

# Laboratory Report

Environet

LTM Red Hill Bulk Fuel Storage Facility

ARF 64475

Samples collected: April 19 and 20, 2011

APPL, Inc.

Data Validation Package  
for  
LTM Red Hill Bulk Fuel Storage Facility  
ARF 64475  
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# **CASE NARRATIVE**



## Case Narrative

ARF: 64475

Project: LTM Red Hill Bulk Fuel Storage Facility

State Certification Number: CA1312 (DW & WW)

NELAP Certification number: 05233CA (HW)

DoD-ELAP Certificate number: ADE-1410

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.

### Sample Receipt Information:

The sample group was received on April 22, 2011, at 3.0°C, 3.0°C, 3.0°, and 3.0°C. The sample group was assigned Analytical Request Form (ARF) number 64475. The sample numbers and requested analyses were compared to the chain of custody. There was a container count discrepancy which was reported to the client. No other exception was encountered.

**Sample Table**

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
ES019	AY36311	WATER	04/19/11	04/22/11
ES020	AY36312	WATER	04/19/11	04/22/11
ES021	AY36313	WATER	04/19/11	04/22/11
ES022	AY36314	WATER	04/19/11	04/22/11
ES023	AY36315	WATER	04/19/11	04/22/11
ES024	AY36316	WATER	04/20/11	04/22/11
ES025	AY36317	WATER	04/20/11	04/22/11
ES026	AY36318	WATER	04/20/11	04/22/11
ES027	AY36319	WATER	04/20/11	04/22/11

All samples were screened for J-value responses between the LOQ and DL.

# **EPA Method 8015B**

## **Total Petroleum Hydrocarbons – Diesel**

### **Sample Preparation:**

The water samples were extracted according to EPA method 3510C. The sample was 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.

Sample ES020 was designated by the client for MS/MSD analysis. Diesel fuel recovered below the 61% lower control limit at 40.5% in the MSD. Diesel Fuel recovery in the MS was acceptable.

#### **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 samples were extracted according to EPA method 3510C. All holding times were met.

### **Sample Analysis Information:**

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

### **Quality Control/Assurance**

#### **Calibrations:**

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

#### **Blanks:**

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

#### **Spikes:**

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

Sample ES020 was designated by the client for MS/MSD analysis. All recoveries met acceptance criteria.

#### **Surrogates**

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

#### **Tuning:**

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

#### **Internal Standards**

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

### **Summary:**

No 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. The samples were received in unpreserved vials; the samples were analyzed within seven days of collection.

### **Quality Control/Assurance**

#### **Calibrations:**

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

#### **Blanks:**

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

#### **Spikes:**

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

Sample ES020 was designated by the client for MS/MSD analysis. All spike recoveries were acceptable.

#### **Surrogates**

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

#### **Tuning:**

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

#### **Internal Standards**

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

### **Summary:**

No problem was encountered. The data generated are acceptable.



# **EPA Method 6020**

## **Metals**

### **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 ES020 was designated by the client for MS/MSD analysis. All acceptance criteria were met for the MS/MSD, PDS, and serial dilution.

### **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. Release of the hard copy has been authorized by the Laboratory Manager or his designee, as verified by the following signature

---


Leonard Fong, Ph.D, Laboratory Director / Date

# **CHAIN OF CUSTODY AND ARF**

# APPL - Analysis Request Form

64475

Client: Environet, Inc.  
 Address: 650 Iwilei Rd, #204  
Honolulu, HI 96817  
 Attn: Vilma Dupra  
 Phone: 808-833-2225 Fax: 808-833-2231  
 Job: LTM Red Hill Bulk Fuel Storage Facility  
 PO #: 1022-015  
 Chain of Custody (Y/N): Y # 34090  
 RAD Screen (Y/N): Y pH (Y/N): Y  
 Turn Around Type: 2 WEEKS

Received by: TBV   
 Date Received: 04/22/11 Time: 12:00  
 Delivered by: FED EX  
 Shuttle Custody Seals (Y/N): Y  
 Chest Temp(s): 3.0°, 3.0°, 3.0°, 3.0°C  
 Color: VOA, RED, Q-ORYEL  
 Samples Chilled until Placed in Refrig/Freezer: Y  
 Project Manager: Cynthia Clark  
 QC Report Type: DVP4/ADRDOD/HI *UF*  
 Due Date: 05/06/11

Comments:

14 day TAT for Form 1s & 30 day TAT for full package. *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, EDD: Exce & ADR *UF*  
 DoD Forms, J flag to DL, U flag at LOD *UF*  
 EDD ADR A1/A3 (ADR 8.3a unchecked) to *VDupra@* & *sfineran@environetinc.com*  
 metals 6020: report Lead with 0.5ug/L RL  
 TPH-Diesel only  
 VOCs: include gasoline by 8260B

6/11

Sample Distribution:

QC: 5-\$SIMHC12W, 5-\$TPETD2  
 Extractions: 5- SEP004S, 5- SEP011  
 VOA: 9-\$86RHBF  
 Metals: 5-\$802D(Pb)  
 Other: 5- M3015

Charges:





Invoice To:

same

Client ID	APPL ID	Sampled	Analyses Requested
1. ES019	AY36311W 	04/19/11 10:00	\$602D(Pb), \$86RHBF, \$SIMHC12W, \$TPETD2 -- Non-preserved VOA
2. ES020	MSMSD AY36312W 	04/19/11 12:50	\$602D(Pb), \$86RHBF, \$SIMHC12W, \$TPETD2 -- Non-preserved VOA
3. ES021	AY36313W 	04/19/11 09:00	\$602D(Pb), \$86RHBF, \$SIMHC12W, \$TPETD2 -- Non-preserved VOA
4. ES022	kd.vol AY36314W 	04/19/11 07:00	\$86RHBF -- Non-preserved VOA
5. ES023	kd.vol AY36315W 	04/19/11 07:00	\$86RHBF -- Non-preserved VOA

APPL - Analysis Request Form

64475

6. ES024	AY36316W 	04/20/11 09:30	\$602D(Pb), \$86RHBF, \$SIMHC12W, \$TPETD2 -- Non-preserved VOA
7. ES025	AY36317W 	04/20/11 14:15	\$602D(Pb), \$86RHBF, \$SIMHC12W, \$TPETD2 -- Non-preserved VOA
8. ES026	hd.vol. AY36318W 	04/20/11 07:00	\$86RHBF -- Non-preserved VOA
9. ES027	hd.vol. AY36319W 	04/20/11 07:00	\$86RHBF -- Non-preserved VOA

Initials \_\_\_\_\_ Date \_\_\_\_\_

# APPL Sample Receipt Form

ARF# 64475

Sample	Container Type	Count	pH
AY36311	<sup>6</sup> PL 500mL - HNO3	1	1.7
	<sup>15</sup> VOAs - NP	4	NA
	<sup>17</sup> Amber Liter	3	NA
AY36312	<sup>6</sup> PL 500mL - HNO3	3	1.7
	<sup>15</sup> VOAs - NP	11	NA
	<sup>17</sup> Amber Liter	9	NA
AY36313	<sup>6</sup> PL 500mL - HNO3	1	1.7
	<sup>15</sup> VOAs - NP	4	NA
	<sup>17</sup> Amber Liter	3	NA
AY36314	<sup>15</sup> VOAs - NP	1	NA
AY36315	<sup>15</sup> VOAs - NP	1	NA
AY36316	<sup>6</sup> PL 500mL - HNO3	1	1.7
	<sup>15</sup> VOAs - NP	4	NA
	<sup>17</sup> Amber Liter	3	NA
AY36317	<sup>6</sup> PL 500mL - HNO3	1	1.7
	<sup>15</sup> VOAs - NP	4	NA
	<sup>17</sup> Amber Liter	3	NA
AY36318	<sup>15</sup> VOAs - NP	1	NA
AY36319	<sup>15</sup> VOAs - NP	1	NA

Sample Container Type Count pH



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

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

CHAIN OF CUSTODY RECORD

c.o.c. 34090

64475 3.0

Report to: PLEASE PRINT Company Name: <u>Environet Inc</u> Phone: <u>808 833-2225</u> Address: <u>650 Iwilei Rd. Suite 204</u> <u>Honolulu, HI 96817</u> Fax: <u>808 833-2231</u> Attn: <u>Vilma Dupra</u>	Invoice to: PLEASE PRINT Company Name: <u>Environet Inc.</u> Phone: <u>808 833-2225</u> Address: <u>650 Iwilei Rd. Suite 204</u> <u>Honolulu, HI 96817</u> Fax: <u>808 833-2231</u> Attn: <u>Cecilia Adams</u>
--	--

Project Name/Number	Sampler (Print)	Analysis Requested/Method Number			Date Shipped: <u>4/20/11</u>
		No. of Containers	Matrix		
Purchase Order Number	Sampler (Signature)	Aq	Sed.	Soil	Carrier: <u>Fed Ex</u>
Sample Identification	Location	Date Collected	Time Collected		Waybill No.:
<u>Red Hill/1022-015</u>	<u>Stacey Fineran</u>				Comments:
<u>ES019</u>	<u>Red Hill</u>	<u>4/19</u>	<u>10:00</u>	<u>8</u>	<u>All HCl was rinsed out.</u>
<u>ES020 MS/MSD</u>	<u>Red Hill</u>	<u>4/19</u>	<u>12:50</u>	<u>3</u>	
<u>ES021</u>	<u>Red Hill</u>	<u>4/19</u>	<u>9:00</u>	<u>8</u>	
<u>ES022</u>	<u>Red Hill</u>	<u>4/19</u>	<u>7:00</u>	<u>1</u>	
<u>ES023</u>	<u>Red Hill</u>	<u>4/19</u>	<u>7:00</u>	<u>1</u>	
<u>ES024</u>	<u>Red Hill</u>	<u>4/20</u>	<u>9:30</u>	<u>8</u>	
<u>ES025</u>	<u>Red Hill</u>	<u>4/20</u>	<u>7:15</u>	<u>8</u>	
<u>ES026</u>	<u>Red Hill</u>	<u>4/20</u>	<u>0700</u>	<u>1</u>	
<u>ES027</u>	<u>Red Hill</u>	<u>4/20</u>	<u>0700</u>	<u>1</u>	

Shuttle Temperature:	Turnaround Requested: MUST CHECK ONE <input checked="" type="checkbox"/> Standard (2-3 week) <input type="checkbox"/> One week <input type="checkbox"/> 24-48 hour	Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)
Relinquished by sampler: <u>Stacey Fineran</u>	Date: <u>4/20</u> Time: <u>5:00</u>	Received by: <u>Fed Ex</u>
Relinquished by:	Date: <u>4/22/11</u> Time: <u>1200</u>	Received at lab by: <u>[Signature]</u>

White: Return to client with report    Yellow: Laboratory Copy    Pink: Sampler  
 See reverse side for Container Preservative and Sampling Information

COOLER RECEIPT FORM

1) Project: LTM Red Hill Bulk Fuel Storage Date Received: 4/22/11

2) Coolers: Number of Coolers: 4

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

4)  YES  NO Were custody seals on outside of cooler? How many? 4 Date on seal? 4/20/11

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) master 2) 87480067 1406 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.): Eps 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: A 29267 Correction factor: 0

15) Cooler temp(s): 1) 3.0 2) 3.0 3) 3.0 4) 3.0 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: Ay 36311 w04; Ay 36312 w11; Ay 36314 w01; Ay 36315 w0

Preservation & Hold time: Ay 36316 w04; Ay 36317; Ay 36318 w01; Ay 36319 w01

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 > 10?

37)  YES  NO  NA Unpreserved VOA vials received? \_\_\_\_\_

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

Lab notified if pH was not adequate: \_\_\_\_\_

Deficiencies: Sample IS-20 list 31 on C.O.C. container - We received 28 containers.

Signature of personnel receiving samples: \_\_\_\_\_

Signature of project manager notified: Renee

Name of client notified: \_\_\_\_\_

Information given to client: \_\_\_\_\_

Second reviewer: Hang

Date and Time of notification: 4-25-11

Date and Time of notification: \_\_\_\_\_

by whom (Initials): \_\_\_\_\_

USTODY SEAL  
APPL, Inc. (569) 275-2175  
Date: 4/20/11  
Is SF



**EPA 8015 Modified  
Total Petroleum Hydrocarbons**

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

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

Blank Name/QCG: **110426W-36312 - 155042**  
Batch ID: #TPETD-110426A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	04/26/11	04/27/11
BLANK	SURROGATE: OCTACOSANE (S)	61.7	28-142			%	04/26/11	04/27/11
BLANK	SURROGATE: ORTHO-TERPHEN	62.3	57-132			%	04/26/11	04/27/11

Quant Method: TPHODRO.M  
Run #: 425079  
Instrument: Apollo  
Sequence: 110425  
Initials: TRL

GC SC-Blank-REG MDLs  
Printed: 05/13/11 3:48:51 PM

**Surrogate Recovery**

Lab Name: APPL, Inc.  
 Case No: 64475  
 Matrix: WATER

SDG No: 64475  
 Date Analyzed: 04/27/11  
 Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)	SURROGATE: ORTHO-TERPHENYL (S)
110426A-BLK	Blank	61.7	62.3
110426A-LCS	Lab Control Spike	65.2	77.3
AY36311	ES019	63.7	67.4
AY36312-MS	Matrix Spike	66.0	79.3
AY36312-MSD	Matrix SpikeD	47.7	59.1
AY36312	ES020	67.7	72.1
AY36313	ES021	69.4	74.7
AY36316	ES024	66.0	68.4
AY36317	ES025	56.6	60.8

Comments: Batch: #TPETD-110426A

**Laboratory Control Spike Recovery**  
**TPH Diesel Water**

APPL ID: 110426W-36312 LCS - 155042  
 Batch ID: #TPETD-110426A

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	1500	75.0	61-143
SURROGATE: OCTACOSANE (S)	150	97.8	65.2	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	116	77.3	57-132

Comments:

<u>Primary</u>	<u>SPK</u>
Quant Method :	TPHODROM
Extraction Date :	04/26/11
Analysis Date :	04/27/11
Instrument :	Apollo
Run :	425080
Initials :	TRL

Printed: 05/12/11 1:50:31 PM

APPL Standard LCS

## Matrix Spike Recoveries

### TPH Diesel Water

APPL ID: 110426W-36312 MS - 155042  
 Batch ID: #TPETD-110426A  
 Sample ID: AY36312  
 Client ID: ES020

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL FUEL	2000	1100	2470	1910	68.5	40.5 #	61-143	25.6	30
SURROGATE: OCTACOSANE (S)	150	NA	99.0	71.5	66.0	47.7	28-142		
SURROGATE: ORTHO-TERPHENYL (S)	150	NA	119	88.6	79.3	59.1	57-132		

# = Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	TPHODRO.M	TPHODRO.M
Extraction Date :	04/26/11	04/26/11
Analysis Date :	04/27/11	04/27/11
Instrument :	Apollo	Apollo
Run :	425088	425089
Initials :	TRL	

Printed: 05/12/11 1:50:34 PM  
 APPL MSD SCII

# EPA 8015B-e

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 64475

Case No: 64475

Date Analyzed: 04/27/11

Matrix: WATER

Instrument: Apollo

Blank ID: 110426A-BLK

Time Analyzed: 0930

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
110426A-BLK	Blank	425079	04/27/11 0930
110426A-LCS	Lab Control Spike	425080	04/27/11 0954
AY36311	ES019	425087	04/27/11 1249
110426A-MS	Matrix Spike	425088	04/27/11 1313
110426A-MSD	Matrix SpikeD	425089	04/27/11 1338
AY36312	ES020	425090	04/27/11 1402
AY36313	ES021	425091	04/27/11 1427
AY36316	ES024	425092	04/27/11 1452
AY36317	ES025	425093	04/27/11 1517

Comments: Batch: #TPETD-110426A

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



# TPH Diesel Water

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

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

Sample ID: ES019

Sample Collection Date: 04/19/11

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64475

APPL ID: AY36311

QCG: #TPETD-110426A-155042

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	04/26/11	04/27/11
EPA 8015B-	SURROGATE: OCTACOSANE (S)	63.7	28-142			%	04/26/11	04/27/11
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S)	67.4	57-132			%	04/26/11	04/27/11

Quant Method: TPHODRO.M  
Run #: 425087  
Instrument: Apollo  
Sequence: 110425  
Dilution Factor: 1  
Initials: TRL

Printed: 05/13/11 3:48:51 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : G:\APOLLO\DATA\110425\425087.D Vial: 87  
Acq On : 4-27-11 12:49:36 Operator: LAC  
Sample : AY36311W06 5/1020 Inst : Apollo  
Misc : Water Multiplr: 4.90  
IntFile : events.e  
Quant Time: May 12 11:40 2011 Quant Results File: TPHODRO.RES

Method : G:\APOLLO\DATA\110425\TPHODRO.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Tue Apr 26 10:54:02 2011  
Response via : Multiple Level Calibration

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

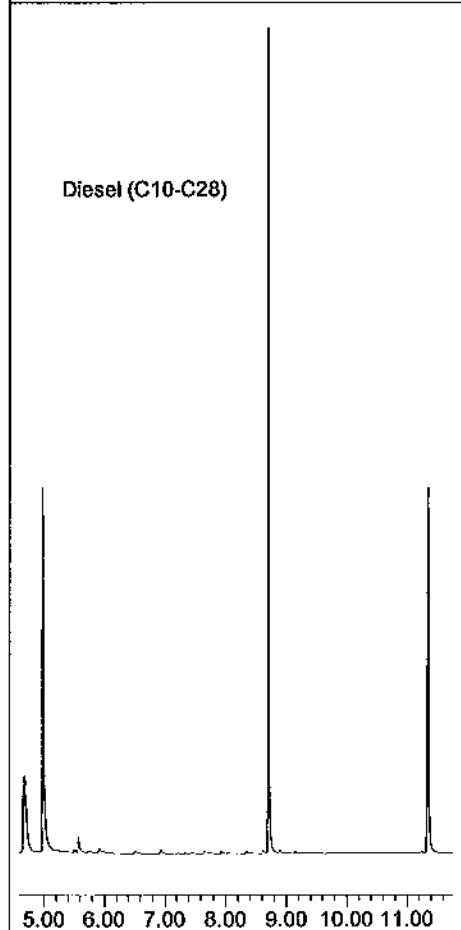
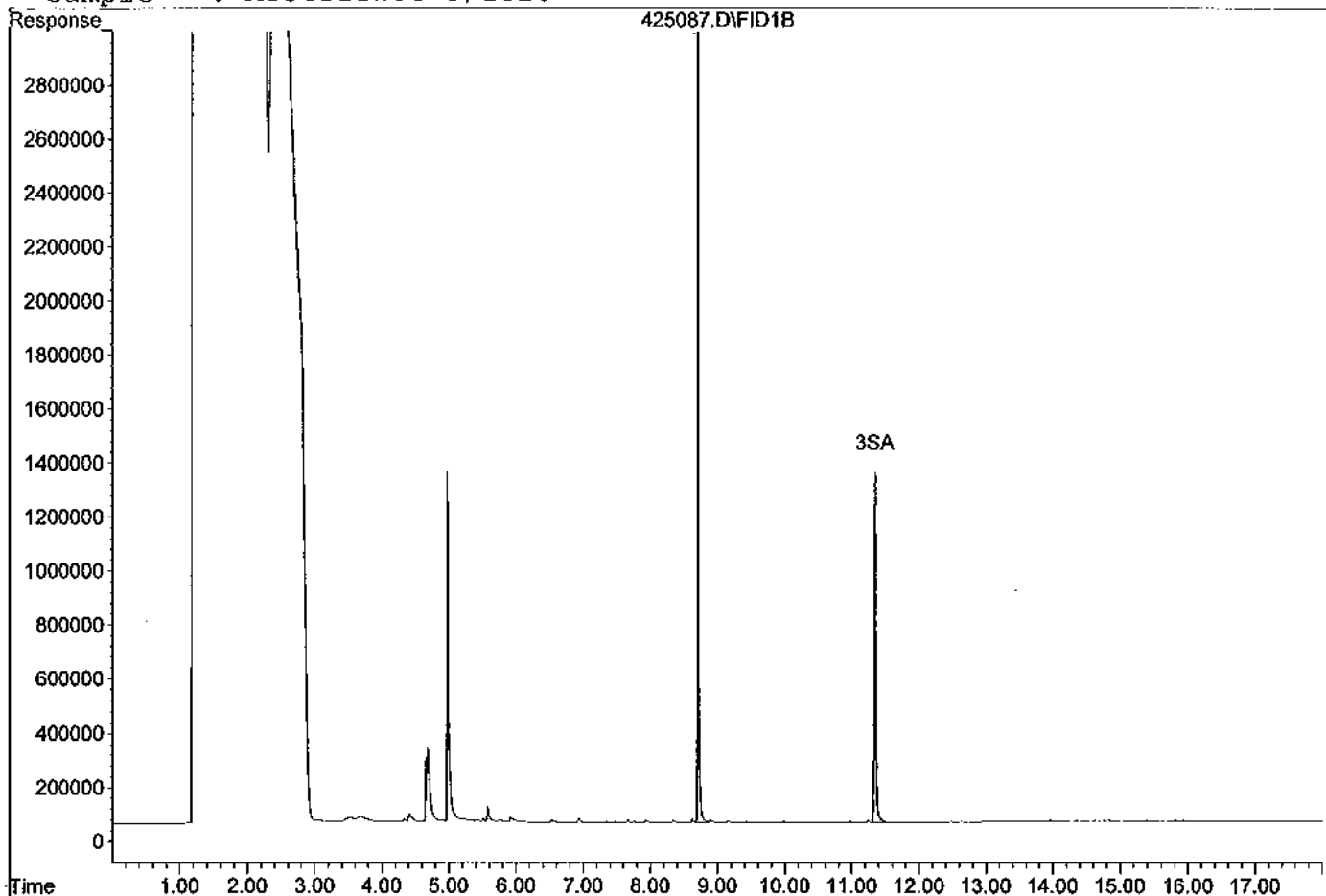
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.71	34921340	99.049 ppb
Surrogate Spike 147.059		Recovery =	67.35%
3) SA Octacosane(S)	11.35	21935925	93.647 ppb
Surrogate Spike 147.059		Recovery =	63.68%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\110425\425087.D

Sample : AY36311W06 5/1020



## TPH Diesel Water

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES020

APPL ID: AY36312

Sample Collection Date: 04/19/11

QCG: #TPETD-110426A-155042

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	1100 ++	150	80.8	40.4	ug/L	04/26/11	04/27/11
EPA 8015B-	SURROGATE: OCTACOSANE (S)	67.7	28-142			%	04/26/11	04/27/11
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S)	72.1	57-132			%	04/26/11	04/27/11

++(T2M) The analyst has noted that the chromatogram of this sample is mainly lower boiling hydrocarbons.

Quant Method: TPHODRO.M
Run #: 425090
Instrument: Apollo
Sequence: 110425
Dilution Factor: 1
Initials: TRL

Printed: 05/13/11 3:48:51 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : G:\APOLLO\DATA\110425\425090.D Vial: 90  
 Acq On : 4-27-11 14:02:57 Operator: LAC  
 Sample : AY36312W22 5/1010 Inst : Apollo  
 Misc : Water Multiplr: 4.95  
 IntFile : events.e  
 Quant Time: May 12 11:39 2011 Quant Results File: TPHODRO.RES

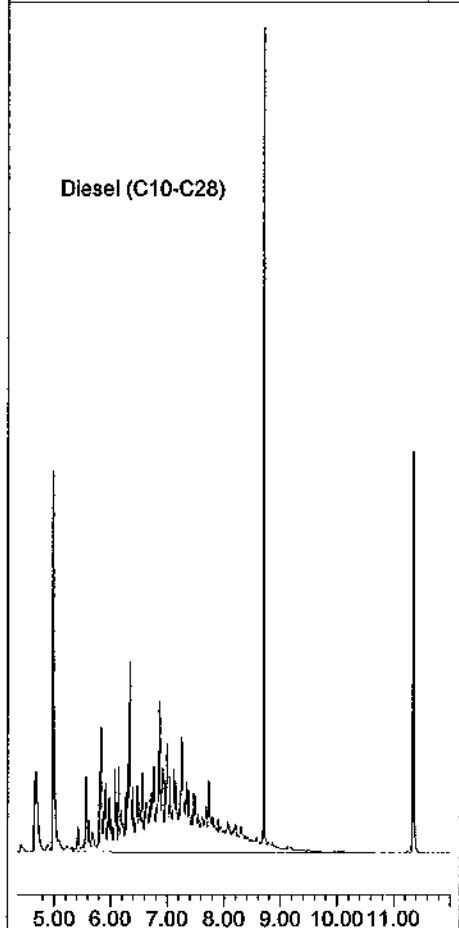
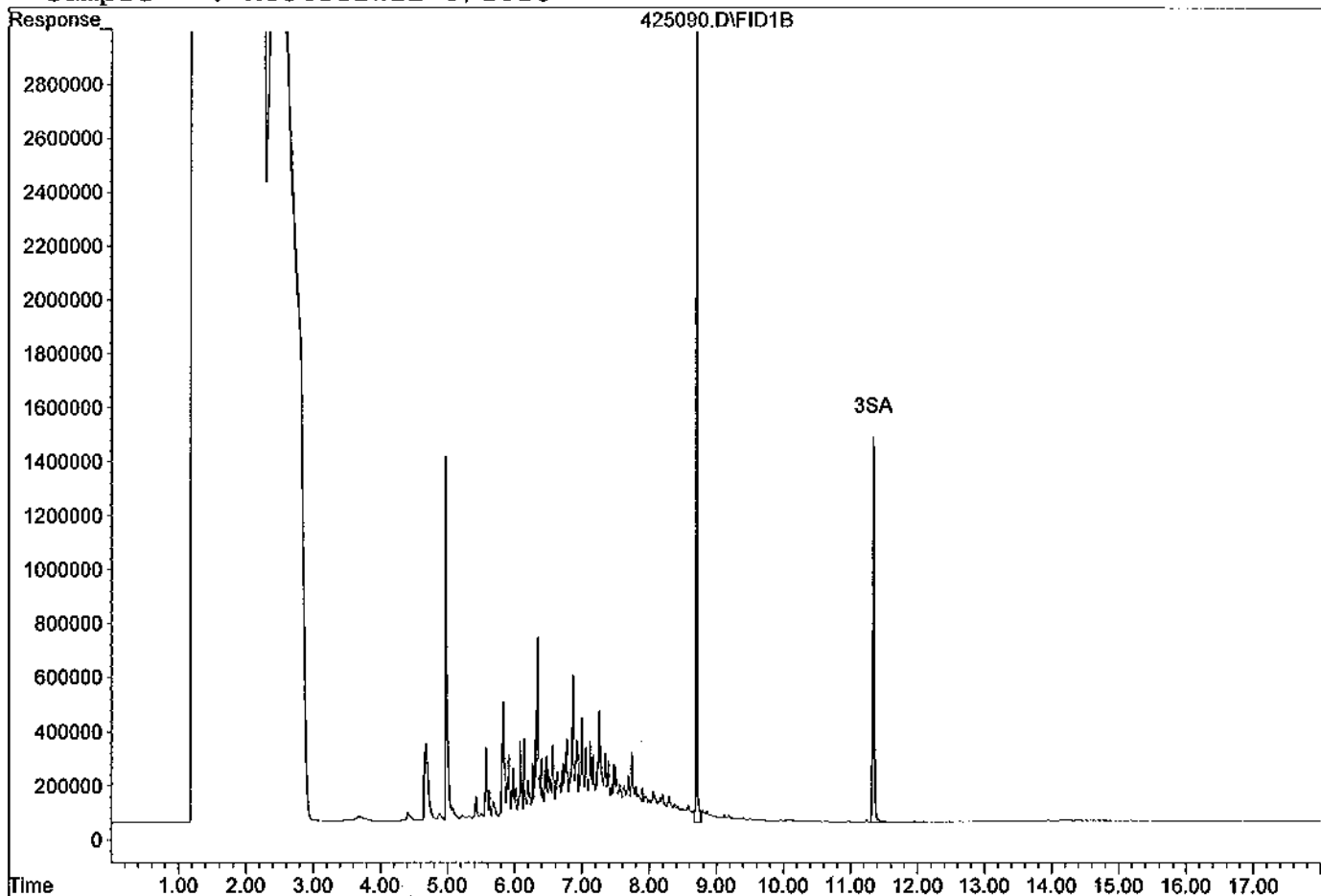
Method : G:\APOLLO\DATA\110425\TPHODRO.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue Apr 26 10:54:02 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.70	37382455	107.080 ppb
Surrogate Spike 148.515		Recovery =	72.10%
3) SA Octacosane(S)	11.35	23315982	100.525 ppb
Surrogate Spike 148.515		Recovery =	67.69%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	250541644	1079.203 ppb T2M

Data File: G:\APOLLO\DATA\110425\425090.D

Sample : AY36312W22 5/1010



## TPH Diesel Water

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

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

**Sample ID: ES021**

Sample Collection Date: 04/19/11

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64475

**APPL ID: AY36313**

QCG: #TPETD-110426A-155042

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	1100 ++	150	80.8	40.4	ug/L	04/26/11	04/27/11
EPA 8015B-	SURROGATE: OCTACOSANE (S)	69.4	28-142			%	04/26/11	04/27/11
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S)	74.7	57-132			%	04/26/11	04/27/11

++(T2M) The analyst has noted that the chromatogram of this sample is mainly lower boiling hydrocarbons.

Quant Method: TPHODRO.M
Run #: 425091
Instrument: Apollo
Sequence: 110425
Dilution Factor: 1
Initials: TRL

Printed: 05/13/11 3:48:51 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : G:\APOLLO\DATA\110425\425091.D Vial: 91  
 Acq On : 4-27-11 14:27:25 Operator: LAC  
 Sample : AY36313W07 5/1020 Inst : Apollo  
 Misc : Water Multiplr: 4.90  
 IntFile : events.e  
 Quant Time: May 12 11:39 2011 Quant Results File: TPHODRO.RES

Method : G:\APOLLO\DATA\110425\TPHODRO.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue Apr 26 10:54:02 2011  
 Response via : Multiple Level Calibration

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

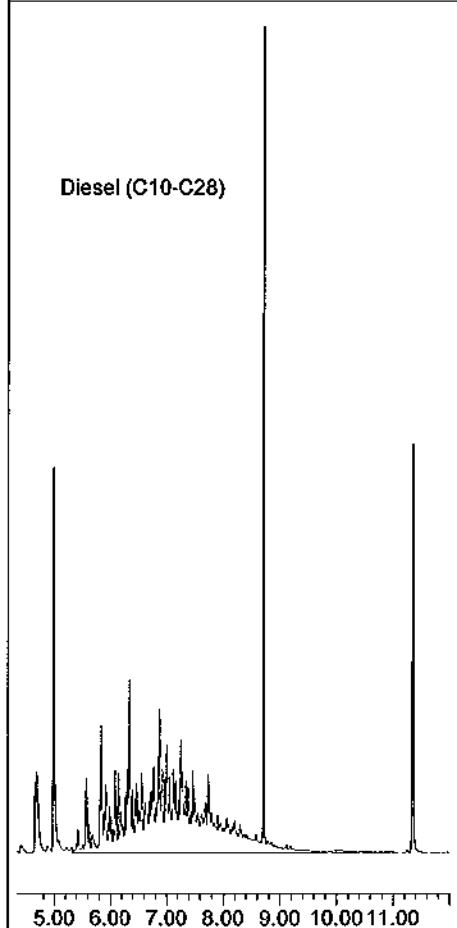
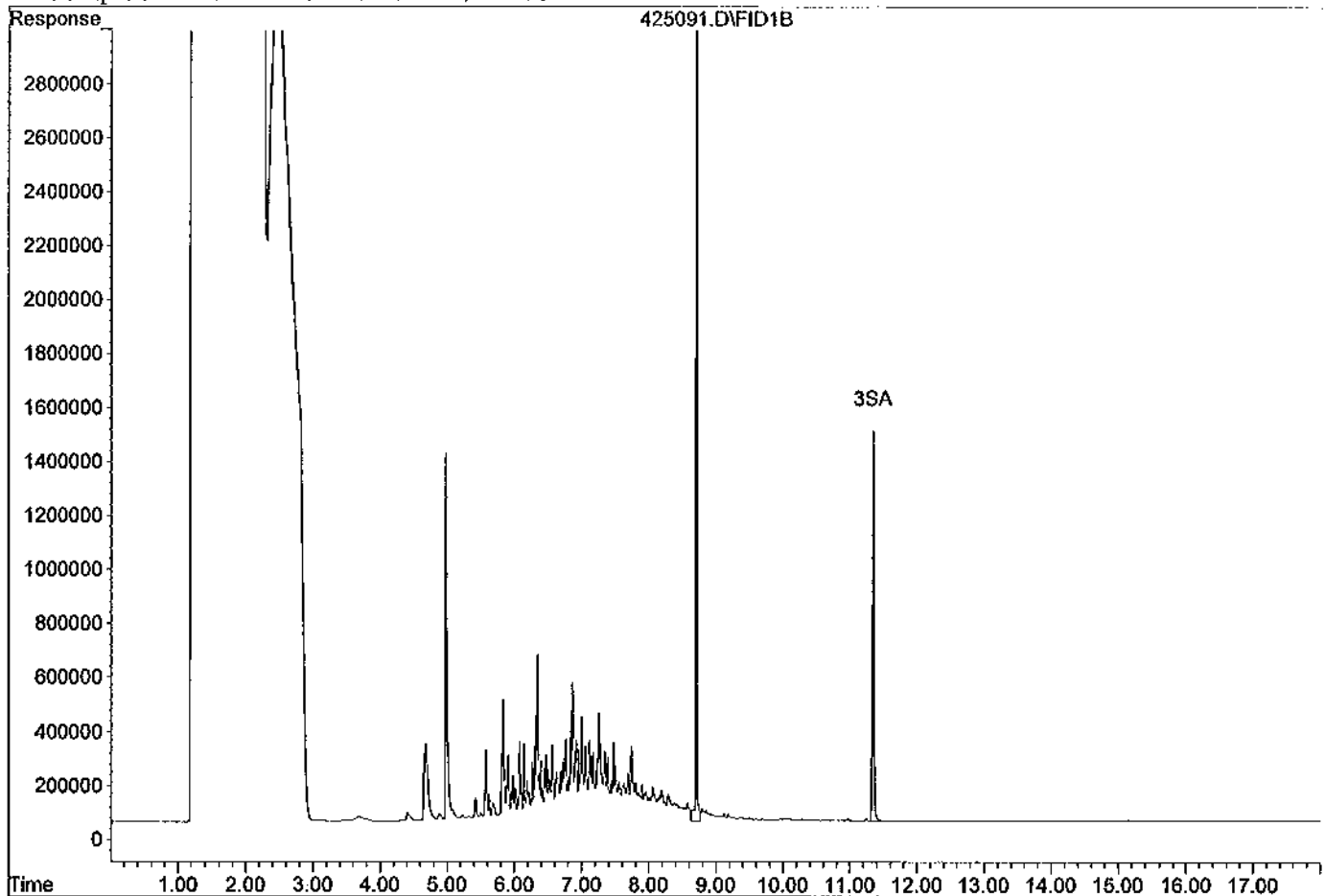
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.70	38737468	109.873 ppb
Surrogate Spike 147.059		Recovery =	74.71%
3) SA Octacosane(S)	11.35	23903390	102.047 ppb
Surrogate Spike 147.059		Recovery =	69.39%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	251442172	1072.462 ppb T2M



Quantitation Report

Data File: G:\APOLLO\DATA\110425\425091.D

Sample : AY36313W07 5/1020



# TPH Diesel Water

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

Attn: Vilma Dupra  
Project: LTM Red Hill Bulk Fuel Storage Facility  
**Sample ID: ES024**  
Sample Collection Date: 04/20/11

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64475  
**APPL ID: AY36316**  
QCG: #TPETD-110426A-155042

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	04/26/11	04/27/11
EPA 8015B-	SURROGATE: OCTACOSANE (S)	66.0	28-142			%	04/26/11	04/27/11
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S)	68.4	57-132			%	04/26/11	04/27/11

Quant Method: TPHODRO.M  
Run #: 425092  
Instrument: Apollo  
Sequence: 110425  
Dilution Factor: 1  
Initials: TRL

Printed: 05/13/11 3:48:51 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : G:\APOLLO\DATA\110425\425092.D Vial: 92  
 Acq On : 4-27-11 14:52:28 Operator: LAC  
 Sample : AY36316W06 5/1020 Inst : Apollo  
 Misc : Water Multiplr: 4.90  
 IntFile : events.e  
 Quant Time: May 12 11:40 2011 Quant Results File: TPHODRO.RES

Method : G:\APOLLO\DATA\110425\TPHODRO.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue Apr 26 10:54:02 2011  
 Response via : Multiple Level Calibration

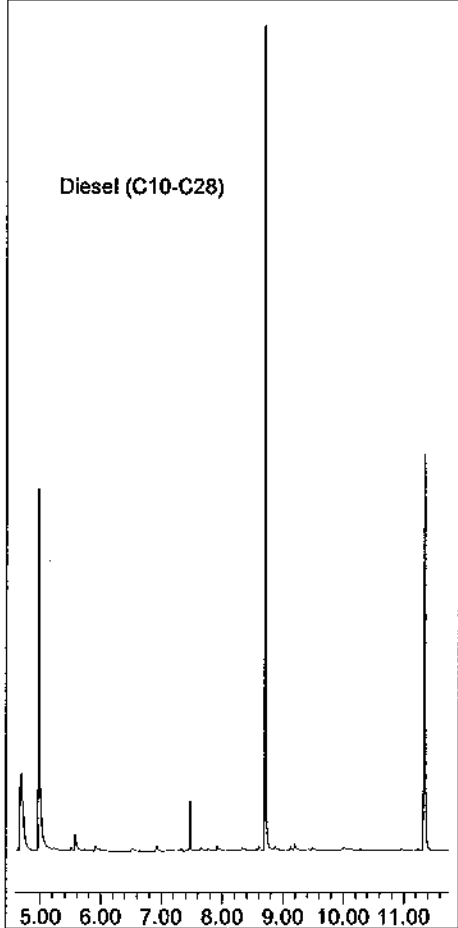
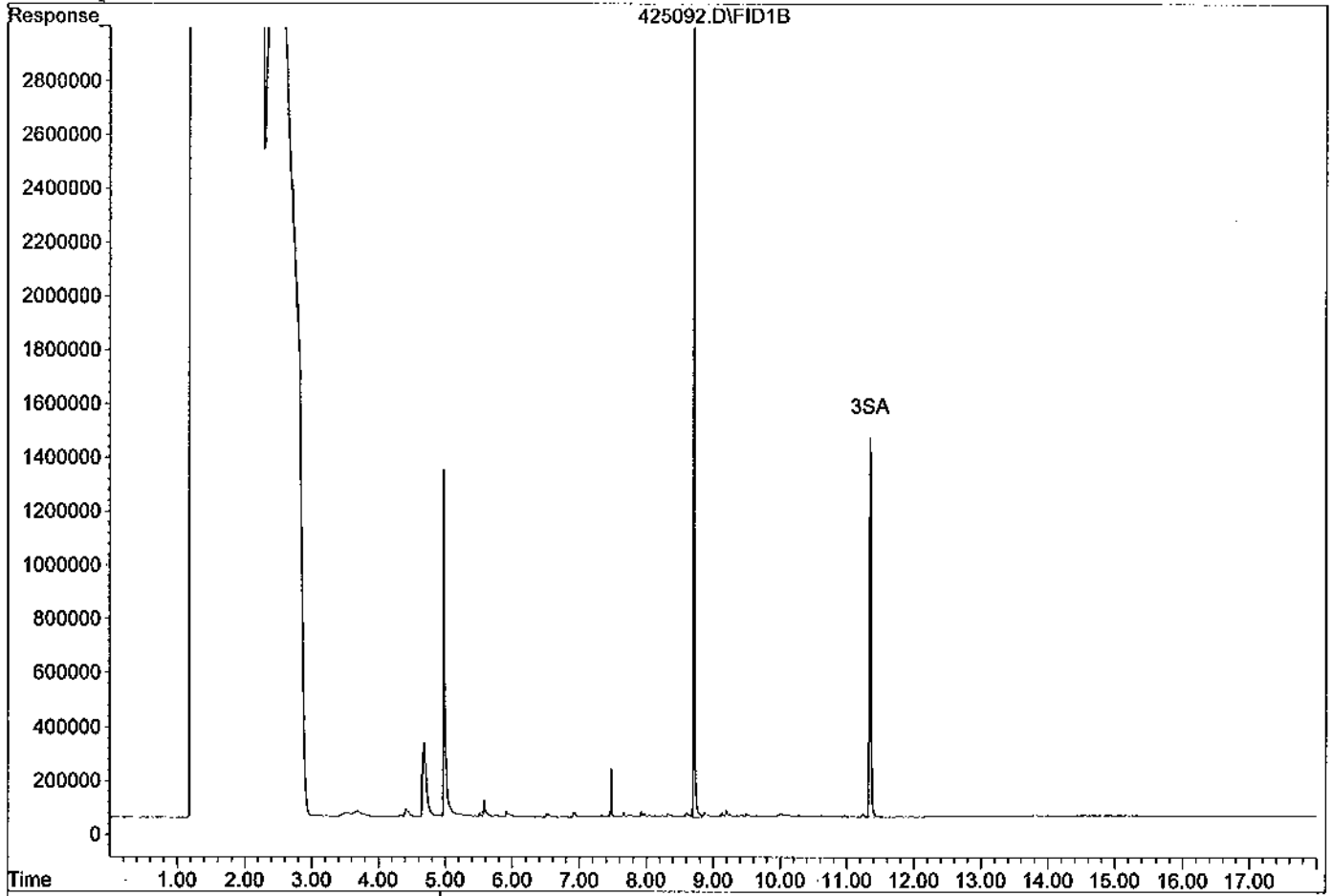
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.71	35448801	100.545 ppb
Surrogate Spike 147.059		Recovery =	68.37%
3) SA Octacosane(S)	11.35	22718082	96.987 ppb
Surrogate Spike 147.059		Recovery =	65.95%

Target Compounds

Data File: G:\APOLLO\DATA\110425\425092.D

Sample : AY36316W06 5/1020



## TPH Diesel Water

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

Sample ID: ES025

Sample Collection Date: 04/20/11

ARF: 64475

APPL ID: AY36317

QCG: #TPETD-110426A-155042

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	04/26/11	04/27/11
EPA 8015B-	SURROGATE: OCTACOSANE (S)	56.6	28-142			%	04/26/11	04/27/11
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S)	60.8	57-132			%	04/26/11	04/27/11

Quant Method: TPHODRO.M  
Run #: 425093  
Instrument: Apollo  
Sequence: 110425  
Dilution Factor: 1  
Initials: TRL

Printed: 05/13/11 3:48:52 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : G:\APOLLO\DATA\110425\425093.D Vial: 93  
 Acq On : 4-27-11 15:17:24 Operator: LAC  
 Sample : AY36317W05 5/1000 Inst : Apollo  
 Misc : Water Multiplr: 5.00  
 IntFile : events.e  
 Quant Time: May 12 11:39 2011 Quant Results File: TPHODRO.RES

Method : G:\APOLLO\DATA\110425\TPHODRO.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue Apr 26 10:54:02 2011  
 Response via : Multiple Level Calibration

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

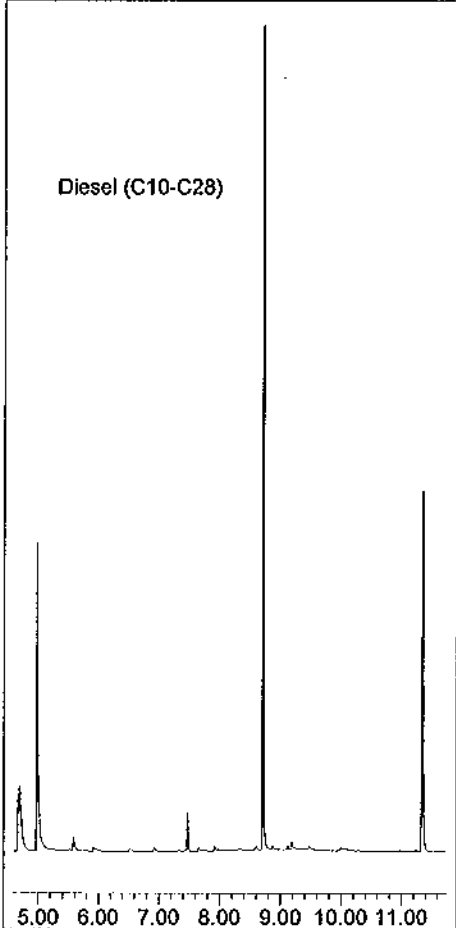
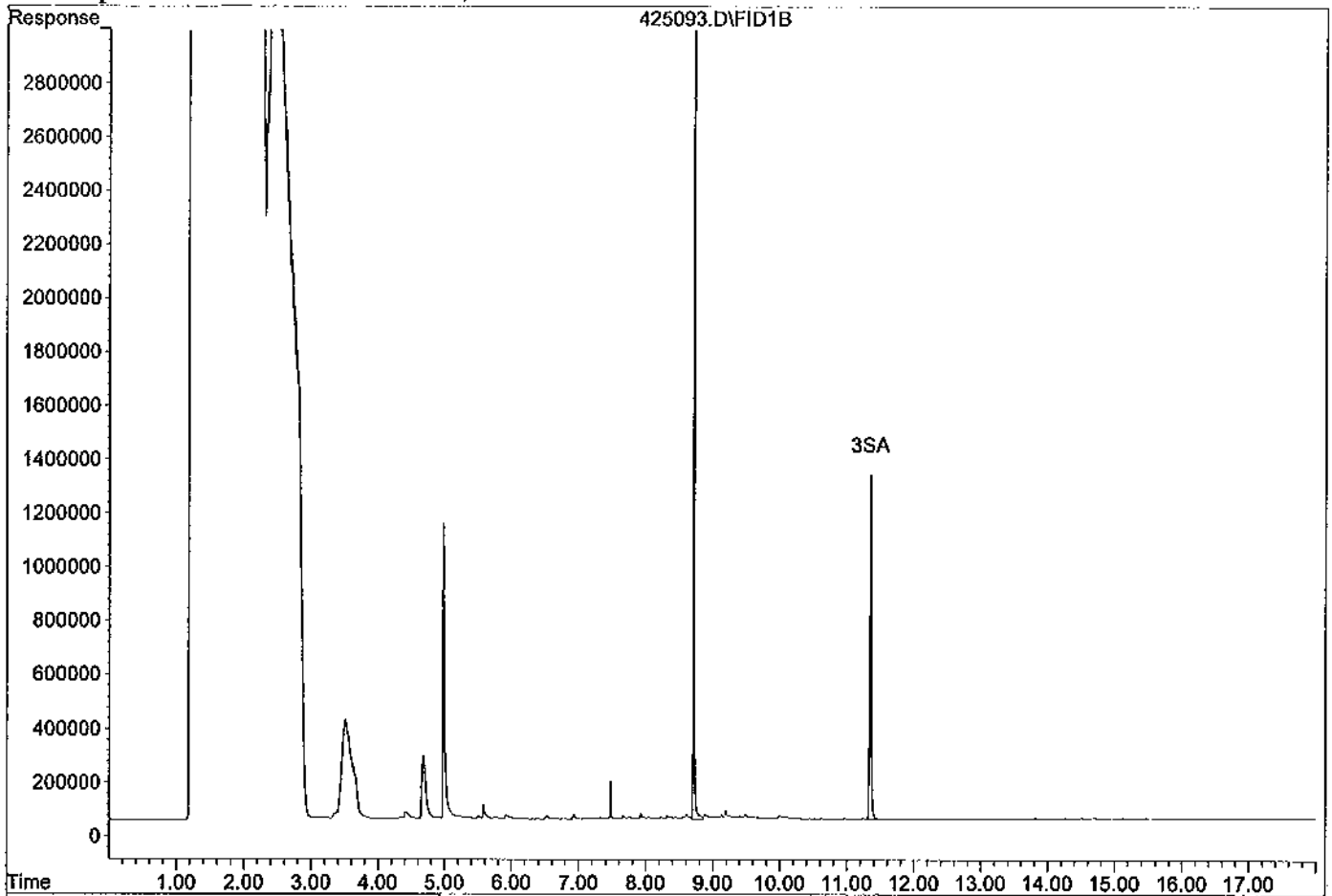
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.71	31498952	91.129 ppb
Surrogate Spike 150.000		Recovery =	60.75%
3) SA Octacosane(S)	11.35	19499922	84.913 ppb
Surrogate Spike 150.000		Recovery =	56.61%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\110425\425093.D

Sample : AY36317W05 5/1000



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



TPH Extractables  
TPHODRO

Form 6  
Initial Calibration

Lab Name: APPL, Inc.

SDG No: 69975

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

Initial Cal. Date: 04/22/11

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

Instrument: Apollo

Initials: LAC

422004.D    422005.D    422006.D    422007.D    422008.D    422009.D

		Compound	1	2	3	4	5	6		Avg	%RSD	
1	HATM	Diesel (C10-C28)	588896	605651	564267	563101	566081	559844		574640	3.2	HATM
2	SA	Ortho-Terphenyl(S)	790967	1100428	805689	864346	777656	845708		864132	14	SA
3	SA	Octacosane(S)	558338	571843	577087	583266	580825	573399		574116	1.5	SA
4												
5												
6												
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0.5336295

Data File : G:\APOLLO\DATA\110422\422004.D  
Acq On : 4-22-11 11:20:08  
Sample : DIESEL 10/1000 4/22/11  
Misc : Mix(A)  
IntFile : events.e  
Quant Time: Apr 27 13:53 2011

Vial: 4  
Operator: LAC  
Inst : Apollo  
Multiplr: 1.00

Quant Results File: TPHODRO.RES

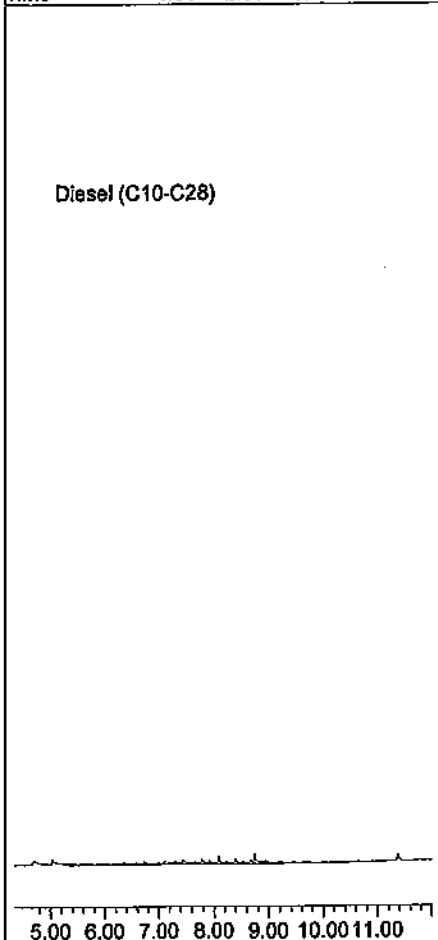
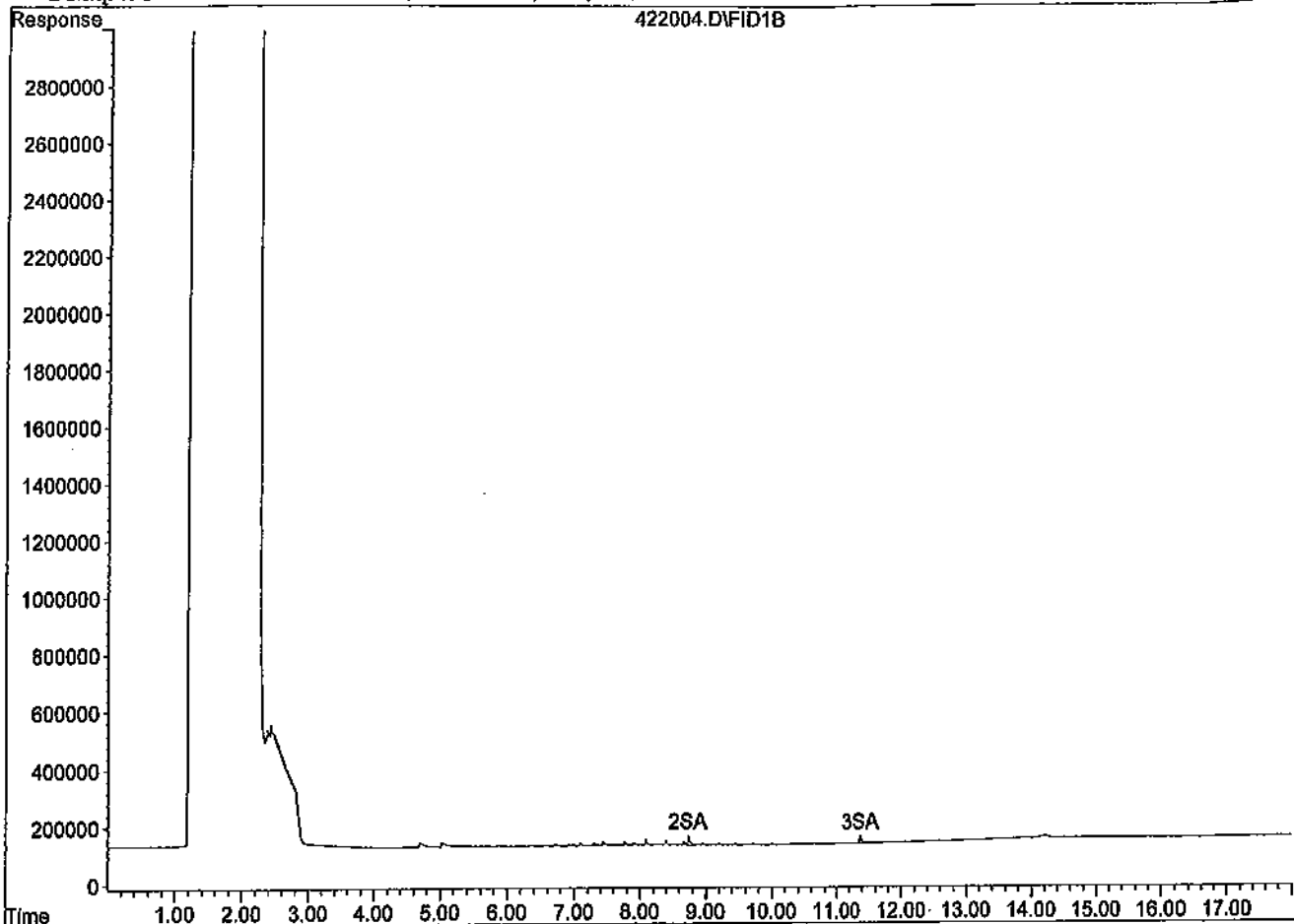
Method : G:\APOLLO\DATA\110422\TPHODRO.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Wed Apr 27 14:22:19 2011  
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.74	790967	0.458 ppb
Surrogate Spike 30.000		Recovery =	1.53%
3) SA Octacosane(S)	11.38	558338	0.486 ppb
Surrogate Spike 30.000		Recovery =	1.62%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	11777927	10.248 ppb

Data File: G:\APOLLO\DATA\110422\422004.D

Sample : DIESEL 10/1000 4/22/11



Data File : G:\APOLLO\DATA\110422\422005.D  
Acq On : 4-22-11 11:45:11  
Sample : DIESEL 100/1000  
Misc : Mix(A)  
IntFile : events.e  
Quant Time: Apr 27 13:54 2011

Vial: 5  
Operator: LAC  
Inst : Apollo  
Multiplr: 1.00

Quant Results File: TPHODRO.RES

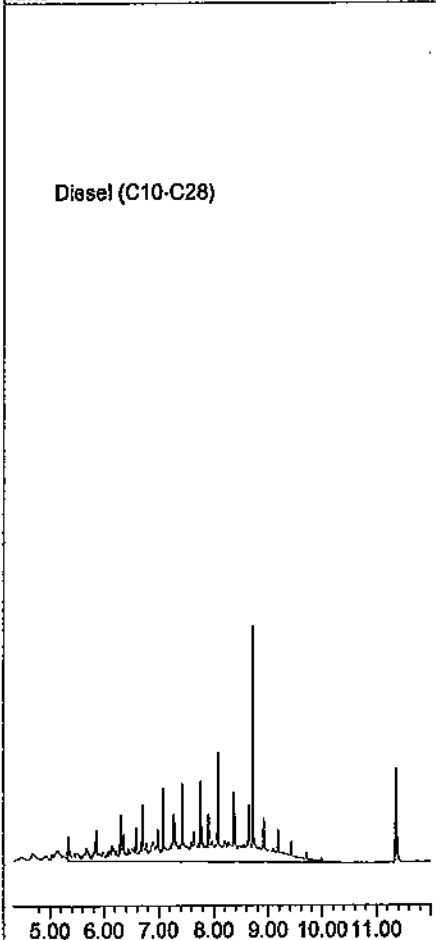
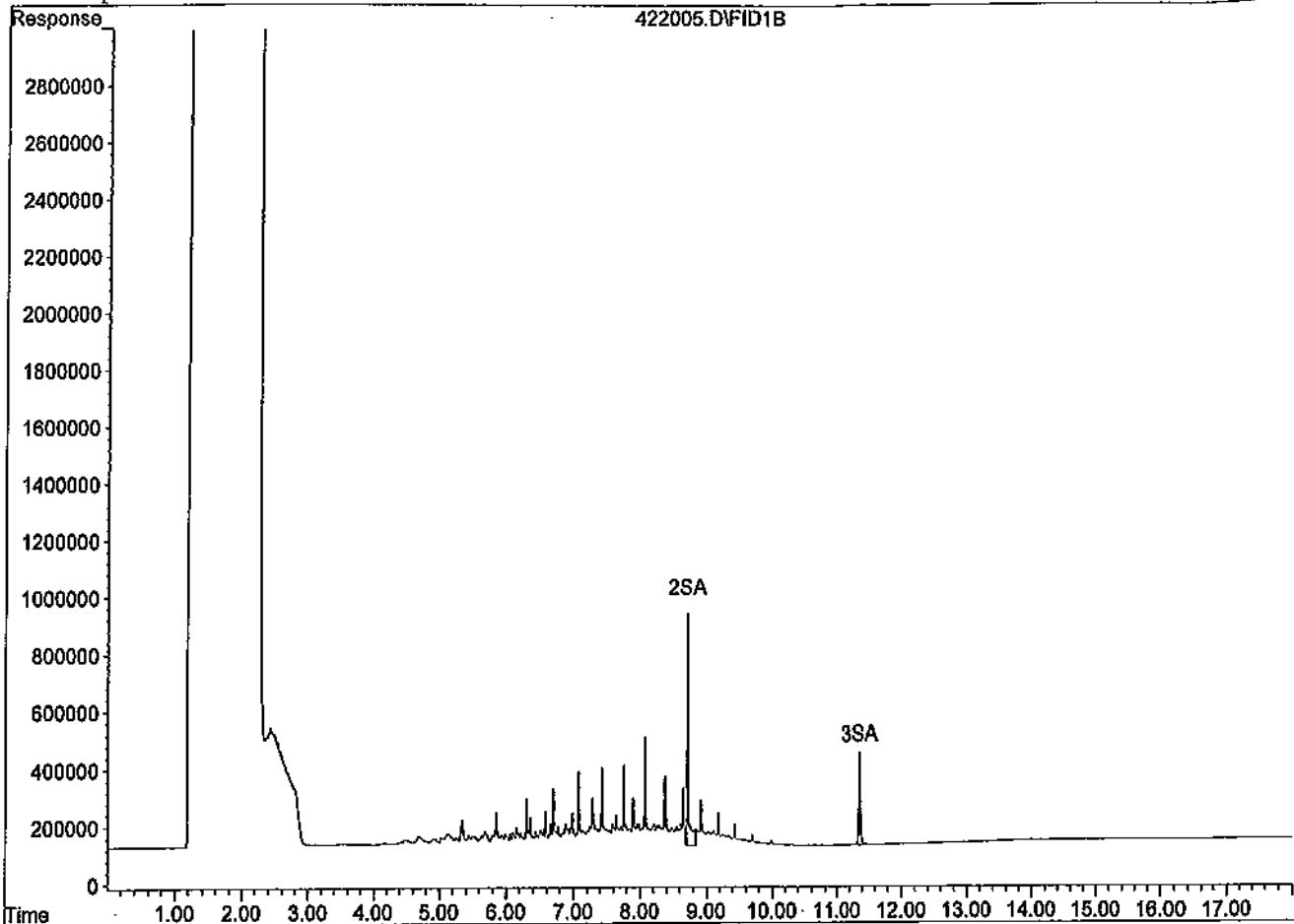
Method : G:\APOLLO\DATA\110422\TPHODRO.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Wed Apr 27 14:22:19 2011  
Response via : Multiple Level Calibration

Volume Inj. : 20L  
Signal Phase : DB-5  
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.71	11004276	6.367 ppb
Surrogate Spike 30.000		Recovery =	21.22%
3) SA Octacosane(S)	11.36	5718428	4.980 ppb
Surrogate Spike 30.000		Recovery =	16.60%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	121130154	105.397 ppb

Data File: G:\APOLLO\DATA\110422\422005.D

Sample : DIESEL 100/1000



Data File : G:\APOLLO\DATA\110422\422006.D Vial: 6  
 Acq On : 4-22-11 12:10:19 Operator: LAC  
 Sample : DIESEL 400/1000 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Apr 27 13:54 2011 Quant Results File: TPHODRO.RES

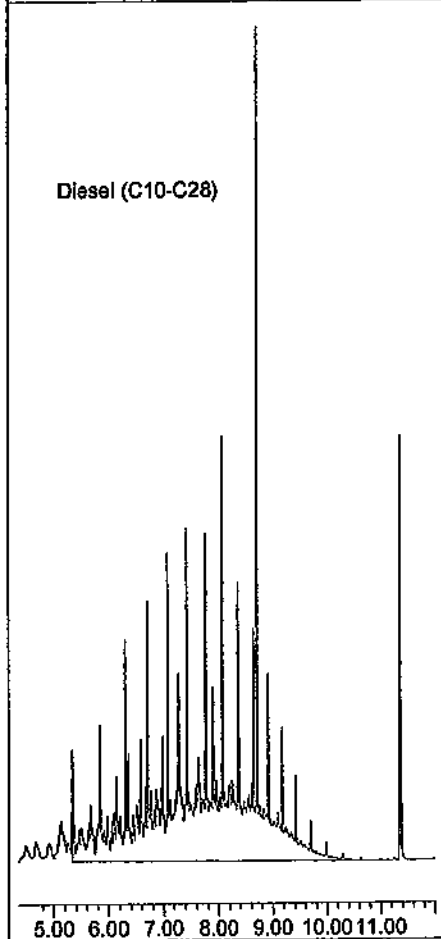
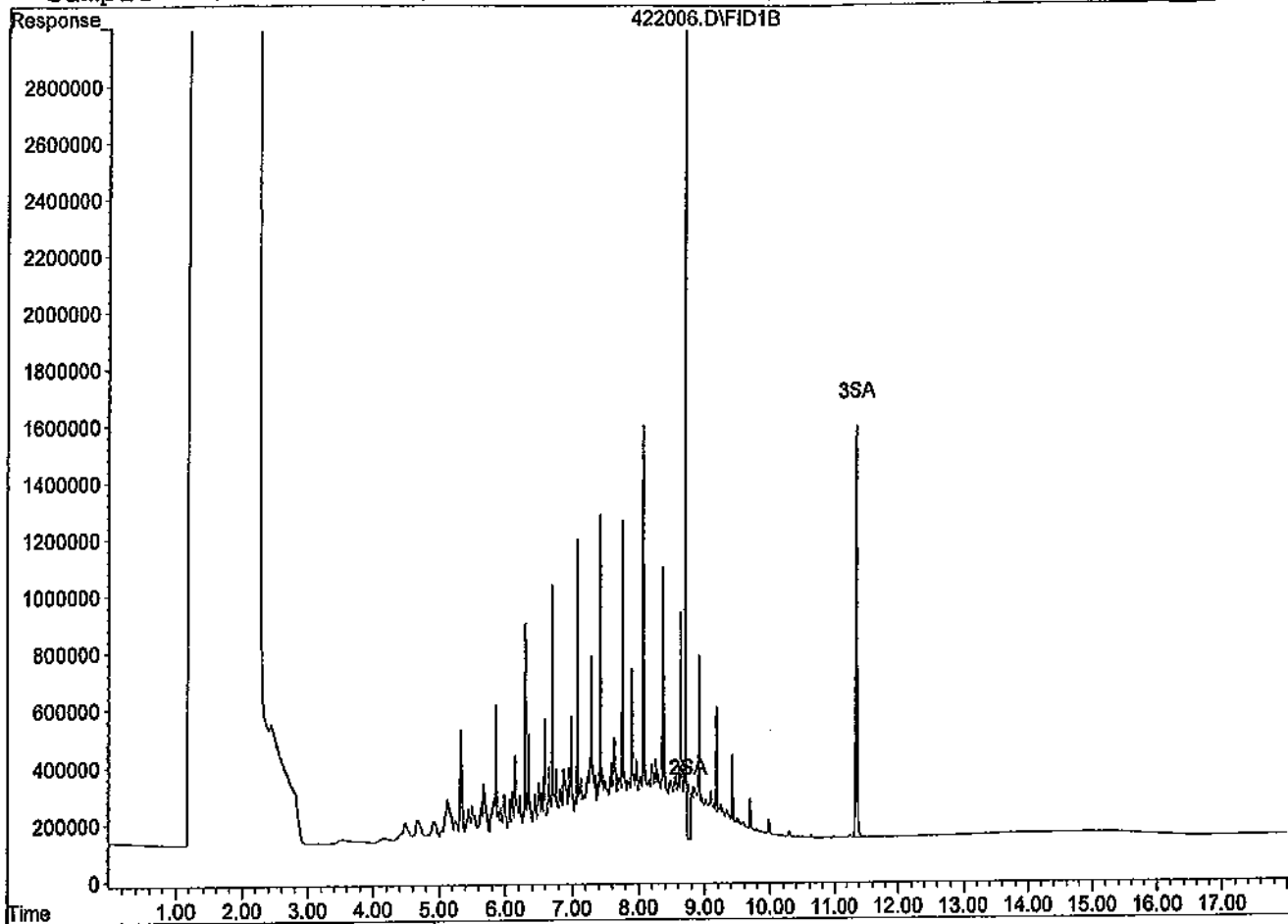
Method : G:\APOLLO\DATA\110422\TPHODRO.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Wed Apr 27 14:22:19 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.75	4956144	2.868 ppb
Surrogate Spike 30.000		Recovery =	9.56%
3) SA Octacosane(S)	11.36	23083461	20.103 ppb
Surrogate Spike 30.000		Recovery =	67.01%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	478684620	416.508 ppb

Data File: G:\APOLLO\DATA\110422\422006.D

Sample : DIESEL 400/1000



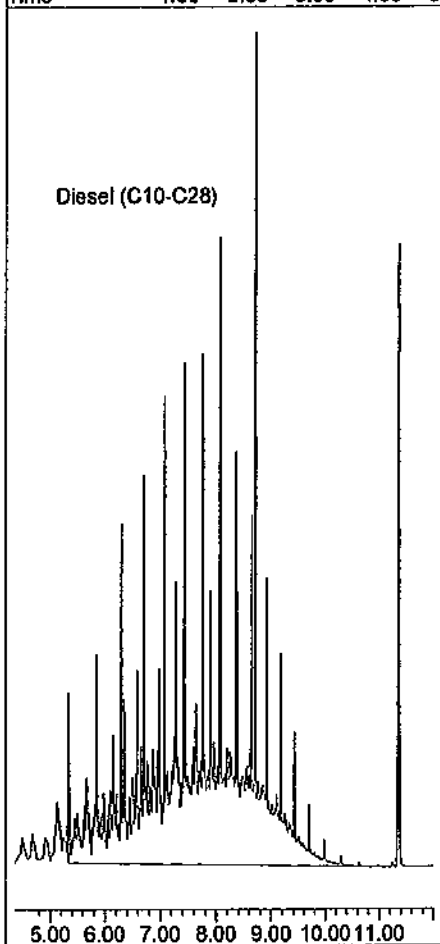
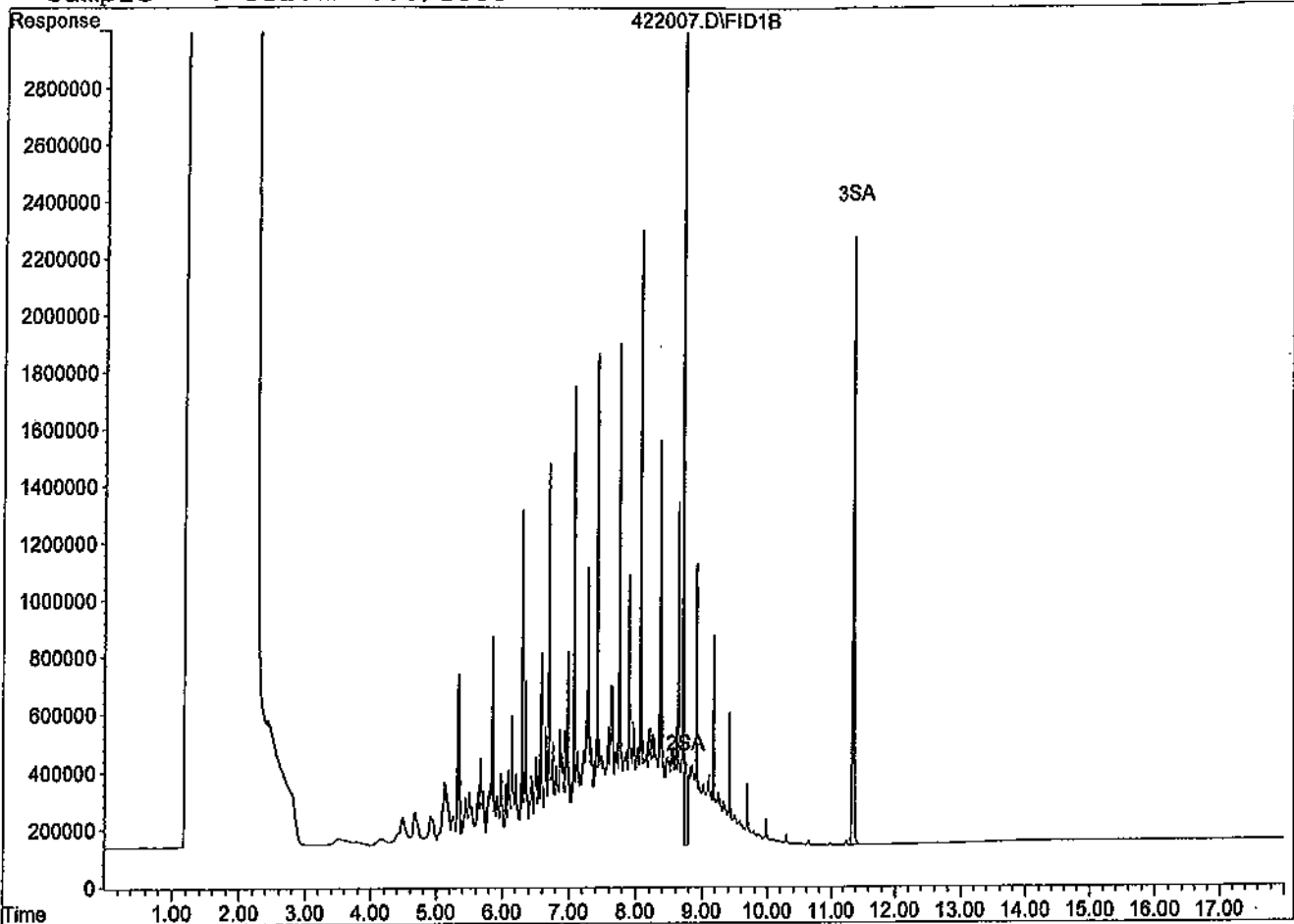
Data File : G:\APOLLO\DATA\110422\422007.D Vial: 7  
 Acq On : 4-22-11 12:35:32 Operator: LAC  
 Sample : DIESEL 600/1000 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Apr 27 13:54 2011 Quant Results File: TPHODRO.RES

Method : G:\APOLLO\DATA\110422\TPHODRO.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Wed Apr 27 14:22:19 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.76	7984436	4.620 ppb
Surrogate Spike 30.000		Recovery =	15.40%
3) SA Octacosane(S)	11.36	34996058	30.478 ppb
Surrogate Spike 30.000		Recovery =	101.59%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	719597776	626.129 ppb





Data File : G:\APOLLO\DATA\110422\422008.D  
Acq On : 4-22-11 13:00:52  
Sample : DIESEL 800/1000  
Misc : Mix(A)  
IntFile : events.e  
Quant Time: Apr 27 13:54 2011

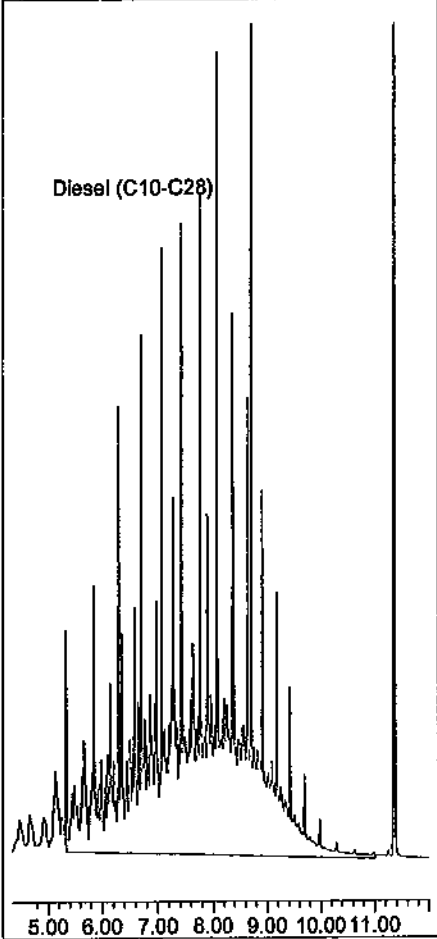
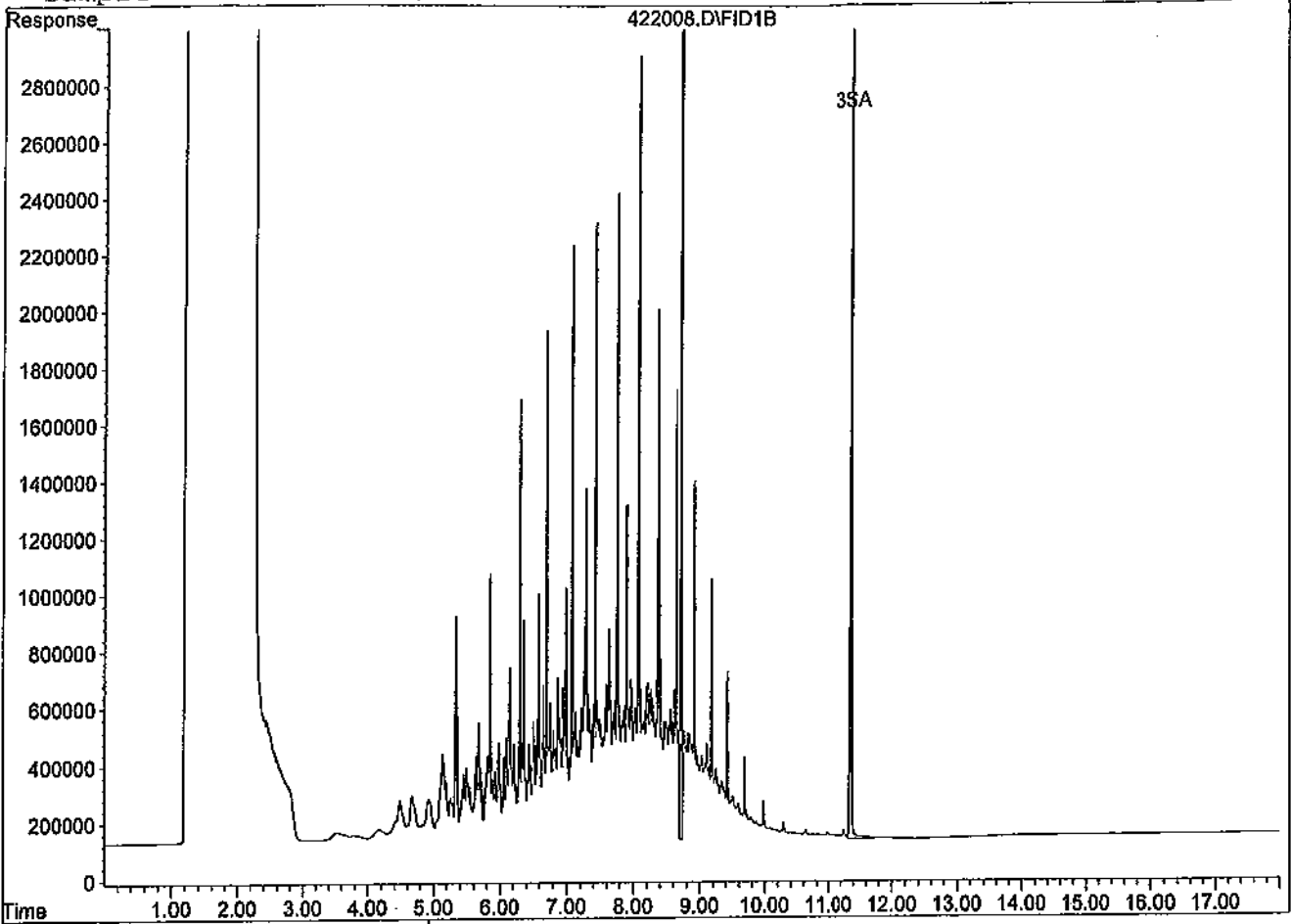
Vial: 8  
Operator: LAC  
Inst : Apollo  
Multiplr: 1.00

Quant Results File: TPHODRO.RES

Method : G:\APOLLO\DATA\110422\TPHODRO.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Wed Apr 27 14:22:19 2011  
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.71	62212497	35.997 ppb
Surrogate Spike 30.000		Recovery =	119.99%
3) SA Octacosane(S)	11.37	46465994	40.467 ppb
Surrogate Spike 30.000		Recovery =	134.89%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	905729109	788.084 ppb



Quantitation Report  
Data File : G:\APOLLO\DATA\110422\422009.D  
Acq On : 4-22-11 13:26:13  
Sample : DIESEL 1000/1000  
Misc : Mix(A)  
IntFile : events.e  
Quant Time: Apr 27 13:55 2011

Vial: 9  
Operator: LAC  
Inst : Apollo  
Multiplr: 1.00

Quant Results File: TPHODRO.RES

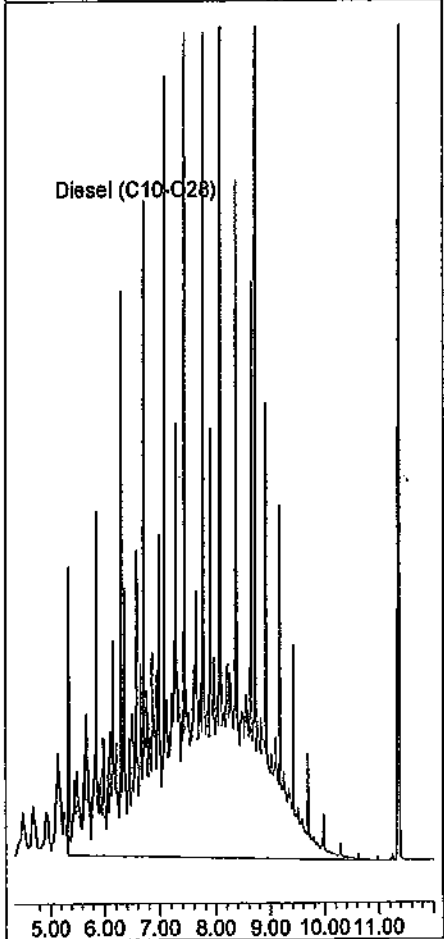
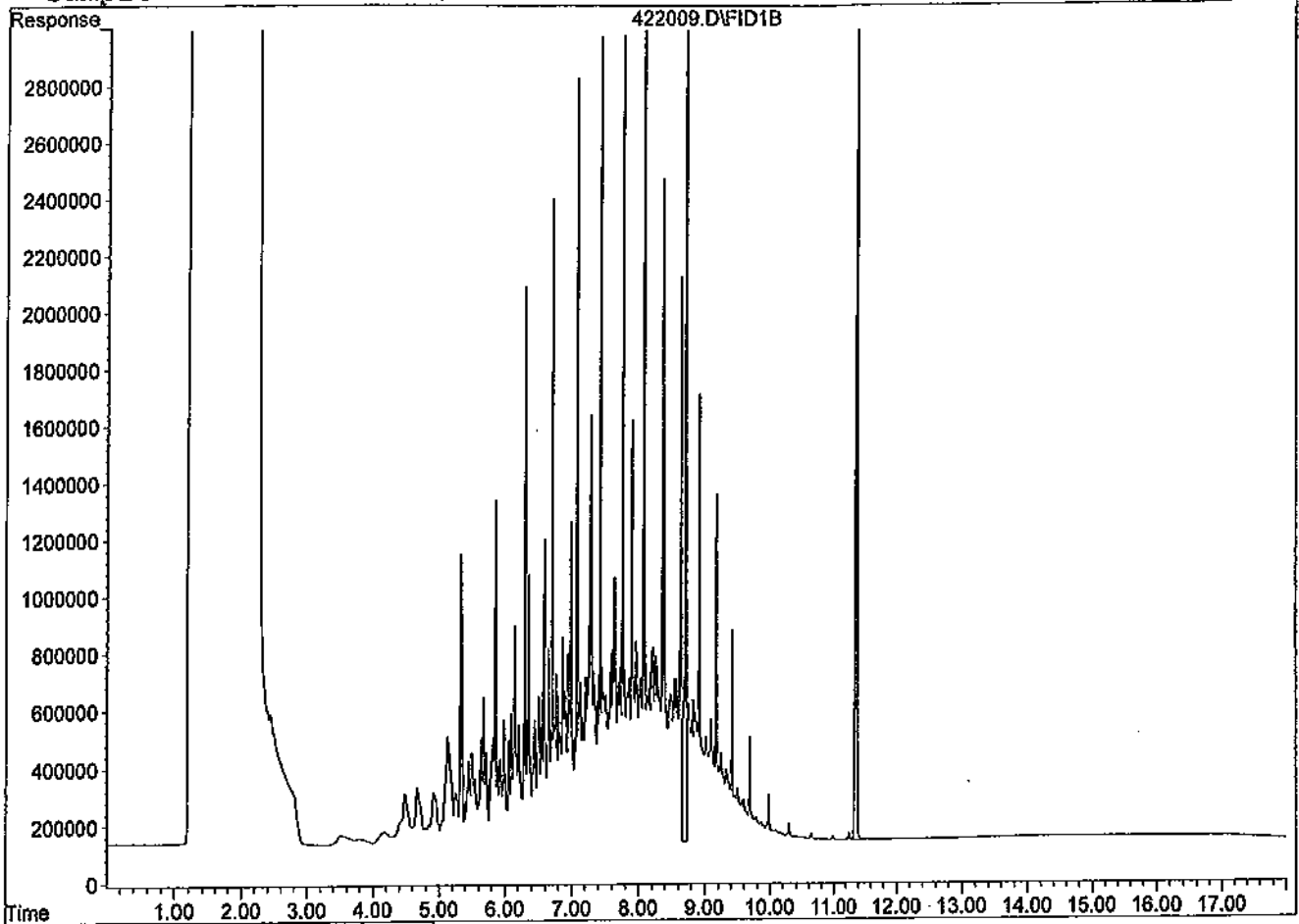
Method : G:\APOLLO\DATA\110422\TPHODRO.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Wed Apr 27 14:22:19 2011  
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.72	84570832	48.934 ppb
Surrogate Spike 30.000		Recovery =	163.11%
3) SA Octacosane(S)	11.37	57333895	49.932 ppb
Surrogate Spike 30.000		Recovery =	166.44%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	1119688113	974.252 ppb

Data File: G:\APOLLO\DATA\110422\422009.D

Sample : DIESEL 1000/1000



TPH Extractables  
TPHODRO

Form 7

Second Source Calibration

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

SDG No: 64475  
Date Analyzed: 04/22/11  
Instrument: Apollo  
Initial Cal. Date: 04/22/11  
Data File: 422016.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C28)	574640	568850	1.0	HATM
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
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32					
33					
34					
35					
36					
37					
38					
39					
40	Average			1.0	

Data File : G:\APOLLO\DATA\110422\422016.D  
Acq On : 4-22-11 16:19:58  
Sample : DIESEL 2ND SRC 400/1000 4/22/11  
Misc : Mix(A)  
IntFile : events.e  
Quant Time: Apr 27 13:55 2011

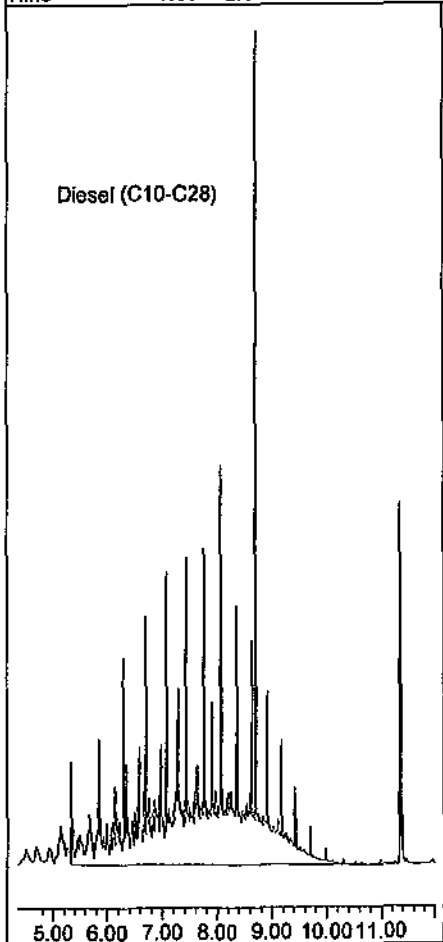
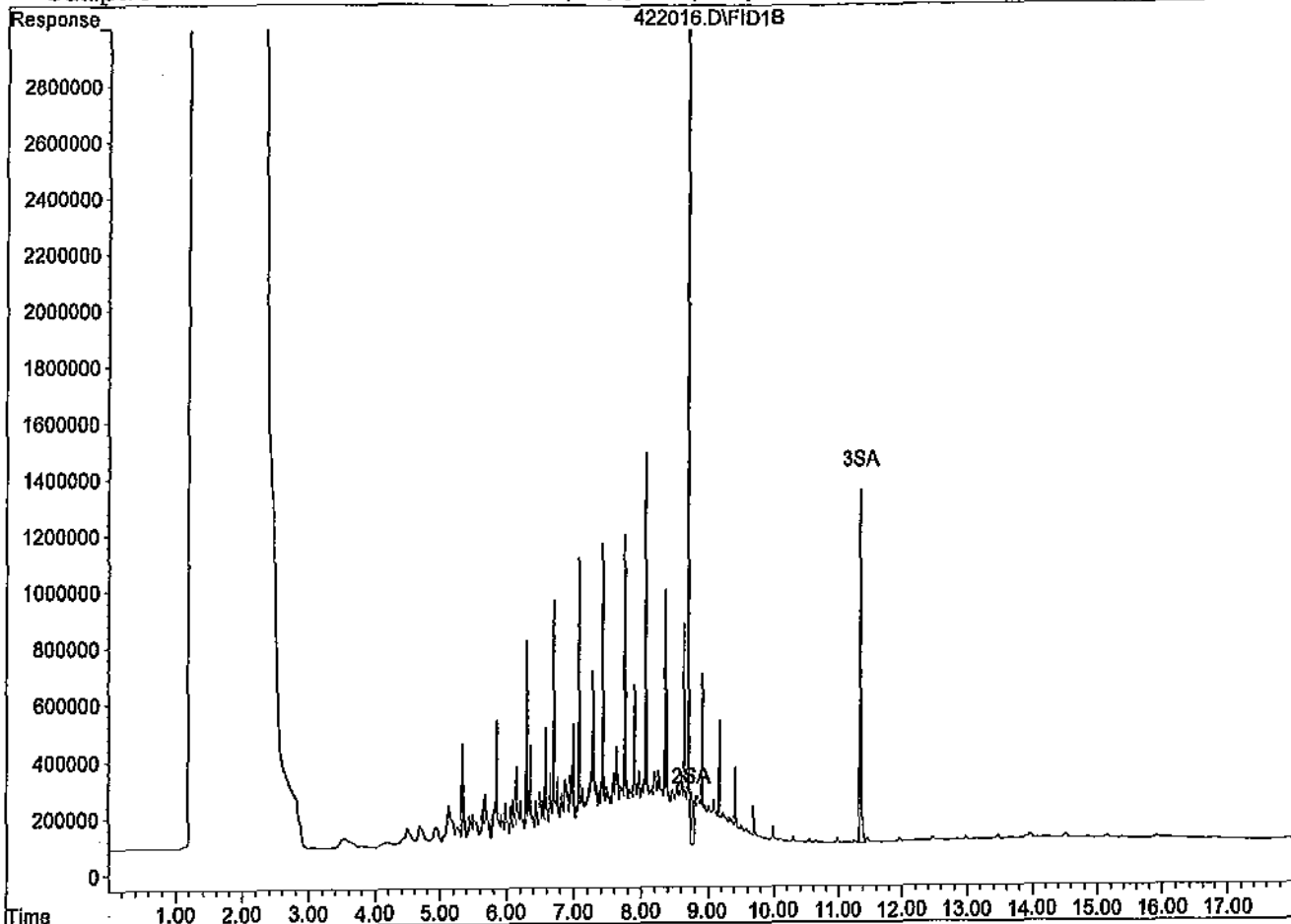
Vial: 16  
Operator: LAC  
Inst : Apollo  
Multiplr: 1.00

Quant Results File: TPHODRO.RES

Method : G:\APOLLO\DATA\110422\TPHODRO.M (Chemstation Integrator)  
Title : Diesel  
Last Update : Wed Apr 27 14:22:19 2011  
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.76	4851429	2.807 ppb
Surrogate Spike 30.000		Recovery =	9.36%
3) SA Octacosane(S)	11.36	20171039	17.567 ppb
Surrogate Spike 30.000		Recovery =	58.56%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	455080132	395.970 ppb





TPH Extractables

Form 7

Continuing Calibration

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

SDG No: 64475  
 Date Analyzed: 04/27/11  
 Instrument: Apollo  
 Initial Cal. Date: 04/25/11  
 Data File: 425078.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C28)	574640	652552	14	HATM
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
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16						
17						
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33						
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35						
36						
37						
38						
39						
40						

Average

14.0

Data File : G:\APOLLO\DATA\110425\425078.D Vial: 78  
 Acq On : 4-27-11 9:05:43 Operator: LAC  
 Sample : DIESEL 400/1000 4/26/11 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: May 12 10:42 2011 Quant Results File: TPHODRO.RES

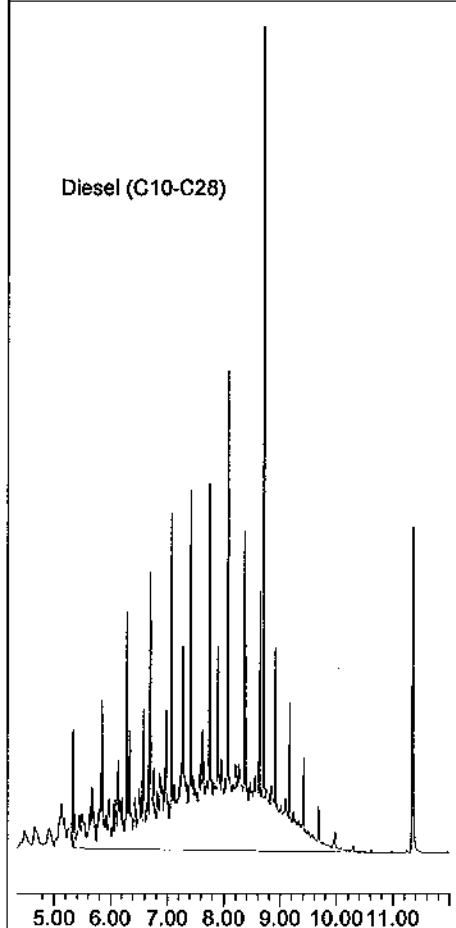
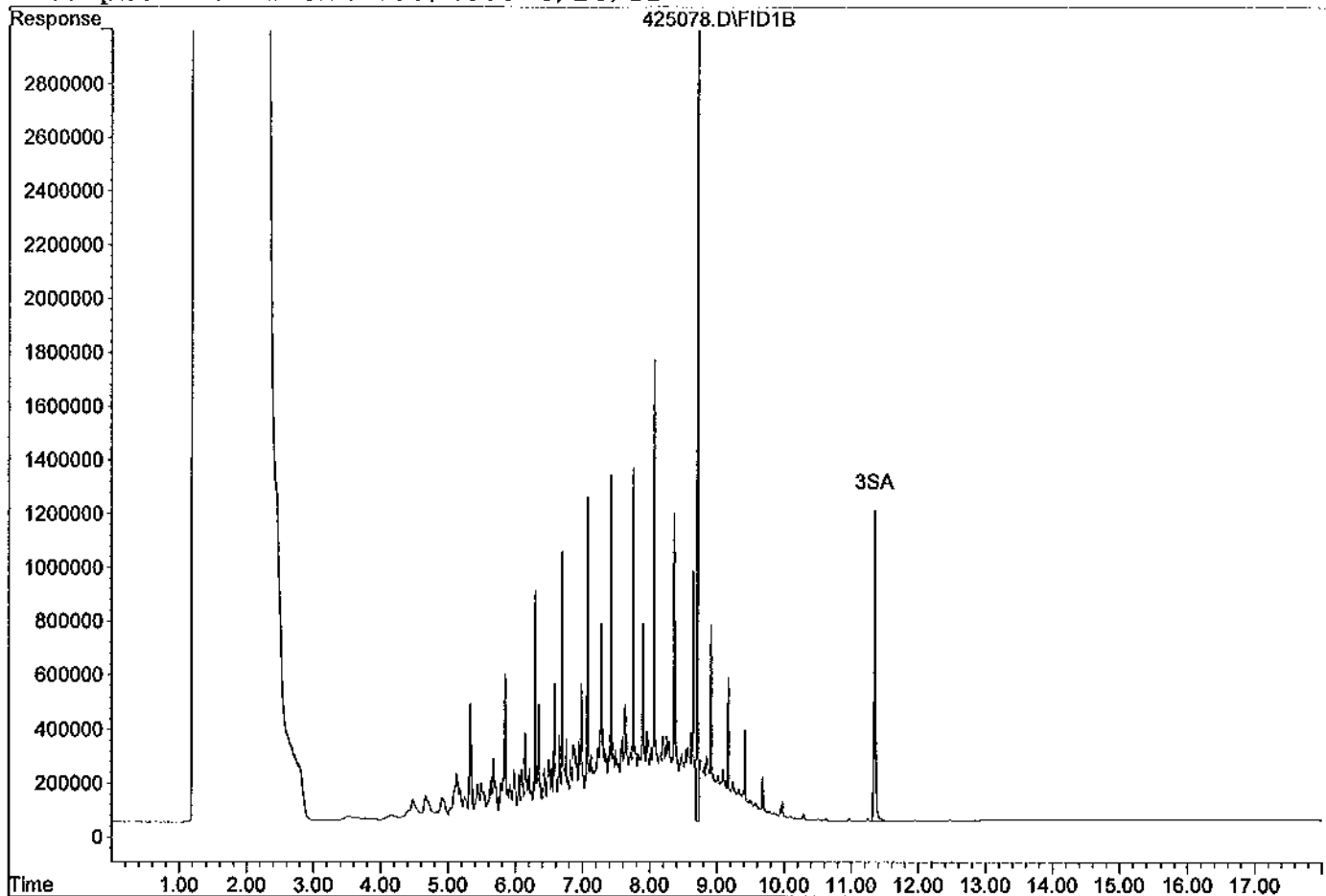
Method : G:\APOLLO\DATA\110425\TPHODRO.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue Apr 26 10:54:02 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.70	36414017	21.070 ppb
Surrogate Spike 30.000		Recovery =	70.23%
3) SA Octacosane(S)	11.35	19265760	16.779 ppb
Surrogate Spike 30.000		Recovery =	55.93%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	522041292	454.233 ppb

Data File: G:\APOLLO\DATA\110425\425078.D

Sample : DIESEL 400/1000 4/26/11



TPH Extractables

Form 7

Continuing Calibration

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

SDG No: 64475  
 Date Analyzed: 04/27/11  
 Instrument: Apollo  
 Initial Cal. Date: 04/25/11  
 Data File: 425082.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C28)	574640	661598	15	HATM
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
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36						
37						
38						
39						
40						

Average

15.0

Data File : G:\APOLLO\DATA\110425\425082.D Vial: 82  
 Acq On : 4-27-11 10:44:29 Operator: LAC  
 Sample : DIESEL 400/1000 4/26/11 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Apr 27 11:07 2011 Quant Results File: TPHODRO.RES

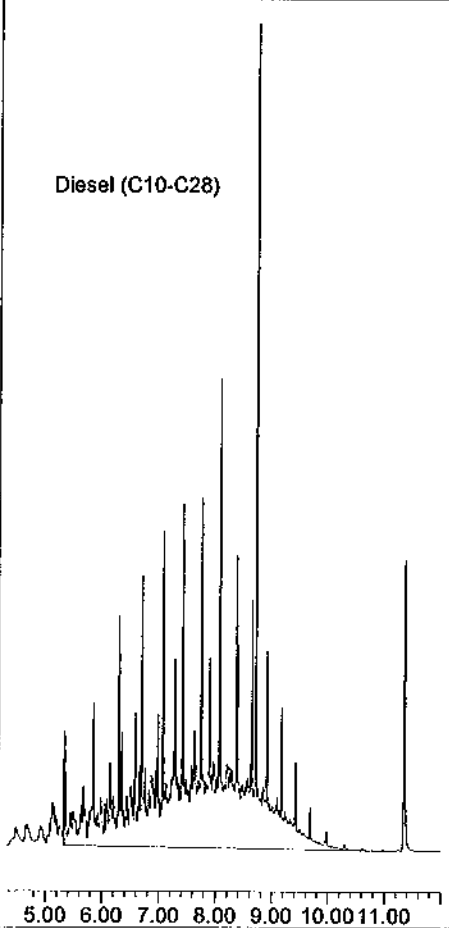
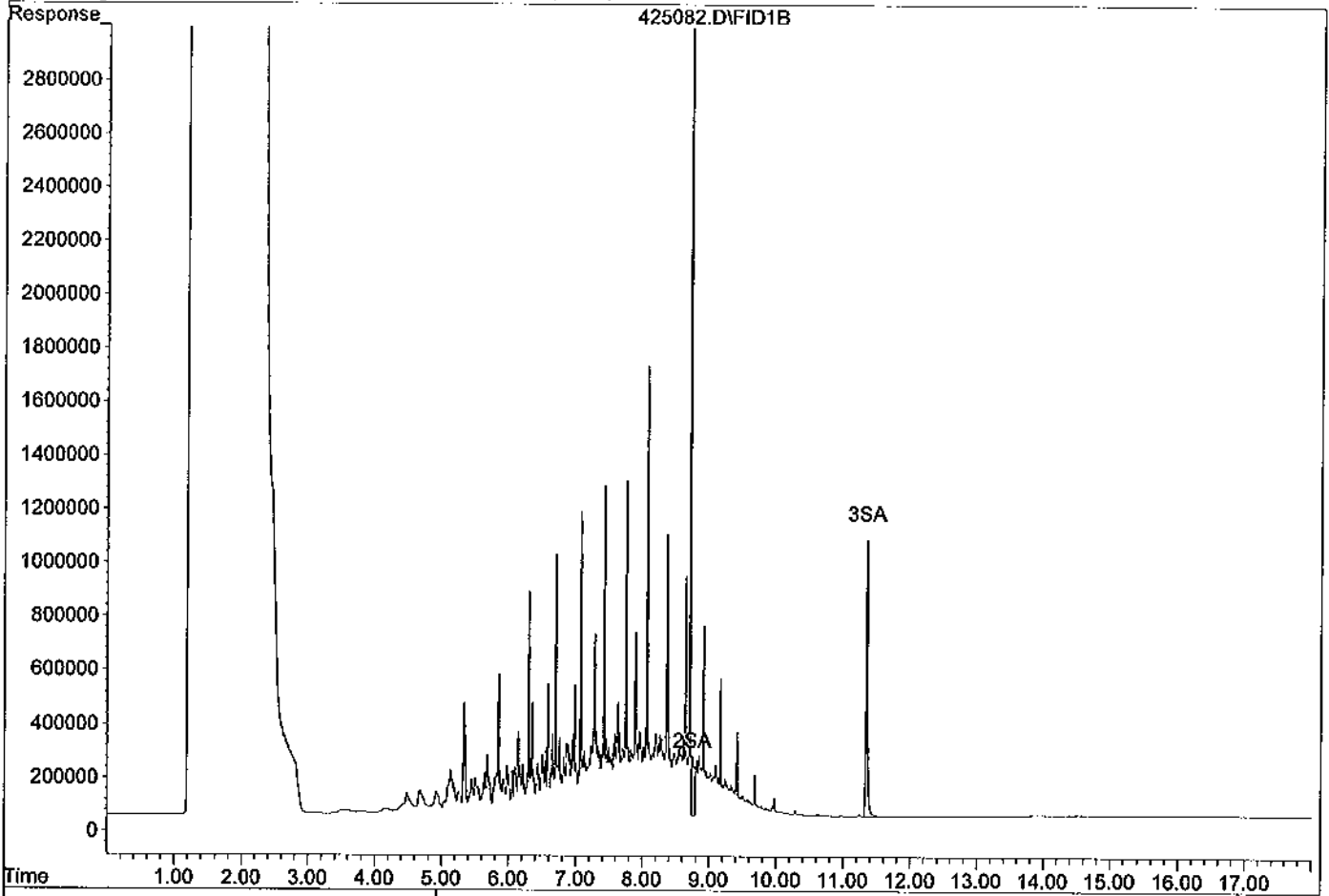
Method : G:\APOLLO\DATA\110425\TPHODRO.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue Apr 26 10:54:02 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.75	6276102	3.631 ppb
Surrogate Spike 30.000		Recovery =	12.10%
3) SA Octacosane(S)	11.35	17904913	15.593 ppb
Surrogate Spike 30.000		Recovery =	51.98%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	529278658	460.531 ppb

Data File: G:\APOLLO\DATA\110425\425082.D

Sample : DIESEL 400/1000 4/26/11



TPH Extractables

Form 7

Continuing Calibration

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

SDG No: 64475  
 Date Analyzed: 04/27/11  
 Instrument: Apollo  
 Initial Cal. Date: 04/25/11  
 Data File: 425094.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C28)	574640	614503	6.9	HATM
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
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37						
38						
39						
40						

Average

6.9

Data File : G:\APOLLO\DATA\110425\425094.D Vial: 94  
 Acq On : 4-27-11 15:41:55 Operator: LAC  
 Sample : DIESEL 600/1000 4/26/11 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Apr 27 16:01 2011 Quant Results File: TPHODRO.RES

Method : G:\APOLLO\DATA\110425\TPHODRO.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue Apr 26 10:54:02 2011  
 Response via : Multiple Level Calibration

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

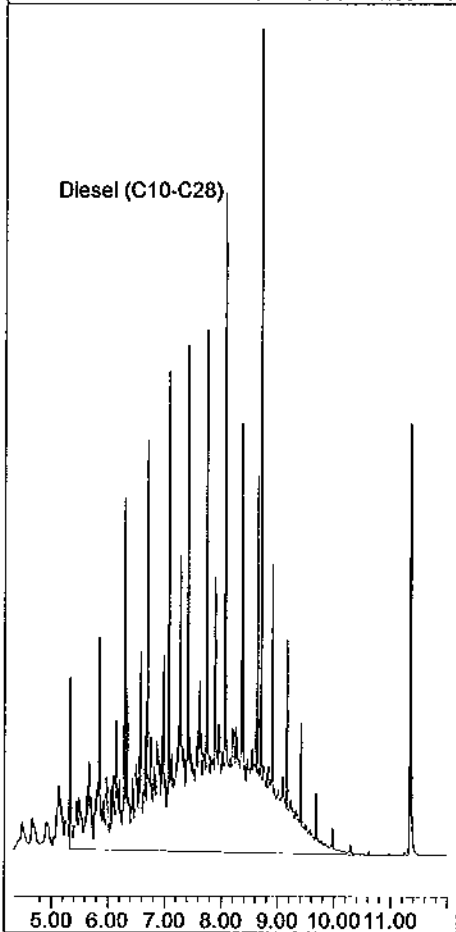
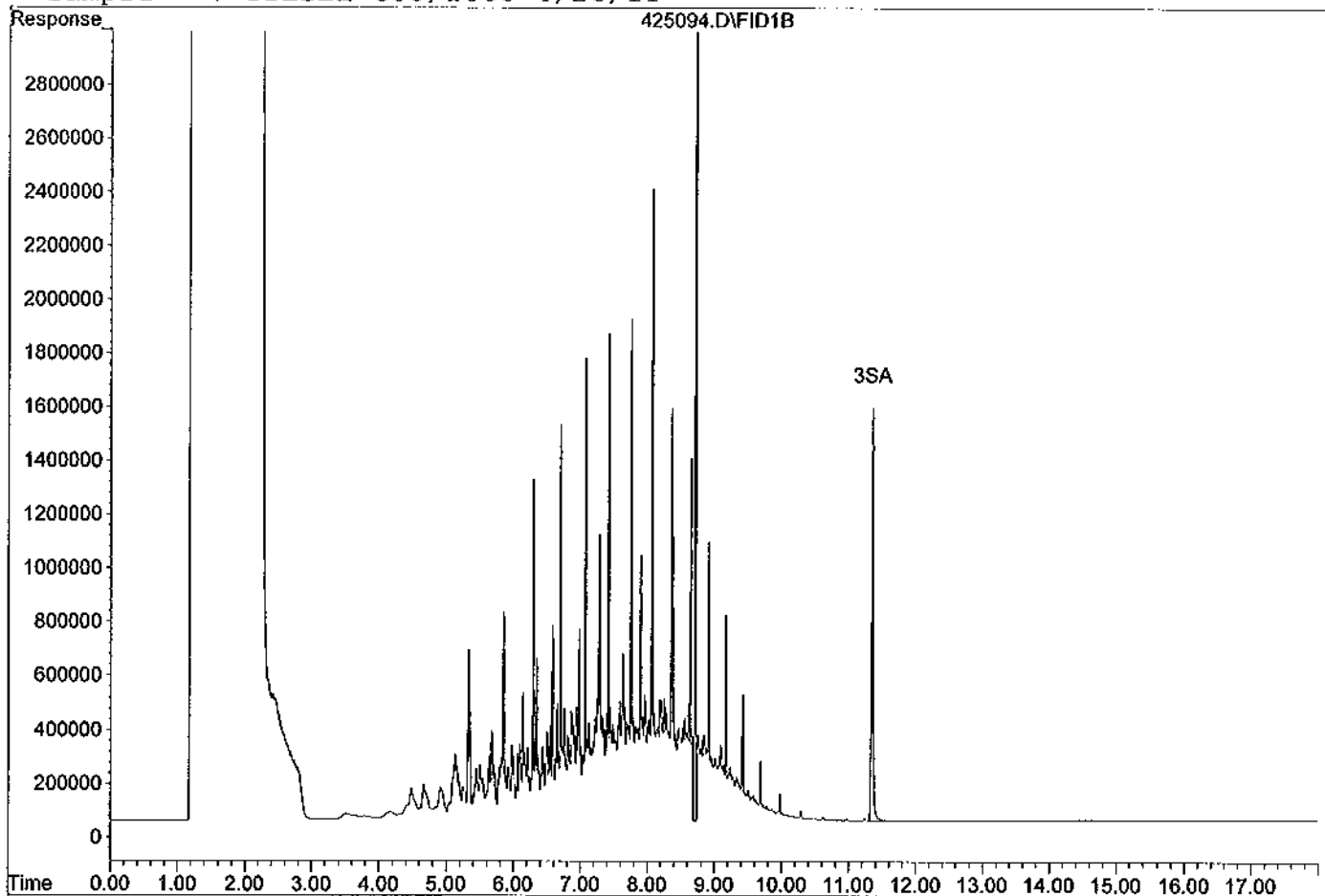
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.71	50981813	29.499 ppb
Surrogate Spike 30.000		Recovery =	98.33%
3) SA Octacosane(S)	11.35	26363165	22.960 ppb
Surrogate Spike 30.000		Recovery =	76.53%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	737403806	641.622 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\110425\425094.D

Sample : DIESEL 600/1000 4/26/11



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

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

Blank Name/QCG: **110426W-36312 - 155042**  
Batch ID: #TPETD-110426A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	04/26/11	04/27/11
BLANK	SURROGATE: OCTACOSANE (S)	61.7	28-142			%	04/26/11	04/27/11
BLANK	SURROGATE: ORTHO-TERPHEN	62.3	57-132			%	04/26/11	04/27/11

Quant Method: TPHODRO.M  
Run #: 425079  
Instrument: Apollo  
Sequence: 110425  
Initials: TRL

GC SC-Blank-REG MDLs  
Printed: 05/13/11 3:48:51 PM

Data File : G:\APOLLO\DATA\110425\425079.D Vial: 79  
 Acq On : 4-27-11 9:30:28 Operator: LAC  
 Sample : 110426A BLK 5/1000 Inst : Apollo  
 Misc : Water Multiplr: 5.00  
 IntFile : events.e  
 Quant Time: Apr 27 11:17 2011 Quant Results File: TPHODRO.RES

Method : G:\APOLLO\DATA\110425\TPHODRO.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue Apr 26 10:54:02 2011  
 Response via : Multiple Level Calibration

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

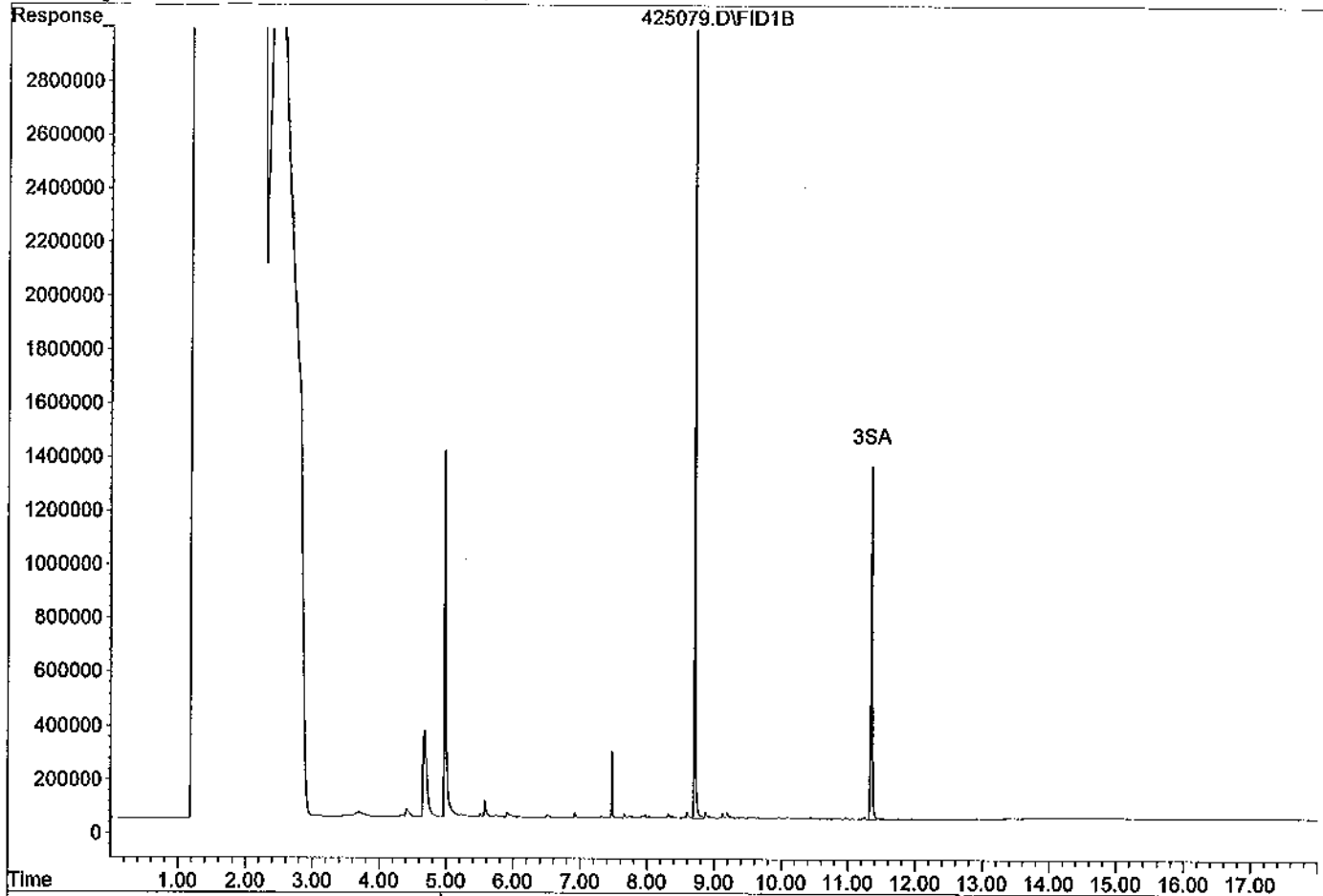
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.71f	32314084	93.487 ppb
Surrogate Spike 150.000		Recovery =	62.32%
3) SA Octacosane(S)	11.35	21259168	92.573 ppb
Surrogate Spike 150.000		Recovery =	61.72%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\110425\425079.D

Sample : 110426A BLK 5/1000



## Laboratory Control Spike Recovery

### TPH Diesel Water

APPL ID: 110426W-36312 LCS - 155042  
 Batch ID: #TPETD-110426A

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	1500	75.0	61-143
SURROGATE: OCTACOSANE (S)	150	97.8	65.2	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	116	77.3	57-132

Comments:

<u>Primary</u>	<u>SPK</u>
Quant Method :	TPHODRO.M
Extraction Date :	04/26/11
Analysis Date :	04/27/11
Instrument :	Apollo
Run :	425080
Initials :	TRL

Printed: 05/12/11 1:50:54 PM

APPL Standard LCS

Data File : G:\APOLLO\DATA\110425\425080.D Vial: 80  
 Acq On : 4-27-11 9:54:57 Operator: LAC  
 Sample : 110426A LCS-1 5/1000 Inst : Apollo  
 Misc : Water Multiplr: 5.00  
 IntFile : events.e  
 Quant Time: Apr 27 14:22 2011 Quant Results File: TPHODRO.RES

Method : G:\APOLLO\DATA\110425\TPHODRO.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue Apr 26 10:54:02 2011  
 Response via : Multiple Level Calibration

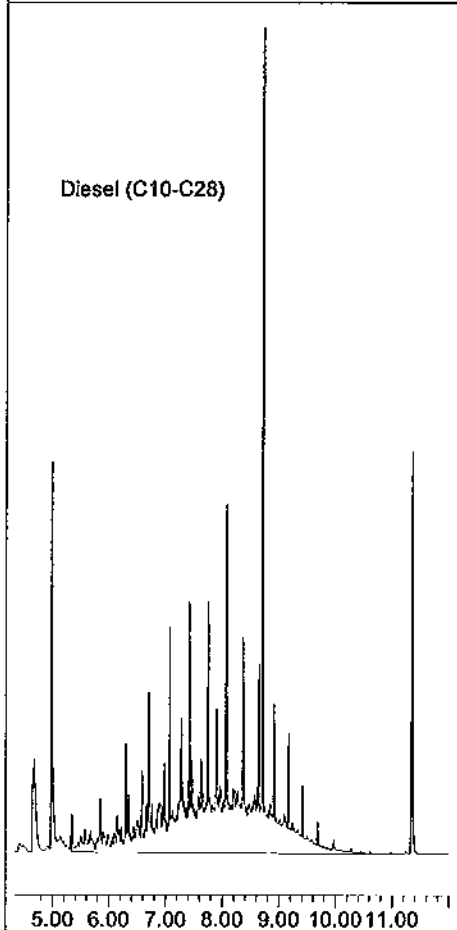
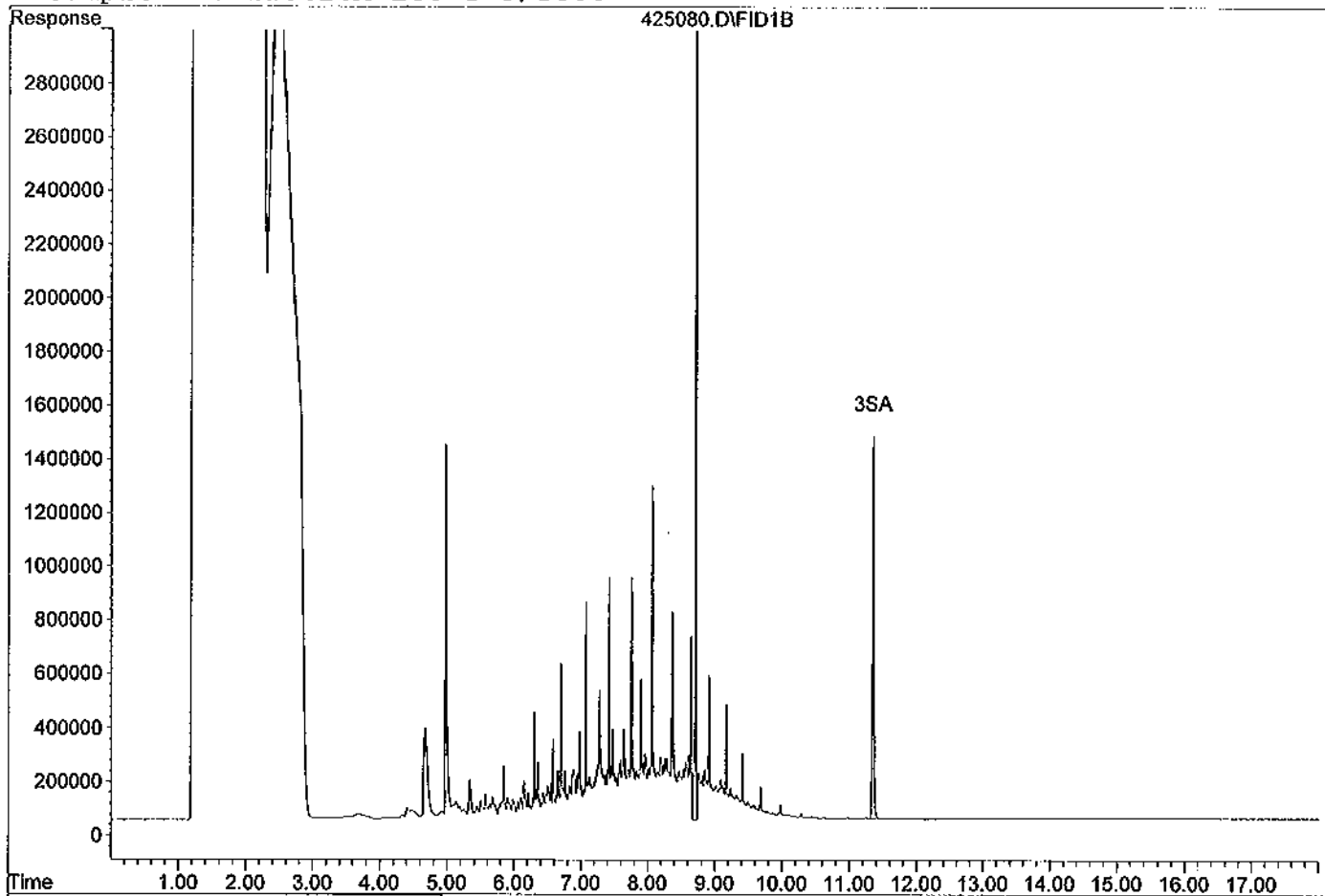
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
2) SA Ortho-Terphenyl(S)	8.71	40054584	115.881 ppb
Surrogate Spike 150.000		Recovery =	77.25%
3) SA Octacosane(S)	11.35	22457909	97.793 ppb
Surrogate Spike 150.000		Recovery =	65.20%
<b>Target Compounds</b>			
1) HATM Diesel (C10-C28)	8.17	343757900	1495.536 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\110425\425080.D

Sample : 110426A LCS-1 5/1000





## Matrix Spike Recoveries

### TPH Diesel Water

APPL ID: 110426W-36312 MS - 155042

Batch ID: #TPETD-110426A

Sample ID: AY36312

Client ID: ES020

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL FUEL	2000	1100	2470	1910	68.5	40.5 #	61-143	25.6	30
SURROGATE: OCTACOSANE (S)	150	NA	99.0	71.5	66.0	47.7	28-142		
SURROGATE: ORTHO-TERPHENYL (S)	150	NA	119	88.6	79.3	59.1	57-132		

# = Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	TPHODRO.M	TPHODRO.M
Extraction Date :	04/26/11	04/26/11
Analysis Date :	04/27/11	04/27/11
Instrument :	Apollo	Apollo
Run :	425088	425089
Initials :	TRL	

Printed: 05/12/11 1:50:57 PM  
APPL MSD SCII

Data File : G:\APOLLO\DATA\110425\425088.D Vial: 88  
 Acq On : 4-27-11 13:13:59 Operator: LAC  
 Sample : AY36312W19 MS-1 5/1040 Inst : Apollo  
 Misc : Water Multiplr: 4.81  
 IntFile : events.e  
 Quant Time: May 12 11:39 2011 Quant Results File: TPHODRO.RES

Method : G:\APOLLO\DATA\110425\TPHODRO.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue Apr 26 10:54:02 2011  
 Response via : Multiple Level Calibration

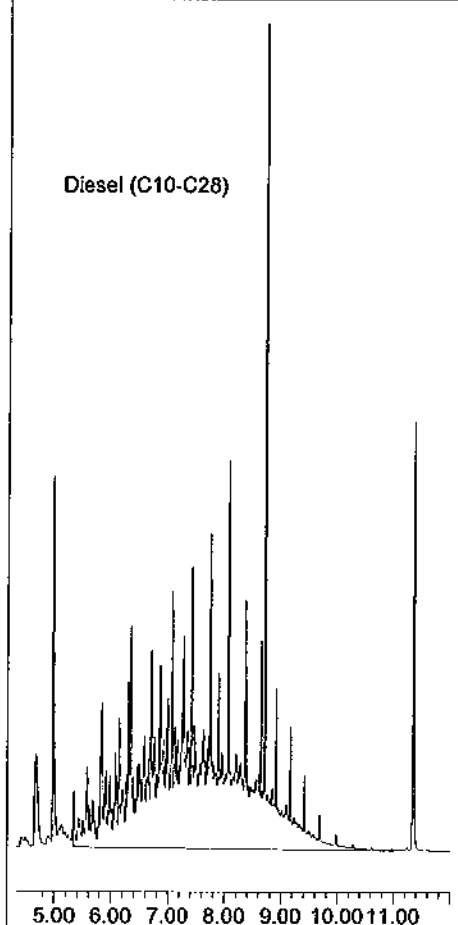
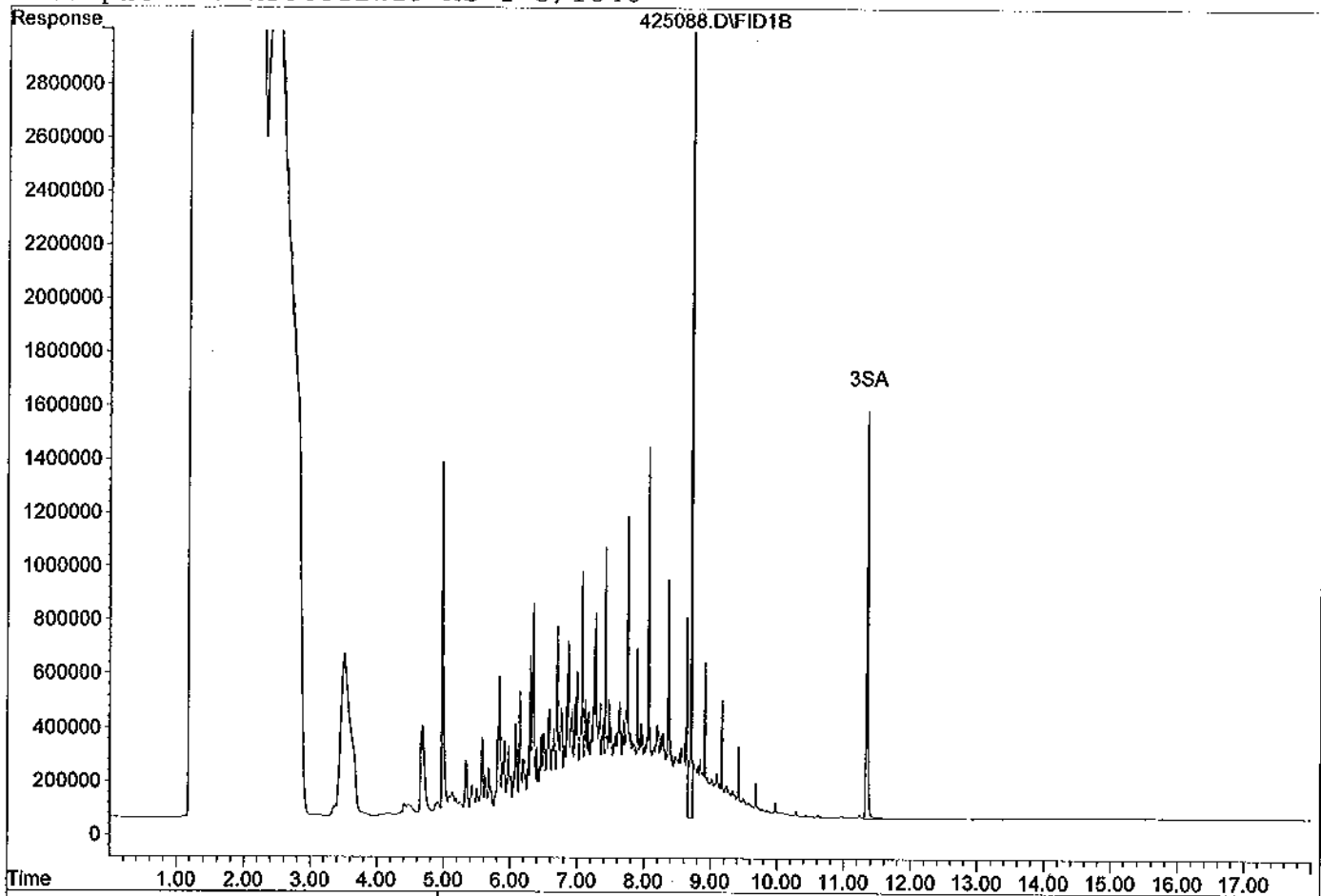
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.71	42839209	119.170 ppb
Surrogate Spike 144.231		Recovery =	82.62%
3) SA Octacosane(S)	11.35	23650590	99.026 ppb
Surrogate Spike 144.231		Recovery =	68.66%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	590708458	2471.063 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\110425\425088.D

Sample : AY36312W19 MS-1 5/1040



Data File : G:\APOLLO\DATA\110425\425089.D Vial: 89  
 Acq On : 4-27-11 13:38:25 Operator: LAC  
 Sample : AY36312W21 MSD-1 5/1040 Inst : Apollo  
 Misc : Water Multiplr: 4.81  
 IntFile : events.e  
 Quant Time: May 12 11:39 2011 Quant Results File: TPHODRO.RES

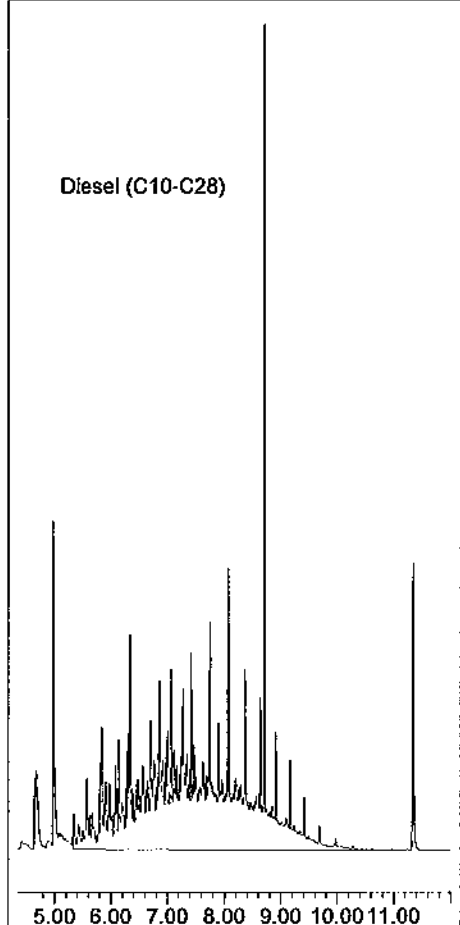
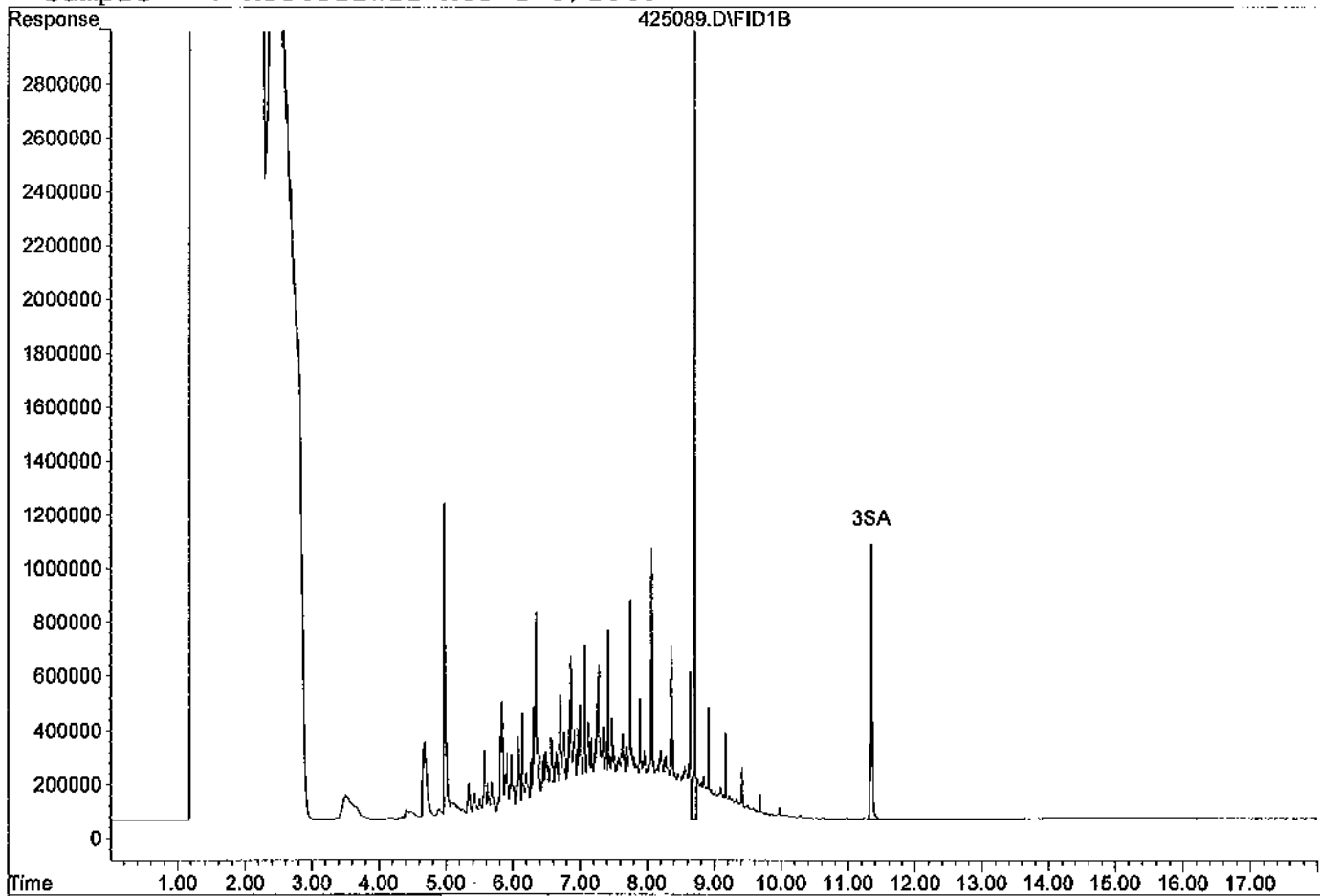
Method : G:\APOLLO\DATA\110425\TPHODRO.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue Apr 26 10:54:02 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
2) SA Ortho-Terphenyl(S)	8.70	31849771	88.600 ppb
Surrogate Spike 144.231		Recovery =	61.43%
3) SA Octacosane(S)	11.35	17087906	71.548 ppb
Surrogate Spike 144.231		Recovery =	49.61%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	456612617	1910.111 ppb

Data File: G:\APOLLO\DATA\110425\425089.D

Sample : AY36312W21 MSD-1 5/1040



STANDARD

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

041

THC SURROGATE \*GAVE TO EXTRACTION

D-TERPENYL

600mg/ml 0251 N/A 25ml 600mg/ml N/A

OCTACOSANE

CAT: 110216-05

LOT: 164819-28057

OP: 3/7/11

EX: 3/7/12

AND

LOT: 161639-27682

OP: 3/7/11

EX: 3/7/12

3/7/11

EX: 3/7/12

DIESEL STANDARD

DIESEL FUEL #2

50,000mg/ml 0251 1000ml 50ml 1000mg/ml MC

0251

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

Cat No: 011598-03

Exp: 4/4/2014

Lot No: 156524

Storage: <= -10 Degrees C

Diesel Fuel #2 Composite

Solvent: Methylene

Lot #: 156524 - 27198

ption For Research Use Only

Rec: 9/10/10 MFR exp. 04/04/14

Opened: 3/7/11

EX: 3/7/12

# 110510F

3/7/11

EX: 9/7/11

D-TERPENYL

600mg/ml 0251 4170 ml 50mg/ml

OCTACOSANE

CAT: 110316-05

LOT: 164819-28058

OP: 3/2/10

EX: 3/2/11

MOTOR OIL STANDARD

MOTOR OIL

50,000mg/ml 0251 1000ml 50ml 1000mg/ml MC

0251

Motor Oil Composite, 50,000 mg/L, 1 ml

116390-01

Storage: <= -10 Degrees C

MADE IN USA

Lot No: 161898

Solvent: Methylene Chloride

Exp: 7/23/13

OP: 3/7/11

Date Opened:

Motor oil composite

EX: 3/7/12

Lot #: 161898 - 27587

Rec: 10/18/10 MFR exp. 07/23/13

# 110510F

3/7/11

EX: 9/7/11

STANDARD  
042

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

STAI

DIESEL 2ND SOURCE STD.

DIESEL  
FUEL #2

50,000 µg/ml

0251

1000ml 50µl

1000 µg/ml

MC

*D*

Diesel Fuel #2 Composite  
50,000 µg/L, 1 ml  
61199-43  
Lot # 167768  
Storage 5-10 Degrees C  
Expiry 2/15/15  
Bolin Methylene Chloride  
Diesel Fuel #2 Composite  
Lot #: 167768 - 28174  
Rec: 1/20/11 MFR exp. 02/15/15

# 110510F

3/7/11

ex:  
9/7/11

O-TERTHPHAK

600 µg/ml

0251

4170 ml

50 µg/ml

OCTACROSANE

CAT: 110316-05

LOT: 164819-28058

DP: 3/2/11

EX: 3/2/12

HERB SPIKE

Analytes:	Conc.	Conc.	Aliqoute	Final Vol.	Final Vol.
	In mix (µg/ml)	In Stock (µg/ml)	(µL)	STOCK SRC (ml)	Solvent (mL)
Datapon	6.4	320	1000		50
3,5 Dichlorobenzolic Acid	0.64	32		Source: Accustd	MTBE
4-Nitrophenol	1.6	80		Cat #: S-8254A-R1	Lot #
2,4-DCAA (S)	3.2	160		LOT#: B8080038-1A	50112
Dicamba	0.64	32		-26959	
MCPP	640	32000		OPEN: 1/28/11	
MCPA	640	32000		EXP: 7/16/11	
2,4-DP	3.2	160			
2,4-D	3.2	160			
DNOC	1.28	64			
PCP	0.64	32			
2,4,5-TP	0.64	32			
Chloramben	3.2	160			
2,4,5-T	0.64	32			
Dinoseb	1.8	80			
2,4-DB	6.4	320			
Bentazon	3.2	160			
Picloram	0.64	32			
Dacthal	0.64	32			
Acifluorfen	1.8	80			

AccuStandard®

S-8254A-R1  
Custom Herbicide Standard  
Varied conc. in Hexane:Toluene.  
Lot: B8080038-1A  
Exp: Jul, 16, 2011

Custom Herbicide Standard  
Lot #: B8080038-1A-27782  
Rec: 11/23/10 MFR exp. 07/16/11

20 comps.

FLAMMABLE

3/7/11

ex:

6/7/11

HERB 2ND/1000 CCV LEVEL 4

SEE

VARIOUS HERB STD.

200ml

1ml

200µg/ml

MTBE

*D*

PG 026.

PREP: 2/19/11

# 50112

3/7/11

EX: 8/9/11

ex: 8/9/11

ST  
DII

ST  
MC

OP FA  
PREP:  
SUPPLI

VWR

STANDARD

INITIAL  
CONC

SOURCE  
DATE

ALIQOT

FINAL  
VOLUME

FINAL  
CONC

SOLVENT  
LOT #

DATE  
INITIALS

077

HERB SECOND SOURCE

	Conc. In mix (ug/ml)	Conc. In Stock (ug/ml)	Alliquot (uL)	STOCK SOURCE	Final Vol. Solvent (ml)
Analytes:				O2SI	S
Dalepon	12.8	64	1000		
3,5 Dichlorobenzoic Acid	1.28	6.4		CAT: 132070-01	MTBE
4-Nitrophenol	3.2	16		LOT: 163603-27180	Lot #
2,4-DCAA (S)	6.4	32		OP: 4/21/11	50112
Dicamba	1.28	6.4		EXP: 4/21/12	
MCPP	1280	6400			
MCPA	1280	6400			
2,4-DP	6.4	32			
2,4-D	6.4	32			
DNOC	2.56	12.8			
PCP	1.28	6.4			
2,4,5-TP	1.28	6.4			
Chloramben	6.4	32			
2,4,5-T	1.28	6.4			
Dinoseb	3.2	16			
2,4-DB	12.8	64			
Bentazon	6.4	32			
Picloram	1.28	6.4			
Dacthal	1.28	6.4			
Acifluorfen	3.2	16			

Custom Herbicide Mix  
(Second Source),  
Under/Verified Acids, EPA  
132070-01-SS  
Lot # 160787 Storage 55 Degree C Expiry 11/9/13  
Solv: Toluene, MTBE  
Custom Herbicide Mix (SS)  
Lot #: 165767 - 27776  
Rec: 11/23/10 MFR exp. 11/09/13  
OP: 4/21/11 ex: 4/21/12

4/21/11  
ex:  
10/21/11

\*\*1 ml ampule is derivitized by extraction and brought up to 5ml in MTBE

DIESEL CURVE

STD	[ug/mL]	LOT #	DATE	EXP. DATE	uL	uL	uL	uL	uL	uL
DIESEL	1000		03/07/11	09/07/11	10	100	400	800	800	1000
MC		010611B			990	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

4/22/11  
ex:  
2/7/11

MOTOR OIL CURVE

STD	[ug/mL]	LOT #	DATE	EXP. DATE	uL	uL	uL	uL	uL	uL
MOTOR OIL	1000		03/07/11	09/07/11	50	100	400	600	800	1000
MC		010611B			950	800	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

DIESEL 2ND SOURCE

STD	Inlt. Conc	Source	Alliquot	Final Vol.	Final Conc.	Solvent
DIESEL STD.	1000ug/ml	O2SI	400uL	1 ml.	400 ug/mL	MC
Lot:148530	Prep:	03/07/11				010611B
-25265	Exp:	09/07/11				

PREP DATE:	04/22/11					
OP 2ND SOURCE						
EXP:	04/23/11					
SUPPLIER	ID#	[ug/mL]	LOT #	DATE	EXP. DATE	uL
	OP 2ND SRC	S		04/13/11	04/23/11	500
VWR	HEXANE		010711A			500
						Final VOL.
						1000

4/22/11  
ex: 4/23/11

PREP:	DATE	EXP:	DATE	IB	IA	1	2	3	4	5	6
	04/22/11		10/13/11								
SUPPLIER	ID#	[ug/mL]	LOT #	DATE	EXP. DATE	uL	uL	uL	uL	uL	uL
	OP/F STD	S		04/13/11	10/13/11	Df2 OF 2	2	10	50	200	500
VWR	Hexane		010711A			500	998	990	950	800	500
						500	998	990	950	800	500
						Final VOL.	1000	1000	1000	1000	1000

4/22/11  
ex:  
10/13/11



STANDARD

INITIAL CONC

SOURCE DATE

ALIQOT VOLUME

FINAL CONC

SOLVENT / LOT#

DATE / INITIALS

081

TBX WATER SPIKE

DIPHENYLENE

1000ug/ml

O2SI

125ml

25ml

5ug/ml

ACETONE

CAT: 030229-06

# 120610C

4/26/11

LOT: 1559916-26078

EX:

OP: 10/22/10

7/26/11

EX: 10/22/11

SP 4/26/11

KEROSENE/JP5 STD

STD	INITIAL CONC	SOURCE DATE	ALIQOT	FINAL VOL.	FINAL CONC	SOLVENT / LOT#
JP5/ KEROSENE	50,000 ug/mL	O2SI CAT#010597-S50 LOT# 167989-28188 OP: 4/18/11 EX: 4/18/12	200 µL	10mL	1000 µg/mL	MC LOT# 010611B

SP 4/26/11

4/26/11

EX:

10/26/11

DIESEL GCV 400ug/ml

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		03/07/11	09/07/11			010611B

SP 4/26/11

SP 4/26/11

4/26/11

EX:

9/7/11

MOTOR OIL GCV 400UG/ML

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MOTOR OIL STD	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		03/07/11	09/07/11			010611B

KEROSENE/JP5 GCV 400 UG/ML

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
KEROSENE /JP5 STD	1000UG/ML	O2SI	400 µL	1ML	400 UG/ML	MC
		04/26/11	10/26/11		1mL	010611B

SP 4/26/11

4/26/11  
EX: 10/26/11

DIESEL GCV 600ug/ml

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		03/07/11	09/07/11			010611B

SP 4/26/11

SP 4/26/11

4/26/11

EX: 9/7/11

MOTOR OIL GCV 600UG/ML

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MOTOR OIL STD	1000UG/ML	O2SI	600µL	1mL	600 UG/ML	MC
		03/07/11	09/07/11			010611B

KEROSENE/JP5 GCV 400 UG/ML

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
KEROSENE /JP5 STD	1000UG/ML	O2SI	600 µL	1ML	600 UG/ML	MC
		04/26/11	10/26/11		1mL	010611B

SP 4/26/11

4/26/11

EX: 10/26/11

DATE/INITIALS

STANDARD

INITIAL CONC

SOURCE DATE

ALIQVOT VOLUME

FINAL CONC

SOLVENT LOT #

DATE/INITIALS

4/12/11  
ex: 10/12/11

DIESEL FUEL #2

50,000 µg/ml 0251 100ml 25ml 2000 µg/ml MC

Diesel Fuel #2 Composite,  
50,000 mg/L, 1 ml  
#11998-83  
Lot # 167769 Storage 5-10 Degrees C Expiry 1/15/15  
Solvent Methylene Chloride  
Diesel Fuel #2 Composite  
Lot #: 167769 - 28255 dp. 4/12/11  
Rec: 2/18/11 MFR exp. 02/15/15

# 010611B

4/12/11  
ex: 7/12/11

4/12/11  
ex: 10/12/11

**DIESEL CURVE**

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
DIESEL	1000		03/07/11	09/07/11	10	100	400	800	800	1000
MC		010811B			990	900	800	400	200	NA
					Final VOL.	1000	1000	1,000	1000	1000

4/13/11  
ex: 9/13/11

4/12/11  
ex: 7/12/11

**MOTOR OIL CURVE**

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
MOTOR OIL	1000		03/07/11	09/07/11	60	100	400	600	800	1000
MC		010811B			950	800	600	400	200	NA
					Final VOL.	1000	1000	1,000	1000	1000

**DIESEL 2ND SOURCE**

STD	Init. Conc	Source	Aliquot	Final Vol.	Final Conc.	Solvent
DIESEL STD.	1000 µg/ml	0251	400 µL	1 mL	400 µg/mL	MC
Lot: 149530	Prep:	03/07/11				010811B
-25266	Exp:	09/07/11				

\* WAS NOT RECORDED ON 4/12/11

TECHNICAL 2ND SOURCE STD

TECHNICAL CHLORODANE

1000 µg/ml 0251 100ml 10ml 10 µg/ml  
CAT: 154649-25930  
OP: 4/18/11  
EX: 4/18/12  
HEXANE # D10711A

4/18/11  
ex: 4/18/12

\* WAS NOT RECORDED ON 4/18/11

TECHNICAL CHLORODANE 2ND SOURCE

SAME ABOVE

10 µg/ml TECHNICAL STD 0250ml 10ml 0.25 µg/ml  
prep: 4/18/11  
EX: 4/18/12  
HEXANE # D10711A

4/18/11  
ex: 10/18/11

DATA / INITIALS

STANDARD

INITIAL CONC.

SOURCE DATE

ALIQ. VOLUME

FINAL CONC.

SOLVENT

LOT #

DATE / INITIALS

055

*Q*

THE SURROGATE

\* GAVE TO EXTRACTION

TL OF *Q*

*Q*

3/22/11

ex: 9/22/11

O-TERPHEYL  
OCTACUSANE

600µg/ml

D2S1

N/A

25ML

600µg/ml

N/A

3/25/11

ex:

3/25

CAT: 110316-DS

LOT: (16,4819) 28492 & 28493

LOT: (170258) 28496 & 28498

LOT: (170258) 28497 & 28499-501

ALL OPEN: 3/25/11

EX: 0/25/12

Herb 200/1000 CCV

VARIOUS  
ANALYTES  
SEE PG 54.

VARIOUS

Herb Std.

200µL

1ML

VARIOUS

MTBE

*Q*

SEE PG. 054

PREP: 3/22/11

#50112

3/25/11

SEE PG 54.

EX: 9/22/11

EX: 9/22/11

DIESEL 400 & 600 /1000 CCV

*Q*

3/24/11

ex: 9/24/11

DIESEL  
FUEL #2

1000µg/ml

DIESEL STD

400µL

1ML

400µg/ml

MC

*Q*

PREP: 3/7/11

600µL

1ML

#0106113

3/25/11

EX: 9/7/11

EX: 6/25/11

EX: 9/22/11

MOTOR OIL 400 & 600 /1000µg/ml CCV

MOTOR OIL

1000µg/ml

MOTOR OIL STD.

400µL

1ML

400µg/ml

MC

*Q*

PREP: 3/7/11

600µL

1ML

600µg/ml

#0106113

3/25/11

EX: 9/7/11

EX: 6/25/11

EE SOIL I (LEVEL 3) CCV

LAC

3/24/11

ex: 9/24/11

VARIOUS  
SEE BK 34  
PG. 93

1µg/ml

EE SOIL I STD.

100µL

1ML

0.1µg/ml

HEXANE

*Q*

PREP: 11/10/10

#0826103

3/25/11

EX: 4/10/11

EX: 4/10/11

THE SURROGATE

\* GAVE TO EXTRACTIONS

*Q*

*Q*

3/24/11

ex: 6/15/11

1000

N/A

1000

3/24/11

ex: 8/14/11

O-TERPHEYL  
OCTACUSANE

600µg/ml

D2S1

N/A

25ML

600µg/ml

N/A

3/25/11

EX: 3/25/12

CAT: 110816-DS

LOT: 170258-28491 & 28495

OP: 3/25/11

EX: 3/25/12

# Organic Extraction Worksheet

<b>Method</b>	THC Separatory Funnel Extraction 3510C	<b>Extraction Set</b>	I10426A	<b>Extraction Method</b>	SBP011	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 4/12/11 EX 7/12/11	Surrogate ID 1	THC Surrogate 170258-28494				
Spiked ID 2	Motor Oil Spike 3/31/11 EX 6/30/11	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC: YES					
Spiked ID 7		Ext. Start Time:					
Spiked ID 8		Ext. End Time:					
				GC Requires Extract By:	04/28/11 0:00		
				pH1		W Bath Temp	80 °C
				pH2			
				pH3			

Spiked By: DL

Date 04/26/11

Witnessed By: CC

Date 04/26/11

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	I10426A BIK			0.250	1	1000	5	7	04/26/11 12:00	
2	I10426A LCS-1	1	1	0.250	1	1000	5	7	04/26/11 12:00	
3	I10426A LCS-2	1	2	0.250	1	1000	5	7	04/26/11 12:00	
4	AY36096	AY36096W07		0.250	1	1030	5	7	04/26/11 12:00	64463 7-DAY RUSH -- Amber Liter
5	AY36138	AY36138W07		0.250	1	1040	5	7	04/26/11 12:00	64459 -- Amber Liter
6	AY36235	AY36235W08		0.250	1	1020	5	7	04/26/11 12:00	64458 14-DAY RUSH -- Amber Liter
7	AY36311	AY36311W06		0.250	1	1020	5	7	04/26/11 12:00	64475 2-WBBK RUSH -- Amber Liter
8	AY36312 MS-1	AY36312W19	1	0.250	1	1040	5	7	04/26/11 12:00	64475 2-WBBK RUSH -- Amber Liter
9	AY36312 MSD-1	AY36312W21	1	0.250	1	1040	5	7	04/26/11 12:00	64475 2-WBBK RUSH -- Amber Liter
10	AY36312	AY36312W22		0.250	1	1010	5	7	04/26/11 12:00	64475 2-WBBK RUSH -- Amber Liter
11	AY36313	AY36313W07		0.250	1	1020	5	7	04/26/11 12:00	64475 2-WBBK RUSH -- Amber Liter
12	AY36316	AY36316W06		0.250	1	1020	5	7	04/26/11 12:00	64475 2-WBBK RUSH -- Amber Liter
13	AY36317	AY36317W05		0.250	1	1000	5	7	04/26/11 12:00	64475 2-WBBK RUSH -- Amber Liter

RJS 4/26/11

<b>Solvent and Lot#</b>	
MC	VWR 112910A
Na2SO4	0440C237

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	RJS
GC analyst's initials	<i>[Signature]</i>
Date	4/27/11
Time	9:30
Refrigerator	HABART

<b>Scanned By</b>	DL
<b>Sample Preparation</b>	DL
<b>Extraction</b>	DL
<b>Concentration</b>	CC

**Modified** 04/26/11 11:27:02 AM

Reviewed By: RJS      84      Date 04/26/11

## Injection Log

Directory: G:\APOLLO\DATA\110422\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	4	422004.D	1	DIESEL 10/1000 4/22/11	Mix(A)	4-22-11 11:20:08
2	5	422005.D	1	DIESEL 100/1000	Mix(A)	4-22-11 11:45:11
3	6	422006.D	1	DIESEL 400/1000	Mix(A)	4-22-11 12:10:19
4	7	422007.D	1	DIESEL 600/1000	Mix(A)	4-22-11 12:35:32
5	8	422008.D	1	DIESEL 800/1000	Mix(A)	4-22-11 13:00:52
6	9	422009.D	1	DIESEL 1000/1000	Mix(A)	4-22-11 13:26:13
13	16	422016.D	1	DIESEL 2ND SRC 400/1000 4/22/11	Mix(A)	4-22-11 16:19:58
1	78	425078.D	1	DIESEL 400/1000 4/26/11	Mix(A)	4-27-11 9:05:43
2	79	425079.D	5	110426A BLK 5/1000	Water	4-27-11 9:30:28
3	80	425080.D	5	110426A LCS-1 5/1000	Water	4-27-11 9:54:57
4	82	425082.D	1	DIESEL 400/1000 4/26/11	Mix(A)	4-27-11 10:44:29
5	87	425087.D	4.90196	AY36311W06 5/1020	Water	4-27-11 12:49:36
6	88	425088.D	4.80769	AY36312W19 MS-1 5/1040	Water	4-27-11 13:13:59
7	89	425089.D	4.80769	AY36312W21 MSD-1 5/1040	Water	4-27-11 13:38:25
8	90	425090.D	4.9505	AY36312W22 5/1010	Water	4-27-11 14:02:57
9	91	425091.D	4.90196	AY36313W07 5/1020	Water	4-27-11 14:27:25
10	92	425092.D	4.90196	AY36316W06 5/1020	Water	4-27-11 14:52:28
11	93	425093.D	5	AY36317W05 5/1000	Water	4-27-11 15:17:24
12	94	425094.D	1	DIESEL 600/1000 4/26/11	Mix(A)	4-27-11 15:41:55

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

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

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

Blank Name/QCG: 110425W-36312 - 155155  
Batch ID: #SIMHC-110425A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/11/11
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/11/11
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/11/11
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/11/11
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/11/11
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/11/11
BLANK	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/11/11
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/11/11
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/11/11
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/11/11
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/11/11
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/11/11
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/11/11
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/11/11
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/11/11
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/11/11
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/11/11
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/11/11
BLANK	SURROGATE: 2-FLUORBIPHENY	56.0	50-110			%	04/25/11	05/11/11
BLANK	SURROGATE: NITROBENZENE-	87.6	40-110			%	04/25/11	05/11/11
BLANK	SURROGATE: TERPHENYL-D14 (	58.6	50-135			%	04/25/11	05/11/11

Quant Method: SIM2.M  
Run #: 0511L003  
Instrument: Linus  
Sequence: L110420  
Initials: LF

GC SC-Blank-REG MDLs  
Printed: 05/16/11 7:24:48 PM



**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 64475

Case No: 64475

Date Analyzed: 05/11/11

Matrix: WATER

Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)	SURROGATE: NITROBENZENE-D5 (S)
110425A-BLK	Blank	56.0	87.6
110425A-LCS	Lab Control Spike	54.0	94.5
AY36311	ES019	52.2	95.3
AY36312-MS	Matrix Spike	54.6	87.7
AY36312-MSD	Matrix SpikeD	54.6	73.9
AY36312	ES020	58.3	71.8
AY36313	ES021	54.1	86.0
AY36316	ES024	53.9	96.9
AY36317	ES025	50.5	88.2

Comments: Batch: #SIMHC-110425A

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 64475

Case No: 64475

Date Analyzed: 05/11/11

Matrix: WATER

Instrument: Linus

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APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)
110425A-BLK	Blank	58.6
110425A-LCS	Lab Control Spike	64.5
AY36311	ES019	62.7
AY36312-MS	Matrix Spike	52.0
AY36312-MSD	Matrix SpikeD	53.5
AY36312	ES020	59.4
AY36313	ES021	50.4
AY36316	ES024	58.0
AY36317	ES025	54.4

Comments: Batch: #SIMHC-110425A

**Laboratory Control Spike Recovery**  
**EPA 8270D SIM**

APPL ID: 110425W-36312 LCS - 155155  
Batch ID: #SIMHC-110425A

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	2.05	51.2	45-105
2-METHYLNAPHTHALENE	4.00	2.08	52.0	45-105
ACENAPHTHENE	4.00	2.20	55.0	45-110
ACENAPHTHYLENE	4.00	2.21	55.3	50-105
ANTHRACENE	4.00	2.78	69.5	55-110
BENZO(A)ANTHRACENE	4.00	2.27	56.8	55-110
BENZO(A)PYRENE	4.00	2.70	67.5	55-110
BENZO(B)FLUORANTHENE	4.00	2.31	57.8	45-120
BENZO(GHI)PERYLENE	4.00	2.53	63.2	40-125
BENZO(K)FLUORANTHENE	4.00	3.19	79.8	45-125
CHRYSENE	4.00	3.17	79.3	55-110
DIBENZ(A,H)ANTHRACENE	4.00	2.53	63.2	40-125
FLUORANTHENE	4.00	3.10	77.5	55-115
FLUORENE	4.00	2.50	62.5	50-110
INDENO(1,2,3-CD)PYRENE	4.00	2.87	71.8	45-125
NAPHTHALENE	4.00	2.07	51.7	40-100
PHENANTHRENE	4.00	2.85	71.3	50-115
PYRENE	4.00	2.67	66.8	50-130
-----				
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.08	54.0	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.89	94.5	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.29	64.5	50-135
-----				

Comments:

Primary	SPK
Quant Method :	SIM2.M
Extraction Date :	04/25/11
Analysis Date :	05/11/11
Instrument :	Linus
Run :	0511L004
Initials :	LF

Printed: 05/16/11 7:24:54 PM

APPL Standard LCS

# Matrix Spike Recoveries

## EPA 8270D SIM

APPL ID: 110425W-36312 MS - 155155  
 Batch ID: #SIMHC-110425A  
 Sample ID: AY36312  
 Client ID: ES020

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	3.92	5.1	6.87	7.01	45.1	48.7	45-105	2.0	25
2-METHYLNAPHTHALENE	3.92	0.43	2.20	2.32	45.1	48.2	45-105	5.3	25
ACENAPHTHENE	3.92	0.18	2.36	2.34	55.6	55.1	45-110	0.85	25
ACENAPHTHYLENE	3.92	0.071	2.41	2.40	59.6	59.4	50-105	0.42	25
ANTHRACENE	3.92	ND	2.76	2.69	70.4	68.6	55-110	2.6	25
BENZO(A)ANTHRACENE	3.92	ND	2.32	2.32	59.2	59.2	55-110	0.0	25
BENZO(A)PYRENE	3.92	ND	2.43	2.43	62.0	62.0	55-110	0.0	25
BENZO(B)FLUORANTHENE	3.92	ND	2.18	2.14	55.6	54.6	45-120	1.9	25
BENZO(GHI)PERYLENE	3.92	ND	2.33	2.30	59.4	58.6	40-125	1.3	25
BENZO(K)FLUORANTHENE	3.92	ND	2.55	2.59	65.0	66.0	45-125	1.6	25
CHRYSENE	3.92	ND	2.60	2.57	66.3	65.5	55-110	1.2	25
DIBENZ(A,H)ANTHRACENE	3.92	ND	2.40	2.35	61.2	59.9	40-125	2.1	25
FLUORANTHENE	3.92	ND	2.86	2.81	72.9	71.6	55-115	1.8	25
FLUORENE	3.92	0.086	2.44	2.38	60.0	58.5	50-110	2.5	25
INDENO(1,2,3-CD)PYRENE	3.92	ND	3.06	3.06	78.0	78.0	45-125	0.0	25
NAPHTHALENE	3.92	3.5	5.42	6.01	49.0	64.0	40-100	10.3	25
PHENANTHRENE	3.92	ND	2.53	2.49	64.5	63.5	50-115	1.6	25
PYRENE	3.92	ND	2.46	2.47	62.7	63.0	50-130	0.41	25
-----									
SURROGATE: 2-FLUORBIPHENYL (S)	1.96	NA	1.07	1.07	54.6	54.6	50-110		
SURROGATE: NITROBENZENE-D5 (S)	1.96	NA	1.72	1.45	87.7	73.9	40-110		
SURROGATE: TERPHENYL-D14 (S)	1.96	NA	1.02	1.05	52.0	53.5	50-135		
-----									

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

Primary	SPK	DUP
Quant Method :	SIM2.M	SIM2.M
Extraction Date :	04/25/11	04/25/11
Analysis Date :	05/12/11	05/12/11
Instrument :	Linus	Linus
Run :	0511L017	0511L018
Initials :	LF	

# 8270D-SIM

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 64475

Case No: 64475

Date Analyzed: 05/11/11

Matrix: WATER

Instrument: Linus

Blank ID: 110425A-BLK

Time Analyzed: 2003

APPL ID.	Client Sample No.	File ID.	Date Analyzed
110425A-BLK	Blank	0511L003	05/11/11 2003
110425A-LCS	Lab Control Spike	0511L004	05/11/11 2028
AY36311	ES019	0511L016	05/12/11 0135
110425A-MS	Matrix Spike	0511L017	05/12/11 0200
110425A-MSD	Matrix SpikeD	0511L018	05/12/11 0225
AY36312	ES020	0511L019	05/12/11 0251
AY36313	ES021	0511L020	05/12/11 0316
AY36316	ES024	0511L021	05/12/11 0341
AY36317	ES025	0511L022	05/12/11 0407

Comments: Batch: #SIMHC-110425A

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 64475  
 Matrix: Water  
 ID: SVTUNE 04-14-11

SDG No: 64475  
 Date Analyzed: 05/11/11  
 Instrument: Linus  
 Time Analyzed: 19:18

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Blank	110425A BLK 1/1000	0511L003.D	05/11/11 20:03
2	Lab Control Spike	110425A LCS-1 1/1000	0511L004.D	05/11/11 20:28
3	ES019	AY36311W05 1/1030	0511L016.D	05/12/11 1:35
4	Matrix Spike	AY36312W25 MS-1 1/10	0511L017.D	05/12/11 2:00
5	Matrix Spike Dup	AY36312W27 MSD-1 1/1	0511L018.D	05/12/11 2:25
6	ES020	AY36312W26 1/1030	0511L019.D	05/12/11 2:51
7	ES021	AY36313W05 1/1020	0511L020.D	05/12/11 3:16
8	ES024	AY36316W05 1/1020	0511L021.D	05/12/11 3:41
9	ES025	AY36317W06 1/1020	0511L022.D	06/12/11 4:07
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

51 29.95 - 60% of mass 198	43.4
68 0 - 2.05% of mass 69	0.0
70 0 - 2% of mass 69	0.5
127 40 - 60% of mass 198	50.4
197 0 - 1% of mass 198	0.5
198 100 - 100% of mass 198	100.0
199 5 - 9% of mass 198	7.2
275 10 - 30% of mass 198	23.7
365 1 - 100% of mass 198	2.3
441 0.01 - 100% of mass 443	75.2
442 40 - 150% of mass 198	58.3
443 17 - 23% of mass 442	20.4

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 64475  
 Lab File ID (Standard): 0420L006.D Date Analyzed: 04/20/11  
 Instrument ID: Linus Time Analyzed: 23:01  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		2790	6.17	1524	8.18	2709	9.90
UPPER LIMIT		5580	6.67	3048	8.68	5418	10.40
LOWER LIMIT		1395	5.67	762	7.68	1355	9.40
SAMPLE NO.							
01	110425A BLK 1/1000	3867	6.18	1787	8.18	3296	9.91
02	110425A LCS-1 1/1000	3468	6.18	1678	8.18	3045	9.91
03	AY36311W05 1/1030	4240	6.18	2223	8.18	4068	9.91
04	AY36312W25 MS-1 1/1	4491	6.18	2480	8.18	4431	9.91
05	AY36312W27 MSD-1 1/	4562	6.18	2430	8.18	4286	9.91
06	AY36312W26 1/1030	4220	6.18	2471	8.18	4299	9.91
07	AY36313W05 1/1020	4343	6.18	2420	8.18	4394	9.91
08	AY36316W05 1/1020	4445	6.18	2294	8.18	4182	9.91
09	AY36317W06 1/1020	4155	6.18	2186	8.18	3926	9.91
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.: 64475  
 Lab File ID (Standard): 0420L006.D Date Analyzed: 04/20/11  
 Instrument ID: Linus Time Analyzed: 23:01  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		3273	12.96	2558	14.57		
UPPER LIMIT		6546	13.46	5116	15.07		
LOWER LIMIT		1637	12.46	1279	14.07		
SAMPLE NO.							
01	110425A BLK 1/1000	4205	12.97	3185	14.58		
02	110425A LCS-1 1/1000	4147	12.97	3103	14.57		
03	AY36311W05 1/1030	5457	12.97	4830	14.57		
04	AY36312W25 MS-1 1/1	6004	12.97	5023	14.58		
05	AY36312W27 MSD-1 1/	5740	12.97	4836	14.58		
06	AY36312W26 1/1030	5464	12.97	4789	14.57		
07	AY36313W05 1/1020	5589	12.97	4682	14.57		
08	AY36316W05 1/1020	5537	12.97	4459	14.58		
09	AY36317W06 1/1020	5581	12.97	4531	14.57		
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**

# EPA 8270D SIM

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES019

APPL ID: AY36311

Sample Collection Date: 04/19/11

QCG: #SIMHC-110425A-155155

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	52.2	50-110			%	04/25/11	05/12/11
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	95.3	40-110			%	04/25/11	05/12/11
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	62.7	50-135			%	04/25/11	05/12/11

Quant Method: SIM2.M  
Run #: 0511L016  
Instrument: Linus  
Sequence: L110420  
Dilution Factor: 1  
Initials: LF

Printed: 05/16/11 7:25:03 PM

APPL-F1-SC-NoMC-REG MDLs

Data File : M:\LINUS\DATA\L110420\0511L016.D Vial: 16  
 Acq On : 12 May 11 1:35 Operator: LF  
 Sample : AY36311W05 1/1030 Inst : Linus  
 Misc : Multiplr: 0.97

Quant Time: May 16 19:01 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed May 11 10:12:00 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	4240	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	2223	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	4068	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	5457	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.57	264	4830	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.38	82	663	1.85036	ppb	0.01
Spiked Amount	1.942		Recovery	=	95.275%	
7) Surrogate Recovery (FBP)	7.42	172	1827	1.01420	ppb	0.00
Spiked Amount	1.942		Recovery	=	52.221%	
17) Surrogate Recovery (TPH)	11.77	244	3010	1.21709	ppb	0.00
Spiked Amount	1.942		Recovery	=	62.676%	

Target Compounds Qvalue

Quantitation Report

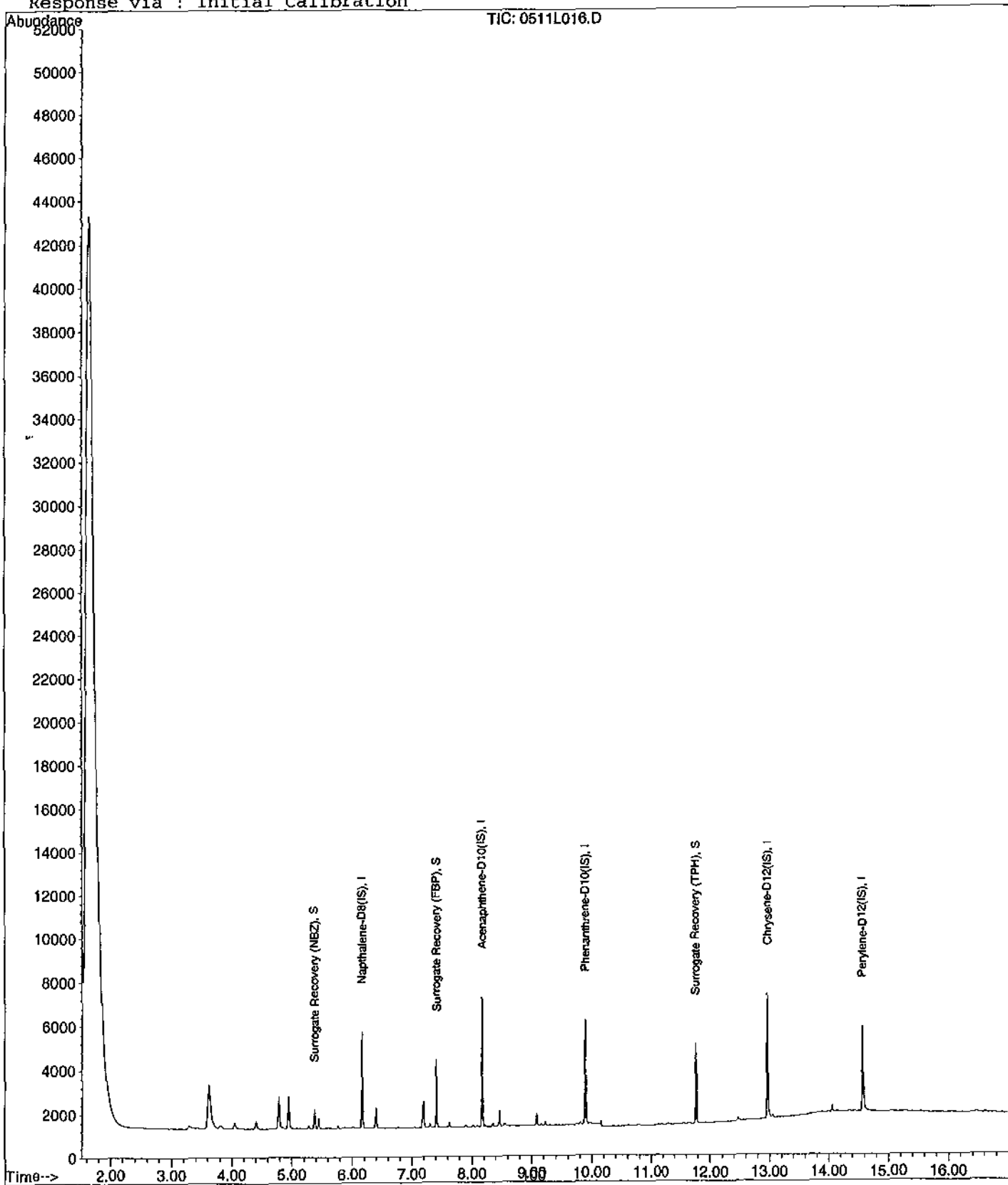
Data File : M:\LINUS\DATA\L110420\0511L016.D  
Acq On : 12 May 11 1:35  
Sample : AY36311W05 1/1030  
Misc :

Vial: 16  
Operator: LF  
Inst : Linus  
Multiplr: 0.97

Quant Time: May 16 19:01 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Mon May 16 17:08:29 2011  
Response via : Initial Calibration



# EPA 8270D SIM

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES020

APPL ID: AY36312

Sample Collection Date: 04/19/11

QCG: #SIMHC-110425A-155155

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	5.1	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	2-METHYLNAPHTHALENE	0.43	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ACENAPHTHENE	0.18 J	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ACENAPHTHYLENE	0.071 J	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	FLUORENE	0.086 J	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	NAPHTHALENE	3.5	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	58.3	50-110			%	04/25/11	05/12/11
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	71.8	40-110			%	04/25/11	05/12/11
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	59.4	50-135			%	04/25/11	05/12/11

J = Estimated value.

Quant Method: SIM2.M  
Run #: 0511L019  
Instrument: Linus  
Sequence: L110420  
Dilution Factor: 1  
Initials: LF

Printed: 05/16/11 7:25:03 PM

APPL-F1-SC-NoMC-REG MDLs

Data File : M:\LINUS\DATA\L110420\0511L019.D Vial: 19  
 Acq On : 12 May 11 2:51 Operator: LF  
 Sample : AY36312W26 1/1030 Inst : Linus  
 Misc : Multiplr: 0.97

Quant Time: May 16 19:02 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed May 11 10:12:00 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.18	136	4220	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	2471	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	4299	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	5464	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.57	264	4789	2.50000	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Surrogate Recovery (NBZ)	5.38	82	421	1.39355	ppb	0.01
Spiked Amount	1.942		Recovery	=	71.791%	
7) Surrogate Recovery (FBP)	7.42	172	2267	1.13215	ppb	0.00
Spiked Amount	1.942		Recovery	=	58.298%	
17) Surrogate Recovery (TPH)	11.77	244	2855	1.15294	ppb	0.00
Spiked Amount	1.942		Recovery	=	59.379%	
<b>Target Compounds</b>						
3) Naphthalene	6.20	128	9387	3.52067	ppb	# 95
4) 2-Methylnaphthalene	6.99	142	766	0.43180	ppb	98
5) 1-Methylnaphthalene	7.10	142	8662	5.11495	ppb	99
8) Acenaphthylene	8.01	152	196	0.07088	ppb	# 1
9) Acenaphthene	8.22	154	279	0.17552	ppb	93
10) Fluorene	8.82	166	165	0.08629	ppb	97

Quantitation Report

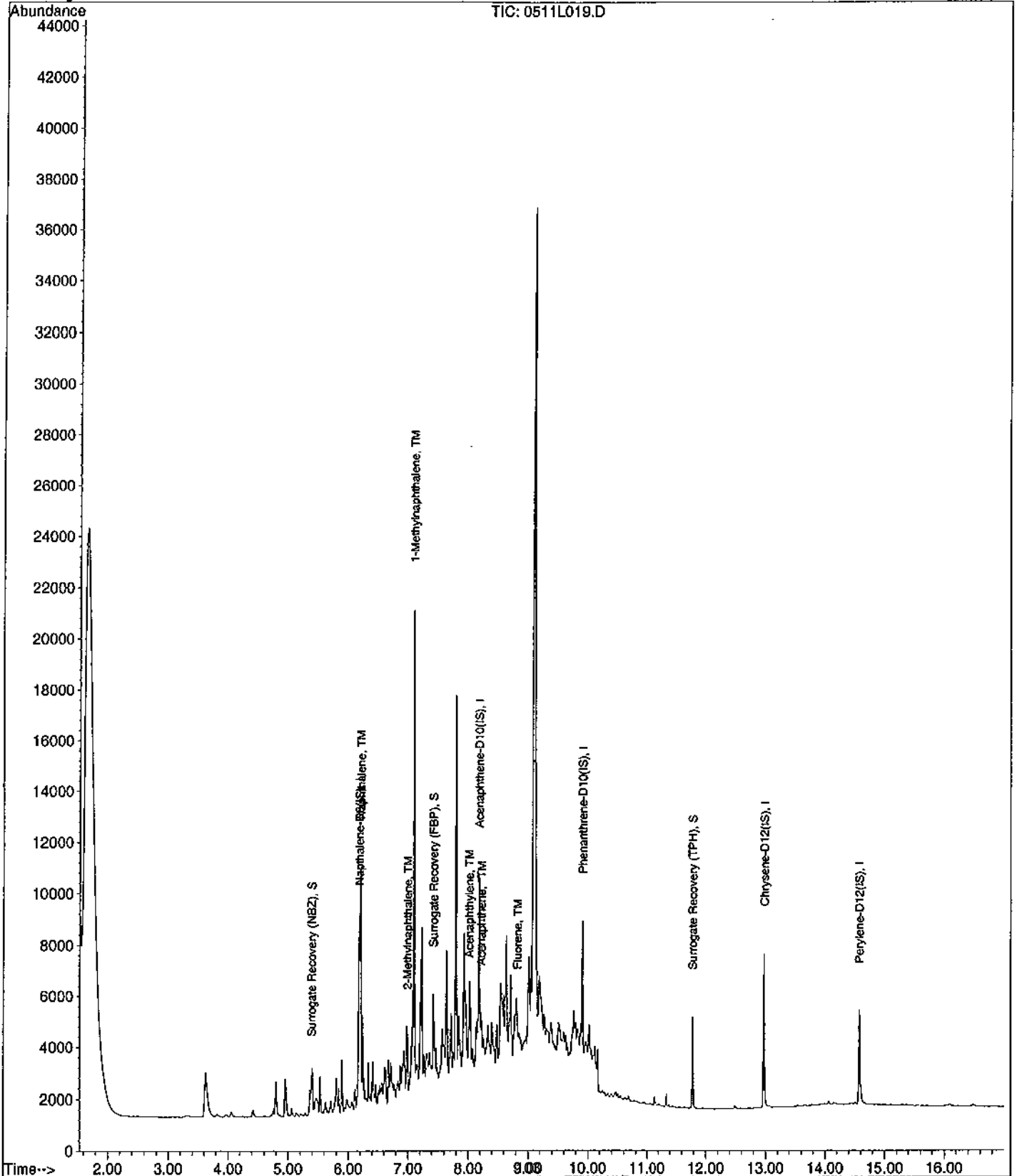
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 Acq On : 12 May 11 2:51  
 Sample : AY36312W26 1/1030  
 Misc :

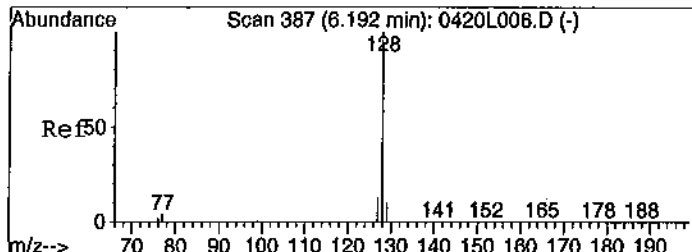
Vial: 19  
 Operator: LF  
 Inst : Linus  
 Multiplr: 0.97

Quant Time: May 16 19:02 2011

Quant Results File: SIM2.RES

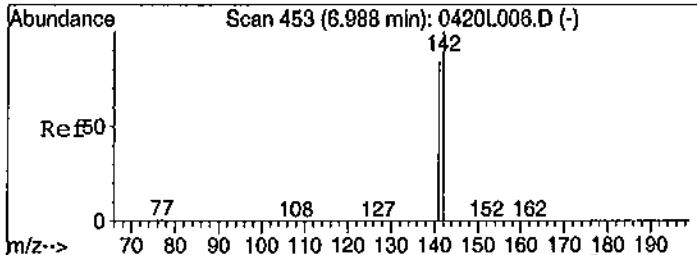
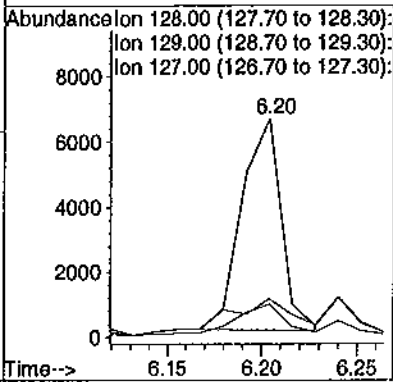
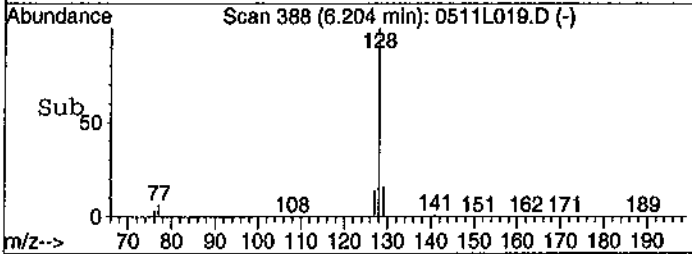
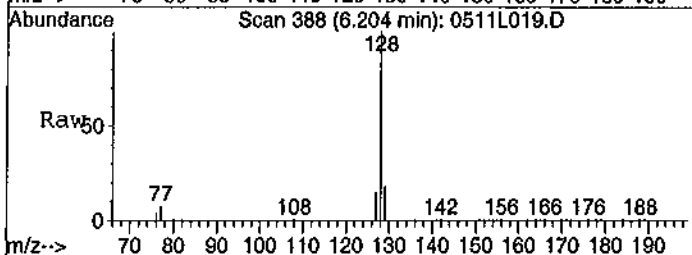
Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Mon May 16 17:08:29 2011  
 Response via : Initial Calibration





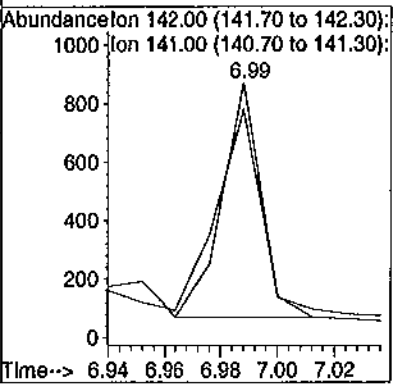
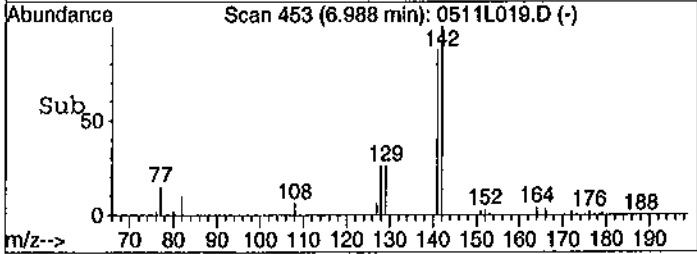
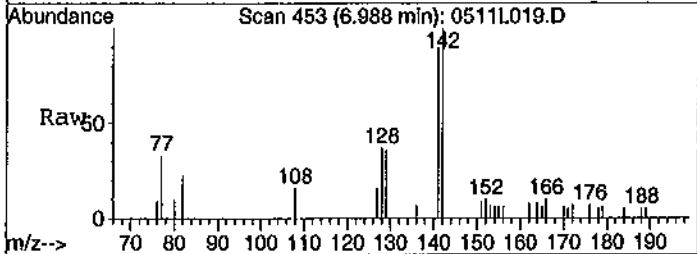
#3  
 Naphthalene  
 Concen: 3.52067 ppb  
 RT: 6.20 min Scan# 388  
 Delta R.T. 0.01 min  
 Lab File: 0511L019.D  
 Acq: 12 May 11 2:51

Tgt Ion	Resp	Lower	Upper
128	9387	100	
129	14.4	7.3	13.5#
127	13.7	9.4	17.4

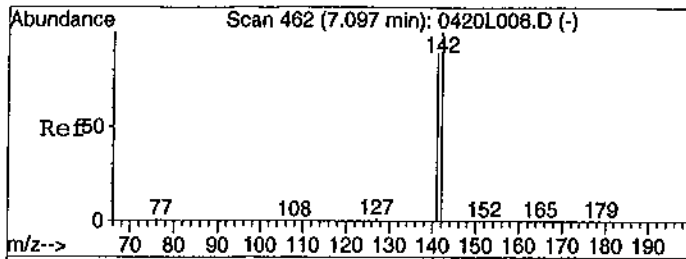


#4  
 2-Methylnaphthalene  
 Concen: 0.43180 ppb  
 RT: 6.99 min Scan# 453  
 Delta R.T. 0.00 min  
 Lab File: 0511L019.D  
 Acq: 12 May 11 2:51

Tgt Ion	Resp	Lower	Upper
142	766	100	
141	85.7	58.7	108.9



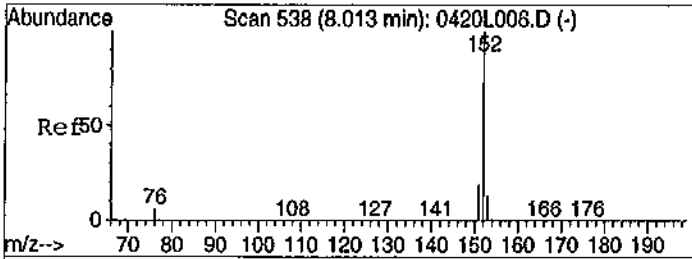
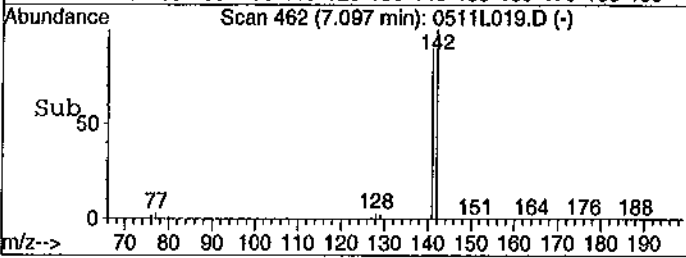
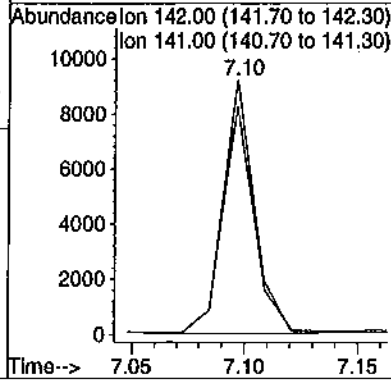
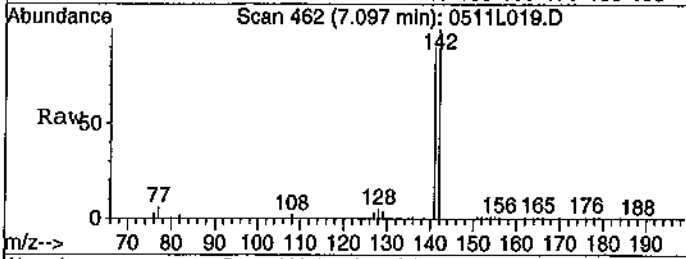




#5  
 1-Methylnaphthalene  
 Concen: 5.11495 ppb  
 RT: 7.10 min Scan# 462  
 Delta R.T. 0.00 min  
 Lab File: 0511L019.D  
 Acq: 12 May 11 2:51

Tgt Ion: 142 Resp: 8662

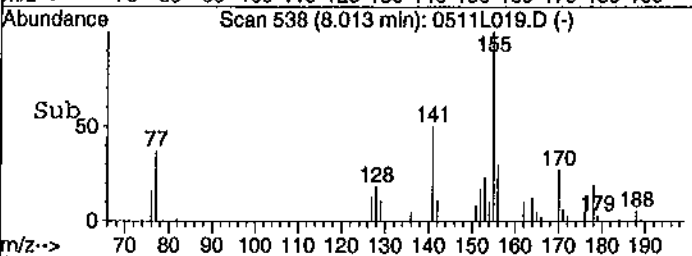
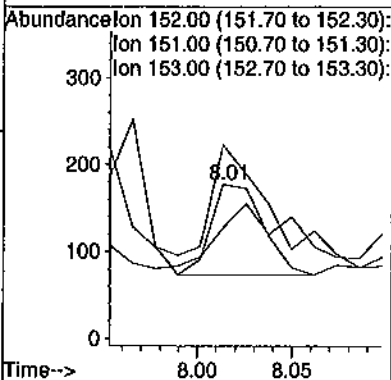
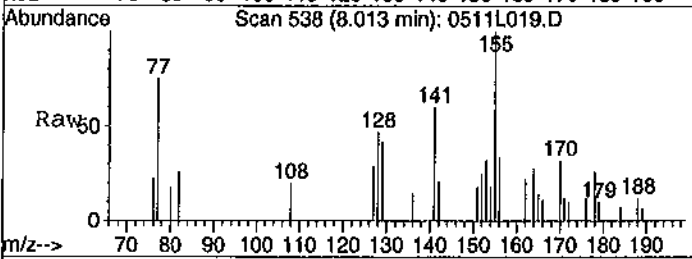
Ion	Ratio	Lower	Upper
142	100		
141	89.6	62.4	115.8

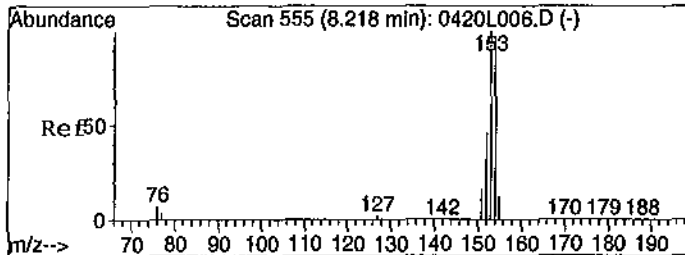


#8  
 Acenaphthylene  
 Concen: 0.07088 ppb  
 RT: 8.01 min Scan# 538  
 Delta R.T. 0.00 min  
 Lab File: 0511L019.D  
 Acq: 12 May 11 2:51

Tgt Ion: 152 Resp: 196

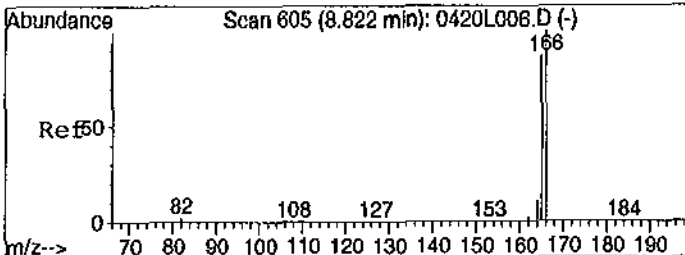
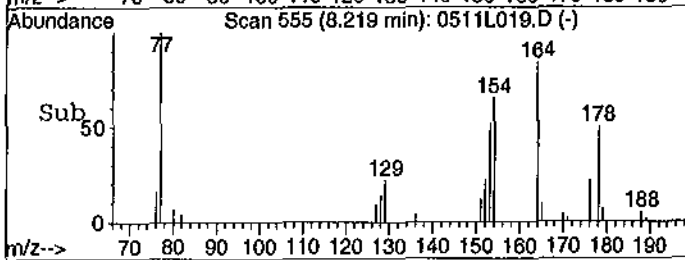
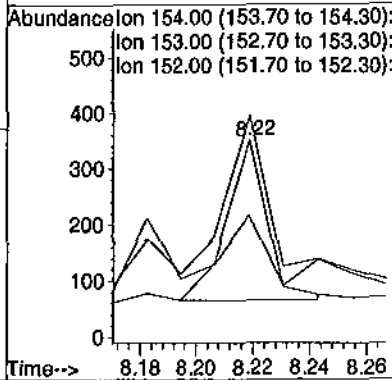
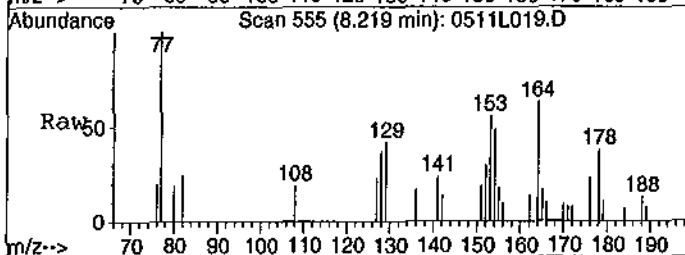
Ion	Ratio	Lower	Upper
152	100		
151	41.7	13.4	25.0#
153	123.3	9.0	16.8#





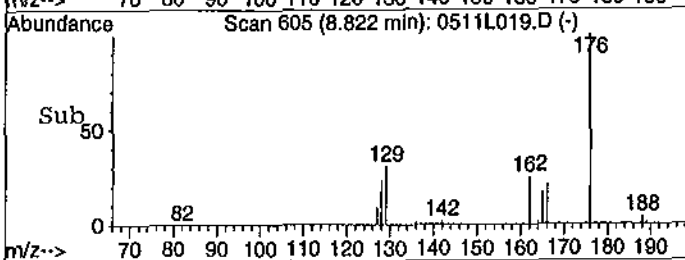
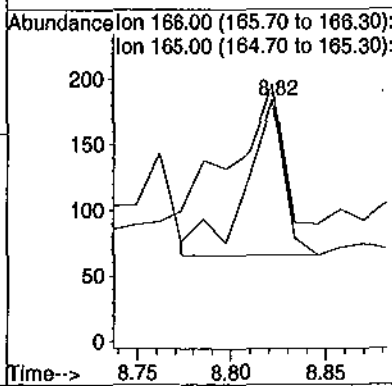
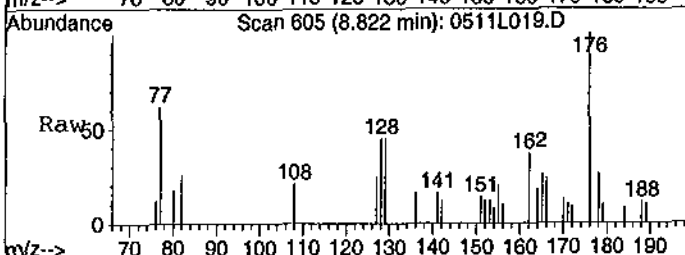
#9  
 Acenaphthene  
 Concen: 0.17552 ppb  
 RT: 8.22 min Scan# 555  
 Delta R.T. 0.00 min  
 Lab File: 0511L019.D  
 Acq: 12 May 11 2:51

Tgt Ion	Resp	Lower	Upper
154	100		
153	98.6	72.2	134.2
152	39.3	33.6	62.4



#10  
 Fluorene  
 Concen: 0.08629 ppb  
 RT: 8.82 min Scan# 605  
 Delta R.T. 0.00 min  
 Lab File: 0511L019.D  
 Acq: 12 May 11 2:51

Tgt Ion	Resp	Lower	Upper
166	100		
165	89.8	60.8	113.0



## EPA 8270D SIM

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

Attn: Vilma Dupra  
Project: LTM Red Hill Bulk Fuel Storage Facility

Sample ID: ES021  
Sample Collection Date: 04/19/11

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64475  
APPL ID: AY36313  
QCG: #SIMHC-110425A-155155

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	5.2	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	2-METHYLNAPHTHALENE	0.53	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ACENAPHTHENE	0.17 J	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ACENAPHTHYLENE	0.070 J	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	FLUORENE	0.085 J	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	NAPHTHALENE	4.2	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	54.1	50-110			%	04/25/11	05/12/11
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	86.0	40-110			%	04/25/11	05/12/11
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	50.4	50-135			%	04/25/11	05/12/11

J = Estimated value.

Quant Method: SIM2.M
Run #: 0511L020
Instrument: Linus
Sequence: L110420
Dilution Factor: 1
Initials: LF

Printed: 05/16/11 7:25:03 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\LINUS\DATA\L110420\0511L020.D Vial: 20  
 Acq On : 12 May 11 3:16 Operator: LF  
 Sample : AY36313W05 1/1020 Inst : Linus  
 Misc : Multiplr: 0.98

Quant Time: May 16 19:05 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed May 11 10:12:00 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	4343	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	2420	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	4394	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	5589	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.57	264	4682	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.38	82	582	1.68629	ppb	0.01
Spiked Amount	1.961		Recovery	=	85.986%	
7) Surrogate Recovery (FBP)	7.42	172	2060	1.06076	ppb	0.00
Spiked Amount	1.961		Recovery	=	54.111%	
17) Surrogate Recovery (TPH)	11.77	244	2481	0.98910	ppb	0.00
Spiked Amount	1.961		Recovery	=	50.439%	
Target Compounds						
3) Napthalene	6.20	128	11392	4.19236	ppb	# 94
4) 2-Methylnapthalene	6.99	142	959	0.53044	ppb	96
5) 1-Methylnapthalene	7.10	142	8940	5.17990	ppb	99
8) Acenaphthylene	8.01	152	187	0.06973	ppb	# 1
9) Acenaphthene	8.22	154	258	0.16735	ppb	90
10) Fluorene	8.82	166	157	0.08466	ppb	94

Quantitation Report

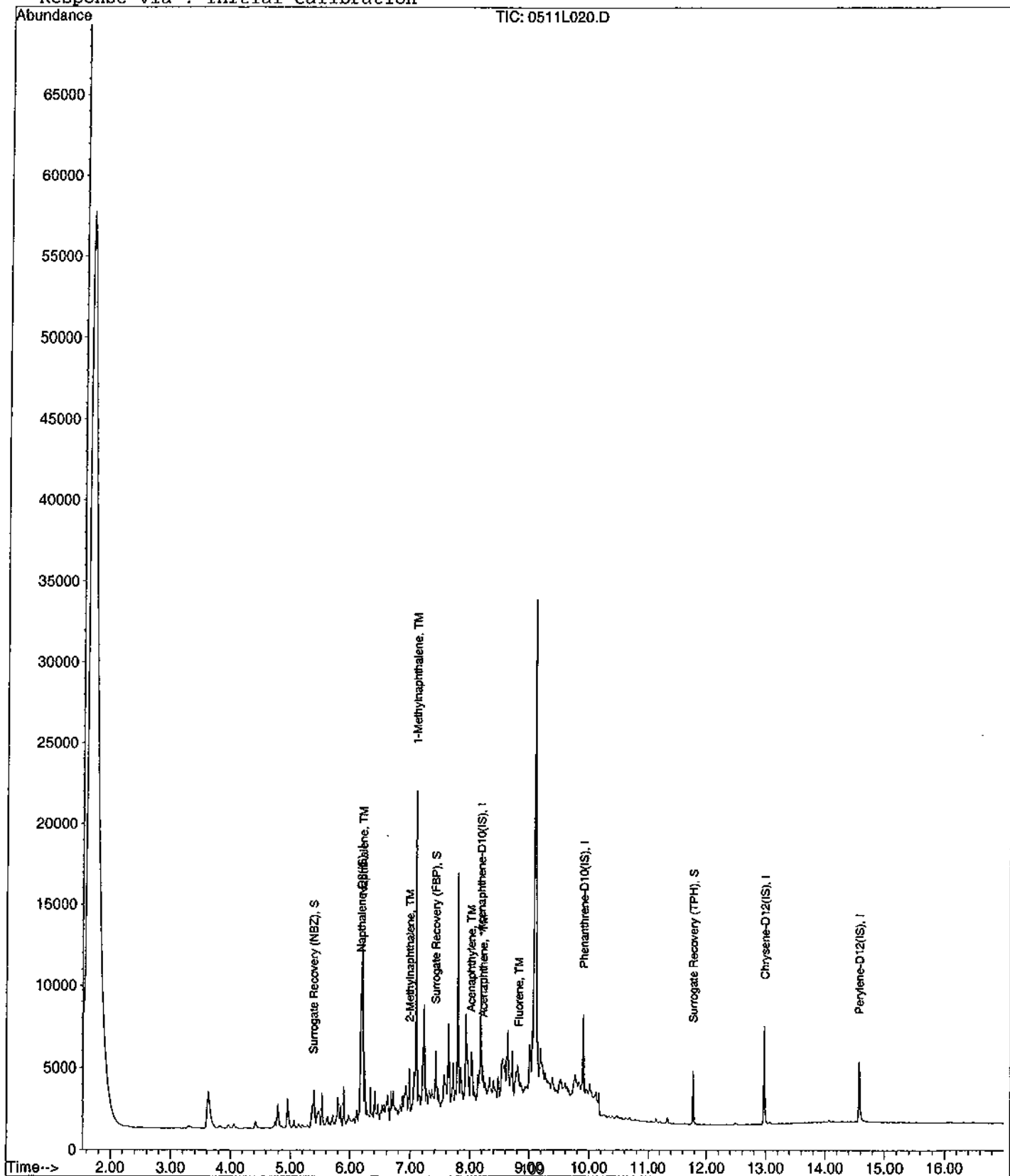
Data File : M:\LINUS\DATA\L110420\0511L020.D  
 Acq On : 12 May 11 3:16  
 Sample : AY36313W05 1/1020  
 Misc :

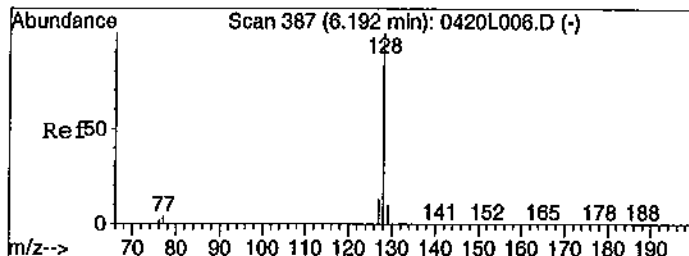
Vial: 20  
 Operator: LF  
 Inst : Linus  
 Multiplr: 0.98

Quant Time: May 16 19:05 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Mon May 16 17:08:29 2011  
 Response via : Initial Calibration

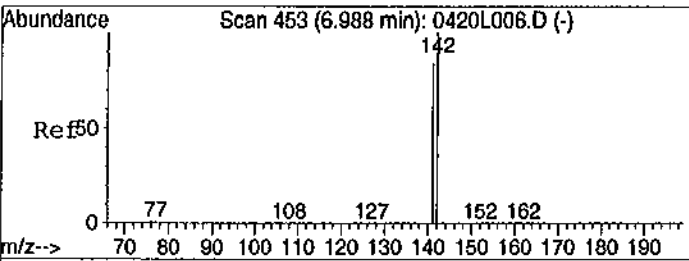
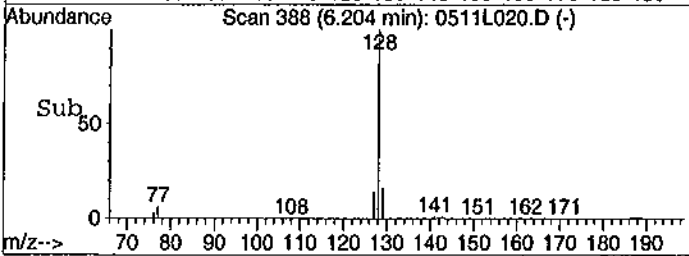
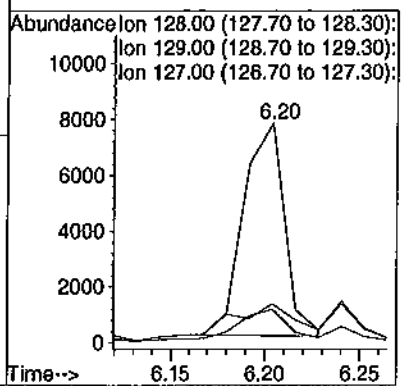
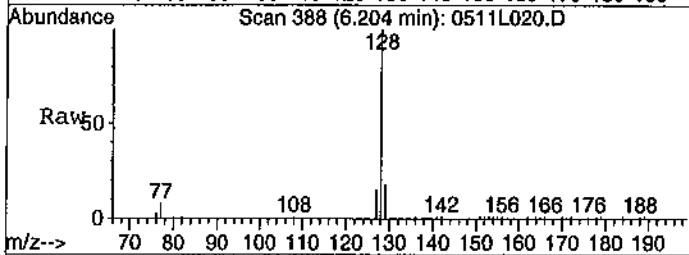




#3  
 Naphthalene  
 Concen: 4.19236 ppb  
 RT: 6.20 min Scan# 388  
 Delta R.T. 0.01 min  
 Lab File: 0511L020.D  
 Acq: 12 May 11 3:16

Tgt Ion: 128 Resp: 11392

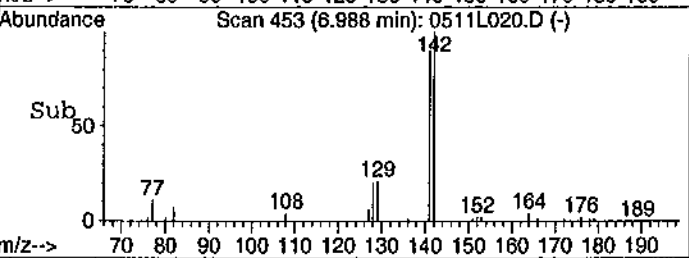
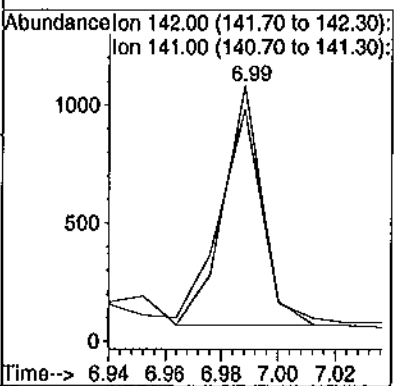
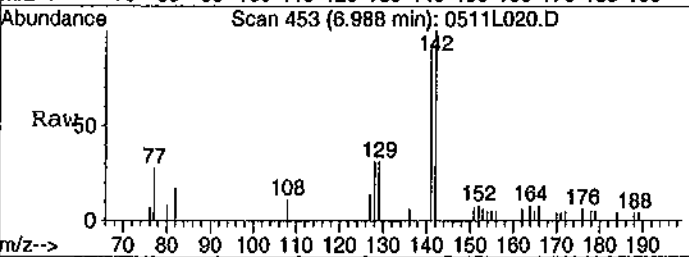
Ion	Ratio	Lower	Upper
128	100		
129	14.5	7.3	13.5#
127	13.9	9.4	17.4

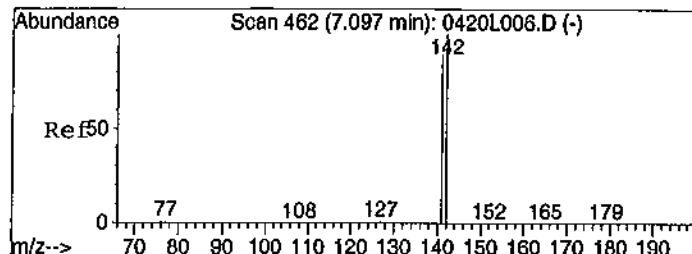


#4  
 2-Methylnaphthalene  
 Concen: 0.53044 ppb  
 RT: 6.99 min Scan# 453  
 Delta R.T. 0.00 min  
 Lab File: 0511L020.D  
 Acq: 12 May 11 3:16

Tgt Ion: 142 Resp: 959

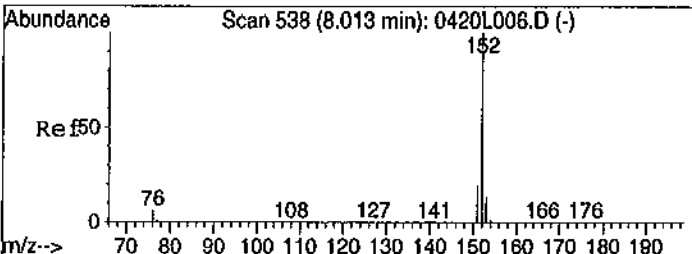
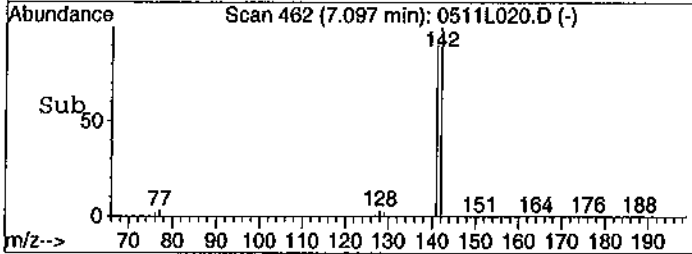
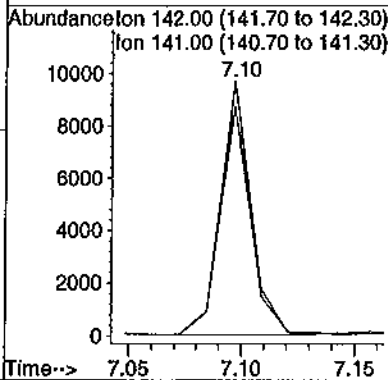
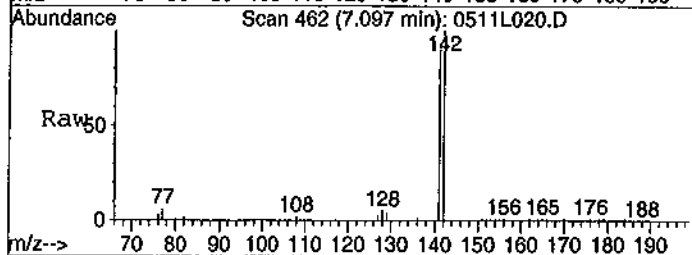
Ion	Ratio	Lower	Upper
142	100		
141	87.6	58.7	108.9





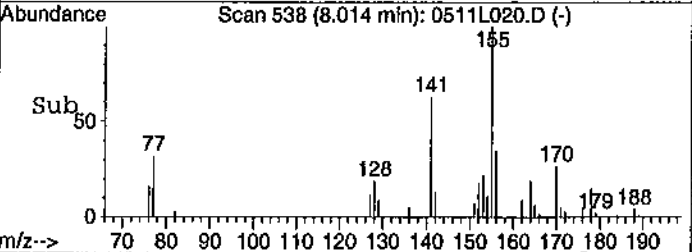
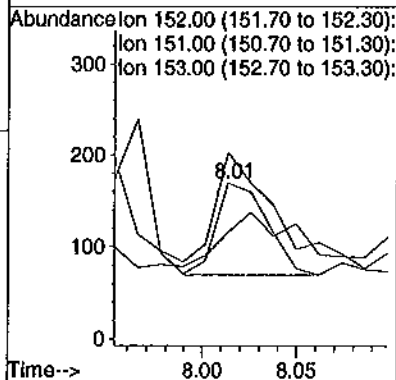
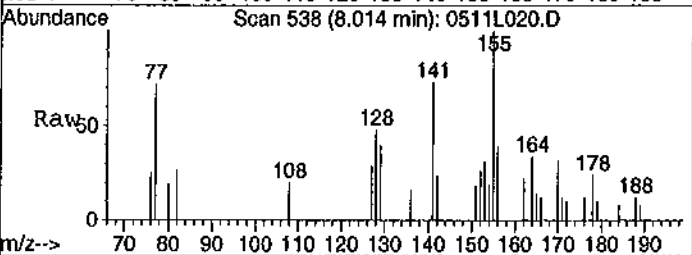
#5  
 1-Methylnaphthalene  
 Concen: 5.17990 ppb  
 RT: 7.10 min Scan# 462  
 Delta R.T. 0.00 min  
 Lab File: 0511L020.D  
 Acq: 12 May 11 3:16

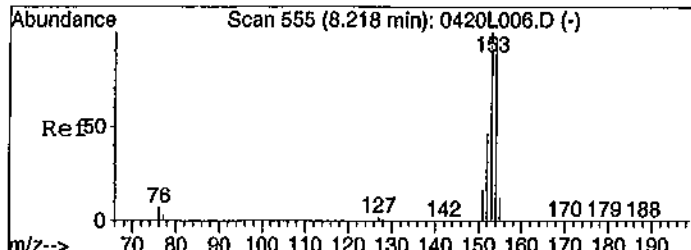
Tgt Ion	Resp	Lower	Upper
142	100		
141	90.0	62.4	115.8



#8  
 Acenaphthylene  
 Concen: 0.06973 ppb  
 RT: 8.01 min Scan# 538  
 Delta R.T. 0.00 min  
 Lab File: 0511L020.D  
 Acq: 12 May 11 3:16

Tgt Ion	Resp	Lower	Upper
152	100		
151	37.0	13.4	25.0#
153	119.0	9.0	16.8#

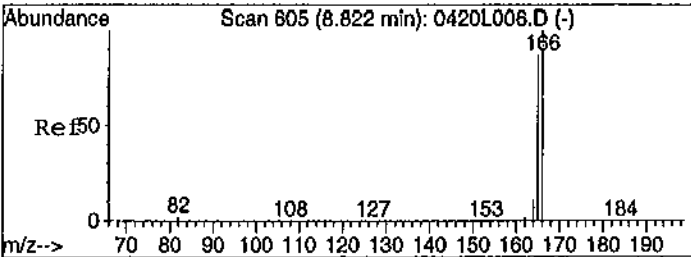
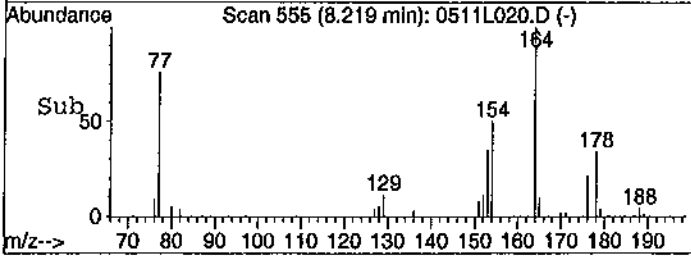
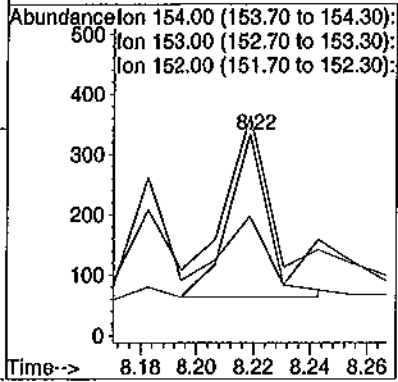
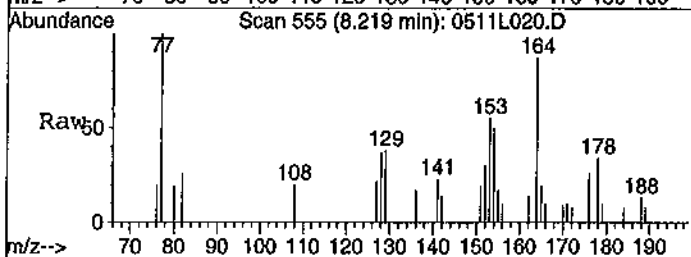




#9  
 Acenaphthene  
 Concen: 0.16735 ppb  
 RT: 8.22 min Scan# 555  
 Delta R.T. 0.00 min  
 Lab File: 0511L020.D  
 Acq: 12 May 11 3:16

Tgt Ion: 154 Resp: 258

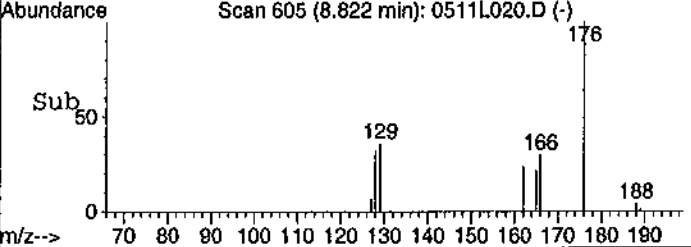
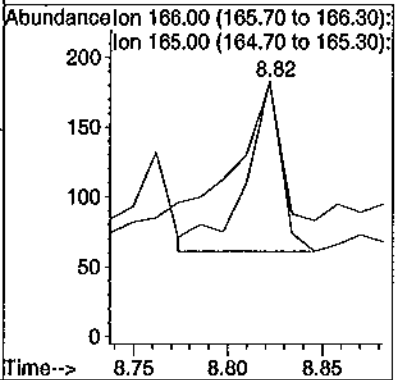
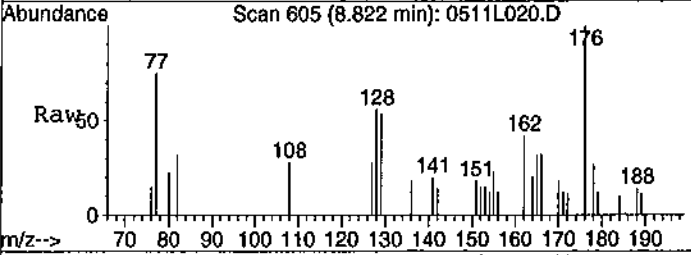
Ion	Ratio	Lower	Upper
154	100		
153	94.4	72.2	134.2
152	39.3	33.6	62.4



#10  
 Fluorene  
 Concen: 0.08466 ppb  
 RT: 8.82 min Scan# 605  
 Delta R.T. 0.00 min  
 Lab File: 0511L020.D  
 Acq: 12 May 11 3:16

Tgt Ion: 166 Resp: 157

Ion	Ratio	Lower	Upper
166	100		
165	81.1	60.8	113.0





# EPA 8270D SIM

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

Attn: Vilma Dupra  
Project: LTM Red Hill Bulk Fuel Storage Facility

Sample ID: ES024

Sample Collection Date: 04/20/11

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64475

APPL ID: AY36316

QCG: #SIMHC-110425A-155155

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	53.9	50-110			%	04/25/11	05/12/11
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	96.9	40-110			%	04/25/11	05/12/11
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	58.0	50-135			%	04/25/11	05/12/11

Quant Method: SIM2.M  
Run #: 0511L021  
Instrument: Linus  
Sequence: L110420  
Dilution Factor: 1  
Initials: LF

Data File : M:\LINUS\DATA\L110420\0511L021.D Vial: 21  
 Acq On : 12 May 11 3:41 Operator: LF  
 Sample : AY36316W05 1/1020 Inst : Linus  
 Misc : Multiplr: 0.98

Quant Time: May 16 19:06 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed May 11 10:12:00 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	4445	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	2294	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	4182	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	5537	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.58	264	4459	2.50000	ppb	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	5.38	82	712	1.89956	ppb	0.01
Spiked Amount	1.961					
			Recovery	=	96.900%	
7) Surrogate Recovery (FBP)	7.42	172	1945	1.05655	ppb	0.00
Spiked Amount	1.961					
			Recovery	=	53.907%	
17) Surrogate Recovery (TPH)	11.77	244	2825	1.13682	ppb	0.00
Spiked Amount	1.961					
			Recovery	=	57.987%	

Target Compounds Qvalue

Quantitation Report

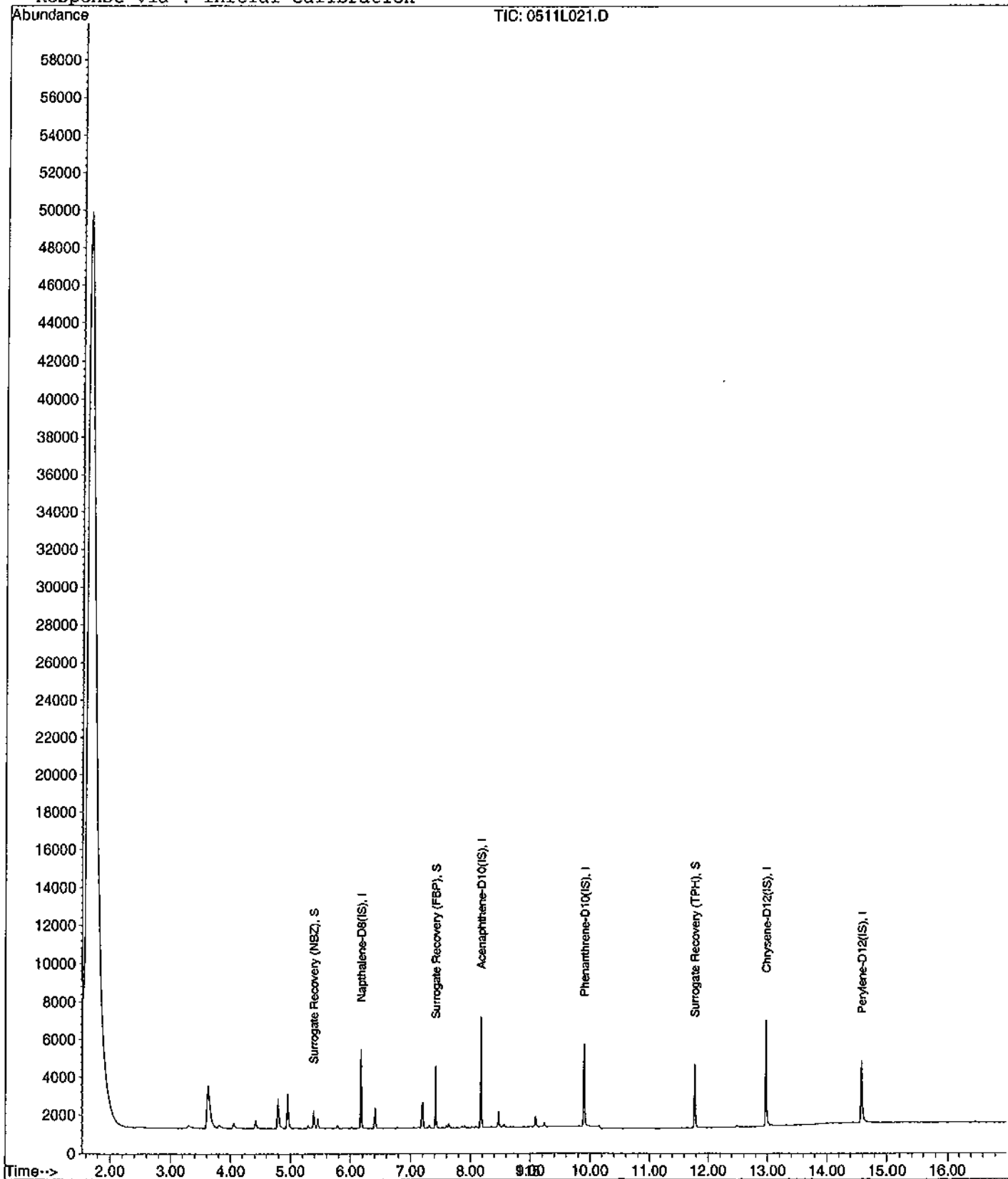
Data File : M:\LINUS\DATA\L110420\0511L021.D  
Acq On : 12 May 11 3:41  
Sample : AY36316W05 1/1020  
Misc :

Vial: 21  
Operator: LF  
Inst : Linus  
Multiplr: 0.98

Quant Time: May 16 19:06 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Mon May 16 17:08:29 2011  
Response via : Initial Calibration



# EPA 8270D SIM

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES025

APPL ID: AY36317

Sample Collection Date: 04/20/11

QCG: #SIMHC-110425A-155155

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/12/11
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/12/11
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/12/11
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/12/11
8270D-SIM	SURROGATE: 2-FLUOROBIPHENYL (S)	50.5	50-110			%	04/25/11	05/12/11
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	88.2	40-110			%	04/25/11	05/12/11
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	54.4	50-135			%	04/25/11	05/12/11

Quant Method: SIM2.M  
Run #: 0511L022  
Instrument: Linus  
Sequence: L110420  
Dilution Factor: 1  
Initials: LF

Printed: 05/16/11 7:25:03 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : M:\LINUS\DATA\L110420\0511L022.D  
 Acq On : 12 May 11 4:07  
 Sample : AY36317W06 1/1020  
 Misc :

Vial: 22  
 Operator: LF  
 Inst : Linus  
 Multiplr: 0.98

Quant Time: May 16 19:06 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed May 11 10:12:00 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	4155	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	2186	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	3926	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	5581	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.57	264	4531	2.50000	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Surrogate Recovery (NBZ)	5.38	82	579	1.72982	ppb	0.01
Spiked Amount	1.961		Recovery	=	88.230%	
7) Surrogate Recovery (FBP)	7.42	172	1736	0.98961	ppb	0.00
Spiked Amount	1.961		Recovery	=	50.490%	
17) Surrogate Recovery (TPH)	11.77	244	2672	1.06677	ppb	0.00
Spiked Amount	1.961		Recovery	=	54.417%	

Target Compounds Qvalue

Quantitation Report

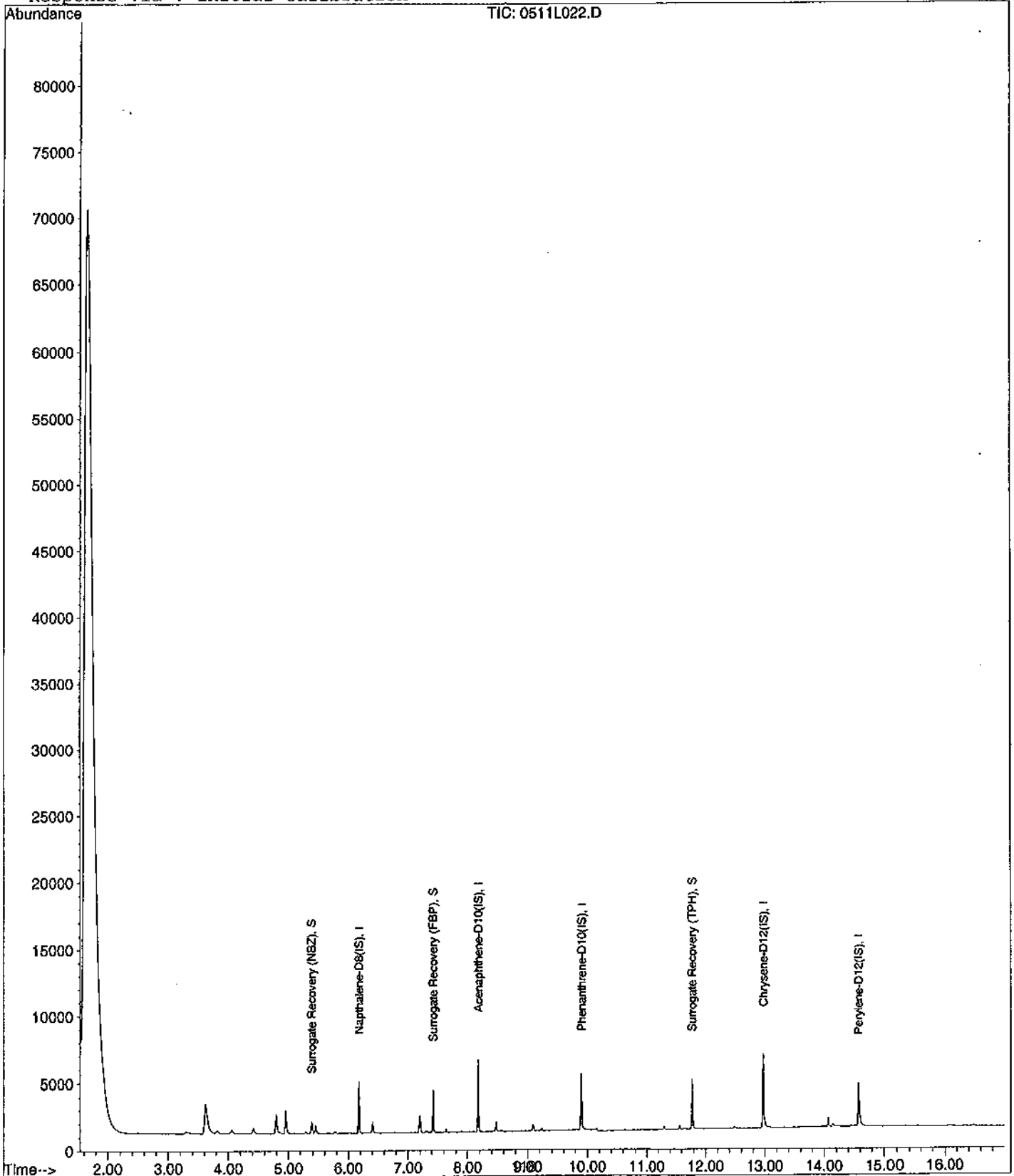
Data File : M:\LINUS\DATA\L110420\0511L022.D  
Acq On : 12 May 11 4:07  
Sample : AY36317W06 1/1020  
Misc :

Vial: 22  
Operator: LF  
Inst : Linus  
Multiplr: 0.98

Quant Time: May 16 19:06 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Mon May 16 17:08:29 2011  
Response via : Initial Calibration



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





Data File : M:\LINUS\DATA\L110420\0420L002.D  
 Acq On : 20 Apr 11 21:19  
 Sample : 0.1ug/ml PAH 04-20-11  
 Misc :

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

Quant Time: Apr 21 7:56 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	2750	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	1446	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	2979	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3352	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.56	264	2701	2.50000	ppb	-0.01

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.37	82	64	0.93191	ppb	0.00
Spiked Amount	2.000		Recovery	= 46.600%		
7) Surrogate Recovery (FBP)	7.42	172	132	0.12001	ppb	0.00
Spiked Amount	2.000		Recovery	= 6.000%		
17) Surrogate Recovery (TPH)	11.77	244	182	0.15071	ppb	0.00
Spiked Amount	2.000		Recovery	= 7.550%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.19	128	198	0.12596	ppb	96
4) 2-Methylnaphthalene	6.99	142	128	0.14277	ppb	93
5) 1-Methylnaphthalene	7.10	142	118	0.11218	ppb	91
8) Acenaphthylene	8.01	152	174	0.12695	ppb	97
9) Acenaphthene	8.22	154	98	0.11945	ppb	96
10) Fluorene	8.82	166	122	0.12565	ppb	95
12) Phenanthrene	9.92	178	195	0.13124	ppb	# 89
13) Anthracene	9.98	178	166	0.12544	ppb	97
14) Fluoranthene	11.30	202	267	0.11122	ppb	# 96
16) Pyrene	11.56	202	267	0.14691	ppb	# 94
18) Benz (a) anthracene	12.95	228	243	0.15700	ppb	95
19) Chrysene	12.98	228	214	0.12472	ppb	# 91
20) Indeno (1,2,3-cd) pyrene	16.03	276	154	0.11147	ppb	# 98
22) Benzo (b) fluoranthene	14.13	252	207	0.15054	ppb	97
23) Benzo (k) fluoranthene	14.15	252	187	0.10870	ppb	# 87
24) Benzo (a) pyrene	14.50	252	188	0.13570	ppb	98
25) Dibenz (a,h) anthracene	16.06	278	149	0.12831	ppb	# 93
26) Benzo (g,h,i) perylene	16.45	276	179	0.14546	ppb	95

Quantitation Report

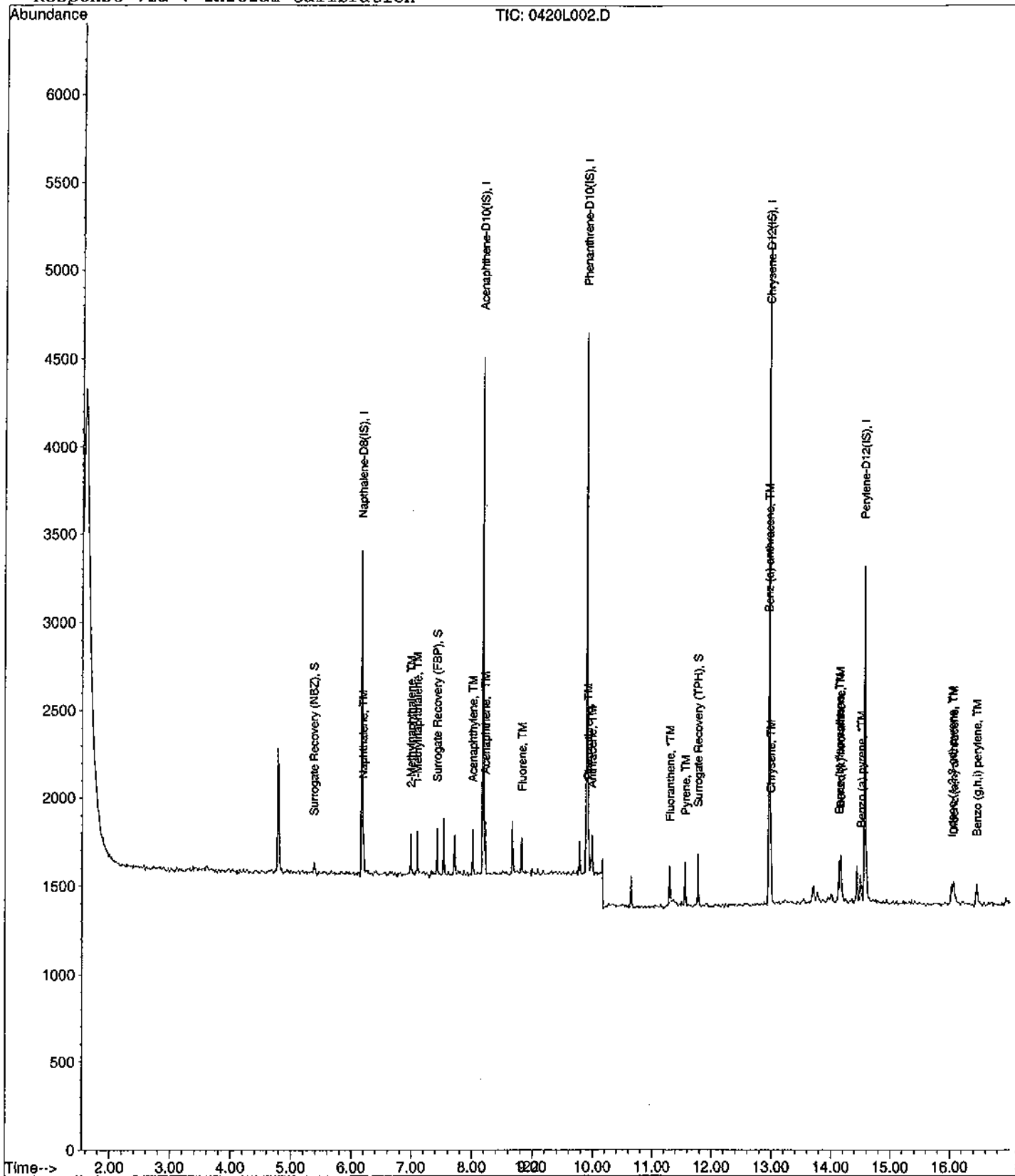
Data File : M:\LINUS\DATA\L110420\0420L002.D  
 Acq On : 20 Apr 11 21:19  
 Sample : 0.1ug/ml PAH 04-20-11  
 Misc :

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

Quant Time: Apr 21 7:56 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 08:01:22 2011  
 Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L003.D  
 Acq On : 20 Apr 11 21:44  
 Sample : 0.2ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:59 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.17	136	2832	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.18	164	1625	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	2989	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3591	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.56	264	2896	2.50000	ppb	-0.01

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.37	82	110	1.01911	ppb	0.00
Spiked Amount	2.000		Recovery	=	50.950%	
7) Surrogate Recovery (FBP)	7.42	172	294	0.23785	ppb	0.00
Spiked Amount	2.000		Recovery	=	11.900%	
17) Surrogate Recovery (TPH)	11.77	244	365	0.28213	ppb	0.00
Spiked Amount	2.000		Recovery	=	14.100%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.19	128	390	0.24092	ppb	98
4) 2-Methylnaphthalene	6.99	142	249	0.26970	ppb	96
5) 1-Methylnaphthalene	7.10	142	257	0.23725	ppb	98
8) Acenaphthylene	8.01	152	382	0.24800	ppb	99
9) Acenaphthene	8.22	154	214	0.23211	ppb	93
10) Fluorene	8.82	166	264	0.24195	ppb	95
12) Phenanthrene	9.92	178	411	0.27569	ppb	98
13) Anthracene	9.98	178	391	0.29447	ppb	99
14) Fluoranthene	11.29	202	552	0.22918	ppb	# 73
16) Pyrene	11.56	202	586	0.30098	ppb	97
18) Benz (a) anthracene	12.95	228	500	0.30155	ppb	98
19) Chrysene	13.00	228	434	0.23610	ppb	99
20) Indeno (1,2,3-cd) pyrene	16.03	276	310	0.20945	ppb	# 100
22) Benzo (b) fluoranthene	14.13	252	431	0.29234	ppb	# 97
23) Benzo (k) fluoranthene	14.16	252	435	0.23583	ppb	98
24) Benzo (a) pyrene	14.50	252	382	0.25717	ppb	97
25) Dibenz (a,h) anthracene	16.06	278	319	0.25621	ppb	# 95
26) Benzo (g,h,i) perylene	16.45	276	323	0.24480	ppb	# 89

Quantitation Report

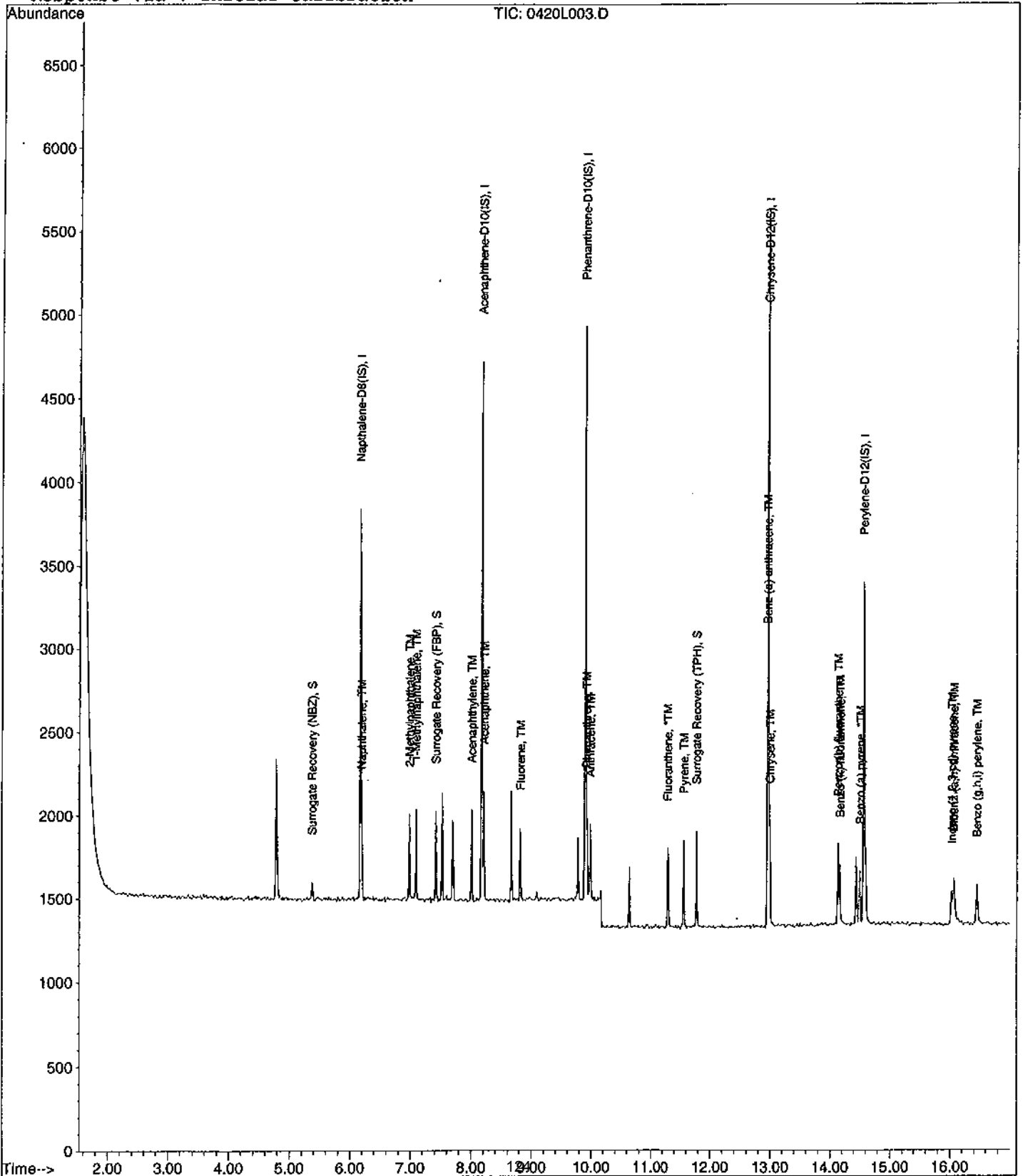
Data File : M:\LINUS\DATA\L110420\0420L003.D  
 Acq On : 20 Apr 11 21:44  
 Sample : 0.2ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:59 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 08:01:22 2011  
 Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L004.D Vial: 4  
 Acq On : 20 Apr 11 22:10 Operator: LF  
 Sample : 0.5ug/ml PAH Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Apr 21 7:47 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.17	136	3011	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.18	164	1656	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	3295	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3783	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.56	264	3007	2.50000	ppb	-0.01
<b>System Monitoring Compounds</b>						
2) Surrogate Recovery (NBZ)	5.37	82	181	1.13824	ppb	0.00
Spiked Amount	2.000		Recovery	=	56.900%	
7) Surrogate Recovery (FBP)	7.42	172	720	0.57158	ppb	0.00
Spiked Amount	2.000		Recovery	=	28.600%	
17) Surrogate Recovery (TPH)	11.77	244	941	0.69045	ppb	0.00
Spiked Amount	2.000		Recovery	=	34.500%	
<b>Target Compounds</b>						
						Qvalue
3) Naphthalene	6.19	128	1016	0.59031	ppb	99
4) 2-Methylnaphthalene	6.99	142	680	0.69274	ppb	99
5) 1-Methylnaphthalene	7.10	142	641	0.55655	ppb	100
8) Acenaphthylene	8.01	152	989	0.63005	ppb	100
9) Acenaphthene	8.22	154	585	0.62263	ppb	99
10) Fluorene	8.82	166	680	0.61155	ppb	99
12) Phenanthrene	9.93	178	1060	0.64499	ppb	99
13) Anthracene	9.98	178	848	0.57933	ppb	99
14) Fluoranthene	11.30	202	1435	0.54045	ppb	98
16) Pyrene	11.56	202	1536	0.74888	ppb	99
18) Benz (a) anthracene	12.95	228	1305	0.74709	ppb	97
19) Chrysene	12.98	228	1163	0.60057	ppb	# 90
20) Indeno (1,2,3-cd) pyrene	16.02	276	1045	0.67023	ppb	# 87
22) Benzo (b) fluoranthene	14.13	252	1177	0.76887	ppb	# 96
23) Benzo (k) fluoranthene	14.15	252	1142	0.59627	ppb	# 94
24) Benzo (a) pyrene	14.50	252	963	0.62439	ppb	98
25) Dibenz (a,h) anthracene	16.06	278	830	0.64202	ppb	# 96
26) Benzo (g,h,i) perylene	16.45	276	916	0.66862	ppb	95

Quantitation Report

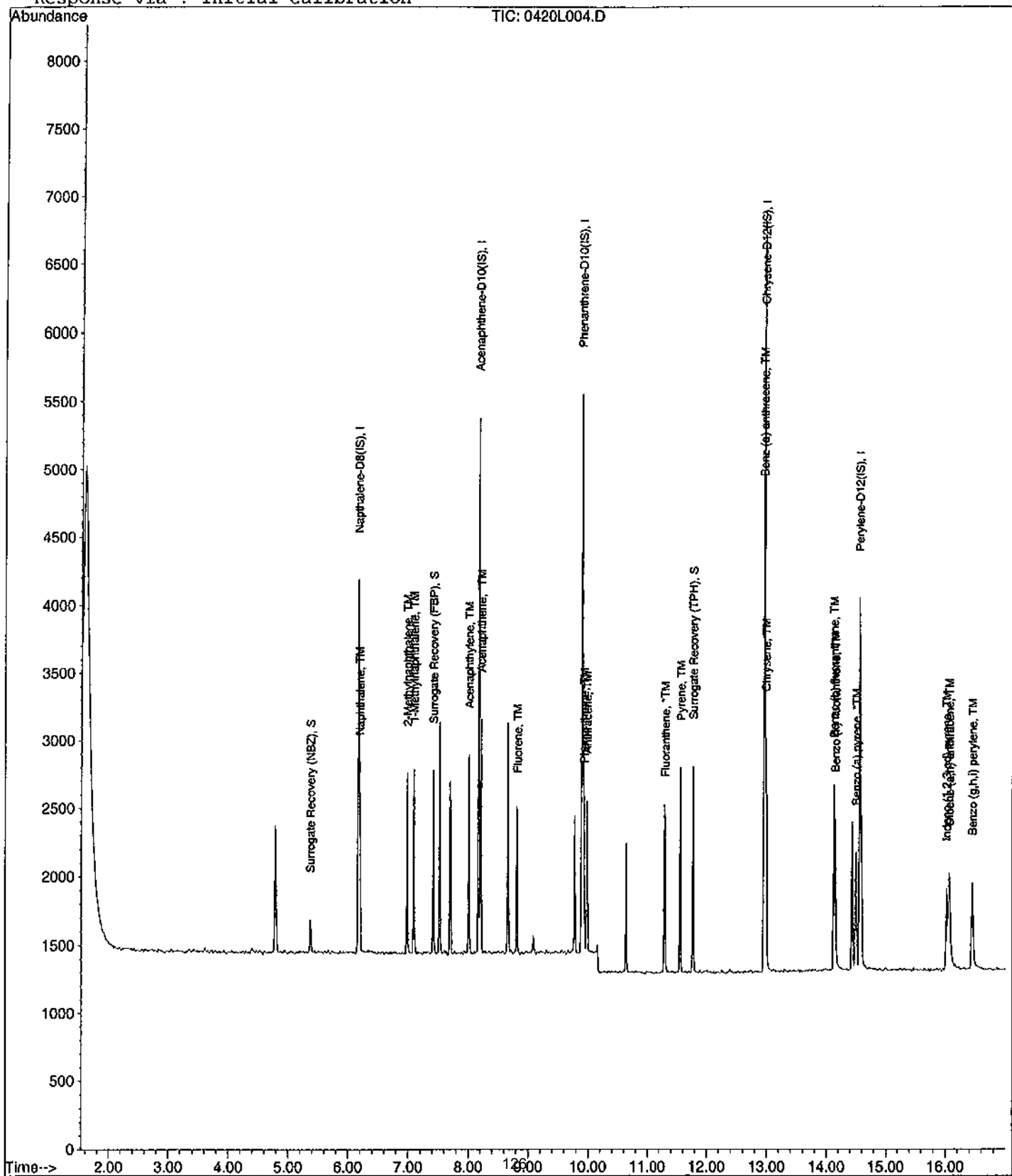
Data File : M:\LINUS\DATA\L110420\0420L004.D  
 Acq On : 20 Apr 11 22:10  
 Sample : 0.5ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 08:01:22 2011  
 Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L005.D  
 Acq On : 20 Apr 11 22:35  
 Sample : 1.0ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.17	136	3066	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.18	164	1685	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	3423	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3982	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.56	264	3191	2.50000	ppb	-0.01

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.37	82	338	1.41900	ppb	0.00
Spiked Amount	2.000		Recovery	=	70.950%	
7) Surrogate Recovery (FBP)	7.42	172	1440	1.12348	ppb	0.00
Spiked Amount	2.000		Recovery	=	56.150%	
17) Surrogate Recovery (TPH)	11.77	244	1896	1.32165	ppb	0.00
Spiked Amount	2.000		Recovery	=	66.100%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.19	128	1971	1.12463	ppb	99
4) 2-Methylnaphthalene	6.99	142	1314	1.31460	ppb	99
5) 1-Methylnaphthalene	7.10	142	1270	1.08291	ppb	98
8) Acenaphthylene	8.01	152	1918	1.20085	ppb	100
9) Acenaphthene	8.22	154	1110	1.16107	ppb	99
10) Fluorene	8.82	166	1319	1.16580	ppb	100
12) Phenanthrene	9.92	178	2083	1.22006	ppb	96
13) Anthracene	9.98	178	1686	1.10876	ppb	100
14) Fluoranthene	11.29	202	2944	1.06731	ppb	# 77
16) Pyrene	11.56	202	3033	1.40485	ppb	98
18) Benz (a) anthracene	12.95	228	2674	1.45432	ppb	98
19) Chrysene	13.00	228	2393	1.17398	ppb	99
20) Indeno (1,2,3-cd) pyrene	16.03	276	1657	1.00964	ppb	# 96
22) Benzo (b) fluoranthene	14.13	252	2327	1.43244	ppb	98
23) Benzo (k) fluoranthene	14.15	252	2269	1.11639	ppb	# 94
24) Benzo (a) pyrene	14.50	252	2070	1.26475	ppb	97
25) Dibenz (a,h) anthracene	16.07	278	1709	1.24572	ppb	# 94
26) Benzo (g,h,i) perylene	16.45	276	1888	1.29865	ppb	95

Quantitation Report

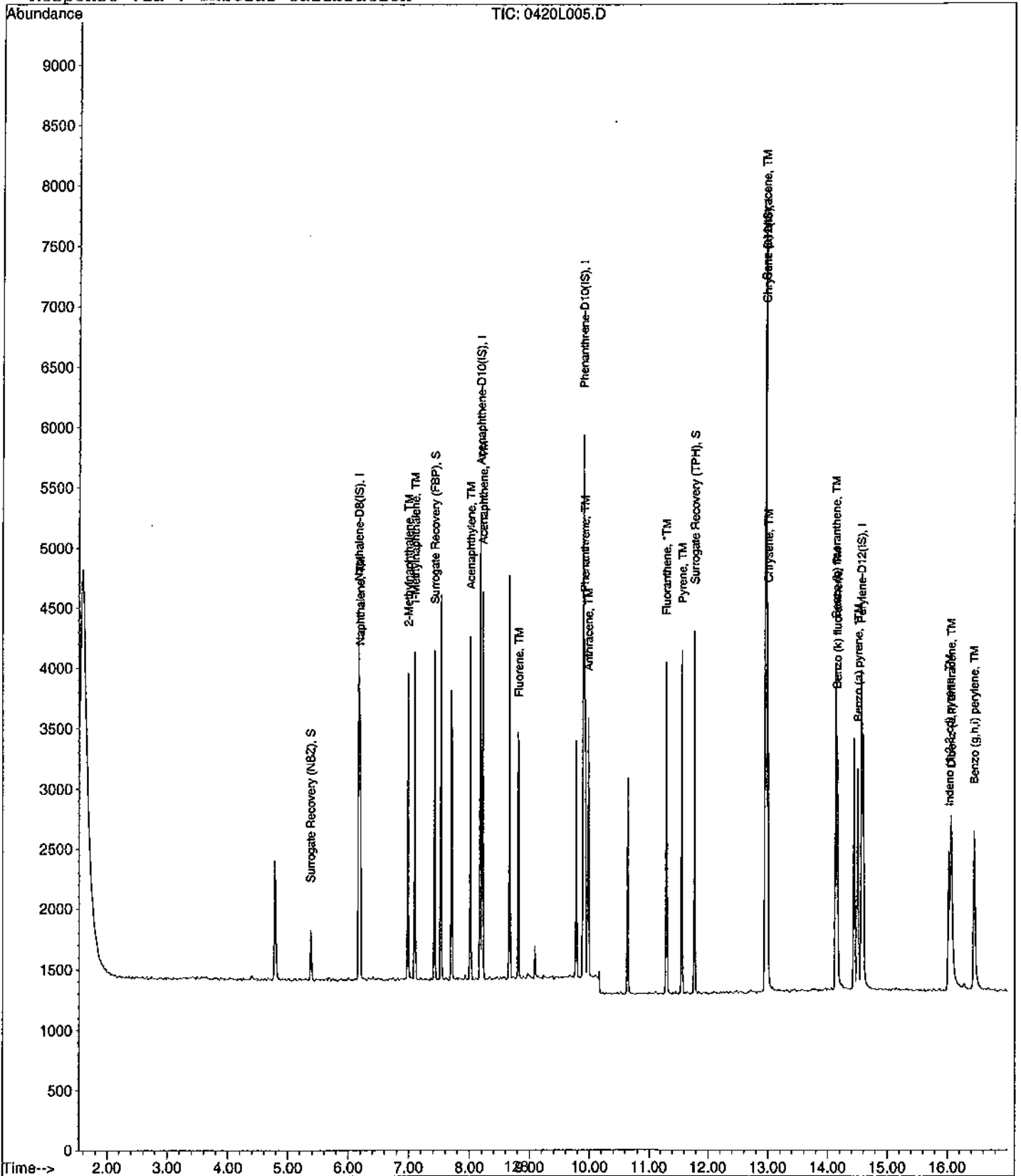
Data File : M:\LINUS\DATA\L110420\0420L005.D  
 Acq On : 20 Apr 11 22:35  
 Sample : 1.0ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 08:01:22 2011  
 Response via : Initial Calibration





Data File : M:\LINUS\DATA\L110420\0420L006.D  
 Acq On : 20 Apr 11 23:01  
 Sample : 5.0ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 8:00 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.17	136	2790	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.18	164	1524	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	2709	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3273	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.57	264	2558	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.37	82	1341	3.49355	ppb	0.00
Spiked Amount	2.000		Recovery	=	174.700%	
7) Surrogate Recovery (FBP)	7.42	172	5488	4.73402	ppb	0.00
Spiked Amount	2.000		Recovery	=	236.700%	
17) Surrogate Recovery (TPH)	11.77	244	7213	6.11714	ppb	0.00
Spiked Amount	2.000		Recovery	=	305.850%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Napthalene	6.19	128	7737	4.85135	ppb	100
4) 2-Methylnaphthalene	6.99	142	5291	5.81705	ppb	100
5) 1-Methylnaphthalene	7.10	142	5047	4.72921	ppb	100
8) Acenaphthylene	8.01	152	7691	5.32400	ppb	100
9) Acenaphthene	8.22	154	4524	5.23207	ppb	100
10) Fluorene	8.82	166	5261	5.14120	ppb	100
12) Phenanthrene	9.93	178	8054	5.96078	ppb	100
13) Anthracene	9.98	178	6890	5.72527	ppb	100
14) Fluoranthene	11.30	202	11331	5.19063	ppb	100
16) Pyrene	11.56	202	11712	6.60000	ppb	100
18) Benz (a) anthracene	12.95	228	10269	6.79490	ppb	100
19) Chrysene	13.00	228	9441	5.63498	ppb	100
20) Indeno (1,2,3-cd) pyrene	16.03	276	6555	4.85927	ppb	100
22) Benzo (b) fluoranthene	14.13	252	8792	6.75142	ppb	100
23) Benzo (k) fluoranthene	14.16	252	9484	5.82101	ppb	100
24) Benzo (a) pyrene	14.50	252	8298	6.32459	ppb	100
25) Dibenz (a,h) anthracene	16.08	278	6755	6.14230	ppb	100
26) Benzo (g,h,i) perylene	16.46	276	7423	6.36935	ppb	100

Quantitation Report

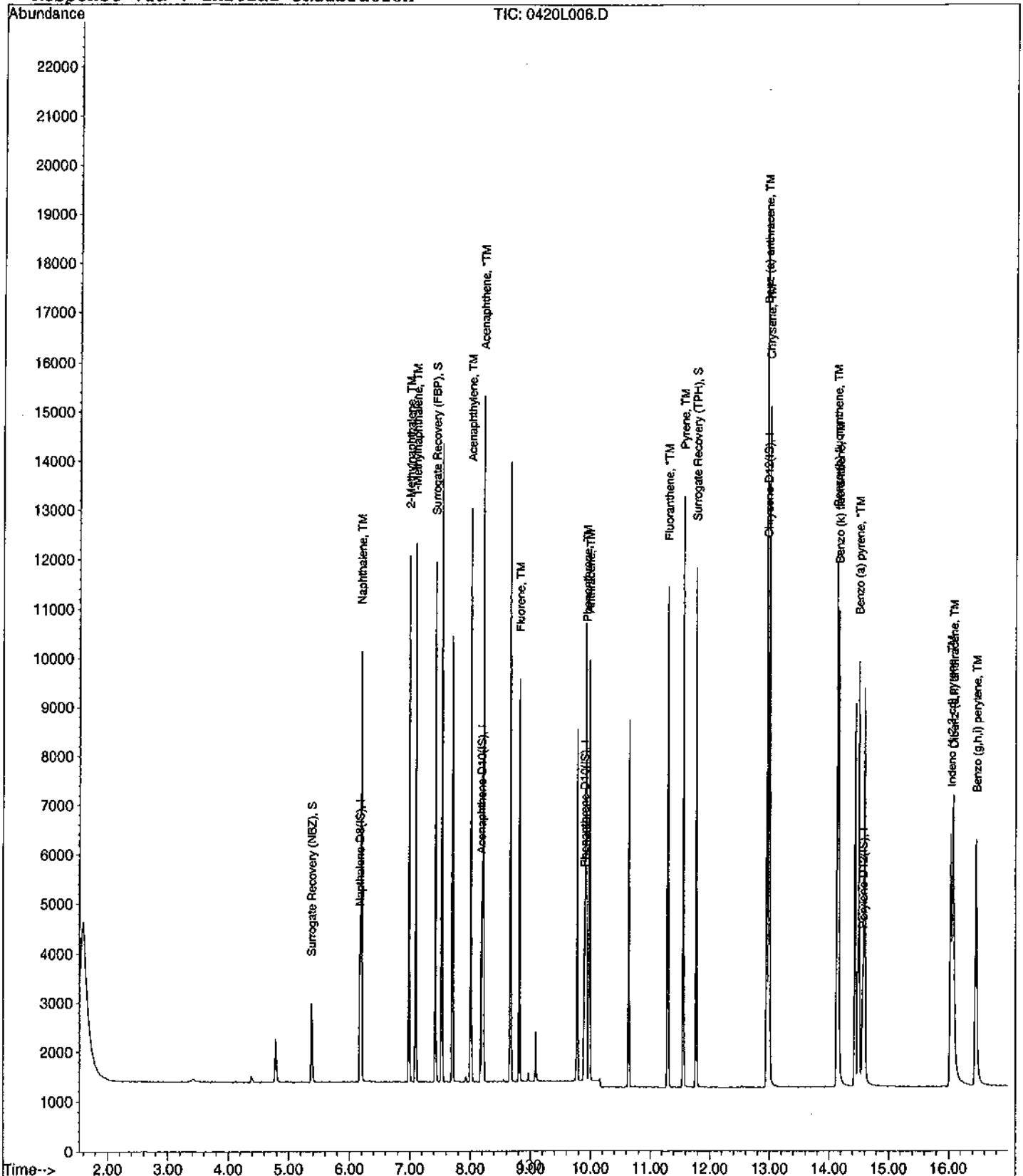
Data File : M:\LINUS\DATA\L110420\0420L006.D  
 Acq On : 20 Apr 11 23:01  
 Sample : 5.0ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 8:00 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 08:01:22 2011  
 Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L007.D  
 Acq On : 20 Apr 11 23:27  
 Sample : 10ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.17	136	2769	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.18	164	1507	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	2912	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3578	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.57	264	2756	2.50000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	5.37	82	2993	6.85542	ppb	0.00
Spiked Amount	2.000		Recovery	= 342.750%		
7) Surrogate Recovery (FBP)	7.42	172	11986	10.45592	ppb	0.00
Spiked Amount	2.000		Recovery	= 522.800%		
17) Surrogate Recovery (TPH)	11.77	244	16134	12.51641	ppb	0.00
Spiked Amount	2.000		Recovery	= 625.800%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.19	128	17043	10.76756	ppb	100
4) 2-Methylnaphthalene	6.99	142	11865	13.14360	ppb	99
5) 1-Methylnaphthalene	7.10	142	11371	10.73581	ppb	99
8) Acenaphthylene	8.01	152	17625	12.33833	ppb	99
9) Acenaphthene	8.22	154	10131	11.84881	ppb	97
10) Fluorene	8.82	166	12146	12.00331	ppb	97
12) Phenanthrene	9.93	178	17781	12.24236	ppb	99
13) Anthracene	9.98	178	15088	11.66342	ppb	99
14) Fluoranthene	11.30	202	25519	10.87509	ppb	100
16) Pyrene	11.56	202	26680	13.75321	ppb	100
18) Benz (a) anthracene	12.95	228	22906	13.86467	ppb	99
19) Chrysene	13.00	228	21271	11.61363	ppb	100
20) Indeno (1,2,3-cd) pyrene	16.03	276	16828	11.41132	ppb	94
22) Benzo (b) fluoranthene	14.13	252	25117	17.90180	ppb	98
23) Benzo (k) fluoranthene	14.16	252	17323	9.86849	ppb	99
24) Benzo (a) pyrene	14.50	252	19179	13.56771	ppb	99
25) Dibenz (a,h) anthracene	16.08	278	16880	14.24622	ppb	99
26) Benzo (g,h,i) perylene	16.46	276	17374	13.83684	ppb	97

Quantitation Report

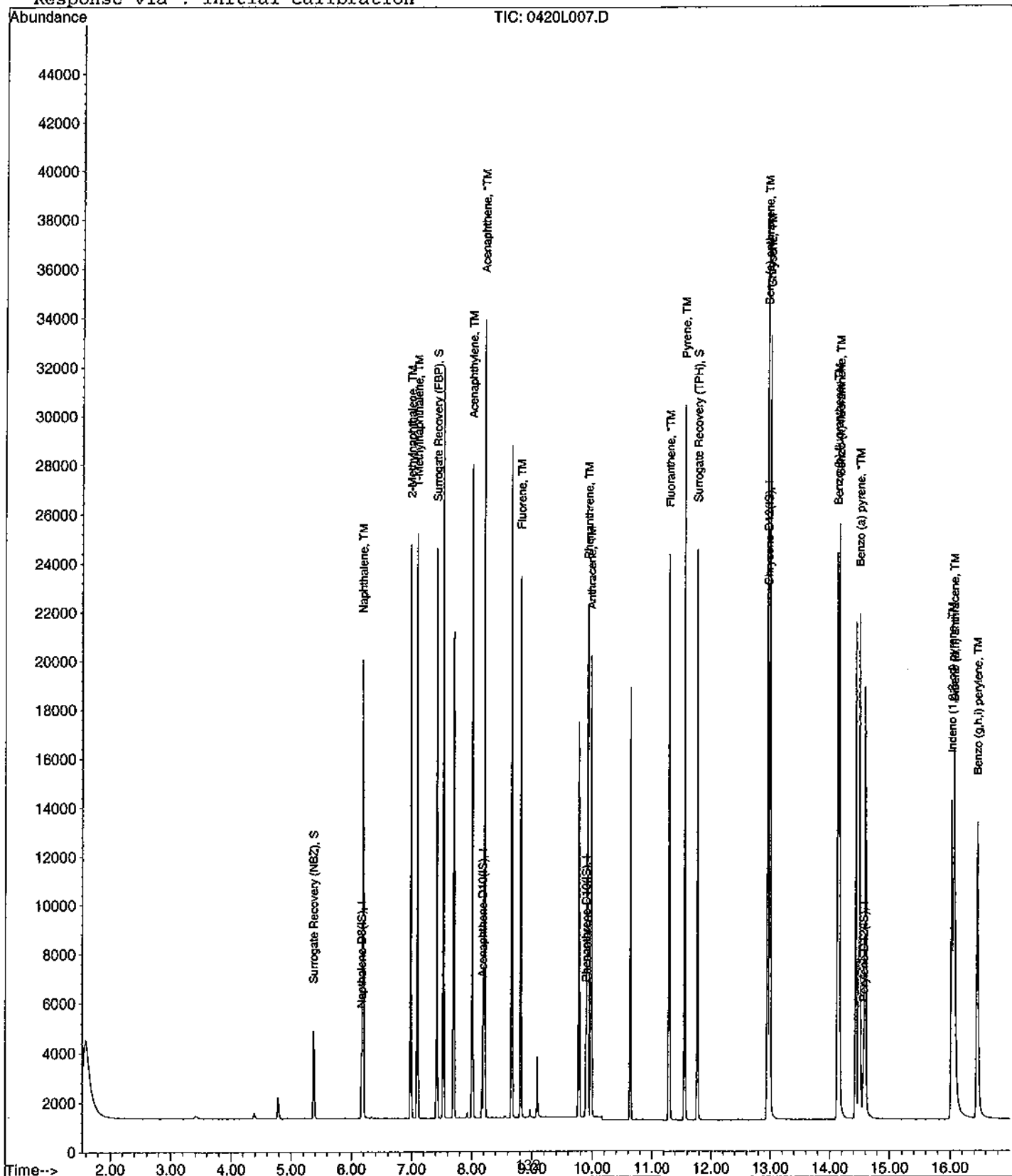
Data File : M:\LINUS\DATA\L110420\0420L007.D  
Acq On : 20 Apr 11 23:27  
Sample : 10ug/ml PAH  
Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Apr 21 08:01:22 2011  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L008.D  
 Acq On : 20 Apr 11 23:52  
 Sample : 50ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	2619	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	1461	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	2706	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	3281	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.57	264	2626	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.38	82	14429	31.65824	ppb	0.01
Spiked Amount	2.000		Recovery	= 1582.900%		
7) Surrogate Recovery (FBP)	7.42	172	45452	40.89818	ppb	0.00
Spiked Amount	2.000		Recovery	= 2044.900%		
17) Surrogate Recovery (TPH)	11.78	244	61204	51.77877	ppb	0.01
Spiked Amount	2.000		Recovery	= 2588.950%		
Target Compounds						
						Qvalue
3) Naphthalene	6.20	128	66602	44.48830	ppb	97
4) 2-Methylnaphthalene	6.99	142	45324	53.08384	ppb	99
5) 1-Methylnaphthalene	7.10	142	42121	42.04578	ppb	98
8) Acenaphthylene	8.01	152	65610	47.37621	ppb	98
9) Acenaphthene	8.22	154	37925	45.75211	ppb	95
10) Fluorene	8.82	166	46744	47.64930	ppb	95
12) Phenanthrene	9.93	178	67803	50.23672	ppb	98
13) Anthracene	9.99	178	58810	48.92254	ppb	98
14) Fluoranthene	11.30	202	97789	44.84590	ppb	# 91
16) Pyrene	11.56	202	99166	55.74620	ppb	# 90
18) Benz (a) anthracene	12.96	228	89321	58.95873	ppb	95
19) Chrysene	13.00	228	81106	48.29111	ppb	# 94
20) Indeno (1,2,3-cd) pyrene	16.04	276	71595	52.94444	ppb	# 85
22) Benzo (b) fluoranthene	14.14	252	85119	63.67074	ppb	# 97
23) Benzo (k) fluoranthene	14.17	252	77135	46.11729	ppb	# 97
24) Benzo (a) pyrene	14.51	252	75395	55.97673	ppb	98
25) Dibenz (a,h) anthracene	16.09	278	71307	63.16027	ppb	97
26) Benzo (g,h,i) perylene	16.48	276	71255	59.55756	ppb	97

Quantitation Report

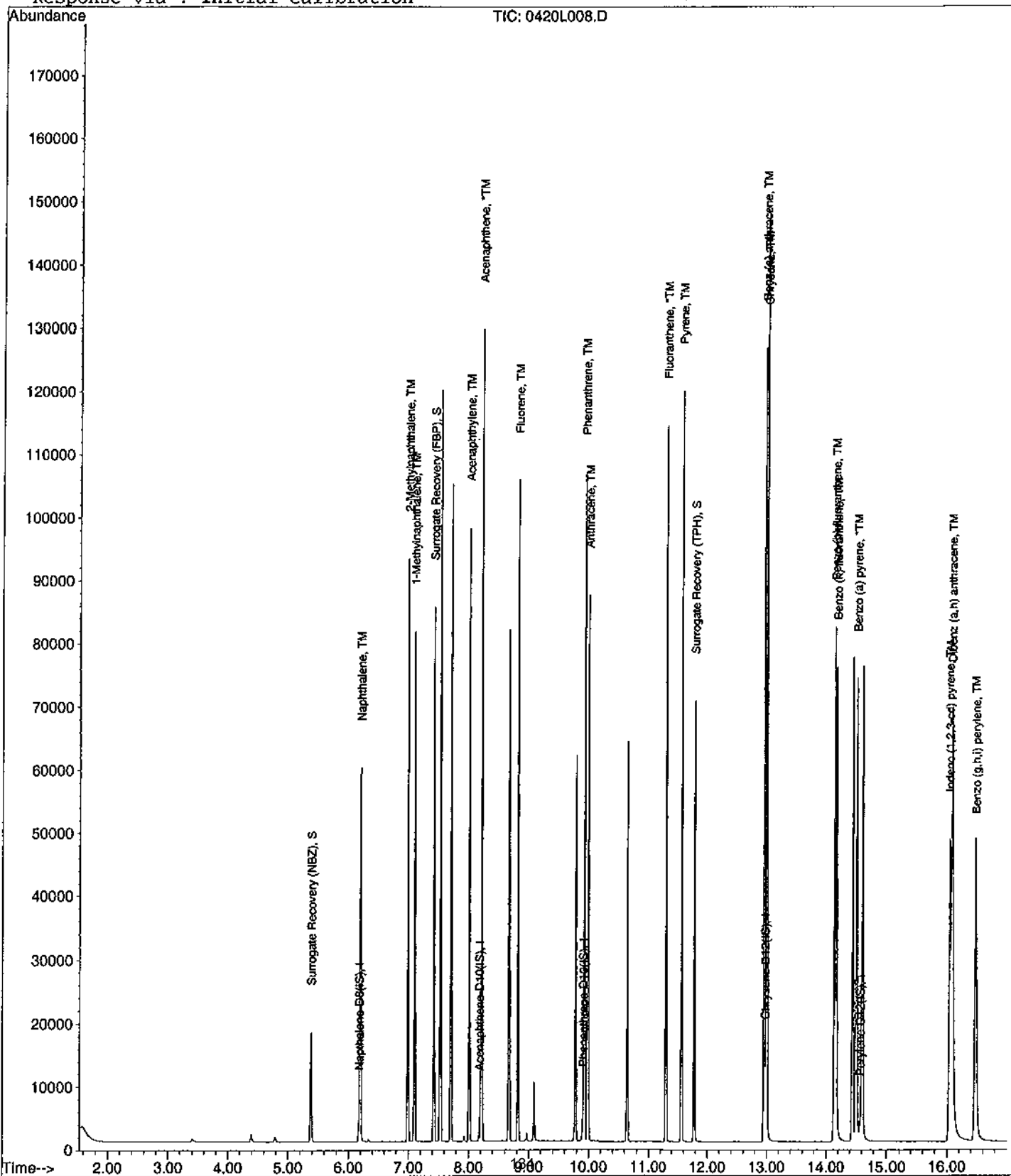
Data File : M:\LINUS\DATA\L110420\0420L008.D  
 Acq On : 20 Apr 11 23:52  
 Sample : 50ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 08:01:22 2011  
 Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L009.D Vial: 9  
 Acq On : 21 Apr 11 00:18 Operator: LF  
 Sample : 100ug/ml PAH Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Apr 21 7:47 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QI on	Response	Conc	Units	Dev (Min)
1) Napthalene-D8 (IS)	6.18	136	2444	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	1291	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	2528	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	3267	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.58	264	2538	2.50000	ppb	0.01

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.38	82	29768	69.01924	ppb	0.01
Spiked Amount	2.000					
						Recovery = 3450.950%
7) Surrogate Recovery (FBP)	7.42	172	79340	80.79178	ppb	0.00
Spiked Amount	2.000					
						Recovery = 4039.600%
17) Surrogate Recovery (TPH)	11.78	244	108916	92.53813	ppb	0.01
Spiked Amount	2.000					
						Recovery = 4626.900%

Target Compounds

	R.T.	QI on	Response	Conc	Units	Qvalue
3) Naphthalene	6.20	128	122757	87.86969	ppb	98
4) 2-Methylnaphthalene	6.99	142	79622	99.93128	ppb	97
5) 1-Methylnaphthalene	7.10	142	73299	78.40723	ppb	97
8) Acenaphthylene	8.01	152	116577	95.26364	ppb	98
9) Acenaphthene	8.22	154	65819	89.85884	ppb	91
10) Fluorene	8.82	166	79247	91.41921	ppb	93
12) Phenanthrene	9.93	178	116627	92.49584	ppb	97
13) Anthracene	9.99	178	100235	89.25404	ppb	99
14) Fluoranthene	11.30	202	171669	84.27046	ppb #	81
16) Pyrene	11.57	202	183086	103.36291	ppb #	94
18) Benz (a) anthracene	12.96	228	163204	108.18883	ppb	98
19) Chrysene	13.01	228	146416	87.55074	ppb	98
20) Indeno (1,2,3-cd) pyrene	16.06	276	135700	100.78006	ppb #	100
22) Benzo (b) fluoranthene	14.14	252	172982	133.88053	ppb	98
23) Benzo (k) fluoranthene	14.17	252	117353	72.59548	ppb #	96
24) Benzo (a) pyrene	14.52	252	137988	106.00087	ppb #	96
25) Dibenz (a,h) anthracene	16.10	278	134639	123.39165	ppb #	94
26) Benzo (g,h,i) perylene	16.50	276	135242	116.95971	ppb #	93

Quantitation Report

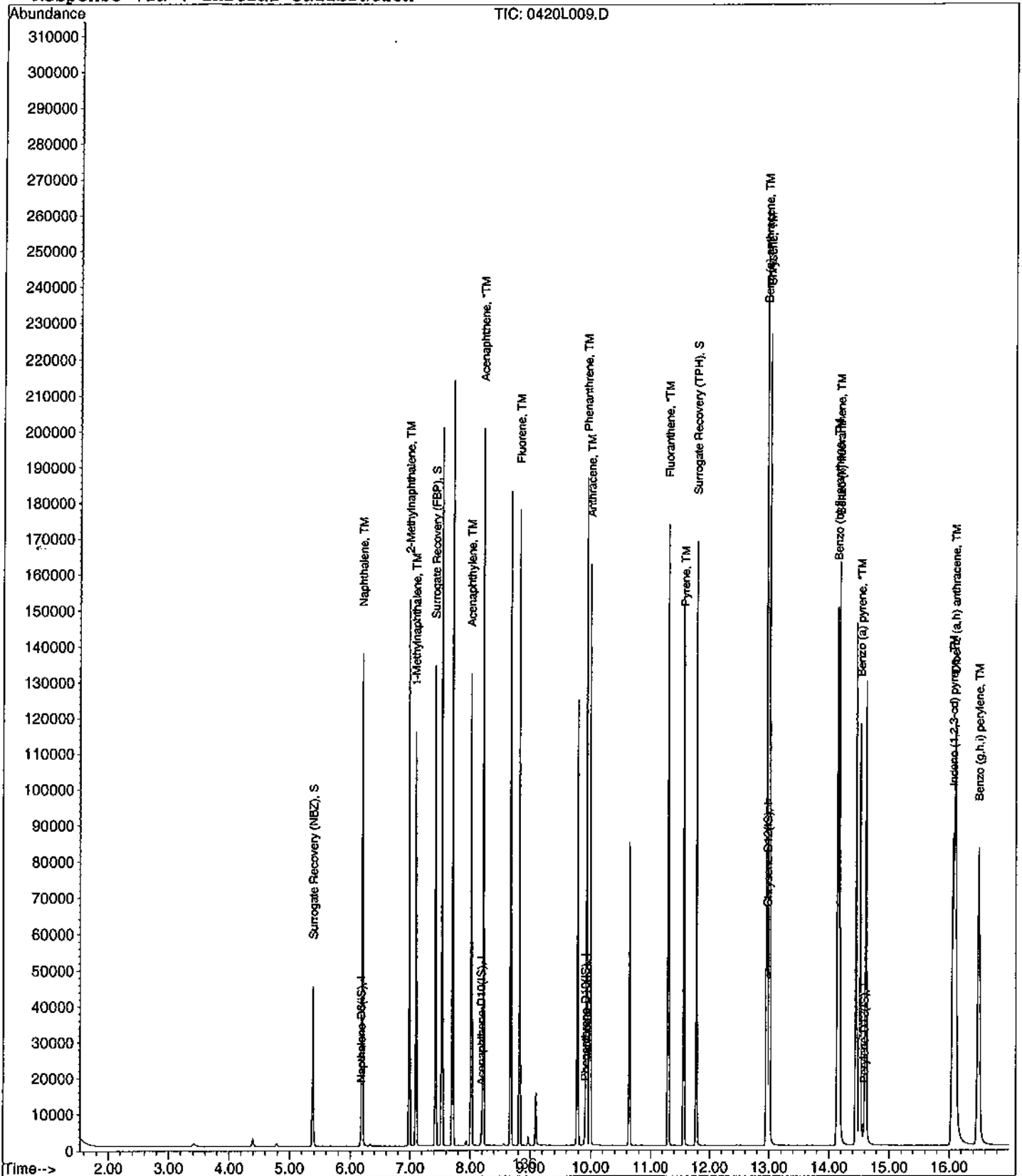
Data File : M:\LINUS\DATA\L110420\0420L009.D  
 Acq On : 21 Apr 11 00:18  
 Sample : 100ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 08:01:22 2011  
 Response via : Initial Calibration





EPA 8270C SIM

Form 7

Second Source Calibration

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

SDG No: 64475  
 Date Analyzed: 04/21/11  
 Instrument: Linus  
 Initial Cal. Date: 04/20/11  
 Data File: 0420L010.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Naphthalene-D8(IS)	ISTD			I
2	TM	Naphthalene	1.534	1.383	9.8	TM
3	TM	2-Methylnaphthalene	1.020	0.9392	7.9	TM
4	TM	1-Methylnaphthalene	0.9740	0.8971	7.9	TM
5	I	Acenaphthene-D10(IS)	ISTD			I
6	TM	Acenaphthylene	2.716	2.677	1.4	TM
7	*TM	Acenaphthene	1.561	1.533	1.8	*TM
8	TM	Fluorene	1.878	1.836	2.2	TM
9	I	Phenanthrene-D10(IS)	ISTD			I
10	TM	Phenanthrene	1.488	1.476	0.87	TM
11	TM	Anthracene	1.274	1.205	5.4	TM
12	*TM	Fluoranthene	2.083	2.039	2.1	*TM
13	I	Chrysene-D12(IS)	ISTD			I
14	TM	Pyrene	1.816	1.779	2.1	TM
15	TM	Benz (a) anthracene	1.592	1.520	4.5	TM
16	TM	Chrysene	1.429	1.414	1.0	TM
17	TM	Indeno (1,2,3-cd) pyrene	1.119	1.044	6.7	TM
18	I	Perylene-D12(IS)	ISTD			I
19	TM	Benzo (b) fluoranthene	1.860	1.719	7.6	TM
20	TM	Benzo (k) fluoranthene	1.667	1.897	14	TM
21	*TM	Benzo (a) pyrene	1.596	1.612	1.0	*TM
22	TM	Dibenz (a,h) anthracene	1.376	1.373	0.22	TM
23	TM	Benzo (g,h,i) perylene	1.471	1.452	1.3	TM
24						
25						
26						
27						
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34						
35						
36						
37						
38						
39						
40						

Average

4.3

Data File : M:\LINUS\DATA\L110420\0420L010.D Vial: 10  
 Acq On : 21 Apr 11 00:43 Operator: LF  
 Sample : 5.0ug/ml PAH SS 04-11-11 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Apr 21 8:03 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 08:01:22 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.17	136	2897	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.18	164	1519	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	2825	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3364	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.57	264	2611	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	0.00	82	0d	0.60610	ppb	
Spiked Amount	2.000		Recovery	=	30.300%	
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

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.19	128	8015	4.51029	ppb	100
4) 2-Methylnaphthalene	6.99	142	5442	4.60274	ppb	100
5) 1-Methylnaphthalene	7.10	142	5198	4.60535	ppb	99
8) Acenaphthylene	8.01	152	8132	4.92763	ppb	100
9) Acenaphthene	8.22	154	4657	4.90884	ppb	98
10) Fluorene	8.82	166	5579	4.88878	ppb	99
12) Phenanthrene	9.93	178	8334	4.95633	ppb	99
13) Anthracene	9.99	178	6810	4.73072	ppb	97
14) Fluoranthene	11.30	202	11518	4.89349	ppb	99
16) Pyrene	11.56	202	11969	4.89704	ppb	100
18) Benz (a) anthracene	12.95	228	10225	4.77324	ppb	99
19) Chrysene	13.00	228	9515	4.94869	ppb	100
20) Indeno (1,2,3-cd) pyrene	16.03	276	7026	4.66422	ppb	# 92
22) Benzo (b) fluoranthene	14.13	252	8978	4.62229	ppb	99
23) Benzo (k) fluoranthene	14.16	252	9906	5.69029	ppb	99
24) Benzo (a) pyrene	14.50	252	8418	5.05004	ppb	99
25) Dibenz (a,h) anthracene	16.08	278	7171	4.98877	ppb	99
26) Benzo (g,h,i) perylene	16.46	276	7582	4.93474	ppb	98

Quantitation Report

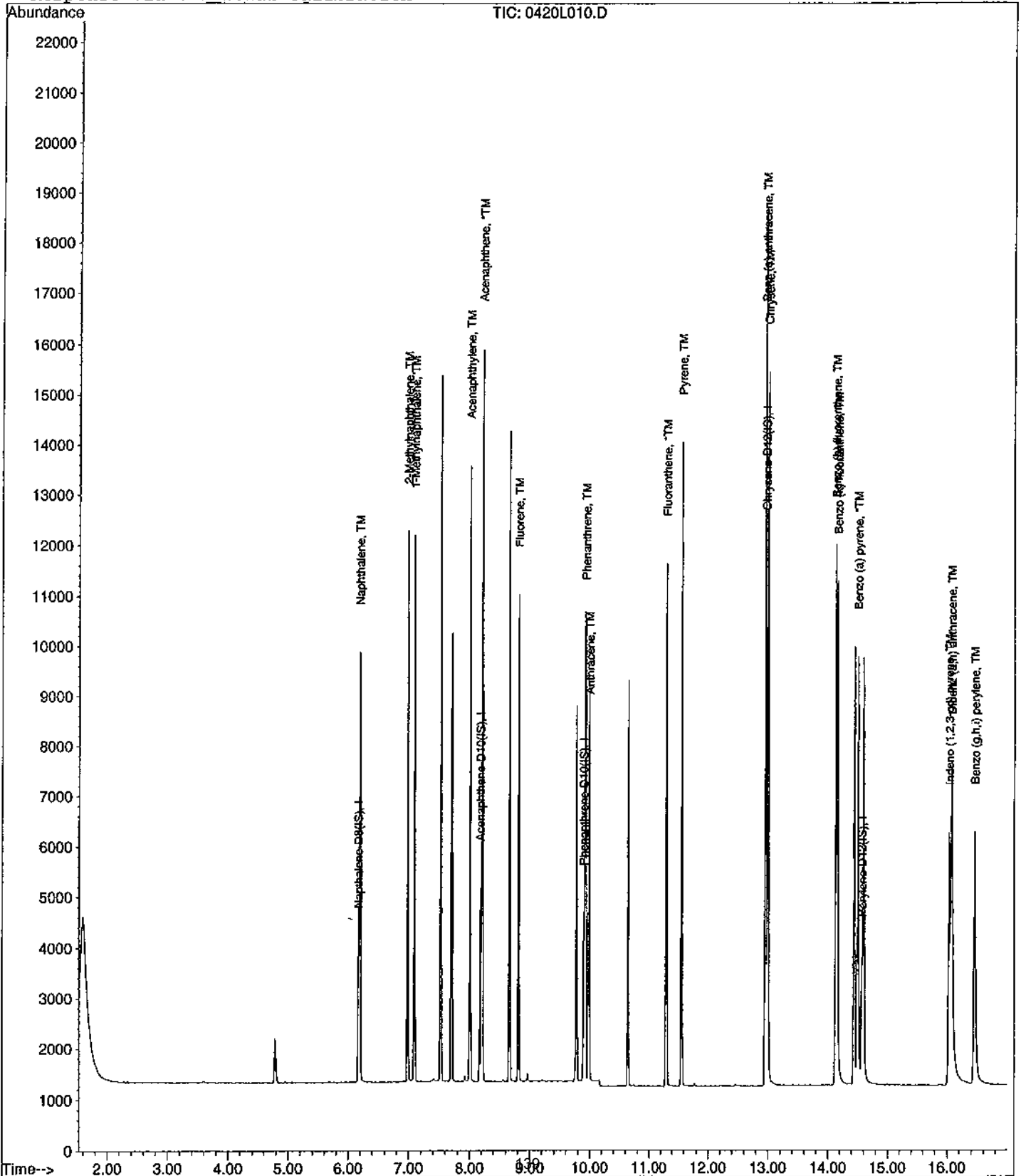
Data File : M:\LINUS\DATA\L110420\0420L010.D  
 Acq On : 21 Apr 11 00:43  
 Sample : 5.0ug/ml PAH SS 04-11-11  
 Misc :

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

Quant Time: Apr 21 8:03 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 08:01:22 2011  
 Response via : Initial Calibration



EPA 8270C SIM

Form 7

Continuing Calibration

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

SDG No: 64475  
 Date Analyzed: 05/11/11  
 Instrument: Linus  
 Initial Cal. Date: 04/20/11  
 Data File: 0511L002.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Napthalene-D8(IS)	ISTD			I
2	SL	Surrogate Recovery (NBZ)	0.3418	0.2711	21	SL 2.2
3	TM	Naphthalene	1.534	1.491	2.8	TM
4	TM	2-Methylnaphthalene	1.020	0.9869	3.3	TM
5	TM	1-Methylnaphthalene	0.9740	0.9457	2.9	TM
6	I	Acenaphthene-D10(IS)	ISTD			I
7	S	Surrogate Recovery (FBP)	1.967	2.158	9.7	S
8	TM	Acenaphthylene	2.716	3.032	12	TM
9	*TM	Acenaphthene	1.661	1.758	13	*TM
10	TM	Fluorene	1.878	2.026	7.9	TM
11	I	Phenanthrene-D10(IS)	ISTD			I
12	TM	Phenanthrene	1.488	1.676	13	TM
13	TM	Anthracene	1.274	1.317	3.4	TM
14	*TM	Fluoranthene	2.083	2.171	4.2	*TM
15	I	Chrysene-D12(IS)	ISTD			I
16	TM	Pyrene	1.816	1.897	4.4	TM
17	S	Surrogate Recovery (TPH)	1.100	1.064	3.2	S
18	TM	Benz (a) anthracene	1.592	1.587	0.29	TM
19	TM	Chrysene	1.429	1.360	4.8	TM
20	TM	Indeno (1,2,3-cd) pyrene	1.119	1.260	13	TM
21	I	Perylene-D12(IS)	ISTD			I
22	TM	Benzo (b) fluoranthene	1.860	1.670	10	TM
23	TM	Benzo (k) fluoranthene	1.667	1.936	16	TM
24	*TM	Benzo (a) pyrene	1.596	1.646	3.1	*TM
25	TM	Dibenz (a,h) anthracene	1.376	1.317	4.3	TM
26	TM	Benzo (g,h,i) perylene	1.471	1.391	5.5	TM
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

Average

7.5

Data File : M:\LINUS\DATA\L110420\0511L002.D  
 Acq On : 11 May 11 19:37  
 Sample : 5.0ug/ml PAH 04-20-11  
 Misc :

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

Quant Time: May 13 19:35 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed May 11 10:12:00 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	3787	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	1816	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	3185	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	4398	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.58	264	3396	2.50000	ppb	0.01

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.38	82	2053	5.11233	ppb	0.01
Spiked Amount	2.000		Recovery	=	255.600%	
7) Surrogate Recovery (FBP)	7.42	172	7838	5.48598	ppb	0.00
Spiked Amount	2.000		Recovery	=	274.300%	
17) Surrogate Recovery (TPH)	11.78	244	9362	4.83796	ppb	0.01
Spiked Amount	2.000		Recovery	=	241.900%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Napthalene	6.20	128	11292	4.86099	ppb	97
4) 2-Methylnaphthalene	6.99	142	7475	4.83640	ppb	98
5) 1-Methylnaphthalene	7.10	142	7163	4.85484	ppb	98
8) Acenaphthylene	8.01	152	11012	5.58147	ppb	99
9) Acenaphthene	8.22	154	6386	5.63046	ppb	96
10) Fluorene	8.82	166	7359	5.39393	ppb	98
12) Phenanthrene	9.93	178	10672	5.62940	ppb	99
13) Anthracene	9.99	178	8390	5.16953	ppb	97
14) Fluoranthene	11.30	202	13827	5.21049	ppb	88
16) Pyrene	11.56	202	16682	5.22065	ppb #	82
18) Benz (a) anthracene	12.96	228	13962	4.98538	ppb	95
19) Chrysene	13.00	228	11962	4.75868	ppb #	94
20) Indeno (1,2,3-cd) pyrene	16.05	276	11084	5.62818	ppb	91
22) Benzo (b) fluoranthene	14.14	252	11345	4.49078	ppb	100
23) Benzo (k) fluoranthene	14.17	252	13146	5.80589	ppb	99
24) Benzo (a) pyrene	14.51	252	11178	5.15572	ppb	99
25) Dibenz (a,h) anthracene	16.10	278	8948	4.78606	ppb	96
26) Benzo (g,h,i) perylene	16.48	276	9446	4.72681	ppb #	94

Quantitation Report

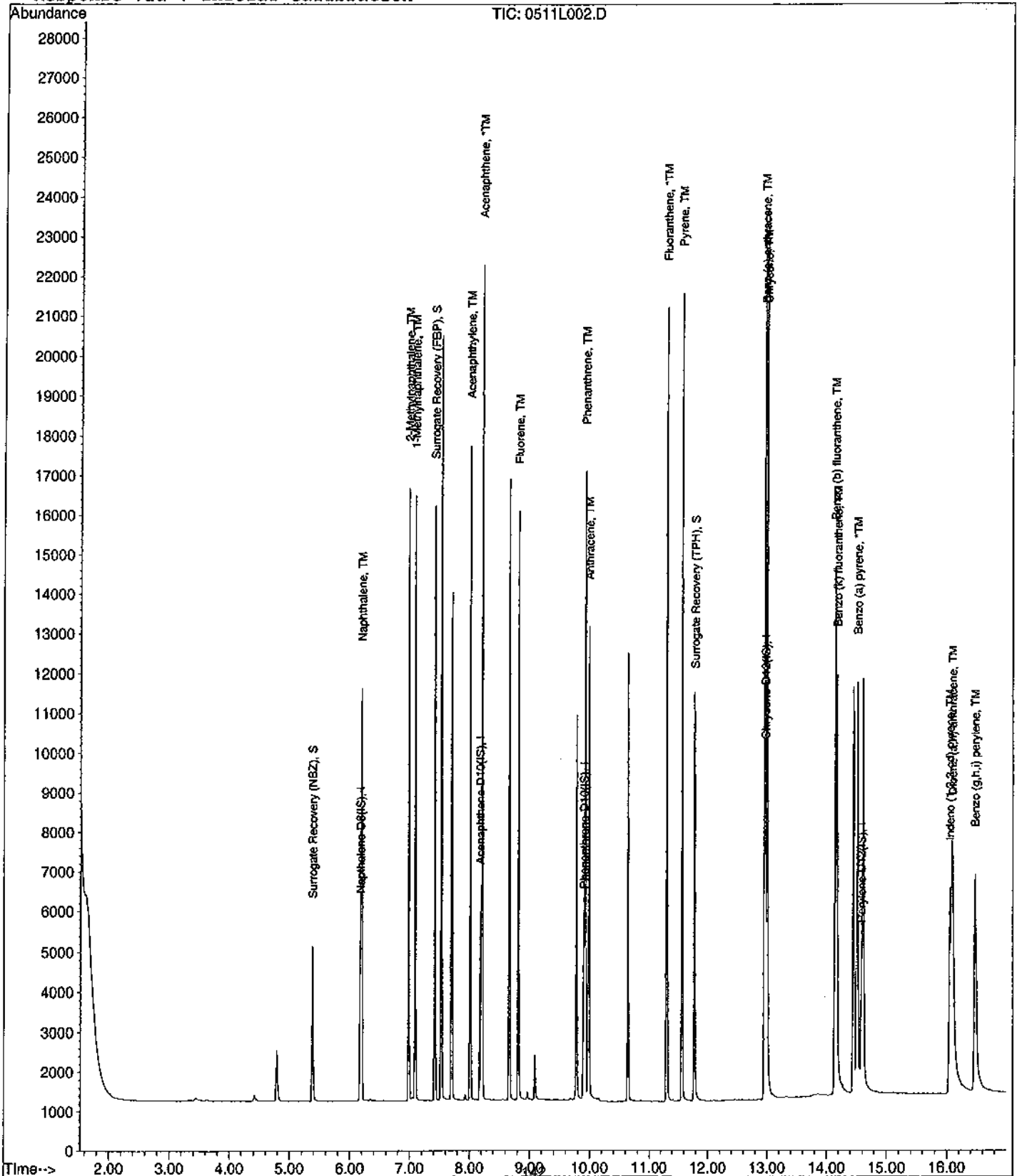
Data File : M:\LINUS\DATA\L110420\0511L002.D  
 Acq On : 11 May 11 19:37  
 Sample : 5.0ug/ml PAH 04-20-11  
 Misc :

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

Quant Time: May 13 19:35 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Mon May 16 17:08:29 2011  
 Response via : Initial Calibration



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

## Method Blank EPA 8270D SIM

Blank Name/QCG: 110425W-36312 - 155155  
Batch ID: #SIMHC-110425A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/11/11
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/11/11
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/11/11
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/11/11
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/11/11
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/11/11
BLANK	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/11/11
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/11/11
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/11/11
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/11/11
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/11/11
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/11/11
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/11/11
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	04/25/11	05/11/11
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/11/11
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	04/25/11	05/11/11
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	04/25/11	05/11/11
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	04/25/11	05/11/11
BLANK	SURROGATE: 2-FLUORBIPHENY	56.0	50-110			%	04/25/11	05/11/11
BLANK	SURROGATE: NITROBENZENE-	87.6	40-110			%	04/25/11	05/11/11
BLANK	SURROGATE: TERPHENYL-D14 (	58.6	50-135			%	04/25/11	05/11/11

Quant Method: SIM2.M
Run #: 0511L003
Instrument: Linus
Sequence: L110420
Initials: LF

GC SC-Blank-REG MDLs  
Printed: 05/16/11 7:25:05 PM



Data File : M:\LINUS\DATA\L110420\0511L003.D Vial: 3  
 Acq On : 11 May 11 20:03 Operator: LF  
 Sample : 110425A BLK 1/1000 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: May 16 18:51 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed May 11 10:12:00 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	3867	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	1787	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	3296	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	4205	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.58	264	3185	2.50000	ppb	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	5.38	82	533	1.75181	ppb	0.01
Spiked Amount 2.000			Recovery =	87.600%		
7) Surrogate Recovery (FBP)	7.42	172	1575	1.12027	ppb	0.00
Spiked Amount 2.000			Recovery =	56.000%		
17) Surrogate Recovery (TPH)	11.77	244	2167	1.17123	ppb	0.00
Spiked Amount 2.000			Recovery =	58.550%		

Target Compounds Qvalue

Quantitation Report

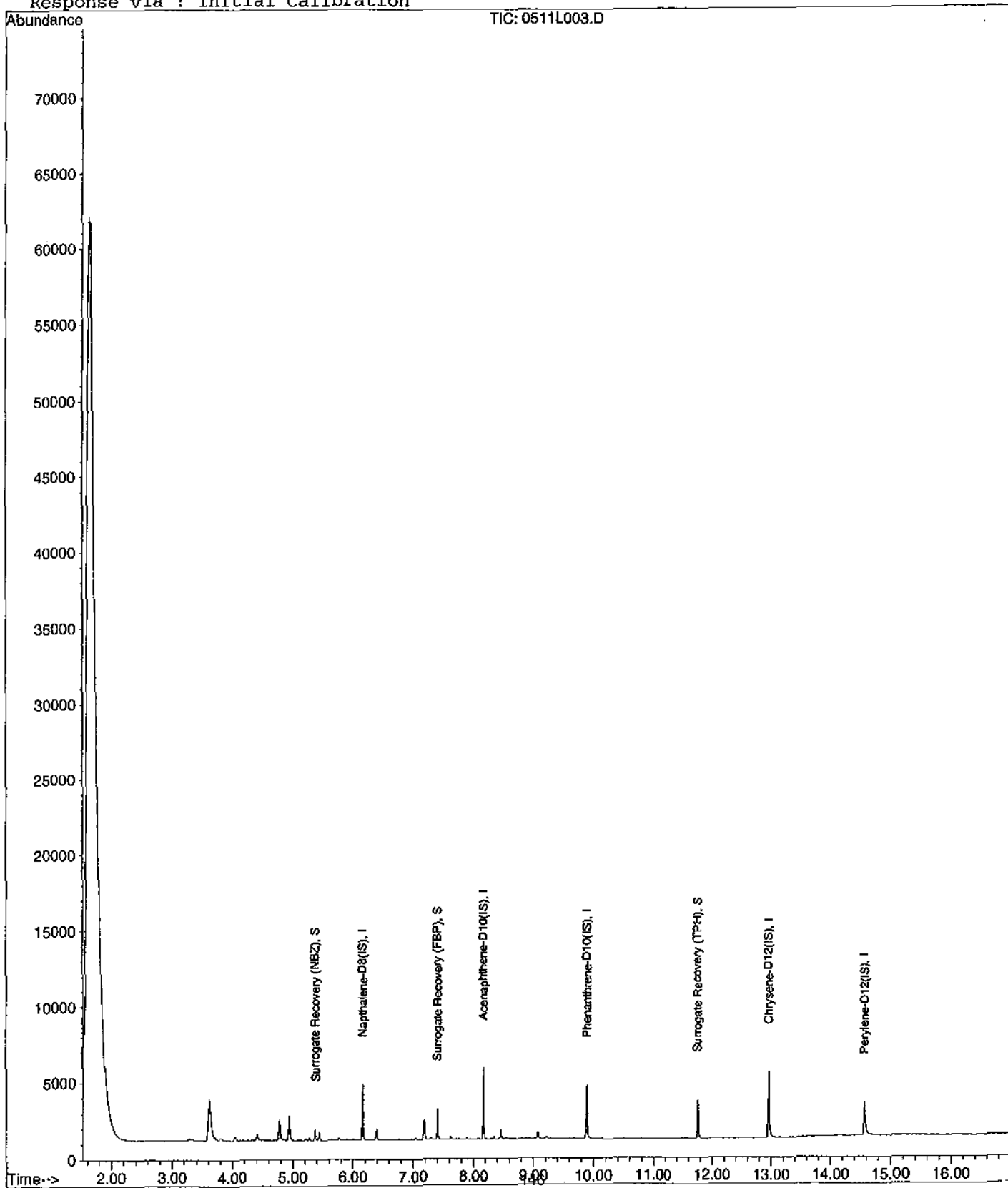
Data File : M:\LINUS\DATA\L110420\0511L003.D  
Acq On : 11 May 11 20:03  
Sample : 110425A BLK 1/1000  
Misc :

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

Quant Time: May 16 18:51 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Mon May 16 17:08:29 2011  
Response via : Initial Calibration



## Laboratory Control Spike Recovery

### EPA 8270D SIM

APPL ID: 110425W-36312 LCS - 155155  
 Batch ID: #SIMHC-110425A

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	2.05	51.2	45-105
2-METHYLNAPHTHALENE	4.00	2.08	52.0	45-105
ACENAPHTHENE	4.00	2.20	55.0	45-110
ACENAPHTHYLENE	4.00	2.21	55.3	50-105
ANTHRACENE	4.00	2.78	69.5	55-110
BENZO(A)ANTHRACENE	4.00	2.27	56.8	55-110
BENZO(A)PYRENE	4.00	2.70	67.5	55-110
BENZO(B)FLUORANTHENE	4.00	2.31	57.8	45-120
BENZO(GHI)PERYLENE	4.00	2.53	63.2	40-125
BENZO(K)FLUORANTHENE	4.00	3.19	79.8	45-125
CHRYSENE	4.00	3.17	79.3	55-110
DIBENZ(A,H)ANTHRACENE	4.00	2.53	63.2	40-125
FLUORANTHENE	4.00	3.10	77.5	55-115
FLUORENE	4.00	2.50	62.5	50-110
INDENO(1,2,3-CD)PYRENE	4.00	2.87	71.8	45-125
NAPHTHALENE	4.00	2.07	51.7	40-100
PHENANTHRENE	4.00	2.85	71.3	50-115
PYRENE	4.00	2.67	66.8	50-130
-----				
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.08	54.0	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.89	94.5	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.29	64.5	50-135
-----				

Comments:

<u>Primary</u>	<u>SPK</u>
Quant Method :	SIM2.M
Extraction Date :	04/25/11
Analysis Date :	05/11/11
Instrument :	Linus
Run :	0511L004
Initials :	LF

Printed: 05/16/11 7:25:08 PM

Data File : M:\LINUS\DATA\L110420\0511L004.D Vial: 4  
 Acq On : 11 May 11 20:28 Operator: LF  
 Sample : 110425A LCS-1 1/1000 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: May 16 18:52 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed May 11 10:12:00 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.18	136	3468	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	1678	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	3045	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	4147	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.57	264	3103	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.38	82	534	1.88602	ppb	0.01
Spiked Amount	2.000		Recovery	=	94.300%	
7) Surrogate Recovery (FBP)	7.42	172	1425	1.07941	ppb	0.00
Spiked Amount	2.000		Recovery	=	53.950%	
17) Surrogate Recovery (TPH)	11.77	244	2346	1.28571	ppb	0.00
Spiked Amount	2.000		Recovery	=	64.300%	
Target Compounds						
3) Naphthalene	6.20	128	4406	2.07117	ppb	98
4) 2-Methylnaphthalene	6.99	142	2947	2.08213	ppb	100
5) 1-Methylnaphthalene	7.10	142	2774	2.05306	ppb	99
8) Acenaphthylene	8.01	152	4021	2.20567	ppb	98
9) Acenaphthene	8.22	154	2307	2.20133	ppb	97
10) Fluorene	8.82	166	3157	2.50429	ppb	98
12) Phenanthrene	9.93	178	5158	2.84590	ppb	99
13) Anthracene	9.99	178	4315	2.78094	ppb	97
14) Fluoranthene	11.30	202	7853	3.09534	ppb	# 92
16) Pyrene	11.56	202	8038	2.66775	ppb	# 89
18) Benz (a) anthracene	12.96	228	6005	2.27397	ppb	95
19) Chrysene	13.00	228	7516	3.17096	ppb	# 96
20) Indeno (1,2,3-cd) pyrene	16.05	276	5331	2.87079	ppb	# 91
22) Benzo (b) fluoranthene	14.14	252	5339	2.31293	ppb	99
23) Benzo (k) fluoranthene	14.16	252	6604	3.19204	ppb	# 93
24) Benzo (a) pyrene	14.51	252	5357	2.70416	ppb	99
25) Dibenz (a,h) anthracene	16.10	278	4320	2.52885	ppb	96
26) Benzo (g,h,i) perylene	16.49	276	4620	2.53016	ppb	96

Quantitation Report

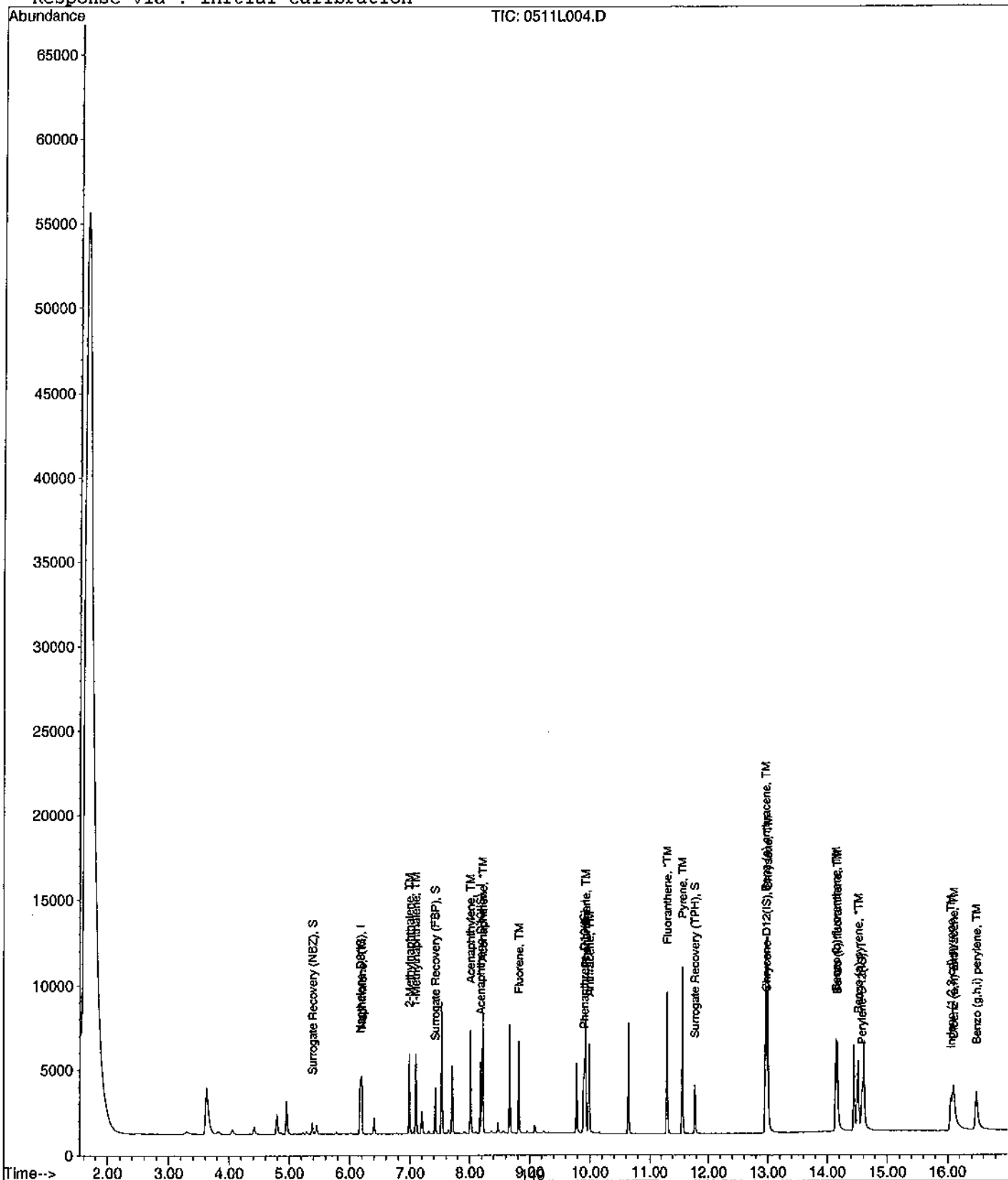
Data File : M:\LINUS\DATA\L110420\0511L004.D  
 Acq On : 11 May 11 20:28  
 Sample : 110425A LCS-1 1/1000  
 Misc :

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

Quant Time: May 16 18:52 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Mon May 16 17:08:29 2011  
 Response via : Initial Calibration



# Matrix Spike Recoveries

## EPA 8270D SIM

APPL ID: 110425W-36312 MS - 155155

Batch ID: #SIMHC-110425A

Sample ID: AY36312

Client ID: ES020

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	3.92	5.1	6.87	7.01	45.1	48.7	45-105	2.0	25
2-METHYLNAPHTHALENE	3.92	0.43	2.20	2.32	45.1	48.2	45-105	5.3	25
ACENAPHTHENE	3.92	0.18	2.36	2.34	55.6	55.1	45-110	0.85	25
ACENAPHTHYLENE	3.92	0.071	2.41	2.40	59.6	59.4	50-105	0.42	25
ANTHRACENE	3.92	ND	2.76	2.69	70.4	68.6	55-110	2.6	25
BENZO(A)ANTHRACENE	3.92	ND	2.32	2.32	59.2	59.2	55-110	0.0	25
BENZO(A)PYRENE	3.92	ND	2.43	2.43	62.0	62.0	55-110	0.0	25
BENZO(B)FLUORANTHENE	3.92	ND	2.18	2.14	55.6	54.6	45-120	1.9	25
BENZO(GHI)PERYLENE	3.92	ND	2.33	2.30	59.4	58.6	40-125	1.3	25
BENZO(K)FLUORANTHENE	3.92	ND	2.55	2.59	65.0	66.0	45-125	1.6	25
CHRYSENE	3.92	ND	2.60	2.57	66.3	65.5	55-110	1.2	25
DIBENZ(A,H)ANTHRACENE	3.92	ND	2.40	2.35	61.2	59.9	40-125	2.1	25
FLUORANTHENE	3.92	ND	2.86	2.81	72.9	71.6	55-115	1.8	25
FLUORENE	3.92	0.086	2.44	2.38	60.0	58.5	50-110	2.5	25
INDENO(1,2,3-CD)PYRENE	3.92	ND	3.06	3.06	78.0	78.0	45-125	0.0	25
NAPHTHALENE	3.92	3.5	5.42	6.01	49.0	64.0	40-100	10.3	25
PHENANTHRENE	3.92	ND	2.53	2.49	64.5	63.5	50-115	1.6	25
PYRENE	3.92	ND	2.46	2.47	62.7	63.0	50-130	0.41	25
-----									
SURROGATE: 2-FLUORBIPHENYL (S)	1.96	NA	1.07	1.07	54.6	54.6	50-110		
SURROGATE: NITROBENZENE-D5 (S)	1.96	NA	1.72	1.45	87.7	73.9	40-110		
SURROGATE: TERPHENYL-D14 (S)	1.96	NA	1.02	1.05	52.0	53.5	50-135		
-----									

Comments:

Primary	SPK	DUP
Quant Method :	SIM2.M	SIM2.M
Extraction Date :	04/25/11	04/25/11
Analysis Date :	05/12/11	05/12/11
Instrument :	Linus	Linus
Run :	0511L017	0511L018
Initials :	LF	

Data File : M:\LINUS\DATA\L110420\0511L017.D  
 Acq On : 12 May 11 2:00  
 Sample : AY36312W25 MS-1 1/1020  
 Misc :

Vial: 17  
 Operator: LF  
 Inst : Linus  
 Multiplr: 0.98

Quant Time: May 16 19:04 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed May 11 10:12:00 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	4491	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	2480	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	4431	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	6004	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.58	264	5023	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.38	82	618	1.71562	ppb	0.01
Spiked Amount	1.961		Recovery	=	87.516%	
7) Surrogate Recovery (FBP)	7.42	172	2137	1.07378	ppb	0.00
Spiked Amount	1.961		Recovery	=	54.774%	
17) Surrogate Recovery (TPH)	11.78	244	2752	1.02130	ppb	0.01
Spiked Amount	1.961		Recovery	=	52.071%	
Target Compounds						
3) Naphthalene	6.20	128	15218	5.41580	ppb	95
4) 2-Methylnaphthalene	6.99	142	4119	2.20320	ppb	98
5) 1-Methylnaphthalene	7.10	142	12269	6.87448	ppb	96
8) Acenaphthylene	8.01	152	6613	2.40627	ppb	97
9) Acenaphthene	8.22	154	3734	2.36348	ppb	97
10) Fluorene	8.82	166	4643	2.44314	ppb	97
12) Phenanthrene	9.93	178	6802	2.52848	ppb	98
13) Anthracene	9.99	178	6366	2.76415	ppb	98
14) Fluoranthene	11.30	202	10765	2.85872	ppb	# 87
16) Pyrene	11.56	202	10938	2.45826	ppb	# 79
18) Benz (a) anthracene	12.96	228	9038	2.31759	ppb	94
19) Chrysene	13.00	228	9094	2.59807	ppb	# 95
20) Indeno (1,2,3-cd) pyrene	16.05	276	8405	3.06494	ppb	# 95
22) Benzo (b) fluoranthene	14.14	252	8294	2.17613	ppb	98
23) Benzo (k) fluoranthene	14.16	252	8723	2.55355	ppb	# 93
24) Benzo (a) pyrene	14.51	252	7955	2.43203	ppb	100
25) Dibenz (a,h) anthracene	16.09	278	6770	2.40018	ppb	# 94
26) Benzo (g,h,i) perylene	16.47	276	7034	2.33306	ppb	# 87

Quantitation Report

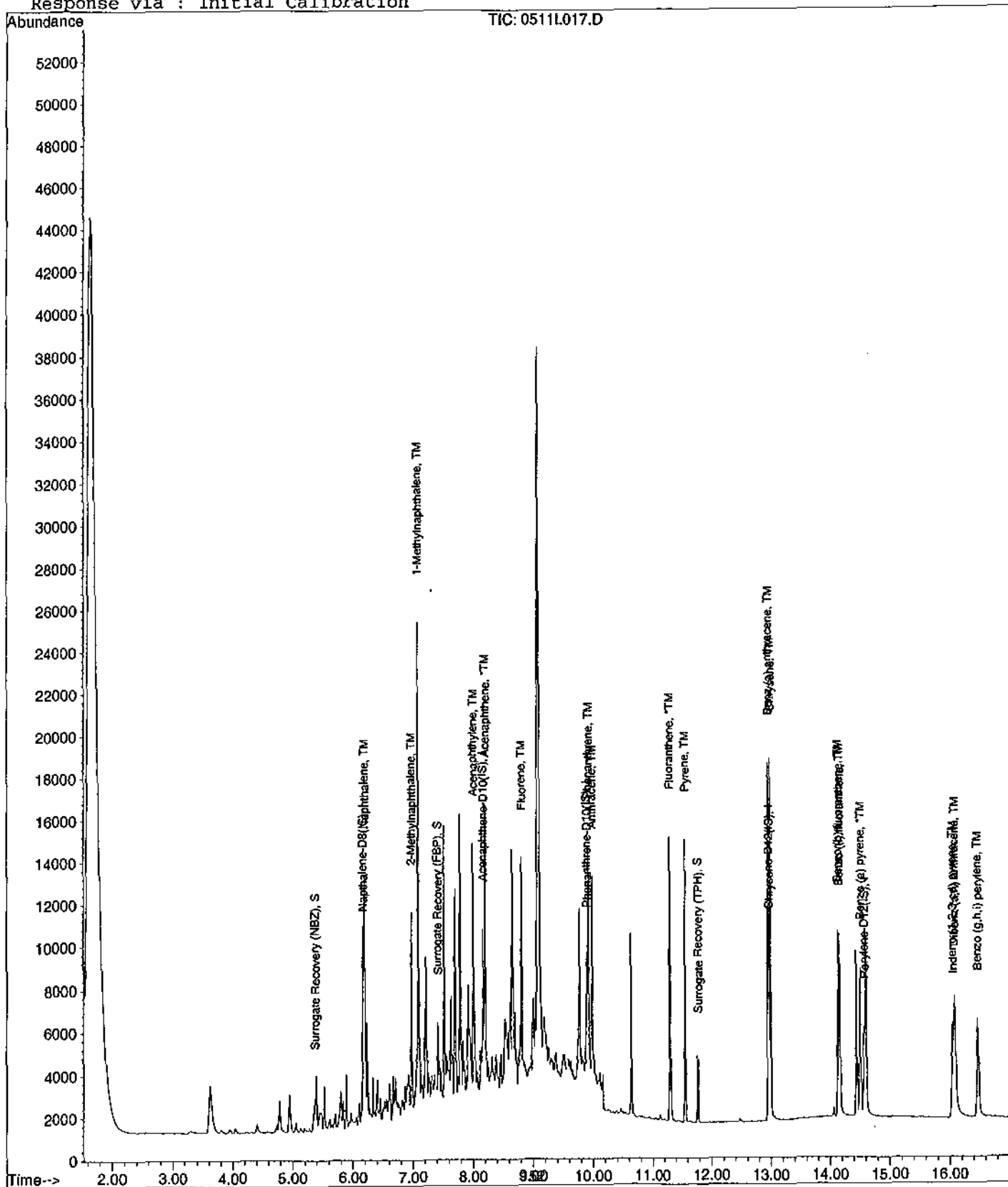
Data File : M:\LINUS\DATA\L110420\0511L017.D  
Acq On : 12 May 11 2:00  
Sample : AY36312W25 MS-1 1/1020  
Misc :

Vial: 17  
Operator: LF  
Inst : Linus  
Multiplr: 0.98

Quant Time: May 16 19:04 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Mon May 16 17:08:29 2011  
Response via : Initial Calibration





Data File : M:\LINUS\DATA\L110420\0511L018.D  
 Acq On : 12 May 11 2:25  
 Sample : AY36312W27 MSD-1 1/1020  
 Misc :

Vial: 18  
 Operator: LF  
 Inst : Linus  
 Multiplr: 0.98

Quant Time: May 16 19:04 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Wed May 11 10:12:00 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	4562	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	2430	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	4286	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	5740	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.58	264	4836	2.50000	ppb	0.01

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.38	82	478	1.44808	ppb	0.01
Spiked Amount	1.961		Recovery	=	73.848%	
7) Surrogate Recovery (FBP)	7.42	172	2092	1.07280	ppb	0.00
Spiked Amount	1.961		Recovery	=	54.723%	
17) Surrogate Recovery (TPH)	11.77	244	2701	1.04848	ppb	0.00
Spiked Amount	1.961		Recovery	=	53.448%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.20	128	17149	6.00803	ppb	96
4) 2-Methylnaphthalene	6.99	142	4398	2.31582	ppb	97
5) 1-Methylnaphthalene	7.10	142	12702	7.00633	ppb	98
8) Acenaphthylene	8.01	152	6462	2.39971	ppb	99
9) Acenaphthene	8.22	154	3626	2.34234	ppb	97
10) Fluorene	8.82	166	4441	2.38493	ppb	96
12) Phenanthrene	9.93	178	6491	2.49450	ppb	99
13) Anthracene	9.99	178	6001	2.69382	ppb	98
14) Fluoranthene	11.30	202	10239	2.81102	ppb	# 85
16) Pyrene	11.56	202	10491	2.46624	ppb	# 81
18) Benz (a) anthracene	12.96	228	8645	2.31877	ppb	95
19) Chrysene	13.00	228	8597	2.56904	ppb	# 95
20) Indeno (1,2,3-cd) pyrene	16.05	276	8017	3.05792	ppb	# 95
22) Benzo (b) fluoranthene	14.14	252	7863	2.14282	ppb	98
23) Benzo (k) fluoranthene	14.16	252	8520	2.59057	ppb	# 93
24) Benzo (a) pyrene	14.51	252	7666	2.43430	ppb	99
25) Dibenz (a,h) anthracene	16.09	278	6379	2.34901	ppb	# 92
26) Benzo (g,h,i) perylene	16.48	276	6671	2.29822	ppb	97

Quantitation Report

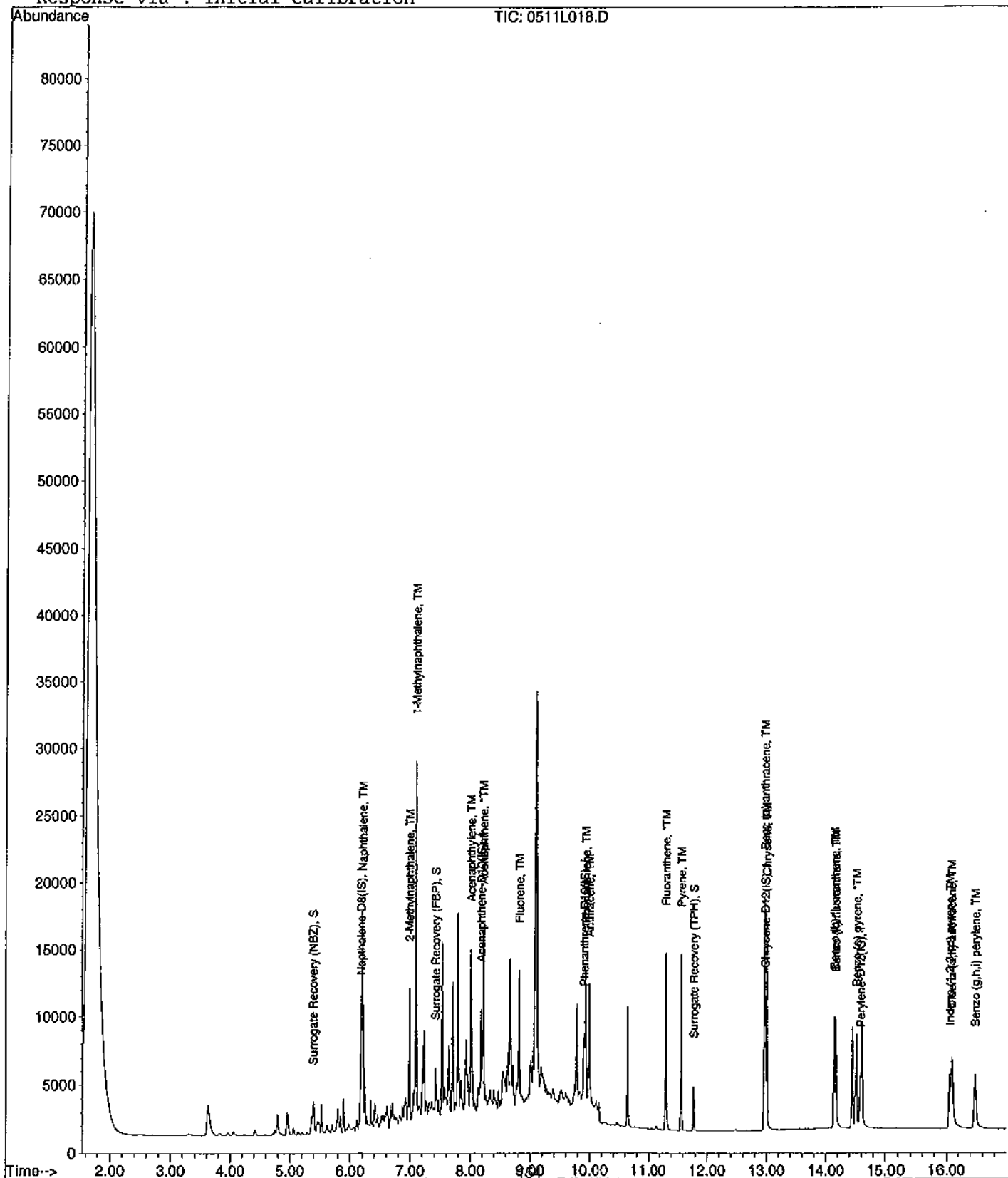
Data File : M:\LINUS\DATA\L110420\0511L018.D  
Acq On : 12 May 11 2:25  
Sample : AY36312W27 MSD-1 1/1020  
Misc :

Vial: 18  
Operator: LF  
Inst : Linus  
Multiplr: 0.98

Quant Time: May 16 19:04 2011

Quant Results File: SIM2.RES

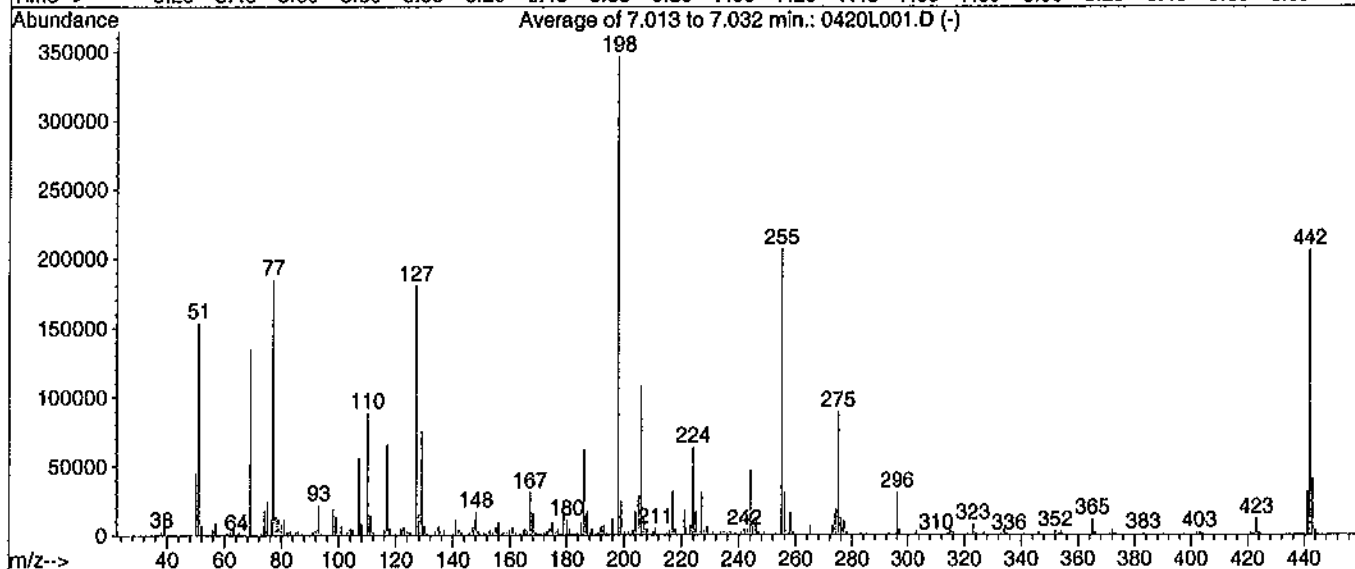
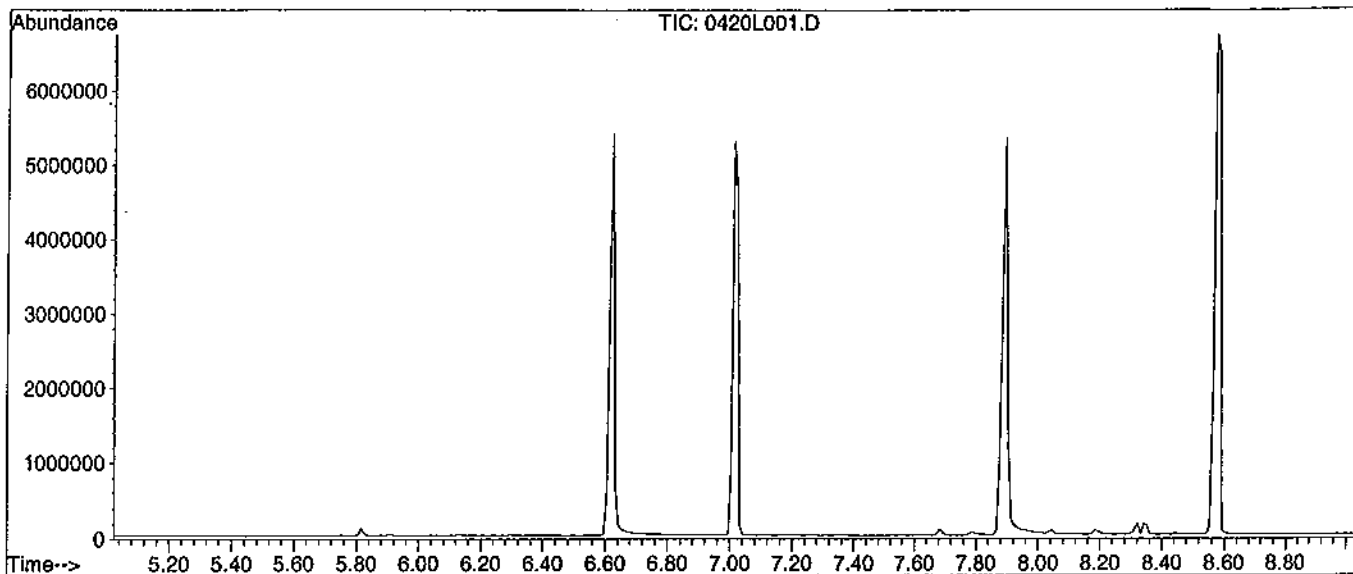
Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Mon May 16 17:08:29 2011  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L001.D  
 Acq On : 20 Apr 11 21:00  
 Sample : SVTUNE 04-14-11  
 Misc :

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

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C



Spectrum Information: Average of 7.013 to 7.032 min.

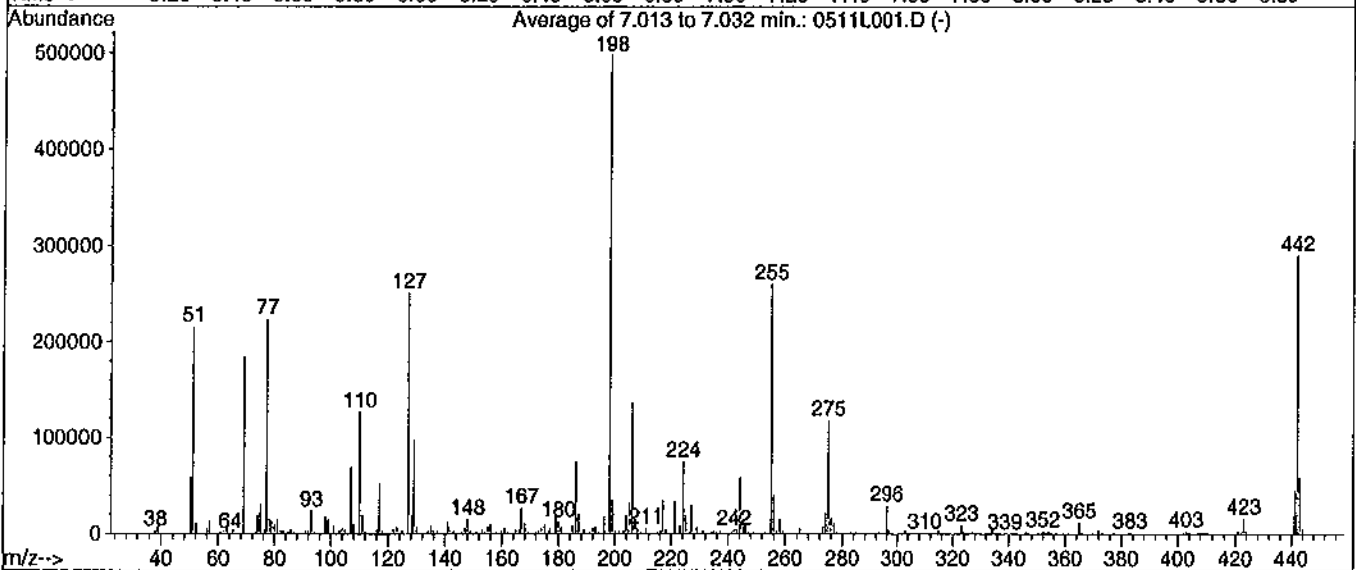
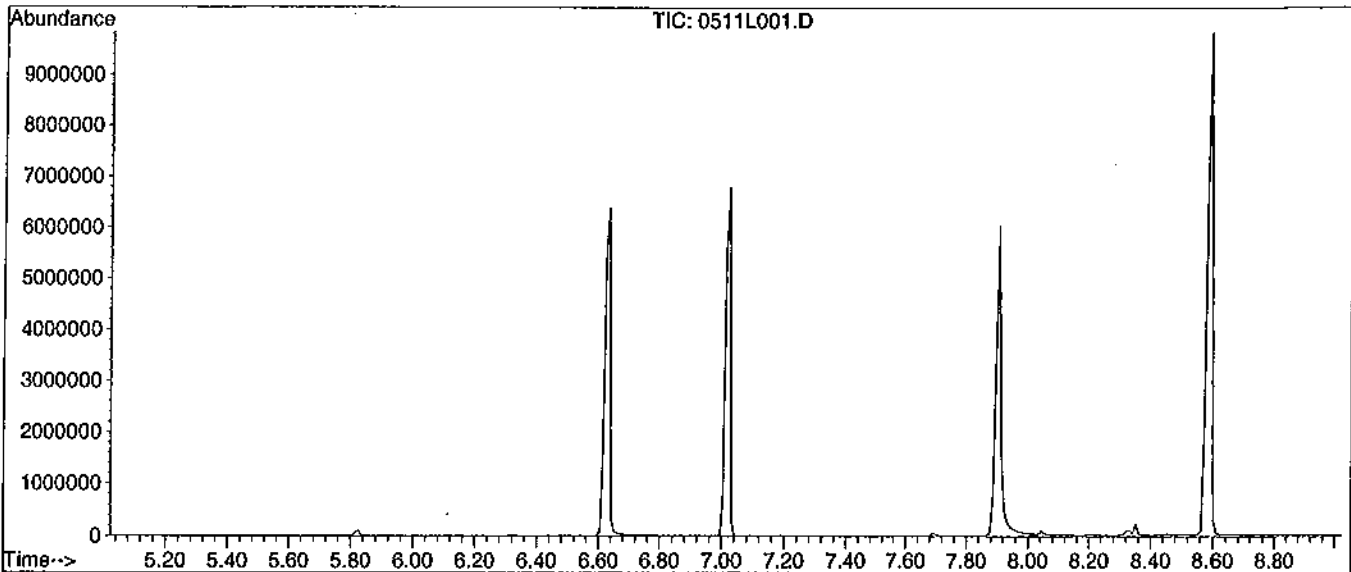
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	44.3	153818	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	936	PASS
127	198	40	60	52.0	180483	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	346958	PASS
199	198	5	9	7.2	24941	PASS
275	198	10	30	25.7	89331	PASS
365	198	1	100	3.2	11199	PASS
441	443	0.01	100	76.4	31355	PASS
442	198	40	150	59.4	206037	PASS
443	442	17	23	19.9	41055	PASS

DFTPP

Data File : M:\LINUS\DATA\L110420\0511L001.D  
 Acq On : 11 May 11 19:18  
 Sample : SVTUNE 04-14-11  
 Misc :

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

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C



Spectrum Information: Average of 7.013 to 7.032 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.4	216236	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	986	PASS
127	198	40	60	50.4	250957	PASS
197	198	0.00	1	0.5	2507	PASS
198	198	100	100	100.0	498066	PASS
199	198	5	9	7.2	35926	PASS
275	198	10	30	23.7	118139	PASS
365	198	1	100	2.3	11619	PASS
441	443	0.01	100	75.2	44525	PASS
442	198	40	150	58.3	290200	PASS
443	442	17	23	20.4	59213	PASS




*W-4/12/10*

PREP DATE:	04-12-10					
SV Tune Mix	50ug/ml					
Exp:	04-12-11					
		Conc.		Date	CODE:	B
Supplier	ID #	µg/mL	Lot #	Code	Exp. Date	µL
J. Scientific	GCM-150	1000	CP-2995-26132	04/12/10	08-31-11	1000
EM Science	NeCl2		47080			19000
					Final Vol	20000

*W-4/12/10 W*


Part #: 10001      Laboratory Use Only - See MSDS  
 Lot #: 032009      Exp: 032012      Storage 0 °C

 **CLP Semi-Volatiles Base/Neutrals Mix #1**  
 14 components      CLP Semi-Volatiles Base/Neutrals Mix #1  
 2000 ug/mL in ml      Lot #: 032009 - 25510  
**ABSOLUTE STANDAR**      Rec: 11/17/09 MFR exp. 03/20/12

*exp 4/12/11*

*W-4/12/10*


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

 **CLP Semi-Volatiles Base/Neutrals Mix #2**  
 14 components      CLP Semi-Volatiles Base/Neutrals Mix #2  
 2000 ug/mL in ml      Lot #: 073109 - 25516  
**ABSOLUTE STANDAR**      Rec: 11/17/09 MFR exp. 07/31/12

*exp 4/12/11*

*W-4/12/10*


Part #: 10004      Laboratory Use Only - See MSDS  
 Lot #: 060407      Exp: 060412      Storage 4 °C

 **CLP Semi-Volatiles Toxic Substances #1**  
 4 components      CLP Semi-Volatiles Toxic Substances #1  
 2000 ug/mL in ml      Lot #: 060407 - 25521  
**ABSOLUTE STANDAR**      Rec: 11/17/09 MFR exp. 06/04/12

*exp 4/12/11*

*W-4/12/10*


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

 **CLP Semi-Volatiles Toxic Substances #2**  
 8 components      CLP Semi-Volatiles Toxic Substances #2  
 2000 ug/mL in ml      Lot #: 121208 - 25526  
**ABSOLUTE STANDAR**      Rec: 11/17/09 MFR exp. 12/12/13

*exp 4/12/11*

*W-4/12/10*


Part #: 10006      Laboratory Use Only - See MSDS  
 Lot #: 102109      Exp: 102112      Storage 4 °C

 **CLP Semi-Volatiles - Benzidines**  
 2 components      CLP Semi-Volatiles - Benzidines  
 2000 ug/mL in ml      Lot #: 102109 - 25531  
**ABSOLUTE STANDAR**      Rec: 11/17/09 MFR exp. 10/21/12

*exp 4/12/11*

*W-4/12/10*


Part #: 10007      Laboratory Use Only - See MSDS  
 Lot #: 101409      Exp: 101414      Storage 4 °C

 **CLP Semi-Volatiles - PAH Standard**  
 17 components      CLP Semi-Volatiles - PAH Mix  
 2000 ug/mL in ml      Lot #: 101409 - 25536  
**ABSOLUTE STANDAR**      Rec: 11/17/09 MFR exp. 10/14/14

*exp 4/12/11*

*W-4/12/10*

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

 **EPA Method 8270A - Analytes Mix #8**  
 13 components - Pt      EPA Method 8270A - Analytes Mix #8  
 2000 ug/mL in ml      Lot #: 073109 - 25541  
**ABSOLUTE STANDAR**      Rec: 11/17/09 MFR exp. 07/31/14

*exp 4/12/11*

VF 10/6/11

**02si** TCL Hazardous Substances Solution 2, 2,000 mg/L, 1 ml  
 Cat. No: 110394-01 Exp: 4/17/2013  
 Lot No: 158122 Storage: <math>\leq -10\text{ Degrees C}</math>  
 TCL Hzd. Sol'n. 2 Solvent: Methylene Chloride  
 Lot #: 148122 - 26459 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

VF 10/6/11

**02si** Atrazine Solution, 1,000 mg/L, 1 ml  
 Cat. No: 010337-01 Exp: 4/12/2012  
 Lot No: 158126 Storage: <math>\leq -10\text{ Degrees C}</math>  
 Atrazine Solvent: Methylene Chloride  
 Lot #: 158136 - 26467 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/12/12

VF exp 10/6/11

VF 10/6/11

**02si** 8270 BN Solution 14-4, 2,000 mg/L, 1 ml  
 Cat. No: 110391-01 Exp: 4/17/2013  
 Lot No: 158119 Storage: <math>\leq -10\text{ Degrees C}</math>  
 8270BN Solution 14-4 Solvent: Methylene Chloride  
 Lot #: 158119 - 26453 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

VF 10/6/11

**02si** 8270 BN Solution 14-3, 2,000 mg/L, 1 ml  
 Cat. No: 110392-01 Exp: 4/17/2013  
 Lot No: 158120 Storage: <math>\leq -10\text{ Degrees C}</math>  
 8270BN Solution 14-3 Solvent: Methylene Chloride  
 Lot #: 158120 - 26455 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

VF 10/6/11

**02si** 8270 Acid Solution 4-6, 2,000 mg/L, 1 ml  
 Cat. No: 110393-01 Exp: 4/17/2013  
 Lot No: 158121 Storage: <math>\leq -10\text{ Degrees C}</math>  
 8270B Acid Solution 4-6 Solvent: Methylene Chloride  
 Lot #: 158121 - 26457 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

VF 10/6/11

**02si** PAH Solution 17-3, 2,000 mg/L, 1 ml  
 Cat. No: 116070-02 Exp: 4/17/2013  
 Lot No: 158123 Storage: <math>\leq -10\text{ Degrees C}</math>  
 PAH Solution Solvent: Methylene Chloride  
 Lot #: 158123 - 26461 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

VF 10/6/11

**02si** 8270 Acid Solution 13-4, 2,000 mg/L, 1 ml  
 Cat. No: 110396-01 Exp: 4/17/2013  
 Lot No: 158124 Storage: <math>\leq -10\text{ Degrees C}</math>  
 8270 Acid Solution 13-4 Solvent: Methylene Chloride  
 Lot #: 158124 - 26463 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

VF 10/6/11

**02si** 8270 BN Solution 4-21, 2,000 mg/L, 1 ml  
 Cat. No: 110395-01 Exp: 4/17/2013  
 Lot No: 158125 Storage: <math>\leq -10\text{ Degrees C}</math>  
 8270BN Solution 4-21 Solvent: Methylene Chloride  
 Lot #: 158125 - 26465 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

WF 10/16/10

**o2si** 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 - 26470 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/12/12  
 Action: \_\_\_\_\_  
 Opened: \_\_\_\_\_

WF

WF 10/16/10

PREP DATE:	10-06-10					
8270C Second Source Stock Standard						
Exp:	10-06-11					
Supplier	ID #	Conc.	Lot #	Date	CODE:	P
		µg/mL		Code	Exp. Date	µL
O2SI	110391-01	2000	158119-26453	10-6-10A	04-17-13	1000
O2SI	110392-01	2000	158120-26455	10-6-10B	04-17-13	1000
O2SI	110393-01	2000	158121-26457	10-6-10C	04-17-13	1000
O2SI	110394-01	2000	148122-26459	10-6-10D	04-17-13	1000
O2SI	116070-02	2000	158123-26461	10-6-10E	04-17-13	1000
O2SI	110395-01	2000	158125-26465	10-6-10G	04-17-13	1000
O2SI	110396-01	2000	158124-26463	10-6-10H	04-17-13	1000
O2SI	110397-01	2000	158127-26470	10-6-10I	04-12-12	1000
O2SI	010337-01	1000	158136-26467	10-6-10J	04-12-12	1000
EM science	MeC12		47080			1000
Final Vol						10000

WF

WF 10/17/10

**o2si** 8270 BN:A (200:400) Surrogate Solution, 1 ml  
 Cat. No: 110004-17 Exp: 7/29/2011  
 Lot No: 149231 Storage: <-10 Degrees C  
 8270 BN:A (200:400) Surrogate Solution Solvent: Methylene Chloride  
 Lot #: 149231 - 25767 For Research Use Only  
 Rec: 12/30/09 MFR exp. 07/29/11  
 Action: \_\_\_\_\_  
 Rec: \_\_\_\_\_

WF

exp 4/7/11

WF 10/17/10

**o2si** 8270 BN:A (200:400) Surrogate Solution, 1 ml  
 Cat. No: 110004-17 Exp: 7/29/2011  
 Lot No: 149231 Storage: <-10 Degrees C  
 8270 BN:A (200:400) Surrogate Solution Solvent: Methylene Chloride  
 Lot #: 149231 - 25768 For Research Use Only  
 Rec: 12/30/09 MFR exp. 07/29/11  
 Action: \_\_\_\_\_  
 Rec: \_\_\_\_\_

WF

exp 4/7/11

WF 10/17/10

**o2si** 8270 BN:A (200:400) Surrogate Solution, 1 ml  
 Cat. No: 110004-17 Exp: 7/29/2011  
 Lot No: 149231 Storage: <-10 Degrees C  
 8270 BN:A (200:400) Surrogate Solution Solvent: Methylene Chloride  
 Lot #: 149231 - 25769 For Research Use Only  
 Rec: 12/30/09 MFR exp. 07/29/11  
 Action: \_\_\_\_\_  
 Rec: \_\_\_\_\_

WF

exp 4/7/11

WF 10/17/10

**o2si** 8270 BN:A (200:400) Surrogate Solution, 1 ml  
 Cat. No: 110004-17 Exp: 7/29/2011  
 Lot No: 149231 Storage: <-10 Degrees C  
 8270 BN:A (200:400) Surrogate Solution Solvent: Methylene Chloride  
 Lot #: 149231 - 26761 For Research Use Only  
 Rec: 12/30/09 MFR exp. 07/29/11  
 Action: \_\_\_\_\_  
 Rec: \_\_\_\_\_

WF

exp 4/7/11

WF 10/17/10

**o2si** 8270 BN:A (200:400) Surrogate Solution, 1 ml  
 Cat. No: 110004-17 Exp: 7/29/2011  
 Lot No: 149231 Storage: <-10 Degrees C  
 8270 BN:A (200:400) Surrogate Solution Solvent: Methylene Chloride  
 Lot #: 149231 - 25762 For Research Use Only  
 Rec: 12/30/09 MFR exp. 07/29/11  
 Action: \_\_\_\_\_  
 Rec: \_\_\_\_\_

WF


exp 4/7/11





VF 3/23/14

Part #: 10001 Laboratory Use Only - See MSDS  
 Lot #: 032009 Exp: 032012 Storage 0 °C




CLP Semi-Volatiles Base/Neutrals Mix #1  
 14 components CLP Semi-Volatiles Base/Neutrals Mix #1  
 2000 ug/mL in meth Lot #: 032009 - 28089

**ABSOLUTE STANDARD** Rec: 1/5/11 MFR exp. 03/20/12

exp 5/29/14

VF 3/23/14

Part #: 10001 Laboratory Use Only - See MSDS  
 Lot #: 032009 Exp: 032012 Storage 0 °C




CLP Semi-Volatiles Base/Neutrals Mix #1  
 14 components CLP Semi-Volatiles Base/Neutrals Mix #1  
 2000 ug/mL in met Lot #: 032009 - 28090

**ABSOLUTE STANDARD** Rec: 1/5/11 MFR exp. 03/20/12

exp 5/29/14

VF 3/23/14

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




CLP Semi-Volatiles Base/Neutrals Mix #2  
 14 components CLP Semi-Volatiles Base Neutrals Mix #2  
 2000 ug/mL in-meth Lot #: 073109 - 27971

**ABSOLUTE STANDARD** Rec: 12/18/10 MFR exp. 07/31/12

exp 5/29/14

VF 3/23/14

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




CLP Semi-Volatiles Base/Neutrals Mix #2  
 14 components CLP Semi-Volatiles Base Neutrals Mix #2  
 2000 ug/mL in met Lot #: 073109 - 27972

**ABSOLUTE STANDARD** Rec: 12/16/10 MFR exp. 07/31/12

exp 5/29/14

VF 3/23/14

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




CLP Semi-Volatiles Toxic Substances #1  
 4 components CLP Semi-Volatiles Toxic Substances #1  
 2000 ug/mL in met Lot #: 101509 - 27976

**ABSOLUTE STANDARD** Rec: 12/16/10 MFR exp. 10/15/14

exp 5/29/14

VF 3/23/14

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




CLP Semi-Volatiles Toxic Substances #1  
 4 components CLP Semi-Volatiles Toxic Substances #1  
 2000 ug/mL in met Lot #: 101509 - 27977

**ABSOLUTE STANDARD** Rec: 12/16/10 MFR exp. 10/15/14

exp 5/29/14

VF 3/23/14

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




CLP Semi-Volatiles Toxic Substances #2  
 8 components CLP Semi-Volatiles Toxic Substances #2  
 2000 ug/mL in met Lot #: 061209 - 27981

**ABSOLUTE STANDARD** Rec: 12/16/10 MFR exp. 06/12/14

exp 5/29/14

VF 3/23/14

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




CLP Semi-Volatiles Toxic Substances #2  
 8 components CLP Semi-Volatiles Toxic Substances #2  
 2000 ug/mL in met Lot #: 061209 - 27982

**ABSOLUTE STANDARD** Rec: 12/16/10 MFR exp. 06/12/14

exp 5/29/14

VF 3/23/14

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



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


ABSOLUTE STANDAR

CLP Semi-Volatiles - Benzidines  
 Lot #: 120810 - 27986  
 Rec: 12/16/10 MFR exp. 12/08/13

exp 5/29/14

VF 3/23/14

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



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


ABSOLUTE STANDA

CLP Semi-Volatiles - Benzidines  
 Lot #: 120810 - 27987  
 Rec: 12/16/10 MFR exp. 12/08/13

exp 5/29/14

VF 3/23/14

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



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


ABSOLUTE STANDAR

CLP Semi-Volatiles - PAH Mix  
 Lot #: 100909 - 28015  
 Rec: 12/16/10 MFR exp. 10/09/14

exp 5/29/14

VF 3/23/14

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



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


ABSOLUTE STANDAR

CLP Semi-Volatiles - PAH Mix  
 Lot #: 100909 - 28014  
 Rec: 12/16/10 MFR exp. 10/09/14

exp 5/29/14

VF 3/23/14

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



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


ABSOLUTE STANDAR

EPA Method 8270A - Analytes Mix #8  
 Lot #: 073109 - 27991  
 Rec: 12/16/10 MFR exp. 07/31/14

exp 5/29/14

VF 3/23/14

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



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


ABSOLUTE STANDA

EPA Method 8270A - Analytes Mix #8  
 Lot #: 073109 - 27992  
 Rec: 12/16/10 MFR exp. 07/31/14

exp 5/29/14

VF 3/23/14

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



Atrazine  
 1000 ug/mL in aceton


ABSOLUTE STANDARD

Atrazine  
 Lot #: 080310 - 28008  
 Rec: 12/16/10 MFR exp. 08/03/15

exp 5/29/14

VF 3/23/14

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




Atrazine  
 1000 ug/mL in acet

ABSOLUTE STANDAR

Atrazine  
 Lot #: 080310 - 28007 163  
 Rec: 12/16/10 MFR exp. 08/03/15


exp 5/29/14

W 3/23/11

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  
**ABSOLUTE STANDARDS** Rec: 12/16/10 MFR exp. 05/29/11


exp 5/29/11

W 3/23/11

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  
**ABSOLUTE STANDARDS** Rec: 12/16/10 MFR exp. 05/29/11


exp 5/29/11

W 3/23/11

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

exp 5/29/11

W 3/23/11

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  
**ABSOLUTE STANDARDS** Rec: 12/16/10 MFR exp. 12/10/13

exp 5/29/11

W 3/23/11

PREP DATE:	03-23-11					
8270C Stock/Spike Standard						
Exp:	05-29-11					
Supplier	ID #	Conc.	Lot #	Date	CODE:	#
		ug/mL		Code	Exp. Date	uL
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

# Organic Extraction Worksheet

<b>Method</b>	SIM Separatory Funnel Extra 3510C	<b>Extraction Set</b>	110425A	<b>Extraction Method</b>	SEP004S	<b>Units</b>	ml
Spiked ID 1	SIM Spike 166254-27834	Surrogate ID 1	8270 SIM Surrogate 164394-27499				
Spiked ID 2		Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC: YES					
Spiked ID 7		Ext. Start Time:					
Spiked ID 8		Ext. End Time:					
		GC Requires Extract By:		05/04/11 0:00			
pH1	2	04/25/11 11:30:00 AM		W Bath Temp		80 °C	
pH2	14	04/25/11 12:35:00 PM					
pH3							

Spiked By: DL

Date 04/25/11

Witnessed By: CC

Date 04/25/11

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	110425A BIK			0.025	1	1000	1	2/14	04/25/11 11:30	
2	110425A LCS-1	0.025	1	0.025	1	1000	1	2/14	04/25/11 11:30	
3	AY36023	AY36023W18		0.025	1	1050	1	2/14	04/25/11 11:30	64447 2-WBEK RUSH -- Amber Liter
4	AY36033	AY36033W09		0.025	1	1050	1	2/14	04/25/11 11:30	64447 2-WBEK RUSH -- Amber Liter
5	AY36034	AY36034W10		0.025	1	1030	1	2/14	04/25/11 11:30	64447 2-WBEK RUSH -- Amber Liter
6	AY36036	AY36036W07		0.025	1	900	1	2/14	04/25/11 11:30	64447 2-WBEK RUSH -- Amber Liter
7	AY36038	AY36038W13		0.025	1	1040	1	2/14	04/25/11 11:30	64447 2-WBEK RUSH -- Amber Liter
8	AY36042	AY36042W12		0.025	1	1050	1	2/14	04/25/11 11:30	64447 2-WBEK RUSH -- Amber Liter
9	AY36209 MS-1	AY36209W30	0.025	1	0.025	1050	1	2/14	04/25/11 11:30	64472 2-WBEK RUSH -- Amber Liter
10	AY36209 MSD-1	AY36209W37	0.025	1	0.025	1050	1	2/14	04/25/11 11:30	64472 2-WBEK RUSH -- Amber Liter
11	AY36209	AY36209W38		0.025	1	1000	1	2/14	04/25/11 11:30	64472 2-WBEK RUSH -- Amber Liter
12	AY36212	AY36212W18		0.025	1	1030	1	2/14	04/25/11 11:30	64472 2-WBEK RUSH -- Amber Liter
13	AY36213	AY36213W16		0.025	1	1000	1	2/14	04/25/11 11:30	64472 2-WBEK RUSH -- Amber Liter

Solvent and Lot#	
MC	VWR 112910A
Na2SO4	0440C237
10N NaOH	04/01/11
I+I Acid	03/14/11
A. Na2SO4	03/14/11

Extraction COC Transfer	
Extraction lab employee Initials	CC
GC analyst's initials	IF
Date	5/11/11
Time	1700
Refrigerator	HobaA

Technician's Initials	
Scanned By	DL
Sample Preparation	DL CC
Extraction	DL CC
Concentration	CC
Modified	04/25/11 11:02:31 AM

Reviewed By: CC      165      Date 04/25/11

# Organic Extraction Worksheet

<b>Method</b>	SIM Separatory Funnel Extra 3510C	<b>Extraction Set</b>	110425A	<b>Extraction Method</b>	SBP004S	<b>Units</b>	mL
Spiked ID 1	SIM Spike I66254-27834	Surrogate ID 1	8270 SIM Surrogate 164394-27499				
Spiked ID 2		Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		YES			
Spiked ID 7		Ext. Start Time:					
Spiked ID 8		Ext. End Time:					
		GC Requires Extract By:		05/04/11 0:00			
pH1	2	04/25/11 11:30:00 AM		W Bath Temp		80 °C	
pH2	14	04/25/11 12:35:00 PM					
pH3							

Spiked By: DL

Date 04/25/11

Witnessed By: CC

Date 04/25/11

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
14 AY36311	AY36311W05			0.025	1	1030	1	2/14	04/25/11 11:30	64475 2-WBBK RUSH -- Amber Liter
15 AY36312 MS-1	AY36312W25	0.025	1	0.025	1	1020	1	2/14	04/25/11 11:30	64475 2-WBBK RUSH -- Amber Liter
16 AY36312 MSD-1	AY36312W27	0.025	1	0.025	1	1020	1	2/14	04/25/11 11:30	64475 2-WBBK RUSH -- Amber Liter
17 AY36312	AY36312W26			0.025	1	1030	1	2/14	04/25/11 11:30	64475 2-WBBK RUSH -- Amber Liter
18 AY36313	AY36313W05			0.025	1	1020	1	2/14	04/25/11 11:30	64475 2-WBBK RUSH -- Amber Liter
19 AY36316	AY36316W05			0.025	1	1020	1	2/14	04/25/11 11:30	64475 2-WBBK RUSH -- Amber Liter
20 AY36317	AY36317W06			0.025	1	1020	1	2/14	04/25/11 11:30	64475 2-WBBK RUSH -- Amber Liter

UP 4/25/11

Solvent and Lot#	
MC	VWR 112910A
Na2SO4	0440C237
10N NaOH	04/01/11
I+I Acid	03/14/11
A. Na2SO4	03/14/11

Extraction COC Transfer	
Extraction lab employee Initials	CC
GC analyst's initials	IF
Date	5/1/11
Time	1:20
Refrigerator	USDA

Technician's Initials	
Scanned By	DL
Sample Preparation	DL CC
Extraction	DL CC
Concentration	CC
Modified	04/25/11 11:02:31 AM

Reviewed By: CC      166      Date 04/25/11

## Injection Log

Directory: M:\LINUS\DATA\L110420\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0420L001.D	1	SVTUNE 04-14-11		20 Apr 11 21:00
2	2	0420L002.D	1	0.1ug/ml PAH 04-20-11		20 Apr 11 21:19
3	3	0420L003.D	1	0.2ug/ml PAH		20 Apr 11 21:44
4	4	0420L004.D	1	0.5ug/ml PAH		20 Apr 11 22:10
5	5	0420L005.D	1	1.0ug/ml PAH		20 Apr 11 22:35
6	6	0420L006.D	1	5.0ug/ml PAH		20 Apr 11 23:01
7	7	0420L007.D	1	10ug/ml PAH		20 Apr 11 23:27
8	8	0420L008.D	1	50ug/ml PAH		20 Apr 11 23:52
9	9	0420L009.D	1	100ug/ml PAH		21 Apr 11 00:18
10	10	0420L010.D	1	5.0ug/ml PAH SS 04-11-11		21 Apr 11 00:43
11	1	0511L001.D	1	SVTUNE 04-14-11		11 May 11 19:18
12	2	0511L002.D	1	5.0ug/ml PAH 04-20-11		11 May 11 19:37
13	3	0511L003.D	1	110425A BLK 1/1000		11 May 11 20:03
14	4	0511L004.D	1	110425A LCS-1 1/1000		11 May 11 20:28
15	16	0511L016.D	0.97087	AY36311W05 1/1030		12 May 11 1:35
16	17	0511L017.D	0.98039	AY36312W25 MS-1 1/1020		12 May 11 2:00
17	18	0511L018.D	0.98039	AY36312W27 MSD-1 1/1020		12 May 11 2:25
18	19	0511L019.D	0.97087	AY36312W26 1/1030		12 May 11 2:51
19	20	0511L020.D	0.98039	AY36313W05 1/1020		12 May 11 3:16
20	21	0511L021.D	0.98039	AY36316W05 1/1020		12 May 11 3:41
21	22	0511L022.D	0.98039	AY36317W06 1/1020		12 May 11 4:07

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



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

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

Blank Name/QCG: **110422W-36312 - 155156**  
Batch ID: #86RHB-110422AC

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/23/11	04/23/11
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/23/11	04/23/11
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/23/11	04/23/11
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	04/23/11	04/23/11
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/23/11	04/23/11
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/23/11	04/23/11
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/23/11	04/23/11
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/23/11	04/23/11
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/23/11	04/23/11
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/23/11	04/23/11
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/23/11	04/23/11
BLANK	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	04/23/11	04/23/11
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/23/11	04/23/11
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
BLANK	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C30
Instrument: Chico
Sequence: C110422
Initials: LF

GC SC-Blank-REG MDLs  
Printed: 05/16/11 8:33:45 PM

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

Blank Name/QCG: **110422W-36312 - 155156**  
 Batch ID: #86RHB-110422AC

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/23/11	04/23/11
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/23/11	04/23/11
BLANK	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	04/23/11	04/23/11
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
BLANK	SURROGATE: 1,2-DICHLOROET	94.2	70-120			%	04/23/11	04/23/11
BLANK	SURROGATE: 4-BROMOFLUORO	96.3	75-120			%	04/23/11	04/23/11
BLANK	SURROGATE: DIBROMOFLUOR	91.6	85-115			%	04/23/11	04/23/11
BLANK	SURROGATE: TOLUENE-D8 (S)	89.6	85-120			%	04/23/11	04/23/11

Quant Method: C86DODW.M  
 Run #: 0422C30  
 Instrument: Chico  
 Sequence: C110422  
 Initials: LF

GC SC-Blank-REG MDLs  
 Printed: 05/16/11 8:33:45 PM

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 64475

Case No: 64475

Date Analyzed: 04/23/11

Matrix: WATER

Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)	SURROGATE: 4-BROMOFLUOROBENZENE (S)
110422AC-LCS	Lab Control Spike	97.7	98.0
110422AC-BLK	Blank	94.2	96.3
AY36318	ES026	97.4	94.7
AY36319	ES027	100	98.0
AY36311	ES019	101	100.0
AY36314	ES022	99.3	94.9
AY36315	ES023	101	99.0
AY36312	ES020	99.0	98.1
AY36313	ES021	90.5	92.8
AY36316	ES024	84.4	89.1
AY36317	ES025	83.9	89.2
AY36312-MS	Matrix Spike	104	99.1
AY36312-MSD	Matrix SpikeD	86.9	93.8

Comments: Batch: #86RHB-110422AC

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 64475

Case No: 64475

Date Analyzed: 04/23/11

Matrix: WATER

Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)	SURROGATE: TOLUENE-D8 (S)
110422AC-LCS	Lab Control Spike	95.2	90.0
110422AC-BLK	Blank	91.6	89.6
AY36318	ES026	95.6	89.9
AY36319	ES027	93.4	91.8
AY36311	ES019	95.0	91.4
AY36314	ES022	95.0	90.3
AY36315	ES023	98.2	88.4
AY36312	ES020	94.8	91.7
AY36313	ES021	90.0	90.2
AY36316	ES024	88.4	90.7
AY36317	ES025	87.8	89.3
AY36312-MS	Matrix Spike	98.6	85.8
AY36312-MSD	Matrix SpikeD	91.4	90.4

Comments: Batch: #86RHB-110422AC

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

APPL ID: 110423W-36312 LCS - 155156

Batch ID: #86RHB-110422AC

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,1,1,2-TETRACHLOROETHANE	10.00	9.83	98.3	80-130
1,1,1-TRICHLOROETHANE	10.00	10.5	105	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	8.23	82.3	65-130
1,1,2-TRICHLOROETHANE	10.00	10.2	102	75-125
1,1-DICHLOROETHANE	10.00	10.0	100	70-135
1,1-DICHLOROETHENE	10.00	10.5	105	70-130
1,2,3-TRICHLOROPROPANE	10.00	10.2	102	75-125
1,2,4-TRICHLOROBENZENE	10.00	8.67	86.7	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	8.47	84.7	50-130
1,2-DIBROMOETHANE	10.00	9.14	91.4	70-130
1,2-DICHLOROBENZENE	10.00	9.46	94.6	70-120
1,2-DICHLOROETHANE	10.00	10.1	101	70-130
1,2-DICHLOROPROPANE	10.00	9.84	98.4	75-125
1,3-DICHLOROBENZENE	10.00	9.43	94.3	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	18.4	92.0	70-130
1,4-DICHLOROBENZENE	10.00	9.58	95.8	75-125
2-BUTANONE	10.00	8.81	88.1	30-150
4-METHYL-2-PENTANONE	10.00	9.69	96.9	60-135
ACETONE	10.00	8.47	84.7	40-140
BENZENE	10.00	10.1	101	80-120
BROMODICHLOROMETHANE	10.00	9.39	93.9	75-120
BROMOFORM	10.00	9.72	97.2	70-130
BROMOMETHANE	10.00	9.35	93.5	30-145
CARBON TETRACHLORIDE	10.00	10.2	102	65-140
CHLOROBENZENE	10.00	10.1	101	80-120
CHLORODIBROMOMETHANE	10.00	9.50	95.0	60-135

Comments:

Primary	SPK
Quant Method :	C86DODW.M
Extraction Date :	04/23/11
Analysis Date :	04/23/11
Instrument :	Chico
Run :	0422C25
Initials :	LF

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## Laboratory Control Spike Recovery

### EPA 8260B VOCs + Gas Water

APPL ID: 110423W-36312 LCS - 155156  
 Batch ID: #86RHB-110422AC

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	10.8	108	60-135
CHLOROFORM	10.00	10.1	101	65-135
CHLOROMETHANE	10.00	11.3	113	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.66	96.6	70-125
ETHYLBENZENE	10.00	10.3	103	75-125
GASOLINE	300	279	93.0	75-125
HEXACHLOROBUTADIENE	10.00	9.14	91.4	50-140
METHYL TERT-BUTYL ETHER	10.00	9.44	94.4	65-125
METHYLENE CHLORIDE	10.00	10.2	102	55-140
STYRENE	10.00	9.62	96.2	65-135
TETRACHLOROETHENE	10.00	10.1	101	45-150
TOLUENE	10.00	10.7	107	75-120
TRANS-1,2-DICHLOROETHENE	10.00	10.5	105	60-140
TRICHLOROETHENE	10.00	11.4	114	70-125
VINYL CHLORIDE	10.00	11.7	117	50-145
XYLENES (TOTAL)	30.0	30.9	103	80-120
-----				
SURROGATE: 1,2-DICHLOROETHANE-D	22.3	21.8	97.7	70-120
SURROGATE: 4-BROMOFLUOROBENZE	26.3	25.8	98.0	75-120
SURROGATE: DIBROMOFLUOROMETH	23.5	22.4	95.2	85-115
SURROGATE: TOLUENE-D8 (S)	26.0	23.4	90.0	85-120
-----				

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

<u>Primary</u>	<u>SPK</u>
Quant Method :	C86DODW.M
Extraction Date :	04/23/11
Analysis Date :	04/23/11
Instrument :	Chico
Run :	0422C25
Initials :	LF

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**Matrix Spike Recoveries**  
**EPA 8260B VOCs + Gas Water**

APPL ID: 110425W-36312 MS - 155156  
Batch ID: #86RHB-110422AC  
Sample ID: AY36312  
Client ID: ES020

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,1,1,2-TETRACHLOROETHANE	10.00	ND	9.67	9.49	96.7	94.9	80-130	1.9	30
1,1,1-TRICHLOROETHANE	10.00	ND	10.3	9.15	103	91.5	65-130	11.8	30
1,1,2,2-TETRACHLOROETHANE	10.00	ND	9.19	9.89	91.9	98.9	65-130	7.3	30
1,1,2-TRICHLOROETHANE	10.00	ND	10.5	10.3	105	103	75-125	1.9	30
1,1-DICHLOROETHANE	10.00	ND	10.4	9.84	104	98.4	70-135	5.5	30
1,1-DICHLOROETHENE	10.00	ND	10.7	10.3	107	103	70-130	3.8	30
1,2,3-TRICHLOROPROPANE	10.00	ND	9.91	10.3	99.1	103	75-125	3.9	30
1,2,4-TRICHLOROBENZENE	10.00	ND	8.84	8.02	88.4	80.2	65-135	9.7	30
1,2-DIBROMO-3-CHLOROPROPANE	10.00	ND	8.39	9.11	83.9	91.1	50-130	8.2	30
1,2-DIBROMOETHANE	10.00	ND	9.40	9.72	94.0	97.2	70-130	3.3	30
1,2-DICHLOROBENZENE	10.00	ND	8.73	9.10	87.3	91.0	70-120	4.2	30
1,2-DICHLOROETHANE	10.00	ND	10.1	8.66	101	86.6	70-130	15.4	30
1,2-DICHLOROPROPANE	10.00	ND	9.51	10.2	95.1	102	75-125	7.0	30
1,3-DICHLOROBENZENE	10.00	ND	8.64	9.07	86.4	90.7	75-125	4.9	30
1,3-DICHLOROPROPENE, TOTAL	20.0	ND	19.6	19.1	98.0	95.5	70-130	2.6	30
1,4-DICHLOROBENZENE	10.00	ND	9.02	9.50	90.2	95.0	75-125	5.2	30
2-BUTANONE	10.00	ND	9.91	9.43	99.1	94.3	30-150	5.0	30
4-METHYL-2-PENTANONE	10.00	ND	8.11	8.50	81.1	85.0	60-135	4.7	30
ACETONE	10.00	ND	8.43	8.46	84.3	84.6	40-140	0.36	30
BENZENE	10.00	ND	10.0	10.0	100	100	80-120	0.0	30
BROMODICHLOROMETHANE	10.00	ND	10.1	9.05	101	90.5	75-120	11.0	30
BROMOFORM	10.00	ND	9.50	9.32	95.0	93.2	70-130	1.9	30
BROMOMETHANE	10.00	ND	10.2	9.22	102	92.2	30-145	10.1	30
CARBON TETRACHLORIDE	10.00	ND	10.4	9.50	104	95.0	65-140	9.0	30
CHLOROBENZENE	10.00	ND	9.22	9.73	92.2	97.3	80-120	5.4	30

Comments:

Primary	SPK	DUP
Quant Method :	C86DODW.M	C86DODW.M
Extraction Date :	04/25/11	04/25/11
Analysis Date :	04/25/11	04/25/11
Instrument :	Chico	Chico
Run :	0425C07	0425C08
Initials :	LF	

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APPL MSD SCH



**Matrix Spike Recoveries**  
**EPA 8260B VOCs + Gas Water**

APPL ID: 110425W-36312 MS - 155156  
Batch ID: #86RHB-110422AC  
Sample ID: AY36312  
Client ID: ES020

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
CHLORODIBROMOMETHANE	10.00	ND	9.75	9.41	97.5	94.1	60-135	3.5	30
CHLOROETHANE	10.00	ND	9.90	10.0	99.0	100	60-135	1.0	30
CHLOROFORM	10.00	ND	10.3	9.72	103	97.2	65-135	5.8	30
CHLOROMETHANE	10.00	ND	9.30	8.96	93.0	89.6	40-125	3.7	30
CIS-1,2-DICHLOROETHENE	10.00	ND	9.88	9.79	98.8	97.9	70-125	0.92	30
ETHYLBENZENE	10.00	ND	9.48	9.86	94.8	98.6	75-125	3.9	30
GASOLINE	300	24	344	340	107	105	75-125	1.2	30
HEXACHLOROBUTADIENE	10.00	ND	8.60	7.52	86.0	75.2	50-140	13.4	30
METHYL TERT-BUTYL ETHER	10.00	ND	10.0	9.70	100	97.0	65-125	3.0	30
METHYLENE CHLORIDE	10.00	ND	10.8	10.6	108	106	55-140	1.9	30
STYRENE	10.00	ND	9.58	9.34	95.8	93.4	65-135	2.5	30
TETRACHLOROETHENE	10.00	ND	9.20	10.0	92.0	100	45-150	8.3	30
TOLUENE	10.00	ND	9.78	9.91	97.8	99.1	75-120	1.3	30
TRANS-1,2-DICHLOROETHENE	10.00	ND	10.4	10.3	104	103	60-140	0.97	30
TRICHLOROETHENE	10.00	ND	9.48	9.31	94.8	93.1	70-125	1.8	30
VINYL CHLORIDE	10.00	ND	11.7	10.2	117	102	50-145	13.7	30
XYLENES (TOTAL)	30.0	0.41	28.9	30.5	95.0	100	80-120	5.4	30
-----									
SURROGATE: 1,2-DICHLOROETHANE-D	22.3	NA	23.3	19.4	104	86.9	70-120		
SURROGATE: 4-BROMOFLUOROBENZE	26.3	NA	26.1	24.7	99.1	93.8	75-120		
SURROGATE: DIBROMOFLUOROMETH	23.5	NA	23.2	21.5	98.6	91.4	85-115		
SURROGATE: TOLUENE-D8 (S)	26.0	NA	22.3	23.5	85.8	90.4	85-120		

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

Primary	SPK	DUP
Quant Method :	C86DODW.M	C86DODW.M
Extraction Date :	04/25/11	04/25/11
Analysis Date :	04/25/11	04/25/11
Instrument :	Chico	Chico
Run :	0425C07	0425C08
Initials :	LF	

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 64475

Case No: 64475

Date Analyzed: 04/23/11

Matrix: WATER

Instrument: Chico

Blank ID: 110422AC-BLK

Time Analyzed: 1058

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
110422AC-LCS	Lab Control Spike	0422C25	04/23/11 0728
110422AC-BLK	Blank	0422C30	04/23/11 1058
AY36318	ES026	0422C31	04/23/11 1133
AY36319	ES027	0422C32	04/23/11 1209
AY36311	ES019	0422C33	04/23/11 1244
AY36314	ES022	0422C34	04/23/11 1319
AY36315	ES023	0422C35	04/23/11 1354
AY36312	ES020	0422C36	04/23/11 1429
AY36313	ES021	0422C37	04/23/11 1504
AY36316	ES024	0422C38	04/23/11 1539
AY36317	ES025	0422C39	04/23/11 1614
110422AC-MS	Matrix Spike	0425C07	04/25/11 1448
110422AC-MSD	Matrix SpikeD	0425C08	04/25/11 1523

Comments: Batch: #86RHB-110422AC

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 64475  
 Matrix: Water  
 ID: 20ug/ml BFB STD 04-15-11A

SDG No: 64475  
 Date Analyzed: 04/23/11  
 Instrument: Chico  
 Time Analyzed: 6:18

Client Sample No.	APPL ID.	File ID.	Date Analyzed	
1	Lab Control Spike	110422A LCS-1WC (SS)	0422C25W.D	04/23/11 7:28
2	Blank	110422A BLK-1WC	0422C30W.D	04/23/11 10:58
3	ES026	AY36318W01	0422C31W.D	04/23/11 11:33
4	ES027	AY36319W01	0422C32W.D	04/23/11 12:09
5	ES019	AY36311W01	0422C33W.D	04/23/11 12:44
6	ES022	AY36314W01	0422C34W.D	04/23/11 13:19
7	ES023	AY36315W01	0422C35W.D	04/23/11 13:54
8	ES020	AY36312W01	0422C36W.D	04/23/11 14:29
9	ES021	AY36313W01	0422C37W.D	04/23/11 15:04
10	ES024	AY36316W01	0422C38W.D	04/23/11 15:39
11	ES025	AY36317W01	0422C39W.D	04/23/11 16:14
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

50 15 - 40% of mass 95	15.5
75 30 - 60% of mass 95	41.1
95 100 - 100% of mass 95	100.0
96 5 - 9% of mass 95	6.6
173 0 - 2% of mass 174	0.1
174 50 - 100% of mass 95	97.1
175 5 - 9% of mass 174	7.9
176 95 - 101% of mass 174	98.6
177 5 - 9% of mass 176	6.7

Form 5  
Tune Summary

Lab Name: APPL Inc.

SDG No: Chico

Case No: 0425C00T.D

Date Analyzed: 04/25/11

Matrix: Water

Instrument: Chico

ID: 20ug/ml BFB STD 04-15-11A

Time Analyzed: 10:08

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1 Matrix Spike	AY36312W234 MS-1WC	0425C07W.D	04/25/11 14:48
2 Matrix Spike Dup	AY36312W234 MSD-1WC	0425C08W.D	04/25/11 15:23
3 Matrix Spike	AY36312W567MS-1WC	0425C09W.D	04/25/11 15:58
4 Matrix Spike Dup	AY36312W567MSD-1WC	0425C10W.D	04/25/11 16:34
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50 15 - 40% of mass 95	<u>15.6</u>
75 30 - 60% of mass 95	<u>40.9</u>
95 100 - 100% of mass 95	<u>100.0</u>
96 5 - 9% of mass 95	<u>6.5</u>
173 0 - 2% of mass 174	<u>0.0</u>
174 50 - 100% of mass 95	<u>98.1</u>
175 5 - 9% of mass 174	<u>7.2</u>
176 95 - 101% of mass 174	<u>97.6</u>
177 5 - 9% of mass 176	<u>6.4</u>

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 64475  
 Lab File ID (Standard): 0422C09W.D Date Analyzed: 04/22/11  
 Instrument ID: Chico Time Analyzed: 20:57  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		440128	12.90	324224	18.10	180544	22.30
UPPER LIMIT		880256	13.40	648448	18.60	361088	22.80
LOWER LIMIT		220064	12.40	162112	17.60	90272	21.80
SAMPLE NO.							
01	110422A LCS-1WC (SS)	455808	12.91	350144	18.09	195456	22.29
02	110422A BLK-1WC	448832	12.91	329216	18.10	182080	22.29
03	AY36318W01	411648	12.90	318464	18.10	169984	22.29
04	AY36319W01	428096	12.91	307008	18.10	159296	22.30
05	AY36311W01	403072	12.91	302976	18.10	171264	22.30
06	AY36314W01	397888	12.91	297856	18.10	161088	22.30
07	AY36315W01	390208	12.91	294912	18.10	160064	22.30
08	AY36312W01	392128	12.91	290176	18.10	167488	22.30
09	AY36313W01	495616	12.91	374080	18.10	205376	22.30
10	AY36316W01	554432	12.92	414270	18.10	237120	22.30
11	AY36317W01	551552	12.91	413184	18.11	226112	22.31
12	AY36312W234 MS-1W01	405440	12.88	326592	18.08	197440	22.28
13	AY36312W234 MSD-1W01	546304	12.89	407488	18.08	237568	22.27
14							
15							
16							
17							
18							
19							
20							
21							
22							

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

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

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

## EPA 8260B VOCs + Gas Water

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES019

APPL ID: AY36311

Sample Collection Date: 04/19/11

QCG: #86RHB-110422AC-155156

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/23/11	04/23/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/23/11	04/23/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/23/11	04/23/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/23/11	04/23/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/23/11	04/23/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	04/23/11	04/23/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/23/11	04/23/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C33
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF

Printed: 05/16/11 8:34:02 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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES019

APPL ID: AY36311

Sample Collection Date: 04/19/11

QCG: #86RHB-110422AC-155156

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	04/23/11	04/23/11
EPA 8260B	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	04/23/11	04/23/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	101	70-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	100.0	75-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	95.0	85-115			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	91.4	85-120			%	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C33
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF



Data File : M:\CHICO\DATA\C110422\0422C33W.D Vial: 1  
 Acq On : 23 Apr 11 12:44 Operator: RS  
 Sample : AY36311W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: Apr 25 10:45 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	96	403072	25.00000	ppb	0.01
35) Chlorobenzene-D5 (IS)	18.10	117	302976	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.30	152	171264	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.49	111	287731	22.35388	ppb	0.00
Spiked Amount	23.521		Recovery	=	95.040%	
23) 1,2-DCA-D4(S)	12.30	65	184362	22.46063	ppb	0.00
Spiked Amount	22.321		Recovery	=	100.629%	
36) Toluene-D8(S)	15.57	98	1024061	23.76348	ppb	0.00
Spiked Amount	26.002		Recovery	=	91.390%	
44) 4-Bromofluorobenzene(S)	20.17	95	374276	26.33371	ppb	0.00
Spiked Amount	26.339		Recovery	=	99.983%	

Target Compounds Qvalue

Quantitation Report

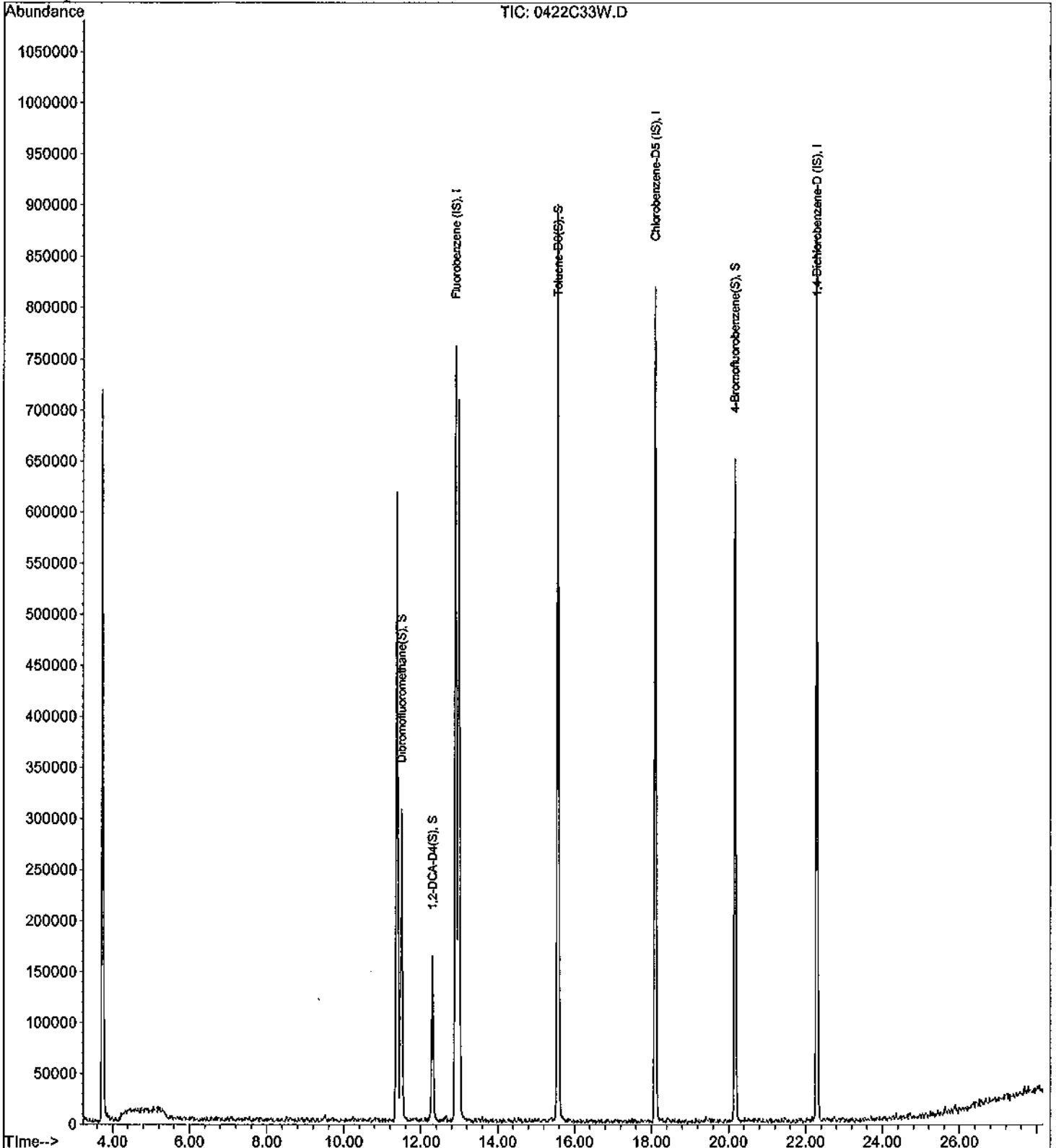
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Acq On : 23 Apr 11 12:44  
Sample : AY36311W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: Apr 25 10:45 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C33W.D Vial: 1  
 Acq On : 23 Apr 11 12:44 Operator: RS  
 Sample : AY36311W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:59 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	TIC	759865	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.10	TIC	818354	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.30	TIC	866413	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.49	TIC	961710	22.79603	ppb	0.00
Spiked Amount	23.521				Recovery = 96.918%	
5) Toluene-D8(S)	15.57	TIC	2717356	26.25869	ppb	0.00
Spiked Amount	26.002				Recovery = 100.988%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	1827096	26.54038	ppb	0.00
Spiked Amount	26.339				Recovery = 100.763%	

Target Compounds Qvalue

Quantitation Report

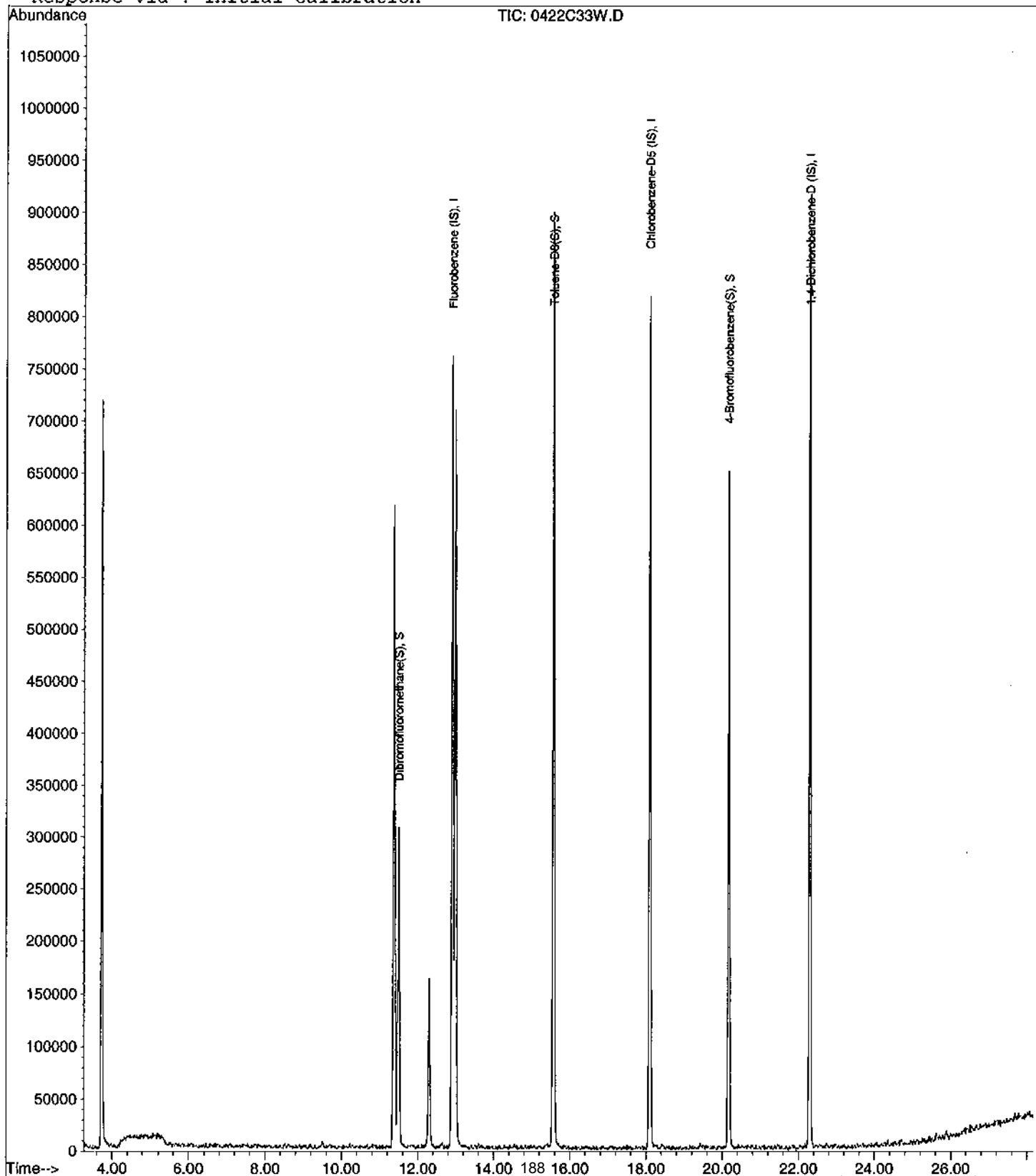
Data File : M:\CHICO\DATA\C110422\0422C33W.D  
Acq On : 23 Apr 11 12:44  
Sample : AY36311W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 19:59 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES020

APPL ID: AY36312

Sample Collection Date: 04/19/11

QCG: #86RHB-110422AC-155156

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/23/11	04/23/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/23/11	04/23/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/23/11	04/23/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/23/11	04/23/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/23/11	04/23/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	04/23/11	04/23/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	GASOLINE	24 ++	20.0	12.12	6.06	ug/L	04/23/11	04/23/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/23/11	04/23/11

J = Estimated value.

++(G3) The analyst has noted that the chromatogram of this sample includes higher boiling hydrocarbons.

Quant Method: C86DODW.M

Run #: 0422C36

Instrument: Chico

Sequence: C110422

Dilution Factor: 1

Initials: LF

Printed: 05/16/11 8:34:02 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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES020

APPL ID: AY36312

Sample Collection Date: 04/19/11

QCG: #86RHB-110422AC-155156

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	04/23/11	04/23/11
EPA 8260B	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	04/23/11	04/23/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	XYLENES (TOTAL)	0.41 J	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	99.0	70-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	98.1	75-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	94.8	85-115			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	91.7	85-120			%	04/23/11	04/23/11

J = Estimated value.

++(G3) The analyst has noted that the chromatogram of this sample includes higher boiling hydrocarbons.

Quant Method: C86DODW.M
Run #: 0422C36
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF

Printed: 05/16/11 8:34:02 PM

APPL-F1-SC-NoMC-REG MDLs

Data File : M:\CHICO\DATA\C110422\0422C36W.D Vial: 1  
 Acq On : 23 Apr 11 14:29 Operator: RS  
 Sample : AY36312W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: Apr 25 10:49 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	96	392128	25.00000	ppb	0.01
35) Chlorobenzene-D5 (IS)	18.10	117	290176	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.30	152	167488	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.49	111	279105	22.28890	ppb	0.00
Spiked Amount	23.521				Recovery =	94.764%
23) 1,2-DCA-D4(S)	12.31	65	176468	22.09893	ppb	0.01
Spiked Amount	22.321				Recovery =	99.007%
36) Toluene-D8(S)	15.57	98	983906	23.83881	ppb	0.01
Spiked Amount	26.002				Recovery =	91.682%
44) 4-Bromofluorobenzene(S)	20.17	95	351935	25.82983	ppb	0.00
Spiked Amount	26.339				Recovery =	98.069%
Target Compounds						
42) o-Xylene	19.16	106	8169	0.40888	ppb	90
53) Isopropylbenzene	19.80	105	205802	3.58954	ppb	97
57) n-Propylbenzene	20.50	91	110733	1.72057	ppb	98
61) Tert-Butylbenzene	21.42	119	38304	0.77418	ppb	94
63) Sec-Butylbenzene	21.81	105	216285	3.39348	ppb	98
67) n-Butylbenzene	22.75	91	67179	1.51357	ppb #	71
72) Naphthalene	25.98	128	23974	2.88076	ppb #	90

Quantitation Report

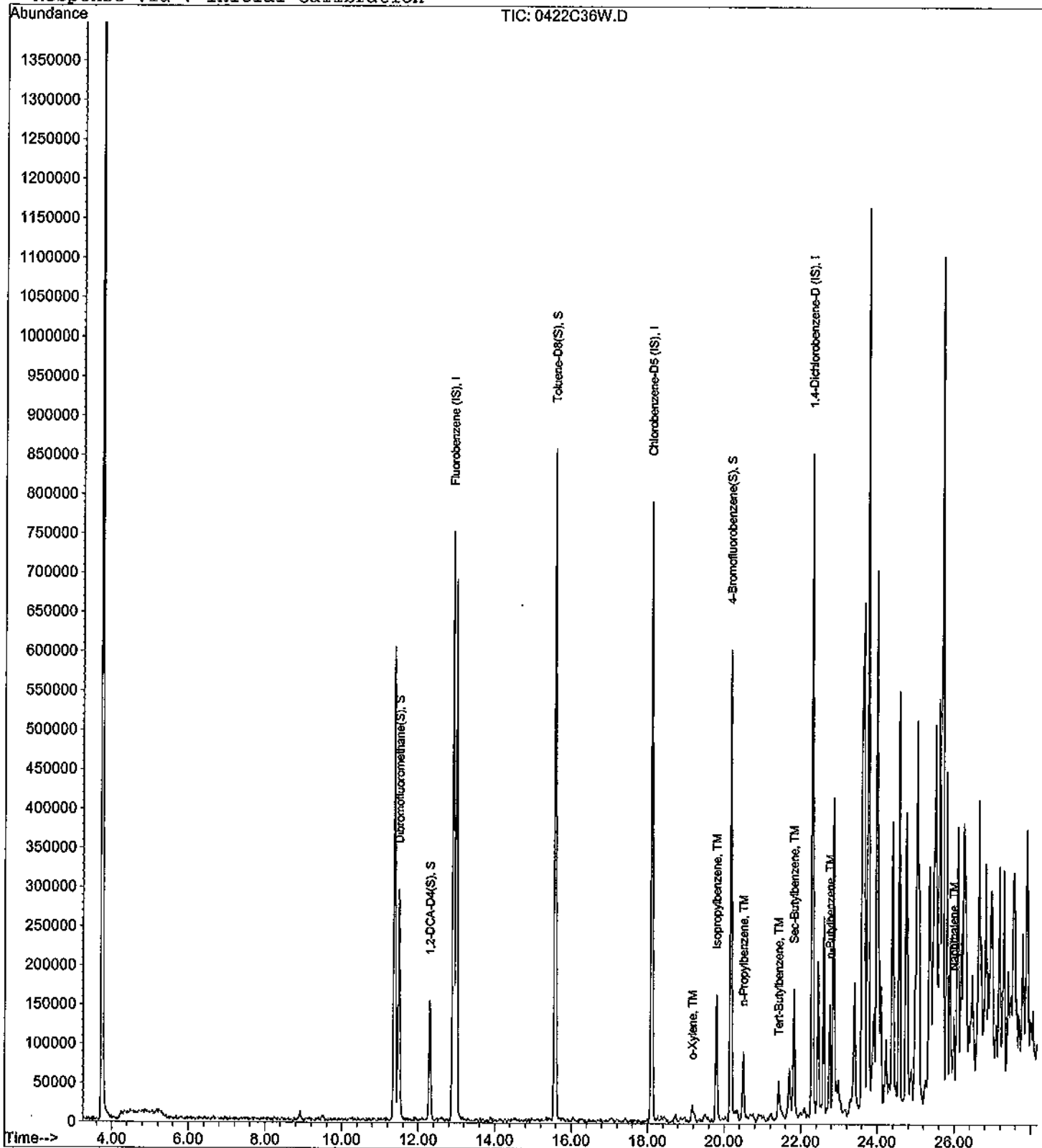
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Acq On : 23 Apr 11 14:29  
Sample : AY36312W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

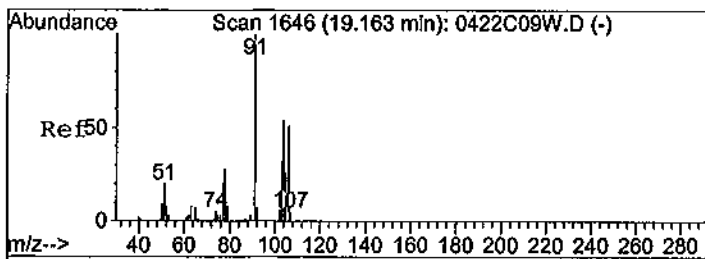
Quant Time: Apr 25 10:49 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration

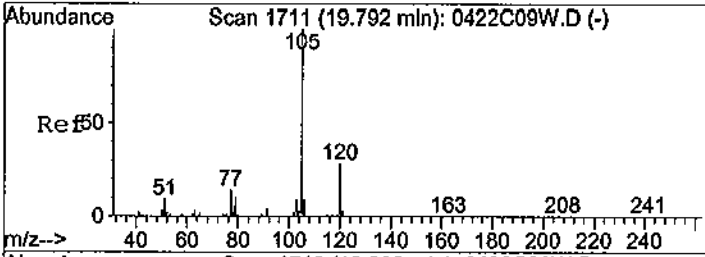
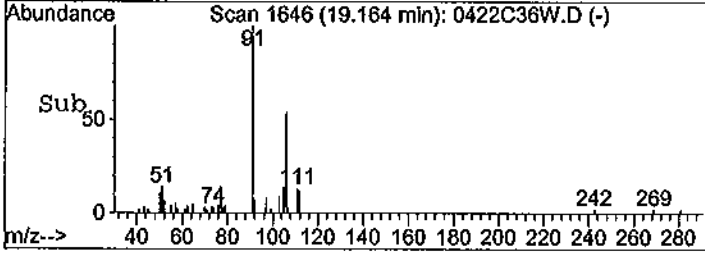
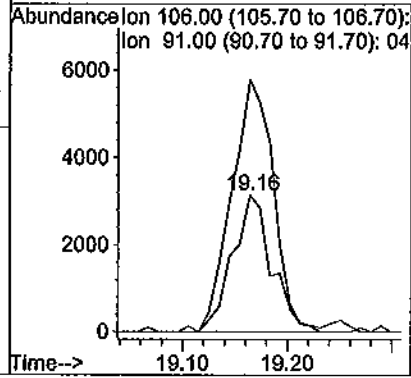
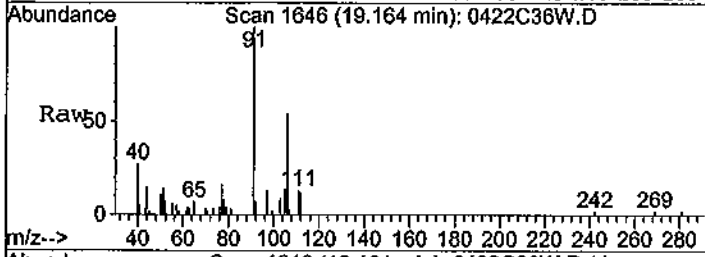






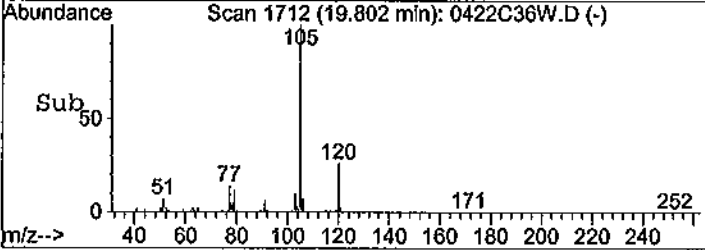
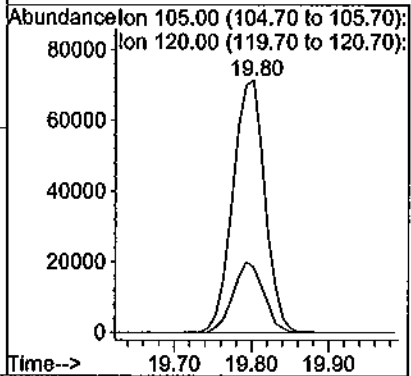
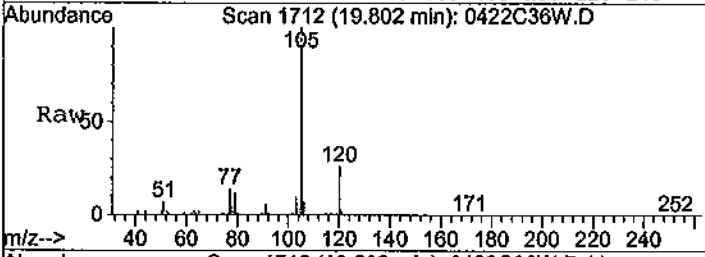
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 o-Xylene  
 Concen: 0.40888 ppb  
 RT: 19.16 min Scan# 1646  
 Delta R.T. 0.00 min  
 Lab File: 0422C36W.D  
 Acq: 23 Apr 11 14:29

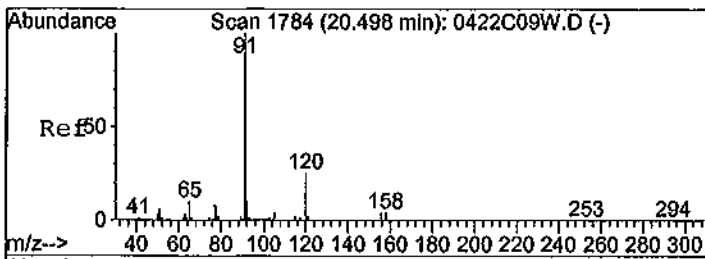
Tgt Ion:106 Resp: 8169  
 Ion Ratio Lower Upper  
 106 100  
 91 180.5 136.4 253.2



#53  
 Isopropylbenzene  
 Concen: 3.58954 ppb  
 RT: 19.80 min Scan# 1712  
 Delta R.T. 0.01 min  
 Lab File: 0422C36W.D  
 Acq: 23 Apr 11 14:29

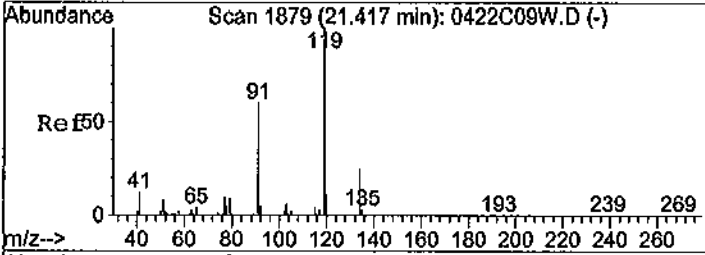
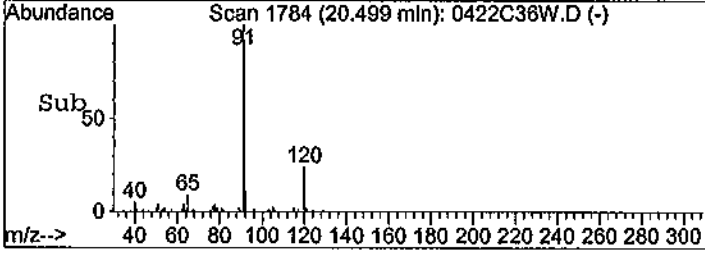
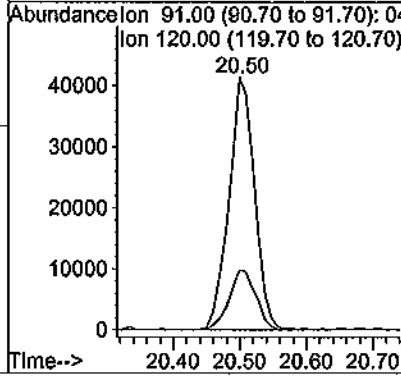
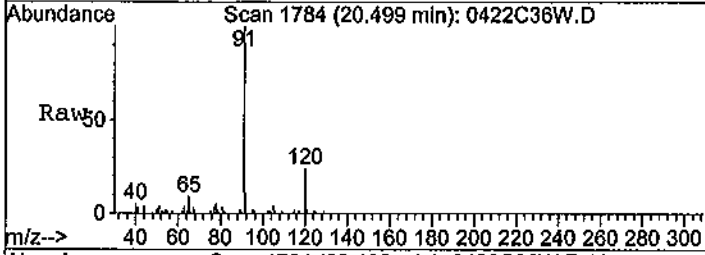
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 Ion Ratio Lower Upper  
 105 100  
 120 26.0 22.2 33.2





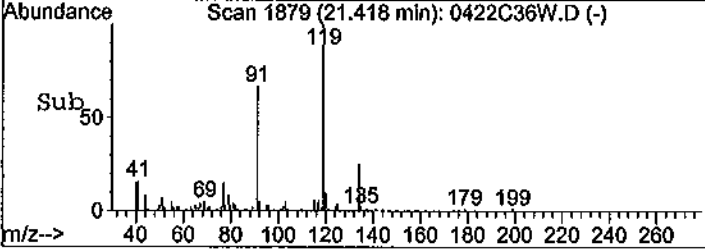
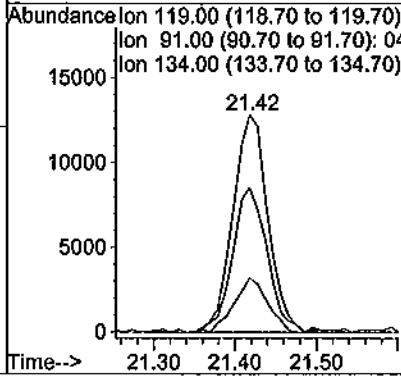
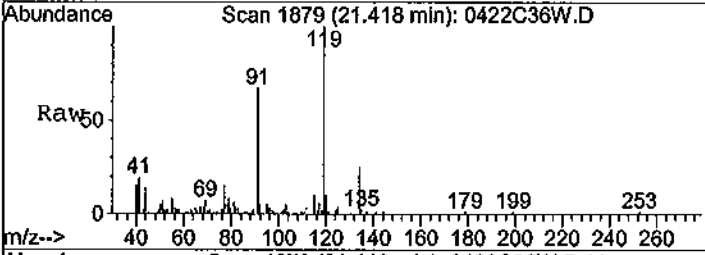
#57  
 n-Propylbenzene  
 Concen: 1.72057 ppb  
 RT: 20.50 min Scan# 1784  
 Delta R.T. 0.00 min  
 Lab File: 0422C36W.D  
 Acq: 23 Apr 11 14:29

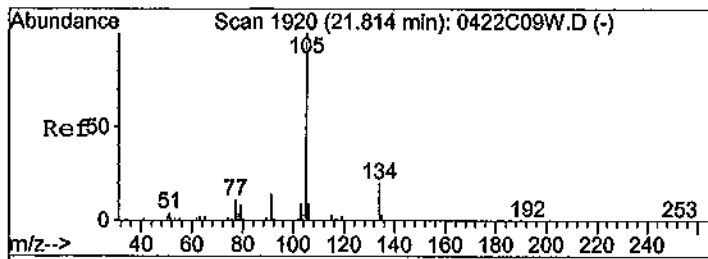
Tgt Ion: 91 Resp: 110733  
 Ion Ratio Lower Upper  
 91 100  
 120 23.7 17.2 31.9



#61  
 Tert-Butylbenzene  
 Concen: 0.77418 ppb  
 RT: 21.42 min Scan# 1879  
 Delta R.T. 0.00 min  
 Lab File: 0422C36W.D  
 Acq: 23 Apr 11 14:29

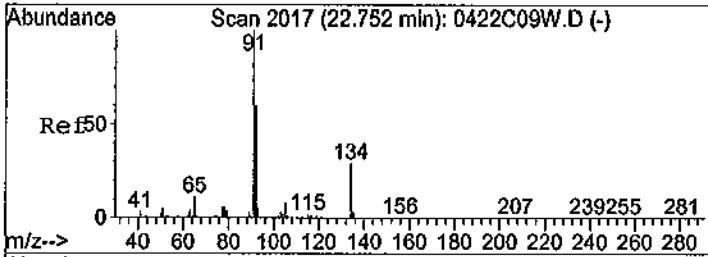
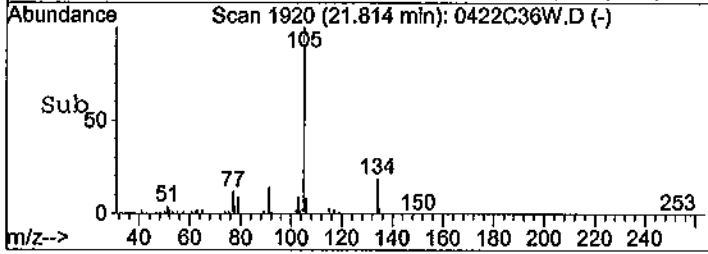
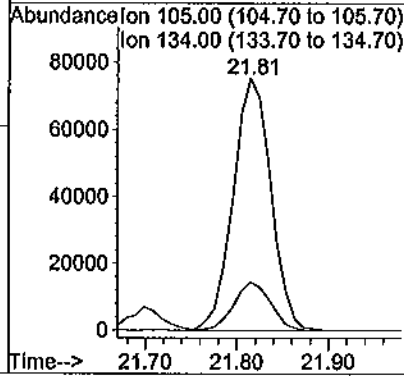
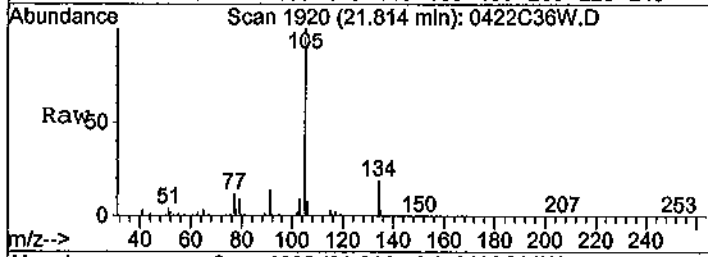
Tgt Ion: 119 Resp: 38304  
 Ion Ratio Lower Upper  
 119 100  
 91 66.6 42.1 78.1  
 134 25.0 17.6 32.6





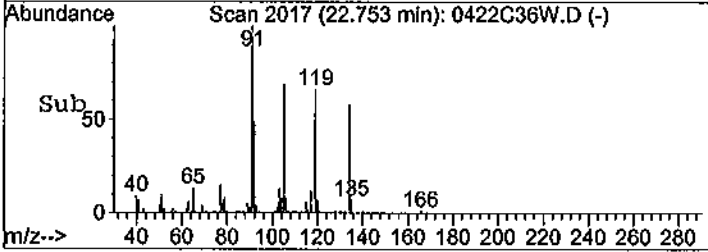
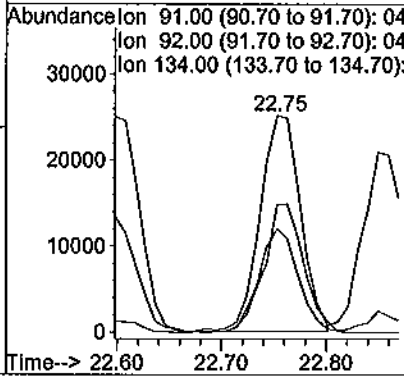
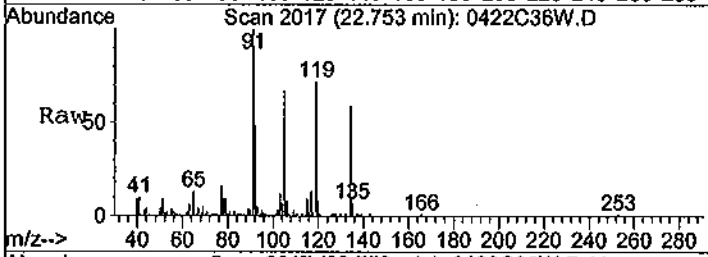
#63  
 Sec-Butylbenzene  
 Concen: 3.39348 ppb  
 RT: 21.81 min Scan# 1920  
 Delta R.T. 0.00 min  
 Lab File: 0422C36W.D  
 Acq: 23 Apr 11 14:29

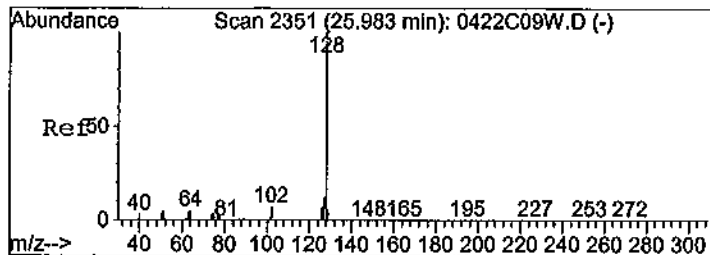
Tgt Ion	Resp	Lower	Upper
105	100		
134	19.2	14.1	26.1



#67  
 n-Butylbenzene  
 Concen: 1.51357 ppb  
 RT: 22.75 min Scan# 2017  
 Delta R.T. 0.00 min  
 Lab File: 0422C36W.D  
 Acq: 23 Apr 11 14:29

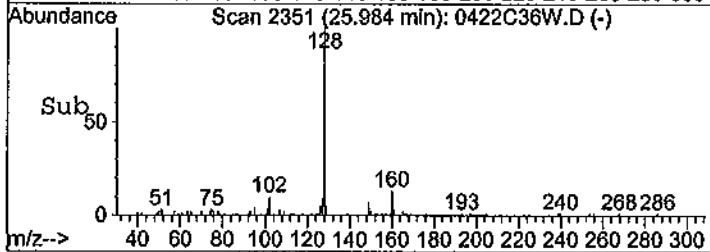
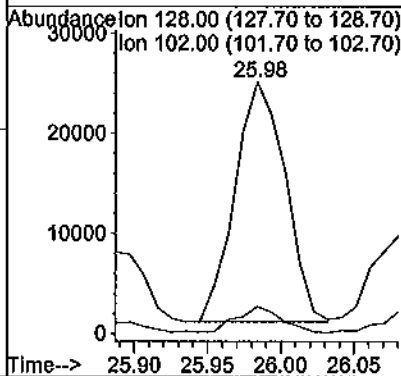
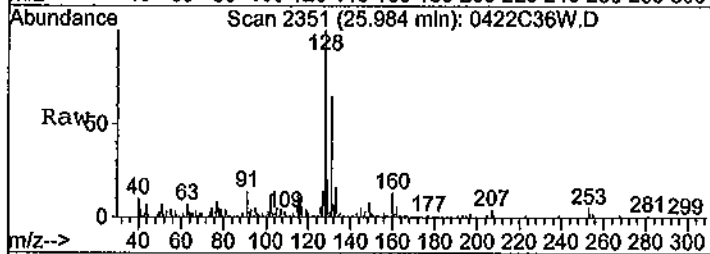
Tgt Ion	Resp	Lower	Upper
91	100		
92	48.1	42.3	78.5
134	58.6	20.4	38.0





#72  
 Naphthalene  
 Concen: 2.88076 ppb  
 RT: 25.98 min Scan# 2351  
 Delta R.T. 0.00 min  
 Lab File: 0422C36W.D  
 Acq: 23 Apr 11 14:29

Tgt Ion: 128 Resp: 23974  
 Ion Ratio Lower Upper  
 128 100  
 102 10.8 5.1 9.5#



Data File : M:\CHICO\DATA\C110422\0422C36W.D Vial: 1  
 Acq On : 23 Apr 11 14:29 Operator: RS  
 Sample : AY36312W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 20:00 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	TIC	751253	25.00000	ppb	0.01
4) Chlorobenzene-D5 (IS)	18.10	TIC	790887	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.30	TIC	843802	25.00000	ppb	0.01
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.49	TIC	912349	21.87391	ppb	0.01
Spiked Amount	23.521		Recovery	=	92.998%	
5) Toluene-D8(S)	15.57	TIC	2611713	26.11432	ppb	0.01
Spiked Amount	26.002		Recovery	=	100.431%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	1773370	26.65458	ppb	0.00
Spiked Amount	26.339		Recovery	=	101.200%	
Target Compounds						
2) Gasoline	15.57	TIC	17237874m	24.27015	ppb	Qvalue 100

Quantitation Report

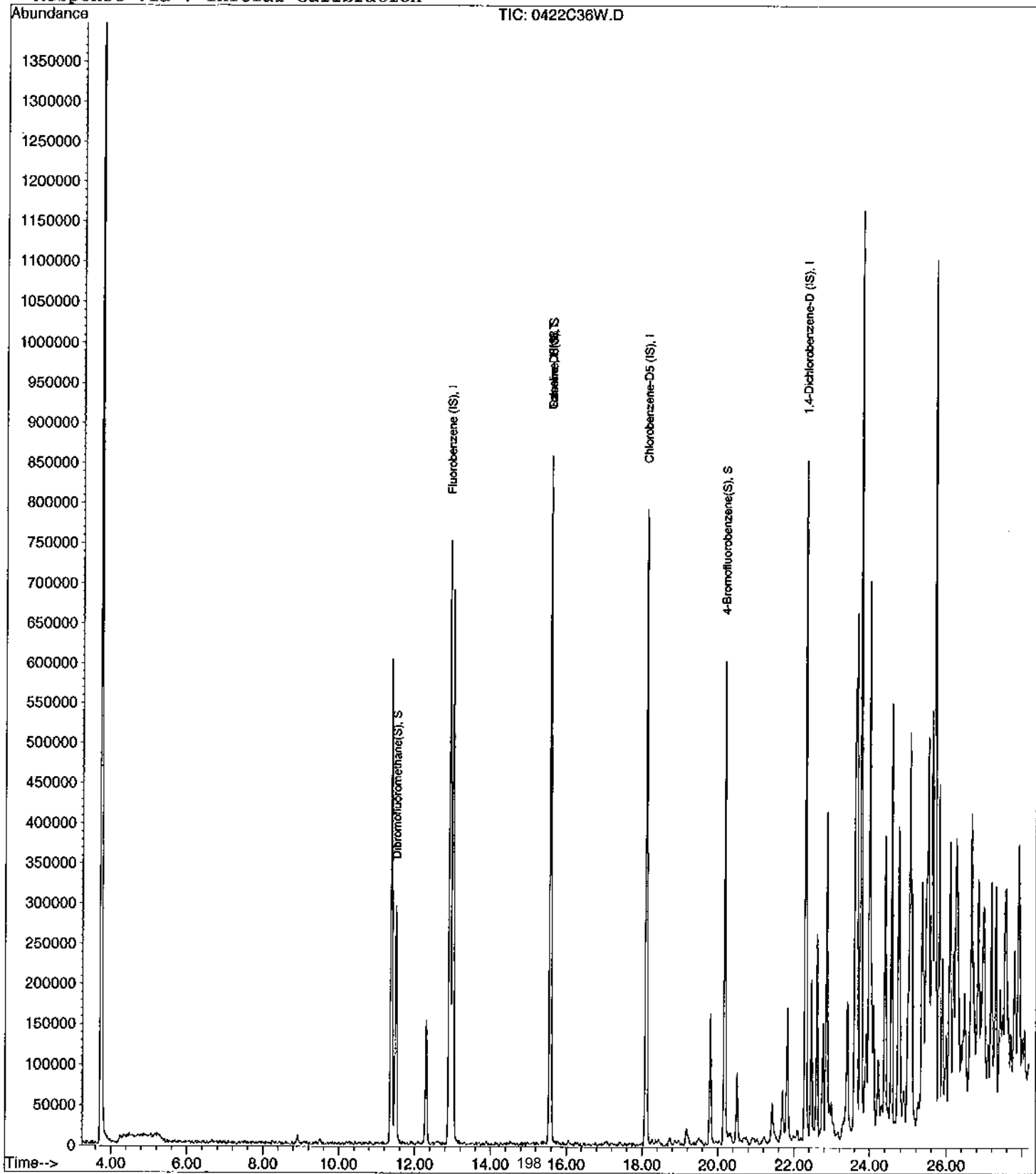
Data File : M:\CHICO\DATA\C110422\0422C36W.D  
Acq On : 23 Apr 11 14:29  
Sample : AY36312W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 20:00 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES021

APPL ID: AY36313

Sample Collection Date: 04/19/11

QCG: #86RHB-110422AC-155156

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/23/11	04/23/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/23/11	04/23/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/23/11	04/23/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/23/11	04/23/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/23/11	04/23/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	04/23/11	04/23/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	GASOLINE	29 ++	20.0	12.12	6.06	ug/L	04/23/11	04/23/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/23/11	04/23/11

J = Estimated value.

++(G3) The analyst has noted that the chromatogram of this sample includes higher boiling hydrocarbons.

Quant Method: C86DODW.M

Run #: 0422C37

Instrument: Chico

Sequence: C110422

Dilution Factor: 1

Initials: LF

Printed: 05/16/11 8:34:02 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: Vilma Dupra  
Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

**Sample ID: ES021**

**APPL ID: AY36313**

Sample Collection Date: 04/19/11

QCG: #86RHB-110422AC-155156

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	04/23/11	04/23/11
EPA 8260B	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	04/23/11	04/23/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	XYLENES (TOTAL)	0.41 J	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	90.5	70-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	92.8	75-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	90.0	85-115			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	90.2	85-120			%	04/23/11	04/23/11

J = Estimated value.

++(G3) The analyst has noted that the chromatogram of this sample includes higher boiling hydrocarbons.

Quant Method: C86D0DW.M
Run #: 0422C37
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF

Printed: 05/16/11 8:34:02 PM

APPL-F1-SC-NoMC-REG MDLs



Data File : M:\CHICO\DATA\C110422\0422C37W.D Vial: 1  
 Acq On : 23 Apr 11 15:04 Operator: RS  
 Sample : AY36313W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: Apr 25 10:51 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	96	495616	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.10	117	374080	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.30	152	205376	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.50	111	335076	21.17127	ppb	0.00
Spiked Amount	23.521			Recovery =	90.011%	
23) 1,2-DCA-D4(S)	12.30	65	203853	20.19784	ppb	0.00
Spiked Amount	22.321			Recovery =	90.490%	
36) Toluene-D8(S)	15.57	98	1247881	23.45315	ppb	0.00
Spiked Amount	26.002			Recovery =	90.198%	
44) 4-Bromofluorobenzene(S)	20.17	95	430474	24.43957	ppb	0.00
Spiked Amount	26.339			Recovery =	92.792%	
Target Compounds						
42) o-Xylene	19.18	106	10641	0.41315	ppb	Qvalue 71
53) Isopropylbenzene	19.80	105	252365	3.58965	ppb	100
57) n-Propylbenzene	20.50	91	145954	1.84946	ppb	98
61) Tert-Butylbenzene	21.42	119	46295	0.76307	ppb	90
63) Sec-Butylbenzene	21.82	105	271311	3.47153	ppb	99
67) n-Butylbenzene	22.76	91	89580	1.64594	ppb	# 77

Quantitation Report

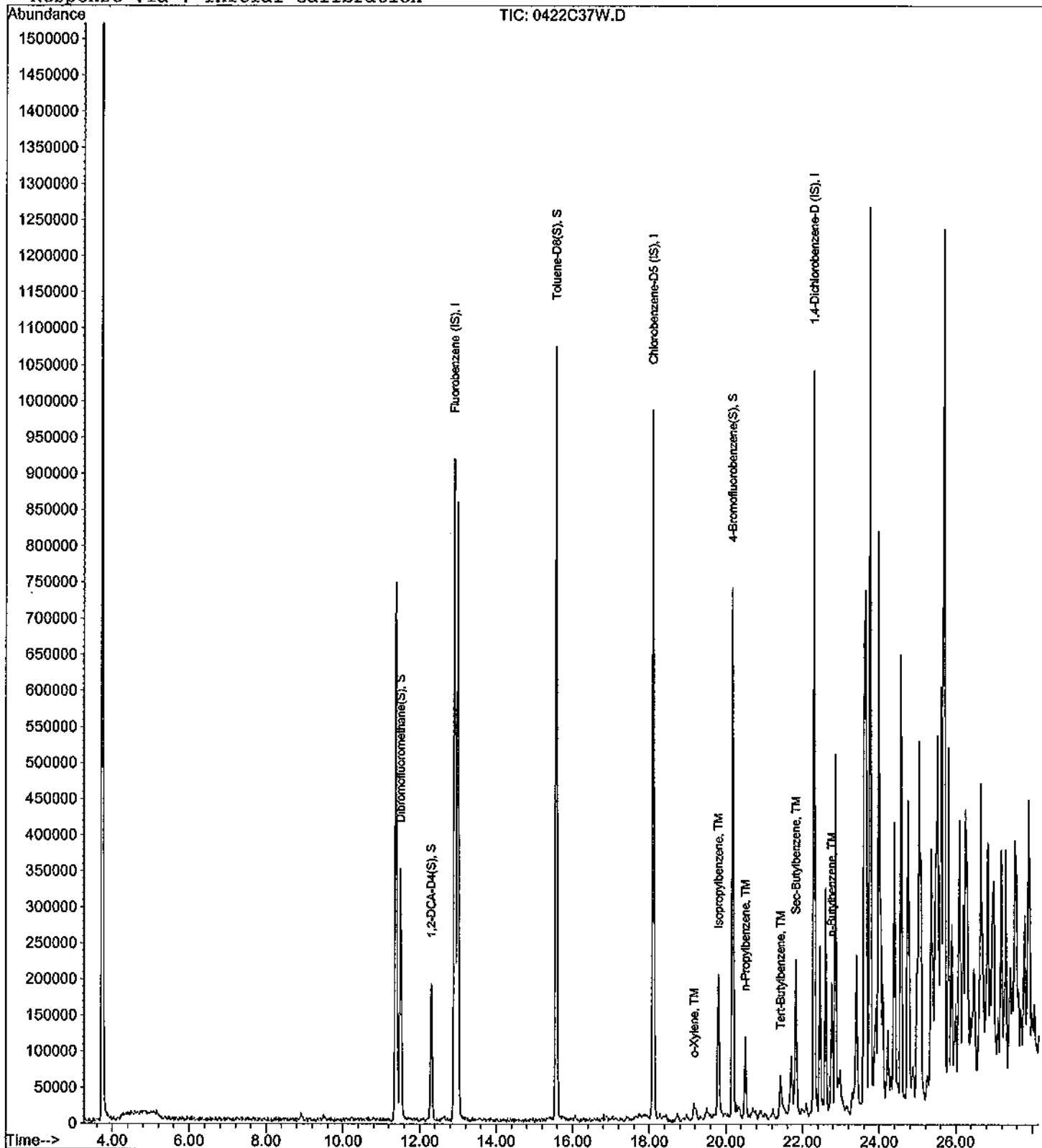
Data File : M:\CHICO\DATA\C110422\0422C37W.D  
Acq On : 23 Apr 11 15:04  
Sample : AY36313W01  
Misc : Water 10ml w/IS&S: 04-12-11

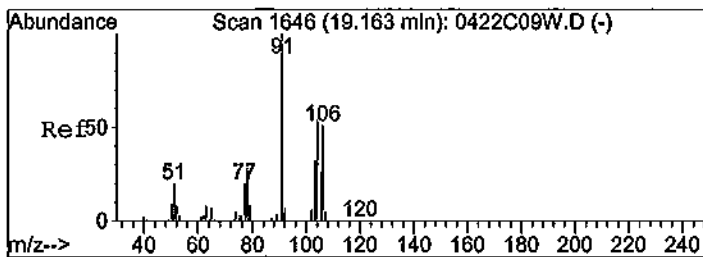
Vial: 1  
Operator: RS  
Inst : Chico  
Multiplr: 1.00

Quant Time: Apr 25 10:51 2011

Quant Results File: C86DODW.RES

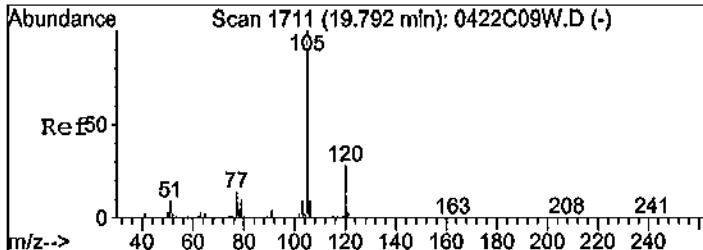
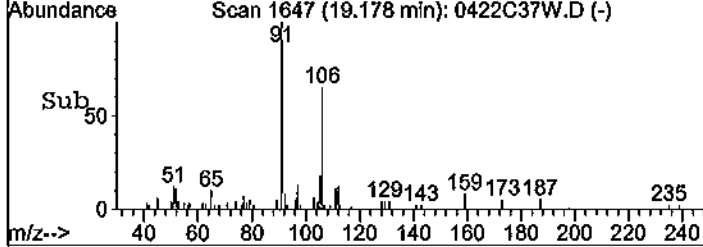
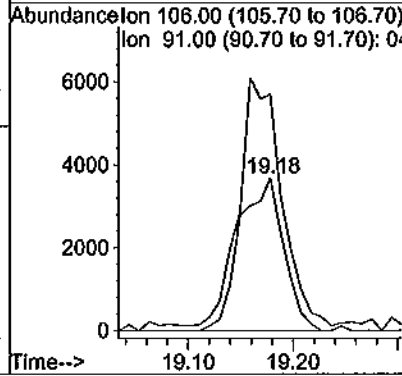
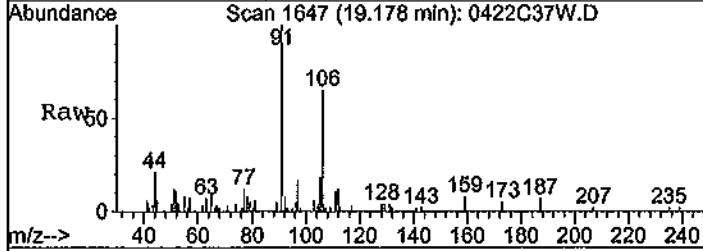
Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration





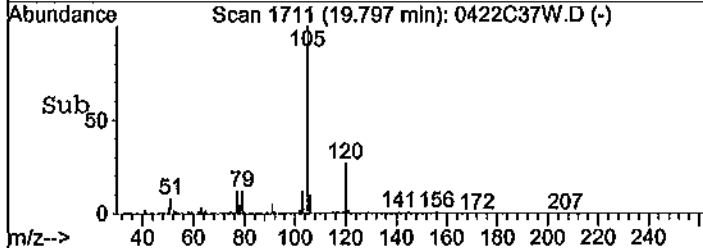
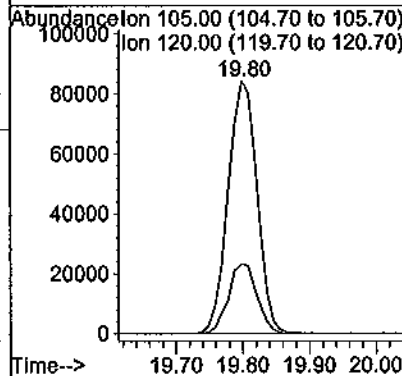
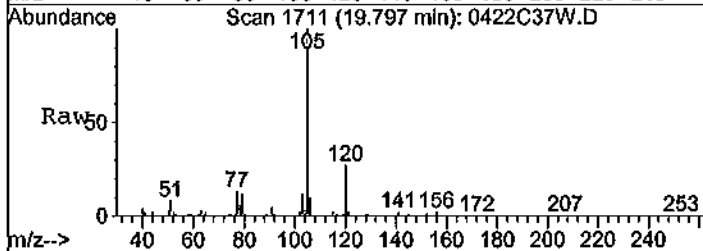
#42  
 o-Xylene  
 Concen: 0.41315 ppb  
 RT: 19.18 min Scan# 1647  
 Delta R.T. 0.02 min  
 Lab File: 0422C37W.D  
 Acq: 23 Apr 11 15:04

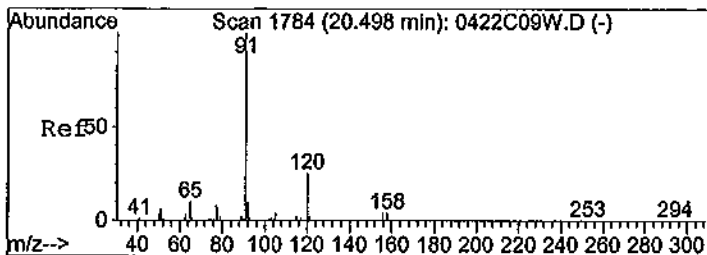
Tgt Ion:106 Resp: 10641  
 Ion Ratio Lower Upper  
 106 100  
 91 151.8 136.4 253.2



#53  
 Isopropylbenzene  
 Concen: 3.58965 ppb  
 RT: 19.80 min Scan# 1711  
 Delta R.T. 0.01 min  
 Lab File: 0422C37W.D  
 Acq: 23 Apr 11 15:04

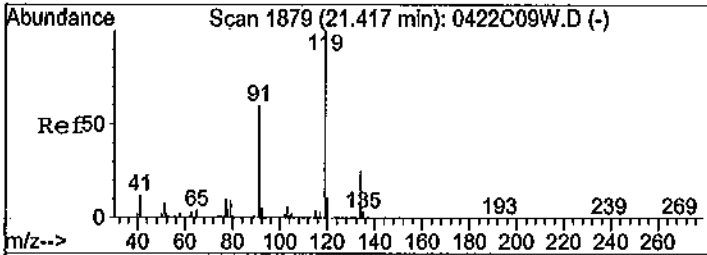
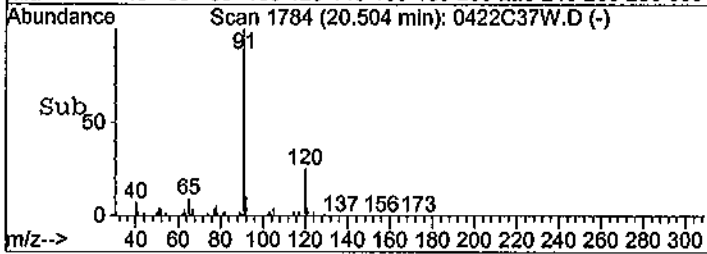
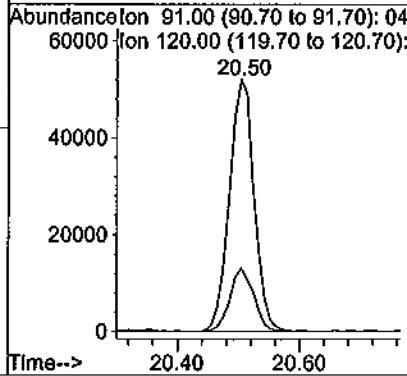
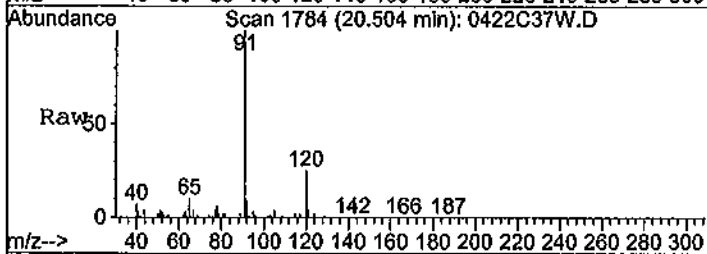
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 Ion Ratio Lower Upper  
 105 100  
 120 27.5 22.2 33.2





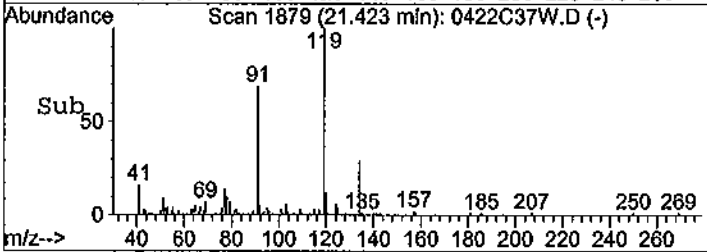
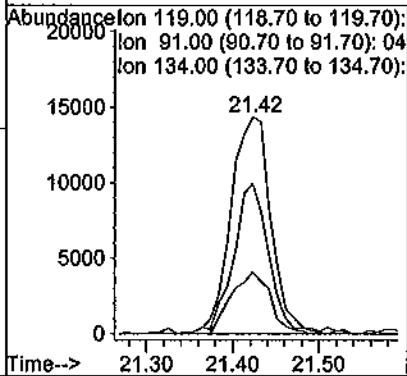
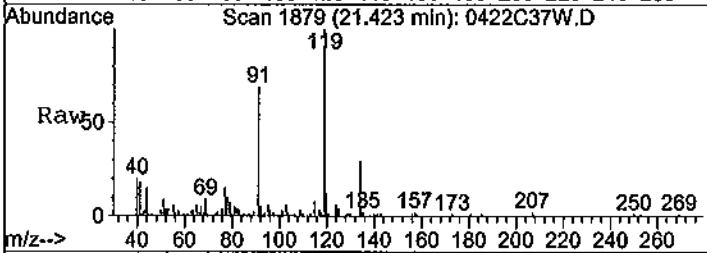
#57  
 n-Propylbenzene  
 Concen: 1.84946 ppb  
 RT: 20.50 min Scan# 1784  
 Delta R.T. 0.01 min  
 Lab File: 0422C37W.D  
 Acq: 23 Apr 11 15:04

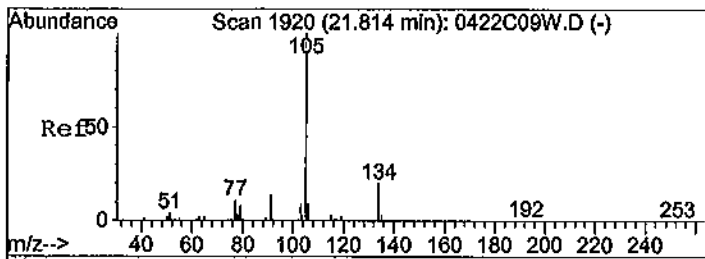
Tgt Ion	Resp	Lower	Upper
91	145954		
120	25.3	17.2	31.9



#61  
 Tert-Butylbenzene  
 Concen: 0.76307 ppb  
 RT: 21.42 min Scan# 1879  
 Delta R.T. 0.01 min  
 Lab File: 0422C37W.D  
 Acq: 23 Apr 11 15:04

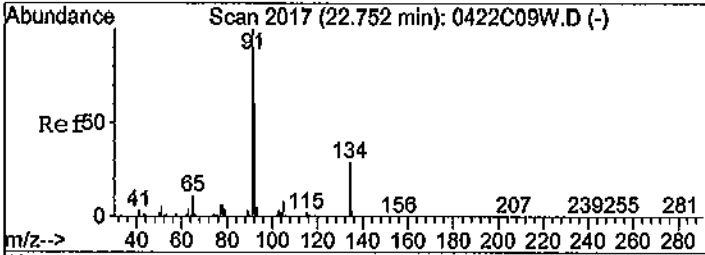
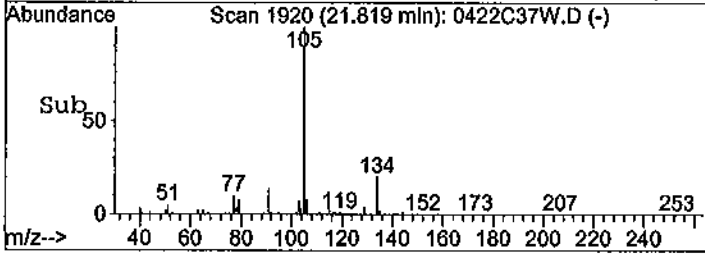
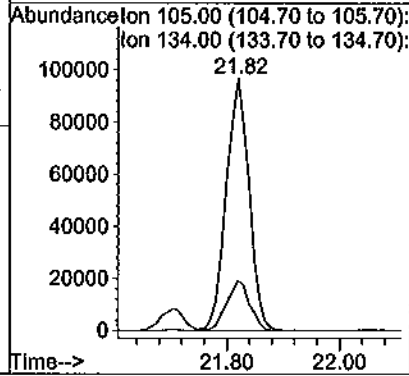
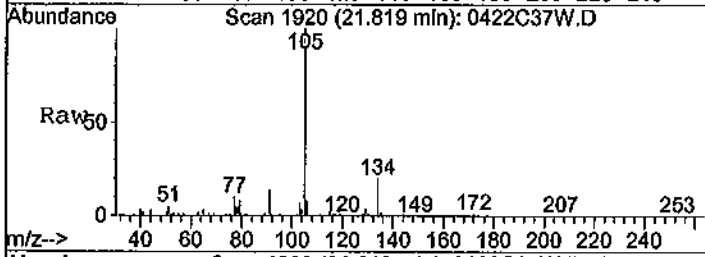
Tgt Ion	Resp	Lower	Upper
119	46295		
91	68.2	42.1	78.1
134	28.5	17.6	32.6





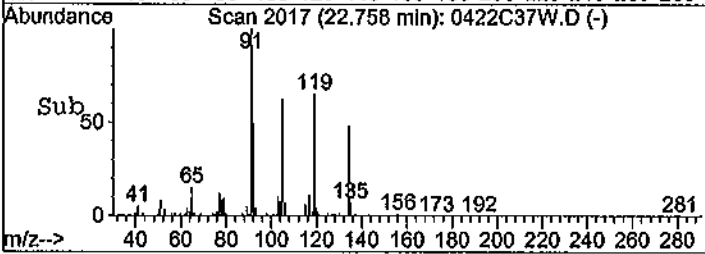
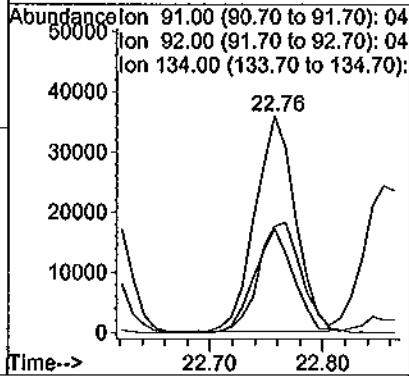
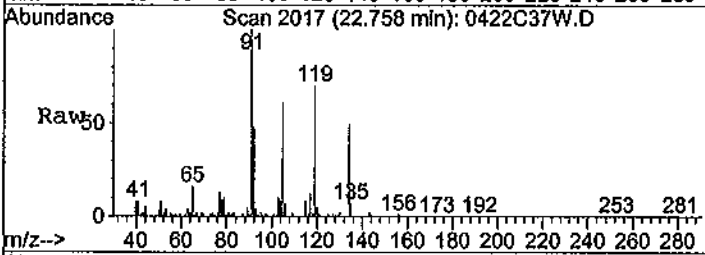
#63  
 Sec-Butylbenzene  
 Concen: 3.47153 ppb  
 RT: 21.82 min Scan# 1920  
 Delta R.T. 0.01 min  
 Lab File: 0422C37W.D  
 Acq: 23 Apr 11 15:04

Tgt Ion	Resp	Lower	Upper
105	271311		
134	19.7	14.1	26.1



#67  
 n-Butylbenzene  
 Concen: 1.64594 ppb  
 RT: 22.76 min Scan# 2017  
 Delta R.T. 0.01 min  
 Lab File: 0422C37W.D  
 Acq: 23 Apr 11 15:04

Tgt Ion	Resp	Lower	Upper
91	89580		
92	48.1	42.3	78.5
134	49.0	20.4	38.0#



Data File : M:\CHICO\DATA\C110422\0422C37W.D Vial: 1  
 Acq On : 23 Apr 11 15:04 Operator: RS  
 Sample : AY36313W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:59 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	TIC	917711	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.10	TIC	981024	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.30	TIC	1031651	25.00000	ppb	0.01
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.50	TIC	1109836	21.78233	ppb	0.01
Spiked Amount	23.521		Recovery	=	92.607%	
5) Toluene-D8(S)	15.57	TIC	3251355	26.20913	ppb	0.00
Spiked Amount	26.002		Recovery	=	100.796%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	2061117	24.97526	ppb	0.00
Spiked Amount	26.339		Recovery	=	94.821%	
Target Compounds						
2) Gasoline	15.57	TIC	21400592m	29.37202	ppb	Qvalue 100

Quantitation Report

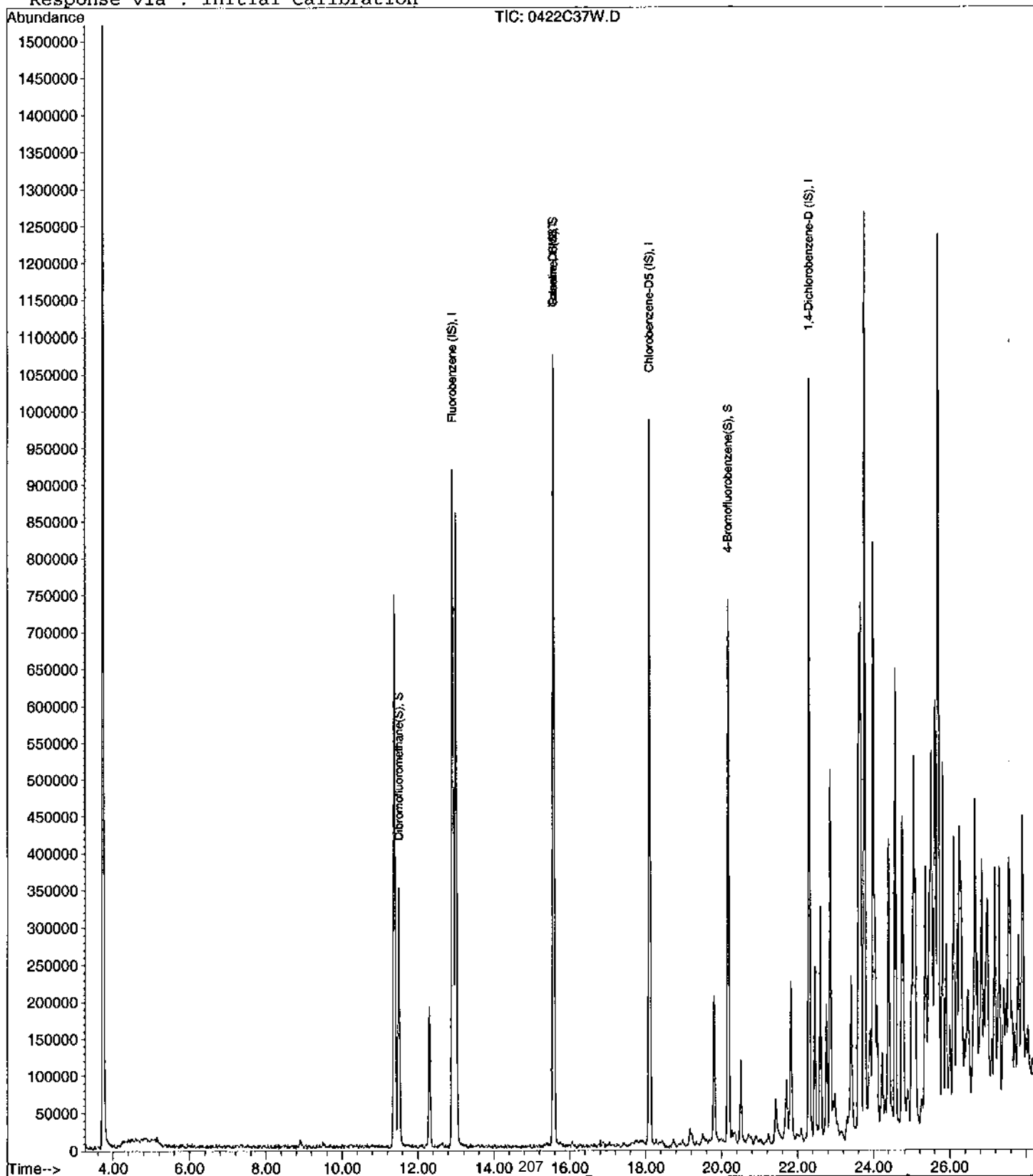
Data File : M:\CHICO\DATA\C110422\0422C37W.D  
Acq On : 23 Apr 11 15:04  
Sample : AY36313W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 19:59 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES022

APPL ID: AY36314

Sample Collection Date: 04/19/11

QCG: #86RHB-110422AC-155156

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/23/11	04/23/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/23/11	04/23/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/23/11	04/23/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/23/11	04/23/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/23/11	04/23/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	04/23/11	04/23/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/23/11	04/23/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C34
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF

Printed: 05/16/11 8:34:02 PM

APPL-F1-SC-NoMC-REG MDLs



## EPA 8260B VOCs + Gas Water

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

Attn: Vilma Dupra  
Project: LTM Red Hill Bulk Fuel Storage Facility

Sample ID: ES022  
Sample Collection Date: 04/19/11

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64475  
APPL ID: AY36314  
QCG: #86RHB-110422AC-155156

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	04/23/11	04/23/11
EPA 8260B	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	04/23/11	04/23/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	99.3	70-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	94.9	75-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	95.0	85-115			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	90.3	85-120			%	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C34
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF

Data File : M:\CHICO\DATA\C110422\0422C34W.D Vial: 1  
 Acq On : 23 Apr 11 13:19 Operator: RS  
 Sample : AY36314W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: Apr 25 10:46 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	96	397888	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.10	117	297856	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.30	152	161088	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) Dibromofluoromethane(S)	11.49	111	284017	22.35282	ppb	0.00
Spiked Amount	23.521		Recovery	=	95.036%	
23) 1,2-DCA-D4(S)	12.30	65	179574	22.16235	ppb	0.00
Spiked Amount	22.321		Recovery	=	99.289%	
36) Toluene-D8(S)	15.57	98	994624	23.47713	ppb	0.00
Spiked Amount	26.002		Recovery	=	90.290%	
44) 4-Bromofluorobenzene(S)	20.17	95	350064	24.98882	ppb	0.00
Spiked Amount	26.339		Recovery	=	94.876%	

Target Compounds Qvalue

Quantitation Report

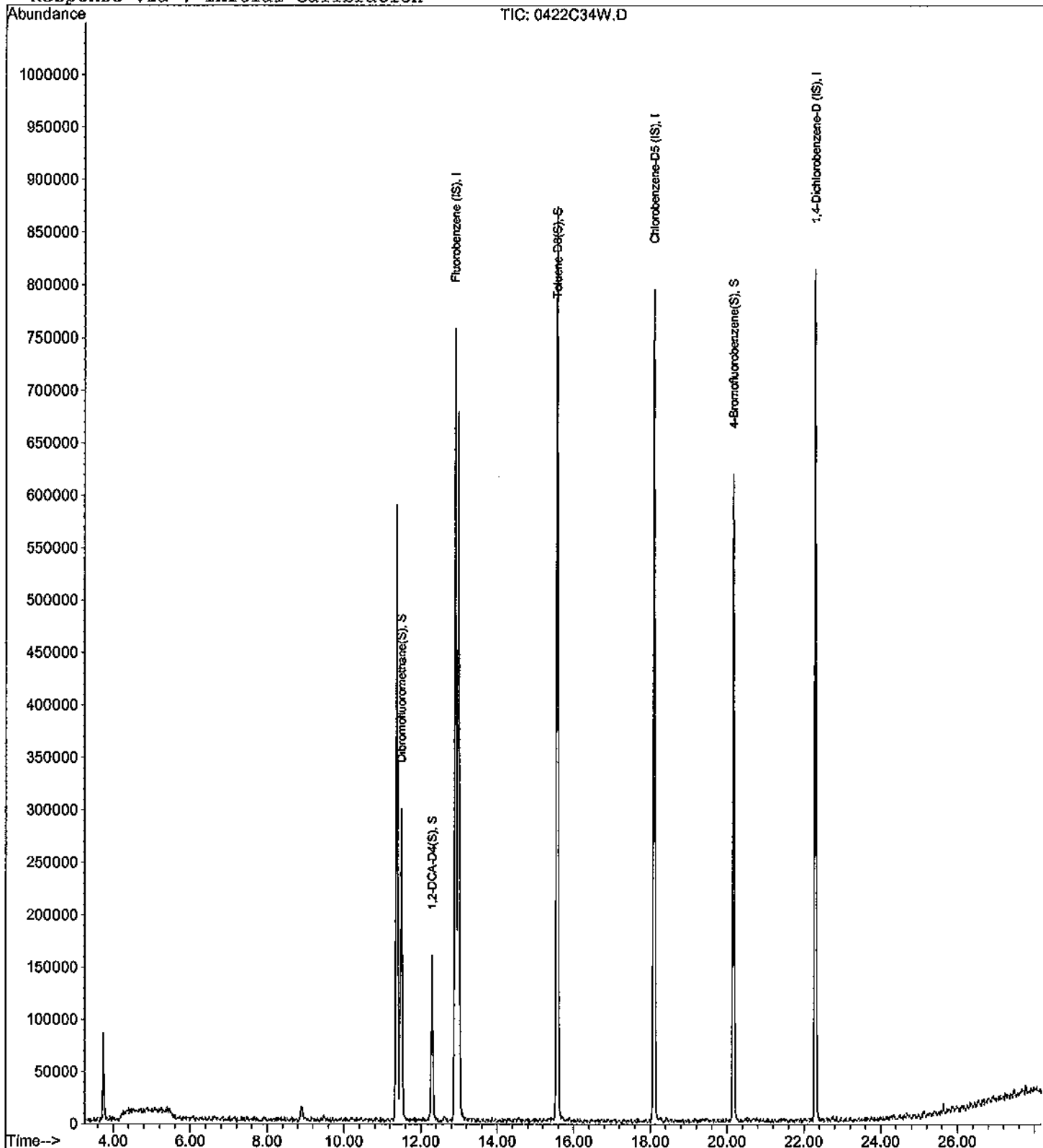
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Acq On : 23 Apr 11 13:19  
Sample : AY36314W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: Apr 25 10:46 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C34W.D Vial: 1  
 Acq On : 23 Apr 11 13:19 Operator: RS  
 Sample : AY36314W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:59 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	TIC	756357	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.10	TIC	793886	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.30	TIC	812421	25.00000	ppb	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
3) Dibromofluoromethane(S)	11.49	TIC	930916	22.16844	ppb	0.01
Spiked Amount	23.521		Recovery	=	94.248%	
5) Toluene-D8(S)	15.57	TIC	2608358	25.98225	ppb	0.00
Spiked Amount	26.002		Recovery	=	99.923%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	1722015	25.78492	ppb	0.00
Spiked Amount	26.339		Recovery	=	97.897%	

Target Compounds Qvalue

Quantitation Report

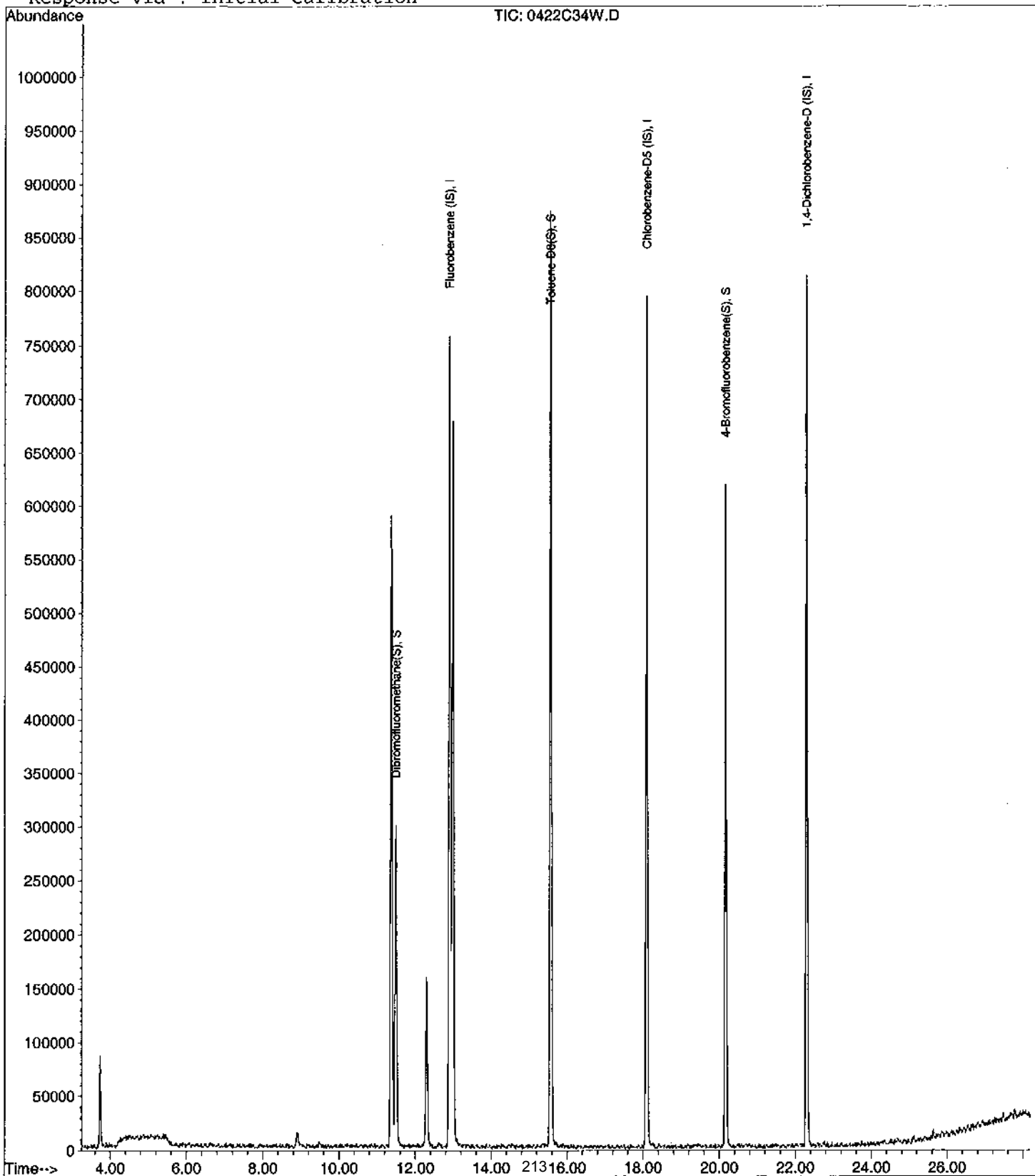
Data File : M:\CHICO\DATA\C110422\0422C34W.D  
Acq On : 23 Apr 11 13:19  
Sample : AY36314W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 19:59 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES023

APPL ID: AY36315

Sample Collection Date: 04/19/11

QCG: #86RHB-110422AC-155156

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/23/11	04/23/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/23/11	04/23/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/23/11	04/23/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/23/11	04/23/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/23/11	04/23/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	04/23/11	04/23/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/23/11	04/23/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C35
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF

## EPA 8260B VOCs + Gas Water

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

Attn: Vilma Dupra  
Project: LTM Red Hill Bulk Fuel Storage Facility

Sample ID: ES023  
Sample Collection Date: 04/19/11

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64475  
APPL ID: AY36315  
QCG: #86RHB-110422AC-155156

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	04/23/11	04/23/11
EPA 8260B	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	04/23/11	04/23/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	101	70-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	99.0	75-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	98.2	85-115			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	88.4	85-120			%	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C35
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF

Data File : M:\CHICO\DATA\C110422\0422C35W.D Vial: 1  
 Acq On : 23 Apr 11 13:54 Operator: RS  
 Sample : AY36315W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: Apr 25 10:48 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	96	390208	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.10	117	294912	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.30	152	160064	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.50	111	287719	23.08986	ppb	0.00
Spiked Amount	23.521		Recovery	=	98.170%	
23) 1,2-DCA-D4(S)	12.29	65	179278	22.56129	ppb	0.00
Spiked Amount	22.321		Recovery	=	101.077%	
36) Toluene-D8(S)	15.57	98	964477	22.99280	ppb	0.00
Spiked Amount	26.002		Recovery	=	88.428%	
44) 4-Bromofluorobenzene(S)	20.17	95	361046	26.08552	ppb	0.00
Spiked Amount	26.339		Recovery	=	99.041%	

Target Compounds Qvalue



Quantitation Report

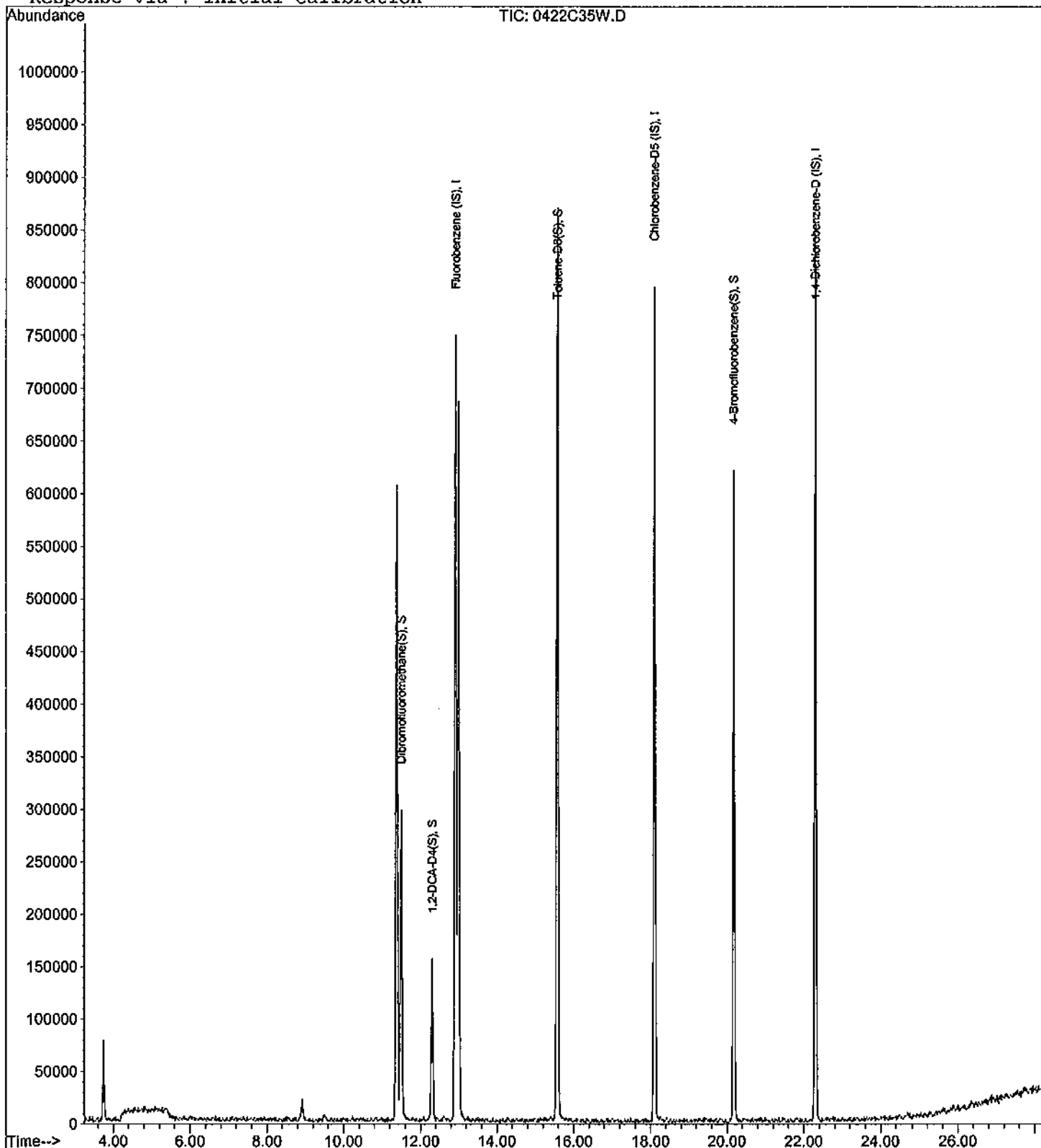
Data File : M:\CHICO\DATA\C110422\0422C35W.D  
Acq On : 23 Apr 11 13:54  
Sample : AY36315W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: Apr 25 10:48 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C35W.D Vial: 1  
 Acq On : 23 Apr 11 13:54 Operator: RS  
 Sample : AY36315W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:59 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	TIC	747955	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.10	TIC	793661	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.30	TIC	845116	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.50	TIC	934294	22.49881	ppb	0.02
Spiked Amount	23.521			Recovery =	95.655%	
5) Toluene-D8(S)	15.57	TIC	2551098	25.41908	ppb	0.00
Spiked Amount	26.002			Recovery =	97.758%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	1748370	26.18697	ppb	0.00
Spiked Amount	26.339			Recovery =	99.423%	

Target Compounds Qvalue

Quantitation Report

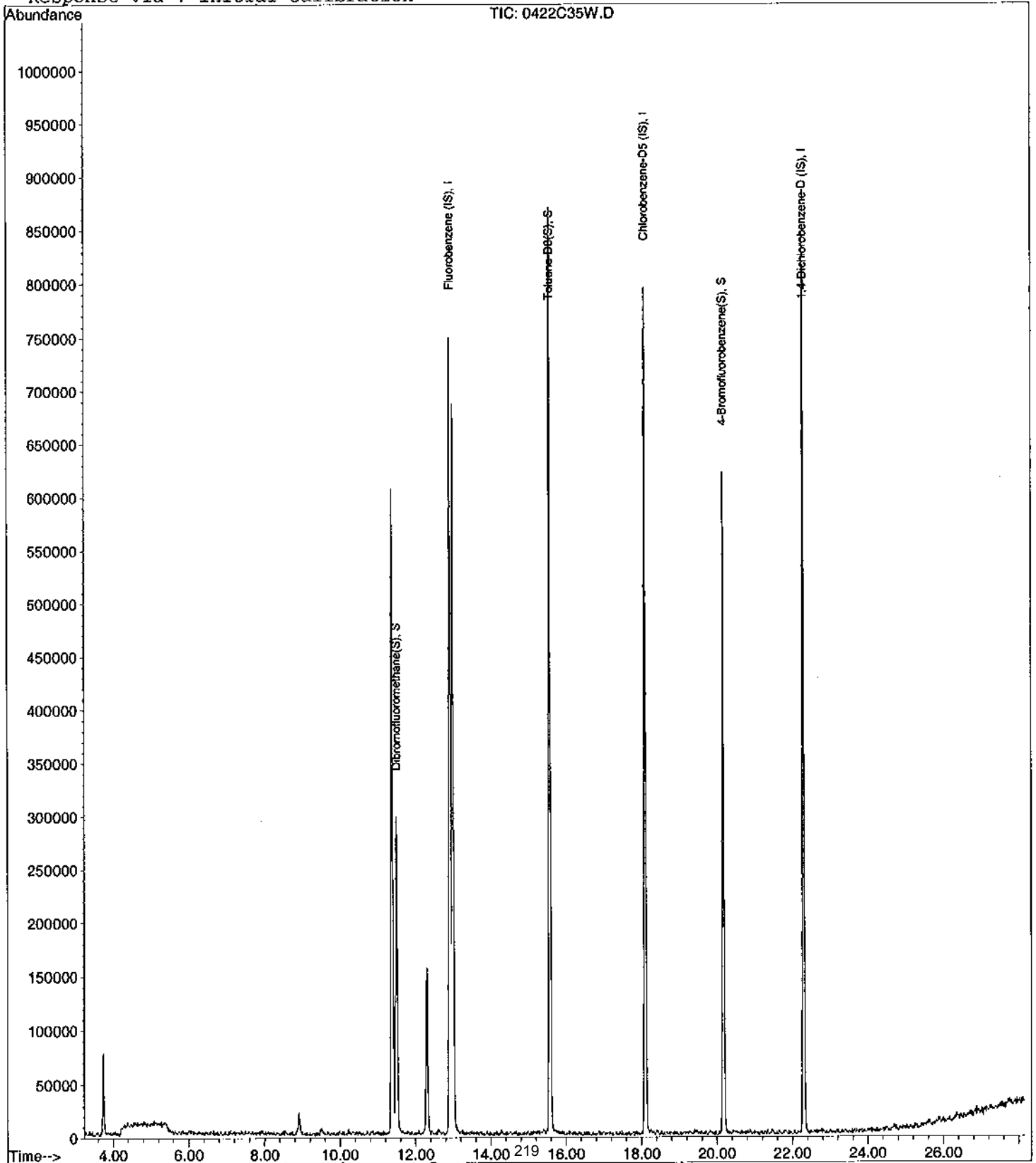
Data File : M:\CHICO\DATA\C110422\0422C35W.D  
Acq On : 23 Apr 11 13:54  
Sample : AY36315W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 19:59 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES024

APPL ID: AY36316

Sample Collection Date: 04/20/11

QCG: #86RHB-110422AC-155156

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/23/11	04/23/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/23/11	04/23/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/23/11	04/23/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/23/11	04/23/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/23/11	04/23/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	04/23/11	04/23/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/23/11	04/23/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C38
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF

Printed: 05/16/11 8:34:02 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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES024

APPL ID: AY36316

Sample Collection Date: 04/20/11

QCG: #86RHB-110422AC-155156

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	04/23/11	04/23/11
EPA 8260B	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	04/23/11	04/23/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	84.4	70-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	89.1	75-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	88.4	85-115			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	90.7	85-120			%	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C38
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF

Data File : M:\CHICO\DATA\C110422\0422C38W.D Vial: 1  
 Acq On : 23 Apr 11 15:39 Operator: RS  
 Sample : AY36316W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 10 14:35 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.92	96	554432	25.00000	ppb	0.01
35) Chlorobenzene-D5 (IS)	18.10	117	414270	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.30	152	237120	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.50	111	368291	20.80136	ppb	0.00
Spiked Amount	23.521				Recovery = 88.438%	
23) 1,2-DCA-D4(S)	12.30	65	212713	18.83991	ppb	0.00
Spiked Amount	22.321				Recovery = 84.406%	
36) Toluene-D8(S)	15.58	98	1389877	23.58768	ppb	0.01
Spiked Amount	26.002				Recovery = 90.717%	
44) 4-Bromofluorobenzene(S)	20.17	95	458701	23.46533	ppb	0.00
Spiked Amount	26.339				Recovery = 89.090%	

Target Compounds Qvalue

Quantitation Report

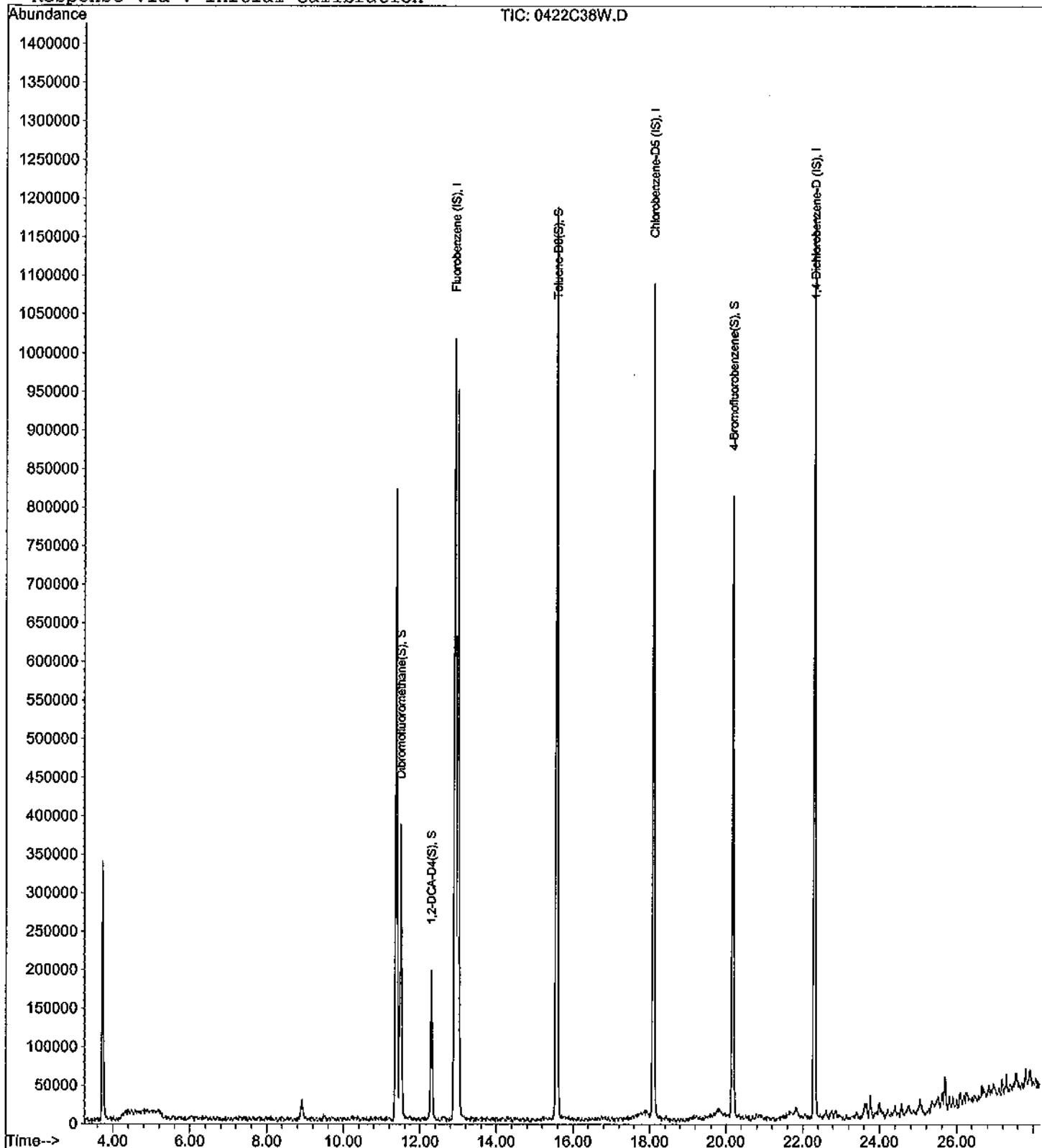
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Acq On : 23 Apr 11 15:39  
Sample : AY36316W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 10 14:35 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C38W.D Vial: 1  
 Acq On : 23 Apr 11 15:39 Operator: RS  
 Sample : AY36316W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:59 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.92	TIC	1014584	25.00000	ppb	0.01
4) Chlorobenzene-D5 (IS)	18.10	TIC	1082343	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.30	TIC	1167912	25.00000	ppb	0.01
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.50	TIC	1232549	21.88103	ppb	0.01
Spiked Amount	23.521			Recovery =	93.028%	
5) Toluene-D8(S)	15.58	TIC	3603461	26.32829	ppb	0.01
Spiked Amount	26.002			Recovery =	101.254%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	2274062	24.97608	ppb	0.00
Spiked Amount	26.339			Recovery =	94.825%	

Target Compounds Qvalue



Quantitation Report

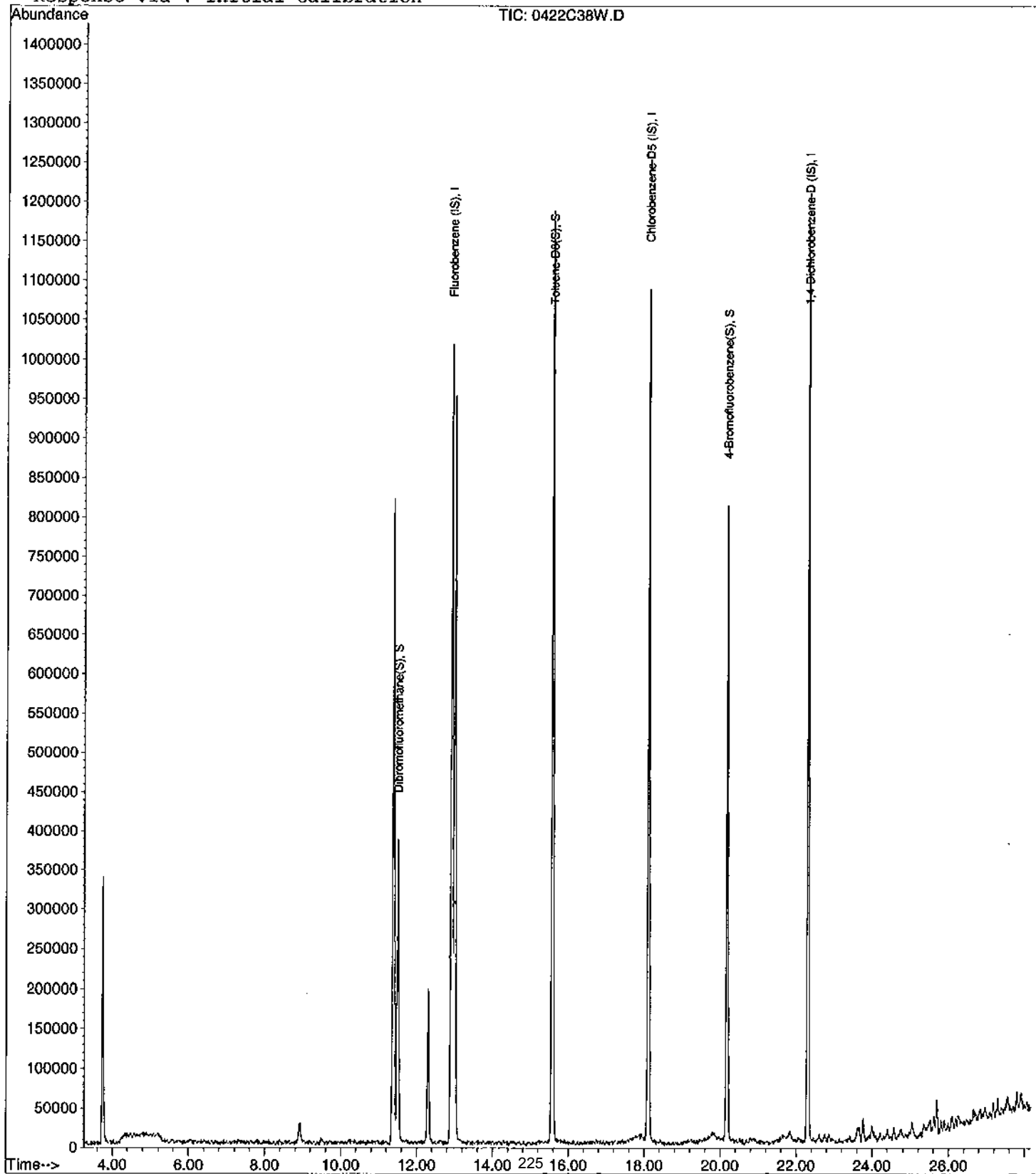
Data File : M:\CHICO\DATA\C110422\0422C38W.D  
Acq On : 23 Apr 11 15:39  
Sample : AY36316W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 19:59 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES025

APPL ID: AY36317

Sample Collection Date: 04/20/11

QCG: #86RHB-110422AC-155156

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/23/11	04/23/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/23/11	04/23/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/23/11	04/23/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/23/11	04/23/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/23/11	04/23/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	04/23/11	04/23/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/23/11	04/23/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C39
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF

Printed: 05/16/11 8:34:02 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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES025

APPL ID: AY36317

Sample Collection Date: 04/20/11

QCG: #86RHB-110422AC-155156

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	04/23/11	04/23/11
EPA 8260B	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	04/23/11	04/23/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	83.9	70-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	89.2	75-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	87.8	85-115			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	89.3	85-120			%	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C39
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF

Data File : M:\CHICO\DATA\C110422\0422C39W.D Vial: 1  
 Acq On : 23 Apr 11 16:14 Operator: RS  
 Sample : AY36317W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: Apr 25 10:56 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	96	551552	25.00000	ppb	0.01
35) Chlorobenzene-D5 (IS)	18.11	117	413184	25.00000	ppb	0.01
51) 1,4-Dichlorobenzene-D (IS)	22.31	152	226112	25.00000	ppb	0.01
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.50	111	363912	20.66135	ppb	0.01
Spiked Amount	23.521		Recovery	=	87.843%	
23) 1,2-DCA-D4(S)	12.30	65	210327	18.72586	ppb	0.01
Spiked Amount	22.321		Recovery	=	83.896%	
36) Toluene-D8(S)	15.57	98	1363919	23.20799	ppb	0.01
Spiked Amount	26.002		Recovery	=	89.255%	
44) 4-Bromofluorobenzene(S)	20.18	95	458120	23.49901	ppb	0.01
Spiked Amount	26.339		Recovery	=	89.219%	

Target Compounds Qvalue

Quantitation Report

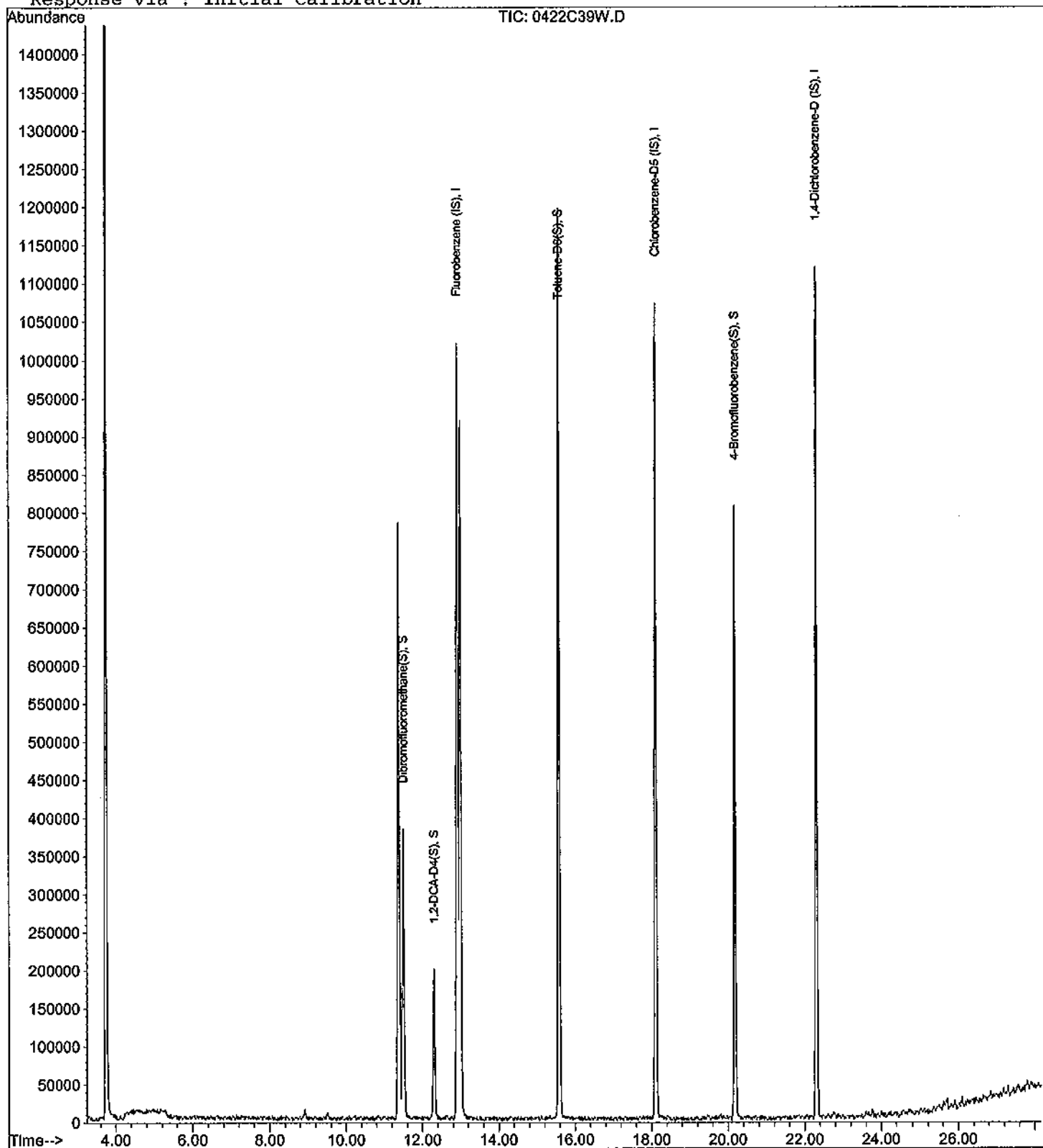
Data File : M:\CHICO\DATA\C110422\0422C39W.D  
Acq On : 23 Apr 11 16:14  
Sample : AY36317W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: Apr 25 10:56 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C39W.D Vial: 1  
 Acq On : 23 Apr 11 16:14 Operator: RS  
 Sample : AY36317W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 20:00 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	TIC	1019550	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.11	TIC	1069956	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.30	TIC	1117380	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.50	TIC	1225142	21.64360	ppb	0.02
Spiked Amount	23.521			Recovery	= 92.020%	
5) Toluene-D8(S)	15.57	TIC	3508242	25.92934	ppb	0.00
Spiked Amount	26.002			Recovery	= 99.719%	
6) 4-Bromofluorobenzene(S)	20.18	TIC	2283037	25.36495	ppb	0.00
Spiked Amount	26.339			Recovery	= 96.302%	

Target Compounds Qvalue

Quantitation Report

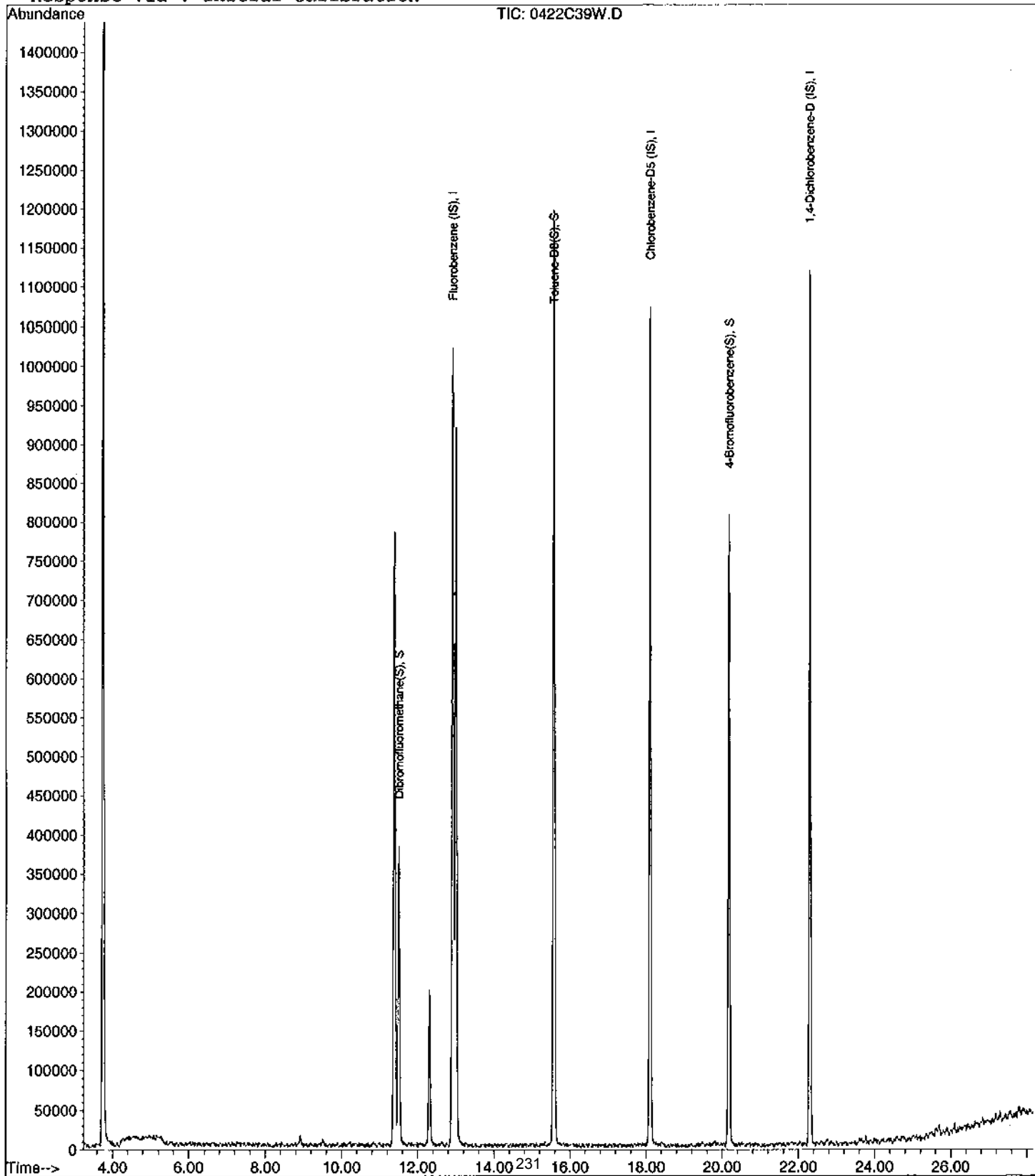
Data File : M:\CHICO\DATA\C110422\0422C39W.D  
Acq On : 23 Apr 11 16:14  
Sample : AY36317W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 20:00 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES026

APPL ID: AY36318

Sample Collection Date: 04/20/11

QCG: #86RHB-110422AC-155156

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,4-TRICHLOROENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/23/11	04/23/11
EPA 8260B	1,4-DICHLOROENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/23/11	04/23/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/23/11	04/23/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/23/11	04/23/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/23/11	04/23/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	04/23/11	04/23/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/23/11	04/23/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C31
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF



## EPA 8260B VOCs + Gas Water

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

Attn: Vilma Dupra  
Project: LTM Red Hill Bulk Fuel Storage Facility

Sample ID: ES026  
Sample Collection Date: 04/20/11

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64475  
APPL ID: AY36318  
QCG: #86RHB-110422AC-155156

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	04/23/11	04/23/11
EPA 8260B	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	04/23/11	04/23/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	97.4	70-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	94.7	75-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	95.6	85-115			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	89.9	85-120			%	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C31
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF

Data File : M:\CHICO\DATA\C110422\0422C31W.D Vial: 1  
 Acq On : 23 Apr 11 11:33 Operator: RS  
 Sample : AY36318W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: Apr 25 10:43 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	96	411648	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.10	117	318464	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.29	152	169984	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.49	111	295541	22.48229	ppb	0.00
Spiked Amount	23.521			Recovery =	95.585%	
23) 1,2-DCA-D4(S)	12.30	65	182167	21.73086	ppb	0.00
Spiked Amount	22.321			Recovery =	97.358%	
36) Toluene-D8(S)	15.57	98	1058836	23.37549	ppb	0.00
Spiked Amount	26.002			Recovery =	89.898%	
44) 4-Bromofluorobenzene(S)	20.17	95	373515	24.93473	ppb	0.00
Spiked Amount	26.339			Recovery =	94.671%	

Target Compounds Qvalue

Quantitation Report

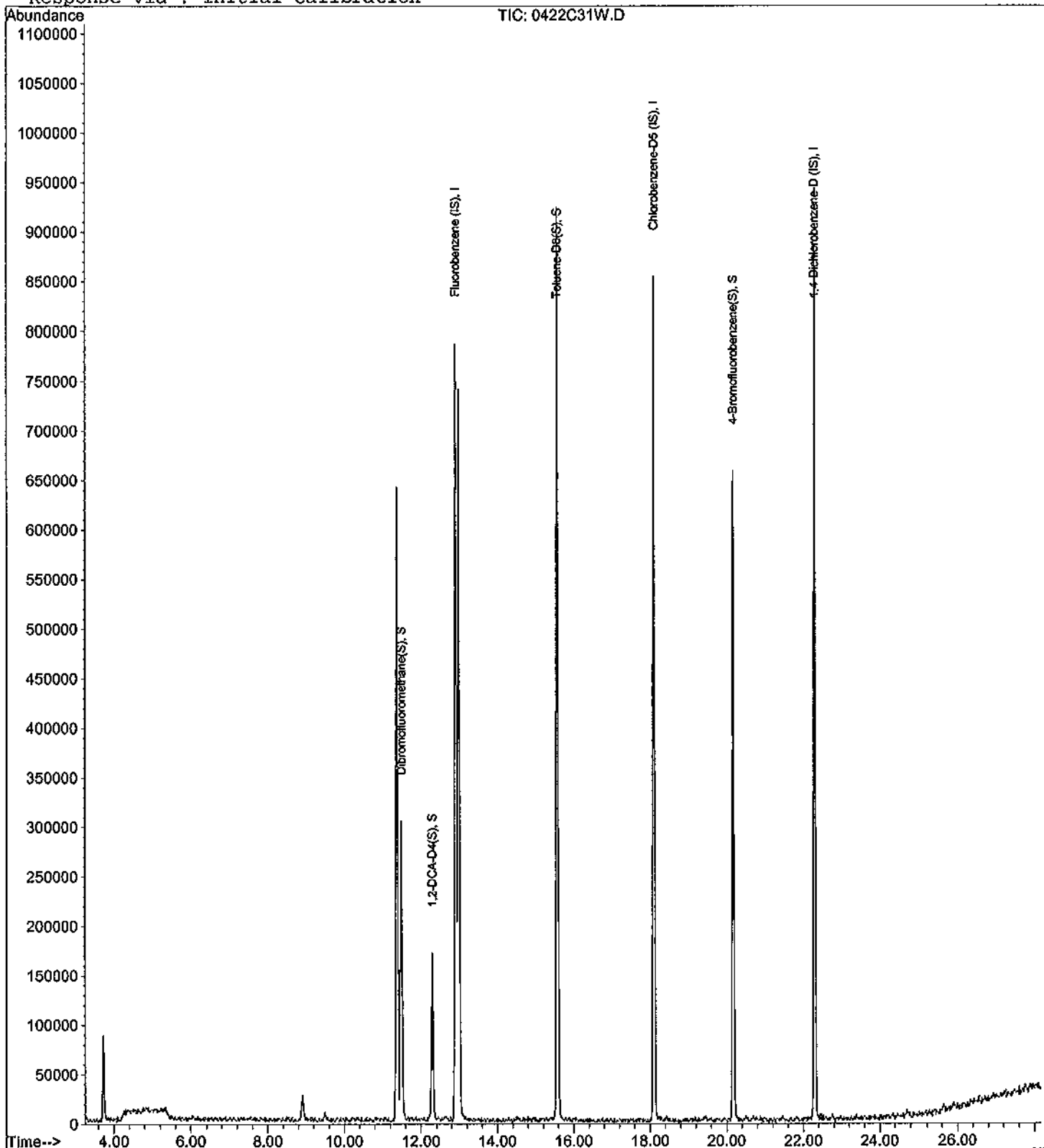
Data File : M:\CHICO\DATA\C110422\0422C31W.D  
Acq On : 23 Apr 11 11:33  
Sample : AY36318W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: Apr 25 10:43 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C31W.D Vial: 1  
 Acq On : 23 Apr 11 11:33 Operator: RS  
 Sample : AY36318W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:58 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	785328	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.10	TIC	852601	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	884328	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.49	TIC	987561	22.64980	ppb	0.01
Spiked Amount	23.521			Recovery =	96.297%	
5) Toluene-D8(S)	15.57	TIC	2772663	25.71692	ppb	0.00
Spiked Amount	26.002			Recovery =	98.904%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	1862525	25.96828	ppb	0.00
Spiked Amount	26.339			Recovery =	98.591%	

Target Compounds Qvalue

Quantitation Report

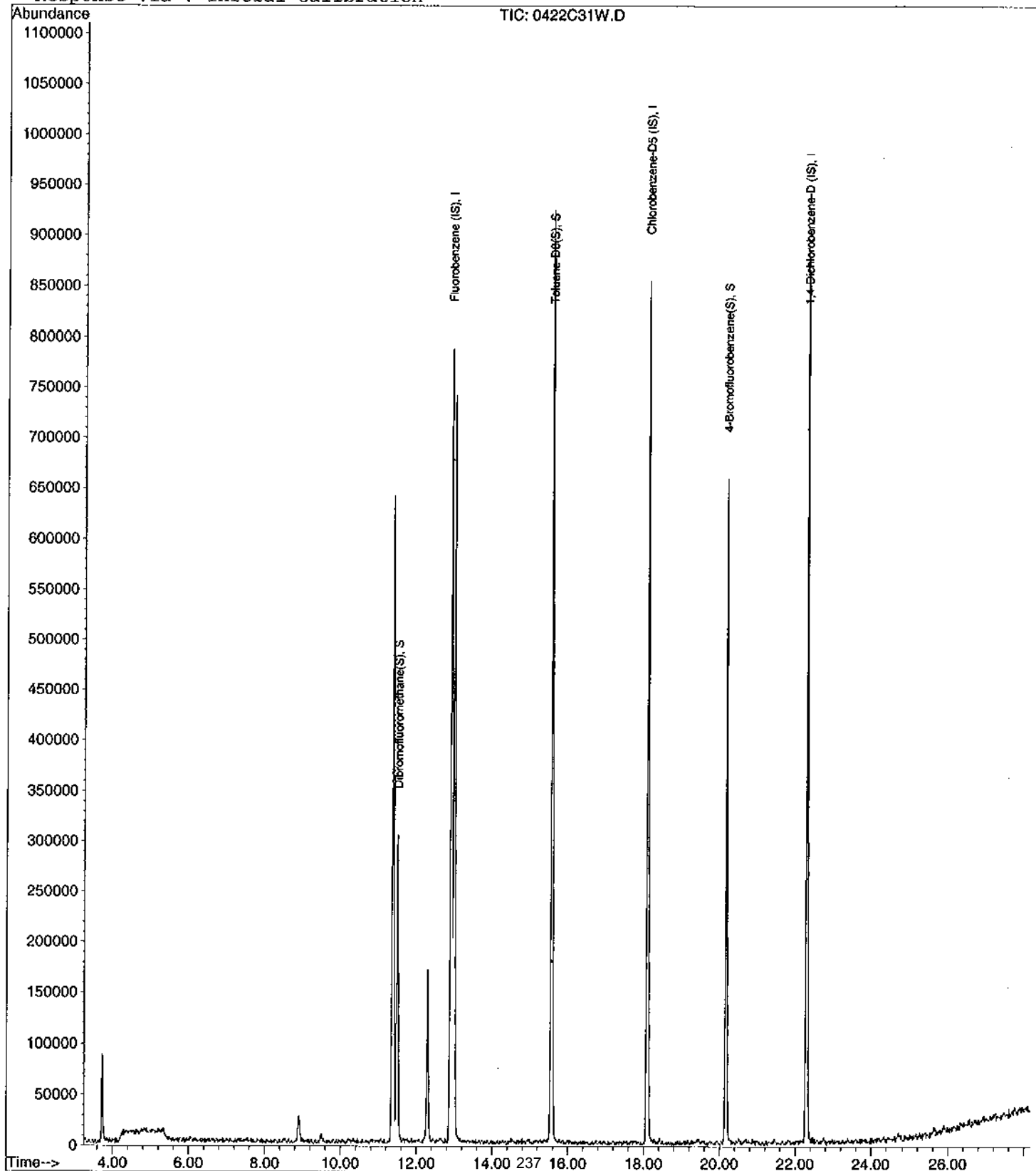
Data File : M:\CHICO\DATA\C110422\0422C31W.D  
Acq On : 23 Apr 11 11:33  
Sample : AY36318W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 19:58 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES027

APPL ID: AY36319

Sample Collection Date: 04/20/11

QCG: #86RHB-110422AC-155156

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/23/11	04/23/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/23/11	04/23/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/23/11	04/23/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/23/11	04/23/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/23/11	04/23/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/23/11	04/23/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/23/11	04/23/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/23/11	04/23/11
EPA 8260B	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	04/23/11	04/23/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/23/11	04/23/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/23/11	04/23/11

Quant Method: C86DODW.M

Run #: 0422C32

Instrument: Chico

Sequence: C110422

Dilution Factor: 1

Initials: LF

# EPA 8260B VOCs + Gas Water

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Vilma Dupra  
Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

Sample ID: ES027

APPL ID: AY36319

Sample Collection Date: 04/20/11

QCG: #86RHB-110422AC-155156

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	04/23/11	04/23/11
EPA 8260B	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	04/23/11	04/23/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	100	70-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	98.0	75-120			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	93.4	85-115			%	04/23/11	04/23/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	91.8	85-120			%	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C32
Instrument: Chico
Sequence: C110422
Dilution Factor: 1
Initials: LF

Data File : M:\CHICO\DATA\C110422\0422C32W.D Vial: 1  
 Acq On : 23 Apr 11 12:09 Operator: RS  
 Sample : AY36319W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: Apr 25 10:44 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	96	428096	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.10	117	307008	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.30	152	159296	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.48	111	300287	21.96566	ppb	0.00
Spiked Amount	23.521		Recovery	=	93.391%	
23) 1,2-DCA-D4(S)	12.30	65	195094	22.37876	ppb	0.00
Spiked Amount	22.321		Recovery	=	100.262%	
36) Toluene-D8(S)	15.57	98	1042114	23.86481	ppb	0.00
Spiked Amount	26.002		Recovery	=	91.782%	
44) 4-Bromofluorobenzene(S)	20.17	95	371975	25.80252	ppb	0.00
Spiked Amount	26.339		Recovery	=	97.967%	

Target Compounds Qvalue



Quantitation Report

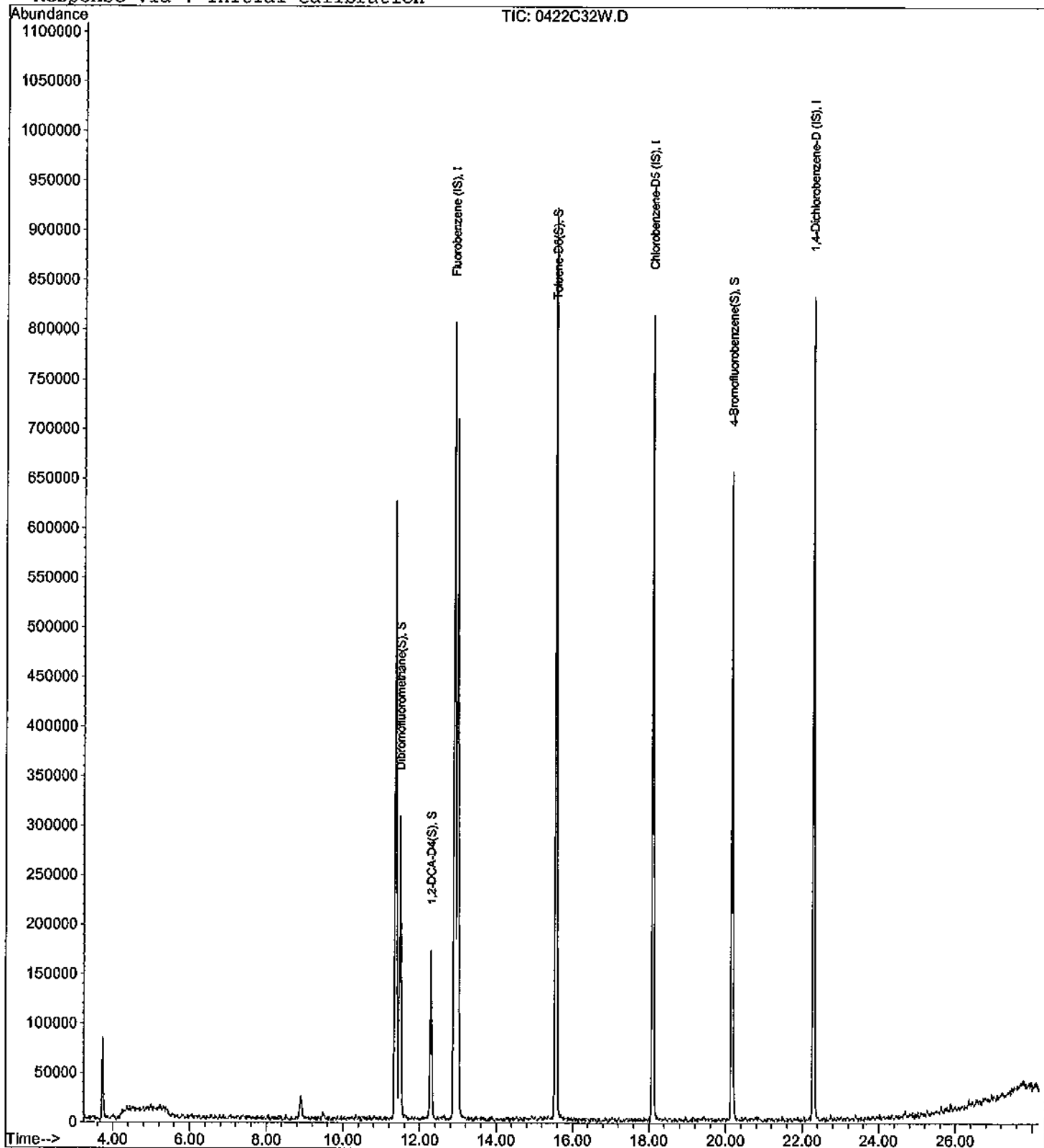
Data File : M:\CHICO\DATA\C110422\0422C32W.D  
Acq On : 23 Apr 11 12:09  
Sample : AY36319W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: Apr 25 10:44 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C32W.D Vial: 1  
 Acq On : 23 Apr 11 12:09 Operator: RS  
 Sample : AY36319W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:58 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	TIC	804532	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.10	TIC	813916	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	831324	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.48	TIC	986146	22.07748	ppb	0.00
Spiked Amount	23.521		Recovery	=	93.861%	
5) Toluene-D8(S)	15.57	TIC	2760361	26.81971	ppb	0.00
Spiked Amount	26.002		Recovery	=	103.146%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	1833690	26.78140	ppb	0.00
Spiked Amount	26.339		Recovery	=	101.678%	

Target Compounds Qvalue

Quantitation Report

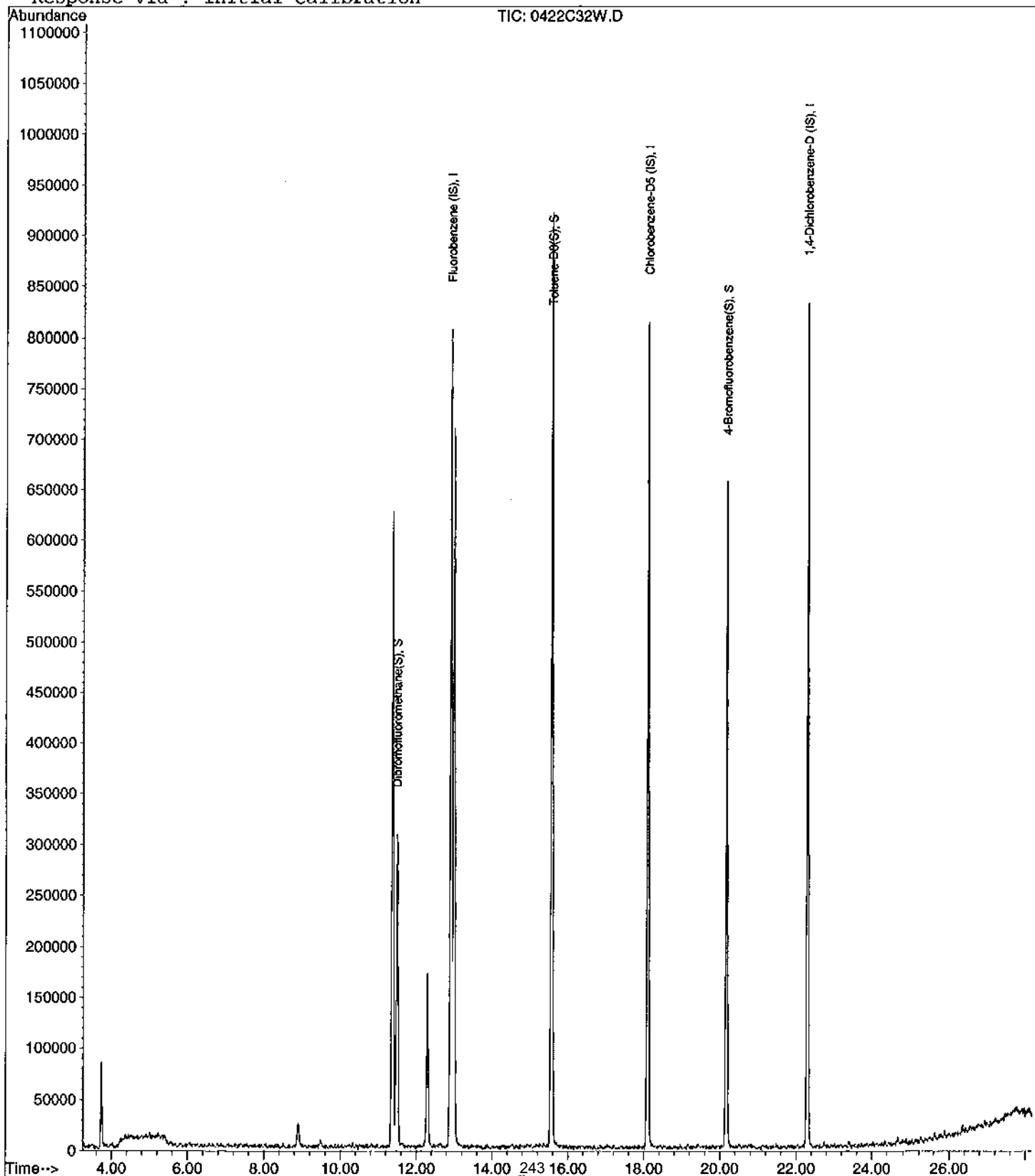
Data File : M:\CHICO\DATA\C110422\0422C32W.D  
Acq On : 23 Apr 11 12:09  
Sample : AY36319W01  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 19:58 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260E  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



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



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 6  
Initial Calibration

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

SDG No: 024475  
Initial Cal. Date: 04/22/11  
Instrument: Chico

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

	Compound	0.5	1	2	5	10	20	40	100			Avg	%RSD	
36	S Toluene-D8(S)	4.140	4.009	4.215	3.360	3.264	3.213	3.102	3.143			3.6	13	S
37	TM 1,2-EDB	0.4724	0.3780	0.4332	0.4685	0.4522	0.4357	0.4368	0.4453			0.44	6.6	TM
38	TM Tetrachloroethene	0.9067	0.9001	0.8915	0.8683	0.9259	0.8526	0.8520	0.8266			0.88	3.8	TM
39	TM 1-Chlorohexane	1.554	1.485	1.272	1.341	1.344	1.366	1.370	1.343			1.4	6.5	TM
40	TM 1,1,1,2-Tetrachloroethane	0.8482	0.9284	0.9181	0.9380	0.9023	0.9140	0.8782	0.8728			0.90	3.4	TM
41	TM m&p-Xylene	1.846	1.752	1.758	1.816	1.758	1.722	1.669	1.646			1.7	3.9	TM
42	TM o-Xylene	1.698	1.766	1.599	1.845	1.775	1.773	1.668	1.646			1.7	4.8	TM
43	TM Styrene	1.531	1.332	1.122	1.330	1.299	1.266	1.172	1.113			1.3	11	TM
44	SL 4-Bromofluorobenzene(S)	1.999	1.720	1.516	1.230	1.189	1.196	1.124				1.4	23	SL
45	TM 2-Hexanone	0.1372	0.1221	0.1268	0.1361	0.1262	0.1312	0.1265	0.1272			0.13	4.1	TM
46	TM 1,3-Dichloropropane	0.7256	0.6902	0.6716	0.7780	0.6994	0.7050	0.7032	0.6981			0.71	4.5	TM
47	TM Dibromochloromethane	0.6442	0.7197	0.6495	0.7546	0.7052	0.6954	0.6747	0.6889			0.69	5.3	TM
48	TM** Chlorobenzene	2.691	2.480	2.484	2.669	2.575	2.503	2.437	2.386			2.5	4.3	TM**
49	TM* Ethylbenzene	4.510	4.351	4.235	4.354	4.311	4.221	4.073	4.036			4.3	3.6	TM*
50	TM** Bromoform	0.3839	0.4029	0.3732	0.4208	0.4237	0.4299	0.4154	0.4184			0.41	5.0	TM**
51	I 1,4-Dichlorobenzene-D (IS)	ISTD												
52	TM MIBK (methyl isobutyl ketone)	0.4286	0.5151	0.4852	0.4155	0.3700	0.3790	0.3519	0.3772			0.42	14	TM
53	TM Isopropylbenzene	8.823	8.575	8.724	8.922	8.798	8.382	8.026	8.213			8.6	3.7	TM
54	TM** 1,1,2,2-Tetrachloroethane	0.6823	0.7362	0.6557	0.7673	0.6986	0.6941	0.6753	0.7104			0.70	5.1	TM**
55	TM 1,2,3-Trichloropropane	0.1832	0.1719	0.2355	0.2672	0.2288	0.2255	0.2249	0.2242			0.22	14	TM
56	TM Bromobenzene	2.475	2.278	2.013	2.054	2.007	1.884	1.827	1.873			2.1	11	TM
57	TM n-Propylbenzene	10.2	9.697	9.765	9.877	9.753	9.373	9.067	9.143			9.6	4.0	TM
58	TM 2-Chlorotoluene	6.722	6.698	6.581	6.766	6.514	6.010	5.771	5.875			6.4	6.5	TM
59	TM 1,3,5-Trimethylbenzene	6.446	7.304	6.753	7.162	6.971	6.425	6.347	6.436			6.7	5.6	TM
60	TM 4-Chlorotoluene	6.336	6.140	5.326	5.570	5.431	5.305	4.955	5.009			5.5	9.0	TM
61	TM Tert-Butylbenzene	7.412	7.802	7.156	7.510	7.699	7.368	7.005	7.128			7.4	3.8	TM
62	TM 1,2,4-Trimethylbenzene	6.965	7.158	6.676	7.267	6.922	6.653	6.275	6.443			6.8	5.1	TM
63	TM Sec-Butylbenzene	10.1	9.906	9.435	9.617	9.555	9.424	9.010	9.083			9.5	3.8	TM
64	TM p-Isopropyltoluene	8.504	8.110	7.626	7.978	8.062	7.806	7.483	7.615			7.9	4.2	TM
65	TM 1,3-DCB	4.929	4.372	4.009	4.371	4.177	4.018	3.857	3.881			4.2	8.4	TM
66	TM 1,4-DCB	3.930	3.922	3.705	3.994	3.924	3.772	3.619	3.676			3.8	3.7	TM
67	TM n-Butylbenzene	7.864	6.895	6.447	6.547	6.571	6.440	6.113	6.122			6.6	8.5	TM
68	TM 1,2-DCB	3.584	3.518	3.265	3.496	3.438	3.302	3.111	3.180			3.4	5.1	TM
69	TM 1,2-Dibromo-3-chloropropane		0.2314	0.1595	0.2142	0.1658	0.1766	0.1703	0.1903			0.19	14	TM
70	TM 1,2,4-Trichlorobenzene	1.455	1.239	1.081	1.209	1.133	1.141	1.070	1.046			1.2	11	TM



Data File : M:\CHICO\DATA\C110422\0422C04W.D Vial: 1  
 Acq On : 22 Apr 11 18:01 Operator: RS  
 Sample : Vol Std 04-22-1100.3ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: Apr 24 15:44 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	96	416768	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.10	117	318912	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.29	152	185024	25.00000	ppb	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) Dibromofluoromethane(S)	11.49	111	9178	0.71862	ppb	0.00
Spiked Amount 23.521			Recovery =	3.057%		
23) 1,2-DCA-D4(S)	12.29	65	6266	0.71182	ppb	0.00
Spiked Amount 22.321			Recovery =	3.190%		
36) Toluene-D8(S)	15.56	98	30563	0.70966	ppb	0.00
Spiked Amount 26.002			Recovery =	2.731%		
44) 4-Bromofluorobenzene(S)	20.17	95	19990	1.21850	ppb	0.00
Spiked Amount 26.339			Recovery =	4.624%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.12	85	3918	0.21726	ppb	84
3) Chloromethane	4.60	50	7629	0.45047	ppb	89
4) Vinyl chloride	4.87	62	2268	0.51606	ppb	95
5) Bromomethane	5.78	94	1667	0.49389	ppb #	68
6) Chloroethane	5.97	64	5956	0.61889	ppb #	77
7) Trichlorofluoromethane	6.60	101	5202	0.25201	ppb #	60
8) Acetone	7.36	43	1723	1.20983	ppb	93
9) 1,1-DCE	7.74	96	4662	0.53522	ppb #	84
10) Methylene chloride	8.54	84	5734	-0.38465	ppb	89
11) Carbon disulfide	8.63	76	14811	0.36904	ppb	98
12) Methyl t-butyl ether (MtBE)	8.97	73	4566	0.30609	ppb #	72
13) Trans-1,2-DCE	9.16	96	5313	0.54010	ppb #	77
14) 1,1-DCA	9.86	63	6357	0.36895	ppb #	90
15) MEK (2-Butanone)	10.51	43	1502	0.39573	ppb #	80
16) Cis-1,2-DCE	10.88	96	5702	0.46202	ppb	79
17) 2,2-Dichloropropane	10.87	77	6662	0.38428	ppb #	84
18) Chloroform	11.15	83	6388	0.32561	ppb	91
19) Bromochloromethane	11.38	128	1037	0.24807	ppb #	1
21) 1,1,1-TCA	11.91	97	6308	0.32934	ppb	91
22) 1,1-Dichloropropene	12.18	75	5143	0.41588	ppb #	87
24) Carbon Tetrachloride	12.37	117	5568	0.31457	ppb #	78
25) 1,2-DCA	12.45	62	2920	0.33684	ppb #	73
26) Benzene	12.57	78	14066	0.39791	ppb #	94
27) TCE	13.60	95	4300	0.36979	ppb	86
28) 1,2-Dichloropropane	13.82	63	3155	0.38593	ppb #	81
29) Bromodichloromethane	14.17	83	4033	0.30368	ppb #	80
30) Dibromomethane	14.24	93	1043	0.23337	ppb	88
31) Cis-1,3-Dichloropropene	15.06	75	3909	0.31397	ppb	92
32) Toluene	15.70	92	10020	0.39346	ppb	95
33) Trans-1,3-Dichloropropene	15.85	75	3288	0.34440	ppb	95
34) 1,1,2-TCA	16.14	83	593	0.13730	ppb #	49
37) 1,2-EDB	17.37	107	1912	0.33131	ppb #	77
38) Tetrachloroethene	16.85	164	3918	0.34500	ppb #	84
39) 1-Chlorohexane	17.76	91	6594	0.36901	ppb	94
40) 1,1,1,2-Tetrachloroethane	18.20	131	3548	0.29405	ppb	83
41) m&p-Xylene	18.42	106	17654	0.77218	ppb	82
42) o-Xylene	19.16	106	8421	0.37483	ppb	99
43) Styrene	19.17	78	8041	0.45964	ppb	71
45) 2-Hexanone	16.15	43	731	0.39378	ppb #	35

(#) = qualifier out of range (m) = manual integration  
 0422C04W.D C86DODW.M Tue May 10 14:36:24 2011



Data File : M:\CHICO\DATA\C110422\0422C04W.D Vial: 1  
 Acq On : 22 Apr 11 18:01 Operator: RS  
 Sample : Vol Std 04-22-11@0.3ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.54	76	2618	0.28235	ppb #	67
47) Dibromochloromethane	17.01	129	3112	0.33914	ppb	76
48) Chlorobenzene	18.18	112	11497	0.35047	ppb #	82
49) Ethylbenzene	18.27	91	21489	0.38075	ppb	98
50) Bromoform	19.70	173	1479	0.26958	ppb	83
52) MIBK (methyl isobutyl keto)	14.73	43	1461	0.49153	ppb #	65
53) Isopropylbenzene	19.79	105	21426	0.35139	ppb	100
54) 1,1,2,2-Tetrachloroethane	19.96	83	1811	0.36654	ppb #	87
55) 1,2,3-Trichloropropane	20.21	110	816	0.47623	ppb #	27
56) Bromobenzene	20.53	156	6213	0.43241	ppb #	69
57) n-Propylbenzene	20.50	91	28004	0.40507	ppb	96
58) 2-Chlorotoluene	20.79	91	18616	0.40615	ppb	82
59) 1,3,5-Trimethylbenzene	20.77	105	18791	0.38826	ppb	90
60) 4-Chlorotoluene	20.87	91	18466	0.46613	ppb #	72
61) Tert-Butylbenzene	21.42	119	20679	0.38774	ppb #	94
62) 1,2,4-Trimethylbenzene	21.46	105	19007	0.38690	ppb	99
63) Sec-Butylbenzene	21.81	105	26733	0.39094	ppb	88
64) p-Isopropyltoluene	22.05	119	23884	0.41613	ppb	92
65) 1,3-DCB	22.17	146	13342	0.44846	ppb	86
66) 1,4-DCB	22.35	146	10562	0.37864	ppb #	74
67) n-Butylbenzene	22.75	91	22220	0.46616	ppb	94
68) 1,2-DCB	22.98	146	9954	0.41686	ppb	91
69) 1,2-Dibromo-3-chloropropan	24.19	157	319	0.24513	ppb	80
70) 1,2,4-Trichlorobenzene	25.63	180	3894	0.45349	ppb	97
71) Hexachlorobutadiene	25.89	223	2311	0.55182	ppb	78
72) Naphthalene	25.98	128	3726	0.41696	ppb	94
73) 1,2,3-Trichlorobenzene	26.34	180	8120	0.46396	ppb	98



Data File : M:\CHICO\DATA\C110422\0422C05W.D  
 Acq On : 22 Apr 11 18:36  
 Sample : Vol Std 04-22-11@0.5ug/L  
 Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	96	414272	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.09	117	323264	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.29	152	182336	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.49	111	15755	1.24102	ppb	0.00
Spiked Amount	23.521		Recovery	=	5.276%	
23) 1,2-DCA-D4(S)	12.29	65	10093	1.15348	ppb	0.00
Spiked Amount	22.321		Recovery	=	5.166%	
36) Toluene-D8(S)	15.57	98	53536	1.22635	ppb	0.00
Spiked Amount	26.002		Recovery	=	4.715%	
44) 4-Bromofluorobenzene(S)	20.16	95	25843	1.55406	ppb	0.00
Spiked Amount	26.339		Recovery	=	5.900%	
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	4.13	85	6223	0.34716	ppb	Qvalue 83
3) Chloromethane	4.61	50	6530	0.38790	ppb	93
4) Vinyl chloride	4.88	62	2137	0.48918	ppb #	82
5) Bromomethane	5.79	94	1629	0.48554	ppb #	36
6) Chloroethane	5.97	64	4070	0.42546	ppb #	59
7) Trichlorofluoromethane	6.58	101	7551	0.36802	ppb #	74
8) Acetone	7.34	43	1357	0.77850	ppb #	33
9) 1,1-DCE	7.73	96	4255	0.49144	ppb #	62
10) Methylene chloride	8.54	84	6867	-0.22750	ppb	80
11) Carbon disulfide	8.62	76	13695	0.34328	ppb	99
12) Methyl t-butyl ether (MtBE)	8.95	73	6489	0.43762	ppb #	87
13) Trans-1,2-DCE	9.17	96	6713	0.68653	ppb	84
14) 1,1-DCA	9.85	63	9557	0.55801	ppb #	87
15) MEK (2-Butanone)	10.51	43	2263	0.59982	ppb #	80
16) Cis-1,2-DCE	10.88	96	6715	0.54738	ppb #	80
17) 2,2-Dichloropropane	10.88	77	8532	0.49512	ppb	95
18) Chloroform	11.15	83	8793	0.45090	ppb	92
19) Bromochloromethane	11.38	128	2069	0.49793	ppb #	45
21) 1,1,1-TCA	11.90	97	9767	0.51301	ppb	98
22) 1,1-Dichloropropene	12.16	75	5647	0.45939	ppb #	83
24) Carbon Tetrachloride	12.36	117	7929	0.45065	ppb #	83
25) 1,2-DCA	12.44	62	3657	0.42439	ppb #	73
26) Benzene	12.56	78	18551	0.52794	ppb	94
27) TCE	13.60	95	5709	0.49392	ppb	83
28) 1,2-Dichloropropane	13.83	63	4999	0.61517	ppb #	81
29) Bromodichloromethane	14.17	83	6747	0.51111	ppb #	77
30) Dibromomethane	14.23	93	2142	0.48216	ppb #	59
31) Cis-1,3-Dichloropropene	15.08	75	6508	0.52587	ppb #	78
32) Toluene	15.70	92	12760	0.50407	ppb	76
33) Trans-1,3-Dichloropropene	15.86	75	4873	0.51350	ppb	85
34) 1,1,2-TCA	16.13	83	1769	0.41205	ppb	78
37) 1,2-EDB	17.40	107	3054	0.52207	ppb #	69
38) Tetrachloroethene	16.85	164	5862	0.50924	ppb	89
39) 1-Chlorohexane	17.77	91	10048	0.55474	ppb	91
40) 1,1,1,2-Tetrachloroethane	18.22	131	5484	0.44838	ppb	88
41) m&p-Xylene	18.41	106	23876	1.03027	ppb	98
42) o-Xylene	19.15	106	10979	0.48211	ppb	69
43) Styrene	19.17	78	9899	0.55823	ppb	77
45) 2-Hexanone	16.15	43	887	0.47138	ppb	88

(#) = qualifier out of range (m) = manual integration  
 0422C05W.D C86DODW.M Tue May 10 14:36:34 2011

Data File : M:\CHICO\DATA\C110422\0422C05W.D Vial: 1  
 Acq On : 22 Apr 11 18:36 Operator: RS  
 Sample : Vol Std 04-22-1100.5ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.56	76	4691	0.49910	ppb	89
47) Dibromochloromethane	17.03	129	4165	0.44778	ppb	97
48) Chlorobenzene	18.15	112	17399	0.52325	ppb	97
49) Ethylbenzene	18.27	91	29160	0.50971	ppb	100
50) Bromoform	19.69	173	2482	0.44631	ppb	95
52) MIBK (methyl isobutyl keto)	14.74	43	1563	0.53360	ppb	84
53) Isopropylbenzene	19.79	105	32175	0.53545	ppb	93
54) 1,1,2,2-Tetrachloroethane	19.93	83	2488	0.51098	ppb #	83
55) 1,2,3-Trichloropropane	20.20	110	668	0.39560	ppb	88
56) Bromobenzene	20.53	156	9026	0.63745	ppb	85
57) n-Propylbenzene	20.50	91	37112	0.54473	ppb	89
58) 2-Chlorotoluene	20.79	91	24512	0.54267	ppb	94
59) 1,3,5-Trimethylbenzene	20.77	105	23506	0.49284	ppb	84
60) 4-Chlorotoluene	20.88	91	23107	0.59188	ppb	91
61) Tert-Butylbenzene	21.41	119	27029	0.51427	ppb	95
62) 1,2,4-Trimethylbenzene	21.47	105	25401	0.52467	ppb	92
63) Sec-Butylbenzene	21.81	105	36750	0.54535	ppb	93
64) p-Isopropyltoluene	22.04	119	31010	0.54825	ppb	94
65) 1,3-DCB	22.18	146	17976	0.61312	ppb	88
66) 1,4-DCB	22.35	146	14331	0.52133	ppb	99
67) n-Butylbenzene	22.75	91	28677	0.61049	ppb	93
68) 1,2-DCB	22.98	146	13071	0.55546	ppb #	84
69) 1,2-Dibromo-3-chloropropan	24.18	157	219	0.17076	ppb #	76
70) 1,2,4-Trichlorobenzene	25.62	180	5307	0.62716	ppb	79
71) Hexachlorobutadiene	25.88	223	2673	0.64767	ppb	91
72) Naphthalene	25.98	128	5032	0.57140	ppb #	87
73) 1,2,3-Trichlorobenzene	26.34	180	10502	0.60891	ppb #	80

Quantitation Report

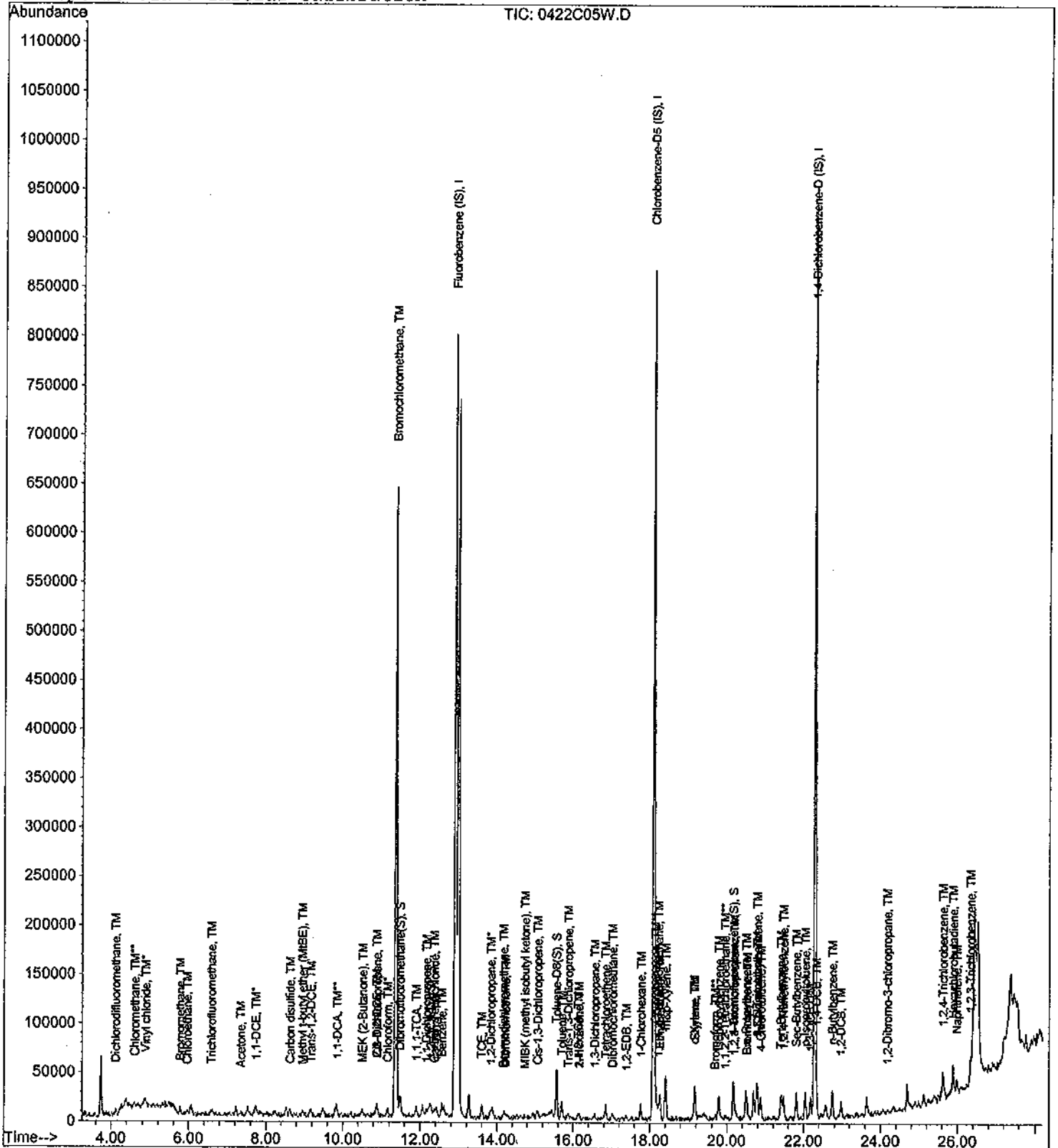
Data File : M:\CHICO\DATA\C110422\0422C05W.D  
Acq On : 22 Apr 11 18:36  
Sample : Vol Std 04-22-11@0.5ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C06W.D  
 Acq On : 22 Apr 11 19:11  
 Sample : Vol Std 04-22-11@1.0ug/L  
 Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	96	415040	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.10	117	331392	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.30	152	182400	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.48	111	31068	2.44269	ppb	0.00
Spiked Amount	23.521		Recovery	=	10.387%	
23) 1,2-DCA-D4(S)	12.30	65	19636	2.23995	ppb	0.00
Spiked Amount	22.321		Recovery	=	10.036%	
36) Toluene-D8(S)	15.56	98	106288	2.37503	ppb	0.00
Spiked Amount	26.002		Recovery	=	9.134%	
44) 4-Bromofluorobenzene(S)	20.17	95	45602	2.67501	ppb	0.00
Spiked Amount	26.339		Recovery	=	10.156%	
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	4.13	85	14666	0.81666	ppb	99
3) Chloromethane	4.60	50	12759	0.75652	ppb	99
4) Vinyl chloride	4.88	62	4124	0.94228	ppb	90
5) Bromomethane	5.79	94	2468	0.73425	ppb	74
6) Chloroethane	5.98	64	8125	0.84779	ppb	88
7) Trichlorofluoromethane	6.59	101	18320	0.89122	ppb	84
8) Acetone	7.36	43	1773	1.27900	ppb	99
9) 1,1-DCE	7.74	96	9479	1.09277	ppb	96
10) Methylene chloride	8.54	84	11057	0.33380	ppb	87
11) Carbon disulfide	8.63	76	29622	0.74114	ppb	93
12) Methyl t-butyl ether (MtBE)	8.98	73	14465	0.97371	ppb	# 78
13) Trans-1,2-DCE	9.17	96	9692	0.98936	ppb	96
14) 1,1-DCA	9.85	63	17224	1.00381	ppb	95
15) MEK (2-Butanone)	10.50	43	3646	0.96460	ppb	# 80
16) Cis-1,2-DCE	10.88	96	12950	1.05367	ppb	94
17) 2,2-Dichloropropane	10.87	77	16995	0.98440	ppb	98
18) Chloroform	11.16	83	19127	0.97900	ppb	92
19) Bromochloromethane	11.39	128	3984	0.95702	ppb	82
21) 1,1,1-TCA	11.91	97	17894	0.93814	ppb	93
22) 1,1-Dichloropropene	12.18	75	12272	0.99649	ppb	92
24) Carbon Tetrachloride	12.36	117	16334	0.92664	ppb	# 81
25) 1,2-DCA	12.43	62	6815	0.78941	ppb	# 61
26) Benzene	12.57	78	36903	1.04827	ppb	93
27) TCE	13.60	95	12216	1.05492	ppb	92
28) 1,2-Dichloropropane	13.83	63	9062	1.11310	ppb	# 85
29) Bromodichloromethane	14.18	83	11842	0.89541	ppb	97
30) Dibromomethane	14.22	93	4382	0.98456	ppb	# 63
31) Cis-1,3-Dichloropropene	15.07	75	12232	0.98656	ppb	92
32) Toluene	15.70	92	28060	1.10642	ppb	87
33) Trans-1,3-Dichloropropene	15.86	75	9433	0.99217	ppb	# 77
34) 1,1,2-TCA	16.15	83	4291	0.99765	ppb	93
37) 1,2-EDB	17.39	107	5010	0.83544	ppb	# 99
38) Tetrachloroethene	16.85	164	11931	1.01103	ppb	88
39) 1-Chlorohexane	17.77	91	19691	1.06045	ppb	82
40) 1,1,1,2-Tetrachloroethane	18.21	131	12306	0.98147	ppb	92
41) m&p-Xylene	18.42	106	46454	1.95537	ppb	97
42) o-Xylene	19.16	106	23403	1.00246	ppb	99
43) Styrene	19.17	78	17658	0.97135	ppb	82
45) 2-Hexanone	16.17	43	1619	0.83928	ppb	# 78

(#) = qualifier out of range (m) = manual integration  
 0422C06W.D C86DODW.M Tue May 10 14:36:32 2011

Data File : M:\CHICO\DATA\C110422\0422C06W.D  
 Acq On : 22 Apr 11 19:11  
 Sample : Vol Std 04-22-11@1.0ug/L  
 Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.56	76	9149	0.94954	ppb	94
47) Dibromochloromethane	17.04	129	9540	1.00049	ppb	98
48) Chlorobenzene	18.17	112	32870	0.96427	ppb #	87
49) Ethylbenzene	18.27	91	57671	0.98336	ppb	99
50) Bromoform	19.70	173	5341	0.93686	ppb	83
52) MIBK (methyl isobutyl keto	14.73	43	3758	1.28250	ppb #	45
53) Isopropylbenzene	19.79	105	62563	1.04080	ppb	100
54) 1,1,2,2-Tetrachloroethane	19.96	83	5371	1.10270	ppb #	79
55) 1,2,3-Trichloropropane	20.21	110	1254	0.74239	ppb	82
56) Bromobenzene	20.54	156	16617	1.17314	ppb	82
57) n-Propylbenzene	20.50	91	70748	1.03808	ppb	95
58) 2-Chlorotoluene	20.79	91	48869	1.08152	ppb	93
59) 1,3,5-Trimethylbenzene	20.77	105	53288	1.11688	ppb	83
60) 4-Chlorotoluene	20.87	91	44798	1.14709	ppb	82
61) Tert-Butylbenzene	21.42	119	56926	1.08273	ppb	93
62) 1,2,4-Trimethylbenzene	21.48	105	52225	1.07836	ppb	81
63) Sec-Butylbenzene	21.81	105	72272	1.07210	ppb	90
64) p-Isopropyltoluene	22.05	119	59173	1.04580	ppb	96
65) 1,3-DCB	22.18	146	31895	1.08749	ppb	97
66) 1,4-DCB	22.35	146	28615	1.04059	ppb	95
67) n-Butylbenzene	22.75	91	50307	1.07058	ppb	98
68) 1,2-DCB	22.97	146	25669	1.09044	ppb	90
69) 1,2-Dibromo-3-chloropropan	24.20	157	1688	1.31575	ppb #	35
70) 1,2,4-Trichlorobenzene	25.64	180	9037	1.06758	ppb	92
71) Hexachlorobutadiene	25.89	223	4553	1.10280	ppb	84
72) Naphthalene	25.98	128	9485	1.07668	ppb	98
73) 1,2,3-Trichlorobenzene	26.34	180	17725	1.02733	ppb	86

(#) = qualifier out of range (m) = manual integration  
 0422C06W.D C86DODW.M Tue May 10 14:36:38 2011

Quantitation Report

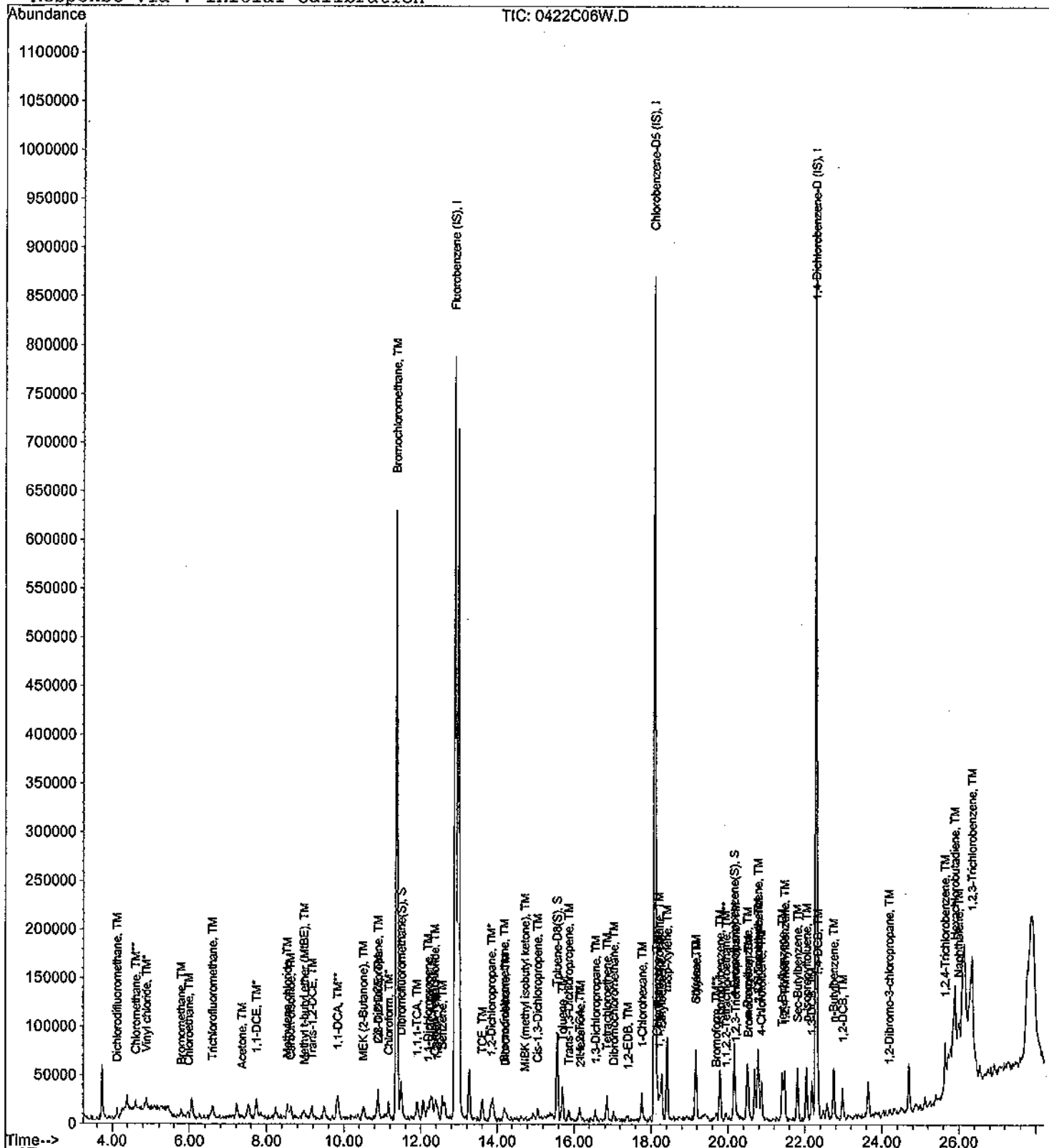
Data File : M:\CHICO\DATA\C110422\0422C06W.D  
Acq On : 22 Apr 11 19:11  
Sample : Vol Std 04-22-11@1.0ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration





Data File : M:\CHICO\DATA\C110422\0422C07W.D  
 Acq On : 22 Apr 11 19:46  
 Sample : Vol Std 04-22-11@2.0ug/L  
 Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	96	439296	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.10	117	327872	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.30	152	176768	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) Dibromofluoromethane(S)	11.48	111	61741	4.58630	ppb	0.00
Spiked Amount 23.521			Recovery =	19.498%		
23) 1,2-DCA-D4(S)	12.30	65	41442	4.46641	ppb	0.00
Spiked Amount 22.321			Recovery =	20.008%		
36) Toluene-D8(S)	15.57	98	221122	4.99407	ppb	0.00
Spiked Amount 26.002			Recovery =	19.206%		
44) 4-Bromofluorobenzene(S)	20.16	95	79526	4.71507	ppb	0.00
Spiked Amount 26.339			Recovery =	17.902%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.13	85	29423	1.54792	ppb	100
3) Chloromethane	4.61	50	25068	1.40430	ppb	90
4) Vinyl chloride	4.88	62	6473	1.39733	ppb #	80
5) Bromomethane	5.79	94	4654	1.30815	ppb	97
6) Chloroethane	5.97	64	19410	1.91347	ppb	94
7) Trichlorofluoromethane	6.60	101	35682	1.63999	ppb	100
8) Acetone	7.33	43	2632	2.14284	ppb #	62
9) 1,1-DCE	7.74	96	15999	1.74258	ppb #	83
10) Methylene chloride	8.54	84	19166	1.28121	ppb	90
11) Carbon disulfide	8.63	76	58395	1.38037	ppb	98
12) Methyl t-butyl ether (MtBE)	8.98	73	26905	1.71111	ppb	91
13) Trans-1,2-DCE	9.16	96	18912	1.82395	ppb	83
14) 1,1-DCA	9.86	63	33893	1.86622	ppb #	90
15) MEK (2-Butanone)	10.50	43	6648	1.66170	ppb	98
16) Cis-1,2-DCE	10.88	96	24096	1.85231	ppb	87
17) 2,2-Dichloropropane	10.87	77	35248	1.92894	ppb	97
18) Chloroform	11.15	83	35875	1.73485	ppb	97
19) Bromochloromethane	11.38	128	7851	1.78181	ppb #	70
21) 1,1,1-TCA	11.90	97	33686	1.66856	ppb	89
22) 1,1-Dichloropropene	12.18	75	25094	1.92513	ppb	94
24) Carbon Tetrachloride	12.36	117	31110	1.66744	ppb	93
25) 1,2-DCA	12.44	62	16982	1.85849	ppb	97
26) Benzene	12.57	78	73937	1.98430	ppb	97
27) TCE	13.60	95	24725	2.01724	ppb	94
28) 1,2-Dichloropropane	13.82	63	16909	1.96227	ppb #	92
29) Bromodichloromethane	14.18	83	24953	1.78259	ppb #	93
30) Dibromomethane	14.23	93	7092	1.50546	ppb	90
31) Cis-1,3-Dichloropropene	15.07	75	24508	1.86752	ppb	95
32) Toluene	15.69	92	54132	2.01660	ppb	100
33) Trans-1,3-Dichloropropene	15.87	75	17906	1.77938	ppb	96
34) 1,1,2-TCA	16.14	83	8599	1.88887	ppb	93
37) 1,2-EDB	17.39	107	11364	1.91534	ppb	89
38) Tetrachloroethene	16.85	164	23385	2.00292	ppb	95
39) 1-Chlorohexane	17.76	91	33354	1.81555	ppb	88
40) 1,1,1,2-Tetrachloroethane	18.22	131	24081	1.94121	ppb #	73
41) m&p-Xylene	18.42	106	92211	3.92307	ppb	95
42) o-Xylene	19.16	106	41932	1.81543	ppb	89
43) Styrene	19.17	78	29431	1.63635	ppb	70
45) 2-Hexanone	16.16	43	3326	1.74270	ppb	95

(#) = qualifier out of range (m) = manual integration  
 0422C07W.D C86DODW.M Tue May 10 14:36:44 2011

Data File : M:\CHICO\DATA\C110422\0422C07W.D Vial: 1  
 Acq On : 22 Apr 11 19:46 Operator: RS  
 Sample : Vol Std 04-22-11@2.0ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: Apr 24 15:44 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.55	76	17615	1.84782	ppb	92
47) Dibromochloromethane	17.04	129	17035	1.80570	ppb	97
48) Chlorobenzene	18.16	112	65151	1.93178	ppb	94
49) Ethylbenzene	18.27	91	111073	1.91425	ppb	99
50) Bromoform	19.70	173	9788	1.73533	ppb #	75
52) MIBK (methyl isobutyl keto	14.73	43	6861	2.41608	ppb #	71
53) Isopropylbenzene	19.79	105	123369	2.11776	ppb	94
54) 1,1,2,2-Tetrachloroethane	19.96	83	9272	1.96425	ppb	85
55) 1,2,3-Trichloropropane	20.21	110	3331	2.03483	ppb	80
56) Bromobenzene	20.54	156	28462	2.07340	ppb	82
57) n-Propylbenzene	20.50	91	138098	2.09086	ppb	100
58) 2-Chlorotoluene	20.80	91	93059	2.12511	ppb	99
59) 1,3,5-Trimethylbenzene	20.77	105	95502	2.06544	ppb	87
60) 4-Chlorotoluene	20.88	91	75311	1.98983	ppb	94
61) Tert-Butylbenzene	21.42	119	101191	1.98597	ppb	99
62) 1,2,4-Trimethylbenzene	21.48	105	94410	2.01152	ppb	91
63) Sec-Butylbenzene	21.82	105	133428	2.04236	ppb	100
64) p-Isopropyltoluene	22.05	119	107845	1.96675	ppb	96
65) 1,3-DCB	22.18	146	56689	1.99444	ppb	95
66) 1,4-DCB	22.35	146	52401	1.96629	ppb	92
67) n-Butylbenzene	22.75	91	91173	2.00206	ppb	98
68) 1,2-DCB	22.98	146	46169	2.02378	ppb	95
69) 1,2-Dibromo-3-chloropropan	24.19	157	2255	1.81372	ppb	85
70) 1,2,4-Trichlorobenzene	25.64	180	15280	1.86260	ppb	98
71) Hexachlorobutadiene	25.88	223	8540	2.13441	ppb	79
72) Naphthalene	25.98	128	17144	2.00809	ppb	97
73) 1,2,3-Trichlorobenzene	26.34	180	31645	1.89257	ppb #	90

Quantitation Report

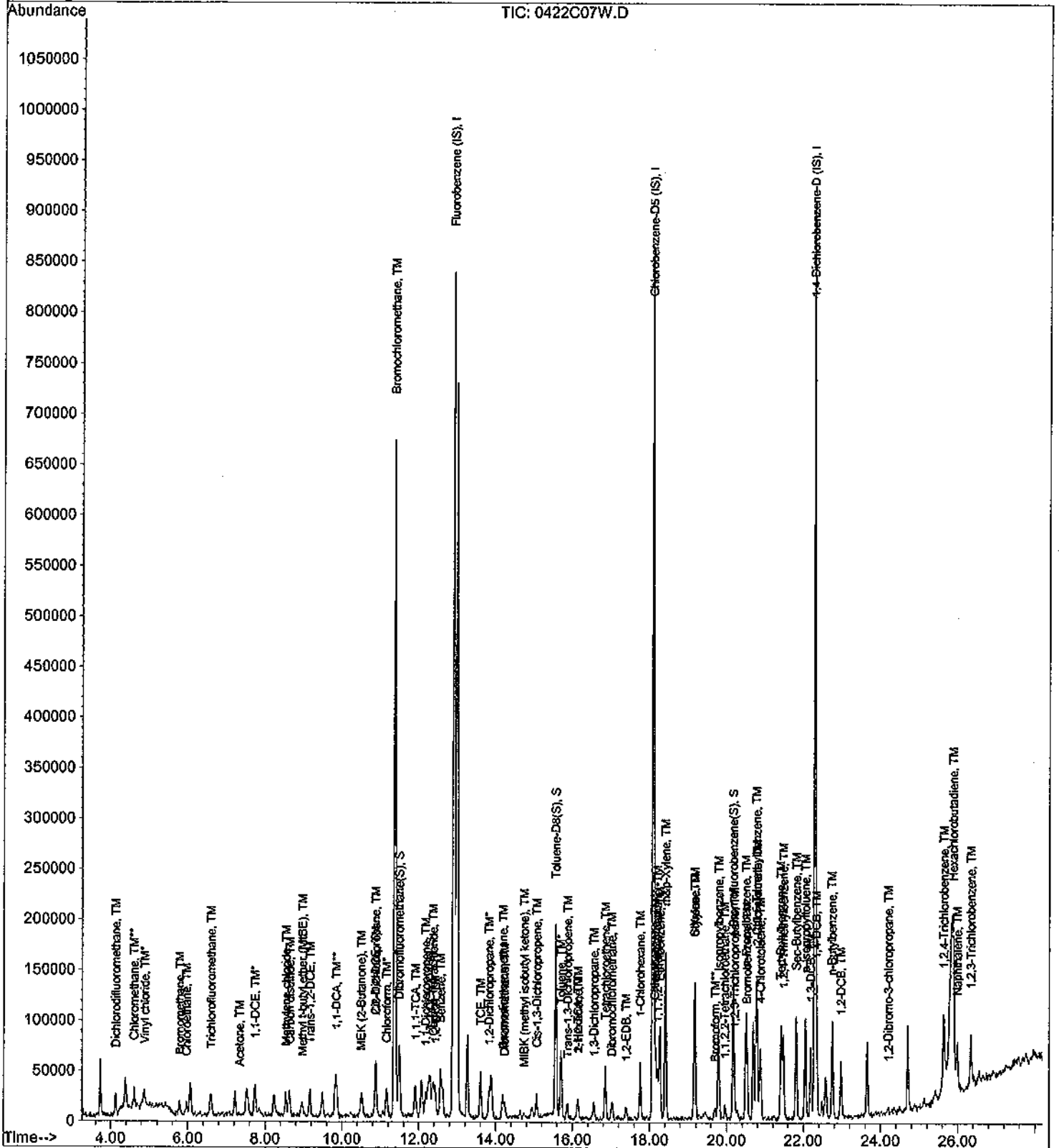
Data File : M:\CHICO\DATA\C110422\0422C07W.D  
Acq On : 22 Apr 11 19:46  
Sample : Vol Std 04-22-11@2.0ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C08W.D  
 Acq On : 22 Apr 11 20:21  
 Sample : Vol Std 04-22-11@5.0ug/L  
 Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	96	422656	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.10	117	332096	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.30	152	183424	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.49	111	132312	10.21546	ppb	0.00
Spiked Amount 23.521			Recovery =	43.430%		
23) 1,2-DCA-D4(S)	12.29	65	85085	9.53107	ppb	0.00
Spiked Amount 22.321			Recovery =	42.700%		
36) Toluene-D8(S)	15.56	98	446387	9.95348	ppb	0.00
Spiked Amount 26.002			Recovery =	38.278%		
44) 4-Bromofluorobenzene(S)	20.17	95	163353	9.56195	ppb	0.00
Spiked Amount 26.339			Recovery =	36.304%		
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	4.13	85	59861	3.27322	ppb	Qvalue 89
3) Chloromethane	4.61	50	65776	3.82980	ppb	96
4) Vinyl chloride	4.88	62	19800	4.44251	ppb	98
5) Bromomethane	5.79	94	15873	4.63726	ppb	100
6) Chloroethane	5.98	64	48086	4.92703	ppb	93
7) Trichlorofluoromethane	6.59	101	88773	4.24075	ppb	97
8) Acetone	7.34	43	5424	5.57996	ppb	# 58
9) 1,1-DCE	7.75	96	41309	4.67642	ppb	86
10) Methylene chloride	8.54	84	47772	5.15153	ppb	92
11) Carbon disulfide	8.63	76	189899	4.66566	ppb	98
12) Methyl t-butyl ether (MtBE)	8.97	73	76214	5.03790	ppb	97
13) Trans-1,2-DCE	9.16	96	49152	4.92704	ppb	89
14) 1,1-DCA	9.86	63	93340	5.34183	ppb	97
15) MEK (2-Butanone)	10.50	43	17871	4.64280	ppb	# 74
16) Cis-1,2-DCE	10.88	96	65441	5.22865	ppb	94
17) 2,2-Dichloropropane	10.88	77	81657	4.64460	ppb	98
18) Chloroform	11.16	83	102813	5.16759	ppb	96
19) Bromochloromethane	11.38	128	21325	5.03031	ppb	90
21) 1,1,1-TCA	11.91	97	93313	4.80402	ppb	98
22) 1,1-Dichloropropene	12.17	75	58393	4.65609	ppb	91
24) Carbon Tetrachloride	12.37	117	80406	4.47928	ppb	93
25) 1,2-DCA	12.44	62	44277	5.03640	ppb	93
26) Benzene	12.57	78	190172	5.30472	ppb	92
27) TCE	13.60	95	58855	4.99085	ppb	95
28) 1,2-Dichloropropane	13.82	63	46727	5.63610	ppb	100
29) Bromodichloromethane	14.18	83	68376	5.07695	ppb	99
30) Dibromomethane	14.24	93	22958	5.06530	ppb	87
31) Cis-1,3-Dichloropropene	15.06	75	67536	5.34889	ppb	87
32) Toluene	15.70	92	141099	5.46336	ppb	99
33) Trans-1,3-Dichloropropene	15.86	75	48272	4.98581	ppb	98
34) 1,1,2-TCA	16.14	83	23087	5.27098	ppb	89
37) 1,2-EDB	17.39	107	31116	5.17772	ppb	# 96
38) Tetrachloroethene	16.85	164	57669	4.87651	ppb	97
39) 1-Chlorohexane	17.76	91	89077	4.78704	ppb	98
40) 1,1,1,2-Tetrachloroethane	18.21	131	62302	4.95840	ppb	98
41) m&p-Xylene	18.42	106	241258	10.13363	ppb	98
42) o-Xylene	19.16	106	122546	5.23811	ppb	87
43) Styrene	19.18	78	88366	4.85062	ppb	92
45) 2-Hexanone	16.16	43	9042	4.67740	ppb	# 78

(#) = qualifier out of range (m) = manual integration  
 0422C08W.D C86DODW.M Tue May 10 14:36:51 2011

Data File : M:\CHICO\DATA\C110422\0422C08W.D  
 Acq On : 22 Apr 11 20:21  
 Sample : Vol Std 04-22-11@5.0ug/L  
 Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.55	76	51673	5.35158	ppb	93
47) Dibromochloromethane	17.03	129	50117	5.24480	ppb	94
48) Chlorobenzene	18.17	112	177272	5.18941	ppb	96
49) Ethylbenzene	18.27	91	289177	4.92034	ppb	99
50) Bromoform	19.69	173	27946	4.89157	ppb	91
52) MIBK (methyl isobutyl keto	14.74	43	15243	5.17298	ppb #	76
53) Isopropylbenzene	19.79	105	327288	5.41438	ppb	98
54) 1,1,2,2-Tetrachloroethane	19.95	83	28150	5.74711	ppb	90
55) 1,2,3-Trichloropropane	20.22	110	9802	5.77053	ppb #	77
56) Bromobenzene	20.54	156	75361	5.29068	ppb	94
57) n-Propylbenzene	20.50	91	362319	5.28661	ppb	99
58) 2-Chlorotoluene	20.79	91	248196	5.46217	ppb	97
59) 1,3,5-Trimethylbenzene	20.77	105	262744	5.47621	ppb	93
60) 4-Chlorotoluene	20.87	91	204323	5.20263	ppb	96
61) Tert-Butylbenzene	21.41	119	275503	5.21081	ppb	97
62) 1,2,4-Trimethylbenzene	21.47	105	266603	5.47419	ppb	98
63) Sec-Butylbenzene	21.81	105	352811	5.20444	ppb	95
64) p-Isopropyltoluene	22.05	119	292666	5.14361	ppb	99
65) 1,3-DCB	22.18	146	160350	5.43675	ppb	98
66) 1,4-DCB	22.35	146	146507	5.29801	ppb	98
67) n-Butylbenzene	22.75	91	240189	5.08290	ppb	97
68) 1,2-DCB	22.98	146	128232	5.41698	ppb	97
69) 1,2-Dibromo-3-chloropropan	24.19	157	7857	6.09014	ppb	89
70) 1,2,4-Trichlorobenzene	25.63	180	44344	5.20929	ppb	98
71) Hexachlorobutadiene	25.89	223	21546	5.18961	ppb	94
72) Naphthalene	25.98	128	46592	5.25932	ppb	98
73) 1,2,3-Trichlorobenzene	26.34	180	84581	4.87492	ppb	97

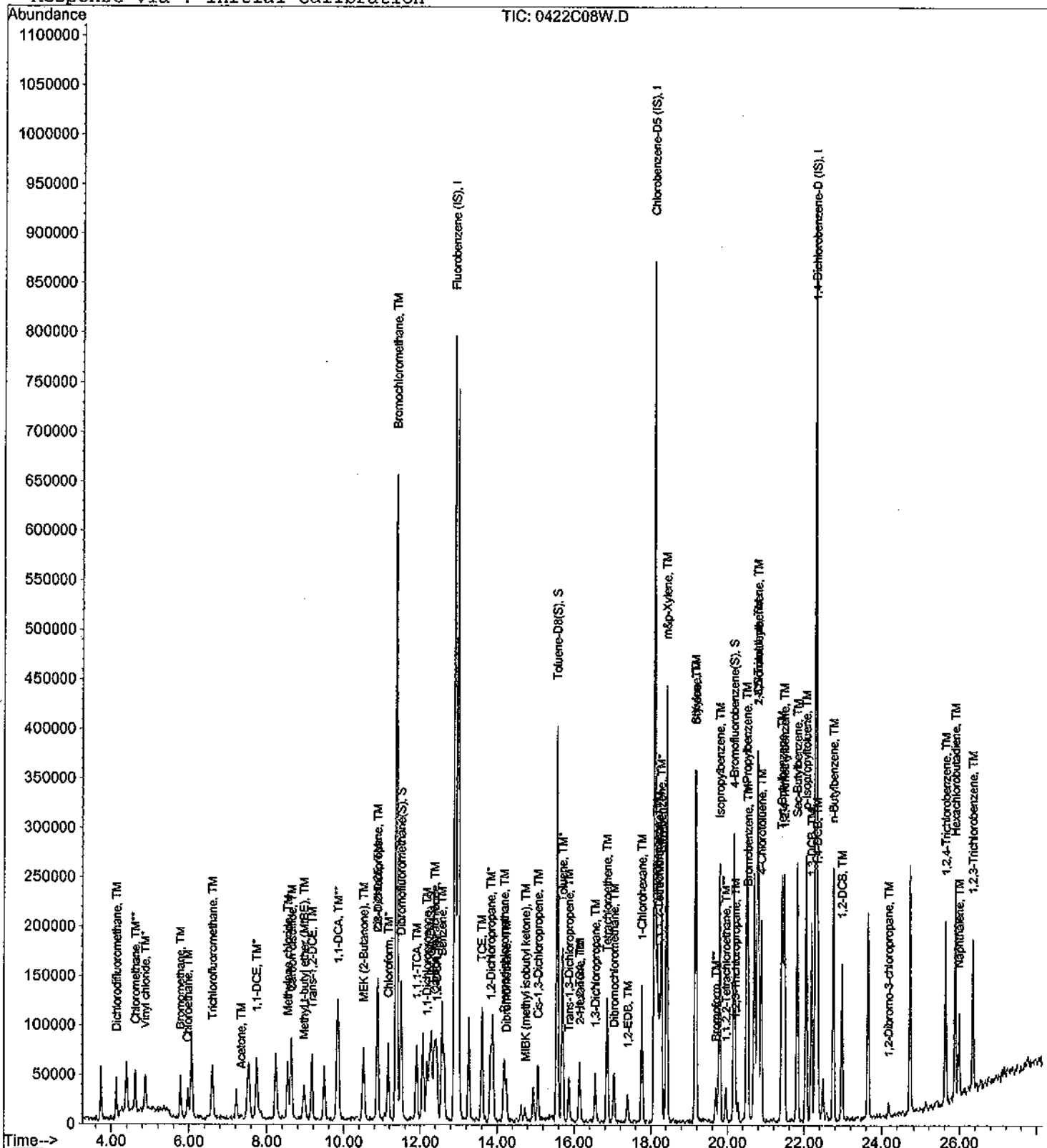
Data File : M:\CHICO\DATA\C110422\0422C08W.D  
 Acq On : 22 Apr 11 20:21  
 Sample : Vol Std 04-22-11@5.0ug/L  
 Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C09W.D  
 Acq On : 22 Apr 11 20:57  
 Sample : Vol Std 04-22-11@10ug/L  
 Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	96	440128	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.10	117	324224	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.30	152	180544	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.49	111	316177	23.44213	ppb	0.00
Spiked Amount 23.521			Recovery =	99.666%		
23) 1,2-DCA-D4(S)	12.29	65	199890	21.50244	ppb	0.00
Spiked Amount 22.321			Recovery =	96.333%		
36) Toluene-D8(S)	15.56	98	1058353	24.17199	ppb	0.00
Spiked Amount 26.002			Recovery =	92.963%		
44) 4-Bromofluorobenzene(S)	20.17	95	385441	23.10978	ppb	0.00
Spiked Amount 26.339			Recovery =	87.742%		
Target Compounds						
2) Dichlorodifluoromethane	4.13	85	137096	7.19886	ppb	100
3) Chloromethane	4.60	50	136352	7.62392	ppb	100
4) Vinyl chloride	4.88	62	39016	8.40648	ppb	100
5) Bromomethane	5.78	94	35848	10.05716	ppb	100
6) Chloroethane	5.98	64	89035	8.76064	ppb	100
7) Trichlorofluoromethane	6.59	101	189991	8.71572	ppb	100
8) Acetone	7.35	43	9352	9.80758	ppb	100
9) 1,1-DCE	7.74	96	84138	9.14680	ppb	100
10) Methylene chloride	8.54	84	88479	10.05933	ppb	100
11) Carbon disulfide	8.63	76	386950	9.12964	ppb	100
12) Methyl t-butyl ether (MtBE)	8.97	73	148717	9.44025	ppb	100
13) Trans-1,2-DCE	9.17	96	93379	8.98880	ppb	100
14) 1,1-DCA	9.86	63	174950	9.61489	ppb	100
15) MEK (2-Butanone)	10.51	43	34240	8.54227	ppb	100
16) Cis-1,2-DCE	10.88	96	126225	9.68486	ppb	100
17) 2,2-Dichloropropane	10.87	77	160628	8.77373	ppb	100
18) Chloroform	11.16	83	196177	9.46883	ppb	100
19) Bromochloromethane	11.39	128	43163	9.77745	ppb	100
21) 1,1,1-TCA	11.90	97	189250	9.35636	ppb	100
22) 1,1-Dichloropropene	12.17	75	121510	9.30423	ppb	100
24) Carbon Tetrachloride	12.36	117	165298	8.84291	ppb	100
25) 1,2-DCA	12.44	62	81869	8.94272	ppb	100
26) Benzene	12.57	78	362825	9.71900	ppb	100
27) TCE	13.60	95	121800	9.91852	ppb	100
28) 1,2-Dichloropropane	13.82	63	87693	10.15744	ppb	100
29) Bromodichloromethane	14.18	83	125219	8.92849	ppb	100
30) Dibromomethane	14.24	93	45553	9.65152	ppb	100
31) Cis-1,3-Dichloropropene	15.06	75	127518	9.69857	ppb	100
32) Toluene	15.70	92	266852	9.92235	ppb	100
33) Trans-1,3-Dichloropropene	15.86	75	96358	9.55732	ppb	100
34) 1,1,2-TCA	16.14	83	44515	9.75975	ppb	100
37) 1,2-EDB	17.39	107	58643	9.99515	ppb	100
38) Tetrachloroethene	16.85	164	120082	10.40071	ppb	100
39) 1-Chlorohexane	17.76	91	174303	9.59456	ppb	100
40) 1,1,1,2-Tetrachloroethane	18.21	131	117023	9.53957	ppb	100
41) m&p-Xylene	18.42	106	456083	19.62212	ppb	100
42) o-Xylene	19.16	106	230212	10.07910	ppb	100
43) Styrene	19.17	78	168447	9.47095	ppb	100
45) 2-Hexanone	16.16	43	16371	8.67429	ppb	100

(#) = qualifier out of range (m) = manual integration  
 0422C09W.D C86DODW.M Tue May 10 14:36:57 2011

Data File : M:\CHICO\DATA\C110422\0422C09W.D  
 Acq On : 22 Apr 11 20:57  
 Sample : Vol Std 04-22-11@10ug/L  
 Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.55	76	90707	9.62227	ppb	100
47) Dibromochloromethane	17.03	129	91462	9.80399	ppb	100
48) Chlorobenzene	18.17	112	333942	10.01307	ppb	100
49) Ethylbenzene	18.27	91	559149	9.74490	ppb	100
50) Bromoform	19.70	173	54949	9.85160	ppb	100
52) MIBK (methyl isobutyl keto	14.74	43	26720	9.21255	ppb	100
53) Isopropylbenzene	19.79	105	635394	10.67910	ppb	100
54) 1,1,2,2-Tetrachloroethane	19.95	83	50451	10.46440	ppb	100
55) 1,2,3-Trichloropropane	20.21	110	16522	9.88181	ppb	100
56) Bromobenzene	20.53	156	144967	10.33968	ppb	100
57) n-Propylbenzene	20.50	91	704311	10.44055	ppb	100
58) 2-Chlorotoluene	20.79	91	470446	10.51849	ppb	100
59) 1,3,5-Trimethylbenzene	20.77	105	503431	10.66007	ppb	100
60) 4-Chlorotoluene	20.88	91	392246	10.14699	ppb	100
61) Tert-Butylbenzene	21.42	119	556023	10.68426	ppb	100
62) 1,2,4-Trimethylbenzene	21.47	105	499895	10.42813	ppb	100
63) Sec-Butylbenzene	21.81	105	690046	10.34149	ppb	100
64) p-Isopropyltoluene	22.05	119	582236	10.39604	ppb	100
65) 1,3-DCB	22.18	146	301683	10.39189	ppb	100
66) 1,4-DCB	22.35	146	283360	10.41037	ppb	100
67) n-Butylbenzene	22.75	91	474542	10.20249	ppb	100
68) 1,2-DCB	22.98	146	248289	10.65593	ppb	100
69) 1,2-Dibromo-3-chloropropan	24.18	157	11974	9.42937	ppb	100
70) 1,2,4-Trichlorobenzene	25.63	180	81840	9.76748	ppb	100
71) Hexachlorobutadiene	25.88	223	38133	9.33131	ppb	100
72) Naphthalene	25.98	128	86072	9.87083	ppb	100
73) 1,2,3-Trichlorobenzene	26.34	180	163670	9.58377	ppb	100



Quantitation Report

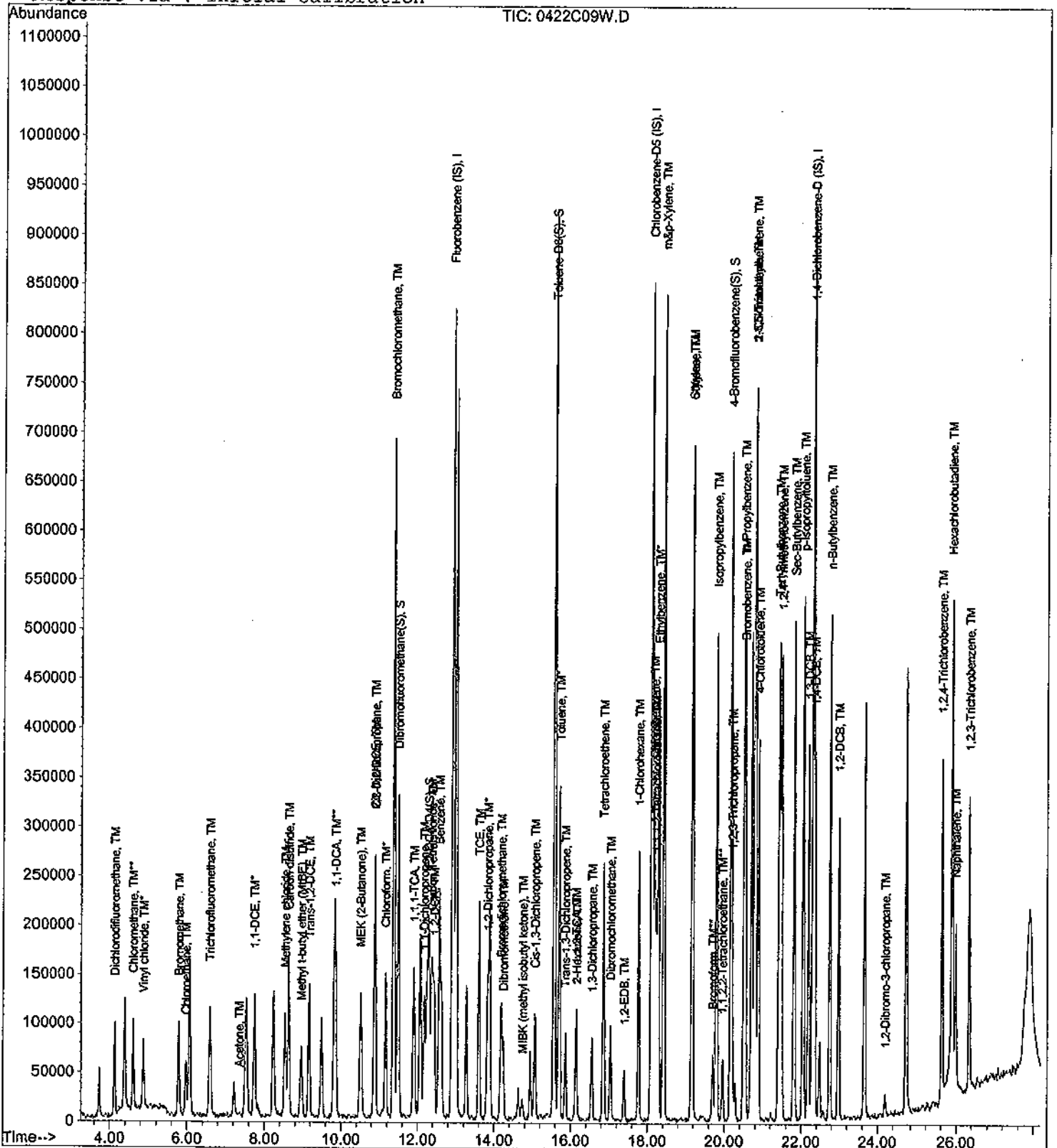
Data File : M:\CHICO\DATA\C110422\0422C09W.D  
 Acq On : 22 Apr 11 20:57  
 Sample : Vol Std 04-22-11@10ug/L  
 Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C10W.D  
 Acq On : 22 Apr 11 21:32  
 Sample : Vol Std 04-22-11@20ug/L  
 Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	96	434432	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.09	117	345088	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.29	152	195904	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.49	111	524178	39.37339	ppb	0.00
Spiked Amount	23.521		Recovery	= 167.399%		
23) 1,2-DCA-D4(S)	12.29	65	333941	36.39348	ppb	0.00
Spiked Amount	22.321		Recovery	= 163.047%		
36) Toluene-D8(S)	15.56	98	1774004	38.06728	ppb	0.00
Spiked Amount	26.002		Recovery	= 146.401%		
44) 4-Bromofluorobenzene(S)	20.17	95	660263	37.19377	ppb	0.00
Spiked Amount	26.339		Recovery	= 141.215%		
<b>Target Compounds</b>						
						Qvalue
2) Dichlorodifluoromethane	4.13	85	327499	17.42232	ppb	94
3) Chloromethane	4.61	50	292687	16.57974	ppb	99
4) Vinyl chloride	4.87	62	74712	16.30869	ppb	98
5) Bromomethane	5.79	94	74880	21.28302	ppb	95
6) Chloroethane	5.97	64	182777	18.22022	ppb	88
7) Trichlorofluoromethane	6.59	101	405381	18.84043	ppb	98
8) Acetone	7.34	43	16340	18.02844	ppb	92
9) 1,1-DCE	7.74	96	175932	19.37668	ppb	93
10) Methylene chloride	8.54	84	178508	21.76355	ppb	92
11) Carbon disulfide	8.62	76	818813	19.57224	ppb	97
12) Methyl t-butyl ether (MtBE)	8.96	73	309496	19.90377	ppb	94
13) Trans-1,2-DCE	9.17	96	202192	19.71849	ppb	93
14) 1,1-DCA	9.85	63	364479	20.29364	ppb	98
15) MEK (2-Butanone)	10.49	43	70473	17.81228	ppb	97
16) Cis-1,2-DCE	10.88	96	255270	19.84288	ppb	96
17) 2,2-Dichloropropane	10.88	77	327251	18.10929	ppb	98
18) Chloroform	11.16	83	400754	19.59672	ppb	99
19) Bromochloromethane	11.38	128	91559	21.01224	ppb	90
21) 1,1,1-TCA	11.90	97	389164	19.49219	ppb	97
22) 1,1-Dichloropropene	12.17	75	251514	19.51138	ppb	97
24) Carbon Tetrachloride	12.36	117	341973	18.53432	ppb	99
25) 1,2-DCA	12.45	62	170441	18.86173	ppb	97
26) Benzene	12.57	78	754000	20.46222	ppb	98
27) TCE	13.60	95	259421	21.40237	ppb	97
28) 1,2-Dichloropropane	13.82	63	185118	21.72326	ppb	98
29) Bromodichloromethane	14.18	83	260026	18.78372	ppb	100
30) Dibromomethane	14.24	93	95619	20.52486	ppb	96
31) Cis-1,3-Dichloropropene	15.07	75	263047	20.26874	ppb	93
32) Toluene	15.70	92	562293	21.18186	ppb	95
33) Trans-1,3-Dichloropropene	15.86	75	199689	20.06594	ppb	100
34) 1,1,2-TCA	16.14	83	92851	20.62415	ppb	94
37) 1,2-EDB	17.39	107	120284	19.26177	ppb	# 84
38) Tetrachloroethene	16.86	164	235383	19.15470	ppb	97
39) 1-Chlorohexane	17.76	91	377105	19.50284	ppb	96
40) 1,1,1,2-Tetrachloroethane	18.22	131	252321	19.32530	ppb	97
41) m&p-Xylene	18.41	106	950609	38.42547	ppb	95
42) o-Xylene	19.16	106	489580	20.13876	ppb	100
43) Styrene	19.18	78	349583	18.46698	ppb	96
45) 2-Hexanone	16.17	43	36225	18.03360	ppb	81

(#) = qualifier out of range (m) = manual integration  
 0422C10W.D C86DODW.M Tue May 10 14:37:04 2011

Data File : M:\CHICO\DATA\C110422\0422C10W.D  
 Acq On : 22 Apr 11 21:32  
 Sample : Vol Std 04-22-11@20ug/L  
 Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.56	76	194632	19.39842	ppb	99
47) Dibromochloromethane	17.03	129	191969	19.33342	ppb	93
48) Chlorobenzene	18.16	112	690875	19.46305	ppb	96
49) Ethylbenzene	18.28	91	1165360	19.08206	ppb	99
50) Bromoform	19.69	173	118686	19.99225	ppb	96
52) MIBK (methyl isobutyl keto)	14.73	43	59394	18.87235	ppb	83
53) Isopropylbenzene	19.79	105	1313695	20.34820	ppb	97
54) 1,1,2,2-Tetrachloroethane	19.95	83	108776	20.79300	ppb	89
55) 1,2,3-Trichloropropane	20.20	110	35336	19.47741	ppb	79
56) Bromobenzene	20.53	156	295274	19.40899	ppb	98
57) n-Propylbenzene	20.49	91	1468989	20.06861	ppb	98
58) 2-Chlorotoluene	20.79	91	941838	19.40705	ppb	93
59) 1,3,5-Trimethylbenzene	20.76	105	1006930	19.64985	ppb	94
60) 4-Chlorotoluene	20.87	91	831440	19.82210	ppb	97
61) Tert-Butylbenzene	21.41	119	1154781	20.44989	ppb	96
62) 1,2,4-Trimethylbenzene	21.47	105	1042623	20.04448	ppb	99
63) Sec-Butylbenzene	21.81	105	1476946	20.39903	ppb	99
64) p-Isopropyltoluene	22.04	119	1223426	20.13197	ppb	98
65) 1,3-DCB	22.18	146	629700	19.99019	ppb	98
66) 1,4-DCB	22.35	146	591118	20.01436	ppb	94
67) n-Butylbenzene	22.75	91	1009334	19.99890	ppb	97
68) 1,2-DCB	22.98	146	517544	20.47014	ppb	100
69) 1,2-Dibromo-3-chloropropan	24.19	157	27682	20.09003	ppb	86
70) 1,2,4-Trichlorobenzene	25.63	180	178880	19.67517	ppb	97
71) Hexachlorobutadiene	25.88	223	84772	19.11761	ppb	97
72) Naphthalene	25.98	128	188608	19.93386	ppb	99
73) 1,2,3-Trichlorobenzene	26.34	180	354806	19.14689	ppb	99

Quantitation Report

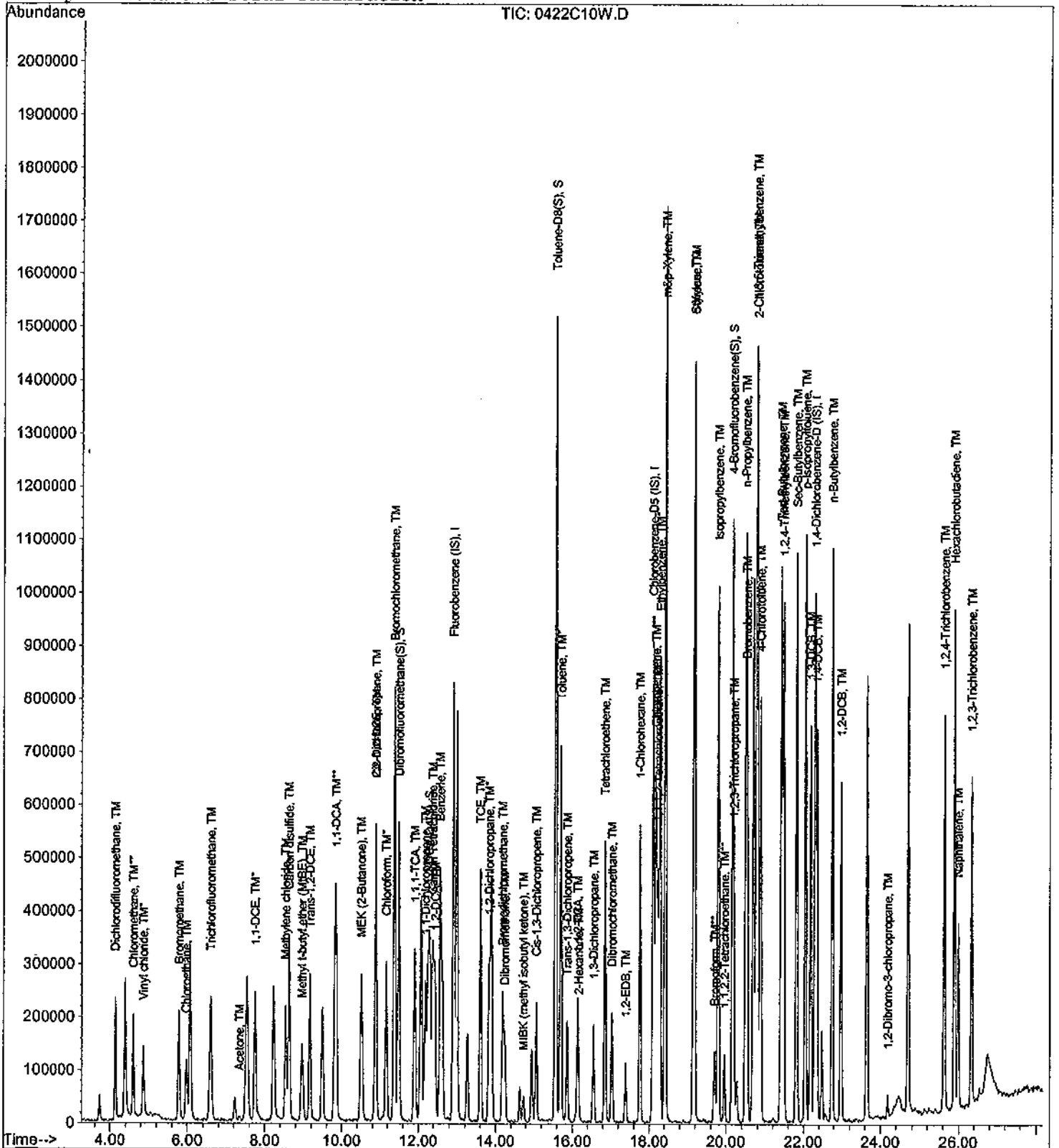
Data File : M:\CHICO\DATA\C110422\0422C10W.D  
Acq On : 22 Apr 11 21:32  
Sample : Vol Std 04-22-11@20ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C11W.D  
 Acq On : 22 Apr 11 22:07  
 Sample : Vol Std 04-22-11@40ug/L  
 Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	96	488128	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.10	117	362560	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.29	152	207744	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.49	111	1070242	71.54744	ppb	0.00
Spiked Amount	23.521		Recovery	=	304.190%	
23) 1,2-DCA-D4(S)	12.29	65	662542	64.26216	ppb	0.00
Spiked Amount	22.321		Recovery	=	287.904%	
36) Toluene-D8(S)	15.56	98	3598559	73.49805	ppb	0.00
Spiked Amount	26.002		Recovery	=	282.665%	
44) 4-Bromofluorobenzene(S)	20.17	95	1303711	69.90118	ppb	0.00
Spiked Amount	26.339		Recovery	=	265.395%	
<b>Target Compounds</b>						
						Qvalue
2) Dichlorodifluoromethane	4.13	85	730141	34.56933	ppb	94
3) Chloromethane	4.61	50	612908	30.89994	ppb	95
4) Vinyl chloride	4.86	62	154880	30.08930	ppb	100
5) Bromomethane	5.79	94	164992	41.73673	ppb	100
6) Chloroethane	5.97	64	383465	34.02091	ppb	95
7) Trichlorofluoromethane	6.58	101	852313	35.25451	ppb	100
8) Acetone	7.34	43	34525	34.66567	ppb	# 81
9) 1,1-DCE	7.75	96	367248	35.99830	ppb	86
10) Methylene chloride	8.54	84	357686	39.71400	ppb	99
11) Carbon disulfide	8.63	76	1705430	36.28088	ppb	98
12) Methyl t-butyl ether (MtBE)	8.96	73	637351	36.47935	ppb	98
13) Trans-1,2-DCE	9.17	96	414465	35.97375	ppb	98
14) 1,1-DCA	9.85	63	740498	36.69437	ppb	98
15) MEK (2-Butanone)	10.49	43	136642	30.73753	ppb	# 88
16) Cis-1,2-DCE	10.88	96	526777	36.44349	ppb	100
17) 2,2-Dichloropropane	10.87	77	662210	32.61401	ppb	99
18) Chloroform	11.16	83	817536	35.57955	ppb	97
19) Bromochloromethane	11.38	128	187983	38.39529	ppb	97
21) 1,1,1-TCA	11.90	97	801138	35.71276	ppb	99
22) 1,1-Dichloropropene	12.18	75	530254	36.60984	ppb	97
24) Carbon Tetrachloride	12.36	117	714427	34.46124	ppb	97
25) 1,2-DCA	12.45	62	345162	33.99527	ppb	99
26) Benzene	12.56	78	1557204	37.61101	ppb	98
27) TCE	13.60	95	531869	39.05255	ppb	97
28) 1,2-Dichloropropane	13.83	63	379061	39.58891	ppb	97
29) Bromodichloromethane	14.18	83	555261	35.69851	ppb	97
30) Dibromomethane	14.24	93	192324	36.74156	ppb	96
31) Cis-1,3-Dichloropropene	15.07	75	555028	38.06242	ppb	97
32) Toluene	15.70	92	1156273	38.76590	ppb	98
33) Trans-1,3-Dichloropropene	15.86	75	417654	37.35168	ppb	98
34) 1,1,2-TCA	16.13	83	191927	37.94142	ppb	96
37) 1,2-EDB	17.39	107	253358	38.61650	ppb	86
38) Tetrachloroethene	16.85	164	494228	38.28050	ppb	98
39) 1-Chlorohexane	17.76	91	794601	39.11421	ppb	96
40) 1,1,1,2-Tetrachloroethane	18.21	131	509427	37.13683	ppb	98
41) m&p-Xylene	18.42	106	1936261	74.49569	ppb	98
42) o-Xylene	19.16	106	967819	37.89250	ppb	98
43) Styrene	19.17	78	679859	34.18334	ppb	98
45) 2-Hexanone	16.16	43	73377	34.76834	ppb	# 66

(#) = qualifier out of range (m) = manual integration  
 0422C11W.D C86DODW.M Tue May 10 14:37:26 2011

Data File : M:\CHICO\DATA\C110422\0422C11W.D Vial: 1  
 Acq On : 22 Apr 11 22:07 Operator: RS  
 Sample : Vol Std 04-22-11@40ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.56	76	407916	38.69661	ppb	100
47) Dibromochloromethane	17.03	129	391399	37.51865	ppb	90
48) Chlorobenzene	18.16	112	1413699	37.90691	ppb	94
49) Ethylbenzene	18.27	91	2362938	36.82710	ppb	99
50) Bromoform	19.69	173	240999	38.63914	ppb	98
52) MIBK (methyl isobutyl keto	14.73	43	116981	35.05206	ppb	83
53) Isopropylbenzene	19.79	105	2667764	38.96670	ppb	98
54) 1,1,2,2-Tetrachloroethane	19.95	83	224462	40.46148	ppb	95
55) 1,2,3-Trichloropropane	20.20	110	74769	38.86424	ppb	# 74
56) Bromobenzene	20.53	156	607159	37.63527	ppb	96
57) n-Propylbenzene	20.50	91	3013762	38.82598	ppb	98
58) 2-Chlorotoluene	20.79	91	1918239	37.27356	ppb	92
59) 1,3,5-Trimethylbenzene	20.77	105	2109697	38.82352	ppb	94
60) 4-Chlorotoluene	20.87	91	1647055	37.02896	ppb	97
61) Tert-Butylbenzene	21.41	119	2328431	38.88388	ppb	99
62) 1,2,4-Trimethylbenzene	21.47	105	2085832	37.81478	ppb	99
63) Sec-Butylbenzene	21.81	105	2994709	39.00446	ppb	98
64) p-Isopropyltoluene	22.04	119	2487303	38.59687	ppb	98
65) 1,3-DCB	22.18	146	1281896	38.37522	ppb	98
66) 1,4-DCB	22.35	146	1203078	38.41281	ppb	94
67) n-Butylbenzene	22.75	91	2031977	37.96688	ppb	98
68) 1,2-DCB	22.97	146	1034046	38.56809	ppb	99
69) 1,2-Dibromo-3-chloropropan	24.19	157	56619	38.74896	ppb	83
70) 1,2,4-Trichlorobenzene	25.63	180	355520	36.87529	ppb	99
71) Hexachlorobutadiene	25.88	223	163840	34.84303	ppb	91
72) Naphthalene	25.98	128	382912	38.16323	ppb	99
73) 1,2,3-Trichlorobenzene	26.34	180	701877	35.71766	ppb	99

Quantitation Report

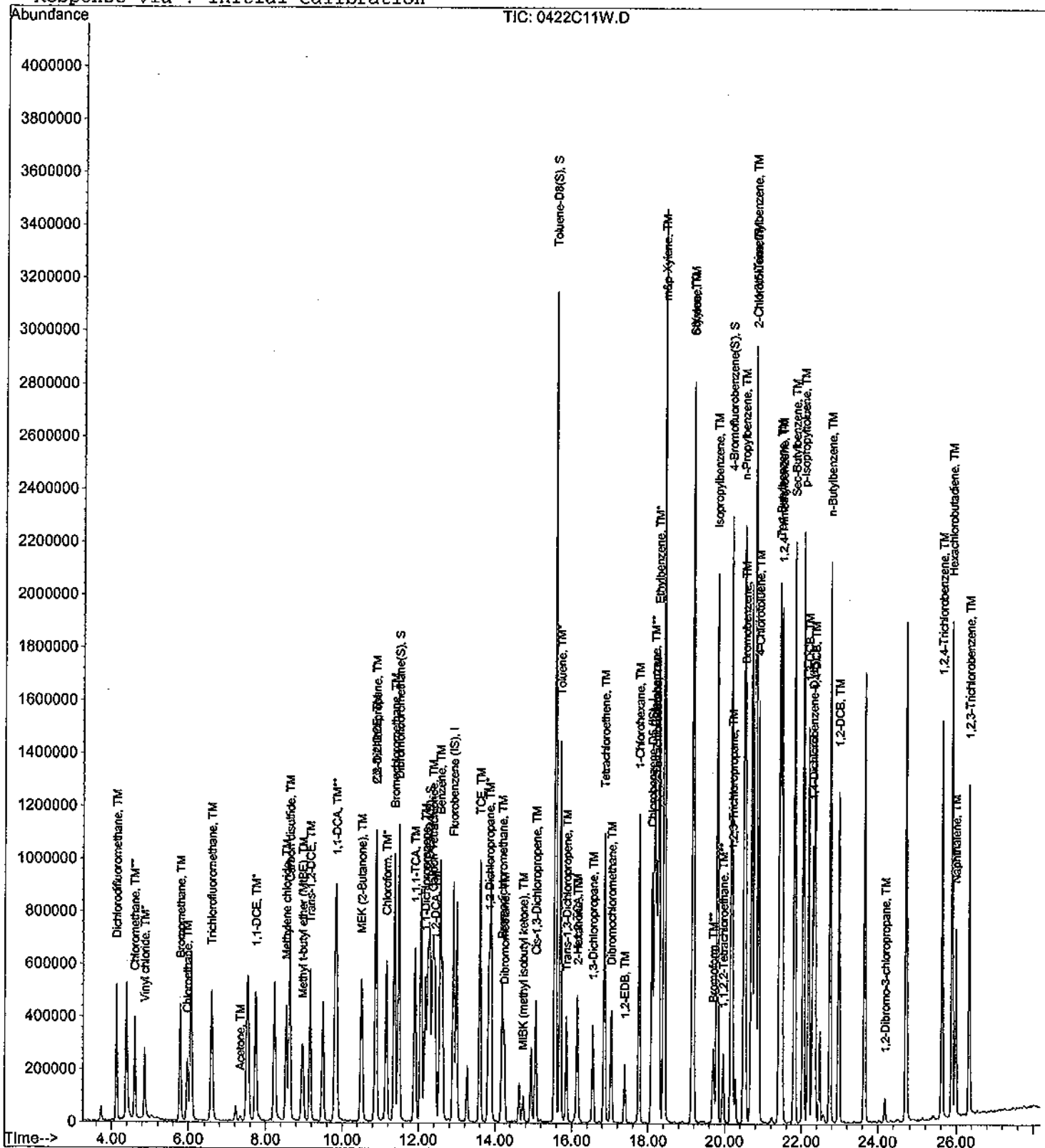
Data File : M:\CHICO\DATA\C110422\0422C11W.D  
Acq On : 22 Apr 11 22:07  
Sample : Vol Std 04-22-11@40ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C12W.D Vial: 1  
 Acq On : 22 Apr 11 22:42 Operator: RS  
 Sample : Vol Std 04-22-11@100ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: Apr 24 15:44 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	96	530752	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.10	117	386432	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.30	152	208512	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.48	111	1447087	88.97107	ppb	0.00
Spiked Amount 23.521			Recovery =	378.270%		
23) 1,2-DCA-D4(S)	12.29	65	893215	79.67828	ppb	0.00
Spiked Amount 22.321			Recovery =	356.971%		
36) Toluene-D8(S)	15.56	98	4858634	93.10396	ppb	0.00
Spiked Amount 26.002			Recovery =	358.068%		
44) 4-Bromofluorobenzene(S)	20.17	95	1722224	86.63624	ppb	0.00
Spiked Amount 26.339			Recovery =	328.933%		
<b>Target Compounds</b>						<b>Qvalue</b>
2) Dichlorodifluoromethane	4.13	85	1715239	74.68802	ppb	95
3) Chloromethane	4.60	50	1594055	73.91076	ppb	98
4) Vinyl chloride	4.86	62	445120	79.53091	ppb	98
5) Bromomethane	5.78	94	428096	99.59529	ppb	96
6) Chloroethane	5.98	64	986007	80.45300	ppb	96
7) Trichlorofluoromethane	6.59	101	2091957	79.58118	ppb	98
8) Acetone	7.34	43	87934	82.36564	ppb	# 77
9) 1,1-DCE	7.75	96	960265	86.56766	ppb	89
10) Methylene chloride	8.54	84	940964	97.72035	ppb	97
11) Carbon disulfide	8.63	76	4473488	87.52503	ppb	99
12) Methyl t-butyl ether (MtBE)	8.97	73	1697396	89.34981	ppb	96
13) Trans-1,2-DCE	9.17	96	1134896	90.59328	ppb	93
14) 1,1-DCA	9.86	63	1913315	87.19752	ppb	100
15) MEK (2-Butanone)	10.50	43	349474	72.30057	ppb	# 79
16) Cis-1,2-DCE	10.88	96	1369551	87.13916	ppb	96
17) 2,2-Dichloropropane	10.87	77	1719953	77.90532	ppb	97
18) Chloroform	11.15	83	2135253	85.46435	ppb	98
19) Bromochloromethane	11.39	128	499124	93.75835	ppb	96
21) 1,1,1-TCA	11.90	97	2067743	84.77245	ppb	99
22) 1,1-Dichloropropene	12.17	75	1350222	85.73560	ppb	98
24) Carbon Tetrachloride	12.36	117	1806221	80.12831	ppb	98
25) 1,2-DCA	12.44	62	893020	80.89073	ppb	98
26) Benzene	12.57	78	4150334	92.19229	ppb	98
27) TCE	13.60	95	1370567	92.55227	ppb	95
28) 1,2-Dichloropropane	13.82	63	1001555	96.20138	ppb	100
29) Bromodichloromethane	14.18	83	1456187	86.10177	ppb	98
30) Dibromomethane	14.23	93	508892	89.41118	ppb	92
31) Cis-1,3-Dichloropropene	15.06	75	1493203	94.17649	ppb	96
32) Toluene	15.70	92	3083496	95.07688	ppb	99
33) Trans-1,3-Dichloropropene	15.86	75	1112927	91.53817	ppb	100
34) 1,1,2-TCA	16.13	83	523115	95.10794	ppb	97
37) 1,2-EDB	17.38	107	688251	98.42196	ppb	88
38) Tetrachloroethene	16.85	164	1277753	92.85471	ppb	99
39) 1-Chlorohexane	17.76	91	2075816	95.86964	ppb	95
40) 1,1,1,2-Tetrachloroethane	18.21	131	1349043	92.26894	ppb	98
41) m&p-Xylene	18.42	106	5089036	183.70019	ppb	99
42) o-Xylene	19.16	106	2544150	93.45631	ppb	94
43) Styrene	19.17	78	1719751	81.12749	ppb	93
45) 2-Hexanone	16.15	43	196612	87.40593	ppb	# 74

(#) = qualifier out of range (m) = manual integration  
 0422C12W.D C86DODW.M Tue May 10 14:37:17 2011



Data File : M:\CHICO\DATA\C110422\0422C12W.D Vial: 1  
 Acq On : 22 Apr 11 22:42 Operator: RS  
 Sample : Vol Std 04-22-11@100ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:43:43 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.55	76	1079099	96.04401	ppb	99
47) Dibromochloromethane	17.03	129	1064878	95.77103	ppb	93
48) Chlorobenzene	18.17	112	3687414	92.76629	ppb	95
49) Ethylbenzene	18.27	91	6239267	91.23376	ppb	99
50) Bromoform	19.69	173	646809	97.29603	ppb	100
52) MIBK (methyl isobutyl keto	14.73	43	314584	93.91441	ppb	91
53) Isopropylbenzene	19.79	105	6850150	99.68820	ppb	100
54) 1,1,2,2-Tetrachloroethane	19.95	83	592498	106.41020	ppb	93
55) 1,2,3-Trichloropropane	20.21	110	186984	96.83458	ppb	80
56) Bromobenzene	20.54	156	1561900	96.45911	ppb	94
57) n-Propylbenzene	20.50	91	7625553	97.87736	ppb	97
58) 2-Chlorotoluene	20.80	91	4900402	94.86964	ppb	92
59) 1,3,5-Trimethylbenzene	20.77	105	5367950	98.41941	ppb	95
60) 4-Chlorotoluene	20.88	91	4177487	93.57202	ppb	97
61) Tert-Butylbenzene	21.42	119	5945503	98.92186	ppb	98
62) 1,2,4-Trimethylbenzene	21.47	105	5374128	97.07060	ppb	98
63) Sec-Butylbenzene	21.81	105	7575582	98.30443	ppb	98
64) p-Isopropyltoluene	22.05	119	6351300	98.19366	ppb	97
65) 1,3-DCB	22.18	146	3237063	96.54876	ppb	97
66) 1,4-DCB	22.35	146	3065931	97.53088	ppb	95
67) n-Butylbenzene	22.75	91	5106089	95.05433	ppb	99
68) 1,2-DCB	22.97	146	2651887	98.54639	ppb	99
69) 1,2-Dibromo-3-chloropropan	24.18	157	158695	108.20780	ppb	# 74
70) 1,2,4-Trichlorobenzene	25.62	180	872254	90.13881	ppb	97
71) Hexachlorobutadiene	25.89	223	413623	87.63914	ppb	93
72) Naphthalene	25.98	128	1024192	101.70095	ppb	100
73) 1,2,3-Trichlorobenzene	26.34	180	1815892	92.06816	ppb	98

Quantitation Report

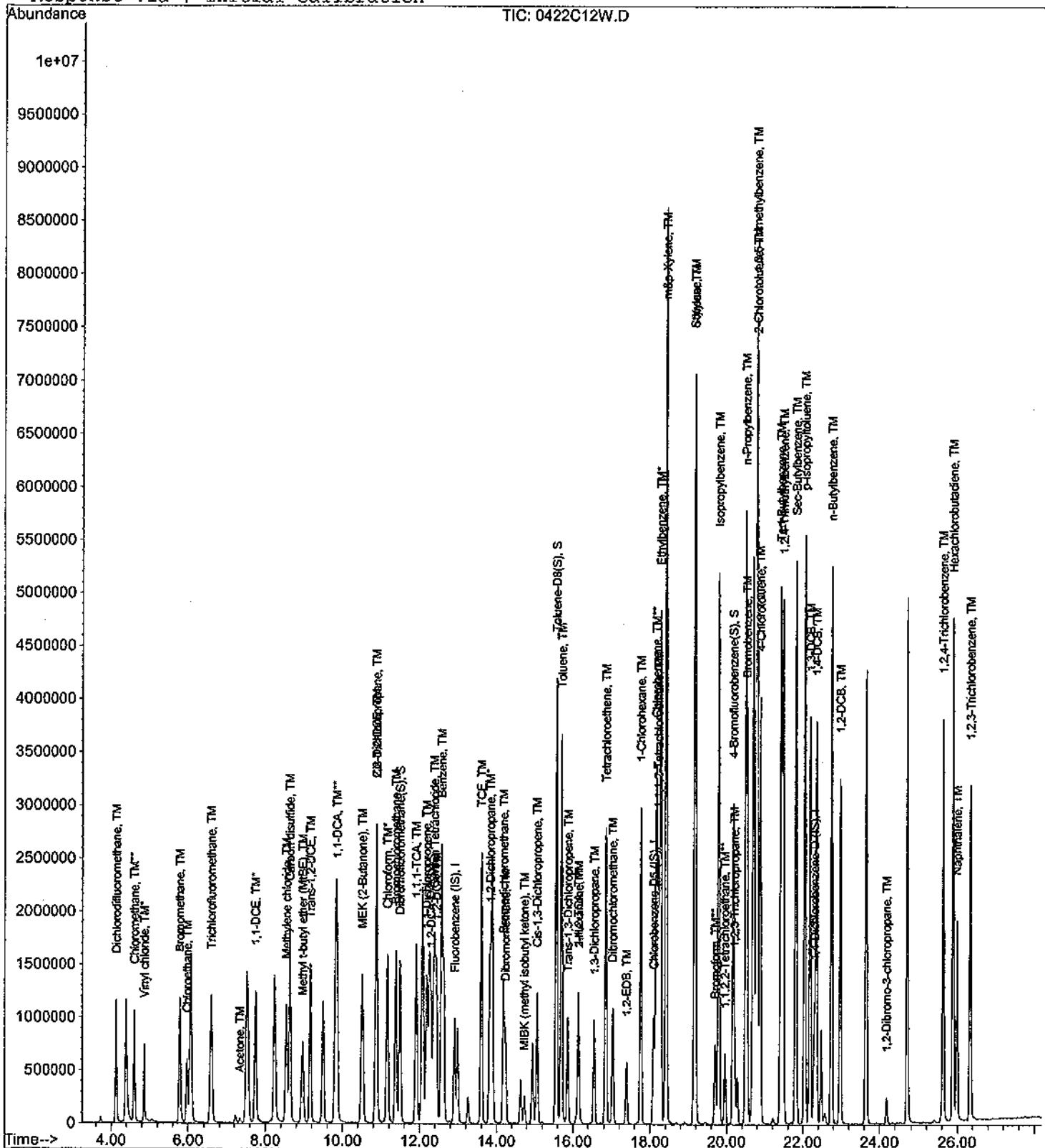
Data File : M:\CHICO\DATA\C110422\0422C12W.D  
Acq On : 22 Apr 11 22:42  
Sample : Vol Std 04-22-11@100ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: Apr 24 15:44 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: 00075  
Date Analyzed: 04/23/11  
Instrument: Chico  
Initial Cal. Date: 04/22/11  
Data File: 0422C25W.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TM	Dichlorodifluoromethane	0.8305	0.9298	12	TM
3	TM**	Chloromethane	0.7750	0.8793	13	TM**
4	TM*	Vinyl chloride	0.2212	0.2584	17	TM*
5	TML	Bromomethane	0.1872	0.1919	2.5	TML 6.5
6	TM	Chloroethane	0.5111	0.5505	7.7	TM
7	TM	Trichlorofluoromethane	1.050	1.181	12	TM
8	TML	Acetone	0.0744	0.0442	41	TML 15
9	TM*	1,1-DCE	0.4919	0.5169	5.1	TM*
10	TML	Methylene chloride	0.5653	0.5044	11	TML 2.2
11	TM	Carbon disulfide	2.024	2.373	17	TM
12	TM	Methyl t-butyl ether (MtBE)	0.8341	0.7877	5.6	TM
13	TML	Trans-1,2-DCE	0.5864	0.5767	1.7	TML 4.8
14	TM**	1,1-DCA	1.019	1.023	0.38	TM**
15	TM	MEK (2-Butanone)	0.1939	0.1707	12	TM
16	TM	Cis-1,2-DCE	0.7277	0.7032	3.4	TM
17	TM	2,2-Dichloropropane	0.9418	0.7871	16	TM
18	TM*	Chloroform	1.096	1.111	1.3	TM*
19	TM	Bromochloromethane	0.2437	0.2479	1.7	TM
20	S	Dibromofluoromethane(S)	0.7983	0.7138	11	S
21	TM	1,1,1-TCA	1.064	1.117	4.9	TM
22	TM	1,1-Dichloropropene	0.6943	0.7098	2.2	TM
23	S	1,2-DCA-D4(S)	0.5091	0.4437	13	S
24	TM	Carbon Tetrachloride	0.9332	0.9492	1.7	TM
25	TM	1,2-DCA	0.4596	0.4659	1.4	TM
26	TM	Benzene	2.124	2.147	1.1	TM
27	TM	TCE	0.6987	0.7953	14	TM
28	TM*	1,2-Dichloropropane	0.5214	0.5128	1.6	TM*
29	TM	Bromodichloromethane	0.7379	0.6931	6.1	TM
30	TM	Dibromomethane	0.2520	0.2611	3.6	TM
31	TM	Cis-1,3-Dichloropropene	0.7392	0.6865	7.1	TM
32	TM*	Toluene	1.563	1.670	6.8	TM*
33	TM	Trans-1,3-Dichloropropene	0.5522	0.6022	9.1	TM
34	TM	1,1,2-TCA	0.2502	0.2555	2.1	TM
35	I	Chlorobenzene-D5 (IS)	ISTD			I
36	S	Toluene-D8(S)	3.556	3.326	6.5	S
37	TM	1,2-EDB	0.4402	0.4022	8.6	TM
38	TM	Tetrachloroethene	0.6780	0.8908	1.5	TM
39	TM	1-Chlorohexane	1.384	1.467	5.2	TM
40	TM	1,1,1,2-Tetrachloroethane	0.9000	0.8844	1.7	TM
Average					7.6	

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: 64475  
Date Analyzed: 04/23/11  
Instrument: Chico  
Cal. Date: 04/22/11  
Data File: 0422C25W.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	m&p-Xylene	1.746	1.797	2.9	TM
42	TM	o-Xylene	1.721	1.772	2.9	TM
43	TM	Styrene	1.271	1.222	3.8	TM
44	SL	4-Bromofluorobenzene(S)	1.425	1.212	15	SL 3.2
45	TM	2-Hexanone	0.1292	0.1304	0.98	TM
46	TM	1,3-Dichloropropane	0.7089	0.6653	6.2	TM
47	TM	Dibromochloromethane	0.6915	0.6569	5.0	TM
48	TM**	Chlorobenzene	2.528	2.564	1.4	TM**
49	TM*	Ethylbenzene	4.261	4.384	2.9	TM*
50	TM**	Bromoform	0.4085	0.3971	2.8	TM**
51	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
52	TM	MIBK (methyl isobutyl ketone)	0.4153	0.4026	3.1	TM
53	TM	Isopropylbenzene	8.558	8.712	1.8	TM
54	TM**	1,1,2,2-Tetrachloroethane	0.7025	0.6781	18	TM**
55	TM	1,2,3-Trichloropropane	0.2201	0.2250	2.2	TM
56	TM	Bromobenzene	2.051	1.920	6.4	TM
57	TM	n-Propylbenzene	9.606	9.609	0.04	TM
58	TM	2-Chlorotoluene	6.367	6.165	3.2	TM
59	TM	1,3,5-Trimethylbenzene	6.731	6.592	2.1	TM
60	TM	4-Chlorotoluene	5.509	5.329	3.3	TM
61	TM	Tert-Butylbenzene	7.385	7.498	1.6	TM
62	TM	1,2,4-Trimethylbenzene	6.795	6.856	0.90	TM
63	TM	Sec-Butylbenzene	9.513	9.636	0.24	TM
64	TM	p-Isopropyltoluene	7.898	7.844	0.68	TM
65	TM	1,3-DCB	4.202	3.962	5.7	TM
66	TM	1,4-DCB	3.818	3.658	4.2	TM
67	TM	n-Butylbenzene	6.625	6.322	4.6	TM
68	TM	1,2-DCB	3.362	3.179	5.4	TM
69	TM	1,2-Dibromo-3-chloropropane	0.1869	0.1582	15	TM
70	TM	1,2,4-Trichlorobenzene	1.172	1.015	13	TM
71	TM	Hexachlorobutadiene	0.5758	0.5265	8.6	TM
72	TM	Naphthalene	1.242	1.059	15	TM
73	TM	1,2,3-Trichlorobenzene	2.334	2.056	12	TM
74						
75						
76						
77						
78						
79						
80						

Average

5.3

Data File : M:\CHICO\DATA\C110422\0422C25W.D Vial: 1  
 Acq On : 23 Apr 11 7:28 Operator: RS  
 Sample : 110422A LCS-1WC (SS) Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: Apr 24 15:51 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	96	455808	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.09	117	350144	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.29	152	195456	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.48	111	325333	22.35090	ppb	0.00
Spiked Amount	23.521		Recovery	=	95.028%	
23) 1,2-DCA-D4(S)	12.29	65	202265	21.79074	ppb	0.00
Spiked Amount	22.321		Recovery	=	97.627%	
36) Toluene-D8(S)	15.56	98	1164463	23.38145	ppb	0.00
Spiked Amount	26.002		Recovery	=	89.921%	
44) 4-Bromofluorobenzene(S)	20.16	95	424316	25.80744	ppb	0.00
Spiked Amount	26.339		Recovery	=	97.982%	
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	4.12	85	169519	11.19582	ppb	95
3) Chloromethane	4.61	50	160312	11.34479	ppb	92
4) Vinyl chloride	4.89	62	47120	11.68554	ppb	94
5) Bromomethane	5.79	94	34992	9.34700	ppb	91
6) Chloroethane	5.98	64	100378	10.77170	ppb	98
7) Trichlorofluoromethane	6.59	101	215291	11.24239	ppb	90
8) Acetone	7.33	43	8052	8.47071	ppb	# 67
9) 1,1-DCE	7.75	96	94237	10.50780	ppb	90
10) Methylene chloride	8.53	84	91958	10.22223	ppb	93
11) Carbon disulfide	8.63	76	432683	11.72657	ppb	98
12) Methyl t-butyl ether (MtBE)	8.96	73	143624	9.44465	ppb	96
13) Trans-1,2-DCE	9.16	96	105142	10.47839	ppb	95
14) 1,1-DCA	9.86	63	186480	10.03801	ppb	98
15) MEK (2-Butanone)	10.50	43	31123	8.80539	ppb	# 90
16) Cis-1,2-DCE	10.88	96	128211	9.66381	ppb	92
17) 2,2-Dichloropropane	10.88	77	143499	8.35689	ppb	99
18) Chloroform	11.16	83	202543	10.13316	ppb	98
19) Bromochloromethane	11.38	128	45197	10.17121	ppb	98
21) 1,1,1-TCA	11.90	97	203618	10.49431	ppb	98
22) 1,1-Dichloropropene	12.17	75	129404	10.22252	ppb	97
24) Carbon Tetrachloride	12.36	117	173058	10.17112	ppb	97
25) 1,2-DCA	12.44	62	84952	10.13766	ppb	99
26) Benzene	12.57	78	391444	10.10664	ppb	97
27) TCE	13.59	95	144995	11.38219	ppb	97
28) 1,2-Dichloropropane	13.83	63	93491	9.83511	ppb	98
29) Bromodichloromethane	14.17	83	126365	9.39320	ppb	99
30) Dibromomethane	14.23	93	47604	10.36253	ppb	89
31) Cis-1,3-Dichloropropene	15.06	75	125174	9.28746	ppb	98
32) Toluene	15.69	92	304468	10.68218	ppb	100
33) Trans-1,3-Dichloropropene	15.86	75	91560	9.09388	ppb	96
34) 1,1,2-TCA	16.14	83	46586	10.21064	ppb	94
37) 1,2-EDB	17.39	107	56335	9.13650	ppb	90
38) Tetrachloroethene	16.85	164	124765	10.14634	ppb	96
39) 1-Chlorohexane	17.76	91	204031	10.52286	ppb	93
40) 1,1,1,2-Tetrachloroethane	18.22	131	123864	9.82656	ppb	92
41) m&p-Xylene	18.41	106	503258	20.58009	ppb	96
42) o-Xylene	19.16	106	248174	10.29442	ppb	97
43) Styrene	19.18	78	171208	9.62020	ppb	99
45) 2-Hexanone	16.16	43	18269	10.09781	ppb	# 67

(#) = qualifier out of range (m) = manual integration  
 0422C25W.D C86DODW.M Mon Apr 25 10:27:57 2011

Data File : M:\CHICO\DATA\C110422\0422C25W.D Vial: 1  
 Acq On : 23 Apr 11 7:28 Operator: RS  
 Sample : 110422A LCS-1WC (SS) Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: Apr 24 15:51 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.55	76	93178	9.38499	ppb	97
47) Dibromochloromethane	17.03	129	91998	9.49879	ppb	92
48) Chlorobenzene	18.16	112	359061	10.14123	ppb	97
49) Ethylbenzene	18.28	91	614016	10.28756	ppb	99
50) Bromoform	19.70	173	55612	9.71937	ppb	87
52) MIBK (methyl isobutyl keto	14.73	43	31477	9.69430	ppb	80
53) Isopropylbenzene	19.78	105	681130	10.18013	ppb	97
54) 1,1,2,2-Tetrachloroethane	19.95	83	45200	8.23002	ppb	87
55) 1,2,3-Trichloropropane	20.21	110	17588	10.21867	ppb	92
56) Bromobenzene	20.53	156	150142	9.36194	ppb	98
57) n-Propylbenzene	20.49	91	750768	9.99623	ppb	98
58) 2-Chlorotoluene	20.79	91	482009	9.68298	ppb	96
59) 1,3,5-Trimethylbenzene	20.77	105	515371	9.79407	ppb	95
60) 4-Chlorotoluene	20.87	91	416605	9.67255	ppb	98
61) Tert-Butylbenzene	21.41	119	586192	10.15250	ppb	98
62) 1,2,4-Trimethylbenzene	21.47	105	536025	10.08982	ppb	96
63) Sec-Butylbenzene	21.81	105	745549	10.02375	ppb	99
64) p-Isopropyltoluene	22.04	119	613264	9.93157	ppb	99
65) 1,3-DCB	22.18	146	309737	9.42882	ppb	98
66) 1,4-DCB	22.35	146	285971	9.58092	ppb	97
67) n-Butylbenzene	22.74	91	494267	9.54259	ppb	99
68) 1,2-DCB	22.98	146	248534	9.45620	ppb	96
69) 1,2-Dibromo-3-chloropropan	24.19	157	12368	8.46579	ppb	92
70) 1,2,4-Trichlorobenzene	25.63	180	79376	8.66526	ppb	95
71) Hexachlorobutadiene	25.88	223	41160	9.14387	ppb	98
72) Naphthalene	25.99	128	82808	8.52657	ppb	98
73) 1,2,3-Trichlorobenzene	26.34	180	160781	8.81114	ppb	95

Quantitation Report

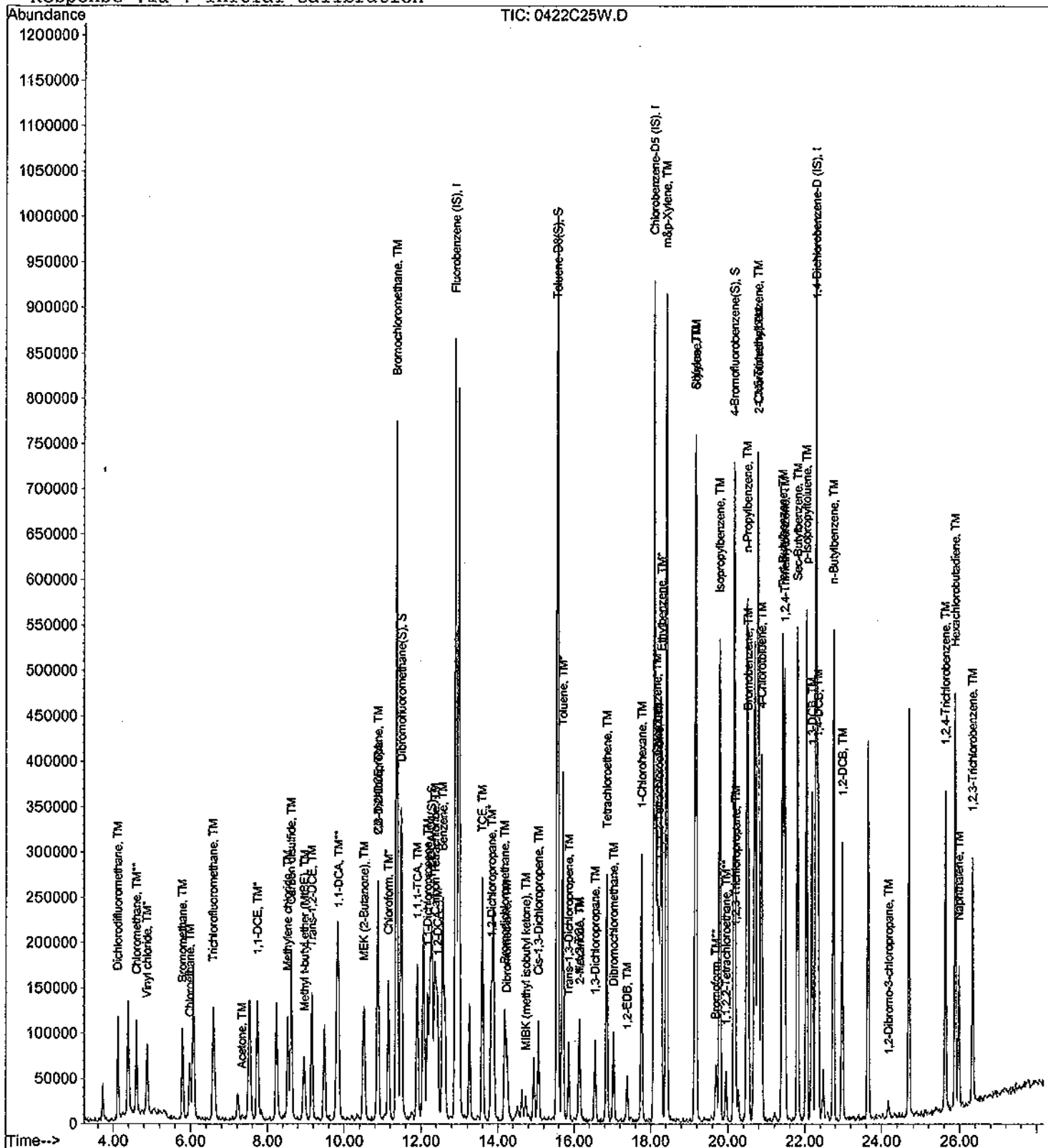
Data File : M:\CHICO\DATA\C110422\0422C25W.D  
Acq On : 23 Apr 11 7:28  
Sample : 110422A LCS-1WC (SS)  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: Apr 24 15:51 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 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: W441K  
Date Analyzed: 04/25/11  
Instrument: Chico  
Initial Cal. Date: 04/22/11  
Data File: 0425C02W.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TM	Dichlorodifluoromethane	0.8305	0.9519	15	TM
3	TM**	Chloromethane	0.7750	0.8399	8.4	TM**
4	TM*	Vinyl chloride	0.2212	0.2061	6.8	TM*
5	TML	Bromomethane	0.1872	0.1922	2.7	TML 6.4
6	TM	Chloroethane	0.5111	0.5726	12	TM
7	TM	Trichlorofluoromethane	1.050	1.148	9.3	TM
8	TML	Acetone	0.0744	0.0499	33	TML 1.1
9	TM*	1,1-DCE	0.4919	0.5177	5.2	TM*
10	TML	Methylene chloride	0.5653	0.4983	12	TML 0.85
11	TM	Carbon disulfide	2.024	2.479	22	TM
12	TM	Methyl t-butyl ether (MtBE)	0.8341	0.7539	9.6	TM
13	TML	Trans-1,2-DCE	0.5864	0.5712	2.6	TML 3.8
14	TM**	1,1-DCA	1.019	1.045	2.5	TM**
15	TM	MEK (2-Butanone)	0.1939	0.1677	13	TM
16	TM	Cis-1,2-DCE	0.7277	0.7397	1.6	TM
17	TM	2,2-Dichloropropane	0.9418	0.9802	4.1	TM
18	TM*	Chloroform	1.096	1.073	2.1	TM*
19	TM	Bromochloromethane	0.2437	0.2453	0.66	TM
20	S	Dibromofluoromethane(S)	0.7983	0.6526	18	S
21	TM	1,1,1-TCA	1.064	1.057	0.69	TM
22	TM	1,1-Dichloropropene	0.6943	0.7448	7.3	TM
23	S	1,2-DCA-D4(S)	0.5091	0.3856	24	S
24	TM	Carbon Tetrachloride	0.9332	0.9371	0.42	TM
25	TM	1,2-DCA	0.4596	0.4211	8.4	TM
26	TM	Benzene	2.124	2.216	4.3	TM
27	TM	TCE	0.6987	0.6867	1.7	TM
28	TM*	1,2-Dichloropropane	0.5214	0.4915	5.7	TM*
29	TM	Bromodichloromethane	0.7379	0.6691	9.3	TM
30	TM	Dibromomethane	0.2520	0.2277	9.6	TM
31	TM	Cis-1,3-Dichloropropene	0.7392	0.6985	5.5	TM
32	TM*	Toluene	1.563	1.624	3.9	TM*
33	TM	Trans-1,3-Dichloropropene	0.5522	0.4855	12	TM
34	TM	1,1,2-TCA	0.2502	0.2356	5.9	TM
35	I	Chlorobenzene-D5 (IS)	ISTD			I
36	S	Toluene-D8(S)	3.556	3.473	2.3	S
37	TM	1,2-EDB	0.4402	0.4209	4.4	TM
38	TM	Tetrachloroethene	0.8780	0.9483	8.0	TM
39	TM	1-Chlorohexane	1.384	1.620	17	TM
40	TM	1,1,1,2-Tetrachloroethane	0.9000	0.8939	0.67	TM
Average					8.2	

NT



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7  
Continuing Calibration

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

SDG No: 644K  
Date Analyzed: 04/25/11  
Instrument: Chico  
Cal. Date: 04/22/11  
Data File: 0425C02W.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	m&p-Xylene	1.746	1.859	6.5	TM
42	TM	o-Xylene	1.721	1.876	9.0	TM
43	TM	Styrene	1.271	1.237	2.7	TM
44	SL	4-Bromofluorobenzene(S)	1.425	1.181	17	SL 0.47
45	TM	2-Hexanone	0.1292	0.1253	3.0	TM
46	TM	1,3-Dichloropropane	0.7089	0.7007	1.2	TM
47	TM	Dibromochloromethane	0.6916	0.6337	8.4	TM
48	TM**	Chlorobenzene	2.528	2.644	4.6	TM**
49	TM*	Ethylbenzene	4.261	4.539	6.6	TM*
50	TM**	Bromoform	0.4085	0.3794	7.1	TM**
51	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
52	TM	MIBK (methyl isobutyl ketone)	0.4153	0.4020	3.2	TM
53	TM	Isopropylbenzene	8.658	9.234	7.9	TM
54	TM**	1,1,2,2-Tetrachloroethane	0.7025	0.6944	1.1	TM**
55	TM	1,2,3-Trichloropropane	0.2201	0.2015	8.6	TM
56	TM	Bromobenzene	2.051	1.950	4.9	TM
57	TM	n-Propylbenzene	9.606	10.3	6.9	TM
58	TM	2-Chlorotoluene	6.367	6.508	2.2	TM
59	TM	1,3,5-Trimethylbenzene	6.731	7.006	4.1	TM
60	TM	4-Chlorotoluene	5.509	5.215	5.3	TM
61	TM	Tert-Butylbenzene	7.385	7.894	6.9	TM
62	TM	1,2,4-Trimethylbenzene	6.795	7.218	6.2	TM
63	TM	Sec-Butylbenzene	9.513	10.2	7.1	TM
64	TM	p-Isopropyltoluene	7.898	8.562	8.4	TM
65	TM	1,3-DCB	4.202	4.088	2.7	TM
66	TM	1,4-DCB	3.818	3.716	2.7	TM
67	TM	n-Butylbenzene	6.625	7.045	6.3	TM
68	TM	1,2-DCB	3.362	3.315	1.4	TM
69	TM	1,2-Dibromo-3-chloropropane	0.1869	0.1750	6.3	TM
70	TM	1,2,4-Trichlorobenzene	1.172	1.053	10	TM
71	TM	Hexachlorobutadiene	0.5758	0.5381	6.5	TM
72	TM	Naphthalene	1.242	1.146	7.8	TM
73	TM	1,2,3-Trichlorobenzene	2.334	2.000	14	TM
74						
75						
76						
77						
78						
79						
80						

Average

6.1

Data File : M:\CHICO\DATA\C110422\0425C02W.D Vial: 1  
 Acq On : 25 Apr 11 11:17 Operator: RS  
 Sample : 110425A LCS-1WC Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 10 14:38 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 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	540425	25.00000	ppb	-0.03
35) Chlorobenzene-D5 (IS)	18.07	117	386816	25.00000	ppb	-0.03
51) 1,4-Dichlorobenzene-D (IS)	22.27	152	216064	25.00000	ppb	-0.03
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.45	111	352664	20.43500	ppb	-0.04
Spiked Amount	23.521		Recovery	=	86.882%	
23) 1,2-DCA-D4(S)	12.26	65	208392	18.93559	ppb	-0.04
Spiked Amount	22.321		Recovery	=	84.836%	
36) Toluene-D8(S)	15.54	98	1343459	24.41813	ppb	-0.03
Spiked Amount	26.002		Recovery	=	93.909%	
44) 4-Bromofluorobenzene(S)	20.14	95	456844	25.11776	ppb	-0.03
Spiked Amount	26.339		Recovery	=	95.366%	
Target Compounds						
2) Dichlorodifluoromethane	4.11	85	205770	11.46215	ppb	94
3) Chloromethane	4.58	50	181555	10.83640	ppb	97
4) Vinyl chloride	4.85	62	44560	9.32041	ppb	97
5) Bromomethane	5.77	94	41547	9.36045	ppb	90
6) Chloroethane	5.96	64	123777	11.20294	ppb	93
7) Trichlorofluoromethane	6.56	101	248064	10.92554	ppb	98
8) Acetone	7.31	43	10792	9.88570	ppb	# 83
9) 1,1-DCE	7.71	96	111904	10.52404	ppb	90
10) Methylene chloride	8.51	84	107719	10.08457	ppb	99
11) Carbon disulfide	8.60	76	535881	12.24944	ppb	97
12) Methyl t-butyl ether (MtBE)	8.93	73	162976	9.03918	ppb	97
13) Trans-1,2-DCE	9.13	96	123483	10.37617	ppb	97
14) 1,1-DCA	9.83	63	225845	10.25350	ppb	99
15) MEK (2-Butanone)	10.48	43	36257	8.65178	ppb	97
16) Cis-1,2-DCE	10.85	96	159894	10.16487	ppb	91
17) 2,2-Dichloropropane	10.84	77	211892	10.40775	ppb	100
18) Chloroform	11.12	83	231899	9.78528	ppb	99
19) Bromochloromethane	11.35	128	53031	10.06560	ppb	97
21) 1,1,1-TCA	11.87	97	228464	9.93121	ppb	94
22) 1,1-Dichloropropene	12.14	75	160994	10.72671	ppb	94
24) Carbon Tetrachloride	12.33	117	202571	10.04155	ppb	96
25) 1,2-DCA	12.41	62	91030	9.16210	ppb	97
26) Benzene	12.54	78	479103	10.43308	ppb	98
27) TCE	13.57	95	148446	9.82851	ppb	91
28) 1,2-Dichloropropane	13.79	63	106253	9.42752	ppb	99
29) Bromodichloromethane	14.14	83	144637	9.06802	ppb	99
30) Dibromomethane	14.20	93	49232	9.03892	ppb	78
31) Cis-1,3-Dichloropropene	15.04	75	150985	9.44851	ppb	95
32) Toluene	15.67	92	351016	10.38704	ppb	98
33) Trans-1,3-Dichloropropene	15.83	75	104951	8.79177	ppb	97
34) 1,1,2-TCA	16.11	83	50923	9.41365	ppb	97
37) 1,2-EDB	17.35	107	65127	9.56103	ppb	# 94
38) Tetrachloroethene	16.82	164	146734	10.80164	ppb	96
39) 1-Chlorohexane	17.73	91	250628	11.70063	ppb	91
40) 1,1,1,2-Tetrachloroethane	18.19	131	138315	9.93271	ppb	97
41) m&p-Xylene	18.38	106	575357	21.29787	ppb	94
42) o-Xylene	19.12	106	290188	10.89600	ppb	97
43) Styrene	19.14	78	191367	9.73351	ppb	91
45) 2-Hexanone	16.13	43	19384	9.69836	ppb	# 75

(#) = qualifier out of range (m) = manual integration  
 0425C02W.D C86DODW.M Tue May 10 14:38:42 2011

Data File : M:\CHICO\DATA\C110422\0425C02W.D Vial: 1  
 Acq On : 25 Apr 11 11:17 Operator: RS  
 Sample : 110425A LCS-1WC Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 10 14:38 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.52	76	108419	9.88481	ppb	97
47) Dibromochloromethane	17.00	129	98046	9.16352	ppb	80
48) Chlorobenzene	18.13	112	409041	10.45759	ppb	96
49) Ethylbenzene	18.24	91	702253	10.65047	ppb	97
50) Bromoform	19.67	173	58697	9.28598	ppb	97
52) MIBK (methyl isobutyl keto)	14.69	43	34747	9.68070	ppb	84
53) Isopropylbenzene	19.76	105	798075	10.79031	ppb	99
54) 1,1,2,2-Tetrachloroethane	19.93	83	60016	9.88544	ppb	89
55) 1,2,3-Trichloropropane	20.18	110	17416	9.15362	ppb	# 68
56) Bromobenzene	20.50	156	168512	9.50520	ppb	96
57) n-Propylbenzene	20.47	91	887278	10.68702	ppb	97
58) 2-Chlorotoluene	20.76	91	562481	10.22182	ppb	99
59) 1,3,5-Trimethylbenzene	20.74	105	605527	10.40982	ppb	96
60) 4-Chlorotoluene	20.84	91	450696	9.46601	ppb	96
61) Tert-Butylbenzene	21.38	119	682261	10.68932	ppb	97
62) 1,2,4-Trimethylbenzene	21.44	105	623832	10.62265	ppb	98
63) Sec-Butylbenzene	21.77	105	880265	10.70617	ppb	97
64) p-Isopropyltoluene	22.02	119	739955	10.84032	ppb	96
65) 1,3-DCB	22.15	146	353278	9.72853	ppb	99
66) 1,4-DCB	22.32	146	321125	9.73254	ppb	96
67) n-Butylbenzene	22.72	91	608854	10.63370	ppb	99
68) 1,2-DCB	22.95	146	286526	9.86192	ppb	97
69) 1,2-Dibromo-3-chloropropan	24.16	157	15128	9.36734	ppb	88
70) 1,2,4-Trichlorobenzene	25.61	180	91040	8.99066	ppb	99
71) Hexachlorobutadiene	25.86	223	46504	9.34570	ppb	90
72) Naphthalene	25.95	128	99032	9.22453	ppb	99
73) 1,2,3-Trichlorobenzene	26.31	180	172815	8.56733	ppb	96

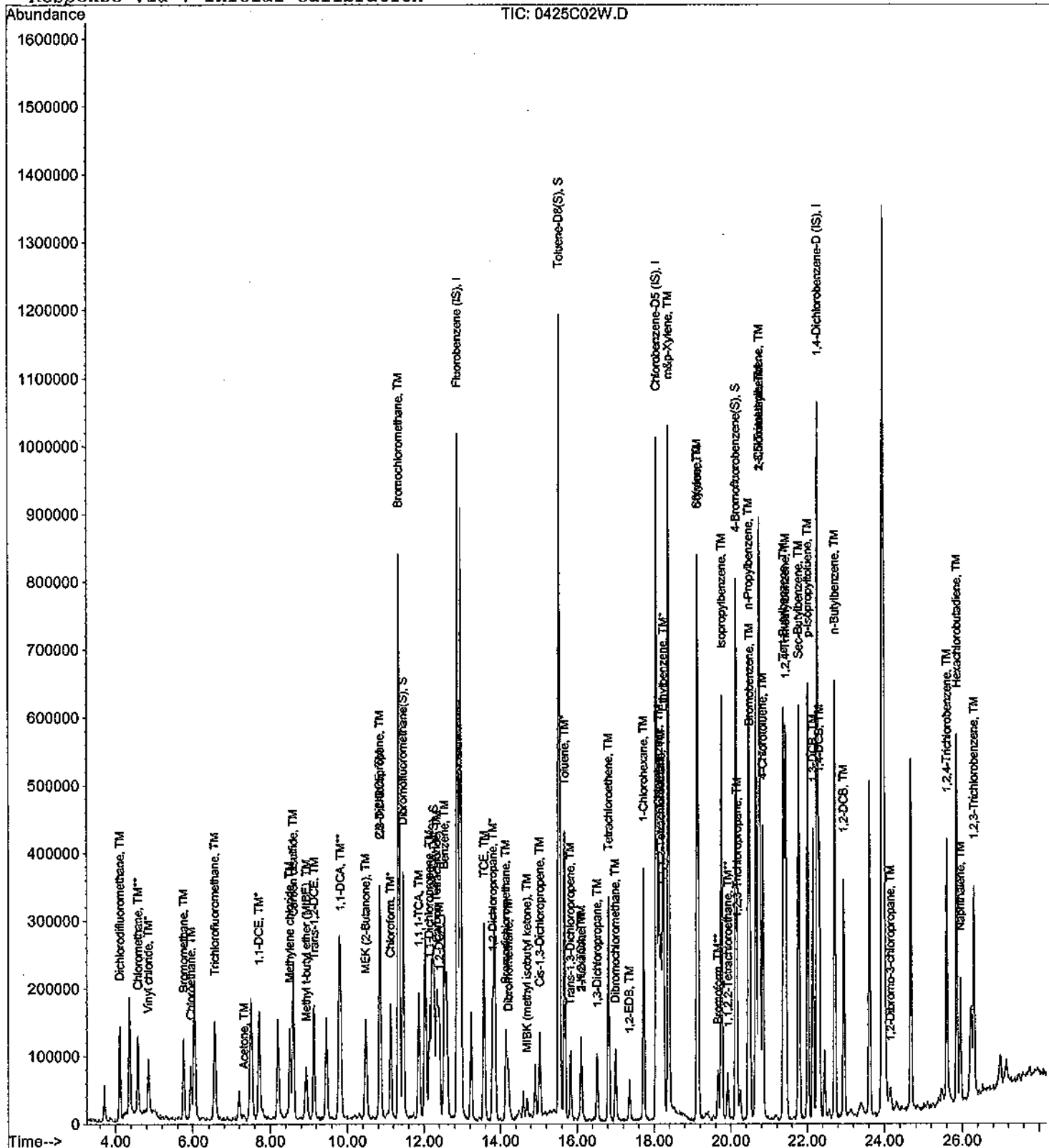
Data File : M:\CHICO\DATA\C110422\0425C02W.D  
Acq On : 25 Apr 11 11:17  
Sample : 110425A LCS-1WC  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 10 14:38 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration





Data File : M:\CHICO\DATA\C110422\0422C14W.D Vial: 1  
 Acq On : 23 Apr 11 1:03 Operator: RS  
 Sample : Vol Std 4-22-11@20ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:44 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	856207	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.09	TIC	954704	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	1016439	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.49	TIC	1110214	23.35498	ppb	0.00
Spiked Amount	23.521		Recovery	=	99.294%	
5) Toluene-D8(S)	15.56	TIC	3021955	25.03151	ppb	0.00
Spiked Amount	26.002		Recovery	=	96.270%	
6) 4-Bromofluorobenzene(S)	20.16	TIC	2110312	26.27634	ppb	0.00
Spiked Amount	26.339		Recovery	=	99.761%	
Target Compounds						
2) Gasoline	15.56	TIC	20556680m	69.08984	ppb	Qvalue 100

Quantitation Report

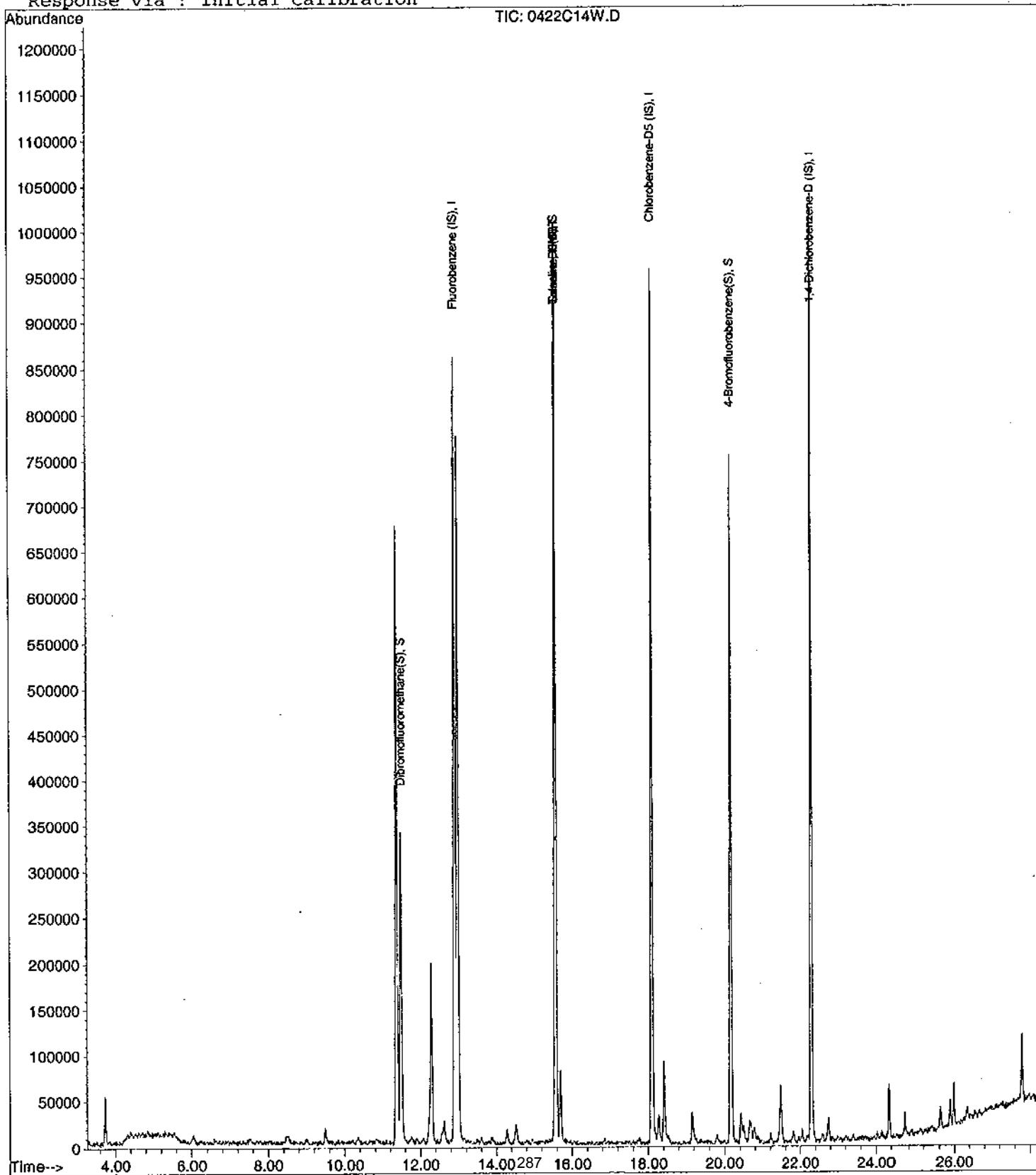
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Acq On : 23 Apr 11 1:03  
Sample : Vol Std 4-22-11@20ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:44 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C15W.D Vial: 1  
 Acq On : 23 Apr 11 1:38 Operator: RS  
 Sample : Vol Std 4-22-11@50ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:44 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	836413	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.10	TIC	880090	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	966639	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.48	TIC	1079958	23.25614	ppb	0.00
Spiked Amount	23.521		Recovery	=	98.873%	
5) Toluene-D8(S)	15.56	TIC	2924993	26.28243	ppb	0.00
Spiked Amount	26.002		Recovery	=	101.077%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	2030076	27.42030	ppb	0.00
Spiked Amount	26.339		Recovery	=	104.104%	
Target Compounds						
2) Gasoline	15.56	TIC	20251071m	69.67344	ppb	Qvalue 100



Quantitation Report

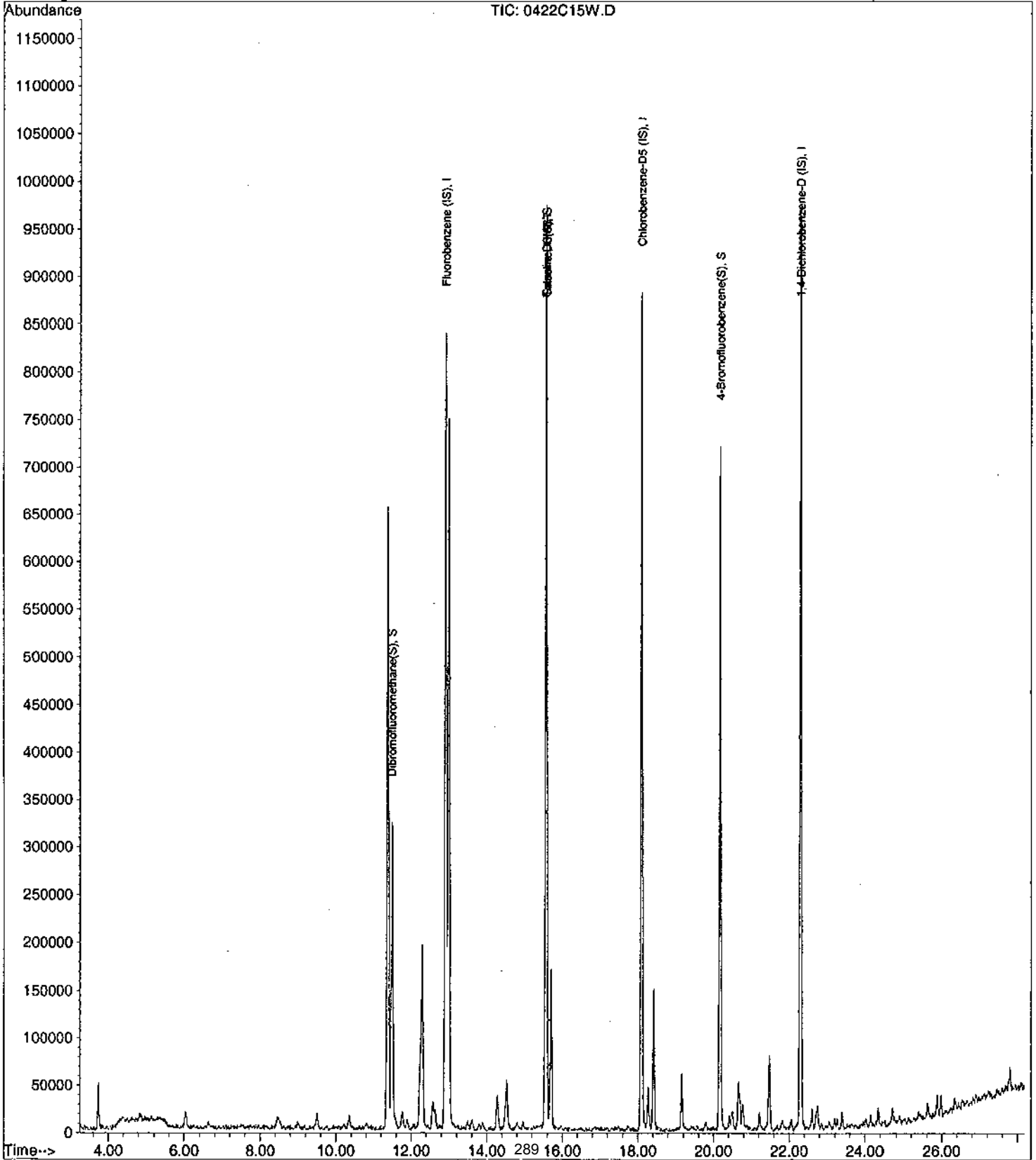
Data File : M:\CHICO\DATA\C110422\0422C15W.D  
Acq On : 23 Apr 11 1:38  
Sample : Vol Std 4-22-11@50ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:44 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C16W.D Vial: 1  
 Acq On : 23 Apr 11 2:13 Operator: RS  
 Sample : Vol Std 4-22-11@100ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:44 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	796817	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.10	TIC	850460	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.30	TIC	938392	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.48	TIC	1063563	24.04120	ppb	0.00
Spiked Amount	23.521			Recovery = 102.211%		
5) Toluene-D8(S)	15.56	TIC	2810850	26.13675	ppb	0.00
Spiked Amount	26.002			Recovery = 100.519%		
6) 4-Bromofluorobenzene(S)	20.17	TIC	1999437	27.94736	ppb	0.00
Spiked Amount	26.339			Recovery = 106.105%		
Target Compounds						
2) Gasoline	15.56	TIC	22879186m	82.62700	ppb	Qvalue 100

Quantitation Report

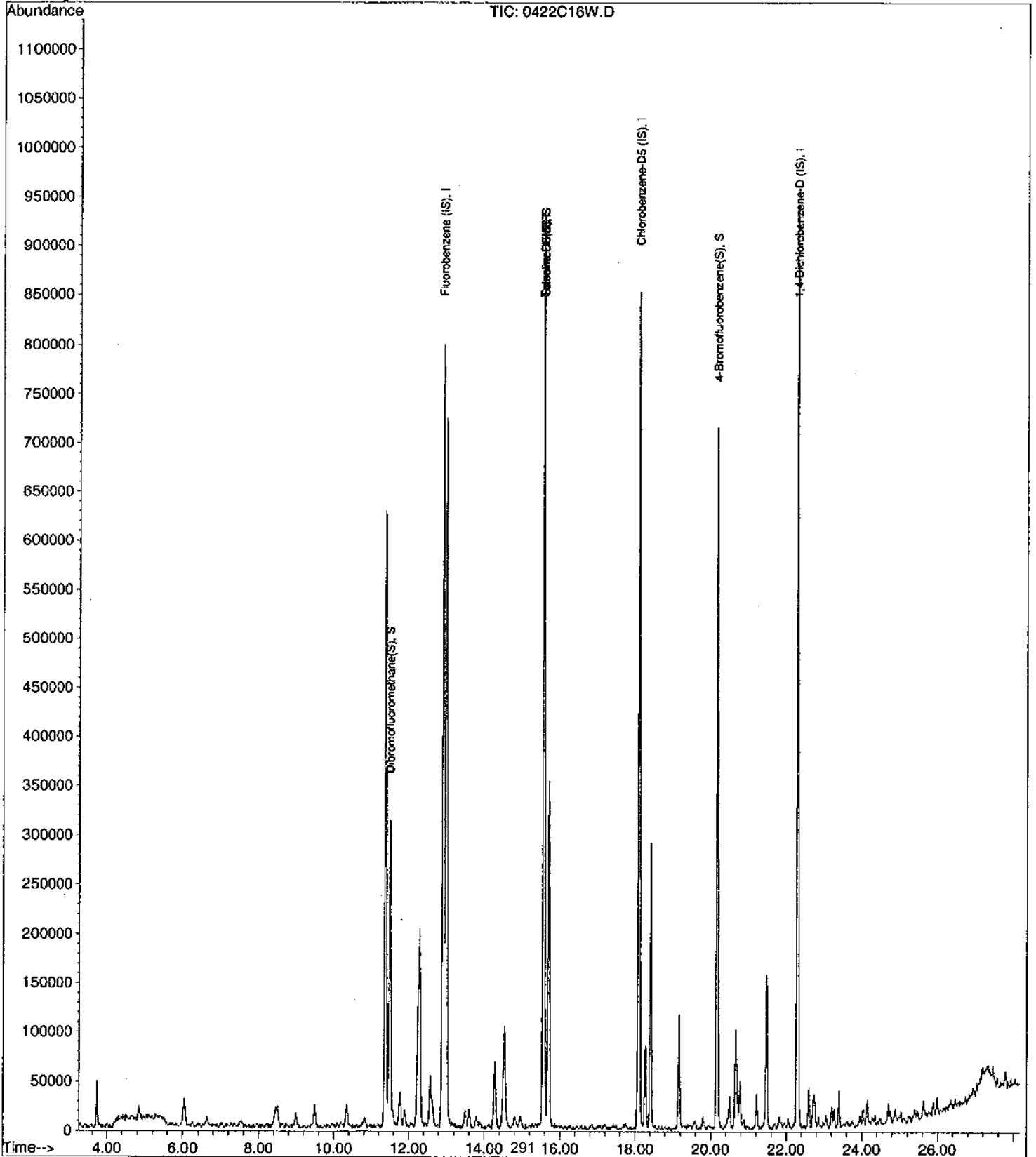
Data File : M:\CHICO\DATA\C110422\0422C16W.D  
Acq On : 23 Apr 11 2:13  
Sample : Vol Std 4-22-11@100ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:44 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C17W.D Vial: 1  
 Acq On : 23 Apr 11 2:48 Operator: RS  
 Sample : Vol Std 4-22-11@300ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:44 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	813193	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.10	TIC	892115	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	963258	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.48	TIC	1180225	26.14103	ppb	0.00
Spiked Amount	23.521		Recovery	=	111.139%	
5) Toluene-D8(S)	15.56	TIC	2915689	25.84569	ppb	0.00
Spiked Amount	26.002		Recovery	=	99.400%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	1973777	26.30051	ppb	0.00
Spiked Amount	26.339		Recovery	=	99.856%	
Target Compounds						
2) Gasoline	15.70	TIC	34503406m	122.09794	ppb	Qvalue 100

Quantitation Report

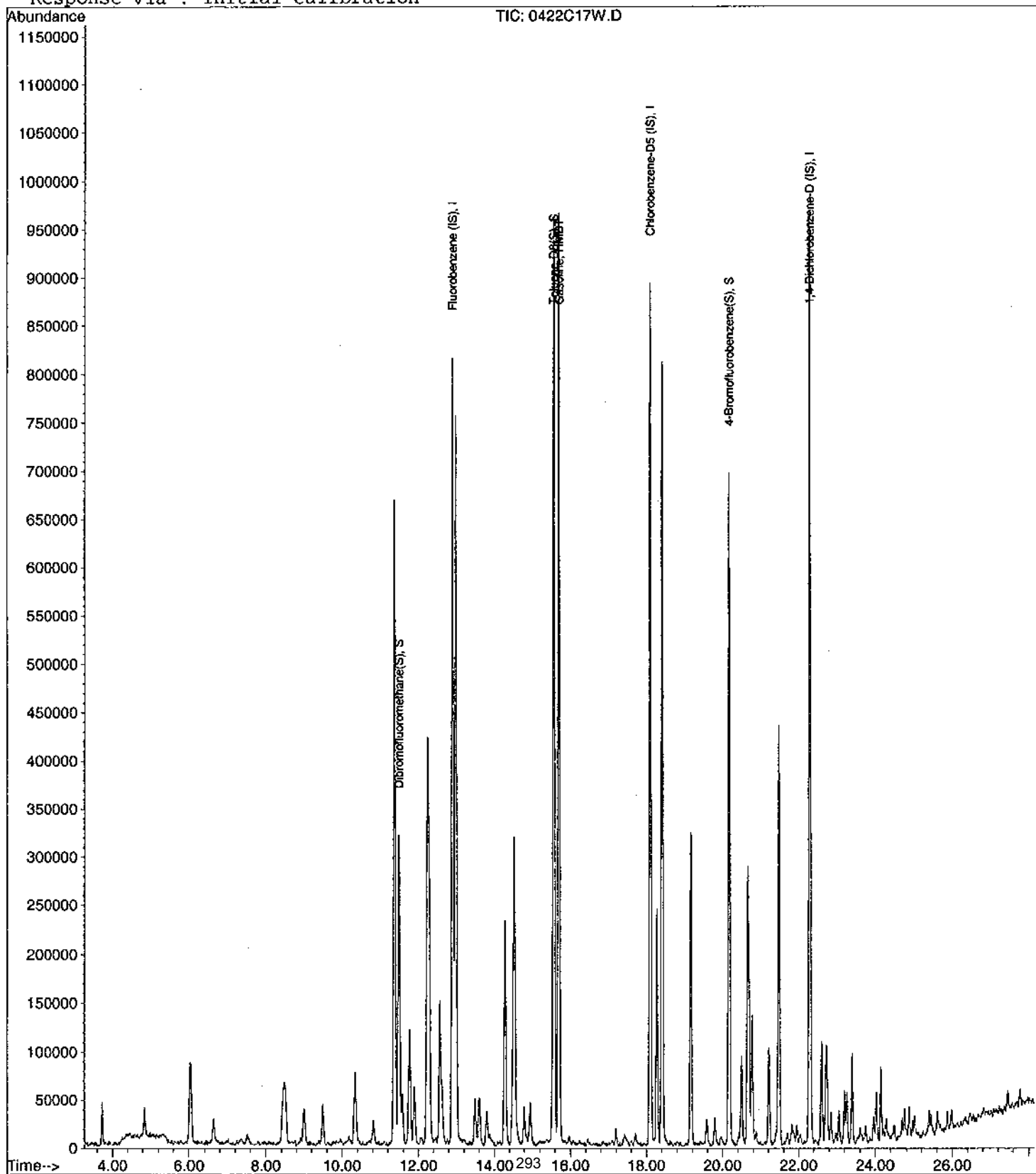
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Acq On : 23 Apr 11 2:48  
Sample : Vol Std 4-22-11@300ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:44 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C18W.D Vial: 1  
 Acq On : 23 Apr 11 3:23 Operator: RS  
 Sample : Vol Std 4-22-11@600ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:45 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	839656	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.09	TIC	926859	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	1075159	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.49	TIC	1020589	21.89279	ppb	0.00
Spiked Amount	23.521		Recovery	=	93.079%	
5) Toluene-D8(S)	15.56	TIC	3015328	25.72697	ppb	0.00
Spiked Amount	26.002		Recovery	=	98.942%	
6) 4-Bromofluorobenzene(S)	20.16	TIC	2029523	26.02959	ppb	0.00
Spiked Amount	26.339		Recovery	=	98.827%	
Target Compounds						
2) Gasoline	15.70	TIC	52581715m	180.20771	ppb	Qvalue 100

Quantitation Report

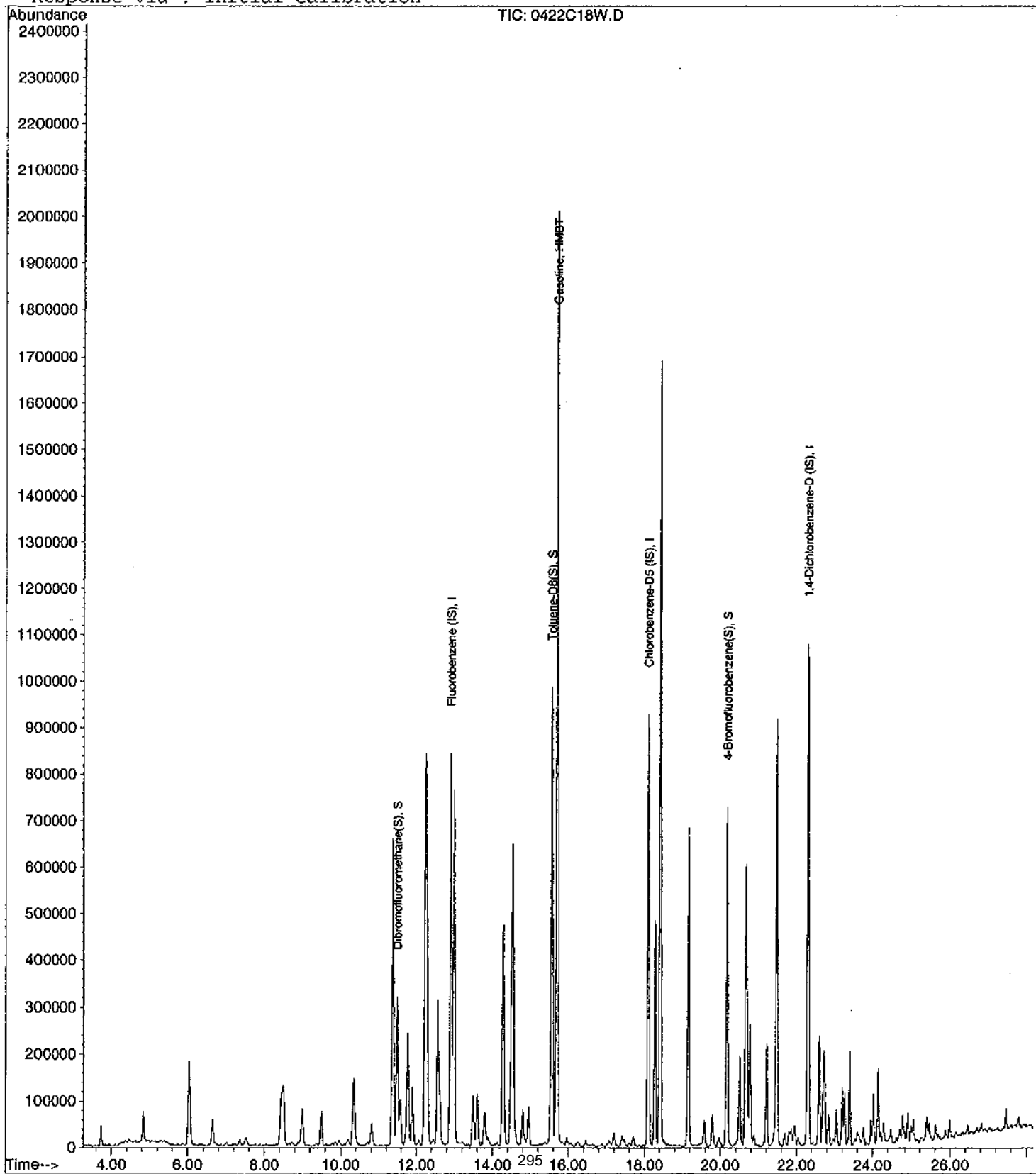
Data File : M:\CHICO\DATA\C110422\0422C18W.D  
Acq On : 23 Apr 11 3:23  
Sample : Vol Std 4-22-11@600ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:45 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C19W.D Vial: 1  
 Acq On : 23 Apr 11 3:58 Operator: RS  
 Sample : Vol Std 4-22-11@800ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:45 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	857506	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.09	TIC	966385	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	1071041	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.49	TIC	1100423	23.11394	ppb	0.00
Spiked Amount	23.521		Recovery	=	98.270%	
5) Toluene-D8(S)	15.56	TIC	3209042	26.25990	ppb	0.00
Spiked Amount	26.002		Recovery	=	100.992%	
6) 4-Bromofluorobenzene(S)	20.16	TIC	2064699	25.39765	ppb	0.00
Spiked Amount	26.339		Recovery	=	96.427%	
Target Compounds						
2) Gasoline	15.70	TIC	70886684m	237.88524	ppb	Qvalue 100



Quantitation Report

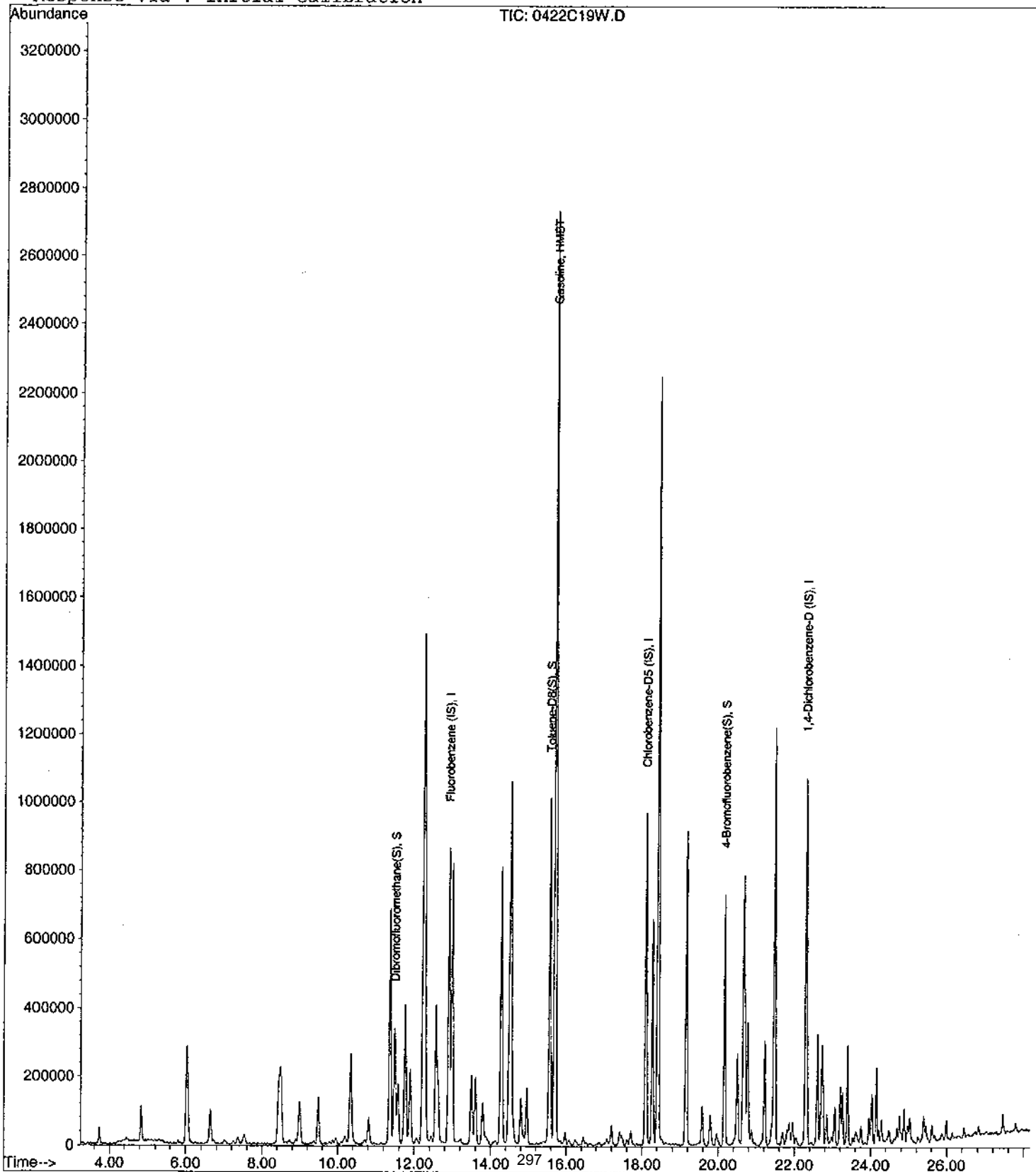
Data File : M:\CHICO\DATA\C110422\0422C19W.D  
Acq On : 23 Apr 11 3:58  
Sample : Vol Std 4-22-11@800ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:45 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C20W.D Vial: 1  
 Acq On : 23 Apr 11 4:33 Operator: RS  
 Sample : Vol Std 4-22-11@1000ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:45 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	900499	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.09	TIC	1012189	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	1201637	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.49	TIC	1142245	22.84692	ppb	0.00
Spiked Amount	23.521			Recovery =	97.134%	
5) Toluene-D8(S)	15.56	TIC	3421410	26.73076	ppb	0.00
Spiked Amount	26.002			Recovery =	102.804%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	2128808	25.00126	ppb	0.00
Spiked Amount	26.339			Recovery =	94.920%	
Target Compounds						
2) Gasoline	15.70	TIC	84574991m	270.27056	ppb	Qvalue 100

Quantitation Report

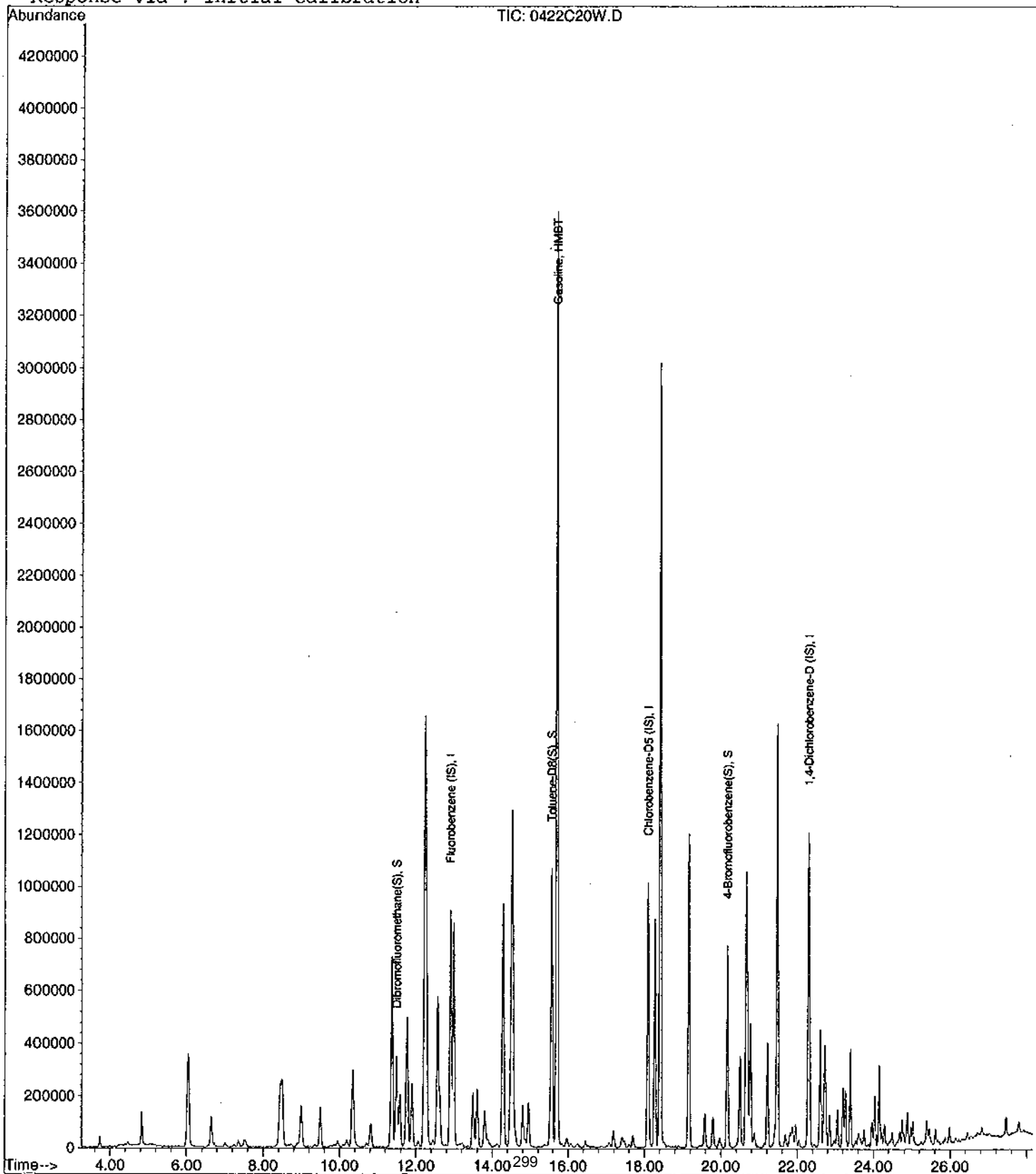
Data File : M:\CHICO\DATA\C110422\0422C20W.D  
Acq On : 23 Apr 11 4:33  
Sample : Vol Std 4-22-11@1000ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:45 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: 04475  
Date Analyzed: 04/23/11  
Instrument: Chico  
Initial Cal. Date: 04/22/11  
Data File: 0422C22W.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	HMBT	Gasoline	8.625	3.470	60	HMBTL	6.9
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
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34							
35							
36							
37							
38							
39							
40		Average			60.0		

Data File : M:\CHICO\DATA\C110422\0422C22W.D Vial: 1  
 Acq On : 23 Apr 11 5:42 Operator: RS  
 Sample : GAS 300 ug/L STD(SS) Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:48 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.87	TIC	836807	25.00000	ppb	-0.03
4) Chlorobenzene-D5 (IS)	18.07	TIC	884518	25.00000	ppb	-0.03
7) 1,4-Dichlorobenzene-D (IS)	22.26	TIC	926523	25.00000	ppb	-0.02
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.45	TIC	805863	17.34553	ppb	-0.03
Spiked Amount	23.521			Recovery =	73.747%	
5) Toluene-D8(S)	15.53	TIC	2907375	25.99334	ppb	-0.03
Spiked Amount	26.002			Recovery =	99.965%	
6) 4-Bromofluorobenzene(S)	20.14	TIC	1784990	23.98922	ppb	-0.03
Spiked Amount	26.339			Recovery =	91.078%	
Target Compounds						
2) Gasoline	15.66	TIC	34844648m	279.26444	ppb	Qvalue 100

Quantitation Report

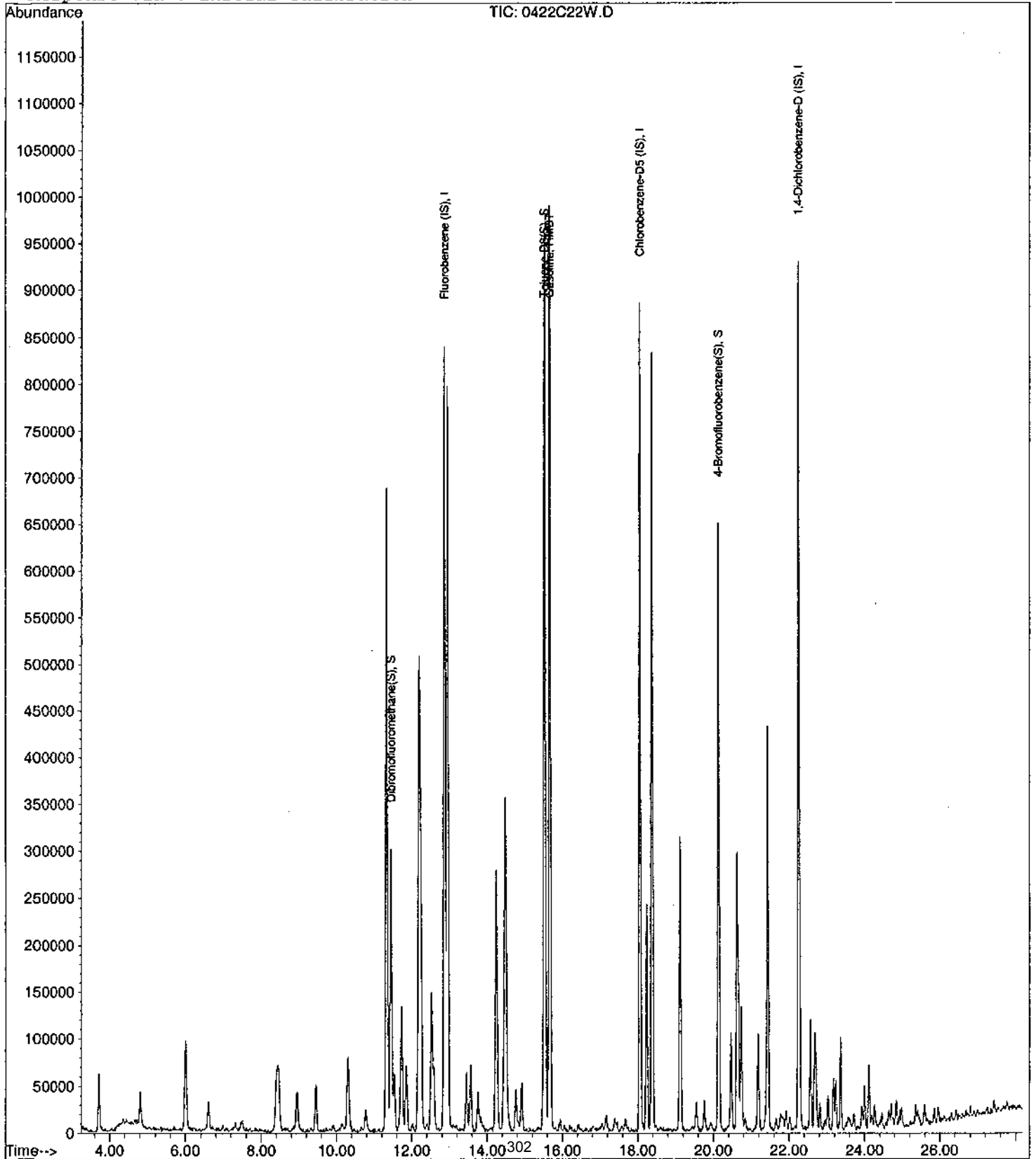
Data File : M:\CHICO\DATA\C110422\0422C22W.D  
Acq On : 23 Apr 11 5:42  
Sample : GAS 300 ug/L STD(SS)  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 19:48 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 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: WMM75  
Date Analyzed: 04/23/11  
Instrument: Chico  
Initial Cal. Date: 04/22/11  
Data File: 0422C24W.D

	Compound	MEAN	CCRF	%D	%Drift
1	Fluorobenzene (IS)	ISTD			
2	HMBT Gasoline	8.625	3.630	58	HMBTL 1.8
3	Chlorobenzene-D5 (IS)	ISTD			
4	1,4-Dichlorobenzene-D (IS)	ISTD			
5					
6					
7					
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36					
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38					
39					
40	Average			58.0	

Data File : M:\CHICO\DATA\C110422\0422C24W.D Vial: 1  
 Acq On : 23 Apr 11 6:53 Operator: RS  
 Sample : GAS 300 ug/L STD Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:49 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	866223	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.09	TIC	927794	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	1037380	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.48	TIC	1263809	26.27866	ppb	0.00
Spiked Amount	23.521			Recovery =	111.726%	
5) Toluene-D8(S)	15.57	TIC	3137847	26.74533	ppb	0.00
Spiked Amount	26.002			Recovery =	102.857%	
6) 4-Bromofluorobenzene(S)	20.16	TIC	2021181	25.89647	ppb	0.00
Spiked Amount	26.339			Recovery =	98.318%	
Target Compounds						
2) Gasoline	15.69	TIC	37730977m	305.42656	ppb	Qvalue 100



Quantitation Report

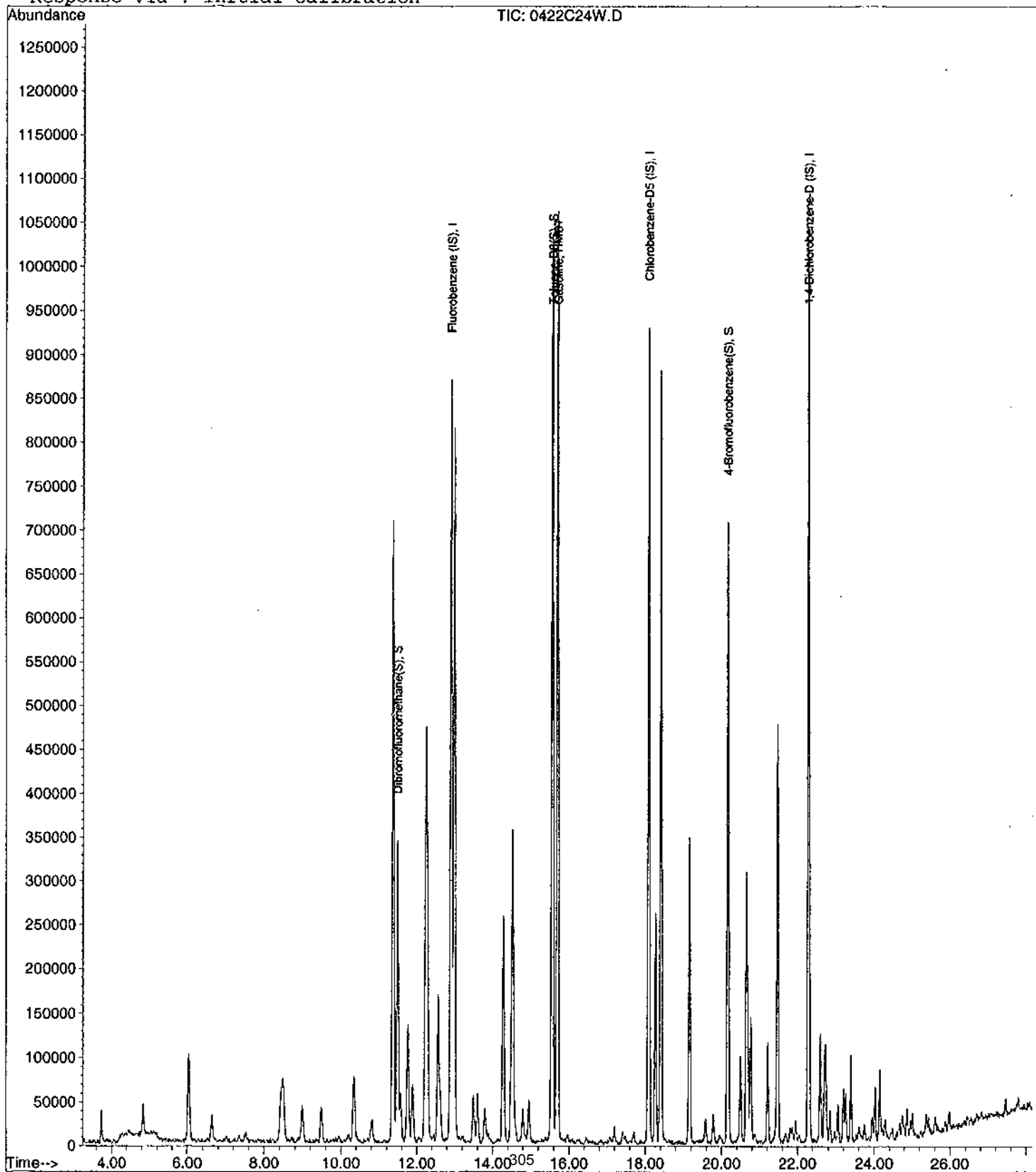
Data File : M:\CHICO\DATA\C110422\0422C24W.D  
Acq On : 23 Apr 11 6:53  
Sample : GAS 300 ug/L STD  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 19:49 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 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: 04415  
Date Analyzed: 04/25/11  
Instrument: Chico  
Initial Cal. Date: 04/22/11  
Data File: 0425C01W.D

	Compound	MEAN	CCRF	%D	%Drift
1	I Fluorobenzene (IS)	ISTD			I
2	HMBT Gasoline	8.625	3.853	65	HMBTL 14
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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36					
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38					
39					
40	Average			55.0	

Data File : M:\CHICO\DATA\C110422\0425C01W.D Vial: 1  
 Acq On : 25 Apr 11 10:41 Operator: RS  
 Sample : GAS 300 ug/L STD Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:51 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.86	TIC	976520	25.00000	ppb	-0.04
4) Chlorobenzene-D5 (IS)	18.07	TIC	1068714	25.00000	ppb	-0.03
7) 1,4-Dichlorobenzene-D (IS)	22.26	TIC	1150561	25.00000	ppb	-0.02
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.45	TIC	1232935	22.74105	ppb	-0.03
Spiked Amount	23.521			Recovery =	96.684%	
5) Toluene-D8(S)	15.53	TIC	3561736	26.35530	ppb	-0.03
Spiked Amount	26.002			Recovery =	101.358%	
6) 4-Bromofluorobenzene(S)	20.14	TIC	2220439	24.69814	ppb	-0.03
Spiked Amount	26.339			Recovery =	93.770%	
Target Compounds						
2) Gasoline	15.66	TIC	45150273m	341.95262	ppb	Qvalue 100

Quantitation Report

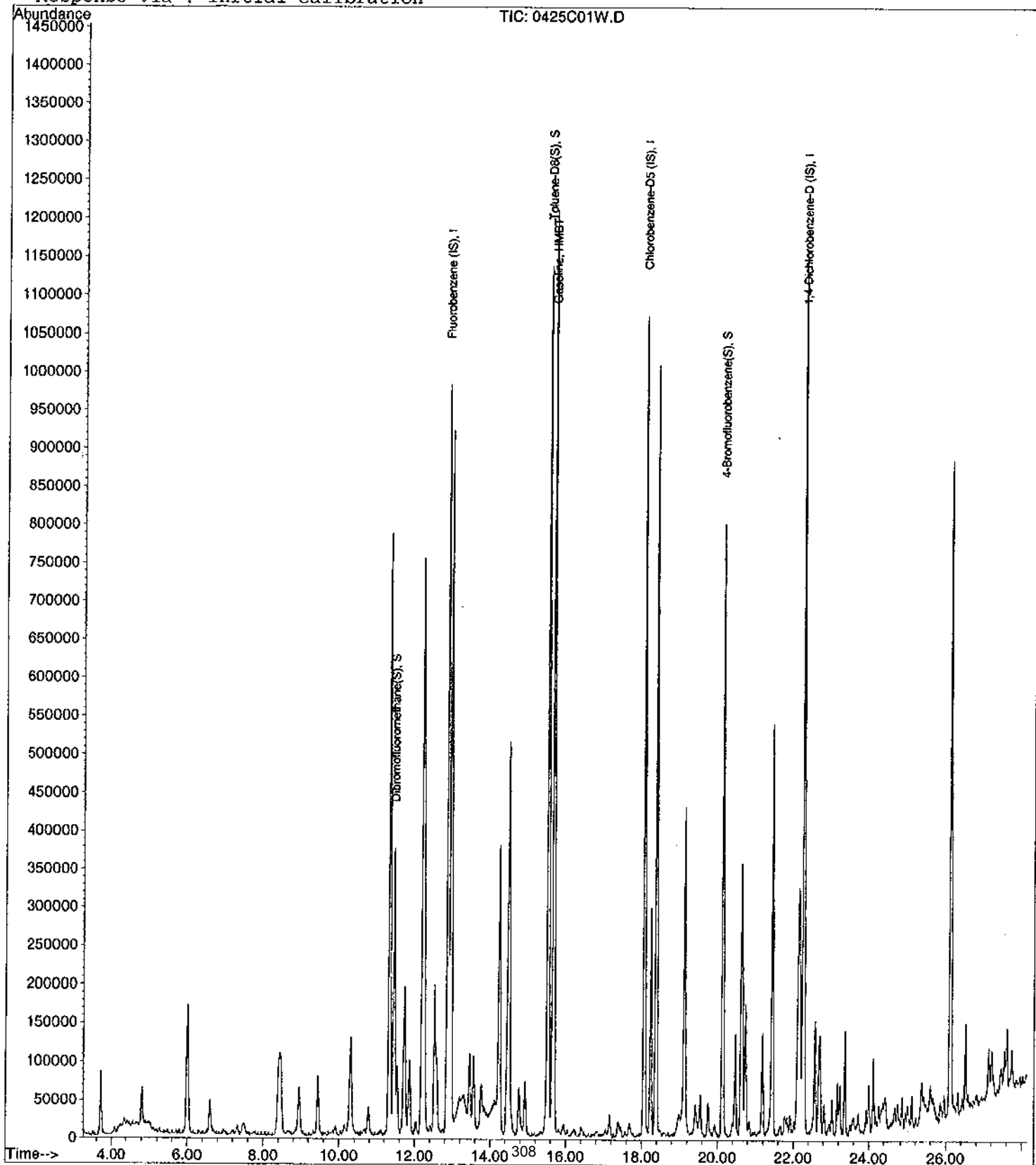
Data File : M:\CHICO\DATA\C110422\0425C01W.D  
Acq On : 25 Apr 11 10:41  
Sample : GAS 300 ug/L STD  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 19:51 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



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

## Method Blank

### EPA 8260B VOCs + Gas Water

Blank Name/QCG: 110422W-36312 - 155156  
 Batch ID: #86RHB-110422AC

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	04/23/11	04/23/11
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	04/23/11	04/23/11
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	04/23/11	04/23/11
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	04/23/11	04/23/11
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	04/23/11	04/23/11
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	04/23/11	04/23/11
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	04/23/11	04/23/11
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	04/23/11	04/23/11
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	04/23/11	04/23/11
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	04/23/11	04/23/11
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	04/23/11	04/23/11
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	04/23/11	04/23/11
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	04/23/11	04/23/11
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	04/23/11	04/23/11
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	04/23/11	04/23/11
BLANK	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	04/23/11	04/23/11
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	04/23/11	04/23/11
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
BLANK	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11

Quant Method: C86DODW.M
Run #: 0422C30
Instrument: Chico
Sequence: C110422
Initials: LF

GC SC-Blank-REG MDLs  
 Printed: 05/16/11 8:34:05 PM

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

Blank Name/QCG: 110422W-36312 - 155156  
 Batch ID: #86RHB-110422AC

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	04/23/11	04/23/11
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	04/23/11	04/23/11
BLANK	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	04/23/11	04/23/11
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	04/23/11	04/23/11
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	04/23/11	04/23/11
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	04/23/11	04/23/11
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	04/23/11	04/23/11
BLANK	SURROGATE: 1,2-DICHLOROET	94.2	70-120			%	04/23/11	04/23/11
BLANK	SURROGATE: 4-BROMOFLUORO	96.3	75-120			%	04/23/11	04/23/11
BLANK	SURROGATE: DIBROMOFLUOR	91.6	85-115			%	04/23/11	04/23/11
BLANK	SURROGATE: TOLUENE-D8 (S)	89.6	85-120			%	04/23/11	04/23/11

Quant Method: C86DODW.M  
 Run #: 0422C30  
 Instrument: Chico  
 Sequence: C110422  
 Initials: LF

Data File : M:\CHICO\DATA\C110422\0422C30W.D Vial: 1  
 Acq On : 23 Apr 11 10:58 Operator: RS  
 Sample : 110422A BLK-1WC Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: Apr 25 10:41 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	96	448832	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.10	117	329216	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.29	152	182080	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.49	111	308835	21.54724	ppb	0.00
Spiked Amount	23.521		Recovery	=	91.609%	
23) 1,2-DCA-D4(S)	12.30	65	192248	21.03348	ppb	0.00
Spiked Amount	22.321		Recovery	=	94.231%	
36) Toluene-D8(S)	15.57	98	1090934	23.29754	ppb	0.00
Spiked Amount	26.002		Recovery	=	89.601%	
44) 4-Bromofluorobenzene(S)	20.16	95	392298	25.35461	ppb	0.00
Spiked Amount	26.339		Recovery	=	96.266%	

Target Compounds Qvalue



Quantitation Report

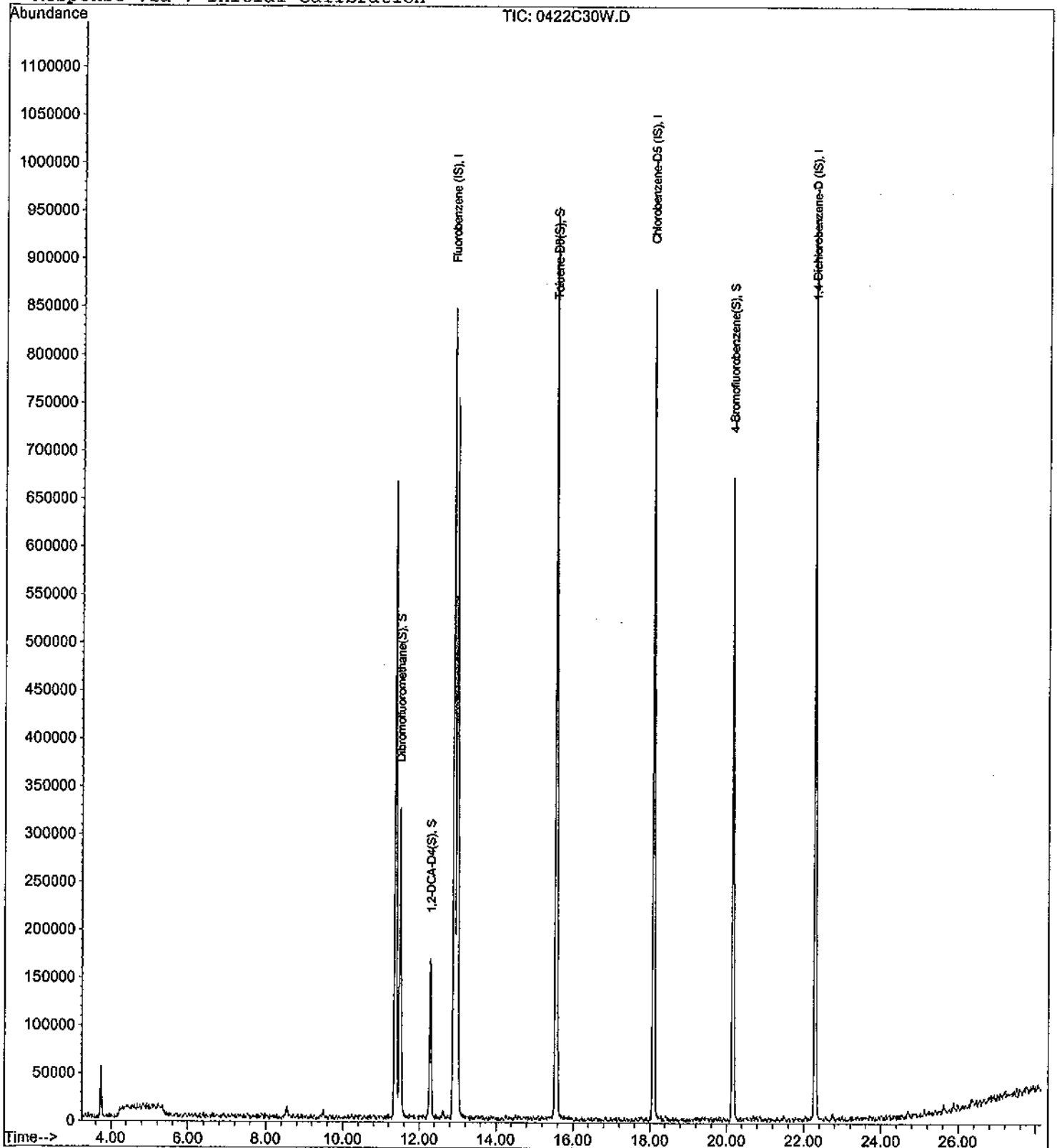
Data File : M:\CHICO\DATA\C110422\0422C30W.D  
Acq On : 23 Apr 11 10:58  
Sample : 110422A BLK-1WC  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: Apr 25 10:41 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



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

APPL ID: 110423W-36312 LCS - 155156  
 Batch ID: #86RHB-110422AC

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,1,1,2-TETRACHLOROETHANE	10.00	9.83	98.3	80-130
1,1,1-TRICHLOROETHANE	10.00	10.5	105	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	8.23	82.3	65-130
1,1,2-TRICHLOROETHANE	10.00	10.2	102	75-125
1,1-DICHLOROETHANE	10.00	10.0	100	70-135
1,1-DICHLOROETHENE	10.00	10.5	105	70-130
1,2,3-TRICHLOROPROPANE	10.00	10.2	102	75-125
1,2,4-TRICHLOROBENZENE	10.00	8.67	86.7	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	8.47	84.7	50-130
1,2-DIBROMOETHANE	10.00	9.14	91.4	70-130
1,2-DICHLOROBENZENE	10.00	9.46	94.6	70-120
1,2-DICHLOROETHANE	10.00	10.1	101	70-130
1,2-DICHLOROPROPANE	10.00	9.84	98.4	75-125
1,3-DICHLOROBENZENE	10.00	9.43	94.3	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	18.4	92.0	70-130
1,4-DICHLOROBENZENE	10.00	9.58	95.8	75-125
2-BUTANONE	10.00	8.81	88.1	30-150
4-METHYL-2-PENTANONE	10.00	9.69	96.9	60-135
ACETONE	10.00	8.47	84.7	40-140
BENZENE	10.00	10.1	101	80-120
BROMODICHLOROMETHANE	10.00	9.39	93.9	75-120
BROMOFORM	10.00	9.72	97.2	70-130
BROMOMETHANE	10.00	9.35	93.5	30-145
CARBON TETRACHLORIDE	10.00	10.2	102	65-140
CHLOROBENZENE	10.00	10.1	101	80-120
CHLORODIBROMOMETHANE	10.00	9.50	95.0	60-135

Comments:

Primary	SPK
Quant Method :	C86DODW.M
Extraction Date :	04/23/11
Analysis Date :	04/23/11
Instrument :	Chico
Run :	0422C25
Initials :	LF

Printed: 05/16/11 8:34:07 PM

## Laboratory Control Spike Recovery

### EPA 8260B VOCs + Gas Water

APPL ID: 110423W-36312 LCS - 155156

Batch ID: #86RHB-110422AC

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	10.8	108	60-135
CHLOROFORM	10.00	10.1	101	65-135
CHLOROMETHANE	10.00	11.3	113	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.66	96.6	70-125
ETHYLBENZENE	10.00	10.3	103	75-125
GASOLINE	300	279	93.0	75-125
HEXACHLOROBUTADIENE	10.00	9.14	91.4	50-140
METHYL TERT-BUTYL ETHER	10.00	9.44	94.4	65-125
METHYLENE CHLORIDE	10.00	10.2	102	55-140
STYRENE	10.00	9.62	96.2	65-135
TETRACHLOROETHENE	10.00	10.1	101	45-150
TOLUENE	10.00	10.7	107	75-120
TRANS-1,2-DICHLOROETHENE	10.00	10.5	105	60-140
TRICHLOROETHENE	10.00	11.4	114	70-125
VINYL CHLORIDE	10.00	11.7	117	50-145
XYLENES (TOTAL)	30.0	30.9	103	80-120
-----				
SURROGATE: 1,2-DICHLOROETHANE-D	22.3	21.8	97.7	70-120
SURROGATE: 4-BROMOFLUOROBENZE	26.3	25.8	98.0	75-120
SURROGATE: DIBROMOFLUOROMETH	23.5	22.4	95.2	85-115
SURROGATE: TOLUENE-D8 (S)	26.0	23.4	90.0	85-120

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

<u>Primary</u>	<u>SPK</u>
Quant Method :	C86DODW.M
Extraction Date :	04/23/11
Analysis Date :	04/23/11
Instrument :	Chico
Run :	0422C25
Initials :	LF

Printed: 05/16/11 8:34:07 PM

Data File : M:\CHICO\DATA\C110422\0422C25W.D  
 Acq On : 23 Apr 11 7:28  
 Sample : 110422A LCS-1WC (SS)  
 Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: Apr 24 15:51 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.91	96	455808	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.09	117	350144	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.29	152	195456	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.48	111	325333	22.35090	ppb	0.00
Spiked Amount	23.521		Recovery	=	95.028%	
23) 1,2-DCA-D4(S)	12.29	65	202265	21.79074	ppb	0.00
Spiked Amount	22.321		Recovery	=	97.627%	
36) Toluene-D8(S)	15.56	98	1164463	23.38145	ppb	0.00
Spiked Amount	26.002		Recovery	=	89.921%	
44) 4-Bromofluorobenzene(S)	20.16	95	424316	25.80744	ppb	0.00
Spiked Amount	26.339		Recovery	=	97.982%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	4.12	85	169519	11.19582	ppb	95
3) Chloromethane	4.61	50	160312	11.34479	ppb	92
4) Vinyl chloride	4.89	62	47120	11.68554	ppb	94
5) Bromomethane	5.79	94	34992	9.34700	ppb	91
6) Chloroethane	5.98	64	100378	10.77170	ppb	98
7) Trichlorofluoromethane	6.59	101	215291	11.24239	ppb	90
8) Acetone	7.33	43	8052	8.47071	ppb	# 67
9) 1,1-DCE	7.75	96	94237	10.50780	ppb	90
10) Methylene chloride	8.53	84	91958	10.22223	ppb	93
11) Carbon disulfide	8.63	76	432683	11.72657	ppb	98
12) Methyl t-butyl ether (MtBE)	8.96	73	143624	9.44465	ppb	96
13) Trans-1,2-DCE	9.16	96	105142	10.47839	ppb	95
14) 1,1-DCA	9.86	63	186480	10.03801	ppb	98
15) MEK (2-Butanone)	10.50	43	31123	8.80539	ppb	# 90
16) Cis-1,2-DCE	10.88	96	128211	9.66381	ppb	92
17) 2,2-Dichloropropane	10.88	77	143499	8.35689	ppb	99
18) Chloroform	11.16	83	202543	10.13316	ppb	98
19) Bromochloromethane	11.38	128	45197	10.17121	ppb	98
21) 1,1,1-TCA	11.90	97	203618	10.49431	ppb	98
22) 1,1-Dichloropropene	12.17	75	129404	10.22252	ppb	97
24) Carbon Tetrachloride	12.36	117	173058	10.17112	ppb	97
25) 1,2-DCA	12.44	62	84952	10.13766	ppb	99
26) Benzene	12.57	78	391444	10.10664	ppb	97
27) TCE	13.59	95	144995	11.38219	ppb	97
28) 1,2-Dichloropropane	13.83	63	93491	9.83511	ppb	98
29) Bromodichloromethane	14.17	83	126365	9.39320	ppb	99
30) Dibromomethane	14.23	93	47604	10.36253	ppb	89
31) Cis-1,3-Dichloropropene	15.06	75	125174	9.28746	ppb	98
32) Toluene	15.69	92	304468	10.68218	ppb	100
33) Trans-1,3-Dichloropropene	15.86	75	91560	9.09388	ppb	96
34) 1,1,2-TCA	16.14	83	46586	10.21064	ppb	94
37) 1,2-EDB	17.39	107	56335	9.13650	ppb	90
38) Tetrachloroethene	16.85	164	124765	10.14634	ppb	96
39) 1-Chlorohexane	17.76	91	204031	10.52286	ppb	93
40) 1,1,1,2-Tetrachloroethane	18.22	131	123864	9.82656	ppb	92
41) m&p-Xylene	18.41	106	503258	20.58009	ppb	96
42) o-Xylene	19.16	106	248174	10.29442	ppb	97
43) Styrene	19.18	78	171208	9.62020	ppb	99
45) 2-Hexanone	16.16	43	18269	10.09781	ppb	# 67

(#) = qualifier out of range (m) = manual integration  
 0422C25W.D C86DODW.M Mon Apr 25 10:27:37 2011

Data File : M:\CHICO\DATA\C110422\0422C25W.D  
 Acq On : 23 Apr 11 7:28  
 Sample : 110422A LCS-1WC (SS)  
 Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: Apr 24 15:51 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.55	76	93178	9.38499	ppb	97
47) Dibromochloromethane	17.03	129	91998	9.49879	ppb	92
48) Chlorobenzene	18.16	112	359061	10.14123	ppb	97
49) Ethylbenzene	18.28	91	614016	10.28756	ppb	99
50) Bromoform	19.70	173	55612	9.71937	ppb	87
52) MIBK (methyl isobutyl keto	14.73	43	31477	9.69430	ppb	80
53) Isopropylbenzene	19.78	105	681130	10.18013	ppb	97
54) 1,1,2,2-Tetrachloroethane	19.95	83	45200	8.23002	ppb	87
55) 1,2,3-Trichloropropane	20.21	110	17588	10.21867	ppb	92
56) Bromobenzene	20.53	156	150142	9.36194	ppb	98
57) n-Propylbenzene	20.49	91	750768	9.99623	ppb	98
58) 2-Chlorotoluene	20.79	91	482009	9.68298	ppb	96
59) 1,3,5-Trimethylbenzene	20.77	105	515371	9.79407	ppb	95
60) 4-Chlorotoluene	20.87	91	416605	9.67255	ppb	98
61) Tert-Butylbenzene	21.41	119	586192	10.15250	ppb	98
62) 1,2,4-Trimethylbenzene	21.47	105	536025	10.08982	ppb	96
63) Sec-Butylbenzene	21.81	105	745549	10.02375	ppb	99
64) p-Isopropyltoluene	22.04	119	613264	9.93157	ppb	99
65) 1,3-DCB	22.18	146	309737	9.42882	ppb	98
66) 1,4-DCB	22.35	146	285971	9.58092	ppb	97
67) n-Butylbenzene	22.74	91	494267	9.54259	ppb	99
68) 1,2-DCB	22.98	146	248534	9.45620	ppb	96
69) 1,2-Dibromo-3-chloropropan	24.19	157	12368	8.46579	ppb	92
70) 1,2,4-Trichlorobenzene	25.63	180	79376	8.66526	ppb	95
71) Hexachlorobutadiene	25.88	223	41160	9.14387	ppb	98
72) Naphthalene	25.99	128	82808	8.52657	ppb	98
73) 1,2,3-Trichlorobenzene	26.34	180	160781	8.81114	ppb	95

Quantitation Report

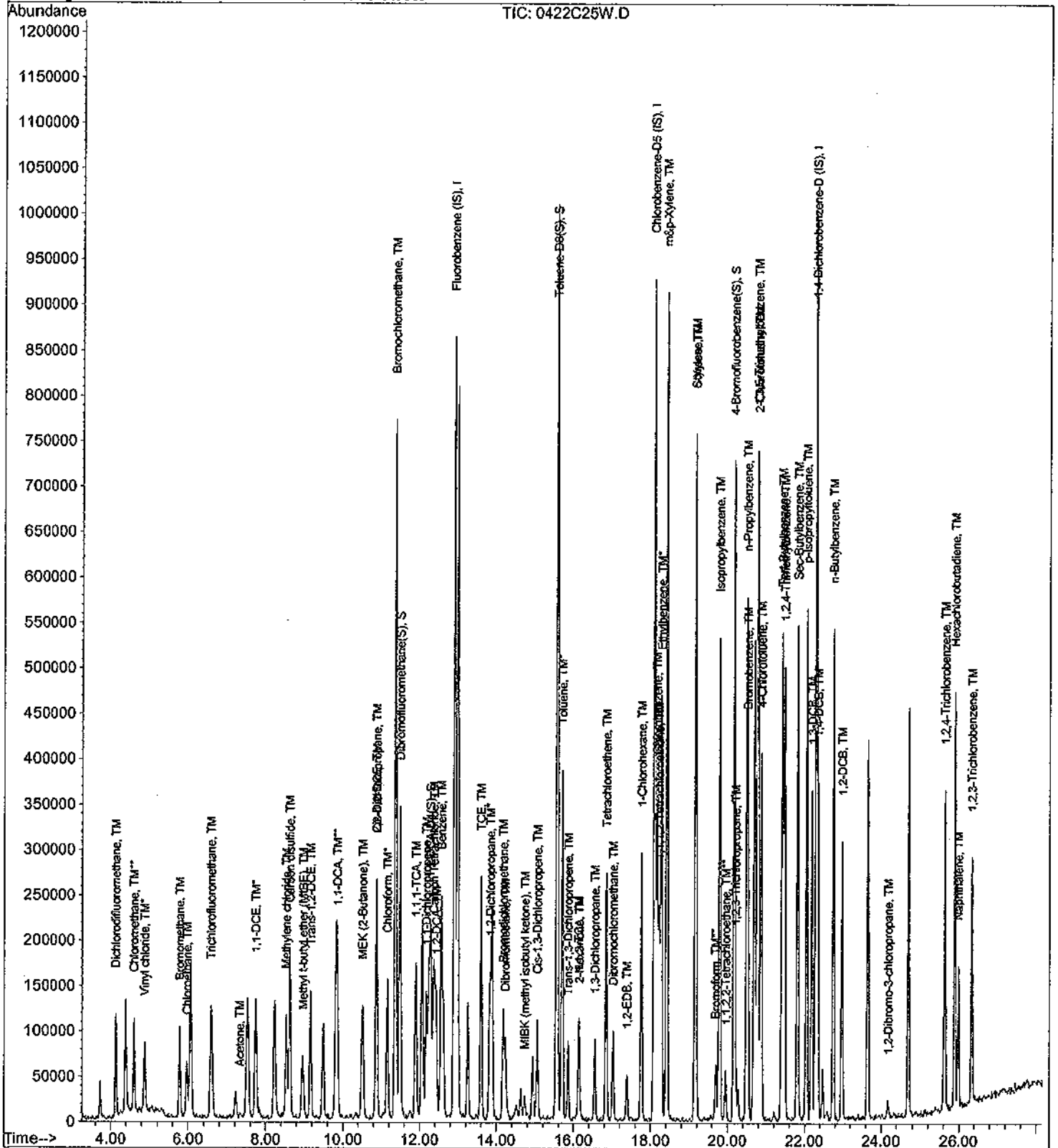
Data File : M:\CHICO\DATA\C110422\0422C25W.D  
Acq On : 23 Apr 11 7:28  
Sample : 110422A LCS-1WC (SS)  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: Apr 24 15:51 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



## Matrix Spike Recoveries

### EPA 8260B VOCs + Gas Water

APPL ID: 110425W-36312 MS - 155156  
 Batch ID: #86RHB-110422AC  
 Sample ID: AY36312  
 Client ID: ES020

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,1,1,2-TETRACHLOROETHANE	10.00	ND	9.67	9.49	96.7	94.9	80-130	1.9	30
1,1,1-TRICHLOROETHANE	10.00	ND	10.3	9.15	103	91.5	65-130	11.8	30
1,1,2,2-TETRACHLOROETHANE	10.00	ND	9.19	9.89	91.9	98.9	65-130	7.3	30
1,1,2-TRICHLOROETHANE	10.00	ND	10.5	10.3	105	103	75-125	1.9	30
1,1-DICHLOROETHANE	10.00	ND	10.4	9.84	104	98.4	70-135	5.5	30
1,1-DICHLOROETHENE	10.00	ND	10.7	10.3	107	103	70-130	3.8	30
1,2,3-TRICHLOROPROPANE	10.00	ND	9.91	10.3	99.1	103	75-125	3.9	30
1,2,4-TRICHLOROBENZENE	10.00	ND	8.84	8.02	88.4	80.2	65-135	9.7	30
1,2-DIBROMO-3-CHLOROPROPANE	10.00	ND	8.39	9.11	83.9	91.1	50-130	8.2	30
1,2-DIBROMOETHANE	10.00	ND	9.40	9.72	94.0	97.2	70-130	3.3	30
1,2-DICHLOROBENZENE	10.00	ND	8.73	9.10	87.3	91.0	70-120	4.2	30
1,2-DICHLOROETHANE	10.00	ND	10.1	8.66	101	86.6	70-130	15.4	30
1,2-DICHLOROPROPANE	10.00	ND	9.51	10.2	95.1	102	75-125	7.0	30
1,3-DICHLOROBENZENE	10.00	ND	8.64	9.07	86.4	90.7	75-125	4.9	30
1,3-DICHLOROPROPENE, TOTAL	20.0	ND	19.6	19.1	98.0	95.5	70-130	2.6	30
1,4-DICHLOROBENZENE	10.00	ND	9.02	9.50	90.2	95.0	75-125	5.2	30
2-BUTANONE	10.00	ND	9.91	9.43	99.1	94.3	30-150	5.0	30
4-METHYL-2-PENTANONE	10.00	ND	8.11	8.50	81.1	85.0	60-135	4.7	30
ACETONE	10.00	ND	8.43	8.46	84.3	84.6	40-140	0.36	30
BENZENE	10.00	ND	10.0	10.0	100	100	80-120	0.0	30
BROMODICHLOROMETHANE	10.00	ND	10.1	9.05	101	90.5	75-120	11.0	30
BROMOFORM	10.00	ND	9.50	9.32	95.0	93.2	70-130	1.9	30
BROMOMETHANE	10.00	ND	10.2	9.22	102	92.2	30-145	10.1	30
CARBON TETRACHLORIDE	10.00	ND	10.4	9.50	104	95.0	65-140	9.0	30
CHLOROBENZENE	10.00	ND	9.22	9.73	92.2	97.3	80-120	5.4	30

Comments:

Primary	SPK	DUP
Quant Method :	C86DODW.M	C86DODW.M
Extraction Date :	04/25/11	04/25/11
Analysis Date :	04/25/11	04/25/11
Instrument :	Chico	Chico
Run :	0425C07	0425C08
Initials :	LF	

## Matrix Spike Recoveries

### EPA 8260B VOCs + Gas Water

APPL ID: 110425W-36312 MS - 155156  
 Batch ID: #86RHB-110422AC  
 Sample ID: AY36312  
 Client ID: ES020

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
CHLORODIBROMOMETHANE	10.00	ND	9.75	9.41	97.5	94.1	60-135	3.5	30
CHLOROETHANE	10.00	ND	9.90	10.0	99.0	100	60-135	1.0	30
CHLOROFORM	10.00	ND	10.3	9.72	103	97.2	65-135	5.8	30
CHLOROMETHANE	10.00	ND	9.30	8.96	93.0	89.6	40-125	3.7	30
CIS-1,2-DICHLOROETHENE	10.00	ND	9.88	9.79	98.8	97.9	70-125	0.92	30
ETHYLBENZENE	10.00	ND	9.48	9.86	94.8	98.6	75-125	3.9	30
GASOLINE	300	24	344	340	107	105	75-125	1.2	30
HEXACHLOROBUTADIENE	10.00	ND	8.60	7.52	86.0	75.2	50-140	13.4	30
METHYL TERT-BUTYL ETHER	10.00	ND	10.0	9.70	100	97.0	65-125	3.0	30
METHYLENE CHLORIDE	10.00	ND	10.8	10.6	108	106	55-140	1.9	30
STYRENE	10.00	ND	9.58	9.34	95.8	93.4	65-135	2.5	30
TETRACHLOROETHENE	10.00	ND	9.20	10.0	92.0	100	45-150	8.3	30
TOLUENE	10.00	ND	9.78	9.91	97.8	99.1	75-120	1.3	30
TRANS-1,2-DICHLOROETHENE	10.00	ND	10.4	10.3	104	103	60-140	0.97	30
TRICHLOROETHENE	10.00	ND	9.48	9.31	94.8	93.1	70-125	1.8	30
VINYL CHLORIDE	10.00	ND	11.7	10.2	117	102	50-145	13.7	30
XYLENES (TOTAL)	30.0	0.41	28.9	30.5	95.0	100	80-120	5.4	30
-----									
SURROGATE: 1,2-DICHLOROETHANE-D	22.3	NA	23.3	19.4	104	86.9	70-120		
SURROGATE: 4-BROMOFLUOROBENZE	26.3	NA	26.1	24.7	99.1	93.8	75-120		
SURROGATE: DIBROMOFLUOROMETH	23.5	NA	23.2	21.5	98.6	91.4	85-115		
SURROGATE: TOLUENE-D8 (S)	26.0	NA	22.3	23.5	85.8	90.4	85-120		

Comments:

Primary	SPK	DUP
Quant Method :	C86DODW.M	C86DODW.M
Extraction Date :	04/25/11	04/25/11
Analysis Date :	04/25/11	04/25/11
Instrument :	Chico	Chico
Run :	0425C07	0425C08
Initials :	LF	



Data File : M:\CHICO\DATA\C110422\0425C07W.D  
 Acq On : 25 Apr 11 14:48  
 Sample : AY36312W234 MS-1WC  
 Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: Apr 25 15:40 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 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	-0.02
35) Chlorobenzene-D5 (IS)	18.08	117	326592	25.00000	ppb	-0.02
51) 1,4-Dichlorobenzene-D (IS)	22.28	152	197440	25.00000	ppb	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) Dibromofluoromethane(S)	11.47	111	300248	23.19009	ppb	-0.02
Spiked Amount	23.521		Recovery	=	98.595%	
23) 1,2-DCA-D4(S)	12.28	65	192189	23.27743	ppb	-0.02
Spiked Amount	22.321		Recovery	=	104.285%	
36) Toluene-D8(S)	15.55	98	1034342	22.26645	ppb	-0.02
Spiked Amount	26.002		Recovery	=	85.633%	
44) 4-Bromofluorobenzene(S)	20.15	95	400185	26.10984	ppb	-0.02
Spiked Amount	26.339		Recovery	=	99.132%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.11	85	151157	11.22331	ppb	95
3) Chloromethane	4.59	50	116878	9.29862	ppb	96
4) Vinyl chloride	4.87	62	42144	11.74991	ppb	90
5) Bromomethane	5.77	94	33929	10.19859	ppb	91
6) Chloroethane	5.96	64	82083	9.90271	ppb	96
7) Trichlorofluoromethane	6.58	101	181562	10.65891	ppb	95
8) Acetone	7.32	43	7136	8.43098	ppb	98
9) 1,1-DCE	7.73	96	85002	10.65552	ppb	91
10) Methylene chloride	8.52	84	85974	10.80727	ppb	94
11) Carbon disulfide	8.61	76	375690	11.44686	ppb	99
12) Methyl t-butyl ether (MtBE)	8.96	73	135904	10.04723	ppb	96
13) Trans-1,2-DCE	9.15	96	93012	10.41921	ppb	91
14) 1,1-DCA	9.84	63	171470	10.37669	ppb	96
15) MEK (2-Butanone)	10.51	43	31144	9.90597	ppb	98
16) Cis-1,2-DCE	10.86	96	116585	9.87918	ppb	91
17) 2,2-Dichloropropane	10.86	77	164006	10.73769	ppb	99
18) Chloroform	11.14	83	183088	10.29777	ppb	98
19) Bromochloromethane	11.36	128	38101	9.63951	ppb	94
21) 1,1,1-TCA	11.89	97	177606	10.29084	ppb	96
22) 1,1-Dichloropropene	12.16	75	117993	10.47905	ppb	99
24) Carbon Tetrachloride	12.34	117	158001	10.43980	ppb	97
25) 1,2-DCA	12.42	62	74935	10.05320	ppb	95
26) Benzene	12.55	78	346212	10.04927	ppb	98
27) TCE	13.58	95	107405	9.47878	ppb	89
28) 1,2-Dichloropropane	13.80	63	80374	9.50562	ppb	98
29) Bromodichloromethane	14.16	83	120955	10.10801	ppb	90
30) Dibromomethane	14.22	93	39478	9.66124	ppb	94
31) Cis-1,3-Dichloropropene	15.05	75	117902	9.83466	ppb	92
32) Toluene	15.68	92	247960	9.78037	ppb	98
33) Trans-1,3-Dichloropropene	15.84	75	87877	9.81237	ppb	96
34) 1,1,2-TCA	16.13	83	42809	10.54844	ppb	93
37) 1,2-EDB	17.37	107	54072	9.40189	ppb	92
38) Tetrachloroethene	16.83	164	105507	9.19897	ppb	94
39) 1-Chlorohexane	17.74	91	172286	9.52639	ppb	98
40) 1,1,1,2-Tetrachloroethane	18.20	131	113666	9.66781	ppb	93
41) m&p-Xylene	18.40	106	433833	19.02043	ppb	97
42) o-Xylene	19.14	106	222600	9.89947	ppb	96
43) Styrene	19.16	78	158971	9.57677	ppb	98
45) 2-Hexanone	16.15	43	15570	9.22661	ppb	90

(#) = qualifier out of range (m) = manual integration  
 0425C07W.D C86DODW.M Tue May 10 14:43:07 2011

Data File : M:\CHICO\DATA\C110422\0425C07W.D Vial: 1  
 Acq On : 25 Apr 11 14:48 Operator: RS  
 Sample : AY36312W234 MS-1WC Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: Apr 25 15:40 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.53	76	85137	9.19348	ppb	96
47) Dibromochloromethane	17.02	129	88086	9.75075	ppb	93
48) Chlorobenzene	18.15	112	304343	9.21567	ppb	96
49) Ethylbenzene	18.25	91	528035	9.48499	ppb	100
50) Bromoform	19.68	173	50675	9.49521	ppb	99
52) MIBK (methyl isobutyl keto	14.71	43	26607	8.11209	ppb	# 72
53) Isopropylbenzene	19.77	105	820727	12.14328	ppb	98
54) 1,1,2,2-Tetrachloroethane	19.93	83	51003	9.19331	ppb	97
55) 1,2,3-Trichloropropane	20.19	110	17232	9.91123	ppb	96
56) Bromobenzene	20.52	156	137874	8.51059	ppb	94
57) n-Propylbenzene	20.48	91	826939	10.89978	ppb	98
58) 2-Chlorotoluene	20.78	91	441184	8.77379	ppb	95
59) 1,3,5-Trimethylbenzene	20.75	105	454825	8.55660	ppb	92
60) 4-Chlorotoluene	20.86	91	376080	8.64392	ppb	98
61) Tert-Butylbenzene	21.40	119	570061	9.77391	ppb	99
62) 1,2,4-Trimethylbenzene	21.46	105	483542	9.01045	ppb	99
63) Sec-Butylbenzene	21.79	105	954253	12.70081	ppb	100
64) p-Isopropyltoluene	22.03	119	566200	9.07724	ppb	98
65) 1,3-DCB	22.16	146	286694	8.63966	ppb	99
66) 1,4-DCB	22.34	146	271941	9.01932	ppb	94
67) n-Butylbenzene	22.73	91	576478	11.01797	ppb	95
68) 1,2-DCB	22.96	146	231804	8.73103	ppb	98
69) 1,2-Dibromo-3-chloropropan	24.16	157	12384	8.39156	ppb	92
70) 1,2,4-Trichlorobenzene	25.62	180	81824	8.84275	ppb	99
71) Hexachlorobutadiene	25.87	223	39104	8.59983	ppb	99
72) Naphthalene	25.96	128	115665	11.79011	ppb	99
73) 1,2,3-Trichlorobenzene	26.32	180	162833	8.83393	ppb	98

Quantitation Report

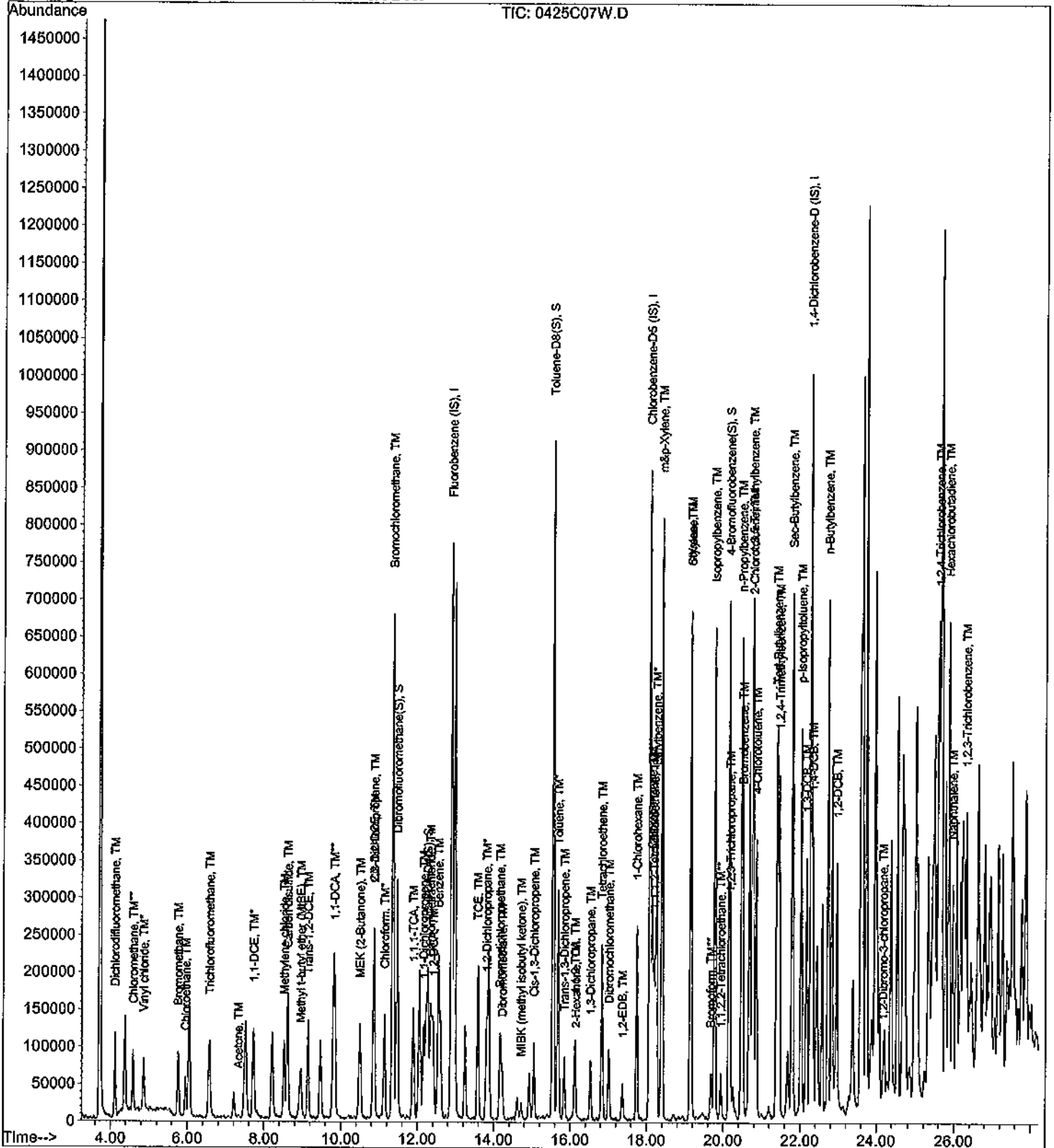
Data File : M:\CHICO\DATA\C110422\0425C07W.D  
Acq On : 25 Apr 11 14:48  
Sample : AY36312W234 MS-1WC  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: Apr 25 15:40 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Sun Apr 24 15:51:14 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0425C09W.D Vial: 1  
 Acq On : 25 Apr 11 15:58 Operator: RS  
 Sample : AY36312W567MS-1WC Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:55 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.89	TIC	1071362	25.00000	ppb	-0.01
4) Chlorobenzene-D5 (IS)	18.08	TIC	1115330	25.00000	ppb	-0.01
7) 1,4-Dichlorobenzene-D (IS)	22.27	TIC	1241968	25.00000	ppb	-0.01
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.48	TIC	1125606	18.92351	ppb	0.00
Spiked Amount	23.521			Recovery =	80.456%	
5) Toluene-D8(S)	15.55	TIC	3581637	25.39487	ppb	-0.01
Spiked Amount	26.002			Recovery =	97.666%	
6) 4-Bromofluorobenzene(S)	20.15	TIC	2371365	25.27447	ppb	-0.01
Spiked Amount	26.339			Recovery =	95.957%	
Target Compounds						
2) Gasoline	15.69	TIC	49677539m	343.76255	ppb	Qvalue 100

Quantitation Report

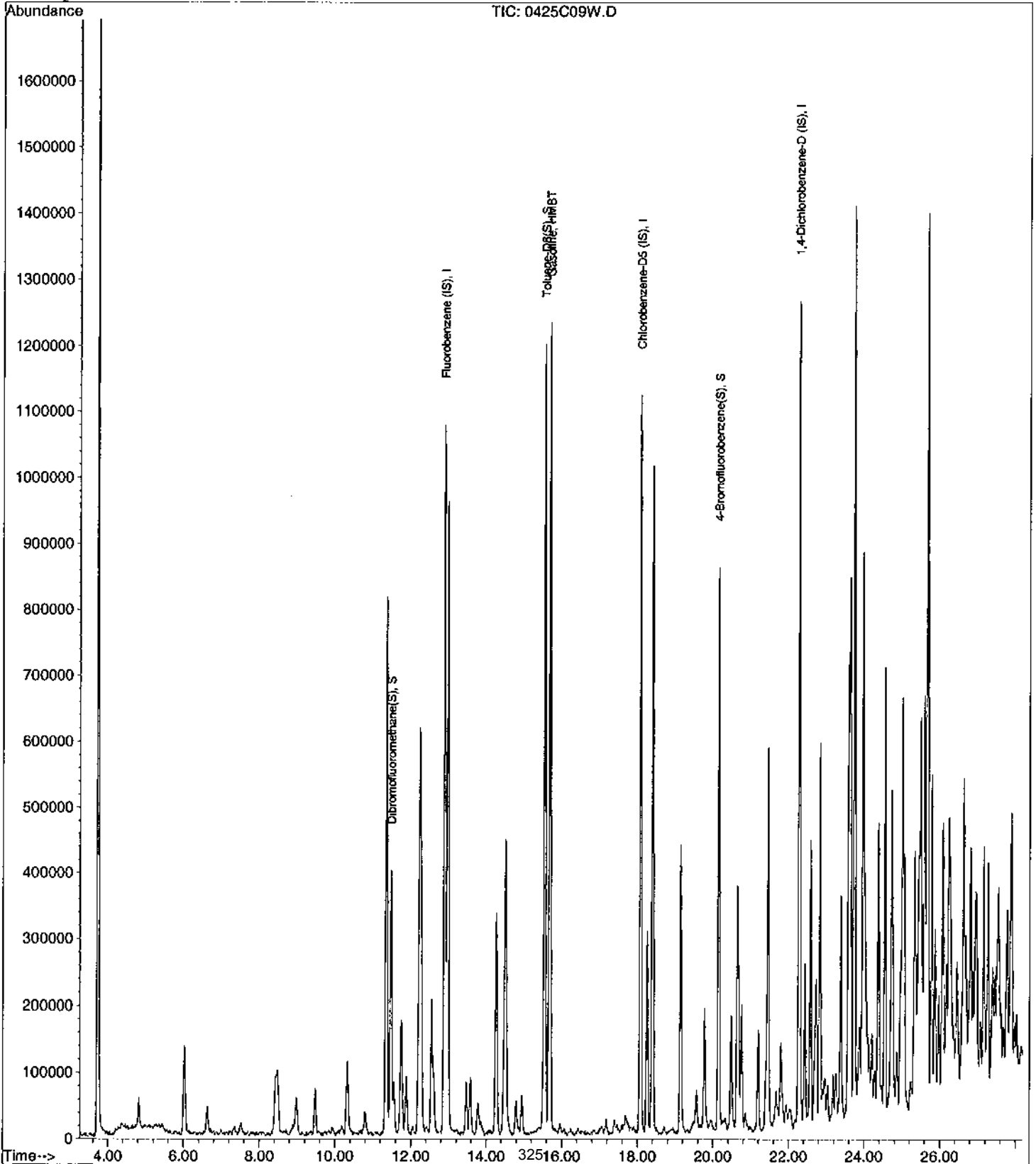
Data File : M:\CHICO\DATA\C110422\0425C09W.D  
Acq On : 25 Apr 11 15:58  
Sample : AY36312W567MS-1WC  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 19:55 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0425C08W.D Vial: 1  
 Acq On : 25 Apr 11 15:23 Operator: RS  
 Sample : AY36312W234 MSD-1WC Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 10 14:45 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.89	96	546304	25.00000	ppb	-0.01
35) Chlorobenzene-D5 (IS)	18.08	117	407488	25.00000	ppb	-0.02
51) 1,4-Dichlorobenzene-D (IS)	22.27	152	237568	25.00000	ppb	-0.02
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.47	111	374800	21.48395	ppb	-0.02
Spiked Amount	23.521		Recovery	=	91.342%	
23) 1,2-DCA-D4(S)	12.27	65	215510	19.37163	ppb	-0.02
Spiked Amount	22.321		Recovery	=	86.790%	
36) Toluene-D8(S)	15.55	98	1359218	23.45129	ppb	-0.01
Spiked Amount	26.002		Recovery	=	90.190%	
44) 4-Bromofluorobenzene(S)	20.15	95	474559	24.74957	ppb	-0.02
Spiked Amount	26.339		Recovery	=	93.969%	
<b>Target Compounds</b>						
						Qvalue
2) Dichlorodifluoromethane	4.12	85	174943	9.64010	ppb	96
3) Chloromethane	4.59	50	151828	8.96458	ppb	99
4) Vinyl chloride	4.86	62	49376	10.21661	ppb	93
5) Bromomethane	5.77	94	41383	9.22160	ppb	94
6) Chloroethane	5.96	64	111912	10.02005	ppb	96
7) Trichlorofluoromethane	6.57	101	218171	9.50555	ppb	98
8) Acetone	7.34	43	9644	8.46324	ppb	# 70
9) 1,1-DCE	7.72	96	110462	10.27663	ppb	87
10) Methylene chloride	8.52	84	113510	10.56465	ppb	99
11) Carbon disulfide	8.61	76	514835	11.64171	ppb	98
12) Methyl t-butyl ether (MtBE)	8.95	73	176815	9.70120	ppb	96
13) Trans-1,2-DCE	9.15	96	124141	10.31733	ppb	97
14) 1,1-DCA	9.84	63	219064	9.83861	ppb	100
15) MEK (2-Butanone)	10.48	43	39946	9.42949	ppb	# 87
16) Cis-1,2-DCE	10.86	96	155705	9.79204	ppb	94
17) 2,2-Dichloropropane	10.86	77	198384	9.63940	ppb	92
18) Chloroform	11.14	83	232911	9.72222	ppb	99
19) Bromochloromethane	11.36	128	56120	10.53728	ppb	94
21) 1,1,1-TCA	11.89	97	212733	9.14788	ppb	96
22) 1,1-Dichloropropene	12.16	75	153522	10.11879	ppb	97
24) Carbon Tetrachloride	12.35	117	193751	9.50099	ppb	98
25) 1,2-DCA	12.43	62	86939	8.65618	ppb	98
26) Benzene	12.55	78	466251	10.04395	ppb	98
27) TCE	13.59	95	142188	9.31286	ppb	89
28) 1,2-Dichloropropane	13.81	63	116340	10.21142	ppb	96
29) Bromodichloromethane	14.17	83	145902	9.04889	ppb	98
30) Dibromomethane	14.23	93	52231	9.48633	ppb	96
31) Cis-1,3-Dichloropropene	15.05	75	156132	9.66546	ppb	96
32) Toluene	15.68	92	338406	9.90613	ppb	99
33) Trans-1,3-Dichloropropene	15.84	75	113259	9.38563	ppb	97
34) 1,1,2-TCA	16.12	83	56517	10.33533	ppb	97
37) 1,2-EDB	17.37	107	69772	9.72332	ppb	# 82
38) Tetrachloroethene	16.84	164	143246	10.00993	ppb	98
39) 1-Chlorohexane	17.75	91	237488	10.52473	ppb	89
40) 1,1,1,2-Tetrachloroethane	18.20	131	139251	9.49263	ppb	96
41) m&p-Xylene	18.39	106	568576	19.97915	ppb	97
42) o-Xylene	19.14	106	294211	10.48664	ppb	94
43) Styrene	19.16	78	193380	9.33691	ppb	90
45) 2-Hexanone	16.14	43	20187	9.58774	ppb	# 67

(#) = qualifier out of range (m) = manual integration  
 0425C08W.D C86DODW.M Tue May 10 14:45:49 2011

Data File : M:\CHICO\DATA\C110422\0425C08W.D Vial: 1  
 Acq On : 25 Apr 11 15:23 Operator: RS  
 Sample : AY36312W234 MSD-1WC Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 10 14:45 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Sun Apr 24 15:51:14 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.54	76	111873	9.68228	ppb	92
47) Dibromochloromethane	17.01	129	106023	9.40637	ppb	92
48) Chlorobenzene	18.14	112	401083	9.73394	ppb	98
49) Ethylbenzene	18.26	91	684930	9.86077	ppb	97
50) Bromoform	19.68	173	62076	9.32234	ppb	95
52) MIBK (methyl isobutyl keto)	14.71	43	33552	8.50164	ppb	86
53) Isopropylbenzene	19.78	105	1052153	12.93789	ppb	99
54) 1,1,2,2-Tetrachloroethane	19.93	83	66023	9.89051	ppb	90
55) 1,2,3-Trichloropropane	20.19	110	21522	10.28778	ppb	88
56) Bromobenzene	20.51	156	174464	8.95015	ppb	96
57) n-Propylbenzene	20.48	91	1035671	11.34523	ppb	95
58) 2-Chlorotoluene	20.77	91	528676	8.73785	ppb	99
59) 1,3,5-Trimethylbenzene	20.76	105	592931	9.27061	ppb	95
60) 4-Chlorotoluene	20.85	91	468182	8.94319	ppb	98
61) Tert-Butylbenzene	21.39	119	710676	10.12665	ppb	98
62) 1,2,4-Trimethylbenzene	21.45	105	590230	9.14073	ppb	98
63) Sec-Butylbenzene	21.79	105	1189399	13.15657	ppb	97
64) p-Isopropyltoluene	22.03	119	707696	9.42927	ppb	97
65) 1,3-DCB	22.17	146	362244	9.07249	ppb	96
66) 1,4-DCB	22.33	146	344705	9.50154	ppb	97
67) n-Butylbenzene	22.73	91	720368	11.44248	ppb	94
68) 1,2-DCB	22.96	146	290649	9.09831	ppb	99
69) 1,2-Dibromo-3-chloropropan	24.17	157	16170	9.10624	ppb #	65
70) 1,2,4-Trichlorobenzene	25.62	180	89286	8.01931	ppb #	91
71) Hexachlorobutadiene	25.87	223	41160	7.52300	ppb	96
72) Naphthalene	25.97	128	141728	12.00656	ppb	100
73) 1,2,3-Trichlorobenzene	26.33	180	189020	8.52249	ppb #	94





Data File : M:\CHICO\DATA\C110422\0425C10W.D Vial: 1  
 Acq On : 25 Apr 11 16:34 Operator: RS  
 Sample : AY36312W567MSD-1WC Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:55 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	1057950	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.08	TIC	1130744	25.00000	ppb	-0.02
7) 1,4-Dichlorobenzene-D (IS)	22.28	TIC	1251540	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.47	TIC	1280489	21.80029	ppb	0.00
Spiked Amount	23.521			Recovery =	92.683%	
5) Toluene-D8(S)	15.56	TIC	3690567	25.81051	ppb	0.00
Spiked Amount	26.002			Recovery =	99.265%	
6) 4-Bromofluorobenzene(S)	20.16	TIC	2509317	26.38021	ppb	0.00
Spiked Amount	26.339			Recovery =	100.156%	
Target Compounds						
2) Gasoline	15.68	TIC	48769309m	340.07086	ppb	Qvalue 100

Quantitation Report

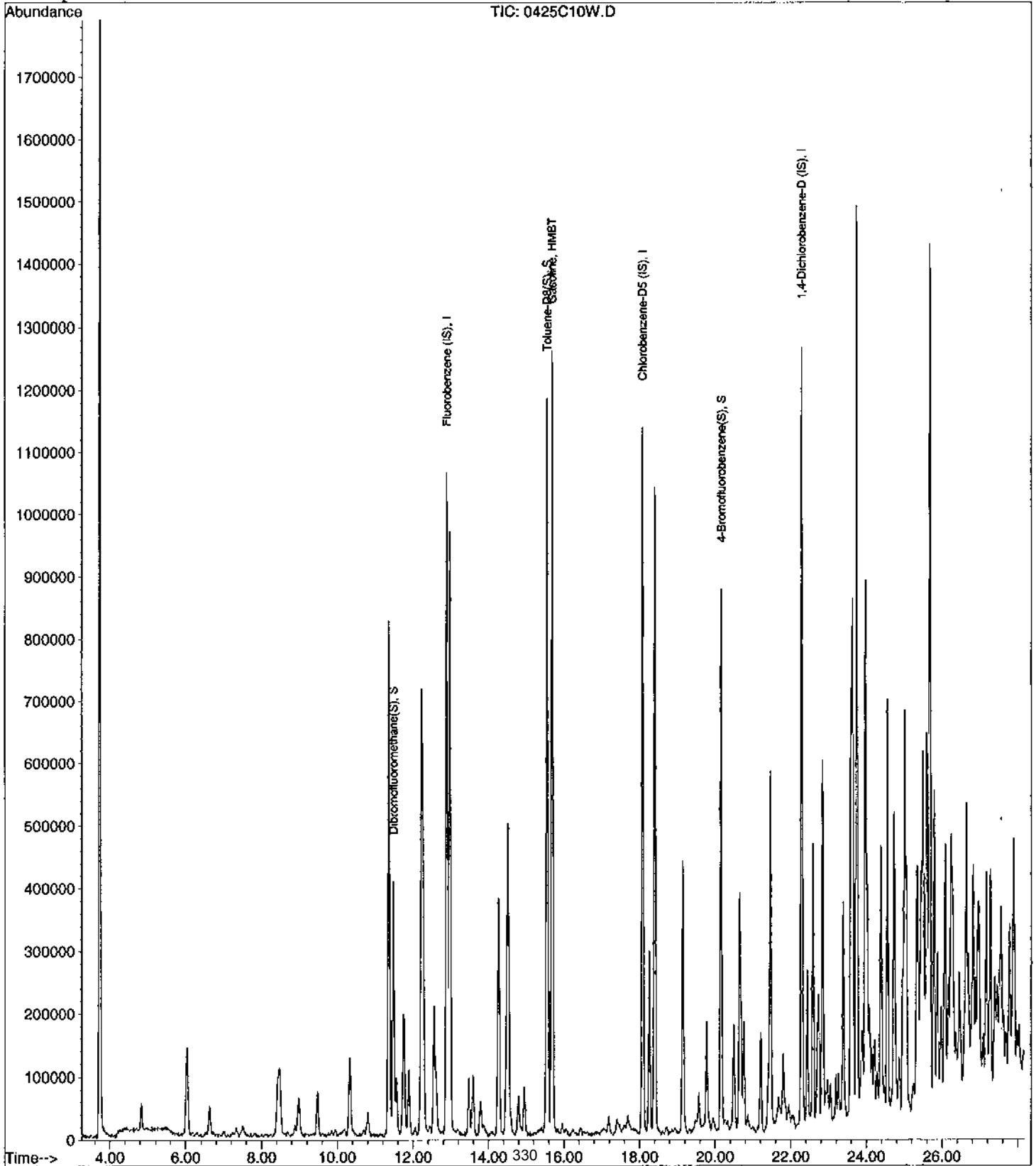
Data File : M:\CHICO\DATA\C110422\0425C10W.D  
Acq On : 25 Apr 11 16:34  
Sample : AY36312W567MSD-1WC  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 19:55 2011

Quant Results File: GAS.RES

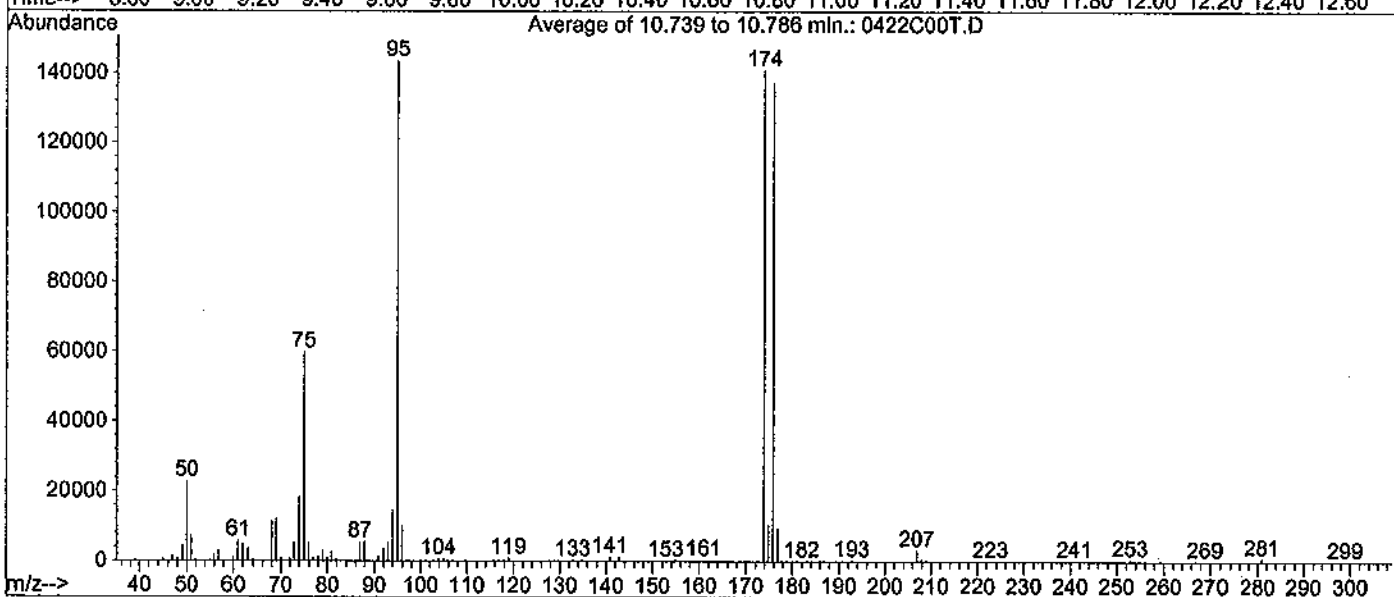
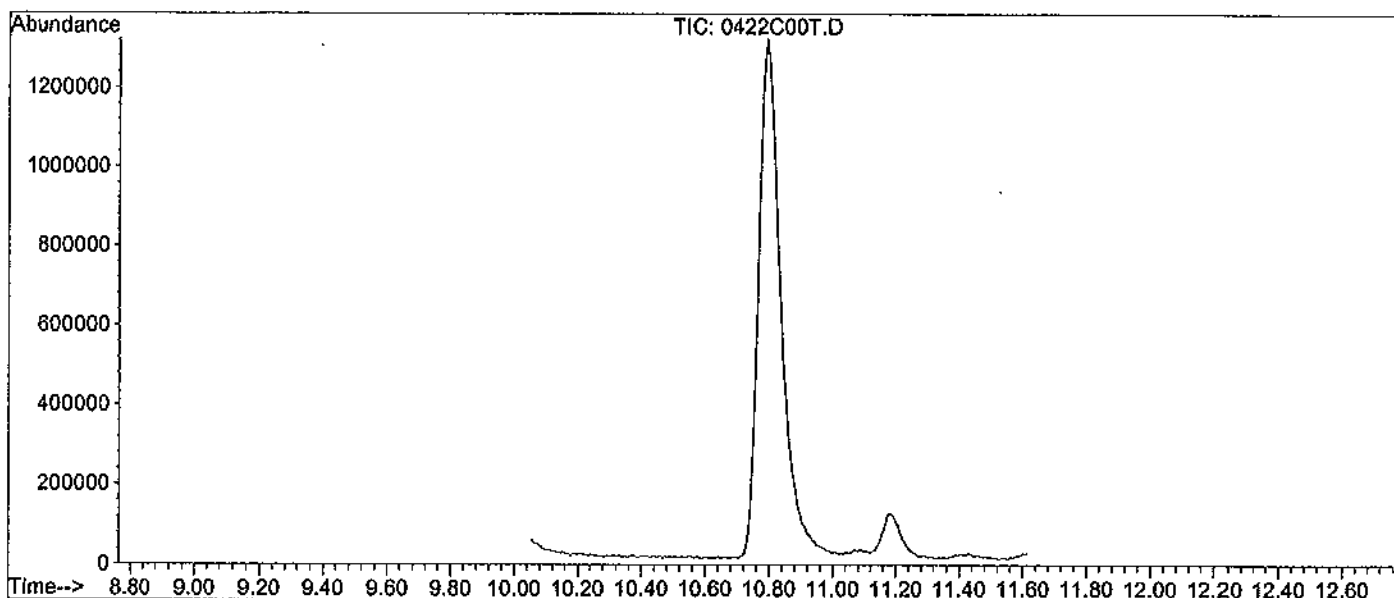
Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C00T.D  
 Acq On : 22 Apr 11 15:43  
 Sample : 20ug/ml BFB STD 04-15-11A  
 Misc : 2uL

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

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B



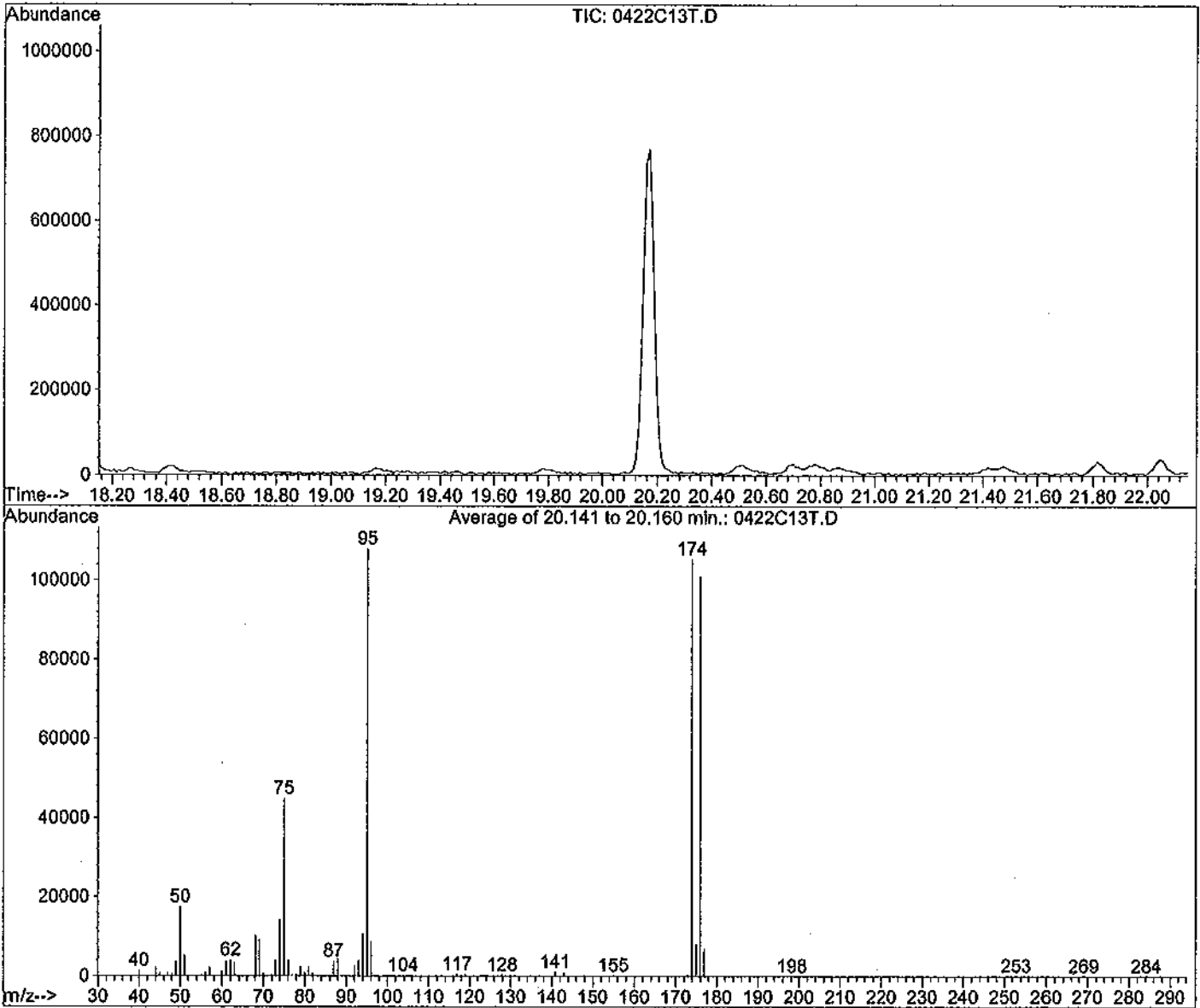
Spectrum Information: Average of 10.739 to 10.786 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.8	22683	PASS
75	95	30	60	41.6	59778	PASS
95	95	100	100	100.0	143544	PASS
96	95	5	9	7.0	10016	PASS
173	174	0.00	2	0.1	75	PASS
174	95	50	100	98.2	140932	PASS
175	174	5	9	7.4	10383	PASS
176	174	95	101	97.3	137193	PASS
177	176	5	9	7.0	9621	PASS

Data File : M:\CHICO\DATA\C110422\0422C13T.D  
 Acq On : 22 Apr 11 23:53  
 Sample : 20ug/ml BFB STD 04-15-11A  
 Misc : 2ul

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

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B



Spectrum Information: Average of 20.141 to 20.160 min.

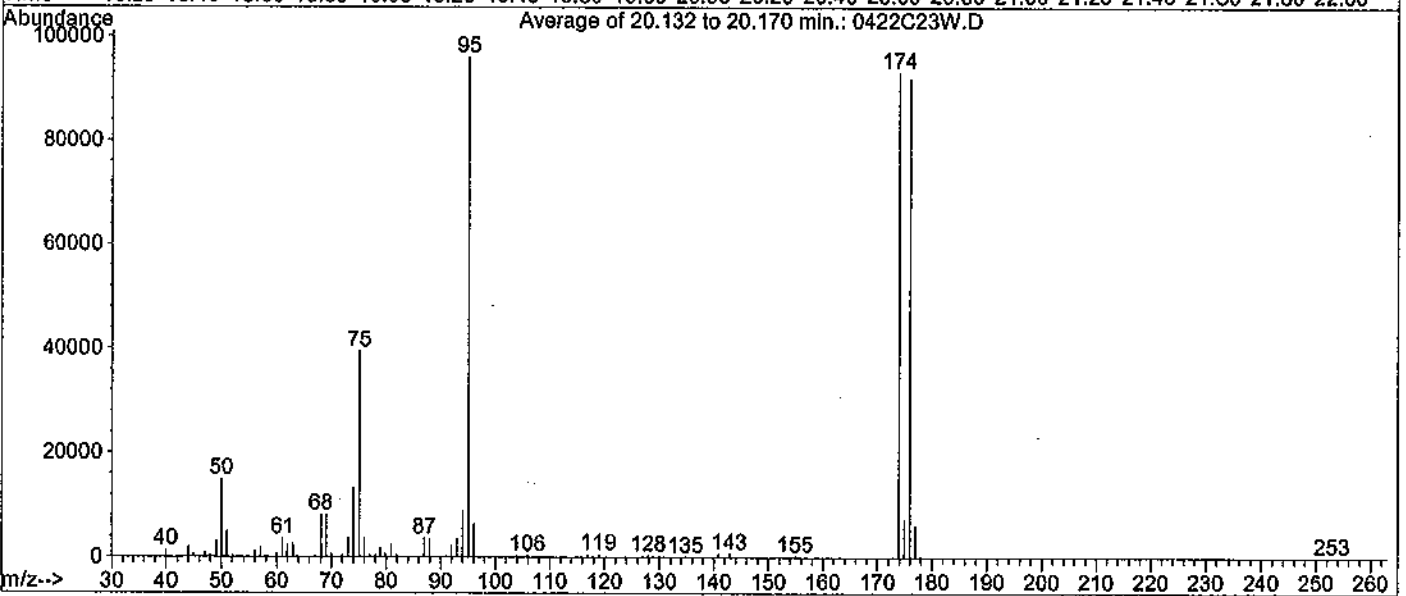
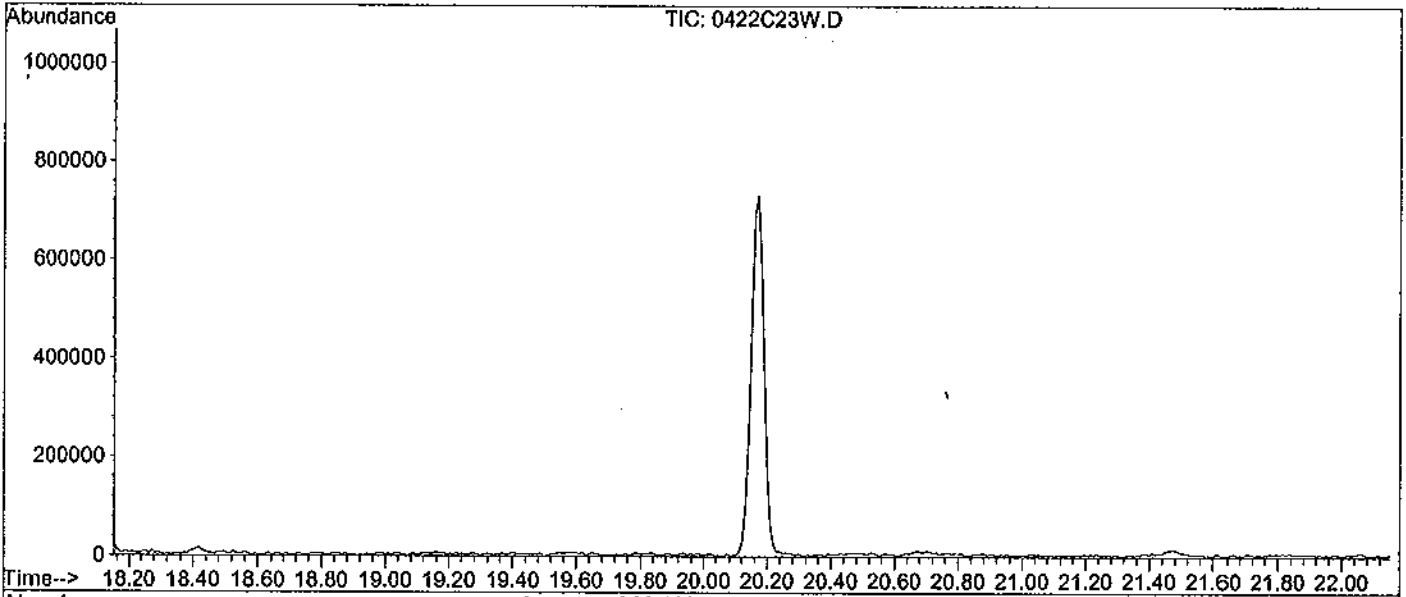
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.2	17487	PASS
75	95	30	60	41.6	44917	PASS
95	95	100	100	100.0	107933	PASS
96	95	5	9	8.0	8634	PASS
173	174	0.00	2	0.5	483	PASS
174	95	50	100	97.7	105496	PASS
175	174	5	9	7.8	8183	PASS
176	174	95	101	95.8	101021	PASS
177	176	5	9	6.9	6934	PASS

BFB

Data File : M:\CHICO\DATA\C110422\0422C23W.D  
Acq On : 23 Apr 11 6:18  
Sample : 20ug/ml BFB STD 04-15-11A  
Misc : 2uL

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

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B



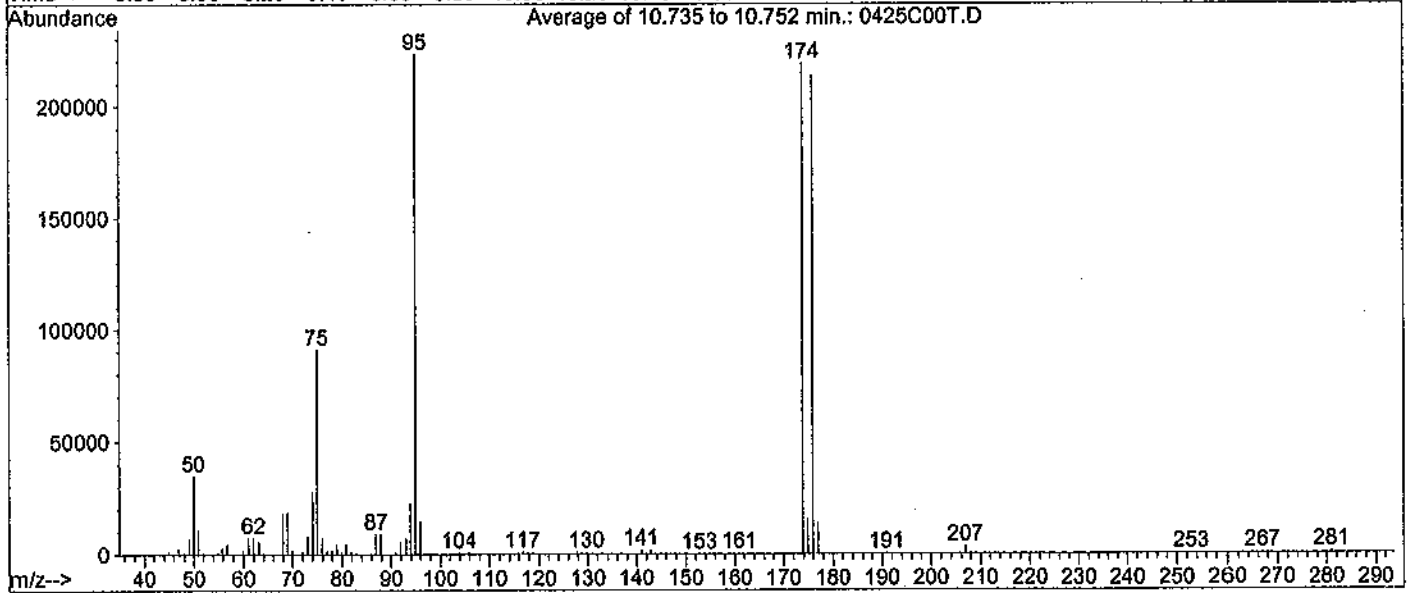
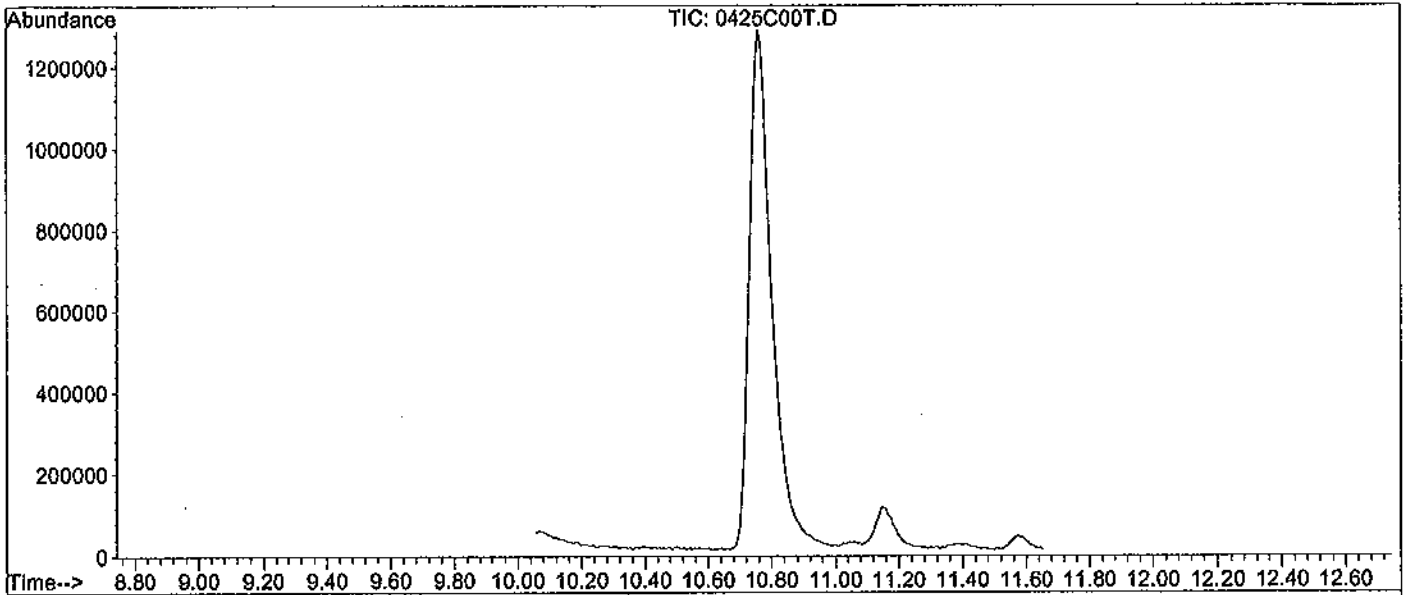
Spectrum Information: Average of 20.132 to 20.170 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.5	14905	PASS
75	95	30	60	41.1	39422	PASS
95	95	100	100	100.0	96000	PASS
96	95	5	9	6.6	6353	PASS
173	174	0.00	2	0.1	59	PASS
174	95	50	100	97.1	93200	PASS
175	174	5	9	7.9	7355	PASS
176	174	95	101	98.6	91888	PASS
177	176	5	9	6.7	6124	PASS

Data File : M:\CHICO\DATA\C110422\0425C00T.D  
 Acq On : 25 Apr 11 10:08  
 Sample : 20ug/ml BFB STD 04-15-11A  
 Misc : 2uL

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

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B



Spectrum Information: Average of 10.735 to 10.752 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6	34856	PASS
75	95	30	60	40.9	91310	PASS
95	95	100	100	100.0	223360	PASS
96	95	5	9	6.5	14585	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	98.1	219120	PASS
175	174	5	9	7.2	15813	PASS
176	174	95	101	97.6	213808	PASS
177	176	5	9	6.4	13786	PASS

034

4-29-11  
RS.

Volatile Standard Curve Preparation for 6mL Purge (8260 soil)-Max											
Expiration Date:		04/30/11									
Date	Conc.	500µg/mL Vol Std #9	500µg/mL Sur	600µg/mL Vol Std #7	600µg/mL Vol Std #8	600µg/mL Sur	800µg/mL Vol Std #10	800µg/mL Vol Std #11	800µg/mL Vol Std #12	800µg/mL Vol Std #13	800µg/mL Vol Std #14
Code	µg/L	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11
04-29-11T	2	2	2	n/a	n/a	n/a	2	n/a	n/a	n/a	n/a
04-29-11U	5	5	5	n/a	n/a	n/a	5	n/a	n/a	n/a	n/a
04-29-11V	10	10	10	n/a	n/a	n/a	10	n/a	n/a	n/a	n/a
04-29-11W	20	20	20	n/a	n/a	n/a	20	n/a	n/a	n/a	n/a
04-29-11X	50	n/a	n/a	5	5	5	n/a	5	n/a	n/a	n/a
04-29-11Y	100	n/a	n/a	10	10	10	n/a	10	n/a	n/a	n/a
04-29-11Z	200	n/a	n/a	20	20	20	n/a	20	n/a	n/a	n/a

230µg/mL TBA	Final Vol
04-29-11Y	w/P&T H2O
Exp:05-02-11	ml
1	5
2	5
3	5
4	5
5	5
6	5
7	5

4-30-11  
RS.

Volatile Standard Curve Preparation for 6mL Purge (8260 soil)-Chlor											
Expiration Date:		05/01/11									
Date	Conc.	500µg/mL Vol Std #9	500µg/mL Sur	600µg/mL Vol Std #7	600µg/mL Vol Std #8	600µg/mL Sur	800µg/mL Vol Std #10	800µg/mL Vol Std #11	800µg/mL Vol Std #12	800µg/mL Vol Std #13	800µg/mL Vol Std #14
Code	µg/L	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11
04-30-11A	2	2	2	n/a	n/a	n/a	2	n/a	n/a	n/a	n/a
04-30-11B	5	5	5	n/a	n/a	n/a	5	n/a	n/a	n/a	n/a
04-30-11C	10	10	10	n/a	n/a	n/a	10	n/a	n/a	n/a	n/a
04-30-11D	20	20	20	n/a	n/a	n/a	20	n/a	n/a	n/a	n/a
04-30-11E	50	n/a	n/a	5	5	5	n/a	5	n/a	n/a	n/a
04-30-11F	100	n/a	n/a	10	10	10	n/a	10	n/a	n/a	n/a
04-30-11G	200	n/a	n/a	20	20	20	n/a	20	n/a	n/a	n/a

230µg/mL TBA	Final Vol
04-30-11Y	w/P&T H2O
Exp:05-02-11	ml
1	5
2	5
3	5
4	5
5	5
6	5
7	5

5-02-11  
RS.

A-

Method 8260 Gases, 2000  
mg/L, 2 X 0.6 ml

170016-03  
Lot# Storage Expiry  
169238 5-10 Degrees C 2/19/14

Sub: PT Methanol

Method 8260 Gases  
Lot #: 169238 - 28291  
Rec: 2/17/11 MFR exp. 02/19/14

5-02-11  
RS.

B-

Hexachloroethane Solution, 1000 mg/L, 1 ml

02si  
Cat. No: 020049-02  
Lot No: 157911

Hexachloroethane  
Lot #: 157911 - 28708  
Rec: 6/8/10 MFR exp. 04/01/12

Exp: 4/1/2012  
Storage: <= -10 Degrees C  
Solvent: PT Methanol  
ption For Research Use Only  
Opened:

5-02-11  
RS.

C-

Benzyl Chloride Solution, 1000  
mg/L, 1 ml

020228-02  
Lot# Storage Expiry  
163373 5-10 Degree 8/29/12

Solvent: PT Methanol

Benzyl Chloride  
Lot #: 163373 - 27865  
Rec: 12/15/10 MFR exp. 08/29/12

5-02-11 D-  
RS

n-Hexane Solution, 1,000 mg/L, 1 ml  
020620-02  
Lot# Storage Expiry  
163378 5-10 Degrees 8/29/15  
Sol: P/T Methanol  
n-Hexane, 1000mg/L  
Lot #: 163378 - 27881  
Rec: 12/15/10 MFR exp. 08/29/16

5-02-11 E-  
RS

Heptane Solution, 1000 mg/L, 1 ml  
02si Cat. No: 020546-02 Exp: 8/2/2012  
Lot No: 149236 Storage: </- -10 Degrees C  
SNV Heptane Solution Solvent: P/T Methanol  
Phon Lot #: 149236 - 27650 For Research Use Only  
Fax: Rec: 10/20/10 MFR exp. 08/02/12

5-02-11 F-  
RS

Method 8260B Surrogate Solution, 2,000 mg/L, 1 ml  
120002-01  
Lot# Storage Expiry  
164585 5-10 Degrees C 10/2/13  
Sol: P/T Methanol  
Method 8260B Surrogate  
Lot #: 164585 - 27936  
Rec: 12/15/10 MFR exp. 10/12/13

5-02-11 G1-  
RS

VOC Mix 4-3, 2,000 mg/L, 1 ml  
120166-01  
Lot# Storage Expiry  
166125 5-10 Degrees C 12/2/12  
Sol: P/T Methanol  
VOC Mix 4-3, 2000mg/L  
Lot #: 166125 - 28320  
Rec: 2/17/11 MFR exp. 12/02/12

5-02-11 H-  
RS

Acrolein Solution, 10,000 mg/L, 2 x 0.6 ml  
120215-09-02  
Lot# Storage Expiry  
171923 5-6 Degrees C 5/15/11  
Sol: Water, EPIC Grade  
Acrolein solution  
Lot #: 171923 - 28626  
Rec: 4/19/11 MFR exp. 05/25/11

5-02-11 I-  
RS

Method 8260 Gases (Second Source), 2,000 mg/L, 2 X 0.6 ml  
02si Cat. No: 120016-03-SS Exp: 6/21/2013  
Lot No: 160736 Storage: </- -10 Degrees C  
Method 8260 Gases (SS) Solvent: P/T Methanol  
Lot #: 160736 - 27915 For Research Use Only  
Rec: 12/15/10 MFR exp. 06/23/11



036

5-02-11 J-  
RS.

Acrolein Solution (Second Source), 10,000 mg/L, 2 x 0.6 ml  
079229-09-02-58  
Lot # Storage Expiry  
171924 56 Degree C 5/19/11  
Soln: Water, HPLC Grade

Acrolein Solution SS  
Lot #: 171924 - 28628  
Rec: 4/19/11 MFR exp: 05/25/11

Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
05-02-11K 50ug/ml Vol Work Std #7 Exp: 05/09/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
Q2SI	120016-03	Gas Mix	2000	169218-28291	05-02-11A	06/02/11	100
Q2SI	020049-02	MEXACHLOROETHANE	1000	157911-26706	05-02-11B	05/14/11	200
Q2SI	020228-02	Benzyl Chloride	1000	163373-27865	05-02-11C	05/14/11	200
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11	3500
05-02-11L 50ug/ml Vol Work Std #1 Exp: 05/09/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
Q2SI	020145-02-02	2-CREVE	2000	146517-26190	04-16-11D	05/07/11	50
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11	1950
05-02-11M 50ug/ml Vol Work Std #8 Exp: 05/09/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
Q2SI	192039-02	Volatile Mix, 20-29	2000	148446-24740	04-16-11E	05/14/11	100
Q2SI	120023-03	VOC'S-54 COMP	2000	151405-25632	04-25-11C	10/14/11	100
Q2SI	020232-02	Vinyl Acetate	2000	169439-28359	04-16-11F	05/19/11	100
Q2SI	020620-02	n-Hexane	1000	163378-27881	05-02-11D	06/14/11	200
Q2SI	020546-02	Heptane	1000	149236-27850	05-02-11E	06/14/11	200
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11	3300
05-02-11N 50ug/ml Vol Work Std #2 Exp: 05/09/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
Q2SI	121020-05	HSL'S-Ketone Solution	2000	169173-28308	04-25-11B	05/07/11	100
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11	3500
05-02-11O Exp: 05/09/11							
50ug/ml Vol Work Std #9							
SOURCES	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #7		05-02-11K	05/02/11	200			
50ug/ml Vol Work Std #8		05-02-11M	05/02/11	200			
J&T Brand		05/02/11	10/14/11	1600			
05-02-11P Exp: 05/09/11							
50ug/ml Vol Work Std #10							
SOURCES	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #1		04-25-11Q	05/02/11	200			
J&T Brand		05/02/11	10/14/11	1800			
05-02-11Q Exp: 05/09/11							
50ug/ml Vol Work Std #12							
SOURCES	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #2		04-25-11B	05/02/11	200			
J&T Brand		05/02/11	10/14/11	1900			
05-02-11R 50ug/ml #260 Surrogate Exp: 05/09/11							
Supplier	ID #	ID	Conc. <th>Lot #</th> <th>Date</th> <th>Exp.</th> <th>ul</th>	Lot #	Date	Exp.	ul
Q2SI	120002-01	8260B Surrogate Solution	2000	164585-27936	05-02-11F	09/14/11	100
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11	3900
05-02-11S Exp: 05/09/11							
5.0ug/ml #260 Surrogate							
SOURCES	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml #260 Surrogate		05-02-11R	05/02/11	200			
J&T Brand		05/02/11	10/14/11	1800			

5-02-11  
RS.

RS

5-02-11  
RS.

05-02-11S							APPL	
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acroleins/2-P							Exp.	ul
Exp:05/09/11							Conc.	Date
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Exp.	ul
02SI	120166-01	Volatile Mix 4-3	2000	166725-28320	05-02-11G	05/17/11		500
02SI	020229-09	Acroleins	10000	171923-28626	05-02-11H	04/25/11		100
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11		3400

5-02-11  
RS

05-02-11U							APPL	
50ug/ml VOC std#5							Exp.	ul
Exp:05/09/11							Conc.	Date
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Exp.	ul
02SI	120016-03-88	8260 Gases(S5)	2000	160736-27915	05-02-11I	06/02/11		50
02SI	020145-02-02-E	2-CBVE	2000	152530-25456	04-16-11L	11/03/11		50
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11		1900

05-02-11V							APPL	
50ug/ml Voc std#5							Exp.	ul
Exp:05/09/11							Conc.	Date
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Exp.	ul
02SI	120023-03-88	VOC'S 54 COMP.	2000	148632-26236	04-16-11M	07/14/11		50
02SI	120236-01	Custom 8260 Solution	2000	154846-25954	04-16-11N	07/14/11		50
02SI	020232-02-88	Vinyl Acetate (S5)	2000	167177-28334	04-16-11R	05/15/11		50
02SI	020620-02-88	n-HEXANE	1000	150529-27171	04-16-11Q	09/02/11		100
02SI	020049-02-88	HEXACHLOROETHANE	1000	154535-25914	04-16-11P	12/29/11		100
02SI	020546-02-88	Heptane (S5)	1000	142276-23594	04-16-11Q	06/19/11		100
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11		1550

05-02-11W							APPL	
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acroleins/2-P							Exp.	ul
Exp:05/09/11							Conc.	Date
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Exp.	ul
02SI	120166-01-88	VOC Mix 4-3 (S5)	2000	152531-26241	04-03-11K	11/03/11		250
02SI	020229-09-88	Acroleins SOLUTION (S5)	10000	171924-28628	05-02-11J	05/25/11		50
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11		1700

05-02-11X							APPL	
50ug/ml Vol Work Std #7							Exp.	ul
Exp:05/09/11							Conc.	Date
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Exp.	ul
02SI	120016-03	Gas Mix	2000	169236-28291	05-02-11A	06/02/11		100
02SI	020049-02	HEXACHLOROETHANE	1000	157911-26706	05-02-11B	05/14/11		200
02SI	020229-02	Benzyl Chloride	1000	163373-27865	05-02-11C	05/14/11		200
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11		2500

5-02-11  
RS

05-02-11Y							APPL	
50ug/ml Vol Work Std #1							Exp.	ul
Exp:05/09/11							Conc.	Date
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Exp.	ul
02SI	020145-02-02	2-CBVE	2000	146517-26190	04-16-11D	05/07/11		50
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11		1950

05-02-11Z							APPL	
50ug/ml Vol Work Std #1							Exp.	ul
Exp:05/09/11							Conc.	Date
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Exp.	ul
02SI	122039-02	Volatile Mix, 20-29	2000	148446-24740	04-16-11E	05/14/11		100
02SI	120023-03	VOC'S-54 COMP	2000	151405-25632	04-25-11C	10/14/11		100
02SI	020232-02	Vinyl Acetate	2000	169439-28359	04-16-11F	05/19/11		100
02SI	020620-02	n-Hexane	1000	163378-27881	05-02-11D	06/14/11		200
02SI	020546-02	Heptane	1000	149236-27650	05-02-11E	06/14/11		200
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11		3300

05-02-11AA							APPL	
50ug/ml Vol Work Std #2							Exp.	ul
Exp:05/09/11							Conc.	Date
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Exp.	ul
02SI	121020-05	HGL'S-Ketone Solution	2000	169171-28108	04-25-11B	05/07/11		100
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11		3900

05-02-11AB							APPL	
50ug/ml Vol Work Std #3							Exp.	ul
Exp: 05/09/11							Conc.	Date
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Exp.	ul
02SI	121020-05	HGL'S-Ketone Solution	2000	169171-28108	04-25-11B	05/07/11		100
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11		3900

SOURCES							APPL	
50ug/ml Vol Work Std #7							Exp.	ul
50ug/ml Vol Work Std #8							Exp.	ul
J&T Brand							Exp.	ul
					05-02-11X	05/02/11		200
					05-02-11Z	05/02/11		200
					05/02/11	10/14/11		1600

038

5-02-11  
RS

05-02-11AC		Exp: 05/09/11					
50ug/ml Vol Work Std #10		Lot		APPL Code		APPL Exp Date	
SOURCE		APPL Code		APPL Exp Date		ul	
50ug/ml Vol Work Std #1		05-02-11Y		05/02/11		200	
J&T Brand		05/02/11		10/14/11		1800	
05-02-11AD		Exp: 05/09/11					
50ug/ml Vol Work Std #12		Lot		APPL Code		APPL Exp Date	
SOURCE		APPL Code		APPL Exp Date		ul	
50ug/ml Vol Work Std #2		05-02-11AA		05/02/11		200	
J&T Brand		05/02/11		10/14/11		1800	
05-02-11AE		Conc.		Date		Exp.	
50ug/ml 8260 Surrogate		ug/ml		Lot #		Code	
Exp: 05/09/11		2000		166585-27916		05-02-11P	
0251		120002-01		8260B Surr Solution		05/14/11	
J&T Brand		Purge & Trap MeOH		H45816-00512		05/02/11	
05-02-11AF		Exp: 05/09/11					
5.0ug/ml 8260 Surrogate		Lot		APPL Code		APPL Exp Date	
SOURCE		APPL Code		APPL Exp Date		ul	
5.0ug/ml 8260 Surrogate		05-02-11AB		05/02/11		200	
J&T Brand		Purge & Trap MeOH		H45816-00512		05/02/11	
05-02-11AG		Conc.		Date		APPL	
250ug/ml TBA/TBA/Acetonitrile/Cyclohexanone/Acroleln/2-P		ug/ml		Lot #		Code	
Exp: 05/09/11		2000		166725-26320		05-02-11Q	
Supplier		120156-01		Volatile Mix 4-3		05/17/11	
0251		020229-09		Acroleln		04/25/11	
J&T Brand		Purge & Trap MeOH		H45816-00512		05/02/11	
						1400	

5-02-11  
RS

05/02/11AH		Conc.		Date		APPL	
2000ug/ml gasoline		ug/ml		Lot #		Code	
Supplier		10 #		10-29-10A		09/02/11	
Supelco		L881228		Gasoline		200	
J&T Brand		Purge & Trap MeOH		H46244-00490		03/02/12	
						1800	
05/02/11AI		Conc.		Date		APPL	
2000ug/ml Unleaded Gasoline		ug/ml		Lot #		Code	
Supplier		30205		A050005-21116		10-29-10B	
Supelco		Unleaded Gasoline		50,000		11/30/12	
J&T Brand		Purge & Trap MeOH		H46244-00490		01/17/11	
						03/02/12	
						1920	

5-02-11  
RS

Volatily Standard Curve Preparation for 10mL Purge (260 water)-Chico												
Date	Expiration Date		05/09/11		05/09/11		05/09/11		05/09/11		05/09/11	
	Conc	5ug/ml Vol Std #9	5ug/ml Sur/	50ug/ml Vol Std #7	50ug/ml Vol Std #8	50ug/ml Sur/	50ug/ml Vol Std #10	50ug/ml Vol Std #11	50ug/ml Vol Std #12	50ug/ml Vol Std #13	50ug/ml Vol Std #14	
Code	ug/L	Exp 05-09-11	Exp 05-09-11	Exp 05-09-11	Exp 05-09-11	Exp 05-09-11	Exp 05-09-11	Exp 05-09-11	Exp 05-09-11	Exp 05-09-11	Exp 05-09-11	
05-02-11AJ	0.3	3	5	n/a	n/a	n/a	3	n/a	n/a	n/a	3	
05-02-11AK	0.6	5	10	n/a	n/a	n/a	5	n/a	n/a	n/a	5	
05-02-11AL	1	10	20	n/a	n/a	n/a	10	n/a	n/a	n/a	10	
05-02-11AM	2	20	40	n/a	n/a	n/a	20	n/a	n/a	n/a	20	
05-02-11AN	5	n/a	n/a	5	5	5	5	n/a	n/a	n/a	5	
05-02-11AO	10	n/a	n/a	10	10	10	10	n/a	n/a	n/a	10	
05-02-11AP	20	n/a	n/a	20	20	20	20	n/a	n/a	n/a	20	
05-02-11AQ	40	n/a	n/a	40	40	40	40	n/a	n/a	n/a	40	
05-02-11AR	100	n/a	n/a	100	100	100	100	n/a	n/a	n/a	100	

250ug/ml TAPD	Final Vol
05-02-11S	w/PL H2O
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

042

5-06-11  
RS

Volatile Standard Curve Preparation for 10mL Purge (8260 w/c) Sweetless											
Expiration Date: 05/07/11											
Date	Conc.	50µg/mL Vol Std #9	50µg/mL Sur	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Sur	50µg/mL Vol Std #10	50µg/mL Vol Std #11	50µg/mL Vol Std #2	50µg/mL Vol Std #12	
Code	µg/L	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	
05-06-11L	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3	
05-06-11H	0.6	5	10	n/a	n/a	n/a	5	n/a	n/a	5	
05-06-11D	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10	
05-06-11Q	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20	
05-06-11P	5	n/a	n/a	5	10	20	n/a	5	10	20	
05-06-11G	10	n/a	n/a	10	20	40	n/a	10	20	40	
05-06-11R	20	n/a	n/a	20	40	80	n/a	20	40	80	
05-06-11S	40	n/a	n/a	40	80	160	n/a	40	80	160	
05-06-11T	100	n/a	n/a	100	100	n/a	100	n/a	n/a	n/a	

250µg/mL TAPD	Final Vol
05-02-11AG	w/PAT R2D
Exp:05-09-11	ml
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

5-07-11  
5-06-11  
RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-Max											
Expiration Date: 05/08/11											
Date	Conc.	50µg/mL Vol Std #9	50µg/mL Sur	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Sur	50µg/mL Vol Std #10	50µg/mL Vol Std #11	50µg/mL Vol Std #2	50µg/mL Vol Std #12	
Code	µg/L	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	
05-07-11A	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3	
05-07-11B	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5	
05-07-11C	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10	
05-07-11D	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20	
05-07-11E	5	n/a	n/a	5	10	20	n/a	5	10	20	
05-07-11F	10	n/a	n/a	10	20	40	n/a	10	20	40	
05-07-11G	20	n/a	n/a	20	40	80	n/a	20	40	80	
05-07-11H	40	n/a	n/a	40	80	160	n/a	40	80	160	
05-07-11I	100	n/a	n/a	100	100	n/a	100	n/a	n/a	n/a	

250µg/mL TAPD	Final Vol
05-02-11AG	w/PAT R2D
Exp:05-09-11	ml
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

5-07-11  
RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-Thor											
Expiration Date: 05/08/11											
Date	Conc.	50µg/mL Vol Std #9	50µg/mL Sur	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Sur	50µg/mL Vol Std #10	50µg/mL Vol Std #11	50µg/mL Vol Std #2	50µg/mL Vol Std #12	
Code	µg/L	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	
05-07-11J	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3	
05-07-11K	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5	
05-07-11L	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10	
05-07-11M	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20	
05-07-11N	5	n/a	n/a	5	10	20	n/a	5	10	20	
05-07-11O	10	n/a	n/a	10	20	40	n/a	10	20	40	
05-07-11P	20	n/a	n/a	20	40	80	n/a	20	40	80	
05-07-11Q	40	n/a	n/a	40	80	160	n/a	40	80	160	
05-07-11R	100	n/a	n/a	100	100	n/a	100	n/a	n/a	n/a	

250µg/mL TAPD	Final Vol
05-02-11AG	w/PAT R2D
Exp:05-09-11	ml
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

5-09-11 A.  
RS.

Method 8260 Gases, 2000  
µg/L, 2 X 0.6 ml  
170016-03  
Lot# Storage Expiry  
169238 5-10 Degrees C 2/9/14  
Sol: P/T Methanolic

Method 8260 Gases  
Lot #: 169238 - 28292  
Rec: 2/17/11 MFR exp. 02/19/14

5-09-11 B-  
RS

2-Chloroethyl Vinyl Ether Solution, 2,000 mg/L, 2 X 0.6 ml  
**o2si** Cat. No: 020145-02-02 Exp: 5/27/2012  
 Lot No: 160092 Storage: <=-10 Degrees C  
 2-Chloroethyl vinyl ether Solvent: P/T Methanol  
 Lot #: 160092 - 26629 Option: For Research Use Only  
 Rec: 6/4/10 MFR exp. 05/27/12 Opened:

RS

5-09-11 C.  
RS

Method 8260B Surrogate  
 Solution, 2,000 mg/L, 1 ul  
 Lot# 120002-01  
 Storage 164385 < 70 Degrees C Expiry 10/24/13  
 Solv: P/T Methanol  
 Method 8260B Surrogate  
 Lot #: 164585 - 27924  
 Rec: 12/15/10 MFR exp. 10/12/13

RS

5-09-11 D.  
RS

VOC Mix 4-3, 2,000 mg/L, 1  
 ul  
 Lot# 120166-01  
 Storage 166175 < 6 Degrees C Expiry 12/2/12  
 Solv: P/T Methanol  
 VOC Mix 4-3, 2,000mg/L  
 Lot #: 166725 - 28314  
 Rec: 2/17/11 MFR exp. 12/02/12

RS

5-09-11 E.  
RS

Method 8260 Gases (Second Source), 2,000 mg/L, 2 X 0.6 ml  
**o2si** Cat. No: 120016-03-SS Exp: 6/21/2013  
 Lot No: 160736 Storage: <=-10 Degrees C  
 Method 8260 Gases (SS) Solvent: P/T Methanol  
 Lot #: 160736 - 27904 Option: For Research Use Only  
 Rec: 12/15/10 MFR exp. 06/23/11 Opened:

RS

5-09-11  
RS

05-09-11P		30ug/ml Vol Work Std #7							
Exp: 05/16/11				Conc.	Lot #	Date	Exp.		
Supplier	ID #	ID	ug/ml		Code	Date	ul		
Q2SI	120016-03	Gas Mix	2000	169238-26292	05-09-11A	06/02/11	100		
Q2SI	020049-02	HEXACHLOROBIPHENE	1000	151931-26706	05-02-11B	05/14/11	200		
Q2SI	020228-02	Benzyl Chloride	1000	163373-27865	05-02-11C	05/14/11	200		
J&T Brand		Purge & Trap MeOH		H45B36-00514	05/09/11	10/14/11	3500		
05-09-11G		30ug/ml Vol Work Std #1							
Exp: 05/16/11				Conc.	Lot #	Date	Exp.		
Supplier	ID #	ID	ug/ml		Code	Date	ul		
Q2SI	020145-02-02	2-CEVR	2000	146517-26192	05-09-11B	05/07/11	50		
J&T Brand		Purge & Trap MeOH		H45B36-00514	05/09/11	10/14/11	3500		

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044

05-09-11H							
50ug/ml Vol Work Std #3							
Exp: 05/16/11							
Supplier	ID #	ID	Conc. ug/ml	Lot #	Date Code	Exp. Date	ul
Q2SI	122039-02	Volatile Mix, 20-29	2000	148446-24740	04-16-11E	05/14/11	100
Q2SI	120023-03	VOC'S-54 COMP	2000	151805-25632	04-25-11C	10/14/11	100
Q2SI	020212-02	Vinyl Acetate	2000	169429-28159	04-16-11F	05/19/11	100
Q2SI	020620-02	n-Hexane	1000	163278-27881	05-02-11D	06/14/11	200
Q2SI	020546-02	Heptane	1000	149236-27650	05-02-11E	06/14/11	200
J&T Brand		Purge & Trap MeOH		H45E36-00514	05/09/11	10/14/11	3300
05-09-11I							
30ug/ml Vol Work Std #2							
Exp: 05/16/11							
Supplier	ID #	ID	Conc. ug/ml	Lot #	Date Code	Exp. Date	ul
Q2SI	121020-05	HSL'S-Ketone Solution	2000	169173-28308	04-25-11B	05/07/11	100
J&T Brand		Purge & Trap MeOH		H45E36-00514	05/09/11	10/14/11	3900
05-09-11J							
Exp: 05/16/11							
50ug/ml Vol Work Std #9							
SOURCE	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #7		05-09-11F	05/02/11	200			
50ug/ml Vol Work Std #8		05-09-11H	05/02/11	200			
J&T Brand		05/02/11	10/14/11	1600			
05-09-11K							
Exp: 05/16/11							
50ug/ml Vol Work Std #10							
SOURCE	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #1		05-09-11G	05/02/11	200			
J&T Brand		05/02/11	10/14/11	1800			
05-09-11L							
Exp: 05/16/11							
50ug/ml Vol Work Std #12							
SOURCE	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #2		05-09-11I	05/02/11	200			
J&T Brand		H45E36-00514	05/09/11	1800			
05-09-11M							
50ug/ml #260 Surrogate							
Exp: 05/16/11							
Supplier	ID #	ID	Conc. ug/ml	Lot #	Date Code	Exp. Date	ul
Q2SI	120002-01	#260B Surr Solution	2000	164585-27924	05-09-11C	09/14/11	100
J&T Brand		Purge & Trap MeOH		H45E36-00514	05/09/11	10/14/11	3900
05-09-11N							
Exp: 05/16/11							
5.0ug/ml #260 Surrogate							
SOURCE	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml #260 Surrogate		05-09-11N	05/02/11	200			
J&T Brand		H45E36-00514	05/09/11	1800			
05-09-11O							
150ug/ml TPA/TBA/Acetonitrile/Cyclohexanone/Acroleln/2-P							
Exp: 05/16/11							
Supplier	ID #	ID	Conc. ug/ml	Lot #	Date Code	Exp. Date	ul
Q2SI	120166-01	Volatile Mix 4-3	2000	166725-28314	05-09-11O	05/17/11	500
Q2SI	020229-09	Acrolein	10000	171923-28626	05-02-11H	04/25/11	100
J&T Brand		Purge & Trap MeOH		H45E36-00514	05/09/11	10/14/11	3400

5-09-11  
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05-09-11P							
50ug/ml VOC Std#3							
Exp:05/16/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
Q281	120016-01-SS	8260 Gases(S9)	2000	160736-27904	05-09-11E	06/02/11	50
Q281	020145-02-02-S	2-CRVB	2000	152530-28456	04-16-11L	11/03/11	50
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	1900
05-09-11Q							
50ug/ml VOC Std#5							
Exp:05/16/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
Q281	120023-03-SS	VOC'S 54 COMP.	2000	148632-26236	04-16-11M	07/14/11	50
Q281	120796-01	Custom 8260 Solution	2000	154846-25954	04-16-11N	07/14/11	50
Q281	020232-02-SS	Vinyl Acetate(SS)	2000	167177-28334	04-16-11R	05/15/11	50
Q281	020120-02-SS	n-HEXANE	1000	150529-27171	04-16-11O	09/02/11	100
Q281	020049-02-SS	HEXACHLOROETHANE	1000	154535-25914	04-16-11P	12/29/11	100
Q281	020546-02-SS	Heptane(SS)	1000	142275-23594	04-16-11Q	06/19/11	100
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	1550
05-09-11R							
250ug/ml THA/IRA/Acetodinitrile/Cyclohexanone/Acrolein/2-P							
Exp:05/16/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
Q281	120166-01-SS	VOC MIX 4-2 (SS)	2000	152531-26241	04-03-11X	11/03/11	250
Q281	020229-03-SS	Acrolein SOLUTION (SS)	10000	171924-28628	05-02-11J	05/25/11	50
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	1700

05-09-11S							
50ug/ml Vol Work Std #7							
Exp:05/16/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
Q281	120016-03	Gas MIX	2000	169236-28292	05-09-11A	06/02/11	100
Q281	020049-02	HEXACHLOROETHANE	1000	157911-26706	05-02-11B	05/14/11	200
Q281	020228-02	Benzyl Chloride	1000	163373-27865	05-02-11C	05/14/11	200
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	2500
05-09-11T							
50ug/ml Vol Work Std #1							
Exp:05/16/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
Q281	020145-02-02	2-CRVB	2000	146517-26192	05-09-11B	05/07/11	50
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	1950
05-09-11U							
50ug/ml Vol Work Std #8							
Exp:05/16/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
Q281	122039-02	Volatile MIX, 20-29	2000	148446-24740	04-16-11E	05/14/11	100
Q281	120023-03	VOC'S-54 COMP	2000	151805-25632	04-25-11C	10/14/11	100
Q281	020232-02	Vinyl Acetate	2000	169439-28359	04-16-11F	05/19/11	100
Q281	020620-02	n-Hexane	1000	163378-27881	05-02-11D	06/14/11	200
Q281	020546-02	Heptane	1000	149216-27650	05-02-11E	05/14/11	200
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	3300
05-09-11V							
50ug/ml Vol Work Std #2							
Exp:05/16/11							
Supplier	ID #	ID	ug/ml	Lot #	Date	Exp.	ul
Q281	121020-05	HSC'S-Ketone Solution	2000	169173-28308	04-25-11B	05/07/11	100
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	3900
05-09-11W							
5ug/ml Vol Work Std #9							
Exp: 05/16/11							
SOURCE	Lot	APPL Code	APPL Exp Date	ul			
		05-09-11S	05/02/11	200			
		05-09-11U	05/02/11	200			
J&T Brand		05/02/11	10/14/11	1600			
05-09-11X							
5ug/ml Vol Work Std #10							
Exp: 05/16/11							
SOURCE	Lot	APPL Code	APPL Exp Date	ul			
		05-09-11T	05/02/11	200			
J&T Brand		05/02/11	10/14/11	1800			

5-09-11  
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5-09-11  
RS

05-09-11V		Exp: 05/16/11					
50ug/ml Vol Work Std #12		Lot		APPL Code		APPL Exp Date	
200KCS				05-09-11V		05/02/11	
50ug/ml Vol Work Std #2		Lot		05-09-11V		05/09/11	
J&T Brand		H45836-00514				1800	
05-09-11E		Conc.		Date		Exp.	
50ug/ml #260 Surrogate		ug/ml		Lot #		Code	
Exp: 05/16/11		2000		164585-27924		05-09-11C	
02SI 120002-01		2260B Surf Solution		164585-27924		05-09-11C	
J&T Brand		Purge & Trap MeOH		H45836-00514		05/09/11	
						10/14/11	
						1900	
05-09-11AA		Exp: 05/16/11					
5.0ug/ml #260 Surrogate		Lot		APPL Code		APPL Exp Date	
J&T Brand		50ug/ml #260 Surrogate		05-09-11E		05/02/11	
		Purge & Trap MeOH		H45836-00514		05/09/11	
						1800	
05-09-11AB						APPL	
250ug/ml #NA/IBA/Acetone/Trile/Cyclohexanone/Acroleins/2-P		Conc.		Date		Exp.	
Exp: 05/16/11		ug/ml		Lot #		Code	
Supplier ID #		2000		166725-28214		05-09-11D	
02SI 120116-01		Volatile Mix 4-3		166725-28214		05/17/11	
02SI 020229-09		Acrolein		171923-28626		05-02-11H	
J&T Brand		Purge & Trap MeOH		H45836-00514		05/09/11	
						10/14/11	
						3400	

5-09-11  
RS

RS  
AC

02SI

Method 8260 Internal Standard Solution, 2,000 mg/L, 1 ml

Cat. No: 120302-03

Lot No: 153416

Method 8260 Internal Standard

Lot #: 153416 - 27632

Rec: 10/12/10 MFR exp. 11/24/11

Exp: 11/24/2011

Storage: <-10 Degrees C

Solvent: P/T Methanol

For Research Use Only

in

recd:

RS

5-09-11  
RS

RS  
AD

Fluorobenzene Solution, 2,000 mg/L, 1 ml

020132-02

Lot # 162971 Storage 56 Degrees C Expiry 8/12/13

Solvent P/T Methanol

Lot #: 162971 - 27950

Rec: 12/15/10 MFR exp. 08/12/13

RS

5-09-11  
RS

Hewey							
05-09-11AE		Conc.		Date		Exp.	
250ug/ml #260 Internal Standard - Hewey		ug/ml		Lot #		Code	
Supplier ID #		2000		153416-27532		05-09-11AC	
02SI 120302-03		Internal Standard Mix		153416-27532		07/16/11	
02SI 020132-02		Fluorobenzene Standard		162971-27950		05-09-11AD	
J&T Baker		Purge & Trap MeOH		H46844-00509		04/25/11	
						12/14/11	
						3000	
05-09-11AF		Conc.		Date		Exp.	
250ug/ml #260 Surrogate - Hewey		ug/ml		Lot #		Code	
Supplier ID #		2000		164585-27924		05-09-11C	
02SI 120002-01		Surrogate Standard		164585-27924		05-09-11C	
B&W Brand		Purge & Trap MeOH		H46844-00509		04/25/11	
						12/14/11	
						3500	



**Volatile Standard Curve Preparation for 5mL Purge (8260 sol)-Neo**

Expiration Date:		05/12/11		05/12/11		05/12/11		05/12/11		05/12/11		05/12/11	
Date	Conc	50µg/mL Vol Std #9	50µg/mL Surrogate	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surrogate	50µg/mL Vol Std #10	50µg/mL Vol Std #11	50µg/mL Vol Std #12	50µg/mL Vol Std #13	50µg/mL Vol Std #14	50µg/mL Vol Std #15	50µg/mL Vol Std #16
05-11-11	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a	2	n/a	2
05-11-11B	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a	5	n/a	5
05-11-11B	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a	10	n/a	10
05-11-11C	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a	20	n/a	20
05-11-11D	50	n/a	n/a	5	5	5	n/a	5	n/a	5	n/a	5	5
05-11-11E	100	n/a	n/a	10	10	10	n/a	10	n/a	10	n/a	10	10
05-11-11F	200	n/a	n/a	20	20	20	n/a	20	n/a	20	n/a	20	20

250µg/mL TOA	Final Vol
05-09-11A	w/PAT H2O
Exp: 05-16-11	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

**Volatile Standard Curve Preparation for 10mL Purge (8260 wste)-Chico**

Expiration Date:		05/12/11		05/12/11		05/12/11		05/12/11		05/12/11		05/12/11	
Date	Conc	50µg/mL Vol Std #9	50µg/mL Surrogate	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surrogate	50µg/mL Vol Std #10	50µg/mL Vol Std #11	50µg/mL Vol Std #12	50µg/mL Vol Std #13	50µg/mL Vol Std #14	50µg/mL Vol Std #15	50µg/mL Vol Std #16
05-11-11G	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	n/a	3	n/a	3
05-11-11H	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	n/a	5	n/a	5
05-11-11I	1	10	20	n/a	n/a	n/a	10	n/a	n/a	n/a	10	n/a	10
05-11-11J	2	20	40	n/a	n/a	n/a	20	n/a	n/a	n/a	20	n/a	20
05-11-11K	5	n/a	n/a	5	5	5	n/a	5	n/a	5	n/a	5	5
05-11-11L	10	n/a	n/a	10	10	10	n/a	10	n/a	10	n/a	10	10
05-11-11M	20	n/a	n/a	20	20	20	n/a	20	n/a	20	n/a	20	20
05-11-11N	40	n/a	n/a	40	40	40	n/a	40	n/a	40	n/a	40	40
05-11-11O	100	n/a	n/a	100	100	100	n/a	100	n/a	100	n/a	100	100

250µg/mL TAPD	Final Vol
05-09-11D	w/PAT H2O
Exp: 05-16-11	mL
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

5-11-11  
RS

5-11-11  
RS

5-12-11  
RS

A-



Method 8260 Internal Standard Solution, 2,000 mg/L, 1 ml  
 Cat. No: 120302-03  
 Lot No: 153416  
 Method 8260 Internal Standard  
 Lot #: 153416 - 27534  
 Rec: 10/12/10 MFR exp. 11/24/11  
 Exp: 11/24/2011  
 Storage: <math>\le -10</math> Degrees C  
 Solvent: P/T Methanol  
 For Research Use Only  
 Opened: \_\_\_\_\_

RS

500  
500  
500  
2500

5-12-11  
RS

B-

Fluorobenzene Solution, 2,000 mg/L, 1 ml

020132-02  
 Lot #: 162971  
 Storage: <math>\le 6</math> Degrees C  
 Solvent: P/T Methanol  
 Exp: 8/12/13

Fluorobenzene  
 Lot #: 162971 - 27952  
 Rec: 12/15/10 MFR exp. 08/12/13

RS

50µg/mL Vol Std #12  
 05-09-11Y  
 05-18-11  
 n/a  
 n/a  
 n/a  
 n/a  
 10  
 20  
 Final Vol  
 w/PAT H2O  
 5  
 5  
 5  
 5  
 5  
 5  
 5  
 5

5-12-11  
RS

C-

Method 8260B Surrogate Solution, 2,000 mg/L, 1 ml

120002-01  
 Lot #: 164585  
 Storage: <math>\le 10</math> Degrees C  
 Solvent: P/T Methanol  
 Exp: 10/12/13

Method 8260B Surrogate  
 Lot #: 164585 - 27930  
 Rec: 12/15/10 MFR exp. 10/12/13

RS

## Injection Log

Directory: M:\CHICO\DATA\C110422\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0422C00T.D 1		20ug/ml BFB STD 04-15-11A	2uL	22 Apr 11 15:43
2	1	0422C05W.I 1		Vol Std 04-22-11@0.5ug/L	Water 10ml w/IS: 04-12-11	22 Apr 11 18:36
3	1	0422C06W.I 1		Vol Std 04-22-11@1.0ug/L	Water 10ml w/IS: 04-12-11	22 Apr 11 19:11
4	1	0422C07W.I 1		Vol Std 04-22-11@2.0ug/L	Water 10ml w/IS: 04-12-11	22 Apr 11 19:46
5	1	0422C08W.I 1		Vol Std 04-22-11@5.0ug/L	Water 10ml w/IS: 04-12-11	22 Apr 11 20:21
6	1	0422C09W.I 1		Vol Std 04-22-11@10ug/L	Water 10ml w/IS: 04-12-11	22 Apr 11 20:57
7	1	0422C10W.I 1		Vol Std 04-22-11@20ug/L	Water 10ml w/IS: 04-12-11	22 Apr 11 21:32
8	1	0422C11W.I 1		Vol Std 04-22-11@40ug/L	Water 10ml w/IS: 04-12-11	22 Apr 11 22:07
9	1	0422C12W.I 1		Vol Std 04-22-11@100ug/L	Water 10ml w/IS: 04-12-11	22 Apr 11 22:42
10	1	0422C13T.D 1		20ug/ml BFB STD 04-15-11A	2uL	22 Apr 11 23:53
11	1	0422C14W.I 1		Vol Std 4-22-11@20ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 1:03
12	1	0422C15W.I 1		Vol Std 4-22-11@50ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 1:38
13	1	0422C16W.I 1		Vol Std 4-22-11@100ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 2:13
14	1	0422C17W.I 1		Vol Std 4-22-11@300ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 2:48
15	1	0422C18W.I 1		Vol Std 4-22-11@600ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 3:23
16	1	0422C19W.I 1		Vol Std 4-22-11@800ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 3:58
17	1	0422C20W.I 1		Vol Std 4-22-11@1000ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 4:33
18	1	0422C22W.I 1		GAS 300 ug/L STD(SS)	Water 10ml w/IS&S: 04-12-1	23 Apr 11 5:42
19	1	0422C23W.I 1		20ug/ml BFB STD 04-15-11A	2uL	23 Apr 11 6:18
20	1	0422C24W.I 1		GAS 300 ug/L STD	Water 10ml w/IS&S: 04-12-1	23 Apr 11 6:53
21	1	0422C25W.I 1		110422A LCS-1WC (SS)	Water 10ml w/IS&S: 04-12-1	23 Apr 11 7:28
22	1	0422C30W.I 1		110422A BLK-1WC	Water 10ml w/IS&S: 04-12-1	23 Apr 11 10:58
23	1	0422C31W.I 1		AY36318W01	Water 10ml w/IS&S: 04-12-1	23 Apr 11 11:33
24	1	0422C32W.I 1		AY36319W01	Water 10ml w/IS&S: 04-12-1	23 Apr 11 12:09
25	1	0422C33W.I 1		AY36311W01	Water 10ml w/IS&S: 04-12-1	23 Apr 11 12:44
26	1	0422C34W.I 1		AY36314W01	Water 10ml w/IS&S: 04-12-1	23 Apr 11 13:19
27	1	0422C35W.I 1		AY36315W01	Water 10ml w/IS&S: 04-12-1	23 Apr 11 13:54
28	1	0422C36W.I 1		AY36312W01	Water 10ml w/IS&S: 04-12-1	23 Apr 11 14:29
29	1	0422C37W.I 1		AY36313W01	Water 10ml w/IS&S: 04-12-1	23 Apr 11 15:04
30	1	0422C38W.I 1		AY36316W01	Water 10ml w/IS&S: 04-12-1	23 Apr 11 15:39
31	1	0422C39W.I 1		AY36317W01	Water 10ml w/IS&S: 04-12-1	23 Apr 11 16:14
32	1	0425C00T.D 1		20ug/ml BFB STD 04-15-11A	2uL	25 Apr 11 10:08
33	1	0425C01W.I 1		GAS 300 ug/L STD	Water 10ml w/IS&S: 04-12-1	25 Apr 11 10:41
34	1	0425C02W.I 1		110425A LCS-1WC	Water 10ml w/IS&S: 04-12-1	25 Apr 11 11:17
35	1	0425C07W.I 1		AY36312W234 MS-1WC	Water 10ml w/IS&S: 04-12-1	25 Apr 11 14:48
36	1	0425C08W.I 1		AY36312W234 MSD-1WC	Water 10ml w/IS&S: 04-12-1	25 Apr 11 15:23
37	1	0425C09W.I 1		AY36312W567MS-1WC	Water 10ml w/IS&S: 04-12-1	25 Apr 11 15:58
38	1	0425C10W.I 1		AY36312W567MSD-1WC	Water 10ml w/IS&S: 04-12-1	25 Apr 11 16:34

**METALS**

**APPL, INC.**

**METALS**  
**QC Summary**

**APPL, INC.**

# METALS BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.22 U	0.5	0.22	0.11	ug/L	04/27/11	04/28/11	#602D-110427A-AY36312

Metals SC-Blank-REG MDLs  
Printed: 05/06/11 3:25:07 PM

**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)	250	234	93.6	80-120	04/27/11	04/28/11	#602D-110427A-AY36312

350

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

# Matrix Spike Recoveries

## METALS

APPL ID: 110427W-36312 MS - 154608

APPL Inc.

Sample ID: AY36312

908 North Temperance Avenue

Client ID: ES020

Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	Matrix Res ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
6020	LEAD (PB) (DISSOLVE	250	ND	226	230	90.4	92.0	1.8	20	80-120	04/27/11	04/28/11	04/27/11	04/28/11	154608	AY36312

351

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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

Sample ID: ES019

Sample Collection Date: 04/19/11

ARF: 64475

APPL ID: AY36311

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22 U	0.5	0.22	0.11	ug/L	1	04/27/11	04/28/11

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\053SMPL.D\053SMPL.D#  
 Date Acquired: Apr 28 2011 05:23 pm  
 Operator: SDM  
 Sample Name: AY36311W08  
 Misc Info: 110427A-3015  
 Vial Number: 3208  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 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	-0.15 ug/l	-0.17	1.58	1000	
11 B	48.43 ug/l	53.81	0.99	1000	
23 Na	40420.00 ug/l	44906.62	2.28	25000	>Cal
24 Mg	16690.00 ug/l	18542.59	1.83	50000	
27 Al	40.92 ug/l	45.46	5.00	20000	
39 K	2463.00 ug/l	2736.39	1.32	20000	
44 Ca	18470.00 ug/l	20520.17	1.05	50000	
47 Ti	1.32 ug/l	1.47	20.23	1000	
51 V	14.22 ug/l	15.80	3.04	1000	
52 Cr	2.36 ug/l	2.62	2.35	1000	
55 Mn	6.55 ug/l	7.28	1.37	1000	
56 Fe	35.66 ug/l	39.62	1.14	20000	
59 Co	0.14 ug/l	0.16	10.97	1000	
60 Ni	0.49 ug/l	0.54	2.34	1000	
63 Cu	0.37 ug/l	0.41	3.08	1000	
65 Cu	0.39 ug/l	0.44	16.51	1000	
66 Zn	13.72 ug/l	15.24	0.95	1000	
75 As	0.13 ug/l	0.14	11.44	1000	
78 Se	0.22 ug/l	0.24	15.27	1000	
78 Se	0.16 ug/l	0.18	118.13	1000	
88 Sr	140.40 ug/l	155.98	0.81	1000	
88 Sr	140.10 ug/l	155.65	0.49	1000	
95 Mo	0.73 ug/l	0.82	5.14	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.00 ug/l	0.01	52.29	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	-0.01 ug/l	-0.01	112.02	1000	
118 Sn	0.36 ug/l	0.40	17.54	1000	
121 Sb	0.14 ug/l	0.15	12.36	1000	
137 Ba	7.30 ug/l	8.11	2.62	1000	
205 Tl	0.04 ug/l	0.05	1.56	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	-0.07 ug/l	-0.08	4.90	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1647016.90	1.41	1867730.90	88.2	70 - 120	
45 Sc	955668.06	0.69	860905.50	111.0	70 - 120	
45 Sc	33038.71	1.72	30466.40	108.4	70 - 120	
45 Sc	1656162.10	0.55	1514635.40	109.3	70 - 120	
72 Ge	196008.80	0.44	175233.81	111.9	70 - 120	
72 Ge	15159.56	0.85	13286.95	114.1	70 - 120	
72 Ge	275525.28	0.62	261657.25	105.3	70 - 120	
115 In	1497262.50	1.77	1427636.50	104.9	70 - 120	
159 Tb	1870811.80	0.78	1715789.30	109.0	70 - 120	
165 Ho	1818752.80	0.67	1678833.30	108.3	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

## Metals Analysis

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

Attn: Vilma Dupra  
Project: LTM Red Hill Bulk Fuel Storage Facility  
**Sample ID: ES020**  
Sample Collection Date: 04/19/11

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64475  
**APPL ID: AY36312**

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22 U	0.5	0.22	0.11	ug/L	1	04/27/11	04/28/11

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\058SMPL.D\058SMPL.D#  
 Date Acquired: Apr 28 2011 05:53 pm  
 Operator: SDM  
 Sample Name: AY36312W29  
 Misc Info: 110427A-3015  
 Vial Number: 3209  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 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	-0.15 ug/l	-0.16	1.34	1000	
11 B	106.40 ug/l	118.21	3.25	1000	
23 Na	74320.00 ug/l	82569.52	1.76	25000	>Cal
24 Mg	26170.00 ug/l	29074.87	1.13	50000	
27 Al	48.20 ug/l	53.55	4.61	20000	
39 K	2941.00 ug/l	3267.45	0.90	20000	
44 Ca	15790.00 ug/l	17542.69	1.59	50000	
47 Ti	2.11 ug/l	2.35	10.00	1000	
51 V	1.97 ug/l	2.19	4.12	1000	
52 Cr	0.73 ug/l	0.81	5.22	1000	
55 Mn	1705.00 ug/l	1894.26	0.47	1000	>Cal
56 Fe	593.10 ug/l	658.93	0.60	20000	
59 Co	0.87 ug/l	0.96	3.76	1000	
60 Ni	2.65 ug/l	2.94	1.30	1000	
63 Cu	0.78 ug/l	0.86	3.80	1000	
65 Cu	0.77 ug/l	0.86	0.45	1000	
66 Zn	52.61 ug/l	58.45	1.13	1000	
75 As	0.91 ug/l	1.01	5.69	1000	
78 Se	0.09 ug/l	0.10	39.71	1000	
78 Se	0.29 ug/l	0.32	45.86	1000	
88 Sr	130.00 ug/l	144.43	0.90	1000	
88 Sr	135.40 ug/l	150.43	4.23	1000	
95 Mo	0.99 ug/l	1.10	4.79	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.00 ug/l	0.00	2665.50	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.00 ug/l	0.00	4997.10	1000	
118 Sn	1.50 ug/l	1.66	4.46	1000	
121 Sb	0.79 ug/l	0.88	4.29	1000	
137 Ba	32.83 ug/l	36.47	4.15	1000	
205 Tl	0.03 ug/l	0.04	8.28	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	-0.03 ug/l	-0.03	52.16	1000	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1643609.60	3.63	1867730.90	88.0	70 - 120	
45 Sc	961883.63	1.42	860905.50	111.7	70 - 120	
45 Sc	32136.70	1.54	30466.40	105.5	70 - 120	
45 Sc	1679348.90	3.42	1514635.40	110.9	70 - 120	
72 Ge	188596.33	0.82	175233.81	107.6	70 - 120	
72 Ge	14396.18	0.39	13286.95	108.3	70 - 120	
72 Ge	258285.50	3.60	261657.25	98.7	70 - 120	
115 In	1407236.00	3.76	1427636.50	98.6	70 - 120	
159 Tb	1743324.40	3.70	1715789.30	101.6	70 - 120	
165 Ho	1709445.10	3.76	1678833.30	101.8	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Fail  
 ISTD: Pass

## Metals Analysis

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Vilma Dupra  
Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64475

**Sample ID: ES021**

**APPL ID: AY36313**

Sample Collection Date: 04/19/11

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22 U	0.5	0.22	0.11	ug/L	1	04/27/11	04/28/11

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\063SMPL.D\063SMPL.D#  
 Date Acquired: Apr 28 2011 06:23 pm  
 Operator: SDM  
 Sample Name: AY36313W08  
 Misc Info: 110427A-3015  
 Vial Number: 3302  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 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	-0.15 ug/l	-0.16	3.06	1000	
11 B	107.40 ug/l	119.32	1.15	1000	
23 Na	78150.00 ug/l	86824.65	0.68	25000	>Cal
24 Mg	27090.00 ug/l	30096.99	0.89	50000	
27 Al	18.67 ug/l	20.74	6.36	20000	
39 K	2936.00 ug/l	3261.90	0.38	20000	
44 Ca	15440.00 ug/l	17153.84	0.54	50000	
47 Ti	1.22 ug/l	1.35	11.78	1000	
51 V	2.01 ug/l	2.23	1.26	1000	
52 Cr	0.28 ug/l	0.31	5.32	1000	
55 Mn	1641.00 ug/l	1823.15	1.59	1000	>Cal
56 Fe	543.30 ug/l	603.61	1.19	20000	
59 Co	0.14 ug/l	0.15	7.68	1000	
60 Ni	2.11 ug/l	2.35	3.75	1000	
63 Cu	0.37 ug/l	0.41	2.22	1000	
65 Cu	0.41 ug/l	0.46	11.19	1000	
66 Zn	12.79 ug/l	14.21	2.22	1000	
75 As	0.99 ug/l	1.09	7.16	1000	
78 Se	0.12 ug/l	0.14	16.51	1000	
78 Se	0.35 ug/l	0.39	20.22	1000	
88 Sr	129.10 ug/l	143.43	1.27	1000	
88 Sr	135.10 ug/l	150.10	0.51	1000	
95 Mo	0.86 ug/l	0.96	3.16	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.17 ug/l	0.19	4.27	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.00 ug/l	0.00	3629.70	1000	
118 Sn	1.09 ug/l	1.21	2.12	1000	
121 Sb	0.73 ug/l	0.81	3.21	1000	
137 Ba	31.92 ug/l	35.46	1.42	1000	
205 Tl	0.02 ug/l	0.02	29.83	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	-0.17 ug/l	-0.18	5.04	1000	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1850669.40	1.04	1867730.90	99.1	70 - 120	
45 Sc	917649.50	1.41	860905.50	106.6	70 - 120	
45 Sc	30961.22	2.50	30466.40	101.6	70 - 120	
45 Sc	1739716.80	2.36	1514635.40	114.9	70 - 120	
72 Ge	179805.98	1.03	175233.81	102.6	70 - 120	
72 Ge	14038.42	1.42	13286.95	105.7	70 - 120	
72 Ge	266008.59	0.52	261657.25	101.7	70 - 120	
115 In	1479733.50	0.28	1427636.50	103.6	70 - 120	
159 Tb	1851050.40	2.39	1715789.30	107.9	70 - 120	
165 Ho	1814030.80	3.20	1678833.30	108.1	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Fail  
 ISTD: Pass

## Metals Analysis

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

Attn: Vilma Dupra  
Project: LTM Red Hill Bulk Fuel Storage Facility  
Sample ID: ES024  
Sample Collection Date: 04/20/11

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64475  
APPL ID: AY36316

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22 U	0.5	0.22	0.11	ug/L	1	04/27/11	04/28/11

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\0648MPL.D\0648MPL.D#  
 Date Acquired: Apr 28 2011 06:29 pm  
 Operator: SDM  
 Sample Name: AY36316W08  
 Misc Info: 110427A-3015  
 Vial Number: 3303  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 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	-0.15 ug/l	-0.17	3.05	1000	
11 B	158.60 ug/l	176.20	0.67	1000	
23 Na	42480.00 ug/l	47195.28	0.94	25000	>Cal
24 Mg	12220.00 ug/l	13576.42	0.95	50000	
27 Al	21.78 ug/l	24.20	6.07	20000	
39 K	2052.00 ug/l	2279.77	0.14	20000	
44 Ca	10170.00 ug/l	11298.87	0.15	50000	
47 Ti	1.19 ug/l	1.32	76.81	1000	
51 V	19.56 ug/l	21.73	1.43	1000	
52 Cr	3.23 ug/l	3.59	2.96	1000	
55 Mn	65.31 ug/l	72.56	1.26	1000	
56 Fe	34.61 ug/l	38.45	1.02	20000	
59 Co	-0.06 ug/l	-0.07	12.52	1000	
60 Ni	1.20 ug/l	1.33	3.17	1000	
63 Cu	0.65 ug/l	0.73	0.50	1000	
65 Cu	0.61 ug/l	0.68	4.80	1000	
66 Zn	28.07 ug/l	31.19	1.89	1000	
75 As	0.35 ug/l	0.39	6.90	1000	
78 Se	0.13 ug/l	0.15	24.63	1000	
78 Se	0.29 ug/l	0.33	114.54	1000	
88 Sr	80.44 ug/l	89.37	0.68	1000	
88 Sr	83.90 ug/l	93.21	0.96	1000	
95 Mo	1.83 ug/l	2.03	2.52	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.14 ug/l	0.15	10.62	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.02 ug/l	0.03	18.82	1000	
118 Sn	1.10 ug/l	1.22	2.21	1000	
121 Sb	0.31 ug/l	0.34	10.31	1000	
137 Ba	4.15 ug/l	4.62	1.13	1000	
205 Tl	0.02 ug/l	0.02	5.38	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	-0.09 ug/l	-0.10	4.70	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1899742.30	1.02	1867730.90	101.7	70 - 120	
45 Sc	909853.81	0.78	860905.50	105.7	70 - 120	
45 Sc	31272.65	2.36	30466.40	102.6	70 - 120	
45 Sc	1681153.00	0.94	1514635.40	111.0	70 - 120	
72 Ge	188702.03	0.99	175233.81	107.7	70 - 120	
72 Ge	14261.97	2.17	13286.95	107.3	70 - 120	
72 Ge	269682.06	1.11	261657.25	103.1	70 - 120	
115 In	1498213.50	1.48	1427636.50	104.9	70 - 120	
159 Tb	1844944.00	0.71	1715789.30	107.5	70 - 120	
165 Ho	1803222.80	1.44	1678833.30	107.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass



## Metals Analysis

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

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

Sample ID: ES025

Sample Collection Date: 04/20/11

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64475

APPL ID: AY36317

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22 U	0.5	0.22	0.11	ug/L	1	04/27/11	04/28/11

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\065SMPL.D\065SMPL.D#  
 Date Acquired: Apr 28 2011 06:35 pm  
 Operator: SDM  
 Sample Name: AY36317W08  
 Misc Info: 110427A-3015  
 Vial Number: 3304  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 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	-0.15 ug/l	-0.17	1.56	1000	
11 B	144.10 ug/l	160.10	0.24	1000	
23 Na	81250.00 ug/l	90268.75	0.47	25000	>Cal
24 Mg	27640.00 ug/l	30708.04	0.76	50000	
27 Al	19.32 ug/l	21.46	5.35	20000	
39 K	3334.00 ug/l	3704.07	0.20	20000	
44 Ca	23330.00 ug/l	25919.63	0.55	50000	
47 Ti	0.75 ug/l	0.84	15.19	1000	
51 V	16.36 ug/l	18.18	0.33	1000	
52 Cr	0.81 ug/l	0.90	1.21	1000	
55 Mn	101.50 ug/l	112.77	1.38	1000	
56 Fe	71.28 ug/l	79.19	0.56	20000	
59 Co	0.62 ug/l	0.69	1.72	1000	
60 Ni	3.12 ug/l	3.47	2.45	1000	
63 Cu	0.92 ug/l	1.03	1.42	1000	
65 Cu	0.90 ug/l	1.00	4.02	1000	
66 Zn	19.16 ug/l	21.29	1.58	1000	
75 As	0.62 ug/l	0.69	10.47	1000	
78 Se	0.09 ug/l	0.11	22.77	1000	
78 Se	0.15 ug/l	0.17	123.54	1000	
88 Sr	145.70 ug/l	161.87	0.97	1000	
88 Sr	151.10 ug/l	167.87	0.98	1000	
95 Mo	11.61 ug/l	12.90	0.78	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.13 ug/l	0.14	10.69	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.01 ug/l	0.01	202.16	1000	
118 Sn	0.60 ug/l	0.67	2.88	1000	
121 Sb	0.23 ug/l	0.25	7.19	1000	
137 Ba	11.88 ug/l	13.20	0.70	1000	
205 Tl	0.03 ug/l	0.03	8.56	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	-0.13 ug/l	-0.14	7.09	1000	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1795745.50	0.85	1867730.90	96.1	70 - 120	
45 Sc	927792.56	0.92	860905.50	107.8	70 - 120	
45 Sc	30931.15	2.43	30466.40	101.5	70 - 120	
45 Sc	1705291.80	1.19	1514635.40	112.6	70 - 120	
72 Ge	184702.69	0.34	175233.81	105.4	70 - 120	
72 Ge	14091.81	1.15	13286.95	106.1	70 - 120	
72 Ge	264708.25	0.59	261657.25	101.2	70 - 120	
115 In	1461717.00	1.46	1427636.50	102.4	70 - 120	
159 Tb	1833260.90	1.69	1715789.30	106.8	70 - 120	
165 Ho	1805754.80	2.14	1678833.30	107.6	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Fail  
 ISTD: Pass

**METALS  
Calibration Data**

**APPL, INC.**

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC.Contract: Environet, Inc.ARF No: 64475SDG: 64475Initial Calibration Source: CPIContinuing Calibration Source: Environmental ExpressAnalysis Date: 04/28/11Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:02	%R(1)	True CCV1	Found 13:27	%R(1)	True CCV1	Found 14:33	%R(1)	
Lead (Pb)	100	99.03	99.0	50	50.47	101	50	49.15	98.3	P

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.ARF No: 64475 SDG: 64475Initial Calibration Source: CPIContinuing Calibration Source: Environmental ExpressAnalysis Date: 04/28/11 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:02	%R(1)	True CCV1	Found 16:10	%R(1)	True CCV1	Found 17:35	%R(1)	
Lead (Pb)	100	99.03	99.0	50	49.06	98.1	50	49.2	98.4	P

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 64475 SDG: 64475

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 04/28/11 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:02	%R(1)	True CCV1	Found 18:59	%R(1)	True	Found	%R(1)	
Lead (Pb)	100	99.03	99.0	50	48.28	96.6				P

A.P.P.L. INC.

3

BLANKS

Lab Name: A.P.P.L. INC.

Contract: Environet, Inc.

ARF No.: 64475

SDG: 64475

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 04/28/11

Analyte	Initial Calibration Blank (ug/L) C 13:51	Continuing Calibration Blank (ug/L)						Preparation Blank C 15:09	M
		1 13:57	C	2 14:57	C	3 16:22	C		
Lead (Pb)	.20 U	.20 U		.20 U		.20 U		.20 U	P

## BLANKS

Lab Name: A.P.P.L. INC.Contract: Environet, Inc.ARF No.: 64475SDG: 64475Preparation Blank Matrix (soil/water): waterPreparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 04/28/11

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M	
		C	1	C	2	C	3	C		C		
	13:51		17:47		19:12					15:09		
Lead (Pb)	.20	U	.20	U	.20	U				.20	U	P



## ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC.Contract: Environet, Inc.ARF No.: 64475SDG: 64475ICP ID Number: OptimusICS Source: Environmental Express

Analysis Date: 04/28/11

Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 14:15	Sol AB 14:21	%R(1)
Lead (Pb)		500	3.11	462.6	92.5

(1) Control Limits: Metals 80-120

A.P.P.L. INC.  
5B  
POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMPLE NO.

ES020

Lab Name: A.P.P.L. INC.  
ARF No.: 64475

Contract: Environet, Inc.  
SDG: 64475

Analysis Date: 04/28/11

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Lead (Pb)	75-125	117.105	-0.0331557	138.887	84.3		

Comments:

04/28/11 17:53 AY36312W29

04/28/11 18:11 AY36312W29-A

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\061SMPL.D\061SMPL.D#  
 Date Acquired: Apr 28 2011 06:11 pm  
 Operator: SDM  
 Sample Name: AY36312W29-A  
 Misc Info: 110427A-3015  
 Vial Number: 3212  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 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	18.37 ug/l	20.41	0.68	1000	
11 B	195.10 ug/l	216.76	0.79	1000	
23 Na	86160.00 ug/l	95723.76	3.39	25000	>Cal
24 Mg	37330.00 ug/l	41473.63	2.74	50000	
27 Al	992.10 ug/l	1102.22	1.63	20000	
39 K	4884.00 ug/l	5426.12	2.12	20000	
44 Ca	26970.00 ug/l	29963.67	1.72	50000	
47 Ti	28.01 ug/l	31.12	1.30	1000	
51 V	119.60 ug/l	132.88	1.82	1000	
52 Cr	119.90 ug/l	133.21	2.65	1000	
55 Mn	1847.00 ug/l	2052.02	2.84	1000	>Cal
56 Fe	1039.00 ug/l	1154.33	3.08	20000	
59 Co	110.40 ug/l	122.65	2.98	1000	
60 Ni	107.80 ug/l	119.77	3.05	1000	
63 Cu	103.10 ug/l	114.54	2.94	1000	
65 Cu	102.70 ug/l	114.10	2.37	1000	
66 Zn	245.00 ug/l	272.20	1.10	1000	
75 As	103.60 ug/l	115.10	1.69	1000	
78 Se	96.03 ug/l	106.69	0.48	1000	
78 Se	91.86 ug/l	102.06	0.89	1000	
88 Sr	240.00 ug/l	266.64	1.63	1000	
88 Sr	244.10 ug/l	271.20	1.57	1000	
95 Mo	32.17 ug/l	35.74	3.48	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	32.16 ug/l	35.73	29.99	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	21.18 ug/l	23.53	1.15	1000	
118 Sn	30.61 ug/l	34.01	3.58	1000	
121 Sb	31.19 ug/l	34.65	1.72	1000	
137 Ba	143.80 ug/l	159.76	0.42	1000	
205 Tl	94.20 ug/l	104.66	4.22	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	105.50 ug/l	117.21	0.53	1000	

## ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1798035.80	0.49	1867730.90	96.3	70 - 120		
45 Sc	951336.19	1.14	860905.50	110.5	70 - 120		
45 Sc	30594.90	4.05	30466.40	100.4	70 - 120		
45 Sc	1734166.50	0.95	1514635.40	114.5	70 - 120		
72 Ge	185029.92	0.39	175233.81	105.6	70 - 120		
72 Ge	13934.24	3.27	13286.95	104.9	70 - 120		
72 Ge	263186.25	0.69	261657.25	100.6	70 - 120		
115 In	1463504.50	0.93	1427636.50	102.5	70 - 120		
159 Tb	1819799.80	1.02	1715789.30	106.1	70 - 120		
165 Ho	1798418.40	0.53	1678933.30	107.1	70 - 120		

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Fail  
 ISTD: Pass

A.P.P.L. INC.  
 9  
 ICP SERIAL DILUTION

CLIENT SAMPLE NO.

ES020

Lab Name: A.P.P.L. INC.  
 ARF No.: 64475  
 Matrix: water

Contract: Environet, Inc.  
 SDG: 64475

Analysis Date: 04/28/11

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	Serial Dilution Result (S)	%D	Q	M
	C	C			
Lead (Pb)	-0.0331557	-1.10472	NA		

Comments:

04/28/11 17:53 AY36312W29

04/28/11 18:17 AY36312W29-1/5

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\062SMPL.D\062SMPL.D#  
 Date Acquired: Apr 28 2011 06:17 pm  
 Operator: SDM  
 Sample Name: AY36312W29-1/5  
 Misc Info: 110427A-3015  
 Vial Number: 3301  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: Sample  
 Prep Dil Factor: 5.56  
 Total Dil Factor: 5.56

## QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	-0.15 ug/l	-0.82	3.04	1000	
11 B	28.12 ug/l	156.23	0.32	1000	
23 Na	16230.00 ug/l	90173.88	1.65	25000	
24 Mg	5717.00 ug/l	31763.65	0.96	50000	
27 Al	9.10 ug/l	50.55	1.53	20000	
39 K	610.50 ug/l	3391.94	2.07	20000	
44 Ca	3164.00 ug/l	17579.18	1.97	50000	
47 Ti	0.60 ug/l	3.32	13.38	1000	
51 V	1.10 ug/l	6.10	5.27	1000	
52 Cr	0.17 ug/l	0.94	19.57	1000	
55 Mn	367.00 ug/l	2039.05	0.80	1000	
56 Fe	122.30 ug/l	679.50	1.79	20000	
59 Co	0.01 ug/l	0.05	116.82	1000	
60 Ni	0.62 ug/l	3.45	2.92	1000	
63 Cu	0.18 ug/l	0.98	12.64	1000	
65 Cu	0.14 ug/l	0.79	21.73	1000	
66 Zn	11.50 ug/l	63.89	1.67	1000	
75 As	0.45 ug/l	2.50	9.46	1000	
78 Se	0.19 ug/l	1.08	19.30	1000	
78 Se	0.18 ug/l	1.02	67.93	1000	
88 Sr	25.27 ug/l	140.40	2.56	1000	
88 Sr	26.80 ug/l	148.90	0.47	1000	
95 Mo	0.43 ug/l	2.39	9.71	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	1.08 ug/l	6.01	2.09	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.00 ug/l	0.00	1212.50	1000	
118 Sn	0.68 ug/l	3.77	5.08	1000	
121 Sb	1.40 ug/l	7.78	1.96	1000	
137 Ba	6.27 ug/l	34.81	0.89	1000	
205 Tl	0.01 ug/l	0.05	35.37	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	-0.20 ug/l	-1.10	2.73	1000	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2090908.10	1.07	1867730.90	111.9	70 - 120	
45 Sc	912356.75	1.60	860905.50	106.0	70 - 120	
45 Sc	30756.01	2.43	30466.40	101.0	70 - 120	
45 Sc	1587102.10	1.32	1514635.40	104.8	70 - 120	
72 Ge	203307.08	1.90	175233.81	116.0	70 - 120	
72 Ge	14261.24	2.32	13286.95	107.3	70 - 120	
72 Ge	283806.28	0.96	261657.25	108.5	70 - 120	
115 In	1503117.00	1.35	1427636.50	105.3	70 - 120	
159 Tb	1854914.90	1.58	1715789.30	108.1	70 - 120	
165 Ho	1819322.60	1.53	1678833.30	108.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass

## Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\005CAL  
 Date Acquired: Apr 28 2011 12:32 pm  
 Operator: SDM  
 Sample Name: Calibration Blank  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 12:29 pm  
 Sample Type: CalBlk  
 Total Dil Factor: 1.00

## QC&amp;ISTD Elements

Element	CPS Mean	SD	RSD(%)
6 Li	1867731.00 A	18890.00	1.01
7 (Li)	119957.10 P	415.50	0.35
9 Be	1017.85 P	34.21	3.36
11 B	2301.37 P	90.10	3.92
23 Na	26191.44 P	21.62	0.08
24 Mg	617.81 P	61.95	10.03
27 Al	107.78 P	22.20	20.60
39 K	13512.20 P	352.00	2.61
44 Ca	106.22 P	8.88	8.36
45 Sc	860905.50 M	46790.00	5.44
45 Sc	30466.40 P	238.80	0.78
45 Sc	1514635.00 A	11030.00	0.73
47 Ti	1.33 P	2.31	173.17
51 V	148.45 P	20.06	13.51
52 Cr	78.22 P	3.36	4.29
55 Mn	46.67 P	6.11	13.09
56 Fe	5777.77 P	98.06	1.70
59 Co	511.57 P	10.78	2.11
60 Ni	39.11 P	6.84	17.49
63 Cu	250.67 P	10.41	4.15
65 Cu	128.89 P	2.04	1.58
66 Zn	220.00 P	16.17	7.35
72 Ge	175233.80 P	1594.00	0.91
72 Ge	13286.95 P	144.30	1.09
72 Ge	261657.20 P	1089.00	0.42
75 As	7.44 P	1.95	26.23
78 Se	19.22 P	2.04	10.60
78 Se	2.56 P	1.02	39.84
88 Sr	30.00 P	5.77	19.25
88 Sr	754.49 P	38.93	5.16
95 Mo	373.35 P	56.96	15.26
106 (Cd)	10.00 P	8.82	88.19
107 Ag	486.69 P	34.80	7.15
108 (Cd)	13.33 P	5.77	43.30
111 Cd	31.70 P	19.70	62.14
115 In	1427636.00 A	5708.00	0.40
118 Sn	1671.27 P	67.53	4.04
121 Sb	653.37 P	29.06	4.45
137 Ba	124.45 P	5.09	4.09
159 Tb	1715789.00 A	14820.00	0.86
165 Ho	1678833.00 A	4567.00	0.27
205 Tl	206.68 P	41.77	20.21
206 (Pb)	1101.20 P	27.76	2.52
207 (Pb)	993.41 P	26.04	2.62
208 Pb	4327.10 P	66.93	1.55

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\006CALB.D\006CALB.D#  
 Date Acquired: Apr 28 2011 12:38 pm  
 Operator: SDM  
 Sample Name: 110425 Standard 1  
 Misc Info:  
 Vial Number: 1103  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 12:36 pm  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

QCISTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	1853922.00 A	3169.00	0.17	0.0000
7 (Li)	119171.60 P	624.90	0.52	0.0000
9 Be	708.93 P	50.15	7.07	0.0000
11 B	2380.27 P	166.80	7.01	0.0000
23 Na	22273.91 P	370.90	1.67	0.0000
24 Mg	1217.87 P	63.37	5.20	0.0000
27 Al	162.23 P	8.39	5.17	0.0000
39 K	13592.23 P	519.60	3.82	0.0000
44 Ca	120.38 P	29.89	24.83	0.0000
45 Sc	873299.31 P	4597.00	0.53	0.0000
45 Sc	30437.79 P	342.80	1.13	0.0000
45 Sc	1501345.00 A	8294.00	0.55	0.0000
47 Ti	4.00 P	2.31	57.72	0.0000
51 V	278.67 P	17.44	6.26	0.0000
52 Cr	197.34 P	10.91	5.53	0.0000
55 Mn	94.22 P	14.87	15.78	0.0000
56 Fe	7328.15 P	115.60	1.56	0.0000
59 Co	401.79 P	26.07	6.49	0.0000
60 Ni	114.22 P	6.01	5.26	0.0000
63 Cu	412.46 P	37.53	9.10	0.0000
65 Cu	197.78 P	10.69	5.40	0.0000
66 Zn	269.78 P	31.28	11.59	0.0000
72 Ge	175455.30 P	94.44	0.05	0.0000
72 Ge	13261.75 P	141.80	1.07	0.0000
72 Ge	260743.80 P	270.80	0.10	0.0000
75 As	19.44 P	1.84	9.44	0.0000
78 Se	40.56 P	2.59	6.38	0.0000
78 Se	3.44 P	1.35	39.11	0.0000
88 Sr	48.89 P	8.39	17.16	0.0000
88 Sr	1935.76 P	26.95	1.39	0.0000
95 Mo	598.92 P	70.27	11.73	0.0000
106 (Cd)	26.67 P	6.67	25.00	0.0000
107 Ag	920.06 P	38.45	4.18	0.0000
108 (Cd)	25.56 P	5.09	19.92	0.0000
111 Cd	197.13 P	33.14	16.81	0.0000
115 In	1407898.00 A	4045.00	0.29	0.0000
118 Sn	1920.20 P	49.33	2.57	0.0000
121 Sb	1247.88 P	76.77	6.15	0.0000
137 Ba	335.57 P	53.16	15.84	0.0000
159 Tb	1700246.00 A	19040.00	1.12	0.0000
165 Ho	1661506.00 A	8821.00	0.53	0.0000
205 Tl	1310.12 P	43.34	3.31	0.0000
206 (Pb)	871.17 P	82.22	9.44	0.0000
207 (Pb)	735.60 P	25.02	3.40	0.0000
208 Pb	3412.52 P	25.02	0.73	0.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1853922.30	0.17	1867730.90	99.3	70 -	120
45 Sc	873299.31	0.53	860905.50	101.4	70 -	120
45 Sc	30437.79	1.13	30466.40	99.9	70 -	120
45 Sc	1501345.30	0.55	1514635.40	99.1	70 -	120
72 Ge	175455.34	0.05	175233.81	100.1	70 -	120
72 Ge	13261.75	1.07	13286.95	99.8	70 -	120
72 Ge	260743.83	0.10	261657.25	99.7	70 -	120
115 In	1407897.60	0.29	1427636.50	98.6	70 -	120
159 Tb	1700246.10	1.12	1715789.30	99.1	70 -	120
165 Ho	1661506.00	0.53	1678833.30	99.0	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass  
 ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\007CALC.D\007CALC.D#  
 Date Acquired: Apr 28 2011 12:44 pm  
 Operator: SDN  
 Sample Name: 110425 Standard 2  
 Misc Info:  
 Vial Number: 1104  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 12:42 pm  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	1850543.00 A	11830.00	0.64	0.0000
7 (Li)	119159.60 P	409.70	0.34	-1.0000
9 Be	6542.75 P	172.40	2.64	-1.0000
11 B	5776.86 P	186.00	3.22	1.0000
23 Na	28833.03 P	446.30	1.55	-1.0000
24 Mg	9501.13 P	259.50	2.73	1.0000
27 Al	1352.33 P	102.90	7.61	1.0000
39 K	15431.91 P	289.00	1.87	1.0000
44 Ca	327.74 P	23.50	7.17	1.0000
45 Sc	846486.00 M	36340.00	4.29	0.0000
45 Sc	30351.02 P	598.30	1.97	0.0000
45 Sc	1513549.00 A	13410.00	0.89	0.0000
47 Ti	37.78 P	7.70	20.38	1.0000
51 V	1204.51 P	50.77	4.22	1.0000
52 Cr	1404.53 P	10.78	0.77	1.0000
55 Mn	614.24 P	44.31	7.21	1.0000
56 Fe	25468.58 P	290.90	1.14	1.0000
59 Co	2331.77 P	9.83	0.42	-1.0000
60 Ni	686.69 P	28.00	4.08	1.0000
63 Cu	1913.93 P	10.78	0.56	1.0000
65 Cu	948.04 P	37.05	3.91	1.0000
66 Zn	401.79 P	17.91	4.46	1.0000
72 Ge	175156.00 P	341.20	0.19	0.0000
72 Ge	13224.68 P	233.90	1.77	0.0000
72 Ge	262379.19 P	905.60	0.35	0.0000
75 As	111.33 P	8.72	7.83	1.0000
78 Se	221.22 P	16.28	7.36	1.0000
78 Se	7.33 P	1.20	16.39	1.0000
88 Sr	447.80 P	41.41	9.25	1.0000
88 Sr	16695.82 P	373.10	2.23	1.0000
95 Mo	2935.96 P	60.51	2.06	1.0000
106 (Cd)	190.01 P	20.28	10.67	1.0000
107 Ag	4313.01 P	71.68	1.66	1.0000
108 (Cd)	136.67 P	20.28	14.84	1.0000
111 Cd	1524.33 P	54.59	3.58	1.0000
115 In	1412091.00 A	5562.00	0.39	0.0000
118 Sn	5860.31 P	159.50	2.72	1.0000
121 Sb	5831.44 P	172.50	2.96	1.0000
137 Ba	2222.49 P	110.80	4.99	1.0000
159 Tb	1728548.00 A	22220.00	1.29	0.0000
165 Ho	1685698.00 A	20620.00	1.22	0.0000
205 Tl	11493.17 P	37.93	0.33	1.0000
206 (Pb)	4384.22 P	193.40	4.41	-1.0000
207 (Pb)	3770.67 P	84.15	2.23	-1.0000
208 Pb	17270.56 P	222.50	1.29	-1.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1850543.50	0.64	1867730.90	99.1	70 -	120
45 Sc	846486.00	4.29	860905.50	98.3	70 -	120
45 Sc	30351.02	1.97	30466.40	99.6	70 -	120
45 Sc	1513549.10	0.89	1514635.40	99.9	70 -	120
72 Ge	175156.00	0.19	175233.81	100.0	70 -	120
72 Ge	13224.68	1.77	13286.95	99.5	70 -	120
72 Ge	262379.25	0.35	261657.25	100.3	70 -	120
115 In	1412091.50	0.39	1427636.50	98.9	70 -	120
159 Tb	1728548.10	1.29	1715789.30	100.7	70 -	120
165 Ho	1685698.40	1.22	1678833.30	100.4	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass  
 ISTD: Pass



Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\008CAL.S.D\008CAL.S.D#  
 Date Acquired: Apr 28 2011 12:50 pm  
 Operator: SDM  
 Sample Name: 110425 Standard 3  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 12:48 pm  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	1844699.00 A	3984.00	0.22	0.0000
7 (Li)	118336.00 P	511.60	0.43	-0.5872
9 Be	318836.59 P	778.50	0.24	0.9906
11 B	191311.41 P	11640.00	6.08	0.9978
23 Na	509281.50 P	6941.00	1.36	0.7562
24 Mg	476105.00 P	6132.00	1.29	0.9995
27 Al	61747.73 P	366.40	0.59	0.9986
39 K	110076.50 P	324.00	0.29	0.9988
44 Ca	11402.33 P	166.50	1.46	0.9994
45 Sc	853502.69 M	39610.00	4.64	0.0000
45 Sc	30874.26 P	384.90	1.25	0.0000
45 Sc	1522904.00 A	12070.00	0.79	0.0000
47 Ti	1570.33 P	58.01	3.69	0.9997
51 V	52906.24 P	526.50	1.00	0.9998
52 Cr	68071.52 P	935.80	1.37	1.0000
55 Mn	29729.04 P	343.10	1.15	0.9999
56 Fe	981726.50 A	9391.00	0.96	0.9998
59 Co	109450.30 P	430.90	0.39	0.9900
60 Ni	31232.71 P	341.50	1.09	0.9999
63 Cu	84566.39 P	418.40	0.49	1.0000
65 Cu	41382.51 P	560.20	1.35	0.9999
66 Zn	9752.28 P	124.50	1.28	0.9842
72 Ge	177098.00 P	968.90	0.55	0.0000
72 Ge	13554.23 P	162.90	1.20	0.0000
72 Ge	267429.91 P	621.40	0.23	0.0000
75 As	5177.49 P	58.61	1.13	0.9999
78 Se	10361.51 P	107.00	1.04	1.0000
78 Se	280.00 P	11.41	4.07	0.9961
88 Sr	22032.08 P	162.10	0.74	0.9987
88 Sr	838789.69 P	7444.00	0.89	0.9997
95 Mo	144921.80 P	984.90	0.68	0.9999
106 (Cd)	7438.87 P	117.30	1.58	1.0000
107 Ag	189083.20 P	1878.00	0.99	0.9999
108 (Cd)	5374.54 P	65.69	1.22	1.0000
111 Cd	79459.08 P	460.00	0.58	0.9999
115 In	1435675.00 A	18520.00	1.29	0.0000
118 Sn	223766.50 P	1777.00	0.79	0.9995
121 Sb	262911.00 P	5553.00	2.11	0.9999
137 Ba	107800.10 P	619.50	0.57	1.0000
159 Tb	1740937.00 A	8296.00	0.48	0.0000
165 Ho	1696786.00 A	21550.00	1.27	0.0000
205 Tl	573408.13 P	3454.00	0.60	1.0000
206 (Pb)	195494.20 P	1080.00	0.55	0.9889
207 (Pb)	172807.70 P	1055.00	0.61	0.9860
208 Pb	787205.63 P	3813.00	0.48	0.9890

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1844698.60	0.22	1867730.90	98.8	70 -	120
45 Sc	853502.69	4.64	860905.50	99.1	70 -	120
45 Sc	30874.26	1.25	30466.40	101.3	70 -	120
45 Sc	1522904.30	0.79	1514635.40	100.5	70 -	120
72 Ge	177098.03	0.55	175233.81	101.1	70 -	120
72 Ge	13554.23	1.20	13286.95	102.0	70 -	120
72 Ge	267429.91	0.23	261657.25	102.2	70 -	120
115 In	1435675.50	1.29	1427636.50	100.6	70 -	120
159 Tb	1740936.90	0.48	1715789.30	101.5	70 -	120
165 Ho	1696785.60	1.27	1678833.30	101.1	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass  
 ISTD: Pass

## Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\009CALC.D\009CALC.D#  
 Date Acquired: Apr 28 2011 12:56 pm  
 Operator: SDM  
 Sample Name: 110425 Standard 4  
 Misc Info:  
 Vial Number: 1106  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 12:54 pm  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

## QC&amp;ISTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	1809553.00 A	16560.00	0.92	0.0000
7 (Li)	116402.70 P	831.20	0.71	-0.8318
9 Be	635028.38 P	4347.00	0.68	1.0000
11 B	368789.31 P	1332.00	0.36	1.0000
23 Na	983259.88 A	9271.00	0.94	0.9999
24 Mg	899436.13 A	18180.00	2.02	1.0000
27 Al	124578.60 P	741.50	0.60	1.0000
39 K	207304.91 P	4028.00	1.94	1.0000
44 Ca	22864.75 P	263.10	1.15	1.0000
45 Sc	836857.13 M	35060.00	4.19	0.0000
45 Sc	31377.93 P	494.98	1.58	0.0000
45 Sc	1539542.00 A	3501.00	0.23	0.0000
47 Ti	3182.17 P	88.99	2.80	1.0000
51 V	105930.00 P	1668.00	1.57	1.0000
52 Cr	136257.09 P	911.10	0.67	1.0000
55 Mn	59292.66 P	945.60	1.59	1.0000
56 Fe	1965177.00 A	37790.00	1.92	1.0000
59 Co	217704.59 P	2762.00	1.27	1.0000
60 Ni	62586.58 P	271.60	0.43	1.0000
63 Cu	167787.50 P	2278.00	1.36	1.0000
65 Cu	81888.98 P	702.10	0.86	1.0000
66 Zn	19523.55 P	219.50	1.12	1.0000
72 Ge	177351.59 P	250.60	0.14	0.0000
72 Ge	13832.64 P	93.11	0.67	0.0000
72 Ge	267105.41 P	931.30	0.35	0.0000
75 As	10404.31 P	118.50	1.14	1.0000
78 Se	20739.46 P	129.80	0.63	1.0000
78 Se	555.35 P	16.00	2.88	1.0000
88 Sr	44093.45 P	538.90	1.22	1.0000
88 Sr	1569917.00 A	14970.00	0.95	1.0000
95 Mo	291063.91 P	4460.00	1.53	1.0000
106 (Cd)	14325.52 P	95.92	0.67	1.0000
107 Ag	376890.81 P	2807.00	0.74	1.0000
108 (Cd)	10795.59 P	60.82	0.56	1.0000
111 Cd	158157.41 P	1298.00	0.82	1.0000
115 In	1419224.00 A	21130.00	1.49	0.0000
118 Sn	443893.41 P	3817.00	0.86	1.0000
121 Sb	562587.31 P	4650.00	0.83	1.0000
137 Ba	213360.20 P	3751.00	1.76	1.0000
159 Tb	1756807.00 A	4937.00	0.28	0.0000
165 Ho	1723871.00 A	27070.00	1.57	0.0000
205 Tl	1081656.00 A	10920.00	1.01	1.0000
206 (Pb)	388542.41 P	5888.00	1.52	1.0000
207 (Pb)	343826.09 P	2987.00	0.87	1.0000
208 Pb	1559232.00 P	13260.00	0.85	1.0000

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1809553.30	0.92	1867730.90	96.9	70 -	120
45 Sc	836857.13	4.19	860905.50	97.2	70 -	120
45 Sc	31377.93	1.58	30466.40	103.0	70 -	120
45 Sc	1539542.10	0.23	1514635.40	101.6	70 -	120
72 Ge	177351.59	0.14	175233.81	101.2	70 -	120
72 Ge	13832.64	0.67	13286.95	104.1	70 -	120
72 Ge	267105.34	0.35	261657.25	102.1	70 -	120
115 In	1419224.10	1.49	1427636.50	99.4	70 -	120
159 Tb	1756807.00	0.28	1715789.30	102.4	70 -	120
165 Ho	1723870.80	1.57	1676833.30	102.7	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass

**QCS QC Report**

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\010\_QCS.D\010\_QCS.D#  
 Date Acquired: Apr 28 2011 01:02 pm  
 Operator: SDM  
 Sample Name: ICV 110425  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 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	98.16 ug/l	0.96	100.00	90 - 110	
11 B	96.84 ug/l	0.82	100.00	90 - 110	
23 Na	2447.00 ug/l	0.40	2500.00	90 - 110	
24 Mg	2584.00 ug/l	0.42	2500.00	90 - 110	
27 Al	2444.00 ug/l	0.74	2500.00	90 - 110	
39 K	2439.00 ug/l	1.33	2500.00	90 - 110	
44 Ca	2645.00 ug/l	1.22	2500.00	90 - 110	
47 Ti	98.24 ug/l	1.65	100.00	90 - 110	
51 V	97.27 ug/l	1.50	100.00	90 - 110	
52 Cr	97.68 ug/l	0.79	100.00	90 - 110	
55 Mn	97.93 ug/l	0.80	100.00	90 - 110	
56 Fe	2450.00 ug/l	1.13	2500.00	90 - 110	
59 Co	97.94 ug/l	0.42	100.00	90 - 110	
60 Ni	98.08 ug/l	1.07	100.00	90 - 110	
63 Cu	98.08 ug/l	0.56	100.00	90 - 110	
65 Cu	97.33 ug/l	0.90	100.00	90 - 110	
66 Zn	96.86 ug/l	1.15	100.00	90 - 110	
75 As	95.09 ug/l	0.61	100.00	90 - 110	
78 Se	97.73 ug/l	1.45	100.00	90 - 110	
78 Se	95.88 ug/l	3.24	100.00	90 - 110	
88 Sr	96.24 ug/l	0.92	100.00	90 - 110	
88 Sr	97.06 ug/l	1.55	100.00	90 - 110	
95 Mo	99.32 ug/l	0.58	100.00	90 - 110	
106 (Cd)	ug/l		100.00	90 - 110	
107 Ag	48.66 ug/l	1.54	50.00	90 - 110	
108 (Cd)	ug/l		100.00	90 - 110	
111 Cd	98.03 ug/l	1.21	100.00	90 - 110	
118 Sn	49.39 ug/l	0.40	50.00	90 - 110	
121 Sb	109.10 ug/l	1.35	100.00	90 - 110	
137 Ba	97.62 ug/l	2.64	100.00	90 - 110	
205 Tl	102.50 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	99.03 ug/l	0.40	100.00	90 - 110	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1822003.30	1.00	1867730.90	97.6	70 - 120	
45 Sc	808500.25	1.41	860905.50	93.9	70 - 120	
45 Sc	31024.98	1.75	30466.40	101.8	70 - 120	
45 Sc	1515847.80	0.94	1514635.40	100.1	70 - 120	
72 Ge	177232.61	0.60	175233.81	101.1	70 - 120	
72 Ge	13746.27	1.23	13286.95	103.5	70 - 120	
72 Ge	264766.00	0.30	261657.25	101.2	70 - 120	
115 In	1416083.00	1.15	1427636.50	99.2	70 - 120	
159 Tb	1743101.60	0.66	1715789.30	101.6	70 - 120	
165 Ho	1712572.80	0.85	1678833.30	102.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Pass  
 ISTD: Pass

**CCV QC Report**

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\014\_CCV.D\014\_CCV.D#  
 Date Acquired: Apr 28 2011 01:27 pm  
 Operator: SDM  
 Sample Name: CCV 110425  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD (%)	Expected QC Range (%)	Flag
7 (Li)	----- ug/l	-----	50.00 90 - 110	
9 Be	49.87 ug/l	0.94	50.00 90 - 110	
11 B	49.21 ug/l	1.99	50.00 90 - 110	
23 Na	1236.00 ug/l	0.54	1250.00 90 - 110	
24 Mg	2601.00 ug/l	0.39	2500.00 90 - 110	
27 Al	1007.00 ug/l	0.88	1000.00 90 - 110	
39 K	1002.00 ug/l	0.64	1000.00 90 - 110	
44 Ca	2489.00 ug/l	2.16	2500.00 90 - 110	
47 Ti	50.08 ug/l	0.52	50.00 90 - 110	
51 V	49.07 ug/l	0.98	50.00 90 - 110	
52 Cr	49.78 ug/l	0.36	50.00 90 - 110	
55 Mn	49.69 ug/l	1.03	50.00 90 - 110	
56 Fe	994.10 ug/l	1.30	1000.00 90 - 110	
59 Co	49.30 ug/l	0.32	50.00 90 - 110	
60 Ni	50.06 ug/l	0.63	50.00 90 - 110	
63 Cu	49.96 ug/l	0.09	50.00 90 - 110	
65 Cu	49.57 ug/l	0.41	50.00 90 - 110	
66 Zn	49.35 ug/l	2.28	50.00 90 - 110	
75 As	49.78 ug/l	0.86	50.00 90 - 110	
78 Se	50.20 ug/l	2.73	50.00 90 - 110	
78 Se	50.80 ug/l	2.40	50.00 90 - 110	
88 Sr	49.55 ug/l	2.65	50.00 90 - 110	
88 Sr	52.39 ug/l	0.85	50.00 90 - 110	
95 Mo	49.94 ug/l	1.78	50.00 90 - 110	
106 (Cd)	----- ug/l	-----	50.00 90 - 110	
107 Ag	24.48 ug/l	0.14	25.00 90 - 110	
108 (Cd)	----- ug/l	-----	50.00 90 - 110	
111 Cd	49.84 ug/l	0.32	50.00 90 - 110	
118 Sn	49.58 ug/l	0.96	50.00 90 - 110	
121 Sb	47.50 ug/l	1.37	50.00 90 - 110	
137 Ba	49.40 ug/l	0.51	50.00 90 - 110	
205 Tl	52.61 ug/l	1.16	50.00 90 - 110	
206 (Pb)	----- ug/l	-----	50.00 90 - 110	
207 (Pb)	----- ug/l	-----	50.00 90 - 110	
208 Pb	50.47 ug/l	1.38	50.00 90 - 110	

**ISTD Elements**

Element	CPS Mean	RSD (%)	Ref Value	Rec (%)	QC Range (%)	Flag
6 Li	1853653.10	0.41	1867730.90	99.2	70 - 120	
45 Sc	834975.19	6.03	860905.50	97.0	70 - 120	
45 Sc	31869.01	1.31	30466.40	104.6	70 - 120	
45 Sc	1541665.60	1.20	1514635.40	101.8	70 - 120	
72 Ge	175149.42	3.52	175233.81	100.0	70 - 120	
72 Ge	13957.60	0.93	13286.95	105.0	70 - 120	
72 Ge	269778.50	0.64	261657.25	103.1	70 - 120	
115 In	1449270.90	0.54	1427636.50	101.5	70 - 120	
159 Tb	1770128.60	0.95	1715789.30	103.2	70 - 120	
165 Ho	1737142.10	0.19	1678833.30	103.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Pass  
 ISTD: Pass

## CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\018\_CCB.D\018\_CCB.D#  
 Date Acquired: Apr 28 2011 01:51 pm  
 Operator: SDM  
 Sample Name: ICB 110425  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#VALUE!	
9 Be	-0.15 ug/l	1.38	0.12	
11 B	-0.12 ug/l	9.86	15.00	
23 Na	-37.75 ug/l	2.29	77.10	
24 Mg	-1.44 ug/l	4.71	7.50	
27 Al	-1.02 ug/l	14.69	3.96	
39 K	-17.41 ug/l	24.57	19.20	
44 Ca	-12.21 ug/l	23.01	90.00	
47 Ti	-0.03 ug/l	76.12	0.78	
51 V	-0.11 ug/l	2.57	0.21	
52 Cr	-0.02 ug/l	19.77	0.12	
55 Mn	-0.02 ug/l	44.65	0.18	
56 Fe	-5.00 ug/l	0.87	40.80	
59 Co	-0.21 ug/l	3.52	0.09	
60 Ni	-0.02 ug/l	36.40	0.48	
63 Cu	-0.09 ug/l	6.43	0.39	
65 Cu	-0.11 ug/l	5.29	0.39	
66 Zn	-0.24 ug/l	6.81	6.90	
75 As	-0.02 ug/l	15.60	0.27	
78 Se	-0.02 ug/l	31.27	0.30	
78 Se	-0.23 ug/l	36.24	0.30	
88 Sr	-0.02 ug/l	156.76	0.03	
88 Sr	-0.02 ug/l	9.01	0.03	
95 Mo	0.00 ug/l	307.05	0.21	
106 (Cd)	----- ug/l	-----	#VALUE!	
107 Ag	0.00 ug/l	55550.00	0.09	
108 (Cd)	----- ug/l	-----	#VALUE!	
111 Cd	-0.01 ug/l	59.71	0.06	
118 Sn	-0.24 ug/l	3.03	0.30	
121 Sb	0.00 ug/l	296.99	0.03	
137 Ba	-0.02 ug/l	9.70	0.12	
205 Tl	0.00 ug/l	63.07	0.03	
206 (Pb)	----- ug/l	-----	#VALUE!	
207 (Pb)	----- ug/l	-----	#VALUE!	
208 Pb	-0.23 ug/l	1.99	0.33	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1608253.60	1.03	1867730.90	86.1	70 - 120	
45 Sc	841190.69	0.30	860905.50	97.7	70 - 120	
45 Sc	32932.06	0.61	30466.40	108.1	70 - 120	
45 Sc	1518274.10	4.26	1514635.40	100.2	70 - 120	
72 Ge	176629.92	0.79	175233.81	100.8	70 - 120	
72 Ge	14494.04	1.66	13286.95	109.1	70 - 120	
72 Ge	268766.75	2.45	261657.25	102.7	70 - 120	
115 In	1483253.90	2.35	1427636.50	103.9	70 - 120	
159 Tb	1801357.80	4.43	1715789.30	105.0	70 - 120	
165 Ho	1755795.50	4.45	1678833.30	104.6	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass

**CCB QC Report**

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\019\_CCB.D\019\_CCB.D#  
 Date Acquired: Apr 28 2011 01:57 pm  
 Operator: SDM  
 Sample Name: CCB 110425  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#VALUE!	
9 Be	-0.15 ug/l	1.64	0.12	
11 B	-0.14 ug/l	37.61	15.00	
23 Na	-38.54 ug/l	12.72	77.10	
24 Mg	-2.00 ug/l	5.02	7.50	
27 Al	-0.99 ug/l	30.92	3.96	
39 K	-17.34 ug/l	112.46	19.20	
44 Ca	-11.76 ug/l	30.75	90.00	
47 Ti	-0.01 ug/l	175.64	0.78	
51 V	-0.11 ug/l	2.96	0.21	
52 Cr	-0.03 ug/l	14.53	0.12	
55 Mn	-0.04 ug/l	20.43	0.18	
56 Fe	-5.04 ug/l	0.38	40.80	
59 Co	-0.21 ug/l	2.26	0.09	
60 Ni	-0.03 ug/l	14.11	0.48	
63 Cu	-0.10 ug/l	4.49	0.39	
65 Cu	-0.11 ug/l	3.84	0.39	
66 Zn	-0.18 ug/l	6.84	6.90	
75 As	-0.02 ug/l	90.97	0.27	
78 Se	-0.02 ug/l	94.02	0.30	
78 Se	-0.11 ug/l	42.71	0.30	
88 Sr	-0.02 ug/l	8.55	0.03	
88 Sr	-0.02 ug/l	10.19	0.03	
95 Mo	-0.01 ug/l	73.64	0.21	
106 (Cd)	----- ug/l	-----	#VALUE!	
107 Ag	0.01 ug/l	61.53	0.09	
108 (Cd)	----- ug/l	-----	#VALUE!	
111 Cd	0.00 ug/l	344.73	0.06	
118 Sn	-0.23 ug/l	9.64	0.30	
121 Sb	-0.02 ug/l	67.36	0.03	
137 Ba	-0.03 ug/l	9.68	0.12	
205 Tl	0.00 ug/l	12.91	0.03	
206 (Pb)	----- ug/l	-----	#VALUE!	
207 (Pb)	----- ug/l	-----	#VALUE!	
208 Pb	-0.22 ug/l	0.40	0.33	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1563789.80	0.79	1867730.90	83.7	70 - 120	
45 Sc	836139.25	0.84	860905.50	97.1	70 - 120	
45 Sc	33143.62	16.12	30466.40	108.8	70 - 120	
45 Sc	1456609.80	1.41	1514635.40	96.2	70 - 120	
72 Ge	176026.53	0.64	175233.81	100.5	70 - 120	
72 Ge	14542.78	10.82	13286.95	109.5	70 - 120	
72 Ge	264209.25	1.08	261657.25	101.0	70 - 120	
115 In	1441067.30	1.25	1427636.50	100.9	70 - 120	
159 Tb	1753935.50	1.19	1715789.30	102.2	70 - 120	
165 Ho	1703866.10	0.83	1678833.30	101.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Pass  
 ISTD: Pass

**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\0205MPL.D\0205MPL.D#  
 Date Acquired: Apr 28 2011 02:03 pm  
 Operator: SDM  
 Sample Name: LDR 110425  
 Misc Info:  
 Vial Number: 2101  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.00  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	868.20 ug/l	868.20	1.04	1000	
11 B	929.70 ug/l	929.70	0.33	1000	
23 Na	22580.00 ug/l	22580.00	2.12	25000	
24 Mg	44430.00 ug/l	44430.00	1.20	50000	
27 Al	18160.00 ug/l	18160.00	0.88	20000	
39 K	18060.00 ug/l	18060.00	0.81	20000	
44 Ca	48030.00 ug/l	48030.00	0.87	50000	
47 Ti	969.10 ug/l	969.10	0.24	1000	
51 V	895.60 ug/l	895.60	1.27	1000	
52 Cr	886.20 ug/l	886.20	0.34	1000	
55 Mn	945.10 ug/l	945.10	0.86	1000	
56 Fe	18240.00 ug/l	18240.00	0.79	20000	
59 Co	865.20 ug/l	865.20	0.76	1000	
60 Ni	899.60 ug/l	899.60	1.11	1000	
63 Cu	848.80 ug/l	848.80	1.44	1000	
65 Cu	906.90 ug/l	906.90	2.32	1000	
66 Zn	913.90 ug/l	913.90	2.45	1000	
75 As	965.60 ug/l	965.60	1.67	1000	
78 Se	955.70 ug/l	955.70	1.05	1000	
78 Se	970.30 ug/l	970.30	1.94	1000	
88 Sr	987.50 ug/l	987.50	2.37	1000	
88 Sr	932.80 ug/l	932.80	1.03	1000	
95 Mo	941.00 ug/l	941.00	0.39	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	404.40 ug/l	404.40	2.34	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	898.10 ug/l	898.10	0.22	1000	
118 Sn	924.00 ug/l	924.00	0.50	1000	
121 Sb	957.60 ug/l	957.60	0.29	1000	
137 Ba	938.70 ug/l	938.70	0.67	1000	
205 Tl	908.00 ug/l	908.00	0.46	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	866.20 ug/l	866.20	0.53	1000	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1605875.50	0.44	1867730.90	86.0	70 - 120	
45 Sc	830994.19	0.78	860905.50	96.5	70 - 120	
45 Sc	30284.25	2.13	30466.40	99.4	70 - 120	
45 Sc	1429128.30	0.36	1514635.40	94.4	70 - 120	
72 Ge	168764.77	0.84	175233.81	96.3	70 - 120	
72 Ge	13256.94	3.24	13286.95	99.8	70 - 120	
72 Ge	252567.30	0.18	261657.25	96.5	70 - 120	
115 In	1341813.40	0.19	1427636.50	94.0	70 - 120	
159 Tb	1712193.00	0.56	1715789.30	99.8	70 - 120	
165 Ho	1683019.60	0.81	1678833.30	100.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Pass  
 ISTD: Pass

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\0228MPL.D\0228MPL.D#  
 Date Acquired: Apr 28 2011 02:15 pm  
 Operator: SDM  
 Sample Name: ICSA 110425  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.00  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	-0.13 ug/l	-0.13	4.39	1000	
11 B	3.97 ug/l	3.97	0.88	1000	
23 Na	88030.00 ug/l	88030.00	1.13	25000	>Cal
24 Mg	86490.00 ug/l	86490.00	0.58	50000	>Cal
27 Al	83310.00 ug/l	83310.00	1.07	20000	>Cal
39 K	83170.00 ug/l	83170.00	1.09	20000	>Cal
44 Ca	89240.00 ug/l	89240.00	1.58	50000	>Cal
47 Ti	1870.00 ug/l	1870.00	0.71	1000	>Cal
51 V	0.31 ug/l	0.31	15.08	1000	
52 Cr	0.64 ug/l	0.64	6.70	1000	
55 Mn	5.22 ug/l	5.22	3.97	1000	
56 Fe	87090.00 ug/l	87090.00	0.98	20000	>Cal
59 Co	1.14 ug/l	1.14	2.66	1000	
60 Ni	1.19 ug/l	1.19	2.50	1000	
63 Cu	1.64 ug/l	1.64	4.08	1000	
65 Cu	1.59 ug/l	1.59	4.05	1000	
66 Zn	1.65 ug/l	1.65	12.35	1000	
75 As	0.86 ug/l	0.86	6.94	1000	
78 Se	0.52 ug/l	0.52	11.92	1000	
78 Se	0.95 ug/l	0.95	78.11	1000	
88 Sr	1.16 ug/l	1.16	14.98	1000	
88 Sr	1.17 ug/l	1.17	0.51	1000	
95 Mo	1793.00 ug/l	1793.00	0.78	1000	>Cal
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.17 ug/l	0.17	13.65	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.33 ug/l	0.33	33.87	1000	
118 Sn	1.92 ug/l	1.92	4.00	1000	
121 Sb	4.31 ug/l	4.31	2.93	1000	
137 Ba	2.75 ug/l	2.75	1.38	1000	
205 Tl	0.48 ug/l	0.48	1.79	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	3.11 ug/l	3.11	1.95	1000	

ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1725629.80	1.17	1867730.90	92.4	70 - 120		
45 Sc	828310.38	0.16	860905.50	96.2	70 - 120		
45 Sc	30175.11	1.78	30466.40	99.0	70 - 120		
45 Sc	1463943.40	0.46	1514635.40	96.7	70 - 120		
72 Ge	167660.22	0.39	175233.81	95.7	70 - 120		
72 Ge	13246.19	2.75	13286.95	99.7	70 - 120		
72 Ge	263595.50	0.42	261657.25	100.7	70 - 120		
115 In	1347400.60	0.22	1427636.50	94.4	70 - 120		
159 Tb	1751534.10	1.22	1715789.30	102.1	70 - 120		
165 Ho	1710337.60	1.55	1678833.30	101.9	70 - 120		

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

8 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass



ICS-AB QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\023ICSB.D\023ICSB.D#  
 Date Acquired: Apr 28 2011 02:21 pm  
 Acq. Method: 62A0428.M  
 Operator: SDM  
 Sample Name: ICSAB 110425  
 Misc Info:  
 Vial Number: 2103  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal. Update: Apr 28 2011 01:00 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	253.00	0.17	250	101.2	80 - 120	
11 B	45	3	3.22	2.31	---	---	---	
23 Na	45	2	93190.00	1.73	---	---	---	
24 Mg	45	2	90340.00	1.38	---	---	---	
27 Al	45	2	84200.00	0.57	---	---	---	
39 K	45	2	85570.00	0.45	---	---	---	
44 Ca	45	2	90090.00	0.63	---	---	---	
47 Ti	45	2	1907.00	0.93	2000	95.4	80 - 120	
51 V	45	2	269.00	0.83	250	107.2	80 - 120	
52 Cr	45	2	255.30	1.29	250	102.1	80 - 120	
55 Mn	45	2	254.70	1.13	250	101.9	80 - 120	
56 Fe	45	2	88540.00	0.34	---	---	---	
59 Co	45	2	251.60	0.61	250	100.6	80 - 120	
60 Ni	45	2	490.80	1.42	500	98.2	80 - 120	
63 Cu	72	2	238.00	0.96	250	95.2	80 - 120	
65 Cu	72	2	237.80	0.41	250	95.1	80 - 120	
66 Zn	72	2	455.90	0.70	500	91.2	80 - 120	
75 As	72	2	263.40	1.12	250	105.4	80 - 120	
78 Se	72	1	266.40	0.52	250	106.6	80 - 120	
78 Se	72	2	252.60	0.78	250	101.0	80 - 120	
88 Sr	72	2	1.08	14.74	---	---	---	
88 Sr	72	3	1.22	0.40	---	---	---	
95 Mo	72	3	2056.00	1.14	2000	102.8	80 - 120	
106 (Cd)	---	3	---	---	---	---	---	
107 Ag	115	3	403.50	3.52	500	80.7	80 - 120	
108 (Cd)	---	3	---	---	---	---	---	
111 Cd	115	3	507.60	1.80	500	101.5	80 - 120	
118 Sn	115	3	0.98	4.15	---	---	---	
121 Sb	115	3	264.10	0.35	250	105.6	80 - 120	
137 Ba	115	3	275.10	1.16	250	110.0	80 - 120	
205 Tl	159	3	245.00	0.74	250	98.0	80 - 120	
206 (Pb)	---	3	---	---	---	---	---	
207 (Pb)	---	3	---	---	---	---	---	
208 Pb	159	3	462.60	0.74	500	92.5	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3	1924300	1.77	1867731	103.0	70 - 120	
45 Sc	1	836534	4.58	860906	97.2	70 - 120	
45 Sc	2	29314	2.56	30466	96.2	70 - 120	
45 Sc	3	1487366	0.30	1514635	98.2	70 - 120	
72 Ge	1	177702	0.94	175234	101.4	70 - 120	
72 Ge	2	13235	1.56	13287	99.6	70 - 120	
72 Ge	3	263948	0.78	261657	100.9	70 - 120	
115 In	3	1370432	0.96	1427637	96.0	70 - 120	
159 Tb	3	1779579	0.29	1715789	103.7	70 - 120	
165 Ho	3	1754687	1.16	1678833	104.5	70 - 120	

Tune File# 1 c:\icpchem\1\7500\h2.u  
 Tune File# 2 c:\icpchem\1\7500\he.u  
 Tune File# 3 c:\icpchem\1\7500\nogas.u

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

0 :Element Failures                    0 :Max. Number of Failures Allowed  
 0 :ISTD Failures                    0 :Max. Number of ISTD Failures Allowed

**CCV QC Report**

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\025\_CCV.D\025\_CCV.D#  
 Date Acquired: Apr 28 2011 02:33 pm  
 Operator: SEM  
 Sample Name: CCV 110425  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 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	53.92 ug/l	0.85	50.00	90 - 110	
11 B	54.87 ug/l	0.19	50.00	90 - 110	
23 Na	1294.00 ug/l	0.63	1250.00	90 - 110	
24 Mg	2604.00 ug/l	0.84	2500.00	90 - 110	
27 Al	951.20 ug/l	0.95	1000.00	90 - 110	
39 K	997.80 ug/l	0.86	1000.00	90 - 110	
44 Ca	2368.00 ug/l	1.01	2500.00	90 - 110	
47 Ti	49.44 ug/l	1.61	50.00	90 - 110	
51 V	51.29 ug/l	0.41	50.00	90 - 110	
52 Cr	50.98 ug/l	1.22	50.00	90 - 110	
55 Mn	48.59 ug/l	0.98	50.00	90 - 110	
56 Fe	1007.00 ug/l	4.18	1000.00	90 - 110	
59 Co	51.23 ug/l	1.69	50.00	90 - 110	
60 Ni	50.97 ug/l	0.74	50.00	90 - 110	
63 Cu	49.50 ug/l	0.70	50.00	90 - 110	
65 Cu	49.54 ug/l	0.59	50.00	90 - 110	
66 Zn	48.30 ug/l	1.49	50.00	90 - 110	
75 As	49.56 ug/l	1.49	50.00	90 - 110	
78 Se	50.01 ug/l	0.70	50.00	90 - 110	
78 Se	47.85 ug/l	0.87	50.00	90 - 110	
88 Sr	48.79 ug/l	1.10	50.00	90 - 110	
88 Sr	53.57 ug/l	0.48	50.00	90 - 110	
95 Mo	51.26 ug/l	1.39	50.00	90 - 110	
106 (Cd)	----- ug/l	-----	50.00	90 - 110	
107 Ag	24.01 ug/l	2.16	25.00	90 - 110	
108 (Cd)	----- ug/l	-----	50.00	90 - 110	
111 Cd	49.14 ug/l	0.90	50.00	90 - 110	
118 Sn	50.02 ug/l	1.89	50.00	90 - 110	
121 Sb	51.08 ug/l	0.67	50.00	90 - 110	
137 Ba	49.06 ug/l	1.39	50.00	90 - 110	
205 Tl	51.15 ug/l	1.09	50.00	90 - 110	
206 (Pb)	----- ug/l	-----	50.00	90 - 110	
207 (Pb)	----- ug/l	-----	50.00	90 - 110	
208 Pb	49.15 ug/l	0.90	50.00	90 - 110	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2318800.00	1.59	1867730.90	124.2	70 - 120	IS Fail
45 Sc	858260.56	0.52	860905.50	99.7	70 - 120	
45 Sc	30708.43	2.27	30466.40	100.8	70 - 120	
45 Sc	1587232.10	1.17	1514635.40	104.8	70 - 120	
72 Ge	193837.09	0.60	175233.81	110.6	70 - 120	
72 Ge	13962.40	0.88	13286.95	105.1	70 - 120	
72 Ge	275558.69	1.09	261657.25	105.3	70 - 120	
115 In	1528152.90	1.79	1427636.50	107.0	70 - 120	
159 Tb	1883042.90	1.12	1715789.30	109.7	70 - 120	
165 Ho	1832350.30	1.04	1678833.30	109.1	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 1 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Pass  
 ISTD: Fail

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\029\_CCB.D\029\_CCB.D#  
 Date Acquired: Apr 28 2011 02:57 pm  
 Operator: SDM  
 Sample Name: CCB 110425  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#VALUE!	
9 Be	-0.15 ug/l	1.60	0.12	
11 B	0.25 ug/l	6.68	15.00	
23 Na	-33.99 ug/l	0.40	77.10	
24 Mg	-1.30 ug/l	17.59	7.50	
27 Al	-0.48 ug/l	51.69	3.96	
39 K	-17.37 ug/l	47.53	19.20	
44 Ca	-14.41 ug/l	27.22	90.00	
47 Ti	0.04 ug/l	111.44	0.78	
51 V	-0.10 ug/l	12.10	0.21	
52 Cr	-0.02 ug/l	20.68	0.12	
55 Mn	-0.02 ug/l	56.27	0.18	
56 Fe	-4.95 ug/l	0.79	40.80	
59 Co	-0.22 ug/l	0.82	0.09	
60 Ni	-0.02 ug/l	77.86	0.48	
63 Cu	-0.09 ug/l	2.89	0.39	
65 Cu	-0.09 ug/l	17.20	0.39	
66 Zn	-0.15 ug/l	49.69	6.90	
75 As	0.00 ug/l	733.43	0.27	
78 Se	-0.01 ug/l	160.36	0.30	
78 Se	0.04 ug/l	156.47	0.30	
88 Sr	0.00 ug/l	3200.40	0.03	
88 Sr	-0.02 ug/l	27.25	0.03	
95 Mo	0.17 ug/l	10.41	0.21	
106 (Cd)	----- ug/l	-----	#VALUE!	
107 Ag	0.00 ug/l	353.33	0.09	
108 (Cd)	----- ug/l	-----	#VALUE!	
111 Cd	0.01 ug/l	67.52	0.06	
118 Sn	-0.21 ug/l	1.34	0.30	
121 Sb	0.10 ug/l	17.46	0.03	Fail
137 Ba	-0.02 ug/l	36.96	0.12	
205 Tl	0.01 ug/l	89.51	0.03	
206 (Pb)	----- ug/l	-----	#VALUE!	
207 (Pb)	----- ug/l	-----	#VALUE!	
208 Pb	-0.23 ug/l	1.25	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2037269.50	0.88	1867730.90	109.1	70 - 120	
45 Sc	837163.00	0.96	860905.50	97.2	70 - 120	
45 Sc	32459.60	2.91	30466.40	106.5	70 - 120	
45 Sc	1574173.10	1.96	1514635.40	103.9	70 - 120	
72 Ge	194091.81	0.29	175233.81	110.8	70 - 120	
72 Ge	14883.35	0.95	13286.95	112.0	70 - 120	
72 Ge	283621.69	1.69	261657.25	108.4	70 - 120	
115 In	1546262.80	1.29	1427636.50	108.3	70 - 120	
159 Tb	1875744.80	1.30	1715789.30	109.3	70 - 120	
165 Ho	1831819.60	1.82	1678833.30	109.1	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

## CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\041\_CCV.D\041\_CCV.D#  
 Date Acquired: Apr 28 2011 04:10 pm  
 Operator: SDM  
 Sample Name: CCV 110425  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	Expected QC	Range(%)	Flag
7 (Li)	----- ug/l	-----	50.00	90 - 110	
9 Be	51.11 ug/l	0.92	50.00	90 - 110	
11 B	51.69 ug/l	0.57	50.00	90 - 110	
23 Na	1242.00 ug/l	4.51	1250.00	90 - 110	
24 Mg	2566.00 ug/l	4.30	2500.00	90 - 110	
27 Al	973.40 ug/l	5.73	1000.00	90 - 110	
39 K	982.00 ug/l	5.36	1000.00	90 - 110	
44 Ca	2429.00 ug/l	6.41	2500.00	90 - 110	
47 Ti	47.04 ug/l	5.44	50.00	90 - 110	
51 V	50.48 ug/l	4.62	50.00	90 - 110	
52 Cr	48.81 ug/l	4.46	50.00	90 - 110	
55 Mn	48.53 ug/l	4.08	50.00	90 - 110	
56 Fe	961.40 ug/l	4.47	1000.00	90 - 110	
59 Co	49.19 ug/l	4.73	50.00	90 - 110	
60 Ni	48.65 ug/l	4.94	50.00	90 - 110	
63 Cu	47.43 ug/l	3.98	50.00	90 - 110	
65 Cu	47.69 ug/l	3.37	50.00	90 - 110	
66 Zn	47.03 ug/l	3.65	50.00	90 - 110	
75 As	48.06 ug/l	3.20	50.00	90 - 110	
78 Se	47.25 ug/l	0.82	50.00	90 - 110	
78 Se	48.54 ug/l	3.60	50.00	90 - 110	
88 Sr	48.20 ug/l	3.64	50.00	90 - 110	
88 Sr	51.27 ug/l	0.22	50.00	90 - 110	
95 Mo	47.84 ug/l	0.98	50.00	90 - 110	
106 (Cd)	----- ug/l	-----	50.00	90 - 110	
107 Ag	24.00 ug/l	0.62	25.00	90 - 110	
108 (Cd)	----- ug/l	-----	50.00	90 - 110	
111 Cd	48.36 ug/l	0.93	50.00	90 - 110	
118 Sn	49.67 ug/l	0.08	50.00	90 - 110	
121 Sb	47.63 ug/l	0.60	50.00	90 - 110	
137 Ba	49.21 ug/l	1.02	50.00	90 - 110	
205 Tl	51.33 ug/l	0.73	50.00	90 - 110	
206 (Pb)	----- ug/l	-----	50.00	90 - 110	
207 (Pb)	----- ug/l	-----	50.00	90 - 110	
208 Pb	49.06 ug/l	0.15	50.00	90 - 110	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2062171.00	0.72	1867730.90	110.4	70 - 120	
45 Sc	854540.69	1.05	860905.50	99.3	70 - 120	
45 Sc	32002.69	3.83	30466.40	105.0	70 - 120	
45 Sc	1540905.50	1.17	1514635.40	102.3	70 - 120	
72 Ge	192193.67	0.31	175233.81	109.7	70 - 120	
72 Ge	14402.48	2.86	13286.95	108.4	70 - 120	
72 Ge	279071.22	0.87	261657.25	106.7	70 - 120	
115 In	1486651.90	0.83	1427636.50	104.1	70 - 120	
159 Tb	1827605.40	0.32	1715789.30	106.5	70 - 120	
165 Ho	1787204.90	1.52	1678833.30	106.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass

## CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\043\_CCB.D\043\_CCB.D#  
 Date Acquired: Apr 28 2011 04:22 pm  
 Operator: SDM  
 Sample Name: CCB 110425  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#VALUE!	
9 Be	-0.15 ug/l	1.13	0.12	
11 B	0.26 ug/l	8.92	15.00	
23 Na	-29.09 ug/l	1.28	77.10	
24 Mg	-1.46 ug/l	2.71	7.50	
27 Al	-0.78 ug/l	21.24	3.96	
39 K	-17.78 ug/l	20.92	19.20	
44 Ca	-14.45 ug/l	3.05	90.00	
47 Ti	-0.01 ug/l	7.59	0.78	
51 V	-0.07 ug/l	7.04	0.21	
52 Cr	-0.02 ug/l	24.56	0.12	
55 Mn	0.00 ug/l	102.33	0.18	
56 Fe	-4.93 ug/l	0.48	40.80	
59 Co	-0.23 ug/l	0.45	0.09	
60 Ni	-0.02 ug/l	41.18	0.48	
63 Cu	-0.10 ug/l	4.97	0.39	
65 Cu	-0.10 ug/l	8.90	0.39	
66 Zn	-0.14 ug/l	106.79	6.90	
75 As	0.01 ug/l	266.61	0.27	
78 Se	0.01 ug/l	315.17	0.30	
78 Se	-0.06 ug/l	384.86	0.30	
88 Sr	-0.02 ug/l	119.64	0.03	
88 Sr	-0.02 ug/l	10.91	0.03	
95 Mo	0.08 ug/l	34.54	0.21	
106 (Cd)	----- ug/l	-----	#VALUE!	
107 Ag	0.00 ug/l	186.00	0.09	
108 (Cd)	----- ug/l	-----	#VALUE!	
111 Cd	0.00 ug/l	698.84	0.06	
118 Sn	-0.23 ug/l	2.68	0.30	
121 Sb	0.08 ug/l	12.34	0.03	Fail
137 Ba	-0.01 ug/l	44.94	0.12	
205 Tl	0.04 ug/l	9.26	0.03	Fail
206 (Pb)	----- ug/l	-----	#VALUE!	
207 (Pb)	----- ug/l	-----	#VALUE!	
208 Pb	-0.23 ug/l	0.90	0.33	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1692319.60	1.15	1867730.90	90.6	70 - 120	
45 Sc	832806.44	1.23	860905.50	96.7	70 - 120	
45 Sc	34236.54	1.00	30466.40	112.4	70 - 120	
45 Sc	1508268.80	0.47	1514635.40	99.6	70 - 120	
72 Ge	189736.56	0.88	175233.01	108.3	70 - 120	
72 Ge	15320.47	0.78	13286.95	115.3	70 - 120	
72 Ge	274721.84	0.47	261657.25	105.0	70 - 120	
115 In	1495613.00	0.92	1427636.50	104.8	70 - 120	
159 Tb	1803709.90	0.79	1715789.30	105.1	70 - 120	
165 Ho	1754829.60	1.45	1678833.30	104.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Fail  
 ISTD: Pass

## CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\055\_CCV.D\055\_CCV.D#  
 Date Acquired: Apr 28 2011 05:35 pm  
 Operator: SDM  
 Sample Name: CCV 110425  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	Expected QC Range(%)	Flag
7 (Li)	----- ug/l	-----	50.00 90 - 110	
9 Be	46.86 ug/l	1.14	50.00 90 - 110	
11 B	51.50 ug/l	0.41	50.00 90 - 110	
23 Na	1381.00 ug/l	0.79	1250.00 90 - 110	Fail
24 Mg	2529.00 ug/l	0.84	2500.00 90 - 110	
27 Al	961.40 ug/l	1.76	1000.00 90 - 110	
39 K	997.20 ug/l	0.84	1000.00 90 - 110	
44 Ca	2438.00 ug/l	0.55	2500.00 90 - 110	
47 Ti	46.35 ug/l	5.09	50.00 90 - 110	
51 V	50.74 ug/l	1.57	50.00 90 - 110	
52 Cr	48.44 ug/l	0.28	50.00 90 - 110	
55 Mn	48.73 ug/l	0.88	50.00 90 - 110	
56 Fe	929.00 ug/l	1.10	1000.00 90 - 110	
59 Co	49.41 ug/l	0.92	50.00 90 - 110	
60 Ni	48.73 ug/l	0.69	50.00 90 - 110	
63 Cu	46.04 ug/l	0.37	50.00 90 - 110	
65 Cu	45.61 ug/l	0.71	50.00 90 - 110	
66 Zn	45.36 ug/l	0.76	50.00 90 - 110	
75 As	47.40 ug/l	0.80	50.00 90 - 110	
78 Se	46.09 ug/l	0.29	50.00 90 - 110	
78 Se	46.30 ug/l	3.90	50.00 90 - 110	
88 Sr	48.72 ug/l	1.08	50.00 90 - 110	
88 Sr	51.06 ug/l	0.32	50.00 90 - 110	
95 Mo	47.55 ug/l	0.52	50.00 90 - 110	
106 (Cd)	----- ug/l	-----	50.00 90 - 110	
107 Ag	23.96 ug/l	0.44	25.00 90 - 110	
108 (Cd)	----- ug/l	-----	50.00 90 - 110	
111 Cd	47.69 ug/l	0.23	50.00 90 - 110	
118 Sn	49.39 ug/l	0.70	50.00 90 - 110	
121 Sb	46.94 ug/l	0.29	50.00 90 - 110	
137 Ba	49.36 ug/l	1.00	50.00 90 - 110	
205 Tl	51.26 ug/l	0.78	50.00 90 - 110	
206 (Pb)	----- ug/l	-----	50.00 90 - 110	
207 (Pb)	----- ug/l	-----	50.00 90 - 110	
208 Pb	49.20 ug/l	0.29	50.00 90 - 110	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1852225.30	1.34	1867730.90	99.2	70 - 120	
45 Sc	868579.25	0.58	860905.50	100.9	70 - 120	
45 Sc	32206.48	0.20	30466.40	105.7	70 - 120	
45 Sc	1521036.80	0.46	1514635.40	100.4	70 - 120	
72 Ge	199557.98	0.58	175233.81	113.9	70 - 120	
72 Ge	14948.60	0.75	13286.95	112.5	70 - 120	
72 Ge	284713.44	0.19	261657.25	108.8	70 - 120	
115 In	1514056.80	0.34	1427636.50	106.1	70 - 120	
159 Tb	1827476.10	0.37	1715789.30	106.5	70 - 120	
165 Ho	1789970.50	0.45	1678833.30	106.6	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.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\11D28m00.B\057\_CCB.D\057\_CCB.D#  
 Date Acquired: Apr 28 2011 05:47 pm  
 Operator: SDM  
 Sample Name: CCB 110425  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#VALUE!	
9 Be	-0.14 ug/l	0.35	0.12	
11 B	3.22 ug/l	2.35	15.00	
23 Na	79.85 ug/l	2.84	77.10	Fail
24 Mg	-0.08 ug/l	130.62	7.50	
27 Al	-1.08 ug/l	4.80	3.96	
39 K	-7.23 ug/l	100.82	19.20	
44 Ca	-16.95 ug/l	5.47	90.00	
47 Ti	-0.02 ug/l	122.75	0.78	
51 V	-0.03 ug/l	36.28	0.21	
52 Cr	-0.02 ug/l	32.63	0.12	
55 Mn	-0.02 ug/l	81.71	0.18	
56 Fe	-4.89 ug/l	0.28	40.80	
59 Co	-0.23 ug/l	0.53	0.09	
60 Ni	-0.02 ug/l	52.25	0.48	
63 Cu	-0.06 ug/l	20.54	0.39	
65 Cu	-0.07 ug/l	11.46	0.39	
66 Zn	-0.16 ug/l	47.96	6.90	
75 As	-0.02 ug/l	68.80	0.27	
78 Se	0.02 ug/l	84.33	0.30	
78 Se	-0.05 ug/l	256.62	0.30	
88 Sr	0.00 ug/l	1700.50	0.03	
88 Sr	-0.02 ug/l	24.63	0.03	
95 Mo	0.10 ug/l	13.26	0.21	
106 (Cd)	----- ug/l	-----	#VALUE!	
107 Ag	0.00 ug/l	150.31	0.09	
108 (Cd)	----- ug/l	-----	#VALUE!	
111 Cd	0.00 ug/l	360.74	0.06	
118 Sn	-0.22 ug/l	9.49	0.30	
121 Sb	0.12 ug/l	11.93	0.03	Fail
137 Ba	-0.02 ug/l	12.51	0.12	
205 Tl	0.04 ug/l	6.50	0.03	Fail
206 (Pb)	----- ug/l	-----	#VALUE!	
207 (Pb)	----- ug/l	-----	#VALUE!	
208 Pb	-0.23 ug/l	1.59	0.33	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1789004.80	1.00	1867730.90	95.8	70 - 120	
45 Sc	870533.50	0.84	860905.50	101.1	70 - 120	
45 Sc	34239.51	1.74	30466.40	112.4	70 - 120	
45 Sc	1573241.90	1.51	1514635.40	103.9	70 - 120	
72 Ge	199947.42	0.09	175233.81	114.1	70 - 120	
72 Ge	16098.34	1.10	13286.95	121.2	70 - 120	IS Fail
72 Ge	289963.78	1.19	261657.25	110.8	70 - 120	
115 In	1573710.10	1.37	1427636.50	110.2	70 - 120	
159 Tb	1863987.10	0.63	1715789.30	108.6	70 - 120	
165 Ho	1814047.90	0.51	1678833.30	108.1	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 1 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Fail  
 ISTD: Fail

## CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\069\_CCV.D\069\_CCV.D#  
 Date Acquired: Apr 28 2011 06:59 pm  
 Operator: SDM  
 Sample Name: CCV 110425  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: CCV  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	Expected QC	Range(%)	Flag
7 (Li)	----- ug/l	-----	50.00	90 - 110	
9 Be	46.33 ug/l	0.58	50.00	90 - 110	
11 B	47.87 ug/l	0.43	50.00	90 - 110	
23 Na	1240.00 ug/l	1.86	1250.00	90 - 110	
24 Mg	2483.00 ug/l	1.83	2500.00	90 - 110	
27 Al	951.50 ug/l	1.88	1000.00	90 - 110	
39 K	993.00 ug/l	1.68	1000.00	90 - 110	
44 Ca	2375.00 ug/l	1.11	2500.00	90 - 110	
47 Ti	49.86 ug/l	1.42	50.00	90 - 110	
51 V	49.89 ug/l	1.21	50.00	90 - 110	
52 Cr	48.14 ug/l	1.18	50.00	90 - 110	
55 Mn	47.54 ug/l	1.20	50.00	90 - 110	
56 Fe	907.80 ug/l	1.76	1000.00	90 - 110	
59 Co	48.42 ug/l	1.84	50.00	90 - 110	
60 Ni	47.44 ug/l	1.50	50.00	90 - 110	
63 Cu	44.92 ug/l	0.70	50.00	90 - 110	Fail
65 Cu	44.65 ug/l	1.31	50.00	90 - 110	Fail
66 Zn	44.82 ug/l	1.17	50.00	90 - 110	Fail
75 As	46.70 ug/l	1.10	50.00	90 - 110	
78 Se	46.16 ug/l	0.29	50.00	90 - 110	
78 Se	46.28 ug/l	5.46	50.00	90 - 110	
88 Sr	48.32 ug/l	1.70	50.00	90 - 110	
88 Sr	51.19 ug/l	0.14	50.00	90 - 110	
95 Mo	47.21 ug/l	0.43	50.00	90 - 110	
106 (Cd)	----- ug/l	-----	50.00	90 - 110	
107 Ag	23.39 ug/l	0.48	25.00	90 - 110	
108 (Cd)	----- ug/l	-----	50.00	90 - 110	
111 Cd	46.90 ug/l	0.34	50.00	90 - 110	
118 Sn	48.64 ug/l	0.96	50.00	90 - 110	
121 Sb	46.71 ug/l	1.45	50.00	90 - 110	
137 Ba	48.55 ug/l	0.84	50.00	90 - 110	
205 Tl	50.72 ug/l	0.75	50.00	90 - 110	
206 (Pb)	----- ug/l	-----	50.00	90 - 110	
207 (Pb)	----- ug/l	-----	50.00	90 - 110	
208 Pb	48.28 ug/l	0.52	50.00	90 - 110	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1820714.00	1.16	1867730.90	97.5	70 - 120	
45 Sc	845446.38	1.10	860905.50	98.2	70 - 120	
45 Sc	31931.74	2.27	30466.40	104.8	70 - 120	
45 Sc	1503853.80	0.54	1514635.40	99.3	70 - 120	
72 Ge	192961.42	0.56	175233.81	110.1	70 - 120	
72 Ge	14792.86	1.60	13286.95	111.3	70 - 120	
72 Ge	278253.81	0.65	261657.25	106.3	70 - 120	
115 In	1512179.10	0.51	1427636.50	105.9	70 - 120	
159 Tb	1798326.80	0.61	1715789.30	104.8	70 - 120	
165 Ho	1751732.30	0.31	1678833.30	104.3	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.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



## CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\071\_CCB.D\071\_CCB.D#  
 Date Acquired: Apr 28 2011 07:12 pm  
 Operator: SDM  
 Sample Name: CCB 110425  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: CCB  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#VALUE!	
9 Be	-0.15 ug/l	2.34	0.12	
11 B	1.00 ug/l	4.08	15.00	
23 Na	16.94 ug/l	5.26	77.10	
24 Mg	-0.37 ug/l	159.74	7.50	
27 Al	-0.70 ug/l	12.83	3.96	
39 K	-10.71 ug/l	95.33	19.20	
44 Ca	-16.60 ug/l	22.26	90.00	
47 Ti	-0.02 ug/l	274.32	0.78	
51 V	-0.05 ug/l	3.04	0.21	
52 Cr	-0.03 ug/l	13.28	0.12	
55 Mn	-0.01 ug/l	93.03	0.18	
56 Fe	-4.91 ug/l	0.56	40.80	
59 Co	-0.22 ug/l	1.55	0.09	
60 Ni	-0.02 ug/l	28.79	0.48	
63 Cu	-0.09 ug/l	8.50	0.39	
65 Cu	-0.10 ug/l	12.82	0.39	
66 Zn	-0.23 ug/l	9.72	6.90	
75 As	0.00 ug/l	1130.90	0.27	
78 Se	0.02 ug/l	37.58	0.30	
78 Se	0.23 ug/l	93.28	0.30	
88 Sr	-0.01 ug/l	169.25	0.03	
88 Sr	0.01 ug/l	30.36	0.03	
95 Mo	0.10 ug/l	25.34	0.21	
106 (Cd)	----- ug/l	-----	#VALUE!	
107 Ag	0.01 ug/l	17.70	0.09	
108 (Cd)	----- ug/l	-----	#VALUE!	
111 Cd	0.00 ug/l	112.99	0.06	
118 Sn	-0.21 ug/l	4.36	0.30	
121 Sb	0.10 ug/l	15.30	0.03	Fail
137 Ba	0.00 ug/l	253.71	0.12	
205 Tl	0.07 ug/l	10.20	0.03	Fail
206 (Pb)	----- ug/l	-----	#VALUE!	
207 (Pb)	----- ug/l	-----	#VALUE!	
208 Pb	-0.23 ug/l	1.60	0.33	

## ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1786887.00	0.86	1867730.90	95.7	70 - 120		
45 Sc	847528.19	0.78	860905.50	98.4	70 - 120		
45 Sc	33570.56	1.79	30466.40	110.2	70 - 120		
45 Sc	1542339.80	1.73	1514635.40	101.8	70 - 120		
72 Ge	194324.17	0.55	175233.81	110.9	70 - 120		
72 Ge	15628.93	1.32	13286.95	117.6	70 - 120		
72 Ge	281807.19	0.78	261657.25	107.7	70 - 120		
115 In	1546932.00	1.11	1427636.50	108.4	70 - 120		
159 Tb	1816793.00	1.92	1715789.30	105.9	70 - 120		
165 Ho	1777537.00	1.51	1678833.30	105.9	70 - 120		

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Fail  
 ISTD: Pass

**METALS**

**Raw Data**

**APPL, INC.**

# METALS BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.22 U	0.5	0.22	0.11	ug/L	04/27/11	04/28/11	#602D-110427A-AY36312

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\031SMPL.D\031SMPL.D#  
 Date Acquired: Apr 28 2011 03:09 pm  
 Operator: SDM  
 Sample Name: 110427A-3015-BLK  
 Misc Info: 110427A-3015  
 Vial Number: 3102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 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	-0.15 ug/l	-0.16	0.81	1000	
11 B	2.00 ug/l	2.23	0.67	1000	
23 Na	-22.37 ug/l	-24.85	4.12	25000	
24 Mg	17.20 ug/l	19.11	2.80	50000	
27 Al	56.38 ug/l	62.64	6.45	20000	
39 K	-2.40 ug/l	-2.67	196.62	20000	
44 Ca	148.40 ug/l	164.87	11.46	50000	
47 Ti	1.20 ug/l	1.33	24.74	1000	
51 V	0.00 ug/l	0.00	11365.00	1000	
52 Cr	0.10 ug/l	0.11	13.39	1000	
55 Mn	1.91 ug/l	2.12	3.91	1000	
56 Fe	12.87 ug/l	14.30	6.52	20000	
59 Co	-0.14 ug/l	-0.16	4.99	1000	
60 Ni	0.20 ug/l	0.23	12.47	1000	
63 Cu	0.00 ug/l	0.00	190.86	1000	
65 Cu	-0.02 ug/l	-0.02	132.76	1000	
66 Zn	26.27 ug/l	29.19	1.61	1000	
75 As	0.15 ug/l	0.17	26.40	1000	
78 Se	0.00 ug/l	0.00	309.29	1000	
78 Se	0.09 ug/l	0.10	174.23	1000	
88 Sr	0.15 ug/l	0.17	27.23	1000	
88 Sr	0.14 ug/l	0.16	6.00	1000	
95 Mo	0.56 ug/l	0.62	6.23	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.01 ug/l	0.01	16.41	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.00 ug/l	0.00	1366.80	1000	
118 Sn	0.49 ug/l	0.55	1.81	1000	
121 Sb	0.55 ug/l	0.61	6.38	1000	
137 Ba	0.25 ug/l	0.27	12.76	1000	
205 Tl	0.00 ug/l	0.00	23.45	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	-0.04 ug/l	-0.05	23.57	1000	

## ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1924895.00	0.64	1867730.90	103.1	70 - 120		
45 Sc	875515.13	1.55	860905.50	101.7	70 - 120		
45 Sc	32852.36	1.31	30466.40	107.8	70 - 120		
45 Sc	1552856.40	0.75	1514635.40	102.5	70 - 120		
72 Ge	193733.86	0.34	175233.81	110.6	70 - 120		
72 Ge	14702.05	0.56	13286.95	110.7	70 - 120		
72 Ge	276521.78	0.53	261657.25	105.7	70 - 120		
115 In	1529008.80	1.90	1427636.50	107.1	70 - 120		
159 Tb	1854965.40	1.05	1715789.30	108.1	70 - 120		
165 Ho	1826368.30	0.78	1678833.30	108.8	70 - 120		

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass

**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)	250	234	93.6	80-120	04/27/11	04/28/11	#602D-110427A-AY36312

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

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\035SMPL.D\035SMPL.D#  
 Date Acquired: Apr 28 2011 03:34 pm  
 Operator: SDM  
 Sample Name: 110427A-3015-LCS  
 Misc Info: 110427A-3015  
 Vial Number: 3106  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 pm  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

QC Elements	Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l	#VALUE!	-----	0		
9 Be	40.53 ug/l	45.03	0.97	1000		
11 B	221.50 ug/l	246.09	0.90	1000		
23 Na	21220.00 ug/l	23575.42	0.70	25000		
24 Mg	20940.00 ug/l	23264.34	0.49	50000		
27 Al	1813.00 ug/l	2014.24	1.44	20000		
39 K	4463.00 ug/l	4958.39	0.79	20000		
44 Ca	22440.00 ug/l	24930.84	0.30	50000		
47 Ti	222.80 ug/l	247.53	0.75	1000		
51 V	226.90 ug/l	252.09	0.52	1000		
52 Cr	222.00 ug/l	246.64	0.13	1000		
55 Mn	224.70 ug/l	249.64	0.10	1000		
56 Fe	953.00 ug/l	1058.78	0.74	20000		
59 Co	218.40 ug/l	242.64	1.03	1000		
60 Ni	212.90 ug/l	236.53	0.74	1000		
63 Cu	209.50 ug/l	232.75	0.48	1000		
65 Cu	208.90 ug/l	232.09	0.63	1000		
66 Zn	417.00 ug/l	463.29	0.51	1000		
75 As	213.10 ug/l	236.75	0.24	1000		
78 Se	210.50 ug/l	233.87	0.53	1000		
78 Se	215.10 ug/l	238.98	1.06	1000		
88 Sr	229.60 ug/l	255.09	0.46	1000		
88 Sr	225.80 ug/l	250.86	0.63	1000		
95 Mo	242.70 ug/l	269.64	0.56	1000		
106 (Cd)	ug/l	#VALUE!	-----	#####		
107 Ag	85.70 ug/l	95.21	1.33	500		
108 (Cd)	ug/l	#VALUE!	-----	#####		
111 Cd	43.21 ug/l	48.01	1.75	1000		
118 Sn	212.70 ug/l	236.31	0.54	1000		
121 Sb	223.20 ug/l	247.98	0.40	1000		
137 Ba	227.80 ug/l	253.09	0.35	1000		
205 Tl	215.80 ug/l	239.75	0.56	1000		
206 (Pb)	ug/l	#VALUE!	-----	#####		
207 (Pb)	ug/l	#VALUE!	-----	#####		
208 Pb	210.80 ug/l	234.20	0.65	1000		

ISTD Elements	Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1697362.60	1.31	1867730.90	90.9	70 - 120			
45 Sc	813936.06	1.44	860905.50	94.5	70 - 120			
45 Sc	32317.06	1.94	30466.40	106.1	70 - 120			
45 Sc	1510385.30	1.28	1514635.40	99.7	70 - 120			
72 Ge	180417.98	0.32	175233.81	103.0	70 - 120			
72 Ge	14275.34	1.44	13286.95	107.4	70 - 120			
72 Ge	266003.34	0.42	261657.25	101.7	70 - 120			
115 In	1458448.90	0.54	1427636.50	102.2	70 - 120			
159 Tb	1829773.00	0.28	1715789.30	106.6	70 - 120			
165 Ho	1792390.30	0.50	1678833.30	106.8	70 - 120			

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

0 :Element Failures      0 :Max. Number of Failures Allowed  
 0 :ISTD Failures        0 :Max. Number of ISTD Failures Allowed

Data Results:  
 Analytes:      Pass  
 ISTD:            Pass

# Matrix Spike Recoveries

## METALS

APPL ID: 110427W-36312 MS - 154608

APPL Inc.

Sample ID: AY36312

908 North Temperance Avenue

Client ID: ES020

Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	Matrix Res ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	RPD Limits	RPD Date-Spk	Extract Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
6020	LEAD (PB) (DISSOLVE	250	ND	226	230	90.4	92.0	1.8	20	80-120	04/27/11	04/28/11	04/27/11	04/28/11	154608	AY36312

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Comments:

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\059SMPL.D\059SMPL.D#  
 Date Acquired: Apr 28 2011 05:59 pm  
 Operator: SDM  
 Sample Name: AY36312W30 MS  
 Misc Info: 110427A-3015  
 Vial Number: 3210  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 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	34.17 ug/l	37.96	0.53	1000	
11 B	288.10 ug/l	320.08	0.94	1000	
23 Na	94930.00 ug/l	105467.23	0.10	25000	>Cal
24 Mg	46320.00 ug/l	51461.52	0.85	50000	
27 Al	1765.00 ug/l	1960.92	0.95	20000	
39 K	7263.00 ug/l	8069.19	0.61	20000	
44 Ca	37380.00 ug/l	41529.18	0.29	50000	
47 Ti	219.50 ug/l	243.86	0.99	1000	
51 V	226.80 ug/l	251.97	0.56	1000	
52 Cr	215.30 ug/l	239.20	0.61	1000	
55 Mn	1808.00 ug/l	2008.69	0.67	1000	>Cal
56 Fe	1342.00 ug/l	1490.96	0.93	20000	
59 Co	210.80 ug/l	234.20	0.67	1000	
60 Ni	203.90 ug/l	226.53	0.76	1000	
63 Cu	196.40 ug/l	218.20	0.66	1000	
65 Cu	195.80 ug/l	217.53	0.36	1000	
66 Zn	402.50 ug/l	447.18	0.86	1000	
75 As	212.00 ug/l	235.53	0.71	1000	
78 Se	209.90 ug/l	233.20	0.52	1000	
78 Se	206.70 ug/l	229.64	1.77	1000	
88 Sr	347.70 ug/l	386.29	0.77	1000	
88 Sr	352.70 ug/l	391.85	0.58	1000	
95 Mo	239.40 ug/l	265.97	0.50	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	73.47 ug/l	81.63	2.11	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	42.33 ug/l	47.03	2.32	1000	
118 Sn	214.30 ug/l	238.09	1.62	1000	
121 Sb	227.90 ug/l	253.20	0.42	1000	
137 Ba	256.70 ug/l	285.19	1.22	1000	
205 Tl	208.20 ug/l	231.31	0.32	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	203.80 ug/l	226.42	1.43	1000	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1642250.60	1.26	1867730.90	87.9	70 - 120	
45 Sc	935564.75	0.38	860905.50	108.7	70 - 120	
45 Sc	31311.55	1.55	30466.40	102.8	70 - 120	
45 Sc	1705298.60	0.62	1514635.40	112.6	70 - 120	
72 Ge	183058.41	0.86	175233.81	104.5	70 - 120	
72 Ge	14238.24	1.31	13286.95	107.2	70 - 120	
72 Ge	260582.06	0.75	261657.25	99.6	70 - 120	
115 In	1446888.80	1.09	1427636.50	101.3	70 - 120	
159 Tb	1807690.50	1.01	1715789.30	105.4	70 - 120	
165 Ho	1775889.40	1.09	1678833.30	105.8	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Fail  
 ISTD: Pass



**Sample QC Report**

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\060SMPL.D\060SMPL.D#  
 Date Acquired: Apr 28 2011 06:05 pm  
 Operator: SDM  
 Sample Name: AY36312W30 MSD  
 Misc Info: 110427A-3015  
 Vial Number: 3211  
 Current Method: C:\ICPCHEM\1\METHODS\62A0428.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0428.C  
 Last Cal Update: Apr 28 2011 01:00 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	34.52 ug/l	38.35	0.23	1000	
11 B	293.30 ug/l	325.86	0.84	1000	
23 Na	96650.00 ug/l	107378.15	2.07	25000	>Cal
24 Mg	46510.00 ug/l	51672.61	1.94	50000	
27 Al	1760.00 ug/l	1955.36	1.80	20000	
39 K	7314.00 ug/l	8125.85	0.95	20000	
44 Ca	37180.00 ug/l	41306.98	1.93	50000	
47 Ti	223.30 ug/l	248.09	2.23	1000	
51 V	228.70 ug/l	254.09	1.42	1000	
52 Cr	216.70 ug/l	240.75	1.13	1000	
55 Mn	1869.00 ug/l	2076.46	1.40	1000	>Cal
56 Fe	1360.00 ug/l	1510.96	0.42	20000	
59 Co	212.20 ug/l	235.75	0.72	1000	
60 Ni	204.80 ug/l	227.53	0.79	1000	
63 Cu	198.80 ug/l	220.87	1.44	1000	
65 Cu	198.50 ug/l	220.53	1.53	1000	
66 Zn	398.40 ug/l	442.62	1.59	1000	
75 As	212.80 ug/l	236.42	1.00	1000	
78 Se	207.70 ug/l	230.75	0.28	1000	
78 Se	201.90 ug/l	224.31	2.87	1000	
88 Sr	351.50 ug/l	390.52	0.18	1000	
88 Sr	356.50 ug/l	396.07	0.38	1000	
95 Mo	241.80 ug/l	268.64	1.37	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	77.11 ug/l	85.67	1.31	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	41.91 ug/l	46.56	0.60	1000	
118 Sn	226.10 ug/l	251.20	1.71	1000	
121 Sb	228.10 ug/l	253.42	0.82	1000	
137 Ba	259.10 ug/l	287.86	1.55	1000	
205 Tl	210.70 ug/l	234.09	1.04	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	207.40 ug/l	230.42	0.77	1000	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1673624.60	0.56	1867730.90	89.6	70 - 120	
45 Sc	943826.38	1.49	860905.50	109.6	70 - 120	
45 Sc	30775.67	1.72	30466.40	101.0	70 - 120	
45 Sc	1682864.40	0.62	1514635.40	111.1	70 - 120	
72 Ge	182461.31	0.79	175233.81	104.1	70 - 120	
72 Ge	13977.63	1.89	13286.95	105.2	70 - 120	
72 Ge	257426.92	1.00	261657.25	98.4	70 - 120	
115 In	1431386.60	1.19	1427636.50	100.3	70 - 120	
159 Tb	1788853.50	1.05	1715789.30	104.3	70 - 120	
165 Ho	1763456.00	0.75	1678833.30	105.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11D28m00.B\005CALB.D\005CALB.D#

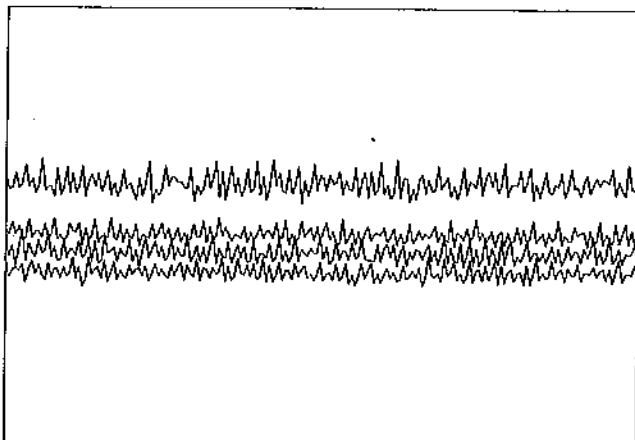
2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Fail  
 ISTD: Pass

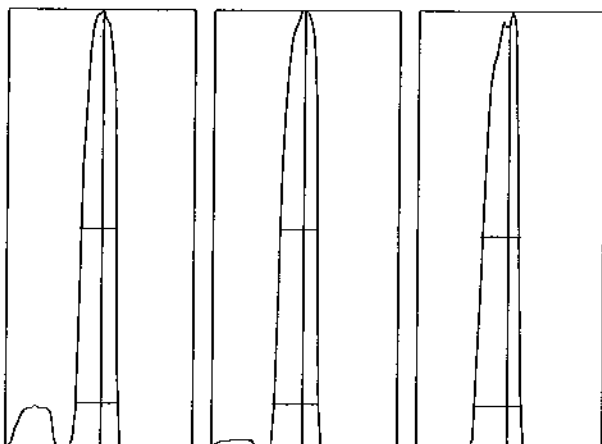
Tune Report

Tune File : nogas.u  
 Comment : 110428



Integration Time: 0.1000 sec  
 Sampling Period: 0.6200 sec  
 n: 200  
 Oxide: 156/140 0.996%  
 Doubly Charged: 70/140 1.295%

m/z	Range	Count	Mean	RSD%	Background
7	50,000	23358.0	24058.9	3.45	0.60
89	50,000	21041.0	21971.5	4.55	2.10
205	20,000	12128.0	11955.2	4.13	9.60
156/140	2	0.973%	1.002%	10.64	
70/140	2	1.275%	1.279%	8.41	
140	50,000	19215.0	19704.0	4.23	6.10



m/z:	7	89	205
Height:	23,978	21,703	11,735
Axis:	7.05	89.00	205.00
W-50%:	0.60	0.65	0.65
W-10%:	0.700	0.7500	0.800

Integration Time: 0.1000 sec  
 Acquisition Time: 22.7600 sec

Y axis : Linear

Tune Report

Tune File : nogas.u  
Comment : 110428

Tuning Parameters

===Plasma Condition===

RF Power : 1600 W  
RF Matching : 1.7 V  
Smpl Depth : 10.5 mm  
Torch-H : 0.1 mm  
Torch-V : 0.3 mm  
Carrier Gas : 0.98 L/min  
Makeup Gas : 0.1 L/min  
Optional Gas : --- %  
Nebulizer Pump : 0.1 rps  
Sample Pump : --- rps  
S/C Temp : 2 degC

===Ion Lenses===

Extract 1 : 0.1 V  
Extract 2 : -110 V  
Omega Bias-ce : -20 V  
Omega Lens-ce : -2.6 V  
Cell Entrance : -30 V  
QP Focus : 5 V  
Cell Exit : -30 V

===Octopole Parameters===

OctP RF : 170 V  
OctP Bias : -6 V

===Q-Pole Parameters===

AMU Gain : 126  
AMU Offset : 127  
Axis Gain : 0.9997  
Axis Offset : -0.02  
QP Bias : -3 V

===Detector Parameters===

Discriminator : 8 mV  
Analog HV : 1620 V  
Pulse HV : 1190 V

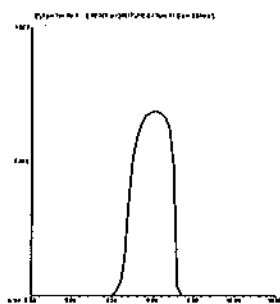
===Reaction Cell===

Reaction Mode : OFF  
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : --- %

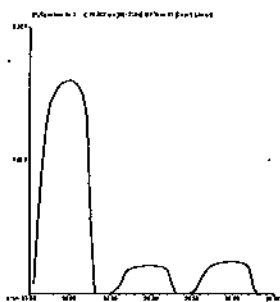
## 200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\11D28m00.B\001TUNE.D  
 Date Acquired: Apr 28 2011 12:09 pm  
 Acq. Method: TN200\_8.M  
 Operator: SDM  
 Sample Name: 100ppb Tune sol  
 Misc Info:  
 Vial Number: 1303  
 Current Method: C:\ICPCHEM\1\METHODS\TN200\_8.M

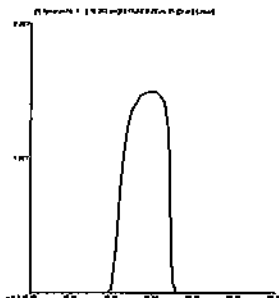
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
9 Be	37699494	37467732	37631584	37553700	37887220	37957236	0.36	5.00	
24 Mg	92979471	92000464	92946200	92996048	93134264	93820376	0.73	5.00	
59 Co	89018731	88175448	89009840	88961032	89718584	89228752	0.75	5.00	
115 In	100212466	#####	99662040	#####	#####	#####	0.56	5.00	
208 Pb	42108312	42076068	42369156	42057388	42190680	41848268	0.48	5.00	



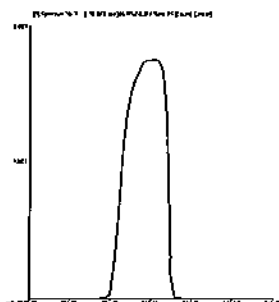
**9 Be**  
**Mass Calib.**  
 Actual: 9.00  
 Required: 8.90 - 9.10  
 Flag:  
**Peak Width**  
 Actual: 0.60  
 Required: 0.90  
 Flag:



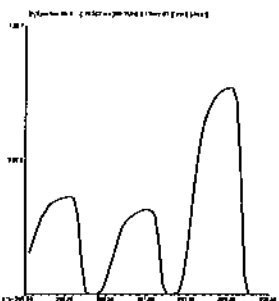
**24 Mg**  
**Mass Calib.**  
 Actual: 24.00  
 Required: 23.90 - 24.10  
 Flag:  
**Peak Width**  
 Actual: 0.65  
 Required: 0.80  
 Flag:



**59 Co**  
**Mass Calib.**  
Actual: 58.95  
Required: 58.90 - 59.10  
Flag:  
**Peak Width**  
Actual: 0.65  
Required: 0.90  
Flag:



**115 In**  
**Mass Calib.**  
Actual: 115.00  
Required: 114.90 - 115.10  
Flag:  
**Peak Width**  
Actual: 0.60  
Required: 0.90  
Flag:



**208 Pb**  
**Mass Calib.**  
Actual: 207.95  
Required: 207.90 - 208.10  
Flag:  
**Peak Width**  
Actual: 0.60  
Required: 0.80  
Flag:

**Tune Result:** Pass

HM 6020/60009  
4/25/11

ICP-MS STANDARDS 6020/6000A/3015/3051A  
 Today's Date: 4/25/2011  
 Expires: 5/2/2011  
 Prep Date 1% HNO3/1.0% HCL  
 20 mL HNO3 / 2000 mL DI Water  
 Lot # 1110030  
 20mL HCL / 2000mL DI Water  
 Lot #4110060  
 Expires: 5/2/2011

Standard 4  
 Amount STD Manufacturer Lot #  
 50 uL CCV-A Env. Express 1038407-28139  
 50 uL CCV-B Env. Express 1038410-28140  
 50 uL CCV-C Env. Express 1100309-28141

Prepared in 100 mL of 1% HNO3/1.0% HCL 4/25/2011

Standard 3 5/2/2011  
 Amount STD Manufacturer Lot #  
 25 uL CCV-A Env. Express 1038407-28139  
 25 uL CCV-B Env. Express 1038410-28140  
 25 uL CCV-C Env. Express 1100309-28141

Prepared in 100 mL of 1% HNO3/1.0% HCL 4/25/2011

Standard 2 5/2/2011  
 Amount STD  
 500 uL Standard 4 4/25/2011  
 Prepared in 50 mL of 1% HNO3/1.0% HCL 4/25/2011

Standard 1 5/2/2011  
 Amount STD  
 50 uL Standard 4 4/25/2011  
 Prepared in 50 mL of 1% HNO3/1.0% HCL 4/25/2011

ICP-MS ICV 5/2/2011  
 Amount STD  
 50 uL QCS ICV A CPI 11C174-28548  
 50 uL QCS ICV B CPI 11C174-28548  
 Prepared in 50 mL of 1% HNO3/1.0% HCL 4/25/2011

ICSA Prep: 5/2/2011  
 1 mL ICSA CPI 11C068-28528  
 Prepared in 5 mL of 1% HNO3/1.0% HCL 4/25/2011

ICSA B Prep: 6/2/2011  
 1mL ICSA CPI 11C068-28528  
 0.025mL INT O2SI 1023805-28210  
 Prepared in 5 mL of 1% HNO3/1.0% HCL 4/25/2011  
 ICP-LDR 6/2/2011

Amount STD  
 50 uL CCV-A Env. Express 1038407-28139  
 50 uL CCV-B Env. Express 1038410-28140  
 50 uL CCV-C Env. Express 1100309-28141

Prepared in 10 mL of 1% HNO3/1.0% HCL 4/25/2011

HM 4/25/11

Internal Standard Concentration						
Amt	STD	Element	Vendor	Lot#	Final Conc. in Std	Expires
50uL	1000 ug/mL	Li	CPI	10L079-27839	1ppm	8/10/2012
50uL	1000 ug/mL	In	CPI	060228-25327	1ppm	4/23/2011
50uL	1000 ug/mL	Ho	CPI	09F382-25328	1ppm	4/23/2011
50uL	1000 ug/mL	Tb	CPI	09A222-25328	1ppm	4/23/2011
50uL	1000 ug/mL	Sc	O2SI	1024073-28527	1ppm	8/18/2012
50uL	1000 ug/mL	Ge	Environmental Express	0932416-25995	1ppm	7/13/2011
Prep:	4/25/2011	SDM	Prep in -	1% HNO3/1.0% HCL: Lot #1110030/4110060 in 50mL		
Expires:	5/25/2011					

HM 4/25/11

# Metals Digestion Worksheet

Method Name 3015 Digestion

Prep Method M3015

Set 110427A

Units mL

Spikes	
Spiked ID 1	LCSW LOT# 11C173-28546
Spiked ID 2	LCSW LOT# 11C172-28545
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 04/27/11 9:37:00 AM
Witnessed By	DP Date: 04/27/11 9:37:00 AM

Starting Temp:	30°C
Ending Temp:	170°C
Temperature Type:	Microwave
Sufficient Vol for Matrix QC:	YES
End Date/Time	4/27/11 10:37

Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1 110427A Bk				45mL	50mL	04/27/11 9:37	
2 110427A LCS		450uL	1+2	45mL	50mL	04/27/11 9:37	
3 AY36311	AY36311W08			45mL	50mL	04/27/11 9:37	
4 AY36312	AY36312W29			45mL	50mL	04/27/11 9:37	
5 AY36312 MS	AY36312W30	450uL	1+2	45mL	50mL	04/27/11 9:37	
6 AY36312 MSD	AY36312W30	450uL	1+2	45mL	50mL	04/27/11 9:37	
7 AY36313	AY36313W08			45mL	50mL	04/27/11 9:37	
8 AY36316	AY36316W08			45mL	50mL	04/27/11 9:37	
9 AY36317	AY36317W08			45mL	50mL	04/27/11 9:37	
10 AY36384	AY36384W28			45mL	50mL	04/27/11 9:37	
11 AY36384 MS	AY36384W29	450uL	1+2	45mL	50mL	04/27/11 9:37	
12 AY36384 MSD	AY36384W29	450uL	1+2	45mL	50mL	04/27/11 9:37	
13 AY36385	AY36385W08			45mL	50mL	04/27/11 9:37	
14 AY36387	AY36387W08			45mL	50mL	04/27/11 9:37	

Solvent and Lot#
HNO3 BDH 1110110 2903

Sample CQC Transfer	
Sample prep employee Initials	dp
Analyst's initials	Hm/SDM
Date	4/28/11
Time	7:30
Moved to	Metals

Technician's Initials	
Scanned By	dp
Sample Preparation	nm
Digestion	nm
Bring up to volume	dp
Modified	04/27/11 8:40:27 AM

Reviewed By: Hm<sub>07</sub> Date: 4/28/11

## 6020/200.8 Injection Log

Directory: K:\ICP-MS Optimus\raw data output csv\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	28 Apr 2011	12:32	Calibration Blank		110428A	1.
2	28 Apr 2011	12:38	110425 Standard 1		110428A	1.
3	28 Apr 2011	12:44	110425 Standard 2		110428A	1.
4	28 Apr 2011	12:50	110425 Standard 3		110428A	1.
5	28 Apr 2011	12:56	110425 Standard 4		110428A	1.
6	28 Apr 2011	13:02	ICV 110425		110428A	1.
8	28 Apr 2011	13:27	CCV 110425		110428A	1.
9	28 Apr 2011	13:51	ICB 110425		110428A	1.
10	28 Apr 2011	13:57	CCB 110425		110428A	1.
11	28 Apr 2011	14:03	LDR 110425		110428A	1.
12	28 Apr 2011	14:15	ICSA 110425		110428A	1.
13	28 Apr 2011	14:21	ICSAB 110425		110428A	1.
14	28 Apr 2011	14:33	CCV 110425		110428A	1.
15	28 Apr 2011	14:57	CCB 110425		110428A	1.
17	28 Apr 2011	15:09	110427A-3015-BLK		110428A	1.
20	28 Apr 2011	15:34	110427A-3015-LCS		110428A	1.
24	28 Apr 2011	16:10	CCV 110425		110428A	1.
25	28 Apr 2011	16:22	CCB 110425		110428A	1.
35	28 Apr 2011	17:23	AY36311W08		110428A	1.
37	28 Apr 2011	17:35	CCV 110425		110428A	1.
38	28 Apr 2011	17:47	CCB 110425		110428A	1.
39	28 Apr 2011	17:53	AY36312W29		110428A	1.
40	28 Apr 2011	17:59	AY36312W30 MS		110428A	1.
41	28 Apr 2011	18:05	AY36312W30 MSD		110428A	1.
42	28 Apr 2011	18:11	AY36312W29-A		110428A	1.
43	28 Apr 2011	18:17	AY36312W29-1/5		110428A	5.
44	28 Apr 2011	18:23	AY36313W08		110428A	1.
45	28 Apr 2011	18:29	AY36316W08		110428A	1.
46	28 Apr 2011	18:35	AY36317W08		110428A	1.
50	28 Apr 2011	18:59	CCV 110425		110428A	1.
51	28 Apr 2011	19:12	CCB 110425		110428A	1.



# Laboratory Report

Environet

LTM Red Hill Bulk Fuel Storage Facility

ARF 64544

Samples collected: April 28, 2011

APPL, Inc.

Data Validation Package  
for  
LTM Red Hill Bulk Fuel Storage Facility  
ARF 64544

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# **CASE NARRATIVE**



## Case Narrative

ARF: 64544

Project: LTM Red Hill Bulk Fuel Storage Facility

State Certification Number: CA1312 (DW & WW)

NELAP Certification number: 05233CA (HW)

DoD-ELAP Certificate number: ADE-1410

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.

### Sample Receipt Information:

The water samples were received on April 29, 2011, at 3.5°C. The sample group was assigned Analytical Request Form (ARF) number 64544. The sample numbers and requested analyses were compared to the chain of custody. No exception was encountered.

**Sample Table**

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
ES033	AY36735	WATER	04/28/11	04/29/11
ES034	AY36736	WATER	04/28/11	04/29/11

All samples were screened for J-value responses between the LOQ and DL.

# **EPA Method 8015B**

## **Total Petroleum Hydrocarbons – Diesel**

### **Sample Preparation:**

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

### **Sample Analysis Information:**

The sample was 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 by the client for MS/MSD analysis.

#### **Surrogates:**

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

### **Summary:**

No problem was encountered

# **EPA Method 8270D SIM**

## **Polynuclear Aromatic Hydrocarbons**

### **Sample Preparation:**

The water 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/Assurance**

#### **Calibrations:**

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

#### **Blanks:**

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

#### **Spikes:**

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

No sample was designated by the client 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. Sample ES033 was received in unpreserved vials; the sample was analyzed within seven days of collection.

### **Quality Control/Assurance**

#### **Calibrations:**

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

#### **Blanks:**

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

#### **Spikes:**

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

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

#### **Surrogates**

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

#### **Tuning:**

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

#### **Internal Standards**

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

### **Summary:**

No problem was encountered. The data generated are acceptable.



# EPA Method 6020

## Lead

### Digestion Information:

The water sample was digested according to EPA methods 3015. All holding times were met.

### Analysis Information:

#### Samples:

The sample was 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.

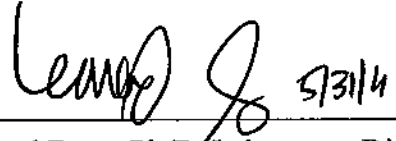
Sample ES033 was selected by the laboratory for MS/MSD analysis. All acceptance criteria were met for the MS/MSD, PDS, and serial dilution.

### 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. Release of the hard copy has been authorized by the Laboratory Manager or his designee, as verified by the following signature

Handwritten signature of Leonard Fong and the date 5/31/14.

---

Leonard Fong, Ph.D, Laboratory Director / Date

# **CHAIN OF CUSTODY AND ARF**

# APPL - Analysis Request Form

64544



Client: Environet, Inc.  
 Address: 650 Iwilei Rd, #204  
Honolulu, HI 96817  
 Attn: Vilma Dupra  
 Phone: 808-833-2225 Fax: 808-833-2231  
 Job: LTM Red Hill Bulk Fuel Storage Facility  
 PO #: 1022-015  
 Chain of Custody (Y/N): Y # 34092  
 RAD Screen (Y/N): Y pH (Y/N): Y  
 Turn Around Type: 2 WEEKS

Received by: TBV  
 Date Received: 04/29/11 Time: 10:30  
 Delivered by: FED EX  
 Shuttle Custody Seals (Y/N): Y  
 Chest Temp(s): 3.5°C  
 Color: VOA,H-PURGRN,P-OGRN  
 Samples Chilled until Placed in Refrig/Freezer: Y  
 Project Manager: Cynthia Clark *lc*  
 QC Report Type: DVP4/ADRDOD/HI  
 Due Date: 05/13/11

**Comments:**

14 day TAT for Form 1s & 30 day TAT for full package. *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, EDD: Exce & ADR ✓  
 DoD Forms, J flag to DL, U flag at LOD ✓  
 EDD ADR A1/A3 (ADR 8.3a unchecked) to *VDupra@* & *sflneran@environetinc.com*  
 metals 6020: report Lead with 0.5ug/L RL  
 TPH-Diesel only  
 VOCs: include gasoline by 8260B

Sample Distribution:

**GC: 1-\$SIMHC12W, 1-\$TPETD2**  
**Extractions: 1- SEP004S, 1- SEP011**  
**VOA: 2-\$86RHBF**  
**Metals: 1-\$602D(Pb)**  
**Other: 1- M3015**

Charges:

Invoice To:

same

Client ID	APPL ID	Sampled	Analyses Requested
1. ES033	AY36735W 	04/28/11 13:00	\$602D(Pb), \$86RHBF, \$SIMHC12W, \$TPETD2 -- non-preserved VOA
2. ES034	AY36736W 	04/28/11 10:00	\$86RHBF -- non-preserved VOA

Initials \_\_\_\_\_ Date \_\_\_\_\_

# APPL Sample Receipt Form

ARF# 64544

Sample	Container Type	Count	pH
AY36735	<sup>6</sup> PL 500mL - HNO3	1	1.7
	<sup>15</sup> VOAs - NP	4	NA
	<sup>17</sup> Amber Liter	3	NA
AY36736	<sup>13</sup> VOAs - HCL	1	NA

Sample Container Type Count pH



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

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

CHAIN OF CUSTODY RECORD

c.o.c. 34092

6/25/11  
14544 305

Report to: PLEASE PRINT  
Company Name: EnviroNet Inc. Phone: (808) 833-2225  
Address: 650 Twilei Rd. Site 204  
Honolulu, HI 96817  
Attn: Vilma Dupra  
Fax: (808) 833-2231

Invoice to: PLEASE PRINT  
Company Name: EnviroNet Inc Phone: (808) 833-2225  
Address: 650 Twilei Rd. Site 204  
Honolulu, HI 96817  
Attn: Cecilia Adams  
Fax: (808) 833-2231

Project Name/Number	Sampler (Print)	Analysis Requested/Method Number				Date Shipped: <u>4/28/11</u>				
						Carrier: <u>Fed Ex</u>	Waybill No.:	Comments:		
Purchase Order Number	Sampler (Signature)	No. of Containers	Matrix			VOCs	TPH-GRO	PAHs	TPH-DRO	Dissolved Pb
Sample Identification	Location		Aq	Sed.	Soil					
<u>Red Hill/1022-015</u>	<u>Stacy Fineran</u>									
	<u>Stacy A. Fineran</u>									
<u>ES033</u>	<u>Red Hill</u>	<u>8</u>	<u>X</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>ES034</u>	<u>Red Hill</u>	<u>1</u>	<u>X</u>			<u>X</u>				

Shuttle Temperature: \_\_\_\_\_ Turnaround Requested: MUST CHECK ONE  
 Standard (2-3 week)  One week  24-48 hour  
 Sample Disposal:  Return to client  Disposal by Lab (30-day retention)  
 Relinquished by sampler: Stacy A. Fineran Date: 4/28/11 Time: 1500 Received by: Fed Ex  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: 4/29/11 Time: 1030 Received at lab by: \_\_\_\_\_

COOLER RECEIPT FORM

1) Project: LTM Red Hill Bulk Fuel Storage Facility Date Received: 4/29/11

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? 4/28/11

5) Name on seal? See Label

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) 8748 0067 1370 2) 3) \_\_\_\_\_

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

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

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

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

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

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

15) Cooler temp(s): 1) 3.5(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: 4Y36736 001

Preservation & Hold time:

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

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

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

36)  YES  NO  NA Was the pH of acid preserved non-VOA samples < 2 & sodium hydroxide preserved samples > 10?

37)  YES  NO  NA Unpreserved VOA Vials received? \_\_\_\_\_

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

Lab notified if pH was not adequate: \_\_\_\_\_

Deficiencies: \_\_\_\_\_

Signature of personnel receiving samples: Yang Jn Second reviewer: [Signature]

Signature of project manager notified: \_\_\_\_\_ Date and Time of notification: \_\_\_\_\_

Name of client notified: \_\_\_\_\_ Date and Time of notification: \_\_\_\_\_

Information given to client: \_\_\_\_\_ by whom (Initials): \_\_\_\_\_

CUSTODY SEAL

APPL, Inc.

(559) 275-2175

Initials

[Signature]

Date

4/29/11

**EPA 8015 Modified  
Total Petroleum Hydrocarbons**



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

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

Blank Name/QCG: **110503W-36735 - 155099**  
Batch ID: #TPETD-110503A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	5/3/2011	5/11/2011
BLANK	SURROGATE: OCTACOSANE (S)	68.8	28-142			%	5/3/2011	5/11/2011
BLANK	SURROGATE: ORTHO-TERPHEN	59.8	57-132			%	5/3/2011	5/11/2011

Quant Method: TPHD422.M  
Run #: 509131  
Instrument: Apollo  
Sequence: 110509  
Initials: LA

GC SC-Blank-REG MDLs  
Printed: 5/27/2011 3:13:17 PM

### Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 64544

Case No: 64544

Date Analyzed: 5/11/2011

Matrix: WATER

Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)	SURROGATE: ORTHO-TERPHENYL (S)
110503A-BLK	Blank	68.8	59.8
110503A-LCS	Lab Control Splke	67.3	74.7
AY36735	ES033	73.0	57.1

Comments: Batch: #TPETD-110503A

**Laboratory Control Spike Recovery**  
**TPH Diesel Water**

APPL ID: 110503W-36735 LCS - 155099  
 Batch ID: #TPETD-110503A

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	1380	69.0	61-143
SURROGATE: OCTACOSANE (S)	150	101	67.3	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	112	74.7	57-132

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

<u>Primary</u>	<u>SPK</u>
Quant Method :	TPHD422.M
Extraction Date :	5/3/2011
Analysis Date :	5/11/2011
Instrument :	Apollo
Run :	509132
Initials :	LA

Printed: 5/27/2011 3:13:09 PM

APPL Standard LCS

# EPA 8015B-e

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 64544

Case No: 64544

Date Analyzed: 5/11/2011

Matrix: WATER

Instrument: Apollo

Blank ID: 110503A-BLK

Time Analyzed: 1840

APPL ID.	Client Sample No.	File ID.	Date Analyzed
110503A-BLK	Blank	509131	5/11/2011 1840
110503A-LCS	Lab Control Spike	509132	5/11/2011 1906
AY36735	ES033	516015	5/16/2011 1709

Comments: Batch: #TPETD-110503A

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

## TPH Diesel Water

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

Attn: Vilma Dupra  
Project: LTM Red Hill Bulk Fuel Storage Facility

**Sample ID: ES033**

Sample Collection Date: 4/28/2011

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64544

**APPL ID: AY36735**

QCG: #TPETD-110503A-155099

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	300 ++	150	80.8	40.4	ug/L	5/3/2011	5/16/2011
EPA 8015B-	SURROGATE: OCTACOSANE (S)	73.0	28-142			%	5/3/2011	5/16/2011
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S)	57.1	57-132			%	5/3/2011	5/16/2011

++(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: TPHD422.M
Run #: 516015
Instrument: Apollo
Sequence: 110516
Dilution Factor: 1
Initials: LA

Printed: 5/27/2011 3:13:13 PM  
APPL-F1-SC-NoMC-REG MDLs

Data File : G:\APOLLO\DATA\110516\516015.D Vial: 15  
 Acq On : 5-16-11 17:09:07 Operator: LAC  
 Sample : AY36735W07 5/1025 Inst : Apollo  
 Misc : Water Multiplr: 4.88  
 IntFile : events.e  
 Quant Time: May 27 15:06 2011 Quant Results File: TPHD422.RES

Method : G:\APOLLO\DATA\110513\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

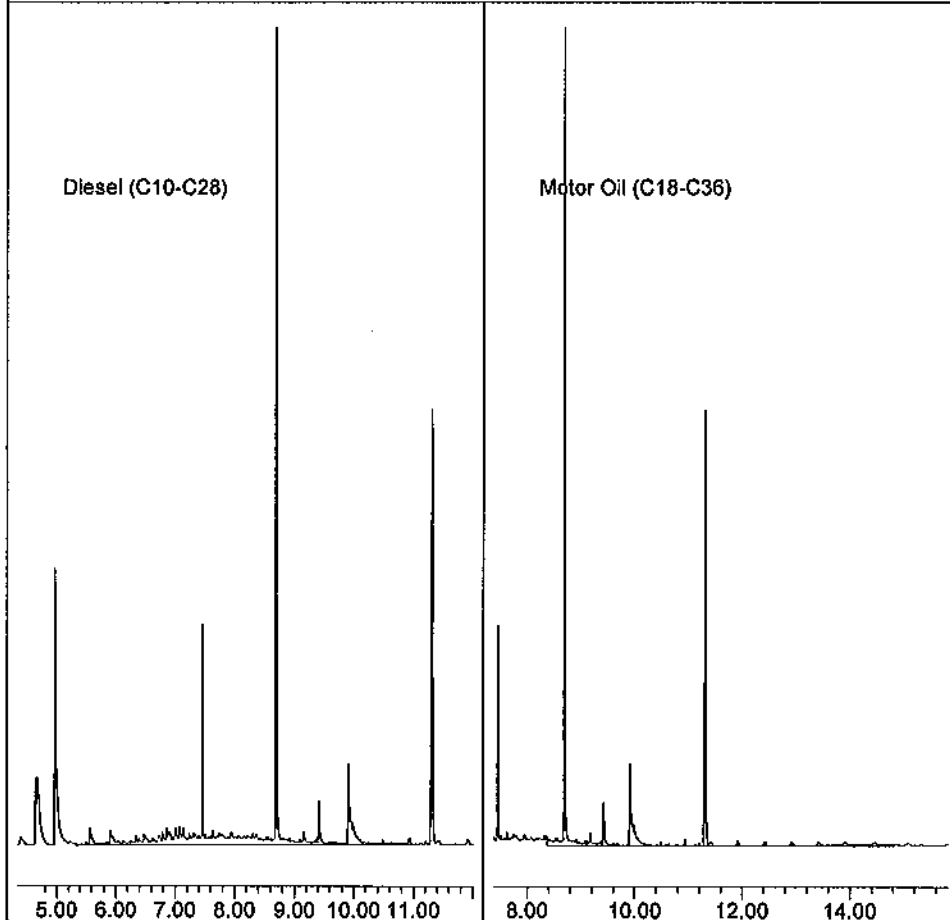
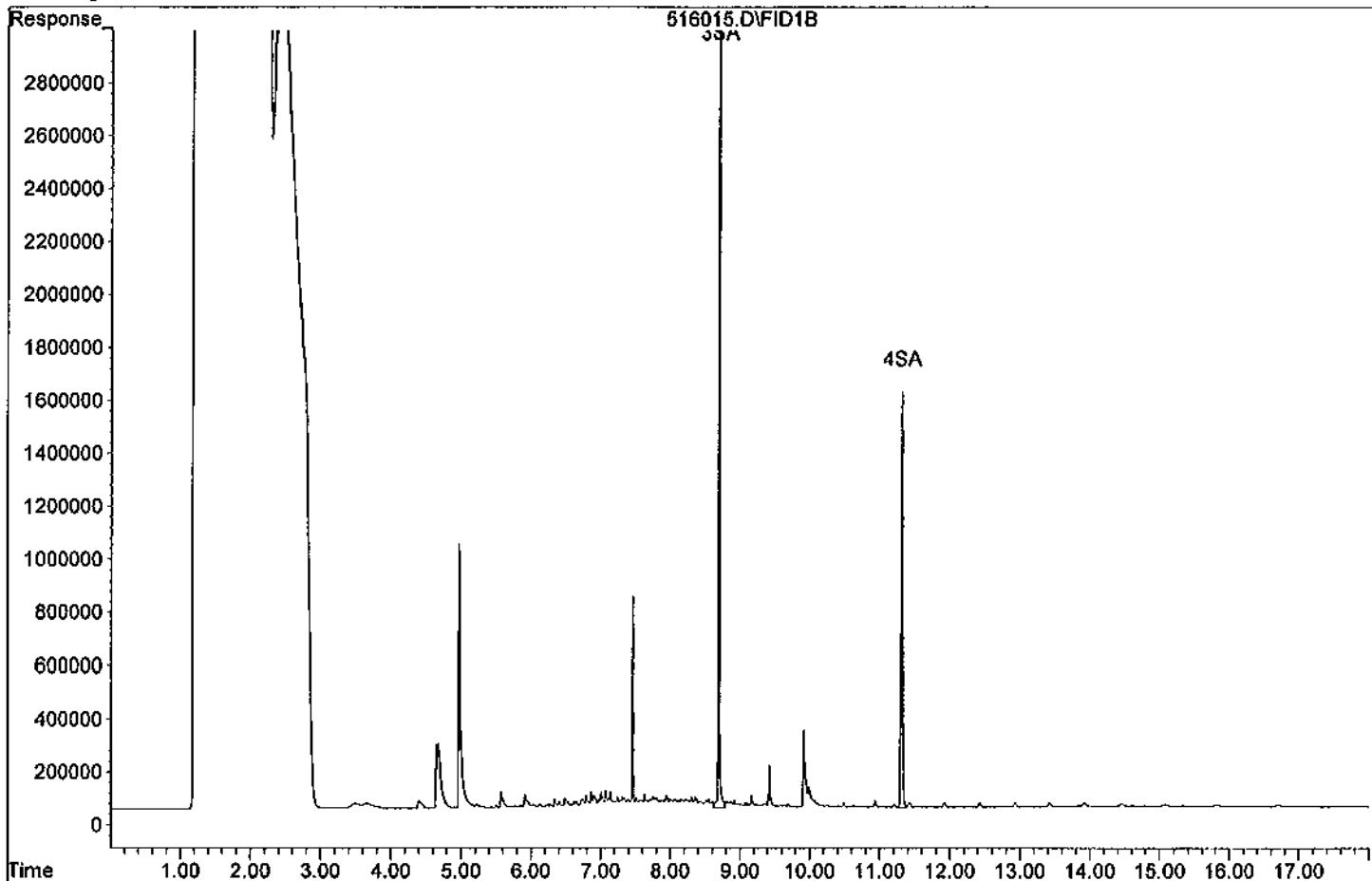
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	8.69	29585839	83.506 ppb
Surrogate Spike 146.341		Recovery =	57.06%
4) SA Octacosane(S)	11.32	25153058	106.858 ppb
Surrogate Spike 146.341		Recovery =	73.02%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	69588143	295.363 ppb <sup>TL</sup>
2) HBTM Motor Oil (C18-C36)	11.60	30276773	160.143 ppb <sup>ND</sup>



Quantitation Report

Data File: G:\APOLLO\DATA\110516\516015.D  
Sample : AY36735W07 5/1025



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

TPH Extractables  
TPHD422

Form 6  
Initial Calibration

Lab Name: APPL, Inc. \_\_\_\_\_

SDG No: 64544 \_\_\_\_\_

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

Initial Cal. Date: 4/22/2011 \_\_\_\_\_

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

Instrument: Apollo \_\_\_\_\_

Initials: LAC

422010.D    422011.D    422012.D    422013.D    422014.D    422015.D

	Compound	1	2	3	4	5	6					Avg	%RSD		
1	HATM Diesel (C10-C28)	588896	605651	564267	563101	566081	559844					574640	3.2	HATM	
2	HBTML Motor Oil (C18-C36)	219231	487042	368565	381363	367228	364261					364615	23	HBTML	0.997
3	SA Ortho-Terphenyl(S)	790967	1100428	805689	864346	777656	845708					864132	14	SA	
4	SA Octacosane(S)	558338	571843	577087	583268	580825	573339					574116	1.5	SA	
5															
6															
7															
8															
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34															
35															

1.2024801

Data File : G:\APOLLO\DATA\110422\422004.D Vial: 4  
 Acq On : 4-22-11 11:20:08 Operator: LAC  
 Sample : DIESEL 10/1000 4/22/11 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Apr 28 7:45 2011 Quant Results File: TPHD422.RES

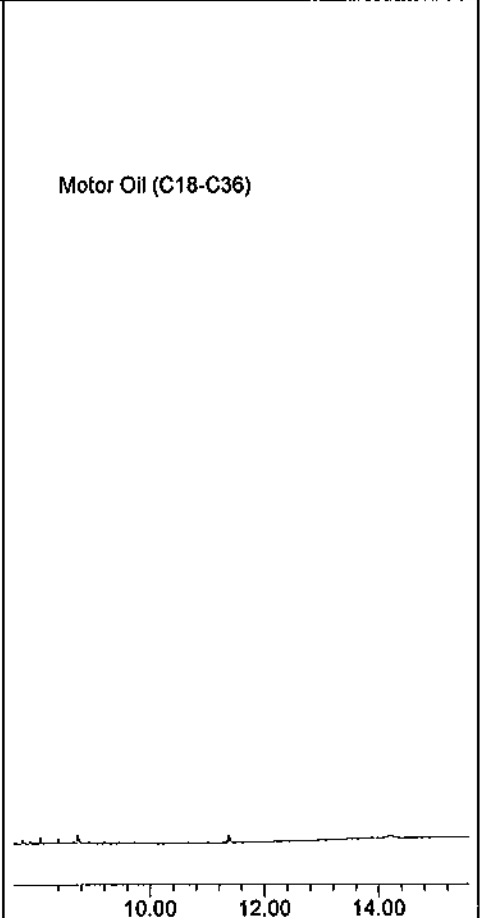
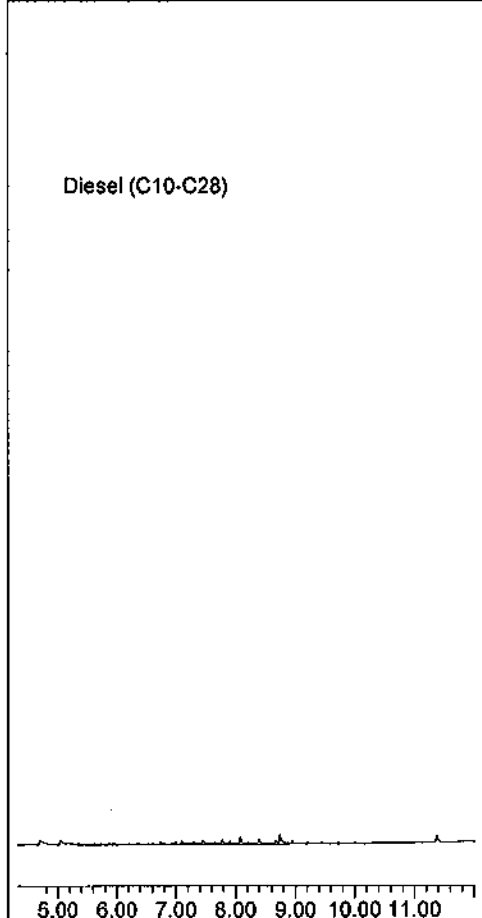
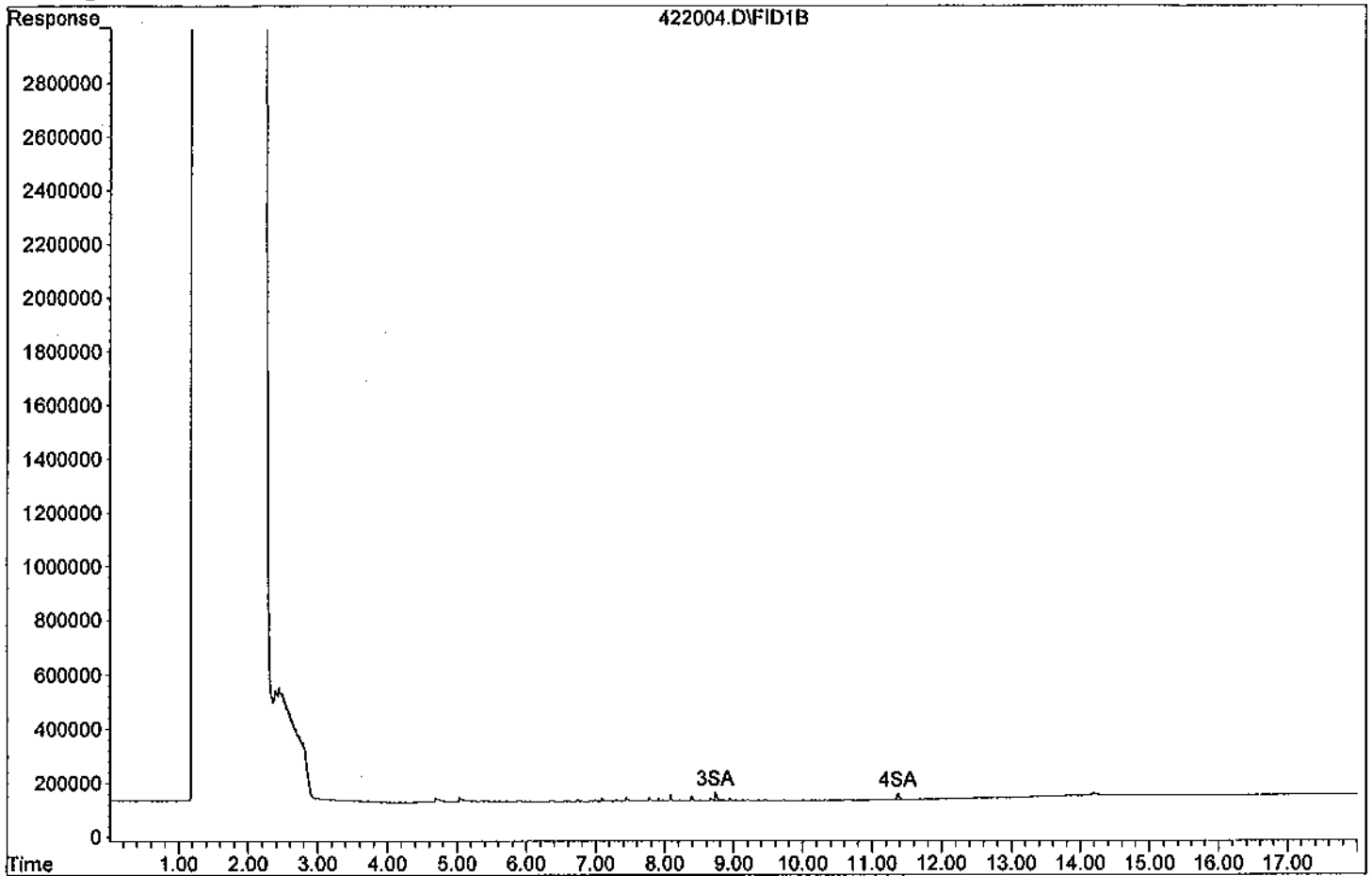
Method : G:\APOLLO\DATA\110516\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	8.74	790967	0.458 ppb
Surrogate Spike 30.000		Recovery =	1.53%
4) SA Octacosane(S)	11.38	558338	0.486 ppb
Surrogate Spike 30.000		Recovery =	1.62%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	11777927	10.248 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\110422\422004.D  
Sample : DIESEL 10/1000 4/22/11



Data File : G:\APOLLO\DATA\110422\422005.D Vial: 5  
 Acq On : 4-22-11 11:45:11 Operator: LAC  
 Sample : DIESEL 100/1000 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Apr 28 7:45 2011 Quant Results File: TPHD422.RES

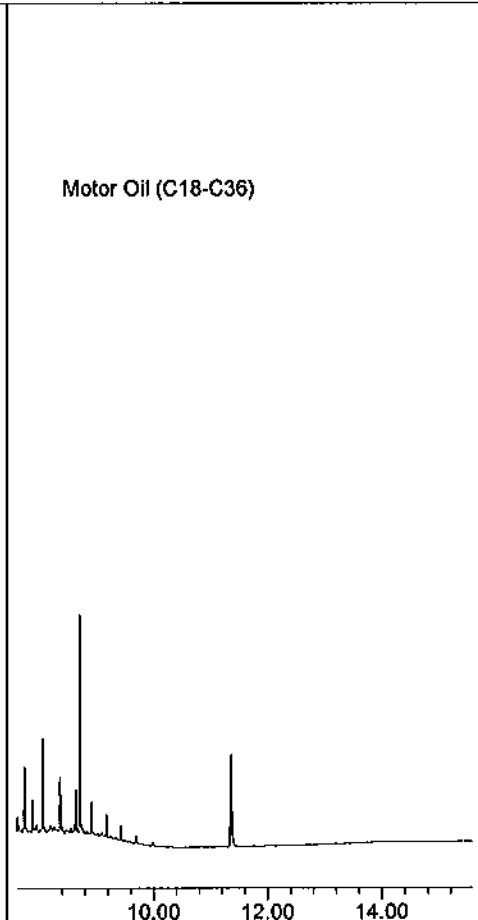
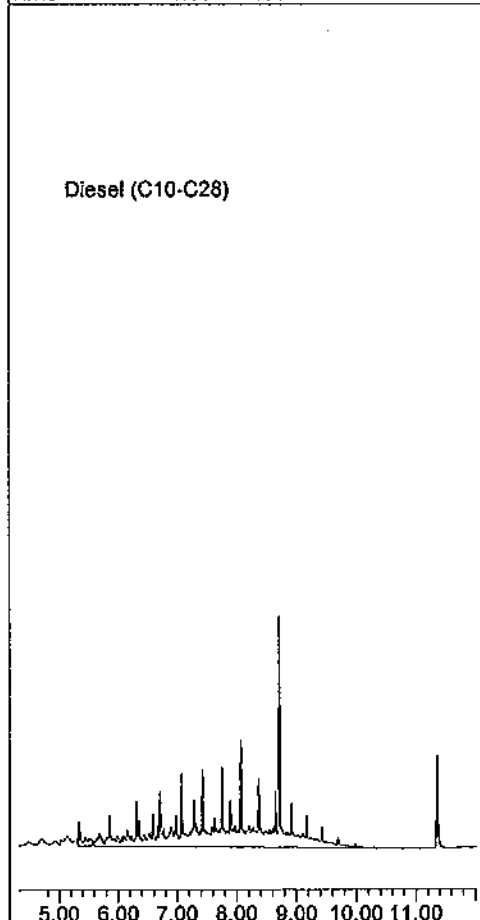
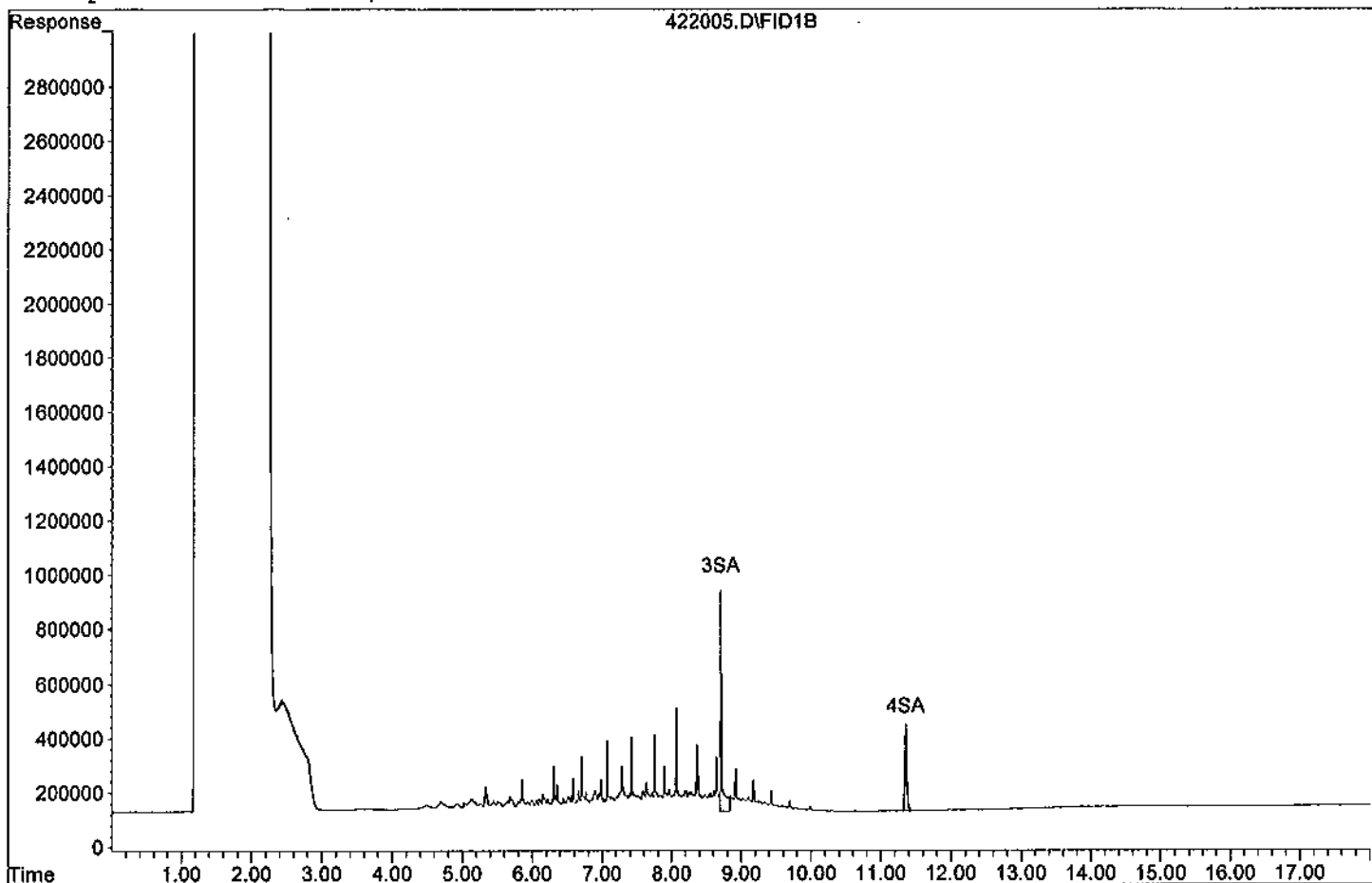
Method : G:\APOLLO\DATA\110516\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	8.71	11004276	6.367 ppb
Surrogate Spike 30.000		Recovery =	21.22%
4) SA Octacosane(S)	11.36	5718428	4.980 ppb
Surrogate Spike 30.000		Recovery =	16.60%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	121130154	105.397 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\110422\422005.D  
Sample : DIESEL 100/1000



Data File : G:\APOLLO\DATA\110422\422006.D Vial: 6  
 Acq On : 4-22-11 12:10:19 Operator: LAC  
 Sample : DIESEL 400/1000 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Apr 28 7:45 2011 Quant Results File: TPHD422.RES

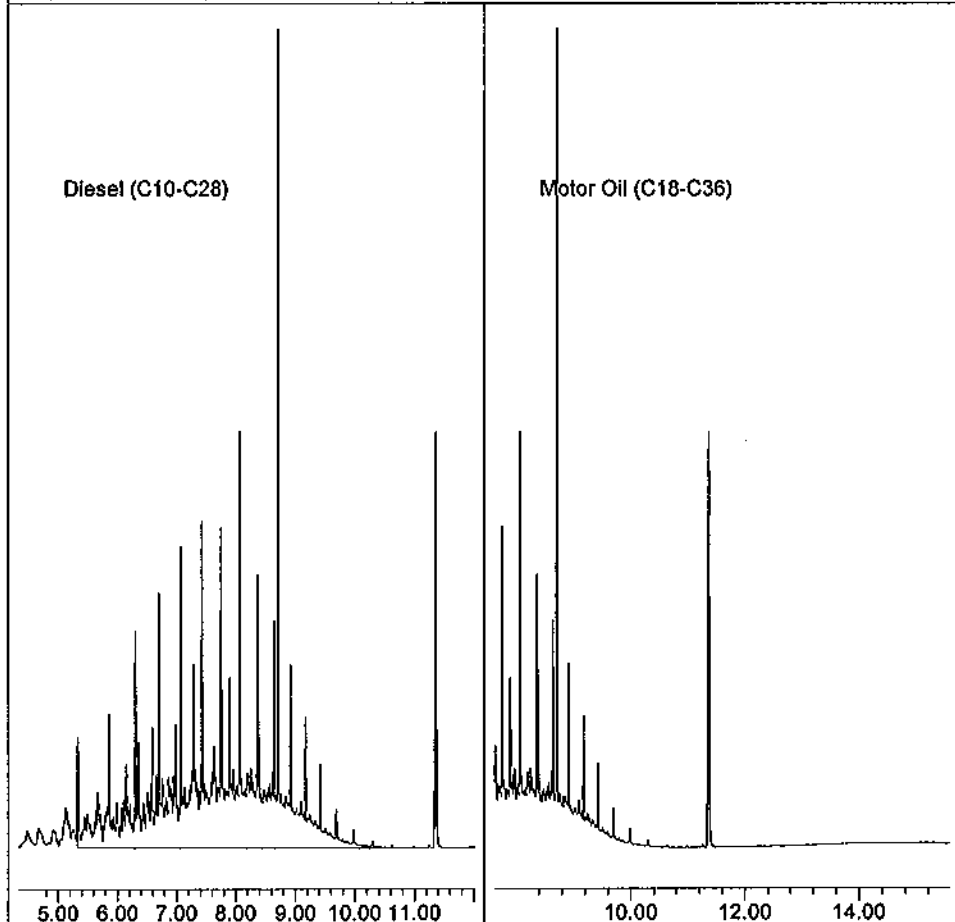
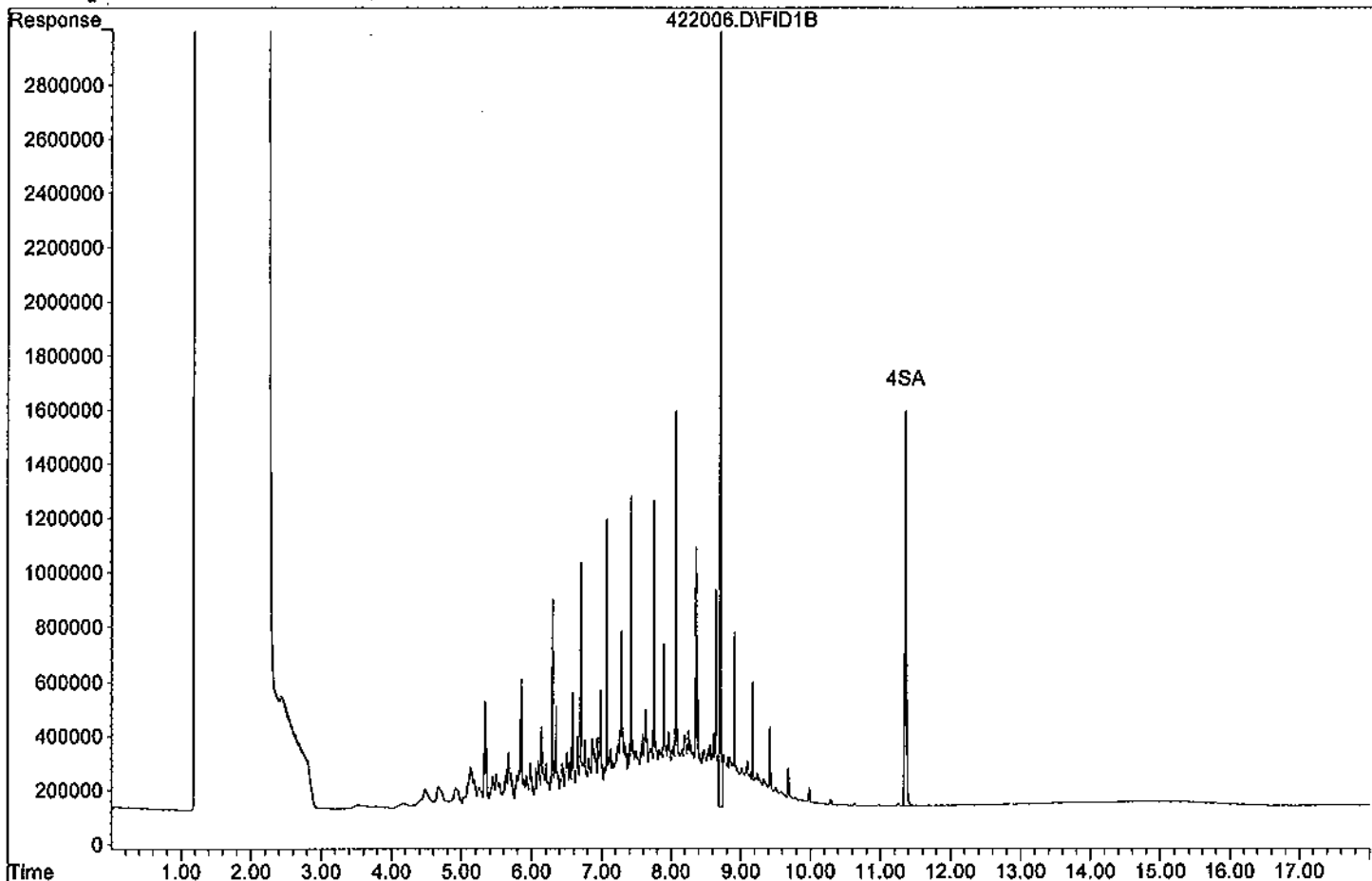
Method : G:\APOLLO\DATA\110516\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	8.71	32227552	18.647 ppb
Surrogate Spike 30.000		Recovery =	62.16%
4) SA Octacosane(S)	11.36	23083461	20.103 ppb
Surrogate Spike 30.000		Recovery =	67.01%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	451413213	392.779 ppb



Data File: G:\APOLLO\DATA\110422\422006.D  
Sample : DIESEL 400/1000



Data File : G:\APOLLO\DATA\110422\422007.D Vial: 7  
 Acq On : 4-22-11 12:35:32 Operator: LAC  
 Sample : DIESEL 600/1000 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Apr 28 7:45 2011 Quant Results File: TPHD422.RES

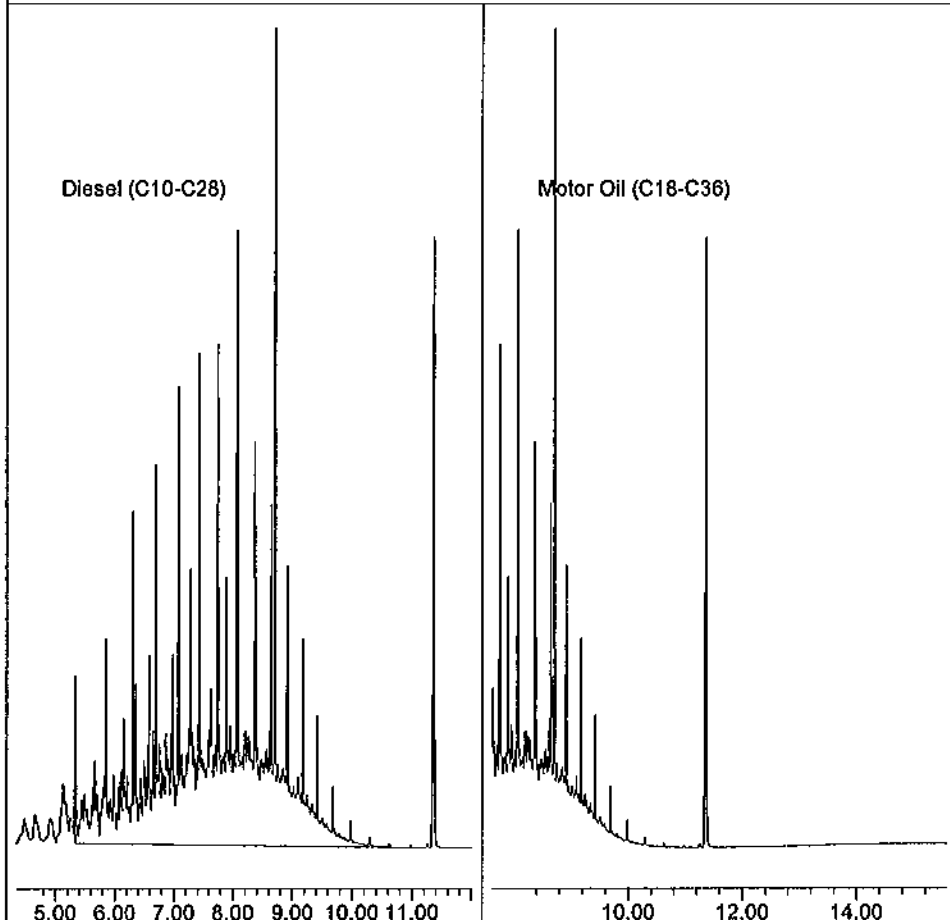
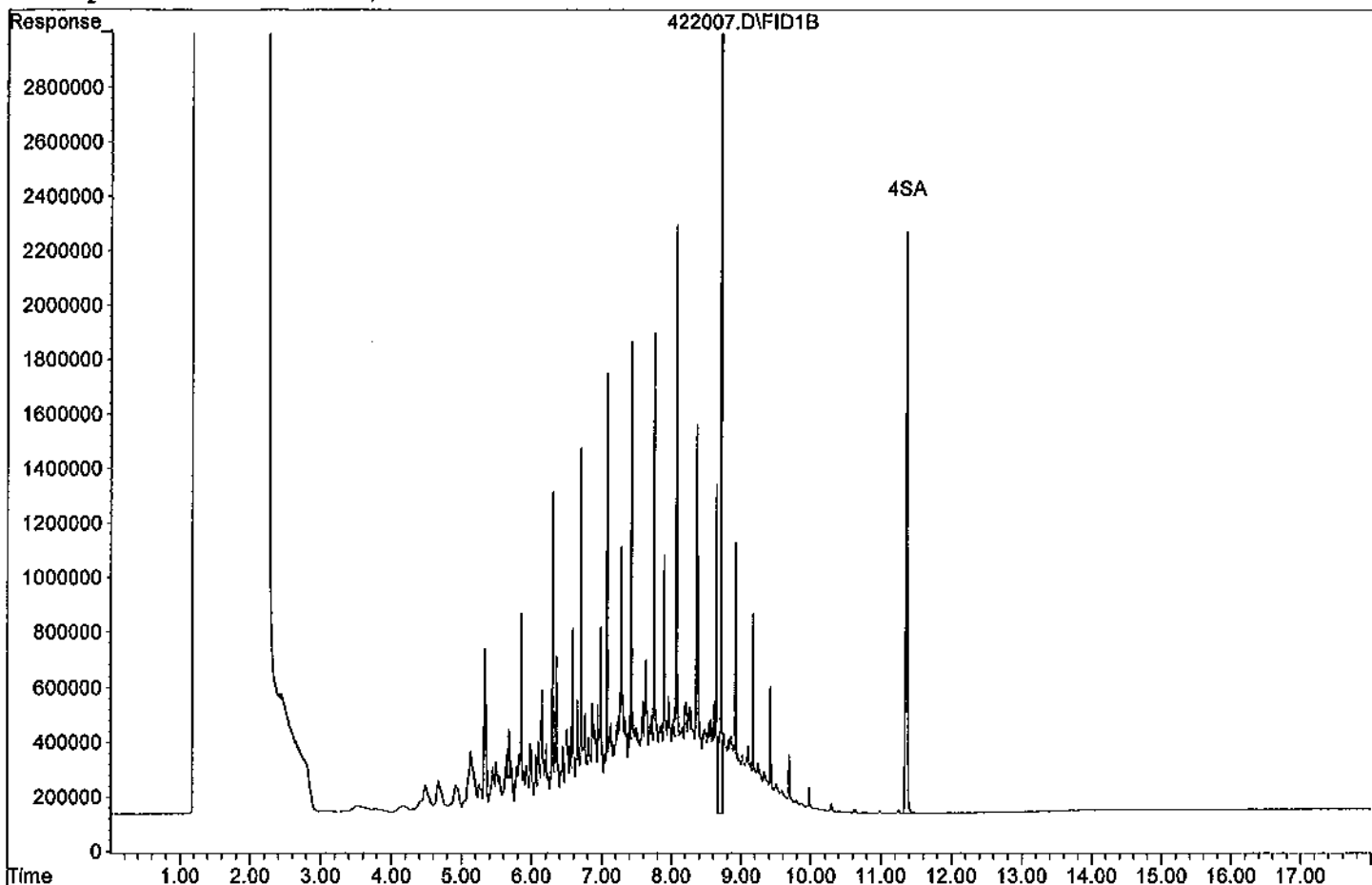
Method : G:\APOLLO\DATA\110516\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	8.71	51860788	30.007 ppb
Surrogate Spike 30.000		Recovery =	100.02%
4) SA Octacosane(S)	11.36	34996058	30.478 ppb
Surrogate Spike 30.000		Recovery =	101.59%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	675721423	587.952 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\110422\422007.D  
Sample : DIESEL 600/1000



Data File : G:\APOLLO\DATA\110422\422008.D Vial: 8  
 Acq On : 4-22-11 13:00:52 Operator: LAC  
 Sample : DIESEL 800/1000 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Apr 28 7:46 2011 Quant Results File: TPHD422.RES

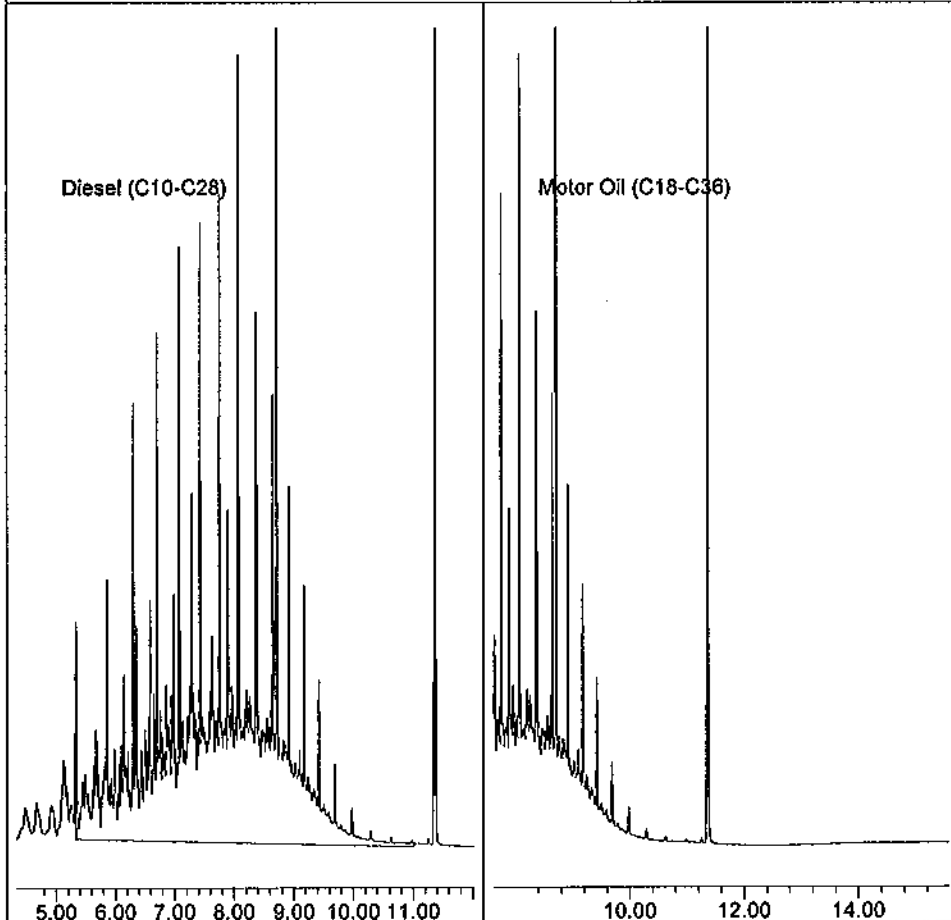
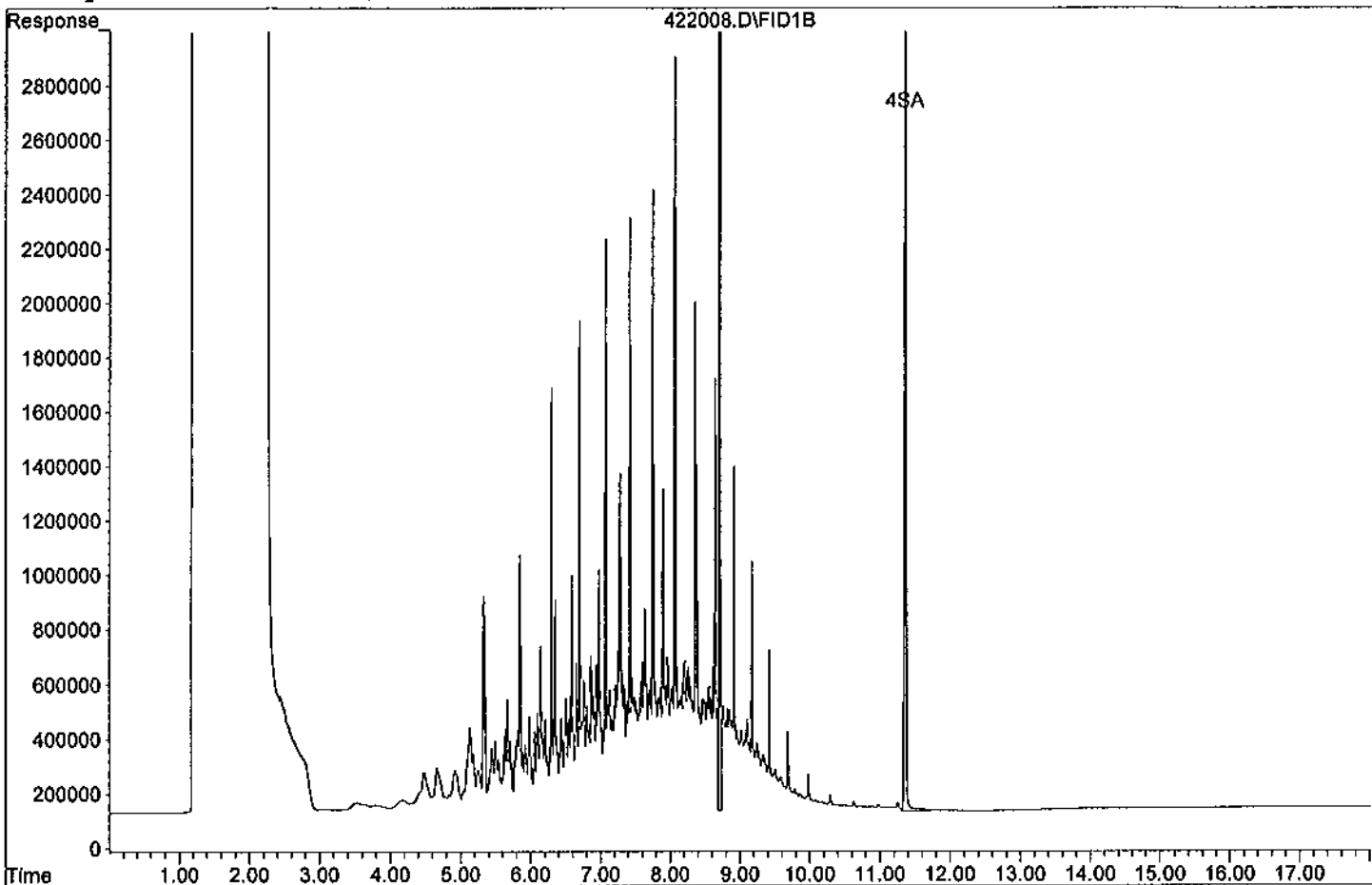
Method : G:\APOLLO\DATA\110516\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	8.71	62212497	35.997 ppb
Surrogate Spike 30.000		Recovery =	119.99%
4) SA Octacosane(S)	11.37	46465994	40.467 ppb
Surrogate Spike 30.000		Recovery =	134.89%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	905729109	788.084 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\110422\422008.D  
Sample : DIESEL 800/1000



Data File : G:\APOLLO\DATA\110422\422009.D Vial: 9  
 Acq On : 4-22-11 13:26:13 Operator: LAC  
 Sample : DIESEL 1000/1000 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Apr 28 7:46 2011 Quant Results File: TPHD422.RES

Method : G:\APOLLO\DATA\110516\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

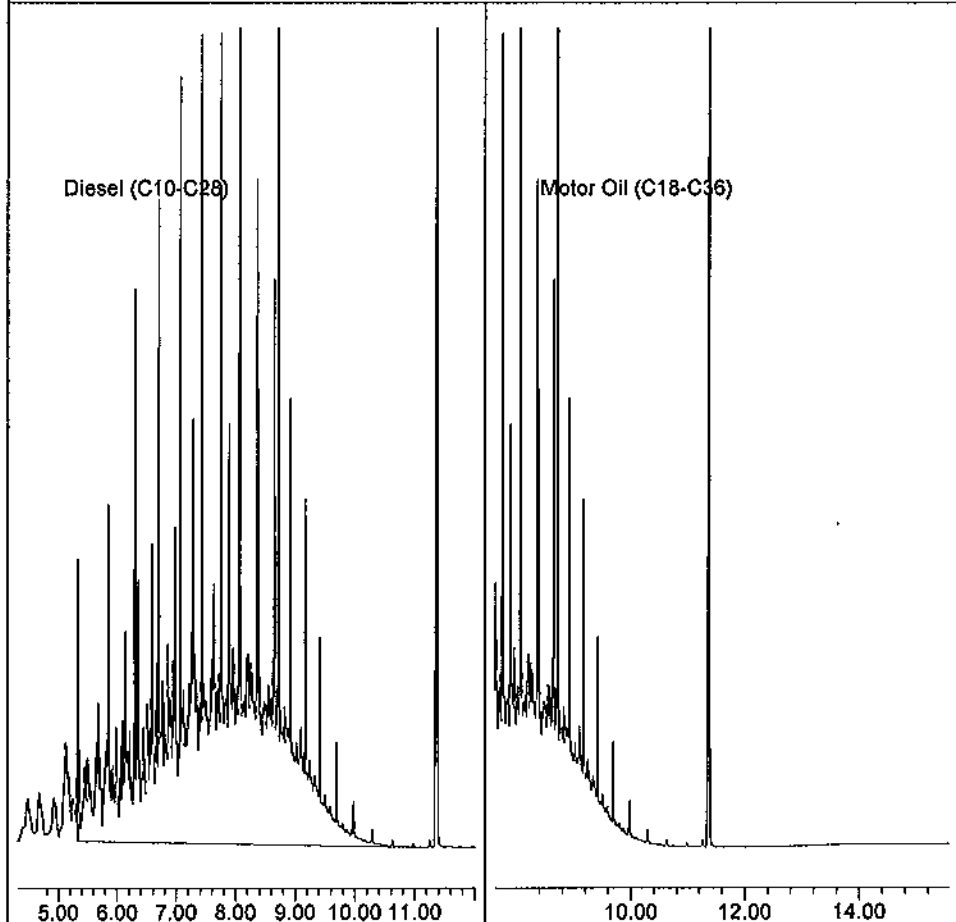
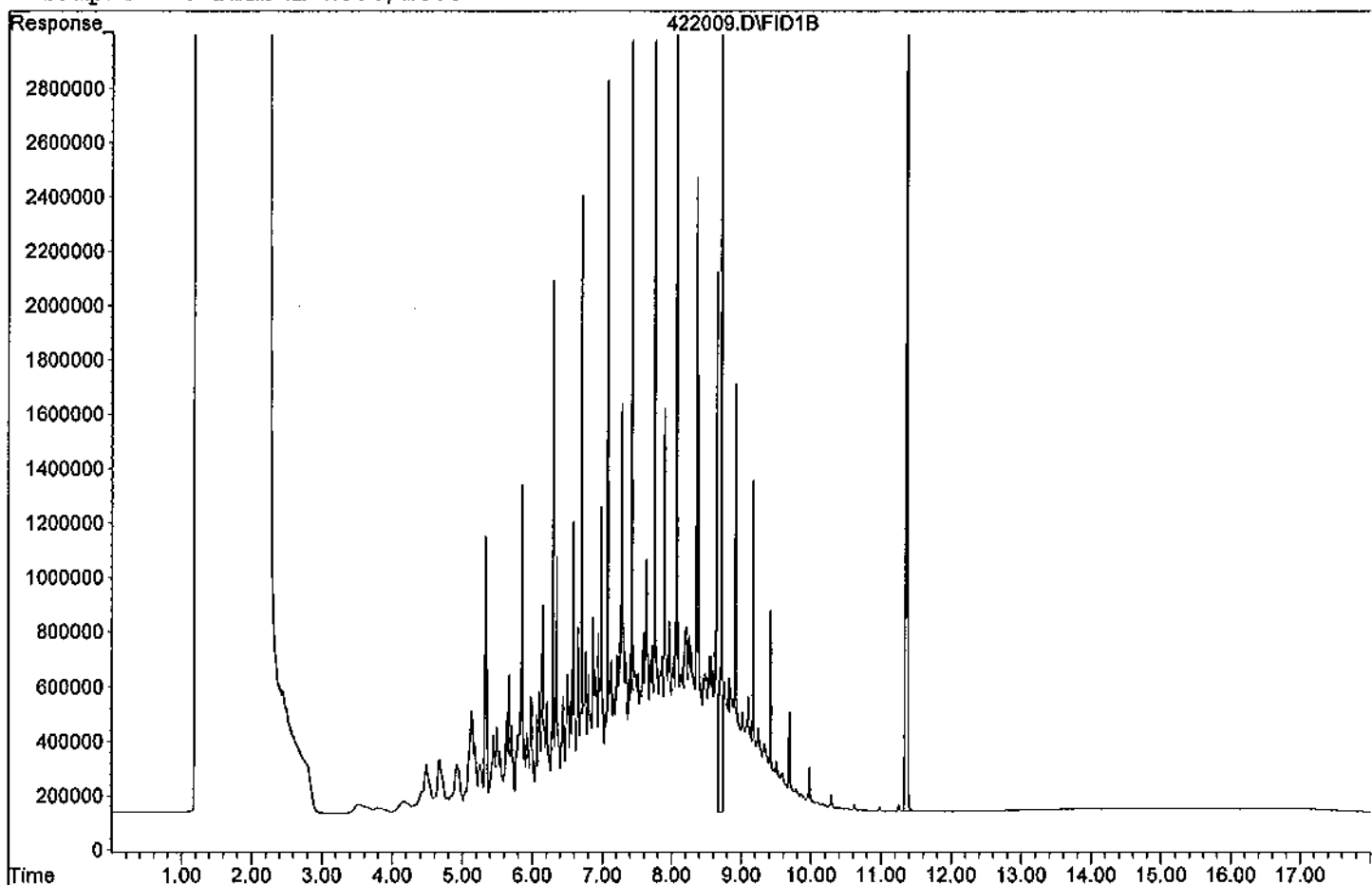
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	8.72	84570832	48.934 ppb
Surrogate Spike 30.000		Recovery =	163.11%
4) SA Octacosane(S)	11.37	57333895	49.932 ppb
Surrogate Spike 30.000		Recovery =	166.44%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	1119688113	974.252 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\110422\422009.D

Sample : DIESEL 1000/1000



TPH Extractables  
TPHD422

Form 7

Second Source Calibration

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

SDG No: 64544  
Date Analyzed: 4/22/2011  
Instrument: Apollo  
Initial Cal. Date: 4/22/2011  
Data File: 422016.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C28)	574640	568850	1.0	HATM
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
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26					
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29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40	Average			1.0	



Data File : G:\APOLLO\DATA\110422\422016.D Vial: 16  
 Acq On : 4-22-11 16:19:58 Operator: LAC  
 Sample : DIESEL 2ND SRC 400/1000 4/22/11 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: May 18 10:13 2011 Quant Results File: TPHD422.RES

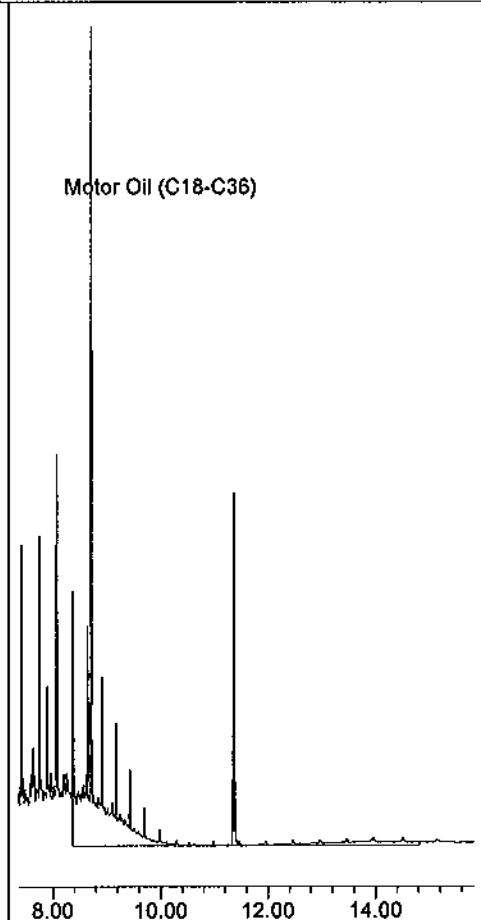
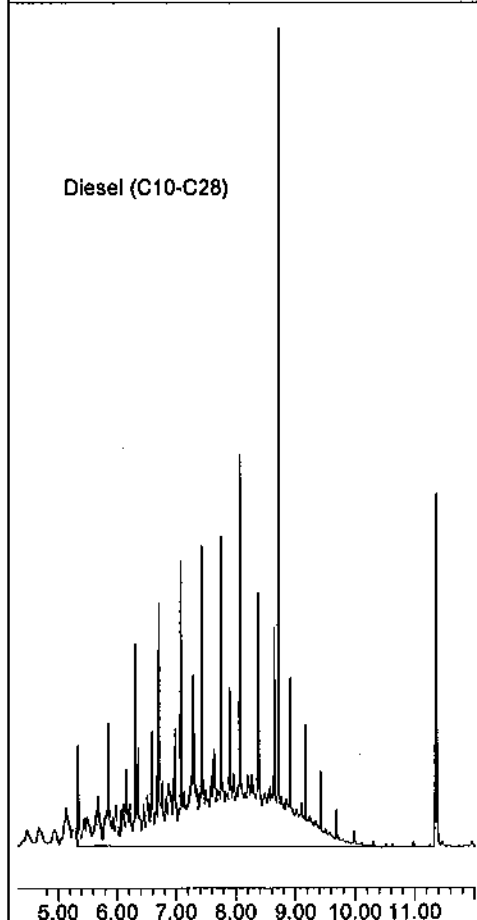
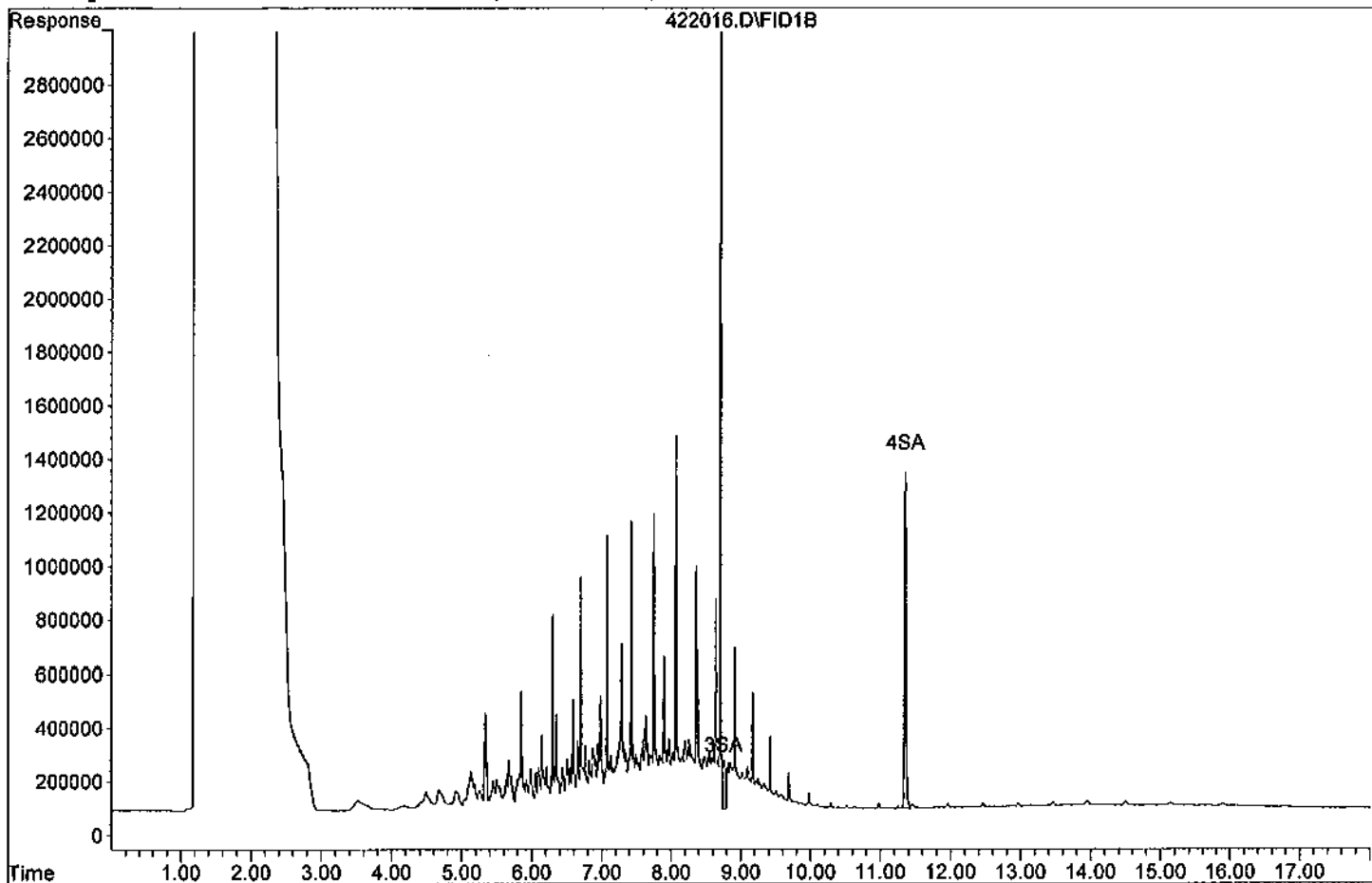
Method : G:\APOLLO\DATA\110516\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	8.76	4851429	2.807 ppb
Surrogate Spike 30.000		Recovery =	9.36%
4) SA Octacosane(S)	11.36	20171039	17.567 ppb
Surrogate Spike 30.000		Recovery =	58.56%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	455080132	395.970 ppb
2) HBTM Motor Oil (C18-C36)	11.60	155327139	204.427 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\110422\422016.D  
Sample : DIESEL 2ND SRC 400/1000 4/22/11



TPH Extractables  
TPHD422

Form 7  
Continuing Calibration

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

SDG No: 64544  
Date Analyzed: 5/11/2011  
Instrument: Apollo  
Initial Cal. Date: 4/22/2011  
Data File: 509114.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C28)	574640	537259	6.5	HATM
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
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35					
36					
37					
38					
39					
40	Average			6.5	

Data File : G:\APOLLO\DATA\110509\509114.D Vial: 14  
 Acq On : 5-11-11 11:36:40 Operator: LAC  
 Sample : DIESEL 400/1000 5/11/11 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: May 27 15:25 2011 Quant Results File: TPHD422.RES

Method : G:\APOLLO\DATA\110516\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

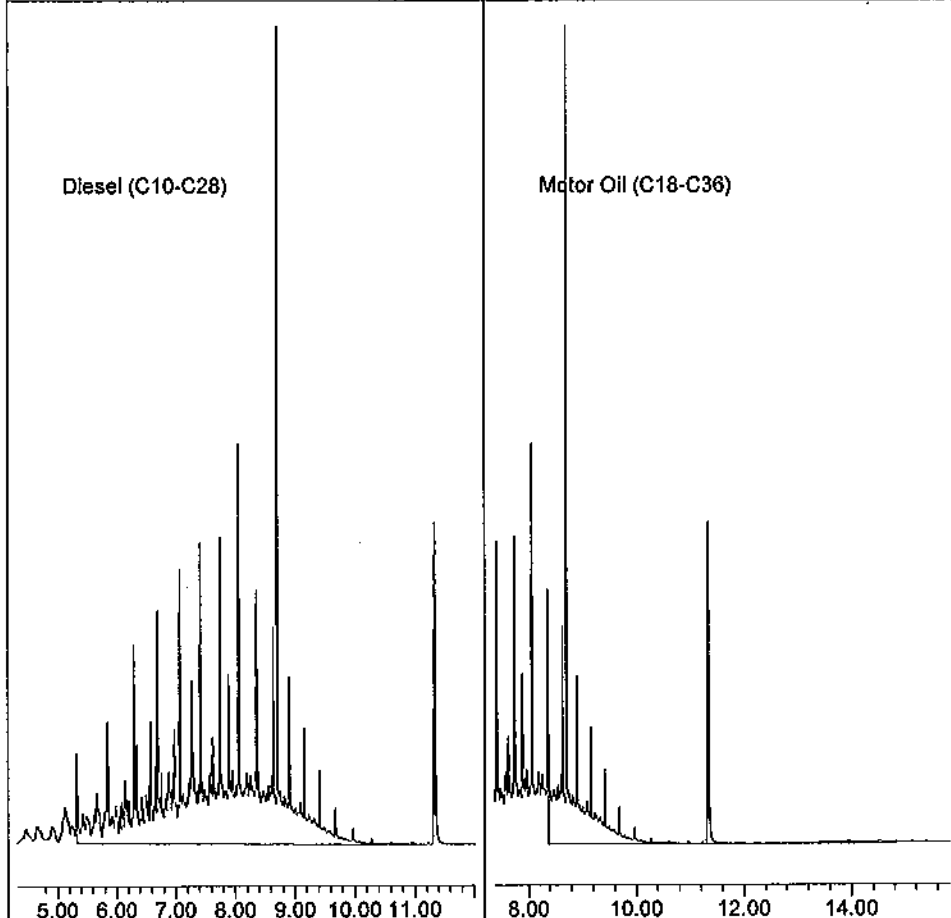
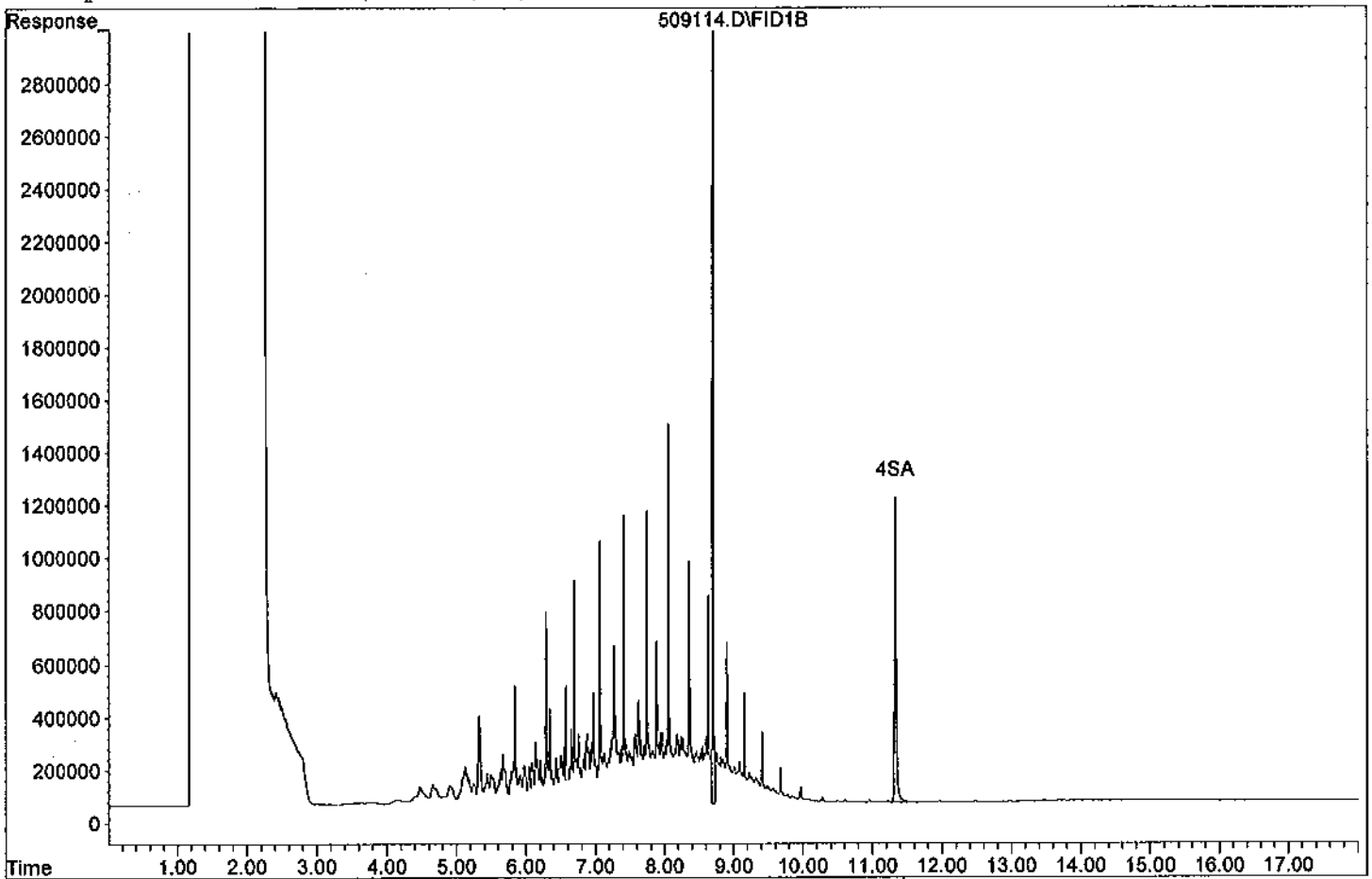
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl (S)	8.70	30497667	17.646 ppb
Surrogate Spike 30.000		Recovery =	58.82%
4) SA Octacosane (S)	11.33	20473735	17.831 ppb
Surrogate Spike 30.000		Recovery =	59.44%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	429807167	373.980 ppb
2) HBTM Motor Oil (C18-C36)	11.60	116851388	151.629 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\110509\509114.D

Sample : DIESEL 400/1000 5/11/11



TPH Extractables  
TPHD422

Form 7  
Continuing Calibration

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

SDG No: 64544  
Date Analyzed: 5/11/2011  
Instrument: Apollo  
Initial Cal. Date: 4/22/2011  
Data File: 509135.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C28)	574640	550162	4.3	HATM
2					
3					
4					
5					
6					
7					
8					
9					
10					
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34					
35					
36					
37					
38					
39					
40	Average			4.3	

Data File : G:\APOLLO\DATA\110509\509135.D Vial: 35  
 Acq On : 5-11-11 20:21:44 Operator: LAC  
 Sample : DIESEL 400/1000 5/11/11 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: May 27 15:26 2011 Quant Results File: TPHD422.RES

Method : G:\APOLLO\DATA\110516\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

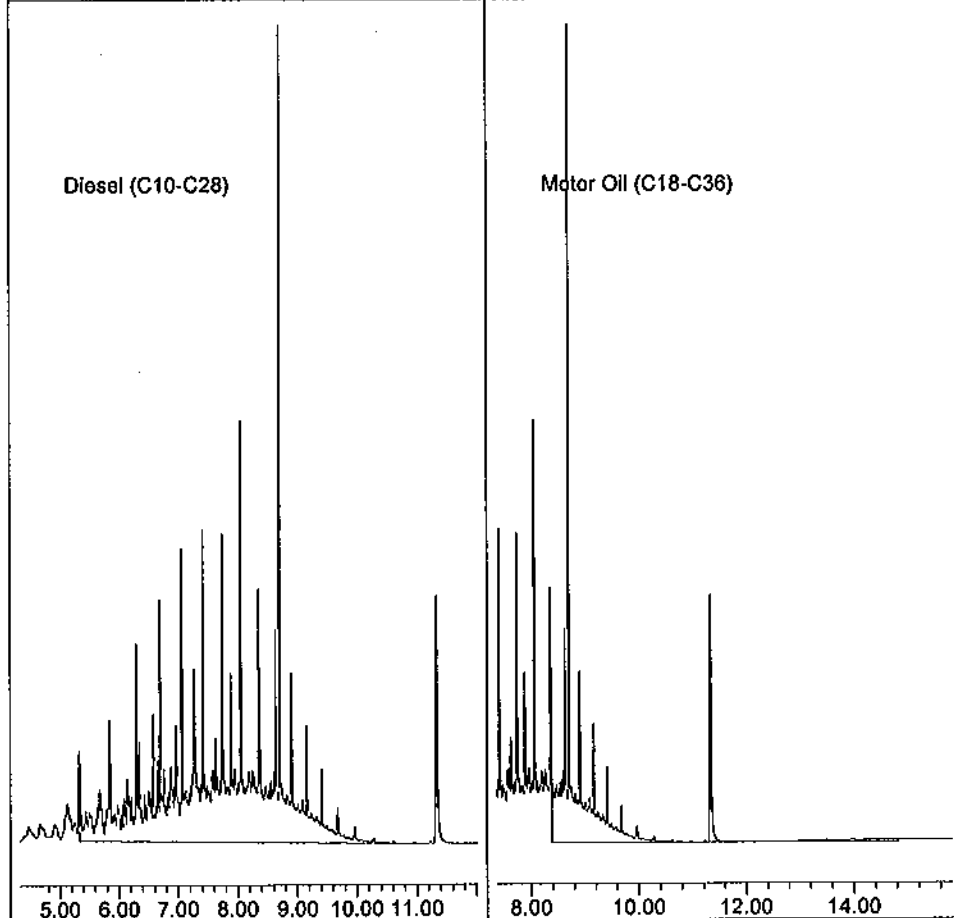
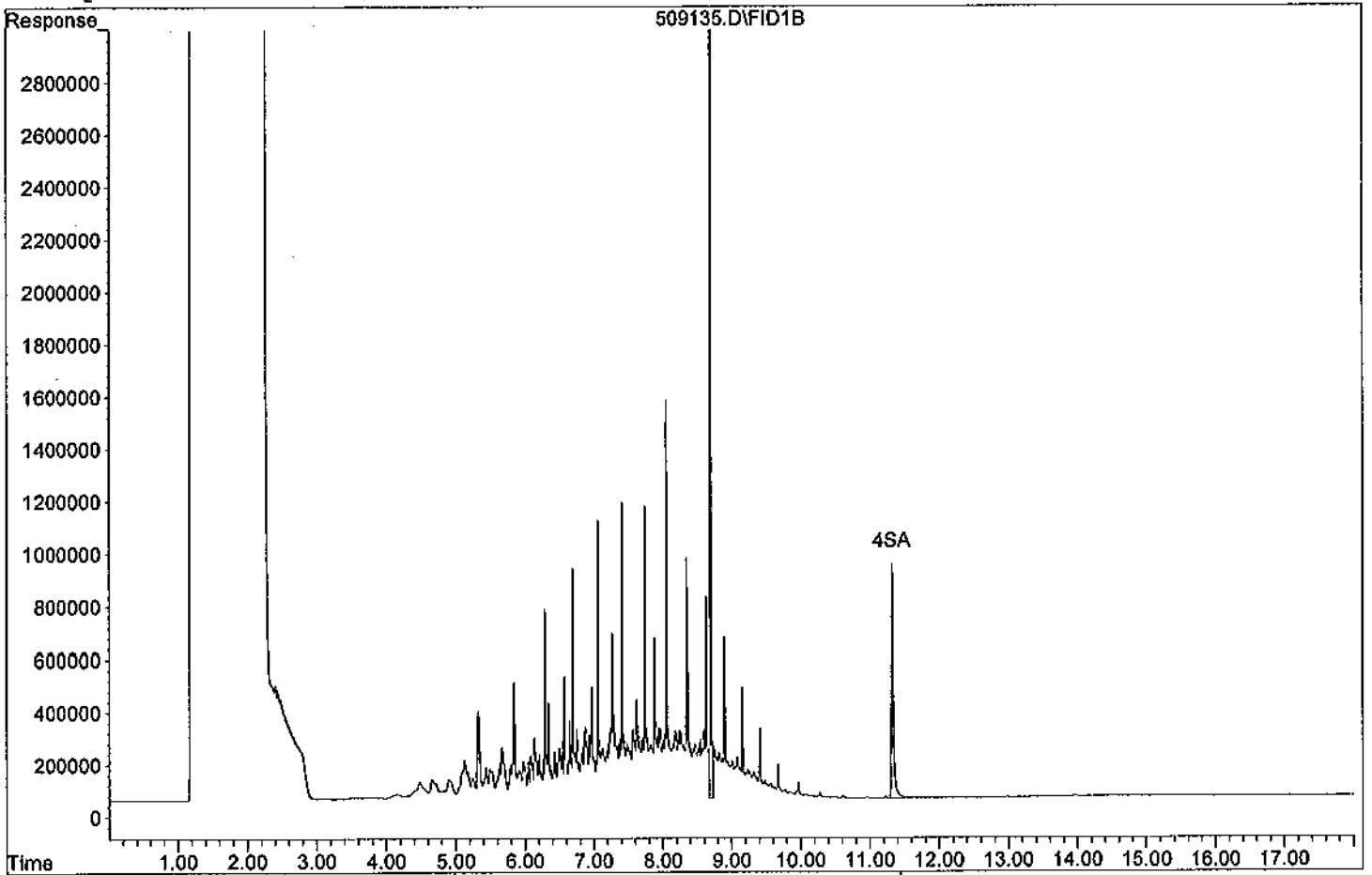
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	8.70	30801912	17.822 ppb
Surrogate Spike 30.000		Recovery =	59.41%
4) SA Octacosane(S)	11.33	17519560	15.258 ppb
Surrogate Spike 30.000		Recovery =	50.86%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	440129960	382.962 ppb
2) HBTM Motor Oil (C18-C36)	11.60	120716857	156.934 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\110509\509135.D

Sample : DIESEL 400/1000 5/11/11





TPH Extractables  
TPHD422

Form 7

Continuing Calibration

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

SDG No: 64544  
Date Analyzed: 5/16/2011  
Instrument: Apollo  
Initial Cal. Date: 4/22/2011  
Data File: 516007.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C28)	574640	506455	12	HATM
2						
3						
4						
5						
6						
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34						
35						
36						
37						
38						
39						
40					12.0	
		Average				

Data File : G:\APOLLO\DATA\110516\516007.D Vial: 7  
 Acq On : 5-16-11 11:45:36 Operator: LAC  
 Sample : DIESEL 400/1000 5/13/11 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: May 27 15:22 2011 Quant Results File: TPHD422.RES

Method : G:\APOLLO\DATA\110516\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

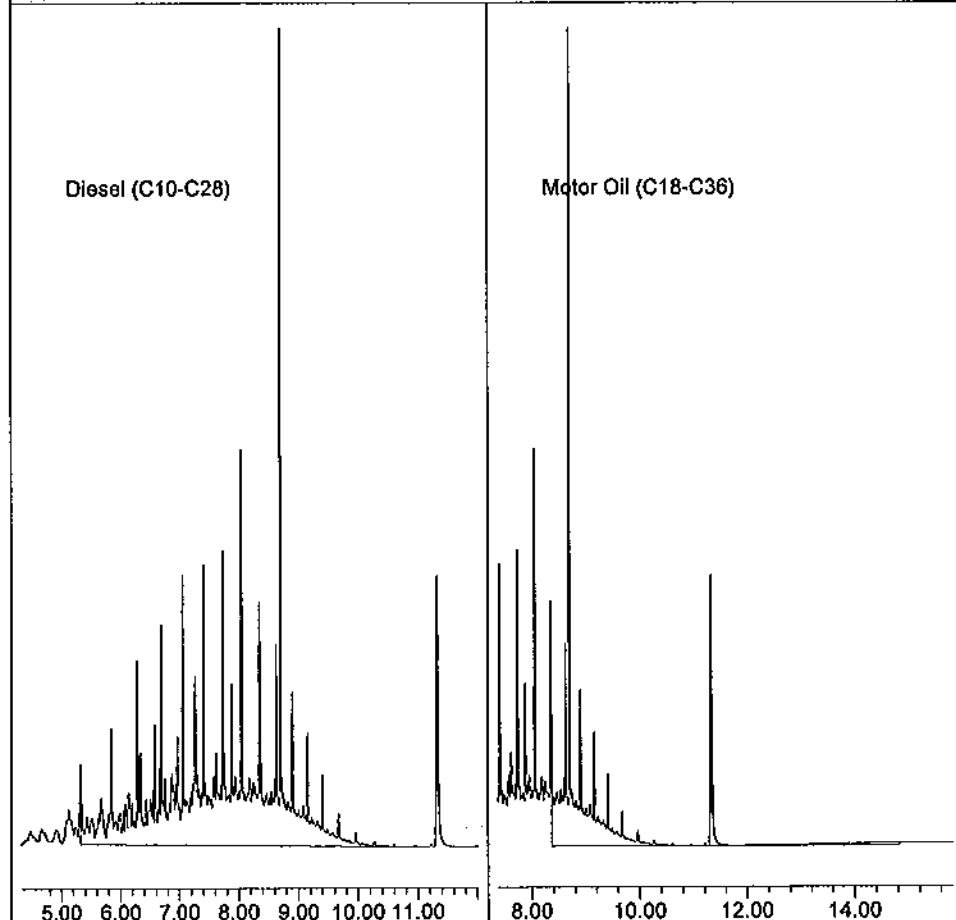
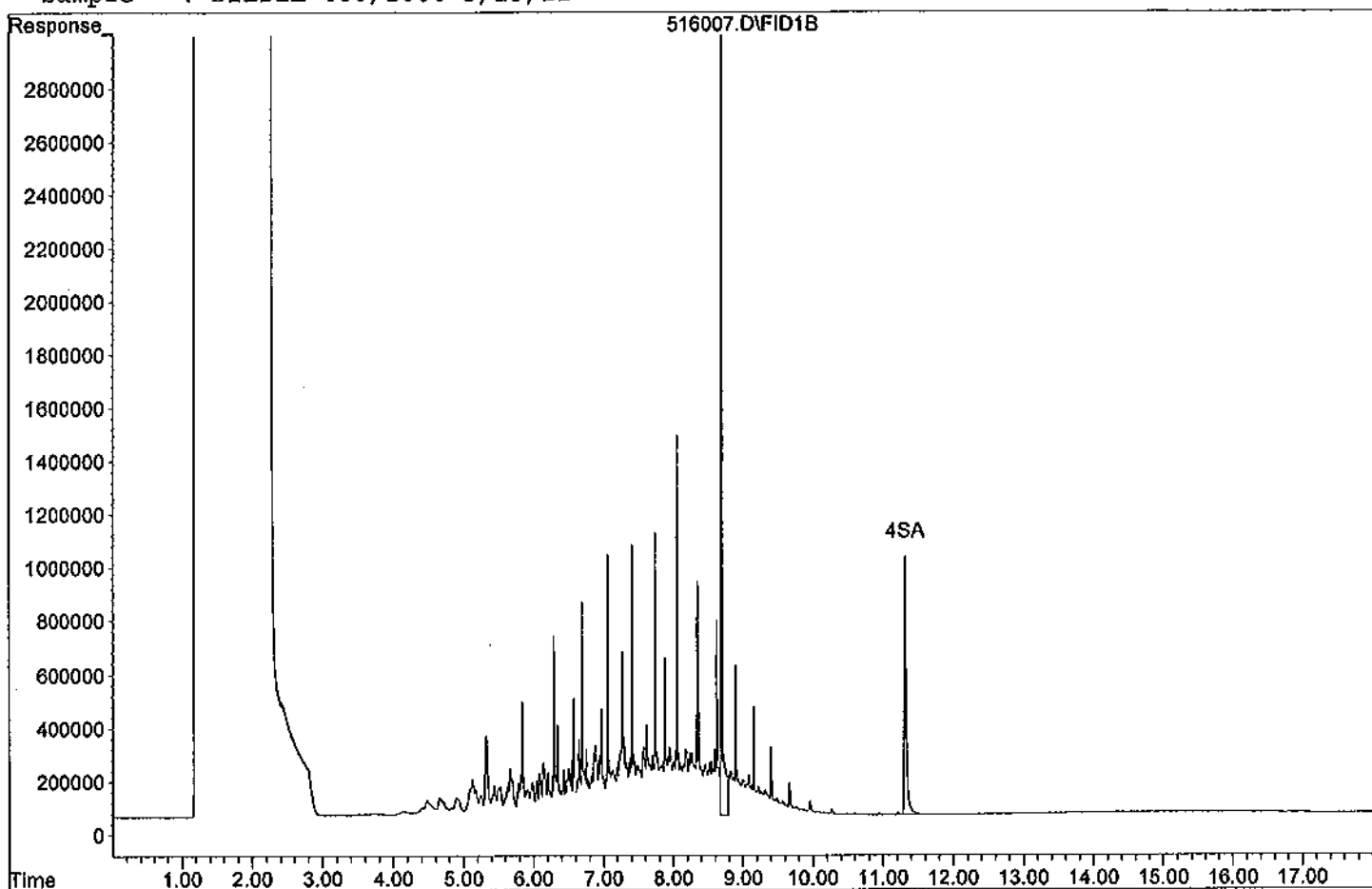
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	8.69	34981096	20.241 ppb
Surrogate Spike 30.000		Recovery =	67.47%
4) SA Octacosane(S)	11.32	19085018	16.621 ppb
Surrogate Spike 30.000		Recovery =	55.40%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	405163703	352.537 ppb
2) HBTM Motor Oil (C18-C36)	11.60	106910860	137.989 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\110516\516007.D

Sample : DIESEL 400/1000 5/13/11



TPH Extractables  
TPHD422

Form 7  
Continuing Calibration

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

SDG No: 64544  
Date Analyzed: 5/16/2011  
Instrument: Apollo  
Initial Cal. Date: 4/22/2011  
Data File: 516016.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C28)	574640	575344	0.12	HATM
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
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13						
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35						
36						
37						
38						
39						
40						

Average

0.1

Data File : G:\APOLLO\DATA\110516\516016.D Vial: 16  
 Acq On : 5-16-11 17:34:00 Operator: LAC  
 Sample : DIESEL 600/1000 5/13/11 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: May 17 8:16 2011 Quant Results File: TPHD422.RES

Method : G:\APOLLO\DATA\110516\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

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

Compound R.T. Response Conc Units

-----  
 System Monitoring Compounds

3) SA Ortho-Terphenyl(S)	8.69	47999607	27.773 ppb
Surrogate Spike 30.000		Recovery =	92.58%
4) SA Octacosane(S)	11.32	31576350	27.500 ppb
Surrogate Spike 30.000		Recovery =	91.67%

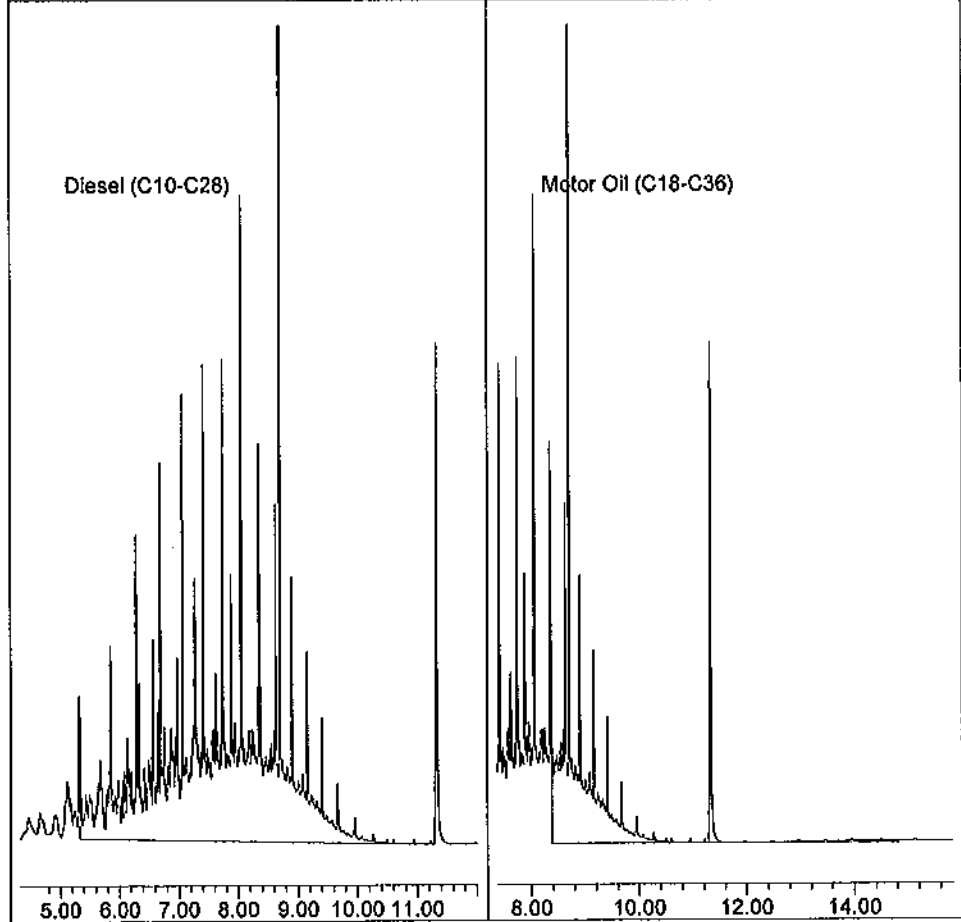
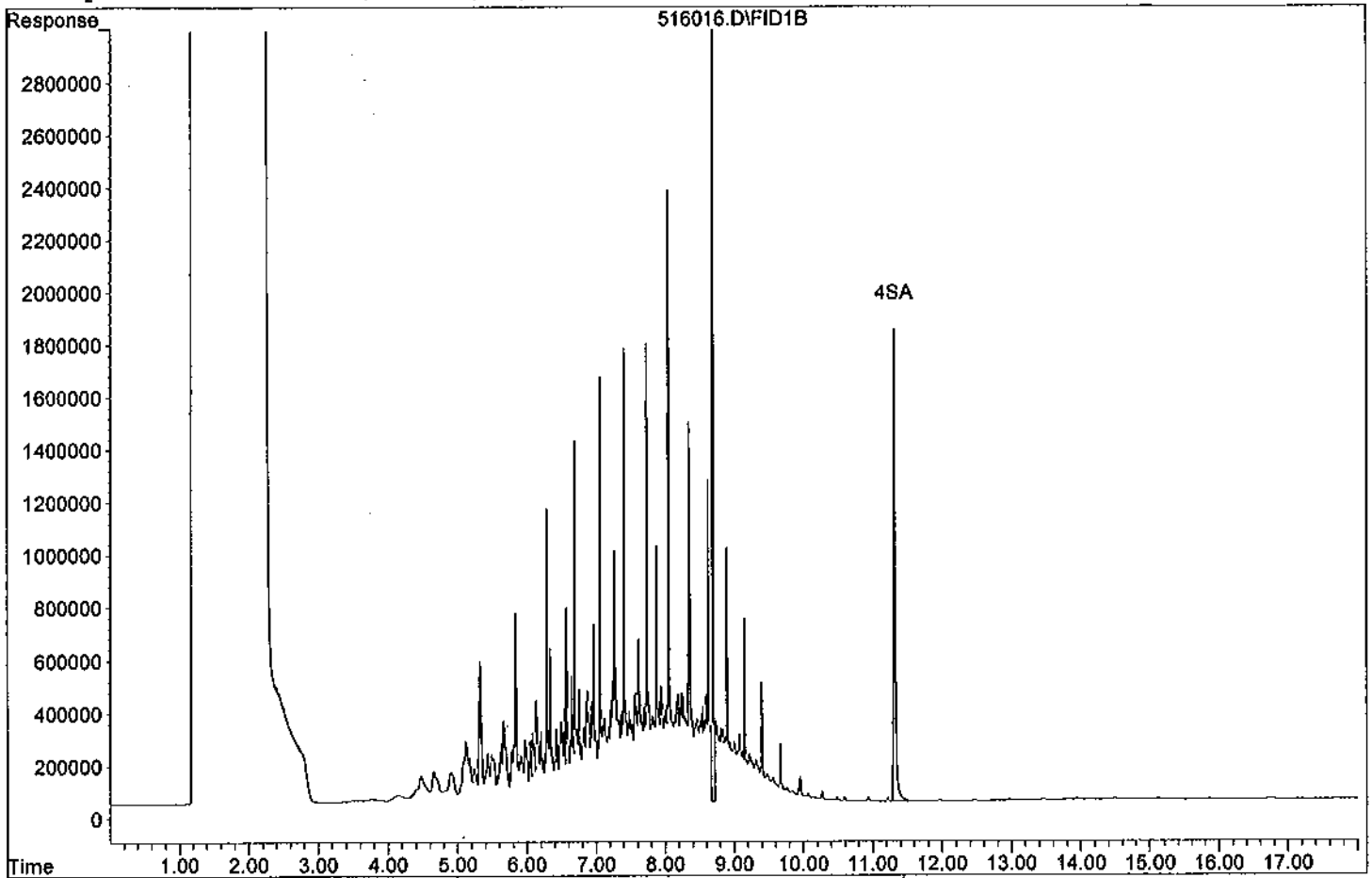
Target Compounds

1) HATM Diesel (C10-C28)	8.17	690412879	600.735 ppb
2) HBTM Motor Oil (C18-C36)	11.60	186798841	247.613 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\110516\516016.D

Sample : DIESEL 600/1000 5/13/11



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

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

Blank Name/QCG: **110503W-36735 - 155099**  
Batch ID: #TPETD-110503A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	5/3/2011	5/11/2011
BLANK	SURROGATE: OCTACOSANE (S)	68.8	28-142			%	5/3/2011	5/11/2011
BLANK	SURROGATE: ORTHO-TERPHEN	59.8	57-132			%	5/3/2011	5/11/2011

Quant Method:TPHD422.M  
Run #:509131  
Instrument:Apollo  
Sequence:110509  
Initials:LA

GC SC-Blank-REG MDLs  
Printed: 5/27/2011 3:13:16 PM



Data File : G:\APOLLO\DATA\110509\509131.D Vial: 31  
 Acq On : 5-11-11 18:40:58 Operator: LAC  
 Sample : 110503A BLK 5/1000 Inst : Apollo  
 Misc : Water Multiplr: 5.00  
 IntFile : events.e  
 Quant Time: May 13 17:01 2011 Quant Results File: TPHD422.RES

Method : G:\APOLLO\DATA\110516\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
----------	------	----------	------------

System Monitoring Compounds

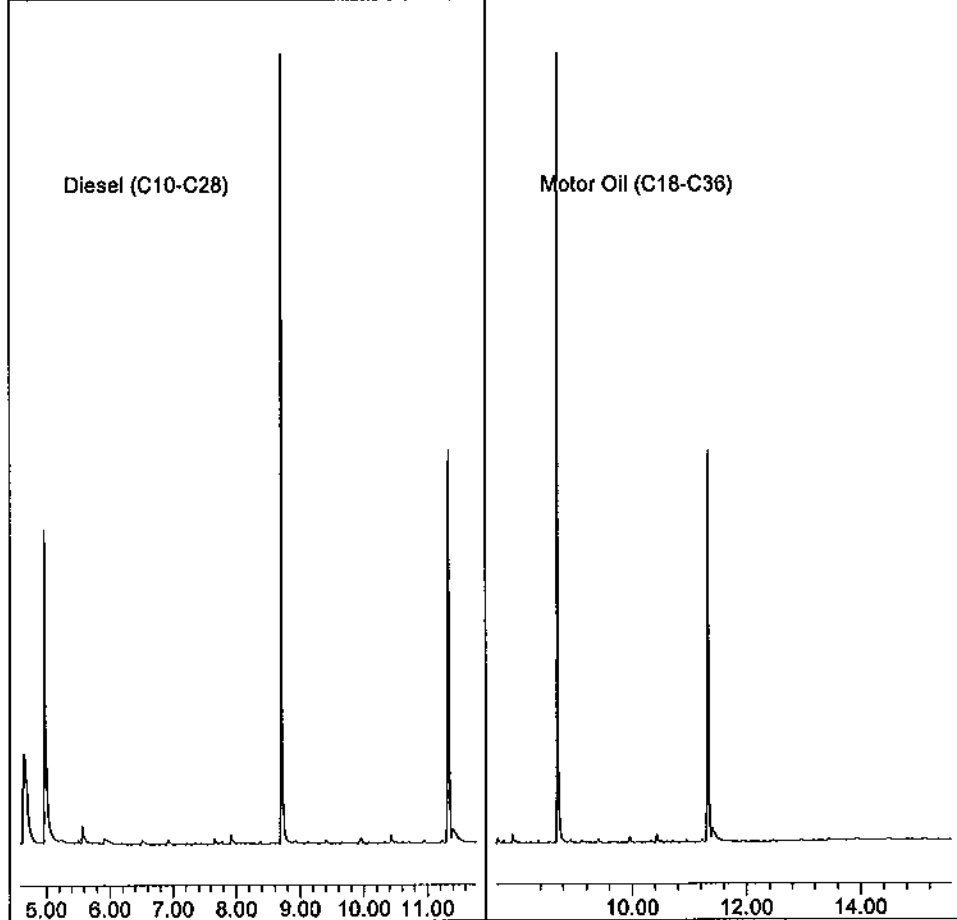
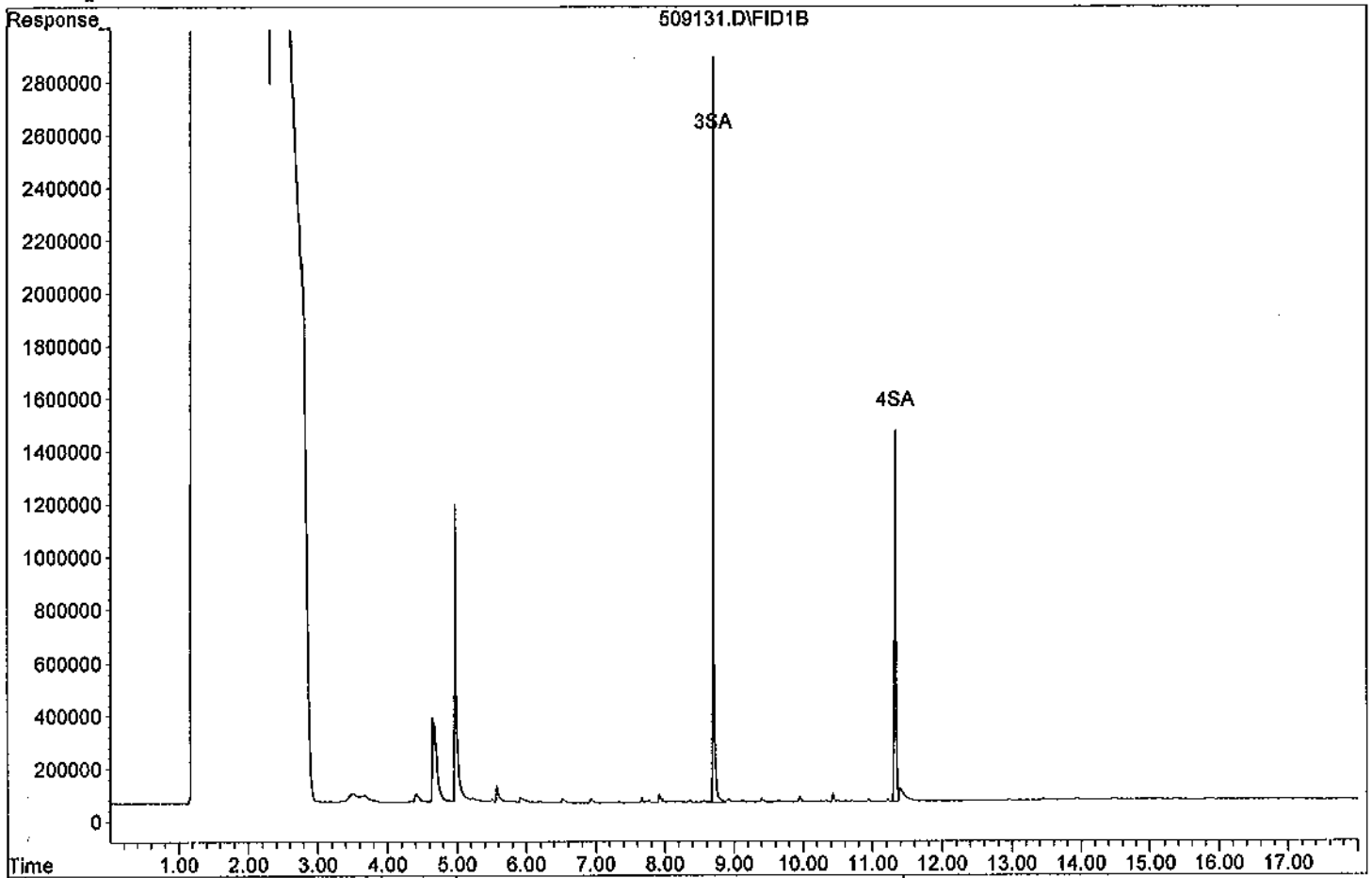
3) SA Ortho-Terphenyl(S)	8.70	30985868	89.644 ppb
Surrogate Spike 150.000		Recovery =	59.76%
4) SA Octacosane(S)	11.33	23699373	103.199 ppb
Surrogate Spike 150.000		Recovery =	68.80%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\110509\509131.D

Sample : 110503A BLK 5/1000



## Laboratory Control Spike Recovery

### TPH Diesel Water

APPL ID: 110503W-36735 LCS - 155099

Batch ID: #TPETD-110503A

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	1380	69.0	61-143
SURROGATE: OCTACOSANE (S)	150	101	67.3	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	112	74.7	57-132

Comments:

Primary	SPK
Quant Method :	TPHD422.M
Extraction Date :	5/3/2011
Analysis Date :	5/11/2011
Instrument :	Apollo
Run :	509132
Initials :	LA

Printed: 5/27/2011 3:13:10 PM

APPL Standard LCS

Data File : G:\APOLLO\DATA\110509\509132.D Vial: 32  
 Acq On : 5-11-11 19:06:08 Operator: LAC  
 Sample : 110503A LCS-1 5/1000 Inst : Apollo  
 Misc : Water Multiplr: 5.00  
 IntFile : events.e  
 Quant Time: May 13 17:01 2011 Quant Results File: TPHD422.RES

Method : G:\APOLLO\DATA\110516\TPHD422.M (Chemstation Integrator)  
 Title : Diesel  
 Last Update : Tue May 10 12:12:53 2011  
 Response via : Multiple Level Calibration

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

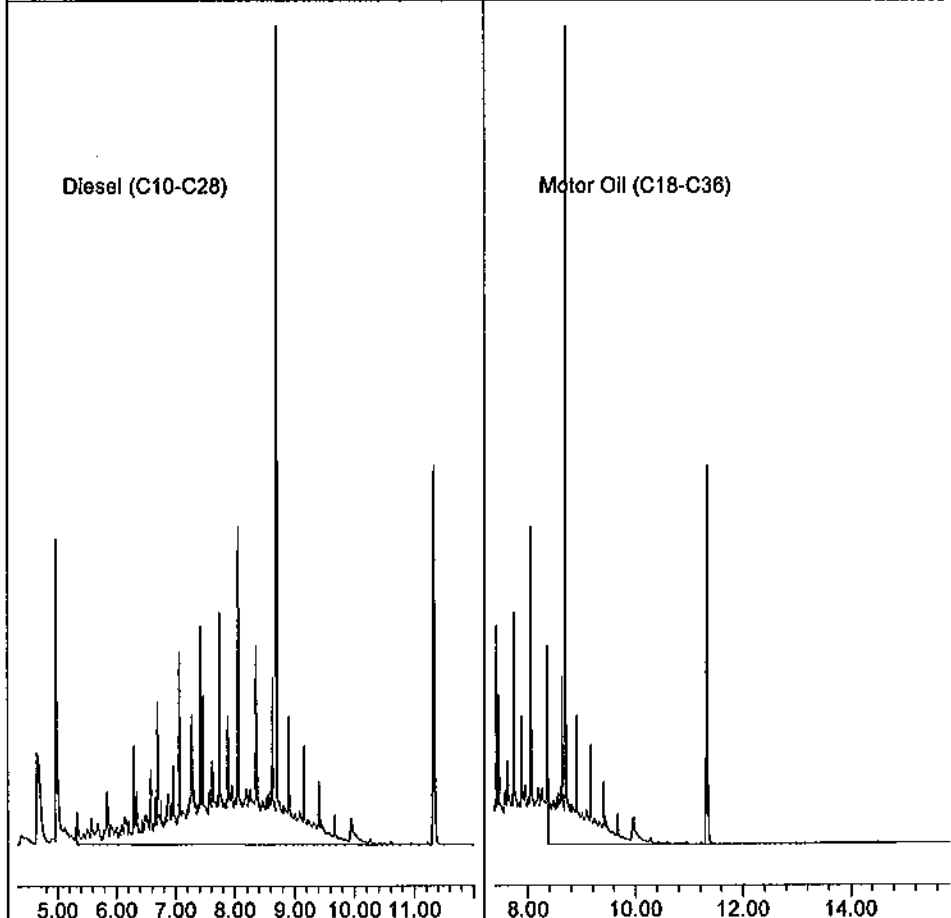
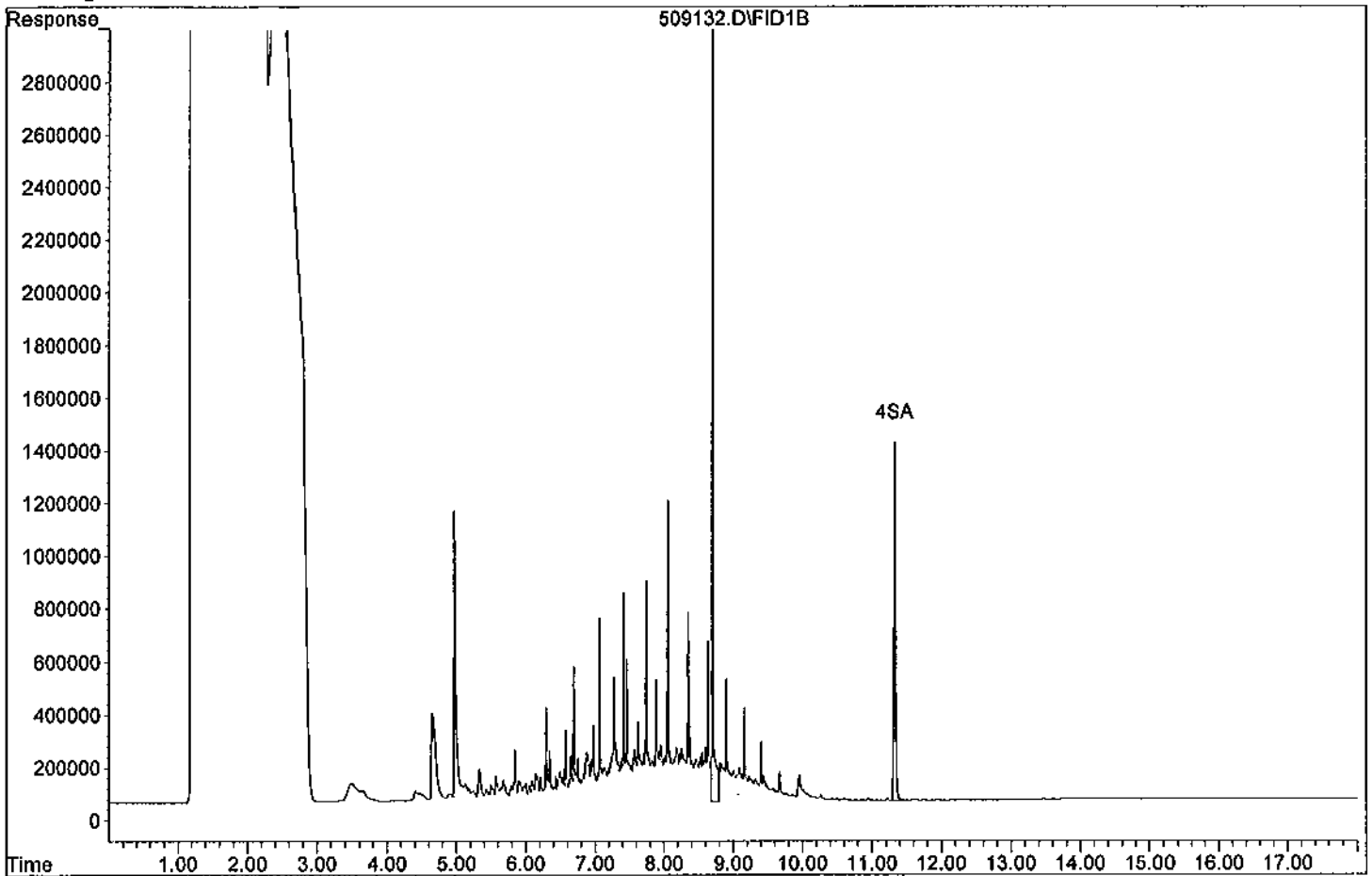
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	8.70	38865828	112.442 ppb
Surrogate Spike 150.000		Recovery =	74.96%
4) SA Octacosane(S)	11.33	23295590	101.441 ppb
Surrogate Spike 150.000		Recovery =	67.63%
Target Compounds			
1) HATM Diesel (C10-C28)	8.17	317758013	1382.422 ppb
2) HBTM Motor Oil (C18-C36)	11.60	96478588	618.366 ppb

Algorithm Check: 
$$\frac{(317758013)(5)}{(574640)(2)} = 1382.422095$$

Quantitation Report

Data File: G:\APOLLO\DATA\110509\509132.D

Sample : 110503A LCS-1 5/1000



STANDARD

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

041

THC SURROGATE \*GAVE TO EXTRACTION

D-TERPENYL

600mg/ml 02S1 N/A 25ml 600mg/ml N/A

DIOXANE

CAT: 110316-05

3/7/11

LOT: 164819-28057

ex: 3/7/12

OP: 3/7/11

EX: 3/7/12

AND

LOT: 161639-27682

OP: 3/7/11

EX: 3/7/12

DIESEL STANDARD

DIESEL FUEL #2

50,000 mg/ml 02S1 1000ml 50ML 1000mg/ml MC

02si

Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml  
Cat No: 011598-03 Exp: 4/4/2014  
Lot No: 156524 Storage: <math>-10</math> Degrees C  
Diesel Fuel #2 Composite Solvent: Methylene  
Lot #: 156524 - 27196 pison For Research Use Only  
Rec: 9/10/10 MFR exp. 04/04/14  
Opened: 3/7/11  
ex: 3/7/12

# 110510F

3/7/11

ex: 9/7/11

D-TERPENYL

600mg/ml 02S1 4170 ml 50mg/ml

DIOXANE

CAT: 110316-05

LOT: 164819-28058

OP: 3/2/10

EX: 3/2/11

MOTOR OIL STANDARD

MOTOR OIL

50,000 mg/ml 02S1 1000ml 50ML 1000mg/ml MC

02si

Motor Oil Composite, 50,000 mg/L, 1 ml  
116390-03 Storage: <math>-10</math> Degrees C  
Lot No: 161898 Solvent: Methylene chloride  
Exp: 7/23/2013  
Data Opened: Motor oil composite  
Lot #: 161898 - 27687  
Rec: 10/18/10 MFR exp. 07/23/13

# 110510F

3/7/11

ex: 9/7/11

STANDARD  
042

CONC DATE ALIQUOT VOLUME CONC LOT# INITIALS

DIESEL ZND. SOURCE STD.

DIESEL FUEL #2 50,000 µg/gal D251 1000 µl 500µl 1000 µg/gal mc 3/7/11

Diesel Fuel #2 Composite  
Lot #: 167768 - 28174  
Rec: 1/20/11 MFR exp. 02/15/15

# 110510F  
3/7/11  
ex: 9/7/11

D-TERPENEAL 6000 µg/gal D251 4170 µl 500 µg/gal

EXTRACTS  
CAT: 110316-05  
LOT: 164819-28058  
UP: 3/2/11  
EX: 3/2/12

HERB SPIKE

Analytes:	Conc.	Conc.	Aliquots	Final Vol.	Final Vol.
	In mix (ug/ml)	In Stock (ug/ml)		STOCK SRC (ml)	Solvent (mL)
Delapon	6.4	320	1000		50
3,5 Dichlorobenzolic Acid	0.64	32		Source: Accustd	MTBE
4-Nitrophenol	1.6	80		Cat#: S-8254A-R1	Lot#
2,4-DCAA (S)	3.2	160		LOT#: 8808038-1A	50112
Dicamba	0.64	32		-28959	
MCPP	640	32000		OPEN: 1/28/11	
MCPA	640	32000		EXP: 7/16/11	
2,4-DP	3.2	160			
2,4-D	3.2	160			
DNOC	1.28	64			
PCP	0.64	32			
2,4,5-TP	0.64	32			
Chloramben	3.2	160			
2,4,5-T	0.64	32			
Dinoseb	1.6	80			
2,4-DB	6.4	320			
Bentazon	3.2	160			
Picloram	0.64	32			
Dacthal	0.64	32			
Acifluorfen	1.6	80			

**AccuStandard**  
S-8254A-R1  
Custom Herbicide Standard  
Varied conc. in Hexane:Toluene  
Lot: 8808038-1A  
Exp: Jul, 16, 2011

Custom Herbicide Standard  
Lot #: 8808038-1A - 27782  
Rec: 11/23/10 MFR exp. 07/16/11  
20 comps.  
**FLAMMABLE**

HERB 2001000 CCV LEVEL 4

SEE VARIOUS HERB STD. 200µl 1ml 200µg/gal MTBE 3/7/11  
PB 026. PREP: 2/9/11 # 50112  
EX: 8/9/11

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL CONC.	FINAL VOLUME	SOLVENT LOT #	DATE / INITIALS
							055
	THC SURROGATE # GAVE TO EXTRACTION TL OF (88)						
o-TERPHTHENE	600ug/ml	D2S1	N/A	25ML	600ug/ml	N/A	3/25/11
CARCASANE		CAT: 110316-05					EX: 3/25
		LOT: (164819) 28492 & 28493					
		LOT: (170258) 28496 & 28498					
		LOT: (170258) 28497 & 28499-501					
		ALL OPEN: 3/25/11					
		EX: 0/25/11					
	Herb 200/1000 CCV						
Various analytes	various	Herb Std.	200ml	1ml	various	MTBE	3/25/11
see pg 54.		prep: 3/22/11				#5012	EX: 9/22/11
		EX: 9/22/11					
	DIESEL 400 & 600/1000 CCV						
DIESEL FUEL #2	1000ug/ml	DIESEL STD	400ml	1ml	400ug/ml	MC	3/25/11
		prep: 3/7/11	600ml	1ml	600ug/ml	#010611B	EX: 6/25/11
		EX: 9/7/11					EX: 9/25/11
	MOTOR OIL 400 & 600/1000ug/ml CCV						
MOTOR OIL	1000ug/ml	MOTOR OIL STD.	400ml	1ml	400ug/ml	MC	3/25/11
		prep: 3/7/11	600ml	1ml	600ug/ml	#010611B	EX: 6/25/11
		EX: 9/7/11					
	EE SOIL I (LEVEL 3) CCV						
VARIOUS RE BX 34 29.93	1ug/ml	EE SOIL I STD.	100ml	1ml	0.1ug/ml	HEXANE	3/25/11
		prep: 11/10/10				#082610B	EX: 4/10/11
		EX: 4/10/11					
	THC SURROGATE # GAVE TO EXTRACTIONS						
o-TERPHTHENE	600ug/ml	D2S1	N/A	25ML	600ug/ml	N/A	3/25/11
CARCASANE		CAT: 110316-05					EX: 3/25/12
		LOT: 170258-28494 & 28495					
		OP: 3/25/11					
		EX: 3/25/12					

THC



STANDARD  
082

INITIAL  
CONC

SOURCE  
DATE

ALIQOT. VOLUME

FINAL  
VOLUME

FINAL  
CONC

SOLVENT/  
LOT #

DATE/  
INITIALS

PYRETHROIDS STANDARD

STD / COMPOUND	INIT CONC	SRC DATE	ALIQOT	FINAL VOL	FINAL CONC	SOLVENT
Bifenthrin	100 µg/ml	02S1	250 µL	25 mL	1 µg/ml	Acetone
Cyfluthrin		Part: 83679				#120610C
Cypermethrin		Lot: 030509-28768				
Esfenvalerate		Op: 4/26/11				
Fenvalerate		Exp: 4/28/12				
Lambda-cyhalothrin						
permthrin, mixed isomers (46% cis, 53% trans)						
Dicofol	100 µg/ml	Ultra	250 µL		1 µg/ml	
		Pst-391m100A01				
		CG-0033A				
		Op: 12/20/10				
		Exp: 12/20/11				
Fenpropathrin	100 µg/ml	02S1	250 µL		1 µg/ml	
		Cal: 031116-03				
		Lot: 157913-28401				
		Op: 4/12/11				
		Exp: 4/1/12				

4/26/11  
EX:  
10/26/11

Mineral Spirits Standard

Compound	Initial Conc.	Stock Source	Aliquot	Final Vol.	Final Conc.	Solvent
Mineral	50,000 µg/mL	Restek	200 µL	10 mL	1000 µg/mL	MC
Spirits		Cal: 31280				#010611B
		Lot: A072377-28769				
		Op: 4/27/11				
		Exp: 4/27/12				

4/27/11  
EX:  
10/27/11

Mineral Spirits Spike

Compound	Initial Conc.	Stock Source	Aliquot	Final Vol.	Final Conc.	Solvent
Mineral	50,000 µg/mL	Restek	1000 µL	25 mL	2000 µg/mL	MC
Spirits		Cal: 31280				#010611B
		Lot: A072377-28769				
		Op: 4/27/11				
		Exp: 4/27/12				

4/27/11  
EX: 7/27/11



Mineral Spirits op: 4/27/11  
Lot #: A072377-28769 EX: 4/27/12  
Cat# 31281 Rec: 4/25/11 MFR exp. 02/28/17

Mineral Spirits contains  
50000 ug/ml each in Methylene Chloride  
Lot# A072377 Exp. Date: 02/20/17 Store: Room Temperature  
Restek Corporation - 110 Berner Drive - Bellefonte, PA 16823

DIESEL SPIKE

DIESEL FUEL #2	50,000 µg/ml	02S1	2000 µL	50ML	2000 µg/ml	MC
						# D10611B

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

111598-43

Lot# 167769 Storage -10 Degree C Expiry 2/15/15

Solv: Methylene Chloride

Diesel Fuel #2 Composite  
Lot #: 167769 - 28256  
Rec: 2/16/11 MFR exp. 02/15/17

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

111598-43

Lot# 167769 Storage -10 Degree C Expiry 2/15/15

Solv: Methylene Chloride

Diesel Fuel #2 Composite  
Lot #: 167769 - 28257  
Rec: 2/16/11 MFR exp. 02/15/17

4/28/11  
EX:  
7/28/11

4/28/11

STANDARD INITIAL CONC SOURCE DATE ALIQUOT VOLUME FINAL CONC FINAL CONC SOLVENT LOT # DATE / INITIALS 093

*Restek*

DIESEL CCV 400ug/ml						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		05/09/11	11/09/11			010611B

MOTOR OIL CCV 400UG/ML						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MOTOR OIL STD	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		05/09/11	11/09/11			010611B

*Restek*

DIESEL CCV 600ug/ml						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000UG/ML	O2SI	600µL	1 mL	600 µg/ml	MC
		05/09/11	11/09/11			010611B

MOTOR OIL CCV 600UG/ML						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MOTOR OIL STD	1000UG/ML	O2SI	600µL	1mL	600 UG/ML	MC
		05/09/11	11/09/11			010611B

*Restek*

Mineral Spirits Standard						
Compound	Initial Conc.	Stock Source	Aliquot	Final Vol.	Final Conc	Solvent
Mineral Spirits	50,000 µg/mL	Restek Cat: 31260 Lot: A072377-28770 Op: 5/13/11 Exp: 5/13/12	500 µL	25 mL	1000 µg/mL	MC #010611B
O-terphenyl	600 µg/mL	O2SI	2085 µL		50 µg/mL	
Octacosane		Cat: 110318-05 Lot: 170268-28499 Op: 3/25/11 Exp: 3/25/12				

*Restek*

MINERAL SPIRITS CURVE											
SUPPLIER	ID#	[mg/mL]	LOT #	DATE	EXP. DATE	mL	mL	mL	mL	mL	mL
	MINERAL SP STD	1000		05/13/11	11/13/11	10	50	200	400	600	800
VWR	MC		#010611B			990	950	800	600	400	200
						Final VOL.	1000	1000	1000	1000	1000

*Restek*

OP/FAM CURVE													
PREP:	05/16/11	EXP:	10/28/11			IB	IA	1	2	3	4	5	6
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL	µL
	OP/F STD	6		05/13/11	11/13/11	DF2 OF 2	1	10	50	200	500	700	1000
VWR	Hexane		010711A			500	998	990	950	800	500	300	NA
						Final vol.	1000	1000	1000	1000	1000	1000	1000

STANDARD

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

077

HERB SECOND SOURCE

Analytes:	Conc. In mix (ug/ml)	Conc. In Stock (ug/ml)	Aliquot (uL)	STOCK SOURCE	Final Vol. Solvent (ml)
Dalapon	12.8	64	1000	O2SI	5
3,5 Dichlorobenzoic Acid	1.28	6.4		CAT: 132070-01	MTBE
4-Nitrophenol	3.2	16		LOT: 163603-27180	Lot#
2,4-DCAA (S)	6.4	32		OP: 4/21/11	50112
Dicamba	1.28	6.4		EXP: 4/21/12	
MCPP	1280	6400			
MCPA	1280	6400			
2,4-DP	6.4	32			
2,4-D	6.4	32			
DNOC	2.56	12.8			
PCP	1.28	6.4			
2,4,5-TP	1.28	6.4			
Chloramben	6.4	32			
2,4,5-T	1.28	6.4			
Dinoseb	3.2	16			
2,4-DB	12.8	64			
Bentazon	6.4	32			
Picloram	1.28	6.4			
Dacthal	1.28	6.4			
Acifluorfen	3.2	16			

Custom Herbicide Mix  
 (Second Source),  
 Underfertilized Acids, EPA  
 132070-01-99  
 Lot #: 163787 Storage Expiry  
 163787 - 56 Degrees C 11/9/13  
 Solv: Tol, Hex, MIBK  
 Custom Herbicide Mix (SS)  
 Lot #: 185787 - 27778  
 Rec: 11/23/10 MFR exp. 11/09/13  
 OP: 4/21/11 EX: 4/21/12

4/21/11  
 EX:  
 10/21/11

\*\*1 ml ampule is derivitized by extraction and brought up to 5ml in MTBE

DIESEL CURVE

STD	[ug/mL]	LOT #	DATE	EXP. DATE	uL	uL	uL	uL	uL	uL
DIESEL	1000		03/07/11	09/07/11	10	100	400	600	800	1000
MC		010811B			990	900	600	400	200	NA
					Final VOL.	1000	1000	1,000	1000	1000

4/22/11  
 EX:  
 9/7/11

MOTOR OIL CURVE

STD	[ug/mL]	LOT #	DATE	EXP. DATE	uL	uL	uL	uL	uL	uL
MOTOR OIL	1000		03/07/11	09/07/11	50	100	400	600	800	1000
MC		010811B			950	900	600	400	200	NA
					Final VOL.	1000	1000	1,000	1000	1000

DIESEL 2ND SOURCE

STD	Init. Conc	Source	Aliquot	Final Vol.	Final Conc.	Solvent
DIESEL STD.	1000ug/ml	O2SI	400uL	1 mL	400 ug/mL	MC
Lot:149530	Prep:	03/07/11				010811B
-25285	Exp:	09/07/11				

PREP DATE:	04/22/11					
OP 2ND SOURCE						
EXP:	04/23/11					
SUPPLIER	ID#	(ug/mL)	LOT #	DATE	EXP. DATE	uL
	OP 2ND SRC	5		04/13/11	04/23/11	500
VWR	HEXANE		010711A			500
						Final VOL.
						1000

4/22/11  
 EX: 4/23/11

OP/FAM CURVE

PREP:	DATE	EXP:	DATE	IB	IA	1	2	3	4	5	6
SUPPLIER	ID#	[ug/mL]	LOT #	DATE	EXP. DATE	uL	uL	uL	uL	uL	uL
	OP/F STD	5		04/13/11	10/13/11	OF2 OF 2	2	10	50	200	500
VWR	Hexane		010711A				500	998	990	950	800
							500	500	300	300	1000
							Final VOL.	1000	1000	1000	1000

4/22/11  
 EX:  
 10/13/11

# Organic Extraction Worksheet

<b>Method</b>	THC Separatory Funnel Extraction 3510C	<b>Extraction Set</b>	110503A	<b>Extraction Method</b>	SEP011	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 4/28/11 EX 7/28/11	Surrogate ID 1	THC Surrogate 164819-28492				
Spiked ID 2	Motor Oil Spike 3/31/11 EX 6/30/11	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC: YES					
Spiked ID 7		Ext. Start Time:					
Spiked ID 8		Ext. End Time:					
GC Requires Extract By:				05/13/11 0:00			
pH1				W Bath Temp 80 °C			
pH2							
pH3							

Spiked By: DL

Date 05/03/11

Witnessed By: GH

Date 05/03/11

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	110503A BIK			0.250	1	1000	5	7	05/03/11 13:40	
2	110503A LCS-1	1	1	0.250	1	1000	5	7	05/03/11 13:40	
3	110503A LCS-2	1	2	0.250	1	1000	5	7	05/03/11 13:40	
4	AY36507 AY36507W02			0.250	1	1050	5	7	05/03/11 13:40	64509 -- Amber Liter
5	AY36557 AY36557W05			0.250	1	1000	5	7	05/03/11 13:40	64520 -- Amber Liter
6	AY36558 AY36558W06			0.250	1	1050	5	7	05/03/11 13:40	64520 -- Amber Liter
7	AY36559 AY36559W04			0.250	1	1000	5	7	05/03/11 13:40	64520 -- Amber Liter
8	AY36560 AY36560W06			0.250	1	1000	5	7	05/03/11 13:40	64520 -- Amber Liter
9	AY36561 MS-1 AY36561W14	1	1	0.250	1	1025	5	7	05/03/11 13:40	64520 -- Amber Liter
10	AY36561 MSD-1 AY36561W15	1	1	0.250	1	1025	5	7	05/03/11 13:40	64520 -- Amber Liter
11	AY36561 MS-2 AY36561W12	1	2	0.250	1	1025	5	7	05/03/11 13:40	64520 -- VOAs - NP
12	AY36561 MSD-2 AY36561W11	1	2	0.250	1	1000	5	7	05/03/11 13:40	64520 -- VOAs - NP
13	AY36561 AY36561W21			0.250	1	1025	5	7	05/03/11 13:40	64520 -- Amber Liter
14	AY36562 AY36562W05			0.250	1	1000	5	7	05/03/11 13:40	64520 -- Amber Liter
15	AY36698 AY36698W04			0.250	1	1000	5	7	05/03/11 13:40	64540 -- Amber Liter
16	AY36699 AY36699W04			0.250	1	1000	5	7	05/03/11 13:40	64540 -- Amber Liter
17	AY36717 AY36717W05			0.250	1	1050	5	7	05/03/11 13:40	64536 -- Amber Liter
18	AY36735 AY36735W07			0.250	1	1025	5	7	05/03/11 13:40	64544 2-WBBK RUSH -- Amber Liter

*RJS 5/3/11*

<b>Solvent and Lot#</b>	
MC	VWR 112910A
Na2SO4	0440C237

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	RJS
GC analyst's Initials	<i>[Signature]</i>
Date	5/4/11
Time	16:20
Refrigerator	HDBAref

<b>Technician's Initials</b>	
Scanned By	JL
Sample Preparation	JL
Extraction	JL
Concentration	3/CC
Modified	05/03/11 9:36:19 AM

Reviewed By: RJS 68 Date 05/03/11

## Injection Log

Directory: G:\APOLLO\DATA\110422\110509\110516

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	4	422004.D	1	DIESEL 10/1000 4/22/11	Mix(A)	4-22-11 11:20:08
2	5	422005.D	1	DIESEL 100/1000	Mix(A)	4-22-11 11:45:11
3	6	422006.D	1	DIESEL 400/1000	Mix(A)	4-22-11 12:10:19
4	7	422007.D	1	DIESEL 600/1000	Mix(A)	4-22-11 12:35:32
5	8	422008.D	1	DIESEL 800/1000	Mix(A)	4-22-11 13:00:52
6	9	422009.D	1	DIESEL 1000/1000	Mix(A)	4-22-11 13:26:13
7	16	422016.D	1	DIESEL 2ND SRC 400/1000 4/22/11	Mix(A)	4-22-11 16:19:58
8	14	509114.D	1	DIESEL 400/1000 5/11/11	Mix(A)	5-11-11 11:36:40
9	31	509131.D	5	110503A BLK 5/1000	Water	5-11-11 18:40:58
10	32	509132.D	5	110503A LCS-1 5/1000	Water	5-11-11 19:06:08
11	35	509135.D	1	DIESEL 400/1000 5/11/11	Mix(A)	5-11-11 20:21:44
12	7	516007.D	1	DIESEL 400/1000 5/13/11	Mix(A)	5-16-11 11:45:36
13	15	516015.D	4.87805	AY36735W07 5/1025	Water	5-16-11 17:09:07
14	16	516016.D	1	DIESEL 600/1000 5/13/11	Mix(A)	5-16-11 17:34:00

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

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

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

Blank Name/QCG: 110503W-36735 - 155154  
Batch ID: #SIMHC-110503A

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	05/03/11	05/04/11
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/04/11
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/04/11
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/04/11
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	05/03/11	05/04/11
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/04/11
BLANK	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/04/11
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/04/11
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	05/03/11	05/04/11
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/04/11
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	05/03/11	05/04/11
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	05/03/11	05/04/11
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	05/03/11	05/04/11
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/04/11
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/04/11
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	05/03/11	05/04/11
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/04/11
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	05/03/11	05/04/11
BLANK	SURROGATE: 2-FLUORBIPHENY	58.5	50-110			%	05/03/11	05/04/11
BLANK	SURROGATE: NITROBENZENE-	84.5	40-110			%	05/03/11	05/04/11
BLANK	SURROGATE: TERPHENYL-D14 (	61.4	50-135			%	05/03/11	05/04/11

Quant Method: SIM2.M  
Run #: 0504L005  
Instrument: Linus  
Sequence: L110420  
Initials: LF

GC SC-Blank-REG MDLs  
Printed: 05/16/11 6:34:10 PM



**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 64544

Case No: 64544

Date Analyzed: 05/04/11

Matrix: WATER

Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)	SURROGATE: NITROBENZENE-D5 (S)
110503A-BLK	Blank	58.5	84.5
110503A-LCS	Lab Control Spike	59.0	87.0
AY36735	ES033	54.2	84.8

Comments: Batch: #SIMHC-110503A

**Surrogate Recovery**

Lab Name: APPL, Inc.  
Case No: 64544  
Matrix: WATER

SDG No: 64544  
Date Analyzed: 05/04/11  
Instrument: Linus

---

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)
110503A-BLK	Blank	61.4
110503A-LCS	Lab Control Spike	58.5
AY36735	ES033	60.0

---

Comments: Batch: #SIMHC-110503A

**Laboratory Control Spike Recovery**  
**EPA 8270D SIM**

APPL ID: 110503W-36735 LCS - 155154  
Batch ID: #SIMHC-110503A

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	2.19	54.8	45-105
2-METHYLNAPHTHALENE	4.00	2.08	52.0	45-105
ACENAPHTHENE	4.00	2.68	67.0	45-110
ACENAPHTHYLENE	4.00	2.69	67.3	50-105
ANTHRACENE	4.00	3.64	91.0	55-110
BENZO(A)ANTHRACENE	4.00	3.26	81.5	55-110
BENZO(A)PYRENE	4.00	3.75	93.8	55-110
BENZO(B)FLUORANTHENE	4.00	3.76	94.0	45-120
BENZO(GHI)PERYLENE	4.00	3.64	91.0	40-125
BENZO(K)FLUORANTHENE	4.00	3.53	88.3	45-125
CHRYSENE	4.00	3.79	94.8	55-110
DIBENZ(A,H)ANTHRACENE	4.00	3.67	91.8	40-125
FLUORANTHENE	4.00	3.38	84.5	55-115
FLUORENE	4.00	3.28	82.0	50-110
INDENO(1,2,3-CD)PYRENE	4.00	3.13	78.3	45-125
NAPHTHALENE	4.00	2.03	50.7	40-100
PHENANTHRENE	4.00	3.57	89.3	50-115
PYRENE	4.00	3.50	87.5	50-130
-----				
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.18	59.0	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.74	87.0	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.17	58.5	50-135
-----				

Comments:

<u>Primary</u>	<u>SPK</u>
Quant Method :	SIM2.M
Extraction Date :	05/03/11
Analysis Date :	05/04/11
Instrument :	Linus
Run :	0504L006
Initials :	LF

Printed: 05/16/11 6:34:18 PM

# 8270D-SIM

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 64544

Case No: 64544

Date Analyzed: 05/04/11

Matrix: WATER

Instrument: Linus

Blank ID: 110503A-BLK

Time Analyzed: 1847

APPL ID.	Client Sample No.	File ID.	Date Analyzed
110503A-BLK	Blank	0504L005	05/04/11 1847
110503A-LCS	Lab Control Spike	0504L006	05/04/11 1913
AY36735	ES033	0504L028	05/05/11 0435

Comments: Batch: #SIMHC-110503A

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 64544  
 Matrix: Water  
 ID: SVTUNE 04-14-11

SDG No: 64544  
 Date Analyzed: 05/04/11  
 Instrument: Linus  
 Time Analyzed: 17:12

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1 Blank	110503A BLK 1/1000	0504L005.D	05/04/11 18:47
2 Lab Control Spike	110503A LCS-1 1/1000	0504L006.D	05/04/11 19:13
3 ES033	AY36735W06 1/1000	0504L028.D	05/05/11 4:35
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	<u>40.9</u>
68 0 - 2.05% of mass 69	<u>0.0</u>
70 0 - 2% of mass 69	<u>0.7</u>
127 40 - 60% of mass 198	<u>52.9</u>
197 0 - 1% of mass 198	<u>0.0</u>
198 100 - 100% of mass 198	<u>100.0</u>
199 5 - 9% of mass 198	<u>7.3</u>
275 10 - 30% of mass 198	<u>24.8</u>
365 1 - 100% of mass 198	<u>2.8</u>
441 0.01 - 100% of mass 443	<u>76.8</u>
442 40 - 150% of mass 198	<u>61.4</u>
443 17 - 23% of mass 442	<u>19.8</u>

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 64544  
 Lab File ID (Standard): 0420L006.D Date Analyzed: 04/20/11  
 Instrument ID: Linus Time Analyzed: 23:01  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		2790	6.17	1524	8.18	2709	9.90
UPPER LIMIT		5580	6.67	3048	8.68	5418	10.40
LOWER LIMIT		1395	5.67	762	7.68	1355	9.40
SAMPLE NO.							
01	110503A BLK 1/1000	2623	6.18	1337	8.18	2711	9.91
02	110503A LCS-1 1/1000	2525	6.18	1258	8.18	2526	9.91
03	AY36735W06 1/1000	3288	6.18	1798	8.18	3723	9.91
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: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 64544  
 Lab File ID (Standard): 0420L006.D Date Analyzed: 04/20/11  
 Instrument ID: Linus Time Analyzed: 23:01  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3273	12.96	2558	14.57		
	UPPER LIMIT	6546	13.46	5116	15.07		
	LOWER LIMIT	1637	12.46	1279	14.07		
	SAMPLE NO.						
01	110503A BLK 1/1000	2772	12.97	2277	14.58		
02	110503A LCS-1 1/1000	2938	12.97	2266	14.58		
03	AY36735W06 1/1000	4053	12.97	3496	14.58		
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**



# EPA 8270D SIM

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

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

Sample ID: ES033

Sample Collection Date: 04/28/11

APPL Inc.

908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64544

APPL ID: AY36735

QCG: #SIMHC-110503A-155154

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	05/03/11	05/05/11
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/05/11
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/05/11
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/05/11
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	05/03/11	05/05/11
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/05/11
8270D-SIM	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/05/11
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/05/11
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	05/03/11	05/05/11
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/05/11
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	05/03/11	05/05/11
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	05/03/11	05/05/11
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	05/03/11	05/05/11
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/05/11
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/05/11
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	05/03/11	05/05/11
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/05/11
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	05/03/11	05/05/11
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	54.2	50-110			%	05/03/11	05/05/11
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	84.8	40-110			%	05/03/11	05/05/11
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	60.0	50-135			%	05/03/11	05/05/11

Quant Method: SIM2.M  
Run #: 0504L028  
Instrument: Linus  
Sequence: L110420  
Dilution Factor: 1  
Initials: LF

Printed: 05/16/11 6:34:25 PM

APPL-F1-SC-NoMC-REG MDLs

Data File : M:\LINUS\DATA\L110420\0504L028.D Vial: 28  
 Acq On : 5 May 11 4:35 Operator: LF  
 Sample : AY36735W06 1/1000 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: May 16 18:17 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Mon May 16 17:08:29 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	3288	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	1798	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	3723	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	4053	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.58	264	3496	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.38	82	431	1.69570	ppb	0.01
Spiked Amount	2.000		Recovery	=	84.800%	
7) Surrogate Recovery (FBP)	7.42	172	1533	1.08372	ppb	0.00
Spiked Amount	2.000		Recovery	=	54.200%	
17) Surrogate Recovery (TPH)	11.78	244	2139	1.19945	ppb	0.01
Spiked Amount	2.000		Recovery	=	59.950%	

Target Compounds Qvalue

Quantitation Report

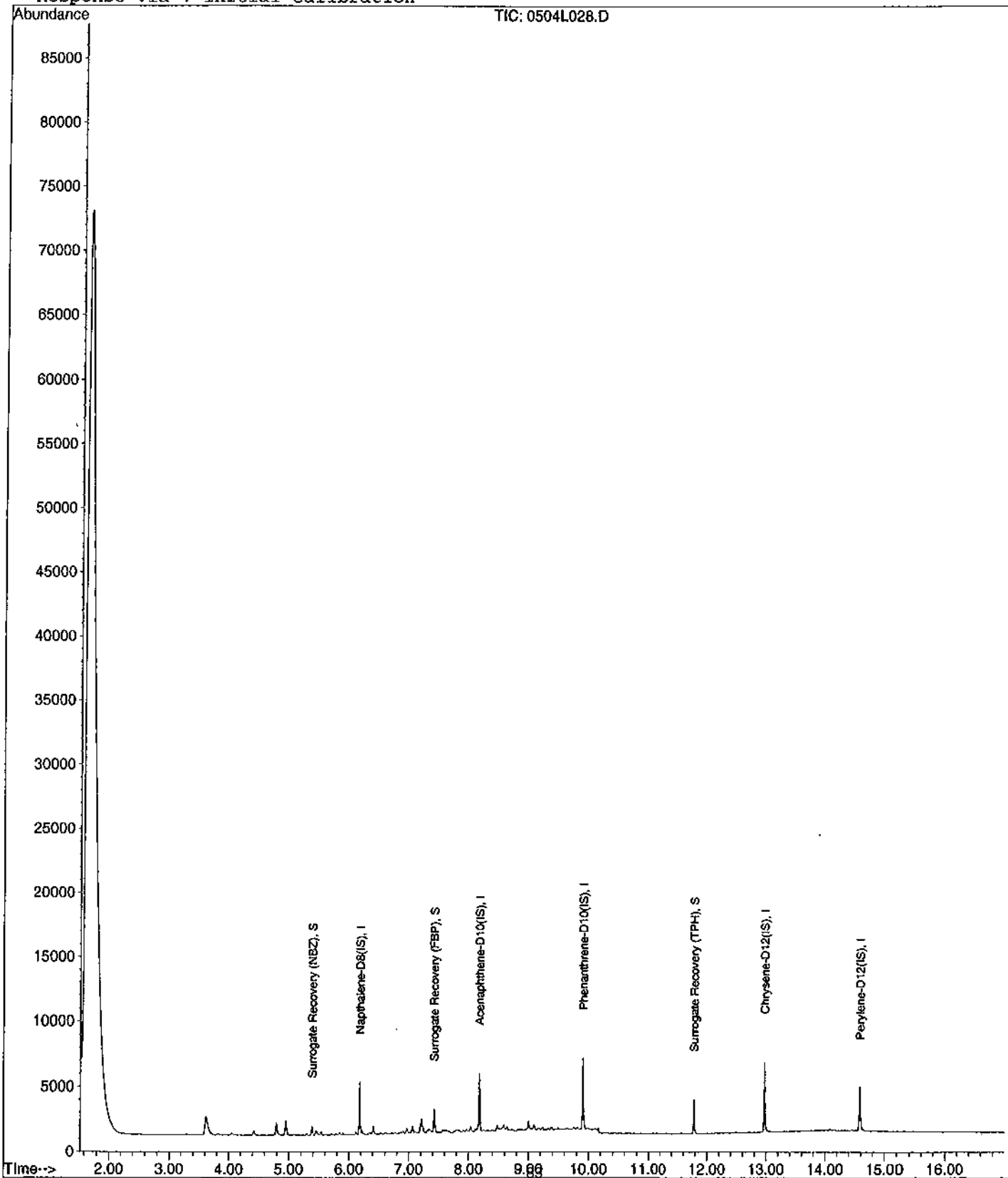
Data File : M:\LINUS\DATA\L110420\0504L028.D  
Acq On : 5 May 11 4:35  
Sample : AY36735W06 1/1000  
Misc :

Vial: 28  
Operator: LF  
Inst : Linus  
Multiplr: 1.00

Quant Time: May 16 18:17 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Mon May 16 17:08:29 2011  
Response via : Initial Calibration



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



Data File : M:\LINUS\DATA\L110420\0420L002.D  
 Acq On : 20 Apr 11 21:19  
 Sample : 0.1ug/ml PAH 04-20-11  
 Misc :

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

Quant Time: Apr 21 7:56 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	2750	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	1446	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	2979	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3352	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.56	264	2701	2.50000	ppb	-0.01
<b>System Monitoring Compounds</b>						
2) Surrogate Recovery (NBZ)	5.37	82	64	0.93191	ppb	0.00
Spiked Amount	2.000		Recovery	=	46.600%	
7) Surrogate Recovery (FBP)	7.42	172	132	0.12001	ppb	0.00
Spiked Amount	2.000		Recovery	=	6.000%	
17) Surrogate Recovery (TPH)	11.77	244	182	0.15071	ppb	0.00
Spiked Amount	2.000		Recovery	=	7.550%	
<b>Target Compounds</b>						
						Qvalue
3) Naphthalene	6.19	128	198	0.12596	ppb	96
4) 2-Methylnaphthalene	6.99	142	128	0.14277	ppb	93
5) 1-Methylnaphthalene	7.10	142	118	0.11218	ppb	91
8) Acenaphthylene	8.01	152	174	0.12695	ppb	97
9) Acenaphthene	8.22	154	98	0.11945	ppb	96
10) Fluorene	8.82	166	122	0.12565	ppb	95
12) Phenanthrene	9.92	178	195	0.13124	ppb	# 89
13) Anthracene	9.98	178	166	0.12544	ppb	97
14) Fluoranthene	11.30	202	267	0.11122	ppb	# 96
16) Pyrene	11.56	202	267	0.14691	ppb	# 94
18) Benz (a) anthracene	12.95	228	243	0.15700	ppb	95
19) Chrysene	12.98	228	214	0.12472	ppb	# 91
20) Indeno (1,2,3-cd) pyrene	16.03	276	154	0.11147	ppb	# 98
22) Benzo (b) fluoranthene	14.13	252	207	0.15054	ppb	97
23) Benzo (k) fluoranthene	14.15	252	187	0.10870	ppb	# 87
24) Benzo (a) pyrene	14.50	252	188	0.13570	ppb	98
25) Dibenz (a,h) anthracene	16.06	278	149	0.12831	ppb	# 93
26) Benzo (g,h,i) perylene	16.45	276	179	0.14546	ppb	95

Quantitation Report

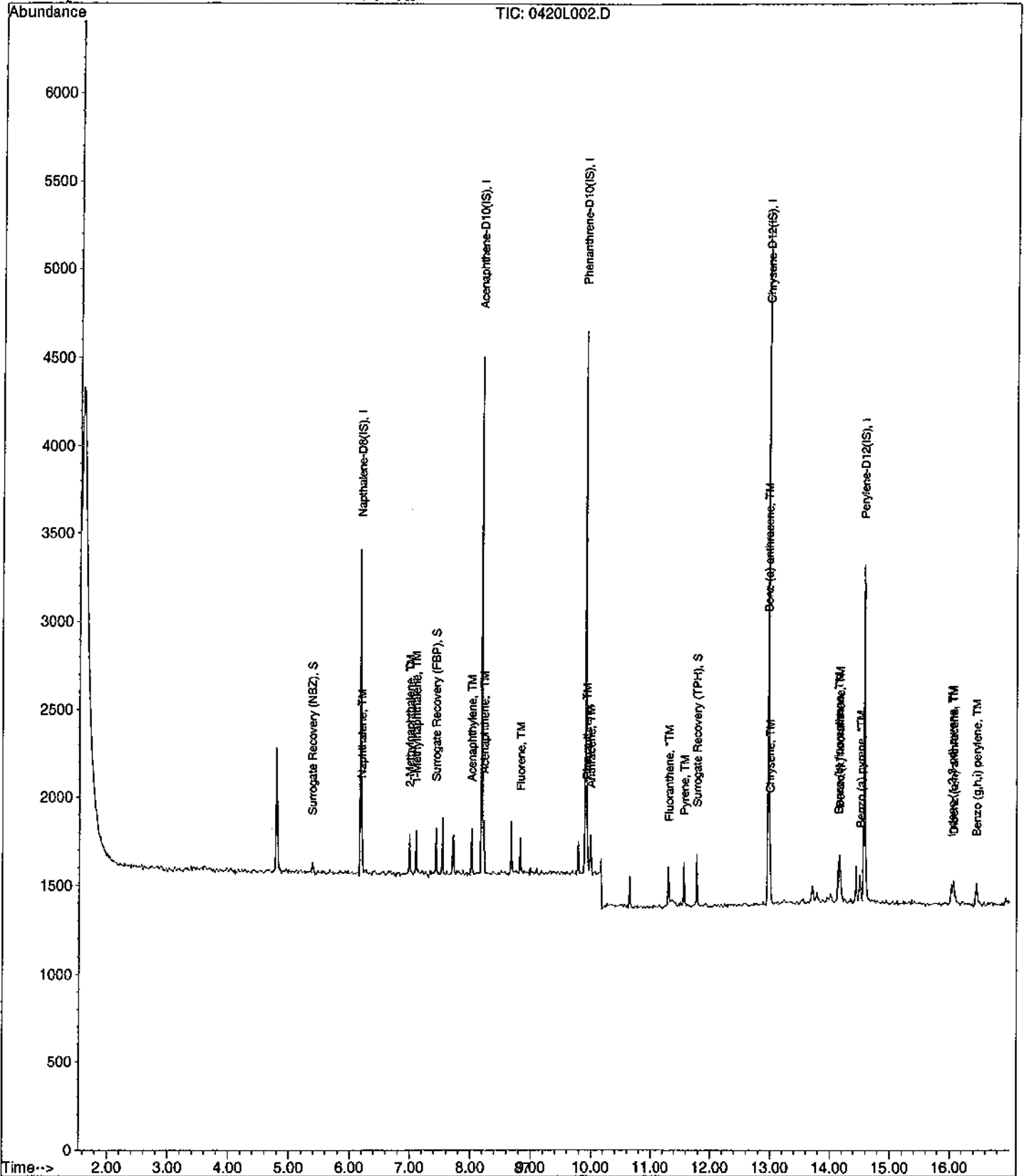
Data File : M:\LINUS\DATA\L110420\0420L002.D  
Acq On : 20 Apr 11 21:19  
Sample : 0.1ug/ml PAH 04-20-11  
Misc :

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

Quant Time: Apr 21 7:56 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Apr 21 08:01:22 2011  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L003.D  
 Acq On : 20 Apr 11 21:44  
 Sample : 0.2ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:59 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.17	136	2832	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.18	164	1625	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	2989	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3591	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.56	264	2896	2.50000	ppb	-0.01

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.37	82	110	1.01911	ppb	0.00
Spiked Amount	2.000		Recovery	= 50.950%		
7) Surrogate Recovery (FBP)	7.42	172	294	0.23785	ppb	0.00
Spiked Amount	2.000		Recovery	= 11.900%		
17) Surrogate Recovery (TPH)	11.77	244	365	0.28213	ppb	0.00
Spiked Amount	2.000		Recovery	= 14.100%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.19	128	390	0.24092	ppb	98
4) 2-Methylnaphthalene	6.99	142	249	0.26970	ppb	96
5) 1-Methylnaphthalene	7.10	142	257	0.23725	ppb	98
8) Acenaphthylene	8.01	152	382	0.24800	ppb	99
9) Acenaphthene	8.22	154	214	0.23211	ppb	93
10) Fluorene	8.82	166	264	0.24195	ppb	95
12) Phenanthrene	9.92	178	411	0.27569	ppb	98
13) Anthracene	9.98	178	391	0.29447	ppb	99
14) Fluoranthene	11.29	202	552	0.22918	ppb	# 73
16) Pyrene	11.56	202	586	0.30098	ppb	97
18) Benz (a) anthracene	12.95	228	500	0.30155	ppb	98
19) Chrysene	13.00	228	434	0.23610	ppb	99
20) Indeno (1,2,3-cd) pyrene	16.03	276	310	0.20945	ppb	# 100
22) Benzo (b) fluoranthene	14.13	252	431	0.29234	ppb	# 97
23) Benzo (k) fluoranthene	14.16	252	435	0.23583	ppb	98
24) Benzo (a) pyrene	14.50	252	382	0.25717	ppb	97
25) Dibenz (a,h) anthracene	16.06	278	319	0.25621	ppb	# 95
26) Benzo (g,h,i) perylene	16.45	276	323	0.24480	ppb	# 89



Quantitation Report

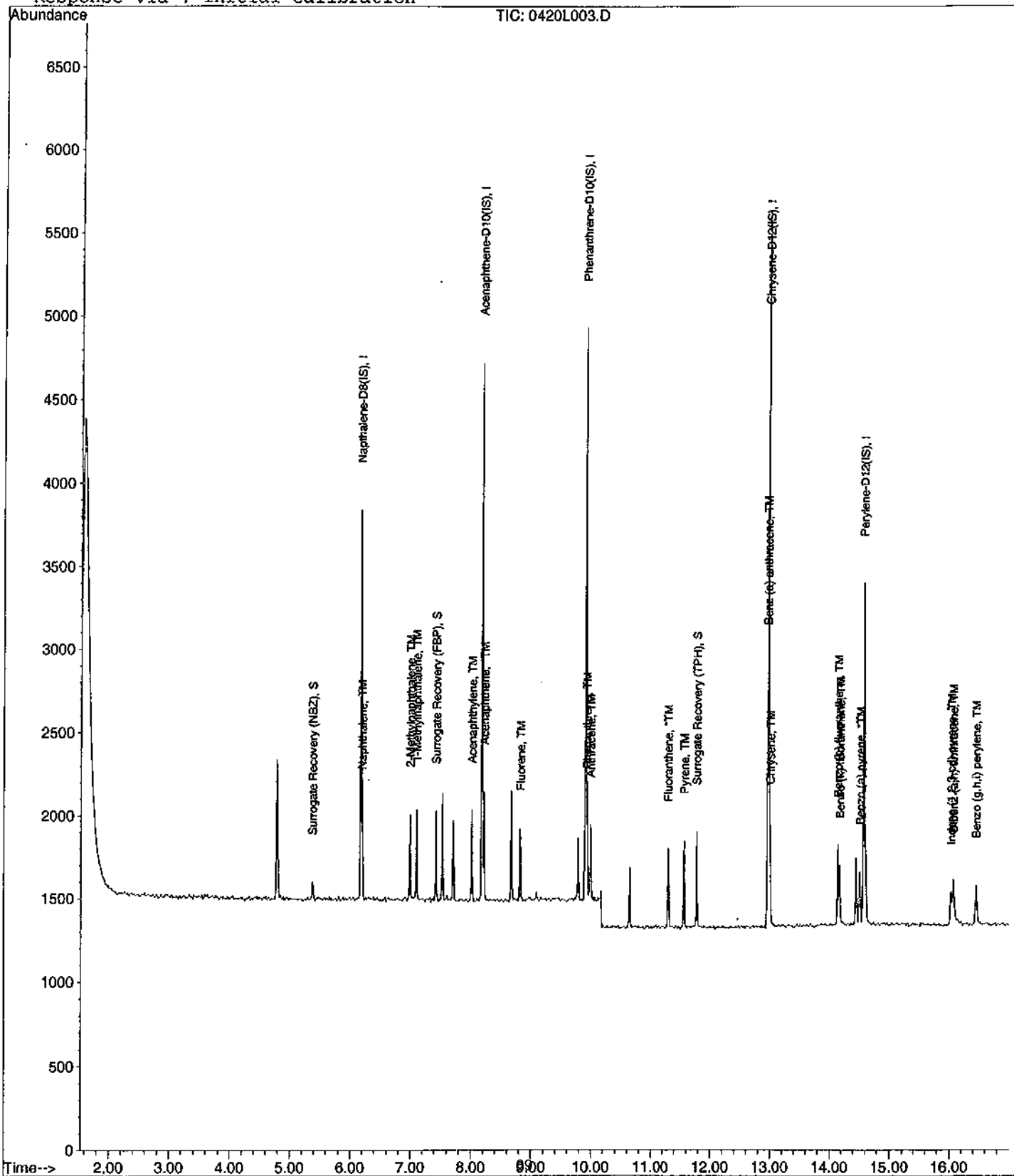
Data File : M:\LINUS\DATA\L110420\0420L003.D  
 Acq On : 20 Apr 11 21:44  
 Sample : 0.2ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:59 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 08:01:22 2011  
 Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L004.D  
 Acq On : 20 Apr 11 22:10  
 Sample : 0.5ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.17	136	3011	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.18	164	1656	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	3295	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3783	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.56	264	3007	2.50000	ppb	-0.01

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.37	82	181	1.13824	ppb	0.00
Spiked Amount	2.000		Recovery	=	56.900%	
7) Surrogate Recovery (FBP)	7.42	172	720	0.57158	ppb	0.00
Spiked Amount	2.000		Recovery	=	28.600%	
17) Surrogate Recovery (TPH)	11.77	244	941	0.69045	ppb	0.00
Spiked Amount	2.000		Recovery	=	34.500%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.19	128	1016	0.59031	ppb	99
4) 2-Methylnaphthalene	6.99	142	680	0.69274	ppb	99
5) 1-Methylnaphthalene	7.10	142	641	0.55655	ppb	100
8) Acenaphthylene	8.01	152	989	0.63005	ppb	100
9) Acenaphthene	8.22	154	585	0.62263	ppb	99
10) Fluorene	8.82	166	680	0.61155	ppb	99
12) Phenanthrene	9.93	178	1060	0.64499	ppb	99
13) Anthracene	9.98	178	848	0.57933	ppb	99
14) Fluoranthene	11.30	202	1435	0.54045	ppb	98
16) Pyrene	11.56	202	1536	0.74888	ppb	99
18) Benz (a) anthracene	12.95	228	1305	0.74709	ppb	97
19) Chrysene	12.98	228	1163	0.60057	ppb	# 90
20) Indeno (1,2,3-cd) pyrene	16.02	276	1045	0.67023	ppb	# 87
22) Benzo (b) fluoranthene	14.13	252	1177	0.76887	ppb	# 96
23) Benzo (k) fluoranthene	14.15	252	1142	0.59627	ppb	# 94
24) Benzo (a) pyrene	14.50	252	963	0.62439	ppb	98
25) Dibenz (a,h) anthracene	16.06	278	830	0.64202	ppb	# 96
26) Benzo (g,h,i) perylene	16.45	276	916	0.66862	ppb	95

Quantitation Report

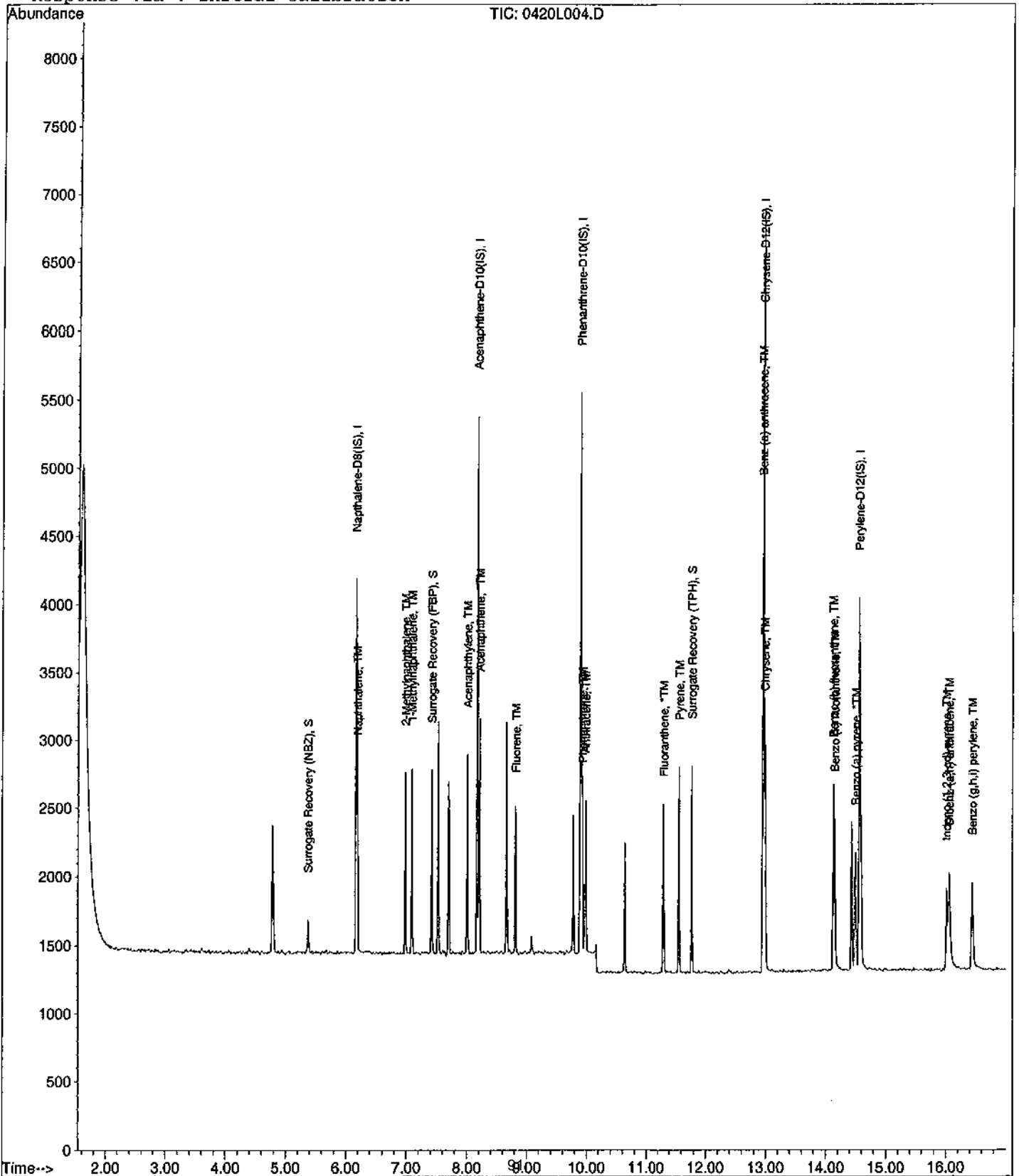
Data File : M:\LINUS\DATA\L110420\0420L004.D  
 Acq On : 20 Apr 11 22:10  
 Sample : 0.5ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 08:01:22 2011  
 Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L005.D  
 Acq On : 20 Apr 11 22:35  
 Sample : 1.0ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.17	136	3066	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.18	164	1685	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	3423	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3982	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.56	264	3191	2.50000	ppb	-0.01
<b>System Monitoring Compounds</b>						
2) Surrogate Recovery (NBZ)	5.37	82	338	1.41900	ppb	0.00
Spiked Amount	2.000		Recovery	=	70.950%	
7) Surrogate Recovery (FBP)	7.42	172	1440	1.12348	ppb	0.00
Spiked Amount	2.000		Recovery	=	56.150%	
17) Surrogate Recovery (TPH)	11.77	244	1896	1.32165	ppb	0.00
Spiked Amount	2.000		Recovery	=	66.100%	
<b>Target Compounds</b>						
						Qvalue
3) Naphthalene	6.19	128	1971	1.12463	ppb	99
4) 2-Methylnaphthalene	6.99	142	1314	1.31460	ppb	99
5) 1-Methylnaphthalene	7.10	142	1270	1.08291	ppb	98
8) Acenaphthylene	8.01	152	1918	1.20085	ppb	100
9) Acenaphthene	8.22	154	1110	1.16107	ppb	99
10) Fluorene	8.82	166	1319	1.16580	ppb	100
12) Phenanthrene	9.92	178	2083	1.22006	ppb	96
13) Anthracene	9.98	178	1686	1.10876	ppb	100
14) Fluoranthene	11.29	202	2944	1.06731	ppb	# 77
16) Pyrene	11.56	202	3033	1.40485	ppb	98
18) Benz (a) anthracene	12.95	228	2674	1.45432	ppb	98
19) Chrysene	13.00	228	2393	1.17398	ppb	99
20) Indeno (1,2,3-cd) pyrene	16.03	276	1657	1.00964	ppb	# 96
22) Benzo (b) fluoranthene	14.13	252	2327	1.43244	ppb	98
23) Benzo (k) fluoranthene	14.15	252	2269	1.11639	ppb	# 94
24) Benzo (a) pyrene	14.50	252	2070	1.26475	ppb	97
25) Dibenz (a,h) anthracene	16.07	278	1709	1.24572	ppb	# 94
26) Benzo (g,h,i) perylene	16.45	276	1888	1.29865	ppb	95

Quantitation Report

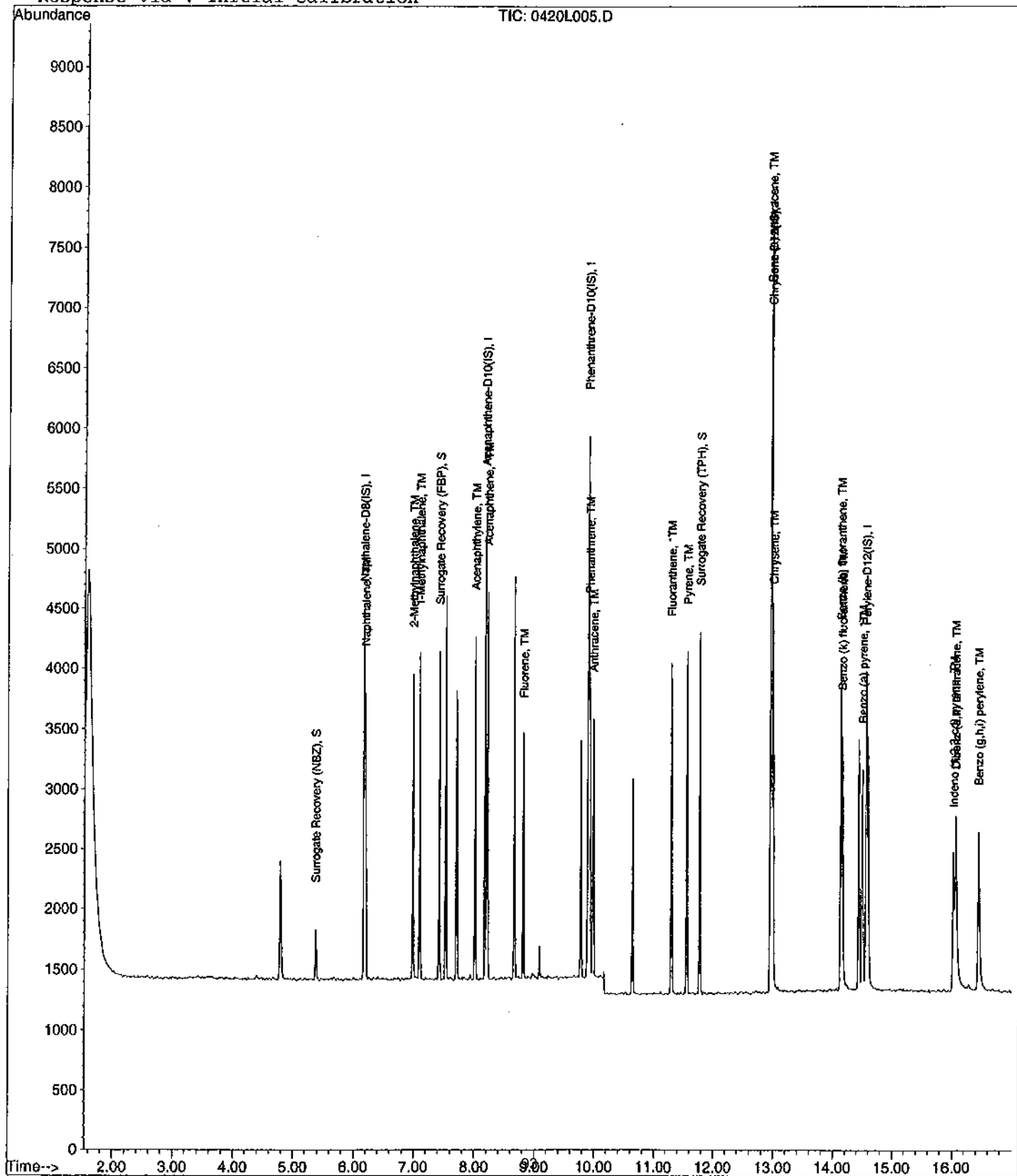
Data File : M:\LINUS\DATA\L110420\0420L005.D  
Acq On : 20 Apr 11 22:35  
Sample : 1.0ug/ml PAH  
Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Apr 21 08:01:22 2011  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L006.D Vial: 6  
 Acq On : 20 Apr 11 23:01 Operator: LF  
 Sample : 5.0ug/ml PAH Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Apr 21 8:00 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.17	136	2790	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.18	164	1524	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	2709	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3273	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.57	264	2558	2.50000	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Surrogate Recovery (NBZ)	5.37	82	1341	3.49355	ppb	0.00
Spiked Amount	2.000		Recovery	=	174.700%	
7) Surrogate Recovery (FBP)	7.42	172	5488	4.73402	ppb	0.00
Spiked Amount	2.000		Recovery	=	236.700%	
17) Surrogate Recovery (TPH)	11.77	244	7213	6.11714	ppb	0.00
Spiked Amount	2.000		Recovery	=	305.850%	
<b>Target Compounds</b>						
						Qvalue
3) Naphthalene	6.19	128	7737	4.85135	ppb	100
4) 2-Methylnaphthalene	6.99	142	5291	5.81705	ppb	100
5) 1-Methylnaphthalene	7.10	142	5047	4.72921	ppb	100
8) Acenaphthylene	8.01	152	7691	5.32400	ppb	100
9) Acenaphthene	8.22	154	4524	5.23207	ppb	100
10) Fluorene	8.82	166	5261	5.14120	ppb	100
12) Phenanthrene	9.93	178	8054	5.96078	ppb	100
13) Anthracene	9.98	178	6890	5.72527	ppb	100
14) Fluoranthene	11.30	202	11331	5.19063	ppb	100
16) Pyrene	11.56	202	11712	6.60000	ppb	100
18) Benz (a) anthracene	12.95	228	10269	6.79490	ppb	100
19) Chrysene	13.00	228	9441	5.63498	ppb	100
20) Indeno (1,2,3-cd) pyrene	16.03	276	6555	4.85927	ppb	100
22) Benzo (b) fluoranthene	14.13	252	8792	6.75142	ppb	100
23) Benzo (k) fluoranthene	14.16	252	9484	5.82101	ppb	100
24) Benzo (a) pyrene	14.50	252	8298	6.32459	ppb	100
25) Dibenz (a,h) anthracene	16.08	278	6755	6.14230	ppb	100
26) Benzo (g,h,i) perylene	16.46	276	7423	6.36935	ppb	100

Quantitation Report

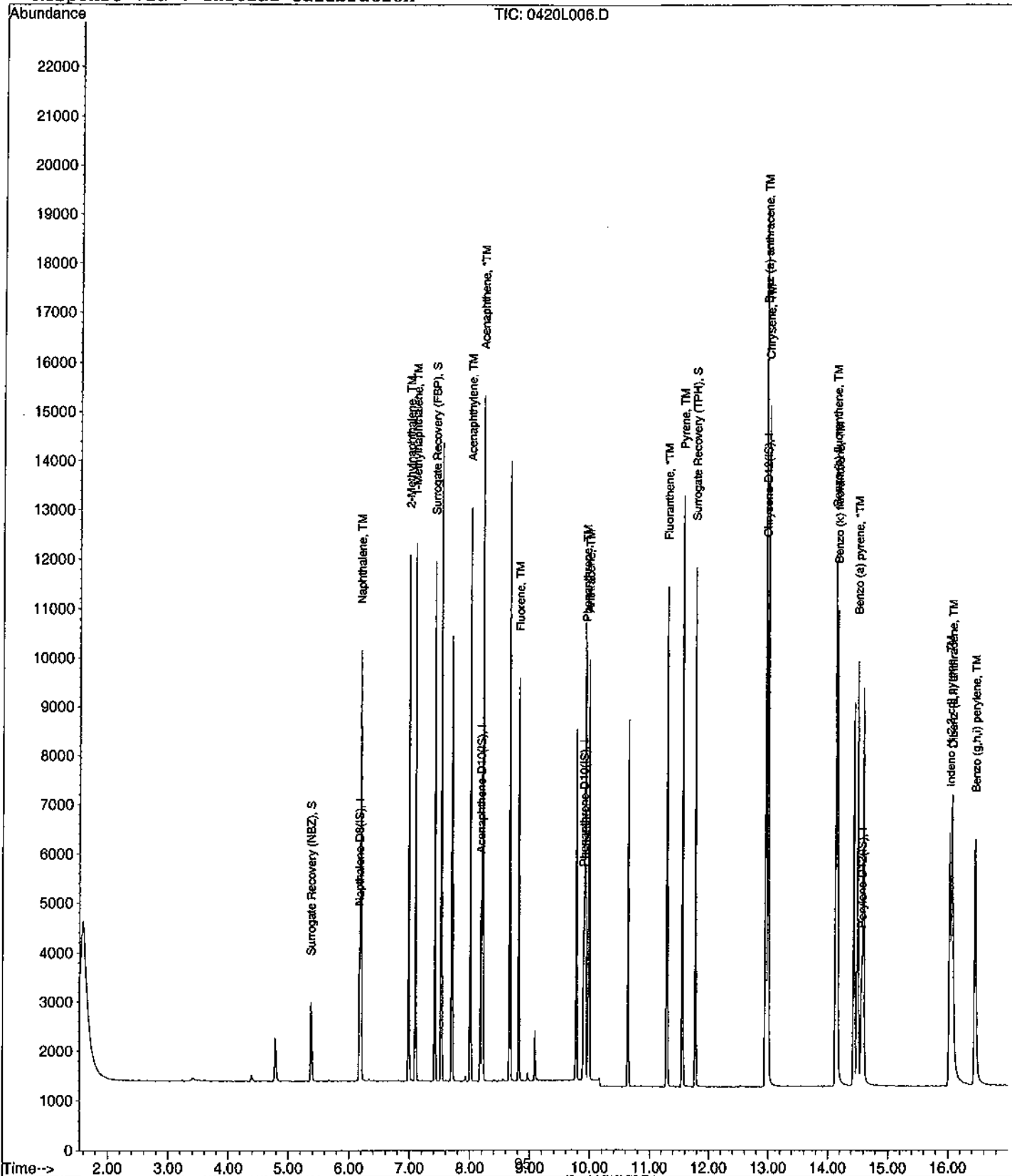
Data File : M:\LINUS\DATA\L110420\0420L006.D  
 Acq On : 20 Apr 11 23:01  
 Sample : 5.0ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 8:00 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 08:01:22 2011  
 Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L007.D  
 Acq On : 20 Apr 11 23:27  
 Sample : 10ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.17	136	2769	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.18	164	1507	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	2912	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3578	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.57	264	2756	2.50000	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Surrogate Recovery (NBZ)	5.37	82	2993	6.85542	ppb	0.00
Spiked Amount	2.000		Recovery	=	342.750%	
7) Surrogate Recovery (FBP)	7.42	172	11986	10.45592	ppb	0.00
Spiked Amount	2.000		Recovery	=	522.800%	
17) Surrogate Recovery (TPH)	11.77	244	16134	12.51641	ppb	0.00
Spiked Amount	2.000		Recovery	=	625.800%	
<b>Target Compounds</b>						
						Qvalue
3) Naphthalene	6.19	128	17043	10.76756	ppb	100
4) 2-Methylnaphthalene	6.99	142	11865	13.14360	ppb	99
5) 1-Methylnaphthalene	7.10	142	11371	10.73581	ppb	99
8) Acenaphthylene	8.01	152	17625	12.33833	ppb	99
9) Acenaphthene	8.22	154	10131	11.84881	ppb	97
10) Fluorene	8.82	166	12146	12.00331	ppb	97
12) Phenanthrene	9.93	178	17781	12.24236	ppb	99
13) Anthracene	9.98	178	15088	11.66342	ppb	99
14) Fluoranthene	11.30	202	25519	10.87509	ppb	100
16) Pyrene	11.56	202	26680	13.75321	ppb	100
18) Benz (a) anthracene	12.95	228	22906	13.86467	ppb	99
19) Chrysene	13.00	228	21271	11.61363	ppb	100
20) Indeno (1,2,3-cd) pyrene	16.03	276	16828	11.41132	ppb	94
22) Benzo (b) fluoranthene	14.13	252	25117	17.90180	ppb	98
23) Benzo (k) fluoranthene	14.16	252	17323	9.86849	ppb	99
24) Benzo (a) pyrene	14.50	252	19179	13.56771	ppb	99
25) Dibenz (a,h) anthracene	16.08	278	16880	14.24622	ppb	99
26) Benzo (g,h,i) perylene	16.46	276	17374	13.83684	ppb	97



Quantitation Report

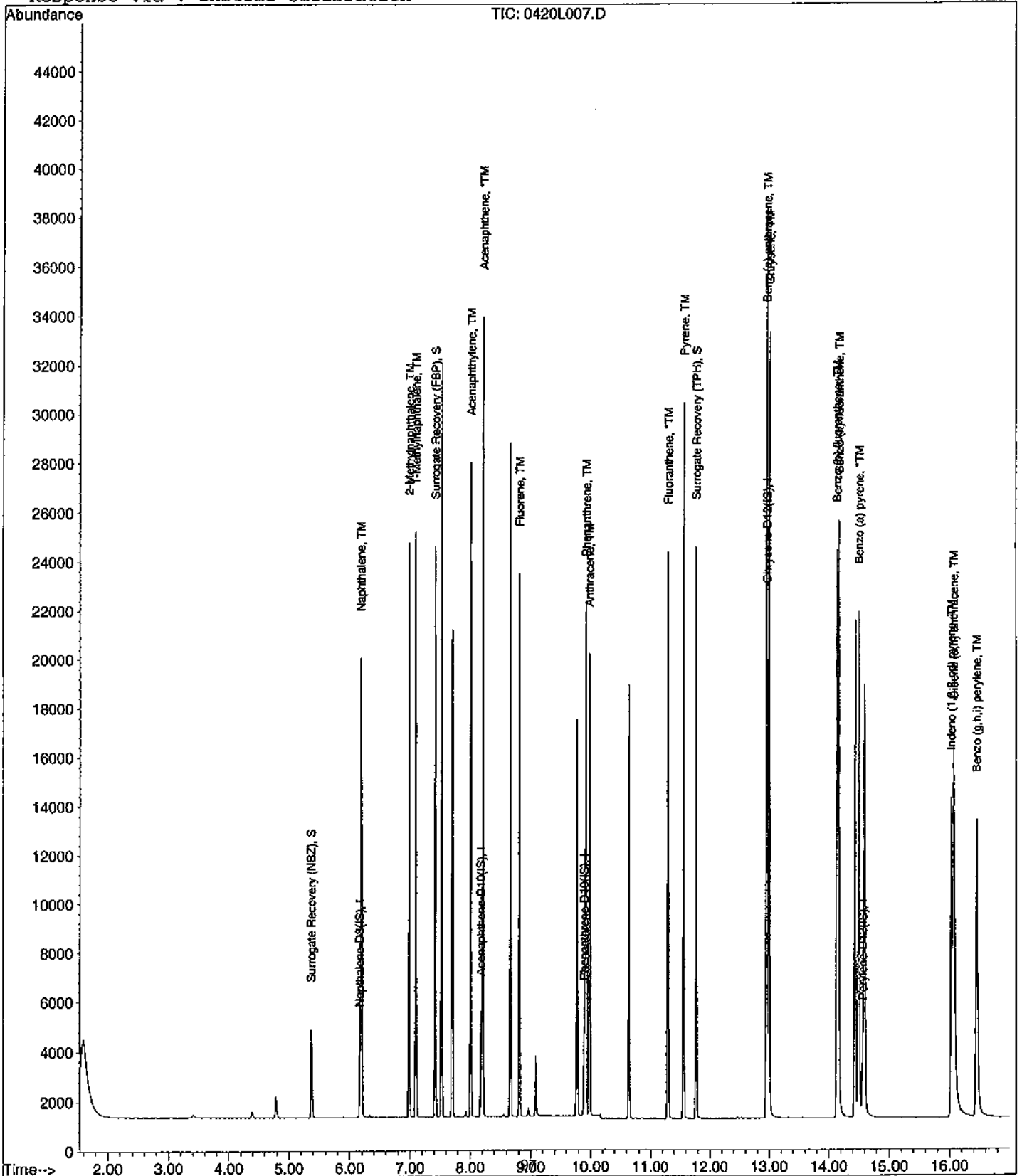
Data File : M:\LINUS\DATA\L110420\0420L007.D  
Acq On : 20 Apr 11 23:27  
Sample : 10ug/ml PAH  
Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Apr 21 08:01:22 2011  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L008.D  
 Acq On : 20 Apr 11 23:52  
 Sample : 50ug/ml PAH  
 Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	2619	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	1461	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	2706	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	3281	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.57	264	2626	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	5.38	82	14429	31.65824	ppb	0.01
Spiked Amount	2.000					
						Recovery = 1582.900%
7) Surrogate Recovery (FBP)	7.42	172	45452	40.89818	ppb	0.00
Spiked Amount	2.000					
						Recovery = 2044.900%
17) Surrogate Recovery (TPH)	11.78	244	61204	51.77877	ppb	0.01
Spiked Amount	2.000					
						Recovery = 2588.950%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.20	128	66602	44.48830	ppb	97
4) 2-Methylnaphthalene	6.99	142	45324	53.08384	ppb	99
5) 1-Methylnaphthalene	7.10	142	42121	42.04578	ppb	98
8) Acenaphthylene	8.01	152	65610	47.37621	ppb	98
9) Acenaphthene	8.22	154	37925	45.75211	ppb	95
10) Fluorene	8.82	166	46744	47.64930	ppb	95
12) Phenanthrene	9.93	178	67803	50.23672	ppb	98
13) Anthracene	9.99	178	58810	48.92254	ppb	98
14) Fluoranthene	11.30	202	97789	44.84590	ppb #	91
16) Pyrene	11.56	202	99166	55.74620	ppb #	90
18) Benz (a) anthracene	12.96	228	89321	58.95873	ppb	95
19) Chrysene	13.00	228	81106	48.29111	ppb #	94
20) Indeno (1,2,3-cd) pyrene	16.04	276	71595	52.94444	ppb #	85
22) Benzo (b) fluoranthene	14.14	252	85119	63.67074	ppb #	97
23) Benzo (k) fluoranthene	14.17	252	77135	46.11729	ppb #	97
24) Benzo (a) pyrene	14.51	252	75395	55.97673	ppb	98
25) Dibenz (a,h) anthracene	16.09	278	71307	63.16027	ppb	97
26) Benzo (g,h,i) perylene	16.48	276	71255	59.55756	ppb	97

Quantitation Report

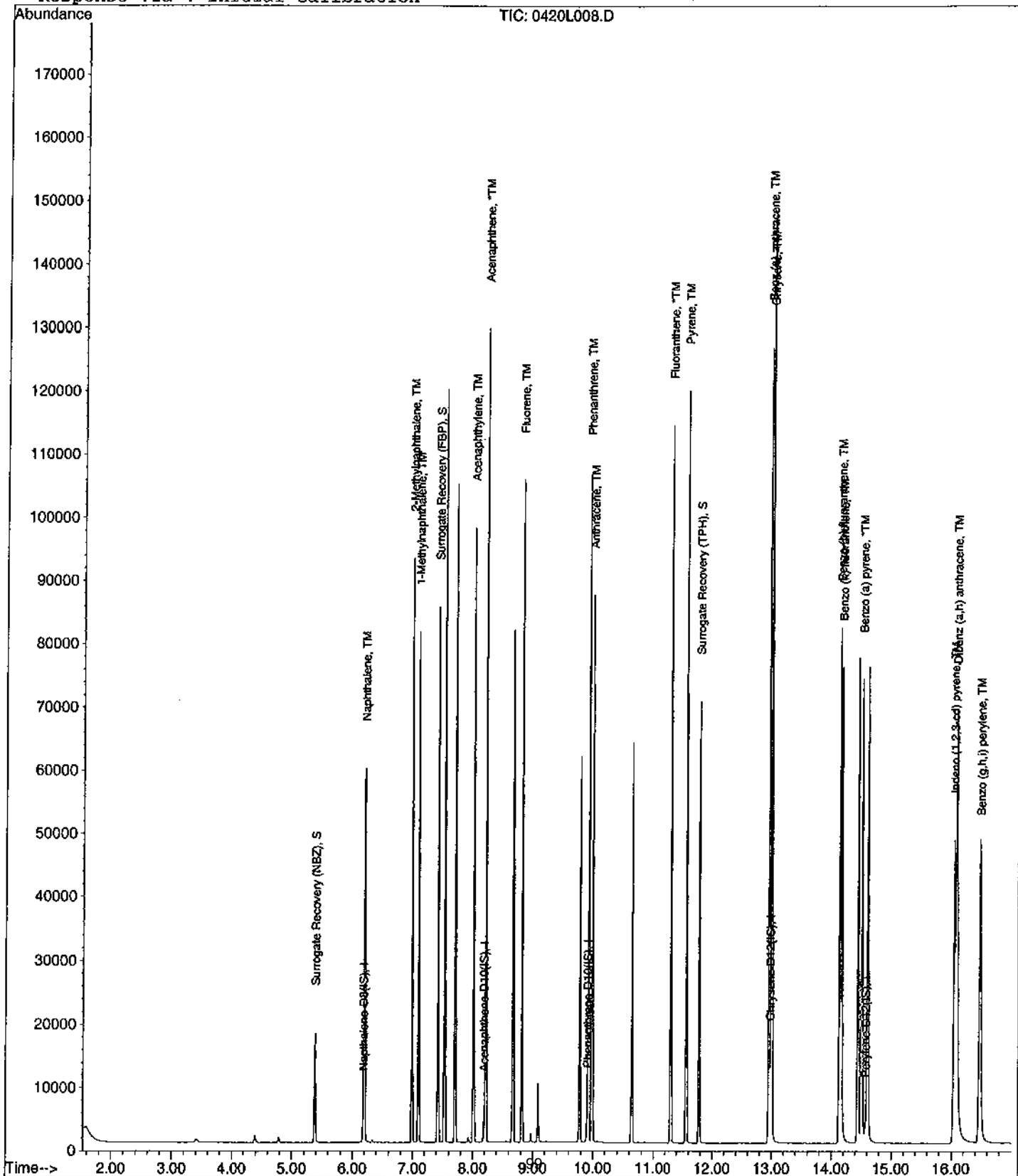
Data File : M:\LINUS\DATA\L110420\0420L008.D  
Acq On : 20 Apr 11 23:52  
Sample : 50ug/ml PAH  
Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Apr 21 08:01:22 2011  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L009.D Vial: 9  
 Acq On : 21 Apr 11 00:18 Operator: LF  
 Sample : 100ug/ml PAH Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Apr 21 7:47 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 07:47:11 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	2444	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	1291	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	2528	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	3267	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.58	264	2538	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.38	82	29768	69.01924	ppb	0.01
Spiked Amount	2.000		Recovery	= 3450.950%		
7) Surrogate Recovery (FBP)	7.42	172	79340	80.79178	ppb	0.00
Spiked Amount	2.000		Recovery	= 4039.600%		
17) Surrogate Recovery (TPH)	11.78	244	108916	92.53813	ppb	0.01
Spiked Amount	2.000		Recovery	= 4626.900%		
Target Compounds						
3) Naphthalene	6.20	128	122757	87.86969	ppb	98
4) 2-Methylnaphthalene	6.99	142	79622	99.93128	ppb	97
5) 1-Methylnaphthalene	7.10	142	73299	78.40723	ppb	97
8) Acenaphthylene	8.01	152	116577	95.26364	ppb	98
9) Acenaphthene	8.22	154	65819	89.85884	ppb	91
10) Fluorene	8.82	166	79247	91.41921	ppb	93
12) Phenanthrene	9.93	178	116627	92.49584	ppb	97
13) Anthracene	9.99	178	100235	89.25404	ppb	99
14) Fluoranthene	11.30	202	171669	84.27046	ppb	# 81
16) Pyrene	11.57	202	183086	103.36291	ppb	# 94
18) Benz (a) anthracene	12.96	228	163204	108.18883	ppb	98
19) Chrysene	13.01	228	146416	87.55074	ppb	98
20) Indeno (1,2,3-cd) pyrene	16.06	276	135700	100.78006	ppb	# 100
22) Benzo (b) fluoranthene	14.14	252	172982	133.88053	ppb	98
23) Benzo (k) fluoranthene	14.17	252	117353	72.59548	ppb	# 96
24) Benzo (a) pyrene	14.52	252	137988	106.00087	ppb	# 96
25) Dibenz (a,h) anthracene	16.10	278	134639	123.39165	ppb	# 94
26) Benzo (g,h,i) perylene	16.50	276	135242	116.95971	ppb	# 93

Quantitation Report

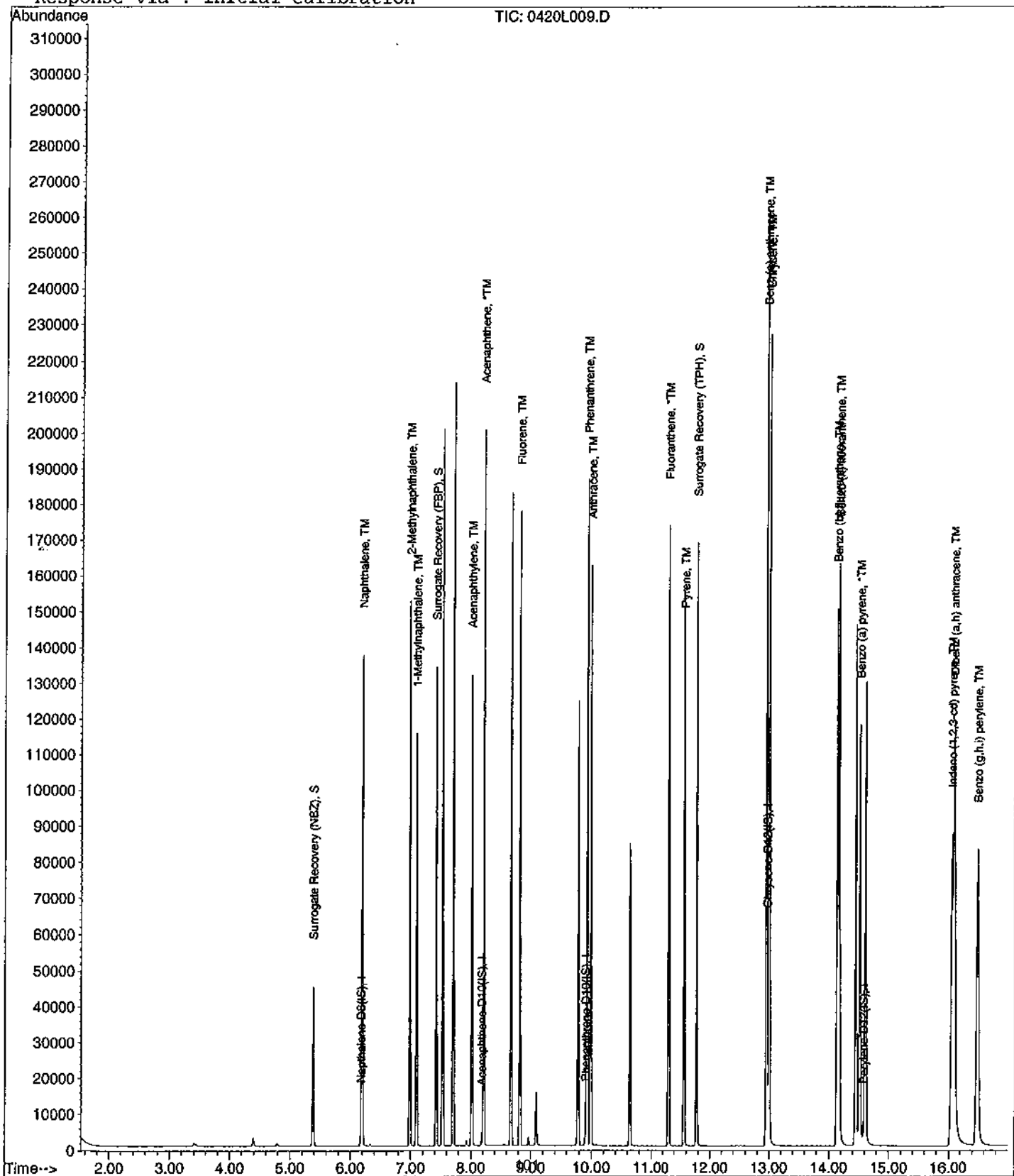
Data File : M:\LINUS\DATA\L110420\0420L009.D  
Acq On : 21 Apr 11 00:18  
Sample : 100ug/ml PAH  
Misc :

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

Quant Time: Apr 21 7:47 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Apr 21 08:01:22 2011  
Response via : Initial Calibration



EPA 8270C SIM

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
 Date Analyzed: 04/21/11  
 Instrument: Linus  
 Initial Cal. Date: 04/20/11  
 Data File: 0420L010.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Napthalene-D8(IS)	ISTD			I
2	TM	Napthalene	1.534	1.383	9.8	TM
3	TM	2-Methylnapthalene	1.020	0.9392	7.9	TM
4	TM	1-Methylnapthalene	0.9740	0.8971	7.9	TM
5	I	Acenaphthene-D10(IS)	ISTD			I
6	TM	Acenaphthylene	2.716	2.677	1.4	TM
7	*TM	Acenaphthene	1.561	1.533	1.8	*TM
8	TM	Fluorene	1.878	1.836	2.2	TM
9	I	Phenanthrene-D10(IS)	ISTD			I
10	TM	Phenanthrene	1.488	1.476	0.87	TM
11	TM	Anthracene	1.274	1.205	5.4	TM
12	*TM	Fluoranthene	2.083	2.039	2.1	*TM
13	I	Chrysene-D12(IS)	ISTD			I
14	TM	Pyrene	1.816	1.779	2.1	TM
15	TM	Benz (a) anthracene	1.592	1.520	4.6	TM
16	TM	Chrysene	1.429	1.414	1.0	TM
17	TM	Indeno (1,2,3-cd) pyrene	1.119	1.044	6.7	TM
18	I	Perylene-D12(IS)	ISTD			I
19	TM	Benzo (b) fluoranthene	1.860	1.719	7.6	TM
20	TM	Benzo (k) fluoranthene	1.667	1.897	14	TM
21	*TM	Benzo (a) pyrene	1.596	1.612	1.0	*TM
22	TM	Dibenz (a,h) anthracene	1.376	1.373	0.22	TM
23	TM	Benzo (g,h,i) perylene	1.471	1.452	1.3	TM
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

Average

4.3

Data File : M:\LINUS\DATA\L110420\0420L010.D Vial: 10  
 Acq On : 21 Apr 11 00:43 Operator: LF  
 Sample : 5.0ug/ml PAH SS 04-11-11 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Apr 21 8:03 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Apr 21 08:01:22 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.17	136	2897	2.50000	ppb	0.00
6) Acenaphthene-D10 (IS)	8.18	164	1519	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.90	188	2825	2.50000	ppb	0.00
15) Chrysene-D12 (IS)	12.96	240	3364	2.50000	ppb	0.00
21) Perylene-D12 (IS)	14.57	264	2611	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	0.00	82	0d	0.60610	ppb	
Spiked Amount	2.000		Recovery	=	30.300%	
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

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.19	128	8015	4.51029	ppb	100
4) 2-Methylnaphthalene	6.99	142	5442	4.60274	ppb	100
5) 1-Methylnaphthalene	7.10	142	5198	4.60535	ppb	99
8) Acenaphthylene	8.01	152	8132	4.92763	ppb	100
9) Acenaphthene	8.22	154	4657	4.90884	ppb	98
10) Fluorene	8.82	166	5579	4.88878	ppb	99
12) Phenanthrene	9.93	178	8334	4.95633	ppb	99
13) Anthracene	9.99	178	6810	4.73072	ppb	97
14) Fluoranthene	11.30	202	11518	4.89349	ppb	99
16) Pyrene	11.56	202	11969	4.89704	ppb	100
18) Benz (a) anthracene	12.95	228	10225	4.77324	ppb	99
19) Chrysene	13.00	228	9515	4.94869	ppb	100
20) Indeno (1,2,3-cd) pyrene	16.03	276	7026	4.66422	ppb	# 92
22) Benzo (b) fluoranthene	14.13	252	8978	4.62229	ppb	99
23) Benzo (k) fluoranthene	14.16	252	9906	5.69029	ppb	99
24) Benzo (a) pyrene	14.50	252	8418	5.05004	ppb	99
25) Dibenz (a,h) anthracene	16.08	278	7171	4.98877	ppb	99
26) Benzo (g,h,i) perylene	16.46	276	7582	4.93474	ppb	98

Quantitation Report

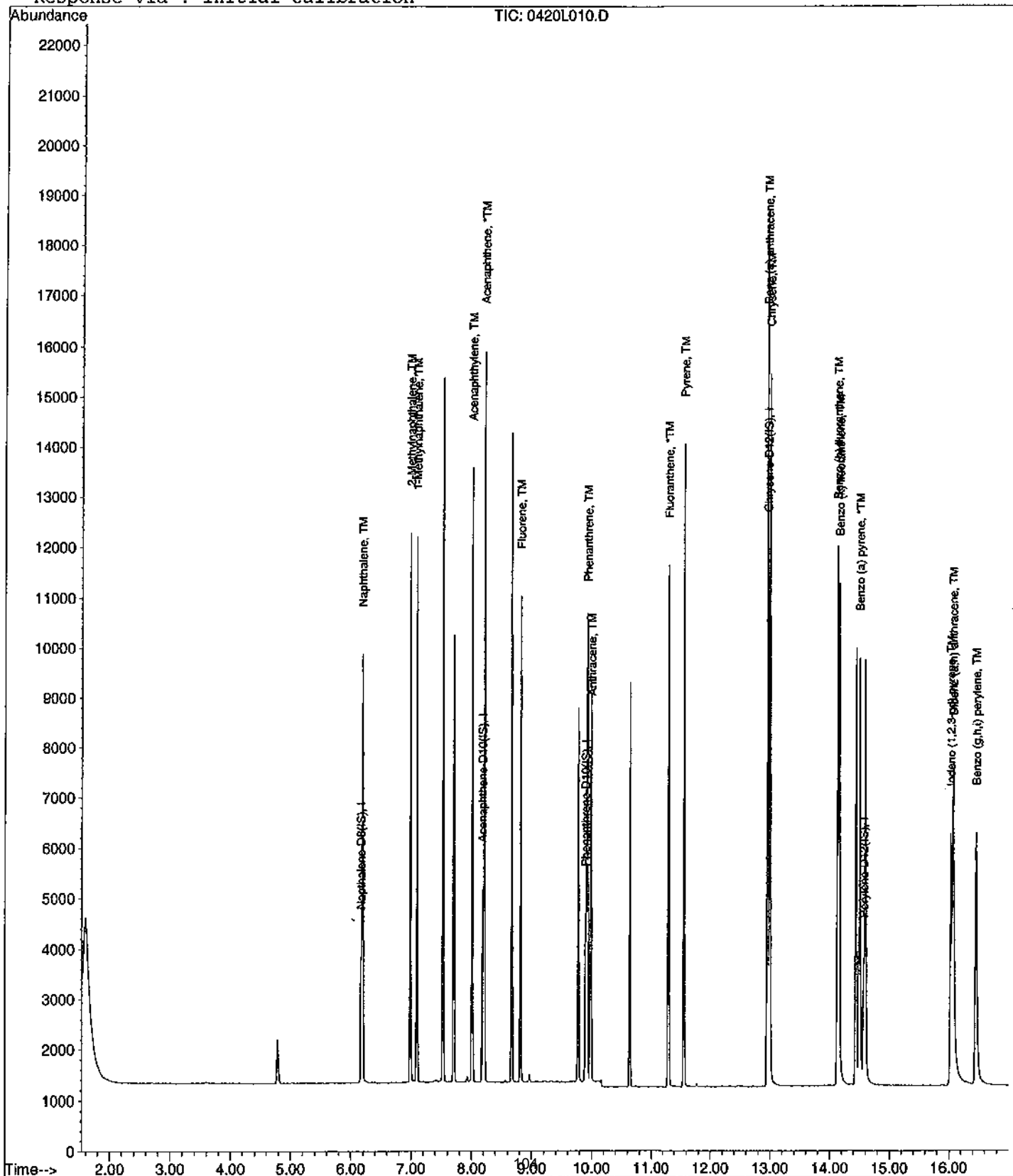
Data File : M:\LINUS\DATA\L110420\0420L010.D  
Acq On : 21 Apr 11 00:43  
Sample : 5.0ug/ml PAH SS 04-11-11  
Misc :

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

Quant Time: Apr 21 8:03 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Apr 21 08:01:22 2011  
Response via : Initial Calibration





EPA 8270C SIM

Form 7

Continuing Calibration

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

SDG No: 64544  
 Date Analyzed: 4 May 11 17:30  
 Instrument: Linus  
 Initial Cal. Date: 04/20/11  
 Data File: 0504L002.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	SL	Surrogate Recovery (NBZ)	0.3418	0.3169	7.6	SL	17
3	TM	Napthalene	1.534	1.514	1.3	TM	
4	TM	2-Methylnapthalene	1.020	0.9938	2.6	TM	
5	TM	1-Methylnapthalene	0.9740	0.9310	4.4	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.967	1.666	14	S	
8	TM	Acenaphthylene	2.716	2.321	15	TM	
9	*TM	Acenaphthene	1.561	1.388	11	*TM	
10	TM	Fluorene	1.878	1.680	11	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.488	1.326	11	TM	
13	TM	Anthracene	1.274	1.084	15	TM	
14	*TM	Fluoranthene	2.083	1.708	18	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.816	1.630	10	TM	
17	S	Surrogate Recovery (TPH)	1.100	1.067	3.0	S	
18	TM	Benz (a) anthracene	1.592	1.388	13	TM	
19	TM	Chrysene	1.429	1.249	13	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.119	1.301	16	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TM	Benzo (b) fluoranthene	1.860	1.721	7.5	TM	
23	TM	Benzo (k) fluoranthene	1.667	1.382	17	TM	
24	*TM	Benzo (a) pyrene	1.596	1.399	12	*TM	
25	TM	Dibenz (a,h) anthracene	1.376	1.241	9.9	TM	
26	TM	Benzo (g,h,i) perylene	1.471	1.266	14	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Average

10.8

Data File : M:\LINUS\DATA\L110420\0504L002.D  
 Acq On : 4 May 11 17:30  
 Sample : 5.0ug/ml PAH 04-20-11  
 Misc :

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

Quant Time: May 16 17:07 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Mon May 16 17:05:23 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.18	136	2268	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	1409	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	2572	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	2851	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.58	264	2385	2.50000	ppb	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	5.38	82	1433	5.85808	ppb	0.01
Spiked Amount 2.000			Recovery =	292.900%		
7) Surrogate Recovery (FBP)	7.42	172	4750	4.28497	ppb	0.00
Spiked Amount 2.000			Recovery =	214.250%		
17) Surrogate Recovery (TPH)	11.78	244	6084	4.84999	ppb	0.01
Spiked Amount 2.000			Recovery =	242.500%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	6.20	128	6867	4.93598	ppb	99
4) 2-Methylnaphthalene	6.99	142	4508	4.87021	ppb	95
5) 1-Methylnaphthalene	7.11	142	4223	4.77918	ppb	93
8) Acenaphthylene	8.03	152	6541	4.27299	ppb	99
9) Acenaphthene	8.22	154	3910	4.44320	ppb	92
10) Fluorene	8.82	166	4734	4.47218	ppb	93
12) Phenanthrene	9.93	178	6819	4.45426	ppb	97
13) Anthracene	9.99	178	5575	4.25375	ppb	99
14) Fluoranthene	11.30	202	8784	4.09904	ppb #	75
16) Pyrene	11.57	202	9292	4.48584	ppb	99
18) Benz (a) anthracene	12.96	228	7913	4.35863	ppb	99
19) Chrysene	13.01	228	7122	4.37061	ppb	100
20) Indeno (1,2,3-cd) pyrene	16.06	276	7421	5.81289	ppb	97
22) Benzo (b) fluoranthene	14.14	252	8208	4.62630	ppb #	96
23) Benzo (k) fluoranthene	14.17	252	6590	4.14420	ppb #	98
24) Benzo (a) pyrene	14.51	252	6673	4.38254	ppb #	97
25) Dibenz (a,h) anthracene	16.10	278	5918	4.50720	ppb	97
26) Benzo (g,h,i) perylene	16.48	276	6037	4.30150	ppb #	93

Quantitation Report

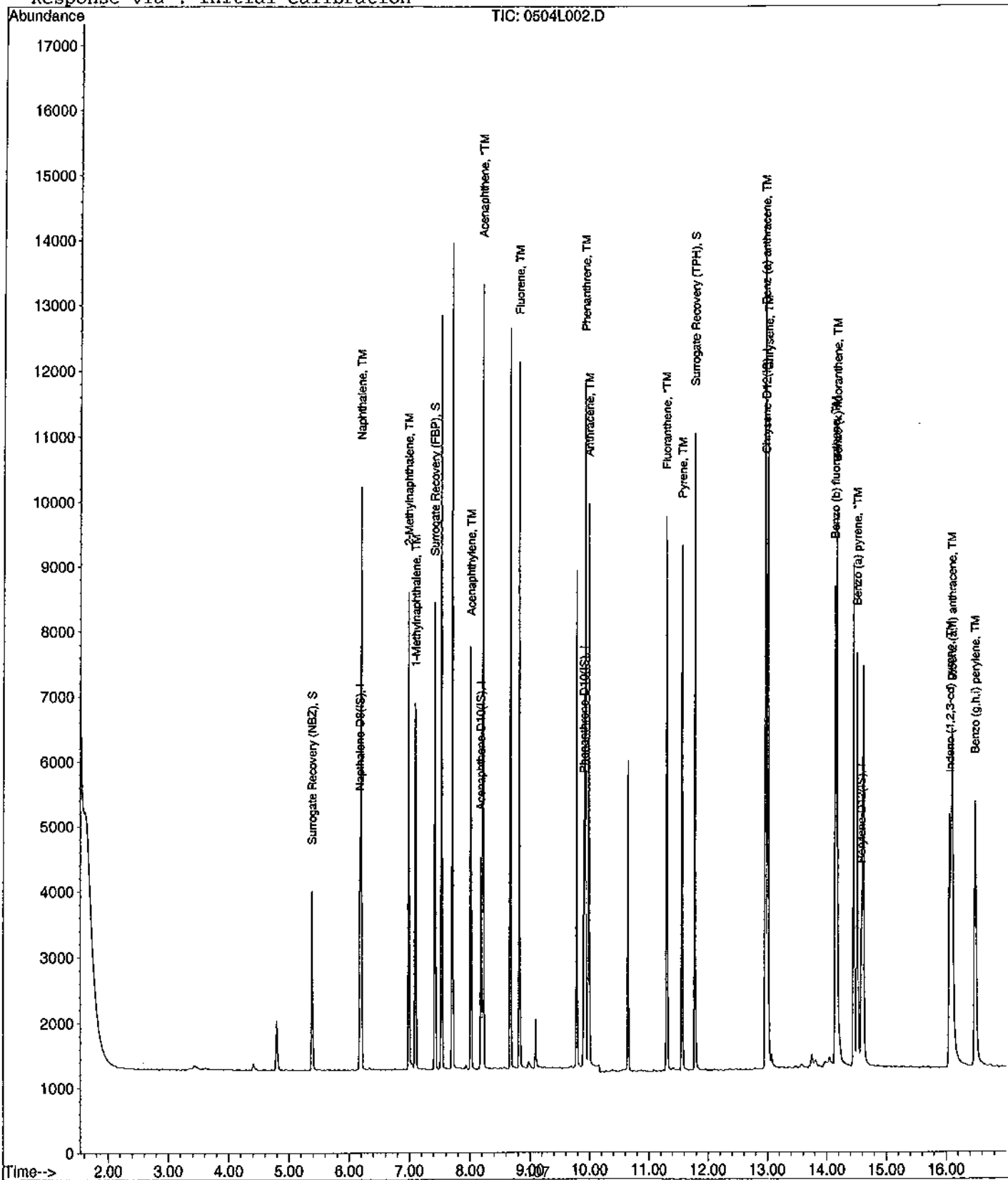
Data File : M:\LINUS\DATA\L110420\0504L002.D  
Acq On : 4 May 11 17:30  
Sample : 5.0ug/ml PAH 04-20-11  
Misc :

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

Quant Time: May 16 17:07 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Mon May 16 17:08:29 2011  
Response via : Initial Calibration



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

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

Blank Name/QCG: 110503W-36735 - 155154  
Batch ID: #SIMHC-110503A

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	05/03/11	05/04/11
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/04/11
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/04/11
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/04/11
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	05/03/11	05/04/11
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/04/11
BLANK	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/04/11
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/04/11
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	05/03/11	05/04/11
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/04/11
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	05/03/11	05/04/11
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	05/03/11	05/04/11
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	05/03/11	05/04/11
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	05/03/11	05/04/11
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/04/11
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	05/03/11	05/04/11
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	05/03/11	05/04/11
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	05/03/11	05/04/11
BLANK	SURROGATE: 2-FLUORBIPHENY	58.5	50-110			%	05/03/11	05/04/11
BLANK	SURROGATE: NITROBENZENE-	84.5	40-110			%	05/03/11	05/04/11
BLANK	SURROGATE: TERPHENYL-D14 (	61.4	50-135			%	05/03/11	05/04/11

Quant Method: SIM2.M
Run #: 0504L005
Instrument: Linus
Sequence: L110420
Initials: LF

GC SC-Blank-REG MDLs  
Printed: 05/16/11 6:34:26 PM

Data File : M:\LINUS\DATA\L110420\0504L005.D Vial: 5  
 Acq On : 4 May 11 18:47 Operator: LF  
 Sample : 110503A BLK 1/1000 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: May 16 17:43 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Mon May 16 17:08:29 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	6.18	136	2623	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	1337	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	2711	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	2772	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.58	264	2277	2.50000	ppb	0.01

System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.38	82	342	1.68990	ppb	0.01
Spiked Amount	2.000			Recovery	=	84.500%
7) Surrogate Recovery (FBP)	7.42	172	1230	1.16933	ppb	0.00
Spiked Amount	2.000			Recovery	=	58.450%
17) Surrogate Recovery (TPH)	11.78	244	1497	1.22738	ppb	0.01
Spiked Amount	2.000			Recovery	=	61.350%

Target Compounds Qvalue

Quantitation Report

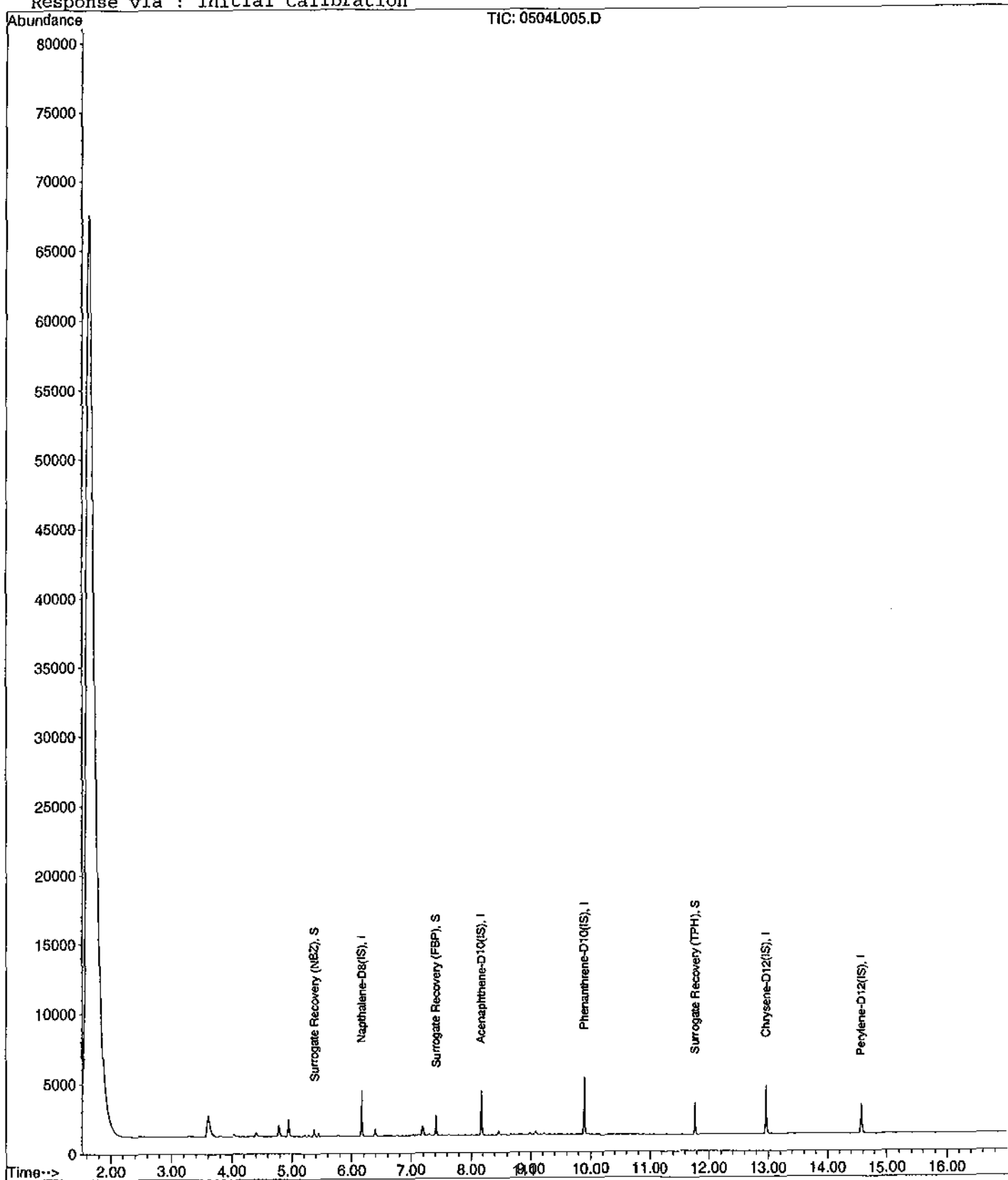
Data File : M:\LINUS\DATA\L110420\0504L005.D  
Acq On : 4 May 11 18:47  
Sample : 110503A BLK 1/1000  
Misc :

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

Quant Time: May 16 17:43 2011

Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Mon May 16 17:08:29 2011  
Response via : Initial Calibration



**Laboratory Control Spike Recovery**  
**EPA 8270D SIM**

APPL ID: 110503W-36735 LCS - 155154

Batch ID: #SIMHC-110503A

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	2.19	54.8	45-105
2-METHYLNAPHTHALENE	4.00	2.08	52.0	45-105
ACENAPHTHENE	4.00	2.68	67.0	45-110
ACENAPHTHYLENE	4.00	2.69	67.3	50-105
ANTHRACENE	4.00	3.64	91.0	55-110
BENZO(A)ANTHRACENE	4.00	3.26	81.5	55-110
BENZO(A)PYRENE	4.00	3.75	93.8	55-110
BENZO(B)FLUORANTHENE	4.00	3.76	94.0	45-120
BENZO(GHI)PERYLENE	4.00	3.64	91.0	40-125
BENZO(K)FLUORANTHENE	4.00	3.53	88.3	45-125
CHRYSENE	4.00	3.79	94.8	55-110
DIBENZ(A,H)ANTHRACENE	4.00	3.67	91.8	40-125
FLUORANTHENE	4.00	3.38	84.5	55-115
FLUORENE	4.00	3.28	82.0	50-110
INDENO(1,2,3-CD)PYRENE	4.00	3.13	78.3	45-125
NAPHTHALENE	4.00	2.03	50.7	40-100
PHENANTHRENE	4.00	3.57	89.3	50-115
PYRENE	4.00	3.50	87.5	50-130
-----				
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.18	59.0	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.74	87.0	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.17	58.5	50-135
-----				

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

Primary	SPK
Quant Method :	SIM2.M
Extraction Date :	05/03/11
Analysis Date :	05/04/11
Instrument :	Linus
Run :	0504L006
Initials :	LF

Printed: 05/16/11 6:34:28 PM



Data File : M:\LINUS\DATA\L110420\0504L006.D  
 Acq On : 4 May 11 19:13  
 Sample : 110503A LCS-1 1/1000  
 Misc :

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

Quant Time: May 16 17:43 2011

Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Mon May 16 17:08:29 2011  
 Response via : Initial Calibration  
 DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	6.18	136	2525	2.50000	ppb	0.01
6) Acenaphthene-D10 (IS)	8.18	164	1258	2.50000	ppb	0.00
11) Phenanthrene-D10 (IS)	9.91	188	2526	2.50000	ppb	0.01
15) Chrysene-D12 (IS)	12.97	240	2938	2.50000	ppb	0.01
21) Perylene-D12 (IS)	14.58	264	2266	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.38	82	344	1.73854	ppb	0.01
Spiked Amount	2.000		Recovery	=	86.950%	
7) Surrogate Recovery (FBP)	7.42	172	1165	1.17709	ppb	0.00
Spiked Amount	2.000		Recovery	=	58.850%	
17) Surrogate Recovery (TPH)	11.78	244	1517	1.17350	ppb	0.01
Spiked Amount	2.000		Recovery	=	58.650%	
Target Compounds						
3) Naphthalene	6.20	128	3141	2.02794	ppb	98
4) 2-Methylnaphthalene	6.99	142	2143	2.07954	ppb	96
5) 1-Methylnaphthalene	7.10	142	2153	2.18856	ppb	94
8) Acenaphthylene	8.01	152	3672	2.68671	ppb	98
9) Acenaphthene	8.22	154	2103	2.67663	ppb	93
10) Fluorene	8.82	166	3096	3.27584	ppb	92
12) Phenanthrene	9.93	178	5368	3.57030	ppb	98
13) Anthracene	9.99	178	4681	3.63667	ppb	99
14) Fluoranthene	11.30	202	7104	3.37544	ppb	# 76
16) Pyrene	11.57	202	7461	3.49524	ppb	98
18) Benz (a) anthracene	12.96	228	6108	3.26478	ppb	98
19) Chrysene	13.01	228	6359	3.78682	ppb	99
20) Indeno (1,2,3-cd) pyrene	16.05	276	4115	3.12784	ppb	90
22) Benzo (b) fluoranthene	14.14	252	6340	3.76109	ppb	# 97
23) Benzo (k) fluoranthene	14.17	252	5333	3.52984	ppb	# 98
24) Benzo (a) pyrene	14.51	252	5422	3.74794	ppb	# 96
25) Dibenz (a,h) anthracene	16.10	278	4583	3.67376	ppb	97
26) Benzo (g,h,i) perylene	16.48	276	4853	3.63947	ppb	# 93

Quantitation Report

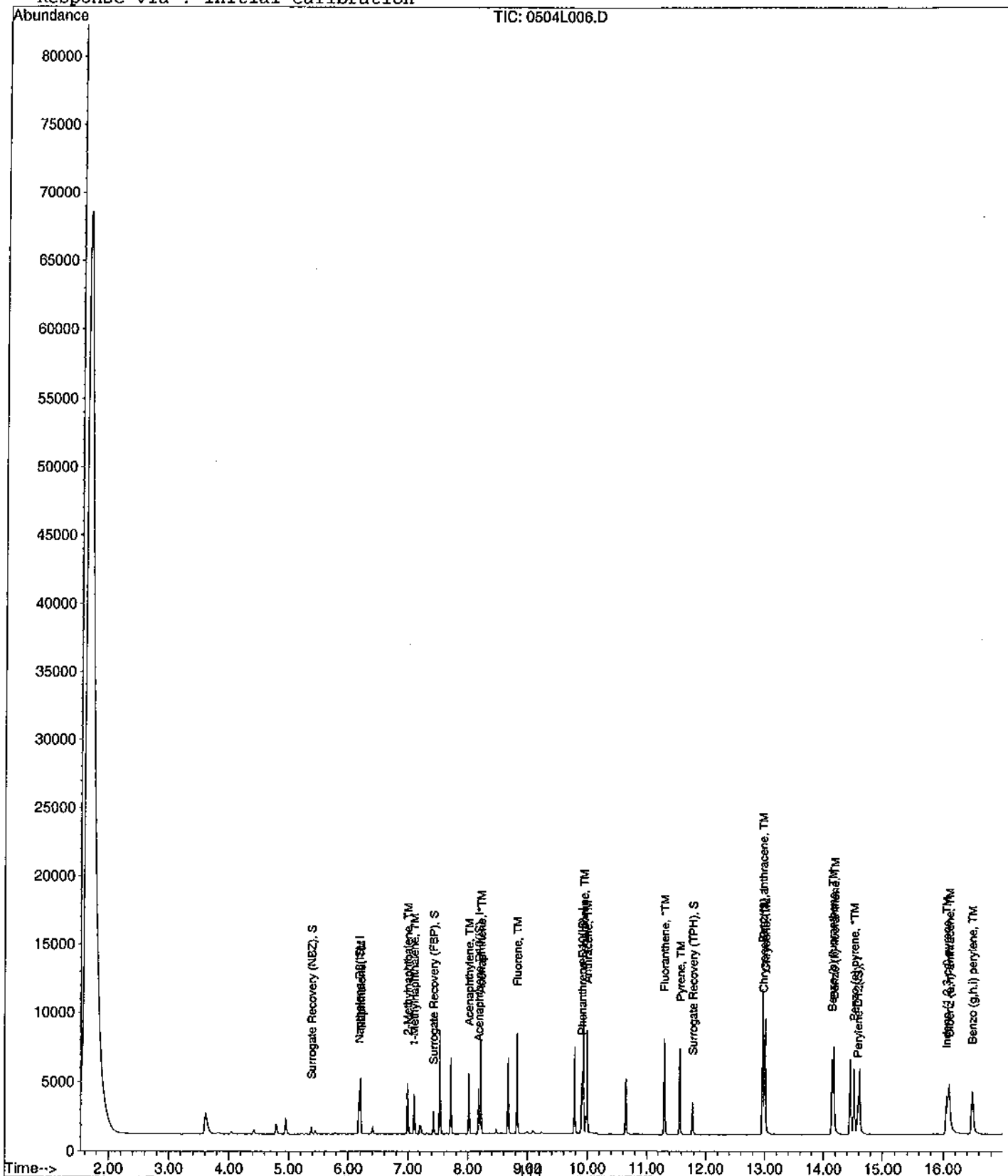
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 Acq On : 4 May 11 19:13  
 Sample : 110503A LCS-1 1/1000  
 Misc :

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

Quant Time: May 16 17:43 2011

Quant Results File: SIM2.RES

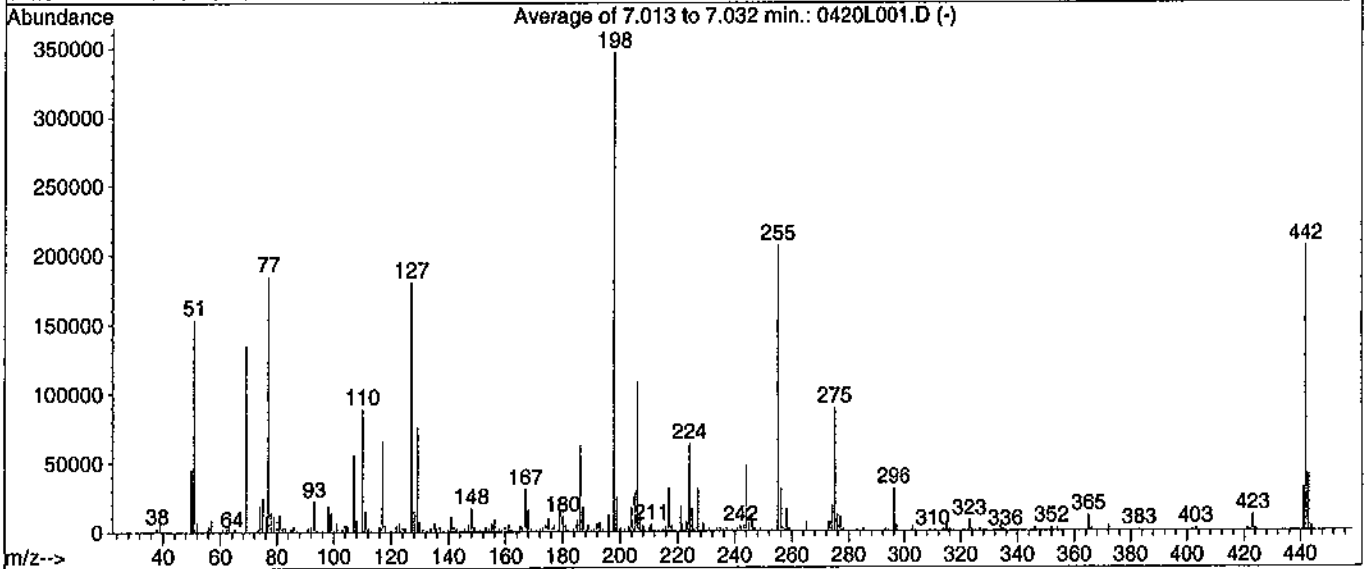
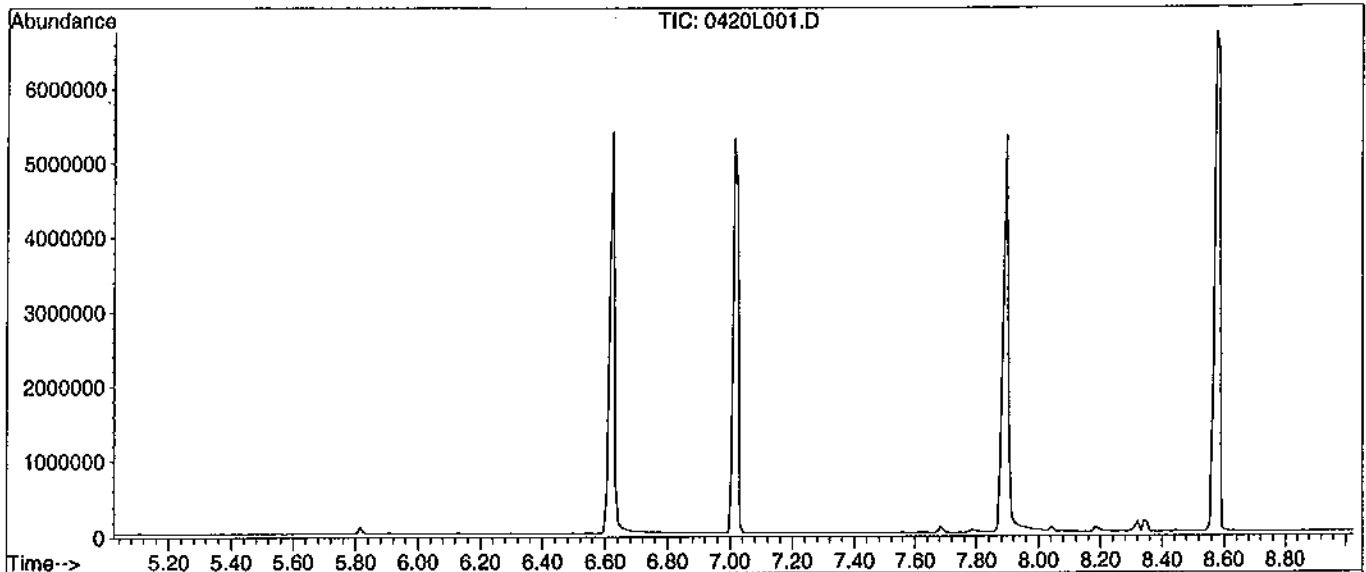
Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Mon May 16 17:08:29 2011  
 Response via : Initial Calibration



Data File : M:\LINUS\DATA\L110420\0420L001.D  
 Acq On : 20 Apr 11 21:00  
 Sample : SVTUNE 04-14-11  
 Misc :

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

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C



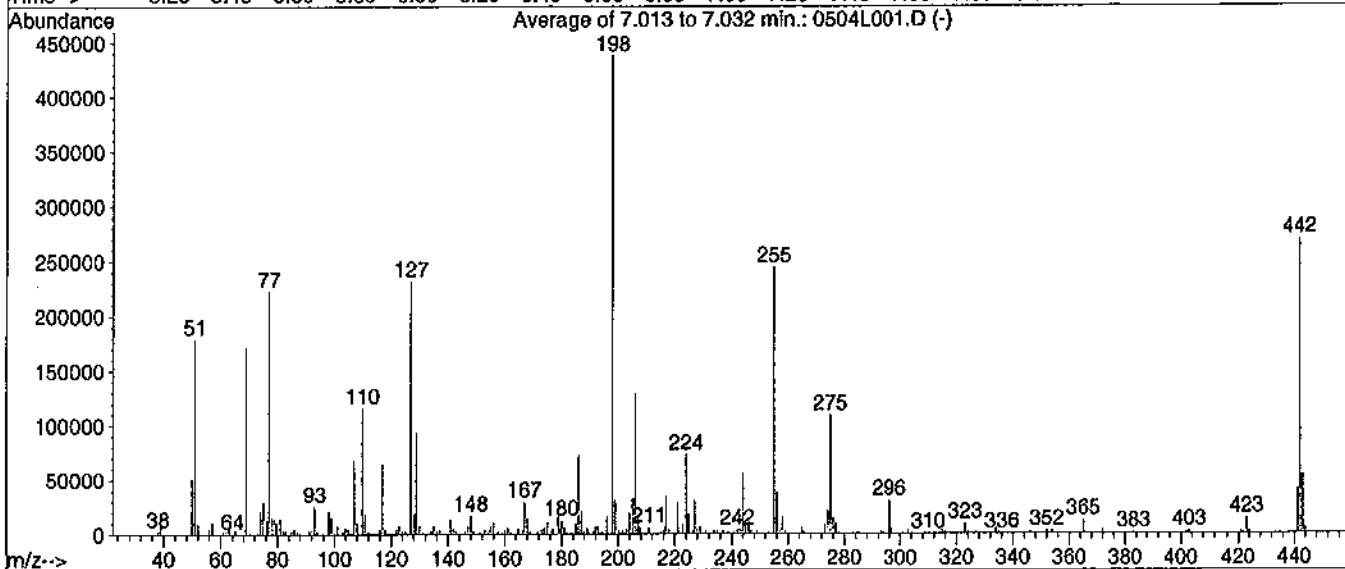
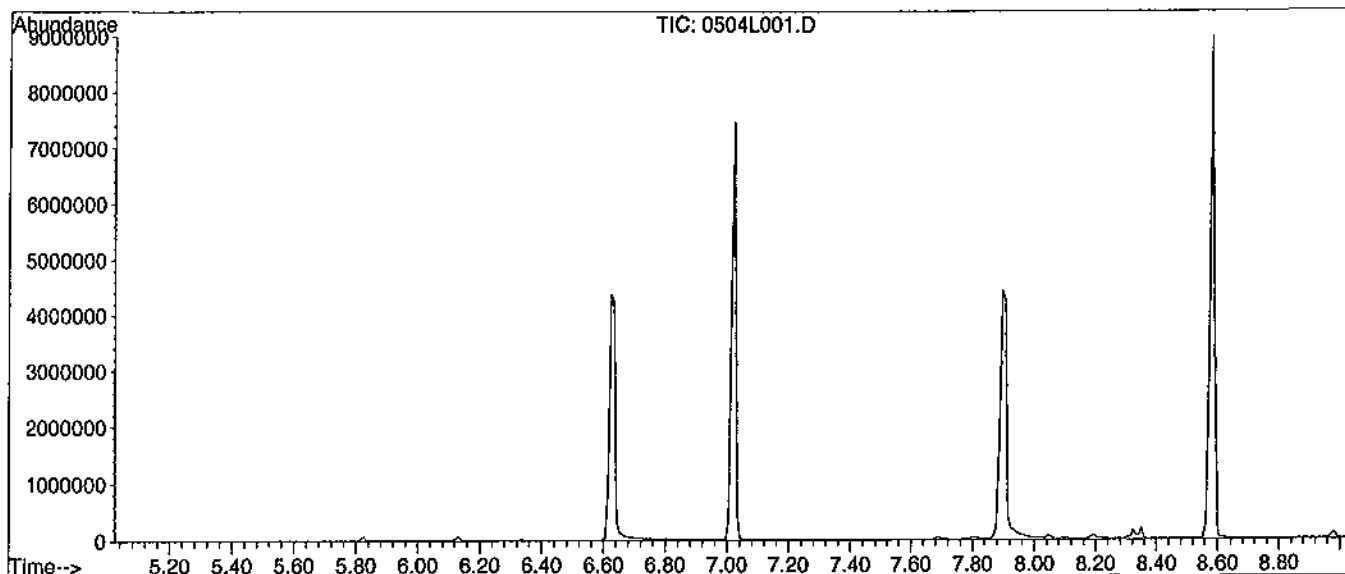
Spectrum Information: Average of 7.013 to 7.032 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	44.3	153818	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	936	PASS
127	198	40	60	52.0	180483	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	346958	PASS
199	198	5	9	7.2	24941	PASS
275	198	10	30	25.7	89331	PASS
365	198	1	100	3.2	11199	PASS
441	443	0.01	100	76.4	31355	PASS
442	198	40	150	59.4	206037	PASS
443	442	17	23	19.9	41055	PASS

Data File : M:\LINUS\DATA\L110420\0504L001.D  
 Acq On : 4 May 11 17:12  
 Sample : SVTUNE 04-14-11  
 Misc :

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

Method : M:\LINUS\DATA\L110420\SIM2.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 478, 479, 480; Background Corrected with Scan 475

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.9	179195	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1207	PASS
127	198	40	60	52.9	231910	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	438226	PASS
199	198	5	9	7.3	31849	PASS
275	198	10	30	24.8	108478	PASS
365	198	1	100	2.8	12198	PASS
441	443	0.01	100	76.8	41023	PASS
442	198	40	150	61.4	269224	PASS
443	442	17	23	19.8	53429	PASS

GC/MS STANDARD PREPARATION BOOK # J PAGE # 50

K3/4/10

PREP DATE: 03-04-10													
8270 SIM STANDARD CURVE													
Exp: 03-18-10						0.10	0.20	0.50	1.00	5.00	10.00	50.00	100.00
Supplier	ID #	Conc. $\mu\text{g/mL}$	Lot #	Date	CODE: Exp.Date	A $\mu\text{L}$	A $\mu\text{L}$	C $\mu\text{L}$	D $\mu\text{L}$	E $\mu\text{L}$	F $\mu\text{L}$	G $\mu\text{L}$	H $\mu\text{L}$
8270D PAH SIM		200	146582-26313	03/04/10	03-04-11	0	0	0	0	5	5	25	50
	5.0ug/mL	5		03/04/10		0	0	10	20	0	0	0	0
	1.0ug/mL	1		03/04/10		10	20	0	0	0	0	0	0
	Surrogate Stock	VAR	149231-24856	03/04/10	03-04-11	0	0	0	0	5	5	25	50
EM Science	Methylene Chloride		47080			90	80	90	80	190	90	50	0
Final Vol.						100	100	100	100	200	100	100	100

K3/4/10

PREP DATE: 03-04-10							
SIM 8270 Second Source (5ug/mL)							
Exp: 03-18-10							
Supplier	ID #	Conc. $\mu\text{g/mL}$	Lot #	Date	CODE: Exp.Date	$\mu\text{L}$	
8270D PAH SIM (SS)		200	145112-24097	03/04/10	03-04-11	5	
	MeCl2		lot 47080			195	
Final Volume						200	

K3/12/10

PREP DATE: 03-12-10																
8270T STANDARD CURVE																
Exp: 04-11-10						0.1	0.2	1	5	10	20	40	30	50	80	100
Supplier	ID #	Conc. $\mu\text{g/mL}$	Lot #	Date	CODE: Exp.Date	$\mu\text{L}$	$\mu\text{L}$	$\mu\text{L}$	$\mu\text{L}$	$\mu\text{L}$	$\mu\text{L}$	$\mu\text{L}$	$\mu\text{L}$	$\mu\text{L}$	$\mu\text{L}$	$\mu\text{L}$
8270T Stock		200		02/23/10	08-24-10	0	0	0	5	5	10	20	25	30	40	50
	5.0ug/mL			03/12/10		0	0	20	0	0	0	0	0	0	0	0
	1.0ug/mL			03/12/10		10	20	0	0	0	0	0	0	0	0	0
	Surrogate Stock	VAR	149231-24856	03/04/10	03-04-11	0	0	0	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47080			90	80	80	190	90	80	60	50	40	20	0
Final Vol.						100	200	100	100	100	100	100	100	100	100	100

K3/12/10

PREP DATE: 03-12-10							
8270/625 Second Source (SS) 50ug/mL							
Exp: 03-18-10							
Supplier	ID #	Conc. $\mu\text{g/mL}$	Lot #	Date	CODE: Exp.Date	$\mu\text{L}$	
8270C SS		200		02/23/10	08-24-10	25	
EM Science	Methylene Chloride		47080			75	
Final Vol.						100	

K4/6/10

PREP DATE: 04-06-10													
8270 STANDARD CURVE													
Exp: 04-13-10						5	10	20	40	50	60	80	100
Supplier	ID #	Conc. $\mu\text{g/mL}$	Lot #	Date	CODE: Exp.Date	X $\mu\text{L}$	J $\mu\text{L}$	K $\mu\text{L}$	L $\mu\text{L}$	N $\mu\text{L}$	N $\mu\text{L}$	O $\mu\text{L}$	P $\mu\text{L}$
8270T Stock		200		03/23/10	08-24-10	5	5	10	20	25	30	40	50
	Surrogate Stock	VAR	149231-24856	03/04/10	03-04-11	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47080			190	90	80	60	50	40	20	0
Final Vol.						200	100	100	100	100	100	100	100

K4/6/10

PREP DATE: 04-06-10							
8270/625 Second Source (SS) 50ug/mL							
Exp: 03-18-10							
Supplier	ID #	Conc. $\mu\text{g/mL}$	Lot #	Date	CODE: Exp.Date	$\mu\text{L}$	
8270C SS		200		02/23/10	08-24-10	25	
EM Science	Methylene Chloride		47080			75	
Final Vol.						100	

K4/12/10

GCM-160-1  
 Lot: CF-2995  
 Exp: 08/31/2011  
 Semi-Volatiles GC/MS Tuning Standard  
 4 analyte(s) at 1000  $\mu\text{g/mL}$  in dichloromethane  
 250 Smith St, Weymouth, RI 02857 USA

**ULTRAF**  
 1 mL  
 Semi-volatiles GC/MS Tuning Standard  
 Lot #: CF-2995 - 26132  
 Rec: 2/17/10 MFR exp. 08/31/11


exp 4/12/11

VF 4/12/10

PREP DATE:	04-12-10					
SV Tune Mix	50ug/ml					
Exp:	04-12-11					
Supplier	ID #	Conc.	Lot #	Date	COD#:	B
U. Scientific	GCM-150	1000	CP-2995-26132	04/12/10	08-31-11	1000
EM Science	MeCl2		47050			19000
					Final vol	20000

VF 4/12/10


Part #: 10001 Laboratory Use Only - See MSDS  
 Lot #: 032009 Exp: 032012 Storage 0 °C

 CLP Semi-Volatiles Base/Neutrals Mix #1  
 14 components CLP Semi-Volatiles Base/Neutrals Mix #1  
 2000 ug/mL in ml Lot #: 032009 - 25510  
**ABSOLUTE STANDAR** Rec: 11/17/09 MFR exp. 03/20/12

exp 4/12/11

VF 4/12/10


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

 CLP Semi-Volatiles Base/Neutrals Mix #2  
 14 components CLP Semi-Volatiles Base/Neutrals Mix #2  
 2000 ug/mL in ml Lot #: 073109 - 25516  
**ABSOLUTE STANDAR** Rec: 11/17/09 MFR exp. 07/31/12

exp 4/12/11

VF 4/12/10


Part #: 10004 Laboratory Use Only - See MSDS  
 Lot #: 060407 Exp: 060412 Storage 4 °C

 CLP Semi-Volatiles Toxic Substances #1  
 4 components CLP Semi-Volatiles Toxic Substances #1  
 2000 ug/mL in ml Lot #: 060407 - 25521  
**ABSOLUTE STANDAR** Rec: 11/17/09 MFR exp. 06/04/12

exp 4/12/11

VF 4/12/10


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

 CLP Semi-Volatiles Toxic Substances #2  
 8 components CLP Semi-Volatiles Toxic Substances #2  
 2000 ug/mL in met Lot #: 121208 - 25526  
**ABSOLUTE STANDAR** Rec: 11/17/09 MFR exp. 12/12/13

exp 4/12/11

VF 4/12/10


Part #: 10006 Laboratory Use Only - See MSDS  
 Lot #: 102109 Exp: 102112 Storage 4 °C

 CLP Semi-Volatiles - Benzidines  
 2 components CLP Semi-Volatiles - Benzidines  
 2000 ug/mL in met Lot #: 102109 - 25531  
**ABSOLUTE STANDAR** Rec: 11/17/09 MFR exp. 10/21/12

exp 4/12/11

VF 4/12/10


Part #: 10007 Laboratory Use Only - See MSDS  
 Lot #: 101409 Exp: 101414 Storage 4 °C

 CLP Semi-Volatiles - PAH Standard  
 17 components CLP Semi-Volatiles - PAH Mix  
 2000 ug/mL in met Lot #: 101409 - 25538  
**ABSOLUTE STANDAR** Rec: 11/17/09 MFR exp. 10/14/14

exp 4/12/11

VF 4/12/10

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

 EPA Method 8270A - Analytes Mix #8  
 13 components - PF EPA Method 8270A - Analytes Mix #8  
 2000 ug/mL in met Lot #: 073109 - 25541  
**ABSOLUTE STANDAR** Rec: 11/17/09 MFR exp. 07/31/14

exp 4/12/11

VF 10/6/11

**02si** TCL Hazardous Substances Solution 2, 2,000 mg/L, 1 ml  
 Cat. No: 110394-01 Exp: 4/17/2013  
 Lot No: 158122 Storage: <= -10 Degrees C  
 TCL Hzd. Soln. 2 Solvent: Methylene Chloride  
 Lot #: 148122 - 26469 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

VF 10/6/11

**02si** Atrazine Solution, 1,000 mg/L, 1 ml  
 Cat. No: 010337-01 Exp: 4/12/2012  
 Lot No: 158126 Storage: <= -10 Degrees C  
 Atrazine Solvent: Methylene Chloride  
 Lot #: 158136 - 26467 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/12/12

VF exp 10/6/11

VF 10/6/11

**02si** 8270 BN Solution 14-4, 2,000 mg/L, 1 ml  
 Cat. No: 110391-01 Exp: 4/17/2013  
 Lot No: 158119 Storage: <= -10 Degrees C  
 8270BN Solution 14-4 Solvent: Methylene Chloride  
 Lot #: 158119 - 26453 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

VF 10/6/11

**02si** 8270 BN Solution 14-3, 2,000 mg/L, 1 ml  
 Cat. No: 110392-01 Exp: 4/17/2013  
 Lot No: 158120 Storage: <= -10 Degrees C  
 8270BN Solution 14-3 Solvent: Methylene Chloride  
 Lot #: 158120 - 26455 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

VF 10/6/11

**02si** 8270 Acid Solution 4-6, 2,000 mg/L, 1 ml  
 Cat. No: 110393-01 Exp: 4/17/2013  
 Lot No: 158121 Storage: <= -10 Degrees C  
 8270B Acid Solution 4-6 Solvent: Methylene Chloride  
 Lot #: 158121 - 26457 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

VF 10/6/11

**02si** PAH Solution 17-3, 2,000 mg/L, 1 ml  
 Cat. No: 116070-02 Exp: 4/17/2013  
 Lot No: 158123 Storage: <= -10 Degrees C  
 PAH Solution Solvent: Methylene Chloride  
 Lot #: 158123 - 26461 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

VF 10/6/11

**02si** 8270 Acid Solution 13-4, 2,000 mg/L, 1 ml  
 Cat. No: 110396-01 Exp: 4/17/2013  
 Lot No: 158124 Storage: <= -10 Degrees C  
 8270B Acid Solution 13-4 Solvent: Methylene Chloride  
 Lot #: 158124 - 26463 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

VF 10/6/11

**02si** 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 - 26465 For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/17/13

VF exp 10/6/11

UF 10/16/10

**o2si** 8270 11 Compound Custom Mix, 200:2,000 mg/L, 1 ml  
 Cat. No: 110397-01 Exp: 4/12/2012  
 Lot No: 158127 Storage: <math>\leq -10</math> Degrees C  
 8270 11 Compound Mix Solvent: Methylene Chloride  
 Lot #: 158127 - 26470 n For Research Use Only  
 Rec: 4/19/10 MFR exp. 04/12/12 Opened: \_\_\_\_\_

UF

UF 10/16/10

Supplier	ID #	Conc.	Lot #	Date	CODE:	F
PREP DATE: 10-06-10						
8270C Second Source Stock Standard						
Exp: 10-06-11						
Supplier	ID #	Conc.	Lot #	Date	CODE:	F
O2SI	110391-01	2000	158119-26453	10-6-10A	04-17-13	1000
O2SI	110392-01	2000	158120-26455	10-6-10B	04-17-13	1000
O2SI	110393-01	2000	158121-26457	10-6-10C	04-17-13	1000
O2SI	110394-01	2000	148122-26459	10-6-10D	04-17-13	1000
O2SI	116070-02	2000	158123-26461	10-6-10F	04-17-13	1000
O2SI	110395-01	2000	158125-26465	10-6-10G	04-17-13	1000
O2SI	110396-01	2000	158124-26463	10-6-10H	04-17-13	1000
O2SI	110397-01	2000	158127-26470	10-6-10I	04-12-12	1000
O2SI	010337-01	1000	158136-26467	10-6-10J	04-12-12	1000
EM Science	MeCl2		47080			1000
Final Vol						10000

UF

UF 10/17/10

**o2si** 8270 BN:A (200:400) Surrogate Solution, 1 ml  
 Cat. No: 110004-17 Exp: 7/29/2011  
 Lot No: 149231 Storage: <math>\leq -10</math> Degrees C  
 8270 BN:A (200:400) Surrogate Solution Solvent: Methylene Chloride  
 Lot #: 149231 - 25787 n For Research Use Only  
 Rec: 12/30/09 MFR exp. 07/29/11 ned: \_\_\_\_\_

UF

exp 4/7/11

UF 10/17/10

**o2si** 8270 BN:A (200:400) Surrogate Solution, 1 ml  
 Cat. No: 110004-17 Exp: 7/29/2011  
 Lot No: 149231 Storage: <math>\leq -10</math> Degrees C  
 8270 BN:A (200:400) Surrogate Solution Solvent: Methylene Chloride  
 Lot #: 149231 - 25768 n For Research Use Only  
 Rec: 12/30/09 MFR exp. 07/29/11 ed: \_\_\_\_\_

UF

exp 4/7/11

UF 10/17/10

**o2si** 8270 BN:A (200:400) Surrogate Solution, 1 ml  
 Cat. No: 110004-17 Exp: 7/29/2011  
 Lot No: 149231 Storage: <math>\leq -10</math> Degrees C  
 8270 BN:A (200:400) Surrogate Solution Solvent: Methylene Chloride  
 Lot #: 149231 - 25789 n For Research Use Only  
 Rec: 12/30/09 MFR exp. 07/29/11 i: \_\_\_\_\_

UF

exp 4/7/11

UF 10/17/10

**o2si** 8270 BN:A (200:400) Surrogate Solution, 1 ml  
 Cat. No: 110004-17 Exp: 7/29/2011  
 Lot No: 149231 Storage: <math>\leq -10</math> Degrees C  
 8270 BN:A (200:400) Surrogate Solution Solvent: Methylene Chloride  
 Lot #: 149231 - 25761 n For Research Use Only  
 Rec: 12/30/09 MFR exp. 07/29/11

UF

exp 4/7/11

UF 10/17/10

**o2si** 8270 BN:A (200:400) Surrogate Solution, 1 ml  
 Cat. No: 110004-17 Exp: 7/29/2011  
 Lot No: 149231 Storage: <math>\leq -10</math> Degrees C  
 8270 BN:A (200:400) Surrogate Solution Solvent: Methylene Chloride  
 Lot #: 149231 - 25762 n For Research Use Only  
 Rec: 12/30/09 MFR exp. 07/29/11 ed: \_\_\_\_\_

UF

exp 4/7/11



VF 11711

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

VF 42514

PREP DATE: 01-25-11		8270F STANDARD CURVE															
Exp: 02-24-11																	
Supplier	ID #	Conc. $\mu\text{g/mL}$	Lot #	Date Code	Exp. Date	0.1	0.2	1	5	10	20	40	50	80	80	100	
8270F Stock	200			12/17/10	05-29-11	0	0	0	5	5	10	20	25	30	40	50	
5.0ug/mL				01/25/11		0	0	20	0	0	0	0	0	0	0	0	
1.0ug/mL				01/25/11		10	20	0	0	0	0	0	0	0	0	0	
Surrogate Stock	VAR	160519-27570		11/11/10	11-11-11	0	0	0	5	5	10	20	25	30	40	50	
EM Science	Methylene Chloride	47080				90	80	80	190	90	80	60	50	40	20	0	
Final Vol.						100	200	100	100	100	100	100	100	100	100	100	

VF 112514

PREP DATE: 01-25-11		8270 Second Source (88) 50ug/mL					
Exp:							
Supplier	ID #	Conc. $\mu\text{g/mL}$	Lot #	Date Code	Exp. Date	CODM:	
8270C SS	200			10/06/10	10-06-11	50	
EM Science	Methylene Chloride	47080				75	
Final Vol.						100	

VF 112514

Method 8270 Internal Standard Solution, 2,000 mg/L, 1 mL  
 118001-42  
 Lot# 167766 Storage 5-151000000 C. 4/20/13  
 Soln: Methylene Chloride  
 8270 Internal Standard  
 Lot #: 167766 - 28148  
 Rec: 1/20/11 MFR exp. 04/20/13


VF 112512

VF 112514

Method 8270 Internal Standard Solution, 2,000 mg/L, 1 mL  
 118001-42  
 Lot# 167766 Storage 5-151000000 C. 4/20/13  
 Soln: Methylene Chloride  
 8270 Internal Standard  
 Lot #: 167766 - 28147


VF 112512

VF 3/23/14

Part #: 10001 Laboratory Use Only - See MSDS  
 Lot #: 032009 Exp: 032012 Storage 0 °C  
 **CLP Semi-Volatiles Base/Neutrals Mix #1**  
 14 components CLP Semi-Volatiles Base/Neutrals Mix #1  
 2000 ug/mL in meth Lot #: 032009 - 28089  
**ABSOLUTE STANDARD** Rec: 1/5/11 MFR exp. 03/20/12


exp 5/29/14

VF 3/23/14

Part #: 10001 Laboratory Use Only - See MSDS  
 Lot #: 032009 Exp: 032012 Storage 0 °C  
 **CLP Semi-Volatiles Base/Neutrals Mix #1**  
 14 components CLP Semi-Volatiles Base/Neutrals Mix #1  
 2000 ug/mL in meth Lot #: 032009 - 28090  
**ABSOLUTE STANDARD** Rec: 1/5/11 MFR exp. 03/20/12


exp 5/29/14

VF 3/23/14

Part #: 10002 Laboratory Use Only - See MSDS  
 Lot #: 073109 Exp: 073112 Storage 4 °C  
 **CLP Semi-Volatiles Base/Neutrals Mix #2**  
 14 components CLP Semi-Volatiles Base Neutrals Mix #2  
 2000 ug/mL in meth Lot #: 073109 - 27871  
**ABSOLUTE STANDARD** Rec: 12/18/10 MFR exp. 07/31/12


exp 5/29/14

VF 3/23/14

Part #: 10002 Laboratory Use Only - See MSDS  
 Lot #: 073109 Exp: 073112 Storage 4 °C  
 **CLP Semi-Volatiles Base/Neutrals Mix #2**  
 14 components CLP Semi-Volatiles Base Neutrals Mix #2  
 2000 ug/mL in meth Lot #: 073109 - 27872  
**ABSOLUTE STANDARD** Rec: 12/18/10 MFR exp. 07/31/12


exp 5/29/14

VF 3/23/14

Part #: 10004 Laboratory Use Only - See MSDS  
 Lot #: 101509 Exp: 101514 Storage 4 °C  
 **CLP Semi-Volatiles Toxic Substances #1**  
 4 components CLP Semi-Volatiles Toxic Substances #1  
 2000 ug/mL in meth Lot #: 101509 - 27976  
**ABSOLUTE STANDARD** Rec: 12/18/10 MFR exp. 10/15/14


exp 5/29/14

VF 3/23/14

Part #: 10004 Laboratory Use Only - See MSDS  
 Lot #: 101509 Exp: 101514 Storage 4 °C  
 **CLP Semi-Volatiles Toxic Substances #1**  
 4 components CLP Semi-Volatiles Toxic Substances #1  
 2000 ug/mL in meth Lot #: 101509 - 27977  
**ABSOLUTE STANDARD** Rec: 12/18/10 MFR exp. 10/15/14


exp 5/29/14

VF 3/23/14

Part #: 10005 Laboratory Use Only - See MSDS  
 Lot #: 061209 Exp: 061214 Storage 4 °C  
 **CLP Semi-Volatiles Toxic Substances #2**  
 8 components CLP Semi-Volatiles Toxic Substances #2  
 2000 ug/mL in meth Lot #: 061209 - 27981  
**ABSOLUTE STANDARD** Rec: 12/18/10 MFR exp. 06/12/14

exp 5/29/14


VF 3/23/14

Part #: 10005 Laboratory Use Only - See MSDS  
 Lot #: 061209 Exp: 061214 Storage 4 °C  
 **CLP Semi-Volatiles Toxic Substances #2**  
 8 components CLP Semi-Volatiles Toxic Substances #2  
 2000 ug/mL in meth Lot #: 061209 - 27982  
**ABSOLUTE STANDARD** Rec: 12/18/10 MFR exp. 06/12/14

exp 5/29/14

VF 3/23/14

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



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


ABSOLUTE STANDAR

CLP Semi-Volatiles - Benzidines  
 Lot #: 120810 - 27985  
 Rec: 12/16/10 MFR exp. 12/03/13

exp 12/03/13

VF 3/23/14

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



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


ABSOLUTE STANDAR

CLP Semi-Volatiles - Benzidines  
 Lot #: 120810 - 27987  
 Rec: 12/16/10 MFR exp. 12/03/13

exp 12/03/13

VF 3/23/14

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



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


ABSOLUTE STANDAR

CLP Semi-Volatiles - PAH Mix  
 Lot #: 100909 - 28015  
 Rec: 12/16/10 MFR exp. 10/09/14

exp 10/09/14

VF 3/23/14

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



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


ABSOLUTE STANDAR

CLP Semi-Volatiles - PAH Mix  
 Lot #: 100909 - 28014  
 Rec: 12/16/10 MFR exp. 10/09/14

exp 10/09/14

VF 3/23/14

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



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


ABSOLUTE STANDAR

EPA Method 8270A - Analytes Mix #8  
 Lot #: 073109 - 27991  
 Rec: 12/16/10 MFR exp. 07/31/14

exp 07/31/14

VF 3/23/14

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



EPA Method 8270A - Analytes Mix #8  
 13 components - T  
 2000 ug/mL in me


ABSOLUTE STANDAR

EPA Method 8270A - Analytes Mix #8  
 Lot #: 073109 - 27992  
 Rec: 12/16/10 MFR exp. 07/31/14

exp 07/31/14

VF 3/23/14

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



Atrazine  
 1000 ug/mL in aceton


ABSOLUTE STANDARD

Atrazine  
 Lot #: 080310 - 28008  
 Rec: 12/16/10 MFR exp. 08/03/15

exp 08/03/15

VF 3/23/14

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




Atrazine  
 1000 ug/mL in acet

ABSOLUTE STANDAR

Atrazine  
 Lot #: 080310 - 28007 123  
 Rec: 12/16/10 MFR exp. 08/03/15


exp 08/03/15

VF 3/23/11

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


exp 5/29/11

VF 3/23/11

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


exp 5/29/11

VF 3/23/11

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

exp 5/29/11

VF 3/23/11

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

exp 5/29/11

VF 3/23/11

PREP DATE: 03-23-11						
8270C Stock/Spike Standard						
Exp:	05-29-11					
Supplier	ID #	Conc. ug/mL	Lot #	Date	CODE:	F
Absolute	10001	2000	032009-26089	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

# Organic Extraction Worksheet

<b>Method</b>	SIM Separatory Funnel Extra 3510C	<b>Extraction Set</b>	110503A	<b>Extraction Method</b>	SBP004S	<b>Units</b>	mL
Spiked ID 1	SIM Spike 166254-27834	Surrogate ID 1	8270 Surrogate 164394-27499				
Spiked ID 2		Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		YES			
Spiked ID 7		Ext. Start Time:					
Spiked ID 8		Ext. End Time:					
		GC Requires Extract By:		05/13/11 0:00			
		pH1	2	05/03/11 11:05:00 AM		W Bath Temp 80 °C	
		pH2	14	05/03/11 11:45:00 AM			
		pH3					

Spiked By: DL

Date 05/03/11

Witnessed By: GH

Date 05/03/11

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments	
1	110503A Bjk			0.025	1	1000	1	2/14	05/03/11 10:45		
2	110503A LCS-I	0.025	1	0.025	1	1000	1	2/14	05/03/11 10:45		
3	AY36557	AY36557W06		0.025	1	1000	1	2/14	05/03/11 10:45	64520 -- Amber Liter	
4	AY36558	AY36558W04		0.025	1	1025	1	2/14	05/03/11 10:45	64520 -- Amber Liter	
5	AY36559	AY36559W05		0.025	1	1000	1	2/14	05/03/11 10:45	64520 -- Amber Liter	
6	AY36560	AY36560W04		0.025	1	1000	1	2/14	05/03/11 10:45	64520 -- Amber Liter	
7	AY36561 MS-1	AY36561W10	0.025	1	0.025	1	1025	1	2/14	05/03/11 10:45	64520 -- VOAs - NP
8	AY36561 MSD-1	AY36561W19	0.025	1	0.025	1	1050	1	2/14	05/03/11 10:45	64520 -- Amber Liter
9	AY36561	AY36561W20		0.025	1	1025	1	2/14	05/03/11 10:45	64520 -- Amber Liter	
10	AY36562	AY36562W06		0.025	1	1000	1	2/14	05/03/11 10:45	64520 -- Amber Liter	
11	AY36698	AY36698W05		0.025	1	1000	1	2/14	05/03/11 10:45	64540 -- Amber Liter	
12	AY36699	AY36699W05		0.025	1	1000	1	2/14	05/03/11 10:45	64540 -- Amber Liter	
13	AY36735	AY36735W06		0.025	1	1000	1	2/14	05/03/11 10:45	64544 2-WBEK RUSH -- Amber Liter	

POS 5/13/11

Solvent and Lot#	
MC	VWR 112910A
Na2SO4	0440C237
10N NaOH	3/14/11
1+1 Acid	3/14/11
A. Na2SO4	3/14/11

Extraction COC Transfer	
Extraction lab employee Initials	RJS
GC analyst's Initials	IF
Date	5/11/11
Time	1:00
Refrigerator	Hobart

Technician's Initials	
Scanned By	JL
Sample Preparation	JL
Extraction	JL
Concentration	JL
Modified	05/03/11 9:38:09 AM

Reviewed By: RJS      Date 05/03/11

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## Injection Log

Directory: M:\LINUS\DATA\110420\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0420L001.D	1	SVTUNE 04-14-11		20 Apr 11 21:00
2	2	0420L002.D	1	0.1ug/ml PAH 04-20-11		20 Apr 11 21:19
3	3	0420L003.D	1	0.2ug/ml PAH		20 Apr 11 21:44
4	4	0420L004.D	1	0.5ug/ml PAH		20 Apr 11 22:10
5	5	0420L005.D	1	1.0ug/ml PAH		20 Apr 11 22:35
6	6	0420L006.D	1	5.0ug/ml PAH		20 Apr 11 23:01
7	7	0420L007.D	1	10ug/ml PAH		20 Apr 11 23:27
8	8	0420L008.D	1	50ug/ml PAH		20 Apr 11 23:52
9	9	0420L009.D	1	100ug/ml PAH		21 Apr 11 00:18
10	10	0420L010.D	1	5.0ug/ml PAH SS 04-11-11		21 Apr 11 00:43
11	1	0504L001.D	1	SVTUNE 04-14-11		4 May 11 17:12
12	2	0504L002.D	1	5.0ug/ml PAH 04-20-11		4 May 11 17:30
13	5	0504L005.D	1	110503A BLK 1/1000		4 May 11 18:47
14	6	0504L006.D	1	110503A LCS-1 1/1000		4 May 11 19:13
15	28	0504L028.D	1	AY36735W06 1/1000		5 May 11 4:35

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

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



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

Blank Name/QCG: **110502W-36735 - 154887**  
Batch ID: #86RHB-110502AC

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	05/03/11	05/03/11
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	05/03/11	05/03/11
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	05/03/11	05/03/11
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	05/03/11	05/03/11
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	05/03/11	05/03/11
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	05/03/11	05/03/11
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	05/03/11	05/03/11
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	05/03/11	05/03/11
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	05/03/11	05/03/11
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	05/03/11	05/03/11
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	05/03/11	05/03/11
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	05/03/11	05/03/11
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	05/03/11	05/03/11
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	05/03/11	05/03/11
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	05/03/11	05/03/11
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	05/03/11	05/03/11
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	05/03/11	05/03/11
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	05/03/11	05/03/11
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	05/03/11	05/03/11
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	05/03/11	05/03/11
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	05/03/11	05/03/11
BLANK	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	05/03/11	05/03/11
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	05/03/11	05/03/11
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	05/03/11	05/03/11
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	05/03/11	05/03/11
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
BLANK	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11

Quant Method: C86DODW.M
Run #: 0502C20
Instrument: Chico
Sequence: C110502
Initials: DG

GC SC-Blank-REG MDLs  
Printed: 05/16/11 8:37:58 PM

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

Blank Name/QCG: 110502W-36735 - 154887  
 Batch ID: #86RHB-110502AC

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	05/03/11	05/03/11
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	05/03/11	05/03/11
BLANK	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	05/03/11	05/03/11
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	05/03/11	05/03/11
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	05/03/11	05/03/11
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	05/03/11	05/03/11
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
BLANK	SURROGATE: 1,2-DICHLOROET	110	70-120			%	05/03/11	05/03/11
BLANK	SURROGATE: 4-BROMOFLUORO	96.1	75-120			%	05/03/11	05/03/11
BLANK	SURROGATE: DIBROMOFLUOR	109	85-115			%	05/03/11	05/03/11
BLANK	SURROGATE: TOLUENE-D8 (S)	107	85-120			%	05/03/11	05/03/11

Quant Method: C86DODW.M  
 Run #: 0502C20  
 Instrument: Chico  
 Sequence: C110502  
 Initials: DG

GC SC-Blank-REG MDLs  
 Printed: 05/16/11 8:37:58 PM

### Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 64544

Case No: 64544

Date Analyzed: 05/03/11

Matrix: WATER

Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)	SURROGATE: 4-BROMOFLUOROBENZENE (S)
110502AC-LCS	Lab Control Spike	109	99.1
110502AC-BLK	Blank	110	96.1
AY36736	ES034	104	94.0
AY36735	ES033	100.0	98.1

Comments: Batch: #86RHB-110502AC

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 64544

Case No: 64544

Date Analyzed: 05/03/11

Matrix: WATER

Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)	SURROGATE: TOLUENE-D8 (S)
110502AC-LCS	Lab Control Spike	110	105
110502AC-BLK	Blank	109	107
AY36736	ES034	108	105
AY36735	ES033	100	108

Comments: Batch: #86RHB-110502AC

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

APPL ID: 110503W-36735 LCS - 154887  
 Batch ID: #86RHB-110502AC

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,1,1,2-TETRACHLOROETHANE	10.00	9.89	98.9	80-130
1,1,1-TRICHLOROETHANE	10.00	9.56	95.6	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	9.34	93.4	65-130
1,1,2-TRICHLOROETHANE	10.00	8.92	89.2	75-125
1,1-DICHLOROETHANE	10.00	9.87	98.7	70-135
1,1-DICHLOROETHENE	10.00	9.91	99.1	70-130
1,2,3-TRICHLOROPROPANE	10.00	10.4	104	75-125
1,2,4-TRICHLOROBENZENE	10.00	8.81	88.1	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	9.20	92.0	50-130
1,2-DIBROMOETHANE	10.00	9.87	98.7	70-130
1,2-DICHLOROBENZENE	10.00	10.3	103	70-120
1,2-DICHLOROETHANE	10.00	9.27	92.7	70-130
1,2-DICHLOROPROPANE	10.00	8.94	89.4	75-125
1,3-DICHLOROBENZENE	10.00	10.5	105	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	18.1	90.5	70-130
1,4-DICHLOROBENZENE	10.00	10.0	100	75-125
2-BUTANONE	10.00	8.57	85.7	30-150
4-METHYL-2-PENTANONE	10.00	10.1	101	60-135
ACETONE	10.00	10.3	103	40-140
BENZENE	10.00	9.61	96.1	80-120
BROMODICHLOROMETHANE	10.00	9.37	93.7	75-120
BROMOFORM	10.00	8.86	88.6	70-130
BROMOMETHANE	10.00	10.2	102	30-145
CARBON TETRACHLORIDE	10.00	9.71	97.1	65-140
CHLOROBENZENE	10.00	9.82	98.2	80-120
CHLORODIBROMOMETHANE	10.00	9.32	93.2	60-135

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

<u>Primary</u>	<u>SPK</u>
Quant Method :	C86DODW.M
Extraction Date :	05/03/11
Analysis Date :	05/03/11
Instrument :	Chlco
Run :	0502C17
Initials :	DG

Printed: 05/16/11 8:38:06 PM

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

APPL ID: 110503W-36735 LCS - 154887  
 Batch ID: #86RHB-110502AC

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	10.7	107	60-135
CHLOROFORM	10.00	9.47	94.7	65-135
CHLOROMETHANE	10.00	8.49	84.9	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.86	98.6	70-125
ETHYLBENZENE	10.00	10.0	100	75-125
GASOLINE	300	317	106	75-125
HEXACHLOROBUTADIENE	10.00	10.7	107	50-140
METHYL TERT-BUTYL ETHER	10.00	9.36	93.6	65-125
METHYLENE CHLORIDE	10.00	8.66	86.6	55-140
STYRENE	10.00	9.44	94.4	65-135
TETRACHLOROETHENE	10.00	10.2	102	45-150
TOLUENE	10.00	10.0	100	75-120
TRANS-1,2-DICHLOROETHENE	10.00	10.4	104	60-140
TRICHLOROETHENE	10.00	9.72	97.2	70-125
VINYL CHLORIDE	10.00	8.91	89.1	50-145
XYLENES (TOTAL)	30.0	30.6	102	80-120
-----				
SURROGATE: 1,2-DICHLOROETHANE-D	22.3	24.4	109	70-120
SURROGATE: 4-BROMOFLUOROBENZE	26.3	26.1	99.1	75-120
SURROGATE: DIBROMOFLUOROMETH	23.5	25.8	110	85-115
SURROGATE: TOLUENE-D8 (S)	26.0	27.3	105	85-120
-----				

Comments:

Primary	SPK
Quant Method :	C86DODW.M
Extraction Date :	05/03/11
Analysis Date :	05/03/11
Instrument :	Chico
Run :	0502C17
Initials :	DG

Printed: 05/16/11 8:38:06 PM

APPL Standard LCS

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 64544

Case No: 64544

Date Analyzed: 05/03/11

Matrix: WATER

Instrument: Chico

Blank ID: 110502AC-BLK

Time Analyzed: 0505

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
110502AC-LCS	Lab Control Spike	0502C17	05/03/11 0210
110502AC-BLK	Blank	0502C20	05/03/11 0505
AY36736	ES034	0502C21	05/03/11 0541
AY36735	ES033	0502C22	05/03/11 0616

Comments: Batch: #86RHB-110502AC

Form 5  
Tune Summary

Lab Name: APPL Inc.

SDG No: 64544

Case No: 64544

Date Analyzed: 05/03/11

Matrix: Water

Instrument: Chico

ID: 20ug/ml BFB STD 04-15-11A

Time Analyzed: 0:25

Client Sample No.	APPL ID.	File ID.	Date Analyzed	
1	Lab Control Spike	110502A LCS-1WC (SS)	0502C17W.D	05/03/11 2:10
2	Blank	110502A BLK-1WC	0502C20W.D	05/03/11 5:05
3	ES034	AY36736W01	0502C21W.D	05/03/11 5:41
4	ES033	AY36735W01	0502C22W.D	05/03/11 6:16
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

50	15 - 40% of mass 95	23.4
75	30 - 60% of mass 95	51.4
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	7.2
173	0 - 2% of mass 174	0.5
174	50 - 100% of mass 95	57.5
175	5 - 9% of mass 174	6.6
176	95 - 101% of mass 174	96.2
177	5 - 9% of mass 176	6.3



8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 64544  
 Lab File ID (Standard): 0502C09W.D Date Analyzed: 2 May 11 20:19  
 Instrument ID: Chico Time Analyzed: 2 May 11 20:19  
 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		134080	12.89	78120	18.08	42752	22.27
UPPER LIMIT		268160	13.39	156240	18.58	85504	22.77
LOWER LIMIT		67040	12.39	39060	17.58	21376	21.77
SAMPLE NO.							
01	Vol Std 05-02-11@10ug	137344	12.87	79304	18.07	42280	22.27
02	110502A LCS-1WC (SS)	148352	12.88	83328	18.07	43664	22.27
03	110502A BLK-1WC	140352	12.88	77648	18.07	39256	22.26
04	AY36736W01	136512	12.88	76144	18.07	37048	22.26
05	AY36735W01	149824	12.88	77432	18.07	39904	22.27
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

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

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

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

## EPA 8260B VOCs + Gas Water

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64544

Sample ID: ES033

APPL ID: AY36735

Sample Collection Date: 04/28/11

QCG: #86RHB-110502AC-154887

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	05/03/11	05/03/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	05/03/11	05/03/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	05/03/11	05/03/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	05/03/11	05/03/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	05/03/11	05/03/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	05/03/11	05/03/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	05/03/11	05/03/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	05/03/11	05/03/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	05/03/11	05/03/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	05/03/11	05/03/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	05/03/11	05/03/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	05/03/11	05/03/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	05/03/11	05/03/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	05/03/11	05/03/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	05/03/11	05/03/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	05/03/11	05/03/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	05/03/11	05/03/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	05/03/11	05/03/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	05/03/11	05/03/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	05/03/11	05/03/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	05/03/11	05/03/11
EPA 8260B	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	05/03/11	05/03/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	05/03/11	05/03/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	05/03/11	05/03/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	05/03/11	05/03/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	05/03/11	05/03/11

Quant Method: C86DODW.M
Run #: 0502C22
Instrument: Chico
Sequence: C110502
Dilution Factor: 1
Initials: DG

Printed: 05/16/11 8:38:11 PM

APPL-F1-SC-NoMC-REG MDLs

## EPA 8260B VOCs + Gas Water

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64544

Sample ID: ES033

APPL ID: AY36735

Sample Collection Date: 04/28/11

QCG: #86RHB-110502AC-154887

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	05/03/11	05/03/11
EPA 8260B	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	05/03/11	05/03/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	05/03/11	05/03/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	05/03/11	05/03/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	05/03/11	05/03/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	100.0	70-120			%	05/03/11	05/03/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	98.1	75-120			%	05/03/11	05/03/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	100	85-115			%	05/03/11	05/03/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	108	85-120			%	05/03/11	05/03/11

Quant Method: C86DODW.M
Run #: 0502C22
Instrument: Chico
Sequence: C110502
Dilution Factor: 1
Initials: DG

Data File : M:\CHICO\DATA\C110502\0502C22W.D Vial: 1  
 Acq On : 3 May 11 6:16 Operator: RS  
 Sample : AY36735W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 05-02-11 Multiplr: 1.00

Quant Time: May 7 16:25 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:12:03 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	149824	25.00000	ppb	-0.01
35) Chlorobenzene-D5 (IS)	18.07	117	77432	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.27	152	39904	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.45	111	107469	23.58557	ppb	-0.01
Spiked Amount	23.521		Recovery	=	100.278%	
23) 1,2-DCA-D4(S)	12.27	65	99067	22.31100	ppb	0.00
Spiked Amount	22.321		Recovery	=	99.957%	
36) Toluene-D8(S)	15.54	98	360811	28.07343	ppb	0.00
Spiked Amount	26.002		Recovery	=	107.966%	
44) 4-Bromofluorobenzene(S)	20.14	95	131832	25.84461	ppb	0.00
Spiked Amount	26.339		Recovery	=	98.126%	

Target Compounds Qvalue

Quantitation Report

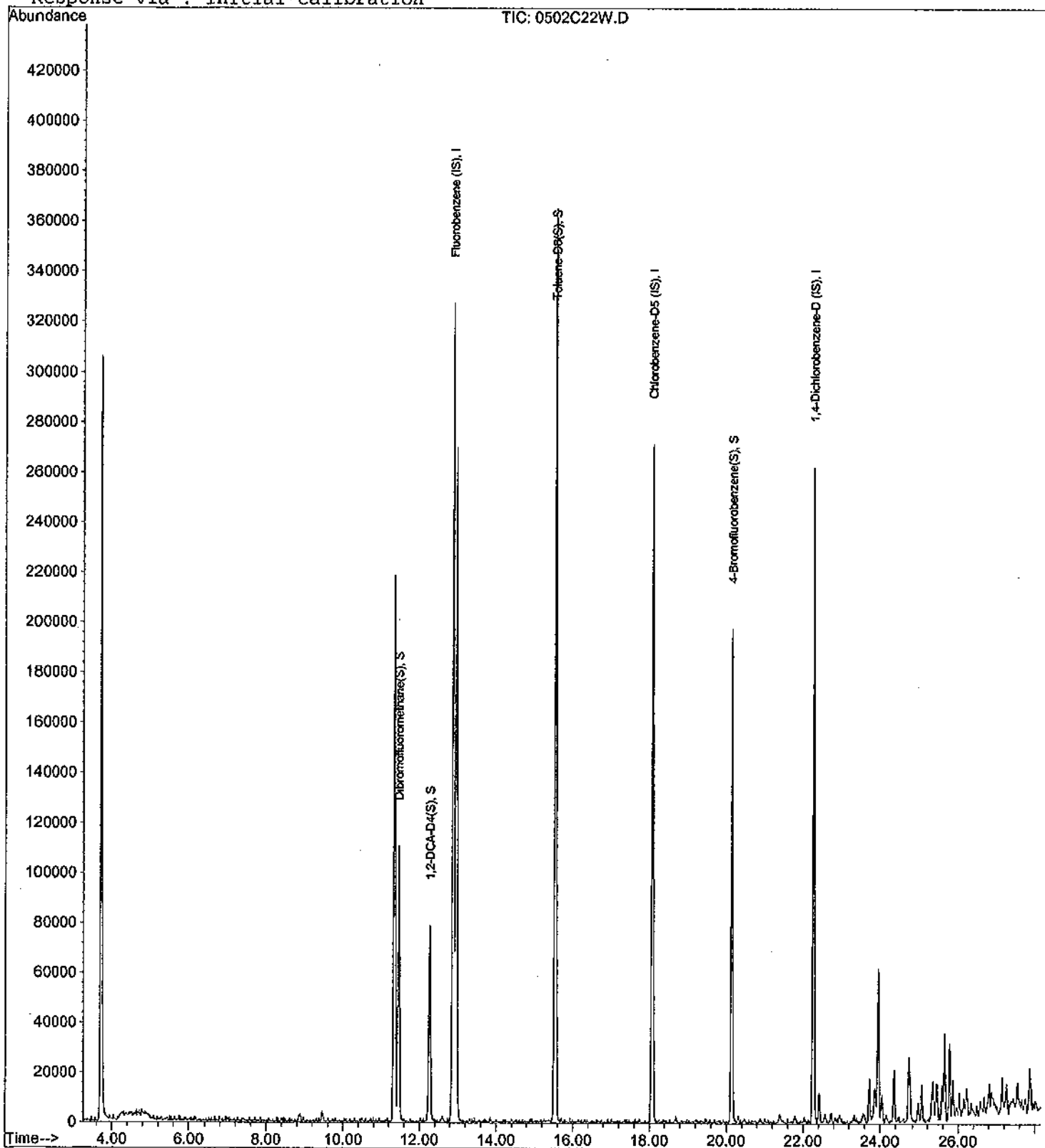
Data File : M:\CHICO\DATA\C110502\0502C22W.D  
Acq On : 3 May 11 6:16  
Sample : AY36735W01  
Misc : Water 10ml w/IS&S: 05-02-11

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

Quant Time: May 7 16:25 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue May 03 09:12:03 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110502\0502C22W.D Vial: 1  
 Acq On : 3 May 11 6:16 Operator: RS  
 Sample : AY36735W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 05-02-11 Multiplr: 1.00

Quant Time: May 16 20:30 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.88	TIC	327052	25.00000	ppb	-0.03
4) Chlorobenzene-D5 (IS)	18.07	TIC	271034	25.00000	ppb	-0.03
7) 1,4-Dichlorobenzene-D (IS)	22.26	TIC	262132	25.00000	ppb	-0.03

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
3) Dibromofluoromethane(S)	11.45	TIC	348941	19.21705	ppb	-0.03
Spiked Amount	23.521					
				Recovery	=	81.701%
5) Toluene-D8(S)	15.54	TIC	1055453	30.79519	ppb	-0.03
Spiked Amount	26.002					
				Recovery	=	118.433%
6) 4-Bromofluorobenzene(S)	20.14	TIC	548048	24.03708	ppb	-0.03
Spiked Amount	26.339					
				Recovery	=	91.260%

Target Compounds Qvalue

Quantitation Report

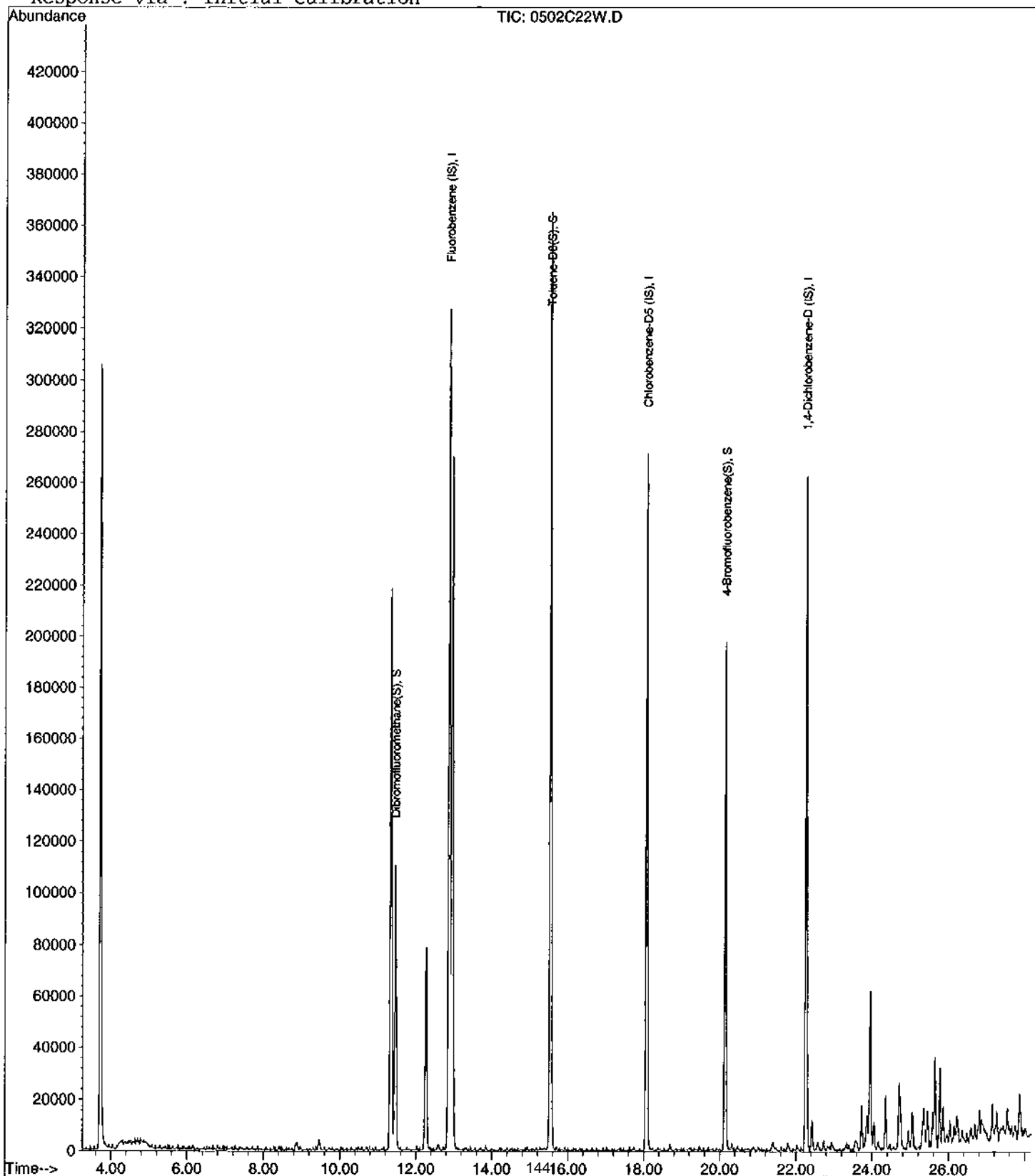
Data File : M:\CHICO\DATA\C110502\0502C22W.D  
Acq On : 3 May 11 6:16  
Sample : AY36735W01  
Misc : Water 10ml w/IS&S: 05-02-11

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

Quant Time: May 16 20:30 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 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: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

ARF: 64544

Sample ID: ES034

APPL ID: AY36736

Sample Collection Date: 04/28/11

QCG: #86RHB-110502AC-154887

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	05/03/11	05/03/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	05/03/11	05/03/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	05/03/11	05/03/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	05/03/11	05/03/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	05/03/11	05/03/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	05/03/11	05/03/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	05/03/11	05/03/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	05/03/11	05/03/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	05/03/11	05/03/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	05/03/11	05/03/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	05/03/11	05/03/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	05/03/11	05/03/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	05/03/11	05/03/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	05/03/11	05/03/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	05/03/11	05/03/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	05/03/11	05/03/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	05/03/11	05/03/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	05/03/11	05/03/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	05/03/11	05/03/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	05/03/11	05/03/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	05/03/11	05/03/11
EPA 8260B	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	05/03/11	05/03/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	05/03/11	05/03/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	05/03/11	05/03/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	05/03/11	05/03/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	05/03/11	05/03/11

Quant Method: C86DODW.M  
Run #: 0502G21  
Instrument: Chico  
Sequence: C110502  
Dilution Factor: 1  
Initials: DG

Printed: 05/16/11 8:38:11 PM

APPL-F1-SC-NoMC-REG MDLs

## EPA 8260B VOCs + Gas Water

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

Sample ID: ES034

Sample Collection Date: 04/28/11

ARF: 64544

APPL ID: AY36736

QCG: #86RHB-110502AC-154887

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	05/03/11	05/03/11
EPA 8260B	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	05/03/11	05/03/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	05/03/11	05/03/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	05/03/11	05/03/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	05/03/11	05/03/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	104	70-120			%	05/03/11	05/03/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	94.0	75-120			%	05/03/11	05/03/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	108	85-115			%	05/03/11	05/03/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	105	85-120			%	05/03/11	05/03/11

Quant Method: C86DODW.M  
Run #: 0502C21  
Instrument: Chico  
Sequence: C110502  
Dilution Factor: 1  
Initials: DG

Printed: 05/16/11 8:38:11 PM

APPL-F1-SC-NoMC-REG MDLs

Data File : M:\CHICO\DATA\C110502\0502C21W.D Vial: 1  
 Acq On : 3 May 11 5:41 Operator: RS  
 Sample : AY36736W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 05-02-11 Multiplr: 1.00

Quant Time: May 7 16:24 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:12:03 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	136512	25.00000	ppb	-0.01
35) Chlorobenzene-D5 (IS)	18.07	117	76144	25.00000	ppb	-0.01
51) 1,4-Dichlorobenzene-D (IS)	22.26	152	37048	25.00000	ppb	-0.01
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.46	111	105287	25.35995	ppb	-0.01
Spiked Amount	23.521				Recovery = 107.821%	
23) 1,2-DCA-D4(S)	12.26	65	93942	23.21991	ppb	-0.01
Spiked Amount	22.321				Recovery = 104.029%	
36) Toluene-D8(S)	15.53	98	344558	27.26232	ppb	-0.01
Spiked Amount	26.002				Recovery = 104.847%	
44) 4-Bromofluorobenzene(S)	20.14	95	124195	24.75929	ppb	0.00
Spiked Amount	26.339				Recovery = 94.003%	

Target Compounds Qvalue

Quantitation Report

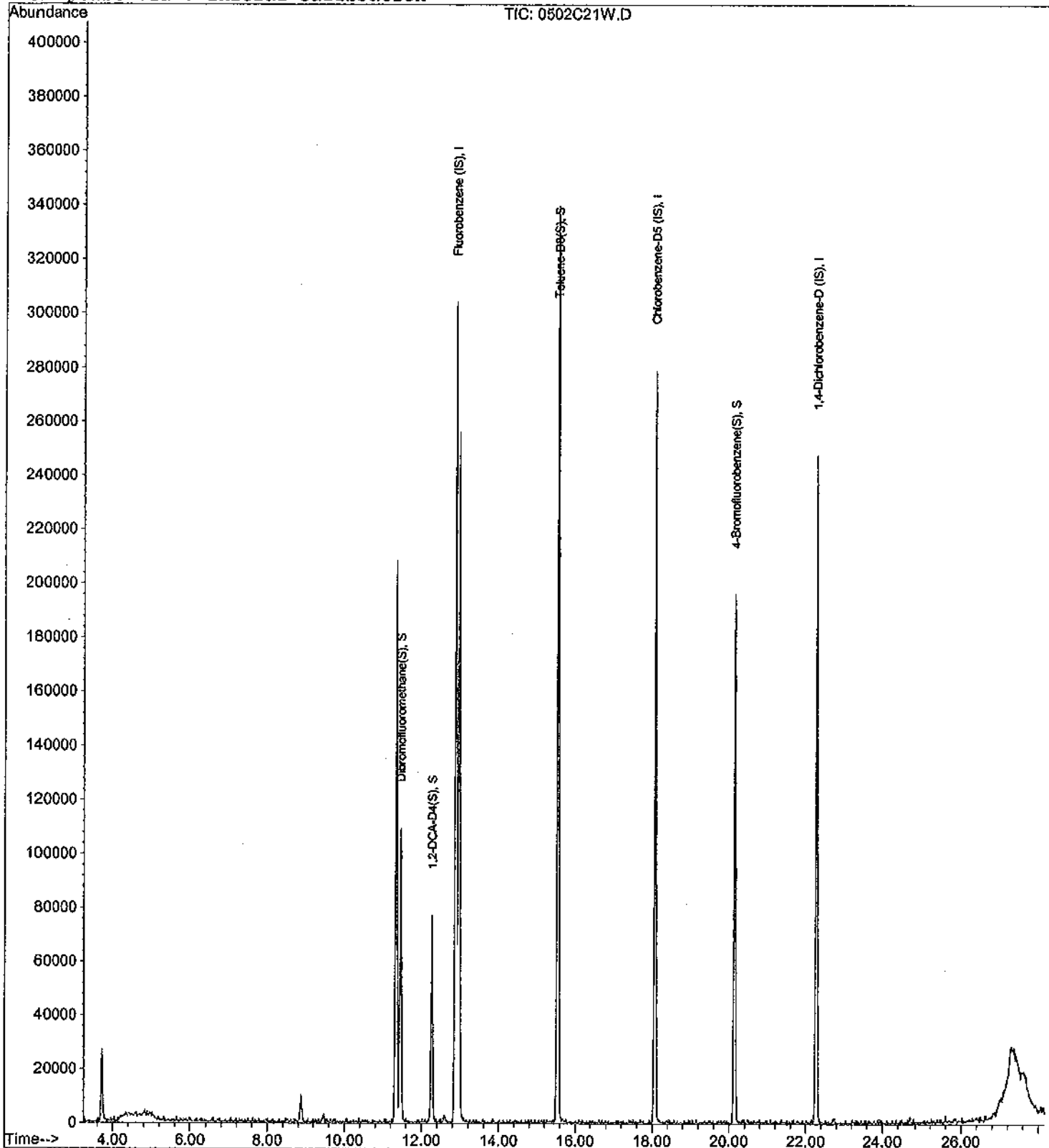
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Acq On : 3 May 11 5:41  
Sample : AY36736W01  
Misc : Water 10ml w/IS&S: 05-02-11

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

Quant Time: May 7 16:24 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue May 03 09:12:03 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110502\0502C21W.D Vial: 1  
 Acq On : 3 May 11 5:41 Operator: RS  
 Sample : AY36736W01 Inst : Chico  
 Misc : Water 10ml w/IS&S: 05-02-11 Multiplr: 1.00

Quant Time: May 16 20:30 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.88	TIC	303979	25.00000	ppb	-0.02
4) Chlorobenzene-D5 (IS)	18.07	TIC	278811	25.00000	ppb	-0.03
7) 1,4-Dichlorobenzene-D (IS)	22.26	TIC	247500	25.00000	ppb	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
3) Dibromofluoromethane(S)	11.46	TIC	337664	20.00750	ppb	-0.02
Spiked Amount	23.521					
				Recovery	=	85.060%
5) Toluene-D8(S)	15.53	TIC	1007820	28.58517	ppb	-0.03
Spiked Amount	26.002					
				Recovery	=	109.934%
6) 4-Bromofluorobenzene(S)	20.14	TIC	541182	23.07387	ppb	-0.03
Spiked Amount	26.339					
				Recovery	=	87.604%

Target Compounds Qvalue

Quantitation Report

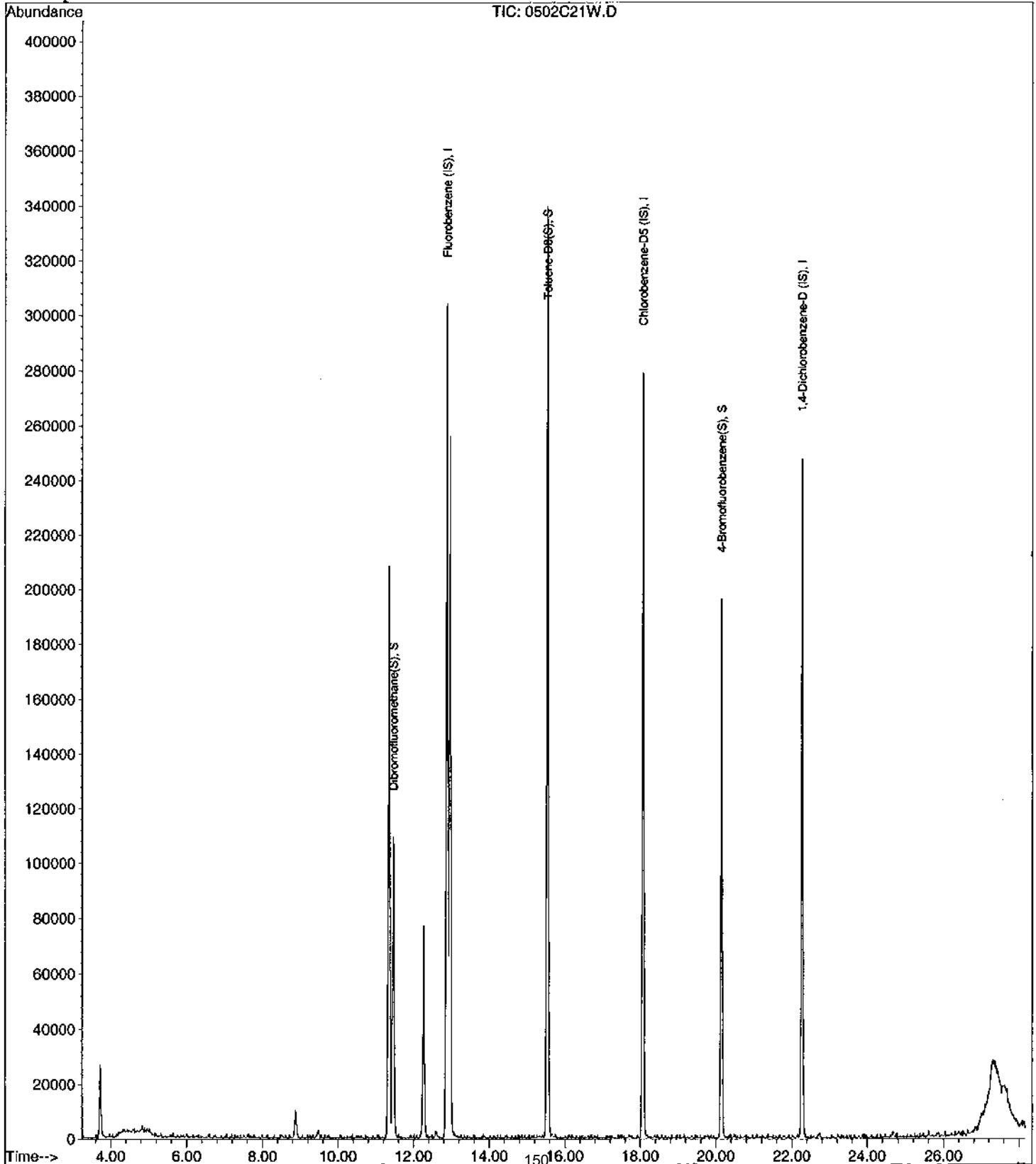
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Acq On : 3 May 11 5:41  
Sample : AY36736W01  
Misc : Water 10ml w/IS&S: 05-02-11

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

Quant Time: May 16 20:30 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



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





Data File : M:\CHICO\DATA\C110422\0422C14W.D Vial: 1  
 Acq On : 23 Apr 11 1:03 Operator: RS  
 Sample : Vol Std 4-22-11@20ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:44 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	856207	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.09	TIC	954704	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	1016439	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
3) Dibromofluoromethane(S)	11.49	TIC	1110214	23.35498	ppb	0.00
Spiked Amount	23.521		Recovery	=	99.294%	
5) Toluene-D8(S)	15.56	TIC	3021955	25.03151	ppb	0.00
Spiked Amount	26.002		Recovery	=	96.270%	
6) 4-Bromofluorobenzene(S)	20.16	TIC	2110312	26.27634	ppb	0.00
Spiked Amount	26.339		Recovery	=	99.761%	
<b>Target Compounds</b>						
2) Gasoline	15.56	TIC	20556680m	69.08984	ppb	Qvalue 100

Quantitation Report

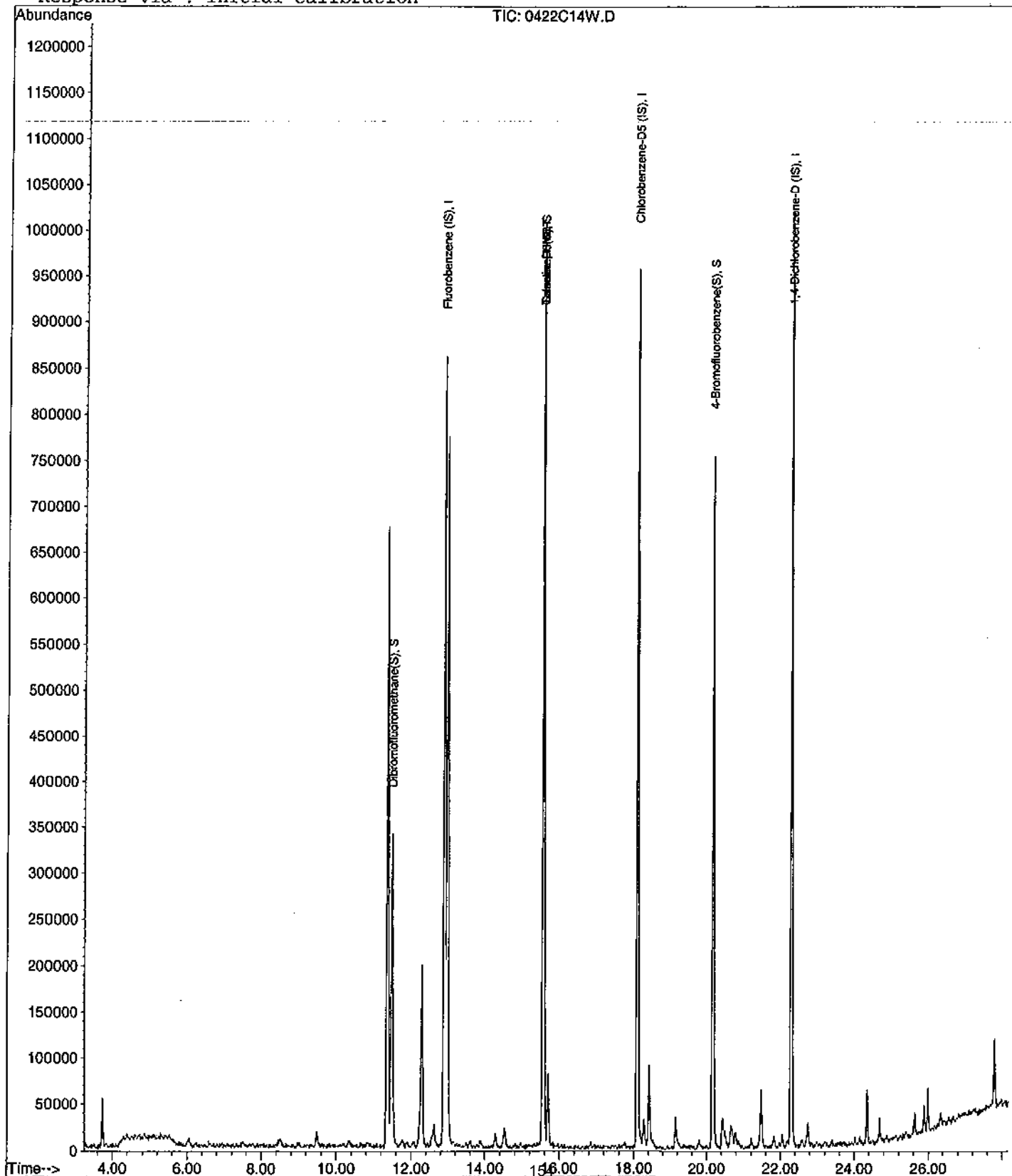
Data File : M:\CHICO\DATA\C110422\0422C14W.D  
Acq On : 23 Apr 11 1:03  
Sample : Vol Std 4-22-11@20ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:44 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C15W.D Vial: 1  
 Acq On : 23 Apr 11 1:38 Operator: RS  
 Sample : Vol Std 4-22-11@50ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:44 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	836413	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.10	TIC	880090	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	966639	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.48	TIC	1079958	23.25614	ppb	0.00
Spiked Amount	23.521		Recovery	=	98.873%	
5) Toluene-D8(S)	15.56	TIC	2924993	26.28243	ppb	0.00
Spiked Amount	26.002		Recovery	=	101.077%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	2030076	27.42030	ppb	0.00
Spiked Amount	26.339		Recovery	=	104.104%	
Target Compounds						
2) Gasoline	15.56	TIC	20251071m	69.67344	ppb	Qvalue 100

Quantitation Report

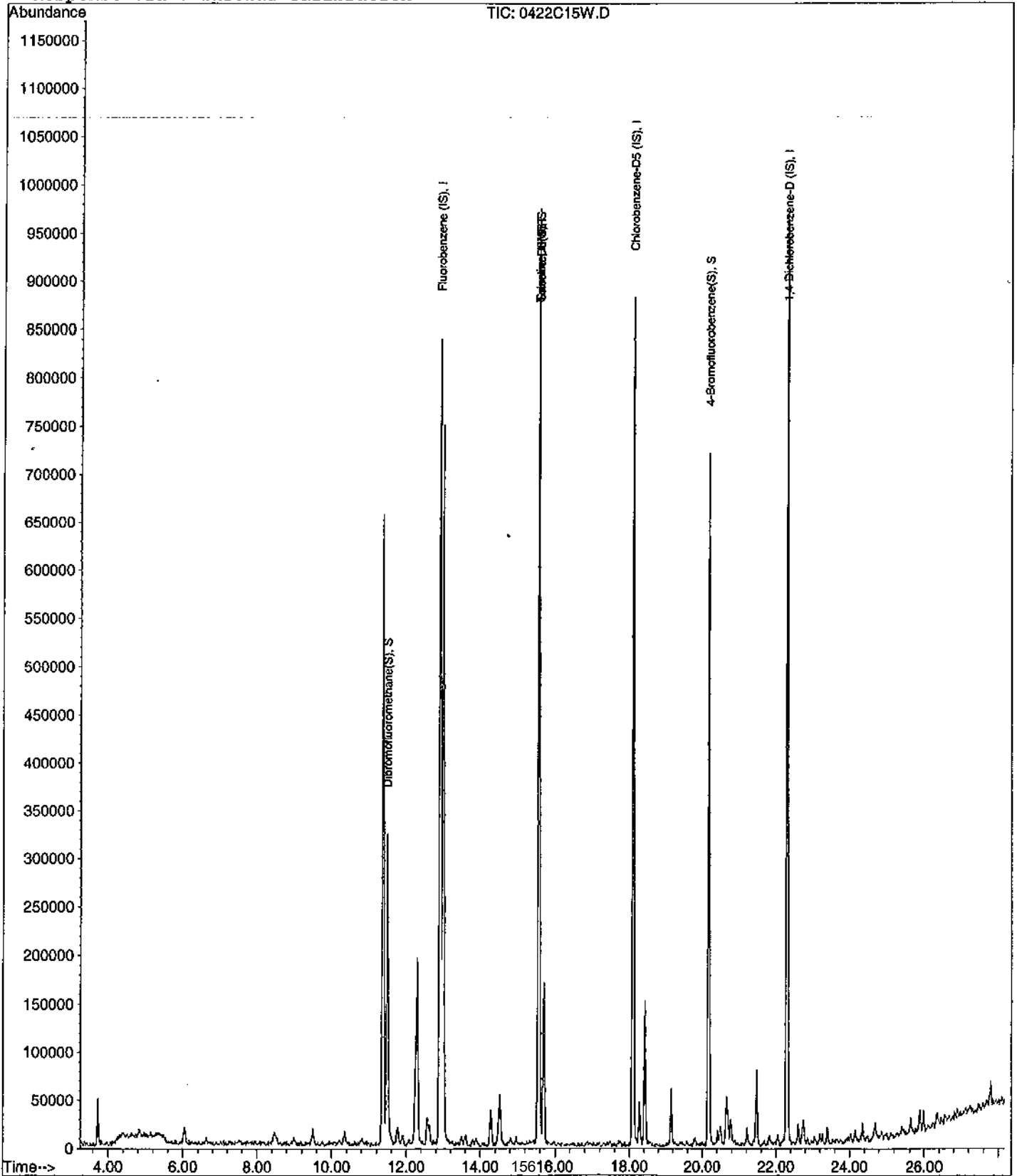
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Acq On : 23 Apr 11 1:38  
Sample : Vol Std 4-22-11@50ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:44 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C16W.D Vial: 1  
 Acq On : 23 Apr 11 2:13 Operator: RS  
 Sample : Vol Std 4-22-11@100ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:44 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	796817	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.10	TIC	850460	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.30	TIC	938392	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.48	TIC	1063563	24.04120	ppb	0.00
Spiked Amount	23.521			Recovery =	102.211%	
5) Toluene-D8(S)	15.56	TIC	2810850	26.13675	ppb	0.00
Spiked Amount	26.002			Recovery =	100.519%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	1999437	27.94736	ppb	0.00
Spiked Amount	26.339			Recovery =	106.105%	
Target Compounds						
2) Gasoline	15.56	TIC	22879186m	82.62700	ppb	Qvalue 100

Quantitation Report

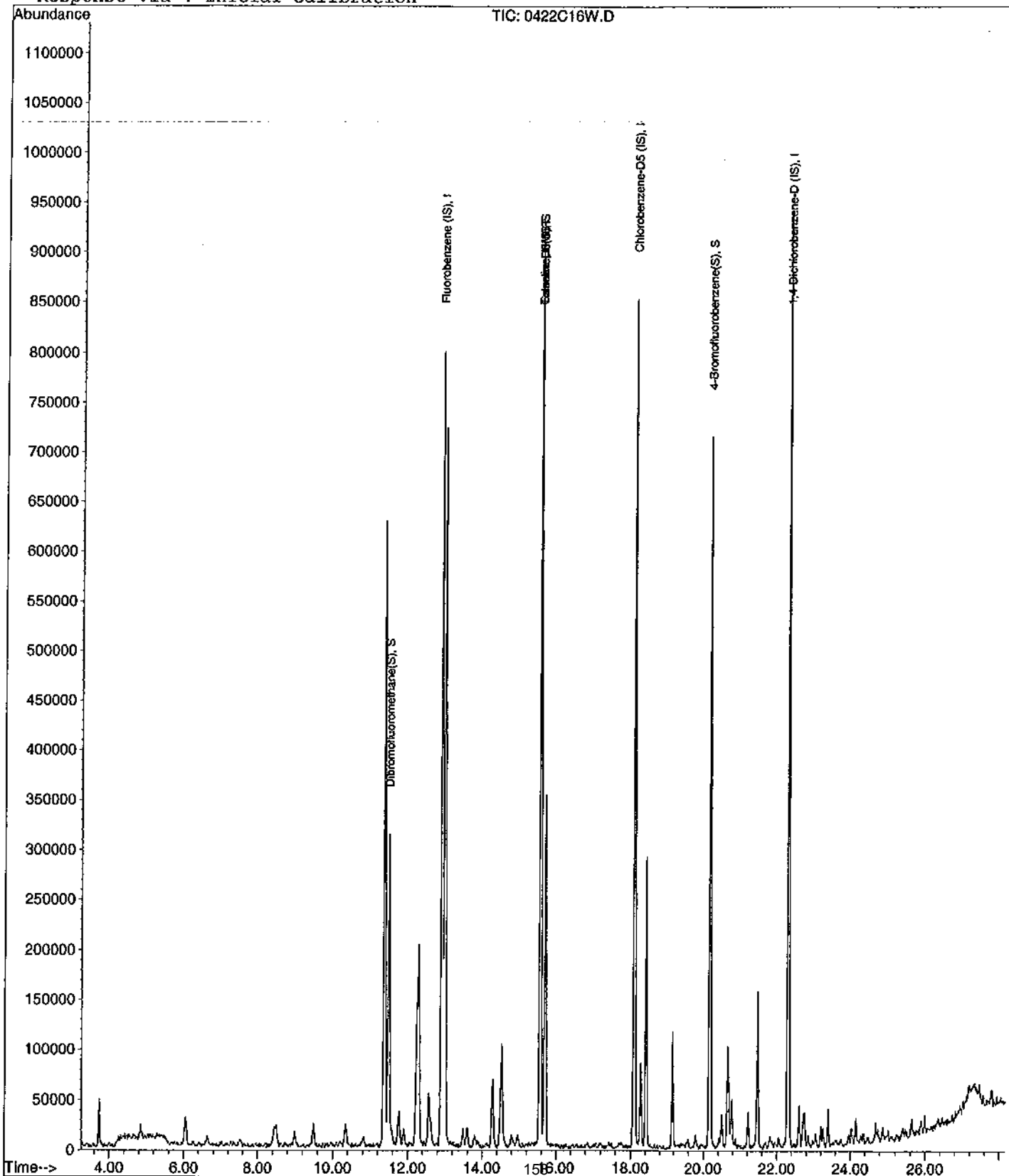
Data File : M:\CHICO\DATA\C110422\0422C16W.D  
Acq On : 23 Apr 11 2:13  
Sample : Vol Std 4-22-11@100ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:44 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C17W.D Vial: 1  
 Acq On : 23 Apr 11 2:48 Operator: RS  
 Sample : Vol Std 4-22-11@300ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:44 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	813193	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.10	TIC	892115	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	963258	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.48	TIC	1180225	26.14103	ppb	0.00
Spiked Amount	23.521					
					Recovery =	111.139%
5) Toluene-D8(S)	15.56	TIC	2915689	25.84569	ppb	0.00
Spiked Amount	26.002					
					Recovery =	99.400%
6) 4-Bromofluorobenzene(S)	20.17	TIC	1973777	26.30051	ppb	0.00
Spiked Amount	26.339					
					Recovery =	99.856%
Target Compounds						
2) Gasoline	15.70	TIC	34503406m	122.09794	ppb	Qvalue 100

Quantitation Report

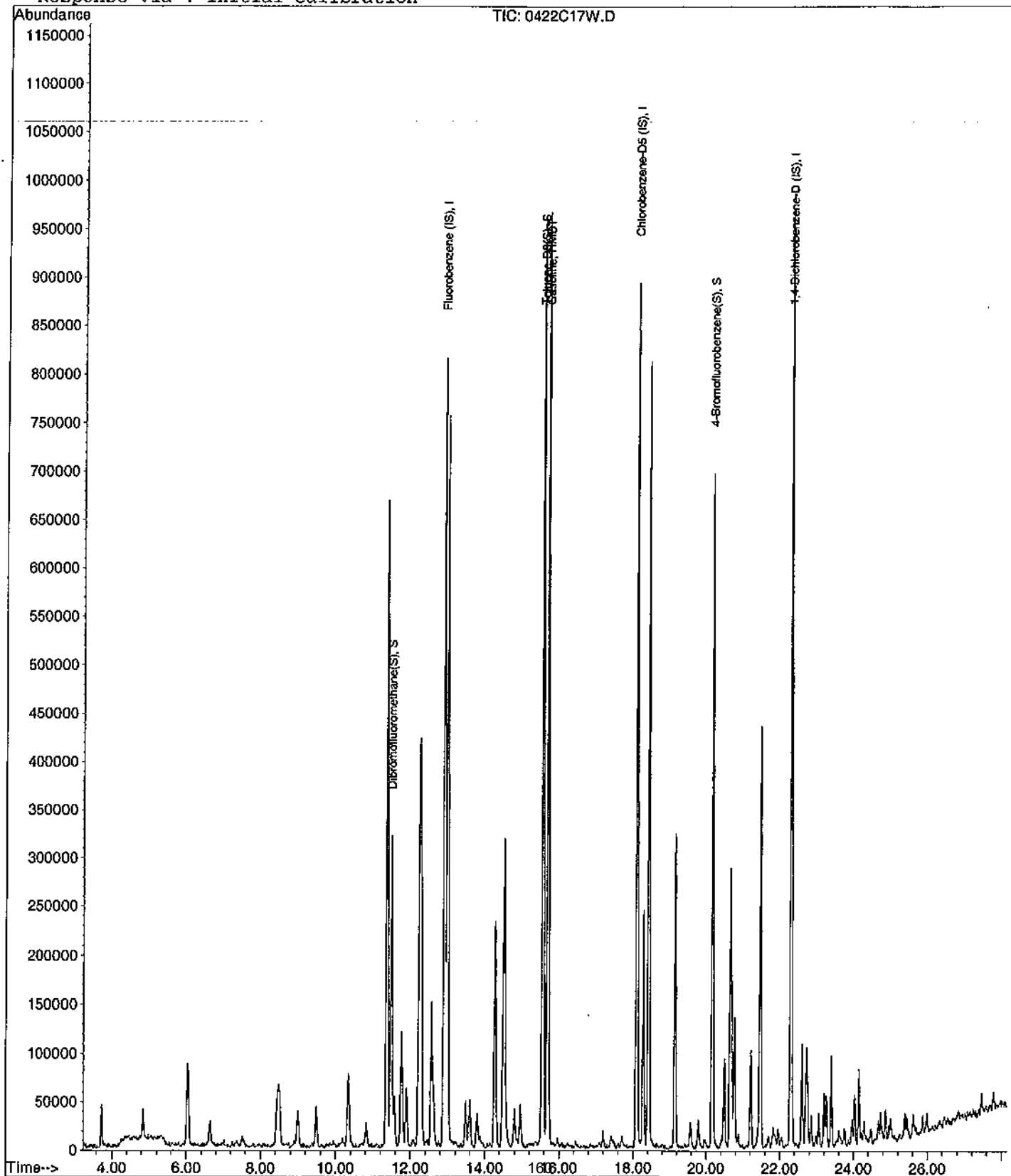
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Acq On : 23 Apr 11 2:48  
Sample : Vol Std 4-22-11@300ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:44 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration





Data File : M:\CHICO\DATA\C110422\0422C18W.D Vial: 1  
 Acq On : 23 Apr 11 3:23 Operator: RS  
 Sample : Vol Std 4-22-11@600ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:45 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	839656	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.09	TIC	926859	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	1075159	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
3) Dibromofluoromethane(S)	11.49	TIC	1020589	21.89279	ppb	0.00
Spiked Amount	23.521			Recovery =	93.079%	
5) Toluene-D8(S)	15.56	TIC	3015328	25.72697	ppb	0.00
Spiked Amount	26.002			Recovery =	98.942%	
6) 4-Bromofluorobenzene(S)	20.16	TIC	2029523	26.02959	ppb	0.00
Spiked Amount	26.339			Recovery =	98.827%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.70	TIC	52581715m	180.20771	ppb	100

Quantitation Report

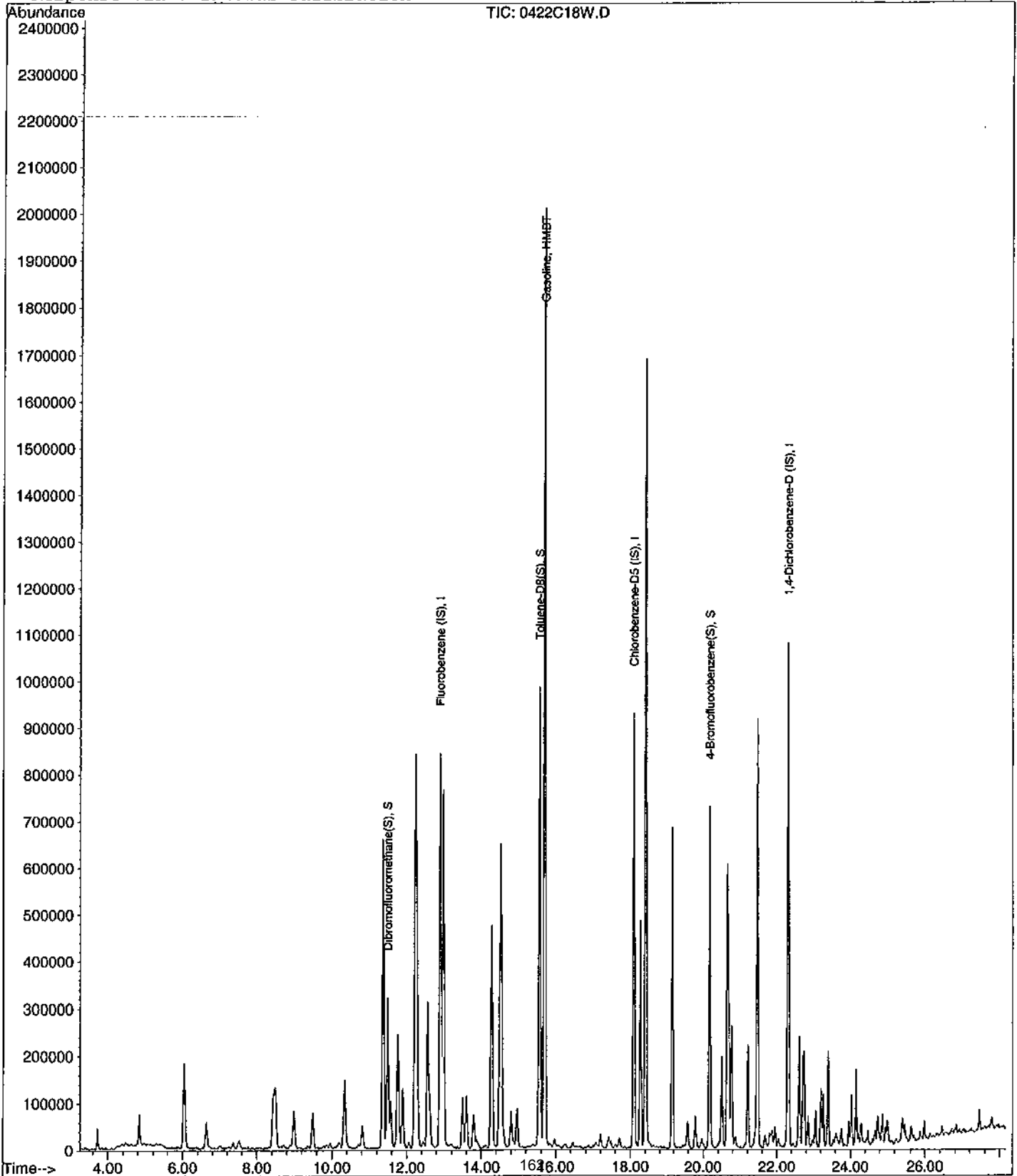
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Acq On : 23 Apr 11 3:23  
Sample : Vol Std 4-22-11@600ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:45 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C19W.D Vial: 1  
 Acq On : 23 Apr 11 3:58 Operator: RS  
 Sample : Vol Std 4-22-11@800ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:45 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	857506	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.09	TIC	966385	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	1071041	25.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
3) Dibromofluoromethane(S)	11.49	TIC	1100423	23.11394	ppb	0.00
Spiked Amount	23.521					
				Recovery =	98.270%	
5) Toluene-D8(S)	15.56	TIC	3209042	26.25990	ppb	0.00
Spiked Amount	26.002					
				Recovery =	100.992%	
6) 4-Bromofluorobenzene(S)	20.16	TIC	2064699	25.39765	ppb	0.00
Spiked Amount	26.339					
				Recovery =	96.427%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline	15.70	TIC	70886684m	237.88524	ppb	100

Quantitation Report

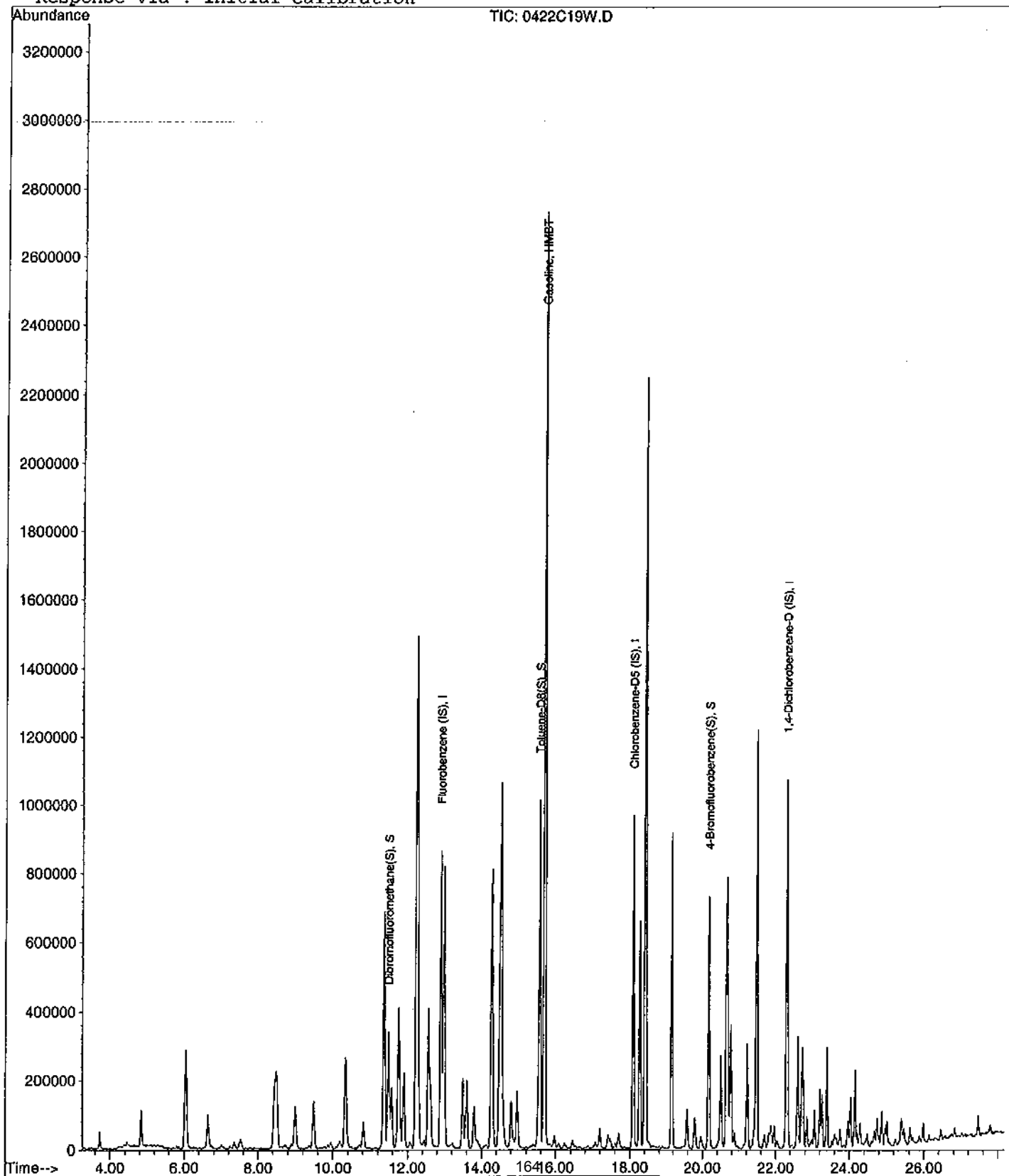
Data File : M:\CHICO\DATA\C110422\0422C19W.D  
Acq On : 23 Apr 11 3:58  
Sample : Vol Std 4-22-11@800ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:45 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C20W.D Vial: 1  
 Acq On : 23 Apr 11 4:33 Operator: RS  
 Sample : Vol Std 4-22-11@1000ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:45 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:40:56 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.90	TIC	900499	25.00000	ppb	0.00
4) Chlorobenzene-D5 (IS)	18.09	TIC	1012189	25.00000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	1201637	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.49	TIC	1142245	22.84692	ppb	0.00
Spiked Amount	23.521		Recovery	=	97.134%	
5) Toluene-D8(S)	15.56	TIC	3421410	26.73076	ppb	0.00
Spiked Amount	26.002		Recovery	=	102.804%	
6) 4-Bromofluorobenzene(S)	20.17	TIC	2128808	25.00126	ppb	0.00
Spiked Amount	26.339		Recovery	=	94.920%	
Target Compounds						
2) Gasoline	15.70	TIC	84574991m	270.27056	ppb	Qvalue 100

Quantitation Report

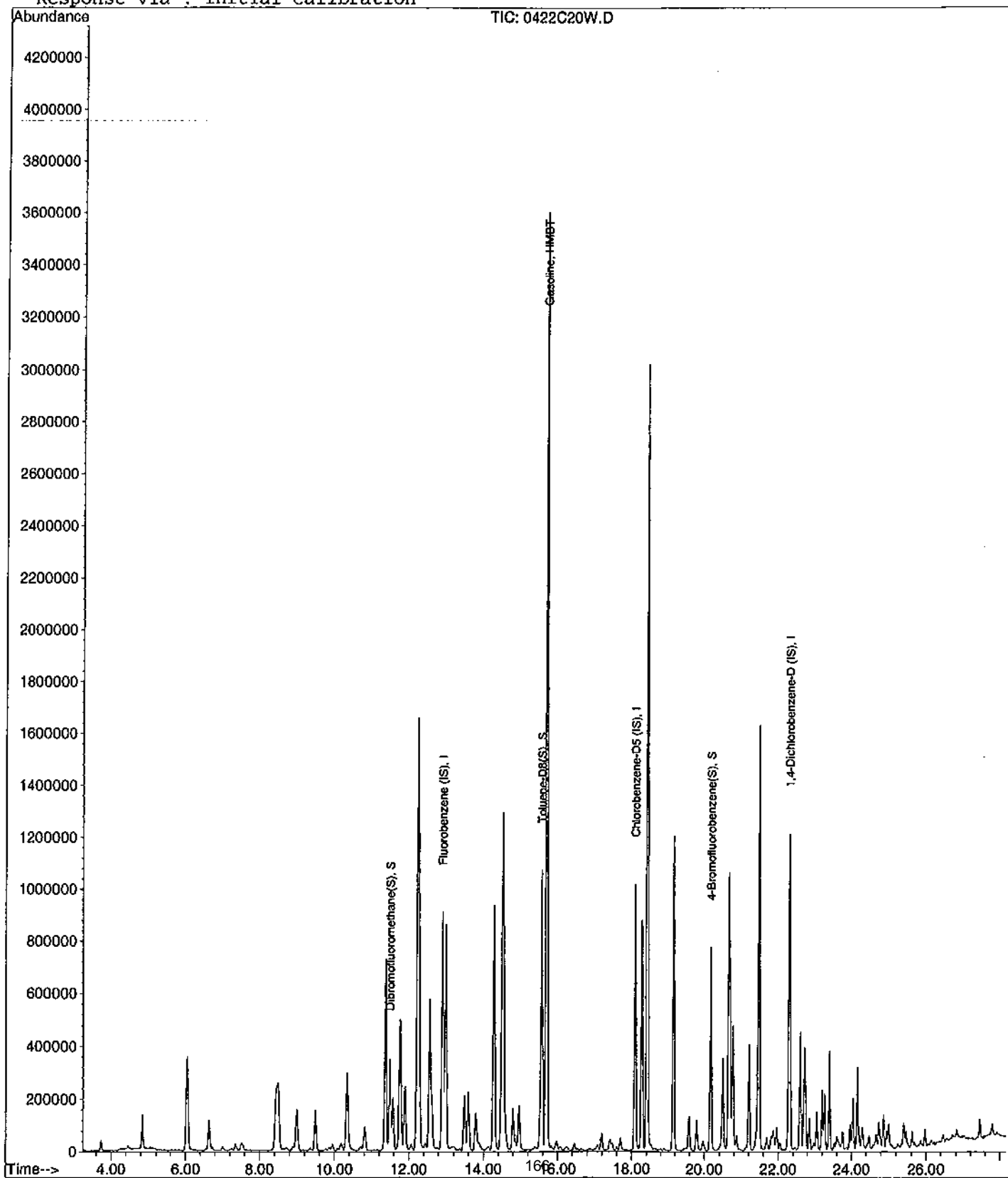
Data File : M:\CHICO\DATA\C110422\0422C20W.D  
Acq On : 23 Apr 11 4:33  
Sample : Vol Std 4-22-11@1000ug/L  
Misc : Water 10ml w/IS: 04-12-11

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

Quant Time: May 16 19:45 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: 64544

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

Date Analyzed: 04/23/11

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

Instrument: Chico

Initial Cal. Date: 04/22/11

Data File: 0422C22W.D

	Compound	MEAN	GCRF	%D	%Drift
1	I Fluorobenzene (IS)	ISTD			I
2	HMBT Gasoline	8.625	3.470	60	HMBTL 6.9
3	I Chlorobenzene-D5 (IS)	ISTD			I
4	I 1,4-Dichlorobenzene-D (IS)	ISTD			I
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
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19					
20					
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35					
36					
37					
38					
39					
40	Average			60.0	

Data File : M:\CHICO\DATA\C110422\0422C22W.D Vial: 1  
 Acq On : 23 Apr 11 5:42 Operator: RS  
 Sample : GAS 300 ug/L STD(SS) Inst : Chico  
 Misc : Water 10ml w/IS&S: 04-12-11 Multiplr: 1.00

Quant Time: May 16 19:48 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.87	TIC	836807	25.00000	ppb	-0.03
4) Chlorobenzene-D5 (IS)	18.07	TIC	884518	25.00000	ppb	-0.03
7) 1,4-Dichlorobenzene-D (IS)	22.26	TIC	926523	25.00000	ppb	-0.02
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.45	TIC	805863	17.34553	ppb	-0.03
Spiked Amount	23.521		Recovery	=	73.747%	
5) Toluene-D8(S)	15.53	TIC	2907375	25.99334	ppb	-0.03
Spiked Amount	26.002		Recovery	=	99.965%	
6) 4-Bromofluorobenzene(S)	20.14	TIC	1784990	23.98922	ppb	-0.03
Spiked Amount	26.339		Recovery	=	91.078%	
Target Compounds						
2) Gasoline	15.66	TIC	34844648m	279.26444	ppb	Qvalue 100



Quantitation Report

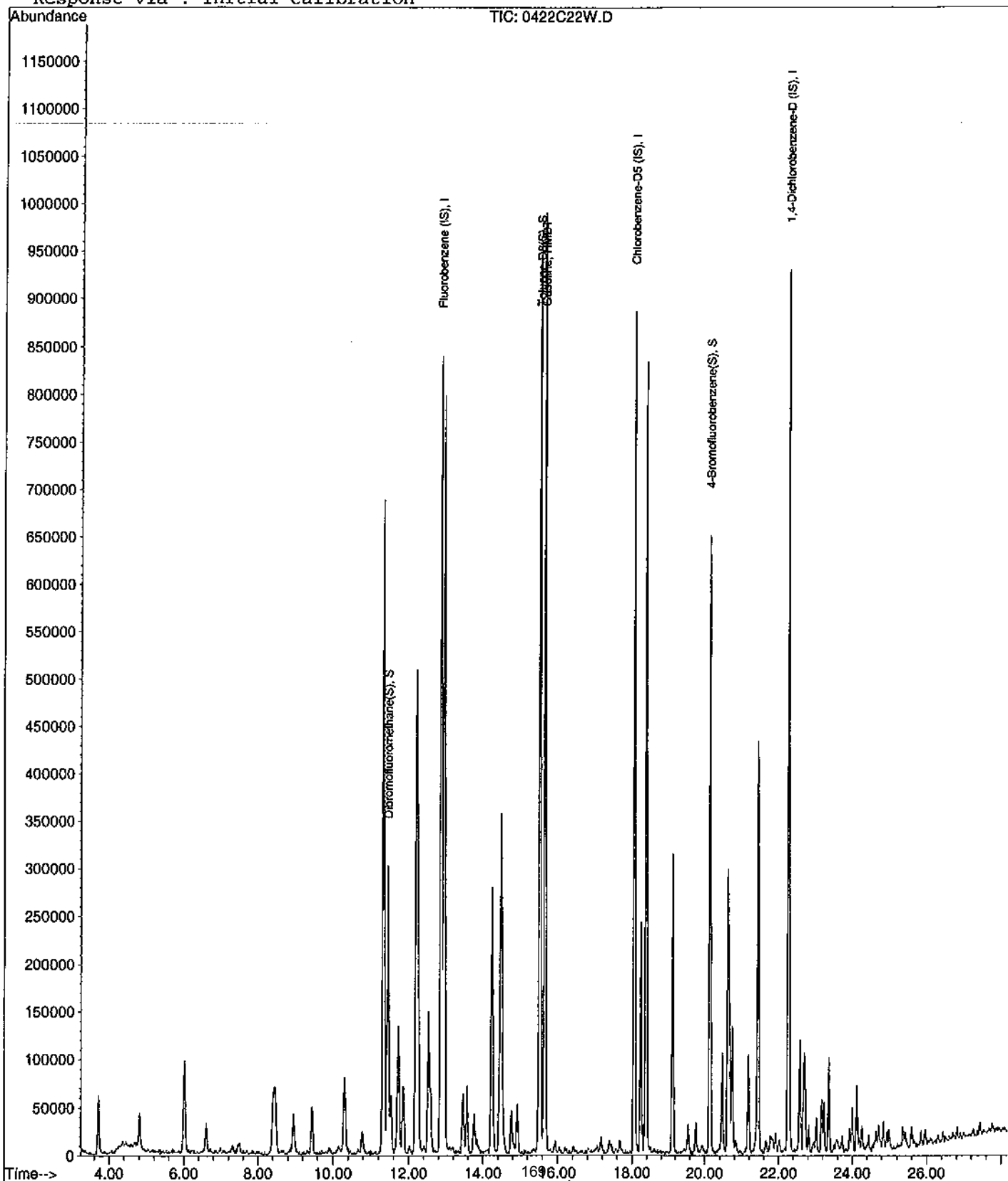
Data File : M:\CHICO\DATA\C110422\0422C22W.D  
Acq On : 23 Apr 11 5:42  
Sample : GAS 300 ug/L STD(SS)  
Misc : Water 10ml w/IS&S: 04-12-11

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

Quant Time: May 16 19:48 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 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: 6494  
Date Analyzed: 3 May 11 1:00  
Instrument: Chico  
Initial Cal. Date: 05/02/11  
Data File: 0502C15W.D

	Compound	MEAN	CCRF	%D	%Drift
1	I Fluorobenzene (IS)	ISTD			I
2	HMBT Gasoline	8.625	3.701	57	HMBTL 5.7
3	I Chlorobenzene-D5 (IS)	ISTD			I
4	I 1,4-Dichlorobenzene-D (IS)	ISTD			I
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
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39					
40	Average			57.0	

Data File : M:\CHICO\DATA\C110502\0502C15W.D Vial: 1  
 Acq On : 3 May 11 1:00 Operator: RS  
 Sample : GAS Std 05-02-11@300ug/L Inst : Chico  
 Misc : Water 10ml w/IS&S: 05-02-11 Multiplr: 1.00

Quant Time: May 16 20:29 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.89	TIC	423283	25.00000	ppb	-0.01
4) Chlorobenzene-D5 (IS)	18.09	TIC	386316	25.00000	ppb	-0.01
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	385131	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
3) Dibromofluoromethane(S)	11.47	TIC	432273	18.39411	ppb	-0.01
Spiked Amount	23.521		Recovery	=	78.202%	
5) Toluene-D8(S)	15.55	TIC	1481589	30.32863	ppb	-0.01
Spiked Amount	26.002		Recovery	=	116.641%	
6) 4-Bromofluorobenzene(S)	20.16	TIC	757680	23.31471	ppb	-0.01
Spiked Amount	26.339		Recovery	=	88.519%	
<b>Target Compounds</b>						
2) Gasoline	15.68	TIC	18799291m	317.08900	ppb	Qvalue 100

Quantitation Report

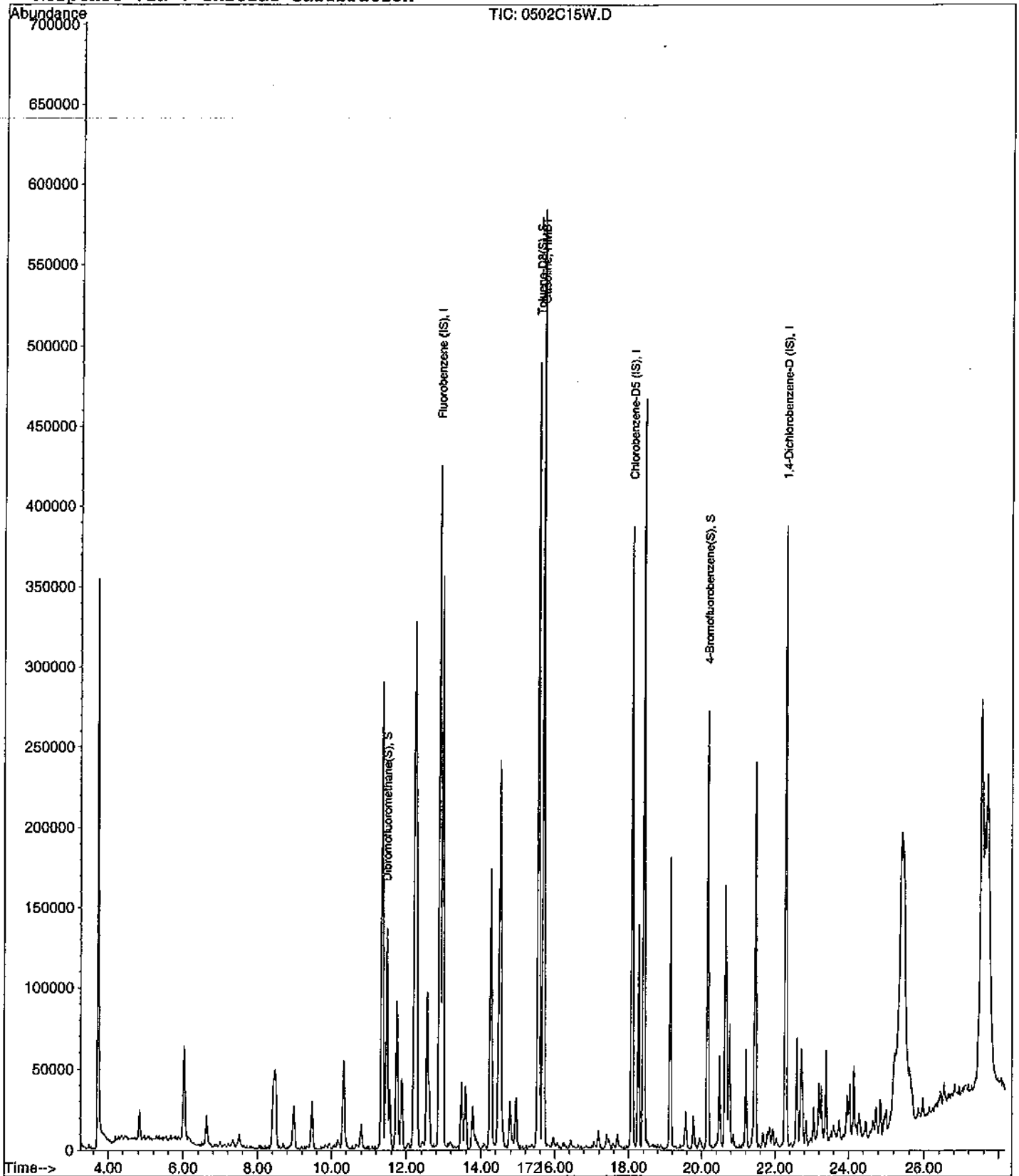
Data File : M:\CHICO\DATA\C110502\0502C15W.D  
Acq On : 3 May 11 1:00  
Sample : GAS Std 05-02-11@300ug/L  
Misc : Water 10ml w/IS&S: 05-02-11

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

Quant Time: May 16 20:29 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration





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

**Form 6  
Initial Calibration**

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

SDG No: 6454  
Initial Cal. Date: 05/02/11  
Instrument: Chico

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

		Compound	0.5	1	2	5	10	20	40	100			Avg	%RSD	
36	S	Toluene-D8(S)	4.448	4.071	3.963	4.403	4.257	4.034	3.990	4.032			4.1	4.6	S
37	TM	1,2-EDB	0.4628	0.5282	0.6071	0.6075	0.5949	0.5927	0.5718	0.5899			0.57	8.8	TM
38	TM	Tetrachloroethene	0.8939	0.9758	0.8633	0.9406	0.9347	0.9189	0.9142	0.9410			0.92	3.7	TM
39	TM	1-Chlorohexane	1.720	1.543	1.477	1.593	1.693	1.620	1.632	1.617			1.6	4.8	TM
40	TM	1,1,1,2-Tetrachloroethane	1.088	1.031	1.079	1.149	1.191	1.132	1.111	1.064			1.1	4.6	TM
41	TM	m&p-Xylene	2.073	2.144	1.951	2.146	2.198	2.052	2.041	1.964			2.1	4.2	TM
42	TM	o-Xylene	1.859	1.930	1.883	2.119	2.103	2.093	2.032	1.971			2.0	5.1	TM
43	TM	Styrene	2.297	2.207	2.079	2.270	2.270	2.121	2.031	1.837			2.1	7.3	TM
44	S	4-Bromofluorobenzene(S)	1.767	1.658	1.591	1.724	1.687	1.655	1.576	1.517			1.6	5.0	S
45	TM	2-Hexanone		0.3193	0.2450	0.2558	0.2752	0.2577	0.2633	0.2442			0.27	9.7	TM
46	TM	1,3-Dichloropropane	1.135	1.144	1.145	1.210	1.230	1.144	1.128	1.111			1.2	3.6	TM
47	TM	Dibromochloromethane	0.8069	0.9351	0.8471	0.9306	0.9730	0.9243	0.9166	0.9052			0.90	5.9	TM
48	TM**	Chlorobenzene	2.906	2.700	2.737	2.729	2.918	2.784	2.730	2.665			2.8	3.4	TM**
49	TM*	Ethylbenzene	7.072	6.693	6.373	6.687	6.836	6.348	6.197	5.824			6.5	6.1	TM*
50	TM**	Bromoform		0.4403	0.3506	0.4077	0.4547	0.4575	0.4525	0.4490			0.43	9.1	TM**
51	I	1,4-Dichlorobenzene-D (IS)	ISTD												
52	TM	MIBK (methyl isobutyl ketone)	0.6911	0.6575	0.7855	0.6492	0.7755	0.7161	0.6798	0.7116			0.71	7.1	TM
53	TM	Isopropylbenzene	12.1	10.9	10.9	11.4	12.1	10.9	11.2	10.5			11	5.0	TM
54	TM**	1,1,2,2-Tetrachloroethane	1.000	0.8068	0.9735	0.8737	1.035	0.9309	0.9542	0.8674			0.93	8.2	TM**
55	TM	1,2,3-Trichloropropane		0.2302	0.2744	0.3363	0.3202	0.3225	0.3199	0.2996			0.30	12	TM
56	TM	Bromobenzene	2.065	1.921	2.126	2.025	2.100	1.982	1.895	1.832			2.0	5.2	TM
57	TM	n-Propylbenzene	14.2	13.4	13.4	13.7	15.0	13.5	13.3	12.5			14	5.5	TM
58	TM	2-Chlorotoluene	10.8	9.497	9.810	9.918	10.3	9.119	8.941	8.071			9.6	8.8	TM
59	TM	1,3,5-Trimethylbenzene	9.954	8.836	8.846	9.319	9.582	9.023	8.380	7.953			9.0	7.1	TM
60	TM	4-Chlorotoluene	8.795	7.822	8.088	8.352	8.864	7.834	7.635	6.942			8.0	7.9	TM
61	TM	Tert-Butylbenzene	8.113	7.701	7.609	7.898	8.694	8.231	8.147	7.758			8.0	4.4	TM
62	TM	1,2,4-Trimethylbenzene	9.643	9.095	8.915	9.515	9.709	9.092	8.913	8.390			9.2	4.9	TM
63	TM	Sec-Butylbenzene	12.3	10.9	11.2	11.5	12.7	11.7	11.6	11.1			12	5.3	TM
64	TM	p-Isopropyltoluene	8.824	7.841	8.048	8.419	9.126	8.630	8.610	8.424			8.5	4.8	TM
65	TM	1,3-DCB	3.835	3.738	3.867	4.184	4.265	4.032	4.039	3.898			4.0	4.5	TM
66	TM	1,4-DCB	3.921	3.784	3.709	3.913	4.142	3.825	3.800	3.823			3.9	3.4	TM
67	TM	n-Butylbenzene	10.4	8.281	8.672	8.994	9.851	8.892	8.821	8.542			9.1	7.8	TM
68	TM	1,2-DCB	3.208	2.993	2.994	3.449	3.565	3.395	3.286	3.354			3.3	6.3	TM
69	TML	1,2-Dibromo-3-chloropropane			0.1161	0.1443	0.2121	0.1915	0.1800	0.2120			0.18	22	TML
70	TM	1,2,4-Trichlorobenzene	1.170	1.240	0.8844	0.9825	0.9490	0.9947	1.004	1.061			1.0	11	TM



Data File : M:\CHICO\DATA\C110502\0502C04W.D  
 Acq On : 2 May 11 17:22  
 Sample : Vol Std 05-02-11@0.3ug/L  
 Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.89	96	144512	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.07	117	78872	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.27	152	40304	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.47	111	2979	0.64156	ppb	0.00
Spiked Amount	23.521		Recovery	=	2.730%	
23) 1,2-DCA-D4(S)	12.27	65	2831	0.89646	ppb	0.00
Spiked Amount	22.321		Recovery	=	4.014%	
36) Toluene-D8(S)	15.55	98	8434	0.72646	ppb	0.00
Spiked Amount	26.002		Recovery	=	2.792%	
44) 4-Bromofluorobenzene(S)	20.15	95	3611	-1.79748	ppb	0.00
Spiked Amount	26.339		Recovery	=	-6.823%	
<b>Target Compounds</b>						
						Qvalue
2) Dichlorodifluoromethane	4.11	85	1475	0.28357	ppb	97
3) Chloromethane	4.59	50	3652	0.74279	ppb	93
4) Vinyl chloride	4.87	62	900	0.65086	ppb	92
5) Bromomethane	5.76	94	456	-0.07076	ppb	# 38
6) Chloroethane	5.95	64	1271	0.41697	ppb	98
7) Trichlorofluoromethane	6.56	101	3061	0.46251	ppb	92
8) Acetone	7.31	43	466	-1.88559	ppb	# 50
9) 1,1-DCE	7.73	96	1443	0.47596	ppb	# 52
10) Methylene chloride	8.53	84	2268	-1.15259	ppb	86
11) Carbon disulfide	8.60	76	1128	0.10626	ppb	# 49
12) Methyl t-butyl ether (MtBE)	8.94	73	1904	0.37748	ppb	# 64
13) Trans-1,2-DCE	9.15	96	1436	-0.89863	ppb	# 79
14) 1,1-DCA	9.84	63	2974	0.46681	ppb	95
15) MEK (2-Butanone)	10.49	43	481	0.39438	ppb	# 76
16) Cis-1,2-DCE	10.86	96	1277	0.29549	ppb	86
17) 2,2-Dichloropropane	10.85	77	2847	0.48689	ppb	98
18) Chloroform	11.13	83	3006	0.44545	ppb	91
19) Bromochloromethane	11.37	128	372	0.26500	ppb	# 47
21) 1,1,1-TCA	11.89	97	2938	0.44251	ppb	86
22) 1,1-Dichloropropene	12.16	75	2377	0.53439	ppb	# 87
24) Carbon Tetrachloride	12.33	117	2748	0.46866	ppb	# 84
25) 1,2-DCA	12.42	62	1399	0.47030	ppb	# 82
26) Benzene	12.55	78	5891	0.45303	ppb	95
27) TCE	13.59	95	1788	0.41865	ppb	88
28) 1,2-Dichloropropane	13.80	63	926	0.29211	ppb	# 88
29) Bromodichloromethane	14.14	83	1722	0.37967	ppb	# 89
30) Dibromomethane	14.22	93	403	0.26416	ppb	# 52
31) Cis-1,3-Dichloropropene	15.04	75	1624	0.36264	ppb	# 41
32) Toluene	15.68	92	2656	0.28606	ppb	80
33) Trans-1,3-Dichloropropene	15.84	75	1060	0.31343	ppb	97
34) 1,1,2-TCA	16.14	83	458	0.30776	ppb	# 25
37) 1,2-EDB	17.37	107	425	0.29408	ppb	# 99
38) Tetrachloroethene	16.84	164	911	0.32849	ppb	78
39) 1-Chlorohexane	17.75	91	1518	0.33693	ppb	# 74
40) 1,1,1,2-Tetrachloroethane	18.20	131	871	0.29493	ppb	# 46
41) m&p-Xylene	18.39	106	4192	0.73783	ppb	83
42) o-Xylene	19.13	106	1778	0.31981	ppb	59
43) Styrene	19.15	78	2345	0.53395	ppb	63
45) 2-Hexanone	16.13	43	120	0.25737	ppb	# 36

(#) = qualifier out of range (m) = manual integration  
 0502C04W.D C86DODW.M Sat May 07 16:29:54 2011



Data File : M:\CHICO\DATA\C110502\0502C04W.D  
 Acq On : 2 May 11 17:22  
 Sample : Vol Std 05-02-11@0.3ug/L  
 Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.52	76	1161	0.47471	ppb	89
47) Dibromochloromethane	17.01	129	896	0.39174	ppb	78
48) Chlorobenzene	18.14	112	3126	0.38541	ppb	86
49) Ethylbenzene	18.24	91	6287	0.43538	ppb	97
50) Bromoform	19.68	173	294	0.22596	ppb #	32
52) MIBK (methyl isobutyl keto	14.71	43	377	0.50182	ppb #	38
53) Isopropylbenzene	19.77	105	5989	0.41439	ppb #	87
54) 1,1,2,2-Tetrachloroethane	19.92	83	425	0.35408	ppb #	76
56) Bromobenzene	20.51	156	865	0.26010	ppb	84
57) n-Propylbenzene	20.48	91	8154	0.49270	ppb	97
58) 2-Chlorotoluene	20.76	91	5582	0.50613	ppb	96
59) 1,3,5-Trimethylbenzene	20.75	105	4670	0.41049	ppb	96
60) 4-Chlorotoluene	20.86	91	5199	0.54308	ppb	95
61) Tert-Butylbenzene	21.40	119	3919	0.32371	ppb	96
62) 1,2,4-Trimethylbenzene	21.44	105	5109	0.44363	ppb	83
63) Sec-Butylbenzene	21.79	105	6270	0.39274	ppb	97
64) p-Isopropyltoluene	22.03	119	5035	0.38888	ppb	93
65) 1,3-DCB	22.16	146	2345	0.34529	ppb	88
66) 1,4-DCB	22.33	146	2299	0.37087	ppb #	78
67) n-Butylbenzene	22.72	91	6119	0.53952	ppb #	78
68) 1,2-DCB	22.95	146	1831	0.33625	ppb	87
70) 1,2,4-Trichlorobenzene	25.61	180	619	0.33428	ppb #	68
71) Hexachlorobutadiene	25.87	223	479	0.51809	ppb #	67
72) Naphthalene	25.96	128	889	0.44233	ppb	98
73) 1,2,3-Trichlorobenzene	26.32	180	1295	0.34893	ppb #	64

Quantitation Report

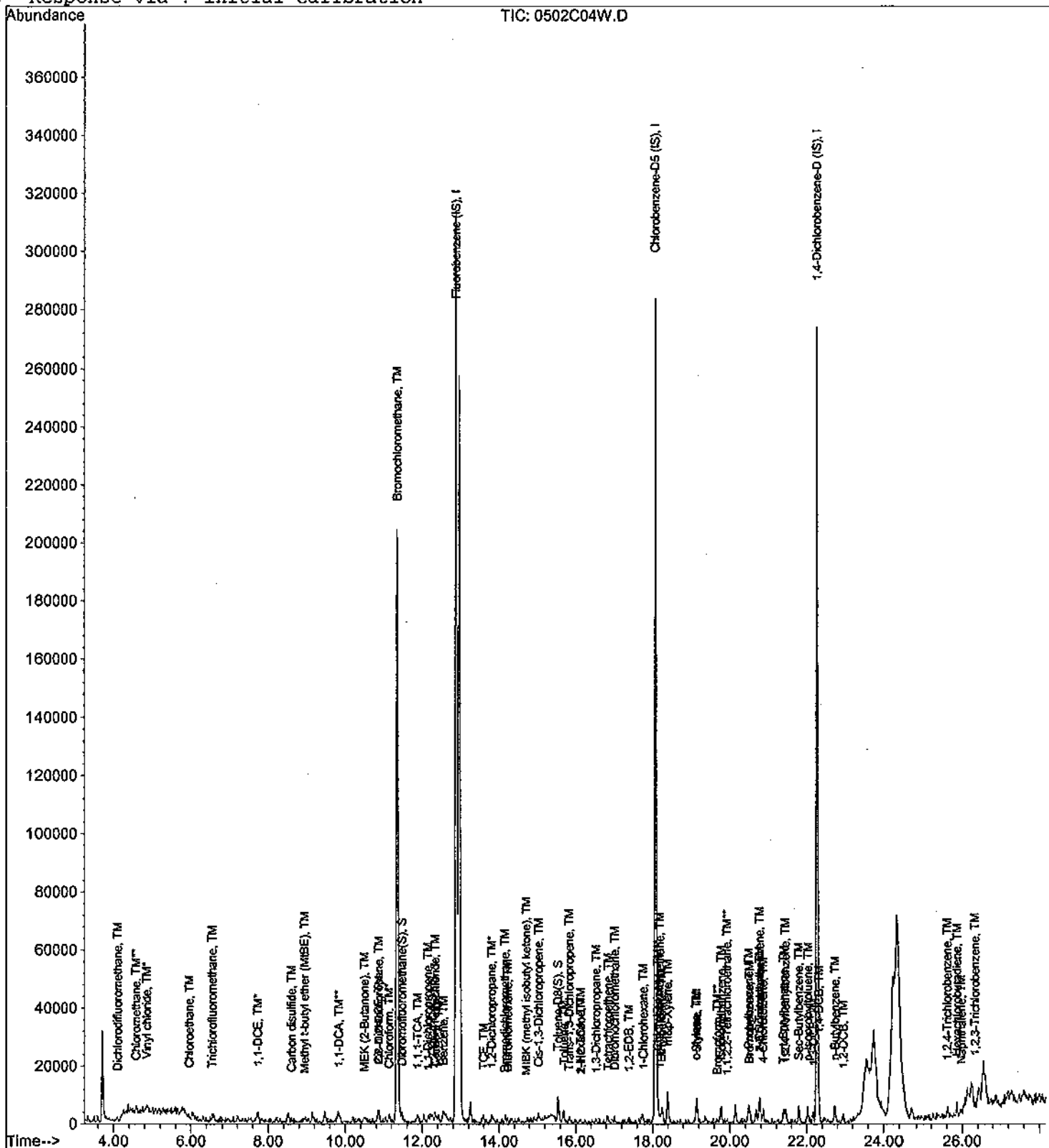
Data File : M:\CHICO\DATA\C110502\0502C04W.D  
Acq On : 2 May 11 17:22  
Sample : Vol Std 05-02-11@0.3ug/L  
Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue May 03 09:12:03 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110502\0502C05W.D  
 Acq On : 2 May 11 17:57  
 Sample : Vol Std 05-02-11@0.5ug/L  
 Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 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	137216	25.00000	ppb	-0.01
35) Chlorobenzene-D5 (IS)	18.08	117	77024	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.27	152	40440	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.47	111	4523	1.02587	ppb	0.00
Spiked Amount	23.521		Recovery	=	4.362%	
23) 1,2-DCA-D4(S)	12.27	65	4445	1.48239	ppb	0.00
Spiked Amount	22.321		Recovery	=	6.640%	
36) Toluene-D8(S)	15.54	98	13704	1.20871	ppb	0.00
Spiked Amount	26.002		Recovery	=	4.650%	
44) 4-Bromofluorobenzene(S)	20.15	95	5444	-1.24223	ppb	0.00
Spiked Amount	26.339		Recovery	=	-4.716%	
<b>Target Compounds</b>						
						Qvalue
2) Dichlorodifluoromethane	4.12	85	3467	0.70198	ppb	92
3) Chloromethane	4.60	50	5144	1.10189	ppb	97
4) Vinyl chloride	4.86	62	1275	0.97107	ppb	99
5) Bromomethane	5.77	94	580	0.06164	ppb	99
6) Chloroethane	5.96	64	1622	0.56042	ppb	# 3
7) Trichlorofluoromethane	6.57	101	4724	0.75173	ppb	87
8) Acetone	7.35	43	425	-1.96489	ppb	# 50
9) 1,1-DCE	7.72	96	2077	0.72151	ppb	88
10) Methylene chloride	8.52	84	2390	-1.05397	ppb	99
11) Carbon disulfide	8.60	76	1797	0.17829	ppb	# 46
12) Methyl t-butyl ether (MtBE)	8.95	73	2607	0.54434	ppb	# 85
13) Trans-1,2-DCE	9.15	96	2043	-0.66410	ppb	# 88
14) 1,1-DCA	9.83	63	4762	0.78720	ppb	# 70
15) MEK (2-Butanone)	10.50	43	1042	0.89978	ppb	# 76
16) Cis-1,2-DCE	10.87	96	2340	0.57025	ppb	71
17) 2,2-Dichloropropane	10.86	77	3886	0.69992	ppb	# 78
18) Chloroform	11.14	83	4561	0.71182	ppb	82
19) Bromochloromethane	11.37	128	672	0.50417	ppb	# 56
21) 1,1,1-TCA	11.87	97	5226	0.82897	ppb	97
22) 1,1-Dichloropropene	12.16	75	3386	0.80170	ppb	99
24) Carbon Tetrachloride	12.35	117	3914	0.70301	ppb	81
25) 1,2-DCA	12.43	62	2391	0.84652	ppb	# 82
26) Benzene	12.54	78	8830	0.71515	ppb	94
27) TCE	13.57	95	2757	0.67986	ppb	# 74
28) 1,2-Dichloropropane	13.81	63	2077	0.69004	ppb	# 88
29) Bromodichloromethane	14.16	83	2701	0.62718	ppb	# 96
30) Dibromomethane	14.21	93	732	0.50532	ppb	94
31) Cis-1,3-Dichloropropene	15.04	75	2349	0.55242	ppb	85
32) Toluene	15.68	92	4886	0.55421	ppb	90
33) Trans-1,3-Dichloropropene	15.85	75	2307	0.71842	ppb	90
34) 1,1,2-TCA	16.11	83	830	0.58738	ppb	# 48
37) 1,2-EDB	17.38	107	713	0.50520	ppb	# 87
38) Tetrachloroethene	16.84	164	1377	0.50843	ppb	92
39) 1-Chlorohexane	17.73	91	2649	0.60207	ppb	# 74
40) 1,1,1,2-Tetrachloroethane	18.20	131	1676	0.58113	ppb	87
41) m&p-Xylene	18.39	106	6387	1.15114	ppb	87
42) o-Xylene	19.14	106	2864	0.52751	ppb	65
43) Styrene	19.16	78	3538	0.82492	ppb	86
45) 2-Hexanone	16.15	43	244	0.53587	ppb	# 36

(#) = qualifier out of range (m) = manual integration  
 0502C05W.D C86DODW.M Sat May 07 16:30:01 2011

Data File : M:\CHICO\DATA\C110502\0502C05W.D Vial: 1  
 Acq On : 2 May 11 17:57 Operator: RS  
 Sample : Vol Std 05-02-11@0.5ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 05-02-11 Multiplr: 1.00

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.52	76	1748	0.73187	ppb	97
47) Dibromochloromethane	17.01	129	1243	0.55649	ppb	80
48) Chlorobenzene	18.14	112	4477	0.56522	ppb	98
49) Ethylbenzene	18.26	91	10895	0.77260	ppb	86
50) Bromoform	19.67	173	433	0.34078	ppb #	32
52) MIBK (methyl isobutyl keto	14.72	43	559	0.74158	ppb #	38
53) Isopropylbenzene	19.77	105	9747	0.67214	ppb	98
54) 1,1,2,2-Tetrachloroethane	19.93	83	809	0.67173	ppb #	87
55) 1,2,3-Trichloropropane	20.21	110	69	0.18420	ppb #	3
56) Bromobenzene	20.51	156	1670	0.50046	ppb	80
57) n-Propylbenzene	20.47	91	11450	0.68953	ppb	95
58) 2-Chlorotoluene	20.76	91	8704	0.78655	ppb	89
59) 1,3,5-Trimethylbenzene	20.75	105	8051	0.70529	ppb	88
60) 4-Chlorotoluene	20.85	91	7113	0.74051	ppb	86
61) Tert-Butylbenzene	21.40	119	6562	0.54020	ppb #	79
62) 1,2,4-Trimethylbenzene	21.45	105	7799	0.67493	ppb	89
63) Sec-Butylbenzene	21.79	105	9929	0.61985	ppb	96
64) p-Isopropyltoluene	22.03	119	7137	0.54938	ppb #	85
65) 1,3-DCB	22.16	146	3102	0.45522	ppb	81
66) 1,4-DCB	22.34	146	3171	0.50982	ppb #	77
67) n-Butylbenzene	22.74	91	8400	0.73815	ppb #	81
68) 1,2-DCB	22.96	146	2595	0.47496	ppb	90
70) 1,2,4-Trichlorobenzene	25.62	180	946	0.50915	ppb #	82
71) Hexachlorobutadiene	25.86	223	547	0.58965	ppb	92
72) Naphthalene	25.96	128	1336	0.66250	ppb	92
73) 1,2,3-Trichlorobenzene	26.31	180	1717	0.46109	ppb #	43

Quantitation Report

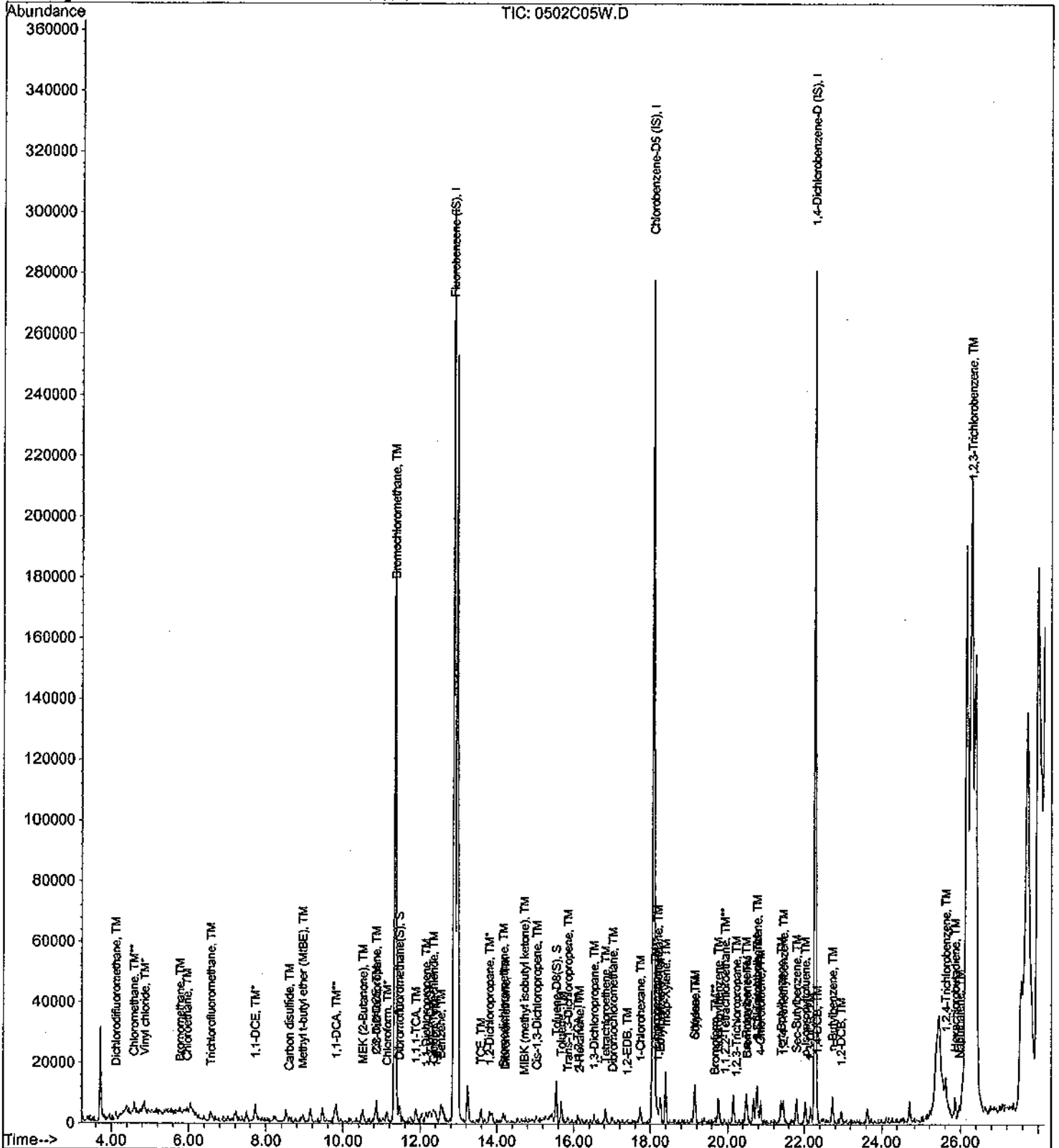
Data File : M:\CHICO\DATA\C110502\0502C05W.D  
Acq On : 2 May 11 17:57  
Sample : Vol Std 05-02-11@0.5ug/L  
Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86D0DW.RES

Method : M:\CHICO\DATA\C110502\C86D0DW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue May 03 09:12:03 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110502\0502C06W.D Vial: 1  
 Acq On : 2 May 11 18:33 Operator: RS  
 Sample : Vol Std 05-02-11@1.0ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 05-02-11 Multiplr: 1.00

Quant Time: May 3 9:07 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	12.89	96	139328	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.08	117	79320	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.27	152	44528	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.48	111	8697	1.94268	ppb	0.00
Spiked Amount	23.521		Recovery	=	8.261%	
23) 1,2-DCA-D4 (S)	12.28	65	8270	2.71620	ppb	0.00
Spiked Amount	22.321		Recovery	=	12.168%	
36) Toluene-D8 (S)	15.54	98	25834	2.21263	ppb	0.00
Spiked Amount	26.002		Recovery	=	8.511%	
44) 4-Bromofluorobenzene(S)	20.15	95	10524	0.14049	ppb	0.00
Spiked Amount	26.339		Recovery	=	0.532%	
Target Compounds						
2) Dichlorodifluoromethane	4.12	85	6803	1.35656	ppb	96
3) Chloromethane	4.59	50	8789	1.85414	ppb	93
4) Vinyl chloride	4.86	62	2320	1.74018	ppb	88
5) Bromomethane	5.78	94	986	0.41377	ppb	82
6) Chloroethane	5.96	64	3422	1.16441	ppb	97
7) Trichlorofluoromethane	6.56	101	9022	1.41392	ppb	94
8) Acetone	7.33	43	1137	1.18840	ppb	# 50
9) 1,1-DCE	7.73	96	4209	1.43997	ppb	98
11) Carbon disulfide	8.61	76	3628	0.35450	ppb	# 76
12) Methyl t-butyl ether (MtBE)	8.95	73	5953	1.22413	ppb	# 79
13) Trans-1,2-DCE	9.16	96	4774	0.25355	ppb	70
14) 1,1-DCA	9.84	63	8714	1.41866	ppb	# 96
15) MEK (2-Butanone)	10.50	43	1966	1.67194	ppb	# 76
16) Cis-1,2-DCE	10.86	96	4153	0.99672	ppb	87
17) 2,2-Dichloropropane	10.86	77	8350	1.48114	ppb	94
18) Chloroform	11.15	83	9379	1.44156	ppb	# 71
19) Bromochloromethane	11.36	128	1358	1.00339	ppb	# 78
21) 1,1,1-TCA	11.88	97	9751	1.52330	ppb	# 79
22) 1,1-Dichloropropene	12.17	75	6704	1.56325	ppb	92
24) Carbon Tetrachloride	12.34	117	7415	1.31165	ppb	# 71
25) 1,2-DCA	12.43	62	5069	1.76746	ppb	# 82
26) Benzene	12.55	78	16146	1.28786	ppb	97
27) TCE	13.58	95	5076	1.23274	ppb	90
28) 1,2-Dichloropropane	13.81	63	3578	1.17070	ppb	# 88
29) Bromodichloromethane	14.17	83	5420	1.23946	ppb	# 86
30) Dibromomethane	14.21	93	1635	1.11158	ppb	# 83
31) Cis-1,3-Dichloropropene	15.04	75	5214	1.20760	ppb	91
32) Toluene	15.68	92	8995	1.00483	ppb	95
33) Trans-1,3-Dichloropropene	15.83	75	4176	1.28073	ppb	92
34) 1,1,2-TCA	16.11	83	1408	0.98133	ppb	# 57
37) 1,2-EDB	17.37	107	1676	1.15316	ppb	# 85
38) Tetrachloroethene	16.84	164	3096	1.11005	ppb	# 77
39) 1-Chlorohexane	17.75	91	4895	1.08034	ppb	85
40) 1,1,1,2-Tetrachloroethane	18.20	131	3272	1.10169	ppb	91
41) m&p-Xylene	18.40	106	13602	2.38056	ppb	93
42) o-Xylene	19.14	106	6123	1.09512	ppb	100
43) Styrene	19.16	78	7003	1.58556	ppb	88
45) 2-Hexanone	16.15	43	1013	2.16033	ppb	# 68
46) 1,3-Dichloropropane	16.54	76	3630	1.47586	ppb	99

(#) = qualifier out of range (m) = manual integration  
 0502C06W.D C86DODW.M Sat May 07 16:30:06 2011

Data File : M:\CHICO\DATA\C110502\0502C06W.D  
 Acq On : 2 May 11 18:33  
 Sample : Vol Std 05-02-11@1.0ug/L  
 Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
47) Dibromochloromethane	17.01	129	2967	1.28987	ppb	# 65
48) Chlorobenzene	18.14	112	8568	1.05040	ppb	97
49) Ethylbenzene	18.26	91	21237	1.46239	ppb	95
50) Bromoform	19.67	173	1397	1.06764	ppb	81
52) MIBK (methyl isobutyl keto)	14.71	43	1171	1.41085	ppb	82
53) Isopropylbenzene	19.77	105	19436	1.21724	ppb	92
54) 1,1,2,2-Tetrachloroethane	19.93	83	1437	1.08364	ppb	# 75
55) 1,2,3-Trichloropropane	20.18	110	410	0.99405	ppb	# 59
56) Bromobenzene	20.51	156	3421	0.93108	ppb	97
57) n-Propylbenzene	20.47	91	23839	1.30381	ppb	95
58) 2-Chlorotoluene	20.77	91	16916	1.38830	ppb	92
59) 1,3,5-Trimethylbenzene	20.75	105	15738	1.25212	ppb	83
60) 4-Chlorotoluene	20.86	91	13932	1.31726	ppb	97
61) Tert-Butylbenzene	21.39	119	13717	1.02555	ppb	83
62) 1,2,4-Trimethylbenzene	21.45	105	16199	1.27317	ppb	100
63) Sec-Butylbenzene	21.79	105	19392	1.09946	ppb	97
64) p-Isopropyltoluene	22.03	119	13965	0.97628	ppb	94
65) 1,3-DCB	22.16	146	6657	0.88722	ppb	86
66) 1,4-DCB	22.32	146	6739	0.98401	ppb	87
67) n-Butylbenzene	22.73	91	14749	1.17709	ppb	93
68) 1,2-DCB	22.96	146	5331	0.88614	ppb	88
69) 1,2-Dibromo-3-chloropropan	24.16	157	60	0.17411	ppb	# 20
70) 1,2,4-Trichlorobenzene	25.61	180	2208	1.07927	ppb	# 75
71) Hexachlorobutadiene	25.87	223	1028	1.00641	ppb	80
72) Naphthalene	25.96	128	2216	0.99800	ppb	98
73) 1,2,3-Trichlorobenzene	26.33	180	3432	0.83702	ppb	87

Quantitation Report

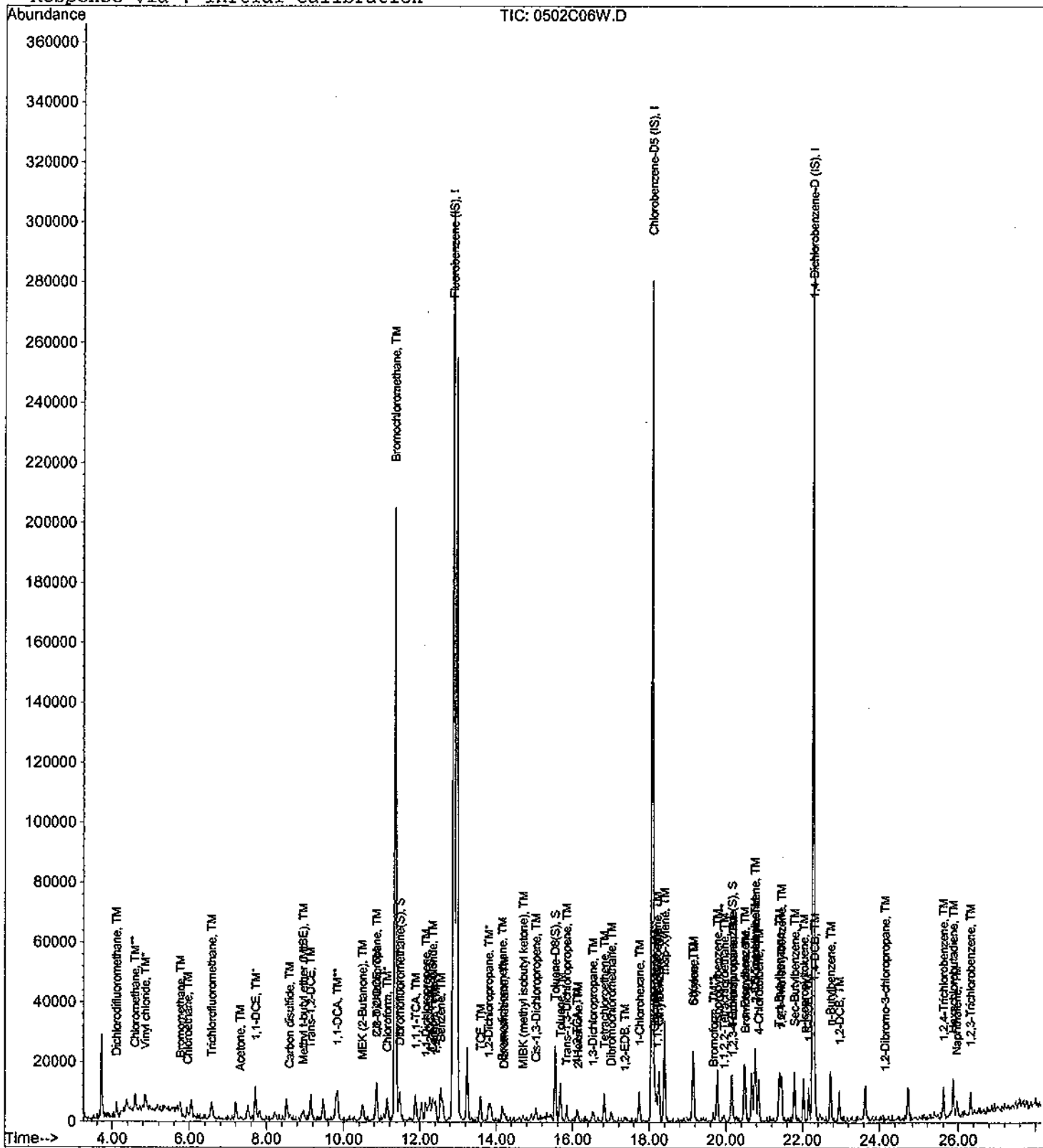
Data File : M:\CHICO\DATA\C110502\0502C06W.D  
Acq On : 2 May 11 18:33  
Sample : Vol Std 05-02-11@1.0ug/L  
Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue May 03 09:12:03 2011  
Response via : Initial Calibration





Data File : M:\CHICO\DATA\C110502\0502C07W.D  
 Acq On : 2 May 11 19:08  
 Sample : Vol Std 05-02-11@2.0ug/L  
 Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.89	96	136768	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.08	117	79288	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.27	152	42952	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.48	111	15918	3.62221	ppb	0.00
Spiked Amount	23.521		Recovery	=	15.399%	
23) 1,2-DCA-D4(S)	12.28	65	17059	5.70774	ppb	0.00
Spiked Amount	22.321		Recovery	=	25.573%	
36) Toluene-D8(S)	15.54	98	50270	4.30726	ppb	0.00
Spiked Amount	26.002		Recovery	=	16.564%	
44) 4-Bromofluorobenzene(S)	20.15	95	20181	2.85806	ppb	0.00
Spiked Amount	26.339		Recovery	=	10.851%	
Target Compounds						
2) Dichlorodifluoromethane	4.12	85	14190	2.88254	ppb	Qvalue 93
3) Chloromethane	4.60	50	15992	3.43684	ppb	97
4) Vinyl chloride	4.86	62	3490	2.66678	ppb	# 62
5) Bromomethane	5.77	94	2167	1.49710	ppb	99
6) Chloroethane	5.96	64	7469	2.58906	ppb	84
7) Trichlorofluoromethane	6.57	101	18973	3.02908	ppb	97
8) Acetone	7.34	43	1455	2.73155	ppb	# 50
9) 1,1-DCE	7.73	96	8071	2.81291	ppb	92
10) Methylene chloride	8.53	84	7745	1.18952	ppb	# 75
11) Carbon disulfide	8.62	76	7606	0.75710	ppb	# 79
12) Methyl t-butyl ether (MtBE)	8.95	73	11931	2.49933	ppb	# 87
13) Trans-1,2-DCE	9.16	96	8029	1.41109	ppb	95
14) 1,1-DCA	9.85	63	17945	2.97617	ppb	# 91
15) MEK (2-Butanone)	10.50	43	2890	2.50373	ppb	# 76
16) Cis-1,2-DCE	10.86	96	8656	2.11633	ppb	92
17) 2,2-Dichloropropane	10.86	77	15441	2.79022	ppb	98
18) Chloroform	11.14	83	17421	2.72774	ppb	99
19) Bromochloromethane	11.37	128	2361	1.77714	ppb	83
21) 1,1,1-TCA	11.88	97	18374	2.92412	ppb	95
22) 1,1-Dichloropropene	12.16	75	12985	3.08453	ppb	91
24) Carbon Tetrachloride	12.34	117	17022	3.06740	ppb	93
25) 1,2-DCA	12.43	62	10421	3.70160	ppb	# 91
26) Benzene	12.54	78	30351	2.46621	ppb	97
27) TCE	13.58	95	10707	2.64894	ppb	89
28) 1,2-Dichloropropane	13.81	63	6956	2.31856	ppb	# 88
29) Bromodichloromethane	14.16	83	10494	2.44472	ppb	87
30) Dibromomethane	14.23	93	3691	2.55636	ppb	82
31) Cis-1,3-Dichloropropene	15.05	75	9909	2.33795	ppb	94
32) Toluene	15.68	92	19010	2.16334	ppb	93
33) Trans-1,3-Dichloropropene	15.85	75	7419	2.31791	ppb	93
34) 1,1,2-TCA	16.13	83	3035	2.15488	ppb	87
37) 1,2-EDB	17.37	107	3851	2.65072	ppb	# 71
38) Tetrachloroethene	16.83	164	5476	1.96417	ppb	86
39) 1-Chlorohexane	17.76	91	9371	2.06904	ppb	82
40) 1,1,1,2-Tetrachloroethane	18.20	131	6847	2.30633	ppb	91
41) m&p-Xylene	18.40	106	24749	4.33320	ppb	100
42) o-Xylene	19.14	106	11942	2.13674	ppb	87
43) Styrene	19.16	78	13189	2.98735	ppb	71
45) 2-Hexanone	16.14	43	1554	3.31540	ppb	83

(#) = qualifier out of range (m) = manual integration  
 0502C07W.D C86DODW.M Sat May 07 16:30:14 2011

Data File : M:\CHICO\DATA\C110502\0502C07W.D  
 Acq On : 2 May 11 19:08  
 Sample : Vol Std 05-02-11@2.0ug/L  
 Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.54	76	7262	2.95372	ppb	90
47) Dibromochloromethane	17.01	129	5373	2.33679	ppb	87
48) Chlorobenzene	18.14	112	17361	2.12923	ppb	97
49) Ethylbenzene	18.26	91	40424	2.78473	ppb	89
50) Bromoform	19.68	173	2224	1.70034	ppb	82
52) MIBK (methyl isobutyl keto	14.72	43	2699	3.37114	ppb	94
53) Isopropylbenzene	19.78	105	37563	2.43882	ppb	98
54) 1,1,2,2-Tetrachloroethane	19.92	83	3345	2.61501	ppb #	64
55) 1,2,3-Trichloropropane	20.18	110	943	2.37021	ppb	91
56) Bromobenzene	20.50	156	7306	2.06140	ppb	84
57) n-Propylbenzene	20.48	91	46150	2.61667	ppb	96
58) 2-Chlorotoluene	20.77	91	33708	2.86793	ppb	90
59) 1,3,5-Trimethylbenzene	20.75	105	30396	2.50706	ppb	99
60) 4-Chlorotoluene	20.85	91	27791	2.72403	ppb	85
61) Tert-Butylbenzene	21.39	119	26147	2.02660	ppb	96
62) 1,2,4-Trimethylbenzene	21.45	105	30634	2.49604	ppb	98
63) Sec-Butylbenzene	21.79	105	38376	2.25562	ppb	98
64) p-Isopropyltoluene	22.02	119	27655	2.00427	ppb	97
65) 1,3-DCB	22.16	146	13287	1.83582	ppb	95
66) 1,4-DCB	22.33	146	12745	1.92927	ppb	89
67) n-Butylbenzene	22.73	91	29800	2.46554	ppb	91
68) 1,2-DCB	22.96	146	10288	1.77286	ppb	92
69) 1,2-Dibromo-3-chloropropan	24.16	157	399	1.20034	ppb	96
70) 1,2,4-Trichlorobenzene	25.61	180	3039	1.53997	ppb	98
71) Hexachlorobutadiene	25.86	223	1512	1.53456	ppb	94
72) Naphthalene	25.97	128	3667	1.71207	ppb	95
73) 1,2,3-Trichlorobenzene	26.33	180	6238	1.57719	ppb	96

Quantitation Report

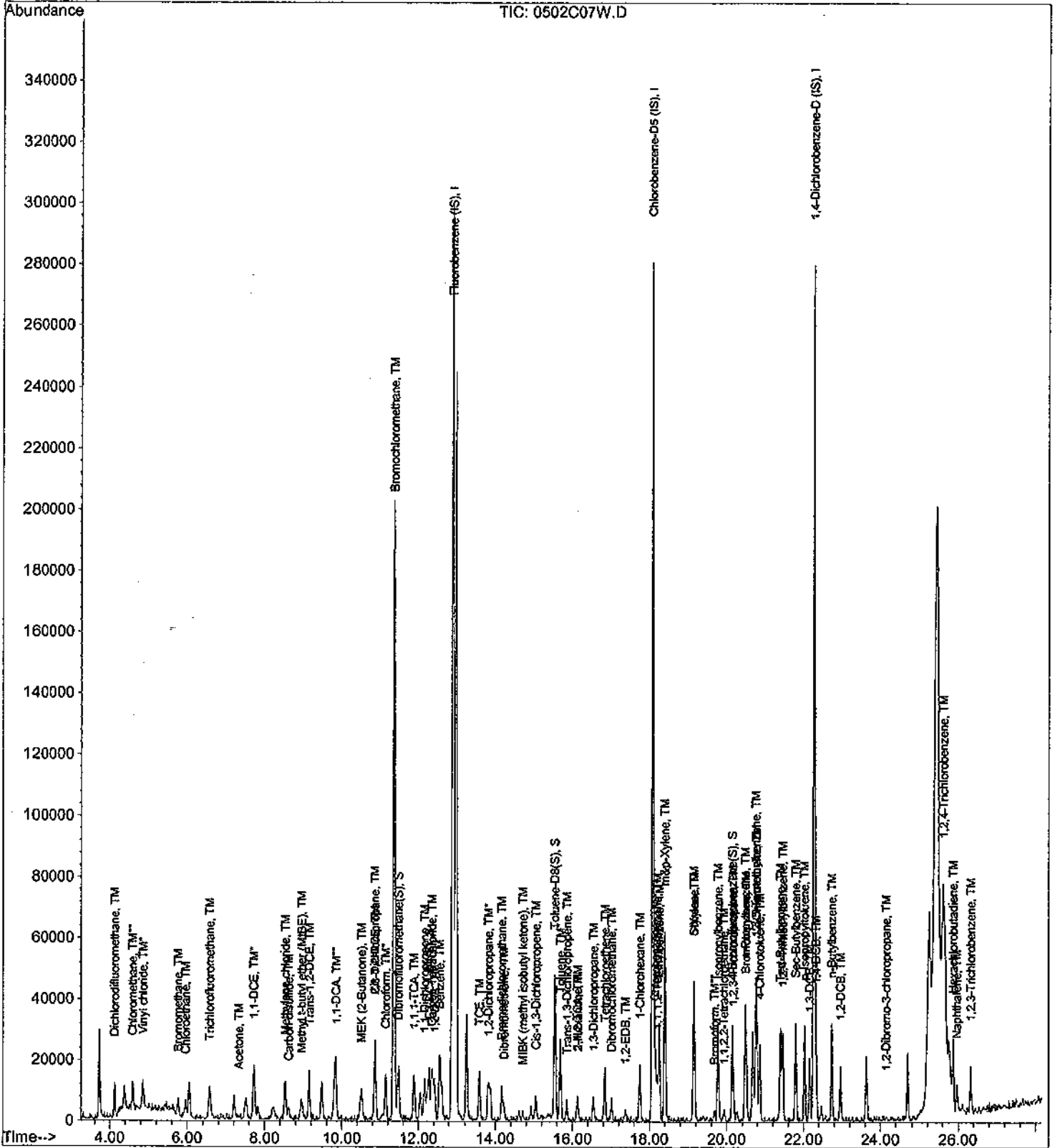
Data File : M:\CHICO\DATA\C110502\0502C07W.D  
Acq On : 2 May 11 19:08  
Sample : Vol Std 05-02-11@2.0ug/L  
Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue May 03 09:12:03 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110502\0502C08W.D  
 Acq On : 2 May 11 19:43  
 Sample : Vol Std 05-02-11@5.0ug/L  
 Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.89	96	130648	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.08	117	75504	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.28	152	42480	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.47	111	42154	10.04167	ppb	0.00
Spiked Amount	23.521		Recovery	=	42.695%	
23) 1,2-DCA-D4(S)	12.28	65	41730	14.61642	ppb	0.00
Spiked Amount	22.321		Recovery	=	65.482%	
36) Toluene-D8(S)	15.55	98	132975	11.96464	ppb	0.00
Spiked Amount	26.002		Recovery	=	46.016%	
44) 4-Bromofluorobenzene(S)	20.15	95	52073	12.56288	ppb	0.00
Spiked Amount	26.339		Recovery	=	47.698%	
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	4.11	85	32614	6.93551	ppb	93
3) Chloromethane	4.60	50	40001	8.99930	ppb	97
4) Vinyl chloride	4.86	62	9355	7.48319	ppb	98
5) Bromomethane	5.77	94	5895	5.11458	ppb	88
6) Chloroethane	5.95	64	16586	6.01871	ppb	97
7) Trichlorofluoromethane	6.57	101	44553	7.44617	ppb	89
8) Acetone	7.32	43	2936	10.10157	ppb	# 73
9) 1,1-DCE	7.73	96	19113	6.97330	ppb	96
10) Methylene chloride	8.51	84	19700	6.57687	ppb	99
11) Carbon disulfide	8.61	76	17562	1.83001	ppb	# 86
12) Methyl t-butyl ether (MtBE)	8.95	73	29408	6.44902	ppb	# 90
13) Trans-1,2-DCE	9.15	96	21880	6.56242	ppb	96
14) 1,1-DCA	9.84	63	44291	7.68973	ppb	97
15) MEK (2-Butanone)	10.48	43	8202	7.43861	ppb	100
16) Cis-1,2-DCE	10.86	96	22089	5.65359	ppb	99
17) 2,2-Dichloropropane	10.86	77	37944	7.17774	ppb	90
18) Chloroform	11.14	83	42691	6.99759	ppb	100
19) Bromochloromethane	11.37	128	5888	4.63954	ppb	# 74
21) 1,1,1-TCA	11.89	97	45193	7.52912	ppb	97
22) 1,1-Dichloropropene	12.16	75	30520	7.58951	ppb	96
24) Carbon Tetrachloride	12.34	117	38573	7.27654	ppb	99
25) 1,2-DCA	12.42	62	23653	8.79525	ppb	99
26) Benzene	12.55	78	78816	6.70430	ppb	96
27) TCE	13.58	95	24494	6.34374	ppb	95
28) 1,2-Dichloropropane	13.81	63	17592	6.13842	ppb	98
29) Bromodichloromethane	14.16	83	28284	6.89779	ppb	# 91
30) Dibromomethane	14.22	93	9663	7.00603	ppb	86
31) Cis-1,3-Dichloropropene	15.04	75	27098	6.69304	ppb	85
32) Toluene	15.68	92	47888	5.70495	ppb	94
33) Trans-1,3-Dichloropropene	15.84	75	20989	6.86476	ppb	99
34) 1,1,2-TCA	16.12	83	8409	6.25016	ppb	95
37) 1,2-EDB	17.37	107	9173	6.63039	ppb	# 98
38) Tetrachloroethene	16.83	164	14204	5.35013	ppb	91
39) 1-Chlorohexane	17.75	91	24057	5.57780	ppb	83
40) 1,1,1,2-Tetrachloroethane	18.20	131	17353	6.13808	ppb	91
41) m&p-Xylene	18.40	106	64826	11.91895	ppb	99
42) o-Xylene	19.14	106	32004	6.01334	ppb	89
43) Styrene	19.15	78	34277	8.15294	ppb	76
45) 2-Hexanone	16.16	43	3863	8.65460	ppb	99

(#) = qualifier out of range (m) = manual integration  
 0502C08W.D C86DODW.M Sat May 07 16:30:21 2011

Data File : M:\CHICO\DATA\C110502\0502C08W.D Vial: 1  
 Acq On : 2 May 11 19:43 Operator: RS  
 Sample : Vol Std 05-02-11@5.0ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 05-02-11 Multiplr: 1.00

Quant Time: May 3 9:07.2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.54	76	18271	7.80392	ppb	86
47) Dibromochloromethane	17.02	129	14053	6.41814	ppb	100
48) Chlorobenzene	18.15	112	41214	5.30800	ppb	89
49) Ethylbenzene	18.25	91	100972	7.30437	ppb	93
50) Bromoform	19.68	173	6157	4.94320	ppb	99
52) MIBK (methyl isobutyl keto)	14.70	43	5516	6.96622	ppb	95
53) Isopropylbenzene	19.77	105	97046	6.37083	ppb	98
54) 1,1,2,2-Tetrachloroethane	19.94	83	7423	5.86752	ppb	# 77
55) 1,2,3-Trichloropropane	20.19	110	2857	7.26079	ppb	87
56) Bromobenzene	20.52	156	17204	4.90807	ppb	91
57) n-Propylbenzene	20.48	91	116412	6.67380	ppb	95
58) 2-Chlorotoluene	20.77	91	84267	7.24924	ppb	96
59) 1,3,5-Trimethylbenzene	20.75	105	79174	6.60281	ppb	98
60) 4-Chlorotoluene	20.86	91	70959	7.03257	ppb	94
61) Tert-Butylbenzene	21.40	119	67099	5.25850	ppb	92
62) 1,2,4-Trimethylbenzene	21.46	105	80838	6.65981	ppb	96
63) Sec-Butylbenzene	21.80	105	97661	5.80399	ppb	97
64) p-Isopropyltoluene	22.03	119	71532	5.24181	ppb	98
65) 1,3-DCB	22.16	146	35550	4.96639	ppb	95
66) 1,4-DCB	22.33	146	33243	5.08805	ppb	95
67) n-Butylbenzene	22.73	91	76413	6.39236	ppb	98
68) 1,2-DCB	22.97	146	29306	5.10622	ppb	99
69) 1,2-Dibromo-3-chloropropan	24.18	157	1226	3.72923	ppb	# 48
70) 1,2,4-Trichlorobenzene	25.62	180	8347	4.27672	ppb	94
71) Hexachlorobutadiene	25.87	223	3788	3.88723	ppb	79
72) Naphthalene	25.96	128	10478	4.94638	ppb	95
73) 1,2,3-Trichlorobenzene	26.32	180	17207	4.39889	ppb	92

Quantitation Report

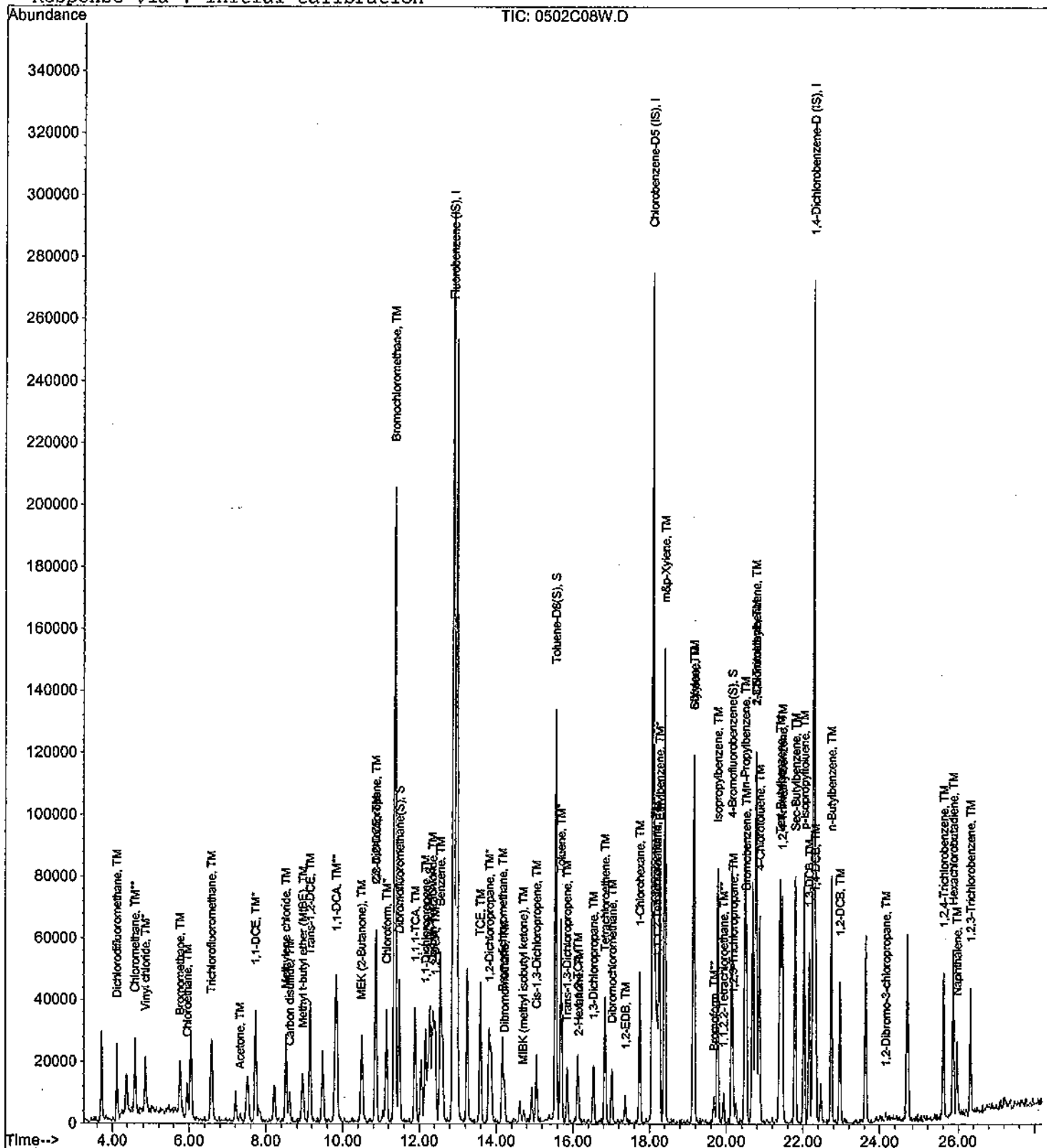
Data File : M:\CHICO\DATA\C110502\0502C08W.D  
 Acq On : 2 May 11 19:43  
 Sample : Vol Std 05-02-11@5.0ug/L  
 Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:12:03 2011  
 Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110502\0502C09W.D Vial: 1  
 Acq On : 2 May 11 20:19 Operator: RS  
 Sample : Vol Std 05-02-11@10ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 05-02-11 Multiplr: 1.00

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.89	96	134080	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.08	117	78120	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.27	152	42752	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.47	111	101618	23.58722	ppb	0.00
Spiked Amount	23.521		Recovery	=	100.283%	
23) 1,2-DCA-D4(S)	12.27	65	100810	34.40606	ppb	0.00
Spiked Amount	22.321		Recovery	=	154.145%	
36) Toluene-D8(S)	15.54	98	332532	28.91818	ppb	0.00
Spiked Amount	26.002		Recovery	=	111.215%	
44) 4-Bromofluorobenzene(S)	20.15	95	131807	34.81114	ppb	0.00
Spiked Amount	26.339		Recovery	=	132.168%	
Target Compounds						
2) Dichlorodifluoromethane	4.12	85	71529	14.82161	ppb	Qvalue 100
3) Chloromethane	4.59	50	73933	16.20746	ppb	100
4) Vinyl chloride	4.85	62	19632	15.30193	ppb	100
5) Bromomethane	5.77	94	13337	11.83002	ppb	100
6) Chloroethane	5.96	64	34080	12.05037	ppb	100
7) Trichlorofluoromethane	6.57	101	98470	16.03611	ppb	100
8) Acetone	7.34	43	4860	18.67994	ppb	100
9) 1,1-DCE	7.73	96	39614	14.08306	ppb	100
10) Methylene chloride	8.52	84	38888	14.54413	ppb	100
11) Carbon disulfide	8.61	76	37480	3.80555	ppb	100
12) Methyl t-butyl ether (MtBE)	8.94	73	61834	13.21278	ppb	100
13) Trans-1,2-DCE	9.15	96	46731	15.13749	ppb	100
14) 1,1-DCA	9.84	63	89005	15.05736	ppb	100
15) MEK (2-Butanone)	10.47	43	16862	14.90115	ppb	100
16) Cis-1,2-DCE	10.86	96	47018	11.72604	ppb	100
17) 2,2-Dichloropropane	10.86	77	78862	14.53621	ppb	100
18) Chloroform	11.14	83	90274	14.41829	ppb	100
19) Bromochloromethane	11.36	128	12773	9.80706	ppb	100
21) 1,1,1-TCA	11.89	97	93863	15.23724	ppb	100
22) 1,1-Dichloropropene	12.16	75	69281	16.78734	ppb	100
24) Carbon Tetrachloride	12.34	117	85176	15.65661	ppb	100
25) 1,2-DCA	12.43	62	48535	17.58554	ppb	100
26) Benzene	12.55	78	164265	13.61516	ppb	100
27) TCE	13.58	95	54332	13.71134	ppb	100
28) 1,2-Dichloropropane	13.81	63	38310	13.02543	ppb	100
29) Bromodichloromethane	14.16	83	58218	13.83455	ppb	100
30) Dibromomethane	14.22	93	19009	13.42944	ppb	100
31) Cis-1,3-Dichloropropene	15.05	75	54082	13.01601	ppb	100
32) Toluene	15.68	92	99724	11.57613	ppb	100
33) Trans-1,3-Dichloropropene	15.84	75	43445	13.84561	ppb	100
34) 1,1,2-TCA	16.12	83	16653	12.06085	ppb	100
37) 1,2-EDB	17.37	107	18589	12.98649	ppb	100
38) Tetrachloroethene	16.84	164	29206	10.63246	ppb	100
39) 1-Chlorohexane	17.75	91	52918	11.85858	ppb	100
40) 1,1,1,2-Tetrachloroethane	18.20	131	37218	12.72385	ppb	100
41) m&p-Xylene	18.40	106	137337	24.40529	ppb	100
42) o-Xylene	19.14	106	65705	11.93211	ppb	100
43) Styrene	19.16	78	70932	16.30652	ppb	100
45) 2-Hexanone	16.14	43	8598	18.61777	ppb	100

(#) = qualifier out of range (m) = manual integration  
 0502C09W.D C86DODW.M Sat May 07 16:30:27 2011

Data File : M:\CHICO\DATA\C110502\0502C09W.D  
 Acq On : 2 May 11 20:19  
 Sample : Vol Std 05-02-11@10ug/L  
 Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.54	76	38437	15.86746	ppb	100
47) Dibromochloromethane	17.01	129	30404	13.42080	ppb	100
48) Chlorobenzene	18.14	112	91193	11.35156	ppb	100
49) Ethylbenzene	18.26	91	213618	14.93576	ppb	100
50) Bromoform	19.67	173	14210	11.02659	ppb	100
52) MIBK (methyl isobutyl keto	14.72	43	13262	16.64217	ppb	100
53) Isopropylbenzene	19.77	105	206115	13.44484	ppb	100
54) 1,1,2,2-Tetrachloroethane	19.93	83	17700	13.90198	ppb	100
55) 1,2,3-Trichloropropane	20.20	110	5475	13.82567	ppb	100
56) Bromobenzene	20.51	156	35913	10.18031	ppb	100
57) n-Propylbenzene	20.48	91	256946	14.63678	ppb	100
58) 2-Chlorotoluene	20.78	91	176243	15.06520	ppb	100
59) 1,3,5-Trimethylbenzene	20.76	105	163852	13.57770	ppb	100
60) 4-Chlorotoluene	20.85	91	151585	14.92764	ppb	100
61) Tert-Butylbenzene	21.39	119	148676	11.57749	ppb	100
62) 1,2,4-Trimethylbenzene	21.45	105	166039	13.59204	ppb	100
63) Sec-Butylbenzene	21.79	105	216645	12.79328	ppb	100
64) p-Isopropyltoluene	22.02	119	156069	11.36386	ppb	100
65) 1,3-DCB	22.17	146	72931	10.12376	ppb	100
66) 1,4-DCB	22.33	146	70838	10.77322	ppb	100
67) n-Butylbenzene	22.73	91	168453	14.00236	ppb	100
68) 1,2-DCB	22.96	146	60972	10.55605	ppb	100
69) 1,2-Dibromo-3-chloropropan	24.18	157	3627	10.96237	ppb	100
70) 1,2,4-Trichlorobenzene	25.61	180	16228	8.26178	ppb	100
71) Hexachlorobutadiene	25.87	223	8720	8.89150	ppb	100
72) Naphthalene	25.97	128	20992	9.84670	ppb	100
73) 1,2,3-Trichlorobenzene	26.33	180	34393	8.73647	ppb	100



Quantitation Report

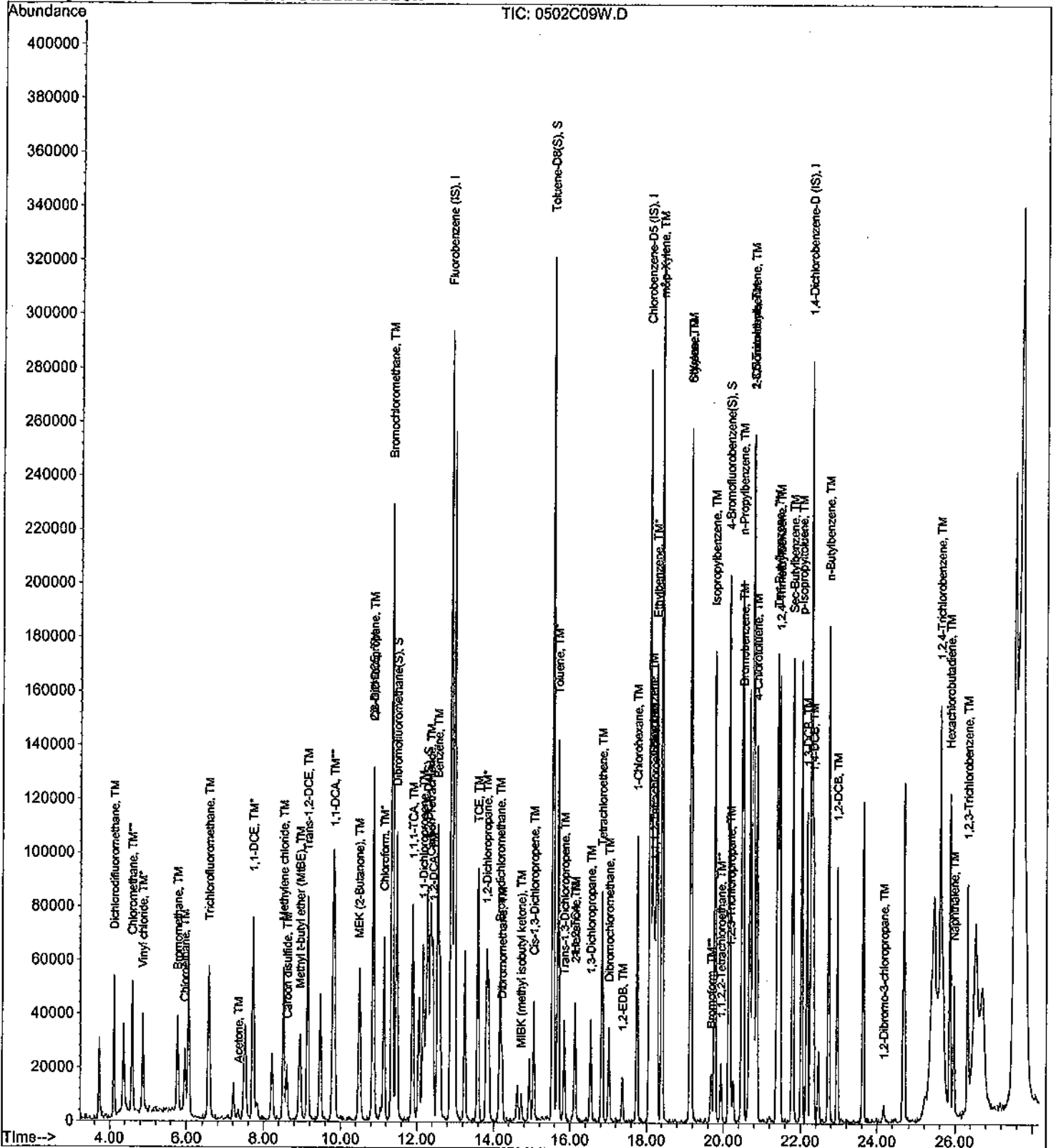
Data File : M:\CHICO\DATA\C110502\0502C09W.D  
 Acq On : 2 May 11 20:19  
 Sample : Vol Std 05-02-11@10ug/L  
 Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:12:03 2011  
 Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110502\0502C10W.D  
 Acq On : 2 May 11 20:54  
 Sample : Vol Std 05-02-11@20ug/L  
 Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.89	96	149952	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.08	117	85928	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.28	152	48496	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.47	111	175959	36.51988	ppb	0.00
Spiked Amount	23.521		Recovery	= 155.269%		
23) 1,2-DCA-D4(S)	12.27	65	168208	51.33217	ppb	0.00
Spiked Amount	22.321		Recovery	= 229.976%		
36) Toluene-D8(S)	15.54	98	554578	43.84577	ppb	0.00
Spiked Amount	26.002		Recovery	= 168.627%		
44) 4-Bromofluorobenzene(S)	20.15	95	227506	56.23045	ppb	0.00
Spiked Amount	26.339		Recovery	= 213.490%		
Target Compounds						
2) Dichlorodifluoromethane	4.12	85	170096	31.51512	ppb	Qvalue 99
3) Chloromethane	4.59	50	151702	29.73581	ppb	96
4) Vinyl chloride	4.85	62	39936	27.83287	ppb	99
5) Bromomethane	5.77	94	25280	20.37017	ppb	81
6) Chloroethane	5.96	64	72421	22.89691	ppb	92
7) Trichlorofluoromethane	6.58	101	190876	27.79445	ppb	97
8) Acetone	7.33	43	9382	35.07120	ppb	# 70
9) 1,1-DCE	7.73	96	86573	27.51963	ppb	96
10) Methylene chloride	8.53	84	78797	28.01538	ppb	87
11) Carbon disulfide	8.61	76	79655	7.23174	ppb	96
12) Methyl t-butyl ether (MtBE)	8.95	73	127844	24.42637	ppb	98
13) Trans-1,2-DCE	9.15	96	95244	28.71267	ppb	97
14) 1,1-DCA	9.84	63	180156	27.25179	ppb	99
15) MEK (2-Butanone)	10.48	43	36472	28.81921	ppb	98
16) Cis-1,2-DCE	10.86	96	96545	21.52925	ppb	97
17) 2,2-Dichloropropane	10.86	77	158546	26.13066	ppb	96
18) Chloroform	11.15	83	182460	26.05737	ppb	93
19) Bromochloromethane	11.36	128	28615	19.64498	ppb	94
21) 1,1,1-TCA	11.89	97	196768	28.56131	ppb	98
22) 1,1-Dichloropropene	12.16	75	139865	30.30321	ppb	98
24) Carbon Tetrachloride	12.35	117	171050	28.11353	ppb	96
25) 1,2-DCA	12.43	62	99276	32.16301	ppb	99
26) Benzene	12.55	78	337757	25.03189	ppb	97
27) TCE	13.59	95	110100	24.84410	ppb	96
28) 1,2-Dichloropropane	13.81	63	80403	24.44354	ppb	97
29) Bromodichloromethane	14.16	83	119318	25.35277	ppb	# 99
30) Dibromomethane	14.22	93	39871	25.18649	ppb	93
31) Cis-1,3-Dichloropropene	15.05	75	114908	24.72789	ppb	98
32) Toluene	15.68	92	207223	21.50867	ppb	99
33) Trans-1,3-Dichloropropene	15.84	75	90420	25.76609	ppb	99
34) 1,1,2-TCA	16.12	83	34197	22.14549	ppb	91
37) 1,2-EDB	17.37	107	40747	25.87968	ppb	91
38) Tetrachloroethene	16.83	164	63164	20.90542	ppb	99
39) 1-Chlorohexane	17.75	91	111337	22.68278	ppb	90
40) 1,1,1,2-Tetrachloroethane	18.19	131	77803	24.18184	ppb	95
41) m&p-Xylene	18.40	106	282074	45.57083	ppb	97
42) o-Xylene	19.14	106	143892	23.75653	ppb	81
43) Styrene	19.16	78	145776	30.46722	ppb	96
45) 2-Hexanone	16.14	43	17714	34.87180	ppb	# 76

(#) = qualifier out of range (m) = manual integration  
 0502C10W.D C86DODW.M Sat May 07 16:30:34 2011

Data File : M:\CHICO\DATA\C110502\0502C10W.D Vial: 1  
 Acq On : 2 May 11 20:54 Operator: RS  
 Sample : Vol Std 05-02-11@20ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 05-02-11 Multiplr: 1.00

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.54	76	78651	29.51819	ppb	98
47) Dibromochloromethane	17.01	129	63537	25.49775	ppb	99
48) Chlorobenzene	18.14	112	191375	21.65742	ppb	96
49) Ethylbenzene	18.25	91	436359	27.73710	ppb	98
50) Bromoform	19.67	173	31448	22.18542	ppb	93
52) MIBK (methyl isobutyl keto)	14.71	43	27784	30.73591	ppb	84
53) Isopropylbenzene	19.77	105	422078	24.27110	ppb	100
54) 1,1,2,2-Tetrachloroethane	19.93	83	36115	25.00585	ppb	96
55) 1,2,3-Trichloropropane	20.19	110	12513	27.85569	ppb	97
56) Bromobenzene	20.51	156	76881	19.21229	ppb	93
57) n-Propylbenzene	20.48	91	522492	26.23819	ppb	97
58) 2-Chlorotoluene	20.78	91	353791	26.66002	ppb	98
59) 1,3,5-Trimethylbenzene	20.75	105	350079	25.57355	ppb	98
60) 4-Chlorotoluene	20.85	91	303922	26.38442	ppb	100
61) Tert-Butylbenzene	21.40	119	319331	21.92125	ppb	94
62) 1,2,4-Trimethylbenzene	21.45	105	352731	25.45474	ppb	96
63) Sec-Butylbenzene	21.79	105	454634	23.66713	ppb	99
64) p-Isopropyltoluene	22.02	119	334831	21.49242	ppb	97
65) 1,3-DCB	22.17	146	156428	19.14232	ppb	96
66) 1,4-DCB	22.33	146	148403	19.89631	ppb	95
67) n-Butylbenzene	22.73	91	344991	25.28021	ppb	98
68) 1,2-DCB	22.96	146	131699	20.10038	ppb	94
69) 1,2-Dibromo-3-chloropropan	24.17	157	7429	19.79419	ppb	86
70) 1,2,4-Trichlorobenzene	25.61	180	38592	17.32034	ppb	94
71) Hexachlorobutadiene	25.86	223	18200	16.35989	ppb	84
72) Naphthalene	25.96	128	49456	20.45062	ppb	95
73) 1,2,3-Trichlorobenzene	26.33	180	77871	17.43782	ppb	95

Quantitation Report

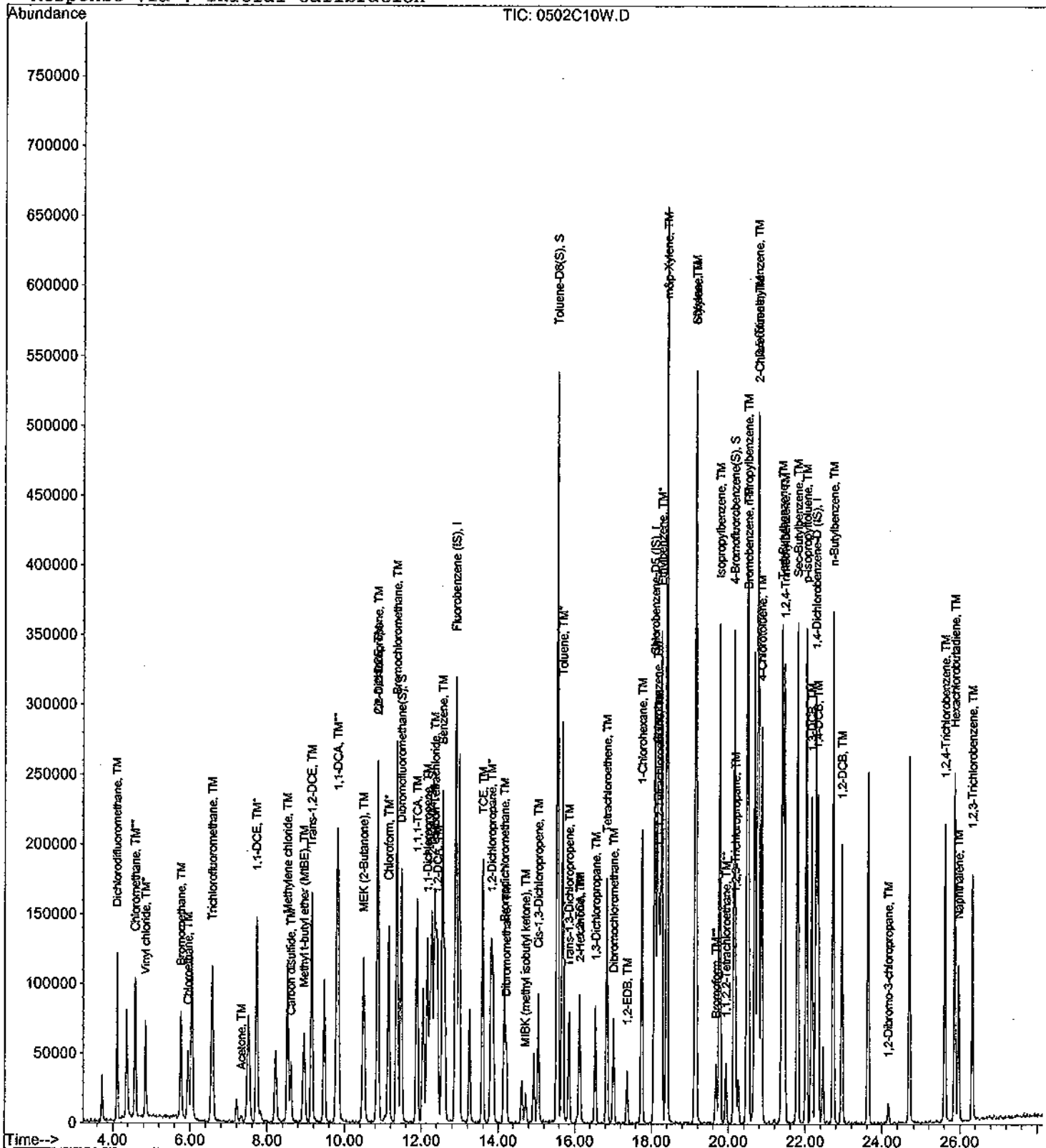
Data File : M:\CHICO\DATA\C110502\0502C10W.D  
Acq On : 2 May 11 20:54  
Sample : Vol Std 05-02-11@20ug/L  
Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue May 03 09:12:03 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110502\0502C11W.D  
 Acq On : 2 May 11 21:29  
 Sample : Vol Std 05-02-11@40ug/L  
 Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 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	148736	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.08	117	87472	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.27	152	48800	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.47	111	343962	71.97215	ppb	0.00
Spiked Amount	23.521		Recovery	=	305.997%	
23) 1,2-DCA-D4(S)	12.27	65	330439	101.66477	ppb	0.00
Spiked Amount	22.321		Recovery	=	455.476%	
36) Toluene-D8(S)	15.54	98	1116804	86.73765	ppb	0.00
Spiked Amount	26.002		Recovery	=	333.585%	
44) 4-Bromofluorobenzene(S)	20.15	95	441066	109.63910	ppb	0.00
Spiked Amount	26.339		Recovery	=	416.269%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	4.12	85	321903	60.12928	ppb	99
3) Chloromethane	4.59	50	290719	57.45106	ppb	97
4) Vinyl chloride	4.84	62	84728	59.53284	ppb	97
5) Bromomethane	5.77	94	52192	42.89736	ppb	93
6) Chloroethane	5.96	64	143346	45.69137	ppb	92
7) Trichlorofluoromethane	6.56	101	377027	55.34972	ppb	98
8) Acetone	7.33	43	18101	71.89727	ppb	88
9) 1,1-DCE	7.73	96	166939	53.50005	ppb	94
10) Methylene chloride	8.52	84	151114	56.08019	ppb	94
11) Carbon disulfide	8.61	76	152135	13.92499	ppb	96
12) Methyl t-butyl ether (MtBE)	8.94	73	248902	47.94499	ppb	97
13) Trans-1,2-DCE	9.15	96	191307	59.54724	ppb	96
14) 1,1-DCA	9.83	63	355351	54.19260	ppb	99
15) MEK (2-Butanone)	10.48	43	67626	53.87315	ppb	97
16) Cis-1,2-DCE	10.86	96	192161	43.20167	ppb	93
17) 2,2-Dichloropropane	10.85	77	310645	51.61734	ppb	99
18) Chloroform	11.14	83	357771	51.51150	ppb	97
19) Bromochloromethane	11.36	128	55635	38.50721	ppb	89
21) 1,1,1-TCA	11.89	97	394588	57.74358	ppb	99
22) 1,1-Dichloropropene	12.16	75	280810	61.33782	ppb	95
24) Carbon Tetrachloride	12.34	117	344917	57.15353	ppb	97
25) 1,2-DCA	12.43	62	188272	61.49423	ppb	98
26) Benzene	12.54	78	668351	49.93788	ppb	98
27) TCE	13.58	95	220845	50.24117	ppb	94
28) 1,2-Dichloropropane	13.80	63	159621	48.92356	ppb	97
29) Bromodichloromethane	14.16	83	239495	51.30410	ppb	# 97
30) Dibromomethane	14.21	93	79169	50.41988	ppb	90
31) Cis-1,3-Dichloropropene	15.05	75	231517	50.22916	ppb	97
32) Toluene	15.68	92	409226	42.82279	ppb	100
33) Trans-1,3-Dichloropropene	15.84	75	181997	52.28588	ppb	100
34) 1,1,2-TCA	16.12	83	70216	45.84262	ppb	92
37) 1,2-EDB	17.37	107	80021	49.92670	ppb	97
38) Tetrachloroethene	16.83	164	127943	41.59789	ppb	96
39) 1-Chlorohexane	17.74	91	228361	45.70295	ppb	94
40) 1,1,1,2-Tetrachloroethane	18.19	131	155488	47.47396	ppb	97
41) m&p-Xylene	18.40	106	571226	90.65621	ppb	97
42) o-Xylene	19.14	106	284399	46.12540	ppb	84
43) Styrene	19.15	78	284292	58.36830	ppb	95
45) 2-Hexanone	16.14	43	36854	71.27021	ppb	84

(#) = qualifier out of range (m) = manual integration  
 0502C11W.D C86DODW.M Sat May 07 16:30:40 2011

Data File : M:\CHICO\DATA\C110502\0502C11W.D Vial: 1  
 Acq On : 2 May 11 21:29 Operator: RS  
 Sample : Vol Std 05-02-11@40ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 05-02-11 Multiplr: 1.00

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.53	76	157935	58.22769	ppb	100
47) Dibromochloromethane	17.01	129	128283	50.57198	ppb	94
48) Chlorobenzene	18.14	112	382084	42.47623	ppb	98
49) Ethylbenzene	18.25	91	867270	54.15482	ppb	97
50) Bromoform	19.68	173	63323	43.88355	ppb	95
52) MIBK (methyl isobutyl keto)	14.71	43	53080	58.35370	ppb	96
53) Isopropylbenzene	19.77	105	875000	50.00240	ppb	100
54) 1,1,2,2-Tetrachloroethane	19.92	83	74507	51.26691	ppb	95
55) 1,2,3-Trichloropropane	20.19	110	24974	55.24928	ppb	84
56) Bromobenzene	20.51	156	147985	36.75055	ppb	98
57) n-Propylbenzene	20.48	91	1034879	51.64520	ppb	97
58) 2-Chlorotoluene	20.78	91	698103	52.27803	ppb	100
59) 1,3,5-Trimethylbenzene	20.75	105	654346	47.50273	ppb	99
60) 4-Chlorotoluene	20.85	91	596122	51.42883	ppb	99
61) Tert-Butylbenzene	21.39	119	636123	43.39617	ppb	94
62) 1,2,4-Trimethylbenzene	21.45	105	695898	49.90646	ppb	97
63) Sec-Butylbenzene	21.79	105	907671	46.95678	ppb	100
64) p-Isopropyltoluene	22.02	119	672293	42.88490	ppb	98
65) 1,3-DCB	22.16	146	315348	38.34919	ppb	97
66) 1,4-DCB	22.33	146	296667	39.52621	ppb	94
67) n-Butylbenzene	22.73	91	688758	50.15632	ppb	98
68) 1,2-DCB	22.96	146	256534	38.90924	ppb	99
69) 1,2-Dibromo-3-chloropropan	24.17	157	14052	37.20759	ppb	80
70) 1,2,4-Trichlorobenzene	25.61	180	78400	34.96723	ppb	95
71) Hexachlorobutadiene	25.86	223	38016	33.95952	ppb	86
72) Naphthalene	25.96	128	100272	41.20532	ppb	95
73) 1,2,3-Trichlorobenzene	26.32	180	158247	35.21583	ppb	97

Quantitation Report

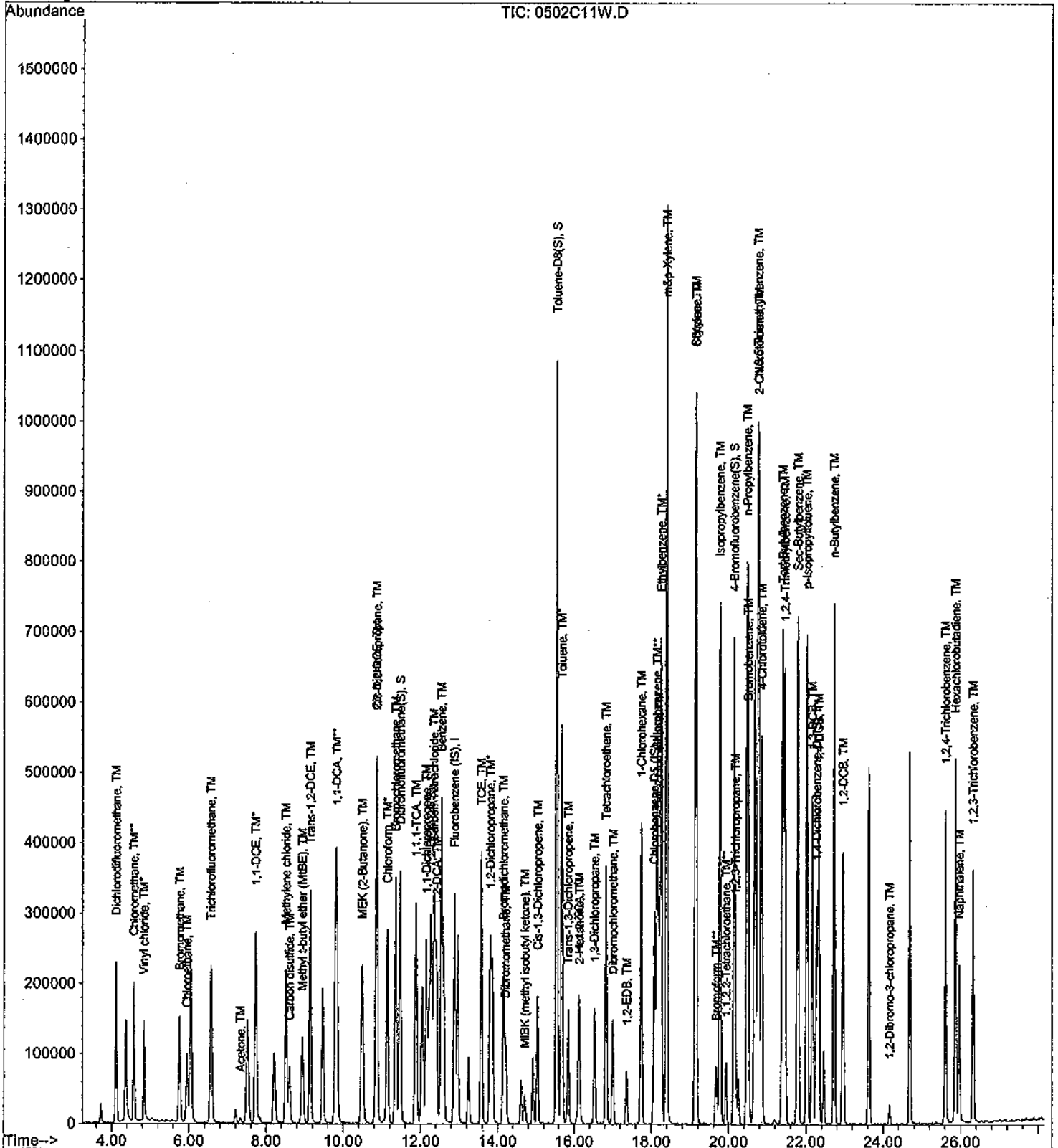
Data File : M:\CHICO\DATA\C110502\0502C11W.D  
Acq On : 2 May 11 21:29  
Sample : Vol Std 05-02-11@40ug/L  
Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue May 03 09:12:03 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110502\0502C12W.D Vial: 1  
 Acq On : 2 May 11 22:04 Operator: RS  
 Sample : Vol Std 05-02-11@100ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 05-02-11 Multiplr: 1.00

Quant Time: May 3 9:07 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 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	169600	25.00000	ppb	-0.01
35) Chlorobenzene-D5 (IS)	18.08	117	100120	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.27	152	55248	25.00000	ppb	0.00
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.47	111	495369	90.90193	ppb	0.00
Spiked Amount	23.521		Recovery	= 386.480%		
23) 1,2-DCA-D4(S)	12.27	65	441105	119.01766	ppb	0.00
Spiked Amount	22.321		Recovery	= 533.220%		
36) Toluene-D8(S)	15.54	98	1614606	109.55834	ppb	0.00
Spiked Amount	26.002		Recovery	= 421.348%		
44) 4-Bromofluorobenzene(S)	20.15	95	607573	132.52330	ppb	0.00
Spiked Amount	26.339		Recovery	= 503.153%		
Target Compounds						
2) Dichlorodifluoromethane	4.11	85	859463	140.79215	ppb	100
3) Chloromethane	4.59	50	764159	132.43373	ppb	97
4) Vinyl chloride	4.84	62	226240	139.40851	ppb	97
5) Bromomethane	5.76	94	142016	103.00421	ppb	89
6) Chloroethane	5.95	64	379511	106.08725	ppb	92
7) Trichlorofluoromethane	6.56	101	1000938	128.86660	ppb	95
8) Acetone	7.32	43	48104	172.74536	ppb	98
9) 1,1-DCE	7.72	96	475932	133.76161	ppb	90
10) Methylene chloride	8.52	84	406369	135.04141	ppb	95
11) Carbon disulfide	8.60	76	418094	33.56061	ppb	# 91
12) Methyl t-butyl ether (MtBE)	8.94	73	684039	115.55425	ppb	98
13) Trans-1,2-DCE	9.15	96	531223	146.97514	ppb	93
14) 1,1-DCA	9.83	63	936594	125.26335	ppb	99
15) MEK (2-Butanone)	10.48	43	183074	127.90150	ppb	94
16) Cis-1,2-DCE	10.86	96	526275	103.76198	ppb	93
17) 2,2-Dichloropropane	10.86	77	811675	118.27791	ppb	100
18) Chloroform	11.14	83	971602	122.68112	ppb	98
19) Bromochloromethane	11.36	128	157359	95.51592	ppb	91
21) 1,1,1-TCA	11.88	97	1050741	134.84838	ppb	97
22) 1,1-Dichloropropene	12.15	75	756311	144.87932	ppb	94
24) Carbon Tetrachloride	12.34	117	930562	135.22718	ppb	96
25) 1,2-DCA	12.43	62	510038	146.09703	ppb	97
26) Benzene	12.54	78	1826198	119.66402	ppb	97
27) TCE	13.58	95	621363	123.96749	ppb	92
28) 1,2-Dichloropropane	13.81	63	433258	116.45679	ppb	100
29) Bromodichloromethane	14.16	83	643831	120.95331	ppb	# 95
30) Dibromomethane	14.22	93	220313	123.04870	ppb	92
31) Cis-1,3-Dichloropropene	15.05	75	639466	121.66923	ppb	100
32) Toluene	15.68	92	1172189	107.57210	ppb	98
33) Trans-1,3-Dichloropropene	15.84	75	494519	124.59294	ppb	98
34) 1,1,2-TCA	16.12	83	194884	111.58345	ppb	90
37) 1,2-EDB	17.37	107	236246	128.77796	ppb	# 97
38) Tetrachloroethene	16.83	164	376838	107.04286	ppb	97
39) 1-Chlorohexane	17.74	91	647431	113.20459	ppb	90
40) 1,1,1,2-Tetrachloroethane	18.19	131	426001	113.63639	ppb	97
41) m&p-Xylene	18.39	106	1572765	218.07286	ppb	92
42) o-Xylene	19.14	106	789148	111.81981	ppb	77
43) Styrene	19.16	78	735717	131.96884	ppb	88
45) 2-Hexanone	16.14	43	97788	165.21793	ppb	86

(#) = qualifier out of range (m) = manual integration  
 0502C12W.D C86DODW.M Sat May 07 16:30:47 2011



Data File : M:\CHICO\DATA\C110502\0502C12W.D Vial: 1  
 Acq On : 2 May 11 22:04 Operator: RS  
 Sample : Vol Std 05-02-11@100ug/L Inst : Chico  
 Misc : Water 10ml w/IS: 05-02-11 Multiplr: 1.00

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:07:15 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.54	76	444944	143.31931	ppb	97
47) Dibromochloromethane	17.01	129	362509	124.85555	ppb	94
48) Chlorobenzene	18.14	112	1067414	103.67361	ppb	94
49) Ethylbenzene	18.25	91	2332568	127.25220	ppb	98
50) Bromoform	19.67	173	179810	108.86852	ppb	89
52) MIBK (methyl isobutyl keto)	14.71	43	157256	152.70313	ppb	98
53) Isopropylbenzene	19.77	105	2323332	117.27281	ppb	97
54) 1,1,2,2-Tetrachloroethane	19.93	83	191697	116.50877	ppb	99
55) 1,2,3-Trichloropropane	20.18	110	66210	129.37948	ppb	87
56) Bromobenzene	20.51	156	404812	88.79791	ppb	92
57) n-Propylbenzene	20.47	91	2753890	121.39205	ppb	94
58) 2-Chlorotoluene	20.77	91	1783528	117.97308	ppb	94
59) 1,3,5-Trimethylbenzene	20.75	105	1757625	112.70432	ppb	96
60) 4-Chlorotoluene	20.85	91	1534203	116.91160	ppb	99
61) Tert-Butylbenzene	21.39	119	1714350	103.30303	ppb	90
62) 1,2,4-Trimethylbenzene	21.45	105	1854126	117.45018	ppb	100
63) Sec-Butylbenzene	21.79	105	2443234	111.64471	ppb	97
64) p-Isopropyltoluene	22.02	119	1861554	104.88775	ppb	95
65) 1,3-DCB	22.16	146	861489	92.53779	ppb	97
66) 1,4-DCB	22.33	146	844784	99.41798	ppb	93
67) n-Butylbenzene	22.73	91	1887789	121.42712	ppb	94
68) 1,2-DCB	22.96	146	741243	99.30513	ppb	98
69) 1,2-Dibromo-3-chloropropan	24.17	157	46844	109.55966	ppb #	71
70) 1,2,4-Trichlorobenzene	25.61	180	234368	92.33083	ppb	95
71) Hexachlorobutadiene	25.86	223	114880	90.64478	ppb	90
72) Naphthalene	25.96	128	302656	109.85659	ppb	93
73) 1,2,3-Trichlorobenzene	26.32	180	484564	95.24821	ppb	99

Quantitation Report

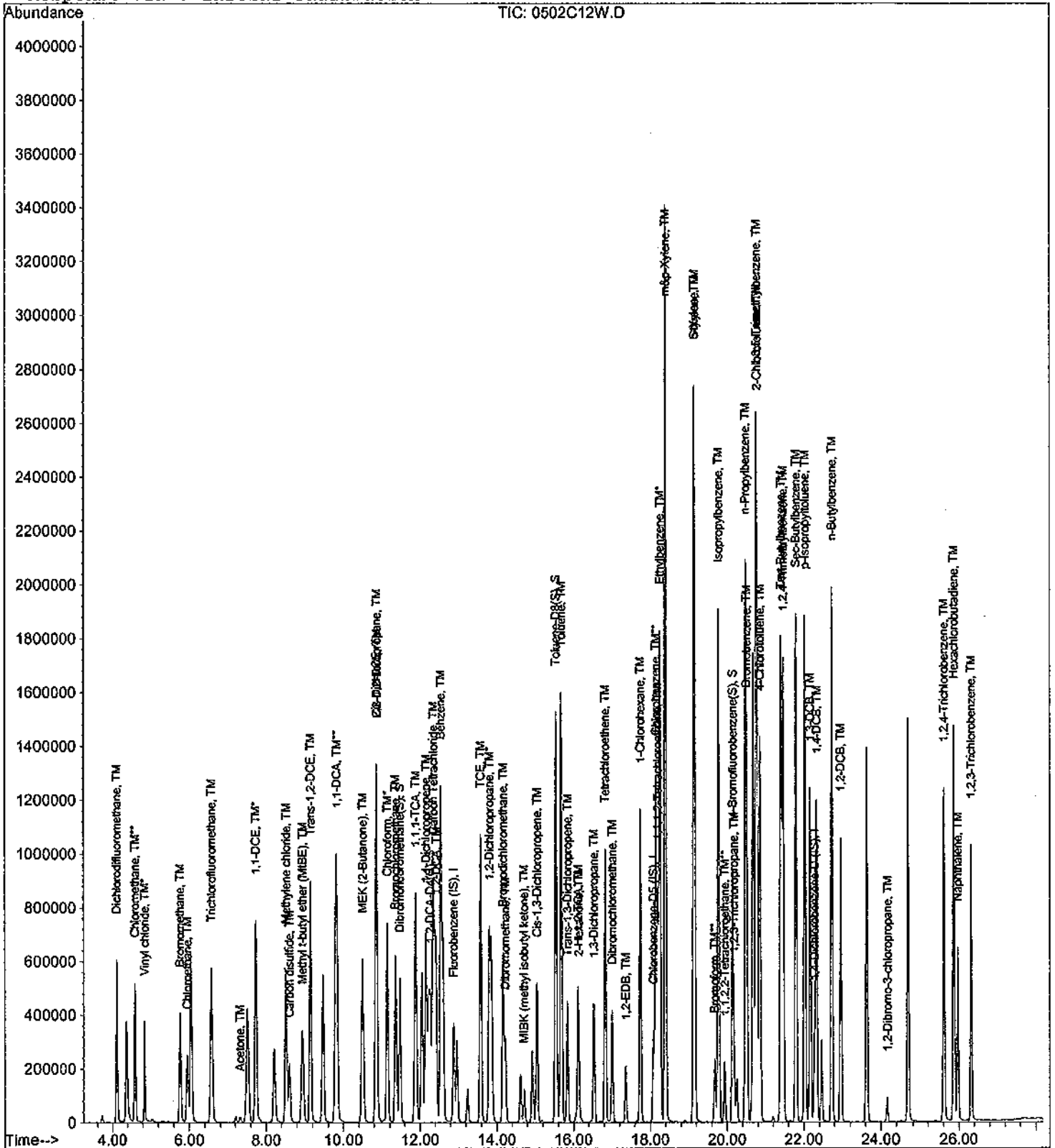
Data File : M:\CHICO\DATA\C110502\0502C12W.D  
Acq On : 2 May 11 22:04  
Sample : Vol Std 05-02-11@100ug/L  
Misc : Water 10ml w/IS: 05-02-11

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

Quant Time: May 3 9:07 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue May 03 09:12:03 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: 0544  
Date Analyzed: 3 May 11 1:35  
Instrument: Chico  
Initial Cal. Date: 05/02/11  
Data File: 0502C16W.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TM	Dichlorodifluoromethane	1.300	1.418	9.1	TM
3	TM**	Chloromethane	1.473	1.274	13	TM**
4	TM*	Vinyl chloride	0.3683	0.3300	10	TM*
5	TM	Bromomethane	0.2125	0.1997	6.0	TM
6	TM	Chloroethane	0.6154	0.6797	10	TM
7	TM	Trichlorofluoromethane	1.658	1.787	7.7	TM
8	TML	Acetone	0.1150	0.0909	21	TML 7.8
9	TM*	1,1-DCE	0.7306	0.7517	2.9	TM*
10	TM	Methylene chloride	0.7301	0.6464	11	TM
11	TM	Carbon disulfide	0.6614	0.6653	0.58	TM
12	TM	Methyl t-butyl ether (MtBE)	1.063	0.9972	6.2	TM
13	TM	Trans-1,2-DCE	0.8031	0.8359	4.1	TM
14	TM**	1,1-DCA	1.584	1.608	1.5	TM**
15	TM	MEK (2-Butanone)	0.3104	0.2811	9.4	TM
16	TM	Cis-1,2-DCE	0.8124	0.8227	1.3	TM
17	TM	2,2-Dichloropropane	1.384	1.288	6.9	TM
18	TM*	Chloroform	1.589	1.564	1.6	TM*
19	TM	Bromochloromethane	0.2340	0.2097	10	TM
20	S	Dibromofluoromethane(S)	0.7603	0.7878	3.6	S
21	TM	1,1,1-TCA	1.708	1.742	2.0	TM
22	TM	1,1-Dichloropropene	1.193	1.286	7.8	TM
23	S	1,2-DCA-D4(S)	0.7409	0.7371	0.52	S
24	TM	Carbon Tetrachloride	1.453	1.531	5.3	TM
25	TM	1,2-DCA	0.8642	0.8319	3.7	TM
26	TM	Benzene	2.910	2.801	3.8	TM
27	TM	TCE	0.9508	0.9522	0.15	TM
28	TM*	1,2-Dichloropropane	0.6752	0.6329	6.3	TM*
29	TM	Bromodichloromethane	1.004	0.9698	3.4	TM
30	TM	Dibromomethane	0.3264	0.3185	2.4	TM
31	TM	Cis-1,3-Dichloropropene	0.9520	0.8675	8.9	TM
32	TM*	Toluene	1.750	1.753	0.18	TM*
33	TM	Trans-1,3-Dichloropropene	0.7661	0.6980	8.9	TM
34	TM	1,1,2-TCA	0.2915	0.2776	4.8	TM
35	I	Chlorobenzene-D5 (IS)	ISTD			I
36	S	Toluene-D8(S)	4.150	4.497	8.4	S
37	TM	1,2-EDB	0.5694	0.5392	5.3	TM
38	TM	Tetrachloroethene	0.9228	0.9675	4.8	TM
39	TM	1-Chlorohexane	1.612	1.750	8.6	TM
40	TM	1,1,1,2-Tetrachloroethane	1.108	1.085	1.9	TM
Average					5.9	

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Continuing Calibration

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

SDG No: 6404  
Date Analyzed: 3 May 11 1:35  
Instrument: Chico  
Cal. Date: 05/02/11  
Data File: 0502C16W.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	m&p-Xylene	2.071	2.128	2.7	TM
42	TM	o-Xylene	1.999	1.945	2.7	TM
43	TM	Styrene	2.139	2.030	5.1	TM
44	S	4-Bromofluorobenzene(S)	1.647	1.729	5.0	S
45	TM	2-Hexanone	0.2658	0.2349	12	TM
46	TM	1,3-Dichloropropane	1.156	1.086	6.1	TM
47	TM	Dibromochloromethane	0.9048	0.8173	9.7	TM
48	TM**	Chlorobenzene	2.771	2.740	1.1	TM**
49	TM*	Ethylbenzene	6.504	6.533	0.45	TM*
50	TM**	Bromoform	0.4303	0.4063	5.6	TM**
51	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
52	TM	MIBK (methyl isobutyl ketone)	0.7083	0.6922	2.3	TM
53	TM	Isopropylbenzene	11.2	12.0	6.5	TM
54	TM**	1,1,2,2-Tetrachloroethane	0.9302	0.8931	4.0	TM**
55	TM	1,2,3-Trichloropropane	0.3004	0.3188	6.1	TM
56	TM	Bromobenzene	1.993	1.843	7.5	TM
57	TM	n-Propylbenzene	13.6	14.7	8.2	TM
58	TM	2-Chlorotoluene	9.553	9.915	3.8	TM
59	TM	1,3,5-Trimethylbenzene	8.987	9.412	4.7	TM
60	TM	4-Chlorotoluene	8.041	8.538	6.2	TM
61	TM	Tert-Butylbenzene	8.019	8.483	5.8	TM
62	TM	1,2,4-Trimethylbenzene	9.159	9.542	4.2	TM
63	TM	Sec-Butylbenzene	11.6	12.7	9.1	TM
64	TM	p-Isopropyltoluene	8.490	8.986	5.8	TM
65	TM	1,3-DCB	3.982	4.050	1.7	TM
66	TM	1,4-DCB	3.864	3.829	0.91	TM
67	TM	n-Butylbenzene	9.055	10.0	11	TM
68	TM	1,2-DCB	3.281	3.206	2.3	TM
69	TML	1,2-Dibromo-3-chloropropane	0.1760	0.1447	18	TML 14
70	TM	1,2,4-Trichlorobenzene	1.036	0.8854	14	TM
71	TM	Hexachlorobutadiene	0.5156	0.4645	9.9	TM
72	TM	Naphthalene	1.294	1.183	8.6	TM
73	TM	1,2,3-Trichlorobenzene	2.016	1.831	9.2	TM
74						
75						
76						
77						
78						
79						
80						

Average

6.3

Data File : M:\CHICO\DATA\C110502\0502C16W.D  
 Acq On : 3 May 11 1:35  
 Sample : Vol Std 05-02-11@10ug/L  
 Misc : Water 10ml w/IS&S: 05-02-11

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

Quant Time: May 3 11:51 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:12:03 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	137344	25.00000	ppb	-0.02
35) Chlorobenzene-D5 (IS)	18.07	117	79304	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.27	152	42280	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.46	111	108202	25.90420	ppb	0.00
Spiked Amount	23.521		Recovery	=	110.134%	
23) 1,2-DCA-D4(S)	12.27	65	101234	24.87071	ppb	0.00
Spiked Amount	22.321		Recovery	=	111.426%	
36) Toluene-D8(S)	15.54	98	356626	27.09281	ppb	0.00
Spiked Amount	26.002		Recovery	=	104.197%	
44) 4-Bromofluorobenzene(S)	20.14	95	137118	26.24636	ppb	0.00
Spiked Amount	26.339		Recovery	=	99.649%	
<b>Target Compounds</b>						
						Qvalue
2) Dichlorodifluoromethane	4.11	85	77894	10.90636	ppb	95
3) Chloromethane	4.59	50	70017	8.65426	ppb	98
4) Vinyl chloride	4.87	62	18128	8.95953	ppb	96
5) Bromomethane	5.76	94	10973	9.39937	ppb	80
6) Chloroethane	5.96	64	37342	11.04475	ppb	91
7) Trichlorofluoromethane	6.57	101	98152	10.77386	ppb	93
8) Acetone	7.31	43	4996	10.78466	ppb	94
9) 1,1-DCE	7.72	96	41296	10.28913	ppb	99
10) Methylene chloride	8.52	84	35510	8.85294	ppb	98
11) Carbon disulfide	8.60	76	36549	10.05818	ppb	# 93
12) Methyl t-butyl ether (MtBE)	8.95	73	54782	9.37751	ppb	93
13) Trans-1,2-DCE	9.14	96	45922	10.40889	ppb	94
14) 1,1-DCA	9.83	63	88322	10.15183	ppb	96
15) MEK (2-Butanone)	10.48	43	15445	9.05816	ppb	# 92
16) Cis-1,2-DCE	10.85	96	45199	10.12743	ppb	96
17) 2,2-Dichloropropane	10.85	77	70763	9.30719	ppb	98
18) Chloroform	11.13	83	85914	9.84273	ppb	98
19) Bromochloromethane	11.36	128	11519	8.95998	ppb	# 77
21) 1,1,1-TCA	11.88	97	95695	10.20127	ppb	92
22) 1,1-Dichloropropene	12.15	75	70643	10.77844	ppb	93
24) Carbon Tetrachloride	12.34	117	84092	10.53485	ppb	94
25) 1,2-DCA	12.41	62	45703	9.62586	ppb	97
26) Benzene	12.54	78	153861	9.62269	ppb	99
27) TCE	13.57	95	52310	10.01472	ppb	99
28) 1,2-Dichloropropane	13.80	63	34772	9.37372	ppb	97
29) Bromodichloromethane	14.15	83	53276	9.65668	ppb	# 92
30) Dibromomethane	14.21	93	17495	9.75544	ppb	99
31) Cis-1,3-Dichloropropene	15.04	75	47661	9.11297	ppb	97
32) Toluene	15.67	92	96305	10.01791	ppb	85
33) Trans-1,3-Dichloropropene	15.83	75	38349	9.11169	ppb	96
34) 1,1,2-TCA	16.12	83	15248	9.52074	ppb	96
37) 1,2-EDB	17.36	107	17105	9.47051	ppb	# 92
38) Tetrachloroethene	16.83	164	30691	10.48475	ppb	97
39) 1-Chlorohexane	17.74	91	55518	10.85855	ppb	93
40) 1,1,1,2-Tetrachloroethane	18.19	131	34423	9.81445	ppb	97
41) m&p-Xylene	18.39	106	134992	20.54882	ppb	96
42) o-Xylene	19.13	106	61694	9.73066	ppb	92
43) Styrene	19.15	78	64398	9.49086	ppb	97
45) 2-Hexanone	16.13	43	7452	8.83900	ppb	90

(#) = qualifier out of range (m) = manual integration  
 0502C16W.D C86DODW.M Sat May 07 16:30:54 2011

Data File : M:\CHICO\DATA\C110502\0502C16W.D Vial: 1  
 Acq On : 3 May 11 1:35 Operator: RS  
 Sample : Vol Std 05-02-11@10ug/L Inst : Chico  
 Misc : Water 10ml w/IS&S: 05-02-11 Multiplr: 1.00

Quant Time: May 3 11:51 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:12:03 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.52	76	34437	9.39170	ppb	100
47) Dibromochloromethane	17.01	129	25926	9.03246	ppb	94
48) Chlorobenzene	18.14	112	86917	9.88692	ppb	97
49) Ethylbenzene	18.24	91	207240	10.04500	ppb	92
50) Bromoform	19.68	173	12890	9.44268	ppb	91
52) MIBK (methyl isobutyl keto)	14.69	43	11707	9.77315	ppb #	77
53) Isopropylbenzene	19.76	105	202644	10.65452	ppb	97
54) 1,1,2,2-Tetrachloroethane	19.93	83	15104	9.60082	ppb #	89
55) 1,2,3-Trichloropropane	20.18	110	5392	10.61218	ppb	73
56) Bromobenzene	20.51	156	31172	9.24747	ppb	95
57) n-Propylbenzene	20.47	91	249143	10.82399	ppb	99
58) 2-Chlorotoluene	20.77	91	167691	10.37948	ppb	98
59) 1,3,5-Trimethylbenzene	20.74	105	159170	10.47283	ppb	95
60) 4-Chlorotoluene	20.85	91	144388	10.61703	ppb	91
61) Tert-Butylbenzene	21.39	119	143468	10.57901	ppb	98
62) 1,2,4-Trimethylbenzene	21.45	105	161374	10.41824	ppb	94
63) Sec-Butylbenzene	21.78	105	214222	10.90858	ppb	99
64) p-Isopropyltoluene	22.02	119	151977	10.58412	ppb	98
65) 1,3-DCB	22.16	146	68500	10.17114	ppb	94
66) 1,4-DCB	22.33	146	64758	9.90850	ppb	96
67) n-Butylbenzene	22.72	91	169549	11.07174	ppb	96
68) 1,2-DCB	22.95	146	54219	9.77250	ppb	98
69) 1,2-Dibromo-3-chloropropan	24.16	157	2447	8.62723	ppb #	68
70) 1,2,4-Trichlorobenzene	25.61	180	14974	8.55002	ppb	98
71) Hexachlorobutadiene	25.87	223	7856	9.00868	ppb	86
72) Naphthalene	25.96	128	20000	9.13860	ppb	94
73) 1,2,3-Trichlorobenzene	26.32	180	30959	9.08020	ppb	90

Quantitation Report

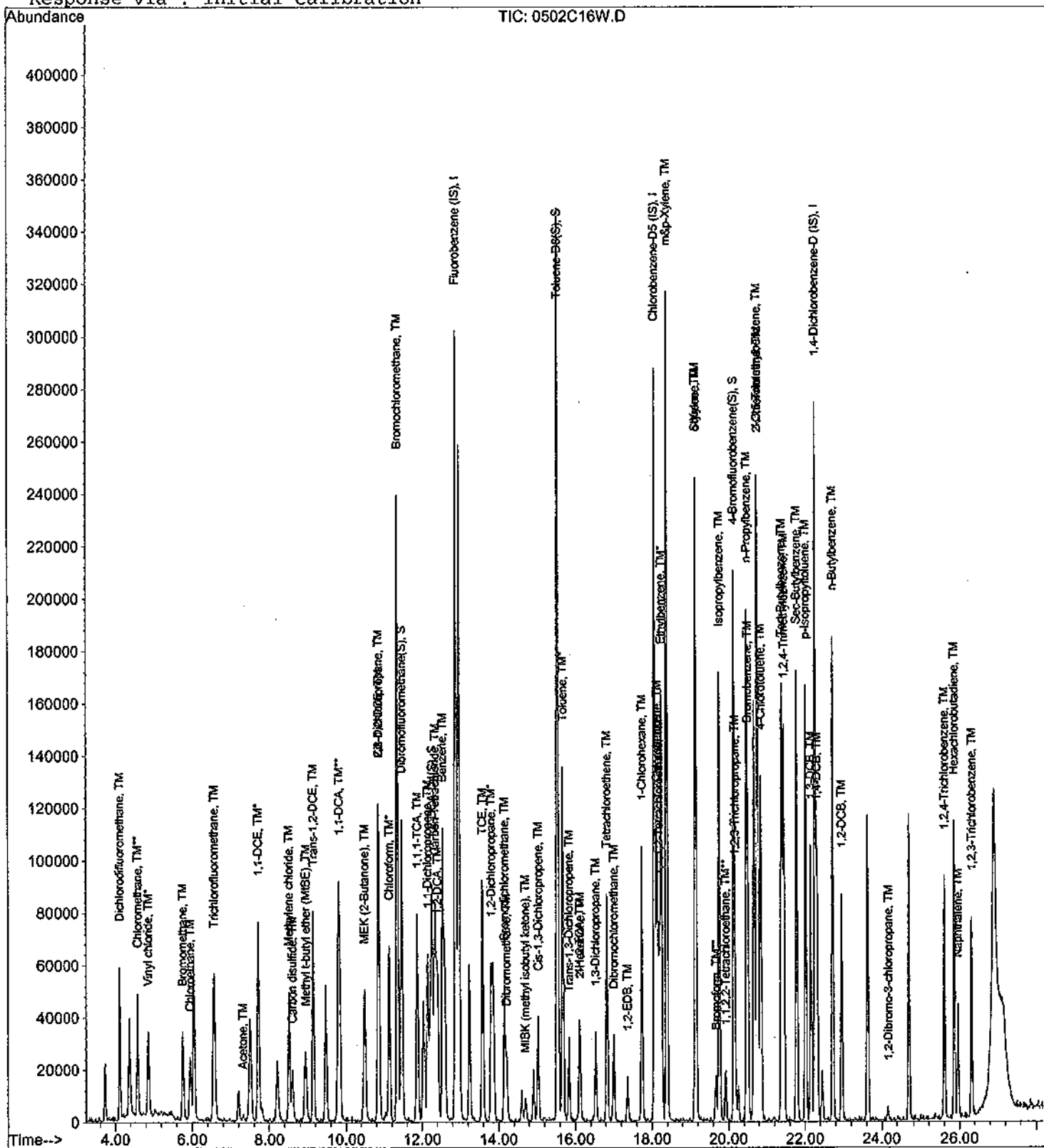
Data File : M:\CHICO\DATA\C110502\0502C16W.D  
Acq On : 3 May 11 1:35  
Sample : Vol Std 05-02-11@10ug/L  
Misc : Water 10ml w/IS&S: 05-02-11

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

Quant Time: May 3 11:51 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue May 03 09:12:03 2011  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: 64944  
Date Analyzed: 3 May 11 2:10  
Instrument: Chico  
Initial Cal. Date: 05/02/11  
Data File: 0502C17W.D

	Compound	MEAN	CCRF	%D	%Drift
1 I	Fluorobenzene (IS)	ISTD			I
2 TM	Dichlorodifluoromethane	1.300	1.357	4.4	TM
3 TM**	Chloromethane	1.473	1.250	15	TM**
4 TM*	Vinyl chloride	0.3683	0.3281	11	TM*
5 TM	Bromomethane	0.2125	0.2158	1.5	TM
6 TM	Chloroethane	0.6154	0.6555	6.5	TM
7 TM	Trichlorofluoromethane	1.658	1.701	2.6	TM
8 TML	Acetone	0.1150	0.0872	24	TML 2.5
9 TM*	1,1-DCE	0.7306	0.7240	0.90	TM*
10 TM	Methylene chloride	0.7301	0.6325	13	TM
11 TM	Carbon disulfide	0.6614	0.6513	1.5	TM
12 TM	Methyl t-butyl ether (MIBE)	1.063	0.9950	6.4	TM
13 TM	Trans-1,2-DCE	0.8031	0.8388	4.5	TM
14 TM**	1,1-DCA	1.584	1.563	1.3	TM**
15 TM	MEK (2-Butanone)	0.3104	0.2661	14	TM
16 TM	Cis-1,2-DCE	0.8124	0.8009	1.4	TM
17 TM	2,2-Dichloropropane	1.384	1.155	17	TM
18 TM*	Chloroform	1.589	1.504	5.3	TM*
19 TM	Bromochloromethane	0.2340	0.2284	2.4	TM
20 S	Dibromofluoromethane(S)	0.7603	0.7845	3.2	S
21 TM	1,1,1-TCA	1.708	1.632	4.4	TM
22 TM	1,1-Dichloropropene	1.193	1.167	2.1	TM
23 S	1,2-DCA-D4(S)	0.7409	0.7229	2.4	S
24 TM	Carbon Tetrachloride	1.453	1.410	2.9	TM
25 TM	1,2-DCA	0.8642	0.8011	7.3	TM
26 TM	Benzene	2.910	2.798	3.9	TM
27 TM	TCE	0.9508	0.9238	2.8	TM
28 TM*	1,2-Dichloropropane	0.6752	0.6040	11	TM*
29 TM	Bromodichloromethane	1.004	0.9405	6.3	TM
30 TM	Dibromomethane	0.3264	0.3199	2.0	TM
31 TM	Cis-1,3-Dichloropropene	0.9520	0.9130	4.1	TM
32 TM*	Toluene	1.750	1.749	0.03	TM*
33 TM	Trans-1,3-Dichloropropene	0.7661	0.6528	15	TM
34 TM	1,1,2-TCA	0.2915	0.2601	11	TM
35 I	Chlorobenzene-D5 (IS)	ISTD			I
36 S	Toluene-D8(S)	4.150	4.531	9.2	S
37 TM	1,2-EDB	0.5694	0.5822	1.3	TM
38 TM	Tetrachloroethene	0.9228	0.9417	2.1	TM
39 TM	1-Chlorohexane	1.612	1.745	8.3	TM
40 TM	1,1,1,2-Tetrachloroethane	1.106	1.093	1.1	TM

Average

6.1



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

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

SDG No: 64544  
Date Analyzed: 3 May 11 2:10  
Instrument: Chico  
Cal. Date: 05/02/11  
Data File: 0502C17W.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	m&p-Xylene	2.071	2.090	0.94	TM
42	TM	o-Xylene	1.999	2.074	3.8	TM
43	TM	Styrene	2.139	2.018	5.6	TM
44	S	4-Bromofluorobenzene(S)	1.647	1.722	4.6	S
45	TM	2-Hexanone	0.2658	0.2305	13	TM
46	TM	1,3-Dichloropropane	1.156	1.090	5.7	TM
47	TM	Dibromochloromethane	0.9048	0.8434	6.8	TM
48	TM**	Chlorobenzene	2.771	2.722	1.8	TM**
49	TM*	Ethylbenzene	6.504	6.501	0.04	TM*
50	TM**	Bromoform	0.4303	0.3814	11	TM**
51	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
52	TM	MIBK (methyl isobutyl ketone)	0.7083	0.7137	0.76	TM
53	TM	Isopropylbenzene	11.2	12.0	6.5	TM
54	TM**	1,1,2,2-Tetrachloroethane	0.9302	0.8691	6.6	TM**
55	TM	1,2,3-Trichloropropane	0.3004	0.3129	4.1	TM
56	TM	Bromobenzene	1.993	1.970	1.1	TM
57	TM	n-Propylbenzene	13.6	14.7	7.9	TM
58	TM	2-Chlorotoluene	9.553	9.890	3.5	TM
59	TM	1,3,5-Trimethylbenzene	8.987	9.754	8.5	TM
60	TM	4-Chlorotoluene	8.041	8.564	6.5	TM
61	TM	Tert-Butylbenzene	8.019	8.629	7.6	TM
62	TM	1,2,4-Trimethylbenzene	9.159	9.640	5.3	TM
63	TM	Sec-Butylbenzene	11.6	12.7	9.2	TM
64	TM	p-Isopropyltoluene	8.490	9.154	7.8	TM
65	TM	1,3-DCB	3.982	4.172	4.8	TM
66	TM	1,4-DCB	3.864	3.875	0.28	TM
67	TM	n-Butylbenzene	9.055	9.857	8.9	TM
68	TM	1,2-DCB	3.281	3.374	2.9	TM
69	TML	1,2-Dibromo-3-chloropropane	0.1760	0.1569	11	TML 8.0
70	TM	1,2,4-Trichlorobenzene	1.036	0.9123	12	TM
71	TM	Hexachlorobutadiene	0.5156	0.5541	7.5	TM
72	TM	Naphthalene	1.294	1.192	7.9	TM
73	TM	1,2,3-Trichlorobenzene	2.016	1.890	6.2	TM
74						
75						
76						
77						
78						
79						
80						

Average

5.9

Data File : M:\CHICO\DATA\C110502\0502C17W.D Vial: 1  
 Acq On : 3 May 11 2:10 Operator: RS  
 Sample : 110502A LCS-1WC (SS) Inst : Chico  
 Misc : Water 10ml w/IS&S: 05-02-11 Multiplr: 1.00

Quant Time: May 3 9:12 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:12:03 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	148352	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.07	117	83328	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.27	152	43664	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.46	111	116380	25.79464	ppb	0.00
Spiked Amount	23.521		Recovery	=	109.670%	
23) 1,2-DCA-D4(S)	12.27	65	107242	24.39175	ppb	0.00
Spiked Amount	22.321		Recovery	=	109.280%	
36) Toluene-D8(S)	15.54	98	377549	27.29723	ppb	0.00
Spiked Amount	26.002		Recovery	=	104.981%	
44) 4-Bromofluorobenzene(S)	20.15	95	143532	26.14734	ppb	0.00
Spiked Amount	26.339		Recovery	=	99.273%	
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	4.12	85	80524	10.43801	ppb	98
3) Chloromethane	4.59	50	74158	8.48595	ppb	97
4) Vinyl chloride	4.86	62	19472	8.90968	ppb	97
5) Bromomethane	5.77	94	12804	10.15396	ppb	93
6) Chloroethane	5.96	64	38898	10.65128	ppb	96
7) Trichlorofluoromethane	6.56	101	100938	10.25754	ppb	97
8) Acetone	7.32	43	5175	10.25012	ppb	86
9) 1,1-DCE	7.73	96	42964	9.91041	ppb	98
10) Methylene chloride	8.52	84	37533	8.66297	ppb	95
11) Carbon disulfide	8.61	76	38648	9.84662	ppb	96
12) Methyl t-butyl ether (MtBE)	8.94	73	59047	9.35758	ppb	93
13) Trans-1,2-DCE	9.14	96	49775	10.44507	ppb	89
14) 1,1-DCA	9.83	63	92752	9.86995	ppb	97
15) MEK (2-Butanone)	10.48	43	15790	8.57335	ppb	# 92
16) Cis-1,2-DCE	10.85	96	47526	9.85866	ppb	97
17) 2,2-Dichloropropane	10.85	77	68541	8.34601	ppb	94
18) Chloroform	11.13	83	89258	9.46706	ppb	96
19) Bromochloromethane	11.35	128	13553	9.75987	ppb	85
21) 1,1,1-TCA	11.89	97	96851	9.55840	ppb	97
22) 1,1-Dichloropropene	12.15	75	69272	9.78500	ppb	95
24) Carbon Tetrachloride	12.34	117	83683	9.70570	ppb	86
25) 1,2-DCA	12.42	62	47537	9.26921	ppb	100
26) Benzene	12.53	78	166058	9.61489	ppb	96
27) TCE	13.58	95	54822	9.71684	ppb	90
28) 1,2-Dichloropropane	13.80	63	35839	8.94447	ppb	97
29) Bromodichloromethane	14.16	83	55812	9.36569	ppb	# 95
30) Dibromomethane	14.21	93	18983	9.79973	ppb	94
31) Cis-1,3-Dichloropropene	15.04	75	54178	9.59039	ppb	99
32) Toluene	15.68	92	103811	9.99742	ppb	99
33) Trans-1,3-Dichloropropene	15.83	75	38735	8.52049	ppb	89
34) 1,1,2-TCA	16.11	83	15435	8.92238	ppb	81
37) 1,2-EDB	17.36	107	18740	9.87470	ppb	# 91
38) Tetrachloroethene	16.82	164	31388	10.20505	ppb	98
39) 1-Chlorohexane	17.74	91	58162	10.82633	ppb	91
40) 1,1,1,2-Tetrachloroethane	18.19	131	36432	9.88563	ppb	90
41) m&p-Xylene	18.40	106	139349	20.18770	ppb	98
42) o-Xylene	19.13	106	69129	10.37680	ppb	81
43) Styrene	19.15	78	67278	9.43649	ppb	88
45) 2-Hexanone	16.13	43	7683	8.67291	ppb	92

(#) = qualifier out of range (m) = manual integration  
 0502C17W.D C86DODW.M Sat May 07 16:31:00 2011

Data File : M:\CHICO\DATA\C110502\0502C17W.D Vial: 1  
 Acq On : 3 May 11 2:10 Operator: RS  
 Sample : 110502A LCS-1WC (SS) Inst : Chico  
 Misc : Water 10ml w/IS&S: 05-02-11 Multiplr: 1.00

Quant Time: May 3 9:12 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:12:03 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.53	76	36339	9.43183	ppb	92
47) Dibromochloromethane	17.00	129	28112	9.32108	ppb	99
48) Chlorobenzene	18.13	112	90717	9.82085	ppb	95
49) Ethylbenzene	18.25	91	216693	9.99598	ppb	100
50) Bromoform	19.67	173	12711	8.86189	ppb	91
52) MIBK (methyl isobutyl keto)	14.71	43	12465	10.07611	ppb	91
53) Isopropylbenzene	19.77	105	209175	10.64930	ppb	99
54) 1,1,2,2-Tetrachloroethane	19.92	83	15179	9.34267	ppb	96
55) 1,2,3-Trichloropropane	20.19	110	5465	10.41493	ppb	82
56) Bromobenzene	20.50	156	34412	9.88506	ppb	94
57) n-Propylbenzene	20.48	91	256548	10.79242	ppb	99
58) 2-Chlorotoluene	20.77	91	172735	10.35280	ppb	97
59) 1,3,5-Trimethylbenzene	20.75	105	170360	10.85381	ppb	100
60) 4-Chlorotoluene	20.85	91	149583	10.65039	ppb	97
61) Tert-Butylbenzene	21.38	119	150714	10.76106	ppb	98
62) 1,2,4-Trimethylbenzene	21.44	105	168370	10.52536	ppb	95
63) Sec-Butylbenzene	21.78	105	221407	10.91710	ppb	95
64) p-Isopropyltoluene	22.02	119	159888	10.78212	ppb	96
65) 1,3-DCB	22.16	146	72861	10.47577	ppb	92
66) 1,4-DCB	22.32	146	67682	10.02765	ppb	95
67) n-Butylbenzene	22.73	91	172162	10.88602	ppb	99
68) 1,2-DCB	22.95	146	58937	10.28616	ppb	97
69) 1,2-Dibromo-3-chloropropan	24.17	157	2740	9.20073	ppb	88
70) 1,2,4-Trichlorobenzene	25.61	180	15934	8.80979	ppb	96
71) Hexachlorobutadiene	25.86	223	9678	10.74624	ppb	96
72) Naphthalene	25.96	128	20816	9.20998	ppb	97
73) 1,2,3-Trichlorobenzene	26.32	180	33011	9.37516	ppb	97

Quantitation Report

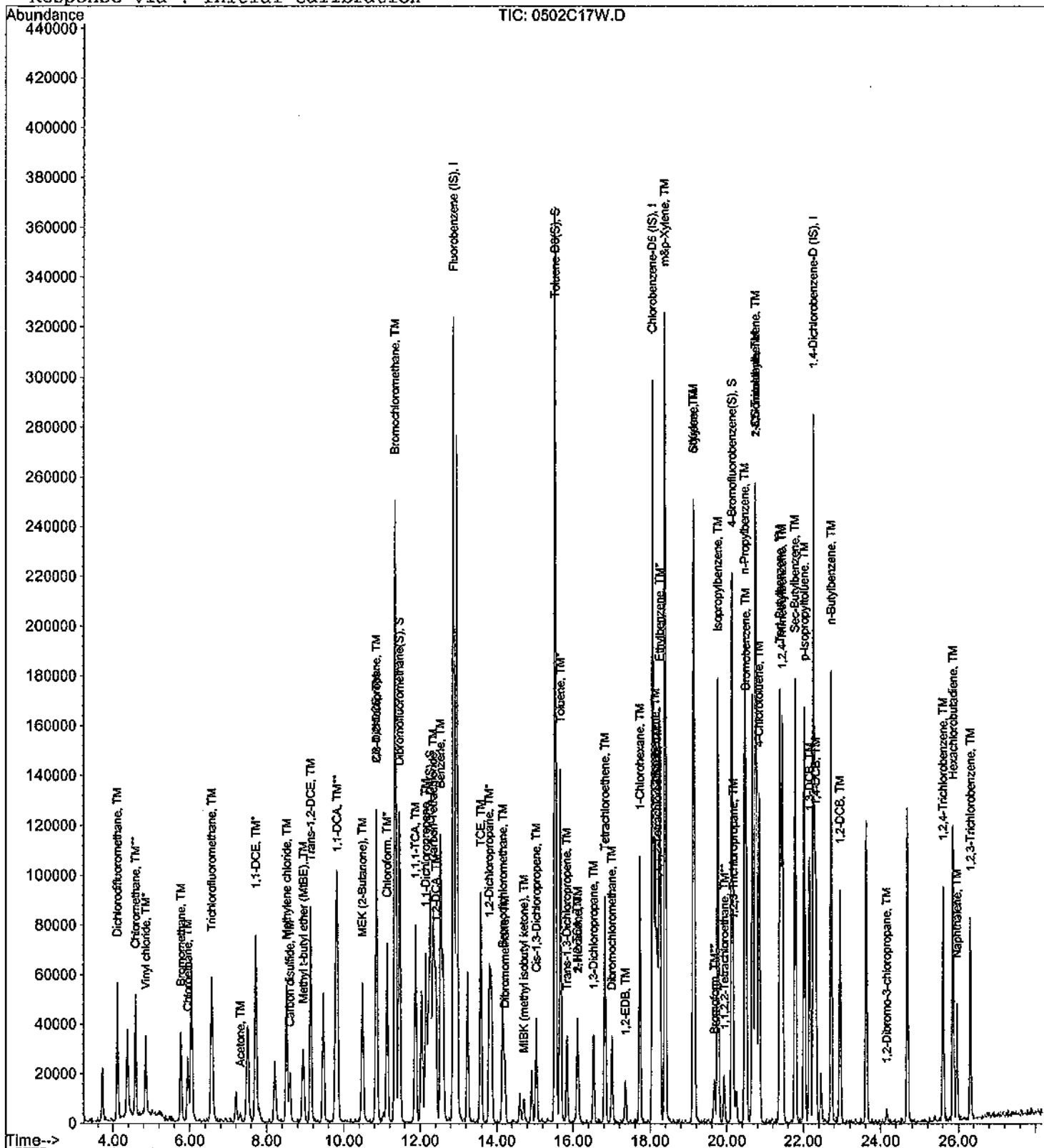
Data File : M:\CHICO\DATA\C110502\0502C17W.D  
 Acq On : 3 May 11 2:10  
 Sample : 110502A LCS-1WC (SS)  
 Misc : Water 10ml w/IS&S: 05-02-11

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

Quant Time: May 3 9:12 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:12:03 2011  
 Response via : Initial Calibration



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

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

Blank Name/QCG: 110502W-36735 - 154887  
 Batch ID: #86RHB-110502AC

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	05/03/11	05/03/11
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	05/03/11	05/03/11
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	05/03/11	05/03/11
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	05/03/11	05/03/11
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	05/03/11	05/03/11
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	05/03/11	05/03/11
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	05/03/11	05/03/11
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	05/03/11	05/03/11
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	05/03/11	05/03/11
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	05/03/11	05/03/11
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	05/03/11	05/03/11
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	05/03/11	05/03/11
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	05/03/11	05/03/11
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	05/03/11	05/03/11
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	05/03/11	05/03/11
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	05/03/11	05/03/11
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	05/03/11	05/03/11
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	05/03/11	05/03/11
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	05/03/11	05/03/11
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	05/03/11	05/03/11
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	05/03/11	05/03/11
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	05/03/11	05/03/11
BLANK	CHLOROMETHANE	0.62 U	1.0	0.62	0.31	ug/L	05/03/11	05/03/11
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	05/03/11	05/03/11
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	05/03/11	05/03/11
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	05/03/11	05/03/11
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
BLANK	METHYL TERT-BUTYL ETHER	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11

Quant Method: C86DODW.M  
 Run #: 0502C20  
 Instrument: Chico  
 Sequence: C110502  
 Initials: DG

GC SC-Blank-REG MDLs  
 Printed: 05/16/11 8:38:13 PM

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

Blank Name/QCG: 110502W-36735 - 154887  
 Batch ID: #86RHB-110502AC

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	05/03/11	05/03/11
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	05/03/11	05/03/11
BLANK	TETRACHLOROETHENE	0.30 U	1.0	0.30	0.15	ug/L	05/03/11	05/03/11
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	05/03/11	05/03/11
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	05/03/11	05/03/11
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	05/03/11	05/03/11
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	05/03/11	05/03/11
BLANK	SURROGATE: 1,2-DICHLOROET	110	70-120			%	05/03/11	05/03/11
BLANK	SURROGATE: 4-BROMOFLUORO	96.1	75-120			%	05/03/11	05/03/11
BLANK	SURROGATE: DIBROMOFLUOR	109	85-115			%	05/03/11	05/03/11
BLANK	SURROGATE: TOLUENE-D8 (S)	107	85-120			%	05/03/11	05/03/11

Quant Method: C86DODW.M  
 Run #: 0502C20  
 Instrument: Chico  
 Sequence: C110502  
 Initials: DG

Data File : M:\CHICO\DATA\C110502\0502C20W.D Vial: 1  
 Acq On : 3 May 11 5:05 Operator: RS  
 Sample : 110502A BLK-1WC Inst : Chico  
 Misc : Water 10ml w/IS&S: 05-02-11 Multiplr: 1.00

Quant Time: May 7 16:23 2011 Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:12:03 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	140352	25.00000	ppb	-0.01
35) Chlorobenzene-D5 (IS)	18.07	117	77648	25.00000	ppb	-0.01
51) 1,4-Dichlorobenzene-D (IS)	22.26	152	39256	25.00000	ppb	-0.01
System Monitoring Compounds						
20) Dibromofluoromethane(S)	11.46	111	109224	25.58845	ppb	-0.01
Spiked Amount	23.521		Recovery	=	108.790%	
23) 1,2-DCA-D4(S)	12.27	65	102005	24.52304	ppb	0.00
Spiked Amount	22.321		Recovery	=	109.867%	
36) Toluene-D8(S)	15.54	98	357192	27.71454	ppb	0.00
Spiked Amount	26.002		Recovery	=	106.589%	
44) 4-Bromofluorobenzene(S)	20.14	95	129538	25.32425	ppb	0.00
Spiked Amount	26.339		Recovery	=	96.148%	
Target Compounds						Qvalue



Quantitation Report

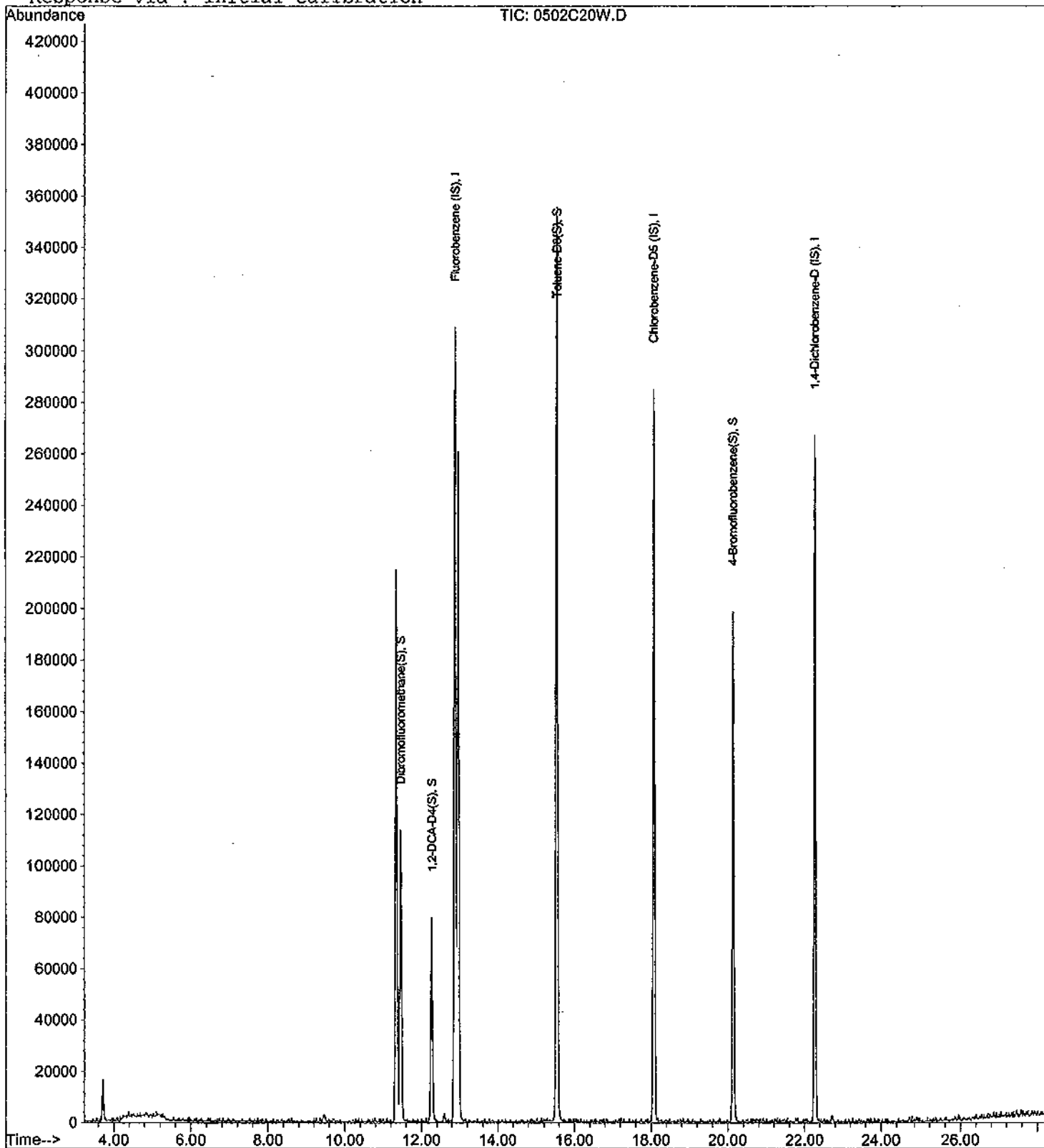
Data File : M:\CHICO\DATA\C110502\0502C20W.D  
Acq On : 3 May 11 5:05  
Sample : 110502A BLK-1WC  
Misc : Water 10ml w/IS&S: 05-02-11

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

Quant Time: May 7 16:23 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue May 03 09:12:03 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110502\0502C20W.D Vial: 1  
 Acq On : 3 May 11 5:05 Operator: RS  
 Sample : 110502A BLK-1WC Inst : Chico  
 Misc : Water 10ml w/IS&S: 05-02-11 Multiplr: 1.00

Quant Time: May 16 20:30 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.88	TIC	308651	25.00000	ppb	-0.02
4) Chlorobenzene-D5 (IS)	18.07	TIC	284779	25.00000	ppb	-0.03
7) 1,4-Dichlorobenzene-D (IS)	22.26	TIC	266959	25.00000	ppb	-0.02
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.46	TIC	353148	20.60823	ppb	-0.02
Spiked Amount	23.521					
					Recovery =	87.615%
5) Toluene-D8(S)	15.54	TIC	1044742	29.01141	ppb	-0.02
Spiked Amount	26.002					
					Recovery =	111.572%
6) 4-Bromofluorobenzene(S)	20.14	TIC	554602	23.15050	ppb	-0.03
Spiked Amount	26.339					
					Recovery =	87.896%

Target Compounds Qvalue

Quantitation Report

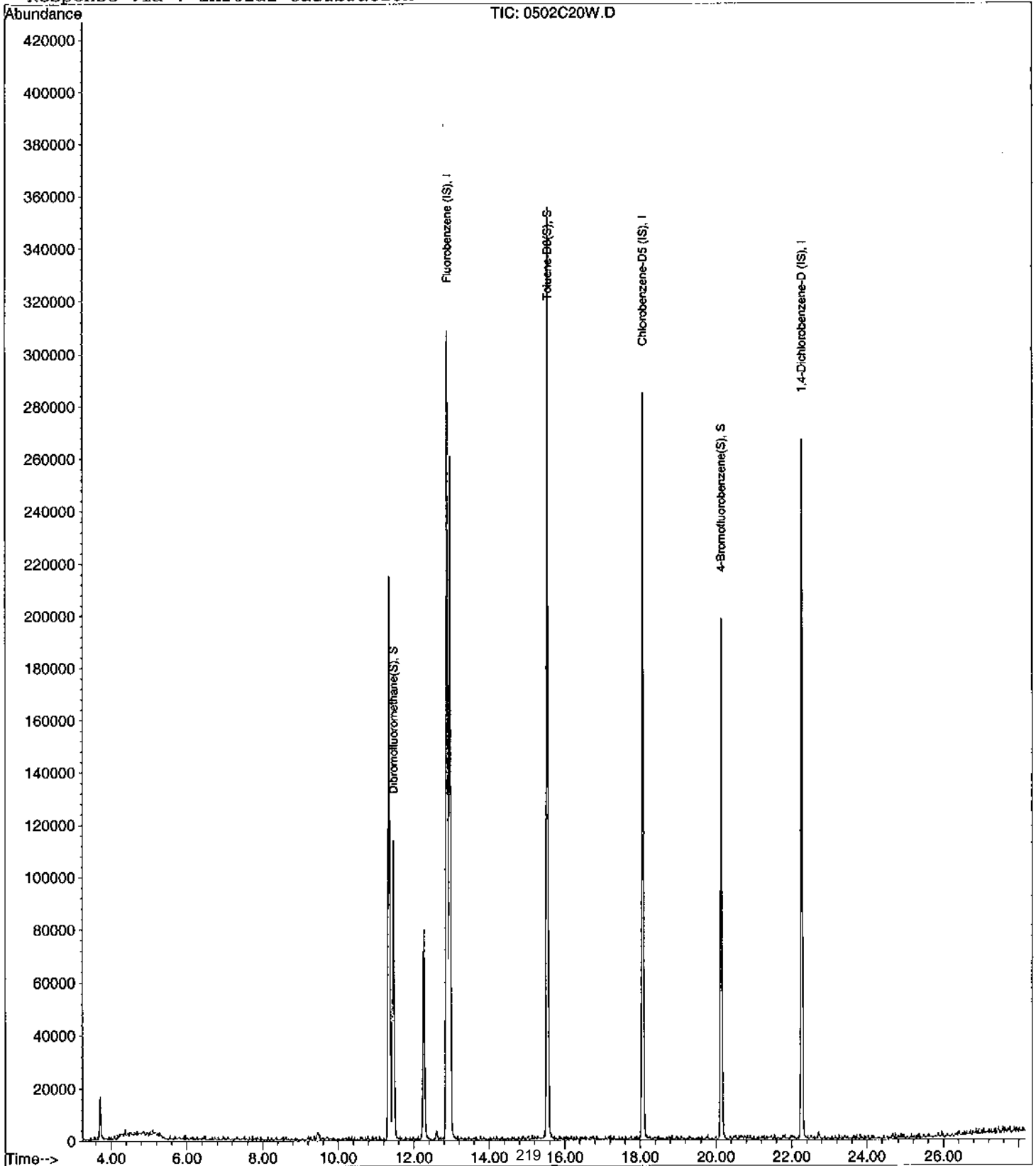
Data File : M:\CHICO\DATA\C110502\0502C20W.D  
Acq On : 3 May 11 5:05  
Sample : 110502A BLK-1WC  
Misc : Water 10ml w/IS&S: 05-02-11

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

Quant Time: May 16 20:30 2011

Quant Results File: GAS.RES

Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



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

APPL ID: 110503W-36735 LCS - 154887

Batch ID: #86RHB-110502AC

APPL Inc.

908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,1,1,2-TETRACHLOROETHANE	10.00	9.89	98.9	80-130
1,1,1-TRICHLOROETHANE	10.00	9.56	95.6	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	9.34	93.4	65-130
1,1,2-TRICHLOROETHANE	10.00	8.92	89.2	75-125
1,1-DICHLOROETHANE	10.00	9.87	98.7	70-135
1,1-DICHLOROETHENE	10.00	9.91	99.1	70-130
1,2,3-TRICHLOROPROPANE	10.00	10.4	104	75-125
1,2,4-TRICHLOROBENZENE	10.00	8.81	88.1	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	9.20	92.0	50-130
1,2-DIBROMOETHANE	10.00	9.87	98.7	70-130
1,2-DICHLOROBENZENE	10.00	10.3	103	70-120
1,2-DICHLOROETHANE	10.00	9.27	92.7	70-130
1,2-DICHLOROPROPANE	10.00	8.94	89.4	75-125
1,3-DICHLOROBENZENE	10.00	10.5	105	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	18.1	90.5	70-130
1,4-DICHLOROBENZENE	10.00	10.0	100	75-125
2-BUTANONE	10.00	8.57	85.7	30-150
4-METHYL-2-PENTANONE	10.00	10.1	101	60-135
ACETONE	10.00	10.3	103	40-140
BENZENE	10.00	9.61	96.1	80-120
BROMODICHLOROMETHANE	10.00	9.37	93.7	75-120
BROMOFORM	10.00	8.86	88.6	70-130
BROMOMETHANE	10.00	10.2	102	30-145
CARBON TETRACHLORIDE	10.00	9.71	97.1	65-140
CHLOROBENZENE	10.00	9.82	98.2	80-120
CHLORODIBROMOMETHANE	10.00	9.32	93.2	60-135

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

Primary	SPK
Quant Method :	C86DODW.M
Extraction Date :	05/03/11
Analysis Date :	05/03/11
Instrument :	Chico
Run :	0502C17
Initials :	DG

Printed: 05/16/11 8:38:15 PM

## Laboratory Control Spike Recovery

### EPA 8260B VOCs + Gas Water

APPL ID: 110503W-36735 LCS - 154887  
 Batch ID: #86RHB-110502AC

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	10.7	107	60-135
CHLOROFORM	10.00	9.47	94.7	65-135
CHLOROMETHANE	10.00	8.49	84.9	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.86	98.6	70-125
ETHYLBENZENE	10.00	10.0	100	75-125
GASOLINE	300	317	106	75-125
HEXACHLOROBUTADIENE	10.00	10.7	107	50-140
METHYL TERT-BUTYL ETHER	10.00	9.36	93.6	65-125
METHYLENE CHLORIDE	10.00	8.66	86.6	55-140
STYRENE	10.00	9.44	94.4	65-135
TETRACHLOROETHENE	10.00	10.2	102	45-150
TOLUENE	10.00	10.0	100	75-120
TRANS-1,2-DICHLOROETHENE	10.00	10.4	104	60-140
TRICHLOROETHENE	10.00	9.72	97.2	70-125
VINYL CHLORIDE	10.00	8.91	89.1	50-145
XYLENES (TOTAL)	30.0	30.6	102	80-120
-----				
SURROGATE: 1,2-DICHLOROETHANE-D	22.3	24.4	109	70-120
SURROGATE: 4-BROMOFLUOROBENZE	26.3	26.1	99.1	75-120
SURROGATE: DIBROMOFLUOROMETH	23.5	25.8	110	85-115
SURROGATE: TOLUENE-D8 (S)	26.0	27.3	105	85-120

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

Primary	SPK
Quant Method :	C86DODW.M
Extraction Date :	05/03/11
Analysis Date :	05/03/11
Instrument :	Chico
Run :	0502C17
Initials :	DG

Printed: 05/16/11 8:38:15 PM

Data File : M:\CHICO\DATA\C110502\0502C17W.D  
 Acq On : 3 May 11 2:10  
 Sample : 110502A LCS-1WC (SS)  
 Misc : Water 10ml w/IS&S: 05-02-11

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

Quant Time: May 3 9:12 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:12:03 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	148352	25.00000	ppb	0.00
35) Chlorobenzene-D5 (IS)	18.07	117	83328	25.00000	ppb	0.00
51) 1,4-Dichlorobenzene-D (IS)	22.27	152	43664	25.00000	ppb	0.00
<b>System Monitoring Compounds</b>						
20) Dibromofluoromethane(S)	11.46	111	116380	25.79464	ppb	0.00
Spiked Amount	23.521				Recovery = 109.670%	
23) 1,2-DCA-D4(S)	12.27	65	107242	24.39175	ppb	0.00
Spiked Amount	22.321				Recovery = 109.280%	
36) Toluene-D8(S)	15.54	98	377549	27.29723	ppb	0.00
Spiked Amount	26.002				Recovery = 104.981%	
44) 4-Bromofluorobenzene(S)	20.15	95	143532	26.14734	ppb	0.00
Spiked Amount	26.339				Recovery = 99.273%	
<b>Target Compounds</b>						
						Qvalue
2) Dichlorodifluoromethane	4.12	85	80524	10.43801	ppb	98
3) Chloromethane	4.59	50	74158	8.48595	ppb	97
4) Vinyl chloride	4.86	62	19472	8.90968	ppb	97
5) Bromomethane	5.77	94	12804	10.15396	ppb	93
6) Chloroethane	5.96	64	38898	10.65128	ppb	96
7) Trichlorofluoromethane	6.56	101	100938	10.25754	ppb	97
8) Acetone	7.32	43	5175	10.25012	ppb	86
9) 1,1-DCE	7.73	96	42964	9.91041	ppb	98
10) Methylene chloride	8.52	84	37533	8.66297	ppb	95
11) Carbon disulfide	8.61	76	38648	9.84662	ppb	96
12) Methyl t-butyl ether (MtBE)	8.94	73	59047	9.35758	ppb	93
13) Trans-1,2-DCE	9.14	96	49775	10.44507	ppb	89
14) 1,1-DCA	9.83	63	92752	9.86995	ppb	97
15) MEK (2-Butanone)	10.48	43	15790	8.57335	ppb	# 92
16) Cis-1,2-DCE	10.85	96	47526	9.85866	ppb	97
17) 2,2-Dichloropropane	10.85	77	68541	8.34601	ppb	94
18) Chloroform	11.13	83	89258	9.46706	ppb	96
19) Bromochloromethane	11.35	128	13553	9.75987	ppb	85
21) 1,1,1-TCA	11.89	97	96851	9.55840	ppb	97
22) 1,1-Dichloropropene	12.15	75	69272	9.78500	ppb	95
24) Carbon Tetrachloride	12.34	117	83683	9.70570	ppb	86
25) 1,2-DCA	12.42	62	47537	9.26921	ppb	100
26) Benzene	12.53	78	166058	9.61489	ppb	96
27) TCE	13.58	95	54822	9.71684	ppb	90
28) 1,2-Dichloropropane	13.80	63	35839	8.94447	ppb	97
29) Bromodichloromethane	14.16	83	55812	9.36569	ppb	# 95
30) Dibromomethane	14.21	93	18983	9.79973	ppb	94
31) Cis-1,3-Dichloropropene	15.04	75	54178	9.59039	ppb	99
32) Toluene	15.68	92	103811	9.99742	ppb	99
33) Trans-1,3-Dichloropropene	15.83	75	38735	8.52049	ppb	89
34) 1,1,2-TCA	16.11	83	15435	8.92238	ppb	81
37) 1,2-EDB	17.36	107	18740	9.87470	ppb	# 91
38) Tetrachloroethene	16.82	164	31388	10.20505	ppb	98
39) 1-Chlorohexane	17.74	91	58162	10.82633	ppb	91
40) 1,1,1,2-Tetrachloroethane	18.19	131	36432	9.88563	ppb	90
41) m&p-Xylene	18.40	106	139349	20.18770	ppb	98
42) o-Xylene	19.13	106	69129	10.37680	ppb	81
43) Styrene	19.15	78	67278	9.43649	ppb	88
45) 2-Hexanone	16.13	43	7683	8.67291	ppb	92

(#) = qualifier out of range (m) = manual integration  
 0502C17W.D C86DODW.M Sat May 07 16:31:00 2011

Data File : M:\CHICO\DATA\C110502\0502C17W.D Vial: 1  
 Acq On : 3 May 11 2:10 Operator: RS  
 Sample : 110502A LCS-1WC (SS) Inst : Chico  
 Misc : Water 10ml w/IS&S: 05-02-11 Multiplr: 1.00

Quant Time: May 3 9:12 2011

Quant Results File: C86DODW.RES

Quant Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue May 03 09:12:03 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) 1,3-Dichloropropane	16.53	76	36339	9.43183	ppb	92
47) Dibromochloromethane	17.00	129	28112	9.32108	ppb	99
48) Chlorobenzene	18.13	112	90717	9.82085	ppb	95
49) Ethylbenzene	18.25	91	216693	9.99598	ppb	100
50) Bromoform	19.67	173	12711	8.86189	ppb	91
52) MIBK (methyl isobutyl keto	14.71	43	12465	10.07611	ppb	91
53) Isopropylbenzene	19.77	105	209175	10.64930	ppb	99
54) 1,1,2,2-Tetrachloroethane	19.92	83	15179	9.34267	ppb	96
55) 1,2,3-Trichloropropane	20.19	110	5465	10.41493	ppb	82
56) Bromobenzene	20.50	156	34412	9.88506	ppb	94
57) n-Propylbenzene	20.48	91	256548	10.79242	ppb	99
58) 2-Chlorotoluene	20.77	91	172735	10.35280	ppb	97
59) 1,3,5-Trimethylbenzene	20.75	105	170360	10.85381	ppb	100
60) 4-Chlorotoluene	20.85	91	149583	10.65039	ppb	97
61) Tert-Butylbenzene	21.38	119	150714	10.76106	ppb	98
62) 1,2,4-Trimethylbenzene	21.44	105	168370	10.52536	ppb	95
63) Sec-Butylbenzene	21.78	105	221407	10.91710	ppb	95
64) p-Isopropyltoluene	22.02	119	159888	10.78212	ppb	96
65) 1,3-DCB	22.16	146	72861	10.47577	ppb	92
66) 1,4-DCB	22.32	146	67682	10.02765	ppb	95
67) n-Butylbenzene	22.73	91	172162	10.88602	ppb	99
68) 1,2-DCB	22.95	146	58937	10.28616	ppb	97
69) 1,2-Dibromo-3-chloropropan	24.17	157	2740	9.20073	ppb	88
70) 1,2,4-Trichlorobenzene	25.61	180	15934	8.80979	ppb	96
71) Hexachlorobutadiene	25.86	223	9678	10.74624	ppb	96
72) Naphthalene	25.96	128	20816	9.20998	ppb	97
73) 1,2,3-Trichlorobenzene	26.32	180	33011	9.37516	ppb	97

Quantitation Report

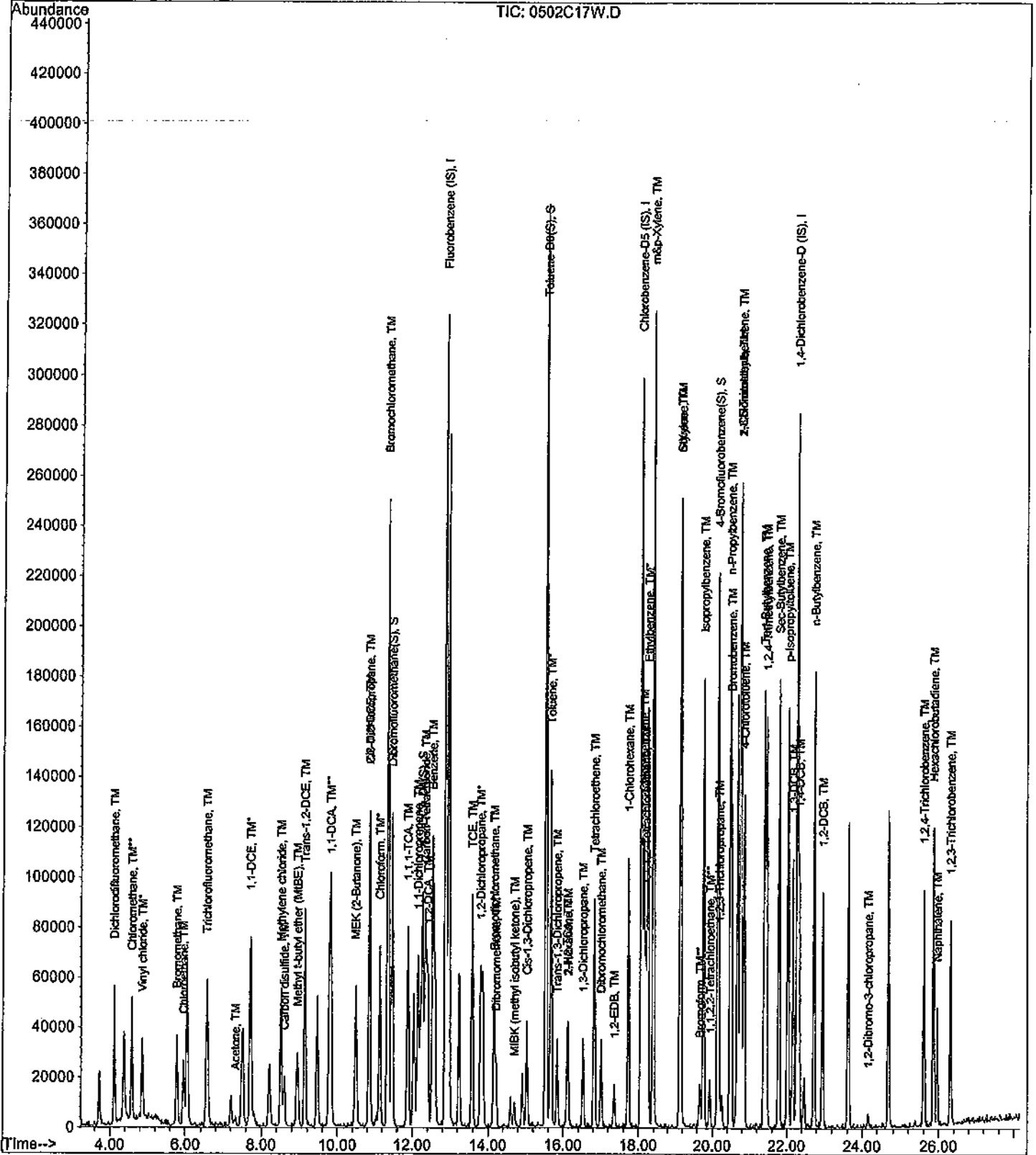
Data File : M:\CHICO\DATA\C110502\0502C17W.D  
Acq On : 3 May 11 2:10  
Sample : 110502A LCS-1WC (SS)  
Misc : Water 10ml w/IS&S: 05-02-11

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

Quant Time: May 3 9:12 2011

Quant Results File: C86DODW.RES

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue May 03 09:12:03 2011  
Response via : Initial Calibration





Data File : M:\CHICO\DATA\C110502\0502C15W.D Vial: 1  
 Acq On : 3 May 11 1:00 Operator: RS  
 Sample : GAS Std 05-02-11@300ug/L Inst : Chico  
 Misc : Water 10ml w/IS&S: 05-02-11 Multiplr: 1.00

Quant Time: May 16 20:29 2011 Quant Results File: GAS.RES

Quant Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon May 16 19:45:38 2011  
 Response via : Initial Calibration  
 DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.89	TIC	423283	25.00000	ppb	-0.01
4) Chlorobenzene-D5 (IS)	18.09	TIC	386316	25.00000	ppb	-0.01
7) 1,4-Dichlorobenzene-D (IS)	22.29	TIC	385131	25.00000	ppb	0.00
System Monitoring Compounds						
3) Dibromofluoromethane(S)	11.47	TIC	432273	18.39411	ppb	-0.01
Spiked Amount	23.521		Recovery	=	78.202%	
5) Toluene-D8(S)	15.55	TIC	1481589	30.32863	ppb	-0.01
Spiked Amount	26.002		Recovery	=	116.641%	
6) 4-Bromofluorobenzene(S)	20.16	TIC	757680	23.31471	ppb	-0.01
Spiked Amount	26.339		Recovery	=	88.519%	
Target Compounds						
2) Gasoline	15.68	TIC	18799291m	317.08900	ppb	Qvalue 100

Quantitation Report

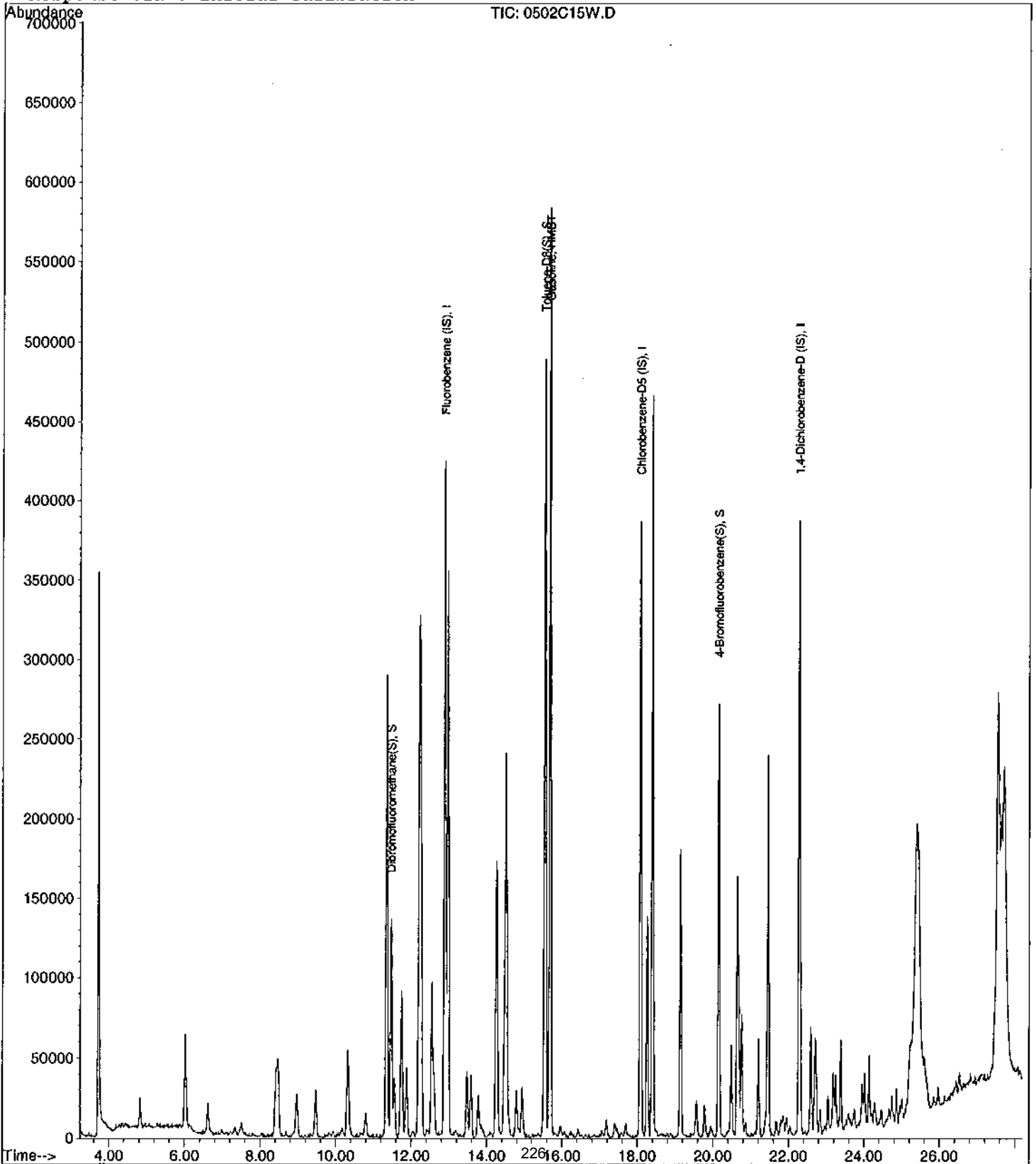
Data File : M:\CHICO\DATA\C110502\0502C15W.D  
Acq On : 3 May 11 1:00  
Sample : GAS Std 05-02-11@300ug/L  
Misc : Water 10ml w/IS&S: 05-02-11

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

Quant Time: May 16 20:29 2011

Quant Results File: GAS.RES

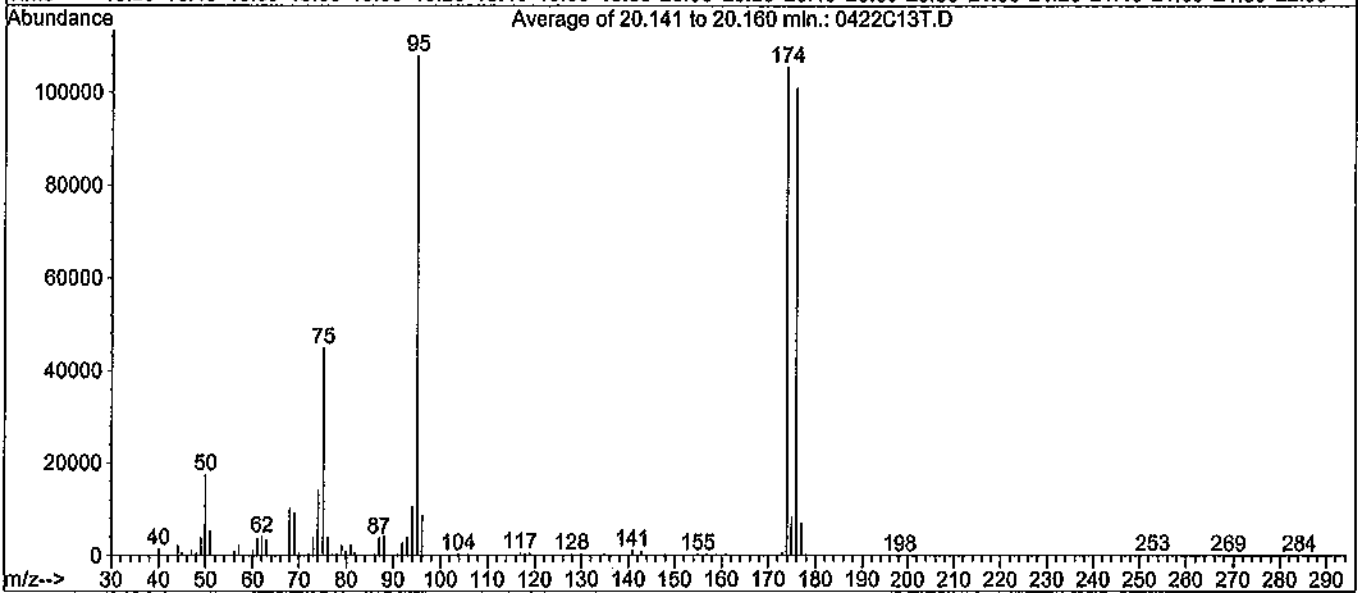
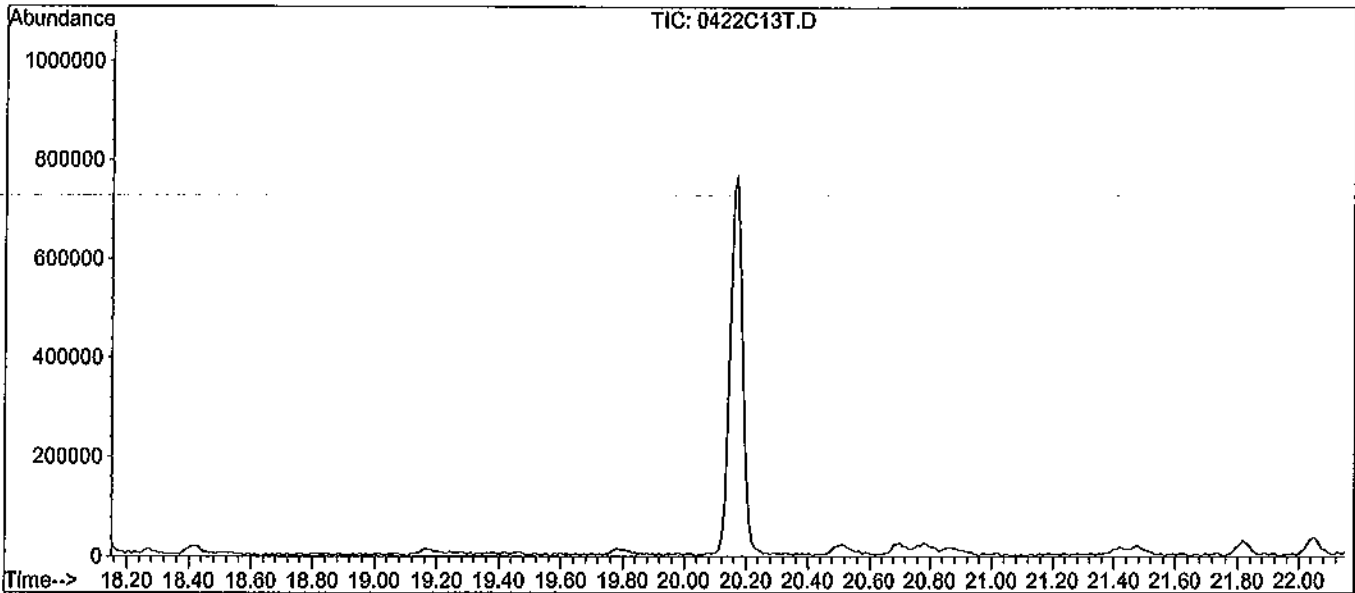
Method : M:\CHICO\DATA\C110422\GAS.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon May 16 19:45:38 2011  
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C110422\0422C13T.D  
 Acq On : 22 Apr 11 23:53  
 Sample : 20ug/ml BFB STD 04-15-11A  
 Misc : 2ul

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

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B



Spectrum Information: Average of 20.141 to 20.160 min.

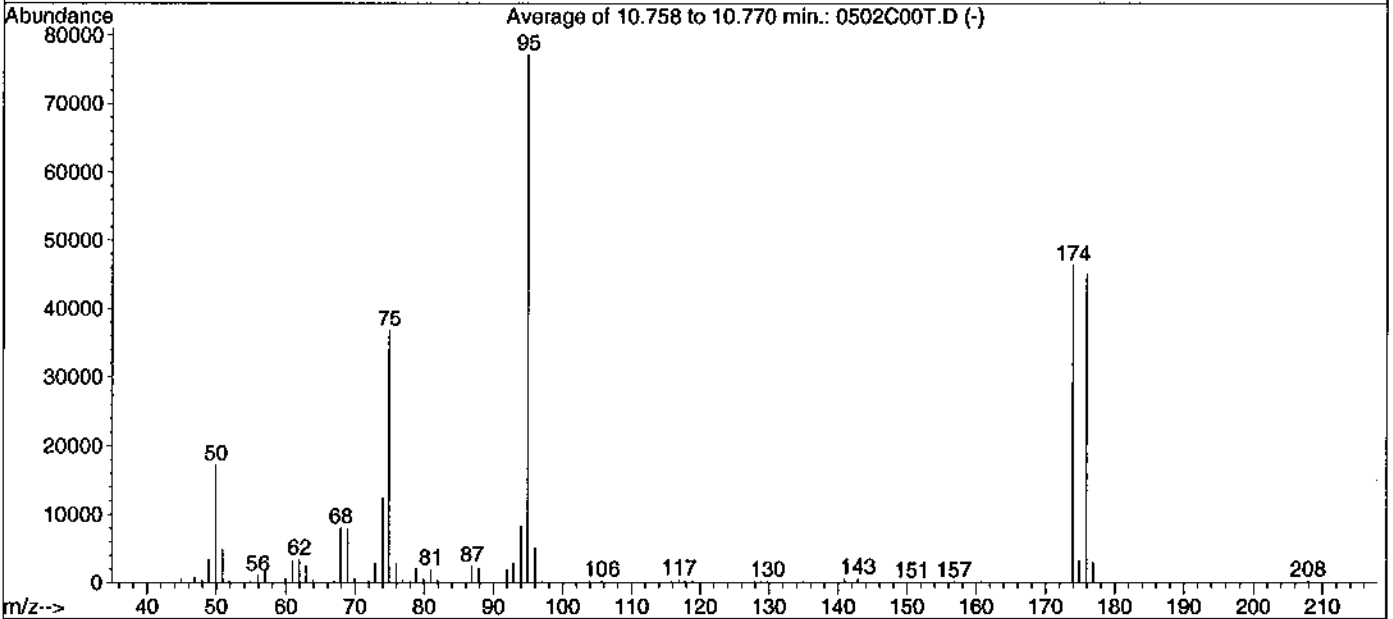
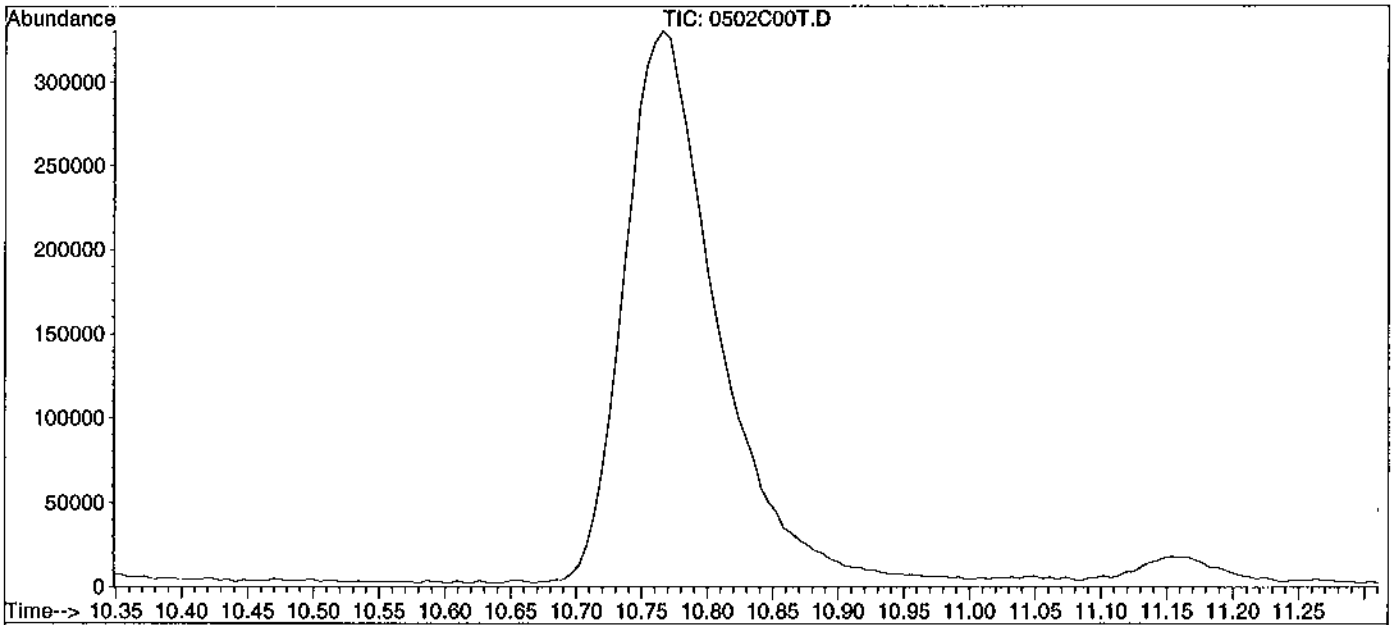
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.2	17487	PASS
75	95	30	60	41.6	44917	PASS
95	95	100	100	100.0	107933	PASS
96	95	5	9	8.0	8634	PASS
173	174	0.00	2	0.5	483	PASS
174	95	50	100	97.7	105496	PASS
175	174	5	9	7.8	8183	PASS
176	174	95	101	95.8	101021	PASS
177	176	5	9	6.9	6934	PASS

BFB

Data File : M:\CHICO\DATA\C110502\0502C00T.D  
 Acq On : 2 May 11 14:08  
 Sample : 20ug/ml BFB STD 04-15-11A  
 Misc : 2uL

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

Method : M:\CHICO\DATA\C110422\C86DODW.M (RTE Integrator)  
 Title : METHOD 8260B



Spectrum Information: Average of 10.758 to 10.770 min.

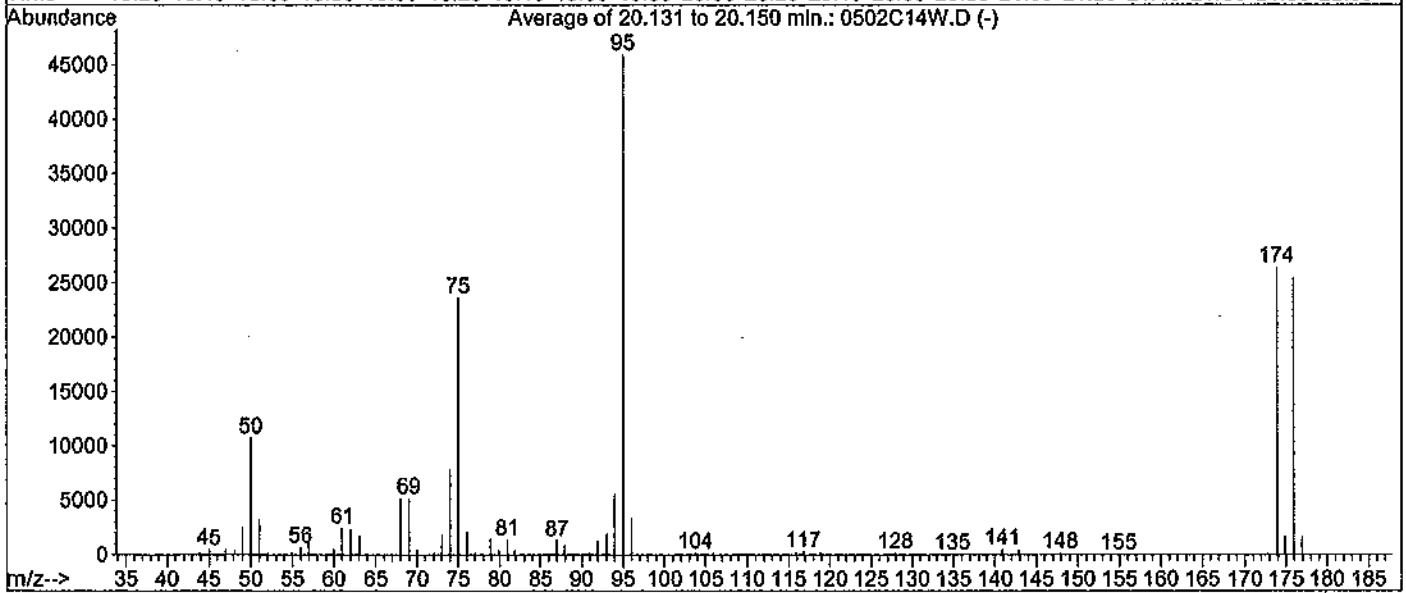
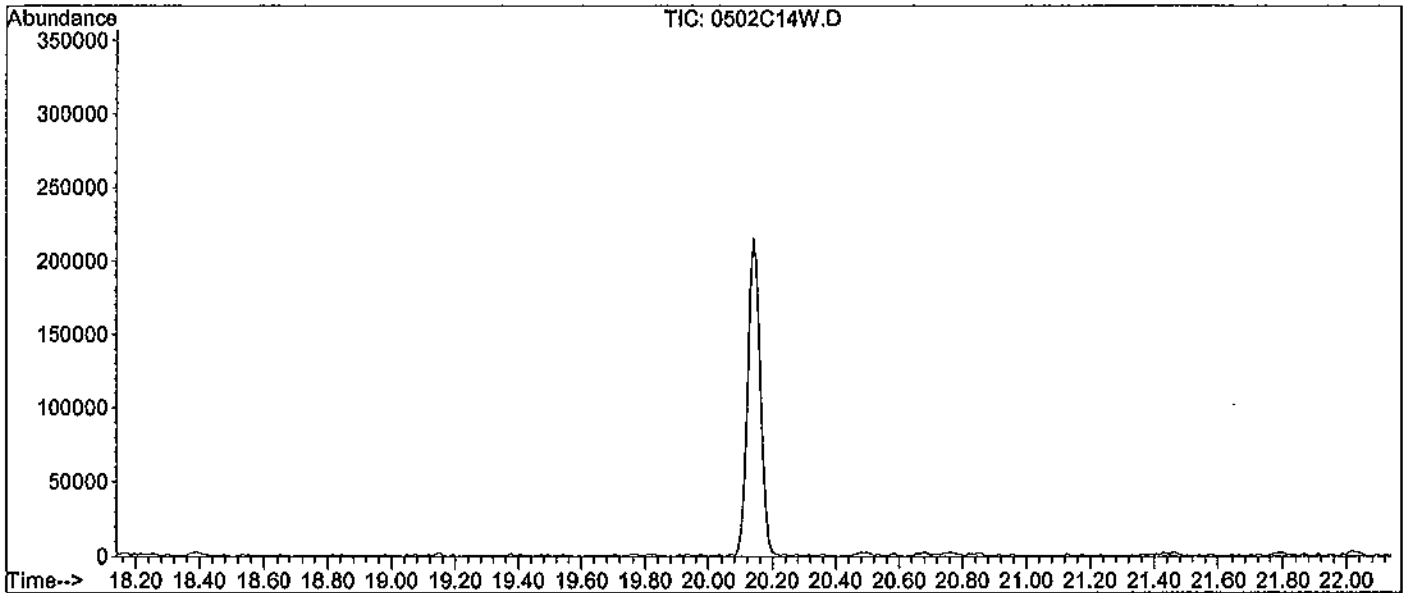
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.3	17184	PASS
75	95	30	60	47.8	36875	PASS
95	95	100	100	100.0	77149	PASS
96	95	5	9	6.8	5216	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	60.1	46405	PASS
175	174	5	9	7.1	3274	PASS
176	174	95	101	97.2	45120	PASS
177	176	5	9	6.6	2963	PASS

BFB

Data File : M:\CHICO\DATA\C110502\0502C14W.D  
Acq On : 3 May 11 00:25  
Sample : 20ug/ml BFB STD 04-15-11A  
Misc : 2uL

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

Method : M:\CHICO\DATA\C110502\C86DODW.M (RTE Integrator)  
Title : METHOD 8260B



Spectrum Information: Average of 20.131 to 20.150 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.4	10753	PASS
75	95	30	60	51.4	23608	PASS
95	95	100	100	100.0	45912	PASS
96	95	5	9	7.2	3299	PASS
173	174	0.00	2	0.5	122	PASS
174	95	50	100	57.5	26421	PASS
175	174	5	9	6.6	1741	PASS
176	174	95	101	96.2	25429	PASS
177	176	5	9	6.3	1613	PASS

034

4-29-11  
RS.

Volatile Standard Curve Preparation for 5mL Purge (8260 spil)-Max											
Expiration Date: 04/30/11											
Date	Conc	50ug/ml Vol Std #9	50ug/ml Sur	50ug/ml Vol Std #7	50ug/ml Vol Std #8	50ug/ml Sur	50ug/ml Vol Std #10	50ug/ml Vol Std #11	50ug/ml Vol Std #2	50ug/ml Vol Std #12	50ug/ml Vol Std #12
Code	ug/L	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11
04-29-11T	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a	n/a
04-29-11U	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a	n/a
04-29-11V	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a	n/a
04-29-11W	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a	n/a
04-29-11X	50	n/a	n/a	5	5	5	n/a	5	n/a	5	10
04-29-11Y	100	n/a	n/a	10	10	10	n/a	10	n/a	10	20
04-29-11Z	200	n/a	n/a	20	20	20	n/a	20	n/a	20	n/a

50ug/ml TBA	Final Vol
04-25-11Y	w/PAT H2O
Exp:05-02-11	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

4-30-11  
RS.

Volatile Standard Curve Preparation for 5mL Purge (8260 spill)-Chico											
Expiration Date: 05/01/11											
Date	Conc	50ug/ml Vol Std #9	50ug/ml Sur	50ug/ml Vol Std #7	50ug/ml Vol Std #8	50ug/ml Sur	50ug/ml Vol Std #10	50ug/ml Vol Std #11	50ug/ml Vol Std #2	50ug/ml Vol Std #12	50ug/ml Vol Std #12
Code	ug/L	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11	Exp:05-02-11
04-30-11A	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a	n/a
04-30-11B	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a	n/a
04-30-11C	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a	n/a
04-30-11D	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a	n/a
04-30-11E	50	n/a	n/a	5	5	5	n/a	5	n/a	5	10
04-30-11F	100	n/a	n/a	10	10	10	n/a	10	n/a	10	20
04-30-11G	200	n/a	n/a	20	20	20	n/a	20	n/a	20	n/a

250ug/ml TBA	Final Vol
04-25-11Y	w/PAT H2O
Exp:05-02-11	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

5-02-11  
RS.

A-

Method 8260 Gases, 2,000  
mg/L, 2 X 0.6 ml

110016-03

Lot# Storage Expiry  
169238 -10 Degrees C 2/19/14

Sol: P/T Methanol

Method 8260 Gases  
Lot #: 169238 - 26291  
Rec: 2/17/11 MFR exp. 02/19/14

5-02-11  
RS.

B-

Hexachloroethane Solution, 1000 mg/L, 1 ml

**o2si** Cat. No: 020049-02 Exp: 4/1/2012  
Lot No: 157911 Storage: </- 10 Degrees C  
Hexachloroethane Solvent: P/T Methanol

Lot #: 157911 - 26706  
Rec: 6/8/10 MFR exp. 04/01/12

plion For Research Use Only  
Opened:

5-02-11  
RS.

C-

Benzyl Chloride Solution, 1000  
mg/L, 1 ml

020218-02  
Lot# Storage Expiry  
163373 -10 Degree 8/29/12

Sol: P/T Methanol

Benzyl Chloride  
Lot #: 163373 - 27665  
Rec: 12/15/10 MFR exp. 08/29/12

5-02-11

D-

RS

n-Hexane Solution, 1,000  
mg/L, 1 ml

Lot#	Storage	Expiry
163378	5-10 Degrees	8/19/15

020610-02  
n-Hexane, 1000mg/L  
Lot #: 163378 - 27881  
Rec: 12/15/10 MFR exp. 08/29/15

5-02-11

E-

RS

02si  
smart solutions  
Heptane Solution

Heptane Solution, 1000 mg/L, 1 ml

Cat. No.	Lot No.	Exp.
020546-02	149236	8/2/2012

Storage: <= -10 Degrees C  
Solvent: P/T Methanol  
For Research Use Only

Lot #: 149236 - 27650  
Rec: 10/20/10 MFR exp. 08/02/12

5-02-11

F-

RS

Method 8260B Surrogate  
Solution, 2,000 mg/L, 1 ml

Lot#	Storage	Expiry
164585	<= 10 Degrees C	10/22/13

120002-01  
Solv: P/T Methanol  
Method 8260B Surrogate  
Lot #: 134585 - 27936  
Rec: 12/15/10 MFR exp. 10/12/13

5-02-11

G-

RS

VOC Mix 4-3, 2,000 mg/L, 1  
ml

Lot#	Storage	Expiry
166725	<= 6 Degrees C	12/2/12

120166-01  
Solv: P/T Methanol  
VOC Mix 4-3, 2000mg/L  
Lot #: 166725 - 28320  
Rec: 2/17/11 MFR exp. 12/02/12

5-02-11

H-

RS

Acrolein Solution, 10,000  
mg/L, 2 x 0.6 ml

Lot#	Storage	Expiry
171923	<= 6 Degrees C	8/25/11

81822-89-02  
Solv: Water, HPLC Grade  
Acrolein solution  
Lot #: 171923 - 28628  
Rec: 4/18/11 MFR exp. 05/25/11

5-02-11

I-

RS

Method 8260 Gases (Second Source), 2,000 mg/L, 2 X 0.6 ml

Cat. No.	Lot No.	Exp.
120016-03-SS	160736	6/21/2013

Storage: <= -10 Degrees C  
Solvent: P/T Methanol  
For Research Use Only

Method 8260 Gases (SS)  
Lot #: 160736 - 27915  
Rec: 12/15/10 MFR exp. 06/23/11

036

5-02-11  
RS.

J-

Acrolein Solution (Second Source), 10,000 mg/L, 2 x 0.6 ml

100% purity, not known concentration  
 Made in the USA

028228-09-02-SS  
 Lot # Storage Expiry  
 171924 56 Degree C 5/25/11  
 Soln Water, HPLC Grade

*[Handwritten mark]*

Acrolein Solution SS  
 Lot #: 171924 - 28628  
 Rec: 4/19/11 MFR exp: 05/25/11

05-02-11K		50ug/ml Vol Work Std #7		Conc.		Date		Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Date	u1	
028I	120016-03	Gas Mix	2000	169238-28291	05-02-11A	05/02/11	06/02/11	100	
028I	020049-02	HEXACHLOROETHANE	1000	167911-26706	05-02-11B	05/14/11	05/14/11	200	
028I	020228-02	Benzyl Chloride	1000	163393-27865	05-02-11C	05/14/11	05/14/11	200	
J&T Brand		Purge & Trap MeOH		H45E36-00512	05/02/11	10/14/11	10/14/11	3500	
05-02-11L		50ug/ml Vol Work Std #3		Conc.		Date		Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Date	u1	
028I	020145-02-02	2-CHEVE	2000	146517-26190	04-16-11D	05/07/11	05/07/11	50	
J&T Brand		Purge & Trap MeOH		H45E36-00512	05/02/11	10/14/11	10/14/11	1950	
05-02-11H		50ug/ml Vol Work Std #8		Conc.		Date		Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Date	u1	
028I	122039-02	Volatile Mix, 20-25	2000	148446-24740	04-16-11E	05/14/11	05/14/11	100	
028I	120023-03	VOC'S-54 COMP	2000	151805-25632	04-25-11C	10/14/11	10/14/11	100	
028I	020232-02	Vinyl Acetate	2000	169419-28359	04-16-11F	05/19/11	05/19/11	100	
028I	020620-02	n-Hexane	1000	163378-27881	05-02-11D	05/14/11	05/14/11	200	
028I	020545-02	Heptane	1000	149236-27650	05-02-11E	06/14/11	06/14/11	200	
J&T Brand		Purge & Trap MeOH		H45E36-00512	05/02/11	10/14/11	10/14/11	3300	
05-02-11N		50ug/ml Vol Work Std #2		Conc.		Date		Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Date	u1	
028I	121020-05	MSL'S-Ketone Solution	2000	169173-28308	04-25-11B	05/07/11	05/07/11	100	
J&T Brand		Purge & Trap MeOH		H45E36-00512	05/02/11	10/14/11	10/14/11	3900	
05-02-11O		50ug/ml Vol Work Std #9		Conc.		Date		Exp.	
SOURCE#		Lot	APPL Code	APPL Exp Date	u1				
			05-02-11K	05/02/11	200				
			05-02-11H	05/02/11	200				
J&T Brand			05/02/11	10/14/11	1600				
05-02-11P		50ug/ml Vol Work Std #10		Conc.		Date		Exp.	
SOURCE#		Lot	APPL Code	APPL Exp Date	u1				
			04-25-11Q	05/02/11	200				
J&T Brand			05/02/11	10/14/11	1800				
05-02-11Q		50ug/ml Vol Work Std #12		Conc.		Date		Exp.	
SOURCE#		Lot	APPL Code	APPL Exp Date	u1				
			04-25-11R	05/02/11	200				
J&T Brand			05/02/11	10/14/11	1800				
05-02-11R		50ug/ml 8260 Surrogate		Conc.		Date		Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Date	u1	
028I	120002-01	8260B Surr Solution	2000	164585-27936	05-02-11F	09/14/11	09/14/11	100	
J&T Brand		Purge & Trap MeOH		H45E36-00512	05/02/11	10/14/11	10/14/11	3900	
05-02-11S		5.0ug/ml 8260 Surrogate		Conc.		Date		Exp.	
SOURCE#		Lot	APPL Code	APPL Exp Date	u1				
			05-02-11R	05/02/11	200				
J&T Brand		Purge & Trap MeOH		H45E36-00512	05/02/11	10/14/11	10/14/11	1800	

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5-02-11  
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05-02-11S								APPL
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acroleln/2-P								
Exp:05/09/11								
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul	
			ug/ml		Code	Date		
02SI	120166-01	Volatile Mix 4-J	2000	166725-28320	05-02-11G	05/17/11	500	
02SI	020229-09	acrolein	10000	171923-28626	05-02-11H	04/25/11	100	
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11	1400	

5-02-11  
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05-02-11U							
30ug/ml VOC Std#5							
Exp:05/09/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
			ug/ml		Code	Date	
02SI	120016-03-SS	8260 Gases(SS)	2000	160736-27916	05-02-11I	06/02/11	50
02SI	020145-02-02	2-C8V8	2000	152930-25456	04-16-11L	11/03/11	50
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11	1900

05-02-11V							
50ug/ml VOC Std#6							
Exp:05/09/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
			ug/ml		Code	Date	
02SI	120023-03-SS	VOC'S 54 COMP.	2000	148632-26236	04-16-11M	07/14/11	50
02SI	120296-01	Custom 8260 Solution	2000	154846-25254	04-16-11N	07/14/11	50
02SI	020232-02-SS	Vinyl Acetate (SS)	2000	167177-28334	04-16-11N	05/19/11	50
02SI	020620-02-SS	n-HEXANE	1000	150529-27171	04-16-11O	09/02/11	100
02SI	020049-02-SS	HEXACHLOROETHANE	1000	154536-25914	04-16-11P	12/29/11	100
02SI	020546-02-SS	Heptane (SS)	1000	142276-23594	04-16-11Q	06/19/11	100
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11	1550

05-02-11W							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acroleln/2-P							
Exp:05/09/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
			ug/ml		Code	Date	
02SI	120166-01-SS	VOC Mix 4-J (SS)	2000	152511-26241	04-03-11K	11/03/11	250
02SI	020229-09-SS	Acrolein SOLUTION (SS)	10000	171924-28628	05-02-11J	05/25/11	50
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11	1700

05-02-11X							
50ug/ml Vol Work Std #7							
Exp:05/09/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
			ug/ml		Code	Date	
02SI	120016-03	Gas Mix	2000	159236-28291	05-02-11A	06/02/11	100
02SI	020049-02	HEXACHLOROETHANE	1000	157911-26706	05-02-11B	05/14/11	200
02SI	020228-02	Benzyl Chloride	1000	163373-27865	05-02-11C	05/14/11	200
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11	3500

5-02-11  
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05-02-11Y							
50ug/ml Vol Work Std #1							
Exp:05/09/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
			ug/ml		Code	Date	
02SI	020145-02-02	2-C8V8	2000	146517-26190	04-16-11D	05/07/11	50
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11	1950

05-02-11Z							
50ug/ml Vol Work Std #8							
Exp:05/09/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
			ug/ml		Code	Date	
02SI	120023-02	Volatile Mix, 20-29	2000	148446-24740	04-16-11E	05/14/11	100
02SI	120023-03	VOC'S-54 COMP	2000	151605-25632	04-25-11C	10/14/11	100
02SI	020232-02	Vinyl Acetate	2000	169439-28359	04-16-11P	05/19/11	100
02SI	020620-02	n-HEXANE	1000	163378-27883	05-02-11D	06/14/11	200
02SI	020546-02	Heptane	1000	149236-27650	05-02-11E	05/14/11	200
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11	3300

05-02-11AA							
50ug/ml Vol Work Std #2							
Exp:05/09/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
			ug/ml		Code	Date	
02SI	121020-08	MSL'S-Ketone Solution	2000	169173-28308	04-25-11A	05/07/11	100
J&T Brand		Purge & Trap MeOH		H45836-00512	05/02/11	10/14/11	3900

05-02-11AB							
50ug/ml Vol Work Std #9							
Exp: 05/09/11							
SOURCES	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #7		05-02-11X	05/02/11	200			
50ug/ml Vol Work Std #8		05-02-11Z	05/02/11	200			
J&T Brand		05/02/11	10/14/11	1600			

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5-02-11  
RS

		05-02-11AC	Exp: 05/09/11				
		Sug/ml Vol Work Std #10					
		SOURCE	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #1		05-02-11Y	05/02/11	200	
		J&T Brand		05/02/11	10/14/11	1800	
		05-02-11AD	Exp: 05/09/11				
		Sug/ml Vol Work Std #12					
		SOURCE	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #2		05-02-11AA	05/02/11	200	
		J&T Brand		05/02/11	10/14/11	1800	
05-02-11AE		50ug/ml #260 Surrogate		Conc.	Date	Exp.	
Exp: 05/09/11			ug/ml	Lot #	Code	Date	ul
02SI		120002-01	#260R Surr Solution	2000	165585-27936	05-02-11P	09/14/11 100
J&T Brand			Purge & Trap MeOH		H45B36-00B12	05/02/11	10/14/11 3900
05-02-11AF		5.0ug/ml #260 Surrogate		Conc.	Date	Exp.	
Exp: 05/09/11			ug/ml	Lot #	Code	Date	ul
J&T Brand			50ug/ml #260 Surrogate	200	05-02-11AB	05/02/11	200
			Purge & Trap MeOH		H45B36-00B12	05/02/11	1800
05-02-11AG		250ug/ml TBA/IBX/Acetonitrile/Cyclohexanone/Acrolein/2-P		Conc.	Date	APPL	
Exp: 05/09/11			ug/ml	Lot #	Code	Date	ul
Supplier		ID #					
02SE		120166-01	Volatile Mix 4-3	2000	166725-28120	05-02-11G	05/17/11 500
02SI		020229-09	Acrolein	10000	171923-28626	05-02-11H	01/29/11 100
J&T Brand			Purge & Trap MeOH		H45B36-00B12	05/02/11	10/14/11 3400

5-02-11  
RS

06/02/11AH		2000ug/ml Gasoline		Conc.	Date	APPL	
Exp: 05/09/11			ug/ml	Lot #	Code	Date	ul
Supplier		ID #					
Supelco		LBB1226	Gasoline	20	LB61226-26324	10-29-10A	09/02/11 200
J&T Brand			Purge & Trap MeOH		H46B44-00490	01/17/11	03/02/12 1800
06/02/11AI		2000ug/ml Unleaded Gasoline		Conc.	Date	APPL	
Exp: 05/09/11			ug/ml	Lot #	Code	Date	ul
Supplier		ID #					
Supelco		30205	Unleaded Gasoline	50,000	A050005-21116	10-29-10B	11/30/12 60
J&T Brand			Purge & Trap MeOH		H46B44-00490	01/17/11	03/02/12 1920

5-02-11  
RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-Chico											
Date	Conc.	05/02/11A		05/02/11B		05/02/11C		05/02/11D		05/02/11E	
		50ug/ml Vol Std #9	50ug/ml Vol Std #10	50ug/ml Vol Std #11	50ug/ml Vol Std #12	50ug/ml Vol Std #13	50ug/ml Vol Std #14	50ug/ml Vol Std #15	50ug/ml Vol Std #16	50ug/ml Vol Std #17	50ug/ml Vol Std #18
05-02-11AJ	0.5	3	5	10	20	40	80	100	n/a	n/a	n/a
05-02-11AK	0.5	3	5	10	20	40	80	100	n/a	n/a	n/a
05-02-11AL	1	5	10	20	40	80	100	n/a	n/a	n/a	n/a
05-02-11AM	2	10	20	40	80	100	n/a	n/a	n/a	n/a	n/a
05-02-11AN	5	20	40	80	100	n/a	n/a	n/a	n/a	n/a	n/a
05-02-11AO	10	40	80	100	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05-02-11AP	20	80	100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05-02-11AQ	40	100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05-02-11AR	100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

042

5-06-11  
RS

Volatile Standard Curve Preparation for 10mL Purge (2280 water)-Sweetpea

Expiration Date:		05/07/11									
Date	Conc.	50µg/mL Vol Std #9	50µg/mL Std #9	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Std #7	50µg/mL Std #8	50µg/mL Std #10	50µg/mL Std #11	50µg/mL Std #12	50µg/mL Std #13
Code	µg/L	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11
05-06-11L	0.3	3	6	n/a	n/a	n/a	n/a	3	n/a	n/a	3
05-06-11M	0.6	3	10	n/a	n/a	n/a	n/a	5	n/a	n/a	5
05-06-11W	1	10	20	n/a	n/a	n/a	n/a	10	n/a	n/a	10
05-06-11O	2	20	40	n/a	n/a	n/a	n/a	20	n/a	n/a	20
05-06-11P	5	n/a	n/a	5	5	10	n/a	5	5	n/a	5
05-06-11D	10	n/a	n/a	10	10	25	n/a	10	10	n/a	10
05-06-11R	20	n/a	n/a	20	20	40	n/a	20	20	n/a	20
05-06-11S	40	n/a	n/a	40	40	80	n/a	40	40	n/a	40
05-06-11T	100	n/a	n/a	100	100	n/a	n/a	100	100	n/a	100

250µg/mL TAPD	Final Vol
05-02-11AG	w/PAT H2O
Exp:05-09-11	mL
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

5-07-11  
5-06-11  
RS

Volatile Standard Curve Preparation for 10mL Purge (2280 water)-Max

Expiration Date:		05/06/11									
Date	Conc.	50µg/mL Vol Std #9	50µg/mL Std #9	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Std #7	50µg/mL Std #8	50µg/mL Std #10	50µg/mL Std #11	50µg/mL Std #12	50µg/mL Std #13
Code	µg/L	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11
05-07-11A	0.3	3	6	n/a	n/a	n/a	n/a	3	n/a	n/a	3
05-07-11B	0.5	5	10	n/a	n/a	n/a	n/a	5	n/a	n/a	5
05-07-11C	1	10	20	n/a	n/a	n/a	n/a	10	n/a	n/a	10
05-07-11D	2	20	40	n/a	n/a	n/a	n/a	20	n/a	n/a	20
05-07-11E	5	n/a	n/a	5	5	10	n/a	5	5	n/a	5
05-07-11F	10	n/a	n/a	10	10	25	n/a	10	10	n/a	10
05-07-11G	20	n/a	n/a	20	20	40	n/a	20	20	n/a	20
05-07-11H	40	n/a	n/a	40	40	80	n/a	40	40	n/a	40
05-07-11I	100	n/a	n/a	100	100	n/a	n/a	100	100	n/a	100

250µg/mL TAPD	Final Vol
05-02-11AG	w/PAT H2O
Exp:05-09-11	mL
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

5-07-11  
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Volatile Standard Curve Preparation for 10mL Purge (2280 water)-Ibs

Expiration Date:		05/07/11									
Date	Conc.	50µg/mL Vol Std #9	50µg/mL Std #9	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Std #7	50µg/mL Std #8	50µg/mL Std #10	50µg/mL Std #11	50µg/mL Std #12	50µg/mL Std #13
Code	µg/L	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11	Exp:05-09-11
05-07-11J	0.3	3	6	n/a	n/a	n/a	n/a	3	n/a	n/a	3
05-07-11K	0.5	5	10	n/a	n/a	n/a	n/a	5	n/a	n/a	5
05-07-11L	1	10	20	n/a	n/a	n/a	n/a	10	n/a	n/a	10
05-07-11M	2	20	40	n/a	n/a	n/a	n/a	20	n/a	n/a	20
05-07-11N	5	n/a	n/a	5	5	10	n/a	5	5	n/a	5
05-07-11O	10	n/a	n/a	10	10	25	n/a	10	10	n/a	10
05-07-11P	20	n/a	n/a	20	20	40	n/a	20	20	n/a	20
05-07-11Q	40	n/a	n/a	40	40	80	n/a	40	40	n/a	40
05-07-11R	100	n/a	n/a	100	100	n/a	n/a	100	100	n/a	100

250µg/mL TAPD	Final Vol
05-02-11AG	w/PAT H2O
Exp:05-09-11	mL
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

5-09-11 A.  
RS.

100% pure, high purity, certified  
 by the manufacturer.

Method 8260 Gases, 2,000  
mg/L, 2 X 0.6 ml

120016-03  
Lot# Storage Expiry  
169238 5-19 Degrees C 2/19/14  
Sol: PT Methanol

Method 8260 Gases  
Lot #: 169238 - 26292  
Rec: 2/17/11 MFR exp. 02/19/14

RS

5-09-11 B-  
RS

2-Chloroethyl Vinyl Ether Solution, 2,000 mg/L, 2 X 0.6 ml  
**o2si** Cat. No: 020145-02-02 Exp: 5/27/2012  
 Lot No: 160092 Storage: <=-10 Degrees C  
 2-Chloroethyl vinyl ether Solvent: P/T Methanol  
 Lot #: 160092 - 26629 Option For Research Use Only  
 Rec: 6/4/10 MFR exp. 05/27/12 Opened:

RS

5-09-11 C.  
RS

Method 8260B Surrogate  
 Solution, 2,000 mg/L, 1 ml  
 Lot # 170002-01  
 Storage: <=-10 Degrees C Expiry: 10/12/13  
 Sol: P/T Methanol  
 Method 8260B Surrogate  
 Lot #: 164585 - 27924  
 Rec: 12/15/10 MFR exp. 10/12/13

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5-09-11 D.  
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VOC Mix 4-3, 2,000 mg/L, 1 ml  
 Lot # 120166-01  
 Storage: <=-10 Degrees C Expiry: 11/2/12  
 Sol: P/T Methanol  
 VOC Mix 4-3, 2000mg/L  
 Lot #: 166725 - 28314  
 Rec: 2/17/11 MFR exp. 12/02/12

RS

5-09-11 E.  
RS

Method 8260 Gases (Second Source), 2,000 mg/L, 2 X 0.6 ml  
**o2si** Cat. No: 120016-03-SS Exp: 6/21/2013  
 Lot No: 160736 Storage: <=-10 Degrees C  
 Method 8260 Gases (SS) Solvent: P/T Methanol  
 Lot #: 160736 - 27904 Option For Research Use Only  
 Rec: 12/15/10 MFR exp. 06/23/11 Opened:

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05-09-11F		30ug/ml Vol Work Std #7		Conc.		Date		Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Date	ul	
			2000	169236-28292		05-09-11A	06/02/11	100	
028I	120016-03	Gas Mix	2000	157911-26706		05-02-11B	05/14/11	200	
028I	020049-02	HEXACHLOROETHANE	1000	163372-27865		05-02-11C	05/14/11	200	
028I	020228-02	Benzyl Chloride	1000	145836-00514		05/09/11	10/14/11	2500	
J&T Brand		Purge & trap MeOH							
05-09-11G		30ug/ml Vol Work Std #1		Conc.		Date		Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	Date	ul	
028I	020145-02-02	2-CBVE	2000	145836-00514		05-09-11B	05/07/11	50	
J&T Brand		Purge & trap MeOH				05/09/11	10/14/11	1950	

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05-09-11H							
50ug/ml Vol Work Std #8							
Exp: 05/16/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
0281	122039-02	Volatile Mix, 20-29	2000	148446-24240	04-16-11E	05/14/11	100
0281	120023-01	VOC'S-54 COMP	2000	151805-25632	04-25-11C	10/14/11	100
0281	020232-02	Vinyl Acetate	2000	169439-20359	04-16-11F	05/19/11	100
0281	020620-02	n-Hexane	1000	162378-27881	05-02-11D	06/14/11	200
0281	020546-02	Heptane	1000	149236-27650	05-02-11E	06/14/11	200
J&T Brand		Purge & Trap MeOH		H45B36-00514	05/09/11	10/14/11	3300
05-09-11I							
50ug/ml Vol Work Std #2							
Exp: 05/16/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
0281	121020-05	HSL'S-Xetone Solution	2000	169173-28308	04-25-11B	05/07/11	100
J&T Brand		Purge & Trap MeOH		H45B36-00514	05/09/11	10/14/11	3900
05-09-11J							
Exp: 05/16/11							
50ug/ml Vol Work Std #9							
SOURCE	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #7		05-09-11F	05/02/11	200			
50ug/ml Vol Work Std #8		05-09-11H	05/02/11	200			
J&T Brand		05/02/11	10/14/11	1600			
05-09-11K							
Exp: 05/16/11							
50ug/ml Vol Work Std #10							
SOURCE	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #1		05-09-11G	05/02/11	200			
J&T Brand		05/02/11	10/14/11	1800			
05-09-11L							
Exp: 05/16/11							
50ug/ml Vol Work Std #12							
SOURCE	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #2		05-09-11I	05/02/11	200			
J&T Brand		H45B36-00514	05/09/11	1800			
05-09-11M							
50ug/ml 8260 Surrogate							
Exp: 05/16/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
0281	120002-01	8260B Surr Solution	2000	164585-27924	05-09-11C	09/14/11	100
J&T Brand		Purge & Trap MeOH		H45B36-00514	05/09/11	10/14/11	3900
05-09-11N							
Exp: 05/16/11							
5.0ug/ml 8260 Surrogate							
SOURCE	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml 8260 Surrogate		05-09-11M	05/02/11	200			
J&T Brand		H45B36-00514	05/09/11	1800			
05-09-11O							
250ug/ml TBA/BA/Acetonitrile/Cyclohexanone/Acroleln/1-P							
Exp: 05/16/11							
Supplier	ID #	ID	Conc.	Lot #	Date	Exp.	ul
0281	120166-01	Volatile Mix 4-3	2000	166725-28334	05-09-11D	05/17/11	500
0281	020229-09	Acroleln	10000	171923-28626	05-02-11H	04/25/11	100
J&T Brand		Purge & Trap MeOH		H45B36-00514	05/09/11	10/14/11	3400

5-09-11  
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05-09-11p 50ug/ml VOC Std#5 Exp:05/16/11							
Supplier	ID #	ID	Conc. ug/ml	Lot #	Date Code	Exp. Date	ul
02SI	120016-03-SS	\$260 Gases(SS)	2000	160736-27904	05-09-11B	06/02/11	50
02SI	020145-02-02-S	2-CBVE	2000	152530-25456	04-16-11L	11/03/11	50
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	1900

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05-09-11q 50ug/ml VOC Std#6 Exp:05/16/11							
Supplier	ID #	ID	Conc. ug/ml	Lot #	Date Code	Exp. Date	ul
02SI	120021-03-SS	VOC'S 54 COMP.	2000	148532-26236	04-16-11M	07/14/11	50
02SI	120296-01	CUSTOM 8260 SOLUTION	2000	154846-25254	04-16-11N	07/14/11	50
02SI	020212-02-SS	Vinyl Acetate(SS)	2000	167177-28334	04-16-11R	05/15/11	50
02SI	020620-02-SS	n-HEXANE	1000	150529-27171	04-16-11O	09/02/11	100
02SI	020049-02-SS	HEXACHLOROTHANE	1000	154535-25914	04-16-11P	12/29/11	100
02SI	020546-02-SS	Heptane(SS)	1000	142276-23594	04-16-11Q	06/19/11	100
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	1950

05-09-11R 150ug/ml TBA/TBA/Acetonitrile/Cyclohexanone/Acroleln/2-P Exp:05/16/11							
Supplier	ID #	ID	Conc. ug/ml	Lot #	Date Code	Exp. Date	ul
02SI	120166-01-SS	VOC MIX 4-3 (SS)	2000	152531-26241	04-03-11X	11/03/11	250
02SI	020229-03-SS	Acrolein SOLUTION (SS)	10000	171924-28628	05-02-11J	05/25/11	50
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	1700

05-09-11S 50ug/ml Vol Work Std #7 Exp:05/16/11							
Supplier	ID #	ID	Conc. ug/ml	Lot #	Date Code	Exp. Date	ul
02SI	120016-01	Gas Mix	2000	169238-28292	05-09-11A	06/02/11	100
02SI	020049-02	HEXACHLOROTHANE	1000	157911-26706	05-02-11B	05/14/11	200
02SI	020228-02	Benzyl Chloride	1000	163371-27865	05-02-11C	05/14/11	200
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	3500

05-09-11T 50ug/ml Vol Work Std #1 Exp:05/16/11							
Supplier	ID #	ID	Conc. ug/ml	Lot #	Date Code	Exp. Date	ul
02SI	020145-02-02	2-CBVE	2000	146517-26192	05-09-11B	05/07/11	50
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	1950

05-09-11U 50ug/ml Vol Work Std #8 Exp:05/16/11							
Supplier	ID #	ID	Conc. ug/ml	Lot #	Date Code	Exp. Date	ul
02SI	122029-02	Volatiles Mix, 20-29	2000	148446-24740	04-16-11E	05/14/11	100
02SI	120023-03	VOC'S-54 COMP	2000	151805-28612	04-26-11C	10/14/11	100
02SI	020232-02	Vinyl Acetate	2000	169439-28369	04-16-11F	05/19/11	100
02SI	020620-02	n-Hexane	1000	163378-27881	05-02-11O	06/14/11	200
02SI	020546-02	Heptane	1000	149236-27650	05-02-11E	06/14/11	200
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	3300

05-09-11V 50ug/ml Vol Work Std #2 Exp:05/16/11							
Supplier	ID #	ID	Conc. ug/ml	Lot #	Date Code	Exp. Date	ul
02SI	121020-05	HSL'S-Ketone Solution	2000	169173-28308	04-25-11B	05/07/11	100
J&T Brand		Purge & Trap MeOH		H45836-00514	05/09/11	10/14/11	3900

05-09-11W 50ug/ml Vol Work Std #9 Exp:05/16/11							
SOURCE#	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #7	05-09-11S		05/02/11	200			
50ug/ml Vol Work Std #8	05-09-11U		05/02/11	200			
J&T Brand	05/02/11		10/14/11	1600			

05-09-11X 50ug/ml Vol Work Std #10 Exp:05/16/11							
SOURCE#	Lot	APPL Code	APPL Exp Date	ul			
50ug/ml Vol Work Std #1	05-09-11T		05/02/11	200			
J&T Brand	05/02/11		10/14/11	1800			

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5-09-11  
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05-09-11Y		Exp: 05/16/11					
50ug/ml Vol Work Std #12		Lot		APPL Code		APPL Exp Date	
SDURCS				05-09-11V		05/02/11	
50ug/ml Vol Work Std #2		Lot		APPL Code		APPL Exp Date	
J&T Brand				H45836-00514		05/09/11	
05-09-11Z		Exp: 05/16/11					
50ug/ml 8260 Surrogate		Conc.		Date		Exp.	
Exp: 05/16/11		ug/ml		Lot #		Code	
02SI		120002-01		8260B Surr Solution		2000	
J&T Brand				164585-27924		05-09-11C	
		Purge & Trap MeOH		H45836-00514		05/09/11	
						10/14/11	
						1900	
05-09-11AA		Exp: 05/16/11					
5.0ug/ml 8260 Surrogate		Lot		APPL Code		APPL Exp Date	
J&T Brand				05-09-11Z		05/02/11	
		50ug/ml 8260 Surrogate		H45836-00514		05/09/11	
		Purge & Trap MeOH				1800	
05-09-11AB		Exp: 05/16/11					
250ug/ml TBA/TSA/Acetonitrile/Cyclohexanone/Acroleln/2-P		Conc.		Date		APPL	
Exp: 05/16/11		ug/ml		Lot #		Code	
Supplier		ID #		Date		Exp.	
02SI		120165-01		Volatile Mix 4-3		2000	
02SI		020229-09		Acroleln		10000	
J&T Brand				171923-28626		05-02-11H	
		Purge & Trap MeOH		H45836-00514		05/09/11	
						10/14/11	
						1400	

5-1  
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5-1  
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5-09-11  
RS

RS  
AC

02si

Method 8260 Internal Standard Solution, 2,000 mg/L, 1 ml  
 Cat No: 120302-03  
 Lot No: 153416  
 Method 8260 Internal Standard  
 Lot #: 153416 - 27532  
 Rec: 10/12/10 MFR exp. 11/24/11  
 Exp: 11/24/2011  
 Storage: <-10 Degrees C  
 Solvent: P/T Methanol  
 For Research Use Only

RS

5-09-11  
RS

RS  
AD

Fluorobenzene Solution, 2,000 mg/L, 1 ml  
 020132-02  
 Lot # 162971 Storage 56 Degrees C 8/12/13  
 Solvent P/T Methanol  
 Fluorobenzene  
 Lot #: 162971 - 27950  
 Rec: 12/15/10 MFR exp. 08/12/13

RS

5-09-11  
RS

Hewey						
05-09-11AB						
250ug/ml 8260 Internal Standard - Hewey						
Supplier	ID #		Conc.	Lot #	Date	Exp.
02SI	120302-03	Internal Standard Mix	2000	153416-27532	05-09-11AC	07/16/11
02SI	020132-02	Fluorobenzene Standard	2000	162971-27950	05-09-11AD	07/16/11
JT Baker		Purge & Trap MeOH		H46844-00509	04/25/11	12/14/11
05-09-11AF						
250ug/ml 0260 Surrogate - Hewey						
Supplier	ID #		Conc.	Lot #	Date	Exp.
02SI	120002-01	Surrogate Standard	2000	164585-27924	05-09-11C	08/16/11
B&J Brand		Purge & Trap MeOH		H46844-00509	04/25/11	12/14/11

RS

049

5-11-11  
RS

Volatile Standard Curve Preparation for 8ml Purge (8260 soil)-Nico

Date	Code	Exp:05-18-11		Exp:05-18-11		Exp:05-18-11		Exp:05-18-11		Exp:05-18-11		Exp:05-18-11	
		Conc	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
05-11-11L	2	2	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05-11-11M	6	6	6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05-11-11H	10	10	10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05-11-11O	20	20	20	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05-11-11P	60	n/a	n/a	6	6	6	6	n/a	n/a	5	5	n/a	5
05-11-11Q	100	n/a	n/a	10	10	10	10	n/a	n/a	10	10	n/a	10
05-11-11R	200	n/a	n/a	20	20	20	20	n/a	n/a	20	20	n/a	20

250µg/mL TBA 05-09-11AB Exp:05-18-11	Final Vol w/PAT H2O ml
1	5
2	5
3	5
4	5
5	5
6	5
7	5

5-11-11  
RS

Volatile Standard Curve Preparation for 10ml Purge (8260 water)-Chico

Date	Code	Exp:05-18-11		Exp:05-18-11		Exp:05-18-11		Exp:05-18-11		Exp:05-18-11		Exp:05-18-11	
		Conc	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
05-11-11A	0.3	3	3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05-11-11B	0.6	5	10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05-11-11C	1	10	20	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05-11-11D	2	20	40	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
05-11-11E	6	n/a	n/a	5	5	10	10	n/a	n/a	5	5	n/a	n/a
05-11-11F	10	n/a	n/a	10	10	20	20	n/a	n/a	10	10	n/a	n/a
05-11-11G	20	n/a	n/a	20	20	40	40	n/a	n/a	20	20	n/a	n/a
05-11-11H	40	n/a	n/a	40	40	80	80	n/a	n/a	40	40	n/a	n/a
05-11-11A	100	n/a	n/a	100	100	100	100	n/a	n/a	100	100	n/a	n/a

250µg/mL TAPD 05-09-11O Exp:05-18-11	Final Vol w/PAT H2O ml
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

5-12-11 A-  
RS

Method 8260 Internal Standard Solution, 2,000 mg/L, 1 ml  
 Cat. No: 120302-03  
 Lot No: 153416  
 Method 8260 Internal Standard  
 Lot #: 153416 - 27534  
 Rec: 10/12/10 MFR exp. 11/24/11  
 Exp: 11/24/2011  
 Storage: <-10 Degrees C  
 Solvent: P/T Methanol  
 For Research Use Only  
 Option:   
 Opened:   
 RS

500  
500  
500  
2500

5-12-11 B-  
RS

Fluorobenzene Solution, 2,000 mg/L, 1 ml

020132-02  
 Lot # 161971 Storage <-10 Degrees C Expiry 8/12/13  
 Solvent: P/T Methanol

Fluorobenzene  
 Lot #: 161971 - 27952  
 Rec: 12/15/10 MFR exp. 08/12/13  
 RS

Final Vol  
w/PAT H2O  
ml  
5  
6  
6  
6  
6  
6  
6  
6  
6  
6

5-12-11 C-  
RS

Method 8260B Surrogate Solution, 2,000 mg/L, 1 ml

120002-01  
 Lot # 164585 Storage <-10 Degrees C Expiry 10/27/13  
 Solvent: P/T Methanol

Method 8260B Surrogate  
 Lot #: 164585 - 27930  
 Rec: 12/15/10 MFR exp. 10/12/13  
 RS



## Injection Log

Directory: M:\CHICO\DATA\C110422\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0422C13T.D 1		20ug/ml BFB STD 04-15-11A	2ul	22 Apr 11 23:53
2	1	0422C14W.I 1		Vol Std 4-22-11 @20ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 1:03
3	1	0422C15W.I 1		Vol Std 4-22-11 @50ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 1:38
4	1	0422C16W.I 1		Vol Std 4-22-11 @100ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 2:13
5	1	0422C17W.I 1		Vol Std 4-22-11 @300ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 2:48
6	1	0422C18W.I 1		Vol Std 4-22-11 @600ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 3:23
7	1	0422C19W.I 1		Vol Std 4-22-11 @800ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 3:58
8	1	0422C20W.I 1		Vol Std 4-22-11 @1000ug/L	Water 10ml w/IS: 04-12-11	23 Apr 11 4:33
9	1	0422C22W.I 1		GAS 300 ug/L STD(SS)	Water 10ml w/IS&S: 04-12-1	23 Apr 11 5:42

## Injection Log

Directory: M:\CHICO\DATA\C110502\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0502C00T.D	1	20ug/ml BFB STD 04-15-11A	2uL	2 May 11 14:08
2	1	0502C05W.D	1	Vol Std 05-02-11@0.5ug/L	Water 10ml w/IS: 05-02-11	2 May 11 17:57
3	1	0502C06W.D	1	Vol Std 05-02-11@1.0ug/L	Water 10ml w/IS: 05-02-11	2 May 11 18:33
4	1	0502C07W.D	1	Vol Std 05-02-11@2.0ug/L	Water 10ml w/IS: 05-02-11	2 May 11 19:08
5	1	0502C08W.D	1	Vol Std 05-02-11@5.0ug/L	Water 10ml w/IS: 05-02-11	2 May 11 19:43
6	1	0502C09W.D	1	Vol Std 05-02-11@10ug/L	Water 10ml w/IS: 05-02-11	2 May 11 20:19
7	1	0502C10W.D	1	Vol Std 05-02-11@20ug/L	Water 10ml w/IS: 05-02-11	2 May 11 20:54
8	1	0502C11W.D	1	Vol Std 05-02-11@40ug/L	Water 10ml w/IS: 05-02-11	2 May 11 21:29
9	1	0502C12W.D	1	Vol Std 05-02-11@100ug/L	Water 10ml w/IS: 05-02-11	2 May 11 22:04
10	1	0502C14W.D	1	20ug/ml BFB STD 04-15-11A	2uL	3 May 11 00:25
11	1	0502C15W.D	1	GAS Std 05-02-11@300ug/L	Water 10ml w/IS&S: 05-02-1	3 May 11 1:00
12	1	0502C16W.D	1	Vol Std 05-02-11@10ug/L	Water 10ml w/IS&S: 05-02-1	3 May 11 1:35
13	1	0502C17W.D	1	110502A LCS-1WC (SS)	Water 10ml w/IS&S: 05-02-1	3 May 11 2:10
14	1	0502C20W.D	1	110502A BLK-1WC	Water 10ml w/IS&S: 05-02-1	3 May 11 5:05
15	1	0502C21W.D	1	AY36736W01	Water 10ml w/IS&S: 05-02-1	3 May 11 5:41
16	1	0502C22W.D	1	AY36735W01	Water 10ml w/IS&S: 05-02-1	3 May 11 6:16

# METALS

**APPL, INC.**

**METALS**  
**QC Summary**

**APPL, INC.**

# METALS BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.22 U	0.5	0.22	0.11	ug/L	05/02/11	05/02/11	#602D-110502A-AY36735

# 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)	250	234	93.6	80-120	05/02/11	05/02/11	#602D-110502A-AY36735

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Comments:

# Matrix Spike Recoveries

## METALS

APPL ID: 110502W-36735 MS - 154718

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Sample ID: AY36735

Client ID: ES033

Method	Compound Name	Spike Lvl ug/L	Matrix Res ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	RPD Limits	RPD Recovery	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
6020	LEAD (PB) (DISSOLVE)	250	ND	229	227	91.6	90.8	0.9	20	80-120		05/02/11	05/02/11	05/02/11	05/02/11	154718	AY36735

247

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

Printed: 05/13/11 2:24:48 PM

APPL MSD SCII

**METALS**  
**Sample Data**

**APPL, INC.**



## Metals Analysis

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

Attn: Vilma Dupra

Project: LTM Red Hill Bulk Fuel Storage Facility

**Sample ID: ES033**

Sample Collection Date: 04/28/11

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 64544

**APPL ID: AY36735**

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22 U	0.5	0.22	0.11	ug/L	1	05/02/11	05/02/11

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11E02K00.B\101SMPL.D\101SMPL.D#  
 Date Acquired: May 2 2011 09:02 pm  
 Operator: SDM  
 Sample Name: AY36735W08  
 Misc Info: 110502A-3015  
 Vial Number: 3412  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l	#VALUE!		0	
9 Be	-0.34 ug/l	-0.38	0.83	1000	
11 B	54.09 ug/l	60.09	1.15	1000	
23 Na	34300.00 ug/l	38107.30	1.77	25000	>Cal
24 Mg	9930.00 ug/l	11032.23	1.75	50000	
27 Al	28.34 ug/l	31.49	4.43	20000	
39 K	1948.00 ug/l	2164.23	1.95	20000	
44 Ca	18650.00 ug/l	20720.15	1.40	50000	
47 Ti	1.74 ug/l	1.93	6.22	1000	
51 V	0.16 ug/l	0.18	14.84	1000	
52 Cr	0.41 ug/l	0.45	4.86	1000	
55 Mn	864.80 ug/l	960.79	1.65	1000	
56 Fe	468.30 ug/l	520.28	2.58	20000	
59 Co	0.51 ug/l	0.57	5.09	1000	
60 Ni	1.06 ug/l	1.18	7.99	1000	
63 Cu	-0.03 ug/l	-0.04	17.36	1000	
65 Cu	0.04 ug/l	0.05	47.03	1000	
66 Zn	38.21 ug/l	42.45	1.97	1000	
75 As	0.32 ug/l	0.36	8.87	1000	
78 Se	0.11 ug/l	0.12	13.19	1000	
78 Se	0.48 ug/l	0.53	38.67	1000	
88 Sr	98.76 ug/l	109.72	2.15	1000	
88 Sr	107.50 ug/l	119.43	1.33	1000	
95 Mo	0.42 ug/l	0.47	12.39	1000	
106 (Cd)	ug/l	#VALUE!		#####	
107 Ag	0.02 ug/l	0.02	12.97	500	
108 (Cd)	ug/l	#VALUE!		#####	
111 Cd	0.04 ug/l	0.04	59.73	1000	
118 Sn	0.90 ug/l	1.00	5.35	1000	
121 Sb	0.84 ug/l	0.93	5.19	1000	
137 Ba	12.09 ug/l	13.43	1.58	1000	
205 Tl	0.01 ug/l	0.02	22.81	1000	
206 (Pb)	ug/l	#VALUE!		#####	
207 (Pb)	ug/l	#VALUE!		#####	
208 Pb	-0.24 ug/l	-0.27	4.63	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1202434.60	0.81	1481195.40	81.2	70 - 120	
45 Sc	791069.25	0.95	772553.25	102.4	70 - 120	
45 Sc	22328.58	2.43	22503.75	99.2	70 - 120	
45 Sc	1235206.00	2.04	1185323.00	104.2	70 - 120	
72 Ge	152562.55	0.97	148368.02	102.8	70 - 120	
72 Ge	10533.93	1.56	10084.80	104.5	70 - 120	
72 Ge	184928.56	1.11	194175.66	95.2	70 - 120	
115 In	915264.56	0.65	966828.31	94.7	70 - 120	
159 Tb	1008389.70	0.65	1047627.10	96.3	70 - 120	
165 Ho	963087.13	0.61	1003648.30	96.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02K00.B\005CALB.D\005CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

**METALS**  
**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: 64544 SDG: 64544

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 5/2/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
Lead (Pb)	100	97.93	97.9	50	49.52	99.0	50	47.64	95.3	P

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.ARF No: 64544 SDG: 64544Initial Calibration Source: CPIContinuing Calibration Source: Environmental ExpressAnalysis Date: 5/2/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 11:35	%R(1)	True CCV1	Found 14:48	%R(1)	True CCV1	Found 19:47	%R(1)	
Lead (Pb)	100	97.93	97.9	50	47.53	95.1	50	46.91	93.8	P

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 64544 SDG: 64544

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 5/2/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 11:35	%R(1)	True CCVI	Found 21:27	%R(1)	True CCVI	Found 23:07	%R(1)	
Lead (Pb)	100	97.93	97.9	50	46.45	92.9	50	46.62	93.2	P

A.P.P.L. INC.

3

BLANKS

Lab Name: A.P.P.L. INC.

Contract: Environet, Inc.

ARF No.: 64544

SDG: 64544

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 5/2/2011

Analyte	Initial Calibration Blank (ug/L) C	Continuing Calibration Blank (ug/L)						Preparation Blank C	M
		1 12:25	C	2 13:27	C	3 15:07	C		
Lead (Pb)	.20 U	.20 U		.20 U		.20 U		.20 U	P

A.P.P.L. INC.

3

BLANKS

Lab Name: A.P.P.L. INC.

Contract: Environet, Inc.

ARF No.: 64544

SDG: 64544

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 5/2/2011

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	12:19		20:12		21:52		23:32		13:46		
Lead (Pb)	.20	U	.20	U	.20	U	.20	U	.20	U	P



## ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC.  
 ARF No.: 64544  
 ICP ID Number: Optimus

Contract: Environet, Inc.  
 SDG: 64544  
 ICS Source: Environmental Express

Analysis Date: 5/2/2011

Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 12:43	Sol AB 12:50	%R(1)
Lead (Pb)		500	2.834	479.8	96.0

(1) Control Limits: Metals 80-120

A.P.P.L. INC.  
5B  
POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMPLE NO.

ES033

Lab Name: A.P.P.L. INC.  
ARF No.: 64544

Contract: Environet, Inc.  
SDG: 64544

Analysis Date: 5/2/2011

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Lead (Pb)	75-125	242.646	-0.265623	250.000	97.1		

Comments:

5/2/2011 21:02 AY36735W08

5/2/2011 21:59 AY36735W08-A

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\110SMPL.D\110SMPL.D#  
 Date Acquired: May 2 2011 09:59 pm  
 Operator: SDM  
 Sample Name: AY36735W08-A  
 Misc Info: 110502A-3015  
 Vial Number: 3503  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

QC Elements	Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
	7 (Li)	ug/l	#VALUE!		0	
	9 Be	35.63 ug/l	39.58	1.18	1000	
	11 B	265.40 ug/l	294.86	1.43	1000	
	23 Na	55250.00 ug/l	61382.75	2.61	25000	>Cal
	24 Mg	30910.00 ug/l	34341.01	2.06	50000	
	27 Al	1771.00 ug/l	1967.58	1.90	20000	
	39 K	6427.00 ug/l	7140.40	1.60	20000	
	44 Ca	41070.00 ug/l	45628.77	0.64	50000	
	47 Ti	220.70 ug/l	245.20	1.52	1000	
	51 V	231.20 ug/l	256.86	0.07	1000	
	52 Cr	220.80 ug/l	245.31	0.80	1000	
	55 Mn	1049.00 ug/l	1165.44	0.92	1000	>Cal
	56 Fe	1328.00 ug/l	1475.41	0.69	20000	
	59 Co	219.80 ug/l	244.20	0.86	1000	
	60 Ni	209.20 ug/l	232.42	2.28	1000	
	63 Cu	202.50 ug/l	224.98	0.80	1000	
	65 Cu	203.00 ug/l	225.53	0.70	1000	
	66 Zn	429.10 ug/l	476.73	0.70	1000	
	75 As	219.90 ug/l	244.31	0.23	1000	
	78 Se	221.30 ug/l	245.86	0.27	1000	
	78 Se	208.60 ug/l	231.75	2.08	1000	
	88 Sr	326.10 ug/l	362.30	1.46	1000	
	88 Sr	335.10 ug/l	372.30	0.50	1000	
	95 Mo	231.10 ug/l	256.75	0.69	1000	
	106 (Cd)	ug/l	#VALUE!		#####	
	107 Ag	49.73 ug/l	55.25	0.40	500	
	108 (Cd)	ug/l	#VALUE!		#####	
	111 Cd	44.05 ug/l	48.94	0.67	1000	
	118 Sn	229.40 ug/l	254.86	0.73	1000	
	121 Sb	240.20 ug/l	266.86	0.66	1000	
	137 Ba	246.70 ug/l	274.08	0.94	1000	
	205 Tl	219.40 ug/l	243.75	0.40	1000	
	206 (Pb)	ug/l	#VALUE!		#####	
	207 (Pb)	ug/l	#VALUE!		#####	
	208 Pb	218.60 ug/l	242.86	0.17	1000	

ISTD Elements	Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
	6 Li	1162365.50	0.88	1481195.40	78.5	70 - 120	
	45 Sc	773747.38	0.40	772553.25	100.2	70 - 120	
	45 Sc	22091.16	1.45	22503.75	98.2	70 - 120	
	45 Sc	1209108.30	1.05	1185323.00	102.0	70 - 120	
	72 Ge	147467.38	0.63	148368.02	99.4	70 - 120	
	72 Ge	10290.44	0.88	10084.80	102.0	70 - 120	
	72 Ge	184866.81	0.86	194175.66	95.2	70 - 120	
	115 In	902519.19	0.80	966828.31	93.3	70 - 120	
	159 Tb	989393.06	0.72	1047627.10	94.4	70 - 120	
	165 Ho	947305.56	0.87	1003648.30	94.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

A.P.P.L. INC.  
9  
ICP SERIAL DILUTION

CLIENT SAMPLE NO.

ES033

Lab Name: A.P.P.L. INC.  
ARF No.: 64544  
Matrix: water

Contract: Environet, Inc.  
SDG: 64544

Analysis Date: 5/2/2011

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	Serial Dilution Result (S)	%D	Q	M
Lead (Pb)	-0.265623	-2.320188	NA		

Comments:

5/2/2011 21:02 AY36735W08  
5/2/2011 22:05 AY36735W08-1/5

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\1118MPL.D\1118MPL.D#  
 Date Acquired: May 2 2011 10:05 pm  
 Operator: SDM  
 Sample Name: AY36735W08-1/5  
 Misc Info: 110502A-3015  
 Vial Number: 3504  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: Sample  
 Prep Dil Factor: 5.56  
 Total Dil Factor: 5.56

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l	#VALUE!		0	
9 Be	-0.35 ug/l	-1.93	0.23	1000	
11 B	14.16 ug/l	78.67	1.60	1000	
23 Na	7366.00 ug/l	40925.50	1.39	25000	
24 Mg	2036.00 ug/l	11312.02	0.94	50000	
27 Al	4.88 ug/l	27.12	25.99	20000	
39 K	442.70 ug/l	2459.64	2.71	20000	
44 Ca	3699.00 ug/l	20551.64	2.87	50000	
47 Ti	0.66 ug/l	3.67	13.39	1000	
51 V	0.08 ug/l	0.43	22.77	1000	
52 Cr	0.11 ug/l	0.63	1.24	1000	
55 Mn	173.30 ug/l	962.85	1.92	1000	
56 Fe	91.56 ug/l	508.71	1.52	20000	
59 Co	-0.31 ug/l	-1.74	5.60	1000	
60 Ni	0.23 ug/l	1.29	11.03	1000	
63 Cu	-0.40 ug/l	-2.20	5.64	1000	
65 Cu	-0.36 ug/l	-2.02	7.10	1000	
66 Zn	6.03 ug/l	33.47	3.73	1000	
75 As	0.33 ug/l	1.82	6.15	1000	
78 Se	0.34 ug/l	1.87	15.69	1000	
78 Se	0.74 ug/l	4.13	21.19	1000	
88 Sr	19.60 ug/l	108.90	3.52	1000	
88 Sr	21.40 ug/l	118.90	1.20	1000	
95 Mo	0.48 ug/l	2.65	6.12	1000	
106 (Cd)	ug/l	#VALUE!		#####	
107 Ag	0.22 ug/l	1.22	2.62	500	
108 (Cd)	ug/l	#VALUE!		#####	
111 Cd	0.03 ug/l	0.16	51.12	1000	
118 Sn	0.73 ug/l	4.06	13.23	1000	
121 Sb	2.30 ug/l	12.75	7.74	1000	
137 Ba	2.43 ug/l	13.51	1.77	1000	
205 Tl	0.03 ug/l	0.03	39.62	1000	
206 (Pb)	ug/l	#VALUE!		#####	
207 (Pb)	ug/l	#VALUE!		#####	
208 Pb	-0.42 ug/l	-2.32	1.13	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1346531.00	0.88	1481195.40	90.9	70 - 120	
45 Sc	747990.38	0.31	772553.25	96.8	70 - 120	
45 Sc	22168.71	0.99	22503.75	98.5	70 - 120	
45 Sc	1142077.50	1.82	1185323.00	96.4	70 - 120	
72 Ge	154774.28	0.50	148368.02	104.3	70 - 120	
72 Ge	10330.46	1.32	10084.80	102.4	70 - 120	
72 Ge	185615.09	1.30	194175.66	95.6	70 - 120	
115 In	910573.38	1.59	966828.31	94.2	70 - 120	
159 Tb	965543.50	1.03	1047627.10	92.2	70 - 120	
165 Ho	927157.44	0.56	1003648.30	92.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass  
 ISTD: Pass

## Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\005CAL  
 Date Acquired: May 2 2011 11:04 am  
 Operator: SDM  
 Sample Name: Calibration Blank  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:02 am  
 Sample Type: CalBlk  
 Total Dil Factor: 1.00

## QC&amp;ISTD Elements

Element	CPS Mean	SD	RSD(%)
6 Li	1481195.00 A	13300.00	0.90
7 (Li)	89098.59 P	807.40	0.91
9 Be	2090.22 P	113.50	5.43
11 B	952.29 P	61.86	6.50
23 Na	14446.30 P	263.80	1.83
24 Mg	142.23 P	27.15	19.09
27 Al	125.56 P	21.17	16.86
39 K	14666.66 P	1057.00	7.21
44 Ca	204.19 P	21.52	10.54
45 Sc	772553.19 P	3360.00	0.43
45 Sc	22503.75 P	1178.00	5.23
45 Sc	1185323.00 A	6603.00	0.56
47 Ti	3.56 P	3.85	108.25
51 V	141.78 P	22.68	16.00
52 Cr	45.78 P	0.77	1.68
55 Mn	27.56 P	6.71	24.35
56 Fe	5149.86 P	285.60	5.55
59 Co	900.04 P	42.61	4.73
60 Ni	26.22 P	3.08	11.74
63 Cu	912.49 P	20.50	2.25
65 Cu	424.01 P	18.33	4.32
66 Zn	145.78 P	12.39	8.50
72 Ge	148368.00 P	1592.00	1.07
72 Ge	10084.80 P	253.50	2.51
72 Ge	194175.70 P	1234.00	0.64
75 As	13.56 P	2.04	15.03
78 Se	18.00 P	0.58	3.21
78 Se	1.56 P	1.17	75.28
88 Sr	17.78 P	9.62	54.13
88 Sr	190.01 P	8.82	4.64
95 Mo	304.46 P	20.37	6.69
106 (Cd)	73.34 P	5.77	7.87
107 Ag	82.23 P	21.17	25.75
108 (Cd)	80.00 P	11.55	14.44
111 Cd	-13.63 P	11.65	85.49
115 In	966828.31 P	4146.00	0.43
118 Sn	1663.50 P	17.33	1.04
121 Sb	2139.14 P	94.85	4.43
137 Ba	52.22 P	1.93	3.69
159 Tb	1047627.00 M	2977.00	0.28
165 Ho	1003648.00 P	8450.00	0.84
205 Tl	97.78 P	24.12	24.67
206 (Pb)	1154.54 P	61.68	5.34
207 (Pb)	992.30 P	62.93	6.34
208 Pb	4438.23 P	249.90	5.63

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11E02K00.B\005CALB.D\006CALB.D#  
 Date Acquired: May 2 2011 11:10 am  
 Operator: SDN  
 Sample Name: 110502 Standard 1  
 Misc Info:  
 Vial Number: 1103  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:08 am  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	1468675.00 A	14030.00	0.96	0.0000
7 (Li)	87322.65 P	117.90	0.14	0.0000
9 Be	821.16 P	50.92	6.20	0.0000
11 B	1225.65 P	47.42	3.87	0.0000
23 Na	15173.71 P	63.54	0.42	0.0000
24 Mg	802.27 P	24.58	3.06	0.0000
27 Al	150.01 P	43.33	28.89	0.0000
39 K	14716.72 P	897.60	6.10	0.0000
44 Ca	166.99 P	15.09	9.04	0.0000
45 Sc	755962.31 P	5173.00	0.68	0.0000
45 Sc	22360.78 P	219.20	0.98	0.0000
45 Sc	1175276.00 A	11430.00	0.97	0.0000
47 Ti	5.33 P	2.31	43.29	0.0000
51 V	208.00 P	9.33	4.49	0.0000
52 Cr	153.34 P	8.00	5.22	0.0000
55 Mn	69.33 P	12.72	18.35	0.0000
56 Fe	6400.15 P	286.20	4.47	0.0000
59 Co	475.13 P	23.90	5.03	0.0000
60 Ni	69.78 P	5.39	7.72	0.0000
63 Cu	944.93 P	47.38	5.01	0.0000
65 Cu	412.90 P	20.24	4.90	0.0000
66 Zn	102.22 P	6.71	6.57	0.0000
72 Ge	146069.50 P	470.60	0.32	0.0000
72 Ge	10036.53 P	143.80	1.43	0.0000
72 Ge	192193.80 P	1600.00	0.83	0.0000
75 As	25.33 P	0.67	2.63	0.0000
78 Se	38.44 P	2.22	5.77	0.0000
78 Se	3.33 P	1.67	50.01	0.0000
88 Sr	53.34 P	6.67	12.50	0.0000
88 Sr	1396.79 P	135.80	9.72	0.0000
95 Mo	452.25 P	30.06	6.65	0.0000
106 (Cd)	74.45 P	16.44	22.08	0.0000
107 Ag	330.02 P	25.17	7.63	0.0000
108 (Cd)	68.89 P	10.18	14.78	0.0000
111 Cd	112.43 P	15.71	13.97	0.0000
115 In	950438.13 P	3868.00	0.41	0.0000
118 Sn	1213.43 P	21.87	1.80	0.0000
121 Sb	2368.06 P	85.28	3.60	0.0000
137 Ba	175.56 P	15.03	8.56	0.0000
159 Tb	1037516.00 P	7461.00	0.72	0.0000
165 Ho	999843.81 P	11120.00	1.11	0.0000
205 Tl	716.71 P	42.56	5.94	0.0000
206 (Pb)	597.81 P	22.20	3.71	0.0000
207 (Pb)	544.48 P	22.20	4.08	0.0000
208 Pb	2360.17 P	44.85	1.90	0.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1468675.50	0.96	1481195.40	99.2	70 -	120
45 Sc	755962.25	0.68	772553.25	97.9	70 -	120
45 Sc	22360.78	0.98	22503.75	99.4	70 -	120
45 Sc	1175275.90	0.97	1185323.00	99.2	70 -	120
72 Ge	146069.48	0.32	148368.02	98.5	70 -	120
72 Ge	10036.53	1.43	10084.80	99.5	70 -	120
72 Ge	192193.81	0.83	194175.66	99.0	70 -	120
115 In	950438.06	0.41	966828.31	98.3	70 -	120
159 Tb	1037515.90	0.72	1047627.10	99.0	70 -	120
165 Ho	999843.88	1.11	1003648.30	99.6	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02K00.B\005CALB.D\005CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass  
 ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11802k00.B\007CALC.D\007CALC.D#  
 Date Acquired: May 2 2011 11:16 am  
 Operator: SDM  
 Sample Name: 110502 Standard 2  
 Misc Info:  
 Vial Number: 1104  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:14 am  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	1430185.00 A	12420.00	0.87	0.0000
7 (Li)	86209.19 P	170.40	0.20	-1.0000
9 Be	6061.44 P	158.40	2.61	-1.0000
11 B	4265.19 P	112.10	2.63	1.0000
23 Na	21484.93 P	346.00	1.61	1.0000
24 Mg	7080.82 P	142.30	2.01	1.0000
27 Al	984.51 P	63.37	6.44	1.0000
39 K	16450.80 P	741.90	4.51	1.0000
44 Ca	344.16 P	61.44	17.85	-1.0000
45 Sc	753659.13 P	5010.00	0.66	0.0000
45 Sc	22490.98 P	90.44	0.40	0.0000
45 Sc	1158563.00 A	9789.00	0.84	0.0000
47 Ti	28.00 P	7.06	25.20	1.0000
51 V	922.27 P	27.01	2.93	1.0000
52 Cr	1100.50 P	56.01	5.09	1.0000
55 Mn	495.13 P	19.15	3.87	1.0000
56 Fe	20680.11 P	222.00	1.07	1.0000
59 Co	2018.39 P	54.31	2.69	-1.0000
60 Ni	531.13 P	39.02	7.35	1.0000
63 Cu	2039.73 P	51.99	2.55	1.0000
65 Cu	960.04 P	52.53	5.47	-1.0000
66 Zn	256.89 P	5.05	1.97	-1.0000
72 Ge	147862.80 P	1182.00	0.80	0.0000
72 Ge	10131.06 P	139.60	1.38	0.0000
72 Ge	191630.50 P	810.40	0.42	0.0000
75 As	116.22 P	2.50	2.15	1.0000
78 Se	208.11 P	3.50	1.68	1.0000
78 Se	7.33 P	1.86	25.31	1.0000
88 Sr	316.68 P	52.39	16.54	1.0000
88 Sr	11873.11 P	258.60	2.18	1.0000
95 Mo	2106.90 P	115.70	5.49	1.0000
106 (Cd)	137.78 P	41.41	30.05	1.0000
107 Ag	2584.77 P	114.50	4.43	1.0000
108 (Cd)	138.90 P	33.39	24.04	-1.0000
111 Cd	1084.71 P	49.04	4.52	1.0000
115 In	947865.63 P	11580.00	1.22	0.0000
118 Sn	3660.61 P	35.14	0.96	-1.0000
121 Sb	5835.88 P	58.55	1.00	1.0000
137 Ba	1422.35 P	30.26	2.13	1.0000
159 Tb	1025017.00 M	6595.00	0.64	0.0000
165 Ho	990665.19 P	4530.00	0.46	0.0000
205 Tl	6399.56 P	227.80	3.56	1.0000
206 (Pb)	2452.54 P	164.10	6.69	-1.0000
207 (Pb)	2089.13 P	144.60	6.92	-1.0000
208 Pb	9882.93 P	66.71	0.68	-1.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1430185.40	0.87	1481195.40	96.6	70 -	120
45 Sc	753659.06	0.66	772553.25	97.6	70 -	120
45 Sc	22490.98	0.40	22503.75	99.9	70 -	120
45 Sc	1158563.00	0.84	1185323.00	97.7	70 -	120
72 Ge	147862.75	0.80	148368.02	99.7	70 -	120
72 Ge	10131.06	1.38	10084.80	100.5	70 -	120
72 Ge	191630.50	0.42	194175.66	98.7	70 -	120
115 In	947865.56	1.22	966828.31	98.0	70 -	120
159 Tb	1025017.10	0.64	1047627.10	97.8	70 -	120
165 Ho	990665.25	0.46	1003648.30	98.7	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\11802k00.B\005CALB.D\005CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass  
 ISTD: Pass



Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11802K00.B\008CALC.D\008CALC.D#  
 Date Acquired: May 2 2011 11:23 am  
 Operator: SDM  
 Sample Name: 110502 Standard 3  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:20 am  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	1401756.00 A	13650.00	0.97	0.0000
7 (Li)	83389.09 P	468.10	0.56	-0.8450
9 Be	285050.91 P	2539.00	0.89	0.9500
11 B	165191.41 P	2233.00	1.35	0.9999
23 Na	375045.41 P	2172.00	0.58	0.9999
24 Mg	349868.81 P	4990.00	1.43	1.0000
27 Al	45017.86 P	671.30	1.49	0.9979
39 K	89164.42 P	880.50	0.99	0.9995
44 Ca	8541.33 P	64.61	0.76	0.9589
45 Sc	744781.31 P	6469.00	0.87	0.0000
45 Sc	22425.70 P	342.60	1.53	0.0000
45 Sc	1152631.00 A	10100.00	0.88	0.0000
47 Ti	1213.85 P	16.13	1.33	0.9997
51 V	41194.38 P	136.30	0.33	0.9999
52 Cr	53287.62 P	600.20	1.13	1.0000
55 Mn	22009.61 P	132.80	0.60	1.0000
56 Fe	804565.31 P	4640.00	0.58	0.9999
59 Co	84355.97 P	418.30	0.50	0.9356
60 Ni	24602.71 P	120.00	0.49	0.9999
63 Cu	67156.14 P	655.30	0.98	0.9980
65 Cu	32459.07 P	37.46	0.12	0.9944
66 Zn	8718.27 P	115.80	1.33	0.9336
72 Ge	146403.41 P	543.50	0.37	0.0000
72 Ge	10068.41 P	144.30	1.43	0.0000
72 Ge	190630.41 P	1485.00	0.78	0.0000
75 As	5367.56 P	87.96	1.64	0.9999
78 Se	9772.87 P	62.94	0.64	1.0000
78 Se	238.78 P	2.91	1.22	0.9771
88 Sr	15437.70 P	160.50	1.04	0.9998
88 Sr	575360.39 P	1357.00	0.24	1.0000
95 Mo	98265.07 P	869.00	0.88	0.9999
106 (Cd)	5227.84 P	181.70	3.48	0.9971
107 Ag	126009.50 P	1681.00	1.33	1.0000
108 (Cd)	3771.74 P	74.59	1.98	0.9715
111 Cd	54432.68 P	333.60	0.61	0.9999
115 In	933658.81 P	6553.00	0.70	0.0000
118 Sn	141610.00 P	1012.00	0.71	0.9684
121 Sb	192816.30 P	4866.00	2.52	0.9996
137 Ba	68098.11 P	752.00	1.10	1.0000
159 Tb	1025523.00 P	6642.00	0.65	0.0000
165 Ho	989721.81 P	2312.00	0.23	0.0000
205 Tl	325512.91 P	2223.00	0.68	1.0000
206 (Pb)	111215.20 P	873.40	0.79	0.9258
207 (Pb)	97300.20 P	259.10	0.27	0.9299
208 Pb	441847.81 P	1009.00	0.23	0.9391

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1401755.60	0.97	1481195.40	94.6	70 -	120
45 Sc	744781.38	0.87	772553.25	96.4	70 -	120
45 Sc	22425.70	1.53	22503.75	99.7	70 -	120
45 Sc	1152631.30	0.88	1185323.00	97.2	70 -	120
72 Ge	146403.39	0.37	148368.02	98.7	70 -	120
72 Ge	10068.41	1.43	10084.80	99.8	70 -	120
72 Ge	190630.44	0.78	194175.66	98.2	70 -	120
115 In	933658.81	0.70	966828.31	96.6	70 -	120
159 Tb	1025523.30	0.65	1047627.10	97.9	70 -	120
165 Ho	989721.81	0.23	1003648.30	98.6	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\11802K00.B\005CALC.D\005CALC.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\11E02K00.B\009CAL.S.D\009CAL.S.D#  
 Date Acquired: May 2 2011 11:29 am  
 Operator: SDM  
 Sample Name: 110502 Standard 4  
 Misc Info:  
 Vial Number: 1106  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:27 am  
 Sample Type: CalStd  
 Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean	SD	RSD(%)	Cal Coef
6 Li	1349488.00 A	15250.00	1.13	0.0000
7 (Li)	81319.84 P	564.30	0.69	-0.8752
9 Be	560688.00 P	4833.00	0.86	1.0000
11 B	323366.31 P	1547.00	0.48	1.0000
23 Na	723789.69 P	1011.00	0.14	1.0000
24 Mg	690336.31 P	4221.00	0.61	1.0000
27 Al	89429.48 P	845.60	0.95	1.0000
39 K	162493.20 P	1552.00	0.96	1.0000
44 Ca	16760.00 P	170.10	1.01	1.0000
45 Sc	730077.69 P	4545.00	0.62	0.0000
45 Sc	22387.49 P	175.70	0.78	0.0000
45 Sc	1136642.00 A	8023.00	0.71	0.0000
47 Ti	2370.89 P	31.36	1.32	1.0000
51 V	81965.06 P	691.20	0.84	1.0000
52 Cr	105329.10 P	265.30	0.25	1.0000
55 Mn	43520.67 P	254.00	0.58	1.0000
56 Fe	1558293.00 A	14040.00	0.90	1.0000
59 Co	164514.80 P	507.70	0.31	1.0000
60 Ni	48369.85 P	750.00	1.55	1.0000
63 Cu	131106.30 P	1104.00	0.84	1.0000
65 Cu	63332.92 P	148.90	0.24	1.0000
66 Zn	17073.29 P	175.10	1.03	1.0000
72 Ge	144673.80 P	664.00	0.46	0.0000
72 Ge	10174.04 P	181.80	1.79	0.0000
72 Ge	188402.20 P	1150.00	0.61	0.0000
75 As	10626.69 P	129.10	1.21	1.0000
78 Se	19464.45 P	84.78	0.44	1.0000
78 Se	480.45 P	13.83	2.88	1.0000
88 Sr	30335.22 P	94.96	0.31	1.0000
88 Sr	1129524.00 A	2809.00	0.25	1.0000
95 Mo	196271.41 P	1129.00	0.58	1.0000
106 (Cd)	10231.84 P	140.80	1.38	1.0000
107 Ag	249977.00 P	2136.00	0.85	1.0000
108 (Cd)	7427.78 P	206.80	2.78	1.0000
111 Cd	107992.40 P	1177.00	1.09	1.0000
115 In	918516.81 P	6713.00	0.73	0.0000
118 Sn	201529.81 P	1017.00	0.36	1.0000
121 Sb	405392.41 P	3011.00	0.74	1.0000
137 Ba	134735.00 P	1583.00	1.17	1.0000
159 Tb	1023599.00 P	13970.00	1.36	0.0000
165 Ho	984473.00 P	13670.00	1.39	0.0000
205 Tl	644750.88 P	3588.00	0.56	1.0000
206 (Pb)	220179.00 P	1565.00	0.71	1.0000
207 (Pb)	194047.59 P	2821.00	1.45	1.0000
208 Pb	878419.69 P	8142.00	0.93	1.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1349488.30	1.13	1481195.40	91.1	70 -	120
45 Sc	730077.75	0.62	772553.25	94.5	70 -	120
45 Sc	22387.49	0.78	22503.75	99.5	70 -	120
45 Sc	1136642.30	0.71	1185323.00	95.9	70 -	120
72 Ge	144673.83	0.46	148368.02	97.5	70 -	120
72 Ge	10174.04	1.79	10084.80	100.9	70 -	120
72 Ge	188402.23	0.61	194175.66	97.0	70 -	120
115 In	918516.75	0.73	966828.31	95.0	70 -	120
159 Tb	1023599.00	1.36	1047627.10	97.7	70 -	120
165 Ho	984473.00	1.39	1003648.30	98.1	70 -	120

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02K00.B\005CALB.D\005CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass  
 ISTD: Pass

**QCS QC Report**

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\010\_QCS.D\010\_QCS.D#  
 Date Acquired: May 2 2011 11:35 am  
 Operator: SDM  
 Sample Name: ICV 110502  
 Misc Info:  
 Vial Number: 1107  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: QCS  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	ug/l		100.00	90 - 110	
9 Be	96.89 ug/l	1.11	100.00	90 - 110	
11 B	96.54 ug/l	0.49	100.00	90 - 110	
23 Na	2402.00 ug/l	0.14	2500.00	90 - 110	
24 Mg	2422.00 ug/l	0.26	2500.00	90 - 110	
27 Al	2400.00 ug/l	0.96	2500.00	90 - 110	
39 K	2375.00 ug/l	0.53	2500.00	90 - 110	
44 Ca	2641.00 ug/l	2.66	2500.00	90 - 110	
47 Ti	98.93 ug/l	2.82	100.00	90 - 110	
51 V	95.52 ug/l	1.10	100.00	90 - 110	
52 Cr	95.87 ug/l	1.27	100.00	90 - 110	
55 Mn	96.78 ug/l	0.66	100.00	90 - 110	
56 Fe	2384.00 ug/l	0.92	2500.00	90 - 110	
59 Co	96.20 ug/l	0.32	100.00	90 - 110	
60 Ni	95.67 ug/l	0.24	100.00	90 - 110	
63 Cu	98.09 ug/l	1.01	100.00	90 - 110	
65 Cu	98.73 ug/l	2.11	100.00	90 - 110	
66 Zn	98.07 ug/l	2.42	100.00	90 - 110	
75 As	96.39 ug/l	1.55	100.00	90 - 110	
78 Se	97.56 ug/l	0.36	100.00	90 - 110	
78 Se	97.66 ug/l	2.56	100.00	90 - 110	
88 Sr	97.87 ug/l	1.88	100.00	90 - 110	
88 Sr	96.07 ug/l	1.83	100.00	90 - 110	
95 Mo	99.53 ug/l	0.36	100.00	90 - 110	
106 (Cd)	ug/l		100.00	90 - 110	
107 Ag	49.02 ug/l	1.01	50.00	90 - 110	
108 (Cd)	ug/l		100.00	90 - 110	
111 Cd	96.87 ug/l	0.39	100.00	90 - 110	
118 Sn	46.85 ug/l	3.95	50.00	90 - 110	
121 Sb	108.10 ug/l	1.02	100.00	90 - 110	
137 Ba	97.17 ug/l	0.83	100.00	90 - 110	
205 Tl	97.00 ug/l	1.45	100.00	90 - 110	
206 (Pb)	ug/l		100.00	90 - 110	
207 (Pb)	ug/l		100.00	90 - 110	
208 Pb	97.93 ug/l	1.42	100.00	90 - 110	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1335783.90	0.42	1481195.40	90.2	70 - 120	
45 Sc	725623.75	1.10	772553.25	93.9	70 - 120	
45 Sc	22678.31	0.32	22503.75	100.8	70 - 120	
45 Sc	1128855.80	0.87	1185323.00	95.2	70 - 120	
72 Ge	144318.58	1.44	148368.02	97.3	70 - 120	
72 Ge	10075.10	1.05	10084.80	99.9	70 - 120	
72 Ge	188634.97	0.16	194175.66	97.1	70 - 120	
115 In	920131.69	0.72	966828.31	95.2	70 - 120	
159 Tb	1018963.00	1.26	1047627.10	97.3	70 - 120	
165 Ho	985936.75	0.56	1003648.30	98.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Pass  
 ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11B02k00.B\014\_CCV.D\014\_CCV.D#  
 Date Acquired: May 2 2011 12:00 pm  
 Operator: SDM  
 Sample Name: CCV 110502  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	Expected QC Range(%)	Flag
7 (Li)	----- ug/l	-----	50.00 90 - 110	
9 Be	49.35 ug/l	0.93	50.00 90 - 110	
11 B	49.87 ug/l	0.86	50.00 90 - 110	
23 Na	1241.00 ug/l	1.11	1250.00 90 - 110	
24 Mg	2475.00 ug/l	1.72	2500.00 90 - 110	
27 Al	989.70 ug/l	1.06	1000.00 90 - 110	
39 K	1002.00 ug/l	0.31	1000.00 90 - 110	
44 Ca	2525.00 ug/l	2.61	2500.00 90 - 110	
47 Ti	49.75 ug/l	0.95	50.00 90 - 110	
51 V	49.01 ug/l	1.24	50.00 90 - 110	
52 Cr	48.86 ug/l	0.57	50.00 90 - 110	
55 Mn	49.73 ug/l	1.53	50.00 90 - 110	
56 Fe	1002.00 ug/l	1.14	1000.00 90 - 110	
59 Co	49.25 ug/l	1.41	50.00 90 - 110	
60 Ni	49.21 ug/l	0.90	50.00 90 - 110	
63 Cu	49.31 ug/l	1.98	50.00 90 - 110	
65 Cu	49.75 ug/l	2.18	50.00 90 - 110	
66 Zn	49.60 ug/l	2.03	50.00 90 - 110	
75 As	49.71 ug/l	1.28	50.00 90 - 110	
78 Se	49.58 ug/l	1.35	50.00 90 - 110	
78 Se	52.32 ug/l	2.52	50.00 90 - 110	
88 Sr	50.60 ug/l	3.09	50.00 90 - 110	
88 Sr	50.11 ug/l	0.43	50.00 90 - 110	
95 Mo	49.96 ug/l	0.67	50.00 90 - 110	
106 (Cd)	----- ug/l	-----	50.00 90 - 110	
107 Ag	24.77 ug/l	0.97	25.00 90 - 110	
108 (Cd)	----- ug/l	-----	50.00 90 - 110	
111 Cd	48.99 ug/l	0.92	50.00 90 - 110	
118 Sn	49.12 ug/l	0.70	50.00 90 - 110	
121 Sb	47.68 ug/l	0.39	50.00 90 - 110	
137 Ba	49.82 ug/l	1.16	50.00 90 - 110	
205 Tl	49.19 ug/l	1.22	50.00 90 - 110	
206 (Pb)	----- ug/l	-----	50.00 90 - 110	
207 (Pb)	----- ug/l	-----	50.00 90 - 110	
208 Pb	49.52 ug/l	0.60	50.00 90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1344649.40	1.04	1481195.40	90.8	70 - 120	
45 Sc	717349.13	0.85	772553.25	92.9	70 - 120	
45 Sc	22973.25	0.92	22503.75	102.1	70 - 120	
45 Sc	1128732.50	0.60	1185323.00	95.2	70 - 120	
72 Ge	145122.69	0.59	148368.02	97.8	70 - 120	
72 Ge	10205.54	1.77	10084.80	101.2	70 - 120	
72 Ge	187705.38	0.29	194175.66	96.7	70 - 120	
115 In	926772.75	0.42	966828.31	95.9	70 - 120	
159 Tb	1032352.70	0.24	1047627.10	98.5	70 - 120	
165 Ho	991023.56	0.42	1003648.30	98.7	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11B02k00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass  
 ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\017\_CCB.D\017\_CCB.D#  
 Date Acquired: May 2 2011 12:19 pm  
 Operator: SDM  
 Sample Name: ICB 110502  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l		#VALUE!	
9 Be	-0.34 ug/l	0.69	0.12	
11 B	0.04 ug/l	77.63	15.00	
23 Na	-6.30 ug/l	4.27	77.10	
24 Mg	-0.49 ug/l	14.60	7.50	
27 Al	-2.23 ug/l	11.23	3.96	
39 K	-1.35 ug/l	887.82	19.20	
44 Ca	-34.07 ug/l	11.67	90.00	
47 Ti	-0.13 ug/l	22.68	0.78	
51 V	-0.15 ug/l	3.40	0.21	
52 Cr	-0.01 ug/l	12.67	0.12	
55 Mn	-0.02 ug/l	24.23	0.18	
56 Fe	-4.85 ug/l	1.51	40.80	
59 Co	-0.50 ug/l	0.95	0.09	
60 Ni	-0.02 ug/l	76.24	0.48	
63 Cu	-0.59 ug/l	2.24	0.39	
65 Cu	-0.57 ug/l	3.62	0.39	
66 Zn	-0.49 ug/l	17.95	6.90	
75 As	-0.06 ug/l	38.29	0.27	
78 Se	-0.03 ug/l	40.01	0.30	
78 Se	0.30 ug/l	113.01	0.30	Fail
88 Sr	0.02 ug/l	70.65	0.03	
88 Sr	0.00 ug/l	119.70	0.03	
95 Mo	-0.01 ug/l	202.47	0.21	
106 (Cd)	ug/l		#VALUE!	
107 Ag	0.00 ug/l	52.91	0.09	
108 (Cd)	ug/l		#VALUE!	
111 Cd	0.03 ug/l	47.55	0.06	
118 Sn	-0.51 ug/l	0.51	0.30	
121 Sb	-0.39 ug/l	2.19	0.03	
137 Ba	-0.01 ug/l	9.53	0.12	
205 Tl	0.01 ug/l	5.17	0.03	
206 (Pb)	ug/l		#VALUE!	
207 (Pb)	ug/l		#VALUE!	
208 Pb	-0.44 ug/l	0.08	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec (%)	QC Range (%)	Flag
6 Li	1227384.00	0.67	1481195.40	82.9	70 - 120	
45 Sc	692659.75	0.95	772553.25	89.7	70 - 120	
45 Sc	24093.87	0.98	22503.75	107.1	70 - 120	
45 Sc	1125885.00	1.31	1185323.00	95.0	70 - 120	
72 Ge	145390.34	0.57	148368.02	98.0	70 - 120	
72 Ge	10828.22	1.54	10084.80	107.4	70 - 120	
72 Ge	191586.98	0.06	194175.66	98.7	70 - 120	
115 In	955730.69	0.50	966828.31	98.9	70 - 120	
159 Tb	1062170.50	0.66	1047627.10	101.4	70 - 120	
165 Ho	1016154.50	0.89	1003648.30	101.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.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\11E02k00.B\018\_CCB.D\018\_CCB.D#  
 Date Acquired: May 2 2011 12:25 pm  
 Operator: SDM  
 Sample Name: CCB 110502  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#VALUE!	
9 Be	-0.34 ug/l	0.46	0.12	
11 B	0.00 ug/l	380.47	15.00	
23 Na	-6.64 ug/l	4.61	77.10	
24 Mg	-0.48 ug/l	35.85	7.50	
27 Al	-1.97 ug/l	12.36	3.96	
39 K	-2.80 ug/l	425.10	19.20	
44 Ca	-32.08 ug/l	5.46	90.00	
47 Ti	-0.08 ug/l	37.00	0.78	
51 V	-0.14 ug/l	2.54	0.21	
52 Cr	-0.01 ug/l	180.73	0.12	
55 Mn	-0.01 ug/l	101.62	0.18	
56 Fe	-4.80 ug/l	1.45	40.80	
59 Co	-0.50 ug/l	0.31	0.09	
60 Ni	-0.02 ug/l	15.35	0.48	
63 Cu	-0.59 ug/l	5.42	0.39	
65 Cu	-0.59 ug/l	4.21	0.39	
66 Zn	-0.39 ug/l	4.67	6.90	
75 As	-0.08 ug/l	10.75	0.27	
78 Se	-0.04 ug/l	20.19	0.30	
78 Se	0.17 ug/l	57.01	0.30	
88 Sr	0.04 ug/l	104.98	0.03	Fail
88 Sr	0.00 ug/l	94.77	0.03	
95 Mo	-0.04 ug/l	18.15	0.21	
106 (Cd)	----- ug/l	-----	#VALUE!	
107 Ag	-0.01 ug/l	48.57	0.09	
108 (Cd)	----- ug/l	-----	#VALUE!	
111 Cd	0.03 ug/l	11.96	0.06	
118 Sn	-0.51 ug/l	0.73	0.30	
121 Sb	-0.43 ug/l	0.41	0.03	
137 Ba	-0.02 ug/l	0.54	0.12	
205 Tl	0.00 ug/l	279.55	0.03	
206 (Pb)	----- ug/l	-----	#VALUE!	
207 (Pb)	----- ug/l	-----	#VALUE!	
208 Pb	-0.43 ug/l	0.67	0.33	

ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1237673.90	0.96	1481195.40	83.6	70 - 120		
45 Sc	703520.75	0.70	772553.25	91.1	70 - 120		
45 Sc	23991.51	0.61	22503.75	106.6	70 - 120		
45 Sc	1104649.60	1.46	1185323.00	93.2	70 - 120		
72 Ge	145951.42	1.00	148368.02	98.4	70 - 120		
72 Ge	10735.56	0.97	10084.80	106.5	70 - 120		
72 Ge	190508.38	0.94	194175.66	98.1	70 - 120		
115 In	937055.56	0.48	966828.31	96.9	70 - 120		
159 Tb	1027731.80	0.07	1047627.10	98.1	70 - 120		
165 Ho	993367.88	1.03	1003648.30	99.0	70 - 120		

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.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

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\019SMPL.D\019SMPL.D#  
 Date Acquired: May 2 2011 12:31 pm  
 Operator: SDM  
 Sample Name: LDR 110502  
 Misc Info:  
 Vial Number: 2101  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: Sample  
 Prep Dil Factor: 1.00  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l	#VALUE!	-----	0	
9 Be	914.80 ug/l	914.80	1.68	1000	
11 B	984.30 ug/l	984.30	1.31	1000	
23 Na	23540.00 ug/l	23540.00	0.94	25000	
24 Mg	45090.00 ug/l	45090.00	0.48	50000	
27 Al	19150.00 ug/l	19150.00	0.77	20000	
39 K	18970.00 ug/l	18970.00	0.87	20000	
44 Ca	49620.00 ug/l	49620.00	0.57	50000	
47 Ti	983.20 ug/l	983.20	0.84	1000	
51 V	967.70 ug/l	967.70	0.44	1000	
52 Cr	924.70 ug/l	924.70	1.25	1000	
55 Mn	957.30 ug/l	957.30	0.69	1000	
56 Fe	18140.00 ug/l	18140.00	1.04	20000	
59 Co	922.20 ug/l	922.20	1.11	1000	
60 Ni	905.60 ug/l	905.60	1.42	1000	
63 Cu	891.60 ug/l	891.60	0.82	1000	
65 Cu	916.80 ug/l	916.80	1.06	1000	
66 Zn	919.10 ug/l	919.10	0.88	1000	
75 As	969.30 ug/l	969.30	1.14	1000	
78 Se	962.70 ug/l	962.70	0.51	1000	
78 Se	960.50 ug/l	960.50	2.26	1000	
88 Sr	973.70 ug/l	973.70	1.17	1000	
88 Sr	923.20 ug/l	923.20	1.88	1000	
95 Mo	980.40 ug/l	980.40	1.26	1000	
106 (Cd)	ug/l	#VALUE!	-----	#####	
107 Ag	431.20 ug/l	431.20	1.15	500	
108 (Cd)	ug/l	#VALUE!	-----	#####	
111 Cd	957.70 ug/l	957.70	1.45	1000	
118 Sn	972.00 ug/l	972.00	0.73	1000	
121 Sb	1003.00 ug/l	1003.00	0.99	1000	>Cal
137 Ba	996.40 ug/l	996.40	1.28	1000	
205 Tl	899.00 ug/l	899.00	1.03	1000	
206 (Pb)	ug/l	#VALUE!	-----	#####	
207 (Pb)	ug/l	#VALUE!	-----	#####	
208 Pb	917.40 ug/l	917.40	0.74	1000	

## ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1176647.60	1.31	1481195.40	79.4	70 - 120		
45 Sc	685705.69	0.26	772553.25	88.8	70 - 120		
45 Sc	22072.23	1.23	22503.75	98.1	70 - 120		
45 Sc	1075038.40	1.69	1185323.00	90.7	70 - 120		
72 Ge	139874.48	0.80	148368.02	94.3	70 - 120		
72 Ge	9982.79	0.48	10084.80	99.0	70 - 120		
72 Ge	181640.00	1.33	194175.66	93.5	70 - 120		
115 In	864441.94	0.64	966828.31	89.4	70 - 120		
159 Tb	990243.44	0.39	1047627.10	94.5	70 - 120		
165 Ho	970029.38	0.33	1003648.30	96.7	70 - 120		

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.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

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\021SMPL.D\021SMPL.D#  
 Date Acquired: May 2 2011 12:43 pm  
 Operator: SDM  
 Sample Name: ICESA 110502  
 Misc Info:  
 Vial Number: 2102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: Sample  
 Prep Dil Factor: 1.00  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l	#VALUE!		0	
9 Be	-0.20 ug/l	-0.20	7.51	1000	
11 B	3.88 ug/l	3.88	2.31	1000	
23 Na	89670.00 ug/l	89670.00	0.29	25000	>Cal
24 Mg	86980.00 ug/l	86980.00	0.51	50000	>Cal
27 Al	89300.00 ug/l	89300.00	0.28	20000	>Cal
39 K	88010.00 ug/l	88010.00	0.63	28000	>Cal
44 Ca	91010.00 ug/l	91010.00	0.27	50000	>Cal
47 Ti	1911.00 ug/l	1911.00	0.74	1000	>Cal
51 V	0.38 ug/l	0.38	5.04	1000	
52 Cr	0.74 ug/l	0.74	5.47	1000	
55 Mn	5.26 ug/l	5.26	2.44	1000	
56 Fe	86480.00 ug/l	86480.00	0.84	20000	>Cal
59 Co	0.97 ug/l	0.97	2.68	1000	
60 Ni	1.29 ug/l	1.29	1.48	1000	
63 Cu	0.73 ug/l	0.73	4.79	1000	
65 Cu	0.78 ug/l	0.78	11.34	1000	
66 Zn	0.98 ug/l	0.98	13.17	1000	
75 As	0.87 ug/l	0.87	12.58	1000	
78 Se	0.62 ug/l	0.62	4.17	1000	
78 Se	1.02 ug/l	1.02	51.49	1000	
88 Sr	1.30 ug/l	1.30	4.09	1000	
88 Sr	1.21 ug/l	1.21	1.75	1000	
95 Mo	1833.00 ug/l	1833.00	0.96	1000	>Cal
106 (Cd)	ug/l	#VALUE!	-----	#####	
107 Ag	0.25 ug/l	0.25	6.92	500	
108 (Cd)	ug/l	#VALUE!	-----	#####	
111 Cd	0.55 ug/l	0.55	29.10	1000	
118 Sn	1.62 ug/l	1.62	4.86	1000	
121 Sb	3.63 ug/l	3.63	5.84	1000	
137 Ba	2.81 ug/l	2.81	3.70	1000	
205 Tl	0.58 ug/l	0.58	2.89	1000	
206 (Pb)	ug/l	#VALUE!	-----	#####	
207 (Pb)	ug/l	#VALUE!	-----	#####	
208 Pb	2.83 ug/l	2.83	0.19	1000	

ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1174985.30	1.52	1481195.40	79.3	70 - 120		
45 Sc	689546.69	0.50	772553.25	89.3	70 - 120		
45 Sc	22507.31	1.08	22503.75	100.0	70 - 120		
45 Sc	1103591.30	0.53	1185323.00	93.1	70 - 120		
72 Ge	140122.19	0.94	148368.02	94.4	70 - 120		
72 Ge	10126.98	2.47	10084.80	100.4	70 - 120		
72 Ge	189309.50	1.00	194175.66	97.5	70 - 120		
115 In	853366.50	0.43	966828.31	88.3	70 - 120		
159 Tb	972120.19	0.36	1047627.10	92.8	70 - 120		
165 Ho	937173.25	0.63	1003648.30	93.4	70 - 120		

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.D#

8 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass



ICS-AB QC Report

Data File: C:\ICPCHEM\1\DATA\11E02K00.B\022ICSB.D\022ICSB.D#  
 Date Acquired: May 2 2011 12:50 pm  
 Acq. Method: 62A0502.M  
 Operator: SDM  
 Sample Name: ICSAB 110502  
 Misc Info:  
 Vial Number: 2103  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal. Update: May 02 2011 11:33 am  
 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	249.40	0.50	250	99.8	80 - 120	---
11 B	45	3	3.02	2.82	---	---	---	---
23 Na	45	2	94450.00	1.44	---	---	---	---
24 Mg	45	2	90390.00	1.66	---	---	---	---
27 Al	45	2	90280.00	0.64	---	---	---	---
39 K	45	2	90360.00	0.54	---	---	---	---
44 Ca	45	2	92270.00	0.77	---	---	---	---
47 Ti	45	2	1944.00	0.39	2000	97.2	80 - 120	---
51 V	45	2	261.00	1.02	250	104.4	80 - 120	---
52 Cr	45	2	249.70	1.33	250	99.9	80 - 120	---
55 Mn	45	2	256.10	1.82	250	102.4	80 - 120	---
56 Fe	45	2	88690.00	1.19	---	---	---	---
59 Co	45	2	246.80	1.52	250	98.7	80 - 120	---
60 Ni	45	2	479.80	1.47	500	96.0	80 - 120	---
63 Cu	72	2	243.10	1.38	250	97.2	80 - 120	---
65 Cu	72	2	244.20	1.00	250	97.7	80 - 120	---
66 Zn	72	2	475.20	0.41	500	95.0	80 - 120	---
75 As	72	2	263.40	0.06	250	105.4	80 - 120	---
78 Se	72	1	261.10	0.34	250	104.4	80 - 120	---
78 Se	72	2	253.00	1.35	250	101.2	80 - 120	---
88 Sr	72	2	1.39	3.78	---	---	---	---
88 Sr	72	3	1.16	3.17	---	---	---	---
95 Mo	72	3	2087.00	0.44	2000	104.4	80 - 120	---
106 (Cd)	---	3	---	---	---	---	---	---
107 Ag	115	3	420.80	2.58	500	84.2	80 - 120	---
108 (Cd)	---	3	---	---	---	---	---	---
111 Cd	115	3	513.10	1.04	500	102.6	80 - 120	---
118 Sn	115	3	0.68	4.94	---	---	---	---
121 Sb	115	3	274.80	0.62	250	109.9	80 - 120	---
137 Ba	115	3	268.20	0.66	250	107.3	80 - 120	---
205 Tl	159	3	239.90	0.05	250	96.0	80 - 120	---
206 (Pb)	---	3	---	---	---	---	---	---
207 (Pb)	---	3	---	---	---	---	---	---
208 Pb	159	3	479.80	0.59	500	96.0	80 - 120	---

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3	1284029	0.82	1481195	86.7	70 - 120	---
45 Sc	1	720228	0.35	772553	93.2	70 - 120	---
45 Sc	2	22153	2.12	22504	98.4	70 - 120	---
45 Sc	3	1130487	0.76	1185323	95.4	70 - 120	---
72 Ge	1	147323	0.41	148368	99.3	70 - 120	---
72 Ge	2	9923	1.29	10085	98.4	70 - 120	---
72 Ge	3	191136	0.80	194176	98.4	70 - 120	---
115 In	3	858997	0.38	966828	88.8	70 - 120	---
159 Tb	3	967743	0.28	1047627	92.4	70 - 120	---
165 Ho	3	928603	0.49	1003648	92.5	70 - 120	---

Tune File# 1 c:\icpchem\1\7500\h2.u  
 Tune File# 2 c:\icpchem\1\7500\he.u  
 Tune File# 3 c:\icpchem\1\7500\nogas.u

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02K00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\024\_CCV.D\024\_CCV.D#  
 Date Acquired: May 2 2011 01:02 pm  
 Operator: SDM  
 Sample Name: CCV 110502  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	Expected QC	Range(%)	Flag
7 (Li)	ug/l		50.00	90 - 110	
9 Be	50.00 ug/l	1.92	50.00	90 - 110	
11 B	52.10 ug/l	1.95	50.00	90 - 110	
23 Na	1272.00 ug/l	0.38	1250.00	90 - 110	
24 Mg	2447.00 ug/l	0.84	2500.00	90 - 110	
27 Al	959.50 ug/l	1.37	1000.00	90 - 110	
39 K	1006.00 ug/l	1.06	1000.00	90 - 110	
44 Ca	2514.00 ug/l	2.01	2500.00	90 - 110	
47 Ti	45.90 ug/l	1.37	50.00	90 - 110	
51 V	49.71 ug/l	0.53	50.00	90 - 110	
52 Cr	48.64 ug/l	0.68	50.00	90 - 110	
55 Mn	47.88 ug/l	0.35	50.00	90 - 110	
56 Fe	968.30 ug/l	0.95	1000.00	90 - 110	
59 Co	49.11 ug/l	0.55	50.00	90 - 110	
60 Ni	48.53 ug/l	1.03	50.00	90 - 110	
63 Cu	48.39 ug/l	0.58	50.00	90 - 110	
65 Cu	48.46 ug/l	0.46	50.00	90 - 110	
66 Zn	48.25 ug/l	1.04	50.00	90 - 110	
75 As	50.15 ug/l	1.41	50.00	90 - 110	
78 Se	49.42 ug/l	0.73	50.00	90 - 110	
78 Se	44.96 ug/l	1.82	50.00	90 - 110	Fail - Hm 50/11
88 Sr	48.03 ug/l	1.52	50.00	90 - 110	
88 Sr	50.26 ug/l	0.92	50.00	90 - 110	
95 Mo	49.66 ug/l	1.53	50.00	90 - 110	
106 (Cd)	ug/l		50.00	90 - 110	
107 Ag	24.28 ug/l	1.26	25.00	90 - 110	
108 (Cd)	ug/l		50.00	90 - 110	
111 Cd	48.96 ug/l	1.70	50.00	90 - 110	
118 Sn	49.36 ug/l	1.47	50.00	90 - 110	
121 Sb	50.93 ug/l	1.27	50.00	90 - 110	
137 Ba	49.26 ug/l	1.52	50.00	90 - 110	
205 Tl	47.59 ug/l	0.87	50.00	90 - 110	
206 (Pb)	ug/l		50.00	90 - 110	
207 (Pb)	ug/l		50.00	90 - 110	
208 Pb	47.64 ug/l	1.37	50.00	90 - 110	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1464725.30	1.12	1481195.40	98.9	70 - 120	
45 Sc	768297.13	0.26	772553.25	99.4	70 - 120	
45 Sc	22983.63	1.36	22503.75	102.1	70 - 120	
45 Sc	1146890.30	2.21	1185323.00	96.8	70 - 120	
72 Ge	157198.36	0.38	148368.02	106.0	70 - 120	
72 Ge	10255.95	0.38	10084.80	101.7	70 - 120	
72 Ge	188580.63	1.15	194175.66	97.1	70 - 120	
115 In	900726.00	1.38	966828.31	93.2	70 - 120	
159 Tb	965682.44	1.48	1047627.10	92.2	70 - 120	
165 Ho	919940.44	1.79	1003648.30	91.7	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.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\11E02k00.B\028\_CCB.D\028\_CCB.D#  
 Date Acquired: May 2 2011 01:27 pm  
 Operator: SDM  
 Sample Name: CCB 110502  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	-----	#VALUE!	
9 Be	-0.35 ug/l	0.27	0.12	
11 B	0.34 ug/l	7.04	15.00	
23 Na	2.29 ug/l	64.32	77.10	
24 Mg	0.28 ug/l	320.80	7.50	
27 Al	0.54 ug/l	249.54	3.96	
39 K	5.43 ug/l	297.86	19.20	
44 Ca	-39.75 ug/l	19.35	90.00	
47 Ti	-0.03 ug/l	434.23	0.78	
51 V	-0.13 ug/l	9.93	0.21	
52 Cr	-0.01 ug/l	38.06	0.12	
55 Mn	-0.01 ug/l	105.14	0.18	
56 Fe	-4.81 ug/l	1.35	40.80	
59 Co	-0.54 ug/l	1.16	0.09	
60 Ni	-0.03 ug/l	16.64	0.48	
63 Cu	-0.59 ug/l	1.52	0.39	
65 Cu	-0.58 ug/l	3.24	0.39	
66 Zn	-0.48 ug/l	13.05	6.90	
75 As	-0.07 ug/l	28.62	0.27	
78 Se	-0.03 ug/l	45.10	0.30	
78 Se	0.35 ug/l	48.09	0.30	Fail
88 Sr	0.00 ug/l	486.37	0.03	
88 Sr	0.00 ug/l	544.61	0.03	
95 Mo	0.21 ug/l	7.92	0.21	
106 (Cd)	----- ug/l	-----	#VALUE!	
107 Ag	0.00 ug/l	472.48	0.09	
108 (Cd)	----- ug/l	-----	#VALUE!	
111 Cd	0.02 ug/l	45.26	0.06	
118 Sn	-0.50 ug/l	1.47	0.30	
121 Sb	-0.34 ug/l	3.88	0.03	
137 Ba	-0.01 ug/l	54.40	0.12	
205 Tl	0.00 ug/l	100.66	0.03	
206 (Pb)	----- ug/l	-----	#VALUE!	
207 (Pb)	----- ug/l	-----	#VALUE!	
208 Pb	-0.44 ug/l	1.78	0.33	

ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1321608.10	0.90	1481195.40	89.2	70 - 120		
45 Sc	734307.38	1.97	772553.25	95.0	70 - 120		
45 Sc	23854.23	2.15	22503.75	106.0	70 - 120		
45 Sc	1154757.50	1.68	1185323.00	97.4	70 - 120		
72 Ge	155883.38	0.65	148368.02	105.1	70 - 120		
72 Ge	10762.25	1.90	10084.80	106.7	70 - 120		
72 Ge	193900.63	0.95	194175.66	99.9	70 - 120		
115 In	938356.31	1.28	966828.31	97.1	70 - 120		
159 Tb	1020970.20	1.16	1047627.10	97.5	70 - 120		
165 Ho	973163.38	1.80	1003648.30	97.0	70 - 120		

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

**CCV QC Report**

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\041\_CCV.D\041\_CCV.D#  
 Date Acquired: May 2 2011 02:48 pm  
 Operator: SDM  
 Sample Name: CCV 110502  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	Expected QC Range(%)	Flag
7 (Li)	ug/l		50.00 90 - 110	
9 Be	47.13 ug/l	0.81	50.00 90 - 110	
11 B	49.48 ug/l	0.72	50.00 90 - 110	
23 Na	1249.00 ug/l	1.11	1250.00 90 - 110	
24 Mg	2446.00 ug/l	1.08	2500.00 90 - 110	
27 Al	985.20 ug/l	1.52	1000.00 90 - 110	
39 K	1018.00 ug/l	1.70	1000.00 90 - 110	
44 Ca	2548.00 ug/l	1.33	2500.00 90 - 110	
47 Ti	47.91 ug/l	3.97	50.00 90 - 110	
51 V	48.81 ug/l	0.42	50.00 90 - 110	
52 Cr	47.51 ug/l	1.40	50.00 90 - 110	
55 Mn	48.42 ug/l	1.55	50.00 90 - 110	
56 Fe	954.80 ug/l	1.02	1000.00 90 - 110	
59 Co	47.80 ug/l	0.49	50.00 90 - 110	
60 Ni	47.39 ug/l	0.82	50.00 90 - 110	
63 Cu	47.95 ug/l	1.30	50.00 90 - 110	
65 Cu	47.74 ug/l	1.49	50.00 90 - 110	
66 Zn	47.56 ug/l	3.83	50.00 90 - 110	
75 As	49.28 ug/l	1.24	50.00 90 - 110	
78 Se	48.02 ug/l	0.87	50.00 90 - 110	
78 Se	49.19 ug/l	4.09	50.00 90 - 110	
88 Sr	48.99 ug/l	0.82	50.00 90 - 110	
88 Sr	49.32 ug/l	0.76	50.00 90 - 110	
95 Mo	47.68 ug/l	1.69	50.00 90 - 110	
106 (Cd)	ug/l		50.00 90 - 110	
107 Ag	23.32 ug/l	1.60	25.00 90 - 110	
108 (Cd)	ug/l		50.00 90 - 110	
111 Cd	47.94 ug/l	2.28	50.00 90 - 110	
118 Sn	48.39 ug/l	1.70	50.00 90 - 110	
121 Sb	46.04 ug/l	2.83	50.00 90 - 110	
137 Ba	48.62 ug/l	1.98	50.00 90 - 110	
205 Tl	47.67 ug/l	0.70	50.00 90 - 110	
206 (Pb)	ug/l		50.00 90 - 110	
207 (Pb)	ug/l		50.00 90 - 110	
208 Pb	47.53 ug/l	0.46	50.00 90 - 110	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1368745.00	0.11	1481195.40	92.4	70 - 120	
45 Sc	758791.75	0.18	772553.25	98.2	70 - 120	
45 Sc	23280.37	1.09	22503.75	103.5	70 - 120	
45 Sc	1125740.30	0.22	1185323.00	95.0	70 - 120	
72 Ge	154924.08	0.09	148368.02	104.4	70 - 120	
72 Ge	10303.03	1.44	10084.80	102.2	70 - 120	
72 Ge	187621.63	0.67	194175.66	96.6	70 - 120	
115 In	918432.00	1.08	966828.31	95.0	70 - 120	
159 Tb	1005223.90	0.48	1047627.10	96.0	70 - 120	
165 Ho	957845.06	0.28	1003648.30	95.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Pass  
 ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11R02K00.B\044\_CCB.D\044\_CCB.D#  
 Date Acquired: May 2 2011 03:07 pm  
 Operator: SDM  
 Sample Name: CCB 110502  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l		#VALUE!	
9 Be	-0.35 ug/l	0.90	0.12	
11 B	0.32 ug/l	4.07	15.00	
23 Na	-3.76 ug/l	32.17	77.10	
24 Mg	0.05 ug/l	144.54	7.50	
27 Al	-1.92 ug/l	5.38	3.96	
39 K	14.40 ug/l	96.46	19.20	
44 Ca	-42.51 ug/l	6.89	90.00	
47 Ti	-0.08 ug/l	71.41	0.78	
51 V	-0.13 ug/l	8.28	0.21	
52 Cr	0.02 ug/l	10.38	0.12	
55 Mn	0.05 ug/l	61.31	0.18	
56 Fe	-4.76 ug/l	1.18	40.80	
59 Co	-0.53 ug/l	0.71	0.09	
60 Ni	-0.02 ug/l	24.38	0.48	
63 Cu	-0.59 ug/l	1.36	0.39	
65 Cu	-0.57 ug/l	3.21	0.39	
66 Zn	-0.43 ug/l	12.84	6.90	
75 As	-0.05 ug/l	26.77	0.27	
78 Se	0.01 ug/l	154.11	0.30	
78 Se	0.25 ug/l	88.90	0.30	
88 Sr	0.03 ug/l	212.29	0.03	
88 Sr	0.00 ug/l	393.91	0.03	
95 Mo	0.05 ug/l	37.28	0.21	
106 (Cd)	ug/l		#VALUE!	
107 Ag	0.00 ug/l	122.33	0.09	
108 (Cd)	ug/l		#VALUE!	
111 Cd	0.02 ug/l	60.16	0.06	
118 Sn	-0.50 ug/l	1.00	0.30	
121 Sb	-0.41 ug/l	2.01	0.03	
137 Ba	0.00 ug/l	120.74	0.12	
205 Tl	0.01 ug/l	63.28	0.03	
206 (Pb)	ug/l		#VALUE!	
207 (Pb)	ug/l		#VALUE!	
208 Pb	-0.46 ug/l	0.34	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1194249.60	2.29	1481195.40	80.6	70 - 120	
45 Sc	739819.69	0.54	772553.25	95.8	70 - 120	
45 Sc	24554.30	0.20	22503.75	109.1	70 - 120	
45 Sc	1112401.10	0.62	1185323.00	93.8	70 - 120	
72 Ge	152833.92	0.46	148368.02	103.0	70 - 120	
72 Ge	10919.04	1.01	10084.80	108.3	70 - 120	
72 Ge	189476.22	1.23	194175.66	97.6	70 - 120	
115 In	946269.56	0.96	966828.31	97.9	70 - 120	
159 Tb	1046208.10	0.74	1047627.10	99.9	70 - 120	
165 Ho	993892.31	0.91	1003648.30	99.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11R02K00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass  
 ISTD: Pass

## CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\089\_CCV.D\089\_CCV.D#  
 Date Acquired: May 2 2011 07:47 pm  
 Operator: SDM  
 Sample Name: CCV 110502  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	Expected QC Range(%)	Flag
7 (Li)	ug/l		50.00 90 - 110	
9 Be	44.66 ug/l	2.01	50.00 90 - 110	Fail
11 B	50.31 ug/l	1.84	50.00 90 - 110	
23 Na	1248.00 ug/l	0.70	1250.00 90 - 110	
24 Mg	2392.00 ug/l	0.85	2500.00 90 - 110	
27 Al	924.60 ug/l	0.27	1000.00 90 - 110	
39 K	1037.00 ug/l	1.46	1000.00 90 - 110	
44 Ca	2375.00 ug/l	3.43	2500.00 90 - 110	
47 Ti	45.81 ug/l	2.70	50.00 90 - 110	
51 V	48.60 ug/l	1.26	50.00 90 - 110	
52 Cr	46.84 ug/l	0.51	50.00 90 - 110	
55 Mn	47.24 ug/l	1.03	50.00 90 - 110	
56 Fe	909.90 ug/l	0.39	1000.00 90 - 110	
59 Co	47.65 ug/l	0.16	50.00 90 - 110	
60 Ni	46.09 ug/l	1.08	50.00 90 - 110	
63 Cu	44.16 ug/l	1.96	50.00 90 - 110	Fail
65 Cu	44.52 ug/l	1.23	50.00 90 - 110	Fail
66 Zn	43.99 ug/l	1.32	50.00 90 - 110	Fail
75 As	47.27 ug/l	1.37	50.00 90 - 110	
78 Se	47.40 ug/l	8.65	50.00 90 - 110	
78 Se	42.93 ug/l	4.62	50.00 90 - 110	Fail
88 Sr	46.28 ug/l	2.10	50.00 90 - 110	
88 Sr	49.64 ug/l	1.32	50.00 90 - 110	
95 Mo	46.79 ug/l	0.94	50.00 90 - 110	
106 (Cd)	ug/l		50.00 90 - 110	
107 Ag	23.52 ug/l	1.25	25.00 90 - 110	
108 (Cd)	ug/l		50.00 90 - 110	
111 Cd	46.73 ug/l	0.47	50.00 90 - 110	
118 Sn	49.24 ug/l	0.90	50.00 90 - 110	
121 Sb	49.97 ug/l	0.55	50.00 90 - 110	
137 Ba	48.85 ug/l	1.44	50.00 90 - 110	
205 Tl	46.91 ug/l	0.54	50.00 90 - 110	
206 (Pb)	ug/l		50.00 90 - 110	
207 (Pb)	ug/l		50.00 90 - 110	
208 Pb	46.91 ug/l	0.88	50.00 90 - 110	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1385796.30	1.58	1481195.40	93.6	70 - 120	
45 Sc	762082.38	9.46	772553.25	98.6	70 - 120	
45 Sc	22563.34	0.65	22503.75	100.3	70 - 120	
45 Sc	1133241.60	1.13	1185323.00	95.6	70 - 120	
72 Ge	159532.67	7.74	148368.02	107.5	70 - 120	
72 Ge	10556.92	2.15	10084.80	104.7	70 - 120	
72 Ge	187808.05	0.87	194175.66	96.7	70 - 120	
115 In	922080.69	1.40	966828.31	95.4	70 - 120	
159 Tb	999279.50	0.58	1047627.10	95.4	70 - 120	
165 Ho	959310.88	1.10	1003648.30	95.6	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.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\11E02k00.B\093\_CCB.D\093\_CCB.D#  
 Date Acquired: May 2 2011 08:12 pm  
 Operator: SDM  
 Sample Name: CCB 110502  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l		#VALUE!	
9 Be	-0.34 ug/l	1.63	0.12	
11 B	1.61 ug/l	4.04	15.00	
23 Na	14.89 ug/l	13.19	77.10	
24 Mg	0.22 ug/l	26.48	7.50	
27 Al	-1.95 ug/l	10.04	3.96	
39 K	35.99 ug/l	41.98	19.20	Fail
44 Ca	-44.89 ug/l	17.34	90.00	
47 Ti	-0.13 ug/l	23.21	0.78	
51 V	-0.13 ug/l	1.18	0.21	
52 Cr	0.01 ug/l	24.92	0.12	
55 Mn	0.08 ug/l	6.70	0.18	
56 Fe	-4.74 ug/l	1.17	40.80	
59 Co	-0.52 ug/l	0.54	0.09	
60 Ni	-0.02 ug/l	39.57	0.48	
63 Cu	-0.51 ug/l	3.07	0.39	
65 Cu	-0.49 ug/l	2.43	0.39	
66 Zn	-0.36 ug/l	2.54	6.90	
75 As	-0.03 ug/l	51.35	0.27	
78 Se	0.03 ug/l	55.09	0.30	
78 Se	0.56 ug/l	18.88	0.30	Fail
88 Sr	0.07 ug/l	58.46	0.03	Fail
88 Sr	0.00 ug/l	9.75	0.03	
95 Mo	0.04 ug/l	14.47	0.21	
106 (Cd)	ug/l		#VALUE!	
107 Ag	0.06 ug/l	7.81	0.09	
108 (Cd)	ug/l		#VALUE!	
111 Cd	0.03 ug/l	57.55	0.06	
118 Sn	-0.48 ug/l	2.26	0.30	
121 Sb	-0.30 ug/l	4.55	0.03	
137 Ba	0.02 ug/l	37.57	0.12	
205 Tl	0.02 ug/l	12.93	0.03	
206 (Pb)	ug/l		#VALUE!	
207 (Pb)	ug/l		#VALUE!	
208 Pb	-0.46 ug/l	1.13	0.33	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1329182.10	0.75	1481195.40	89.7	70 - 120	
45 Sc	698962.69	7.11	772553.25	90.5	70 - 120	
45 Sc	24009.73	1.83	22503.75	106.7	70 - 120	
45 Sc	1150701.00	0.57	1185323.00	97.1	70 - 120	
72 Ge	153343.47	6.83	148368.02	103.4	70 - 120	
72 Ge	11168.11	0.70	10084.80	110.7	70 - 120	
72 Ge	194521.95	0.55	194175.66	100.2	70 - 120	
115 In	972437.44	1.63	966828.31	100.6	70 - 120	
159 Tb	1034617.20	0.85	1047627.10	98.8	70 - 120	
165 Ho	992751.75	1.15	1003648.30	98.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

**Data Results:**

Analytes: Fail  
 ISTD: Pass

**CCV QC Report**

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\105\_CCV.D\105\_CCV.D#  
 Date Acquired: May 2 2011 09:27 pm  
 Operator: SDM  
 Sample Name: CCV 110502  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	Expected QC Range(%)	Flag
7 (Li)	----- ug/l	-----	50.00 90 - 110	
9 Be	44.81 ug/l	1.71	50.00 90 - 110	Fail
11 B	48.97 ug/l	1.78	50.00 90 - 110	
23 Na	1279.00 ug/l	1.66	1250.00 90 - 110	
24 Mg	2386.00 ug/l	1.27	2500.00 90 - 110	
27 Al	922.60 ug/l	2.26	1000.00 90 - 110	
39 K	1028.00 ug/l	3.97	1000.00 90 - 110	
44 Ca	2292.00 ug/l	1.88	2500.00 90 - 110	
47 Ti	47.32 ug/l	4.60	50.00 90 - 110	
51 V	48.73 ug/l	0.45	50.00 90 - 110	
52 Cr	46.80 ug/l	2.47	50.00 90 - 110	
55 Mn	47.26 ug/l	2.26	50.00 90 - 110	
56 Fe	902.70 ug/l	1.42	1000.00 90 - 110	
59 Co	47.79 ug/l	1.73	50.00 90 - 110	
60 Ni	46.47 ug/l	1.03	50.00 90 - 110	
63 Cu	43.90 ug/l	1.55	50.00 90 - 110	Fail
65 Cu	44.60 ug/l	1.76	50.00 90 - 110	Fail
66 Zn	44.84 ug/l	1.87	50.00 90 - 110	Fail
75 As	46.80 ug/l	1.15	50.00 90 - 110	
78 Se	46.82 ug/l	0.32	50.00 90 - 110	
78 Se	42.67 ug/l	3.29	50.00 90 - 110	Fail
88 Sr	46.38 ug/l	3.75	50.00 90 - 110	
88 Sr	49.76 ug/l	1.85	50.00 90 - 110	
95 Mo	46.10 ug/l	1.30	50.00 90 - 110	
106 (Cd)	----- ug/l	-----	50.00 90 - 110	
107 Ag	23.00 ug/l	0.91	25.00 90 - 110	
108 (Cd)	----- ug/l	-----	50.00 90 - 110	
111 Cd	46.73 ug/l	1.33	50.00 90 - 110	
118 Sn	48.27 ug/l	0.36	50.00 90 - 110	
121 Sb	48.00 ug/l	0.68	50.00 90 - 110	
137 Ba	48.63 ug/l	0.38	50.00 90 - 110	
205 Tl	46.42 ug/l	0.57	50.00 90 - 110	
206 (Pb)	----- ug/l	-----	50.00 90 - 110	
207 (Pb)	----- ug/l	-----	50.00 90 - 110	
208 Pb	46.45 ug/l	1.19	50.00 90 - 110	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1389349.50	2.10	1481195.40	93.8	70 - 120	
45 Sc	761461.25	0.59	772553.25	98.6	70 - 120	
45 Sc	22531.82	2.11	22503.75	100.1	70 - 120	
45 Sc	1129087.10	2.29	1185323.00	95.3	70 - 120	
72 Ge	159034.42	0.17	148368.02	107.2	70 - 120	
72 Ge	10454.99	1.78	10084.80	103.7	70 - 120	
72 Ge	187021.94	1.31	194175.66	96.3	70 - 120	
115 In	912188.31	1.20	966828.31	94.3	70 - 120	
159 Tb	979413.44	1.22	1047627.10	93.5	70 - 120	
165 Ho	931655.44	1.88	1003648.30	92.8	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.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\11E02k00.B\109\_CCB.D\109\_CCB.D#  
 Date Acquired: May 2 2011 09:52 pm  
 Operator: SDM  
 Sample Name: CCB 110502  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

**QC Elements**

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l		#VALUE!	
9 Be	-0.34 ug/l	0.82	0.12	
11 B	1.05 ug/l	1.74	15.00	
23 Na	24.28 ug/l	6.88	77.10	
24 Mg	0.52 ug/l	37.34	7.50	
27 Al	-2.15 ug/l	11.66	3.96	
39 K	38.66 ug/l	47.67	19.20	Fail
44 Ca	-46.64 ug/l	10.66	90.00	
47 Ti	-0.13 ug/l	22.55	0.78	
51 V	-0.13 ug/l	7.00	0.21	
52 Cr	0.01 ug/l	22.29	0.12	
55 Mn	0.19 ug/l	5.17	0.18	Fail
56 Fe	-4.68 ug/l	0.90	40.80	
59 Co	-0.51 ug/l	1.65	0.09	
60 Ni	-0.02 ug/l	61.45	0.48	
63 Cu	-0.53 ug/l	2.79	0.39	
65 Cu	-0.51 ug/l	1.96	0.39	
66 Zn	-0.46 ug/l	10.36	6.90	
75 As	-0.05 ug/l	34.41	0.27	
78 Se	0.02 ug/l	28.94	0.30	
78 Se	0.36 ug/l	45.60	0.30	Fail
88 Sr	0.09 ug/l	55.81	0.03	Fail
88 Sr	0.01 ug/l	21.84	0.03	
95 Mo	0.02 ug/l	56.77	0.21	
106 (Cd)	ug/l		#VALUE!	
107 Ag	0.02 ug/l	28.74	0.09	
108 (Cd)	ug/l		#VALUE!	
111 Cd	0.04 ug/l	29.99	0.06	
118 Sn	-0.47 ug/l	0.09	0.30	
121 Sb	-0.38 ug/l	1.91	0.03	
137 Ba	0.02 ug/l	6.74	0.12	
205 Tl	0.02 ug/l	10.05	0.03	
206 (Pb)	ug/l		#VALUE!	
207 (Pb)	ug/l		#VALUE!	
208 Pb	-0.45 ug/l	1.51	0.33	

**ISTD Elements**

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1335285.00	1.30	1481195.40	90.1	70 - 120	
45 Sc	763563.56	0.80	772553.25	98.8	70 - 120	
45 Sc	23689.21	1.61	22503.75	105.3	70 - 120	
45 Sc	1158166.50	1.07	1185323.00	97.7	70 - 120	
72 Ge	162031.80	0.28	148368.02	109.2	70 - 120	
72 Ge	10980.20	1.39	10084.80	108.9	70 - 120	
72 Ge	196394.56	1.10	194175.66	101.1	70 - 120	
115 In	967852.50	0.84	966828.31	100.1	70 - 120	
159 Tb	1033617.10	2.10	1047627.10	98.7	70 - 120	
165 Ho	983232.06	0.76	1003648.30	98.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.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\11E02k00.B\121\_CCV.D\121\_CCV.D#  
 Date Acquired: May 2 2011 11:07 pm  
 Operator: SDM  
 Sample Name: CCV 110502  
 Misc Info:  
 Vial Number: 1105  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: CCV  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	----- ug/l	-----	50.00	90 - 110	
9 Be	44.35 ug/l	1.23	50.00	90 - 110	Fail
11 B	47.87 ug/l	1.96	50.00	90 - 110	
23 Na	1292.00 ug/l	0.86	1250.00	90 - 110	
24 Mg	2382.00 ug/l	1.05	2500.00	90 - 110	
27 Al	929.00 ug/l	2.21	1000.00	90 - 110	
39 K	1029.00 ug/l	1.28	1000.00	90 - 110	
44 Ca	2356.00 ug/l	2.53	2500.00	90 - 110	
47 Ti	45.45 ug/l	5.71	50.00	90 - 110	
51 V	48.14 ug/l	0.60	50.00	90 - 110	
52 Cr	46.32 ug/l	0.88	50.00	90 - 110	
55 Mn	46.58 ug/l	1.66	50.00	90 - 110	
56 Fe	895.30 ug/l	0.64	1000.00	90 - 110	Fail
59 Co	47.33 ug/l	0.54	50.00	90 - 110	
60 Ni	45.95 ug/l	1.68	50.00	90 - 110	
63 Cu	44.39 ug/l	1.23	50.00	90 - 110	Fail
65 Cu	44.47 ug/l	0.80	50.00	90 - 110	Fail
66 Zn	43.96 ug/l	0.43	50.00	90 - 110	Fail
75 As	46.54 ug/l	0.22	50.00	90 - 110	
78 Se	43.15 ug/l	11.19	50.00	90 - 110	Fail
78 Se	41.60 ug/l	5.29	50.00	90 - 110	Fail
88 Sr	46.76 ug/l	2.01	50.00	90 - 110	
88 Sr	49.46 ug/l	1.40	50.00	90 - 110	
95 Mo	45.72 ug/l	0.60	50.00	90 - 110	
106 (Cd)	----- ug/l	-----	50.00	90 - 110	
107 Ag	22.82 ug/l	1.45	25.00	90 - 110	
108 (Cd)	----- ug/l	-----	50.00	90 - 110	
111 Cd	46.76 ug/l	2.05	50.00	90 - 110	
118 Sn	47.70 ug/l	1.84	50.00	90 - 110	
121 Sb	47.85 ug/l	1.60	50.00	90 - 110	
137 Ba	49.07 ug/l	1.99	50.00	90 - 110	
205 Tl	46.62 ug/l	1.93	50.00	90 - 110	
206 (Pb)	----- ug/l	-----	50.00	90 - 110	
207 (Pb)	----- ug/l	-----	50.00	90 - 110	
208 Pb	46.62 ug/l	1.77	50.00	90 - 110	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1370641.00	1.44	1481195.40	92.5	70 - 120	
45 Sc	799632.56	12.63	772553.25	103.5	70 - 120	
45 Sc	22326.35	1.51	22503.75	99.2	70 - 120	
45 Sc	1128155.80	1.77	1185323.00	95.2	70 - 120	
72 Ge	167347.05	9.92	148368.02	112.8	70 - 120	
72 Ge	10254.47	0.56	10084.80	101.7	70 - 120	
72 Ge	184931.66	1.51	194175.66	95.2	70 - 120	
115 In	897342.63	2.18	966828.31	92.8	70 - 120	
159 Tb	954024.94	1.83	1047627.10	91.1	70 - 120	
165 Ho	914798.25	1.10	1003648.30	91.1	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.D#

7 :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\11E02k00.B\125\_CCB.D\125\_CCB.D#  
 Date Acquired: May 2 2011 11:32 pm  
 Operator: SDM  
 Sample Name: CCB 110502  
 Misc Info:  
 Vial Number: 1102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: CCB  
 Total Dil Factor: 1.00

## QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l		#VALUE!	
9 Be	-0.35 ug/l	0.25	0.12	
11 B	0.88 ug/l	3.36	15.00	
23 Na	40.55 ug/l	2.44	77.10	
24 Mg	0.87 ug/l	39.56	7.50	
27 Al	-2.05 ug/l	1.47	3.96	
39 K	44.10 ug/l	39.16	19.20	Fail
44 Ca	-46.49 ug/l	3.58	90.00	
47 Ti	-0.11 ug/l	27.00	0.78	
51 V	-0.14 ug/l	6.90	0.21	
52 Cr	0.02 ug/l	31.40	0.12	
55 Mn	0.12 ug/l	30.70	0.18	
56 Fe	-4.70 ug/l	1.38	40.80	
59 Co	-0.51 ug/l	1.28	0.09	
60 Ni	-0.01 ug/l	94.06	0.48	
63 Cu	-0.54 ug/l	1.35	0.39	
65 Cu	-0.49 ug/l	3.32	0.39	
66 Zn	-0.46 ug/l	2.17	6.90	
75 As	-0.06 ug/l	25.26	0.27	
78 Se	0.03 ug/l	46.11	0.30	
78 Se	0.26 ug/l	64.77	0.30	
88 Sr	0.08 ug/l	58.96	0.03	Fail
88 Sr	0.02 ug/l	33.07	0.03	
95 Mo	0.00 ug/l	71.38	0.21	
106 (Cd)	ug/l		#VALUE!	
107 Ag	0.02 ug/l	32.89	0.09	
108 (Cd)	ug/l		#VALUE!	
111 Cd	0.03 ug/l	30.03	0.06	
118 Sn	-0.49 ug/l	1.94	0.30	
121 Sb	-0.39 ug/l	1.60	0.03	
137 Ba	0.02 ug/l	73.47	0.12	
205 Tl	0.02 ug/l	12.58	0.03	
206 (Pb)	ug/l		#VALUE!	
207 (Pb)	ug/l		#VALUE!	
208 Pb	-0.46 ug/l	1.66	0.33	

## ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1311656.00	0.35	1481195.40	88.6	70 - 120	
45 Sc	732062.56	3.10	772553.25	94.8	70 - 120	
45 Sc	23410.24	1.90	22503.75	104.0	70 - 120	
45 Sc	1157355.90	1.26	1185323.00	97.6	70 - 120	
72 Ge	159936.31	1.17	148368.02	107.8	70 - 120	
72 Ge	10819.70	1.41	10084.80	107.3	70 - 120	
72 Ge	195718.31	0.69	194175.66	100.8	70 - 120	
115 In	956967.25	0.39	966828.31	99.0	70 - 120	
159 Tb	1011651.90	0.78	1047627.10	96.6	70 - 120	
165 Ho	966774.88	0.51	1003648.30	96.3	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Fail  
 ISTD: Pass

**METALS**

**Raw Data**

**APPL, INC.**

# METALS BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.22 U	0.5	0.22	0.11	ug/L	05/02/11	05/02/11	#602D-110502A-AY36735

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\031SMPL.D\031SMPL.D#  
 Date Acquired: May 2 2011 01:46 pm  
 Operator: SDM  
 Sample Name: 110502A-3015-BLK  
 Misc Info: 110502A-3015  
 Vial Number: 3102  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

## QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	----- ug/l	#VALUE!	-----	0	
9 Be	-0.35 ug/l	-0.39	0.96	1000	
11 B	0.66 ug/l	0.74	0.98	1000	
23 Na	51.46 ug/l	57.17	2.66	25000	
24 Mg	5.13 ug/l	5.69	10.63	50000	
27 Al	30.18 ug/l	33.53	2.04	20000	
39 K	27.59 ug/l	30.65	40.78	20000	
44 Ca	22.83 ug/l	25.36	51.42	50000	
47 Ti	1.83 ug/l	2.03	21.15	1000	
51 V	-0.09 ug/l	-0.10	5.46	1000	
52 Cr	0.09 ug/l	0.10	19.22	1000	
55 Mn	12.03 ug/l	13.37	1.94	1000	
56 Fe	11.09 ug/l	12.32	5.28	20000	
59 Co	-0.53 ug/l	-0.58	0.28	1000	
60 Ni	0.06 ug/l	0.07	29.63	1000	
63 Cu	-0.46 ug/l	-0.51	5.09	1000	
65 Cu	-0.42 ug/l	-0.47	5.01	1000	
66 Zn	3.35 ug/l	3.72	1.32	1000	
75 As	0.11 ug/l	0.12	28.77	1000	
78 Se	0.00 ug/l	0.00	2780.80	1000	
78 Se	0.28 ug/l	0.31	109.95	1000	
88 Sr	0.23 ug/l	0.26	19.68	1000	
88 Sr	0.12 ug/l	0.13	8.37	1000	
95 Mo	0.63 ug/l	0.70	6.33	1000	
106 (Cd)	----- ug/l	#VALUE!	-----	#####	
107 Ag	0.00 ug/l	0.00	1693.90	500	
108 (Cd)	----- ug/l	#VALUE!	-----	#####	
111 Cd	0.03 ug/l	0.03	73.20	1000	
118 Sn	0.07 ug/l	0.08	37.42	1000	
121 Sb	0.12 ug/l	0.13	18.53	1000	
137 Ba	0.23 ug/l	0.26	11.17	1000	
205 Tl	0.01 ug/l	0.01	58.72	1000	
206 (Pb)	----- ug/l	#VALUE!	-----	#####	
207 (Pb)	----- ug/l	#VALUE!	-----	#####	
208 Pb	-0.29 ug/l	-0.32	5.32	1000	

## ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1223279.10	0.93	1481195.40	82.6	70 - 120		
45 Sc	719790.63	0.95	772553.25	93.2	70 - 120		
45 Sc	23440.28	1.04	22503.75	104.2	70 - 120		
45 Sc	1117015.80	0.82	1185323.00	94.2	70 - 120		
72 Ge	146381.09	0.68	148368.02	98.7	70 - 120		
72 Ge	10357.89	0.54	10084.80	102.7	70 - 120		
72 Ge	185538.20	0.38	194175.66	95.6	70 - 120		
115 In	913307.38	0.54	966828.31	94.5	70 - 120		
159 Tb	986832.06	0.61	1047627.10	94.2	70 - 120		
165 Ho	948837.00	1.04	1003648.30	94.5	70 - 120		

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Pass  
 ISTD: Pass

# 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)	250	234	93.6	80-120	05/02/11	05/02/11	#602D-110502A-AY36735

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Comments:

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\035SMPL.D\035SMPL.D#  
 Date Acquired: May 2 2011 02:11 pm  
 Operator: SDM  
 Sample Name: 110502A-3015-LCS  
 Misc Info: 110502A-3015  
 Vial Number: 3106  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

QC Elements	Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
	7 (Li)	ug/l	#VALUE!		0	
	9 Be	38.22 ug/l	42.46	0.56	1000	
	11 B	201.80 ug/l	224.20	1.03	1000	
	23 Na	21440.00 ug/l	23819.84	0.79	25000	
	24 Mg	20770.00 ug/l	23075.47	0.30	50000	
	27 Al	1784.00 ug/l	1982.02	0.71	20000	
	39 K	4446.00 ug/l	4939.51	1.27	20000	
	44 Ca	22570.00 ug/l	25075.27	1.08	50000	
	47 Ti	226.90 ug/l	252.09	2.65	1000	
	51 V	217.10 ug/l	241.20	1.18	1000	
	52 Cr	210.60 ug/l	233.98	0.76	1000	
	55 Mn	286.60 ug/l	318.41	0.73	1000	
	56 Fe	895.90 ug/l	995.34	0.21	20000	
	59 Co	206.40 ug/l	229.31	0.83	1000	
	60 Ni	201.70 ug/l	224.09	1.09	1000	
	63 Cu	203.80 ug/l	226.42	0.82	1000	
	65 Cu	204.90 ug/l	227.64	0.57	1000	
	66 Zn	404.50 ug/l	449.40	0.63	1000	
	75 As	213.50 ug/l	237.20	0.93	1000	
	78 Se	208.20 ug/l	231.31	1.22	1000	
	78 Se	218.00 ug/l	242.20	0.79	1000	
	88 Sr	224.10 ug/l	248.98	1.06	1000	
	88 Sr	220.70 ug/l	245.20	0.68	1000	
	95 Mo	233.20 ug/l	259.09	0.15	1000	
	106 (Cd)	ug/l	#VALUE!		#####	
	107 Ag	84.86 ug/l	94.28	1.38	500	
	108 (Cd)	ug/l	#VALUE!		#####	
	111 Cd	42.17 ug/l	46.85	2.25	1000	
	118 Sn	227.00 ug/l	252.20	0.93	1000	
	121 Sb	235.50 ug/l	261.64	1.02	1000	
	137 Ba	221.90 ug/l	246.53	1.02	1000	
	205 Tl	208.10 ug/l	231.20	0.92	1000	
	206 (Pb)	ug/l	#VALUE!		#####	
	207 (Pb)	ug/l	#VALUE!		#####	
	208 Pb	210.90 ug/l	234.31	0.39	1000	

ISTD Elements	Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
	6 Li	1147501.90	0.64	1481195.40	77.5	70 - 120	
	45 Sc	706838.94	1.17	772553.25	91.5	70 - 120	
	45 Sc	23257.41	0.59	22503.75	103.3	70 - 120	
	45 Sc	1089582.40	1.63	1185323.00	91.9	70 - 120	
	72 Ge	145245.03	0.68	148368.02	97.9	70 - 120	
	72 Ge	10327.49	0.70	10084.80	102.4	70 - 120	
	72 Ge	182294.59	0.97	194175.66	93.9	70 - 120	
	115 In	891009.50	1.37	966828.31	92.2	70 - 120	
	159 Tb	991895.19	0.90	1047627.10	94.7	70 - 120	
	165 Ho	947818.38	0.32	1003648.30	94.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:  
 Analytes: Pass  
 ISTD: Pass



# Matrix Spike Recoveries

## METALS

APPL ID: 110502W-36735 MS - 154718

APPL Inc.

Sample ID: AY36735

908 North Temperance Avenue

Client ID: ES033

Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	Matrix Res ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
6020	LEAD (PB) (DISSOLVE	250	ND	229	227	91.6	90.8	0.9	20	80-120	05/02/11	05/02/11	05/02/11	05/02/11	154718	AY36735

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Comments:

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\102SMPL.D\102SMPL.D#  
 Date Acquired: May 2 2011 09:09 pm  
 Operator: SDM  
 Sample Name: AY36735W08 MS  
 Misc Info: 110502A-3015  
 Vial Number: 3501  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l	#VALUE!		0	
9 Be	32.70 ug/l	36.33	1.87	1000	
11 B	248.30 ug/l	275.86	0.36	1000	
23 Na	53640.00 ug/l	59594.04	1.61	25000	>Cal
24 Mg	29250.00 ug/l	32496.75	1.73	50000	
27 Al	1667.00 ug/l	1852.04	0.52	20000	
39 K	6078.00 ug/l	6752.66	1.14	20000	
44 Ca	39010.00 ug/l	43340.11	1.53	50000	
47 Ti	214.00 ug/l	237.75	1.31	1000	
51 V	213.40 ug/l	237.09	1.01	1000	
52 Cr	204.60 ug/l	227.31	0.89	1000	
55 Mn	1050.00 ug/l	1166.85	1.17	1000	>Cal
56 Fe	1245.00 ug/l	1383.20	2.52	20000	
59 Co	202.80 ug/l	225.31	1.28	1000	
60 Ni	193.90 ug/l	215.42	1.71	1000	
63 Cu	193.40 ug/l	214.87	1.18	1000	
65 Cu	193.00 ug/l	214.42	0.80	1000	
66 Zn	387.00 ug/l	429.96	1.28	1000	
75 As	205.00 ug/l	227.76	0.71	1000	
78 Se	202.90 ug/l	225.42	0.58	1000	
78 Se	195.30 ug/l	216.98	3.31	1000	
88 Sr	311.70 ug/l	346.30	1.54	1000	
88 Sr	321.20 ug/l	356.85	1.36	1000	
95 Mo	224.30 ug/l	249.20	1.24	1000	
106 (Cd)	ug/l	#VALUE!		#####	
107 Ag	81.05 ug/l	90.05	0.15	500	
108 (Cd)	ug/l	#VALUE!		#####	
111 Cd	41.48 ug/l	46.08	1.48	1000	
118 Sn	223.60 ug/l	248.42	0.41	1000	
121 Sb	234.90 ug/l	260.97	0.45	1000	
137 Ba	228.80 ug/l	254.20	0.89	1000	
205 Tl	207.30 ug/l	230.31	2.02	1000	
206 (Pb)	ug/l	#VALUE!		#####	
207 (Pb)	ug/l	#VALUE!		#####	
208 Pb	205.90 ug/l	228.75	1.42	1000	

ISTD Elements

Element	CPS	Mean RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1155701.00	1.70	1481195.40	78.0	70 - 120	
45 Sc	786846.31	2.12	772553.25	101.9	70 - 120	
45 Sc	22324.11	1.60	22503.75	99.2	70 - 120	
45 Sc	1208676.50	1.44	1185323.00	102.0	70 - 120	
72 Ge	151960.25	1.24	148368.02	102.4	70 - 120	
72 Ge	10320.45	1.01	10084.80	102.3	70 - 120	
72 Ge	183507.77	0.71	194175.66	94.5	70 - 120	
115 In	900821.13	0.67	966828.31	93.2	70 - 120	
159 Tb	988405.00	1.19	1047627.10	94.3	70 - 120	
165 Ho	949300.56	0.78	1003648.30	94.6	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail  
 ISTD: Pass

## Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\103SMPL.D\103SMPL.D#  
 Date Acquired: May 2 2011 09:15 pm  
 Operator: SDM  
 Sample Name: AY36735W08 MSD  
 Misc Info: 110502A-3015  
 Vial Number: 3502  
 Current Method: C:\ICPCHEM\1\METHODS\62A0502.M  
 Calibration File: C:\ICPCHEM\1\CALIB\62A0502.C  
 Last Cal Update: May 02 2011 11:33 am  
 Sample Type: Sample  
 Prep Dil Factor: 1.11  
 Total Dil Factor: 1.11

## QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	ug/l	#VALUE!		0	
9 Be	32.78 ug/l	36.42	1.47	1000	
11 B	249.90 ug/l	277.64	1.11	1000	
23 Na	52970.00 ug/l	58849.67	1.67	25000	>Cal
24 Mg	29220.00 ug/l	32463.42	1.56	50000	
27 Al	1668.00 ug/l	1853.15	1.15	20000	
39 K	6058.00 ug/l	6730.44	1.69	20000	
44 Ca	39040.00 ug/l	43373.44	2.06	50000	
47 Ti	215.30 ug/l	239.20	2.33	1000	
51 V	216.10 ug/l	240.09	0.89	1000	
52 Cr	205.00 ug/l	227.76	1.35	1000	
55 Mn	1007.00 ug/l	1118.78	1.14	1000	>Cal
56 Fe	1242.00 ug/l	1379.86	1.93	20000	
59 Co	204.60 ug/l	227.31	1.80	1000	
60 Ni	192.60 ug/l	213.98	1.48	1000	
63 Cu	193.20 ug/l	214.65	1.82	1000	
65 Cu	194.70 ug/l	216.31	2.12	1000	
66 Zn	385.70 ug/l	428.51	1.53	1000	
75 As	208.60 ug/l	231.75	2.29	1000	
78 Se	206.30 ug/l	229.20	0.26	1000	
78 Se	200.40 ug/l	222.64	4.88	1000	
88 Sr	315.90 ug/l	350.96	2.71	1000	
88 Sr	321.10 ug/l	356.74	1.38	1000	
95 Mo	225.40 ug/l	250.42	1.10	1000	
106 (Cd)	ug/l	#VALUE!		#####	
107 Ag	80.72 ug/l	89.68	0.90	500	
108 (Cd)	ug/l	#VALUE!		#####	
111 Cd	40.92 ug/l	45.46	1.83	1000	
118 Sn	224.80 ug/l	249.75	1.24	1000	
121 Sb	234.40 ug/l	260.42	1.12	1000	
137 Ba	231.90 ug/l	257.64	0.87	1000	
205 Tl	204.60 ug/l	227.31	1.31	1000	
206 (Pb)	ug/l	#VALUE!		#####	
207 (Pb)	ug/l	#VALUE!		#####	
208 Pb	204.80 ug/l	227.53	1.22	1000	

## ISTD Elements

Element	CPS	Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1152657.80	0.42	1481195.40	77.8	70 - 120		
45 Sc	788198.88	0.16	772553.25	102.0	70 - 120		
45 Sc	22445.77	2.04	22503.75	99.7	70 - 120		
45 Sc	1213397.60	1.23	1185323.00	102.4	70 - 120		
72 Ge	151137.09	0.90	148368.02	101.9	70 - 120		
72 Ge	10204.08	1.80	10084.80	101.2	70 - 120		
72 Ge	182955.11	0.80	194175.66	94.2	70 - 120		
115 In	898100.06	0.75	966828.31	92.9	70 - 120		
159 Tb	988544.13	1.09	1047627.10	94.4	70 - 120		
165 Ho	939463.56	0.94	1003648.30	93.6	70 - 120		

ISTD Ref File : C:\ICPCHEM\1\DATA\11E02k00.B\005CALB.D\005CALB.D#

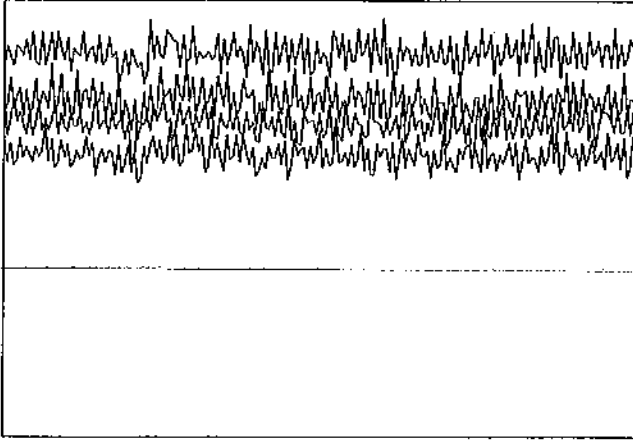
2 :Element Failures 0 :Max. Number of Failures Allowed  
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

## Data Results:

Analytes: Fail  
 ISTD: Pass

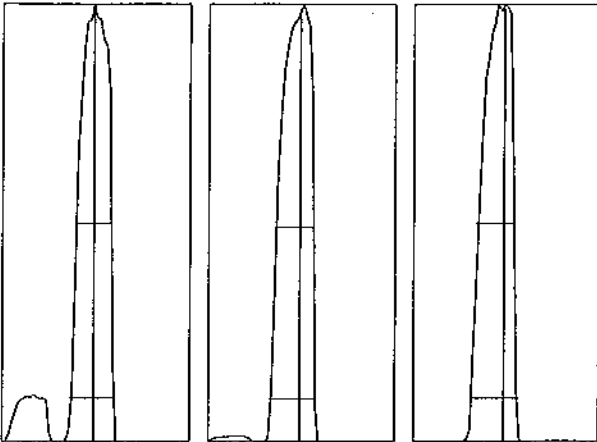
Tune Report

Tune File : nogas.u  
 Comment : 110502



Integration Time: 0.1000 sec  
 Sampling Period: 0.6200 sec  
 n: 200  
 Oxide: 156/140 0.906%  
 Doubly Charged: 70/140 1.530%

m/z	Range	Count	Mean	RSD%	Background
7	20,000	17867.0	17611.2	3.89	1.50
89	20,000	14490.0	15432.6	4.67	3.60
205	10,000	6385.0	7185.1	4.48	11.90
156/140	2	0.941%	0.902%	12.98	
70/140	5	1.480%	1.534%	8.98	
140	20,000	11694.0	12935.5	4.76	9.20



m/z:	7	89	205
Height:	17,959	15,248	7,053
Axis:	7.00	89.00	205.00
W-50%:	0.60	0.65	0.65
W-10%:	0.7500	0.7500	0.800

Integration Time: 0.1000 sec  
 Acquisition Time: 22.7600 sec

Y axis : Linear

Tune Report

Tune File : nogas.u  
 Comment : 110502

Tuning Parameters

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power	: 1600 W	Extract 1	: 0 V	AMU Gain	: 126
RF Matching	: 1.7 V	Extract 2	: -110 V	AMU Offset	: 127
Smpl Depth	: 9.7 mm	Omega Bias-ce	: -20 V	Axis Gain	: 0.9997
Torch-H	: 0.1 mm	Omega Lens-ce	: -2.6 V	Axis Offset	: -0.02
Torch-V	: 0.3 mm	Cell Entrance	: -30 V	QP Bias	: -3 V
Carrier Gas	: 0.96 L/min	QP Focus	: 5 V		
Makeup Gas	: 0 L/min	Cell Exit	: -30 V	===Detector Parameters===	
Optional Gas	: --- %			Discriminator	: 8 mV
Nebulizer Pump	: 0.1 rps	===Octopole Parameters===		Analog HV	: 1630 V
Sample Pump	: --- rps	OctP RF	: 170 V	Pulse HV	: 1190 V
S/C Temp	: 2 degC	OctP Bias	: -6 V		

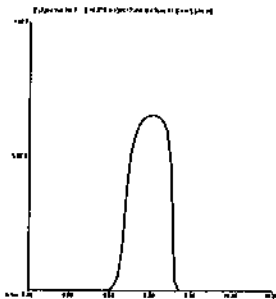
===Reaction Cell===

Reaction Mode	: OFF				
H2 Gas	: 0 mL/min	He Gas	: 0 mL/min	Optional Gas	: --- %

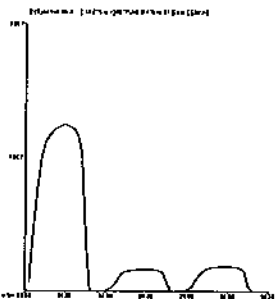
# 200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\11E02k00.B\001TUNE.D  
 Date Acquired: May 2 2011 10:41 am  
 Acq. Method: TN200\_8.M  
 Operator: SDM  
 Sample Name: 100ppb Tune sol  
 Misc Info:  
 Vial Number: 1303  
 Current Method: C:\ICPCHEM\1\METHODS\TN200\_8.M

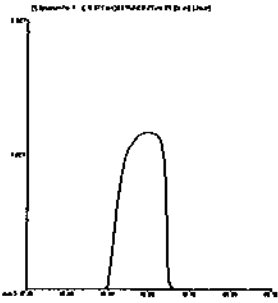
RSD (%)	Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
	9 Be	36321078	35936888	36219196	36310092	36441448	36697756	1.06	5.00	
	24 Mg	72791637	72292232	72614080	73406816	72464752	73180304	0.50	5.00	
	59 Co	69471418	69118336	69559360	69825560	69179696	69674136	0.74	5.00	
	115 In	69974735	69346024	70147344	70276168	70090744	70013392	0.69	5.00	
	208 Pb	25173386	24846592	25344668	25193638	25371452	25110580	1.02	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: 24.00  
     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

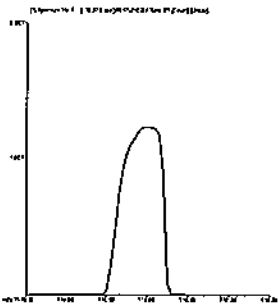
Flag:

Peak Width

Actual: 0.65

Required: 0.90

Flag:



115 In

Mass Calib.

Actual: 115.00

Required: 114.90 - 115.10

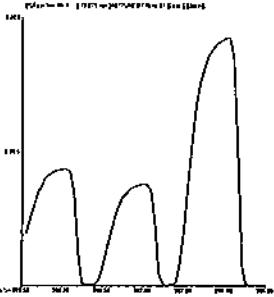
Flag:

Peak Width

Actual: 0.60

Required: 0.90

Flag:



208 Pb

Mass Calib.

Actual: 207.95

Required: 207.90 - 208.10

Flag:

Peak Width

Actual: 0.60

Required: 0.80

Flag:

Tune Result:

Pass

# Metals Standards Log Book # 32 Page # 107

HM 5/2/11  
6020/6020A

**ICP-MS STANDARDS 6020/6020A/3015/3051A**  
 Today's Date: 5/2/2011  
 Expires: 5/2/2011  
 Prep Date 1% HNO3/1.0% HCL  
 20 mL HNO3 / 2000 mL DI Water  
 Lot # 1110039  
 20mL HCL / 2000mL DI Water  
 Lot # 1110060  
 Expires: 5/2/2011

**Standard 4**  
 Amount STD Manufacturer Lot #  
 50 uL CCV-A Env. Express 1038407-28139  
 50 uL CCV-B Env. Express 1038410-28140  
 50 uL CCV-C Env. Express 1100309-28141

Prepared in 100 mL of 1% HNO3/1.0% HCL 5/2/2011

**Standard 3** 5/2/2011  
 Amount STD Manufacturer Lot #  
 25 uL CCV-A Env. Express 1038407-28139  
 25 uL CCV-B Env. Express 1038410-28140  
 25 uL CCV-C Env. Express 1100309-28141

Prepared in 100 mL of 1% HNO3/1.0% HCL 5/2/2011

**Standard 2** 5/2/2011  
 Amount STD  
 500 uL Standard 4 5/2/2011  
 Prepared in 50 mL of 1% HNO3/1.0% HCL 5/2/2011

**Standard 1** 5/2/2011  
 Amount STD  
 50 uL Standard 4 5/2/2011  
 Prepared in 50 mL of 1% HNO3/1.0% HCL 5/2/2011

**ICP-MS ICV** 5/2/2011  
 Amount STD  
 50 uL QCS ICV A CPI 11C174-28548  
 50 uL QCS ICV B CPI 11C174-28540  
 Prepared in 50 mL of 1% HNO3/1.0% HCL 5/2/2011

**ICSA Prep:** 5/2/2011  
 1 mL ICSA CPI 11C066-28528  
 Prepared in 5 mL of 1% HNO3/1.0% HCL 5/2/2011

**ICSAB Prep:** 5/2/2011  
 1 mL ICSA CPI 11C066-28528  
 0.025 mL INT O2SI 1023806-28210  
 Prepared in 5 mL of 1% HNO3/1.0% HCL 5/2/2011

**ICP-L DR** 5/2/2011  
 Amount STD  
 50 uL CCV-A Env. Express 1038407-28139  
 50 uL CCV-B Env. Express 1038410-28141  
 50 uL CCV-C Env. Express 1100309-28141  
 Prepared in 10 mL of 1% HNO3/1.0% HCL 5/2/2011

Amnt	STD	Element	Vendor	Lot#	Final Conc. in Std	Expires
50uL	101079-27339	CPI	Environmental Express	101079-27339	1ppm	6/10/2012
50uL	1000228-28327	CPI	Environmental Express	1000228-28327	1ppm	4/23/2011
50uL	0983802-28328	CPI	Environmental Express	0983802-28328	1ppm	4/23/2011
50uL	1004225-28328	CPI	Environmental Express	1004225-28328	1ppm	4/23/2011
50uL	1024079-28327	CPI	Environmental Express	1024079-28327	1ppm	6/18/2012
50uL	0932216-28585	CPI	Environmental Express	0932216-28585	1ppm	7/13/2011

Prep: 5/2/2011 SDM 1% HNO3/1.0% HCL; Lot #1100309/110060 in 50mL  
 Expires: 6/7/2011

5/2/11  
6010B/6010C  
(A)

AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	
1 ML	CCV-A	ENVIRONMENTAL EXPRESS	1026453-27365	9/23/2011	
1 ML	CCV-B	ENVIRONMENTAL EXPRESS	1026454-27365	9/23/2011	
1 ML	CCV-C	ENVIRONMENTAL EXPRESS	1026455-27367	9/23/2011	
Prepared in 200 ml 1% HNO3/5% HCL					
<b>CCV2 6010B/6010C</b>					
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	
0.75 ML	CCV-A	ENVIRONMENTAL EXPRESS	1026453-27365	9/23/2011	
0.75 ML	CCV-B	ENVIRONMENTAL EXPRESS	1026454-27365	9/23/2011	
0.75 ML	CCV-C	ENVIRONMENTAL EXPRESS	1026455-27367	9/23/2011	
Prepared in 200 ml 1% HNO3/5% HCL					
<b>STD 3 or HDL 6010B/6010C</b>					
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	
1 ML	CCV-A	ENVIRONMENTAL EXPRESS	1038407-28139	1/3/2012	
1 ML	CCV-B	ENVIRONMENTAL EXPRESS	1038410-28140	1/3/2012	
1 ML	CCV-C	ENVIRONMENTAL EXPRESS	1100309-28141	1/3/2012	
Prepared in 100 ml 1% HNO3/5% HCL					
<b>STD 1 or LDL 6010B/6010C</b>					
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	
1 ML	6010 LDL	O2SI	1023057-27846	1/1/2012	
Prepared in 100 ml 1% HNO3/5% HCL					
<b>1% HNO3/5% HCL BLK</b>					
AMOUNT	ACID	MANUFACTURER	LOT	EXP DATE	
20 ML	JNO3	BDH	111010	1/1/2013	
100 ML	HCL	BDH	4110680	9/24/2013	
Prepared in 2000ml DI H2O					
<b>6010B/6010C ICSA</b>					
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	
Stock Solution prepared on 07/26/10					
Prepared in 1000 ml 1% HNO3/5% HCL					
<b>6010B/6010C ICSAB</b>					
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	
ICSAB Stock Solution prepared on 07/26/10					
Prepared in 100 ml of ICSA Stock Solution					
Date Prepared					
<b>6010B/6010C ICV</b>					
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	
0.5 ML	QCS ICV A	CPI	296	11C174-28548	9/17/2012
0.5 ML	QCS ICV B	CPI		11C174-28549	9/17/2012
Prepared in 50ml 1% HNO3/5% HCL					

HM 5/2/11



# Metals Digestion Worksheet

Method Name 3015 Digestion

Prep Method M3015

Set 110502A

Units mL

Spikes	
Spiked ID 1	LCSW LOT# 11C173-28546
Spiked ID 2	LCSW LOT# 11C172-28545
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 05/02/11 8:55:00 AM
Witnessed By	DP Date: 05/02/11 8:55:00 AM

Starting Temp:	30°C
Ending Temp:	170°C
Temperature Type:	Microwave
Sufficient Vol for Matrix QC:	YES
End Date/Time	5/2/11 0955

Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	110502A BIK			45mL	50mL	05/02/11 8:55	
2	110502A LCS	450uL	1+2	45mL	50mL	05/02/11 8:55	
3	AY36735 AY36735W08			45mL	50mL	05/02/11 8:55	
4	AY36735 MS AY36735W08	450uL	1+2	45mL	50mL	05/02/11 8:55	
5	AY36735 MSD AY36735W08	450uL	1+2	45mL	50mL	05/02/11 8:55	
6	DOC-1	450uL	1+2	45mL	50mL	05/02/11 8:55	
7	DOC-2	450uL	1+2	45mL	50mL	05/02/11 8:55	
8	DOC-3	450uL	1+2	45mL	50mL	05/02/11 8:55	
9	DOC-4	450uL	1+2	45mL	50mL	05/02/11 8:55	

Solvent and Lot#
HNO3 BDH 1110110 2903

Sample COC Transfer	
Sample prep employee Initials	dp
Analyst's initials	hm/sdm
Date	5/2/11
Time	15:00
Moved to	metals

Technician's Initials	
Scanned By	dp
Sample Preparation	nm
Digestion	dp
Bring up to volume	nm
Modified	05/02/11 8:33:38 AM

Reviewed By:

hm  
297

Date: 4/ 5/2/11

hm

## 6020/200.8 Injection Log

Directory: K:\ICP-MS Optimus\raw data output csv\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	02 May 2011	11:04	Calibration Blank		110502A	1.
2	02 May 2011	11:10	110502 Standard 1		110502A	1.
3	02 May 2011	11:16	110502 Standard 2		110502A	1.
4	02 May 2011	11:23	110502 Standard 3		110502A	1.
5	02 May 2011	11:29	110502 Standard 4		110502A	1.
6	02 May 2011	11:35	ICV 110502		110502A	1.
8	02 May 2011	12:00	CCV 110502		110502A	1.
9	02 May 2011	12:19	ICB 110502		110502A	1.
10	02 May 2011	12:25	CCB 110502		110502A	1.
11	02 May 2011	12:31	LDR 110502		110502A	1.
12	02 May 2011	12:43	ICSA 110502		110502A	1.
13	02 May 2011	12:50	ICSAB 110502		110502A	1.
14	02 May 2011	13:02	CCV 110502		110502A	1.
15	02 May 2011	13:27	CCB 110502		110502A	1.
17	02 May 2011	13:46	110502A-3015-BLK		110502A	1.
21	02 May 2011	14:11	110502A-3015-LCS		110502A	1.
27	02 May 2011	14:48	CCV 110502		110502A	1.
28	02 May 2011	15:07	CCB 110502		110502A	1.
66	02 May 2011	19:47	CCV 110502		110502A	1.
67	02 May 2011	20:12	CCB 110502		110502A	1.
75	02 May 2011	21:02	AY36735W08		110502A	1.
76	02 May 2011	21:09	AY36735W08 MS		110502A	1.
77	02 May 2011	21:15	AY36735W08 MSD		110502A	1.
79	02 May 2011	21:27	CCV 110502		110502A	1.
80	02 May 2011	21:52	CCB 110502		110502A	1.
81	02 May 2011	21:59	AY36735W08-A		110502A	1.
82	02 May 2011	22:05	AY36735W08-1/5		110502A	5.
92	02 May 2011	23:07	CCV 110502		110502A	1.
93	02 May 2011	23:32	CCB 110502		110502A	1.

# EPA Method 6020

## Metals

### **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 ES033 was designated by the laboratory for MS/MSD analysis. All acceptance criteria were met for the MS/MSD, PDS, and serial dilution.

### **Summary:**

No analytical exception is noted.