_CCV.D#  
 Date Acquired: Nov 11 2011 06:59 pm  
 Operator: NBS  
 Sample Name: CCV\_111111  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 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	41.96 ug/l	0.44	50.00 90 - 110	Fail
11 B	37.94 ug/l	0.36	50.00 90 - 110	Fail
23 Na	1187.00 ug/l	0.86	1250.00 90 - 110	
24 Mg	2481.00 ug/l	0.35	2500.00 90 - 110	
27 Al	988.40 ug/l	0.29	1000.00 90 - 110	
39 K	891.50 ug/l	0.86	1000.00 90 - 110	Fail
44 Ca	2444.00 ug/l	0.83	2500.00 90 - 110	
47 Ti	49.28 ug/l	0.95	50.00 90 - 110	
51 V	50.92 ug/l	0.36	50.00 90 - 110	
52 Cr	48.86 ug/l	0.40	50.00 90 - 110	
55 Mn	53.78 ug/l	0.05	50.00 90 - 110	
56 Fe	1002.00 ug/l	0.30	1000.00 90 - 110	
59 Co	49.75 ug/l	0.58	50.00 90 - 110	
60 Ni	49.90 ug/l	1.02	50.00 90 - 110	
63 Cu	48.36 ug/l	0.88	50.00 90 - 110	
65 Cu	48.31 ug/l	1.10	50.00 90 - 110	
66 Zn	48.91 ug/l	1.42	50.00 90 - 110	
75 As	48.51 ug/l	1.21	50.00 90 - 110	
78 Se	45.98 ug/l	4.00	50.00 90 - 110	
78 Se	47.69 ug/l	2.39	50.00 90 - 110	
88 Sr	50.02 ug/l	2.42	50.00 90 - 110	
88 Sr	44.60 ug/l	0.54	50.00 90 - 110	Fail
95 Mo	47.15 ug/l	0.87	50.00 90 - 110	
106 (Cd)	----- ug/l	-----	50.00 90 - 110	
107 Ag	24.76 ug/l	0.89	25.00 90 - 110	
108 (Cd)	----- ug/l	-----	50.00 90 - 110	
111 Cd	48.81 ug/l	0.53	50.00 90 - 110	
118 Sn	49.90 ug/l	0.17	50.00 90 - 110	
121 Sb	49.52 ug/l	0.67	50.00 90 - 110	
137 Ba	50.56 ug/l	0.34	50.00 90 - 110	
205 Tl	46.29 ug/l	1.03	50.00 90 - 110	
206 (Pb)	----- ug/l	-----	50.00 90 - 110	
207 (Pb)	----- ug/l	-----	50.00 90 - 110	
208 Pb	47.78 ug/l	0.63	50.00 90 - 110	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2985567.00	0.53	2775704.50	107.6	70 - 120	
45 Sc	487961.94	6.11	500780.41	97.4	70 - 120	
45 Sc	95404.65	0.66	95494.08	99.9	70 - 120	
45 Sc	1525855.80	1.18	1460980.80	104.4	70 - 120	
72 Ge	103631.21	4.70	96219.04	107.7	70 - 120	
72 Ge	46230.60	0.75	43611.78	106.0	70 - 120	
72 Ge	239856.61	0.42	213204.63	112.5	70 - 120	
115 In	1477339.60	0.26	1381264.00	107.0	70 - 120	
159 Tb	1984393.10	0.51	1843940.90	107.6	70 - 120	
165 Ho	1953717.00	1.26	1844184.90	105.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

4 :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\11K11100.B\071\_CCB.D\071\_CCB.D#  
 Date Acquired: Nov 11 2011 07:11 pm  
 Operator: NBS  
 Sample Name: CCB 111111  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 Li	----- ug/l	-----	#VALUE!	
9 Be	0.00 ug/l	354.93	0.12	
11 B	-0.50 ug/l	1.33	15.00	
23 Na	-18.60 ug/l	3.31	77.10	
24 Mg	0.77 ug/l	11.28	7.50	
27 Al	0.41 ug/l	61.51	3.96	
39 K	-15.97 ug/l	35.55	19.20	
44 Ca	-5.51 ug/l	24.66	90.00	
47 Ti	0.00 ug/l	618.86	0.78	
51 V	2.07 ug/l	1.59	0.21	Fail
52 Cr	0.05 ug/l	16.40	0.12	
55 Mn	0.54 ug/l	4.09	0.18	Fail
56 Fe	1.11 ug/l	3.58	40.00	
59 Co	-0.29 ug/l	0.81	0.09	
60 Ni	-0.02 ug/l	55.04	0.48	
63 Cu	-0.58 ug/l	1.68	0.39	
65 Cu	-0.59 ug/l	2.73	0.39	
66 Zn	0.01 ug/l	110.45	6.90	
75 As	0.23 ug/l	18.98	0.27	
78 Se	0.03 ug/l	26.03	0.30	
78 Se	0.12 ug/l	27.96	0.30	
88 Sr	0.01 ug/l	37.54	0.03	
88 Sr	0.01 ug/l	19.07	0.03	
95 Mo	0.01 ug/l	60.81	0.21	
106 (Cd)	----- ug/l	-----	#VALUE!	
107 Ag	0.01 ug/l	23.72	0.09	
108 (Cd)	----- ug/l	-----	#VALUE!	
111 Cd	0.01 ug/l	86.89	0.06	
118 Sn	0.06 ug/l	11.23	0.30	
121 Sb	0.20 ug/l	2.41	0.03	Fail
137 Ba	0.01 ug/l	270.48	0.12	
205 Tl	0.01 ug/l	7.49	0.03	
206 (Pb)	----- ug/l	-----	#VALUE!	
207 (Pb)	----- ug/l	-----	#VALUE!	
208 Pb	-0.26 ug/l	0.79	0.33	

## ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2980384.00	0.41	2775704.50	107.4	70 -	120	
45 Sc	499034.78	5.31	500780.41	99.7	70 -	120	
45 Sc	96901.73	0.42	95494.08	101.5	70 -	120	
45 Sc	1527813.50	0.50	1460980.80	104.6	70 -	120	
72 Ge	103880.64	4.84	96219.04	108.0	70 -	120	
72 Ge	46726.97	0.51	43611.78	107.1	70 -	120	
72 Ge	244428.58	0.30	213204.63	114.6	70 -	120	
115 In	1468846.40	0.59	1381264.00	106.3	70 -	120	
159 Tb	1966759.90	0.53	1843940.90	106.7	70 -	120	
165 Ho	1940966.80	0.35	1844184.90	105.2	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Fail  
 ISTD: Pass

**METALS**  
**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	0.19 J	0.5	0.22	0.11	ug/L	11/10/11	11/11/11	#602D-111110A-AY49334

J = Estimated value.

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\024SMPL.D\024SMPL.D#  
 Date Acquired: Nov 11 2011 02:16 pm  
 Operator: NBS  
 Sample Name: 111110A-3015-BLK  
 Misc Info: 111110A-3015  
 Vial Number: 3101  
 Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C  
 Last Cal Update: Nov 11 2011 12:36 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	2.73	1000	
11 B	0.02 ug/l	0.02	15.56	1000	
23 Na	35.01 ug/l	38.90	12.71	25000	
24 Mg	5.25 ug/l	5.83	2.15	50000	
27 Al	6.63 ug/l	7.37	3.21	20000	
39 K	-19.19 ug/l	-21.32	24.75	20000	
44 Ca	187.10 ug/l	207.87	2.16	50000	
47 Ti	0.09 ug/l	0.10	43.80	1000	
51 V	-0.78 ug/l	-0.86	1.87	1000	
52 Cr	-0.04 ug/l	-0.04	28.95	1000	
55 Mn	0.23 ug/l	0.26	6.88	1000	
56 Fe	2.70 ug/l	3.00	5.14	20000	
59 Co	-0.27 ug/l	-0.30	0.86	1000	
60 Ni	0.12 ug/l	0.14	23.87	1000	
63 Cu	-0.44 ug/l	-0.49	2.50	1000	
65 Cu	-0.44 ug/l	-0.49	2.58	1000	
66 Zn	7.48 ug/l	8.31	3.75	1000	
75 As	-0.53 ug/l	-0.59	2.55	1000	
78 Se	-0.01 ug/l	-0.01	26.71	1000	
78 Se	-0.01 ug/l	-0.02	520.99	1000	
88 Sr	0.14 ug/l	0.16	12.74	1000	
88 Sr	0.14 ug/l	0.16	3.88	1000	
95 Mo	0.02 ug/l	0.02	6.80	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.00 ug/l	0.00	212.49	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.02 ug/l	0.02	26.66	1000	
118 Sn	0.12 ug/l	0.13	6.01	1000	
121 Sb	0.07 ug/l	0.08	7.73	1000	
137 Ba	0.04 ug/l	0.04	9.41	1000	
205 Tl	0.01 ug/l	0.01	22.33	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	0.17 ug/l	0.19	1.81	1000	

## ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3205542.30	0.83	2775704.50	115.5	70 -	120	
45 Sc	579022.81	0.89	500780.41	115.6	70 -	120	
45 Sc	106222.45	0.45	95494.08	111.2	70 -	120	
45 Sc	1635333.40	0.66	1460980.80	111.9	70 -	120	
72 Ge	108091.34	0.67	96219.04	112.3	70 -	120	
72 Ge	49642.59	1.23	43611.78	113.8	70 -	120	
72 Ge	228973.69	0.34	213204.63	107.4	70 -	120	
115 In	1505106.90	0.63	1381264.00	109.0	70 -	120	
159 Tb	2069441.80	1.02	1843940.90	112.2	70 -	120	
165 Ho	2056674.30	0.60	1844184.90	111.5	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.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

# 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	50.0	100	80-120	11/10/2011	1/11/2011	#602D-111110A-AY49334

Comments:

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\0259MPL.D\0259MPL.D#  
 Date Acquired: Nov 11 2011 02:22 pm  
 Operator: NBS  
 Sample Name: 111110A-3015-LCS  
 Misc Info: 111110A-3015  
 Vial Number: 3102  
 Current Method: C:\ICPCHEM\1\METHODS\62A111A.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A111A.C  
 Last Cal Update: Nov 11 2011 12:36 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	7.09 ug/l	7.88	0.95	1000	
11 B	34.46 ug/l	38.29	0.83	1000	
23 Na	4313.00 ug/l	4791.74	0.33	25000	
24 Mg	4287.00 ug/l	4762.86	0.50	50000	
27 Al	378.80 ug/l	420.85	1.07	20000	
39 K	819.80 ug/l	910.80	1.14	20000	
44 Ca	4772.00 ug/l	5301.69	0.81	50000	
47 Ti	43.16 ug/l	47.95	0.73	1000	
51 V	44.89 ug/l	49.87	0.68	1000	
52 Cr	46.85 ug/l	52.05	0.52	1000	
55 Mn	48.25 ug/l	53.61	0.34	1000	
56 Fe	188.60 ug/l	209.53	0.62	20000	
59 Co	45.14 ug/l	50.15	0.81	1000	
60 Ni	45.24 ug/l	50.26	0.75	1000	
63 Cu	42.57 ug/l	47.30	0.51	1000	
65 Cu	42.70 ug/l	47.44	0.10	1000	
66 Zn	94.53 ug/l	105.02	0.68	1000	
75 As	39.81 ug/l	44.23	0.66	1000	
78 Se	36.57 ug/l	40.63	2.90	1000	
78 Se	37.79 ug/l	41.98	1.41	1000	
88 Sr	47.19 ug/l	52.43	0.39	1000	
88 Sr	45.26 ug/l	50.28	0.18	1000	
95 Mo	45.43 ug/l	50.47	0.63	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	16.57 ug/l	18.41	1.13	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	8.34 ug/l	9.26	2.50	1000	
118 Sn	48.01 ug/l	53.34	0.41	1000	
121 Sb	42.84 ug/l	47.60	0.50	1000	
137 Ba	44.60 ug/l	49.55	0.91	1000	
205 Tl	43.45 ug/l	48.27	0.08	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	45.08 ug/l	50.08	0.48	1000	

## ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3106113.00	0.94	2775704.50	111.9	70 -	120	
45 Sc	583837.94	0.76	500780.41	116.6	70 -	120	
45 Sc	104815.63	0.97	95494.08	109.8	70 -	120	
45 Sc	1623628.90	0.72	1460980.80	111.1	70 -	120	
72 Ge	109519.99	0.75	96219.04	113.8	70 -	120	
72 Ge	48705.67	0.97	43611.78	111.7	70 -	120	
72 Ge	226177.02	0.48	213204.63	106.1	70 -	120	
115 In	1499201.30	0.50	1301264.00	108.5	70 -	120	
159 Tb	2052386.10	0.41	1843940.90	111.3	70 -	120	
165 Ho	2061841.80	0.62	1844184.90	111.8	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

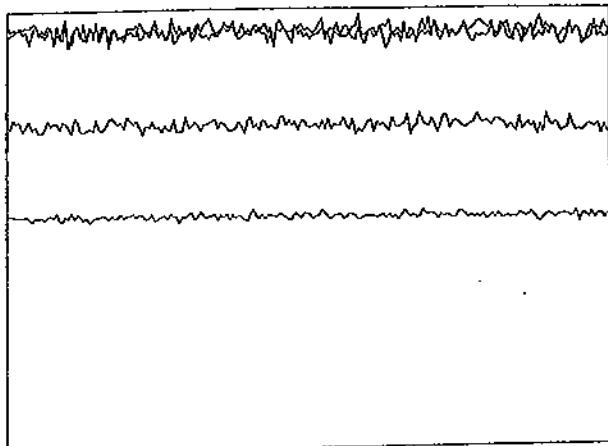
0 :Element Failures      0 :Max. Number of Failures Allowed  
 0 :ISTD Failures      0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass

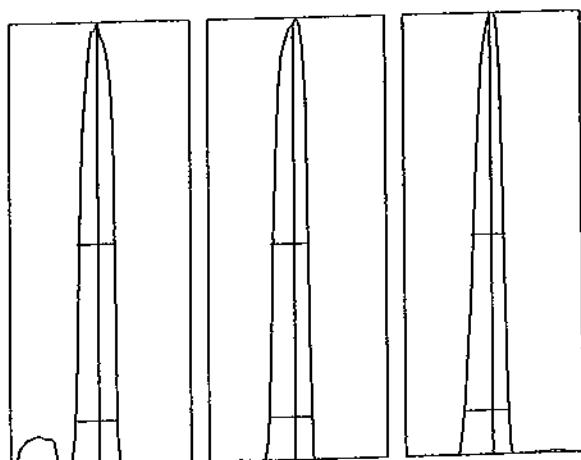
### Tune Report

Tune File : nogas.u  
Comment : 111111



Integration Time: 0.1000 sec  
Sampling Period: 0.6200 sec  
n: 200  
Oxide: 156/140 1.410%  
Doubly Charged: 70/140 1.051%

m/z	Range	Count	Mean	RSD%	Background
7	50,000	26283.0	26440.3	1.09	0.40
89	20,000	19274.0	18861.9	1.39	2.20
205	20,000	14914.0	14722.1	1.50	5.80
156/140	2	1.520%	1.398%	6.48	
70/140	2	1.065%	1.038%	8.17	
140	20,000	18882.0	19064.3	1.33	4.10



m/z: 7 89 205  
Height: 26,611 18,699 14,936  
Axis: 7.00 89.00 205.00  
W-50%: 0.65 0.65 0.60  
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 : nogas.u  
Comment : 111111

### Tuning Parameters

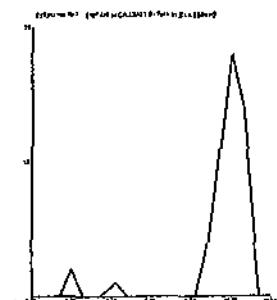
==Plasma Condition==			==Ion Lenses==			==Q-Pole Parameters==		
RF Power	:	1600 W	Extract 1	:	0 V	AMU Gain	:	128
RF Matching	:	1.66 V	Extract 2	:	-130 V	AMU Offset	:	127
Smpl Depth	:	9.6 mm	Omega Bias-ce	:	-22 V	Axis Gain	:	1
Torch-H	:	-0.1 mm	Omega Lens-ce	:	-1.2 V	Axis Offset	:	-0.02
Torch-V	:	0.1 mm	Cell Entrance	:	-30 V	QP Bias	:	-3 V
Carrier Gas	:	1.02 L/min	QP Focus	:	5 V	==Detector Parameters==		
Makeup Gas	:	0.1 L/min	Cell Exit	:	-30 V	Discriminator	:	8 mV
Optional Gas	:	--- %	==Octopole Parameters==			Analog HV	:	1660 V
Nebulizer Pump	:	0.1 rps	OctP RF	:	180 V	Pulse HV	:	1460 V
Sample Pump	:	--- rps	OctP Bias	:	-6 V			
S/C Temp	:	2 degC						
==Reaction Cell==								
Reaction Mode	:	OFF						
H2 Gas	:	0 mL/min	He Gas	:	0 mL/min	Optional Gas	:	--- %

## 200.8 QC Tune Report

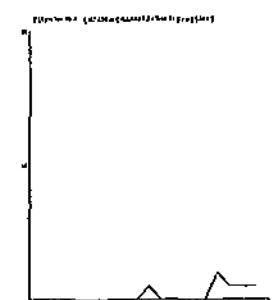
Data File: C:\ICPCHEM\1\DATA\11K11100.B\001TUNE.D  
 Date Acquired: Nov 11 2011 11:48 am  
 Acq. Method: TN200\_8.M  
 Operator: NBS  
 Sample Name: 100ppb Tune sol  
 Misc Info:  
 Vial Number: 1303  
 Current Method: C:\ICPCHEM\1\METHODS\TN200\_8.M

## RSD (%)

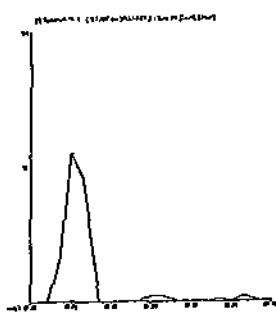
Element	CPS	Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
9 Be	65891175	64840372	65630536	65890148	66486284	66608536	1.01	5.00		
24 Mg	120432836	# #####	# #####	# #####	# #####	# #####	1.16	5.00		
59 Co	111175066	# #####	# #####	# #####	# #####	# #####	0.73	5.00		
115 In	122240964	# #####	# #####	# #####	# #####	# #####	0.81	5.00		
208 Pb	63959189	64419004	64182972	63372424	64206080	63615464	1.13	5.00		



**9 Be**  
 Mass Calib.  
 Actual: 9.00  
 Required: 8.90 - 9.10  
 Flag:  
 Peak Width  
 Actual: 0.60  
 Required: 0.90  
 Flag:



**24 Mg**  
 Mass Calib.  
 Actual: 23.95  
 Required: 23.90 - 24.10  
 Flag:  
 Peak Width  
 Actual: 0.65  
 Required: 0.80  
 Flag:



59 Co

Mass Calib.

Actual: 59.00

Required: 58.90

- 59.10

Flag:

Peak Width

Actual: 0.60

Required: 0.90

Flag:



115 In

Mass Calib.

Actual: 115.05

Required: 114.90

- 115.10

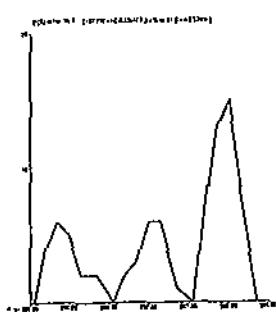
Flag:

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 Standards Log Book # 34 Page #001

NBS 11/11/11

NBS 11/11/11  
6020/6020A

(A)

ICP-MS STANDARDS 6030/6020A/3015/3051A						
Today's Date:						11/11/2011
Expires:						11/18/2011
Prep Date 1% HNO3/1.0%HCL						
20 mL HNO3 / 2000 mL DI Water						
Lot # K19023						
20mL HCl / 2000mL DI Water						
Lot #4110110						
Expires:						11/18/2011
Standard 4						
Amount	STD	Manufacturer	Lot #	ICP-MS ICV		
50 uL	CCV-A	Env. Express	1036407-28139	11/18/2011	STD	
50 uL	CCV-B	Env. Express	1036410-28140	50 uL	QCS ICV A	CPI
50 uL	CCV-C	Env. Express	1100309-28141	50 uL	QCS ICV B	CPI
Prepared in 100 mL of 1% HNO3/1.0% HCl						11C174-28548
11/11/2011						11C174-28549
Standard 3						11/11/2011
Amount	STD	Manufacturer	Lot #	ICP-MS ICV		
25 uL	CCV-A	Env. Express	1036407-28139	11/18/2011	STD	
25 uL	CCV-B	Env. Express	1036410-28140	50 uL	QCS ICV A	CPI
25 uL	CCV-C	Env. Express	1100309-28141	50 uL	QCS ICV B	CPI
Prepared in 100 mL of 1% HNO3/1.0% HCl						Prepared in 50 mL of 1% HNO3/1.0% HCl
11/11/2011						
Standard 2						
Amount	STD	Manufacturer	Lot #	ICP-MS ICV		
500 uL	Standard 4			11/18/2011	STD	
Prepared in 50 mL of 1% HNO3/1.0% HCl						11/11/2011
Standard 1						
Amount	STD	Manufacturer	Lot #	ICP-MS ICV		
50 uL	Standard 4			11/18/2011	STD	
Prepared in 50 mL of 1% HNO3/1.0% HCl						11/11/2011
ICP-LDR						
Amount	STD	Manufacturer	Lot #	ICP-LDR		
50 uL	CCV-A	Env. Express	1036407-28139	11/18/2011	STD	
50 uL	CCV-B	Env. Express	1036410-28140	50 uL	CCV-C	Env. Express
Prepared in 10 mL of 1% HNO3/1.0% HCl						11/11/2011

2%HNO3 / 2%HCl BLK						
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE	AMOUNT	STD
40 mL	HCl	BDH	4110110	10/14/2011	0.5ML	QCS ICV A
40 mL	HNO3	JT BAKER	K19023	10/14/2011	0.5ML	QCS ICV B
Prepared in 2000 mL DI Water						
200.7						
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	AMOUNT	STD
0.250 mL	200.7 LDL	O2SI	1028857-29887	11/1/2012	0.5mL	Ca
Prepared in 50 mL 2%HNO3/2%HCl						
200.7 ICSA						
0.5mL	AI	CPI	10E012-27685	4/20/2012	0.5mL	Al
STD 1 / LDL 200.7						
0.250 mL	200.7 LDL	O2SI	1028857-29887	11/1/2012	0.5mL	Mg
Prepared in 50 mL 2%HNO3/2%HCl						
200.7 ICSAB						
0.5mL	AI	CPI	10E012-27685	4/20/2012	0.5mL	Ca
0.5mL	CCV-B	ABSOLUTE	091109-25208	9/14/2012	0.5mL	Mg
0.5mL	CCV-C	ABSOLUTE	091009-25207	9/10/2012	0.5mL	Fe
STD 3 / HDL 200.7						
0.5mL	CCV-A	ABSOLUTE	091409-25208	9/14/2012	0.5mL	Al
0.5mL	CCV-B	ABSOLUTE	091109-25208	9/14/2012	0.5mL	Ca
0.5mL	CCV-C	ABSOLUTE	091009-25207	9/10/2012	0.5mL	Mg
STD 2 / CCV1 200.7						
AMOUNT	STD	PREP DATE	EXP DATE		0.5mL	Fe
25mL	STD 3	11/4/2011	11/11/2011		0.25mL	O2SI
25mL	2%HNO3/2%HCl	11/4/2011	11/11/2011		Prepared in 50 mL 2%HNO3/2%HCl	
CCV1 200.7						
15mL	STD 3	11/4/2011	11/11/2011			
25mL	2%HNO3/2%HCl	11/4/2011	11/11/2011			

1%HNO3/5%HCl BLK						
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE	AMOUNT	STD
100 mL	HCl	BDH	4110110	10/14/2011	1mL	AI
20 mL	HNO3	JT BAKER	K19023	10/14/2011	1mL	Ca
Prepared in 2000 mL DI Water						
STD 1 / LDL 6010B/6010C						
0.1mL	6010 LDL	ABSOLUTE	091409-25205	9/14/2012	1mL	Al
Prepared in 50 mL 1%HNO3/5%HCl						
6010B/6010C ICSA						
0.1mL	AI	CPI	10E012-27685	4/20/2012	0.1mL	Al
STD 3 / HDL 6010B/6010C						
0.1mL	CCV-A	ABSOLUTE	091409-25205	9/14/2012	0.1mL	Ca
0.1mL	CCV-B	ABSOLUTE	091109-25208	9/14/2012	0.1mL	Mg
0.1mL	CCV-C	ABSOLUTE	091009-25207	9/10/2012	0.1mL	Fe
Prepared in 50 mL 1%HNO3/5%HCl						
6010B/6010C ICSAB						
0.1mL	AI	CPI	10E012-27685	4/20/2012	0.1mL	Al
STD 2 / CCV1 6010B/6010C/6010C						
AMOUNT	STD	PREP DATE	EXP DATE		0.5mL	QCS ICV A
25mL	STD 3	11/1/2011	11/18/2011		0.5mL	QCS ICV B
25mL	1%HNO3/5%HCl	11/1/2011	11/18/2011		Prepared in 50 mL 1%HNO3/5%HCl	
CCV1 6010B/6010C						
AMOUNT	STD	PREP DATE	EXP DATE		0.5mL	QCS ICV A
15mL	STD 3	11/1/2011	11/18/2011		0.5mL	QCS ICV B
25mL	1%HNO3/5%HCl	11/1/2011	11/18/2011		Prepared in 50 mL 1%HNO3/5%HCl	

SAM 11/11/11

## Metals Digestion Worksheet

Method Name 3015 Digestion

Prep Method M3015

Set 111110A

Units mL

Spikes	
Spiked ID 1	LCSW LOT# 1028408-29435
Spiked ID 2	LCSW LOT# 1028416-29433
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 11/10/11 10:40:00 AM
Witnessed By	KWS Date: 11/10/11 10:40:00 AM

Starting Temp:	25 C
Ending Temp:	170 C
Temperature Type:	Microwave
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/10/11 12:00

Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1 111110A Blk				45mL	50mL	11/10/11 10:40	equip: Venus
2 111110A LCS		90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
3 AY48273	AY48273W01			45mL	50mL	11/10/11 10:40	equip: Venus
4 AY48273 DUP	AY48273W01			45mL	50mL	11/10/11 10:40	equip: Venus
5 AY48273 MS	AY48273W01	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
6 AY48639	AY48639W05			45mL	50mL	11/10/11 10:40	equip: Venus
7 AY48640	AY48640W05			45mL	50mL	11/10/11 10:40	equip: Venus
8 AY48641	AY48641W05			45mL	50mL	11/10/11 10:40	equip: Venus
9 AY48642	AY48642W05			45mL	50mL	11/10/11 10:40	equip: Venus
10 AY48643	AY48643W05			45mL	50mL	11/10/11 10:40	equip: Venus
11 AY48644	AY48644W02			45mL	50mL	11/10/11 10:40	equip: Venus
12 AY49333	AY49333W13			45mL	50mL	11/10/11 10:40	equip: Venus
13 AY49334	AY49334W51			45mL	50mL	11/10/11 10:40	equip: Venus
14 AY49334 MS	AY49334W52	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
15 AY49334 MSD	AY49334W52	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
16 AY49336	AY49336W13			45mL	50mL	11/10/11 10:40	equip: Venus
17 AY49481	AY49481W13			45mL	50mL	11/10/11 10:40	equip: Venus
18 AY49482	AY49482W13			45mL	50mL	11/10/11 10:40	equip: Venus
19 AY49559	AY49559W31			45mL	50mL	11/10/11 10:40	equip: Venus
20 AY49559 MS	AY49559W31	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
21 AY49559 MSD	AY49559W31	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
22 AY49561	AY49561W08			45mL	50mL	11/10/11 10:40	equip: Venus
23 AY49562	AY49562W08			45mL	50mL	11/10/11 10:40	equip: Venus

HNO3 J.T.B k19023 0095

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	NBS
Date	11/10/11
Time	13:00
Moved to	METALS

Technician Initials	
Scanned By	nm
Sample Preparation	lo
Digestion	lo
Bring up to volume	nm
Modified	11/10/11 10:19:53 AM

Reviewed By: *EH*

Date: 11-10-11

**Metals Digestion Worksheet**

Method Name 3015 Digestion

Prep Method M3015

Set 111110A

Units mL

Spikes	
Spiked ID 1	LCSW LOT# 1028408-29435
Spiked ID 2	LCSW LOT# 1028416-29433
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 11/10/11 10:40:00 AM
Witnessed By	KWS Date: 11/10/11 10:40:00 AM

Starting Temp:	25 C
Ending Temp:	170 C
Temperature Type:	Microwave
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/10/11 12:00

Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
24 AY50005	AY50005W08			45mL	50mL	11/10/11 10:40	equip: Venus

Solvn/Congntrnt	
HNO3 J.T.B k19023	0095

Sample COC Transferred	
Sample prep employee Initials	nm
Analyst's initials	NBS
Date	11-10-11
Time	13:00
Moved to	METAC5

Technician's Initials	
Scanned By	nm
Sample Preparation	lo
Digestion	lo
Bring up to volume	nm
Modified	11/10/11 10:19:53 AM

Reviewed By: SA

Date: 11-10-11

# 6020/200.8 Injection Log

Directory: K:\ICP-MS Optimus\raw data output csv\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	11 Nov 2011	12:08	Calibration Blank		111111A	1.
2	11 Nov 2011	12:14	111111 Standard 1		111111A	1.
3	11 Nov 2011	12:20	111111 Standard 2		111111A	1.
4	11 Nov 2011	12:27	111111 Standard 3		111111A	1.
5	11 Nov 2011	12:33	111111 Standard 4		111111A	1.
6	11 Nov 2011	12:39	ICV 111111		111111A	1.
8	11 Nov 2011	12:57	ICB 111111		111111A	1.
9	11 Nov 2011	13:03	CCV 111111		111111A	1.
10	11 Nov 2011	13:09	CCB 111111		111111A	1.
11	11 Nov 2011	13:15	ICSA 111111		111111A	1.
12	11 Nov 2011	13:21	ICSAB 111111		111111A	1.
13	11 Nov 2011	13:33	CCV 111111		111111A	1.
14	11 Nov 2011	13:46	CCB 111111		111111A	1.
15	11 Nov 2011	14:16	111110A-3015-BLK		111111A	1.
16	11 Nov 2011	14:22	111110A-3015-LCS		111111A	1.
23	11 Nov 2011	15:05	CCV 111111		111111A	1.
24	11 Nov 2011	15:17	CCB 111111		111111A	1.
49	11 Nov 2011	18:04	CCV 111111		111111A	1.
50	11 Nov 2011	18:16	CCB 111111		111111A	1.
55	11 Nov 2011	18:46	AY50005W08		111111A	1.
57	11 Nov 2011	18:59	CCV 111111		111111A	1.
58	11 Nov 2011	19:11	CCB 111111		111111A	1.