COMPLETE SAMPLE DELIVERY GROUP FILE (CSF) RECEIPT/TRACKING FORM

1216611 - R8 SDMS

U.S. Environmental Protection Agency
Region 8 Superfund Program
Contract Laboratory Program

MT

Audit Number R8-2011- 238 Site Name: Smurfit Stone Mill

Date CSF Received: 11-29-2011 Site Manager: Robert Parker

Received By: J. MacDonald Case Number: 41926

Lab. Name: Mitkem Laboratories SDG Number: H3872

Number of Samples/Matrix: 16 Soils

CFS Relinquished By:

Print Name Frances MacDonald Date _____ Signature Frances MacDonald

CSF Received By:

Print Name Rodney Vargas Date 01/11/12 Signature Rodney Vargas

CFS Relinquished By:

Print Name _____ Date _____ Signature _____

CSF Received By:

Print Name _____ Date _____ Signature _____

CSF Relinquished By:

Print Name _____ Date _____ Signature _____

CFS Received By:

Print Name _____ Date _____ Signature _____

CFS Relinquished By:

Print Name _____ Date _____ Signature _____

1. Custody Seal present, signed, & dated? Yes X No ___
2. COC /Traffic Reports present, signed, & dated? Yes X No ___
3. Air bill present, signed, & dated? Yes X No ___
4. Form DC-1 present? Yes X No ___
5. Form DC-2 present? Yes X No ___
6. Laboratory documents legible? (complete audit only) Yes X No ___
7. Original documents included in CSF? (complete audit only) Yes X No ___
8. Raw data present for all analytical fractions? Yes X No ___
9. Percent solids form for soils present? Yes ___ No X
10. Cover page present? Yes X No ___
11. Records of communication present? Yes X No ___
12. Form 1's present for all analytical fractions? Yes X No ___
13. Electronic data deliverables including CCS Report & Superset Deliverables available in EDM? Yes X No ___

14. List RPM and contractors who receive or who have access to electronic DAT files in EDM:

D. Dardrach R. Parker

K Alexander URS

15: Comments:

Frances MacDonald — Signature

FRANCES MacDonald — Print Name

11-29-2011 — Date

Report Date:
23-Nov-11 10:48

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

Laboratory Report

Computer Science Corporation
15000 Conference Center Drive
Chantilly, VA 20151-3808

Work Order: K2199
SDG No: H30T6
Case No: 41926

Attn: Nazy Abousaeedi

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
K2199-02	H30T6	Soil	25-Oct-11 11:35	28-Oct-11 09:00
K2199-03	H30T7	Soil	25-Oct-11 12:40	28-Oct-11 09:00
K2199-04	H30Q5	Soil	27-Oct-11 10:10	29-Oct-11 08:45
K2199-04	H30Q5	Soil	27-Oct-11 10:10	03-Nov-11 09:00
K2199-05	H30Q7	Soil	27-Oct-11 11:10	29-Oct-11 08:45
K2199-05	H30Q7	Soil	27-Oct-11 11:10	03-Nov-11 09:00
K2199-06	H30R2	Soil	27-Oct-11 14:10	29-Oct-11 08:45
K2199-06	H30R2	Soil	27-Oct-11 14:10	03-Nov-11 09:00
K2199-07	H30R3	Soil	27-Oct-11 13:50	29-Oct-11 08:45
K2199-07	H30R3	Soil	27-Oct-11 13:50	03-Nov-11 09:00
K2199-08	H30R4	Soil	27-Oct-11 17:45	29-Oct-11 08:45
K2199-08	H30R4	Soil	27-Oct-11 17:45	03-Nov-11 09:00
K2199-09	H30R6	Soil	27-Oct-11 15:40	29-Oct-11 08:45
K2199-09	H30R6	Soil	27-Oct-11 15:40	03-Nov-11 09:00
K2199-10	H30R7	Soil	27-Oct-11 16:00	29-Oct-11 08:45
K2199-10	H30R7	Soil	27-Oct-11 16:00	03-Nov-11 09:00
K2199-11	H30R8	Soil	27-Oct-11 17:20	29-Oct-11 08:45
K2199-11	H30R8	Soil	27-Oct-11 17:20	03-Nov-11 09:00
K2199-12	H30S0	Soil	28-Oct-11 16:40	03-Nov-11 09:00
K2199-13	H30S1	Soil	28-Oct-11 10:45	03-Nov-11 09:00
K2199-14	H30S2	Soil	28-Oct-11 13:30	03-Nov-11 09:00
K2199-15	H30S3	Soil	28-Oct-11 18:25	03-Nov-11 09:00
K2199-16	H30S6	Soil	28-Oct-11 13:30	03-Nov-11 09:00
K2199-17	H30T8	Soil	28-Oct-11 16:40	03-Nov-11 09:00

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received. This report may not be reproduced, except in full, without written approval from Mitkem Laboratories.

All applicable NELAC or USEPA CLP requirments have been meet.

Spectrum Analytical (Rhode Island) is accredited under the National Environmental Laboratory Approval Program (NELAP) and is certified by several States, as well as USEPA and US Department of Defense. The current list of our laboratory approvals and certifications is available on the Certifications page on our web site at www.mitkem.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Pennsylvania	68-00520
Rhode Island	LAI00301
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-11-033

LABORATORY ACCREDITATION BUREAU ACCREDITED
Certificate # L2247 Testing

Authorized by:

Yihai Ding
Laboratory Director

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2

LABORATORY NAME Mitkem Laboratories
CITY/STATE Warwick, RI
CASE NO. 41926 SDG NO. H30T6
SDG NOs. TO FOLLOW — — —
MOD. REF. NO. —
CONTRACT NO. EP-W-11-033
SOW NO. SOM01.2

All documents delivered in the Complete SDG File (CSF) must be original documents where possible.

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK USEPA
1. **Inventory Sheet** (Form DC-2) (Do not number)				
2. **SDG Case Narrative**	1	18	✓	
3. **SDG Cover Sheet/Traffic Report**	19	23	✓	
4. **Trace Volatiles Data**				
a. QC Summary				
Deuterated Monitoring Compound Recovery (Form II VOA-1 and VOA-2)	N/A	N/A	N/A	
Matrix Spike/Matrix Spike Duplicate Recovery (Form III VOA) (if requested by USEPA Region)				
Method Blank Summary (Form IV VOA)				
GC/MS Instrument Performance Check (Form V VOA)				
Internal Standard Area and RT Summary (Form VIII VOA)				
b. Sample Data				
TCL Results - Organics Analysis Data Sheet (Form I VOA-1 and VOA-2)				
Tentatively Identified Compounds (Form I VOA-TIC)				
Reconstructed total ion chromatograms (RIC) for each sample				
For each sample:				
Raw Spectra and background-subtracted mass spectra of target compounds identified				
Quantitation reports				
Mass Spectra of all reported TICs with three best library matches				
c. Standards Data (All Instruments)				
Initial Calibration Data (Form VI VOA-1, VOA-2, VOA-3)				
RICs and Quantitation Reports for all Standards				
Continuing Calibration Data (Form VII VOA-1, VOA-2, VOA-3)				
RICs and Quantitation Reports for all Standards				
d. Raw/Quality Control (QC) Data				
BFB				
Blank Data	N/A	N/A	N/A	

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2 (CON'T)

CASE NO. 41926	SDG NO. H30T6	SDG NOS. TO FOLLOW —
—	—	MOD. REF. NO. —

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK USEPA
Matrix Spike/Matrix Spike Duplicate Data (if requested by USEPA Region)	N/A	N/A	N/A	
e. Trace SIM Data (Place at the end of the Trace Volatiles Section)	N/A	N/A	N/A	
[Form I VOA-SIM; Form II VOA-SIM1 and VOA-SIM2; Form IV-VOA-SIM; Form VI VOA-SIM; Form VII VOA-SIM; Form VIII VOA-SIM; and all raw data for QC, Samples, and Standards.]				
5. **Low/Med Volatiles Data**				
a. QC Summary				
Deuterated Monitoring Compound Recovery (Form II VOA-1, VOA-2, VOA-3, VOA-4)	24	25	✓	
Matrix Spike/Matrix Spike Duplicate Recovery (Form III VOA-1 and VOA-2) (if requested by USEPA Region)	26	26	✓	
Method Blank Summary (Form IV VOA)	27	28	✓	
GC/MS Instrument Performance Check (Form V VOA)	29	31	✓	
Internal Standard Area and RT Summary (Form VIII VOA)	32	34	✓	
b. Sample Data	35	280		
TCL Results - Organics Analysis Data Sheet (Form I VOA-1 and VOA-2)			✓	
Tentatively Identified Compounds (Form I VOA-TIC)			✓	
Reconstructed total ion chromatograms (RIC) for each sample			✓	
For each sample:				
Raw Spectra and background-subtracted mass spectra of target compounds identified			✓	
Quantitation reports			✓	
Mass Spectra of all reported TICs with three best library matches			✓	
c. Standards Data (All Instruments)	281	317		
Initial Calibration Data (Form VI VOA-1, VOA-2, VOA-3)			✓	
RICs and Quantitation Reports for all Standards			✓	
Continuing Calibration Data (Form VII VOA-1, VOA-2, VOA-3)			✓	
RICs and Quantitation Reports for all Standards			✓	
d. Raw/Quality Control (QC) Data				
BFB	318	325	✓	
Blank Data	326	346	✓	

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2 (CON'T)

CASE NO. 41926 SDG NO. H30T6 SDG NOS. TO FOLLOW —

— — MOD. REF. NO. —

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK USEPA
Martix Spike/Matrix Spike Duplicate Data (if requested by USEPA Region)	347	356	✓	
6. **Semivolatiles Data**				
a. QC Summary				
Deuterated Monitoring Compound Recovery (Form II SV-1, SV-2, SV-3, SV-4)	357	358	✓	
Matrix Spike/Matrix Spike Duplicate Recovery Summary (Form III SV-1 and SV-2) (if requested by USEPA Region)	359	359	✓	
Method Blank Summary (Form IV SV)	360	361	✓	
GC/MS Instrument Performance Check (Form V SV)	362	367	✓	
Internal Standard Area and RT Summary (Form VIII SV-1 and SV-2)	368	377	✓	
b. Sample Data	378	1169		
TCL Results - Organics Analysis Data Sheet (Form I SV-1 and SV-2)			✓	
Tentatively Identified Compounds (Form I SV-TIC)			✓	
Reconstructed total ion chromatograms (RICs) for each sample			✓	
For each sample:	378	1169		
Raw Spectra and background-subtracted mass spectra of target compounds			✓	
Quantitation reports			✓	
Mass Spectra of TICs with three best library matches			✓	
GPC chromatograms (if GPC is required)			✓	
c. Standards Data (All Instruments)	1170	1285		
Initial Calibration Data (Form VI SV-1, SV-2, SV-3)			✓	
RICs and Quantitation Reports for all Standards			✓	
Continuing Calibration Data (Form VII SV-1, SV-2, SV-3)			✓	
RICs and Quantitation Reports for all Standards			✓	
d. Raw QC Data				
DFTPP	1286	1320	✓	
Blank Data	1321	1349	✓	
MS/MSD Data (if requested by USEPA Region)	1350	1361	✓	
e. Raw GPC Data	1362	1392	✓	

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2 (CON'T)

CASE NO. 41926 SDG NO. H30T6 SDG NOS. TO FOLLOW —

— — MOD. REF. NO. —

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK USEPA
f. Semivolatile SIM Data	N/A	N/A	N/A	
[Form I SV-SIM; Form II SV-SIM1 and SV-SIM2; Form III SV-SIM1 and SV-SIM2 (if required); Form IV SV-SIM; Form VI SV-SIM; Form VII SV-SIM; Form VIII SV-SIM1 and SV-SIM2; and all raw data for QC, Samples, and Standards.]				
7. **Pesticides Data**				
a. QC Summary				
Surrogate Recovery Summary (Form II PEST-1 and PEST-2)	N/A	N/A	N/A	
Matrix Spike/Matrix Spike Duplicate Recovery Summary (Form III PEST-1 and PEST-2)				
Laboratory Control Sample Recovery (Form III PEST-3 and PEST-4)				
Method Blank Summary (Form IV PEST)				
b. Sample Data	N/A	N/A		
TCL Results - Organics Analysis Data Sheet (Form I PEST)				
Chromatograms (Primary Column)				
Chromatograms from second GC column confirmation				
GC Integration report or data system printout				
Manual work sheets				
For pesticides by GC/MS				
Copies of raw spectra and copies of background-subtracted mass spectra of target compounds (samples & standards)				
c. Standards Data	N/A	N/A		
Initial Calibration of Single Component Analytes (Form VI PEST-1 and PEST-2)				
Toxaphene Initial Calibration (Form VI PEST-3 and PEST-4)				
Analyte Resolution Summary (Form VI PEST-5, per column)				
Performance Evaluation Mixture (Form VI PEST-6)				
Individual Standard Mixture A (Form VI PEST-7)				
Individual Standard Mixture B (Form VI PEST-8)				
Individual Standard Mixture C (Form VI PEST-9 and PEST-10)				
Calibration Verification Summary (Form VII PEST-1)				
Calibration Verification Summary (Form VII PEST-2)				
Calibration Verification Summary (Form VII PEST-3)			N/A	

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2 (CON'T)

CASE NO. 41926 SDG NO. H30T6 SDG NOS. TO FOLLOW —

— — MOD. REF. NO. —

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK USEPA
Calibration Verification Summary (Form VII PEST-4)			N/A	
Analytical Sequence (Form VIII PEST)				
Florisil Cartridge Check (Form IX PEST-1)				
Pesticide GPC Calibration (Form IX PEST-2)				
Identification Summary for Single Component Analytes (Form X PEST-1)				
Identification Summary for Toxaphene (Form X PEST-2)				
Chromatograms and data system printouts A printout of Retention Times and corresponding peak areas or peak heights				
d. Raw QC Data				
Blank Data	N/A	N/A		
Matrix Spike/Matrix Spike Duplicate Data				
Laboratory Control Sample Data				
e. Raw GPC Data				
f. Raw Florisil Data	N/A	N/A	N/A	
8. **Aroclor Data**				
a. QC Summary				
Surrogate Recovery Summary (Form II ARO-1 and ARO-2)	1393	1393	✓	
Matrix Spike/Matrix Spike Duplicate Summary (Form III ARO-1 and ARO-2)	1394	1395	✓	
Laboratory Control Sample Recovery(Form III ARO-3 and ARO-4)	1396	1397	✓	
Method Blank Summary (Form IV ARO)	1398	1399	✓	
b. Sample Data	1400	1485		
TCL Results - Organics Analysis Data Sheet (Form I ARO)			✓	
Chromatograms (Primary Column)			✓	
Chromatograms from second GC column confirmation			✓	
GC Integration report or data system printout			✓	
Manual work sheets			✓	
For Aroclors by GC/MS				
Copies of raw spectra and copies of background-subtracted mass spectra of target compounds (samples & standards)			N/A	

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2 (CON'T)

CASE NO. 41926 SDG NO. H30T6 SDG NOS. TO FOLLOW —

— — MOD. REF. NO. —

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK USEPA
c. Standards Data	1486	1703		
Aroclors Initial Calibration (Form VI ARO-1, ARO-2, and ARO-3)			✓	
Calibration Verification Summary (Form VII ARO-1)			✓	
Analytical Sequence (Form VIII ARO)			✓	
Identification Summary for Multicomponent Analytes (Form X ARO)			✓	
Chromatograms and data system printouts A printout of Retention Times and corresponding peak areas or peak heights			✓	
d. Raw QC Data				
Blank Data	1704	1755	✓	
Matrix Spike/Matrix Spike Duplicate Data	1756	1771	✓	
Laboratory Control Sample (LCS) Data	1772	1787	✓	
e. Raw GPC Data (if performed)	N/A	N/A	N/A	
9. **Miscellaneous Data**				
Original preparation and analysis forms or copies of preparation and analysis logbook pages	1788	1822	✓	
Internal sample and sample extract transfer chain-of-custody records	1823	1834	✓	
Screening records	N/A	N/A	N/A	
All instrument output, including strip charts from screening activities (describe or list)				
Primary, Intermediate and Working Standard Logbook Pages	1835	1846	✓	
—	N/A	N/A	N/A	
10. **EPA Shipping/Receiving Documents**				
Airbills (No. of shipments 4)	1847	1850	✓	
Chain of Custody Records	1851	1855	✓	
Sample Tags (in a plastic bag, if present)			N/A	
Sample Log-in Sheet (Lab & DC-1)	1856	1866	✓	
Miscellaneous Shipping/Receiving Records (describe or list)				
PE Instructions	N/A	N/A	N/A	
—	N/A	N/A	N/A	

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2 (CON'T)

CASE NO. 41926 SDG NO. H30T6 SDG NOS. TO FOLLOW —

— — MOD. REF. NO. —

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK USEPA
11. **Internal Lab Sample Transfer Records and Tracking Sheets** (describe or list)				
/	N/A	N/A	N/A	
	N/A	N/A	N/A	
12. **Other Records** (describe or list)				
Telephone Communication Log	N/A	N/A	N/A	
E-mail(s)	1867	1880	✓	
—	N/A	N/A	N/A	

13. **Comments**

/

Completed by: (CLP Lab)	Jennifer Emerson (Signature)	Jennifer Emerson / Data Review Specialist (Printed Name/Title)	11/23/11 (Date)
Verified by: (CLP Lab)	Agnes Huntley (Signature)	Agnes Huntley / CLP Project Manager (Printed Name/Title)	11/23/11 (Date)
Audited by: (USEPA)	(Signature)	(Printed Name/Title)	(Date)

Spectrum Analytical, Inc., featuring Hanibal Technology Rhode Island Division submits the enclosed data package in response to USEPA Case # 41926 and SDG# H30T6. Analyses were performed for 16 soil samples that were received on October 28 and November 3, 2011.

The analyses were performed under USEPA Contract # EP-W-11-033.

Please note that three sample-shipping coolers were received on October 28. The temperature of the coolers was measured at 6.5°C, 9.5°C and 8.5°C. Three coolers were received in November 3. The temperature of the coolers was measured at 9.0°C, 6.5°C and 9.0°C.

The following samples are submitted in this data package:

Client ID	Lab ID	Analysis	
H30T6	K2199-02A		S
H30T6	K2199-02C	V	
H30T7	K2199-03A		S
H30T7	K2199-03C	V	
H30Q5	K2199-04A		S
H30Q5	K2199-04B	V	
H30Q7	K2199-05A		S
H30Q7	K2199-05B	V	
H30R2	K2199-06A		S
H30R2	K2199-06B	V	
H30R3	K2199-07A		S
H30R3	K2199-07B	V	
H30R4	K2199-08A		S
H30R4DL	K2199-08ADL		S
H30R4	K2199-08B	V	
H30R6	K2199-09A		S
H30R6	K2199-09B	V	
H30R7	K2199-10A		S
H30R7	K2199-10B	V	
H30R8	K2199-11A		S
H30R8	K2199-11B	V	
H30S0	K2199-12A		S
H30S0MS	K2199-12AMS		S
H30S0MSD	K2199-12AMSD		S
H30S0	K2199-12B	V	
H30S0MS	K2199-12BMS	V	
H30S0MSD	K2199-12BMSD	V	
H30S1	K2199-13A		S
H30S1	K2199-13B	V	

H30S2	K2199-14A	S
H30S2	K2199-14B	V
H30S3	K2199-15A	S
H30S3DL	K2199-15ADL	S
H30S3	K2199-15B	V
H30S6	K2199-16A	S
H30S6	K2199-16B	V
H30T8	K2199-17A	S
H30T8	K2199-17B	V

V = Low/Medium Volatiles
S = Semi-Volatiles

The analyses were performed using USEPA CLP Multi-Media, Multi-Concentration (SOM01.2) protocols. The analyses were performed with strict adherence to the SOW with the following exceptions and observations:

SAMPLE RECEIPT:

The TR/COC lists the matrices as soil and sediment; however, the laboratory was only scheduled with samples under the soil matrix. The lab would like to confirm if they only need to perform laboratory QC on either the soil or sediment matrix per SDG (for reporting purposes the matrix for all samples would be soil as scheduled). Per Region 8, the lab shall report all sediment samples as soil samples, and perform laboratory QC on only one matrix per SDG. The lab shall note the issue in the SDG Narrative and proceed with analysis. The laboratory performed laboratory QC on sample H30Q0 for VOA, SVOA and Aroclors.

The laboratory received VOA samples in unpreserved 4 oz jars. In accordance with previous direction from Region 8, the laboratory will follow the same procedure as described for the field core/storage containers (e.g., EnCoreTM or equivalent) and note the issue in the SDG Narrative.

VOA soil samples were collected on 10/27 and 10/28, received today 11/3 in 4oz jars. The laboratory is treating these as if they are "Encores", however, the samples should be "extruded" within 48 hours collection. Per Region 8, the lab shall note the collection time and extrusion time discrepancy in the SDG Narrative and proceed with analysis.

The TR/COC does not list samples with CLP formatted IDs. There are CLP IDs on the containers and the lab can match up the information between the TR/COC station locations and sample containers to identify the samples. Per Region 8, the lab shall use the sample IDs on the sample containers to identify the samples, note the issue in the SDG Narrative, and proceed with analysis.

The TR/COC does not list a TAT. Per Scheduling, this Case requires a 21 day TAT. In accordance with previous direction from Region 8, the laboratory will proceed with the turnaround time indicated on the Scheduling Notification Form, note the issue in the SDG Narrative, and proceed with the analysis of the samples. The resolution will be applied to all TR/COCs received for this Case that list an incorrect turnaround time.

Sample tags were not received with the samples. In accordance with previous direction from Region 8, the laboratory will note the issue in the SDG Narrative, and proceed with the analysis of the sample. The Resolution will be applied to all samples received for this Case.

Low/Medium Volatile Analysis:

I. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

II. METHODS

Samples were analyzed following procedures in laboratory test code: EPA CLP SOM 1.2 VOC

The following equation was used to calculate the concentration of target analytes for low-level soil samples:

$$\text{Concentration } (\mu g/Kg) = \frac{(\text{Amt})(\text{DF})(\text{UF})(5)}{\left(\frac{Ws * (100 - M)}{100}\right)}$$

where: Amt = on-column amount on raw data
DF = Dilution factor
UF = ng unit correction factor
Ws = Weight of sample extracted (g)
M = %moisture (not decanted)

The following equation was used to calculate the Amt in the previous equations:

$$Amt = \frac{(A_x)(IS)}{(A_{is})(RRF)}$$

where: A_x = area of the characteristic ion for the compound to be measured
A_{is} = area of the characteristic ion for the associated internal standard
IS = concentration of internal standard in ug/L
RRF = relative response factor

III. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW5035

IV. INSTRUMENTATION

The following instrumentation was used:
Instrument Code: V5
Instrument Type: GCMS-VOA
Description: HP6890 / HP6890
Manufacturer: Hewlett-Packard
Model: 6890 / 6890

Trap used for instrument V5: OI Analytical #10 trap containing 8 cm each of Tenax, silica gel and carbon molecular sieve.

GC column used: 30 m x 0.25 mm id (1.4 um film thickness) DB-624 capillary column.

V. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

Secondary ion 65 was used in the quantitation of 1,1-dichloroethene-d2 instead of primary ion 63 due to the interference with target compound 1,1-dichloroethene in the calibration standards.

B. Blanks:

All method blanks were within the acceptance criteria.

C. DMC Recoveries:

DMC recoveries were within the QC limits with the exception of the following:

H30R2: recovery is below criteria for 1,1,2,2-Tetrachloroethane-d2 at 0% with

criteria of (56-161) and Chloroform-d at 39% with criteria of (72-123).

H30R4: recovery is above criteria for 1,2-Dichloropropane-d6 at 125% with criteria of (74-124) and Benzene-d6 at 131% with criteria of (80-121).

H30S0: recovery is above criteria for Benzene-d6 at 129% with criteria of (80-121).

H30S2: recovery is above criteria for Benzene-d6 at 121% with criteria of (80-121).

H30S6: recovery is above criteria for 1,2-Dichloropropane-d6 at 125% with criteria of (74-124) and Benzene-d6 at 126% with criteria of (80-121).

H30T8: recovery is above criteria for 1,2-Dichloropropane-d6 at 125% with criteria of (74-124) and Benzene-d6 at 131% with criteria of (80-121).

D. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Duplicate matrix spikes were performed on sample H30S0.

Spike recoveries were within the advisory QC limits.

Replicate RPDs were within the advisory QC limits.

E. Internal Standards:

Internal standard peak areas were within the QC limits.

F. Dilutions:

No sample in this SDG required analysis at dilution.

G. Samples:

The soil samples for VOA were received in 4oz jars. The laboratory treated these samples as if they were received in Encore samplers. The laboratory logged in the samples, labeled and transferred the samples to the VOA laboratory. Once in the VOA lab, the samples were "extruded" into unpreserved VOA vials and frozen until time of analysis.

cis-1,3-Dichloropropene-d4 was detected in method blanks and in samples. The volatile organic deuterated monitoring compound spike solution contains both the cis- and trans-1,3-dichloropropene isomers. cis-1,3-Dichloropropene-d4 is not a dueterated monitoring compound for SOM01.2, while the trans isomer is. The cis isomer is considered a laboratory artifact, and is not reported as a tentatively identified

compound.

Alkanes were determined as part of tentatively identified compounds. The alkanes are reported on the Alkane Narrative Report following the SDG Narrative.

No other unusual observations were made for the analysis.

H. Manual Integration

No manual integrations were performed on any sample or standard.

Semivolatile Analysis:

I. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

II. METHODS

Samples were analyzed following procedures in laboratory test code: EPA CLP SOM 1.2 BNA

The following equation was used to calculate the concentration of target analytes for soil samples:

$$\text{Concentration } (\mu g/Kg) = (Amt)(DF)(Uf)\left(\frac{V_t}{V_i}\right)\left(\frac{1}{Ws}\right)\left(\frac{100}{(100-m)}\right)$$

where: Amt = on-column amount on raw data
DF = Dilution factor
UF = ng unit correction factor
Ws = Weight of sample extracted (g)
M = %moisture (not decanted)

The following equation was used to calculate the Amt in the previous equations:

$$Amt = \frac{(A_x)(IS)}{(A_{is})(RRF)}$$

where: A_x = area of the characteristic ion for the compound to be measured
A_{is} = area of the characteristic ion for the associated internal standard
IS = concentration of internal standard in ug/L
RRF = relative response factor

III. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW3550B

IV. INSTRUMENTATION

The following instrumentation was used to perform
Instrument Code: S2
Instrument Type: GCMS-SEMI
Description: HP5890 II / HP5972
Manufacturer: Hewlett-Packard
Model: 5890 / 5972

GC Column used: 30 m X 0.25 mm ID [0.25 um thickness] Rxi-5sil MS capillary column.

Instrument Code: S4
Instrument Type: GCMS-SEMI
Description: HP6890 / HP5973
Manufacturer: Hewlett-Packard
Model: 6890N / 5973N

GC Column used: 30 m X 0.25 mm ID [0.25 um thickness] Rxi-5sil MS capillary column.

V. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

Ion 71 was used instead of ion 99 for phenol-d5. Ion 71 was used instead of ion 99 as phenol-d5 closely elutes with bis (2-chloroethyl) ether-d8, which also uses ion 99 for quantitation. This causes the recovery of phenol-d5 to be higher. These two compounds have co-eluted in the high level calibration standard.

B. Blanks:

All method blanks were within the SOW criteria with the exception of SBLK4V.

Di-n-butylphthalate was detected above the method detection limit but below the CRQL in SBLK4V.

C. DMC Recoveries:

DMC recoveries were within the QC limits with the following exceptions:

H30T6: recovery is below criteria for Benzo(a)pyrene-d12 at 36% with criteria of (43-111), Dimethylphthalate-d6 at 42% with criteria of (43-111), Fluorene-d10 at 34% with criteria of (40-108) and Pyrene-d10 at 42% with criteria of (51-120).

H30T7: recovery is below criteria for Benzo(a)pyrene-d12 at 40% with criteria of (43-111), Fluorene-d10 at 37% with criteria of (40-108), Pyrene-d10 at 45% with criteria of (51-120).

H30Q5 (K2199-04A), Percent Recovery is outside QC Limits, recovery is below criteria for 4-Chloroaniline-d4 at 1% with criteria of (1-145) and Pyrene-d10 at 47% with criteria of (51-120).

H30R2: recovery is below criteria for Benzo(a)pyrene-d12 at 26% with criteria of (43-111), Phenol-d5 at 2% with criteria of (17-103) and Pyrene-d10 at 43% with criteria of (51-120).

H30R4: recovery is below criteria for Benzo(a)pyrene-d12 at 35% with criteria of (43-111) and Pyrene-d10 at 50% with criteria of (51-120).

H30R4DL: recovery is below criteria for Benzo(a)pyrene-d12 at 42% with criteria of (43-111).

H30R6: recovery is below criteria for Benzo(a)pyrene-d12 at 40% with criteria of (43-111) and Pyrene-d10 at 50% with criteria of (51-120).

H30R8: recovery is below criteria for Nitrobenzene-d5 at 3% with criteria of (16-103) and Pyrene-d10 at 47% with criteria of (51-120).

H30S0: recovery is below criteria for Benzo(a)pyrene-d12 at 36% with criteria of (43-111).

H30S0MS: recovery is below criteria for Benzo(a)pyrene-d12 at 41% with criteria of (43-111).

H30S0MSD: recovery is below criteria for Benzo(a)pyrene-d12 at 24% with criteria of (43-111) and Pyrene-d10 at 35% with criteria of (51-120).

H30S1: recovery is below criteria for Pyrene-d10 at 48% with criteria of (51-120).

H30S2: recovery is above criteria for 4-Nitrophenol-d4 at 428% with criteria of (16-166).

H30S3: recovery is below criteria for Benzo(a)pyrene-d12 at 39% with criteria of (43-111).

H30S3DL: recovery is below criteria for Benzo(a)pyrene-d12 at 41% with criteria of (43-111) and Dimethylphthalate-d6 at 42% with criteria of (43-111).

H30S6: recovery is above criteria for 4-Nitrophenol-d4 at 321% with criteria of (16-166), recovery is below criteria for , Benzo(a)pyrene-d12 at 40% with criteria of (43-111) and Pyrene-d10 at 47% with criteria of (51-120).

H30T8: recovery is below criteria for Benzo(a)pyrene-d12 at 28% with criteria of (43-111) and Pyrene-d10 at 38% with criteria of (51-120).

D. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Duplicate matrix spikes were performed on sample H30S0.

Spike recoveries were within the advisory QC limits with the exception of the following:

H30S0MSD: recovery is below criteria for Pyrene at 25% with criteria of (35-142).

Replicate RPDs were within the advisory QC limits with the exception of 4-Chloro-3-methylphenol, Acenaphthene, Pentachlorophenol, Phenol and Pyrene.

E. Internal Standards:

Internal standard area counts were within QC criteria with the exception of the following:

H30S3: Peak area is outside QC Limits for Acenaphthene-d10, Naphthalene-d8.

Sample H30S3 was re-analyzed at dilution with internal standard area counts were within the QC criteria.

F. Dilutions:

The following samples were re-analyzed at dilution:
H30R4: Dilution Factor: 5
H30S3: Dilution Factor: 5

G. Samples:

Alkanes were determined as part of tentatively identified compounds. The alkanes are reported on the Alkane Narrative Report following the SDG Narrative.

No other unusual observations were made for the analysis.

H. Manual Integration:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting
- M2 peak co-elution
- M3 rising or falling baseline
- M4 retention time shift
- M5 miscellaneous - under this category, the justification is explained
- M6 software did not integrate peak
- M7 partial peak integration

Manual integration was performed on the following:

H30T7: Benzo(b)fluoranthene due to M2
H30Q7: Chrysene-d12 due to M3 and Phenanthrene-d10 due to M6
H30R3: Chrysene-d12 due to M3
H30S2: Benzo(b)fluoranthene, Benzo(k)fluoranthene due to M2 and Chrysene-d12 due to M3
H30S6: Benzo(b)fluoranthene, Benzo(k)fluoranthene due to M2
SSTD0202B: 2,4-Dinitrophenol due to M6
SSTD0202F: Benzo(b)fluoranthene, Benzo(k)fluoranthene due to M2

Aroclor Analysis:

I. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

II. METHODS

Samples were analyzed following procedures in laboratory test code: EPA CLP SOM 1.2 ARO

The following equation was used to calculate the concentration of target analytes for soil samples:

$$\text{Concentration (ug/Kg)} = (\text{Amt})(\text{DF})(\text{Uf})\left(\frac{\text{Vt}}{(\text{Vi} * \text{WS} * \left(\frac{100 - \text{m}}{100}\right)}\right)$$

where: Amt = CAL - AMT on raw data
DF = Dilution factor
UF = ng unit correction factor
WS = Weight of sample extracted (g)
Vt = Volume of final extract (uL)
Vi = Volume injected (uL)
M = %moisture (not decanted)

III. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW3550B

IV. INSTRUMENTATION

The following instrumentation was used to perform
Instrument Code: E2
Instrument Type: GC-ECD
Description: HP5890 II +
Manufacturer: Hewlett-Packard
Model: 5890

GC Columns used:
CLPPest: 30 m X 0.53 mm ID [0.50 um thickness] capillary column and
CLPPestII: 30 m X 0.53 mm ID [0.42 um thickness] capillary column

V. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Surrogates:

Surrogate percent recoveries were within the QC limits with the following exceptions:

H30T6: recovery is below criteria for Tetrachloro-m-xylene on rear column at 25% with criteria of (30-150) and Tetrachloro-m-xylene on front column at 23% with criteria of (30-150).

D. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Duplicate matrix spikes were performed on sample H30S0.

Spike recoveries were within the advisory QC limits.

Replicate RPDs were within the advisory QC limits.

E. Dilutions:

No sample in this SDG required analysis at dilution.

F. Samples:

No other unusual observations were made for the analysis.

G. Manual Integration:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting
- M2 peak co-elution
- M3 rising or falling baseline

· M4 retention time shift
· M5 miscellaneous - under this category, the justification is explained
· M6 software did not integrate peak
· M7 partial peak integration

Manual integration was performed on the following:

AR12543KP: Aroclor-1254 due to M2 in the rear column
AR12543KQ: Aroclor-1254, Aroclor-1254 due to M2 in the rear column

All of the submittals to the region are originals other than logbook pages. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. Tunes, calibration verifications and initial calibrations that are shared among several cases are photocopies indicating the location of the originals.

I certify that this Sample Data Package is in compliance with the terms and condition of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the electronic data deliverable has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Agnes R Huntley

Agnes Huntley
CLP Project Manager
11/23/11

ALKANE NARRATIVE REPORT
Report Date: 11/22/2011
SDG: H30T6

Client Sample ID: H30R3 Lab Sample ID: K2199-07B File ID: V5N2738.D

Compound	RT	Est. Conc.	Q
Cyclic Alkane	10.402	26	J

Client Sample ID: H30R8 Lab Sample ID: K2199-11B File ID: V5N2742.D

Compound	RT	Est. Conc.	Q
Cyclic Alkane	10.402	19	J

Client Sample ID: H30S0 Lab Sample ID: K2199-12B File ID: V5N2732.D

Compound	RT	Est. Conc.	Q
Cyclic Alkane	10.404	18	J

Client Sample ID: H30S2 Lab Sample ID: K2199-14B File ID: V5N2744.D

Compound	RT	Est. Conc.	Q
Cyclic Alkane	10.408	61	J

Client Sample ID: H30S6 Lab Sample ID: K2199-16B File ID: V5N2746.D

Compound	RT	Est. Conc.	Q
Cyclic Alkane	10.401	56	J

ALKANE NARRATIVE REPORT
Report Date: 11/22/2011
SDG: H30T6

Client Sample ID: H30Q5 Lab Sample ID: K2199-04A File ID: S4E8701.D

Compound	RT	Est. Conc.	Q
Cyclic Alkane	9.292	25000	J

Client Sample ID: H30Q7 Lab Sample ID: K2199-05A File ID: S4E8709.D

Compound	RT	Est. Conc.	Q
Branched Alkane	6.942	2100	J
Branched Alkane	7.408	1200	J
Cyclic Alkane	9.333	19000	J

Client Sample ID: H30R2 Lab Sample ID: K2199-06A File ID: S4E8678.D

Compound	RT	Est. Conc.	Q
Straight-chain Alkane	10.286	1300	J
Branched Alkane	10.627	2200	J
Branched Alkane	10.99	1800	J
Straight-chain Alkane	11.404	11000	J

Client Sample ID: H30R3 Lab Sample ID: K2199-07A File ID: S4E8710.D

Compound	RT	Est. Conc.	Q
Cyclic Alkane	10.017	13000	J
Straight-chain Alkane	11.031	1000	J

Client Sample ID: H30R4 Lab Sample ID: K2199-08A File ID: S4E8680.D

Compound	RT	Est. Conc.	Q
Straight-chain Alkane	8.609	13000	J
Straight-chain Alkane	8.981	44000	J
Straight-chain Alkane	9.333	62000	J
Straight-chain Alkane	9.675	120000	J
Straight-chain Alkane	10.016	200000	J
Straight-chain Alkane	10.337	170000	J
Straight-chain Alkane	10.679	140000	J
Straight-chain Alkane	11.041	87000	J
Straight-chain Alkane	11.455	67000	J
Straight-chain Alkane	11.921	49000	J
Straight-chain Alkane	12.459	19000	J
Straight-chain Alkane	13.101	13000	J

ALKANE NARRATIVE REPORT
Report Date: 11/22/2011
SDG: H30T6

Client Sample ID: H30R4DL Lab Sample ID: K2199-08ADL File ID: S4E8695.D

Compound	RT	Est. Conc.	Q
Straight-chain Alkane	8.537	15000	DJ
Straight-chain Alkane	8.899	29000	DJ
Straight-chain Alkane	9.251	34000	DJ
Straight-chain Alkane	9.913	70000	DJ
Branched Alkane	10.565	65000	DJ
Straight-chain Alkane	10.928	50000	DJ
Branched Alkane	11.321	16000	DJ
Straight-chain Alkane	12.304	6600	DJ
Branched Alkane	12.925	4500	DJ

Client Sample ID: H30R6 Lab Sample ID: K2199-09A File ID: S4E8681.D

Compound	RT	Est. Conc.	Q
Branched Alkane	9.654	6900	J
Straight-chain Alkane	10.306	16000	J
Straight-chain Alkane	10.648	17000	J
Straight-chain Alkane	11.01	11000	J
Straight-chain Alkane	11.424	10000	J
Straight-chain Alkane	12.439	4200	J

Client Sample ID: H30R8 Lab Sample ID: K2199-11A File ID: S4E8683.D

Compound	RT	Est. Conc.	Q
Straight-chain Alkane	6.498	430	J
Branched Alkane	9.334	14000	J
Straight-chain Alkane	9.675	22000	J
Straight-chain Alkane	10.006	37000	J
Straight-chain Alkane	10.327	28000	J
Straight-chain Alkane	10.669	23000	J
Straight-chain Alkane	11.031	17000	J
Straight-chain Alkane	11.445	14000	J
Straight-chain Alkane	11.911	15000	J

Client Sample ID: H30S0 Lab Sample ID: K2199-12A File ID: S4E8705.D

Compound	RT	Est. Conc.	Q
Straight-chain Alkane	6.456	160	J
Straight-chain Alkane	10.275	3700	J
Straight-chain Alkane	10.617	2600	J
Straight-chain Alkane	10.979	2300	J
Straight-chain Alkane	11.393	1700	J

ALKANE NARRATIVE REPORT
Report Date: 11/22/2011
SDG: H30T6

Client Sample ID: H30S2 Lab Sample ID: K2199-14A File ID: S4E8713.D

Compound	RT	Est. Conc.	Q
Straight-chain Alkane	9.344	20000	J
Straight-chain Alkane	9.685	28000	J
Straight-chain Alkane	10.017	57000	J
Straight-chain Alkane	10.338	40000	J
Straight-chain Alkane	10.679	31000	J
Straight-chain Alkane	11.052	21000	J
Straight-chain Alkane	11.942	9000	J

Client Sample ID: H30S3 Lab Sample ID: K2199-15A File ID: S4E8689.D

Compound	RT	Est. Conc.	Q
Straight-chain Alkane	6.011	390	J
Straight-chain Alkane	6.498	630	J
Straight-chain Alkane	6.963	1300	J
Straight-chain Alkane	7.408	840	J
Straight-chain Alkane	7.822	600	J
Straight-chain Alkane	9.334	3200	J
Straight-chain Alkane	9.675	6400	J
Straight-chain Alkane	9.996	11000	J
Straight-chain Alkane	10.327	17000	J
Straight-chain Alkane	10.669	12000	J
Straight-chain Alkane	11.041	9100	J
Straight-chain Alkane	11.455	7000	J
Straight-chain Alkane	11.921	5400	J
Straight-chain Alkane	12.47	3200	J
Straight-chain Alkane	13.111	2100	J

Client Sample ID: H30S3DL Lab Sample ID: K2199-15ADL File ID: S4E8696.D

Compound	RT	Est. Conc.	Q
Straight-chain Alkane	6.435	780	DJ
Straight-chain Alkane	6.901	1500	DJ
Straight-chain Alkane	8.899	3400	DJ
Straight-chain Alkane	9.251	3600	DJ
Straight-chain Alkane	9.582	6100	DJ
Straight-chain Alkane	9.913	11000	DJ
Straight-chain Alkane	10.224	16000	DJ
Branched Alkane	10.555	13000	DJ
Straight-chain Alkane	10.917	11000	DJ
Straight-chain Alkane	12.304	2000	DJ
Straight-chain Alkane	12.915	1400	DJ
Straight-chain Alkane	13.649	970	DJ

ALKANE NARRATIVE REPORT
Report Date: 11/22/2011
SDG: H30T6

Client Sample ID: H30S6 Lab Sample ID: K2199-16A File ID: S4E8707.D

Compound	RT	Est. Conc.	Q
Branched Alkane	7.408	5200	J
Straight-chain Alkane	9.323	52000	J
Straight-chain Alkane	9.665	71000	J
Straight-chain Alkane	9.996	140000	J
Straight-chain Alkane	10.306	79000	J
Straight-chain Alkane	10.648	66000	J
Straight-chain Alkane	11.01	46000	J
Straight-chain Alkane	11.89	18000	J

Client Sample ID: H30T8 Lab Sample ID: K2199-17A File ID: S4E8708.D

Compound	RT	Est. Conc.	Q
Branched Alkane	9.955	6100	J
Straight-chain Alkane	10.275	3700	J
Straight-chain Alkane	10.617	6600	J
Straight-chain Alkane	10.979	3100	J
Straight-chain Alkane	11.393	3100	J
Straight-chain Alkane	11.859	4000	J

Contract Laboratory Program

Sample Delivery Group (SDG)

Cover Sheet

SDG Number H30T6

Laboratory Name	Mitkem Laboratories	Lab Code	MITKEM
Contract No.	EP-W-11-033	Case No.	41926
Analysis Price	$430	SDG Turnaround	21 days

EPA Sample Numbers in SDG (Listed in Numerical Order)

01) H30Q5	08) H30R8	15) H30S6	
02) H30Q7	09) H30S0	16) H30T6	
03) H30R2	10) H30S0MS	17) H30T7	
04) H30R3	11) H30S0MSD	18) H30T8	
05) H30R4	12) H30S1		
06) H30R6	13) H30S2		
07) H30R7	14) H30S3		

First Sample in SDG	Last Sample in SDG
H30T6	H30T8.

First Sample Receipt Date	Last Sample Receipt Date
10/28/2011	11/03/2011

Note: There are a maximum of 20 field samples [excluding Performance Evaluation (PE) samples in an SDG. Attach the TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature Agnes R Huntley Date 11/07/2011

Monday, November 07, 2011 9:48:40 AM

SDG H30T6

USEPA
DateShipped: 10/27/2011
CarrierName: FedEx
AirbillNo:

CHAIN OF CUSTODY RECORD
Site #: 41926
Contact Name: Jeff Miller
Contact Phone: 720-219-7891

No: 8-102711-105926-0003
Cooler #:
Lab: Spectrum Analytical
Lab Phone: 401-732-3400

Lab #	CLP Sample #	Analyses	Matrix	Collected	Sample Time	Preservative	MS/MSD
	H30S4	Volatiles (VOAs)	Soil	10/25/2011	09:55		
	H30S4	Semivolatiles (SVOAs)/PCBs	Soil	10/25/2011	09:55		
	H30S5	Volatiles (VOAs)	Soil	10/25/2011	10:36		
	H30S5	Semivolatiles (SVOAs)/PCBs	Soil	10/25/2011	10:36		
	H30S7	Volatiles (VOAs)	Surface Water	10/26/2011	10:30	HCl	
	H30S8	Volatiles (VOAs)	Sediment	10/24/2011	14:00		
	H30S9	Volatiles (VOAs)	Sediment	10/24/2011	15:25		
	H30T0	Volatiles (VOAs)	Sediment	10/24/2011	16:11		
	H30T1	Volatiles (VOAs)	Sediment	10/24/2011	15:22		
	H30T2	Volatiles (VOAs)	Sediment	10/24/2011	16:45		
	H30T3	Volatiles (VOAs)	Sediment	10/24/2011	17:30		
	H30T4	Volatiles (VOAs)	Sediment	10/24/2011	17:45		
	H30T5	Volatiles (VOAs)	Sediment	10/25/2011	10:15		
	H30T6	Volatiles (VOAs)	Sediment	10/25/2011	11:35		
	H30T7	Volatiles (VOAs)	Sediment	10/25/2011	12:40		
	H30T9	Volatiles (VOAs)	Surface Water	10/24/2011	14:00	HCl	
	H30W0	Volatiles (VOAs)	Surface Water	10/24/2011	15:25	HCl	
	H30W1	Volatiles (VOAs)	Surface Water	10/24/2011	16:11	HCl	
	H30W2	Volatiles (VOAs)	Surface Water	10/24/2011	15:22	HCl	
	H30W3	Volatiles (VOAs)	Surface Water	10/24/2011	16:45	HCl	

Special Instructions: Results to jeff.miller@urscorp.com, amy.k.gray@urscorp.com

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	Jen Peterson	10/27/11	FedEx	10/27/11	1400		FedEx	10-28-11	[illegible]	10-28-11	9:00

COPY

Original Documents Are Included in CSF H30Q0
Signed: [illegible] Date: 10/28/11

6.5°C 9.0°C 9.5°C 10.0°C 9.5°C

SDG H30T6

USEPA
DateShipped: 10/26/2011
CarrierName: FedEx
AirbillNo:

CHAIN OF CUSTODY RECORD
Site #: 41926
Contact Name: Jeff Miller
Contact Phone: 720-219-7891

No: 8-102611-105817-0002
Cooler #:
Lab: ChemTech Consulting Group
Lab Phone: 908-789-8900

Lab #	CLP Sample #	Analyses	Matrix	Collected	Sample Time	Preservative	MS/MSD
	H30S8	Semivolatiles (SVOAs)/PCBs	Sediment	10/24/2011	14:00		
	H30S9	Semivolatiles (SVOAs)/PCBs	Sediment	10/24/2011	15:25		
	H30T0	Semivolatiles (SVOAs)/PCBs	Sediment	10/24/2011	16:11		
	H30T1	Semivolatiles (SVOAs)/PCBs	Sediment	10/24/2011	15:22		
	H30T2	Semivolatiles (SVOAs)/PCBs	Sediment	10/24/2011	16:45		
	H30T3	Semivolatiles (SVOAs)/PCBs	Sediment	10/24/2011	17:30		
	H30T4	Semivolatiles (SVOAs)/PCBs	Sediment	10/24/2011	17:45		
	H30T5	Semivolatiles (SVOAs)/PCBs	Sediment	10/25/2011	10:15		
	H30T6	Semivolatiles (SVOAs)/PCBs	Sediment	10/25/2011	11:35		
	H30T7	Semivolatiles (SVOAs)/PCBs	Sediment	10/25/2011	12:40		
	H30T9	Semivolatiles (SVOAs)	Surface Water	10/24/2011	14:00		
	H30T9	Aroclors	Surface Water	10/24/2011	14:00		
	H30W0	Semivolatiles (SVOAs)	Surface Water	10/24/2011	15:25		
	H30W0	Aroclors	Surface Water	10/24/2011	15:25		
	H30W1	Semivolatiles (SVOAs)	Surface Water	10/24/2011	16:11		
	H30W1	Aroclors	Surface Water	10/24/2011	16:11		
	H30W2	Semivolatiles (SVOAs)	Surface Water	10/24/2011	15:22		
	H30W2	Aroclors	Surface Water	10/24/2011	15:22		
	H30W3	Semivolatiles (SVOAs)	Surface Water	10/24/2011	16:45		
	H30W3	Aroclors	Surface Water	10/24/2011	16:45		

Temp: 4°C

Special Instructions: Results to jeff.miller@urs.com, amy.k.gray@urs.com

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	[signature]	10/26/11	FedEx	10/26/11	1300				[signature]	10/27/11	9:15
									[signature]	10-28-11	9:00

COPY

Original Documents Are Included in CSF H30Q0
Signed: [signature] Date: 10/28/11

9.0°C 9.0°C 9.5°C 8.0°C 8.5°C

SDG H30T6

USEPA
DateShipped: 10/28/2011
CarrierName: FedEx
AirbillNo:

CHAIN OF CUSTODY RECORD
Site #: 41926
Contact Name: Jeff Miller
Contact Phone: 720-219-7891

No: 8-102811-114448-0006
Cooler #:
Lab: Spectrum Analytical
Lab Phone: 401-732-3400

Lab #	CLP Sample #	Analyses	Matrix	Collected	Sample Time	Preservative	MS/MSD
	H30Q5	Semivolatiles (SVOAs)/PCBs	Soil	10/27/2011	10:10		
	H30Q7	Semivolatiles (SVOAs)/PCBs	Soil	10/27/2011	11:10		
	H30R2	Semivolatiles (SVOAs)/PCBs	Soil	10/27/2011	14:10		
	H30R3	Semivolatiles (SVOAs)/PCBs	Soil	10/27/2011	13:50		
	H30R4	Semivolatiles (SVOAs)/PCBs	Soil	10/27/2011	17:45		
	H30R6	Semivolatiles (SVOAs)/PCBs	Soil	10/27/2011	15:40		
	H30R7	Semivolatiles (SVOAs)/PCBs	Soil	10/27/2011	16:00		
	H30R8	Semivolatiles (SVOAs)/PCBs	Soil	10/27/2011	17:20		
	H30X3	Semivolatiles (SVOAs)	Ground Water	10/27/2011	14:05		
	H30X3	Aroclors	Ground Water	10/27/2011	14:05		
	H30X4	Semivolatiles (SVOAs)	Ground Water	10/27/2011	17:25		
	H30X4	Aroclors	Ground Water	10/27/2011	17:25		
	H30Y7	Semivolatiles (SVOAs)	Ground Water	10/27/2011	10:23		
	H30Y7	Aroclors	Ground Water	10/27/2011	10:23		

SDG Final Sample
ACA 11/3/11

Special Instructions: Results to jeff.miller@urs.com, amy.k.gray@urs.com

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	[signature]	10/28/11	FedEx	10/28/11	1230		FedEx	10-29-11	[signature]	10-29-11	8:45

9.0°C

SDG H30T6

USEPA
DateShipped: 11/1/2011
CarrierName: FedEx
AirbillNo:

CHAIN OF CUSTODY RECORD
Site #: 41926
Contact Name: Jeff Miller
Contact Phone: 720-810-7891

No: 8-110111-145735-0009
Cooler #:
Lab: Spectrum Analytical
Lab Phone: 401-732-3400

Lab #	Location	Analyses	Matrix	Collected	Sample Time	Preservative	MS/MSD
	SSSO0514 H30Q5	Volatiles (VOAs)	Soil	10/27/2011	10:10		
	SSSO0612 H30Q7	Volatiles (VOAs)	Soil	10/27/2011	11:10		
	SSSO0902 H30R2	Volatiles (VOAs)	Soil	10/27/2011	14:10		
	SSSO0916 H30R3	Volatiles (VOAs)	Soil	10/27/2011	13:50		
	SSSO1002 H30R4	Volatiles (VOAs)	Soil	10/27/2011	17:45		
	SSSO1102 H30R6	Volatiles (VOAs)	Soil	10/27/2011	15:40		
	SSSO1110 H30R7	Volatiles (VOAs)	Soil	10/27/2011	16:00		
	SSSO1202 H30R8	Volatiles (VOAs)	Soil	10/27/2011	17:20		
	SSSO1302 H3050	Volatiles (VOAs)	Soil	10/28/2011	16:40		Y
	SSSO1302	Semivolatiles (SVOAs)/PCBs	Soil	10/28/2011	16:40		Y
	SSSO1306 H3051	Volatiles (VOAs)	Soil	10/28/2011	10:45		
	SSSO1306	Semivolatiles (SVOAs)/PCBs	Soil	10/28/2011	10:45		
	SSSO1402 H3052	Volatiles (VOAs)	Soil	10/28/2011	13:30		Y
	SSSO1402	Semivolatiles (SVOAs)/PCBs	Soil	10/28/2011	13:30		Y
	SSSO1702 H3053	Volatiles (VOAs)	Soil	10/28/2011	18:25		
	SSSO1702	Semivolatiles (SVOAs)/PCBs	Soil	10/28/2011	18:25		
	SSSO8902 H3056	Volatiles (VOAs)	Soil	10/28/2011	13:30		
	SSSO8902	Semivolatiles (SVOAs)/PCBs	Soil	10/28/2011	13:30		
SDG-Free Sample	SSSO9902 H30T8	Volatiles (VOAs)	Soil	10/28/2011	16:40		
	SSSO9902	Semivolatiles (SVOAs)/PCBs	Soil	10/28/2011	16:40		

Special Instructions: Results to jeff.miller@urs.com, amy.k.gray@urs.com

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	[signature]	Nov 1, 2011	FEDEX				FedEx	11-03-11	[signature]	11-03-11	9:00

2C - FORM II VOA-3

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC1 (VCL) #	VDMC2 (CLA) #	VDMC3 (DCE) #	VDMC4 (BUT) #	VDMC5 (CLF) #	VDMC6 (DCA) #	VDMC7 (BEN) #
01	VBLKJ5	75	85	92	69	86	81	101
02	H30T6	78	90	87	67	98	104	103
03	H30T7	82	91	86	63	96	99	99
04	VBLKK5	73	83	82	85	91	86	93
05	H30R6	74	77	89	64	87	79	97
06	H30S0	87	101	96	72	99	101	129 *
07	H30S0MS	88	94	98	95	96	100	119
08	H30S0MSD	85	94	101	89	95	100	116
09	H30Q5	75	93	92	103	96	97	120
10	H30Q7	74	87	84	102	93	97	112
11	H30R2	74	82	84	85	39 *	101	93
12	H30R3	73	84	86	105	88	97	107
13	H30R4	83	94	98	106	96	104	131 *
14	H30R7	77	97	90	108	102	104	116
15	H30R8	84	95	90	98	96	106	111
16	H30S1	81	88	87	104	92	101	98
17	H30S2	83	102	98	81	101	102	121 *
18	H30S3	90	100	89	59	91	107	114
19	H30S6	77	99	98	90	102	104	126 *
20	H30T8	92	104	95	50	103	111	131 *
21	VHBLKK5	81	95	86	103	95	103	90

			QC LIMITS
VDMC1	(VCL)	= Vinyl chloride-d3	(68-122)
VDMC2	(CLA)	= Chloroethane-d5	(61-130)
VDMC3	(DCE)	= 1,1-Dichloroethene-d2	(45-132)
VDMC4	(BUT)	= 2-Butanone-d5	(20-182)
VDMC5	(CLF)	= Chloroform-d	(72-123)
VDMC6	(DCA)	= 1,2-Dichloroethane-d4	(79-122)
VDMC7	(BEN)	= Benzene-d6	(80-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2D - FORM II VOA-4

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC8 (DPA) #	VDMC9 (TOL) #	VDMC10 (TDP) #	VDMC11 (HEX) #	VDMC12 (DXE) #	VDMC13 (TCA) #	VDMC14 (DCZ) #	TOT OUT
01	VBLKJ5	92	98	93	61	68	81	88	0
02	H30T6	99	94	98	51	97	99	91	0
03	H30T7	93	93	92	55	103	90	96	0
04	VBLKK5	87	91	89	71	77	83	86	0
05	H30R6	85	95	73	50	71	74	93	0
06	H30S0	122	108	108	66	108	92	92	1
07	H30S0MS	109	103	109	85	105	92	98	0
08	H30S0MSD	112	103	114	83	104	93	94	0
09	H30Q5	113	107	75	100	107	91	97	0
10	H30Q7	103	101	80	104	97	96	101	0
11	H30R2	91	90	94	68	119	0 *	94	2
12	H30R3	101	96	98	105	104	79	89	0
13	H30R4	125 *	110	88	120	111	96	91	2
14	H30R7	109	97	78	99	110	82	96	0
15	H30R8	108	101	80	108	117	91	94	0
16	H30S1	93	94	99	90	113	94	92	0
17	H30S2	112	104	73	85	124	89	95	1
18	H30S3	112	102	97	55	128	85	96	0
19	H30S6	125 *	110	87	103	126	100	97	2
20	H30T8	125 *	108	116	43	129	104	88	2
21	VHBLKK5	87	88	98	85	107	98	91	0

			QC LIMITS
VDMC8	(DPA)	= 1,2-Dichloropropane-d6	(74-124)
VDMC9	(TOL)	= Toluene-d8	(78-121)
VDMC10	(TDP)	= trans-1,3-Dichloropropene-d4	(72-130)
VDMC11	(HEX)	= 2-Hexanone-d5	(17-184)
VDMC12	(DXE)	= 1,4-Dioxane-d8	(50-150)
VDMC13	(TCA)	= 1,1,2,2-Tetrachloroethane-d2	(56-161)
VDMC14	(DCZ)	= 1,2-Dichlorobenzene-d4	(70-131)

Column to be used to flag recovery values

* Values outside of contract required QC limits

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

3B - FORM III VOA-2

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix Spike - EPA Sample No.: H30S0 Level: (LOW/MED) LOW

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS %REC	#	QC. LIMITS REC.
1,1-Dichloroethene	91.4060	0.0000	82.9206	91		59-172
Benzene	91.4060	0.0000	118.8512	130		66-142
Trichloroethene	91.4060	0.0000	109.4689	120		62-137
Toluene	91.4060	0.0000	102.8369	113		59-139
Chlorobenzene	91.4060	0.0000	98.0198	107		60-133

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	89.5778	80.5133	90		1		0-22	59-172
Benzene	89.5778	116.3686	130		0		0-21	66-142
Trichloroethene	89.5778	108.8646	122		1		0-24	62-137
Toluene	89.5778	103.6454	116		3		0-21	59-139
Chlorobenzene	89.5778	95.5487	107		1		0-21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

4A - FORM IV VOA

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKJ5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Lab File ID: V5N2702.D Lab Sample ID: MB-62569

Instrument ID: V5

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 11/06/2011

Level: (TRACE or LOW/MED) LOW Time Analyzed: 23:44

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	H30T6	K2199-02C	V5N2722.D	8:50
02	H30T7	K2199-03C	V5N2723.D	9:17

COMMENTS:

4A - FORM IV VOA

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKK5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Lab File ID: V5N2725.D Lab Sample ID: MB-62780

Instrument ID: V5

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 11/07/2011

Level: (TRACE or LOW/MED) LOW Time Analyzed: 10:12

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	H30R6	K2199-09B	V5N2726A.D	11:07
02	H30S0	K2199-12B	V5N2732.D	13:51
03	H30S0MS	K2199-12BMS	V5N2733.D	14:18
04	H30S0MSD	K2199-12BMSD	V5N2734.D	14:45
05	H30Q5	K2199-04B	V5N2735.D	15:13
06	H30Q7	K2199-05B	V5N2736.D	15:40
07	H30R2	K2199-06B	V5N2737.D	16:07
08	H30R3	K2199-07B	V5N2738.D	16:34
09	H30R4	K2199-08B	V5N2739.D	17:01
10	H30R7	K2199-10B	V5N2741.D	17:55
11	H30R8	K2199-11B	V5N2742.D	18:22
12	H30S1	K2199-13B	V5N2743.D	18:50
13	H30S2	K2199-14B	V5N2744.D	19:17
14	H30S3	K2199-15B	V5N2745.D	19:44
15	H30S6	K2199-16B	V5N2746.D	20:11
16	H30T8	K2199-17B	V5N2747.D	20:38
17	VHBLKK5	VHBLKK5	V5N2748.D	21:05

COMMENTS:

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB5N

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Lab File ID: V5N1310.D BFB Injection Date: 10/04/2011

Instrument ID: V5 BFB Injection Time: 16:43

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.2
75	30.0 - 80.0% of mass 95	42.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 -120% of mass 95	78.7
175	5.0 - 9.0% of mass 174	6.5 (8.2)1
176	95.0 - 101% of mass 174	78.4 (99.6)1
177	5.0 - 9.0% of mass 176	4.8 (6.2)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0505N	VSTD0505N	V5N1311.D	10/04/2011	17:11
02	VSTD0055N	VSTD0055N	V5N1312.D	10/04/2011	17:39
03	VSTD2005N	VSTD2005N	V5N1313.D	10/04/2011	18:08
04	VSTD1005N	VSTD1005N	V5N1314.D	10/04/2011	18:36
05	VSTD0105N	VSTD0105N	V5N1315.D	10/04/2011	19:04

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFBJ5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Lab File ID: V5N2700.D BFB Injection Date: 11/06/2011

Instrument ID: V5 BFB Injection Time: 22:49

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.6
75	30.0 - 80.0% of mass 95	43.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 -120% of mass 95	70.9
175	5.0 - 9.0% of mass 174	5.8 (8.2)1
176	95.0 - 101% of mass 174	70.1 (98.8)1
177	5.0 - 9.0% of mass 176	4.6 (6.6)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050J5	VSTD050J5	V5N2701.D	11/06/2011	23:16
02	VBLKJ5	MB-62569	V5N2702.D	11/06/2011	23:44
03	H30T6	K2199-02C	V5N2722.D	11/07/2011	8:50
04	H30T7	K2199-03C	V5N2723.D	11/07/2011	9:17
05	VSTD050K5	VSTD050K5	V5N2724.D	11/07/2011	9:45
06	VBLKK5	MB-62780	V5N2725.D	11/07/2011	10:12
07	H30R6	K2199-09B	V5N2726A.D	11/07/2011	11:07
08	H30S0	K2199-12B	V5N2732.D	11/07/2011	13:51
09	H30S0MS	K2199-12BMS	V5N2733.D	11/07/2011	14:18
10	H30S0MSD	K2199-12BMSD	V5N2734.D	11/07/2011	14:45
11	H30Q5	K2199-04B	V5N2735.D	11/07/2011	15:13
12	H30Q7	K2199-05B	V5N2736.D	11/07/2011	15:40
13	H30R2	K2199-06B	V5N2737.D	11/07/2011	16:07
14	H30R3	K2199-07B	V5N2738.D	11/07/2011	16:34
15	H30R4	K2199-08B	V5N2739.D	11/07/2011	17:01
16	H30R7	K2199-10B	V5N2741.D	11/07/2011	17:55
17	H30R8	K2199-11B	V5N2742.D	11/07/2011	18:22
18	H30S1	K2199-13B	V5N2743.D	11/07/2011	18:50
19	H30S2	K2199-14B	V5N2744.D	11/07/2011	19:17
20	H30S3	K2199-15B	V5N2745.D	11/07/2011	19:44
21	H30S6	K2199-16B	V5N2746.D	11/07/2011	20:11
22	H30T8	K2199-17B	V5N2747.D	11/07/2011	20:38

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFBJ5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Lab File ID: V5N2700.D BFB Injection Date: 11/06/2011

Instrument ID: V5 BFB Injection Time: 22:49

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.6
75	30.0 - 80.0% of mass 95	43.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 -120% of mass 95	70.9
175	5.0 - 9.0% of mass 174	5.8 (8.2)1
176	95.0 - 101% of mass 174	70.1 (98.8)1
177	5.0 - 9.0% of mass 176	4.6 (6.6)2

1 - Value is % mass 174 2 - Value is % mass 176

23	VHBLKK5	VHBLKK5	V5N2748.D	11/07/2011	21:05
24	VSTD050L5	VSTD050L5	V5N2749.D	11/07/2011	21:33

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 10/04/2011 10/04/2011

EPA Sample No.(VSTD#####): VSTD050J5 Date Analyzed: 11/06/2011

Lab File ID (Standard): V5N2701.D Time Analyzed: 23:16

Instrument ID: V5 Heated Purge: (Y/N) Y

		IS1 (CBZ) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	184155	9.427	270116	6.315	70335	12.168
	UPPER LIMIT	368310	9.927	540232	6.815	140670	12.668
	LOWER LIMIT	92078	8.927	135058	5.815	35168	11.668
	EPA SAMPLE NO.						
01	VBLKJ5	246579	9.426	345444	6.325	91770	12.178
02	H30T6	253370	9.437	335618	6.324	85472	12.177
03	H30T7	261017	9.426	337021	6.314	92065	12.179

IS1 (CBZ) = Chlorobenzene-d5

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

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

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 10/04/2011 10/04/2011

EPA Sample No.(VSTD#####): VSTD050K5 Date Analyzed: 11/07/2011

Lab File ID (Standard): V5N2724.D Time Analyzed: 9:45

Instrument ID: V5 Heated Purge: (Y/N) Y

		IS1 (CBZ) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	206756	9.432	242917	6.319	87745	12.172
	UPPER LIMIT	413512	9.932	485834	6.819	175490	12.672
	LOWER LIMIT	103378	8.932	121459	5.819	43873	11.672
	EPA SAMPLE NO.						
01	VBLKK5	257526	9.427	325591	6.326	97710	12.179
02	H30R6	224734	9.427	303841	6.326	71401	12.179
03	H30S0	170158	9.429	275059	6.317	46967	12.181
04	H30S0MS	176450	9.432	265050	6.320	50730	12.173
05	H30S0MSD	191418	9.426	284217	6.314	56810	12.178
06	H30Q5	205051	9.432	310581	6.319	57716	12.172
07	H30Q7	241337	9.432	346972	6.320	69884	12.173
08	H30R2	276648	9.427	348508	6.315	97783	12.179
09	H30R3	243348	9.426	350847	6.314	78751	12.167
10	H30R4	162053	9.432	281704	6.320	45698	12.173
11	H30R7	190091	9.429	282253	6.317	57384	12.181
12	H30R8	213370	9.426	322985	6.326	69930	12.179
13	H30S1	295759	9.437	390192	6.325	105942	12.178
14	H30S2	206683	9.432	318652	6.320	56574	12.184
15	H30S3	252677	9.431	376784	6.319	80666	12.183

IS1 (CBZ) = Chlorobenzene-d5

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

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

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 10/04/2011 10/04/2011

EPA Sample No.(VSTD#####): VSTD050K5 Date Analyzed: 11/07/2011

Lab File ID (Standard): V5N2724.D Time Analyzed: 9:45

Instrument ID: V5 Heated Purge: (Y/N) Y

		IS1 (CBZ) AREA	#	RT	#	IS2 (DFB) AREA	#	RT	#	IS3 (DCB) AREA	#	RT	#
	12 HOUR STD	206756		9.432		242917		6.319		87745		12.172	
	UPPER LIMIT	413512		9.932		485834		6.819		175490		12.672	
	LOWER LIMIT	103378		8.932		121459		5.819		43873		11.672	
	EPA SAMPLE NO.												
16	H30S6	221141		9.437		361399		6.324		58559		12.177	
17	H30T8	215858		9.439		353910		6.327		51577		12.180	
18	VHBLKK5	313909		9.426		378911		6.314		127972		12.178	

IS1 (CBZ) = Chlorobenzene-d5

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

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

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30Q5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-04B

Sample wt/vol: 4.90 (g/mL) G Lab File ID: V5N2735.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 56 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	11	U
74-87-3	Chloromethane	11	U
75-01-4	Vinyl chloride	11	U
74-83-9	Bromomethane	11	U
75-00-3	Chloroethane	11	U
75-69-4	Trichlorofluoromethane	11	U
75-35-4	1,1-Dichloroethene	11	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	11	U
67-64-1	Acetone	120	
75-15-0	Carbon disulfide	11	U
79-20-9	Methyl acetate	11	U
75-09-2	Methylene chloride	11	U
156-60-5	trans-1,2-Dichloroethene	11	U
1634-04-4	Methyl tert-butyl ether	11	U
75-34-3	1,1-Dichloroethane	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
78-93-3	2-Butanone	23	U
74-97-5	Bromochloromethane	11	U
67-66-3	Chloroform	11	U
71-55-6	1,1,1-Trichloroethane	11	U
110-82-7	Cyclohexane	11	U
56-23-5	Carbon tetrachloride	11	U
71-43-2	Benzene	11	U
107-06-2	1,2-Dichloroethane	11	U
123-91-1	1,4-Dioxane	230	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30Q5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-04B

Sample wt/vol: 4.90 (g/mL) G Lab File ID: V5N2735.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 56 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	11	U
108-87-2	Methylcyclohexane	11	U
78-87-5	1,2-Dichloropropane	11	U
75-27-4	Bromodichloromethane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
108-10-1	4-Methyl-2-pentanone	23	U
108-88-3	Toluene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
79-00-5	1,1,2-Trichloroethane	11	U
127-18-4	Tetrachloroethene	11	U
591-78-6	2-Hexanone	23	U
124-48-1	Dibromochloromethane	11	U
106-93-4	1,2-Dibromoethane	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
179601-23-1	m,p-Xylene	11	U
95-47-6	o-Xylene	11	U
100-42-5	Styrene	11	U
75-25-2	Bromoform	11	U
98-82-8	Isopropylbenzene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
95-50-1	1,2-Dichlorobenzene	11	U
96-12-8	1,2-Dibromo-3-chloropropane	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
87-61-6	1,2,3-Trichlorobenzene	11	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30Q5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-04B

Sample wt/vol: 4.90 (g/mL) G Lab File ID: V5N2735.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 56 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	7785-70-8	1R-.alpha.-Pinene	10.570	23	NJ
02	500-00-5	Cyclohexene, 4-methyl-1-(1-m	11.301	22	NJ
03	5256-65-5	Cyclohexene, 3-methyl-6-(1-m	11.383	240	NJ
04	527-84-4	Benzene, 1-methyl-2-(1-methy	12.126	1500	NJ
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2735.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2735.D
Lab Smp Id: K2199-04B Client Smp ID: H30Q5
Inj Date : 07-NOV-2011 15:13
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-04B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.900	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.173	2.168	(0.344)	111478	37.6957	38
$ 80 Chloroethane-d5	69	2.591	2.597	(0.410)	88530	46.2807	47(Q)
$ 81 1,1-Dichloroethene-d2	65	3.369	3.364	(0.533)	28071	45.7643	47(Q)
9 Acetone	43	3.450	3.445	(0.546)	30447	53.8074	55
$ 82 2-Butanone-d5	46	5.076	5.071	(0.803)	85060	103.133	110
$ 83 Chloroform-d	84	5.390	5.385	(0.853)	170398	48.0931	49(Q)
$ 23 1,2-Dichloroethane-d4	65	5.889	5.896	(0.932)	92299	48.2639	49(Q)
$ 84 Benzene-d6	84	5.912	5.907	(0.627)	325903	60.0235	61
* 26 1,4-Difluorobenzene	114	6.319	6.325	(1.000)	310581	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.725	6.732	(0.713)	127259	56.7148	58
$ 94 1,4-Dioxane-d8	96	6.923	6.917	(1.096)	19446	1068.34	1100
$ 33 Toluene-d8	98	7.840	7.835	(0.831)	267120	53.2934	54
$ 86 trans-1,3-Dichloropropene-d4	79	8.131	8.114	(0.862)	63595	37.6431	38
$ 87 2-Hexanone-d5	63	8.583	8.578	(0.910)	43226	100.131	100
* 42 Chlorobenzene-d5	117	9.431	9.426	(1.000)	205051	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.929	10.924	(1.159)	66945	45.5825	47
* 78 1,4-Dichlorobenzene-d4	152	12.172	12.167	(1.000)	57716	50.0000	(Q)
$ 90 1,2-Dichlorobenzene-d4	152	12.636	12.631	(1.038)	52122	48.3410	49(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2735.D
Report Date: 09-Nov-2011 08:00

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2735.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2735.D
Lab Smp Id: K2199-04B Client Smp ID: H30Q5
Inj Date : 07-NOV-2011 15:13
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-04B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.900	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 42 Chlorobenzene-d5	9.432	592738	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
1R-.alpha.-Pinene				CAS #: 7785-70-8			
10.570	121115	10.2165922	10	97	NIST2002.L	15163	42
Cyclohexene, 4-methyl-1-(1-methylethyl)-				CAS #: 500-00-5			
11.301	114877	9.69033539	9.9	94	NIST2002.L	16382	42
Cyclohexene, 3-methyl-6-(1-methylethyl)-				CAS #: 5256-65-5			
11.383	1241266	104.706099	110	96	NIST2002.L	16375	42
Benzene, 1-methyl-2-(1-methylethyl)-				CAS #: 527-84-4			
12.126	7781221	656.379173	670	96	NIST2002.L	14395	42

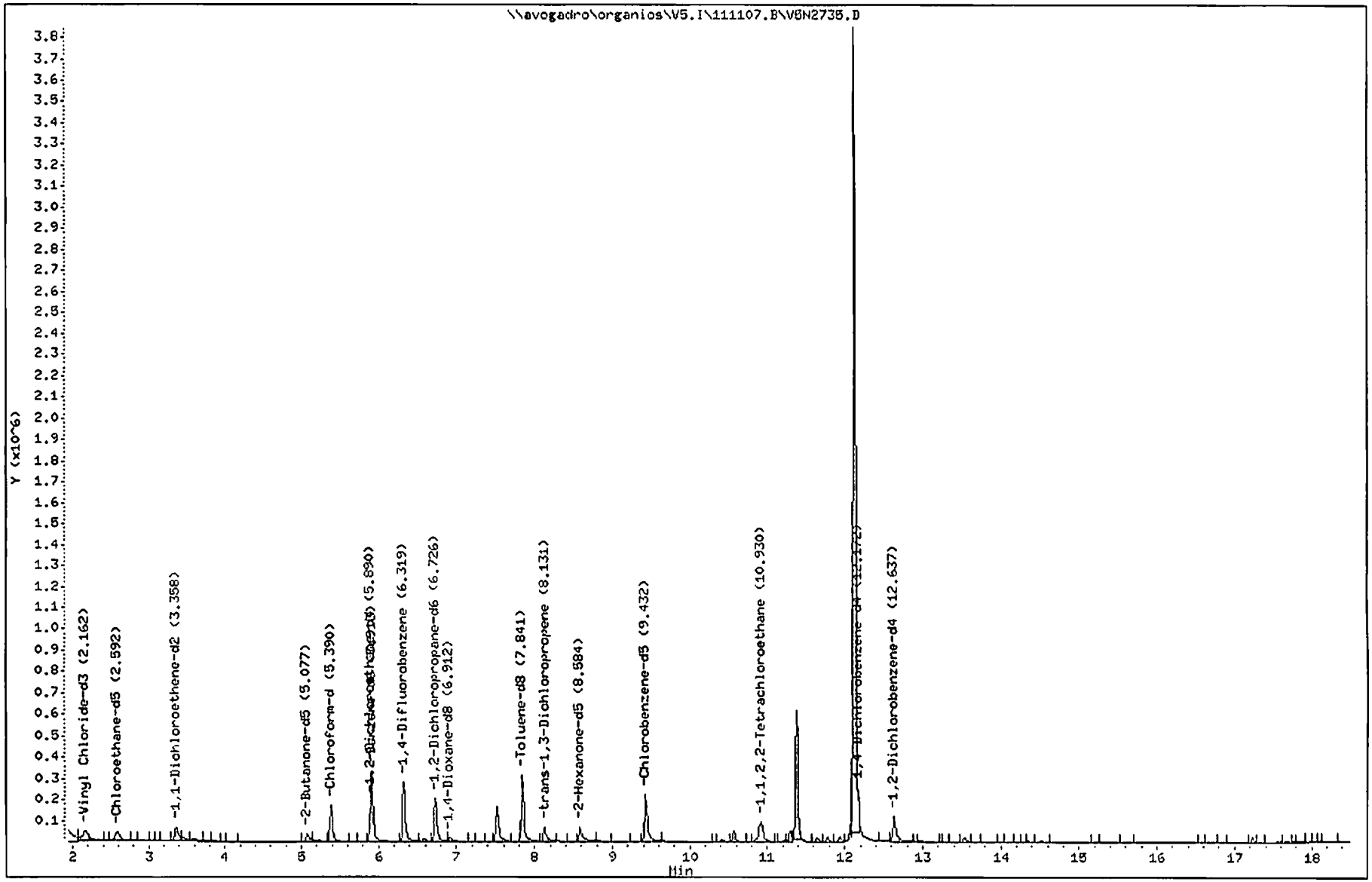
Data File: \\avogadro\organics\V5.I\111107.B\V5N2735.D
Date : 07-NOV-2011 15:13
Client ID: H30Q5
Sample Info: 5G,K2199-04B,,62780

Instrument: V5.i

Operator: SRC: LIMS

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2735.D

Date : 07-NOV-2011 15:13

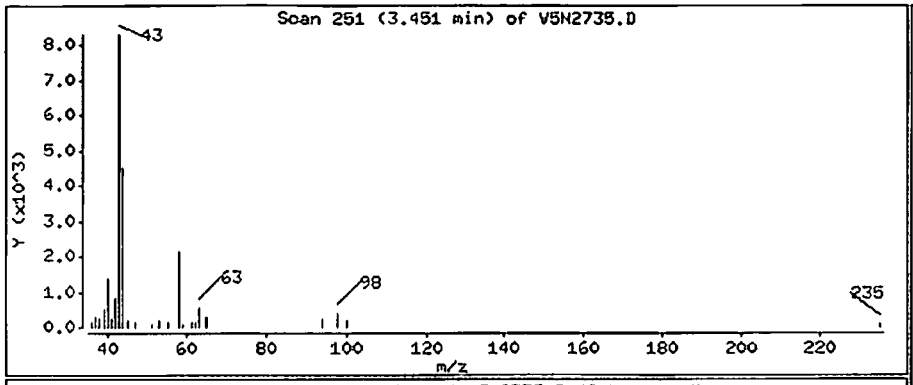
Client ID: H30Q5 | Instrument: V5.i

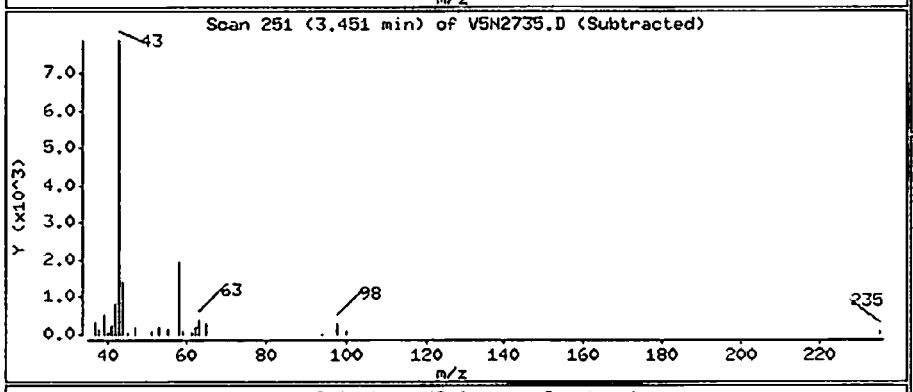
Sample Info: 5G,K2199-04B,,62780

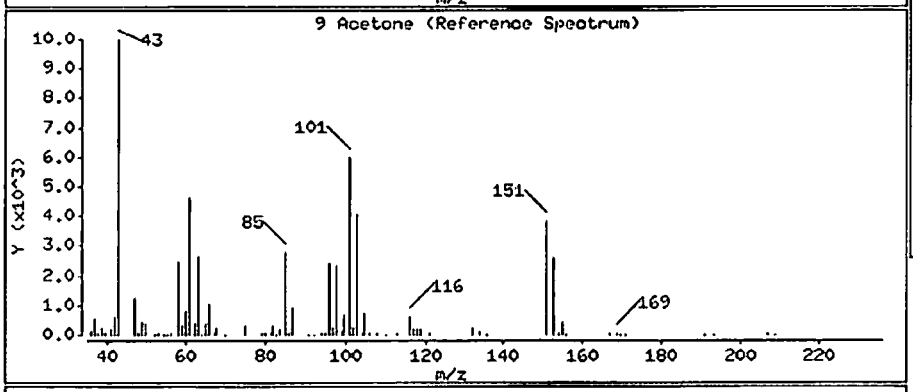
Operator: SRC: LIMS

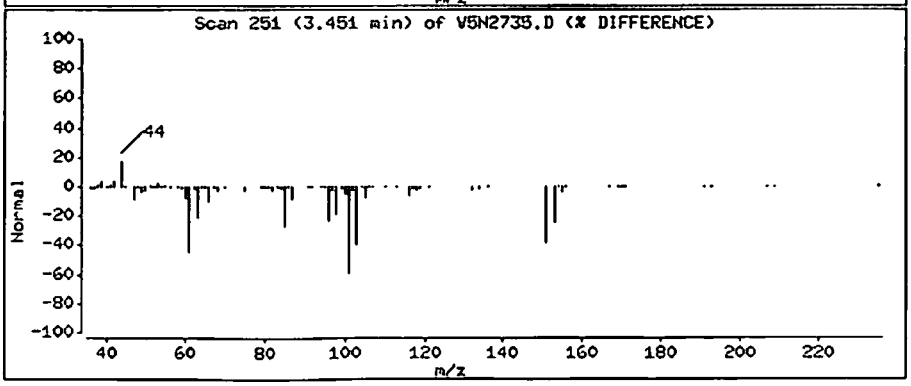
Column phase: DB-624 | Column diameter: 0.25

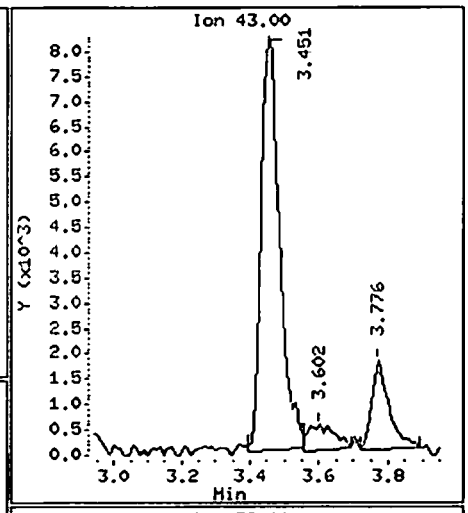
9 Acetone | Concentration: 55 ug/Kg

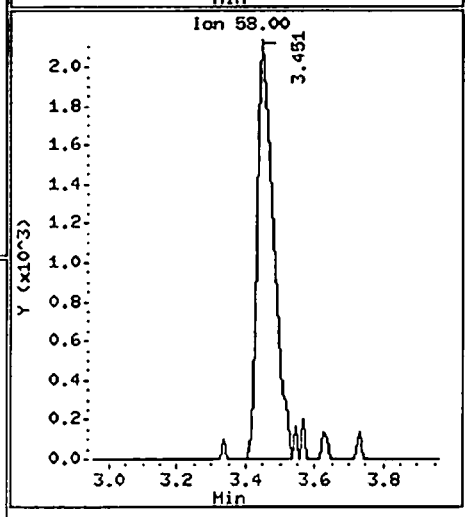












Data File: \\avogadro\organics\V5.I\111107.B\V5N2735.D

Date : 07-NOV-2011 15:13

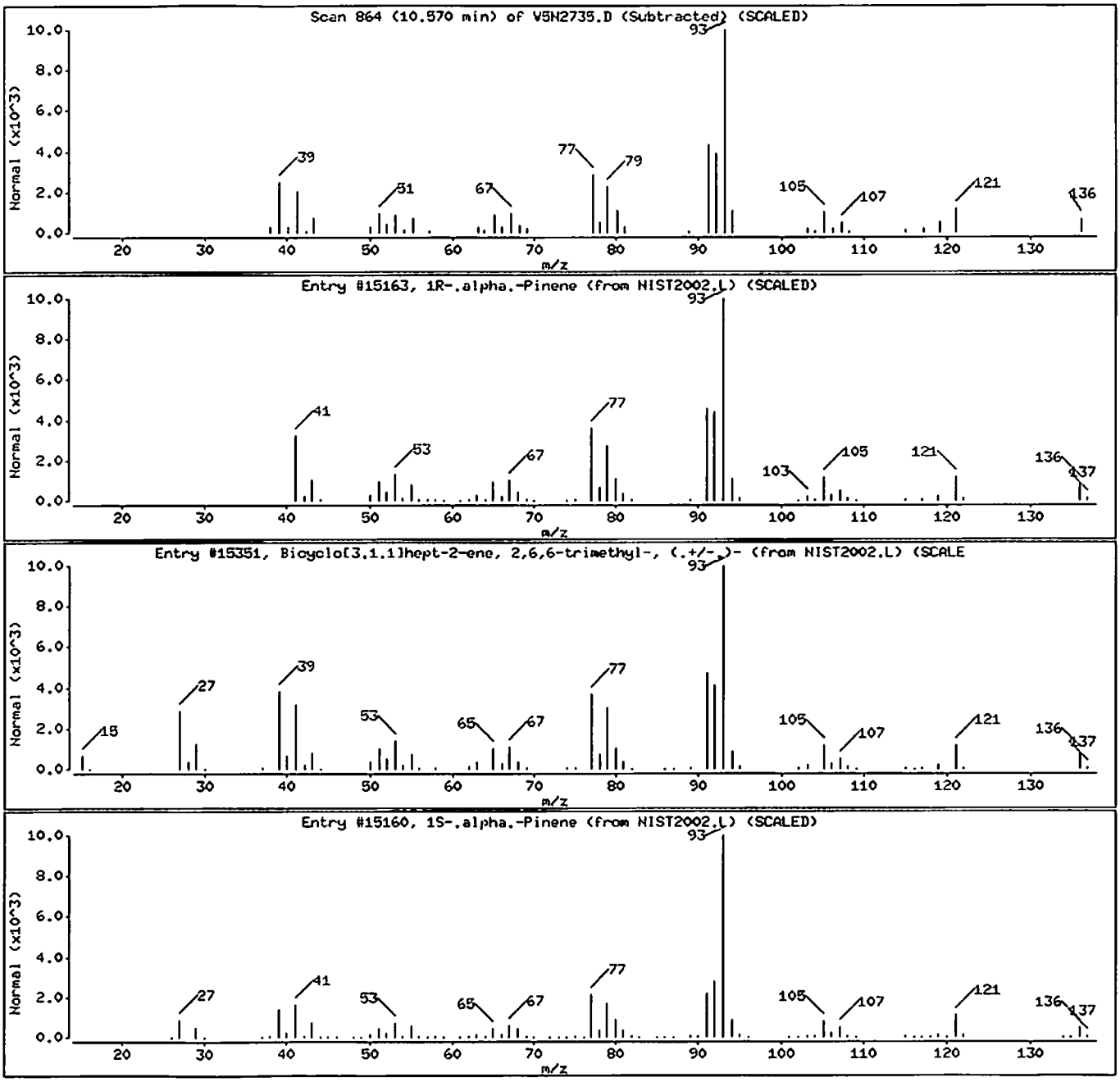
Client ID: H30Q5 Instrument: V5.i

Sample Info: SC,K2199-04B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-.alpha.-Pinene	7785-70-8	NIST2002.L	15163	97	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST2002.L	15351	95	C10H16	136
1S-.alpha.-Pinene	7785-26-4	NIST2002.L	15160	94	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2735.D

Date : 07-NOV-2011 15:13

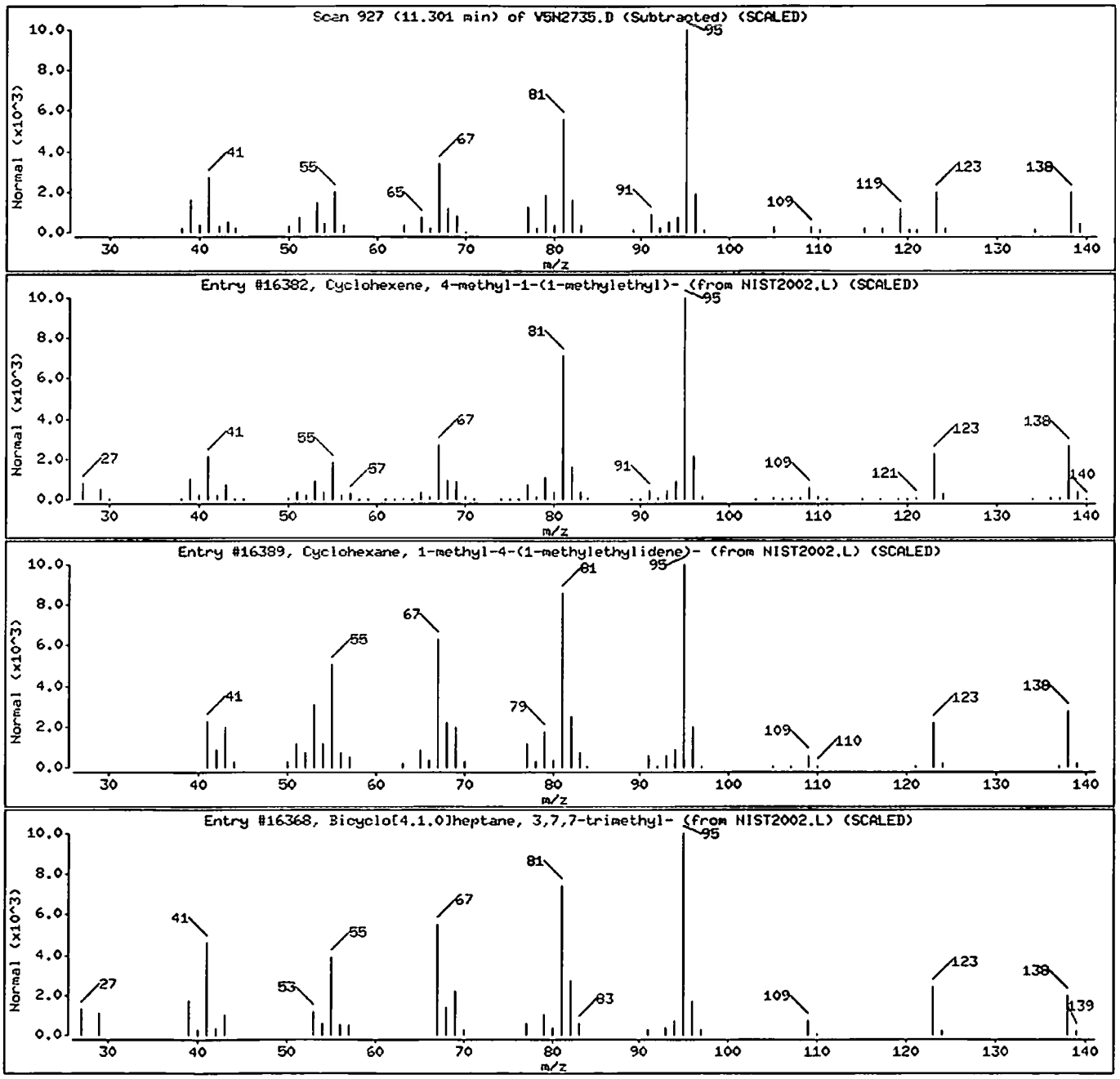
Client ID: H30Q5 Instrument: V5.i

Sample Info: 5C,K2199-04B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 4-methyl-1-(1-methylethyl)-	500-00-5	NIST2002.L	16382	94	C10H18	138
Cyclohexane, 1-methyl-4-(1-methylethylid	1124-27-2	NIST2002.L	16389	93	C10H18	138
Bicyclo[4.1.0]heptane, 3,7,7-trimethyl-	554-59-6	NIST2002.L	16368	90	C10H18	138



Data File: \\avogadro\organics\V5.I\111107.B\V5N2735.D

Date : 07-NOV-2011 15:13

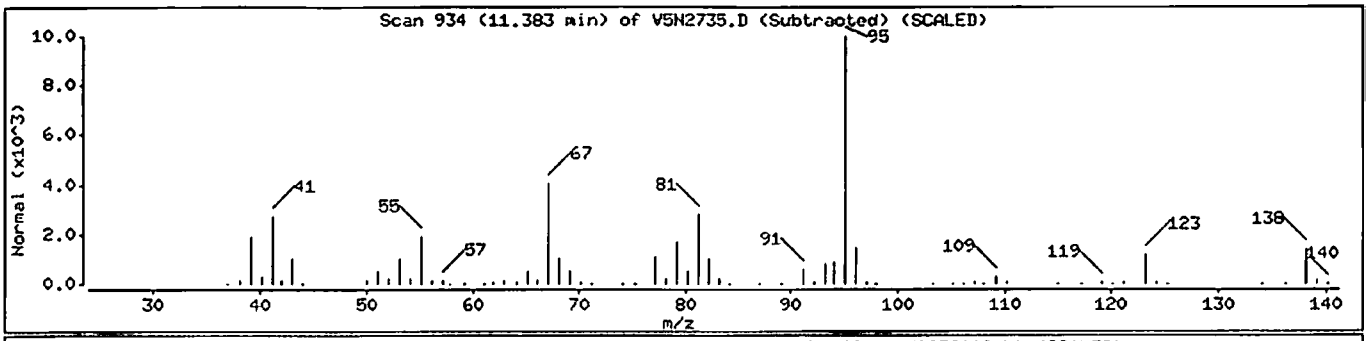
Client ID: H30Q5 Instrument: V5.i

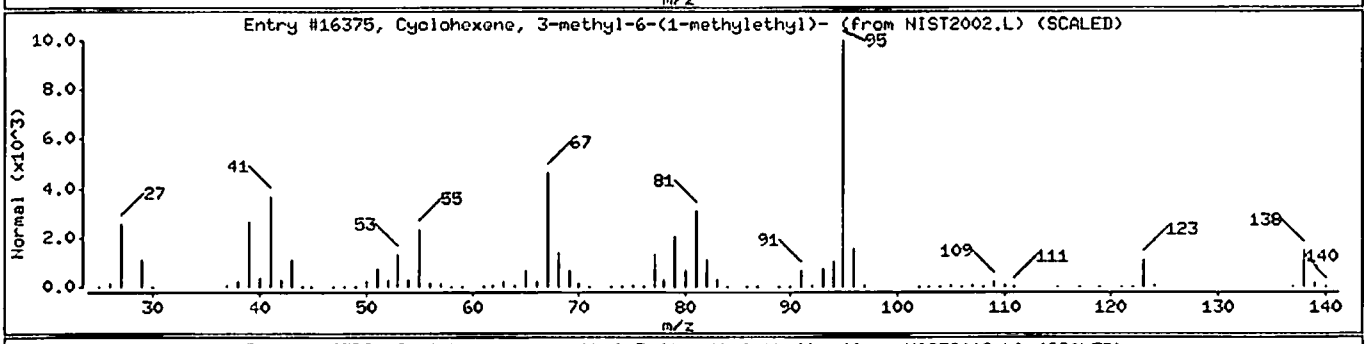
Sample Info: 5G,K2199-04B,,62780

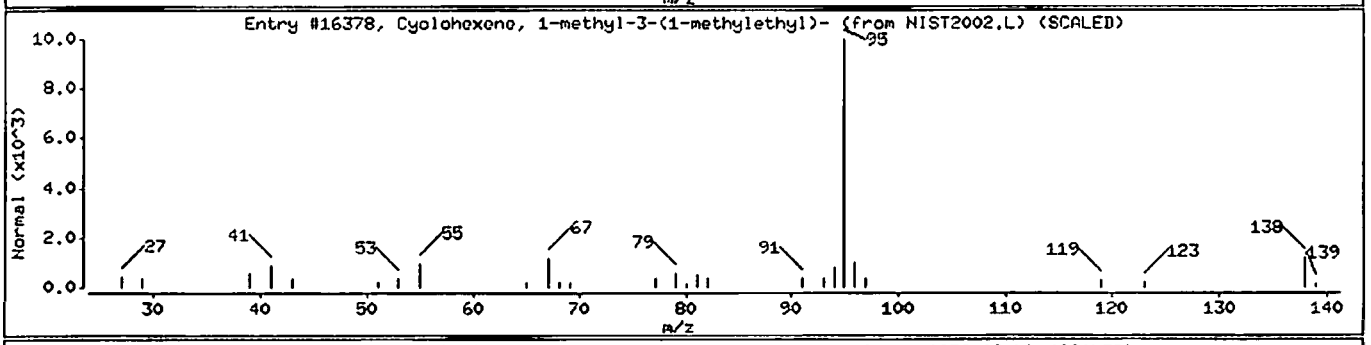
Operator: SRC: LIMS

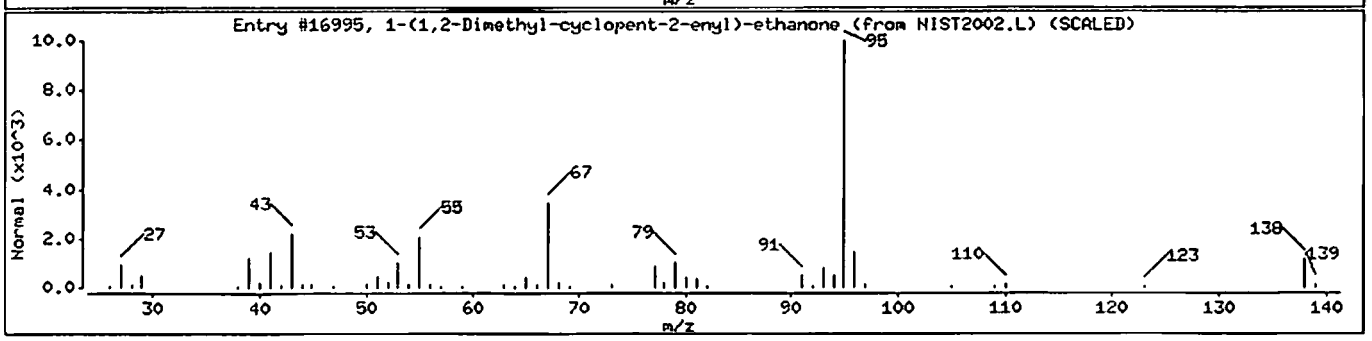
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16375	96	C10H18	138
Cyclohexene, 1-methyl-3-(1-methylethyl)-	13828-31-4	NIST2002.L	16378	91	C10H18	138
1-(1,2-Dimethyl-cyclopent-2-enyl)-ethano	70987-82-5	NIST2002.L	16995	87	C9H14O	138









Data File: \\avogadro\organics\V5.I\111107.B\V5N2735.D

Date : 07-NOV-2011 15:13

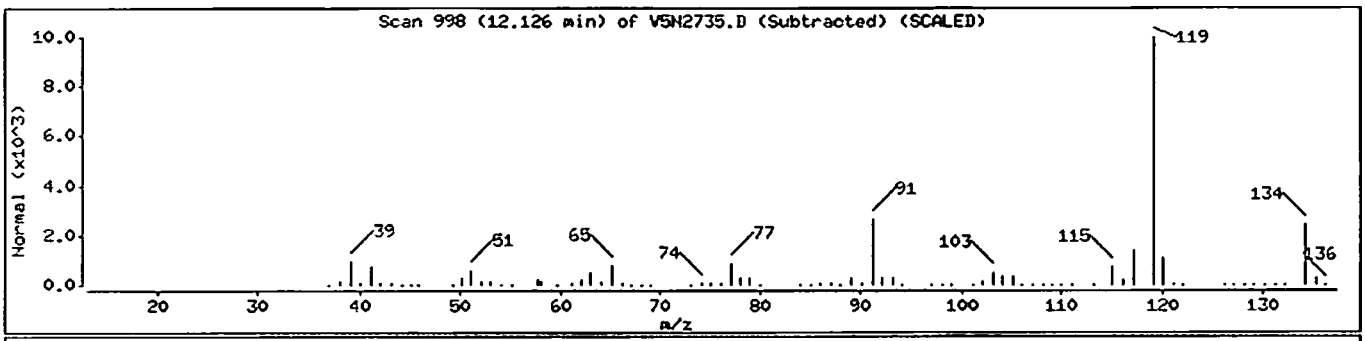
Client ID: H30Q5 Instrument: V5.i

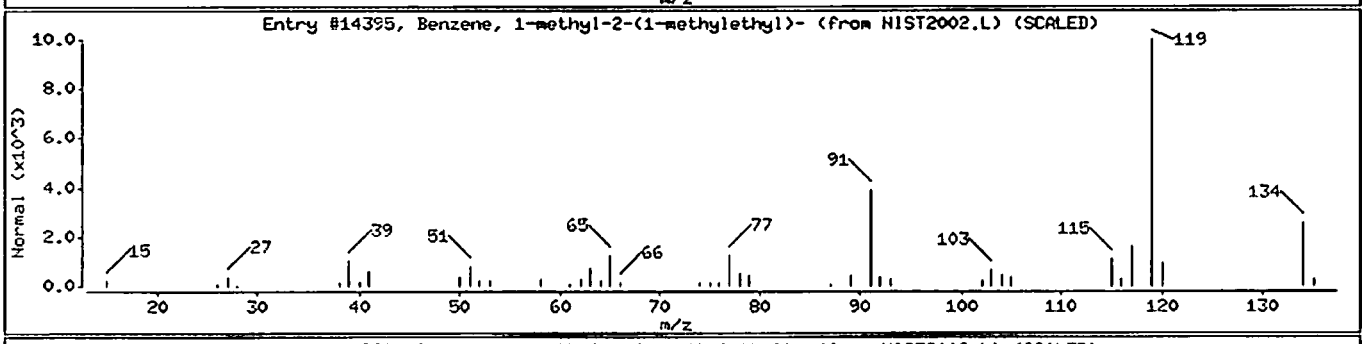
Sample Info: 5C,K2199-04B,,62780

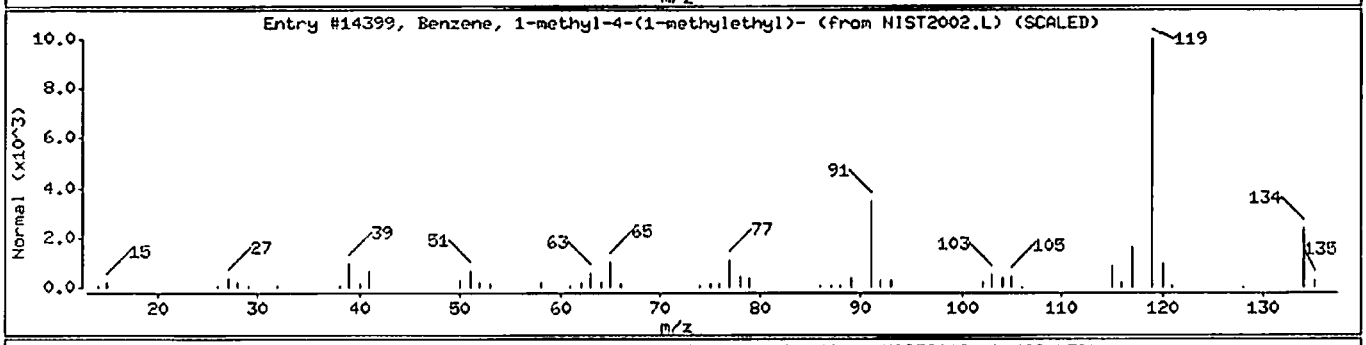
Operator: SRC: LIMS

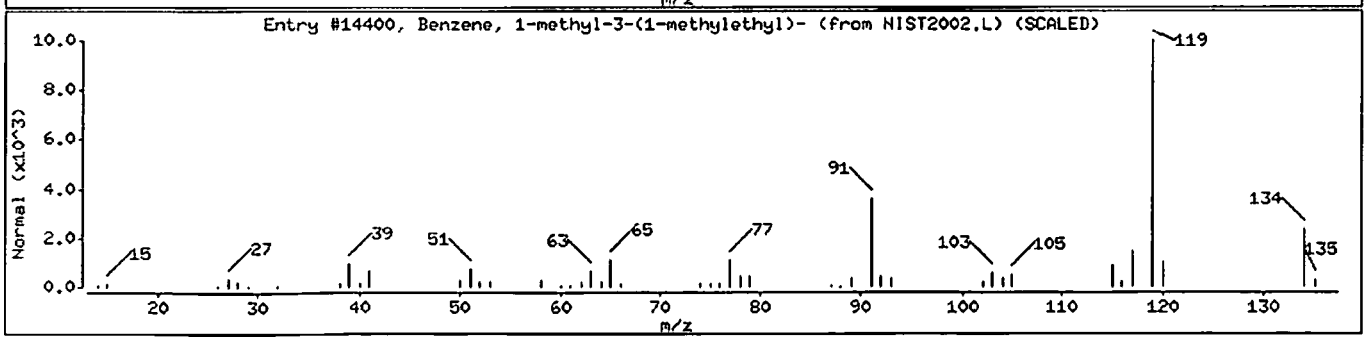
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	96	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	96	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	96	C10H14	134









1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30Q7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-05B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V5N2736.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 68 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	15	U
74-87-3	Chloromethane	15	U
75-01-4	Vinyl chloride	15	U
74-83-9	Bromomethane	15	U
75-00-3	Chloroethane	15	U
75-69-4	Trichlorofluoromethane	15	U
75-35-4	1,1-Dichloroethene	15	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	15	U
67-64-1	Acetone	62	
75-15-0	Carbon disulfide	16	
79-20-9	Methyl acetate	15	U
75-09-2	Methylene chloride	15	U
156-60-5	trans-1,2-Dichloroethene	15	U
1634-04-4	Methyl tert-butyl ether	15	U
75-34-3	1,1-Dichloroethane	15	U
156-59-2	cis-1,2-Dichloroethene	15	U
78-93-3	2-Butanone	30	U
74-97-5	Bromochloromethane	15	U
67-66-3	Chloroform	15	U
71-55-6	1,1,1-Trichloroethane	15	U
110-82-7	Cyclohexane	15	U
56-23-5	Carbon tetrachloride	15	U
71-43-2	Benzene	15	U
107-06-2	1,2-Dichloroethane	15	U
123-91-1	1,4-Dioxane	300	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30Q7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-05B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V5N2736.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 68 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	15	U
108-87-2	Methylcyclohexane	15	U
78-87-5	1,2-Dichloropropane	15	U
75-27-4	Bromodichloromethane	15	U
10061-01-5	cis-1,3-Dichloropropene	15	U
108-10-1	4-Methyl-2-pentanone	30	U
108-88-3	Toluene	15	U
10061-02-6	trans-1,3-Dichloropropene	15	U
79-00-5	1,1,2-Trichloroethane	15	U
127-18-4	Tetrachloroethene	15	U
591-78-6	2-Hexanone	30	U
124-48-1	Dibromochloromethane	15	U
106-93-4	1,2-Dibromoethane	15	U
108-90-7	Chlorobenzene	15	U
100-41-4	Ethylbenzene	15	U
179601-23-1	m,p-Xylene	15	U
95-47-6	o-Xylene	15	U
100-42-5	Styrene	15	U
75-25-2	Bromoform	15	U
98-82-8	Isopropylbenzene	15	U
79-34-5	1,1,2,2-Tetrachloroethane	15	U
541-73-1	1,3-Dichlorobenzene	15	U
106-46-7	1,4-Dichlorobenzene	15	U
95-50-1	1,2-Dichlorobenzene	15	U
96-12-8	1,2-Dibromo-3-chloropropane	15	U
120-82-1	1,2,4-Trichlorobenzene	15	U
87-61-6	1,2,3-Trichlorobenzene	15	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30Q7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-05B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V5N2736.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 68 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	7785-70-8	1R-.alpha.-Pinene	10.570	56	NJ
02	1195-31-9	Cyclohexene, 1-methyl-4-(1-m	11.302	19	NJ
03	5256-65-5	Cyclohexene, 3-methyl-6-(1-m	11.383	160	NJ
04	13466-78-9	3-Carene	11.778	71	NJ
05		Unknown-01	12.068	50	J
06	527-84-4	Benzene, 1-methyl-2-(1-methy	12.126	1300	NJ
07	21368-68-3	Bicyclo[2.2.1]heptan-2-one,	14.507	23	NJ
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2736.D
Lab Smp Id: K2199-05B Client Smp ID: H30Q7
Inj Date : 07-NOV-2011 15:40
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-05B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.100	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.162	2.168	(0.342)	122606	37.1104	36
$ 80 Chloroethane-d5	69	2.591	2.597	(0.410)	92989	43.5132	43(Q)
$ 81 1,1-Dichloroethene-d2	65	3.358	3.364	(0.531)	28639	41.7934	41(Q)
9 Acetone	43	3.451	3.445	(0.546)	12970	20.5172	20
10 Carbon Disulfide	76	3.602	3.596	(0.570)	54976	5.33939	5.2
$ 82 2-Butanone-d5	46	5.077	5.071	(0.803)	94325	102.372	100
$ 83 Chloroform-d	84	5.390	5.385	(0.853)	184960	46.7280	46(Q)
$ 23 1,2-Dichloroethane-d4	65	5.889	5.896	(0.932)	103997	48.6773	48
$ 84 Benzene-d6	84	5.913	5.907	(0.627)	357287	55.9098	55
* 26 1,4-Difluorobenzene	114	6.319	6.325	(1.000)	346972	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.726	6.732	(0.713)	136174	51.5632	51
$ 94 1,4-Dioxane-d8	96	6.923	6.917	(1.096)	19755	971.485	950
$ 33 Toluene-d8	98	7.840	7.835	(0.831)	298023	50.5190	50
$ 86 trans-1,3-Dichloropropene-d4	79	8.119	8.114	(0.861)	79688	40.0769	39
$ 87 2-Hexanone-d5	63	8.584	8.578	(0.910)	52873	104.063	100(Q)
* 42 Chlorobenzene-d5	117	9.431	9.426	(1.000)	241337	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.930	10.924	(1.159)	82762	47.8794	47
* 78 1,4-Dichlorobenzene-d4	152	12.172	12.167	(1.000)	69884	50.0000	
$ 90 1,2-Dichlorobenzene-d4	152	12.637	12.631	(1.038)	65650	50.2860	49(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D
Report Date: 09-Nov-2011 08:00

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2736.D
Lab Smp Id: K2199-05B Client Smp ID: H30Q7
Inj Date : 07-NOV-2011 15:40
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-05B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.100	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 42 Chlorobenzene-d5	9.432	728293	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
1R-.alpha.-Pinene				CAS #: 7785-70-8			
10.570	269281	18.4870829	18	95	NIST2002.L	15163	42
Cyclohexene, 1-methyl-4-(1-methylethyl)-				CAS #: 1195-31-9			
11.302	93368	6.41007996	6.3	93	NIST2002.L	16395	42
Cyclohexene, 3-methyl-6-(1-methylethyl)-				CAS #: 5256-65-5			
11.383	766222	52.6038902	52	96	NIST2002.L	16375	42
3-Carene				CAS #: 13466-78-9			
11.778	340517	23.3777332	23	96	NIST2002.L	15125	42
Unknown				CAS #:			
12.068	240027	16.4787161	16	0		0	42

Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D
Report Date: 09-Nov-2011 08:00

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Benzene, 1-methyl-2-(1-methylethyl)-				CAS #: 527-84-4			
12.126	6303181	432.736202	420	96	NIST2002.L	14395	42
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet				CAS #: 21368-68-3			
14.507	111798	7.67535562	7.5	94	NIST2002.L	24227	42

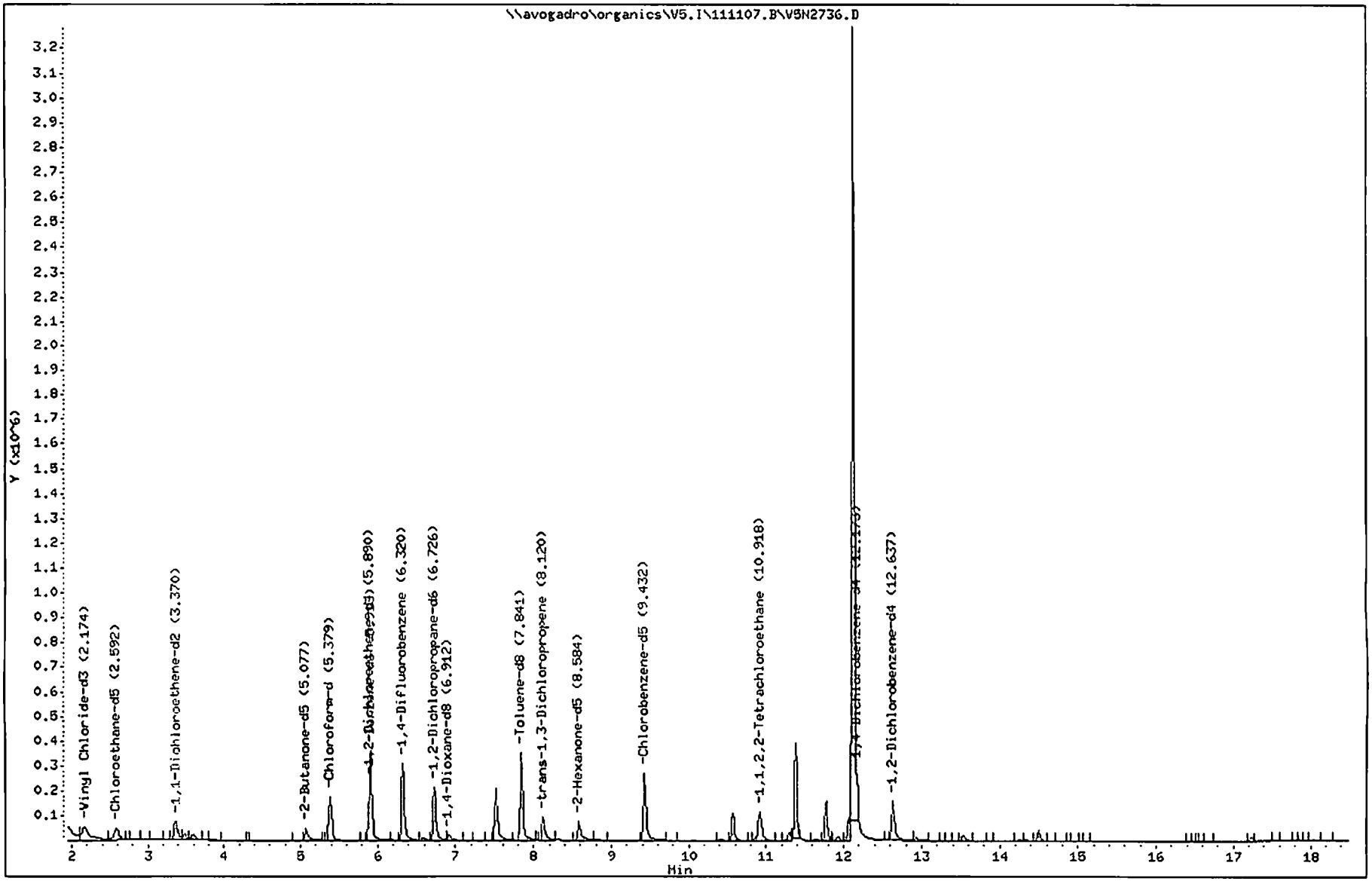
Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D
Date : 07-NOV-2011 15:40
Client ID: H30Q7
Sample Info: 5G,K2199-05B,,62780

Instrument: V5.i

Operator: SRC: LIMS

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D

Date : 07-NOV-2011 15:40

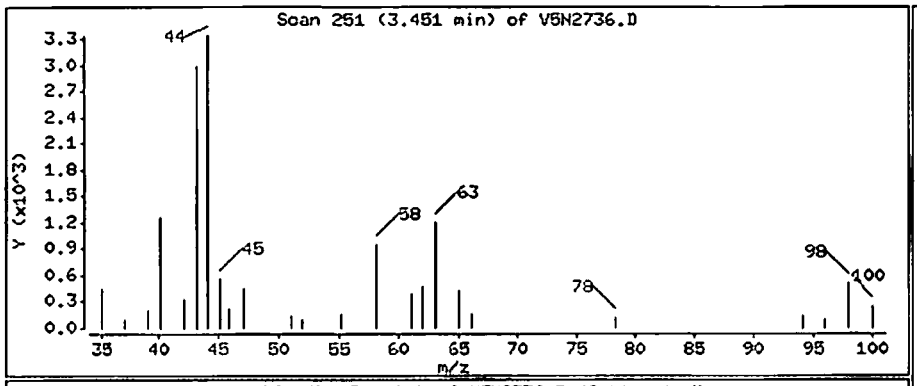
Client ID: H30Q7 Instrument: V5.I

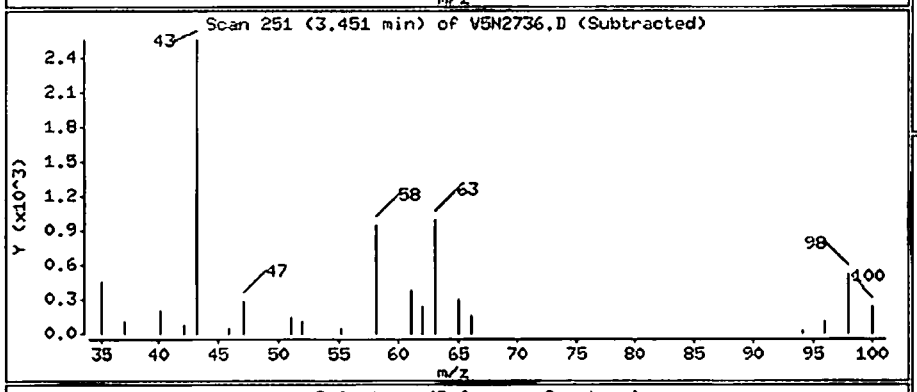
Sample Info: 5G,K2199-05B,,62780

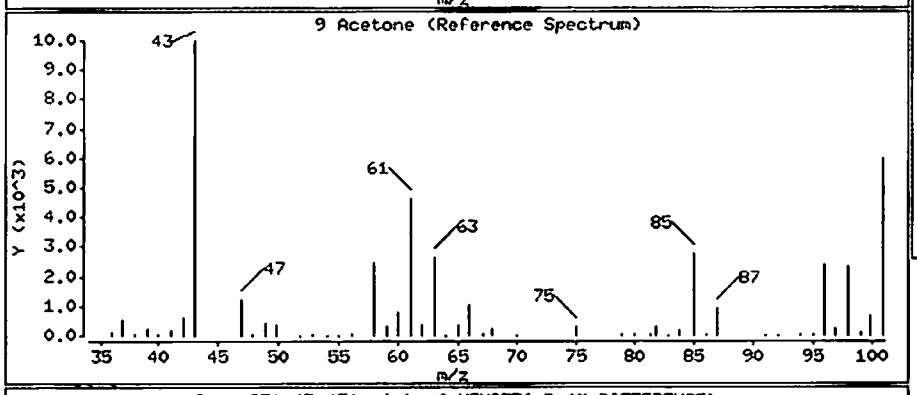
Operator: SRC: LIMS

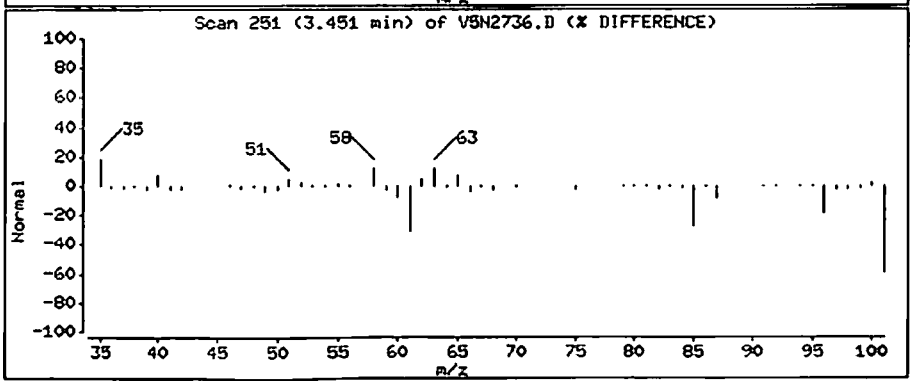
Column phase: DB-624 Column diameter: 0.25

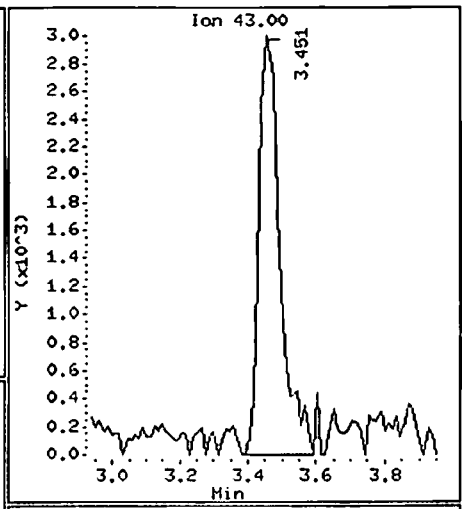
9 Acetone Concentration: 20 ug/Kg

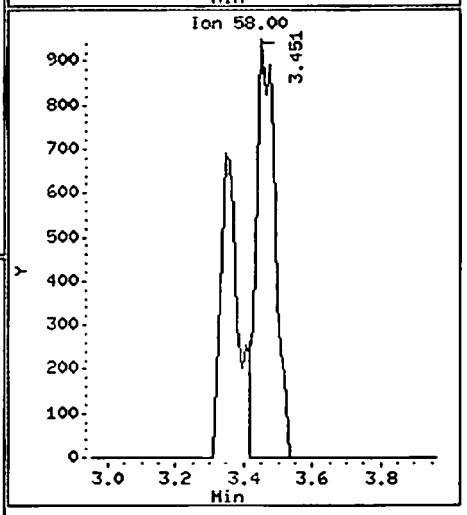












Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D

Date : 07-NOV-2011 15:40

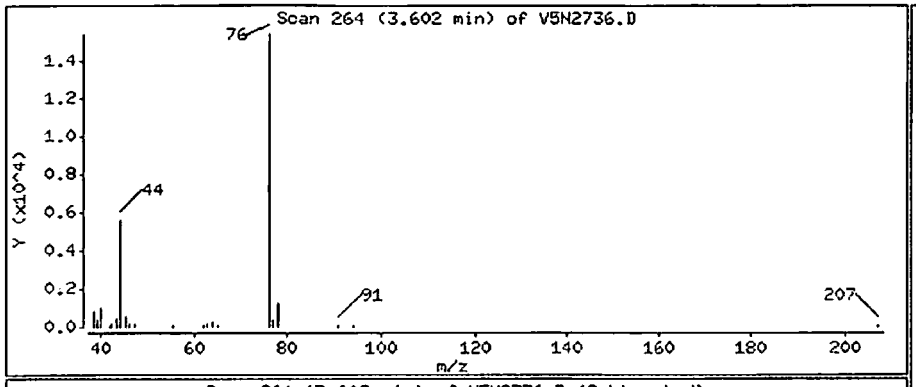
Client ID: H30Q7 Instrument: V5.i

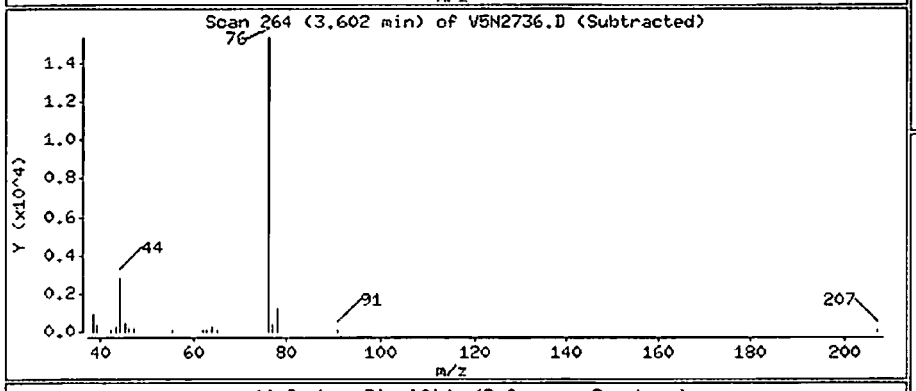
Sample Info: 5G,K2199-05B,,62780

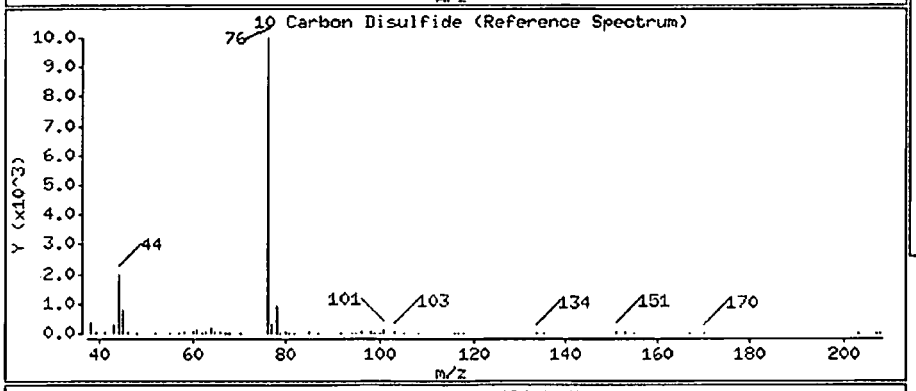
Operator: SRC: LIMS

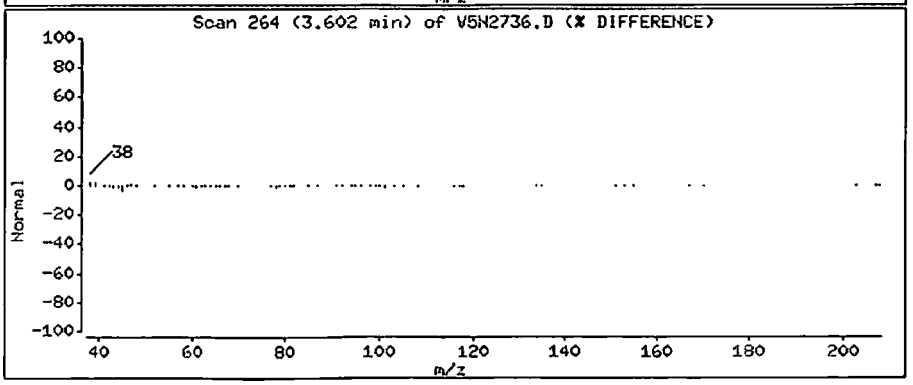
Column phase: DB-624 Column diameter: 0.25

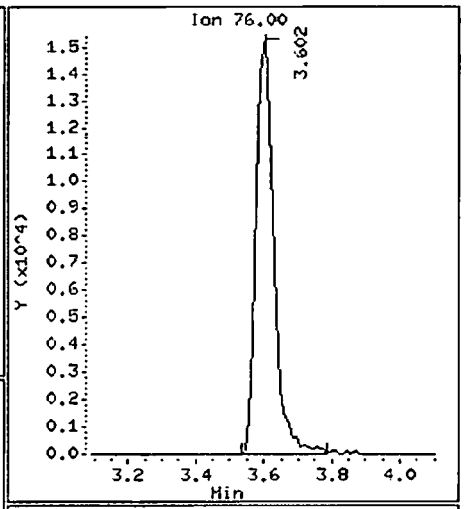
10 Carbon Disulfide Concentration: 5.2 ug/Kg

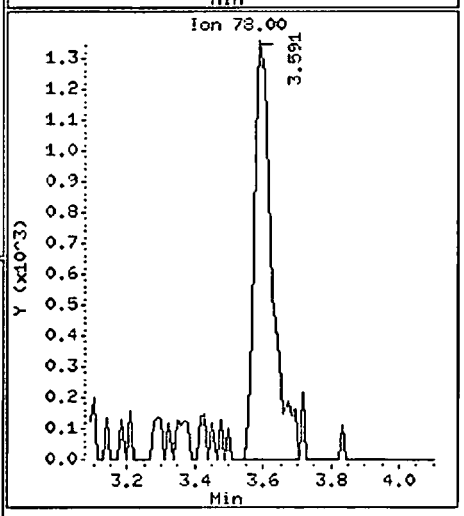












Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D

Date : 07-NOV-2011 15:40

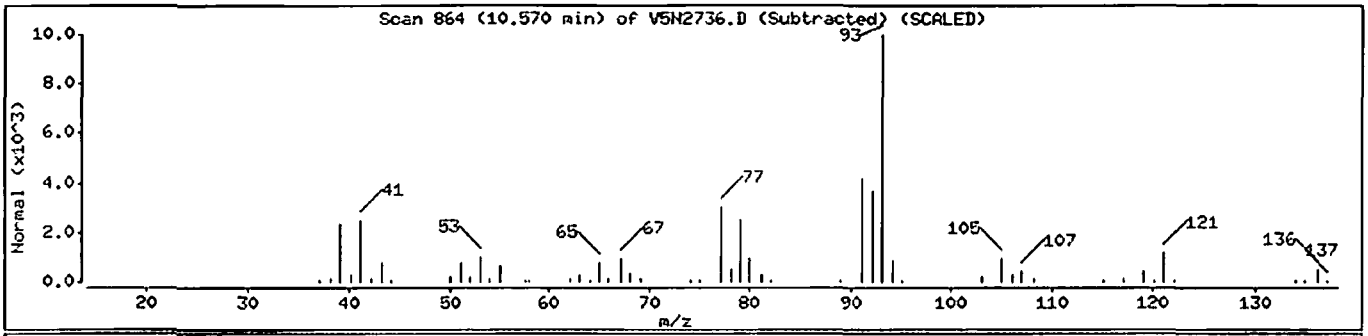
Client ID: H30Q7 Instrument: V5.i

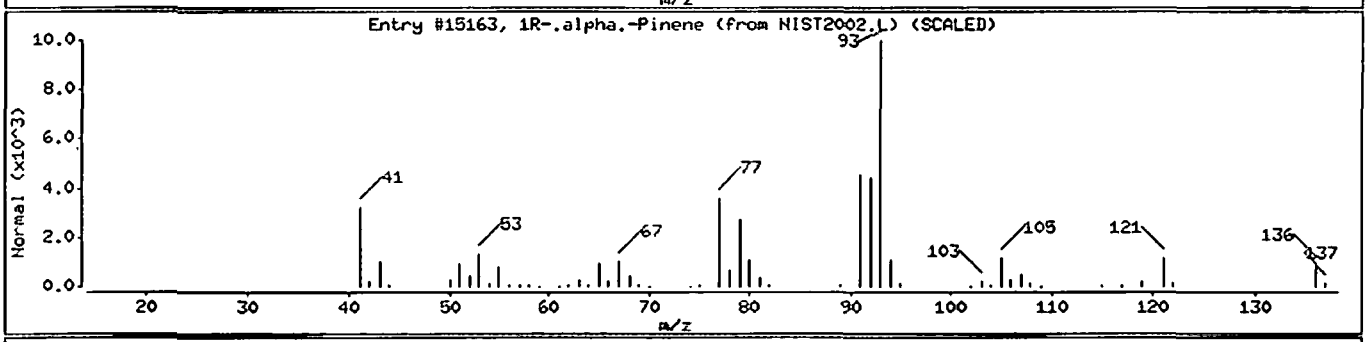
Sample Info: SC,K2199-05B,,62780

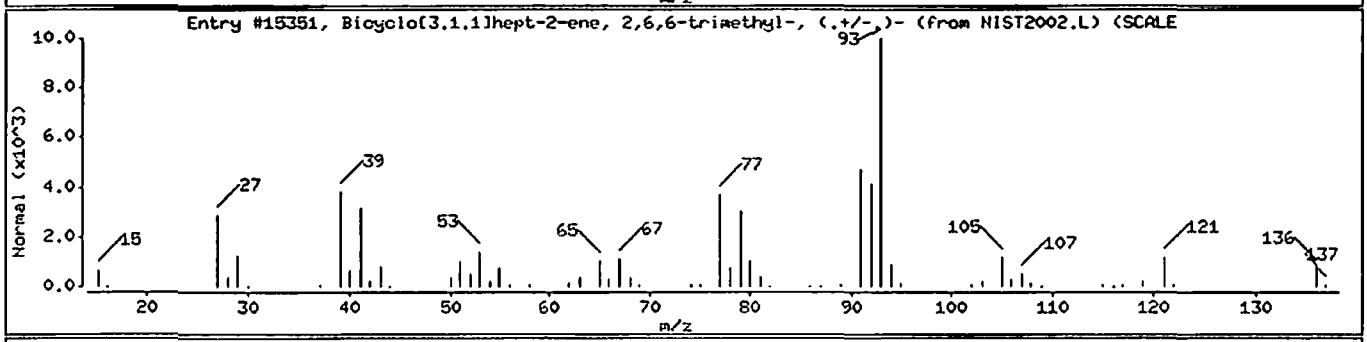
Operator: SRC: LIMS

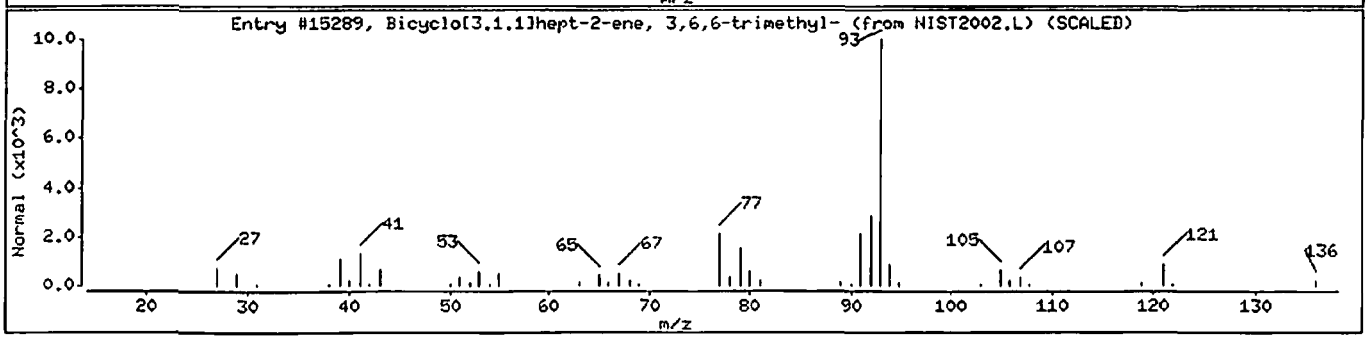
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-.alpha.-Pinene	7785-70-8	NIST2002.L	15163	95	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST2002.L	15351	95	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 3,6,6-trimethy	4889-83-2	NIST2002.L	15289	91	C10H16	136









Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D

Date : 07-NOV-2011 15:40

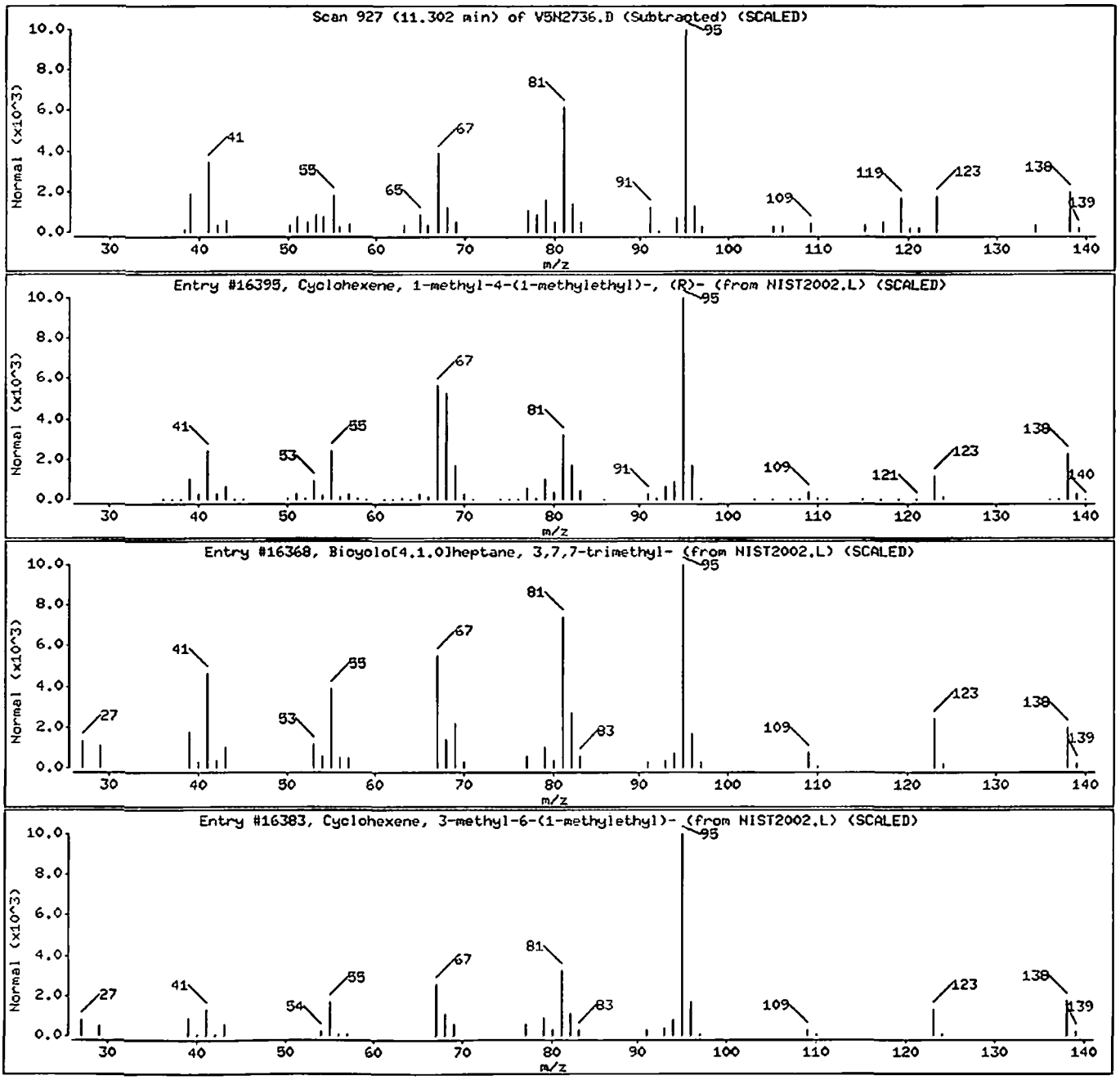
Client ID: H30Q7 Instrument: V5.i

Sample Info: 5C,K2199-05B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 1-methyl-4-(1-methylethyl)-	1195-31-9	NIST2002.L	16395	93	C10H18	138
Bicyclo[4.1.0]heptane, 3,7,7-trimethyl-	554-59-6	NIST2002.L	16368	91	C10H18	138
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16383	90	C10H18	138



Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D

Date : 07-NOV-2011 15:40

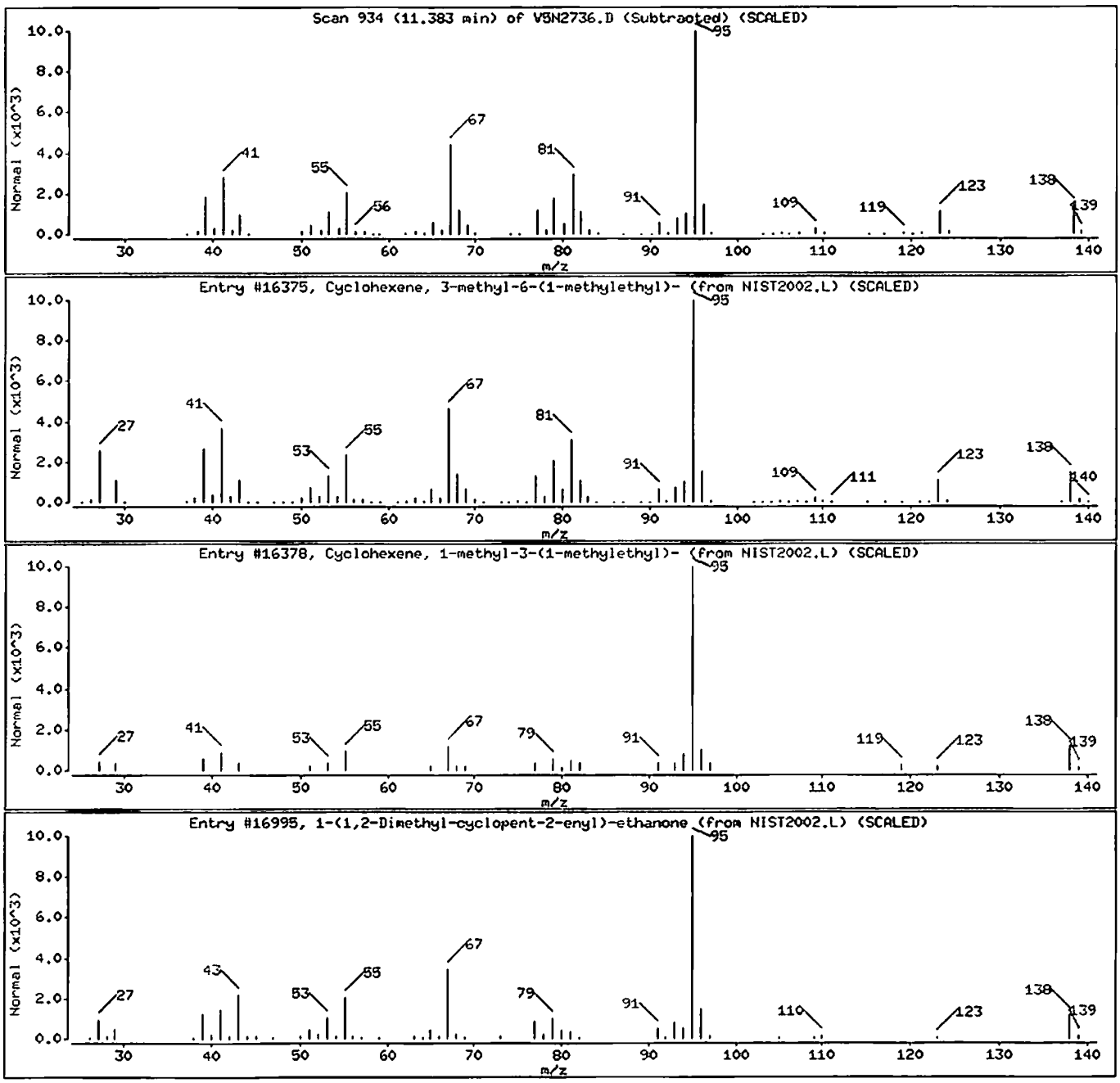
Client ID: H30Q7 Instrument: V5.i

Sample Info: 5G,K2199-05B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16375	96	C10H18	138
Cyclohexene, 1-methyl-3-(1-methylethyl)-	13828-31-4	NIST2002.L	16378	91	C10H18	138
1-(1,2-Dimethyl-cyclopent-2-enyl)-ethano	70987-82-5	NIST2002.L	16995	87	C9H14O	138



Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D

Date : 07-NOV-2011 15:40

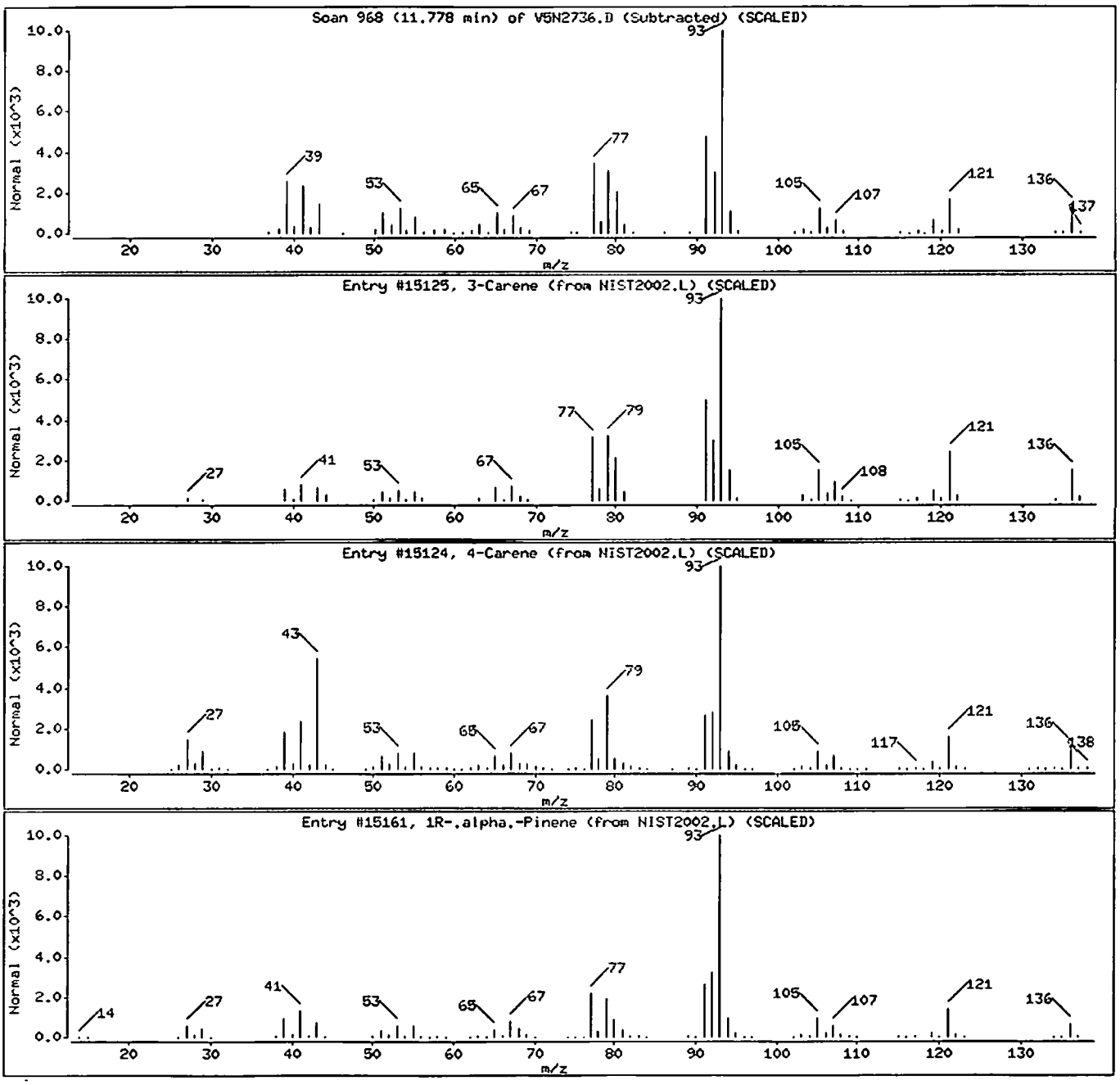
Client ID: H3007 Instrument: V5.i

Sample Info: 5C,K2199-05B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	NIST2002.L	15125	96	C10H16	136
4-Carene	1000150-36-1	NIST2002.L	15124	93	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST2002.L	15161	93	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D

Date : 07-NOV-2011 15:40

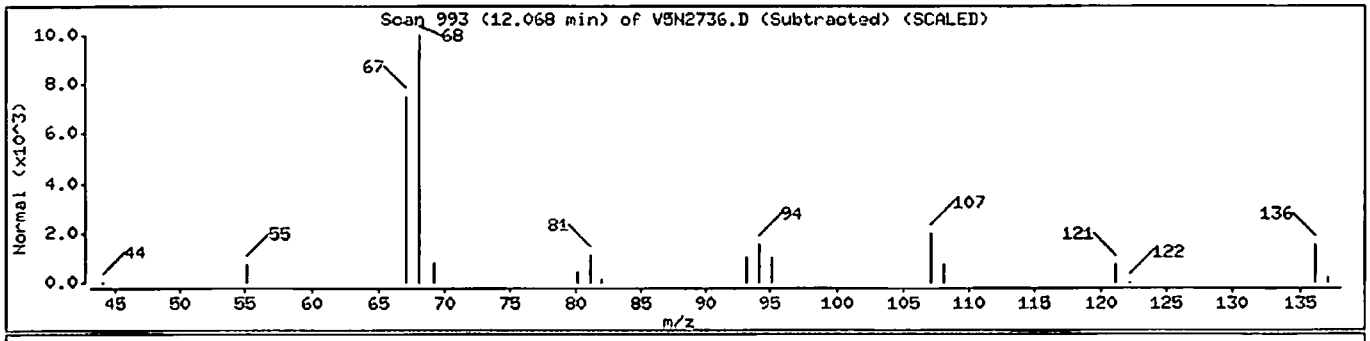
Client ID: H30Q7 Instrument: V5.i

Sample Info: 5G,K2199-05B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D

Date : 07-NOV-2011 15:40

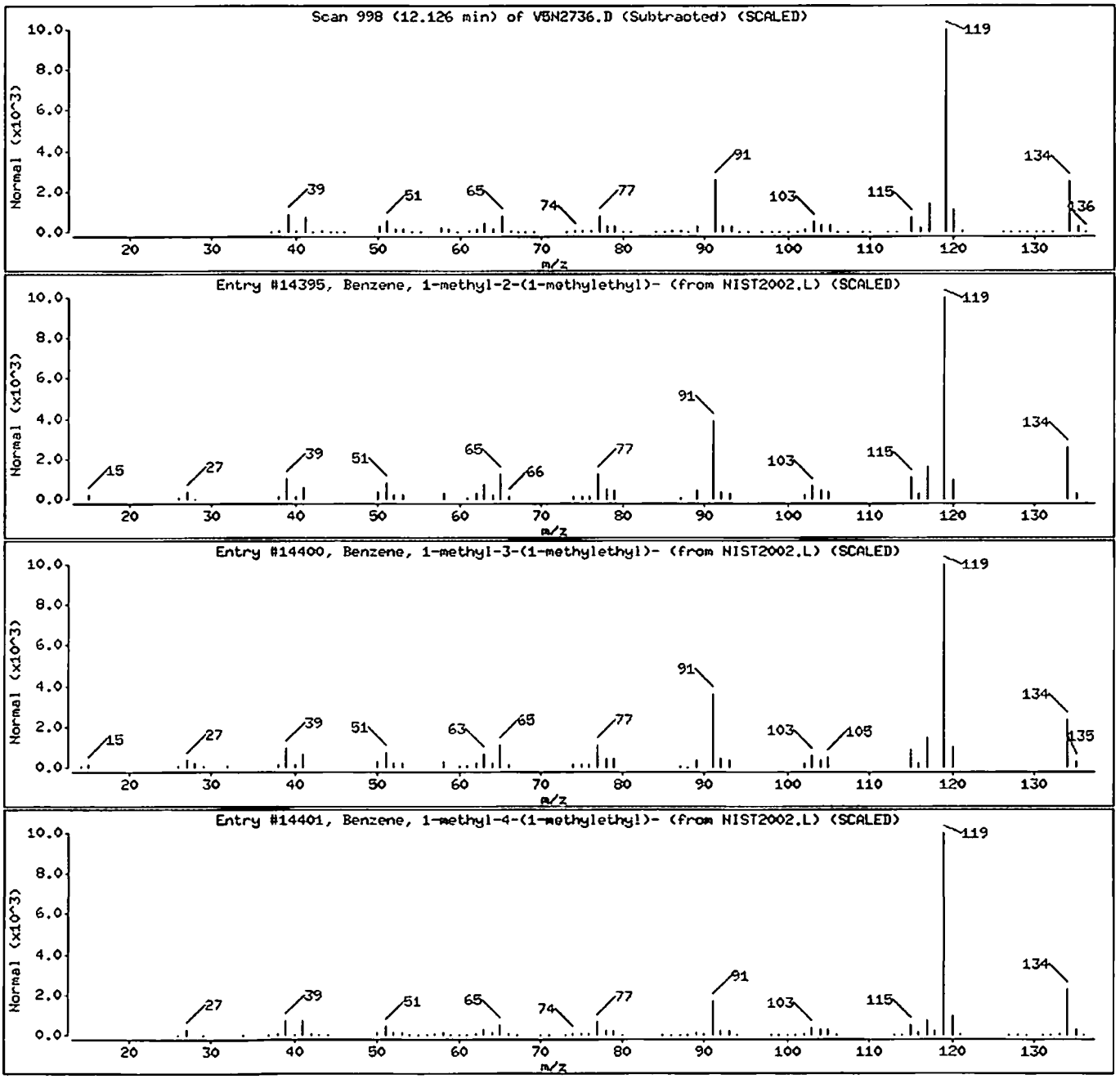
Client ID: H30Q7 Instrument: V5.i

Sample Info: 5G,K2199-05B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	96	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	95	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14401	94	C10H14	134



Data File: \\avogadro\organics\V5.I\111107.B\V5N2736.D

Date : 07-NOV-2011 15:40

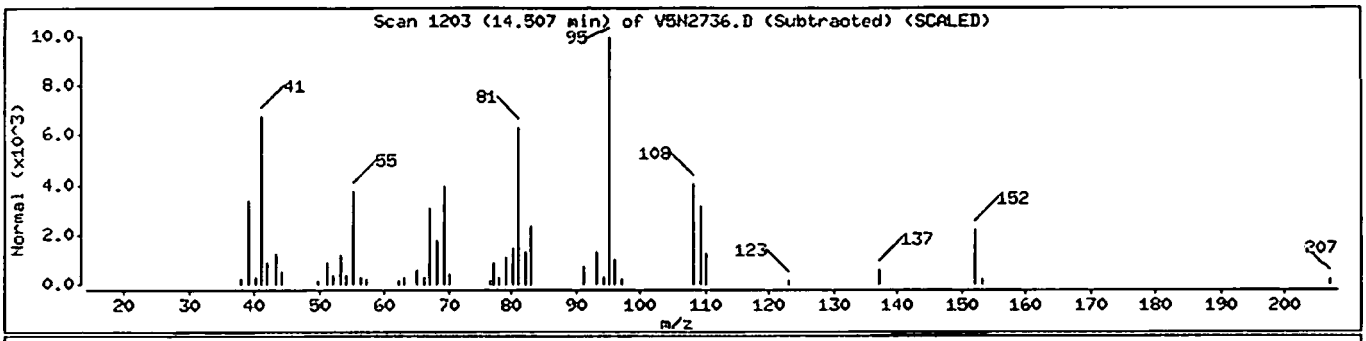
Client ID: H30Q7 Instrument: V5.i

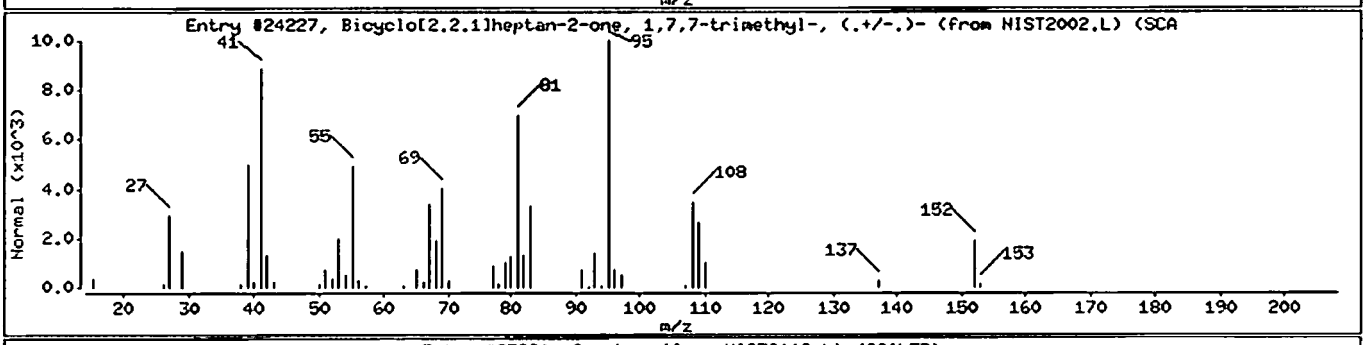
Sample Info: 5C,K2199-05B,,62780

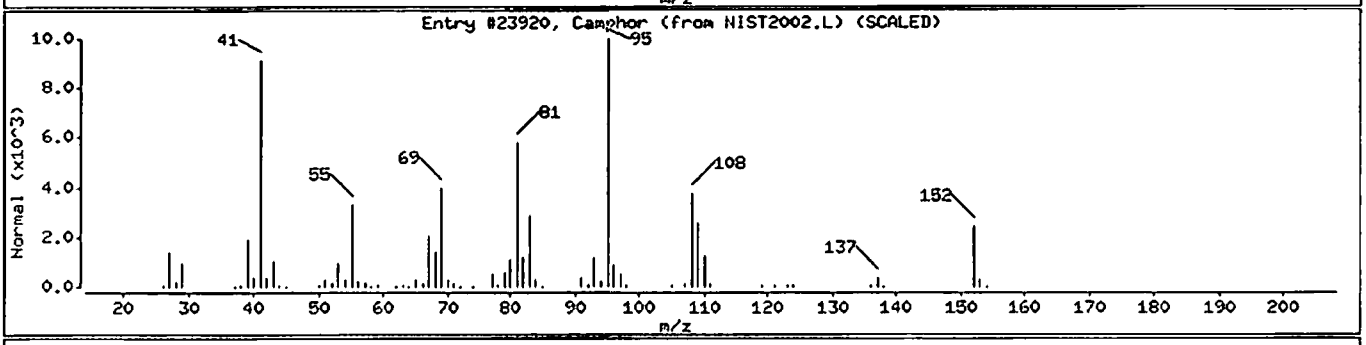
Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet	21368-68-3	NIST2002.L	24227	94	C10H16O	152
Camphor	76-22-2	NIST2002.L	23920	94	C10H16O	152







1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-06B

Sample wt/vol: 5.20 (g/mL) G Lab File ID: V5N2737.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 31 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.0	U
74-87-3	Chloromethane	7.0	U
75-01-4	Vinyl chloride	7.0	U
74-83-9	Bromomethane	7.0	U
75-00-3	Chloroethane	7.0	U
75-69-4	Trichlorofluoromethane	7.0	U
75-35-4	1,1-Dichloroethene	7.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.0	U
67-64-1	Acetone	14	U
75-15-0	Carbon disulfide	7.0	U
79-20-9	Methyl acetate	7.0	U
75-09-2	Methylene chloride	7.0	U
156-60-5	trans-1,2-Dichloroethene	7.0	U
1634-04-4	Methyl tert-butyl ether	7.0	U
75-34-3	1,1-Dichloroethane	7.0	U
156-59-2	cis-1,2-Dichloroethene	7.0	U
78-93-3	2-Butanone	14	U
74-97-5	Bromochloromethane	7.0	U
67-66-3	Chloroform	34	
71-55-6	1,1,1-Trichloroethane	7.0	U
110-82-7	Cyclohexane	7.0	U
56-23-5	Carbon tetrachloride	7.0	U
71-43-2	Benzene	7.0	U
107-06-2	1,2-Dichloroethane	7.0	U
123-91-1	1,4-Dioxane	140	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-06B

Sample wt/vol: 5.20 (g/mL) G Lab File ID: V5N2737.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 31 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	7.0	U
108-87-2	Methylcyclohexane	7.0	U
78-87-5	1,2-Dichloropropane	7.0	U
75-27-4	Bromodichloromethane	7.0	U
10061-01-5	cis-1,3-Dichloropropene	7.0	U
108-10-1	4-Methyl-2-pentanone	14	U
108-88-3	Toluene	7.0	U
10061-02-6	trans-1,3-Dichloropropene	7.0	U
79-00-5	1,1,2-Trichloroethane	7.0	U
127-18-4	Tetrachloroethene	7.0	U
591-78-6	2-Hexanone	14	U
124-48-1	Dibromochloromethane	7.0	U
106-93-4	1,2-Dibromoethane	7.0	U
108-90-7	Chlorobenzene	7.0	U
100-41-4	Ethylbenzene	7.0	U
179601-23-1	m,p-Xylene	7.0	U
95-47-6	o-Xylene	7.0	U
100-42-5	Styrene	7.0	U
75-25-2	Bromoform	7.0	U
98-82-8	Isopropylbenzene	7.0	U
79-34-5	1,1,2,2-Tetrachloroethane	7.0	U
541-73-1	1,3-Dichlorobenzene	7.0	U
106-46-7	1,4-Dichlorobenzene	7.0	U
95-50-1	1,2-Dichlorobenzene	7.0	U
96-12-8	1,2-Dibromo-3-chloropropane	7.0	U
120-82-1	1,2,4-Trichlorobenzene	7.0	U
87-61-6	1,2,3-Trichlorobenzene	7.0	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30R2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-06B

Sample wt/vol: 5.20 (g/mL) G Lab File ID: V5N2737.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 31 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	6.570	44	J
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2737.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2737.D
Lab Smp Id: K2199-06B Client Smp ID: H30R2
Inj Date : 07-NOV-2011 16:07
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-06B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.200	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.168	2.168	(0.343)	123009	37.0682	36
$ 80 Chloroethane-d5	69	2.586	2.597	(0.410)	87803	40.9054	39(Q)
$ 81 1,1-Dichloroethene-d2	65	3.353	3.364	(0.531)	28784	41.8199	40(Q)
$ 82 2-Butanone-d5	46	5.071	5.071	(0.803)	78676	85.0115	82
$ 83 Chloroform-d	84	5.385	5.385	(0.853)	78189	19.6665	19(R)
19 Chloroform	83	5.397	5.396	(0.855)	108418	24.4208	23
$ 23 1,2-Dichloroethane-d4	65	5.896	5.896	(0.934)	108661	50.6362	49
$ 84 Benzene-d6	84	5.908	5.907	(0.627)	342260	46.7222	45
* 26 1,4-Difluorobenzene	114	6.314	6.325	(1.000)	348508	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.732	6.732	(0.714)	137369	45.3765	44
$ 94 1,4-Dioxane-d8	96	6.918	6.917	(1.096)	24227	1186.15	1100
$ 33 Toluene-d8	98	7.835	7.835	(0.831)	303039	44.8125	43
$ 86 trans-1,3-Dichloropropene-d4	79	8.114	8.114	(0.861)	107140	47.0055	45
$ 87 2-Hexanone-d5	63	8.579	8.578	(0.910)	39409	67.6635	65(Q)
* 42 Chlorobenzene-d5	117	9.426	9.426	(1.000)	276648	50.0000	
* 78 1,4-Dichlorobenzene-d4	152	12.179	12.167	(1.000)	97783	50.0000	
$ 90 1,2-Dichlorobenzene-d4	152	12.632	12.631	(1.037)	85528	46.8204	45(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2737.D
Report Date: 09-Nov-2011 08:00

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2737.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2737.D
Lab Smp Id: K2199-06B Client Smp ID: H30R2
Inj Date : 07-NOV-2011 16:07
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-06B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.200	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 26 1,4-Difluorobenzene	6.315	771696	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
6.570	490389	31.7734461	31	0		0	26

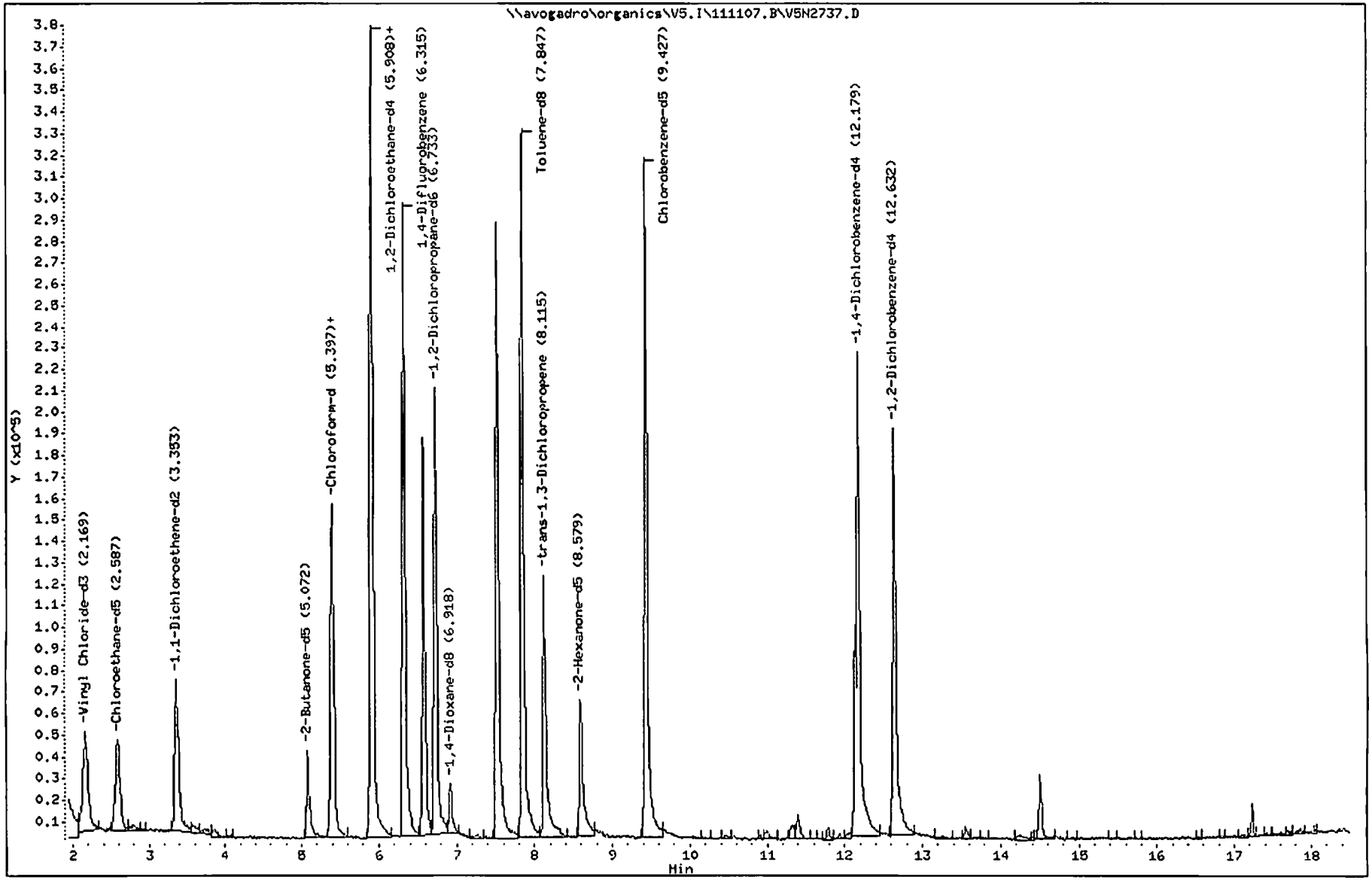
Data File: \\avogadro\organics\V5.I\111107.B\V5N2737.D
Date : 07-NOV-2011 16:07
Client ID: H30R2
Sample Info: 5C,K2199-06B,,62780

Instrument: V5.i

Operator: SRC: LIHS

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2737.D

Date : 07-NOV-2011 16:07

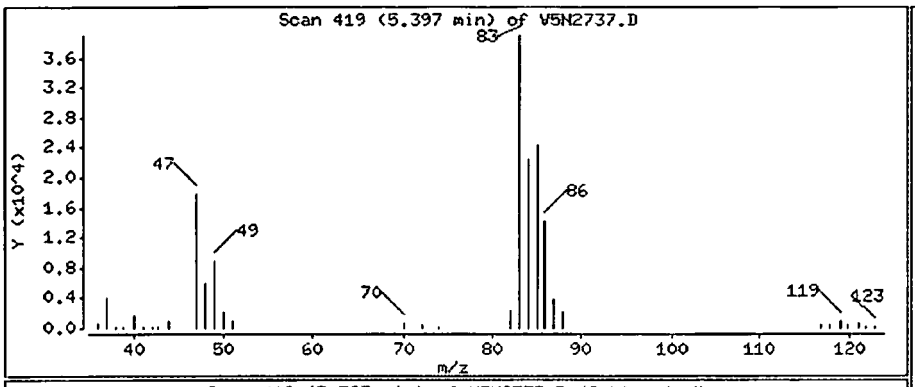
Client ID: H30R2 Instrument: V5.i

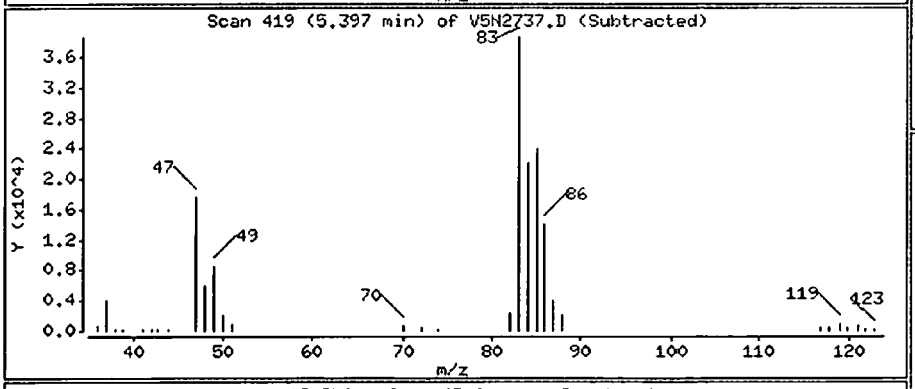
Sample Info: 5G,K2199-06B,,62780

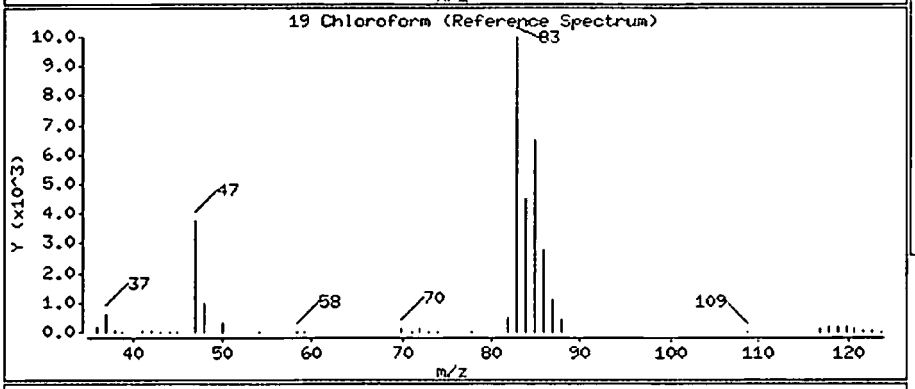
Operator: SRC: LIHS

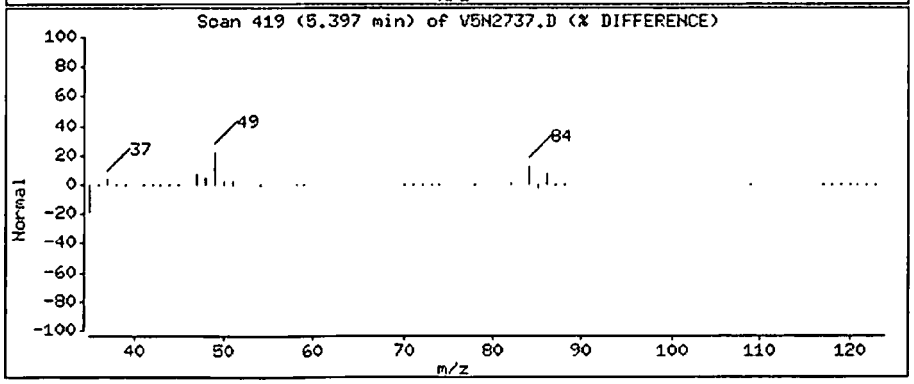
Column phase: DB-624 Column diameter: 0.25

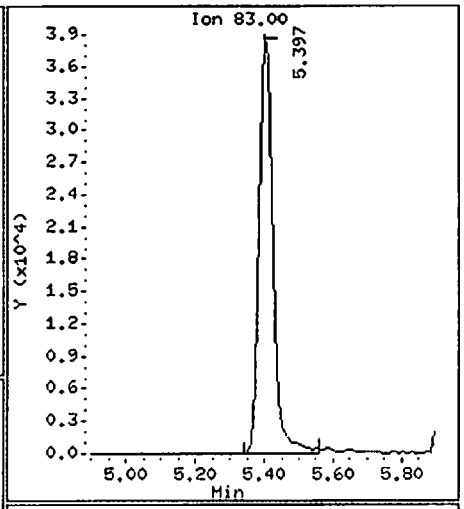
19 Chloroform Concentration: 23 ug/Kg

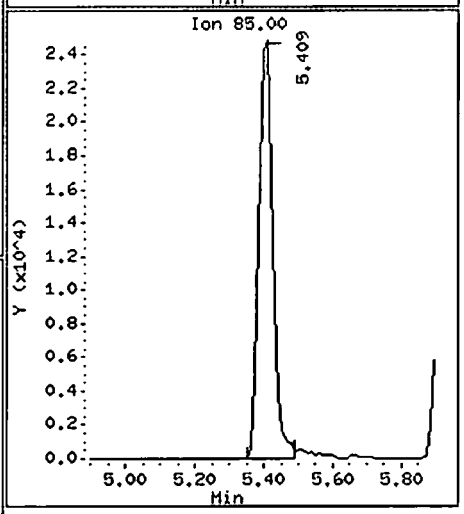












Data File: \\avogadro\organics\V5.I\111107.B\V5N2737.D

Date : 07-NOV-2011 16:07

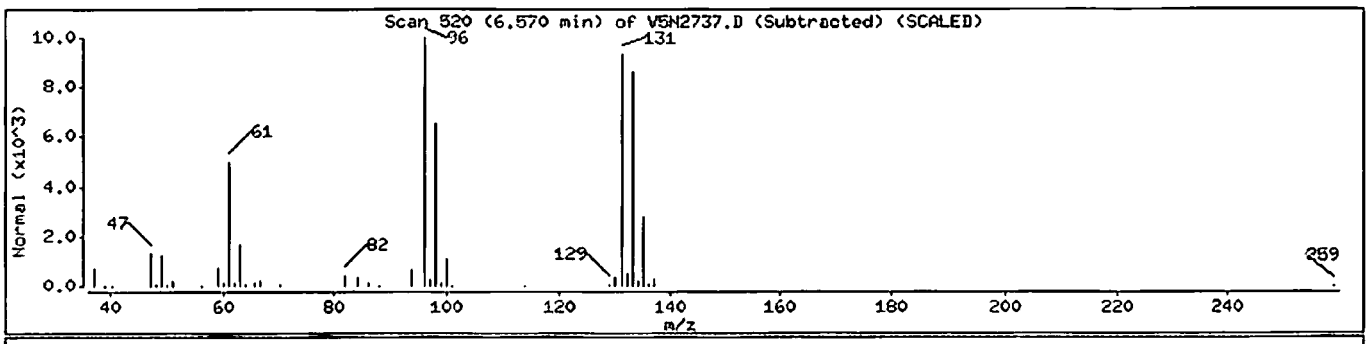
Client ID: H30R2 Instrument: V5.i

Sample Info: 5G,K2199-06B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-07B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2738.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 63 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	14	U
74-87-3	Chloromethane	14	U
75-01-4	Vinyl chloride	14	U
74-83-9	Bromomethane	14	U
75-00-3	Chloroethane	14	U
75-69-4	Trichlorofluoromethane	14	U
75-35-4	1,1-Dichloroethene	14	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	14	U
67-64-1	Acetone	120	
75-15-0	Carbon disulfide	17	
79-20-9	Methyl acetate	14	U
75-09-2	Methylene chloride	14	U
156-60-5	trans-1,2-Dichloroethene	14	U
1634-04-4	Methyl tert-butyl ether	14	U
75-34-3	1,1-Dichloroethane	14	U
156-59-2	cis-1,2-Dichloroethene	14	U
78-93-3	2-Butanone	27	U
74-97-5	Bromochloromethane	14	U
67-66-3	Chloroform	5.9	J
71-55-6	1,1,1-Trichloroethane	14	U
110-82-7	Cyclohexane	14	U
56-23-5	Carbon tetrachloride	14	U
71-43-2	Benzene	14	U
107-06-2	1,2-Dichloroethane	14	U
123-91-1	1,4-Dioxane	270	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-07B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2738.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 63 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	14	U
108-87-2	Methylcyclohexane	14	U
78-87-5	1,2-Dichloropropane	14	U
75-27-4	Bromodichloromethane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
108-10-1	4-Methyl-2-pentanone	27	U
108-88-3	Toluene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
79-00-5	1,1,2-Trichloroethane	14	U
127-18-4	Tetrachloroethene	14	U
591-78-6	2-Hexanone	27	U
124-48-1	Dibromochloromethane	14	U
106-93-4	1,2-Dibromoethane	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
179601-23-1	m,p-Xylene	14	U
95-47-6	o-Xylene	14	U
100-42-5	Styrene	14	U
75-25-2	Bromoform	14	U
98-82-8	Isopropylbenzene	36	
79-34-5	1,1,2,2-Tetrachloroethane	14	U
541-73-1	1,3-Dichlorobenzene	14	U
106-46-7	1,4-Dichlorobenzene	14	U
95-50-1	1,2-Dichlorobenzene	14	U
96-12-8	1,2-Dibromo-3-chloropropane	14	U
120-82-1	1,2,4-Trichlorobenzene	14	U
87-61-6	1,2,3-Trichlorobenzene	14	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30R3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-07B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2738.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 63 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	79-92-5	Camphene	10.901	380	NJ
02	5256-65-5	Cyclohexene, 3-methyl-6-(1-m	11.296	18	NJ
03	5256-65-5	Cyclohexene, 3-methyl-6-(1-m	11.389	830	NJ
04	5256-65-5	Cyclohexene, 3-methyl-6-(1-m	11.633	20	NJ
05	13466-78-9	3-Carene	11.772	730	NJ
06	1195-31-9	Cyclohexene, 1-methyl-4-(1-m	11.935	50	NJ
07	5989-27-5	D-Limonene	12.062	300	NJ
08	535-77-3	Benzene, 1-methyl-3-(1-methy	12.132	1500	NJ
09	99-85-4	1,4-Cyclohexadiene, 1-methyl	12.480	20	NJ
10	586-62-9	Cyclohexene, 1-methyl-4-(1-m	12.922	61	NJ
11	475-20-7	1,4-Methanoazulene, decahydr	17.230	23	NJ
	E966796[1]	Total Alkanes	N/A	26	J

[1]EPA-designated Registry Number.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2738.D
Lab Smp Id: K2199-07B Client Smp ID: H30R3
Inj Date : 07-NOV-2011 16:34
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-07B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.168	2.168	(0.343)	121719	36.4350	36
$ 80 Chloroethane-d5	69	2.586	2.597	(0.410)	90380	41.8253	42(Q)
$ 81 1,1-Dichloroethene-d2	65	3.364	3.364	(0.533)	29925	43.1877	43(Q)
9 Acetone	43	3.457	3.445	(0.548)	28132	44.0104	44
10 Carbon Disulfide	76	3.596	3.596	(0.570)	62872	6.03882	6.0
$ 82 2-Butanone-d5	46	5.071	5.071	(0.803)	98021	105.208	110
$ 83 Chloroform-d	84	5.384	5.385	(0.853)	175404	43.8243	44(Q)
19 Chloroform	83	5.396	5.396	(0.855)	9722	2.17525	2.2
$ 23 1,2-Dichloroethane-d4	65	5.895	5.896	(0.934)	104545	48.3933	48(Q)
$ 84 Benzene-d6	84	5.907	5.907	(0.627)	345770	53.6604	54
* 26 1,4-Difluorobenzene	114	6.313	6.325	(1.000)	350847	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.732	6.732	(0.714)	134140	50.3733	50
$ 94 1,4-Dioxane-d8	96	6.917	6.917	(1.096)	21369	1039.25	1000
$ 33 Toluene-d8	98	7.846	7.835	(0.832)	285634	48.0187	48
$ 86 trans-1,3-Dichloropropene-d4	79	8.125	8.114	(0.862)	98042	48.9000	49
$ 87 2-Hexanone-d5	63	8.578	8.578	(0.910)	53708	104.833	100(Q)
* 42 Chlorobenzene-d5	117	9.426	9.426	(1.000)	243348	50.0000	
49 Isopropylbenzene	105	10.575	10.599	(1.122)	99905	13.0545	13(Q)
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.924	10.924	(1.159)	68521	39.3131	39
* 78 1,4-Dichlorobenzene-d4	152	12.166	12.167	(1.000)	78751	50.0000	(Q)
$ 90 1,2-Dichlorobenzene-d4	152	12.631	12.631	(1.038)	65804	44.7287	45(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D
Report Date: 09-Nov-2011 08:00

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2738.D
Lab Smp Id: K2199-07B Client Smp ID: H30R3
Inj Date : 07-NOV-2011 16:34
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-07B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 42 Chlorobenzene-d5	9.426	699406	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Cyclic Alkane					CAS #:		
10.402	131167	9.37703026	9.4	0		0	42
Camphene					CAS #: 79-92-5		
10.901	1941602	138.803523	140	98	NIST2002.L	15134	42
Cyclohexene, 3-methyl-6-(1-methylethyl)-					CAS #: 5256-65-5		
11.296	92324	6.60016029	6.6	86	NIST2002.L	16383	42
Cyclohexene, 3-methyl-6-(1-methylethyl)-					CAS #: 5256-65-5		
11.389	4260062	304.548336	300	96	NIST2002.L	16375	42
Cyclohexene, 3-methyl-6-(1-methylethyl)-					CAS #: 5256-65-5		
11.633	103981	7.43354325	7.4	90	NIST2002.L	16375	42

Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D
Report Date: 09-Nov-2011 08:00

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
3-Carene				CAS #: 13466-78-9			
11.772	3711677	265.344772	270	97	NIST2002.L	15125	42
Cyclohexene, 1-methyl-4-(1-methylethyl)-				CAS #: 1195-31-9			
11.935	253402	18.1155251	18	97	NIST2002.L	16395	42
D-Limonene				CAS #: 5989-27-5			
12.062	1512158	108.102931	110	95	NIST2002.L	15136	42
Benzene, 1-methyl-3-(1-methylethyl)-				CAS #: 535-77-3			
12.132	7752588	554.226170	550	95	NIST2002.L	14400	42
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl				CAS #: 99-85-4			
12.481	101343	7.24492696	7.2	94	NIST2002.L	15330	42
Cyclohexene, 1-methyl-4-(1-methylethylid				CAS #: 586-62-9			
12.922	309584	22.1319155	22	96	NIST2002.L	15314	42
1,4-Methanoazulene, decahydro-4,8,8-trim				CAS #: 475-20-7			
17.230	119868	8.56924492	8.6	99	NIST2002.L	58862	42

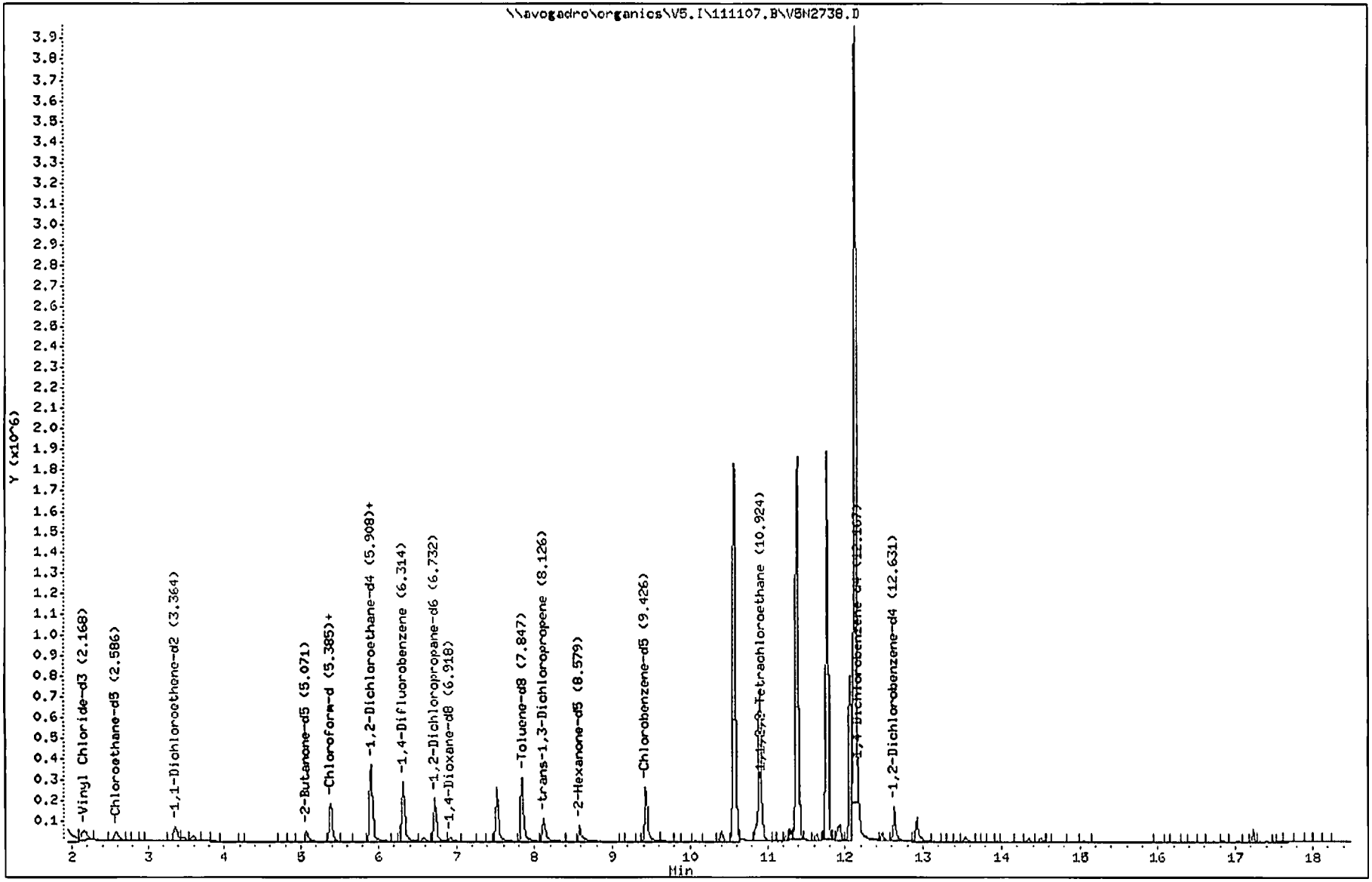
Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D
Date : 07-NOV-2011 16:34
Client ID: H30R3
Sample Info: 5G,K2199-07B,,62780

Instrument: V5.I

Operator: SRC: LIMS

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

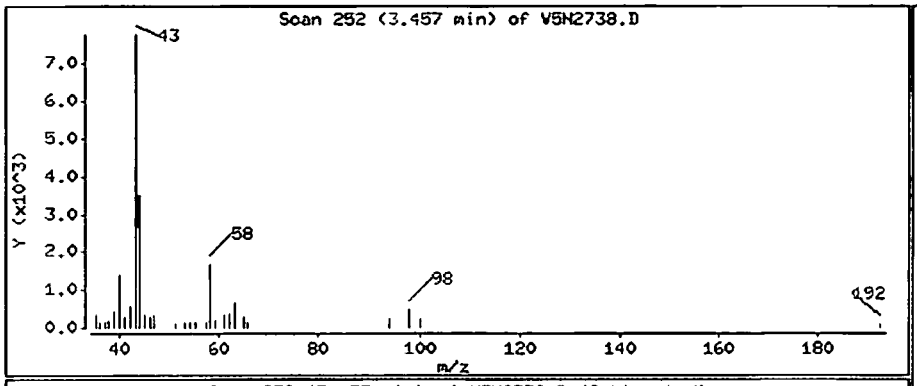
Client ID: H30R3 Instrument: V5.i

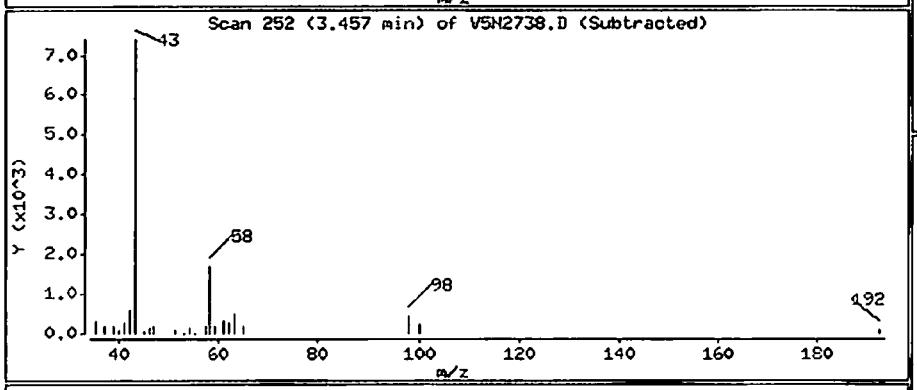
Sample Info: 5G,K2199-07B,,62780

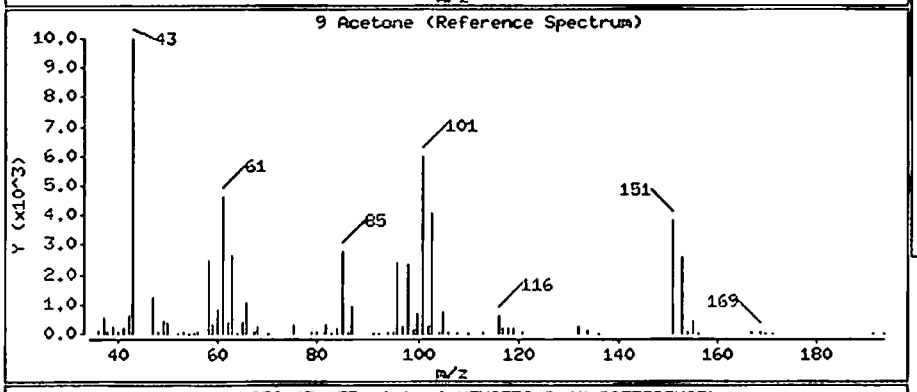
Operator: SRC: LIHS

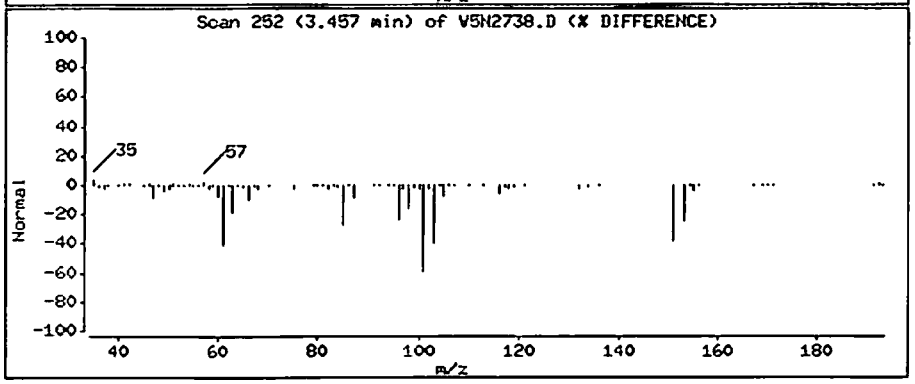
Column phase: DB-624 Column diameter: 0.25

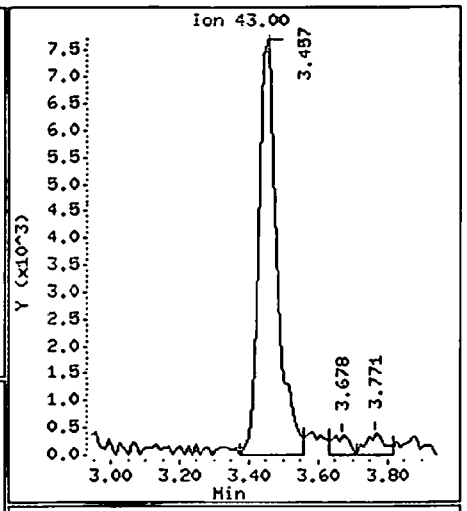
9 Acetone Concentration: 44 ug/Kg

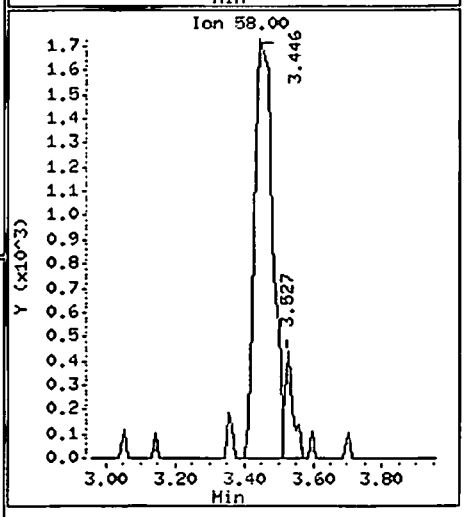












Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

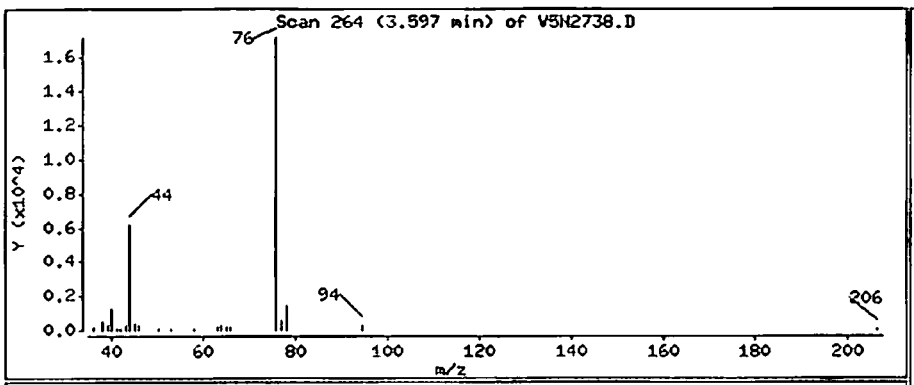
Client ID: H30R3 Instrument: V5.i

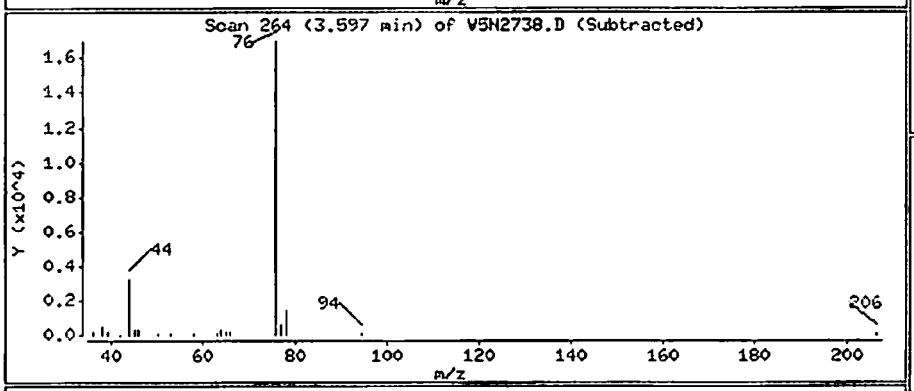
Sample Info: 5C,K2199-07B,,62780

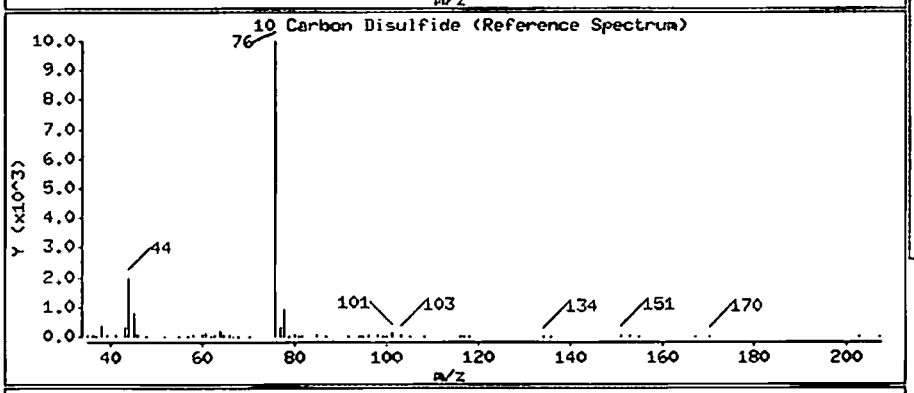
Operator: SRC: LIMS

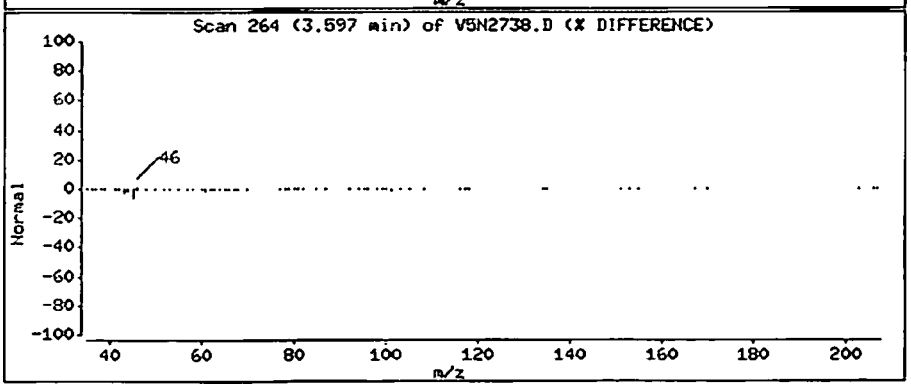
Column phase: DB-624 Column diameter: 0.25

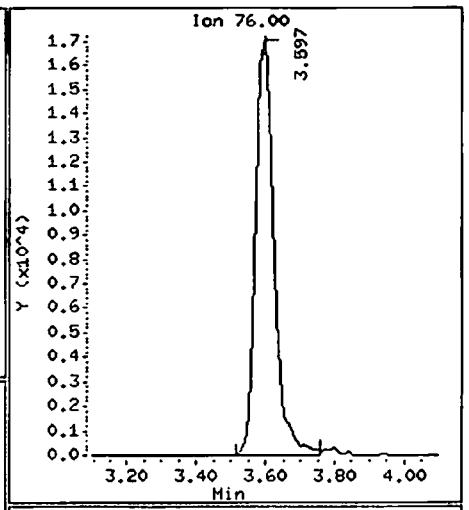
10 Carbon Disulfide Concentration: 6.0 ug/Kg

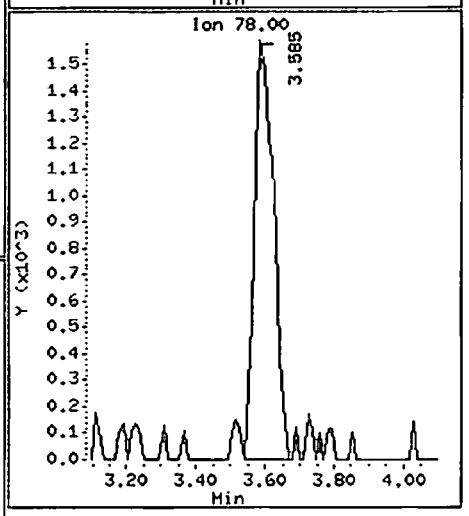












Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

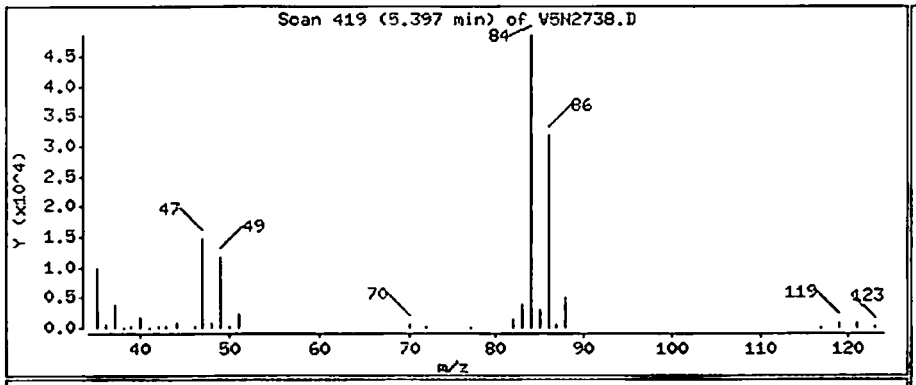
Client ID: H30R3 Instrument: V5.i

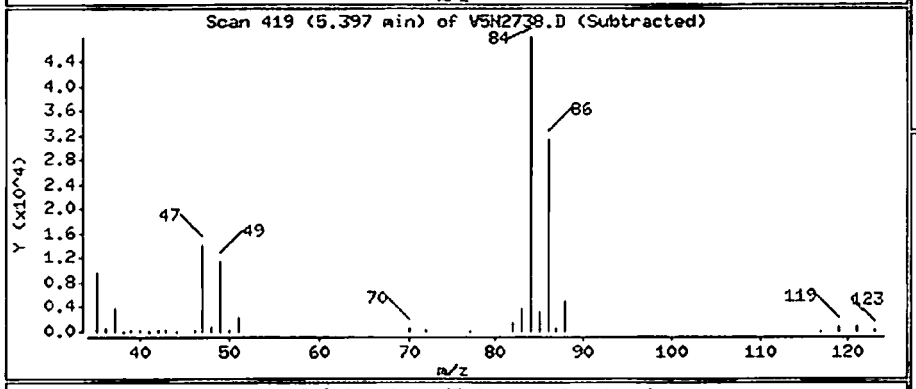
Sample Info: 5G,K2199-07B,,62780

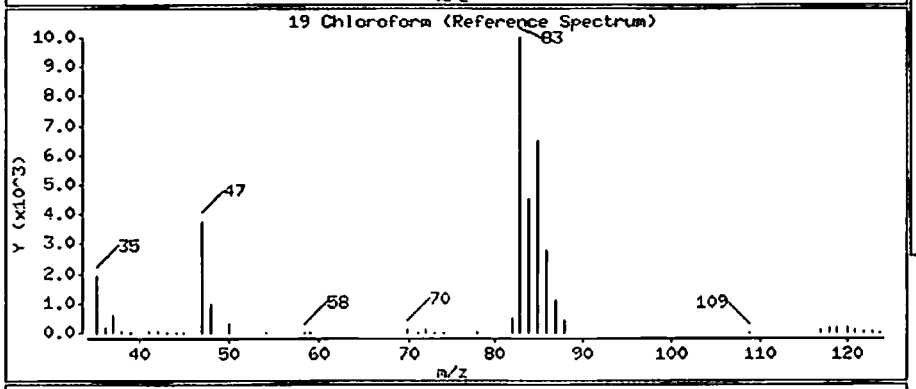
Operator: SRC: LIMS

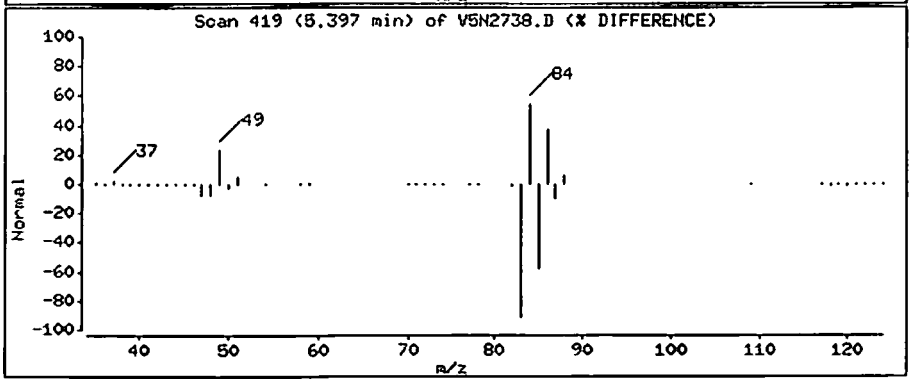
Column phase: DB-624 Column diameter: 0.25

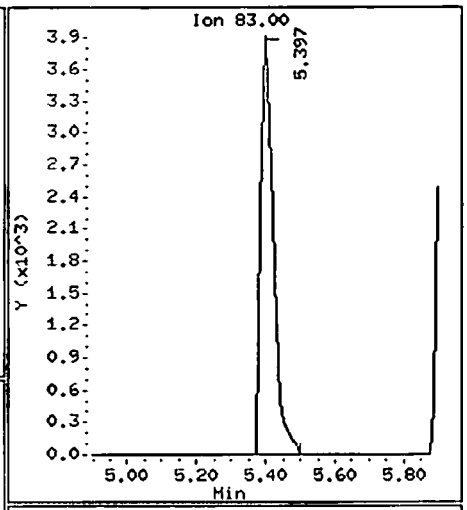
19 Chloroform Concentration: 2.2 ug/Kg

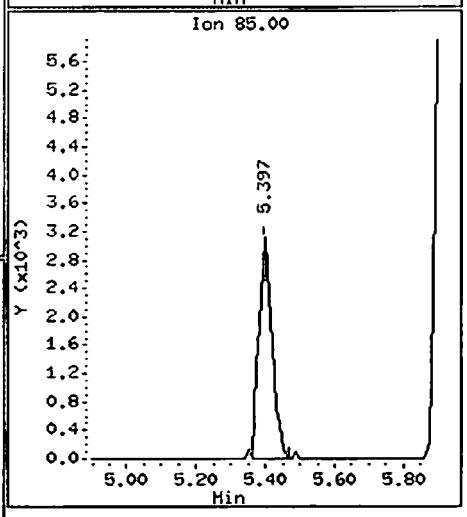












Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

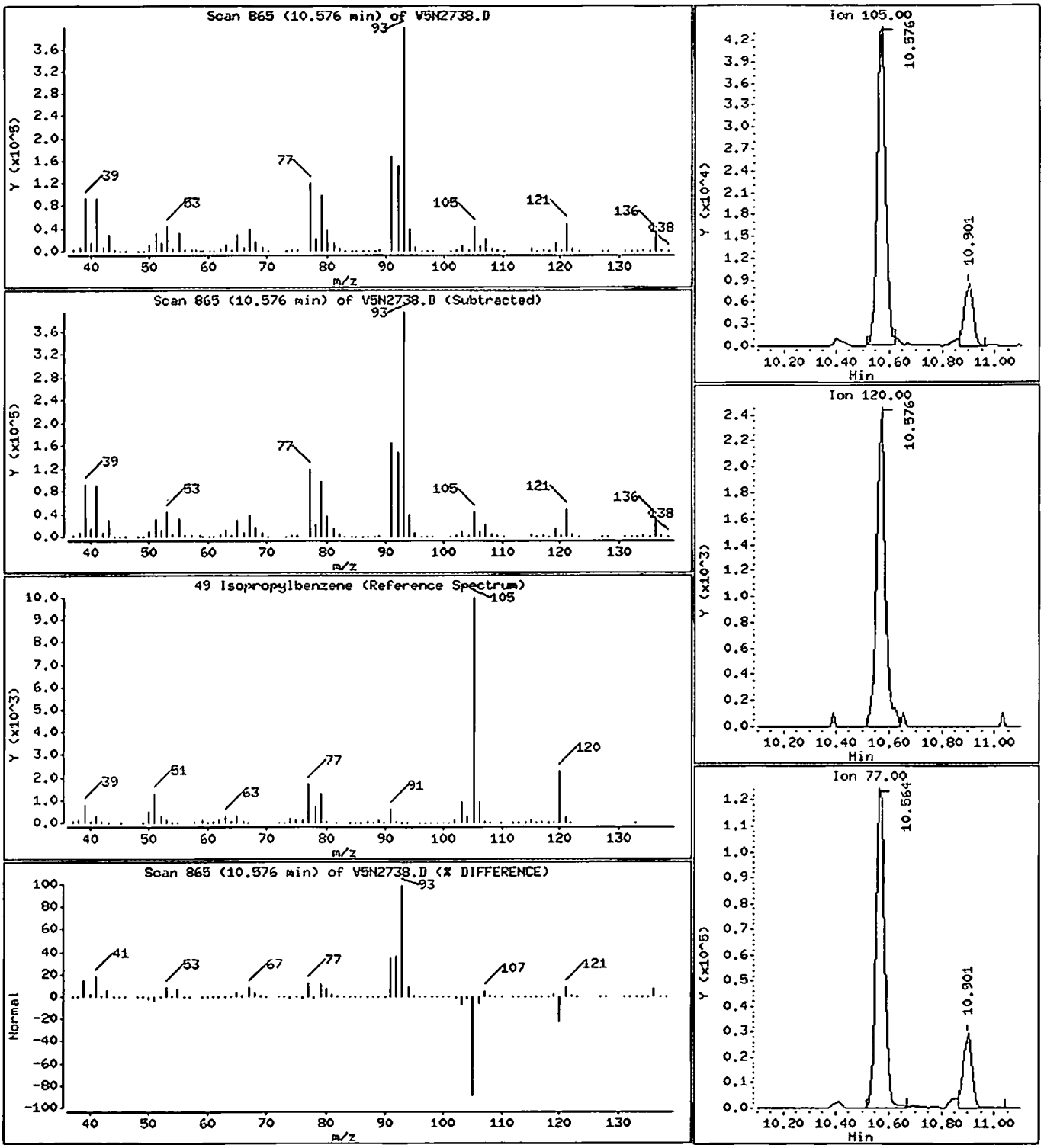
Client ID: H30R3 Instrument: V5.i

Sample Info: 5G,K2199-07B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

49 Isopropylbenzene Concentration: 13 ug/Kg



Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

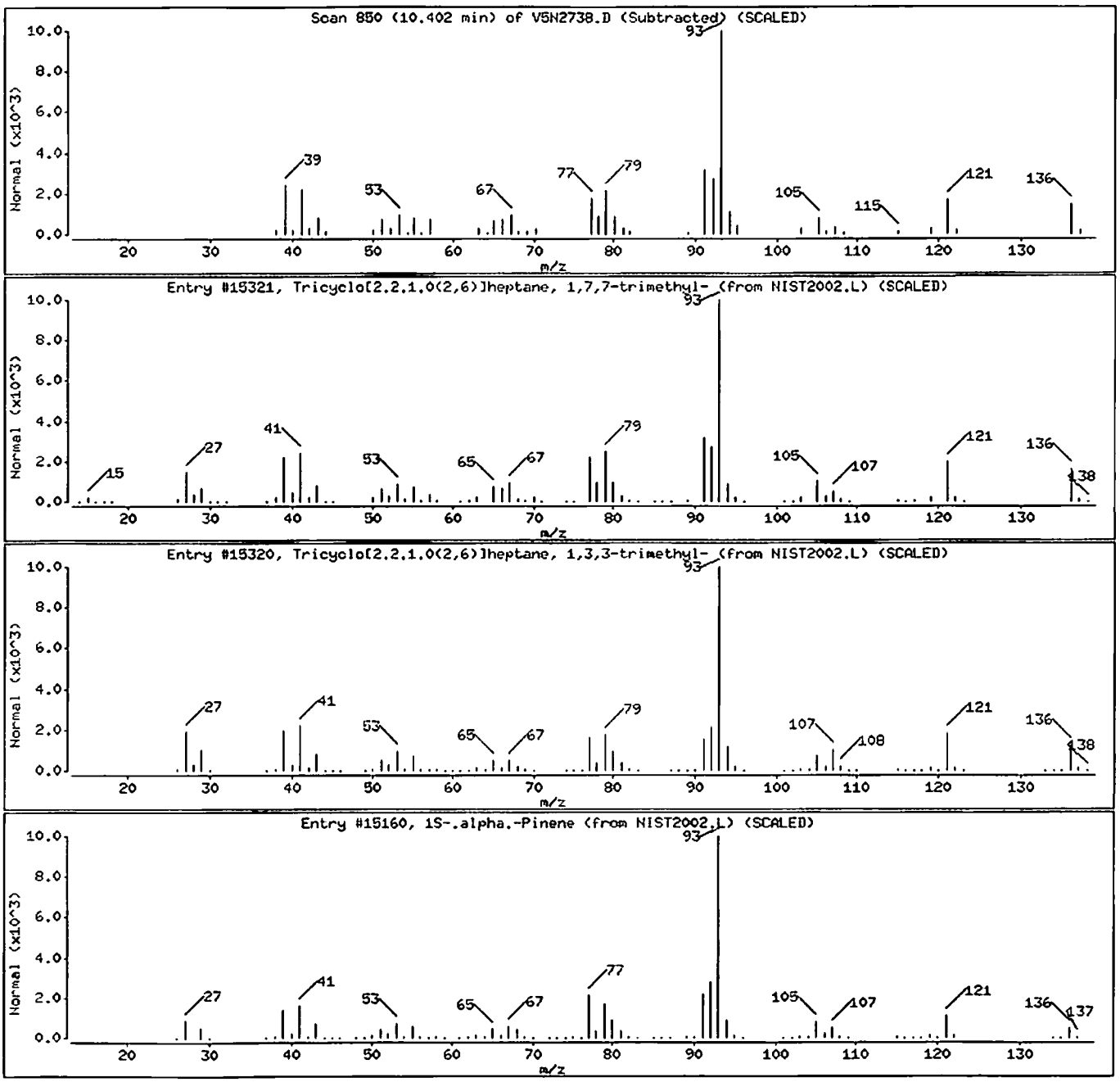
Client ID: H30R3 Instrument: V5.i

Sample Info: 5G,K2199-07B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclic Alkane						
Tricyclo[2.2.1.0(2,6)]heptane, 1,7,7-tri	508-32-7	NIST2002.L	15321	96	C10H16	136
Tricyclo[2.2.1.0(2,6)]heptane, 1,3,3-tri	488-97-1	NIST2002.L	15320	94	C10H16	136
1S-.alpha.-Pinene	7785-26-4	NIST2002.L	15160	91	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

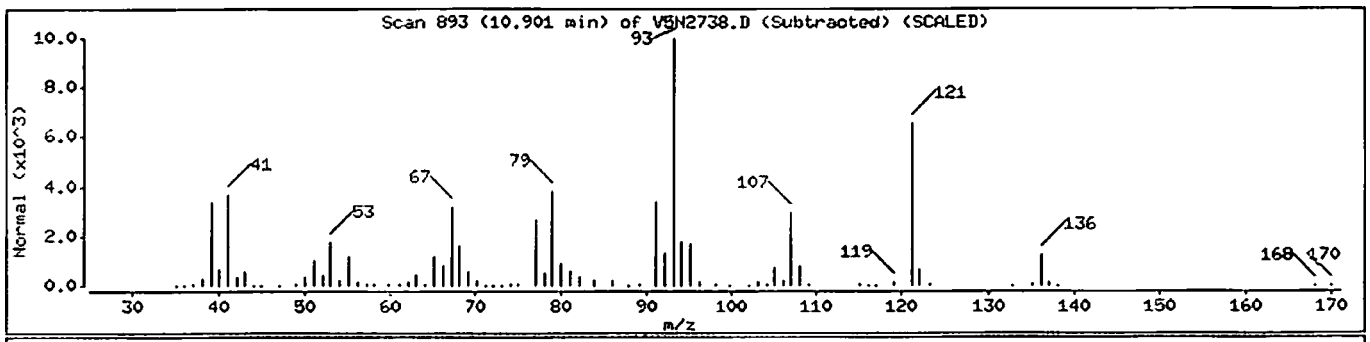
Client ID: H30R3 Instrument: V5.i

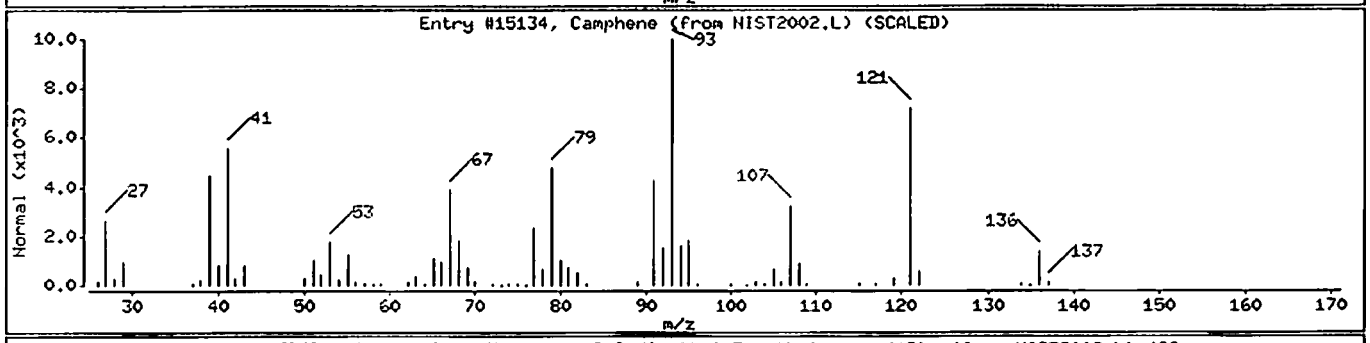
Sample Info: 5G,K2199-07B,,62780

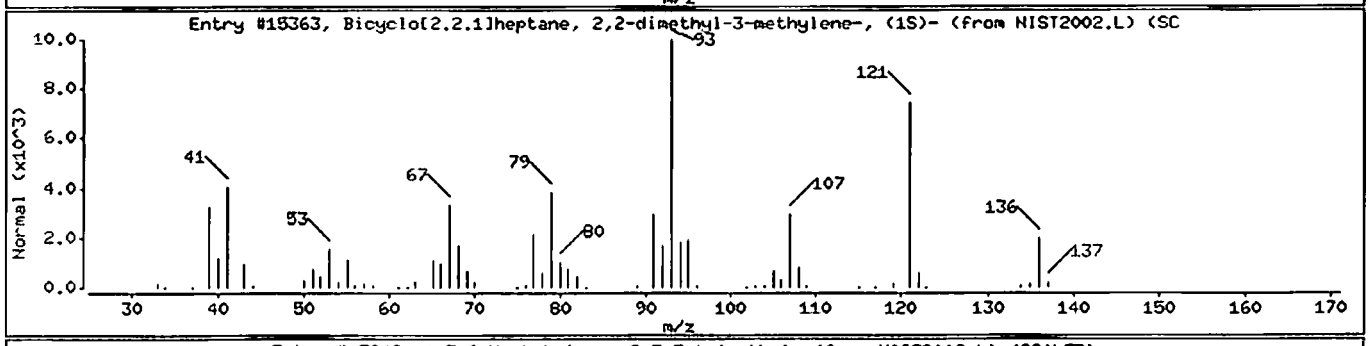
Operator: SRC: LIMS

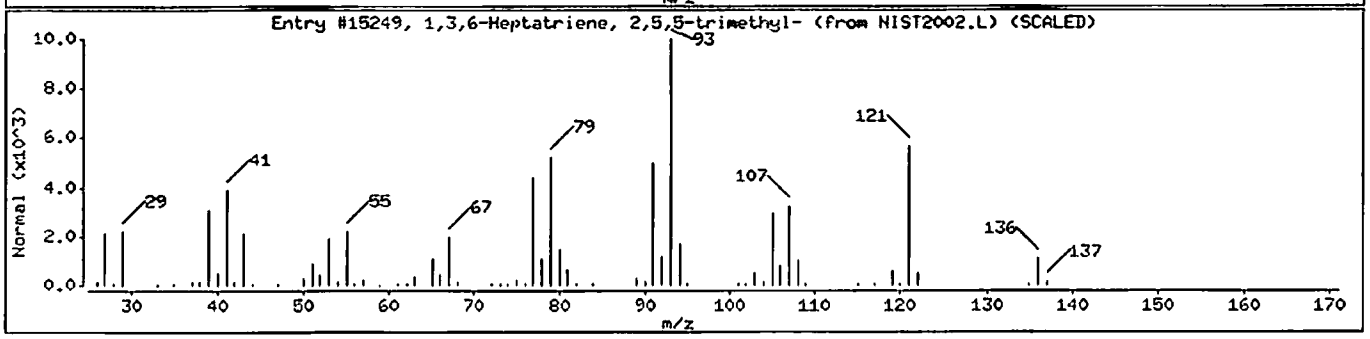
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Camphene	79-92-5	NIST2002.L	15134	98	C10H16	136
Bicyclo[2.2.1]heptane, 2,2-dimethyl-3-me	5794-04-7	NIST2002.L	15363	94	C10H16	136
1,3,6-Heptatriene, 2,5,5-trimethyl-	29548-02-5	NIST2002.L	15249	90	C10H16	136









Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

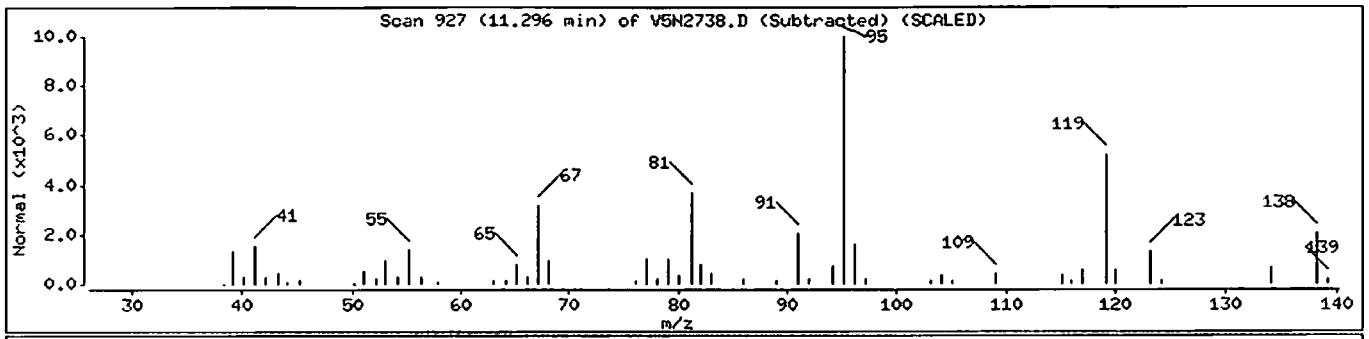
Client ID: H30R3 Instrument: V5.i

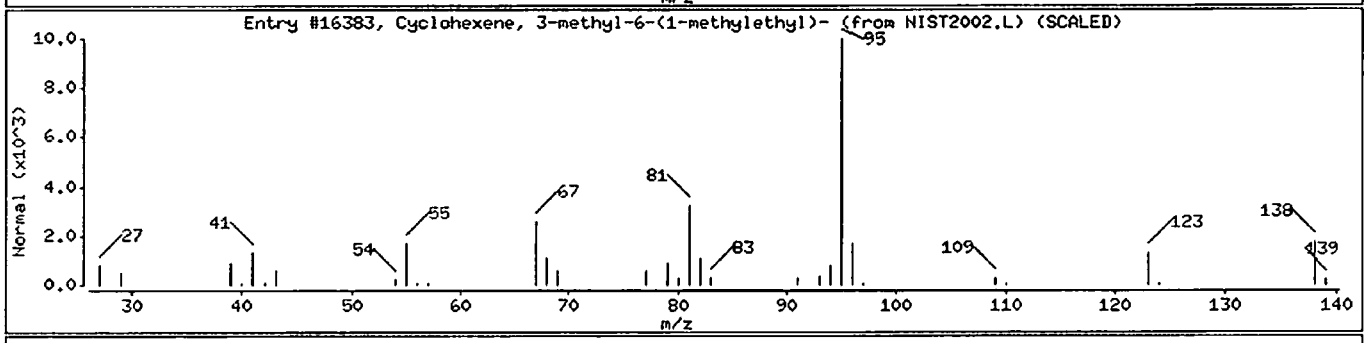
Sample Info: 5G,K2199-07B,,62780

Operator: SRC: LIHS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16383	86	C10H18	138





Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

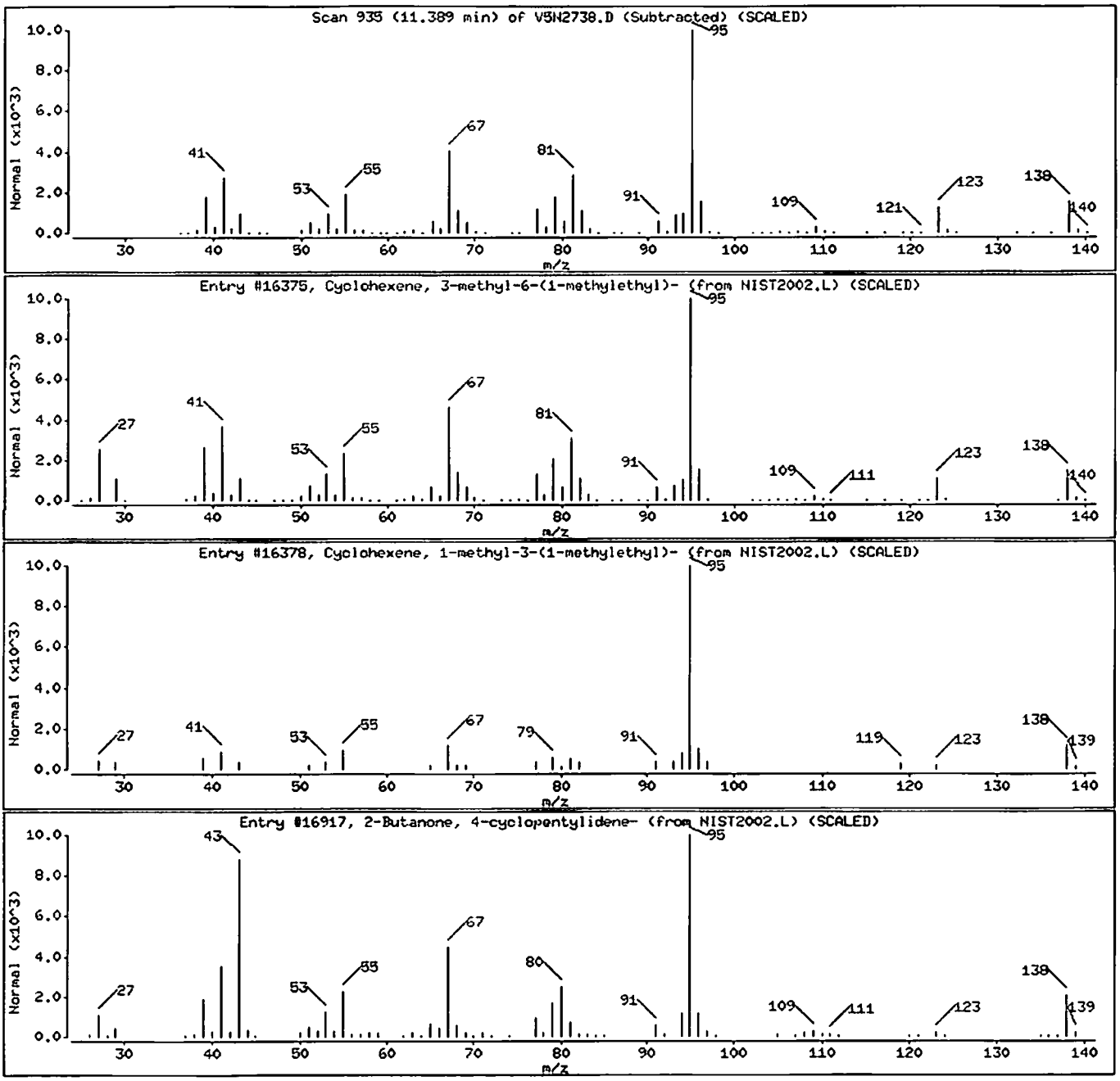
Client ID: H30R3 Instrument: V5.i

Sample Info: 5G,K2199-07B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16375	96	C10H18	138
Cyclohexene, 1-methyl-3-(1-methylethyl)-	13828-31-4	NIST2002.L	16378	90	C10H18	138
2-Butanone, 4-cyclopentylidene-	51004-21-8	NIST2002.L	16917	87	C9H14O	138



Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

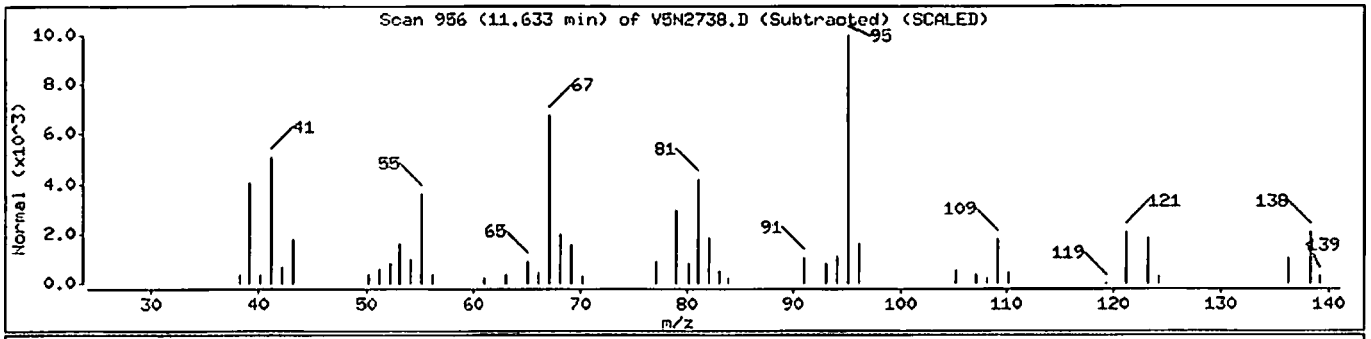
Client ID: H30R3 Instrument: V5.i

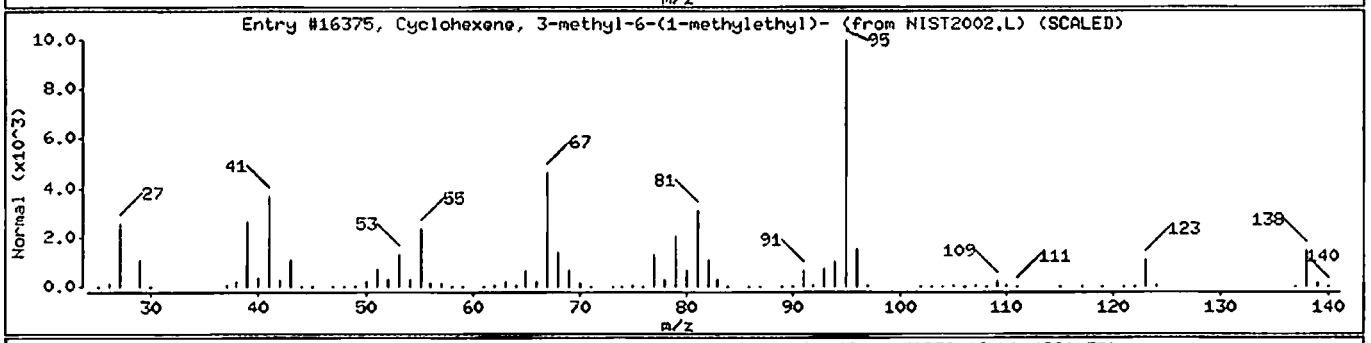
Sample Info: 5G,K2199-07B,,62780

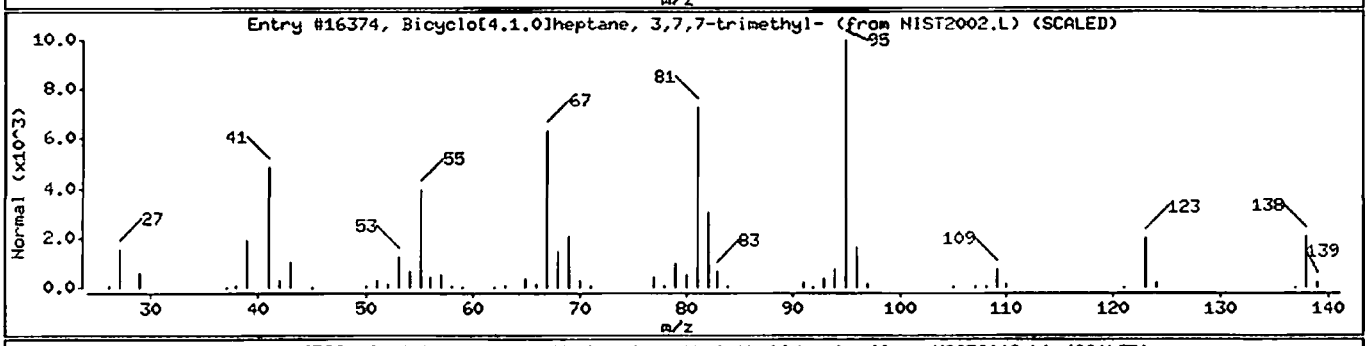
Operator: SRC: LIMS

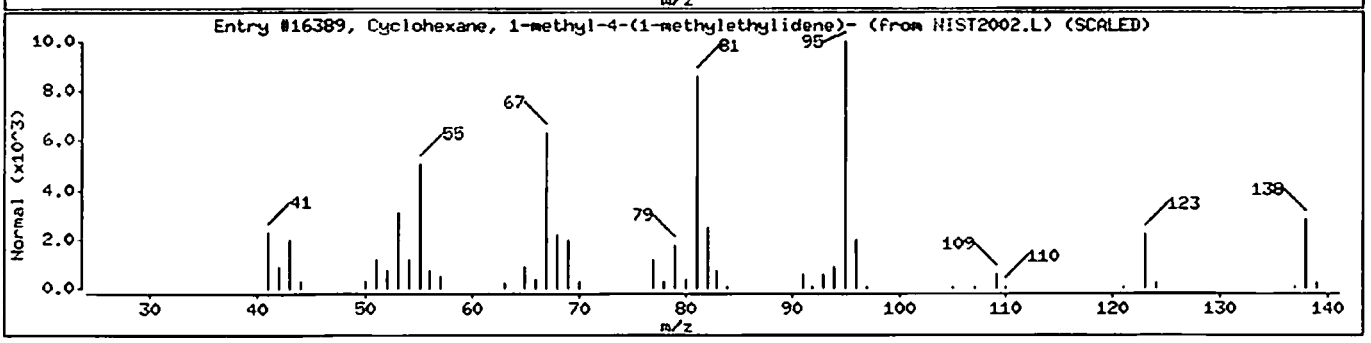
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16375	90	C10H18	138
Bicyclo[4.1.0]heptane, 3,7,7-trimethyl-	554-59-6	NIST2002.L	16374	90	C10H18	138
Cyclohexane, 1-methyl-4-(1-methylethylid	1124-27-2	NIST2002.L	16389	86	C10H18	138









Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

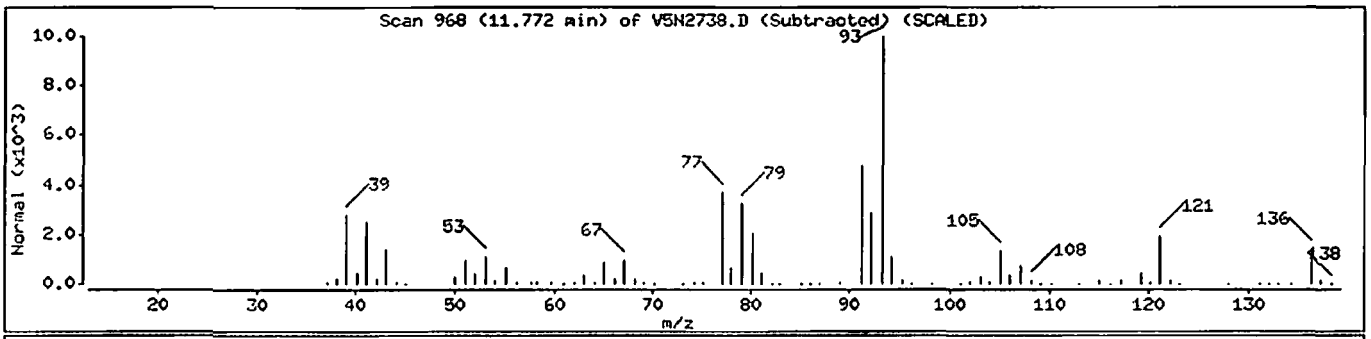
Client ID: H30R3 Instrument: V5.i

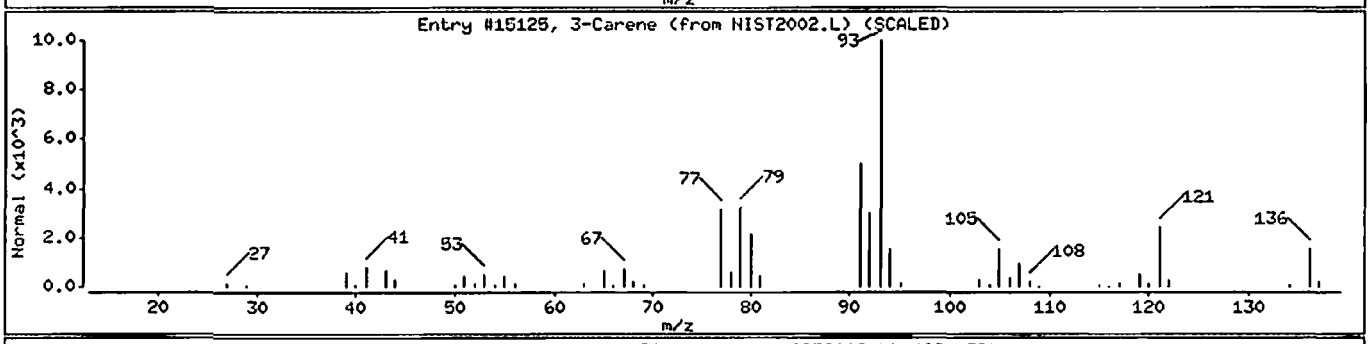
Sample Info: 5C,K2199-07B,,62780

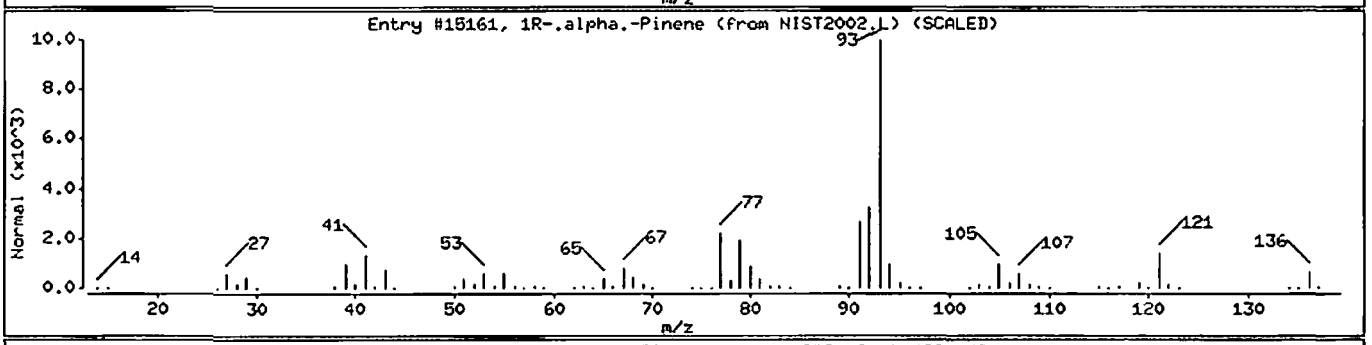
Operator: SRC: LIMS

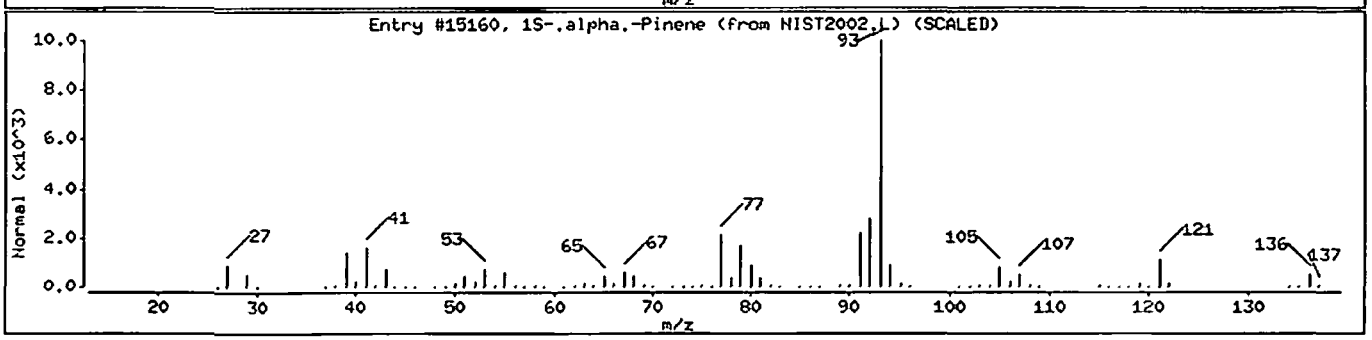
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	NIST2002.L	15125	97	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST2002.L	15161	95	C10H16	136
1S-.alpha.-Pinene	7785-26-4	NIST2002.L	15160	94	C10H16	136









Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

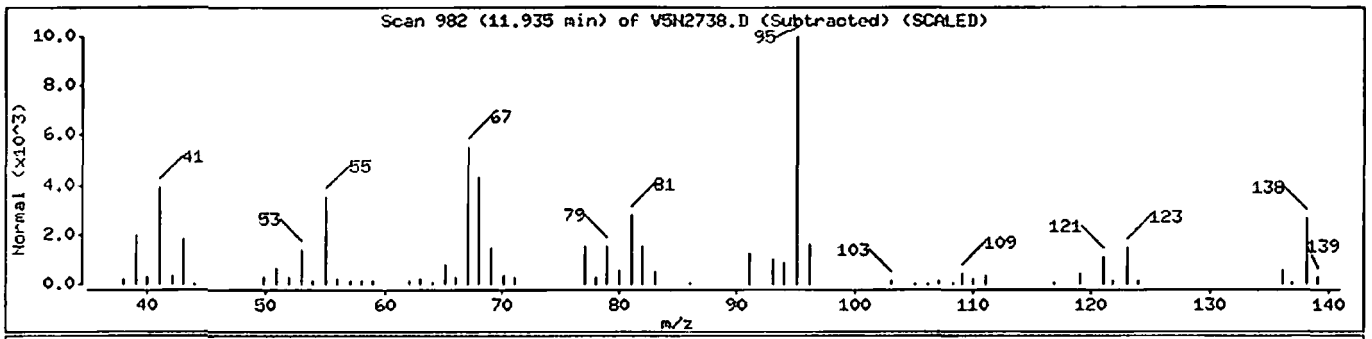
Client ID: H30R3 Instrument: V5.i

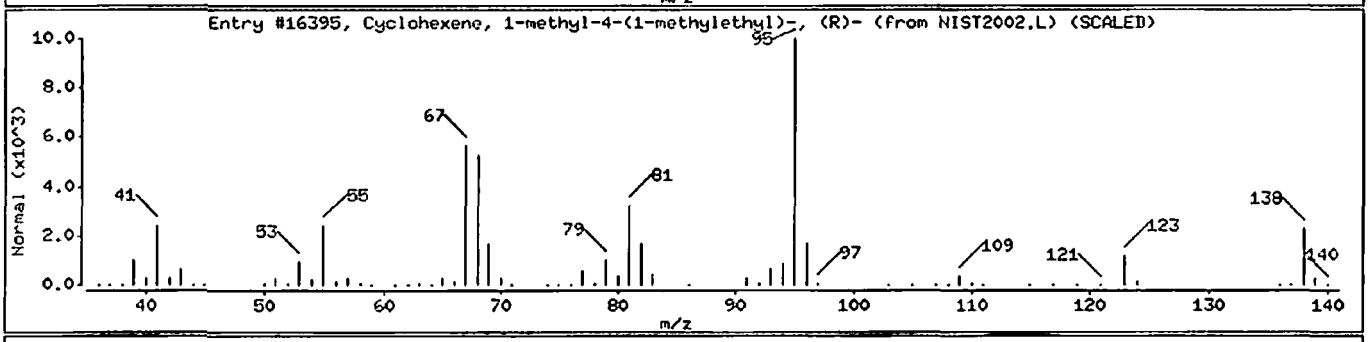
Sample Info: 5C,K2199-07B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 1-methyl-4-(1-methylethyl)-	1195-31-9	NIST2002.L	16395	97	C10H18	138





Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

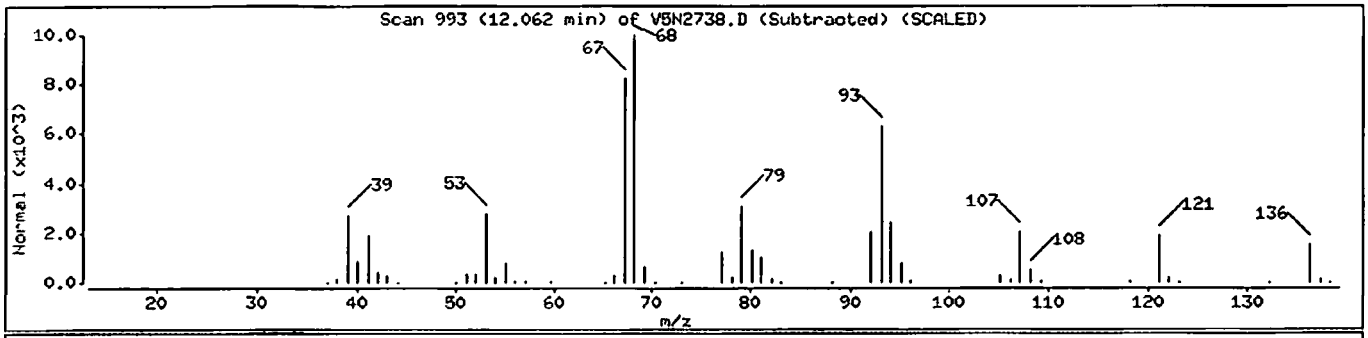
Client ID: H30R3 Instrument: V5.i

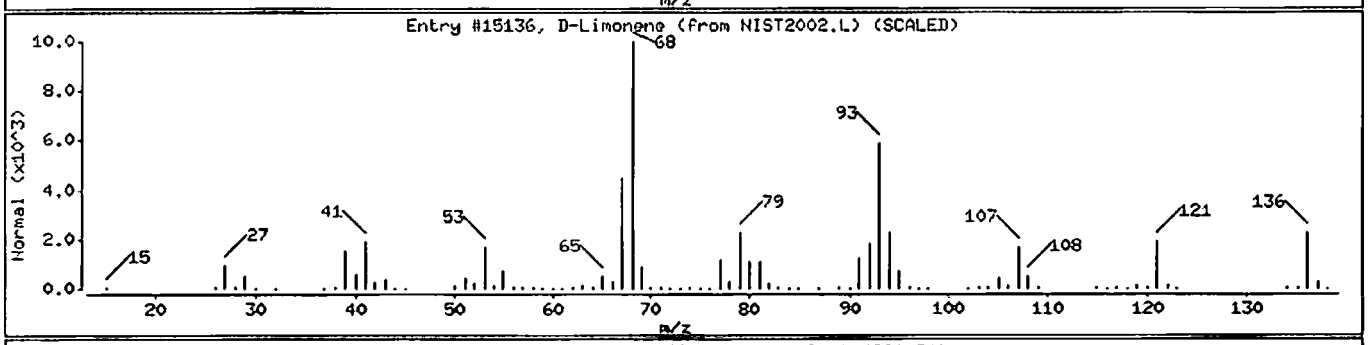
Sample Info: 5G,K2199-07B,,62780

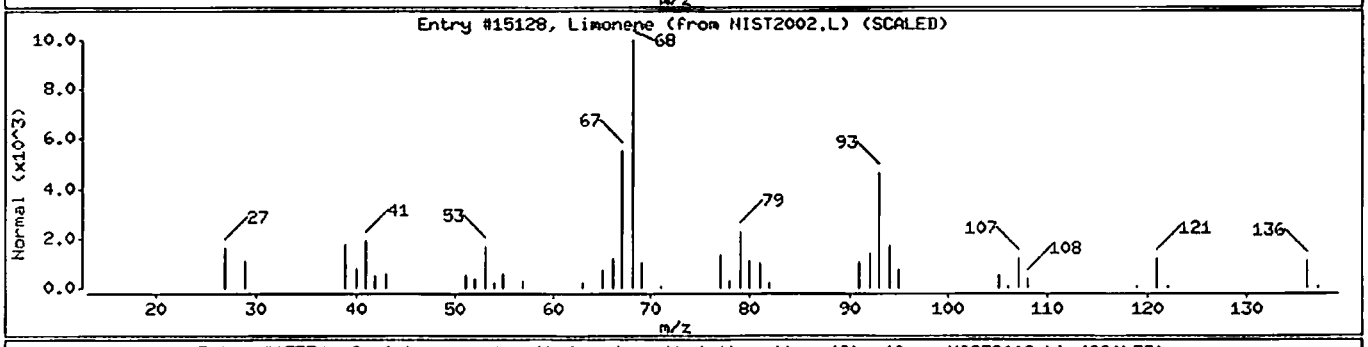
Operator: SRC: LIMS

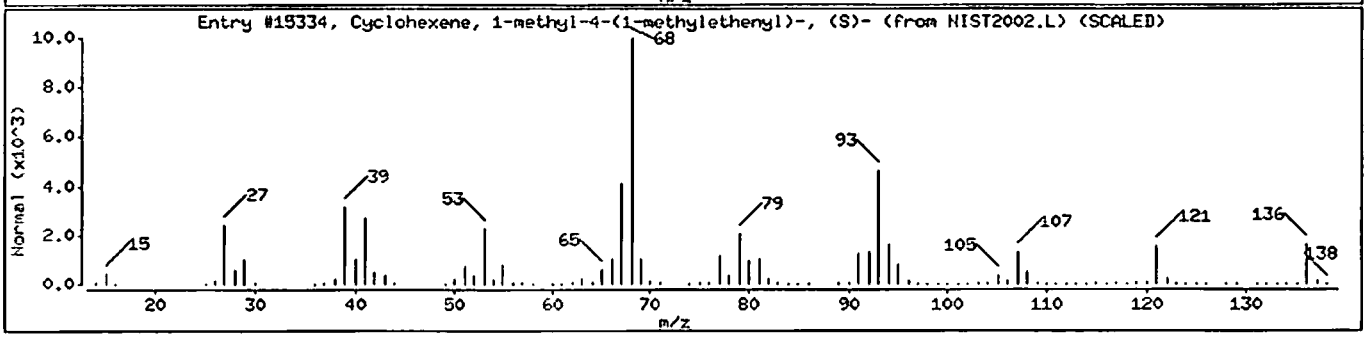
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
D-Limonene	5989-27-5	NIST2002.L	15136	95	C10H16	136
Limonene	138-86-3	NIST2002.L	15128	93	C10H16	136
Cyclohexene, 1-methyl-4-(1-methylethenyl	5989-54-8	NIST2002.L	15334	87	C10H16	136









Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

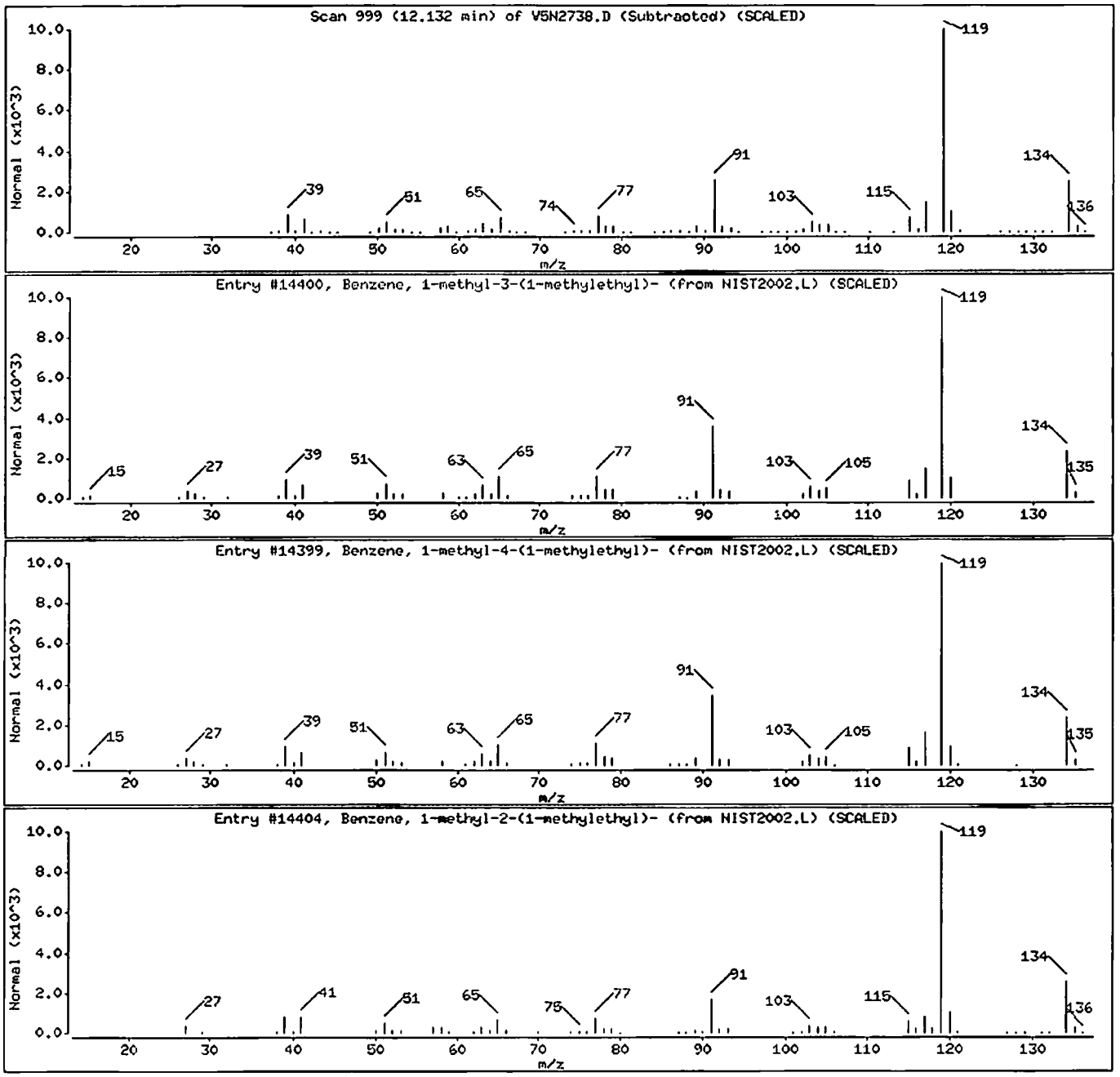
Client ID: H30R3 Instrument: V5.i

Sample Info: 5G,K2199-07B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	95	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	95	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14404	94	C10H14	134



Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

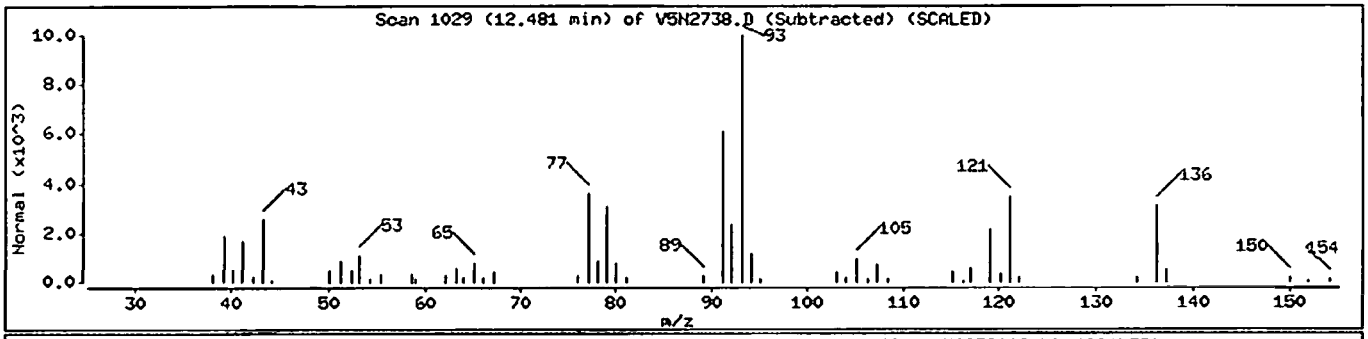
Client ID: H30R3 Instrument: V5.i

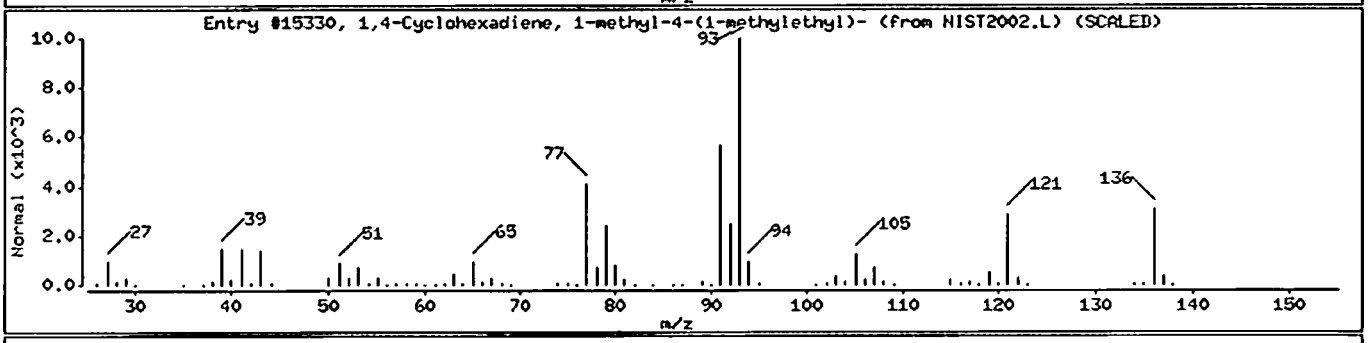
Sample Info: SC,K2199-07B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl	99-85-4	NIST2002.L	15330	94	C10H16	136





Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

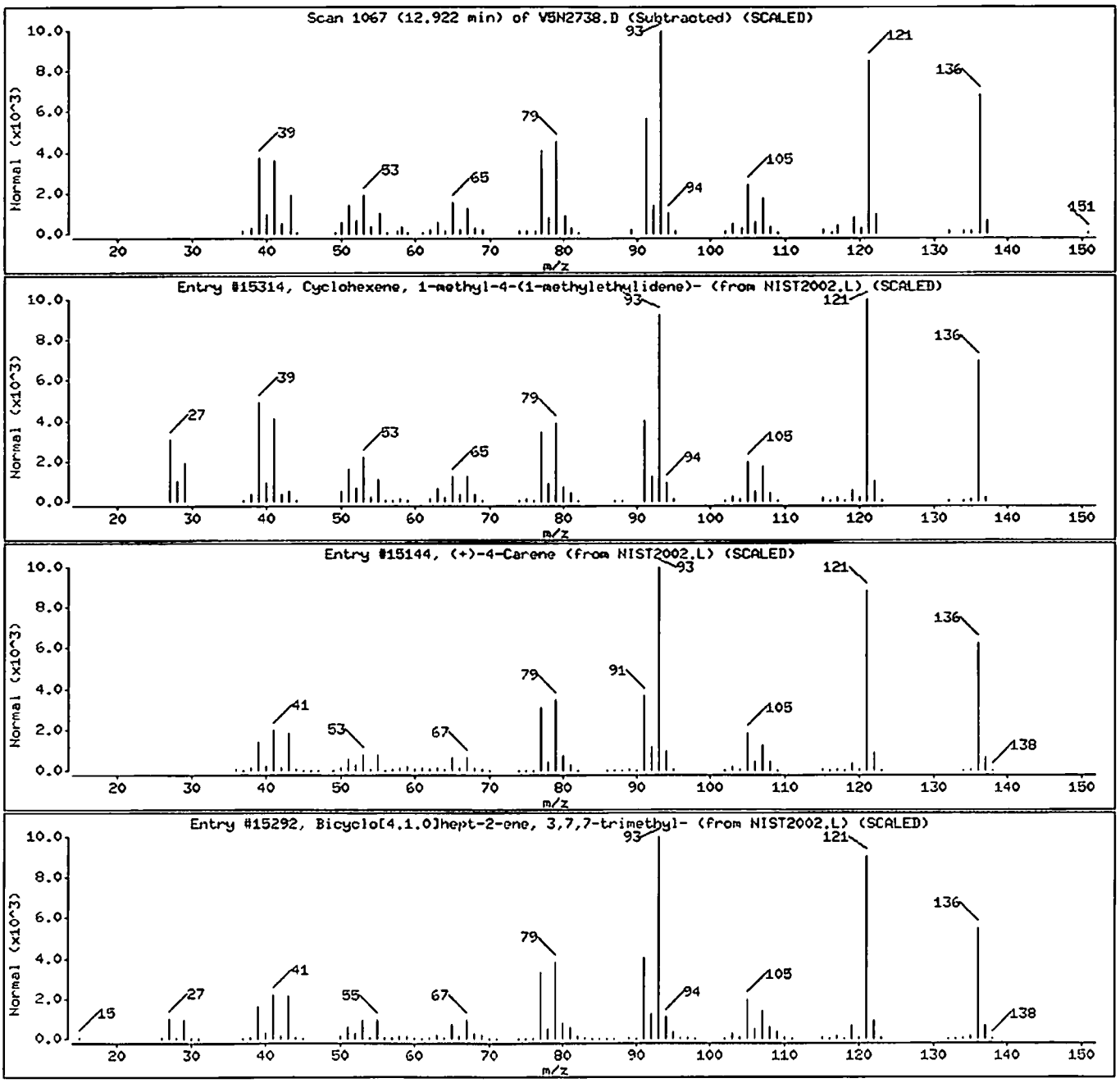
Client ID: H30R3 Instrument: V5.i

Sample Info: 5C,K2199-07B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 1-methyl-4-(1-methylethylid	586-62-9	NIST2002.L	15314	96	C10H16	136
(+)-4-Carene	29050-33-7	NIST2002.L	15144	96	C10H16	136
Bicyclo[4.1.0]hept-2-ene, 3,7,7-trimethy	554-61-0	NIST2002.L	15292	94	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2738.D

Date : 07-NOV-2011 16:34

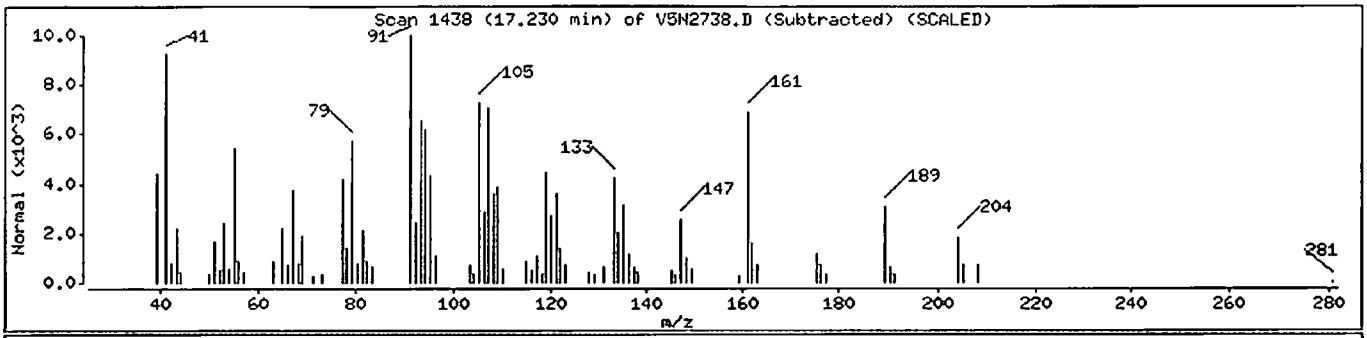
Client ID: H30R3 Instrument: V5.i

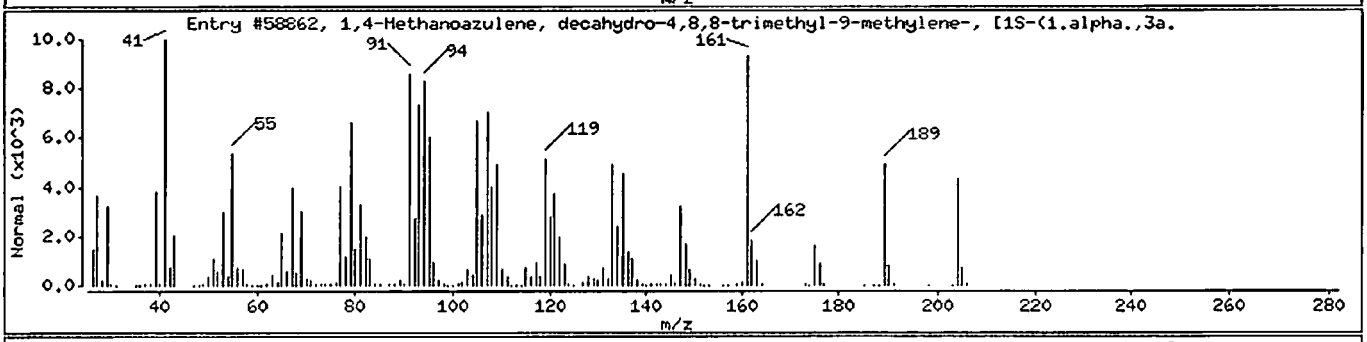
Sample Info: 5G,K2199-07B,,62780

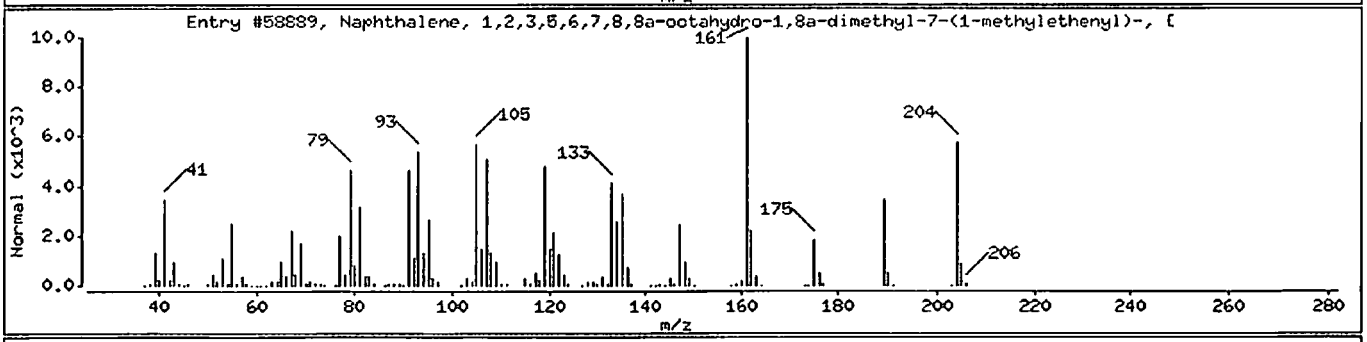
Operator: SRC: LIHS

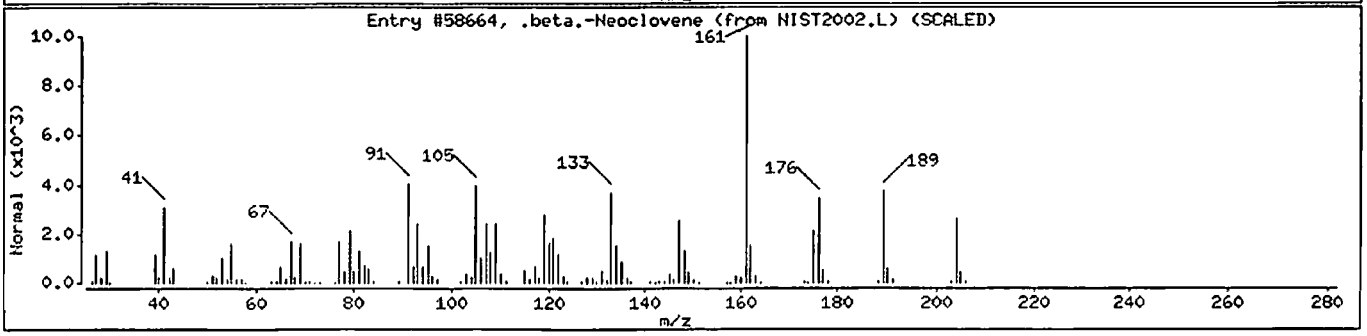
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58862	99	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST2002.L	58889	98	C15H24	204
.beta.-Neoclovene	56684-96-9	NIST2002.L	58664	91	C15H24	204









1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-08B

Sample wt/vol: 4.90 (g/mL) G Lab File ID: V5N2739.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 80 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	25	U
74-87-3	Chloromethane	25	U
75-01-4	Vinyl chloride	25	U
74-83-9	Bromomethane	25	U
75-00-3	Chloroethane	25	U
75-69-4	Trichlorofluoromethane	25	U
75-35-4	1,1-Dichloroethene	25	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	25	U
67-64-1	Acetone	220	
75-15-0	Carbon disulfide	13	J
79-20-9	Methyl acetate	25	U
75-09-2	Methylene chloride	25	U
156-60-5	trans-1,2-Dichloroethene	25	U
1634-04-4	Methyl tert-butyl ether	25	U
75-34-3	1,1-Dichloroethane	25	U
156-59-2	cis-1,2-Dichloroethene	25	U
78-93-3	2-Butanone	50	U
74-97-5	Bromochloromethane	25	U
67-66-3	Chloroform	25	U
71-55-6	1,1,1-Trichloroethane	25	U
110-82-7	Cyclohexane	25	U
56-23-5	Carbon tetrachloride	25	U
71-43-2	Benzene	25	U
107-06-2	1,2-Dichloroethane	25	U
123-91-1	1,4-Dioxane	500	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-08B

Sample wt/vol: 4.90 (g/mL) G Lab File ID: V5N2739.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 80 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	25	U
108-87-2	Methylcyclohexane	25	U
78-87-5	1,2-Dichloropropane	25	U
75-27-4	Bromodichloromethane	25	U
10061-01-5	cis-1,3-Dichloropropene	25	U
108-10-1	4-Methyl-2-pentanone	50	U
108-88-3	Toluene	25	U
10061-02-6	trans-1,3-Dichloropropene	25	U
79-00-5	1,1,2-Trichloroethane	25	U
127-18-4	Tetrachloroethene	25	U
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	25	U
106-93-4	1,2-Dibromoethane	25	U
108-90-7	Chlorobenzene	25	U
100-41-4	Ethylbenzene	25	U
179601-23-1	m,p-Xylene	25	U
95-47-6	o-Xylene	25	U
100-42-5	Styrene	25	U
75-25-2	Bromoform	25	U
98-82-8	Isopropylbenzene	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U
541-73-1	1,3-Dichlorobenzene	25	U
106-46-7	1,4-Dichlorobenzene	25	U
95-50-1	1,2-Dichlorobenzene	25	U
96-12-8	1,2-Dibromo-3-chloropropane	25	U
120-82-1	1,2,4-Trichlorobenzene	25	U
87-61-6	1,2,3-Trichlorobenzene	25	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30R4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-08B

Sample wt/vol: 4.90 (g/mL) G Lab File ID: V5N2739.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 80 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	7785-70-8	1R-.alpha.-Pinene	10.570	110	NJ
02	79-92-5	Camphene	10.907	250	NJ
03	5256-65-5	Cyclohexene, 3-methyl-6-(1-m	11.290	110	NJ
04	5256-65-5	Cyclohexene, 3-methyl-6-(1-m	11.383	810	NJ
05	498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,	11.766	250	NJ
06	527-84-4	Benzene, 1-methyl-2-(1-methy	12.126	4800	NJ
07	4695-62-9	Bicyclo[2.2.1]heptan-2-one,	13.543	32	NJ
08	464-48-2	Bicyclo[2.2.1]heptan-2-one,	14.495	110	NJ
09	475-20-7	1,4-Methanoazulene, decahydr	17.225	56	NJ
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2739.D
Lab Smp Id: K2199-08B Client Smp ID: H30R4
Inj Date : 07-NOV-2011 17:01
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-08B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.900	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.162	2.168	(0.342)	110784	41.3011	42
$ 80 Chloroethane-d5	69	2.580	2.597	(0.408)	81246	46.8266	48(Q)
$ 81 1,1-Dichloroethene-d2	65	3.358	3.364	(0.531)	27236	48.9547	50(Q)
9 Acetone	43	3.439	3.445	(0.544)	22664	44.1586	45
10 Carbon Disulfide	76	3.590	3.596	(0.568)	22549	2.69741	2.8
$ 82 2-Butanone-d5	46	5.065	5.071	(0.802)	79130	105.778	110
$ 83 Chloroform-d	84	5.379	5.385	(0.851)	153701	47.8274	49(Q)
$ 23 1,2-Dichloroethane-d4	65	5.890	5.896	(0.932)	89863	51.8069	53
$ 84 Benzene-d6	84	5.913	5.907	(0.627)	281747	65.6594	67(R)
• 26 1,4-Difluorobenzene	114	6.319	6.325	(1.000)	281704	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.726	6.732	(0.713)	110899	62.5375	64(R)
$ 94 1,4-Dioxane-d8	96	6.923	6.917	(1.096)	18401	1114.56	1100
$ 33 Toluene-d8	98	7.841	7.835	(0.831)	218659	55.2000	56
$ 86 trans-1,3-Dichloropropene-d4	79	8.119	8.114	(0.861)	58776	44.0218	45
$ 87 2-Hexanone-d5	63	8.584	8.578	(0.910)	41042	120.298	120(Q)
• 42 Chlorobenzene-d5	117	9.432	9.426	(1.000)	162053	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.930	10.924	(1.159)	55619	47.9190	49
• 78 1,4-Dichlorobenzene-d4	152	12.172	12.167	(1.000)	45698	50.0000	(Q)
$ 90 1,2-Dichlorobenzene-d4	152	12.637	12.631	(1.038)	38778	45.4233	46(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D
Report Date: 09-Nov-2011 08:00

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2739.D
Lab Smp Id: K2199-08B Client Smp ID: H30R4
Inj Date : 07-NOV-2011 17:01
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-08B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.900	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 42 Chlorobenzene-d5	9.432	504484	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
1R-.alpha.-Pinene					CAS #: 7785-70-8		
10.570	219526	21.7574881	22	97	NIST2002.L	15163	42
Camphene					CAS #: 79-92-5		
10.907	503272	49.8798660	51	97	NIST2002.L	15126	42
Cyclohexene, 3-methyl-6-(1-methylethyl)-					CAS #: 5256-65-5		
11.290	220933	21.8969325	22	94	NIST2002.L	16383	42
Cyclohexene, 3-methyl-6-(1-methylethyl)-					CAS #: 5256-65-5		
11.383	1635553	162.101456	170	96	NIST2002.L	16375	42
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy					CAS #: 498-15-7		
11.766	499068	49.4631696	50	97	NIST2002.L	15344	42

Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D
Report Date: 09-Nov-2011 08:00

RT	AREA	CONCENTRATIONS ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Benzene, 1-methyl-2-(1-methylethyl)-					CAS #: 527-84-4		
12.126	9610295	952.487092	970	96	NIST2002.L	14395	42
Bicyclo[2.2.1]heptan-2-one, 1,3,3-trimet					CAS #: 4695-62-9		
13.543	64956	6.43790700	6.6	91	NIST2002.L	24107	42
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet					CAS #: 464-48-2		
14.495	216097	21.4175857	22	98	NIST2002.L	24202	42
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
17.225	112223	11.1225596	11	99	NIST2002.L	58862	42

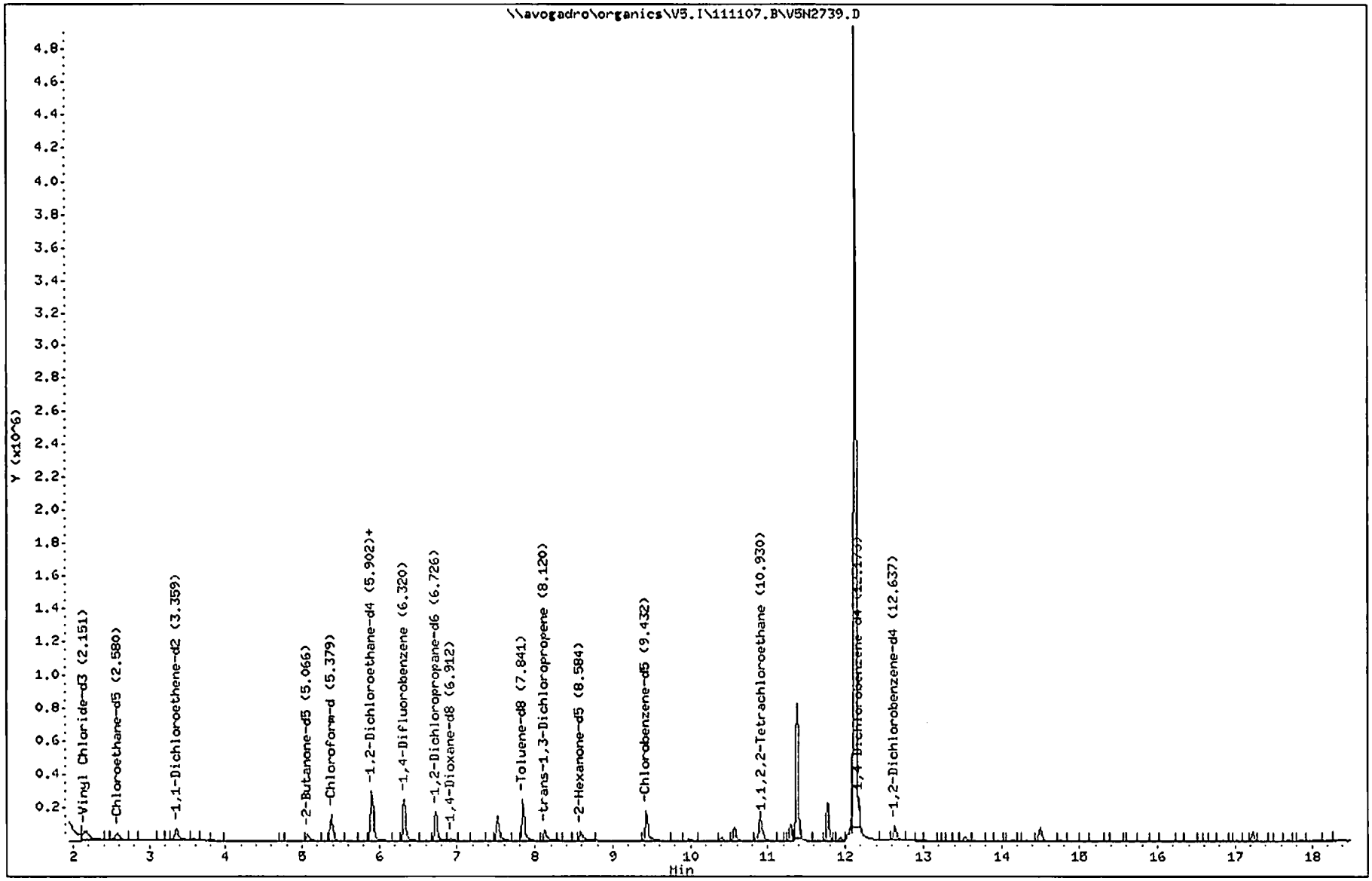
Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D
Date : 07-NOV-2011 17:01
Client ID: H30R4
Sample Info: 5C,K2199-08B,,62780

Instrument: V5.i

Operator: SRC: LIHS

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D

Date : 07-NOV-2011 17:01

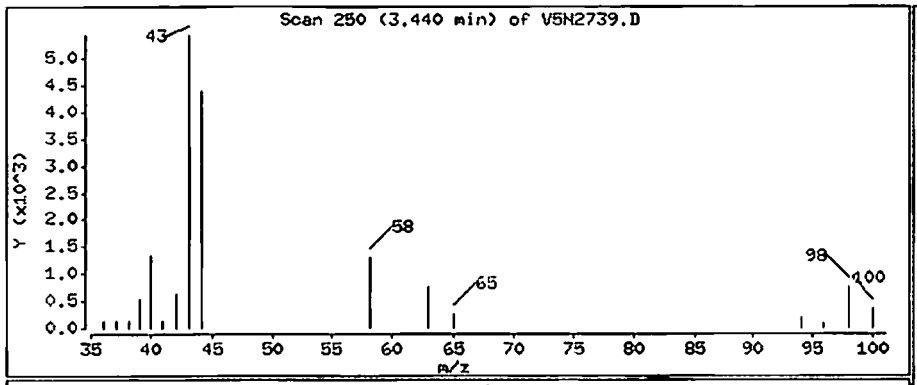
Client ID: H30R4 Instrument: V5.i

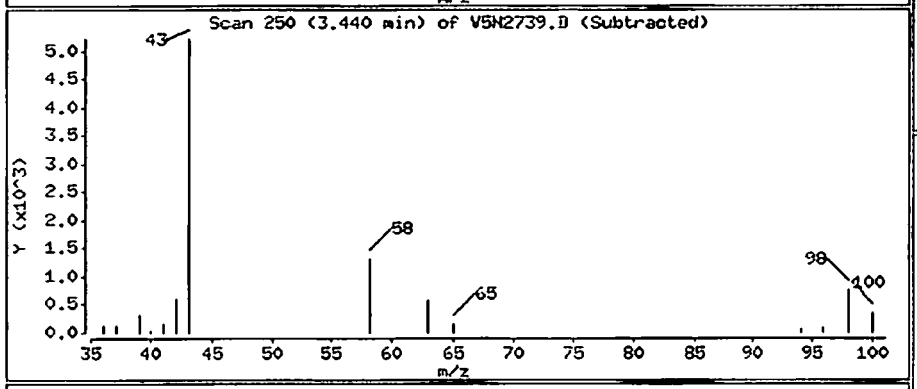
Sample Info: 5G,K2199-08B,,62780

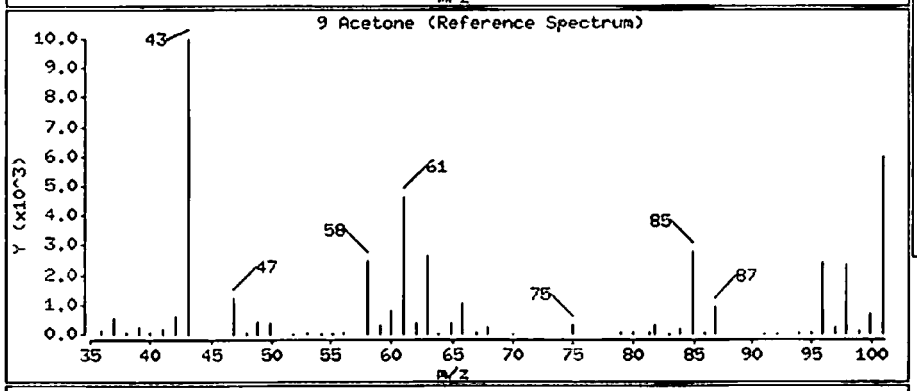
Operator: SRC: LIMS

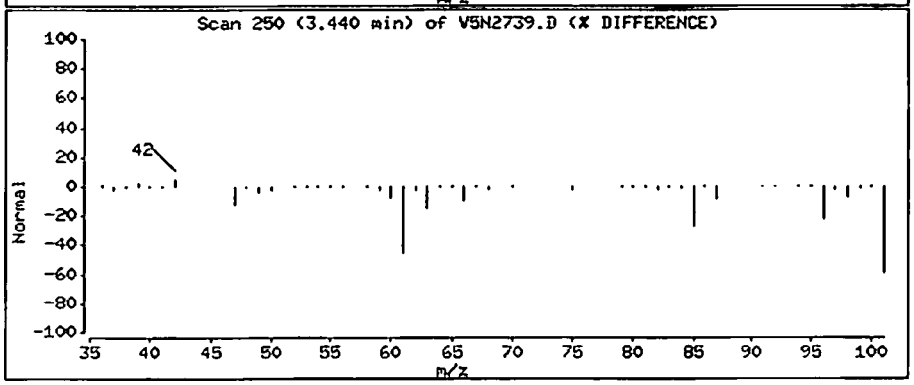
Column phase: DB-624 Column diameter: 0.25

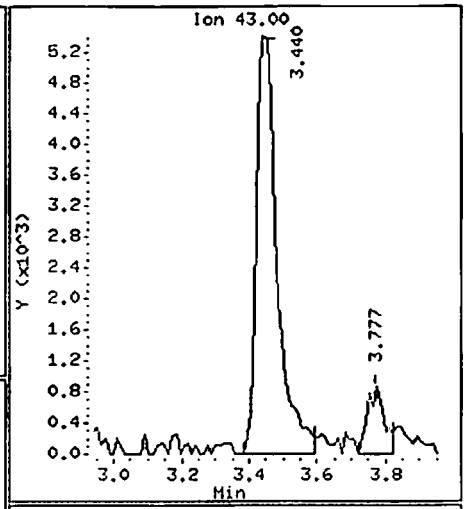
9 Acetone Concentration: 45 ug/Kg

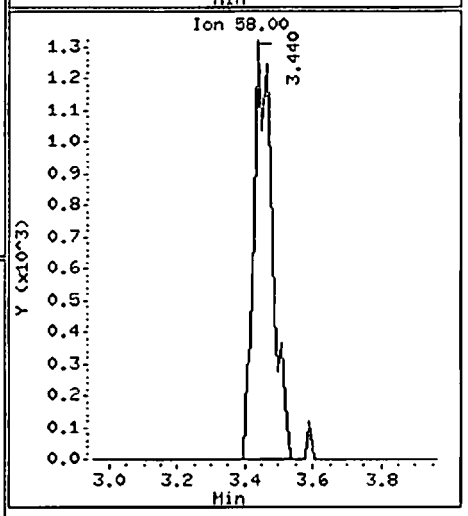












Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D

Date : 07-NOV-2011 17:01

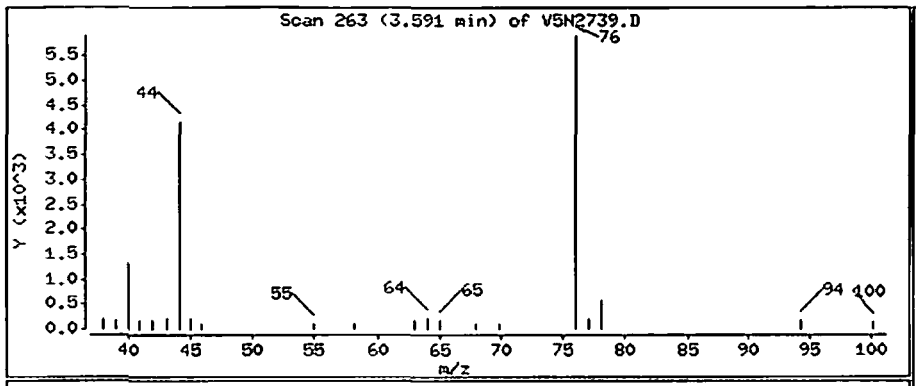
Client ID: H30R4 Instrument: V5.i

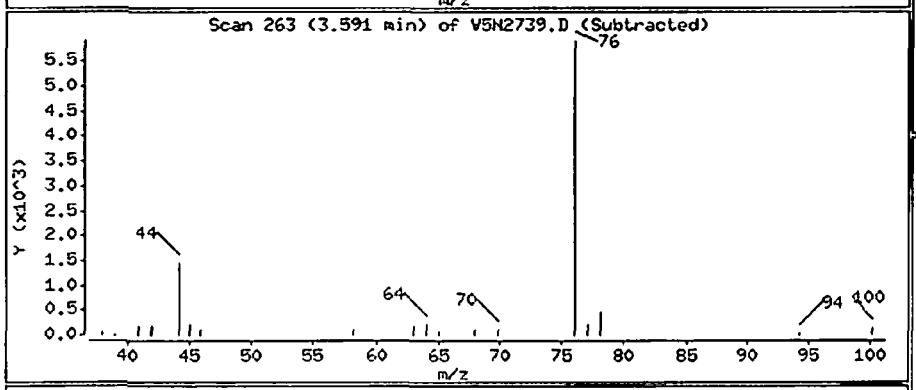
Sample Info: 5G,K2199-08B,,62780

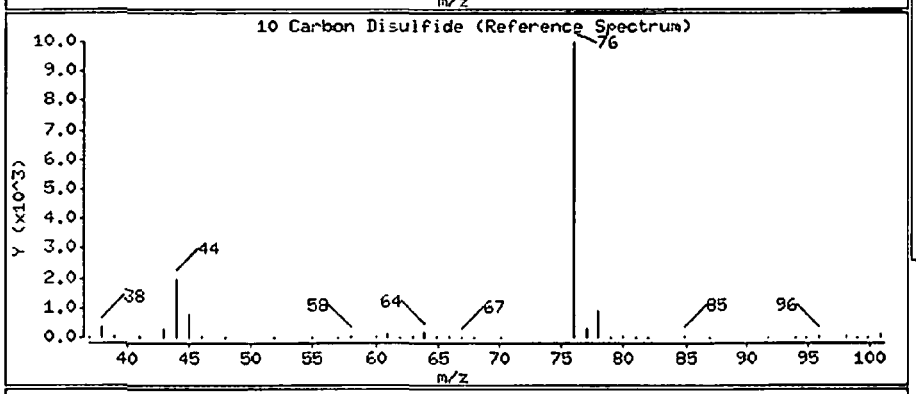
Operator: SRC: LIMS

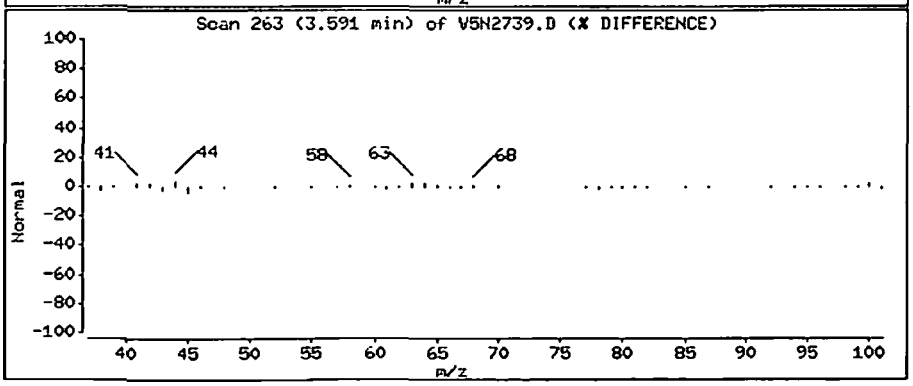
Column phase: DB-624 Column diameter: 0.25

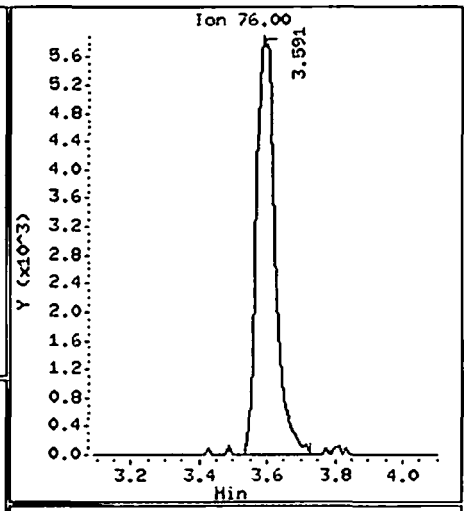
10 Carbon Disulfide Concentration: 2.8 ug/Kg

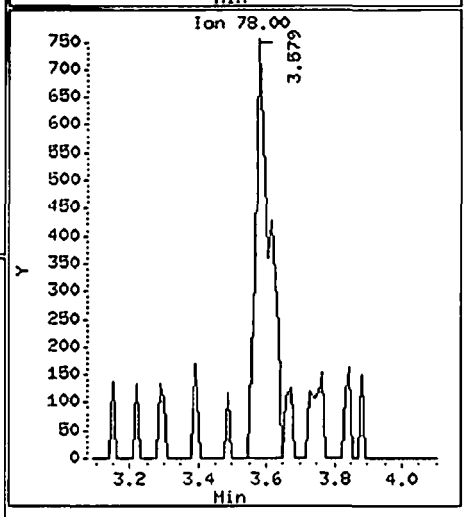












Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D

Date : 07-NOV-2011 17:01

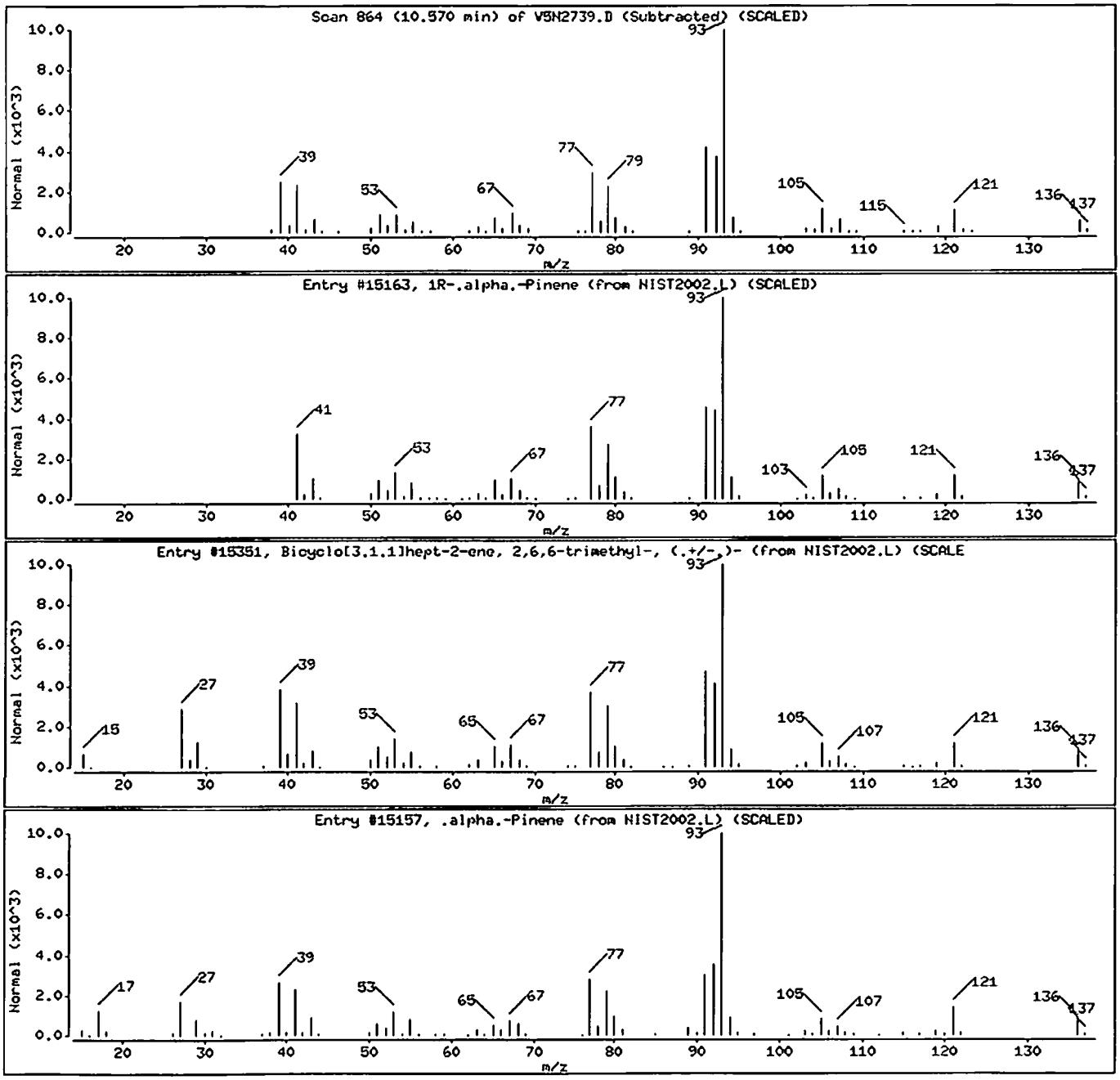
Client ID: H30R4 Instrument: V5.i

Sample Info: SC,K2199-08B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-.alpha.-Pinene	7785-70-8	NIST2002.L	15163	97	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST2002.L	15351	95	C10H16	136
.alpha.-Pinene	80-56-8	NIST2002.L	15157	93	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D

Date : 07-NOV-2011 17:01

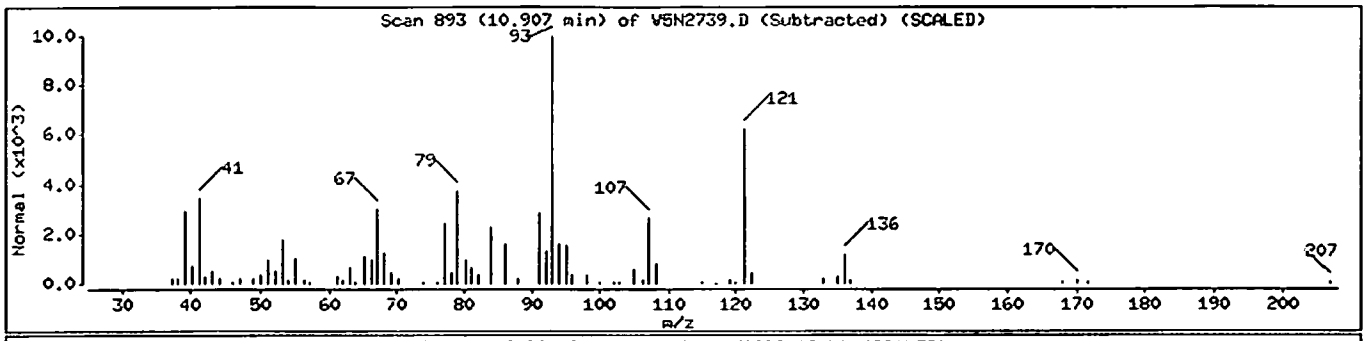
Client ID: H30R4 Instrument: V5.i

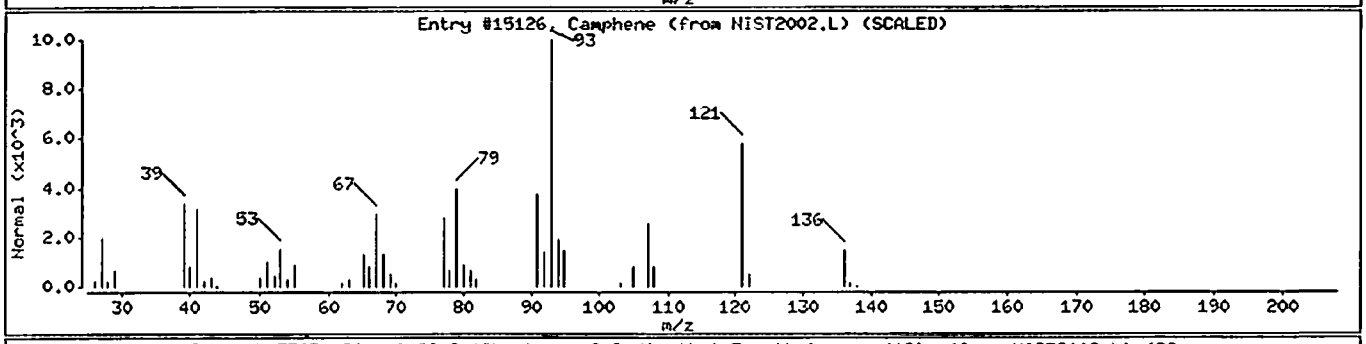
Sample Info: SG,K2199-08B,,62780

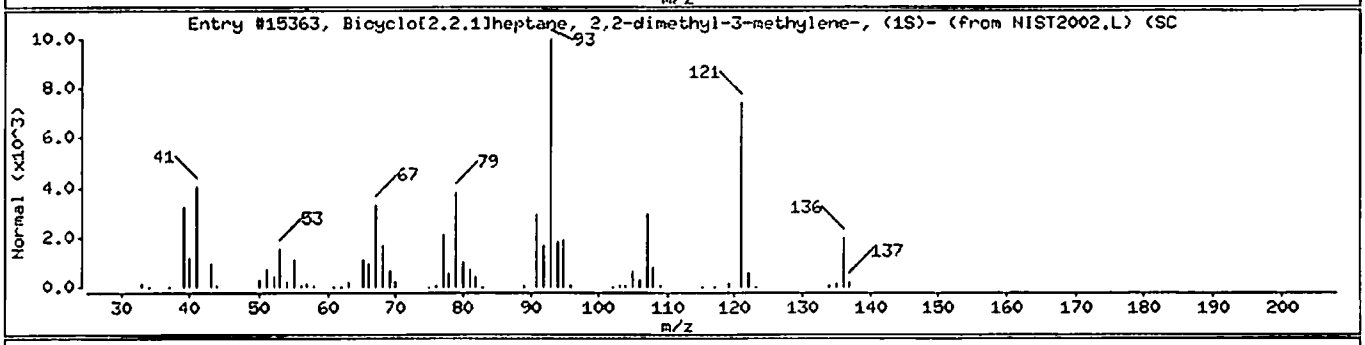
Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Camphene	79-92-5	NIST2002.L	15126	97	C10H16	136
Bicyclo[2.2.1]heptane, 2,2-dimethyl-3-me	5794-04-7	NIST2002.L	15363	93	C10H16	136







Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D

Date : 07-NOV-2011 17:01

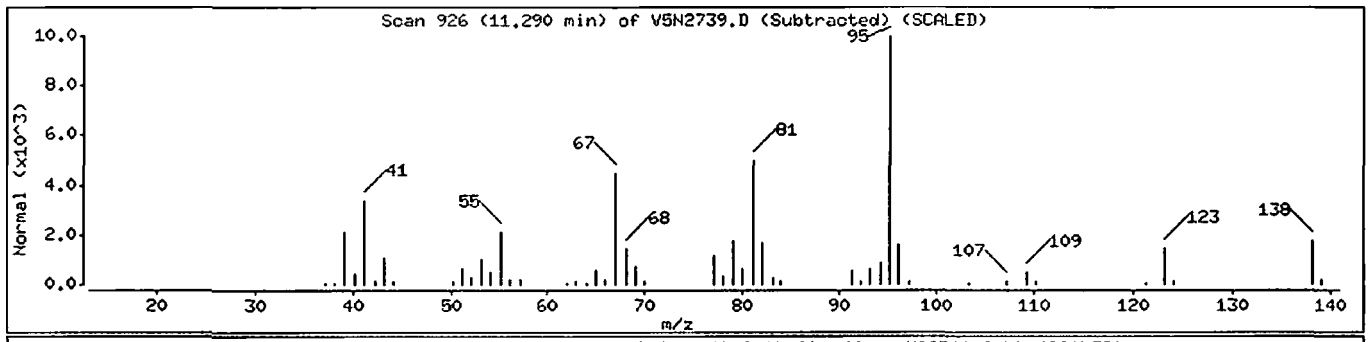
Client ID: H30R4 Instrument: V5.i

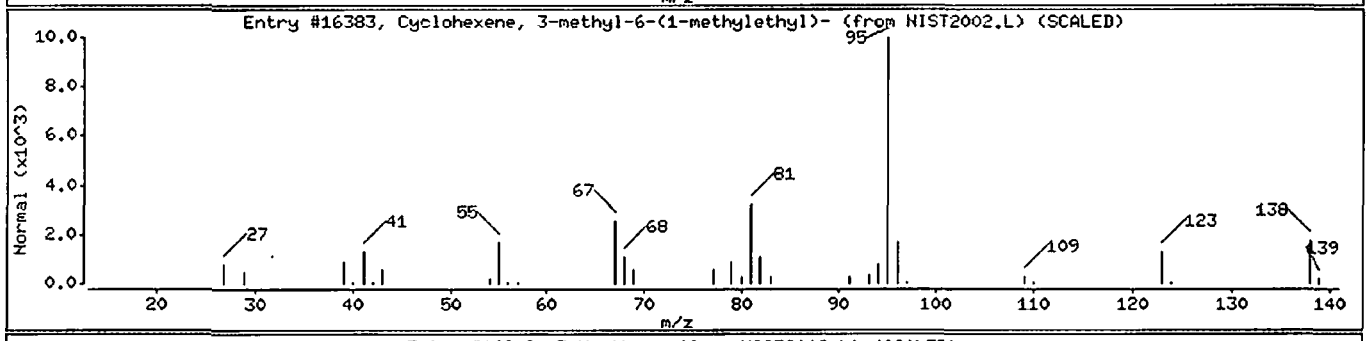
Sample Info: 5G,K2199-08B,,62780

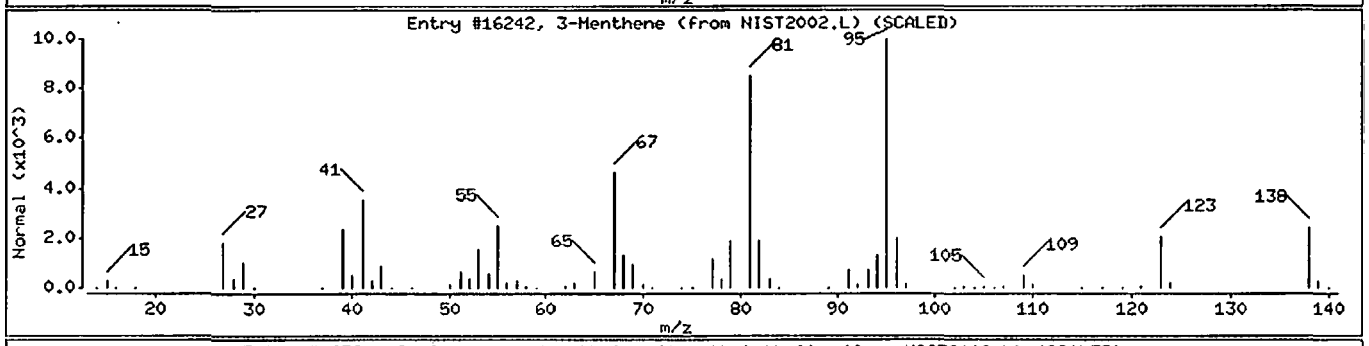
Operator: SRC: LIMS

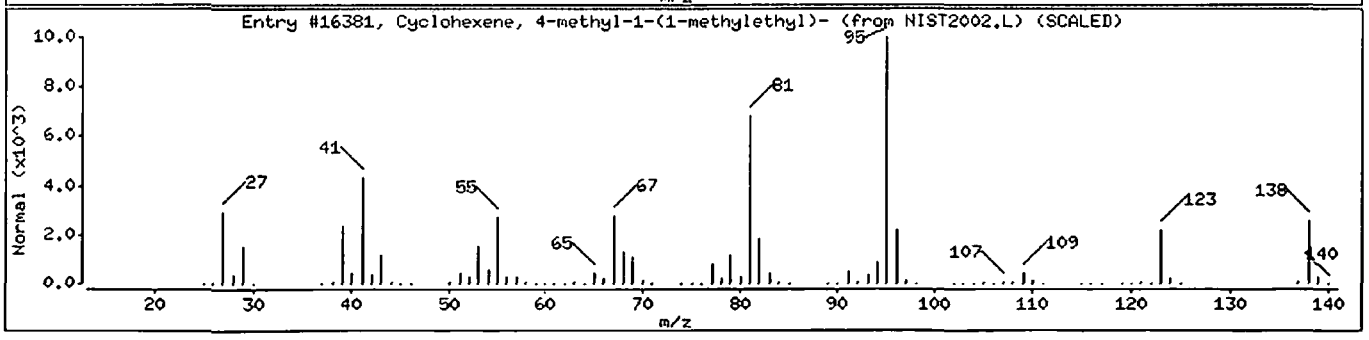
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16383	94	C10H18	138
3-Menthene	1000118-83-1	NIST2002.L	16242	91	C10H18	138
Cyclohexene, 4-methyl-1-(1-methylethyl)-	500-00-5	NIST2002.L	16381	90	C10H18	138









Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D

Date : 07-NOV-2011 17:01

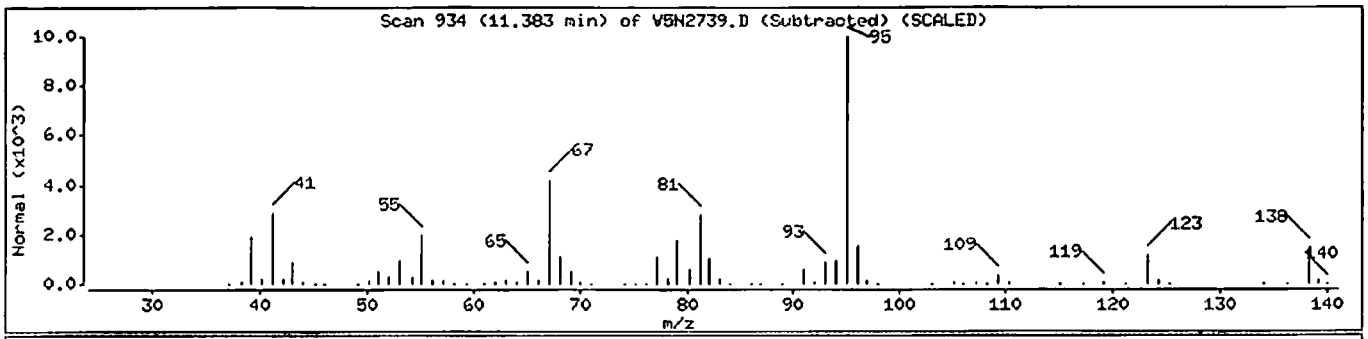
Client ID: H30R4 Instrument: V5.i

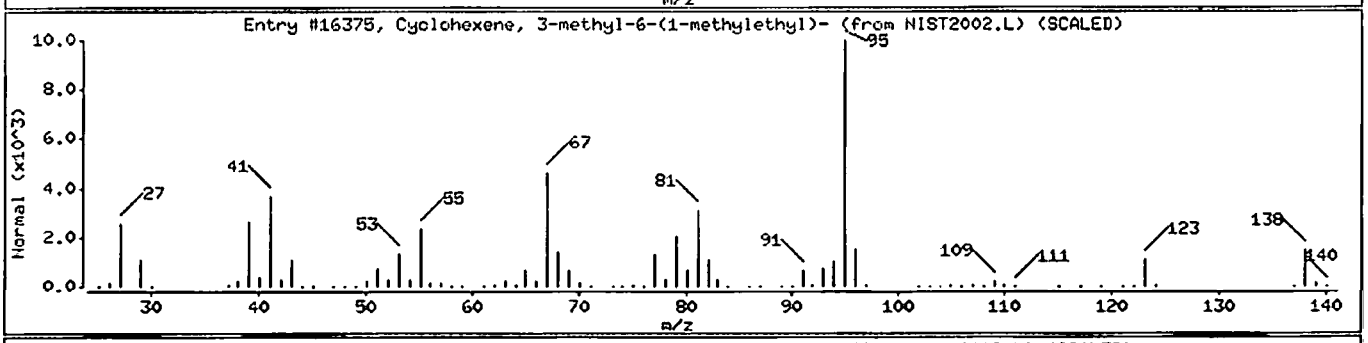
Sample Info: 5G,K2199-08B,,62780

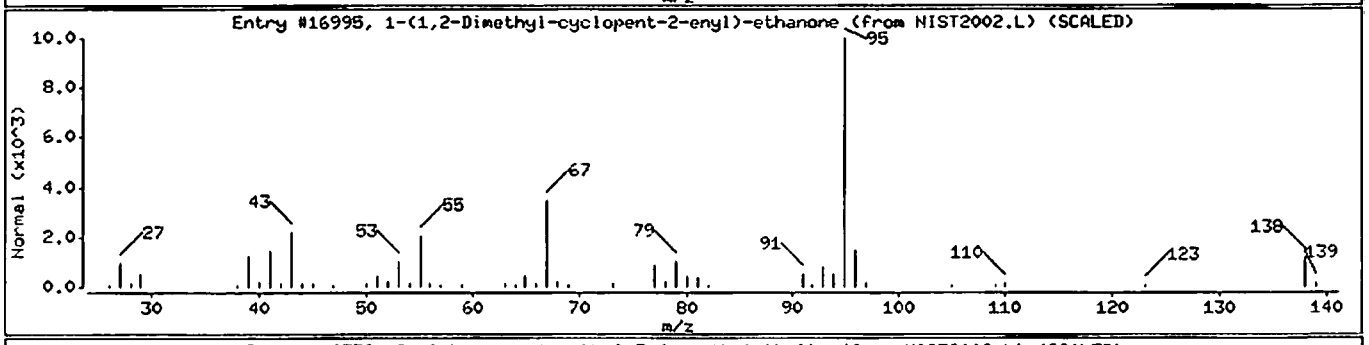
Operator: SRC: LIMS

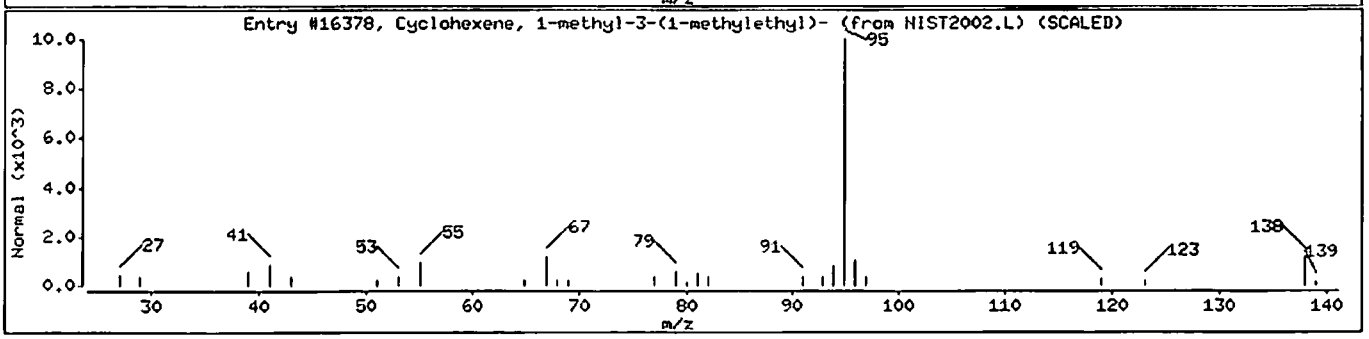
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16375	96	C10H18	138
1-(1,2-Dimethyl-cyclopent-2-enyl)-ethano	70987-82-5	NIST2002.L	16995	87	C9H14O	138
Cyclohexene, 1-methyl-3-(1-methylethyl)-	13828-31-4	NIST2002.L	16378	86	C10H18	138









Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D

Date : 07-NOV-2011 17:01

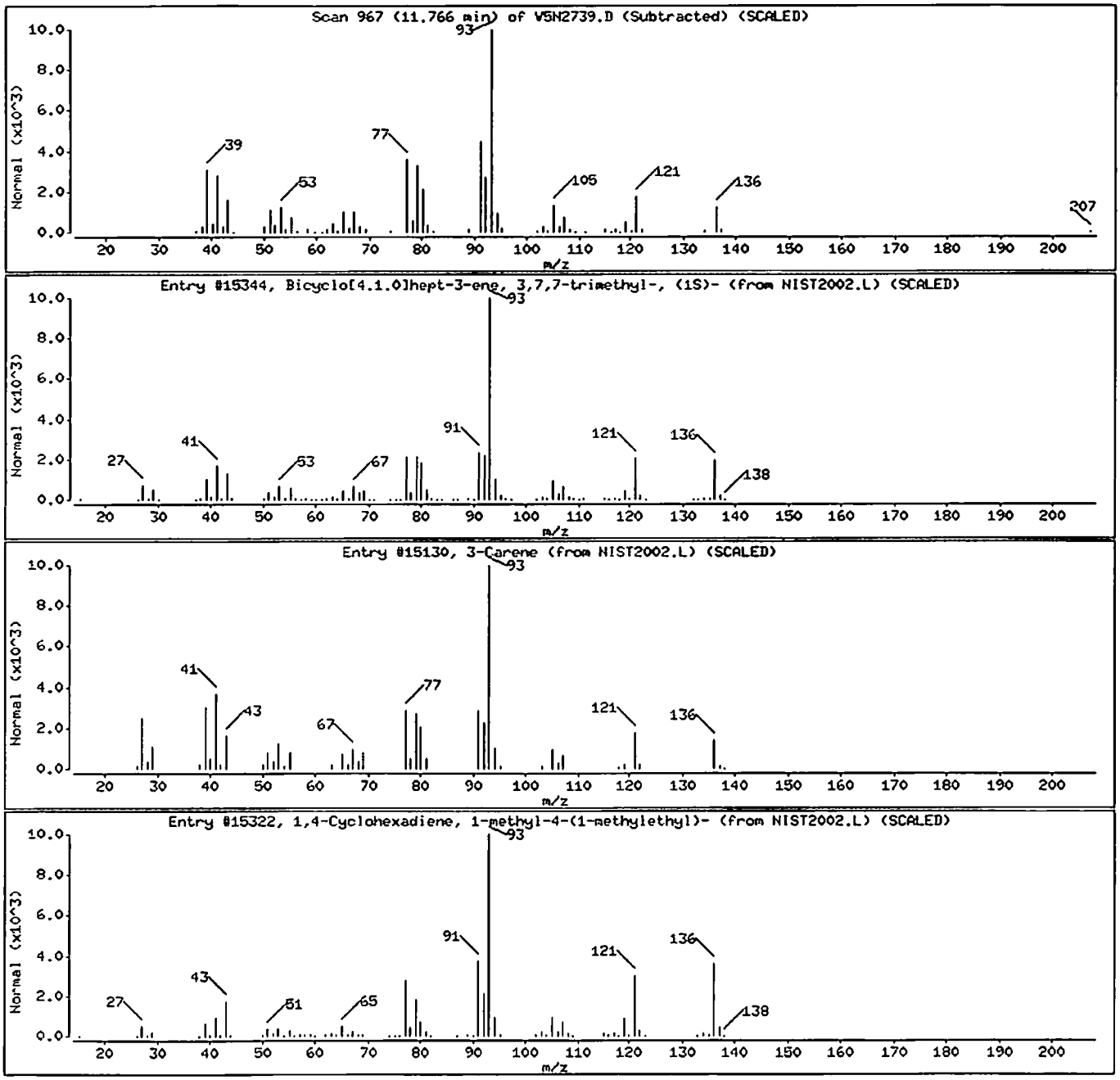
Client ID: H30R4 Instrument: V5.i

Sample Info: 5G,K2199-08B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	498-15-7	NIST2002.L	15344	97	C10H16	136
3-Carene	13466-78-9	NIST2002.L	15130	96	C10H16	136
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl	99-85-4	NIST2002.L	15322	95	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D

Date : 07-NOV-2011 17:01

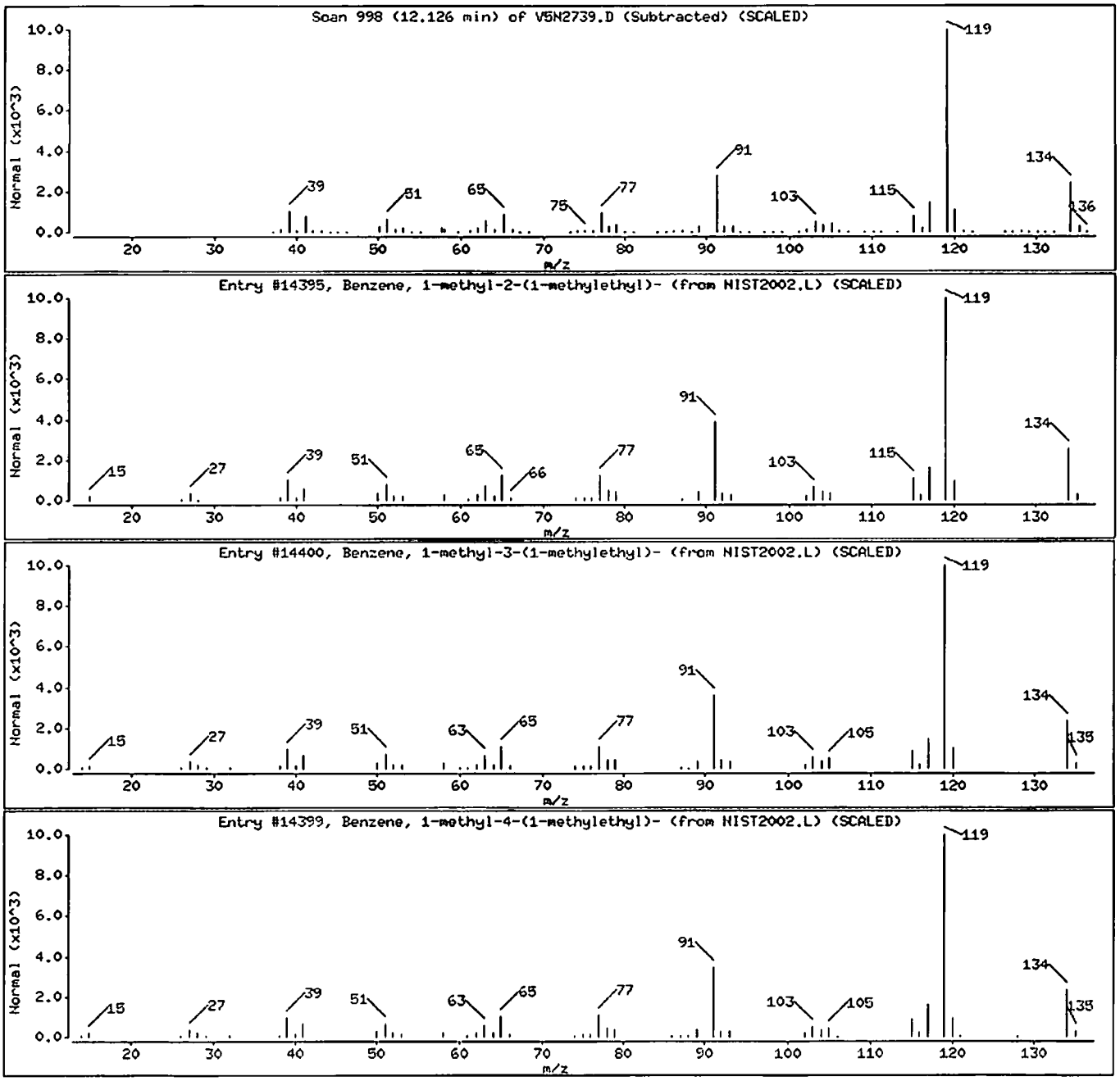
Client ID: H30R4 Instrument: V5.i

Sample Info: 5C,K2199-08B,,62780

Operator: SRC: LIHS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	96	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	96	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	96	C10H14	134



Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D

Date : 07-NOV-2011 17:01

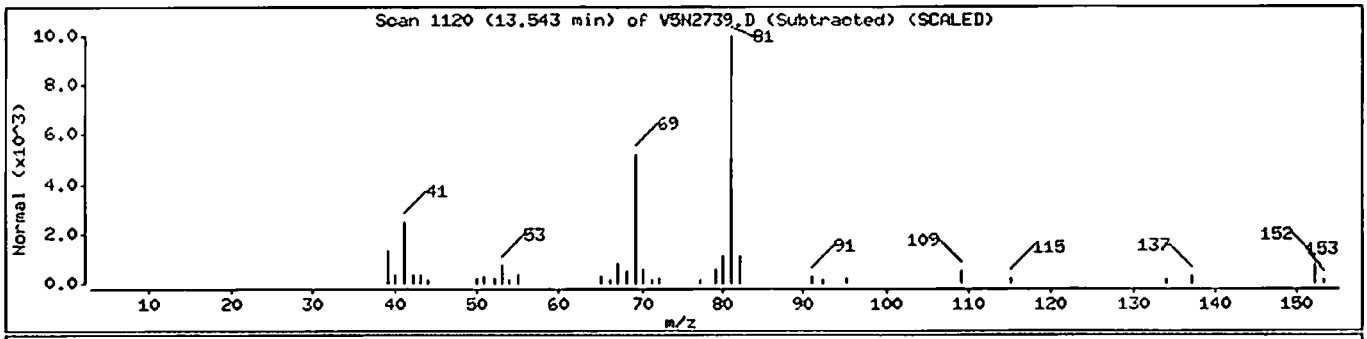
Client ID: H30R4 Instrument: V5.i

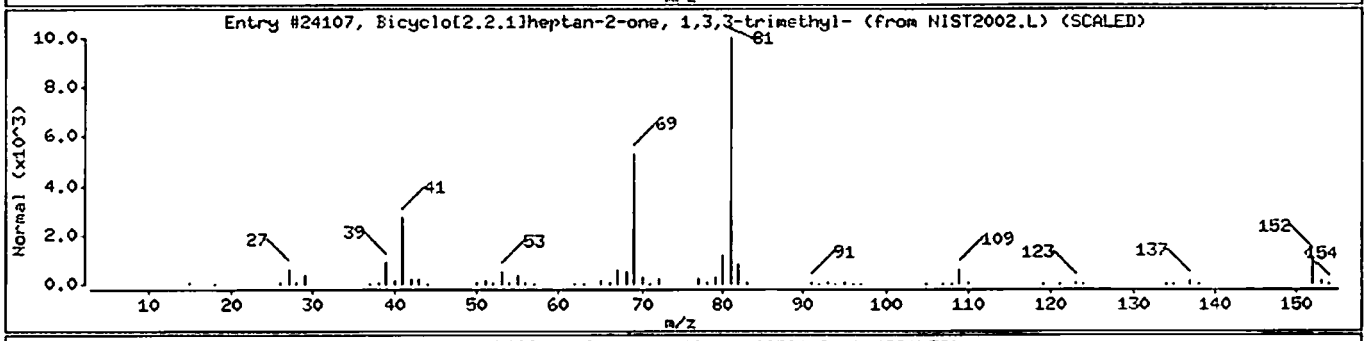
Sample Info: 5G,K2199-08B,,62780

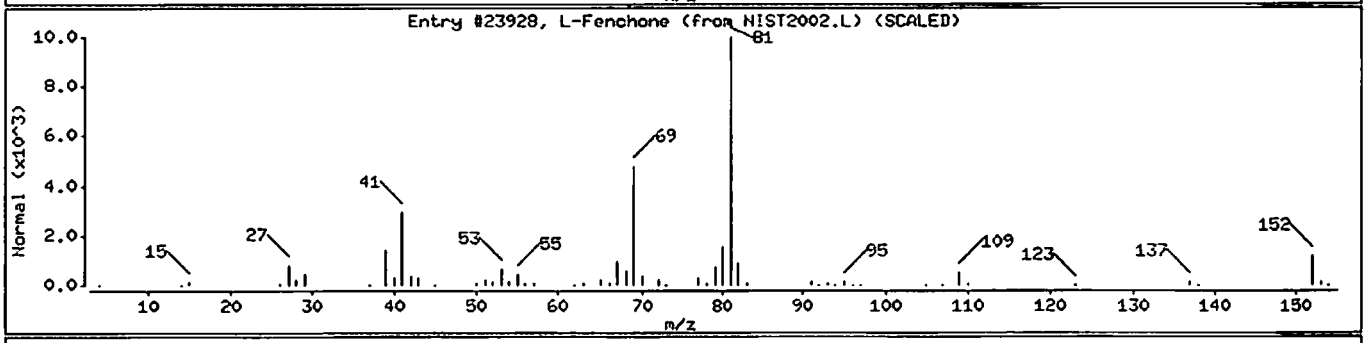
Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptan-2-one, 1,3,3-trimet	4695-62-9	NIST2002.L	24107	91	C10H16O	152
L-Fenchone	126-21-6	NIST2002.L	23928	86	C10H16O	152







Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D

Date : 07-NOV-2011 17:01

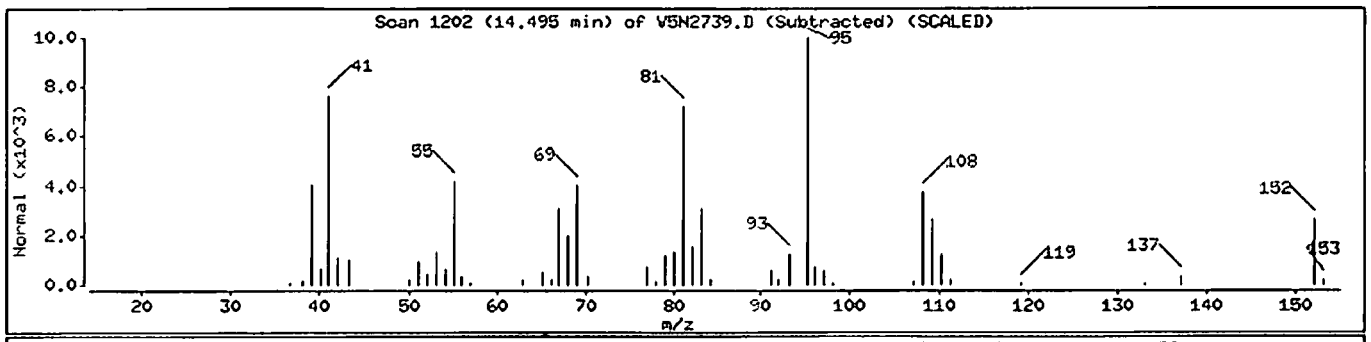
Client ID: H30R4 Instrument: V5.i

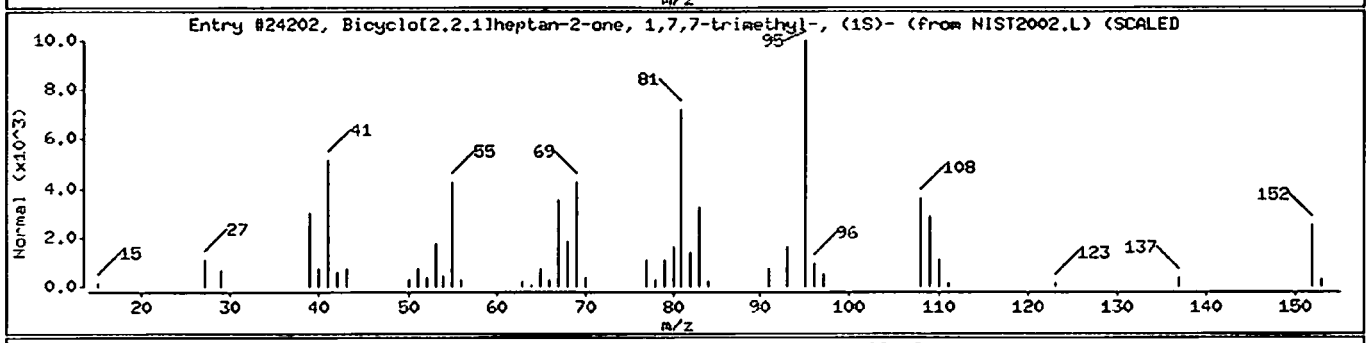
Sample Info: 5G,K2199-08B,,62780

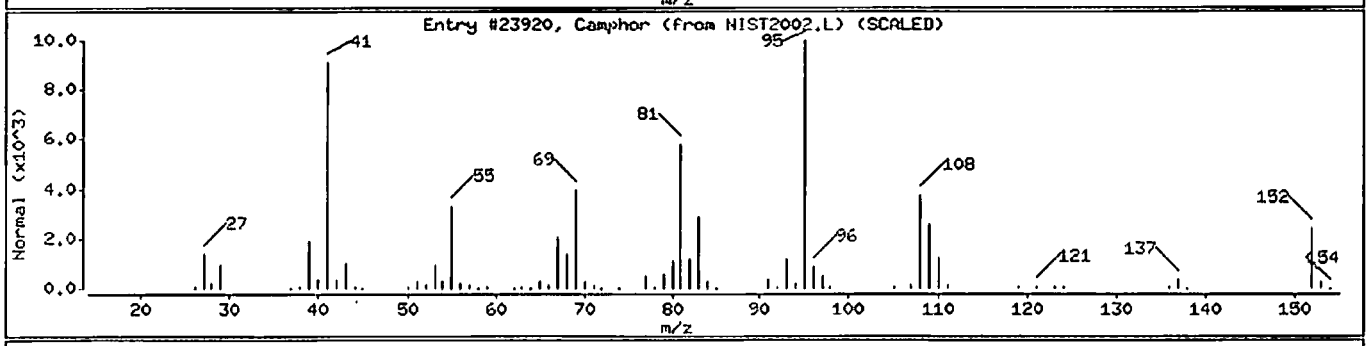
Operator: SRC: LIHS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet	464-48-2	NIST2002.L	24202	98	C10H16O	152
Camphor	76-22-2	NIST2002.L	23920	97	C10H16O	152







Data File: \\avogadro\organics\V5.I\111107.B\V5N2739.D

Date : 07-NOV-2011 17:01

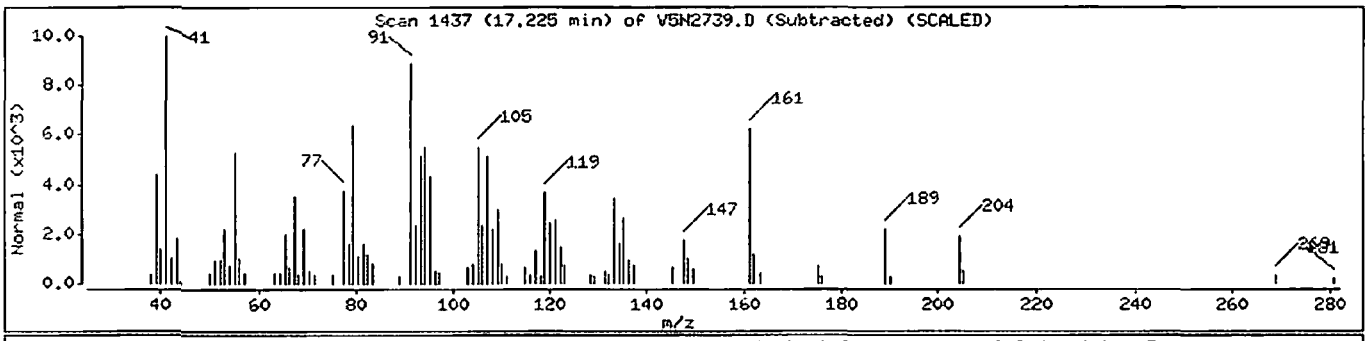
Client ID: H30R4 Instrument: V5.i

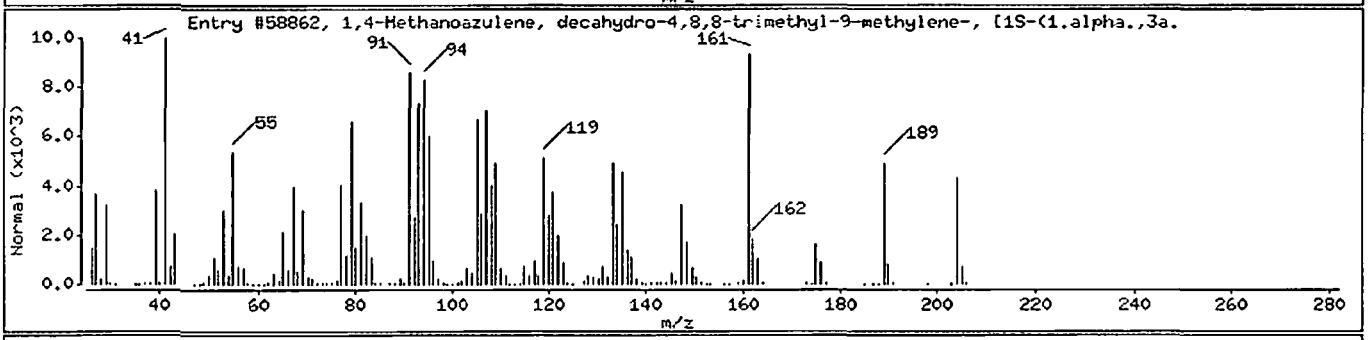
Sample Info: 5C,K2199-08B,,62780

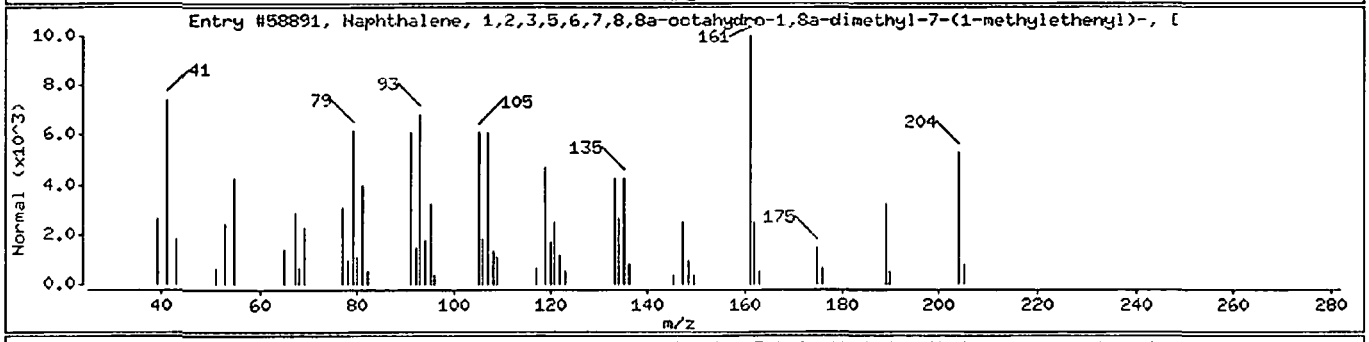
Operator: SRC: LIMS

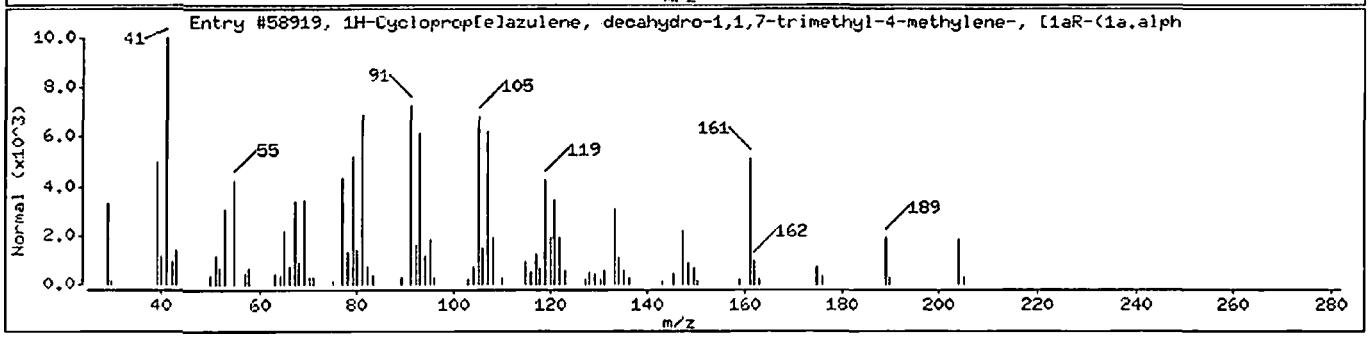
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58862	99	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST2002.L	58891	97	C15H24	204
1H-Cycloprop[e]azulene, decahydro-1,1,7-	25246-27-9	NIST2002.L	58919	97	C15H24	204









1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-09B

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V5N2726A.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 67 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	16	U
74-87-3	Chloromethane	16	U
75-01-4	Vinyl chloride	16	U
74-83-9	Bromomethane	16	U
75-00-3	Chloroethane	16	U
75-69-4	Trichlorofluoromethane	16	U
75-35-4	1,1-Dichloroethene	16	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	16	U
67-64-1	Acetone	32	U
75-15-0	Carbon disulfide	16	U
79-20-9	Methyl acetate	16	U
75-09-2	Methylene chloride	16	U
156-60-5	trans-1,2-Dichloroethene	16	U
1634-04-4	Methyl tert-butyl ether	16	U
75-34-3	1,1-Dichloroethane	16	U
156-59-2	cis-1,2-Dichloroethene	16	U
78-93-3	2-Butanone	32	U
74-97-5	Bromochloromethane	16	U
67-66-3	Chloroform	16	U
71-55-6	1,1,1-Trichloroethane	16	U
110-82-7	Cyclohexane	16	U
56-23-5	Carbon tetrachloride	16	U
71-43-2	Benzene	16	U
107-06-2	1,2-Dichloroethane	16	U
123-91-1	1,4-Dioxane	320	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-09B

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V5N2726A.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 67 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	16	U
108-87-2	Methylcyclohexane	16	U
78-87-5	1,2-Dichloropropane	16	U
75-27-4	Bromodichloromethane	16	U
10061-01-5	cis-1,3-Dichloropropene	16	U
108-10-1	4-Methyl-2-pentanone	32	U
108-88-3	Toluene	16	U
10061-02-6	trans-1,3-Dichloropropene	16	U
79-00-5	1,1,2-Trichloroethane	16	U
127-18-4	Tetrachloroethene	16	U
591-78-6	2-Hexanone	32	U
124-48-1	Dibromochloromethane	16	U
106-93-4	1,2-Dibromoethane	16	U
108-90-7	Chlorobenzene	16	U
100-41-4	Ethylbenzene	16	U
179601-23-1	m,p-Xylene	16	U
95-47-6	o-Xylene	16	U
100-42-5	Styrene	16	U
75-25-2	Bromoform	16	U
98-82-8	Isopropylbenzene	16	U
79-34-5	1,1,2,2-Tetrachloroethane	16	U
541-73-1	1,3-Dichlorobenzene	16	U
106-46-7	1,4-Dichlorobenzene	16	U
95-50-1	1,2-Dichlorobenzene	16	U
96-12-8	1,2-Dibromo-3-chloropropane	16	U
120-82-1	1,2,4-Trichlorobenzene	16	U
87-61-6	1,2,3-Trichlorobenzene	16	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30R6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-09B

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V5N2726A.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 67 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2726A.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2726A.D
Lab Smp Id: K2199-09B Client Smp ID: H30R6
Inj Date : 07-NOV-2011 11:07
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-09B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.700	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.156	2.168	(0.341)	107306	37.0899	39
$ 80 Chloroethane-d5	69	2.586	2.597	(0.409)	72427	38.7024	41
$ 81 1,1-Dichloroethene-d2	65	3.353	3.364	(0.530)	26710	44.5114	47(Q)
$ 82 2-Butanone-d5	46	5.071	5.071	(0.802)	51694	64.0681	68
$ 83 Chloroform-d	84	5.385	5.385	(0.851)	151028	43.5717	46(Q)
$ 23 1,2-Dichloroethane-d4	65	5.896	5.896	(0.932)	74077	39.5947	42(Q)
$ 84 Benzene-d6	84	5.907	5.907	(0.627)	289771	48.6946	52
* 26 1,4-Difluorobenzene	114	6.325	6.325	(1.000)	303841	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.732	6.732	(0.714)	104383	42.4454	45
$ 94 1,4-Dioxane-d8	96	6.918	6.917	(1.094)	12727	714.716	760
$ 33 Toluene-d8	98	7.847	7.835	(0.832)	260513	47.4230	50
$ 86 trans-1,3-Dichloropropene-d4	79	8.125	8.114	(0.862)	67158	36.2705	39
$ 87 2-Hexanone-d5	63	8.590	8.578	(0.911)	23691	50.0727	53
* 42 Chlorobenzene-d5	117	9.426	9.426	(1.000)	224734	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.936	10.924	(1.160)	59697	37.0873	39
* 78 1,4-Dichlorobenzene-d4	152	12.178	12.167	(1.000)	71401	50.0000	
$ 90 1,2-Dichlorobenzene-d4	152	12.643	12.631	(1.038)	61989	46.4730	49(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2726A.D
Report Date: 09-Nov-2011 08:00

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2726A.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2726A.D
Lab Smp Id: K2199-09B Client Smp ID: H30R6
Inj Date : 07-NOV-2011 11:07
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-09B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

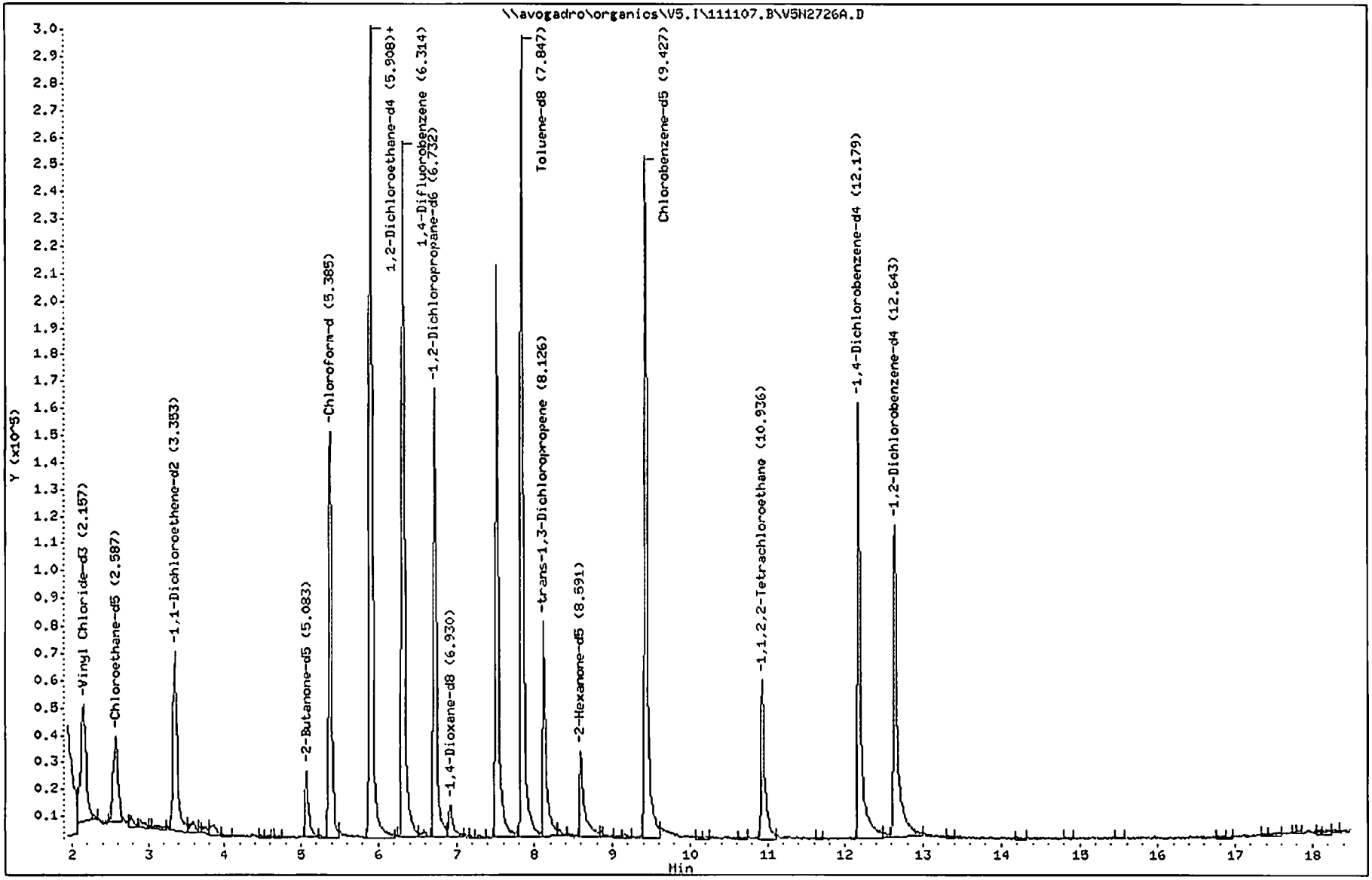
Data File: \\avogadro\organics\V5.I\111107.B\V5N2726A.D
Date : 07-NOV-2011 11:07
Client ID: H30R6
Sample Info: SC,K2199-09B,,62780

Instrument: V5.i

Operator: SRC: LIMS

Column phase: DB-624

Column diameter: 0.25



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-10B

Sample wt/vol: 4.90 (g/mL) G Lab File ID: V5N2741.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 24 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	6.7	U
74-87-3	Chloromethane	6.7	U
75-01-4	Vinyl chloride	6.7	U
74-83-9	Bromomethane	6.7	U
75-00-3	Chloroethane	6.7	U
75-69-4	Trichlorofluoromethane	6.7	U
75-35-4	1,1-Dichloroethene	6.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.7	U
67-64-1	Acetone	110	
75-15-0	Carbon disulfide	8.9	
79-20-9	Methyl acetate	6.7	U
75-09-2	Methylene chloride	6.4	J
156-60-5	trans-1,2-Dichloroethene	6.7	U
1634-04-4	Methyl tert-butyl ether	6.7	U
75-34-3	1,1-Dichloroethane	6.7	U
156-59-2	cis-1,2-Dichloroethene	6.7	U
78-93-3	2-Butanone	30	
74-97-5	Bromochloromethane	6.7	U
67-66-3	Chloroform	6.1	J
71-55-6	1,1,1-Trichloroethane	6.7	U
110-82-7	Cyclohexane	6.7	U
56-23-5	Carbon tetrachloride	6.7	U
71-43-2	Benzene	6.7	U
107-06-2	1,2-Dichloroethane	6.7	U
123-91-1	1,4-Dioxane	130	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-10B

Sample wt/vol: 4.90 (g/mL) G Lab File ID: V5N2741.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 24 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	6.7	U
108-87-2	Methylcyclohexane	6.7	U
78-87-5	1,2-Dichloropropane	6.7	U
75-27-4	Bromodichloromethane	6.7	U
10061-01-5	cis-1,3-Dichloropropene	6.7	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	6.7	U
10061-02-6	trans-1,3-Dichloropropene	6.7	U
79-00-5	1,1,2-Trichloroethane	6.7	U
127-18-4	Tetrachloroethene	6.7	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	6.7	U
106-93-4	1,2-Dibromoethane	6.7	U
108-90-7	Chlorobenzene	6.7	U
100-41-4	Ethylbenzene	6.7	U
179601-23-1	m,p-Xylene	6.7	U
95-47-6	o-Xylene	6.7	U
100-42-5	Styrene	6.7	U
75-25-2	Bromoform	6.7	U
98-82-8	Isopropylbenzene	6.7	U
79-34-5	1,1,2,2-Tetrachloroethane	6.7	U
541-73-1	1,3-Dichlorobenzene	6.7	U
106-46-7	1,4-Dichlorobenzene	6.7	U
95-50-1	1,2-Dichlorobenzene	6.7	U
96-12-8	1,2-Dibromo-3-chloropropane	6.7	U
120-82-1	1,2,4-Trichlorobenzene	6.7	U
87-61-6	1,2,3-Trichlorobenzene	6.7	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30R7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-10B

Sample wt/vol: 4.90 (g/mL) G Lab File ID: V5N2741.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 24 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	3.460	12	J
02	7785-26-4	1S-.alpha.-Pinene	10.404	29	NJ
03	7785-70-8	1R-.alpha.-Pinene	10.567	130	NJ
04	79-92-5	Camphene	10.904	200	NJ
05	619-52-3	Cyclohexene, 4-methyl-1-(1-m	11.299	84	NJ
06	5256-65-5	Cyclohexene, 3-methyl-6-(1-m	11.392	800	NJ
07	586-62-9	Cyclohexene, 1-methyl-4-(1-m	11.624	16	NJ
08	13466-78-9	3-Carene	11.775	1100	NJ
09	1195-31-9	Cyclohexene, 1-methyl-4-(1-m	11.937	21	NJ
10	138-86-3	Limonene	12.065	120	NJ
11	527-84-4	Benzene, 1-methyl-2-(1-methy	12.135	2800	NJ
12	586-62-9	Cyclohexene, 1-methyl-4-(1-m	12.924	13	NJ
13	4695-62-9	Bicyclo[2.2.1]heptan-2-one,	13.528	22	NJ
14		Unknown-02	14.341	7.0	J
15	464-48-2	Bicyclo[2.2.1]heptan-2-one,	14.492	78	NJ
16	475-20-7	1,4-Methanoazulene, decahydr	17.233	18	NJ
	E96679[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2741.D
Lab Smp Id: K2199-10B Client Smp ID: H30R7
Inj Date : 07-NOV-2011 17:55
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-10B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.900	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.170	2.168	(0.344)	104073	38.7237	40
$ 80 Chloroethane-d5	69	2.588	2.597	(0.410)	84041	48.3433	49(Q)
$ 81 1,1-Dichloroethene-d2	65	3.355	3.364	(0.531)	25127	45.0761	46(Q)
9 Acetone	43	3.436	3.445	(0.544)	42096	81.8605	84
10 Carbon Disulfide	76	3.587	3.596	(0.568)	55401	6.61442	6.7
12 Methylene Chloride	84	3.854	3.852	(0.610)	10491	4.79116	4.9
$ 82 2-Butanone-d5	46	5.074	5.071	(0.803)	80866	107.889	110
16 2-Butanone	43	5.143	5.129	(0.814)	16524	21.9850	22
$ 83 Chloroform-d	84	5.387	5.385	(0.853)	163623	50.8159	52(Q)
19 Chloroform	83	5.399	5.396	(0.855)	16312	4.53669	4.6
$ 23 1,2-Dichloroethane-d4	65	5.898	5.896	(0.934)	90144	51.8679	53(Q)
$ 84 Benzene-d6	84	5.910	5.907	(0.627)	292132	58.0380	59
* 26 1,4-Difluorobenzene	114	6.316	6.325	(1.000)	282253	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.723	6.732	(0.713)	113831	54.7229	56
$ 94 1,4-Dioxane-d8	96	6.920	6.917	(1.096)	18270	1104.47	1100
$ 33 Toluene-d8	98	7.837	7.835	(0.831)	226240	48.6896	50
$ 86 trans-1,3-Dichloropropene-d4	79	8.128	8.114	(0.862)	60905	38.8880	40
$ 87 2-Hexanone-d5	63	8.581	8.578	(0.910)	39730	99.2758	100(Q)
* 42 Chlorobenzene-d5	117	9.428	9.426	(1.000)	190091	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.926	10.924	(1.159)	55564	40.8107	42
* 78 1,4-Dichlorobenzene-d4	152	12.181	12.167	(1.000)	57384	50.0000	(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D
Report Date: 09-Nov-2011 08:00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
S 90 1,2-Dichlorobenzene-d4	152	12.634	12.631	(1.037)	51614	48.1468	49(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2741.D
Lab Smp Id: K2199-10B Client Smp ID: H30R7
Inj Date : 07-NOV-2011 17:55
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-10B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.900	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 26 1,4-Difluorobenzene	6.317	652578	50.000
* 42 Chlorobenzene-d5	9.429	542969	50.000

RT	AREA	CONCENTRATIONS ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
3.460	114599	8.78046545	9.0	0		0	26
1S-.alpha.-Pinene				CAS #: 7785-26-4			
10.404	238204	21.9352934	22	96	NIST2002.L	15160	42
1R-.alpha.-Pinene				CAS #: 7785-70-8			
10.567	1050977	96.7804567	99	97	NIST2002.L	15163	42
Camphene				CAS #: 79-92-5			
10.904	1592064	146.607155	150	98	NIST2002.L	15134	42

Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D
Report Date: 09-Nov-2011 08:00

RT	AREA	CONCENTRATIONS ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Cyclohexene, 4-methyl-1-(1-methylethyl)-					CAS #: 619-52-3		
11.299	674574	62.1190061	63	95	NIST2002.L	16394	42
Cyclohexene, 3-methyl-6-(1-methylethyl)-					CAS #: 5256-65-5		
11.392	6438138	592.863760	600	96	NIST2002.L	16375	42
Cyclohexene, 1-methyl-4-(1-methylethylid					CAS #: 586-62-9		
11.624	130221	11.9915990	12	86	NIST2002.L	15313	42
3-Carene					CAS #: 13466-78-9		
11.775	8619226	793.711964	810	96	NIST2002.L	15125	42
Cyclohexene, 1-methyl-4-(1-methylethyl)-					CAS #: 1195-31-9		
11.937	171203	15.7654074	16	96	NIST2002.L	16395	42
Limonene					CAS #: 138-86-3		
12.065	1008986	92.9136996	95	90	NIST2002.L	15128	42
Benzene, 1-methyl-2-(1-methylethyl)-					CAS #: 527-84-4		
12.135	22891116	2107.95639	2200	96	NIST2002.L	14395	42
Cyclohexene, 1-methyl-4-(1-methylethylid					CAS #: 586-62-9		
12.924	106192	9.77885841	10	97	NIST2002.L	15309	42
Bicyclo[2.2.1]heptan-2-one, 1,3,3-trimet					CAS #: 4695-62-9		
13.528	179353	16.5159771	17	91	NIST2002.L	24107	42
Unknown					CAS #:		
14.341	56364	5.19031952	5.3	0		0	42
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet					CAS #: 464-48-2		
14.492	630073	58.0210615	59	98	NIST2002.L	24208	42
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
17.233	143238	13.1902819	13	96	NIST2002.L	58862	42

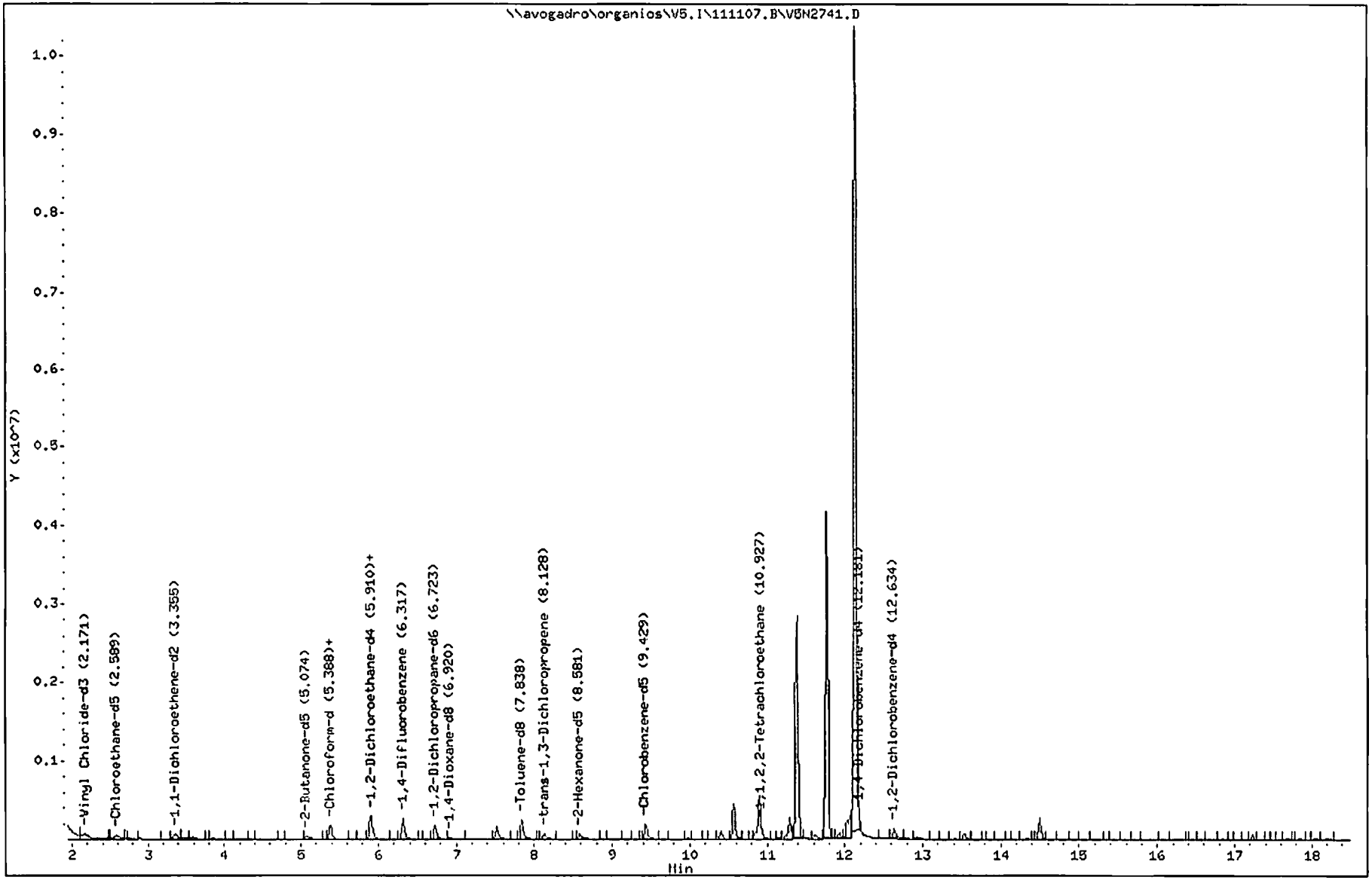
Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D
Date : 07-NOV-2011 17:55
Client ID: H30R7
Sample Info: 5G,K2199-10B,,62780

Instrument: V5.I

Operator: SRC: LIMS

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

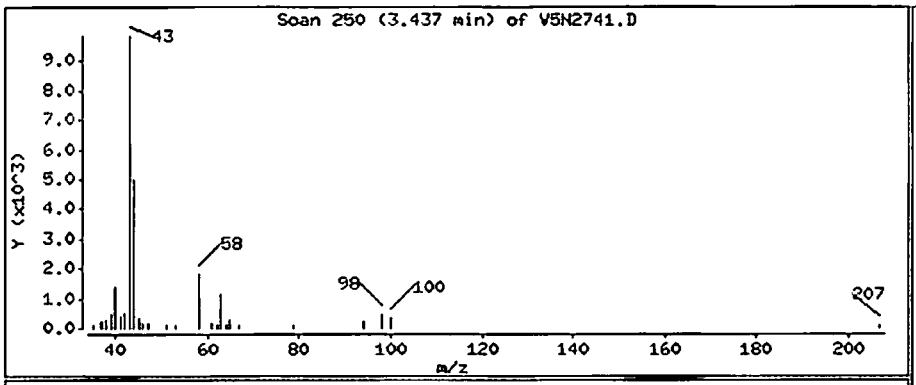
Client ID: H30R7 Instrument: V5.i

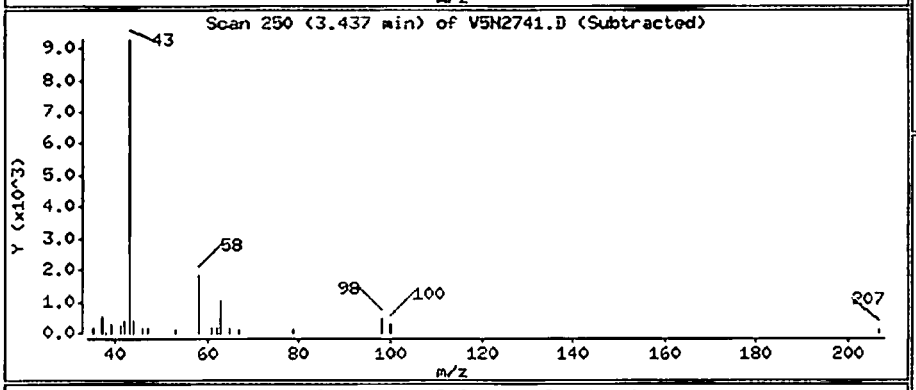
Sample Info: 5G,K2199-10B,,62780

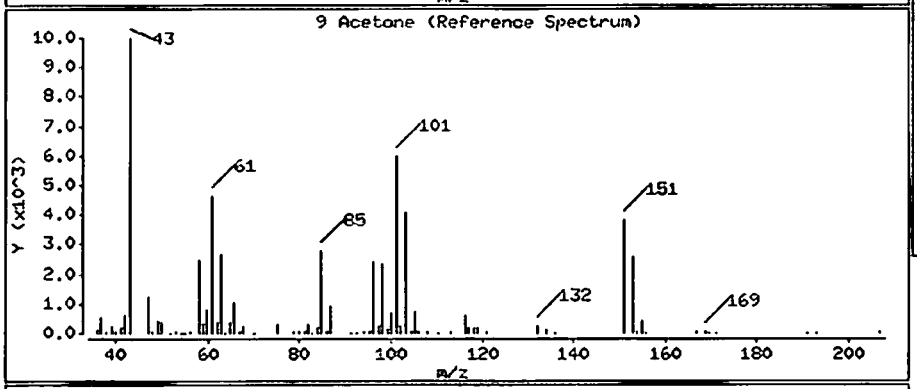
Operator: SRC: LIHS

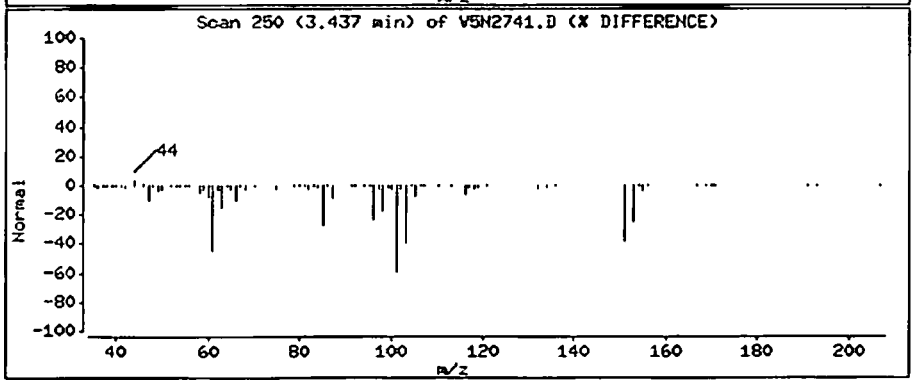
Column phase: DB-624 Column diameter: 0.25

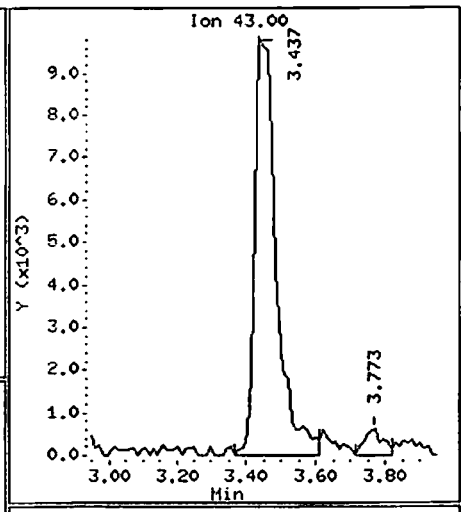
9 Acetone Concentration: 84 ug/Kg

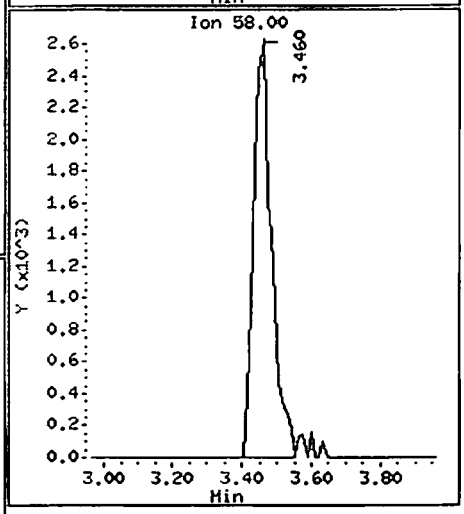












Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

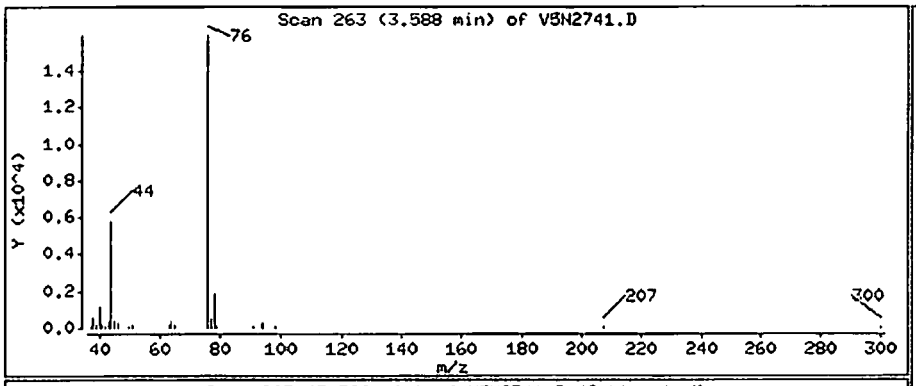
Client ID: H30R7 Instrument: V5.i

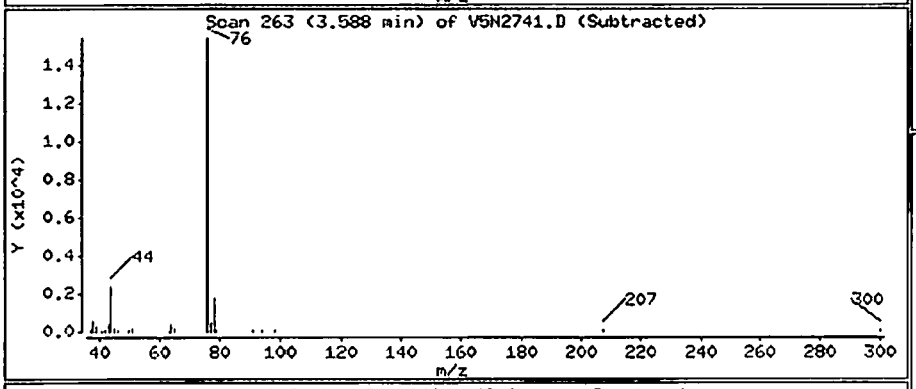
Sample Info: 5C,K2199-10B,,62780

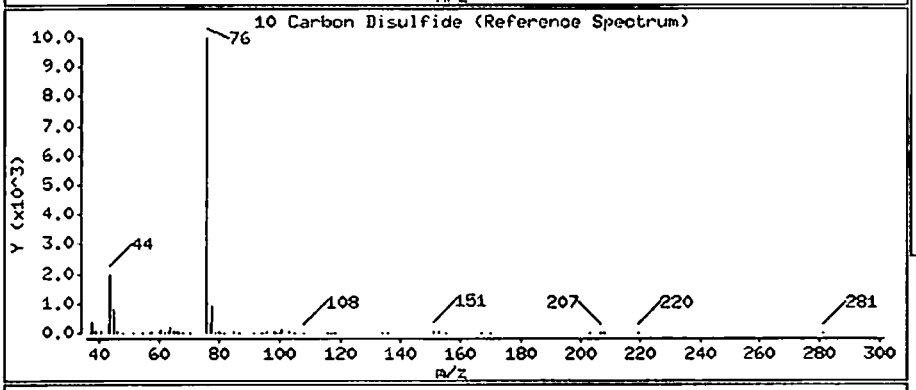
Operator: SRC: LIMS

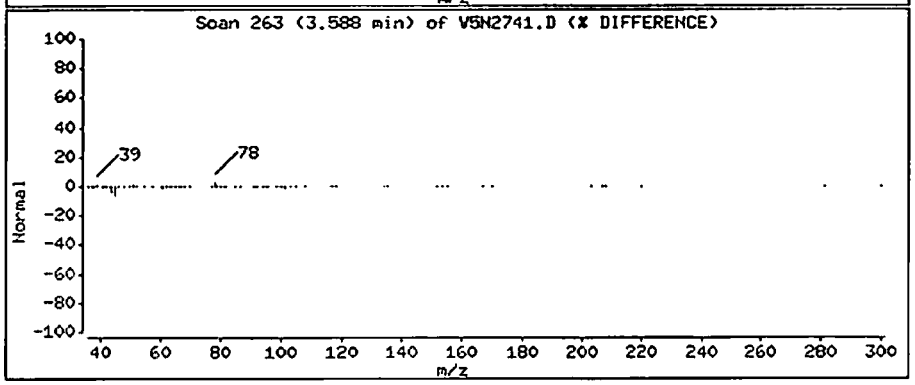
Column phase: DB-624 Column diameter: 0.25

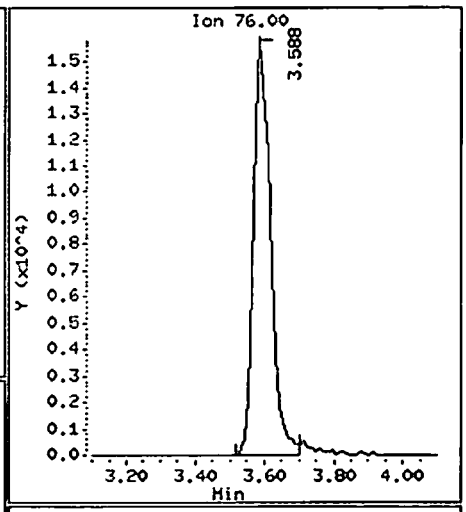
10 Carbon Disulfide Concentration: 6.7 ug/Kg

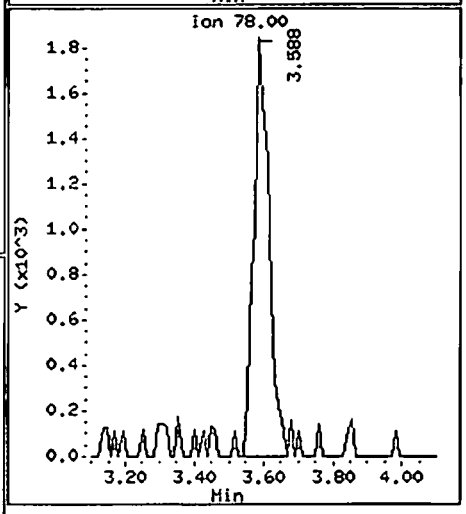












Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

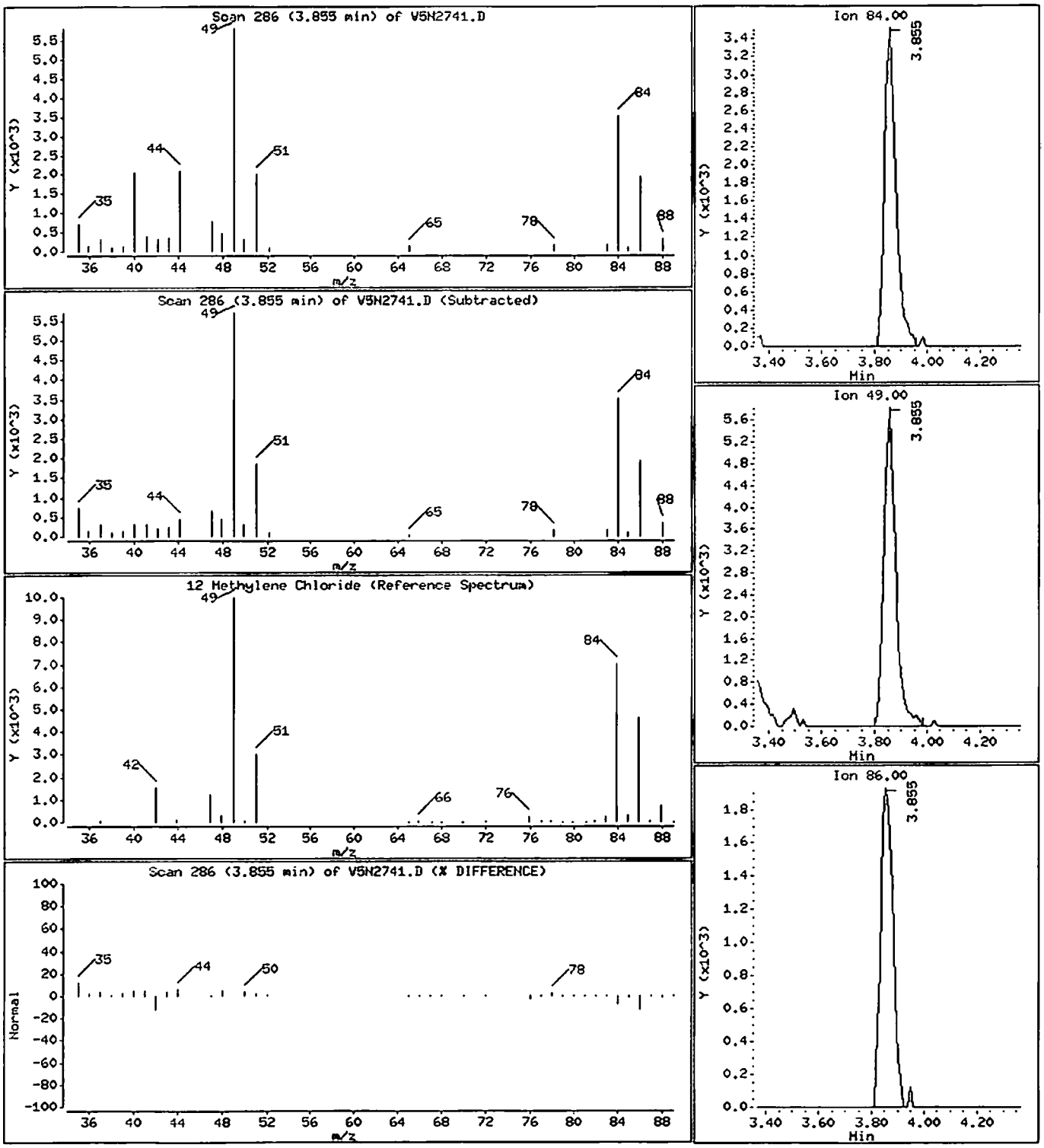
Client ID: H30R7 | Instrument: V5.i

Sample Info: 5G,K2199-10B,,62780

Operator: SRC: LIMS

Column phase: DB-624 | Column diameter: 0.25

12 Methylene Chloride | Concentration: 4.9 ug/Kg



Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

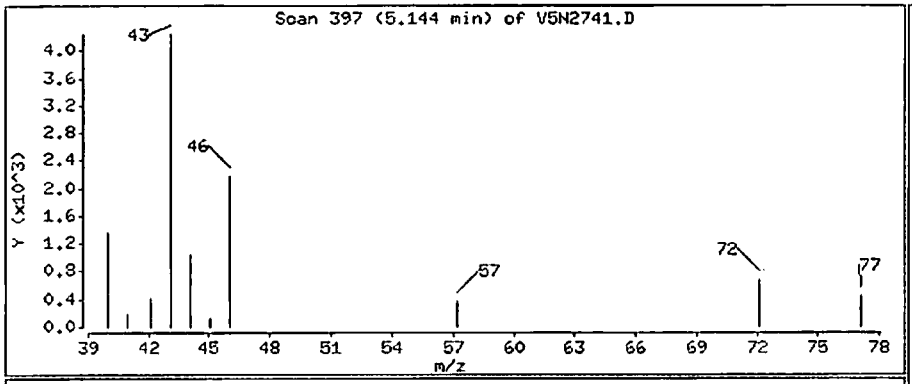
Client ID: H30R7 Instrument: V5.i

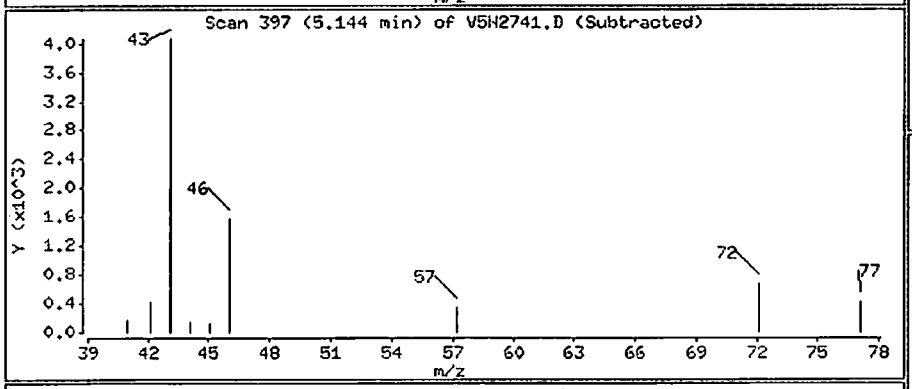
Sample Info: 5G,K2199-10B,,62780

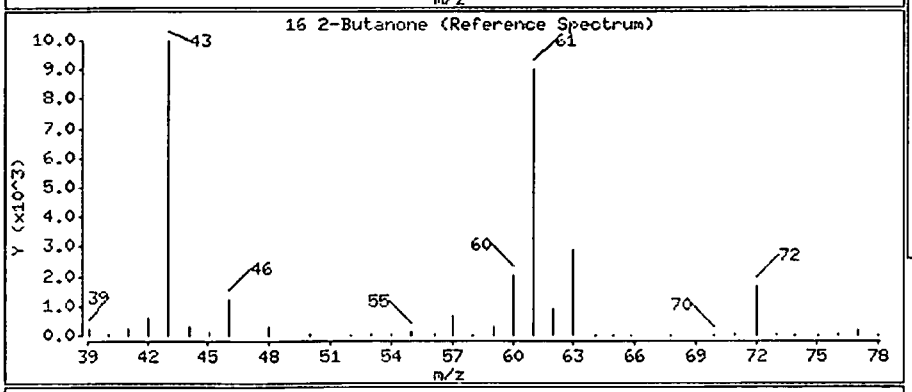
Operator: SRC: LIMS

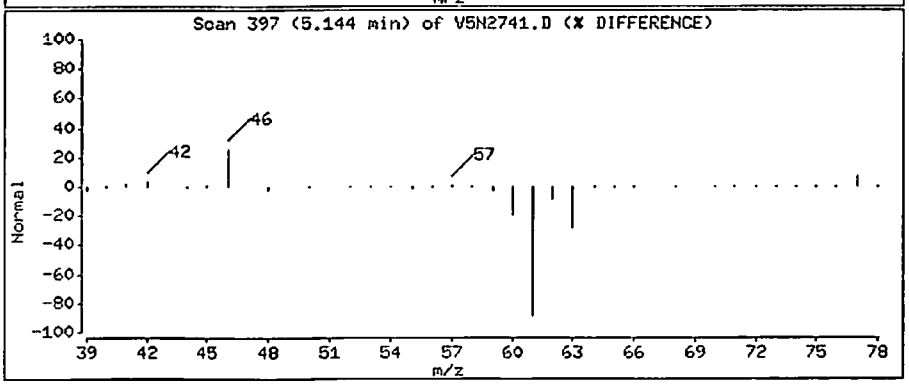
Column phase: DB-624 Column diameter: 0.25

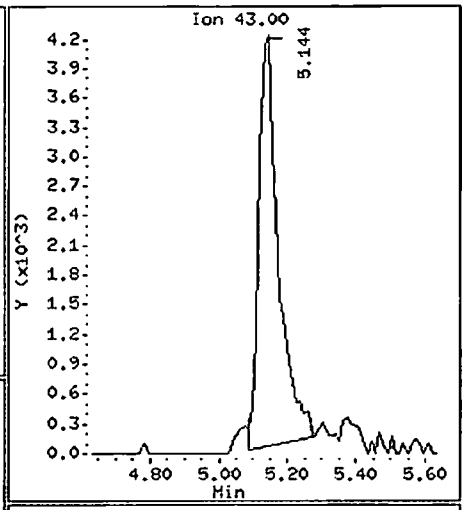
16 2-Butanone Concentration: 22 ug/Kg

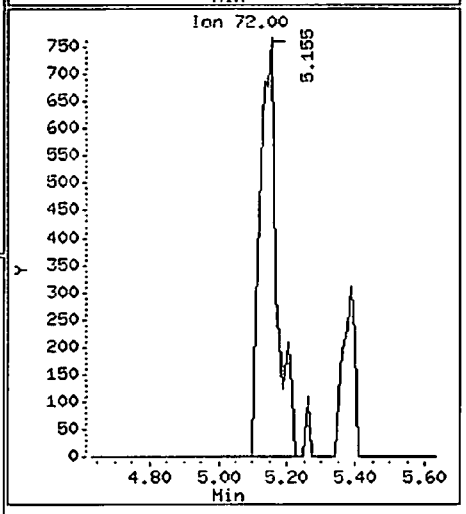












Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

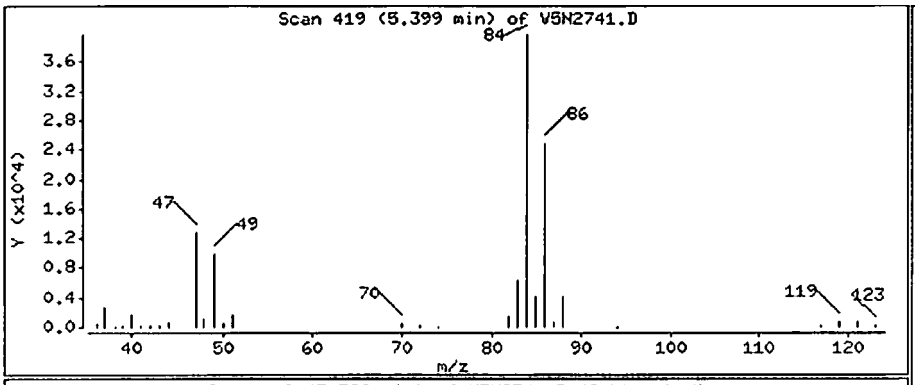
Client ID: H30R7 Instrument: V5.i

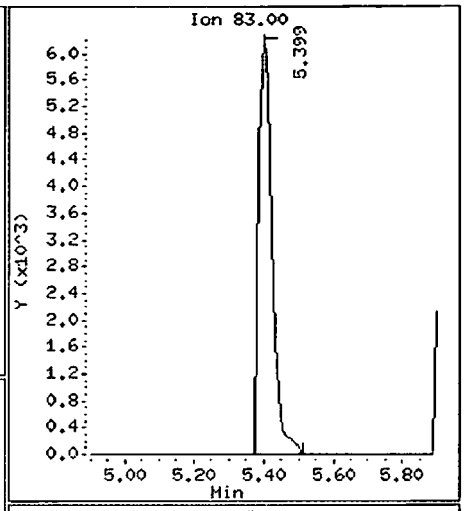
Sample Info: 5G,K2199-10B,,62780

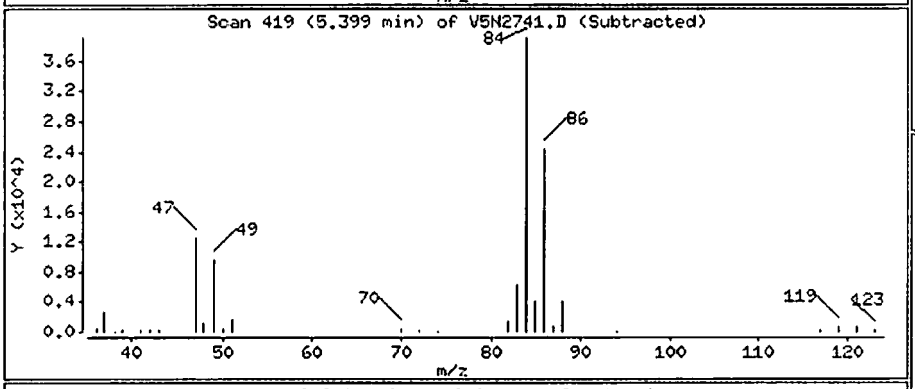
Operator: SRC: LIMS

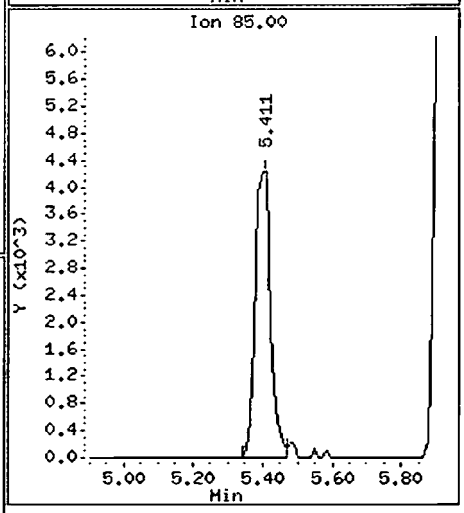
Column phase: DB-624 Column diameter: 0.25

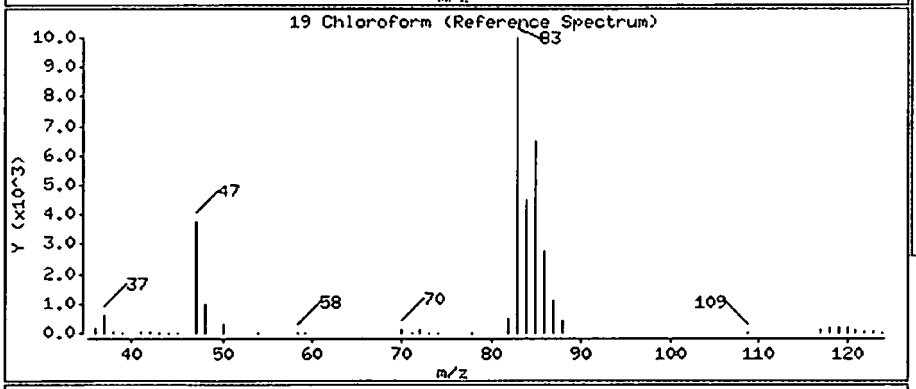
19 Chloroform Concentration: 4.6 ug/Kg

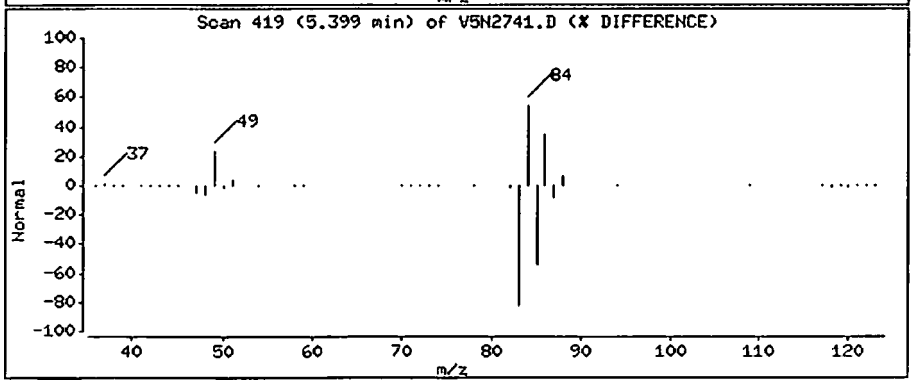












Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

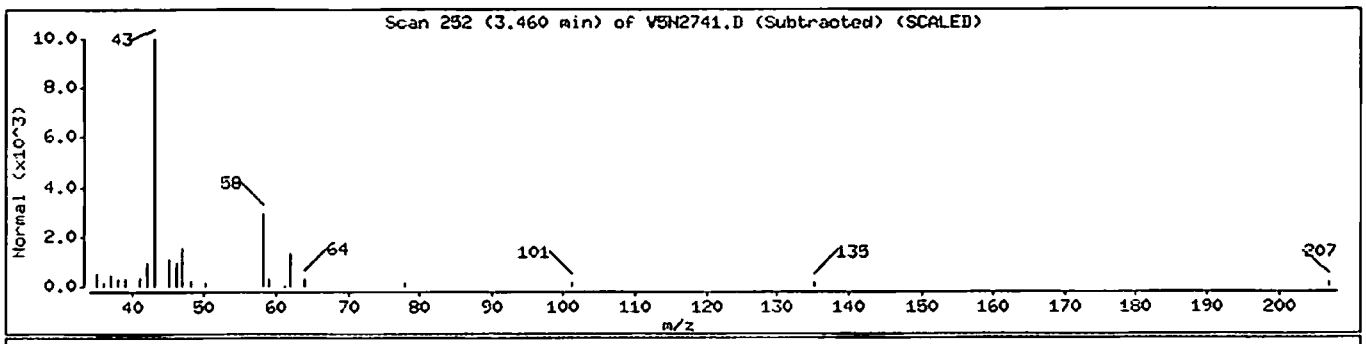
Client ID: H3OR7 Instrument: V5.i

Sample Info: 5G,K2199-10B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

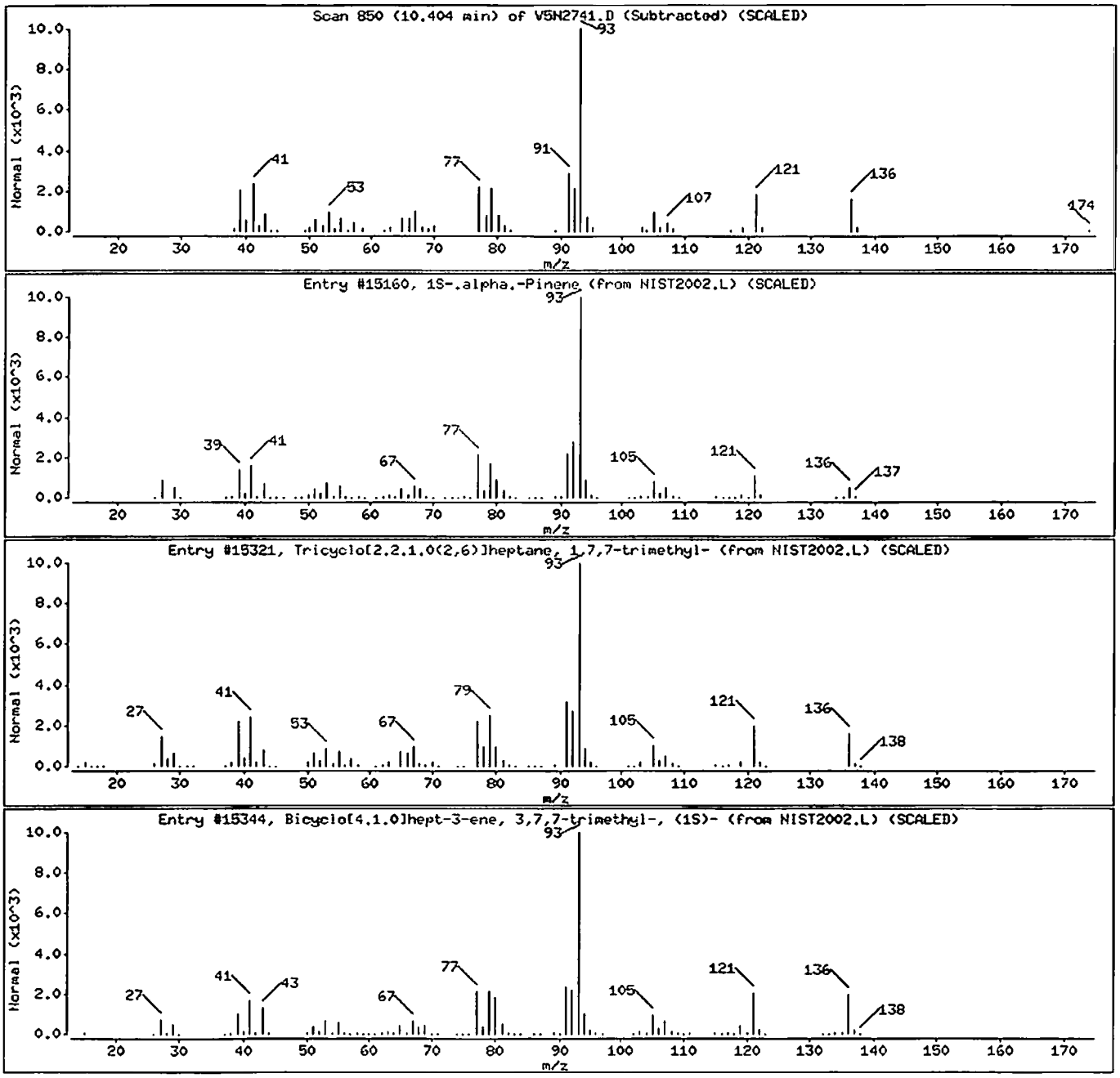
Client ID: H30R7 Instrument: V5.i

Sample Info: 5G,K2199-10B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1S-.alpha.-Pinene	7785-26-4	NIST2002.L	15160	96	C10H16	136
Tricyclo[2.2.1.0(2,6)]heptane, 1,7,7-tri	508-32-7	NIST2002.L	15321	96	C10H16	136
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	498-15-7	NIST2002.L	15344	94	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

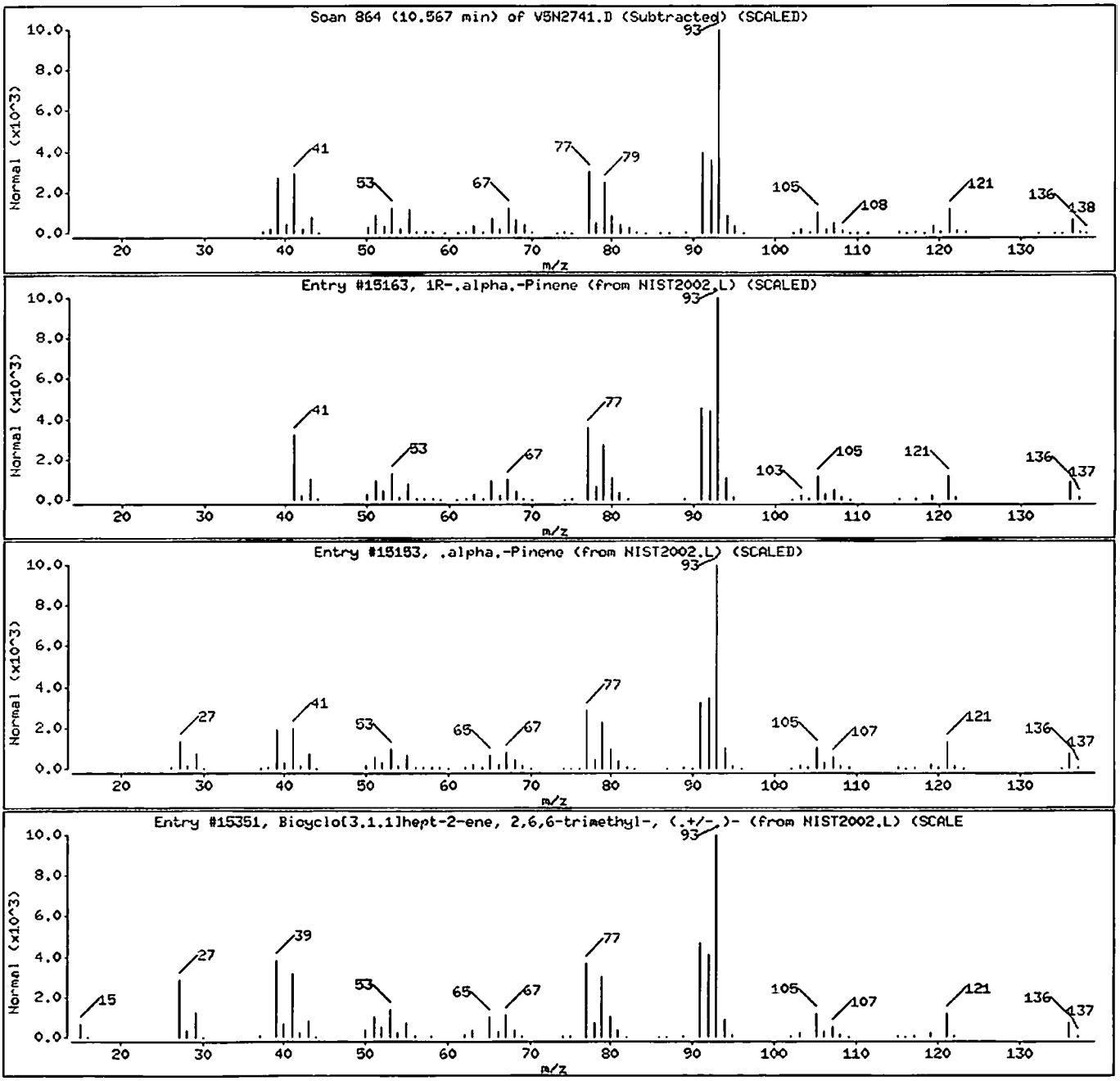
Client ID: H30R7 Instrument: V5.i

Sample Info: 5G,K2199-10B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-.alpha.-Pinene	7785-70-8	NIST2002.L	15163	97	C10H16	136
.alpha.-Pinene	80-56-8	NIST2002.L	15153	97	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST2002.L	15351	96	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

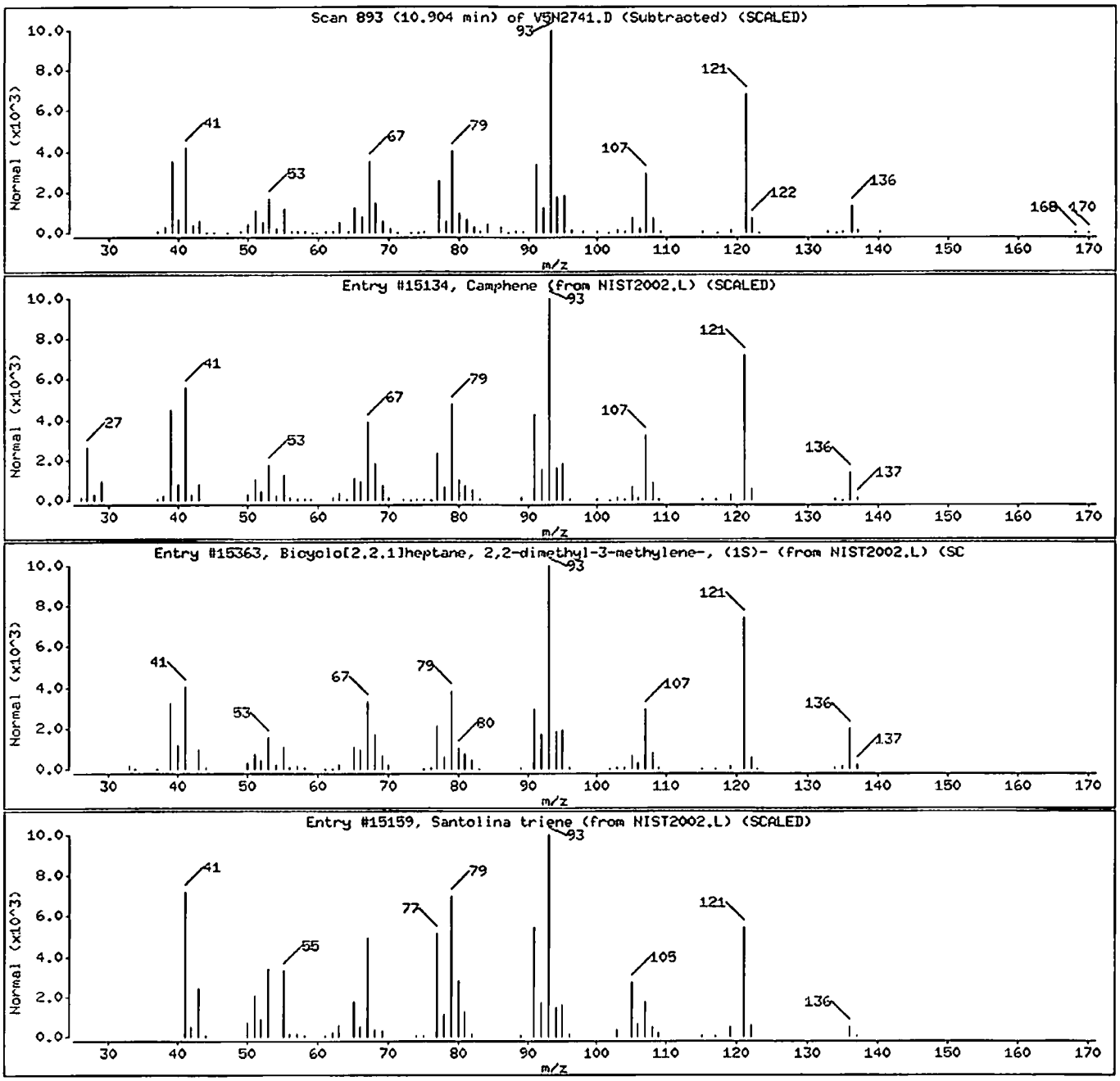
Client ID: H30R7 Instrument: V5.i

Sample Info: 5C,K2199-10B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Camphene	79-92-5	NIST2002.L	15134	98	C10H16	136
Bicyclo[2.2.1]heptane, 2,2-dimethyl-3-me	5794-04-7	NIST2002.L	15363	95	C10H16	136
Santolina triene	2153-66-4	NIST2002.L	15159	87	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

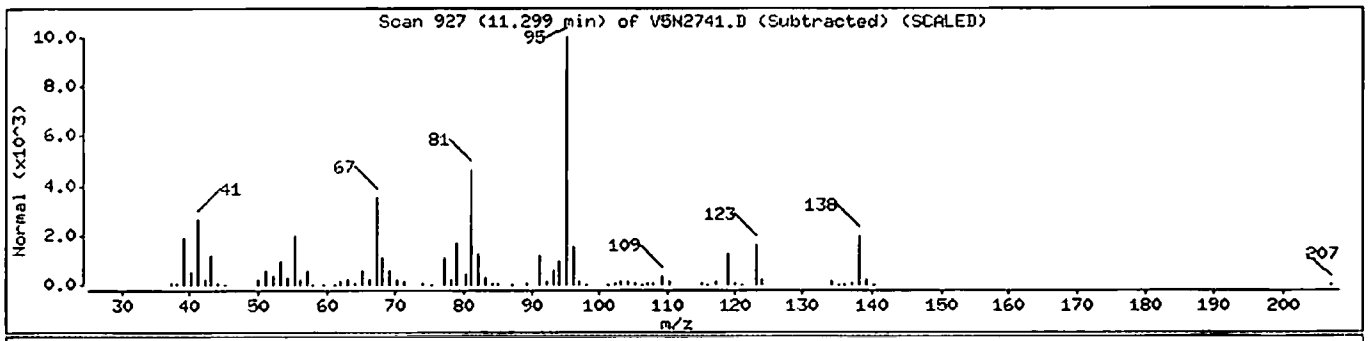
Client ID: H30R7 Instrument: V5.i

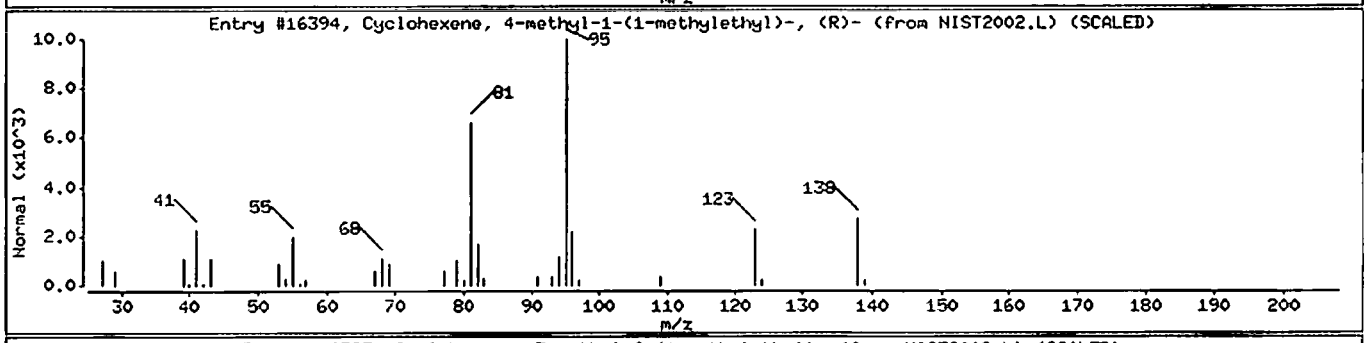
Sample Info: 5G,K2199-10B,,62780

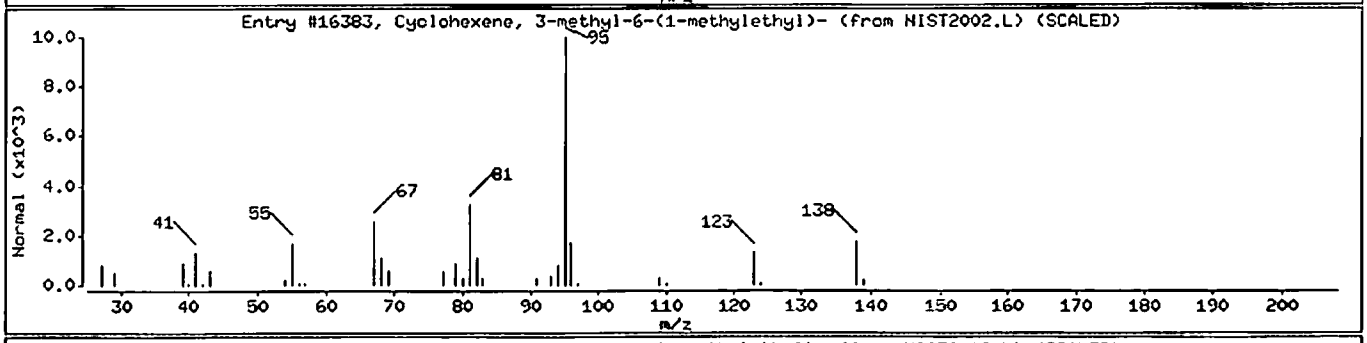
Operator: SRC: LIMS

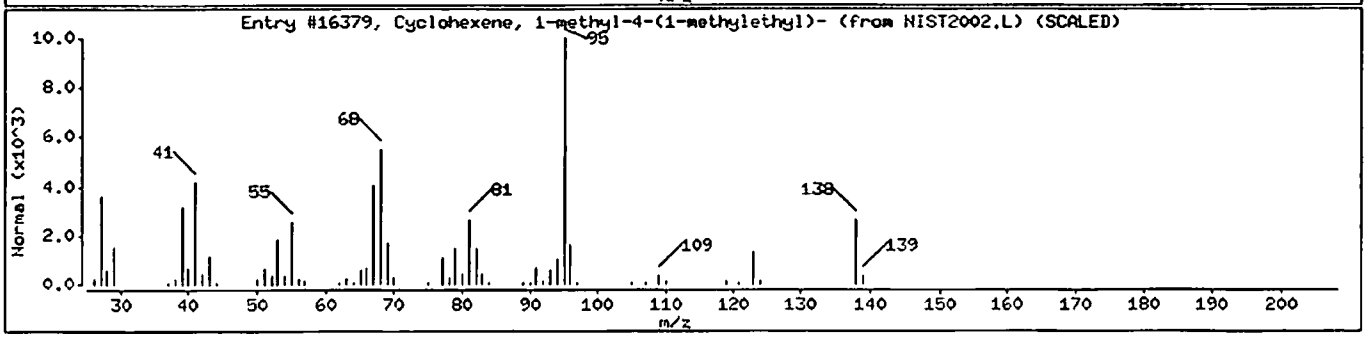
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 4-methyl-1-(1-methylethyl)-	619-52-3	NIST2002.L	16394	95	C10H18	138
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16383	94	C10H18	138
Cyclohexene, 1-methyl-4-(1-methylethyl)-	5502-88-5	NIST2002.L	16379	87	C10H18	138









Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

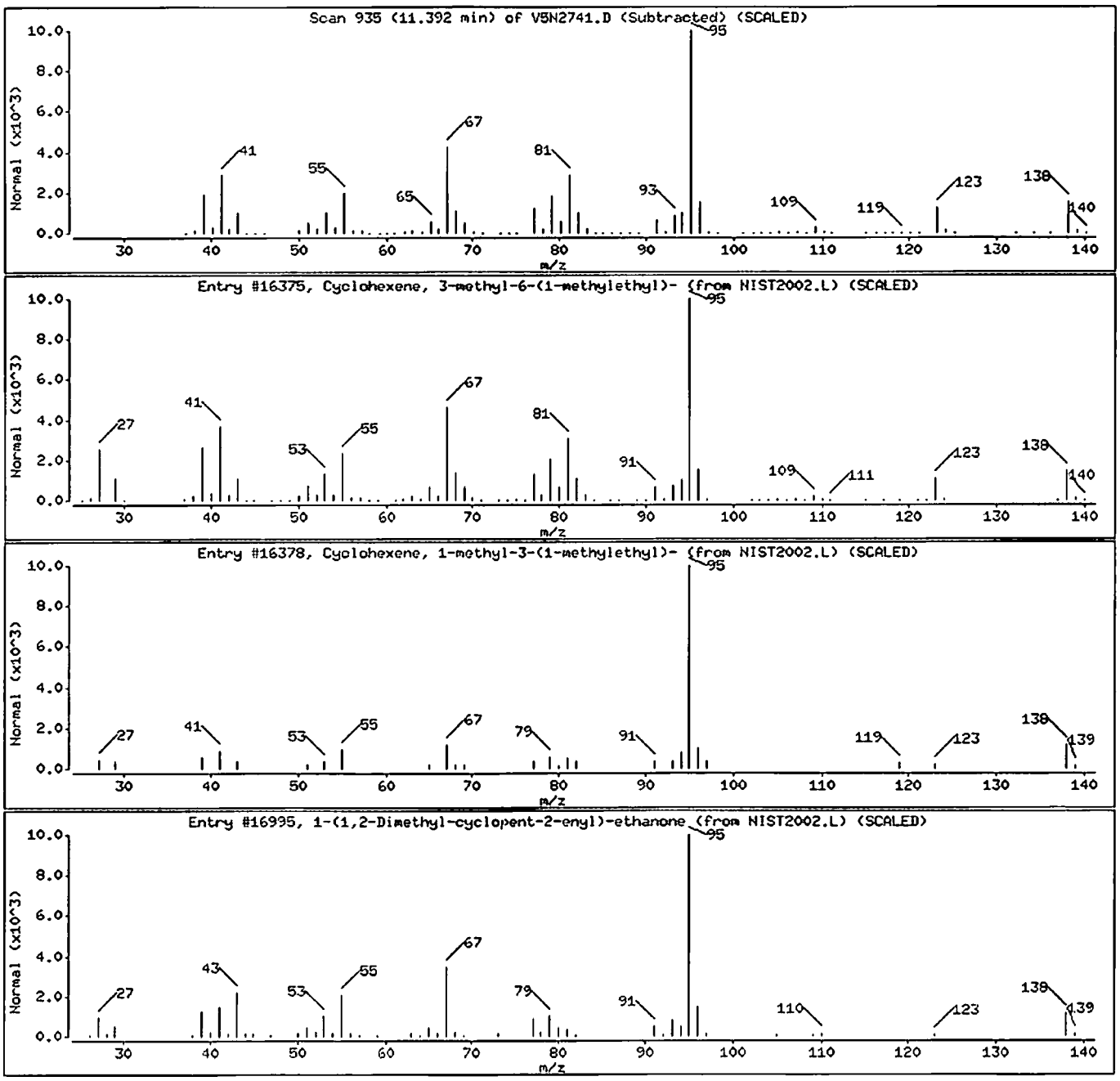
Client ID: H30R7 Instrument: V5.i

Sample Info: 5C,K2199-10B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16375	96	C10H18	138
Cyclohexene, 1-methyl-3-(1-methylethyl)-	13828-31-4	NIST2002.L	16378	90	C10H18	138
1-(1,2-Dimethyl-cyclopent-2-enyl)-ethano	70987-82-5	NIST2002.L	16995	87	C9H14O	138



Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

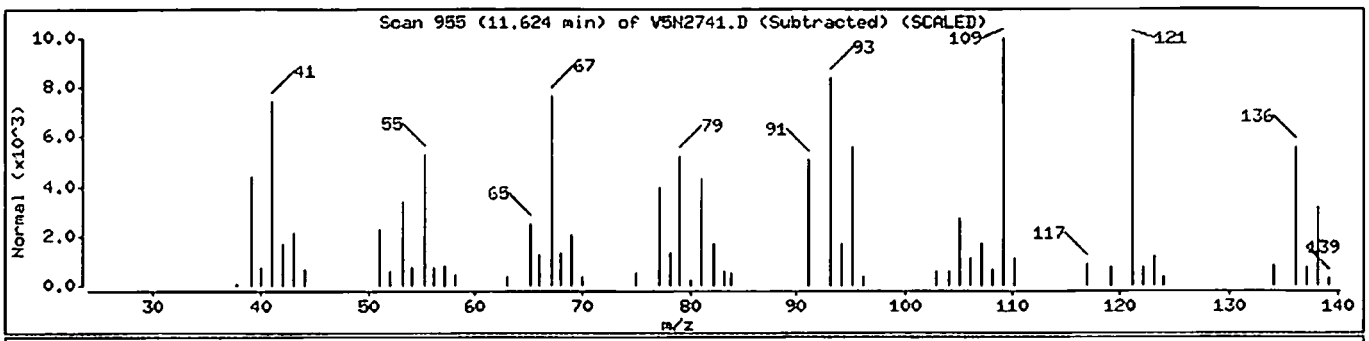
Client ID: H30R7 Instrument: V5.i

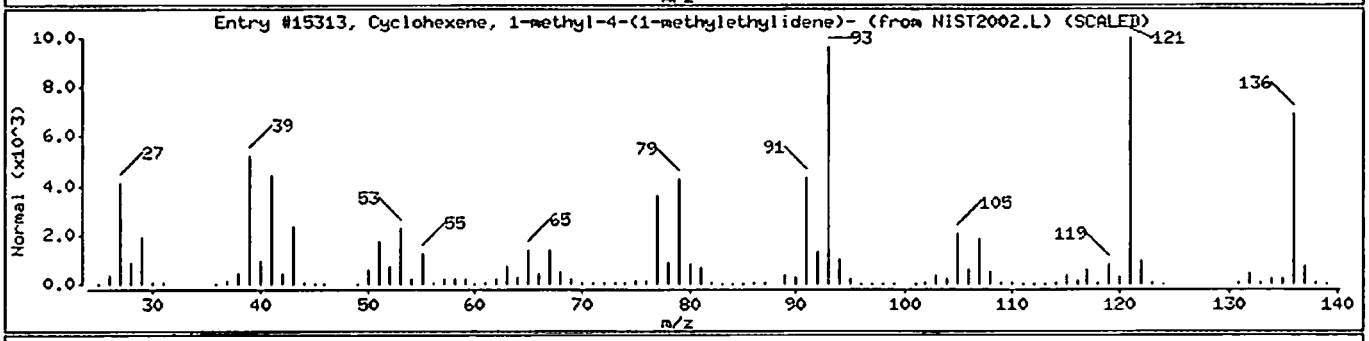
Sample Info: 5G,K2199-10B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 1-methyl-4-(1-methylethylid	586-62-9	NIST2002.L	15313	86	C10H16	136





Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

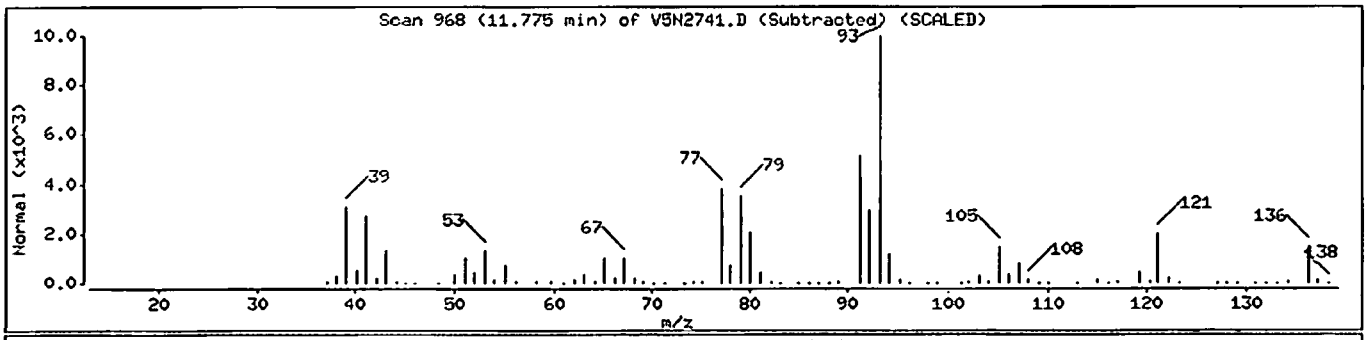
Client ID: H30R7 Instrument: V5.i

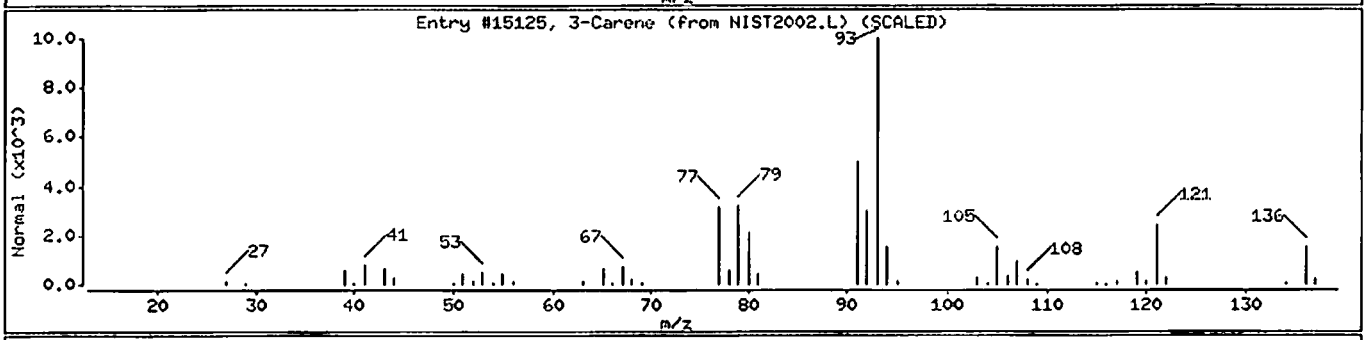
Sample Info: 5G,K2199-10B,,62780

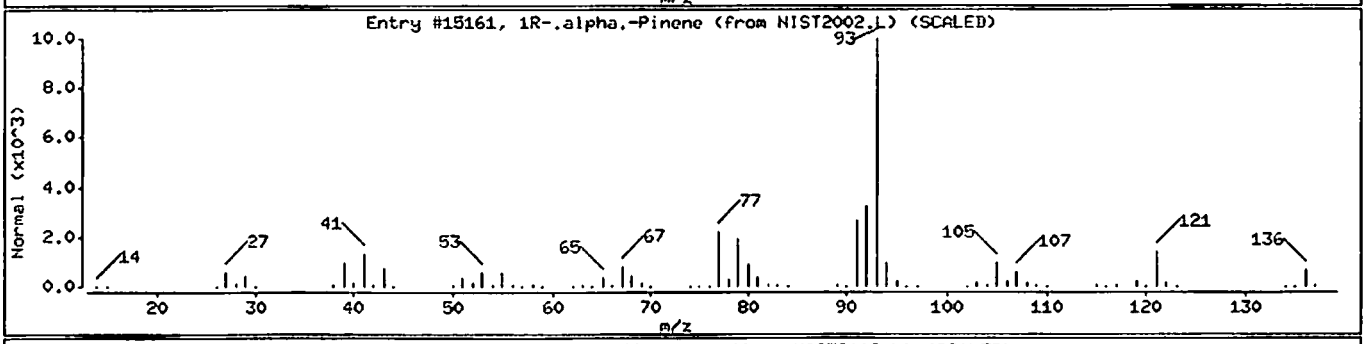
Operator: SRC: LIMS

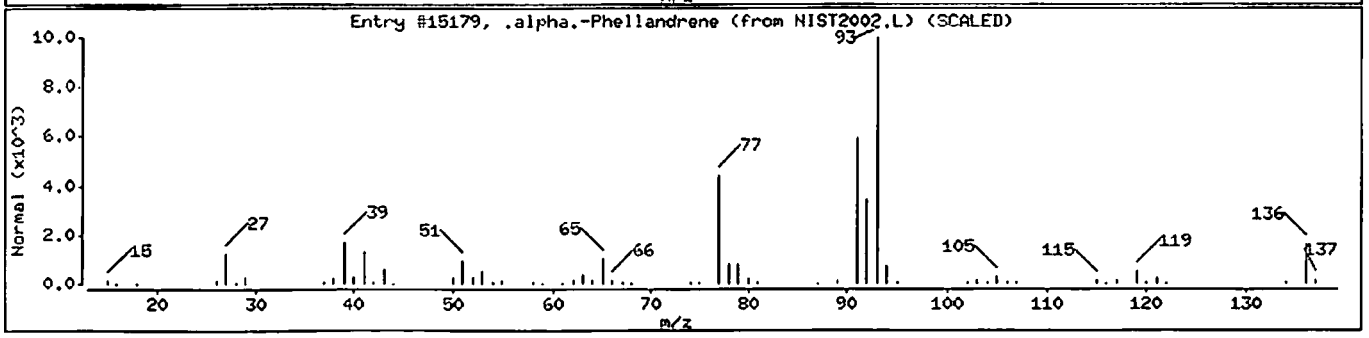
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	NIST2002.L	15125	96	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST2002.L	15161	95	C10H16	136
.alpha.-Phellandrene	99-83-2	NIST2002.L	15179	94	C10H16	136









Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

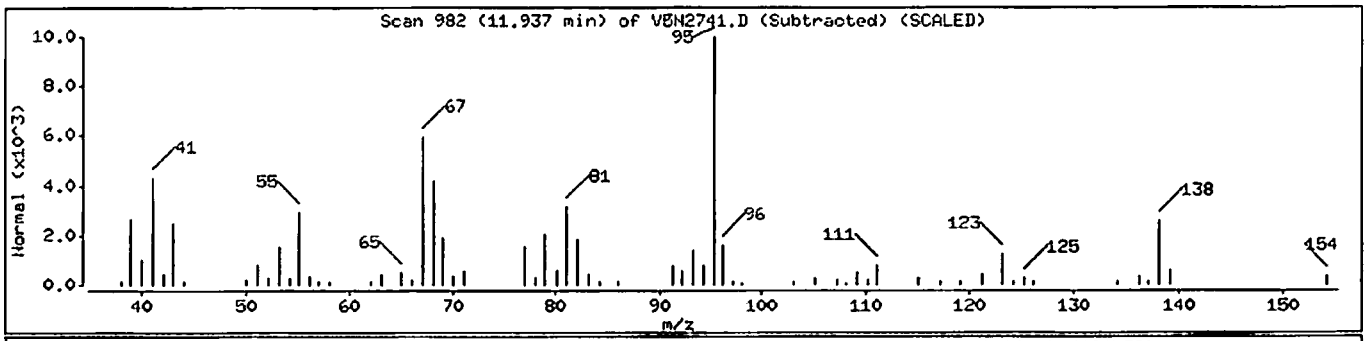
Client ID: H30R7 Instrument: V5.i

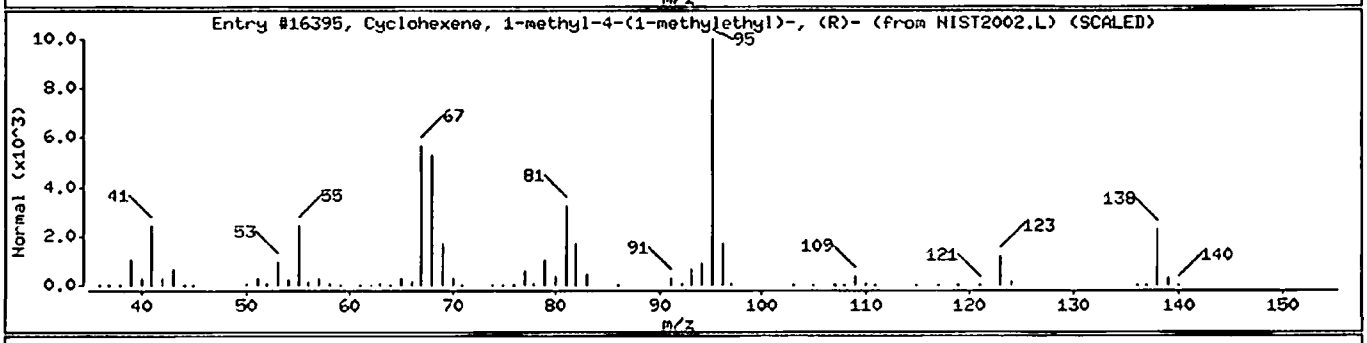
Sample Info: 5G,K2199-10B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 1-methyl-4-(1-methylethyl)-	1195-31-9	NIST2002.L	16395	96	C10H18	138





Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

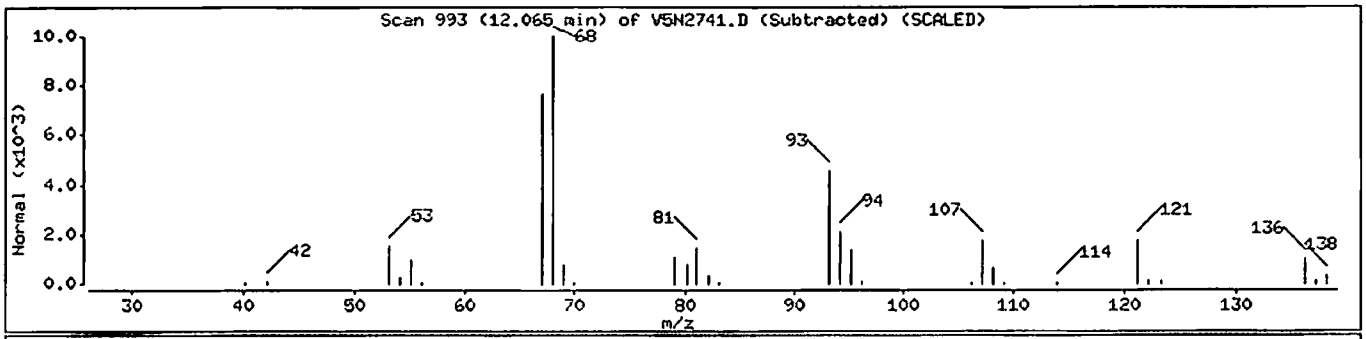
Client ID: H30R7 Instrument: V5.i

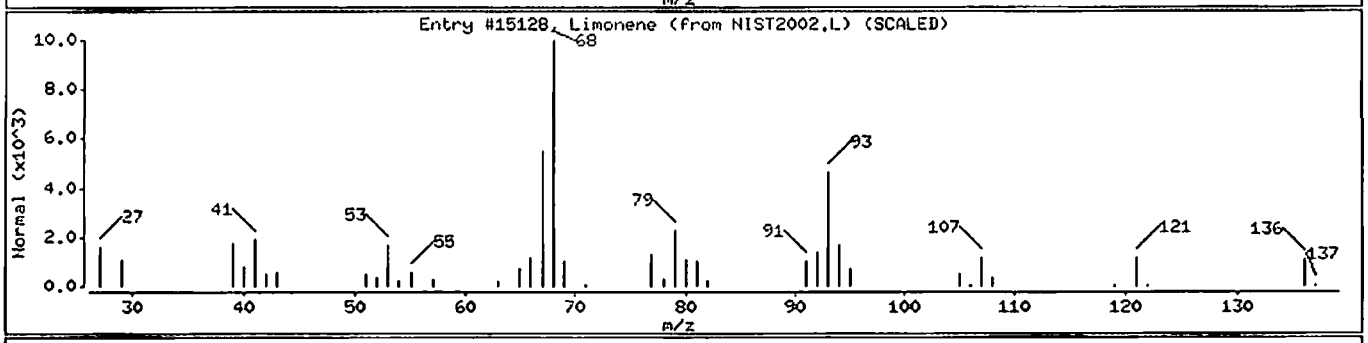
Sample Info: 5G,K2199-10B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Limonene	138-86-3	NIST2002.L	15128	90	C10H16	136





Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

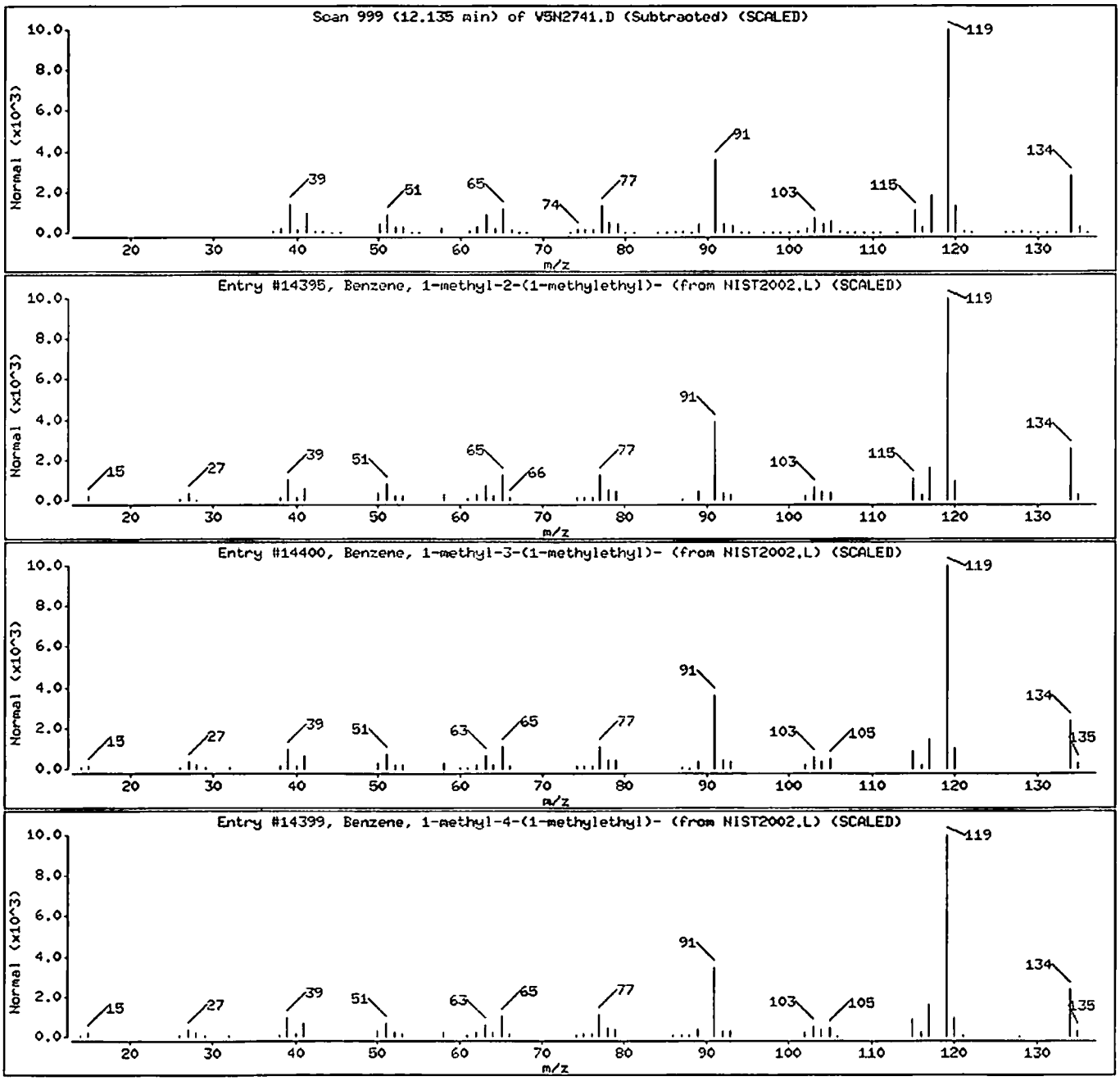
Client ID: H30R7 Instrument: V5.i

Sample Info: 5G,K2199-10B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	96	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	96	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	96	C10H14	134



Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

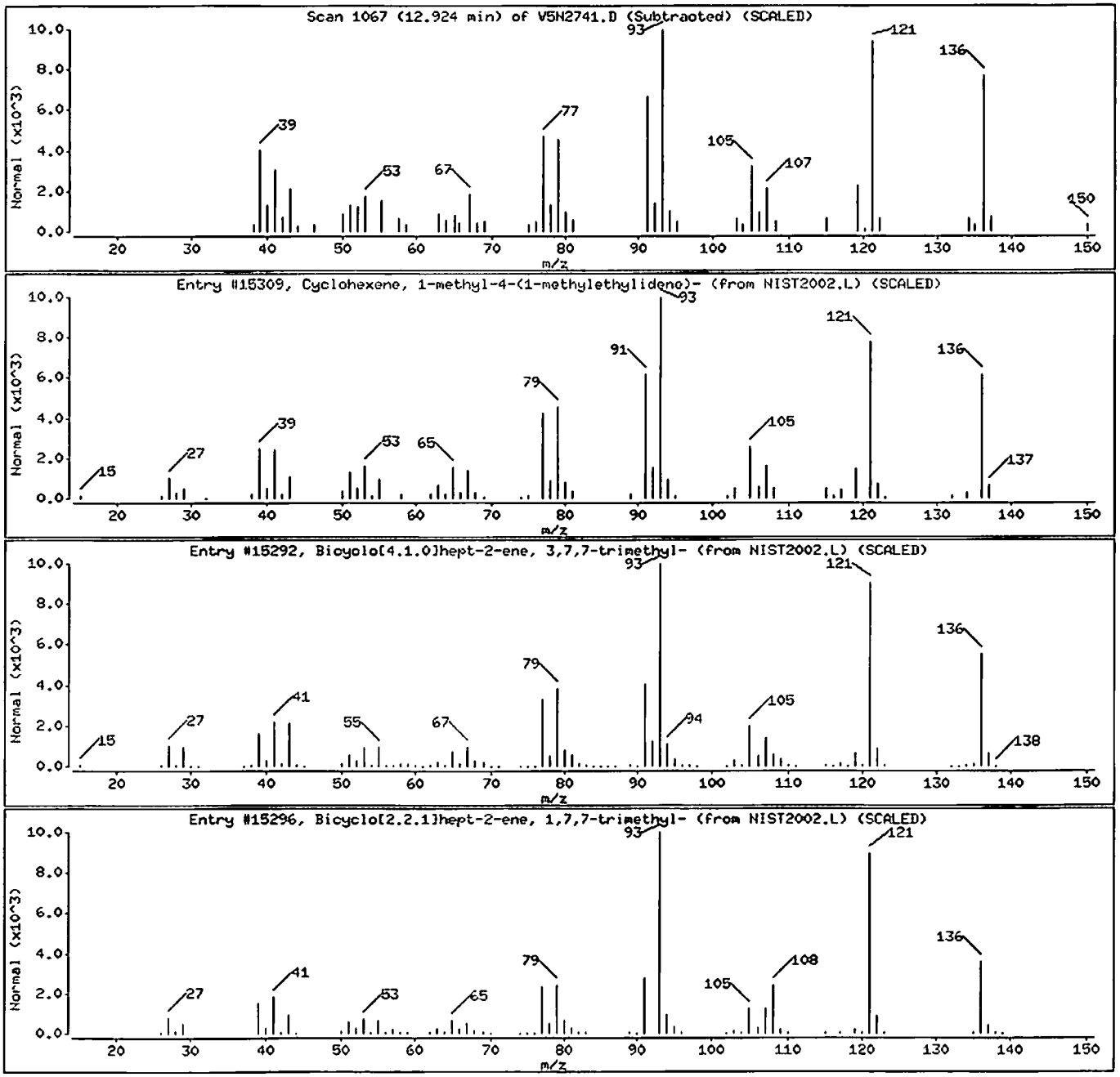
Client ID: H30R7 Instrument: V5.i

Sample Info: 5G,K2199-10B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 1-methyl-4-(1-methylethylid	586-62-9	NIST2002.L	15309	97	C10H16	136
Bicyclo[4.1.0]hept-2-ene, 3,7,7-trimethy	554-61-0	NIST2002.L	15292	93	C10H16	136
Bicyclo[2.2.1]hept-2-ene, 1,7,7-trimethy	464-17-5	NIST2002.L	15296	91	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

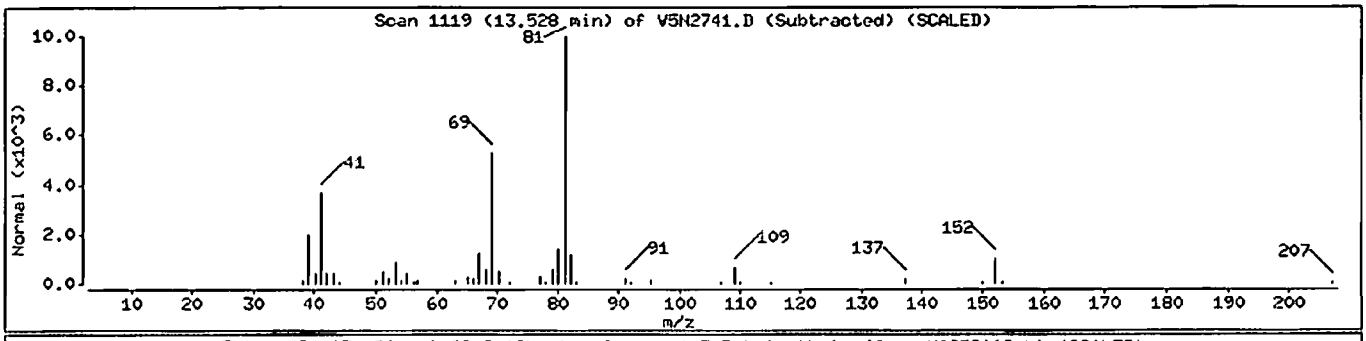
Client ID: H30R7 Instrument: V5.i

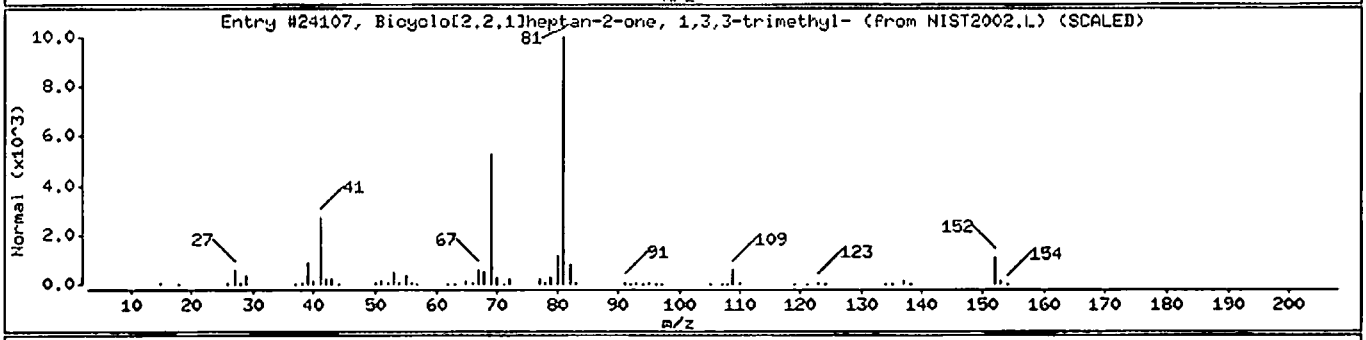
Sample Info: 5C,K2199-10B,,62780

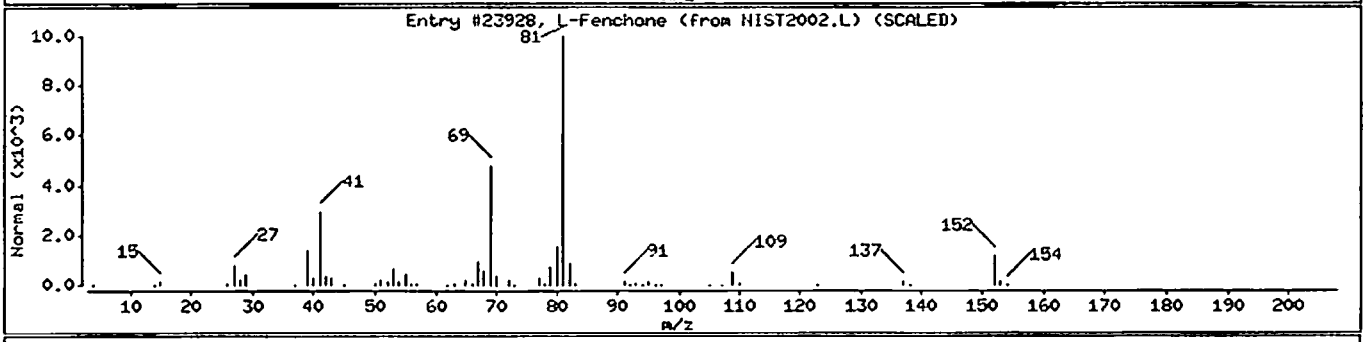
Operator: SRC: LIHS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptan-2-one, 1,3,3-trimet	4695-62-9	NIST2002.L	24107	91	C10H16O	152
L-Fenchone	126-21-6	NIST2002.L	23928	91	C10H16O	152







Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

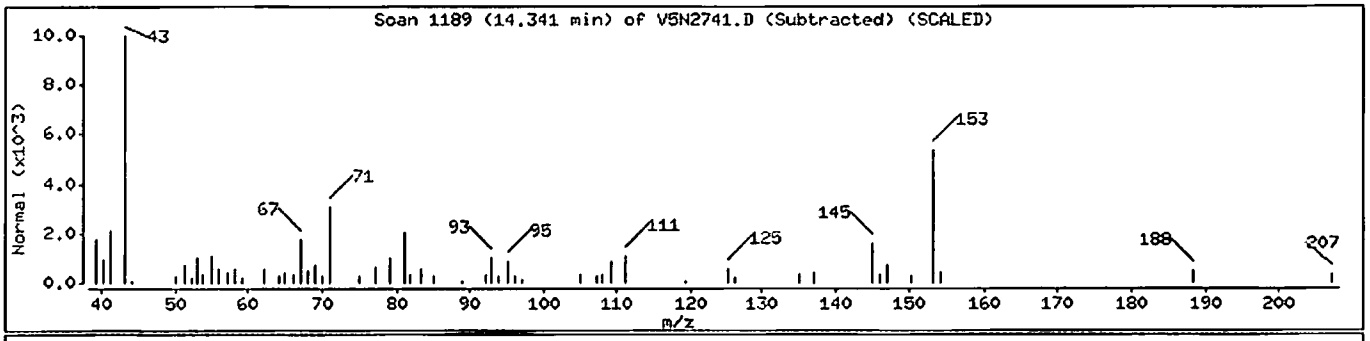
Client ID: H30R7 Instrument: V5.i

Sample Info: 5G,K2199-10B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

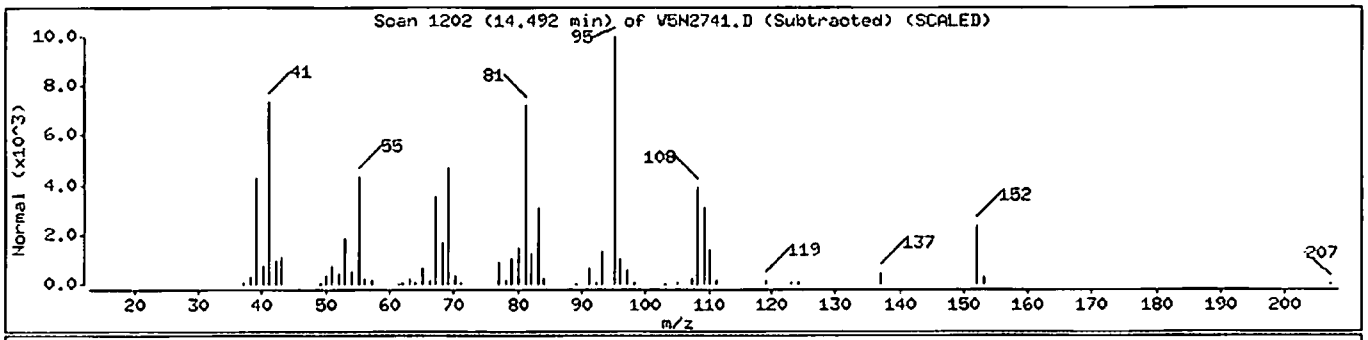
Client ID: H30R7 Instrument: V5.i

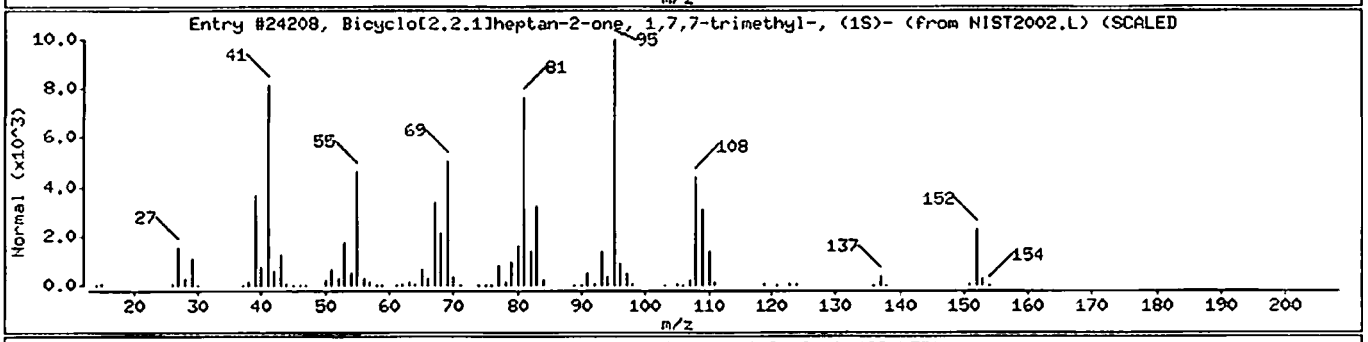
Sample Info: 5G,K2199-10B,,62780

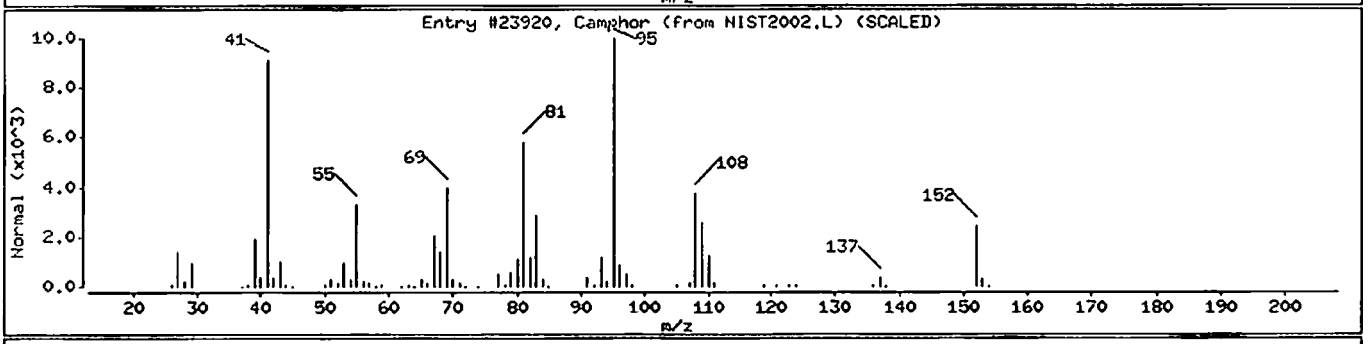
Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet	464-48-2	NIST2002.L	24208	98	C10H16O	152
Camphor	76-22-2	NIST2002.L	23920	97	C10H16O	152







Data File: \\avogadro\organics\V5.I\111107.B\V5N2741.D

Date : 07-NOV-2011 17:55

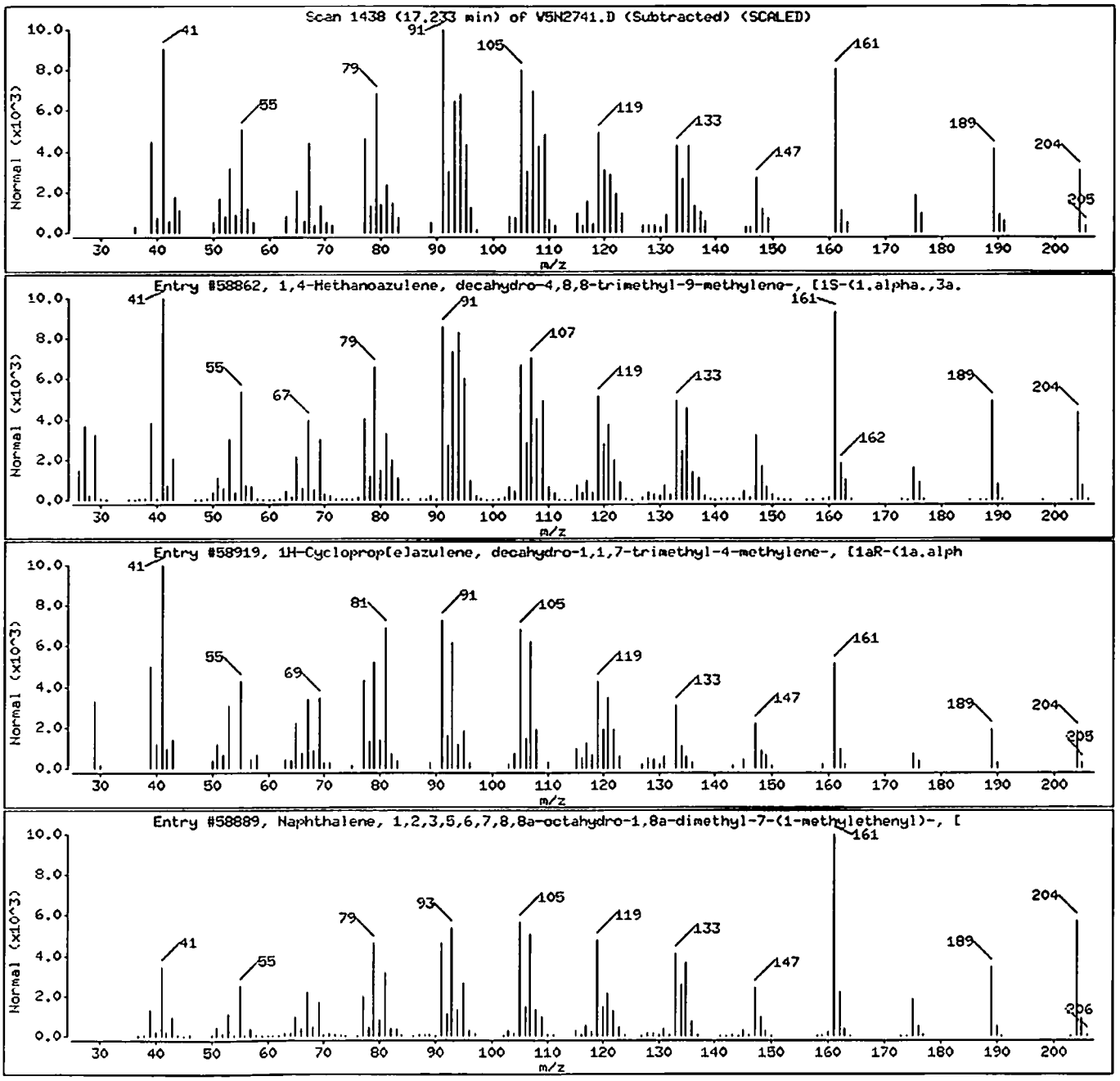
Client ID: H30R7 Instrument: V5.i

Sample Info: 5G,K2199-10B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58862	96	C15H24	204
1H-Cycloprop[e]azulene, decahydro-1,1,7-	25246-27-9	NIST2002.L	58919	95	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST2002.L	58889	93	C15H24	204



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-11B

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V5N2742.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 65 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	15	U
74-87-3	Chloromethane	15	U
75-01-4	Vinyl chloride	15	U
74-83-9	Bromomethane	15	U
75-00-3	Chloroethane	15	U
75-69-4	Trichlorofluoromethane	15	U
75-35-4	1,1-Dichloroethene	15	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	15	U
67-64-1	Acetone	59	
75-15-0	Carbon disulfide	14	J
79-20-9	Methyl acetate	15	U
75-09-2	Methylene chloride	15	U
156-60-5	trans-1,2-Dichloroethene	15	U
1634-04-4	Methyl tert-butyl ether	15	U
75-34-3	1,1-Dichloroethane	15	U
156-59-2	cis-1,2-Dichloroethene	15	U
78-93-3	2-Butanone	30	U
74-97-5	Bromochloromethane	15	U
67-66-3	Chloroform	15	U
71-55-6	1,1,1-Trichloroethane	15	U
110-82-7	Cyclohexane	15	U
56-23-5	Carbon tetrachloride	15	U
71-43-2	Benzene	15	U
107-06-2	1,2-Dichloroethane	15	U
123-91-1	1,4-Dioxane	300	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-11B

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V5N2742.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 65 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	15	U
108-87-2	Methylcyclohexane	15	U
78-87-5	1,2-Dichloropropane	15	U
75-27-4	Bromodichloromethane	15	U
10061-01-5	cis-1,3-Dichloropropene	15	U
108-10-1	4-Methyl-2-pentanone	30	U
108-88-3	Toluene	15	U
10061-02-6	trans-1,3-Dichloropropene	15	U
79-00-5	1,1,2-Trichloroethane	15	U
127-18-4	Tetrachloroethene	15	U
591-78-6	2-Hexanone	30	U
124-48-1	Dibromochloromethane	15	U
106-93-4	1,2-Dibromoethane	15	U
108-90-7	Chlorobenzene	15	U
100-41-4	Ethylbenzene	15	U
179601-23-1	m,p-Xylene	15	U
95-47-6	o-Xylene	15	U
100-42-5	Styrene	15	U
75-25-2	Bromoform	15	U
98-82-8	Isopropylbenzene	15	U
79-34-5	1,1,2,2-Tetrachloroethane	15	U
541-73-1	1,3-Dichlorobenzene	15	U
106-46-7	1,4-Dichlorobenzene	15	U
95-50-1	1,2-Dichlorobenzene	15	U
96-12-8	1,2-Dibromo-3-chloropropane	15	U
120-82-1	1,2,4-Trichlorobenzene	15	U
87-61-6	1,2,3-Trichlorobenzene	15	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30R8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-11B

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V5N2742.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 65 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	7785-70-8	1R-.alpha.-Pinene	10.564	45	NJ
02	79-92-5	Camphene	10.901	170	NJ
03		Unknown-01	11.238	19	J
04		Unknown-02	11.296	37	J
05	5256-65-5	Cyclohexene, 3-methyl-6-(1-m	11.389	860	NJ
06	498-15-7	Bicyclo[4.1.0]hept-3-ene, 3,	11.772	130	NJ
07	1195-31-9	Cyclohexene, 1-methyl-4-(1-m	11.935	28	NJ
08		Unknown-03	12.062	79	J
09	527-84-4	Benzene, 1-methyl-2-(1-methy	12.132	3700	NJ
10	1195-79-5	Bicyclo[2.2.1]heptan-2-one,	13.537	25	NJ
11	464-48-2	Bicyclo[2.2.1]heptan-2-one,	14.490	480	NJ
12	1137-12-8	1,2,4-Methenoazulene, decahy	16.835	16	NJ
13	475-20-7	1,4-Methanoazulene, decahydr	17.230	150	NJ
	E966796[1]	Total Alkanes	N/A	19	J

[1] EPA-designated Registry Number.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2742.D
Lab Smp Id: K2199-11B Client Smp ID: H30R8
Inj Date : 07-NOV-2011 18:22
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-11B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.800	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.179	2.168	(0.345)	128680	41.8414	44
$ 80 Chloroethane-d5	69	2.597	2.597	(0.411)	94384	47.4460	49(Q)
$ 81 1,1-Dichloroethene-d2	65	3.364	3.364	(0.532)	28736	45.0493	47(Q)
9 Acetone	43	3.468	3.445	(0.548)	11684	19.8555	21
10 Carbon Disulfide	76	3.596	3.596	(0.569)	45170	4.71281	4.9
$ 82 2-Butanone-d5	46	5.071	5.071	(0.802)	84373	98.3714	100
$ 83 Chloroform-d	84	5.384	5.385	(0.851)	176678	47.9506	50(Q)
$ 23 1,2-Dichloroethane-d4	65	5.895	5.896	(0.932)	104994	52.7937	55
$ 84 Benzene-d6	84	5.907	5.907	(0.627)	314176	55.6076	58
* 26 1,4-Difluorobenzene	114	6.325	6.325	(1.000)	322985	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.732	6.732	(0.714)	126089	54.0025	56
$ 94 1,4-Dioxane-d8	96	6.917	6.917	(1.094)	22151	1170.21	1200
$ 33 Toluene-d8	98	7.846	7.835	(0.832)	262887	50.4039	53
$ 86 trans-1,3-Dichloropropene-d4	79	8.125	8.114	(0.862)	70026	39.8337	41
$ 87 2-Hexanone-d5	63	8.578	8.578	(0.910)	48370	107.679	110(Q)
* 42 Chlorobenzene-d5	117	9.426	9.426	(1.000)	213370	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.924	10.924	(1.159)	69549	45.5092	47
* 78 1,4-Dichlorobenzene-d4	152	12.178	12.167	(1.000)	69930	50.0000	(Q)
$ 90 1,2-Dichlorobenzene-d4	152	12.631	12.631	(1.037)	61114	46.7808	49(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D
Report Date: 09-Nov-2011 08:00

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2742.D
Lab Smp Id: K2199-11B Client Smp ID: H30R8
Inj Date : 07-NOV-2011 18:22
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-11B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.800	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 42 Chlorobenzene-d5	9.426	621231	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Cyclic Alkane				CAS #:			
10.402	79707	6.41527835	6.7	0		0	42
1R-.alpha.-Pinene				CAS #: 7785-70-8			
10.564	187117	15.0602167	16	96	NIST2002.L	15163	42
Camphene				CAS #: 79-92-5			
10.901	702028	56.5029932	59	98	NIST2002.L	15134	42
Unknown				CAS #:			
11.238	78558	6.32272806	6.6	0		0	42
Unknown				CAS #:			
11.296	154885	12.4659467	13	0		0	42

Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D
Report Date: 09-Nov-2011 08:00

RT	AREA	CONCENTRATIONS ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Cyclohexene, 3-methyl-6-(1-methylethyl)-					CAS #: 5256-65-5		
11.389	3556358	286.234717		300	96 NIST2002.L	16375	42
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy					CAS #: 498-15-7		
11.772	539067	43.3870043		45	96 NIST2002.L	15344	42
Cyclohexene, 1-methyl-4-(1-methylethyl)-					CAS #: 1195-31-9		
11.935	114255	9.19582264		9.6	96 NIST2002.L	16395	42
Unknown					CAS #:		
12.062	327711	26.3759368		27	0	0	42
Benzene, 1-methyl-2-(1-methylethyl)-					CAS #: 527-84-4		
12.132	15514432	1248.68446		1300	96 NIST2002.L	14395	42
Bicyclo[2.2.1]heptan-2-one, 1,3,3-trimet					CAS #: 1195-79-5		
13.537	103975	8.36843241		8.7	91 NIST2002.L	24122	42
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet					CAS #: 464-48-2		
14.490	1987054	159.928702		170	98 NIST2002.L	24202	42
1,2,4-Methenoazulene, decahydro-1,5,5,8a					CAS #: 1137-12-8		
16.835	66556	5.35680247		5.6	96 NIST2002.L	58893	42
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
17.230	615835	49.5656632		52	98 NIST2002.L	58865	42

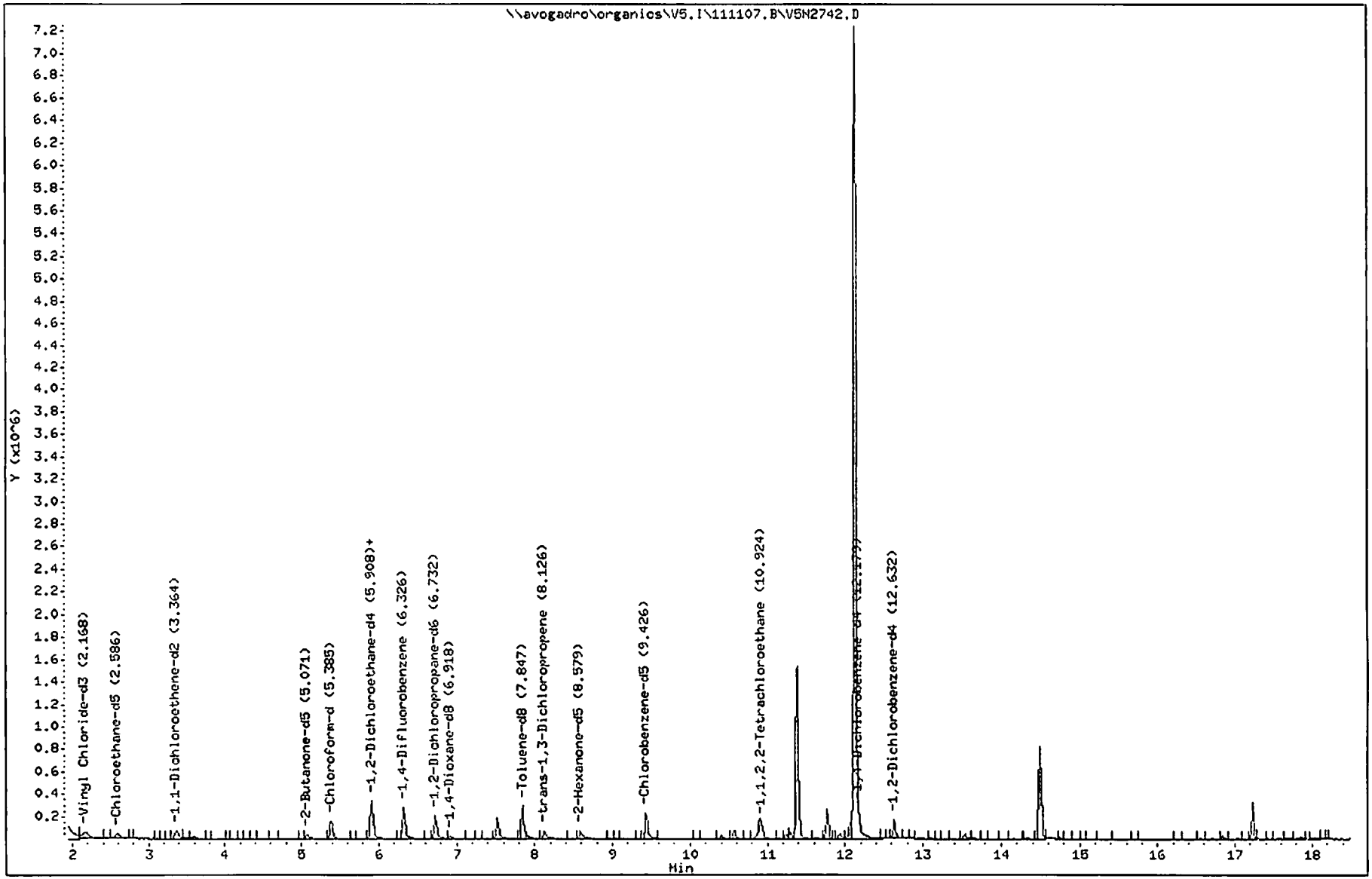
Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D
Date : 07-NOV-2011 18:22
Client ID: H30R8
Sample Info: 5G,K2199-11B,,62780

Instrument: V5.I

Operator: SRC: LIMS

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

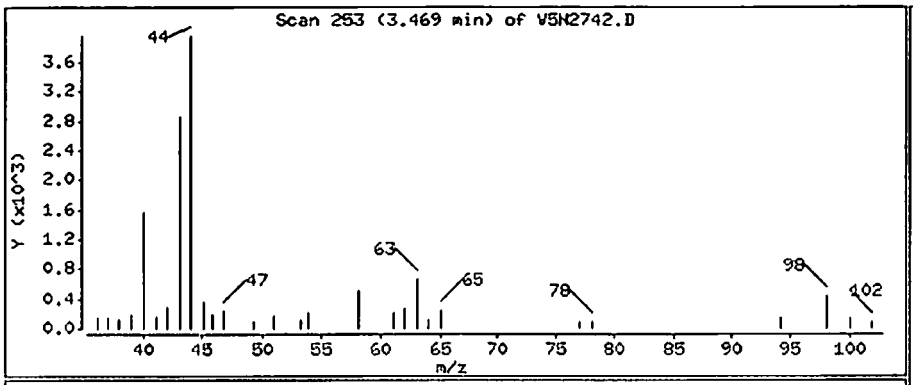
Client ID: H30R8 | Instrument: V5.i

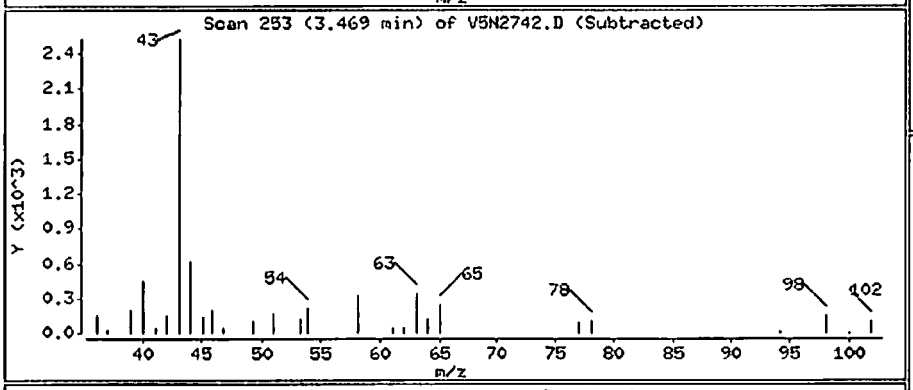
Sample Info: 5G,K2199-11B,,62780

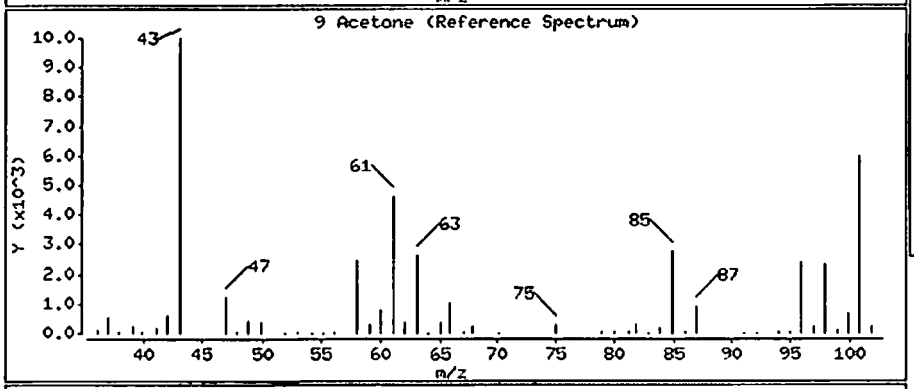
Operator: SRC: LIHS

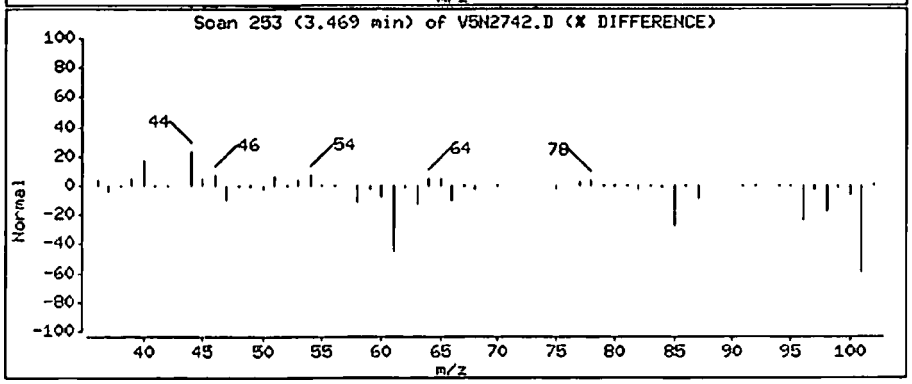
Column phase: DB-624 | Column diameter: 0.25

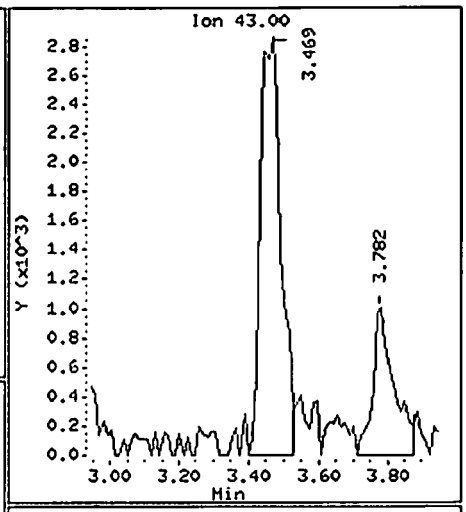
9 Acetone | Concentration: 21 ug/Kg

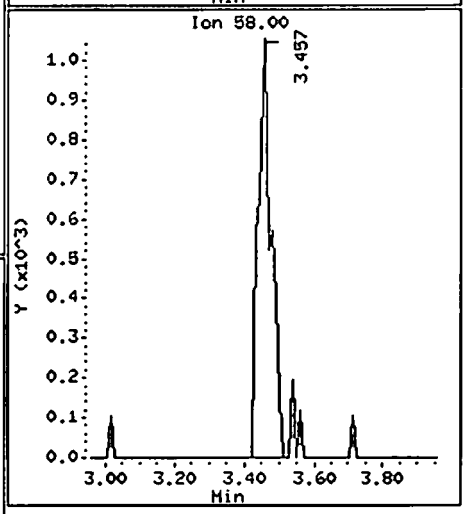












Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

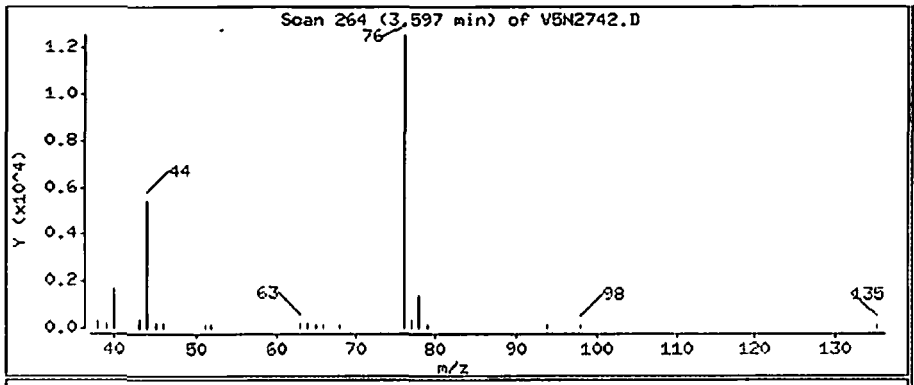
Client ID: H30R8 Instrument: V5.i

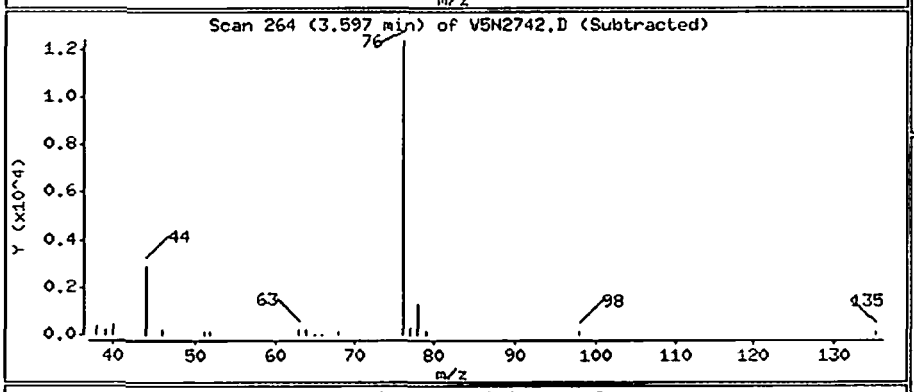
Sample Info: 5G,K2199-11B,,62780

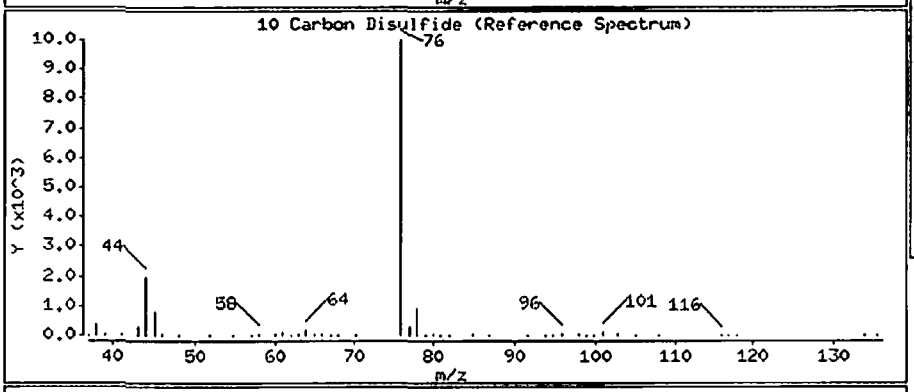
Operator: SRC: LIMS

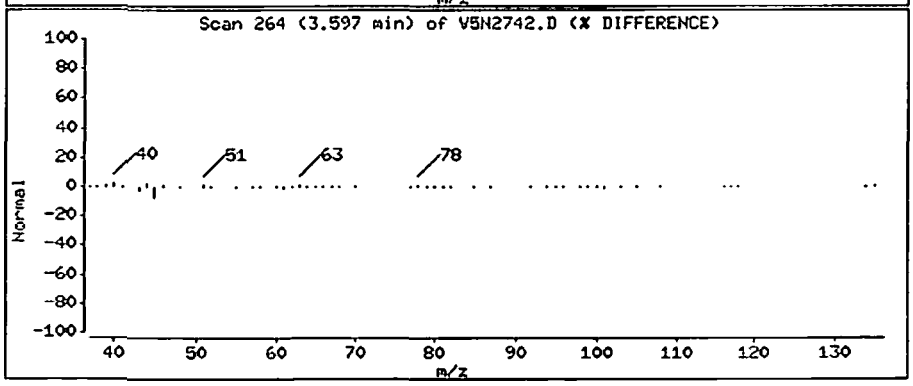
Column phase: DB-624 Column diameter: 0.25

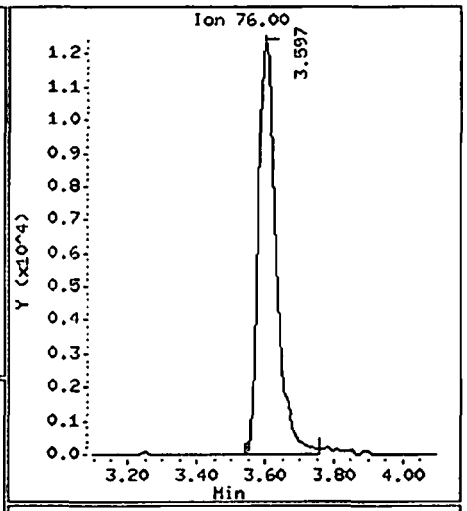
10 Carbon Disulfide Concentration: 4.9 ug/Kg

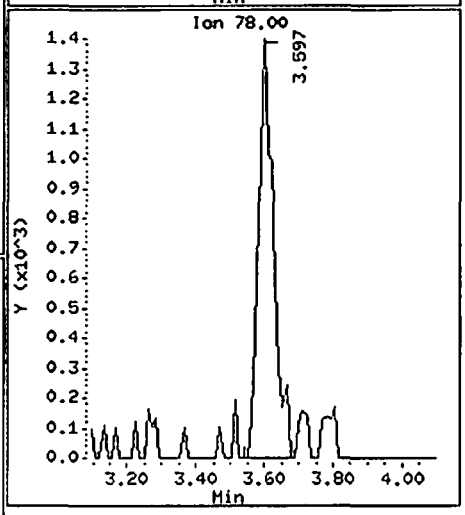












Data File: \\avogadro\organics\V5.I\111107.B\V5H2742.D

Date : 07-NOV-2011 18:22

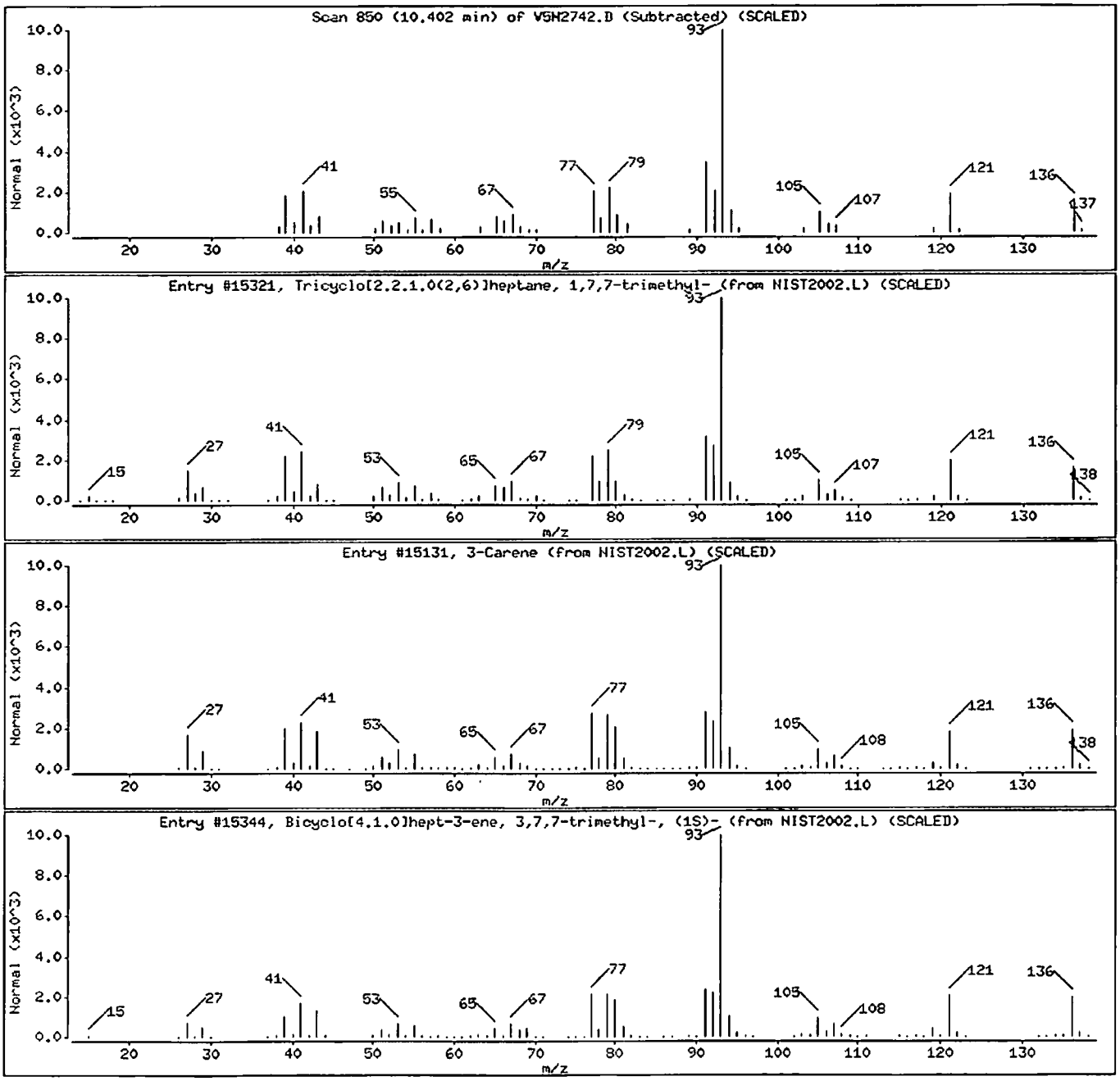
Client ID: H30R8 Instrument: V5.i

Sample Info: 5G,K2199-11B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclic Alkane						
Tricyclo[2.2.1.0(2,6)]heptane, 1,7,7-tri	508-32-7	NIST2002.L	15321	96	C10H16	136
3-Carene	13466-78-9	NIST2002.L	15131	91	C10H16	136
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	498-15-7	NIST2002.L	15344	91	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

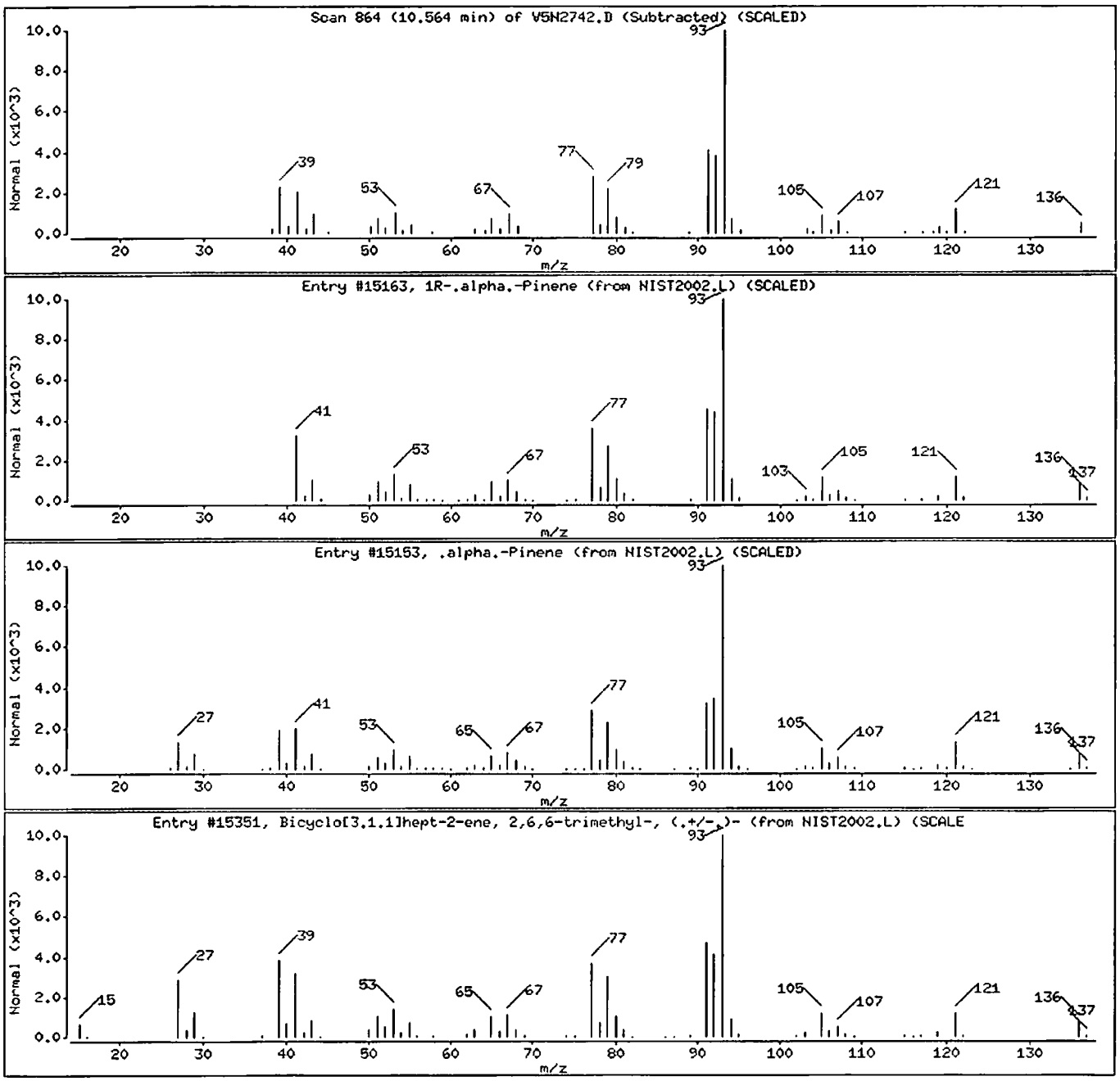
Client ID: H30R8 Instrument: V5.i

Sample Info: 5G,K2199-11B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-.alpha.-Pinene	7785-70-8	NIST2002.L	15163	96	C10H16	136
.alpha.-Pinene	80-56-8	NIST2002.L	15153	94	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST2002.L	15351	93	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

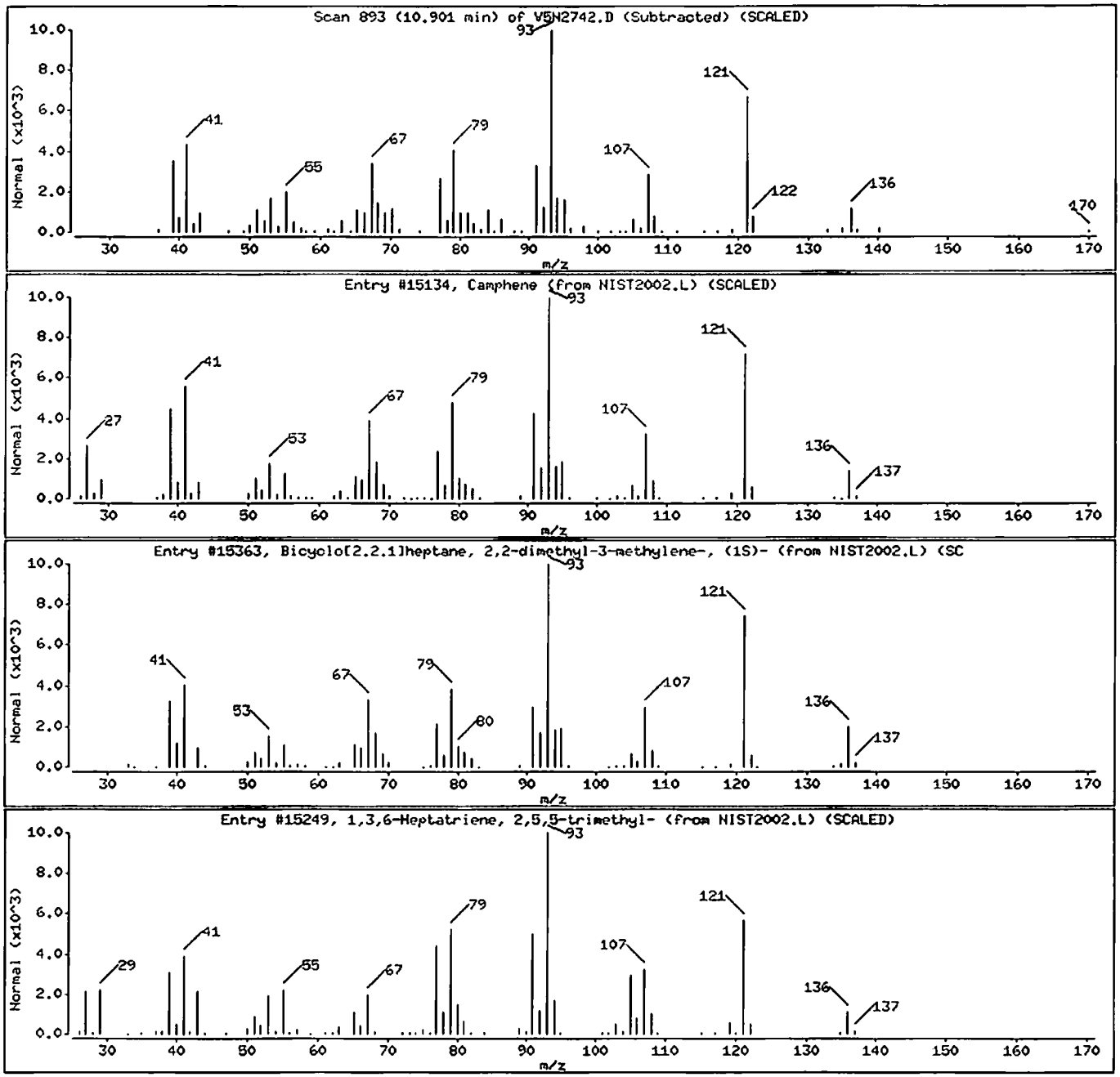
Client ID: H30R8 Instrument: V5.i

Sample Info: 5G,K2199-11B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Camphene	79-92-5	NIST2002.L	15134	98	C10H16	136
Bicyclo[2.2.1]heptane, 2,2-dimethyl-3-me	5794-04-7	NIST2002.L	15363	95	C10H16	136
1,3,6-Heptatriene, 2,5,5-trimethyl-	29548-02-5	NIST2002.L	15249	90	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

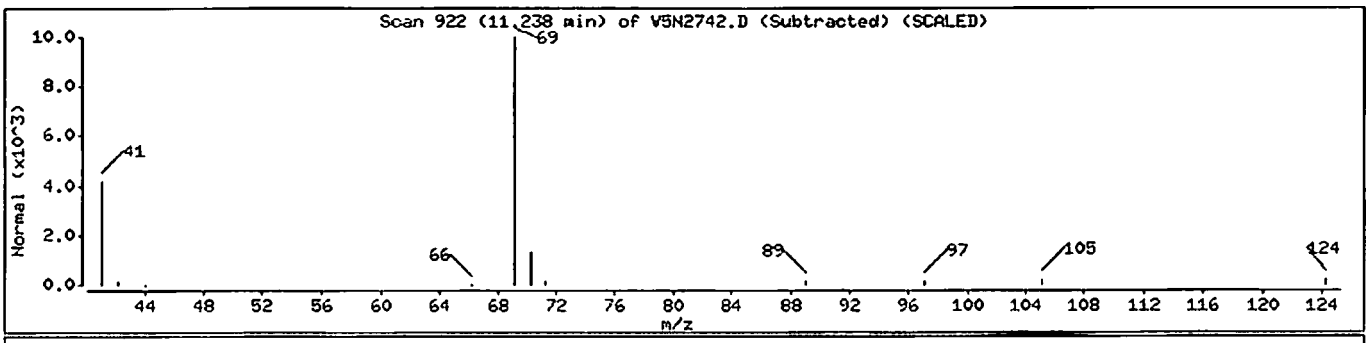
Client ID: H30R8 Instrument: V5.i

Sample Info: 5G,K2199-11B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Unknown			0	0		0



Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

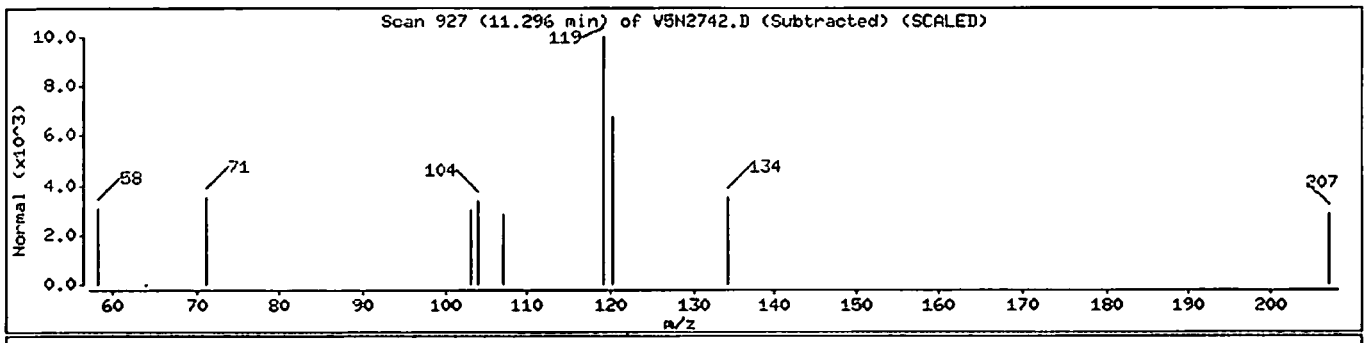
Client ID: H30R8 Instrument: V5.i

Sample Info: 5C,K2199-11B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Unknown			0	0		0



Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

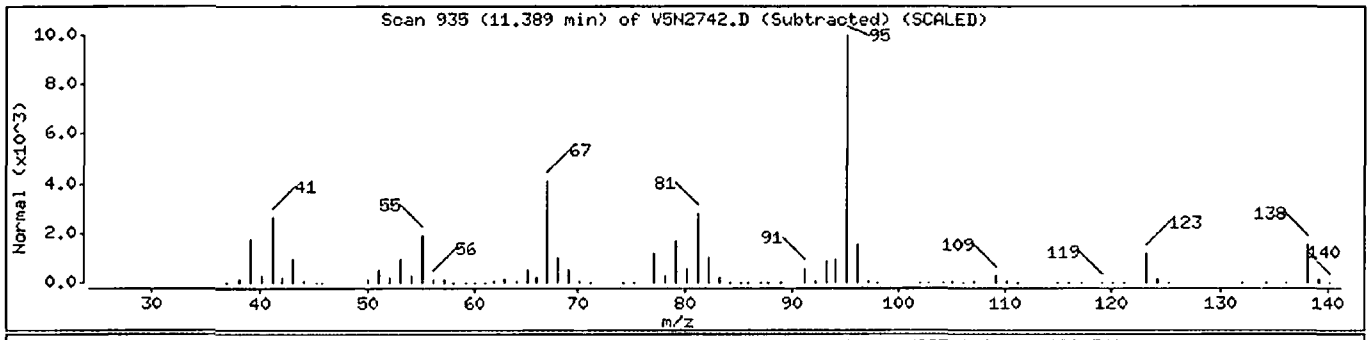
Client ID: H30R8 Instrument: V5.i

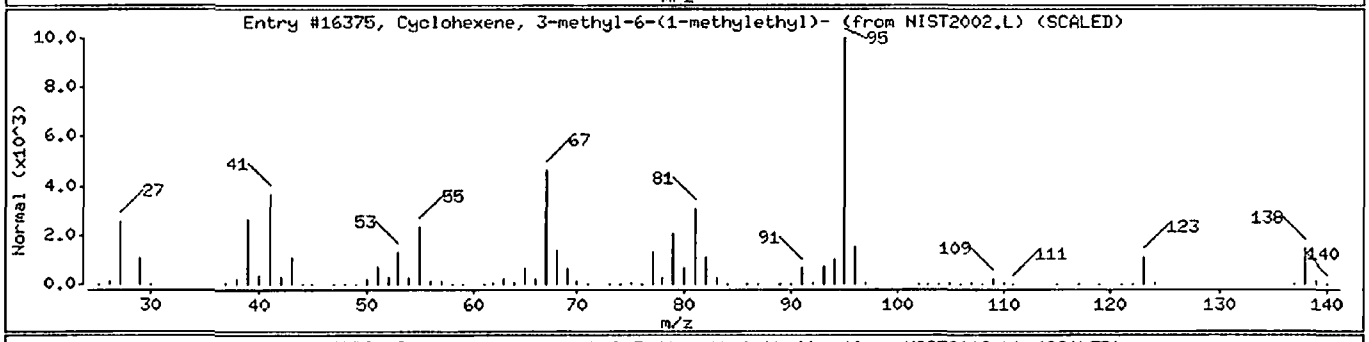
Sample Info: 5G,K2199-11B,,62780

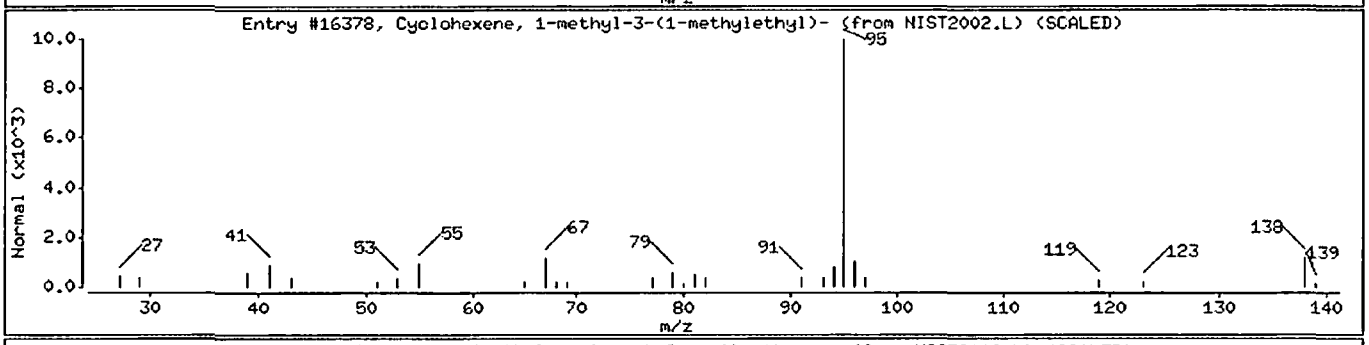
Operator: SRC: LIMS

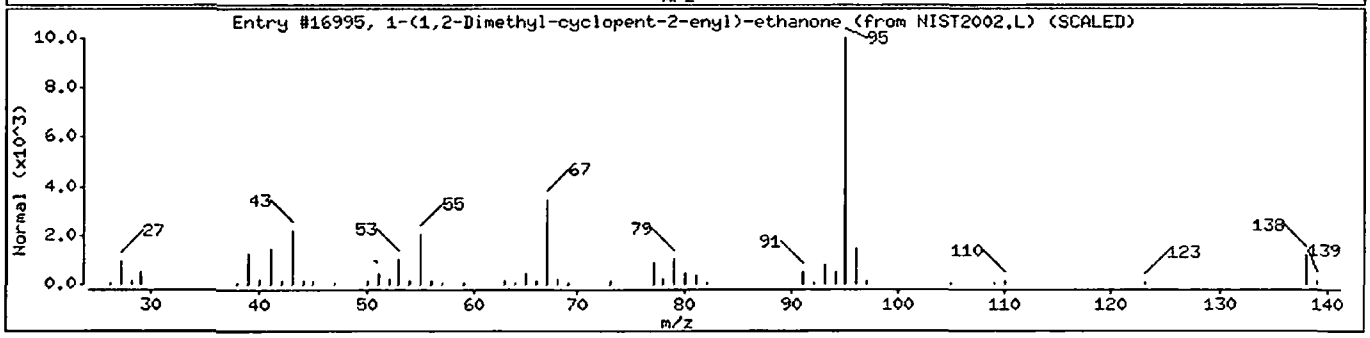
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16375	96	C10H18	138
Cyclohexene, 1-methyl-3-(1-methylethyl)-	13828-31-4	NIST2002.L	16378	90	C10H18	138
1-(1,2-Dimethyl-cyclopent-2-enyl)-ethano	70987-82-5	NIST2002.L	16995	87	C9H14O	138









Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

Client ID: H30R8 .

Instrument: V5.i

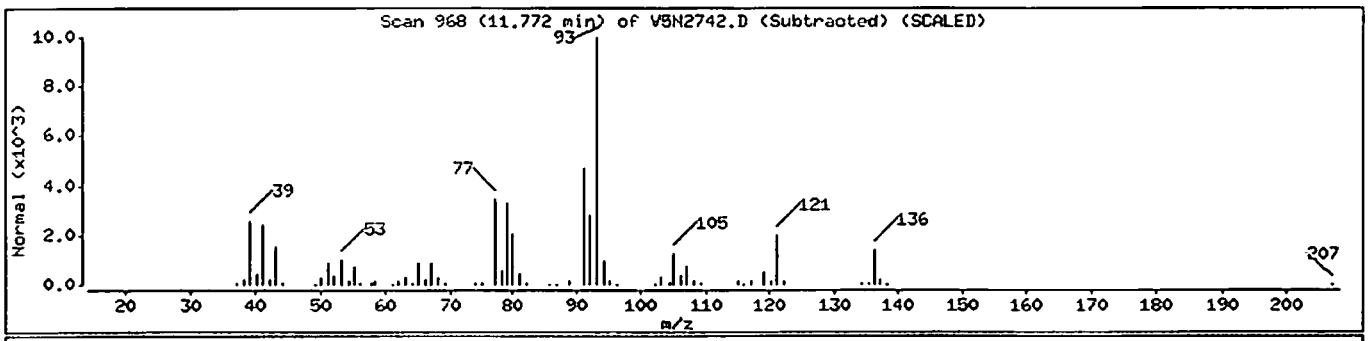
Sample Info: 5G,K2199-11B,,62780

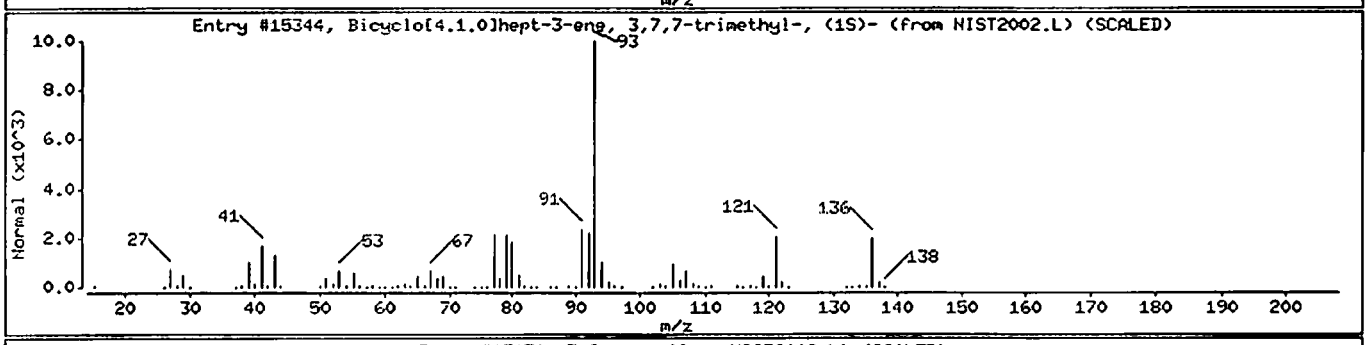
Operator: SRC: LIMS

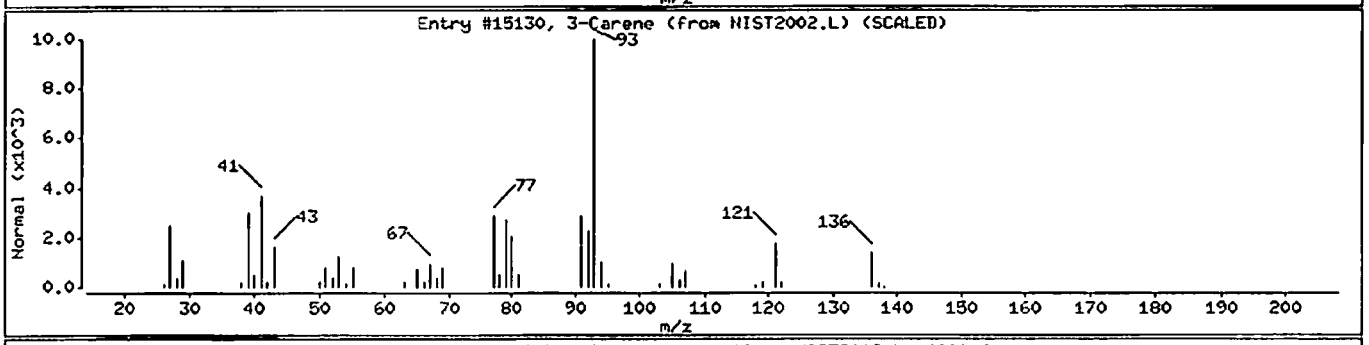
Column phase: DB-624

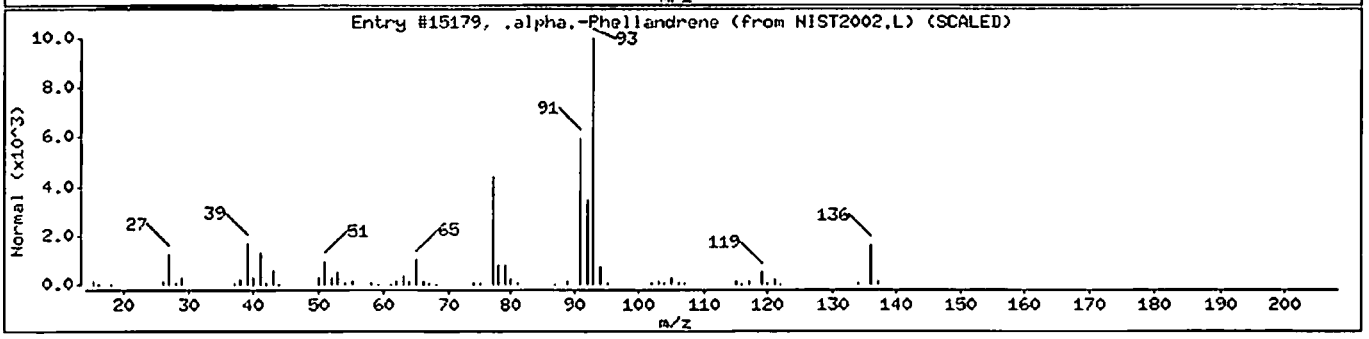
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy	498-15-7	NIST2002.L	15344	96	C10H16	136
3-Carene	13466-78-9	NIST2002.L	15130	95	C10H16	136
.alpha.-Phellandrene	99-83-2	NIST2002.L	15179	94	C10H16	136









Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

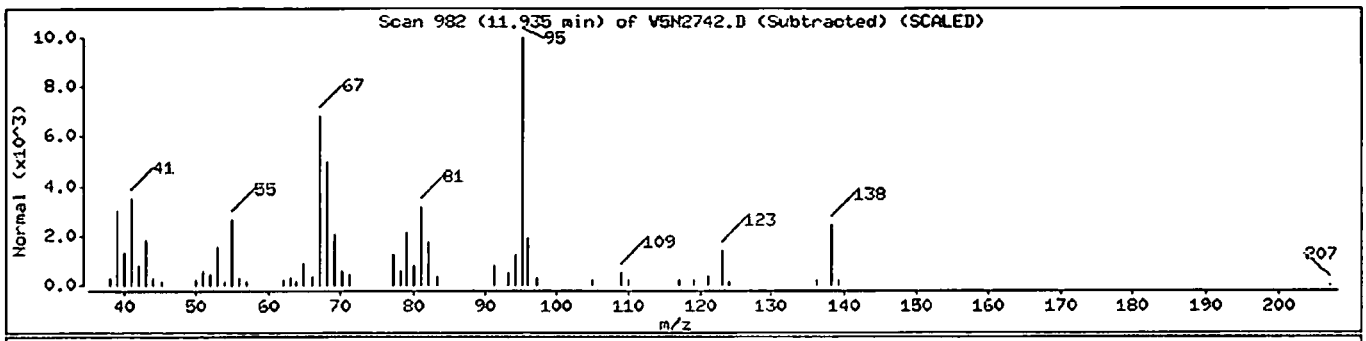
Client ID: H30R8 Instrument: V5.i

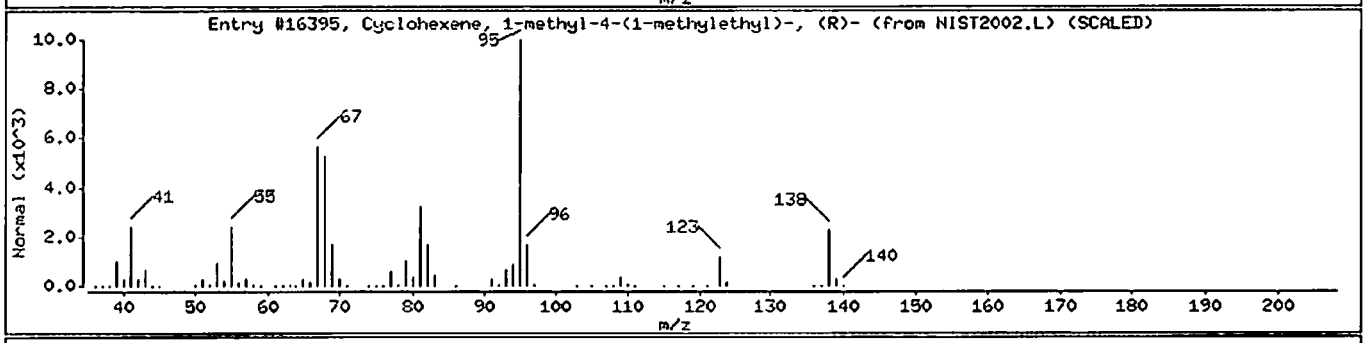
Sample Info: 5G,K2199-11B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 1-methyl-4-(1-methylethyl)-	1195-31-9	NIST2002.L	16395	96	C10H18	138





Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

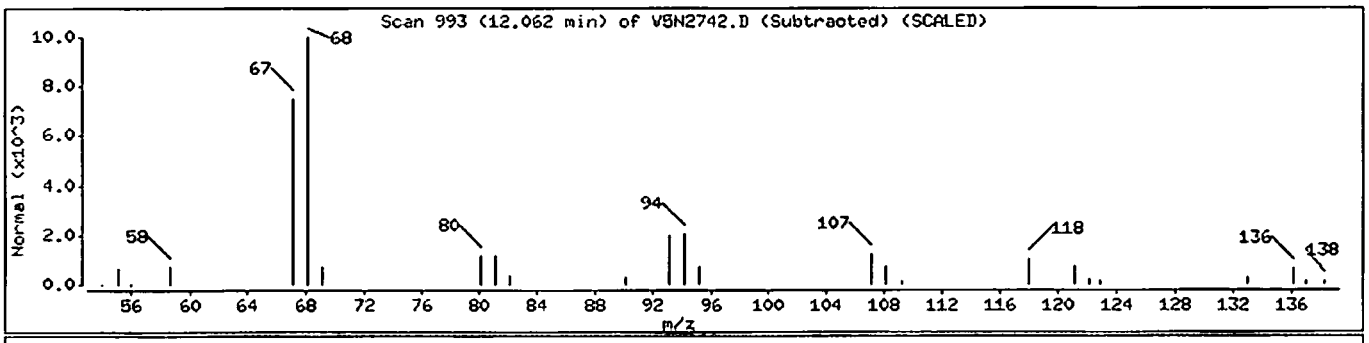
Client ID: H30R8 Instrument: V5.i

Sample Info: 5C,K2199-11B,,62780

Operator: SRC: LIHS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

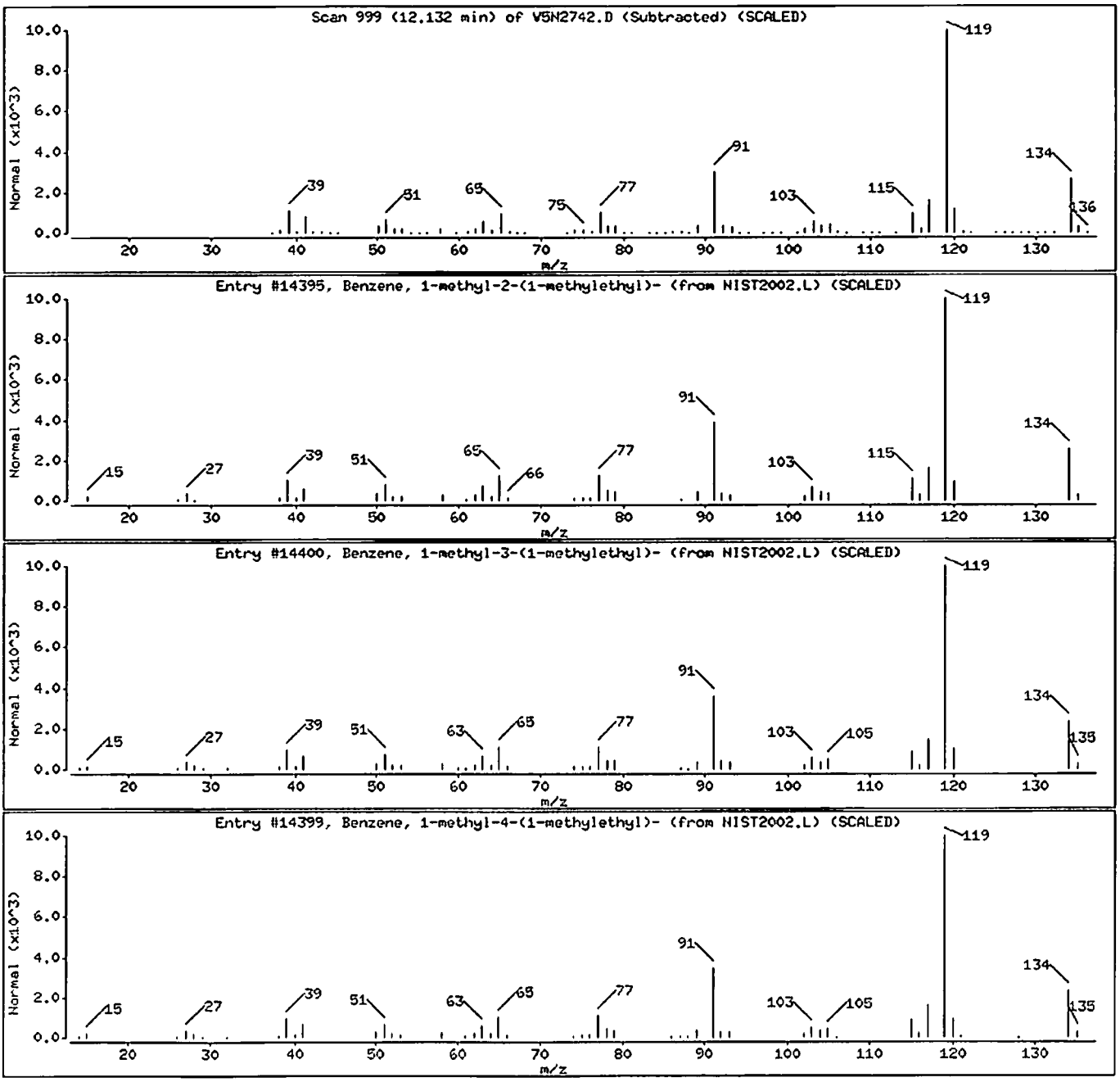
Client ID: H30R8 Instrument: V5.i

Sample Info: 5G,K2199-11B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	96	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	96	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	96	C10H14	134



Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

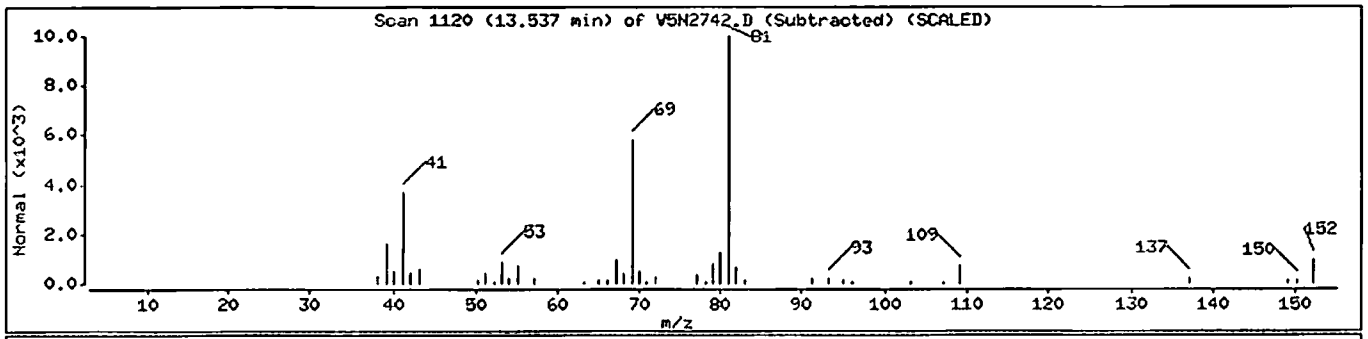
Client ID: H30R8 Instrument: V5.i

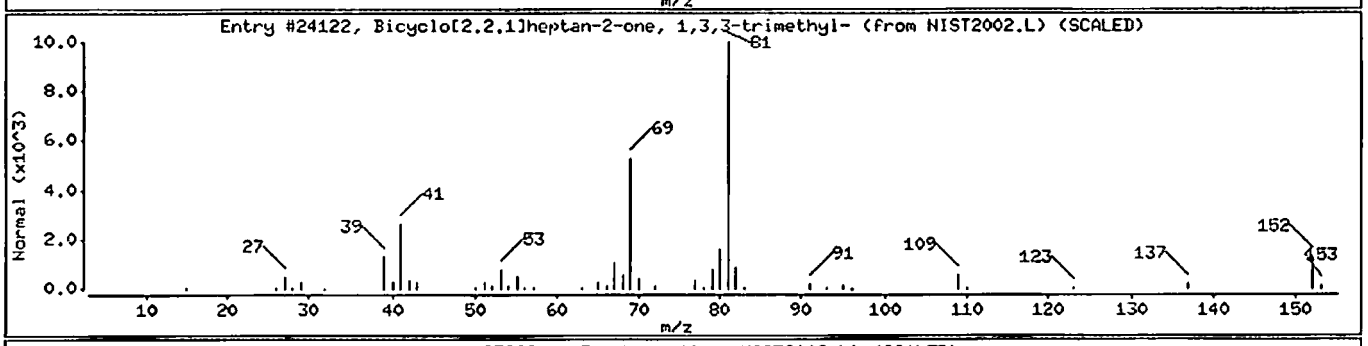
Sample Info: 5G,K2199-11B,,62780

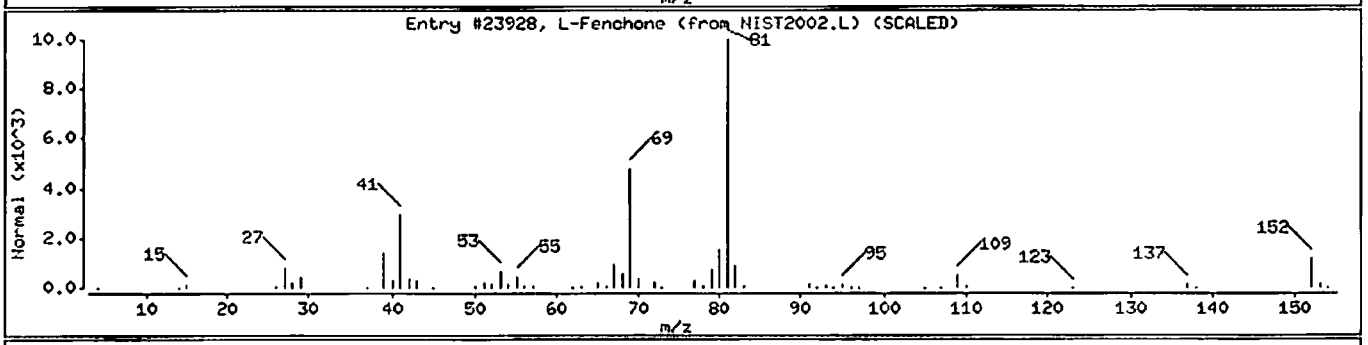
Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptan-2-one, 1,3,3-trimet	1195-79-5	NIST2002.L	24122	91	C10H16O	152
L-Fenchone	126-21-6	NIST2002.L	23928	90	C10H16O	152







Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

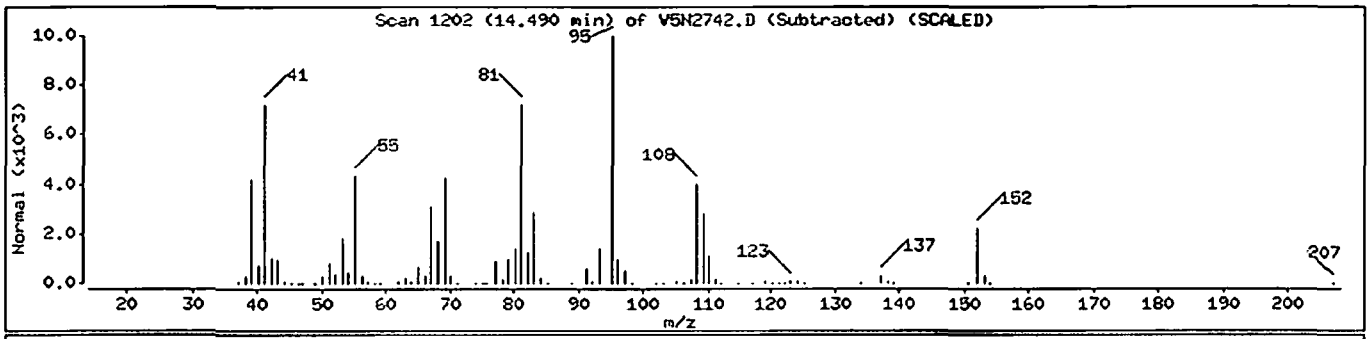
Client ID: H30R8 Instrument: V5.i

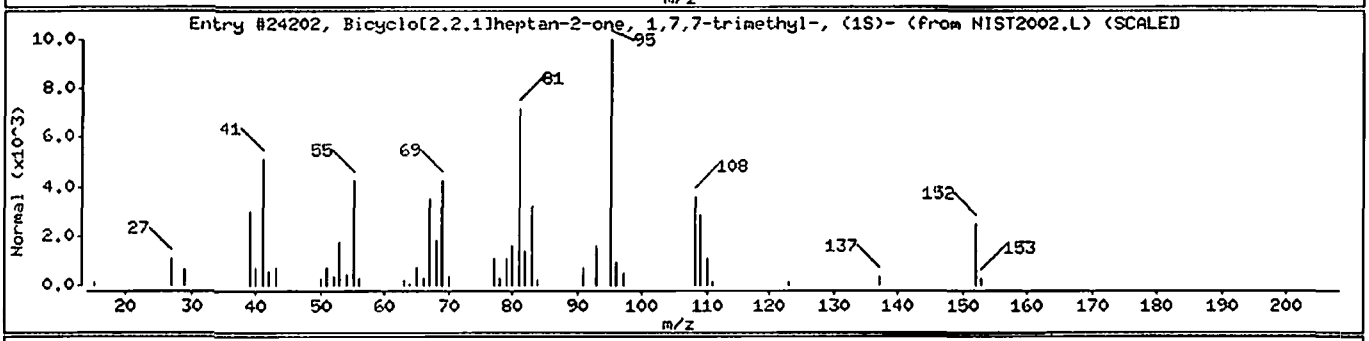
Sample Info: 5G,K2199-11B,,62780

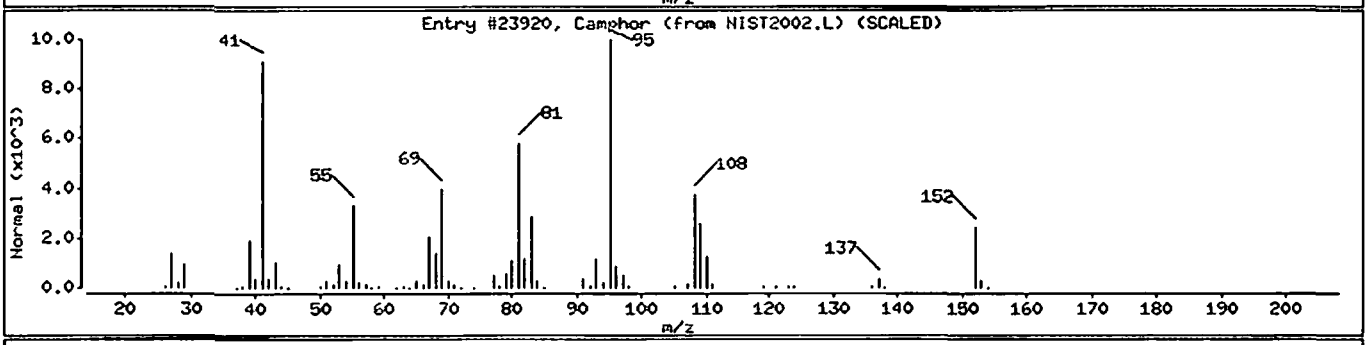
Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet	464-48-2	NIST2002.L	24202	98	C10H16O	152
Camphor	76-22-2	NIST2002.L	23920	97	C10H16O	152







Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

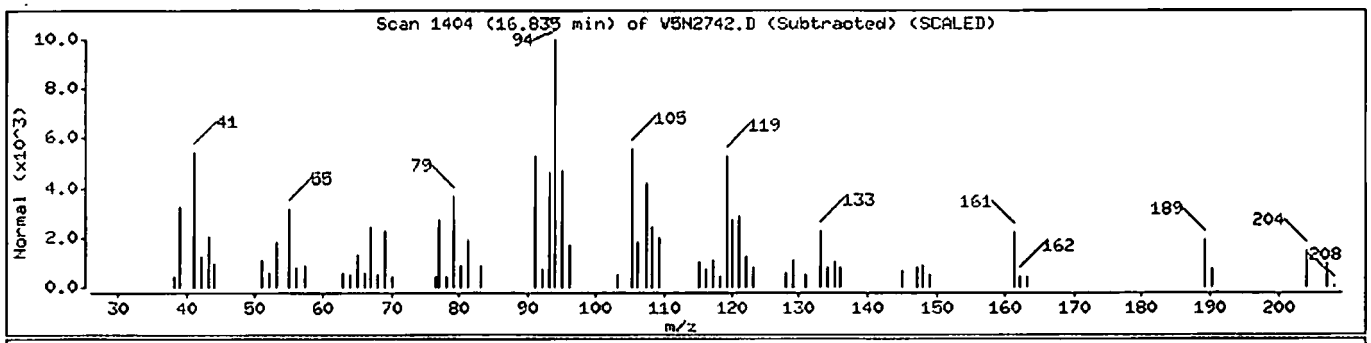
Client ID: H30R8 Instrument: V5.i

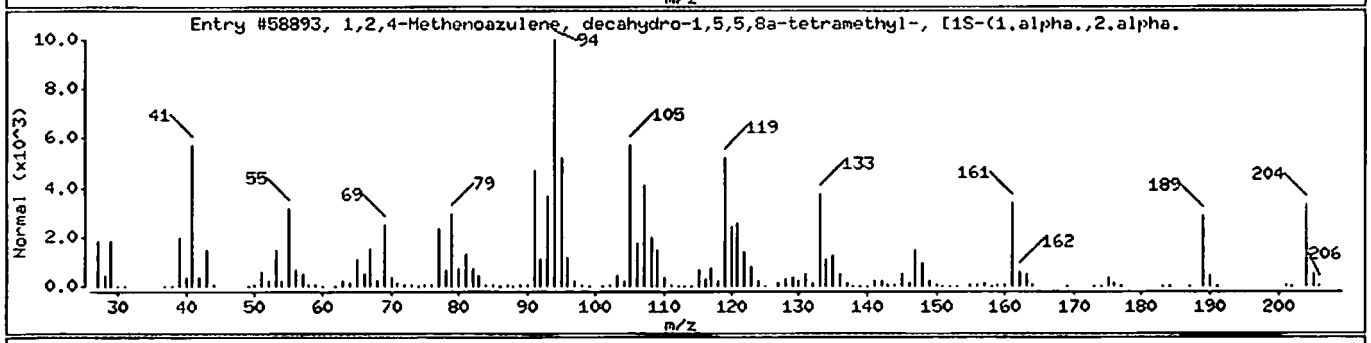
Sample Info: 5G,K2199-11B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,2,4-Methenoazulene, decahydro-1,5,5,8a	1137-12-8	NIST2002.L	58893	96	C15H24	204





Data File: \\avogadro\organics\V5.I\111107.B\V5N2742.D

Date : 07-NOV-2011 18:22

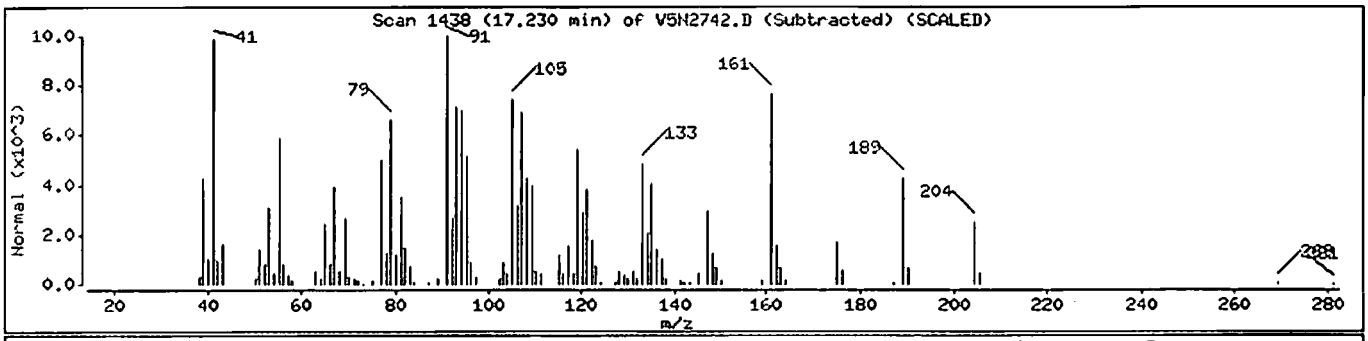
Client ID: H30R8 Instrument: V5.i

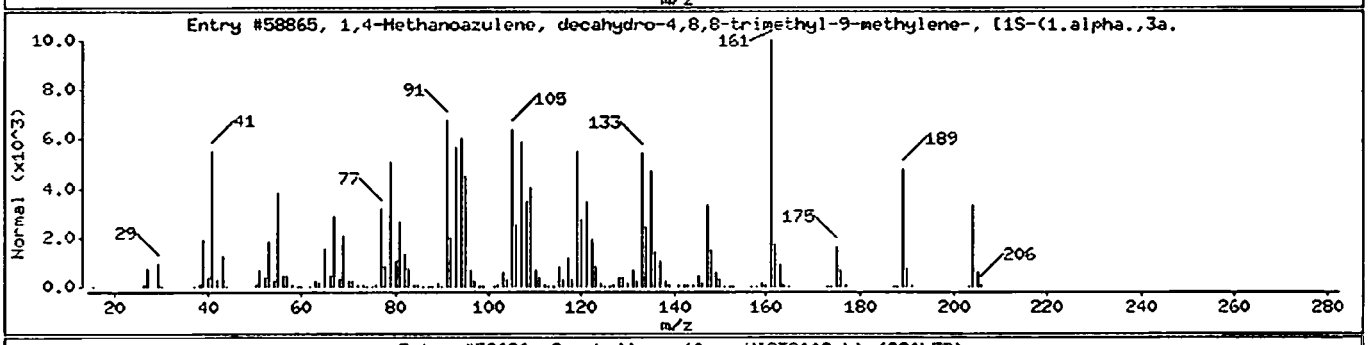
Sample Info: 5C,K2199-11B,.62780

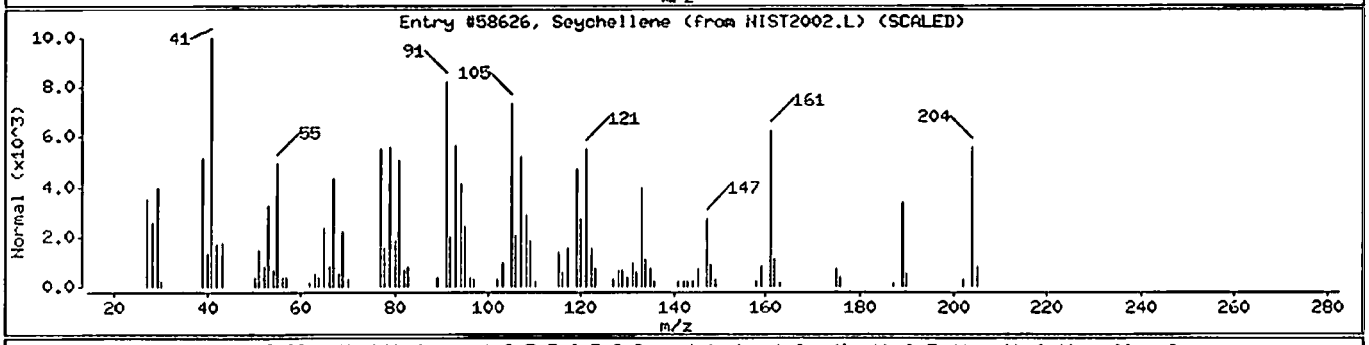
Operator: SRC: LIMS

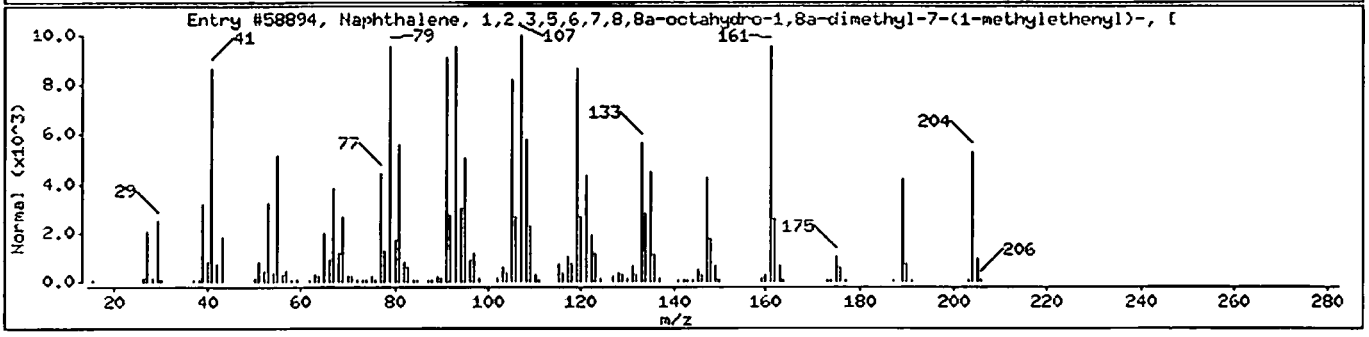
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58865	98	C15H24	204
Seychellene	20085-93-2	NIST2002.L	58626	96	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	10219-75-7	NIST2002.L	58894	95	C15H24	204









1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-12B

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V5N2732.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 44 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	9.5	U
74-87-3	Chloromethane	9.5	U
75-01-4	Vinyl chloride	9.5	U
74-83-9	Bromomethane	9.5	U
75-00-3	Chloroethane	9.5	U
75-69-4	Trichlorofluoromethane	9.5	U
75-35-4	1,1-Dichloroethene	9.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	9.5	U
67-64-1	Acetone	19	U
75-15-0	Carbon disulfide	9.5	U
79-20-9	Methyl acetate	9.5	U
75-09-2	Methylene chloride	9.5	U
156-60-5	trans-1,2-Dichloroethene	9.5	U
1634-04-4	Methyl tert-butyl ether	9.5	U
75-34-3	1,1-Dichloroethane	9.5	U
156-59-2	cis-1,2-Dichloroethene	9.5	U
78-93-3	2-Butanone	19	U
74-97-5	Bromochloromethane	9.5	U
67-66-3	Chloroform	9.5	U
71-55-6	1,1,1-Trichloroethane	9.5	U
110-82-7	Cyclohexane	9.5	U
56-23-5	Carbon tetrachloride	9.5	U
71-43-2	Benzene	9.5	U
107-06-2	1,2-Dichloroethane	9.5	U
123-91-1	1,4-Dioxane	190	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-12B

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V5N2732.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 44 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	9.5	U
108-87-2	Methylcyclohexane	9.5	U
78-87-5	1,2-Dichloropropane	9.5	U
75-27-4	Bromodichloromethane	9.5	U
10061-01-5	cis-1,3-Dichloropropene	9.5	U
108-10-1	4-Methyl-2-pentanone	19	U
108-88-3	Toluene	9.5	U
10061-02-6	trans-1,3-Dichloropropene	9.5	U
79-00-5	1,1,2-Trichloroethane	9.5	U
127-18-4	Tetrachloroethene	9.5	U
591-78-6	2-Hexanone	19	U
124-48-1	Dibromochloromethane	9.5	U
106-93-4	1,2-Dibromoethane	9.5	U
108-90-7	Chlorobenzene	9.5	U
100-41-4	Ethylbenzene	9.5	U
179601-23-1	m,p-Xylene	9.5	U
95-47-6	o-Xylene	9.5	U
100-42-5	Styrene	9.5	U
75-25-2	Bromoform	9.5	U
98-82-8	Isopropylbenzene	9.5	U
79-34-5	1,1,2,2-Tetrachloroethane	9.5	U
541-73-1	1,3-Dichlorobenzene	9.5	U
106-46-7	1,4-Dichlorobenzene	9.5	U
95-50-1	1,2-Dichlorobenzene	9.5	U
96-12-8	1,2-Dibromo-3-chloropropane	9.5	U
120-82-1	1,2,4-Trichlorobenzene	9.5	U
87-61-6	1,2,3-Trichlorobenzene	9.5	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H30S0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-12B

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V5N2732.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 44 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	62960-77-4	4-Octene, 2,6-dimethyl-, [S-	9.963	62	NJ
02	7785-70-8	1R-.alpha.-Pinene	10.567	11	NJ
03	79-92-5	Camphene	10.904	93	NJ
04		Unknown-01	11.206	20	J
05	1124-27-2	Cyclohexane, 1-methyl-4-(1-m	11.299	100	NJ
06	5256-65-5	Cyclohexene, 3-methyl-6-(1-m	11.380	150	NJ
07	5256-65-5	Cyclohexene, 3-methyl-6-(1-m	11.635	54	NJ
08	1000150-36-1	4-Carene	11.775	20	NJ
09	1195-31-9	Cyclohexene, 1-methyl-4-(1-m	11.937	40	NJ
10		Unknown-02	12.065	69	J
11	527-84-4	Benzene, 1-methyl-2-(1-methy	12.135	4300	NJ
	E966796[1]	Total Alkanes	N/A	18	J

[1]EPA-designated Registry Number.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2732.D
Lab Smp Id: K2199-12B Client Smp ID: H30S0
Inj Date : 07-NOV-2011 13:51
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-12B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.700	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.147	2.168	(0.340)	114033	43.5394	46
$ 80 Chloroethane-d5	69	2.577	2.597	(0.408)	85338	50.3733	54(Q)
$ 81 1,1-Dichloroethene-d2	65	3.343	3.364	(0.529)	25971	47.8087	51(Q)
$ 82 2-Butanone-d5	46	5.074	5.071	(0.803)	52396	71.7332	76
$ 83 Chloroform-d	84	5.376	5.385	(0.851)	155546	49.5709	53(Q)
$ 23 1,2-Dichloroethane-d4	65	5.886	5.896	(0.932)	85815	50.6684	54
$ 84 Benzene-d6	84	5.910	5.907	(0.627)	289849	64.3301	68(R)
* 26 1,4-Difluorobenzene	114	6.316	6.325	(1.000)	275059	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.723	6.732	(0.713)	113282	60.8385	65
$ 94 1,4-Dioxane-d8	96	6.920	6.917	(1.096)	17385	1078.46	1100
$ 33 Toluene-d8	98	7.837	7.835	(0.831)	224053	53.8675	57
$ 86 trans-1,3-Dichloropropene-d4	79	8.116	8.114	(0.861)	75582	53.9126	57
$ 87 2-Hexanone-d5	63	8.592	8.578	(0.911)	23706	66.1747	70(Q)
* 42 Chlorobenzene-d5	117	9.428	9.426	(1.000)	170158	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.927	10.924	(1.159)	56154	46.0755	49
* 78 1,4-Dichlorobenzene-d4	152	12.181	12.167	(1.000)	46967	50.0000	(Q)
$ 90 1,2-Dichlorobenzene-d4	152	12.634	12.631	(1.037)	40371	46.0116	49(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D
Report Date: 09-Nov-2011 08:00

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2732.D
Lab Smp Id: K2199-12B Client Smp ID: H30S0
Inj Date : 07-NOV-2011 13:51
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-12B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.700	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 42 Chlorobenzene-d5	9.429	492103	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
4-Octene, 2,6-dimethyl-, [S-(Z)]-				CAS #: 62960-77-4			
9.963	322555	32.7731304	35	87	NIST2002.L	17373	42
Cyclic Alkane				CAS #:			
10.404	91101	9.25624075	9.8	0		0	42
1R-.alpha.-Pinene				CAS #: 7785-70-8			
10.567	58167	5.90999627	6.3	91	NIST2002.L	15163	42
Camphene				CAS #: 79-92-5			
10.904	481141	48.8861395	52	97	NIST2002.L	15134	42
Unknown				CAS #:			
11.206	102462	10.4106524	11	0		0	42

Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D
Report Date: 09-Nov-2011 08:00

RT	AREA	CONCENTRATIONS ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Cyclohexane, 1-methyl-4-(1-methylethylid					CAS #: 1124-27-2		
11.299	541660	55.0351535	59	94	NIST2002.L	16389	42
Cyclohexene, 3-methyl-6-(1-methylethyl)-					CAS #: 5256-65-5		
11.380	792479	80.5195966	86	96	NIST2002.L	16375	42
Cyclohexene, 3-methyl-6-(1-methylethyl)-					CAS #: 5256-65-5		
11.635	280362	28.4860694	30	87	NIST2002.L	16375	42
4-Carene					CAS #: 1000150-36-1		
11.775	105752	10.7448981	11	91	NIST2002.L	15124	42
Cyclohexene, 1-methyl-4-(1-methylethyl)-					CAS #: 1195-31-9		
11.937	206085	20.9391837	22	96	NIST2002.L	16395	42
Unknown					CAS #:		
12.065	357630	36.3368682	39	0		0	42
Benzene, 1-methyl-2-(1-methylethyl)-					CAS #: 527-84-4		
12.135	22114227	2246.90856	2400	96	NIST2002.L	14395	42

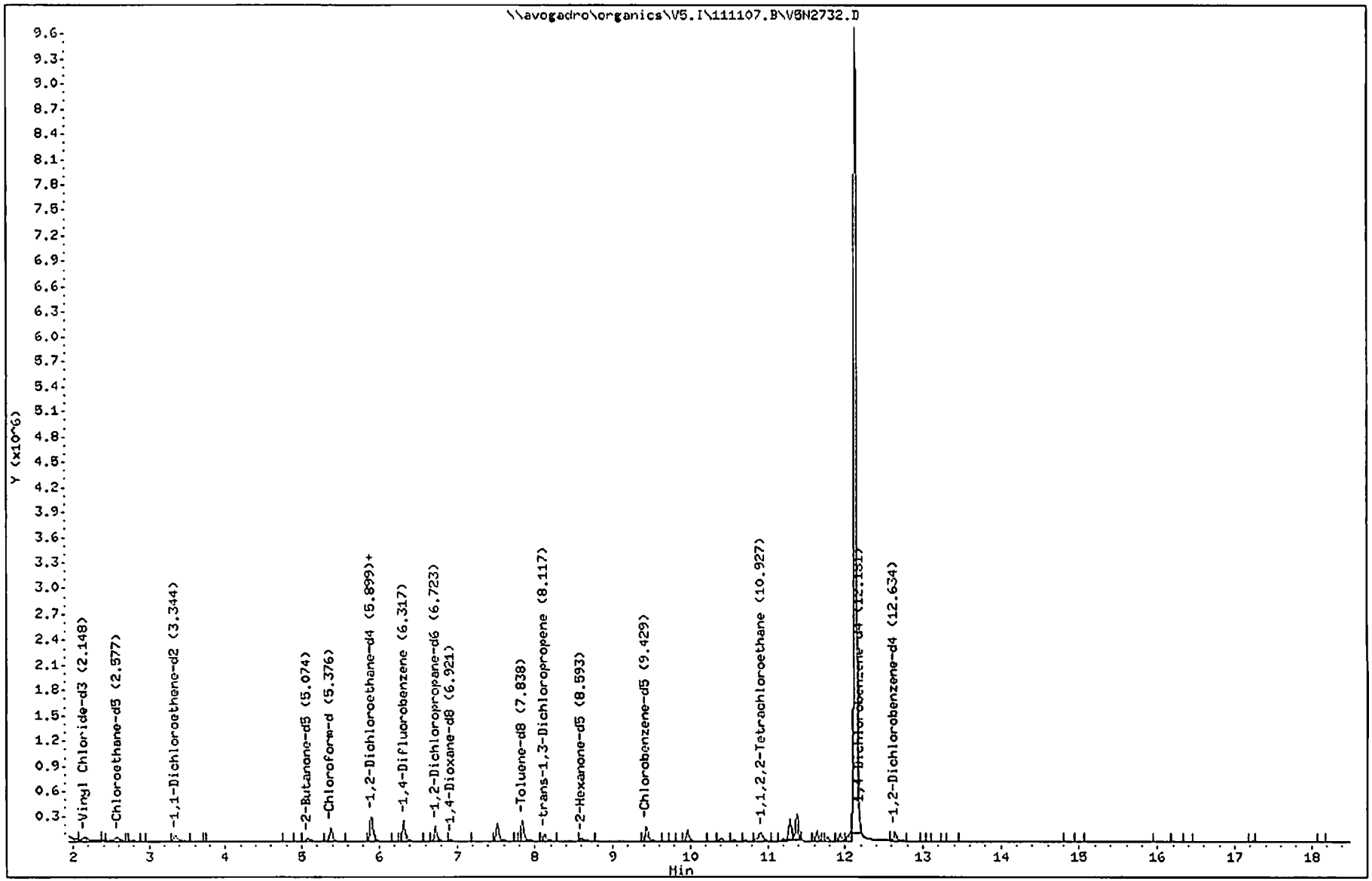
Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D
Date : 07-NOV-2011 13:51
Client ID: H30S0
Sample Info: 5G,K2199-12B,,62780

Instrument: V5.i

Operator: SRC: LINS

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D

Date : 07-NOV-2011 13:51

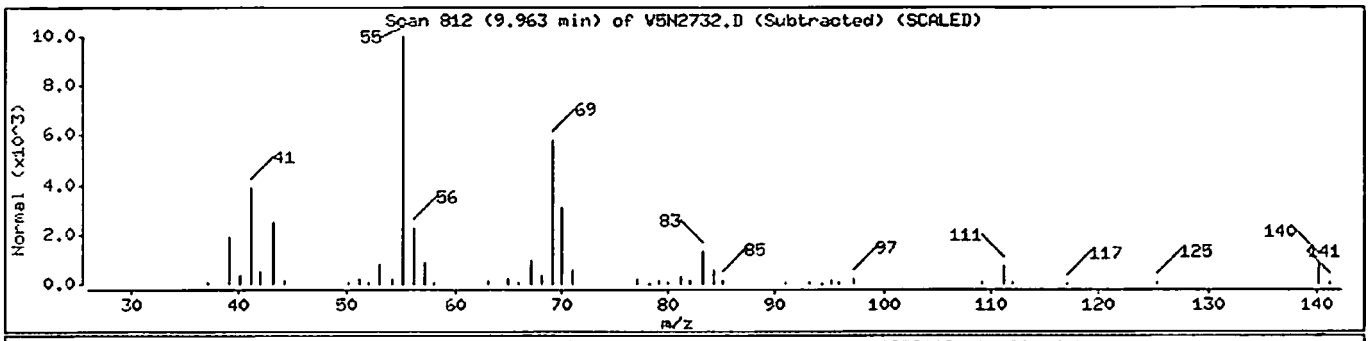
Client ID: H30S0 Instrument: V5.i

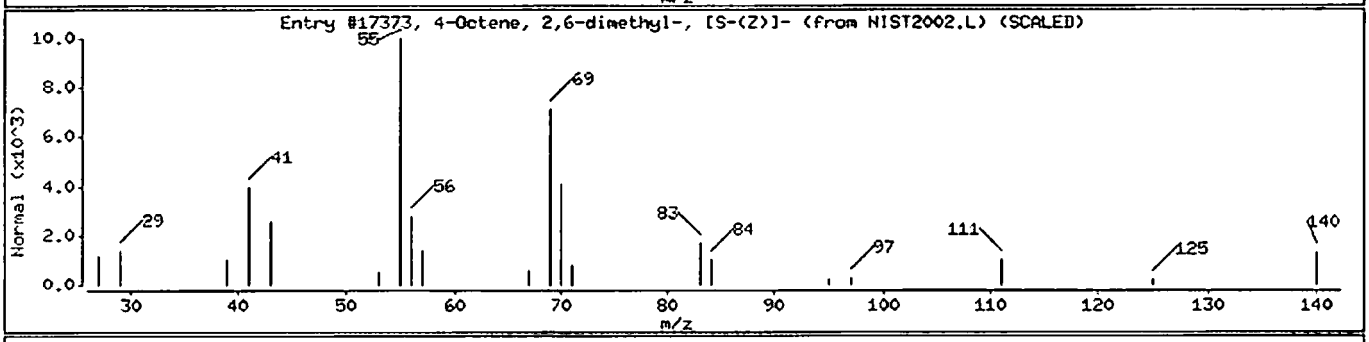
Sample Info: 5G,K2199-12B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
4-Octene, 2,6-dimethyl-, [S-(Z)]-	62960-77-4	NIST2002.L	17373	87	C10H20	140





Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D

Date : 07-NOV-2011 13:51

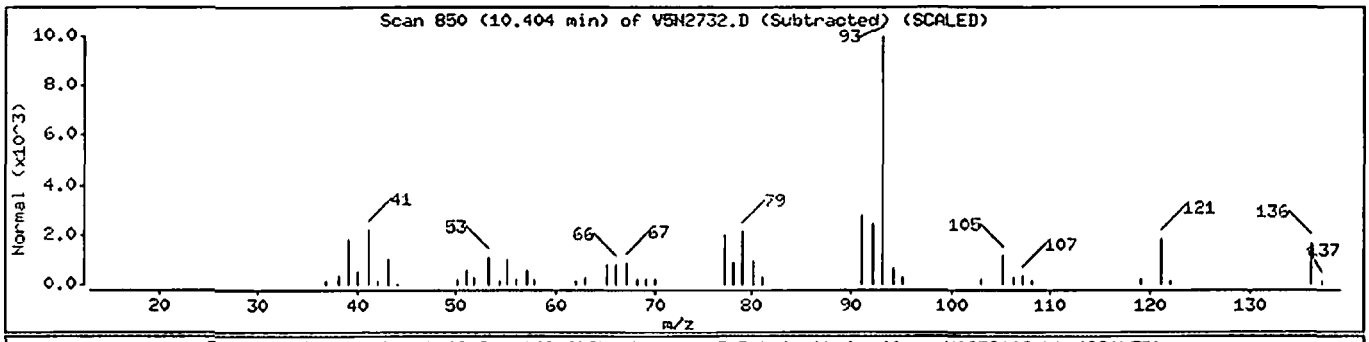
Client ID: H30S0 Instrument: V5.i

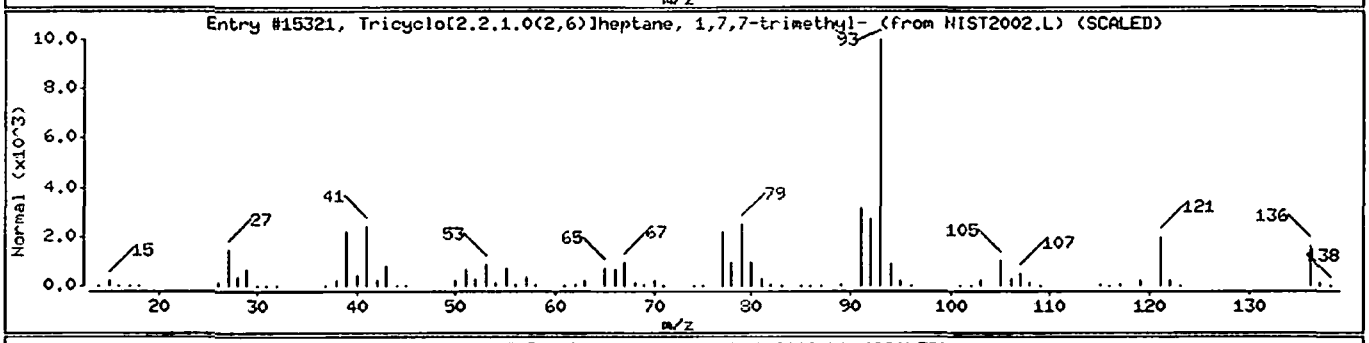
Sample Info: 5G,K2199-12B,,62780

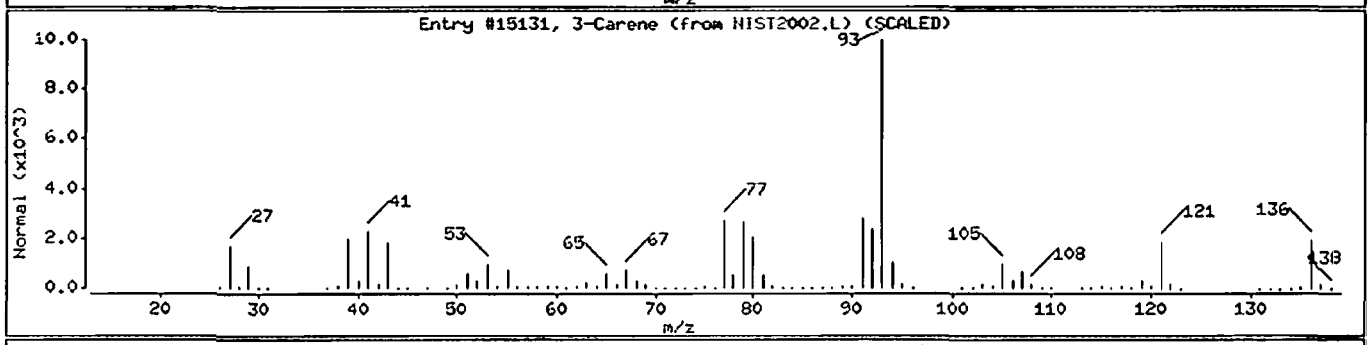
Operator: SRC: LIMS

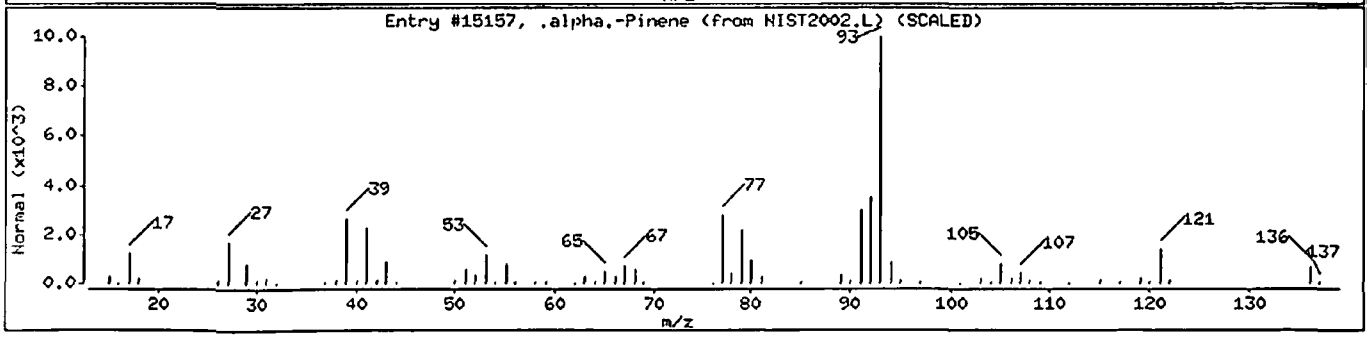
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclic Alkane						
Tricyclo[2.2.1.0(2,6)]heptane, 1,7,7-tri	508-32-7	NIST2002.L	15321	96	C10H16	136
3-Carene	13466-78-9	NIST2002.L	15131	86	C10H16	136
.alpha.-Pinene	80-56-8	NIST2002.L	15157	86	C10H16	136









Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D

Date : 07-NOV-2011 13:51

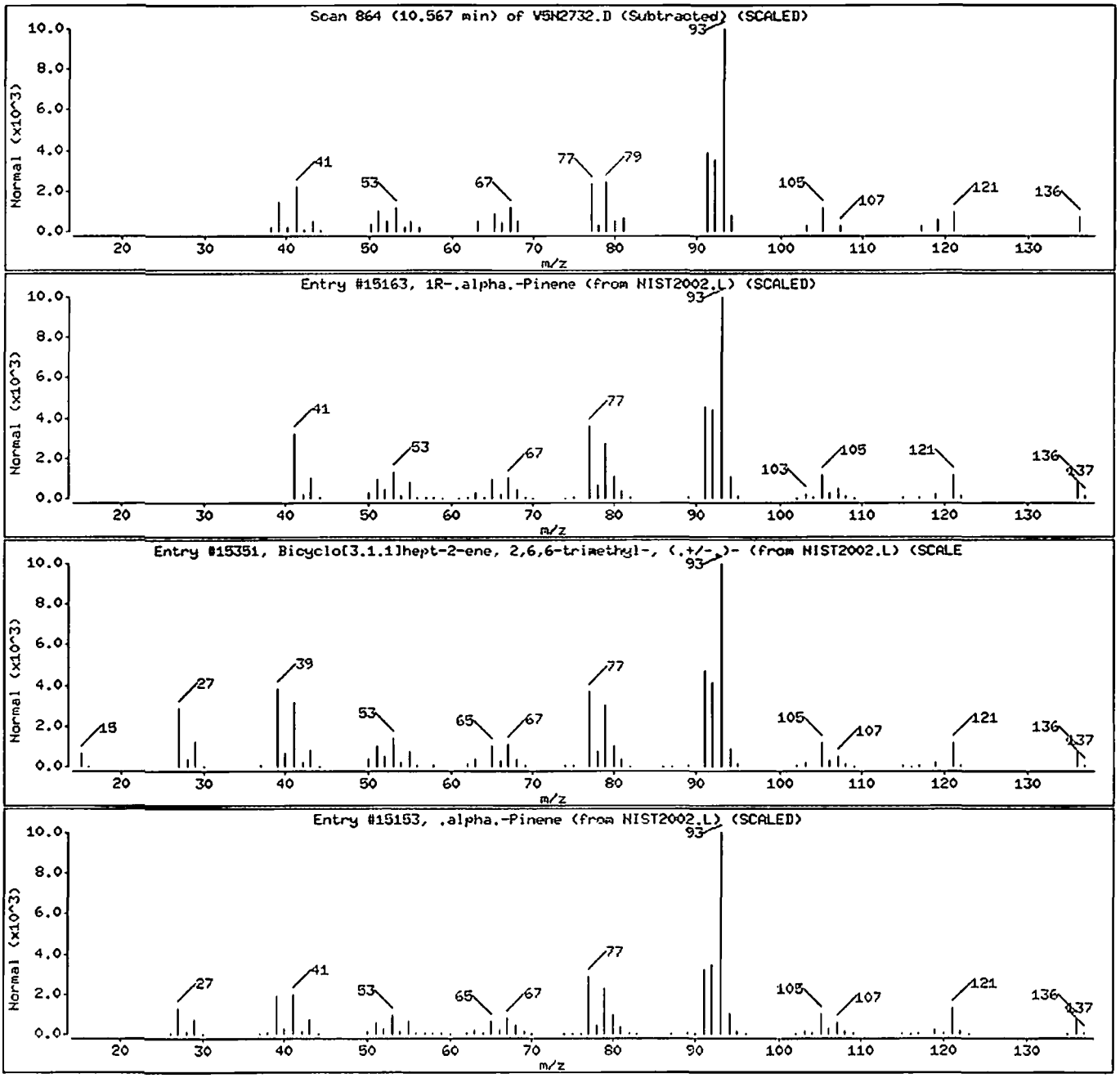
Client ID: H30S0 Instrument: V5.i

Sample Info: 5G,K2199-12B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-.alpha.-Pinene	7785-70-8	NIST2002.L	15163	91	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST2002.L	15351	91	C10H16	136
.alpha.-Pinene	80-56-8	NIST2002.L	15153	87	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D

Date : 07-NOV-2011 13:51

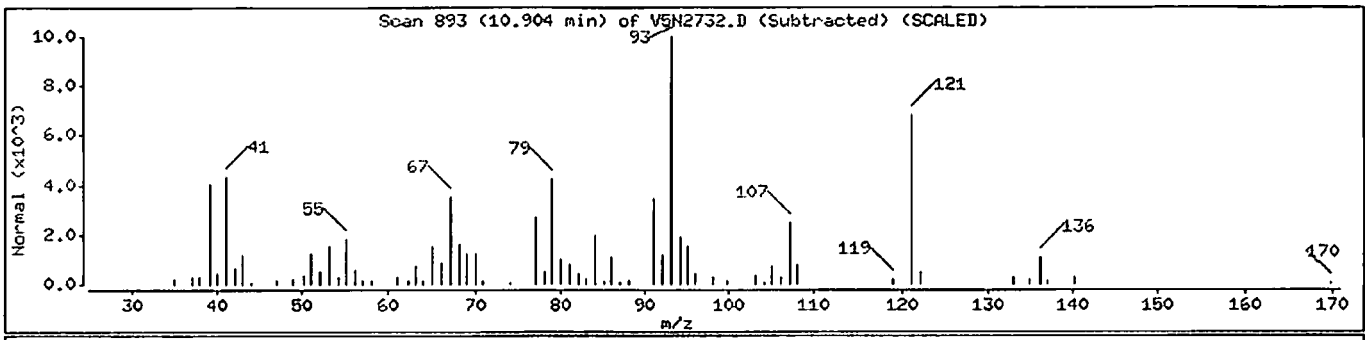
Client ID: H30S0 Instrument: V5.i

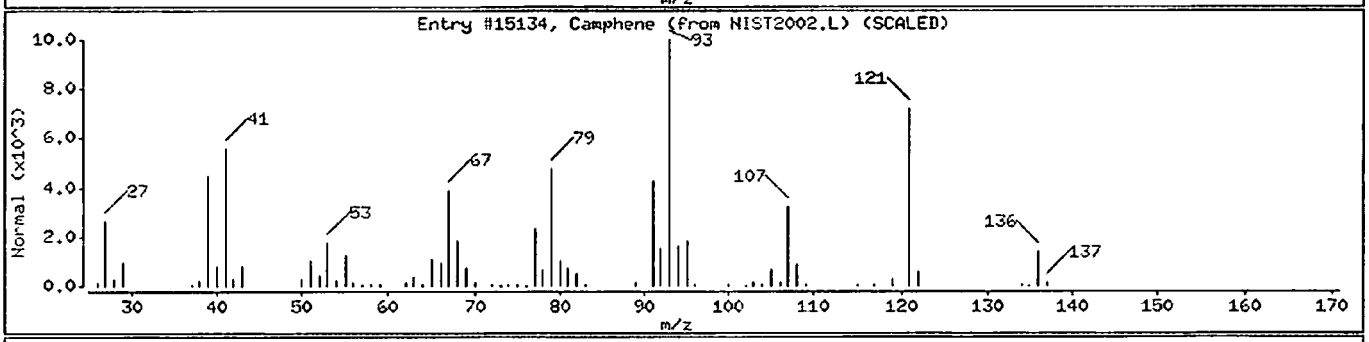
Sample Info: 5G,K2199-12B,,62780

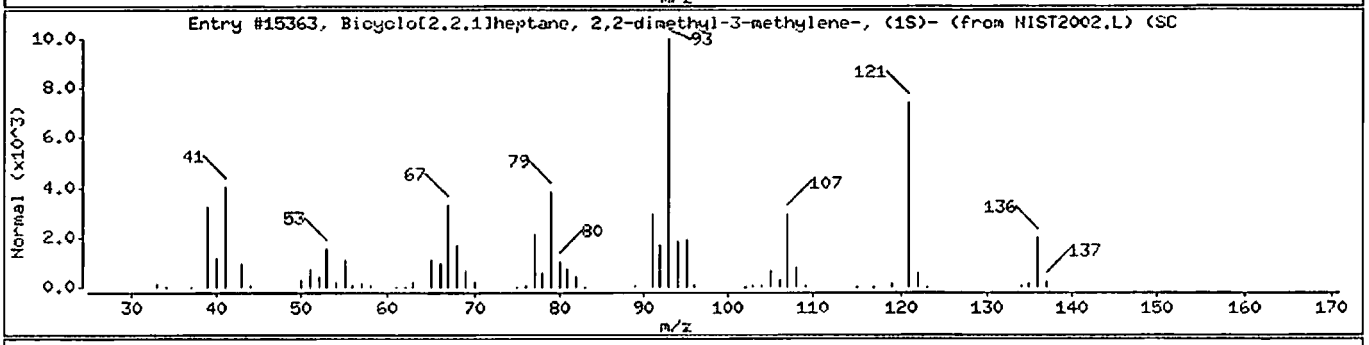
Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Camphene	79-92-5	NIST2002.L	15134	97	C10H16	136
Bicyclo[2.2.1]heptane, 2,2-dimethyl-3-me	5794-04-7	NIST2002.L	15363	93	C10H16	136







Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D

Date : 07-NOV-2011 13:51

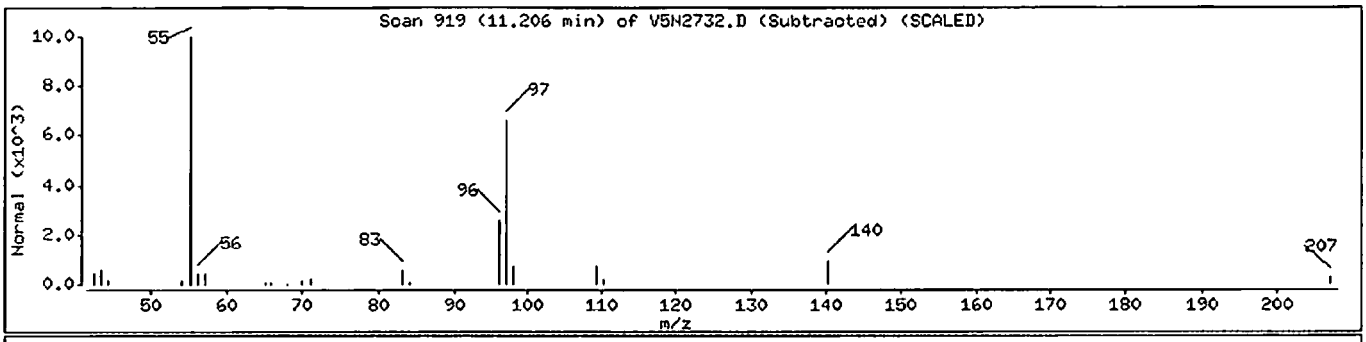
Client ID: H30S0 Instrument: V5.i

Sample Info: 5G,K2199-12B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Unknown			0	0		0



Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D

Date : 07-NOV-2011 13:51

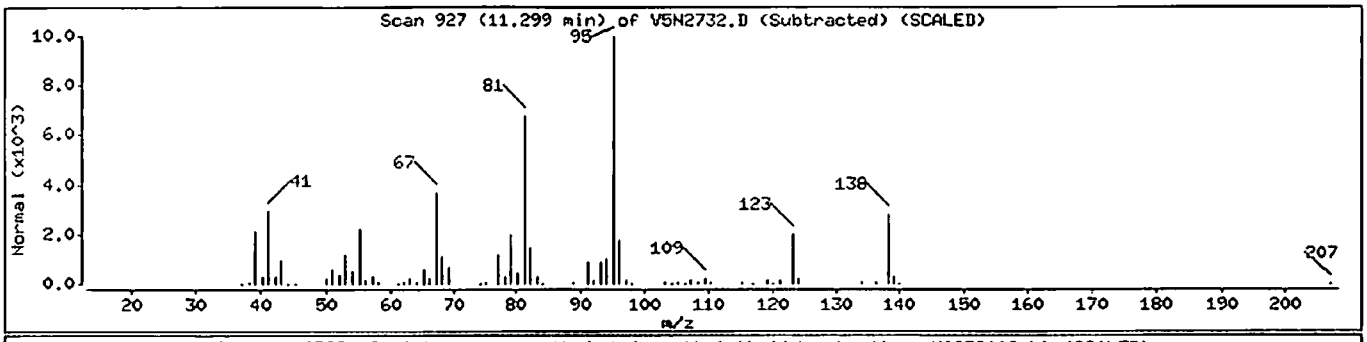
Client ID: H30S0 Instrument: V5.i

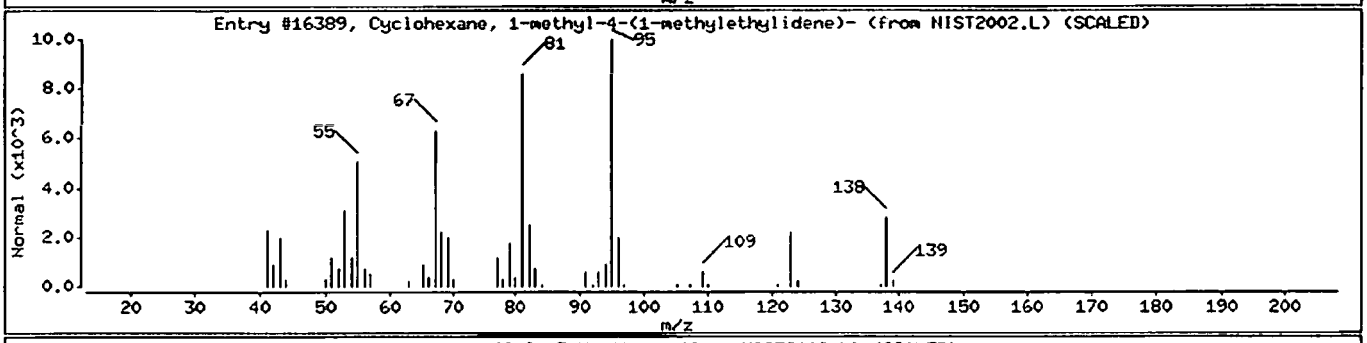
Sample Info: 5G,K2199-12B,,62780

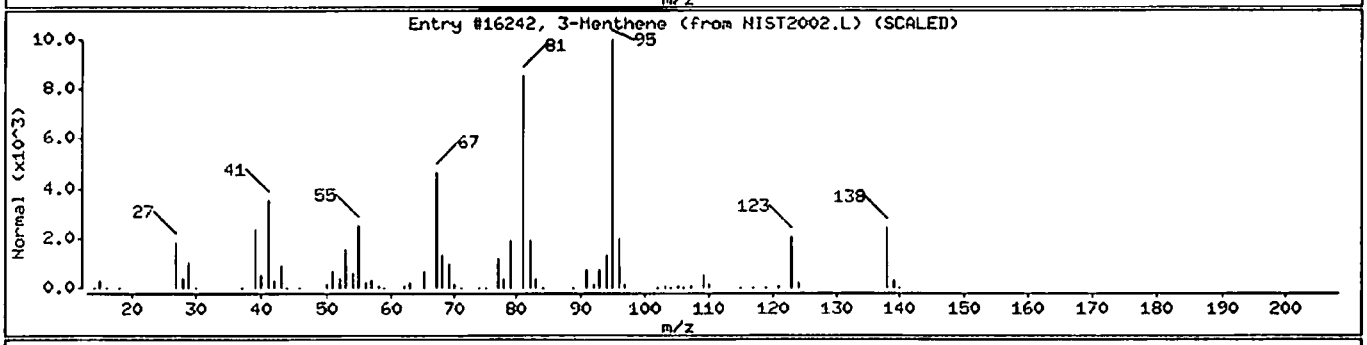
Operator: SRC: LIMS

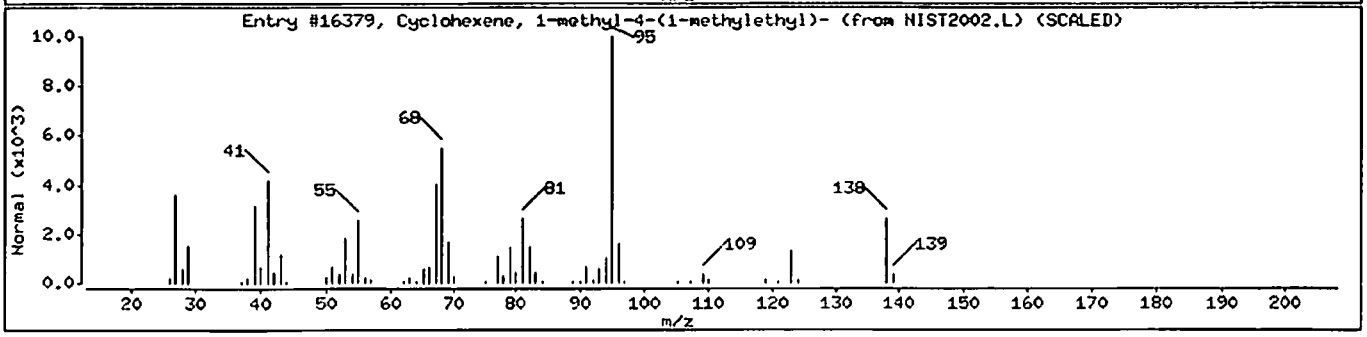
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, 1-methyl-4-(1-methylethylid	1124-27-2	NIST2002.L	16389	94	C10H18	138
3-Henthene	1000118-83-1	NIST2002.L	16242	90	C10H18	138
Cyclohexene, 1-methyl-4-(1-methylethyl)-	5502-88-5	NIST2002.L	16379	90	C10H18	138









Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D

Date : 07-NOV-2011 13:51

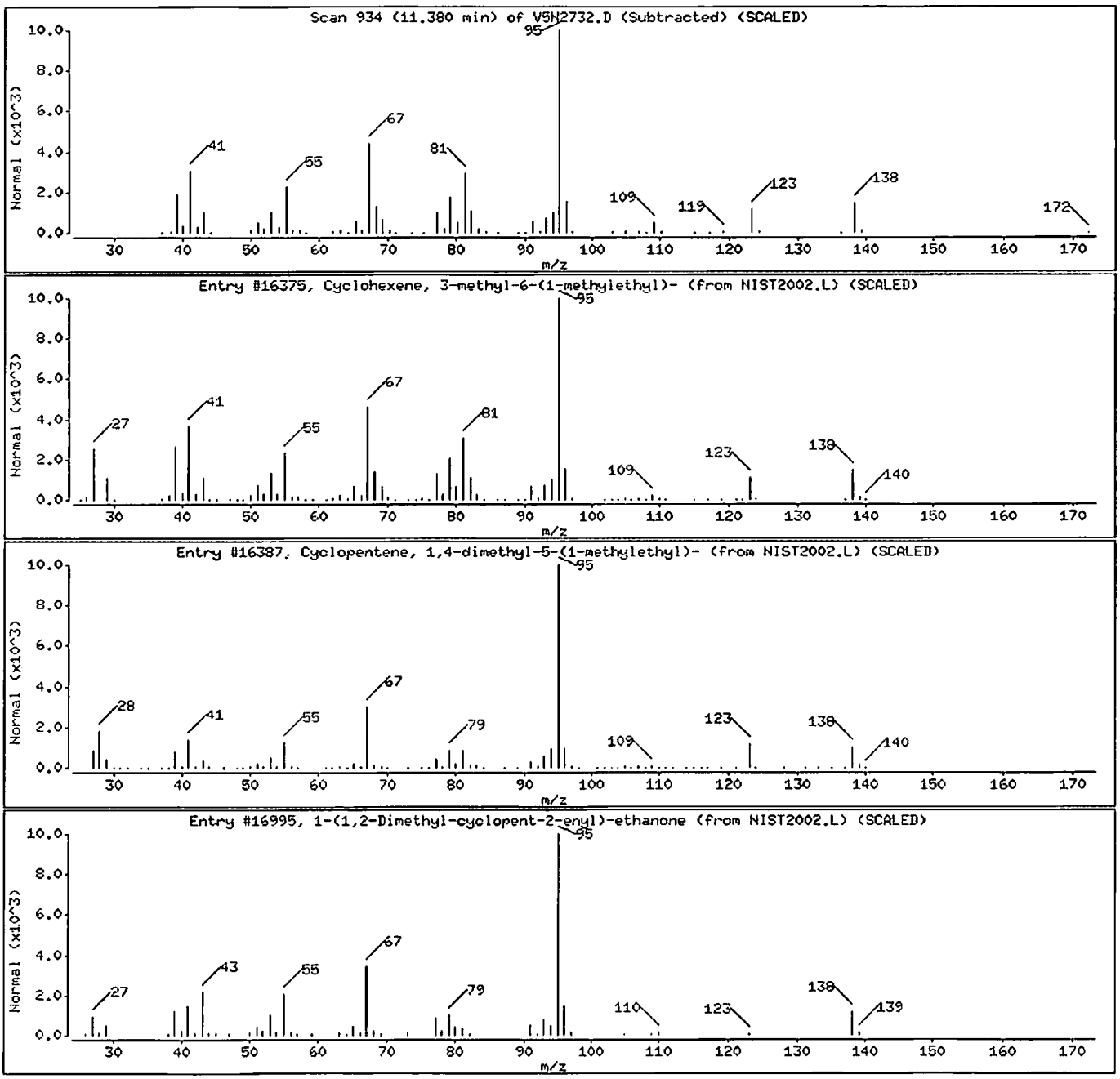
Client ID: H30S0 Instrument: V5.i

Sample Info: 5G,K2199-12B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16375	96	C10H18	138
Cyclopentene, 1,4-dimethyl-5-(1-methylet	61142-33-4	NIST2002.L	16387	90	C10H18	138
1-(1,2-Dimethyl-cyclopent-2-enyl)-ethano	70987-82-5	NIST2002.L	16995	87	C9H14O	138



Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D

Date : 07-NOV-2011 13:51

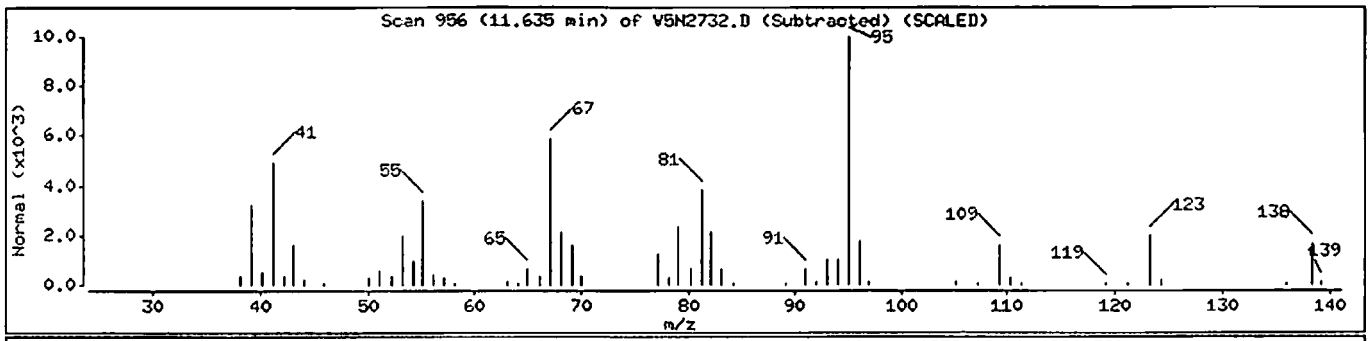
Client ID: H30S0 Instrument: V5.i

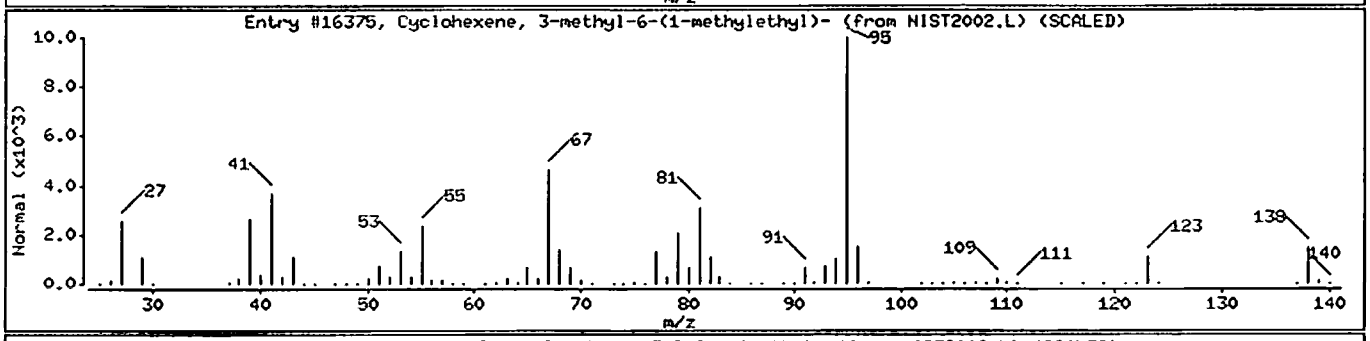
Sample Info: 5G,K2199-12B,,62780

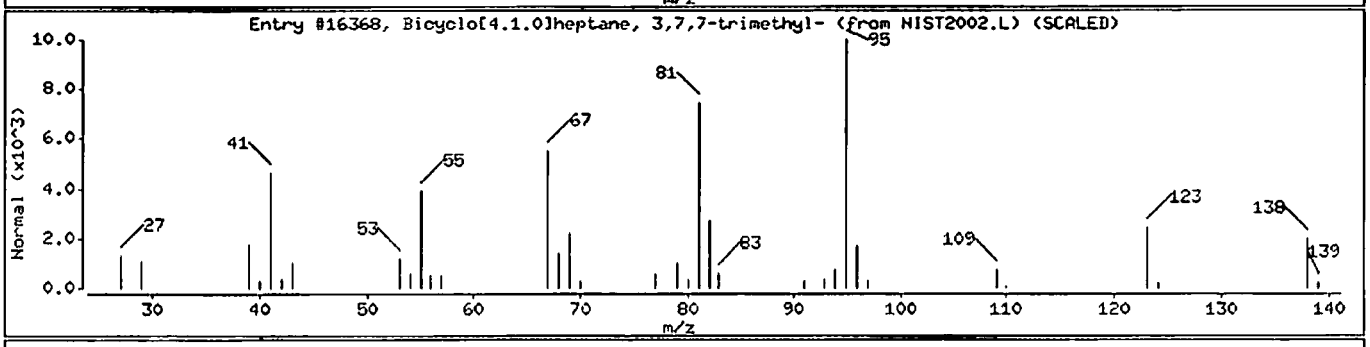
Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16375	87	C10H18	138
Bicyclo[4.1.0]heptane, 3,7,7-trimethyl-	554-59-6	NIST2002.L	16368	87	C10H18	138







Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D

Date : 07-NOV-2011 13:51

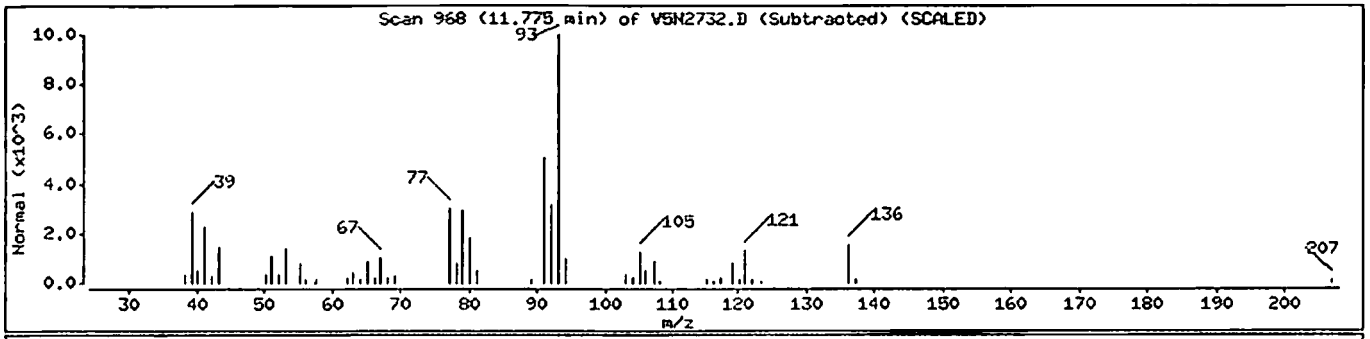
Client ID: H30S0 Instrument: V5.i

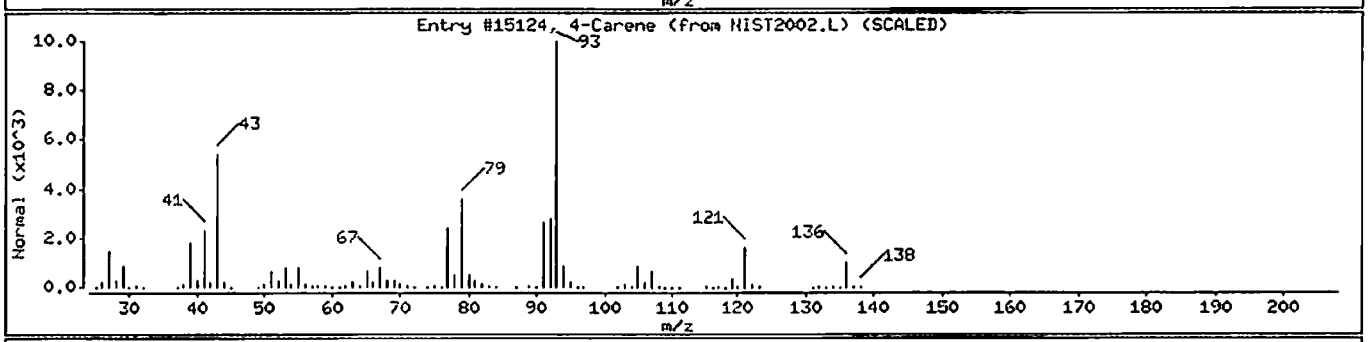
Sample Info: 5G,K2199-12B,,62780

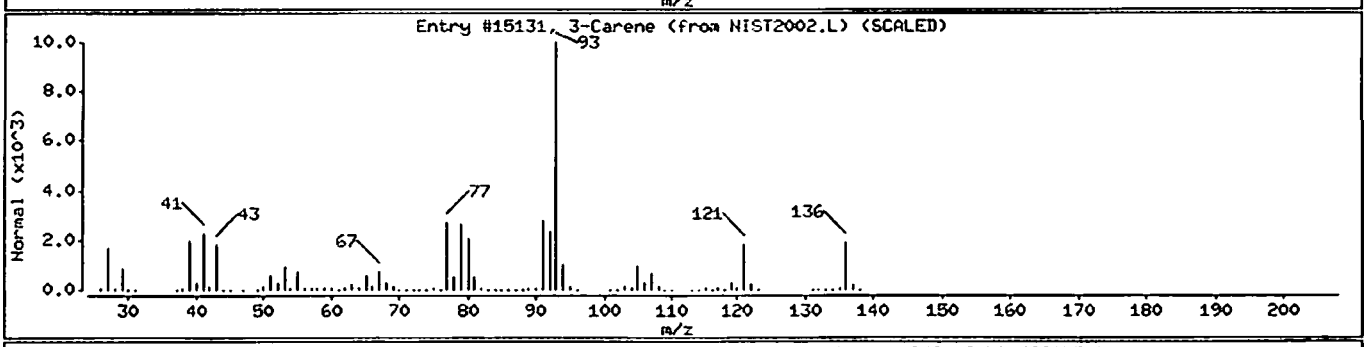
Operator: SRC: LIMS

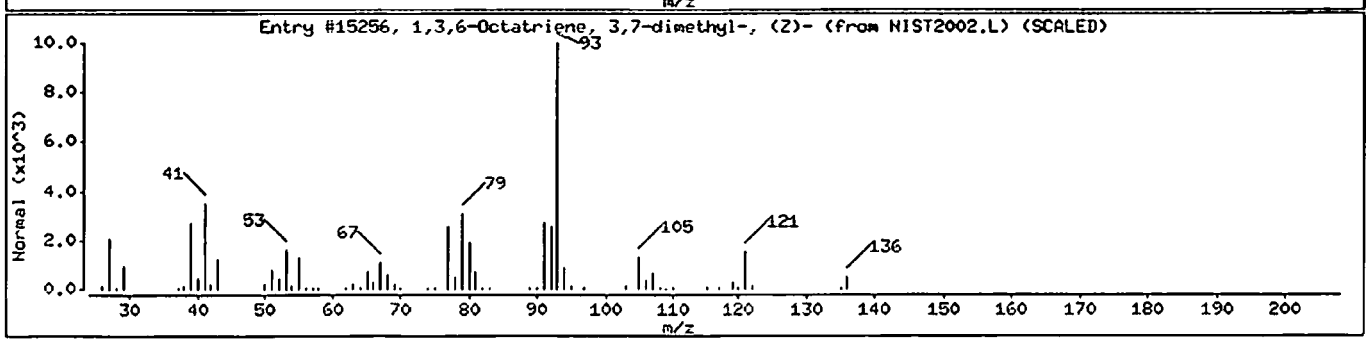
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
4-Carene	1000150-36-1	NIST2002.L	15124	91	C10H16	136
3-Carene	13466-78-9	NIST2002.L	15131	91	C10H16	136
1,3,6-Octatriene, 3,7-dimethyl-, (Z)-	3338-55-4	NIST2002.L	15256	91	C10H16	136









Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D

Date : 07-NOV-2011 13:51

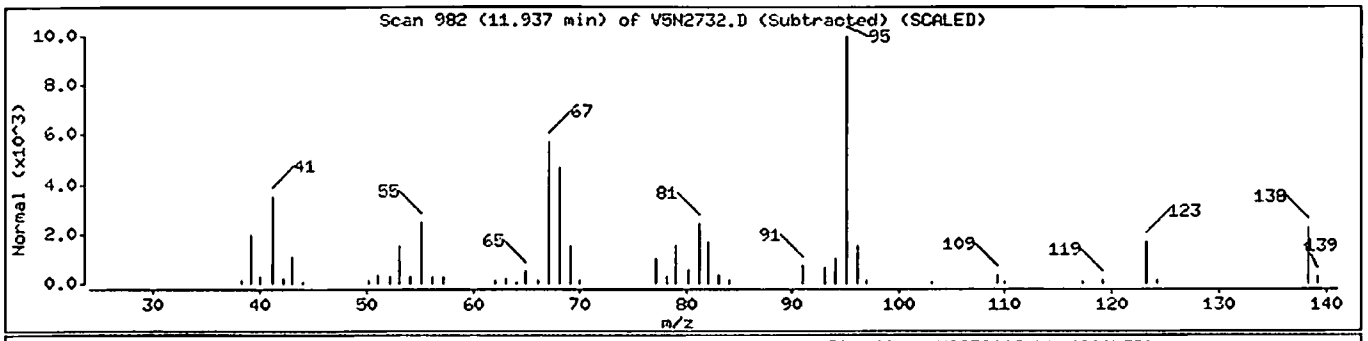
Client ID: H30S0 Instrument: V5.i

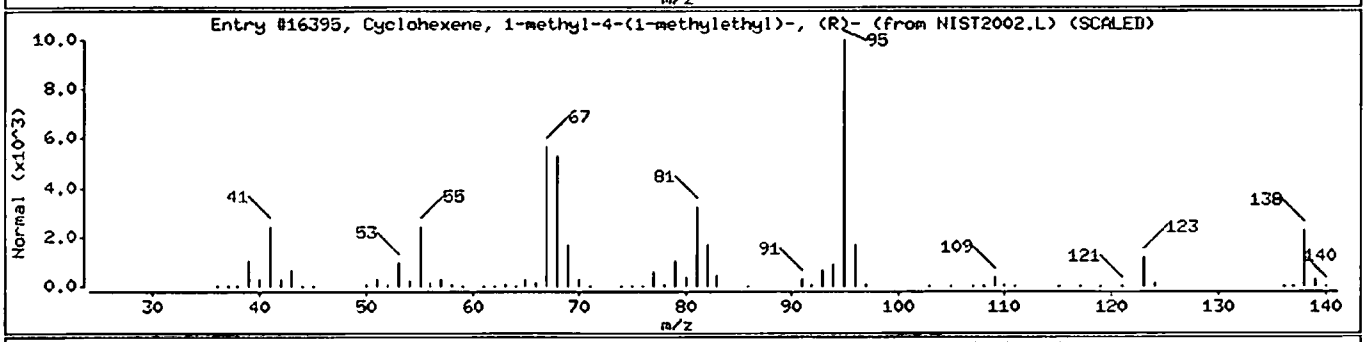
Sample Info: 5G,K2199-12B,,62780

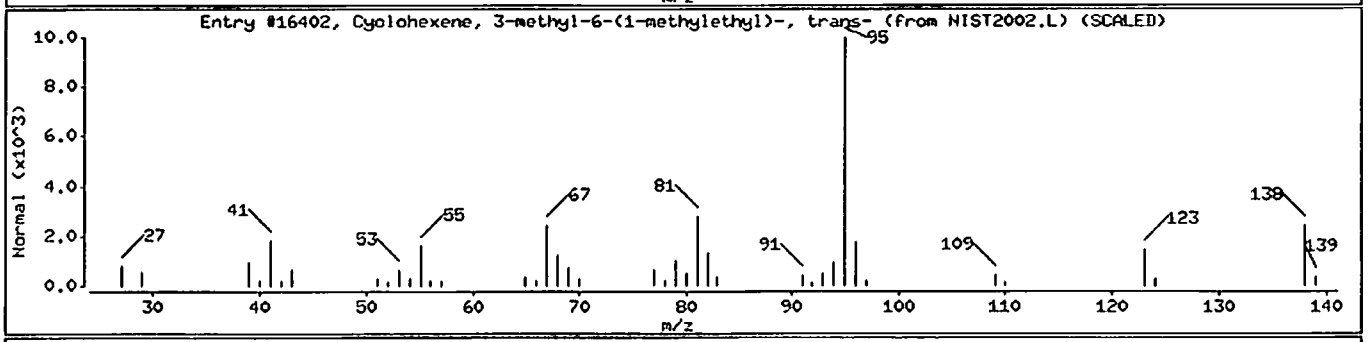
Operator: SRC: LIMS

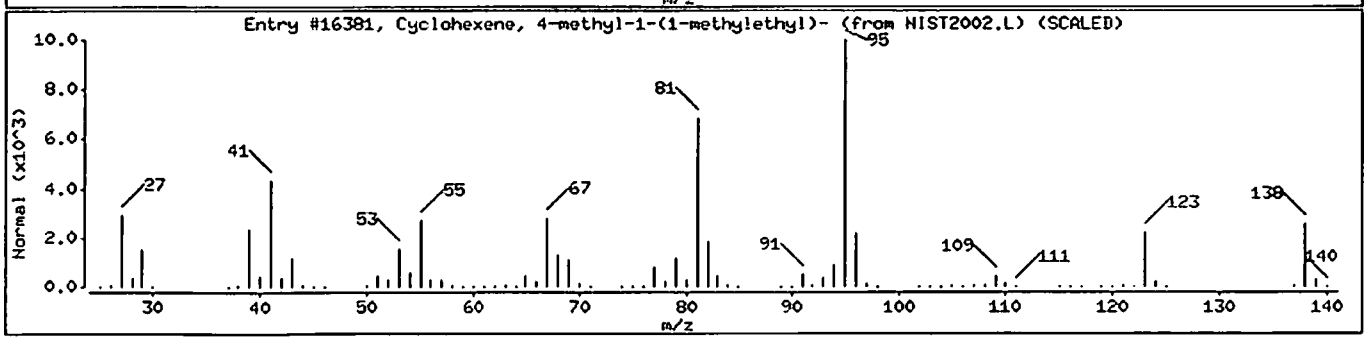
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 1-methyl-4-(1-methylethyl)-	1195-31-9	NIST2002.L	16395	96	C10H18	138
Cyclohexene, 3-methyl-6-(1-methylethyl)-	1124-26-1	NIST2002.L	16402	93	C10H18	138
Cyclohexene, 4-methyl-1-(1-methylethyl)-	500-00-5	NIST2002.L	16381	89	C10H18	138









Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D

Date : 07-NOV-2011 13:51

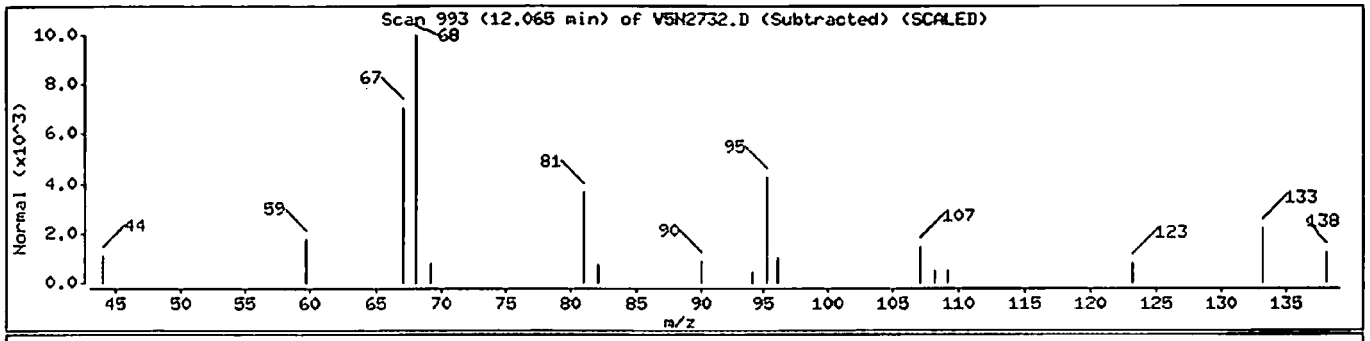
Client ID: H30S0 Instrument: V5.i

Sample Info: 5C,K2199-12B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Unknown			0	0		0



Data File: \\avogadro\organics\V5.I\111107.B\V5N2732.D

Date : 07-NOV-2011 13:51

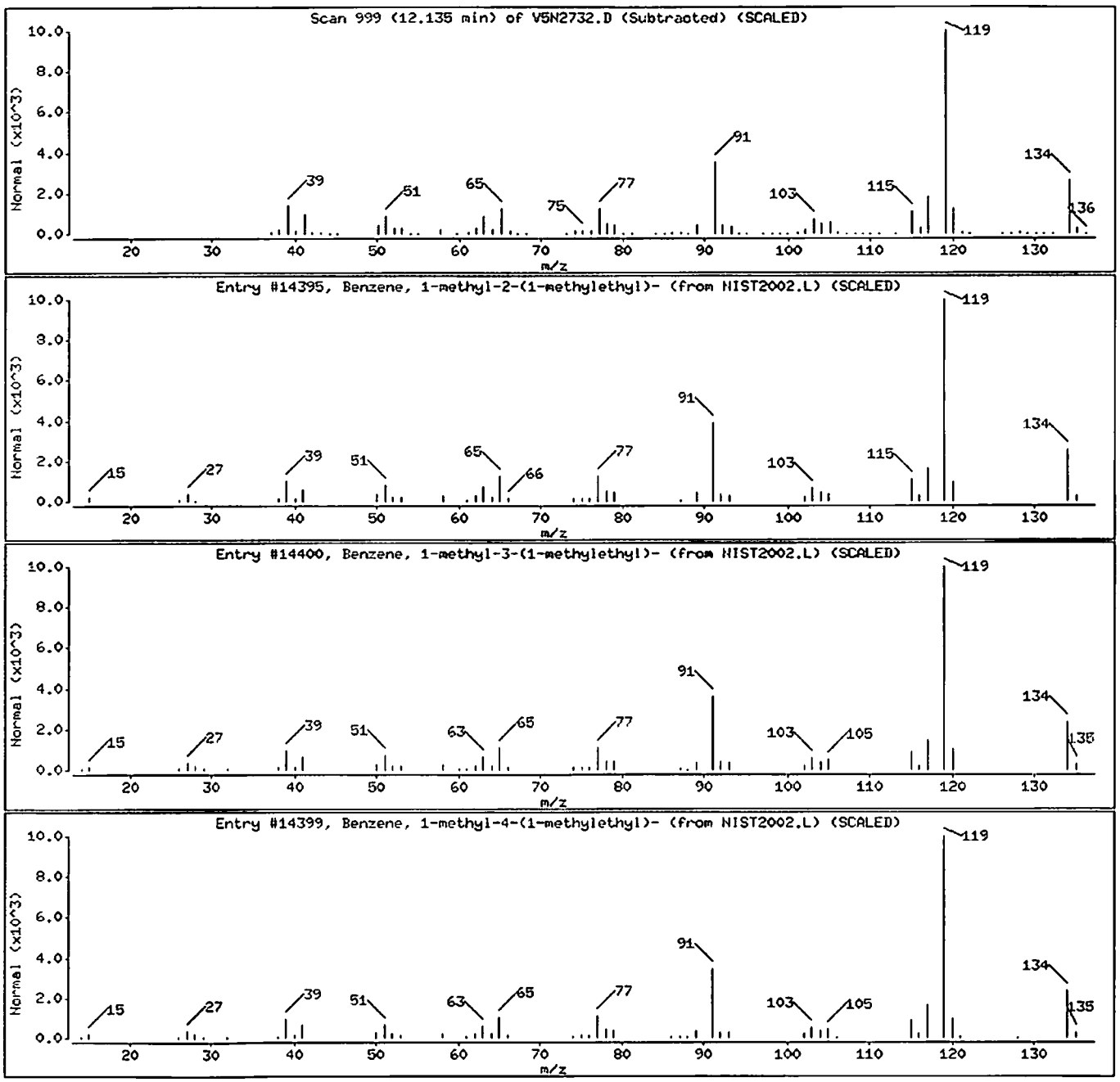
Client ID: H30S0 Instrument: V5.i

Sample Info: 5C,K2199-12B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	96	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	96	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	96	C10H14	134



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-13B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2743.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 29 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.0	U
74-87-3	Chloromethane	7.0	U
75-01-4	Vinyl chloride	7.0	U
74-83-9	Bromomethane	7.0	U
75-00-3	Chloroethane	7.0	U
75-69-4	Trichlorofluoromethane	7.0	U
75-35-4	1,1-Dichloroethene	7.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.0	U
67-64-1	Acetone	23	
75-15-0	Carbon disulfide	3.3	J
79-20-9	Methyl acetate	7.0	U
75-09-2	Methylene chloride	7.0	U
156-60-5	trans-1,2-Dichloroethene	7.0	U
1634-04-4	Methyl tert-butyl ether	7.0	U
75-34-3	1,1-Dichloroethane	7.0	U
156-59-2	cis-1,2-Dichloroethene	7.0	U
78-93-3	2-Butanone	14	U
74-97-5	Bromochloromethane	7.0	U
67-66-3	Chloroform	7.0	U
71-55-6	1,1,1-Trichloroethane	7.0	U
110-82-7	Cyclohexane	7.0	U
56-23-5	Carbon tetrachloride	7.0	U
71-43-2	Benzene	7.0	U
107-06-2	1,2-Dichloroethane	7.0	U
123-91-1	1,4-Dioxane	140	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-13B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2743.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 29 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	7.0	U
108-87-2	Methylcyclohexane	7.0	U
78-87-5	1,2-Dichloropropane	7.0	U
75-27-4	Bromodichloromethane	7.0	U
10061-01-5	cis-1,3-Dichloropropene	7.0	U
108-10-1	4-Methyl-2-pentanone	14	U
108-88-3	Toluene	7.0	U
10061-02-6	trans-1,3-Dichloropropene	7.0	U
79-00-5	1,1,2-Trichloroethane	7.0	U
127-18-4	Tetrachloroethene	7.0	U
591-78-6	2-Hexanone	14	U
124-48-1	Dibromochloromethane	7.0	U
106-93-4	1,2-Dibromoethane	7.0	U
108-90-7	Chlorobenzene	7.0	U
100-41-4	Ethylbenzene	7.0	U
179601-23-1	m,p-Xylene	7.0	U
95-47-6	o-Xylene	7.0	U
100-42-5	Styrene	7.0	U
75-25-2	Bromoform	7.0	U
98-82-8	Isopropylbenzene	7.0	U
79-34-5	1,1,2,2-Tetrachloroethane	7.0	U
541-73-1	1,3-Dichlorobenzene	7.0	U
106-46-7	1,4-Dichlorobenzene	7.0	U
95-50-1	1,2-Dichlorobenzene	7.0	U
96-12-8	1,2-Dibromo-3-chloropropane	7.0	U
120-82-1	1,2,4-Trichlorobenzene	7.0	U
87-61-6	1,2,3-Trichlorobenzene	7.0	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H30S1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-13B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2743.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 29 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	12.073	13	J
02	76-22-2	Camphor	14.501	33	NJ
	E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2743.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2743.D
Lab Smp Id: K2199-13B Client Smp ID: H30S1
Inj Date : 07-NOV-2011 18:50
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-13B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.167	2.168	(0.343)	149687	40.2887	40
$ 80 Chloroethane-d5	69	2.597	2.597	(0.411)	105602	43.9418	44(Q)
$ 81 1,1-Dichloroethene-d2	65	3.363	3.364	(0.532)	33346	43.2722	43(Q)
9 Acetone	43	3.456	3.445	(0.546)	11892	16.7282	17
10 Carbon Disulfide	76	3.607	3.596	(0.570)	27706	2.39281	2.4
$ 82 2-Butanone-d5	46	5.082	5.071	(0.804)	107787	104.025	100
$ 83 Chloroform-d	84	5.384	5.385	(0.851)	204813	46.0122	46(Q)
$ 23 1,2-Dichloroethane-d4	65	5.895	5.896	(0.932)	121437	50.5444	51
$ 84 Benzene-d6	84	5.918	5.907	(0.627)	384638	49.1144	49
* 26 1,4-Difluorobenzene	114	6.324	6.325	(1.000)	390192	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.731	6.732	(0.713)	151000	46.6562	47
$ 94 1,4-Dioxane-d8	96	6.917	6.917	(1.094)	25869	1131.24	1100
$ 33 Toluene-d8	98	7.846	7.835	(0.831)	341079	47.1787	47
$ 86 trans-1,3-Dichloropropene-d4	79	8.124	8.114	(0.861)	120972	49.6445	50
$ 87 2-Hexanone-d5	63	8.577	8.578	(0.909)	55849	89.6941	90(Q)
* 42 Chlorobenzene-d5	117	9.437	9.426	(1.000)	295759	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.923	10.924	(1.158)	99751	47.0892	47
* 78 1,4-Dichlorobenzene-d4	152	12.177	12.167	(1.000)	105942	50.0000	
$ 90 1,2-Dichlorobenzene-d4	152	12.630	12.631	(1.037)	91420	46.1916	46(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2743.D
Report Date: 09-Nov-2011 08:00

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2743.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2743.D
Lab Smp Id: K2199-13B Client Smp ID: H30S1
Inj Date : 07-NOV-2011 18:50
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-13B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 78 1,4-Dichlorobenzene-d4	12.178	913307	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
12.073	163708	8.96237671	9.0	0		0	78
Camphor				CAS #: 76-22-2			
14.501	430014	23.5415839	24	98	NIST2002.L	23920	78

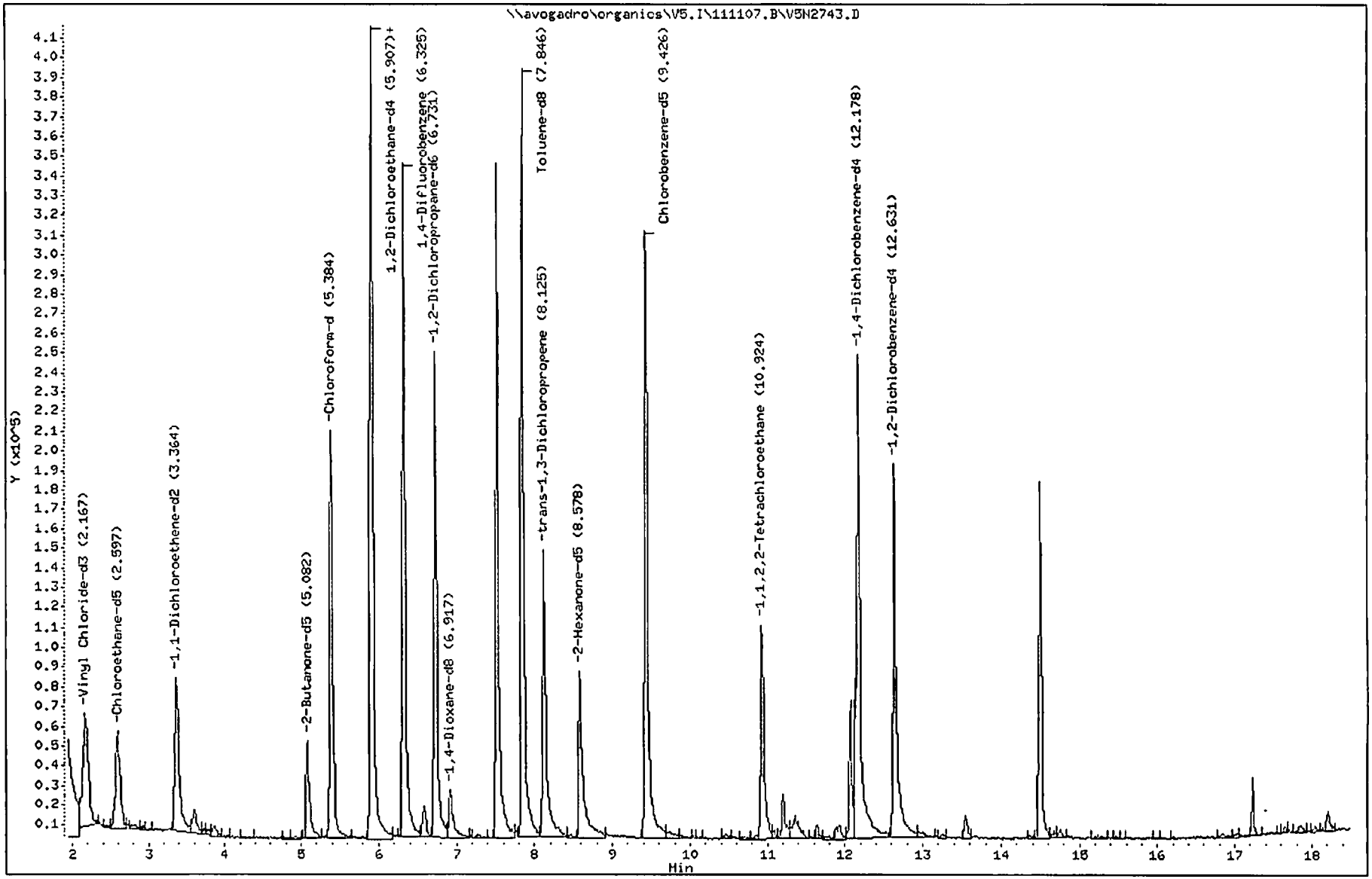
Data File: \\avogadro\organics\V5.I\111107.B\V5N2743.D
Date : 07-NOV-2011 18:50
Client ID: H30S1
Sample Info: 5G,K2199-13B,,62780

Instrument: V5.i

Operator: SRC: LINS

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2743.D

Date : 07-NOV-2011 18:50

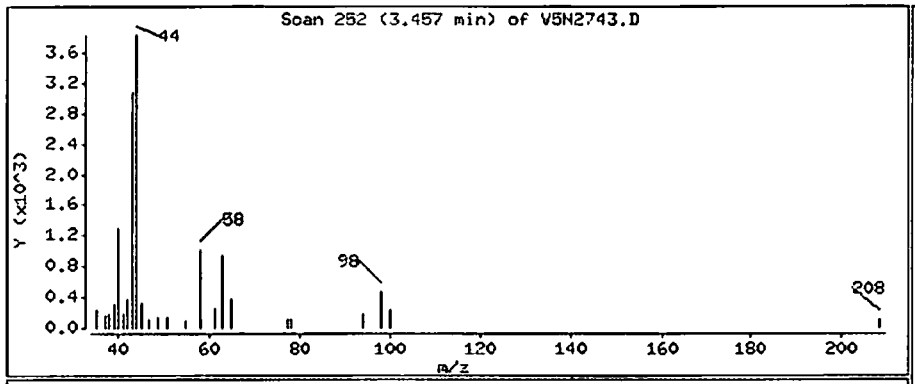
Client ID: H30S1 Instrument: V5.i

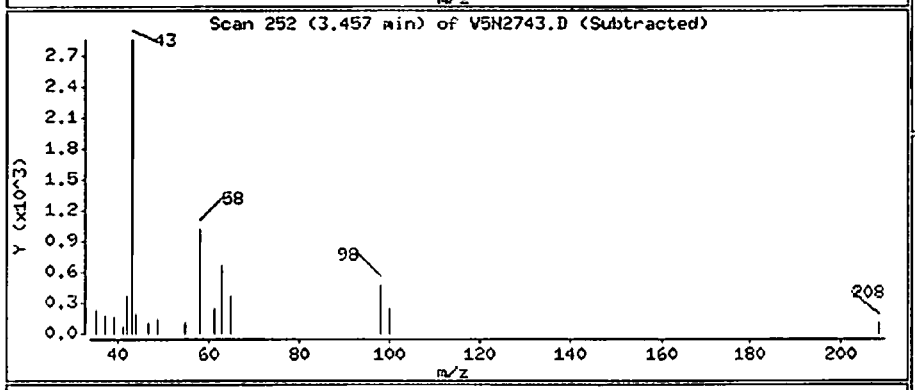
Sample Info: 5G,K2199-13B,,62780

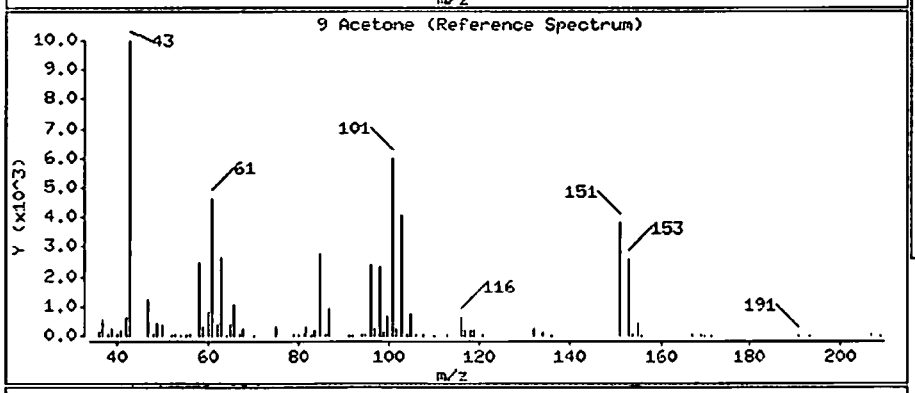
Operator: SRC: LIMS

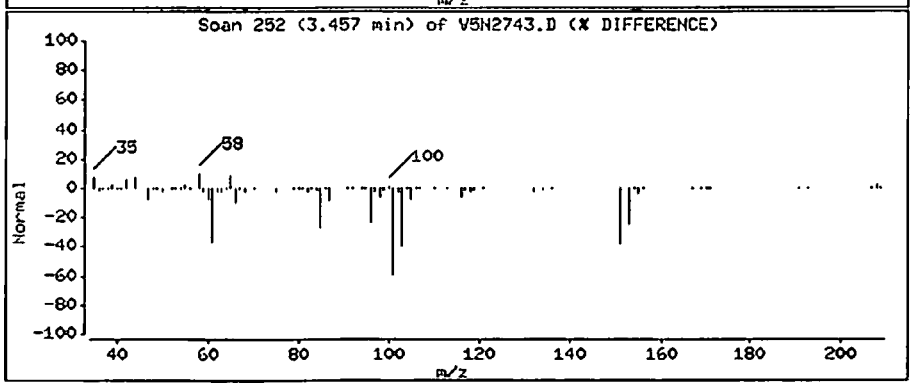
Column phase: DB-624 Column diameter: 0.25

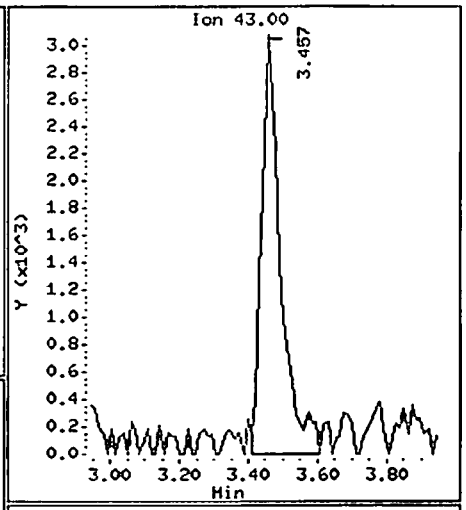
9 Acetone Concentration: 17 ug/Kg

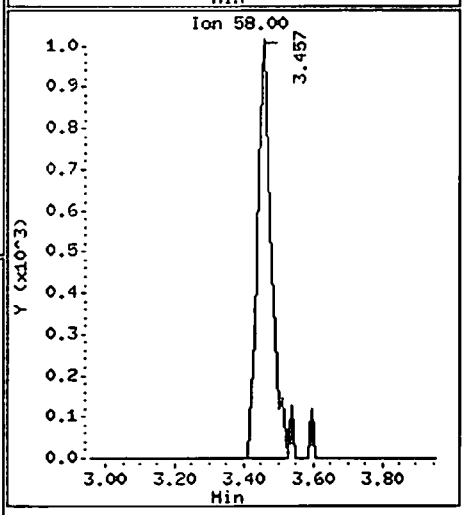












Data File: \\avogadro\organics\V5.I\111107.B\V5N2743.D

Date : 07-NOV-2011 18:50

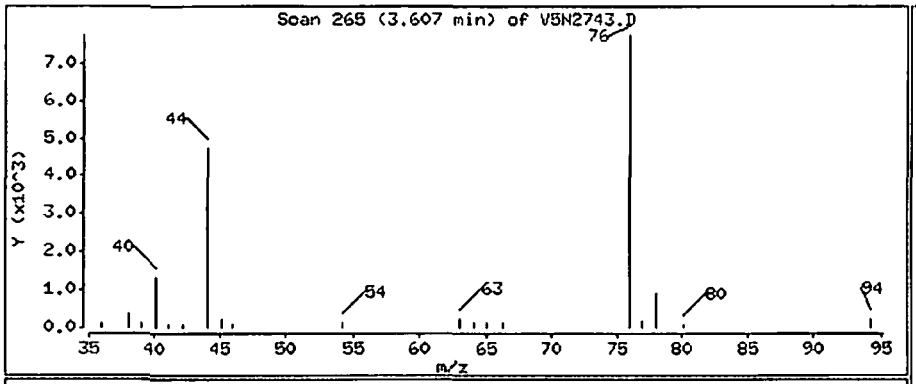
Client ID: H30S1 Instrument: V5.i

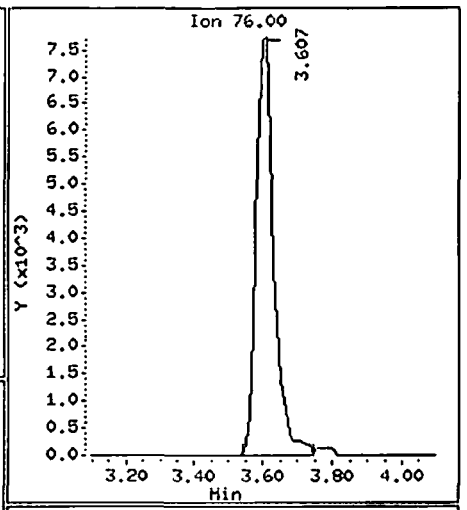
Sample Info: 5G,K2199-13B,,62780

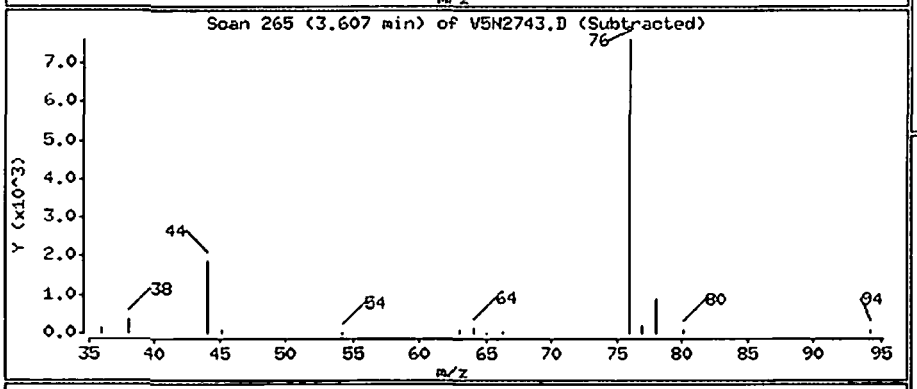
Operator: SRC: LIMS

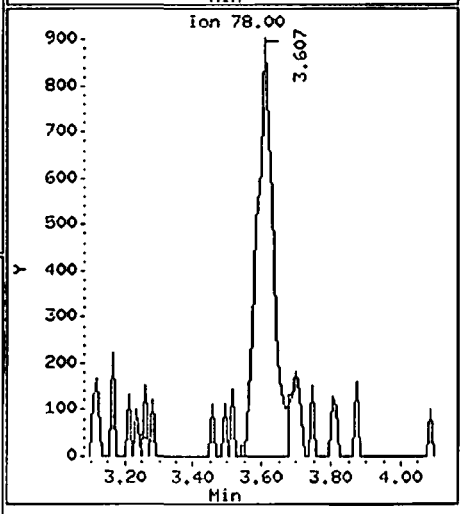
Column phase: DB-624 Column diameter: 0.25

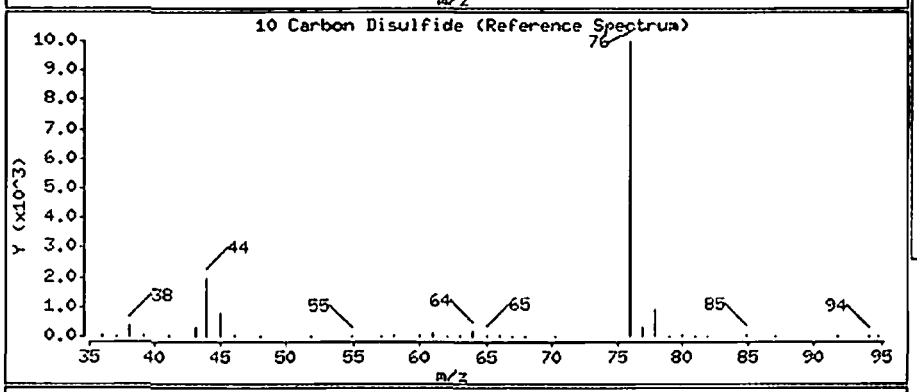
10 Carbon Disulfide Concentration: 2.4 ug/Kg

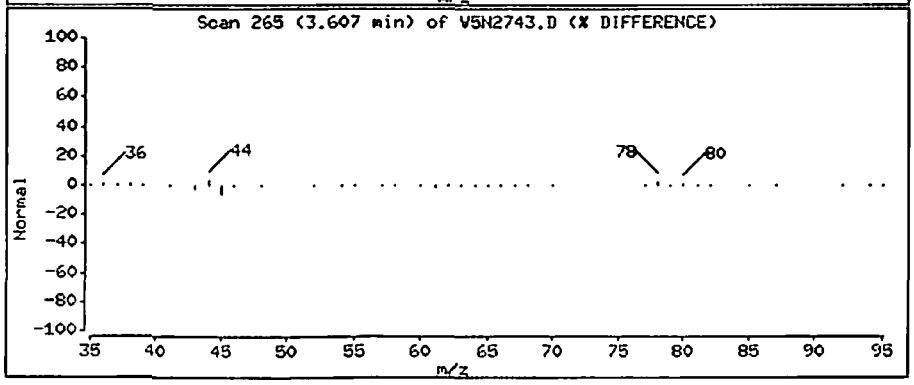












Data File: \\avogadro\organics\V5.I\111107.B\V5N2743.D

Date : 07-NOV-2011 18:50

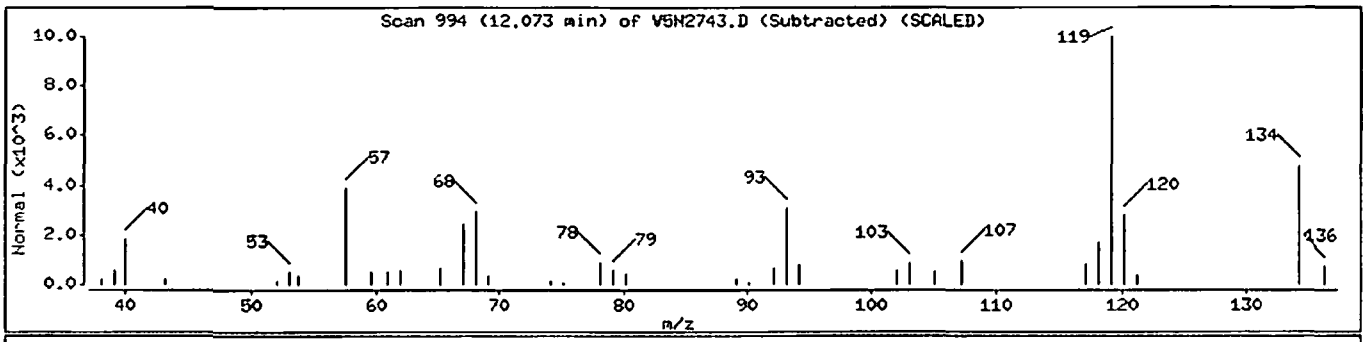
Client ID: H30S1 Instrument: V5.i

Sample Info: 5C,K2199-13B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\avogadro\organics\V5.I\111107.B\V5N2743.D

Date : 07-NOV-2011 18:50

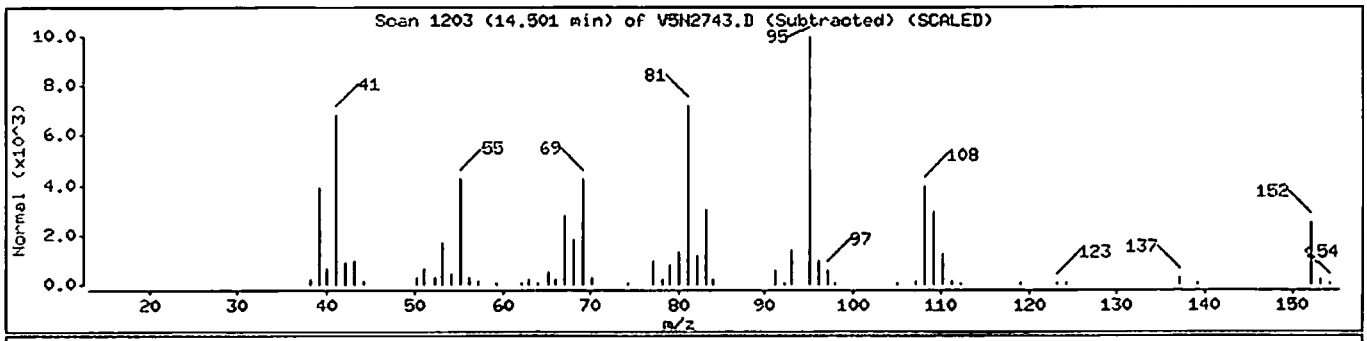
Client ID: H30S1 Instrument: V5.i

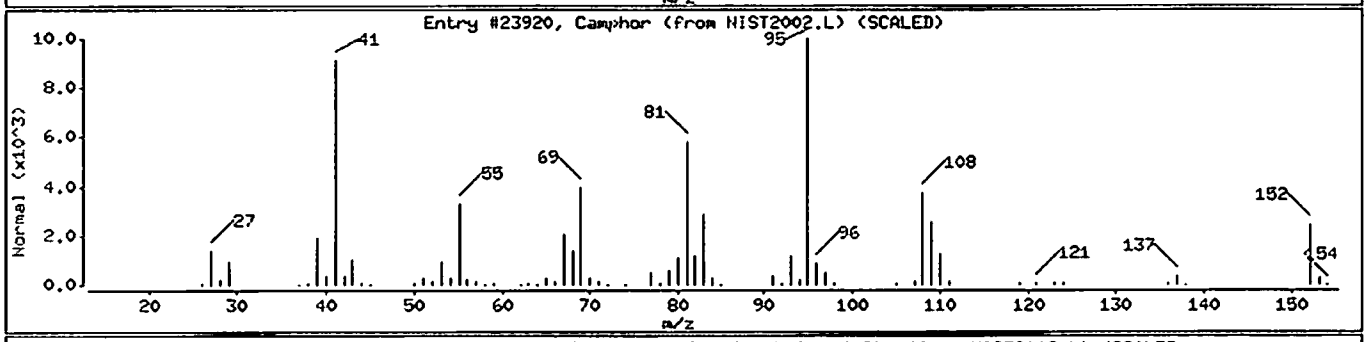
Sample Info: 5C,K2199-13B,,62780

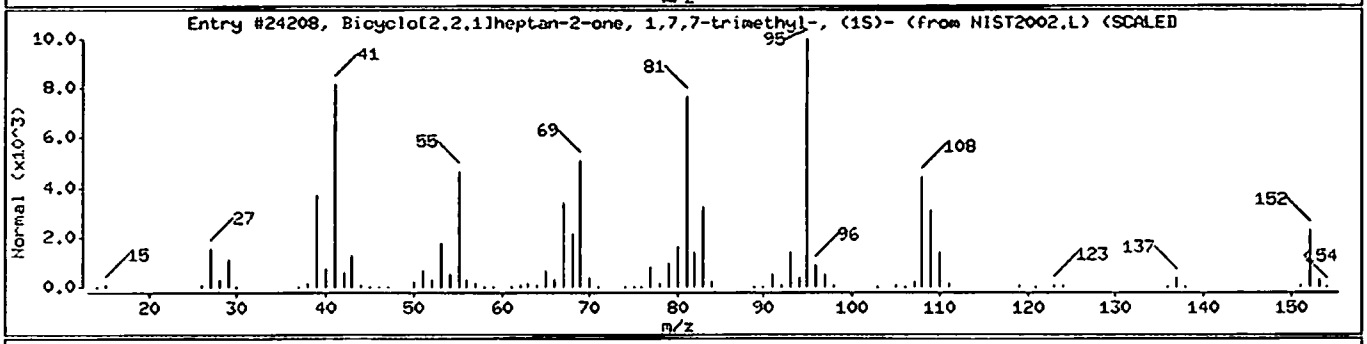
Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Camphor	76-22-2	NIST2002.L	23920	98	C10H16O	152
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet	464-48-2	NIST2002.L	24208	98	C10H16O	152







1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-14B

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V5N2744.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 72 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	19	U
74-87-3	Chloromethane	19	U
75-01-4	Vinyl chloride	19	U
74-83-9	Bromomethane	19	U
75-00-3	Chloroethane	19	U
75-69-4	Trichlorofluoromethane	19	U
75-35-4	1,1-Dichloroethene	19	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	19	U
67-64-1	Acetone	60	
75-15-0	Carbon disulfide	19	U
79-20-9	Methyl acetate	19	U
75-09-2	Methylene chloride	19	U
156-60-5	trans-1,2-Dichloroethene	19	U
1634-04-4	Methyl tert-butyl ether	19	U
75-34-3	1,1-Dichloroethane	19	U
156-59-2	cis-1,2-Dichloroethene	19	U
78-93-3	2-Butanone	39	U
74-97-5	Bromochloromethane	19	U
67-66-3	Chloroform	19	U
71-55-6	1,1,1-Trichloroethane	19	U
110-82-7	Cyclohexane	19	U
56-23-5	Carbon tetrachloride	19	U
71-43-2	Benzene	19	U
107-06-2	1,2-Dichloroethane	19	U
123-91-1	1,4-Dioxane	390	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-14B

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V5N2744.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 72 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	19	U
108-87-2	Methylcyclohexane	19	U
78-87-5	1,2-Dichloropropane	19	U
75-27-4	Bromodichloromethane	19	U
10061-01-5	cis-1,3-Dichloropropene	19	U
108-10-1	4-Methyl-2-pentanone	39	U
108-88-3	Toluene	19	U
10061-02-6	trans-1,3-Dichloropropene	19	U
79-00-5	1,1,2-Trichloroethane	19	U
127-18-4	Tetrachloroethene	19	U
591-78-6	2-Hexanone	39	U
124-48-1	Dibromochloromethane	19	U
106-93-4	1,2-Dibromoethane	19	U
108-90-7	Chlorobenzene	19	U
100-41-4	Ethylbenzene	19	U
179601-23-1	m,p-Xylene	19	U
95-47-6	o-Xylene	19	U
100-42-5	Styrene	19	U
75-25-2	Bromoform	19	U
98-82-8	Isopropylbenzene	19	U
79-34-5	1,1,2,2-Tetrachloroethane	19	U
541-73-1	1,3-Dichlorobenzene	19	U
106-46-7	1,4-Dichlorobenzene	19	U
95-50-1	1,2-Dichlorobenzene	19	U
96-12-8	1,2-Dibromo-3-chloropropane	19	U
120-82-1	1,2,4-Trichlorobenzene	19	U
87-61-6	1,2,3-Trichlorobenzene	19	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30S2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-14B

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V5N2744.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 72 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	79-92-5	Camphene	10.907	230	NJ
02		Unknown-01	11.221	48	J
03	20536-40-7	Bicyclo[2.2.1]heptane, 2,2,3	11.348	210	NJ
04	13466-78-9	3-Carene	11.778	21	NJ
05	527-84-4	Benzene, 1-methyl-2-(1-methy	12.068	310	NJ
06	464-49-3	Bicyclo[2.2.1]heptan-2-one,	14.507	69	NJ
07	1137-12-8	1,2,4-Methenoazulene, decahy	16.841	34	NJ
08	475-20-7	1,4-Methanoazulene, decahydr	17.224	300	NJ
09	483-77-2	Naphthalene, 1,2,3,4-tetrahy	18.200	24	NJ
	E966796[1]	Total Alkanes	N/A	61	J

[1]EPA-designated Registry Number.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D
Report Date: 09-Nov-2011 08:01

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2744.D
Lab Smp Id: K2199-14B Client Smp ID: H30S2
Inj Date : 07-NOV-2011 19:17
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-14B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.700	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.173	2.168	(0.344)	126579	41.7179	44
$ 80 Chloroethane-d5	69	2.592	2.597	(0.410)	100202	51.0556	54(Q)
$ 81 1,1-Dichloroethene-d2	65	3.358	3.364	(0.531)	30806	48.9511	52(Q)
9 Acetone	43	3.451	3.445	(0.546)	9078	15.6367	17
$ 82 2-Butanone-d5	46	5.077	5.071	(0.803)	68225	80.6259	86
$ 83 Chloroform-d	84	5.379	5.385	(0.851)	183240	50.4077	54(Q)
$ 23 1,2-Dichloroethane-d4	65	5.890	5.896	(0.932)	100551	51.2472	55(Q)
$ 84 Benzene-d6	84	5.913	5.907	(0.627)	332412	60.7388	65(R)
* 26 1,4-Difluorobenzene	114	6.319	6.325	(1.000)	318652	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.726	6.732	(0.713)	126945	56.1282	60
$ 94 1,4-Dioxane-d8	96	6.912	6.917	(1.094)	23223	1243.53	1300
$ 33 Toluene-d8	98	7.841	7.835	(0.831)	263563	52.1685	55
$ 86 trans-1,3-Dichloropropene-d4	79	8.131	8.114	(0.862)	61811	36.2982	39
$ 87 2-Hexanone-d5	63	8.584	8.578	(0.910)	36835	84.6530	90(Q)
* 42 Chlorobenzene-d5	117	9.432	9.426	(1.000)	206683	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.930	10.924	(1.159)	66137	44.6767	48
* 78 1,4-Dichlorobenzene-d4	152	12.184	12.167	(1.000)	56574	50.0000	
$ 90 1,2-Dichlorobenzene-d4	152	12.637	12.631	(1.037)	50071	47.3762	50(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D
Report Date: 09-Nov-2011 08:01

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D
Report Date: 09-Nov-2011 08:01

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2744.D
Lab Smp Id: K2199-14B Client Smp ID: H30S2
Inj Date : 07-NOV-2011 19:17
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-14B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.700	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 42 Chlorobenzene-d5	9.432	581282	50.000
* 78 1,4-Dichlorobenzene-d4	12.184	476222	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Cyclic Alkane					CAS #:		
10.408	185007	15.9137105	17	0		0	42
Camphene					CAS #: 79-92-5		
10.907	561831	58.9882426	63	97	NIST2002.L	15126	78
Unknown					CAS #:		
11.221	118387	12.4298173	13	0		0	78
Bicyclo[2.2.1]heptane, 2,2,3-trimethyl-,					CAS #: 20536-40-7		
11.348	530747	55.7246722	59	90	NIST2002.L	16392	78

Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D
Report Date: 09-Nov-2011 08:01

RT	AREA	CONCENTRATIONS ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
3-Carene					CAS #: 13466-78-9		
11.778	51555	5.41291917	5.8	95	NIST2002.L	15125	78
Benzene, 1-methyl-2-(1-methylethyl)-					CAS #: 527-84-4		
12.068	755445	79.3163935	84	97	NIST2002.L	14406	78
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet					CAS #: 464-49-3		
14.507	169526	17.7989766	19	98	NIST2002.L	24211	78
1,2,4-Methenoazulene, decahydro-1,5,5,8a					CAS #: 1137-12-8		
16.841	82963	8.71051299	9.3	96	NIST2002.L	58893	78
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
17.224	747882	78.5222605	84	98	NIST2002.L	58860	78
Naphthalene, 1,2,3,4-tetrahydro-1,6-dime					CAS #: 483-77-2		
18.200	59521	6.24926374	6.6	95	NIST2002.L	57467	78

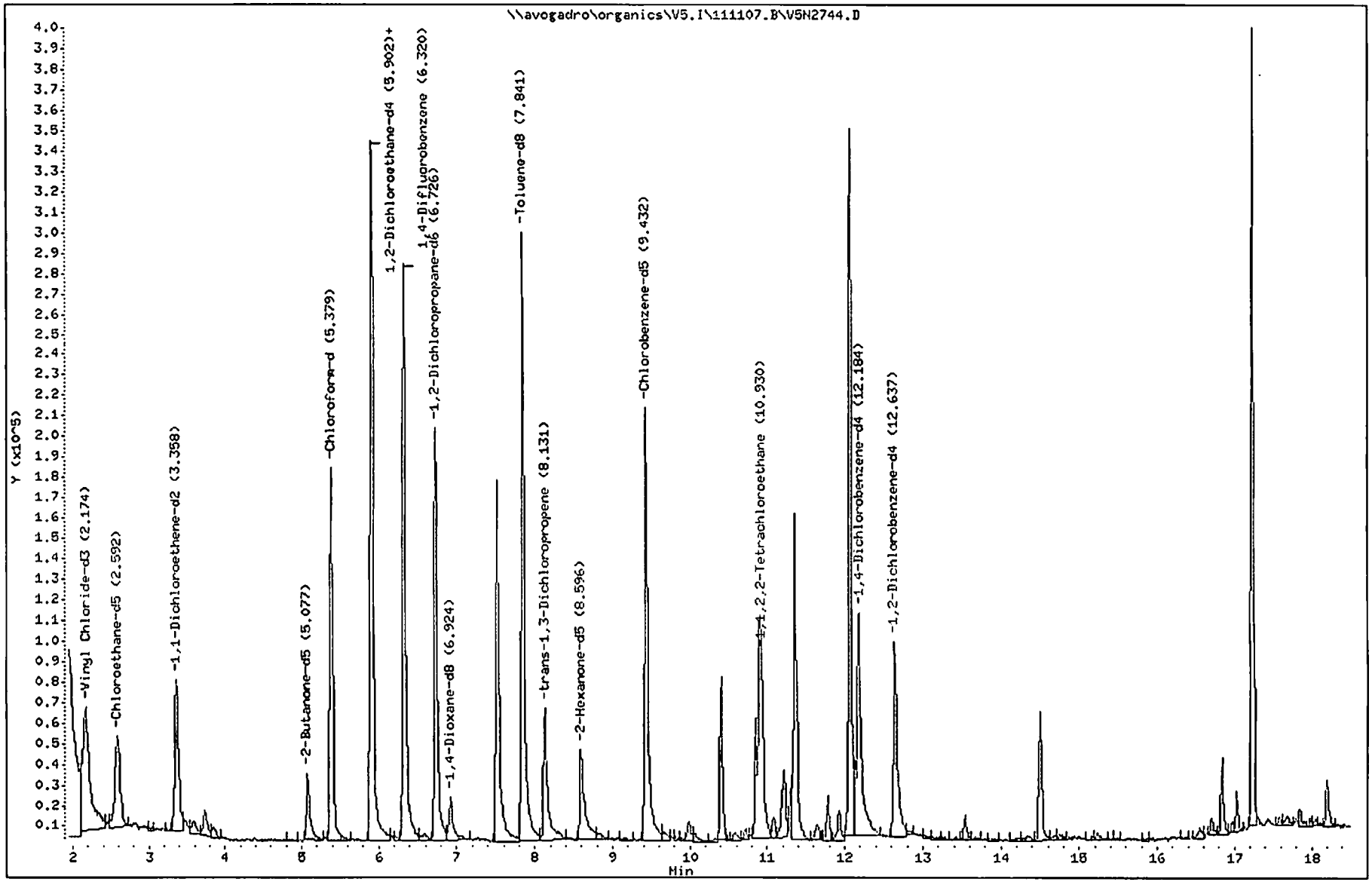
Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D
Date : 07-NOV-2011 19:17
Client ID: H30S2
Sample Info: 5G,K2199-14B,,62780

Instrument: V5.i

Operator: SRC: LIMS

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D

Date : 07-NOV-2011 19:17

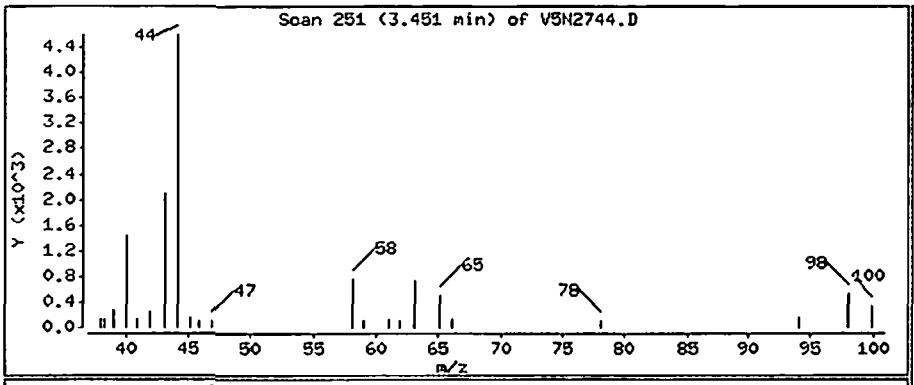
Client ID: H30S2 Instrument: V5.i

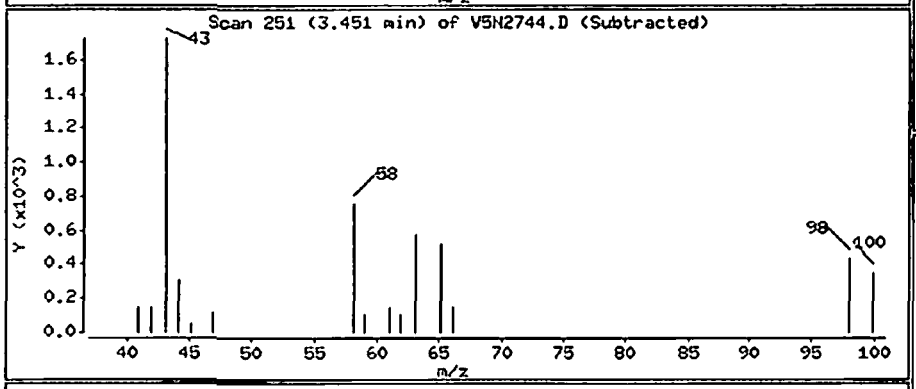
Sample Info: 5G,K2199-14B,,62780

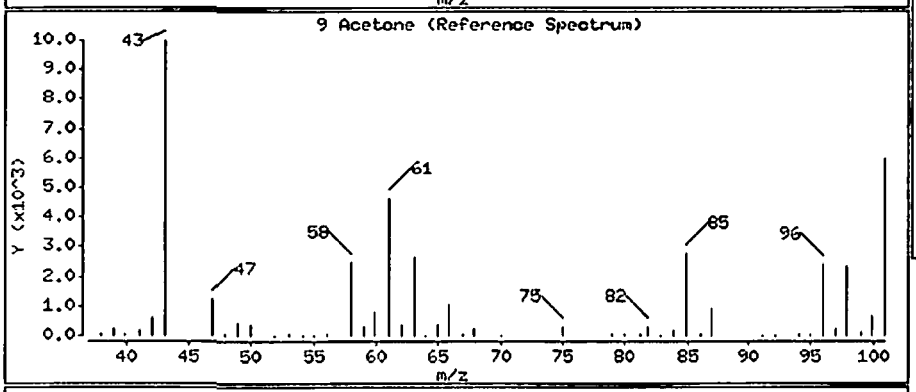
Operator: SRC: LIMS

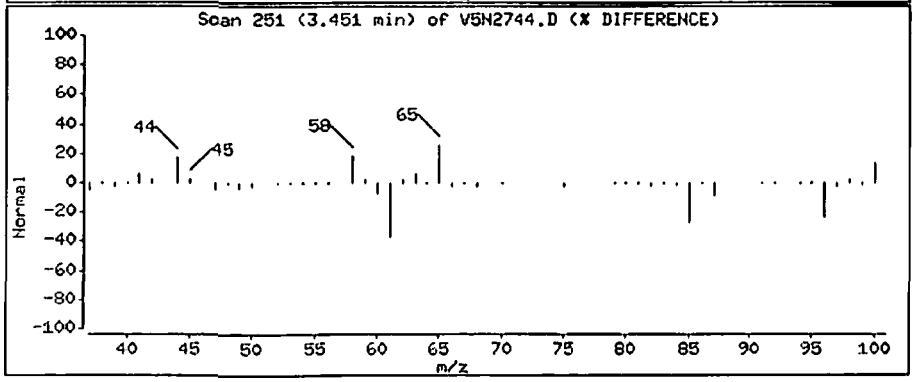
Column phase: DB-624 Column diameter: 0.25

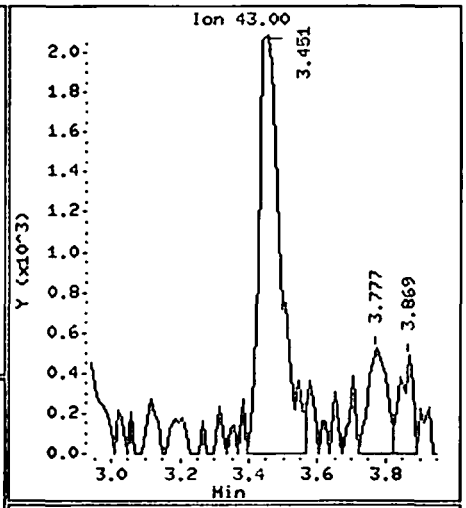
9 Acetone Concentration: 17 ug/Kg

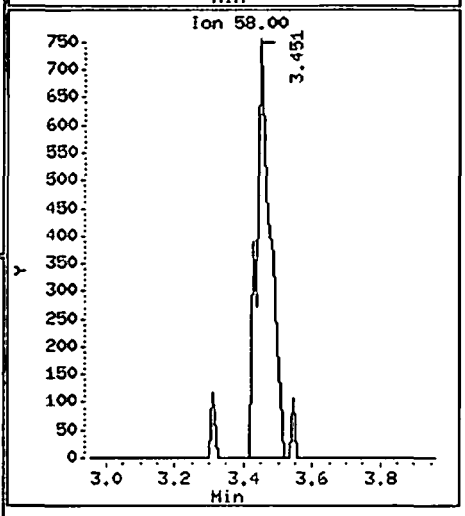












Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D

Date : 07-NOV-2011 19:17

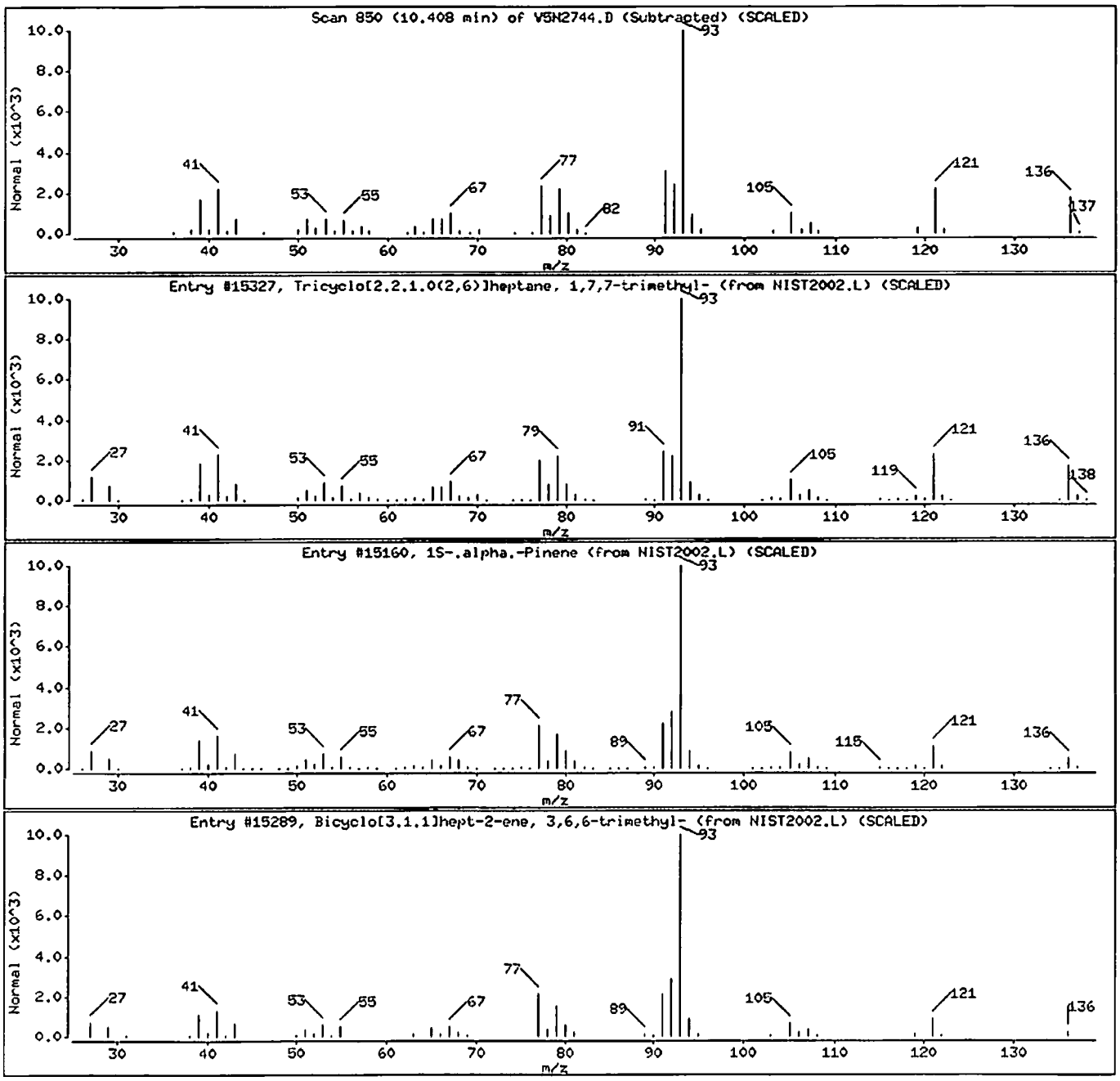
Client ID: H30S2 Instrument: V5.i

Sample Info: 5G,K2199-14B,,62780

Operator: SRC: LIHS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclic Alkane						
Tricyclo[2.2.1.0(2,6)]heptane, 1,7,7-tri	508-32-7	NIST2002.L	15327	97	C10H16	136
1S-.alpha.-Pinene	7785-26-4	NIST2002.L	15160	91	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 3,6,6-trimethy	4889-83-2	NIST2002.L	15289	91	C10H16	136



Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D

Date : 07-NOV-2011 19:17

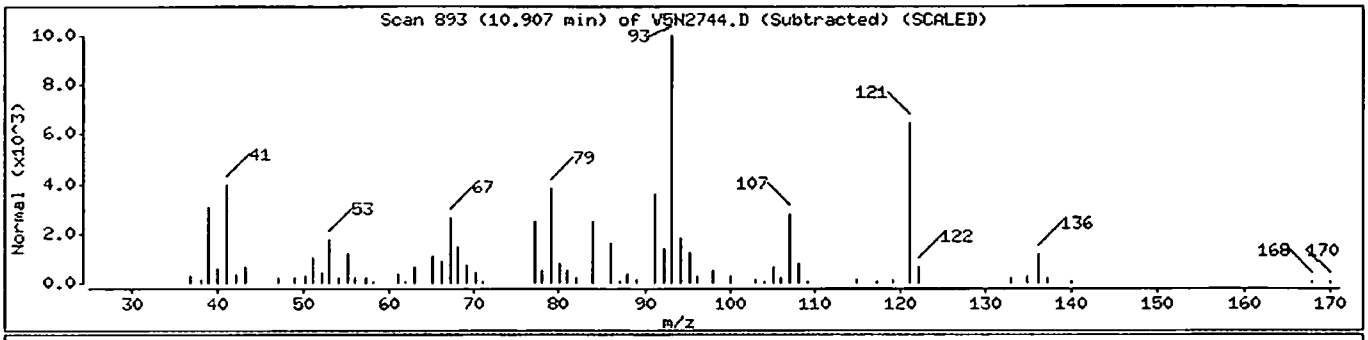
Client ID: H30S2 Instrument: V5.i

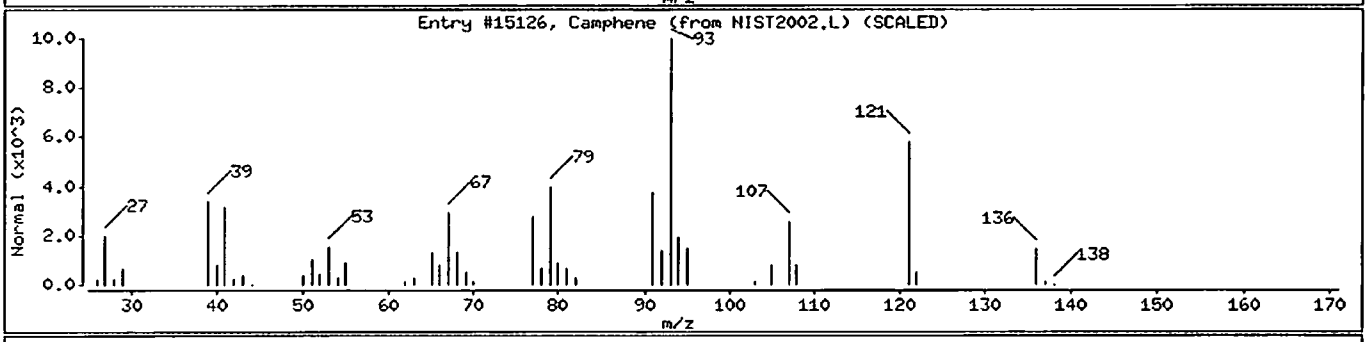
Sample Info: 5G,K2199-14B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Camphene	79-92-5	NIST2002.L	15126	97	C10H16	136





Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D

Date : 07-NOV-2011 19:17

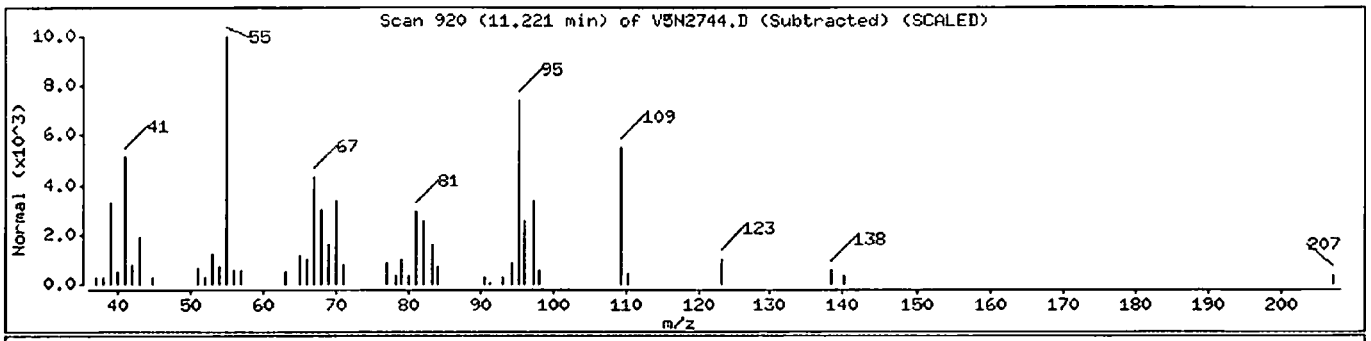
Client ID: H30S2 Instrument: V5.i

Sample Info: 5G,K2199-14B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D

Date : 07-NOV-2011 19:17

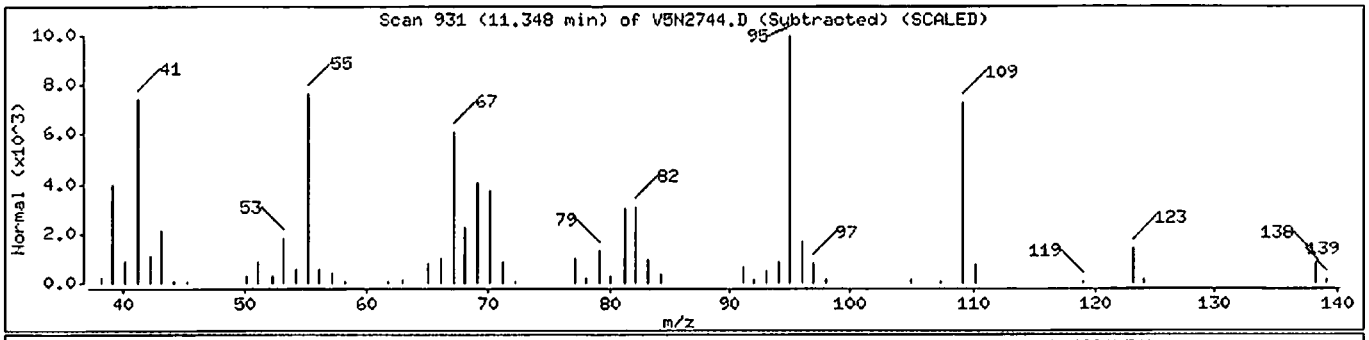
Client ID: H30S2 Instrument: V5.i

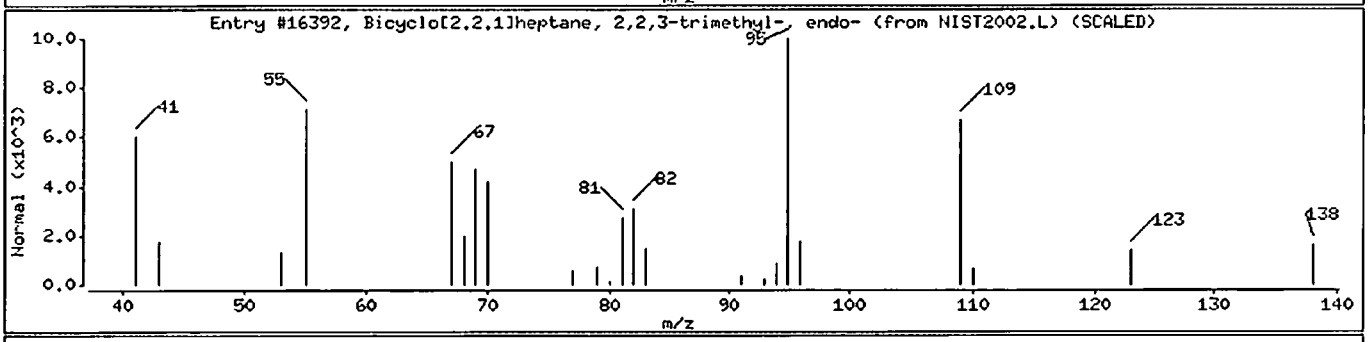
Sample Info: 5G,K2199-14B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptane, 2,2,3-trimethyl-,	20536-40-7	NIST2002.L	16392	90	C10H18	138





Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D

Date : 07-NOV-2011 19:17

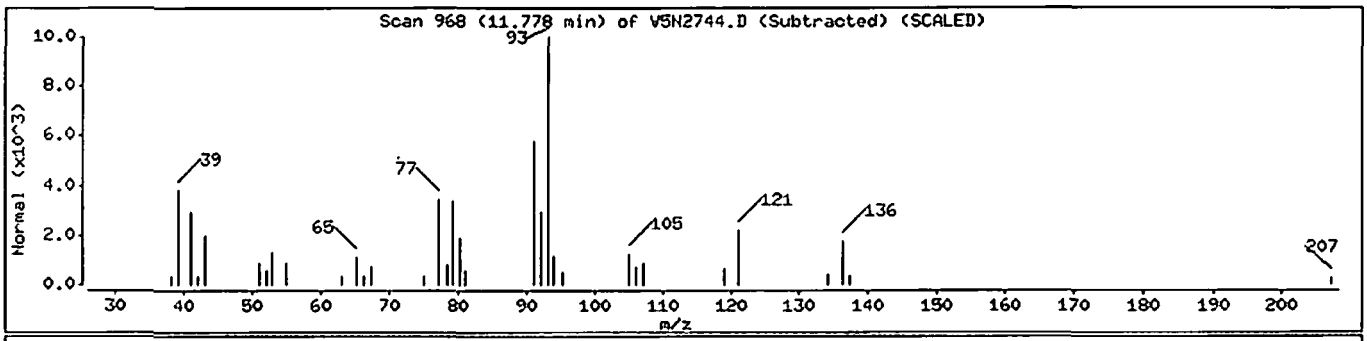
Client ID: H30S2 Instrument: V5.i

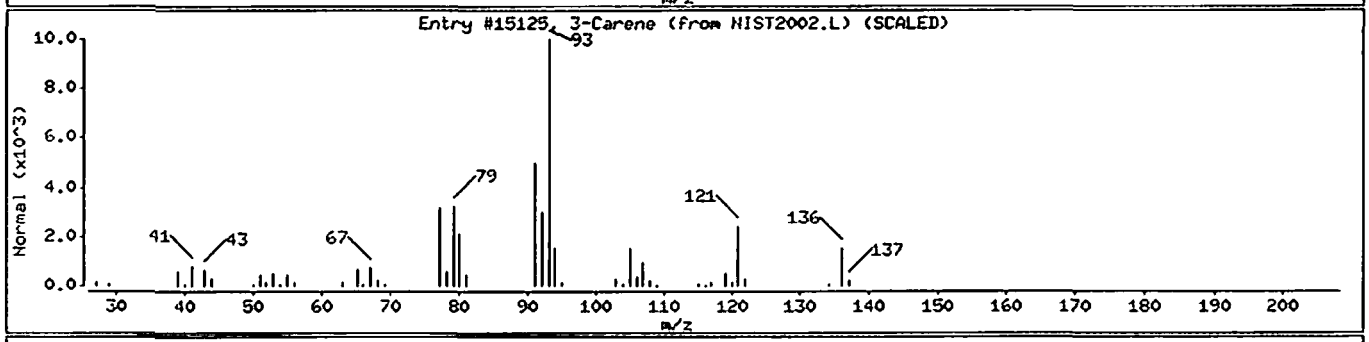
Sample Info: 5C,K2199-14B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	NIST2002.L	15125	95	C10H16	136





Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D

Date : 07-NOV-2011 19:17

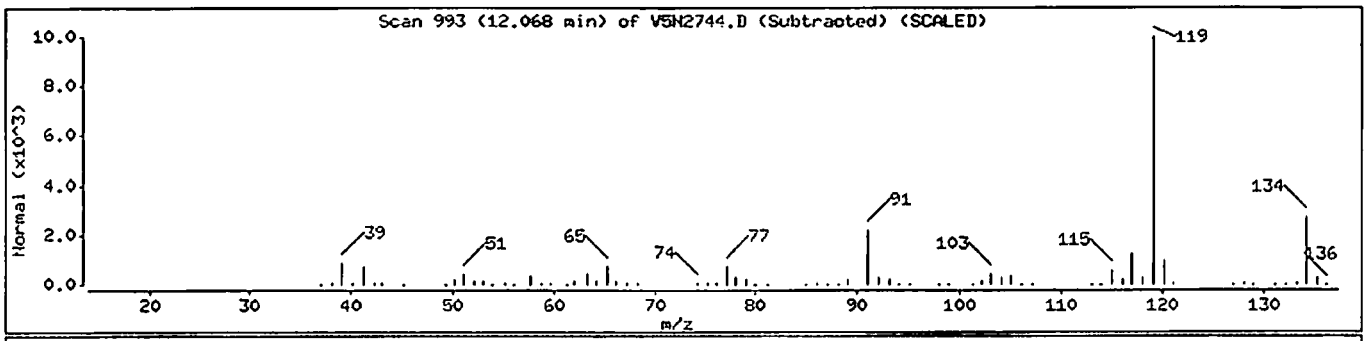
Client ID: H30S2 Instrument: V5.i

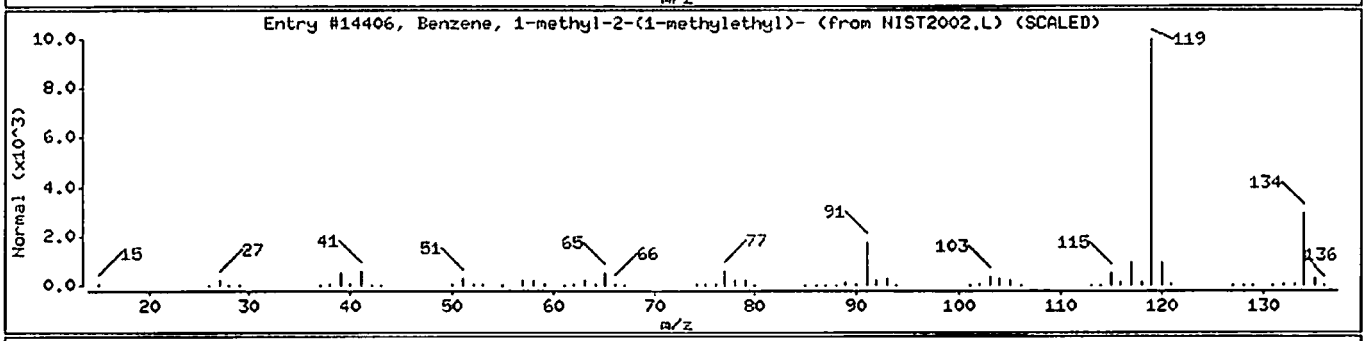
Sample Info: SC,K2199-14B,,62780

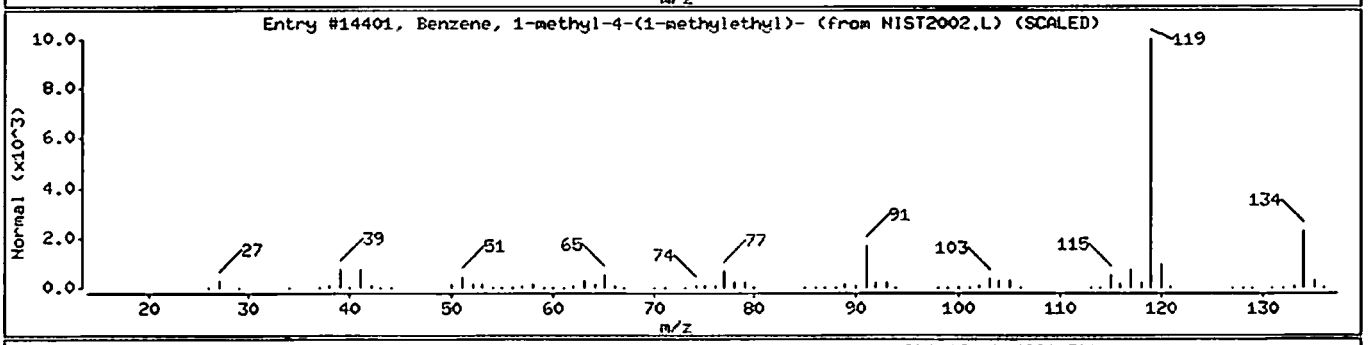
Operator: SRC: LIHS

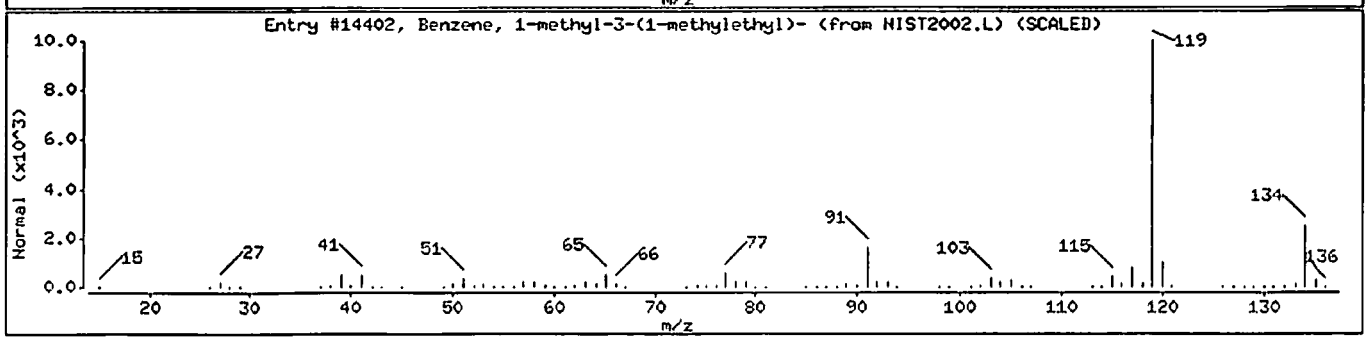
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14406	97	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14401	97	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14402	97	C10H14	134









Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D

Date : 07-NOV-2011 19:17

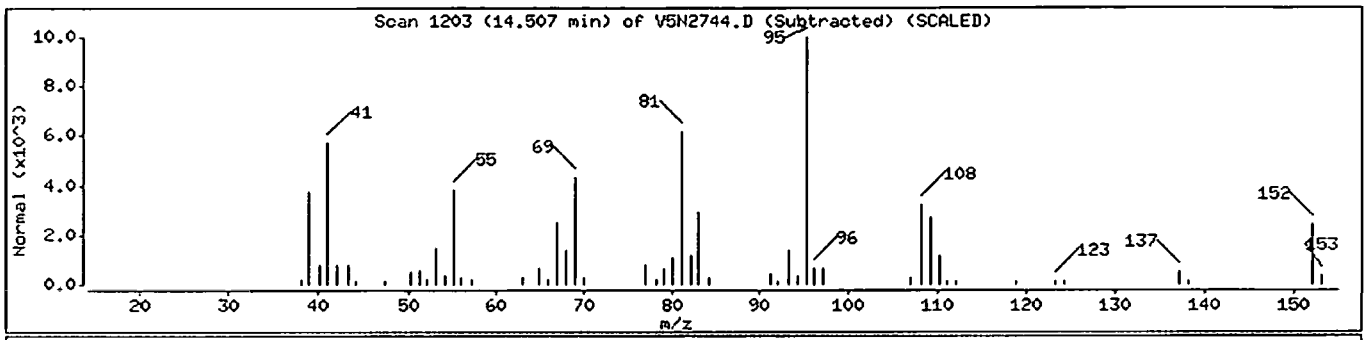
Client ID: H30S2 Instrument: V5.i

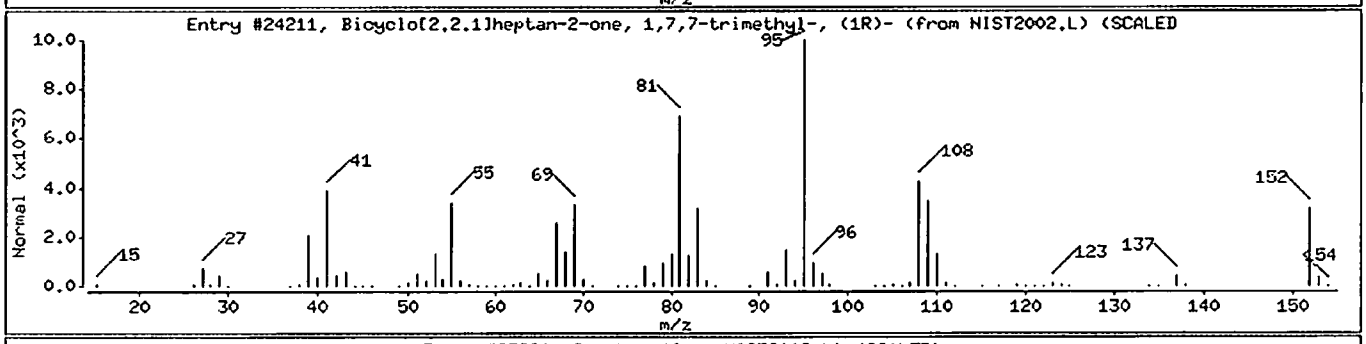
Sample Info: 5G,K2199-14B,,62780

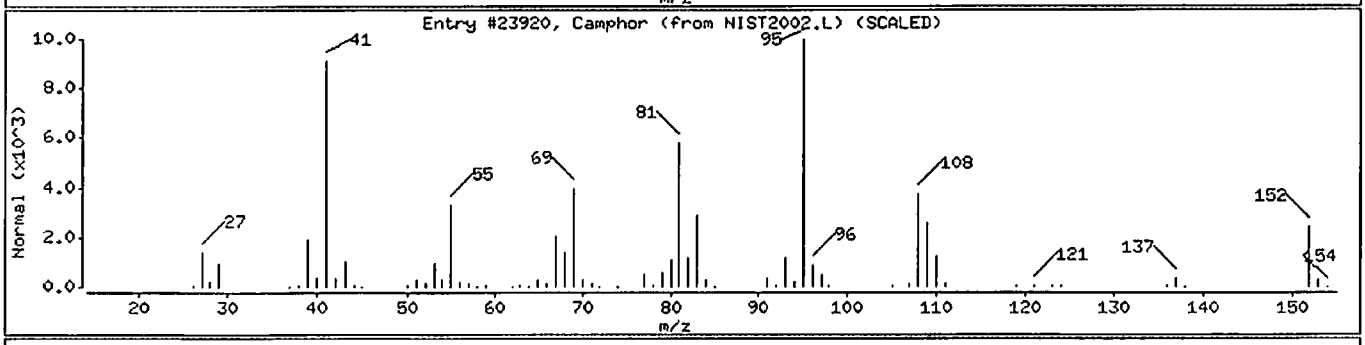
Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet	464-49-3	NIST2002.L	24211	98	C10H16O	152
Camphor	76-22-2	NIST2002.L	23920	96	C10H16O	152







Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D

Date : 07-NOV-2011 19:17

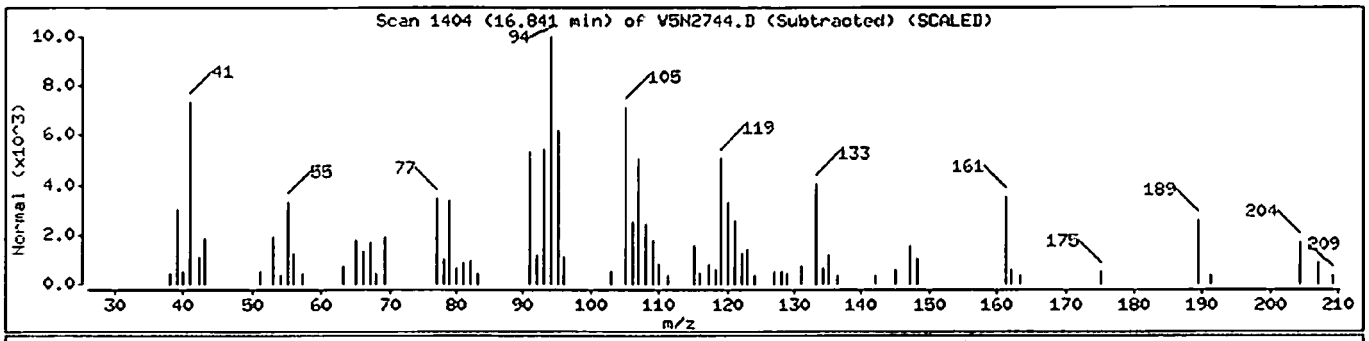
Client ID: H30S2 Instrument: V5.i

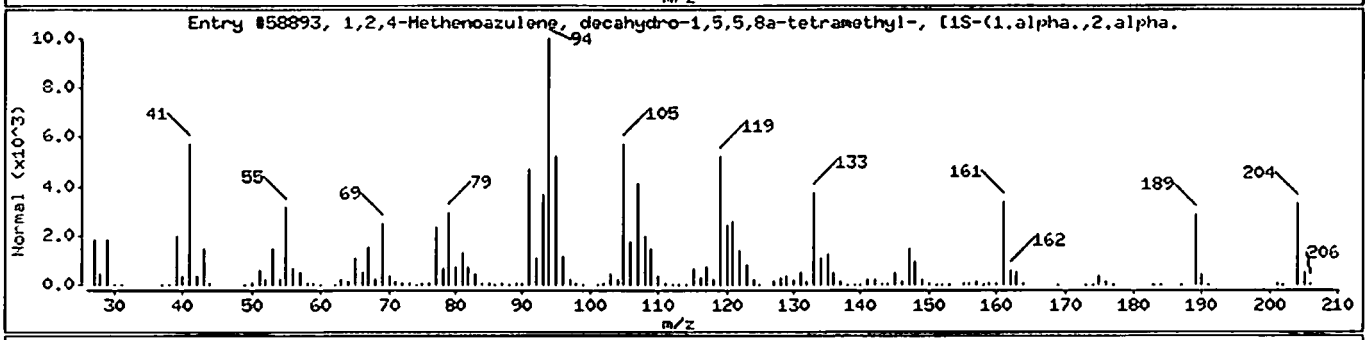
Sample Info: 5C,K2199-14B,,62780

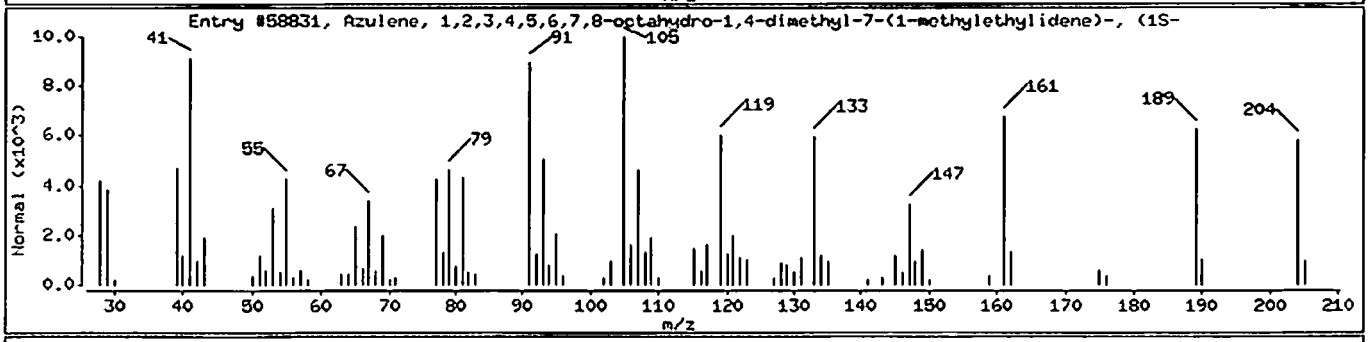
Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,2,4-Methenoazulene, decahydro-1,5,5,8a	1137-12-8	NIST2002.L	58893	96	C15H24	204
Azulene, 1,2,3,4,5,6,7,8-octahydro-1,4-d	88-84-6	NIST2002.L	58831	87	C15H24	204







Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D

Date : 07-NOV-2011 19:17

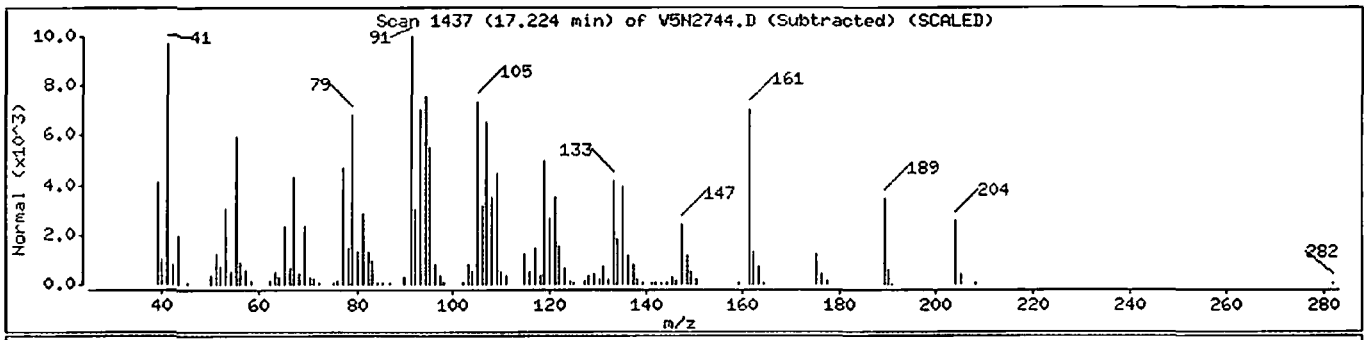
Client ID: H30S2 Instrument: V5.i

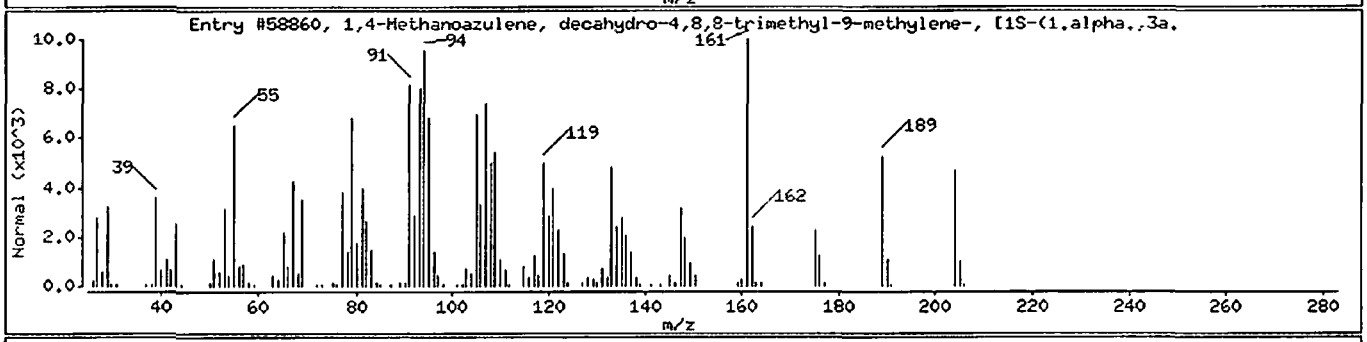
Sample Info: 5C,K2199-14B,,62780

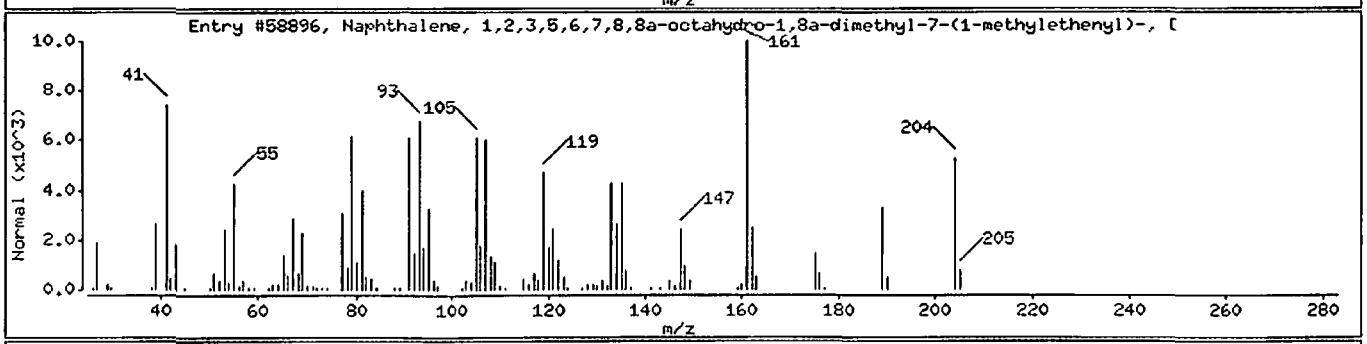
Operator: SRC: LIHS

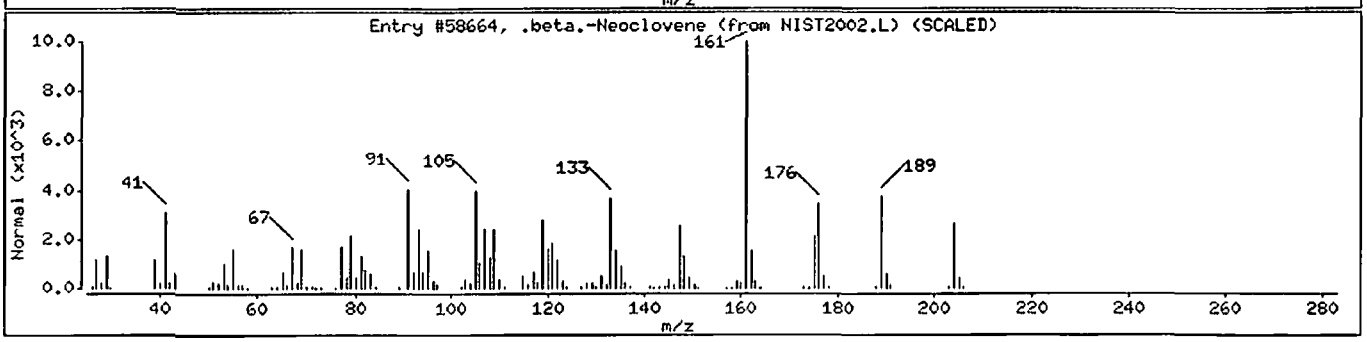
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58860	98	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	10219-75-7	NIST2002.L	58896	95	C15H24	204
.beta.-Neoclovene	56684-96-9	NIST2002.L	58664	91	C15H24	204









Data File: \\avogadro\organics\V5.I\111107.B\V5N2744.D

Date : 07-NOV-2011 19:17

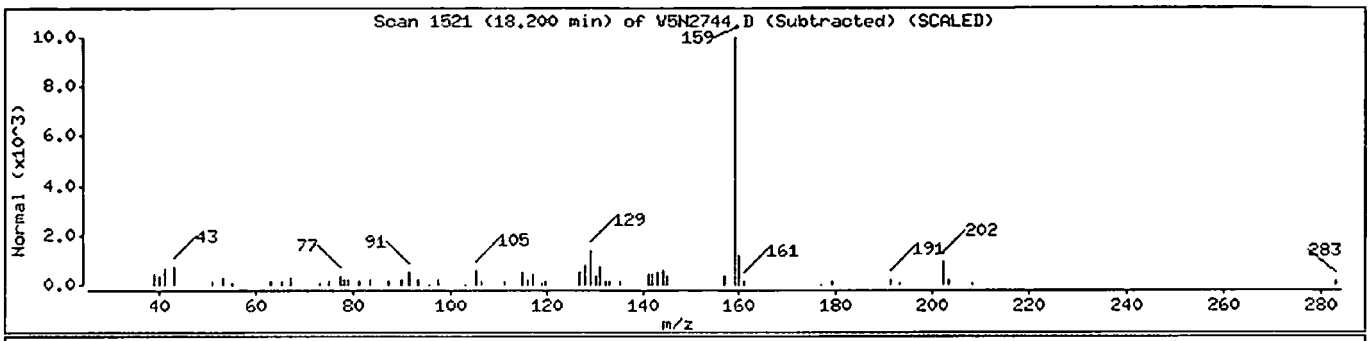
Client ID: H30S2 Instrument: V5.i

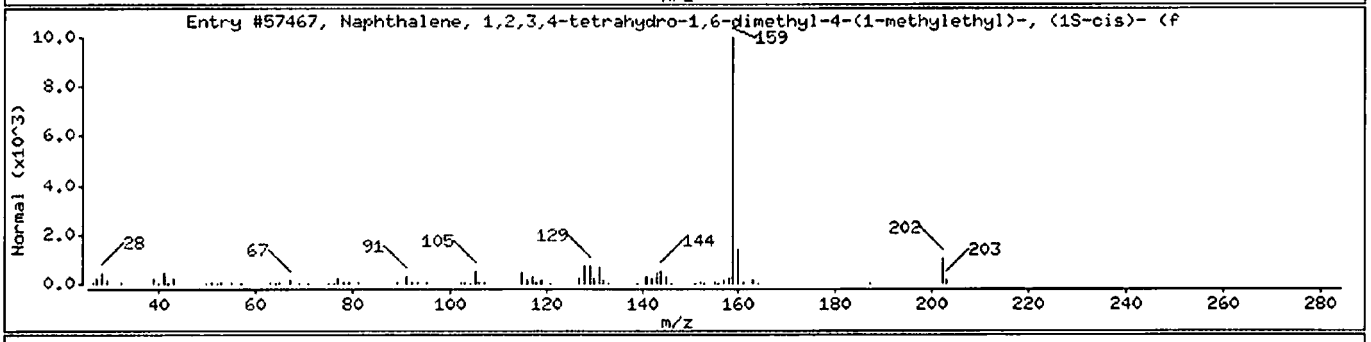
Sample Info: 5G,K2199-14B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,4-tetrahydro-1,6-dime	483-77-2	NIST2002.L	57467	95	C15H22	202





1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-15B

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V5N2745.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 31 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	7.8	U
74-87-3	Chloromethane	7.8	U
75-01-4	Vinyl chloride	7.8	U
74-83-9	Bromomethane	7.8	U
75-00-3	Chloroethane	7.8	U
75-69-4	Trichlorofluoromethane	7.8	U
75-35-4	1,1-Dichloroethene	7.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	7.8	U
67-64-1	Acetone	16	U
75-15-0	Carbon disulfide	7.8	U
79-20-9	Methyl acetate	7.8	U
75-09-2	Methylene chloride	7.8	U
156-60-5	trans-1,2-Dichloroethene	7.8	U
1634-04-4	Methyl tert-butyl ether	7.8	U
75-34-3	1,1-Dichloroethane	7.8	U
156-59-2	cis-1,2-Dichloroethene	7.8	U
78-93-3	2-Butanone	16	U
74-97-5	Bromochloromethane	7.8	U
67-66-3	Chloroform	5.3	J
71-55-6	1,1,1-Trichloroethane	7.8	U
110-82-7	Cyclohexane	7.8	U
56-23-5	Carbon tetrachloride	7.8	U
71-43-2	Benzene	7.8	U
107-06-2	1,2-Dichloroethane	7.8	U
123-91-1	1,4-Dioxane	160	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-15B

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V5N2745.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 31 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	7.8	U
108-87-2	Methylcyclohexane	7.8	U
78-87-5	1,2-Dichloropropane	7.8	U
75-27-4	Bromodichloromethane	7.8	U
10061-01-5	cis-1,3-Dichloropropene	7.8	U
108-10-1	4-Methyl-2-pentanone	16	U
108-88-3	Toluene	7.8	U
10061-02-6	trans-1,3-Dichloropropene	7.8	U
79-00-5	1,1,2-Trichloroethane	7.8	U
127-18-4	Tetrachloroethene	7.8	U
591-78-6	2-Hexanone	16	U
124-48-1	Dibromochloromethane	7.8	U
106-93-4	1,2-Dibromoethane	7.8	U
108-90-7	Chlorobenzene	7.8	U
100-41-4	Ethylbenzene	7.8	U
179601-23-1	m,p-Xylene	7.8	U
95-47-6	o-Xylene	7.8	U
100-42-5	Styrene	7.8	U
75-25-2	Bromoform	7.8	U
98-82-8	Isopropylbenzene	7.8	U
79-34-5	1,1,2,2-Tetrachloroethane	7.8	U
541-73-1	1,3-Dichlorobenzene	7.8	U
106-46-7	1,4-Dichlorobenzene	7.8	U
95-50-1	1,2-Dichlorobenzene	7.8	U
96-12-8	1,2-Dibromo-3-chloropropane	7.8	U
120-82-1	1,2,4-Trichlorobenzene	7.8	U
87-61-6	1,2,3-Trichlorobenzene	7.8	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H30S3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-15B

Sample wt/vol: 4.70 (g/mL) G Lab File ID: V5N2745.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 31 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	6.586	9.1	J
02	475-20-7	1,4-Methanoazulene, decahydr	17.235	10	NJ
	E96679[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2745.D
Report Date: 09-Nov-2011 08:01

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2745.D
Lab Smp Id: K2199-15B Client Smp ID: H30S3
Inj Date : 07-NOV-2011 19:44
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-15B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.700	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.161	2.168	(0.342)	162284	45.2336	48
$ 80 Chloroethane-d5	69	2.579	2.597	(0.408)	116167	50.0581	53(Q)
$ 81 1,1-Dichloroethene-d2	65	3.357	3.364	(0.531)	33267	44.7059	48(Q)
$ 82 2-Butanone-d5	46	5.076	5.071	(0.803)	58894	58.8608	63
$ 83 Chloroform-d	84	5.389	5.385	(0.853)	195830	45.5596	48(Q)
19 Chloroform	83	5.401	5.396	(0.855)	16455	3.42828	3.6
$ 23 1,2-Dichloroethane-d4	65	5.888	5.896	(0.932)	123835	53.3766	57
$ 84 Benzene-d6	84	5.912	5.907	(0.627)	382572	57.1797	61
* 26 1,4-Difluorobenzene	114	6.318	6.325	(1.000)	376784	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.725	6.732	(0.713)	154734	55.9616	60
$ 94 1,4-Dioxane-d8	96	6.922	6.917	(1.096)	28183	1276.29	1400
$ 33 Toluene-d8	98	7.839	7.835	(0.831)	316006	51.1633	54
$ 86 trans-1,3-Dichloropropene-d4	79	8.118	8.114	(0.861)	101106	48.5664	52
$ 87 2-Hexanone-d5	63	8.594	8.578	(0.911)	29345	55.1639	59(Q)
* 42 Chlorobenzene-d5	117	9.430	9.426	(1.000)	252677	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.928	10.924	(1.159)	76986	42.5390	45
* 78 1,4-Dichlorobenzene-d4	152	12.183	12.167	(1.000)	80666	50.0000	
$ 90 1,2-Dichlorobenzene-d4	152	12.636	12.631	(1.037)	72278	47.9630	51(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2745.D
Report Date: 09-Nov-2011 08:01

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2745.D
Report Date: 09-Nov-2011 08:01

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2745.D
Lab Smp Id: K2199-15B Client Smp ID: H30S3
Inj Date : 07-NOV-2011 19:44
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-15B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.700	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 26 1,4-Difluorobenzene	6.319	825626	50.000
* 78 1,4-Dichlorobenzene-d4	12.183	528342	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
6.586	97052	5.87745900	6.3	0		0	26
1,4-Methanoazulene, decahydro-4,8,8-trim				CAS #: 475-20-7			
17.235	69808	6.60628049	7.0	98	NIST2002.L	58865	78

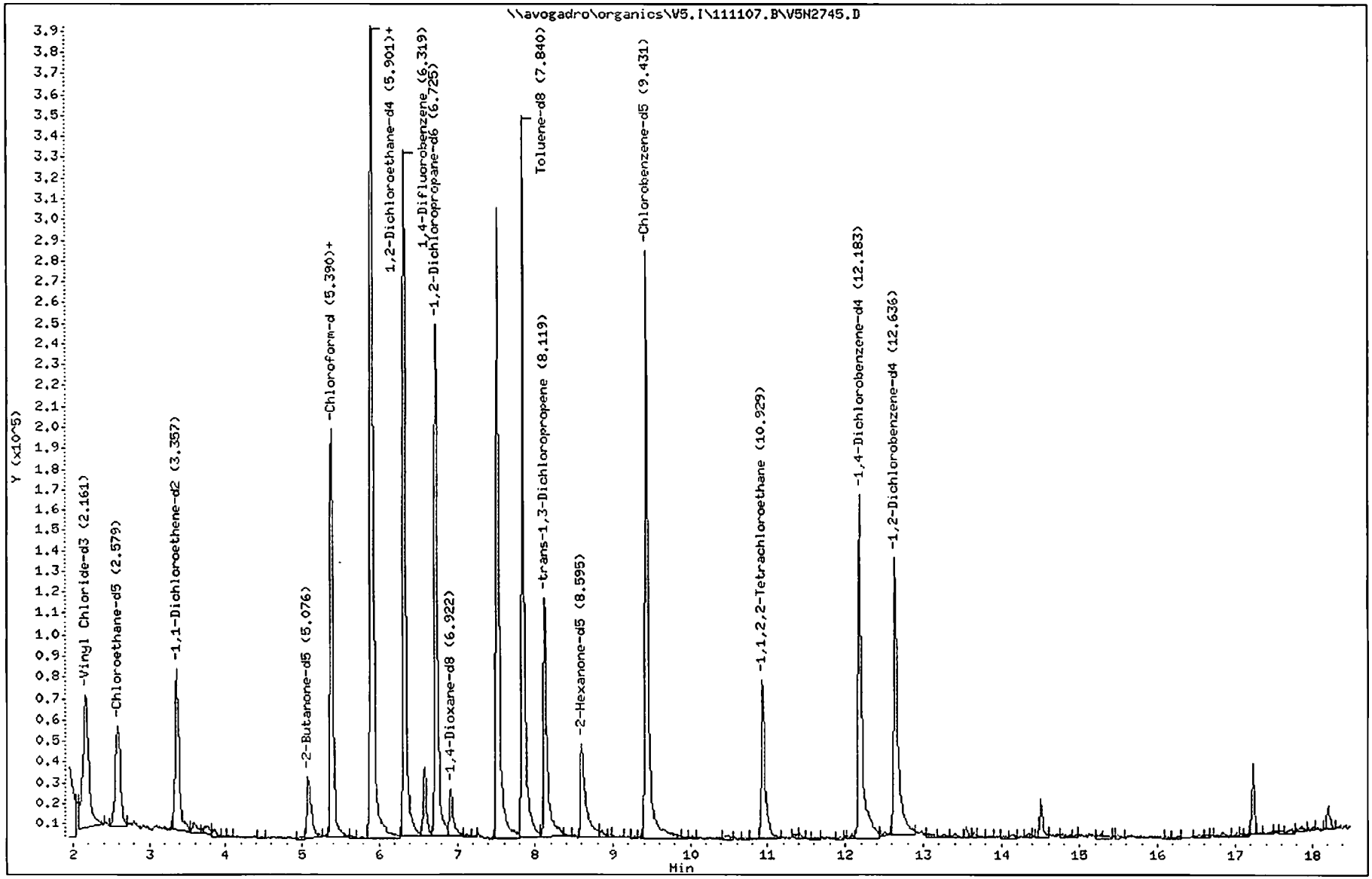
Data File: \\avogadro\organics\V5.I\111107.B\V5N2745.D
Date : 07-NOV-2011 19:44
Client ID: H30S3
Sample Info: 5C,K2199-15B,,62780

Instrument: V5.i

Operator: SRC: LIMS

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2745.D

Date : 07-NOV-2011 19:44

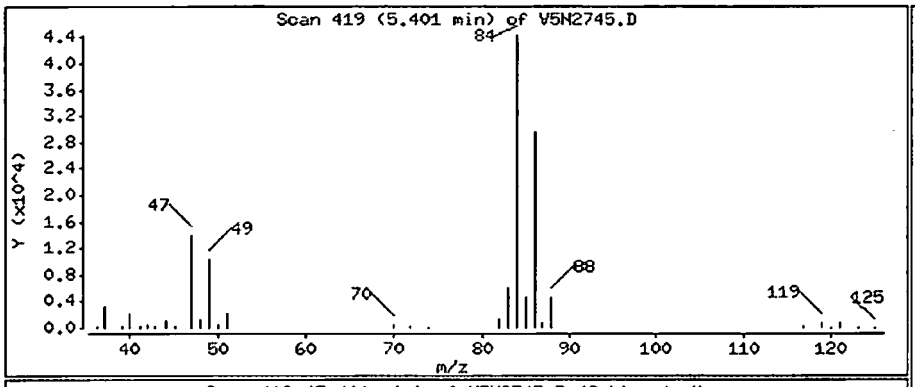
Client ID: H30S3 Instrument: V5.i

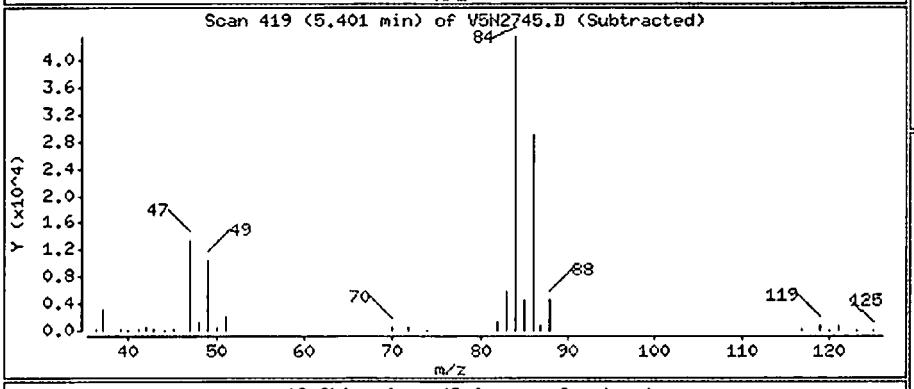
Sample Info: 5G,K2199-15B,,62780

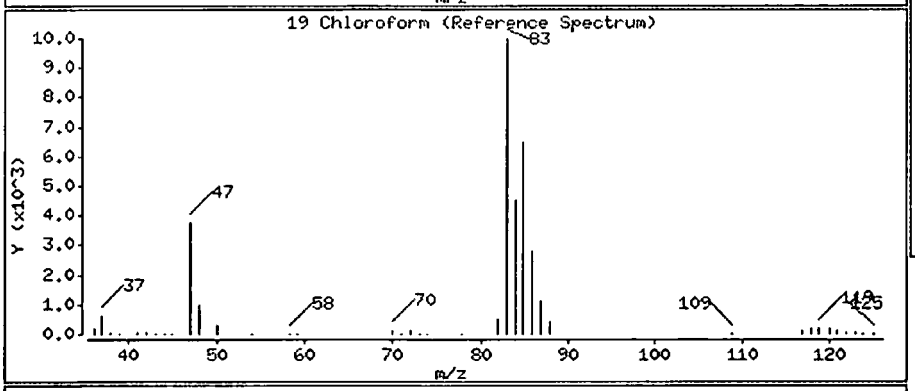
Operator: SRC: LIMS

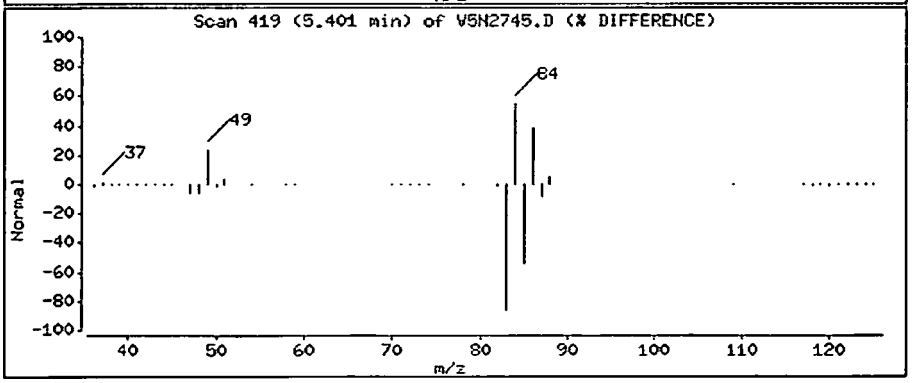
Column phase: DB-624 Column diameter: 0.25

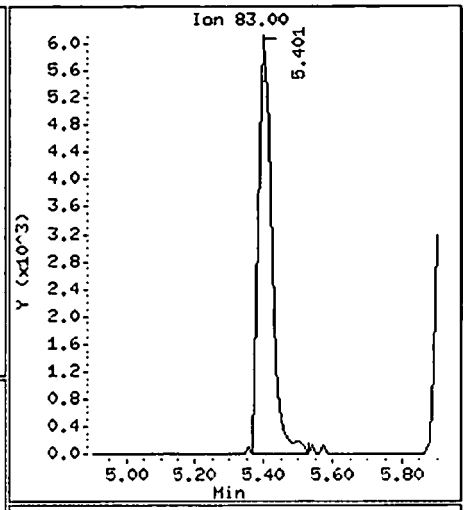
19 Chloroform Concentration: 3.6 ug/Kg

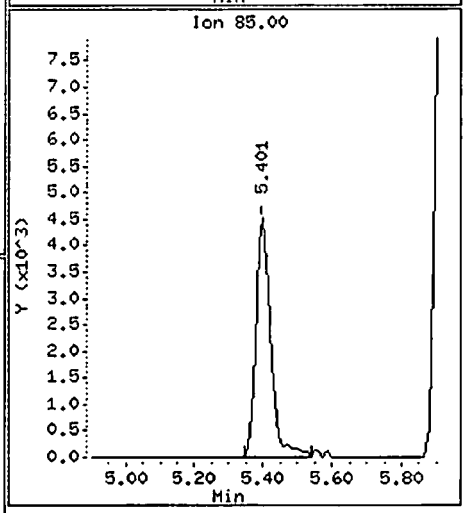












Data File: \\avogadro\organics\V5.I\111107.B\V5N2745.D

Date : 07-NOV-2011 19:44

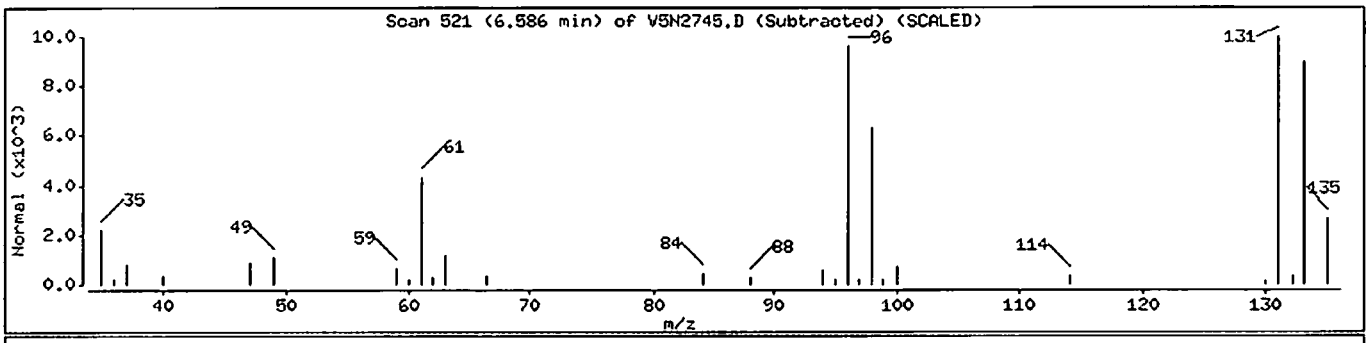
Client ID: H30S3 Instrument: V5.i

Sample Info: 5G,K2199-15B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\avogadro\organics\V5.I\111107.B\V5N2745.D

Date : 07-NOV-2011 19:44

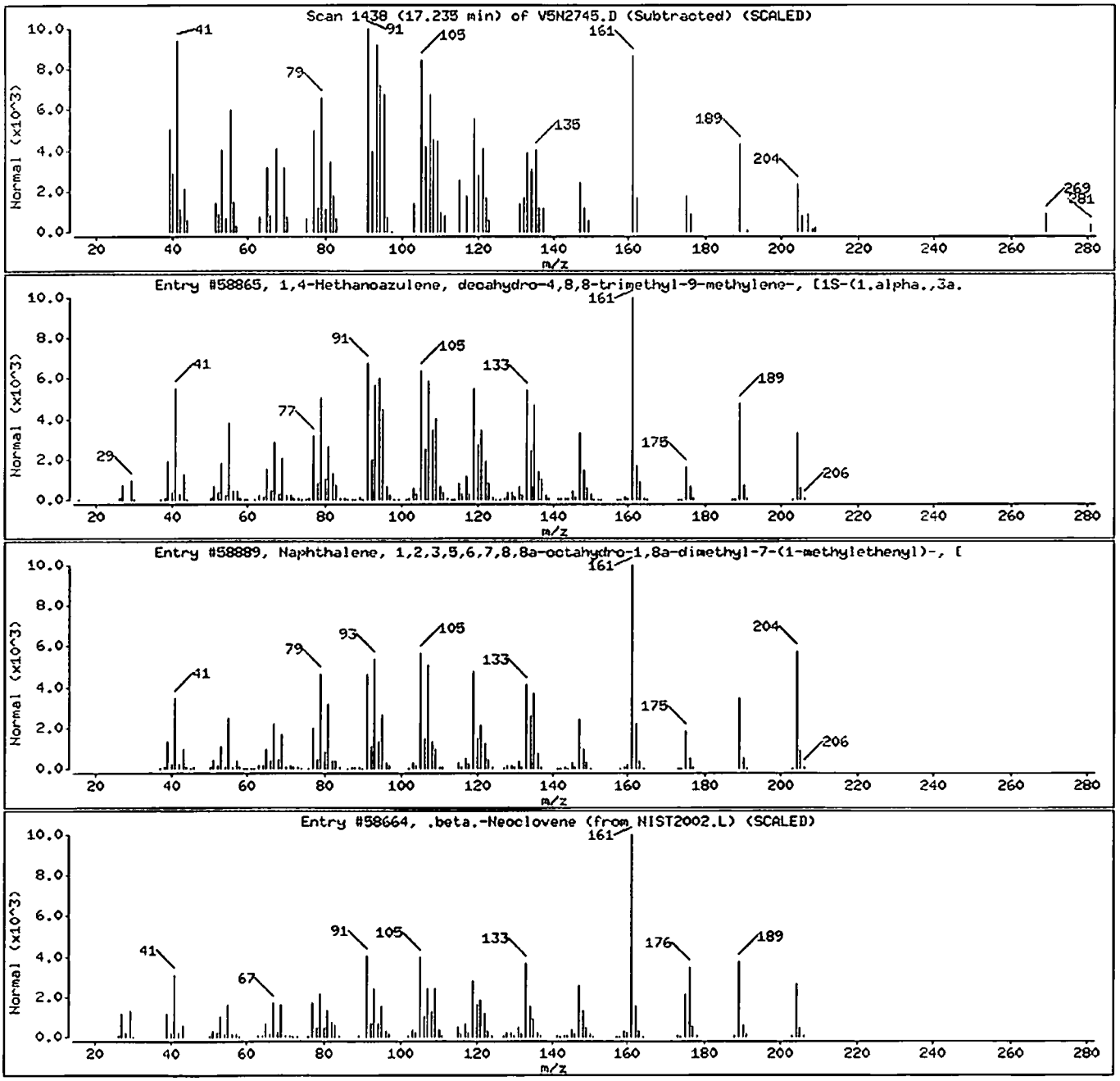
Client ID: H30S3 Instrument: V5.i

Sample Info: 5C,K2199-15B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58865	98	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST2002.L	58889	95	C15H24	204
.beta.-Neoclovene	56684-96-9	NIST2002.L	58664	86	C15H24	204



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-16B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V5N2746.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 74 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	19	U
74-87-3	Chloromethane	19	U
75-01-4	Vinyl chloride	19	U
74-83-9	Bromomethane	19	U
75-00-3	Chloroethane	19	U
75-69-4	Trichlorofluoromethane	19	U
75-35-4	1,1-Dichloroethene	19	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	19	U
67-64-1	Acetone	40	
75-15-0	Carbon disulfide	19	U
79-20-9	Methyl acetate	19	U
75-09-2	Methylene chloride	19	U
156-60-5	trans-1,2-Dichloroethene	19	U
1634-04-4	Methyl tert-butyl ether	19	U
75-34-3	1,1-Dichloroethane	19	U
156-59-2	cis-1,2-Dichloroethene	19	U
78-93-3	2-Butanone	38	U
74-97-5	Bromochloromethane	19	U
67-66-3	Chloroform	19	U
71-55-6	1,1,1-Trichloroethane	19	U
110-82-7	Cyclohexane	19	U
56-23-5	Carbon tetrachloride	19	U
71-43-2	Benzene	19	U
107-06-2	1,2-Dichloroethane	19	U
123-91-1	1,4-Dioxane	380	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-16B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V5N2746.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 74 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	19	U
108-87-2	Methylcyclohexane	19	U
78-87-5	1,2-Dichloropropane	19	U
75-27-4	Bromodichloromethane	19	U
10061-01-5	cis-1,3-Dichloropropene	19	U
108-10-1	4-Methyl-2-pentanone	38	U
108-88-3	Toluene	19	U
10061-02-6	trans-1,3-Dichloropropene	19	U
79-00-5	1,1,2-Trichloroethane	19	U
127-18-4	Tetrachloroethene	19	U
591-78-6	2-Hexanone	38	U
124-48-1	Dibromochloromethane	19	U
106-93-4	1,2-Dibromoethane	19	U
108-90-7	Chlorobenzene	19	U
100-41-4	Ethylbenzene	19	U
179601-23-1	m,p-Xylene	19	U
95-47-6	o-Xylene	19	U
100-42-5	Styrene	19	U
75-25-2	Bromoform	19	U
98-82-8	Isopropylbenzene	19	U
79-34-5	1,1,2,2-Tetrachloroethane	19	U
541-73-1	1,3-Dichlorobenzene	19	U
106-46-7	1,4-Dichlorobenzene	19	U
95-50-1	1,2-Dichlorobenzene	19	U
96-12-8	1,2-Dibromo-3-chloropropane	19	U
120-82-1	1,2,4-Trichlorobenzene	19	U
87-61-6	1,2,3-Trichlorobenzene	19	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30S6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-16B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V5N2746.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 74 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	11.214	56	J
02	473-19-8	Bicyclo[2.2.1]heptane, 2,2,3	11.353	220	NJ
03	535-77-3	Benzene, 1-methyl-3-(1-methy	12.073	330	NJ
04	1137-12-8	1,2,4-Methenoazulene, decahy	16.834	40	NJ
05	1135-66-6	2H-2,4a-Methanonaphthalene,	17.020	20	NJ
06	475-20-7	1,4-Methanoazulene, decahydr	17.229	360	NJ
07	483-77-2	Naphthalene, 1,2,3,4-tetrahy	18.205	27	NJ
	E96679[1]	Total Alkanes	N/A	56	J

[1]EPA-designated Registry Number.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D
Report Date: 09-Nov-2011 08:01

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2746.D
Lab Smp Id: K2199-16B Client Smp ID: H30S6
Inj Date : 07-NOV-2011 20:11
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-16B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.100	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.166	2.168	(0.343)	132729	38.5706	38
$ 80 Chloroethane-d5	69	2.585	2.597	(0.409)	109950	49.3961	48(Q)
$ 81 1,1-Dichloroethene-d2	65	3.363	3.364	(0.532)	34980	49.0091	48(Q)
9 Acetone	43	3.444	3.445	(0.545)	6839	10.3867	10
$ 82 2-Butanone-d5	46	5.081	5.071	(0.804)	86549	90.1827	88
$ 83 Chloroform-d	84	5.383	5.385	(0.851)	210903	51.1551	50(Q)
$ 23 1,2-Dichloroethane-d4	65	5.894	5.896	(0.932)	116270	52.2493	51
$ 84 Benzene-d6	84	5.906	5.907	(0.626)	369449	63.0928	62(R)
* 26 1,4-Difluorobenzene	114	6.324	6.325	(1.000)	361399	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.730	6.732	(0.713)	150938	62.3734	61(R)
$ 94 1,4-Dioxane-d8	96	6.916	6.917	(1.094)	26738	1262.40	1200
$ 33 Toluene-d8	98	7.845	7.835	(0.931)	297826	55.0962	54
$ 86 trans-1,3-Dichloropropene-d4	79	8.124	8.114	(0.861)	79605	43.6914	43
$ 87 2-Hexanone-d5	63	8.589	8.578	(0.910)	47968	103.031	100(Q)
* 42 Chlorobenzene-d5	117	9.436	9.426	(1.000)	221141	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.934	10.924	(1.159)	79245	50.0316	49
* 78 1,4-Dichlorobenzene-d4	152	12.177	12.167	(1.000)	58559	50.0000	
$ 90 1,2-Dichlorobenzene-d4	152	12.641	12.631	(1.038)	53147	48.5820	48(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D
Report Date: 09-Nov-2011 08:01

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D
Report Date: 09-Nov-2011 08:01

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2746.D
Lab Smp Id: K2199-16B Client Smp ID: H30S6
Inj Date : 07-NOV-2011 20:11
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-16B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.100	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 42 Chlorobenzene-d5	9.437	651408	50.000
* 78 1,4-Dichlorobenzene-d4	12.177	414492	50.000

RT	AREA	CONCENTRATIONS ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Cyclic Alkane					CAS #:		
10.401	190636	14.6326341	14	0		0	42
Unknown					CAS #:		
11.214	121628	14.6718819	14	0		0	78
Bicyclo[2.2.1]heptane, 2,2,3-trimethyl-					CAS #: 473-19-8		
11.353	471647	56.8944104	56	98	NIST2002.L	16369	78
Benzene, 1-methyl-3-(1-methylethyl)-					CAS #: 535-77-3		
12.073	710796	85.7428782	84	95	NIST2002.L	14400	78

Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D
Report Date: 09-Nov-2011 08:01

RT	AREA	CONCENTRATIONS ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
1,2,4-Methenoazulene, decahydro-1,5,5,8a					CAS #: 1137-12-8		
16.834	86291	10.4092368	10	94	NIST2002.L	58895	78
2H-2,4a-Methanonaphthalene, 1,3,4,5,6,7-					CAS #: 1135-66-6		
17.020	43411	5.23668532	5.1	95	NIST2002.L	58813	78
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
17.229	773171	93.2670603	91	99	NIST2002.L	58865	78
Naphthalene, 1,2,3,4-tetrahydro-1,6-dime					CAS #: 483-77-2		
18.205	58729	7.08447714	6.9	94	NIST2002.L	57467	78

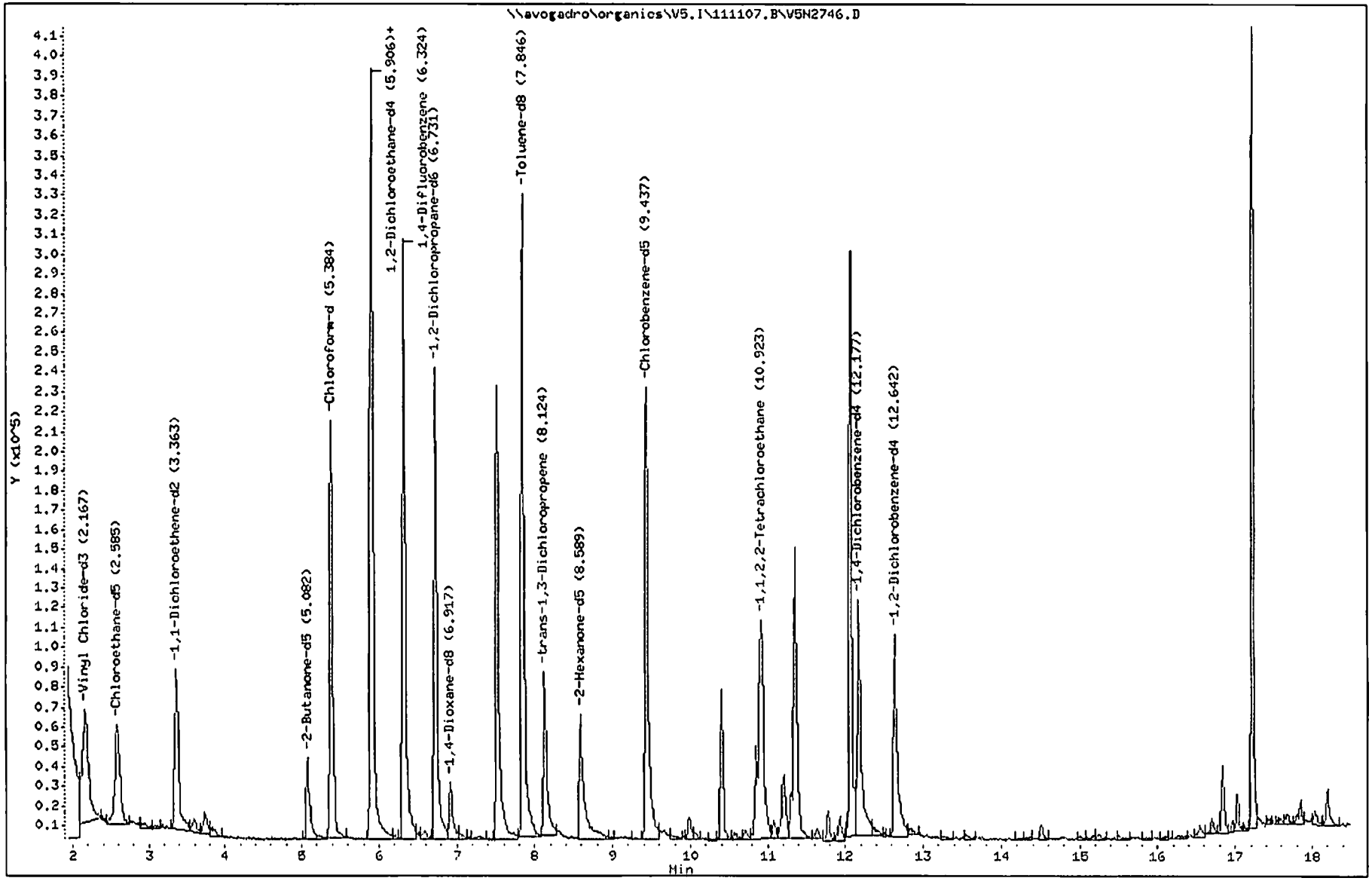
Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D
Date : 07-NOV-2011 20:11
Client ID: H30S6
Sample Info: 5C,K2199-16B,,62780

Instrument: V5.I

Operator: SRC: LIMS

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D

Date : 07-NOV-2011 20:11

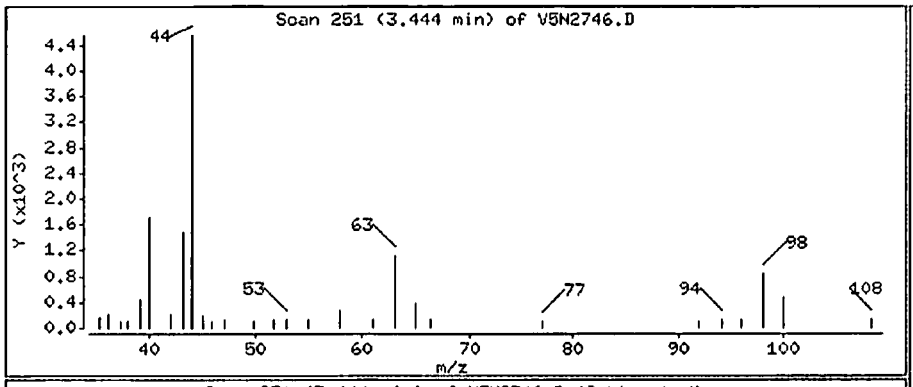
Client ID: H30S6 Instrument: V5.i

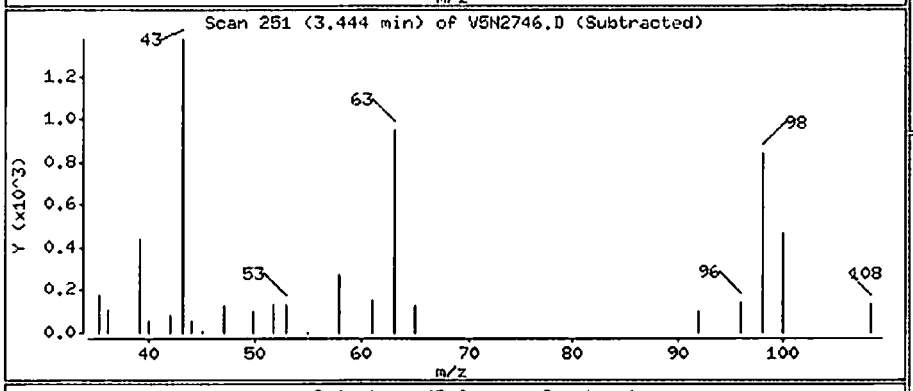
Sample Info: 5G,K2199-16B,,62780

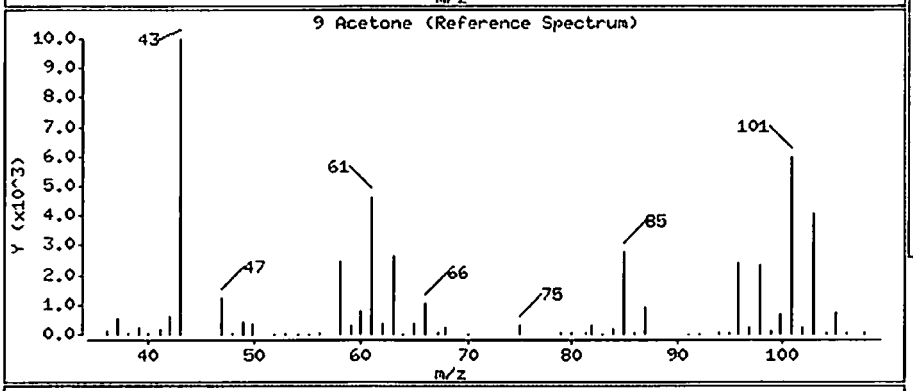
Operator: SRC: LIHS

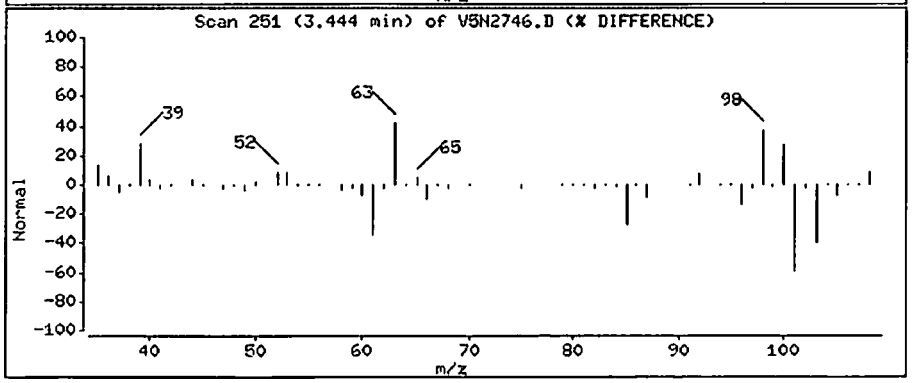
Column phase: DB-624 Column diameter: 0.25

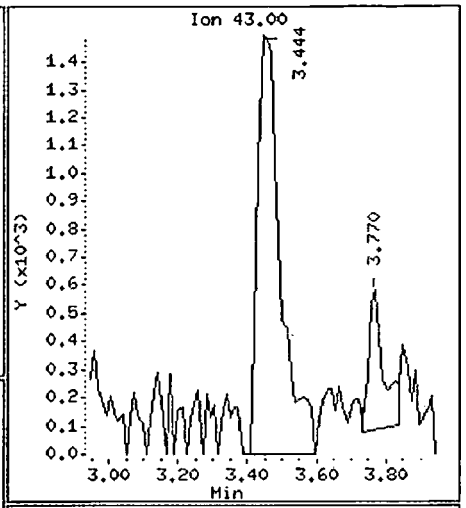
9 Acetone Concentration: 10 ug/Kg

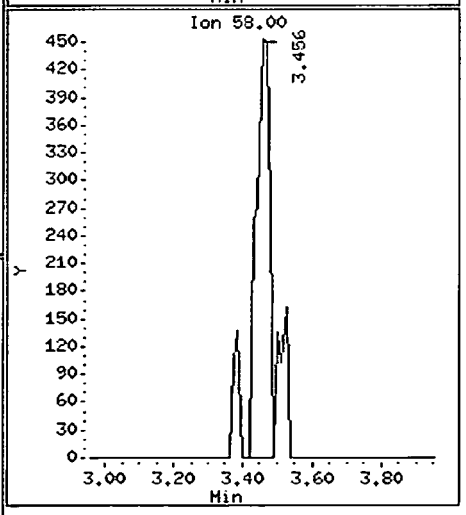












Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D

Date : 07-NOV-2011 20:11

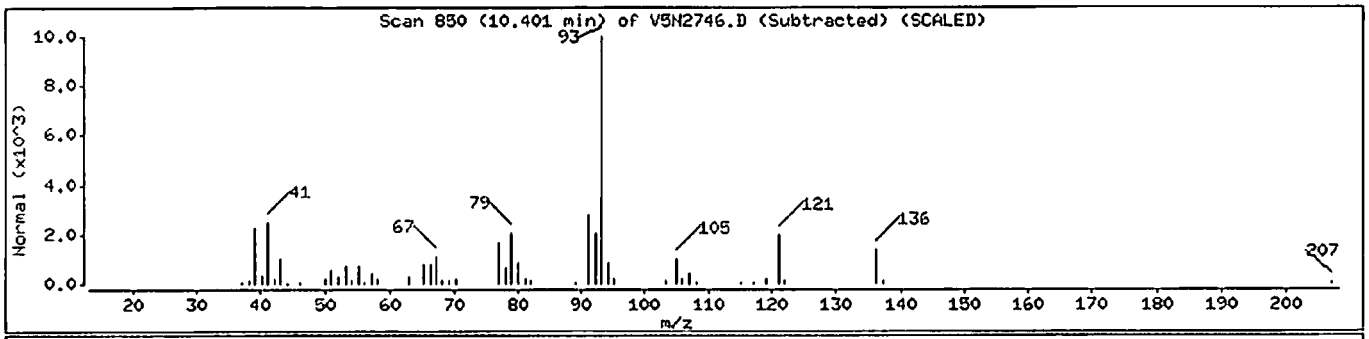
Client ID: H30S6 Instrument: V5.i

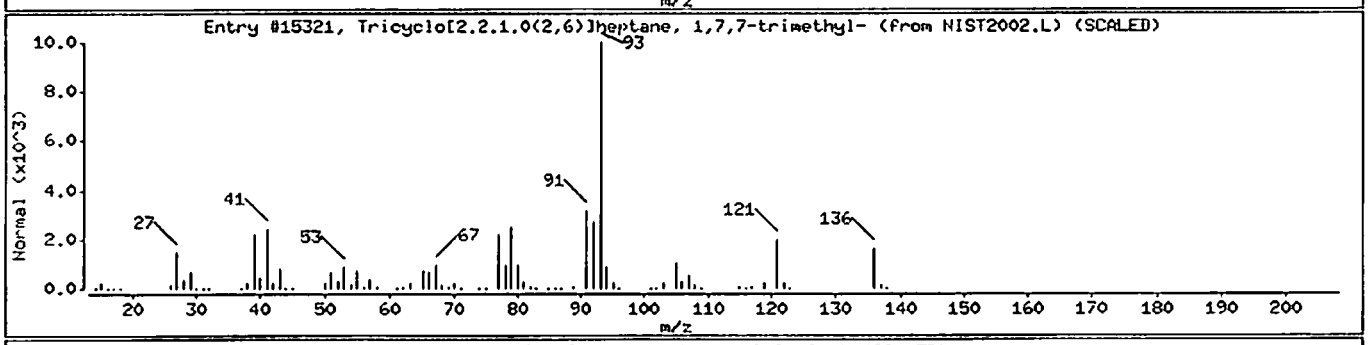
Sample Info: 5G,K2199-16B,,62780

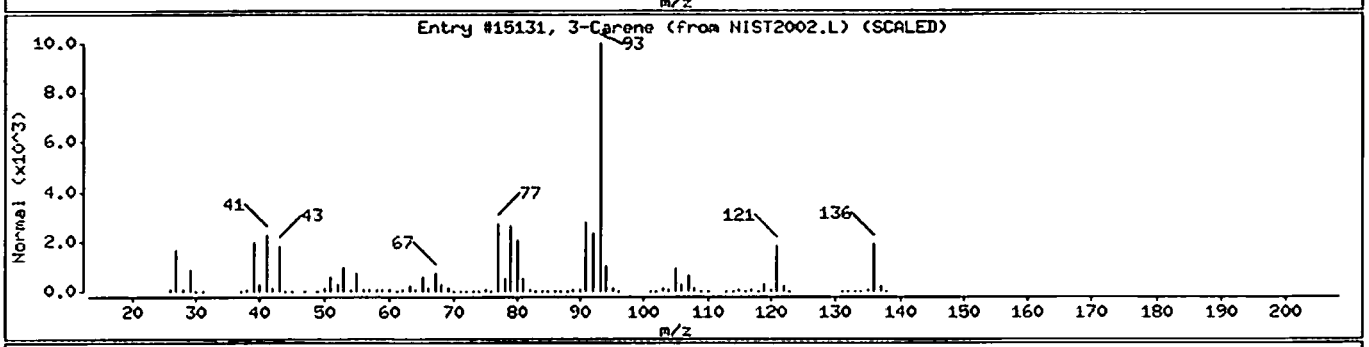
Operator: SRC: LIMS

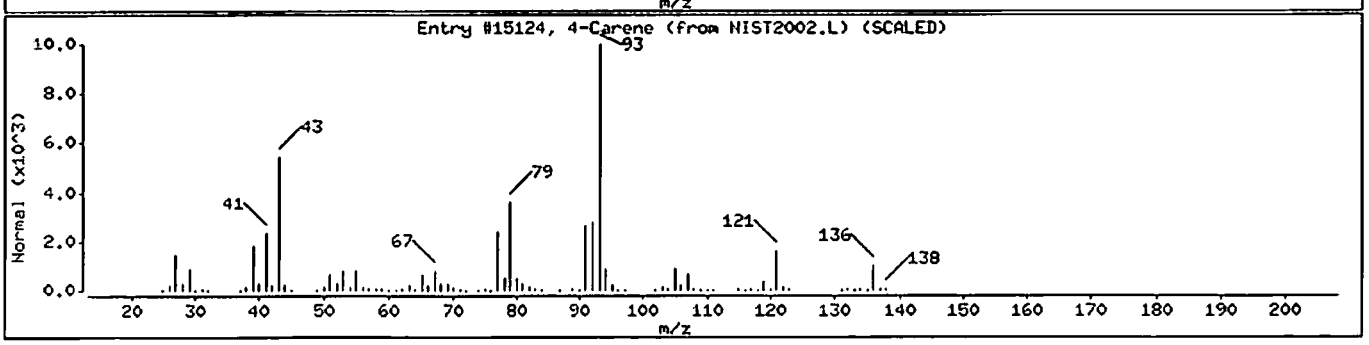
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclic Alkane						
Tricyclo[2.2.1.0(2,6)]heptane, 1,7,7-tri	808-32-7	NIST2002.L	15321	96	C10H16	136
3-Carene	13466-78-9	NIST2002.L	15131	91	C10H16	136
4-Carene	1000150-36-1	NIST2002.L	15124	91	C10H16	136









Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D

Date : 07-NOV-2011 20:11

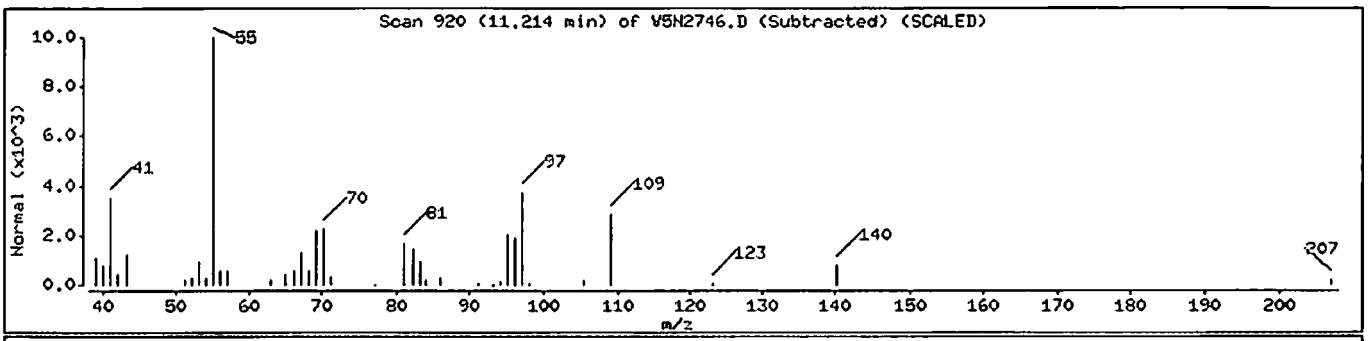
Client ID: H30S6 Instrument: V5.i

Sample Info: 5C,K2199-16B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D

Date : 07-NOV-2011 20:11

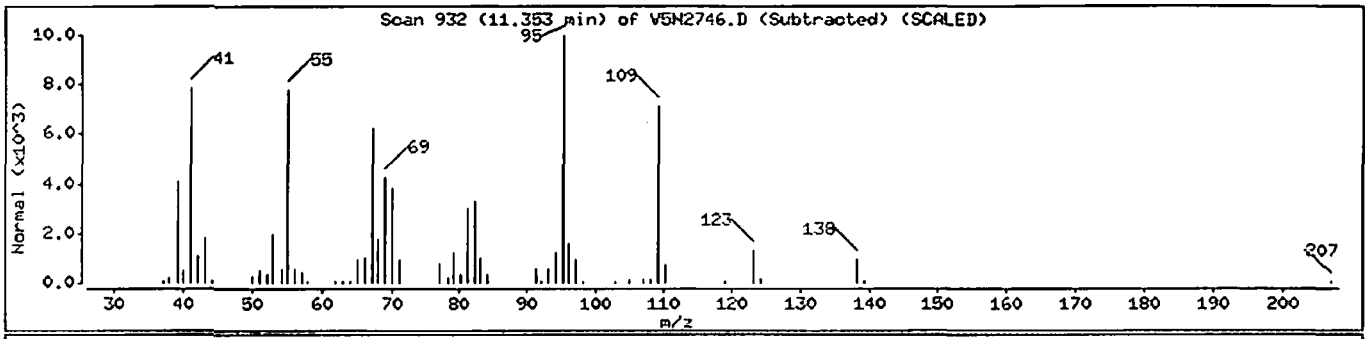
Client ID: H30S6 Instrument: V5.i

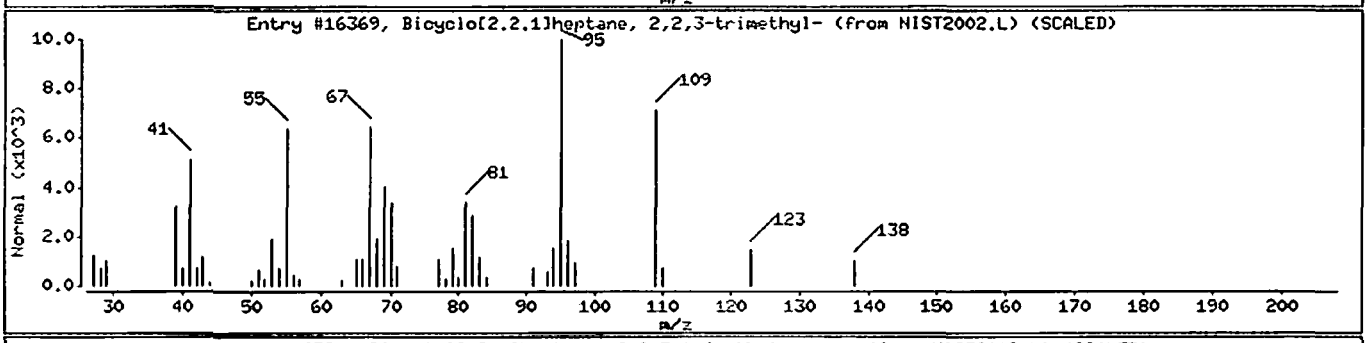
Sample Info: 5G,K2199-16B,,62780

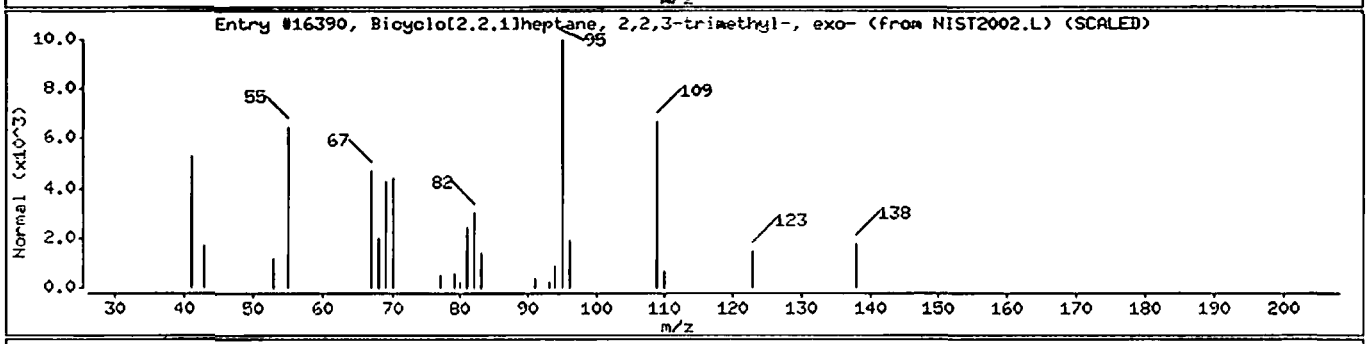
Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptane, 2,2,3-trimethyl-	473-19-8	NIST2002.L	16369	98	C10H18	138
Bicyclo[2.2.1]heptane, 2,2,3-trimethyl-,	20536-41-8	NIST2002.L	16390	86	C10H18	138







Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D

Date : 07-NOV-2011 20:11

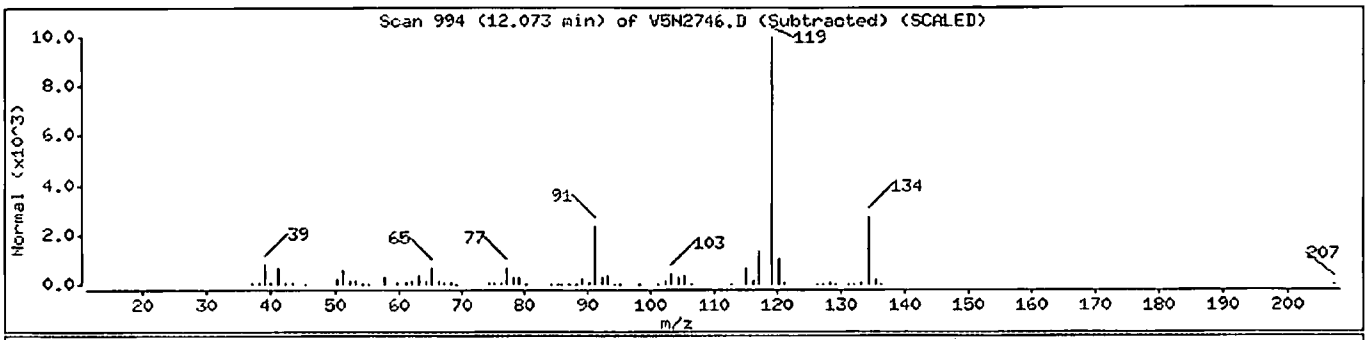
Client ID: H30S6 Instrument: V5.i

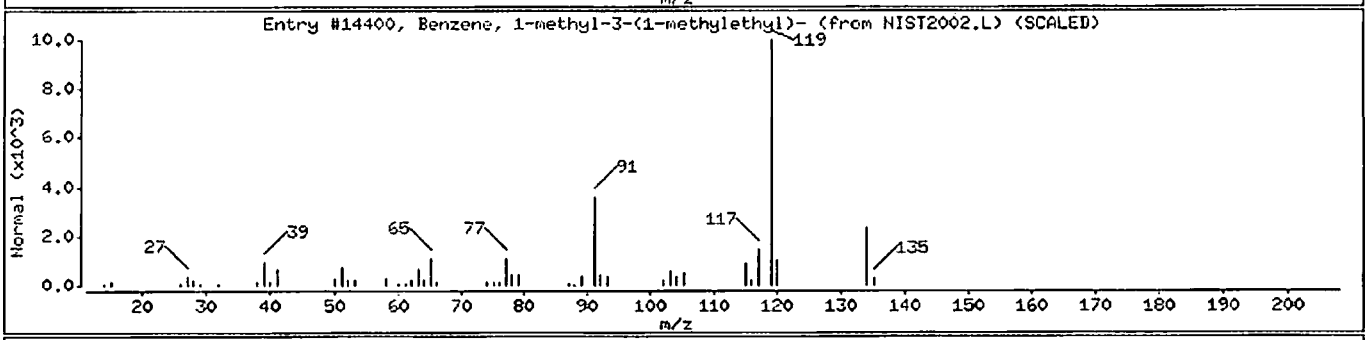
Sample Info: 5G,K2199-16B,,62780

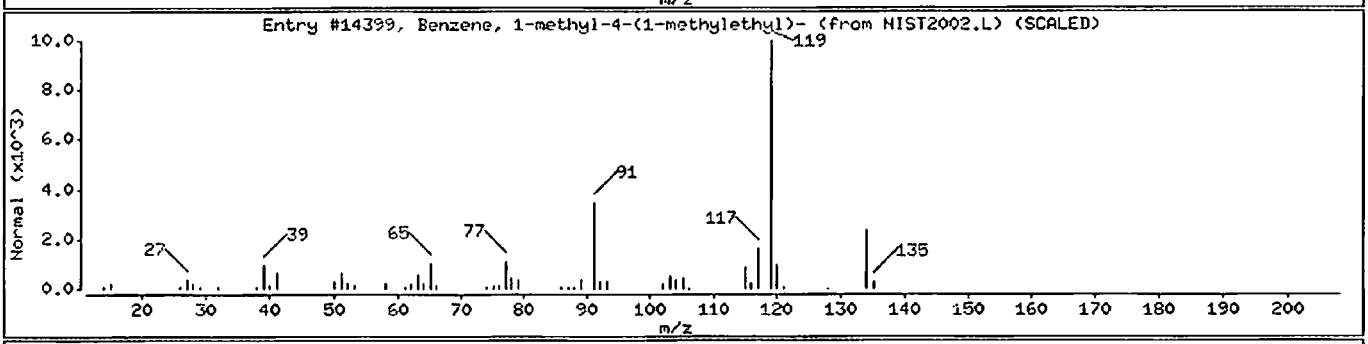
Operator: SRC: LIMS

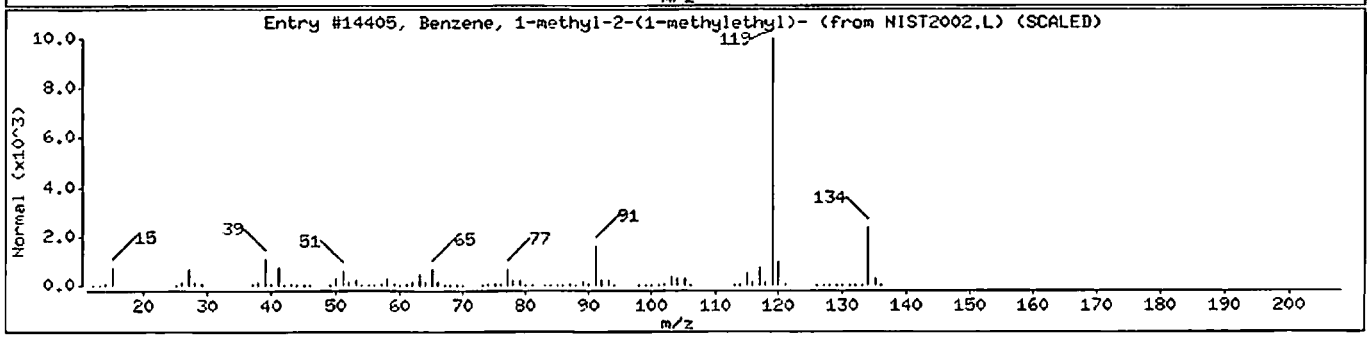
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	95	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	95	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14405	94	C10H14	134









Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D

Date : 07-NOV-2011 20:11

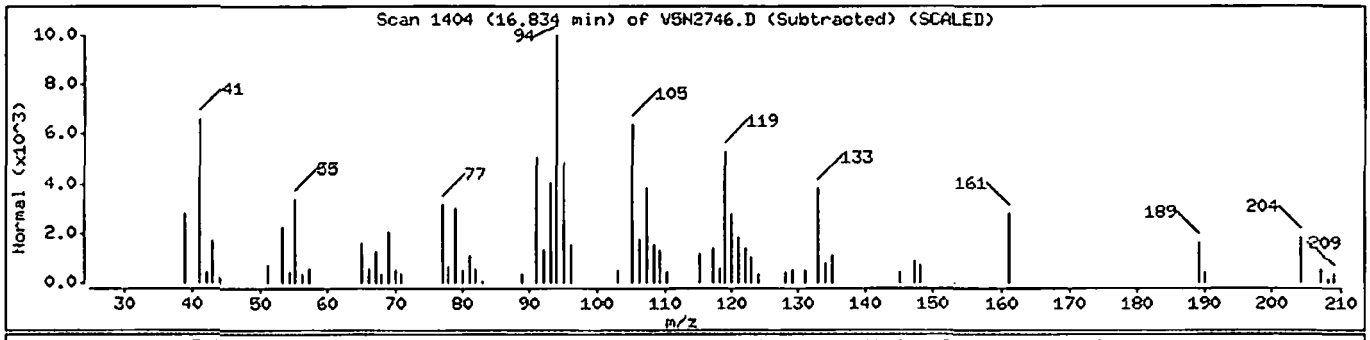
Client ID: H30S6 Instrument: V5.i

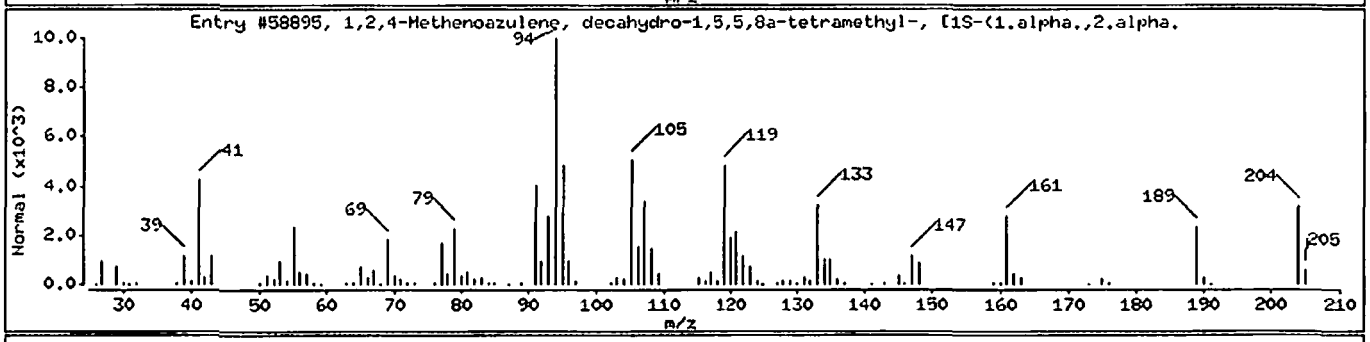
Sample Info: SC,K2199-16B,.62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,2,4-Methenoazulene, decahydro-1,5,5,8a	1137-12-8	NIST2002.L	58895	94	C15H24	204





Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D

Date : 07-NOV-2011 20:11

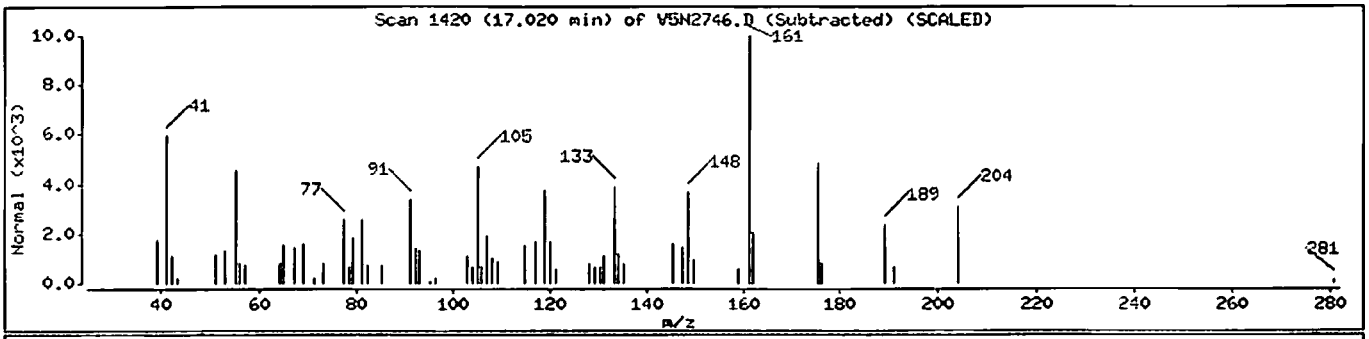
Client ID: H30S6 Instrument: V5.i

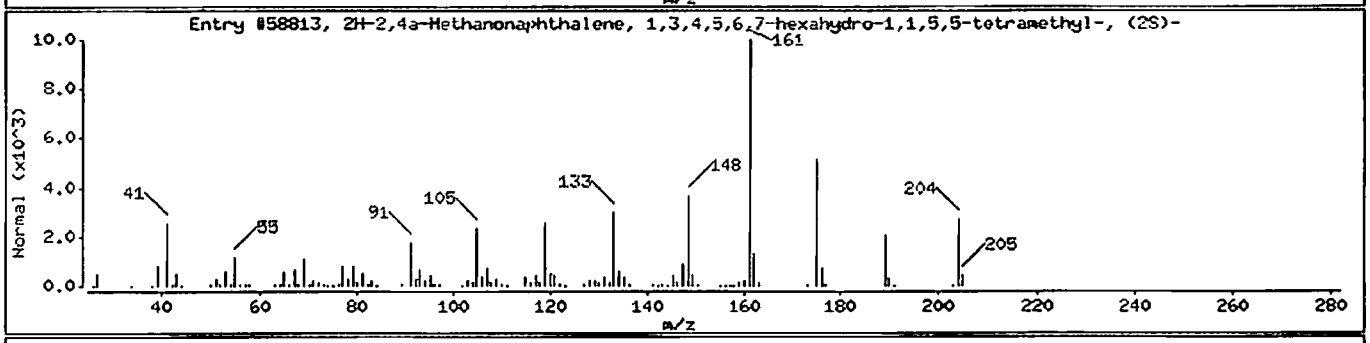
Sample Info: 5G,K2199-16B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2H-2,4a-Methanonaphthalene, 1,3,4,5,6,7-	1135-66-6	NIST2002.L	58813	95	C15H24	204





Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D

Date : 07-NOV-2011 20:11

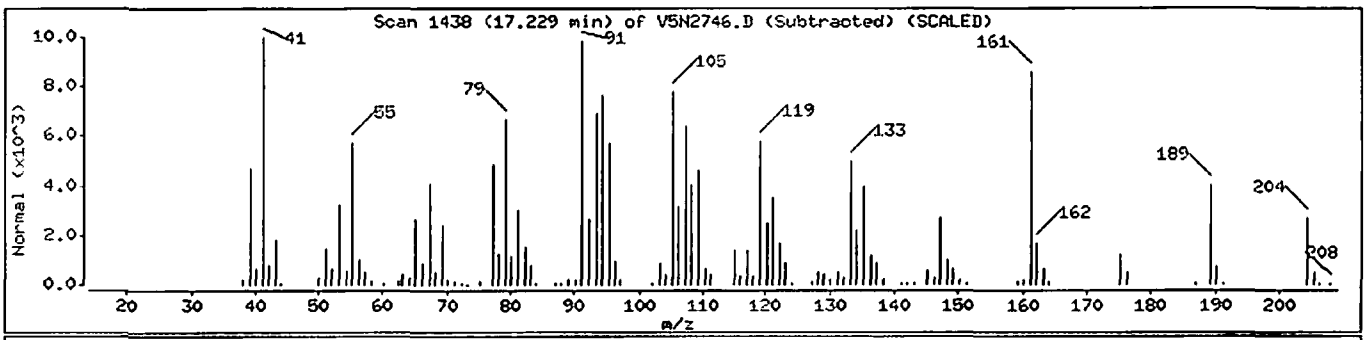
Client ID: H30S6 Instrument: V5.i

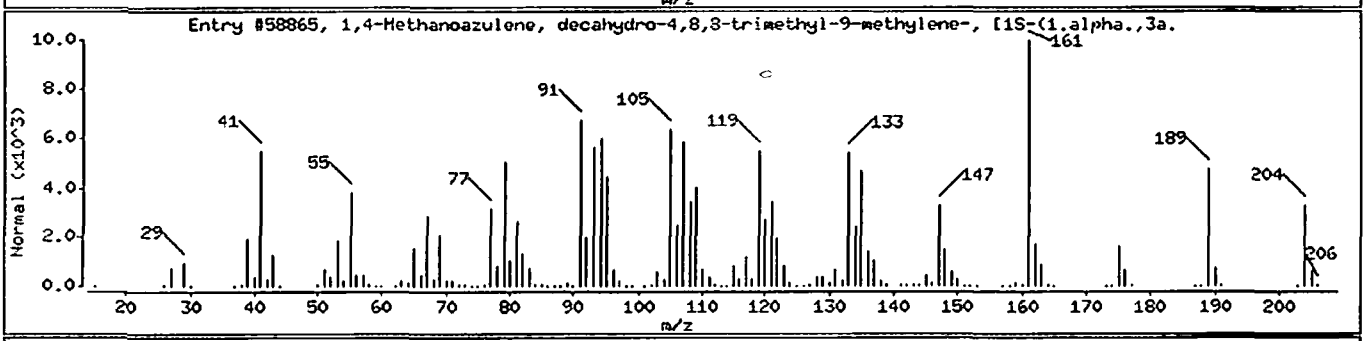
Sample Info: 5G,K2199-16B,,62780

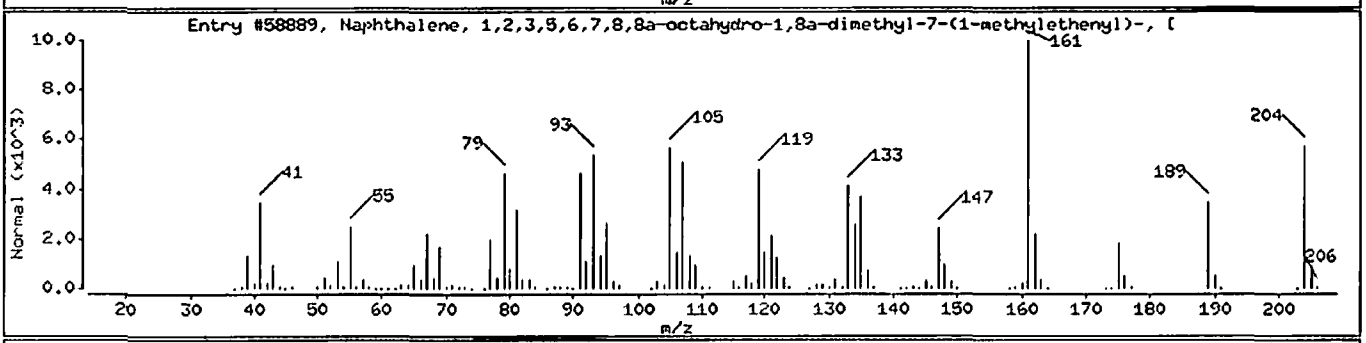
Operator: SRC: LIMS

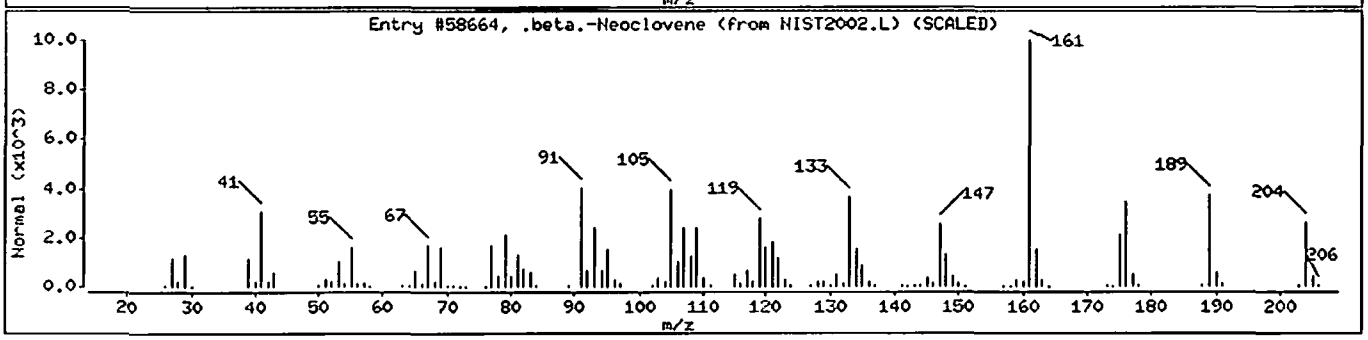
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58865	99	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST2002.L	58889	96	C15H24	204
.beta.-Neoclovene	56684-96-9	NIST2002.L	58664	90	C15H24	204









Data File: \\avogadro\organics\V5.I\111107.B\V5N2746.D

Date : 07-NOV-2011 20:11

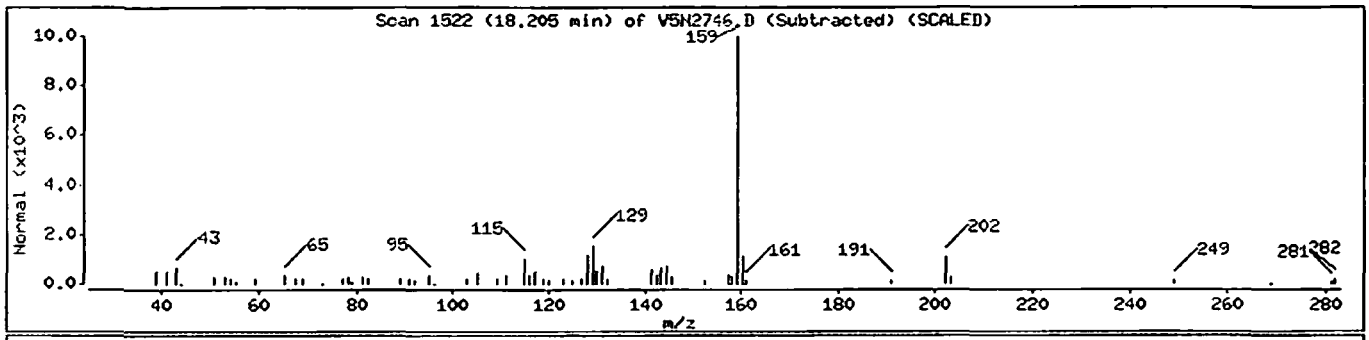
Client ID: H30S6 Instrument: V5.i

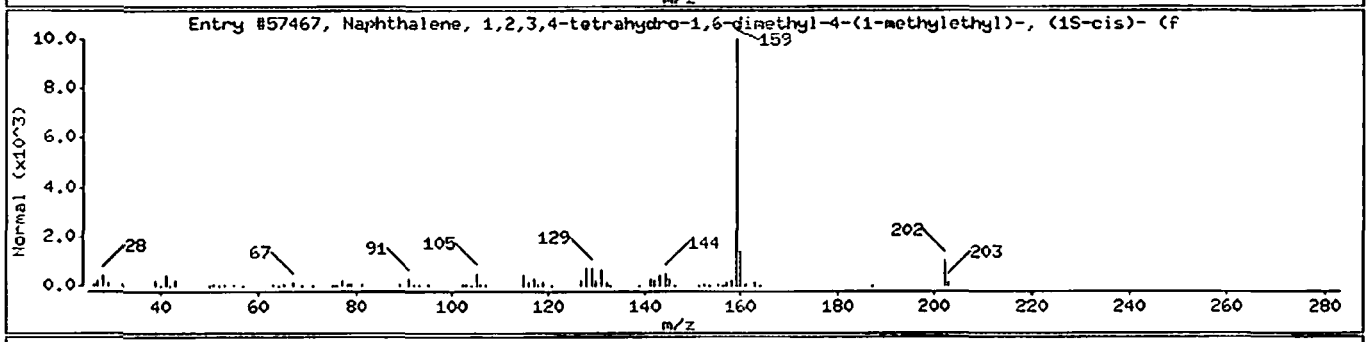
Sample Info: SC,K2199-16B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,4-tetrahydro-1,6-dime	483-77-2	NIST2002.L	57467	94	C15H22	202





1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30T6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-02C

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2722.D

Level: (TRACE/LOW/MED) LOW Date Received: 10/28/2011

% Moisture: not dec. 22 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	6.4	U
74-87-3	Chloromethane	6.4	U
75-01-4	Vinyl chloride	6.4	U
74-83-9	Bromomethane	6.4	U
75-00-3	Chloroethane	6.4	U
75-69-4	Trichlorofluoromethane	6.4	U
75-35-4	1,1-Dichloroethene	6.4	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.4	U
67-64-1	Acetone	13	U
75-15-0	Carbon disulfide	6.4	U
79-20-9	Methyl acetate	6.4	U
75-09-2	Methylene chloride	6.4	U
156-60-5	trans-1,2-Dichloroethene	6.4	U
1634-04-4	Methyl tert-butyl ether	6.4	U
75-34-3	1,1-Dichloroethane	6.4	U
156-59-2	cis-1,2-Dichloroethene	6.4	U
78-93-3	2-Butanone	13	U
74-97-5	Bromochloromethane	6.4	U
67-66-3	Chloroform	6.4	U
71-55-6	1,1,1-Trichloroethane	6.4	U
110-82-7	Cyclohexane	6.4	U
56-23-5	Carbon tetrachloride	6.4	U
71-43-2	Benzene	6.4	U
107-06-2	1,2-Dichloroethane	6.4	U
123-91-1	1,4-Dioxane	130	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30T6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-02C

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2722.D

Level: (TRACE/LOW/MED) LOW Date Received: 10/28/2011

% Moisture: not dec. 22 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	6.4	U
108-87-2	Methylcyclohexane	6.4	U
78-87-5	1,2-Dichloropropane	6.4	U
75-27-4	Bromodichloromethane	6.4	U
10061-01-5	cis-1,3-Dichloropropene	6.4	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	6.4	U
10061-02-6	trans-1,3-Dichloropropene	6.4	U
79-00-5	1,1,2-Trichloroethane	6.4	U
127-18-4	Tetrachloroethene	6.4	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	6.4	U
106-93-4	1,2-Dibromoethane	6.4	U
108-90-7	Chlorobenzene	6.4	U
100-41-4	Ethylbenzene	6.4	U
179601-23-1	m,p-Xylene	6.4	U
95-47-6	o-Xylene	6.4	U
100-42-5	Styrene	6.4	U
75-25-2	Bromoform	6.4	U
98-82-8	Isopropylbenzene	6.4	U
79-34-5	1,1,2,2-Tetrachloroethane	6.4	U
541-73-1	1,3-Dichlorobenzene	6.4	U
106-46-7	1,4-Dichlorobenzene	6.4	U
95-50-1	1,2-Dichlorobenzene	6.4	U
96-12-8	1,2-Dibromo-3-chloropropane	6.4	U
120-82-1	1,2,4-Trichlorobenzene	6.4	U
87-61-6	1,2,3-Trichlorobenzene	6.4	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30T6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-02C

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2722.D

Level: (TRACE or LOW/MED) LOW Date Received: 10/28/2011

% Moisture: not dec. 22 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E96679[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\avogadro\organics\V5.I\111106.B\V5N2722.D
Report Date: 09-Nov-2011 07:59

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111106.B\V5N2722.D
Lab Smp Id: K2199-02C Client Smp ID: H30T6
Inj Date : 07-NOV-2011 08:50
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-02C,,62569
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111106.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 16:40 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 54
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.166	2.173	(0.343)	124132	38.8433	39
$ 80 Chloroethane-d5	69	2.596	2.603	(0.411)	92646	44.8193	45(Q)
$ 81 1,1-Dichloroethene-d2	65	3.362	3.369	(0.532)	28857	43.5362	44(Q)
$ 82 2-Butanone-d5	46	5.081	5.076	(0.804)	59531	66.7953	67
$ 83 Chloroform-d	84	5.383	5.390	(0.851)	188407	49.2091	49(Q)
$ 23 1,2-Dichloroethane-d4	65	5.894	5.901	(0.932)	106975	51.7651	52
$ 84 Benzene-d6	84	5.906	5.912	(0.626)	345805	51.5431	52
* 26 1,4-Difluorobenzene	114	6.324	6.319	(1.000)	335618	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.730	6.725	(0.713)	137821	49.7084	50
$ 94 1,4-Dioxane-d8	96	6.916	6.911	(1.094)	18994	965.661	970
$ 33 Toluene-d8	98	7.845	7.840	(0.831)	289659	46.7692	47
$ 86 trans-1,3-Dichloropropene-d4	79	8.124	8.119	(0.861)	101994	48.8589	49
$ 87 2-Hexanone-d5	63	8.588	8.572	(0.910)	27349	51.2711	51
* 42 Chlorobenzene-d5	117	9.436	9.431	(1.000)	253370	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.934	10.929	(1.159)	89598	49.3725	49
* 78 1,4-Dichlorobenzene-d4	152	12.177	12.172	(1.000)	85472	50.0000	
$ 90 1,2-Dichlorobenzene-d4	152	12.641	12.625	(1.038)	72933	45.6763	46(Q)

Data File: \\avogadro\organics\V5.I\111106.B\V5N2722.D
Report Date: 09-Nov-2011 07:59

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\V5.I\111106.B\V5N2722.D
Report Date: 09-Nov-2011 07:59

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111106.B\V5N2722.D
Lab Smp Id: K2199-02C Client Smp ID: H30T6
Inj Date : 07-NOV-2011 08:50
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-02C,,62569
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111106.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 16:40 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 54
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

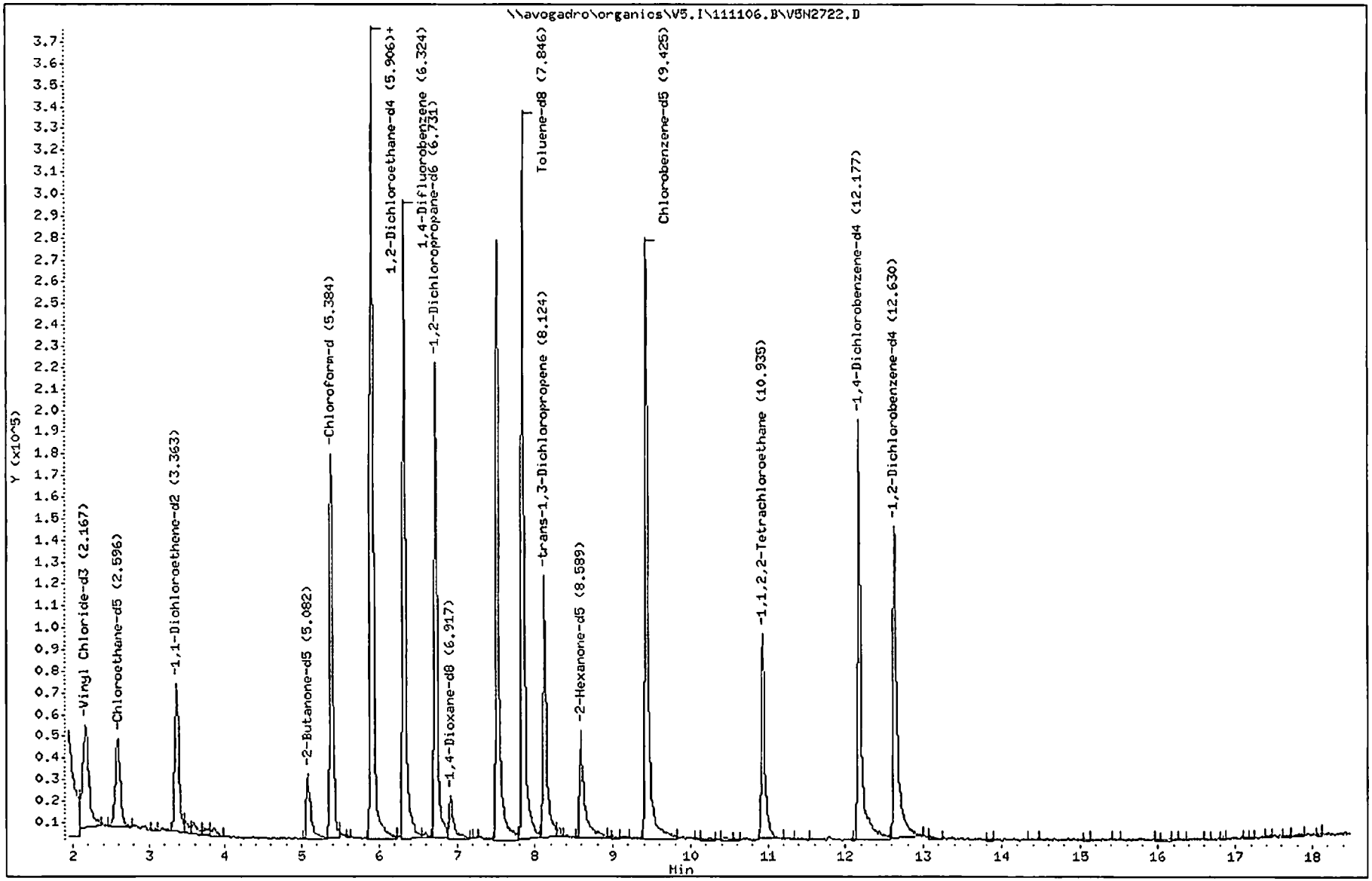
Data File: \\avogadro\organics\V5.I\111106.B\V5N2722.D
Date : 07-NOV-2011 08:50
Client ID: H30T6
Sample Info: 5C,K2199-02C,,62569

Instrument: V5.i

Operator: SRC: LIMS

Column phase: DB-624

Column diameter: 0.25



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30T7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-03C

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2723.D

Level: (TRACE/LOW/MED) LOW Date Received: 10/28/2011

% Moisture: not dec. 24 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	6.6	U
74-87-3	Chloromethane	6.6	U
75-01-4	Vinyl chloride	6.6	U
74-83-9	Bromomethane	6.6	U
75-00-3	Chloroethane	6.6	U
75-69-4	Trichlorofluoromethane	6.6	U
75-35-4	1,1-Dichloroethene	6.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.6	U
67-64-1	Acetone	13	U
75-15-0	Carbon disulfide	6.6	U
79-20-9	Methyl acetate	6.6	U
75-09-2	Methylene chloride	6.6	U
156-60-5	trans-1,2-Dichloroethene	6.6	U
1634-04-4	Methyl tert-butyl ether	6.6	U
75-34-3	1,1-Dichloroethane	6.6	U
156-59-2	cis-1,2-Dichloroethene	6.6	U
78-93-3	2-Butanone	13	U
74-97-5	Bromochloromethane	6.6	U
67-66-3	Chloroform	6.6	U
71-55-6	1,1,1-Trichloroethane	6.6	U
110-82-7	Cyclohexane	6.6	U
56-23-5	Carbon tetrachloride	6.6	U
71-43-2	Benzene	6.6	U
107-06-2	1,2-Dichloroethane	6.6	U
123-91-1	1,4-Dioxane	130	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30T7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-03C

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2723.D

Level: (TRACE/LOW/MED) LOW Date Received: 10/28/2011

% Moisture: not dec. 24 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	6.6	U
108-87-2	Methylcyclohexane	6.6	U
78-87-5	1,2-Dichloropropane	6.6	U
75-27-4	Bromodichloromethane	6.6	U
10061-01-5	cis-1,3-Dichloropropene	6.6	U
108-10-1	4-Methyl-2-pentanone	13	U
108-88-3	Toluene	6.6	U
10061-02-6	trans-1,3-Dichloropropene	6.6	U
79-00-5	1,1,2-Trichloroethane	6.6	U
127-18-4	Tetrachloroethene	6.6	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	6.6	U
106-93-4	1,2-Dibromoethane	6.6	U
108-90-7	Chlorobenzene	6.6	U
100-41-4	Ethylbenzene	6.6	U
179601-23-1	m,p-Xylene	6.6	U
95-47-6	o-Xylene	6.6	U
100-42-5	Styrene	6.6	U
75-25-2	Bromoform	6.6	U
98-82-8	Isopropylbenzene	6.6	U
79-34-5	1,1,2,2-Tetrachloroethane	6.6	U
541-73-1	1,3-Dichlorobenzene	6.6	U
106-46-7	1,4-Dichlorobenzene	6.6	U
95-50-1	1,2-Dichlorobenzene	6.6	U
96-12-8	1,2-Dibromo-3-chloropropane	6.6	U
120-82-1	1,2,4-Trichlorobenzene	6.6	U
87-61-6	1,2,3-Trichlorobenzene	6.6	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H30T7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-03C

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2723.D

Level: (TRACE or LOW/MED) LOW Date Received: 10/28/2011

% Moisture: not dec. 24 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

Data File: \\avogadro\organics\V5.I\111106.B\V5N2723.D
Report Date: 09-Nov-2011 07:59

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111106.B\V5N2723.D
Lab Smp Id: K2199-03C Client Smp ID: H30T7
Inj Date : 07-NOV-2011 09:17
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-03C,,62569
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111106.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 16:40 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 55
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.168	2.173	(0.343)	131260	40.9028	41
$ 80 Chloroethane-d5	69	2.586	2.603	(0.410)	94959	45.7471	46(Q)
$ 81 1,1-Dichloroethene-d2	65	3.352	3.369	(0.531)	28616	42.9928	43(Q)
$ 82 2-Butanone-d5	46	5.071	5.076	(0.803)	56462	63.0881	63
$ 83 Chloroform-d	84	5.385	5.390	(0.853)	183799	47.8057	48(Q)
$ 23 1,2-Dichloroethane-d4	65	5.896	5.901	(0.934)	102939	49.6047	50(Q)
$ 84 Benzene-d6	84	5.907	5.912	(0.627)	341966	49.4776	49
* 26 1,4-Difluorobenzene	114	6.314	6.319	(1.000)	337021	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.720	6.725	(0.713)	132394	46.3521	46
$ 94 1,4-Dioxane-d8	96	6.918	6.911	(1.096)	20330	1029.28	1000
$ 33 Toluene-d8	98	7.835	7.840	(0.831)	296355	46.4485	46
$ 86 trans-1,3-Dichloropropene-d4	79	8.125	8.119	(0.862)	99042	46.0548	46
$ 87 2-Hexanone-d5	63	8.590	8.572	(0.911)	30365	55.2574	55
* 42 Chlorobenzene-d5	117	9.426	9.431	(1.000)	261017	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.936	10.929	(1.160)	84358	45.1231	45
* 78 1,4-Dichlorobenzene-d4	152	12.178	12.172	(1.000)	92065	50.0000	
$ 90 1,2-Dichlorobenzene-d4	152	12.631	12.625	(1.037)	82961	48.2358	48(Q)

Data File: \\avogadro\organics\V5.I\111106.B\V5N2723.D
Report Date: 09-Nov-2011 07:59

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\V5.I\111106.B\V5N2723.D
Report Date: 09-Nov-2011 07:59

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111106.B\V5N2723.D
Lab Smp Id: K2199-03C Client Smp ID: H30T7
Inj Date : 07-NOV-2011 09:17
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-03C,,62569
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111106.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 16:40 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 55
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

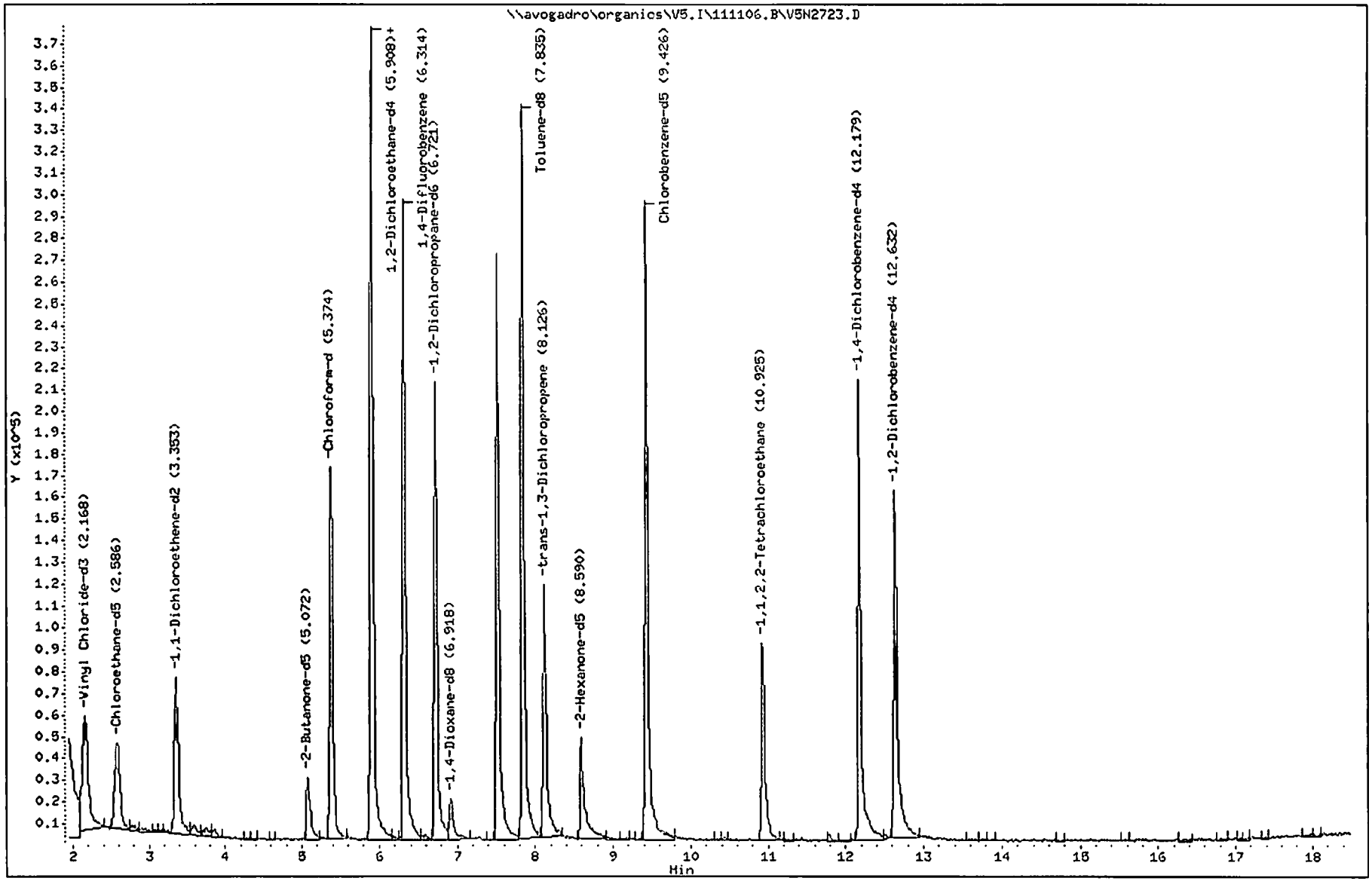
Data File: \\avogadro\organics\V5.I\111106.B\V5N2723.D
Date : 07-NOV-2011 09:17
Client ID: H30T7
Sample Info: 5C,K2199-03C,,62569

Instrument: V5.i

Operator: SRC: LIMS

Column phase: DB-624

Column diameter: 0.25



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30T8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-17B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V5N2747.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 43 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	8.5	U
74-87-3	Chloromethane	8.5	U
75-01-4	Vinyl chloride	8.5	U
74-83-9	Bromomethane	8.5	U
75-00-3	Chloroethane	8.5	U
75-69-4	Trichlorofluoromethane	8.5	U
75-35-4	1,1-Dichloroethene	8.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	8.5	U
67-64-1	Acetone	17	U
75-15-0	Carbon disulfide	8.5	U
79-20-9	Methyl acetate	8.5	U
75-09-2	Methylene chloride	8.5	U
156-60-5	trans-1,2-Dichloroethene	8.5	U
1634-04-4	Methyl tert-butyl ether	8.5	U
75-34-3	1,1-Dichloroethane	8.5	U
156-59-2	cis-1,2-Dichloroethene	8.5	U
78-93-3	2-Butanone	17	U
74-97-5	Bromochloromethane	8.5	U
67-66-3	Chloroform	8.5	U
71-55-6	1,1,1-Trichloroethane	8.5	U
110-82-7	Cyclohexane	8.5	U
56-23-5	Carbon tetrachloride	8.5	U
71-43-2	Benzene	8.5	U
107-06-2	1,2-Dichloroethane	8.5	U
123-91-1	1,4-Dioxane	170	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30T8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-17B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V5N2747.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 43 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	8.5	U
108-87-2	Methylcyclohexane	8.5	U
78-87-5	1,2-Dichloropropane	8.5	U
75-27-4	Bromodichloromethane	8.5	U
10061-01-5	cis-1,3-Dichloropropene	8.5	U
108-10-1	4-Methyl-2-pentanone	17	U
108-88-3	Toluene	8.5	U
10061-02-6	trans-1,3-Dichloropropene	8.5	U
79-00-5	1,1,2-Trichloroethane	8.5	U
127-18-4	Tetrachloroethene	8.5	U
591-78-6	2-Hexanone	17	U
124-48-1	Dibromochloromethane	8.5	U
106-93-4	1,2-Dibromoethane	8.5	U
108-90-7	Chlorobenzene	8.5	U
100-41-4	Ethylbenzene	8.5	U
179601-23-1	m,p-Xylene	8.5	U
95-47-6	o-Xylene	8.5	U
100-42-5	Styrene	8.5	U
75-25-2	Bromoform	8.5	U
98-82-8	Isopropylbenzene	8.5	U
79-34-5	1,1,2,2-Tetrachloroethane	8.5	U
541-73-1	1,3-Dichlorobenzene	8.5	U
106-46-7	1,4-Dichlorobenzene	8.5	U
95-50-1	1,2-Dichlorobenzene	8.5	U
96-12-8	1,2-Dibromo-3-chloropropane	8.5	U
120-82-1	1,2,4-Trichlorobenzene	8.5	U
87-61-6	1,2,3-Trichlorobenzene	8.5	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30T8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-17B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V5N2747.D

Level: (TRACE or LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 43 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	500-00-5	Cyclohexene, 4-methyl-1-(1-m	11.297	15	NJ
02	5256-65-5	Cyclohexene, 3-methyl-6-(1-m	11.390	35	NJ
03	5256-65-5	Cyclohexene, 3-methyl-6-(1-m	11.645	16	NJ
04	1195-31-9	Cyclohexene, 1-methyl-4-(1-m	11.936	9.7	NJ
05	1124-27-2	Cyclohexane, 1-methyl-4-(1-m	12.029	37	NJ
06	527-84-4	Benzene, 1-methyl-2-(1-methy	12.121	1300	NJ
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2747.D
Report Date: 09-Nov-2011 08:01

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2747.D
Lab Smp Id: K2199-17B Client Smp ID: H30T8
Inj Date : 07-NOV-2011 20:38
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-17B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.100	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.157	2.168	(0.341)	154742	45.9191	45
$ 80 Chloroethane-d5	69	2.587	2.597	(0.409)	112844	51.7690	51(Q)
$ 81 1,1-Dichloroethene-d2	65	3.353	3.364	(0.530)	33154	47.4337	47(Q)
$ 82 2-Butanone-d5	46	5.072	5.071	(0.802)	47406	50.4415	49
$ 83 Chloroform-d	84	5.385	5.385	(0.851)	208607	51.6689	51(Q)
$ 23 1,2-Dichloroethane-d4	65	5.896	5.896	(0.932)	120847	55.4553	54(Q)
$ 84 Benzene-d6	84	5.908	5.907	(0.626)	373810	65.3999	64(R)
* 26 1,4-Difluorobenzene	114	6.326	6.325	(1.000)	353910	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.733	6.732	(0.713)	147474	62.4334	61(R)
$ 94 1,4-Dioxane-d8	96	6.918	6.917	(1.094)	26859	1294.94	1300
$ 33 Toluene-d8	98	7.847	7.835	(0.831)	285554	54.1189	53
$ 86 trans-1,3-Dichloropropene-d4	79	8.126	8.114	(0.861)	103335	58.1037	57
$ 87 2-Hexanone-d5	63	8.602	8.578	(0.911)	19678	43.3011	42(Q)
* 42 Chlorobenzene-d5	117	9.438	9.426	(1.000)	215858	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.925	10.924	(1.157)	80756	52.2334	51
* 78 1,4-Dichlorobenzene-d4	152	12.179	12.167	(1.000)	51577	50.0000	(Q)
$ 90 1,2-Dichlorobenzene-d4	152	12.644	12.631	(1.038)	42331	43.9332	43(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2747.D
Report Date: 09-Nov-2011 08:01

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2747.D
Report Date: 09-Nov-2011 08:01

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2747.D
Lab Smp Id: K2199-17B Client Smp ID: H30T8
Inj Date : 07-NOV-2011 20:38
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-17B,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.100	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 42 Chlorobenzene-d5	9.439	648834	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Cyclohexene, 4-methyl-1-(1-methylethyl)-				CAS #: 500-00-5			
11.297	112599	8.67700075	8.5	91	NIST2002.L	16382	42
Cyclohexene, 3-methyl-6-(1-methylethyl)-				CAS #: 5256-65-5			
11.390	262816	20.2529576	20	96	NIST2002.L	16375	42
Cyclohexene, 3-methyl-6-(1-methylethyl)-				CAS #: 5256-65-5			
11.645	123246	9.49750036	9.3	90	NIST2002.L	16375	42
Cyclohexene, 1-methyl-4-(1-methylethyl)-				CAS #: 1195-31-9			
11.936	73760	5.68402239	5.6	87	NIST2002.L	16395	42
Cyclohexane, 1-methyl-4-(1-methylethylid				CAS #: 1124-27-2			
12.029	279772	21.5595599	21	94	NIST2002.L	16389	42

Data File: \\avogadro\organics\V5.I\111107.B\V5N2747.D
Report Date: 09-Nov-2011 08:01

RT	AREA	CONCENTRATIONS ON-COL(ug/L)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Benzene, 1-methyl-2-(1-methylethyl)-					CAS #: 527-84-4		
12.122	10231669	788.465556	770	96	NIST2002.L	14395	42

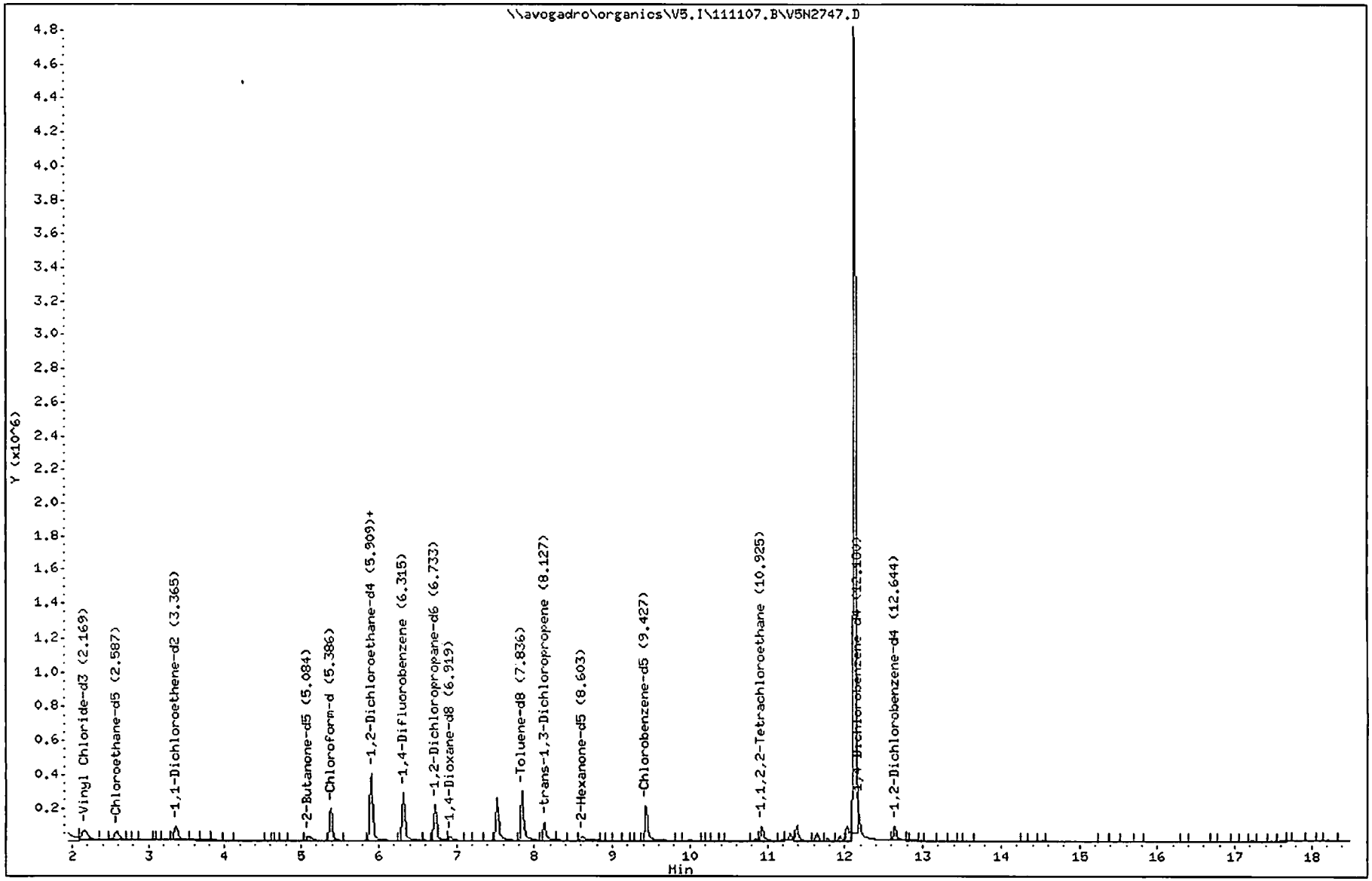
Data File: \\avogadro\organics\V5.I\111107.B\V5N2747.D
Date : 07-NOV-2011 20:38
Client ID: H30T8
Sample Info: 5G,K2199-17B,,62780

Instrument: V5.i

Operator: SRC: LIMS

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2747.D

Date : 07-NOV-2011 20:38

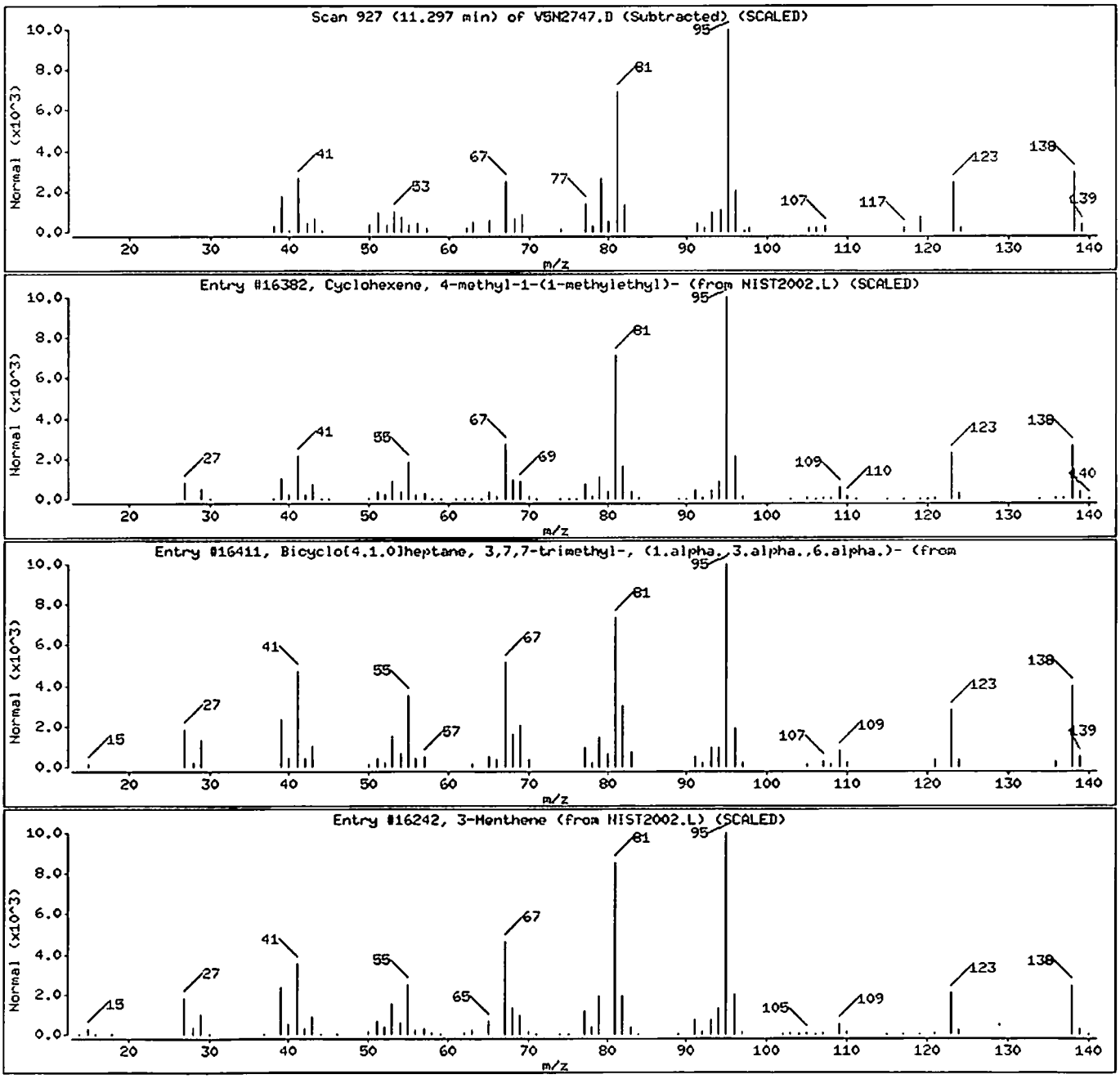
Client ID: H30T8 Instrument: V5.i

Sample Info: SG,K2199-17B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 4-methyl-1-(1-methylethyl)-	500-00-5	NIST2002.L	16382	91	C10H18	138
Bicyclo[4.1.0]heptane, 3,7,7-trimethyl-,	18968-23-5	NIST2002.L	16411	87	C10H18	138
3-Menthene	1000118-83-1	NIST2002.L	16242	87	C10H18	138



Data File: \\avogadro\organics\V5.I\111107.B\V5N2747.D

Date : 07-NOV-2011 20:38

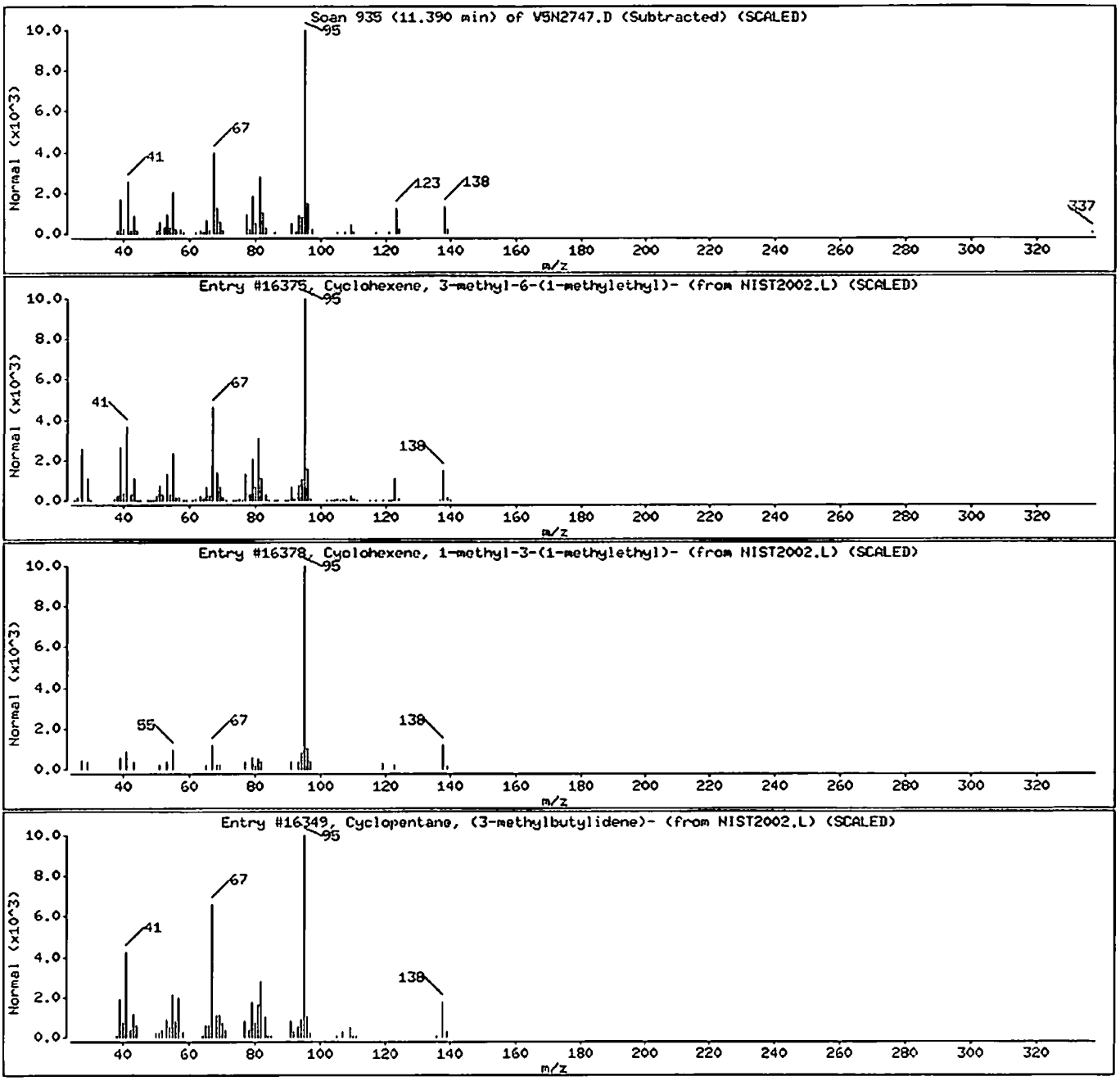
Client ID: H30T8 Instrument: V5.i

Sample Info: SC,K2199-17B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16375	96	C10H18	138
Cyclohexene, 1-methyl-3-(1-methylethyl)-	13828-31-4	NIST2002.L	16378	87	C10H18	138
Cyclopentane, (3-methylbutylidene)-	53366-51-1	NIST2002.L	16349	86	C10H18	138



Data File: \\avogadro\organics\V5.I\111107.B\V5N2747.D

Date : 07-NOV-2011 20:38

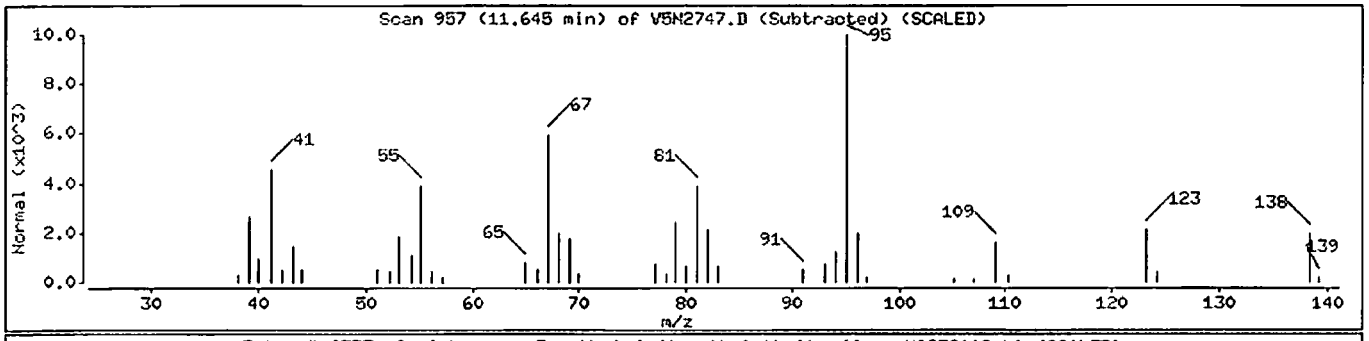
Client ID: H30T8 Instrument: V5.i

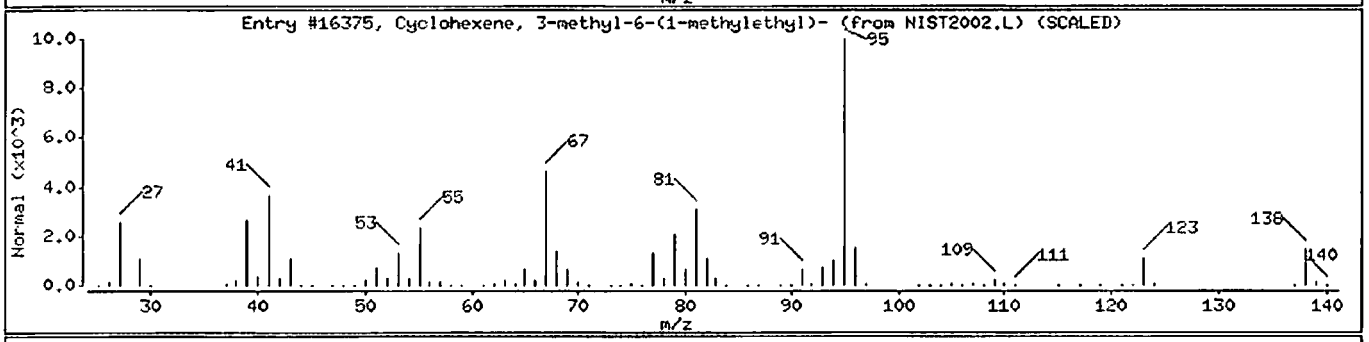
Sample Info: 5C,K2199-17B,,62780

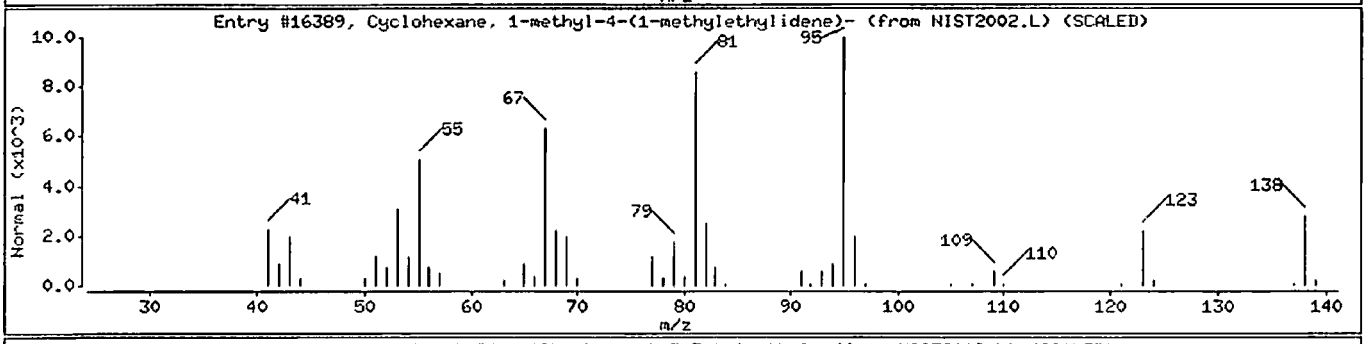
Operator: SRC: LIMS

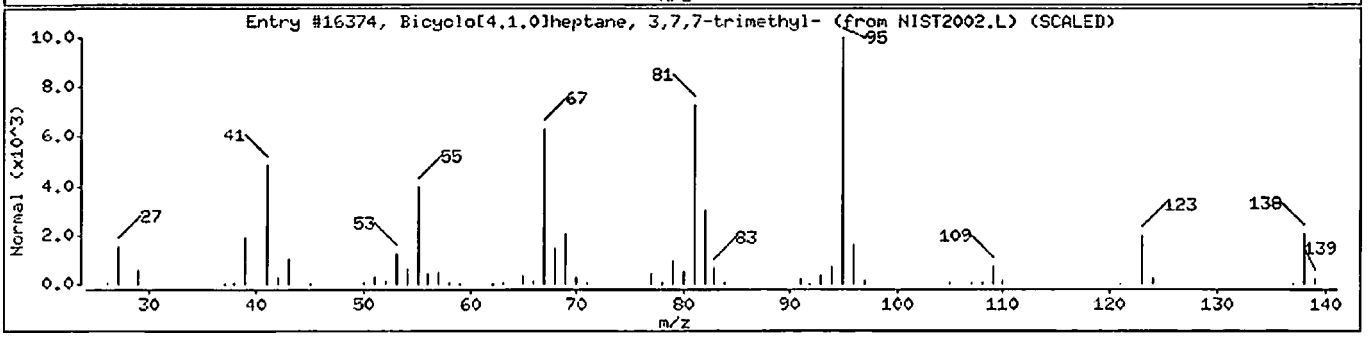
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 3-methyl-6-(1-methylethyl)-	5256-65-5	NIST2002.L	16375	90	C10H18	138
Cyclohexane, 1-methyl-4-(1-methylethylid	1124-27-2	NIST2002.L	16389	90	C10H18	138
Bicyclo[4.1.0]heptane, 3,7,7-trimethyl-	554-59-6	NIST2002.L	16374	87	C10H18	138









Data File: \\avogadro\organics\V5.I\111107.B\V5N2747.D

Date : 07-NOV-2011 20:38

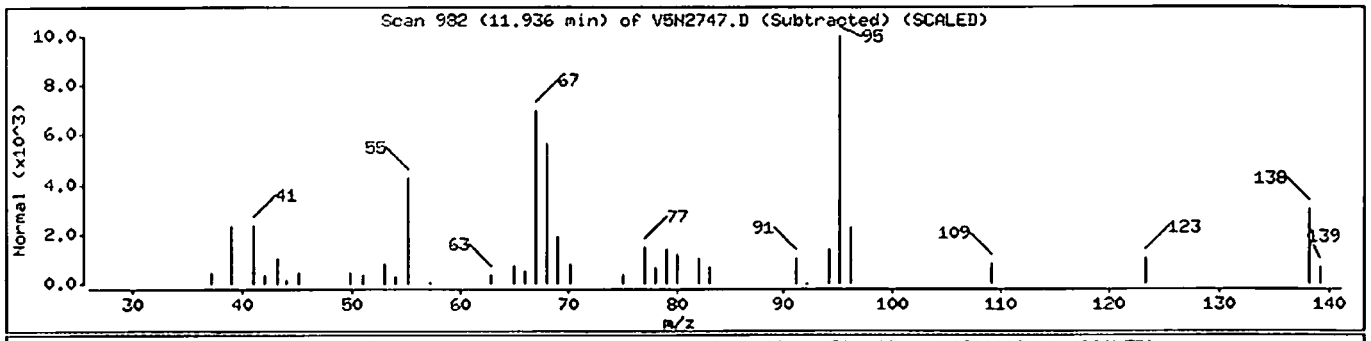
Client ID: H30T8 Instrument: V5.i

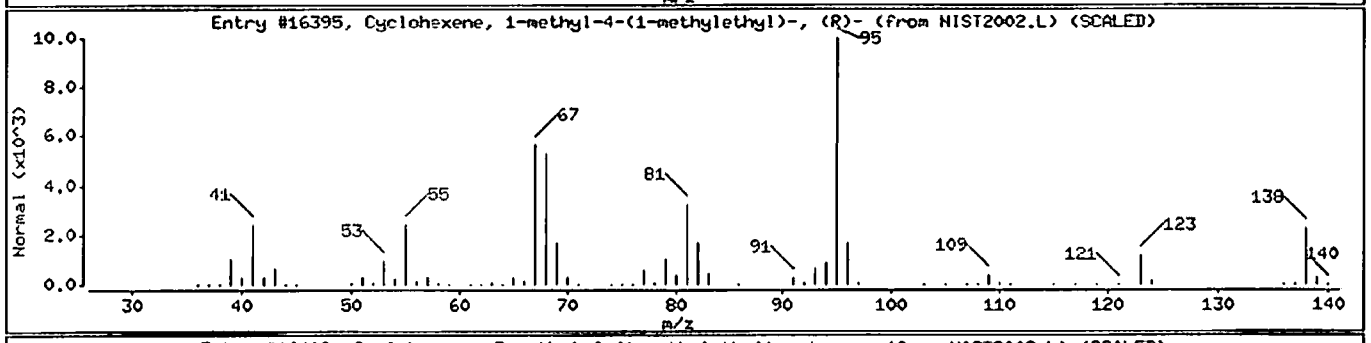
Sample Info: 5C,K2199-17B,,62780

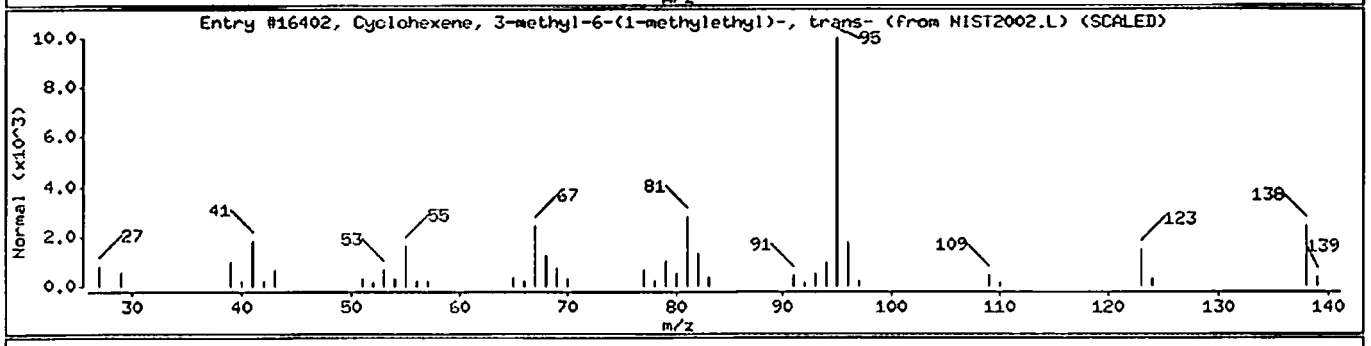
Operator: SRC: LIHS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 1-methyl-4-(1-methylethyl)-	1195-31-9	NIST2002.L	16395	87	C10H18	138
Cyclohexene, 3-methyl-6-(1-methylethyl)-	1124-26-1	NIST2002.L	16402	87	C10H18	138







Data File: \\avogadro\organics\V5.I\111107.B\V5N2747.D

Date : 07-NOV-2011 20:38

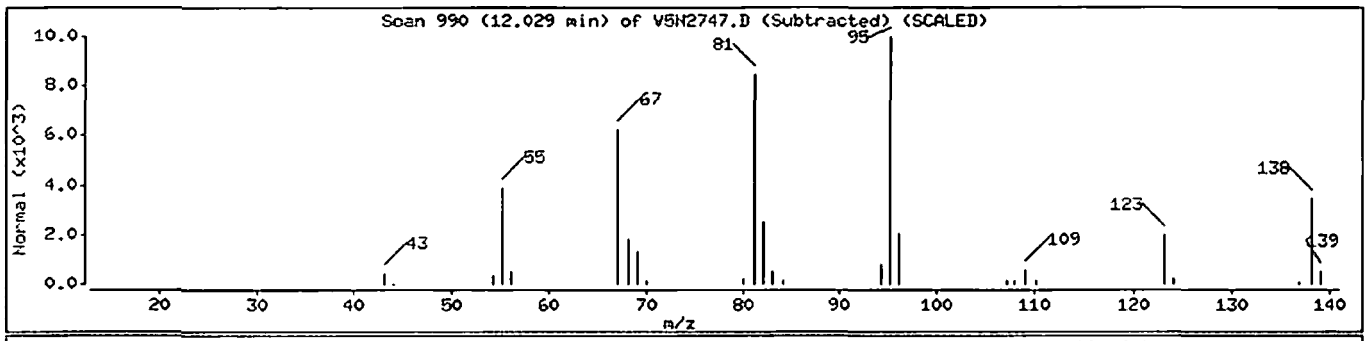
Client ID: H30T8 Instrument: V5.i

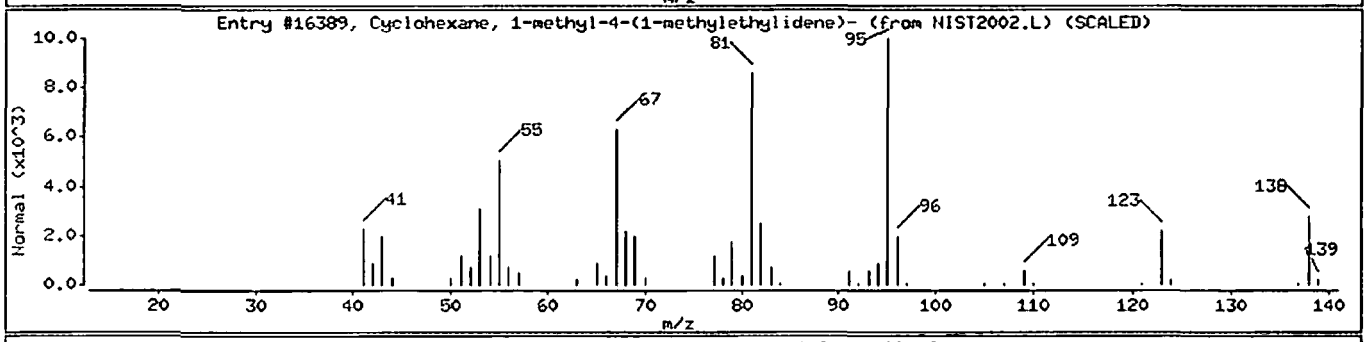
Sample Info: 5G,K2199-17B,,62780

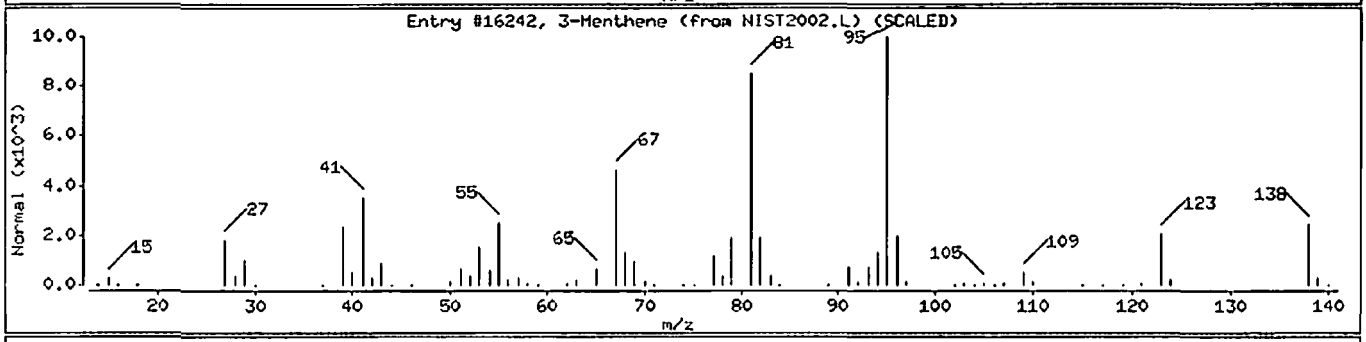
Operator: SRC: LIMS

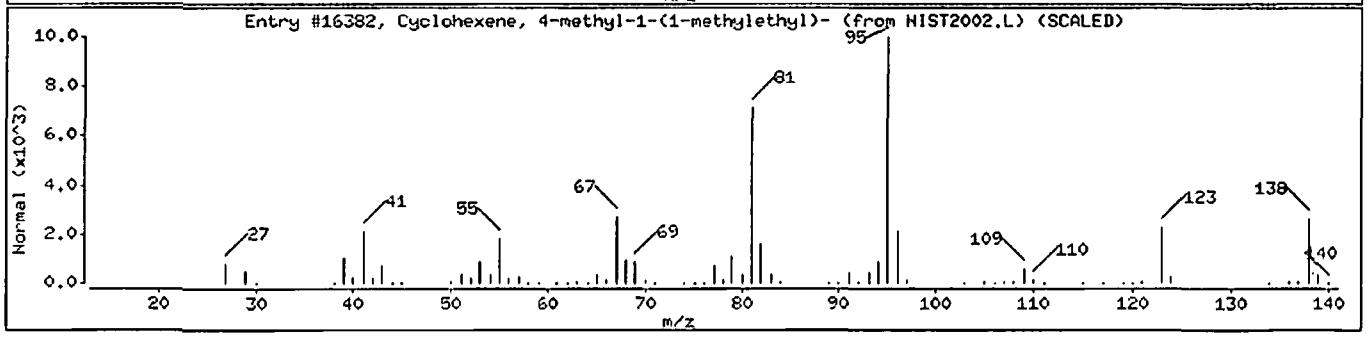
Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, 1-methyl-4-(1-methylethylid	1124-27-2	NIST2002.L	16389	94	C10H18	138
3-Henthene	1000118-83-1	NIST2002.L	16242	94	C10H18	138
Cyclohexene, 4-methyl-1-(1-methylethyl)-	500-00-5	NIST2002.L	16382	94	C10H18	138









Data File: \\avogadro\organics\V5.I\111107.B\V5N2747.D

Date : 07-NOV-2011 20:38

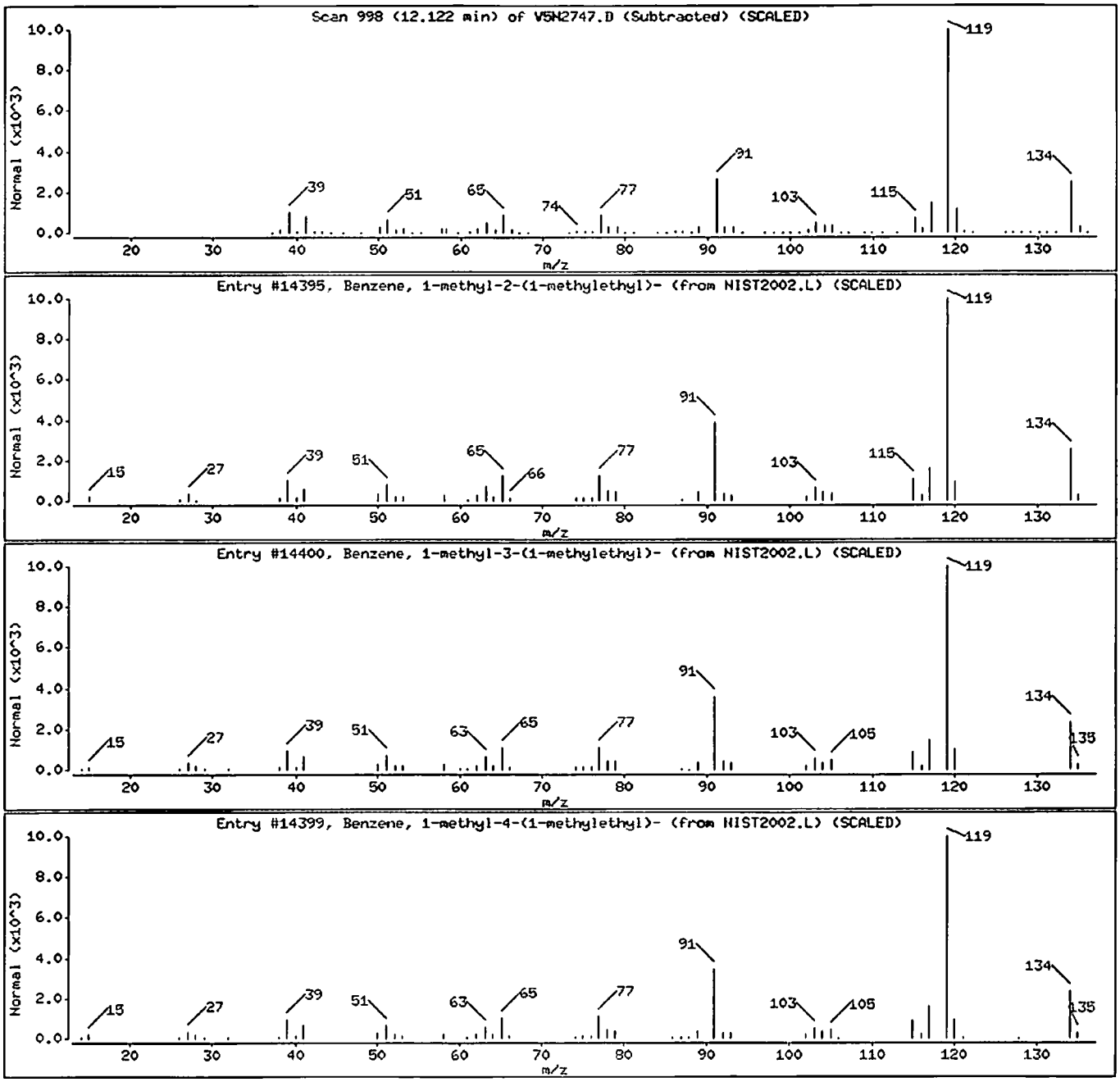
Client ID: H30T8 Instrument: V5.i

Sample Info: 5G,K2199-17B,,62780

Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	96	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	96	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	95	C10H14	134



6A - FORM VI VOA-1

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Instrument ID: V5 Calibration Date(s): 10/04/2011 10/04/2011

Heated Purge: (Y/N) Y Calibration Time(s): 17:11 19:04

Purge Volume: 10.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V5N1312.D RRF010 = V5N1315.D

RRF050 = V5N1311.D RRF100 = V5N1314.D RRF200 = V5N1313.D

COMPOUND	RRF005	RRF010	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Dichlorodifluoromethane	0.574	0.603	0.504	0.558	0.541	0.556	6.7
Chloromethane	0.810	0.842	0.730	0.768	0.734	0.777	6.3
Vinyl chloride	0.602	0.589	0.513	0.547	0.521	0.554	7.2
Bromomethane	0.391	0.388	0.322	0.346	0.320	0.353	9.8
Chloroethane	0.325	0.301	0.264	0.274	0.256	0.284	10.0
Trichlorofluoromethane	0.660	0.636	0.581	0.650	0.614	0.628	5.0
1,1-Dichloroethene	0.356	0.368	0.339	0.359	0.343	0.353	3.4
1,1,2-Trichloro-1,2,2-trifluoroethane	0.456	0.437	0.389	0.424	0.400	0.421	6.5
Acetone	0.130	0.106	0.073	0.075	0.072	0.091	28.5
Carbon disulfide	1.709	1.628	1.315	1.422	1.344	1.484	11.8
Methyl acetate	0.268	0.279	0.223	0.227	0.193	0.238	14.8
Methylene chloride	0.419	0.422	0.361	0.379	0.358	0.388	8.0
trans-1,2-Dichloroethene	0.381	0.387	0.357	0.372	0.356	0.370	3.8
Methyl tert-butyl ether	0.720	0.828	0.649	0.652	0.607	0.691	12.5
1,1-Dichloroethane	0.712	0.733	0.647	0.694	0.658	0.689	5.2
cis-1,2-Dichloroethene	0.369	0.394	0.348	0.364	0.342	0.363	5.6
2-Butanone	0.137	0.157	0.127	0.130	0.115	0.133	11.6
Bromochloromethane	0.191	0.197	0.165	0.174	0.166	0.179	8.1
Chloroform	0.774	0.711	0.581	0.582	0.537	0.637	15.8
1,1,1-Trichloroethane	0.598	0.609	0.584	0.601	0.547	0.588	4.2
Cyclohexane	0.858	0.832	0.788	0.818	0.742	0.808	5.5
Carbon tetrachloride	0.564	0.544	0.547	0.570	0.512	0.547	4.2
Benzene	1.526	1.559	1.417	1.429	1.316	1.449	6.7
1,2-Dichloroethane	0.384	0.407	0.323	0.343	0.338	0.359	9.8
1,4-Dioxane	0.002	0.003	0.002	0.003	0.003	0.003	10.4
Trichloroethene	0.409	0.422	0.428	0.442	0.402	0.420	3.8
Methylcyclohexane	0.740	0.766	0.708	0.761	0.714	0.738	3.6

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

6B - FORM VI VOA-2

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Instrument ID: V5 Calibration Date(s): 10/04/2011 10/04/2011

Heated Purge: (Y/N) Y Calibration Time(s): 17:11 19:04

Purge Volume: 10.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V5N1312.D RRF010 = V5N1315.D

RRF050 = V5N1311.D RRF100 = V5N1314.D RRF200 = V5N1313.D

COMPOUND	RRF005	RRF010	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
1,2-Dichloropropane	0.476	0.463	0.444	0.429	0.389	0.440	7.6
Bromodichloromethane	0.481	0.518	0.499	0.499	0.459	0.491	4.5
cis-1,3-Dichloropropene	0.582	0.647	0.584	0.577	0.535	0.585	6.9
4-Methyl-2-pentanone	0.485	0.473	0.333	0.356	0.294	0.388	22.1
Toluene	1.449	1.563	1.410	1.452	1.284	1.432	7.0
trans-1,3-Dichloropropene	0.484	0.504	0.455	0.450	0.417	0.462	7.2
1,1,2-Trichloroethane	0.300	0.320	0.284	0.283	0.253	0.288	8.5
Tetrachloroethene	0.317	0.298	0.307	0.324	0.293	0.308	4.2
2-Hexanone	0.404	0.431	0.201	0.262	0.192	0.298	37.9
Dibromochloromethane	0.411	0.390	0.365	0.380	0.355	0.380	5.8
1,2-Dibromoethane	0.319	0.306	0.308	0.313	0.297	0.309	2.6
Chlorobenzene	0.971	1.046	0.964	1.008	0.932	0.984	4.5
Ethylbenzene	1.531	1.601	1.544	1.578	1.437	1.538	4.1
m,p-Xylene	0.616	0.696	0.644	0.660	0.605	0.644	5.6
o-Xylene	0.636	0.637	0.598	0.621	0.588	0.616	3.6
Styrene	1.010	1.025	0.995	1.041	0.977	1.010	2.5
Bromoform	0.494	0.542	0.519	0.532	0.474	0.512	5.5
Isopropylbenzene	1.575	1.604	1.581	1.628	1.474	1.572	3.7
1,1,2,2-Tetrachloroethane	0.351	0.402	0.332	0.329	0.292	0.341	11.8
1,3-Dichlorobenzene	1.336	1.456	1.468	1.558	1.440	1.452	5.5
1,4-Dichlorobenzene	1.894	1.820	1.613	1.662	1.498	1.697	9.4
1,2-Dichlorobenzene	1.486	1.560	1.372	1.410	1.305	1.427	7.0
1,2-Dibromo-3-chloropropane	0.105	0.096	0.099	0.106	0.098	0.101	4.3
1,2,4-Trichlorobenzene	1.017	1.287	0.966	1.064	1.014	1.070	11.8
1,2,3-Trichlorobenzene	0.916	1.217	0.824	0.907	0.813	0.935	17.6

6C - FORM VI VOA-3

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Instrument ID: V5 Calibration Date(s): 10/04/2011 10/04/2011

Heated Purge: (Y/N) Y Calibration Time(s): 17:11 19:04

Purge Volume: 10.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V5N1312.D RRF010 = V5N1315.D

RRF050 = V5N1311.D RRF100 = V5N1314.D RRF200 = V5N1313.D

COMPOUND	RRF005	RRF010	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Vinyl chloride-d3	0.510	0.524	0.450	0.435	0.462	0.476	8.2
Chloroethane-d5	0.305	0.334	0.314	0.289	0.299	0.308	5.5
1,1-Dichloroethene-d2	0.111	0.092	0.096	0.095	0.100	0.099	7.4
2-Butanone-d5	0.132	0.155	0.131	0.125	0.122	0.133	9.8
Chloroform-d	0.585	0.606	0.573	0.542	0.547	0.570	4.7
1,2-Dichloroethane-d4	0.364	0.353	0.284	0.282	0.256	0.308	15.6
Benzene-d6	1.345	1.432	1.359	1.249	1.235	1.324	6.2
1,2-Dichloropropane-d6	0.563	0.583	0.555	0.527	0.508	0.547	5.4
Toluene-d8	1.256	1.288	1.253	1.175	1.139	1.222	5.1
trans-1,3-Dichloropropene-d4	0.386	0.454	0.423	0.412	0.385	0.412	6.9
2-Hexanone-d5	0.099	0.146	0.093	0.102	0.086	0.105	22.7
1,4-Dioxane-d8	0.003	0.003	0.003	0.003	0.003	0.003	6.8
1,1,2,2-Tetrachloroethane-d2	0.351	0.430	0.363	0.341	0.306	0.358	12.7
1,2-Dichlorobenzene-d4	0.973	1.044	0.915	0.880	0.859	0.934	8.0

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SOM01.2 (6/2007)

Data File: \\avogadro\organics\V5.I\111004A.B\V5N1311.D
Report Date: 13-Oct-2011 08:46

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111004A.B\V5N1311.D
Lab Smp Id: VSTD0505N Client Smp ID: VSTD0505N
Inj Date : 04-OCT-2011 17:11
Operator : SRC: Inst ID: V5.i
Smp Info : 5G,VSTD0505N,VSTD0505N
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111004A.B\V5_SOM_S.m
Meth Date : 12-Oct-2011 14:03 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:11 Cal File: V5N1311.D
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.906	1.894	(0.301)	299975	50.0000	45
2 Chloromethane	50	2.045	2.045	(0.323)	434369	50.0000	47
$ 79 Vinyl Chloride-d3	65	2.184	2.173	(0.345)	267768	50.0000	47
3 Vinyl Chloride	62	2.184	2.184	(0.345)	305183	50.0000	46
4 Bromomethane	94	2.533	2.509	(0.400)	191561	50.0000	46
$ 80 Chloroethane-d5	69	2.603	2.579	(0.411)	186785	50.0000	51
5 Chloroethane	64	2.626	2.614	(0.415)	157360	50.0000	47
6 Trichlorofluoromethane	101	2.893	2.904	(0.457)	345935	50.0000	46
$ 81 1,1-Dichloroethene-d2	65	3.369	3.369	(0.532)	57374	50.0000	49(Q)
7 1,1-Dichloroethene	96	3.381	3.380	(0.534)	202080	50.0000	48
8 1,1,2-Trichloro-1,2,2-trifluo	101	3.427	3.415	(0.541)	231466	50.0000	46
9 Acetone	43	3.462	3.450	(0.547)	86530	100.000	80
10 Carbon Disulfide	76	3.601	3.624	(0.569)	783033	50.0000	44
11 Methyl Acetate	43	3.775	3.764	(0.596)	132570	50.0000	47
12 Methylene Chloride	84	3.868	3.868	(0.611)	214752	50.0000	46
13 trans-1,2-Dichloroethene	96	4.124	4.124	(0.651)	212294	50.0000	48
14 Methyl tert-Butyl Ether	73	4.147	4.135	(0.655)	386323	50.0000	47
15 1,1-Dichloroethane	63	4.542	4.530	(0.718)	385424	50.0000	47
$ 82 2-Butanone-d5	46	5.076	5.064	(0.802)	155603	100.000	98
17 cis-1,2-Dichloroethene	96	5.111	5.099	(0.807)	207212	50.0000	48
16 2-Butanone	43	5.134	5.122	(0.811)	150755	100.000	95

Data File: \\avogadro\organics\V5.I\111004A.B\V5N1311.D
Report Date: 13-Oct-2011 08:46

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	18 Bromochloromethane	128	5.343	5.331	(0.844)	98217	50.0000	46
$	83 Chloroform-d	84	5.390	5.389	(0.851)	340968	50.0000	50
	19 Chloroform	83	5.413	5.401	(0.855)	345949	50.0000	46
	20 1,1,1-Trichloroethane	97	5.599	5.587	(0.594)	274755	50.0000	50
	21 Cyclohexane	56	5.645	5.645	(0.599)	370484	50.0000	49
	22 Carbon Tetrachloride	117	5.761	5.749	(0.611)	257413	50.0000	50
$	23 1,2-Dichloroethane-d4	65	5.901	5.900	(0.932)	168991	50.0000	46
$	84 Benzene-d6	84	5.924	5.912	(0.628)	639092	50.0000	51
	25 Benzene	78	5.959	5.959	(0.632)	666384	50.0000	49
	24 1,2-Dichloroethane	62	5.982	5.970	(0.945)	192340	50.0000	45
•	26 1,4-Difluorobenzene	114	6.330	6.319	(1.000)	595316	50.0000	
	27 Trichloroethene	95	6.597	6.586	(0.700)	201361	50.0000	51
$	85 1,2-Dichloropropane-d6	67	6.737	6.737	(0.714)	260951	50.0000	51
	28 Methylcyclohexane	83	6.783	6.783	(0.719)	332791	50.0000	48
	29 1,2-Dichloropropane	63	6.830	6.818	(0.724)	208689	50.0000	50
$	94 1,4-Dioxane-d8	96	6.923	6.911	(1.094)	35285	1000.00	1000
	93 1,4-Dioxane	88	6.981	6.969	(1.103)	27387	1000.00	870
	30 Bromodichloromethane	83	7.097	7.097	(0.753)	234761	50.0000	51
	31 cis-1,3-Dichloropropene	75	7.561	7.561	(0.802)	274880	50.0000	50
	32 4-Methyl-2-Pentanone	43	7.736	7.724	(0.820)	313590	100.000	86
$	33 Toluene-d8	98	7.852	7.840	(0.833)	589525	50.0000	51
	34 Toluene	91	7.921	7.909	(0.840)	663306	50.0000	49
$	86 trans-1,3-Dichloropropene-d4	79	8.119	8.119	(0.861)	198900	50.0000	51
	35 trans-1,3-Dichloropropene	75	8.154	8.153	(0.865)	213829	50.0000	49
	36 1,1,2-Trichloroethane	97	8.351	8.351	(0.885)	133364	50.0000	49
	37 Tetrachloroethene	164	8.502	8.502	(0.901)	144333	50.0000	50
$	87 2-Hexanone-d5	63	8.583	8.571	(0.910)	87637	100.000	88(Q)
	38 2-Hexanone	43	8.630	8.618	(0.915)	188779	100.000	67
	39 Dibromochloromethane	129	8.792	8.780	(0.932)	171460	50.0000	48
	40 1,2-Dibromoethane	107	8.920	8.920	(0.946)	145099	50.0000	50
•	42 Chlorobenzene-d5	117	9.431	9.431	(1.000)	470363	50.0000	
	43 Chlorobenzene	112	9.466	9.466	(1.004)	453579	50.0000	49
	44 Ethylbenzene	91	9.582	9.582	(1.016)	726171	50.0000	50
	45 m,p-Xylene	106	9.721	9.710	(1.031)	302904	50.0000	50
	46 o-Xylene	106	10.174	10.174	(1.079)	281051	50.0000	49
	47 Styrene	104	10.198	10.186	(1.081)	468215	50.0000	49
	48 Bromoform	173	10.418	10.418	(0.856)	104737	50.0000	51
	49 Isopropylbenzene	105	10.604	10.604	(1.124)	743678	50.0000	50
$	89 1,1,2,2-Tetrachloroethane-d2	84	10.929	10.929	(1.159)	170812	50.0000	51
	51 1,1,2,2-Tetrachloroethane	83	10.964	10.952	(1.163)	156245	50.0000	49
M	41 Xylene (total)	106				583955	50.0000	99
	52 1,3-Dichlorobenzene	146	12.102	12.090	(0.994)	296215	50.0000	51
•	78 1,4-Dichlorobenzene-d4	152	12.172	12.171	(1.000)	201784	50.0000	(Q)
	53 1,4-Dichlorobenzene	146	12.207	12.206	(1.003)	325459	50.0000	48
$	90 1,2-Dichlorobenzene-d4	152	12.636	12.636	(1.038)	184545	50.0000	49(Q)
	54 1,2-Dichlorobenzene	146	12.659	12.659	(1.040)	276829	50.0000	48
	55 1,2-Dibromo-3-chloropropane	75	13.647	13.635	(1.121)	19926	50.0000	49(Q)
	56 1,2,4-Trichlorobenzene	180	14.645	14.633	(1.203)	194923	50.0000	45
	77 1,2,3-Trichlorobenzene	180	15.249	15.237	(1.253)	166182	50.0000	44

QC Flag Legend

Q - Qualifier signal failed the ratio test.

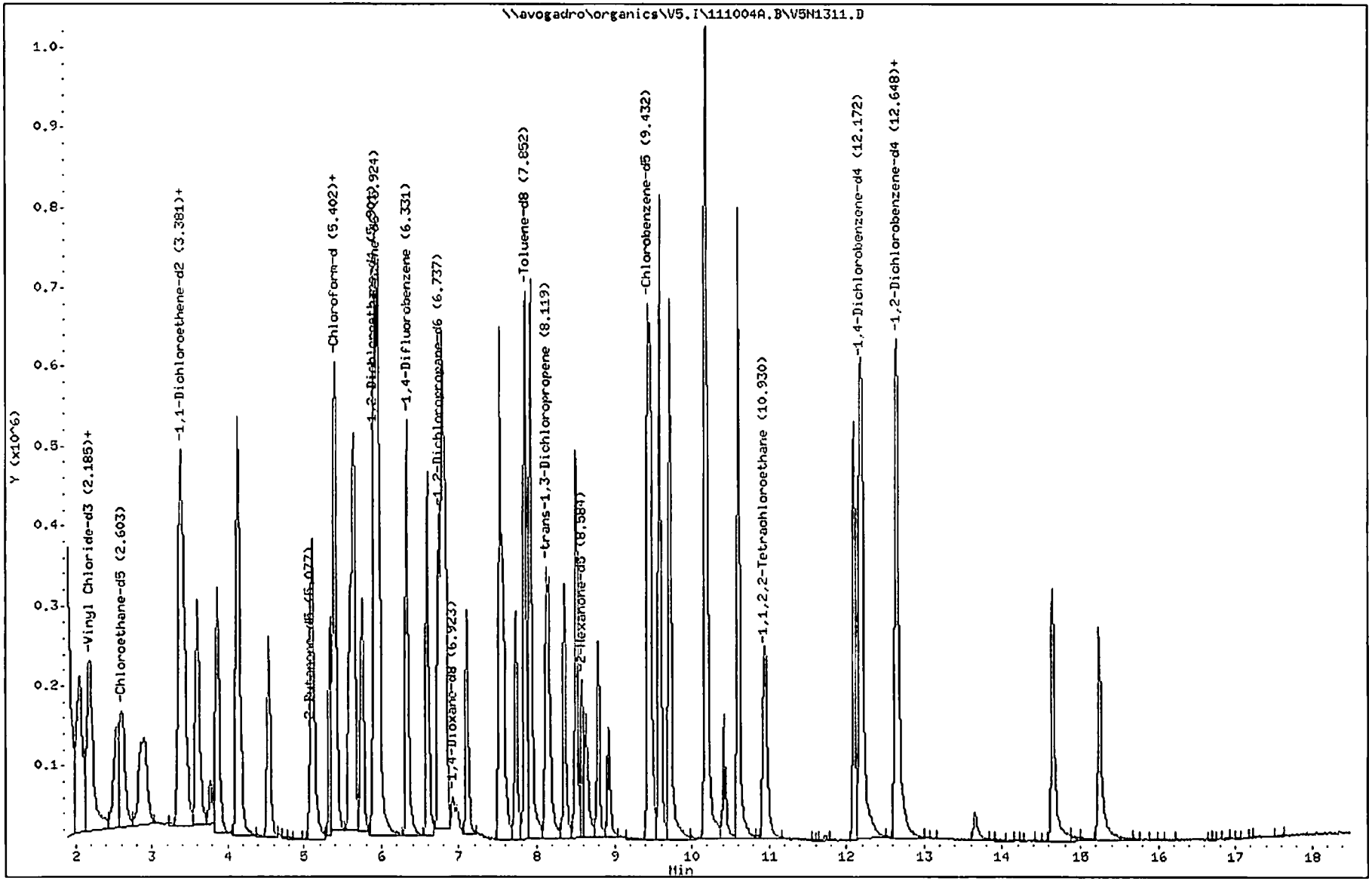
Data File: \\avogadro\organics\V5.I\111004A.B\V5N1311.D
Date : 04-OCT-2011 17:11
Client ID: VSTD0505N
Sample Info: 5G,VSTD0505N,VSTD0505N

Instrument: V5.i

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111004A.B\V5N1312.D
Report Date: 13-Oct-2011 08:46

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111004A.B\V5N1312.D
Lab Smp Id: VSTD0055N Client Smp ID: VSTD0055N
Inj Date : 04-OCT-2011 17:39
Operator : SRC: Inst ID: V5.i
Smp Info : 5G,VSTD0055N,VSTD0055N
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111004A.B\V5_SOM_S.m
Meth Date : 12-Oct-2011 14:03 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	1 Dichlorodifluoromethane	85	1.893	1.894	(0.299)	36197	5.00000	5.2
	2 Chloromethane	50	2.033	2.045	(0.321)	51024	5.00000	5.2
$	79 Vinyl Chloride-d3	65	2.172	2.173	(0.343)	32120	5.00000	5.4
	3 Vinyl Chloride	62	2.172	2.184	(0.343)	37959	5.00000	5.4
	4 Bromomethane	94	2.521	2.509	(0.398)	24654	5.00000	5.5
$	80 Chloroethane-d5	69	2.579	2.579	(0.407)	19191	5.00000	4.9
	5 Chloroethane	64	2.625	2.614	(0.415)	20461	5.00000	5.7
	6 Trichlorofluoromethane	101	2.881	2.904	(0.455)	41607	5.00000	5.3
$	81 1,1-Dichloroethene-d2	65	3.368	3.369	(0.532)	6979	5.00000	5.6
	7 1,1-Dichloroethene	96	3.380	3.380	(0.534)	22419	5.00000	5.0
	8 1,1,2-Trichloro-1,2,2-trifluo	101	3.415	3.415	(0.540)	28754	5.00000	5.4
	9 Acetone	43	3.461	3.450	(0.547)	16347	10.0000	14
	10 Carbon Disulfide	76	3.601	3.624	(0.569)	107730	5.00000	5.8
	11 Methyl Acetate	43	3.775	3.764	(0.596)	16894	5.00000	5.6
	12 Methylene Chloride	84	3.868	3.868	(0.611)	26401	5.00000	5.4
	13 trans-1,2-Dichloroethene	96	4.135	4.124	(0.653)	24020	5.00000	5.1
	14 Methyl tert-Butyl Ether	73	4.146	4.135	(0.655)	45347	5.00000	5.2
	15 1,1-Dichloroethane	63	4.541	4.530	(0.717)	44867	5.00000	5.2
$	82 2-Butanone-d5	46	5.099	5.064	(0.806)	16595	10.0000	9.9
	17 cis-1,2-Dichloroethene	96	5.110	5.099	(0.807)	23279	5.00000	5.1
	16 2-Butanone	43	5.157	5.122	(0.815)	17304	10.0000	10

Data File: \\avogadro\organics\V5.I\111004A.B\V5N1312.D
Report Date: 13-Oct-2011 08:46

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	18	Bromochloromethane	128	5.343	5.331	(0.844)	12019	5.00000	5.3
S	83	Chloroform-d	84	5.401	5.389	(0.853)	36847	5.00000	5.1
	19	Chloroform	83	5.412	5.401	(0.855)	48773	5.00000	6.1
	20	1,1,1-Trichloroethane	97	5.598	5.587	(0.594)	30822	5.00000	5.1
	21	Cyclohexane	56	5.644	5.645	(0.599)	44246	5.00000	5.3
	22	Carbon Tetrachloride	117	5.761	5.749	(0.611)	29090	5.00000	5.2
S	23	1,2-Dichloroethane-d4	65	5.912	5.900	(0.934)	22942	5.00000	5.9
S	84	Benzene-d6	84	5.923	5.912	(0.628)	69349	5.00000	5.1
	25	Benzene	78	5.958	5.959	(0.632)	78698	5.00000	5.3
	24	1,2-Dichloroethane	62	5.993	5.970	(0.947)	24202	5.00000	5.3
*	26	1,4-Difluorobenzene	114	6.330	6.319	(1.000)	630230	50.0000	
	27	Trichloroethene	95	6.597	6.586	(0.700)	21074	5.00000	4.9
S	85	1,2-Dichloropropane-d6	67	6.748	6.737	(0.716)	29052	5.00000	5.1
	28	Methylcyclohexane	83	6.794	6.783	(0.720)	38156	5.00000	5.0
	29	1,2-Dichloropropane	63	6.841	6.818	(0.725)	24541	5.00000	5.4(T)
S	94	1,4-Dioxane-d8	96	6.945	6.911	(1.097)	3380	100.000	92
	93	1,4-Dioxane	88	6.992	6.969	(1.105)	3066	100.000	92
	30	Bromodichloromethane	83	7.108	7.097	(0.754)	24794	5.00000	4.9
	31	cis-1,3-Dichloropropene	75	7.584	7.561	(0.804)	29997	5.00000	5.0
	32	4-Methyl-2-Pentanone	43	7.758	7.724	(0.823)	50051	10.0000	12
S	33	Toluene-d8	98	7.863	7.840	(0.834)	64764	5.00000	5.1
	34	Toluene	91	7.932	7.909	(0.841)	74708	5.00000	5.1
S	86	trans-1,3-Dichloropropene-d4	79	8.153	8.119	(0.865)	19882	5.00000	4.7
	35	trans-1,3-Dichloropropene	75	8.188	8.153	(0.868)	24965	5.00000	5.2
	36	1,1,2-Trichloroethane	97	8.374	8.351	(0.888)	15474	5.00000	5.2
	37	Tetrachloroethene	164	8.513	8.502	(0.903)	16370	5.00000	5.2
S	87	2-Hexanone-d5	63	8.629	8.571	(0.915)	10167	10.0000	9.4
	38	2-Hexanone	43	8.675	8.618	(0.920)	41648	10.0000	14
	39	Dibromochloromethane	129	8.803	8.780	(0.934)	21204	5.00000	5.4
	40	1,2-Dibromoethane	107	8.943	8.920	(0.948)	16435	5.00000	5.2(T)
*	42	Chlorobenzene-d5	117	9.430	9.431	(1.000)	515605	50.0000	
	43	Chlorobenzene	112	9.477	9.466	(1.005)	50063	5.00000	4.9
	44	Ethylbenzene	91	9.593	9.582	(1.017)	78946	5.00000	5.0
	45	m,p-Xylene	106	9.732	9.710	(1.032)	31762	5.00000	4.8
	46	o-Xylene	106	10.197	10.174	(1.081)	32775	5.00000	5.2
	47	Styrene	104	10.232	10.186	(1.085)	52095	5.00000	5.0
	48	Bromoform	173	10.441	10.418	(0.857)	10408	5.00000	4.8
	49	Isopropylbenzene	105	10.615	10.604	(1.126)	81194	5.00000	5.0
S	89	1,1,2,2-Tetrachloroethane-d2	84	10.952	10.929	(1.161)	18102	5.00000	4.9
	51	1,1,2,2-Tetrachloroethane	83	10.986	10.952	(1.165)	18111	5.00000	5.1
M	41	Xylene (total)	106				64537	5.00000	9.9
	52	1,3-Dichlorobenzene	146	12.125	12.090	(0.995)	28119	5.00000	4.6
*	78	1,4-Dichlorobenzene-d4	152	12.183	12.171	(1.000)	210499	50.0000	
	53	1,4-Dichlorobenzene	146	12.217	12.206	(1.003)	39863	5.00000	5.6
S	90	1,2-Dichlorobenzene-d4	152	12.670	12.636	(1.040)	20472	5.00000	5.2
	54	1,2-Dichlorobenzene	146	12.694	12.659	(1.042)	31289	5.00000	5.2
	55	1,2-Dibromo-3-chloropropane	75	13.739	13.635	(1.128)	2204	5.00000	5.2
	56	1,2,4-Trichlorobenzene	180	14.726	14.633	(1.209)	21399	5.00000	4.8
	77	1,2,3-Trichlorobenzene	180	15.295	15.237	(1.255)	19274	5.00000	4.9

QC Flag Legend

T - Target compound detected outside RT window.

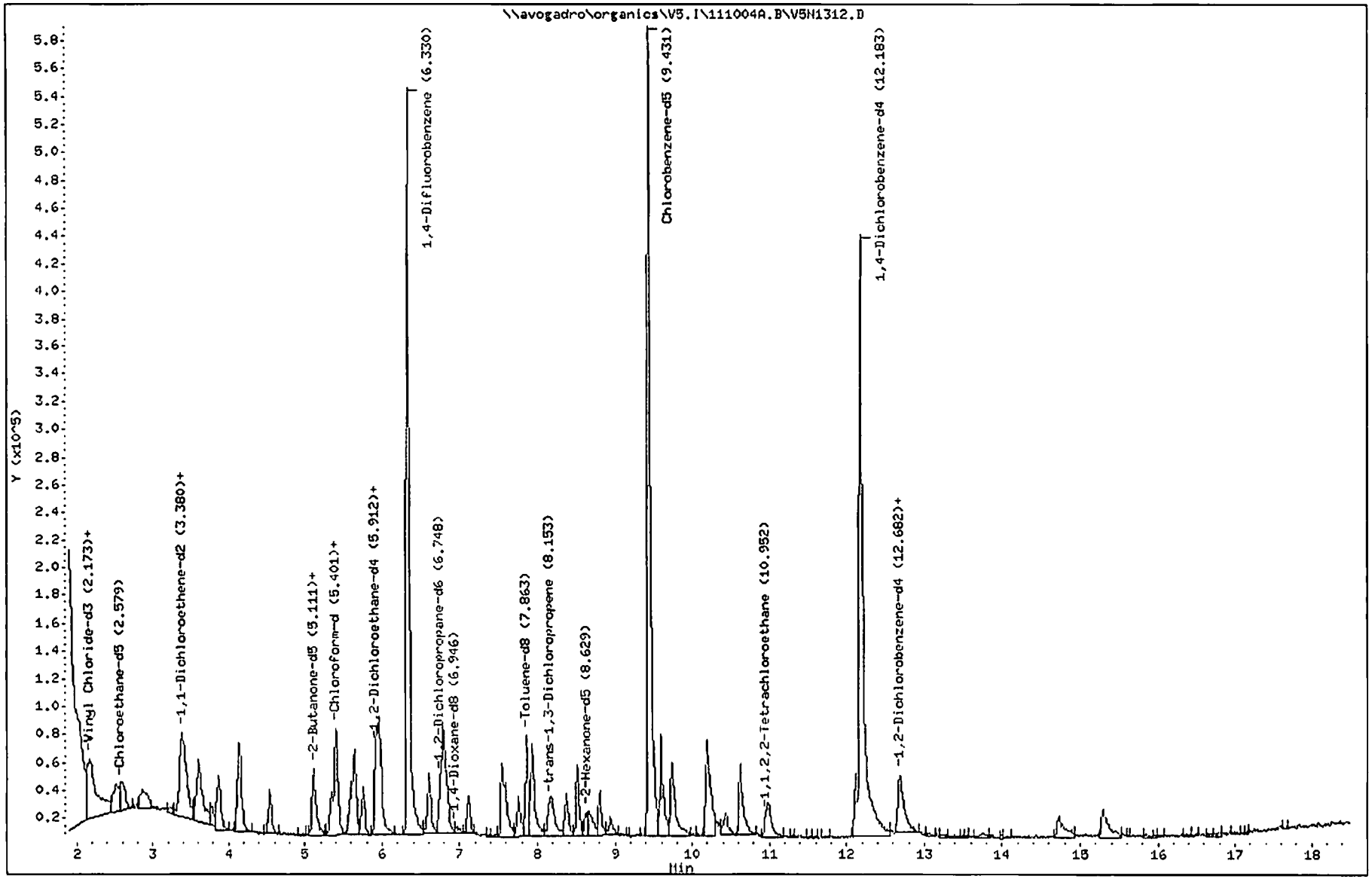
Data File: \\avogadro\organics\V5.I\111004A.B\V5N1312.D
Date : 04-OCT-2011 17:39
Client ID: VSTD0055N
Sample Info: 5C,VSTD0055N,VSTD0055N

Instrument: V5.i

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111004A.B\V5N1313.D
Report Date: 13-Oct-2011 08:46

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111004A.B\V5N1313.D
Lab Smp Id: VSTD2005N Client Smp ID: VSTD2005N
Inj Date : 04-OCT-2011 18:08
Operator : SRC: Inst ID: V5.i
Smp Info : 5G,VSTD2005N,VSTD2005N
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111004A.B\V5_SOM_S.m
Meth Date : 12-Oct-2011 14:03 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 18:08 Cal File: V5N1313.D
Als bottle: 3 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	1 Dichlorodifluoromethane	85	1.901	1.894	(0.301)	1343426	200.000	190
	2 Chloromethane	50	2.063	2.045	(0.326)	1824569	200.000	190
$	79 Vinyl Chloride-d3	65	2.191	2.173	(0.346)	1147112	200.000	190
	3 Vinyl Chloride	62	2.191	2.184	(0.346)	1294391	200.000	190
	4 Bromomethane	94	2.528	2.509	(0.400)	795475	200.000	180
$	80 Chloroethane-d5	69	2.597	2.579	(0.411)	742004	200.000	190
	5 Chloroethane	64	2.632	2.614	(0.416)	636553	200.000	180
	6 Trichlorofluoromethane	101	2.899	2.904	(0.458)	1525878	200.000	200
$	81 1,1-Dichloroethene-d2	65	3.364	3.369	(0.532)	248182	200.000	200(AQ)
	7 1,1-Dichloroethene	96	3.376	3.380	(0.534)	651918	200.000	190
	8 1,1,2-Trichloro-1,2,2-trifluo	101	3.422	3.415	(0.541)	993154	200.000	190
	9 Acetone	43	3.457	3.450	(0.547)	356628	400.000	320
	10 Carbon Disulfide	76	3.596	3.624	(0.569)	3340344	200.000	180
	11 Methyl Acetate	43	3.770	3.764	(0.596)	479665	200.000	160
	12 Methylene Chloride	84	3.863	3.868	(0.611)	890442	200.000	180
	13 trans-1,2-Dichloroethene	96	4.130	4.124	(0.653)	884014	200.000	190
	14 Methyl tert-Butyl Ether	73	4.154	4.135	(0.657)	1507962	200.000	180
	15 1,1-Dichloroethane	63	4.537	4.530	(0.717)	1635232	200.000	190
$	82 2-Butanone-d5	46	5.071	5.064	(0.802)	604238	400.000	370(A)
	17 cis-1,2-Dichloroethene	96	5.106	5.099	(0.807)	849810	200.000	190
	16 2-Butanone	43	5.129	5.122	(0.811)	573614	400.000	350

Data File: \\avogadro\organics\V5.I\111004A.B\V5N1313.D
Report Date: 13-Oct-2011 08:46

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	18	Bromochloromethane	128	5.338	5.331	(0.844)	411918	200.000	190
S	83	Chloroform-d	84	5.396	5.389	(0.853)	1358505	200.000	190
	19	Chloroform	83	5.408	5.401	(0.855)	1334401	200.000	170
	20	1,1,1-Trichloroethane	97	5.594	5.587	(0.593)	1142742	200.000	190
	21	Cyclohexane	56	5.652	5.645	(0.599)	1549507	200.000	180
	22	Carbon Tetrachloride	117	5.756	5.749	(0.610)	1068680	200.000	190
S	23	1,2-Dichloroethane-d4	65	5.907	5.900	(0.934)	635355	200.000	170(Q)
S	84	Benzene-d6	84	5.919	5.912	(0.627)	2579655	200.000	190
	25	Benzene	78	5.954	5.959	(0.631)	2747364	200.000	180
	24	1,2-Dichloroethane	62	5.977	5.970	(0.945)	839565	200.000	190
*	26	1,4-Difluorobenzene	114	6.325	6.319	(1.000)	621323	50.0000	(Q)
	27	Trichloroethene	95	6.592	6.586	(0.699)	838695	200.000	190
S	85	1,2-Dichloropropane-d6	67	6.732	6.737	(0.713)	1059996	200.000	190
	28	Methylcyclohexane	83	6.790	6.783	(0.719)	1490171	200.000	190
	29	1,2-Dichloropropane	63	6.825	6.818	(0.723)	813077	200.000	180
S	94	1,4-Dioxane-d8	96	6.918	6.911	(1.094)	141245	4000.00	3900
	93	1,4-Dioxane	88	6.976	6.969	(1.103)	133337	4000.00	4100(A)
	30	Bromodichloromethane	83	7.103	7.097	(0.753)	958079	200.000	190
	31	cis-1,3-Dichloropropene	75	7.556	7.561	(0.801)	1116719	200.000	180
	32	4-Methyl-2-Pentanone	43	7.730	7.724	(0.819)	1226367	400.000	300
S	33	Toluene-d8	98	7.847	7.840	(0.831)	2378240	200.000	190
	34	Toluene	91	7.916	7.909	(0.839)	2681639	200.000	180
S	86	trans-1,3-Dichloropropene-d4	79	8.114	8.119	(0.860)	804849	200.000	190
	35	trans-1,3-Dichloropropene	75	8.149	8.153	(0.863)	871784	200.000	180
	36	1,1,2-Trichloroethane	97	8.346	8.351	(0.884)	528524	200.000	180
	37	Tetrachloroethene	164	8.509	8.502	(0.902)	612133	200.000	190
S	87	2-Hexanone-d5	63	8.567	8.571	(0.908)	358673	400.000	330(AQ)
	38	2-Hexanone	43	8.625	8.618	(0.914)	802445	400.000	260
	39	Dibromochloromethane	129	8.787	8.780	(0.931)	740552	200.000	190
	40	1,2-Dibromoethane	107	8.927	8.920	(0.946)	620668	200.000	190
*	42	Chlorobenzene-d5	117	9.438	9.431	(1.000)	522035	50.0000	
	43	Chlorobenzene	112	9.461	9.466	(1.002)	1945144	200.000	190
	44	Ethylbenzene	91	9.577	9.582	(1.015)	3001198	200.000	190
	45	m,p-Xylene	106	9.716	9.710	(1.030)	1263400	200.000	190(Q)
	46	o-Xylene	106	10.169	10.174	(1.078)	1227588	200.000	190
	47	Styrene	104	10.192	10.186	(1.080)	2041110	200.000	190
	48	Bromoform	173	10.413	10.418	(0.855)	424205	200.000	180
	49	Isopropylbenzene	105	10.599	10.604	(1.123)	3078586	200.000	190
S	89	1,1,2,2-Tetrachloroethane-d2	84	10.924	10.929	(1.157)	638790	200.000	170
	51	1,1,2,2-Tetrachloroethane	83	10.959	10.952	(1.161)	609250	200.000	170
M	41	Xylene (total)	106				2490988	200.000	380
	52	1,3-Dichlorobenzene	146	12.097	12.090	(0.993)	1288932	200.000	200
*	78	1,4-Dichlorobenzene-d4	152	12.178	12.171	(1.000)	223743	50.0000	(Q)
	53	1,4-Dichlorobenzene	146	12.201	12.206	(1.002)	1340796	200.000	180
S	90	1,2-Dichlorobenzene-d4	152	12.631	12.636	(1.037)	769017	200.000	180(Q)
	54	1,2-Dichlorobenzene	146	12.654	12.659	(1.039)	1168263	200.000	180
	55	1,2-Dibromo-3-chloropropane	75	13.618	13.635	(1.118)	87768	200.000	190(Q)
	56	1,2,4-Trichlorobenzene	180	14.629	14.633	(1.201)	907483	200.000	190
	77	1,2,3-Trichlorobenzene	180	15.232	15.237	(1.251)	727794	200.000	170

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\avogadro\organics\V5.I\111004A.B\V5N1313.D
Report Date: 13-Oct-2011 08:46

QC Flag Legend

Q - Qualifier signal failed the ratio test.

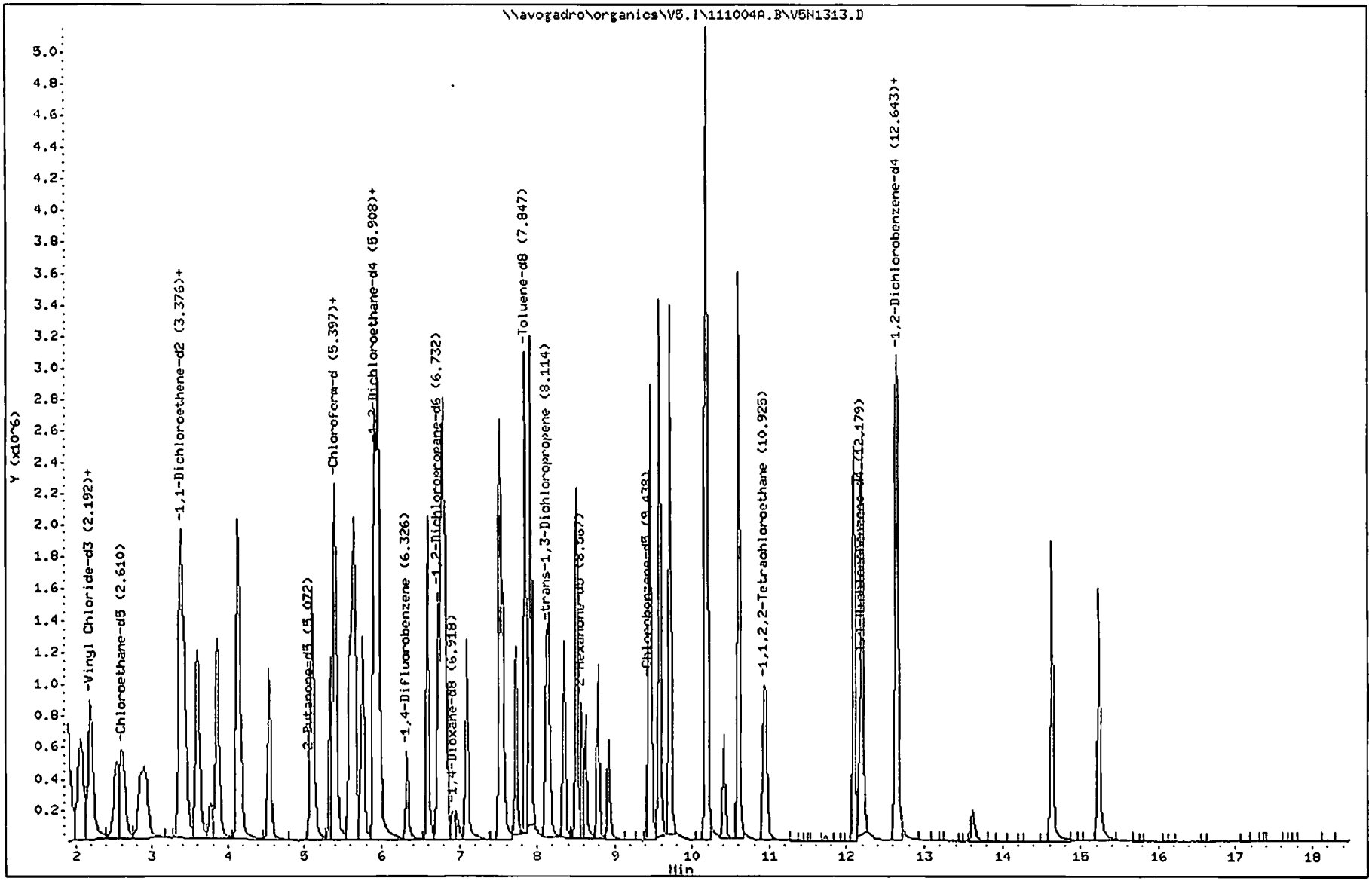
Data File: \\avogadro\organics\V5.I\111004A.B\V5N1313.D
Date : 04-OCT-2011 18:08
Client ID: VSTD2005N
Sample Info: 5G,VSTD2005N,VSTD2005N

Instrument: V5.i

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111004A.B\V5N1314.D
Report Date: 13-Oct-2011 08:46

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111004A.B\V5N1314.D
Lab Smp Id: VSTD1005N Client Smp ID: VSTD1005N
Inj Date : 04-OCT-2011 18:36
Operator : SRC: Inst ID: V5.i
Smp Info : 5G,VSTD1005N,VSTD1005N
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111004A.B\V5_SOM_S.m
Meth Date : 12-Oct-2011 14:03 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 18:36 Cal File: V5N1314.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.899	1.894	(0.300)	728784	100.000	100
2 Chloromethane	50	2.062	2.045	(0.326)	1003007	100.000	99
$ 79 Vinyl Chloride-d3	65	2.189	2.173	(0.346)	568073	100.000	91
3 Vinyl Chloride	62	2.201	2.184	(0.348)	714303	100.000	99
4 Bromomethane	94	2.526	2.509	(0.400)	451411	100.000	98
$ 80 Chloroethane-d5	69	2.608	2.579	(0.412)	377714	100.000	94
5 Chloroethane	64	2.631	2.614	(0.416)	357829	100.000	96
6 Trichlorofluoromethane	101	2.898	2.904	(0.458)	848320	100.000	100
$ 81 1,1-Dichloroethene-d2	65	3.362	3.369	(0.532)	123584	100.000	96(Q)
7 1,1-Dichloroethene	96	3.386	3.380	(0.535)	469268	100.000	100
8 1,1,2-Trichloro-1,2,2-trifluo	101	3.420	3.415	(0.541)	553328	100.000	100
9 Acetone	43	3.455	3.450	(0.546)	195948	200.000	160
10 Carbon Disulfide	76	3.595	3.624	(0.568)	1855878	100.000	96
11 Methyl Acetate	43	3.780	3.764	(0.598)	296102	100.000	95
12 Methylene Chloride	84	3.862	3.868	(0.611)	495236	100.000	98
13 trans-1,2-Dichloroethene	96	4.129	4.124	(0.653)	485064	100.000	100
14 Methyl tert-Butyl Ether	73	4.152	4.135	(0.657)	851590	100.000	94
15 1,1-Dichloroethane	63	4.535	4.530	(0.717)	905667	100.000	100
$ 82 2-Butanone-d5	46	5.081	5.064	(0.804)	326499	200.000	190
17 cis-1,2-Dichloroethene	96	5.104	5.099	(0.807)	475064	100.000	100
16 2-Butanone	43	5.139	5.122	(0.813)	338185	200.000	190

Data File: \\avogadro\organics\V5.I\111004A.B\V5N1314.D
Report Date: 13-Oct-2011 08:46

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	18	Bromochloromethane	128	5.337	5.331	(0.844)	227764	100.000	98
$	83	Chloroform-d	84	5.395	5.389	(0.853)	707472	100.000	95
	19	Chloroform	83	5.406	5.401	(0.855)	760072	100.000	91
	20	1,1,1-Trichloroethane	97	5.592	5.587	(0.593)	630512	100.000	100
	21	Cyclohexane	56	5.650	5.645	(0.599)	858283	100.000	100
	22	Carbon Tetrachloride	117	5.755	5.749	(0.610)	598441	100.000	100
$	23	1,2-Dichloroethane-d4	65	5.906	5.900	(0.934)	368626	100.000	92
$	84	Benzene-d6	84	5.917	5.912	(0.627)	1310448	100.000	94
	25	Benzene	78	5.964	5.959	(0.632)	1499243	100.000	99
	24	1,2-Dichloroethane	62	5.975	5.970	(0.945)	447146	100.000	95
•	26	1,4-Difluorobenzene	114	6.324	6.319	(1.000)	652703	50.0000	
	27	Trichloroethene	95	6.591	6.586	(0.698)	463947	100.000	110
$	85	1,2-Dichloropropane-d6	67	6.730	6.737	(0.713)	553125	100.000	96
	28	Methylcyclohexane	83	6.788	6.783	(0.719)	798598	100.000	100
	29	1,2-Dichloropropane	63	6.823	6.818	(0.723)	449976	100.000	97
$	94	1,4-Dioxane-d8	96	6.916	6.911	(1.094)	76779	2000.00	2000
	93	1,4-Dioxane	88	6.974	6.969	(1.103)	76182	2000.00	2200
	30	Bromodichloromethane	83	7.102	7.097	(0.753)	523580	100.000	100
	31	cis-1,3-Dichloropropene	75	7.566	7.561	(0.802)	604881	100.000	99
	32	4-Methyl-2-Pentanone	43	7.729	7.724	(0.819)	747658	200.000	180
$	33	Toluene-d8	98	7.845	7.840	(0.831)	1232529	100.000	96
	34	Toluene	91	7.915	7.909	(0.839)	1523032	100.000	100
$	86	trans-1,3-Dichloropropene-d4	79	8.112	8.119	(0.860)	432349	100.000	100
	35	trans-1,3-Dichloropropene	75	8.147	8.153	(0.863)	472368	100.000	97
	36	1,1,2-Trichloroethane	97	8.356	8.351	(0.886)	296720	100.000	98
	37	Tetrachloroethene	164	8.507	8.502	(0.902)	339876	100.000	110
$	87	2-Hexanone-d5	63	8.577	8.571	(0.909)	214463	200.000	190(Q)
	38	2-Hexanone	43	8.623	8.618	(0.914)	548711	200.000	180
	39	Dibromochloromethane	129	8.786	8.780	(0.931)	398804	100.000	100
	40	1,2-Dibromoethane	107	8.925	8.920	(0.946)	328624	100.000	100
•	42	Chlorobenzene-d5	117	9.436	9.431	(1.000)	524573	50.0000	
	43	Chlorobenzene	112	9.471	9.466	(1.004)	1057636	100.000	100
	44	Ethylbenzene	91	9.575	9.582	(1.015)	1655269	100.000	100
	45	m,p-Xylene	106	9.715	9.710	(1.030)	692375	100.000	100
	46	o-Xylene	106	10.179	10.174	(1.079)	651511	100.000	100
	47	Styrene	104	10.191	10.186	(1.080)	1092374	100.000	100
	48	Bromoform	173	10.412	10.418	(0.855)	236922	100.000	100
	49	Isopropylbenzene	105	10.597	10.604	(1.123)	1707553	100.000	100
$	89	1,1,2,2-Tetrachloroethane-d2	84	10.934	10.929	(1.159)	357598	100.000	95
	51	1,1,2,2-Tetrachloroethane	83	10.957	10.952	(1.161)	345482	100.000	96
M	41	Xylene (total)	106				1343886	100.000	200
	52	1,3-Dichlorobenzene	146	12.095	12.090	(0.993)	693303	100.000	110
•	78	1,4-Dichlorobenzene-d4	152	12.177	12.171	(1.000)	222487	50.0000	(Q)
	53	1,4-Dichlorobenzene	146	12.200	12.206	(1.002)	739355	100.000	98
$	90	1,2-Dichlorobenzene-d4	152	12.630	12.636	(1.037)	391450	100.000	94(Q)
	54	1,2-Dichlorobenzene	146	12.653	12.659	(1.039)	627402	100.000	99
	55	1,2-Dibromo-3-chloropropane	75	13.628	13.635	(1.119)	47093	100.000	110(Q)
	56	1,2,4-Trichlorobenzene	180	14.639	14.633	(1.202)	473479	100.000	99
	77	1,2,3-Trichlorobenzene	180	15.243	15.237	(1.252)	403637	100.000	97

QC Flag Legend

Q - Qualifier signal failed the ratio test.

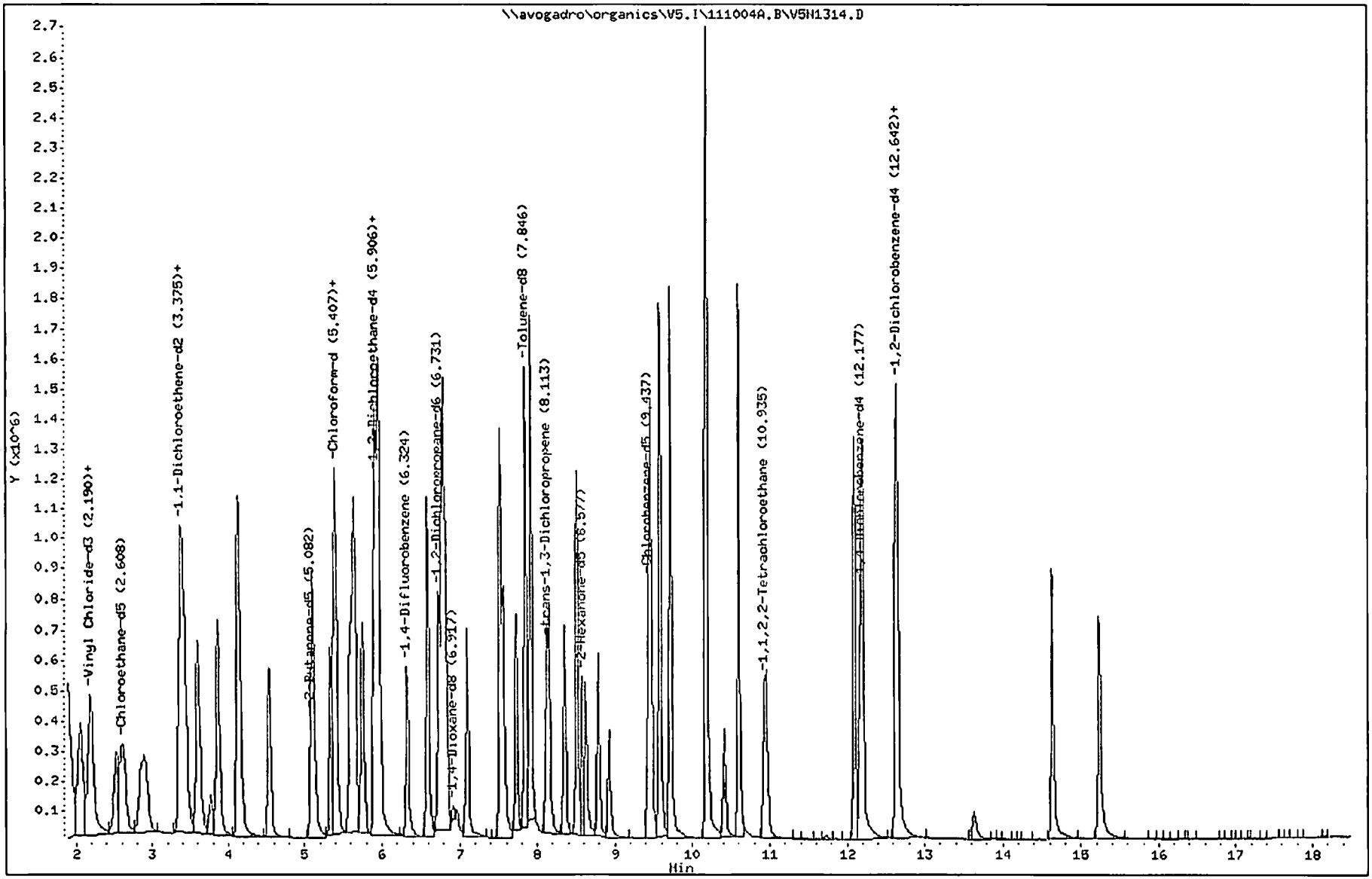
Data File: \\avogadro\organics\V5.I\111004A.B\V5N1314.D
Date : 04-OCT-2011 18:36
Client ID: VSTD1005N
Sample Info: 5G,VSTD1005N,VSTD1005N

Instrument: V5.i

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111004A.B\V5N1315.D
Report Date: 13-Oct-2011 08:46

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111004A.B\V5N1315.D
Lab Smp Id: VSTD0105N Client Smp ID: VSTD0105N
Inj Date : 04-OCT-2011 19:04
Operator : SRC: Inst ID: V5.i
Smp Info : 5G,VSTD0105N,VSTD0105N
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111004A.B\V5_SOM_S.m
Meth Date : 12-Oct-2011 14:03 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 19:04 Cal File: V5N1315.D
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.888	1.894	(0.299)	74376	10.0000	11
2 Chloromethane	50	2.039	2.045	(0.322)	103887	10.0000	11
$ 79 Vinyl Chloride-d3	65	2.167	2.173	(0.343)	64656	10.0000	11
3 Vinyl Chloride	62	2.190	2.184	(0.346)	72601	10.0000	11
4 Bromomethane	94	2.503	2.509	(0.396)	47886	10.0000	11
$ 80 Chloroethane-d5	69	2.585	2.579	(0.409)	41140	10.0000	11
5 Chloroethane	64	2.620	2.614	(0.414)	37177	10.0000	11
6 Trichlorofluoromethane	101	2.898	2.904	(0.458)	78439	10.0000	10
$ 81 1,1-Dichloroethene-d2	65	3.363	3.369	(0.532)	11357	10.0000	9.3(Q)
7 1,1-Dichloroethene	96	3.386	3.380	(0.535)	45407	10.0000	10
8 1,1,2-Trichloro-1,2,2-trifluo	101	3.421	3.415	(0.541)	53896	10.0000	10
9 Acetone	43	3.456	3.450	(0.546)	26221	20.0000	23
10 Carbon Disulfide	76	3.607	3.624	(0.570)	200799	10.0000	11
11 Methyl Acetate	43	3.781	3.764	(0.598)	34388	10.0000	12
12 Methylene Chloride	84	3.862	3.868	(0.611)	52059	10.0000	11
13 trans-1,2-Dichloroethene	96	4.129	4.124	(0.653)	47743	10.0000	10
14 Methyl tert-Butyl Ether	73	4.141	4.135	(0.655)	102149	10.0000	12
15 1,1-Dichloroethane	63	4.547	4.530	(0.719)	90414	10.0000	11
$ 82 2-Butanone-d5	46	5.093	5.064	(0.805)	33209	20.0000	23
17 cis-1,2-Dichloroethene	96	5.105	5.099	(0.807)	48573	10.0000	11
16 2-Butanone	43	5.151	5.122	(0.815)	38694	20.0000	24

Data File: \\avogadro\organics\V5.I\111004A.B\V5N1315.D
Report Date: 13-Oct-2011 08:46

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	18	Bromochloromethane	128	5.349	5.331	(0.846)	24272	10.0000	11(Q)
S	83	Chloroform-d	84	5.395	5.389	(0.853)	74732	10.0000	11
	19	Chloroform	83	5.407	5.401	(0.855)	87623	10.0000	11
	20	1,1,1-Trichloroethane	97	5.593	5.587	(0.593)	62850	10.0000	10
	21	Cyclohexane	56	5.639	5.645	(0.598)	85810	10.0000	10
	22	Carbon Tetrachloride	117	5.755	5.749	(0.610)	56074	10.0000	9.9
S	23	1,2-Dichloroethane-d4	65	5.906	5.900	(0.934)	43586	10.0000	11
S	84	Benzene-d6	84	5.918	5.912	(0.627)	147654	10.0000	11
	25	Benzene	78	5.964	5.959	(0.632)	160771	10.0000	11
	24	1,2-Dichloroethane	62	5.987	5.970	(0.947)	50225	10.0000	11
*	26	1,4-Difluorobenzene	114	6.324	6.319	(1.000)	616605	50.0000	
	27	Trichloroethene	95	6.603	6.586	(0.700)	43479	10.0000	10
S	85	1,2-Dichloropropane-d6	67	6.742	6.737	(0.715)	60090	10.0000	11
	28	Methylcyclohexane	83	6.789	6.783	(0.719)	79022	10.0000	10
	29	1,2-Dichloropropane	63	6.835	6.818	(0.724)	47705	10.0000	11
S	94	1,4-Dioxane-d8	96	6.940	6.911	(1.097)	7952	200.000	220
	93	1,4-Dioxane	88	6.986	6.969	(1.105)	7144	200.000	220(Q)
	30	Bromodichloromethane	83	7.102	7.097	(0.753)	53397	10.0000	11
	31	cis-1,3-Dichloropropene	75	7.578	7.561	(0.803)	66749	10.0000	11
	32	4-Methyl-2-Pentanone	43	7.741	7.724	(0.820)	97538	20.0000	24
S	33	Toluene-d8	98	7.857	7.840	(0.833)	132824	10.0000	11
	34	Toluene	91	7.927	7.909	(0.840)	161215	10.0000	11
S	86	trans-1,3-Dichloropropene-d4	79	8.136	8.119	(0.862)	46798	10.0000	11
	35	trans-1,3-Dichloropropene	75	8.171	8.153	(0.866)	51950	10.0000	11
	36	1,1,2-Trichloroethane	97	8.368	8.351	(0.887)	32978	10.0000	11
	37	Tetrachloroethene	164	8.519	8.502	(0.903)	30767	10.0000	9.7
S	87	2-Hexanone-d5	63	8.600	8.571	(0.911)	30215	20.0000	28(Q)
	38	2-Hexanone	43	8.647	8.618	(0.916)	88909	20.0000	29
	39	Dibromochloromethane	129	8.798	8.780	(0.932)	40272	10.0000	10
	40	1,2-Dibromoethane	107	8.937	8.920	(0.947)	31528	10.0000	9.9
*	42	Chlorobenzene-d5	117	9.436	9.431	(1.000)	515681	50.0000	
	43	Chlorobenzene	112	9.471	9.466	(1.004)	107912	10.0000	11
	44	Ethylbenzene	91	9.587	9.582	(1.016)	165158	10.0000	10
	45	m,p-Xylene	106	9.727	9.710	(1.031)	71767	10.0000	11
	46	o-Xylene	106	10.180	10.174	(1.079)	65673	10.0000	10
	47	Styrene	104	10.215	10.186	(1.082)	105666	10.0000	10
	48	Bromoform	173	10.435	10.418	(0.857)	25771	10.0000	11
	49	Isopropylbenzene	105	10.609	10.604	(1.124)	165474	10.0000	10
S	89	1,1,2,2-Tetrachloroethane-d2	84	10.946	10.929	(1.160)	44308	10.0000	12
	51	1,1,2,2-Tetrachloroethane	83	10.969	10.952	(1.162)	41450	10.0000	12
M	41	Xylene (total)	106				137440	10.0000	21
	52	1,3-Dichlorobenzene	146	12.107	12.090	(0.994)	69184	10.0000	10
*	78	1,4-Dichlorobenzene-d4	152	12.177	12.171	(1.000)	237594	50.0000	
	53	1,4-Dichlorobenzene	146	12.212	12.206	(1.003)	86467	10.0000	11
S	90	1,2-Dichlorobenzene-d4	152	12.653	12.636	(1.039)	49622	10.0000	11(Q)
	54	1,2-Dichlorobenzene	146	12.677	12.659	(1.041)	74148	10.0000	11
	55	1,2-Dibromo-3-chloropropane	75	13.687	13.635	(1.124)	4565	10.0000	9.5(Q)
	56	1,2,4-Trichlorobenzene	180	14.674	14.633	(1.205)	61165	10.0000	12
	77	1,2,3-Trichlorobenzene	180	15.266	15.237	(1.254)	57838	10.0000	13

QC Flag Legend

Q - Qualifier signal failed the ratio test.

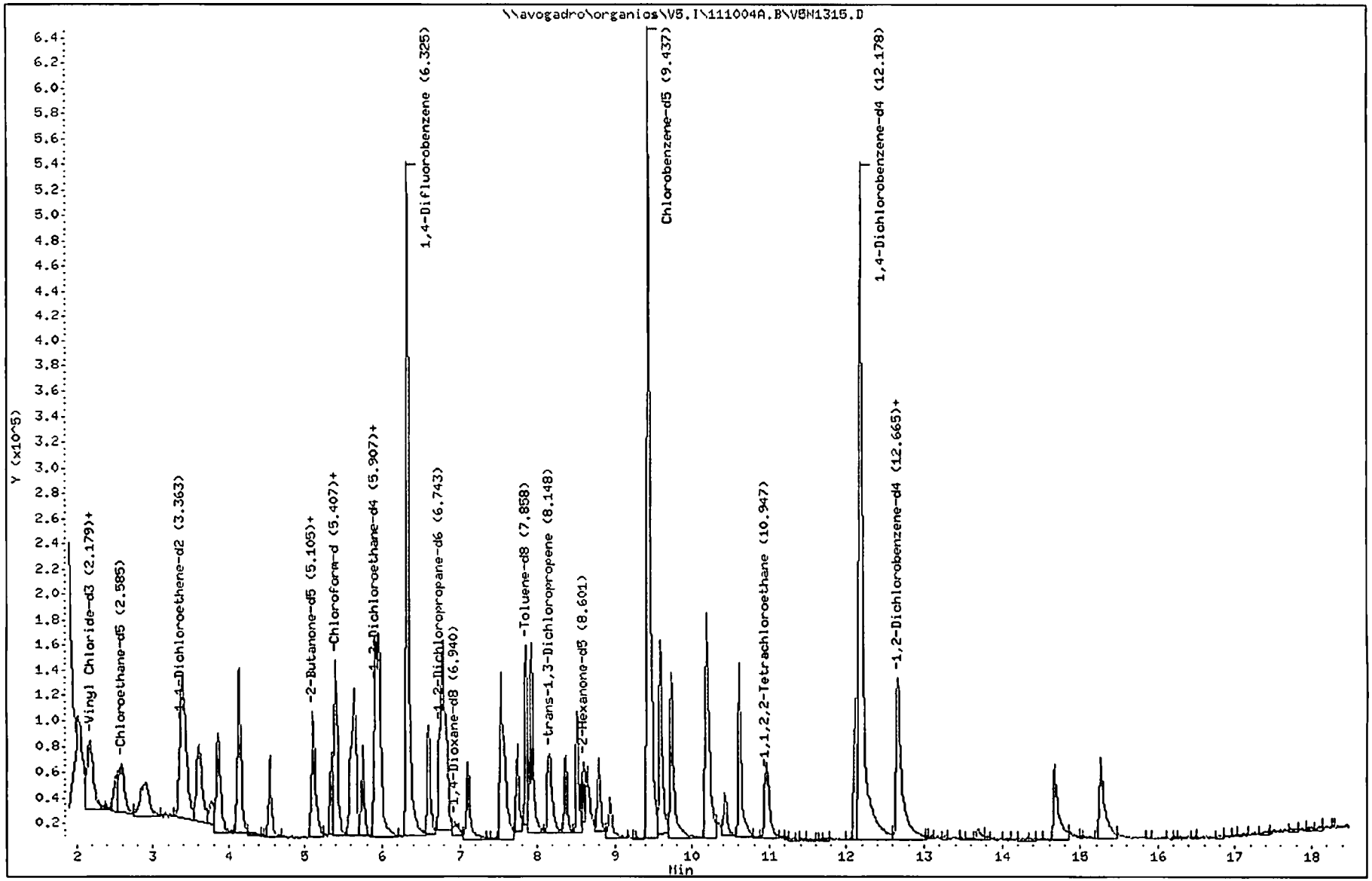
Data File: \\avogadro\organics\V5.I\111004A.B\V5N1315.D
Date : 04-OCT-2011 19:04
Client ID: VSTD0105N
Sample Info: 5C,VSTD0105N,VSTD0105N

Instrument: V5.i

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25



7A - FORM VII VOA-1

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Instrument ID: V5 Calibration Date: 11/06/2011 Time: 23:16

Lab File ID: V5N2701.D Init. Calib. Date(s): 10/04/2011 10/04/2011

EPA Sample No.(VSTD#####) VSTD050J5 Init. Calib. Time(s): 17:11 19:04

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.556	0.425	0.010	-23.7	40.0
Chloromethane	0.777	0.660	0.010	-15.0	40.0
Vinyl chloride	0.554	0.493	0.100	-11.1	25.0
Bromomethane	0.353	0.281	0.100	-20.5	25.0
Chloroethane	0.284	0.264	0.010	-7.2	40.0
Trichlorofluoromethane	0.628	0.571	0.010	-9.0	40.0
1,1-Dichloroethene	0.353	0.327	0.100	-7.3	25.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.421	0.333	0.010	-20.9	40.0
Acetone	0.091	0.064	0.010	-29.5	40.0
Carbon disulfide	1.484	1.287	0.010	-13.2	40.0
Methyl acetate	0.238	0.153	0.010	-35.8	40.0
Methylene chloride	0.388	0.315	0.010	-18.8	40.0
trans-1,2-Dichloroethene	0.370	0.360	0.010	-2.9	40.0
Methyl tert-butyl ether	0.691	0.512	0.010	-25.9	40.0
1,1-Dichloroethane	0.689	0.672	0.200	-2.4	25.0
cis-1,2-Dichloroethene	0.363	0.342	0.010	-5.8	40.0
2-Butanone	0.133	0.094	0.010	-29.5	40.0
Bromochloromethane	0.179	0.151	0.050	-15.2	25.0
Chloroform	0.637	0.539	0.200	-15.4	25.0
1,1,1-Trichloroethane	0.588	0.712	0.100	21.1	25.0
Cyclohexane	0.808	0.942	0.010	16.6	40.0
Carbon tetrachloride	0.547	0.682	0.100	24.6	25.0
Benzene	1.449	1.653	0.400	14.0	25.0
1,2-Dichloroethane	0.359	0.327	0.100	-9.0	25.0
1,4-Dioxane	0.003	0.002	0.005	-41.7	50.0
Trichloroethene	0.420	0.519	0.300	23.5	25.0
Methylcyclohexane	0.738	0.813	0.010	10.3	40.0

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

7B - FORM VII VOA-2

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Instrument ID: V5 Calibration Date: 11/06/2011 Time: 23:16

Lab File ID: V5N2701.D Init. Calib. Date(s): 10/04/2011 10/04/2011

EPA Sample No.(VSTD#####) VSTD050J5 Init. Calib. Time(s): 17:11 19:04

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
1,2-Dichloropropane	0.440	0.500	0.010	13.6	40.0
Bromodichloromethane	0.491	0.522	0.200	6.3	25.0
cis-1,3-Dichloropropene	0.585	0.617	0.200	5.4	25.0
4-Methyl-2-pentanone	0.388	0.269	0.010	-30.8	40.0
Toluene	1.432	1.642	0.400	14.7	25.0
trans-1,3-Dichloropropene	0.462	0.464	0.100	0.4	25.0
1,1,2-Trichloroethane	0.288	0.275	0.100	-4.6	25.0
Tetrachloroethene	0.308	0.366	0.100	18.7	25.0
2-Hexanone	0.298	0.180	0.010	-39.7	40.0
Dibromochloromethane	0.380	0.378	0.100	-0.5	25.0
1,2-Dibromoethane	0.309	0.302	0.010	-2.1	40.0
Chlorobenzene	0.984	1.112	0.500	13.0	25.0
Ethylbenzene	1.538	1.766	0.100	14.8	25.0
m,p-Xylene	0.644	0.711	0.300	10.5	25.0
o-Xylene	0.616	0.650	0.300	5.6	25.0
Styrene	1.010	1.079	0.300	6.9	25.0
Bromoform	0.512	0.524	0.050	2.2	25.0
Isopropylbenzene	1.572	1.782	0.010	13.3	40.0
1,1,2,2-Tetrachloroethane	0.341	0.294	0.300	-13.9	25.0
1,3-Dichlorobenzene	1.452	1.596	0.600	9.9	25.0
1,4-Dichlorobenzene	1.697	1.783	0.500	5.0	25.0
1,2-Dichlorobenzene	1.427	1.465	0.400	2.7	25.0
1,2-Dibromo-3-chloropropane	0.101	0.084	0.010	-16.3	40.0
1,2,4-Trichlorobenzene	1.070	0.880	0.200	-17.7	25.0
1,2,3-Trichlorobenzene	0.935	0.728	0.200	-22.2	25.0

7C - FORM VII VOA-3

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Instrument ID: V5 Calibration Date: 11/06/2011 Time: 23:16

Lab File ID: V5N2701.D Init. Calib. Date(s): 10/04/2011 10/04/2011

EPA Sample No.(VSTD#####) VSTD050J5 Init. Calib. Time(s): 17:11 19:04

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Vinyl chloride-d3	0.476	0.413	0.010	-13.3	25.0
Chloroethane-d5	0.308	0.296	0.010	-3.9	40.0
1,1-Dichloroethene-d2	0.099	0.100	0.010	1.3	25.0
2-Butanone-d5	0.133	0.095	0.010	-28.5	40.0
Chloroform-d	0.570	0.527	0.010	-7.6	25.0
1,2-Dichloroethane-d4	0.308	0.261	0.010	-15.2	25.0
Benzene-d6	1.324	1.520	0.010	14.8	25.0
1,2-Dichloropropane-d6	0.547	0.580	0.010	5.9	40.0
Toluene-d8	1.222	1.383	0.010	13.1	25.0
trans-1,3-Dichloropropene-d4	0.412	0.439	0.010	6.6	25.0
2-Hexanone-d5	0.105	0.070	0.010	-33.3	40.0
1,4-Dioxane-d8	0.003	0.002	0.005	-34.7	50.0
1,1,2,2-Tetrachloroethane-d2	0.358	0.305	0.010	-14.9	25.0
1,2-Dichlorobenzene-d4	0.934	0.966	0.010	3.4	25.0

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SOM01.2 (6/2007)

7A - FORM VII VOA-1

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Instrument ID: V5 Calibration Date: 11/07/2011 Time: 9:45

Lab File ID: V5N2724.D Init. Calib. Date(s): 10/04/2011 10/04/2011

EPA Sample No.(VSTD#####) VSTD050K5 Init. Calib. Time(s): 17:11 19:04

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.556	0.423	0.010	-23.8	40.0
Chloromethane	0.777	0.717	0.010	-7.8	40.0
Vinyl chloride	0.554	0.482	0.100	-13.1	25.0
Bromomethane	0.353	0.311	0.100	-12.1	25.0
Chloroethane	0.284	0.251	0.010	-11.8	40.0
Trichlorofluoromethane	0.628	0.526	0.010	-16.2	40.0
1,1-Dichloroethene	0.353	0.294	0.100	-16.7	25.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.421	0.309	0.010	-26.7	40.0
Acetone	0.091	0.093	0.010	1.9	40.0
Carbon disulfide	1.484	1.218	0.010	-17.9	40.0
Methyl acetate	0.238	0.262	0.010	10.2	40.0
Methylene chloride	0.388	0.382	0.010	-1.4	40.0
trans-1,2-Dichloroethene	0.370	0.356	0.010	-3.9	40.0
Methyl tert-butyl ether	0.691	0.788	0.010	14.0	40.0
1,1-Dichloroethane	0.689	0.704	0.200	2.2	25.0
cis-1,2-Dichloroethene	0.363	0.389	0.010	6.9	40.0
2-Butanone	0.133	0.167	0.010	25.4	40.0
Bromochloromethane	0.179	0.204	0.050	14.2	25.0
Chloroform	0.637	0.631	0.200	-1.0	25.0
1,1,1-Trichloroethane	0.588	0.558	0.100	-5.0	25.0
Cyclohexane	0.808	0.685	0.010	-15.2	40.0
Carbon tetrachloride	0.547	0.510	0.100	-6.9	25.0
Benzene	1.449	1.396	0.400	-3.6	25.0
1,2-Dichloroethane	0.359	0.429	0.100	19.4	25.0
1,4-Dioxane	0.003	0.003	0.005	23.9	50.0
Trichloroethene	0.420	0.396	0.300	-5.8	25.0
Methylcyclohexane	0.738	0.559	0.010	-24.3	40.0

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

7B - FORM VII VOA-2

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Instrument ID: V5 Calibration Date: 11/07/2011 Time: 9:45

Lab File ID: V5N2724.D Init. Calib. Date(s): 10/04/2011 10/04/2011

EPA Sample No.(VSTD#####) VSTD050K5 Init. Calib. Time(s): 17:11 19:04

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
1,2-Dichloropropane	0.440	0.475	0.010	7.9	40.0
Bromodichloromethane	0.491	0.522	0.200	6.3	25.0
cis-1,3-Dichloropropene	0.585	0.639	0.200	9.2	25.0
4-Methyl-2-pentanone	0.388	0.410	0.010	5.6	40.0
Toluene	1.432	1.391	0.400	-2.8	25.0
trans-1,3-Dichloropropene	0.462	0.502	0.100	8.6	25.0
1,1,2-Trichloroethane	0.288	0.324	0.100	12.7	25.0
Tetrachloroethene	0.308	0.281	0.100	-8.6	25.0
2-Hexanone	0.298	0.238	0.010	-20.0	40.0
Dibromochloromethane	0.380	0.423	0.100	11.3	25.0
1,2-Dibromoethane	0.309	0.365	0.010	18.3	40.0
Chlorobenzene	0.984	1.018	0.500	3.5	25.0
Ethylbenzene	1.538	1.475	0.100	-4.1	25.0
m,p-Xylene	0.644	0.605	0.300	-6.1	25.0
o-Xylene	0.616	0.590	0.300	-4.2	25.0
Styrene	1.010	1.009	0.300	-0.1	25.0
Bromoform	0.512	0.584	0.050	14.0	25.0
Isopropylbenzene	1.572	1.499	0.010	-4.7	40.0
1,1,2,2-Tetrachloroethane	0.341	0.398	0.300	16.5	25.0
1,3-Dichlorobenzene	1.452	1.542	0.600	6.2	25.0
1,4-Dichlorobenzene	1.697	1.628	0.500	-4.1	25.0
1,2-Dichlorobenzene	1.427	1.518	0.400	6.4	25.0
1,2-Dibromo-3-chloropropane	0.101	0.127	0.010	26.6	40.0
1,2,4-Trichlorobenzene	1.070	0.987	0.200	-7.7	25.0
1,2,3-Trichlorobenzene	0.935	0.917	0.200	-2.0	25.0

7C - FORM VII VOA-3

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Instrument ID: V5 Calibration Date: 11/07/2011 Time: 9:45

Lab File ID: V5N2724.D Init. Calib. Date(s): 10/04/2011 10/04/2011

EPA Sample No.(VSTD#####) VSTD050K5 Init. Calib. Time(s): 17:11 19:04

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Vinyl chloride-d3	0.476	0.409	0.010	-14.1	25.0
Chloroethane-d5	0.308	0.290	0.010	-5.7	40.0
1,1-Dichloroethene-d2	0.099	0.090	0.010	-8.7	25.0
2-Butanone-d5	0.133	0.162	0.010	21.9	40.0
Chloroform-d	0.570	0.601	0.010	5.4	25.0
1,2-Dichloroethane-d4	0.308	0.372	0.010	20.9	25.0
Benzene-d6	1.324	1.291	0.010	-2.5	25.0
1,2-Dichloropropane-d6	0.547	0.559	0.010	2.1	40.0
Toluene-d8	1.222	1.173	0.010	-4.0	25.0
trans-1,3-Dichloropropene-d4	0.412	0.449	0.010	9.0	25.0
2-Hexanone-d5	0.105	0.115	0.010	9.3	40.0
1,4-Dioxane-d8	0.003	0.003	0.005	17.3	50.0
1,1,2,2-Tetrachloroethane-d2	0.358	0.412	0.010	15.0	25.0
1,2-Dichlorobenzene-d4	0.934	0.927	0.010	-0.8	25.0

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SOM01.2 (6/2007)

7A - FORM VII VOA-1

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Instrument ID: V5 Calibration Date: 11/07/2011 Time: 21:33

Lab File ID: V5N2749.D Init. Calib. Date(s): 10/04/2011 10/04/2011

EPA Sample No.(VSTD#####) VSTD050L5 Init. Calib. Time(s): 17:11 19:04

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.556	0.422	0.010	-24.1	50.0
Chloromethane	0.777	0.679	0.010	-12.6	50.0
Vinyl chloride	0.554	0.496	0.010	-10.6	50.0
Bromomethane	0.353	0.300	0.010	-15.2	50.0
Chloroethane	0.284	0.252	0.010	-11.4	50.0
Trichlorofluoromethane	0.628	0.587	0.010	-6.6	50.0
1,1-Dichloroethene	0.353	0.341	0.010	-3.4	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.421	0.336	0.010	-20.1	50.0
Acetone	0.091	0.068	0.010	-25.0	50.0
Carbon disulfide	1.484	1.349	0.010	-9.1	50.0
Methyl acetate	0.238	0.182	0.010	-23.4	50.0
Methylene chloride	0.388	0.343	0.010	-11.5	50.0
trans-1,2-Dichloroethene	0.370	0.373	0.010	0.7	50.0
Methyl tert-butyl ether	0.691	0.600	0.010	-13.2	50.0
1,1-Dichloroethane	0.689	0.687	0.010	-0.3	50.0
cis-1,2-Dichloroethene	0.363	0.356	0.010	-1.9	50.0
2-Butanone	0.133	0.114	0.010	-14.1	50.0
Bromochloromethane	0.179	0.160	0.010	-10.7	50.0
Chloroform	0.637	0.570	0.010	-10.4	50.0
1,1,1-Trichloroethane	0.588	0.633	0.010	7.6	50.0
Cyclohexane	0.808	0.840	0.010	4.0	50.0
Carbon tetrachloride	0.547	0.610	0.010	11.4	50.0
Benzene	1.449	1.512	0.010	4.3	50.0
1,2-Dichloroethane	0.359	0.343	0.010	-4.5	50.0
1,4-Dioxane	0.003	0.002	0.005	-18.6	50.0
Trichloroethene	0.420	0.471	0.010	11.9	50.0
Methylcyclohexane	0.738	0.691	0.010	-6.4	50.0

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

7B - FORM VII VOA-2

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Instrument ID: V5 Calibration Date: 11/07/2011 Time: 21:33

Lab File ID: V5N2749.D Init. Calib. Date(s): 10/04/2011 10/04/2011

EPA Sample No.(VSTD#####) VSTD050L5 Init. Calib. Time(s): 17:11 19:04

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
1,2-Dichloropropane	0.440	0.466	0.010	5.9	50.0
Bromodichloromethane	0.491	0.529	0.010	7.8	50.0
cis-1,3-Dichloropropene	0.585	0.586	0.010	0.2	50.0
4-Methyl-2-pentanone	0.388	0.308	0.010	-20.7	50.0
Toluene	1.432	1.508	0.010	5.3	50.0
trans-1,3-Dichloropropene	0.462	0.432	0.010	-6.4	50.0
1,1,2-Trichloroethane	0.288	0.263	0.010	-8.5	50.0
Tetrachloroethene	0.308	0.332	0.010	7.9	50.0
2-Hexanone	0.298	0.195	0.010	-34.7	50.0
Dibromochloromethane	0.380	0.373	0.010	-1.8	50.0
1,2-Dibromoethane	0.309	0.296	0.010	-4.1	50.0
Chlorobenzene	0.984	1.021	0.010	3.7	50.0
Ethylbenzene	1.538	1.645	0.010	6.9	50.0
m,p-Xylene	0.644	0.666	0.010	3.4	50.0
o-Xylene	0.616	0.596	0.010	-3.2	50.0
Styrene	1.010	1.007	0.010	-0.3	50.0
Bromoform	0.512	0.531	0.010	3.6	50.0
Isopropylbenzene	1.572	1.648	0.010	4.8	50.0
1,1,2,2-Tetrachloroethane	0.341	0.297	0.010	-13.1	50.0
1,3-Dichlorobenzene	1.452	1.595	0.010	9.9	50.0
1,4-Dichlorobenzene	1.697	1.710	0.010	0.7	50.0
1,2-Dichlorobenzene	1.427	1.462	0.010	2.4	50.0
1,2-Dibromo-3-chloropropane	0.101	0.094	0.010	-6.3	50.0
1,2,4-Trichlorobenzene	1.070	0.894	0.010	-16.4	50.0
1,2,3-Trichlorobenzene	0.935	0.715	0.010	-23.5	50.0

7C - FORM VII VOA-3

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Instrument ID: V5 Calibration Date: 11/07/2011 Time: 21:33

Lab File ID: V5N2749.D Init. Calib. Date(s): 10/04/2011 10/04/2011

EPA Sample No.(VSTD#####) VSTD050L5 Init. Calib. Time(s): 17:11 19:04

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Vinyl chloride-d3	0.476	0.413	0.010	-13.4	50.0
Chloroethane-d5	0.308	0.300	0.010	-2.6	50.0
1,1-Dichloroethene-d2	0.099	0.107	0.010	8.0	50.0
2-Butanone-d5	0.133	0.106	0.010	-20.5	50.0
Chloroform-d	0.570	0.554	0.010	-2.9	50.0
1,2-Dichloroethane-d4	0.308	0.289	0.010	-6.2	50.0
Benzene-d6	1.324	1.398	0.010	5.6	50.0
1,2-Dichloropropane-d6	0.547	0.551	0.010	0.6	50.0
Toluene-d8	1.222	1.305	0.010	6.7	50.0
trans-1,3-Dichloropropene-d4	0.412	0.383	0.010	-7.0	50.0
2-Hexanone-d5	0.105	0.083	0.010	-21.0	50.0
1,4-Dioxane-d8	0.003	0.002	0.005	-17.4	50.0
1,1,2,2-Tetrachloroethane-d2	0.358	0.318	0.010	-11.2	50.0
1,2-Dichlorobenzene-d4	0.934	0.930	0.010	-0.5	50.0

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SOM01.2 (6/2007)

Data File: \\avogadro\organics\V5.I\111106.B\V5N2701.D
Report Date: 09-Nov-2011 07:59

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111106.B\V5N2701.D
Lab Smp Id: VSTD050J5 Client Smp ID: VSTD050J5
Inj Date : 06-NOV-2011 23:16
Operator : SRC: Inst ID: V5.i
Smp Info : 5G,VSTD050J5,VSTD050J5
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111106.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 16:40 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	1 Dichlorodifluoromethane	85	1.878	1.906	(0.298)	114672	50.0000	38
	2 Chloromethane	50	2.029	2.045	(0.321)	178296	50.0000	42
$	79 Vinyl Chloride-d3	65	2.157	2.173	(0.342)	111444	50.0000	43
	3 Vinyl Chloride	62	2.169	2.185	(0.344)	133112	50.0000	44
	4 Bromomethane	94	2.506	2.521	(0.397)	75899	50.0000	40
$	80 Chloroethane-d5	69	2.575	2.603	(0.408)	79954	50.0000	48
	5 Chloroethane	64	2.610	2.626	(0.413)	71259	50.0000	46
	6 Trichlorofluoromethane	101	2.842	2.893	(0.450)	154344	50.0000	45
$	81 1,1-Dichloroethene-d2	65	3.353	3.369	(0.531)	27014	50.0000	51
	7 1,1-Dichloroethene	96	3.365	3.381	(0.533)	88453	50.0000	46
	8 1,1,2-Trichloro-1,2,2-trifluo	101	3.411	3.427	(0.540)	89933	50.0000	40
	9 Acetone	43	3.435	3.450	(0.544)	34703	100.000	71
	10 Carbon Disulfide	76	3.586	3.601	(0.568)	347696	50.0000	43
	11 Methyl Acetate	43	3.760	3.776	(0.595)	41224	50.0000	32
	12 Methylene Chloride	84	3.853	3.857	(0.610)	85107	50.0000	41
	13 trans-1,2-Dichloroethene	96	4.120	4.124	(0.652)	97131	50.0000	49
	14 Methyl tert-Butyl Ether	73	4.131	4.147	(0.654)	138415	50.0000	37
	15 1,1-Dichloroethane	63	4.526	4.530	(0.717)	181588	50.0000	49
$	82 2-Butanone-d5	46	5.072	5.076	(0.803)	51305	100.000	72
	17 cis-1,2-Dichloroethene	96	5.095	5.099	(0.807)	92450	50.0000	47
	16 2-Butanone	43	5.130	5.134	(0.812)	50717	100.000	71

Data File: \\avogadro\organics\V5.I\111106.B\V5N2701.D
Report Date: 09-Nov-2011 07:59

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	18	Bromochloromethane	128	5.328	5.332	(0.844)	40877	50.0000	42
$	83	Chloroform-d	84	5.374	5.390	(0.851)	142305	50.0000	46
	19	Chloroform	83	5.397	5.401	(0.855)	145615	50.0000	42
	20	1,1,1-Trichloroethane	97	5.583	5.587	(0.592)	131139	50.0000	61
	21	Cyclohexane	56	5.630	5.645	(0.597)	173398	50.0000	58
	22	Carbon Tetrachloride	117	5.746	5.750	(0.610)	125666	50.0000	62
$	23	1,2-Dichloroethane-d4	65	5.885	5.901	(0.932)	70542	50.0000	42
$	84	Benzene-d6	84	5.908	5.912	(0.627)	279888	50.0000	57
	25	Benzene	78	5.943	5.947	(0.630)	304319	50.0000	57
	24	1,2-Dichloroethane	62	5.966	5.970	(0.945)	88202	50.0000	45
*	26	1,4-Difluorobenzene	114	6.315	6.319	(1.000)	270116	50.0000	
	27	Trichloroethene	95	6.582	6.586	(0.698)	95661	50.0000	62
$	85	1,2-Dichloropropane-d6	67	6.721	6.725	(0.713)	106728	50.0000	53
	28	Methylcyclohexane	83	6.768	6.783	(0.718)	149798	50.0000	55
	29	1,2-Dichloropropane	63	6.814	6.818	(0.723)	92068	50.0000	57
$	94	1,4-Dioxane-d8	96	6.919	6.911	(1.096)	10331	1000.00	650
	93	1,4-Dioxane	88	6.977	6.969	(1.105)	8340	1000.00	580
	30	Bromodichloromethane	83	7.093	7.097	(0.752)	96120	50.0000	53
	31	cis-1,3-Dichloropropene	75	7.557	7.561	(0.802)	113541	50.0000	53
	32	4-Methyl-2-Pentanone	43	7.720	7.724	(0.819)	99031	100.000	69
$	33	Toluene-d8	98	7.836	7.840	(0.831)	254625	50.0000	57
	34	Toluene	91	7.906	7.910	(0.839)	302351	50.0000	57
$	86	trans-1,3-Dichloropropene-d4	79	8.115	8.119	(0.861)	80870	50.0000	53
	35	trans-1,3-Dichloropropene	75	8.150	8.142	(0.864)	85456	50.0000	50
	36	1,1,2-Trichloroethane	97	8.347	8.351	(0.885)	50560	50.0000	48
	37	Tetrachloroethene	164	8.498	8.502	(0.901)	67330	50.0000	59
$	87	2-Hexanone-d5	63	8.579	8.572	(0.910)	25854	100.000	67(Q)
	38	2-Hexanone	43	8.637	8.630	(0.916)	66161	100.000	60
	39	Dibromochloromethane	129	8.777	8.781	(0.931)	69664	50.0000	50
	40	1,2-Dibromoethane	107	8.916	8.920	(0.946)	55665	50.0000	49
*	42	Chlorobenzene-d5	117	9.427	9.431	(1.000)	184155	50.0000	
	43	Chlorobenzene	112	9.462	9.466	(1.004)	204789	50.0000	56
	44	Ethylbenzene	91	9.578	9.582	(1.016)	325191	50.0000	57
	45	m,p-Xylene	106	9.706	9.710	(1.030)	131025	50.0000	55
	46	o-Xylene	106	10.170	10.174	(1.079)	119741	50.0000	53
	47	Styrene	104	10.182	10.186	(1.080)	198701	50.0000	53
	48	Bromoform	173	10.414	10.418	(0.856)	36823	50.0000	51
	49	Isopropylbenzene	105	10.600	10.604	(1.124)	328095	50.0000	57
$	89	1,1,2,2-Tetrachloroethane-d2	84	10.925	10.929	(1.159)	56154	50.0000	43
	51	1,1,2,2-Tetrachloroethane	83	10.960	10.952	(1.163)	54124	50.0000	43
	52	1,3-Dichlorobenzene	146	12.098	12.091	(0.994)	112235	50.0000	55
*	78	1,4-Dichlorobenzene-d4	152	12.168	12.172	(1.000)	70335	50.0000	
	53	1,4-Dichlorobenzene	146	12.203	12.195	(1.003)	125374	50.0000	53
$	90	1,2-Dichlorobenzene-d4	152	12.632	12.625	(1.038)	67931	50.0000	52(Q)
	54	1,2-Dichlorobenzene	146	12.655	12.648	(1.040)	103072	50.0000	51
	55	1,2-Dibromo-3-chloropropane	75	13.654	13.647	(1.122)	5928	50.0000	42(Q)
	56	1,2,4-Trichlorobenzene	180	14.641	14.645	(1.203)	61909	50.0000	41
	77	1,2,3-Trichlorobenzene	180	15.245	15.238	(1.253)	51202	50.0000	39

QC Flag Legend

Q - Qualifier signal failed the ratio test.

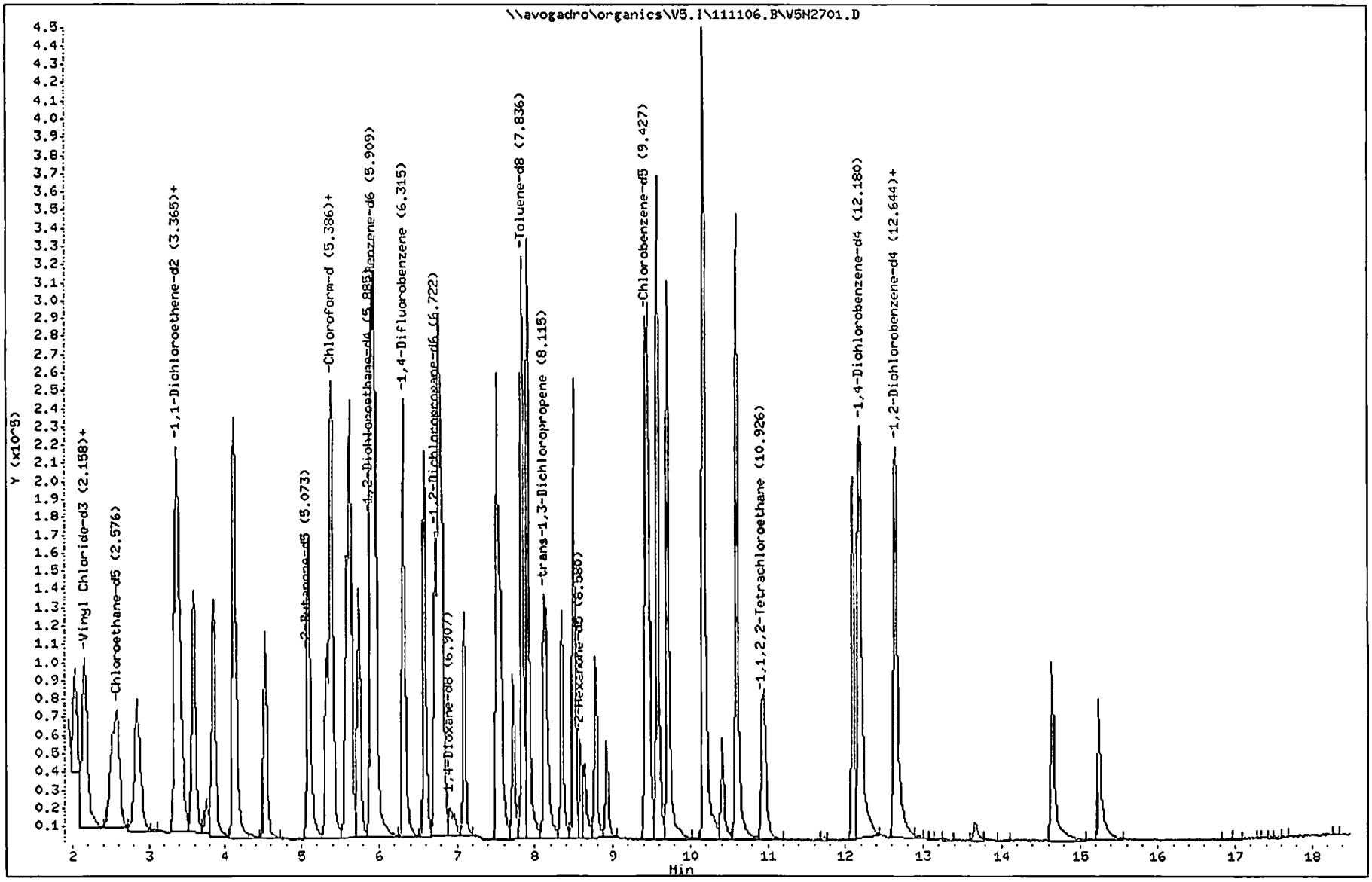
Data File: \\avogadro\organics\V5.I\111106.B\V5N2701.D
Date : 06-NOV-2011 23:16
Client ID: VSTD050J5
Sample Info: SC,VSTD050J5,VSTD050J5

Instrument: V5.i

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111106.B\V5N2724.D
Report Date: 09-Nov-2011 07:59

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111106.B\V5N2724.D
Lab Smp Id: VSTD050K5 Client Smp ID: VSTD050K5
Inj Date : 07-NOV-2011 09:45
Operator : SRC: Inst ID: V5.i
Smp Info : 5G,VSTD050K5,VSTD050K5
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111106.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 16:40 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 56 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	1 Dichlorodifluoromethane	85	1.906	1.906	(0.302)	102874	50.0000	38
	2 Chloromethane	50	2.045	2.045	(0.324)	174053	50.0000	46
$	79 Vinyl Chloride-d3	65	2.173	2.173	(0.344)	99401	50.0000	43
	3 Vinyl Chloride	62	2.185	2.185	(0.346)	117034	50.0000	43
	4 Bromomethane	94	2.521	2.521	(0.399)	75502	50.0000	44
$	80 Chloroethane-d5	69	2.603	2.603	(0.412)	70555	50.0000	47
	5 Chloroethane	64	2.626	2.626	(0.416)	60900	50.0000	44
	6 Trichlorofluoromethane	101	2.893	2.893	(0.458)	127879	50.0000	42
$	81 1,1-Dichloroethene-d2	65	3.369	3.369	(0.533)	21896	50.0000	46
	7 1,1-Dichloroethene	96	3.381	3.381	(0.535)	71444	50.0000	42
	8 1,1,2-Trichloro-1,2,2-trifluo	101	3.427	3.427	(0.542)	75025	50.0000	37
	9 Acetone	43	3.450	3.450	(0.546)	45119	100.000	100
	10 Carbon Disulfide	76	3.601	3.601	(0.570)	295780	50.0000	41
	11 Methyl Acetate	43	3.776	3.776	(0.598)	63691	50.0000	55
	12 Methylene Chloride	84	3.857	3.857	(0.610)	92912	50.0000	49
	13 trans-1,2-Dichloroethene	96	4.124	4.124	(0.653)	86481	50.0000	48
	14 Methyl tert-Butyl Ether	73	4.147	4.147	(0.656)	191385	50.0000	57
	15 1,1-Dichloroethane	63	4.530	4.530	(0.717)	171091	50.0000	51
$	82 2-Butanone-d5	46	5.076	5.076	(0.803)	78641	100.000	120
	17 cis-1,2-Dichloroethene	96	5.099	5.099	(0.807)	94411	50.0000	53
	16 2-Butanone	43	5.134	5.134	(0.813)	81109	100.000	130

Data File: \\avogadro\organics\V5.I\111106.B\V5N2724.D
Report Date: 09-Nov-2011 07:59

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	18 Bromochloromethane	128	5.332	5.332	(0.844)	49524	50.0000	57
$	83 Chloroform-d	84	5.390	5.390	(0.853)	146006	50.0000	53
	19 Chloroform	83	5.401	5.401	(0.855)	153167	50.0000	49
	20 1,1,1-Trichloroethane	97	5.587	5.587	(0.592)	115419	50.0000	47
	21 Cyclohexane	56	5.645	5.645	(0.599)	141541	50.0000	42
	22 Carbon Tetrachloride	117	5.750	5.750	(0.610)	105434	50.0000	47
$	23 1,2-Dichloroethane-d4	65	5.901	5.901	(0.934)	90430	50.0000	60
$	84 Benzene-d6	84	5.912	5.912	(0.627)	266938	50.0000	49
	25 Benzene	78	5.947	5.947	(0.631)	288732	50.0000	48
	24 1,2-Dichloroethane	62	5.970	5.970	(0.945)	104099	50.0000	60
*	26 1,4-Difluorobenzene	114	6.319	6.319	(1.000)	242917	50.0000	
	27 Trichloroethene	95	6.586	6.586	(0.698)	81875	50.0000	47
$	85 1,2-Dichloropropane-d6	67	6.725	6.725	(0.713)	115548	50.0000	51
	28 Methylcyclohexane	83	6.783	6.783	(0.719)	115486	50.0000	38
	29 1,2-Dichloropropane	63	6.818	6.818	(0.723)	98159	50.0000	54
$	94 1,4-Dioxane-d8	96	6.911	6.911	(1.094)	16703	1000.00	1200
	93 1,4-Dioxane	88	6.969	6.969	(1.103)	15922	1000.00	1200
	30 Bromodichloromethane	83	7.097	7.097	(0.753)	107971	50.0000	53
	31 cis-1,3-Dichloropropene	75	7.561	7.561	(0.802)	132053	50.0000	55
	32 4-Methyl-2-Pentanone	43	7.724	7.724	(0.819)	169608	100.000	110
$	33 Toluene-d8	98	7.840	7.840	(0.831)	242499	50.0000	48
	34 Toluene	91	7.910	7.910	(0.839)	287608	50.0000	49
$	86 trans-1,3-Dichloropropene-d4	79	8.119	8.119	(0.861)	92862	50.0000	55
	35 trans-1,3-Dichloropropene	75	8.142	8.142	(0.863)	103783	50.0000	54
	36 1,1,2-Trichloroethane	97	8.351	8.351	(0.885)	67052	50.0000	56
	37 Tetrachloroethene	164	8.502	8.502	(0.901)	58186	50.0000	46
$	87 2-Hexanone-d5	63	8.572	8.572	(0.909)	47563	100.000	110(Q)
	38 2-Hexanone	43	8.630	8.630	(0.915)	98586	100.000	80
	39 Dibromochloromethane	129	8.781	8.781	(0.931)	87511	50.0000	56
	40 1,2-Dibromoethane	107	8.920	8.920	(0.946)	75489	50.0000	59
*	42 Chlorobenzene-d5	117	9.431	9.431	(1.000)	206756	50.0000	
	43 Chlorobenzene	112	9.466	9.466	(1.004)	210578	50.0000	52
	44 Ethylbenzene	91	9.582	9.582	(1.016)	304904	50.0000	48
	45 m,p-Xylene	106	9.710	9.710	(1.030)	125107	50.0000	47
	46 o-Xylene	106	10.174	10.174	(1.079)	122005	50.0000	48
	47 Styrene	104	10.186	10.186	(1.080)	208578	50.0000	50
	48 Bromoform	173	10.418	10.418	(0.856)	51255	50.0000	57
	49 Isopropylbenzene	105	10.604	10.604	(1.124)	309947	50.0000	48
$	89 1,1,2,2-Tetrachloroethane-d2	84	10.929	10.929	(1.159)	85142	50.0000	57
	51 1,1,2,2-Tetrachloroethane	83	10.952	10.952	(1.161)	82213	50.0000	58
	52 1,3-Dichlorobenzene	146	12.091	12.091	(0.993)	135322	50.0000	53
*	78 1,4-Dichlorobenzene-d4	152	12.172	12.172	(1.000)	87745	50.0000	(Q)
	53 1,4-Dichlorobenzene	146	12.195	12.195	(1.002)	142846	50.0000	48
$	90 1,2-Dichlorobenzene-d4	152	12.625	12.625	(1.037)	81325	50.0000	50(Q)
	54 1,2-Dichlorobenzene	146	12.648	12.648	(1.039)	133212	50.0000	53
	55 1,2-Dibromo-3-chloropropane	75	13.647	13.647	(1.121)	11185	50.0000	63(Q)
	56 1,2,4-Trichlorobenzene	180	14.645	14.645	(1.203)	86635	50.0000	46
	77 1,2,3-Trichlorobenzene	180	15.238	15.238	(1.252)	80421	50.0000	49

QC Flag Legend

Q - Qualifier signal failed the ratio test.

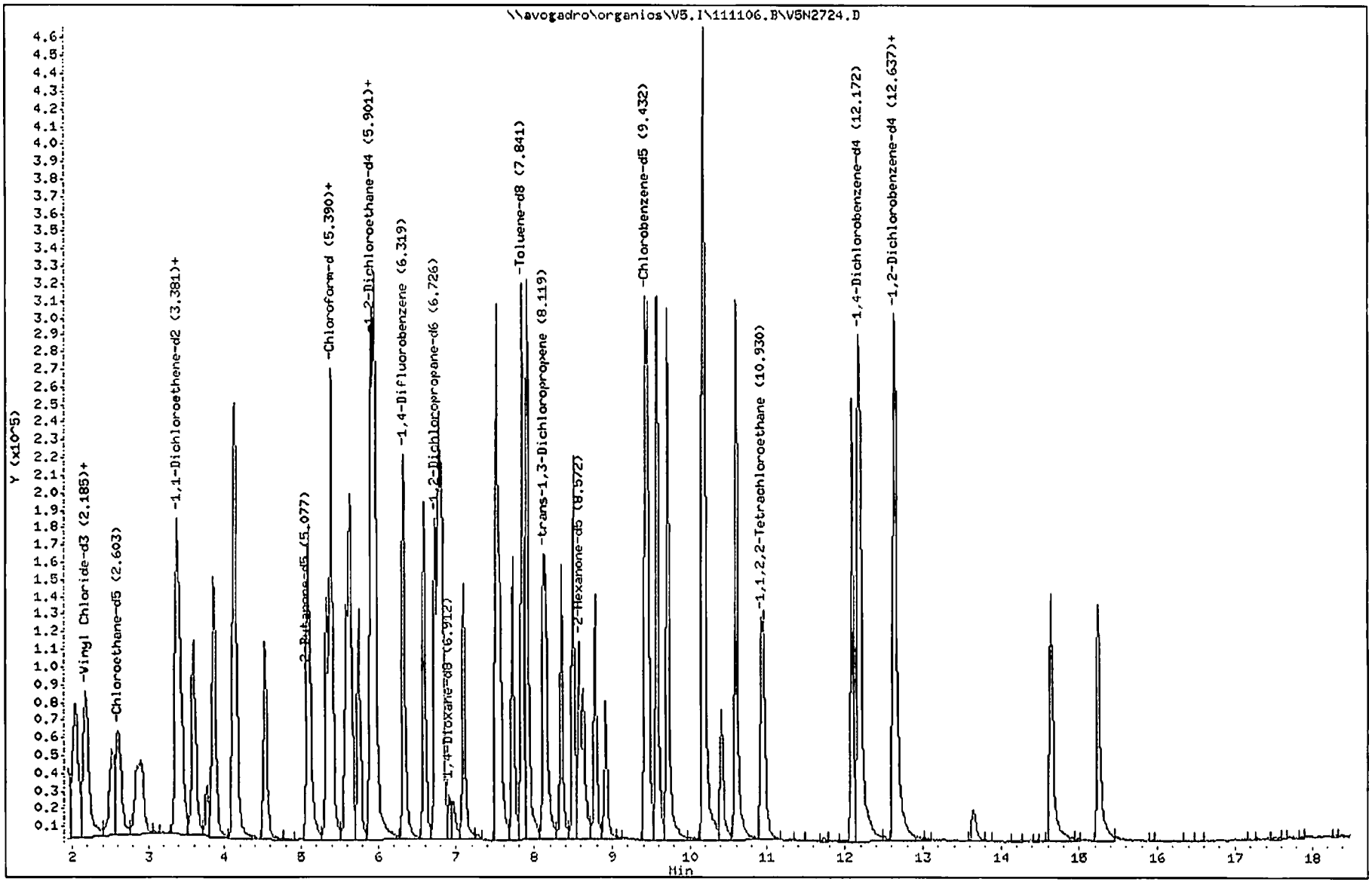
Data File: \\avogadro\organics\V5.I\111106.B\V5N2724.D
Date : 07-NOV-2011 09:45
Client ID: VSTD050K5
Sample Info: 5G,VSTD050K5,VSTD050K5

Instrument: V5.I

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111107.B\V5N2749.D
Report Date: 09-Nov-2011 08:01

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2749.D
Lab Smp Id: VSTD050L5 Client Smp ID: VSTD050L5
Inj Date : 07-NOV-2011 21:33
Operator : SRC: Inst ID: V5.i
Smp Info : 5G,VSTD050L5,VSTD050L5
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	1 Dichlorodifluoromethane	85	1.901	1.901	(0.301)	154767	50.0000	38
	2 Chloromethane	50	2.040	2.040	(0.323)	249104	50.0000	44
$	79 Vinyl Chloride-d3	65	2.168	2.168	(0.343)	151276	50.0000	43
	3 Vinyl Chloride	62	2.179	2.179	(0.345)	181752	50.0000	45
	4 Bromomethane	94	2.516	2.516	(0.398)	109899	50.0000	42
$	80 Chloroethane-d5	69	2.597	2.597	(0.411)	110012	50.0000	49
	5 Chloroethane	64	2.621	2.621	(0.414)	92311	50.0000	44
	6 Trichlorofluoromethane	101	2.853	2.853	(0.451)	215180	50.0000	47
$	81 1,1-Dichloroethene-d2	65	3.364	3.364	(0.532)	39109	50.0000	54
	7 1,1-Dichloroethene	96	3.376	3.376	(0.534)	125063	50.0000	48
	8 1,1,2-Trichloro-1,2,2-trifluo	101	3.410	3.410	(0.539)	123314	50.0000	40
	9 Acetone	43	3.445	3.445	(0.545)	50132	100.000	75
	10 Carbon Disulfide	76	3.596	3.596	(0.569)	494716	50.0000	45
	11 Methyl Acetate	43	3.770	3.770	(0.596)	66795	50.0000	38
	12 Methylene Chloride	84	3.852	3.852	(0.609)	125934	50.0000	44
	13 trans-1,2-Dichloroethene	96	4.119	4.119	(0.651)	136775	50.0000	50
	14 Methyl tert-Butyl Ether	73	4.142	4.142	(0.655)	220031	50.0000	43
	15 1,1-Dichloroethane	63	4.537	4.537	(0.717)	251943	50.0000	50
$	82 2-Butanone-d5	46	5.071	5.071	(0.802)	77405	100.000	79
	17 cis-1,2-Dichloroethene	96	5.094	5.094	(0.805)	130691	50.0000	49
	16 2-Butanone	43	5.129	5.129	(0.811)	83881	100.000	86

Data File: \\avogadro\organics\V5.I\111107.B\V5N2749.D
Report Date: 09-Nov-2011 08:01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	18 Bromochloromethane	128	5.338	5.338	(0.844)	58494	50.0000	45(Q)
$	83 Chloroform-d	84	5.385	5.385	(0.851)	203088	50.0000	49
	19 Chloroform	83	5.396	5.396	(0.853)	209191	50.0000	45
	20 1,1,1-Trichloroethane	97	5.582	5.582	(0.592)	172361	50.0000	54
	21 Cyclohexane	56	5.640	5.640	(0.598)	228783	50.0000	52
	22 Carbon Tetrachloride	117	5.745	5.745	(0.609)	166122	50.0000	56
$	23 1,2-Dichloroethane-d4	65	5.896	5.896	(0.932)	105883	50.0000	47
$	84 Benzene-d6	84	5.907	5.907	(0.627)	381057	50.0000	53
	25 Benzene	78	5.942	5.942	(0.630)	411885	50.0000	52
	24 1,2-Dichloroethane	62	5.965	5.965	(0.943)	125664	50.0000	48
*	26 1,4-Difluorobenzene	114	6.325	6.325	(1.000)	366711	50.0000	
	27 Trichloroethene	95	6.581	6.581	(0.698)	128255	50.0000	56
$	85 1,2-Dichloropropane-d6	67	6.732	6.732	(0.714)	150039	50.0000	50
	28 Methylcyclohexane	83	6.778	6.778	(0.719)	188187	50.0000	47
	29 1,2-Dichloropropane	63	6.813	6.813	(0.723)	127032	50.0000	53
$	94 1,4-Dioxane-d8	96	6.917	6.917	(1.094)	17753	1000.00	830
	93 1,4-Dioxane	88	6.976	6.976	(1.103)	15802	1000.00	810
	30 Bromodichloromethane	83	7.092	7.092	(0.752)	144275	50.0000	54
	31 cis-1,3-Dichloropropene	75	7.556	7.556	(0.802)	159702	50.0000	50
	32 4-Methyl-2-Pentanone	43	7.719	7.719	(0.819)	167770	100.000	79
$	33 Toluene-d8	98	7.835	7.835	(0.831)	355504	50.0000	53
	34 Toluene	91	7.916	7.916	(0.840)	410942	50.0000	53
$	86 trans-1,3-Dichloropropene-d4	79	8.114	8.114	(0.861)	104389	50.0000	46
	35 trans-1,3-Dichloropropene	75	8.148	8.148	(0.864)	117786	50.0000	47
	36 1,1,2-Trichloroethane	97	8.346	8.346	(0.885)	71777	50.0000	46
	37 Tetrachloroethene	164	8.497	8.497	(0.901)	90576	50.0000	54
$	87 2-Hexanone-d5	63	8.578	8.578	(0.910)	45313	100.000	79(Q)
	38 2-Hexanone	43	8.625	8.625	(0.915)	106007	100.000	65
	39 Dibromochloromethane	129	8.776	8.776	(0.931)	101726	50.0000	49
	40 1,2-Dibromoethane	107	8.915	8.915	(0.946)	80656	50.0000	48
*	42 Chlorobenzene-d5	117	9.426	9.426	(1.000)	272488	50.0000	
	43 Chlorobenzene	112	9.461	9.461	(1.004)	278208	50.0000	52
	44 Ethylbenzene	91	9.577	9.577	(1.016)	448168	50.0000	53
	45 m,p-Xylene	106	9.705	9.705	(1.030)	181566	50.0000	52
	46 o-Xylene	106	10.169	10.169	(1.079)	162452	50.0000	48
	47 Styrene	104	10.192	10.192	(1.081)	274326	50.0000	50
	48 Bromoform	173	10.413	10.413	(0.856)	53715	50.0000	52
	49 Isopropylbenzene	105	10.599	10.599	(1.124)	448962	50.0000	52
$	89 1,1,2,2-Tetrachloroethane-d2	84	10.924	10.924	(1.159)	86619	50.0000	44
	51 1,1,2,2-Tetrachloroethane	83	10.959	10.959	(1.163)	80854	50.0000	43
	52 1,3-Dichlorobenzene	146	12.097	12.097	(0.994)	161333	50.0000	55
*	78 1,4-Dichlorobenzene-d4	152	12.167	12.167	(1.000)	101156	50.0000	(Q)
	53 1,4-Dichlorobenzene	146	12.201	12.201	(1.003)	172931	50.0000	50
$	90 1,2-Dichlorobenzene-d4	152	12.631	12.631	(1.038)	94034	50.0000	50(Q)
	54 1,2-Dichlorobenzene	146	12.654	12.654	(1.040)	147862	50.0000	51
	55 1,2-Dibromo-3-chloropropane	75	13.653	13.653	(1.122)	9541	50.0000	47(Q)
	56 1,2,4-Trichlorobenzene	180	14.640	14.640	(1.203)	90420	50.0000	42
	77 1,2,3-Trichlorobenzene	180	15.244	15.244	(1.253)	72373	50.0000	38

QC Flag Legend

Q - Qualifier signal failed the ratio test.

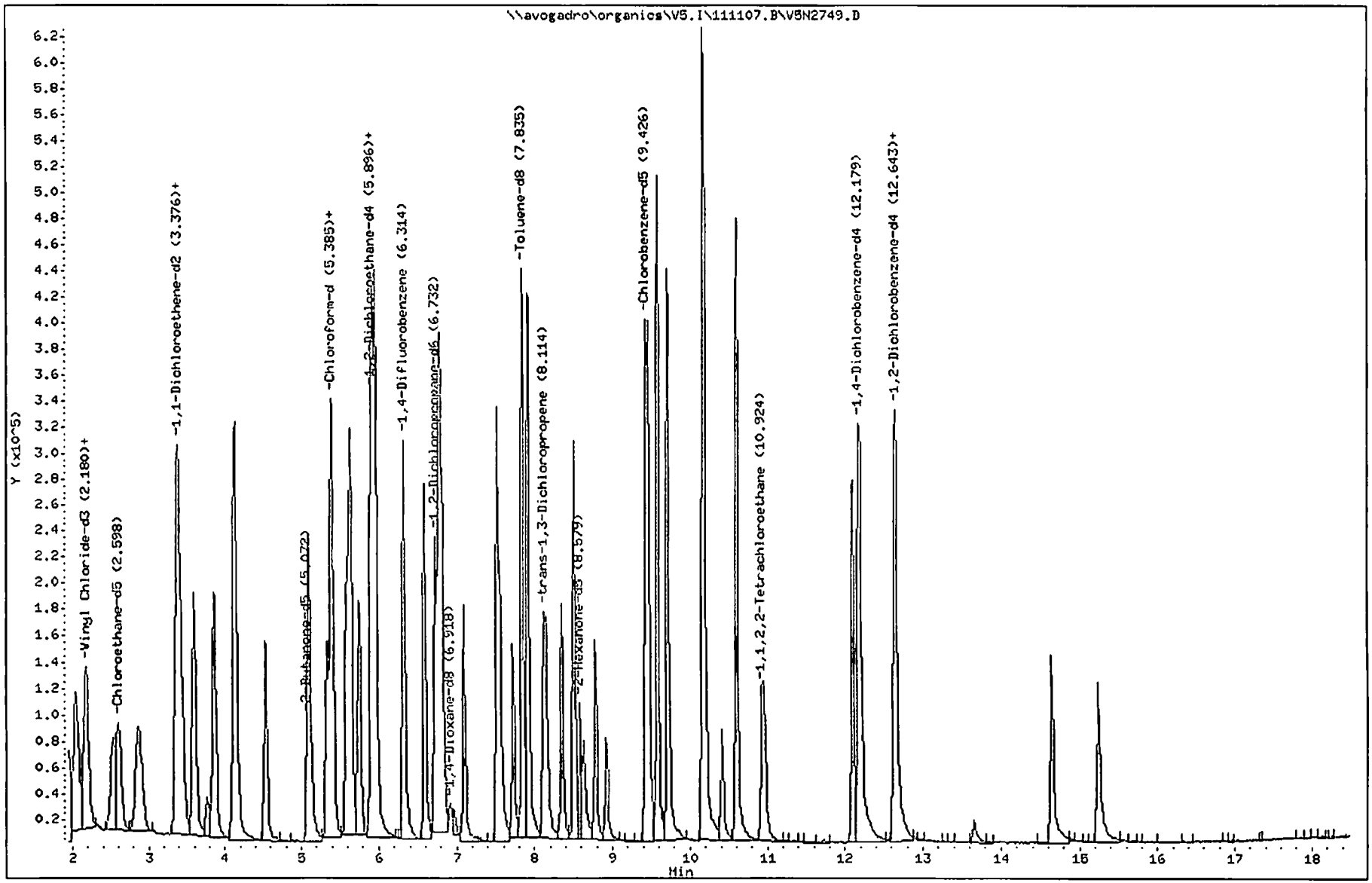
Data File: \\avogadro\organics\V5.I\111107.B\V5N2749.D
Date : 07-NOV-2011 21:33
Client ID: VSTD050L5
Sample Info: 5C,VSTD050L5,VSTD050L5

Instrument: V5.i

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25



Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\V5.I\111004A.B\V5N1310.D
Lab Smp Id: BFB5N Client Smp ID: BFB5N
Inj Date : 04-OCT-2011 16:43
Operator : SRC: Inst ID: V5.i
Smp Info : 2UL,BFB5N,BFB5N
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111004A.B\V5_BFB_SOM.m
Meth Date : 11-Jul-2011 15:17 wluo Quant Type: ISTD
Cal Date : 25-JAN-2006 16:13 Cal File: V5G4422.D
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET103

Concentration Formula: Amt * DF * Uf * Vf * VI * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
VI	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	REL RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
10.797	11.000	(0.000)	95	75968			0.00- 100.00	100.00
10.797	11.000	(0.000)	50	16098			15.00- 40.00	21.19
10.797	11.000	(0.000)	75	32176			30.00- 80.00	42.35
10.797	11.000	(0.000)	96	4954			5.00- 9.00	6.52
10.797	11.000	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
10.797	11.000	(0.000)	174	59816			50.00- 120.00	78.74
10.797	11.000	(0.000)	175	4930			5.00- 9.00	8.24
10.797	11.000	(0.000)	176	59568			95.00- 101.00	99.59
10.797	11.000	(0.000)	177	3678			5.00- 9.00	6.17

Data File: \\avogadro\organics\V5.I\111004A.B\V5N1310.D

Date : 04-OCT-2011 16:43

Client ID: BFB5N

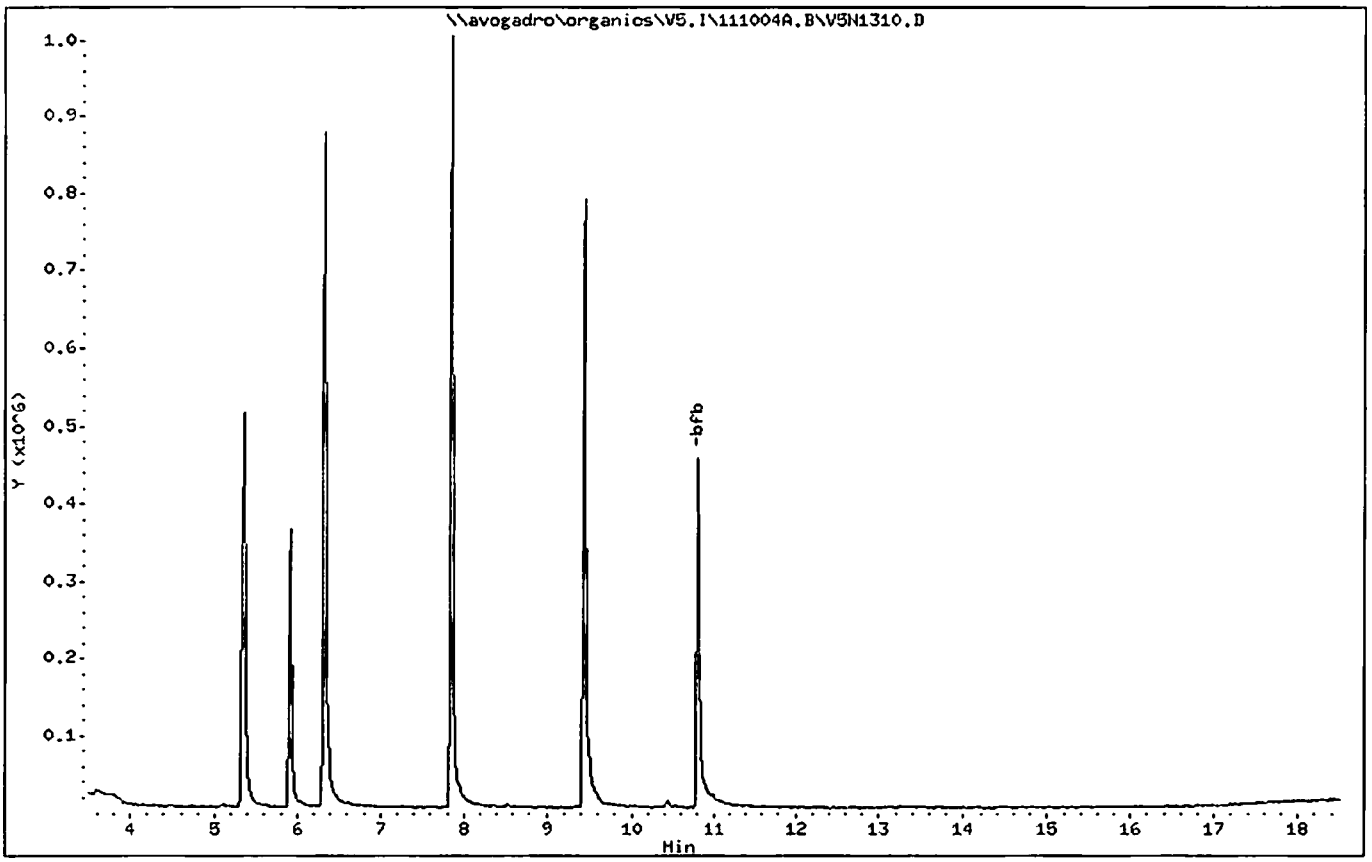
Instrument: V5.i

Sample Info: 2UL,BFB5N,BFB5N

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111004A.B\V5N1310.D

Date : 04-OCT-2011 16:43

Client ID: BFB5N

Instrument: V5.i

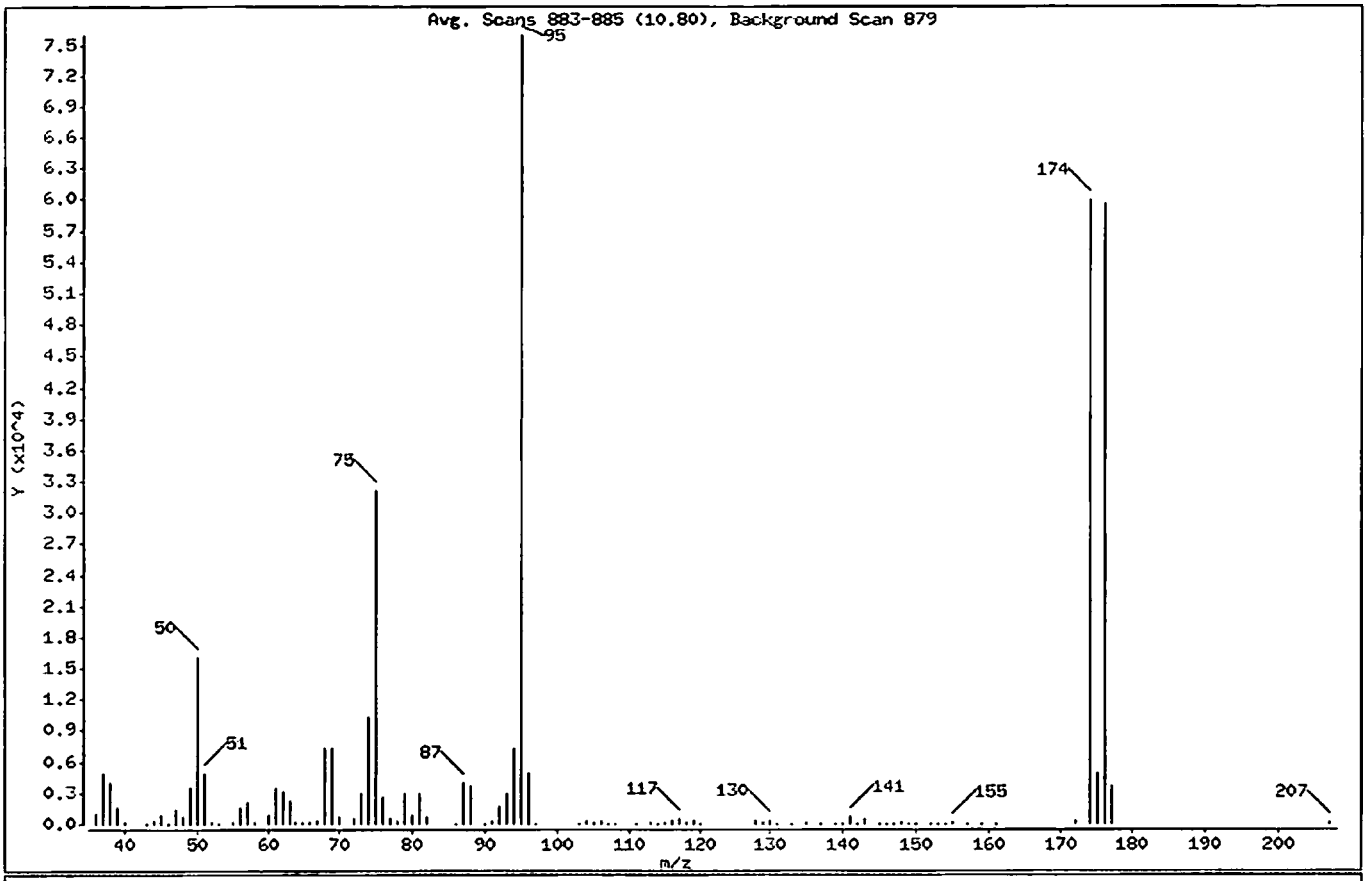
Sample Info: 2UL,BFB5N,BFB5N

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.19
75	30.00 - 80.00% of mass 95	42.35
96	5.00 - 9.00% of mass 95	6.52
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	78.74
175	5.00 - 9.00% of mass 174	6.49 (8.24)
176	95.00 - 101.00% of mass 174	78.41 (99.59)
177	5.00 - 9.00% of mass 176	4.84 (6.17)

Data File: \\avogadro\organics\V5.I\111004A.B\V5N1310.D

Date : 04-OCT-2011 16:43

Client ID: BFB5N

Instrument: V5.i

Sample Info: 2UL,BFB5N,BFB5N

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25

Data File: V5N1310.D

Spectrum: Avg. Scans 883-885 (10.80), Background Scan 879

Location of Maximum: 95.00

Number of points: 99

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1118	65.00	199	95.00	75968	139.00	44
37.00	4891	66.00	106	96.00	4954	140.00	43
38.00	4070	67.00	361	97.00	56	141.00	693
39.00	1502	68.00	7415	103.00	46	142.00	77
40.00	92	69.00	7270	104.00	346	143.00	552
43.00	49	70.00	668	105.00	156	145.00	42
44.00	425	72.00	458	106.00	289	146.00	41
45.00	858	73.00	2908	107.00	87	147.00	35
46.00	39	74.00	10337	108.00	38	148.00	214
47.00	1361	75.00	32176	111.00	40	149.00	35
48.00	658	76.00	2687	113.00	100	150.00	41
49.00	3460	77.00	527	114.00	43	152.00	34
50.00	16098	78.00	281	115.00	105	153.00	36
51.00	4835	79.00	2919	116.00	313	154.00	48
52.00	219	80.00	863	117.00	474	155.00	173
53.00	51	81.00	2986	118.00	242	157.00	51
55.00	236	82.00	747	119.00	418	159.00	39
56.00	1517	86.00	43	120.00	35	161.00	57
57.00	2048	87.00	4008	128.00	275	172.00	327
58.00	154	88.00	3736	129.00	129	174.00	59816
60.00	882	90.00	47	130.00	280	175.00	4930
61.00	3470	91.00	343	131.00	53	176.00	59568
62.00	3135	92.00	1701	133.00	37	177.00	3678
63.00	2329	93.00	2901	135.00	118	207.00	126
64.00	218	94.00	7415	137.00	71		

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\V5.I\111106.B\V5N2700.D
Lab Smp Id: BFBJ5 Client Smp ID: BFBJ5
Inj Date : 06-NOV-2011 22:49
Operator : SRC: Inst ID: V5.i
Smp Info : 2UL,BFBJ5,BFBJ5
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111106.B\V5_BFB_SOM.m
Meth Date : 11-Jul-2011 15:17 wluo Quant Type: ISTD
Cal Date : 25-JAN-2006 16:13 Cal File: V5G4422.D
Ais bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET103

Concentration Formula: Amt * DF * Uf * Vf * VI * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
VI	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	REL RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
10.783	11.000	(0.000)	95	46176			0.00- 100.00	100.00
10.783	11.000	(0.000)	50	10919			15.00- 40.00	23.65
10.783	11.000	(0.000)	75	20224			30.00- 80.00	43.80
10.783	11.000	(0.000)	96	2965			5.00- 9.00	6.42
10.783	11.000	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
10.783	11.000	(0.000)	174	32744			50.00- 120.00	70.91
10.783	11.000	(0.000)	175	2684			5.00- 9.00	8.20
10.783	11.000	(0.000)	176	32352			95.00- 101.00	98.80
10.783	11.000	(0.000)	177	2144			5.00- 9.00	6.63

Data File: \\avogadro\organics\V5.I\111106.B\V5N2700.D

Date : 06-NOV-2011 22:49

Client ID: BFBJ5

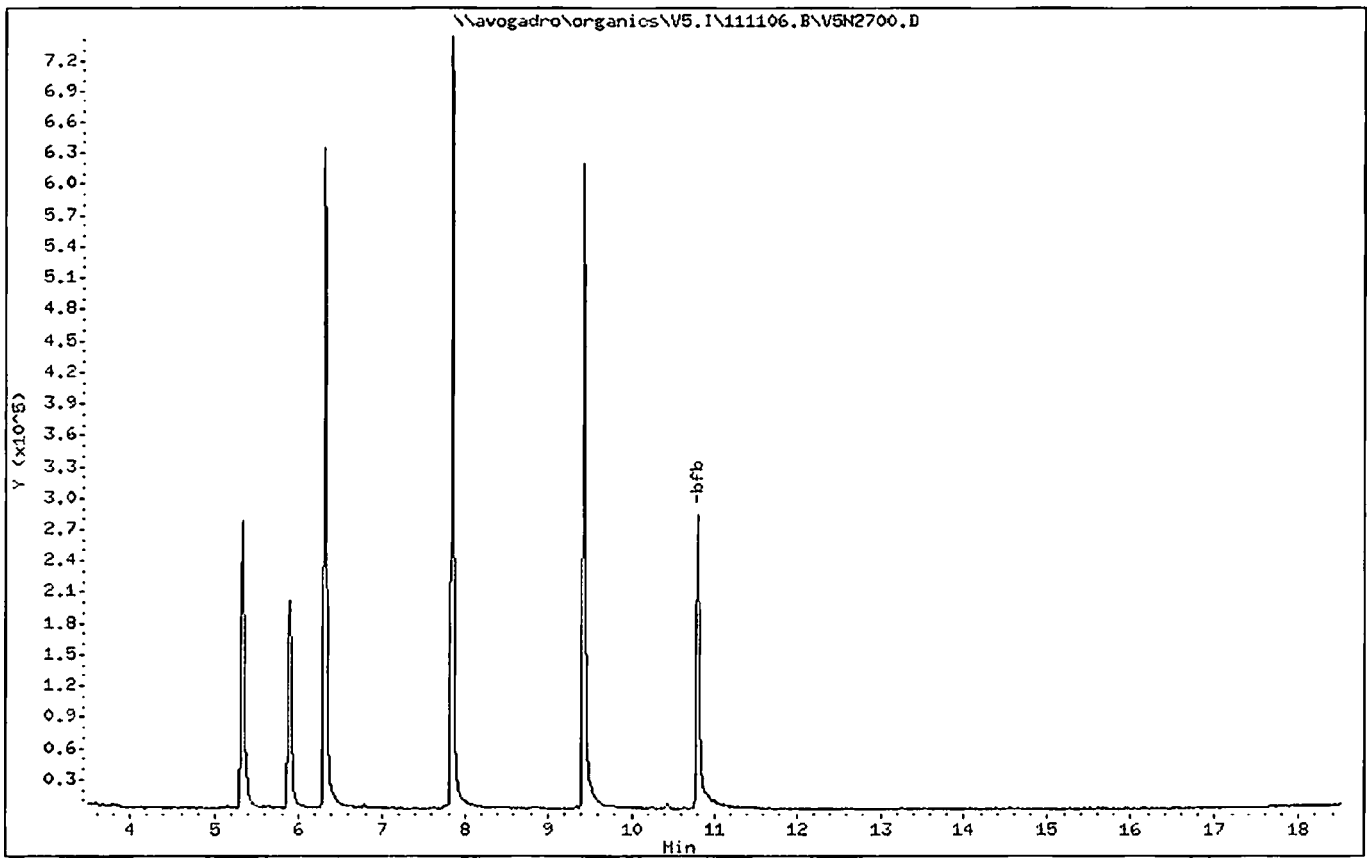
Instrument: V5.i

Sample Info: 2UL,BFBJ5,BFBJ5

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25



Data File: \\avogadro\organics\V5.I\111106.B\V5N2700.D

Date : 06-NOV-2011 22:49

Client ID: BFBJ5

Instrument: V5.i

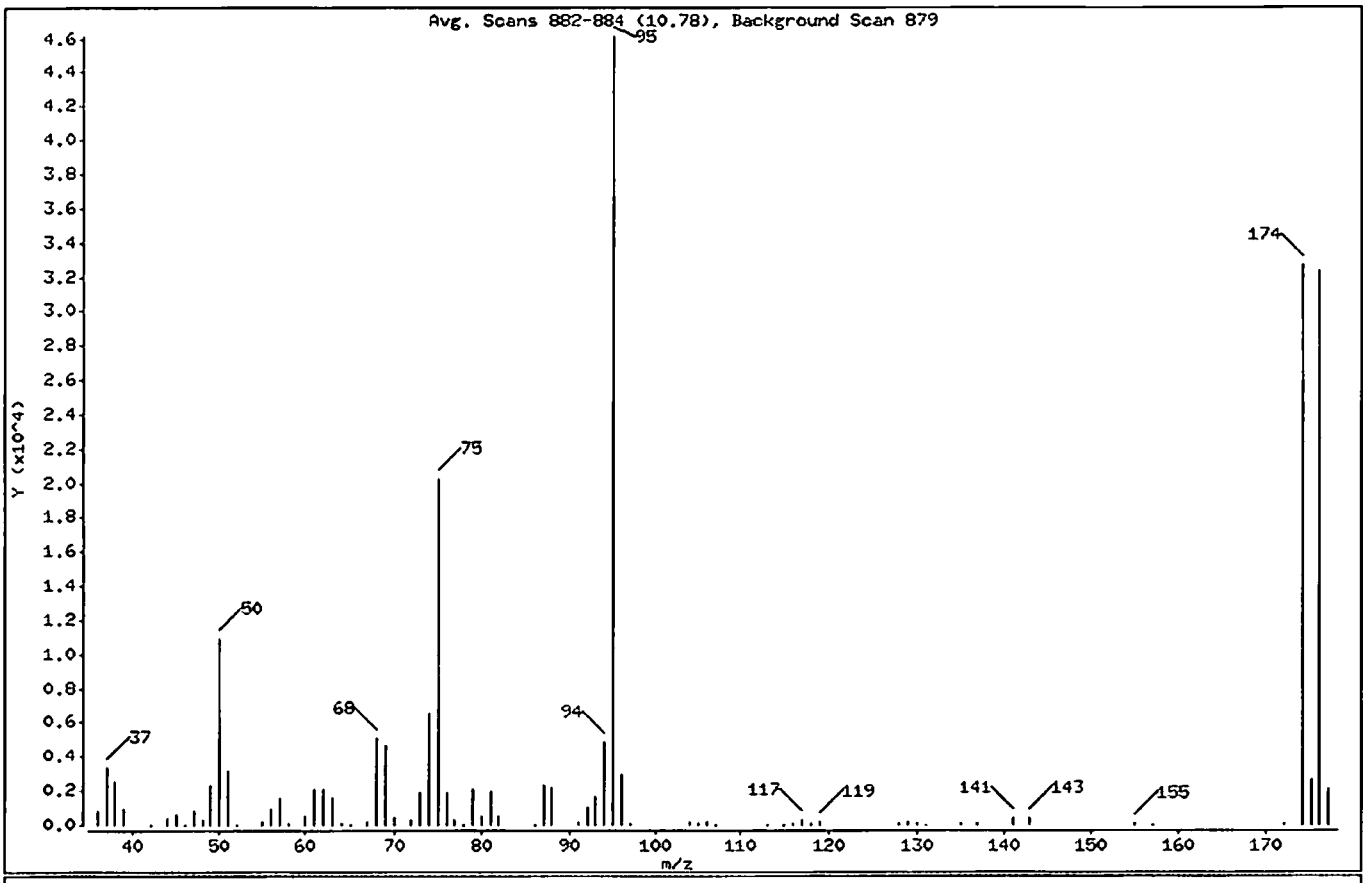
Sample Info: 2UL,BFBJ5,BFBJ5

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.65
75	30.00 - 80.00% of mass 95	43.80
96	5.00 - 9.00% of mass 95	6.42
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	70.91
175	5.00 - 9.00% of mass 174	5.81 (8.20)
176	95.00 - 101.00% of mass 174	70.06 (98.80)
177	5.00 - 9.00% of mass 176	4.64 (6.63)

Data File: \\avogadro\organics\V5.I\111106.B\V5N2700.D

Date : 06-NOV-2011 22:49

Client ID: BFBJ5 Instrument: V5.i

Sample Info: 2UL,BFBJ5,BFBJ5

Operator: SRC:

Column phase: DB-624 Column diameter: 0.25

Data File: V5N2700.D
Spectrum: Avg. Scans 882-884 (10.78), Background Scan 879
Location of Maximum: 95.00
Number of points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	797	61.00	2147	82.00	580	118.00	144
37.00	3412	62.00	2154	86.00	46	119.00	253
38.00	2513	63.00	1546	87.00	2295	128.00	103
39.00	965	64.00	128	88.00	2199	129.00	172
42.00	36	65.00	38	91.00	199	130.00	70
44.00	422	67.00	183	92.00	1082	131.00	38
45.00	665	68.00	5072	93.00	1710	135.00	56
46.00	40	69.00	4706	94.00	4868	137.00	85
47.00	856	70.00	396	95.00	46176	141.00	465
48.00	348	72.00	278	96.00	2965	143.00	451
49.00	2330	73.00	1866	97.00	91	155.00	138
50.00	10919	74.00	6594	104.00	220	157.00	44
51.00	3185	75.00	20224	105.00	66	172.00	118
52.00	9	76.00	1876	106.00	239	174.00	32744
55.00	204	77.00	344	107.00	44	175.00	2684
56.00	976	78.00	51	113.00	33	176.00	32352
57.00	1627	79.00	2123	115.00	35	177.00	2144
58.00	73	80.00	508	116.00	122		
60.00	540	81.00	2049	117.00	316		

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKJ5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-62569

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2702.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 11/06/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5.0	U
79-20-9	Methyl acetate	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	10	U
74-97-5	Bromochloromethane	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
123-91-1	1,4-Dioxane	100	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKJ5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-62569

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2702.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 11/06/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKJ5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-62569

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2702.D

Level: (TRACE or LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 11/06/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\avogadro\organics\V5.I\111106.B\V5N2702.D
Report Date: 09-Nov-2011 07:59

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111106.B\V5N2702.D
Lab Smp Id: MB-62569 Client Smp ID: VBLKJ5
Inj Date : 06-NOV-2011 23:44
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,MB-62569,VBLKJ5,62569
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111106.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 16:40 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 34 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.167	2.173	(0.343)	123768	37.6278	38
$ 80 Chloroethane-d5	69	2.585	2.603	(0.409)	90381	42.4799	42(Q)
$ 81 1,1-Dichloroethene-d2	65	3.352	3.369	(0.530)	31303	45.8831	46(Q)
$ 82 2-Butanone-d5	46	5.070	5.076	(0.802)	63006	68.6835	69
$ 83 Chloroform-d	84	5.384	5.390	(0.851)	168490	42.7553	43(Q)
$ 23 1,2-Dichloroethane-d4	65	5.895	5.901	(0.932)	86071	40.4650	40(Q)
$ 84 Benzene-d6	84	5.907	5.912	(0.627)	329726	50.5000	51
* 26 1,4-Difluorobenzene	114	6.325	6.319	(1.000)	345444	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.731	6.725	(0.714)	124268	46.0546	46
$ 94 1,4-Dioxane-d8	96	6.917	6.911	(1.094)	13685	675.960	680
$ 33 Toluene-d8	98	7.846	7.840	(0.832)	294589	48.8752	49
$ 86 trans-1,3-Dichloropropene-d4	79	8.125	8.119	(0.862)	94652	46.5906	47
$ 87 2-Hexanone-d5	63	8.589	8.572	(0.911)	31801	61.2592	61(Q)
* 42 Chlorobenzene-d5	117	9.425	9.431	(1.000)	246579	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.935	10.929	(1.160)	71522	40.4972	40
* 78 1,4-Dichlorobenzene-d4	152	12.178	12.172	(1.000)	91770	50.0000	
$ 90 1,2-Dichlorobenzene-d4	152	12.630	12.625	(1.037)	75409	43.9858	44(Q)

Data File: \\avogadro\organics\V5.I\111106.B\V5N2702.D
Report Date: 09-Nov-2011 07:59

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\V5.I\111106.B\V5N2702.D
Report Date: 09-Nov-2011 07:59

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111106.B\V5N2702.D
Lab Smp Id: MB-62569 Client Smp ID: VBLKJ5
Inj Date : 06-NOV-2011 23:44
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,MB-62569,VBLKJ5,62569
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111106.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 16:40 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 34 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

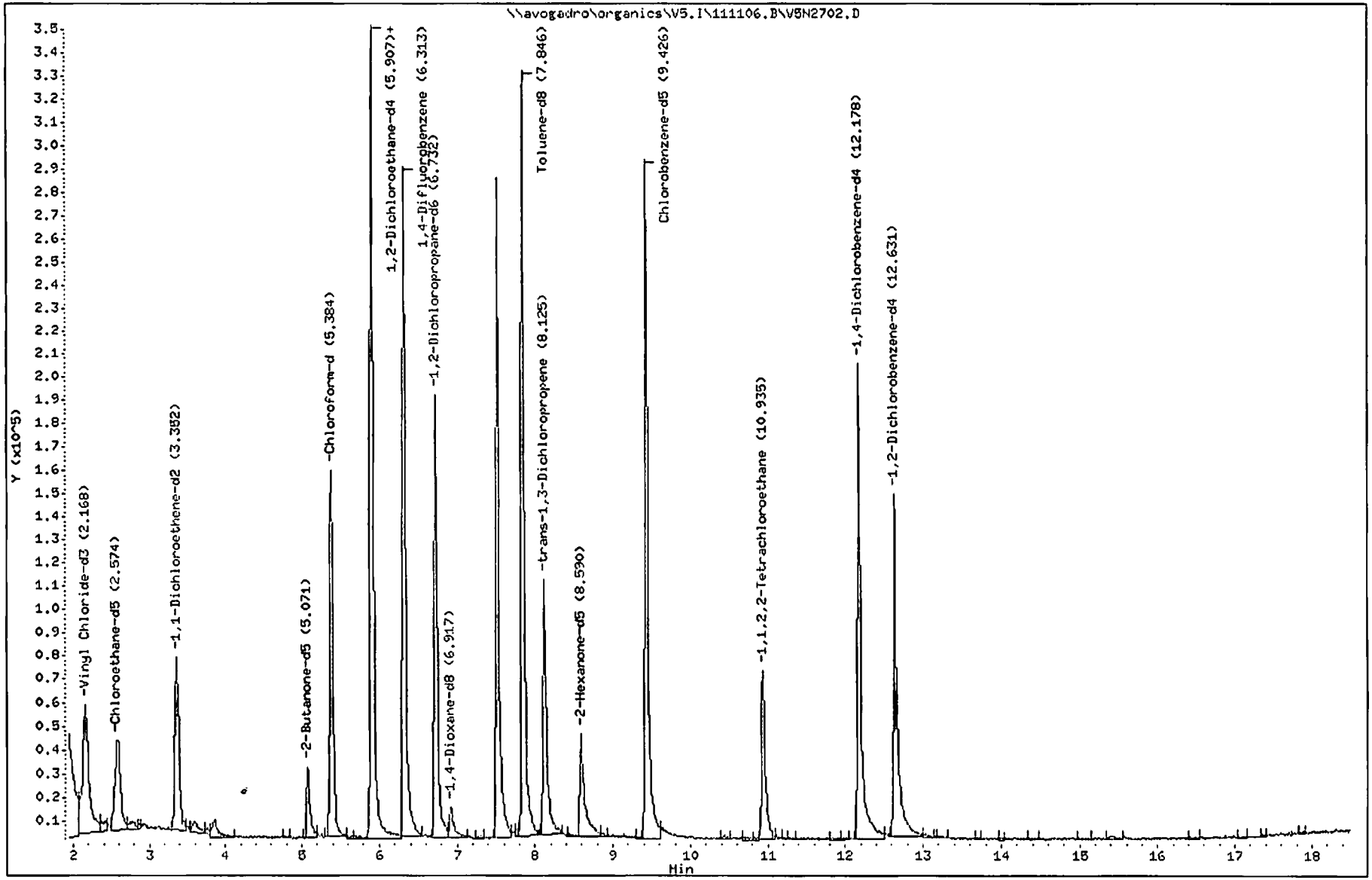
Data File: \\avogadro\organics\V5.I\111106.B\V5N2702.D
Date : 06-NOV-2011 23:44
Client ID: VBLKJ5
Sample Info: 5G,MB-62569,VBLKJ5,62569

Instrument: V5.i

Operator: SRC: LIHS

Column phase: DB-624

Column diameter: 0.25



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKK5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-62780

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2725.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5.0	U
79-20-9	Methyl acetate	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	10	U
74-97-5	Bromochloromethane	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
123-91-1	1,4-Dioxane	100	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKK5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-62780

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2725.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKK5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-62780

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2725.D

Level: (TRACE or LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2725.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2725.D
Lab Smp Id: MB-62780 Client Smp ID: VBLKK5
Inj Date : 07-NOV-2011 10:12
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,MB-62780,VBLKK5,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.168	2.168	(0.343)	113629	36.6517	37
$ 80 Chloroethane-d5	69	2.598	2.597	(0.411)	83712	41.7445	42(Q)
$ 81 1,1-Dichloroethene-d2	65	3.364	3.364	(0.532)	26484	41.1865	41(Q)
$ 82 2-Butanone-d5	46	5.071	5.071	(0.802)	73317	84.7969	85
$ 83 Chloroform-d	84	5.385	5.385	(0.851)	168411	45.3411	45(Q)
$ 23 1,2-Dichloroethane-d4	65	5.896	5.896	(0.932)	86018	42.9059	43(Q)
$ 84 Benzene-d6	84	5.908	5.907	(0.627)	317191	46.5151	47
* 26 1,4-Difluorobenzene	114	6.326	6.325	(1.000)	325591	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.732	6.732	(0.714)	123220	43.7250	44
$ 94 1,4-Dioxane-d8	96	6.918	6.917	(1.094)	14715	771.155	770
$ 33 Toluene-d8	98	7.847	7.835	(0.832)	287060	45.6016	46
$ 86 trans-1,3-Dichloropropene-d4	79	8.126	8.114	(0.862)	93921	44.2656	44
$ 87 2-Hexanone-d5	63	8.590	8.578	(0.911)	38746	71.4648	71(Q)
* 42 Chlorobenzene-d5	117	9.426	9.426	(1.000)	257526	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.936	10.924	(1.160)	76261	41.3450	41
* 78 1,4-Dichlorobenzene-d4	152	12.179	12.167	(1.000)	97710	50.0000	
$ 90 1,2-Dichlorobenzene-d4	152	12.632	12.631	(1.037)	78488	42.9986	43(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2725.D
Report Date: 09-Nov-2011 08:00

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2725.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2725.D
Lab Smp Id: MB-62780 Client Smp ID: VBLKK5
Inj Date : 07-NOV-2011 10:12
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,MB-62780,VBLKK5,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

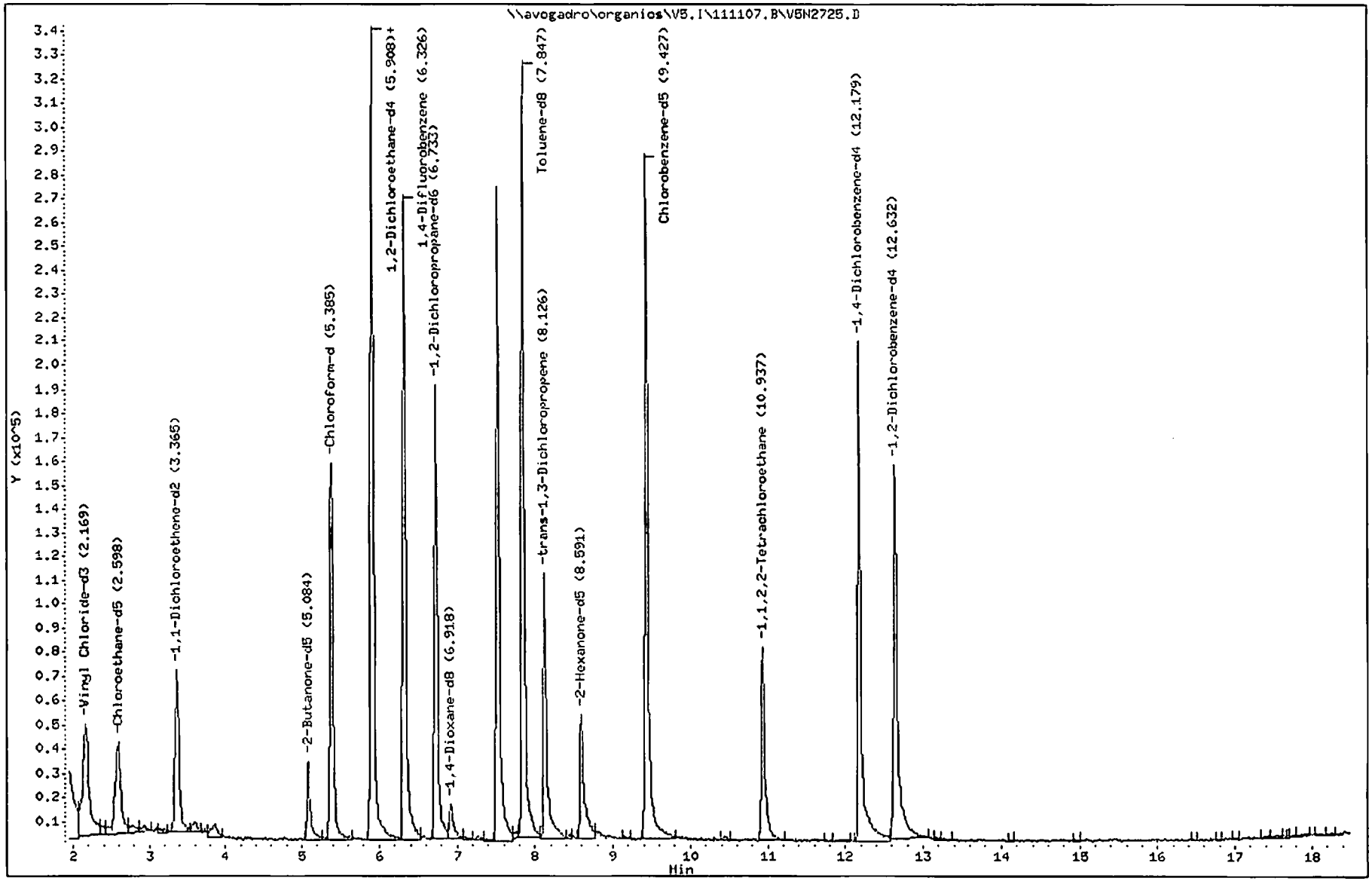
Data File: \\avogadro\organics\V5.I\111107.B\V5N2725.D
Date : 07-NOV-2011 10:12
Client ID: VBLKK5
Sample Info: 5G,MB-62780,VBLKK5,62780

Instrument: V5.i

Operator: SRC: LIHS

Column phase: DB-624

Column diameter: 0.25



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLKK5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: VHBLKK5

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2748.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5.0	U
79-20-9	Methyl acetate	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	10	U
74-97-5	Bromochloromethane	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
123-91-1	1,4-Dioxane	100	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLKK5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: VHBLKK5

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2748.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	5.0	U
108-87-2	Methylcyclohexane	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLKK5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: VHBLKK5

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2748.D

Level: (TRACE or LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2748.D
Report Date: 09-Nov-2011 08:01

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2748.D
Lab Smp Id: VHBLKK5 Client Smp ID: VHBLKK5
Inj Date : 07-NOV-2011 21:05
Operator : SRC: Inst ID: V5.i
Smp Info : 5G,VHBLKK5,VHBLKK5,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 79 Vinyl Chloride-d3	65	2.167	2.168	(0.343)	146259	40.5381	41
$ 80 Chloroethane-d5	69	2.585	2.597	(0.410)	111078	47.5965	48(Q)
$ 81 1,1-Dichloroethene-d2	65	3.352	3.364	(0.531)	32118	42.9196	43(Q)
$ 82 2-Butanone-d5	46	5.071	5.071	(0.803)	104139	103.496	100
$ 83 Chloroform-d	84	5.384	5.385	(0.853)	204857	47.3922	47(Q)
$ 23 1,2-Dichloroethane-d4	65	5.895	5.896	(0.934)	120510	51.6519	52
$ 84 Benzene-d6	84	5.907	5.907	(0.627)	375861	45.2187	45
• 26 1,4-Difluorobenzene	114	6.313	6.325	(1.000)	378911	50.0000	
$ 85 1,2-Dichloropropane-d6	67	6.731	6.732	(0.714)	149665	43.5699	44
$ 94 1,4-Dioxane-d8	96	6.917	6.917	(1.096)	23797	1071.61	1100
$ 33 Toluene-d8	98	7.846	7.835	(0.832)	338289	44.0872	44
$ 86 trans-1,3-Dichloropropene-d4	79	8.113	8.114	(0.861)	126578	48.9417	49
$ 87 2-Hexanone-d5	63	8.578	8.578	(0.910)	55892	84.5731	85(Q)
• 42 Chlorobenzene-d5	117	9.425	9.426	(1.000)	313909	50.0000	
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.924	10.924	(1.159)	109872	48.8680	49
• 78 1,4-Dichlorobenzene-d4	152	12.178	12.167	(1.000)	127972	50.0000	
$ 90 1,2-Dichlorobenzene-d4	152	12.631	12.631	(1.037)	108580	45.4177	45(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2748.D
Report Date: 09-Nov-2011 08:01

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\V5.I\111107.B\V5N2748.D
Report Date: 09-Nov-2011 08:01

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2748.D
Lab Smp Id: VHBLKK5 Client Smp ID: VHBLKK5
Inj Date : 07-NOV-2011 21:05
Operator : SRC: Inst ID: V5.i
Smp Info : 5G,VHBLKK5,VHBLKK5,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

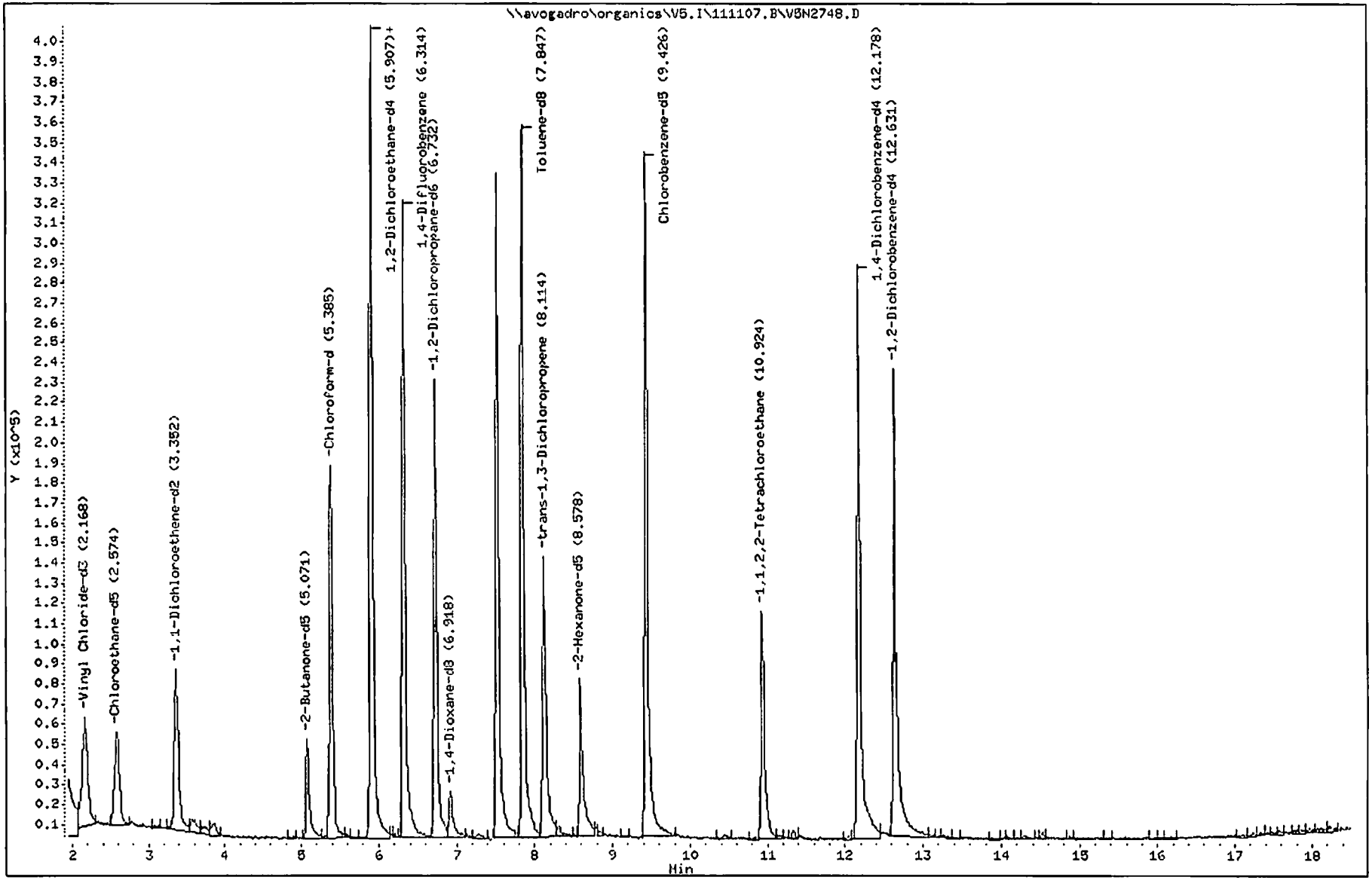
Data File: \\avogadro\organics\V5.I\111107.B\V5N2748.D
Date : 07-NOV-2011 21:05
Client ID: VHBLKK5
Sample Info: 5C,VHBLKK5,VHBLKK5,62780

Instrument: V5.i

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S0MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-12BMS

Sample wt/vol: 4.90 (g/mL) G Lab File ID: V5N2733.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 44 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	9.1	U
74-87-3	Chloromethane	9.1	U
75-01-4	Vinyl chloride	9.1	U
74-83-9	Bromomethane	9.1	U
75-00-3	Chloroethane	9.1	U
75-69-4	Trichlorofluoromethane	9.1	U
75-35-4	1,1-Dichloroethene	83	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	9.1	U
67-64-1	Acetone	18	U
75-15-0	Carbon disulfide	9.1	U
79-20-9	Methyl acetate	9.1	U
75-09-2	Methylene chloride	9.1	U
156-60-5	trans-1,2-Dichloroethene	9.1	U
1634-04-4	Methyl tert-butyl ether	9.1	U
75-34-3	1,1-Dichloroethane	9.1	U
156-59-2	cis-1,2-Dichloroethene	9.1	U
78-93-3	2-Butanone	18	U
74-97-5	Bromochloromethane	9.1	U
67-66-3	Chloroform	9.1	U
71-55-6	1,1,1-Trichloroethane	9.1	U
110-82-7	Cyclohexane	9.1	U
56-23-5	Carbon tetrachloride	9.1	U
71-43-2	Benzene	120	
107-06-2	1,2-Dichloroethane	9.1	U
123-91-1	1,4-Dioxane	180	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S0MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-12BMS

Sample wt/vol: 4.90 (g/mL) G Lab File ID: V5N2733.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 44 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	110	
108-87-2	Methylcyclohexane	9.1	U
78-87-5	1,2-Dichloropropane	9.1	U
75-27-4	Bromodichloromethane	9.1	U
10061-01-5	cis-1,3-Dichloropropene	9.1	U
108-10-1	4-Methyl-2-pentanone	18	U
108-88-3	Toluene	100	
10061-02-6	trans-1,3-Dichloropropene	9.1	U
79-00-5	1,1,2-Trichloroethane	9.1	U
127-18-4	Tetrachloroethene	9.1	U
591-78-6	2-Hexanone	18	U
124-48-1	Dibromochloromethane	9.1	U
106-93-4	1,2-Dibromoethane	9.1	U
108-90-7	Chlorobenzene	98	
100-41-4	Ethylbenzene	9.1	U
179601-23-1	m,p-Xylene	9.1	U
95-47-6	o-Xylene	9.1	U
100-42-5	Styrene	9.1	U
75-25-2	Bromoform	9.1	U
98-82-8	Isopropylbenzene	9.1	U
79-34-5	1,1,2,2-Tetrachloroethane	9.1	U
541-73-1	1,3-Dichlorobenzene	9.1	U
106-46-7	1,4-Dichlorobenzene	9.1	U
95-50-1	1,2-Dichlorobenzene	9.1	U
96-12-8	1,2-Dibromo-3-chloropropane	9.1	U
120-82-1	1,2,4-Trichlorobenzene	9.1	U
87-61-6	1,2,3-Trichlorobenzene	9.1	U

Data File: \\avogadro\organics\V5.I\111107.B\V5N2733.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2733.D
Lab Smp Id: K2199-12BMS Client Smp ID: H30S0MS
Inj Date : 07-NOV-2011 14:18
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-12BMS,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.900	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
$ 79 Vinyl Chloride-d3	65	2.151	2.168	(0.340)	110860	50.0000	44
$ 80 Chloroethane-d5	69	2.580	2.597	(0.408)	77069	50.0000	47(Q)
$ 81 1,1-Dichloroethene-d2	65	3.358	3.364	(0.531)	25654	50.0000	49
7 1,1-Dichloroethene	96	3.370	3.376	(0.533)	84908	50.0000	45
$ 82 2-Butanone-d5	46	5.077	5.071	(0.803)	66553	100.000	95
$ 83 Chloroform-d	84	5.379	5.385	(0.851)	144937	50.0000	48(Q)
$ 23 1,2-Dichloroethane-d4	65	5.890	5.896	(0.932)	81890	50.0000	50
$ 84 Benzene-d6	84	5.913	5.907	(0.627)	277425	50.0000	59
25 Benzene	78	5.948	5.942	(0.631)	332518	50.0000	65
* 26 1,4-Difluorobenzene	114	6.320	6.325	(1.000)	265050	50.0000	
27 Trichloroethene	95	6.587	6.581	(0.698)	88849	50.0000	60
$ 85 1,2-Dichloropropane-d6	67	6.726	6.732	(0.713)	105573	50.0000	55
$ 94 1,4-Dioxane-d8	96	6.923	6.917	(1.096)	16377	1000.00	1100
$ 33 Toluene-d8	98	7.841	7.835	(0.831)	222385	50.0000	52
34 Toluene	91	7.911	7.916	(0.839)	284203	50.0000	56
$ 86 trans-1,3-Dichloropropene-d4	79	8.120	8.114	(0.861)	79478	50.0000	55
$ 87 2-Hexanone-d5	63	8.584	8.578	(0.910)	31414	100.000	85(Q)
* 42 Chlorobenzene-d5	117	9.432	9.426	(1.000)	176450	50.0000	
43 Chlorobenzene	112	9.455	9.461	(1.002)	186235	50.0000	54
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.930	10.924	(1.159)	58226	50.0000	46
* 78 1,4-Dichlorobenzene-d4	152	12.173	12.167	(1.000)	50730	50.0000	(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2733.D
Report Date: 09-Nov-2011 08:00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
S 90 1,2-Dichlorobenzene-d4	152	12.637	12.631	(1.038)	46255	50.0000	49

QC Flag Legend

Q - Qualifier signal failed the ratio test.

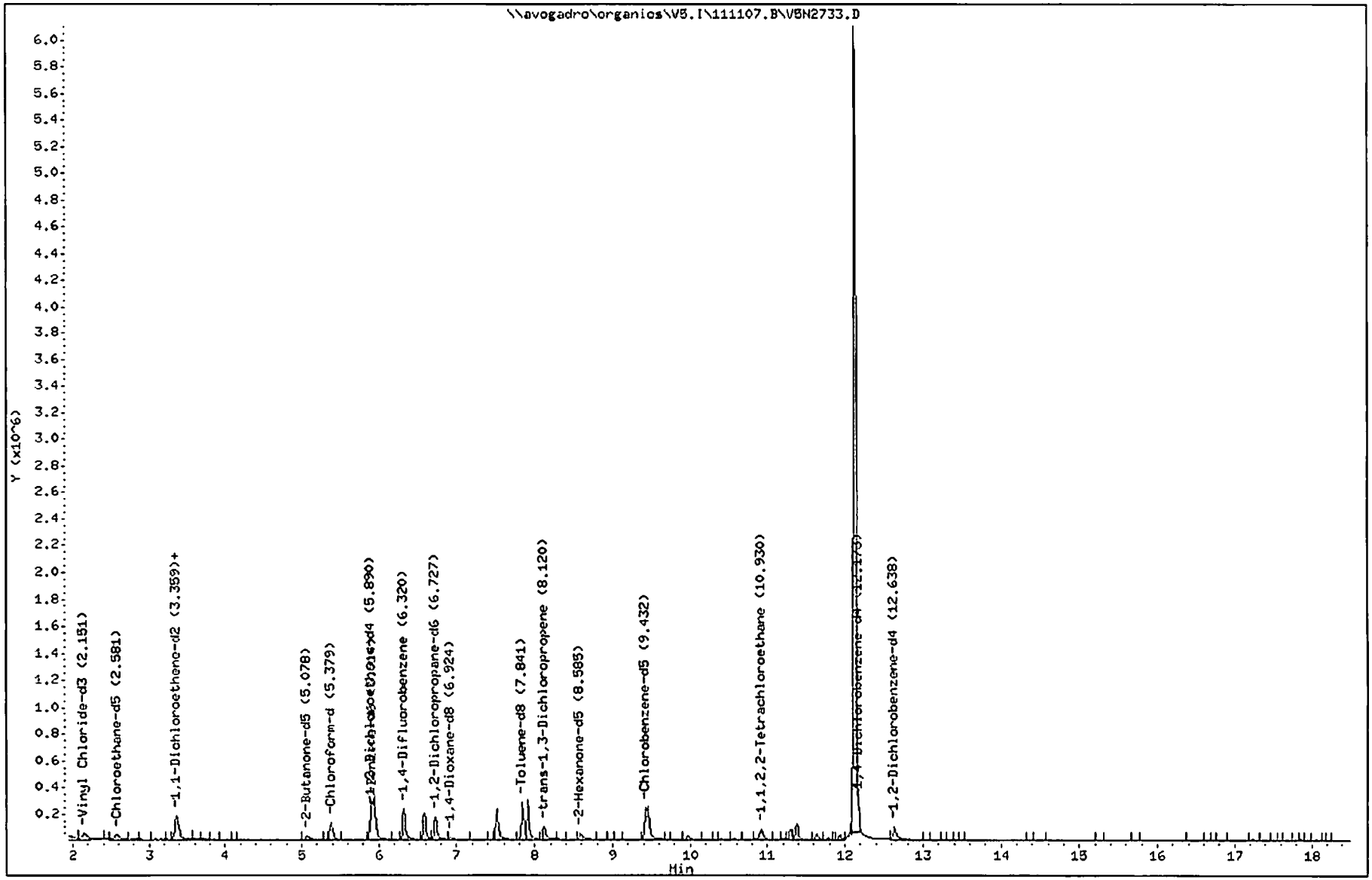
Data File: \\avogadro\organics\V5.I\111107.B\V5N2733.D
Date : 07-NOV-2011 14:18
Client ID: H30S0HS
Sample Info: 5C,K2199-12BHS,,62780

Instrument: V5.i

Operator: SRC: LIHS

Column phase: DB-624

Column diameter: 0.25



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S0MSD

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-12BMSD

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2734.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 44 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
75-71-8	Dichlorodifluoromethane	9.0	U
74-87-3	Chloromethane	9.0	U
75-01-4	Vinyl chloride	9.0	U
74-83-9	Bromomethane	9.0	U
75-00-3	Chloroethane	9.0	U
75-69-4	Trichlorofluoromethane	9.0	U
75-35-4	1,1-Dichloroethene	81	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	9.0	U
67-64-1	Acetone	18	U
75-15-0	Carbon disulfide	9.0	U
79-20-9	Methyl acetate	9.0	U
75-09-2	Methylene chloride	9.0	U
156-60-5	trans-1,2-Dichloroethene	9.0	U
1634-04-4	Methyl tert-butyl ether	9.0	U
75-34-3	1,1-Dichloroethane	9.0	U
156-59-2	cis-1,2-Dichloroethene	9.0	U
78-93-3	2-Butanone	18	U
74-97-5	Bromochloromethane	9.0	U
67-66-3	Chloroform	9.0	U
71-55-6	1,1,1-Trichloroethane	9.0	U
110-82-7	Cyclohexane	9.0	U
56-23-5	Carbon tetrachloride	9.0	U
71-43-2	Benzene	120	
107-06-2	1,2-Dichloroethane	9.0	U
123-91-1	1,4-Dioxane	180	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S0MSD

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-12BMSD

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V5N2734.D

Level: (TRACE/LOW/MED) LOW Date Received: 11/03/2011

% Moisture: not dec. 44 Date Analyzed: 11/07/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
79-01-6	Trichloroethene	110	
108-87-2	Methylcyclohexane	9.0	U
78-87-5	1,2-Dichloropropane	9.0	U
75-27-4	Bromodichloromethane	9.0	U
10061-01-5	cis-1,3-Dichloropropene	9.0	U
108-10-1	4-Methyl-2-pentanone	18	U
108-88-3	Toluene	100	
10061-02-6	trans-1,3-Dichloropropene	9.0	U
79-00-5	1,1,2-Trichloroethane	9.0	U
127-18-4	Tetrachloroethene	9.0	U
591-78-6	2-Hexanone	18	U
124-48-1	Dibromochloromethane	9.0	U
106-93-4	1,2-Dibromoethane	9.0	U
108-90-7	Chlorobenzene	96	
100-41-4	Ethylbenzene	9.0	U
179601-23-1	m,p-Xylene	9.0	U
95-47-6	o-Xylene	9.0	U
100-42-5	Styrene	9.0	U
75-25-2	Bromoform	9.0	U
98-82-8	Isopropylbenzene	9.0	U
79-34-5	1,1,2,2-Tetrachloroethane	9.0	U
541-73-1	1,3-Dichlorobenzene	9.0	U
106-46-7	1,4-Dichlorobenzene	9.0	U
95-50-1	1,2-Dichlorobenzene	9.0	U
96-12-8	1,2-Dibromo-3-chloropropane	9.0	U
120-82-1	1,2,4-Trichlorobenzene	9.0	U
87-61-6	1,2,3-Trichlorobenzene	9.0	U

Data File: \\avogadro\organics\V5.I\111107.B\V5N2734.D
Report Date: 09-Nov-2011 08:00

Spectrum Analytical, Inc. RI Division

SOM01.0 - Low/Med Volatiles

Data file : \\avogadro\organics\V5.I\111107.B\V5N2734.D
Lab Smp Id: K2199-12BMSD Client Smp ID: H30S0MSD
Inj Date : 07-NOV-2011 14:45
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 5G,K2199-12BMSD,,62780
Misc Info :
Comment :
Method : \\avogadro\organics\V5.I\111107.B\V5_SOM_S.m
Meth Date : 08-Nov-2011 18:06 V5.i Quant Type: ISTD
Cal Date : 04-OCT-2011 17:39 Cal File: V5N1312.D
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM1.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
$ 79 Vinyl Chloride-d3	65	2.156	2.168	(0.342)	114704	50.0000	42
$ 80 Chloroethane-d5	69	2.585	2.597	(0.410)	82023	50.0000	47(Q)
$ 81 1,1-Dichloroethene-d2	65	3.352	3.364	(0.531)	28327	50.0000	50
7 1,1-Dichloroethene	96	3.363	3.376	(0.533)	90209	50.0000	45
$ 82 2-Butanone-d5	46	5.071	5.071	(0.803)	66840	100.000	89
$ 83 Chloroform-d	84	5.384	5.385	(0.853)	154312	50.0000	48(Q)
$ 23 1,2-Dichloroethane-d4	65	5.895	5.896	(0.934)	87609	50.0000	50
$ 84 Benzene-d6	84	5.907	5.907	(0.627)	294576	50.0000	58
25 Benzene	78	5.942	5.942	(0.630)	360398	50.0000	65
* 26 1,4-Difluorobenzene	114	6.313	6.325	(1.000)	284217	50.0000	
27 Trichloroethene	95	6.580	6.581	(0.698)	97810	50.0000	61
$ 85 1,2-Dichloropropane-d6	67	6.731	6.732	(0.714)	117585	50.0000	56
$ 94 1,4-Dioxane-d8	96	6.917	6.917	(1.096)	17311	1000.00	1000
$ 33 Toluene-d8	98	7.846	7.835	(0.832)	242087	50.0000	52
34 Toluene	91	7.916	7.916	(0.840)	317077	50.0000	58
$ 86 trans-1,3-Dichloropropene-d4	79	8.125	8.114	(0.862)	89580	50.0000	57
$ 87 2-Hexanone-d5	63	8.589	8.578	(0.911)	33312	100.000	83(Q)
* 42 Chlorobenzene-d5	117	9.425	9.426	(1.000)	191418	50.0000	
43 Chlorobenzene	112	9.460	9.461	(1.004)	200959	50.0000	53
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.935	10.924	(1.160)	64041	50.0000	47
* 78 1,4-Dichlorobenzene-d4	152	12.178	12.167	(1.000)	56810	50.0000	(Q)

Data File: \\avogadro\organics\V5.I\111107.B\V5N2734.D
Report Date: 09-Nov-2011 08:00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
$ 90 1,2-Dichlorobenzene-d4	152	12.631	12.631	(1.037)	49937	50.0000	47(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

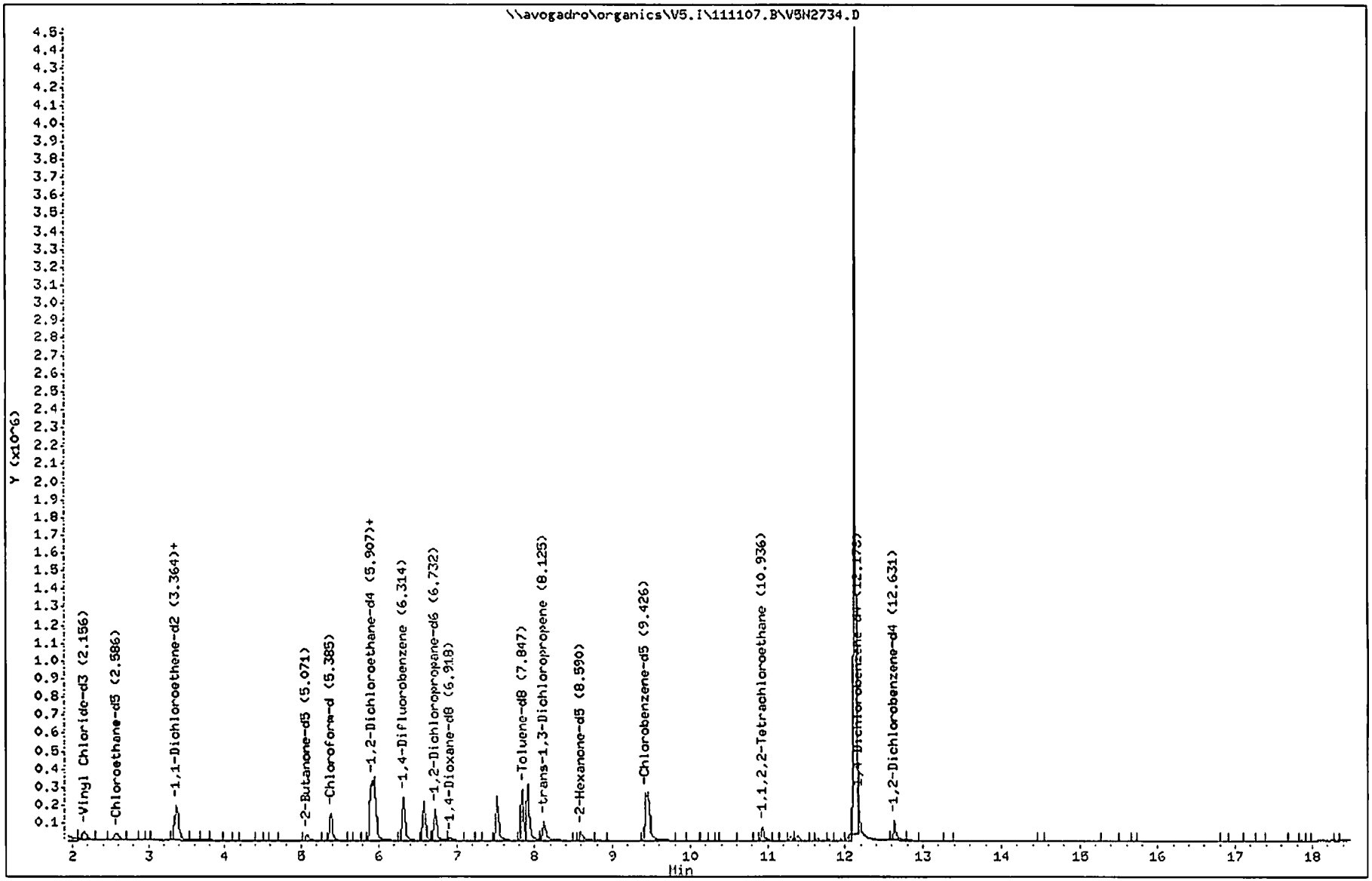
Data File: \\avogadro\organics\V5.I\111107.B\V5N2734.D
Date : 07-NOV-2011 14:45
Client ID: H30S0HSD
Sample Info: 5C,K2199-12BHSD,,62780

Instrument: V5.i

Operator: SRC: LIMS

Column phase: DB-624

Column diameter: 0.25



2J - FORM II SV-3

SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	SDMC1 (PHL) #	SDMC2 (BCE) #	SDMC3 (2CP) #	SDMC4 (4MP) #	SDMC5 (NBZ) #	SDMC6 (2NP) #	SDMC7 (DCP) #	SDMC8 (4CA) #
01	H30T6	34	31	35	36	34	36	42	10
02	H30T7	34	30	38	39	34	34	39	11
03	SBLK4V	82	61	71	76	68	66	77	33
04	H30R2	2 *	31	44	50	40	38	52	30
05	H30R4	64	49	69	61	43	46	53	15
06	H30R6	55	40	45	50	41	49	56	11
07	H30R8	60	51	50	56	3 *	50	56	26
08	H30S0MS	64	50	57	76	47	52	62	5
09	H30S1	64	43	63	80	57	56	63	16
10	H30S3	52	39	50	58	42	47	56	13
11	H30R4DL	67	46	52	60	66	59	55	9
12	H30S3DL	40	44	35	35	44	39	42	7
13	H30Q5	59	57	59	57	53	57	56	1 *
14	H30R7	56	95	66	68	37	40	39	2
15	H30S0	46	41	49	51	57	54	57	2
16	H30S6	48	46	45	51	52	51	52	11
17	H30T8	40	43	49	47	57	56	51	7
18	H30Q7	58	71	63	68	33	30	31	4
19	H30R3	37	49	44	43	27	31	29	4
20	H30S0MSD	36	39	47	47	49	47	47	1
21	H30S2	80	87	78	83	83	85	85	9
22	SBLK2E	64	63	75	76	72	91	87	89

			QC LIMITS
SDMC1	(PHL)	= Phenol-d5	(17-103)
SDMC2	(BCE)	= Bis(2-chloroethyl)ether-d8	(12-98)
SDMC3	(2CP)	= 2-Chlorophenol-d4	(13-101)
SDMC4	(4MP)	= 4-Methylphenol-d8	(8-100)
SDMC5	(NBZ)	= Nitrobenzene-d5	(16-103)
SDMC6	(2NP)	= 2-Nitrophenol-d4	(16-104)
SDMC7	(DCP)	= 2,4-Dichlorophenol-d3	(23-104)
SDMC8	(4CA)	= 4-Chloroaniline-d4	(1-145)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

2K - FORM II SV-4

SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	SDMC9 (DMP) #	SDMC10 (ACY) #	SDMC11 (4NP) #	SDMC12 (FLR) #	SDMC13 (NMP) #	SDMC14 (ANC) #	SDMC15 (PYR) #	SDMC16 (BAP) #	TOT OUT
01	H30T6	42 *	34	39	34 *	39	37	42 *	36 *	4
02	H30T7	47	34	54	37 *	42	41	45 *	40 *	3
03	SBLK4V	70	63	103	68	75	69	78	74	0
04	H30R2	48	47	69	56	61	47	43 *	26 *	3
05	H30R4	54	58	71	61	42	56	50 *	35 *	2
06	H30R6	49	53	79	57	53	54	50 *	40 *	2
07	H30R8	53	57	84	50	53	56	47 *	44	2
08	H30S0MS	55	60	99	56	58	60	56	41 *	1
09	H30S1	52	55	95	55	49	60	48 *	58	1
10	H30S3	46	50	56	51	41	53	72	39 *	1
11	H30R4DL	58	59	52	55	38	61	70	42 D	1
12	H30S3DL	42 D	47	43	45	32	50	53	41 D	2
13	H30Q5	59	62	96	59	44	64	47 *	67	2
14	H30R7	62	65	92	58	47	63	55	59	0
15	H30S0	54	57	131	53	35	57	64	36 *	1
16	H30S6	51	54	321 *	51	45	53	47 *	40 *	3
17	H30T8	49	52	96	51	30	48	38 *	28 *	2
18	H30Q7	53	61	83	58	40	60	94	53	0
19	H30R3	47	52	73	49	36	50	53	49	0
20	H30S0MSD	45	47	70	45	27	45	35 *	24 *	2
21	H30S2	74	77	428 *	83	70	94	109	75	1
22	SBLK2E	78	78	79	79	44	83	81	74	0

			QC LIMITS
SDMC9	(DMP)	= Dimethylphthalate-d6	(43-111)
SDMC10	(ACY)	= Acenaphthylene-d8	(20-97)
SDMC11	(4NP)	= 4-Nitrophenol-d4	(16-166)
SDMC12	(FLR)	= Fluorene-d10	(40-108)
SDMC13	(NMP)	= 4,6-Dinitro-2-methylphenol-d2	(1-121)
SDMC14	(ANC)	= Anthracene-d10	(22-98)
SDMC15	(PYR)	= Pyrene-d10	(51-120)
SDMC16	(BAP)	= Benzo(a)pyrene-d12	(43-111)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

3D - FORM III SV-2

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix Spike - EPA Sample No.: H30S0

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS %REC	#	QC. LIMITS REC.
Phenol	2349.5819	0.0000	1222.4927	52		26-90
2-Chlorophenol	2349.5819	0.0000	1369.8990	58		25-102
N-Nitroso-di-n-propylamine	2349.5819	0.0000	1349.9378	57		41-126
4-Chloro-3-methylphenol	2349.5819	0.0000	1611.4534	69		26-103
Acenaphthene	2349.5819	0.0000	1404.2253	60		31-137
4-Nitrophenol	2349.5819	0.0000	1869.1170	80		11-114
2,4-Dinitrotoluene	2349.5819	0.0000	1162.8930	49		28-89
Pentachlorophenol	2349.5819	0.0000	1994.7557	85		17-109
Pyrene	2349.5819	0.0000	915.3793	39		35-142

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Phenol	2365.0908	797.2355	34		43	*	0-35	26-90
2-Chlorophenol	2365.0908	923.3560	39		40		0-50	25-102
N-Nitroso-di-n-propylamine	2365.0908	1003.1288	42		30		0-38	41-126
4-Chloro-3-methylphenol	2365.0908	1129.8097	48		36	*	0-33	26-103
Acenaphthene	2365.0908	1066.8527	45		28	*	0-19	31-137
4-Nitrophenol	2365.0908	1420.1692	60		28		0-50	11-114
2,4-Dinitrotoluene	2365.0908	912.0864	39		25		0-47	28-89
Pentachlorophenol	2365.0908	938.6088	40		73	*	0-47	17-109
Pyrene	2365.0908	592.9743	25	*	43	*	0-36	35-142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 5 out of 9 outside limits

Spike Recovery: 1 out of 18 outside limits

COMMENTS:

SOM01.2 (6/2007)

4C - FORM IV SV

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK2E

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Lab File ID: S2H5300A.D Lab Sample ID: MB-62798

Instrument ID: S2 Date Extracted: 11/07/2011

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 11/15/2011

Level: (LOW/MED) LOW Time Analyzed: 16:30

Extraction: (Type) SONC GPC Cleanup: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	H30T6	K2199-02A	S2H5280.D	11/11/2011
02	H30T7	K2199-03A	S2H5286.D	11/11/2011

COMMENTS:

4C - FORM IV SV

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK4V

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Lab File ID: S4E8674.D Lab Sample ID: MB-62801

Instrument ID: S4 Date Extracted: 11/08/2011

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 11/13/2011

Level: (LOW/MED) LOW Time Analyzed: 14:25

Extraction: (Type) SONC GPC Cleanup: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	H30R2	K2199-06A	S4E8678.D	11/13/2011
02	H30R4	K2199-08A	S4E8680.D	11/13/2011
03	H30R6	K2199-09A	S4E8681.D	11/13/2011
04	H30R8	K2199-11A	S4E8683.D	11/13/2011
05	H30S0MS	K2199-12AMS	S4E8685.D	11/13/2011
06	H30S1	K2199-13A	S4E8687.D	11/13/2011
07	H30S3	K2199-15A	S4E8689.D	11/13/2011
08	H30R4DL	K2199-08ADL	S4E8695.D	11/14/2011
09	H30S3DL	K2199-15ADL	S4E8696.D	11/14/2011
10	H30Q5	K2199-04A	S4E8701.D	11/14/2011
11	H30R7	K2199-10A	S4E8704.D	11/14/2011
12	H30S0	K2199-12A	S4E8705.D	11/14/2011
13	H30S6	K2199-16A	S4E8707.D	11/14/2011
14	H30T8	K2199-17A	S4E8708.D	11/14/2011
15	H30Q7	K2199-05A	S4E8709.D	11/14/2011
16	H30R3	K2199-07A	S4E8710.D	11/14/2011
17	H30S0MSD	K2199-12AMSD	S4E8711.D	11/14/2011
18	H30S2	K2199-14A	S4E8713.D	11/14/2011

COMMENTS:

SOM01.2 (6/2007)

5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPINE (DFTPP)

EPA SAMPLE NO.

DFTPP2W

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Lab File ID: S2H5052.D DFTPP Injection Date: 10/25/2011

Instrument ID: S2 DFTPP Injection Time: 9:32

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	61.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	83.7
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	10.0 - 80.0% of mass 198	47.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	15.3
365	Greater than 1.0% of mass 198	1.5
441	Present, but less than mass 443	9.2
442	50.0 - 100% of mass 198	52.5
443	15.0 - 24.0% of mass 442	10.1 (19.2)2

1 - Value is % mass 69 2 - Value is % mass 442

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0202W	SSTD0202W	S2H5053C.D	10/25/2011	11:35
02	SSTD0052W	SSTD0052W	S2H5054.D	10/25/2011	11:58
03	SSTD0802W	SSTD0802W	S2H5055.D	10/25/2011	12:21
04	SSTD0102W	SSTD0102W	S2H5056.D	10/25/2011	12:44
05	SSTD0402W	SSTD0402W	S2H5057.D	10/25/2011	13:07

5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPINE (DFTPP)

EPA SAMPLE NO.

DFTPP2Z

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Lab File ID: S2H5275.D DFTPP Injection Date: 11/11/2011

Instrument ID: S2 DFTPP Injection Time: 8:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	50.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	66.8
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	10.0 - 80.0% of mass 198	43.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	15.5
365	Greater than 1.0% of mass 198	1.7
441	Present, but less than mass 443	9.4
442	50.0 - 100% of mass 198	52.3
443	15.0 - 24.0% of mass 442	10.2 (19.5)2

1 - Value is % mass 69 2 - Value is % mass 442

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0202Z	SSTD0202Z	S2H5276.D	11/11/2011	9:01
02	SSTD0202A	SSTD0202A	S2H5278.D	11/11/2011	9:59
03	H30T6	K2199-02A	S2H5280.D	11/11/2011	13:38
04	H30T7	K2199-03A	S2H5286.D	11/11/2011	16:11
05	SSTD0202B	SSTD0202B	S2H5288B.D	11/11/2011	17:36

5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPINE (DFTPP)

EPA SAMPLE NO.

DFTPP2E

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Lab File ID: S2H5298.D DFTPP Injection Date: 11/15/2011

Instrument ID: S2 DFTPP Injection Time: 15:30

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	55.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	75.6
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	10.0 - 80.0% of mass 198	45.9
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 60.0% of mass 198	16.0
365	Greater than 1.0% of mass 198	1.7
441	Present, but less than mass 443	10.1
442	50.0 - 100% of mass 198	56.4
443	15.0 - 24.0% of mass 442	11.1 (19.7)2

1 - Value is % mass 69 2 - Value is % mass 442

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0202E	SSTD0202E	S2H5299.D	11/15/2011	15:44
02	SBLK2E	MB-62798	S2H5300A.D	11/15/2011	16:30
03	SSTD0202F	SSTD0202F	S2H5315A.D	11/15/2011	22:05

5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPINE (DFTPP)

EPA SAMPLE NO.

DFTPP4Q

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Lab File ID: S4E8634.D DFTPP Injection Date: 11/10/2011

Instrument ID: S4 DFTPP Injection Time: 16:03

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	31.1
68	Less than 2.0% of mass 69	0.9 (1.5)1
69	Mass 69 relative abundance	59.0
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	10.0 - 80.0% of mass 198	50.9
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.4
275	10.0 - 60.0% of mass 198	31.2
365	Greater than 1.0% of mass 198	6.4
441	Present, but less than mass 443	13.6
442	50.0 - 100% of mass 198	86.5
443	15.0 - 24.0% of mass 442	15.5 (17.9)2

1 - Value is % mass 69 2 - Value is % mass 442

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0204Q	SSTD0204Q	S4E8635.D	11/10/2011	16:28
02	SSTD0054Q	SSTD0054Q	S4E8636.D	11/10/2011	16:57
03	SSTD0804Q	SSTD0804Q	S4E8637.D	11/10/2011	17:21
04	SSTD0104Q	SSTD0104Q	S4E8638.D	11/10/2011	17:45
05	SSTD0404Q	SSTD0404Q	S4E8639.D	11/10/2011	18:10

5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPINE (DFTPP)

EPA SAMPLE NO.

DFTPP4U

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Lab File ID: S4E8671.D DFTPP Injection Date: 11/13/2011

Instrument ID: S4 DFTPP Injection Time: 13:23

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	35.4
68	Less than 2.0% of mass 69	0.3 (0.5)1
69	Mass 69 relative abundance	56.0
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	10.0 - 80.0% of mass 198	48.4
197	Less than 2.0% of mass 198	1.9
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	8.7
275	10.0 - 60.0% of mass 198	28.3
365	Greater than 1.0% of mass 198	7.4
441	Present, but less than mass 443	11.5
442	50.0 - 100% of mass 198	79.0
443	15.0 - 24.0% of mass 442	13.0 (16.5)2

1 - Value is % mass 69 2 - Value is % mass 442

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0204U	SSTD0204U	S4E8672.D	11/13/2011	13:36
02	SBLK4V	MB-62801	S4E8674.D	11/13/2011	14:25
03	H30R2	K2199-06A	S4E8678.D	11/13/2011	16:01
04	H30R4	K2199-08A	S4E8680.D	11/13/2011	16:48
05	H30R6	K2199-09A	S4E8681.D	11/13/2011	17:12
06	H30R8	K2199-11A	S4E8683.D	11/13/2011	18:00
07	H30S0MS	K2199-12AMS	S4E8685.D	11/13/2011	18:49
08	H30S1	K2199-13A	S4E8687.D	11/13/2011	19:37
09	H30S3	K2199-15A	S4E8689.D	11/13/2011	20:26
10	SSTD0204V	SSTD0204V	S4E8692.D	11/13/2011	21:39

5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPINE (DFTPP)

EPA SAMPLE NO.

DFTPP4W

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Lab File ID: S4E8693A.D DFTPP Injection Date: 11/14/2011

Instrument ID: S4 DFTPP Injection Time: 11:05

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	27.9
68	Less than 2.0% of mass 69	0.1 (0.3)1
69	Mass 69 relative abundance	46.0
70	Less than 2.0% of mass 69	0.3 (0.6)1
127	10.0 - 80.0% of mass 198	44.9
197	Less than 2.0% of mass 198	0.1
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	5.2
275	10.0 - 60.0% of mass 198	32.8
365	Greater than 1.0% of mass 198	4.8
441	Present, but less than mass 443	11.7
442	50.0 - 100% of mass 198	84.4
443	15.0 - 24.0% of mass 442	15.3 (18.2)2

1 - Value is % mass 69 2 - Value is % mass 442

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0204W	SSTD0204W	S4E8694.D	11/14/2011	11:19
02	H30R4DL	K2199-08ADL	S4E8695.D	11/14/2011	11:42
03	H30S3DL	K2199-15ADL	S4E8696.D	11/14/2011	12:07
04	H30Q5	K2199-04A	S4E8701.D	11/14/2011	14:07
05	H30R7	K2199-10A	S4E8704.D	11/14/2011	15:19
06	H30S0	K2199-12A	S4E8705.D	11/14/2011	15:43
07	H30S6	K2199-16A	S4E8707.D	11/14/2011	16:31
08	H30T8	K2199-17A	S4E8708.D	11/14/2011	16:55
09	H30Q7	K2199-05A	S4E8709.D	11/14/2011	17:18
10	H30R3	K2199-07A	S4E8710.D	11/14/2011	17:43
11	H30S0MSD	K2199-12AMSD	S4E8711.D	11/14/2011	18:07
12	SSTD0204X	SSTD0204X	S4E8712A.D	11/14/2011	18:56
13	H30S2	K2199-14A	S4E8713.D	11/14/2011	19:44
14	SSTD0204Y	SSTD0204Y	S4E8714B.D	11/14/2011	20:56

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 10/25/2011 10/25/2011

EPA Sample No.(SSTD020##) SSTD0202A Date Analyzed: 11/11/2011

Lab File ID (Standard): S2H5278.D Time Analyzed: 9:59

Instrument ID: S2

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	80166	3.693	231786	4.755	189897	6.224
	UPPER LIMIT	160332	4.193	463572	5.255	379794	6.724
	LOWER LIMIT	40083	3.193	115893	4.255	94949	5.724
	EPA SAMPLE NO.						
01	H30T6	112086	3.693	317194	4.755	247892	6.214
02	H30T7	83196	3.693	253677	4.754	193533	6.213

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% 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 contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

EPA Sample No.(SSTD020##) SSTD0202A Date Analyzed: 11/11/2011

Lab File ID (Standard): S2H5278.D Time Analyzed: 9:59

Instrument ID: S2 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	373560		7.446		282412		9.688		207993		10.996	
	UPPER LIMIT	747120		7.946		564824		10.188		415986		11.496	
	LOWER LIMIT	186780		6.946		141206		9.188		103997		10.496	
	EPA SAMPLE NO.												
01	H30T6	445238		7.447		294590		9.688		207975		10.996	
02	H30T7	383453		7.435		326346		9.666		222966		10.952	

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% 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 contract required QC limits with an asterisk.

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 10/25/2011 10/25/2011

EPA Sample No.(SSTD020##) SSTD0202E Date Analyzed: 11/15/2011

Lab File ID (Standard): S2H5299.D Time Analyzed: 15:44

Instrument ID: S2

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	73952	3.473	209464	4.535	143134	5.993
	UPPER LIMIT	147904	3.973	418928	5.035	286268	6.493
	LOWER LIMIT	36976	2.973	104732	4.035	71567	5.493
	EPA SAMPLE NO.						
01	SBLK2E	112318	3.465	294873	4.526	233661	5.985

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% 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 contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

EPA Sample No.(SSTD020##) SSTD0202E Date Analyzed: 11/15/2011

Lab File ID (Standard): S2H5299.D Time Analyzed: 15:44

Instrument ID: S2 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	285876		7.205		228329		9.403		179437		10.615	
	UPPER LIMIT	571752		7.705		456658		9.903		358874		11.115	
	LOWER LIMIT	142938		6.705		114165		8.903		89719		10.115	
	EPA SAMPLE NO.												
01	SBLK2E	449801		7.207		348554		9.395		282961		10.596	

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% 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 contract required QC limits with an asterisk.

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 11/10/2011 11/10/2011

EPA Sample No.(SSTD020##) SSTD0204U Date Analyzed: 11/13/2011

Lab File ID (Standard): S4E8672.D Time Analyzed: 13:36

Instrument ID: S4

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	32337	3.341	117507	4.407	119390	6.063
	UPPER LIMIT	64674	3.841	235014	4.907	238780	6.563
	LOWER LIMIT	16169	2.841	58754	3.907	59695	5.563
	EPA SAMPLE NO.						
01	SBLK4V	44627	3.351	163176	4.407	159434	6.063
02	H30R2	29736	3.361	113537	4.428	106171	6.084
03	H30R4	32186	3.361	156955	4.427	139897	6.094
04	H30R6	48460	3.361	190859	4.427	180206	6.094
05	H30R8	52392	3.372	219436	4.438	195076	6.094
06	H30S0MS	47260	3.372	230833	4.438	217469	6.094
07	H30S1	34764	3.372	178040	4.438	175118	6.104
08	H30S3	57231	3.372	264567 *	4.438	251671 *	6.094

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% 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 contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

EPA Sample No.(SSTD020##) SSTD0204U Date Analyzed: 11/13/2011

Lab File ID (Standard): S4E8672.D Time Analyzed: 13:36

Instrument ID: S4 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	311549		7.512		515477		10.099		526087		11.776	
	UPPER LIMIT	623098		8.012		1030954		10.599		1052174		12.276	
	LOWER LIMIT	155775		7.012		257739		9.599		263044		11.276	
	EPA SAMPLE NO.												
01	SBLK4V	414485		7.512		641066		10.099		653125		11.776	
02	H30R2	242629		7.543		368106		10.151		379892		11.859	
03	H30R4	356422		7.543		520040		10.172		496952		11.900	
04	H30R6	344450		7.543		466434		10.161		412352		11.890	
05	H30R8	317369		7.553		619042		10.182		479366		11.921	
06	H30S0MS	350214		7.553		551181		10.182		465932		11.931	
07	H30S1	436125		7.553		523697		10.172		434592		11.900	
08	H30S3	590965		7.553		385895		10.172		439377		11.911	

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% 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 contract required QC limits with an asterisk.

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 11/10/2011 11/10/2011

EPA Sample No.(SSTD020##) SSTD0204W Date Analyzed: 11/14/2011

Lab File ID (Standard): S4E8694.D Time Analyzed: 11:19

Instrument ID: S4

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	84059		3.31		274579		4.365		228220		6.032	
	UPPER LIMIT	168118		3.81		549158		4.865		456440		6.532	
	LOWER LIMIT	42030		2.81		137290		3.865		114110		5.532	
	EPA SAMPLE NO.												
01	H30R4DL	63070		3.310		247400		4.365		194364		6.032	
02	H30S3DL	59516		3.310		224061		4.365		185131		6.032	
03	H30Q5	42468		3.310		184573		4.376		146534		6.042	
04	H30R7	42773		3.330		272229		4.396		140812		6.052	
05	H30S0	50778		3.330		183955		4.396		148014		6.063	
06	H30S6	45001		3.330		175331		4.396		138804		6.063	
07	H30T8	43096		3.330		150897		4.396		124572		6.063	
08	H30Q7	42338		3.330		338928		4.407		155268		6.063	
09	H30R3	52170		3.341		301468		4.407		148307		6.073	
10	H30S0MSD	49394		3.340		185548		4.406		156580		6.083	

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% 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 contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

EPA Sample No.(SSTD020##) SSTD0204W Date Analyzed: 11/14/2011

Lab File ID (Standard): S4E8694.D Time Analyzed: 11:19

Instrument ID: S4 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	489230	7.481	624744	10.079	553761	11.766
	UPPER LIMIT	978460	7.981	1249488	10.579	1107522	12.266
	LOWER LIMIT	244615	6.981	312372	9.579	276881	11.266
	EPA SAMPLE NO.						
01	H30R4DL	443548	7.481	520868	10.079	467495	11.766
02	H30S3DL	436292	7.481	539063	10.079	476765	11.755
03	H30Q5	329436	7.491	829582	10.151	278815	11.859
04	H30R7	309768	7.522	705452	10.162	370065	11.911
05	H30S0	304905	7.522	386169	10.151	329203	11.880
06	H30S6	327628	7.532	948418	10.182	424180	11.921
07	H30T8	279130	7.522	527724	10.151	405739	11.890
08	H30Q7	412898	7.532	951073	10.213	506108	11.973
09	H30R3	377016	7.543	818666	10.213	510108	11.993
10	H30S0MSD	326087	7.543	707789	10.192	465730	11.962

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% 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 contract required QC limits with an asterisk.

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 11/10/2011 11/10/2011

EPA Sample No.(SSTD020##) SSTD0204X Date Analyzed: 11/14/2011

Lab File ID (Standard): S4E8712A.D Time Analyzed: 18:56

Instrument ID: S4

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	41415	3.33	147604	4.407	118391	6.073
	UPPER LIMIT	82830	3.83	295208	4.907	236782	6.573
	LOWER LIMIT	20708	2.83	73802	3.907	59196	5.573
	EPA SAMPLE NO.						
01	H30S2	39532	3.330	143916	4.396	138148	6.073

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% 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 contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

EPA Sample No.(SSTD020##) SSTD0204X Date Analyzed: 11/14/2011

Lab File ID (Standard): S4E8712A.D Time Analyzed: 18:56

Instrument ID: S4 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	271450	7.533	405790	10.151	364774	11.89
	UPPER LIMIT	542900	8.033	811580	10.651	729548	12.39
	LOWER LIMIT	135725	7.033	202895	9.651	182387	11.39
	EPA SAMPLE NO.						
01	H30S2	320703	7.543	680253	10.224	514117	11.983

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% 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 contract required QC limits with an asterisk.

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30Q5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-04A

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S4E8701.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 56 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	380	U
108-95-2	Phenol	100	J
111-44-4	Bis(2-chloroethyl)ether	380	U
95-57-8	2-Chlorophenol	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2'-Oxybis(1-chloropropane)	380	U
98-86-2	Acetophenone	94	J
106-44-5	4-Methylphenol	290	J
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	Bis(2-chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
91-20-3	Naphthalene	95	J
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
105-60-2	Caprolactam	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	380	U
92-52-4	1,1'-Biphenyl	380	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	740	U
131-11-3	Dimethylphthalate	380	U
606-20-2	2,6-Dinitrotoluene	380	U
208-96-8	Acenaphthylene	380	U
99-09-2	3-Nitroaniline	740	U
83-32-9	Acenaphthene	380	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30Q5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-04A

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S4E8701.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 56 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	740	U
100-02-7	4-Nitrophenol	740	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
86-73-7	Fluorene	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
100-01-6	4-Nitroaniline	740	U
534-52-1	4,6-Dinitro-2-methylphenol	740	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
95-94-3	1,2,4,5-Tetrachlorobenzene	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
1912-24-9	Atrazine	380	U
87-86-5	Pentachlorophenol	740	U
85-01-8	Phenanthrene	100	J
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-butylphthalate	1600	B
206-44-0	Fluoranthene	130	J
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	380	U
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	Bis(2-ethylhexyl)phthalate	380	U
117-84-0	Di-n-octylphthalate	380	U
205-99-2	Benzo(b)fluoranthene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	380	U
193-39-5	Indeno(1,2,3-cd)pyrene	380	U
53-70-3	Dibenzo(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U
58-90-2	2,3,4,6-Tetrachlorophenol	380	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30Q5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-04A

Sample wt/vol: 30.1 (g/mL) G Lab File ID: S4E8701.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 56 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.3 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	527-84-4	Benzene, 1-methyl-2-(1-methy	3.361	57000	NJ
02	17334-55-3	1H-Cyclopropa[a]naphthalene,	5.680	4600	NJ
03		Unknown-01	7.978	3200	J
04		Unknown-02	8.091	18000	J
05		Unknown-03	8.205	18000	J
06	1686-56-2	Phenanthrene, 7-ethenyl-1,2,	8.412	12000	NJ
07		Unknown-04	8.433	12000	J
08		Unknown-05	8.526	7200	J
09		Unknown-06	8.578	7900	J
10		Unknown-07	8.733	20000	J
11		Unknown-08	8.775	17000	J
12	112-80-1	Oleic Acid	8.868	32000	NJ
13		Unknown-09	8.940	31000	J
14		Unknown-10	9.044	10000	J
15		Unknown-11	9.199	5000	J
16		Unknown-12	9.396	33000	J
17		Unknown-13	9.437	6700	J
18		Unknown-14	9.603	42000	J
19		Unknown-15	9.727	6800	J
20		Unknown-16	9.892	5900	J
21	74685-30-6	5-Eicosene, (E)-	9.986	49000	NJ
22		Unknown-17	10.099	61000	J
23	15155-62-1	1-Docosanol, formate	10.638	3700	NJ
24		Unknown-18	12.583	3300	J
25	474-62-4	Campesterol	13.722	20000	NJ
26	83-47-6	.gamma.-Sitosterol	14.643	98000	NJ
27		Unknown-19	15.026	24000	J
28		Unknown-20	15.306	3900	J
29		Unknown-21	15.430	12000	J
30		Unknown-22	15.916	4100	J
	E966796[2]	Total Alkanes	N/A	25000	J

[2]EPA-designated Registry Number.

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D
Report Date: 15-Nov-2011 11:59

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8701.D
Lab Smp Id: K2199-04A Client Smp ID: H30Q5
Inj Date : 14-NOV-2011 14:07
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-04A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 11:59 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.100	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 2 Phenol-d5	71	3.009	2.999	(0.909)	54239	47.4927	790(Q)
3 Phenol	94	3.030	3.009	(0.916)	4440	2.70459	45(aQ)
$ 4 bis(2-Chloroethyl)ether-d8	67	3.050	3.040	(0.922)	38887	45.7782	760
$ 6 2-Chlorophenol-d4	132	3.154	3.143	(0.953)	63192	47.1516	780(Q)
* 8 1,4-Dichlorobenzene-d4	152	3.309	3.309	(1.000)	42468	40.0000	(Q)
$ 11 4-Methylphenol-d8	113	3.568	3.557	(1.078)	55560	45.9390	760
12 4-Methylphenol	108	3.599	3.578	(1.088)	9657	7.78786	130(a)
13 Acetophenone	105	3.609	3.609	(1.091)	4966	2.50928	42(aQ)
$ 16 Nitrobenzene-d5	128	3.744	3.733	(0.856)	32953	42.6511	710(Q)
$ 19 2-Nitrophenol-d4	143	4.013	4.013	(0.917)	45137	45.8339	760
$ 23 2,4-Dichlorophenol-d3	165	4.241	4.230	(0.969)	82402	44.6547	740
* 25 Naphthalene-d8	136	4.375	4.365	(1.000)	184573	40.0000	
26 Naphthalene	128	4.396	4.386	(1.005)	12439	2.54690	42(a)
$ 27 4-Chloroaniline-d4	131	4.406	4.417	(1.007)	831	0.45643	7.6(aQR)
$ 40 Dimethylphthalate-d6	166	5.731	5.721	(0.949)	274663	47.4039	790
$ 43 Acenaphthylene-d8	160	5.886	5.876	(0.974)	319197	49.7535	830
* 46 Acenaphthene-d10	164	6.042	6.031	(1.000)	146534	40.0000	
$ 49 4-Nitrophenol-d4	143	6.166	6.145	(1.021)	83707	76.7384	1300(Q)
$ 54 Fluorene-d10	176	6.538	6.538	(1.082)	242407	46.9251	780

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D
Report Date: 15-Nov-2011 11:59

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 58 4,6-Dinitro-2-methylphenol-d2	200	6.601	6.600	(0.881)	46302	35.0392	580
* 65 Phenanthrene-d10	188	7.491	7.480	(1.000)	329436	40.0000	
66 Phenanthrene	178	7.522	7.511	(1.004)	24559	2.80646	47(aQ)
$ 67 Anthracene-d10	188	7.553	7.542	(1.008)	466554	51.5659	860
70 Di-n-butylphthalate	149	8.050	8.018	(1.075)	422656	44.1511	730(Q)
71 Fluoranthene	202	8.702	8.681	(1.162)	44849	3.57740	59(aQ)
$ 72 Pyrene-d10	212	8.919	8.888	(0.885)	608849	37.6543	630(QRH)
* 77 Chrysene-d12	240	10.151	10.078	(1.000)	829582	40.0000	(QH)
$ 83 Benzo(a)pyrene-d12	264	11.745	11.651	(1.000)	329916	53.4004	890
* 85 Perylene-d12	264	11.858	11.765	(1.000)	278815	40.0000	(H)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D
Report Date: 15-Nov-2011 11:59

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8701.D
Lab Smp Id: K2199-04A Client Smp ID: H30Q5
Inj Date : 14-NOV-2011 14:07
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-04A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 11:59 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.100	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	3.310	395772	40.000
* 25 Naphthalene-d8	4.376	1100669	40.000
* 65 Phenanthrene-d10	7.491	1585690	40.000

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Benzene, 1-methyl-2-(1-methylethyl)-				CAS #: 527-84-4			
3.361	15223399	1538.60057	26000	96	NIST2002.L	14395	8
1H-Cyclopropa[a]naphthalene, 1a,2,3,5,6,				CAS #: 17334-55-3			
5.680	3369129	122.439226	2000	94	NIST2002.L	58942	25
Unknown				CAS #:			
7.978	3436236	86.6811334	1400	0		0	65

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D
Report Date: 15-Nov-2011 11:59

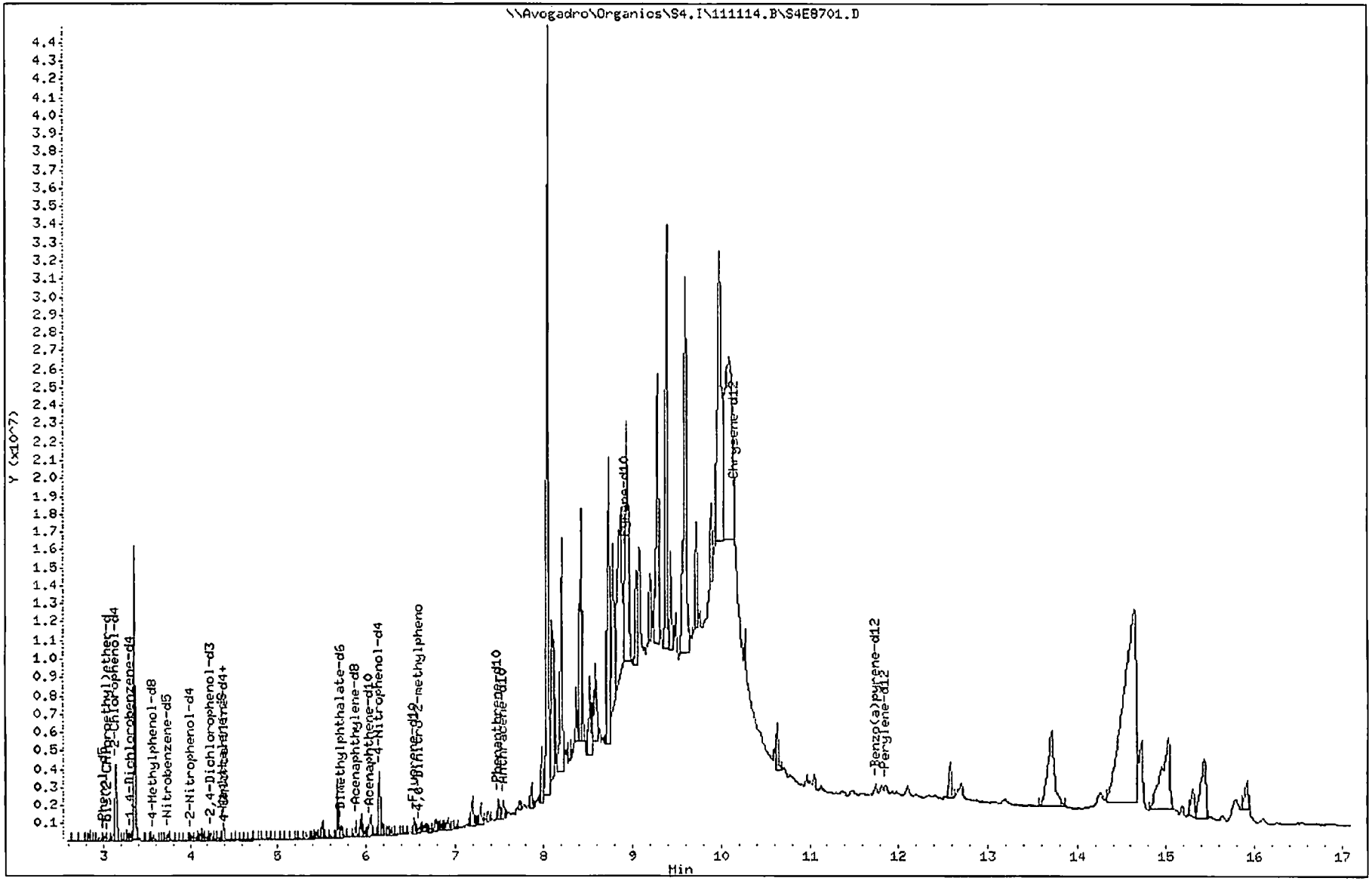
RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
8.091	18641450	470.241795	7800	0		0	65
Unknown				CAS #:			
8.205	19635533	495.318133	8200	0		0	65
Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,				CAS #: 1686-56-2			
8.412	12898538	325.373380	5400	90	NIST2002.L	102002	65
Unknown				CAS #:			
8.433	12475569	314.703740	5200	0		0	65
Unknown				CAS #:			
8.526	7616490	192.130544	3200	0		0	65
Unknown				CAS #:			
8.578	8362529	210.949842	3500	0		0	65
Unknown				CAS #:			
8.733	21504362	542.460494	9000	0		0	65
Unknown				CAS #:			
8.775	17712516	446.808882	7400	0		0	65
Oleic Acid				CAS #: 112-80-1			
8.868	34343076	866.324784	14000	91	NIST2002.L	107518	65
Unknown				CAS #:			
8.940	32496171	819.735487	14000	0		0	65
Unknown				CAS #:			
9.044	10831173	273.222871	4500	0		0	65
Unknown				CAS #:			
9.199	5348863	134.928283	2200	0		0	65
Cyclic Alkane				CAS #:			
9.292	26592093	670.801548	11000	0		0	65
Unknown				CAS #:			
9.396	35013957	883.248143	15000	0		0	65
Unknown				CAS #:			
9.437	7093287	178.932431	3000	0		0	65
Unknown				CAS #:			
9.603	44215730	1115.36843	19000	0		0	65
Unknown				CAS #:			
9.727	7177153	181.048019	3000	0		0	65
Unknown				CAS #:			
9.892	6280103	158.419392	2600	0		0	65

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D
Report Date: 15-Nov-2011 11:59

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
5-Eicosene, (E)-				CAS #: 74685-30-6			
9.986	51682749	1303.72846	22000	98	NIST2002.L	106398	65
Unknown				CAS #:			
10.099	64501099	1627.07907	27000	0		0	65
1-Docosanol, formate				CAS #: 15155-62-1			
10.638	3909283	98.6140069	1600	96	NIST2002.L	142865	65
Unknown				CAS #:			
12.583	3462497	87.3435634	1500	0		0	65
Campesterol				CAS #: 474-62-4			
13.722	21759838	548.905021	9100	98	NIST2002.L	156589	65
.gamma.-Sitosterol				CAS #: 83-47-6			
14.643	1.037e+008	2615.12102	43000	91	NIST2002.L	159285	65
Unknown				CAS #:			
15.026	25723618	648.893750	11000	0		0	65
Unknown				CAS #:			
15.306	4112574	103.742149	1700	0		0	65
Unknown				CAS #:			
15.430	12428970	313.528244	5200	0		0	65
Unknown				CAS #:			
15.916	4331583	109.266791	1800	0		0	65

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D
Date : 14-NOV-2011 14:07
Client ID: H30Q5
Sample Info: K2199-04A,,62801,,
Volume Injected (uL): 2.0
Column phase: RXI-5SILMS

Instrument: S4.i
Operator: MHS SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

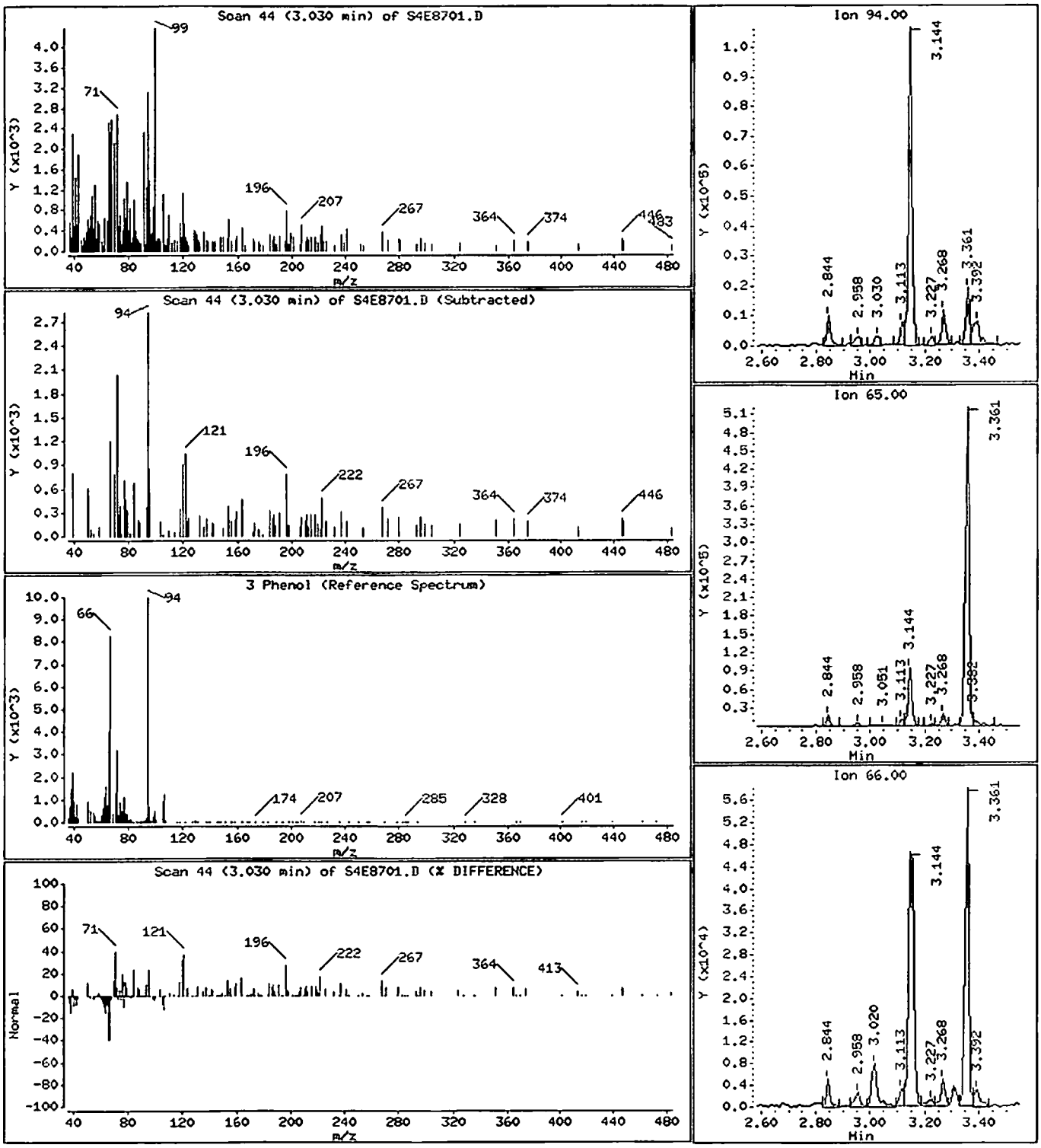
Client ID: H3005 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

3 Phenol Concentration: 45 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

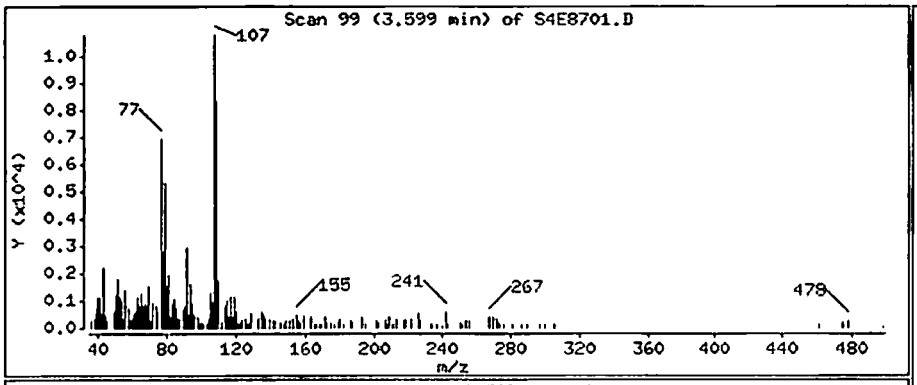
Client ID: H3005 Instrument: S4.i

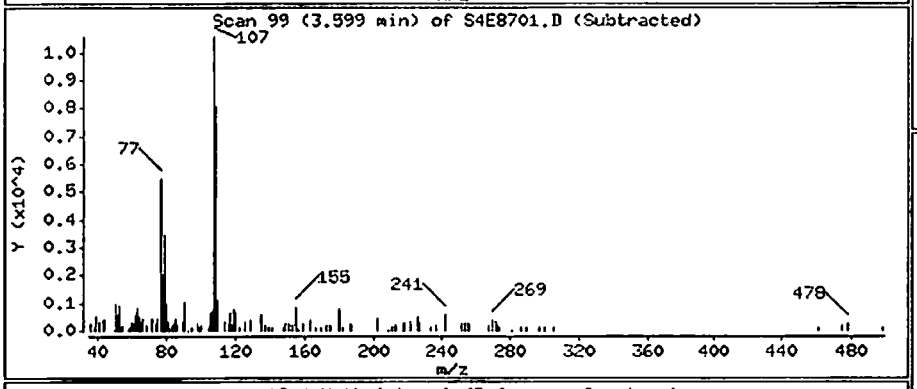
Sample Info: K2199-04A,,62801,,

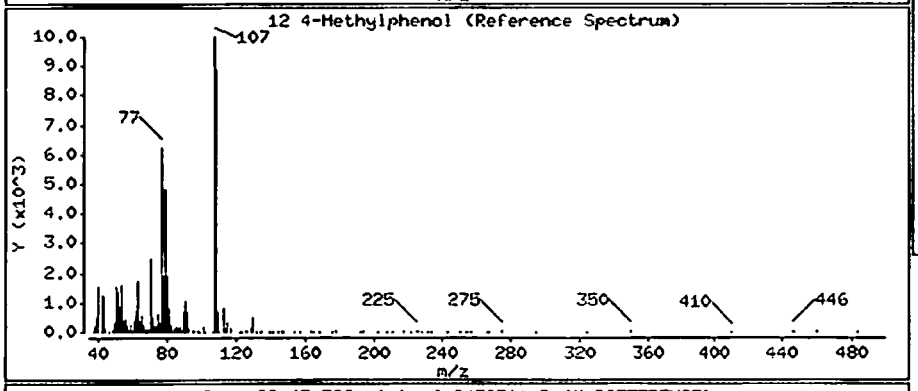
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

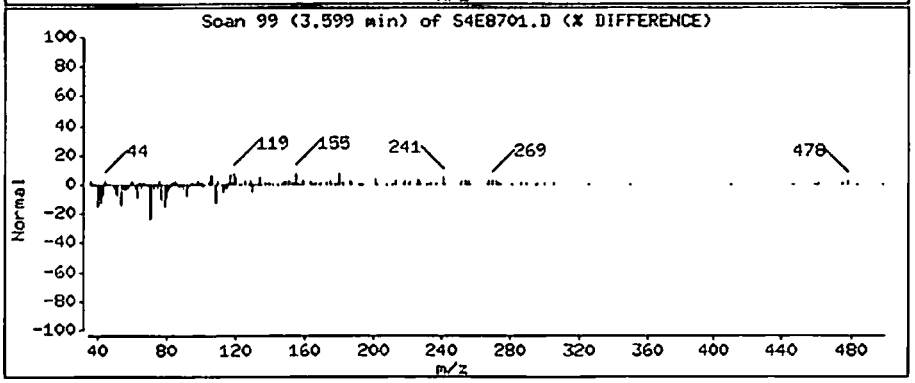
Column phase: RXI-5SILMS Column diameter: 0.25

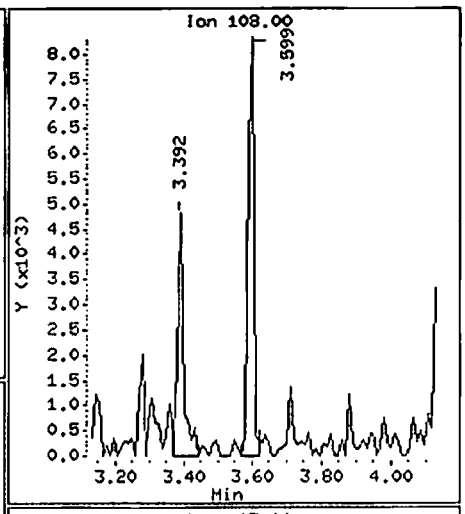
12 4-Methylphenol Concentration: 130 ug/Kg

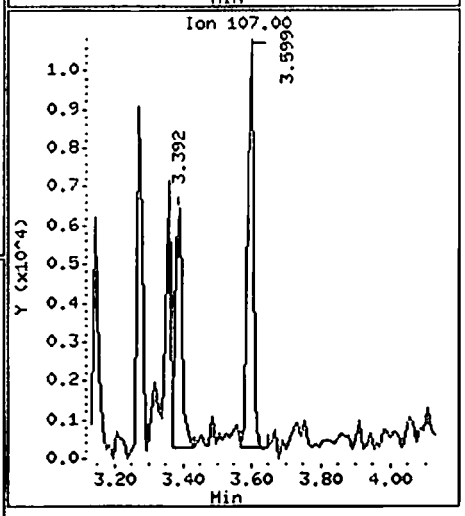












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

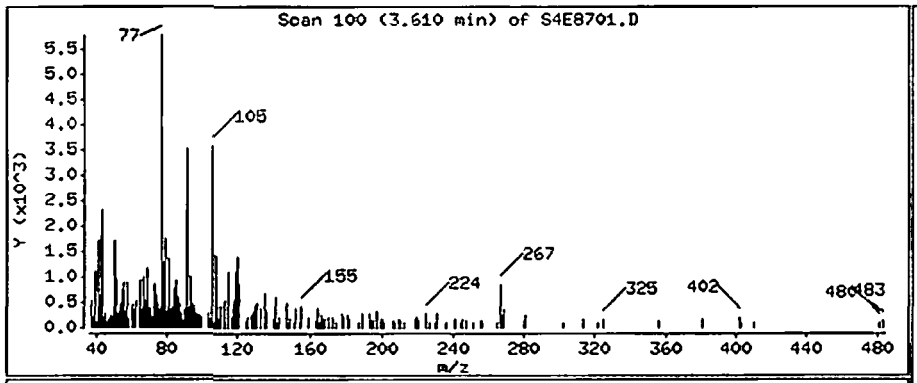
Client ID: H3QQ5 Instrument: S4.i

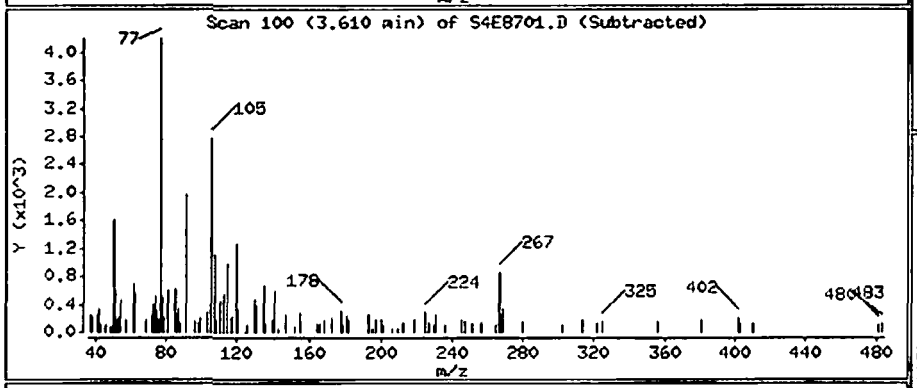
Sample Info: K2199-04A,,62801,,

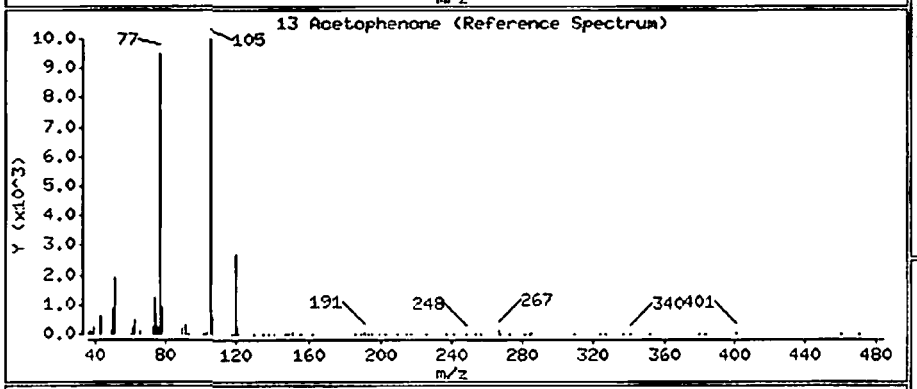
Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

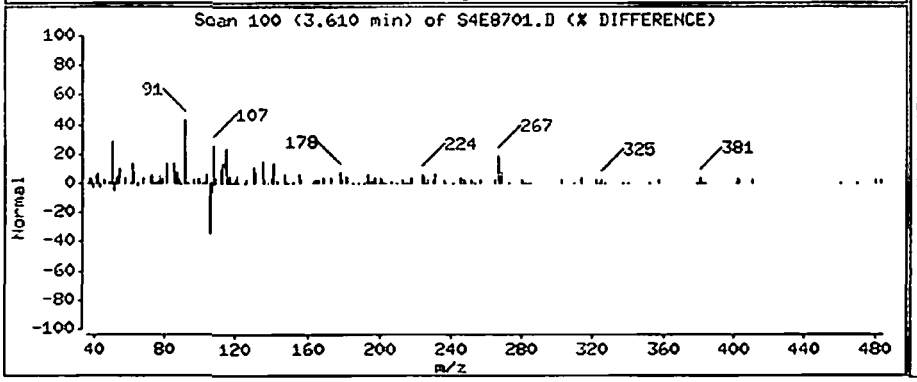
Column phase: RXI-5SILMS Column diameter: 0.25

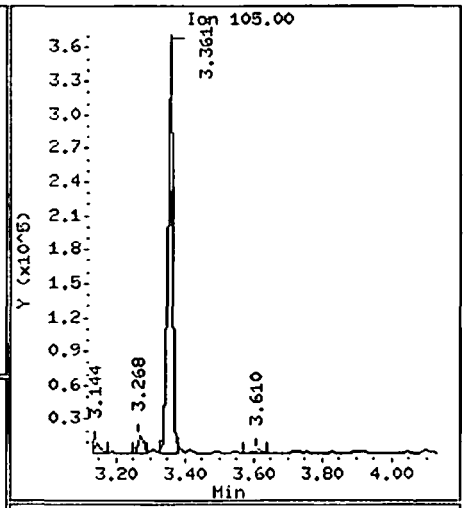
13 Acetophenone Concentration: 42 ug/Kg

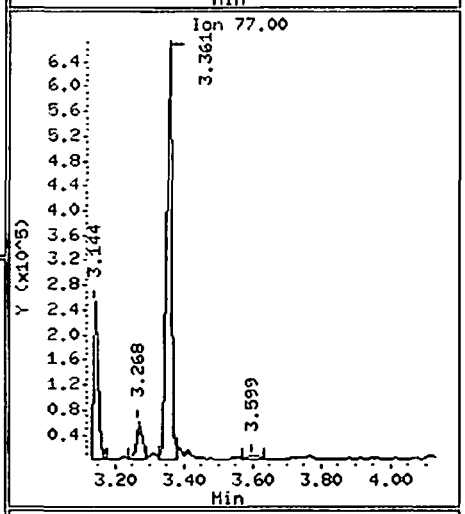


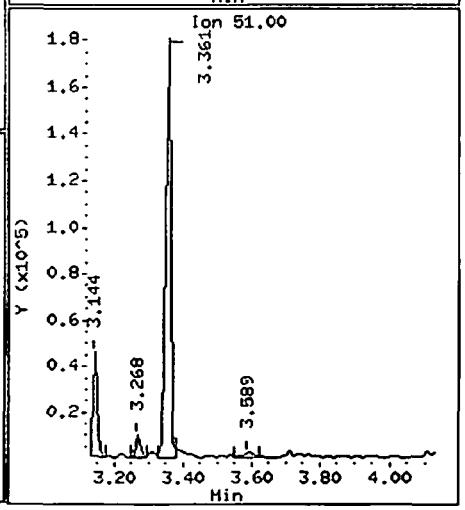












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

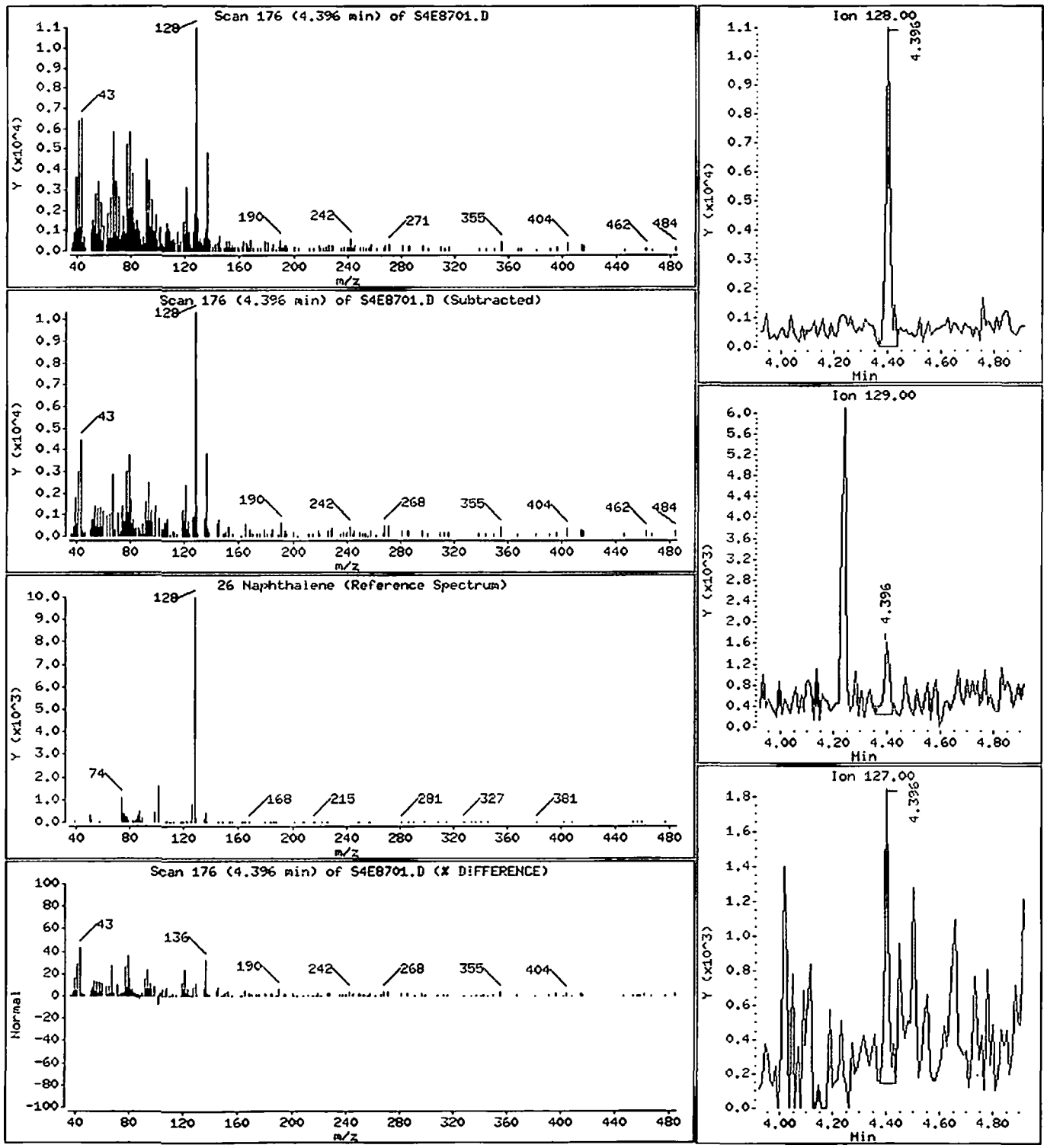
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

26 Naphthalene Concentration: 42 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

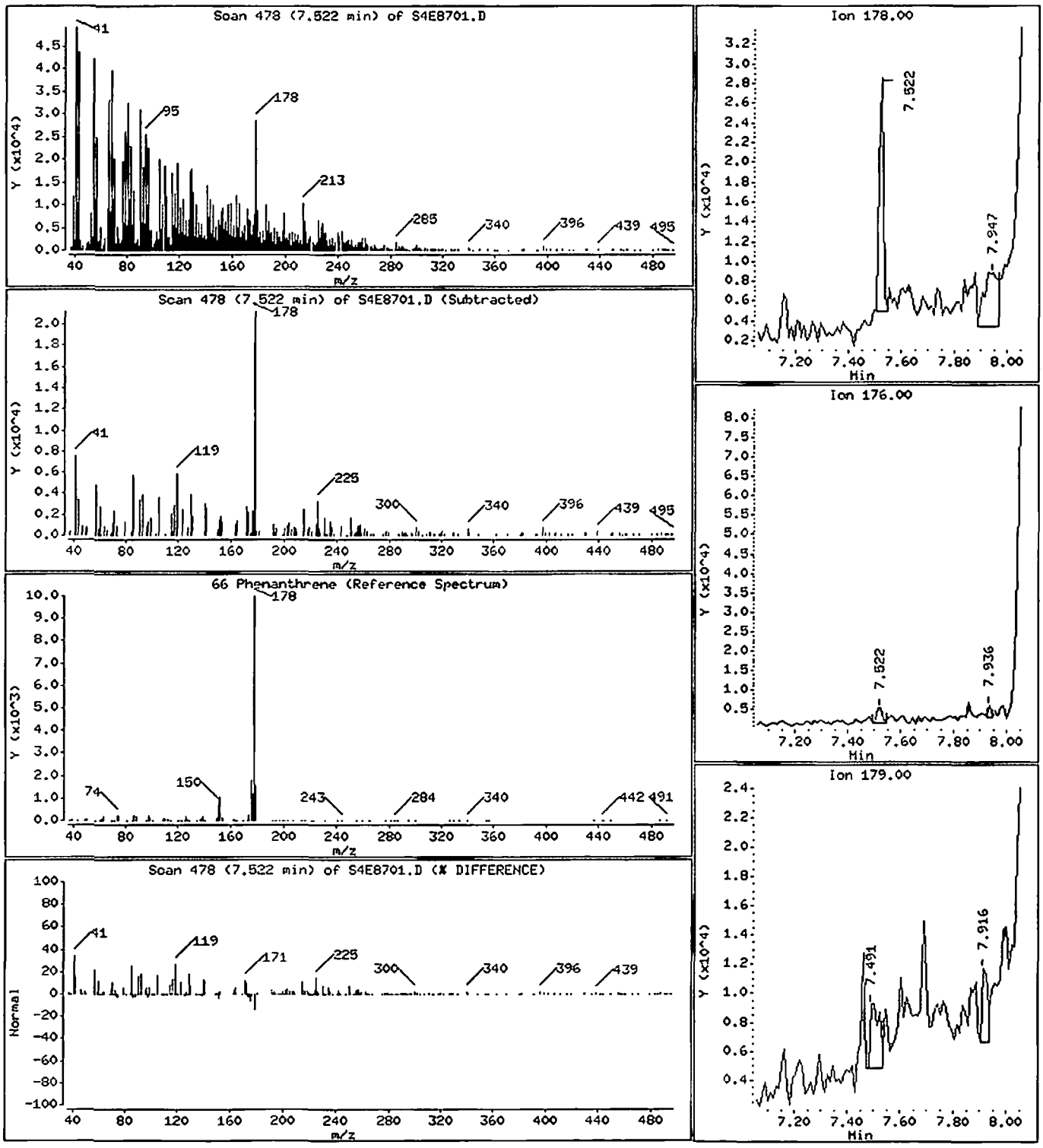
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

66 Phenanthrene Concentration: 47 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

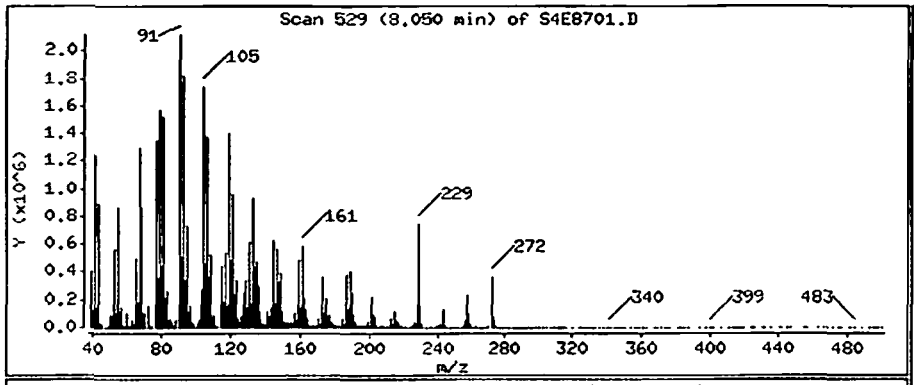
Client ID: H30Q5 Instrument: S4.i

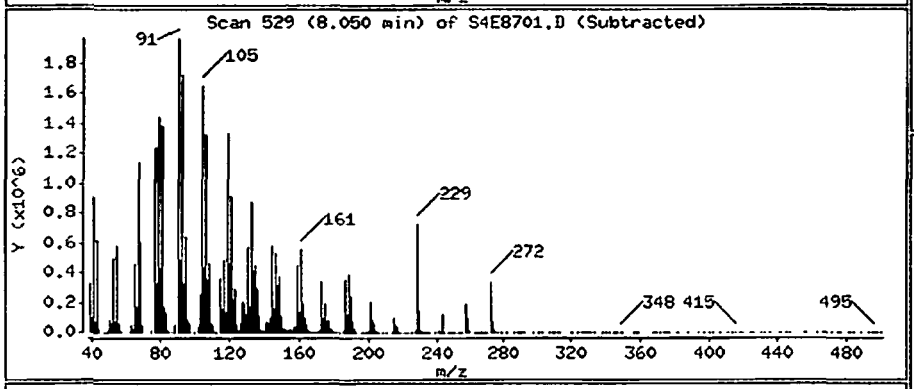
Sample Info: K2199-04A,,62801,,

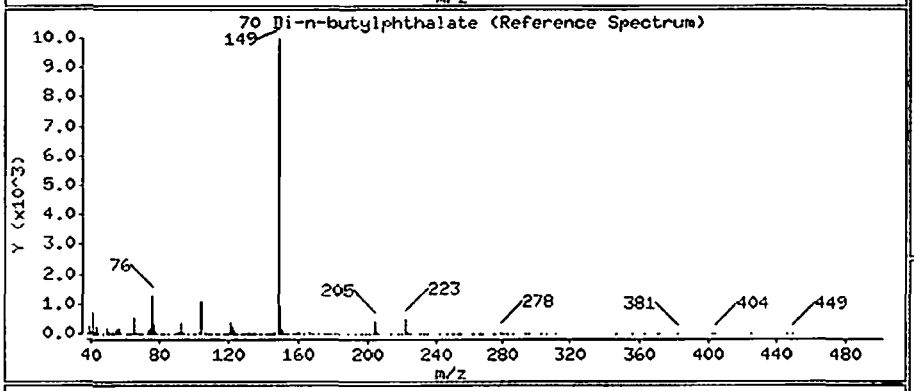
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

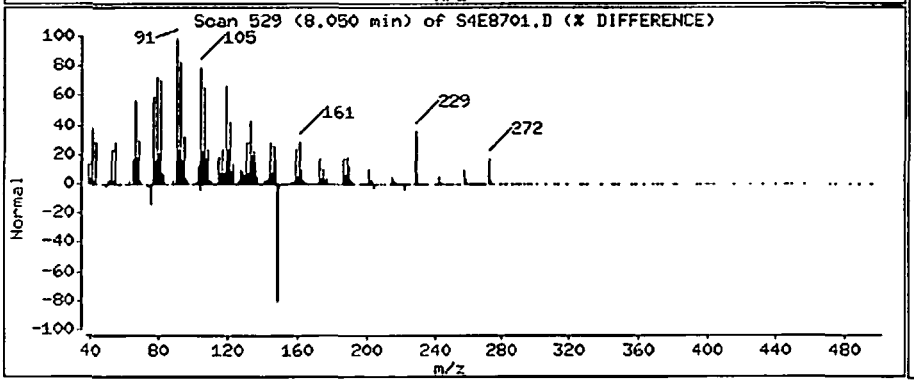
Column phase: RXI-5SILMS Column diameter: 0.25

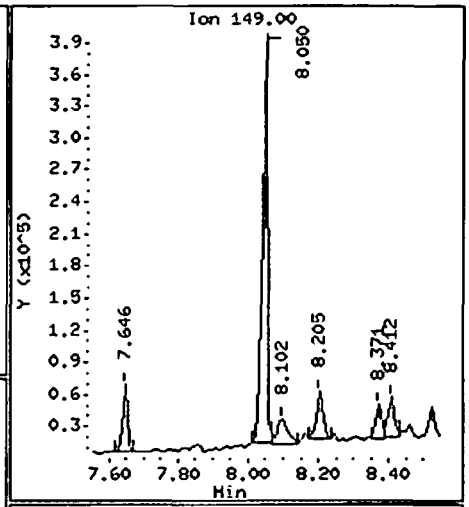
70 Di-n-butylphthalate Concentration: 730 ug/Kg

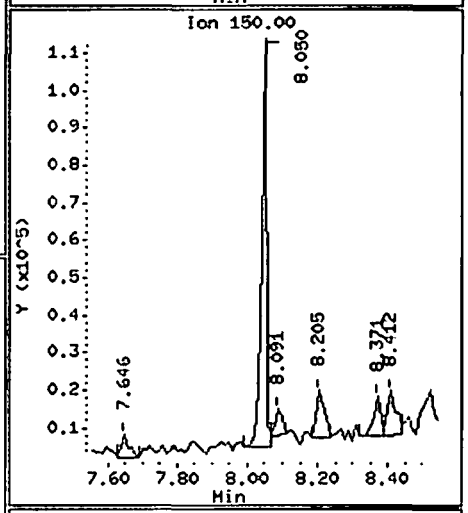


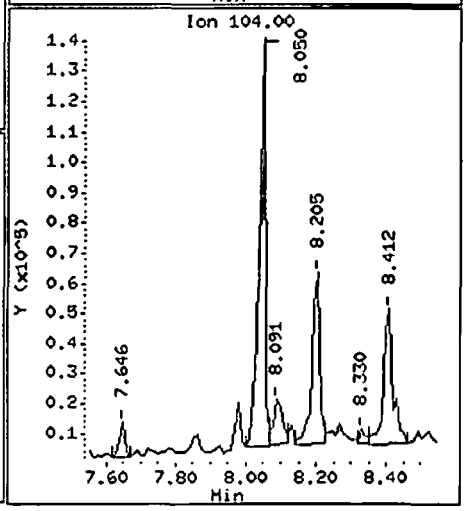












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

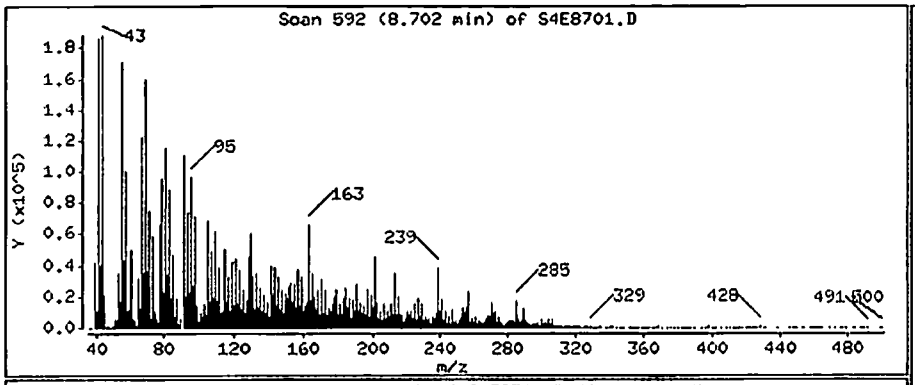
Client ID: H3OQ5 Instrument: S4.i

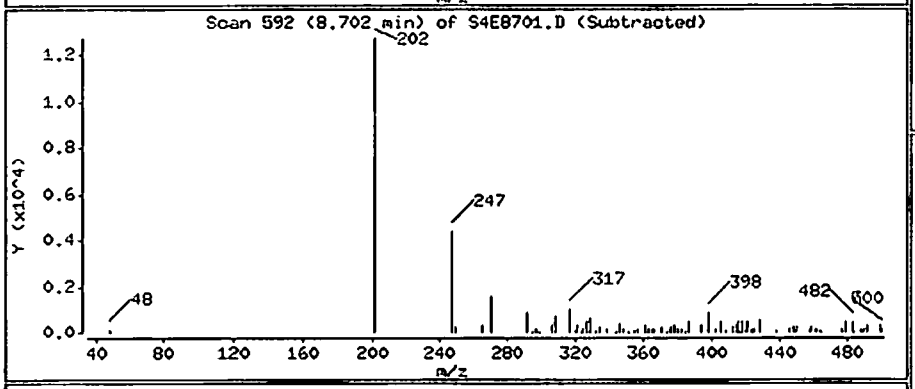
Sample Info: K2199-04A,,62801,,

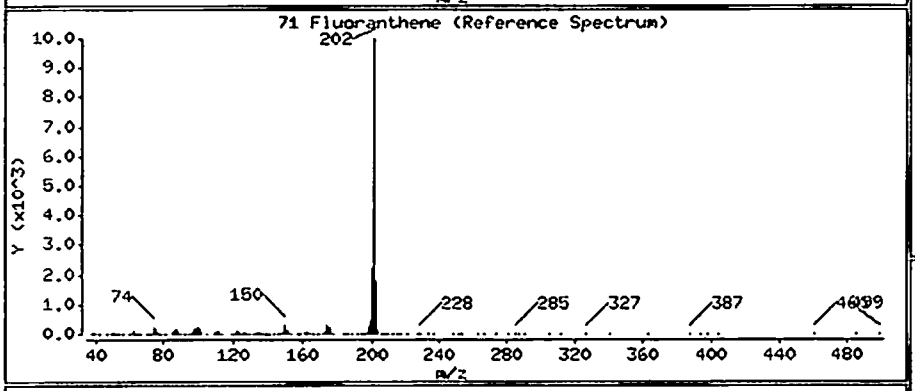
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

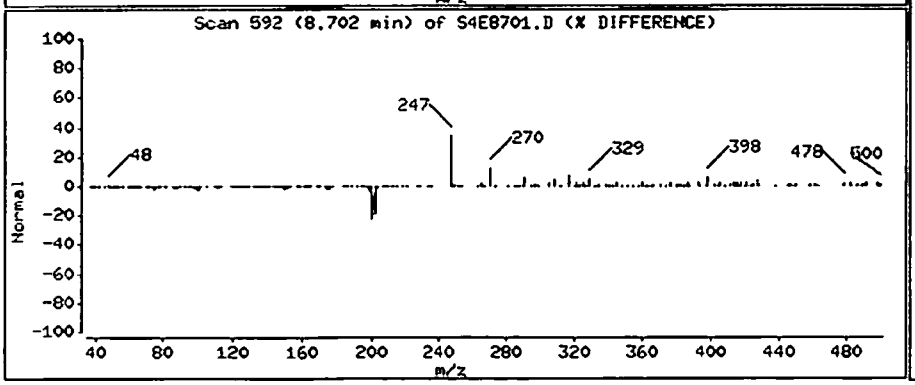
Column phase: RXI-5SILMS Column diameter: 0.25

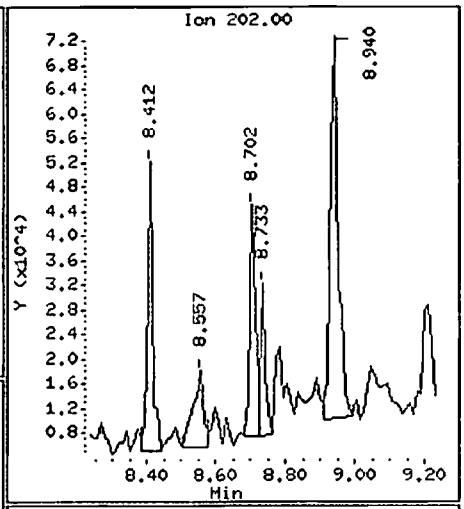
71 Fluoranthene Concentration: 59 ug/Kg

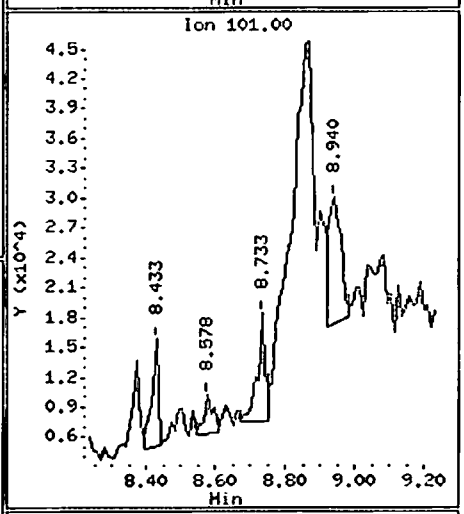


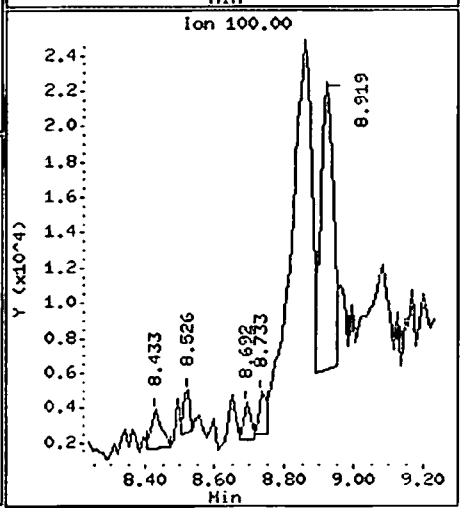












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

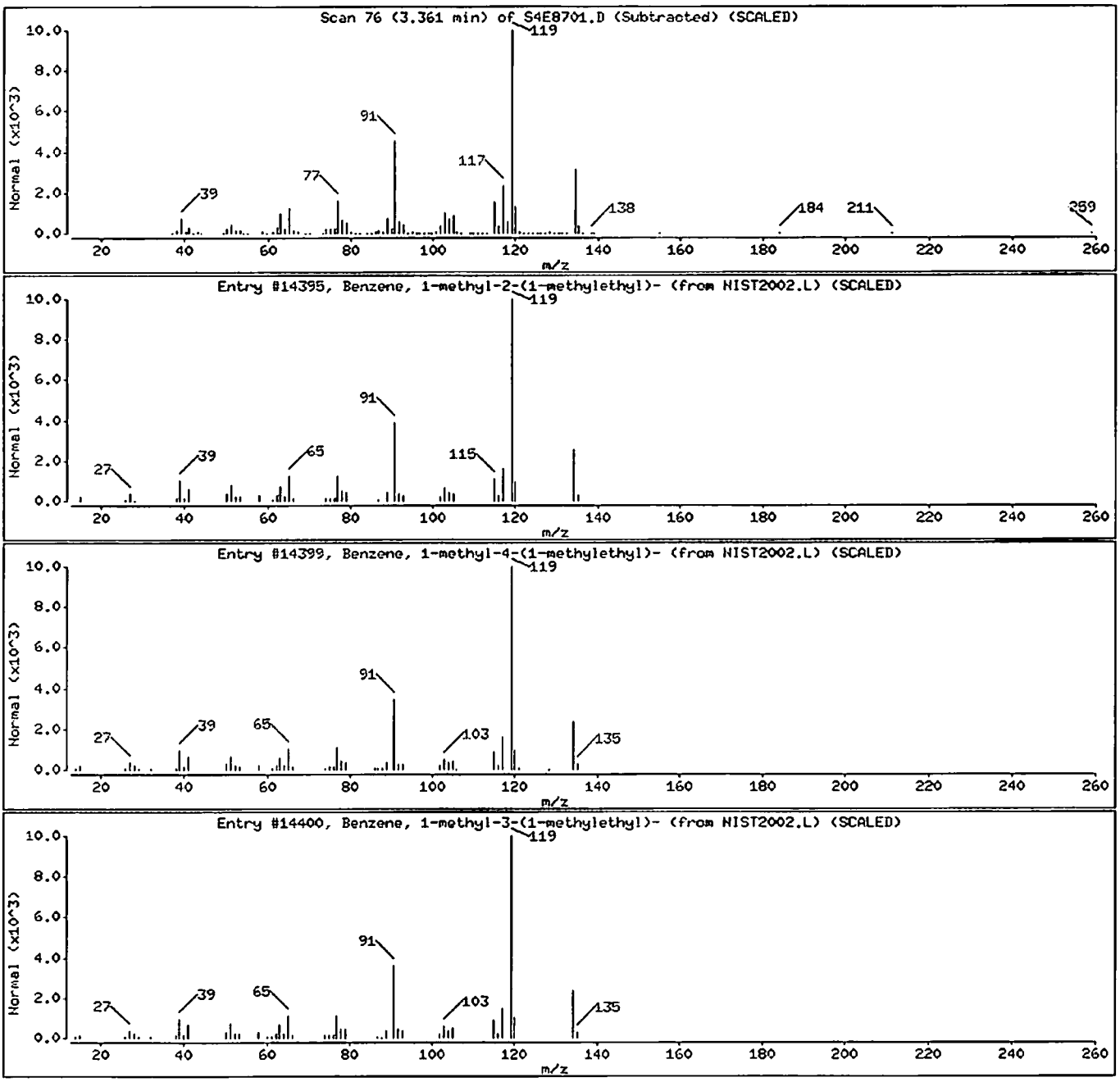
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: HHS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	96	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	96	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	95	C10H14	134



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

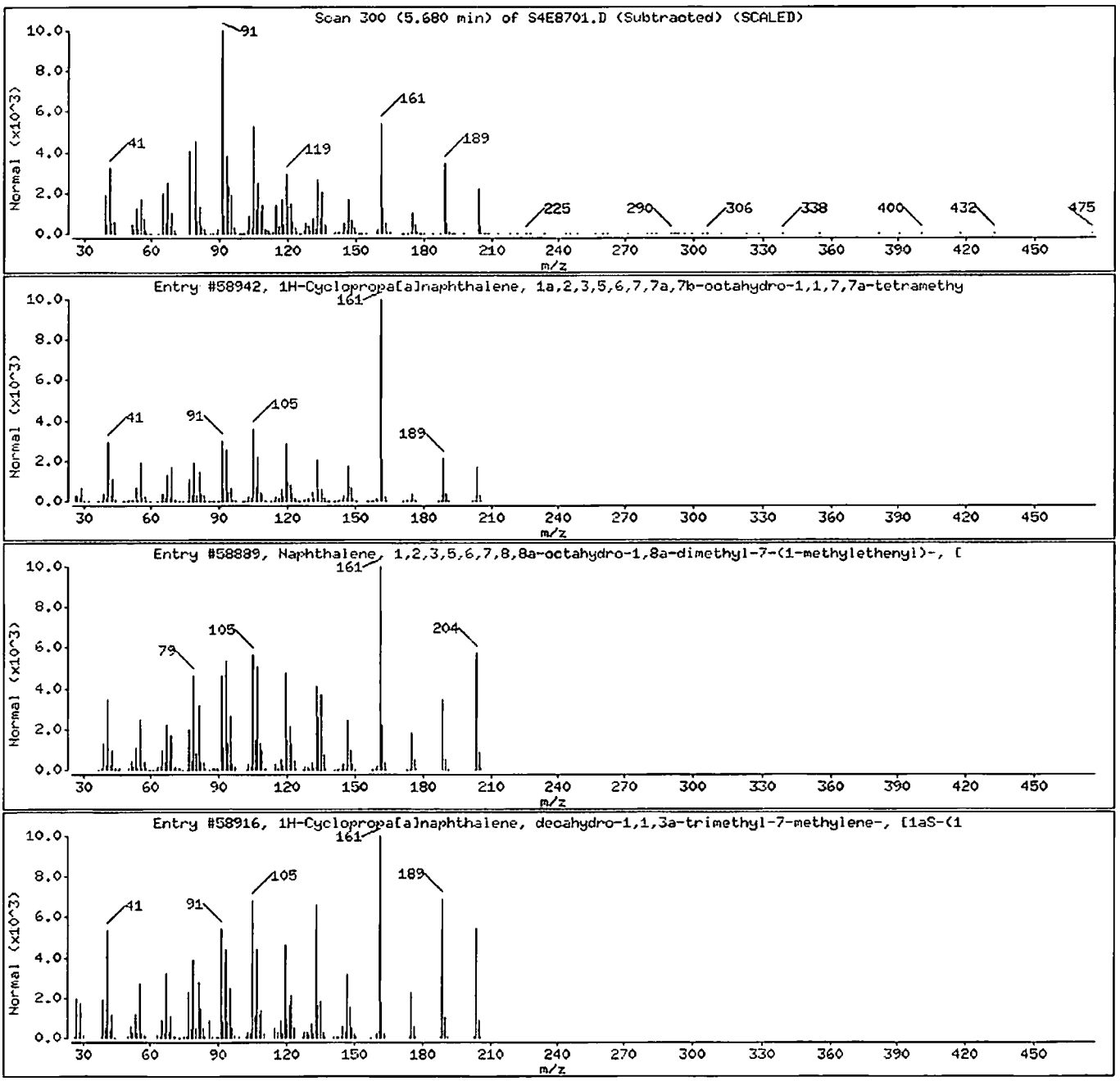
Client ID: H3OQ5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1H-Cyclopropa[a]naphthalene, 1a,2,3,5,6,	17334-55-3	NIST2002.L	58942	94	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST2002.L	58889	90	C15H24	204
1H-Cyclopropa[a]naphthalene, decahydro-1	20071-49-2	NIST2002.L	58916	86	C15H24	204



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

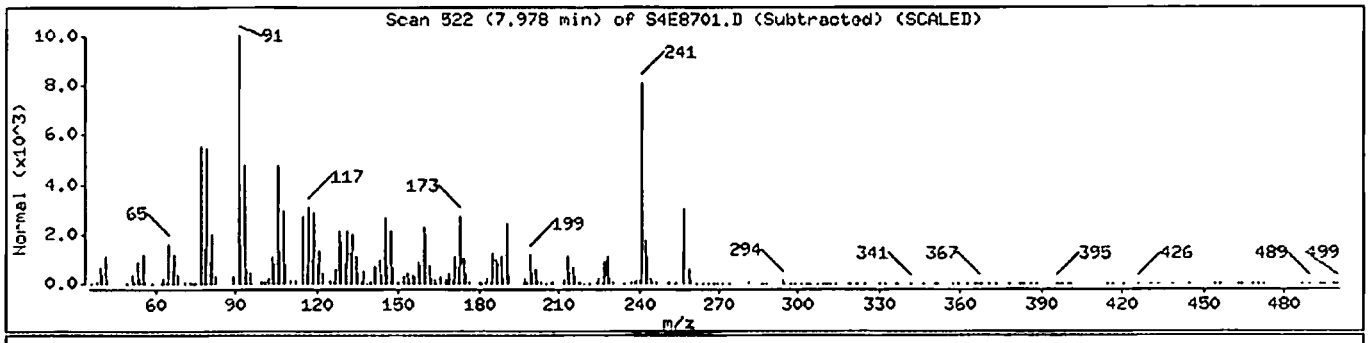
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

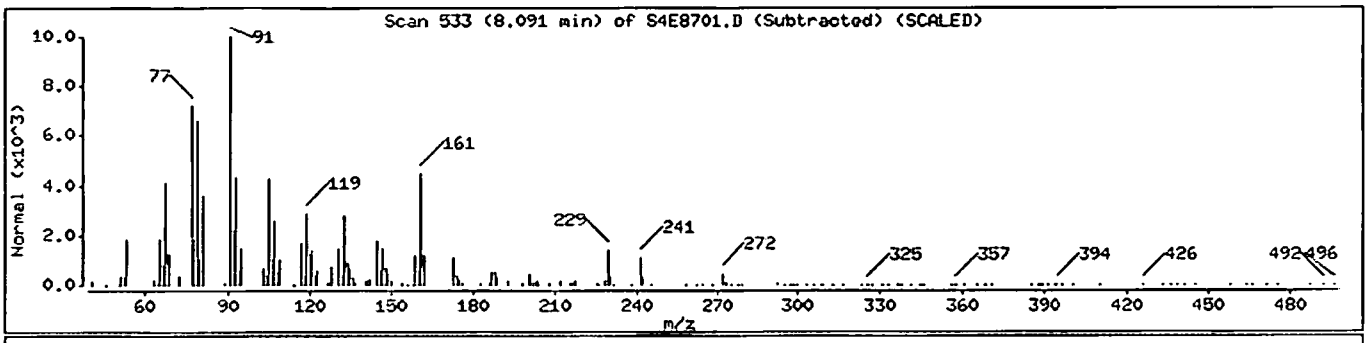
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

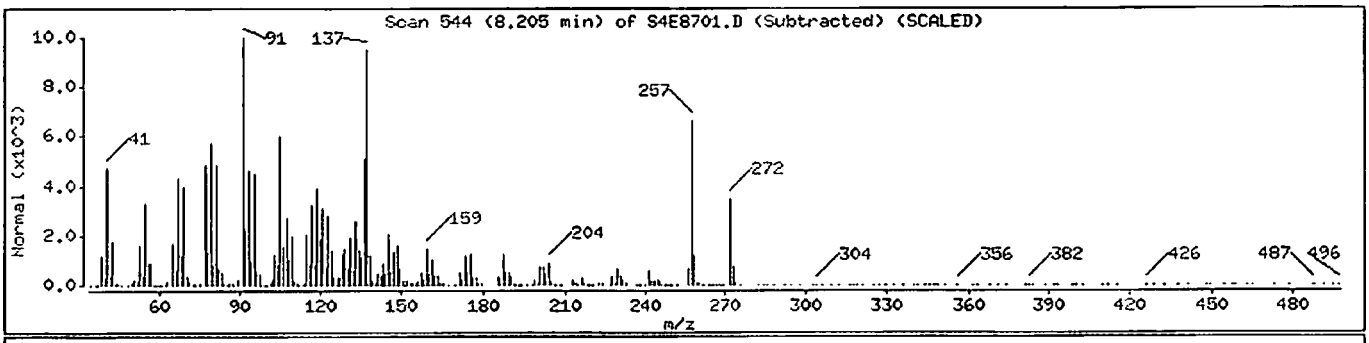
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

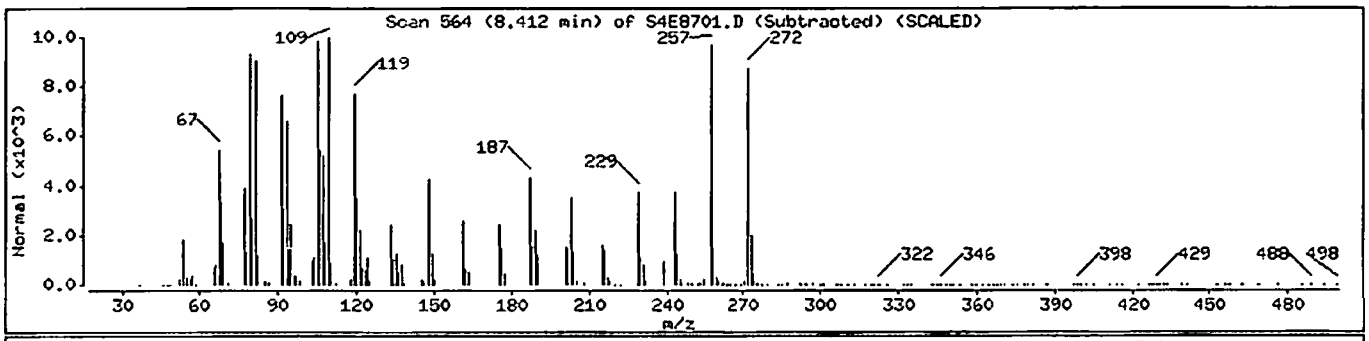
Client ID: H3OQ5 Instrument: S4.i

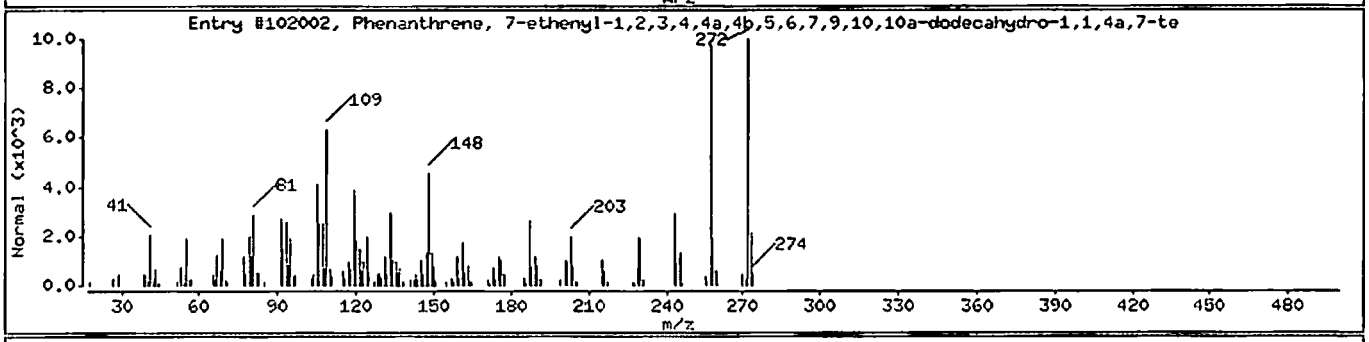
Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,	1686-56-2	NIST2002.L	102002	90	C20H32	272





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

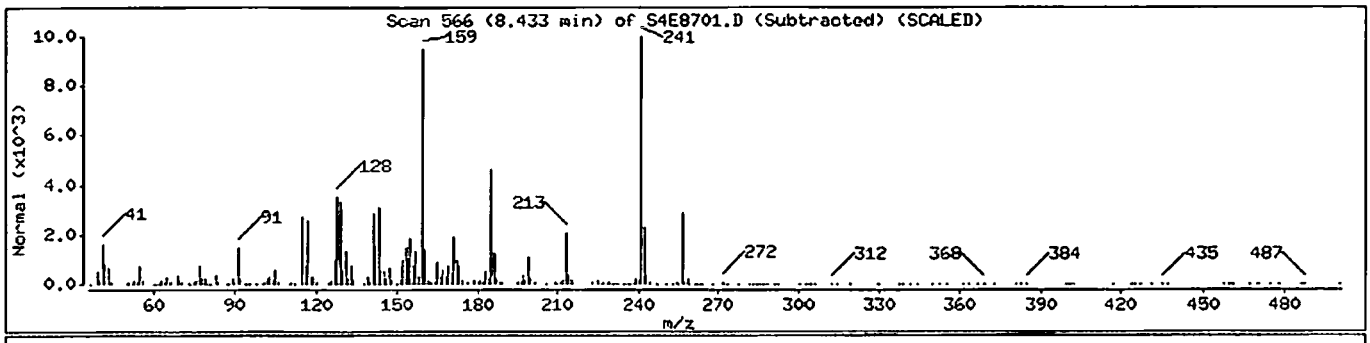
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

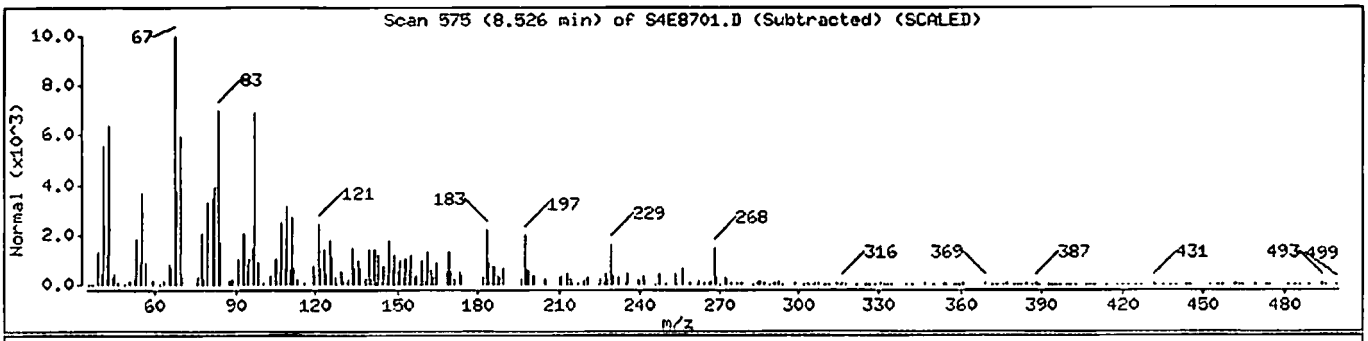
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

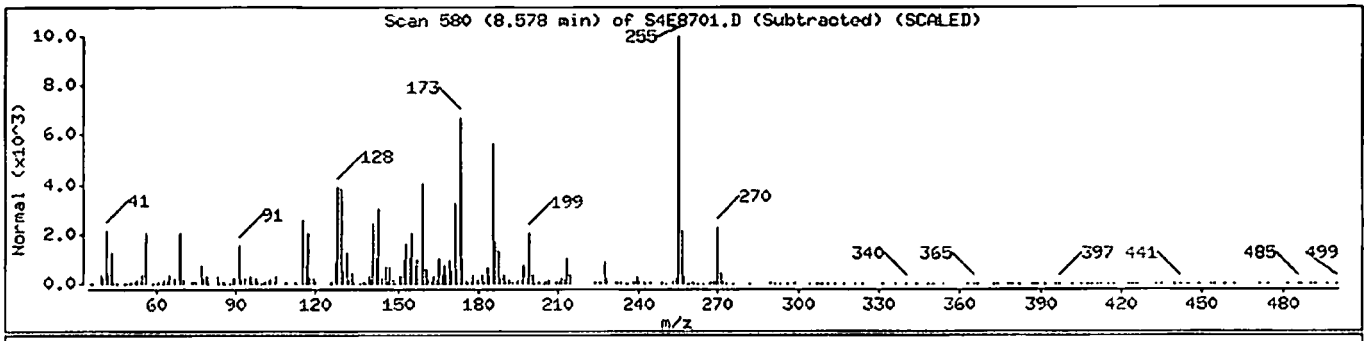
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A.,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

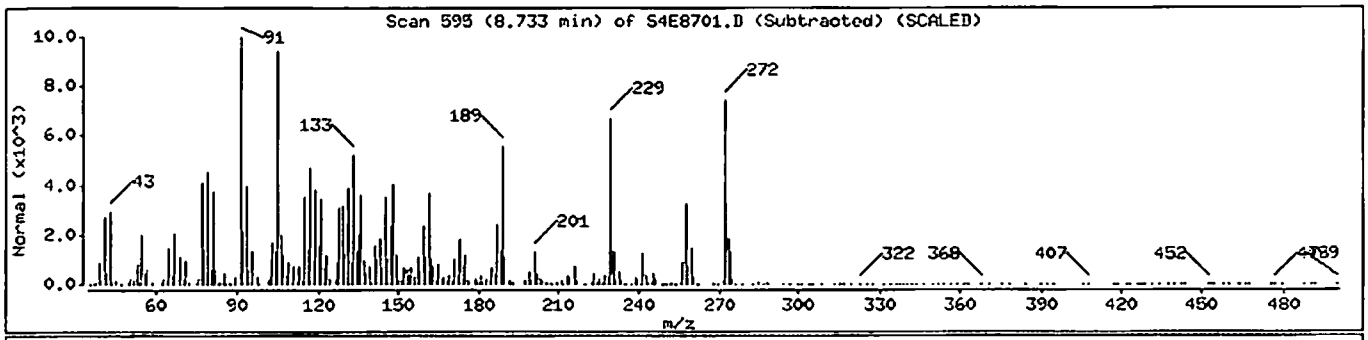
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

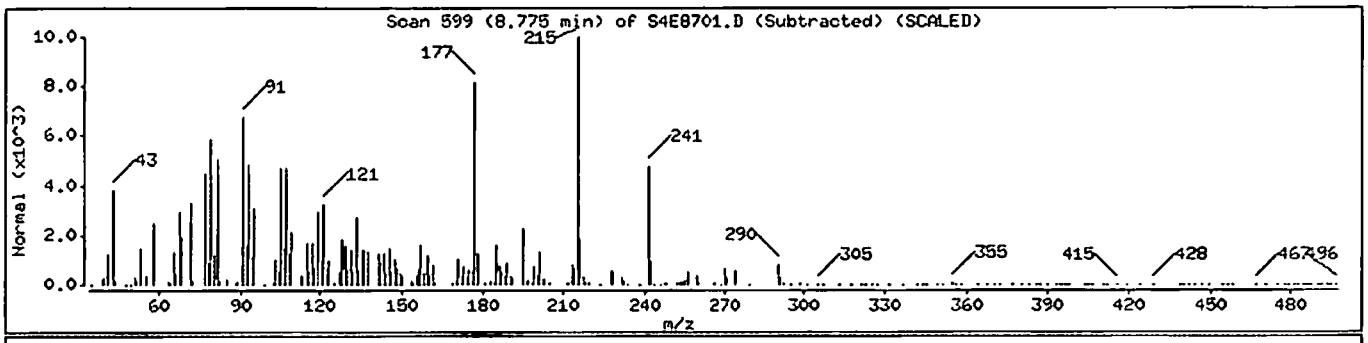
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

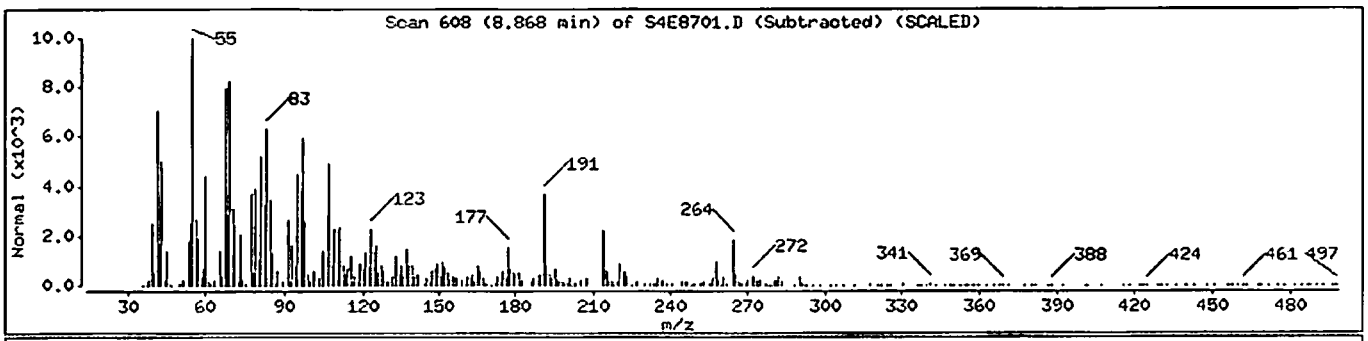
Client ID: H3OQ5 Instrument: S4.i

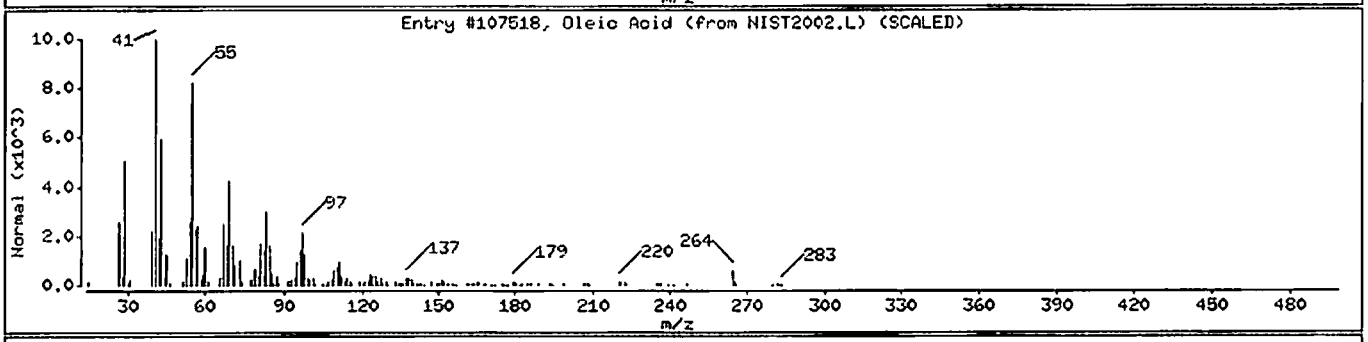
Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Oleic Acid	112-80-1	NIST2002.L	107518	91	C18H3402	282





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

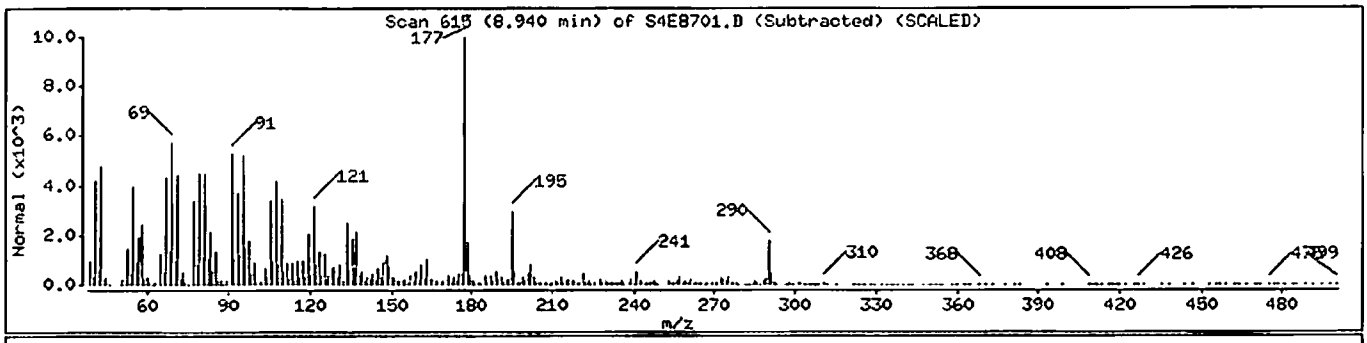
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

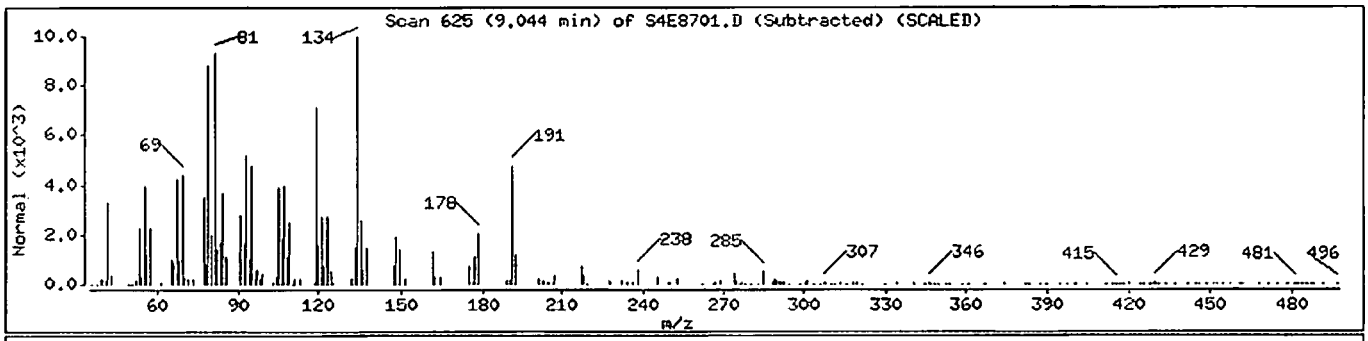
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

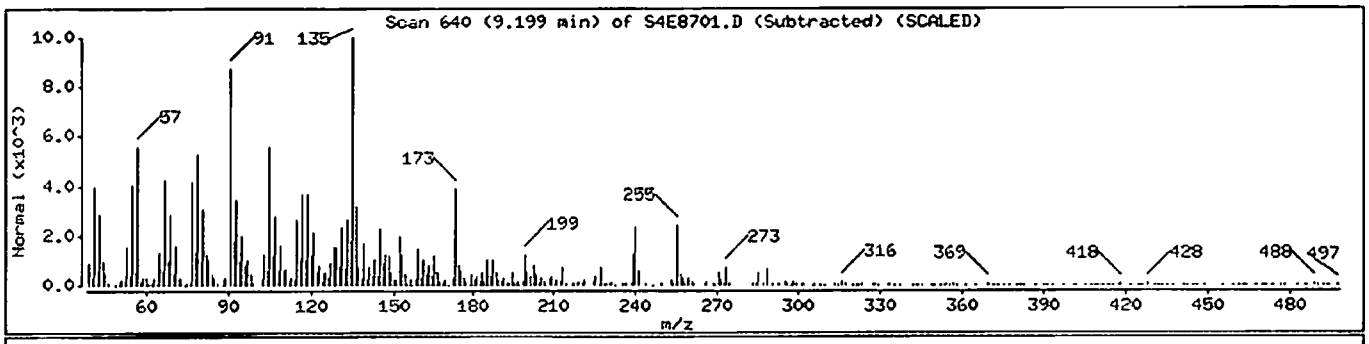
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: HMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

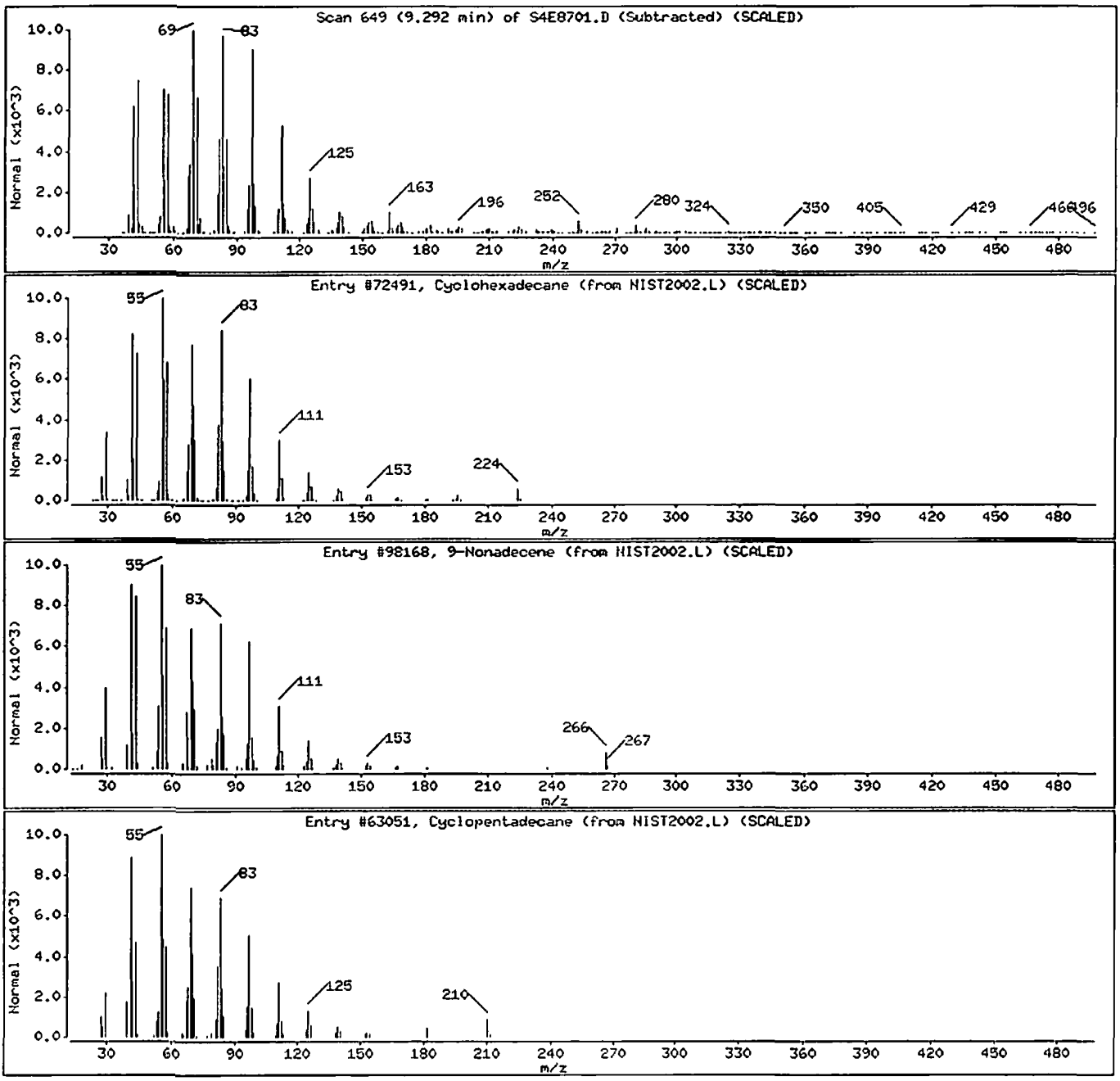
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclic Alkane						
Cyclohexadecane	295-65-8	NIST2002.L	72491	93	C16H32	224
9-Nonadecene	31035-07-1	NIST2002.L	98168	93	C19H38	266
Cyclopentadecane	295-48-7	NIST2002.L	63051	93	C15H30	210



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

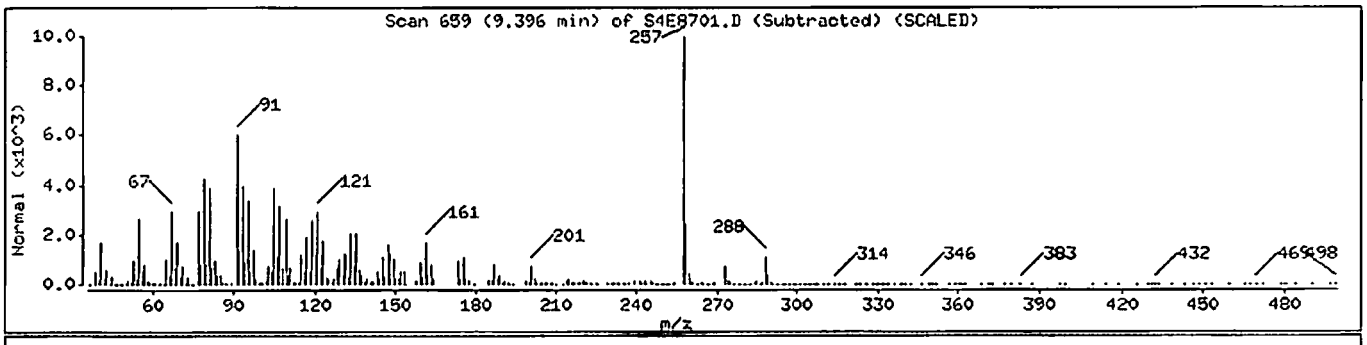
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

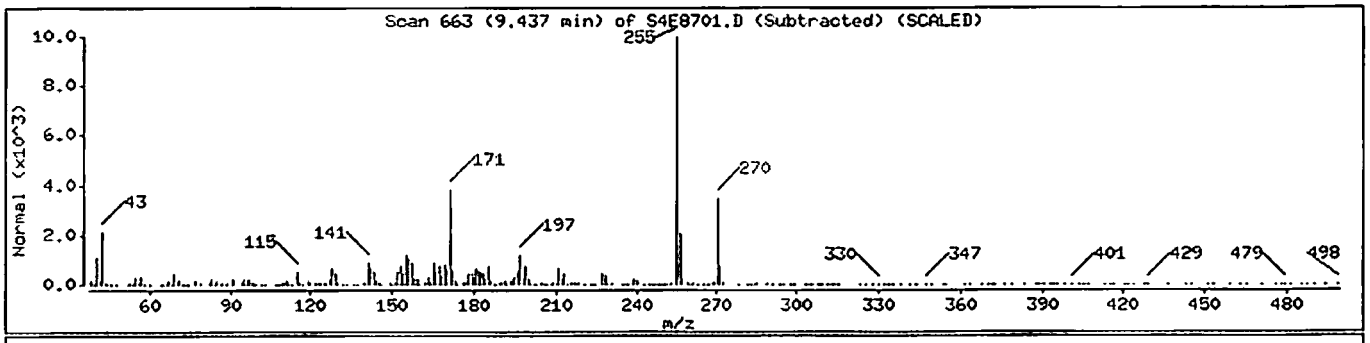
Client ID: H3QQ5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

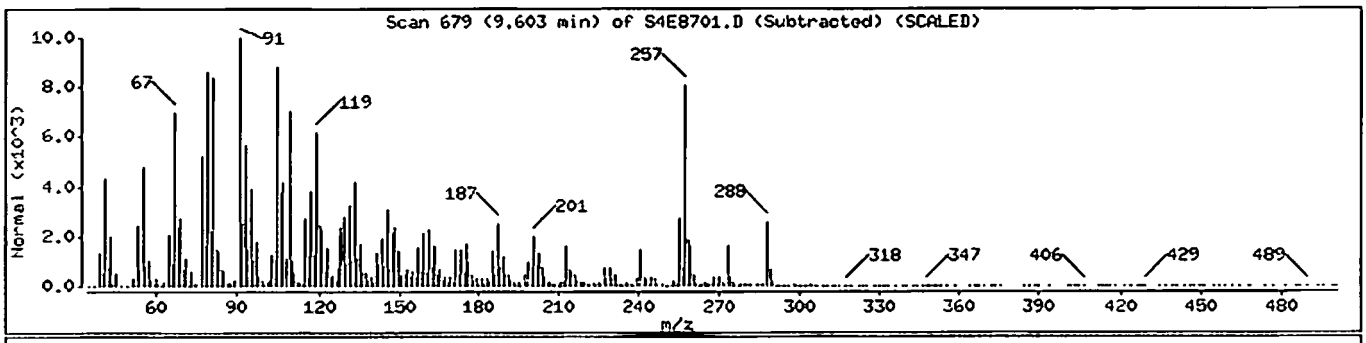
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

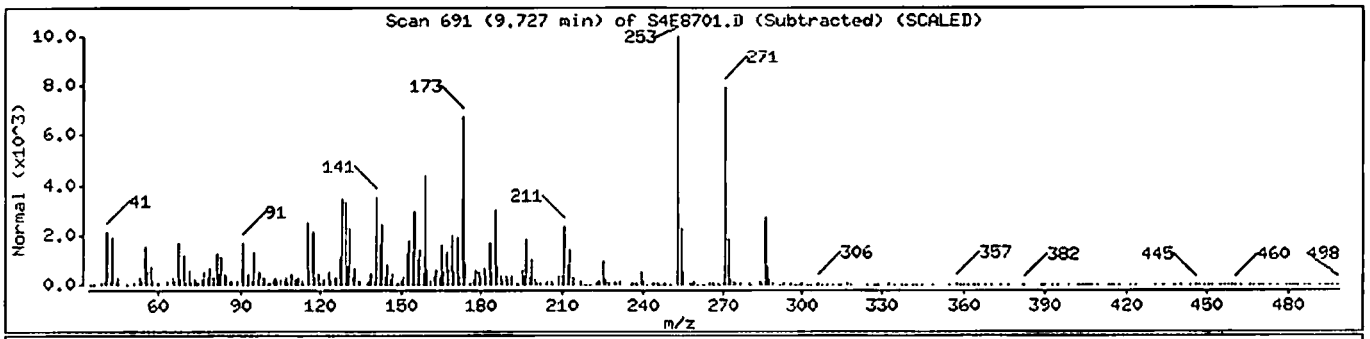
Client ID: H3005 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

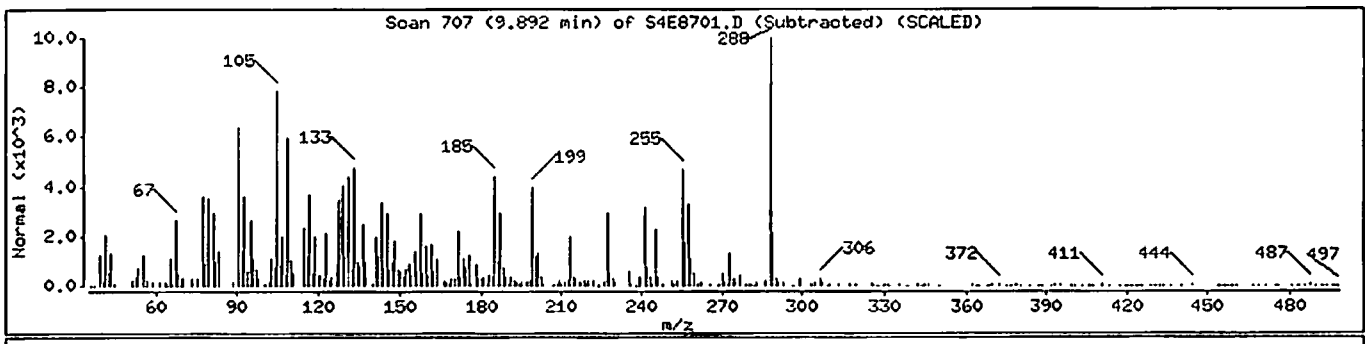
Client ID: H3QQ5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: HMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

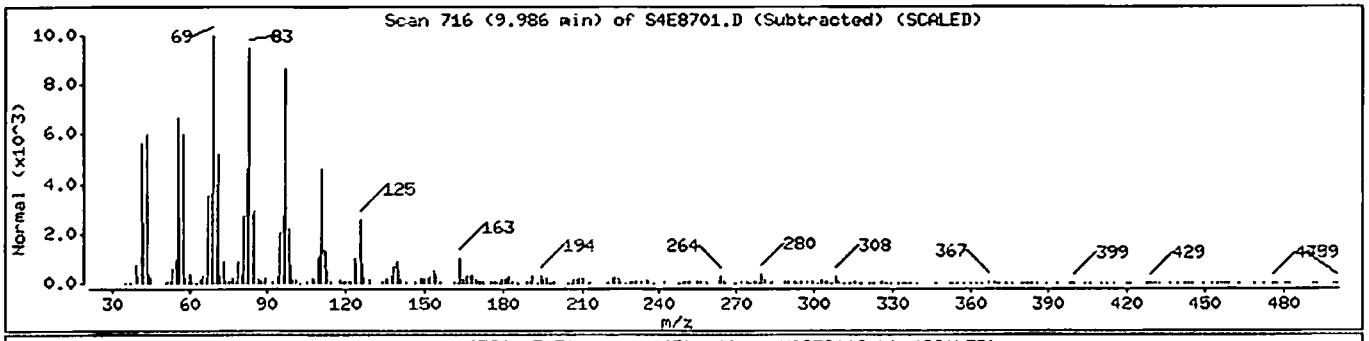
Client ID: H30Q5 Instrument: S4.i

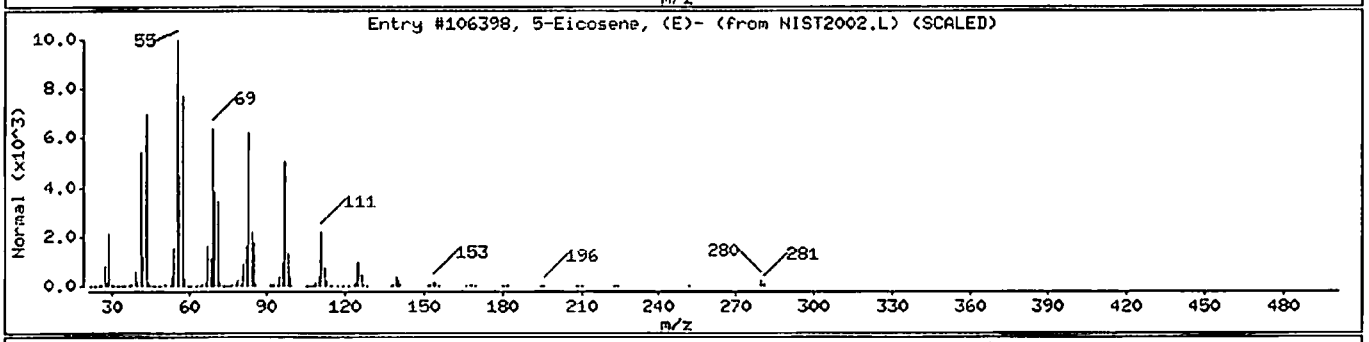
Sample Info: K2199-04A,,62801,,

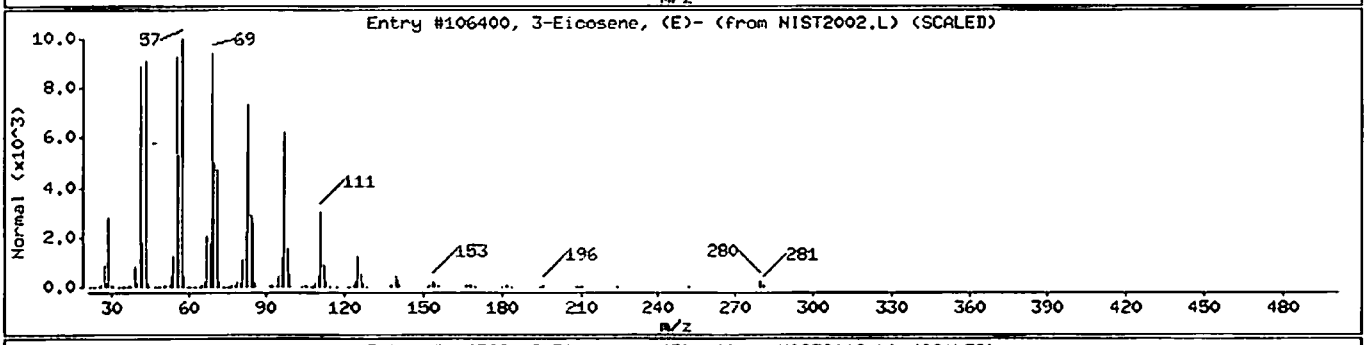
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

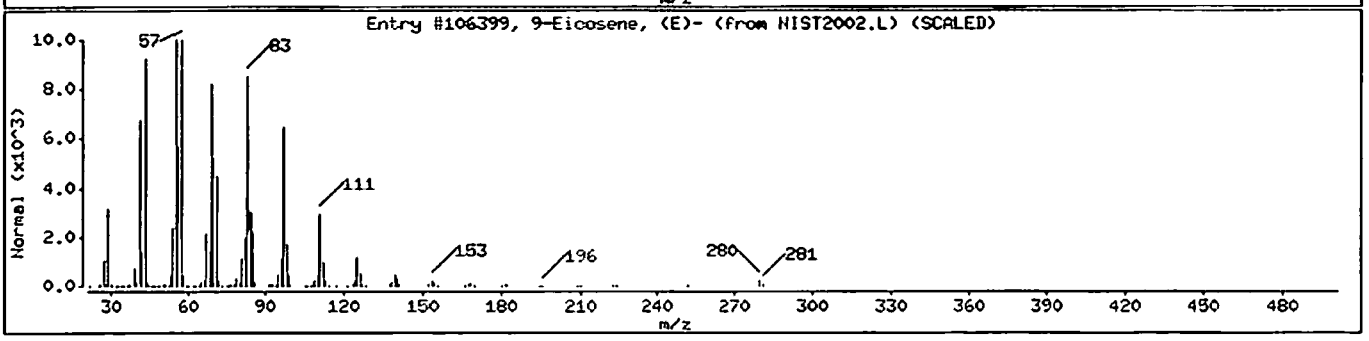
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
5-Eicosene, (E)-	74685-30-6	NIST2002.L	106398	98	C20H40	280
3-Eicosene, (E)-	74685-33-9	NIST2002.L	106400	91	C20H40	280
9-Eicosene, (E)-	74685-29-3	NIST2002.L	106399	91	C20H40	280









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

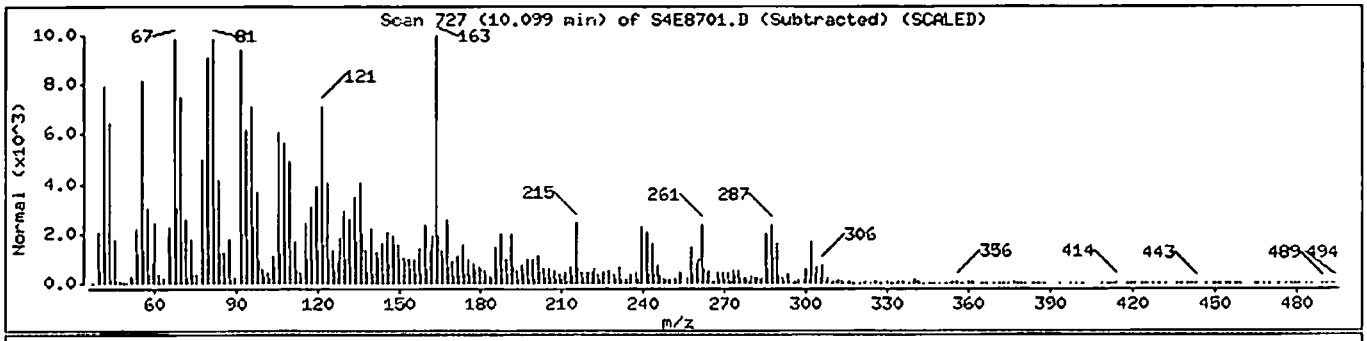
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

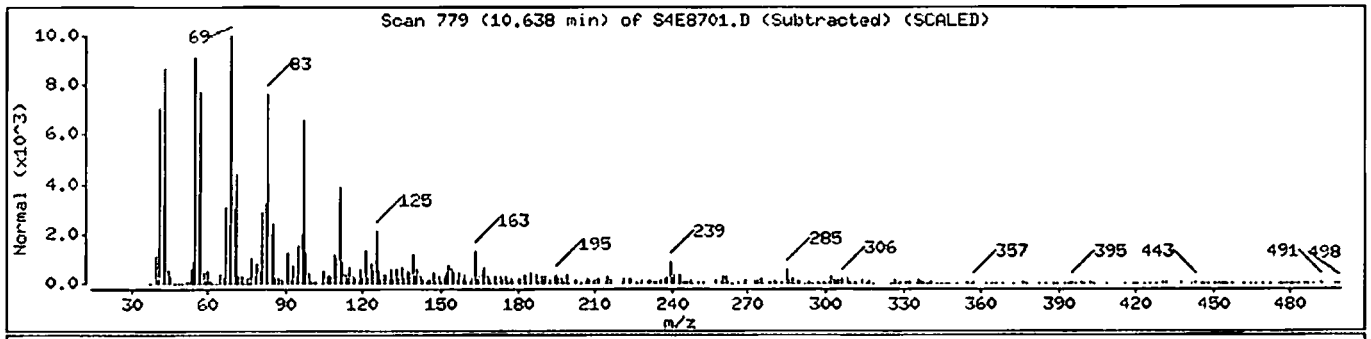
Client ID: H30Q5 Instrument: S4.i

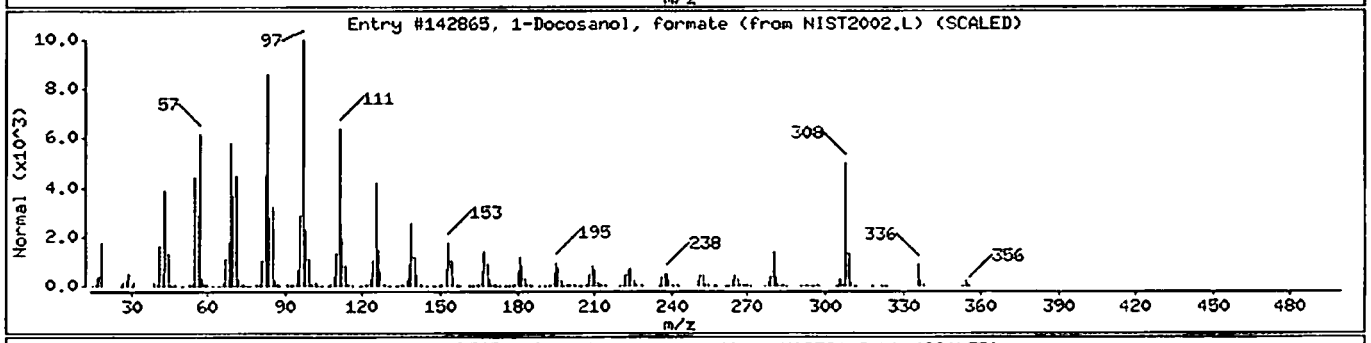
Sample Info: K2199-04A,.62801,,

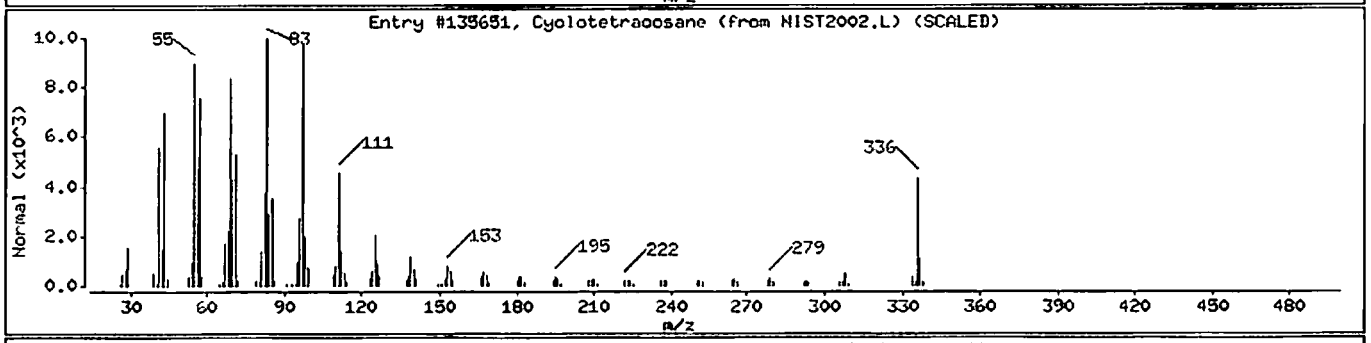
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

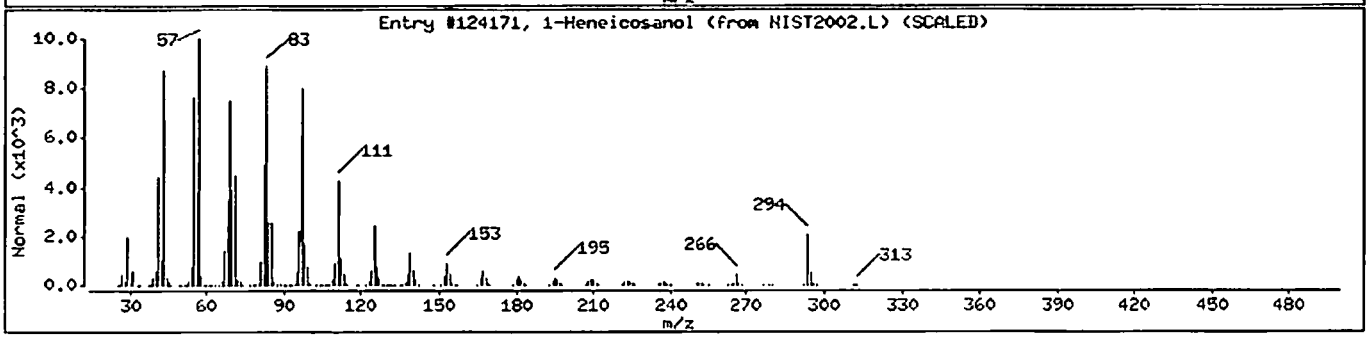
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Docosanol, formate	15155-62-1	NIST2002.L	142865	96	C23H4602	354
Cyclotetracosane	297-03-0	NIST2002.L	135651	96	C24H48	336
1-Heneicosanol	15594-90-8	NIST2002.L	124171	95	C21H440	312









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

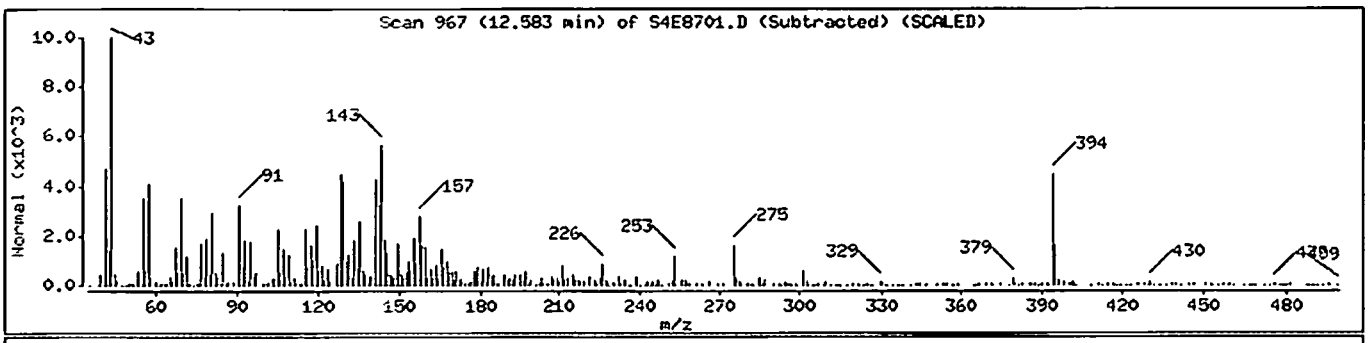
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,.62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

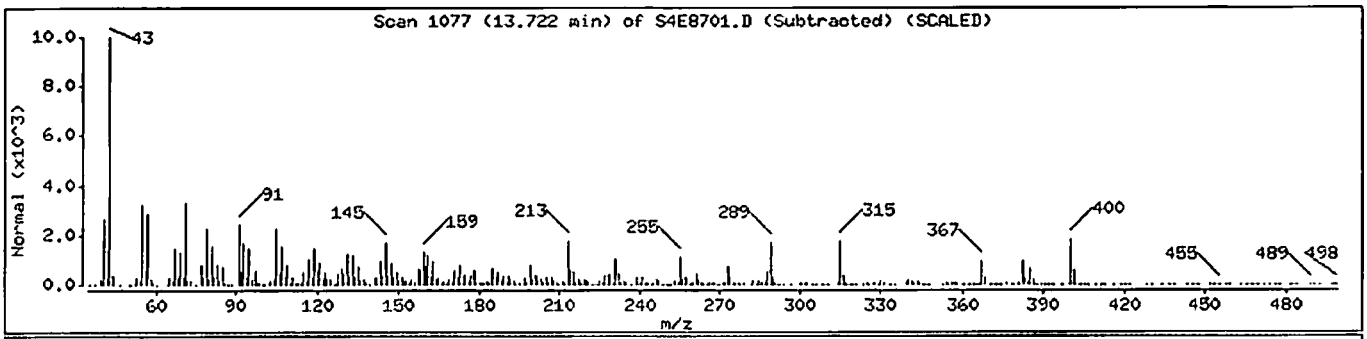
Client ID: H30Q5 Instrument: S4.i

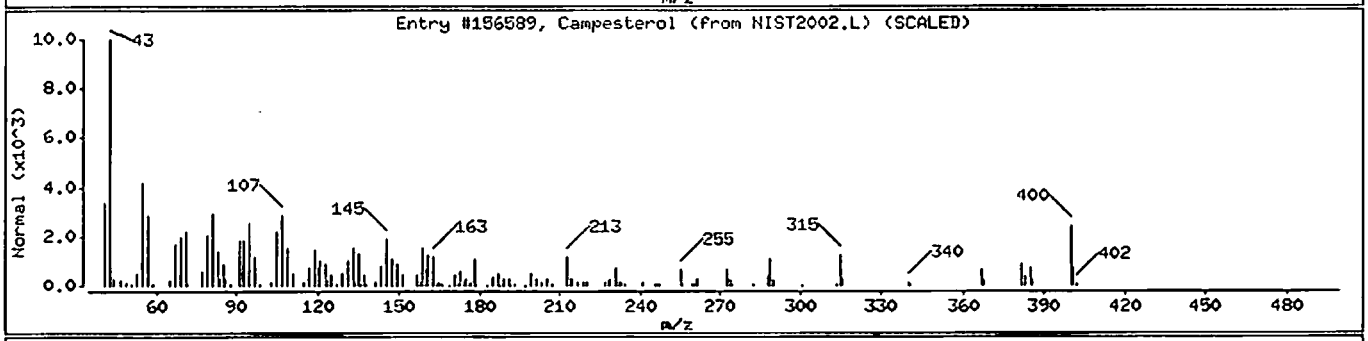
Sample Info: K2199-04A,,62801,,

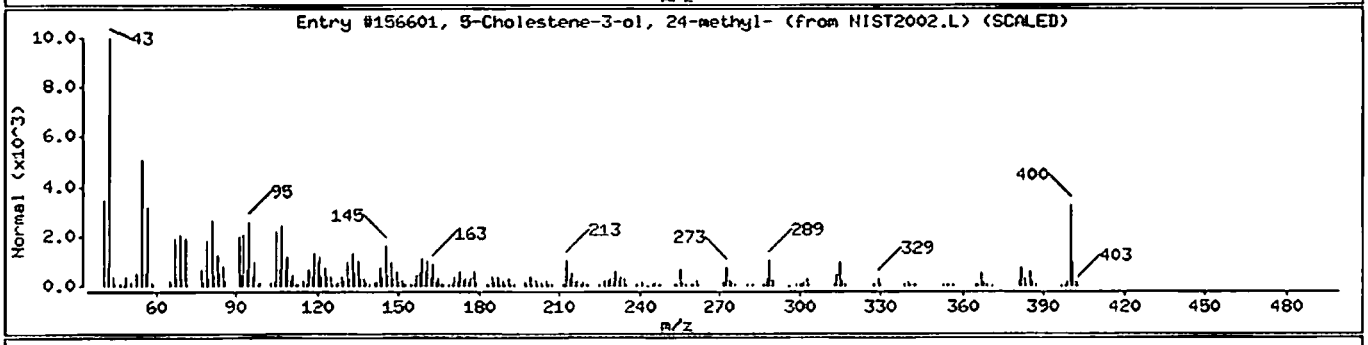
Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Campesterol	474-62-4	NIST2002.L	156589	98	C28H48O	400
5-Cholestene-3-ol, 24-methyl-	1000214-17-4	NIST2002.L	156601	89	C28H48O	400







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

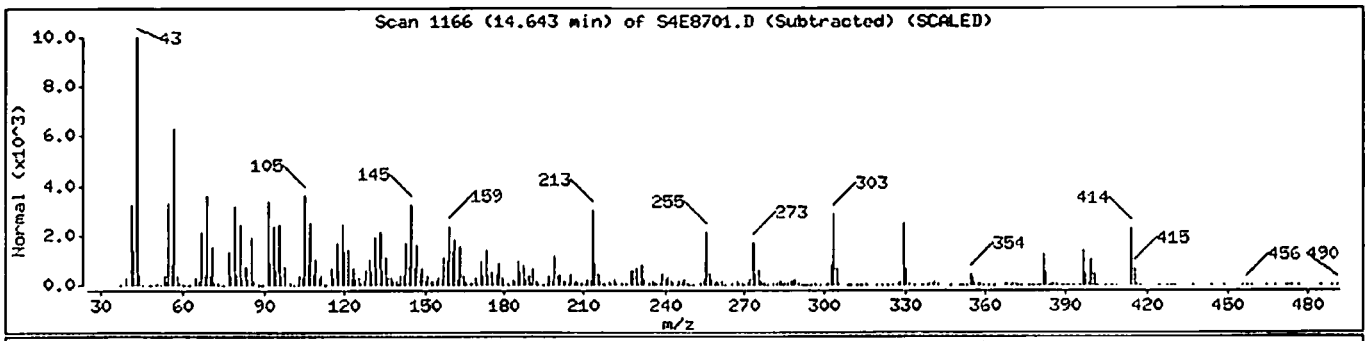
Client ID: H30Q5 Instrument: S4.i

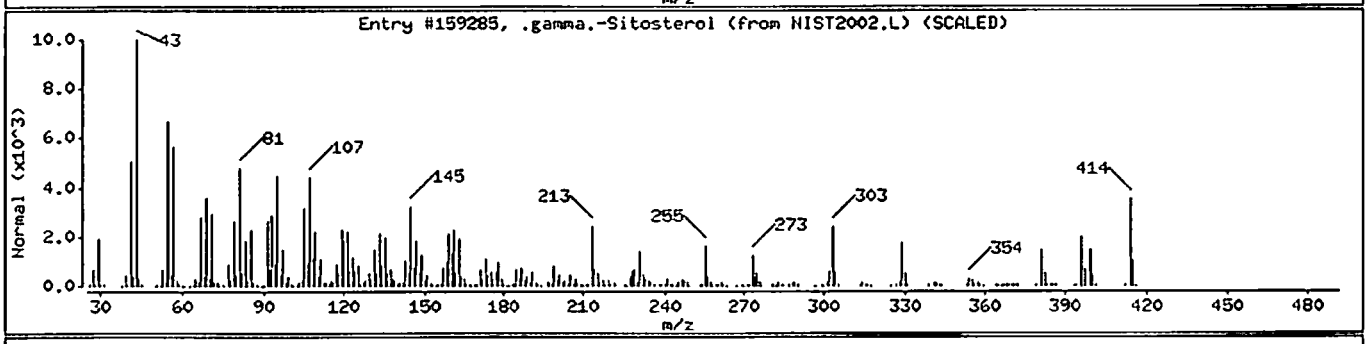
Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.gamma.-Sitosterol	83-47-6	NIST2002.L	159285	91	C29H50O	414





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

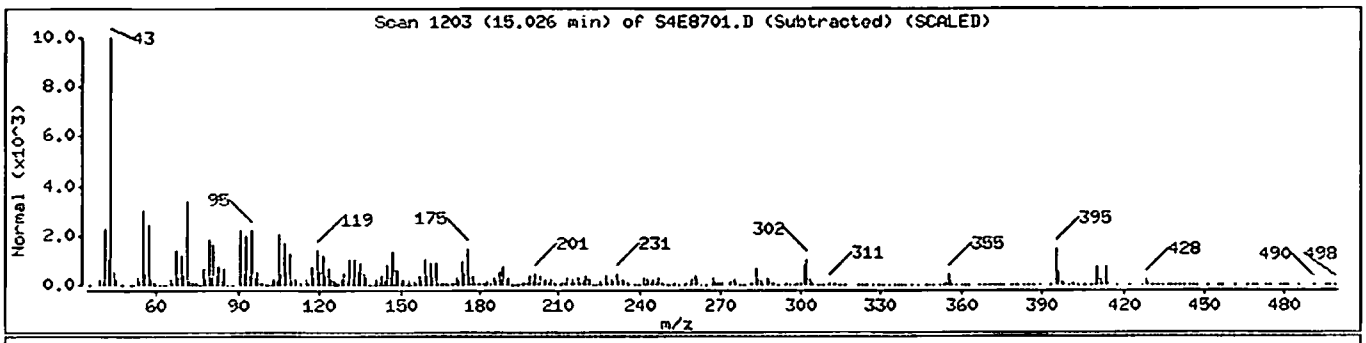
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

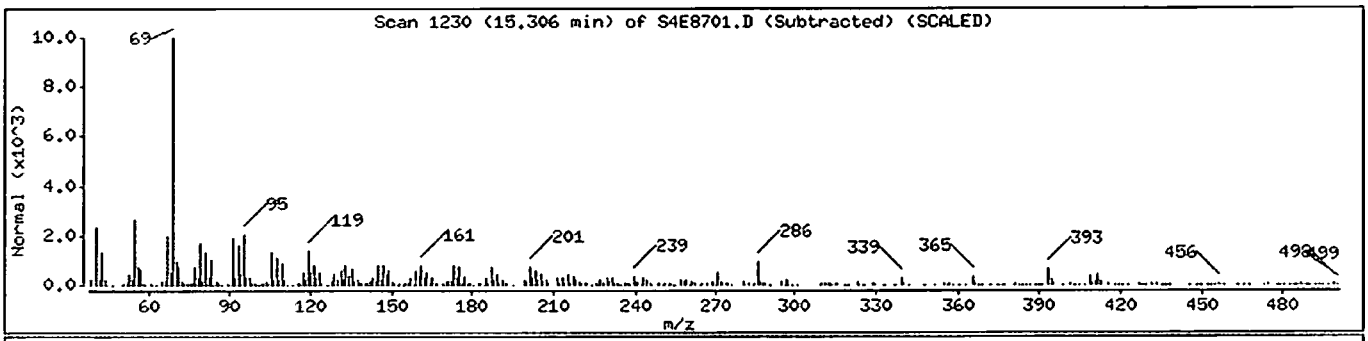
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

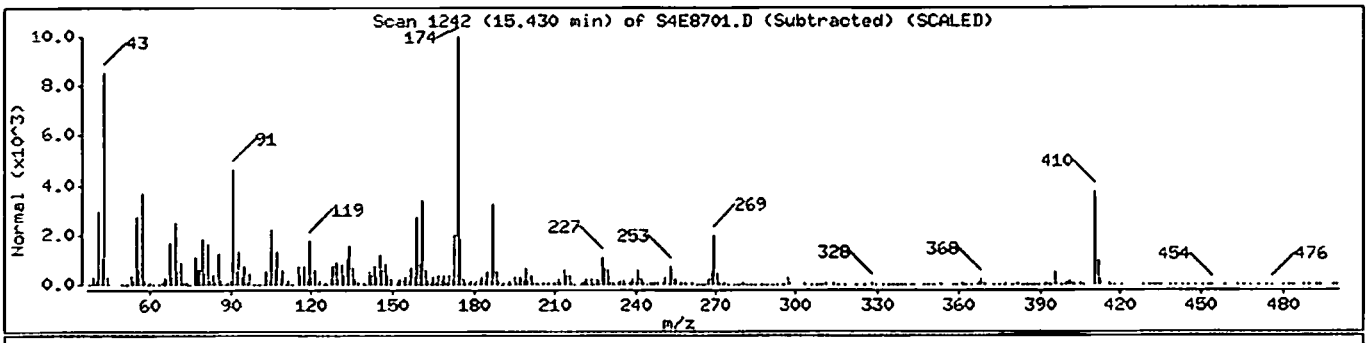
Client ID: H3OQ5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8701.D

Date : 14-NOV-2011 14:07

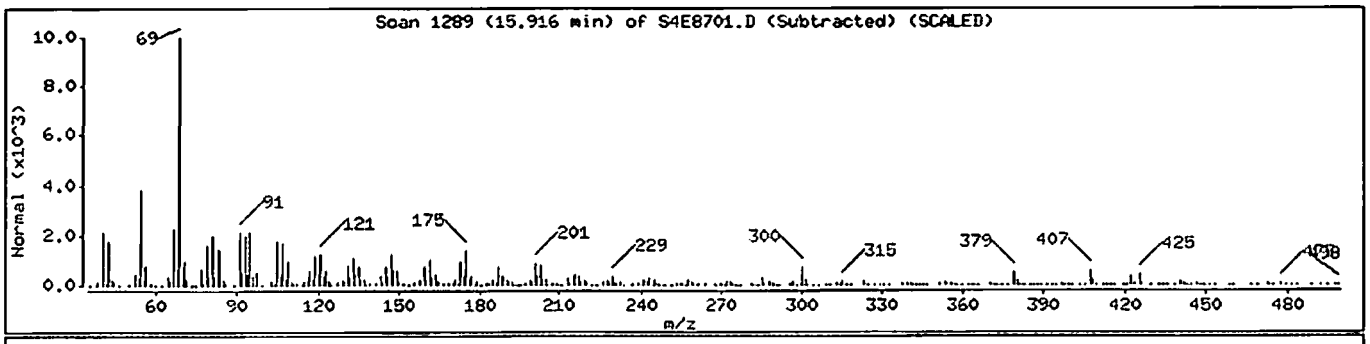
Client ID: H30Q5 Instrument: S4.i

Sample Info: K2199-04A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30Q7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-05A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4E8709.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 68 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	520	U
108-95-2	Phenol	520	U
111-44-4	Bis(2-chloroethyl)ether	520	U
95-57-8	2-Chlorophenol	520	U
95-48-7	2-Methylphenol	520	U
108-60-1	2,2'-Oxybis(1-chloropropane)	520	U
98-86-2	Acetophenone	520	U
106-44-5	4-Methylphenol	2400	
621-64-7	N-Nitroso-di-n-propylamine	520	U
67-72-1	Hexachloroethane	520	U
98-95-3	Nitrobenzene	520	U
78-59-1	Isophorone	520	U
88-75-5	2-Nitrophenol	520	U
105-67-9	2,4-Dimethylphenol	520	U
111-91-1	Bis(2-chloroethoxy)methane	520	U
120-83-2	2,4-Dichlorophenol	520	U
91-20-3	Naphthalene	190	J
106-47-8	4-Chloroaniline	520	U
87-68-3	Hexachlorobutadiene	520	U
105-60-2	Caprolactam	520	U
59-50-7	4-Chloro-3-methylphenol	520	U
91-57-6	2-Methylnaphthalene	520	U
77-47-4	Hexachlorocyclopentadiene	520	U
88-06-2	2,4,6-Trichlorophenol	520	U
95-95-4	2,4,5-Trichlorophenol	520	U
92-52-4	1,1'-Biphenyl	520	U
91-58-7	2-Chloronaphthalene	520	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	520	U
606-20-2	2,6-Dinitrotoluene	520	U
208-96-8	Acenaphthylene	320	J
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	520	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30Q7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-05A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4E8709.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 68 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	520	U
121-14-2	2,4-Dinitrotoluene	520	U
84-66-2	Diethylphthalate	520	U
86-73-7	Fluorene	520	U
7005-72-3	4-Chlorophenyl-phenylether	520	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	520	U
95-94-3	1,2,4,5-Tetrachlorobenzene	520	U
101-55-3	4-Bromophenyl-phenylether	520	U
118-74-1	Hexachlorobenzene	520	U
1912-24-9	Atrazine	520	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	490	J
120-12-7	Anthracene	520	U
86-74-8	Carbazole	520	U
84-74-2	Di-n-butylphthalate	5900	B
206-44-0	Fluoranthene	520	U
129-00-0	Pyrene	520	U
85-68-7	Butylbenzylphthalate	520	U
91-94-1	3,3'-Dichlorobenzidine	520	U
56-55-3	Benzo(a)anthracene	520	U
218-01-9	Chrysene	520	U
117-81-7	Bis(2-ethylhexyl)phthalate	520	U
117-84-0	Di-n-octylphthalate	520	U
205-99-2	Benzo(b)fluoranthene	520	U
207-08-9	Benzo(k)fluoranthene	520	U
50-32-8	Benzo(a)pyrene	520	U
193-39-5	Indeno(1,2,3-cd)pyrene	520	U
53-70-3	Dibenzo(a,h)anthracene	520	U
191-24-2	Benzo(g,h,i)perylene	520	U
58-90-2	2,3,4,6-Tetrachlorophenol	520	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H30Q7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-05A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4E8709.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 68 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	80-56-8	.alpha.-Pinene	2.854	8800	NJ
02		Unknown-01	3.123	6200	J
03	13466-78-9	3-Carene	3.289	14000	NJ
04		Unknown-02	3.382	150000	J
05	475-20-7	1,4-Methanoazulene, decahydr	5.700	4900	NJ
06	483-76-1	Naphthalene, 1,2,3,5,6,8a-he	6.176	4100	NJ
07	544-63-8	Tetradecanoic acid	7.253	3800	NJ
08		Unknown-03	8.008	3500	J
09		Unknown-04	8.133	20000	J
10	57-10-3	n-Hexadecanoic acid	8.205	34000	NJ
11		Unknown-05	8.247	24000	J
12		Unknown-06	8.454	26000	J
13		Unknown-07	8.567	13000	J
14	1000210-28-9	7-Isopropyl-1,1,4a-trimethyl	8.630	14000	NJ
15		Unknown-08	8.785	33000	J
16		Unknown-09	8.826	23000	J
17	112-80-1	Oleic Acid	8.940	43000	NJ
18		Unknown-10	9.095	13000	J
19		Unknown-11	9.137	22000	J
20		Unknown-12	9.261	14000	J
21		Unknown-13	9.447	42000	J
22		Unknown-14	9.665	100000	J
23	24035-43-6	1-Phenanthrenemethanol, 1,2,	9.789	35000	NJ
24	3452-07-1	1-Eicosene	10.110	260000	NJ
25		Unknown-15	12.697	3600	J
26		Unknown-16	13.856	14000	J
27	1000214-20-7	Stigmasterol, 22,23-dihydro-	14.933	65000	NJ
28		Unknown-17	15.326	26000	J
29		Unknown-18	15.761	15000	J
30		Unknown-19	16.247	18000	J
	E966796[2]	Total Alkanes	N/A	22000	J

[2]EPA-designated Registry Number.

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D
Report Date: 15-Nov-2011 12:01

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8709.D
Lab Smp Id: K2199-05A Client Smp ID: H30Q7
Inj Date : 14-NOV-2011 17:18
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-05A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 11:59 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.300	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 2 Phenol-d5	71	3.040	2.999	(0.913)	53093	46.6320	770(Q)
$ 4 bis(2-Chloroethyl)ether-d8	67	3.061	3.040	(0.919)	48121	56.8225	940(Q)
$ 6 2-Chlorophenol-d4	132	3.174	3.143	(0.953)	67722	50.6869	840(Q)
* 8 1,4-Dichlorobenzene-d4	152	3.330	3.309	(1.000)	42338	40.0000	(Q)
$ 11 4-Methylphenol-d8	113	3.599	3.557	(1.081)	65215	54.0876	890
12 4-Methylphenol	108	3.619	3.578	(1.087)	58437	47.2711	780
$ 16 Nitrobenzene-d5	128	3.764	3.733	(0.865)	37459	26.4029	440(H)
$ 19 2-Nitrophenol-d4	143	4.034	4.013	(0.926)	43456	24.0306	400
$ 23 2,4-Dichlorophenol-d3	165	4.272	4.230	(0.981)	84223	24.8554	410
* 25 Naphthalene-d8	136	4.406	4.365	(1.000)	338928	40.0000	(QH)
26 Naphthalene	128	4.416	4.386	(1.014)	32809	3.65830	60(aH)
$ 27 4-Chloroaniline-d4	131	4.427	4.417	(1.017)	9563	2.86043	47(aQ)
$ 40 Dimethylphthalate-d6	166	5.741	5.721	(0.947)	261673	42.6216	700
$ 43 Acenaphthylene-d8	160	5.917	5.876	(0.976)	329072	48.4075	800
44 Acenaphthylene	152	5.928	5.897	(0.978)	44436	6.23389	100(aH)
* 46 Acenaphthene-d10	164	6.062	6.031	(1.000)	155268	40.0000	(Q)
$ 49 4-Nitrophenol-d4	143	6.217	6.145	(1.026)	76652	66.3179	1100(QH)
$ 54 Fluorene-d10	176	6.569	6.538	(1.084)	255013	46.5885	770
$ 58 4,6-Dinitro-2-methylphenol-d2	200	6.631	6.600	(0.841)	52520	31.7108	520(H)

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D
Report Date: 15-Nov-2011 12:01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)	
*	65 Phenanthrene-d10	188	7.532	7.480	(1.000)	412898	40.0000		(M)M6 MMS 11/15
	66 Phenanthrene	178	7.553	7.511	(0.958)	104667	9.54303	160	(aH)
$	67 Anthracene-d10	188	7.532	7.542	(0.955)	423098	37.3104	620	(H)
	70 Di-n-butylphthalate	149	8.091	8.018	(1.026)	1392177	116.032	1900	(QH)
$	72 Pyrene-d10	212	8.971	8.888	(0.889)	1397313	75.3780	1200	(Q)
*	77 Chrysene-d12	240	10.213	10.078	(1.000)	951073	40.0000		(M)M3 MMS 11/15
$	83 Benzo(a)pyrene-d12	264	11.858	11.651	(1.000)	478469	42.6643	700	
*	85 Perylene-d12	264	11.972	11.765	(1.000)	506108	40.0000		(H)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D
Report Date: 15-Nov-2011 12:01

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8709.D
Lab Smp Id: K2199-05A Client Smp ID: H30Q7
Inj Date : 14-NOV-2011 17:18
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-05A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 11:59 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.300	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	3.330	636069	40.000
* 25 Naphthalene-d8	4.407	3536181	40.000
* 65 Phenanthrene-d10	7.532	3813746	40.000

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
.alpha.-Pinene					CAS #: 80-56-8		
2.854	2744616	172.598518	2800	93	NIST2002.L	15153	8
Unknown					CAS #:		
3.123	1926697	121.162647	2000	0		0	8
3-Carene					CAS #: 13466-78-9		
3.289	4207923	264.620350	4400	93	NIST2002.L	15125	8

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D
Report Date: 15-Nov-2011 12:01

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
3.382	46141708	2901.67713	48000	0		0	8
1,4-Methanoazulene, decahydro-4,8,8-trim				CAS #: 475-20-7			
5.700	8481235	95.9366500	1600	97	NIST2002.L	58865	25
Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-				CAS #: 483-76-1			
6.176	7659064	80.3311352	1300	95	NIST2002.L	58818	65
Branched Alkane				CAS #:			
6.942	4004471	42.0003980	690	0		0	65
Tetradecanoic acid				CAS #: 544-63-8			
7.253	7118693	74.6635253	1200	96	NIST2002.L	75070	65
Branched Alkane				CAS #:			
7.408	2187989	22.9484516	380	0		0	65
Unknown				CAS #:			
8.008	6482415	67.9899982	1100	0		0	65
Unknown				CAS #:			
8.133	37493481	393.245701	6500	0		0	65
n-Hexadecanoic acid				CAS #: 57-10-3			
8.205	63350091	664.439534	11000	94	NIST2002.L	92228	65
Unknown				CAS #:			
8.247	45416335	476.343571	7900	0		0	65
Unknown				CAS #:			
8.454	48735740	511.158735	8400	0		0	65
Unknown				CAS #:			
8.567	24420672	256.133176	4200	0		0	65
7-Isopropyl-1,1,4a-trimethyl-1,2,3,4,4a,				CAS #: 1000210-28-9			
8.630	26515548	278.105021	4600	89	NIST2002.L	100859	65
Unknown				CAS #:			
8.785	61594284	646.023964	11000	0		0	65
Unknown				CAS #:			
8.826	43163289	452.712778	7500	0		0	65
Oleic Acid				CAS #: 112-80-1			
8.940	80887535	848.378828	14000	93	NIST2002.L	107517	65
Unknown				CAS #:			
9.095	24722025	259.293876	4300	0		0	65
Unknown				CAS #:			
9.137	41070755	430.765496	7100	0		0	65

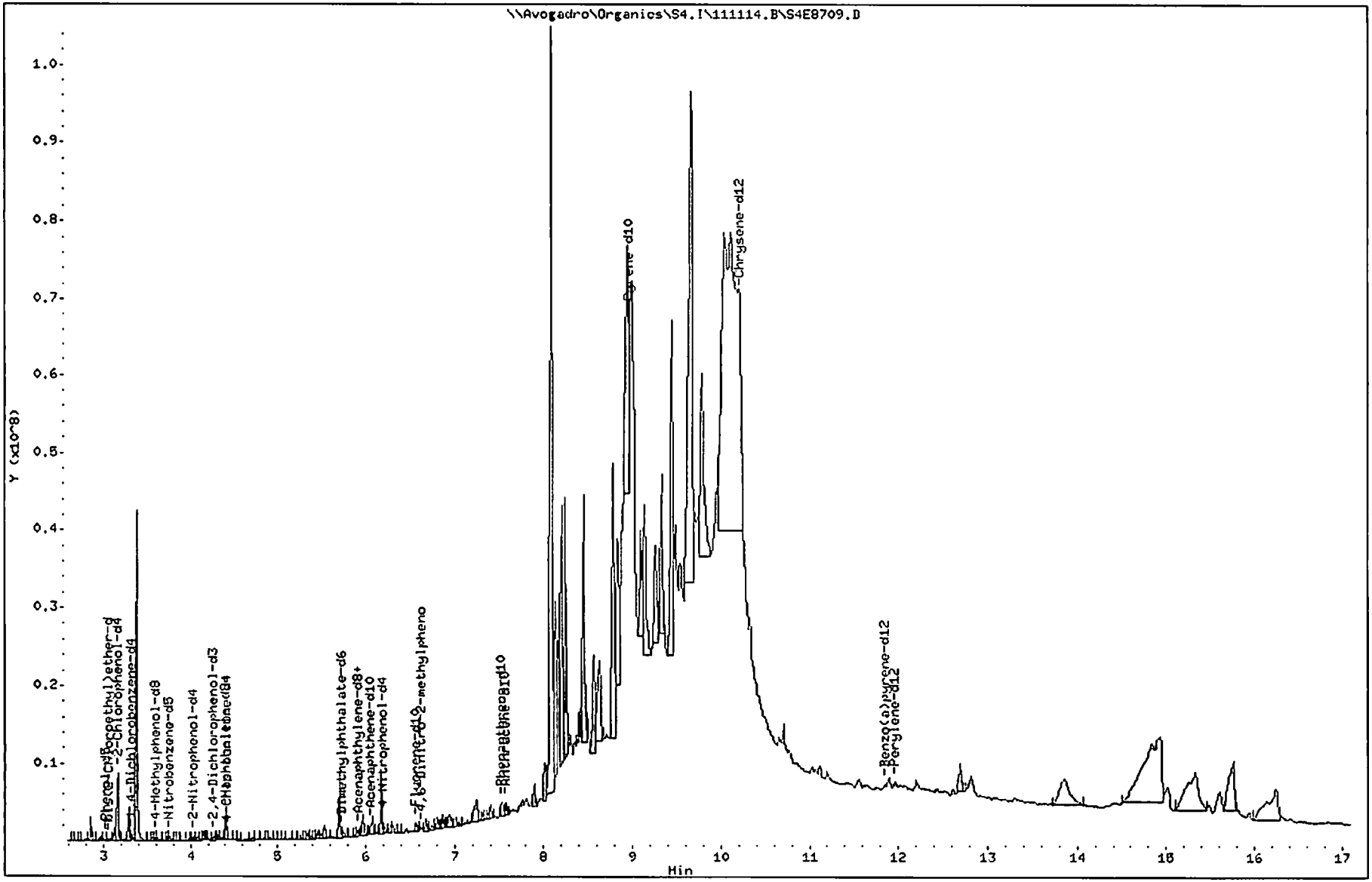
Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D
Report Date: 15-Nov-2011 12:01

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
9.261	26042378	273.142231	4500	0		0	65
Cyclic Alkane				CAS #:			
9.333	35530751	372.659851	6100	0		0	65
Unknown				CAS #:			
9.447	77897999	817.023450	13000	0		0	65
Unknown				CAS #:			
9.665	1.875e+008	1966.41080	32000	0		0	65
1-Phenanthrenemethanol, 1,2,3,4,4a,9,10,				CAS #: 24035-43-6			
9.789	65417727	686.125676	11000	96	NIST2002.L	110107	65
1-Eicosene				CAS #: 3452-07-1			
10.110	4.896e+008	5135.28683	85000	90	NIST2002.L	106396	65
Unknown				CAS #:			
12.697	6819654	71.5270876	1200	0		0	65
Unknown				CAS #:			
13.856	25806505	270.668305	4500	0		0	65
Stigmasterol, 22,23-dihydro-				CAS #: 1000214-20-7			
14.933	1.208e+008	1266.95204	21000	95	NIST2002.L	159291	65
Unknown				CAS #:			
15.326	48139782	504.908096	8300	0		0	65
Unknown				CAS #:			
15.761	28490959	298.823866	4900	0		0	65
Unknown				CAS #:			
16.247	34121549	357.879608	5900	0		0	65

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D
Date : 14-NOV-2011 17:18
Client ID: H30Q7
Sample Info: K2199-05A,,62801,,
Volume Injected (uL): 2.0
Column phase: RXI-5SILMS

Instrument: S4.i

Operator: MMS SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

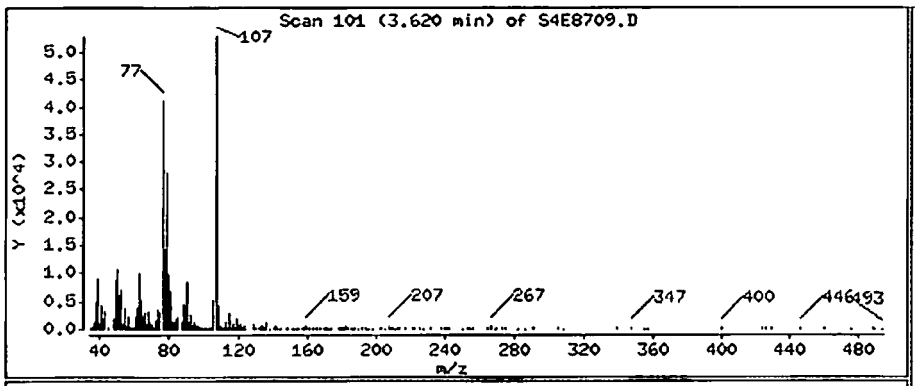
Client ID: H30Q7 Instrument: S4.i

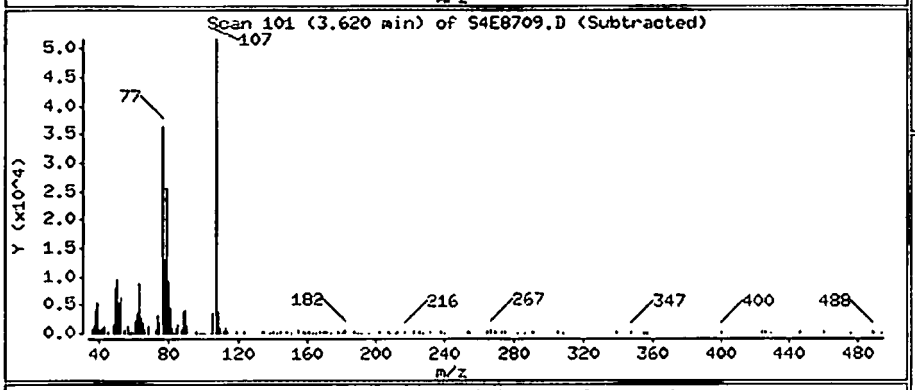
Sample Info: K2199-05A,,62801,,

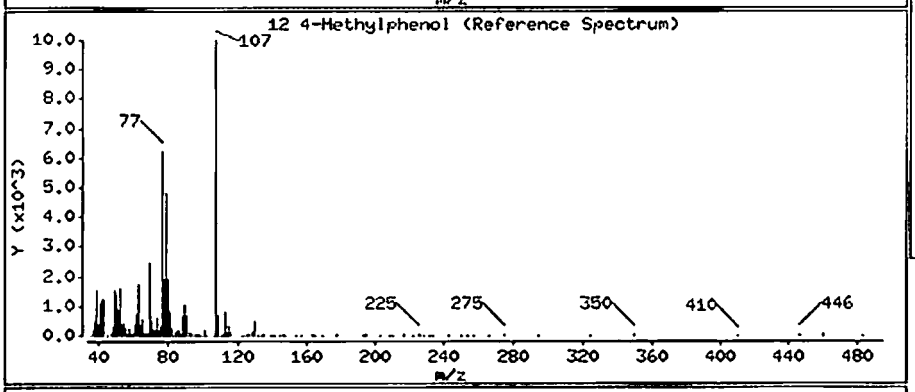
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

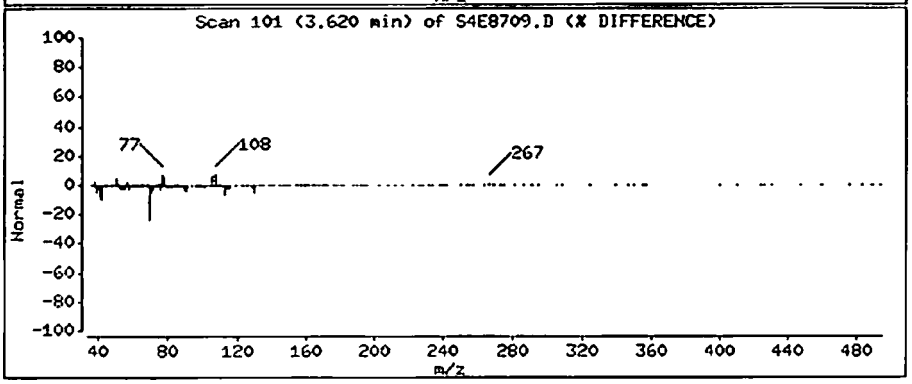
Column phase: RXI-5SILMS Column diameter: 0.25

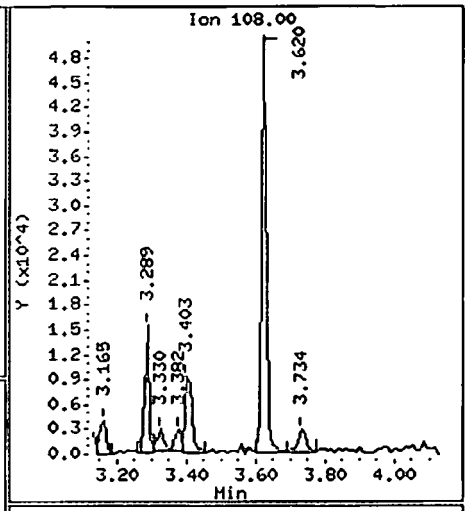
12 4-Methylphenol Concentration: 780 ug/Kg

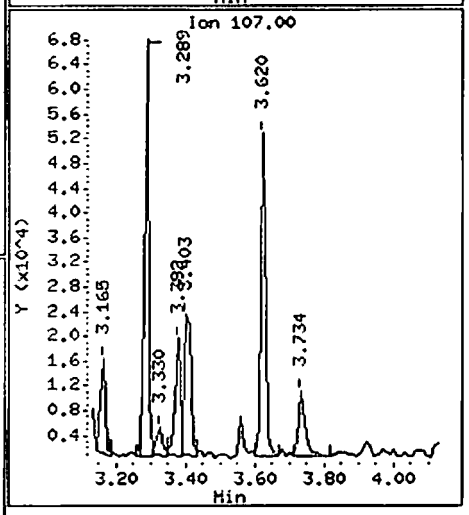












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

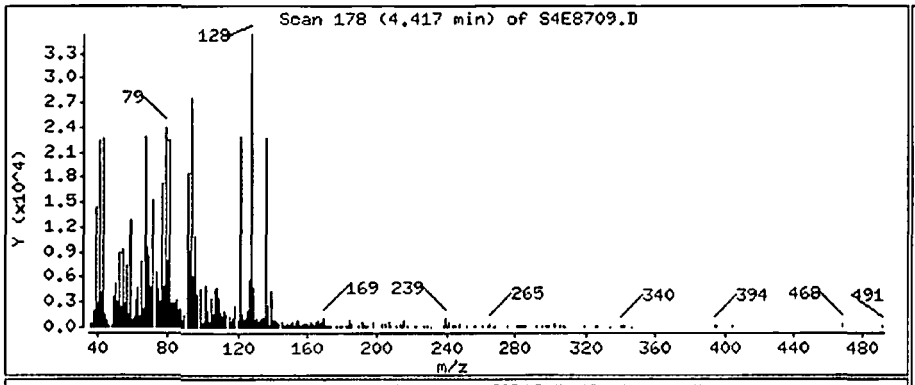
Client ID: H30Q7 Instrument: S4.i

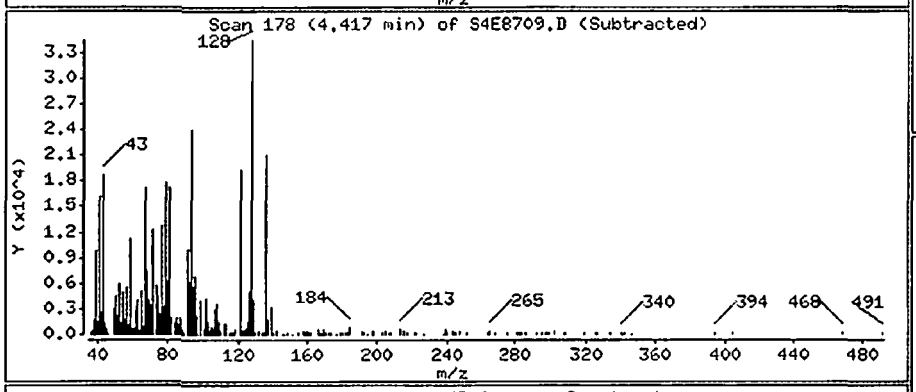
Sample Info: K2199-05A,,62801,,

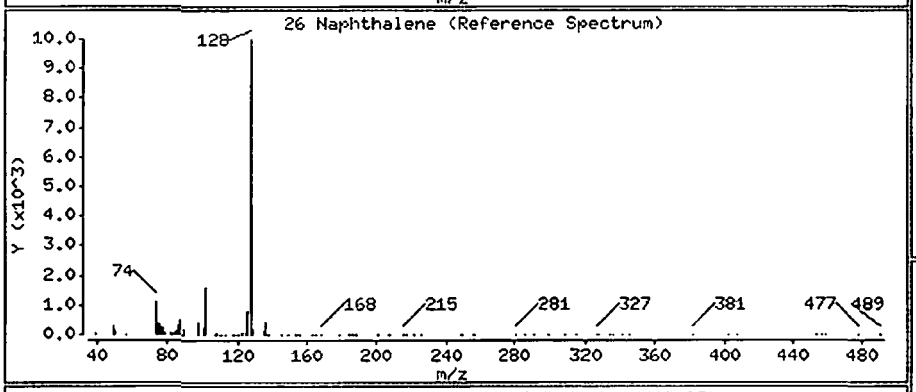
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

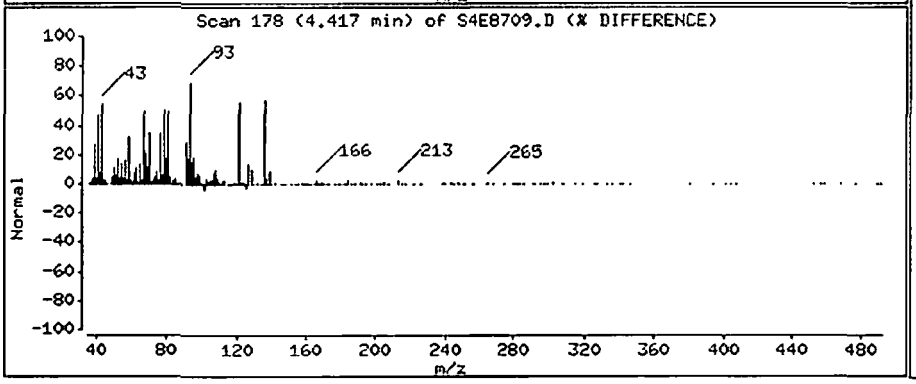
Column phase: RXI-5SILMS Column diameter: 0.25

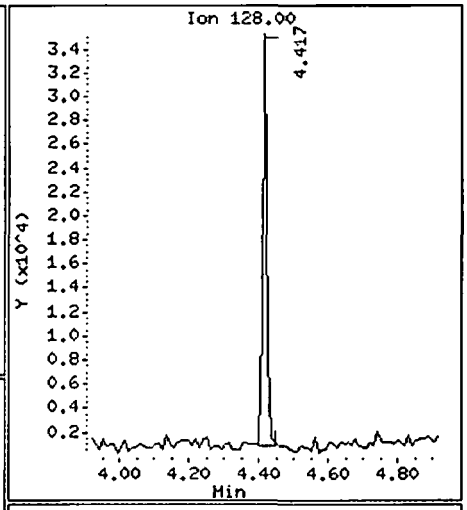
26 Naphthalene Concentration: 60 ug/Kg

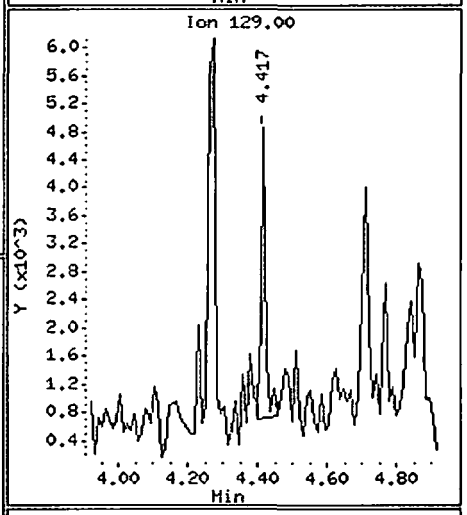


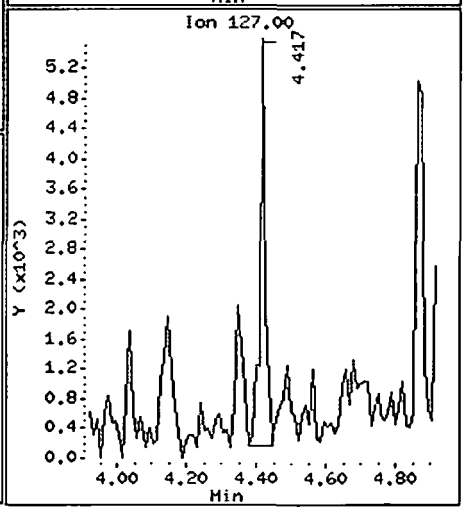












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

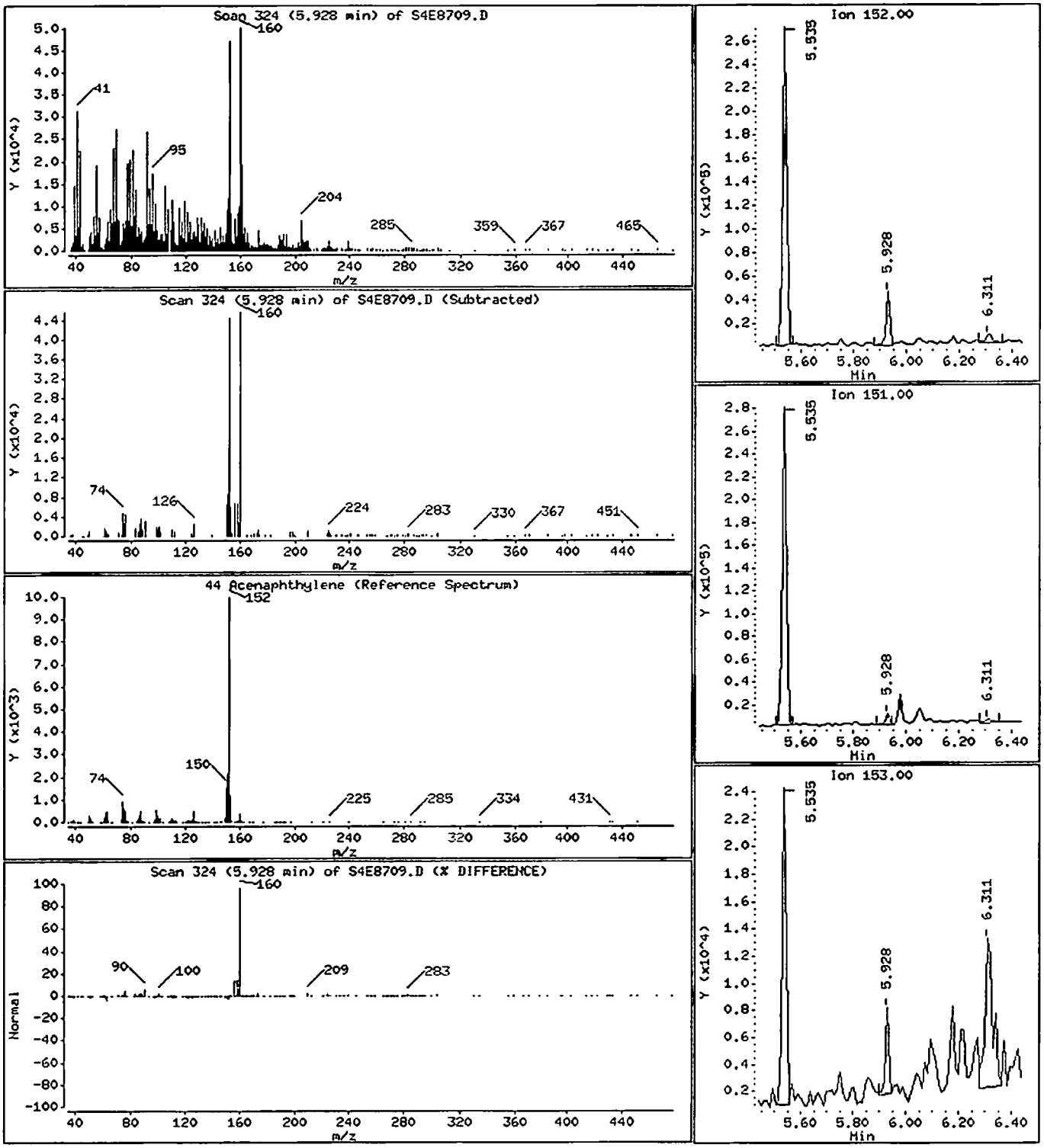
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

44 Acenaphthylene Concentration: 100 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

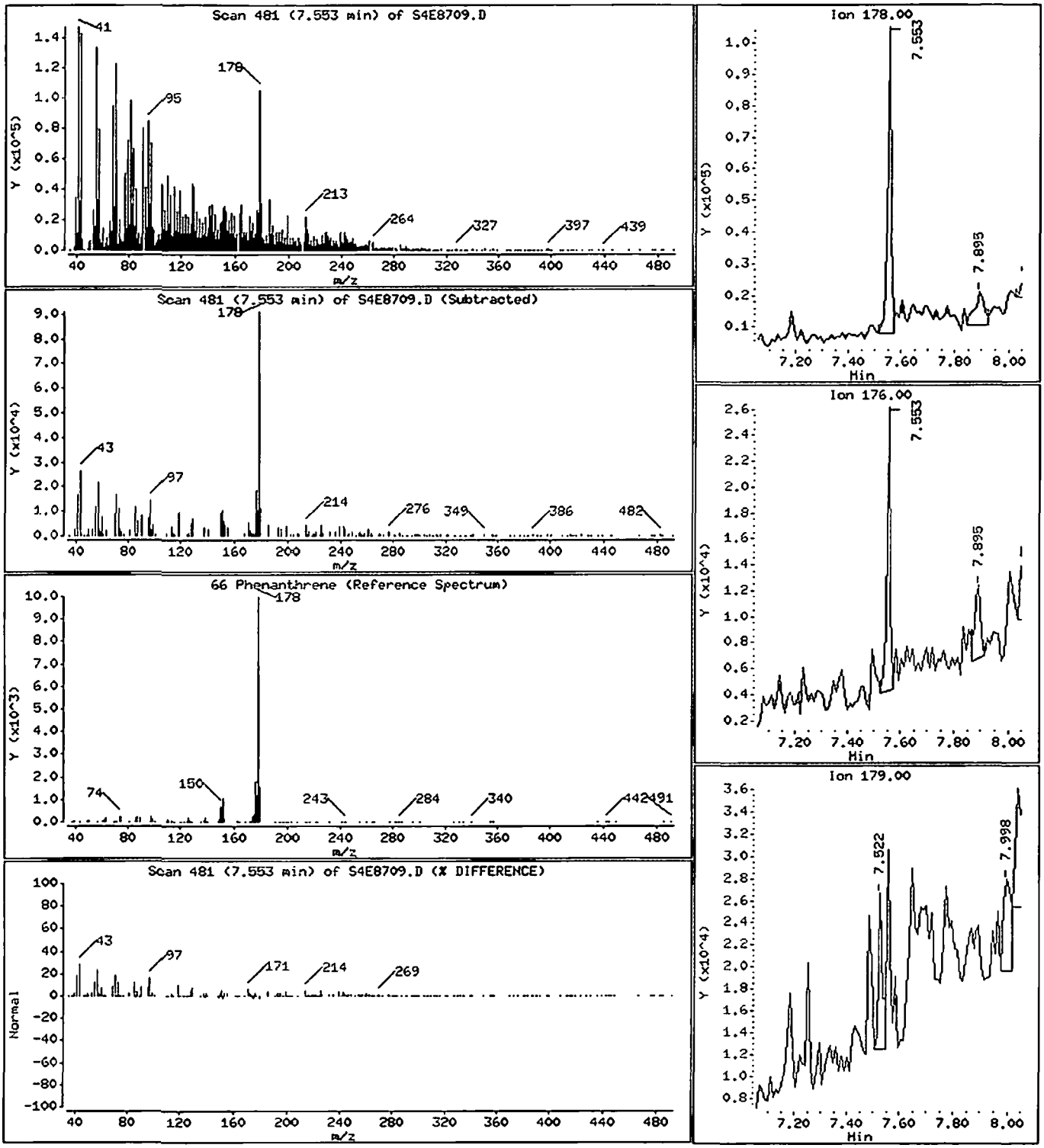
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILHS Column diameter: 0.25

66 Phenanthrene Concentration: 160 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

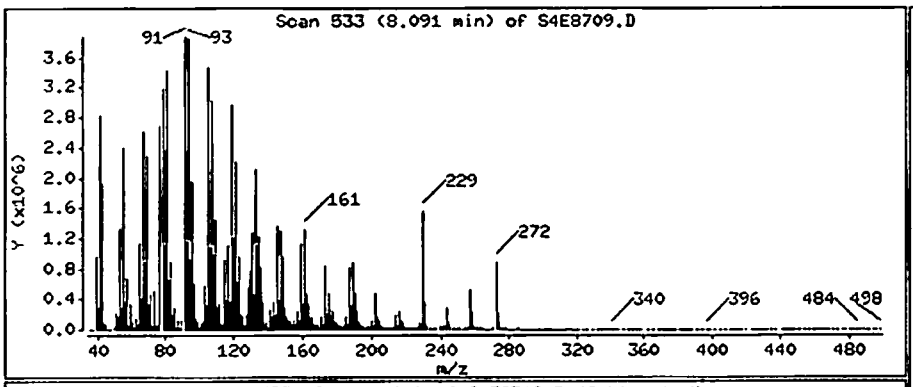
Client ID: H30Q7 Instrument: S4.i

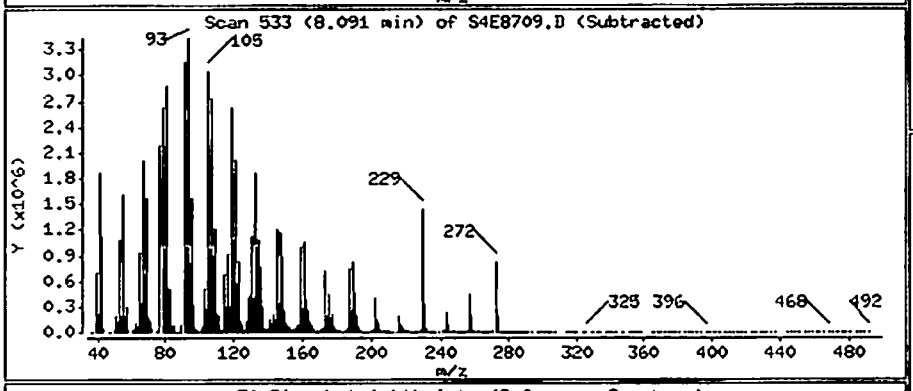
Sample Info: K2199-05A,,62801,,

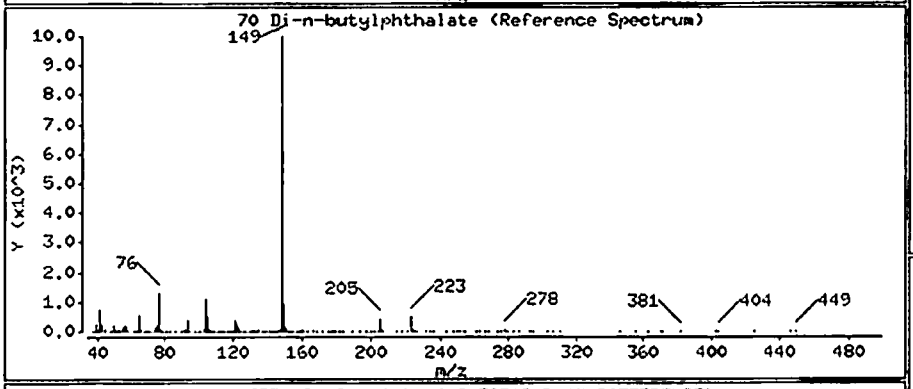
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

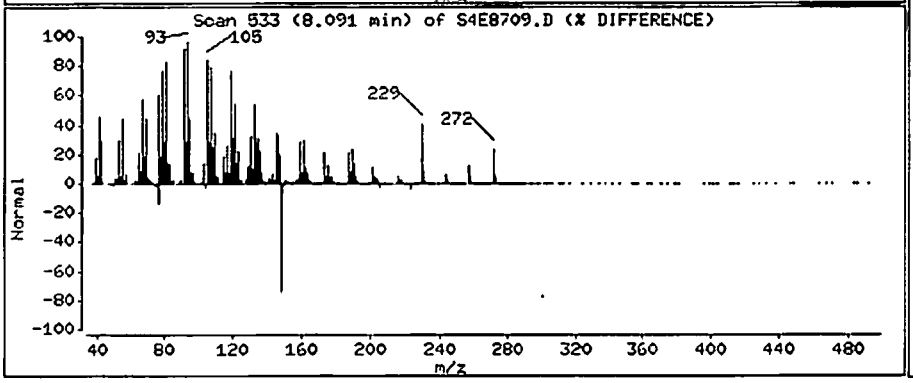
Column phase: RXI-5SILMS Column diameter: 0.25

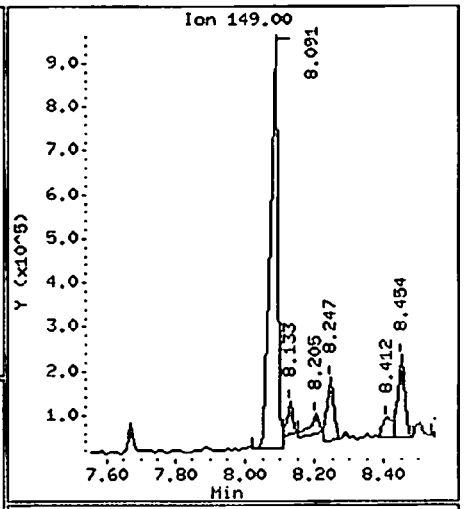
70 Di-n-butylphthalate Concentration: 1900 ug/Kg

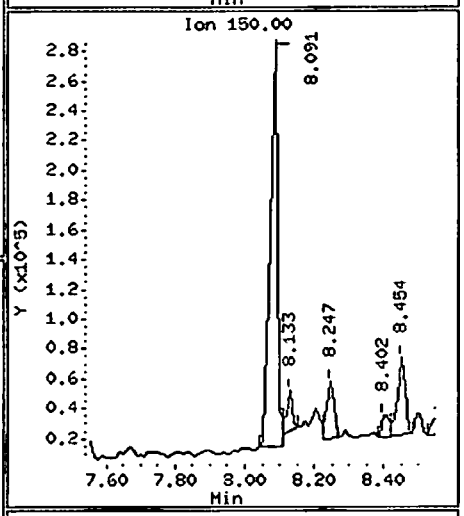


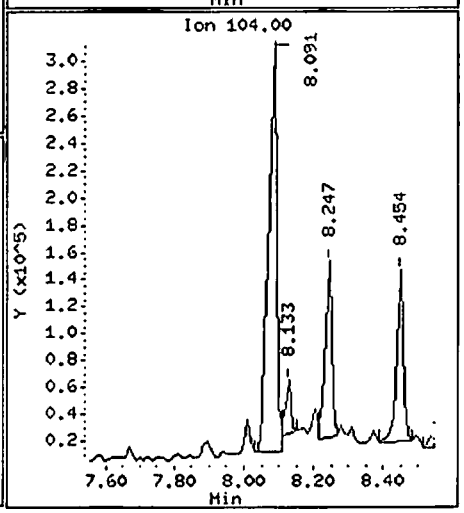












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

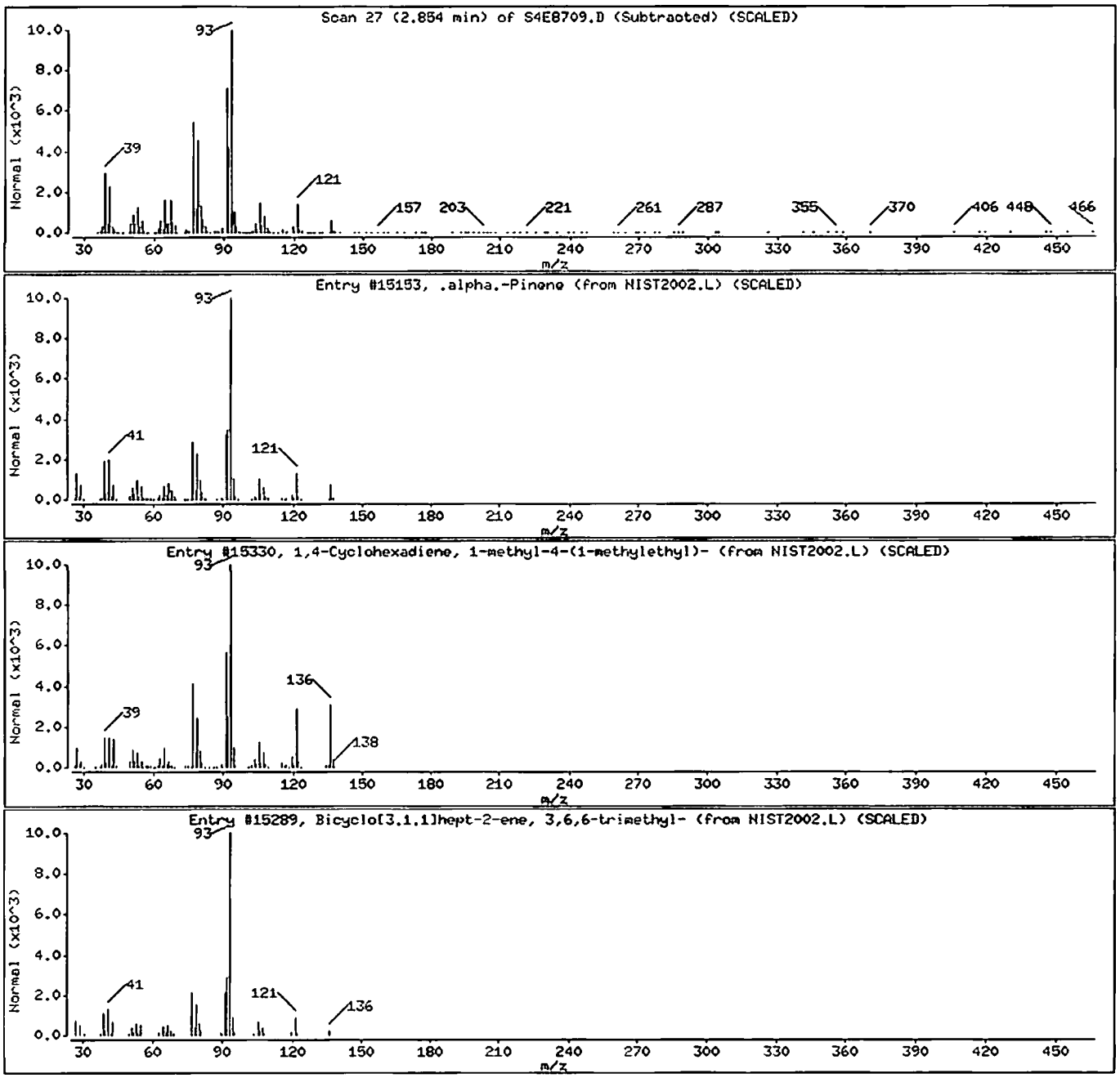
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.alpha.-Pinene	80-56-8	NIST2002.L	15153	93	C10H16	136
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl	99-85-4	NIST2002.L	15330	93	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 3,6,6-trimethy	4889-83-2	NIST2002.L	15289	91	C10H16	136



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

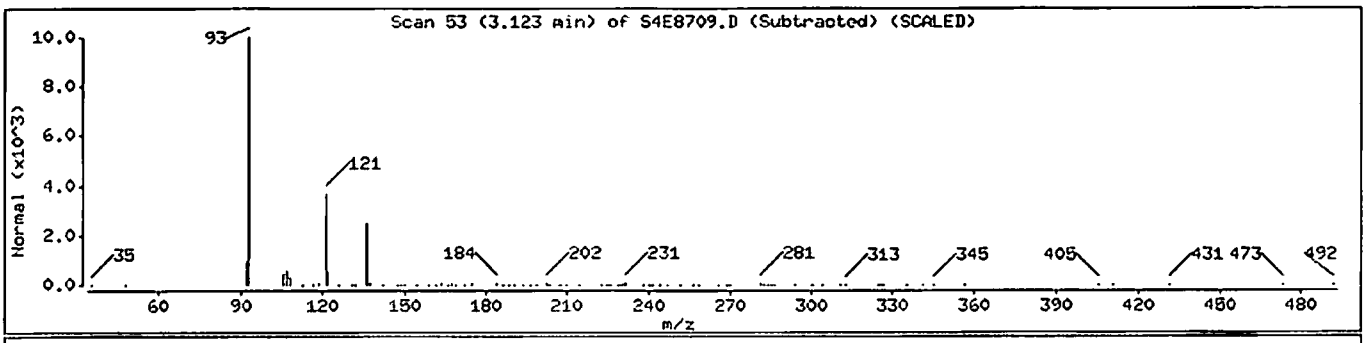
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

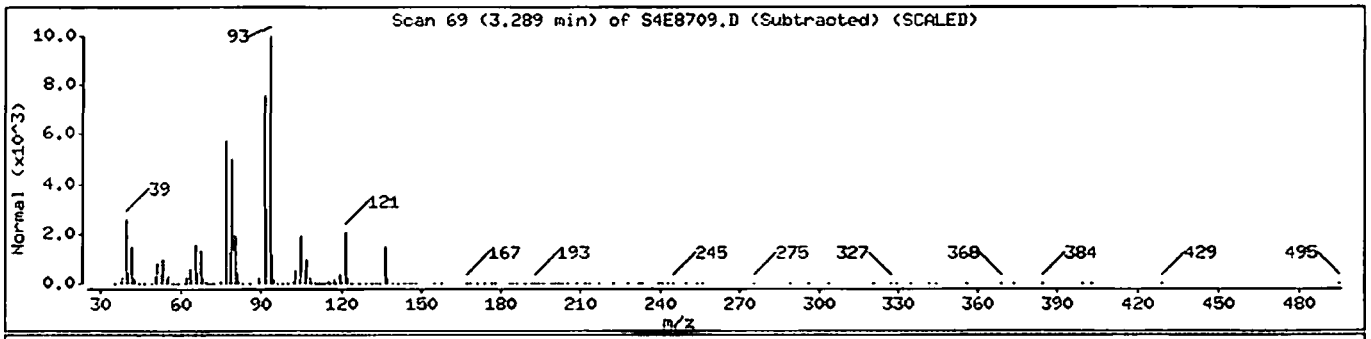
Client ID: H30Q7 Instrument: S4.i

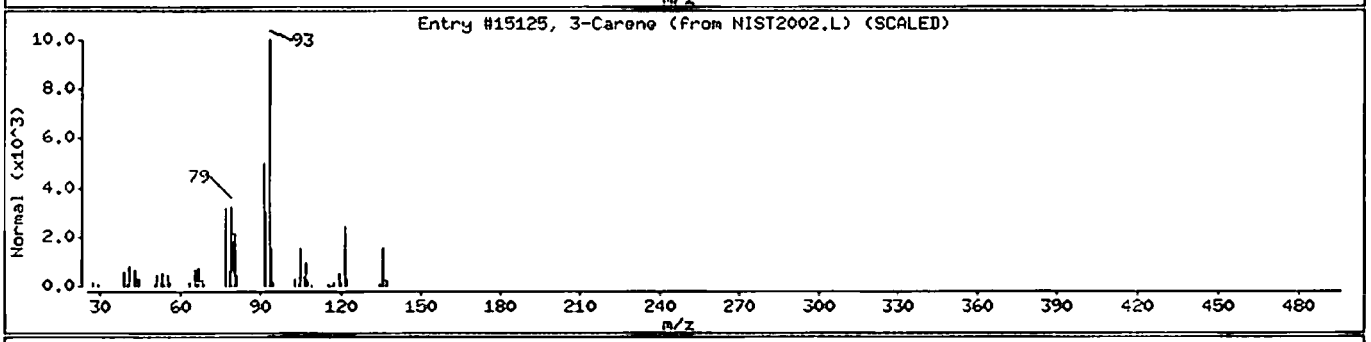
Sample Info: K2199-05A,,62801,,

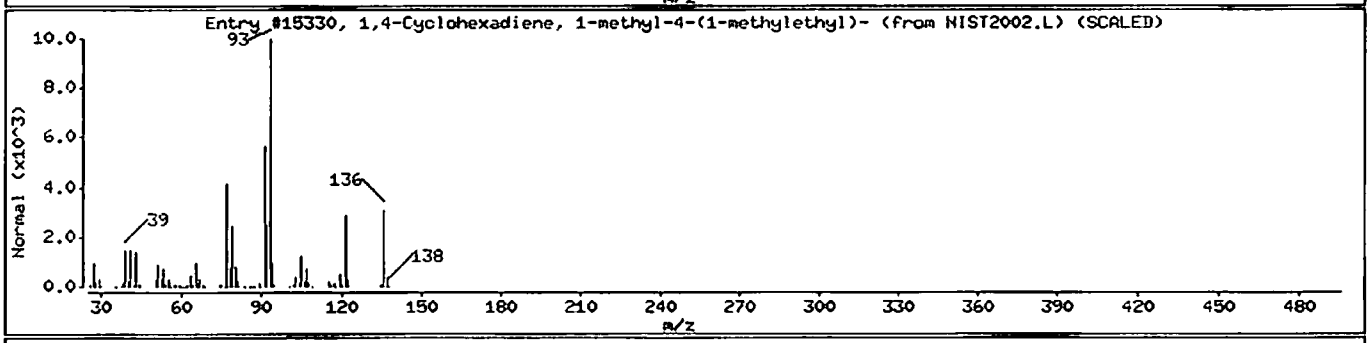
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	NIST2002.L	15125	93	C10H16	136
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl	99-85-4	NIST2002.L	15330	87	C10H16	136







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

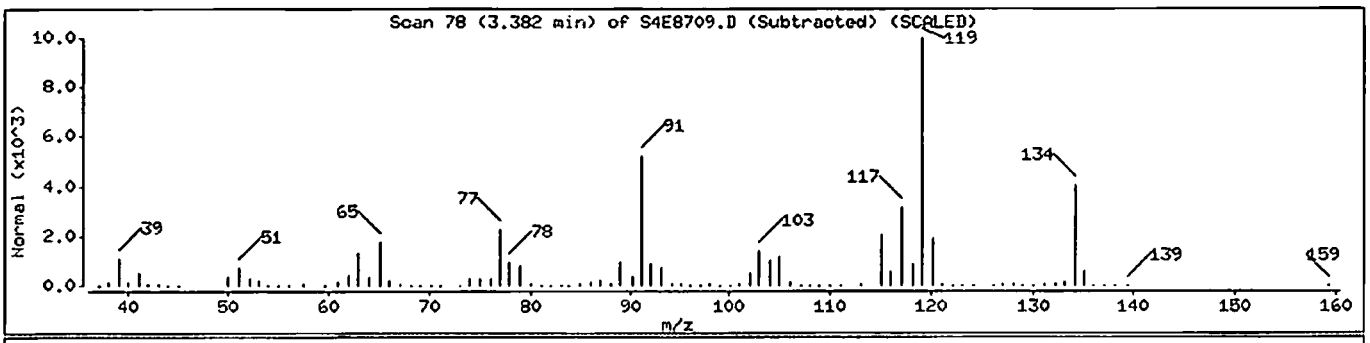
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

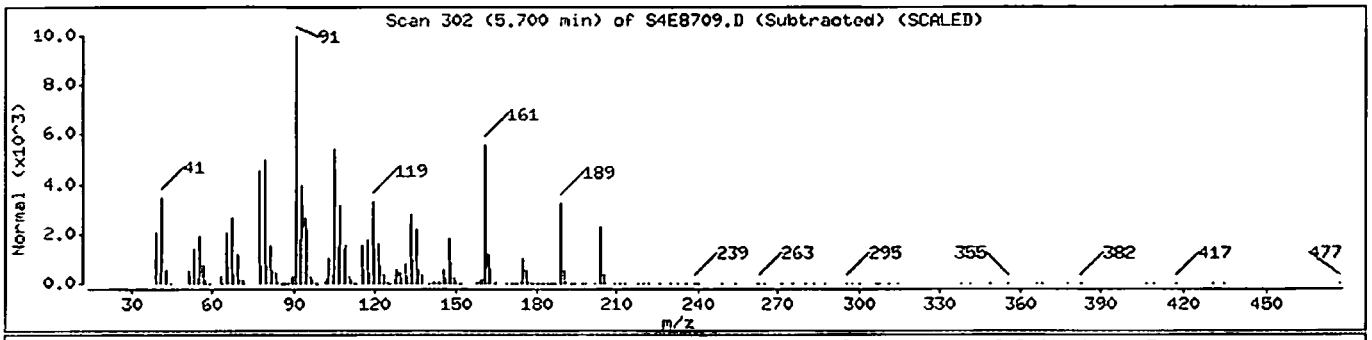
Client ID: H30Q7 Instrument: S4.i

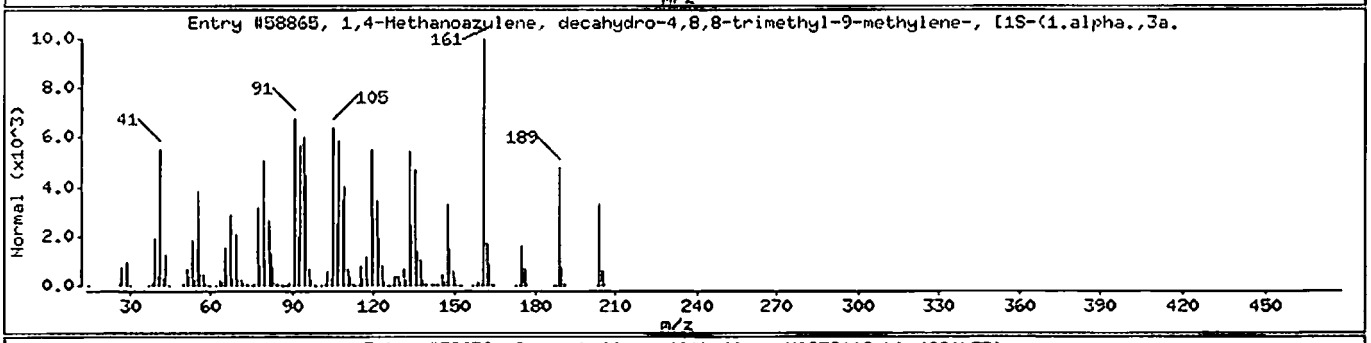
Sample Info: K2199-05A,,62801,,

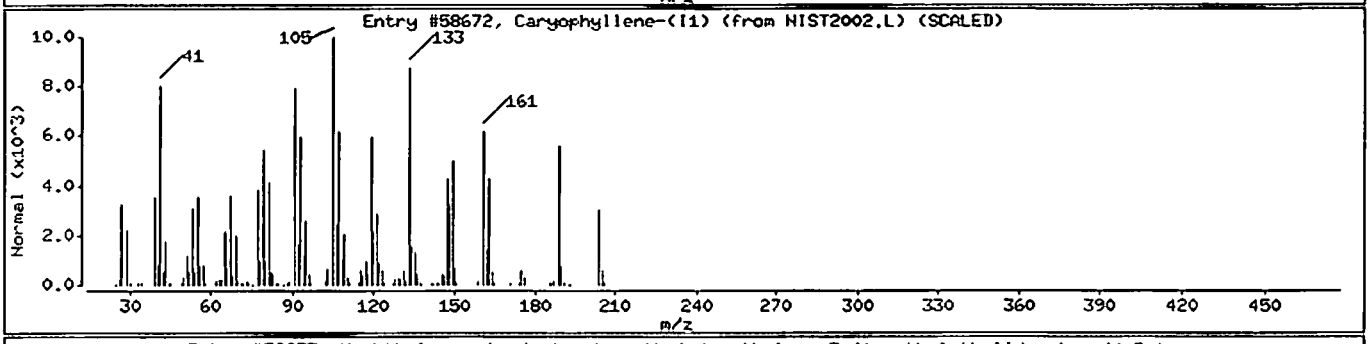
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

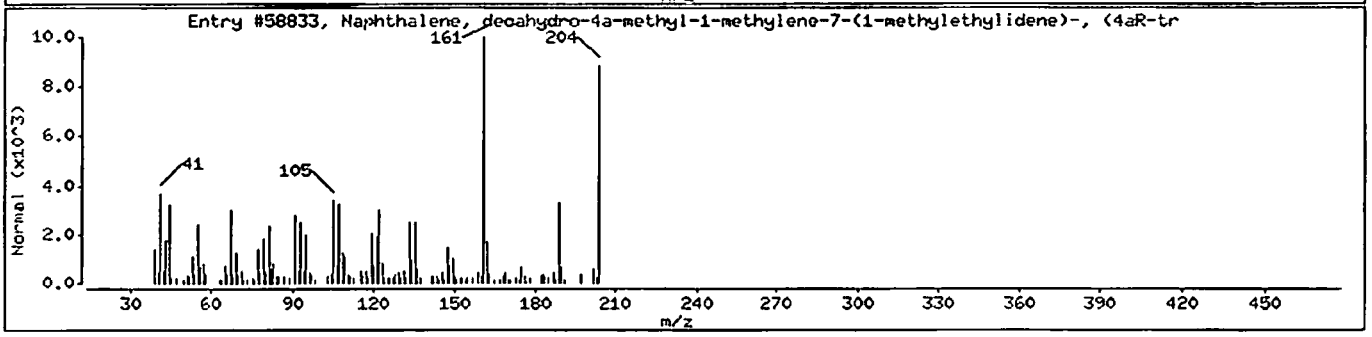
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58865	97	C15H24	204
Caryophyllene-(I1)	1000158-18-5	NIST2002.L	58672	92	C15H24	204
Naphthalene, decahydro-4a-methyl-1-methy	515-17-3	NIST2002.L	58833	90	C15H24	204









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

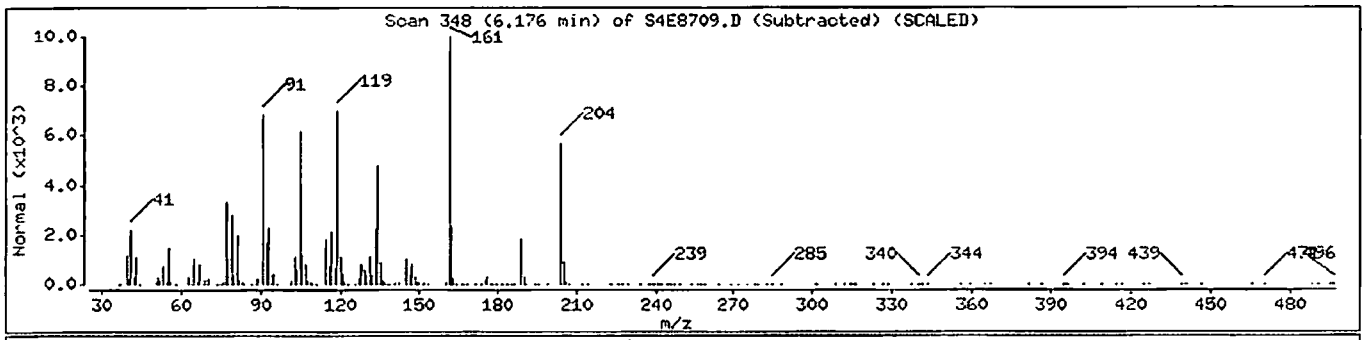
Client ID: H30Q7 Instrument: S4.i

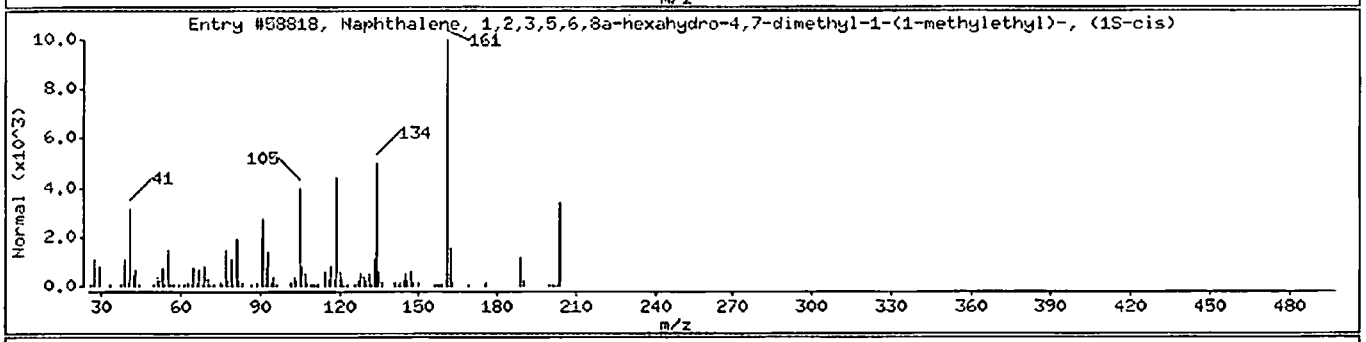
Sample Info: K2199-05A,,62801,,

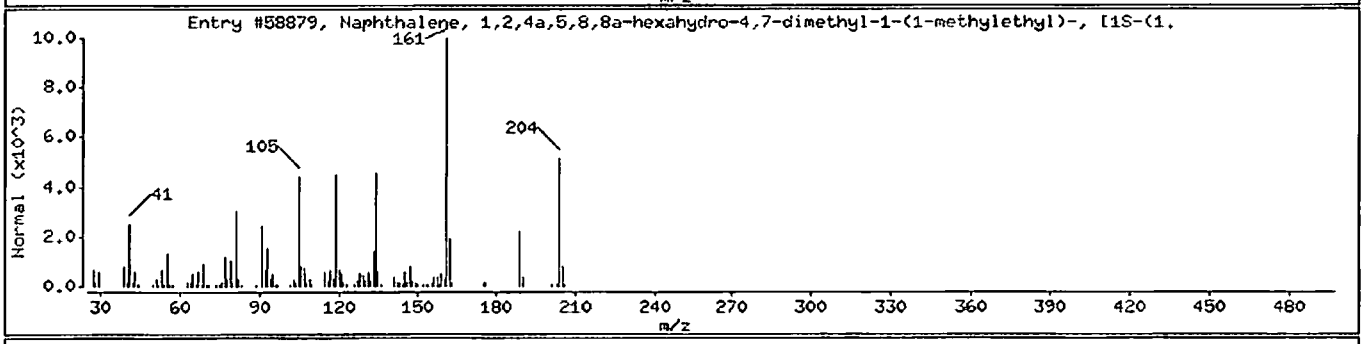
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-	483-76-1	NIST2002.L	58818	95	C15H24	204
Naphthalene, 1,2,4a,5,8,8a-hexahydro-4,7	523-47-7	NIST2002.L	58879	93	C15H24	204







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

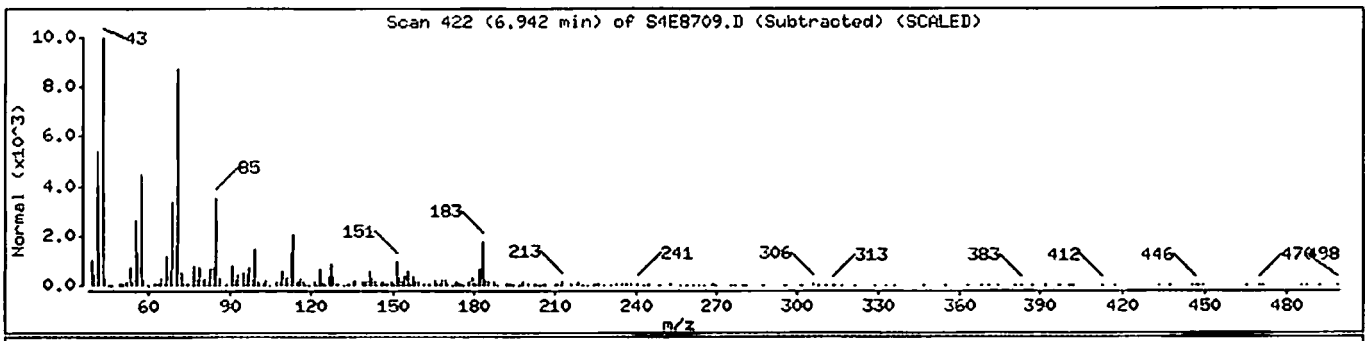
Client ID: H30Q7 Instrument: S4.i

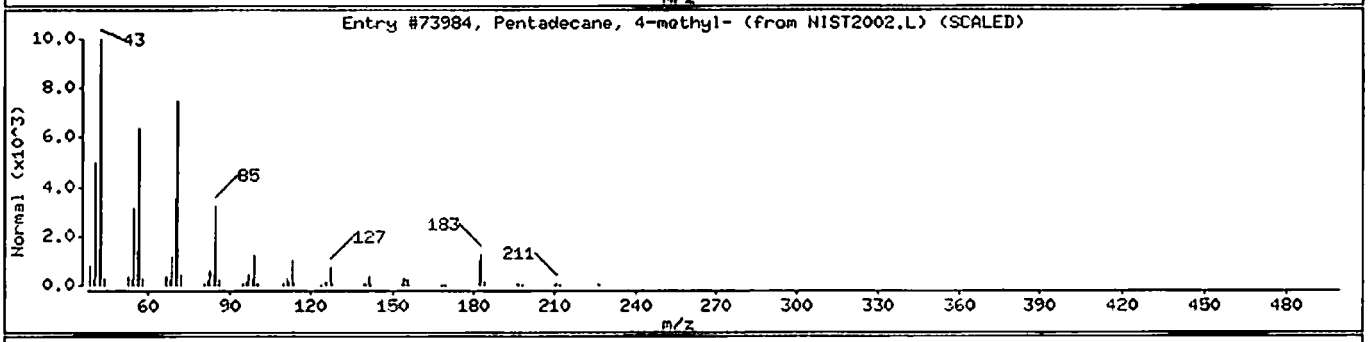
Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Branched Alkane						
Pentadecane, 4-methyl-	2801-87-8	NIST2002.L	73984	90	C16H34	226





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

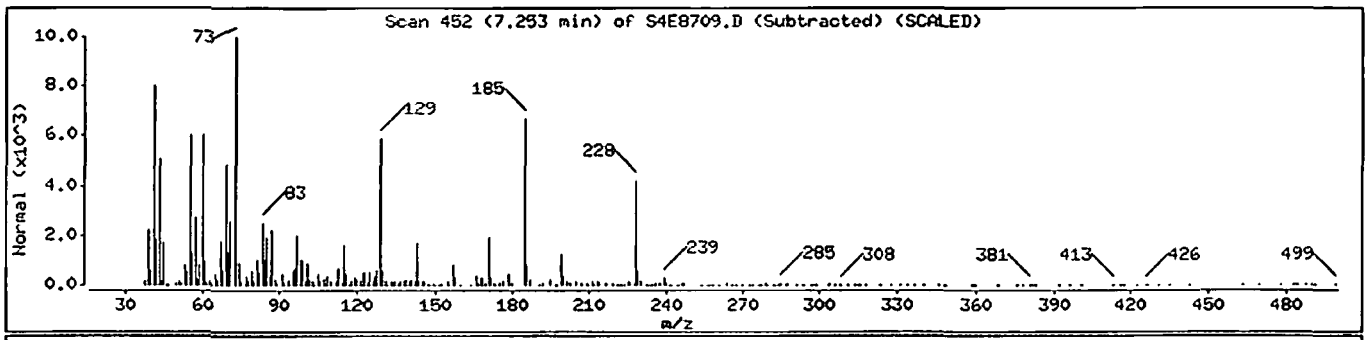
Client ID: H30Q7 Instrument: S4.i

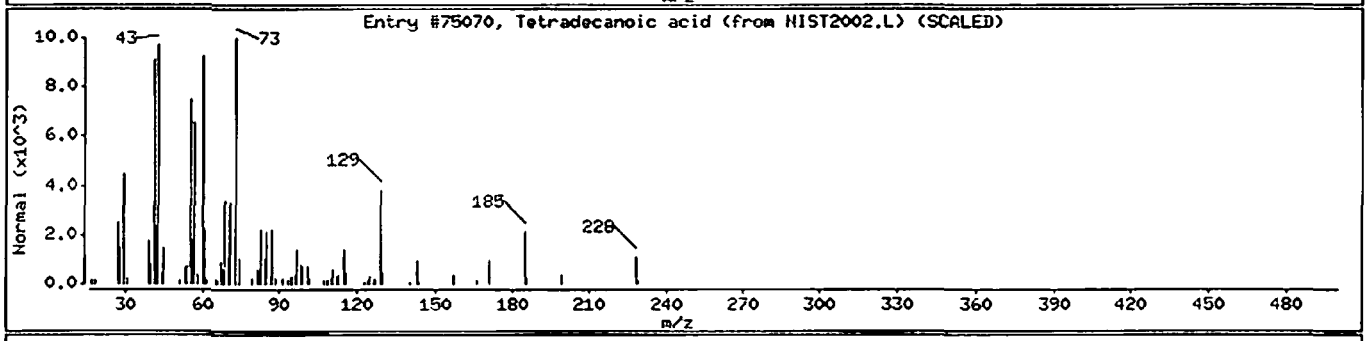
Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetradecanoic acid	544-63-8	NIST2002.L	75070	96	C14H28O2	228





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

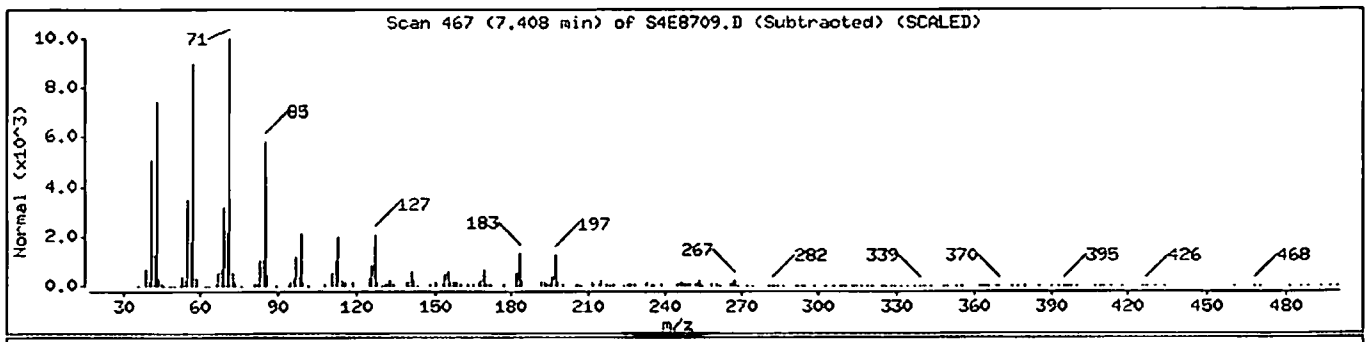
Client ID: H30Q7 Instrument: S4.i

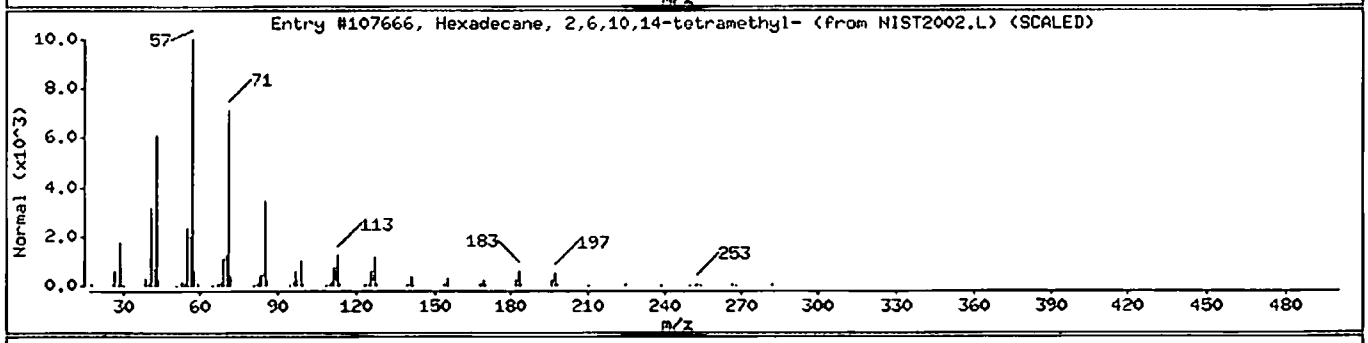
Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Branched Alkane						
Hexadecane, 2,6,10,14-tetramethyl-	638-36-8	NIST2002.L	107666	91	C20H42	282





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

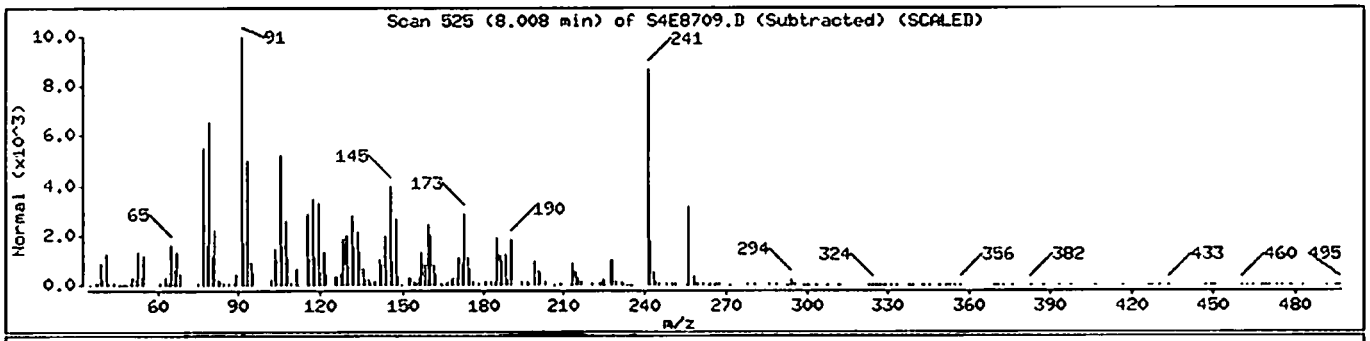
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

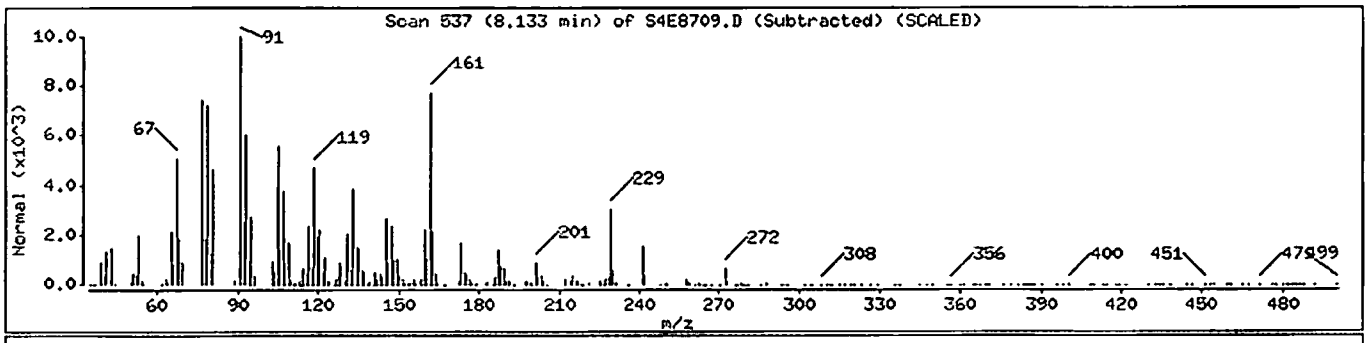
Client ID: H3007 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

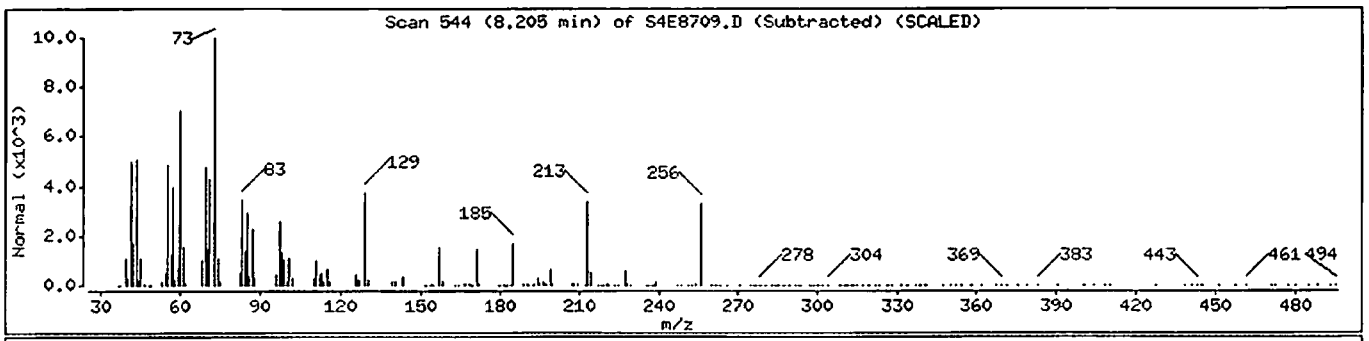
Client ID: H30Q7 Instrument: S4.i

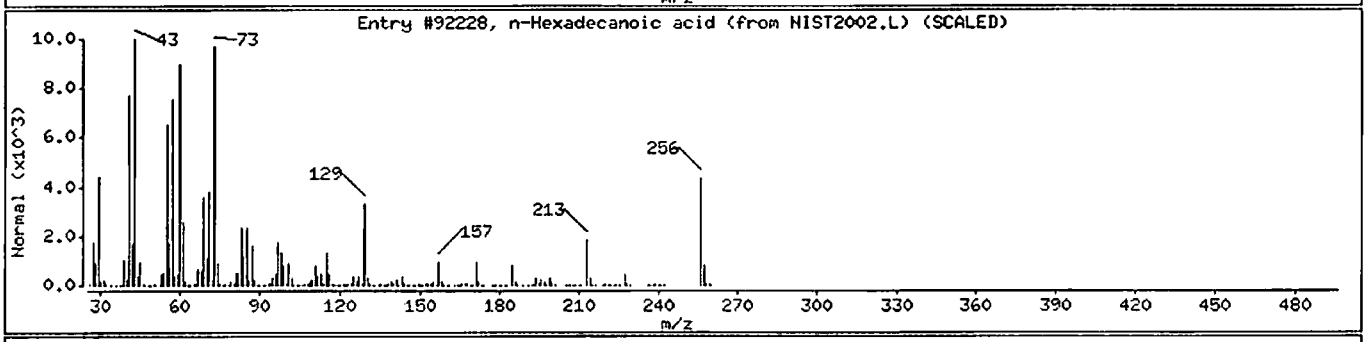
Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
n-Hexadecanoic acid	57-10-3	NIST2002.L	92228	94	C16H32O2	256





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

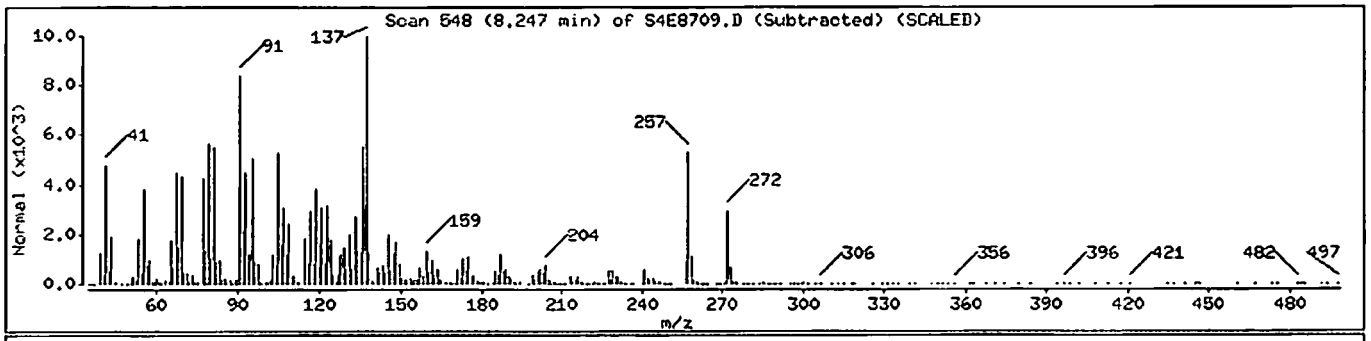
Client ID: H3OQ7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

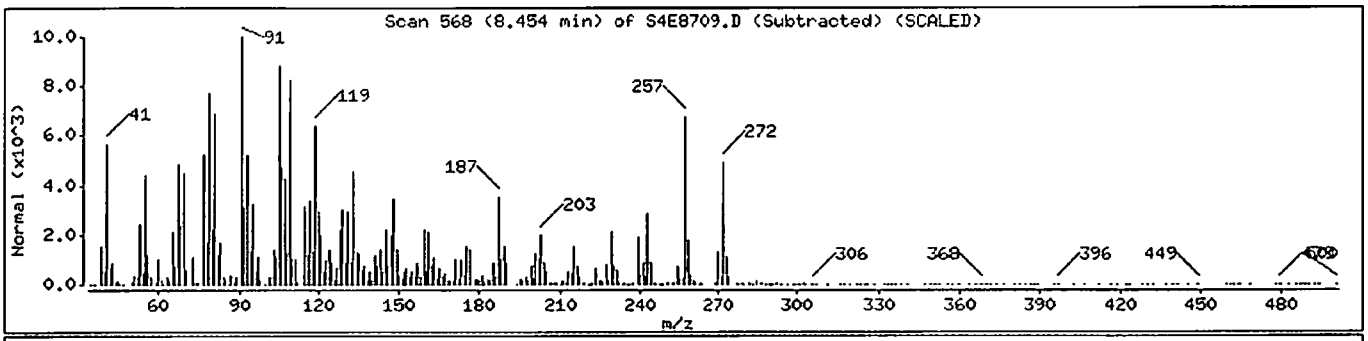
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

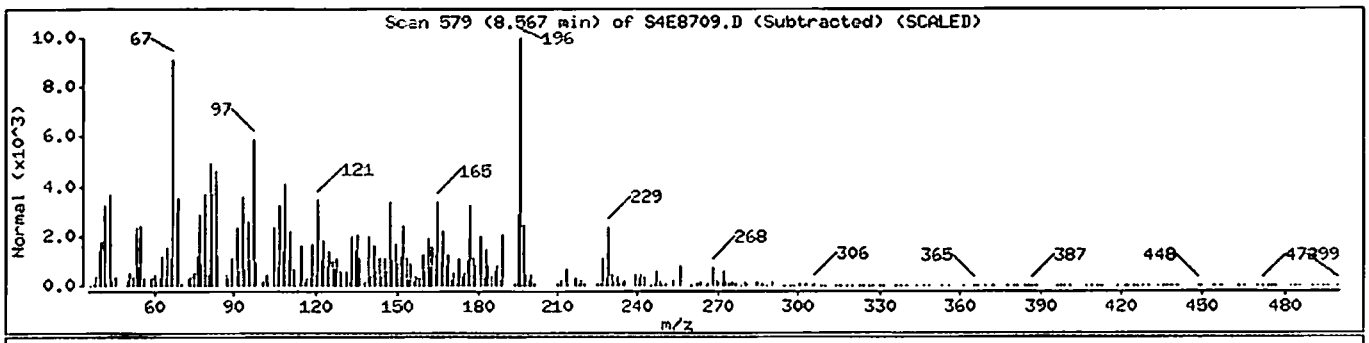
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

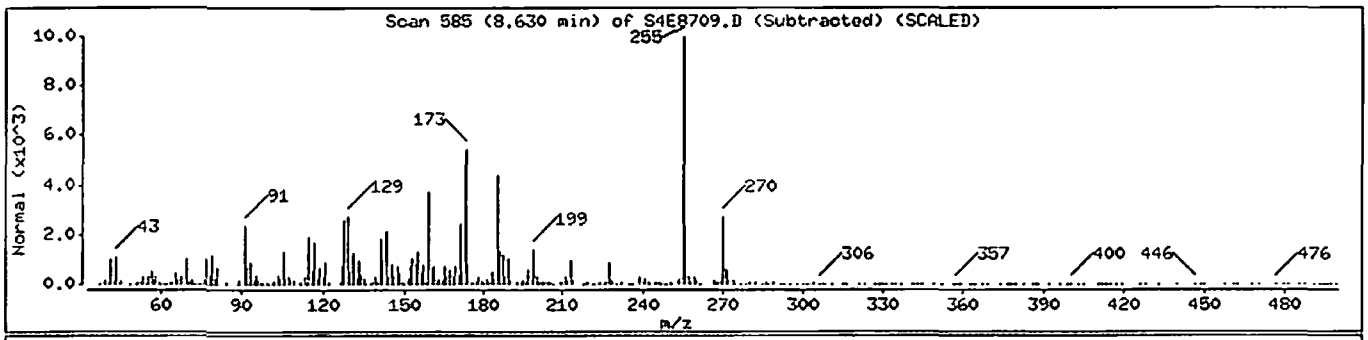
Client ID: H30Q7 Instrument: S4.i

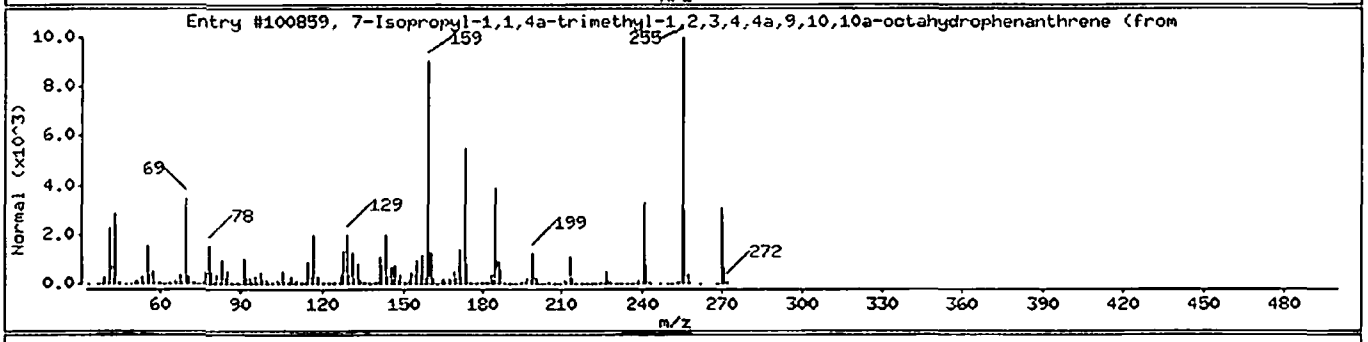
Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
7-Isopropyl-1,1,4a-trimethyl-1,2,3,4,4a,	1000210-28-9	NIST2002.L	100859	89	C20H30	270





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

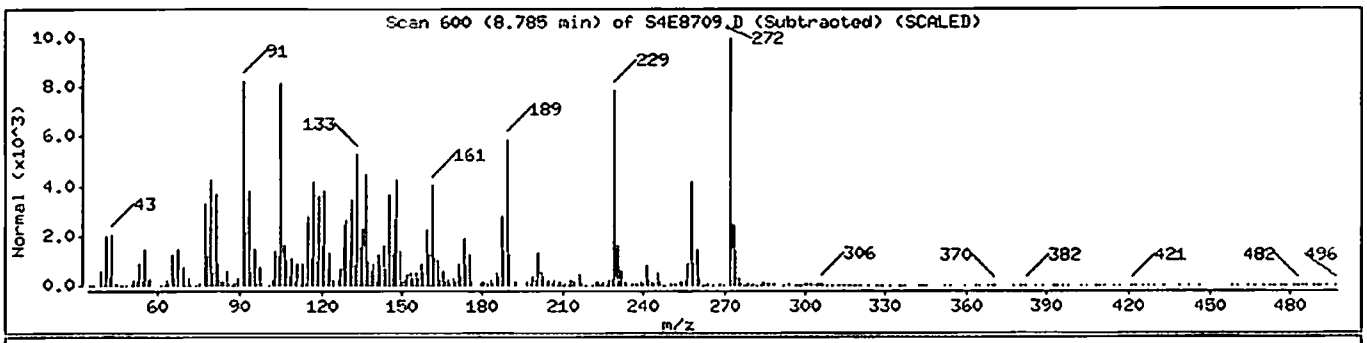
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

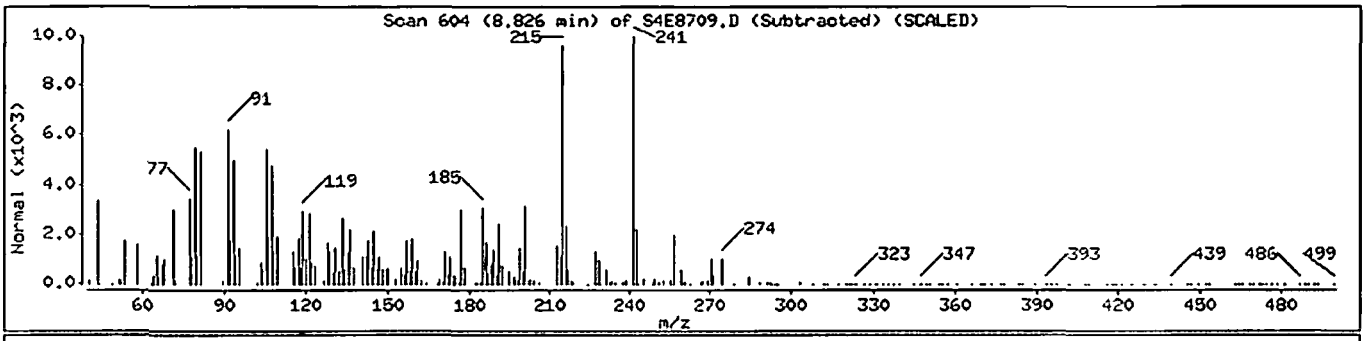
Client ID: H3007 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

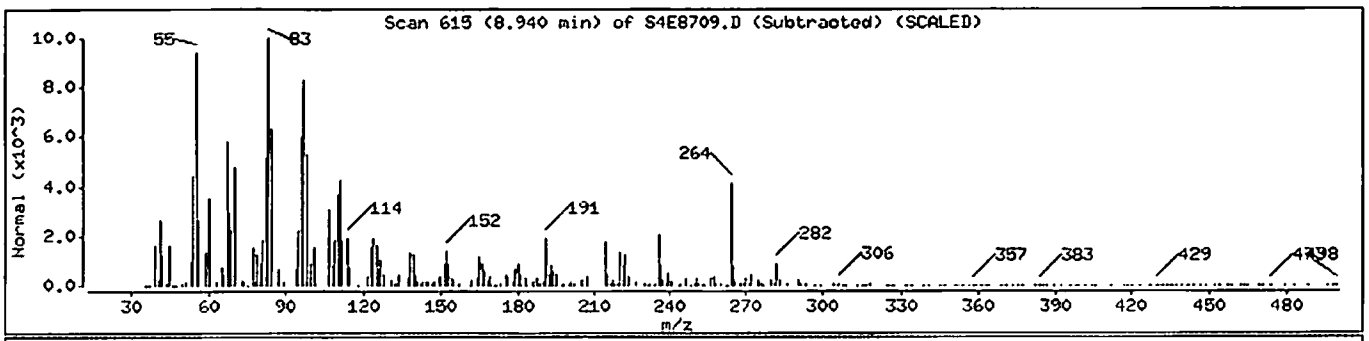
Client ID: H30Q7 Instrument: S4.i

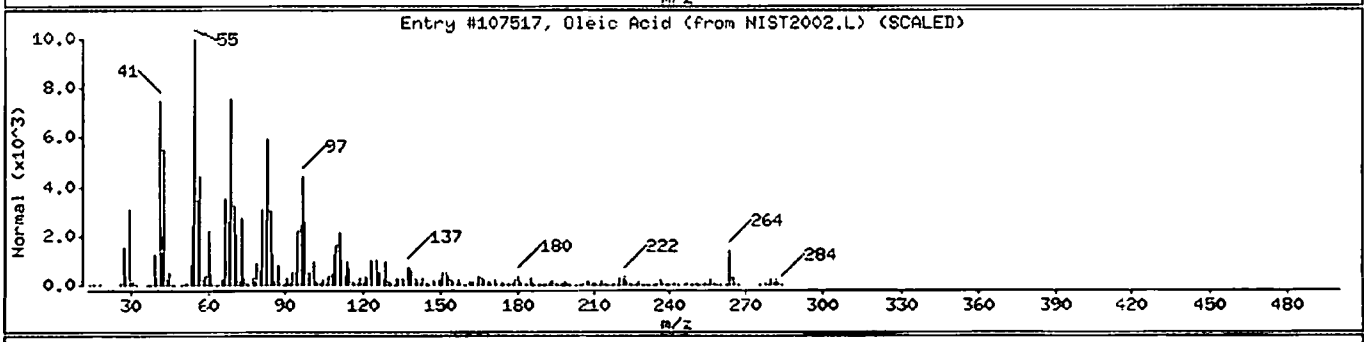
Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Oleic Acid	112-80-1	NIST2002.L	107517	93	C18H3402	282





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

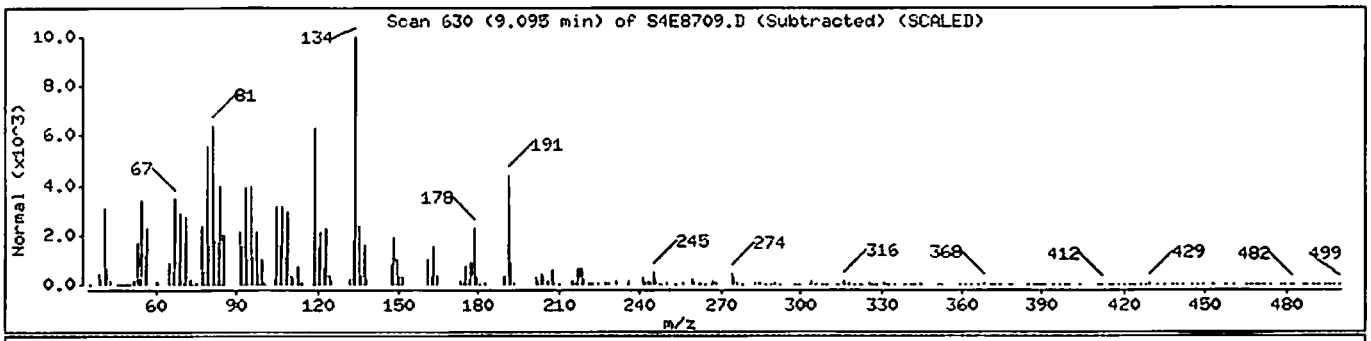
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

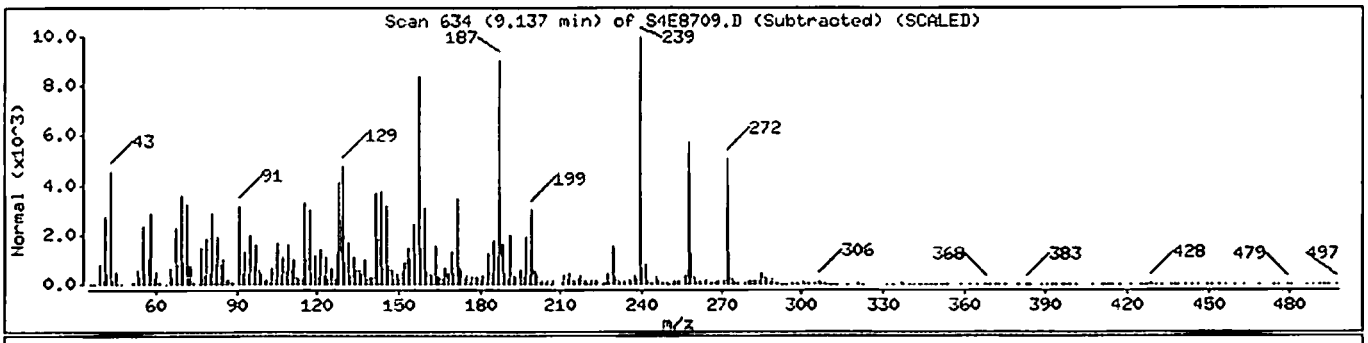
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

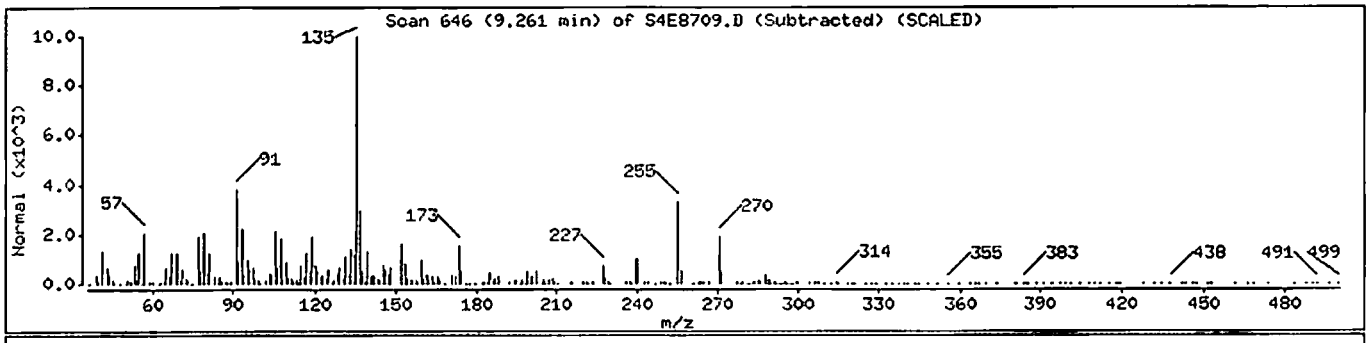
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

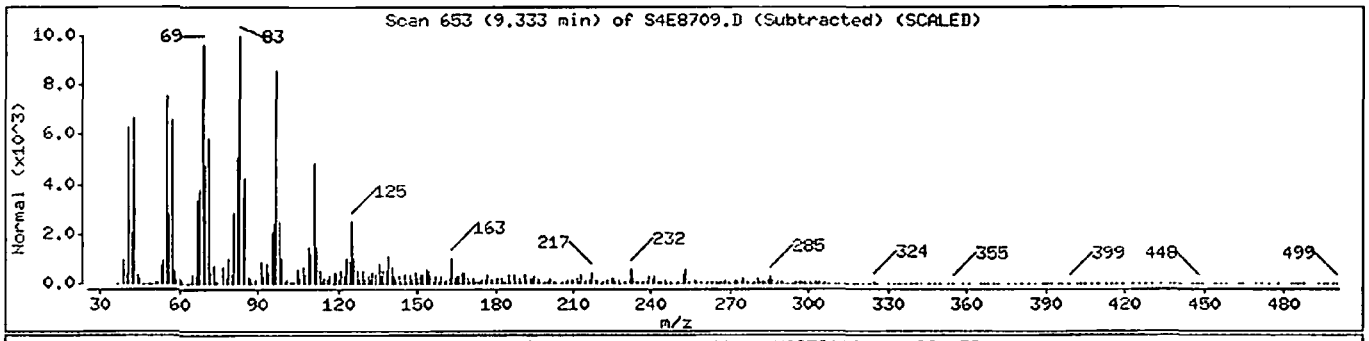
Client ID: H30Q7 Instrument: S4.i

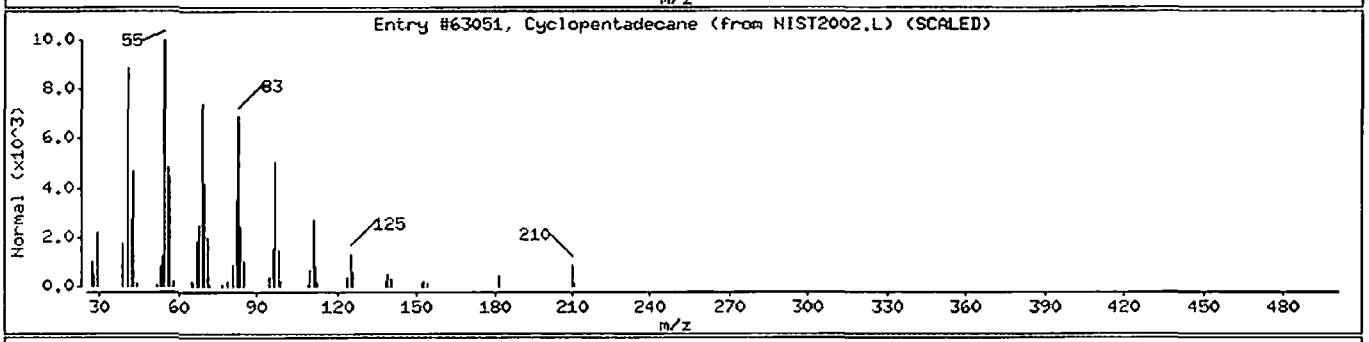
Sample Info: K2199-05A,,62801,,

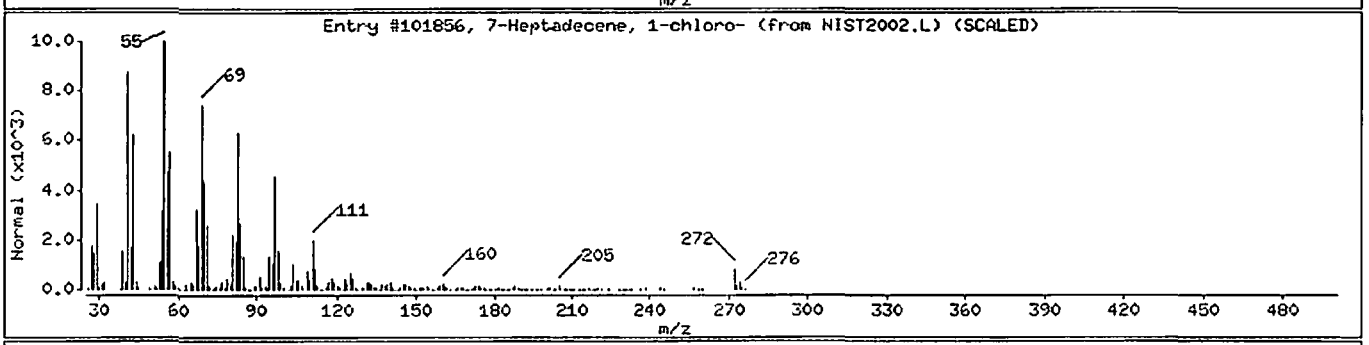
Volume Injected (uL): 2.0 Operator: HHS SRC: LIMS

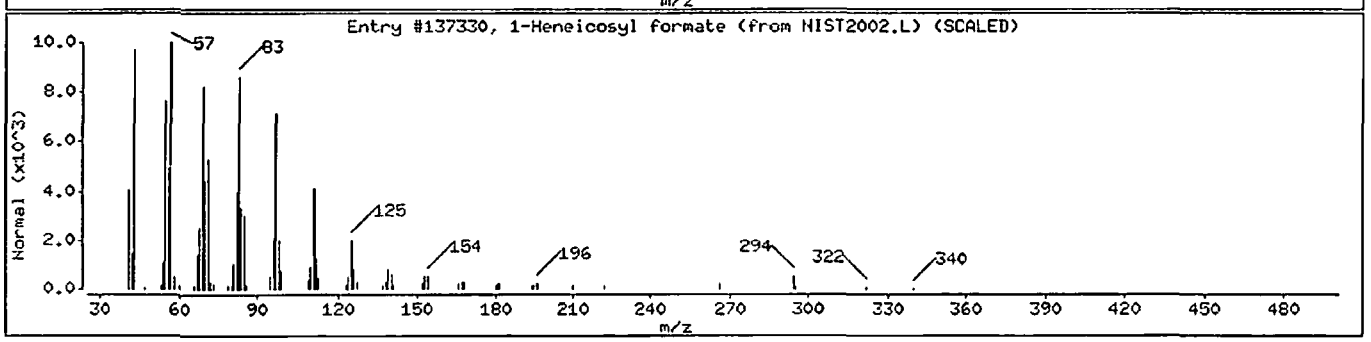
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclic Alkane						
Cyclopentadecane	295-48-7	NIST2002.L	63051	93	C15H30	210
7-Heptadecene, 1-chloro-	56554-78-0	NIST2002.L	101856	93	C17H33Cl	272
1-Heneicosyl formate	77899-03-7	NIST2002.L	137330	91	C22H44O2	340









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

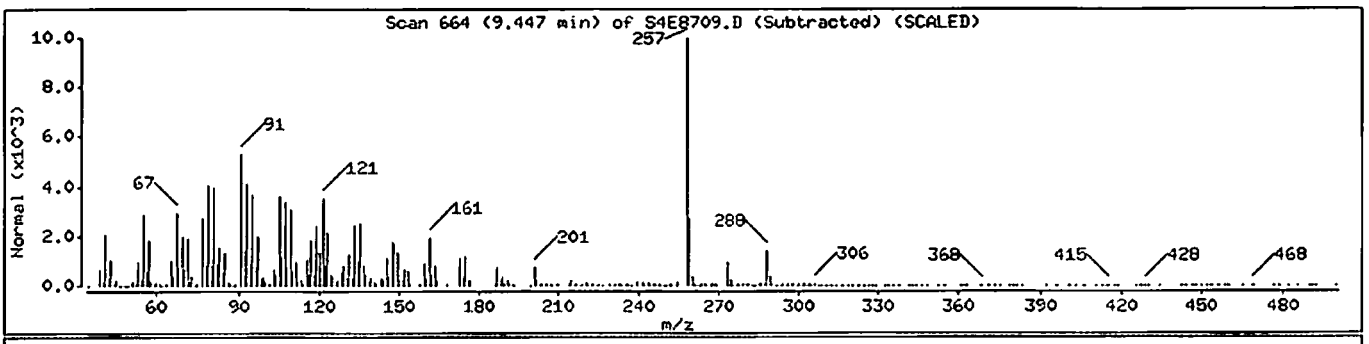
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

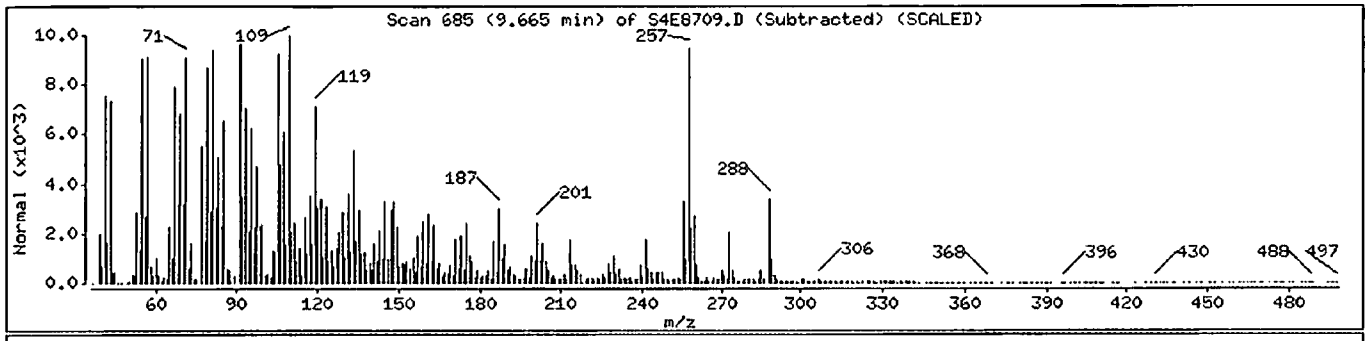
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

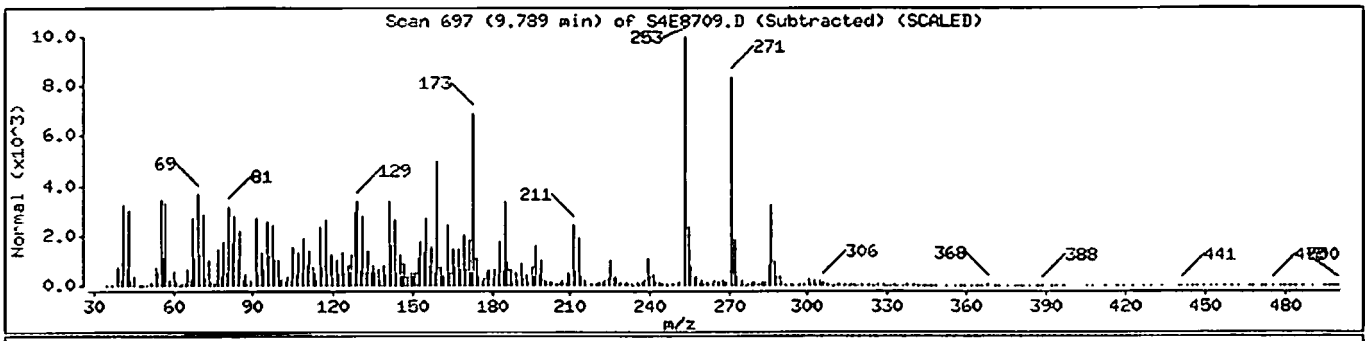
Client ID: H30Q7 Instrument: S4.i

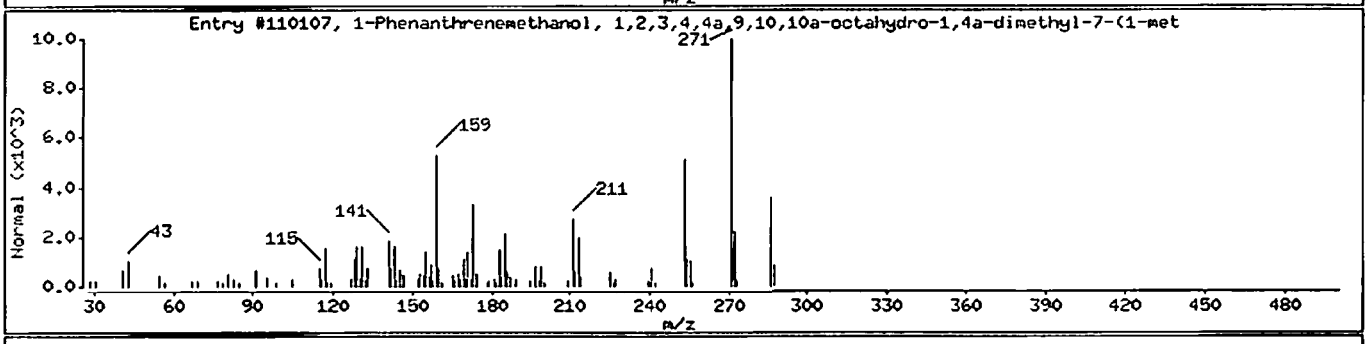
Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenemethanol, 1,2,3,4,4a,9,10,	24035-43-6	NIST2002.L	110107	96	C20H30O	286





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

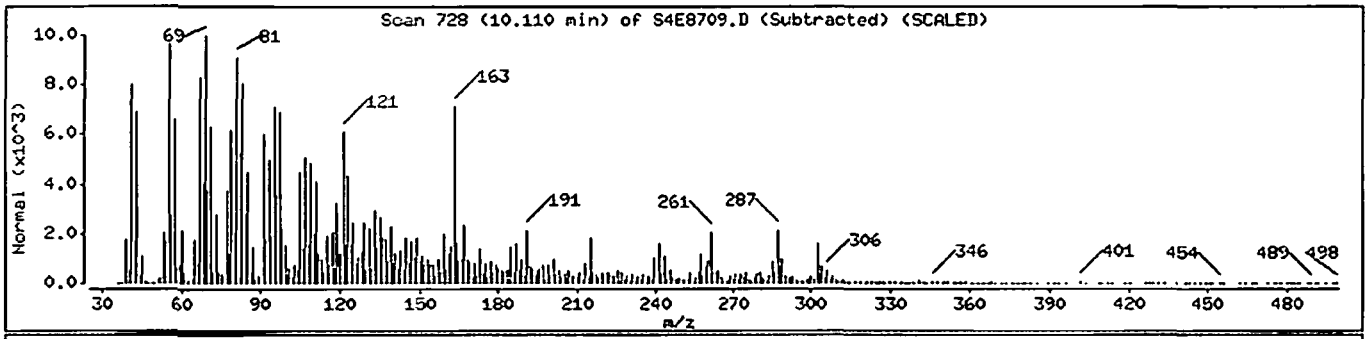
Client ID: H30Q7 Instrument: S4.i

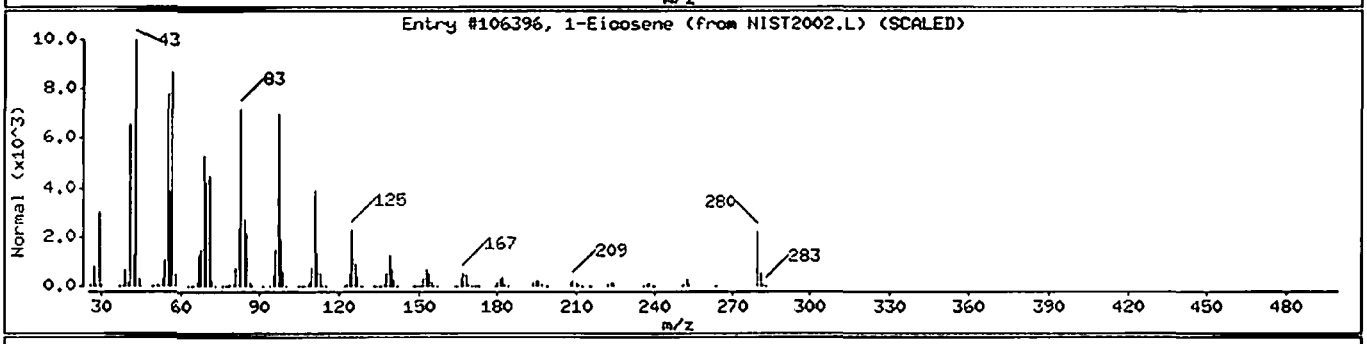
Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Eicosene	3452-07-1	NIST2002.L	106396	90	C20H40	280





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

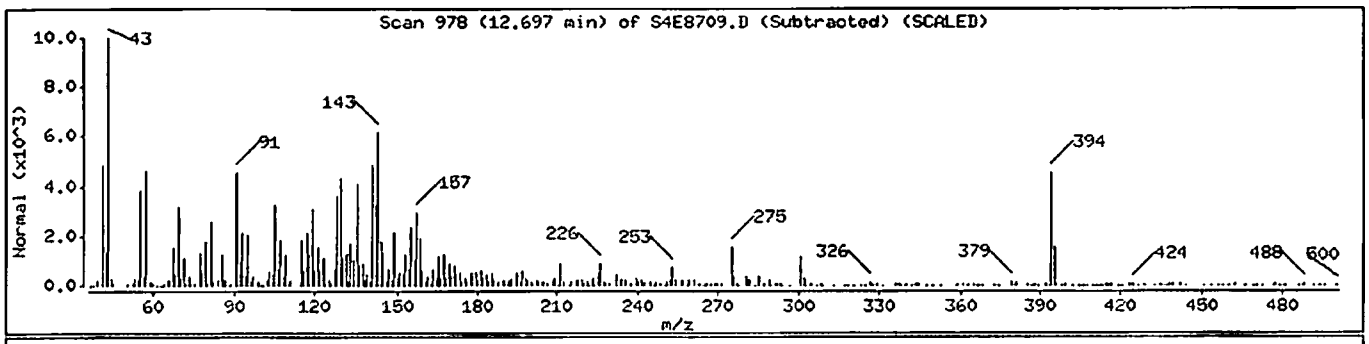
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

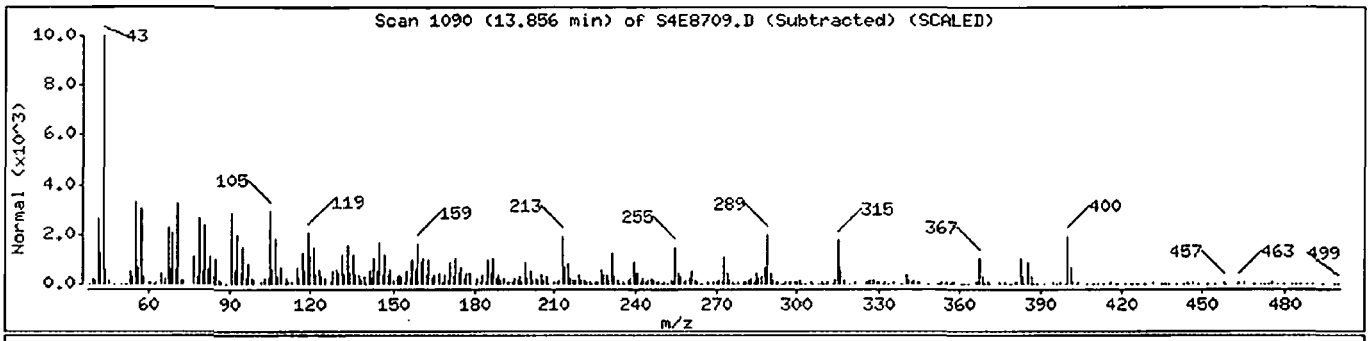
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: HHS SRC: LIHS

Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

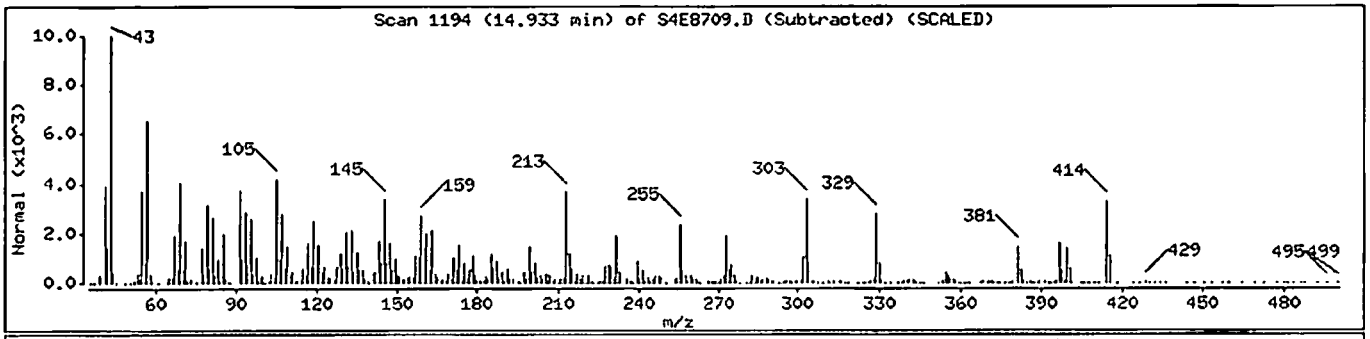
Client ID: H30Q7 Instrument: S4.i

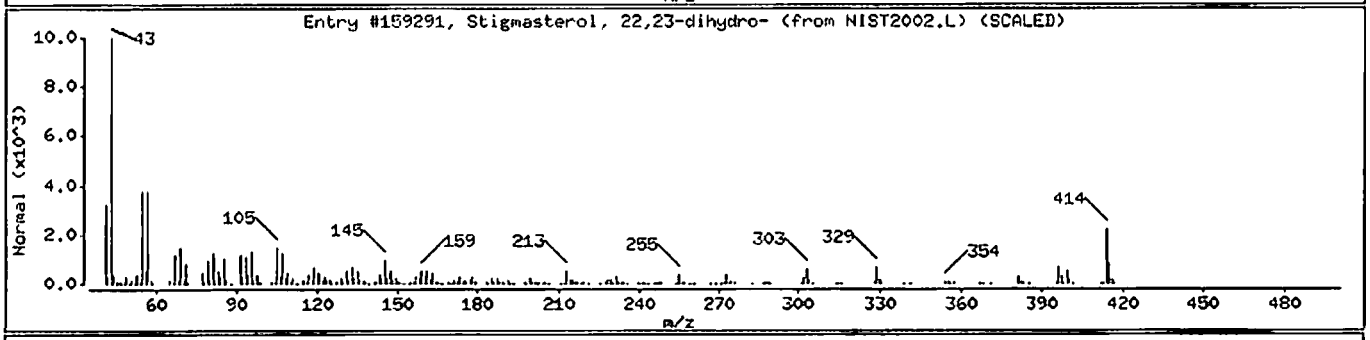
Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST2002.L	159291	98	C29H50O	414





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

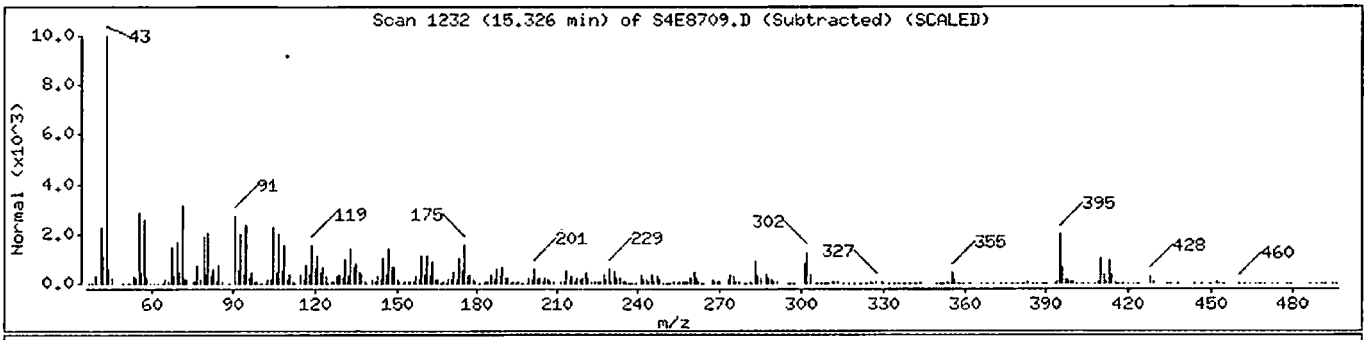
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

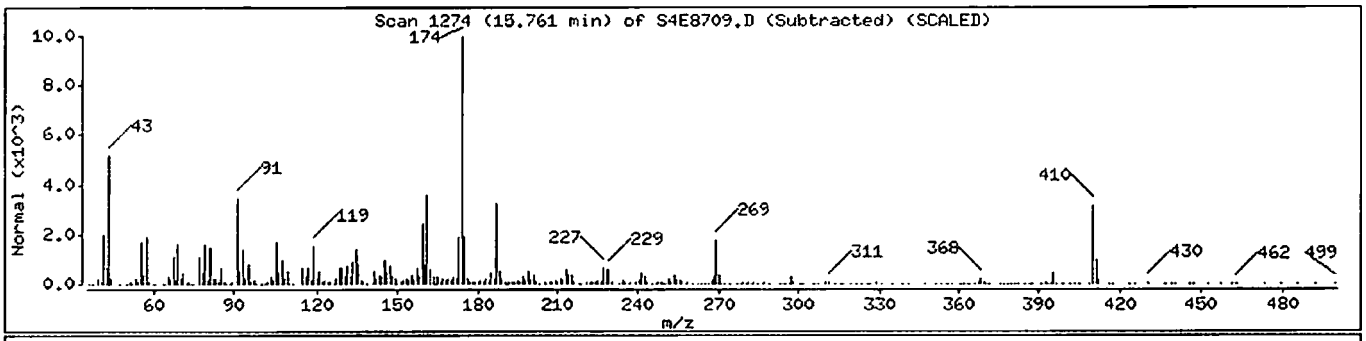
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: HMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8709.D

Date : 14-NOV-2011 17:18

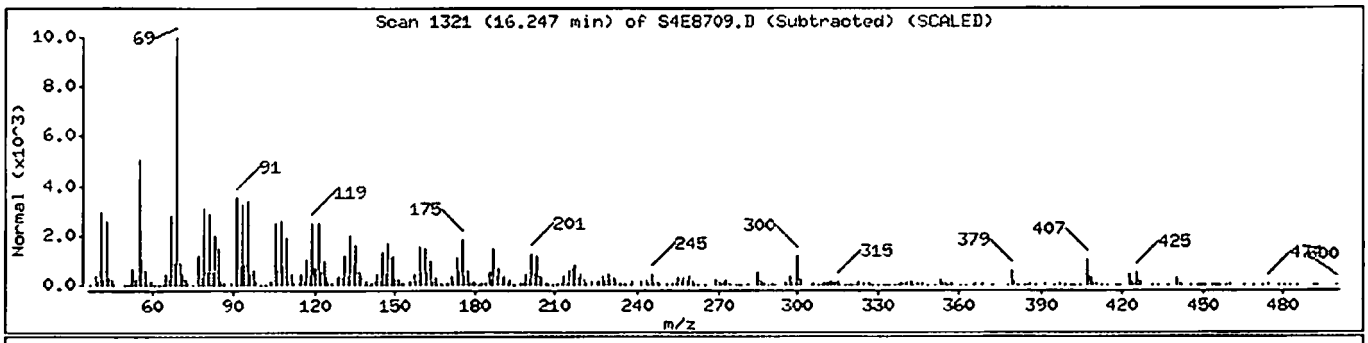
Client ID: H30Q7 Instrument: S4.i

Sample Info: K2199-05A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-06A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4E8678.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 31 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 10.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	240	U
108-95-2	Phenol	240	U
111-44-4	Bis(2-chloroethyl)ether	240	U
95-57-8	2-Chlorophenol	240	U
95-48-7	2-Methylphenol	240	U
108-60-1	2,2'-Oxybis(1-chloropropane)	240	U
98-86-2	Acetophenone	240	U
106-44-5	4-Methylphenol	240	U
621-64-7	N-Nitroso-di-n-propylamine	240	U
67-72-1	Hexachloroethane	240	U
98-95-3	Nitrobenzene	240	U
78-59-1	Isophorone	240	U
88-75-5	2-Nitrophenol	240	U
105-67-9	2,4-Dimethylphenol	240	U
111-91-1	Bis(2-chloroethoxy)methane	240	U
120-83-2	2,4-Dichlorophenol	240	U
91-20-3	Naphthalene	240	U
106-47-8	4-Chloroaniline	240	U
87-68-3	Hexachlorobutadiene	240	U
105-60-2	Caprolactam	240	U
59-50-7	4-Chloro-3-methylphenol	240	U
91-57-6	2-Methylnaphthalene	240	U
77-47-4	Hexachlorocyclopentadiene	240	U
88-06-2	2,4,6-Trichlorophenol	240	U
95-95-4	2,4,5-Trichlorophenol	240	U
92-52-4	1,1'-Biphenyl	240	U
91-58-7	2-Chloronaphthalene	240	U
88-74-4	2-Nitroaniline	470	U
131-11-3	Dimethylphthalate	240	U
606-20-2	2,6-Dinitrotoluene	240	U
208-96-8	Acenaphthylene	240	U
99-09-2	3-Nitroaniline	470	U
83-32-9	Acenaphthene	240	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-06A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4E8678.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 31 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 10.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	470	U
100-02-7	4-Nitrophenol	470	U
132-64-9	Dibenzofuran	240	U
121-14-2	2,4-Dinitrotoluene	240	U
84-66-2	Diethylphthalate	240	U
86-73-7	Fluorene	240	U
7005-72-3	4-Chlorophenyl-phenylether	240	U
100-01-6	4-Nitroaniline	470	U
534-52-1	4,6-Dinitro-2-methylphenol	470	U
86-30-6	N-Nitrosodiphenylamine (1)	240	U
95-94-3	1,2,4,5-Tetrachlorobenzene	240	U
101-55-3	4-Bromophenyl-phenylether	240	U
118-74-1	Hexachlorobenzene	240	U
1912-24-9	Atrazine	240	U
87-86-5	Pentachlorophenol	470	U
85-01-8	Phenanthrene	240	U
120-12-7	Anthracene	240	U
86-74-8	Carbazole	240	U
84-74-2	Di-n-butylphthalate	86	BJ
206-44-0	Fluoranthene	240	U
129-00-0	Pyrene	240	U
85-68-7	Butylbenzylphthalate	240	U
91-94-1	3,3'-Dichlorobenzidine	240	U
56-55-3	Benzo(a)anthracene	240	U
218-01-9	Chrysene	240	U
117-81-7	Bis(2-ethylhexyl)phthalate	290	
117-84-0	Di-n-octylphthalate	240	U
205-99-2	Benzo(b)fluoranthene	240	U
207-08-9	Benzo(k)fluoranthene	240	U
50-32-8	Benzo(a)pyrene	240	U
193-39-5	Indeno(1,2,3-cd)pyrene	240	U
53-70-3	Dibenzo(a,h)anthracene	240	U
191-24-2	Benzo(g,h,i)perylene	240	U
58-90-2	2,3,4,6-Tetrachlorophenol	240	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30R2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-06A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4E8678.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 31 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 10.0 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	3.020	100	J
02	99-85-4	1,4-Cyclohexadiene, 1-methyl	3.320	140	NJ
03		Unknown-02	4.107	160	J
04		Unknown-03	5.007	430	J
05		Unknown-04	5.732	700	J
06		Unknown-05	8.236	980	J
07		Unknown-06	8.443	1200	J
08		Unknown-07	8.568	2900	J
09		Unknown-08	8.951	1900	J
10		Unknown-09	9.209	7100	J
11		Unknown-10	9.396	31000	J
12	3452-07-1	1-Eicosene	9.965	2200	NJ
13		Unknown-11	12.408	14000	J
14		Unknown-12	12.946	13000	J
15		Unknown-13	14.115	7300	J
16		Unknown-14	14.426	6700	J
17		Unknown-15	14.705	8100	J
18		Unknown-16	15.109	5900	J
19		Unknown-17	15.823	14000	J
20		Unknown-18	16.382	8700	J
	E96679[2]	Total Alkanes	N/A	16000	J

[2]EPA-designated Registry Number.

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D
Report Date: 14-Nov-2011 13:31

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111113.B\S4E8678.D
Lab Smp Id: K2199-06A Client Smp ID: H30R2
Inj Date : 13-NOV-2011 16:01
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-06A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111113.B\S4_SOM.m
Meth Date : 14-Nov-2011 13:30 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.300	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 2 Phenol-d5	71	2.999	3.030	(0.901)	1137	1.42185	23(aQRH)
$ 4 bis(2-Chloroethyl)ether-d8	67	3.102	3.081	(0.932)	14583	24.5177	400(H)
$ 6 2-Chlorophenol-d4	132	3.206	3.185	(0.963)	32779	34.9308	580
* 8 1,4-Dichlorobenzene-d4	152	3.361	3.340	(1.000)	29736	40.0000	(QH)
$ 11 4-Methylphenol-d8	113	3.620	3.588	(1.087)	34095	40.2614	660(H)
$ 16 Nitrobenzene-d5	128	3.796	3.775	(0.863)	15190	31.9612	530(Q)
$ 19 2-Nitrophenol-d4	143	4.065	4.044	(0.925)	18582	30.6745	510(Q)
$ 23 2,4-Dichlorophenol-d3	165	4.282	4.251	(0.974)	47305	41.6742	690
* 25 Naphthalene-d8	136	4.427	4.406	(1.000)	113537	40.0000	(H)
$ 27 4-Chloroaniline-d4	131	4.468	4.448	(1.016)	26877	23.9987	400(QH)
$ 40 Dimethylphthalate-d6	166	5.773	5.752	(0.949)	162292	38.6584	640
$ 43 Acenaphthylene-d8	160	5.938	5.907	(0.976)	174650	37.5722	620
* 46 Acenaphthene-d10	164	6.083	6.062	(1.000)	106171	40.0000	
$ 49 4-Nitrophenol-d4	143	6.207	6.155	(1.020)	43399	54.9115	910
$ 54 Fluorene-d10	176	6.590	6.559	(1.083)	167873	44.8511	740
$ 58 4,6-Dinitro-2-methylphenol-d2	200	6.652	6.621	(0.882)	47254	48.5536	800(Q)
* 65 Phenanthrene-d10	188	7.542	7.511	(1.000)	242629	40.0000	
$ 67 Anthracene-d10	188	7.594	7.563	(1.007)	248449	37.2844	620(H)
70 Di-n-butylphthalate	149	8.081	8.049	(1.071)	25312	3.59012	59(a)

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D
Report Date: 14-Nov-2011 13:31

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 72 Pyrene-d10	212	8.950	8.908	(0.882)	244321	34.0528	560(R)
79 bis(2-Ethylhexyl)phthalate	149	10.099	10.068	(0.995)	64158	11.8869	200
* 77 Chrysene-d12	240	10.151	10.099	(1.000)	368106	40.0000	(Q)
$ 83 Benzo(a)pyrene-d12	264	11.745	11.662	(1.000)	176479	20.9646	350(RH)
* 85 Perylene-d12	264	11.859	11.775	(1.000)	379892	40.0000	(H)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D
Report Date: 14-Nov-2011 13:31

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111113.B\S4E8678.D
Lab Smp Id: K2199-06A Client Smp ID: H30R2
Inj Date : 13-NOV-2011 16:01
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-06A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111113.B\S4_SOM.m
Meth Date : 14-Nov-2011 13:30 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.300	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 25 Naphthalene-d8	4.428	377032	40.000
* 46 Acenaphthene-d10	6.084	757494	40.000
* 65 Phenanthrene-d10	7.543	656070	40.000

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
3.020	41155	4.36619742	72	0		0	25
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl				CAS #: 99-85-4			
3.320	53972	5.72602230	94	90	NIST2002.L	15330	25
Unknown				CAS #:			
4.107	64190	6.81006099	110	0		0	25

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D
Report Date: 14-Nov-2011 13:31

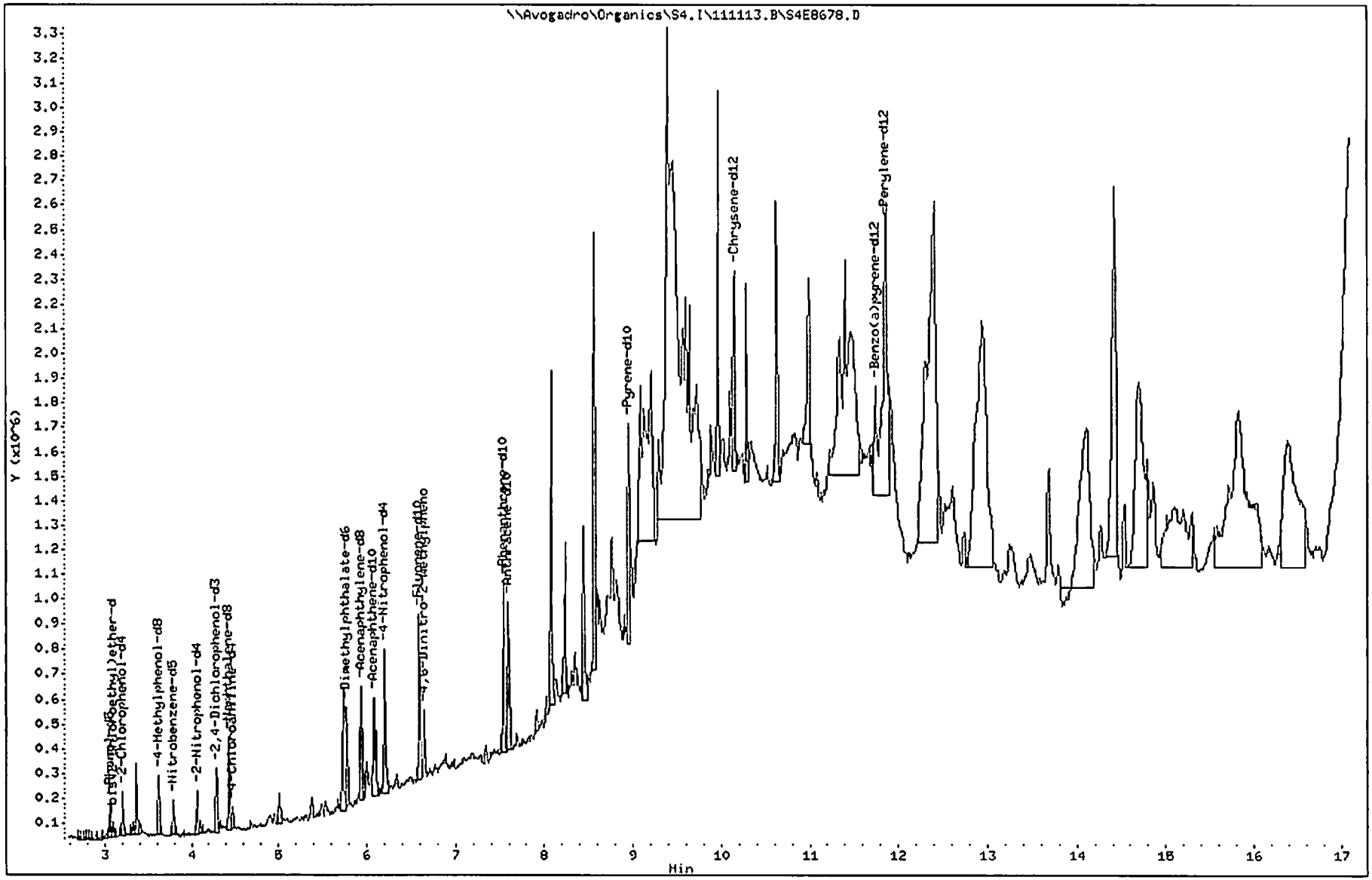
RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
5.007	168040	17.8276732	290	0		0	25
Unknown				CAS #:			
5.732	553667	29.2367425	480	0		0	46
Unknown				CAS #:			
8.236	670941	40.9066764	680	0		0	65
Unknown				CAS #:			
8.443	841864	51.3276427	850	0		0	65
Unknown				CAS #:			
8.568	2010498	122.578199	2000	0		0	65
Unknown				CAS #:			
8.951	1293559	78.8670994	1300	0		0	65
Unknown				CAS #:			
9.209	4869933	296.915286	4900	0		0	65
Unknown				CAS #:			
9.396	20882415	1273.18144	21000	0		0	65
1-Eicosene				CAS #: 3452-07-1			
9.965	1487745	90.7064064	1500	89	NIST2002.L	106396	65
Straight-chain Alkane				CAS #:			
10.286	859622	52.4103781	860	0		0	65
Branched Alkane				CAS #:			
10.627	1496688	91.2516541	1500	0		0	65
Branched Alkane				CAS #:			
10.990	1224947	74.6838732	1200	0		0	65
Straight-chain Alkane				CAS #:			
11.404	7534731	459.385579	7600	0		0	65
Unknown				CAS #:			
12.408	9536002	581.401167	9600	0		0	65
Unknown				CAS #:			
12.946	8571167	522.576116	8600	0		0	65
Unknown				CAS #:			
14.115	4974837	303.311165	5000	0		0	65
Unknown				CAS #:			
14.426	4612992	281.249856	4600	0		0	65
Unknown				CAS #:			
14.705	5536828	337.575255	5600	0		0	65

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D
Report Date: 14-Nov-2011 13:31

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
15.109	4022855	245.269748	4000	0		0	65
Unknown				CAS #:			
15.823	9557974	582.740801	9600	0		0	65
Unknown				CAS #:			
16.382	5982141	364.725606	6000	0		0	65

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D
Date : 13-NOV-2011 16:01
Client ID: H30R2
Sample Info: K2199-06A,,62801,,
Volume Injected (uL): 2.0
Column phase: RXI-5SILMS

Instrument: S4.I
Operator: MMS SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

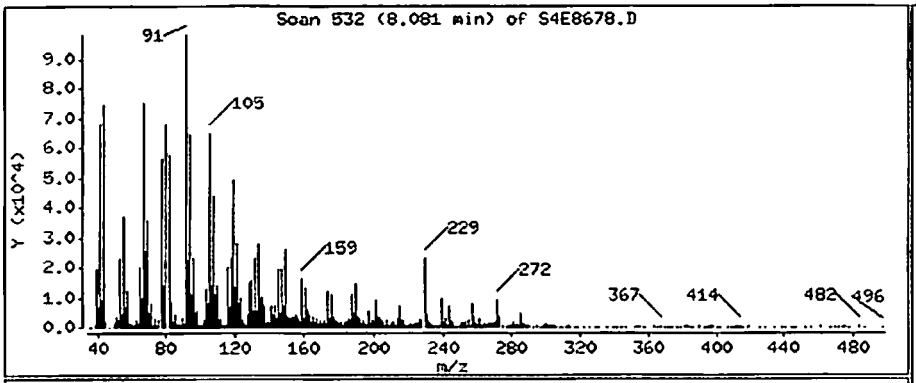
Client ID: H30R2 Instrument: S4.i

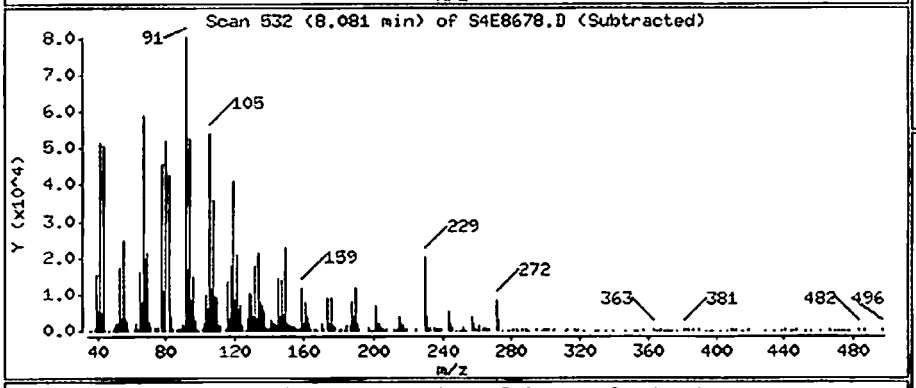
Sample Info: K2199-06A,,62801,,

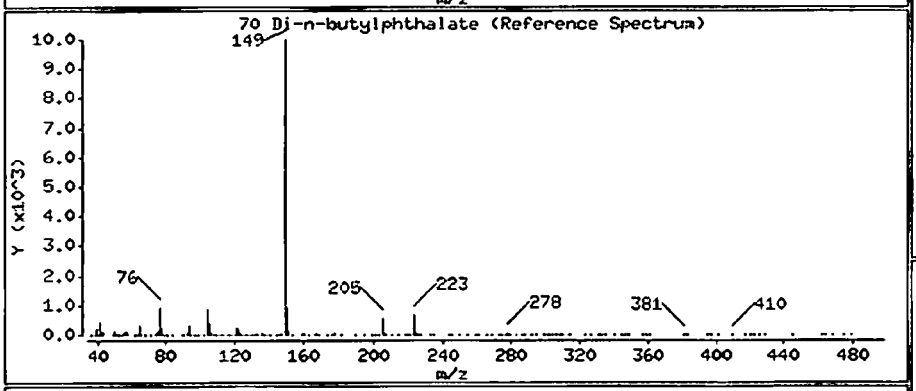
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

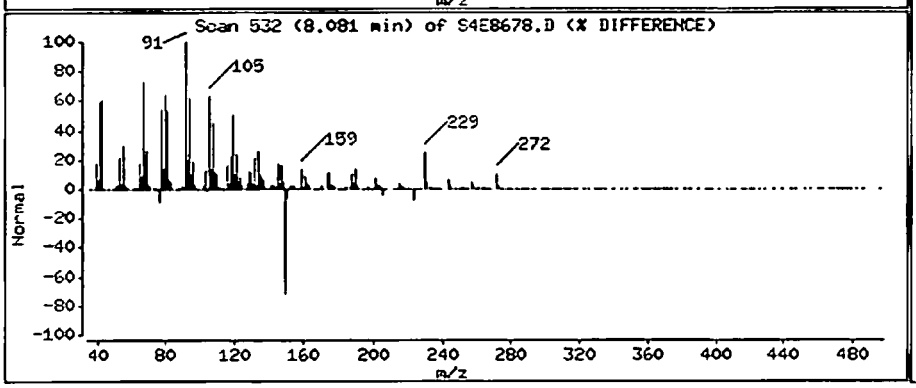
Column phase: RXI-5SILMS Column diameter: 0.25

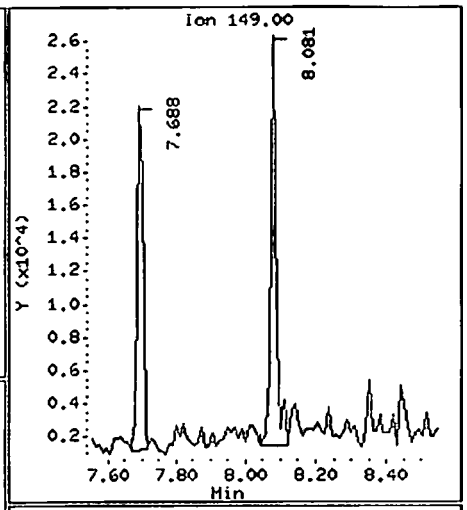
70 Di-n-butylphthalate Concentration: 59 ug/Kg

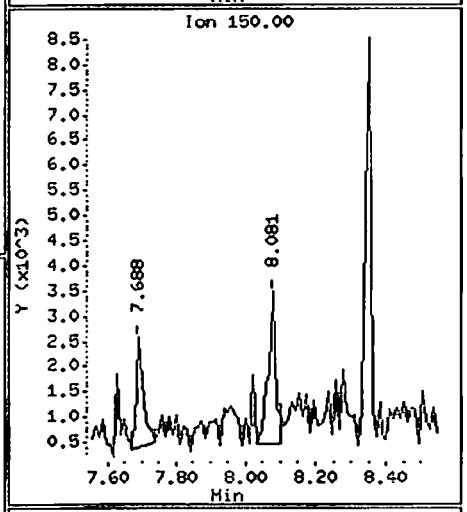


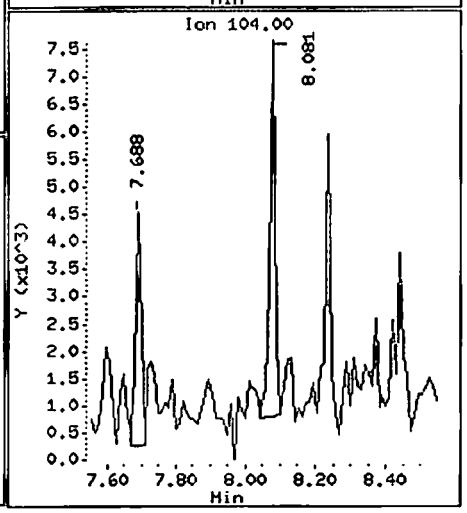












Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

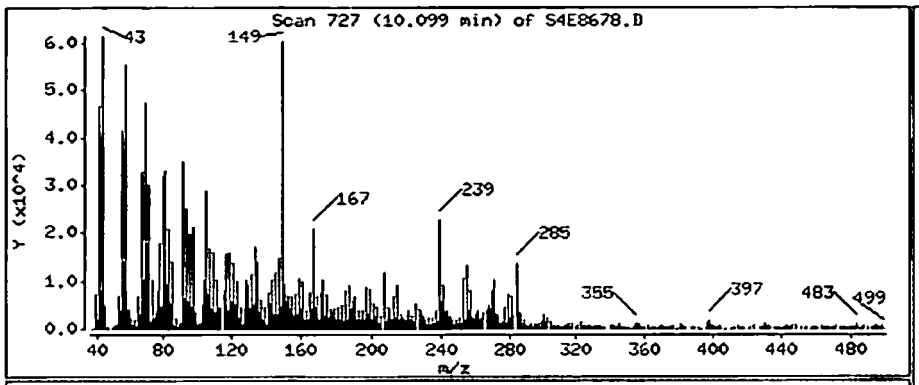
Client ID: H30R2 Instrument: S4.i

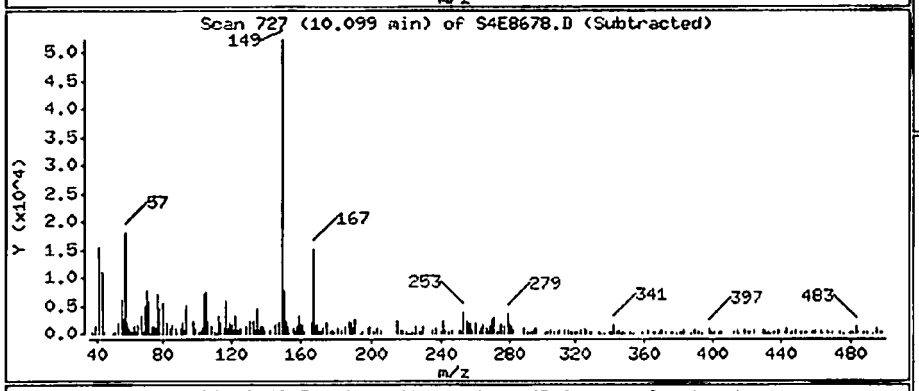
Sample Info: K2199-06A,,62801,,

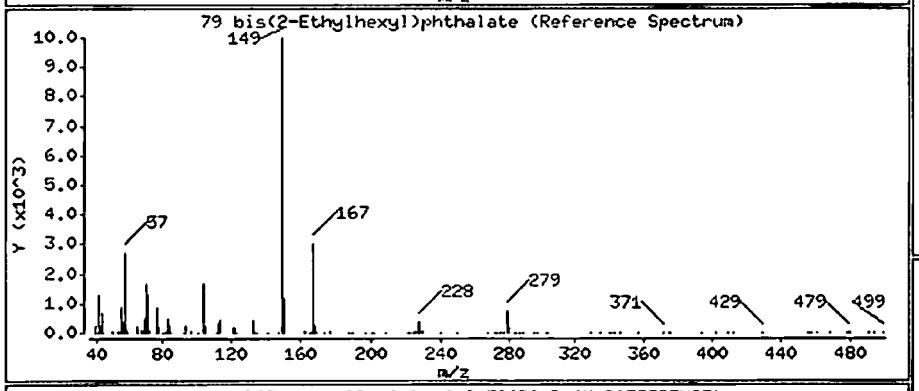
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

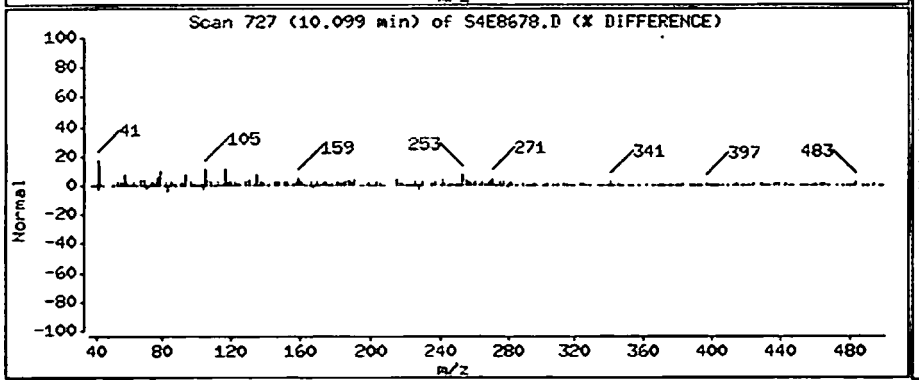
Column phase: RXI-5SILMS Column diameter: 0.25

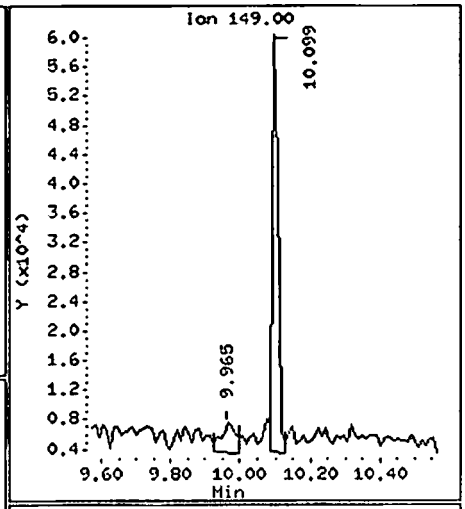
79 bis(2-Ethylhexyl)phthalate Concentration: 200 ug/Kg

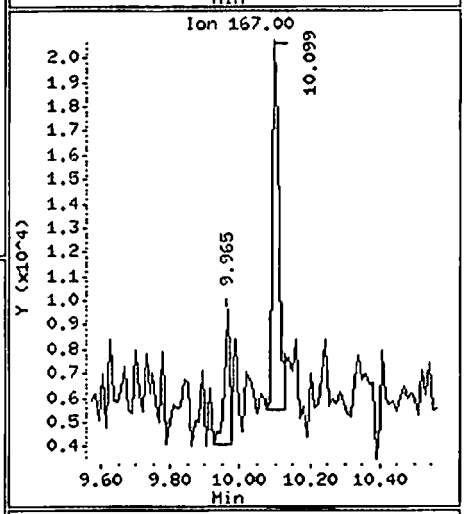


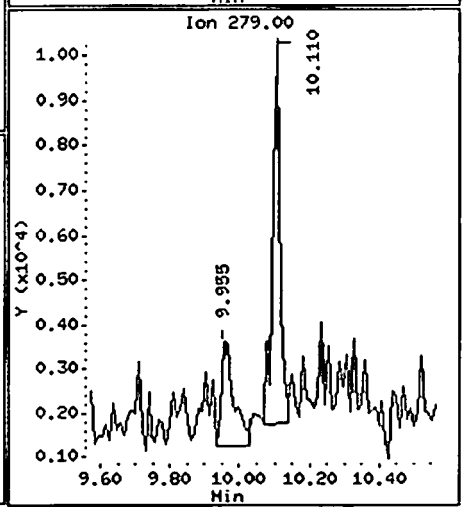












Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

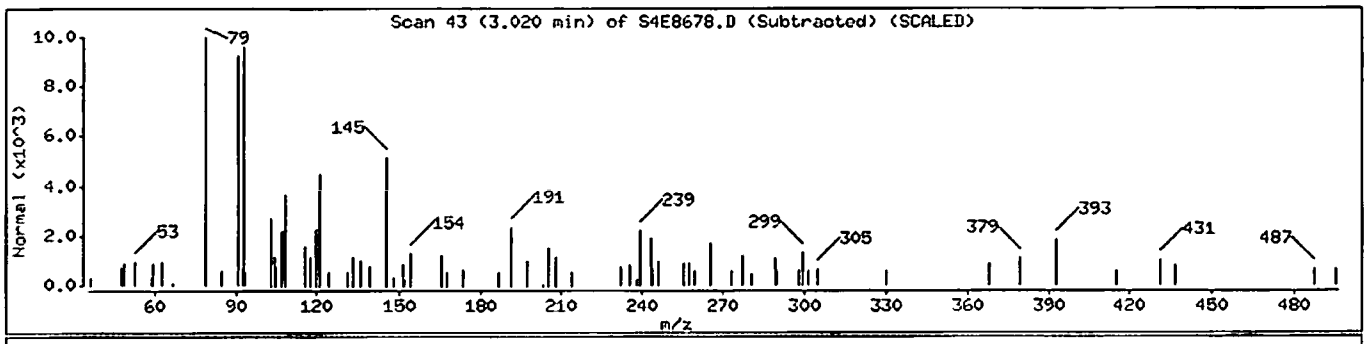
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

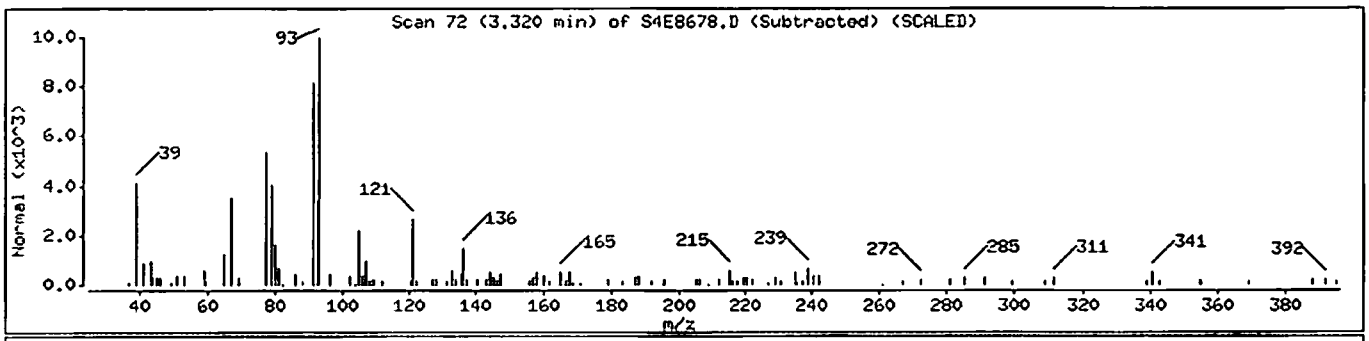
Client ID: H30R2 Instrument: S4.i

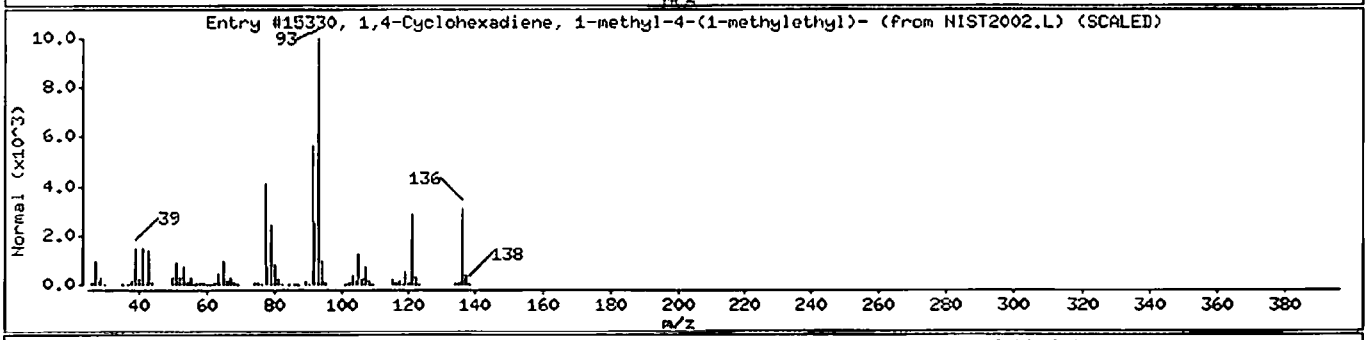
Sample Info: K2199-06A,,62801,,

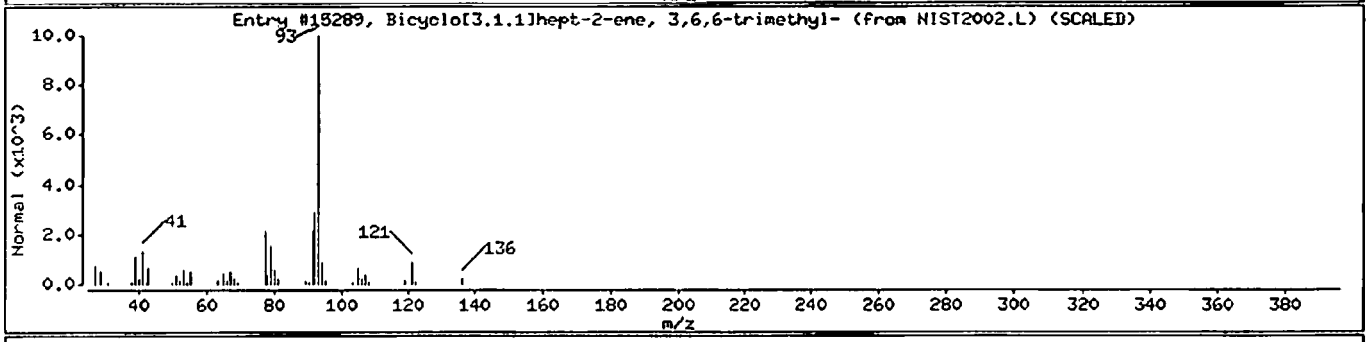
Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl	99-85-4	NIST2002.L	15330	90	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 3,6,6-trimethy	4889-83-2	NIST2002.L	15289	86	C10H16	136







Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

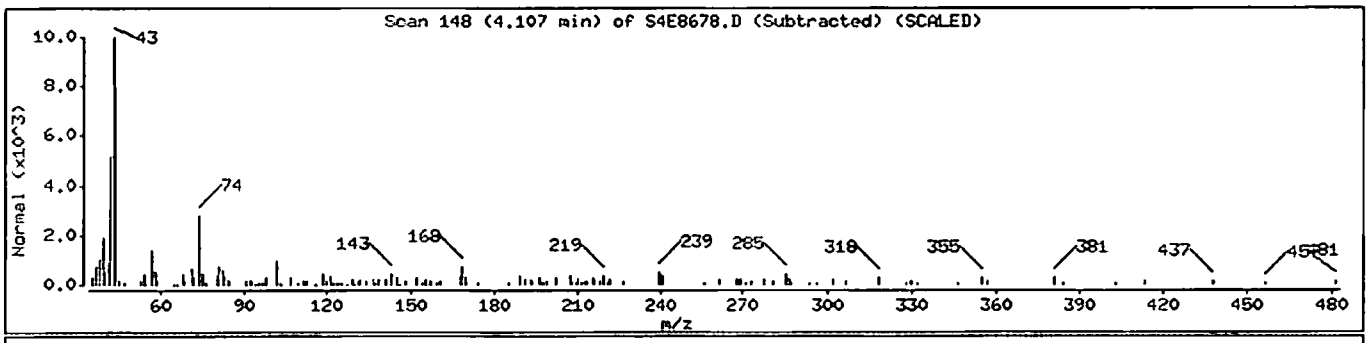
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

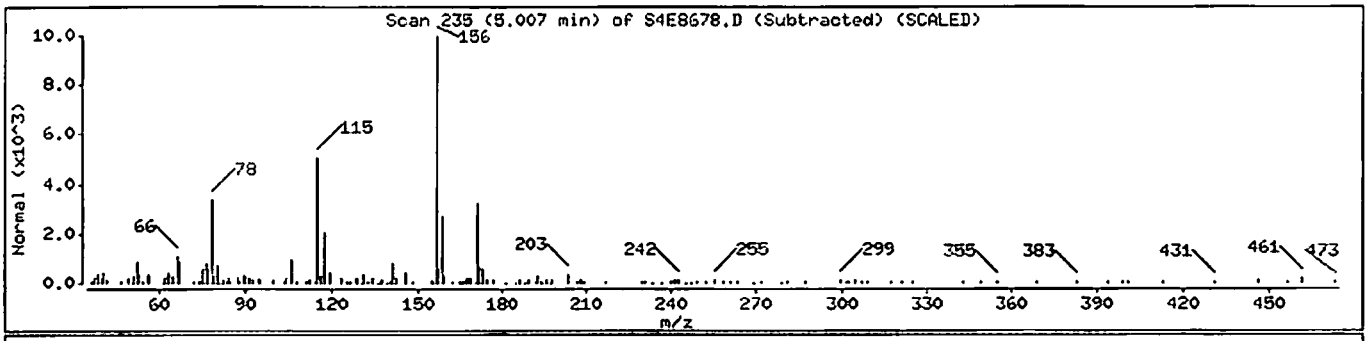
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

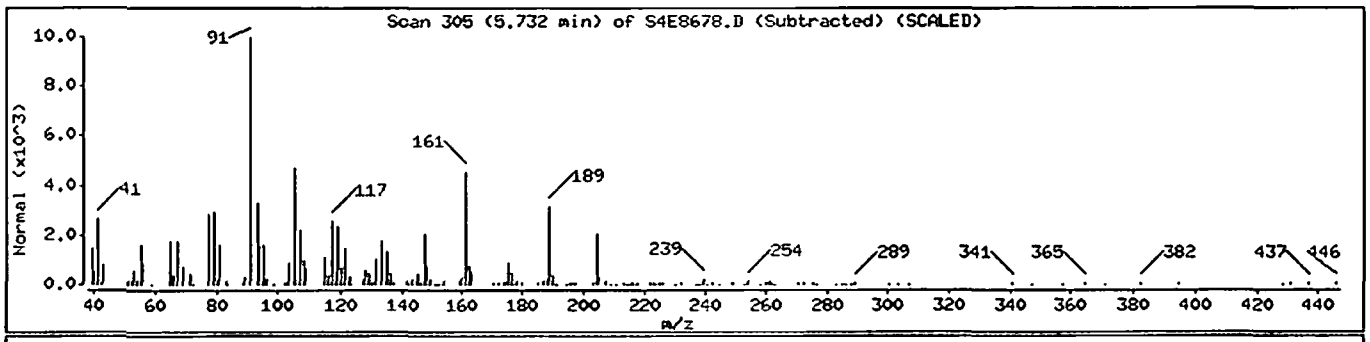
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

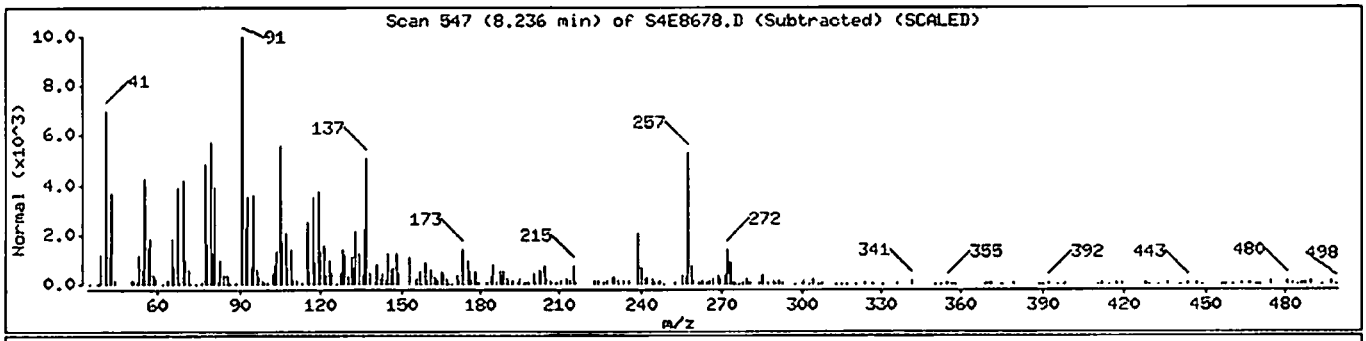
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

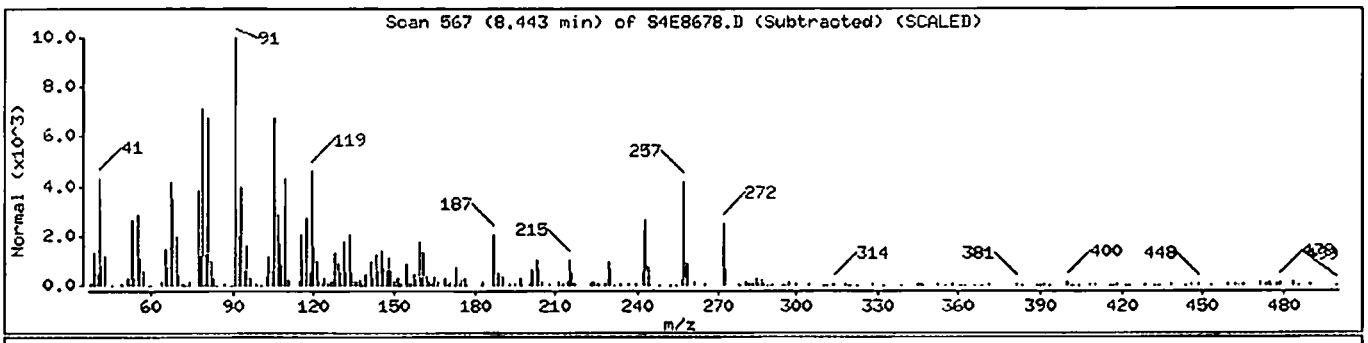
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

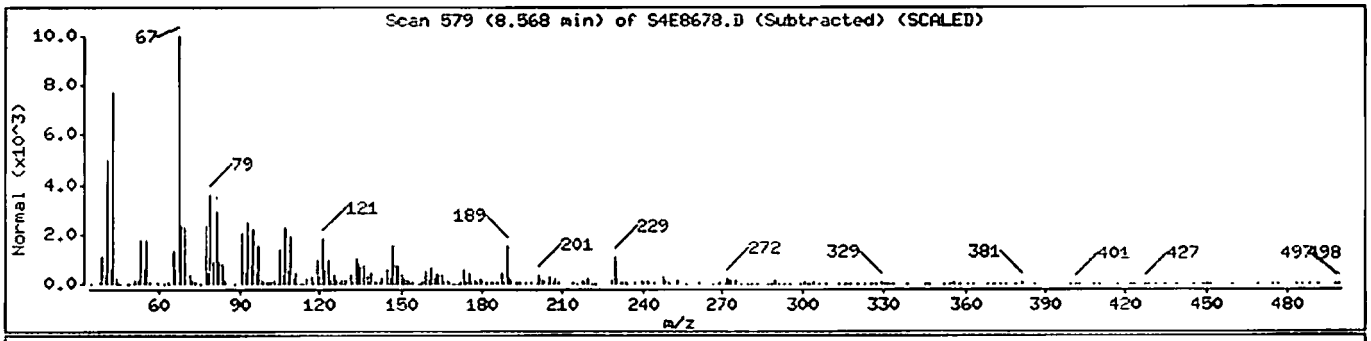
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

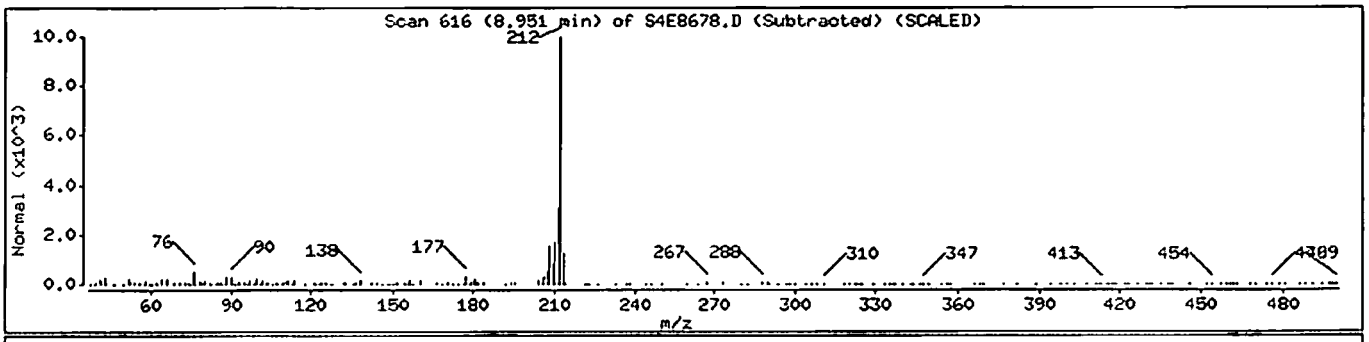
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

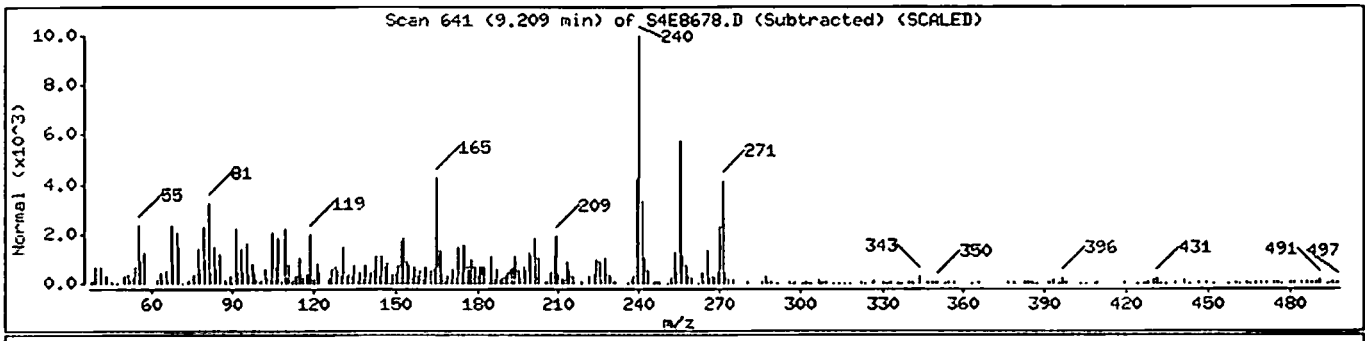
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

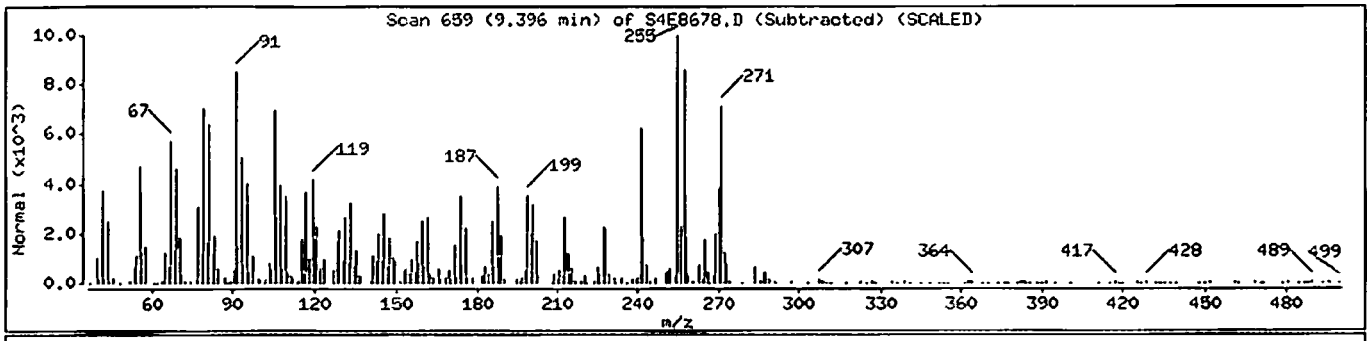
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

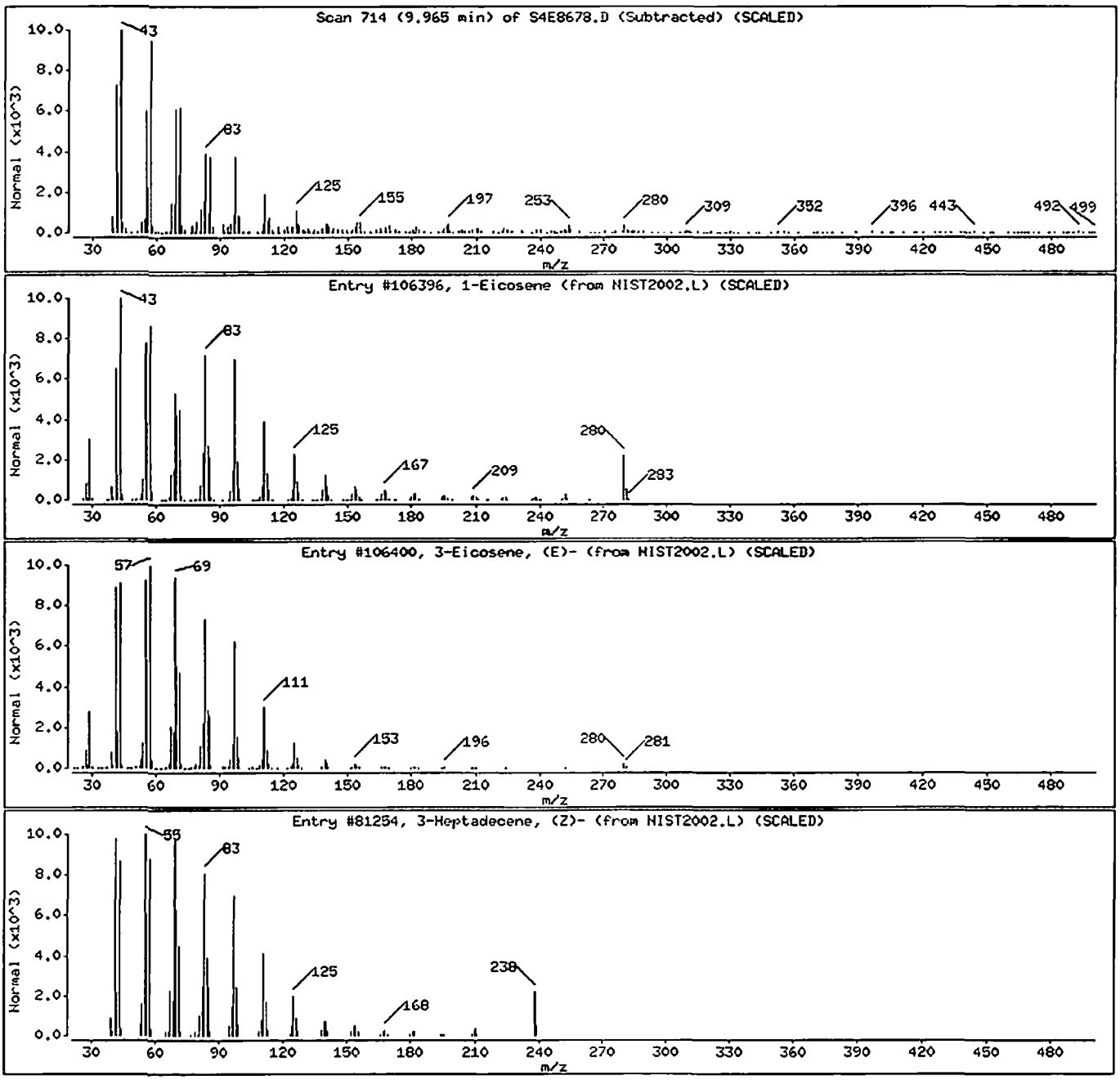
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: HHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Eicosene	3452-07-1	NIST2002.L	106396	89	C20H40	280
3-Eicosene, (E)-	74685-33-9	NIST2002.L	106400	89	C20H40	280
3-Heptadecene, (Z)-	1000141-67-3	NIST2002.L	81254	86	C17H34	238



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

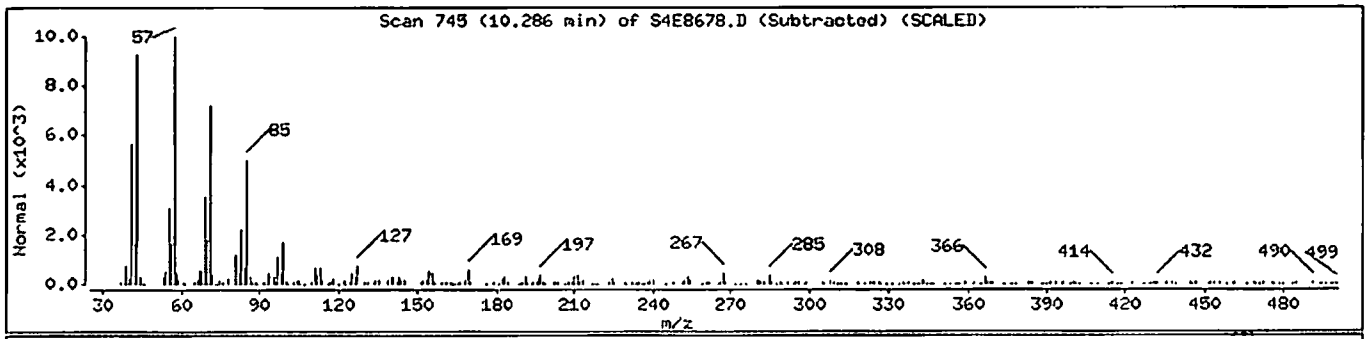
Client ID: H30R2 Instrument: S4.i

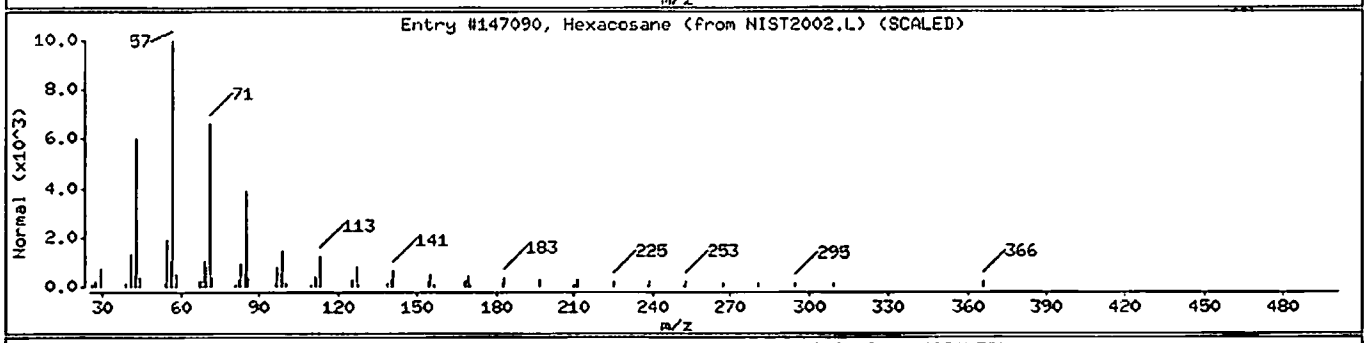
Sample Info: K2199-06A,,62801,,

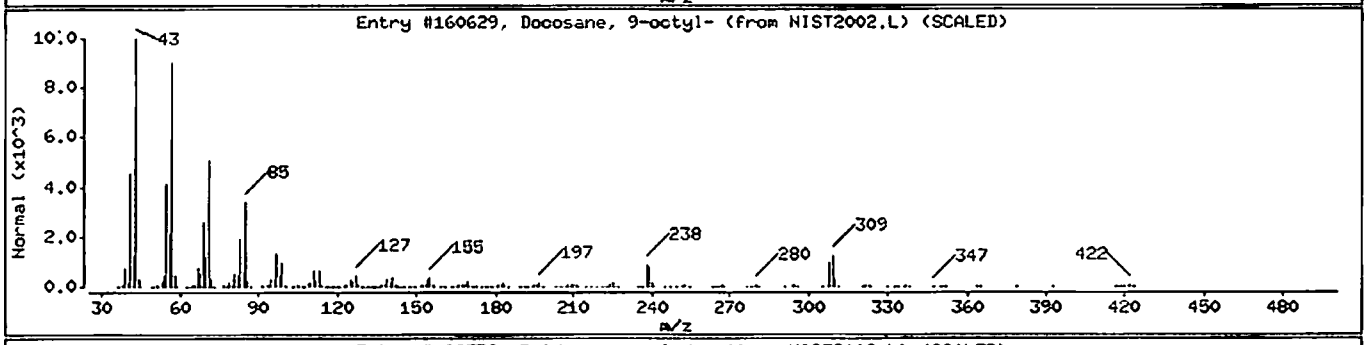
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

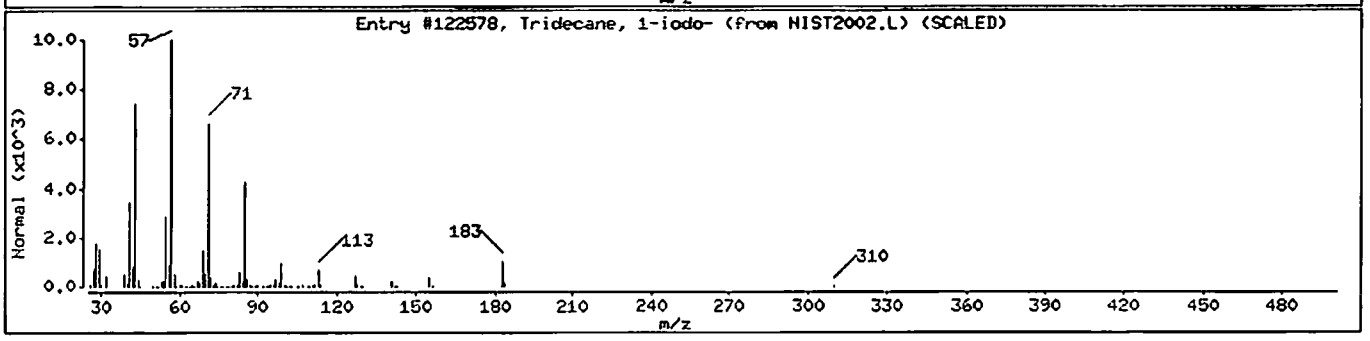
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Hexacosane	630-01-3	NIST2002.L	147090	91	C26H54	366
Docosane, 9-octyl-	55319-83-0	NIST2002.L	160629	90	C30H62	422
Tridecane, 1-iodo-	35599-77-0	NIST2002.L	122578	89	C13H27I	310









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

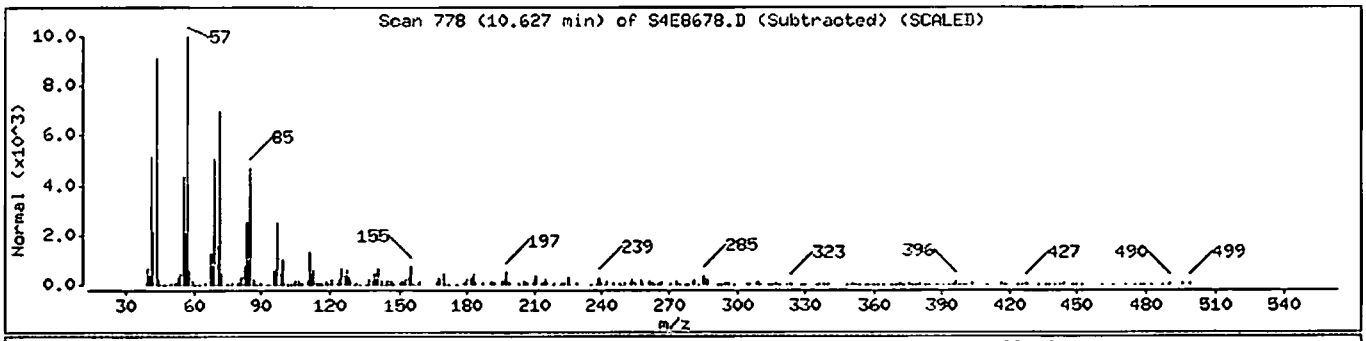
Client ID: H30R2 Instrument: S4.i

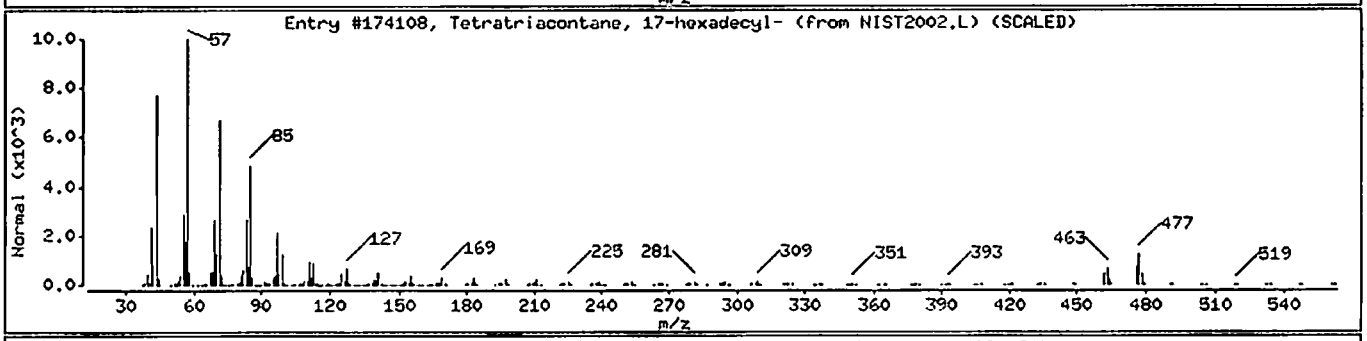
Sample Info: K2199-06A,,62801,,

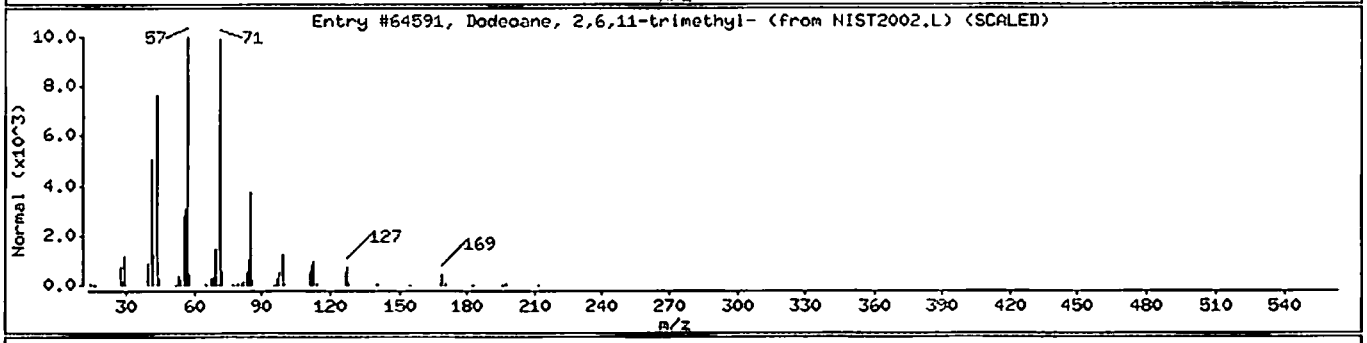
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Branched Alkane						
Tetratriacontane, 17-hexadecyl-	55256-07-0	NIST2002.L	174108	91	C50H102	703
Dodecane, 2,6,11-trimethyl-	31295-56-4	NIST2002.L	64591	89	C15H32	212







Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

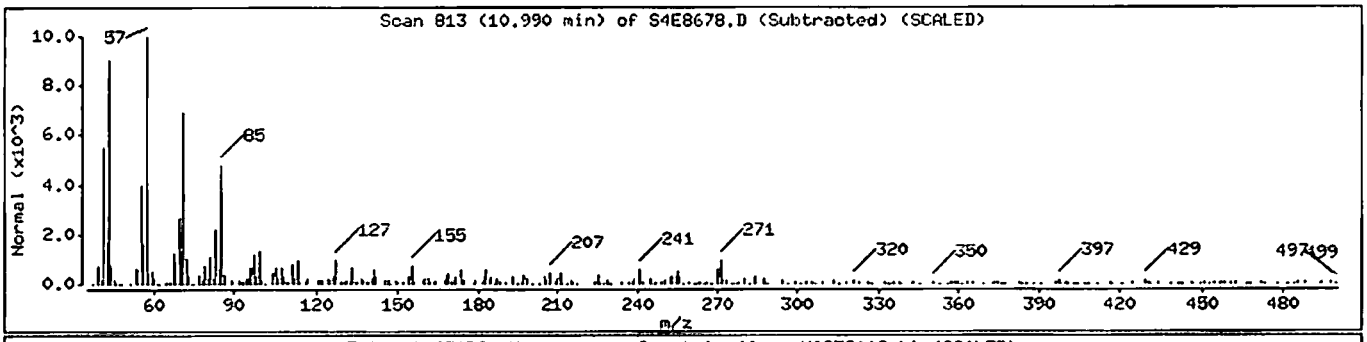
Client ID: H30R2 Instrument: S4.i

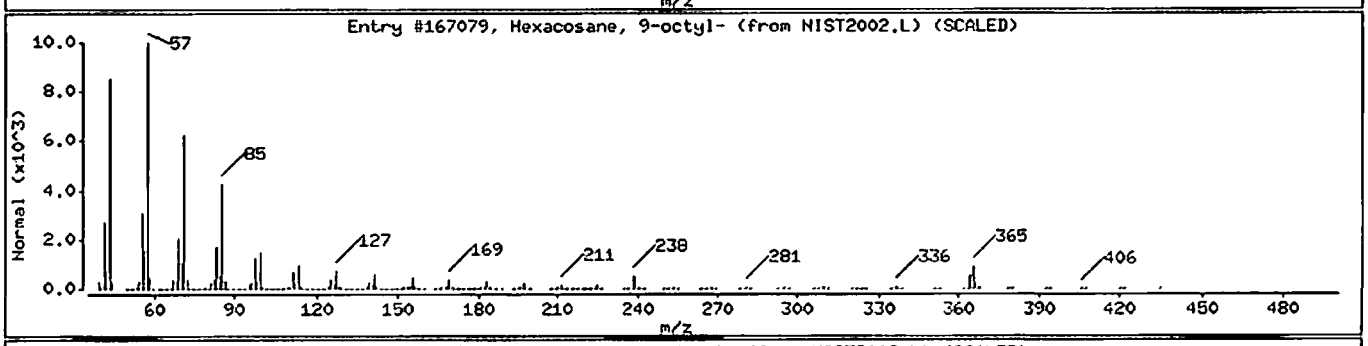
Sample Info: K2199-06A,,62801,,

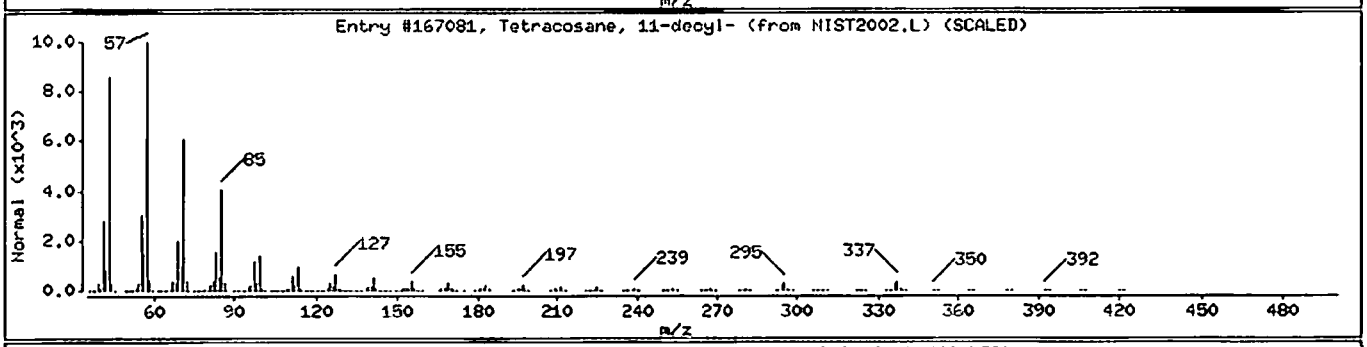
Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

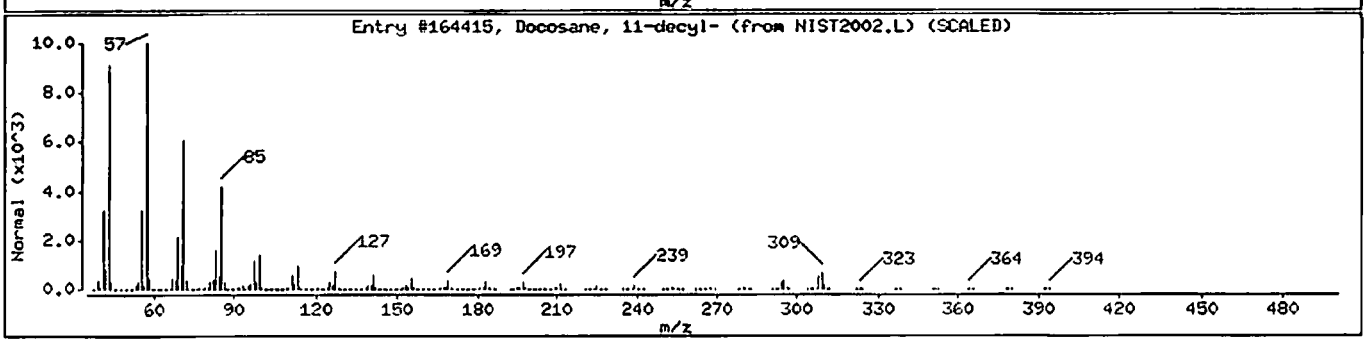
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Branched Alkane						
Hexacosane, 9-octyl-	55429-83-9	NIST2002.L	167079	90	C34H70	479
Tetracosane, 11-decyl-	55429-84-0	NIST2002.L	167081	90	C34H70	479
Docosane, 11-decyl-	55401-55-3	NIST2002.L	164415	90	C32H66	451









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

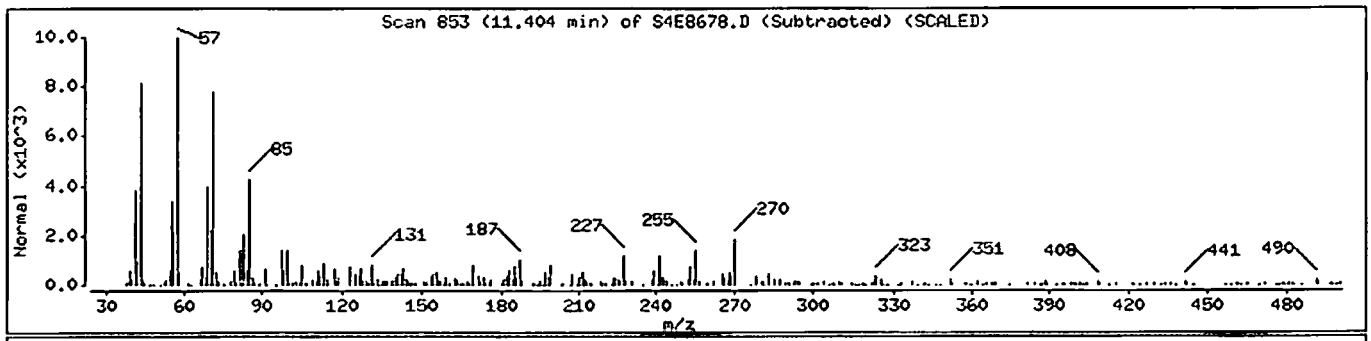
Client ID: H30R2 Instrument: S4.i

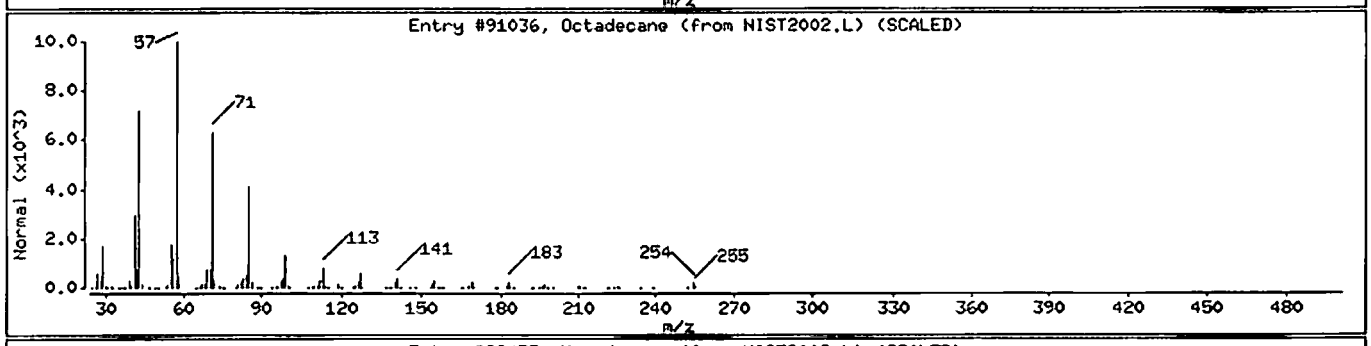
Sample Info: K2199-06A,.62801,,

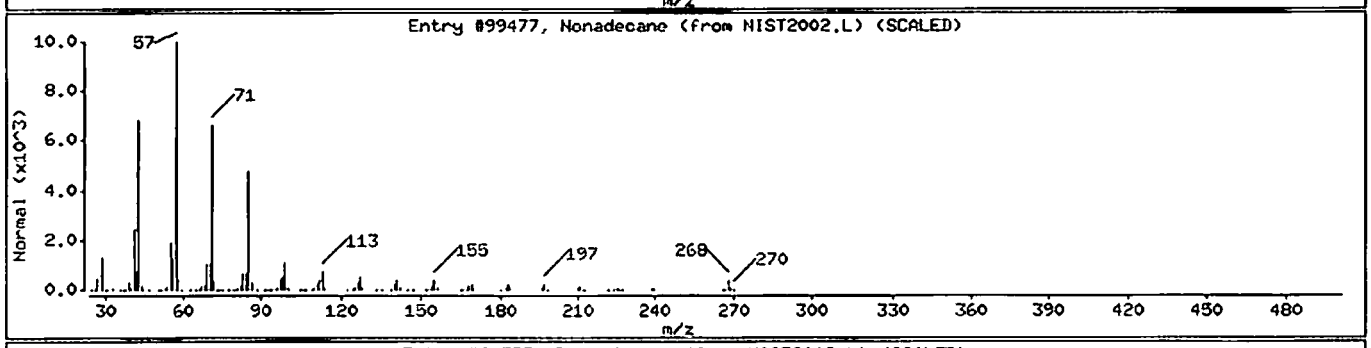
Volume Injected (uL): 2.0 Operator: HHS SRC: LIHS

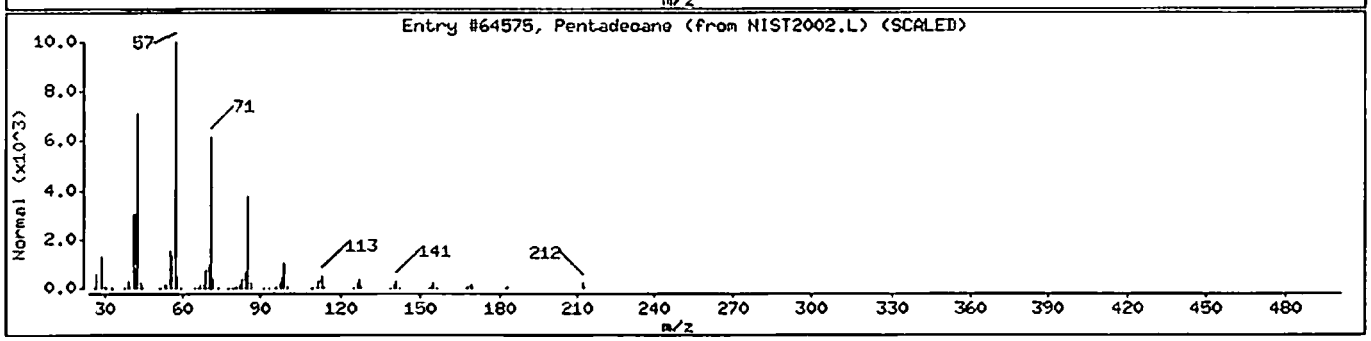
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Octadecane	593-45-3	NIST2002.L	91036	94	C18H38	254
Nonadecane	629-92-5	NIST2002.L	99477	93	C19H40	268
Pentadecane	629-62-9	NIST2002.L	64575	93	C15H32	212









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

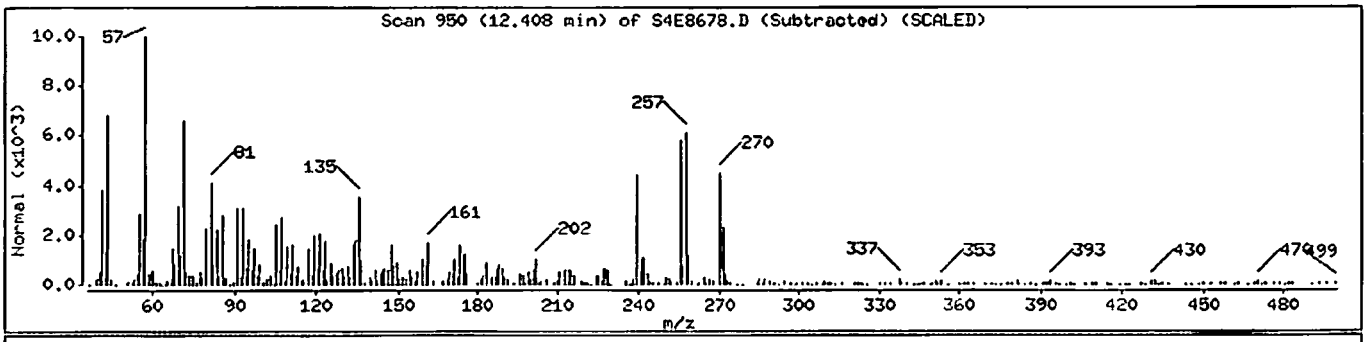
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

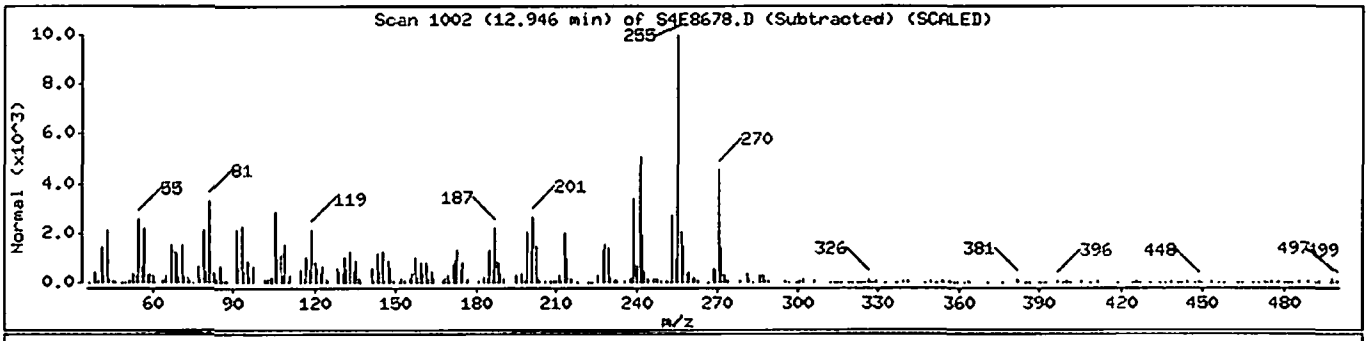
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

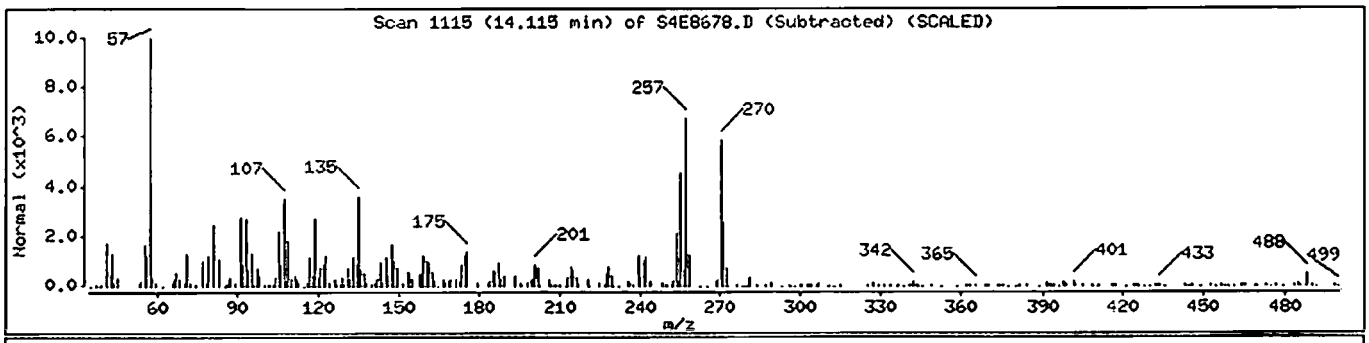
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

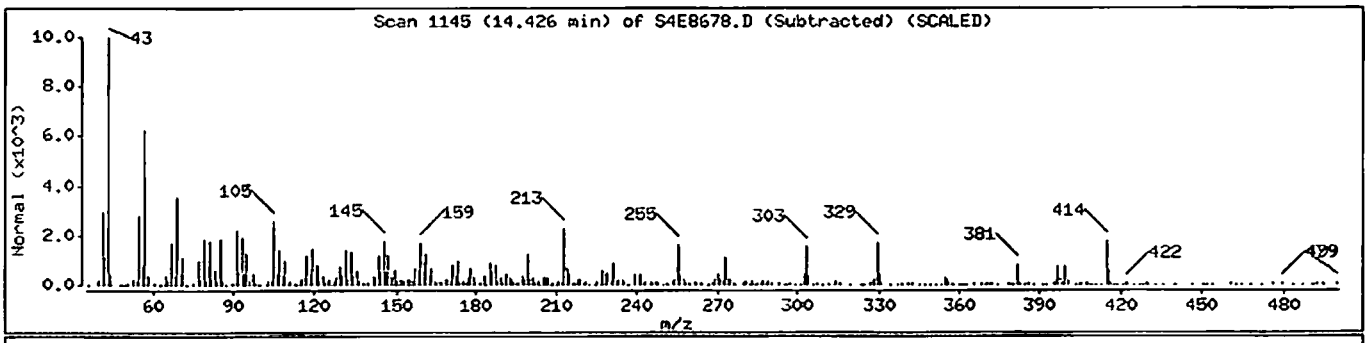
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

Client ID: H30R2 Instrument: S4.i

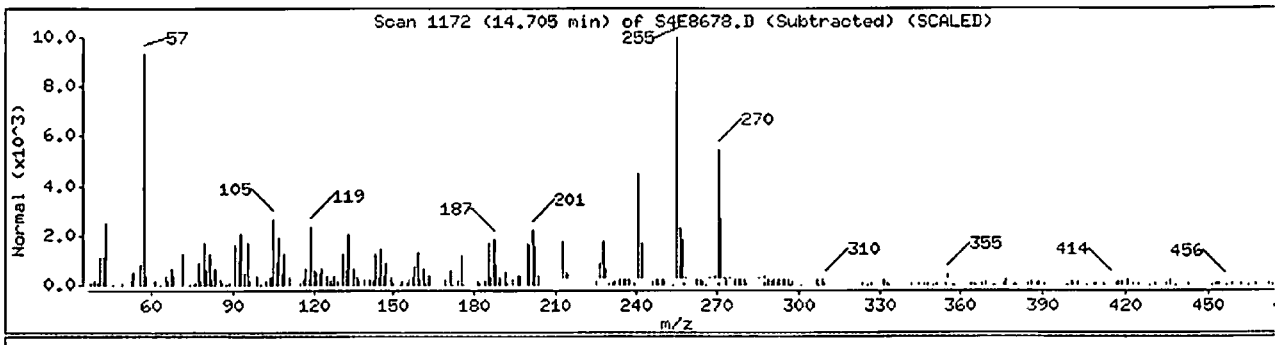
Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: HHS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Wei
Unknown			0	0		0

@ DQ DQ



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

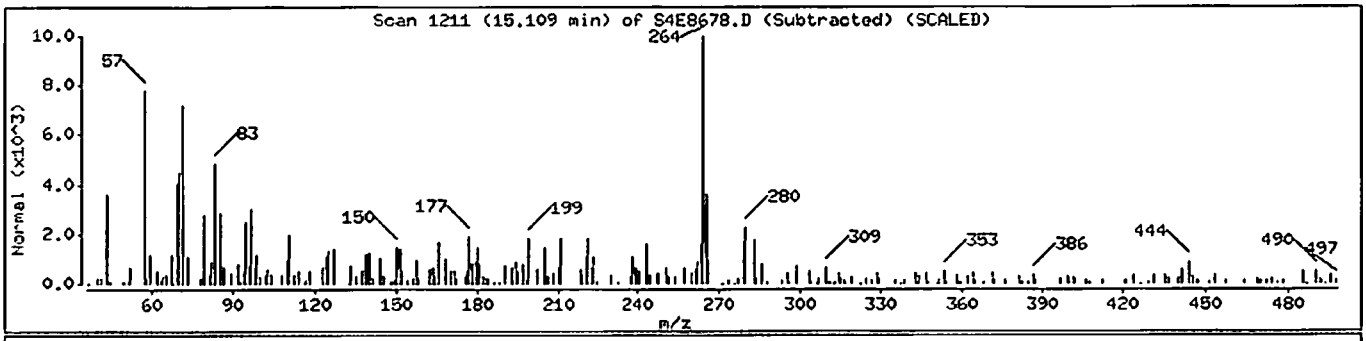
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

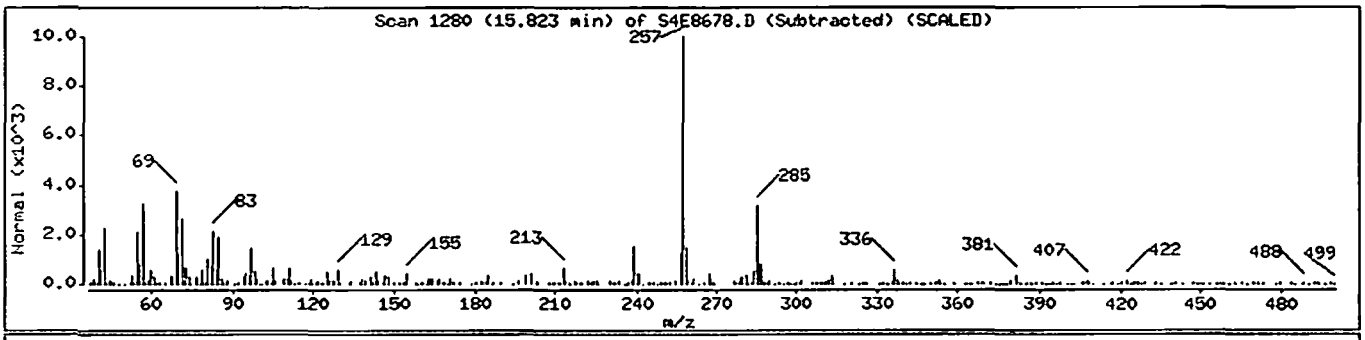
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8678.D

Date : 13-NOV-2011 16:01

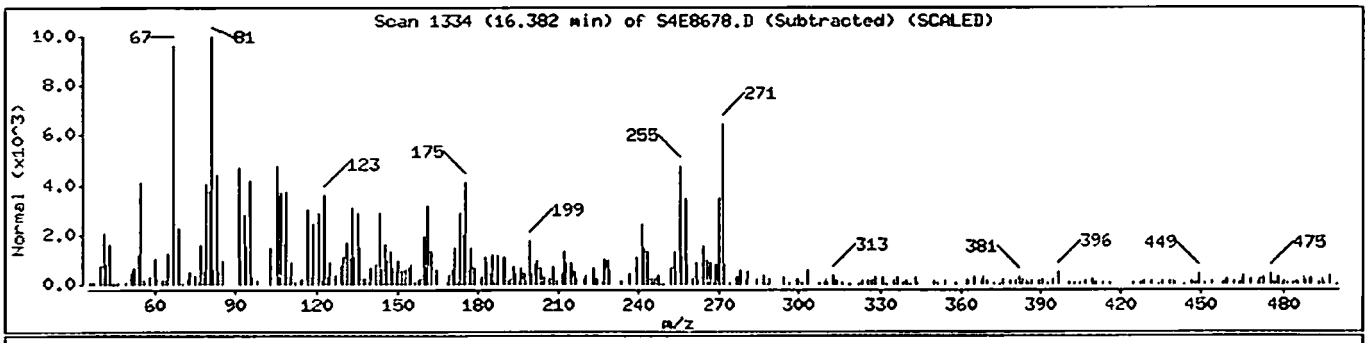
Client ID: H30R2 Instrument: S4.i

Sample Info: K2199-06A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-07A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4E8710.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 63 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 9.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	460	U
108-95-2	Phenol	2400	
111-44-4	Bis(2-chloroethyl)ether	460	U
95-57-8	2-Chlorophenol	460	U
95-48-7	2-Methylphenol	460	U
108-60-1	2,2'-Oxybis(1-chloropropane)	460	U
98-86-2	Acetophenone	460	U
106-44-5	4-Methylphenol	1800	
621-64-7	N-Nitroso-di-n-propylamine	460	U
67-72-1	Hexachloroethane	460	U
98-95-3	Nitrobenzene	460	U
78-59-1	Isophorone	460	U
88-75-5	2-Nitrophenol	460	U
105-67-9	2,4-Dimethylphenol	460	U
111-91-1	Bis(2-chloroethoxy)methane	460	U
120-83-2	2,4-Dichlorophenol	460	U
91-20-3	Naphthalene	460	U
106-47-8	4-Chloroaniline	460	U
87-68-3	Hexachlorobutadiene	460	U
105-60-2	Caprolactam	460	U
59-50-7	4-Chloro-3-methylphenol	460	U
91-57-6	2-Methylnaphthalene	460	U
77-47-4	Hexachlorocyclopentadiene	460	U
88-06-2	2,4,6-Trichlorophenol	460	U
95-95-4	2,4,5-Trichlorophenol	460	U
92-52-4	1,1'-Biphenyl	460	U
91-58-7	2-Chloronaphthalene	460	U
88-74-4	2-Nitroaniline	890	U
131-11-3	Dimethylphthalate	460	U
606-20-2	2,6-Dinitrotoluene	460	U
208-96-8	Acenaphthylene	460	U
99-09-2	3-Nitroaniline	890	U
83-32-9	Acenaphthene	460	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-07A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4E8710.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 63 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 9.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	890	U
100-02-7	4-Nitrophenol	890	U
132-64-9	Dibenzofuran	460	U
121-14-2	2,4-Dinitrotoluene	460	U
84-66-2	Diethylphthalate	460	U
86-73-7	Fluorene	460	U
7005-72-3	4-Chlorophenyl-phenylether	460	U
100-01-6	4-Nitroaniline	890	U
534-52-1	4,6-Dinitro-2-methylphenol	890	U
86-30-6	N-Nitrosodiphenylamine (1)	460	U
95-94-3	1,2,4,5-Tetrachlorobenzene	460	U
101-55-3	4-Bromophenyl-phenylether	460	U
118-74-1	Hexachlorobenzene	460	U
1912-24-9	Atrazine	460	U
87-86-5	Pentachlorophenol	890	U
85-01-8	Phenanthrene	460	U
120-12-7	Anthracene	460	U
86-74-8	Carbazole	460	U
84-74-2	Di-n-butylphthalate	1500	B
206-44-0	Fluoranthene	460	U
129-00-0	Pyrene	460	U
85-68-7	Butylbenzylphthalate	460	U
91-94-1	3,3'-Dichlorobenzidine	460	U
56-55-3	Benzo(a)anthracene	460	U
218-01-9	Chrysene	460	U
117-81-7	Bis(2-ethylhexyl)phthalate	460	U
117-84-0	Di-n-octylphthalate	460	U
205-99-2	Benzo(b)fluoranthene	460	U
207-08-9	Benzo(k)fluoranthene	460	U
50-32-8	Benzo(a)pyrene	460	U
193-39-5	Indeno(1,2,3-cd)pyrene	460	U
53-70-3	Dibenzo(a,h)anthracene	460	U
191-24-2	Benzo(g,h,i)perylene	460	U
58-90-2	2,3,4,6-Tetrachlorophenol	460	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H30R3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-07A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4E8710.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 63 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 9.0 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	99-85-4	1,4-Cyclohexadiene, 1-methyl	2.864	7300	NJ
02	488-97-1	Tricyclo[2.2.1.0(2,6)]heptan	3.134	3400	NJ
03		Unknown-01	3.165	11000	J
04	13466-78-9	3-Carene	3.289	11000	NJ
05	99-87-6	Benzene, 1-methyl-4-(1-methy	3.382	47000	NJ
06	475-20-7	1,4-Methanoazulene, decahydr	5.711	4600	NJ
07	483-76-1	Naphthalene, 1,2,3,5,6,8a-he	6.187	1900	NJ
08	544-63-8	Tetradecanoic acid	7.253	6100	NJ
09		Unknown-02	7.905	2600	J
10		Unknown-03	8.019	2900	J
11		Unknown-04	8.133	15000	J
12		Unknown-05	8.195	42000	J
13		Unknown-06	8.236	15000	J
14	596-84-9	1H-Naphtho[2,1-b]pyran, 3-et	8.412	3900	NJ
15		Unknown-07	8.454	11000	J
16		Unknown-08	8.599	12000	J
17		Unknown-09	8.681	4300	J
18		Unknown-10	8.774	12000	J
19		Unknown-11	8.816	18000	J
20		Unknown-12	8.909	20000	J
21		Unknown-13	9.437	22000	J
22		Unknown-14	9.613	11000	J
23	1740-19-8	1-Phenanthrenecarboxylic aci	10.192	47000	NJ
24		Unknown-15	11.911	1700	J
25		Unknown-16	12.459	4600	J
26	59-02-9	Vitamin E	12.832	2400	NJ
27	474-62-4	Campesterol	13.846	2500	NJ
28	1000214-20-7	Stigmasterol, 22,23-dihydro-	14.726	8300	NJ
29		Unknown-17	15.150	5700	J
30		Unknown-18	15.595	4600	J
	E96679€ [2]	Total Alkanes	N/A	14000	J

[2] EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D
Report Date: 15-Nov-2011 12:01

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8710.D
Lab Smp Id: K2199-07A Client Smp ID: H30R3
Inj Date : 14-NOV-2011 17:43
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-07A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 11:59 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.500	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 2 Phenol-d5	71	3.050	2.999	(0.913)	41352	29.4749	480(Q)
3 Phenol	94	3.061	3.009	(0.916)	106316	52.7179	860
$ 4 bis(2-Chloroethyl)ether-d8	67	3.071	3.040	(0.919)	40786	39.0847	640(Q)
$ 6 2-Chlorophenol-d4	132	3.185	3.143	(0.954)	58484	35.5232	580(Q)
* 8 1,4-Dichlorobenzene-d4	152	3.340	3.309	(1.000)	52170	40.0000	(Q)
$ 11 4-Methylphenol-d8	113	3.620	3.557	(1.084)	50958	34.2983	560
12 4-Methylphenol	108	3.640	3.578	(1.090)	62597	41.0933	670
$ 16 Nitrobenzene-d5	128	3.764	3.733	(0.862)	26889	21.3077	350
$ 19 2-Nitrophenol-d4	143	4.044	4.013	(0.926)	40220	25.0048	410
$ 23 2,4-Dichlorophenol-d3	165	4.282	4.230	(0.981)	70612	23.4280	380(H)
* 25 Naphthalene-d8	136	4.406	4.365	(1.000)	301468	40.0000	(H)
$ 27 4-Chloroaniline-d4	131	4.468	4.417	(1.024)	9202	3.09447	51(aQH)
$ 40 Dimethylphthalate-d6	166	5.752	5.721	(0.957)	219269	37.3911	610
$ 43 Acenaphthylene-d8	160	5.928	5.876	(0.986)	270590	41.6729	680
* 46 Acenaphthene-d10	164	6.073	6.031	(1.000)	148307	40.0000	(H)
$ 49 4-Nitrophenol-d4	143	6.238	6.145	(1.038)	64772	58.6698	960(QH)
$ 54 Fluorene-d10	176	6.590	6.538	(1.096)	204926	39.1953	640(H)
$ 58 4,6-Dinitro-2-methylphenol-d2	200	6.652	6.600	(0.882)	43206	28.5700	470
* 65 Phenanthrene-d10	188	7.542	7.480	(1.000)	377016	40.0000	

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D
Report Date: 15-Nov-2011 12:01

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 67 Anthracene-d10	188	7.604	7.542	(1.008)	418142	40.3828	660(H)
70 Di-n-butylphthalate	149	8.081	8.018	(1.071)	359031	32.7716	540(QH)
$ 72 Pyrene-d10	212	8.909	8.888	(0.881)	20880	1.30854	21(aQRH)
* 77 Chrysene-d12	240	10.213	10.078	(1.000)	818666	40.0000	(MH)M3 MMS 11/15
$ 83 Benzo(a)pyrene-d12	264	11.631	11.651	(0.993)	12827	1.13479	19(aQRH)
* 85 Perylene-d12	264	11.993	11.765	(1.000)	510108	40.0000	(H)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D
Report Date: 15-Nov-2011 12:01

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8710.D
Lab Smp Id: K2199-07A Client Smp ID: H30R3
Inj Date : 14-NOV-2011 17:43
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-07A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 11:59 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.500	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	3.341	512833	40.000
* 46 Acenaphthene-d10	6.073	1803828	40.000
* 65 Phenanthrene-d10	7.543	1709457	40.000
* 85 Perylene-d12	11.993	4907327	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl				CAS #: 99-85-4			
2.864	2086476	162.740975	2700	94	NIST2002.L	15330	8
Tricyclo[2.2.1.0(2,6)]heptane, 1,3,3-tri				CAS #: 488-97-1			
3.134	968988	75.5791281	1200	90	NIST2002.L	15320	8

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D
Report Date: 15-Nov-2011 12:01

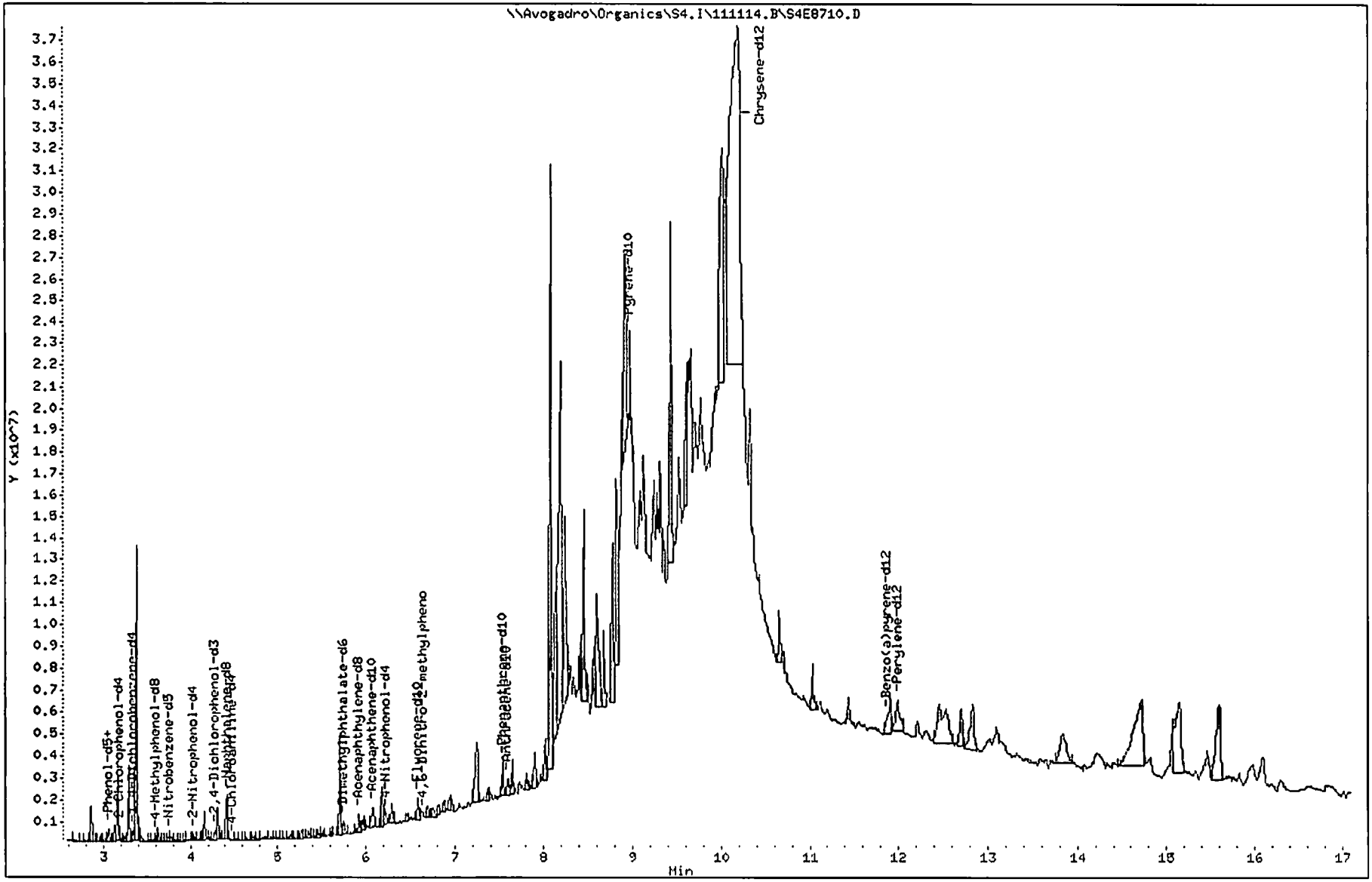
RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
3.165	3016278	235.263708	3900	0		0	8
3-Carene				CAS #: 13466-78-9			
3.289	3285174	256.237020	4200	89	NIST2002.L	15130	8
Benzene, 1-methyl-4-(1-methylethyl)-				CAS #: 99-87-6			
3.382	13505953	1053.43747	17000	96	NIST2002.L	14399	8
1,4-Methanoazulene, decahydro-4,8,8-trim				CAS #: 475-20-7			
5.711	4610502	102.238123	1700	96	NIST2002.L	58865	46
Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-				CAS #: 483-76-1			
6.187	1949718	43.2351040	710	93	NIST2002.L	58816	46
Tetradecanoic acid				CAS #: 544-63-8			
7.253	5807783	135.897723	2200	95	NIST2002.L	75072	65
Unknown				CAS #:			
7.905	2463490	57.6438026	940	0		0	65
Unknown				CAS #:			
8.019	2759196	64.5630822	1100	0		0	65
Unknown				CAS #:			
8.133	14196756	332.193317	5400	0		0	65
Unknown				CAS #:			
8.195	39701462	928.984096	15000	0		0	65
Unknown				CAS #:			
8.236	14269588	333.897526	5500	0		0	65
1H-Naphtho[2,1-b]pyran, 3-ethenyldodecah				CAS #: 596-84-9			
8.412	3700429	86.5872406	1400	93	NIST2002.L	112339	65
Unknown				CAS #:			
8.454	10953502	256.303644	4200	0		0	65
Unknown				CAS #:			
8.599	11277433	263.883369	4300	0		0	65
Unknown				CAS #:			
8.681	4057449	94.9412242	1600	0		0	65
Unknown				CAS #:			
8.774	11403710	266.838161	4400	0		0	65
Unknown				CAS #:			
8.816	17182891	402.066618	6600	0		0	65
Unknown				CAS #:			
8.909	18686192	437.242727	7200	0		0	65

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D
Report Date: 15-Nov-2011 12:01

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
9.437	20804735	486.815020	8000	0		0	65
Unknown				CAS #:			
9.613	10272427	240.366993	3900	0		0	65
Cyclic Alkane				CAS #:			
10.017	35684779	290.869328	4800	0		0	85
1-Phenanthrenecarboxylic acid, 1,2,3,4,4				CAS #: 1740-19-8			
10.192	1.300e+008	1059.36191	17000	99	NIST2002.L	117817	85
Straight-chain Alkane				CAS #:			
11.031	2825043	23.0271360	380	0		0	85
Unknown				CAS #:			
11.911	4517078	36.8190459	600	0		0	85
Unknown				CAS #:			
12.459	12547887	102.278774	1700	0		0	85
Vitamin E				CAS #: 59-02-9			
12.832	6601686	53.8108403	880	90	NIST2002.L	161945	85
Campesterol				CAS #: 474-62-4			
13.846	6793421	55.3736912	910	90	NIST2002.L	156588	85
Stigmasterol, 22,23-dihydro-				CAS #: 1000214-20-7			
14.726	22668241	184.770547	3000	98	NIST2002.L	159291	85
Unknown				CAS #:			
15.150	15624058	127.352878	2100	0		0	85
Unknown				CAS #:			
15.595	12707755	103.581871	1700	0		0	85

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D
Date : 14-NOV-2011 17:43
Client ID: H30R3
Sample Info: K2199-07A,,62801,,
Volume Injected (uL): 2.0
Column phase: RXI-5SILMS

Instrument: S4.I
Operator: MMS SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

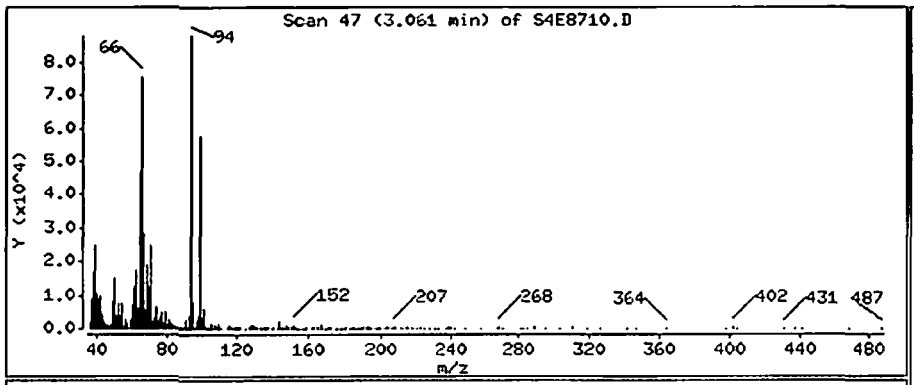
Client ID: H30R3 Instrument: S4.i

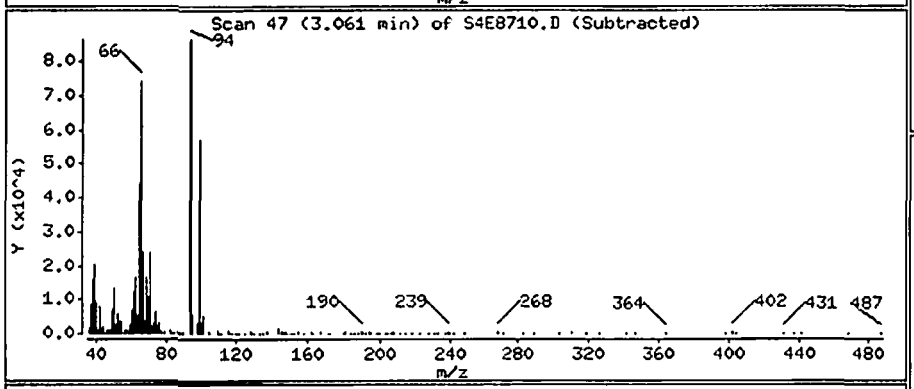
Sample Info: K2199-07A,,62801,,

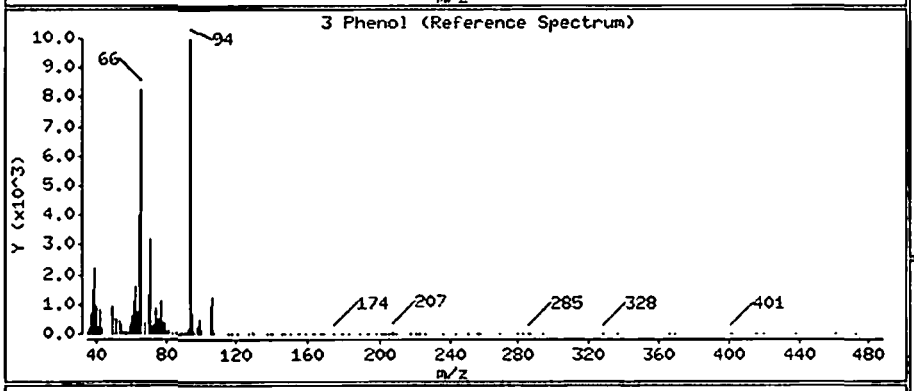
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

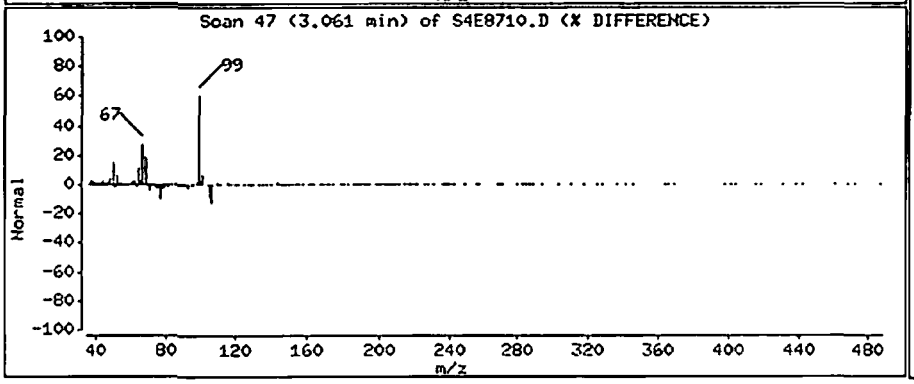
Column phase: RXI-5SILMS Column diameter: 0.25

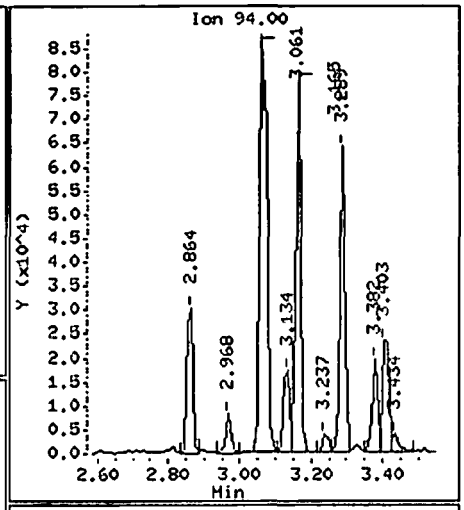
3 Phenol Concentration: 860 ug/Kg

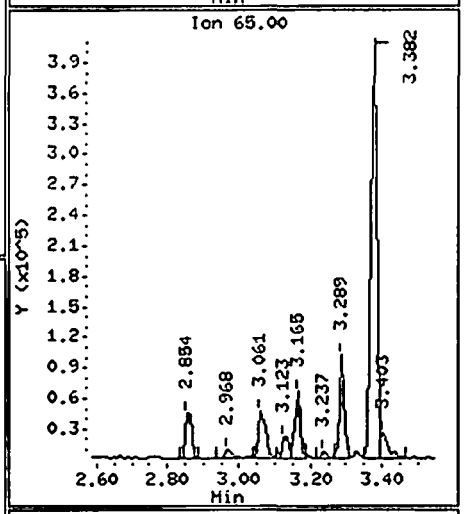


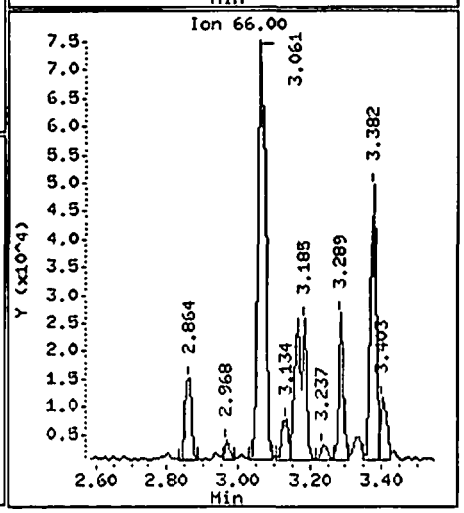












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

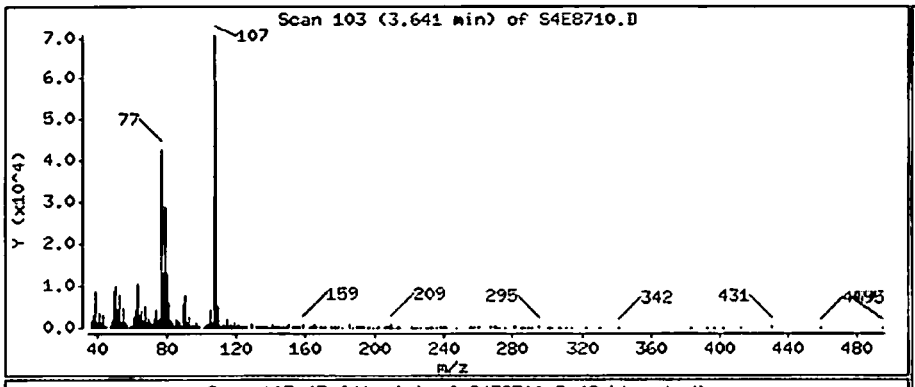
Client ID: H30R3 Instrument: S4.i

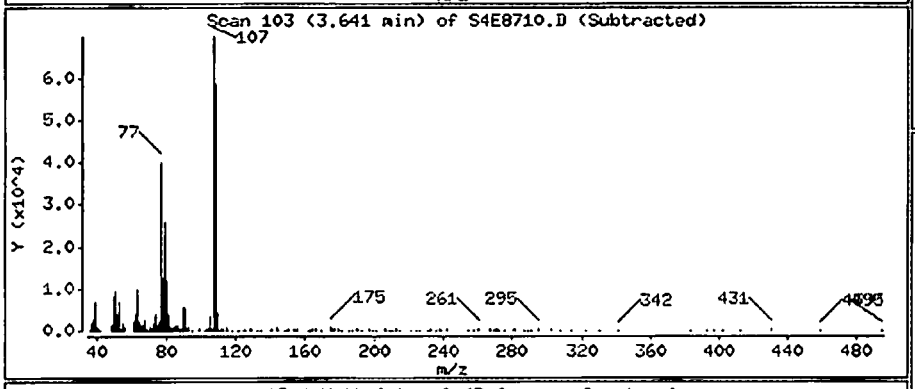
Sample Info: K2199-07A,.62801,,

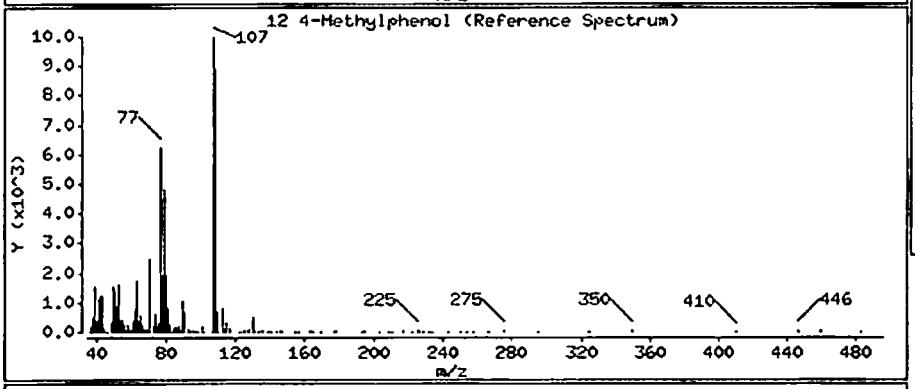
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

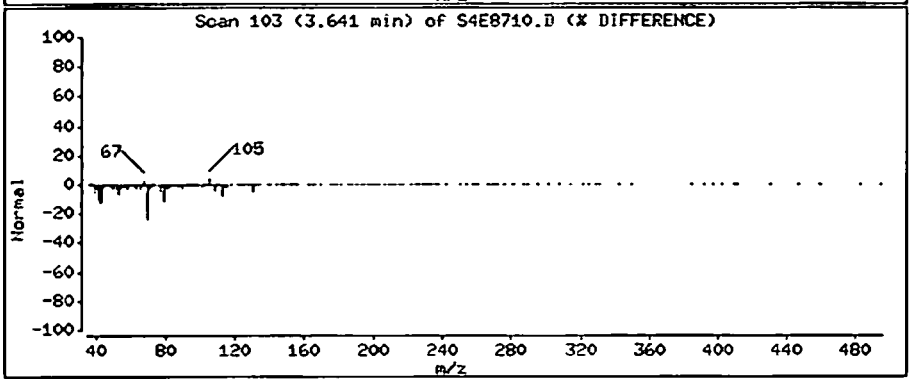
Column phase: RXI-5SILMS Column diameter: 0.25

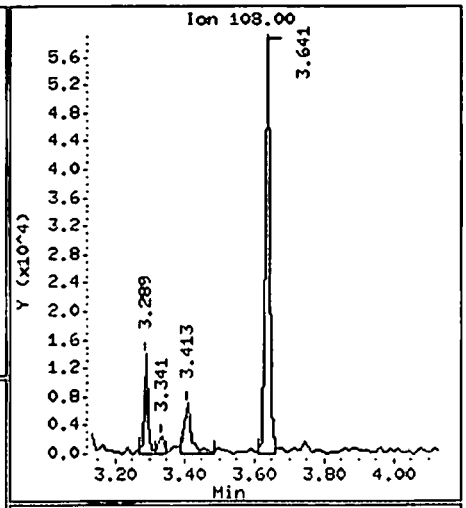
12 4-Methylphenol Concentration: 670 ug/Kg

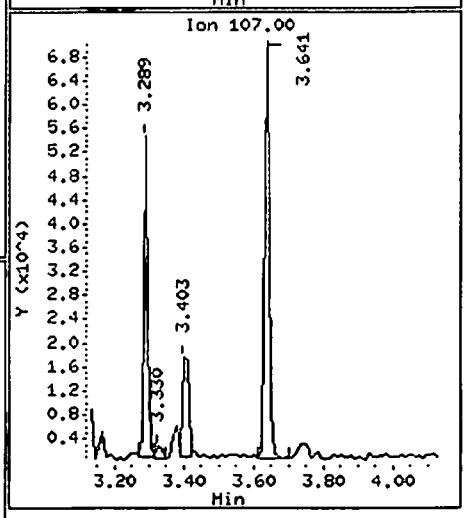












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

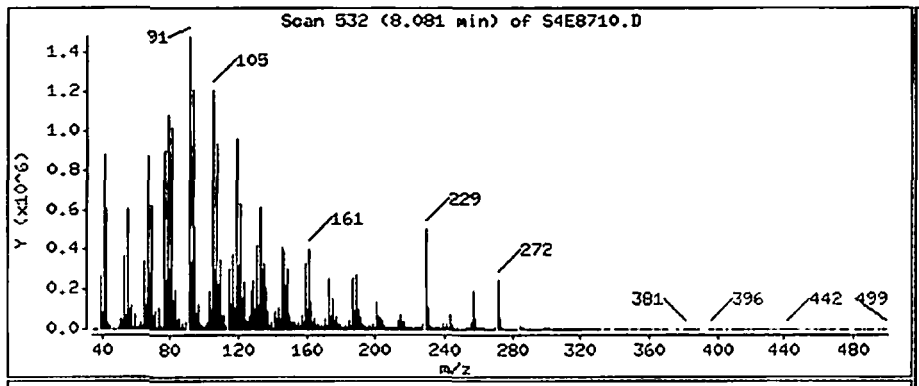
Client ID: H30R3 Instrument: S4.i

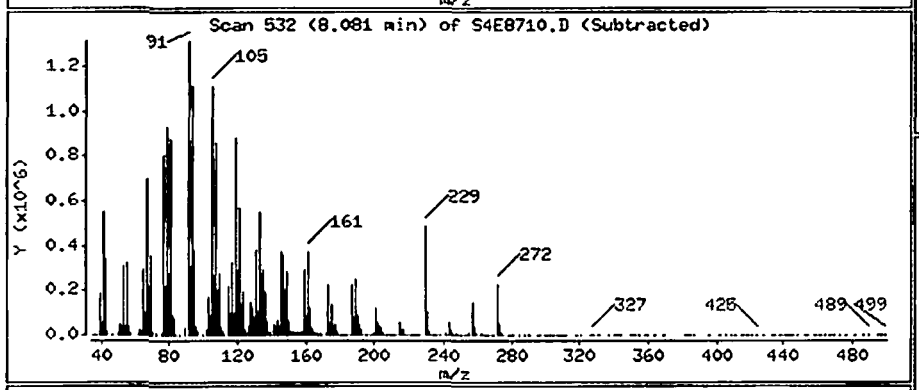
Sample Info: K2199-07A,,62801,,

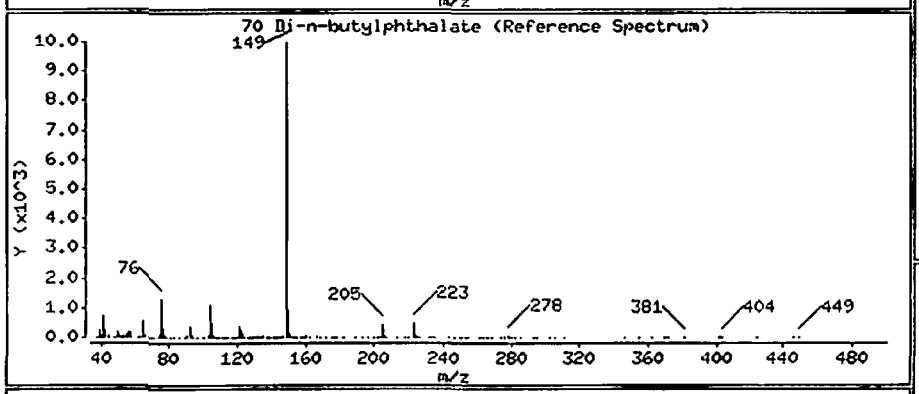
Volume Injected (uL): 2.0 Operator: HMS SRC: LIMS

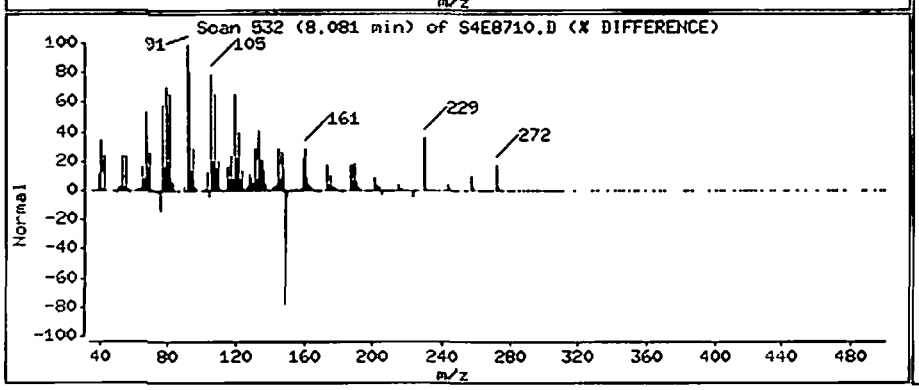
Column phase: RXI-5SILMS Column diameter: 0.25

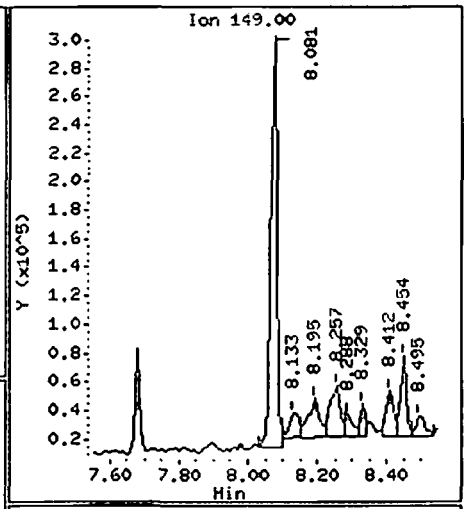
70 Di-n-butylphthalate Concentration: 540 ug/Kg

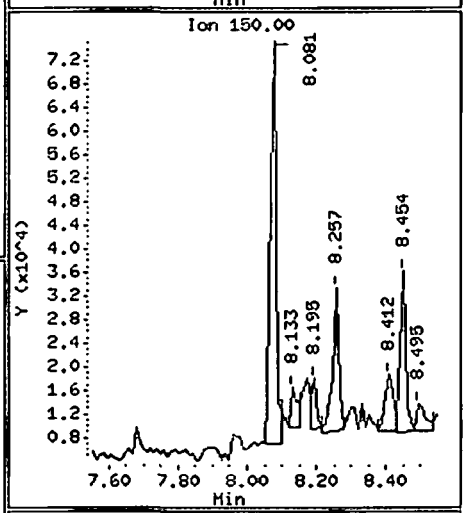


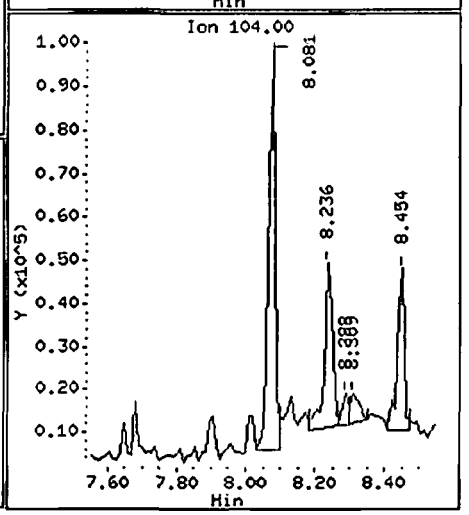












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

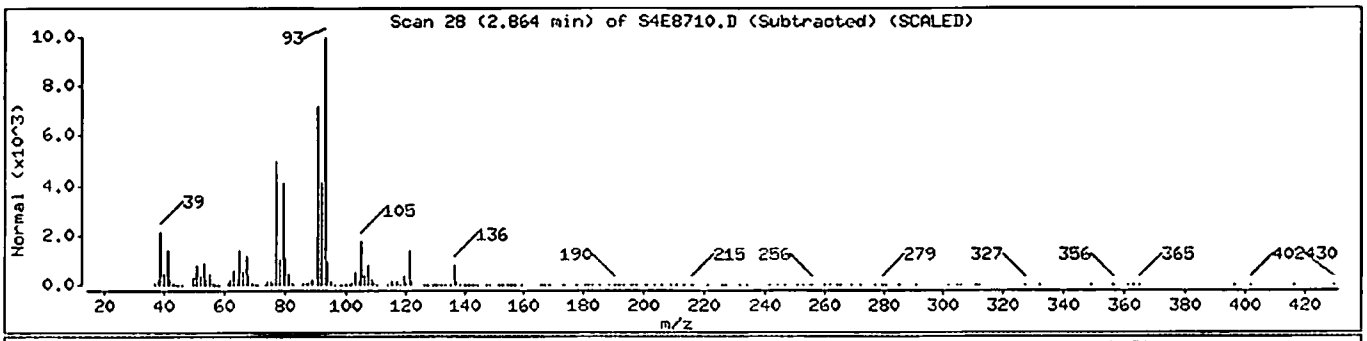
Client ID: H30R3 Instrument: S4.i

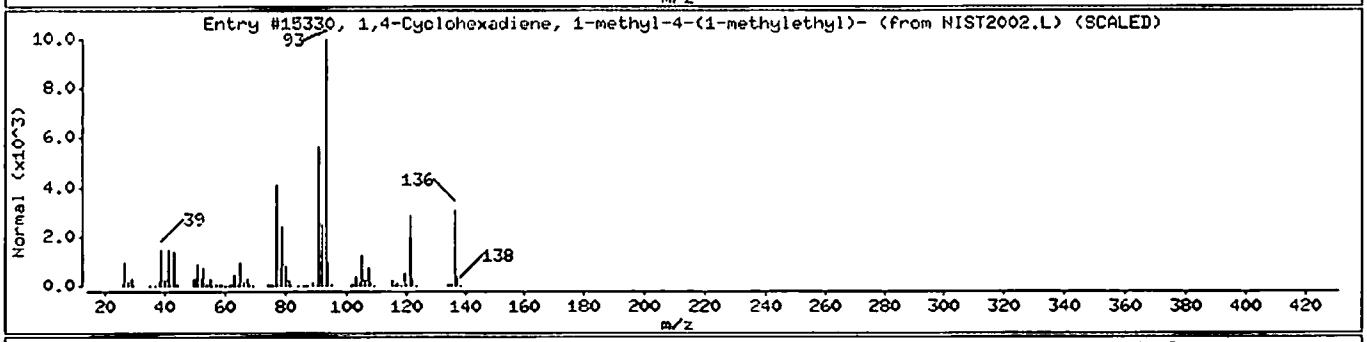
Sample Info: K2199-07A,,62801,,

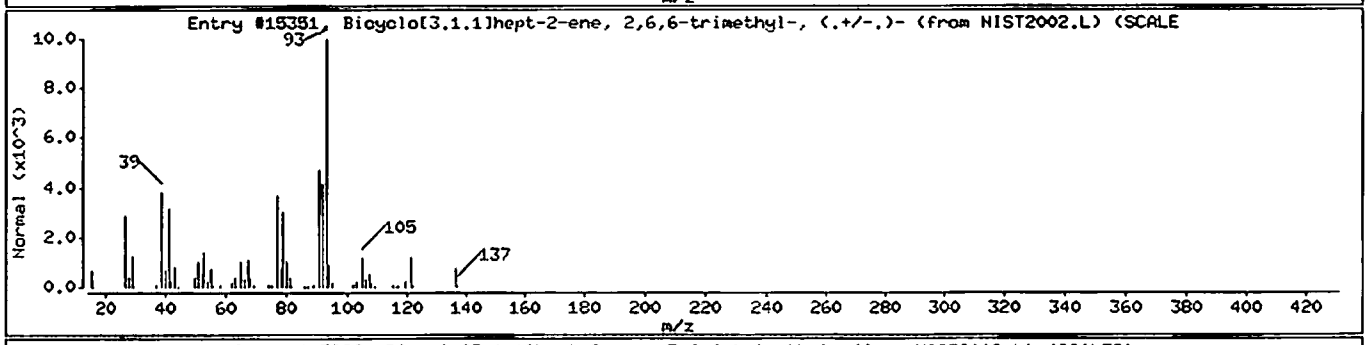
Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

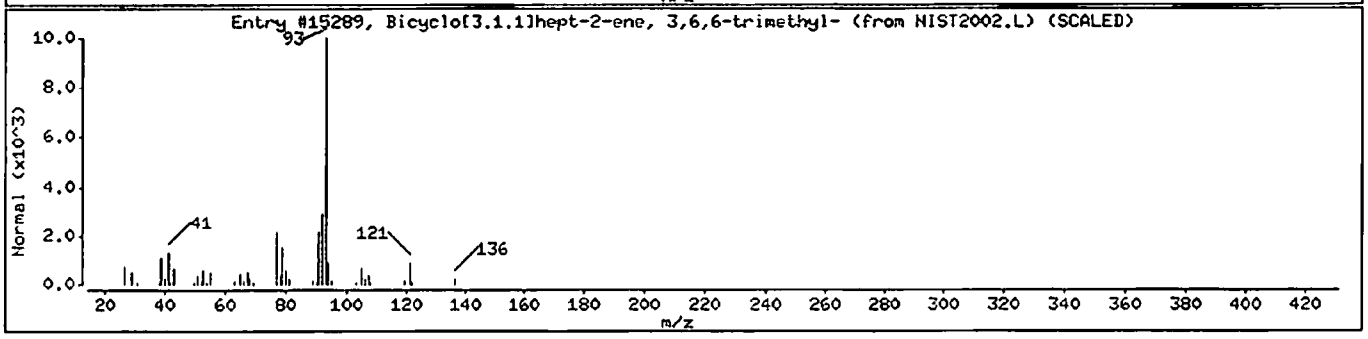
Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl	99-85-4	NIST2002.L	15330	94	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST2002.L	15351	94	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 3,6,6-trimethy	4889-83-2	NIST2002.L	15289	90	C10H16	136









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

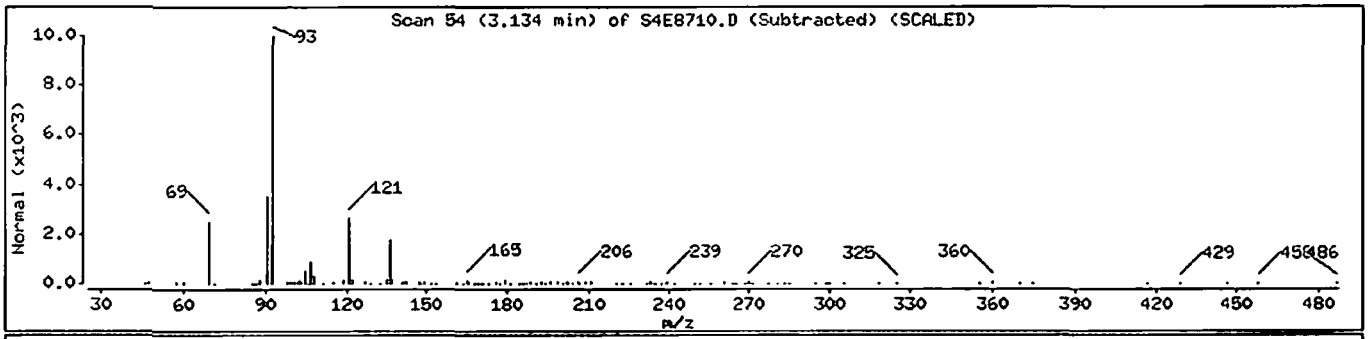
Client ID: H30R3 Instrument: S4.i

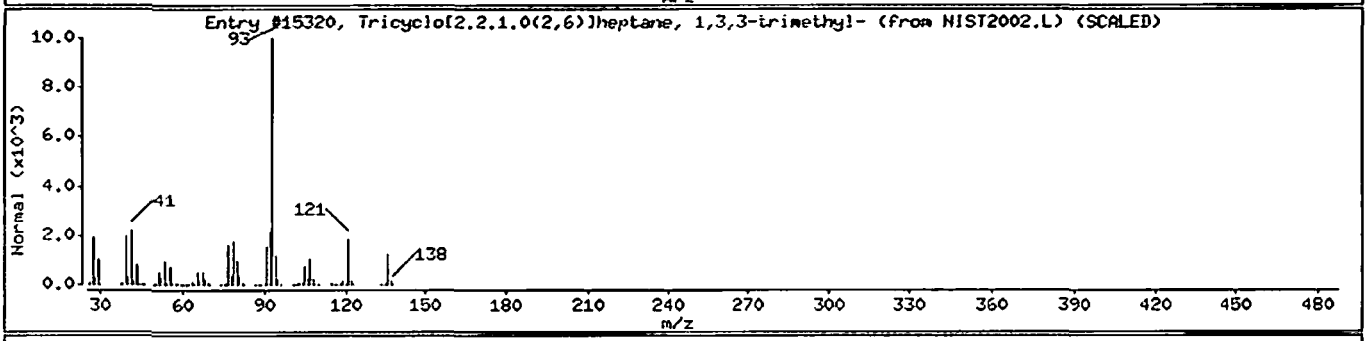
Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tricyclo[2.2.1.0(2,6)]heptane, 1,3,3-tri	488-97-1	NIST2002.L	15320	90	C10H16	136





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

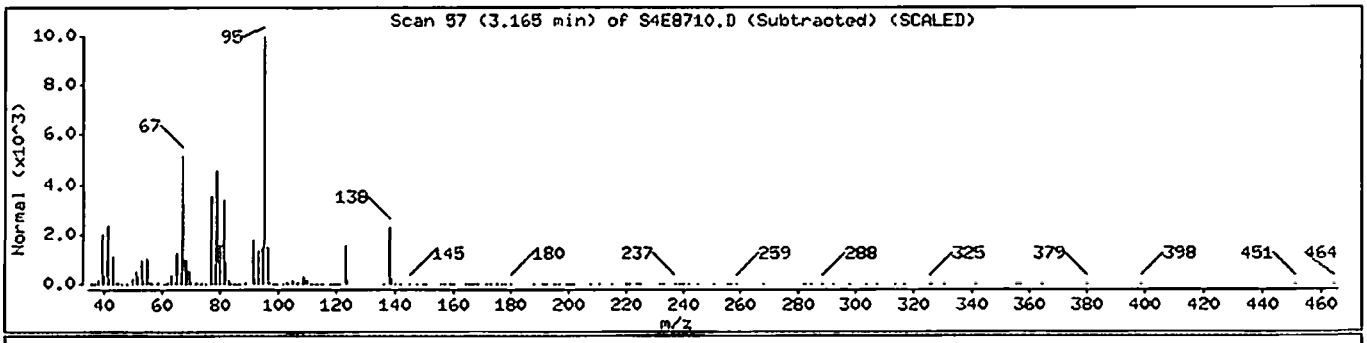
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

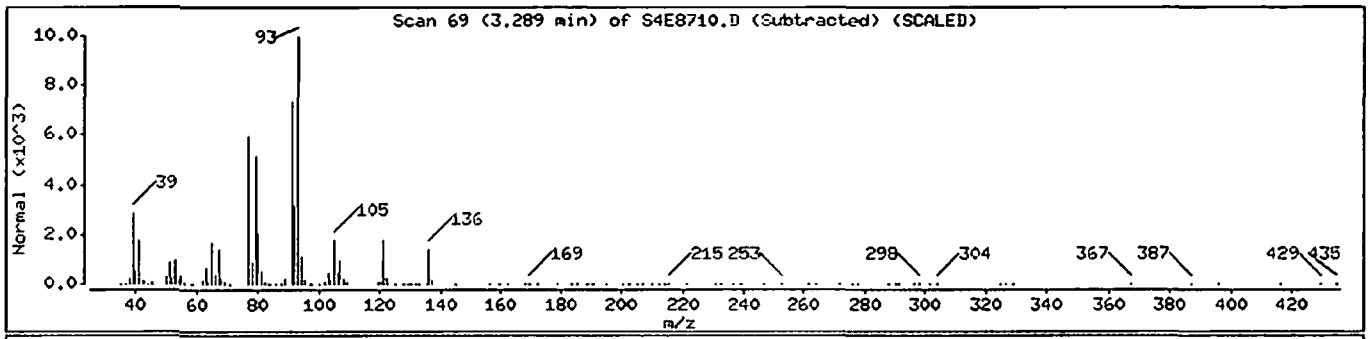
Client ID: H30R3 Instrument: S4.i

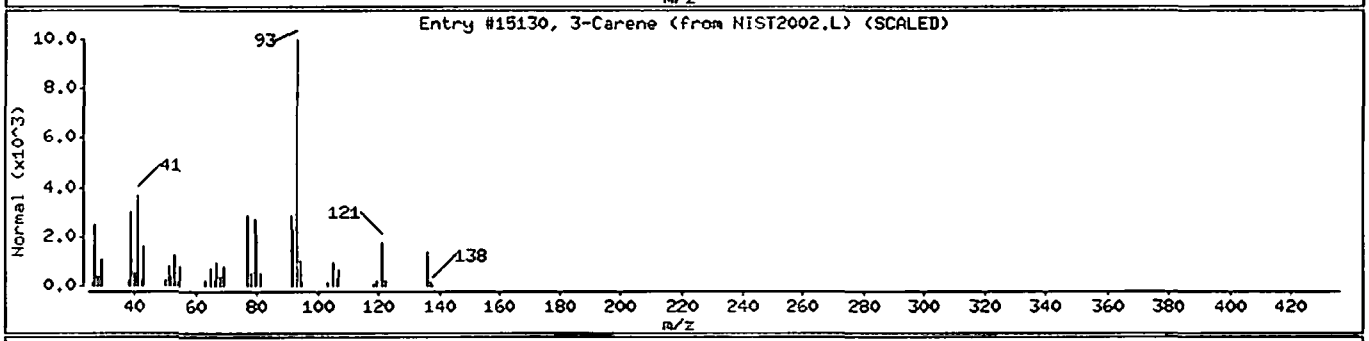
Sample Info: K2199-07A,,62801,,

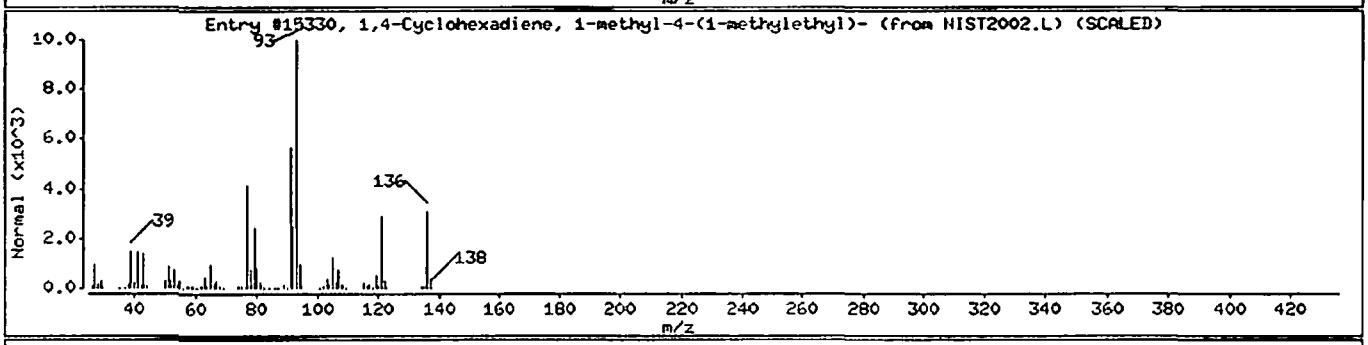
Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	NIST2002.L	15130	89	C10H16	136
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl	99-85-4	NIST2002.L	15330	87	C10H16	136







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

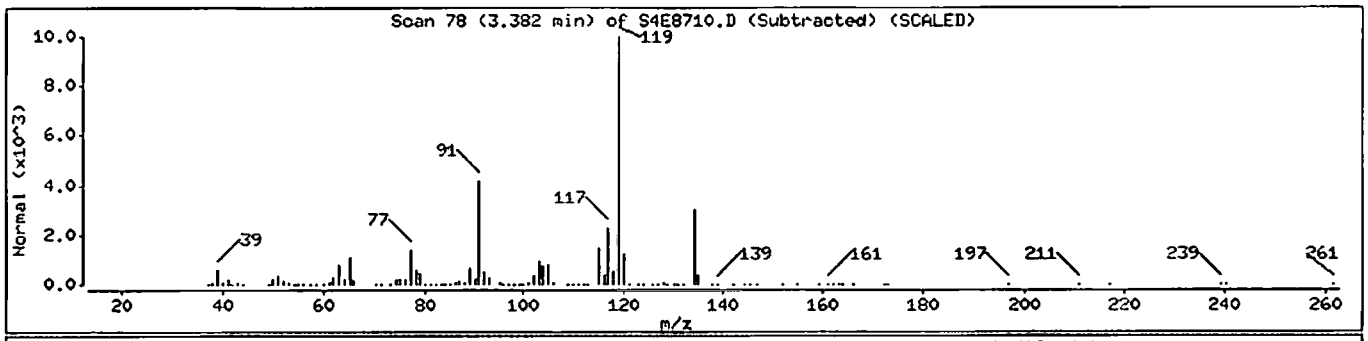
Client ID: H30R3 Instrument: S4.i

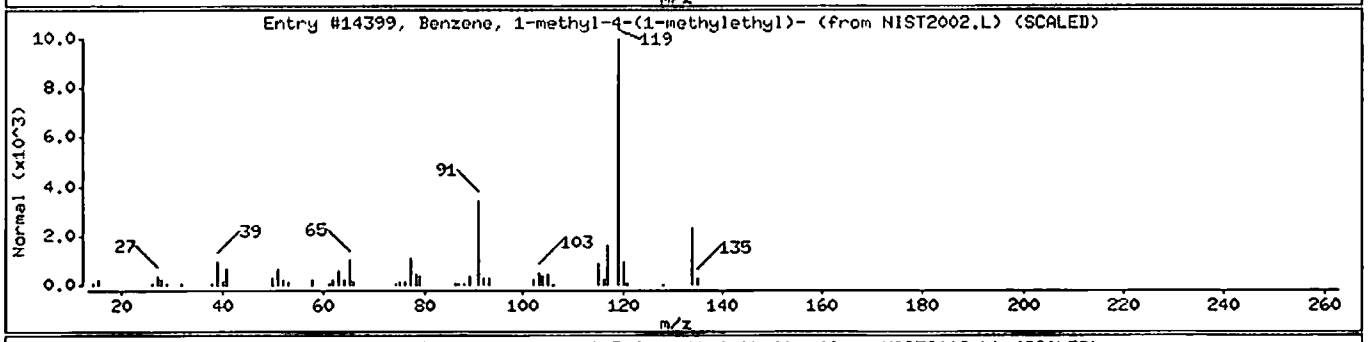
Sample Info: K2199-07A,,62801,,

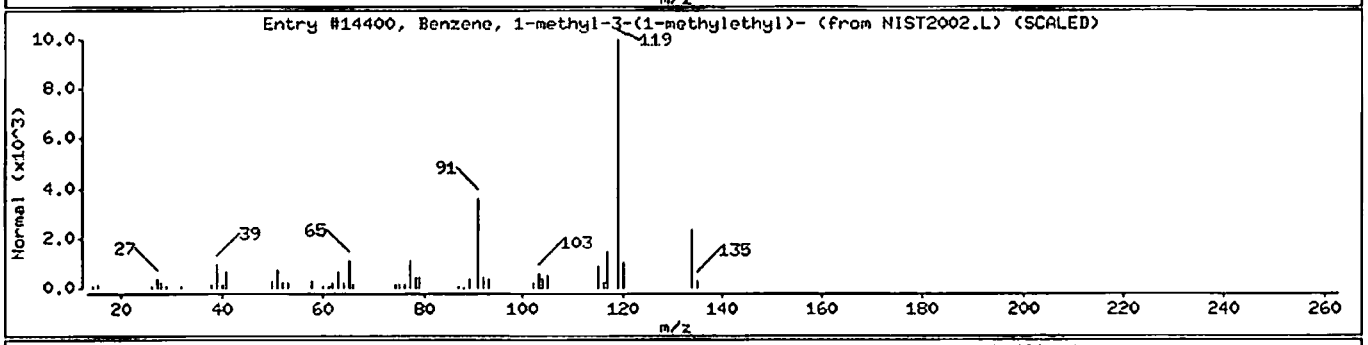
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

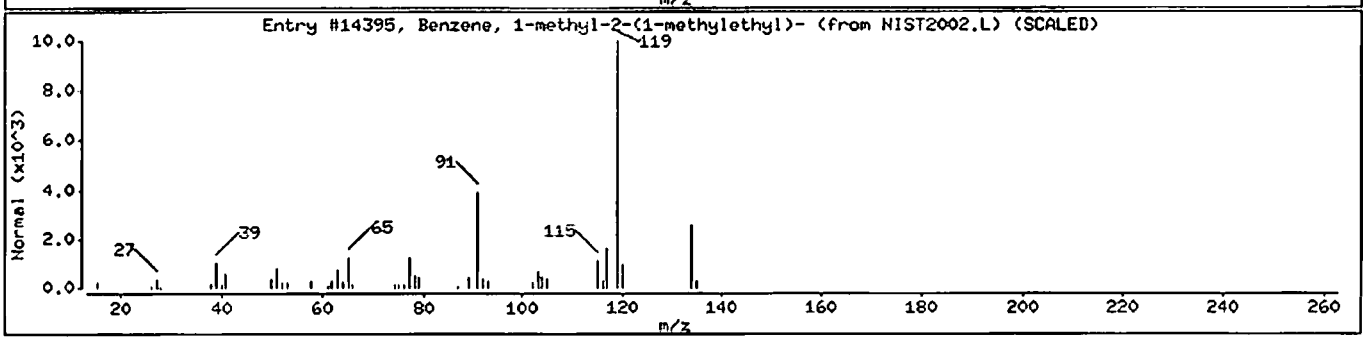
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	96	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	95	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	94	C10H14	134









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

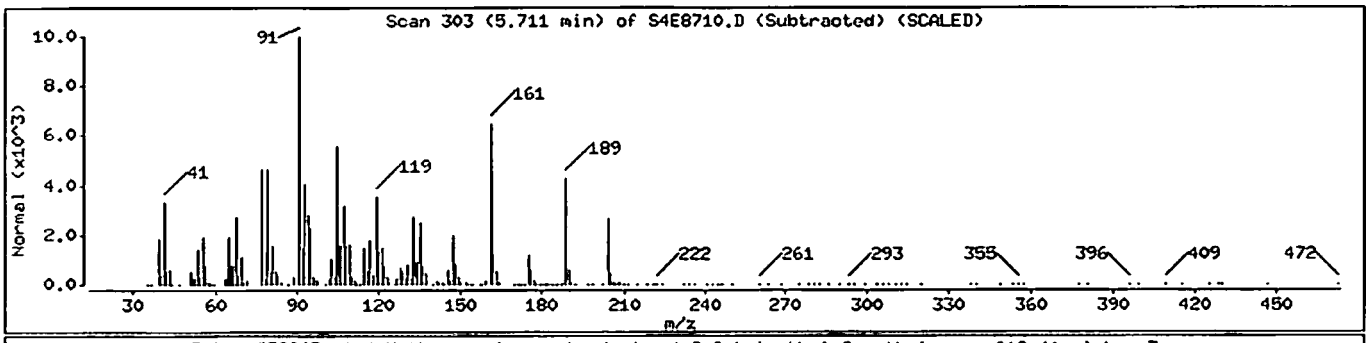
Client ID: H30R3 Instrument: S4.i

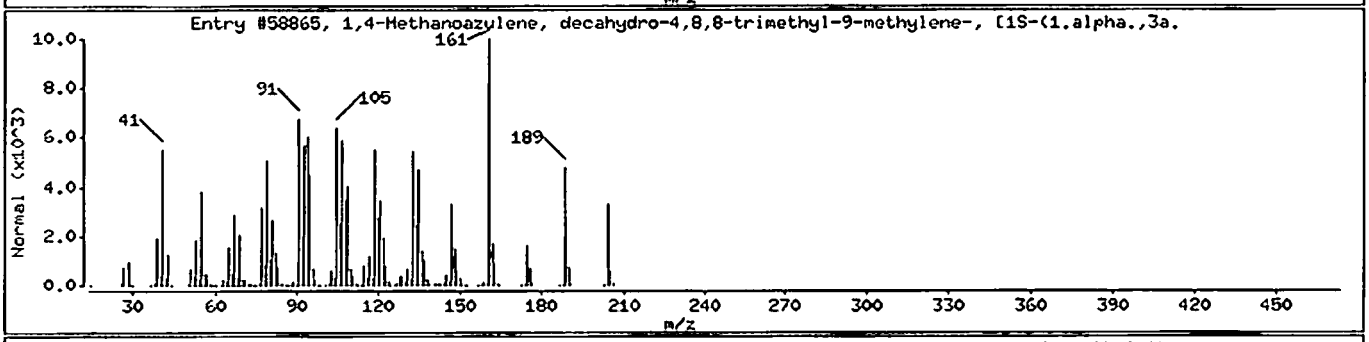
Sample Info: K2199-07A,,62801,,

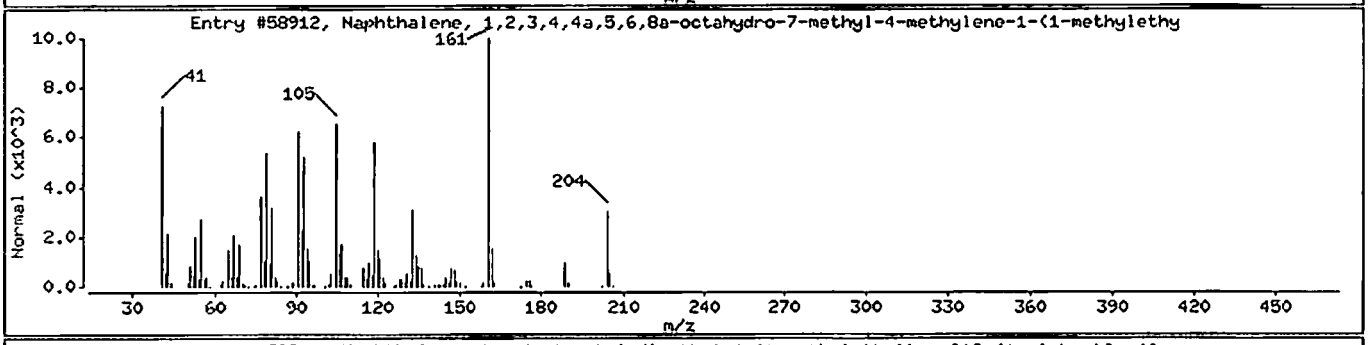
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

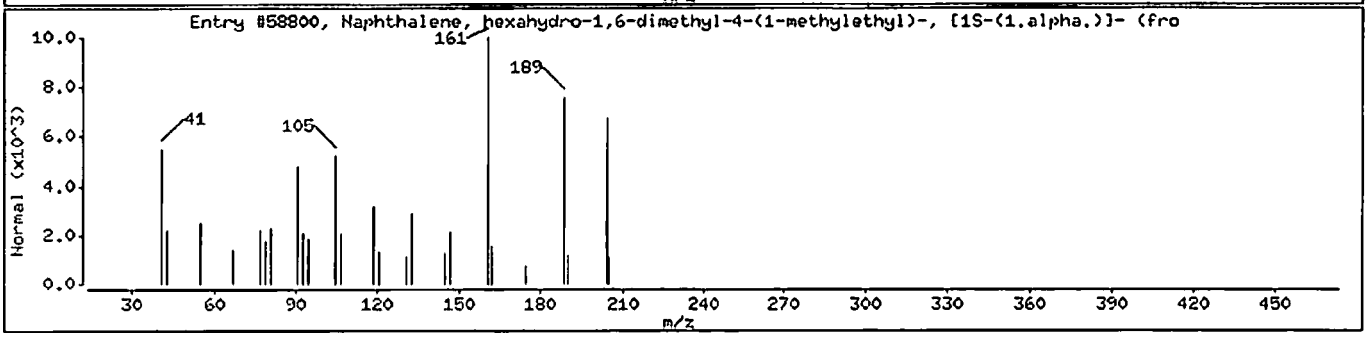
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58865	96	C15H24	204
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	30021-74-0	NIST2002.L	58912	95	C15H24	204
Naphthalene, hexahydro-1,6-dimethyl-4-(1	29837-12-5	NIST2002.L	58800	93	C15H24	204









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

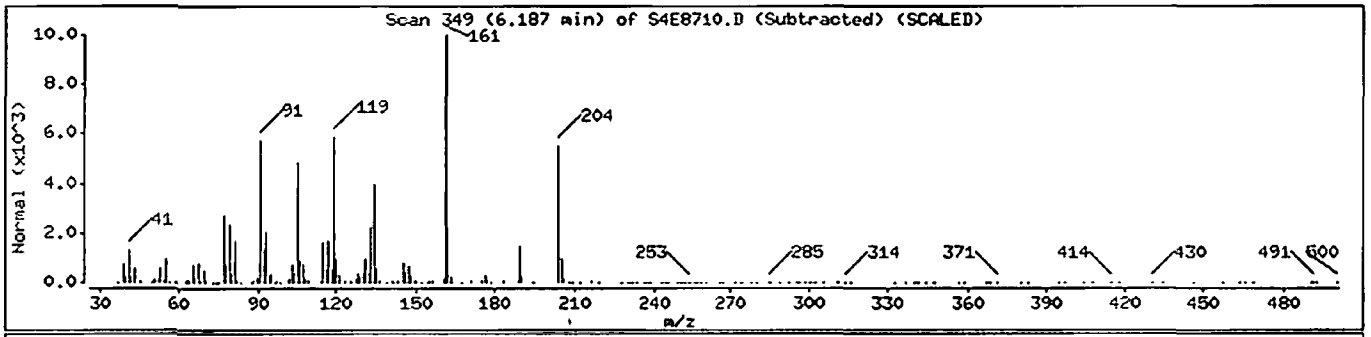
Client ID: H30R3 Instrument: S4.i

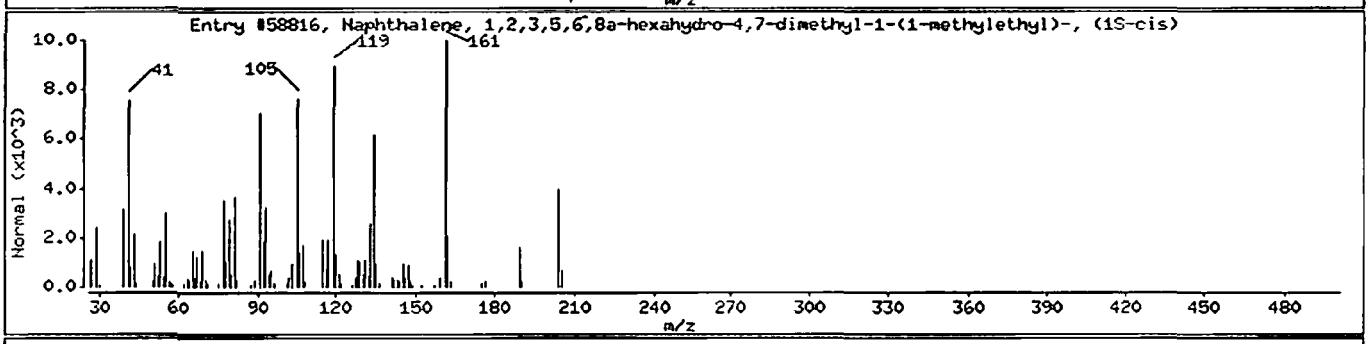
Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-	483-76-1	NIST2002.L	58816	93	C15H24	204





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

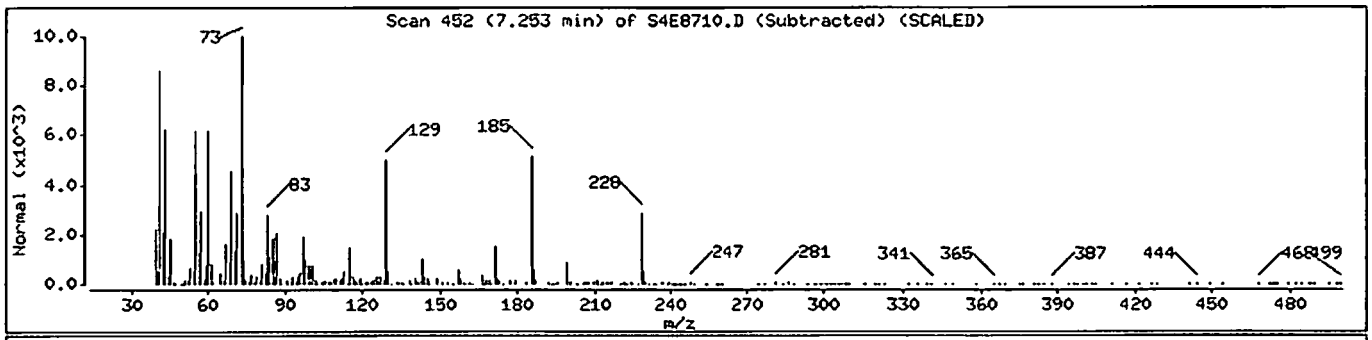
Client ID: H30R3 Instrument: S4.i

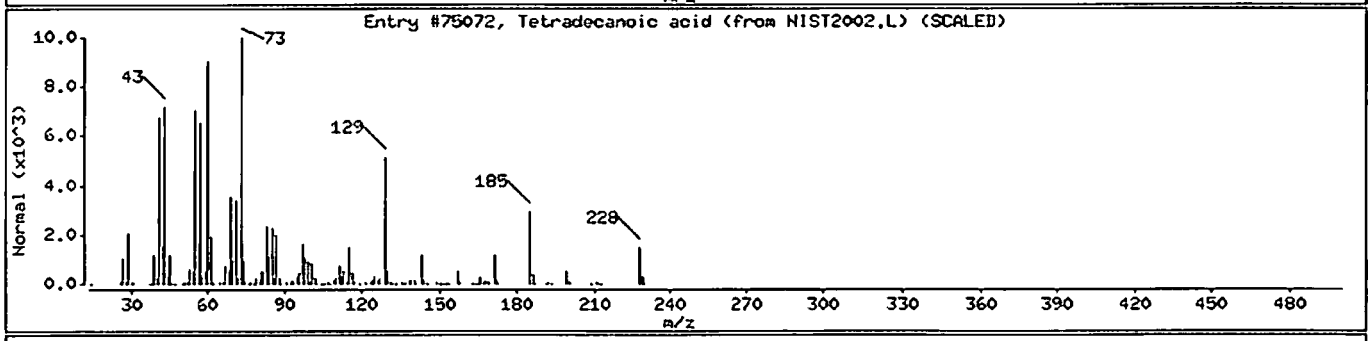
Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetradecanoic acid	544-63-8	NIST2002.L	75072	95	C14H28O2	228





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

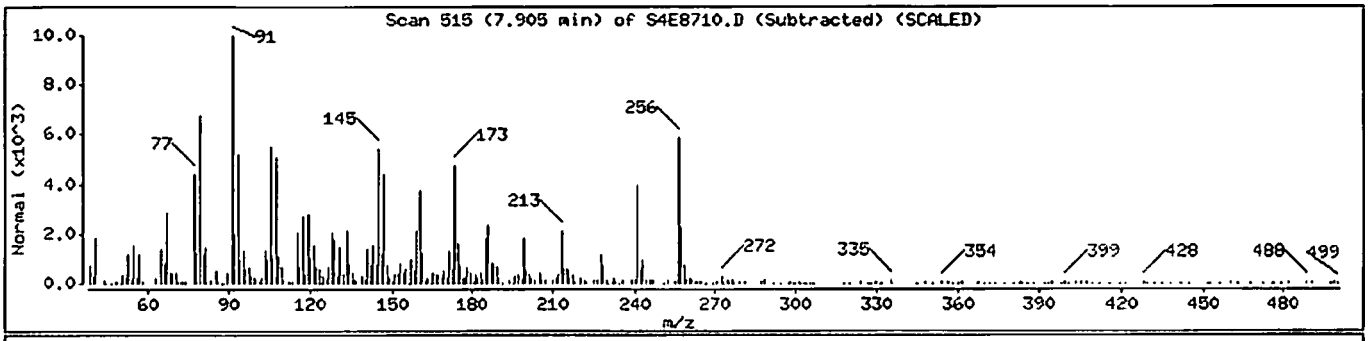
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

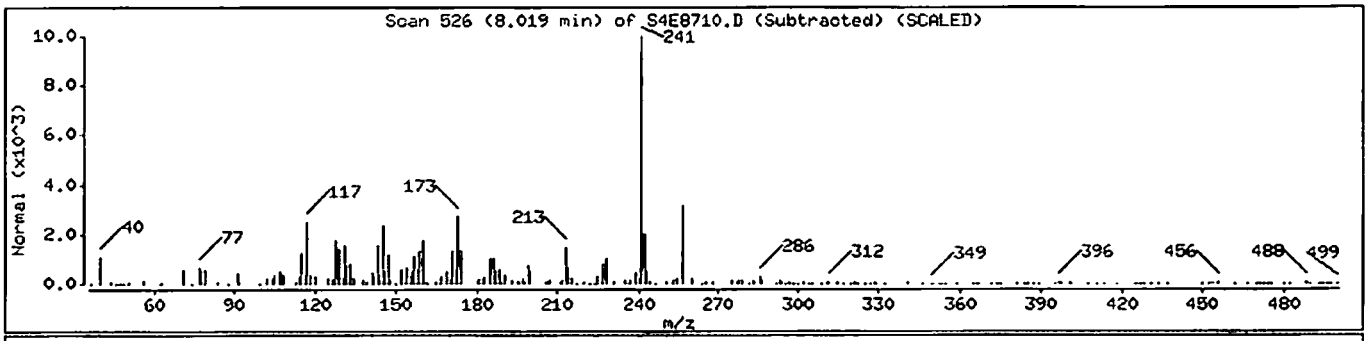
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

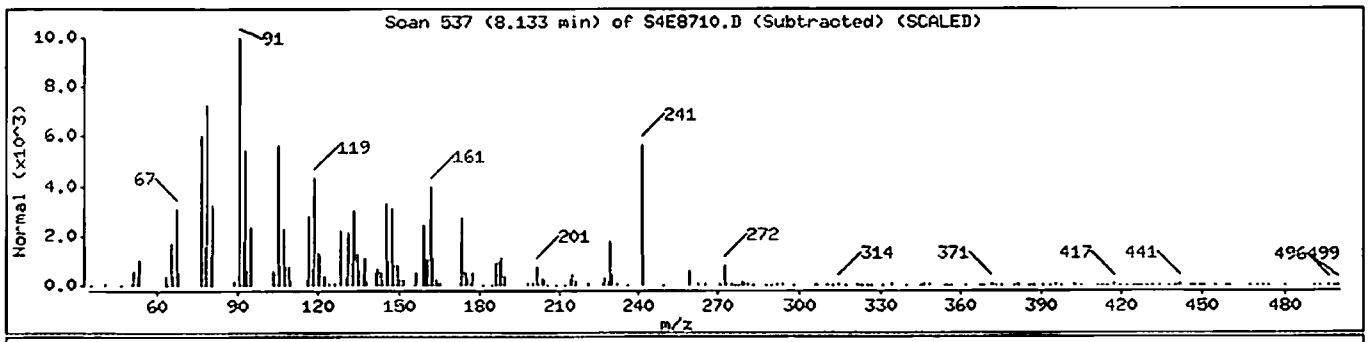
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

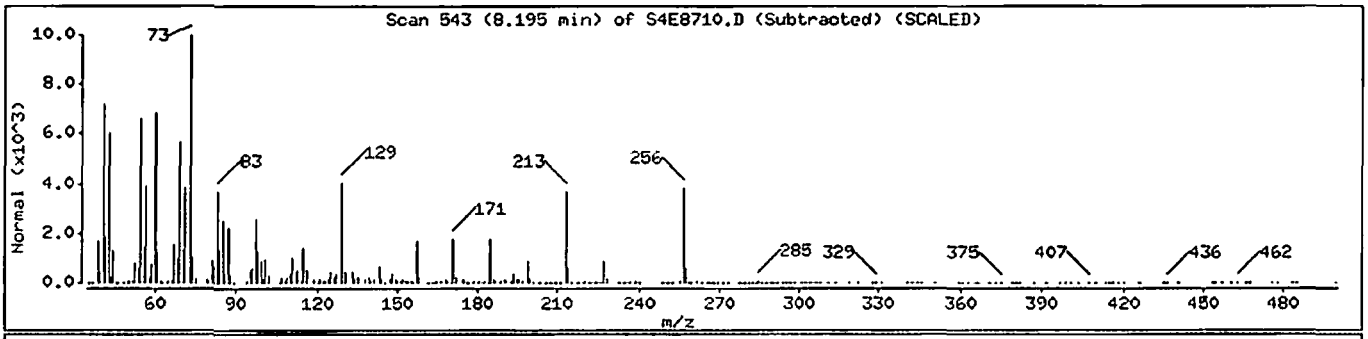
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

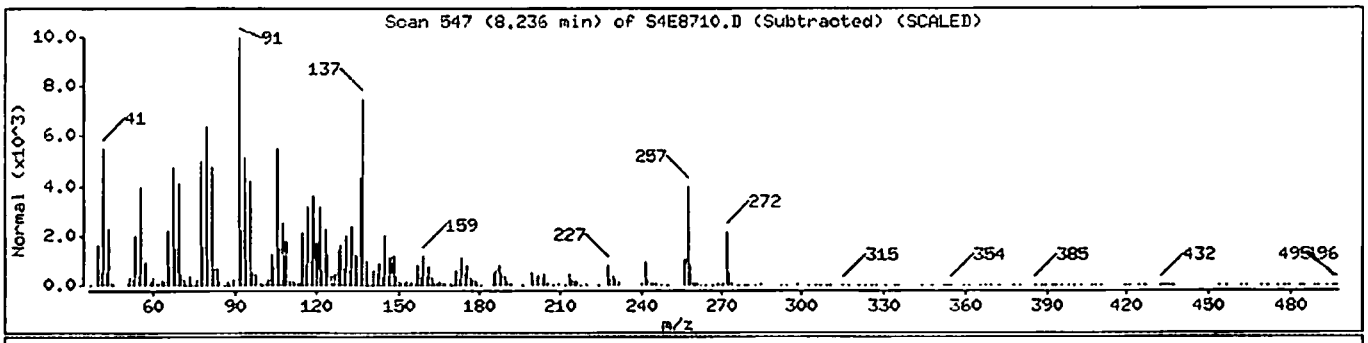
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

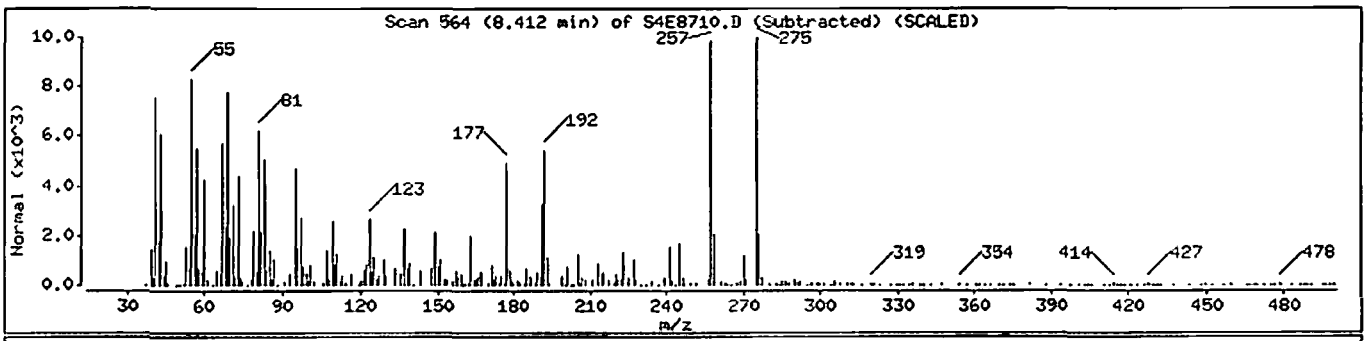
Client ID: H30R3 Instrument: S4.i

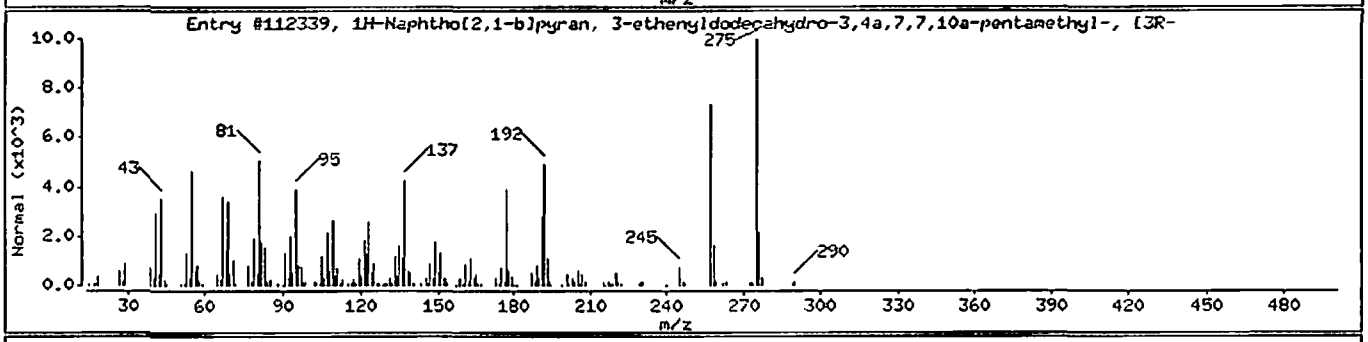
Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1H-Naphtho[2,1-b]pyran, 3-ethenyldodecah	596-84-9	NIST2002.L	112339	93	C20H34O	290





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

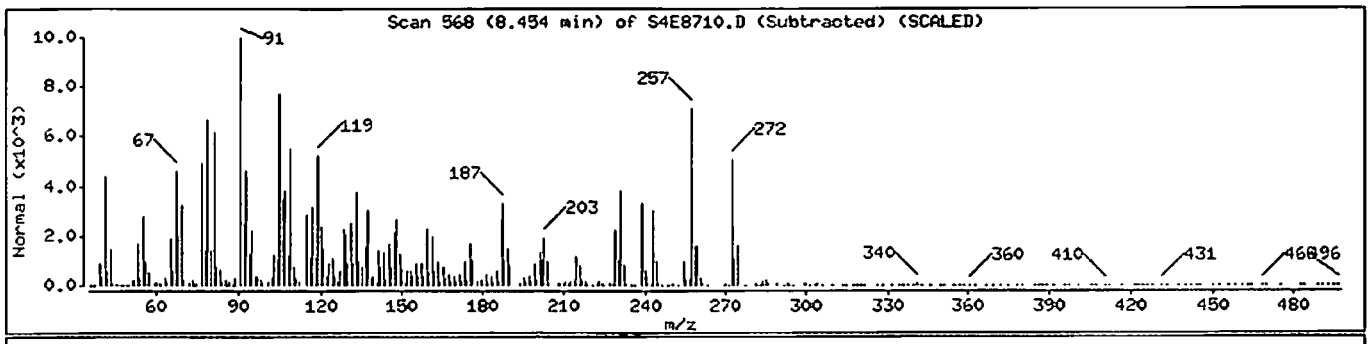
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

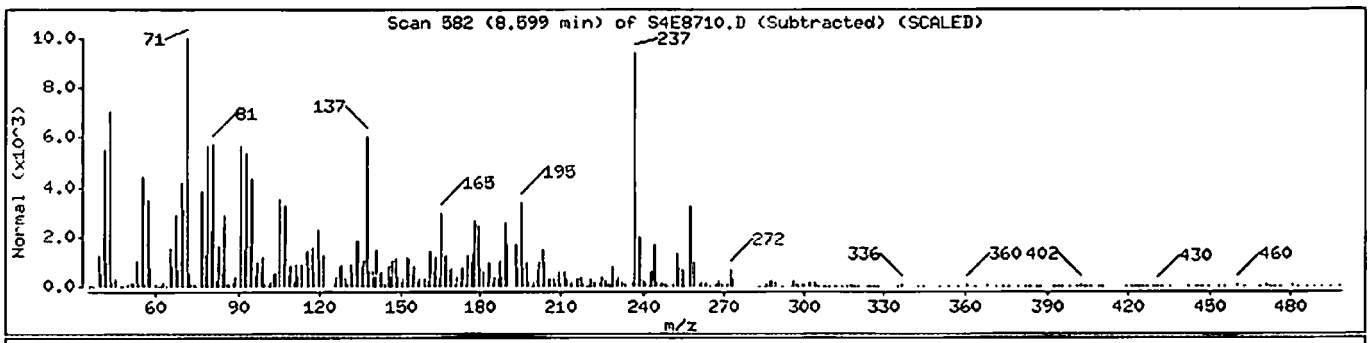
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

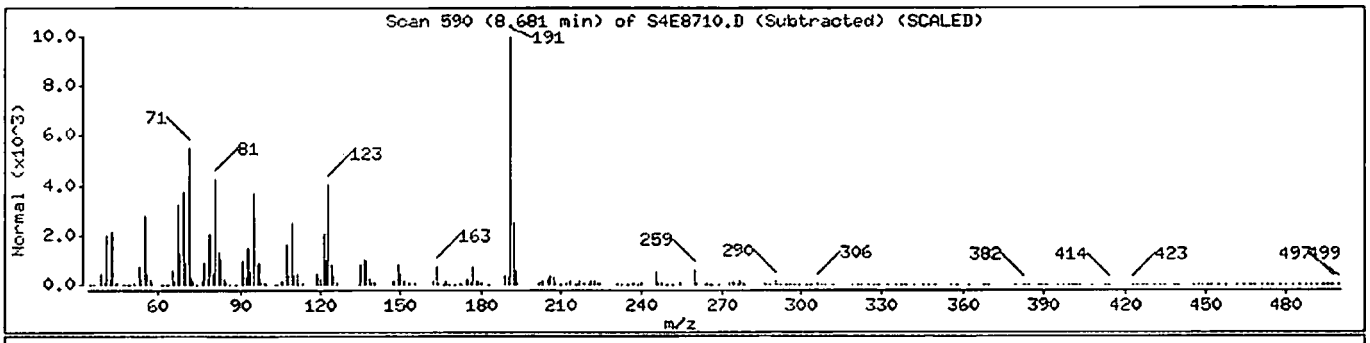
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

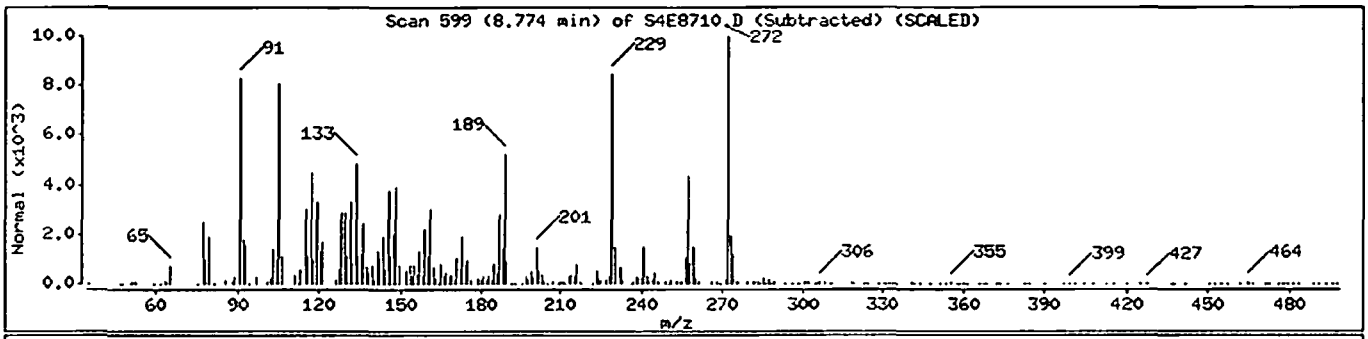
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

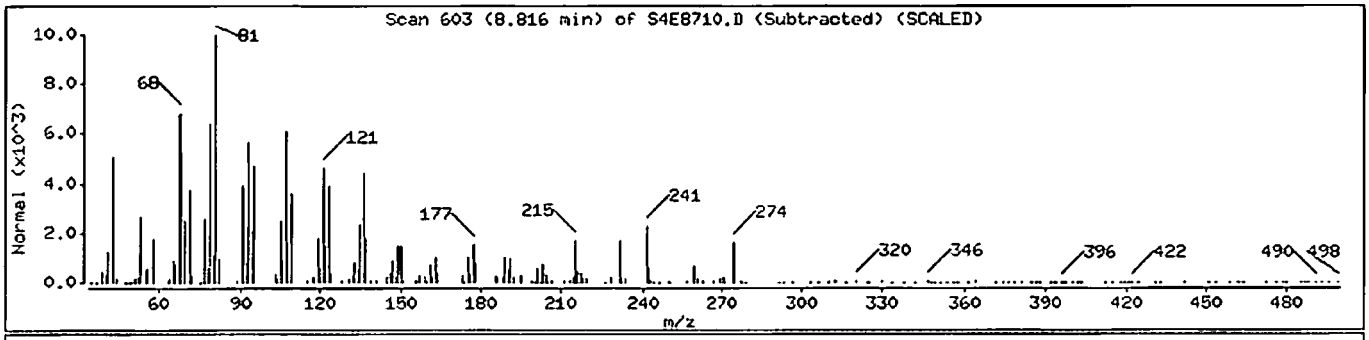
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

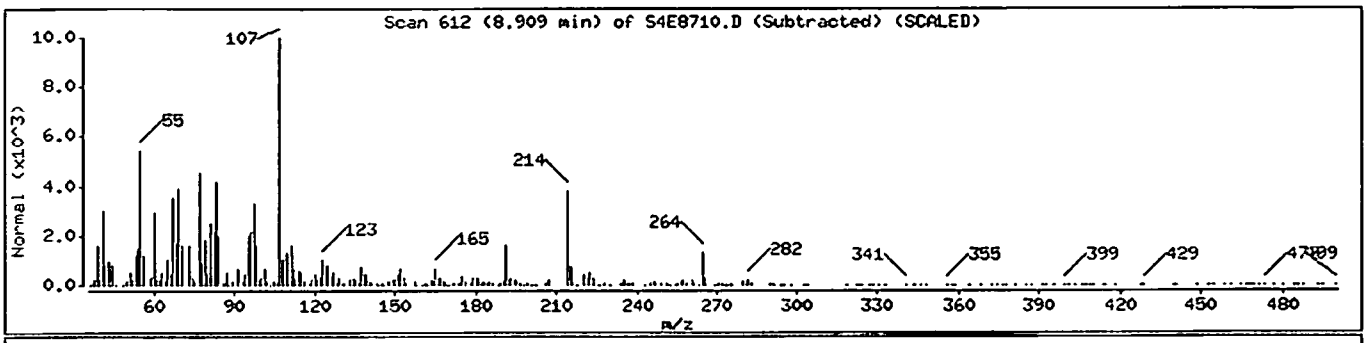
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

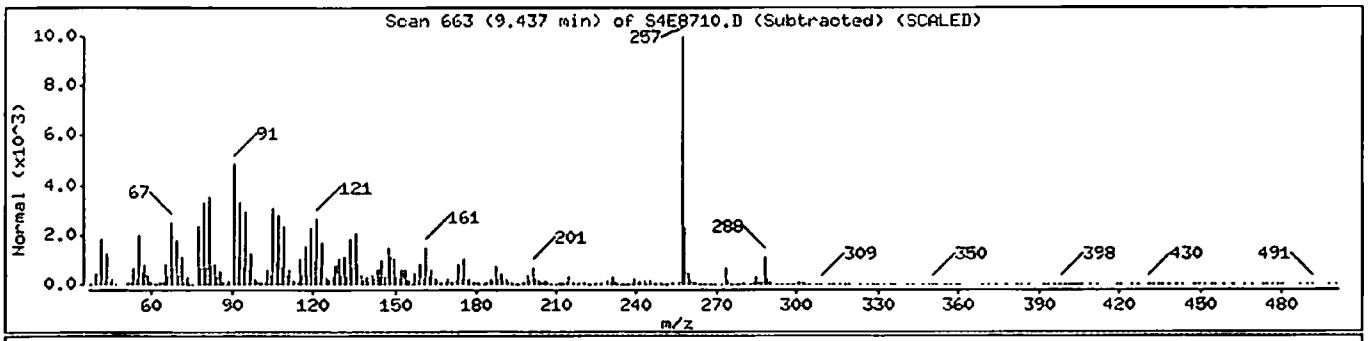
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

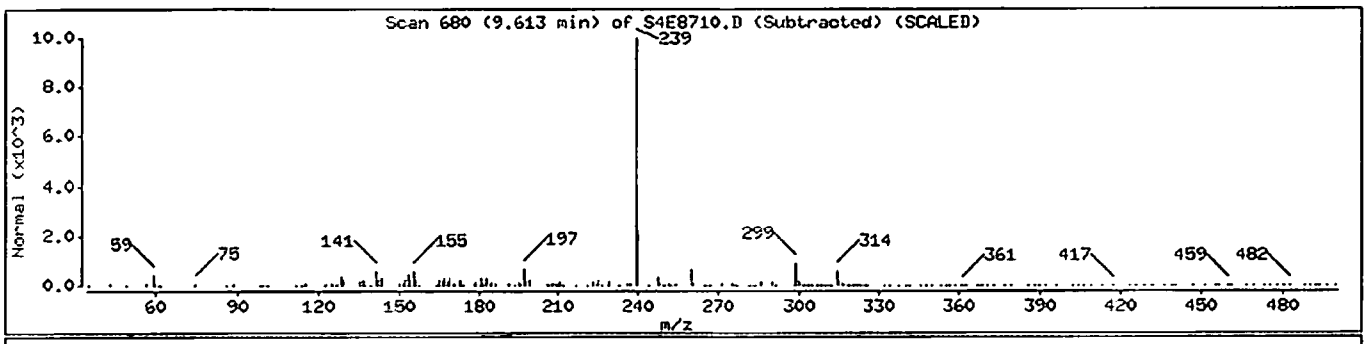
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

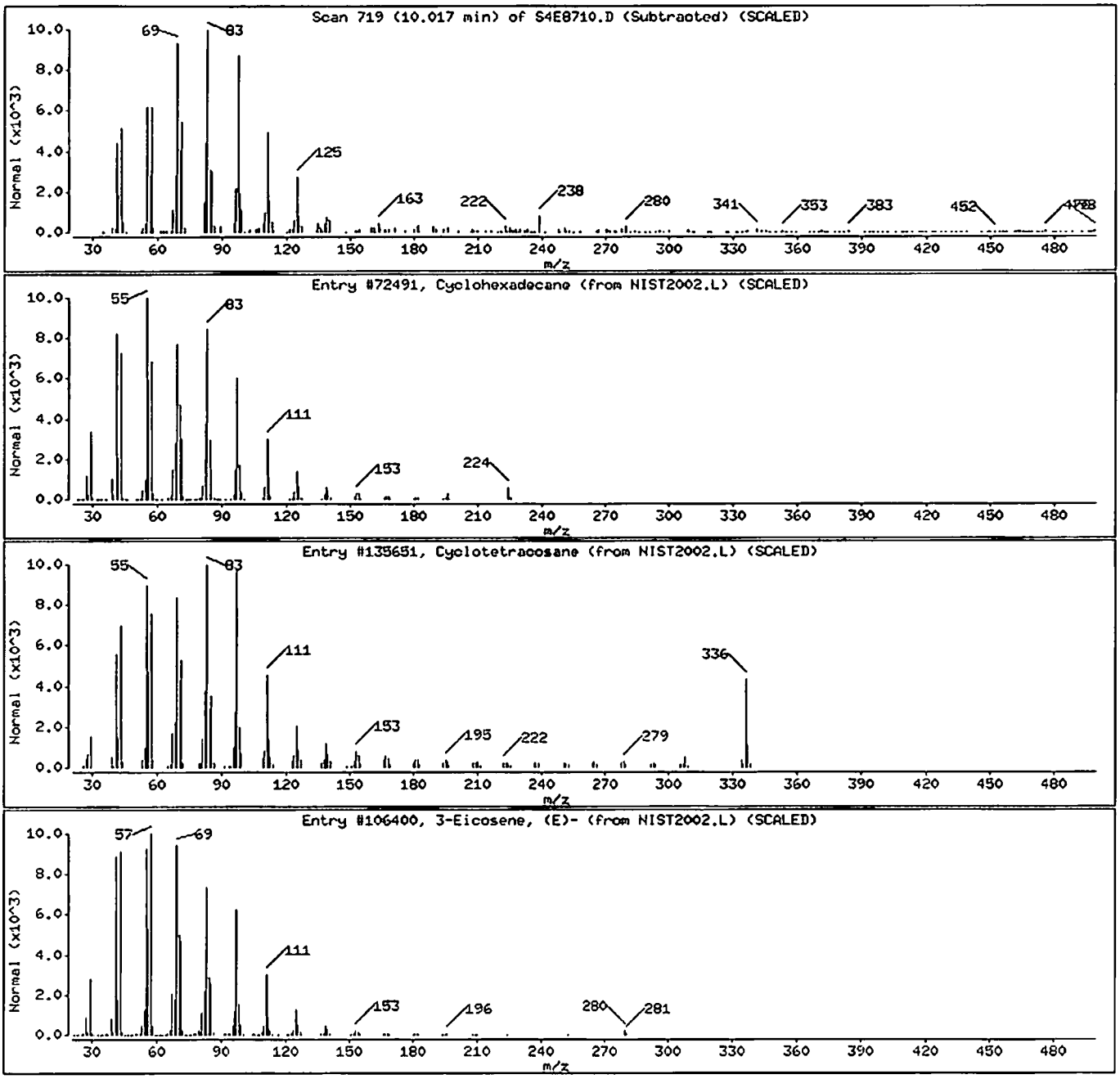
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclic Alkane						
Cyclohexadecane	295-65-8	NIST2002.L	72491	96	C16H32	224
Cyclotetracosane	297-03-0	NIST2002.L	135651	94	C24H48	336
3-Eicosene, (E)-	74685-33-9	NIST2002.L	106400	91	C20H40	280



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

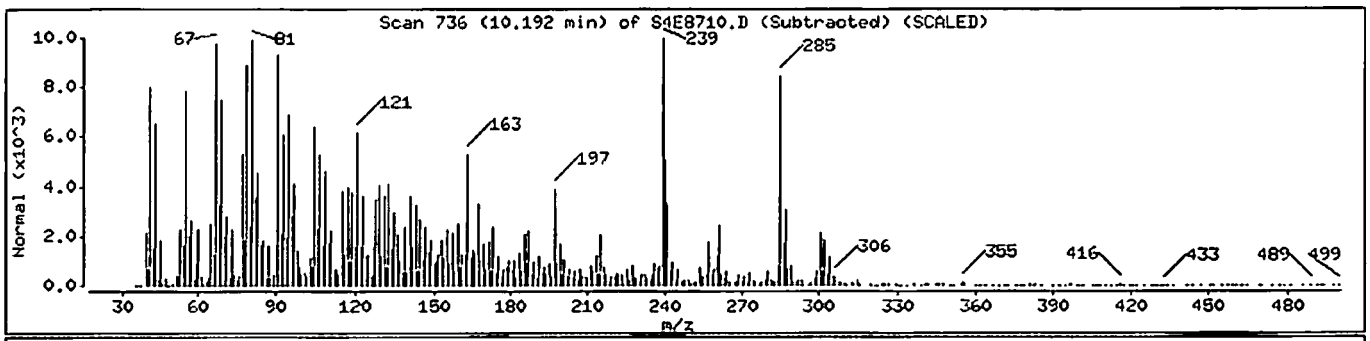
Client ID: H30R3 Instrument: S4.i

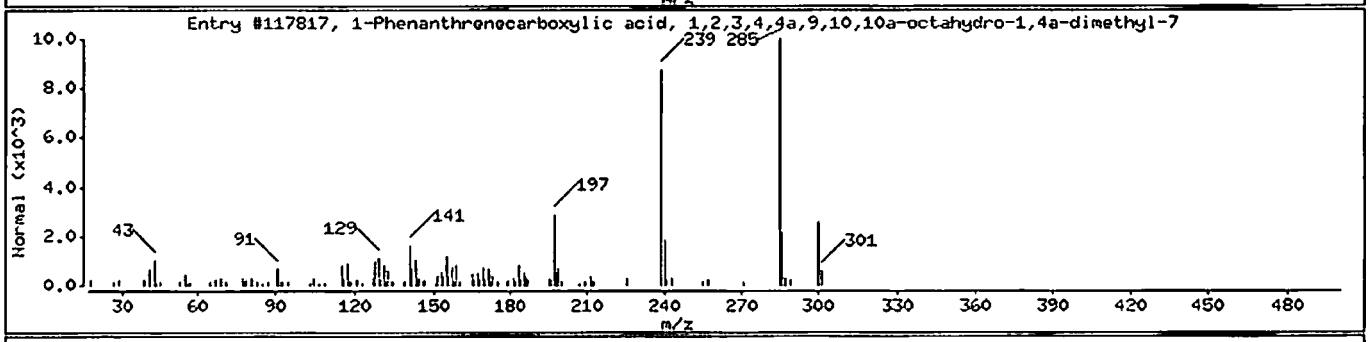
Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST2002.L	117817	99	C20H28O2	300





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

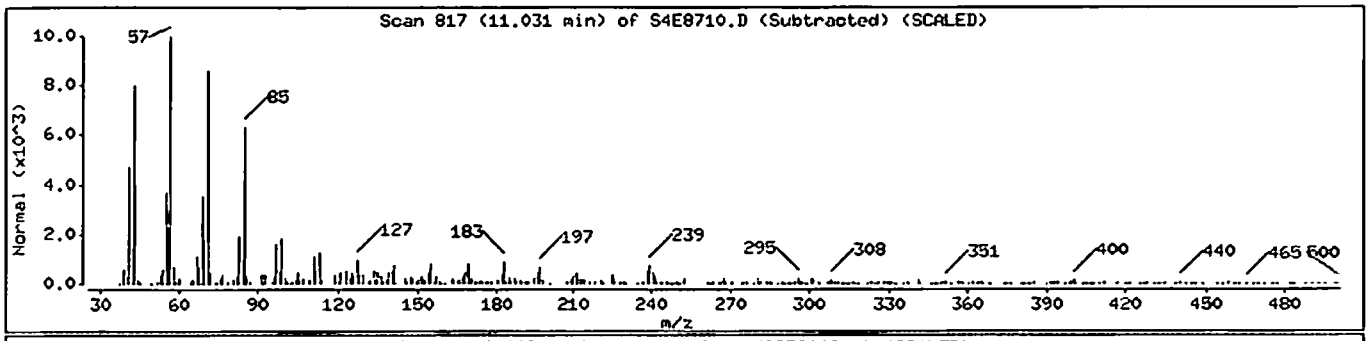
Client ID: H30R3 Instrument: S4.i

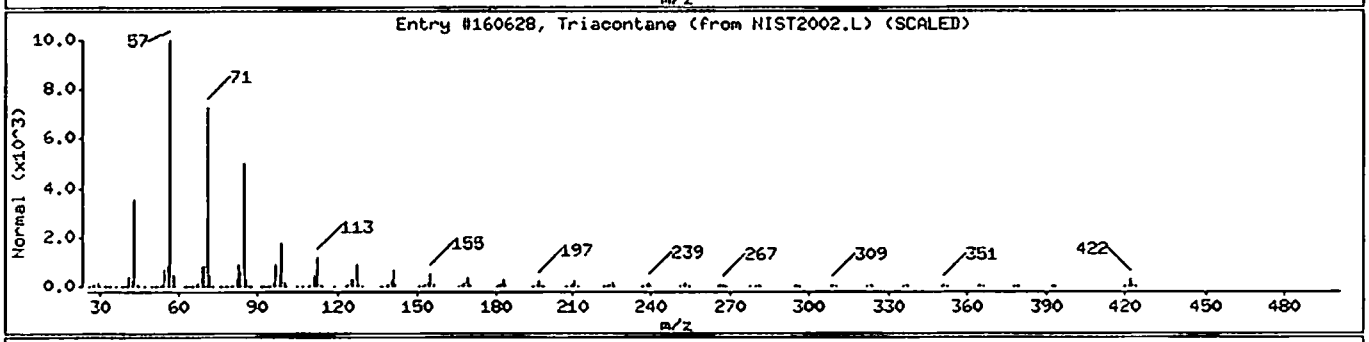
Sample Info: K2199-07A,,62801,,

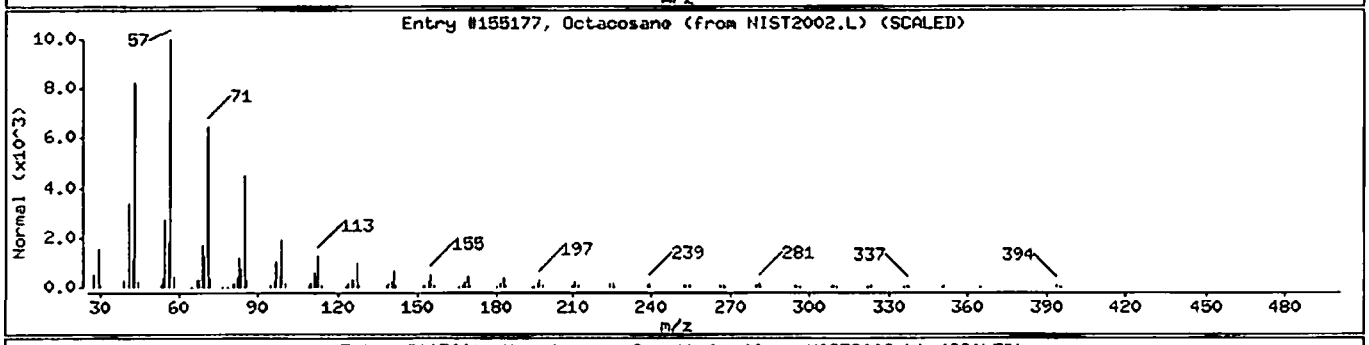
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

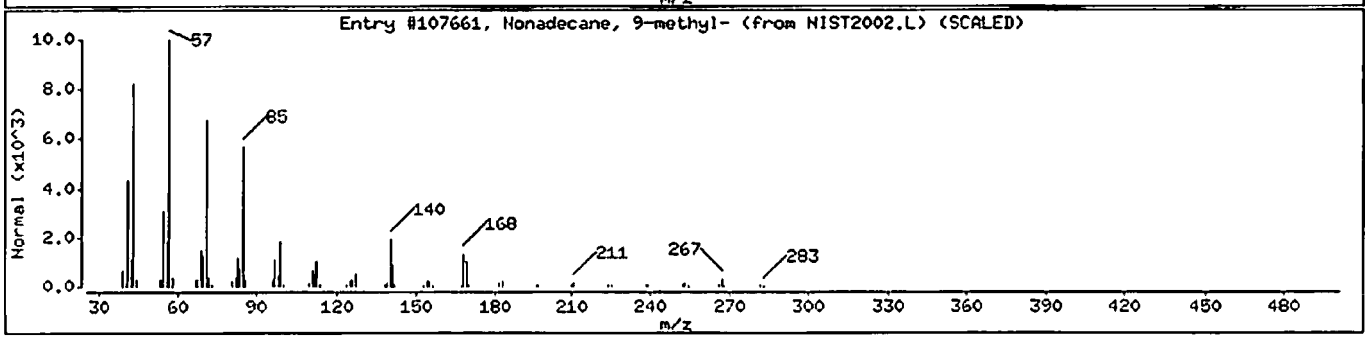
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Triacontane	638-68-6	NIST2002.L	160628	96	C30H62	422
Octacosane	630-02-4	NIST2002.L	155177	94	C28H58	394
Nonadecane, 9-methyl-	13287-24-6	NIST2002.L	107661	93	C20H42	282









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

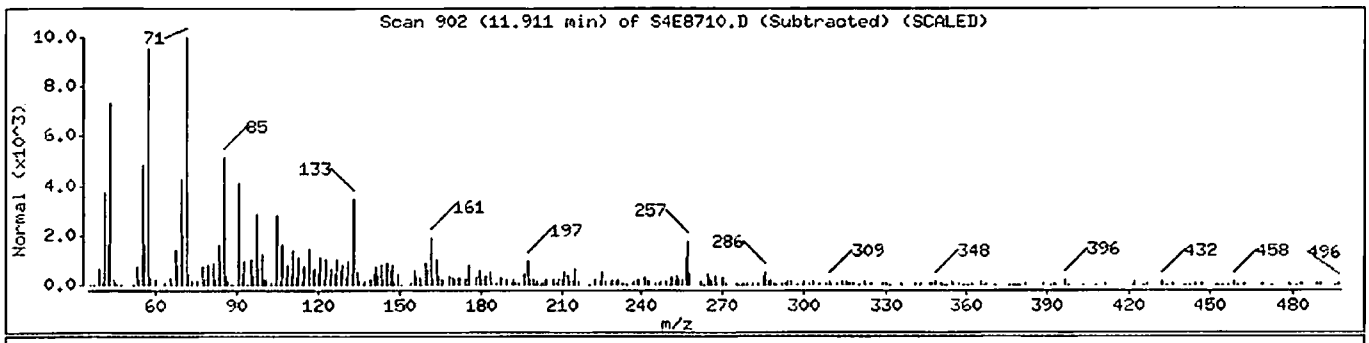
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

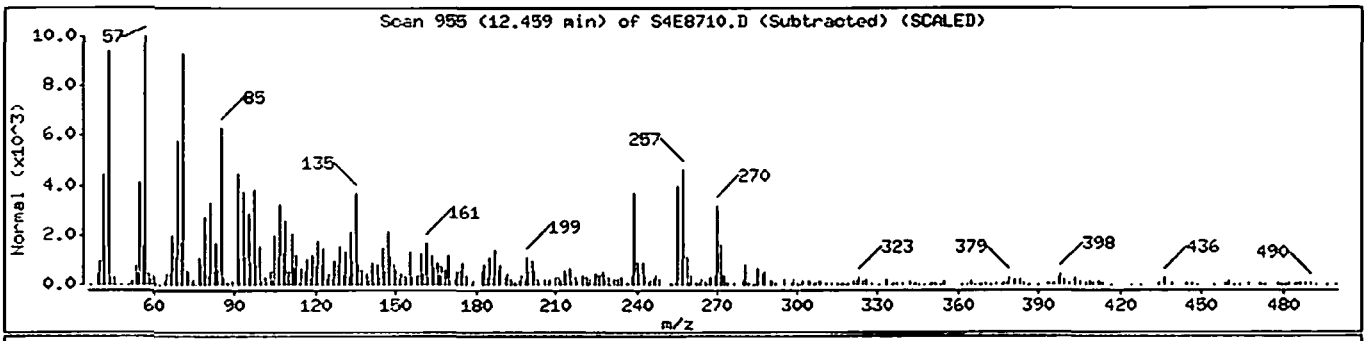
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.D\S4E8710.D

Date : 14-NOV-2011 17:43

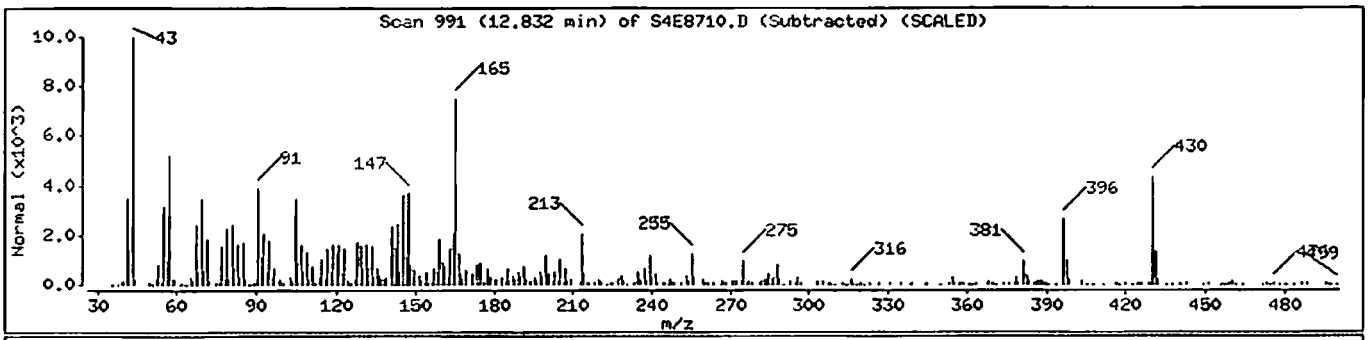
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Vitamin E	59-02-9	NIST2002.L	161945	90	C29H50O2	430



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

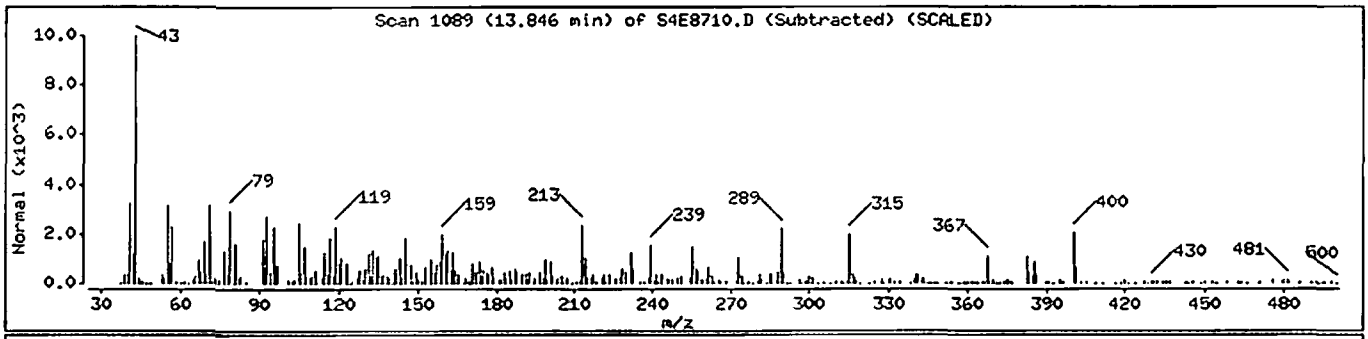
Client ID: H30R3 Instrument: S4.i

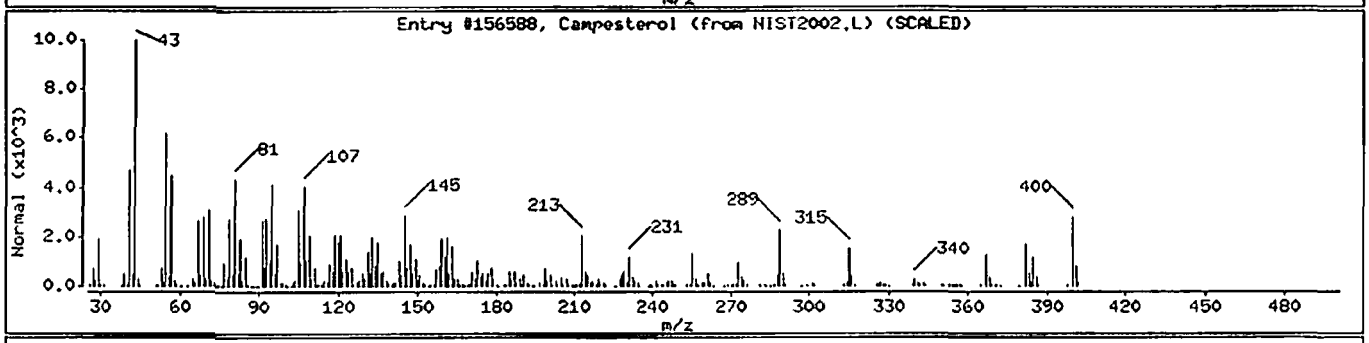
Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Campesterol	474-62-4	NIST2002.L	156588	90	C28H48O	400





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

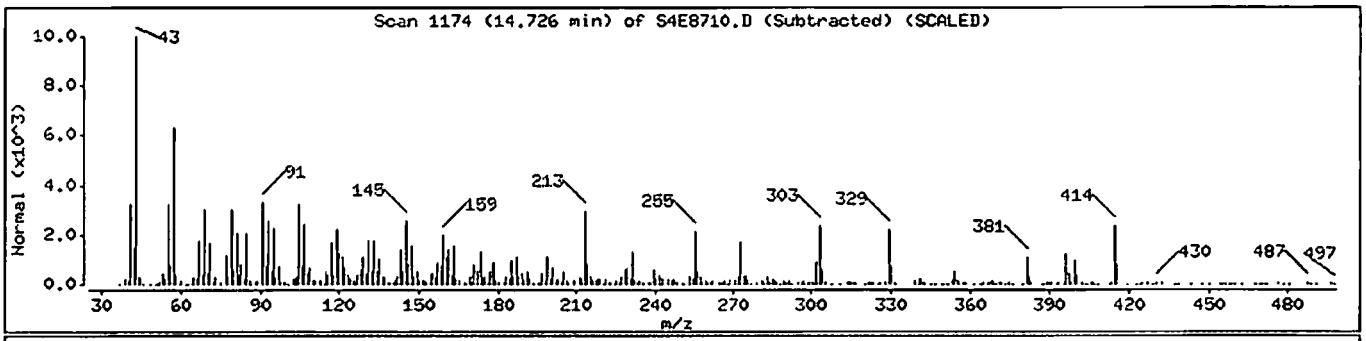
Client ID: H30R3 Instrument: S4.i

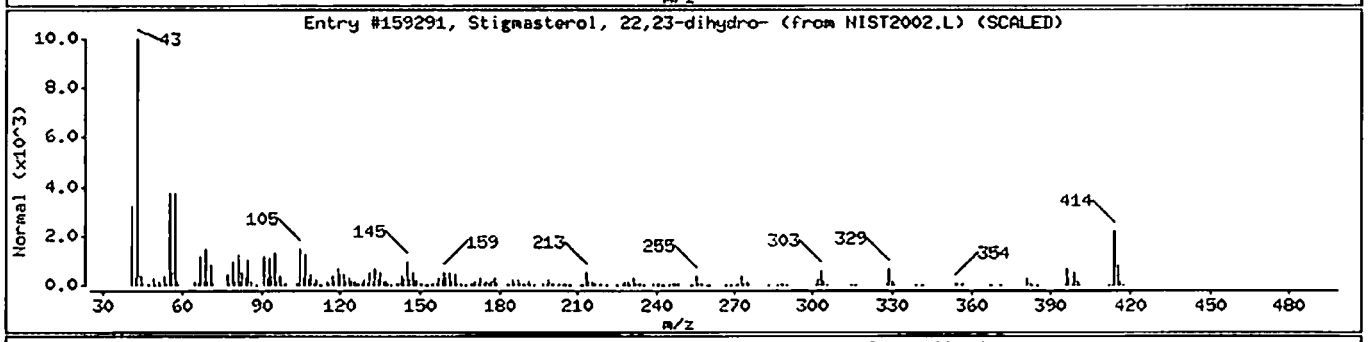
Sample Info: K2199-07A,,62801,,

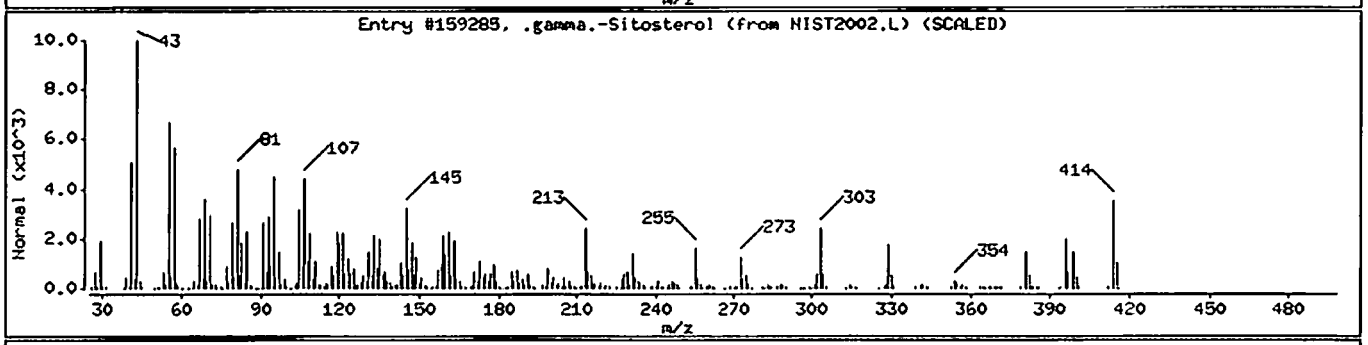
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

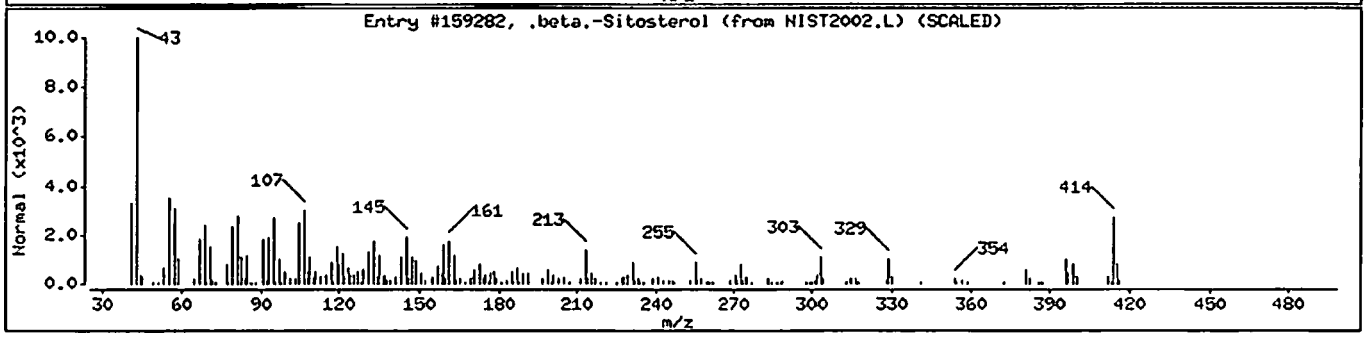
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST2002.L	159291	98	C29H500	414
.gamma.-Sitosterol	83-47-6	NIST2002.L	159285	90	C29H500	414
.beta.-Sitosterol	83-46-5	NIST2002.L	159282	86	C29H500	414









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

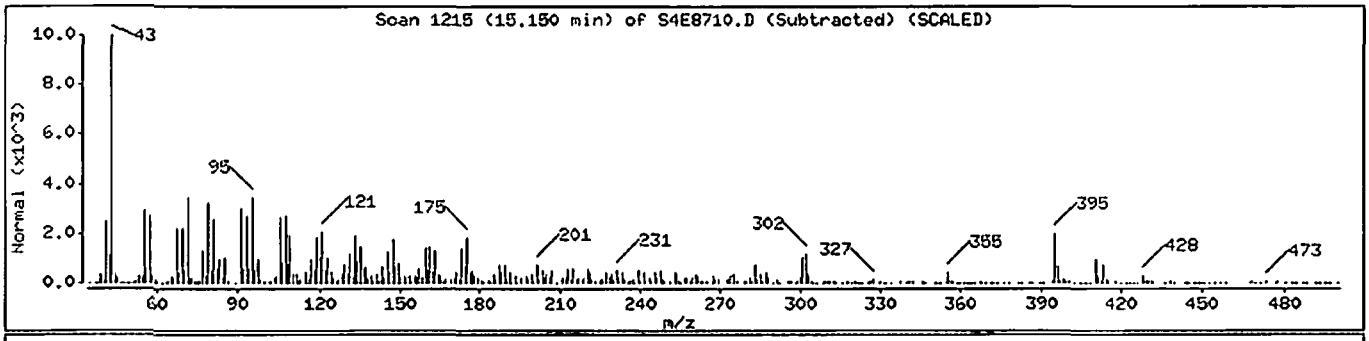
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8710.D

Date : 14-NOV-2011 17:43

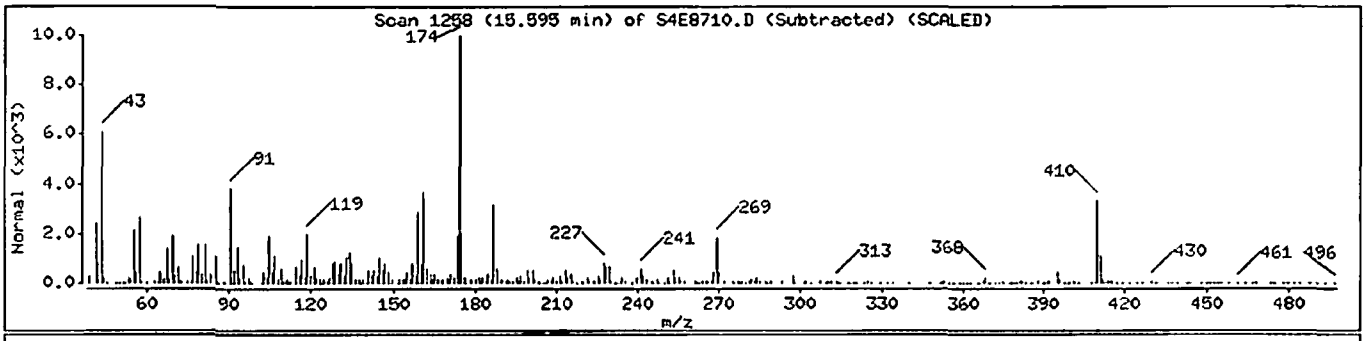
Client ID: H30R3 Instrument: S4.i

Sample Info: K2199-07A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-08A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4E8680.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 80 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	820	U
108-95-2	Phenol	820	U
111-44-4	Bis(2-chloroethyl)ether	820	U
95-57-8	2-Chlorophenol	820	U
95-48-7	2-Methylphenol	820	U
108-60-1	2,2'-Oxybis(1-chloropropane)	820	U
98-86-2	Acetophenone	820	U
106-44-5	4-Methylphenol	44000	E
621-64-7	N-Nitroso-di-n-propylamine	820	U
67-72-1	Hexachloroethane	820	U
98-95-3	Nitrobenzene	820	U
78-59-1	Isophorone	820	U
88-75-5	2-Nitrophenol	820	U
105-67-9	2,4-Dimethylphenol	820	U
111-91-1	Bis(2-chloroethoxy)methane	820	U
120-83-2	2,4-Dichlorophenol	820	U
91-20-3	Naphthalene	250	J
106-47-8	4-Chloroaniline	820	U
87-68-3	Hexachlorobutadiene	820	U
105-60-2	Caprolactam	820	U
59-50-7	4-Chloro-3-methylphenol	820	U
91-57-6	2-Methylnaphthalene	820	U
77-47-4	Hexachlorocyclopentadiene	820	U
88-06-2	2,4,6-Trichlorophenol	820	U
95-95-4	2,4,5-Trichlorophenol	820	U
92-52-4	1,1'-Biphenyl	820	U
91-58-7	2-Chloronaphthalene	820	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethylphthalate	820	U
606-20-2	2,6-Dinitrotoluene	820	U
208-96-8	Acenaphthylene	820	U
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	820	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-08A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4E8680.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 80 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	820	U
121-14-2	2,4-Dinitrotoluene	820	U
84-66-2	Diethylphthalate	260	J
86-73-7	Fluorene	820	U
7005-72-3	4-Chlorophenyl-phenylether	820	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine 1	820	U
95-94-3	1,2,4,5-Tetrachlorobenzene	820	U
101-55-3	4-Bromophenyl-phenylether	820	U
118-74-1	Hexachlorobenzene	820	U
1912-24-9	Atrazine	820	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	200	J
120-12-7	Anthracene	820	U
86-74-8	Carbazole	820	U
84-74-2	Di-n-butylphthalate	3800	B
206-44-0	Fluoranthene	820	U
129-00-0	Pyrene	820	U
85-68-7	Butylbenzylphthalate	860	
91-94-1	3,3'-Dichlorobenzidine	820	U
56-55-3	Benzo(a)anthracene	820	U
218-01-9	Chrysene	820	U
117-81-7	Bis(2-ethylhexyl)phthalate	820	U
117-84-0	Di-n-octylphthalate	820	U
205-99-2	Benzo(b)fluoranthene	820	U
207-08-9	Benzo(k)fluoranthene	820	U
50-32-8	Benzo(a)pyrene	820	U
193-39-5	Indeno(1,2,3-cd)pyrene	820	U
53-70-3	Dibenzo(a,h)anthracene	820	U
191-24-2	Benzo(g,h,i)perylene	820	U
58-90-2	2,3,4,6-Tetrachlorophenol	820	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30R4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-08A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4E8680.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 80 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.999	730	J
02		Unknown-02	3.165	850	J
03		Unknown-03	3.320	2200	J
04	527-84-4	Benzene, 1-methyl-2-(1-methy	3.403	43000	NJ
05		Unknown-04	4.106	390	J
06		Unknown-05	4.169	930	J
07	620-17-7	Phenol, 3-ethyl-	4.210	2400	NJ
08		Unknown-06	4.334	430	J
09		Unknown-07	4.655	1500	J
10		Unknown-08	4.738	1200	J
11		Unknown-09	4.945	960	J
12		Unknown-10	5.100	630	J
13		Unknown-11	5.141	390	J
14		Unknown-12	5.400	1700	J
15		Unknown-13	5.535	590	J
16		Unknown-14	5.731	6500	J
17	26505-36-2	3-(4-Pyridyl)acrylaldehyde	6.001	1700	NJ
18		Unknown-15	7.398	1600	J
19		Unknown-16	8.267	9600	J
20	84-65-1	9,10-Anthracenedione	8.360	6600	NJ
21	1686-56-2	Phenanthrene, 7-ethenyl-1,2,	8.454	10000	NJ
22		Unknown-17	8.764	8700	J
23		Unknown-18	8.816	23000	J
24		Unknown-19	8.878	9600	J
25		Unknown-20	10.047	3400	J
26		Unknown-21	10.368	840	J
27	83-47-6	.gamma.-Sitosterol	14.540	59000	NJ
28		Unknown-22	14.974	21000	J
	E966796[2]	Total Alkanes	N/A	990000	J

[2]EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D
Report Date: 14-Nov-2011 13:31

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111113.B\S4E8680.D
Lab Smp Id: K2199-08A Client Smp ID: H30R4
Inj Date : 13-NOV-2011 16:48
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-08A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111113.B\S4_SOM.m
Meth Date : 14-Nov-2011 13:30 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.500	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 2 Phenol-d5	71	3.061	3.030	(0.911)	44106	50.9575	840(QH)
$ 4 bis(2-Chloroethyl)ether-d8	67	3.092	3.081	(0.920)	25477	39.5729	650(Q)
$ 6 2-Chlorophenol-d4	132	3.205	3.185	(0.954)	55715	54.8531	900(Q)
* 8 1,4-Dichlorobenzene-d4	152	3.361	3.340	(1.000)	32186	40.0000	(Q)
$ 11 4-Methylphenol-d8	113	3.620	3.588	(1.077)	44477	48.5232	800
12 4-Methylphenol	108	3.651	3.609	(1.086)	521213	554.608	9100(A)
$ 16 Nitrobenzene-d5	128	3.795	3.775	(0.857)	22411	34.1106	560(Q)
$ 19 2-Nitrophenol-d4	143	4.065	4.044	(0.918)	30977	36.9902	610
$ 23 2,4-Dichlorophenol-d3	165	4.292	4.251	(0.970)	66421	42.3280	690
* 25 Naphthalene-d8	136	4.427	4.406	(1.000)	156955	40.0000	
26 Naphthalene	128	4.448	4.427	(1.005)	12901	3.10629	51(a)
$ 27 4-Chloroaniline-d4	131	4.468	4.448	(1.009)	18377	11.8698	190(Q)
$ 40 Dimethylphthalate-d6	166	5.783	5.752	(0.949)	237841	42.9963	700
$ 43 Acenaphthylene-d8	160	5.938	5.907	(0.975)	286174	46.7224	770
* 46 Acenaphthene-d10	164	6.093	6.062	(1.000)	139897	40.0000	
$ 49 4-Nitrophenol-d4	143	6.217	6.155	(1.020)	59175	56.8223	930(QH)
53 Diethylphthalate	149	6.487	6.455	(1.065)	18323	3.22672	53(aH)
$ 54 Fluorene-d10	176	6.590	6.559	(1.082)	241623	48.9923	800
$ 58 4,6-Dinitro-2-methylphenol-d2	200	6.652	6.621	(0.882)	48567	33.9705	560(Q)

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D
Report Date: 14-Nov-2011 13:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
*	65 Phenanthrene-d10	188	7.542	7.511	(1.000)	356422	40.0000	
	66 Phenanthrene	178	7.563	7.532	(1.003)	23648	2.49775	41(a)
$	67 Anthracene-d10	188	7.594	7.563	(1.007)	437454	44.6889	730(H)
	70 Di-n-butylphthalate	149	8.091	8.049	(1.073)	492350	47.5373	780
$	72 Pyrene-d10	212	8.960	8.908	(0.881)	401614	39.6220	650(R)
	74 Butylbenzylphthalate	149	9.571	9.519	(0.941)	55165	10.7066	180(H)
*	77 Chrysene-d12	240	10.171	10.099	(1.000)	520040	40.0000	(Q)
$	83 Benzo(a)pyrene-d12	264	11.786	11.662	(1.000)	304792	27.6786	450(R)
*	85 Perylene-d12	264	11.900	11.775	(1.000)	496952	40.0000	(H)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D
Report Date: 14-Nov-2011 13:31

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111113.B\S4E8680.D
Lab Smp Id: K2199-08A Client Smp ID: H30R4
Inj Date : 13-NOV-2011 16:48
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-08A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111113.B\S4_SOM.m
Meth Date : 14-Nov-2011 13:30 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.500	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	3.361	344390	40.000
* 25 Naphthalene-d8	4.427	973367	40.000
* 65 Phenanthrene-d10	7.543	1004009	40.000

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.999	78345	9.09960537	150	0		0	8
Unknown				CAS #:			
3.165	91121	10.5834123	170	0		0	8
Unknown				CAS #:			
3.320	239144	27.7759395	460	0		0	8

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D
Report Date: 14-Nov-2011 13:31

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Benzene, 1-methyl-2-(1-methylethyl)-					CAS #: 527-84-4		
3.403	4589081	533.009601	8700	96	NIST2002.L	14395	8
Unknown					CAS #:		
4.106	118942	4.88785393	80	0		0	25
Unknown					CAS #:		
4.169	281445	11.5658088	190	0		0	25
Phenol, 3-ethyl-					CAS #: 620-17-7		
4.210	724575	29.7760141	490	91	NIST2002.L	9600	25
Unknown					CAS #:		
4.334	129721	5.33079838	87	0		0	25
Unknown					CAS #:		
4.655	456977	18.7791913	310	0		0	25
Unknown					CAS #:		
4.738	365345	15.0136658	250	0		0	25
Unknown					CAS #:		
4.945	292192	12.0074517	200	0		0	25
Unknown					CAS #:		
5.100	190083	7.81135879	130	0		0	25
Unknown					CAS #:		
5.141	119080	4.89351929	80	0		0	25
Unknown					CAS #:		
5.400	506492	20.8140001	340	0		0	25
Unknown					CAS #:		
5.535	179939	7.39449541	120	0		0	25
Unknown					CAS #:		
5.731	1978111	81.2893461	1300	0		0	25
3-(4-Pyridyl)acrylaldehyde					CAS #: 26505-36-2		
6.001	545053	21.7150576	360	86	NIST2002.L	14234	65
Unknown					CAS #:		
7.398	501749	19.9898068	330	0		0	65
Unknown					CAS #:		
8.267	3018166	120.244538	2000	0		0	65
9,10-Anthracenedione					CAS #: 84-65-1		
8.360	2053333	81.8053616	1300	95	NIST2002.L	61654	65
Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,					CAS #: 1686-56-2		
8.454	3184859	126.885652	2100	87	NIST2002.L	102002	65

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D
Report Date: 14-Nov-2011 13:31

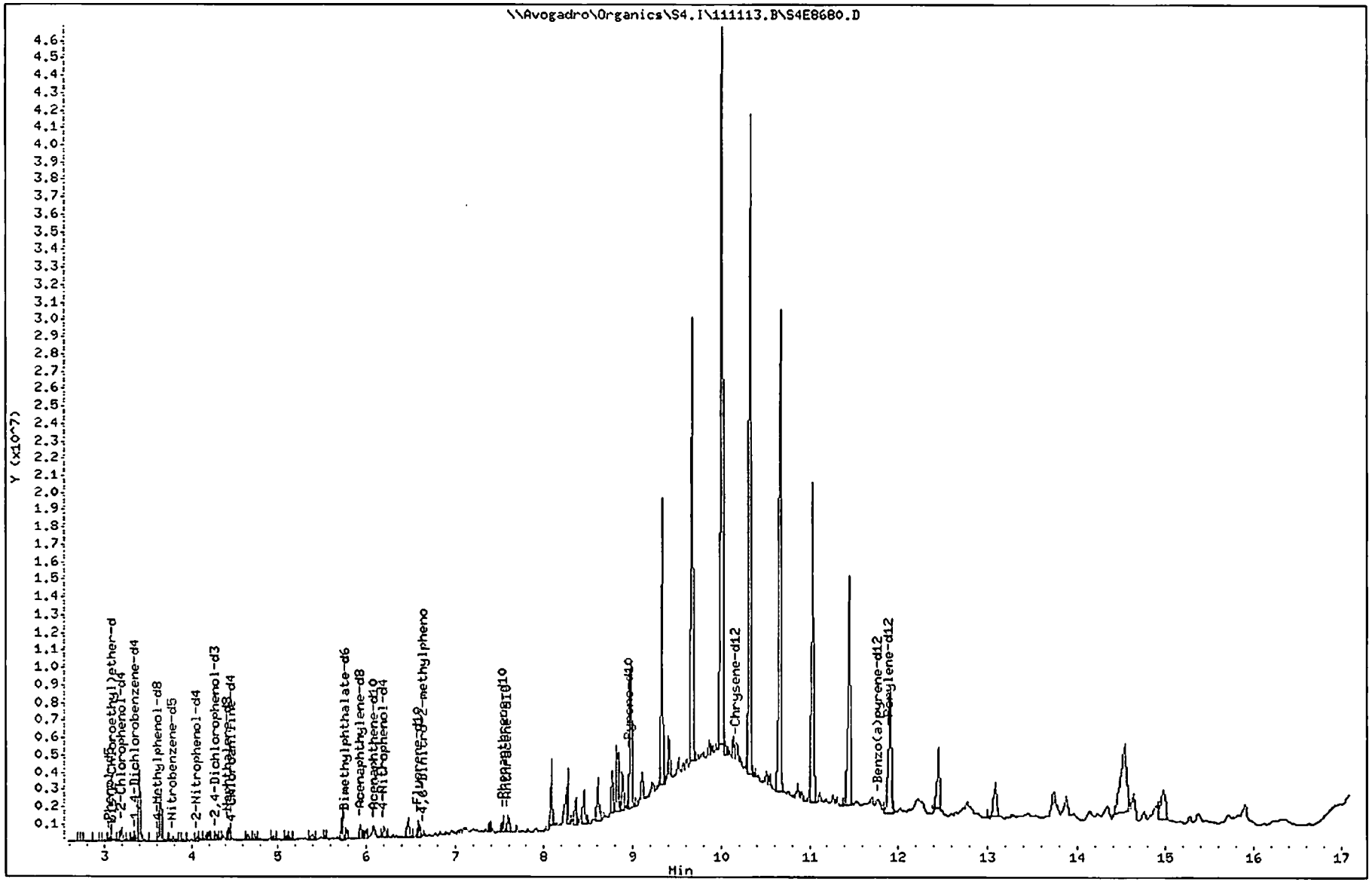
RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Straight-chain Alkane				CAS #:			
8.609	4160349	165.749442	2700	0		0	65
Unknown				CAS #:			
8.764	2721575	108.428278	1800	0		0	65
Unknown				CAS #:			
8.816	7238246	288.373675	4700	0		0	65
Unknown				CAS #:			
8.878	2995687	119.348970	2000	0		0	65
Straight-chain Alkane				CAS #:			
8.981	13698268	545.742713	8900	0		0	65
Straight-chain Alkane				CAS #:			
9.333	19542823	778.591407	13000	0		0	65
Straight-chain Alkane				CAS #:			
9.675	38776029	1544.84754	25000	0		0	65
Straight-chain Alkane				CAS #:			
10.016	63857255	2544.09045	42000	0		0	65
Unknown				CAS #:			
10.048	1076726	42.8970498	700	0		0	65
Straight-chain Alkane				CAS #:			
10.337	53126626	2116.57924	35000	0		0	65
Unknown				CAS #:			
10.368	263888	10.5133594	170	0		0	65
Straight-chain Alkane				CAS #:			
10.679	43836862	1746.47252	29000	0		0	65
Straight-chain Alkane				CAS #:			
11.041	27287626	1087.14643	18000	0		0	65
Straight-chain Alkane				CAS #:			
11.455	20948275	834.584979	14000	0		0	65
Straight-chain Alkane				CAS #:			
11.921	15320686	610.380303	10000	0		0	65
Straight-chain Alkane				CAS #:			
12.459	5799030	231.034945	3800	0		0	65
Straight-chain Alkane				CAS #:			
13.101	4139567	164.921491	2700	0		0	65
.gamma.-Sitosterol				CAS #: 83-47-6			
14.540	18611751	741.497215	12000	93	NIST2002.L	159285	65

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D
Report Date: 14-Nov-2011 13:31

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	==========	======
Unknown					CAS #:		
14.974	6425158	255.980064	4200	0		0	65

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D
Date : 13-NOV-2011 16:48
Client ID: H30R4
Sample Info: K2199-08A,,62801,,
Volume Injected (uL): 2.0
Column phase: RXI-5SILMS

Instrument: S4.i
Operator: MMS SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

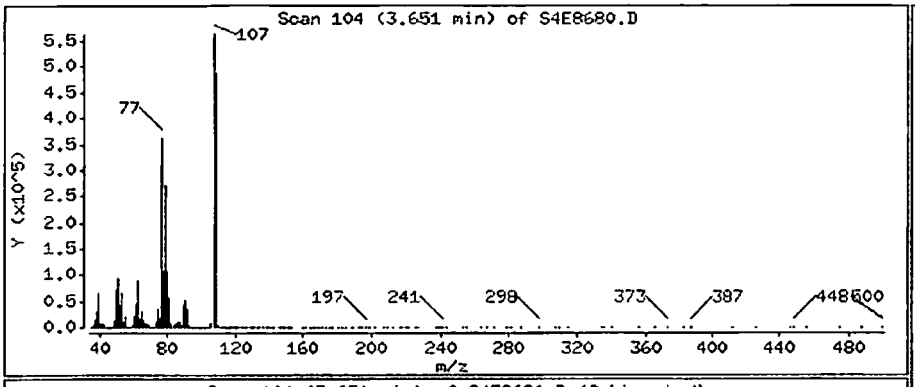
Client ID: H30R4 Instrument: S4.i

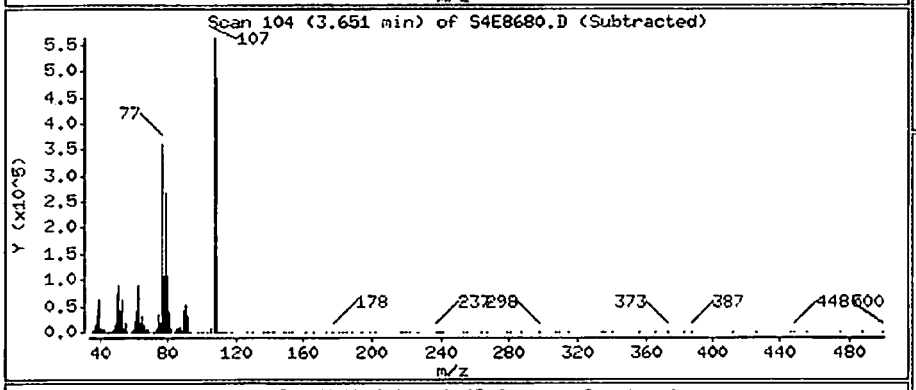
Sample Info: K2199-08A,,62801,,

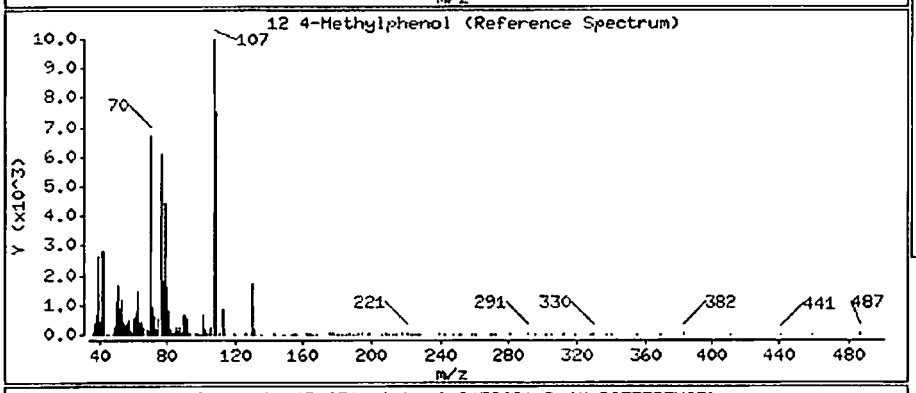
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

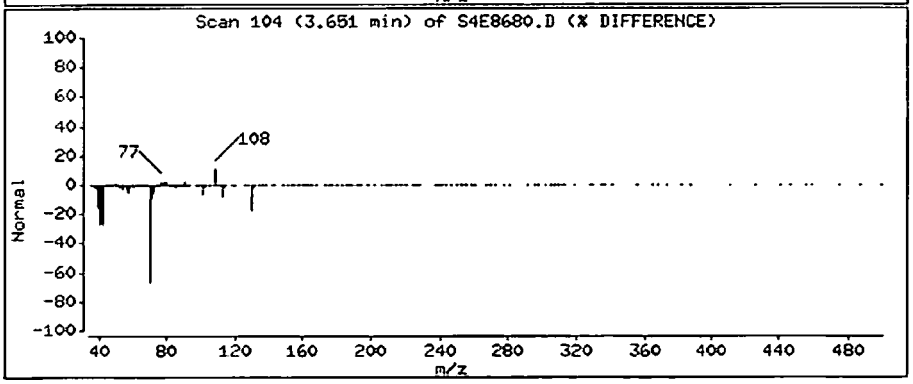
Column phase: RXI-5SILMS Column diameter: 0.25

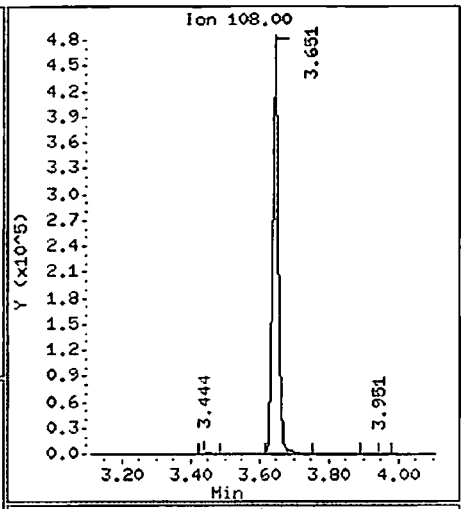
12 4-Methylphenol Concentration: 9100 ug/Kg

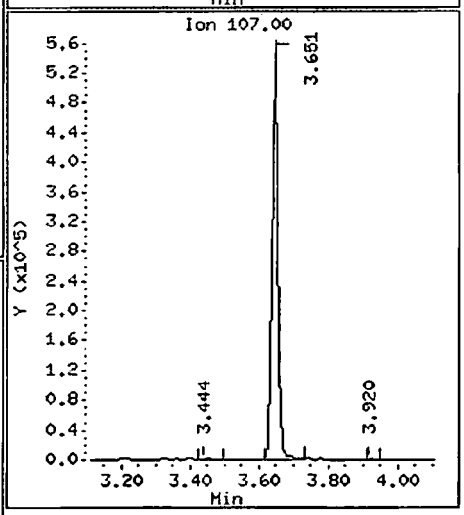












Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

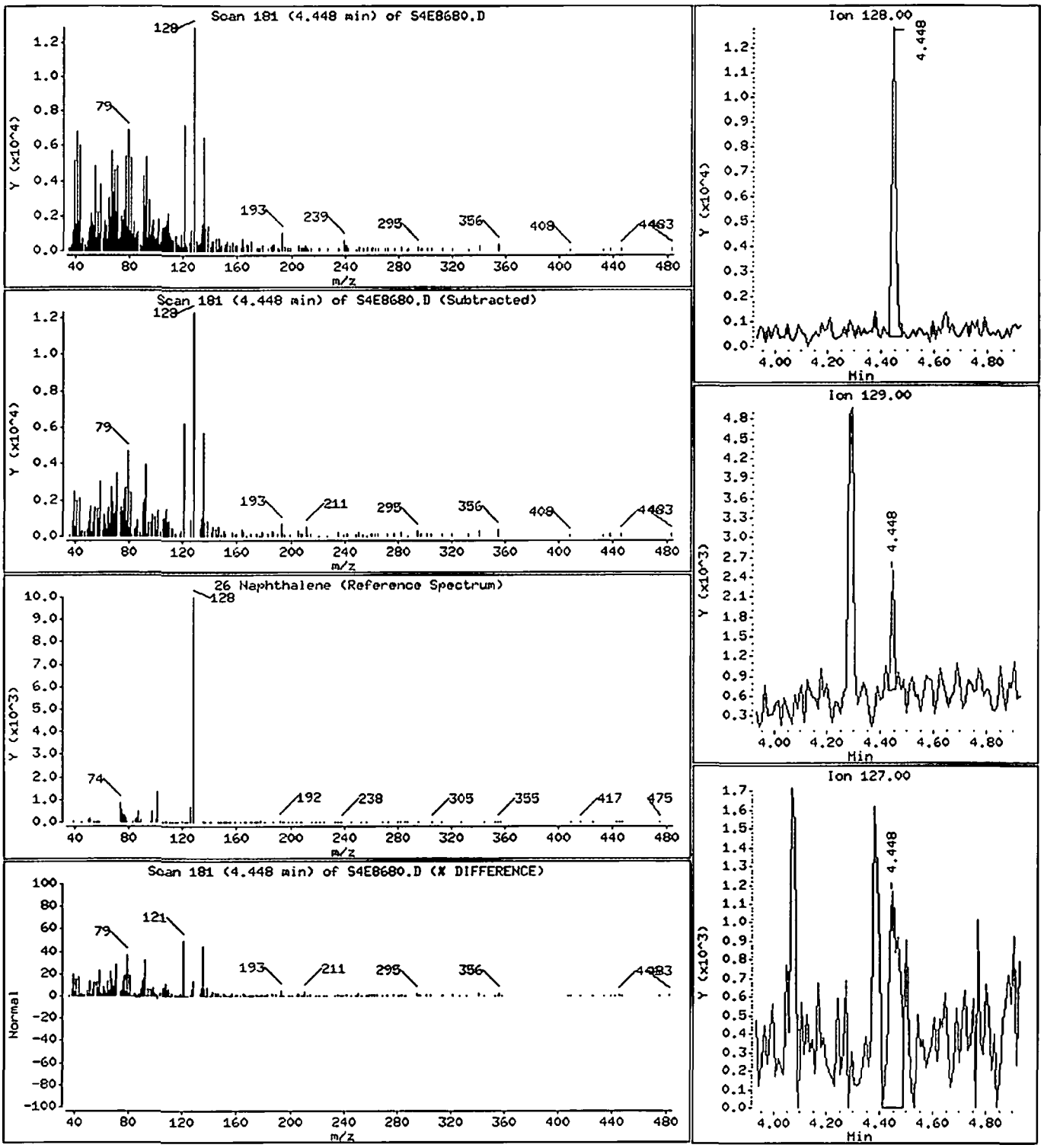
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

26 Naphthalene Concentration: 51 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

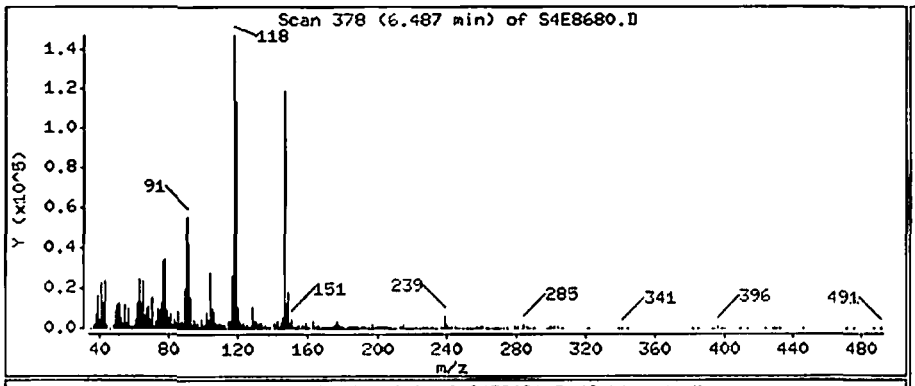
Client ID: M30R4 Instrument: S4.i

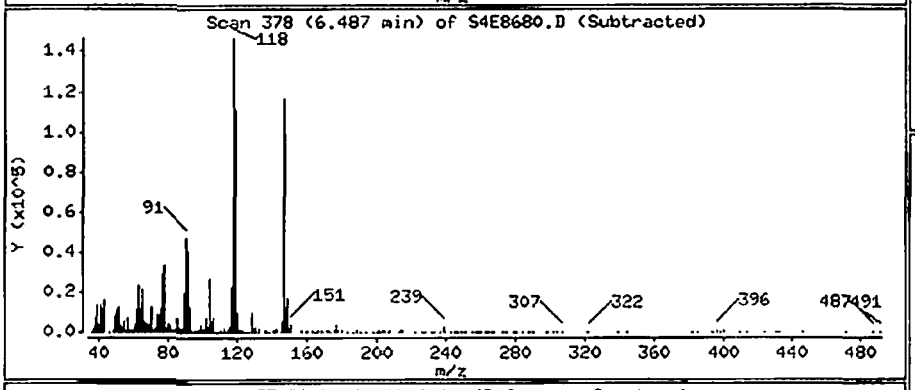
Sample Info: K2199-08A,,62801,,

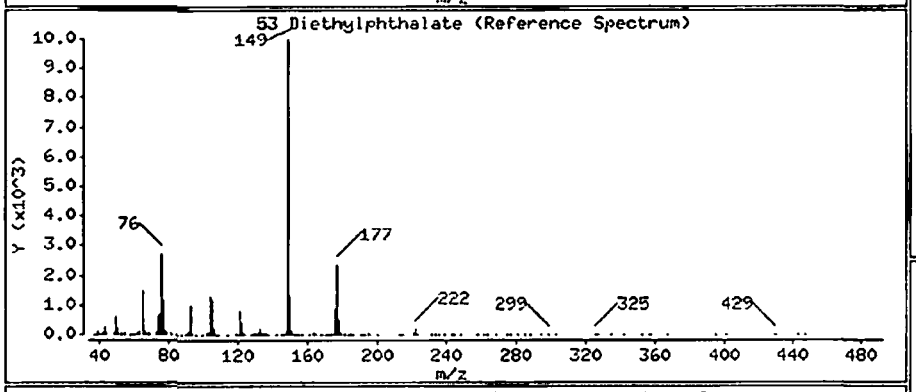
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

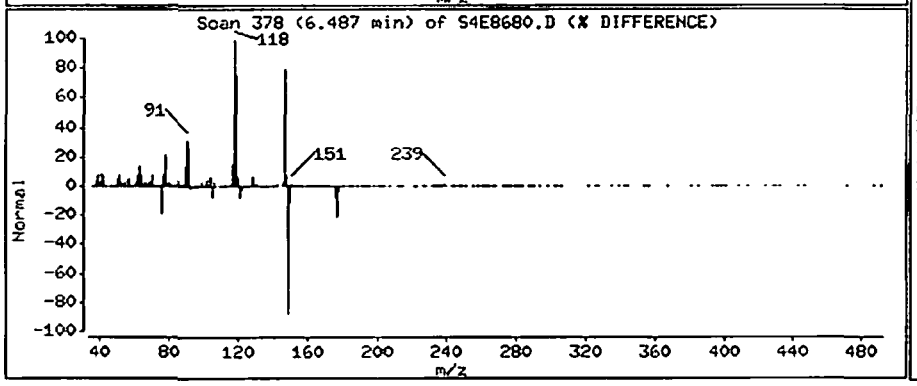
Column phase: RXI-5SILMS Column diameter: 0.25

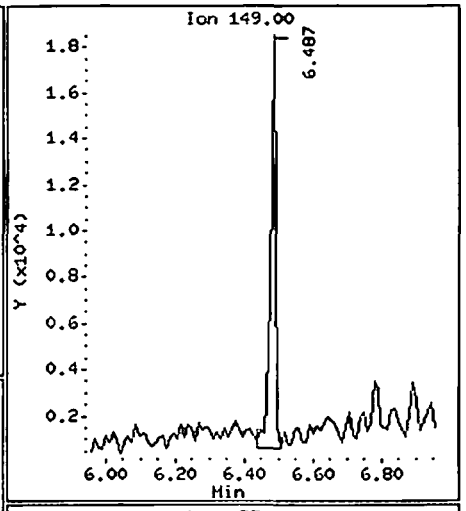
53 Diethylphthalate Concentration: 53 ug/Kg

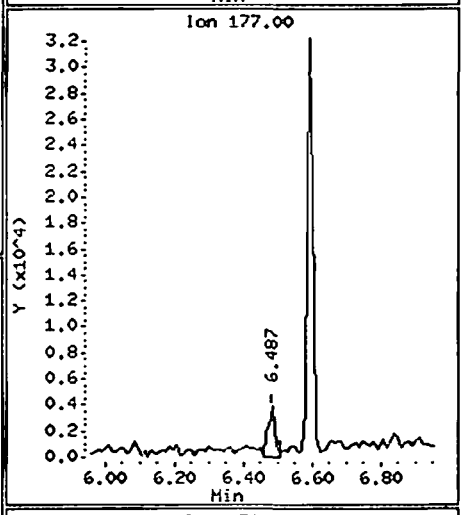


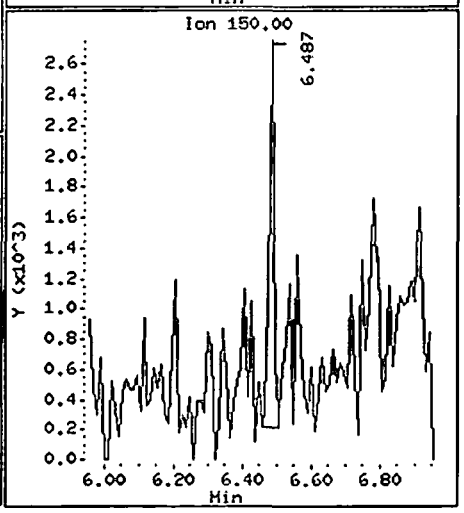












Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

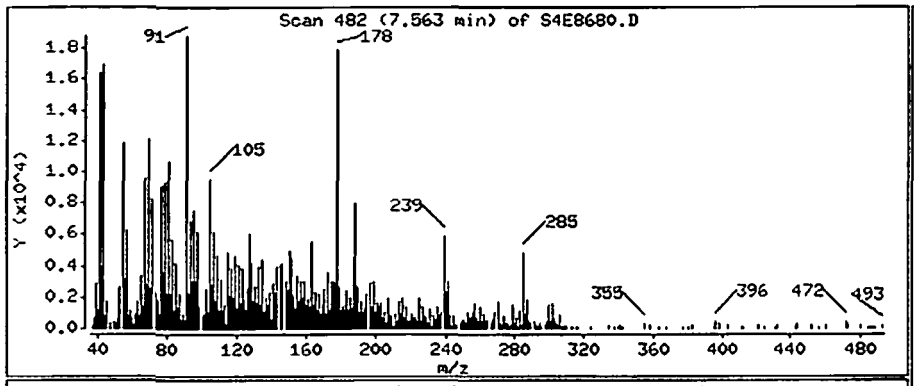
Client ID: H30R4 Instrument: S4.i

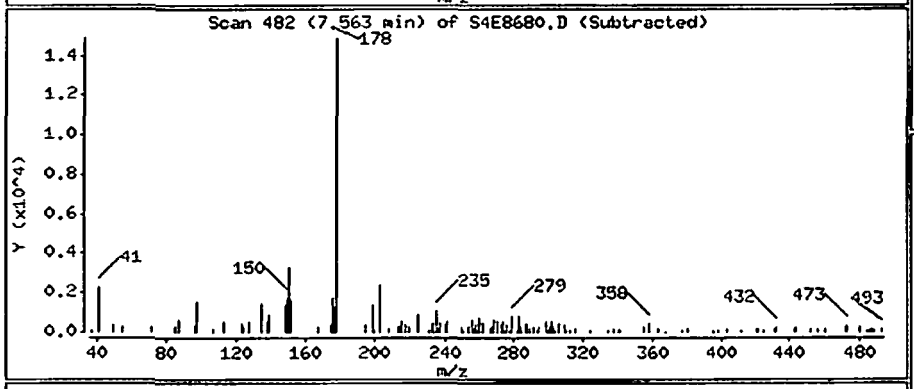
Sample Info: K2199-08A,,62801,,

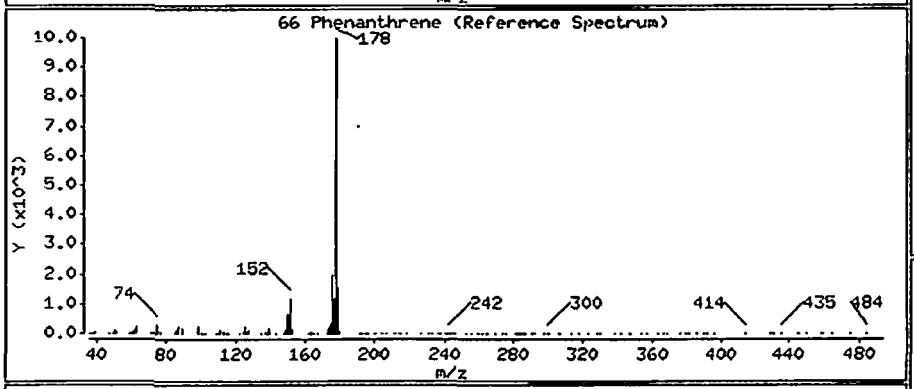
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

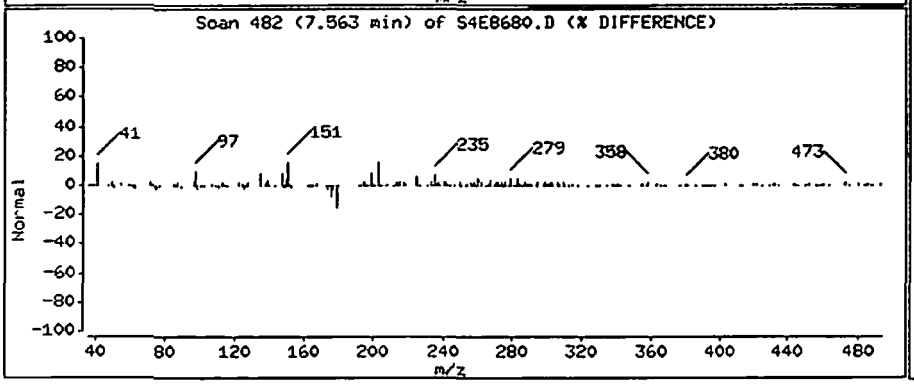
Column phase: RXI-5SILMS Column diameter: 0.25

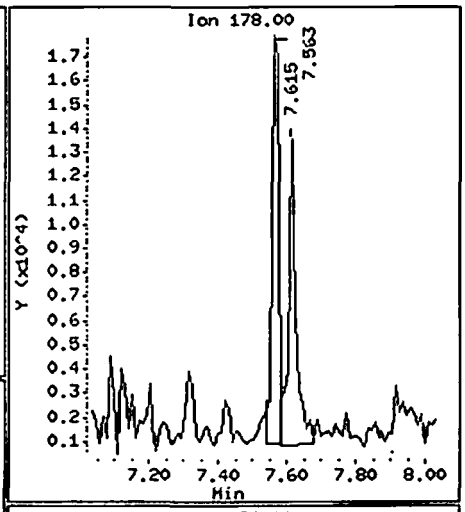
66 Phenanthrene Concentration: 41 ug/Kg

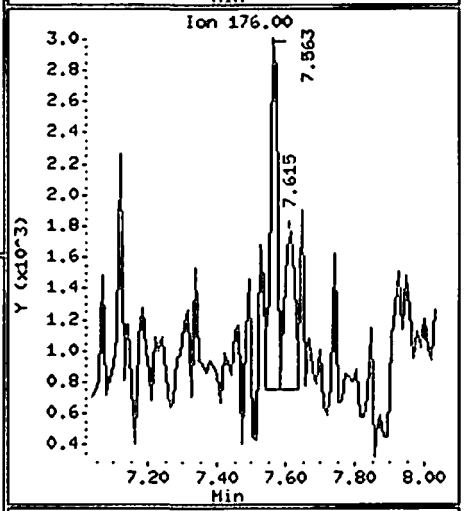


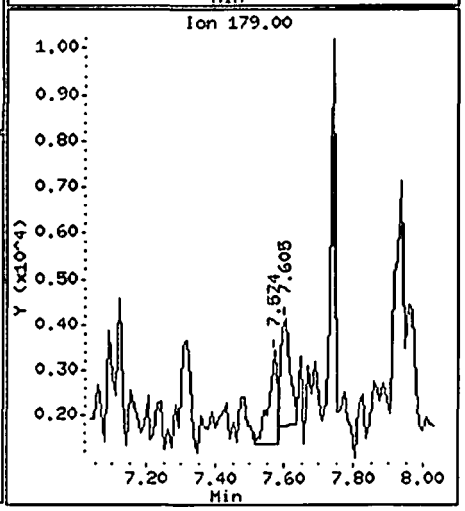












Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

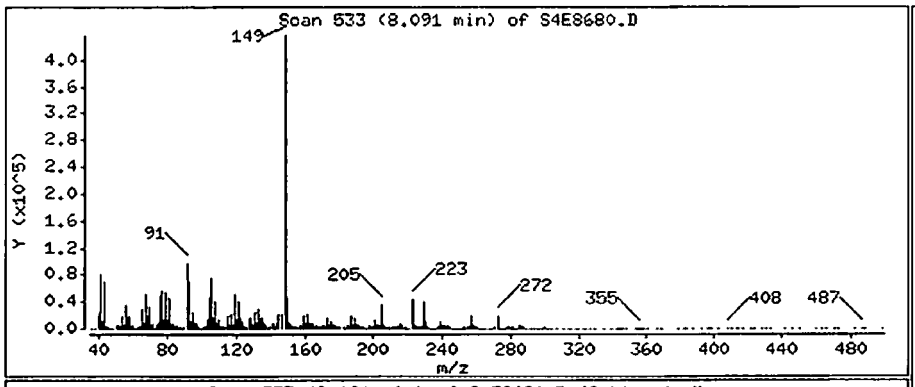
Client ID: H30R4 Instrument: S4.i

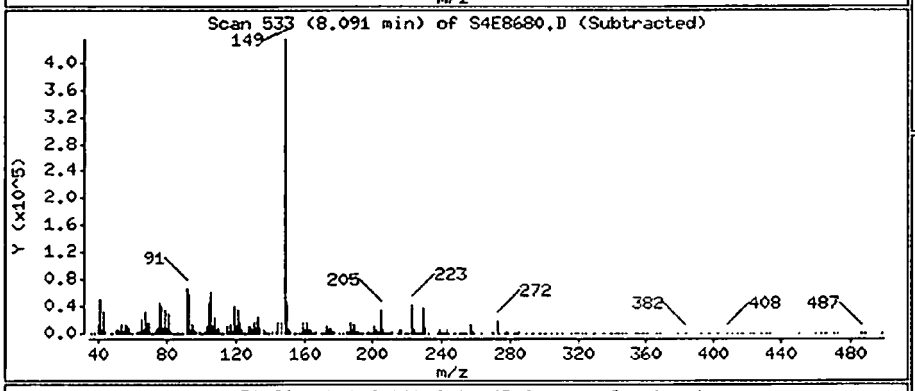
Sample Info: K2199-08A,,62801,,

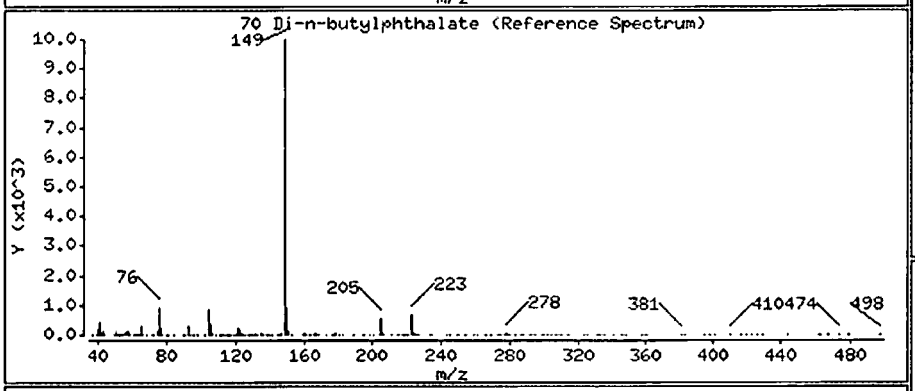
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

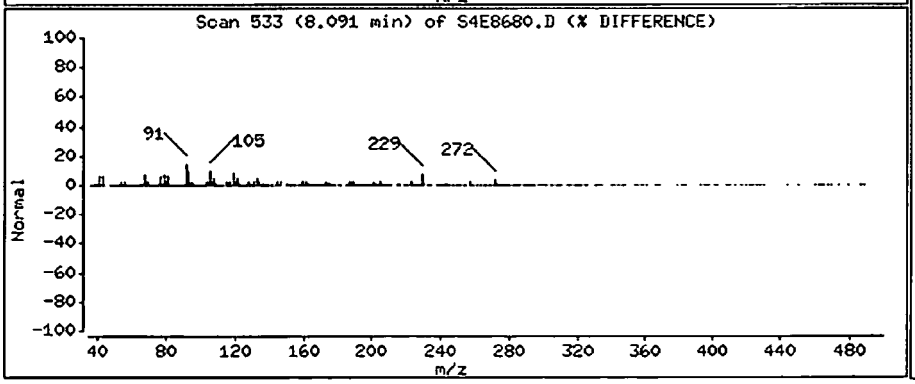
Column phase: RXI-5SILMS Column diameter: 0.25

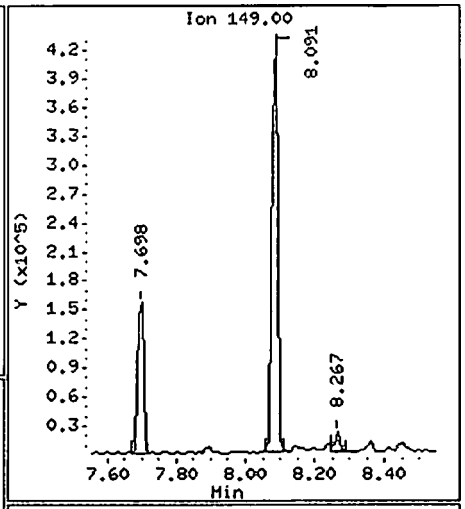
70 Di-n-butylphthalate Concentration: 780 ug/Kg

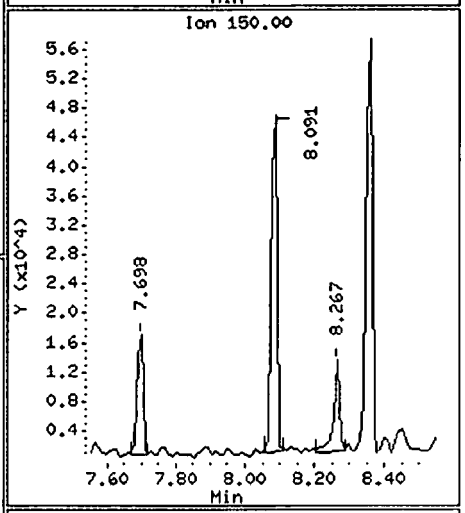


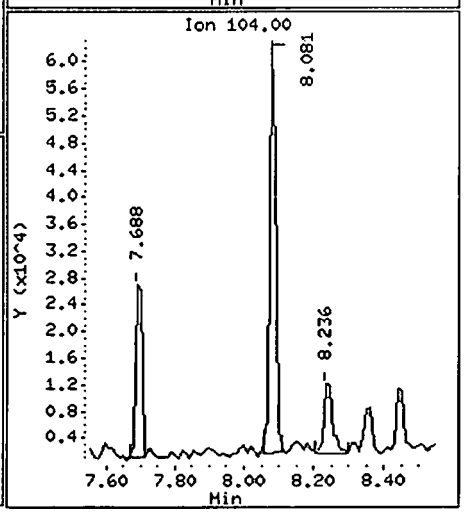












Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

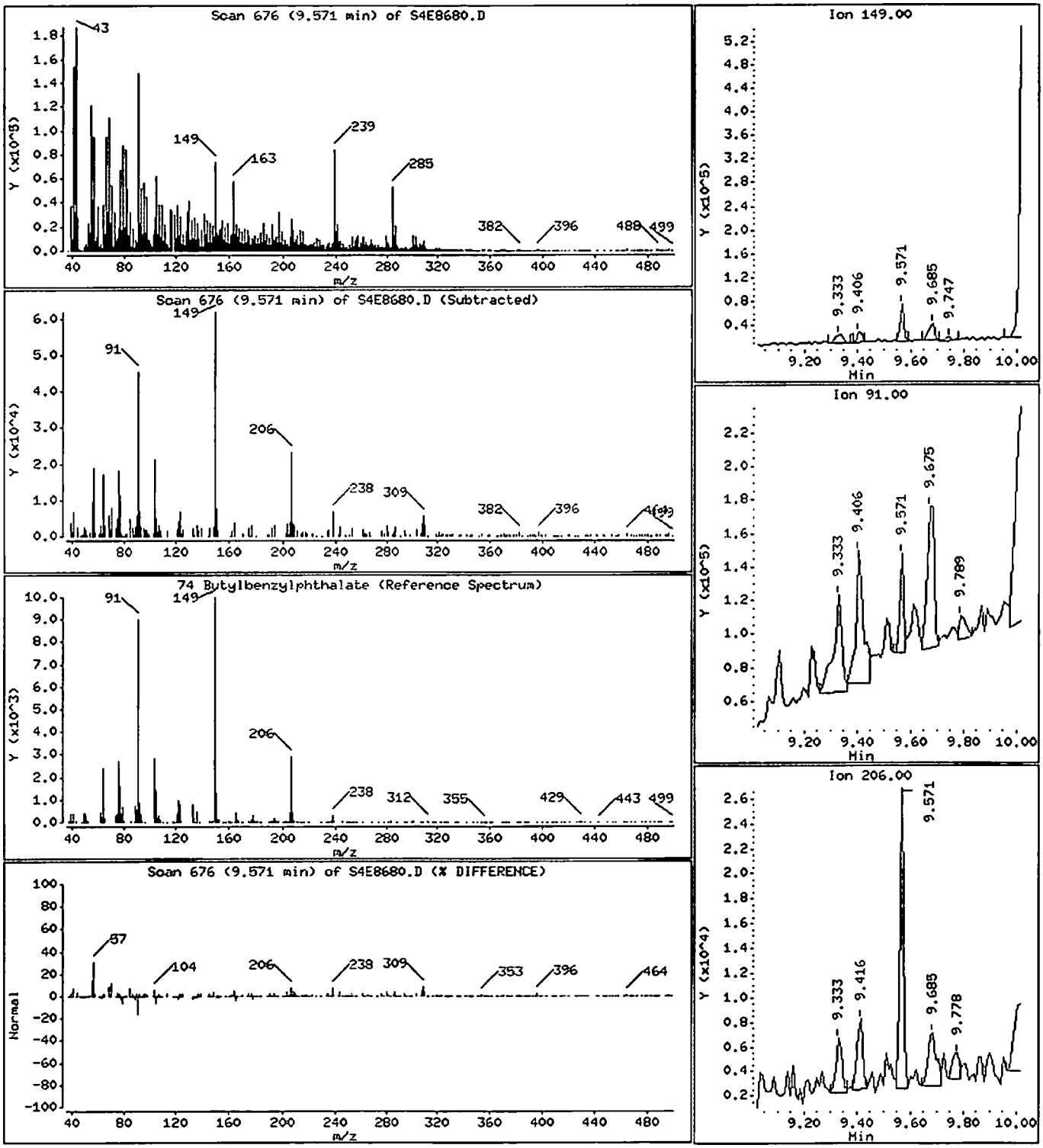
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

74 Butylbenzylphthalate Concentration: 180 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

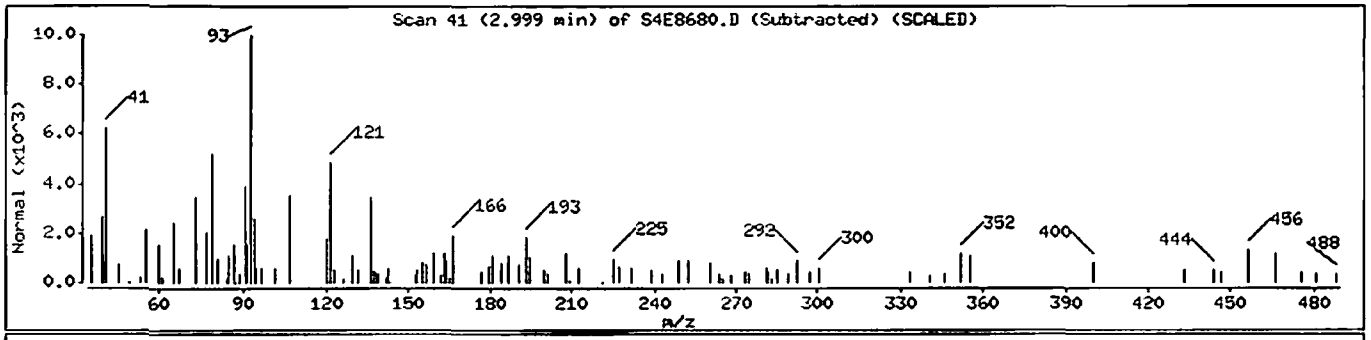
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

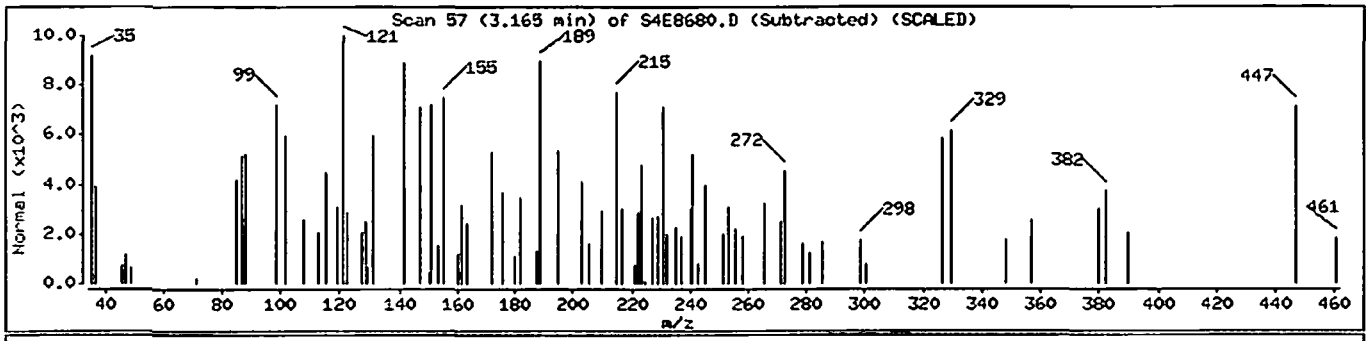
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

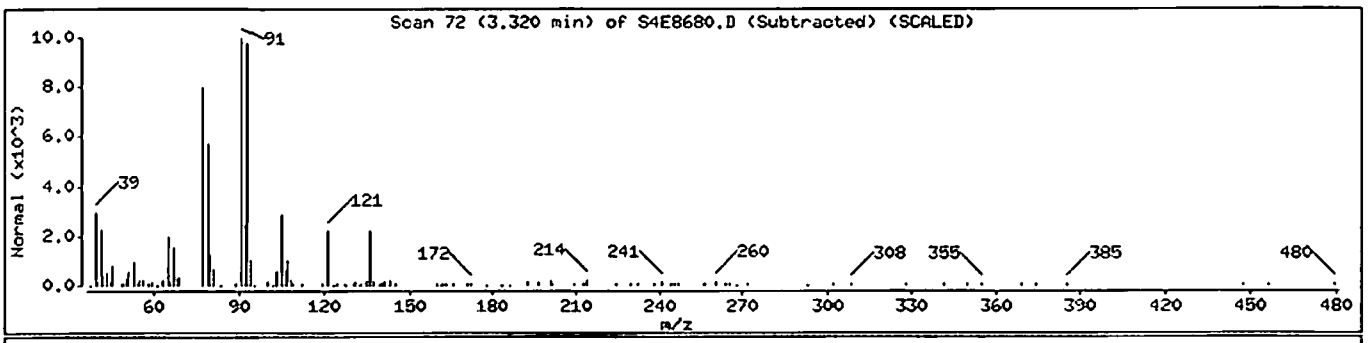
Client ID: H3OR4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

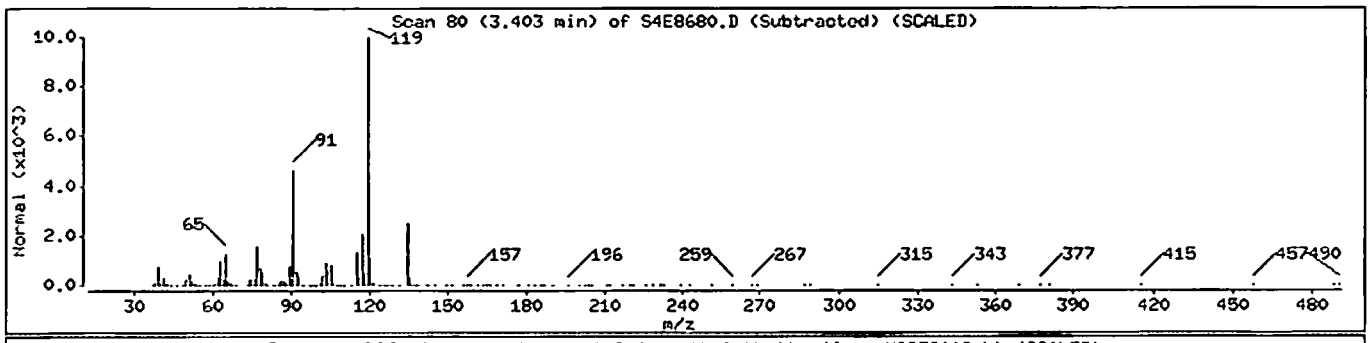
Client ID: H30R4 Instrument: S4.i

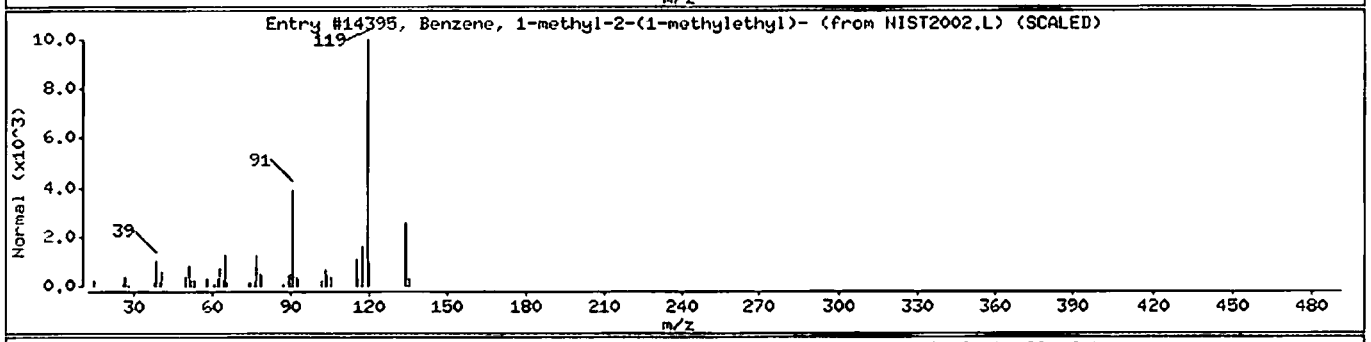
Sample Info: K2199-08A,,62801,,

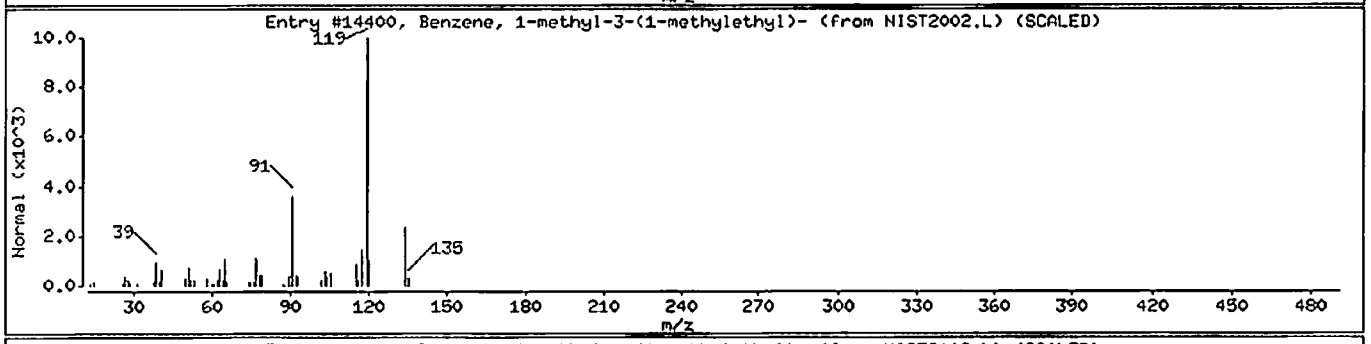
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

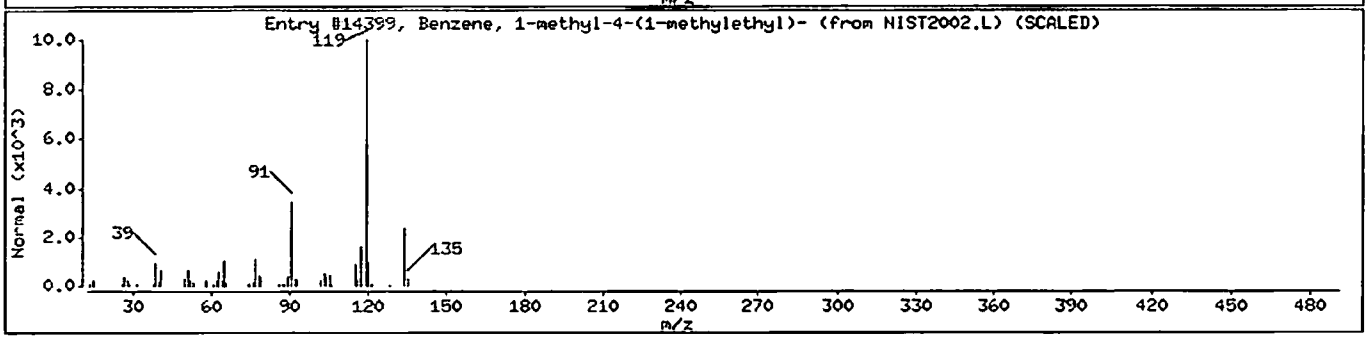
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	96	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	96	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	96	C10H14	134









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

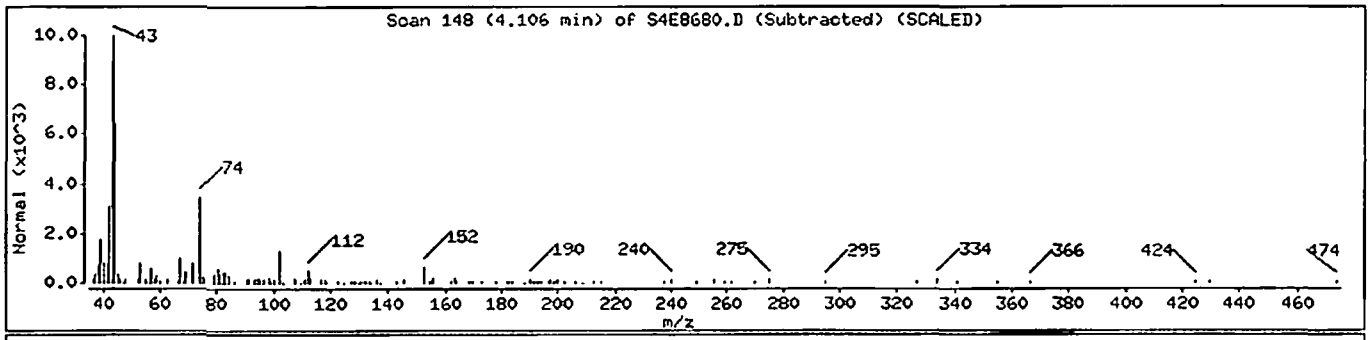
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

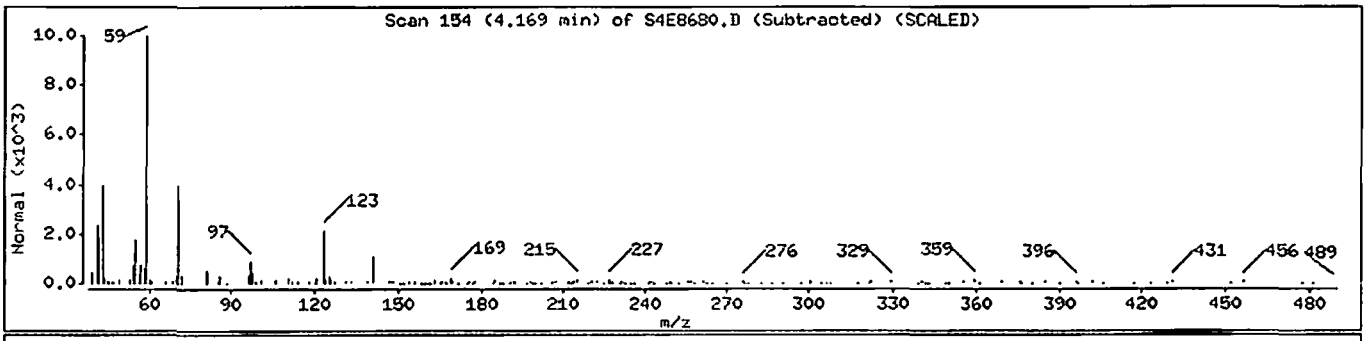
Client ID: M30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

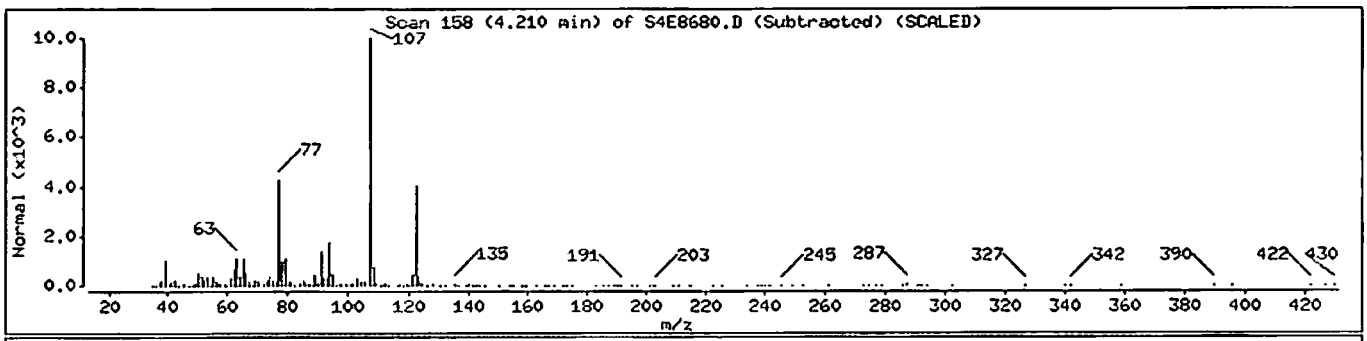
Client ID: H30R4 Instrument: S4.i

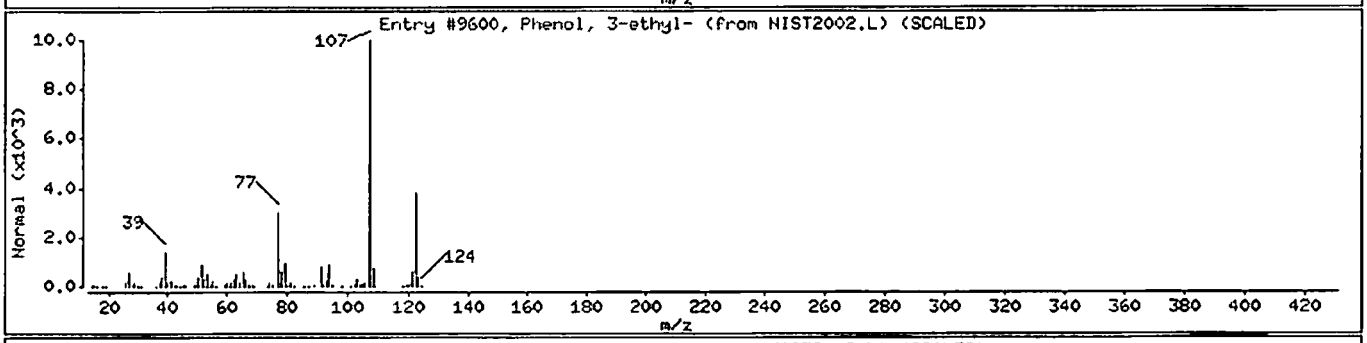
Sample Info: K2199-08A,,62801,,

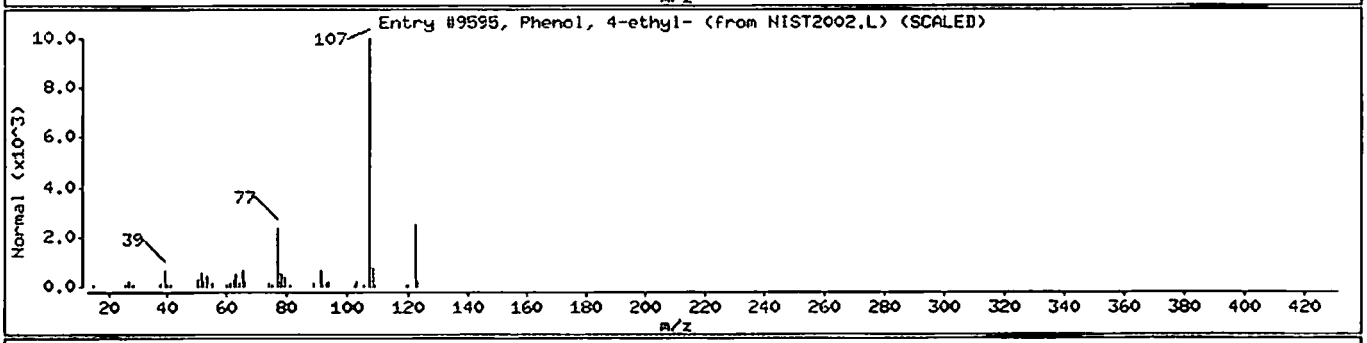
Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 3-ethyl-	620-17-7	NIST2002.L	9600	91	C8H10O	122
Phenol, 4-ethyl-	123-07-9	NIST2002.L	9595	87	C8H10O	122







Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

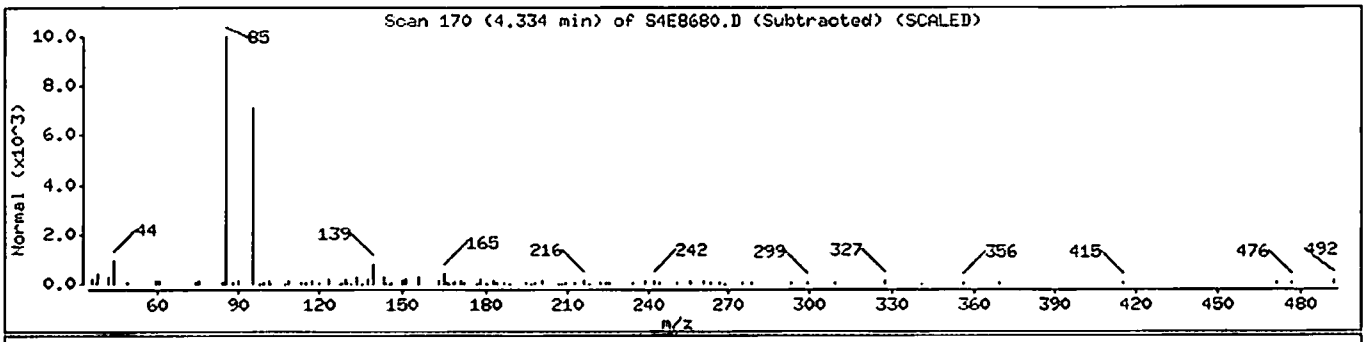
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

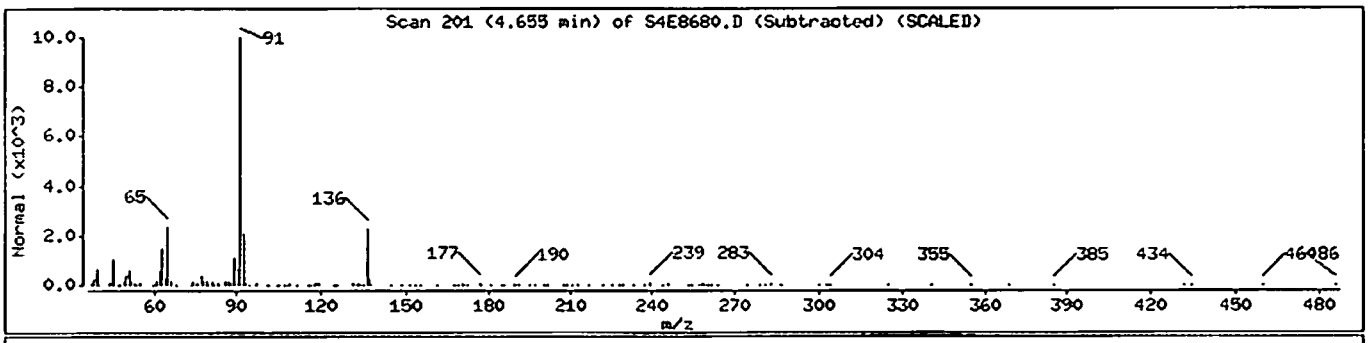
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

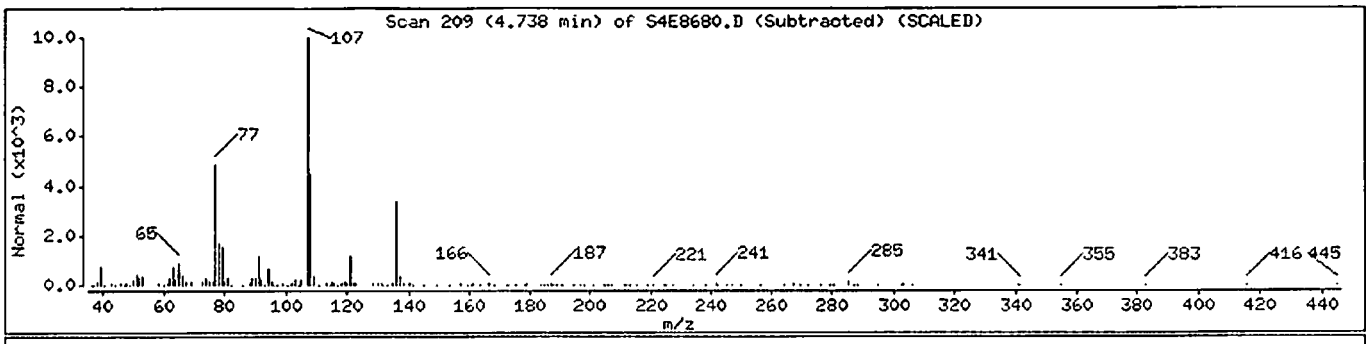
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

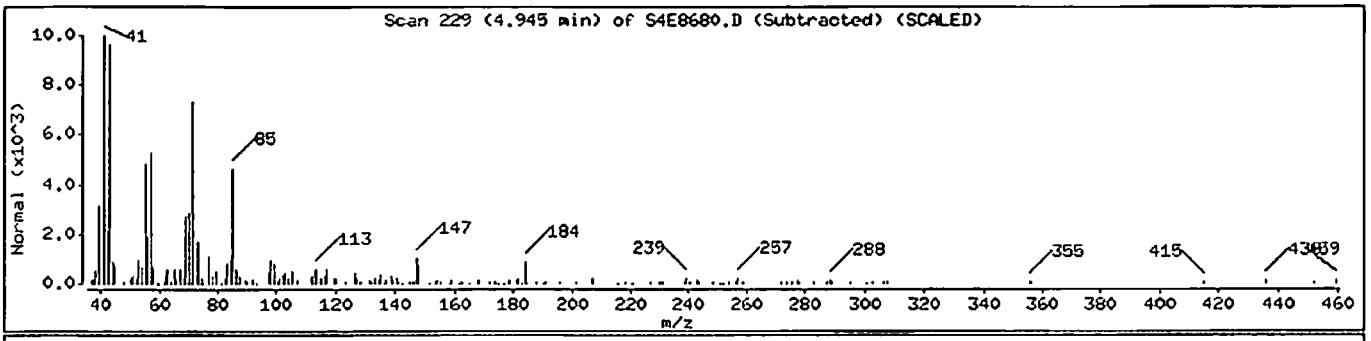
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

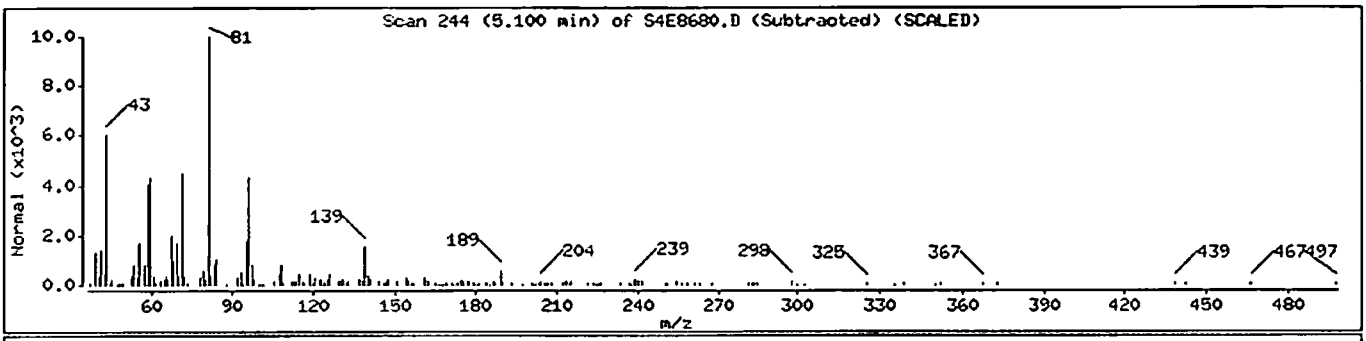
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

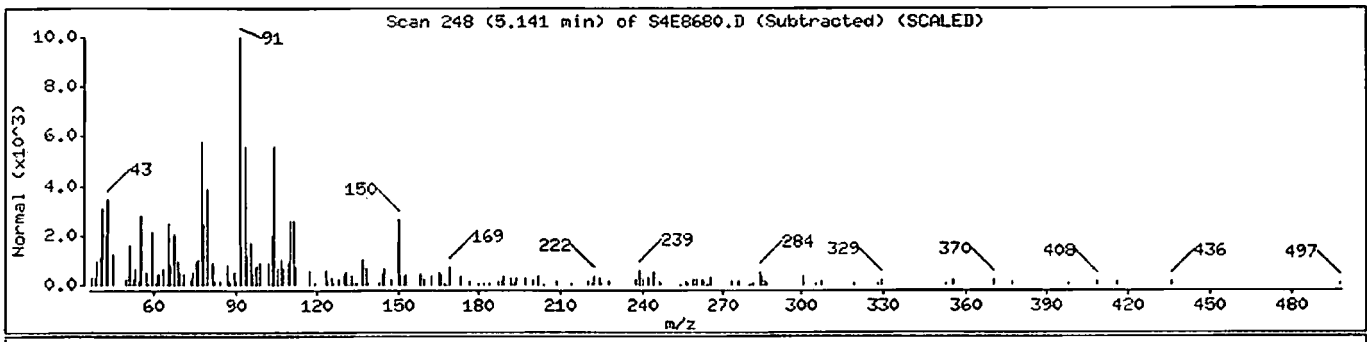
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

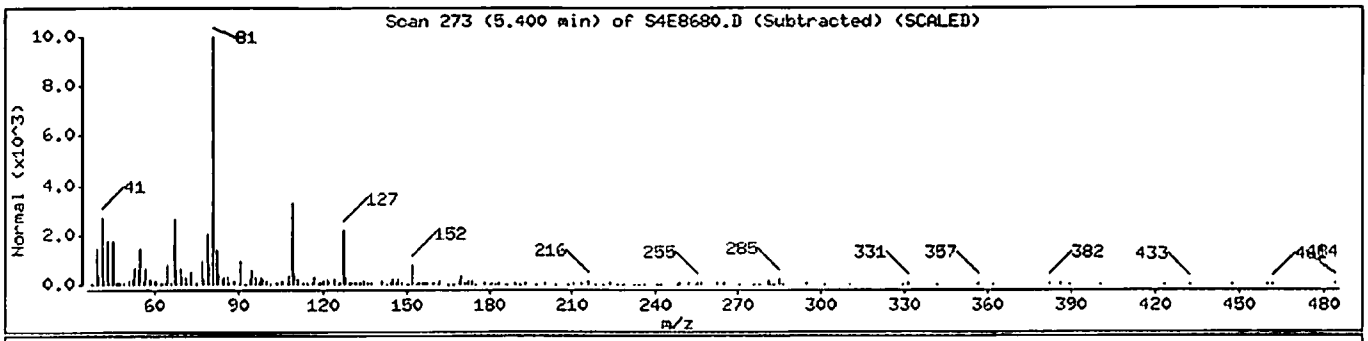
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

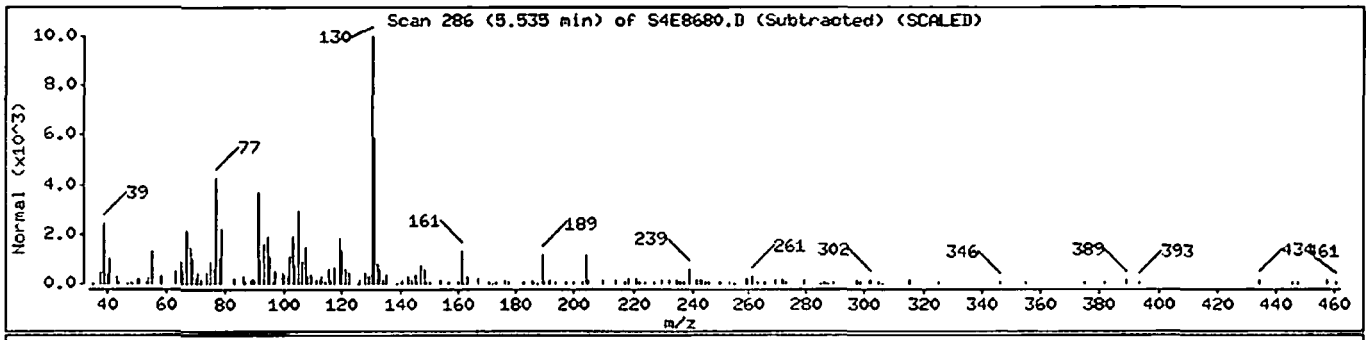
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

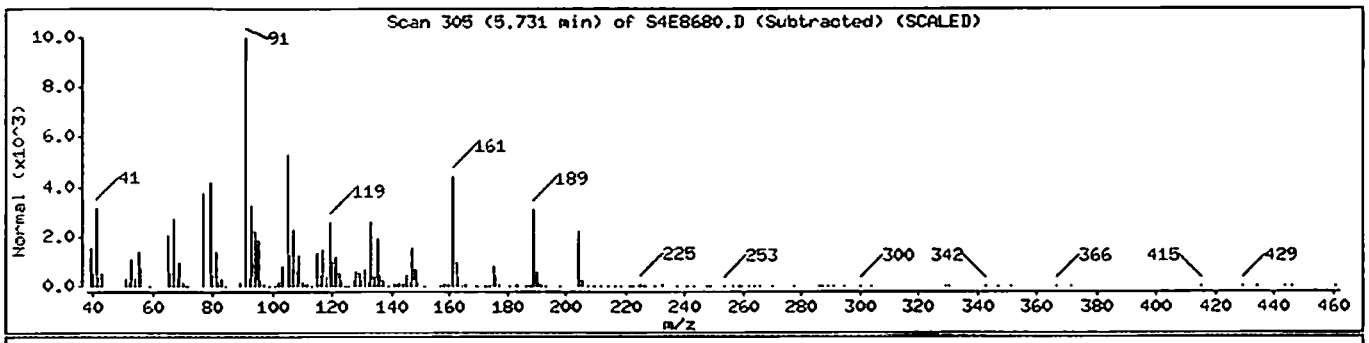
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

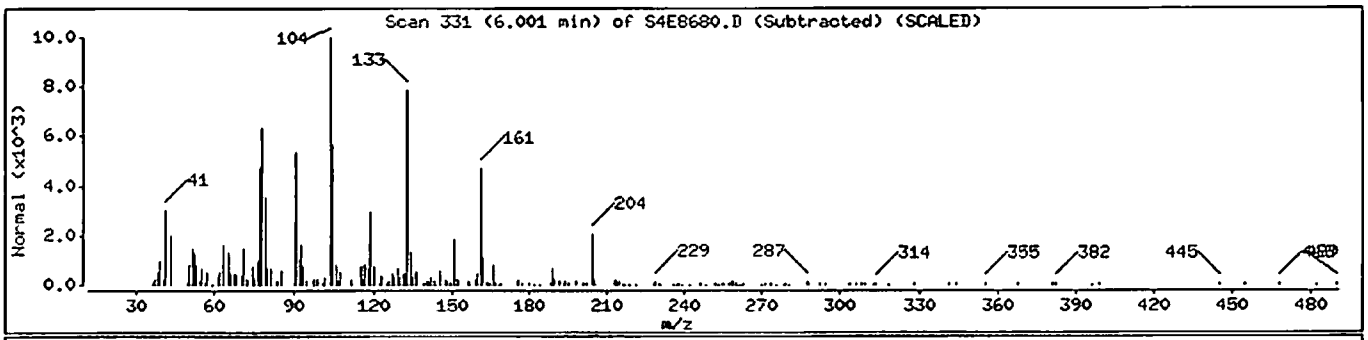
Client ID: H30R4 Instrument: S4.i

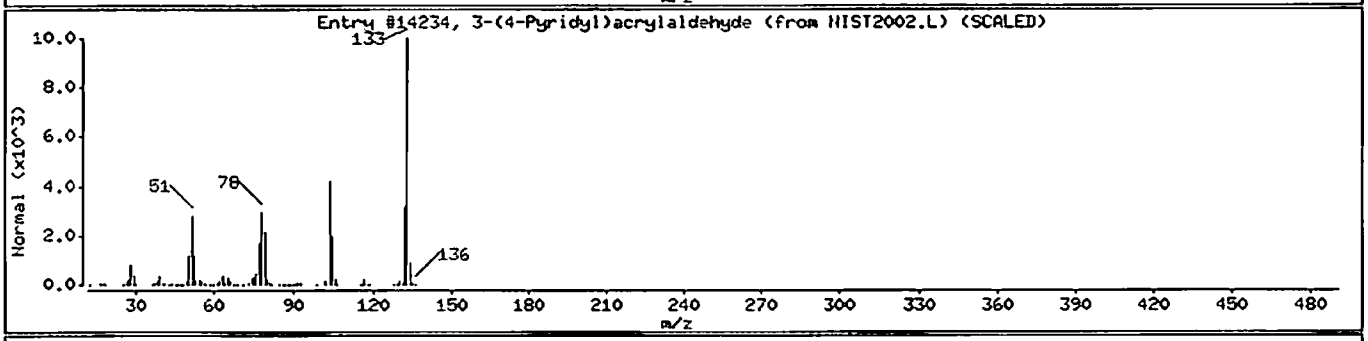
Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-(4-Pyridyl)acrylaldehyde	26505-36-2	NIST2002.L	14234	86	C8H7NO	133





Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

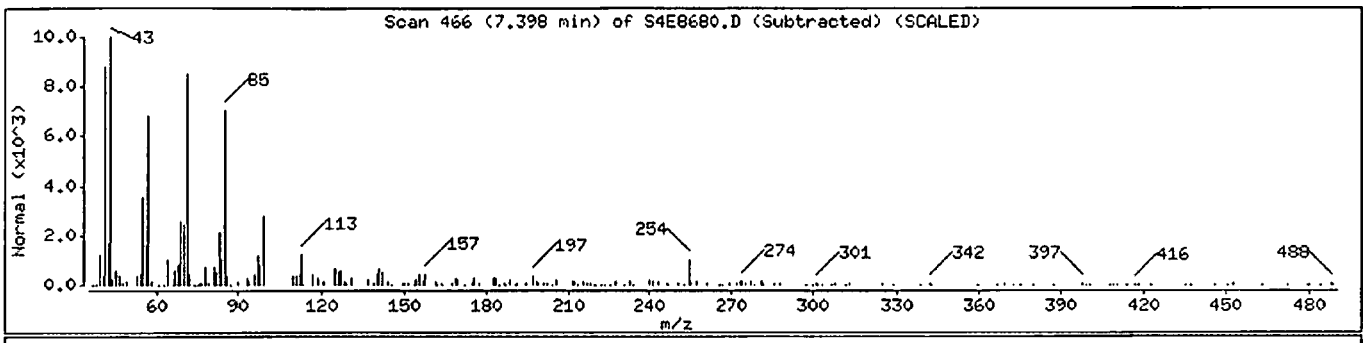
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

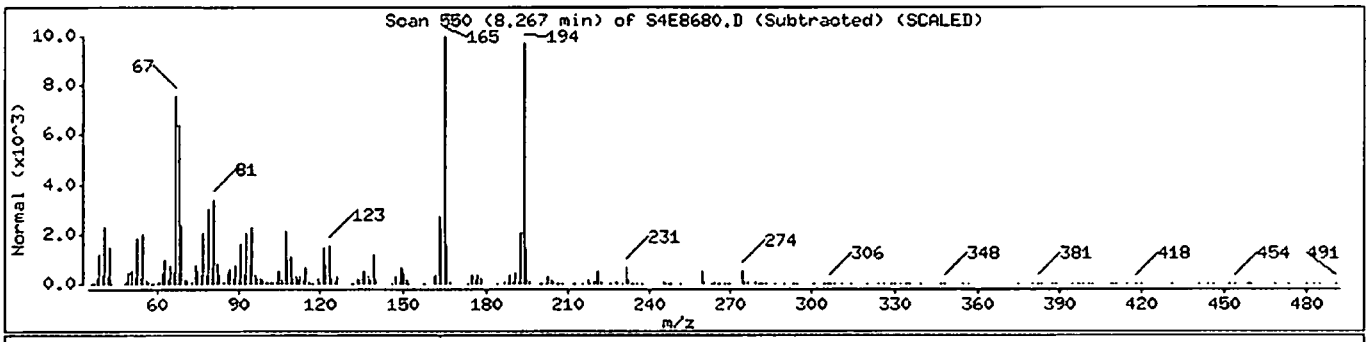
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

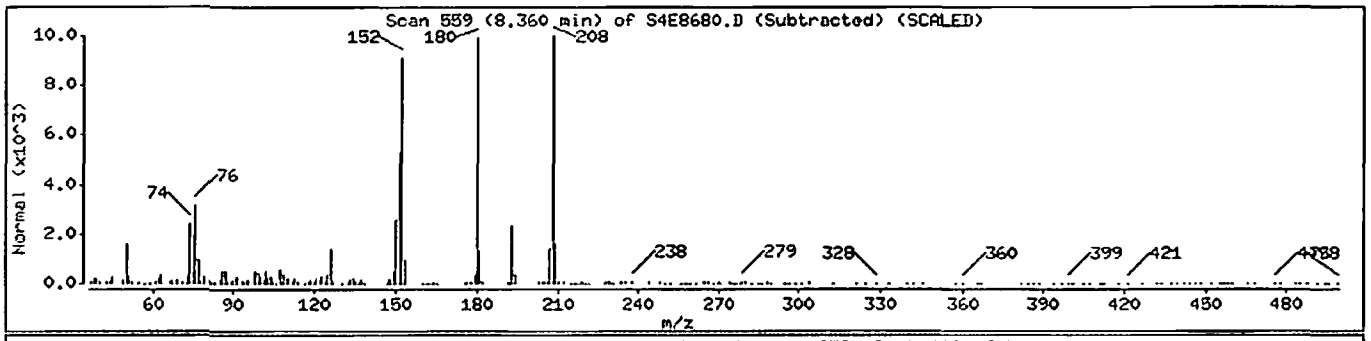
Client ID: H30R4 Instrument: S4.i

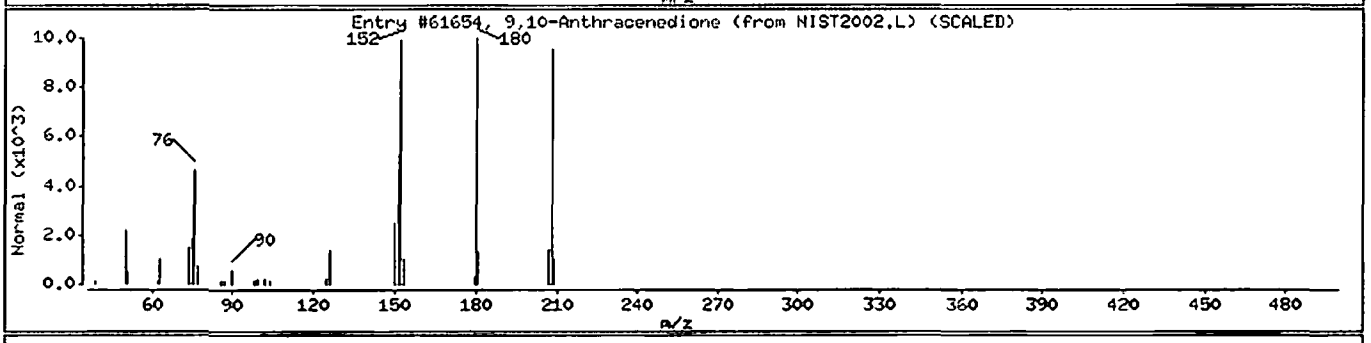
Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: HHS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9,10-Anthracenedione	84-65-1	NIST2002.L	61654	95	C14H8O2	208





Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

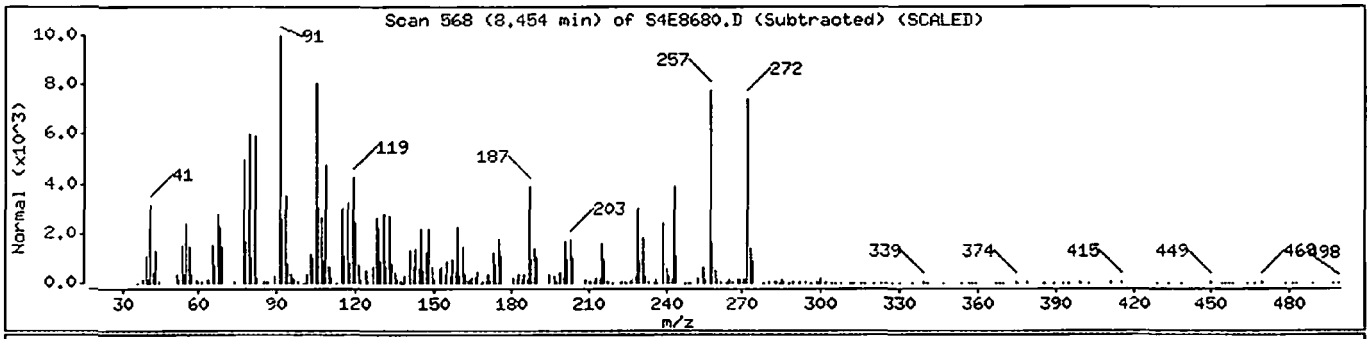
Client ID: H30R4 Instrument: S4.i

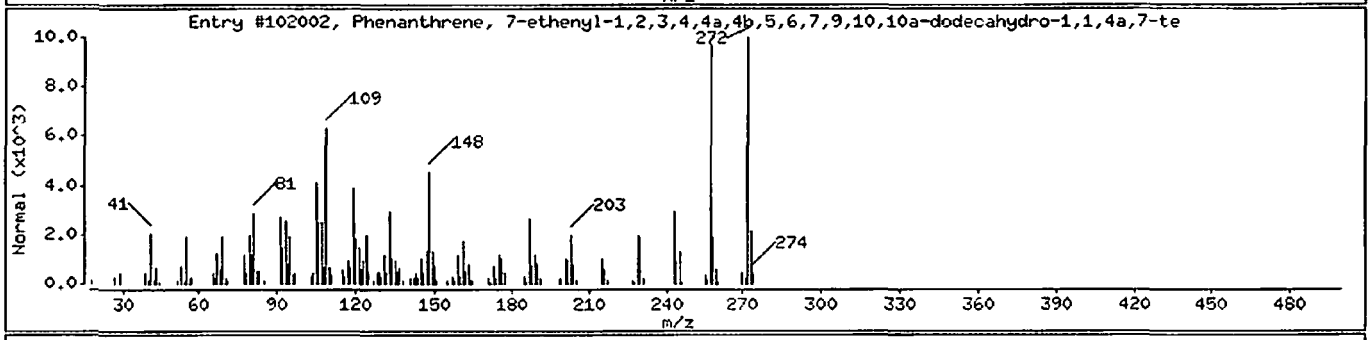
Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,	1686-56-2	NIST2002.L	102002	87	C20H32	272





Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

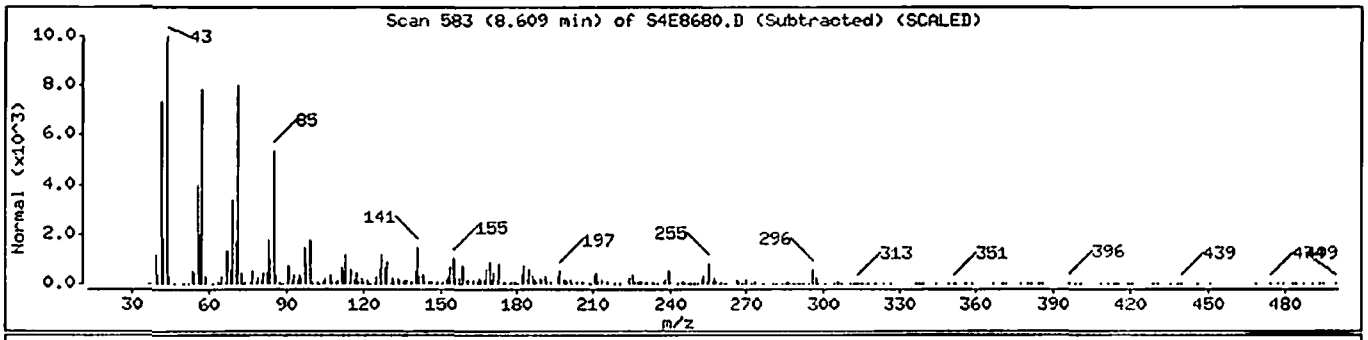
Client ID: H30R4 Instrument: S4.i

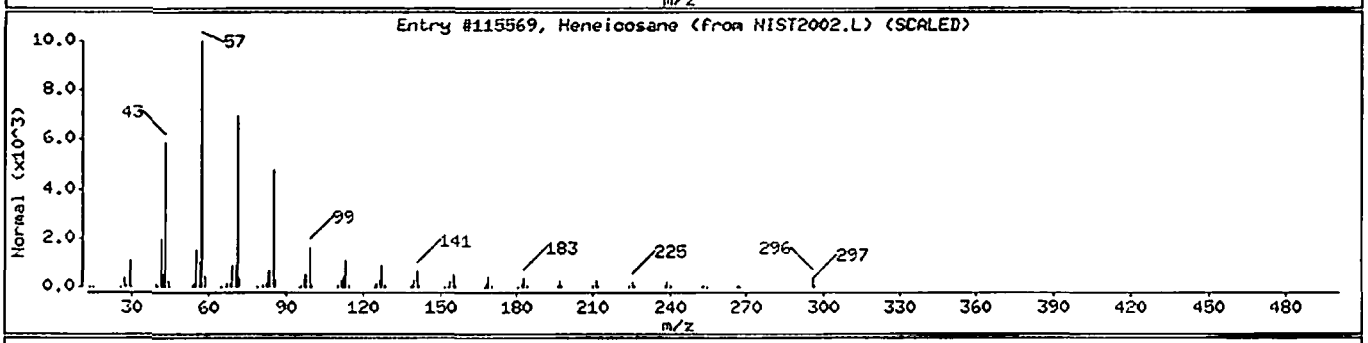
Sample Info: K2199-08A,,62801,,

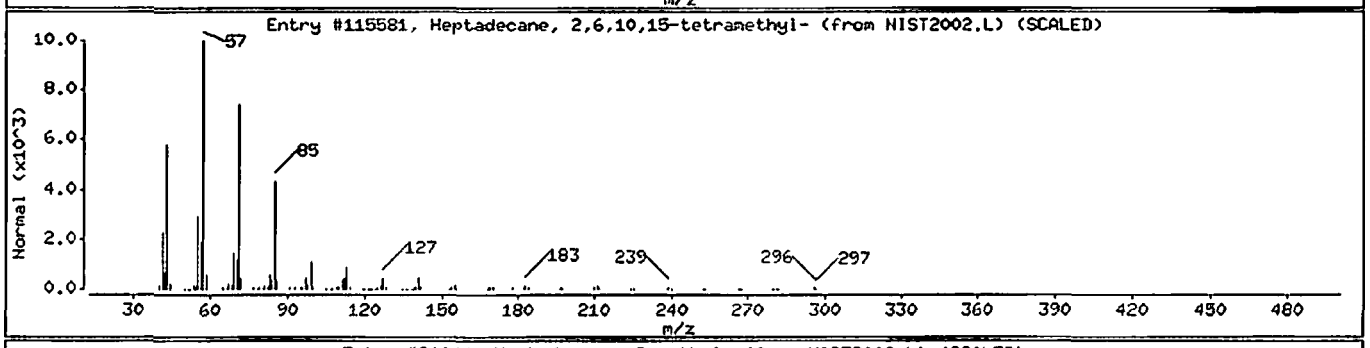
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

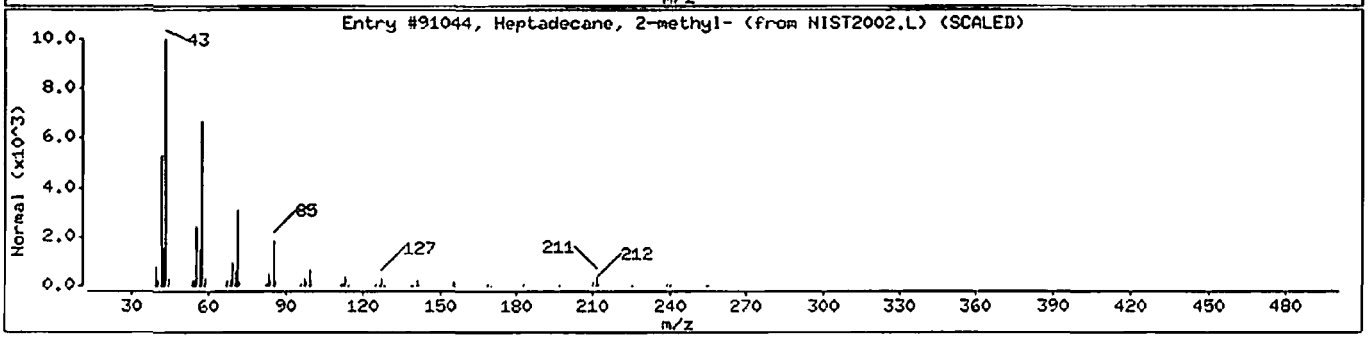
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Heneicosane	629-94-7	NIST2002.L	115569	96	C21H44	296
Heptadecane, 2,6,10,15-tetramethyl-	54833-48-6	NIST2002.L	115581	94	C21H44	296
Heptadecane, 2-methyl-	1560-89-0	NIST2002.L	91044	94	C18H38	254









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

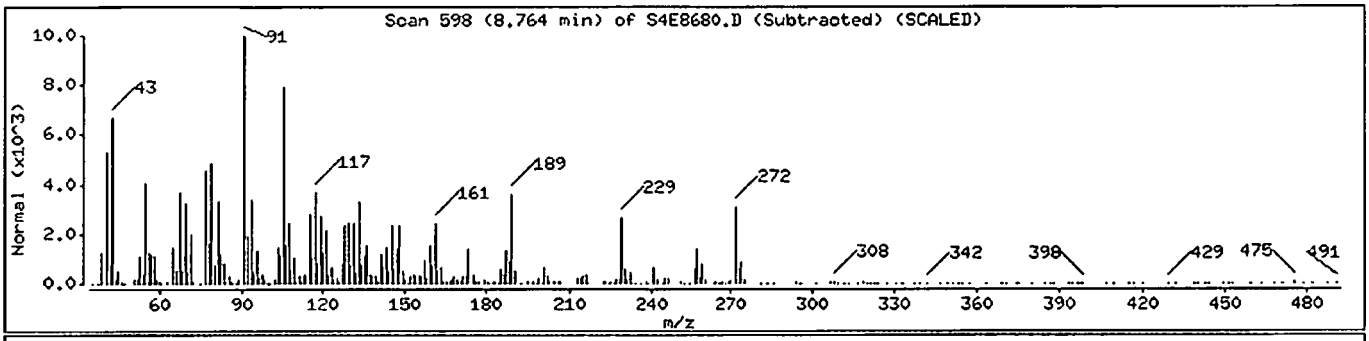
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

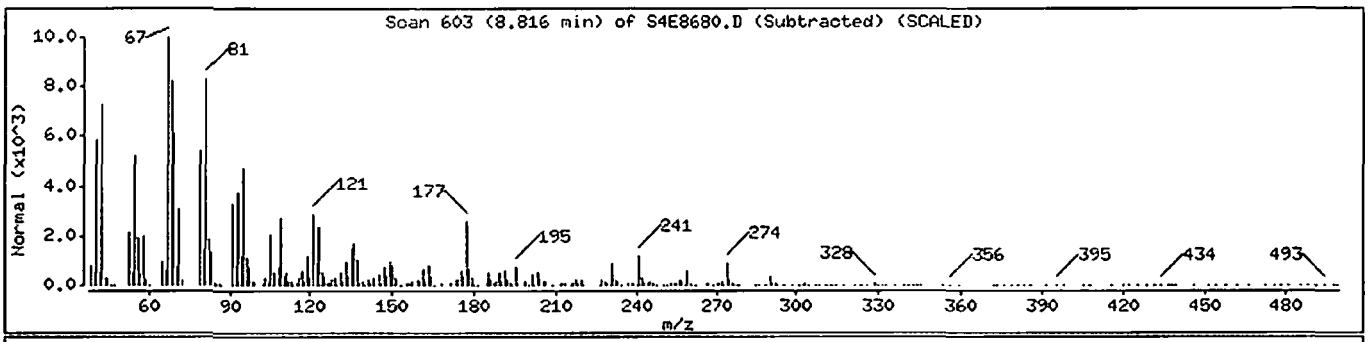
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

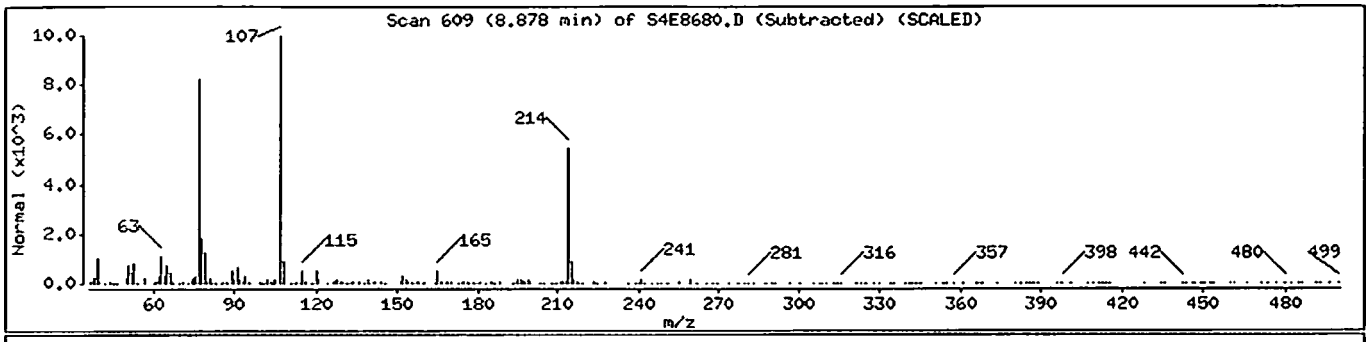
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

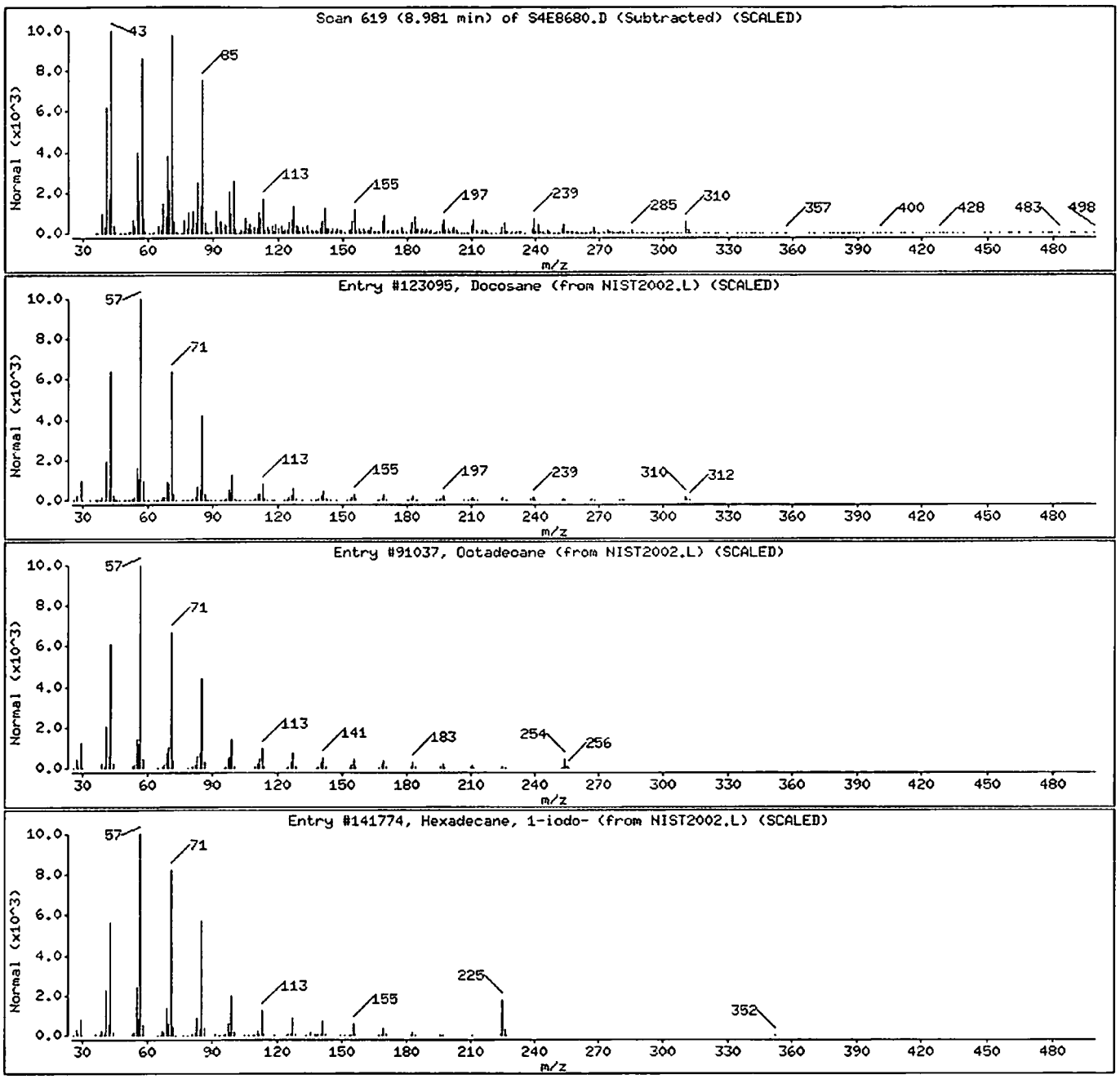
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Hatch	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Docosane	629-97-0	NIST2002.L	123095	98	C22H46	310
Octadecane	593-45-3	NIST2002.L	91037	97	C18H38	254
Hexadecane, 1-iodo-	544-77-4	NIST2002.L	141774	93	C16H33I	352



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

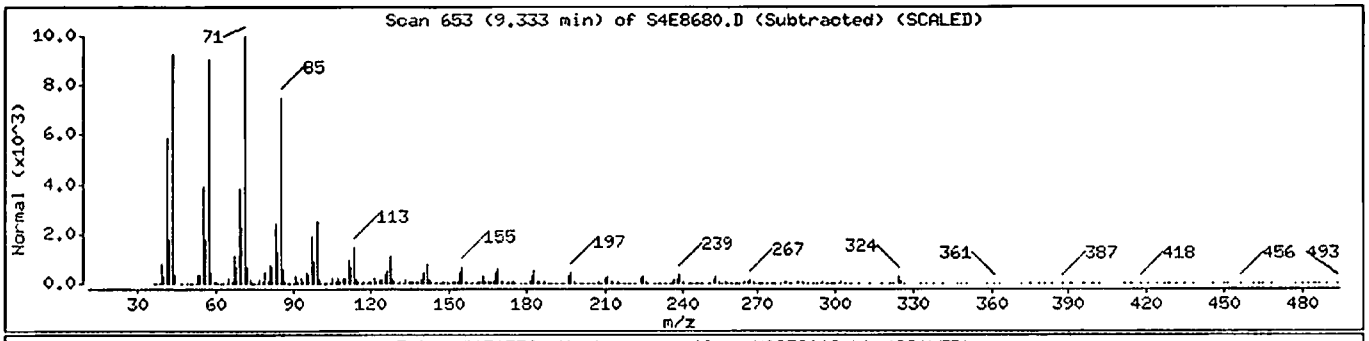
Client ID: H30R4 Instrument: S4.i

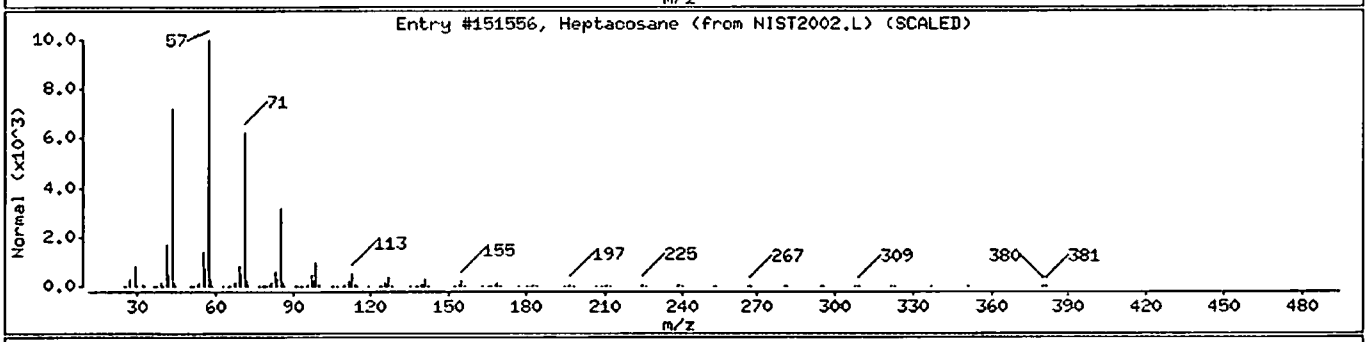
Sample Info: K2199-08A,,62801,,

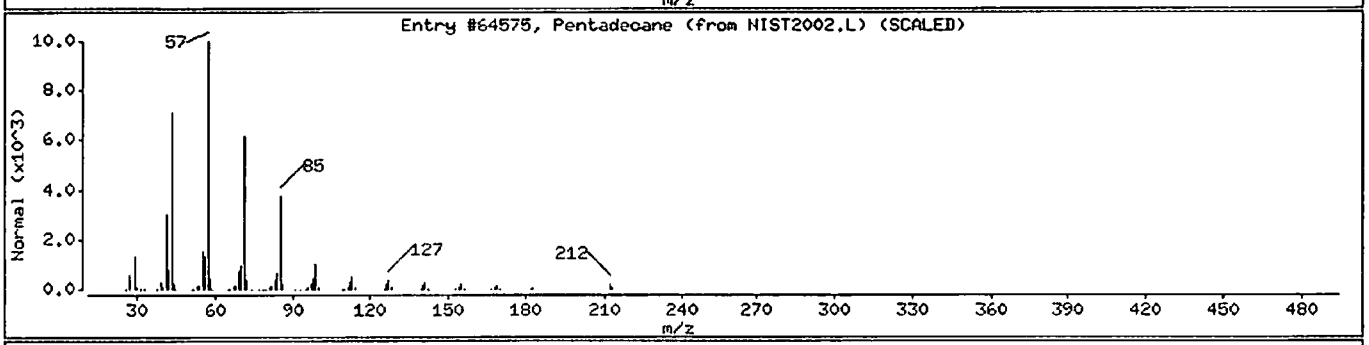
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

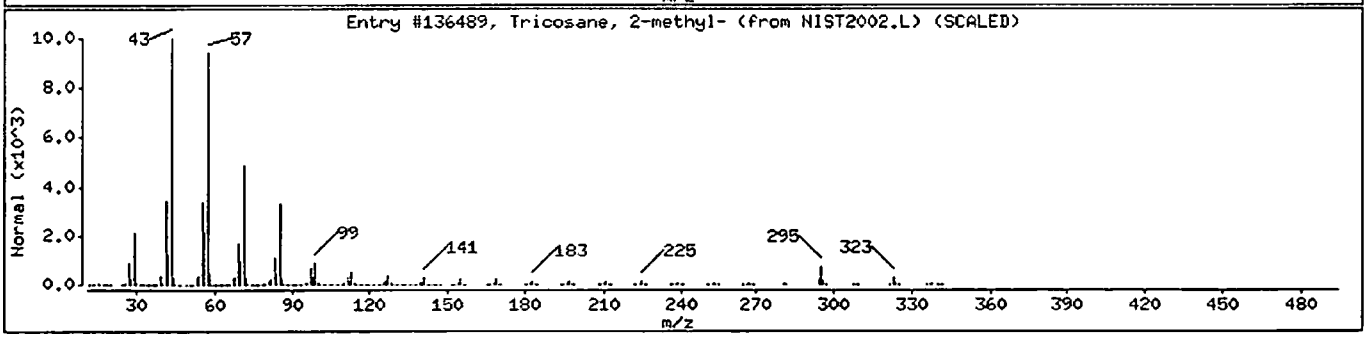
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Heptacosane	593-49-7	NIST2002.L	151556	97	C27H56	380
Pentadecane	629-62-9	NIST2002.L	64575	95	C15H32	212
Tricosane, 2-methyl-	1928-30-9	NIST2002.L	136489	93	C24H50	338









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

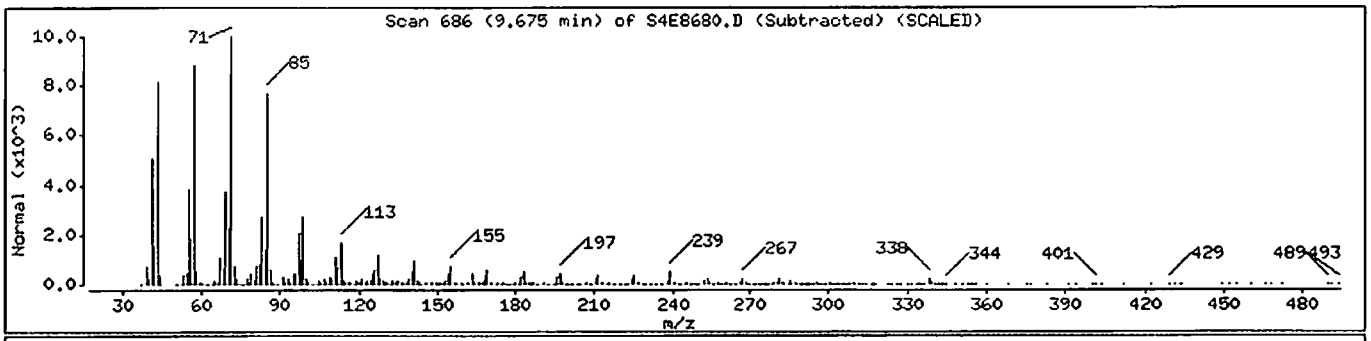
Client ID: H30R4 Instrument: S4.i

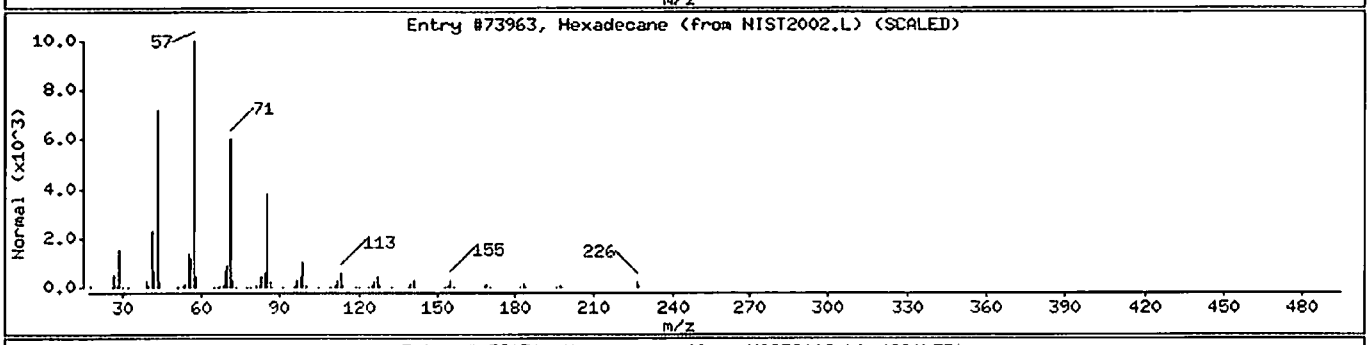
Sample Info: K2199-08A,,62801,,

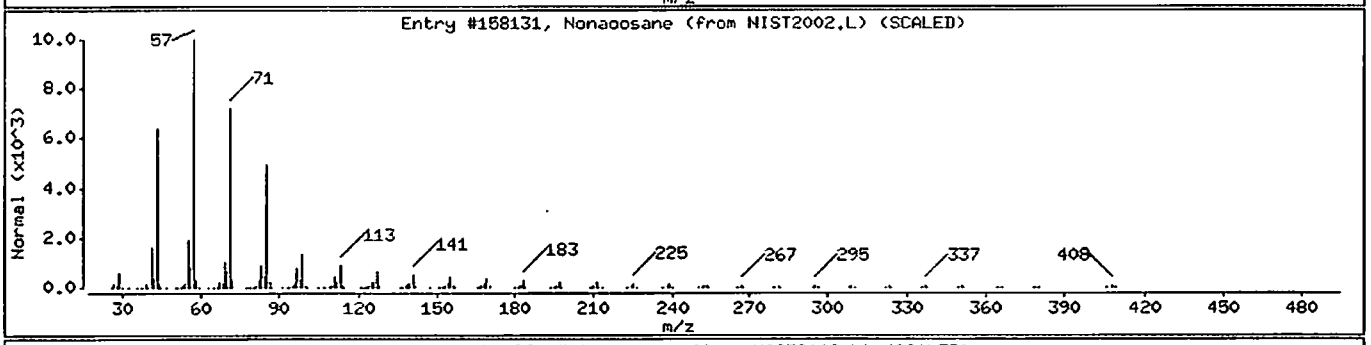
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

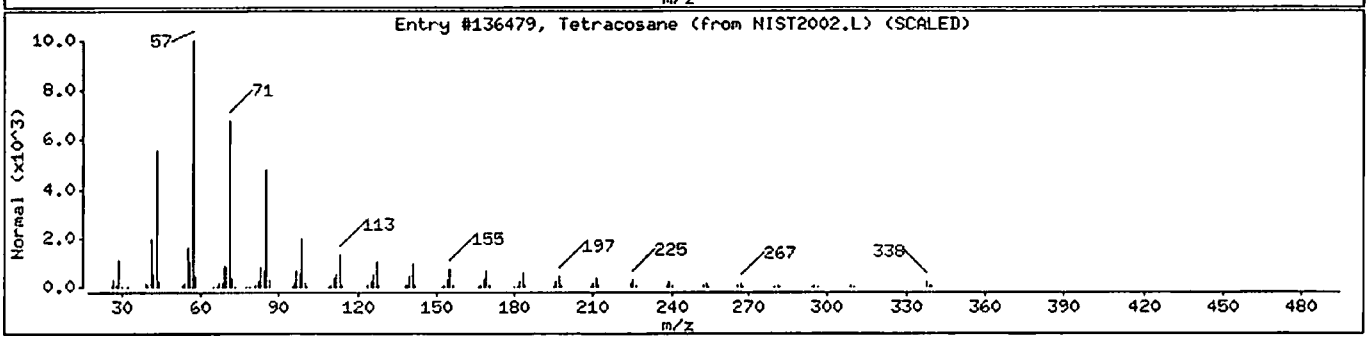
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Hexadecane	544-76-3	NIST2002.L	73963	98	C16H34	226
Nonacosane	630-03-5	NIST2002.L	158131	95	C29H60	408
Tetracosane	646-31-1	NIST2002.L	136479	95	C24H50	338









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

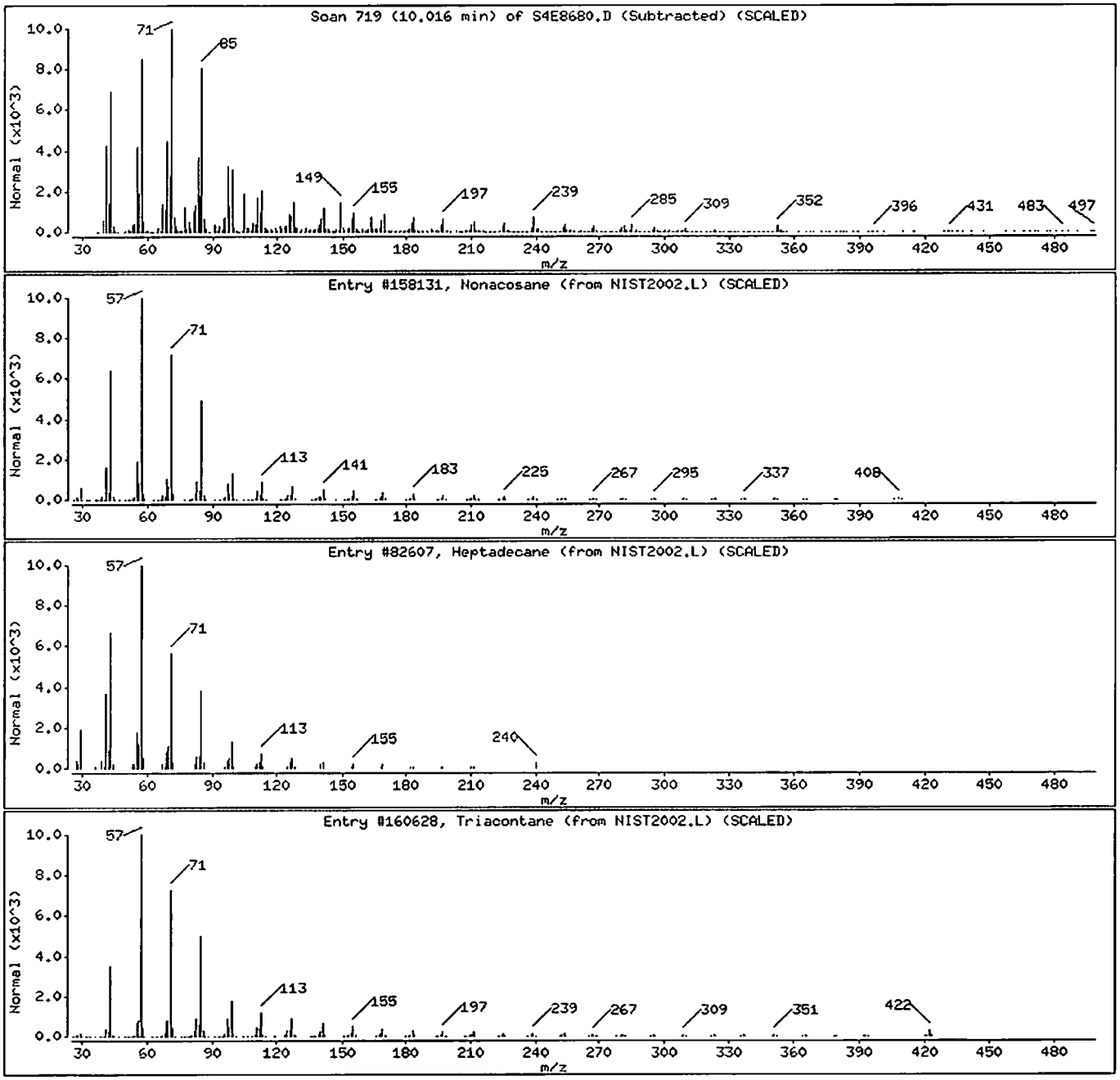
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Nonacosane	630-03-5	NIST2002.L	158131	97	C29H60	408
Heptadecane	629-78-7	NIST2002.L	82607	96	C17H36	240
Triacontane	638-68-6	NIST2002.L	160628	95	C30H62	422



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

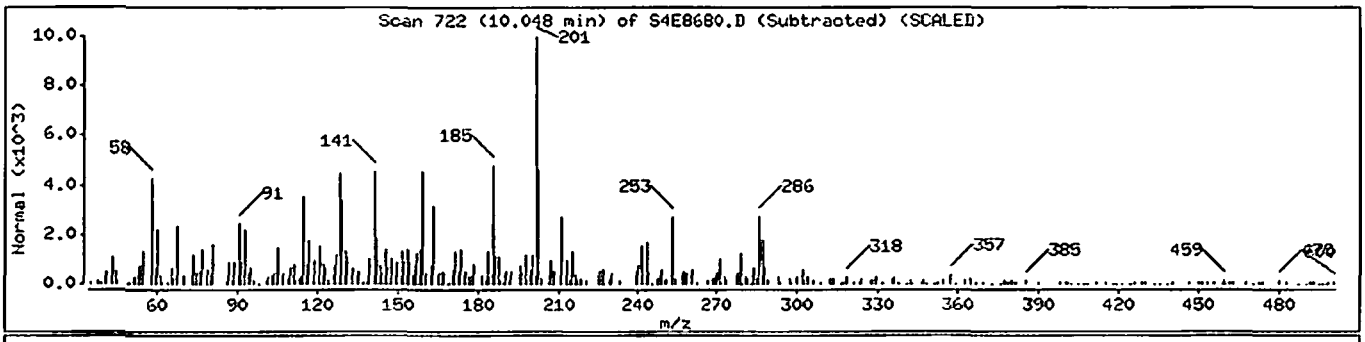
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

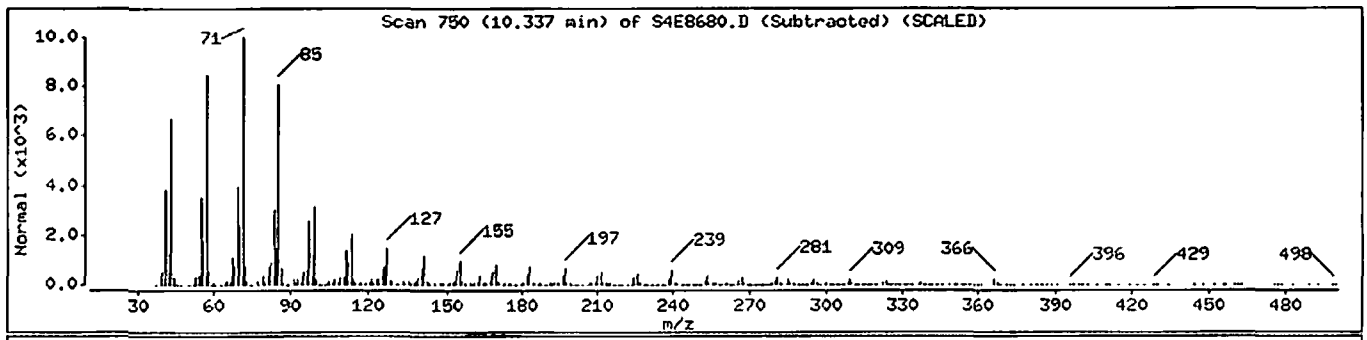
Client ID: H30R4 Instrument: S4.i

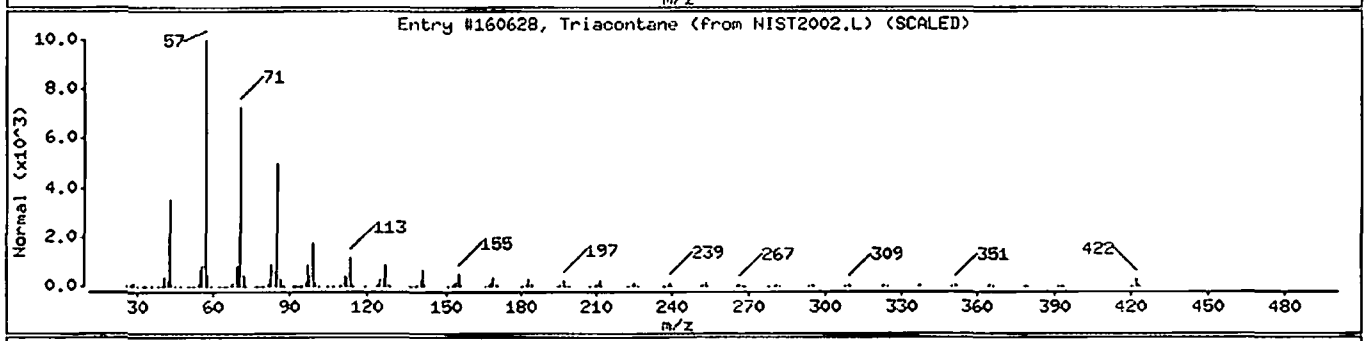
Sample Info: K2199-08A,,62801,,

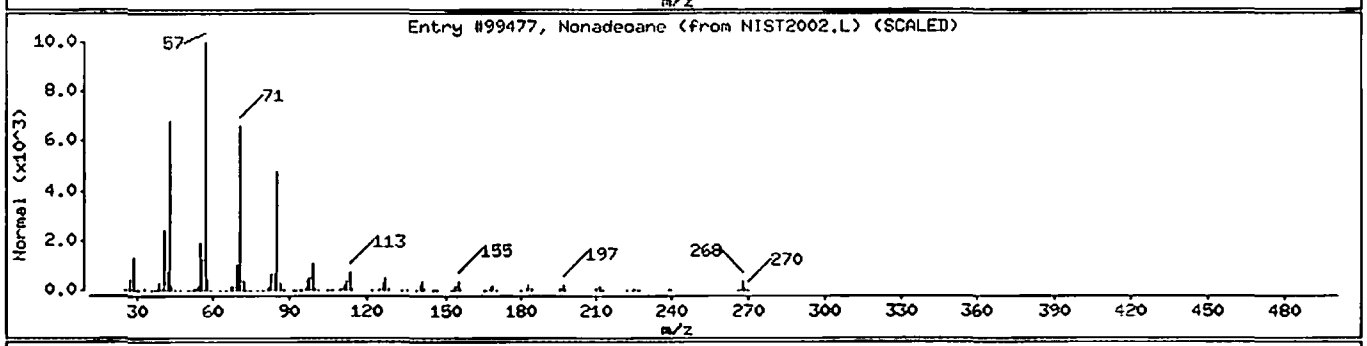
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

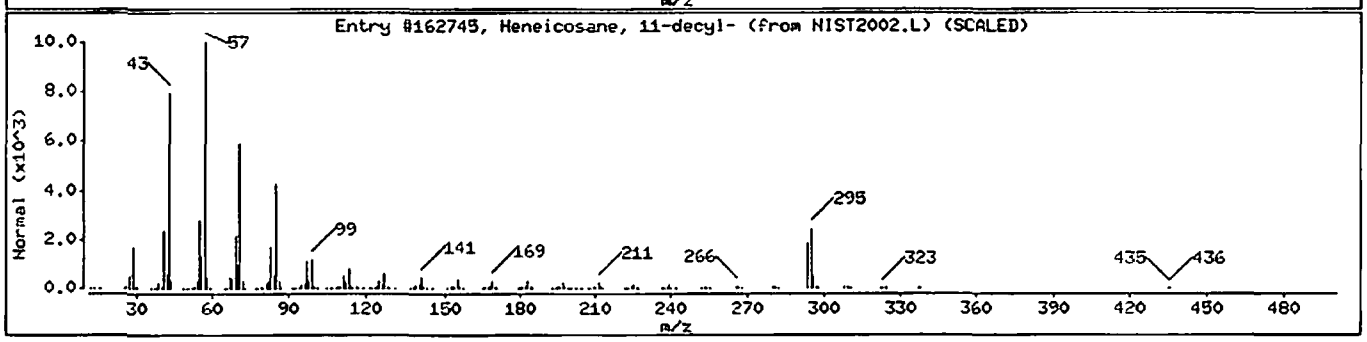
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Triacontane	638-68-6	NIST2002.L	160628	98	C30H62	422
Nonadecane	629-92-5	NIST2002.L	99477	96	C19H40	268
Heneicosane, 11-decyl-	55320-06-4	NIST2002.L	162745	95	C31H64	437









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

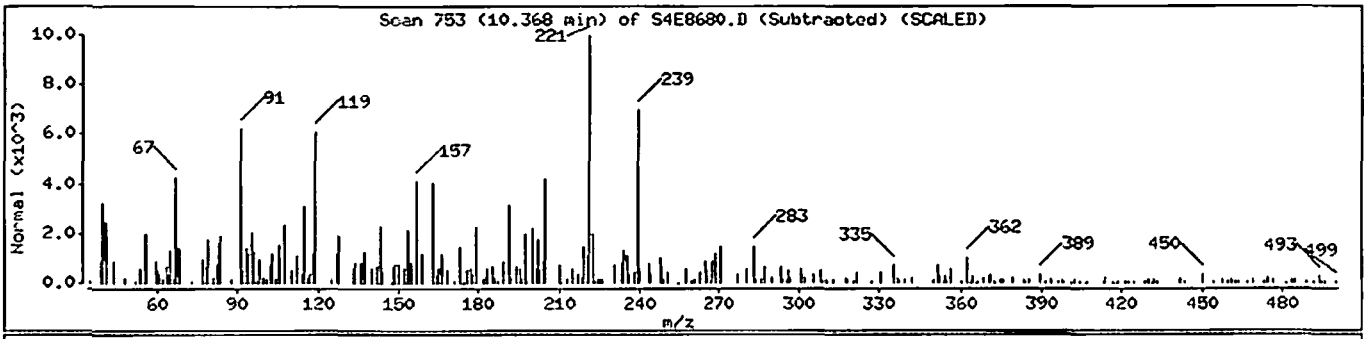
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

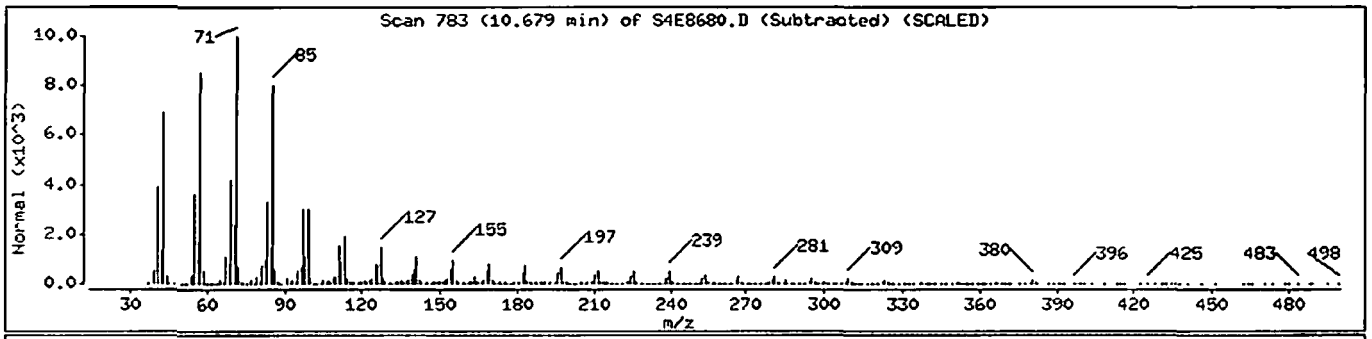
Client ID: H30R4 Instrument: S4.i

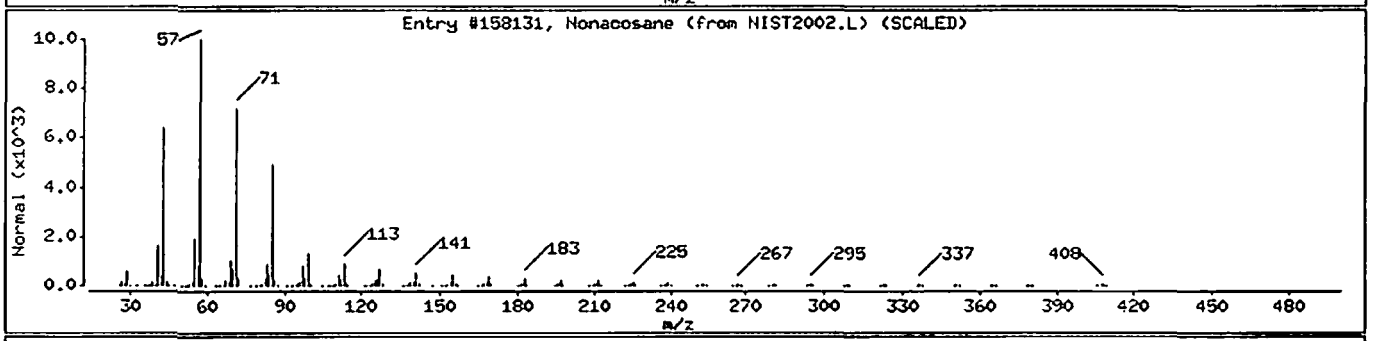
Sample Info: K2199-08A,,62801,,

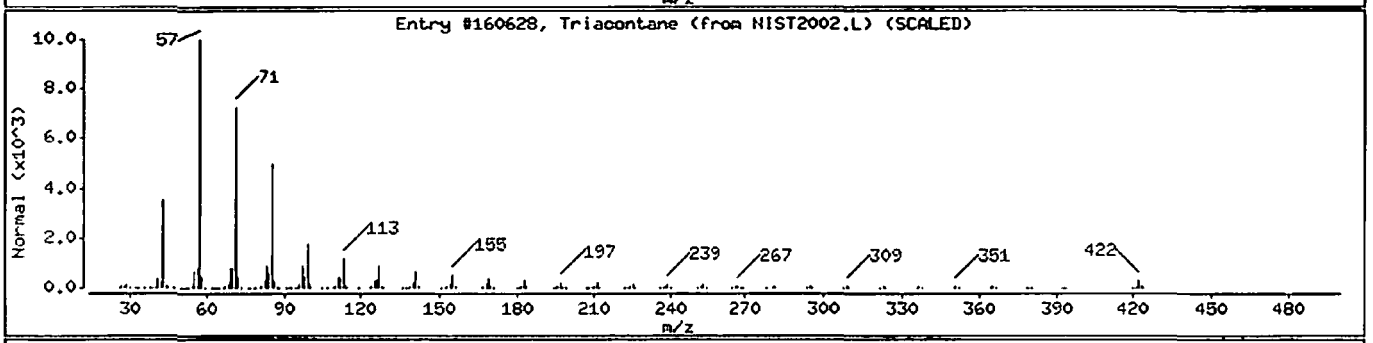
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

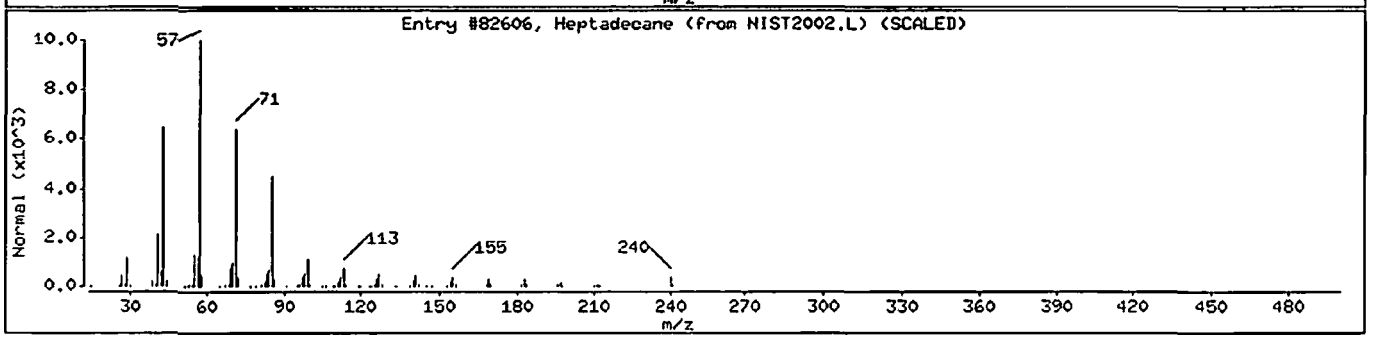
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Nonacosane	630-03-5	NIST2002.L	158131	98	C29H60	408
Triacontane	638-68-6	NIST2002.L	160628	97	C30H62	422
Heptadecane	629-78-7	NIST2002.L	82606	96	C17H36	240









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

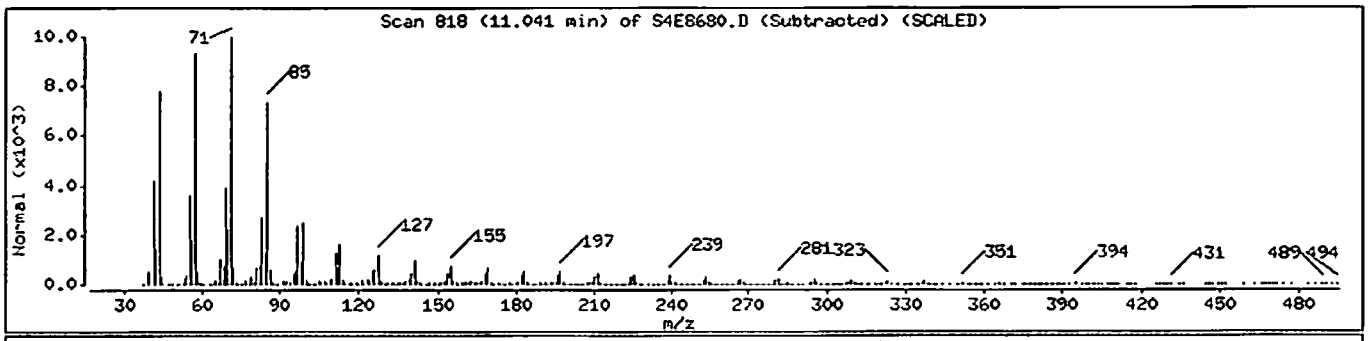
Client ID: H30R4 Instrument: S4.i

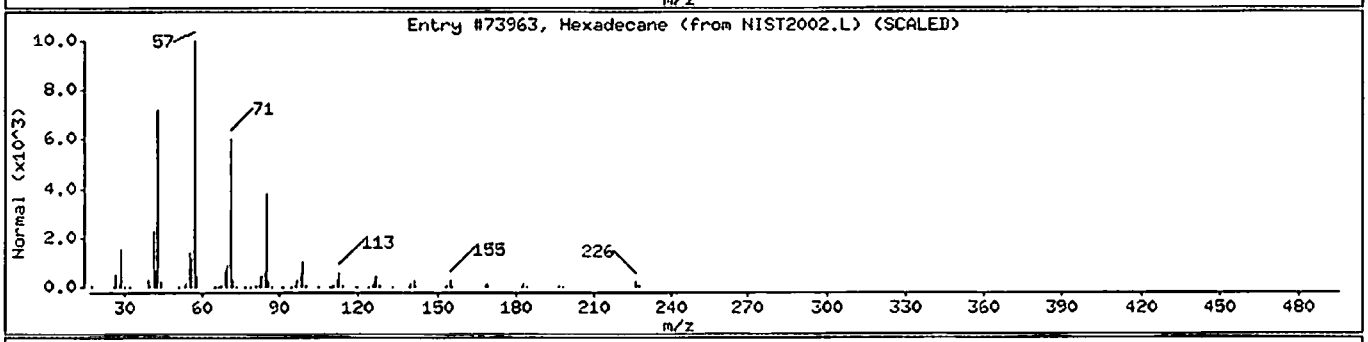
Sample Info: K2199-08A,,62801,,

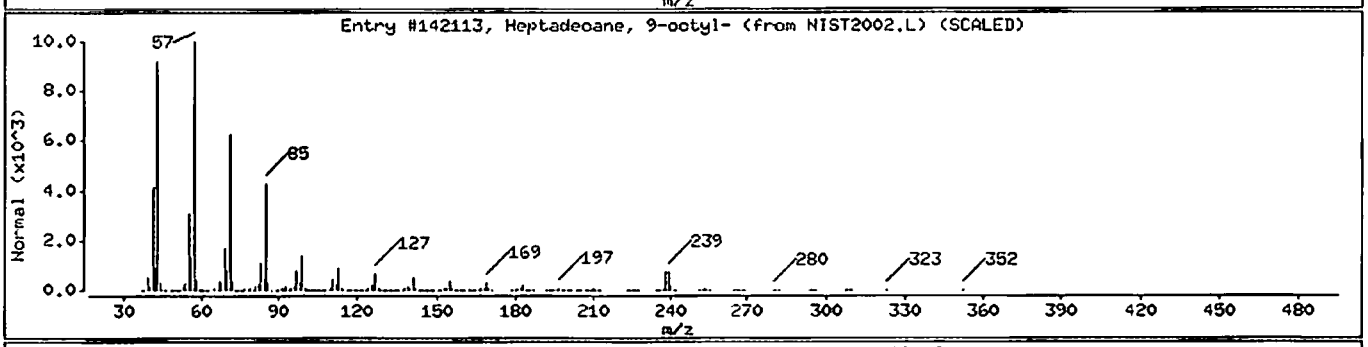
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

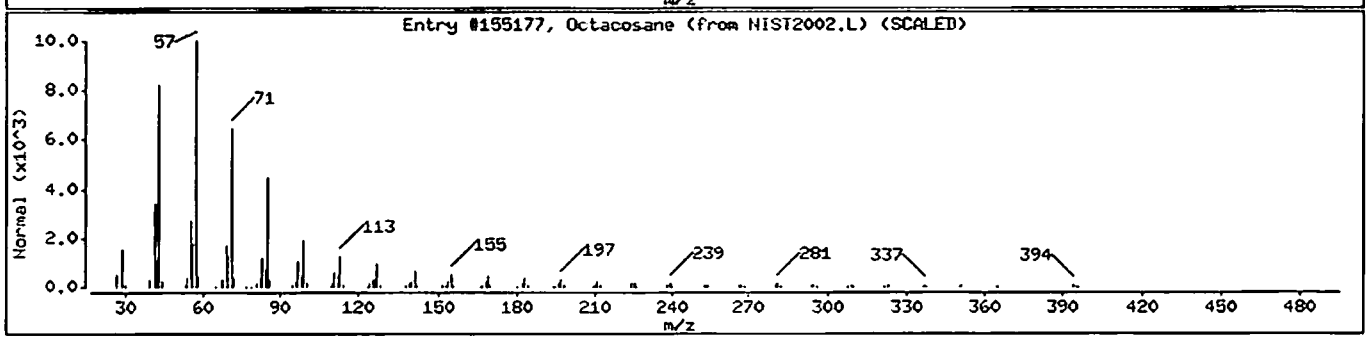
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Hexadecane	544-76-3	NIST2002.L	73963	97	C16H34	226
Heptadecane, 9-octyl-	7225-64-1	NIST2002.L	142113	93	C25H52	352
Octacosane	630-02-4	NIST2002.L	155177	92	C28H58	394









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

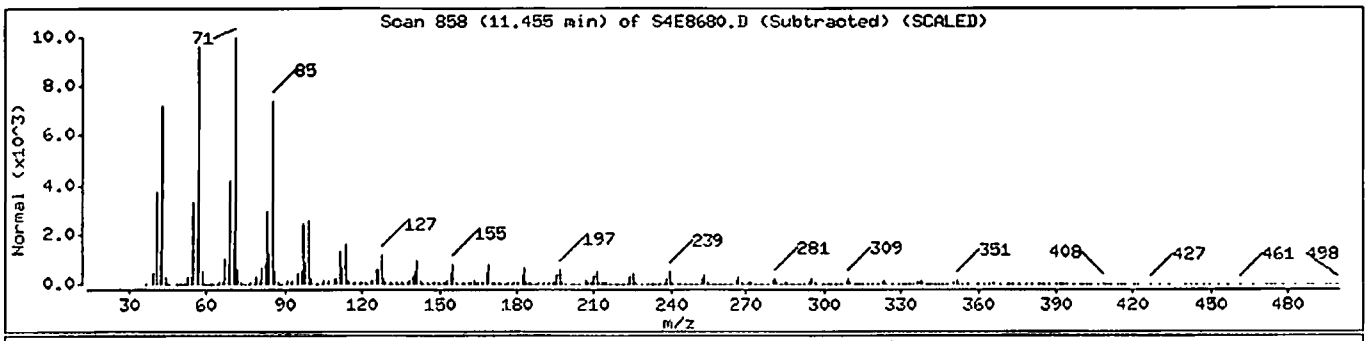
Client ID: H30R4 Instrument: S4.i

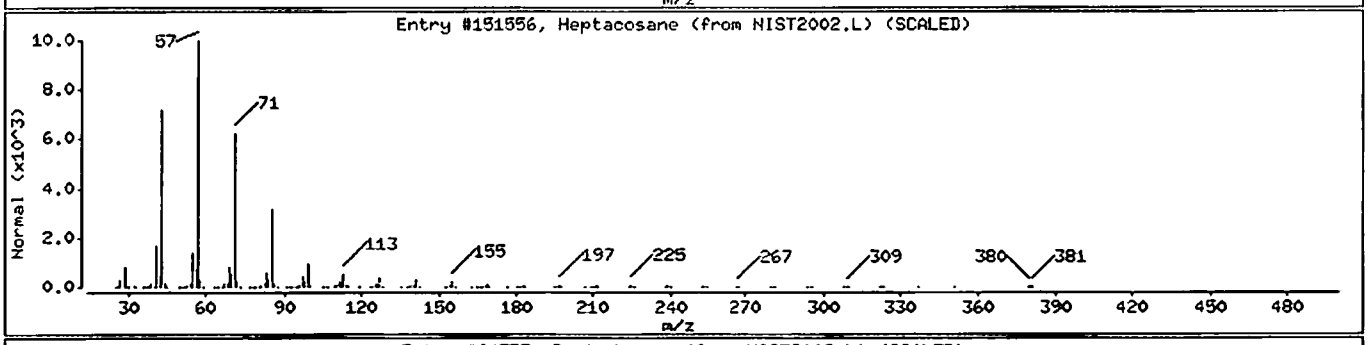
Sample Info: K2199-08A,,62801,,

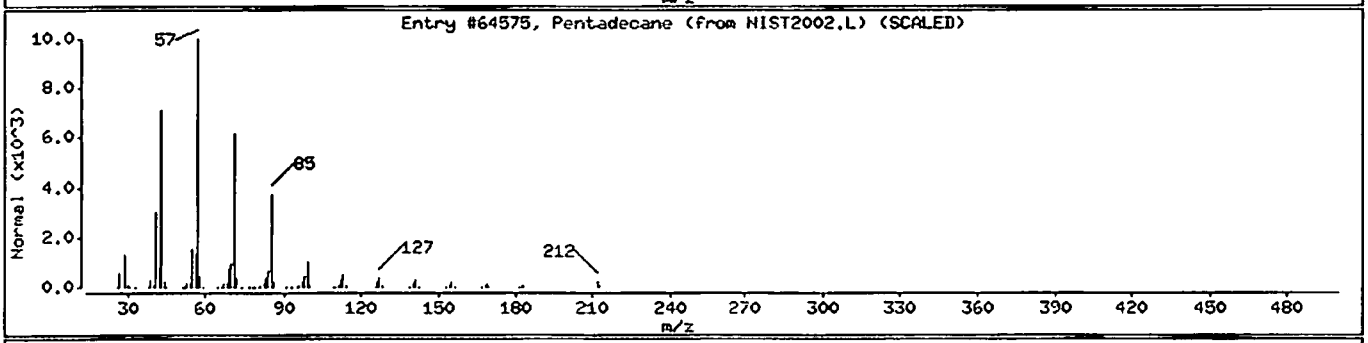
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

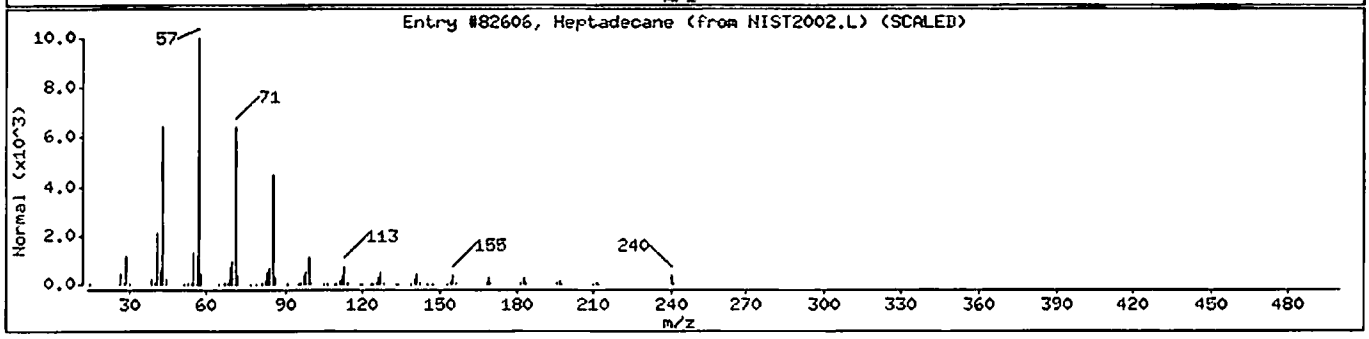
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Heptacosane	593-49-7	NIST2002.L	151556	97	C27H56	380
Pentadecane	629-62-9	NIST2002.L	64575	96	C15H32	212
Heptadecane	629-78-7	NIST2002.L	82606	95	C17H36	240









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

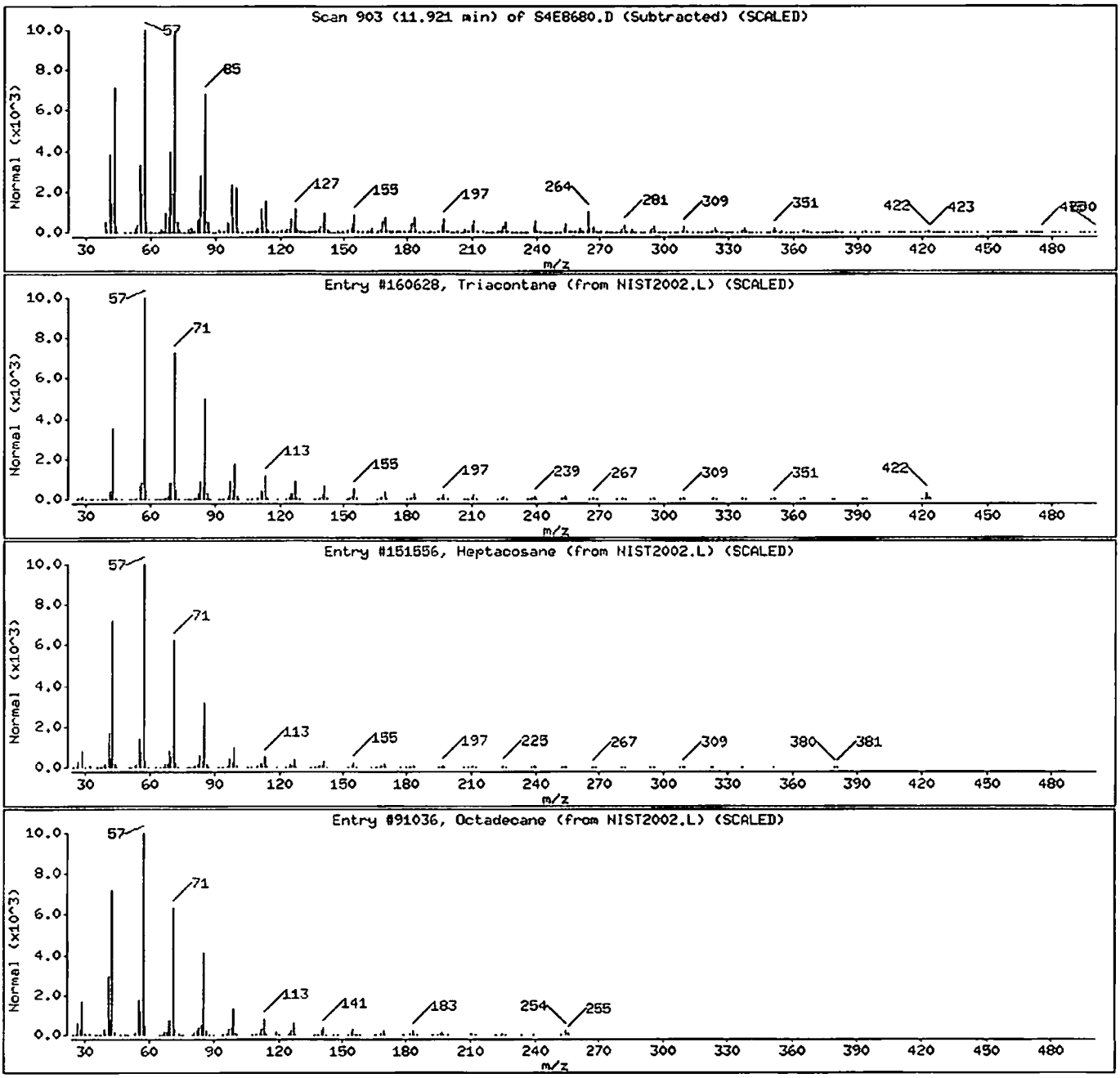
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Triacontane	638-68-6	NIST2002.L	160628	98	C30H62	422
Heptacosane	593-49-7	NIST2002.L	151556	98	C27H56	380
Octadecane	593-45-3	NIST2002.L	91036	95	C18H38	254



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

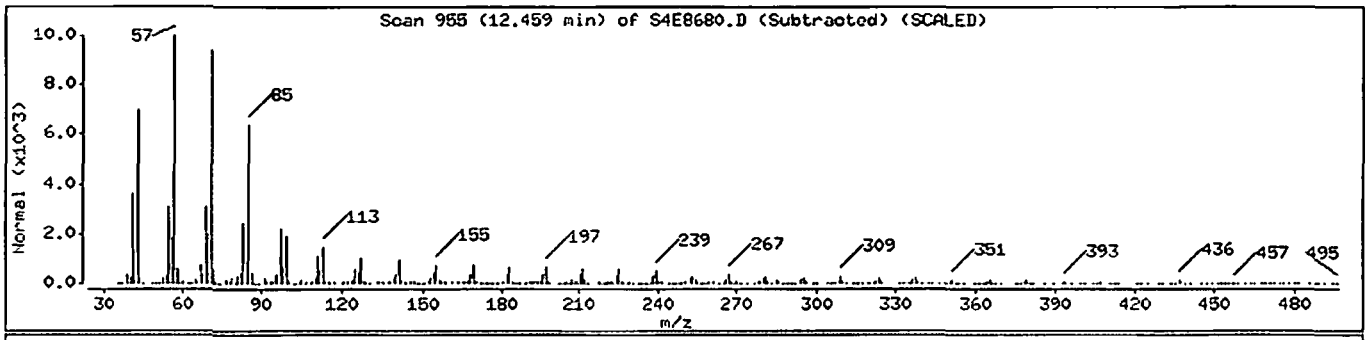
Client ID: H30R4 Instrument: S4.i

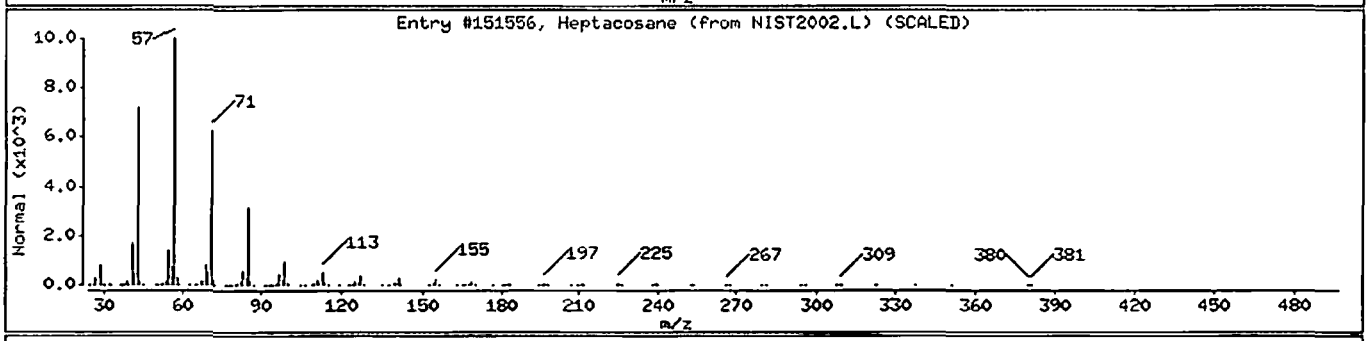
Sample Info: K2199-08A,,62801,,

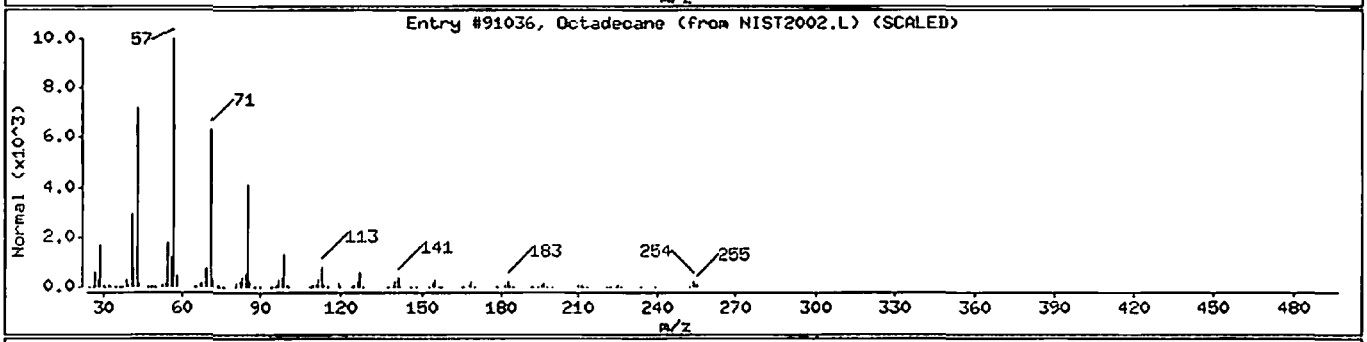
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

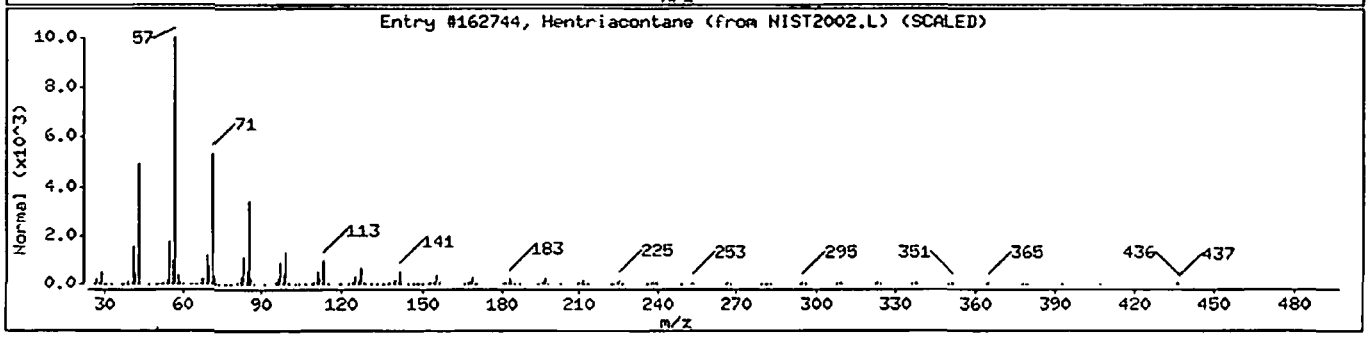
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Heptacosane	593-49-7	NIST2002.L	151556	96	C27H56	380
Octadecane	593-45-3	NIST2002.L	91036	95	C18H38	254
Hentriacontane	630-04-6	NIST2002.L	162744	93	C31H64	437









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

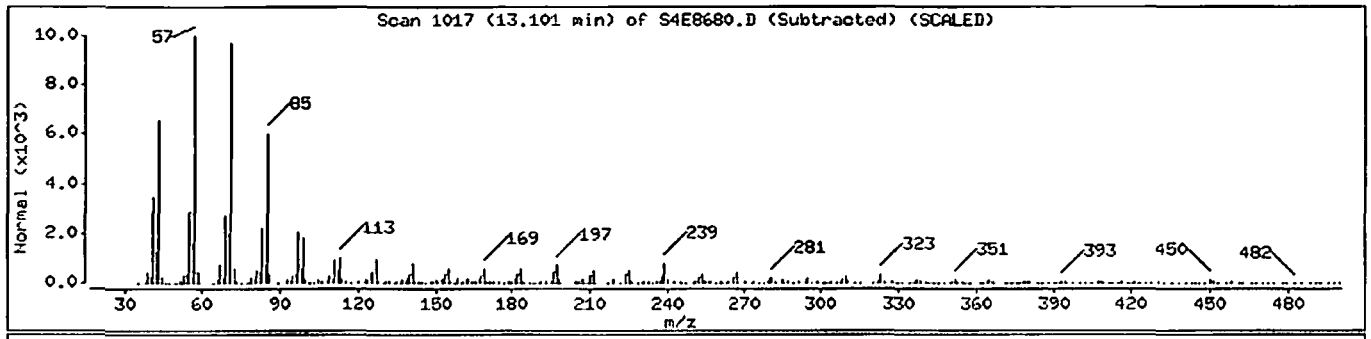
Client ID: H30R4 Instrument: S4.i

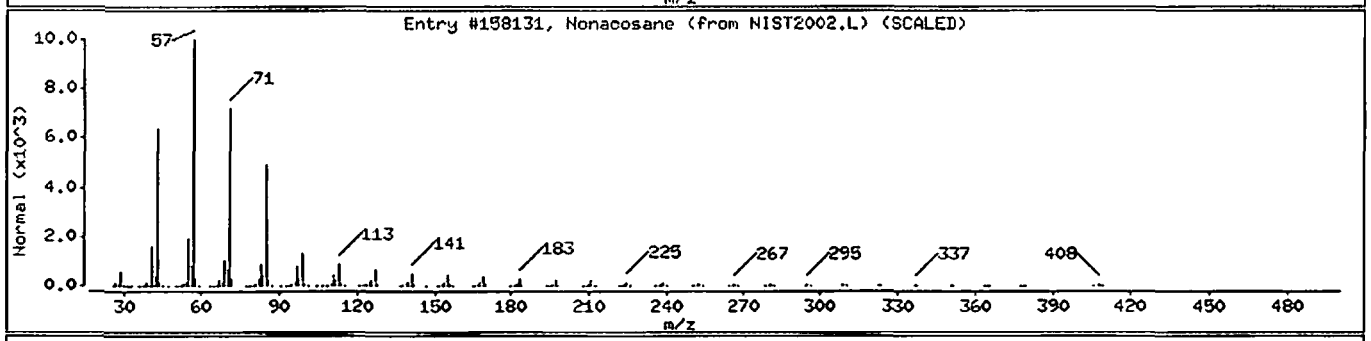
Sample Info: K2199-08A,,62801,,

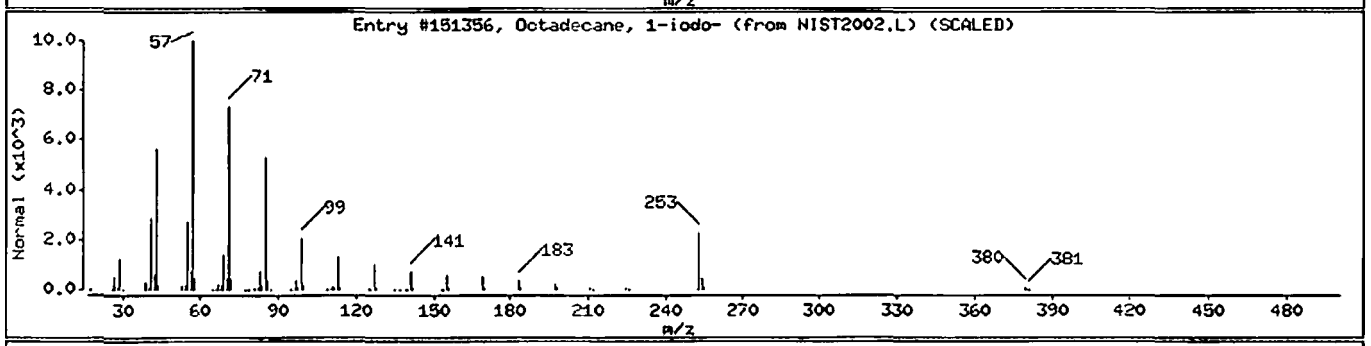
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

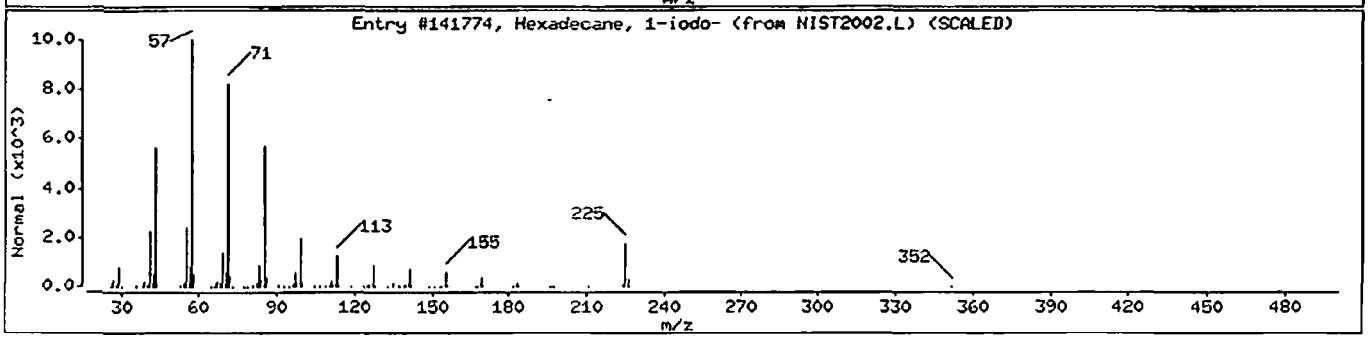
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Nonacosane	630-03-5	NIST2002.L	158131	92	C29H60	408
Octadecane, 1-iodo-	629-93-6	NIST2002.L	151356	87	C18H37I	380
Hexadecane, 1-iodo-	544-77-4	NIST2002.L	141774	86	C16H33I	352









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

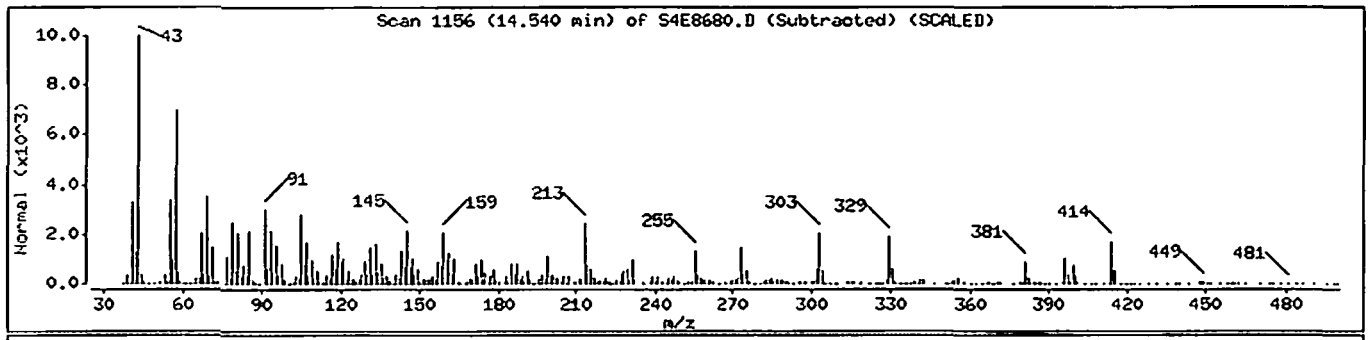
Client ID: H30R4 Instrument: S4.i

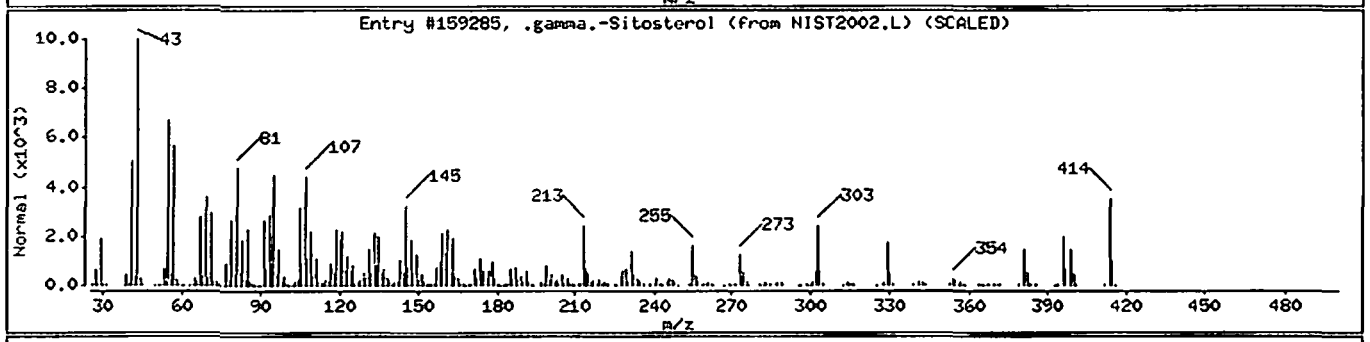
Sample Info: K2199-08A,,62801,,

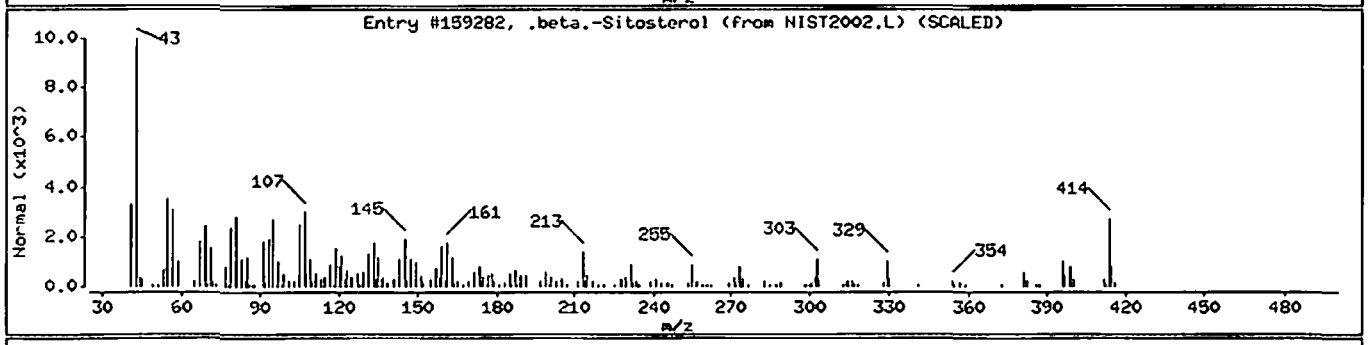
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.gamma.-Sitosterol	83-47-6	NIST2002.L	159285	93	C29H500	414
.beta.-Sitosterol	83-46-5	NIST2002.L	159282	92	C29H500	414







Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8680.D

Date : 13-NOV-2011 16:48

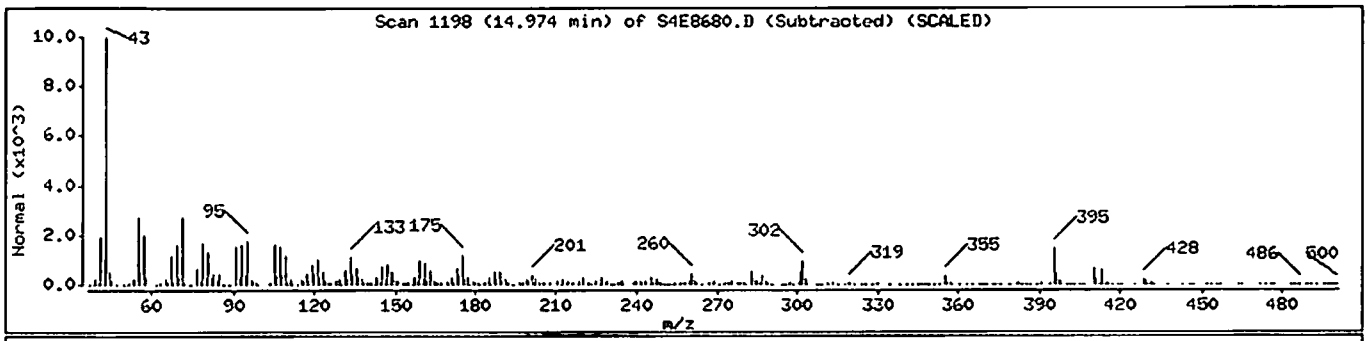
Client ID: H30R4 Instrument: S4.i

Sample Info: K2199-08A,,62801,,

Volume Injected (uL): 2.0 Operator: HMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R4DL

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-08ADL

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4E8695.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 80 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	4100	U
108-95-2	Phenol	4100	U
111-44-4	Bis(2-chloroethyl)ether	4100	U
95-57-8	2-Chlorophenol	4100	U
95-48-7	2-Methylphenol	4100	U
108-60-1	2,2'-Oxybis(1-chloropropane)	4100	U
98-86-2	Acetophenone	4100	U
106-44-5	4-Methylphenol	40000	D
621-64-7	N-Nitroso-di-n-propylamine	4100	U
67-72-1	Hexachloroethane	4100	U
98-95-3	Nitrobenzene	4100	U
78-59-1	Isophorone	4100	U
88-75-5	2-Nitrophenol	4100	U
105-67-9	2,4-Dimethylphenol	4100	U
111-91-1	Bis(2-chloroethoxy)methane	4100	U
120-83-2	2,4-Dichlorophenol	4100	U
91-20-3	Naphthalene	4100	U
106-47-8	4-Chloroaniline	4100	U
87-68-3	Hexachlorobutadiene	4100	U
105-60-2	Caprolactam	4100	U
59-50-7	4-Chloro-3-methylphenol	4100	U
91-57-6	2-Methylnaphthalene	4100	U
77-47-4	Hexachlorocyclopentadiene	4100	U
88-06-2	2,4,6-Trichlorophenol	4100	U
95-95-4	2,4,5-Trichlorophenol	4100	U
92-52-4	1,1'-Biphenyl	4100	U
91-58-7	2-Chloronaphthalene	4100	U
88-74-4	2-Nitroaniline	7900	U
131-11-3	Dimethylphthalate	4100	U
606-20-2	2,6-Dinitrotoluene	4100	U
208-96-8	Acenaphthylene	4100	U
99-09-2	3-Nitroaniline	7900	U
83-32-9	Acenaphthene	4100	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R4DL

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-08ADL

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4E8695.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 80 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	7900	U
100-02-7	4-Nitrophenol	7900	U
132-64-9	Dibenzofuran	4100	U
121-14-2	2,4-Dinitrotoluene	4100	U
84-66-2	Diethylphthalate	4100	U
86-73-7	Fluorene	4100	U
7005-72-3	4-Chlorophenyl-phenylether	4100	U
100-01-6	4-Nitroaniline	7900	U
534-52-1	4,6-Dinitro-2-methylphenol	7900	U
86-30-6	N-Nitrosodiphenylamine (1)	4100	U
95-94-3	1,2,4,5-Tetrachlorobenzene	4100	U
101-55-3	4-Bromophenyl-phenylether	4100	U
118-74-1	Hexachlorobenzene	4100	U
1912-24-9	Atrazine	4100	U
87-86-5	Pentachlorophenol	7900	U
85-01-8	Phenanthrene	4100	U
120-12-7	Anthracene	4100	U
86-74-8	Carbazole	4100	U
84-74-2	Di-n-butylphthalate	4900	DB
206-44-0	Fluoranthene	4100	U
129-00-0	Pyrene	4100	U
85-68-7	Butylbenzylphthalate	1200	DJ
91-94-1	3,3'-Dichlorobenzidine	4100	U
56-55-3	Benzo(a)anthracene	4100	U
218-01-9	Chrysene	4100	U
117-81-7	Bis(2-ethylhexyl)phthalate	5000	D
117-84-0	Di-n-octylphthalate	4100	U
205-99-2	Benzo(b)fluoranthene	4100	U
207-08-9	Benzo(k)fluoranthene	4100	U
50-32-8	Benzo(a)pyrene	4100	U
193-39-5	Indeno(1,2,3-cd)pyrene	4100	U
53-70-3	Dibenzo(a,h)anthracene	4100	U
191-24-2	Benzo(g,h,i)perylene	4100	U
58-90-2	2,3,4,6-Tetrachlorophenol	4100	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H30R4DL

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-08ADL

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4E8695.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 80 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 5.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	527-84-4	Benzene, 1-methyl-2-(1-methy	3.351	53000	DNJ
02	620-17-7	Phenol, 3-ethyl-	4.138	5000	DNJ
03	475-20-7	1,4-Methanoazulene, decahydr	5.670	10000	DNJ
04		Unknown-01	5.939	3700	DJ
05		Unknown-02	6.384	6700	DJ
06		Unknown-03	7.005	3600	DJ
07		Unknown-04	8.081	3300	DJ
08		Unknown-05	8.174	15000	DJ
09		Unknown-06	8.195	15000	DJ
10		Unknown-07	8.247	2700	DJ
11	84-65-1	9,10-Anthracenedione	8.288	8700	DNJ
12		Unknown-08	8.350	3600	DJ
13		Unknown-09	8.381	12000	DJ
14		Unknown-10	8.702	10000	DJ
15	51487-38-8	1,5,9,13-Tetradecatetraene	8.744	25000	DNJ
16		Unknown-11	8.795	8300	DJ
17		Unknown-12	9.033	5100	DJ
18		Unknown-13	9.158	3900	DJ
19		Unknown-14	9.323	8900	DJ
20		Unknown-15	9.437	2600	DJ
21	74685-33-9	3-Eicosene, (E)-	9.592	52000	DNJ
22	13187-99-0	2-Bromo dodecane	10.234	60000	DNJ
23	474-62-4	Campesterol	13.546	6800	DNJ
24		Unknown-16	13.650	3700	DJ
25		Unknown-17	14.126	2800	DJ
26	83-47-6	.gamma.-Sitosterol	14.250	24000	DNJ
27		Unknown-18	14.374	4200	DJ
28		Unknown-19	14.695	6900	DJ
29		Unknown-20	15.616	2200	DJ
	E966796[2]	Total Alkanes	N/A	290000	J

[2]EPA-designated Registry Number.

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D
Report Date: 15-Nov-2011 11:59

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8695.D
Lab Smp Id: K2199-08ADL Client Smp ID: H30R4DL
Inj Date : 14-NOV-2011 11:42
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-08ADL,,62801,,5
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 11:59 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 2
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	5.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.500	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 2 Phenol-d5	71	2.999	2.999	(0.906)	18185	10.7218	830(Q)
$ 4 bis(2-Chloroethyl)ether-d8	67	3.050	3.040	(0.922)	9278	7.35441	600(aQ)
$ 6 2-Chlorophenol-d4	132	3.154	3.143	(0.953)	16586	8.33326	680(aQ)
* 8 1,4-Dichlorobenzene-d4	152	3.309	3.309	(1.000)	63070	40.0000	(Q)
$ 11 4-Methylphenol-d8	113	3.558	3.557	(1.075)	17233	9.59442	790(aQ)
12 4-Methylphenol	108	3.589	3.578	(1.084)	185026	100.473	8200
$ 16 Nitrobenzene-d5	128	3.734	3.733	(0.855)	10991	10.6131	870(Q)
$ 19 2-Nitrophenol-d4	143	4.013	4.013	(0.919)	12485	9.45826	780(a)
$ 23 2,4-Dichlorophenol-d3	165	4.230	4.230	(0.969)	21689	8.76874	720(a)
* 25 Naphthalene-d8	136	4.365	4.365	(1.000)	247400	40.0000	
$ 27 4-Chloroaniline-d4	131	4.417	4.417	(1.012)	3547	1.45347	120(aQ)
$ 40 Dimethylphthalate-d6	166	5.721	5.721	(0.949)	70821	9.21508	760(a)
$ 43 Acenaphthylene-d8	160	5.876	5.876	(0.974)	80870	9.50332	780(a)
* 46 Acenaphthene-d10	164	6.031	6.031	(1.000)	194364	40.0000	
$ 49 4-Nitrophenol-d4	143	6.145	6.145	(1.019)	12069	8.34151	680(aQ)
$ 54 Fluorene-d10	176	6.528	6.538	(1.082)	60429	8.81917	720(a)
$ 58 4,6-Dinitro-2-methylphenol-d2	200	6.590	6.600	(0.881)	10839	6.09220	500(a)
* 65 Phenanthrene-d10	188	7.480	7.480	(1.000)	443548	40.0000	
$ 67 Anthracene-d10	188	7.532	7.542	(1.007)	119544	9.81339	800(a)

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D
Report Date: 15-Nov-2011 11:59

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
70 Di-n-butylphthalate	149	8.019	8.018	(1.072)	157232	12.1990	1000
$ 72 Pyrene-d10	212	8.878	8.888	(0.881)	114341	11.2626	920
74 Butylbenzylphthalate	149	9.488	9.488	(0.941)	15993	3.09903	250(aQ)
79 bis(2-Ethylhexyl)phthalate	149	10.047	10.037	(0.997)	96132	12.5873	1000
+ 77 Chrysene-d12	240	10.078	10.078	(1.000)	520868	40.0000	(Q)
$ 83 Benzo(a)pyrene-d12	264	11.652	11.651	(0.990)	69601	6.71882	550(aR)
+ 85 Perylene-d12	264	11.765	11.765	(1.000)	467495	40.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D
Report Date: 15-Nov-2011 11:59

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8695.D
Lab Smp Id: K2199-08ADL Client Smp ID: H30R4DL
Inj Date : 14-NOV-2011 11:42
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-08ADL,,62801,,5
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 11:59 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 2
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M))·* CpndVariabl

Name	Value	Description
DF	5.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.500	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	3.310	496209	40.000
* 25 Naphthalene-d8	4.365	854634	40.000
* 46 Acenaphthene-d10	6.032	896030	40.000
* 65 Phenanthrene-d10	7.481	1154494	40.000
* 77 Chrysene-d12	10.079	1490367	40.000
* 85 Perylene-d12	11.766	3714784	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Benzene, 1-methyl-2-(1-methylethyl)-				CAS #: 527-84-4			
3.351	1651710	133.146203	11000	97	NIST2002.L	14395	8

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D
Report Date: 15-Nov-2011 11:59

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Phenol, 3-ethyl-					CAS #: 620-17-7		
4.138	266650	12.4801867	1000	90	NIST2002.L	9600	25
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
5.670	558866	24.9485336	2000	87	NIST2002.L	58865	46
Unknown					CAS #:		
5.939	204877	9.14596045	750	0		0	46
Unknown					CAS #:		
6.384	376809	16.8212275	1400	0		0	46
Unknown					CAS #:		
7.005	260230	9.01624002	740	0		0	65
Unknown					CAS #:		
8.081	238506	8.26355987	680	0		0	65
Unknown					CAS #:		
8.174	1109787	38.4509879	3200	0		0	65
Unknown					CAS #:		
8.195	1076121	37.2845603	3100	0		0	65
Unknown					CAS #:		
8.247	192450	6.66785428	550	0		0	65
9,10-Anthracenedione					CAS #: 84-65-1		
8.288	623477	21.6017105	1800	93	NIST2002.L	61654	65
Unknown					CAS #:		
8.350	256083	8.87255680	730	0		0	65
Unknown					CAS #:		
8.381	867866	30.0691336	2500	0		0	65
Straight-chain Alkane					CAS #:		
8.537	1050372	36.3924321	3000	0		0	65
Unknown					CAS #:		
8.702	716603	24.8282786	2000	0		0	65
1,5,9,13-Tetradecatetraene					CAS #: 51487-33-8		
8.744	1822852	63.1567119	5200	90	NIST2002.L	49291	65
Unknown					CAS #:		
8.795	772404	20.7305578	1700	0		0	77
Straight-chain Alkane					CAS #:		
8.899	2647318	71.0514343	5800	0		0	77
Unknown					CAS #:		
9.033	469898	12.6116118	1000	0		0	77

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D
Report Date: 15-Nov-2011 11:59

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
9.158	361868	9.71219781	800	0		0	77
Straight-chain Alkane				CAS #:			
9.251	3128262	83.9595124	6900	0		0	77
Unknown				CAS #:			
9.323	826586	22.1847649	1800	0		0	77
Unknown				CAS #:			
9.437	242368	6.50491032	530	0		0	77
3-Eicosene, (E)-				CAS #: 74685-33-9			
9.592	4848467	130.128118	11000	93	NIST2002.L	106400	77
Straight-chain Alkane				CAS #:			
9.913	6520933	175.015498	14000	0		0	77
2-Bromo dodecane				CAS #: 13187-99-0			
10.234	5604809	150.427605	12000	93	NIST2002.L	86886	77
Branched Alkane				CAS #:			
10.565	6042930	162.186348	13000	0		0	77
Straight-chain Alkane				CAS #:			
10.928	4642651	124.604235	10000	0		0	77
Branched Alkane				CAS #:			
11.321	3627701	39.0623040	3200	0		0	85
Straight-chain Alkane				CAS #:			
12.304	1538077	16.5616868	1400	0		0	85
Branched Alkane				CAS #:			
12.925	1040923	11.2084393	920	0		0	85
Campesterol				CAS #: 474-62-4			
13.546	1567595	16.8795302	1400	98	NIST2002.L	156589	85
Unknown				CAS #:			
13.650	862811	9.29055947	760	0		0	85
Unknown				CAS #:			
14.126	645416	6.94970644	570	0		0	85
.gamma.-Sitosterol				CAS #: 83-47-6			
14.250	5451028	58.6954999	4800	94	NIST2002.L	159285	85
Unknown				CAS #:			
14.374	977738	10.5280712	860	0		0	85
Unknown				CAS #:			
14.695	1593334	17.1566845	1400	0		0	85

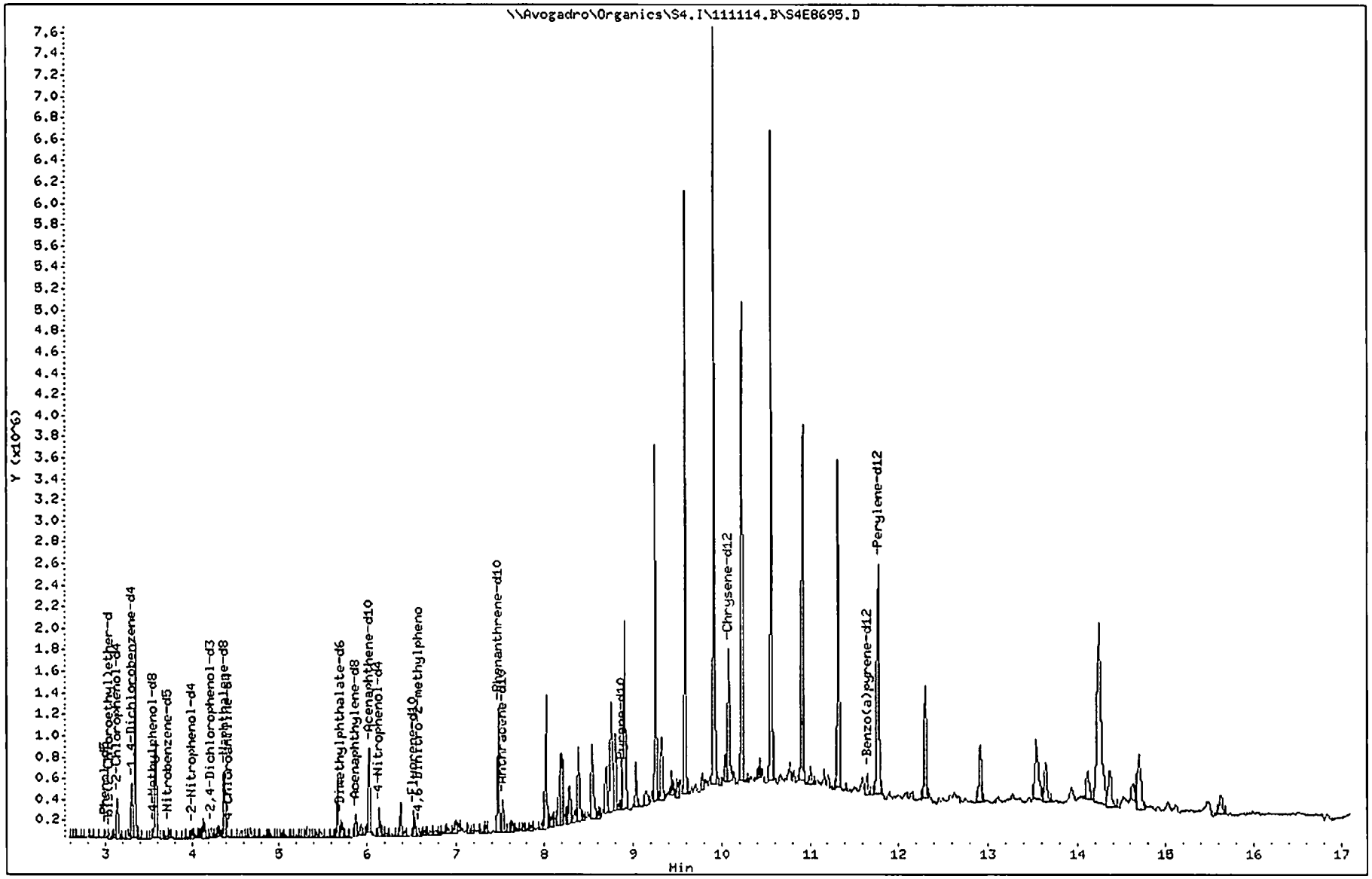
Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D
Report Date: 15-Nov-2011 11:59

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
15.616	505489	5.44299766	450	0		0	85

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D
Date : 14-NOV-2011 11:42
Client ID: H3OR4DL
Sample Info: K2199-08ADL,,62801,,5
Volume Injected (uL): 2.0
Column phase: RXI-5SILMS

Instrument: S4.i

Operator: MHS SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

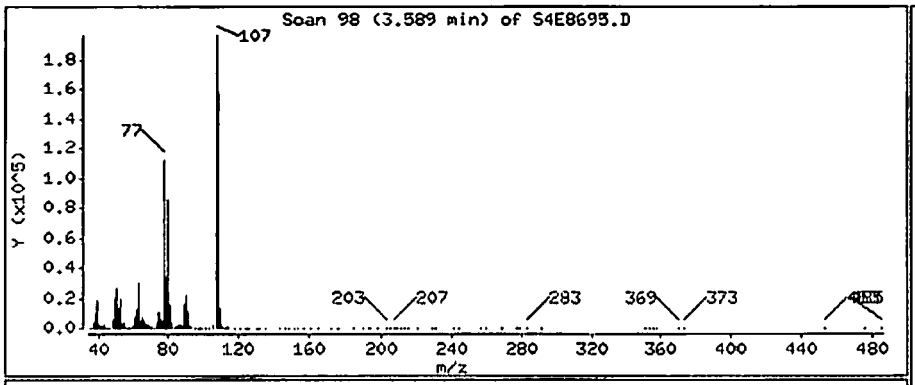
Client ID: H30R4DL | Instrument: S4.i

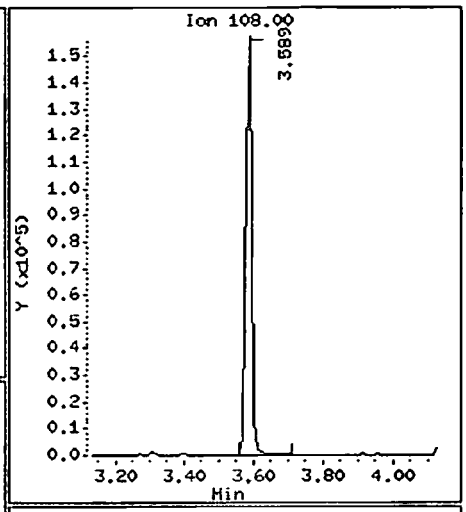
Sample Info: K2199-08ADL,,62801,,5

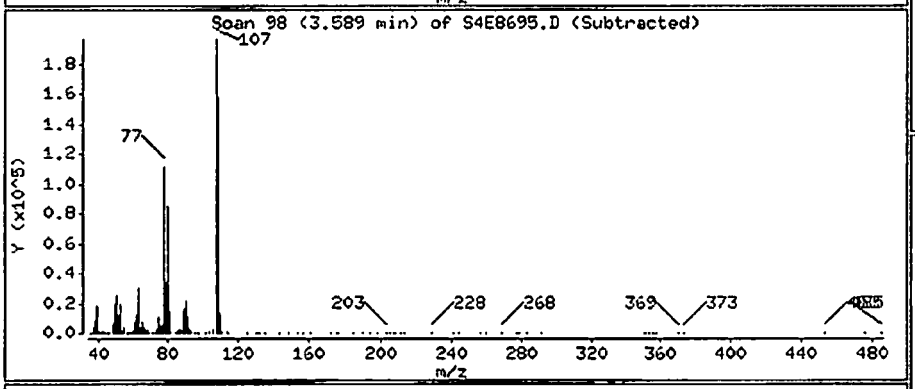
Volume Injected (uL): 2.0 | Operator: MHS SRC: LIMS

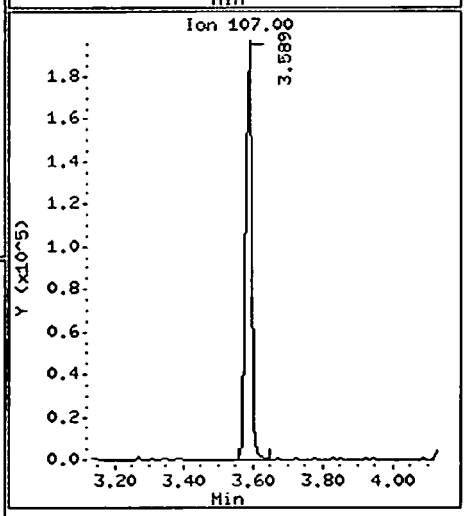
Column phase: RXI-5SILMS | Column diameter: 0.25

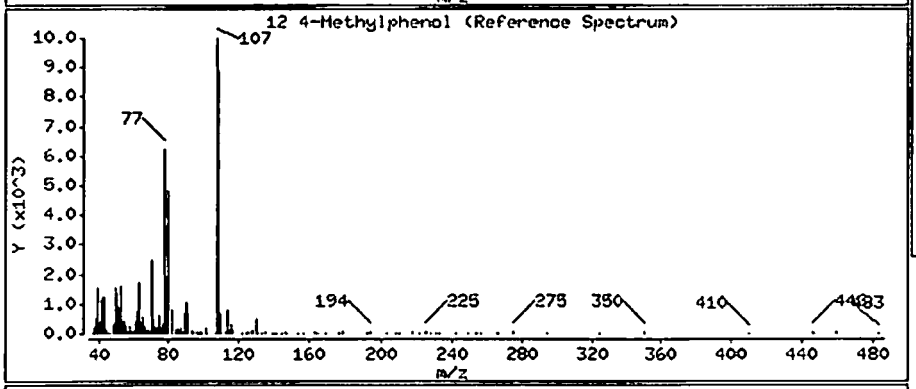
12 4-Methylphenol | Concentration: 8200 ug/Kg

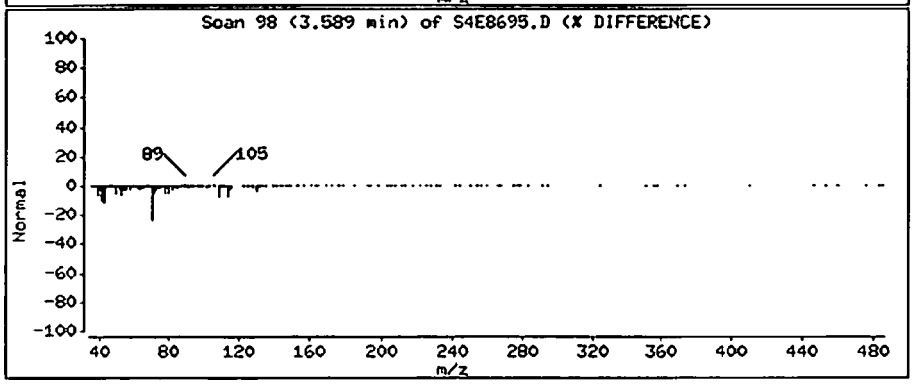












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

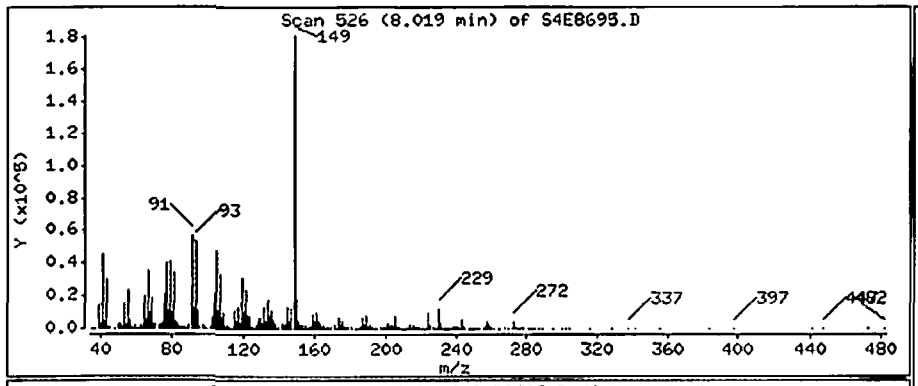
Client ID: H30R4DL | Instrument: S4.i

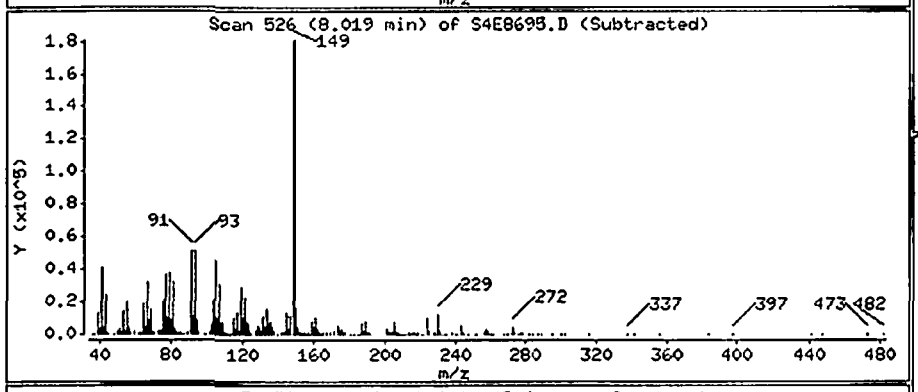
Sample Info: K2199-08ADL,,62801,,5

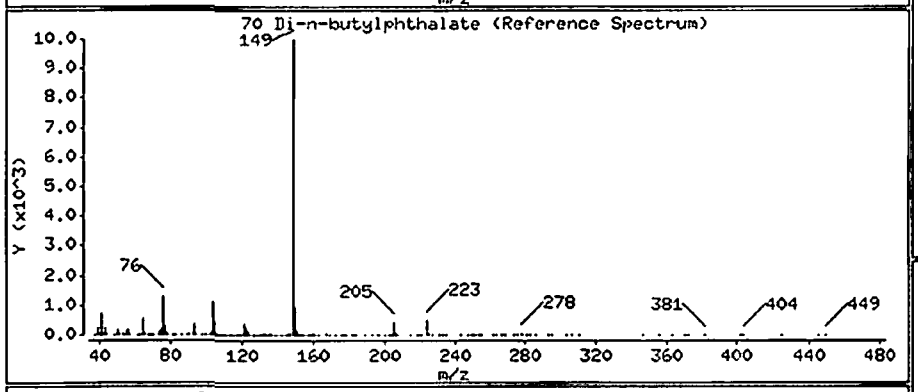
Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

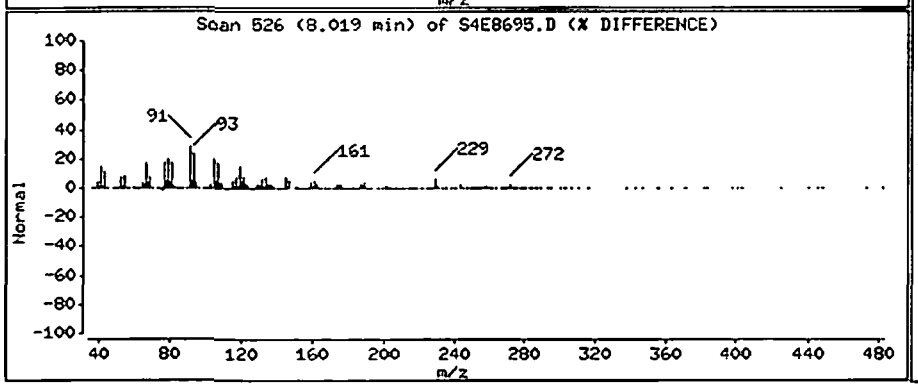
Column phase: RXI-5SILMS | Column diameter: 0.25

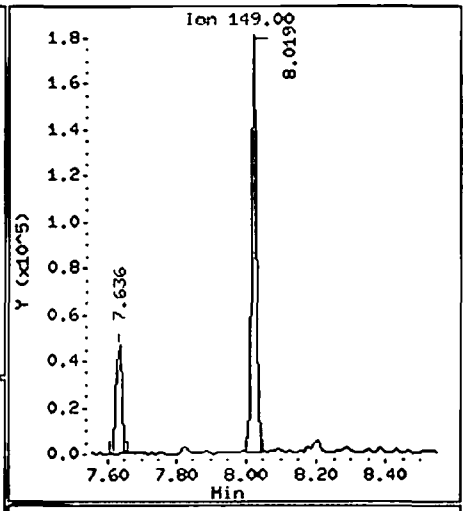
70 Di-n-butylphthalate | Concentration: 1000 ug/Kg

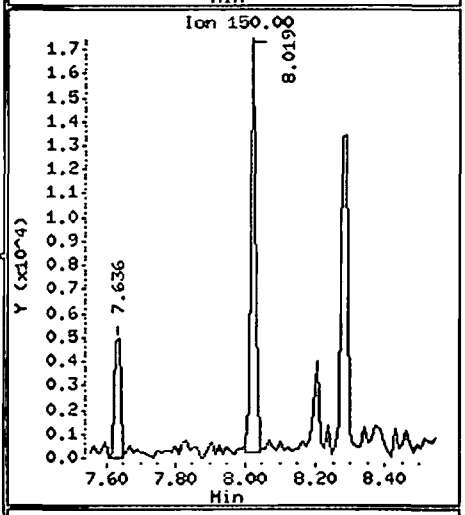


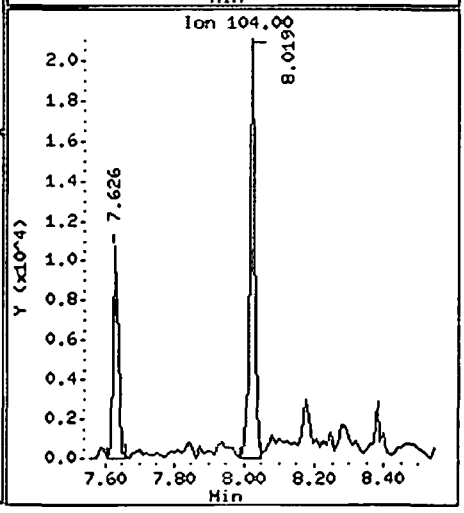












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

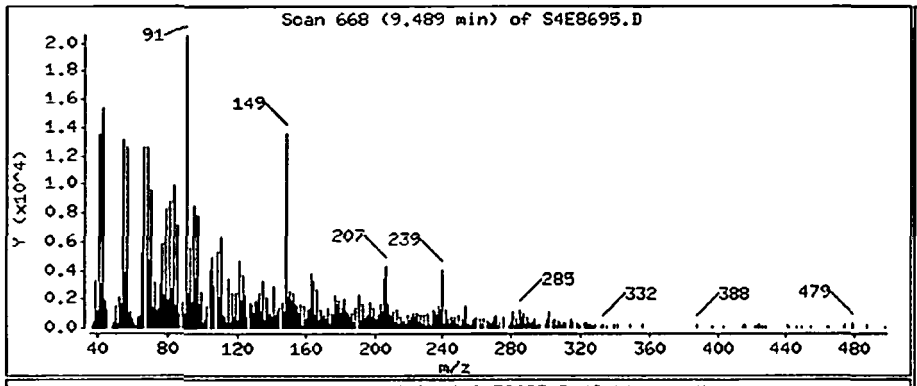
Client ID: H30R4DL | Instrument: S4.i

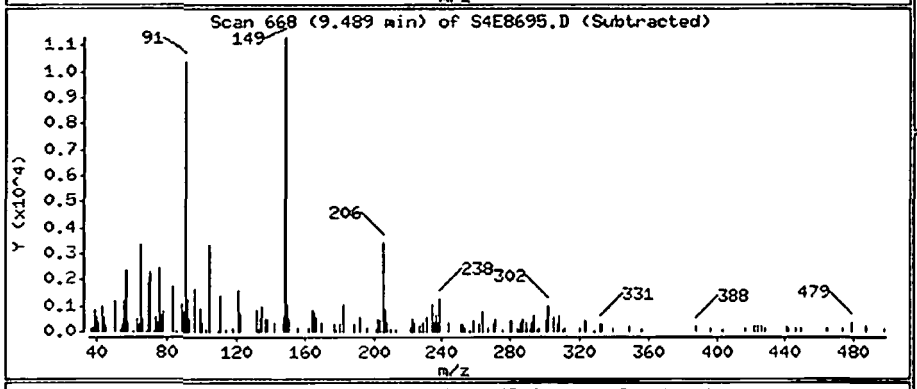
Sample Info: K2199-08ADL,,62801,,5

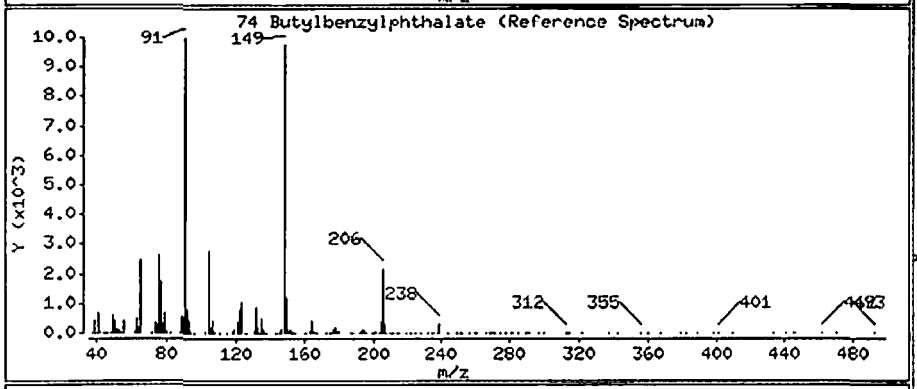
Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

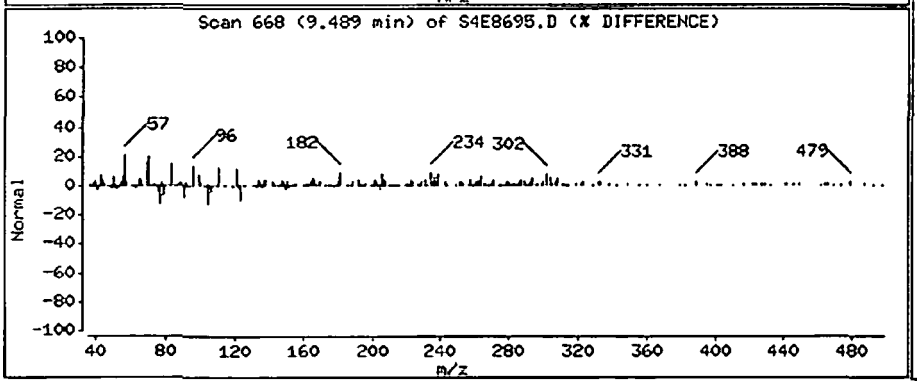
Column phase: RXI-5SILMS | Column diameter: 0.25

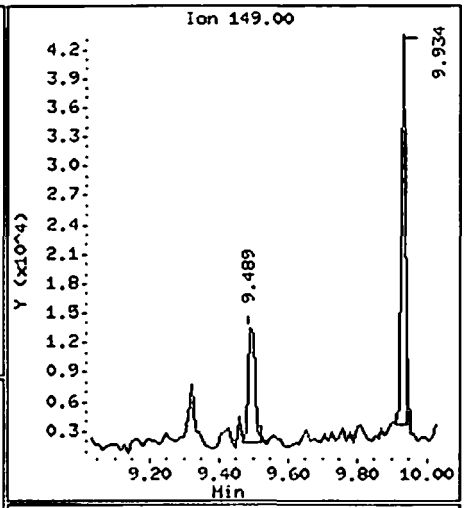
74 Butylbenzylphthalate | Concentration: 250 ug/Kg

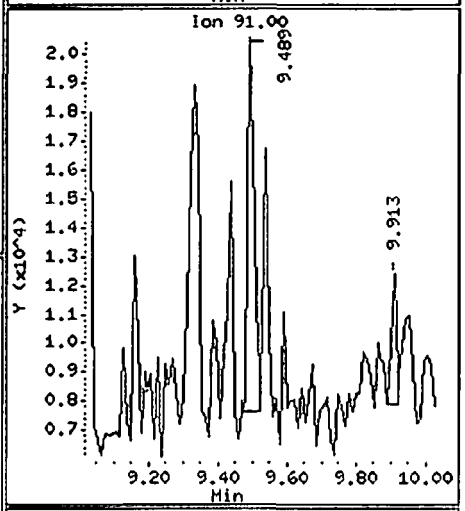


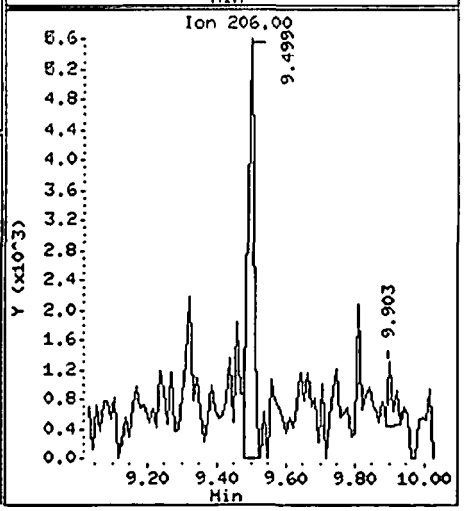












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

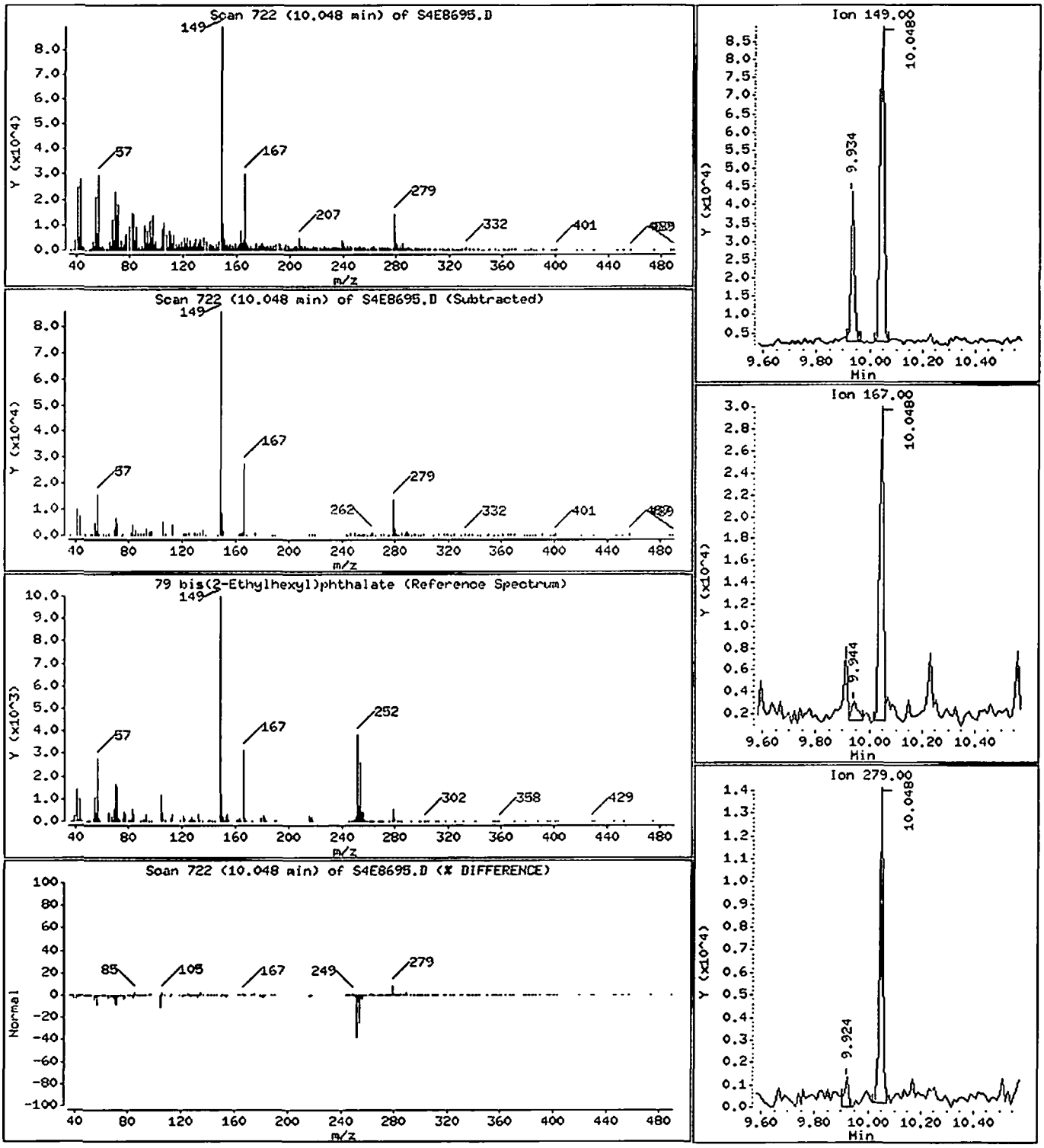
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MHS SRC: LIMS

Column phase: RXI-5SILHS | Column diameter: 0.25

79 bis(2-Ethylhexyl)phthalate | Concentration: 1000 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

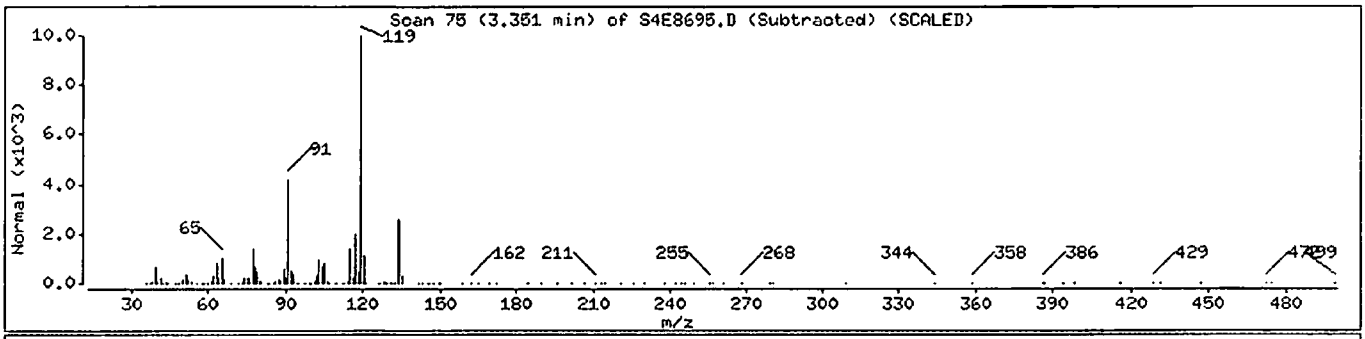
Client ID: H30R4DL | Instrument: S4.i

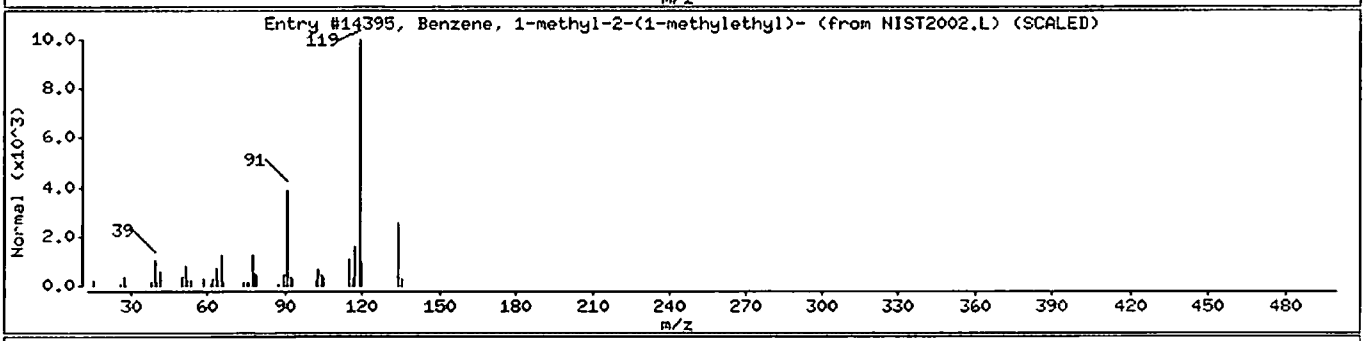
Sample Info: K2199-08ADL,,62801,,5

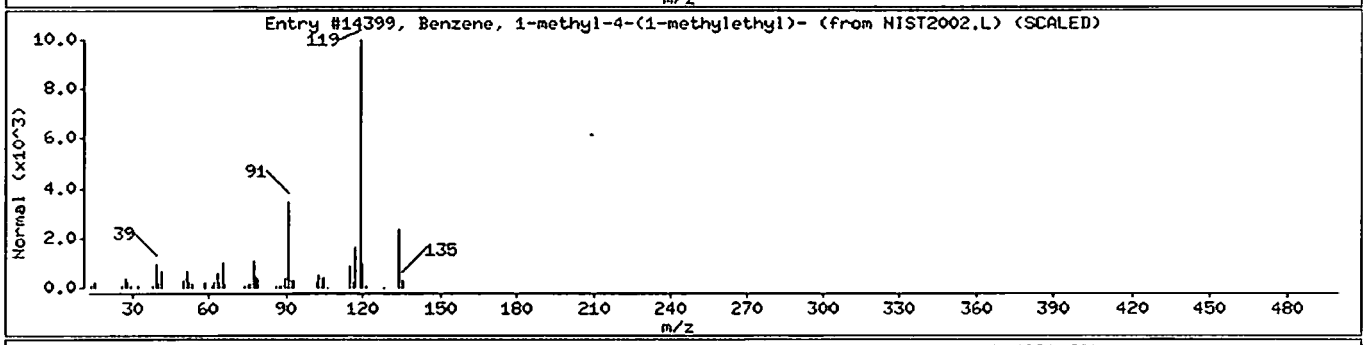
Volume Injected (uL): 2.0 | Operator: MHS SRC: LIMS

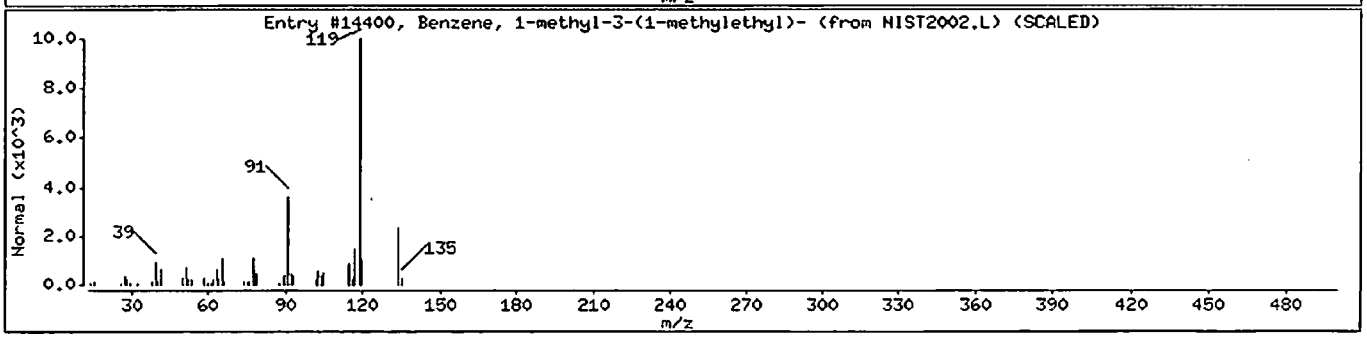
Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	97	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	96	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	96	C10H14	134









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

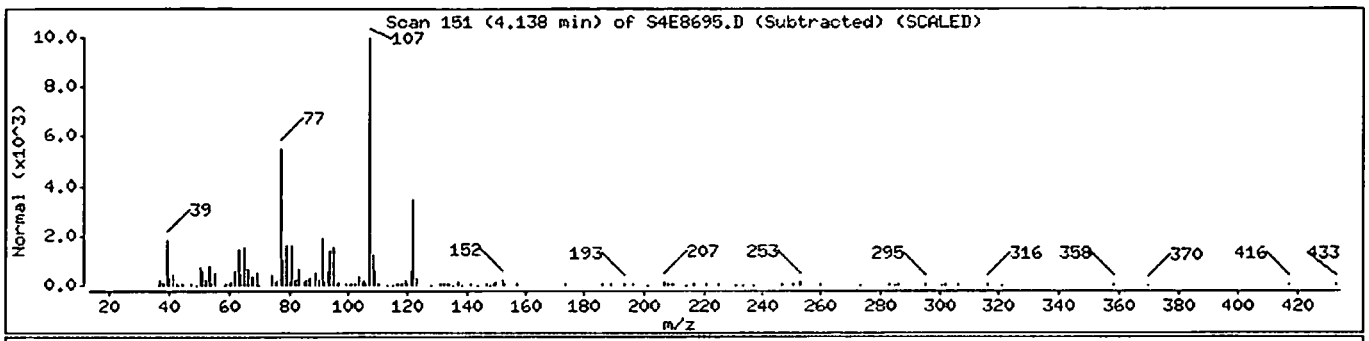
Client ID: H3OR4DL | Instrument: S4.i

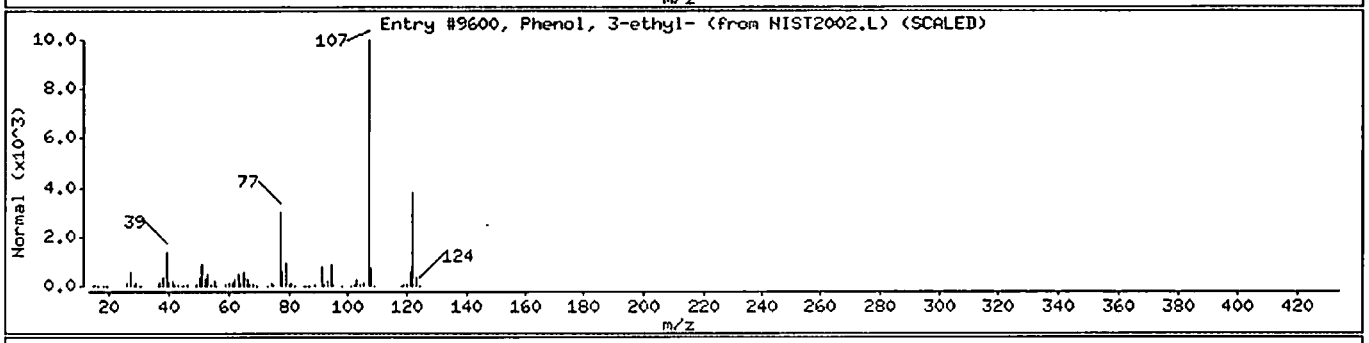
Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 3-ethyl-	620-17-7	NIST2002.L	9600	90	C8H10O	122





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

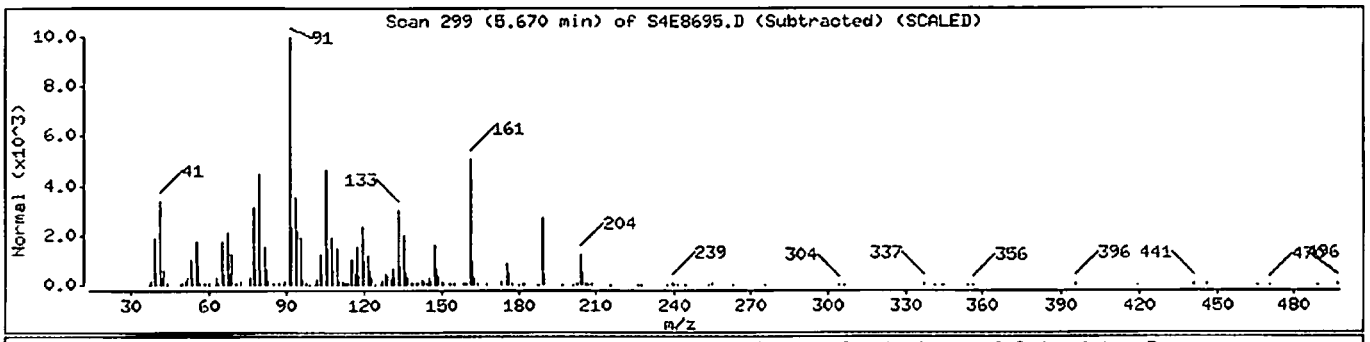
Client ID: H30R4DL | Instrument: S4.i

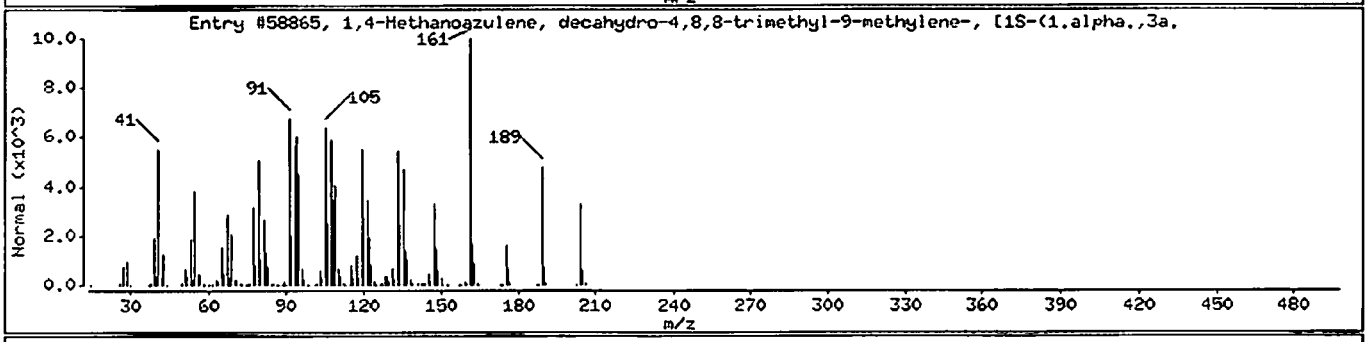
Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58865	87	C15H24	204





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

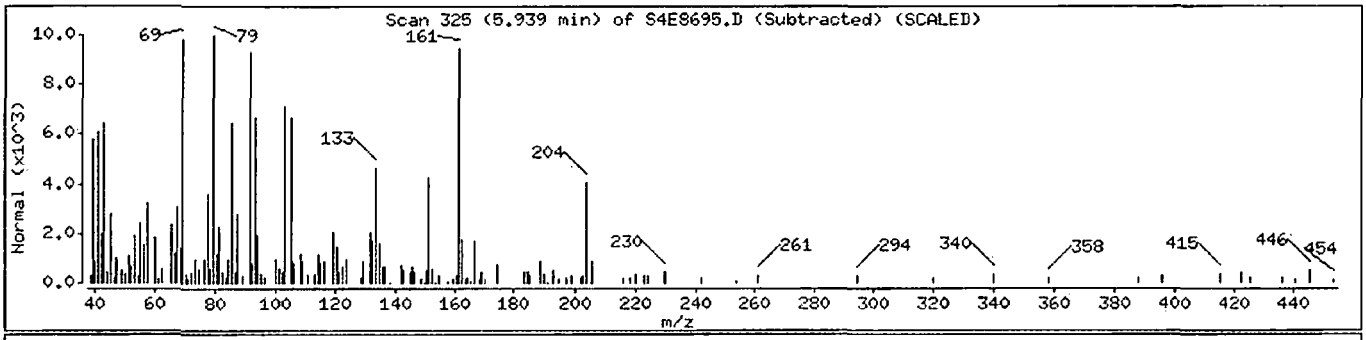
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

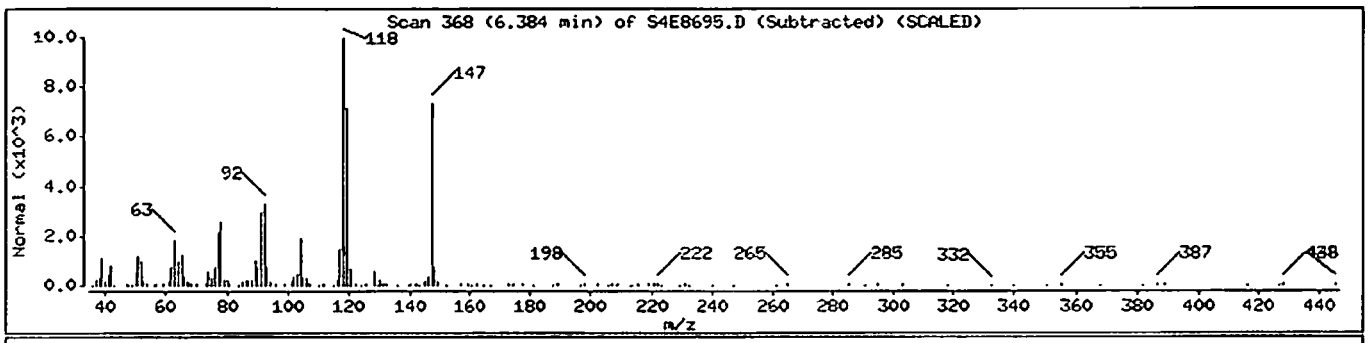
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

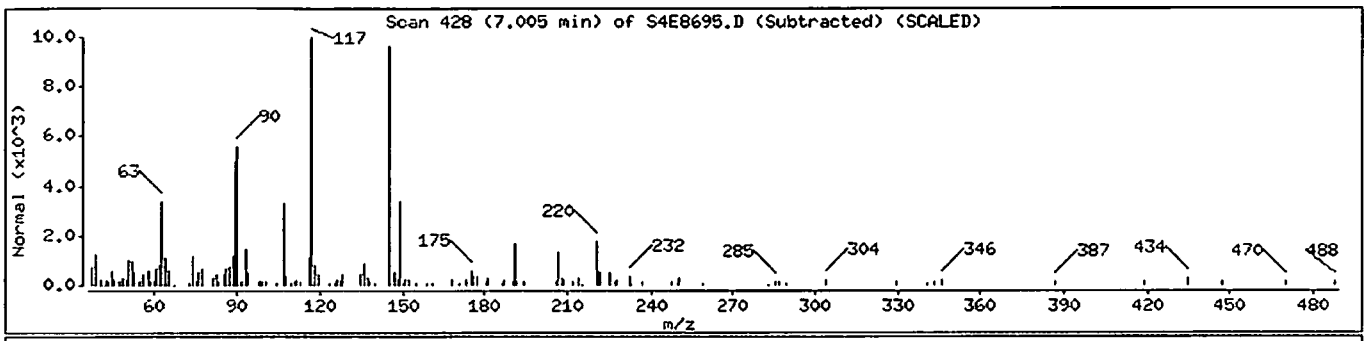
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

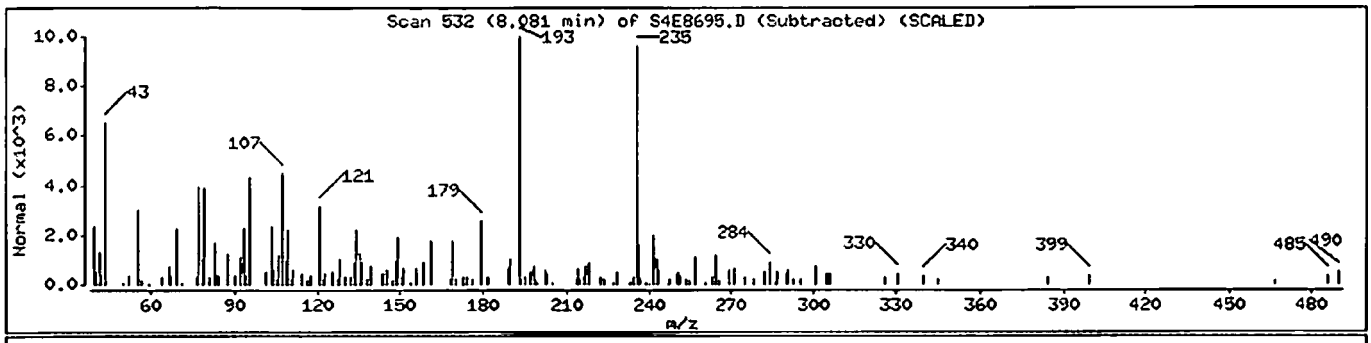
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

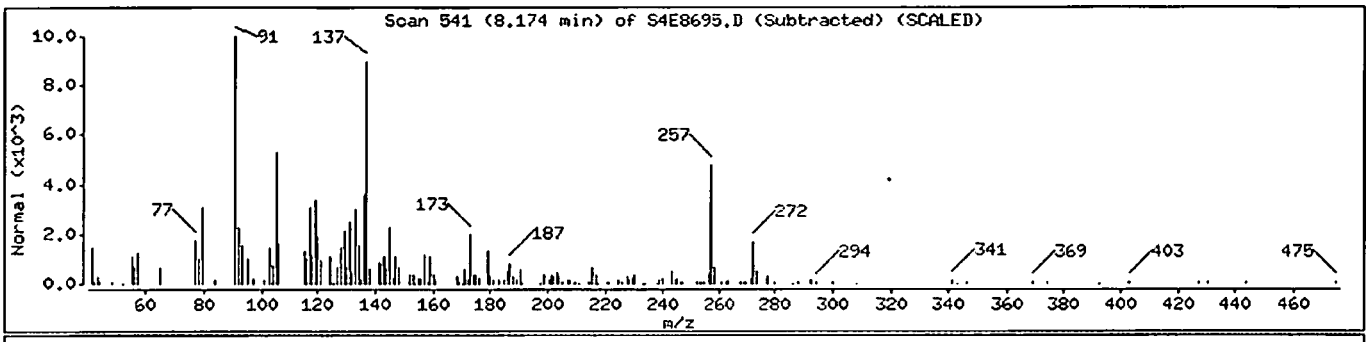
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

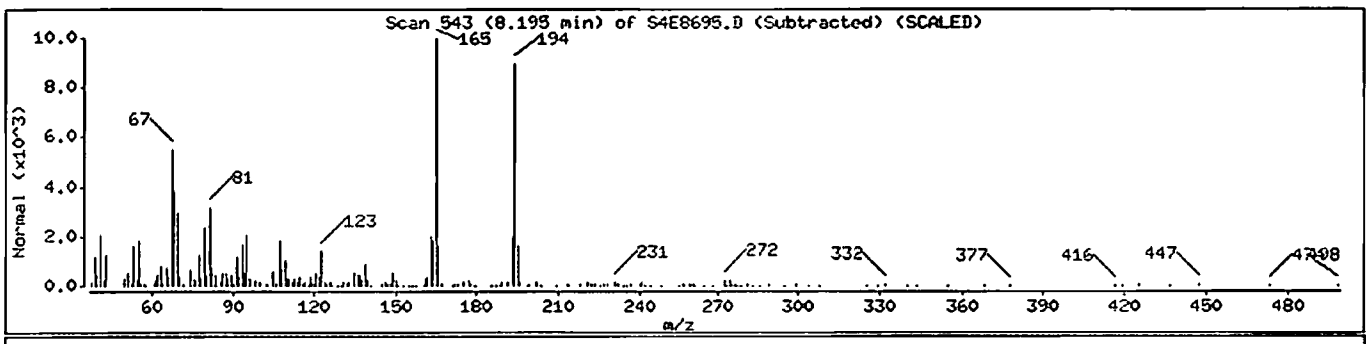
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

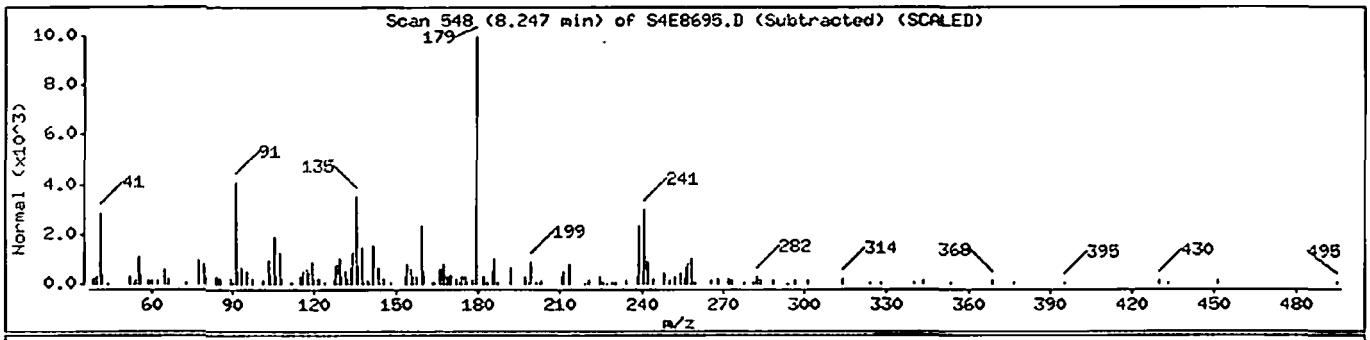
Client ID: H3OR4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

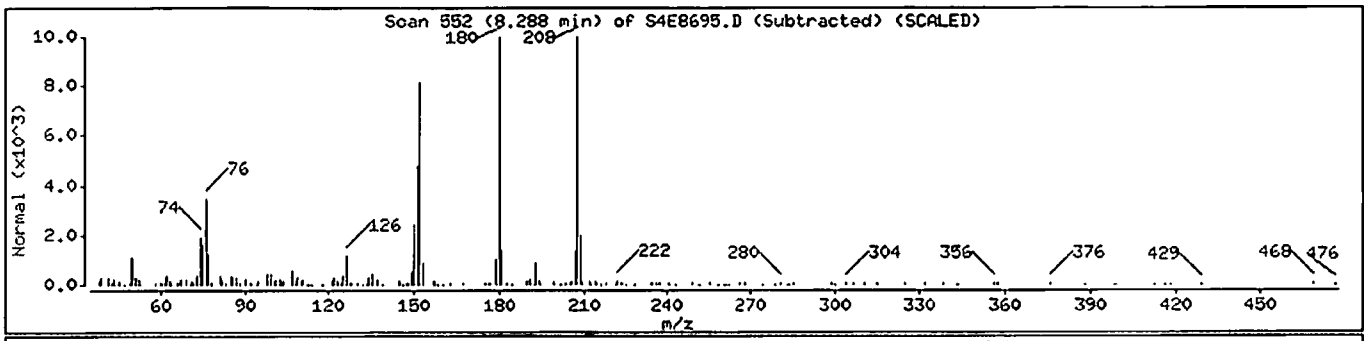
Client ID: H30R4DL | Instrument: S4.i

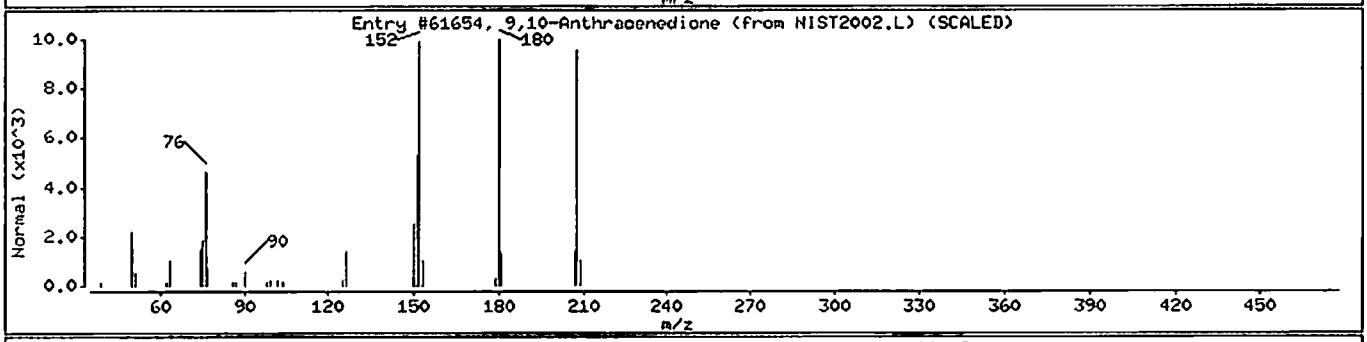
Sample Info: K2199-08ADL,,62801,,5

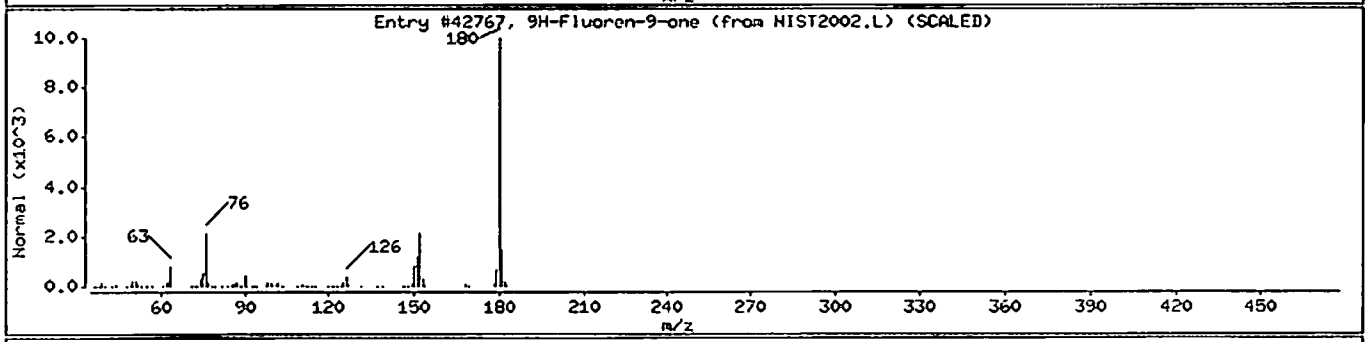
Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9,10-Anthracenedione	84-65-1	NIST2002.L	61654	93	C14H8O2	208
9H-Fluoren-9-one	486-25-9	NIST2002.L	42767	86	C13H8O	180







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

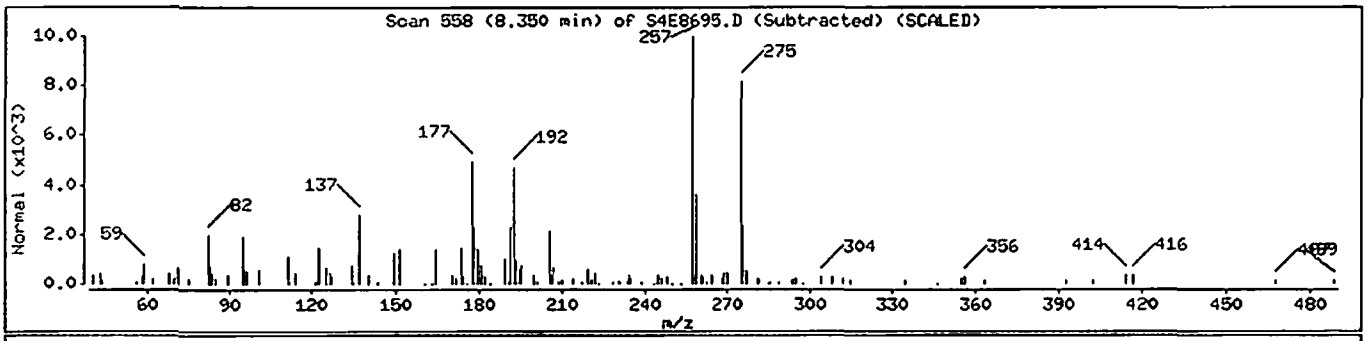
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

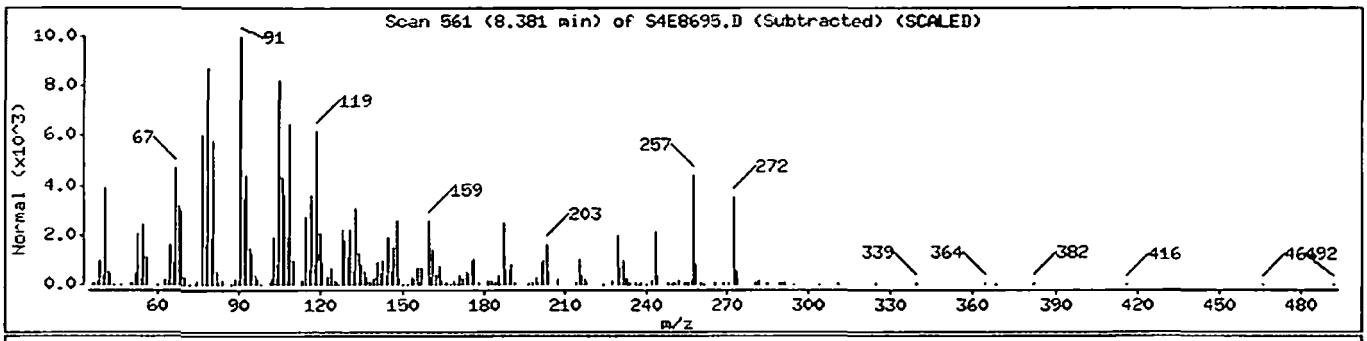
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,.5

Volume Injected (uL): 2.0 | Operator: HHS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

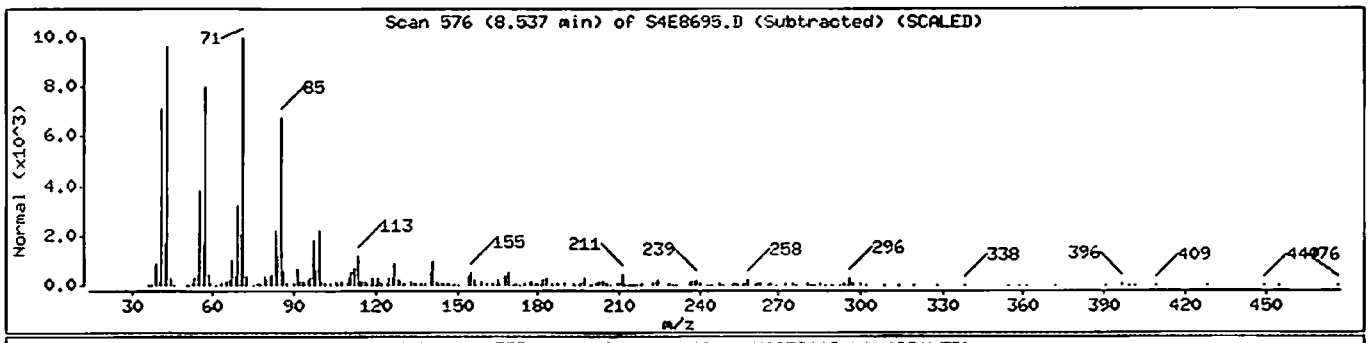
Client ID: H30R4DL | Instrument: S4.i

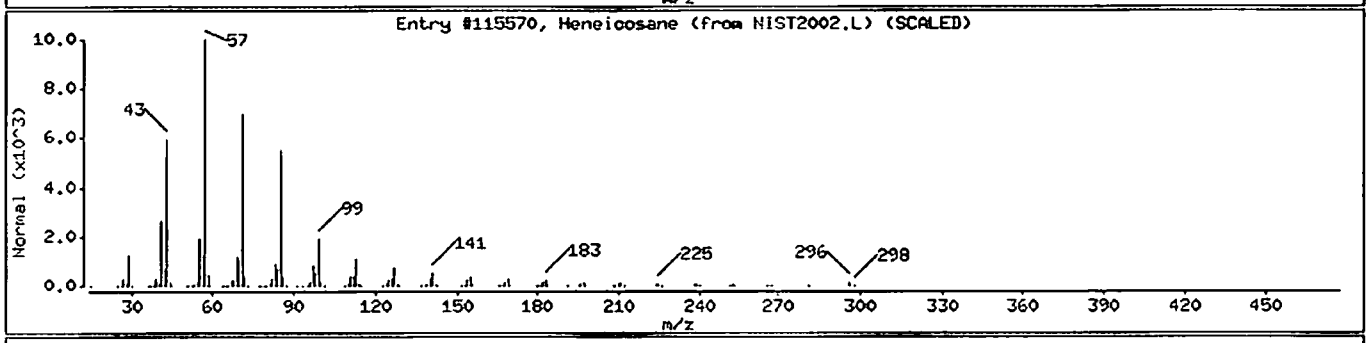
Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: HMS SRC: LIHS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Heneicosane	629-94-7	NIST2002.L	115570	93	C21H44	296





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

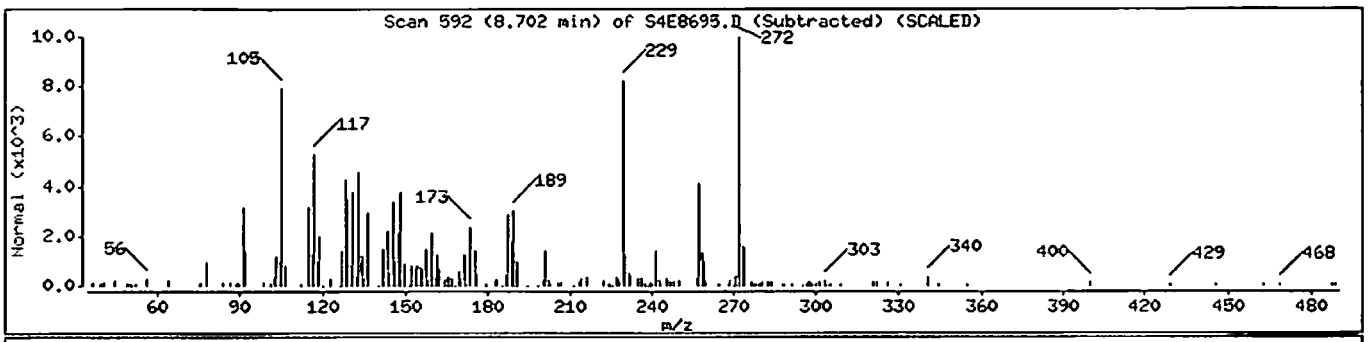
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

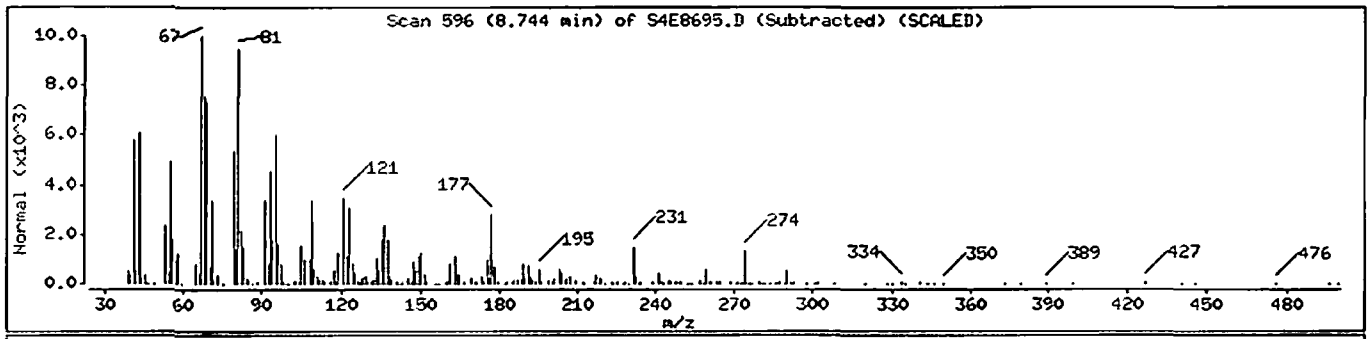
Client ID: H30R4DL | Instrument: S4.i

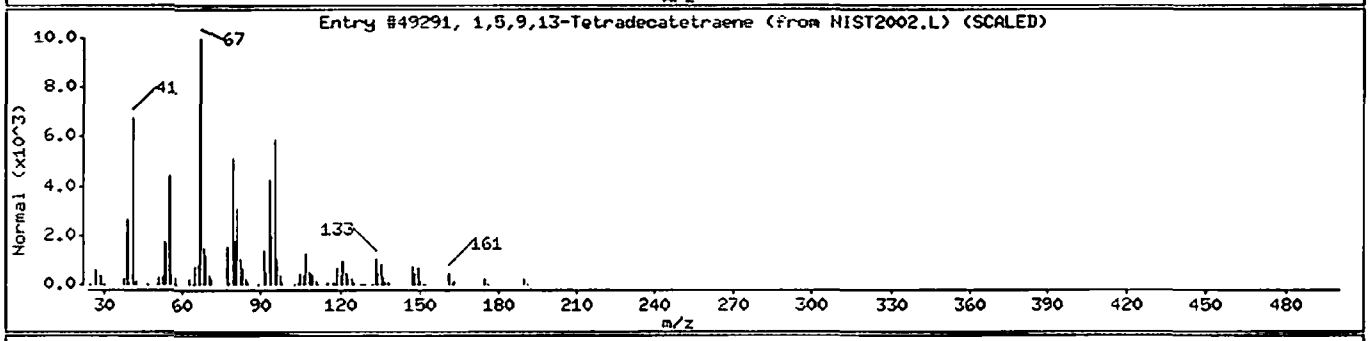
Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,5,9,13-Tetradecatetraene	51487-38-8	NIST2002.L	49291	90	C14H22	190





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

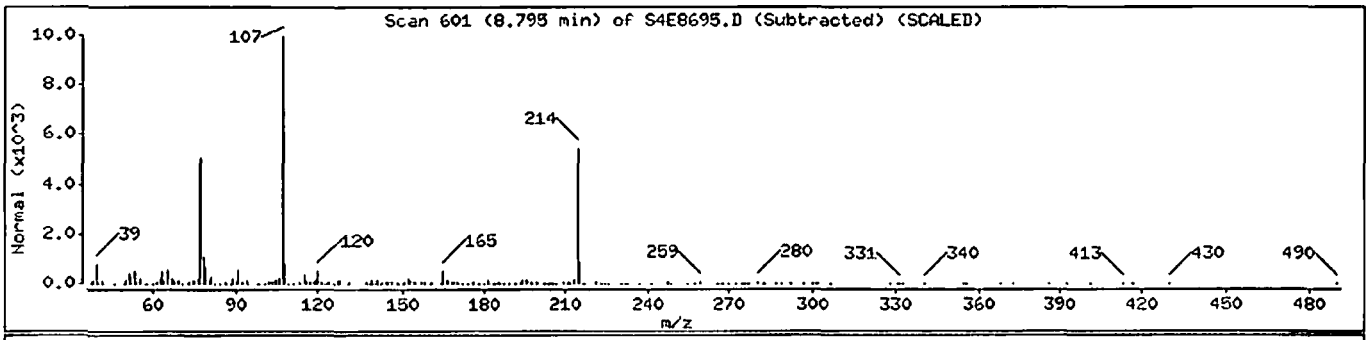
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

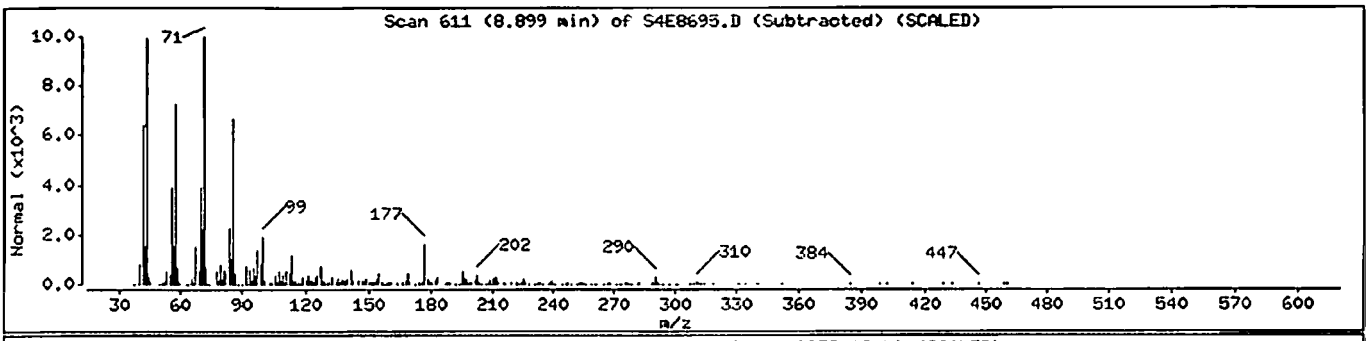
Client ID: H30R4DL | Instrument: S4.i

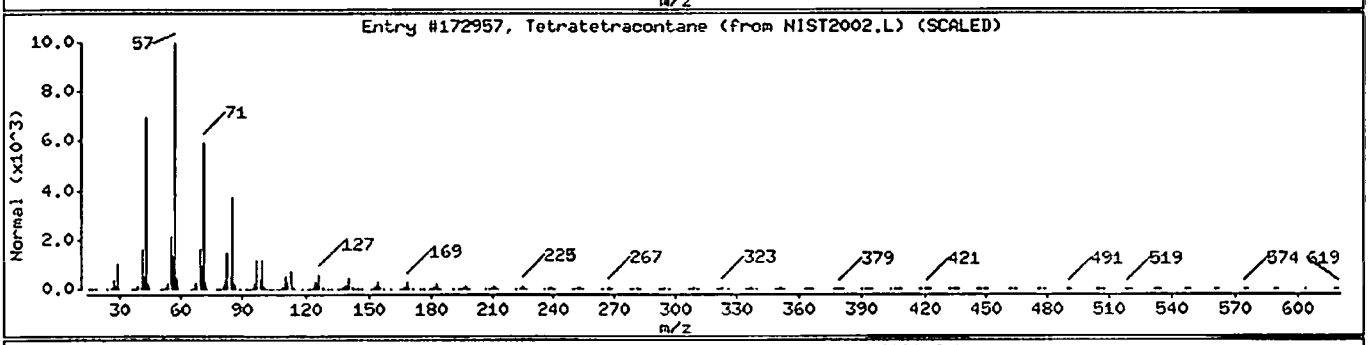
Sample Info: K2199-08ADL,,62801,,5

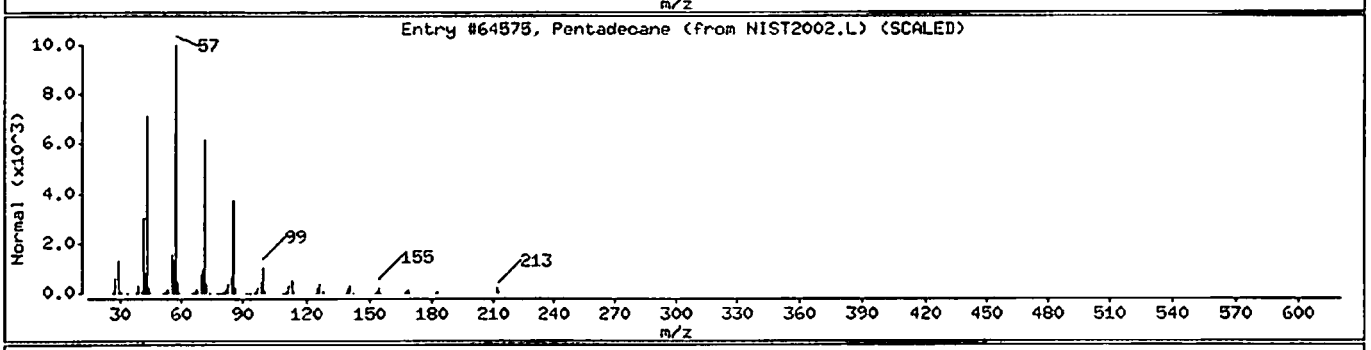
Volume Injected (uL): 2.0 | Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Tetratetracontane	7098-22-8	NIST2002.L	172957	90	C44H90	619
Pentadecane	629-62-9	NIST2002.L	64575	89	C15H32	212







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

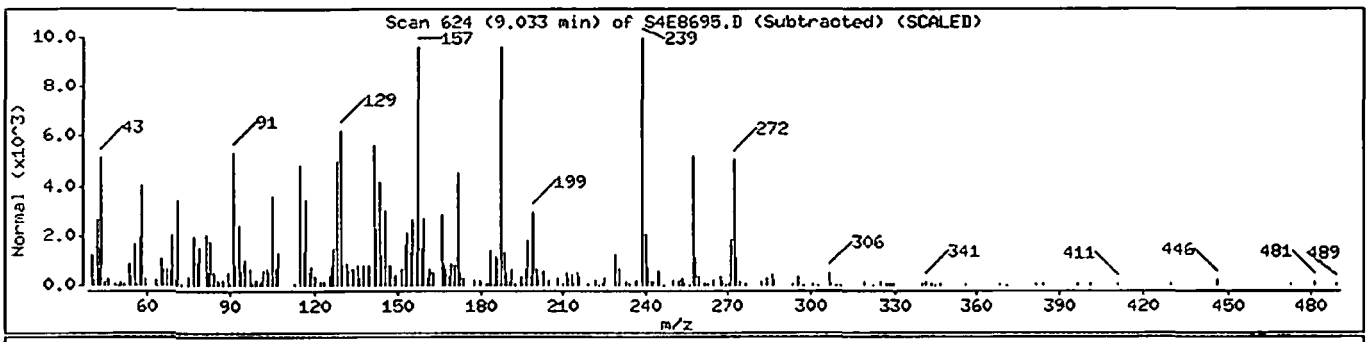
Client ID: M30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

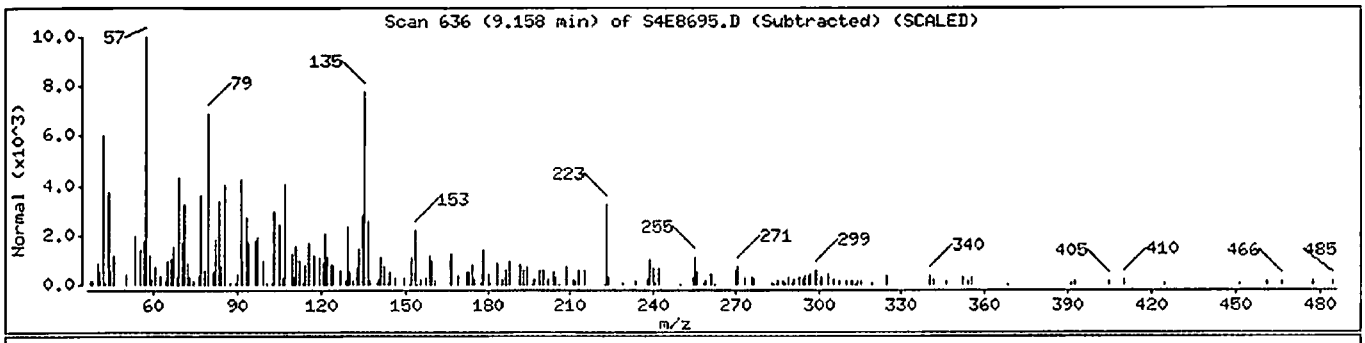
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

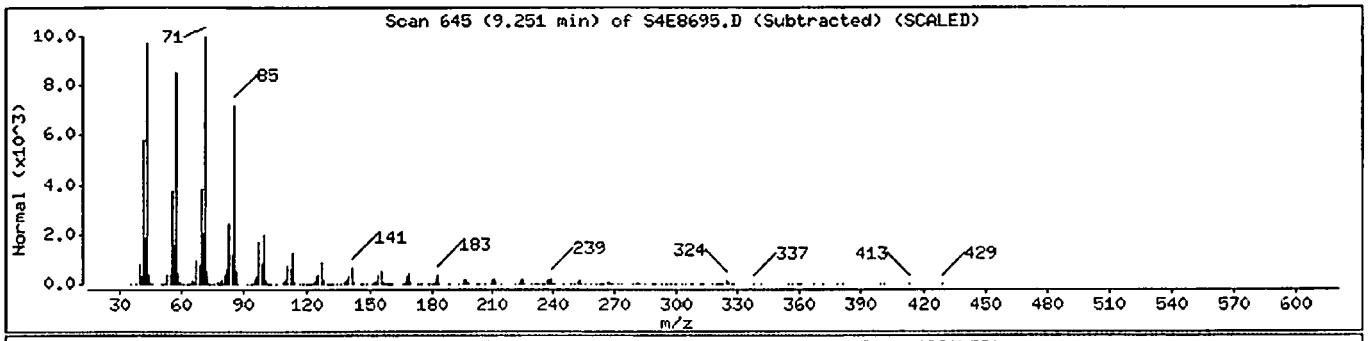
Client ID: H30R4DL | Instrument: S4.i

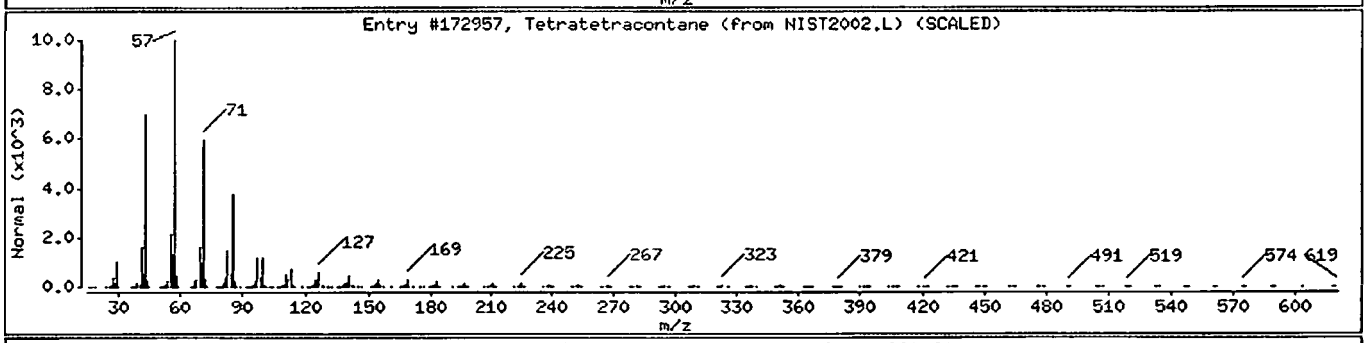
Sample Info: K2199-08ADL,,62801,,5

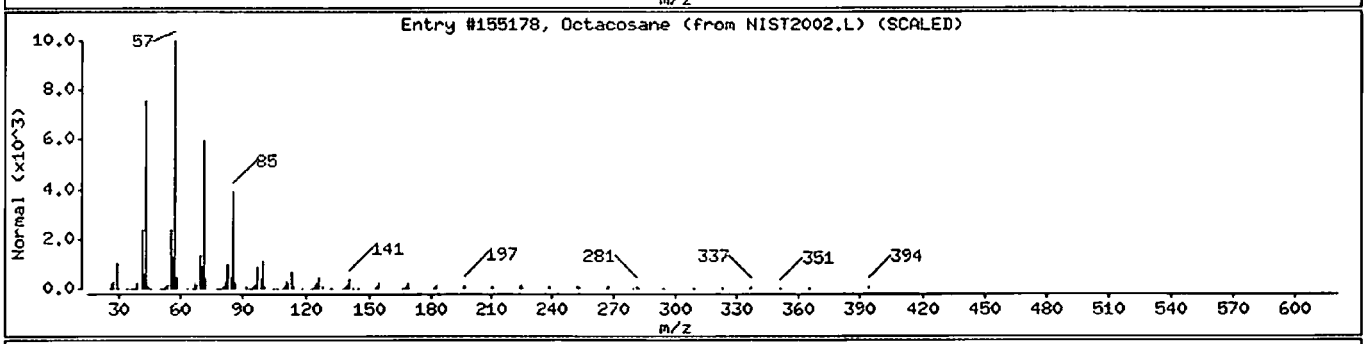
Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Tetratetracontane	7098-22-8	NIST2002.L	172957	87	C44H90	619
Octacosane	630-02-4	NIST2002.L	155178	87	C28H58	394







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

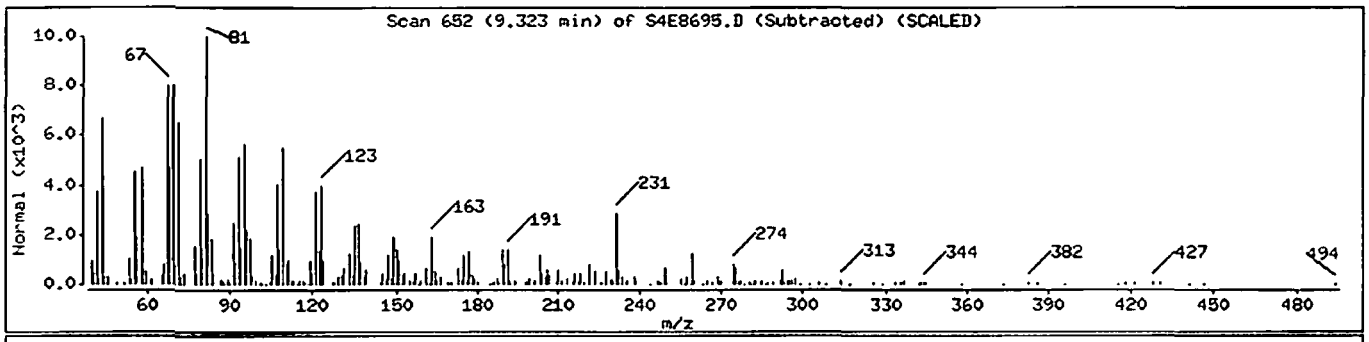
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: HMS SRC: LIHS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

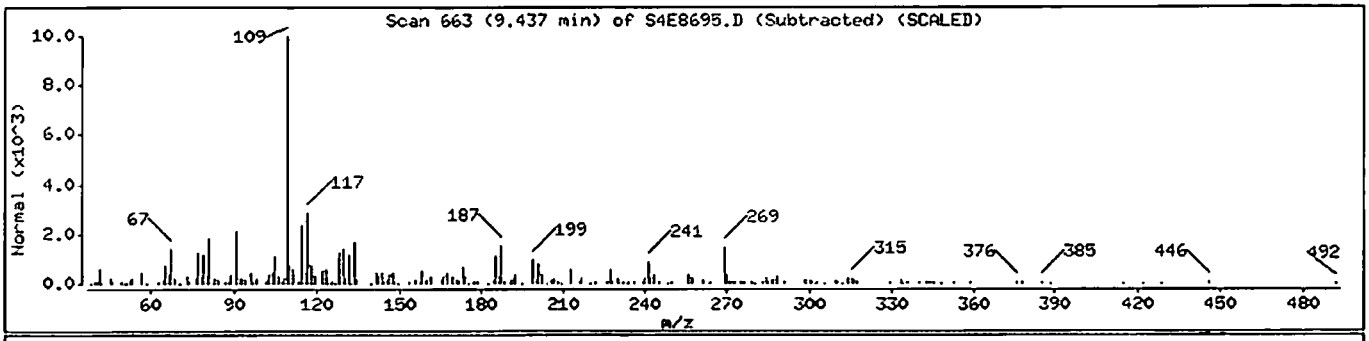
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

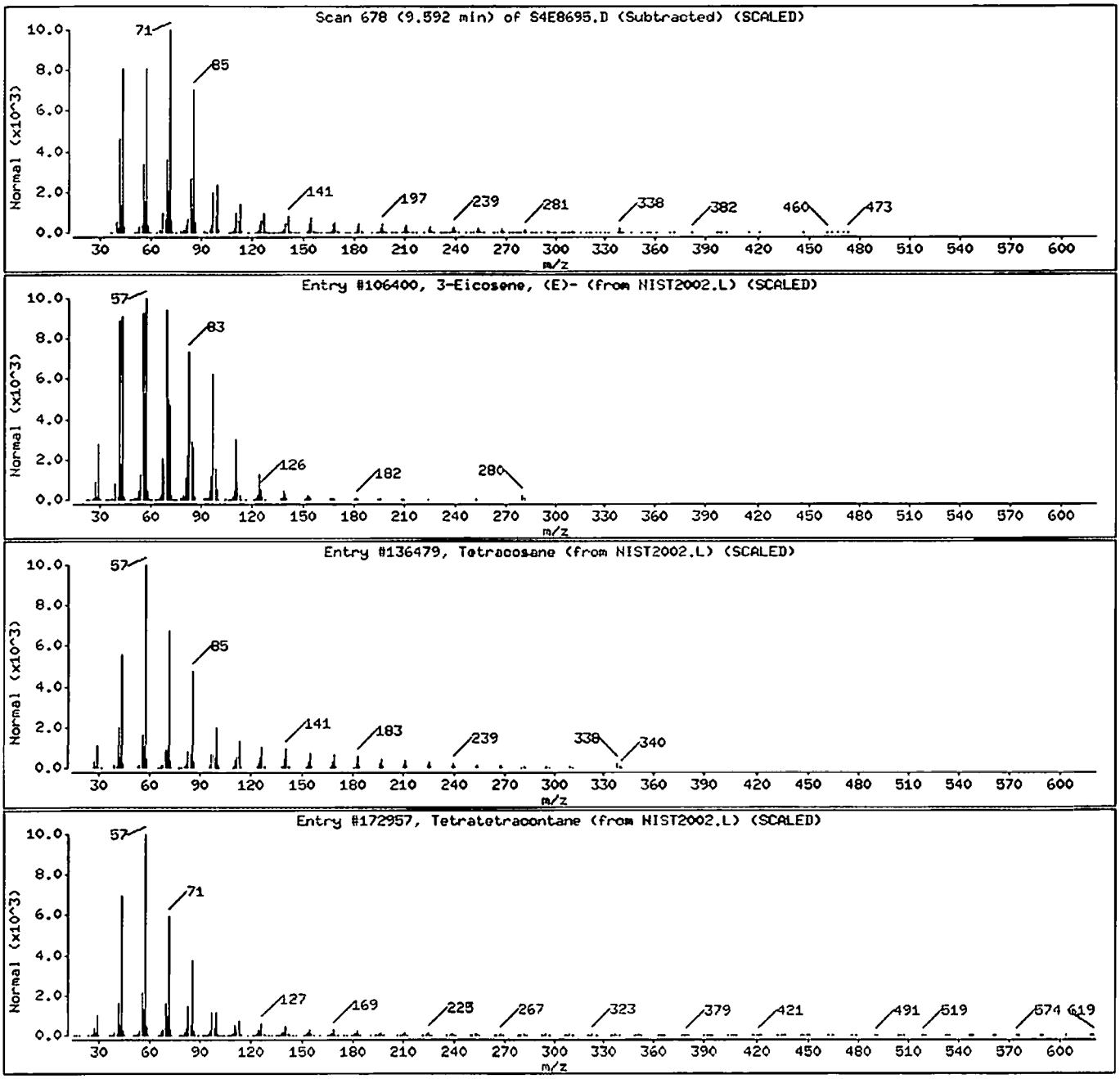
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MHS SRC: LIHS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Eicosene, (E)-	74685-33-9	NIST2002.L	106400	93	C20H40	280
Tetracosane	646-31-1	NIST2002.L	136479	93	C24H50	338
Tetratetracontane	7098-22-8	NIST2002.L	172957	91	C44H90	619



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

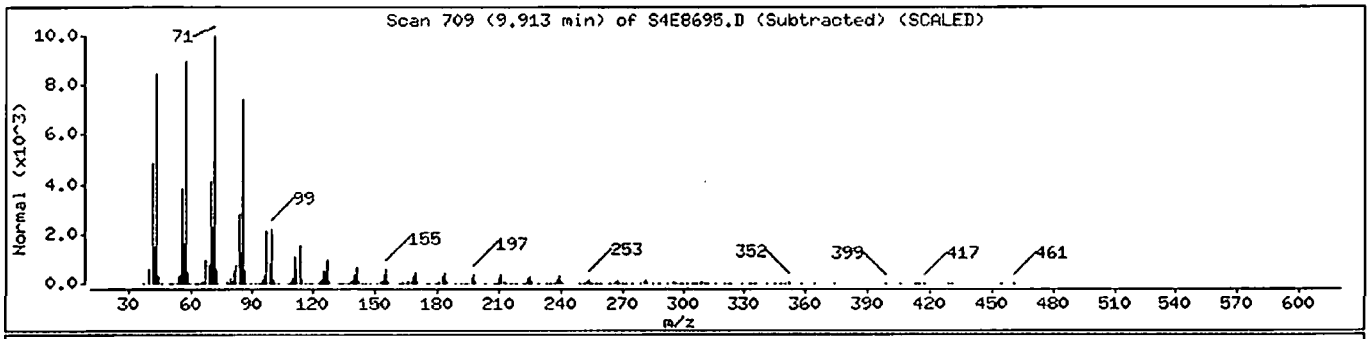
Client ID: H30R4DL | Instrument: S4.i

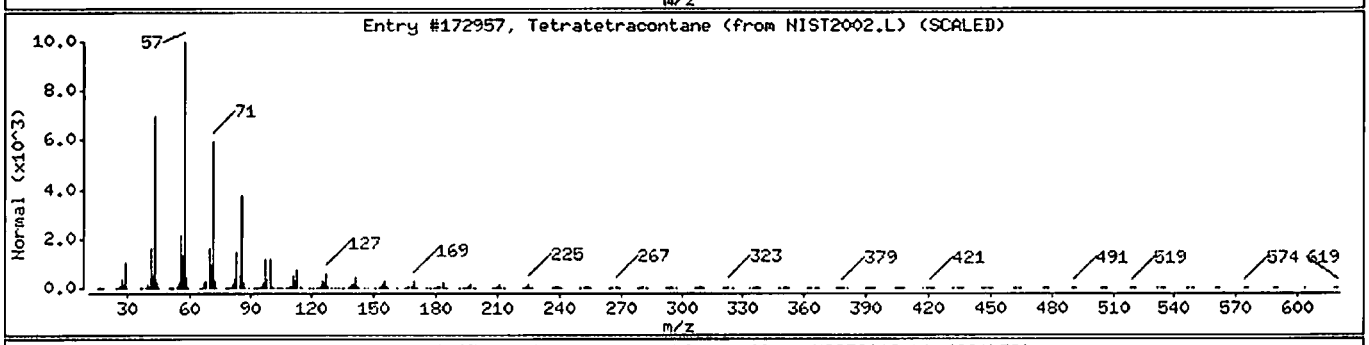
Sample Info: K2199-08ADL,,62801,,5

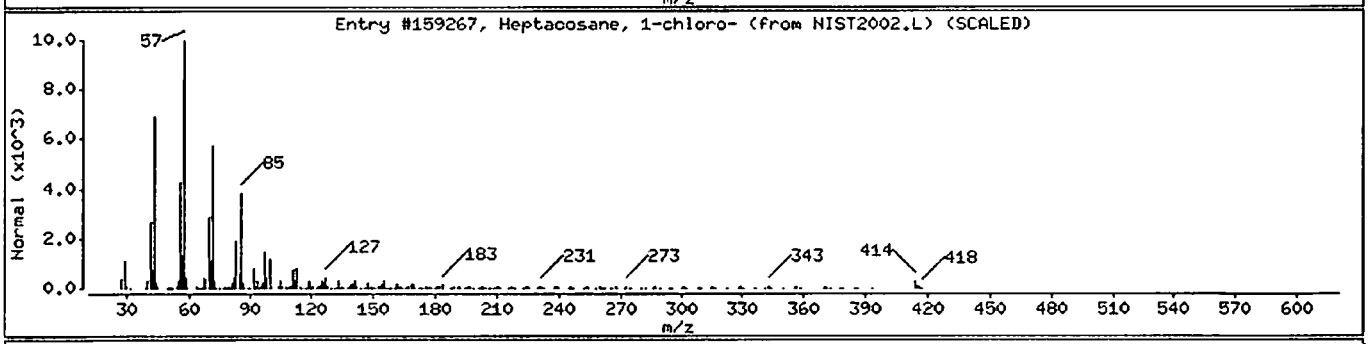
Volume Injected (uL): 2.0 | Operator: MHS SRC: LIHS

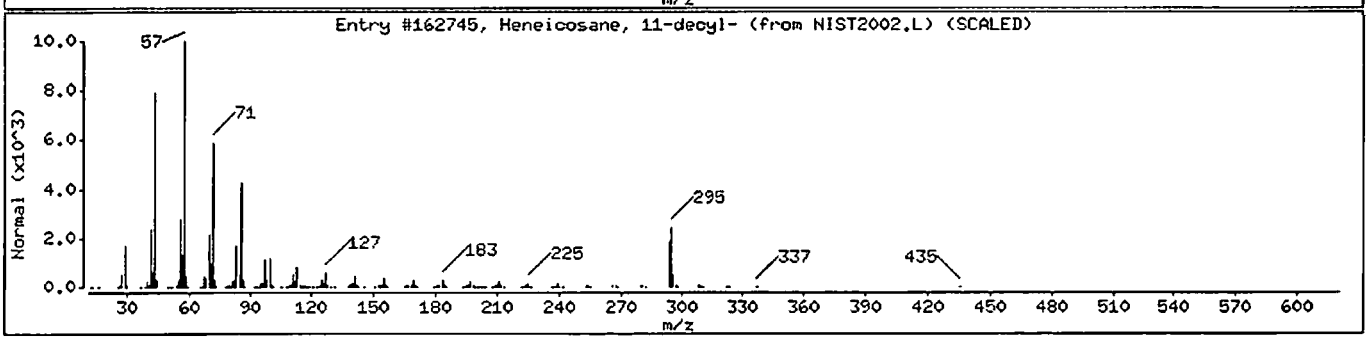
Column phase: RXI-5SILHS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Tetratetracontane	7098-22-8	NIST2002.L	172957	91	C44H90	619
Heptacosane, 1-chloro-	62016-79-9	NIST2002.L	159267	91	C27H55Cl	414
Heneicosane, 11-decyl-	55320-06-4	NIST2002.L	162745	91	C31H64	437









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

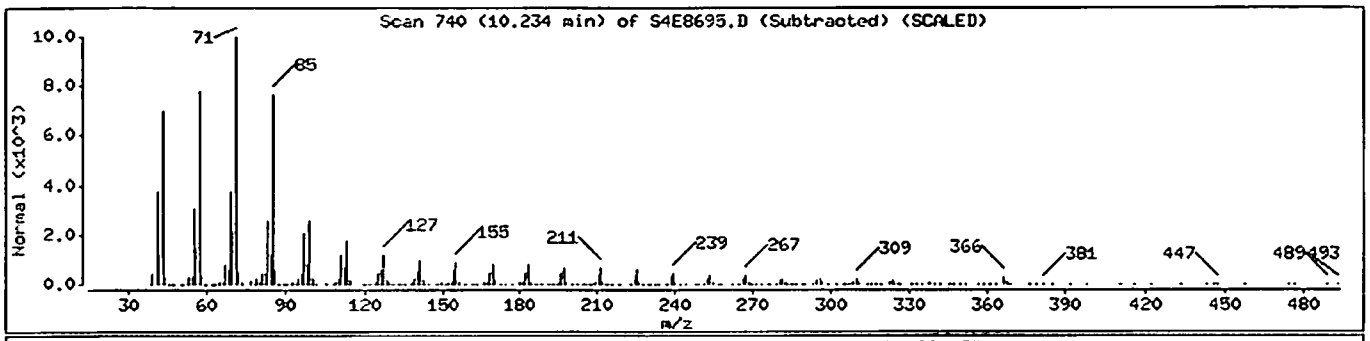
Client ID: H30R4DL | Instrument: S4.i

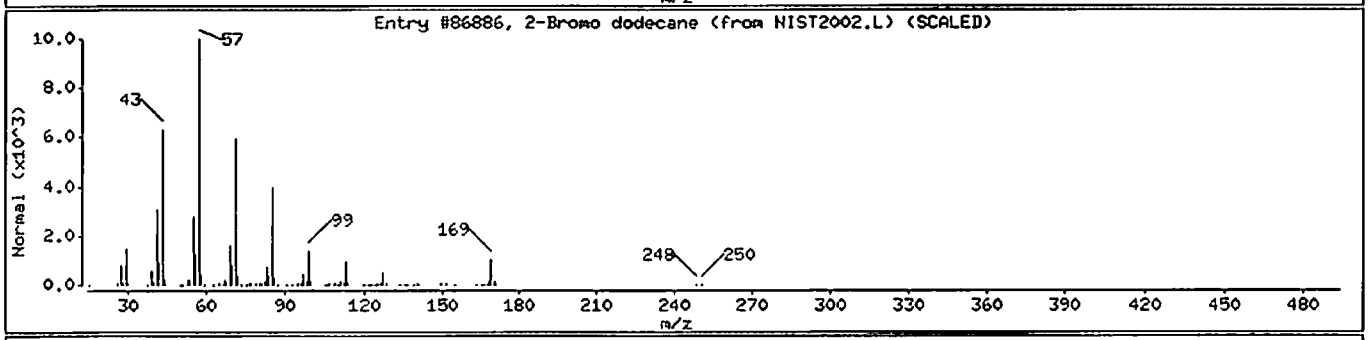
Sample Info: K2199-08ADL,,62801,,5

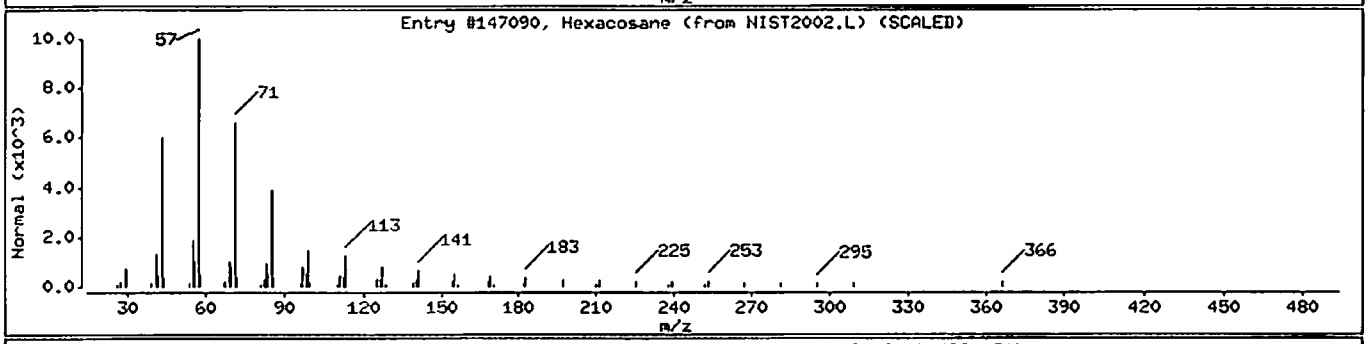
Volume Injected (uL): 2.0 | Operator: MHS SRC: LIMS

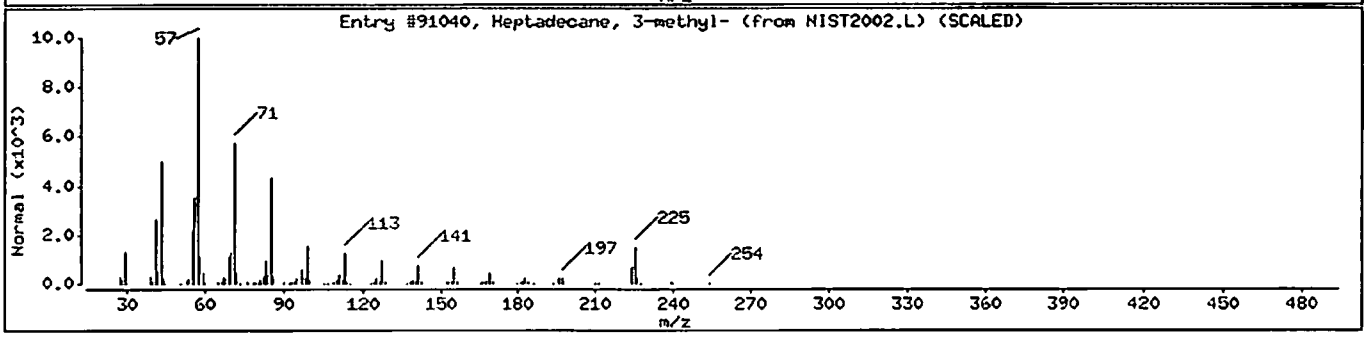
Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Bromo dodecane	13187-99-0	NIST2002.L	86886	93	C12H25Br	248
Hexacosane	630-01-3	NIST2002.L	147090	93	C26H54	366
Heptadecane, 3-methyl-	6418-44-6	NIST2002.L	91040	93	C18H38	254









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

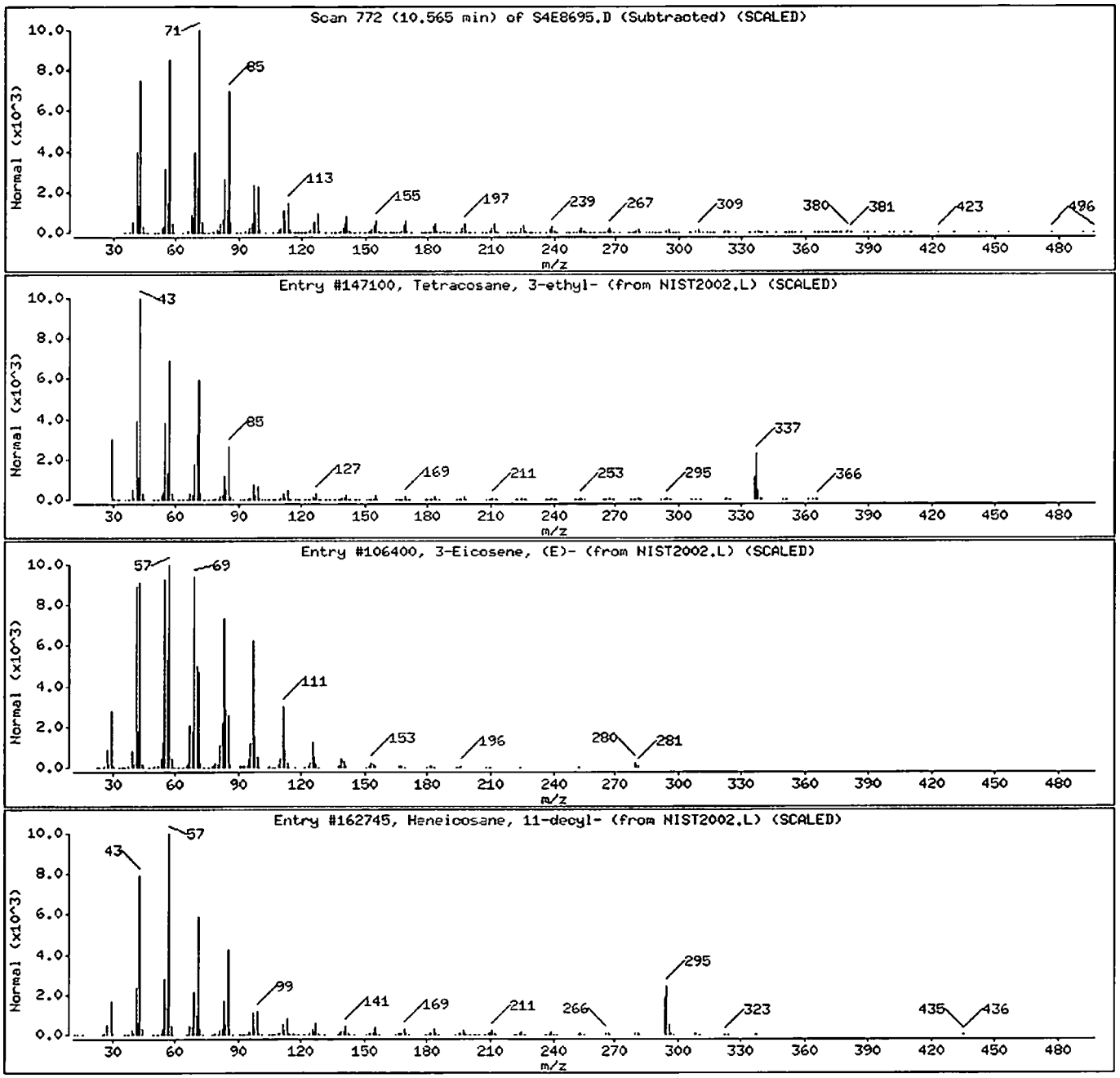
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Branched Alkane						
Tetracosane, 3-ethyl-	55282-17-2	NIST2002.L	147100	93	C26H54	366
3-Eicosene, (E)-	74685-33-9	NIST2002.L	106400	92	C20H40	280
Heneicosane, 11-decyl-	55320-06-4	NIST2002.L	162745	91	C31H64	437



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

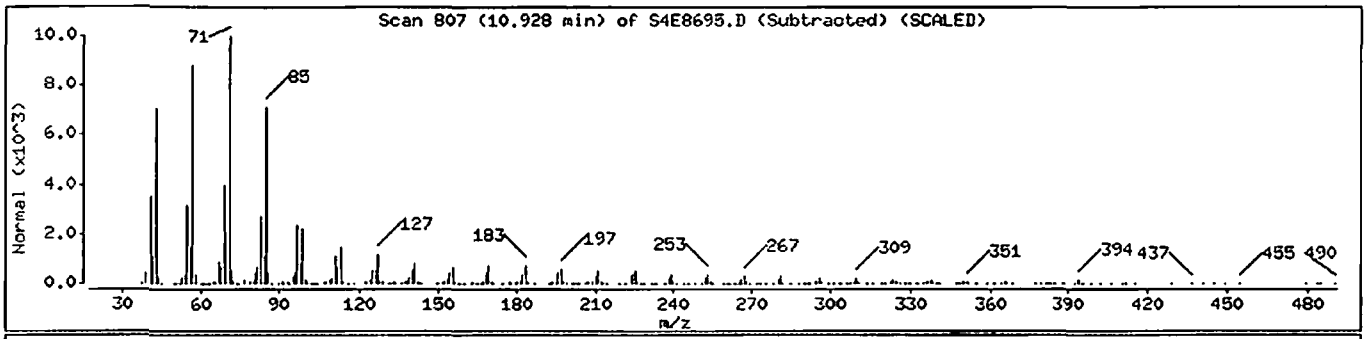
Client ID: H30R4DL | Instrument: S4.i

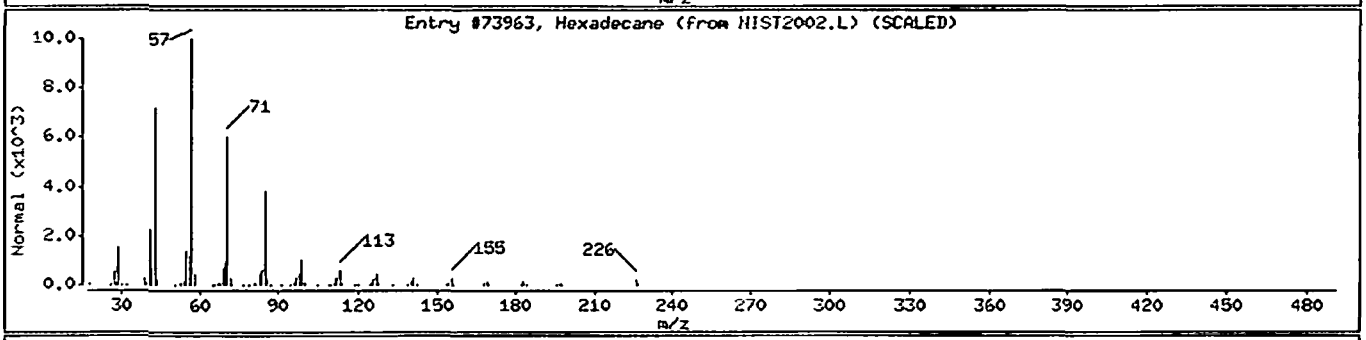
Sample Info: K2199-08ADL,,62801,,5

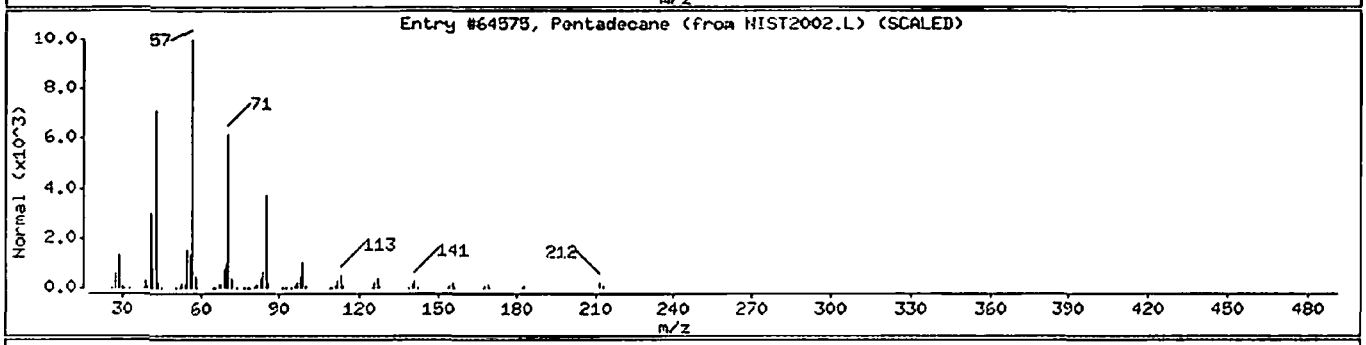
Volume Injected (uL): 2.0 | Operator: MHS SRC: LIMS

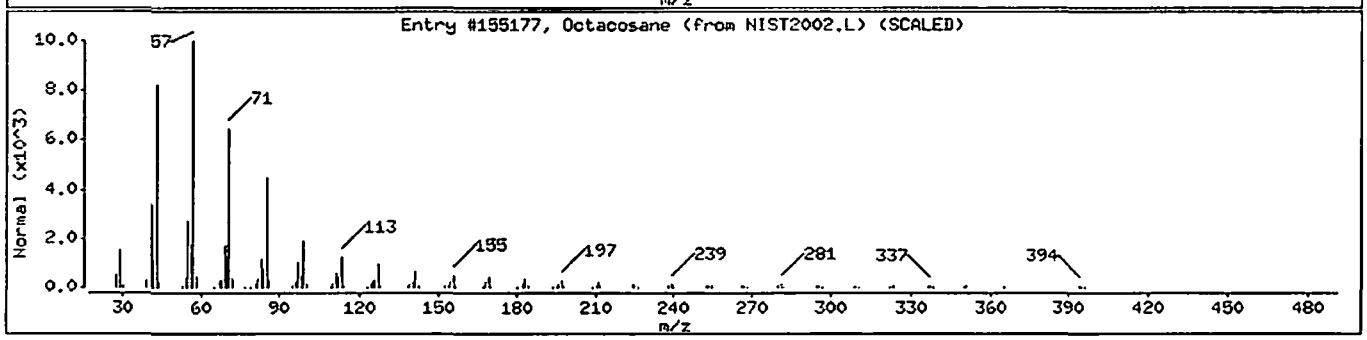
Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Hexadecane	544-76-3	NIST2002.L	73963	98	C16H34	226
Pentadecane	629-62-9	NIST2002.L	64575	95	C15H32	212
Octacosane	630-02-4	NIST2002.L	155177	93	C28H58	394









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

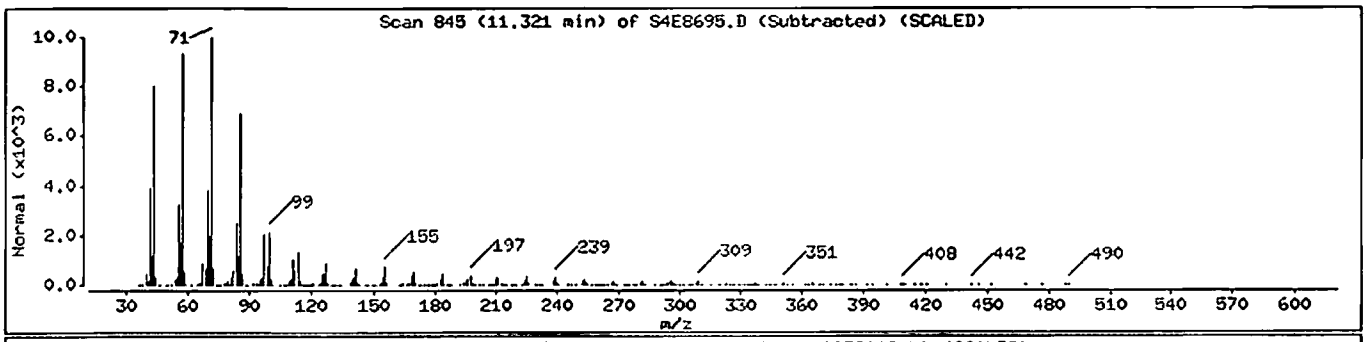
Client ID: H30R4DL | Instrument: S4.i

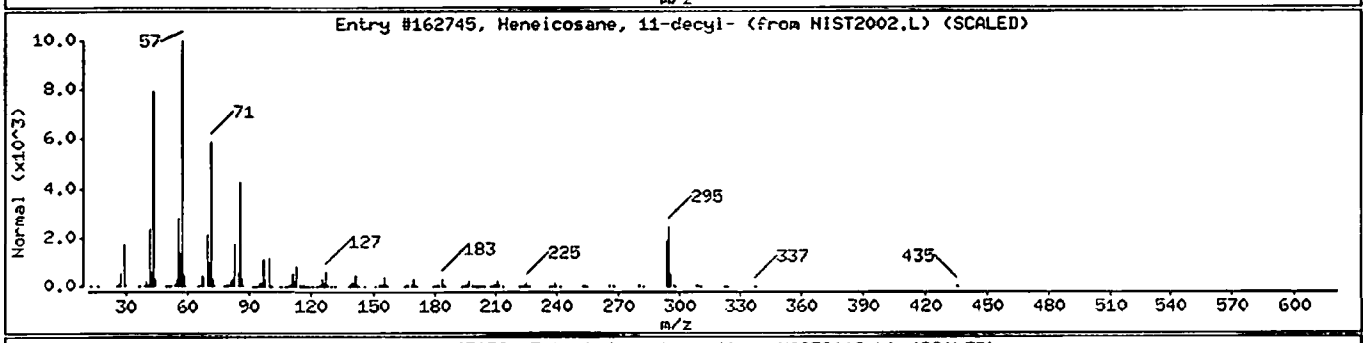
Sample Info: K2199-08ADL,,62801,,5

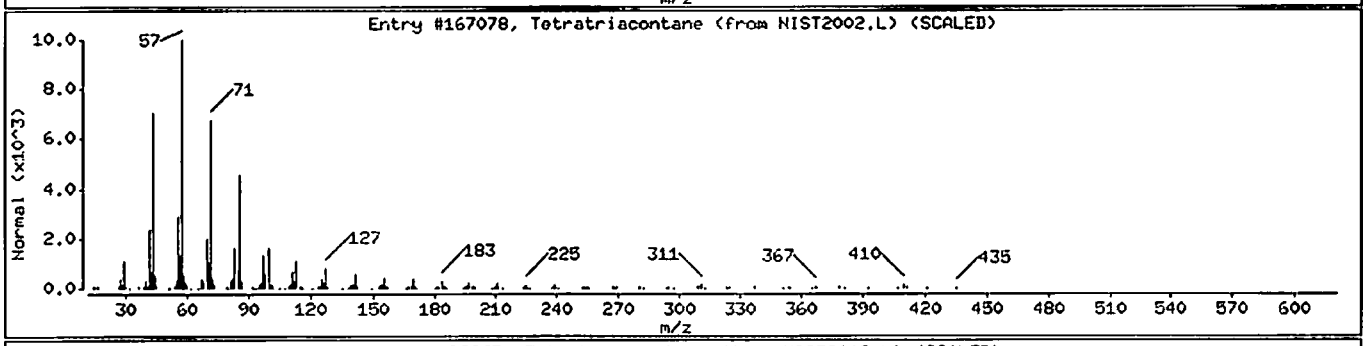
Volume Injected (uL): 2.0 | Operator: MHS SRC: LIMS

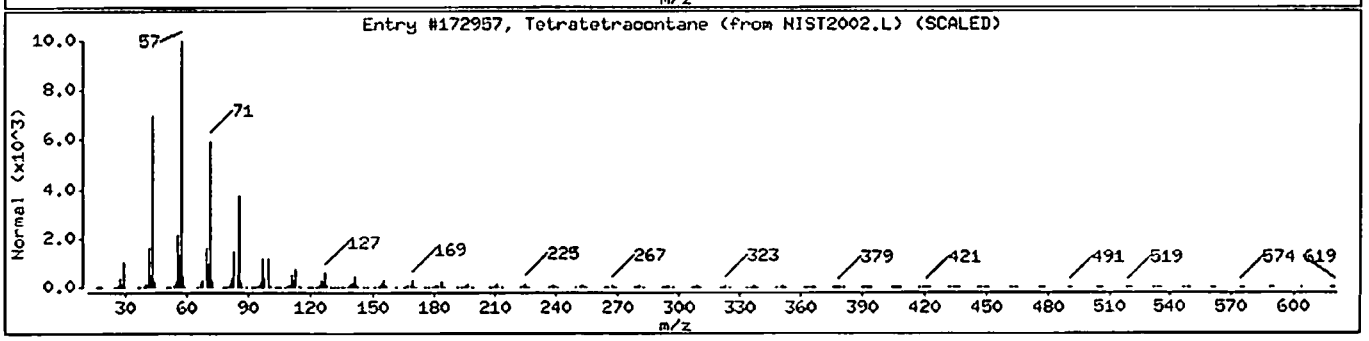
Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Branched Alkane						
Heneicosane, 11-decyl-	55320-06-4	NIST2002.L	162745	91	C31H64	437
Tetratriacontane	14167-59-0	NIST2002.L	167078	91	C34H70	479
Tetratetracontane	7098-22-8	NIST2002.L	172957	91	C44H90	619









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

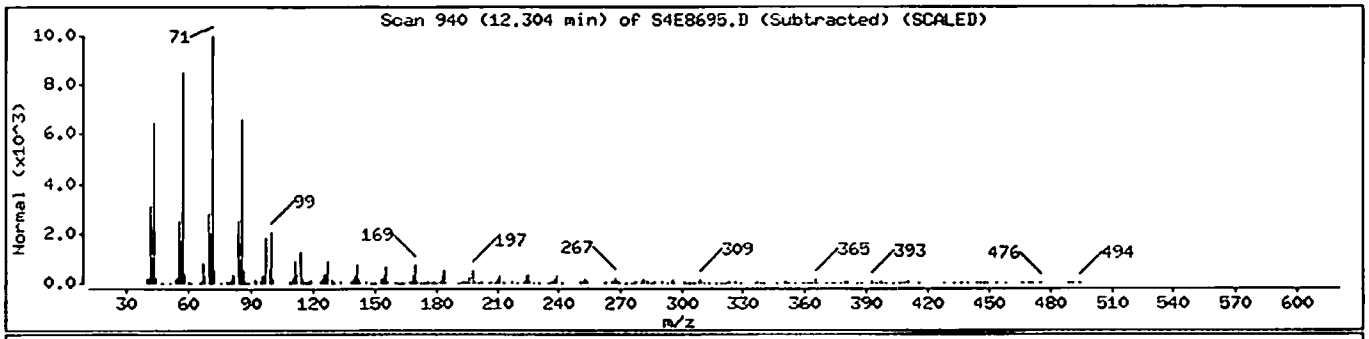
Client ID: H30R4DL | Instrument: S4.i

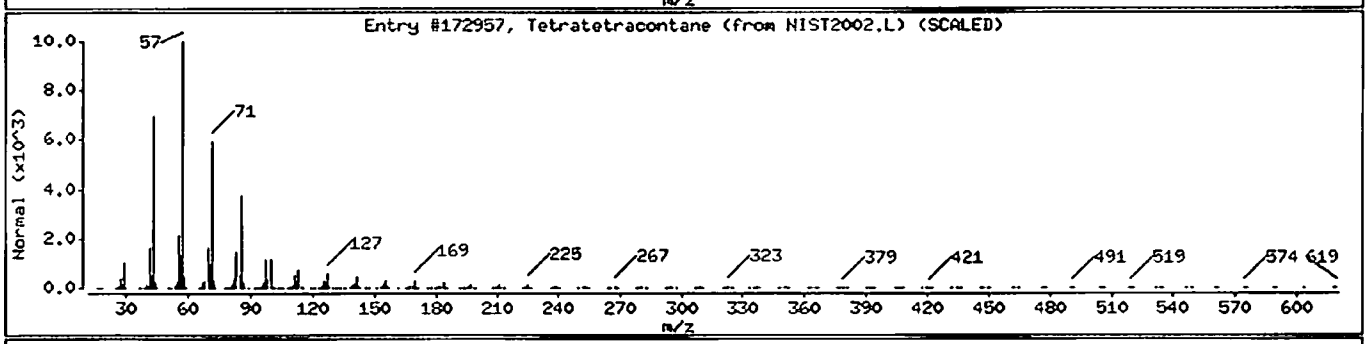
Sample Info: K2199-08ADL,,62801,,5

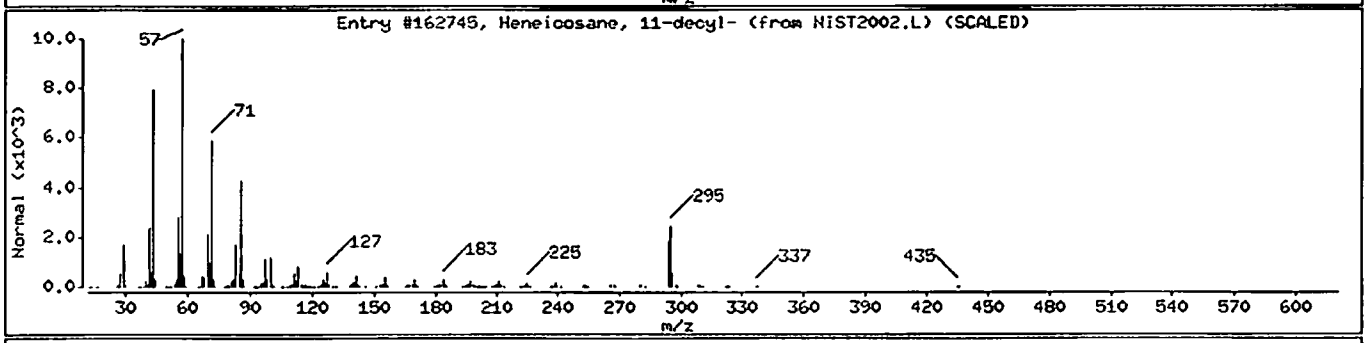
Volume Injected (uL): 2.0 | Operator: MMS SRC: LINS

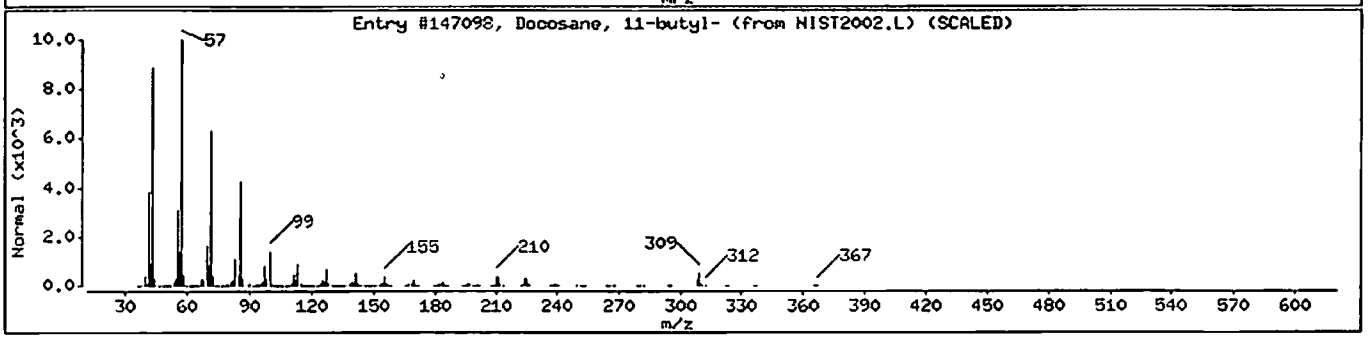
Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Tetratetracontane	7098-22-8	NIST2002.L	172957	90	C44H90	619
Heneicosane, 11-decyl-	55320-06-4	NIST2002.L	162745	90	C31H64	437
Docosane, 11-butyl-	13475-76-8	NIST2002.L	147098	89	C26H54	366









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

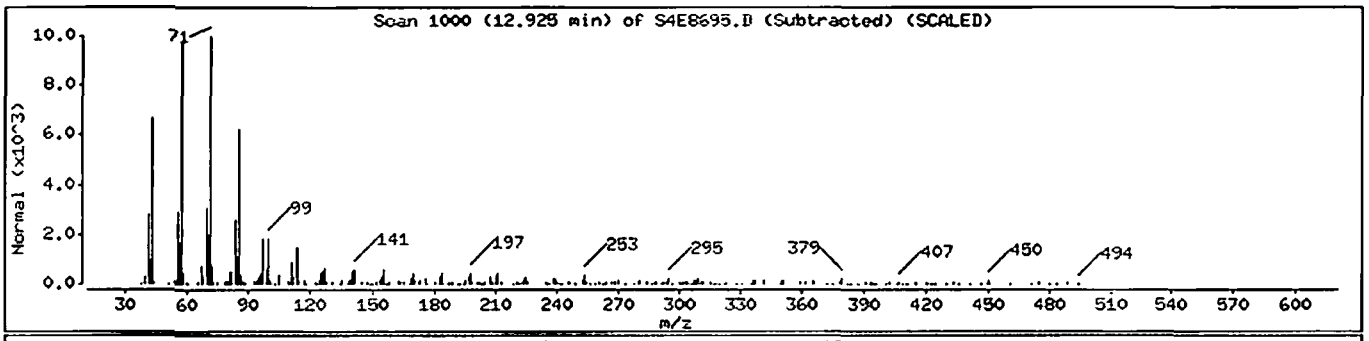
Client ID: H30R4DL | Instrument: S4.i

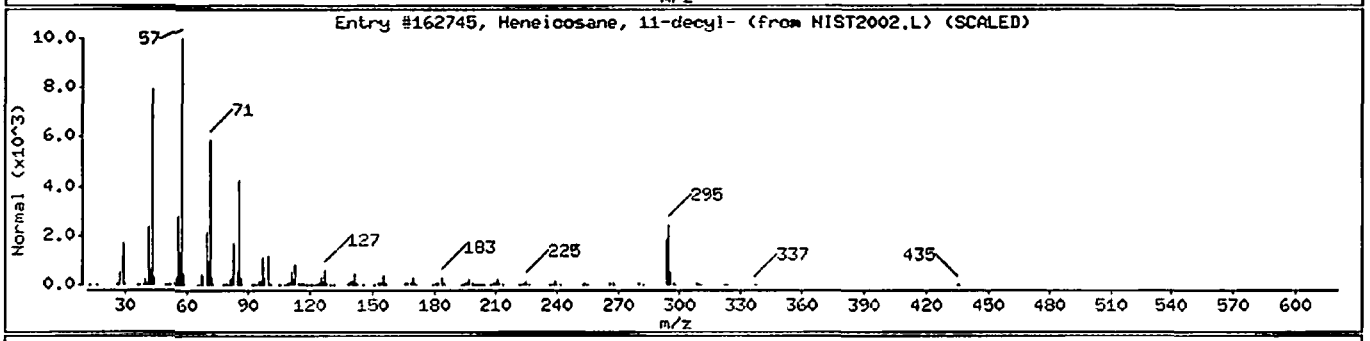
Sample Info: K2199-08ADL,,62801,,5

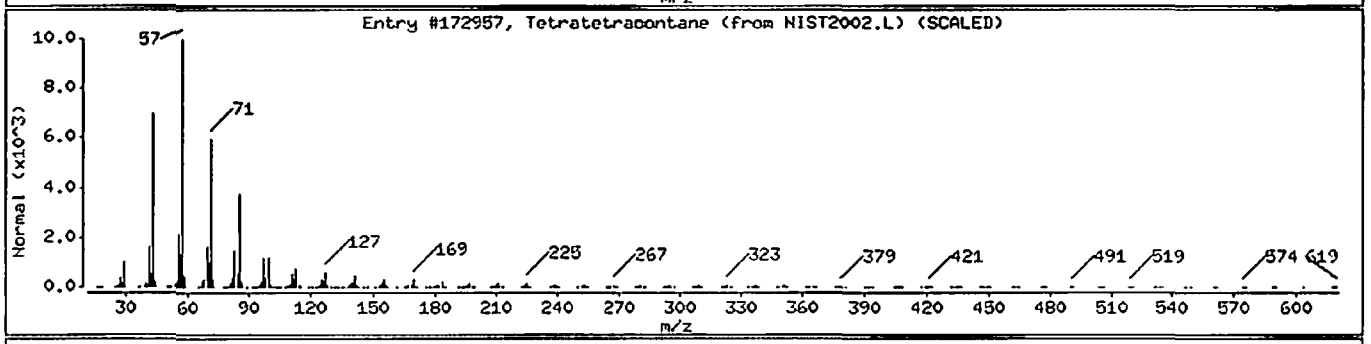
Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

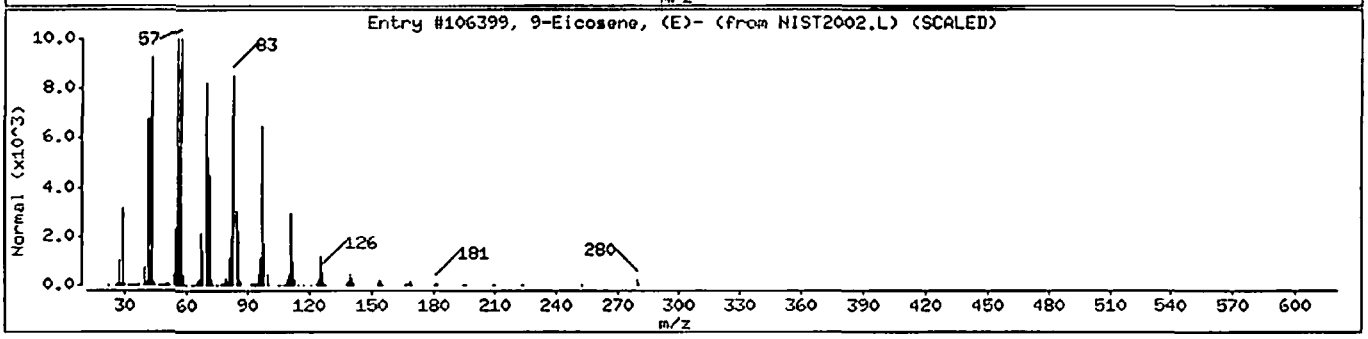
Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Branched Alkane						
Heneicosane, 11-decyl-	55320-06-4	NIST2002.L	162745	93	C31H64	437
Tetratetracontane	7098-22-8	NIST2002.L	172957	91	C44H90	619
9-Eicosene, (E)-	74685-29-3	NIST2002.L	106399	91	C20H40	280









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

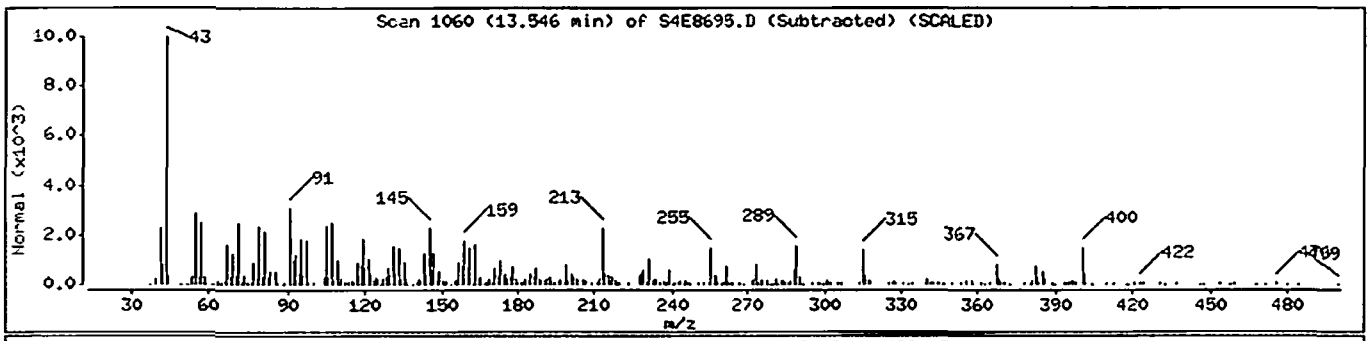
Client ID: H30R4DL | Instrument: S4.i

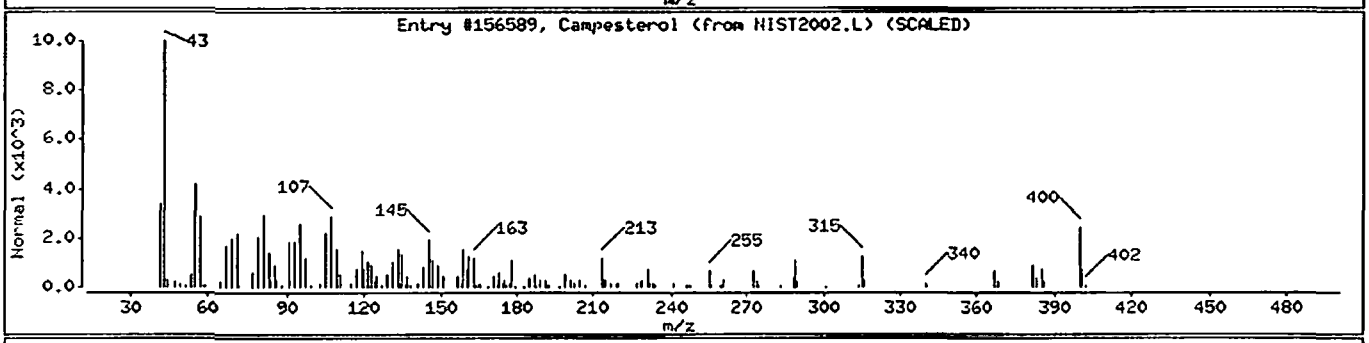
Sample Info: K2199-08ADL,,62801,,5

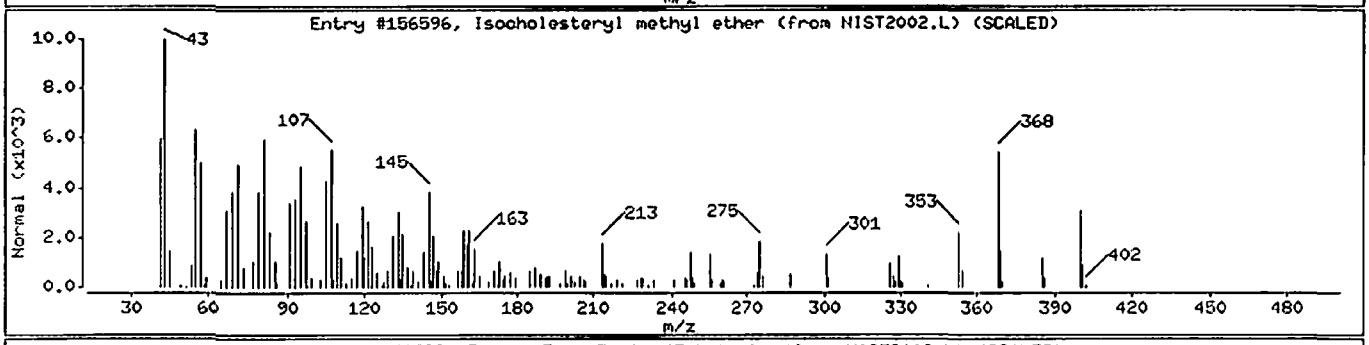
Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

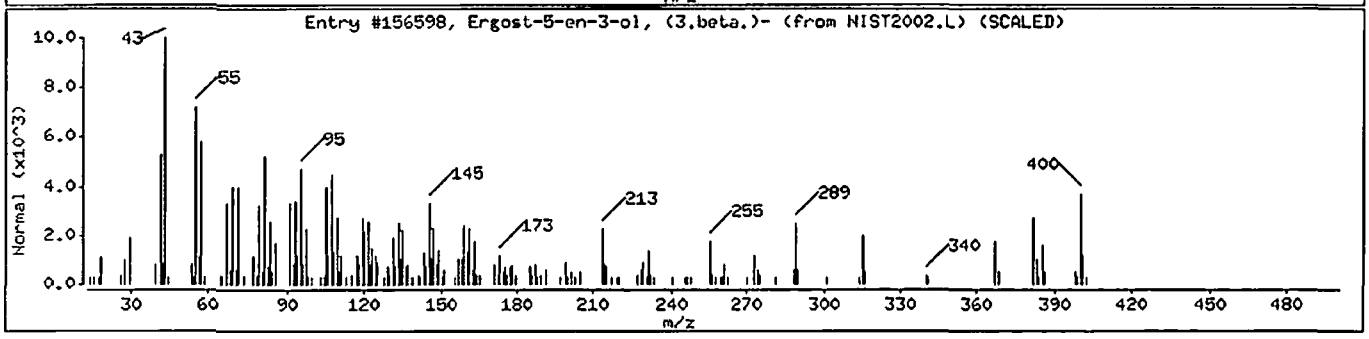
Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Campesterol	474-62-4	NIST2002.L	156589	98	C28H48O	400
Isocholesteryl methyl ether	29944-53-4	NIST2002.L	156596	94	C28H48O	400
Ergost-5-en-3-ol, (3.beta.)-	4651-51-8	NIST2002.L	156598	92	C28H48O	400









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

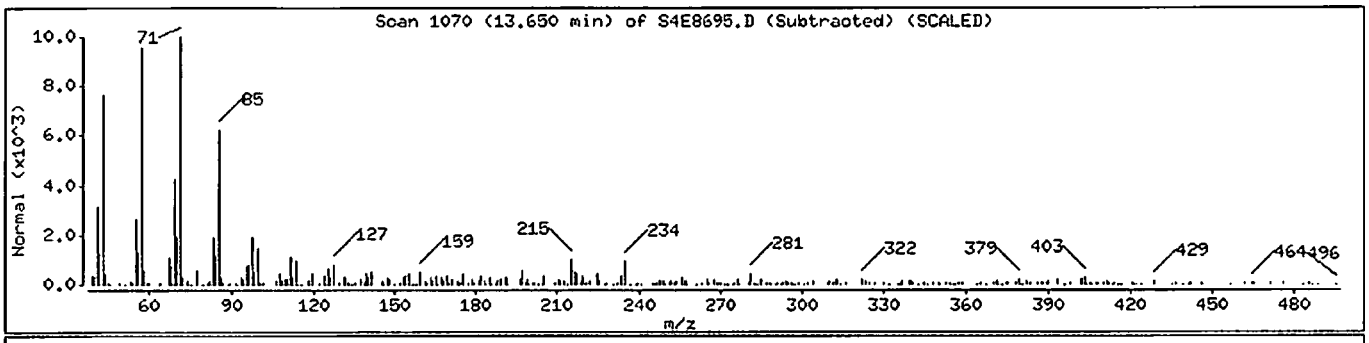
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

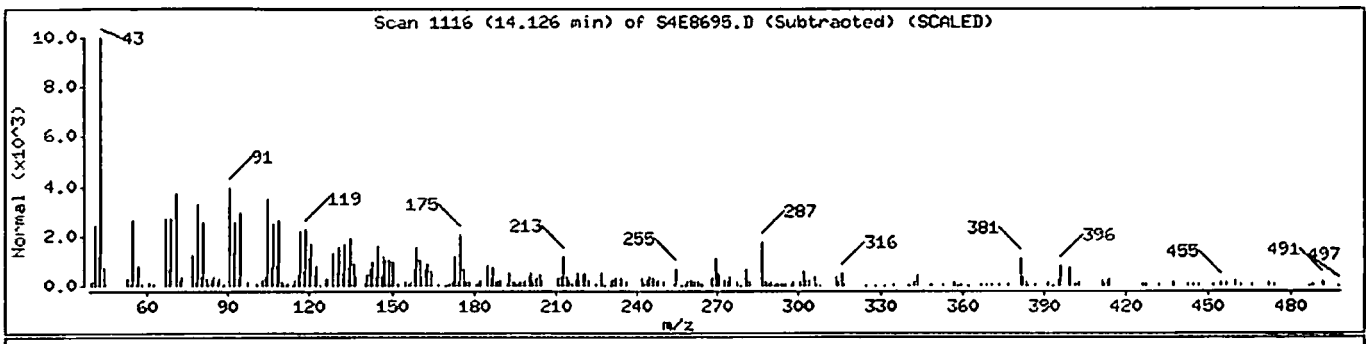
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

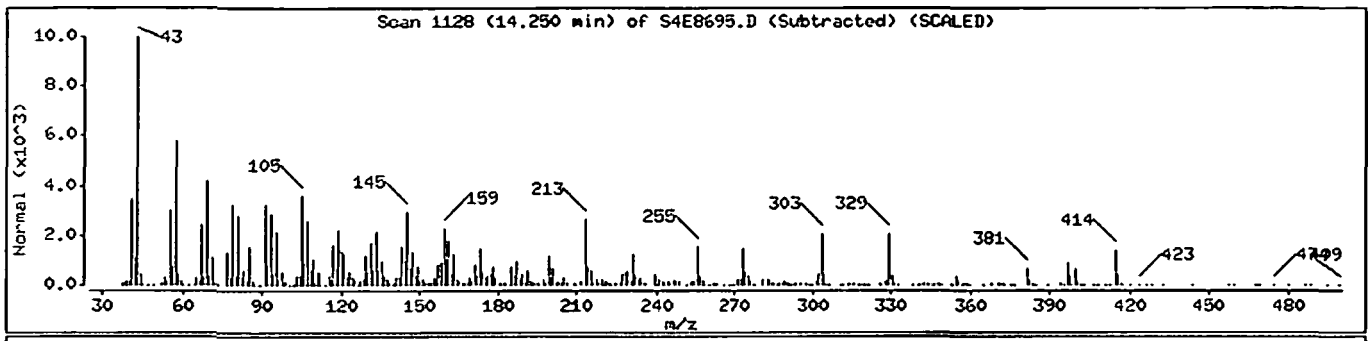
Client ID: H30R4DL | Instrument: S4.i

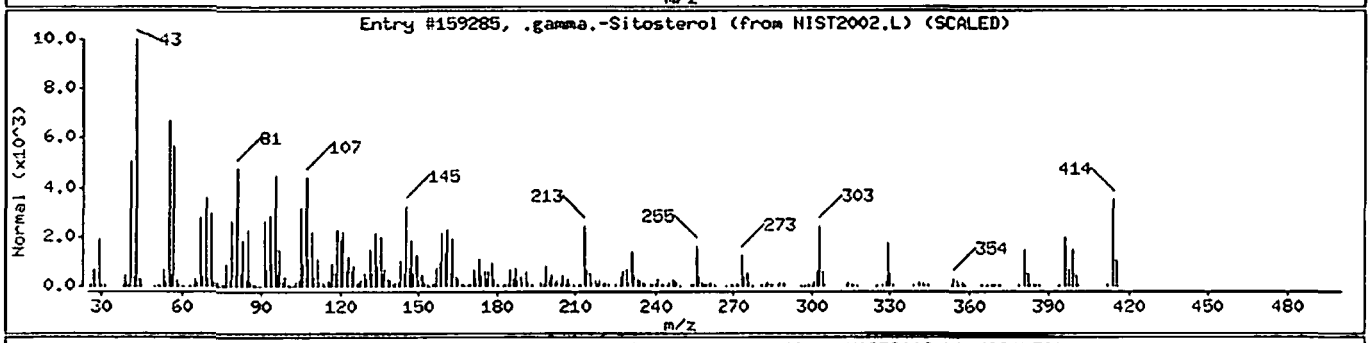
Sample Info: K2199-08ADL,,62801,,5

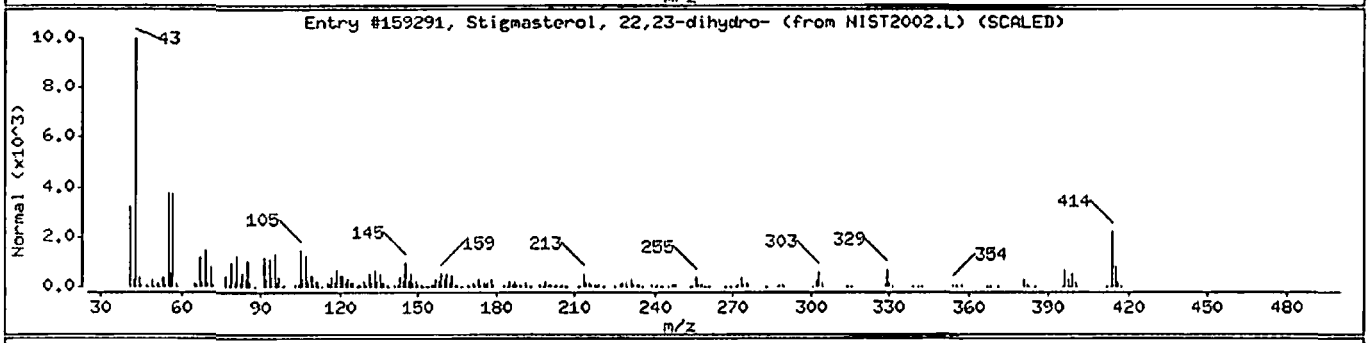
Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.gamma.-Sitosterol	83-47-6	NIST2002.L	159285	94	C29H500	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST2002.L	159291	86	C29H500	414







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

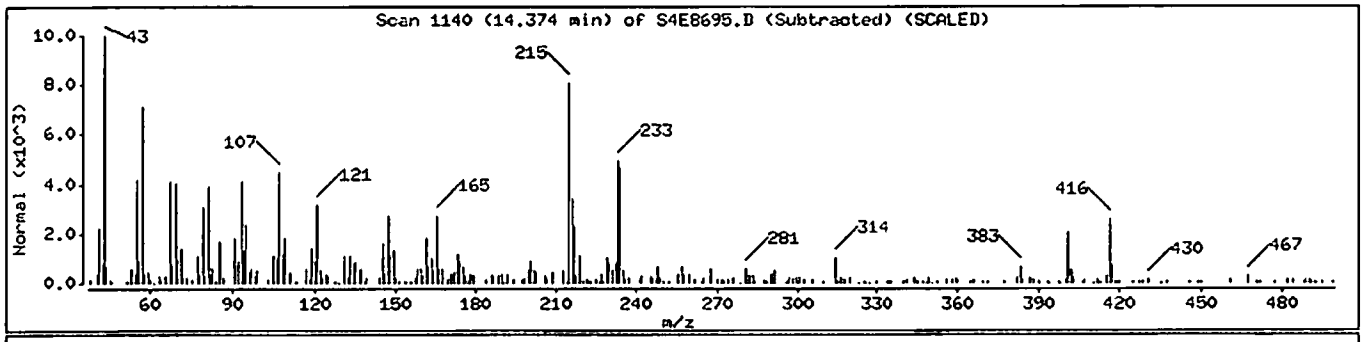
Client ID: H3OR4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

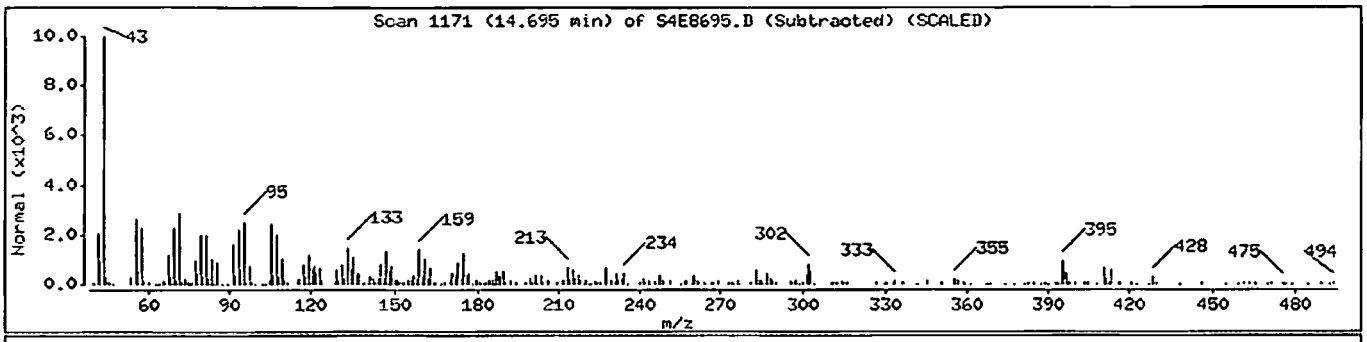
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8695.D

Date : 14-NOV-2011 11:42

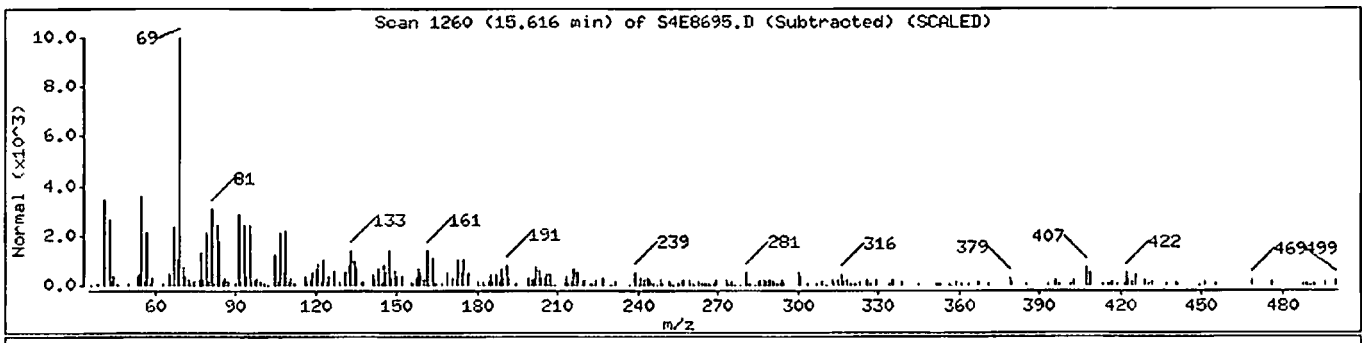
Client ID: H30R4DL | Instrument: S4.i

Sample Info: K2199-08ADL,,62801,,5

Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS | Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-09A

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4E8681.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 67 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 7.7 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	510	U
108-95-2	Phenol	510	U
111-44-4	Bis(2-chloroethyl)ether	510	U
95-57-8	2-Chlorophenol	510	U
95-48-7	2-Methylphenol	510	U
108-60-1	2,2´-Oxybis(1-chloropropane)	510	U
98-86-2	Acetophenone	510	U
106-44-5	4-Methylphenol	1400	
621-64-7	N-Nitroso-di-n-propylamine	510	U
67-72-1	Hexachloroethane	510	U
98-95-3	Nitrobenzene	510	U
78-59-1	Isophorone	510	U
88-75-5	2-Nitrophenol	510	U
105-67-9	2,4-Dimethylphenol	510	U
111-91-1	Bis(2-chloroethoxy)methane	510	U
120-83-2	2,4-Dichlorophenol	510	U
91-20-3	Naphthalene	510	U
106-47-8	4-Chloroaniline	510	U
87-68-3	Hexachlorobutadiene	510	U
105-60-2	Caprolactam	510	U
59-50-7	4-Chloro-3-methylphenol	510	U
91-57-6	2-Methylnaphthalene	510	U
77-47-4	Hexachlorocyclopentadiene	510	U
88-06-2	2,4,6-Trichlorophenol	510	U
95-95-4	2,4,5-Trichlorophenol	510	U
92-52-4	1,1´-Biphenyl	510	U
91-58-7	2-Chloronaphthalene	510	U
88-74-4	2-Nitroaniline	980	U
131-11-3	Dimethylphthalate	510	U
606-20-2	2,6-Dinitrotoluene	510	U
208-96-8	Acenaphthylene	510	U
99-09-2	3-Nitroaniline	980	U
83-32-9	Acenaphthene	510	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-09A

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4E8681.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 67 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 7.7 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	980	U
100-02-7	4-Nitrophenol	980	U
132-64-9	Dibenzofuran	510	U
121-14-2	2,4-Dinitrotoluene	510	U
84-66-2	Diethylphthalate	510	U
86-73-7	Fluorene	510	U
7005-72-3	4-Chlorophenyl-phenylether	510	U
100-01-6	4-Nitroaniline	980	U
534-52-1	4,6-Dinitro-2-methylphenol	980	U
86-30-6	N-Nitrosodiphenylamine (1)	510	U
95-94-3	1,2,4,5-Tetrachlorobenzene	510	U
101-55-3	4-Bromophenyl-phenylether	510	U
118-74-1	Hexachlorobenzene	510	U
1912-24-9	Atrazine	510	U
87-86-5	Pentachlorophenol	980	U
85-01-8	Phenanthrene	510	U
120-12-7	Anthracene	510	U
86-74-8	Carbazole	510	U
84-74-2	Di-n-butylphthalate	570	B
206-44-0	Fluoranthene	510	U
129-00-0	Pyrene	510	U
85-68-7	Butylbenzylphthalate	510	U
91-94-1	3,3'-Dichlorobenzidine	510	U
56-55-3	Benzo(a)anthracene	510	U
218-01-9	Chrysene	510	U
117-81-7	Bis(2-ethylhexyl)phthalate	820	
117-84-0	Di-n-octylphthalate	510	U
205-99-2	Benzo(b)fluoranthene	510	U
207-08-9	Benzo(k)fluoranthene	510	U
50-32-8	Benzo(a)pyrene	510	U
193-39-5	Indeno(1,2,3-cd)pyrene	510	U
53-70-3	Dibenzo(a,h)anthracene	510	U
191-24-2	Benzo(g,h,i)perylene	510	U
58-90-2	2,3,4,6-Tetrachlorophenol	510	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30R6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-09A

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4E8681.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 67 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 7.7 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	7785-70-8	1R-.alpha.-Pinene	2.896	330	NJ
02		Unknown-01	2.999	350	J
03		Unknown-02	3.165	370	J
04	29050-33-7	(+)-4-Carene	3.320	1400	NJ
05	535-77-3	Benzene, 1-methyl-3-(1-methy	3.403	7700	NJ
06		Unknown-03	3.765	220	J
07		Unknown-04	4.107	270	J
08	464-48-2	Bicyclo[2.2.1]heptan-2-one,	4.189	590	NJ
09		Unknown-05	4.334	310	J
10		Unknown-06	4.945	470	J
11	1000158-18-5	Caryophyllene-(I1)	5.380	440	NJ
12		Unknown-07	5.494	420	J
13		Unknown-08	5.535	450	J
14	475-20-7	1,4-Methanoazulene, decahydr	5.732	5300	NJ
15		Unknown-09	8.247	9200	J
16		Unknown-10	8.454	6200	J
17	15594-90-8	1-Heneicosanol	9.996	22000	NJ
18		Unknown-11	11.890	8200	J
19		Unknown-12	13.743	9800	J
20	83-47-6	.gamma.-Sitosterol	14.550	46000	NJ
21		Unknown-13	14.995	19000	J
22	2034-72-2	Stigmasta-3,5-dien-7-one	15.399	6300	NJ
	E96679[2]	Total Alkanes	N/A	65000	J

[2]EPA-designated Registry Number.

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D
Report Date: 14-Nov-2011 13:32

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111113.B\S4E8681.D
Lab Smp Id: K2199-09A Client Smp ID: H30R6
Inj Date : 13-NOV-2011 17:12
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-09A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111113.B\S4_SOM.m
Meth Date : 14-Nov-2011 13:30 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.200	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 2 Phenol-d5	71	3.061	3.030	(0.911)	57814	44.3636	730
$ 4 bis(2-Chloroethyl)ether-d8	67	3.102	3.081	(0.923)	30655	31.6253	520
$ 6 2-Chlorophenol-d4	132	3.206	3.185	(0.954)	54557	35.6749	590
* 8 1,4-Dichlorobenzene-d4	152	3.361	3.340	(1.000)	48460	40.0000	(Q)
$ 11 4-Methylphenol-d8	113	3.620	3.588	(1.077)	55400	40.1428	660
12 4-Methylphenol	108	3.640	3.609	(1.083)	38808	27.4268	450
$ 16 Nitrobenzene-d5	128	3.796	3.775	(0.857)	26151	32.7325	540(QH)
$ 19 2-Nitrophenol-d4	143	4.065	4.044	(0.918)	39624	38.9106	640
$ 23 2,4-Dichlorophenol-d3	165	4.282	4.251	(0.967)	85091	44.5932	740
* 25 Naphthalene-d8	136	4.427	4.406	(1.000)	190859	40.0000	
$ 27 4-Chloroaniline-d4	131	4.468	4.448	(1.009)	16201	8.60546	140(aQ)
$ 40 Dimethylphthalate-d6	166	5.772	5.752	(0.947)	278221	39.0457	650
$ 43 Acenaphthylene-d8	160	5.938	5.907	(0.975)	332497	42.1427	700
* 46 Acenaphthene-d10	164	6.093	6.062	(1.000)	180206	40.0000	
$ 49 4-Nitrophenol-d4	143	6.207	6.155	(1.019)	84298	62.8401	1000(Q)
$ 54 Fluorene-d10	176	6.590	6.559	(1.082)	290536	45.7329	760
$ 58 4,6-Dinitro-2-methylphenol-d2	200	6.652	6.621	(0.882)	58898	42.6285	710(Q)
* 65 Phenanthrene-d10	188	7.542	7.511	(1.000)	344450	40.0000	
$ 67 Anthracene-d10	188	7.604	7.563	(1.008)	409423	43.2791	720(H)

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D
Report Date: 14-Nov-2011 13:32

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
70 Di-n-butylphthalate	149	8.081	8.049	(1.071)	114425	11.4319	190
$ 72 Pyrene-d10	212	8.950	8.908	(0.887)	361912	39.8086	660(R)
79 bis(2-Ethylhexyl)phthalate	149	10.120	10.068	(1.003)	113453	16.5889	270
* 77 Chrysene-d12	240	10.161	10.099	(1.000)	466434	40.0000	(QH)
$ 83 Benzo(a)pyrene-d12	264	11.776	11.662	(1.000)	294348	32.2142	530(R)
* 85 Perylene-d12	264	11.889	11.775	(1.000)	412352	40.0000	(H)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D
Report Date: 14-Nov-2011 13:32

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111113.B\S4E8681.D
Lab Smp Id: K2199-09A Client Smp ID: H30R6
Inj Date : 13-NOV-2011 17:12
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-09A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111113.B\S4_SOM.m
Meth Date : 14-Nov-2011 13:30 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.200	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	3.361	414039	40.000
* 25 Naphthalene-d8	4.427	666609	40.000
* 46 Acenaphthene-d10	6.094	1414742	40.000
* 65 Phenanthrene-d10	7.543	1008715	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
1R-.alpha.-Pinene				CAS #: 7785-70-8			
2.396	67973	6.56676369	110	86	NIST2002.L	15161	8
Unknown				CAS #:			
2.999	73312	7.08261653	120	0		0	8

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D
Report Date: 14-Nov-2011 13:32

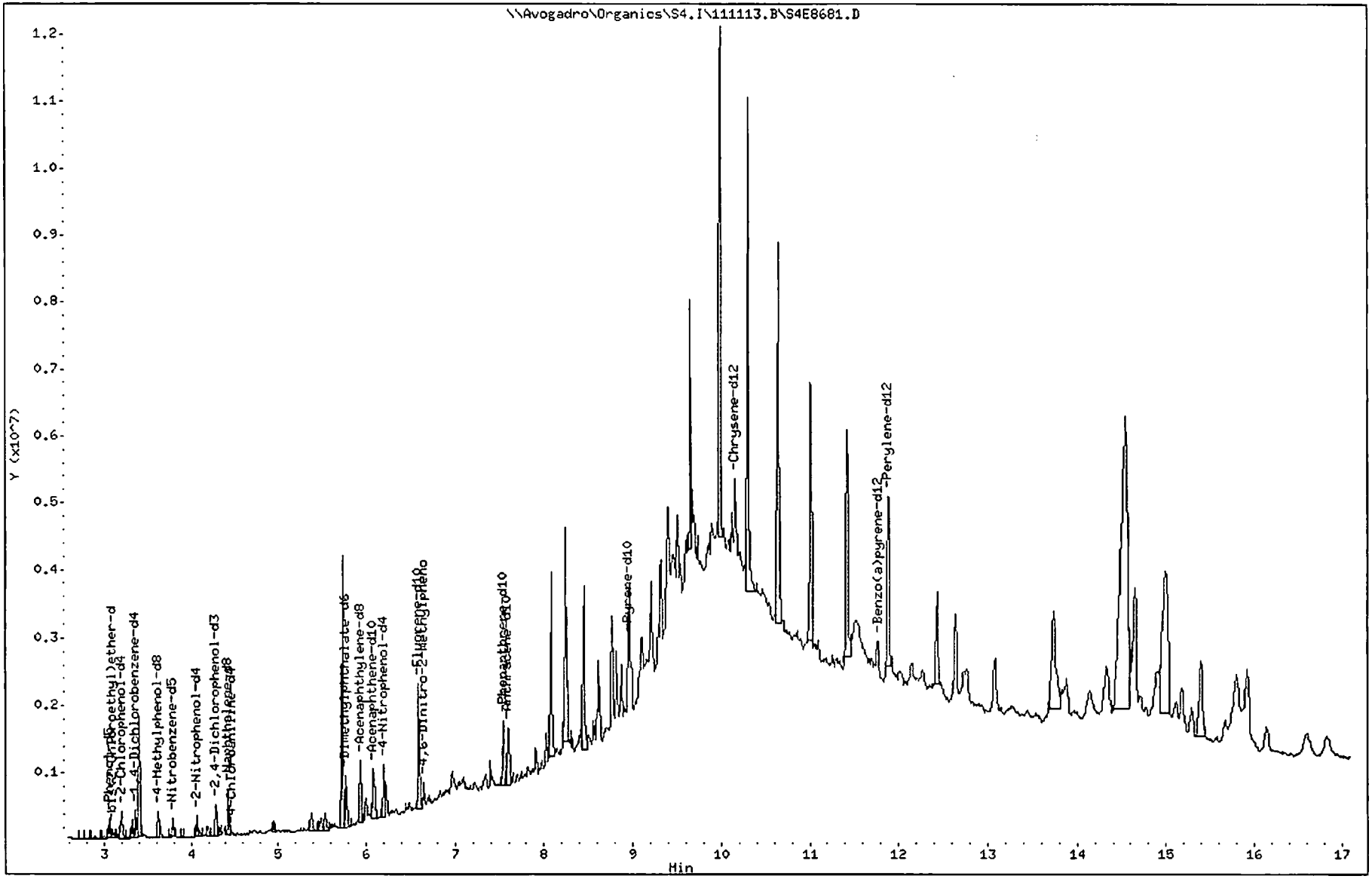
RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
3.165	76262	7.36758903	120	0		0	8
(+)-4-Carene				CAS #: 29050-33-7			
3.320	288638	27.8850691	460	87	NIST2002.L	15144	8
Benzene, 1-methyl-3-(1-methylethyl)-				CAS #: 535-77-3			
3.403	1613922	155.919434	2600	96	NIST2002.L	14400	8
Unknown				CAS #:			
3.765	45570	4.40243517	73	0		0	8
Unknown				CAS #:			
4.107	91854	5.51168852	91	0		0	25
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet				CAS #: 464-48-2			
4.189	196764	11.8068724	200	93	NIST2002.L	24209	25
Unknown				CAS #:			
4.334	102543	6.15308083	100	0		0	25
Unknown				CAS #:			
4.945	156934	9.41685003	160	0		0	25
Caryophyllene-(I1)				CAS #: 1000158-18-5			
5.380	313752	8.87093100	150	86	NIST2002.L	58672	46
Unknown				CAS #:			
5.494	297539	8.41252778	140	0		0	46
Unknown				CAS #:			
5.535	322277	9.11194911	150	0		0	46
1,4-Methanoazulene, decahydro-4,8,8-trim				CAS #: 475-20-7			
5.732	3755293	106.175986	1800	95	NIST2002.L	58865	46
Unknown				CAS #:			
8.247	4658268	184.720834	3100	0		0	65
Unknown				CAS #:			
8.454	3147052	124.794464	2100	0		0	65
Branched Alkane				CAS #:			
9.654	3485020	138.196387	2300	0		0	65
1-Heneicosanol				CAS #: 15594-90-8			
9.996	10959568	434.595171	7200	95	NIST2002.L	124171	65
Straight-chain Alkane				CAS #:			
10.306	8198091	325.090412	5400	0		0	65
Straight-chain Alkane				CAS #:			
10.648	8484055	336.430156	5600	0		0	65

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D
Report Date: 14-Nov-2011 13:32

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Straight-chain Alkane				CAS #:			
11.010	5810322	230.404866	3800	0		0	65
Straight-chain Alkane				CAS #:			
11.424	5093271	201.970647	3300	0		0	65
Unknown				CAS #:			
11.890	4172025	165.439157	2700	0		0	65
Straight-chain Alkane				CAS #:			
12.439	2140181	84.8676262	1400	0		0	65
Unknown				CAS #:			
13.743	4954082	196.451162	3300	0		0	65
.gamma.-Sitosterol				CAS #: 83-47-6			
14.550	23283518	923.294064	15000	96	NIST2002.L	159285	65
Unknown				CAS #:			
14.995	9593553	380.426659	6300	0		0	65
Stigmasta-3,5-dien-7-one				CAS #: 2034-72-2			
15.399	3218264	127.618331	2100	86	NIST2002.L	158483	65

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D
Date : 13-NOV-2011 17:12
Client ID: H30R6
Sample Info: K2199-09A,,62801,,
Volume Injected (uL): 2.0
Column phase: RXI-5SILMS

Instrument: S4.i
Operator: HMS SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

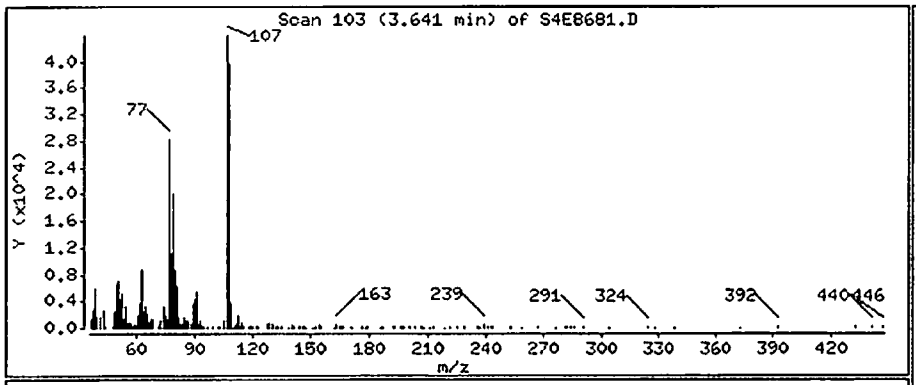
Client ID: H30R6 Instrument: S4.i

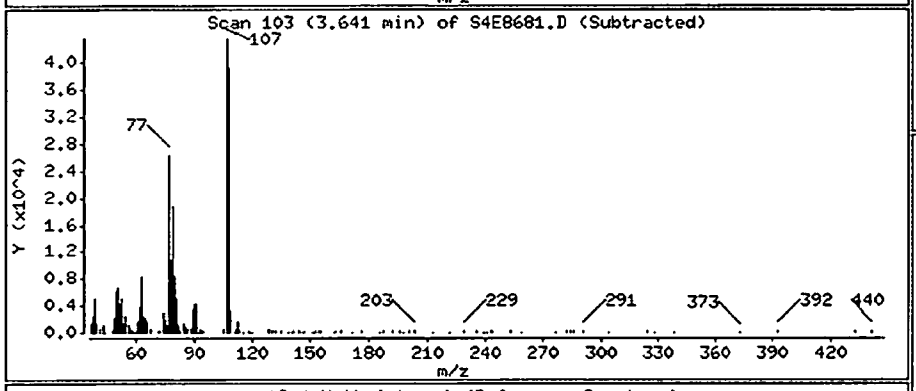
Sample Info: K2199-09A,,62801,,

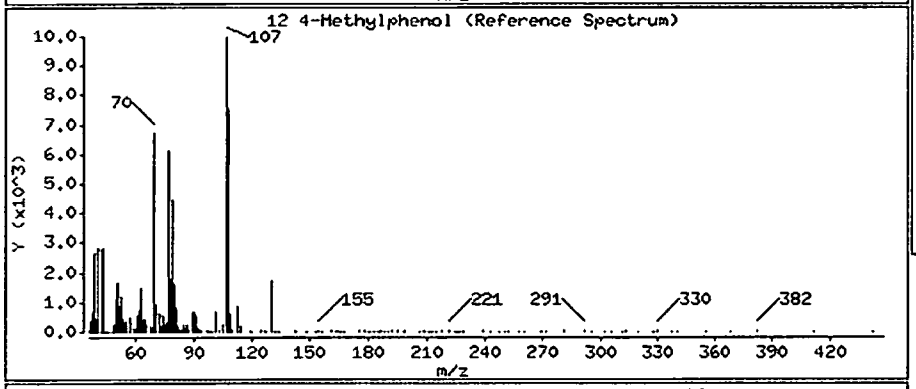
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

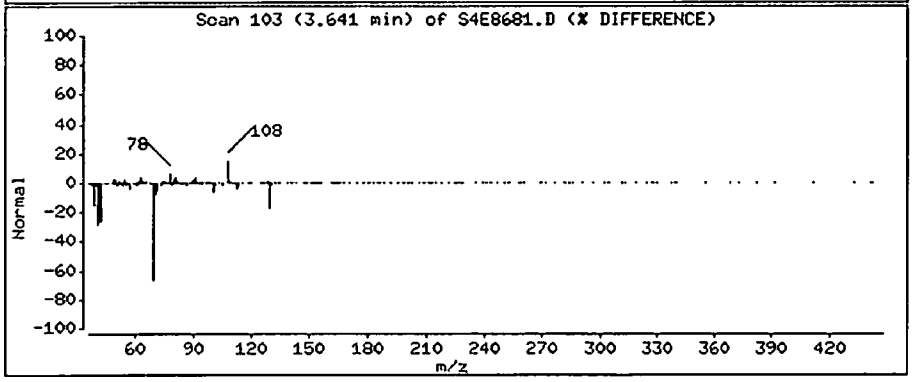
Column phase: RXI-5SILMS Column diameter: 0.25

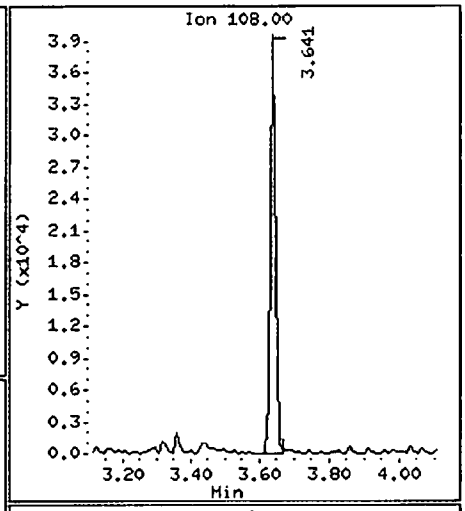
12 4-Methylphenol Concentration: 450 ug/Kg

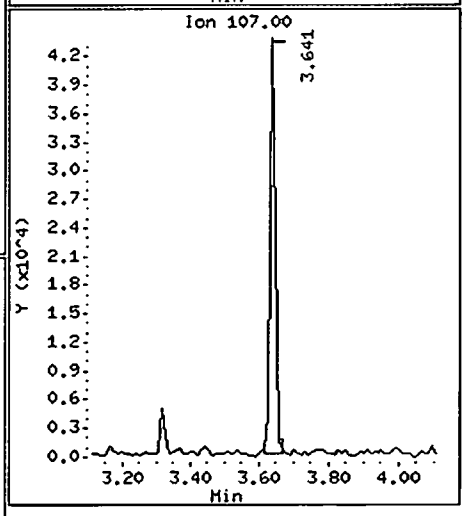












Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

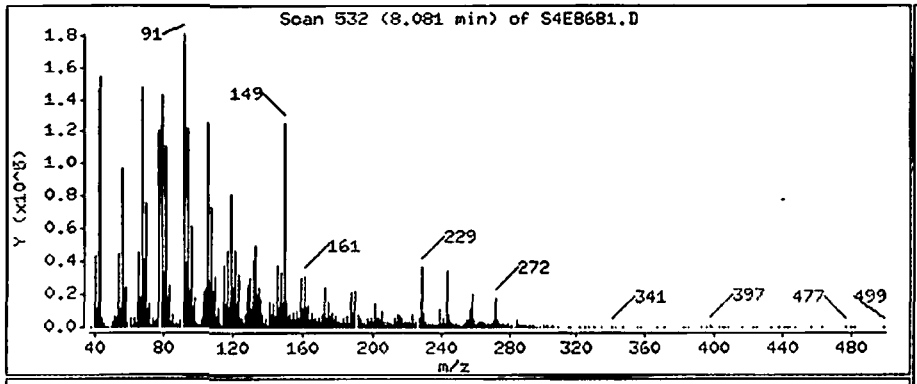
Client ID: H30R6 Instrument: S4.i

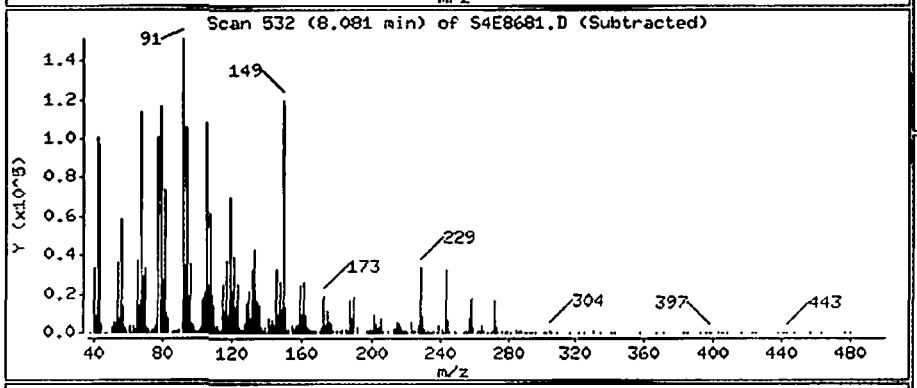
Sample Info: K2199-09A,,62801,,

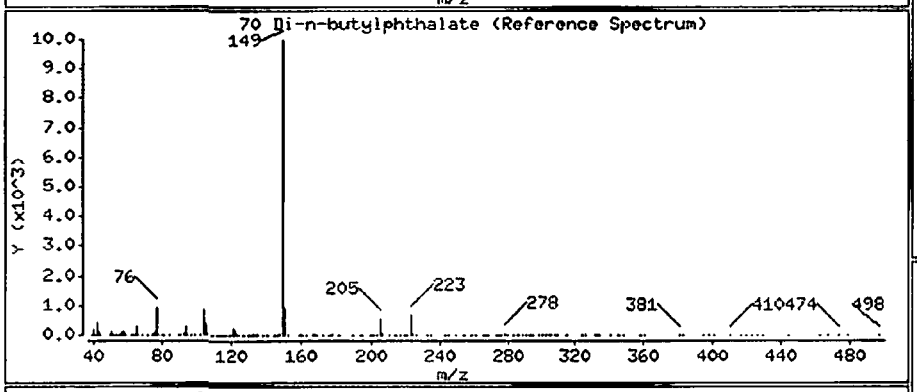
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

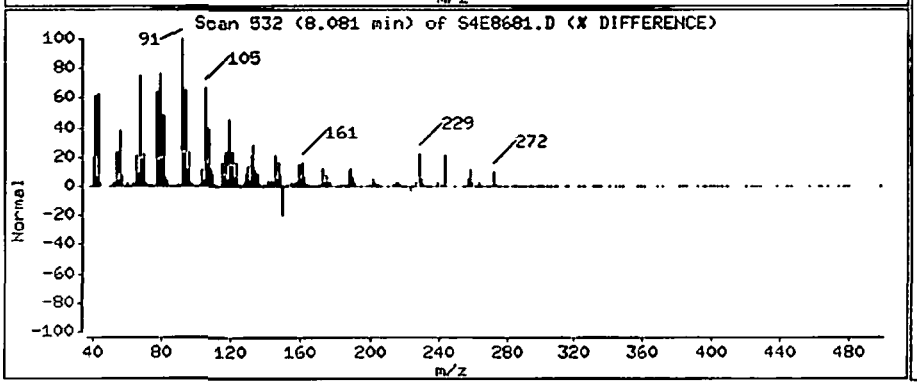
Column phase: RXI-5SILMS Column diameter: 0.25

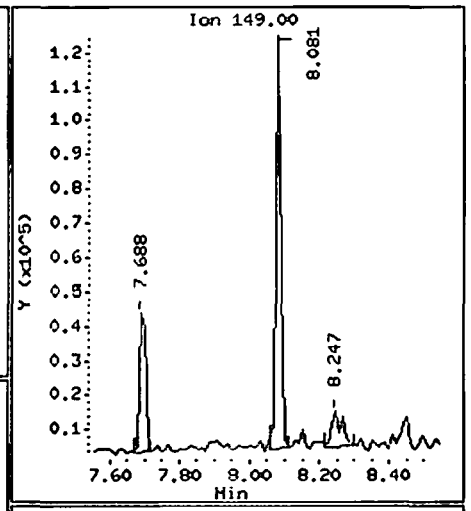
70 Di-n-butylphthalate Concentration: 190 ug/Kg

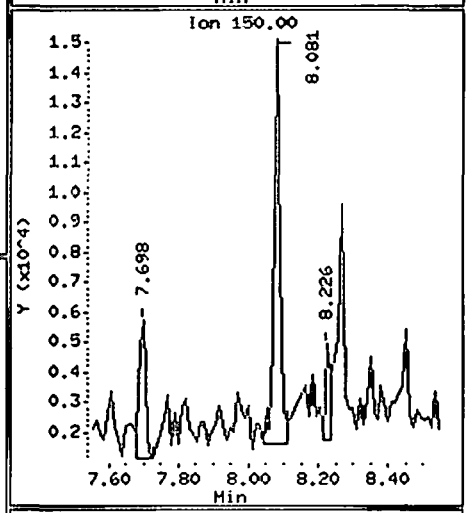


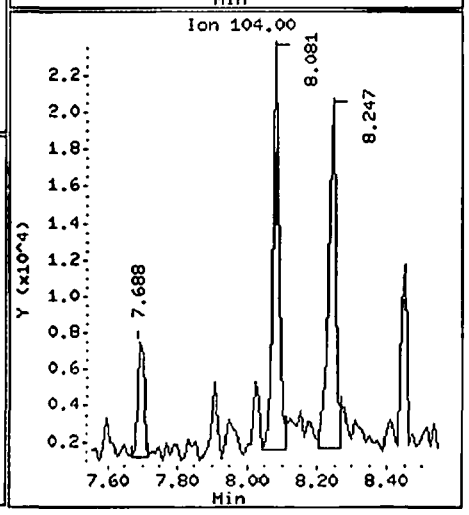












Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

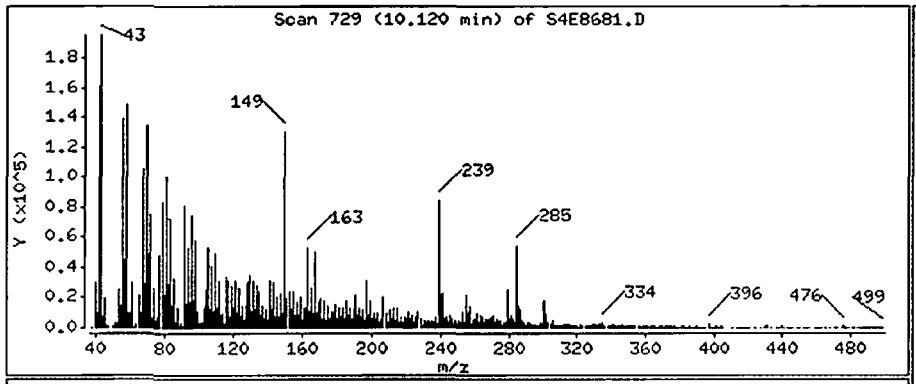
Client ID: H30R6 Instrument: S4.i

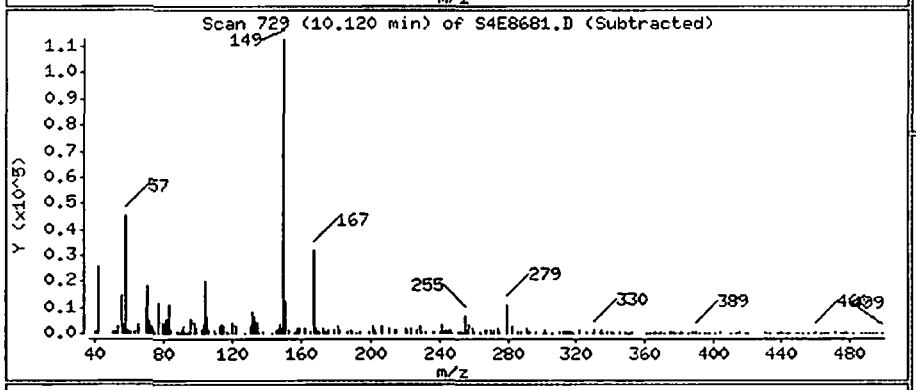
Sample Info: K2199-09A,,62801,,

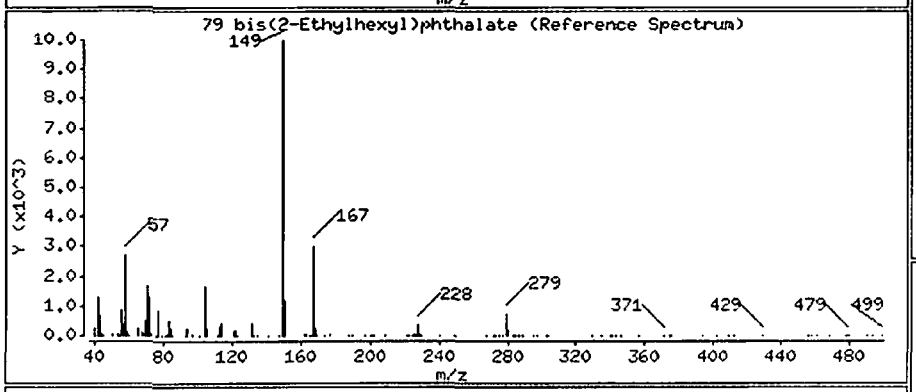
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

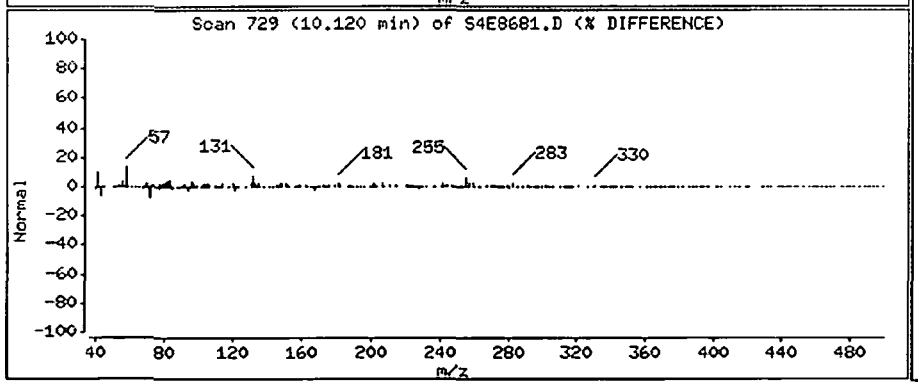
Column phase: RXI-5SILMS Column diameter: 0.25

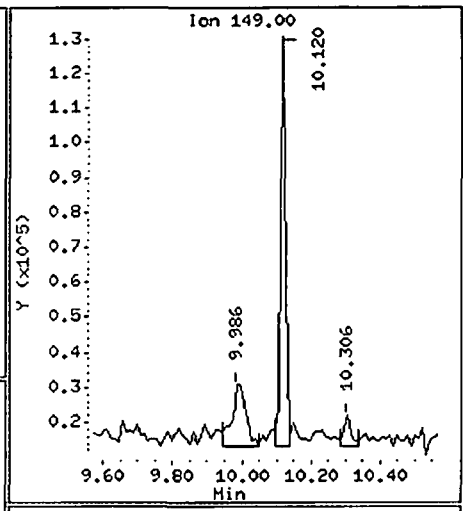
79 bis(2-Ethylhexyl)phthalate Concentration: 270 ug/Kg

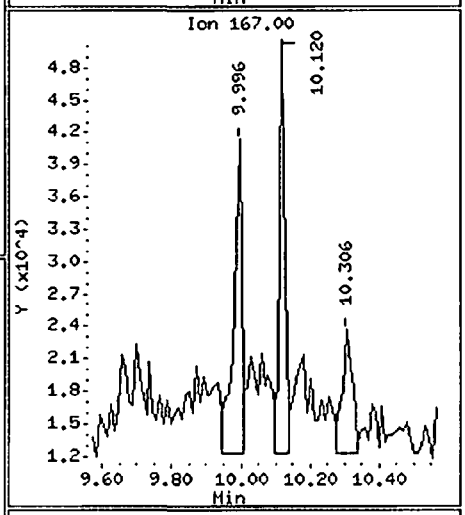


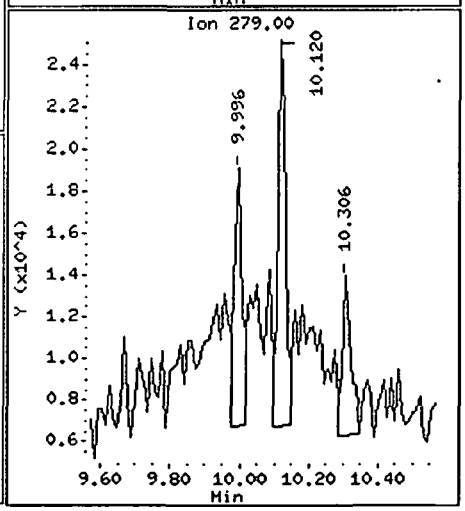












Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

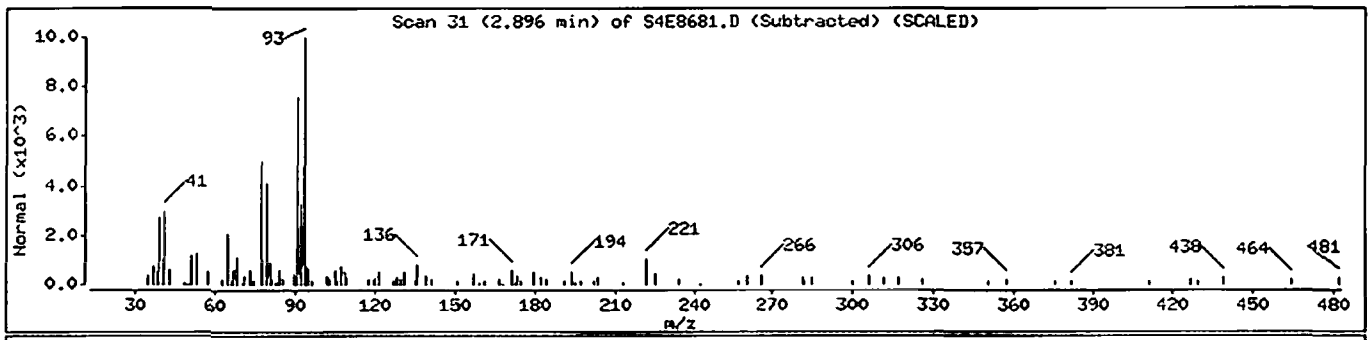
Client ID: H30R6 Instrument: S4.i

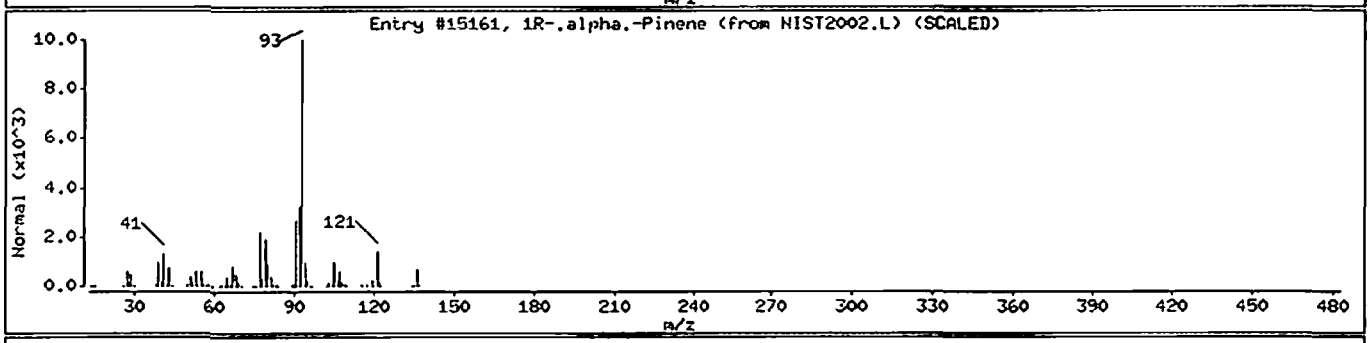
Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-.alpha.-Pinene	7785-70-8	NIST2002.L	15161	86	C10H16	136





Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

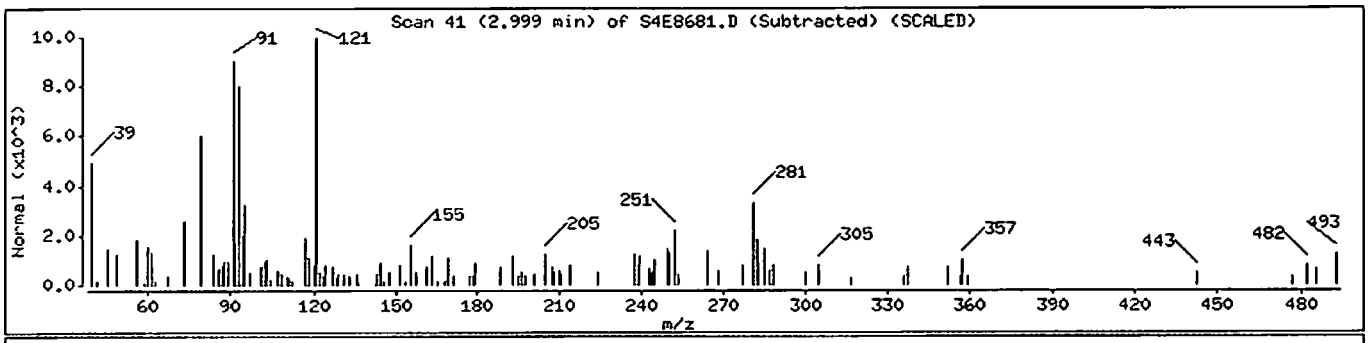
Client ID: H30R6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

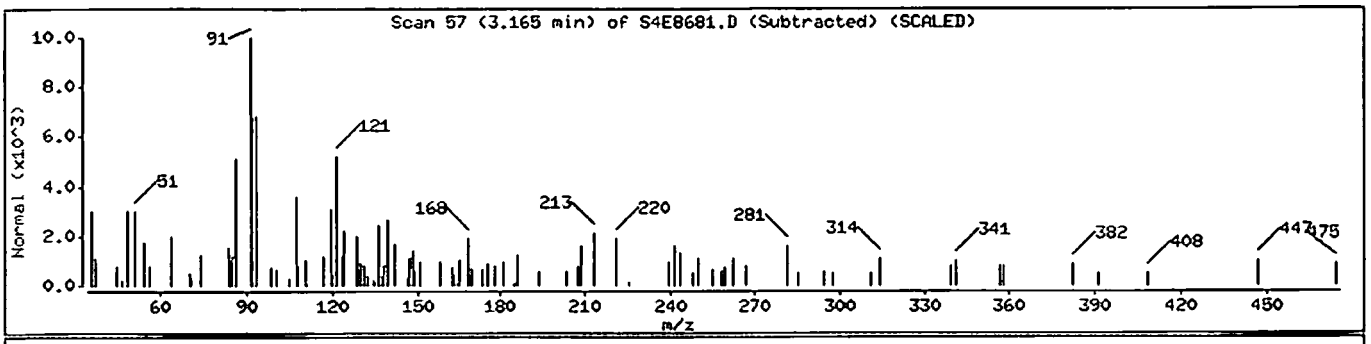
Client ID: H30R6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

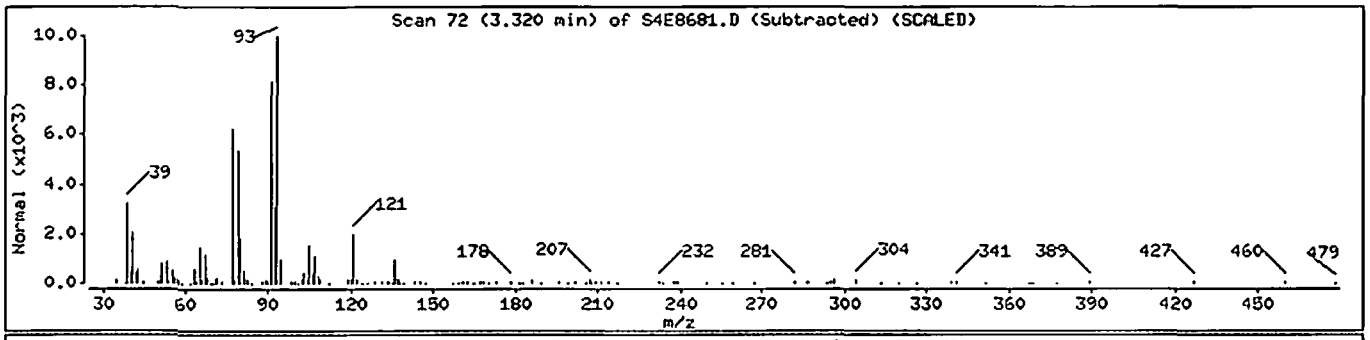
Client ID: M30R6 Instrument: S4.i

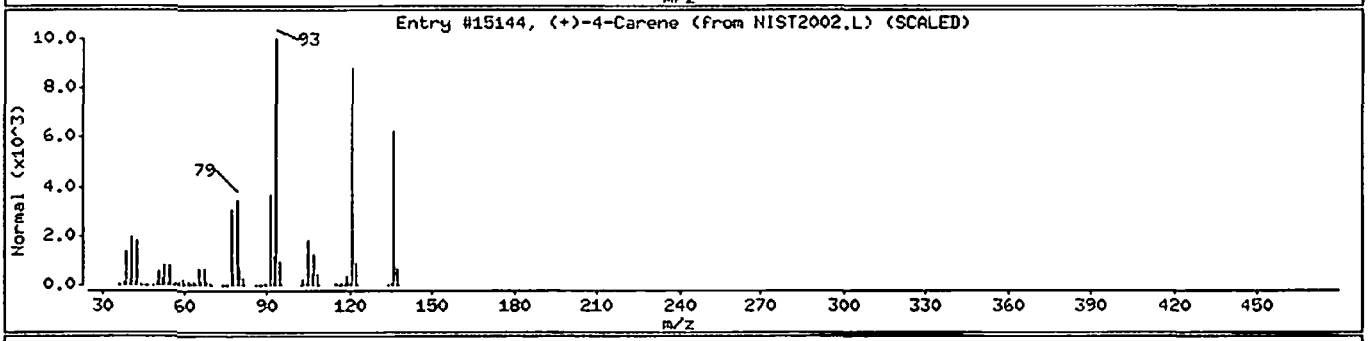
Sample Info: K2199-09A,,62801,,

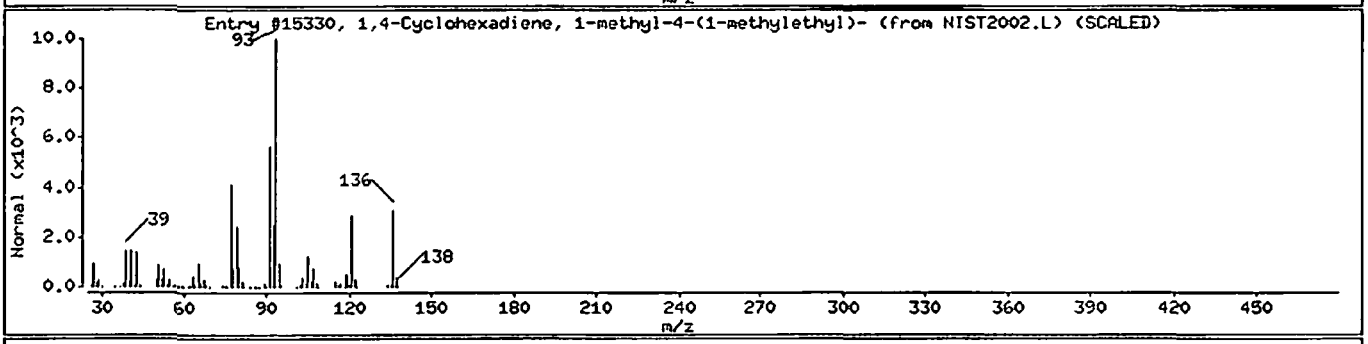
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
(+)-4-Carene	29050-33-7	NIST2002.L	15144	87	C10H16	136
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl	99-85-4	NIST2002.L	15330	87	C10H16	136







Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

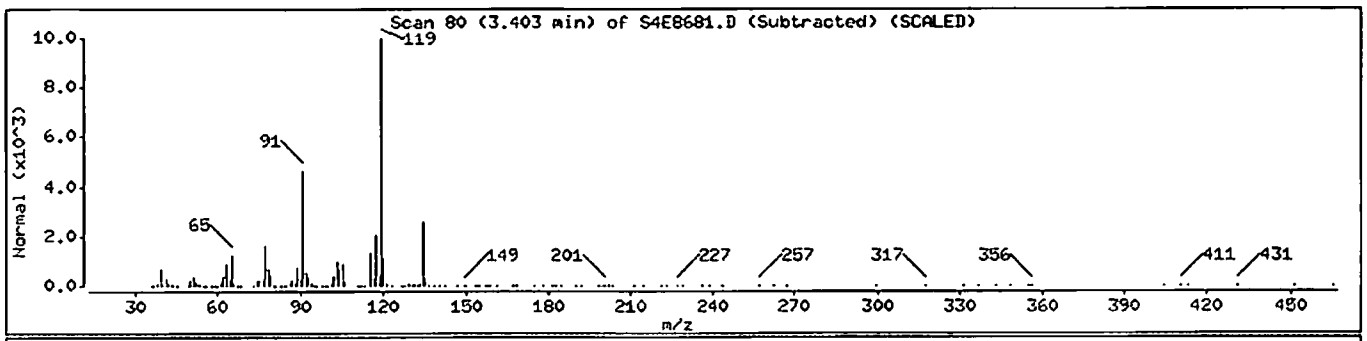
Client ID: H30R6 Instrument: S4.i

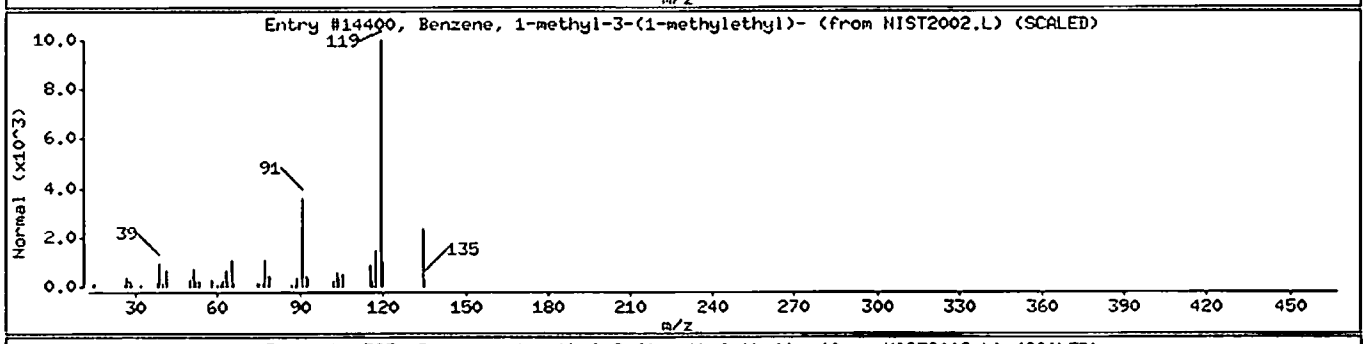
Sample Info: K2199-09A,,62801,,

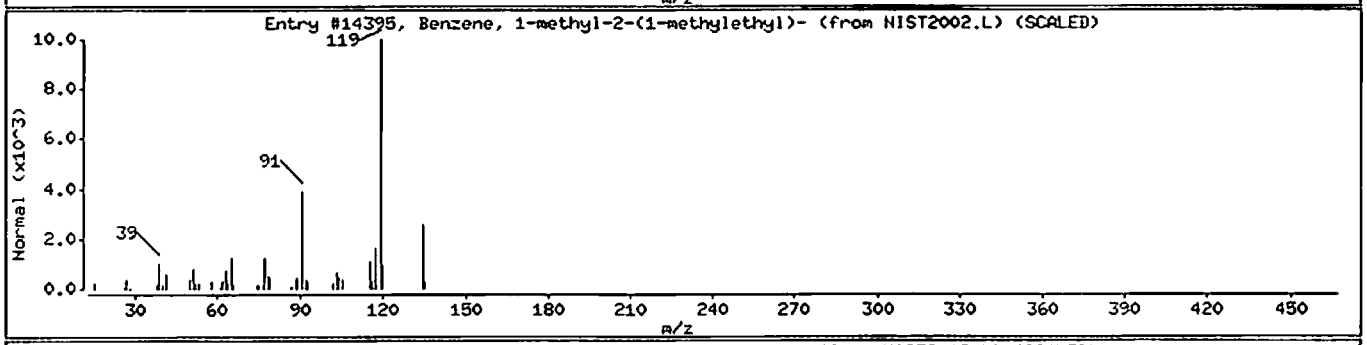
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

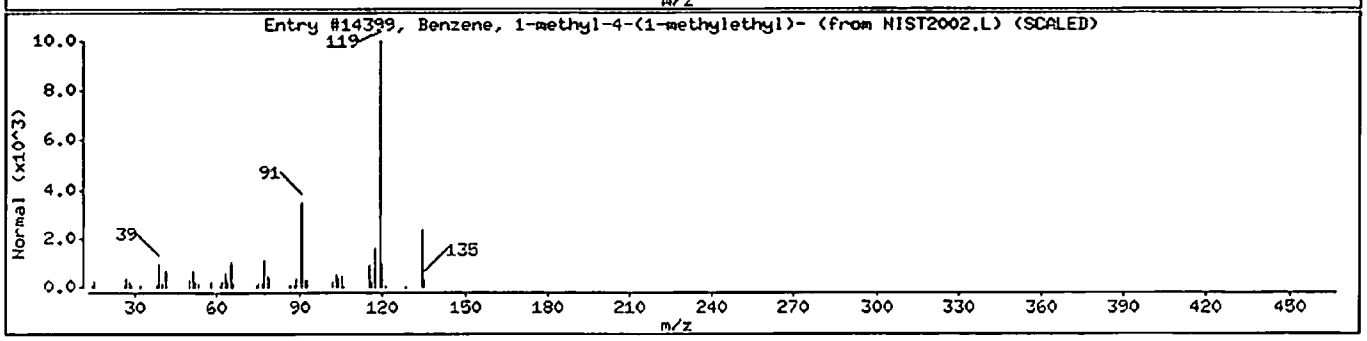
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	96	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	96	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	96	C10H14	134









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

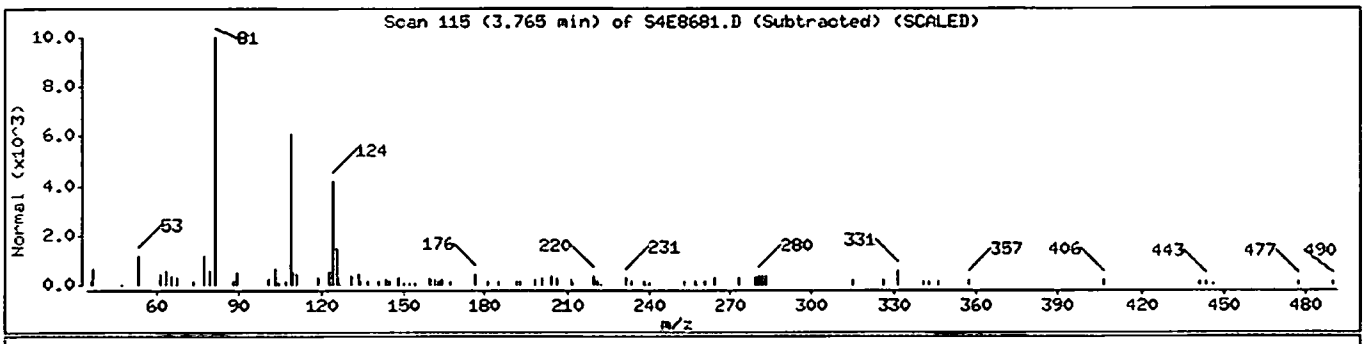
Client ID: H30R6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

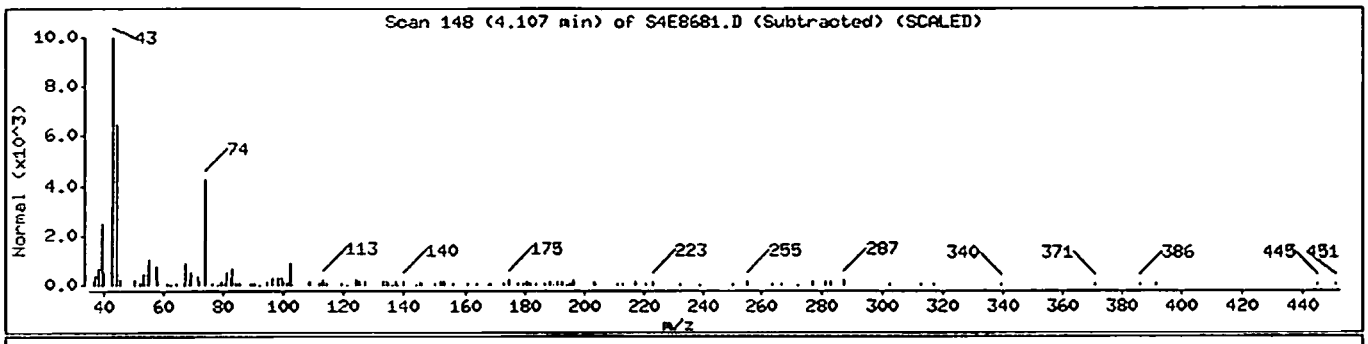
Client ID: H30R6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

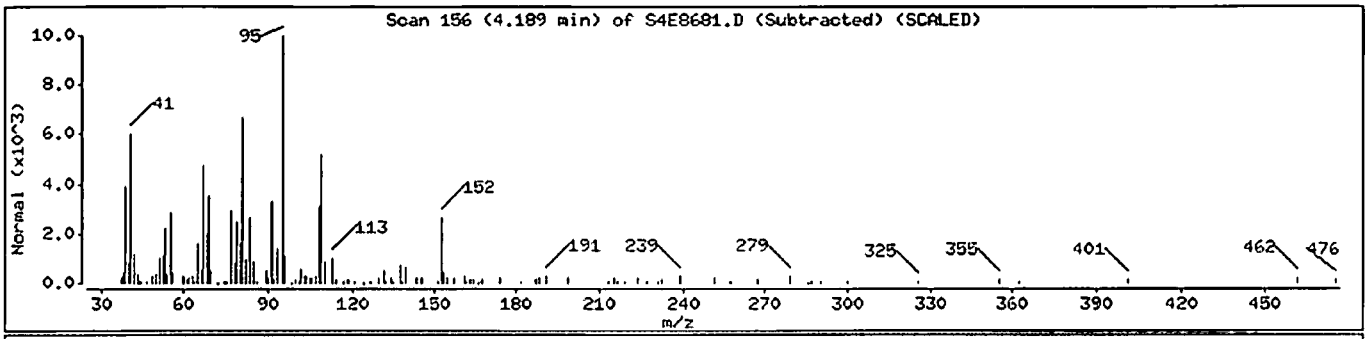
Client ID: H30R6 Instrument: S4.i

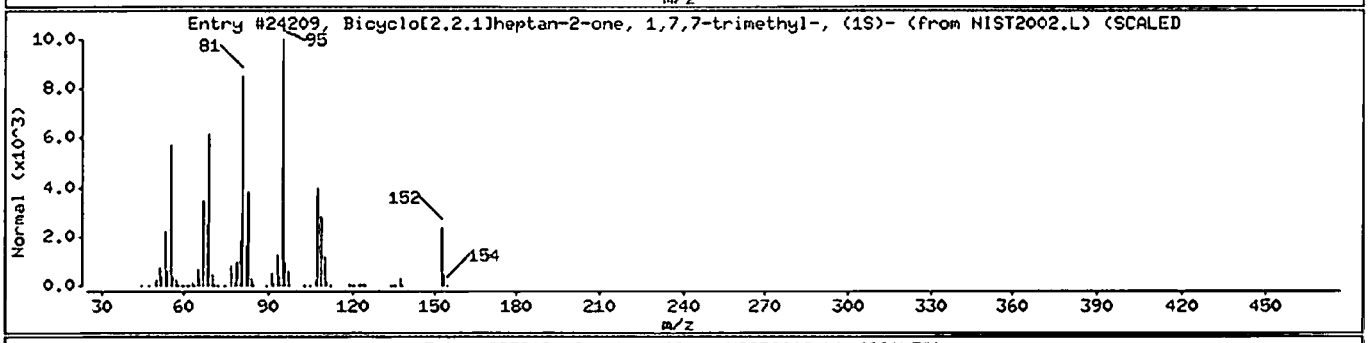
Sample Info: K2199-09A,,62801,,

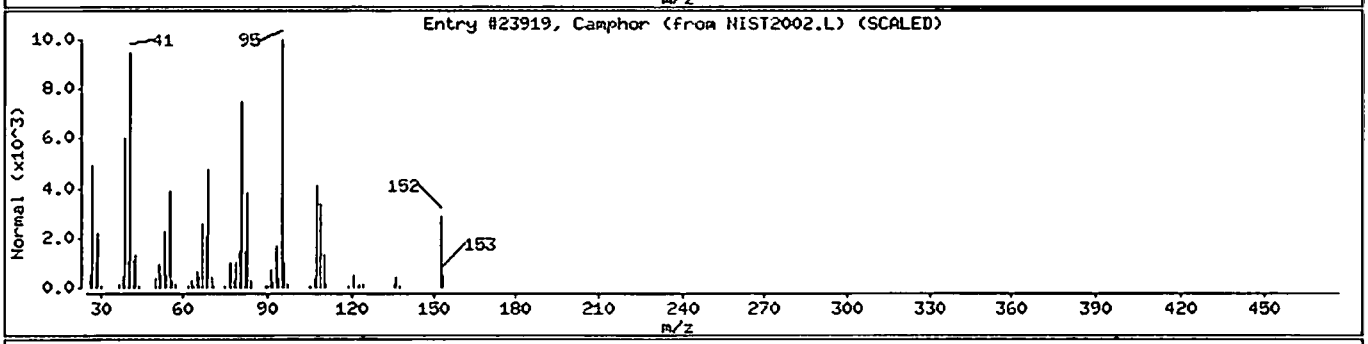
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet	464-48-2	NIST2002.L	24209	93	C10H16O	152
Camphor	76-22-2	NIST2002.L	23919	86	C10H16O	152







Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

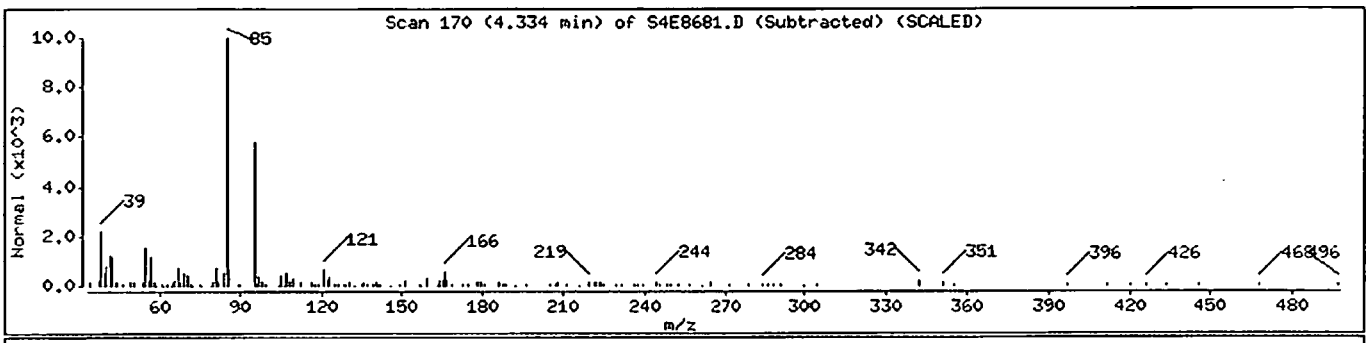
Client ID: H30R6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

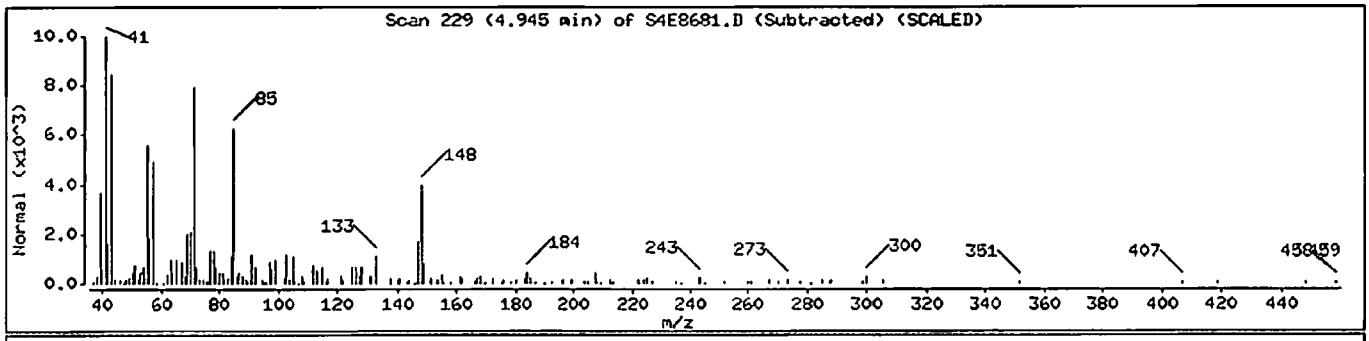
Client ID: H30R6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

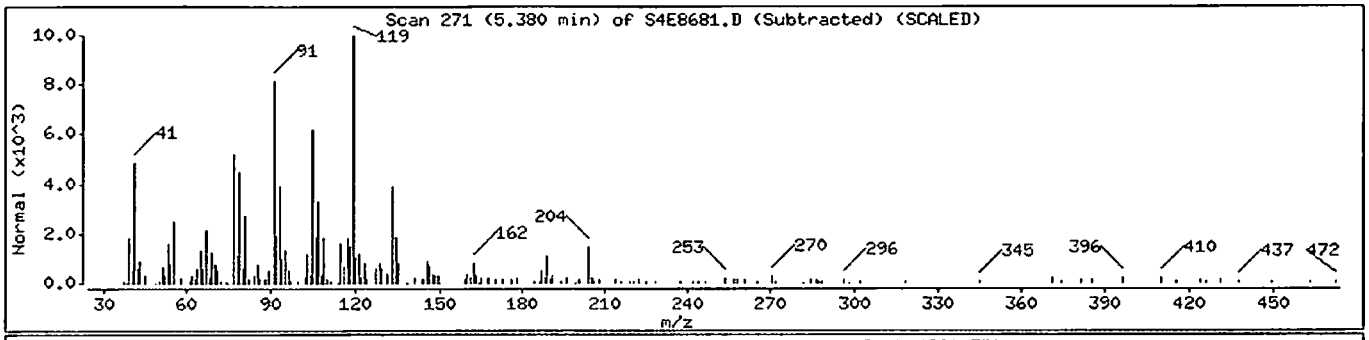
Client ID: H30R6 Instrument: S4.i

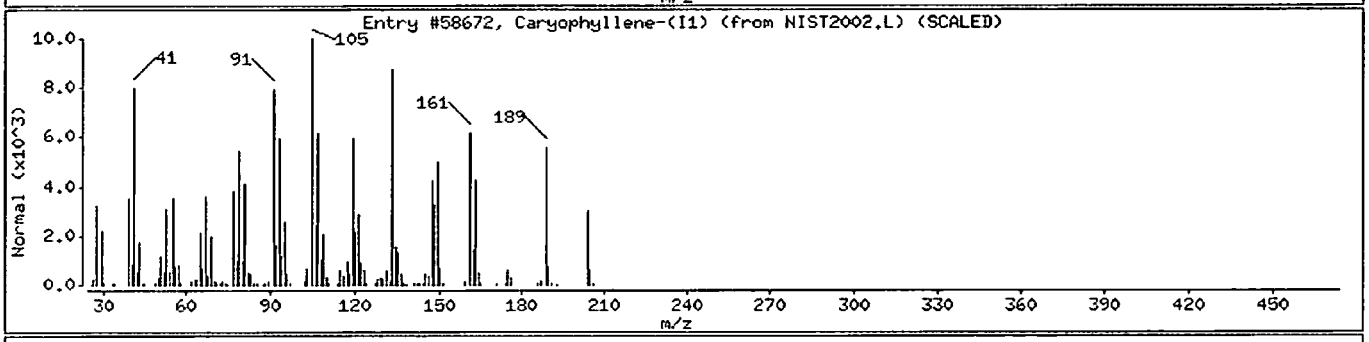
Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Caryophyllene-(I1)	1000158-18-5	NIST2002.L	58672	86	C15H24	204





Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

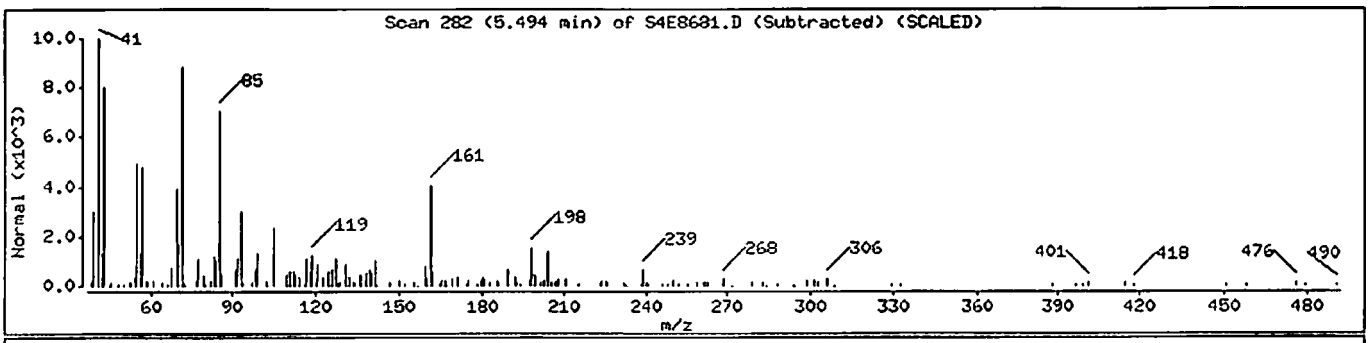
Client ID: H30R6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

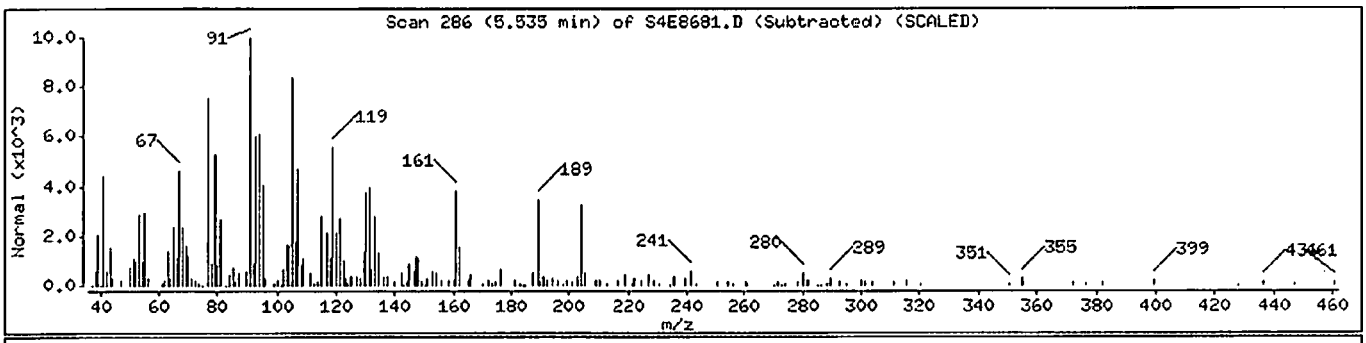
Client ID: H30R6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

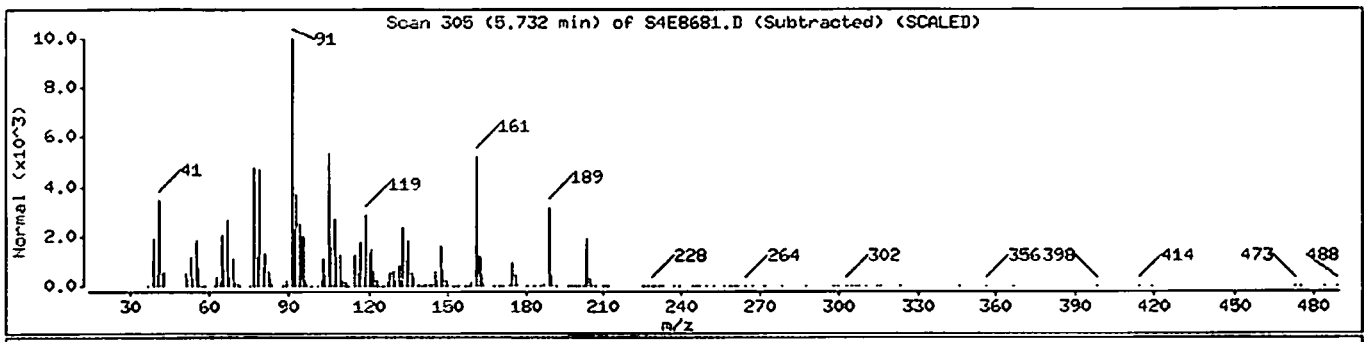
Client ID: H30R6 Instrument: S4.i

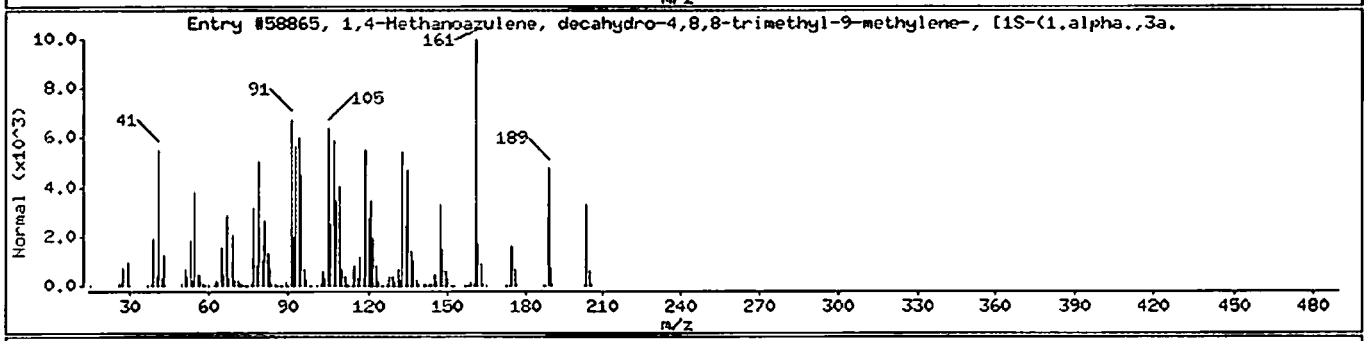
Sample Info: K2199-09A,,62801,,

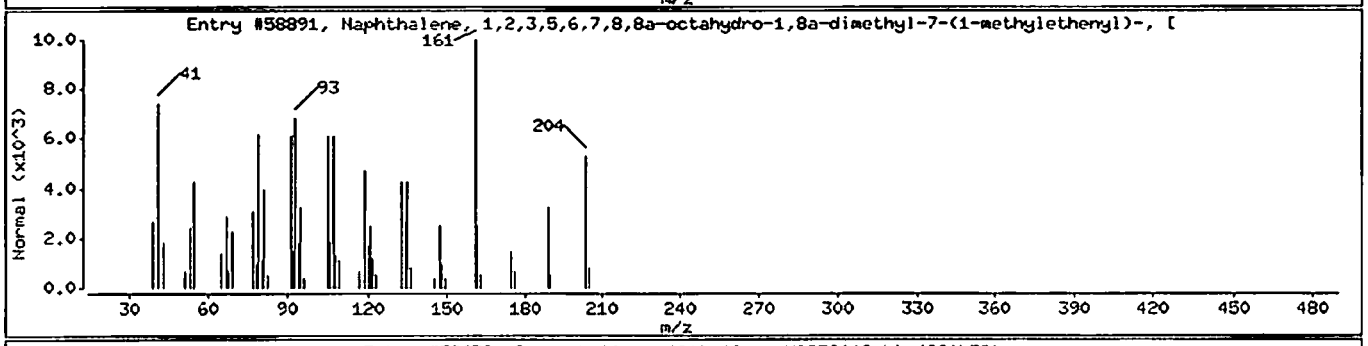
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

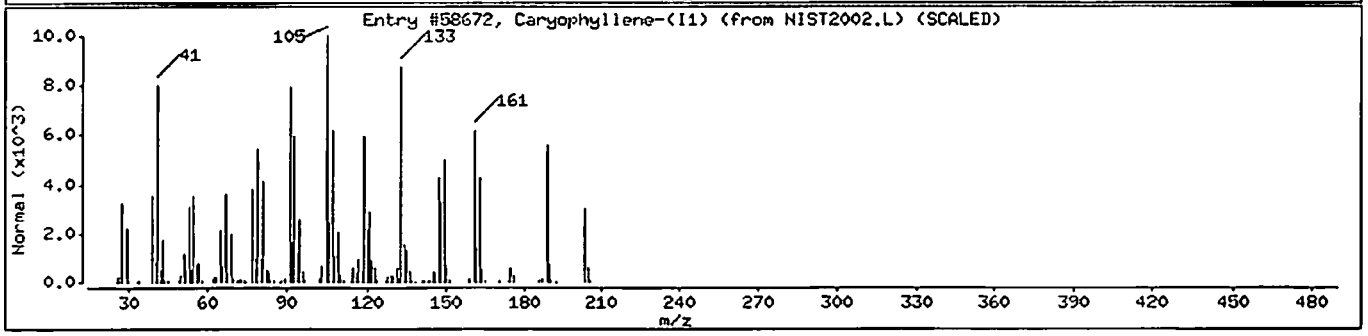
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58865	95	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST2002.L	58891	90	C15H24	204
Caryophyllene-(I1)	1000158-18-5	NIST2002.L	58672	86	C15H24	204









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

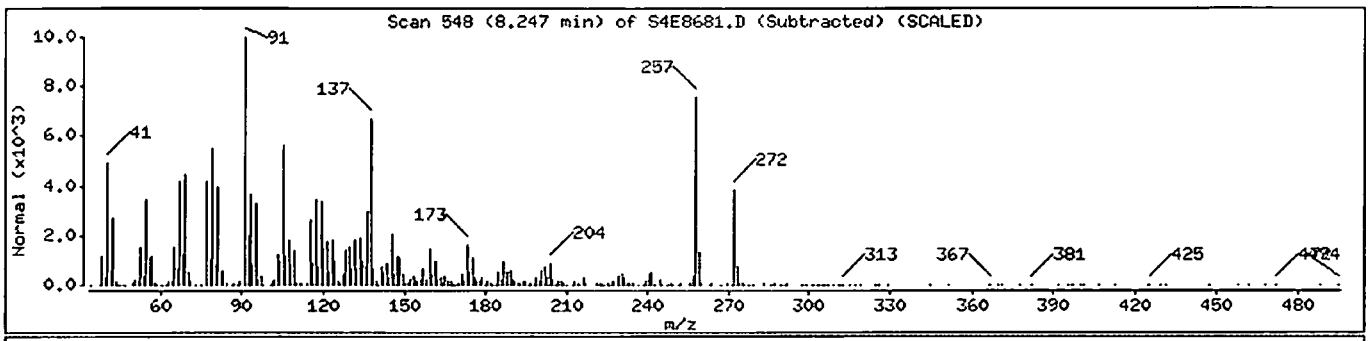
Client ID: H30R6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

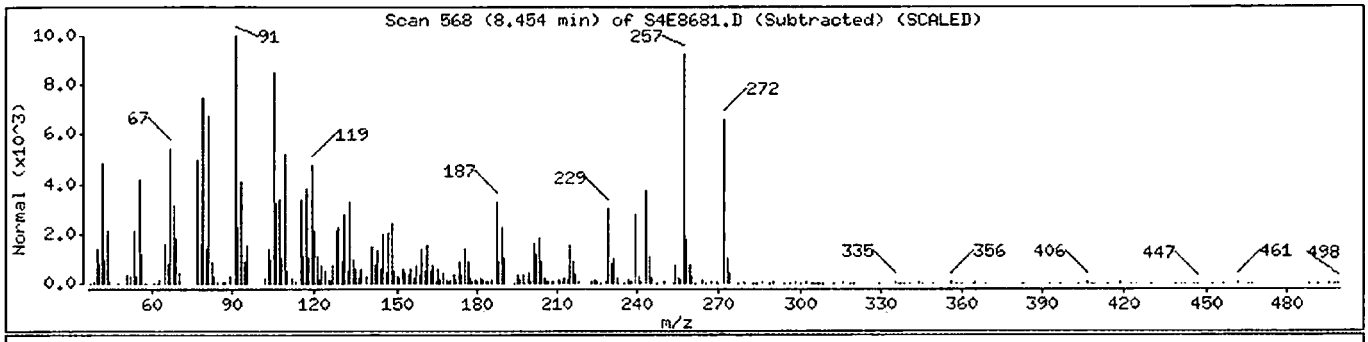
Client ID: H3OR6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

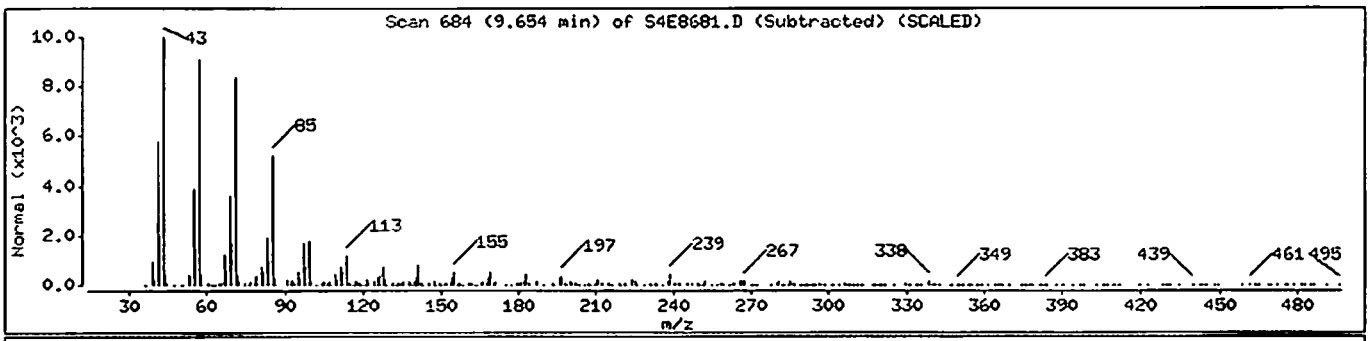
Client ID: H30R6 Instrument: S4.i

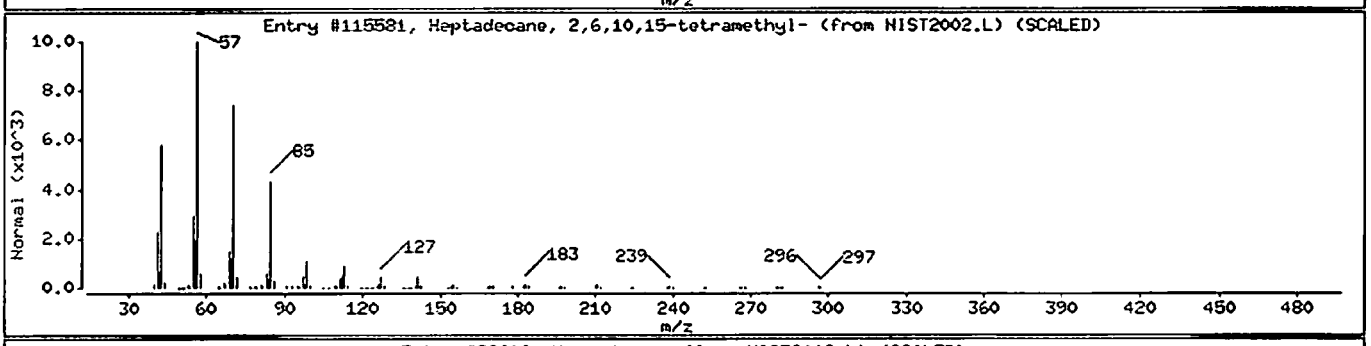
Sample Info: K2199-09A,,62801,,

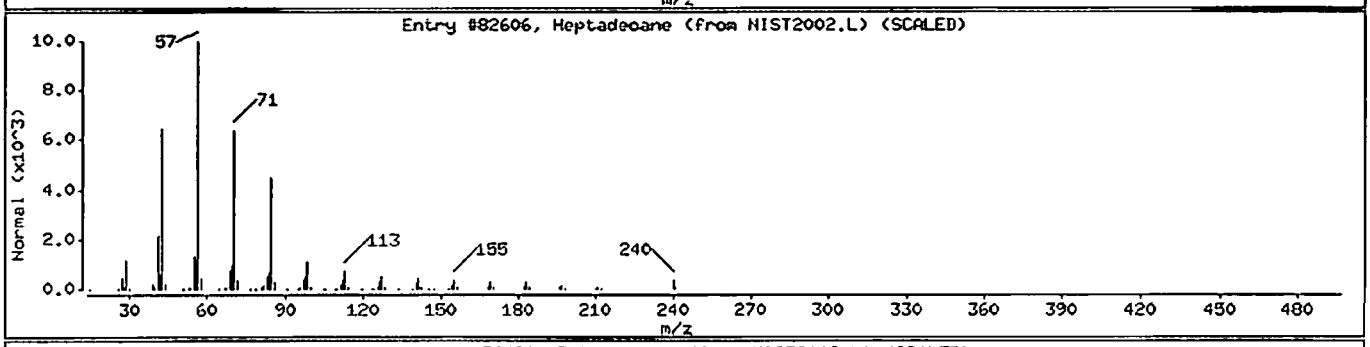
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

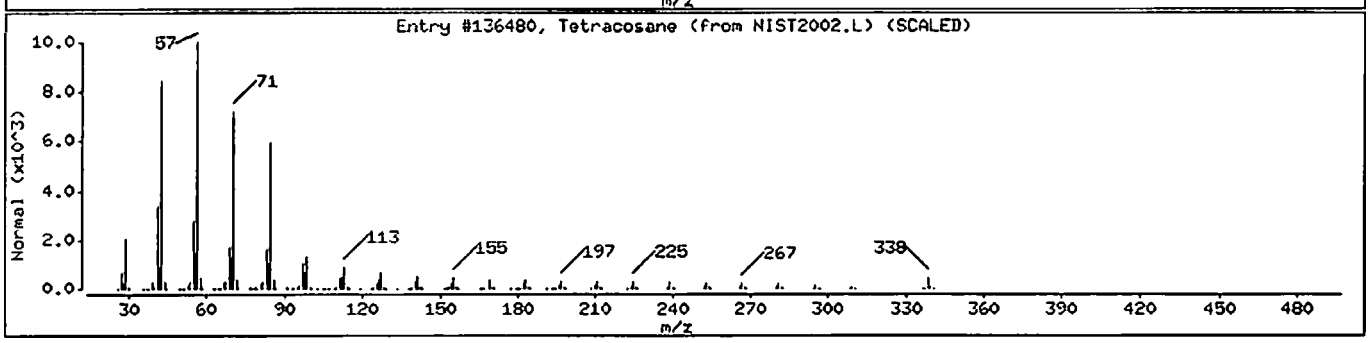
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Branched Alkane						
Heptadecane, 2,6,10,15-tetramethyl-	54833-48-6	NIST2002.L	115581	94	C21H44	296
Heptadecane	629-78-7	NIST2002.L	82606	93	C17H36	240
Tetracosane	646-31-1	NIST2002.L	136480	93	C24H50	338









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

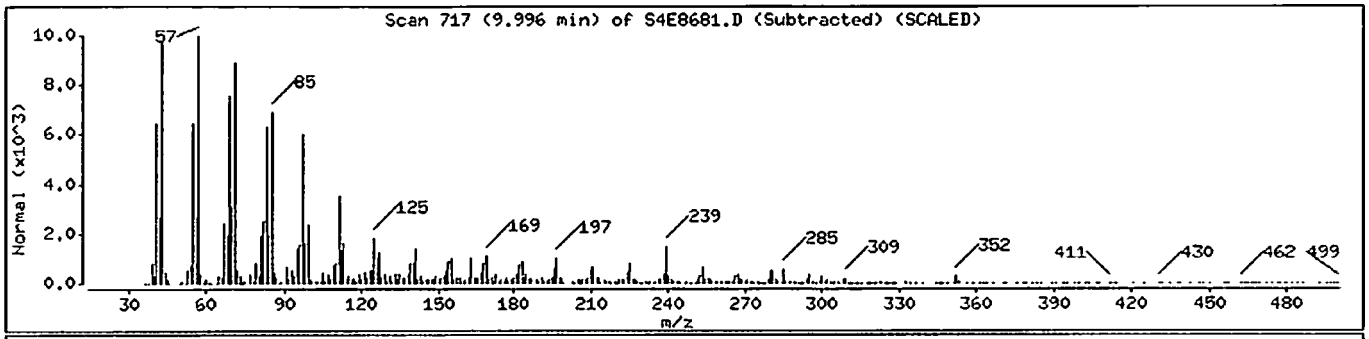
Client ID: H30R6 Instrument: S4.i

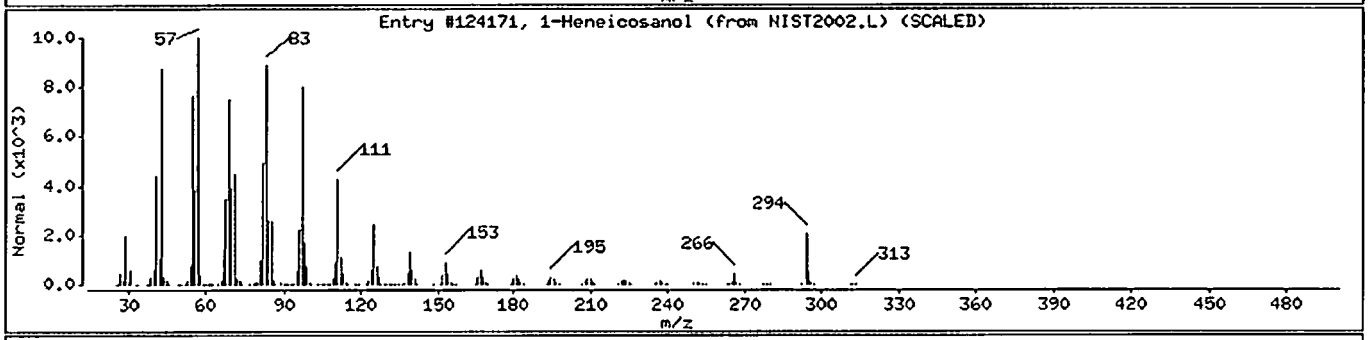
Sample Info: K2199-09A,,62801,,

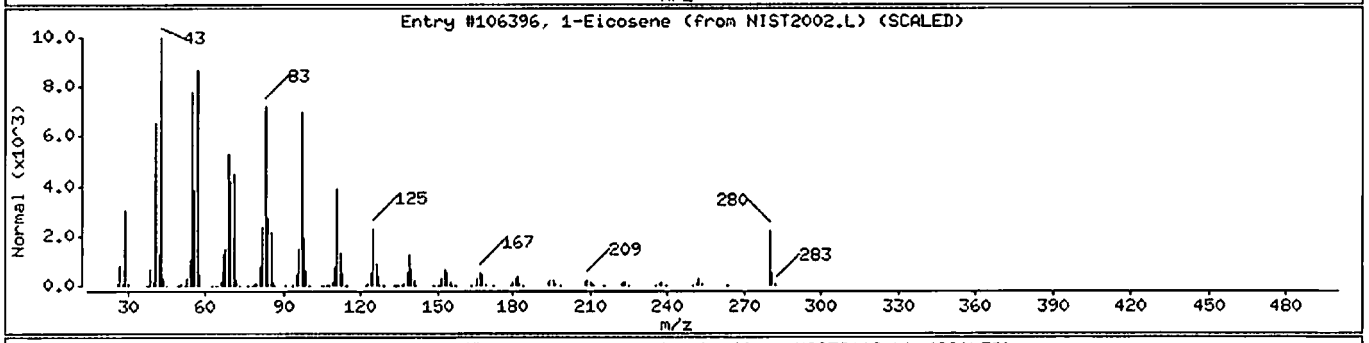
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

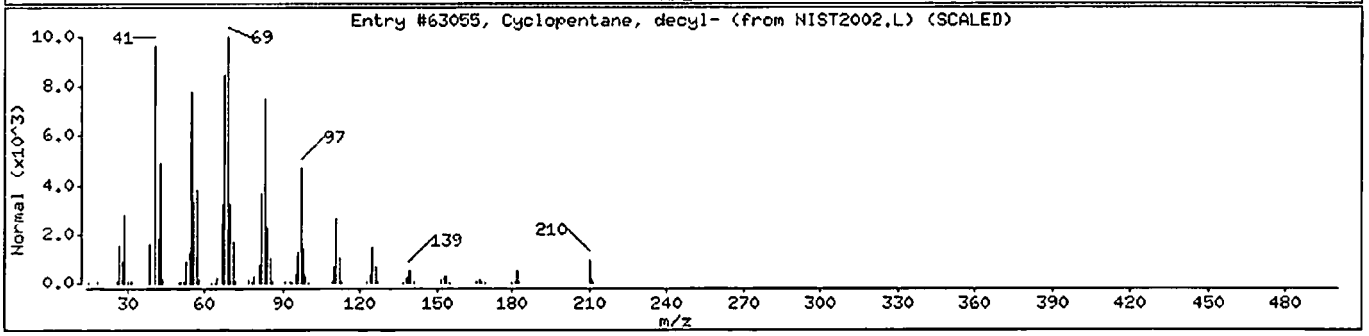
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Heneicosanol	15594-90-8	NIST2002.L	124171	95	C21H44O	312
1-Eicosene	3452-07-1	NIST2002.L	106396	93	C20H40	280
Cyclopentane, decyl-	1795-21-7	NIST2002.L	63055	86	C15H30	210









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

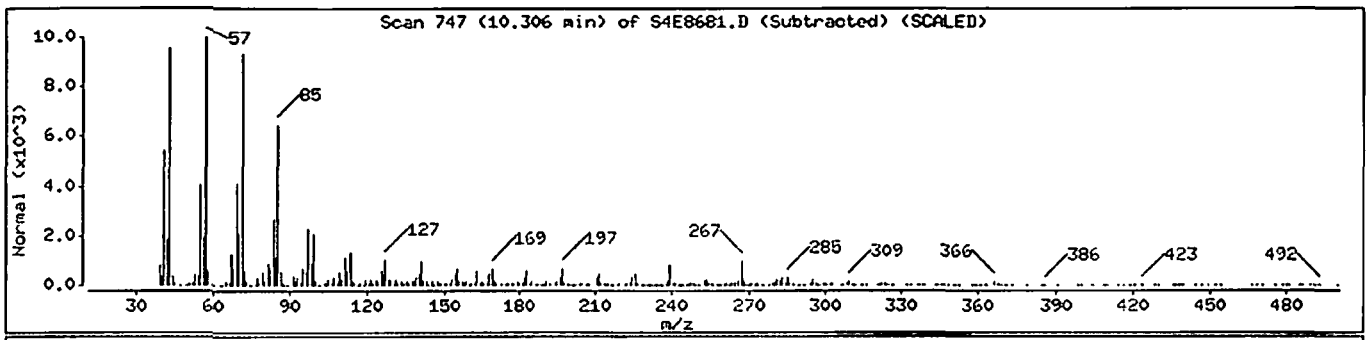
Client ID: H30R6 Instrument: S4.i

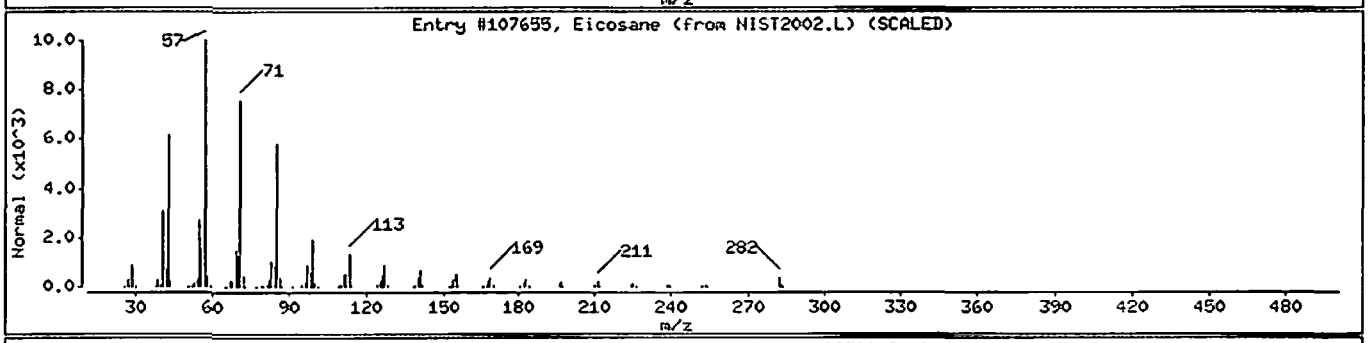
Sample Info: K2199-09A,,62801,,

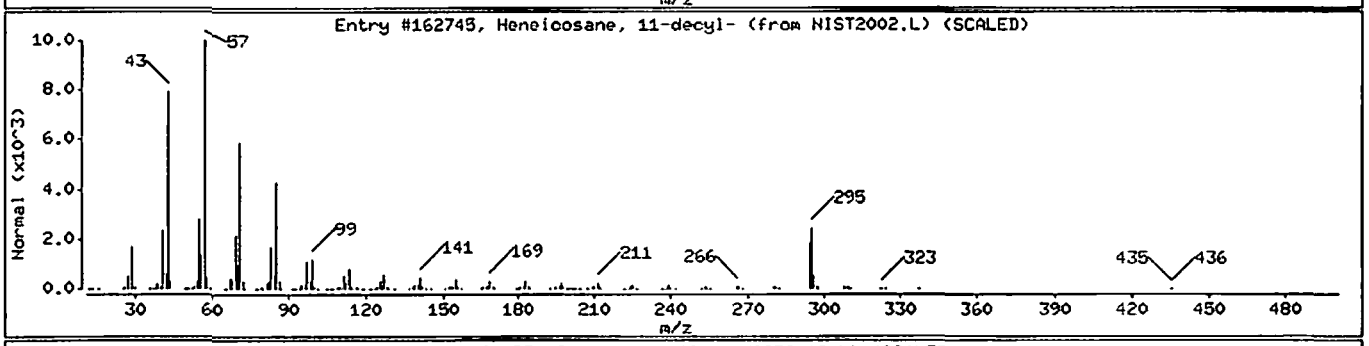
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

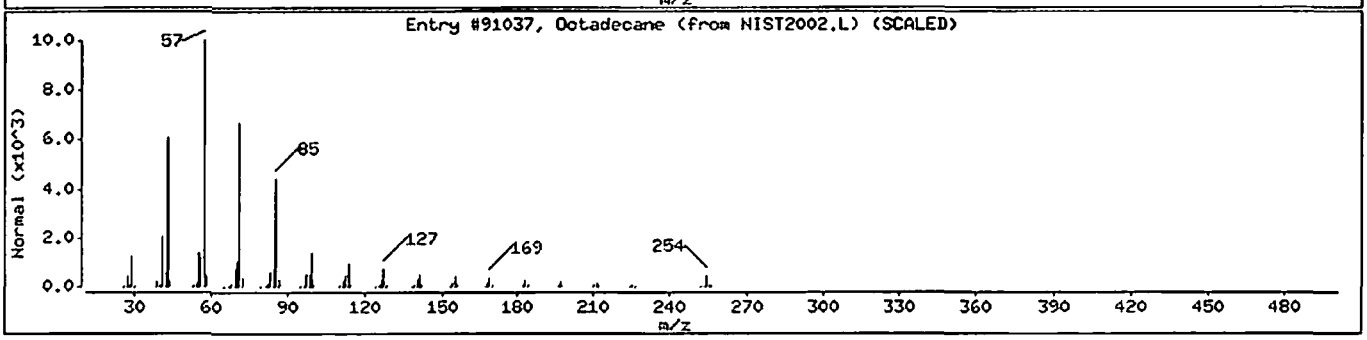
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Eicosane	112-95-8	NIST2002.L	107655	96	C20H42	282
Heneicosane, 11-decyl-	55320-06-4	NIST2002.L	162745	95	C31H64	437
Octadecane	593-45-3	NIST2002.L	91037	94	C18H38	254









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

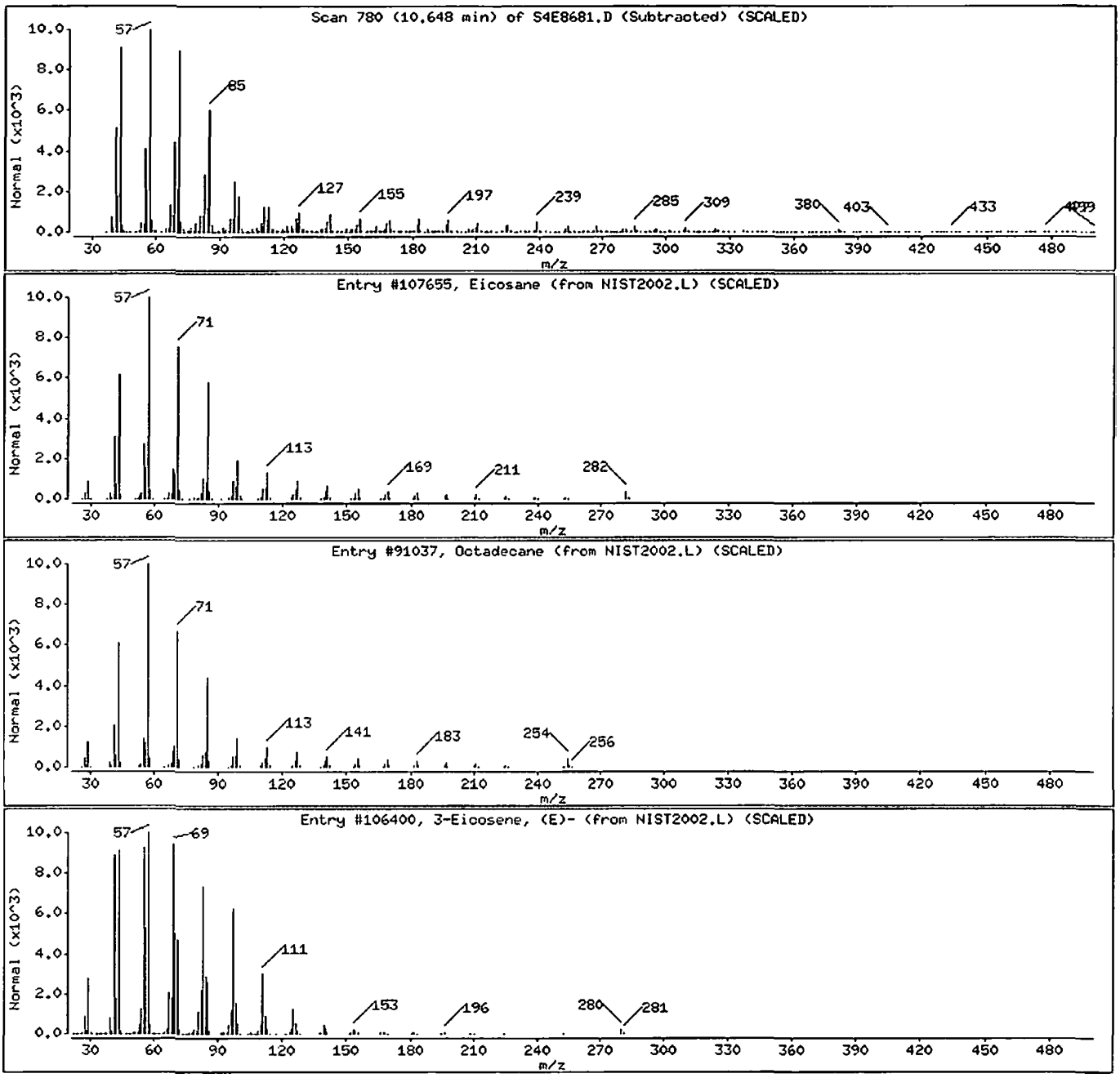
Client ID: H30R6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Eicosane	112-95-8	NIST2002.L	107655	96	C20H42	282
Octadecane	593-45-3	NIST2002.L	91037	94	C18H38	254
3-Eicosene, (E)-	74685-33-9	NIST2002.L	106400	92	C20H40	280



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

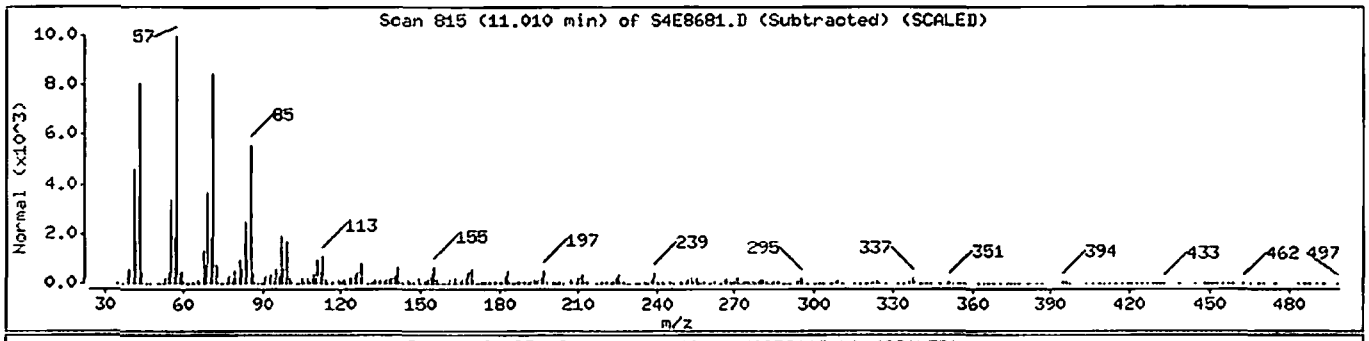
Client ID: H30R6 Instrument: S4.i

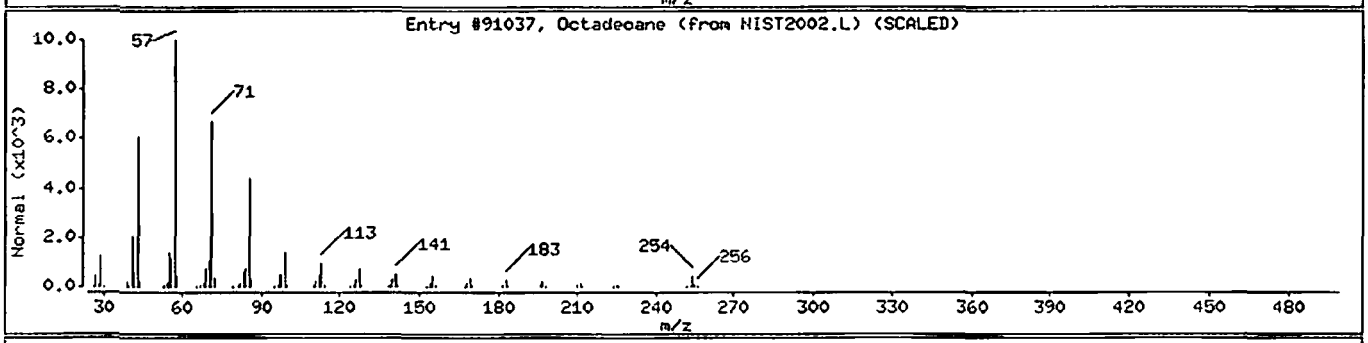
Sample Info: K2199-09A,,62801,,

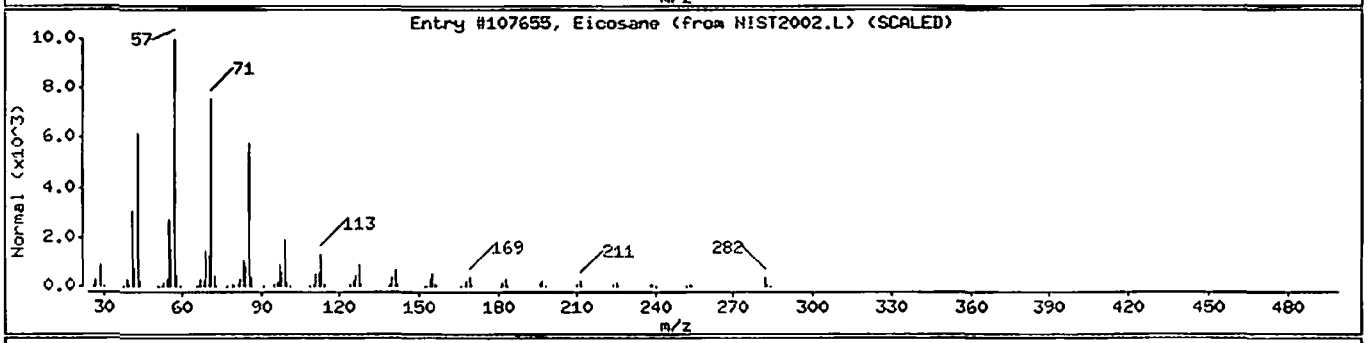
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

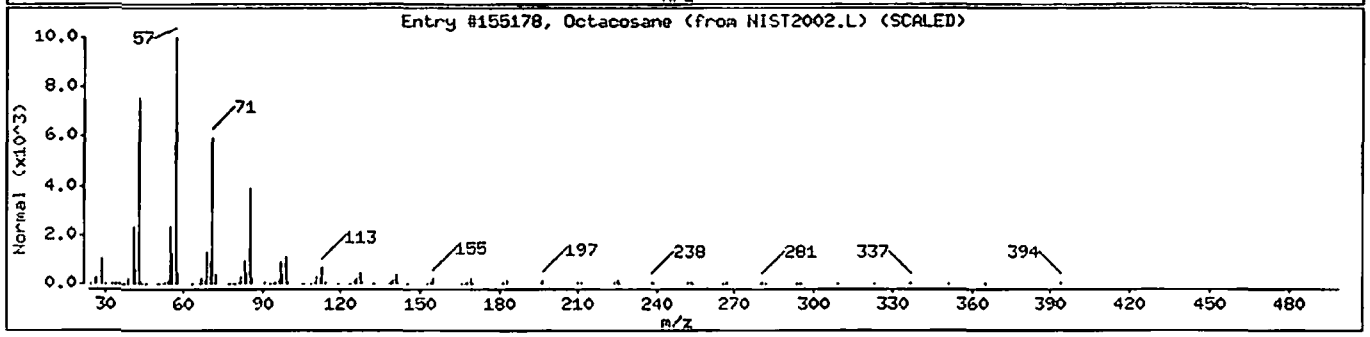
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Octadecane	593-45-3	NIST2002.L	91037	95	C18H38	254
Eicosane	112-95-8	NIST2002.L	107655	95	C20H42	282
Octacosane	630-02-4	NIST2002.L	155178	93	C28H58	394









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

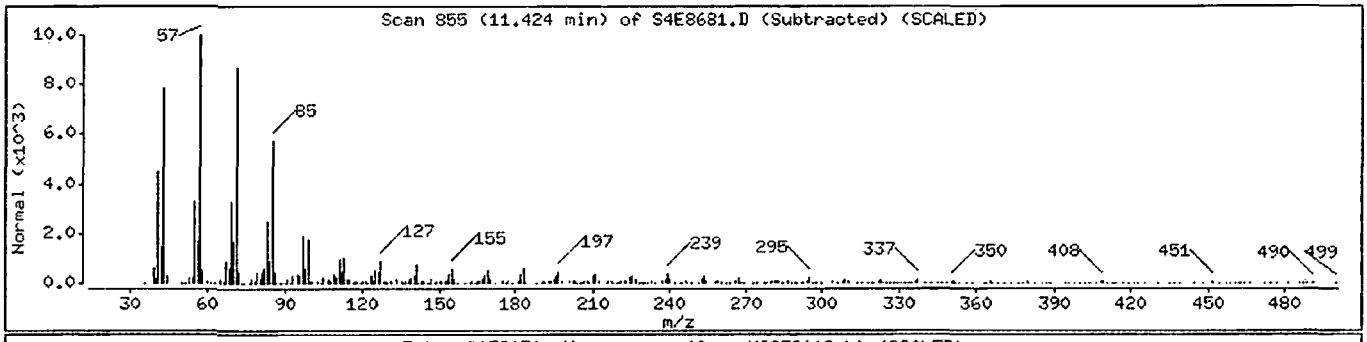
Client ID: H30R6 Instrument: S4.i

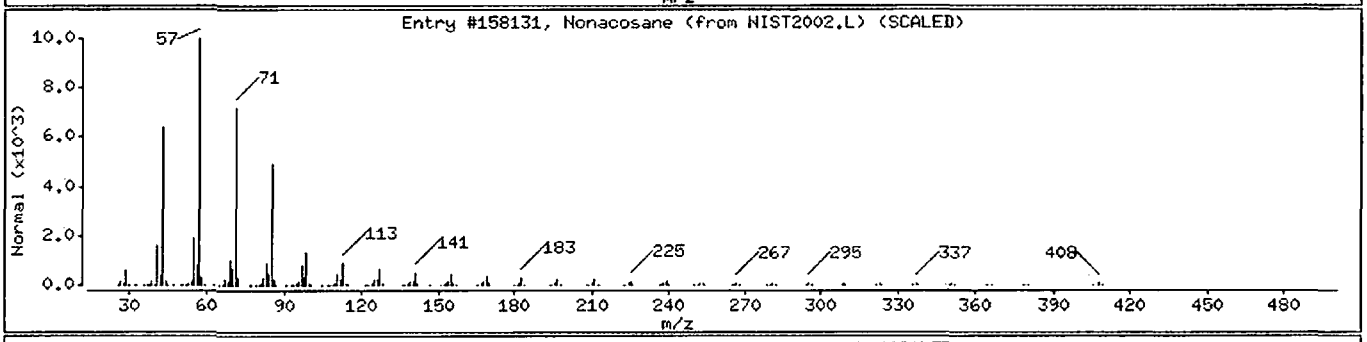
Sample Info: K2199-09A,,62801,,

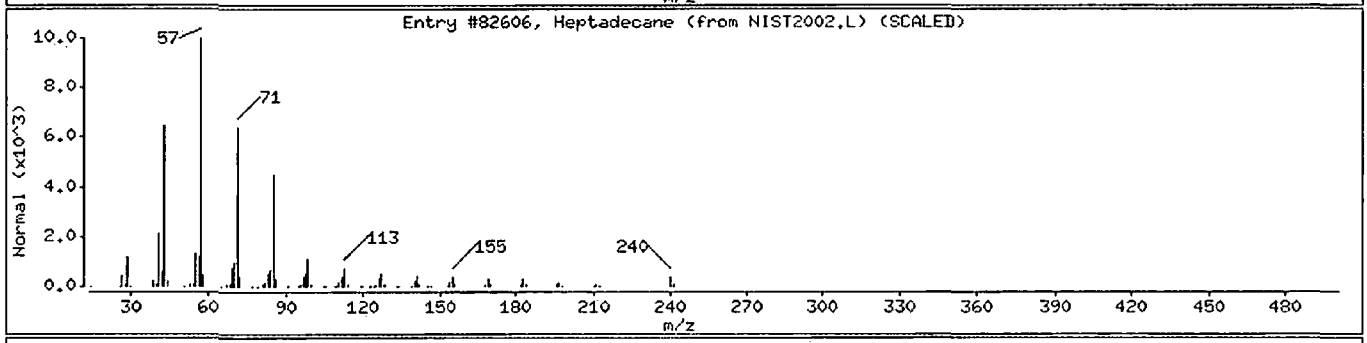
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

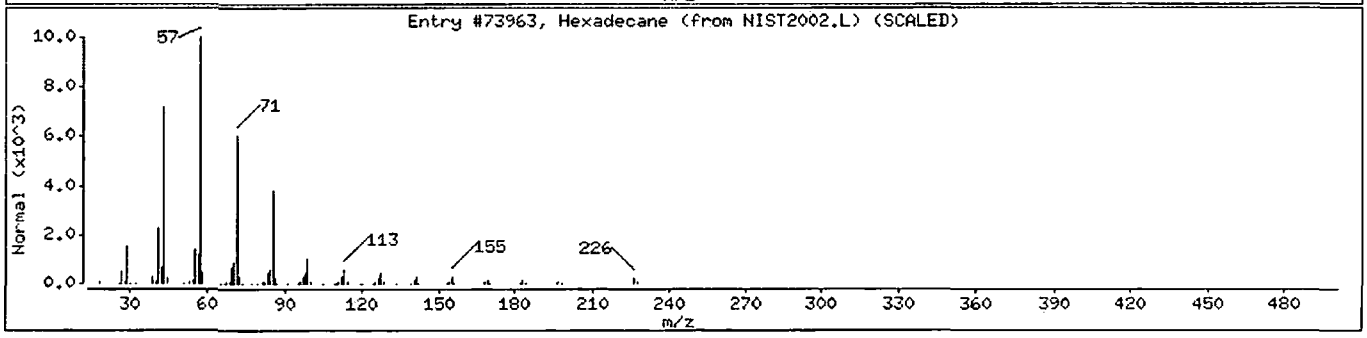
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Nonacosane	630-03-5	NIST2002.L	158131	96	C29H60	408
Heptadecane	629-78-7	NIST2002.L	82606	95	C17H36	240
Hexadecane	544-76-3	NIST2002.L	73963	94	C16H34	226









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

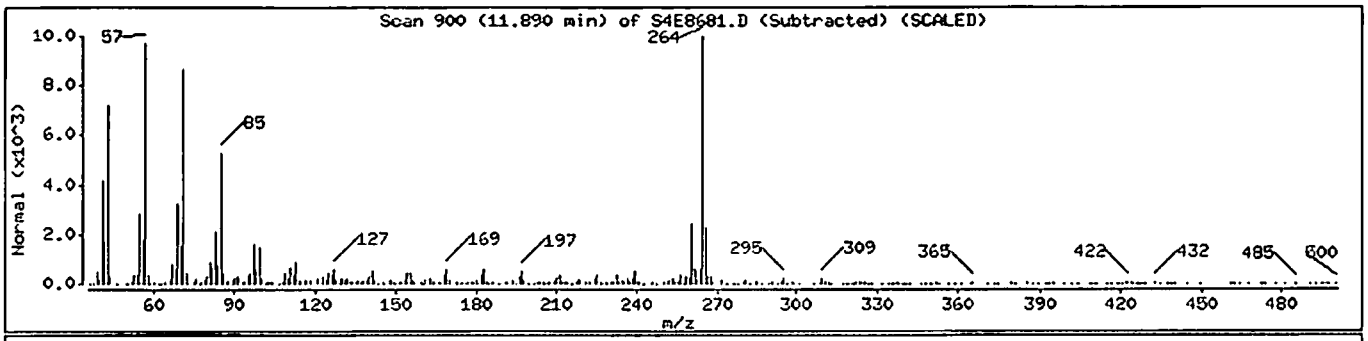
Client ID: H30R6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

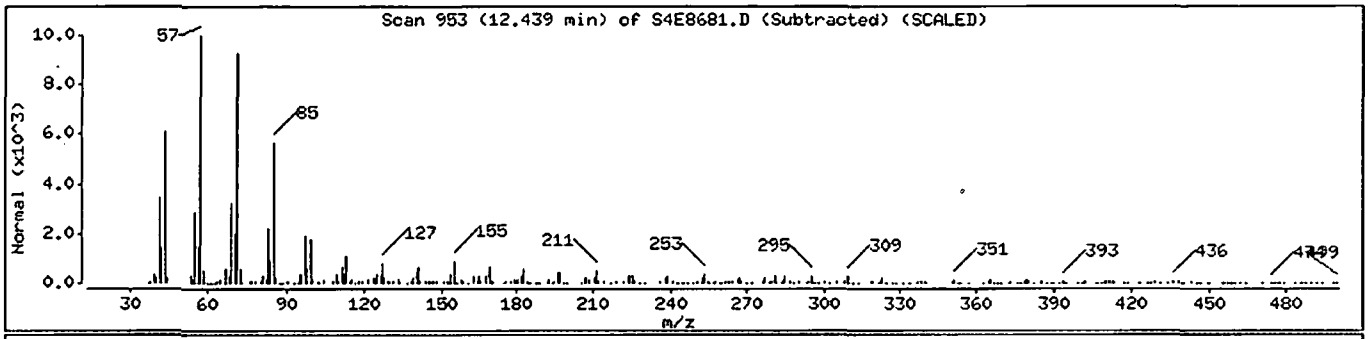
Client ID: H30R6 Instrument: S4.i

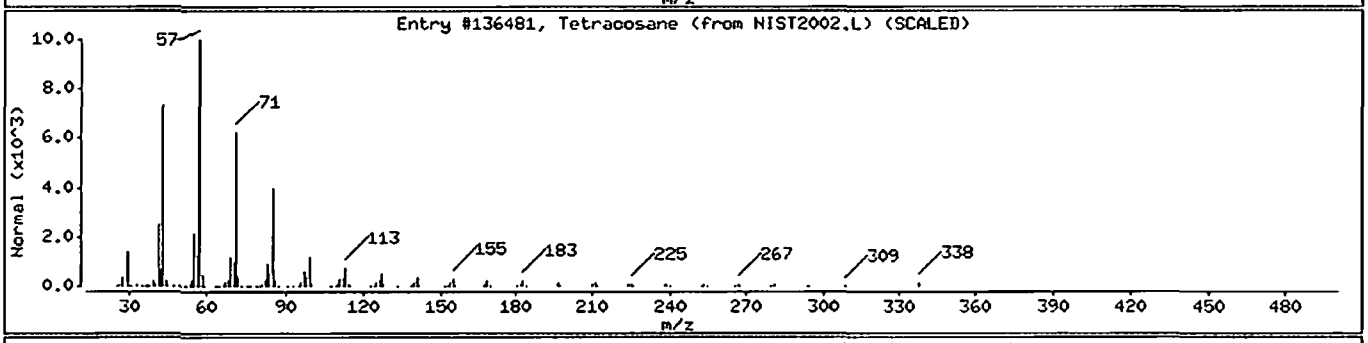
Sample Info: K2199-09A,,62801,,

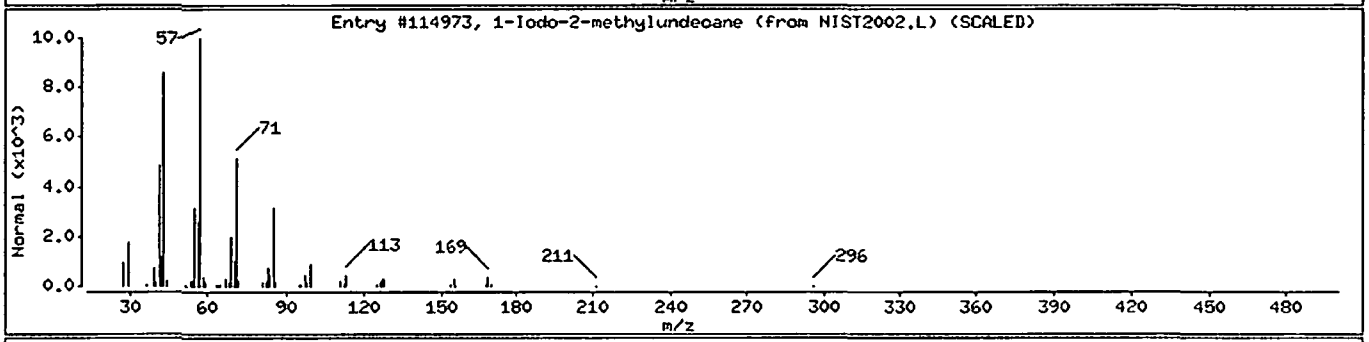
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

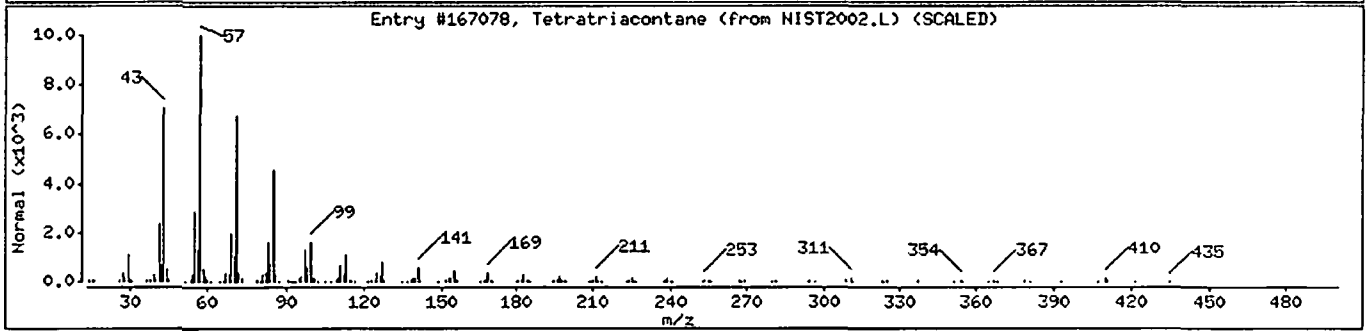
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Tetracosane	646-31-1	NIST2002.L	136481	95	C24H50	338
1-Iodo-2-methylundecane	73105-67-6	NIST2002.L	114973	90	C12H25I	296
Tetratriacontane	14167-59-0	NIST2002.L	167078	90	C34H70	479









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

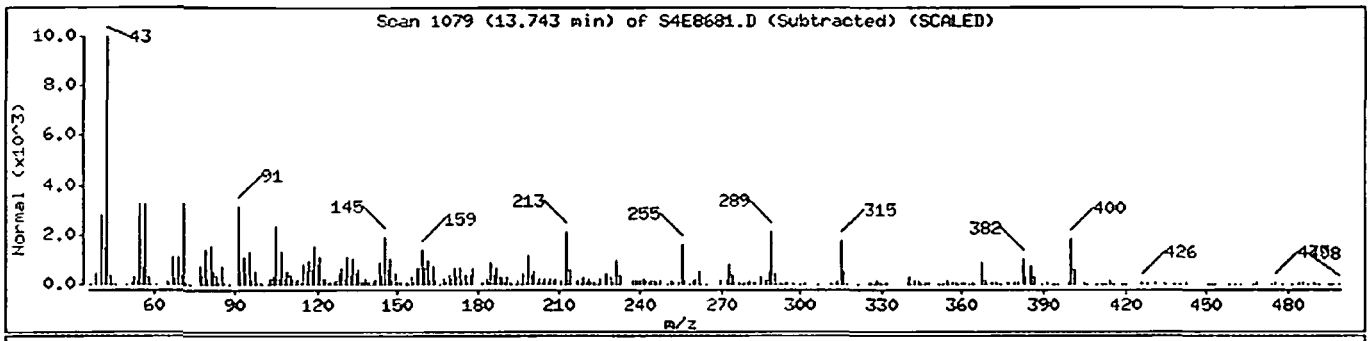
Client ID: H30R6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

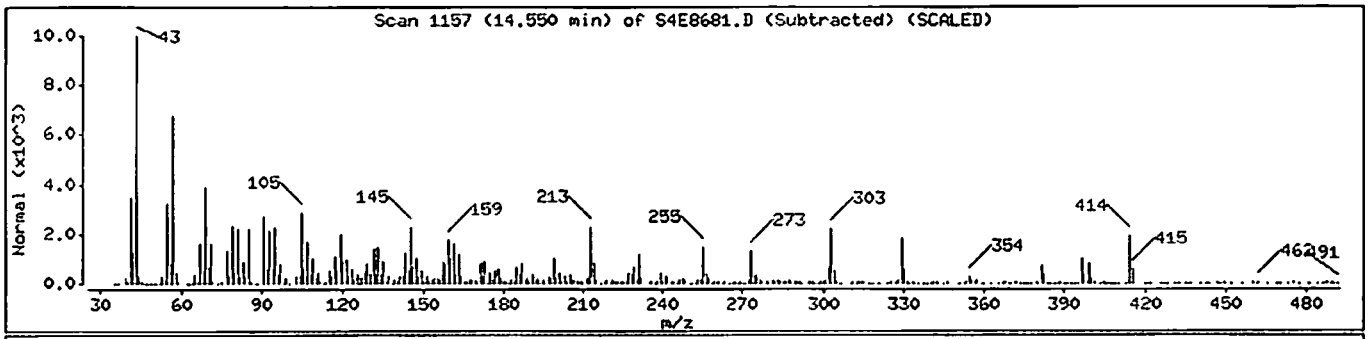
Client ID: H30R6 Instrument: S4.i

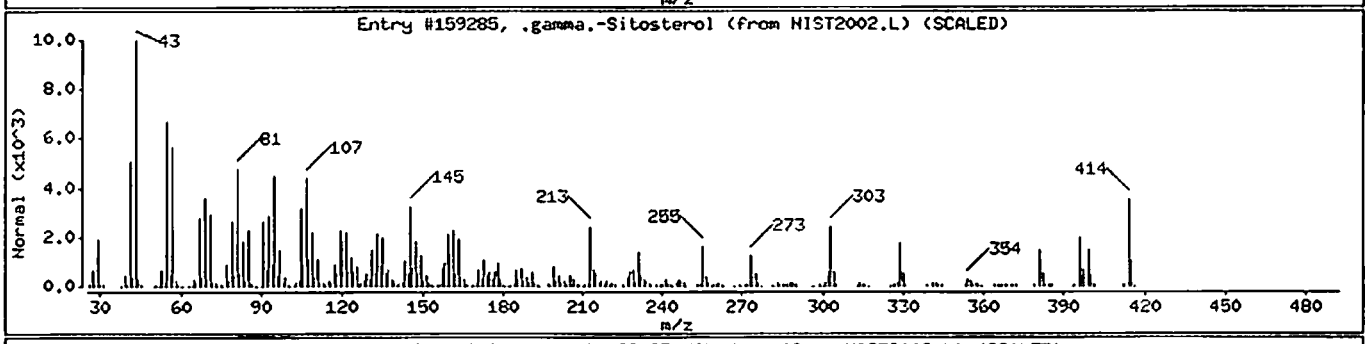
Sample Info: K2199-09A,,62801,,

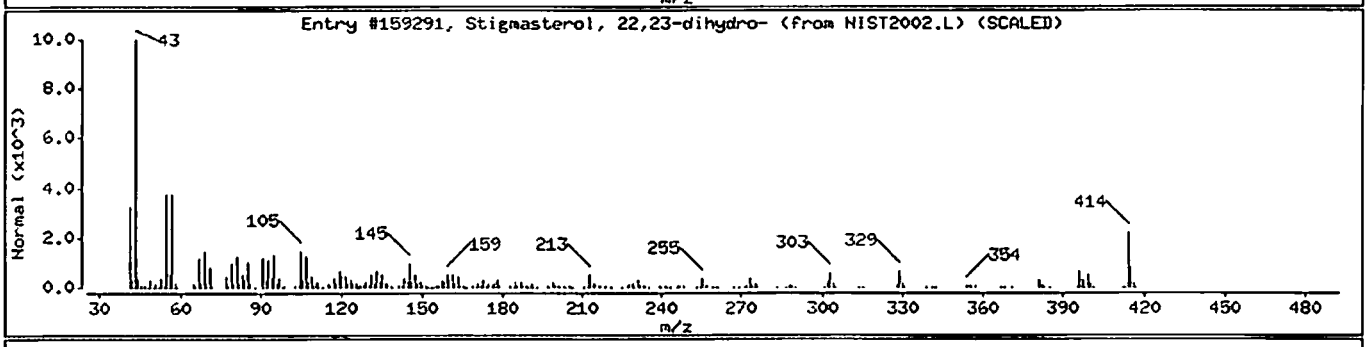
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.gamma.-Sitosterol	83-47-6	NIST2002.L	159285	96	C29H50O	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST2002.L	159291	93	C29H50O	414







Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

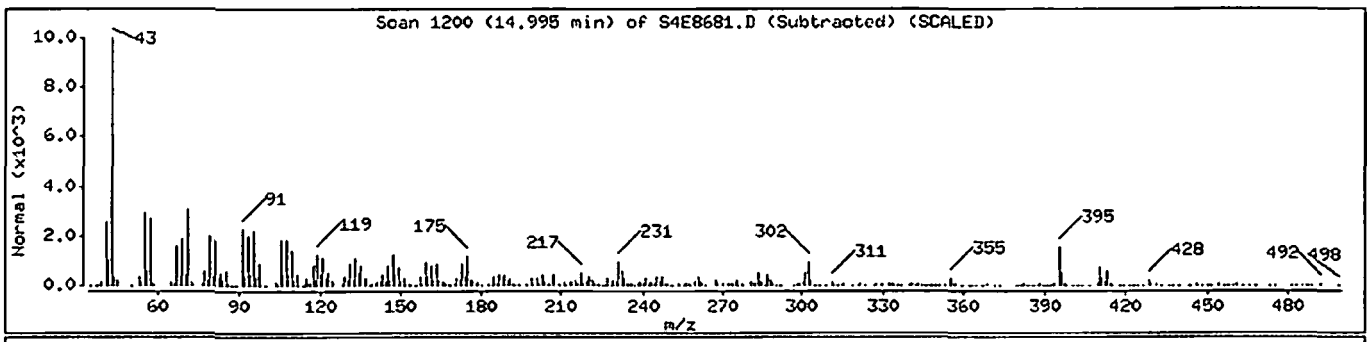
Client ID: H30R6 Instrument: S4.i

Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8681.D

Date : 13-NOV-2011 17:12

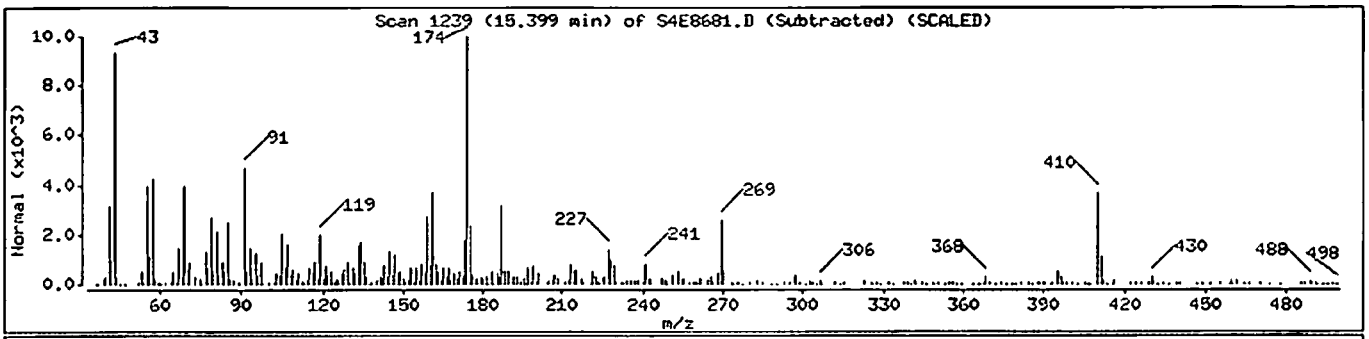
Client ID: H30R6 Instrument: S4.i

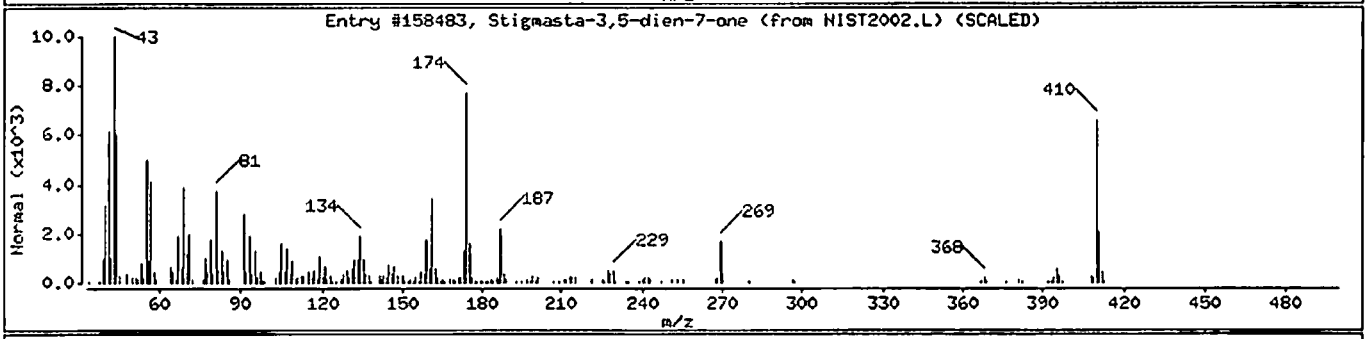
Sample Info: K2199-09A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmasta-3,5-dien-7-one	2034-72-2	NIST2002.L	158483	86	C29H46O	410





1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-10A

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4E8704.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 24 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.5 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	220	U
108-95-2	Phenol	220	U
111-44-4	Bis(2-chloroethyl)ether	220	U
95-57-8	2-Chlorophenol	220	U
95-48-7	2-Methylphenol	220	U
108-60-1	2,2'-Oxybis(1-chloropropane)	220	U
98-86-2	Acetophenone	220	U
106-44-5	4-Methylphenol	1900	
621-64-7	N-Nitroso-di-n-propylamine	220	U
67-72-1	Hexachloroethane	220	U
98-95-3	Nitrobenzene	220	U
78-59-1	Isophorone	220	U
88-75-5	2-Nitrophenol	220	U
105-67-9	2,4-Dimethylphenol	220	U
111-91-1	Bis(2-chloroethoxy)methane	220	U
120-83-2	2,4-Dichlorophenol	220	U
91-20-3	Naphthalene	110	J
106-47-8	4-Chloroaniline	220	U
87-68-3	Hexachlorobutadiene	220	U
105-60-2	Caprolactam	220	U
59-50-7	4-Chloro-3-methylphenol	220	U
91-57-6	2-Methylnaphthalene	220	U
77-47-4	Hexachlorocyclopentadiene	220	U
88-06-2	2,4,6-Trichlorophenol	220	U
95-95-4	2,4,5-Trichlorophenol	220	U
92-52-4	1,1'-Biphenyl	220	U
91-58-7	2-Chloronaphthalene	220	U
88-74-4	2-Nitroaniline	430	U
131-11-3	Dimethylphthalate	220	U
606-20-2	2,6-Dinitrotoluene	220	U
208-96-8	Acenaphthylene	100	J
99-09-2	3-Nitroaniline	430	U
83-32-9	Acenaphthene	220	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-10A

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4E8704.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 24 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.5 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	430	U
100-02-7	4-Nitrophenol	430	U
132-64-9	Dibenzofuran	220	U
121-14-2	2,4-Dinitrotoluene	220	U
84-66-2	Diethylphthalate	220	U
86-73-7	Fluorene	220	U
7005-72-3	4-Chlorophenyl-phenylether	220	U
100-01-6	4-Nitroaniline	430	U
534-52-1	4,6-Dinitro-2-methylphenol	430	U
86-30-6	N-Nitrosodiphenylamine (1)	220	U
95-94-3	1,2,4,5-Tetrachlorobenzene	220	U
101-55-3	4-Bromophenyl-phenylether	220	U
118-74-1	Hexachlorobenzene	220	U
1912-24-9	Atrazine	220	U
87-86-5	Pentachlorophenol	430	U
85-01-8	Phenanthrene	280	
120-12-7	Anthracene	220	U
86-74-8	Carbazole	220	U
84-74-2	Di-n-butylphthalate	620	B
206-44-0	Fluoranthene	260	
129-00-0	Pyrene	250	
85-68-7	Butylbenzylphthalate	220	U
91-94-1	3,3'-Dichlorobenzidine	220	U
56-55-3	Benzo(a)anthracene	220	U
218-01-9	Chrysene	220	U
117-81-7	Bis(2-ethylhexyl)phthalate	220	U
117-84-0	Di-n-octylphthalate	220	U
205-99-2	Benzo(b)fluoranthene	220	U
207-08-9	Benzo(k)fluoranthene	220	U
50-32-8	Benzo(a)pyrene	220	U
193-39-5	Indeno(1,2,3-cd)pyrene	220	U
53-70-3	Dibenzo(a,h)anthracene	220	U
191-24-2	Benzo(g,h,i)perylene	220	U
58-90-2	2,3,4,6-Tetrachlorophenol	220	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H30R7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-10A

Sample wt/vol: 30.2 (g/mL) G Lab File ID: S4E8704.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 24 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.5 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	99-85-4	1,4-Cyclohexadiene, 1-methyl	2.854	2100	NJ
02	554-61-0	Bicyclo[4.1.0]hept-2-ene, 3,	2.958	2400	NJ
03		Unknown-01	3.123	2300	J
04		Unknown-02	3.154	26000	J
05	99-85-4	1,4-Cyclohexadiene, 1-methyl	3.289	34000	NJ
06		Unknown-03	3.382	140000	J
07	464-49-3	Bicyclo[2.2.1]heptan-2-one,	4.158	2700	NJ
08	475-20-7	1,4-Methanoazulene, decahydr	5.690	1900	NJ
09	30021-74-0	Naphthalene, 1,2,3,4,4a,5,6,	5.959	720	NJ
10	31983-22-9	Naphthalene, 1,2,4a,5,6,8a-h	6.073	940	NJ
11		Unknown-04	6.166	1700	J
12		Unknown-05	6.860	530	J
13		Unknown-06	6.943	710	J
14	544-63-8	Tetradecanoic acid	7.222	1000	NJ
15		Unknown-07	7.998	770	J
16		Unknown-08	8.112	1400	J
17		Unknown-09	8.216	5100	J
18		Unknown-10	8.474	41000	J
19		Unknown-11	8.557	990	J
20	1000210-28-9	7-Isopropyl-1,1,4a-trimethyl	8.609	2600	NJ
21		Unknown-12	8.661	1100	J
22		Unknown-13	8.754	4300	J
23		Unknown-14	8.806	5000	J
24		Unknown-15	9.095	2600	J
25		Unknown-16	9.209	1900	J
26		Unknown-17	9.396	2400	J
27	1599-67-3	1-Docosene	9.986	3700	NJ
28	474-62-4	Campesterol	13.784	5200	NJ
29	83-46-5	.beta.-Sitosterol	14.643	14000	NJ
30		Unknown-18	15.088	7600	J
	E966796[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D
Report Date: 15-Nov-2011 12:00

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8704.D
Lab Smp Id: K2199-10A Client Smp ID: H30R7
Inj Date : 14-NOV-2011 15:19
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-10A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 11:59 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.200	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 2 Phenol-d5	71	3.040	2.999	(0.913)	51138	44.4581	740(Q)
$ 4 bis(2-Chloroethyl)ether-d8	67	3.061	3.040	(0.919)	64837	75.7826	1300(Q)
$ 6 2-Chlorophenol-d4	132	3.175	3.143	(0.953)	71230	52.7703	870(Q)
* 8 1,4-Dichlorobenzene-d4	152	3.330	3.309	(1.000)	42773	40.0000	(Q)
$ 11 4-Methylphenol-d8	113	3.599	3.557	(1.081)	66073	54.2419	900
12 4-Methylphenol	108	3.620	3.578	(1.087)	110193	88.2312	1500
$ 16 Nitrobenzene-d5	128	3.754	3.733	(0.862)	34179	29.9936	500(QH)
$ 19 2-Nitrophenol-d4	143	4.034	4.013	(0.926)	46097	31.7366	530
$ 23 2,4-Dichlorophenol-d3	165	4.261	4.230	(0.979)	85535	31.4273	520
* 25 Naphthalene-d8	136	4.396	4.365	(1.000)	272229	40.0000	(H)
26 Naphthalene	128	4.406	4.386	(1.012)	37786	5.24554	87(a)
$ 27 4-Chloroaniline-d4	131	4.448	4.417	(1.021)	4608	1.71602	28(aQH)
$ 40 Dimethylphthalate-d6	166	5.741	5.721	(0.949)	274640	49.3261	820
$ 43 Acenaphthylene-d8	160	5.907	5.876	(0.976)	319146	51.7670	860
44 Acenaphthylene	152	5.917	5.897	(0.978)	29586	4.57670	76(a)
* 46 Acenaphthene-d10	164	6.052	6.031	(1.000)	140812	40.0000	
$ 49 4-Nitrophenol-d4	143	6.207	6.145	(1.026)	77274	73.7196	1200(QH)
$ 54 Fluorene-d10	176	6.559	6.538	(1.084)	230057	46.3441	770
$ 58 4,6-Dinitro-2-methylphenol-d2	200	6.621	6.600	(0.880)	47161	37.9553	630

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D
Report Date: 15-Nov-2011 12:00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
* 65 Phenanthrene-d10	188	7.522	7.480	(1.000)	309768	40.0000	
66 Phenanthrene	178	7.542	7.511	(1.003)	105199	12.7848	210
$ 67 Anthracene-d10	188	7.573	7.542	(1.007)	430747	50.6311	840(H)
70 Di-n-butylphthalate	149	8.060	8.018	(1.072)	256775	28.5261	470(Q)
71 Fluoranthene	202	8.733	8.681	(1.161)	142556	12.0930	200
$ 72 Pyrene-d10	212	8.950	8.888	(0.887)	608679	44.2675	730
73 Pyrene	202	8.960	8.898	(0.888)	193851	11.4726	190
* 77 Chrysene-d12	240	10.161	10.078	(1.000)	705452	40.0000	(H)
$ 83 Benzo(a)pyrene-d12	264	11.807	11.651	(1.000)	386157	47.0913	780
* 85 Perylene-d12	264	11.910	11.765	(1.000)	370065	40.0000	(H)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D
Report Date: 15-Nov-2011 12:00

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8704.D
Lab Smp Id: K2199-10A Client Smp ID: H30R7
Inj Date : 14-NOV-2011 15:19
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-10A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 11:59 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.200	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	3.330	393871	40.000
* 25 Naphthalene-d8	4.396	2576732	40.000
* 65 Phenanthrene-d10	7.522	2384123	40.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl				CAS #: 99-85-4			
2.854	955659	97.0530057	1600	95	NIST2002.L	15330	8
Bicyclo[4.1.0]hept-2-ene, 3,7,7-trimethy				CAS #: 554-61-0			
2.958	1069254	108.589222	1800	90	NIST2002.L	15297	8
Unknown				CAS #:			
3.123	1046802	106.309060	1800	0		0	8

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D
Report Date: 15-Nov-2011 12:00

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
3.154	11711503	1189.37420	20000	0		0	8
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl				CAS #: 99-85-4			
3.289	15239016	1547.61447	26000	87	NIST2002.L	15330	8
Unknown				CAS #:			
3.382	61864408	6282.70580	100000	0		0	8
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet				CAS #: 464-49-3			
4.158	7916617	122.893876	2000	95	NIST2002.L	24211	25
1,4-Methanoazulene, decahydro-4,8,8-trim				CAS #: 475-20-7			
5.690	5692102	88.3615371	1500	96	NIST2002.L	58865	25
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro				CAS #: 30021-74-0			
5.959	2113831	32.8141219	540	99	NIST2002.L	58912	25
Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7				CAS #: 31983-22-9			
6.073	2568320	43.0903823	710	98	NIST2002.L	58851	65
Unknown				CAS #:			
6.166	4758774	79.8410541	1300	0		0	65
Unknown				CAS #:			
6.860	1440587	24.1696732	400	0		0	65(L)
Unknown				CAS #:			
6.943	1952610	32.7602145	540	0		0	65
Tetradecanoic acid				CAS #: 544-63-8			
7.222	2768448	46.4480516	770	95	NIST2002.L	75070	65
Unknown				CAS #:			
7.998	2116693	35.5131436	590	0		0	65
Unknown				CAS #:			
8.112	3854182	64.6641187	1100	0		0	65
Unknown				CAS #:			
8.216	13910347	233.382948	3900	0		0	65
Unknown				CAS #:			
8.474	1.132e+008	1898.92413	31000	0		0	65
Unknown				CAS #:			
8.557	2709460	45.4583687	750	0		0	65
7-Isopropyl-1,1,4a-trimethyl-1,2,3,4,4a,				CAS #: 1000210-28-9			
8.609	7180488	120.471727	2000	89	NIST2002.L	100859	65
Unknown				CAS #:			
8.661	2961281	49.6833351	820	0		0	65

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D
Report Date: 15-Nov-2011 12:00

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
8.754	11880171	199.321364	3300	0		0	65
Unknown				CAS #:			
8.806	13571852	227.703802	3800	0		0	65
Unknown				CAS #:			
9.095	6993454	117.333736	1900	0		0	65
Unknown				CAS #:			
9.209	5304736	89.0010104	1500	0		0	65
Unknown				CAS #:			
9.396	6578916	110.378751	1800	0		0	65
1-Docosene				CAS #: 1599-67-3			
9.986	10186552	170.906423	2800	93	NIST2002.L	121981	65
Campesterol				CAS #: 474-62-4			
13.784	14216772	238.524041	3900	93	NIST2002.L	156588	65
.beta.-Sitosterol				CAS #: 83-46-5			
14.643	37310554	625.983466	10000	89	NIST2002.L	159282	65
Unknown				CAS #:			
15.088	20828426	349.452064	5800	0		0	65

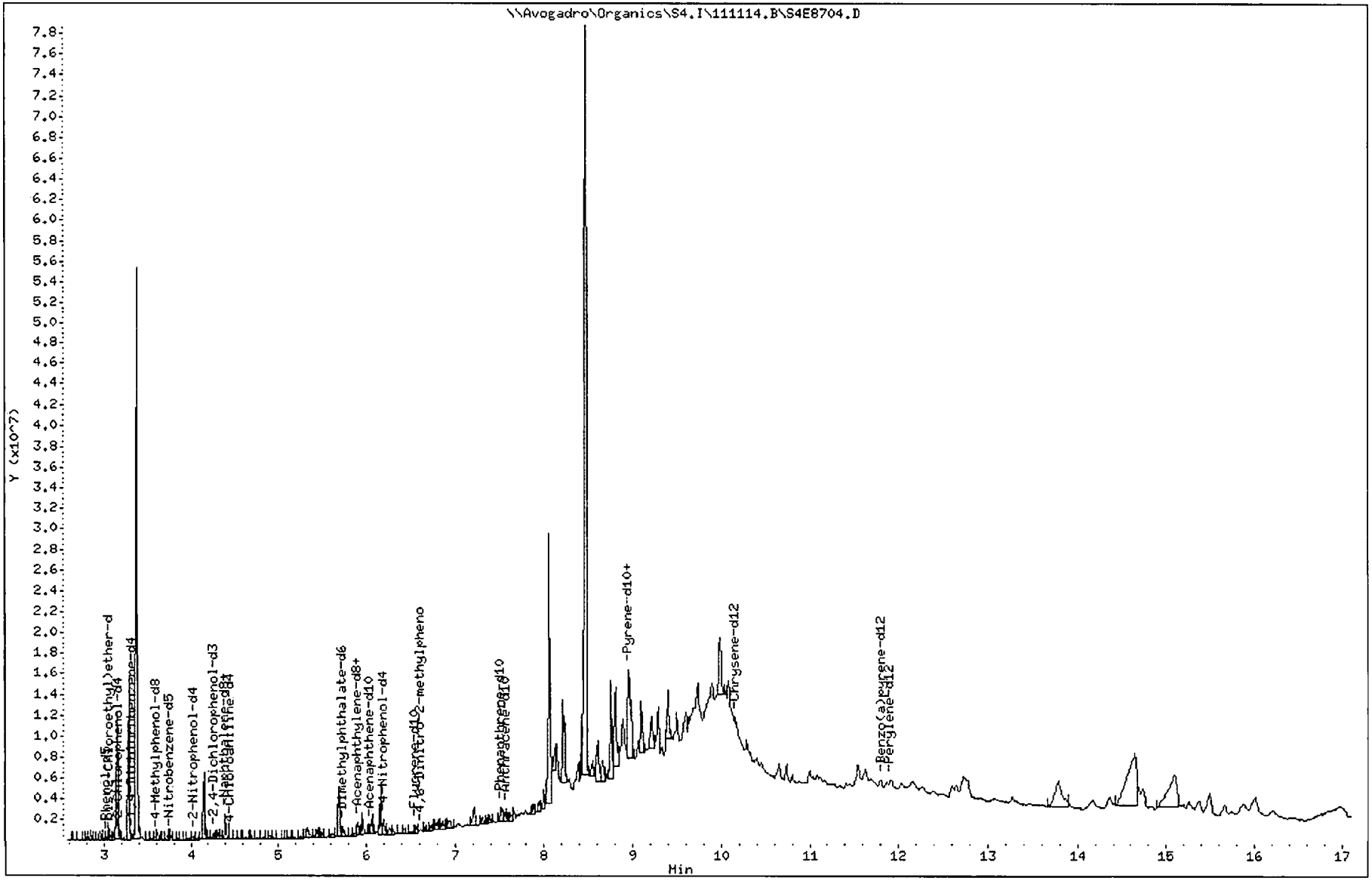
QC Flag Legend

L - Operator selected an alternate library search match.

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D
Date : 14-NOV-2011 15:19
Client ID: H30R7
Sample Info: K2199-10A,,62801,,
Volume Injected (uL): 2.0
Column phase: RXI-5SILMS

Instrument: S4.i

Operator: MMS SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

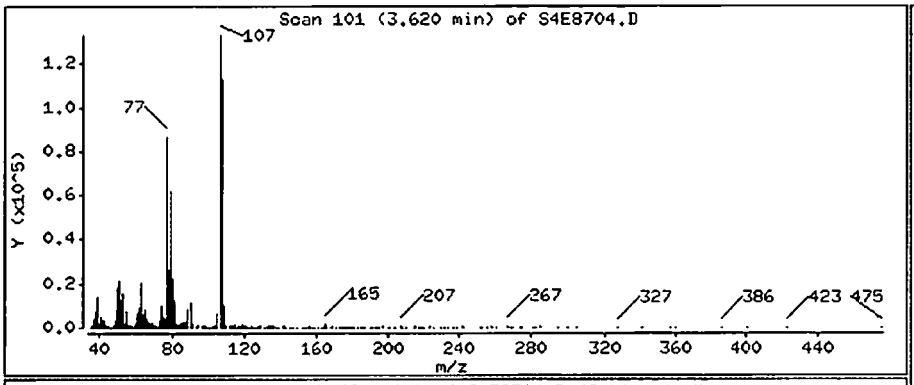
Client ID: H30R7 Instrument: S4.i

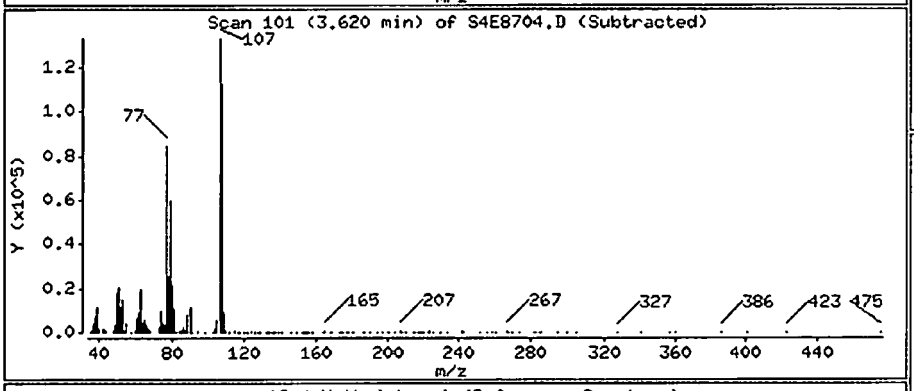
Sample Info: K2199-10A,,62801,,

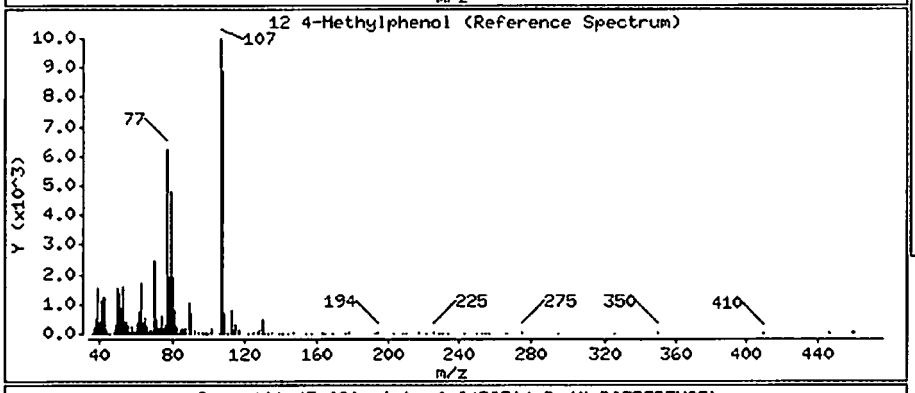
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

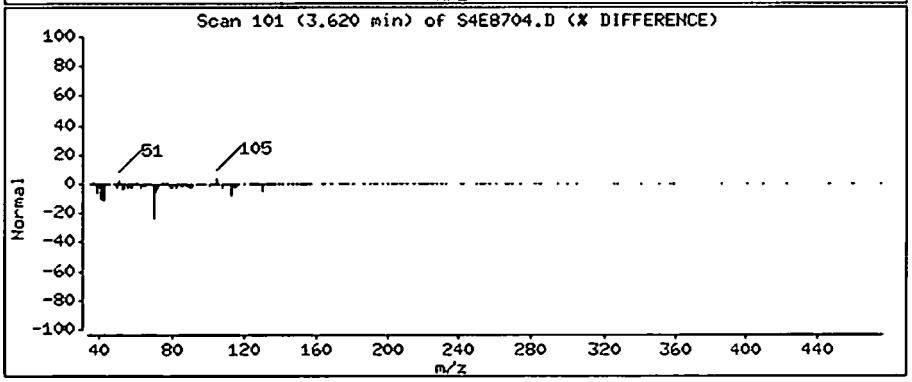
Column phase: RXI-5SILMS Column diameter: 0.25

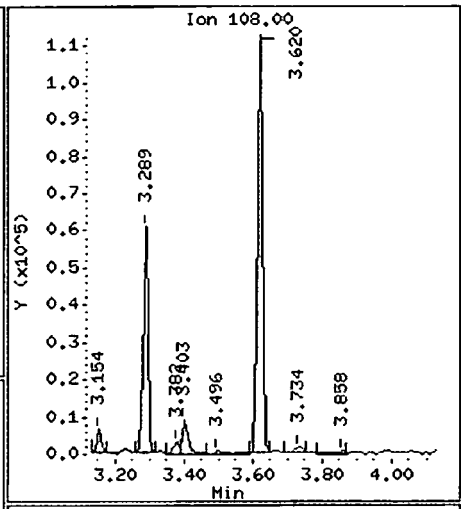
12 4-Methylphenol Concentration: 1500 ug/Kg

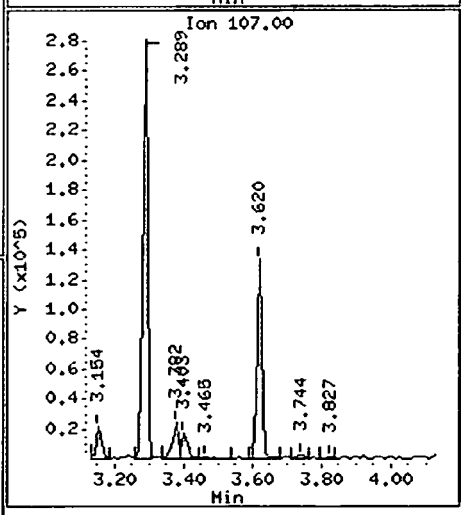












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

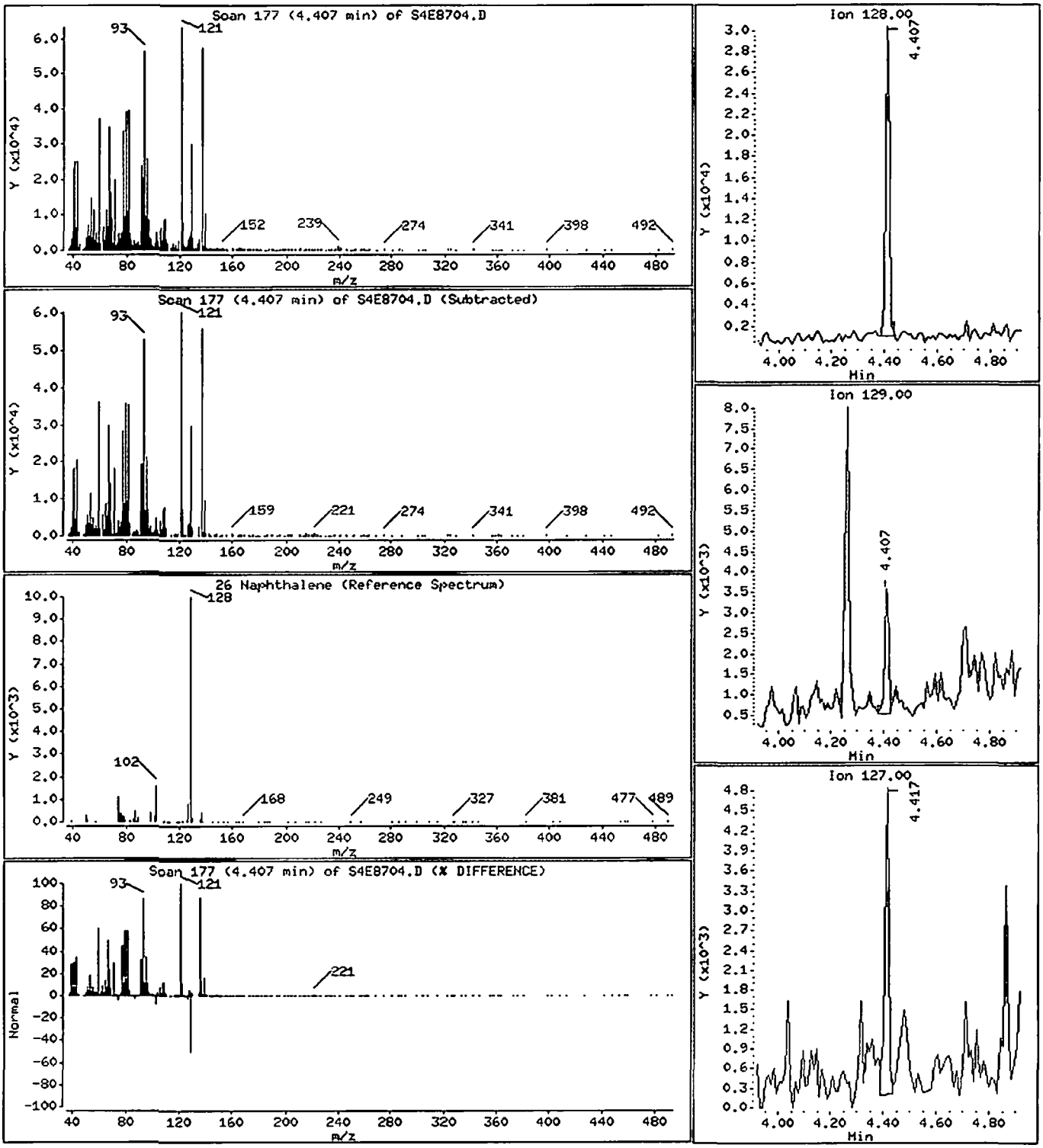
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

26 Naphthalene Concentration: 87 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

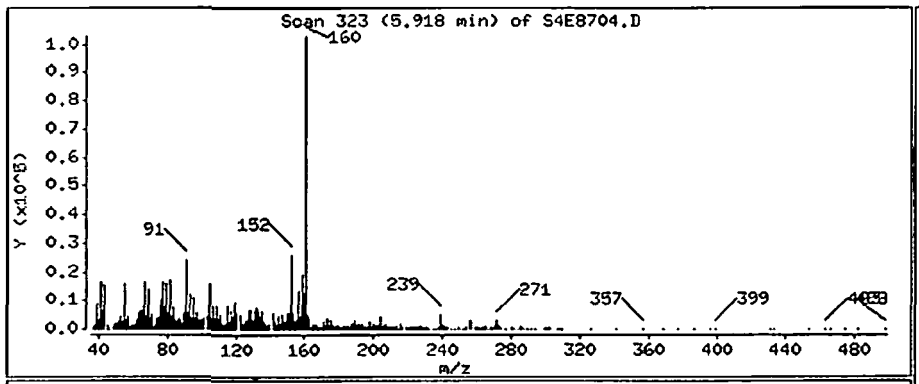
Client ID: H30R7 Instrument: S4.i

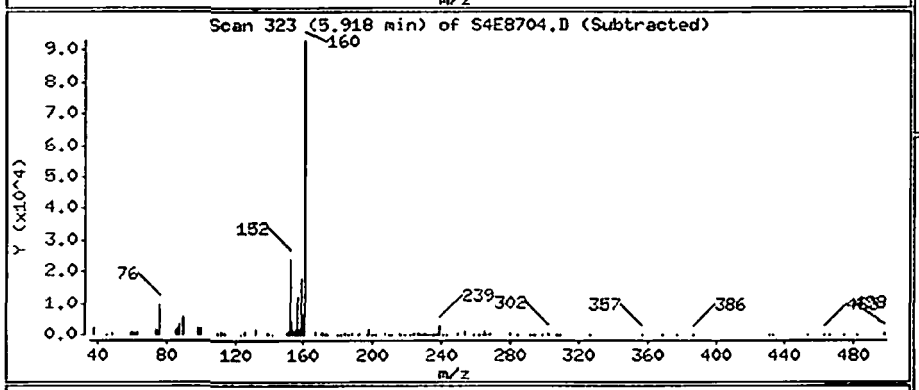
Sample Info: K2199-10A,,62801,,

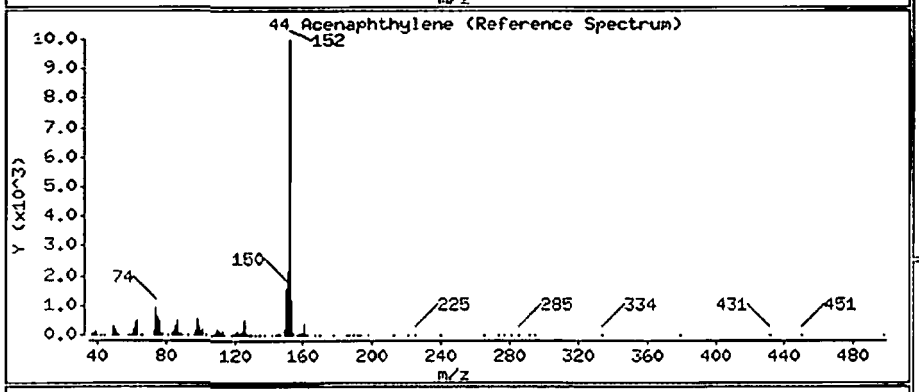
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

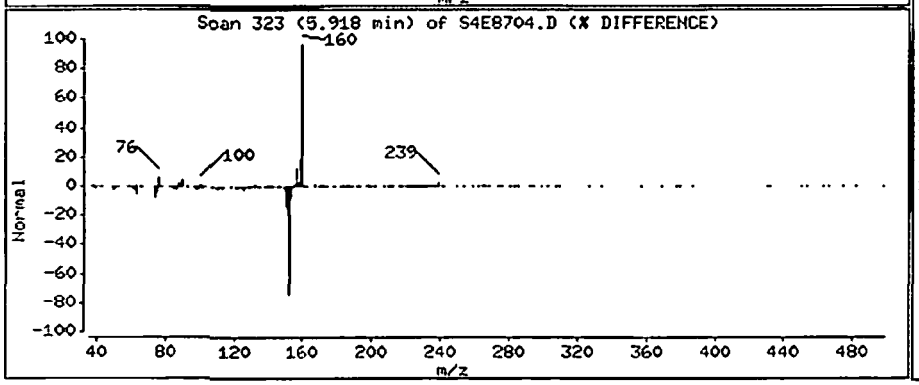
Column phase: RXI-5SILMS Column diameter: 0.25

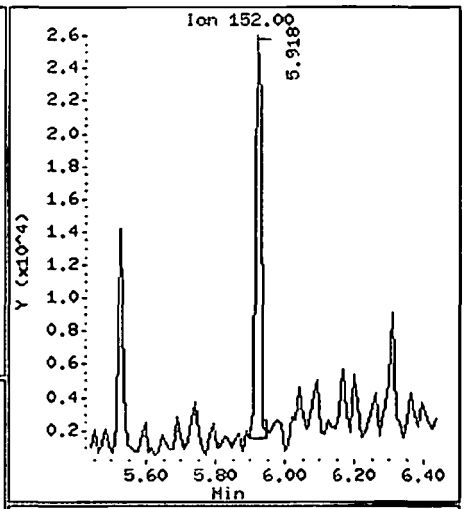
44 Acenaphthylene Concentration: 76 ug/Kg

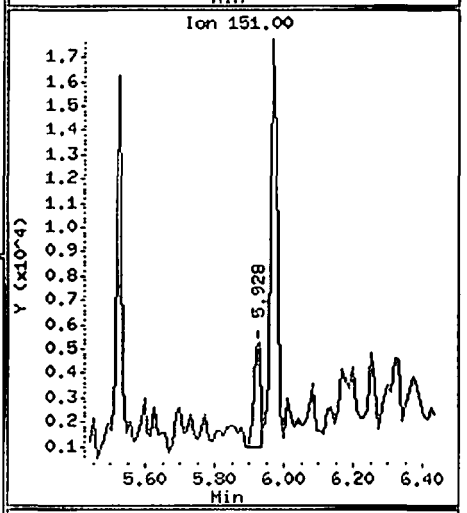


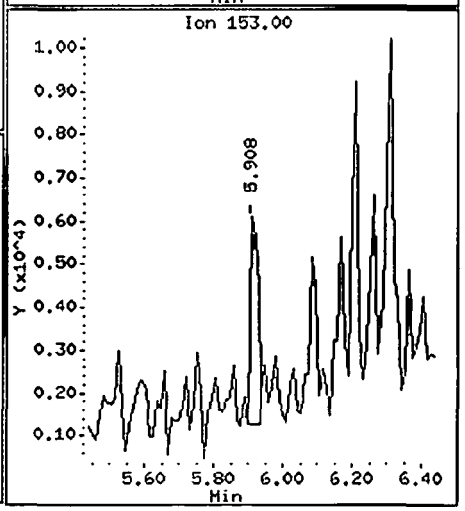












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

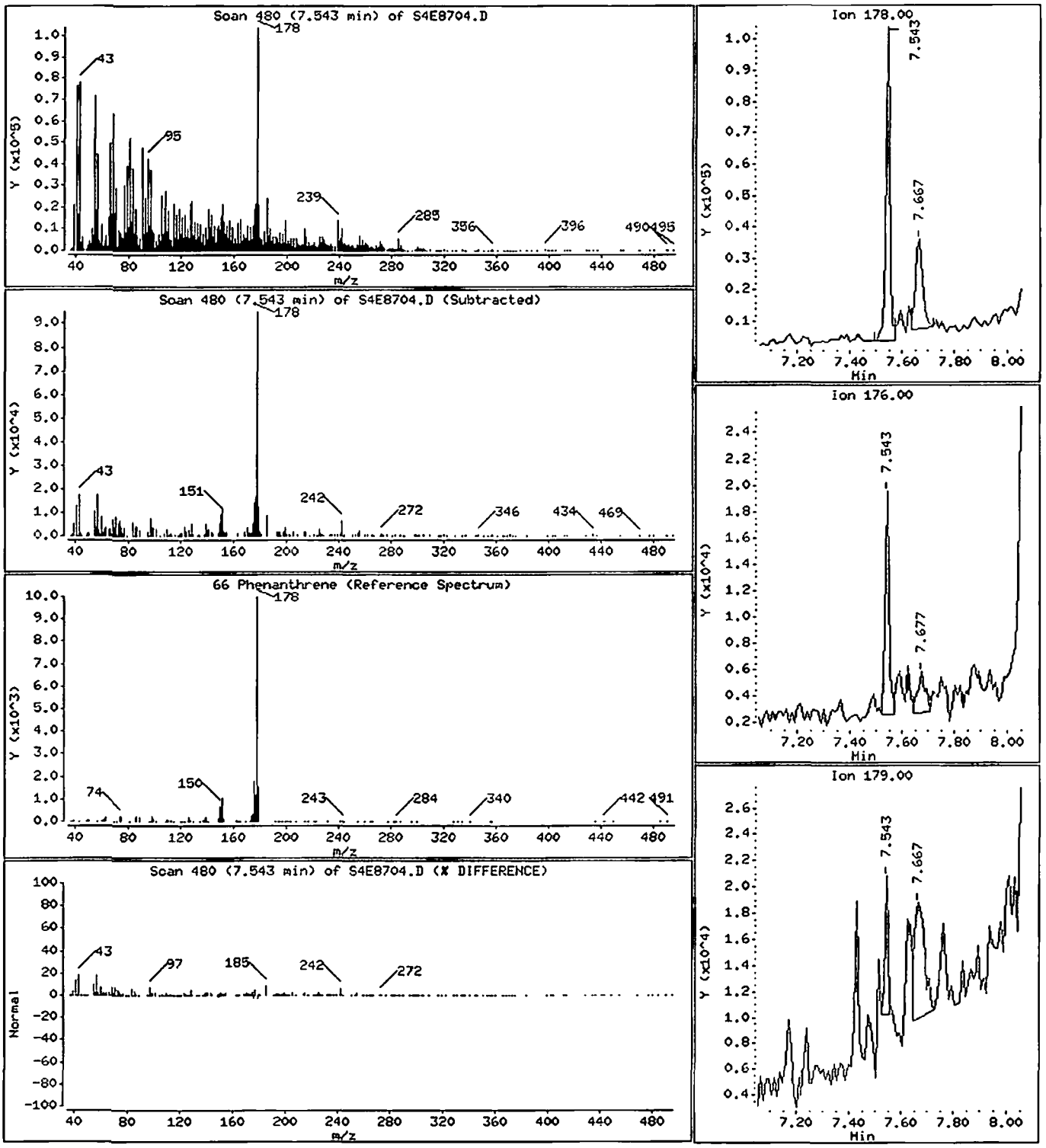
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

66 Phenanthrene Concentration: 210 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

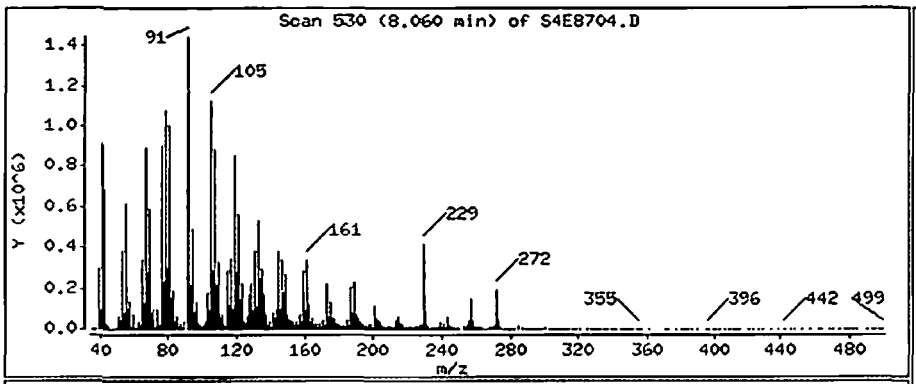
Client ID: H30R7 Instrument: S4.i

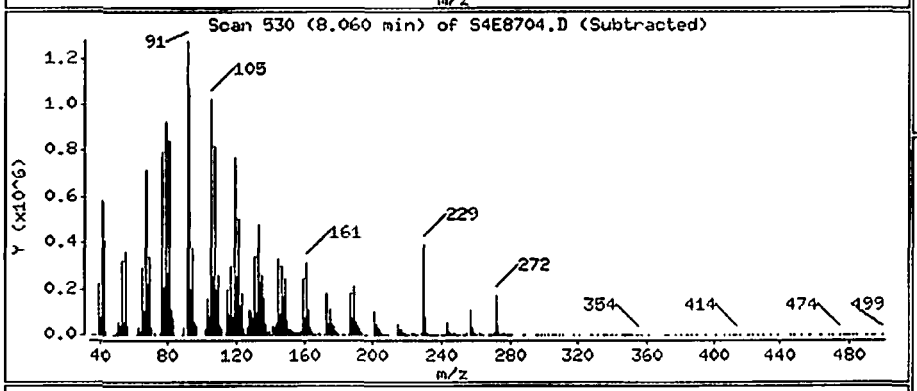
Sample Info: K2199-10A,,62801,,

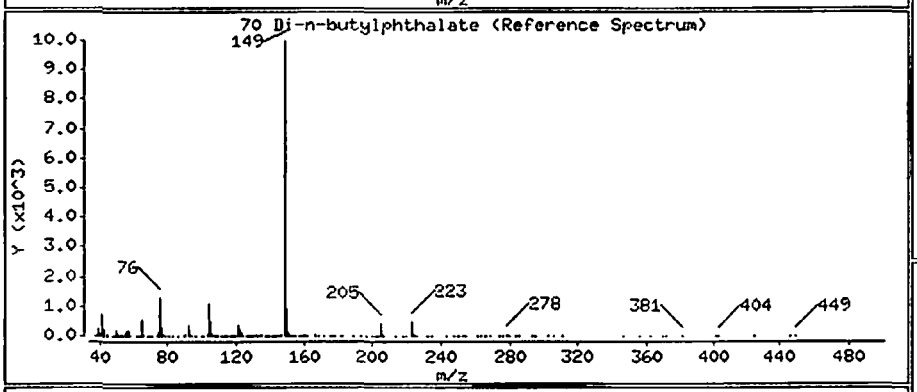
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

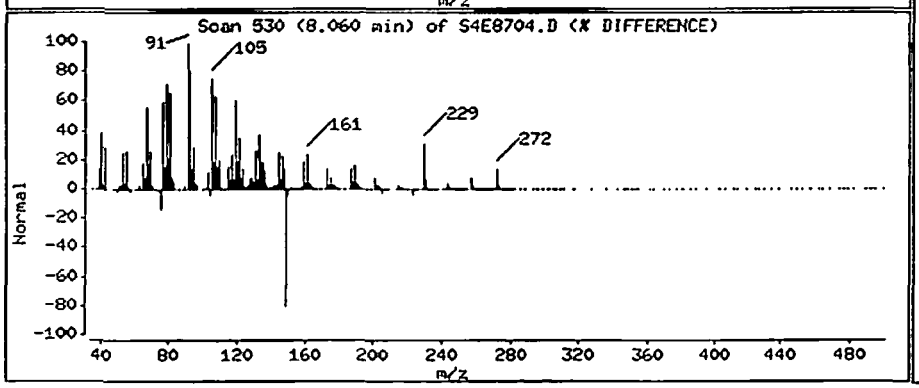
Column phase: RXI-5SILMS Column diameter: 0.25

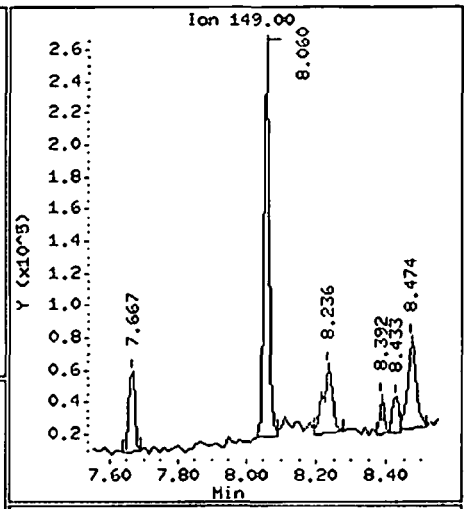
70 Di-n-butylphthalate Concentration: 470 ug/Kg

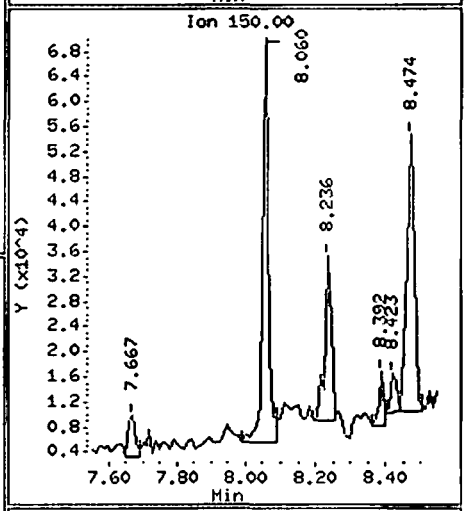


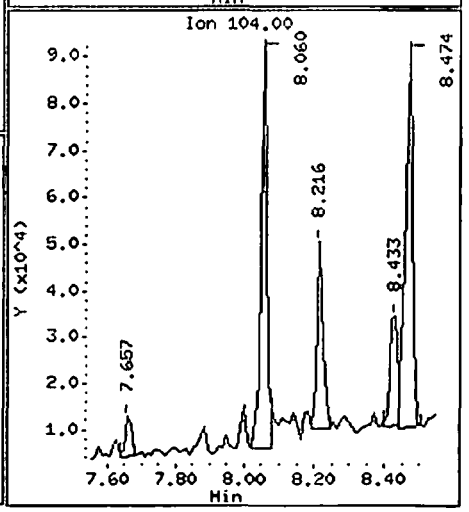












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

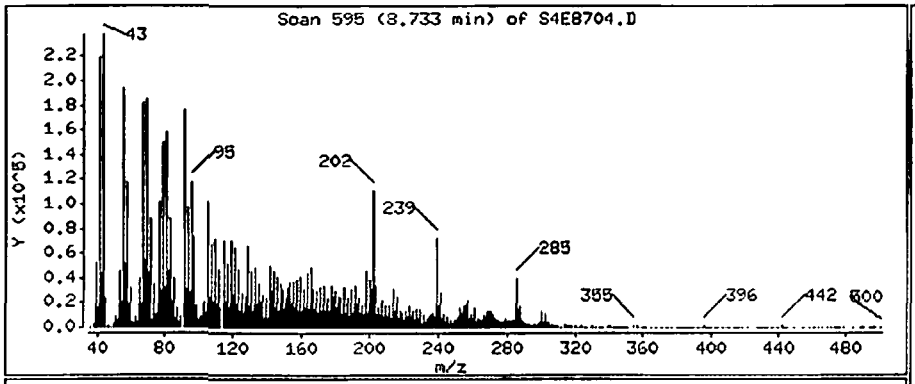
Client ID: H30R7 Instrument: S4.i

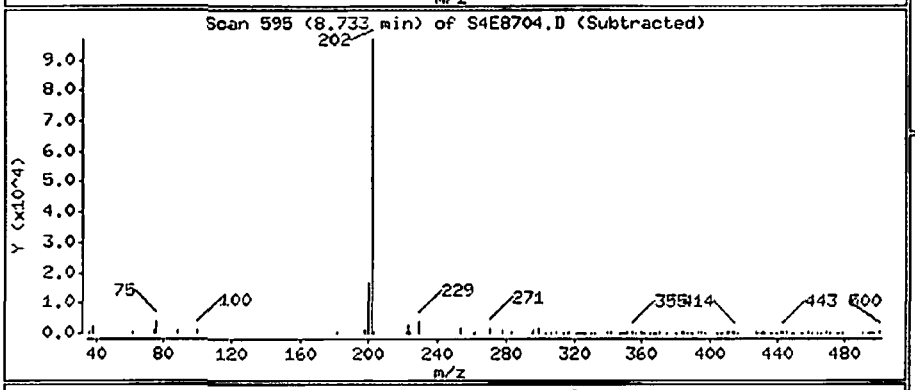
Sample Info: K2199-10A,,62801,,

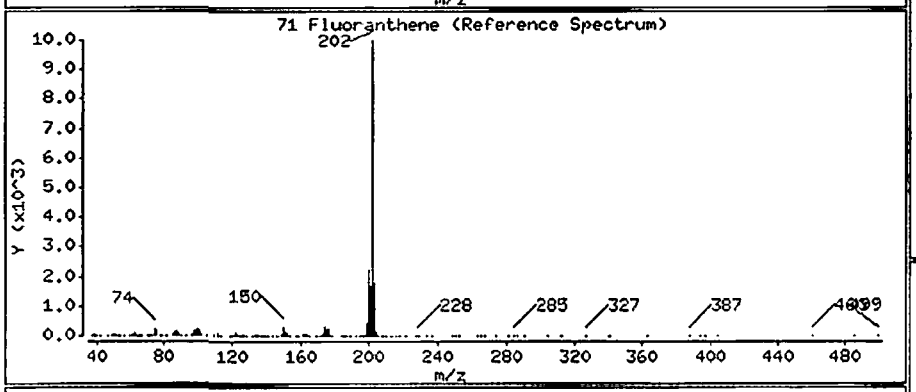
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

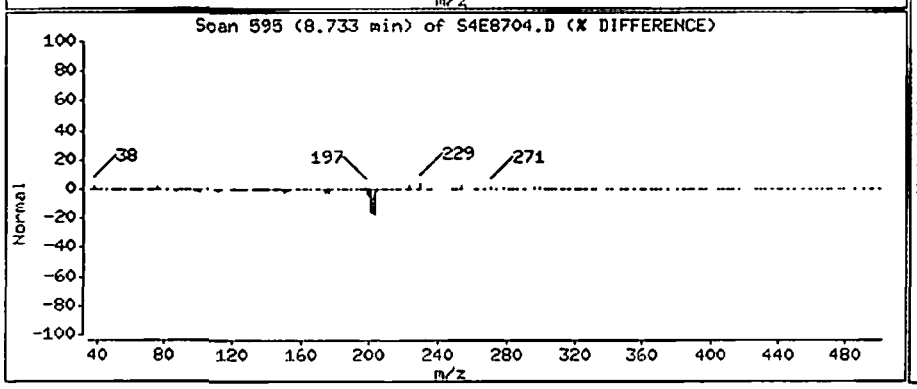
Column phase: RXI-5SILMS Column diameter: 0.25

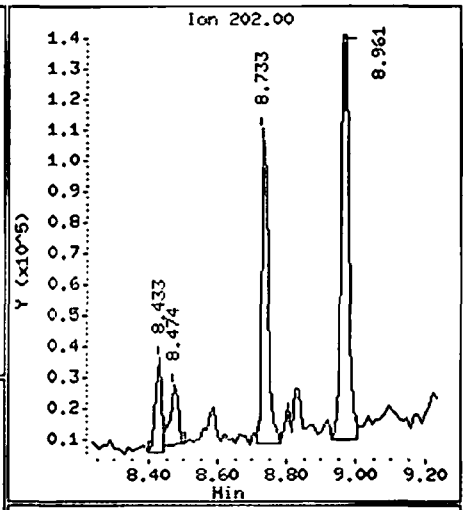
71 Fluoranthene Concentration: 200 ug/Kg

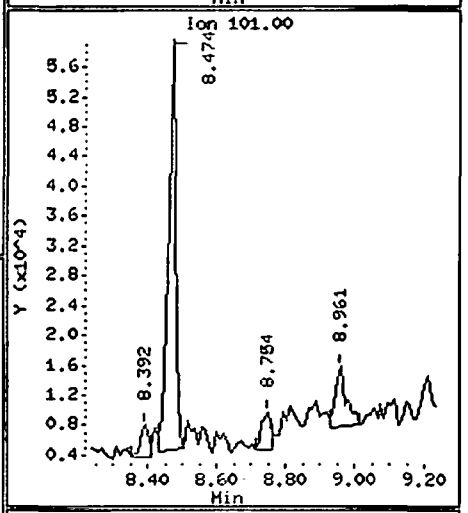


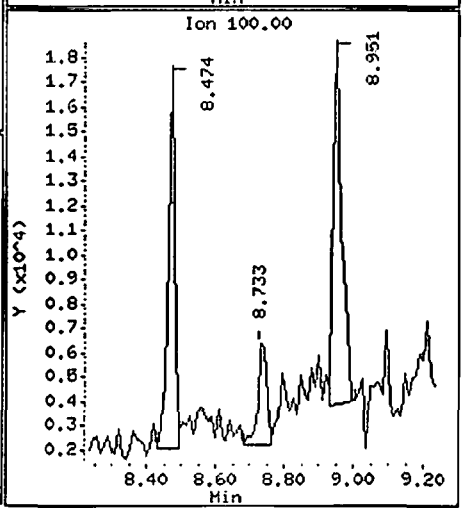












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

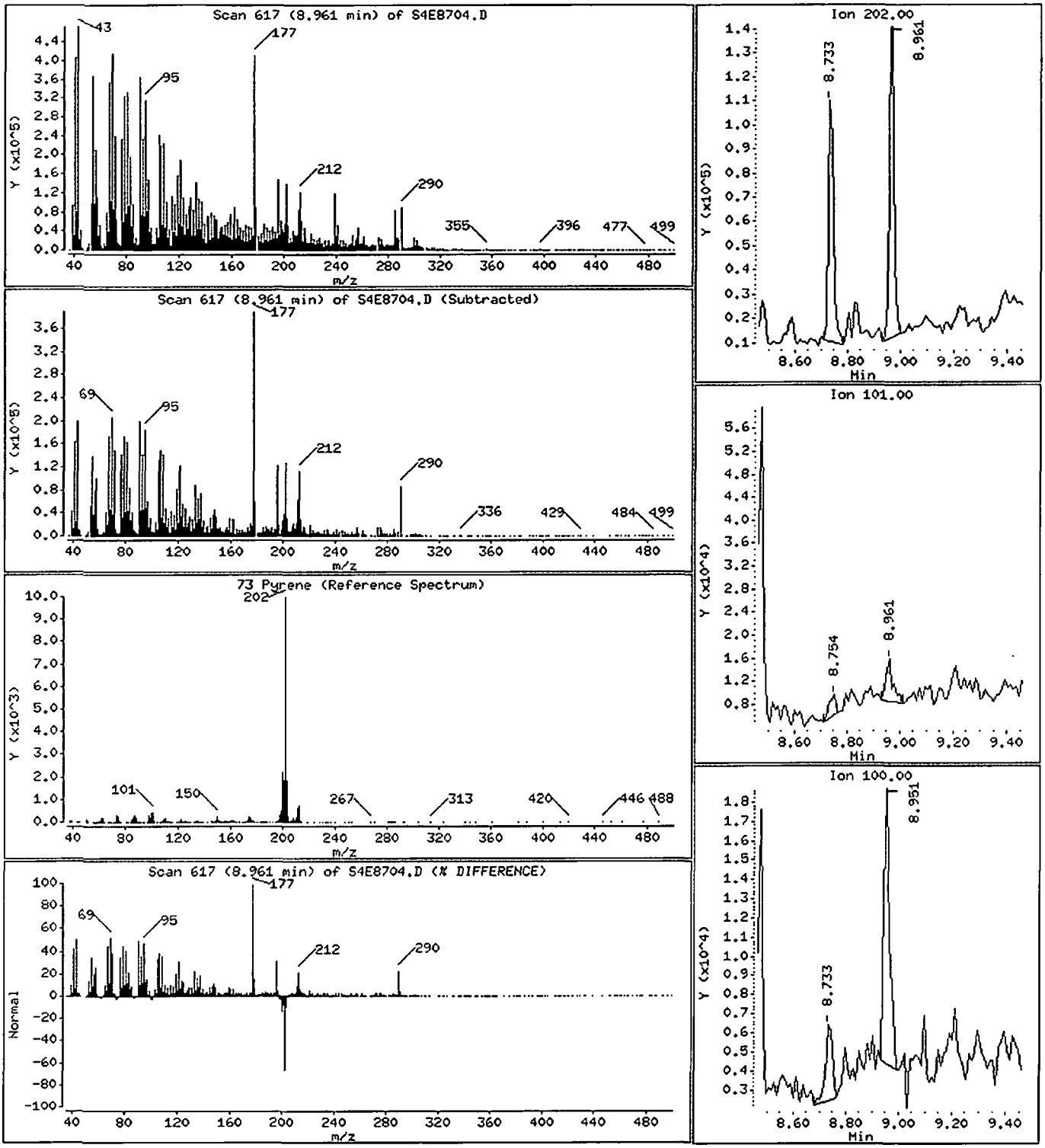
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

73 Pyrene Concentration: 190 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

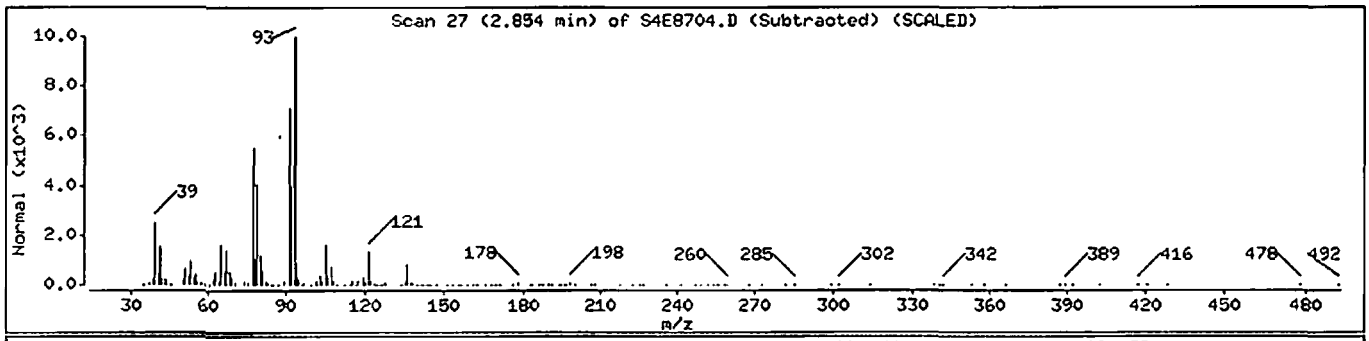
Client ID: H30R7 Instrument: S4.i

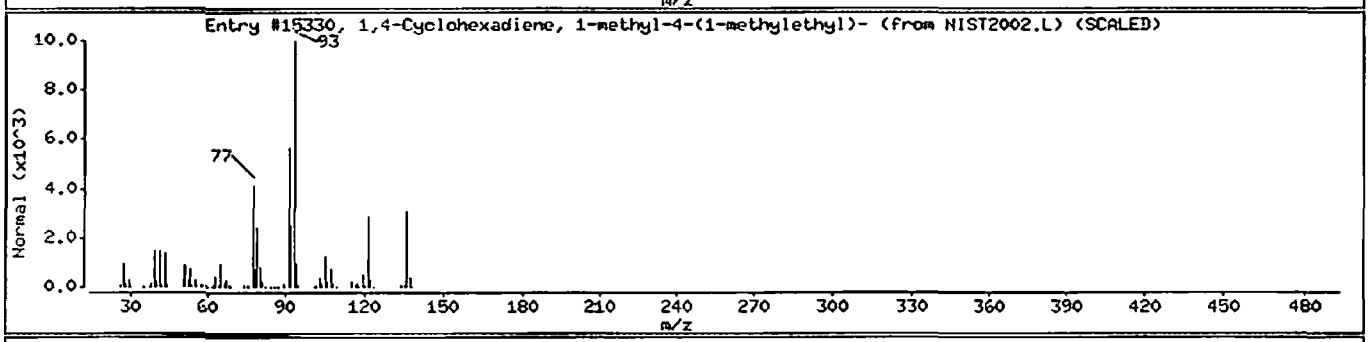
Sample Info: K2199-10A,,62801,,

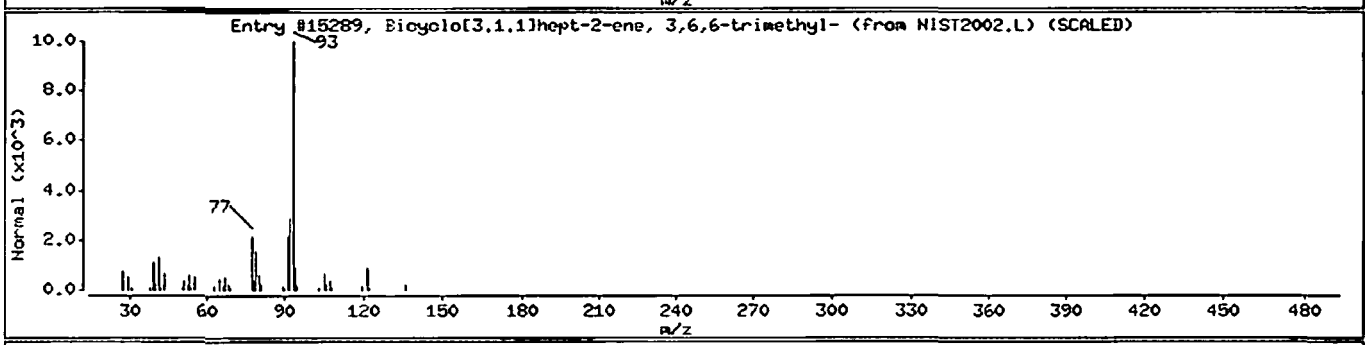
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

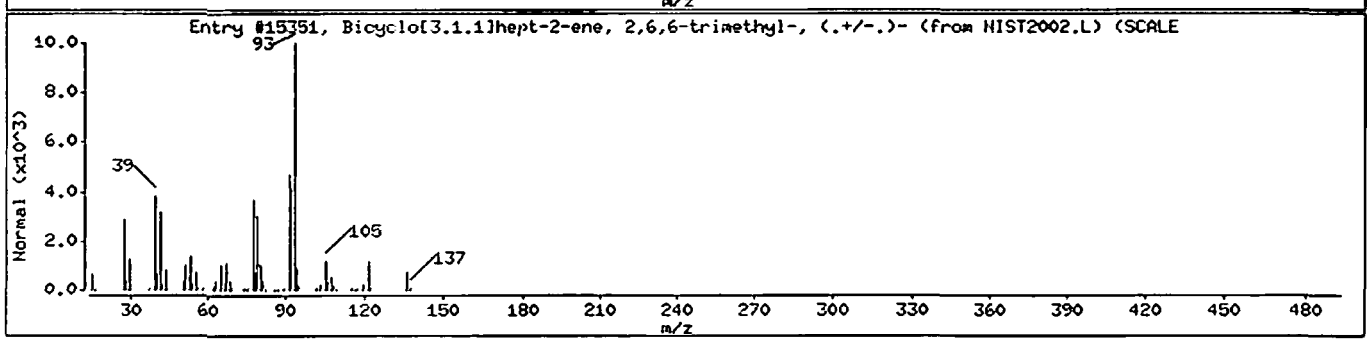
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl	99-85-4	NIST2002.L	15330	95	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 3,6,6-trimethy	4889-83-2	NIST2002.L	15289	91	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST2002.L	15351	90	C10H16	136









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

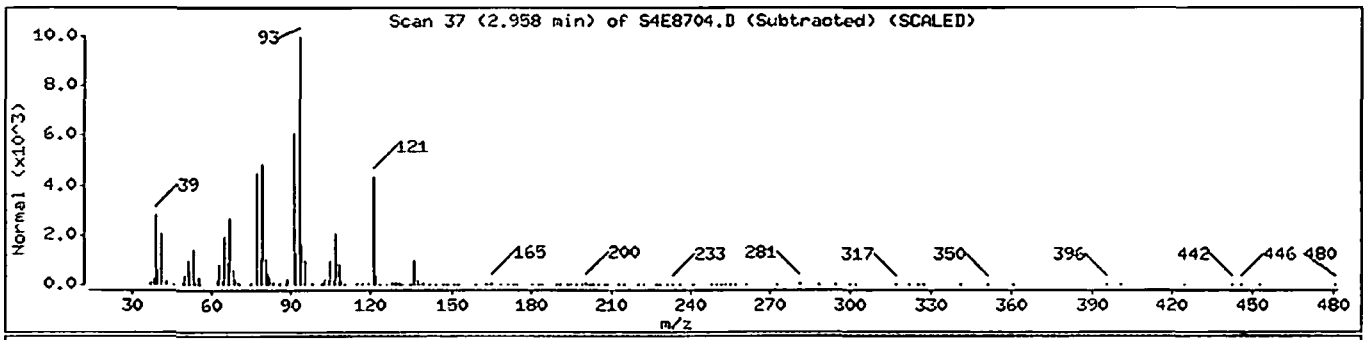
Client ID: H30R7 Instrument: S4.i

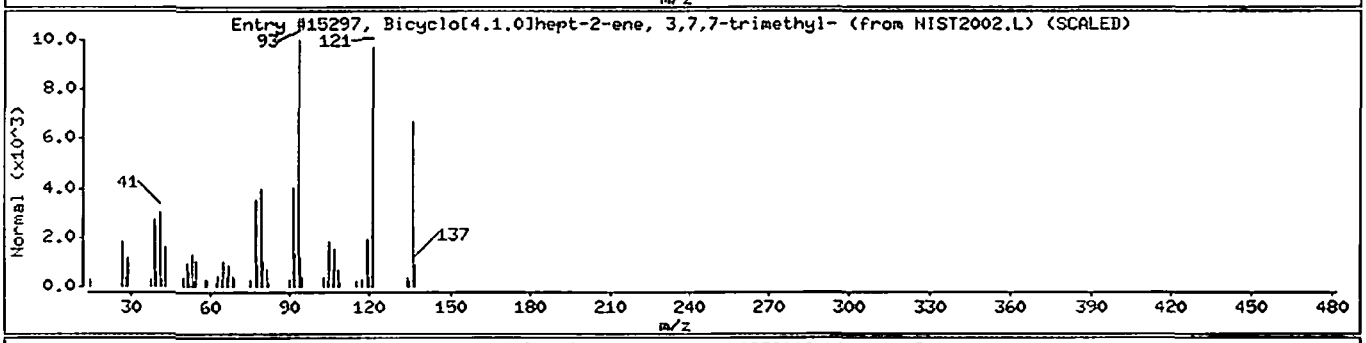
Sample Info: K2199-10A,,62801,,

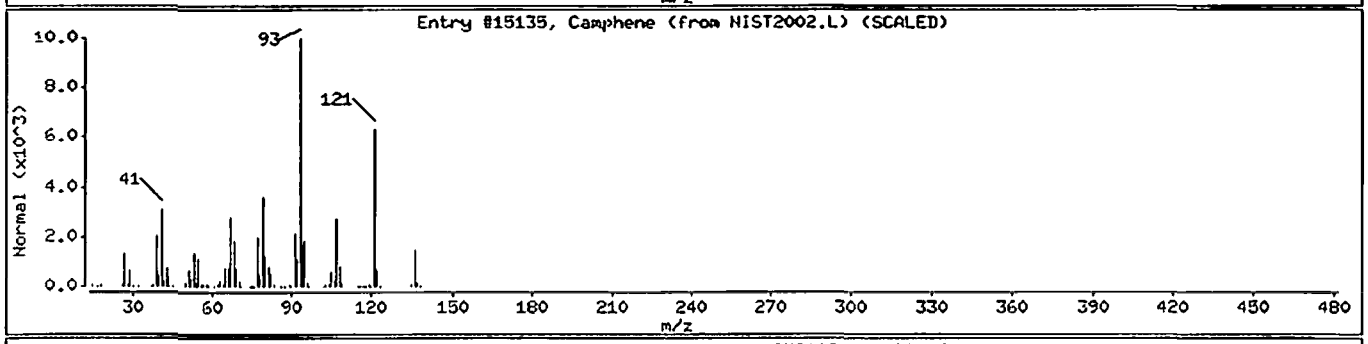
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

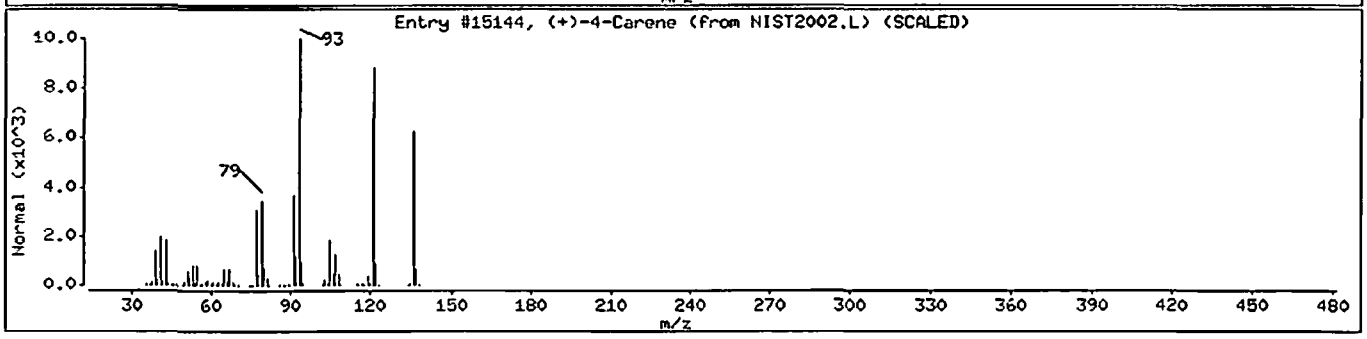
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[4.1.0]hept-2-ene, 3,7,7-trimethy	554-61-0	NIST2002.L	15297	90	C10H16	136
Camphene	79-92-5	NIST2002.L	15135	90	C10H16	136
(+)-4-Carene	29050-33-7	NIST2002.L	15144	87	C10H16	136









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

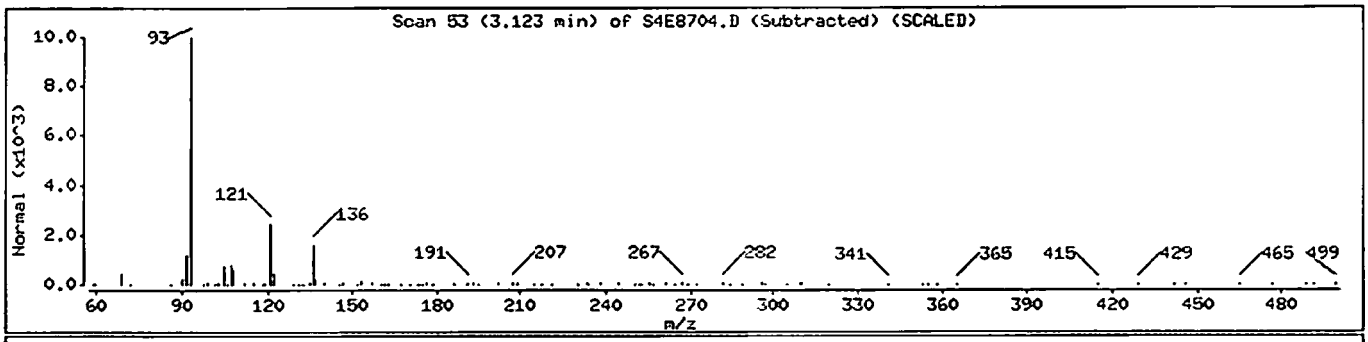
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

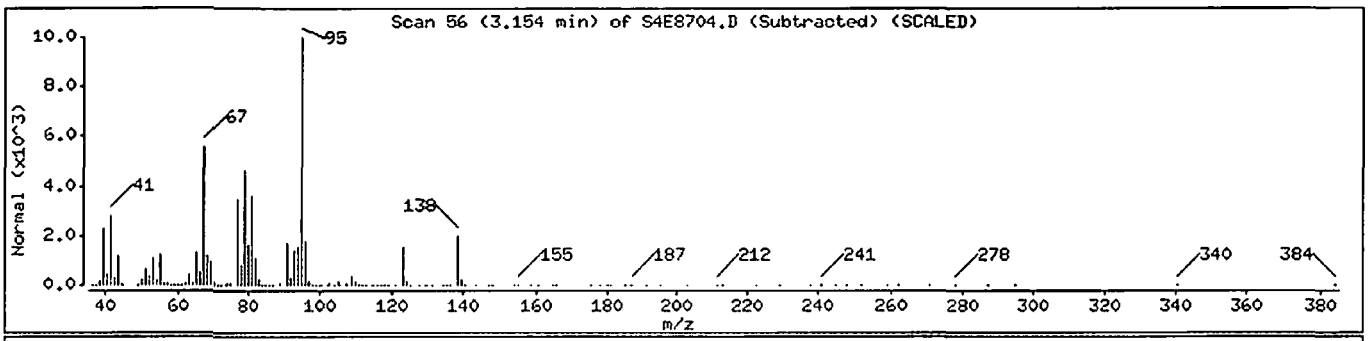
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

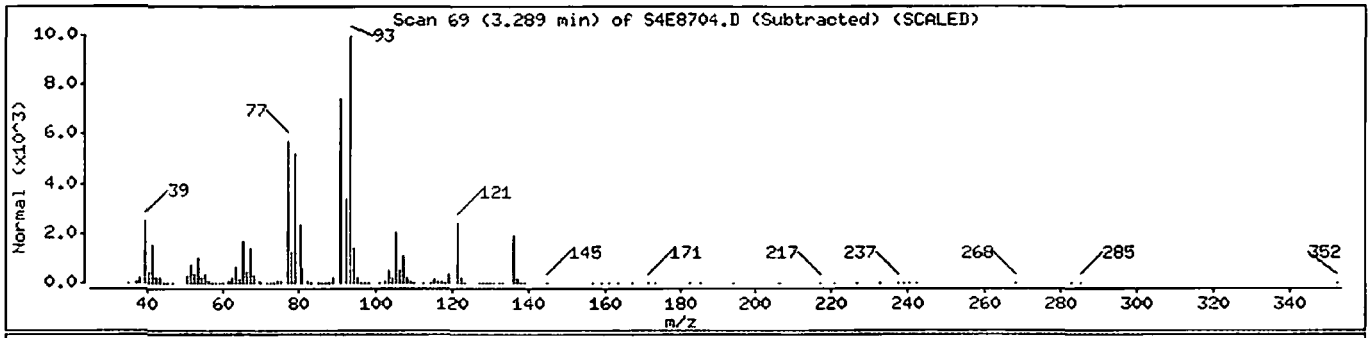
Client ID: H30R7 Instrument: S4.i

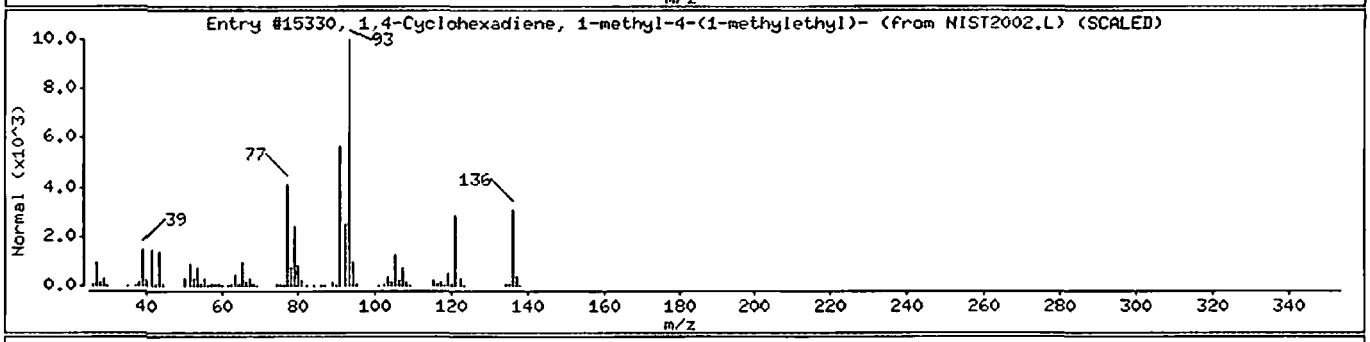
Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl	99-85-4	NIST2002.L	15330	87	C10H16	136





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

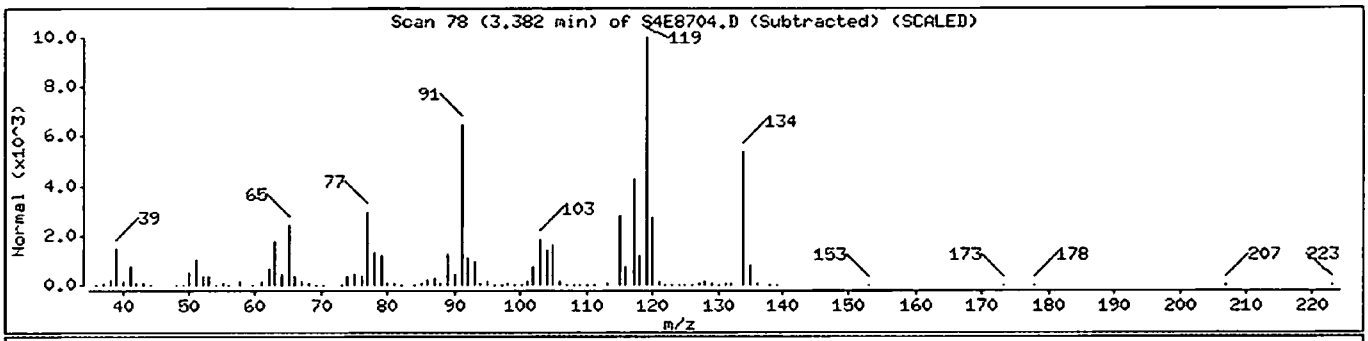
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

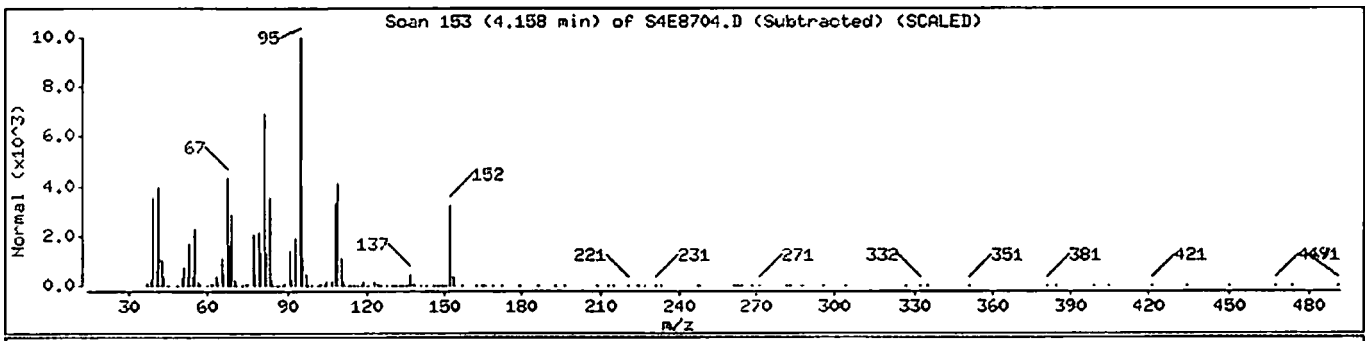
Client ID: H30R7 Instrument: S4.i

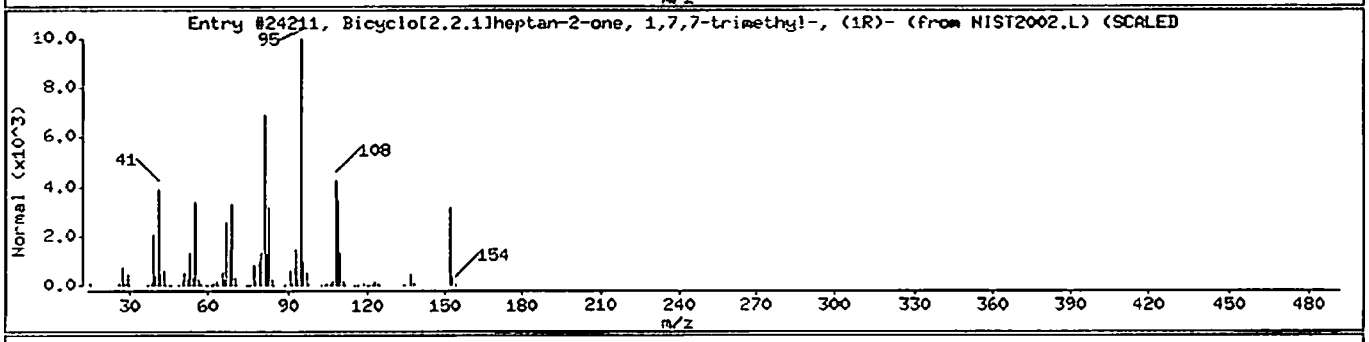
Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet	464-49-3	NIST2002.L	24211	95	C10H16O	152





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

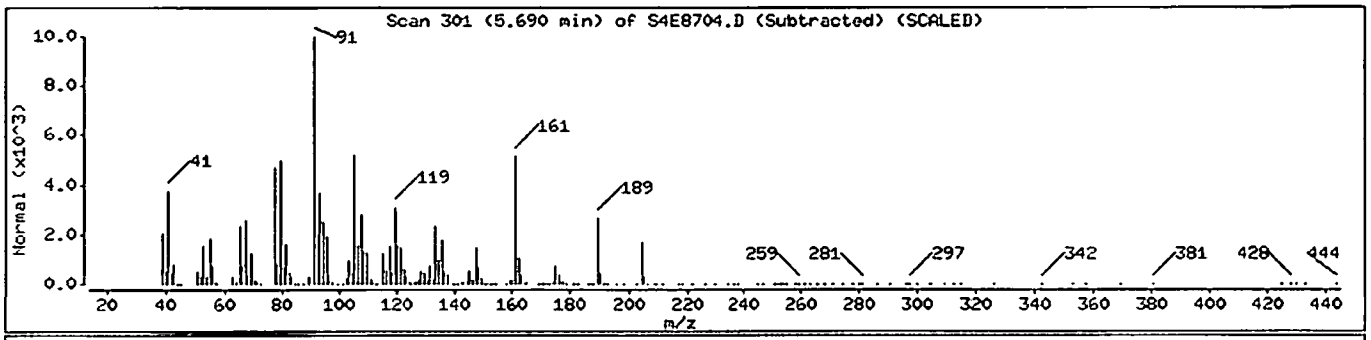
Client ID: H30R7 Instrument: S4.i

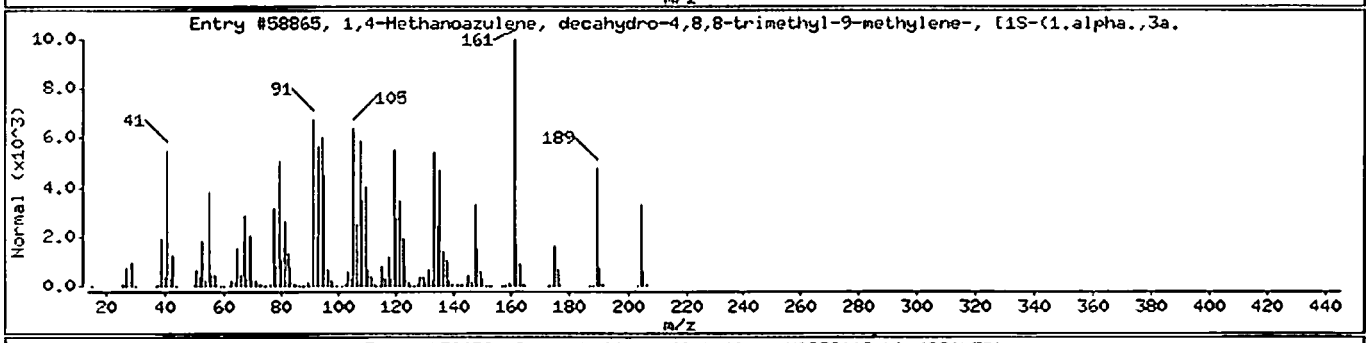
Sample Info: K2199-10A,,62801,,

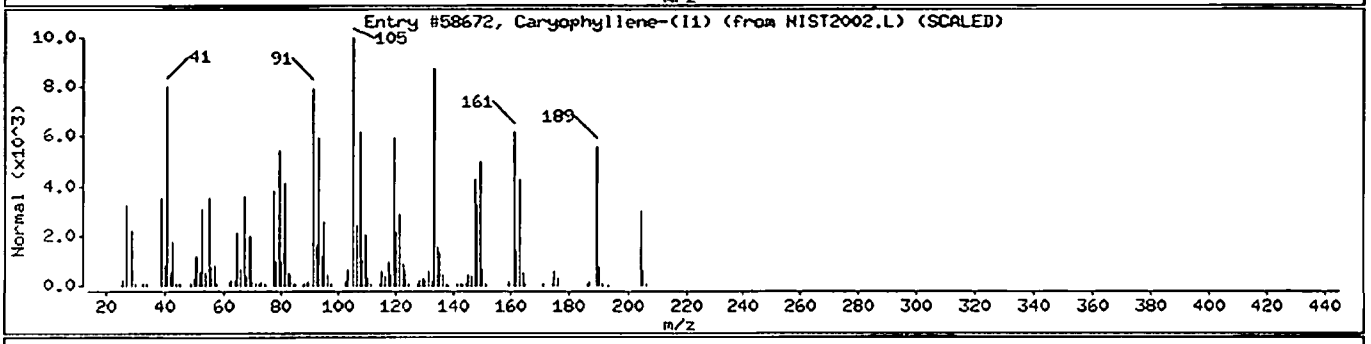
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58865	96	C15H24	204
Caryophyllene-(I1)	1000158-18-5	NIST2002.L	58672	86	C15H24	204







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

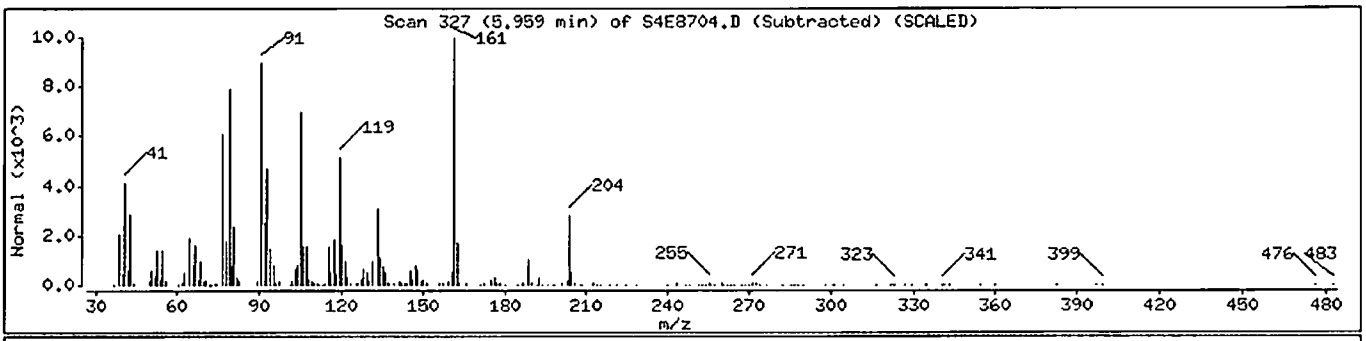
Client ID: H30R7 Instrument: S4.i

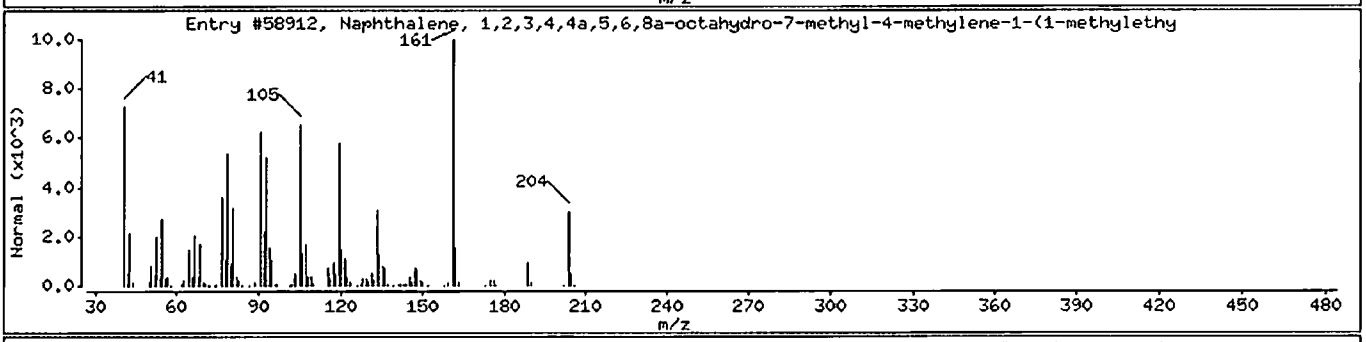
Sample Info: K2199-10A,,62801,,

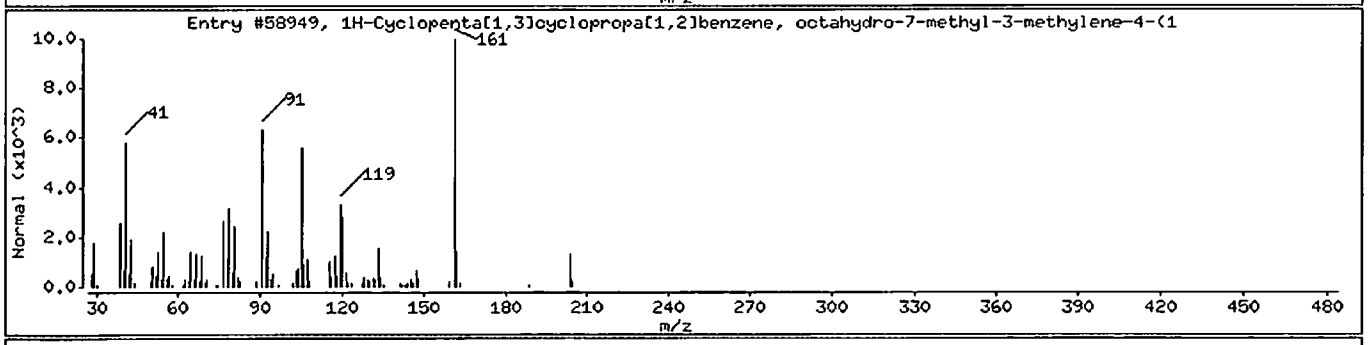
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	30021-74-0	NIST2002.L	58912	99	C15H24	204
1H-Cyclopenta[1,3]cyclopropa[1,2]benzene	13744-15-5	NIST2002.L	58949	94	C15H24	204







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

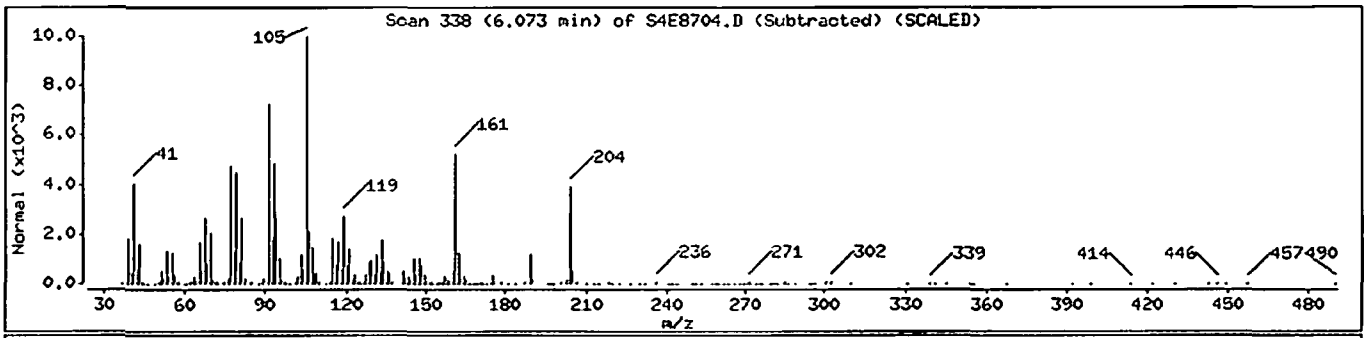
Client ID: H30R7 Instrument: S4.i

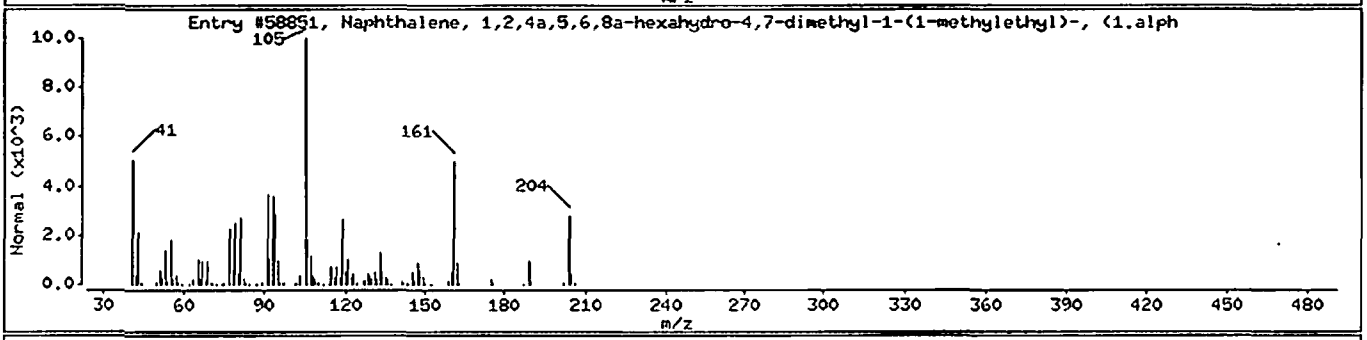
Sample Info: K2199-10A,,62801,,

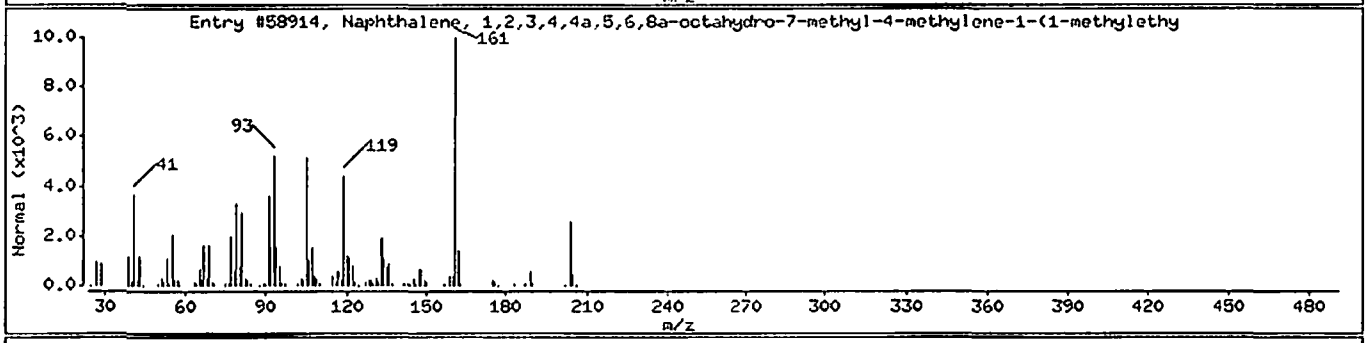
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7	31983-22-9	NIST2002.L	58851	98	C15H24	204
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	30021-74-0	NIST2002.L	58914	94	C15H24	204







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

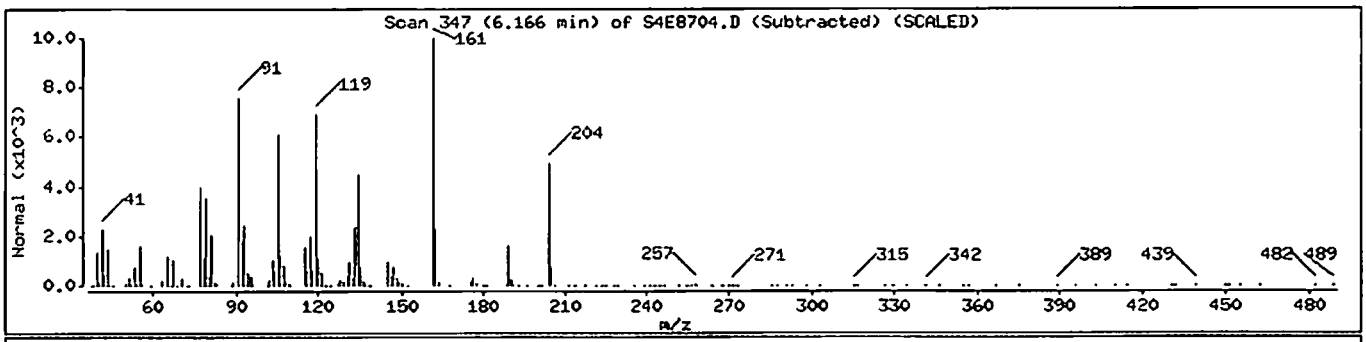
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

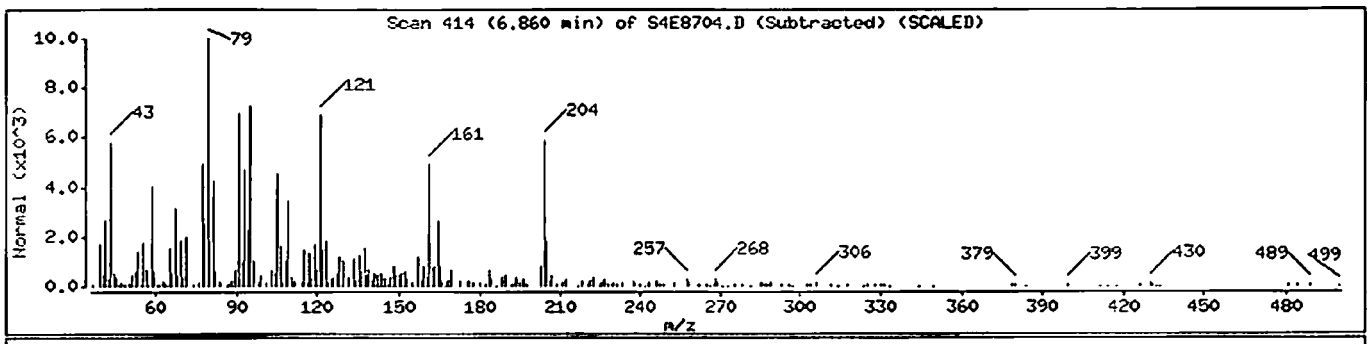
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

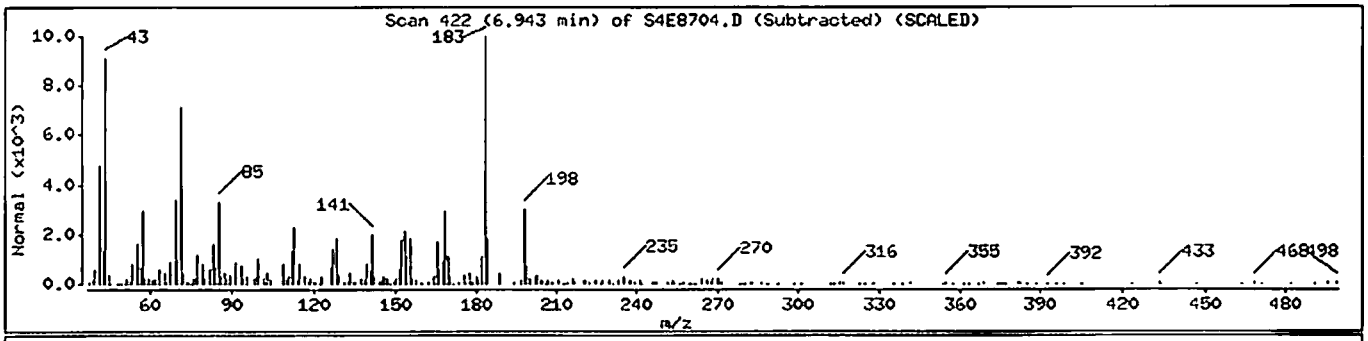
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

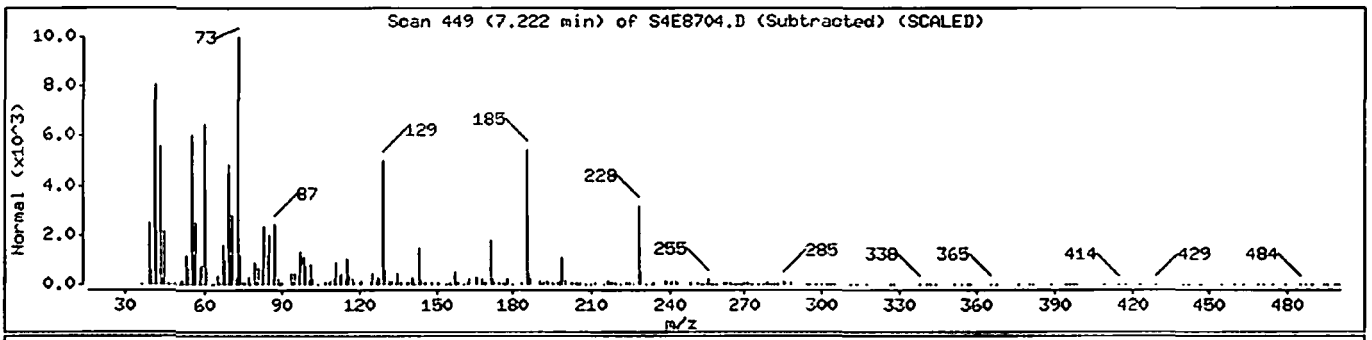
Client ID: H30R7 Instrument: S4.i

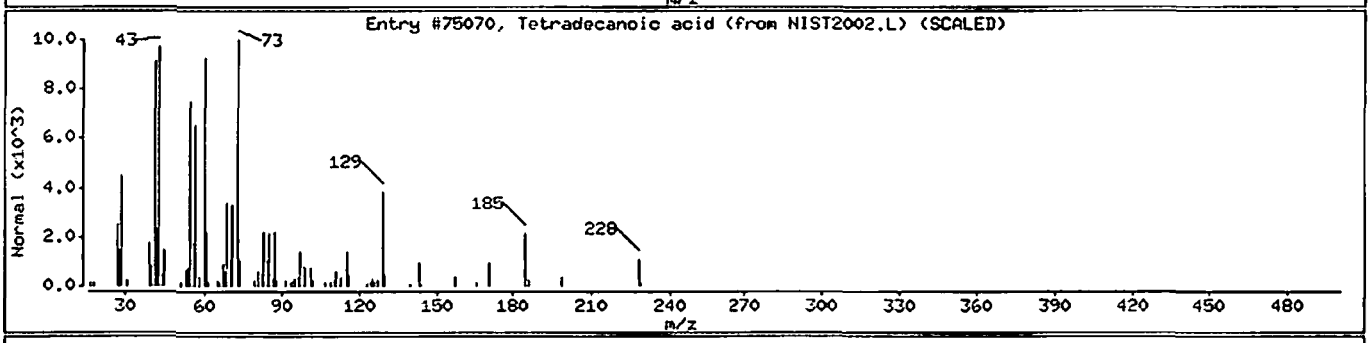
Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetradecanoic acid	544-63-8	NIST2002.L	75070	95	C14H28O2	228





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

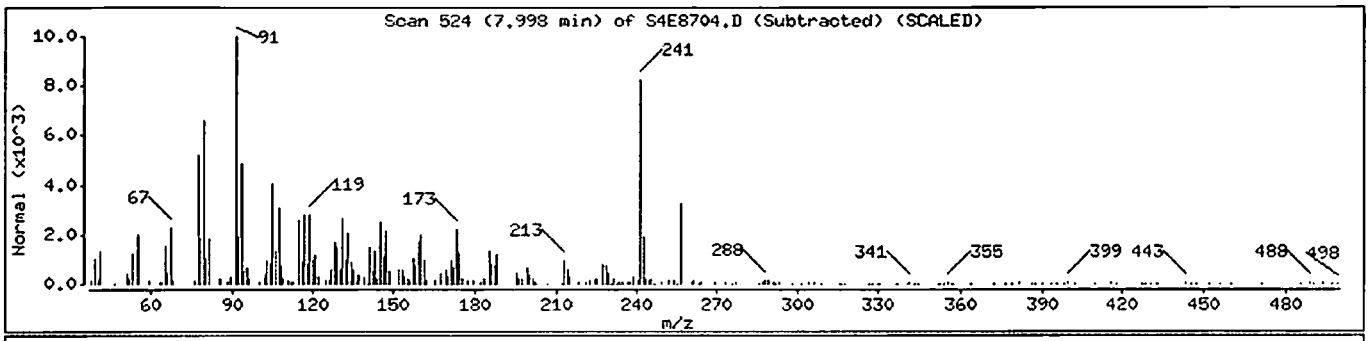
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

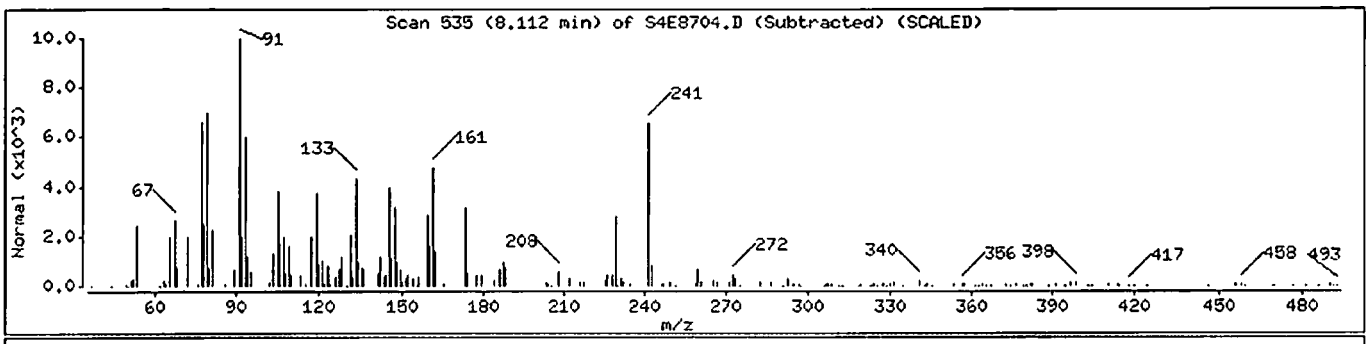
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

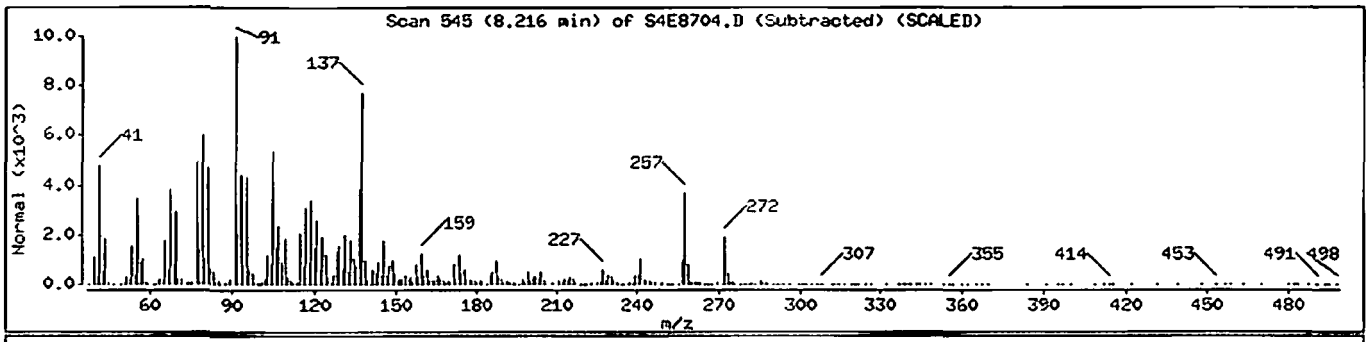
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: HHS SRC: LIHS

Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 18:19

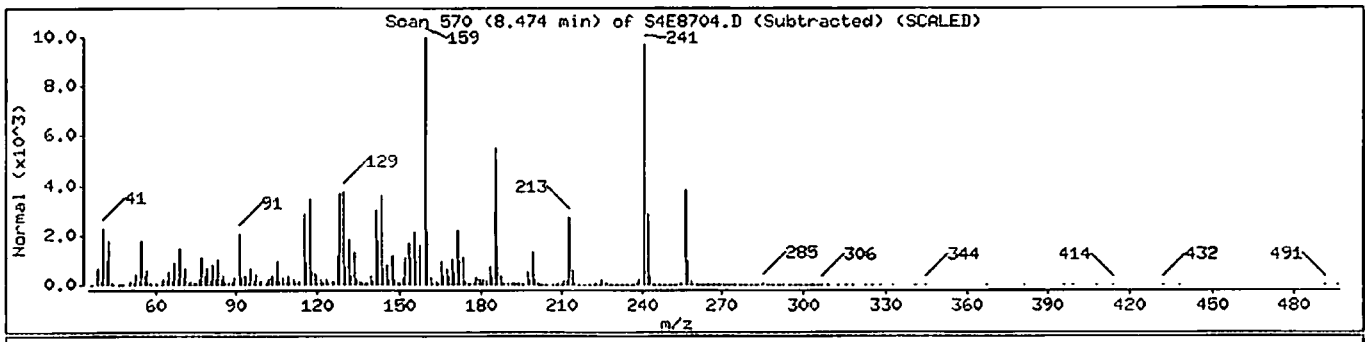
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

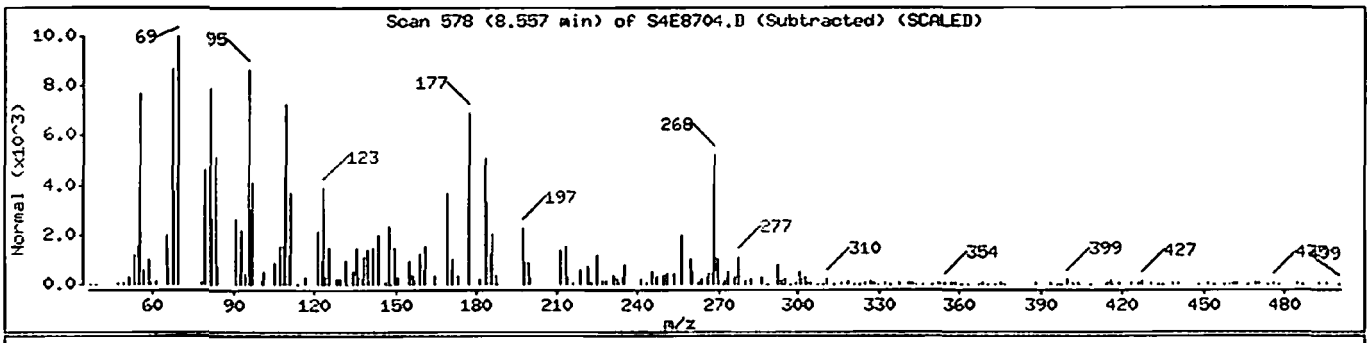
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

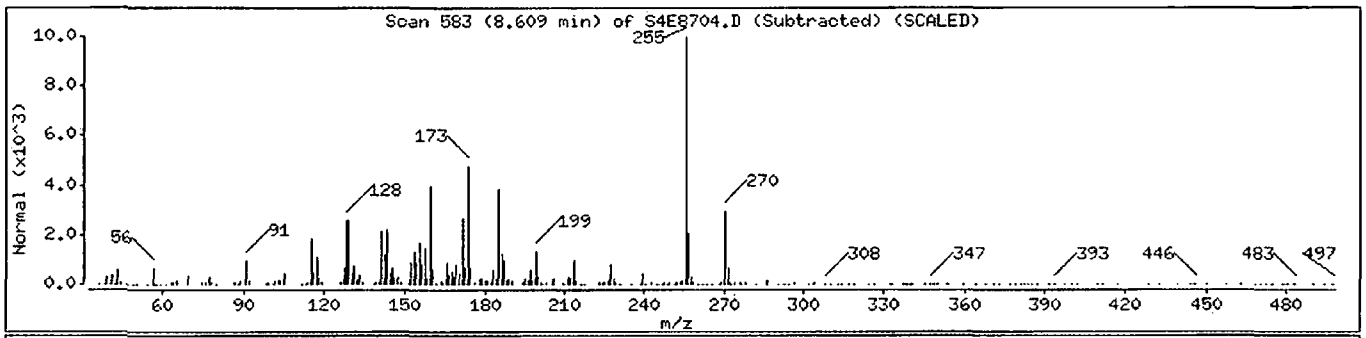
Client ID: H30R7 Instrument: S4.i

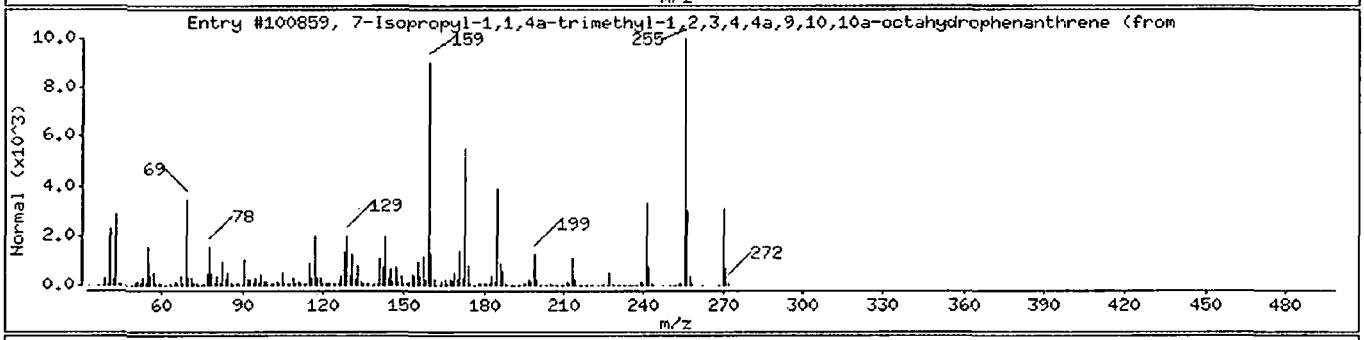
Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
7-Isopropyl-1,1,4a-trimethyl-1,2,3,4,4a,	1000210-28-9	NIST2002.L	100859	89	C20H30	270





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

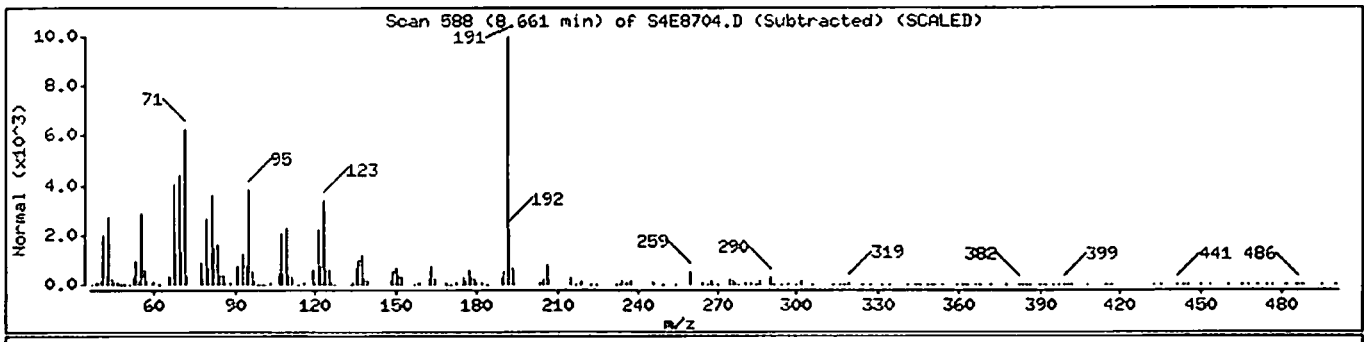
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: HHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

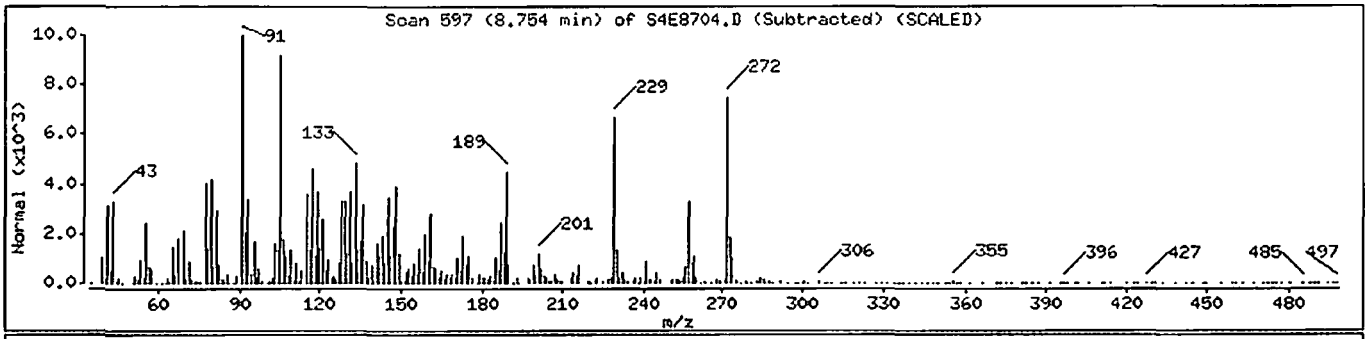
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

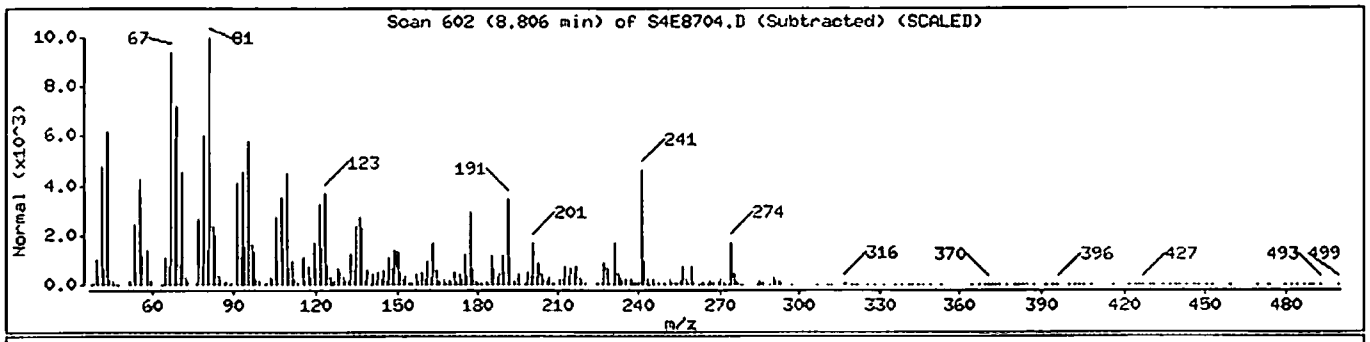
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

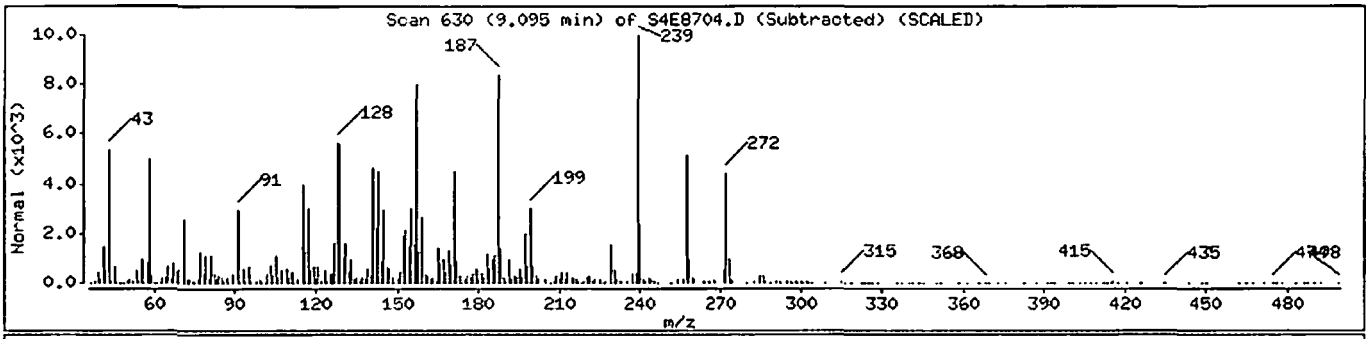
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

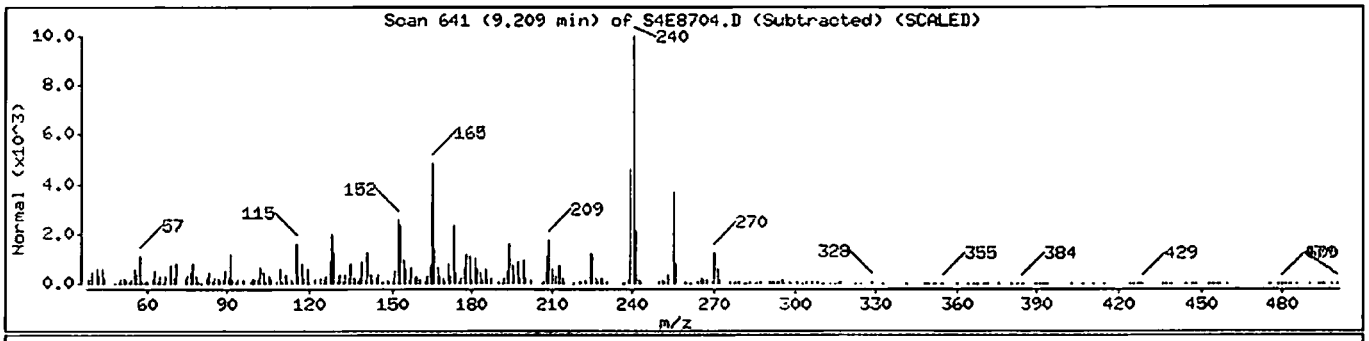
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

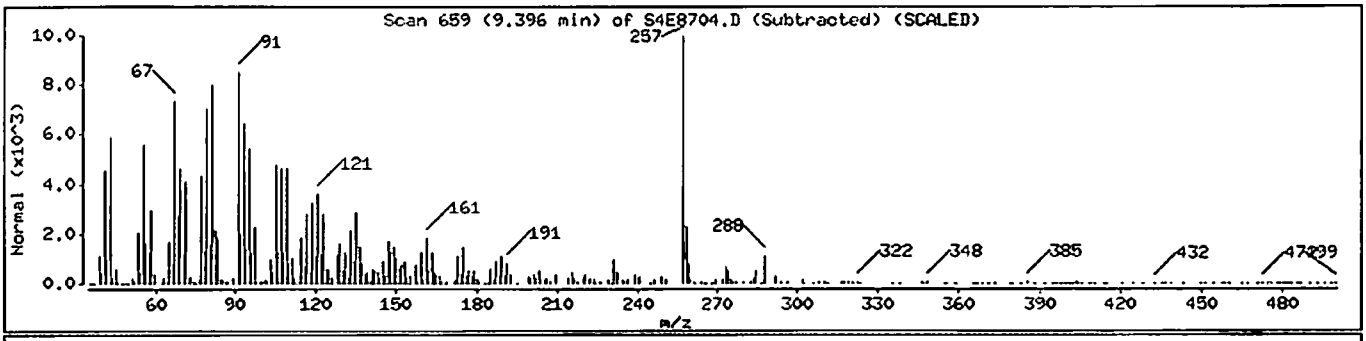
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

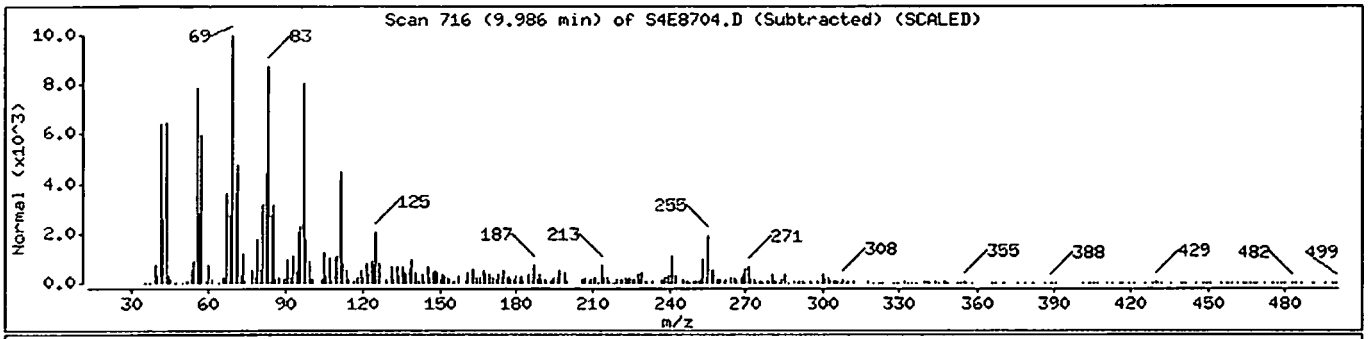
Client ID: H30R7 Instrument: S4.i

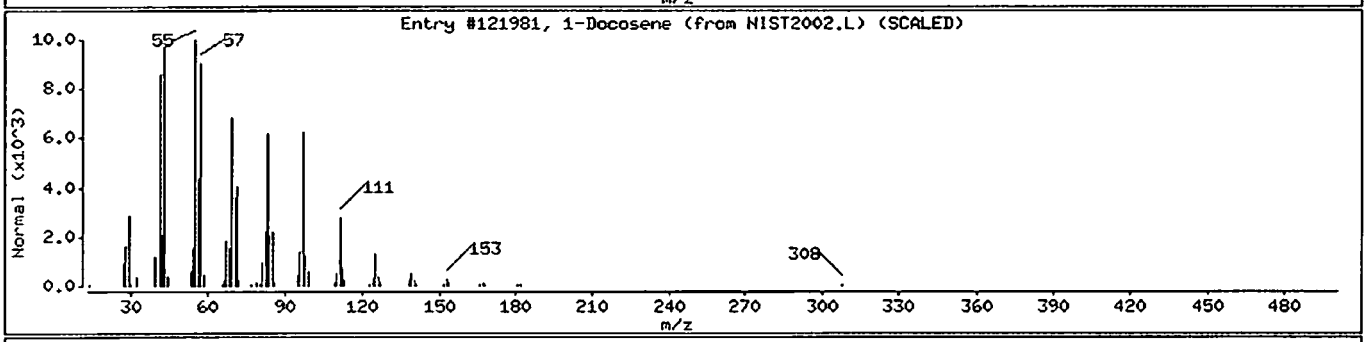
Sample Info: K2199-10A,,62801,,

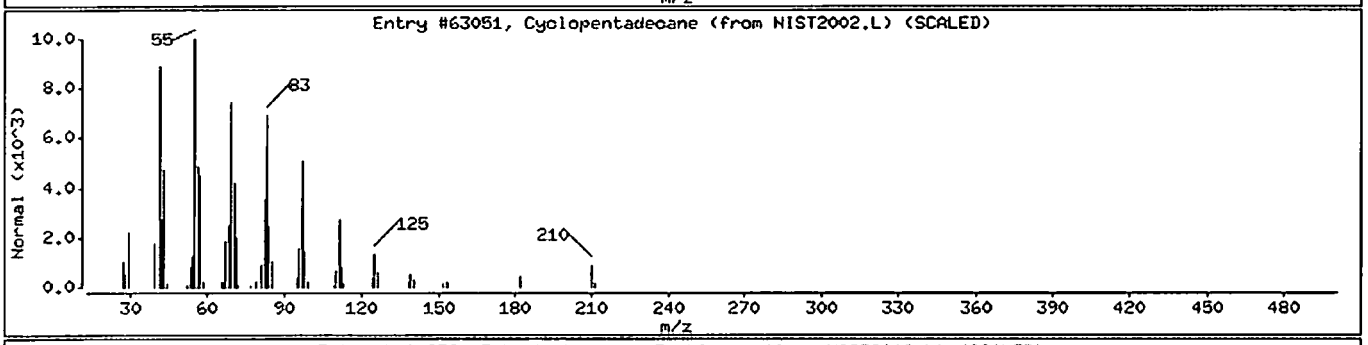
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

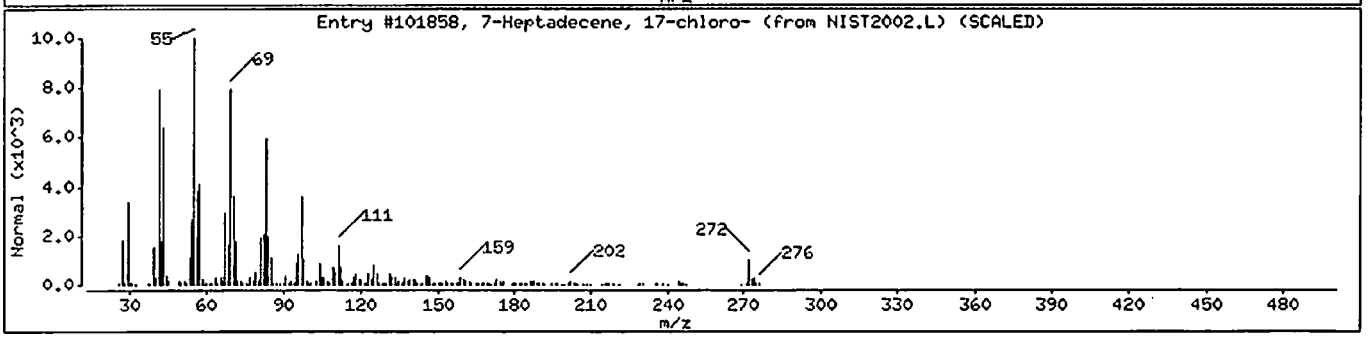
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Docosene	1599-67-3	NIST2002.L	121981	93	C22H44	308
Cyclopentadecane	295-48-7	NIST2002.L	63051	91	C15H30	210
7-Heptadecene, 17-chloro-	56554-79-1	NIST2002.L	101858	90	C17H33Cl	272









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

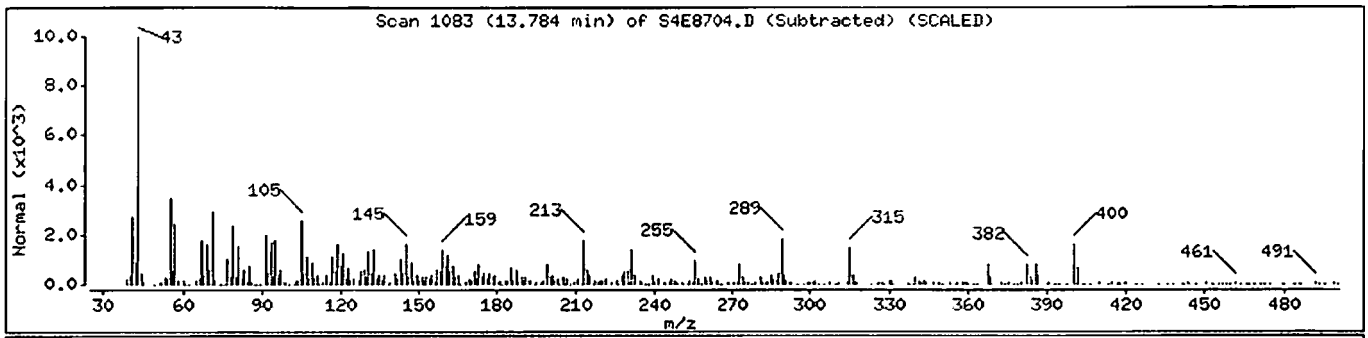
Client ID: H30R7 Instrument: S4.i

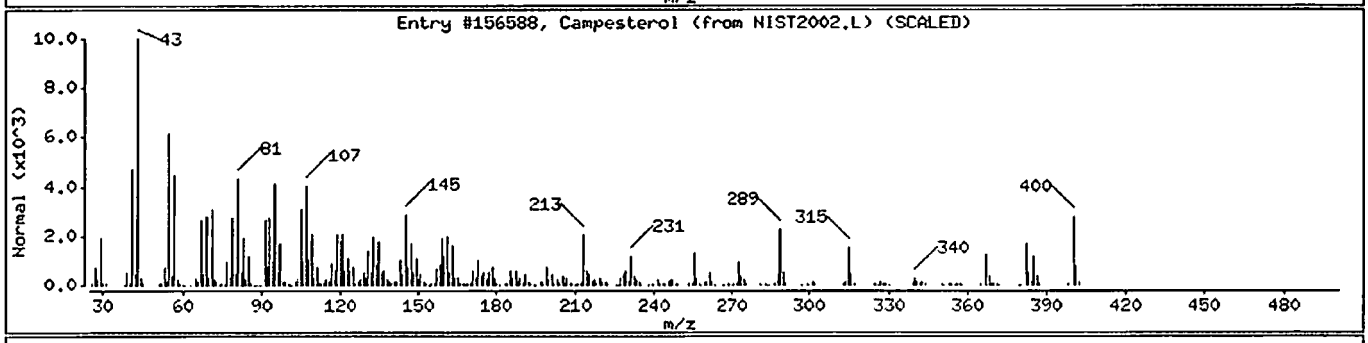
Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Campesterol	474-62-4	NIST2002.L	156588	93	C28H48O	400





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

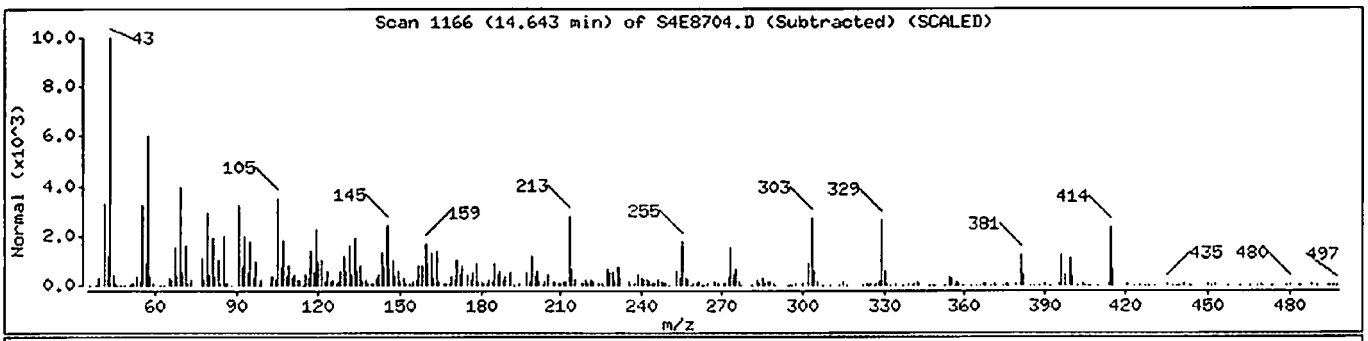
Client ID: H30R7 Instrument: S4.i

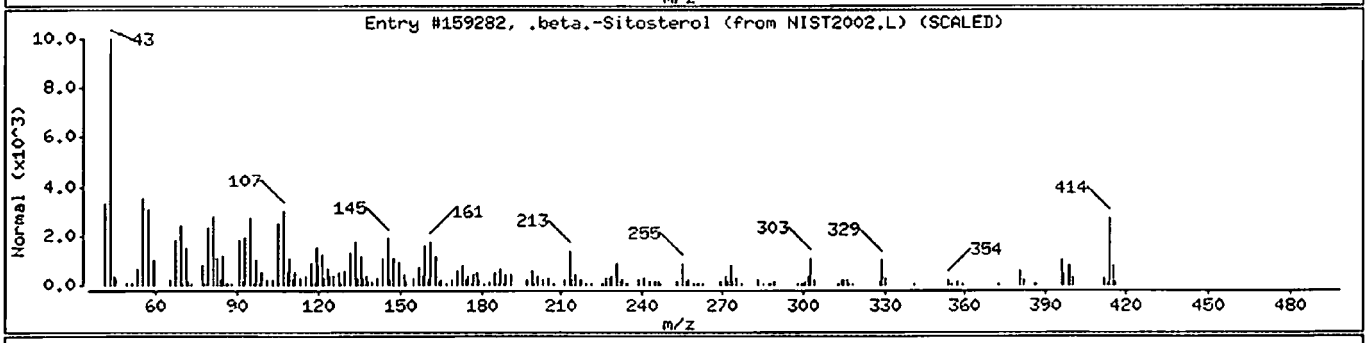
Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST2002.L	159282	89	C29H50O	414





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8704.D

Date : 14-NOV-2011 15:19

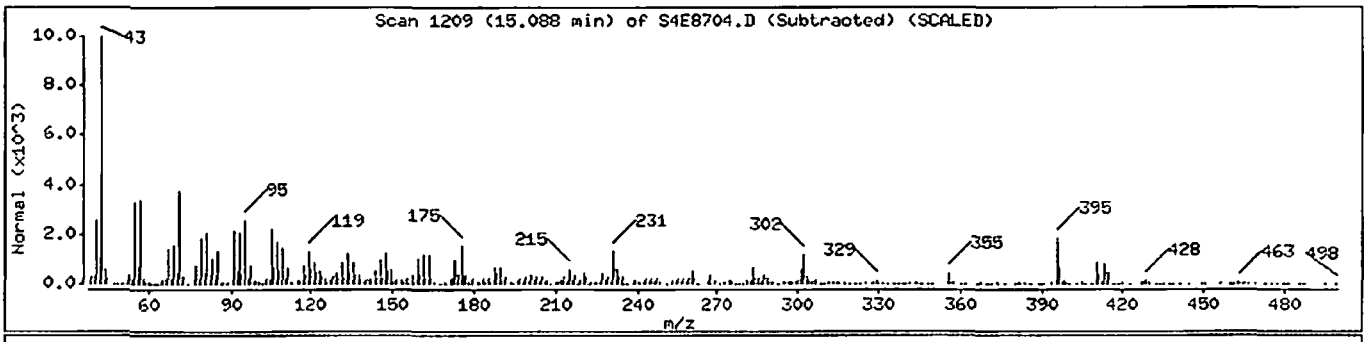
Client ID: H30R7 Instrument: S4.i

Sample Info: K2199-10A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-11A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4E8683.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 65 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	480	U
108-95-2	Phenol	480	U
111-44-4	Bis(2-chloroethyl)ether	480	U
95-57-8	2-Chlorophenol	480	U
95-48-7	2-Methylphenol	480	U
108-60-1	2,2'-Oxybis(1-chloropropane)	480	U
98-86-2	Acetophenone	480	U
106-44-5	4-Methylphenol	410	J
621-64-7	N-Nitroso-di-n-propylamine	480	U
67-72-1	Hexachloroethane	480	U
98-95-3	Nitrobenzene	480	U
78-59-1	Isophorone	480	U
88-75-5	2-Nitrophenol	480	U
105-67-9	2,4-Dimethylphenol	480	U
111-91-1	Bis(2-chloroethoxy)methane	480	U
120-83-2	2,4-Dichlorophenol	480	U
91-20-3	Naphthalene	480	U
106-47-8	4-Chloroaniline	480	U
87-68-3	Hexachlorobutadiene	480	U
105-60-2	Caprolactam	480	U
59-50-7	4-Chloro-3-methylphenol	480	U
91-57-6	2-Methylnaphthalene	480	U
77-47-4	Hexachlorocyclopentadiene	480	U
88-06-2	2,4,6-Trichlorophenol	480	U
95-95-4	2,4,5-Trichlorophenol	480	U
92-52-4	1,1'-Biphenyl	480	U
91-58-7	2-Chloronaphthalene	480	U
88-74-4	2-Nitroaniline	940	U
131-11-3	Dimethylphthalate	480	U
606-20-2	2,6-Dinitrotoluene	480	U
208-96-8	Acenaphthylene	480	U
99-09-2	3-Nitroaniline	940	U
83-32-9	Acenaphthene	480	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30R8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-11A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4E8683.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 65 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	940	U
100-02-7	4-Nitrophenol	940	U
132-64-9	Dibenzofuran	480	U
121-14-2	2,4-Dinitrotoluene	480	U
84-66-2	Diethylphthalate	480	U
86-73-7	Fluorene	480	U
7005-72-3	4-Chlorophenyl-phenylether	480	U
100-01-6	4-Nitroaniline	940	U
534-52-1	4,6-Dinitro-2-methylphenol	940	U
86-30-6	N-Nitrosodiphenylamine (1)	480	U
95-94-3	1,2,4,5-Tetrachlorobenzene	480	U
101-55-3	4-Bromophenyl-phenylether	480	U
118-74-1	Hexachlorobenzene	480	U
1912-24-9	Atrazine	480	U
87-86-5	Pentachlorophenol	940	U
85-01-8	Phenanthrene	480	U
120-12-7	Anthracene	480	U
86-74-8	Carbazole	480	U
84-74-2	Di-n-butylphthalate	1000	B
206-44-0	Fluoranthene	480	U
129-00-0	Pyrene	480	U
85-68-7	Butylbenzylphthalate	480	U
91-94-1	3,3'-Dichlorobenzidine	480	U
56-55-3	Benzo(a)anthracene	480	U
218-01-9	Chrysene	480	U
117-81-7	Bis(2-ethylhexyl)phthalate	480	U
117-84-0	Di-n-octylphthalate	480	U
205-99-2	Benzo(b)fluoranthene	480	U
207-08-9	Benzo(k)fluoranthene	480	U
50-32-8	Benzo(a)pyrene	480	U
193-39-5	Indeno(1,2,3-cd)pyrene	480	U
53-70-3	Dibenzo(a,h)anthracene	480	U
191-24-2	Benzo(g,h,i)perylene	480	U
58-90-2	2,3,4,6-Tetrachlorophenol	480	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30R8

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-11A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S4E8683.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 65 Decanted: (Y/N) N Date Received: 10/29/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.896	220	J
02		Unknown-02	3.010	620	J
03	68998-21-0	Cyclopropane, 1,1-dimethyl-2	3.330	1200	NJ
04	99-87-6	Benzene, 1-methyl-4-(1-methy	3.413	29000	NJ
05		Unknown-03	3.910	250	J
06		Unknown-04	4.107	550	J
07		Unknown-05	4.169	210	J
08		Unknown-06	4.334	360	J
09		Unknown-07	5.390	770	J
10	483-76-1	Naphthalene, 1,2,3,5,6,8a-he	5.494	460	NJ
11		Unknown-08	5.545	550	J
12		Unknown-09	5.607	190	J
13	475-20-7	1,4-Methanoazulene, decahydr	5.742	8400	NJ
14	483-75-0	Naphthalene, 1,2,4a,5,6,8a-h	6.001	990	NJ
15	73105-67-6	1-Iodo-2-methylundecane	6.963	2200	NJ
16		Unknown-10	7.129	1100	J
17		Unknown-11	7.408	2500	J
18		Unknown-12	8.257	24000	J
19		Unknown-13	8.464	18000	J
20		Unknown-14	8.785	12000	J
21		Unknown-15	8.826	17000	J
22		Unknown-16	11.973	14000	J
23	474-62-4	Campesterol	13.815	32000	NJ
24	1000214-20-7	Stigmasterol, 22,23-dihydro-	14.705	140000	NJ
25		Unknown-17	15.130	66000	J
26		Unknown-18	15.740	47000	J
	E966796[2]	Total Alkanes	N/A	170000	J

[2] EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D
Report Date: 14-Nov-2011 13:32

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111113.B\S4E8683.D
Lab Smp Id: K2199-11A Client Smp ID: H30R8
Inj Date : 13-NOV-2011 18:00
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-11A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111113.B\S4_SOM.m
Meth Date : 14-Nov-2011 13:30 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.300	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 2 Phenol-d5	71	3.071	3.030	(0.911)	67466	47.8847	790
$ 4 bis(2-Chloroethyl)ether-d8	67	3.102	3.081	(0.920)	42888	40.9248	680(Q)
$ 6 2-Chlorophenol-d4	132	3.206	3.185	(0.951)	66755	40.3752	670(Q)
* 8 1,4-Dichlorobenzene-d4	152	3.371	3.340	(1.000)	52392	40.0000	(Q)
$ 11 4-Methylphenol-d8	113	3.630	3.588	(1.077)	66658	44.6754	740
12 4-Methylphenol	108	3.651	3.609	(1.083)	13208	8.63396	140(a)
$ 16 Nitrobenzene-d5	128	3.765	3.775	(0.860)	1922	2.09242	35(aQRH)
$ 19 2-Nitrophenol-d4	143	4.075	4.044	(0.931)	46419	39.6470	650(H)
$ 23 2,4-Dichlorophenol-d3	165	4.292	4.251	(0.981)	99031	45.1399	740
* 25 Naphthalene-d8	136	4.437	4.406	(1.000)	219436	40.0000	(H)
$ 27 4-Chloroaniline-d4	131	4.479	4.448	(1.024)	45140	20.8545	340(QH)
$ 40 Dimethylphthalate-d6	166	5.783	5.752	(0.949)	328621	42.6034	700
$ 43 Acenaphthylene-d8	160	5.948	5.907	(0.976)	390196	45.6859	750
* 46 Acenaphthene-d10	164	6.093	6.062	(1.000)	195076	40.0000	
$ 49 4-Nitrophenol-d4	143	6.218	6.155	(1.020)	97386	67.0628	1100(Q)
$ 54 Fluorene-d10	176	6.601	6.559	(1.083)	274084	39.8546	660
$ 58 4,6-Dinitro-2-methylphenol-d2	200	6.663	6.621	(0.882)	54233	42.6015	700(Q)
* 65 Phenanthrene-d10	188	7.553	7.511	(1.000)	317369	40.0000	
$ 67 Anthracene-d10	188	7.605	7.563	(1.007)	388179	44.5348	730(H)

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D
Report Date: 14-Nov-2011 13:32

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
70 Di-n-butylphthalate	149	8.101	8.049	(1.073)	193693	21.0027	350(Q)
$ 72 Pyrene-d10	212	8.971	8.908	(0.888)	451113	37.3878	620(R)
* 77 Chrysene-d12	240	10.182	10.099	(1.000)	619042	40.0000	(QH)
$ 83 Benzo(a)pyrene-d12	264	11.807	11.662	(1.000)	376483	35.4432	580
* 85 Perylene-d12	264	11.921	11.775	(1.000)	479366	40.0000	(H)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D
Report Date: 14-Nov-2011 13:32

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111113.B\S4E8683.D
Lab Smp Id: K2199-11A Client Smp ID: H30R8
Inj Date : 13-NOV-2011 18:00
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-11A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111113.B\S4_SOM.m
Meth Date : 14-Nov-2011 13:30 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.300	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	3.372	481887	40.000
* 46 Acenaphthene-d10	6.094	2303134	40.000
* 65 Phenanthrene-d10	7.553	940384	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.396	55163	4.57894859	76	0		0	8
Unknown				CAS #:			
3.010	156722	13.0089976	210	0		0	8
Cyclopropane, 1,1-dimethyl-2-(3-methyl-1				CAS #: 68998-21-0			
3.330	310695	25.7898591	430	87	NIST2002.L	15361	8

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D
Report Date: 14-Nov-2011 13:32

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Benzene, 1-methyl-4-(1-methylethyl)-					CAS #: 99-87-6		
3.413	7397922	614.079017	10000	96	NIST2002.L	14399	8
Unknown					CAS #:		
3.910	62356	5.17596967	85	0		0	8
Unknown					CAS #:		
4.107	139197	11.5543322	190	0		0	8
Unknown					CAS #:		
4.169	53445	4.43631715	73	0		0	8
Unknown					CAS #:		
4.334	91221	7.57199228	120	0		0	8
Unknown					CAS #:		
5.390	938650	16.3021389	270	0		0	46
Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-					CAS #: 483-76-1		
5.494	563099	9.77969238	160	91	NIST2002.L	58816	46
Unknown					CAS #:		
5.545	664787	11.5457750	190	0		0	46
Unknown					CAS #:		
5.607	235222	4.08524639	67	0		0	46
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
5.742	10143095	176.161611	2900	97	NIST2002.L	58865	46
Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7					CAS #: 483-75-0		
6.001	1207608	20.9732949	350	95	NIST2002.L	58790	46
Straight-chain Alkane					CAS #:		
6.498	518288	9.00144646	150	0		0	46
1-Iodo-2-methylundecane					CAS #: 73105-67-6		
6.963	1095951	46.6171142	770	91	NIST2002.L	114973	65
Unknown					CAS #:		
7.129	524425	22.3068054	370	0		0	65
Unknown					CAS #:		
7.408	1232399	52.4210613	870	0		0	65
Unknown					CAS #:		
8.257	11746628	499.651938	8200	0		0	65
Unknown					CAS #:		
8.464	9004446	383.011090	6300	0		0	65
Unknown					CAS #:		
8.785	5791235	246.334691	4100	0		0	65

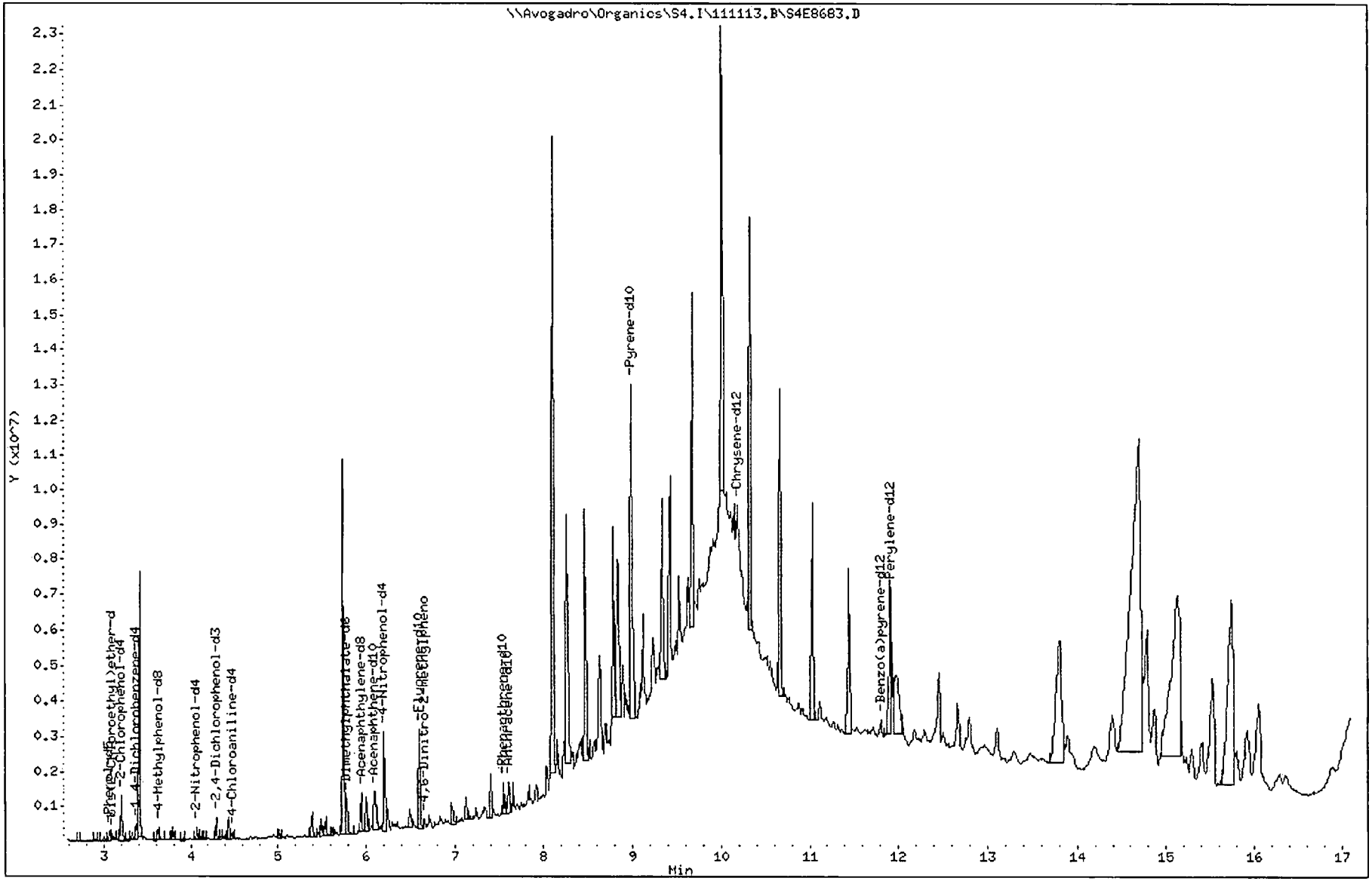
Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D
Report Date: 14-Nov-2011 13:32

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
8.826	8343039	354.877621	5900	0		0	65
Branched Alkane				CAS #:			
9.334	7178111	305.326518	5000	0		0	65
Straight-chain Alkane				CAS #:			
9.675	10887131	463.092559	7600	0		0	65
Straight-chain Alkane				CAS #:			
10.006	18263279	776.842731	13000	0		0	65
Straight-chain Alkane				CAS #:			
10.327	13984836	594.855848	9800	0		0	65
Straight-chain Alkane				CAS #:			
10.669	11481167	488.360349	8100	0		0	65
Straight-chain Alkane				CAS #:			
11.031	8225365	349.872296	5800	0		0	65
Straight-chain Alkane				CAS #:			
11.445	6839377	290.918215	4800	0		0	65
Straight-chain Alkane				CAS #:			
11.911	7209152	306.646858	5100	0		0	65
Unknown				CAS #:			
11.973	7030676	299.055242	4900	0		0	65
Campesterol				CAS #: 474-62-4			
13.815	15815912	672.742096	11000	90	NIST2002.L	156589	65
Stigmasterol, 22,23-dihydro-				CAS #: 1000214-20-7			
14.705	69241621	2945.24601	49000	95	NIST2002.L	159291	65
Unknown				CAS #:			
15.130	32766344	1393.74184	23000	0		0	65
Unknown				CAS #:			
15.740	23352021	993.296328	16000	0		0	65

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D
Date : 13-NOV-2011 18:00
Client ID: H30R8
Sample Info: K2199-11A,,62801,,
Volume Injected (uL): 2.0
Column phase: RXI-5SILMS

Instrument: S4.i

Operator: MMS SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

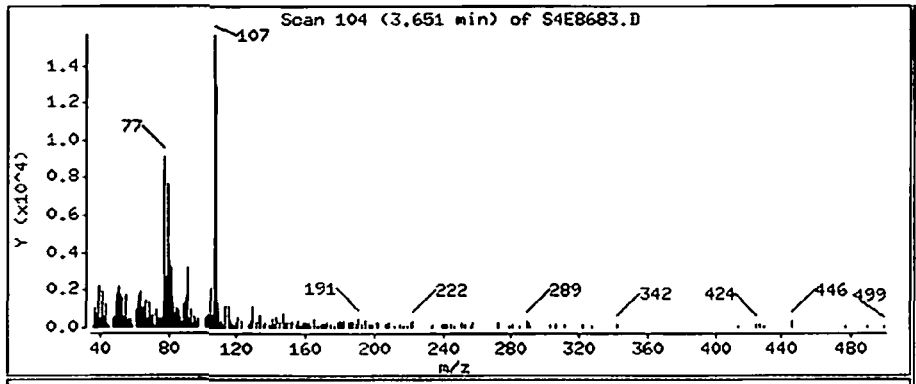
Client ID: H30R8 Instrument: S4.i

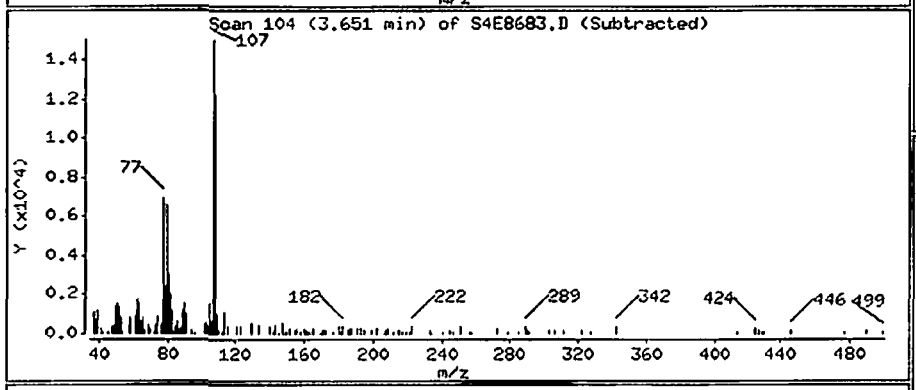
Sample Info: K2199-11A,,62801,,

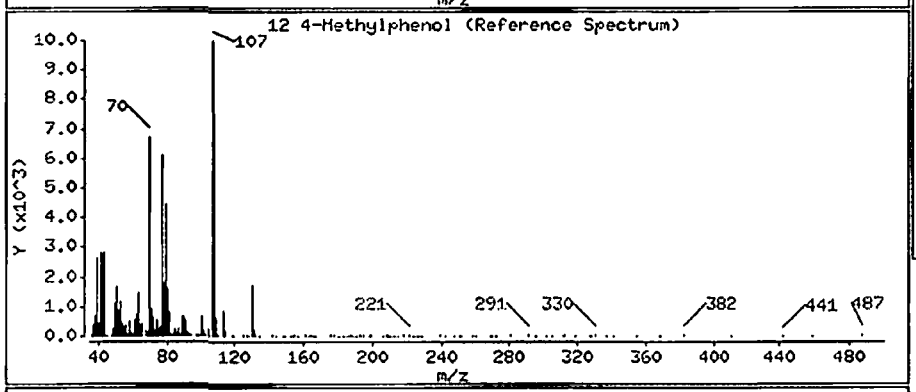
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

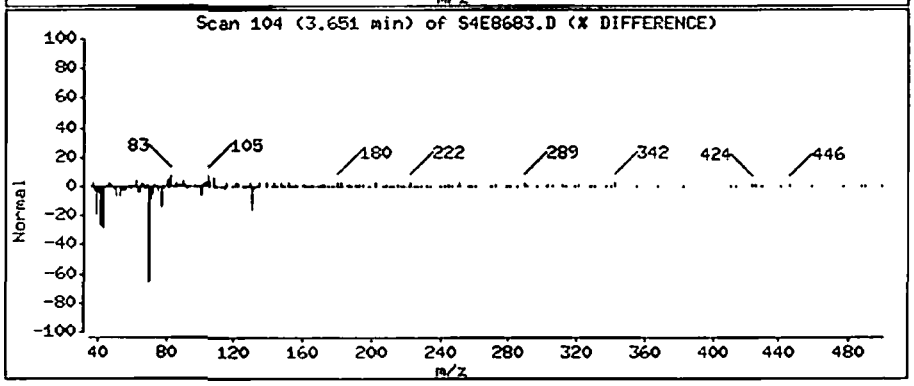
Column phase: RXI-5SILMS Column diameter: 0.25

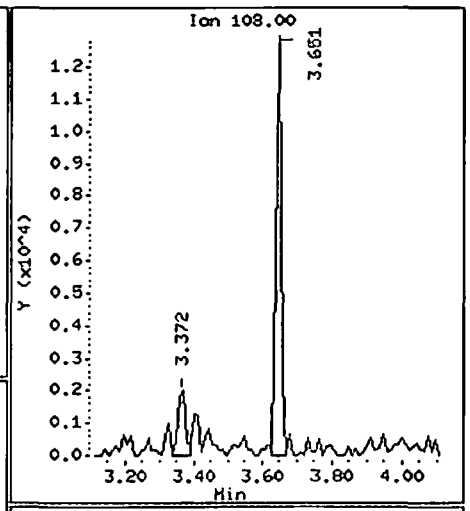
12 4-Methylphenol Concentration: 140 ug/Kg

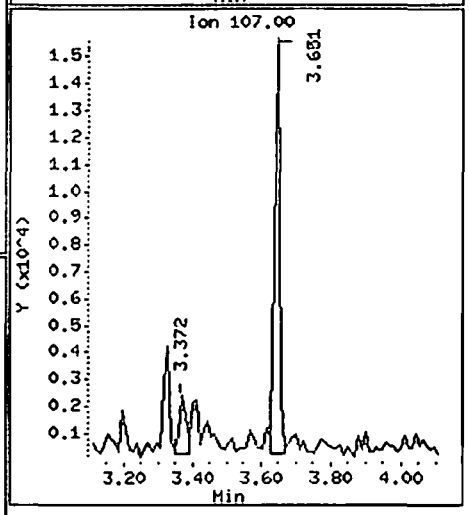












Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

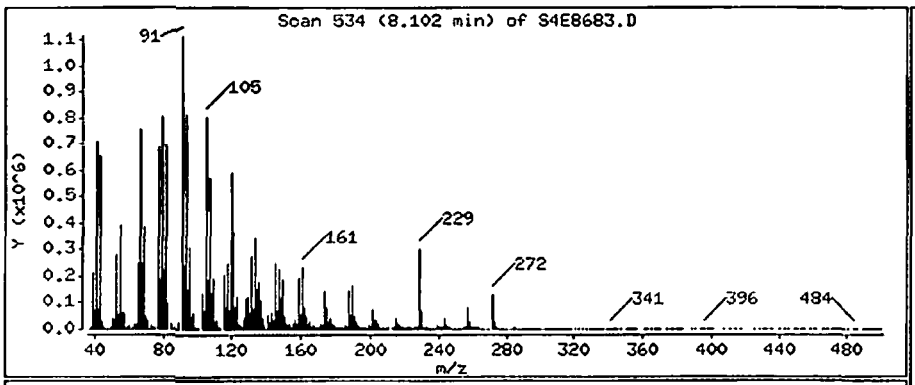
Client ID: H30R8 Instrument: S4.i

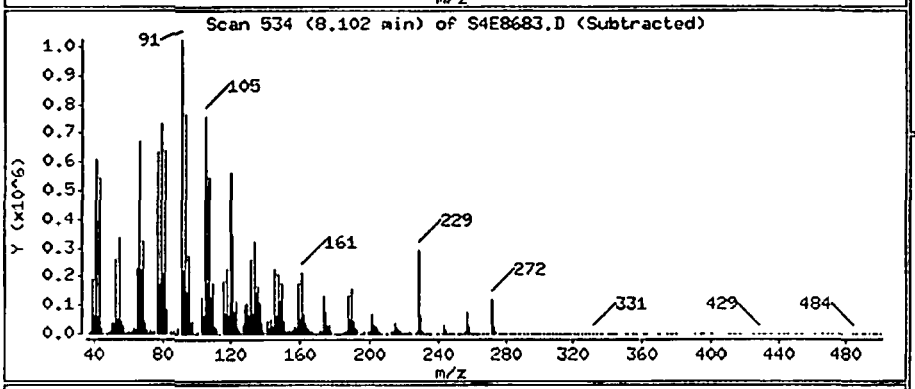
Sample Info: K2199-11A,,62801,,

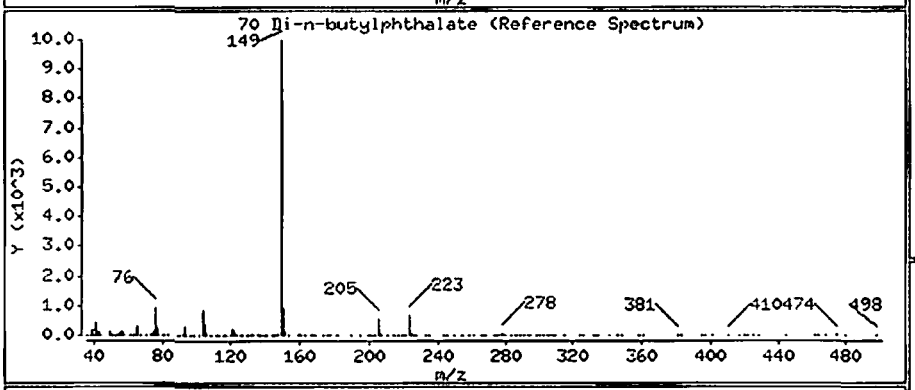
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

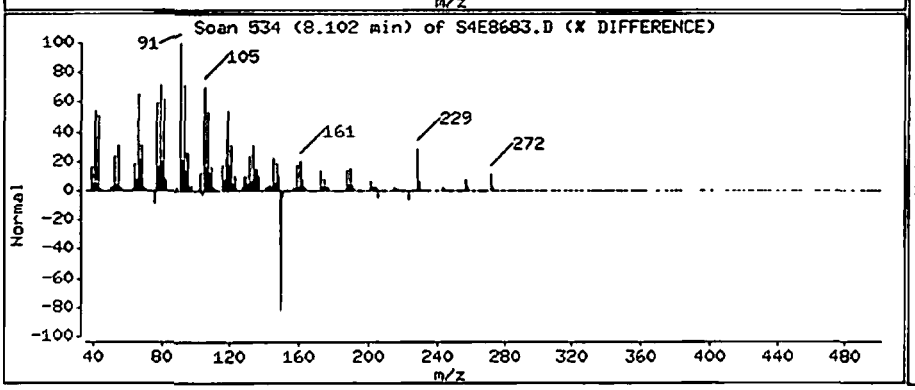
Column phase: RXI-5SILMS Column diameter: 0.25

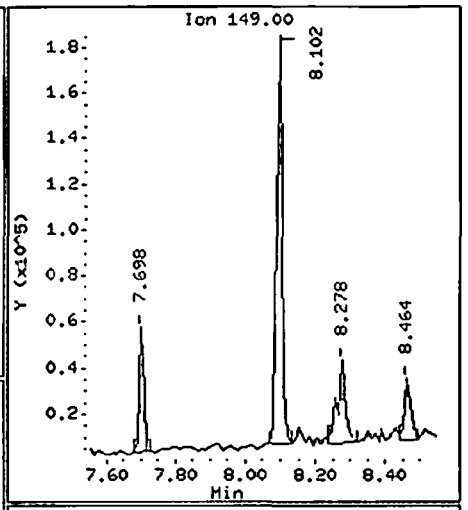
70 Di-n-butylphthalate Concentration: 350 ug/Kg

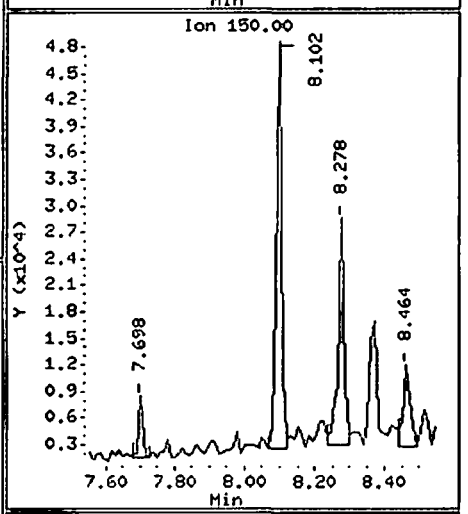


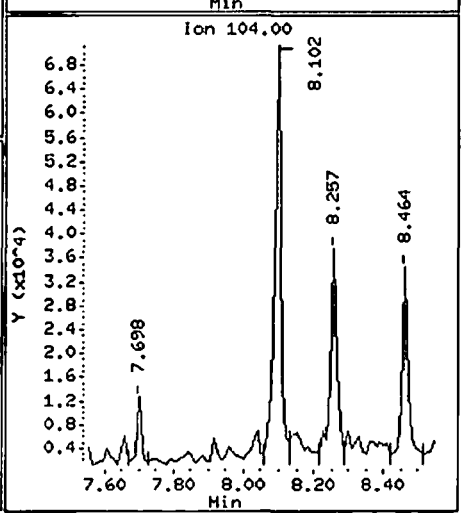












Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

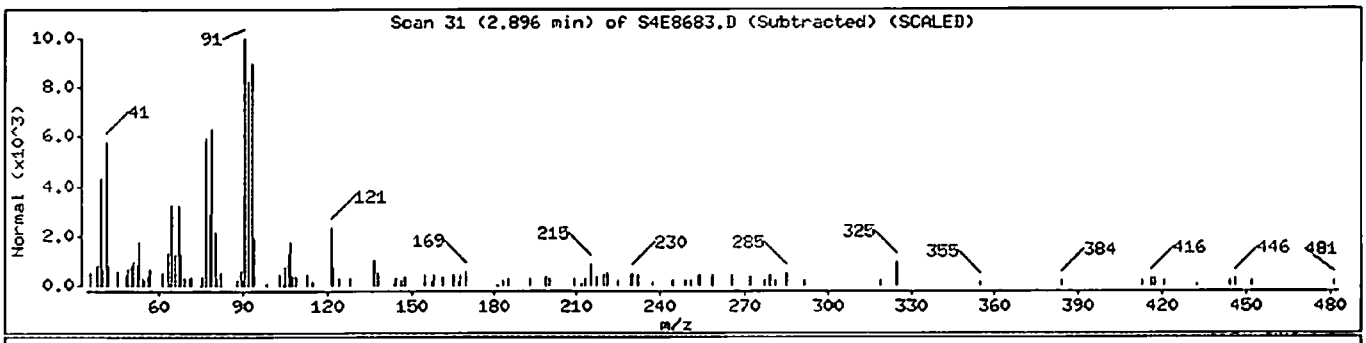
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

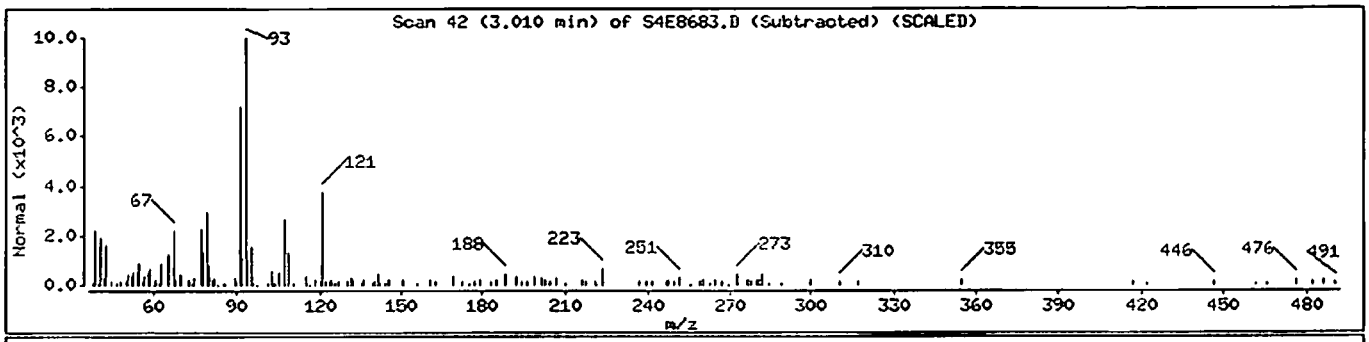
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

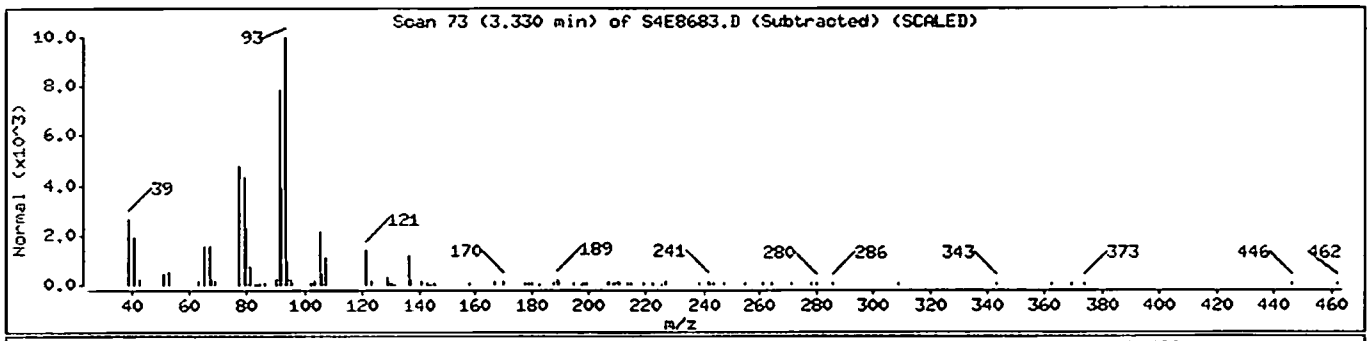
Client ID: H30R8 Instrument: S4.i

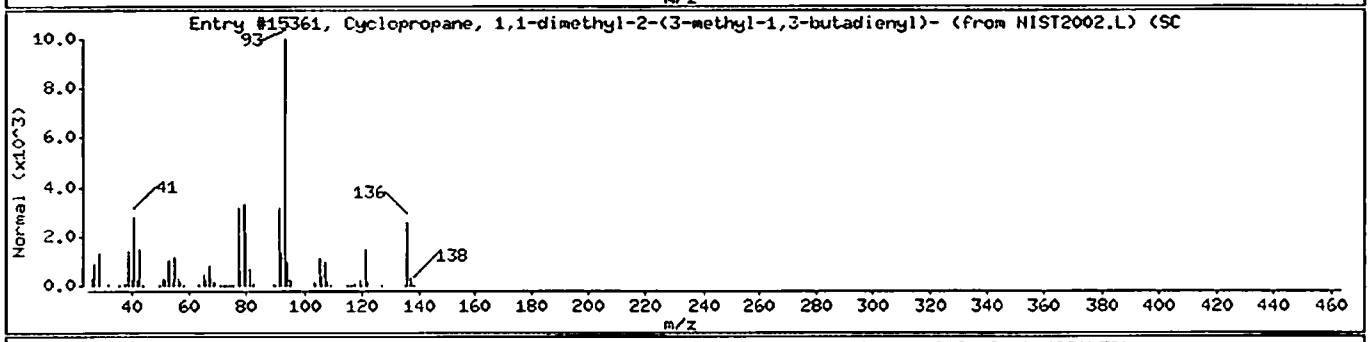
Sample Info: K2199-11A,,62801,,

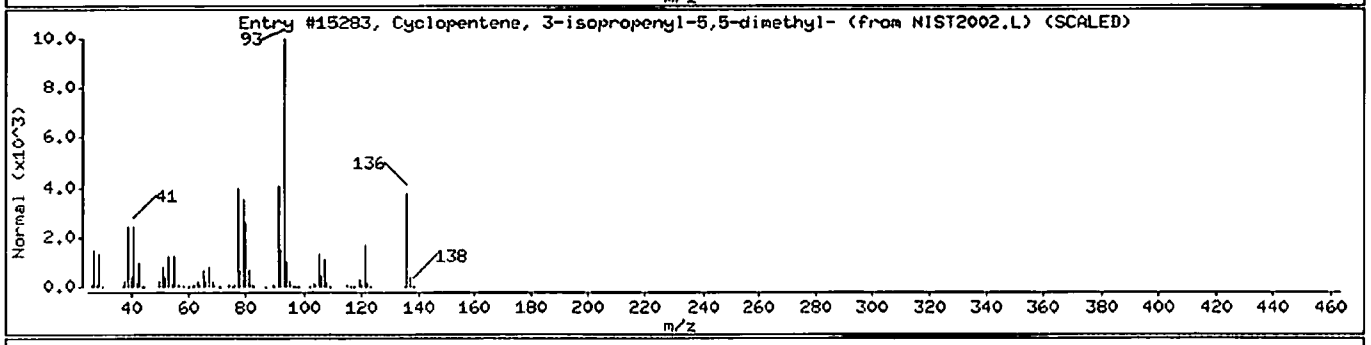
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclopropane, 1,1-dimethyl-2-(3-methyl-1	68998-21-0	NIST2002.L	15361	87	C10H16	136
Cyclopentene, 3-isopropenyl-5,5-dimethyl	1000162-25-4	NIST2002.L	15283	87	C10H16	136







Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

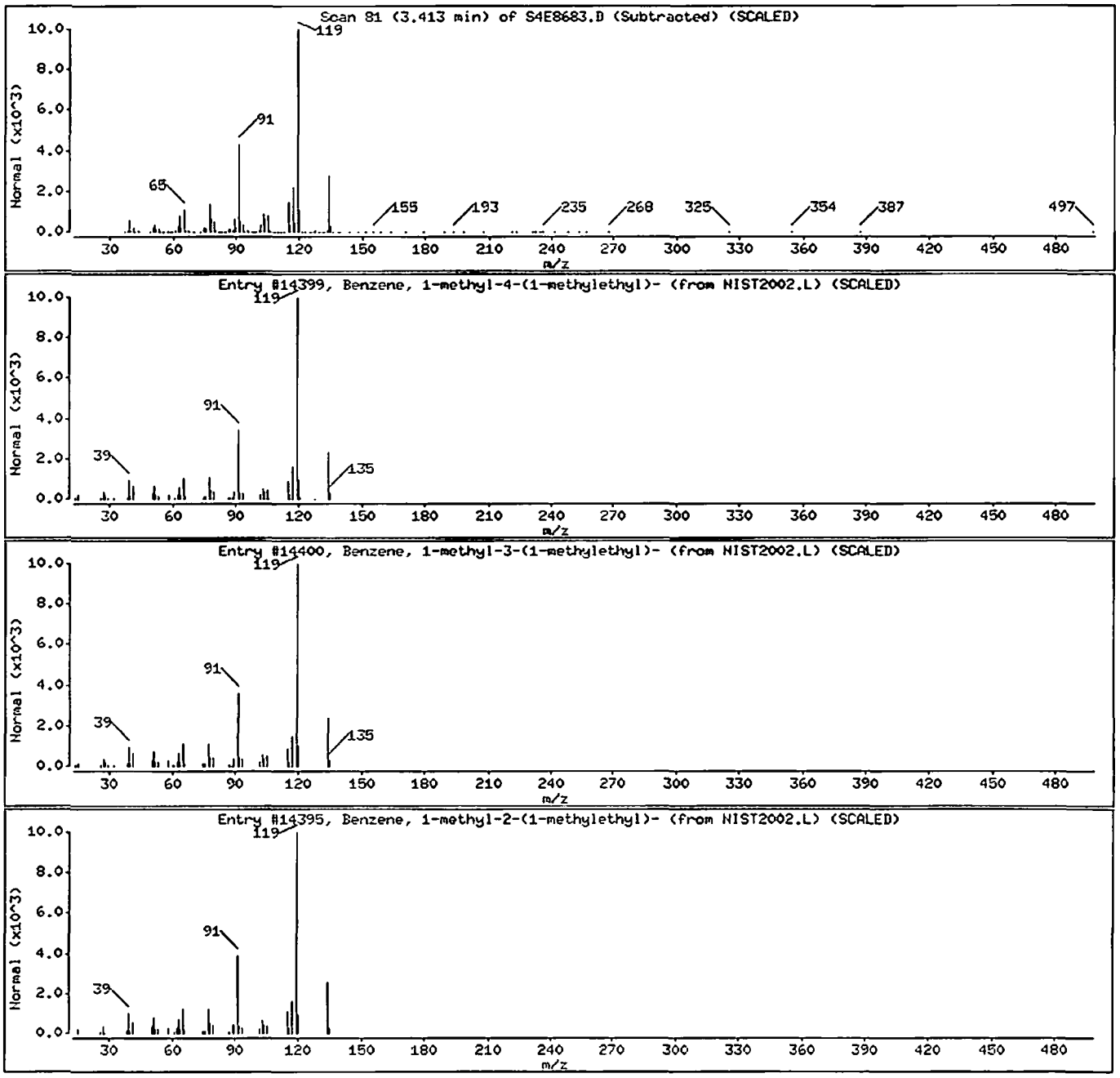
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	96	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	96	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	94	C10H14	134



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

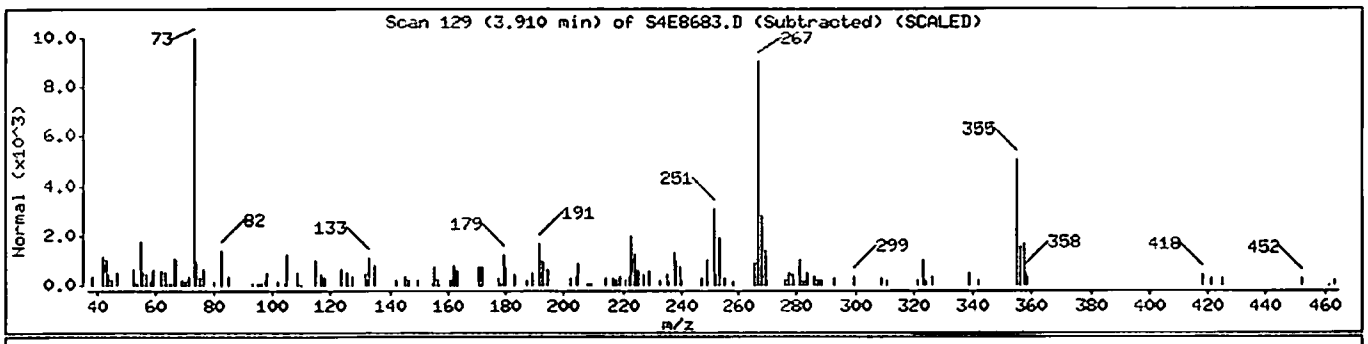
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

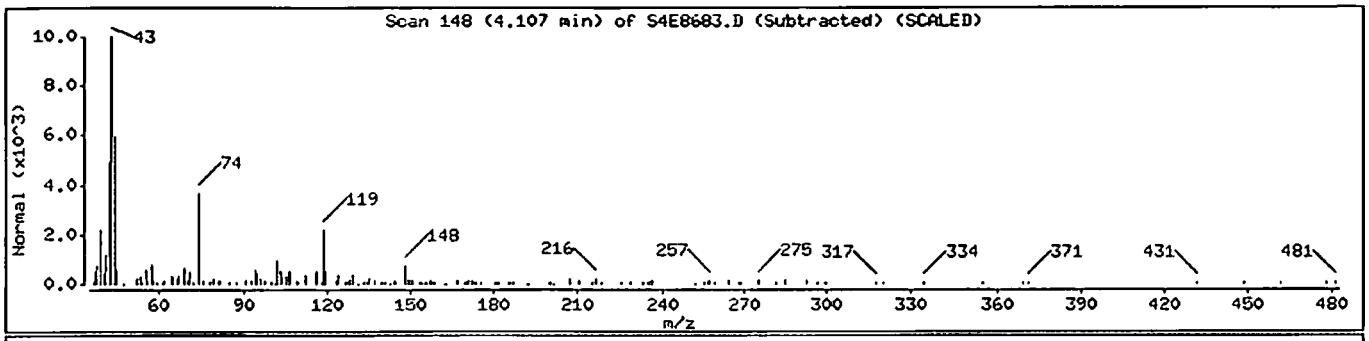
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

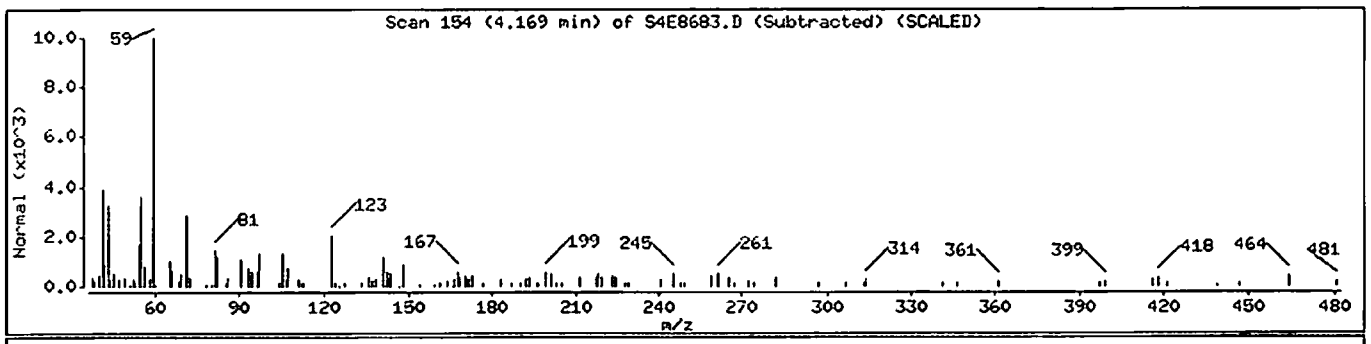
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

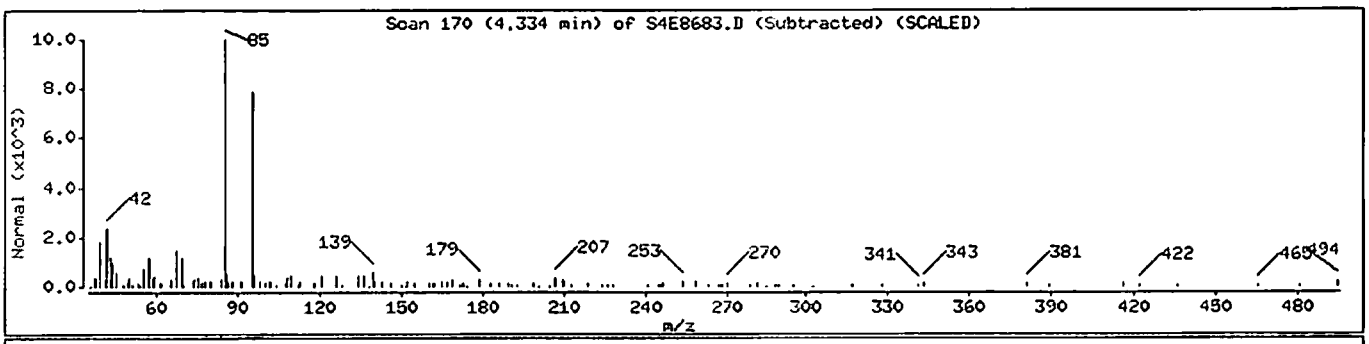
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

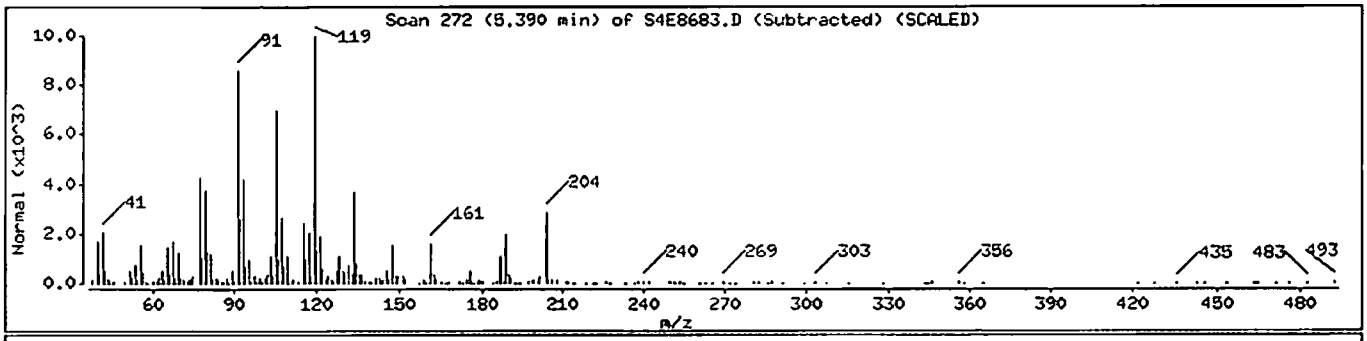
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

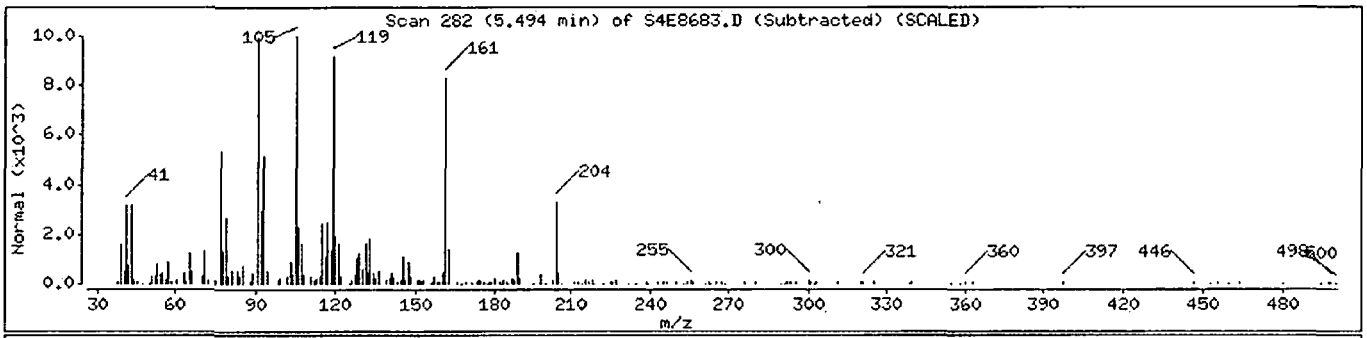
Client ID: H30R8 Instrument: S4.i

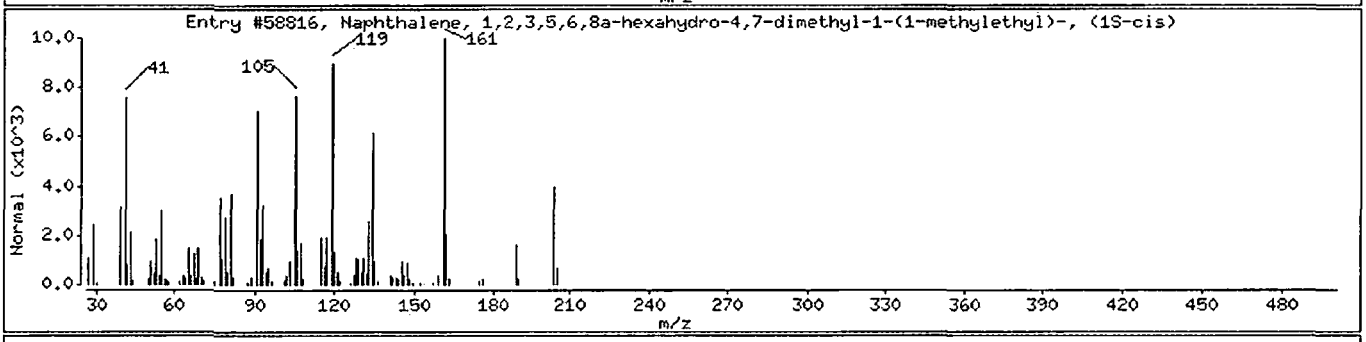
Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-	483-76-1	NIST2002.L	58816	91	C15H24	204





Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

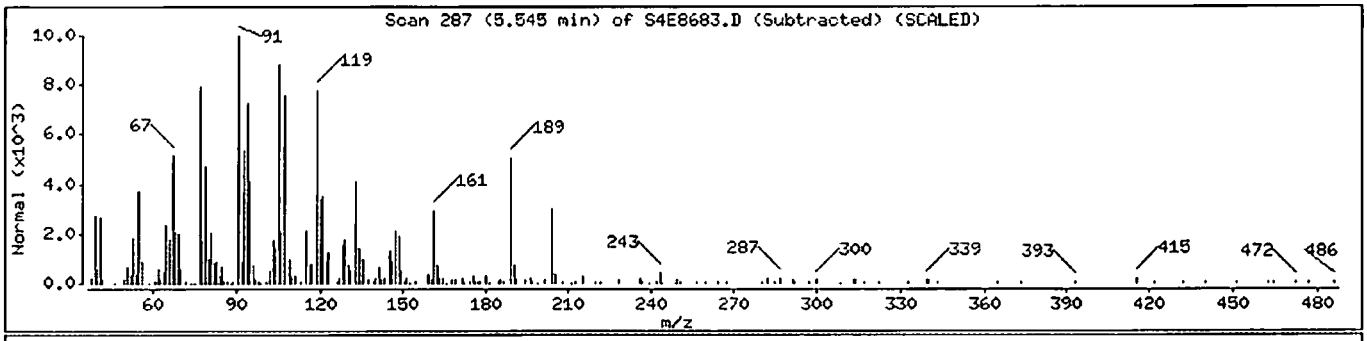
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

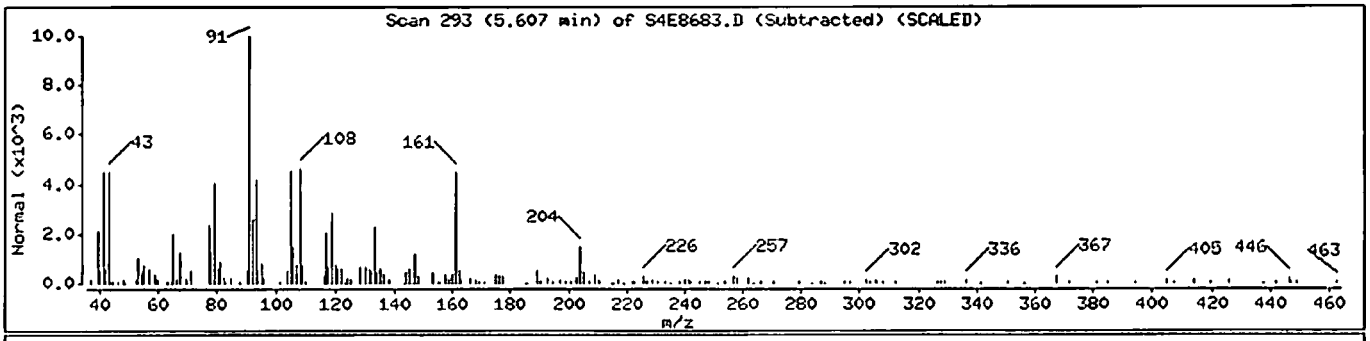
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

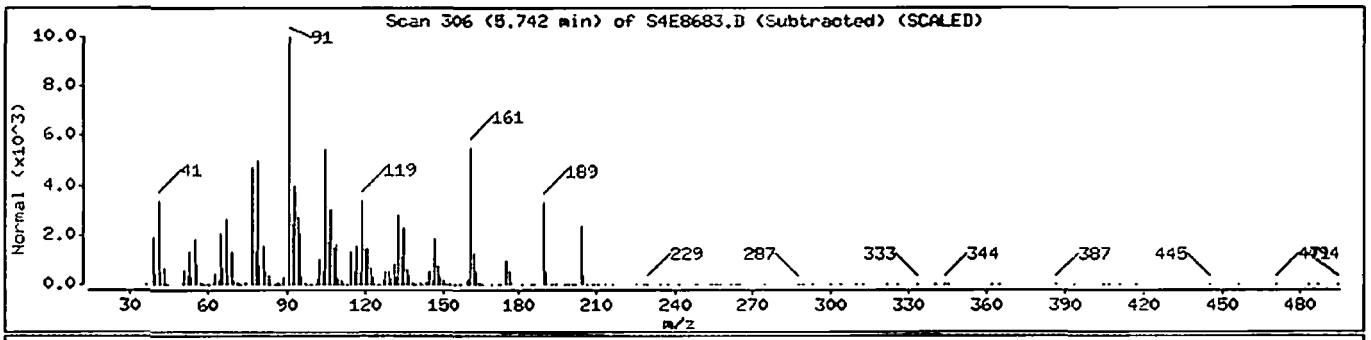
Client ID: H30R8 Instrument: S4.i

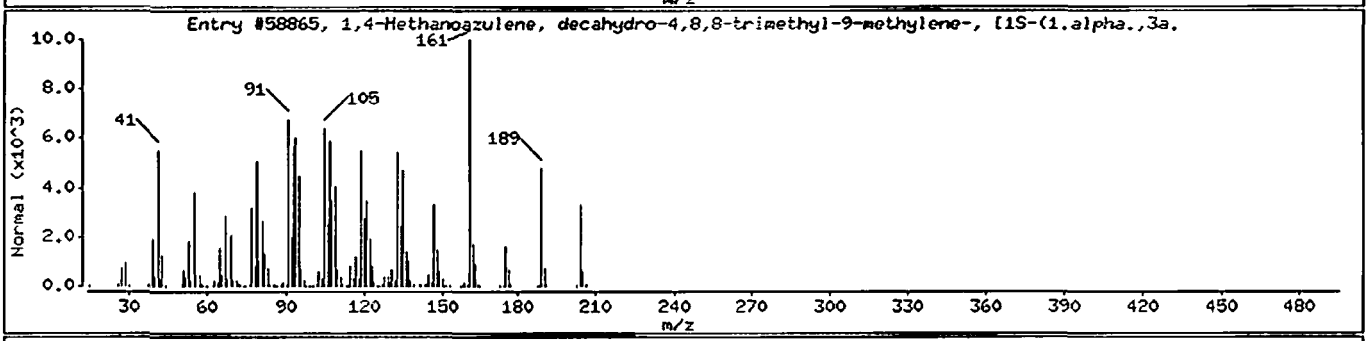
Sample Info: K2199-11A,,62801,,

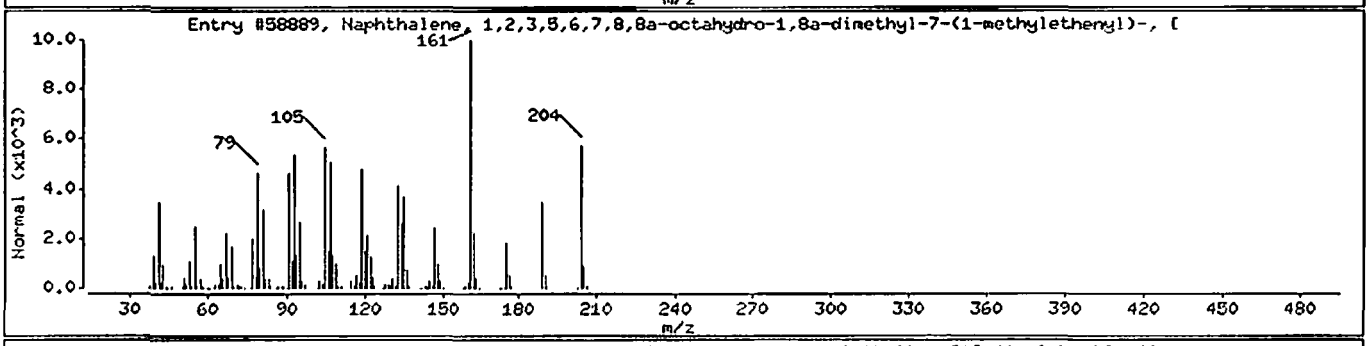
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

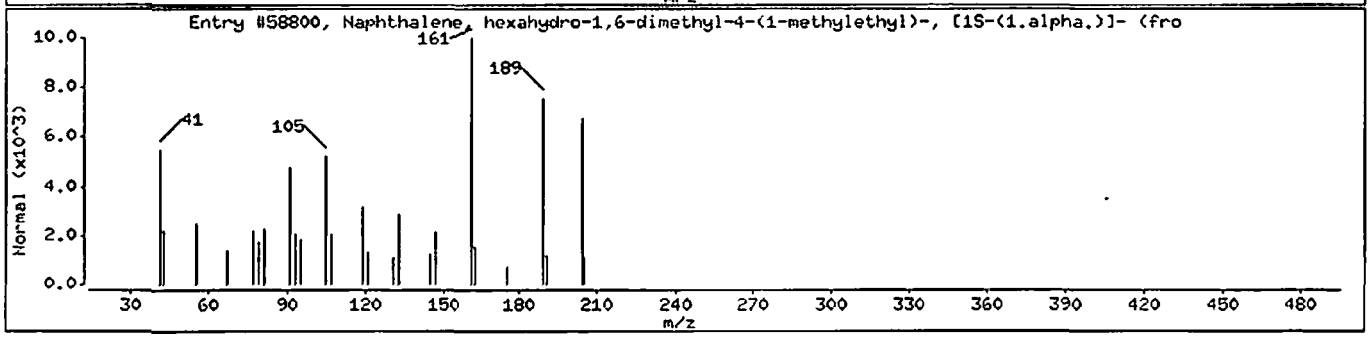
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58865	97	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST2002.L	58889	94	C15H24	204
Naphthalene, hexahydro-1,6-dimethyl-4-(1	29837-12-5	NIST2002.L	58800	93	C15H24	204









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

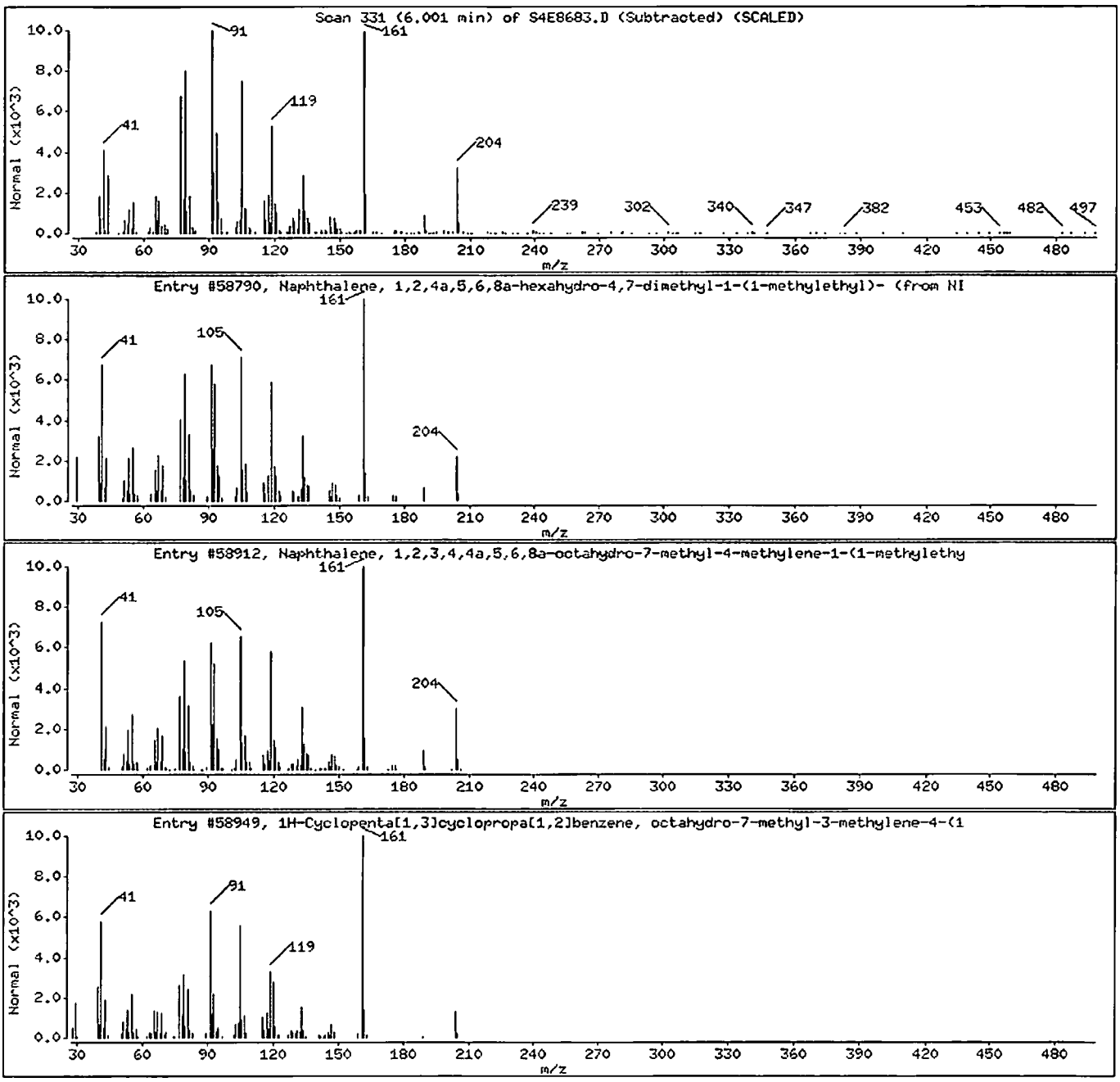
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: HMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7	483-75-0	NIST2002.L	58790	95	C15H24	204
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	30021-74-0	NIST2002.L	58912	94	C15H24	204
1H-Cyclopenta[1,3]cyclopropa[1,2]benzene	13744-15-5	NIST2002.L	58949	94	C15H24	204



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

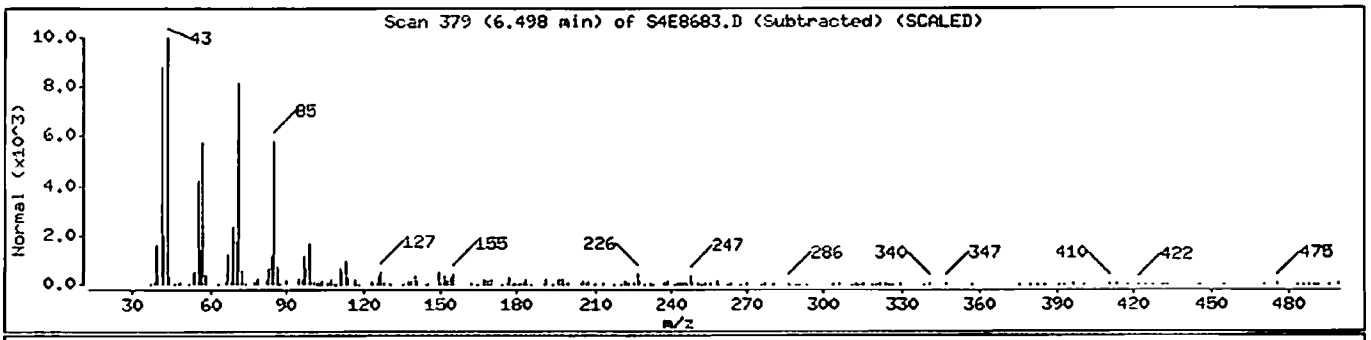
Client ID: H30R8 Instrument: S4.i

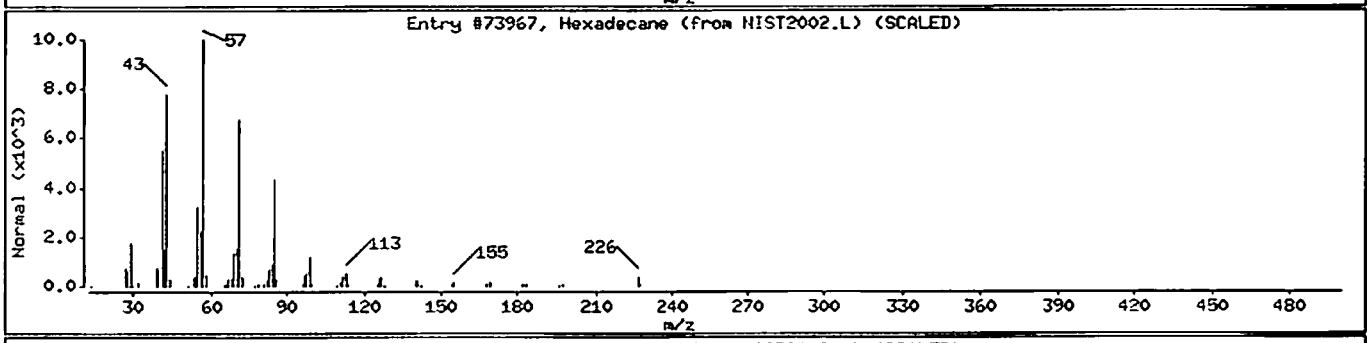
Sample Info: K2199-11A,,62801,,

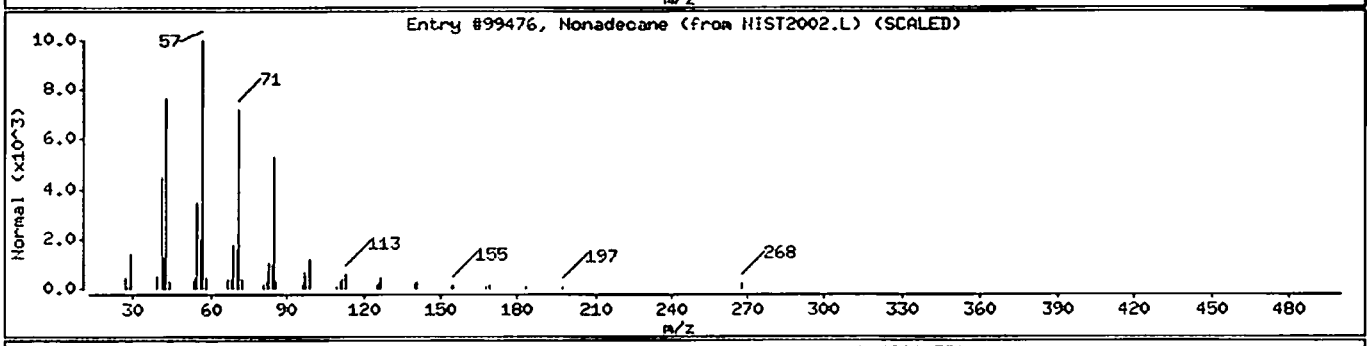
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

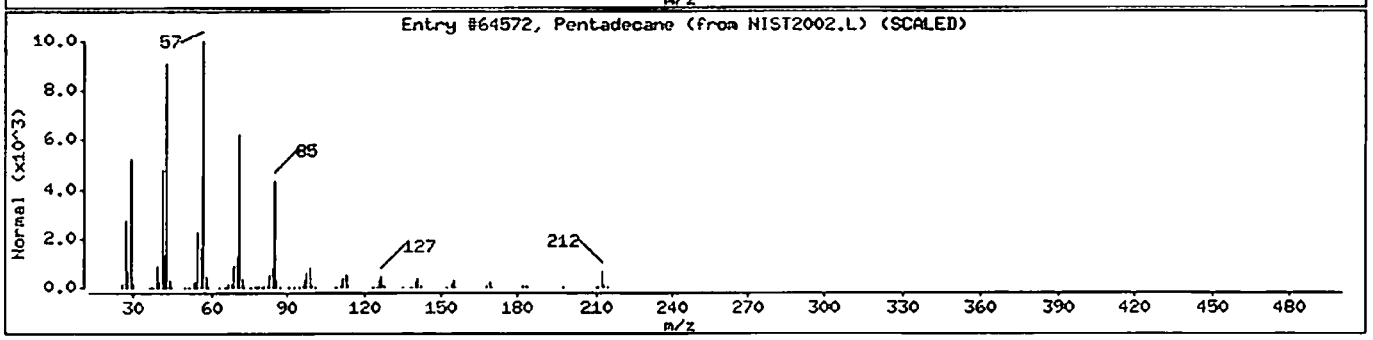
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Hexadecane	544-76-3	NIST2002.L	73967	95	C16H34	226
Nonadecane	629-92-5	NIST2002.L	99476	90	C19H40	268
Pentadecane	629-62-9	NIST2002.L	64572	86	C15H32	212









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

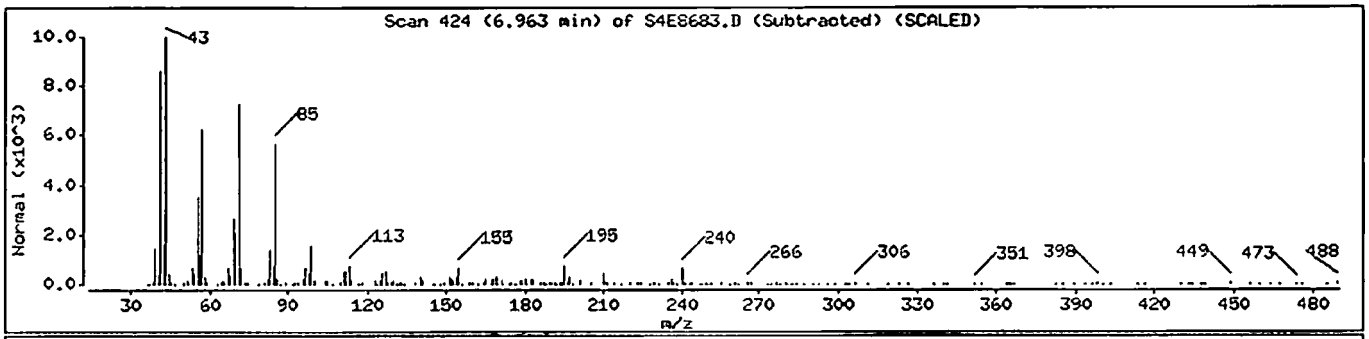
Client ID: H30R8 Instrument: S4.i

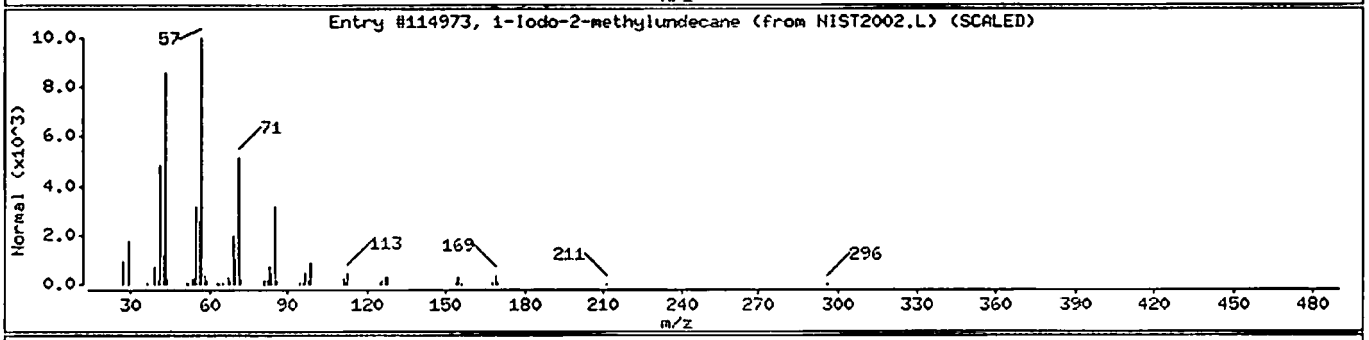
Sample Info: K2199-11A,,62801,,

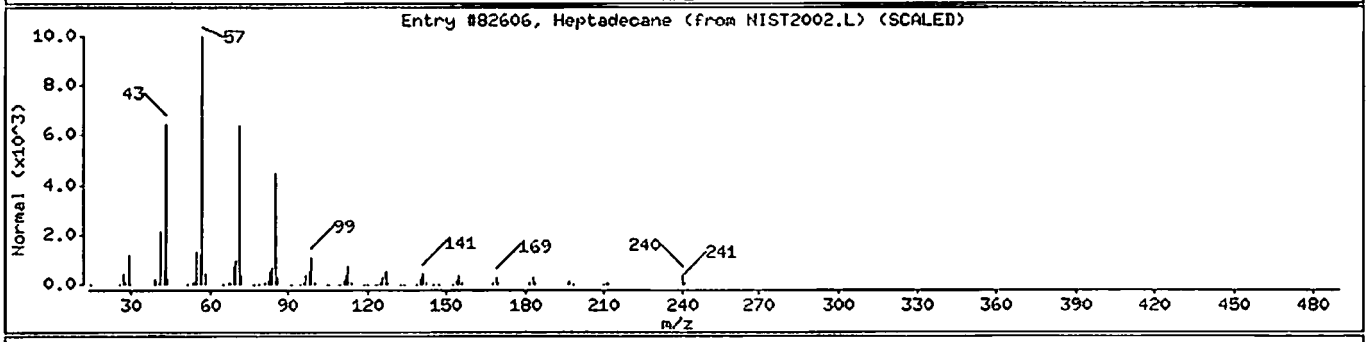
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Iodo-2-methylundecane	73105-67-6	NIST2002.L	114973	91	C12H25I	296
Heptadecane	629-78-7	NIST2002.L	82606	90	C17H36	240







Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

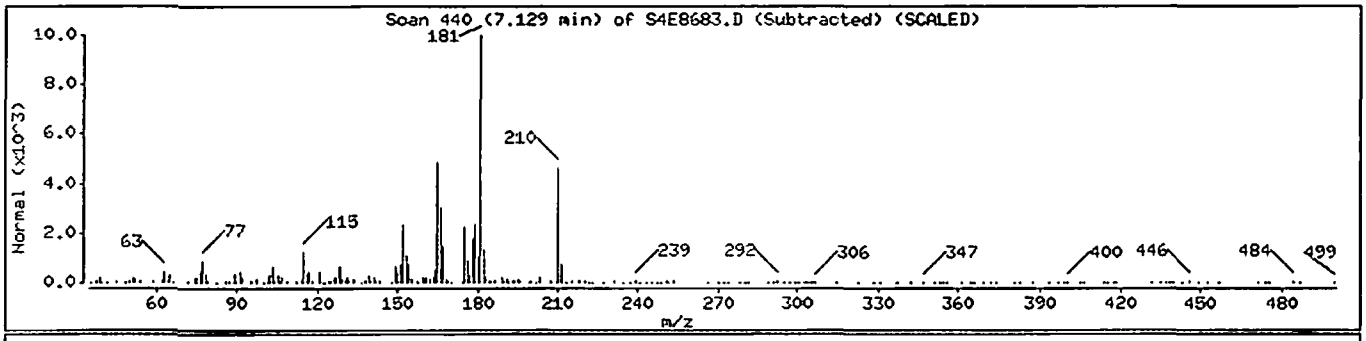
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

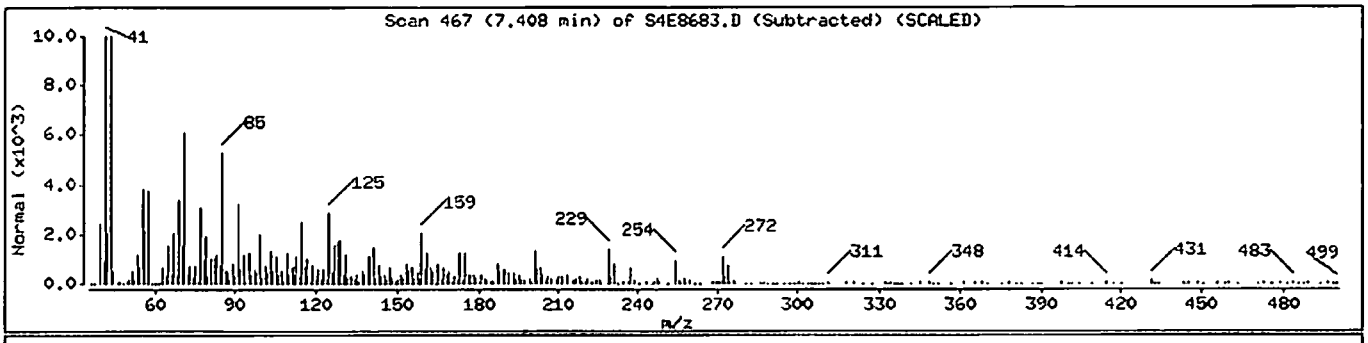
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

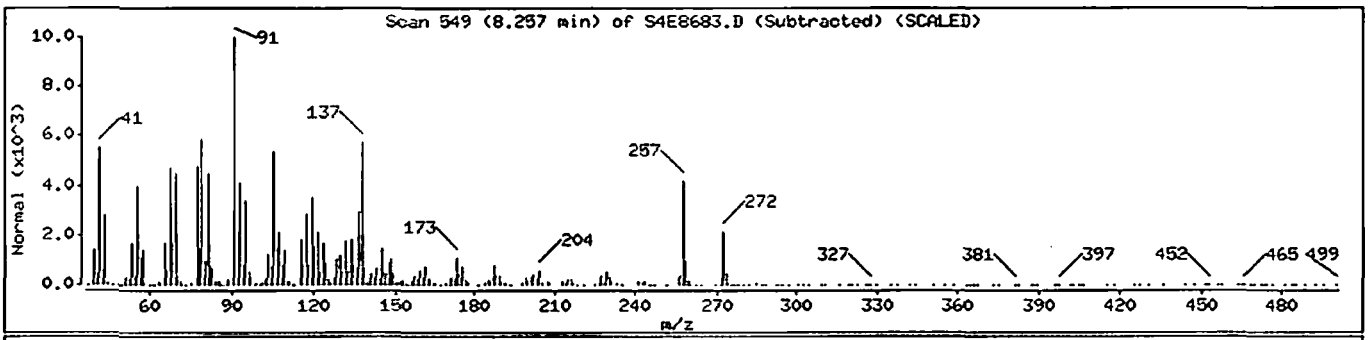
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

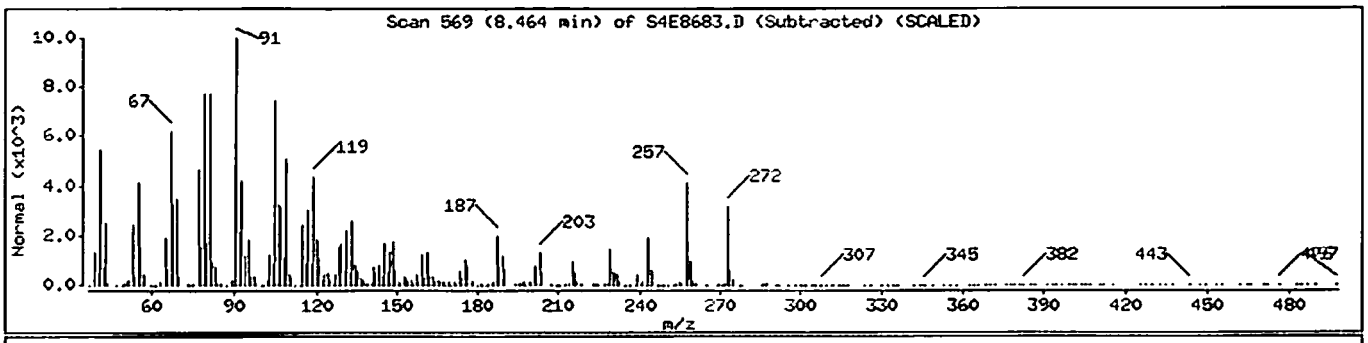
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

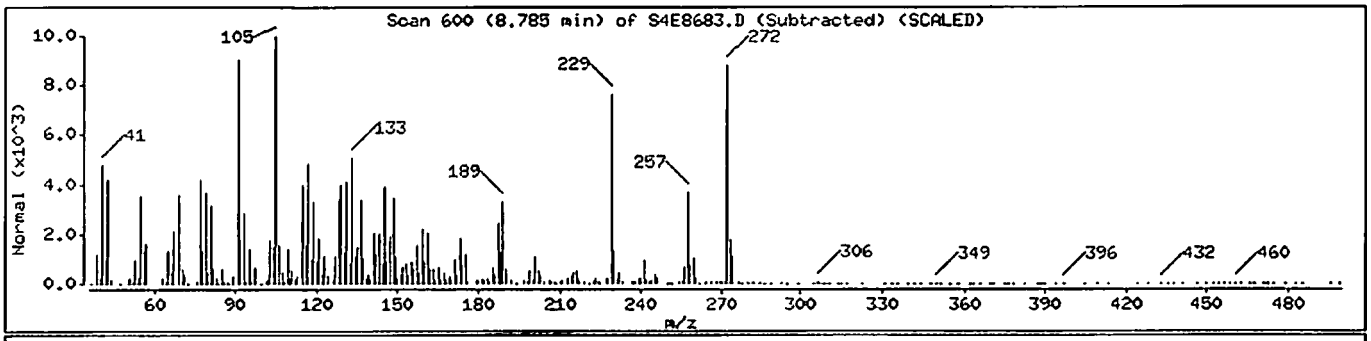
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

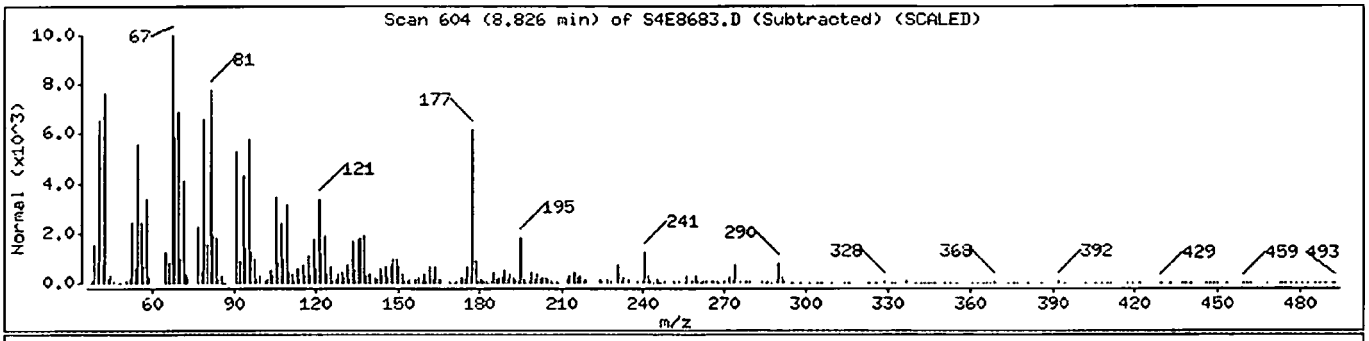
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,.62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

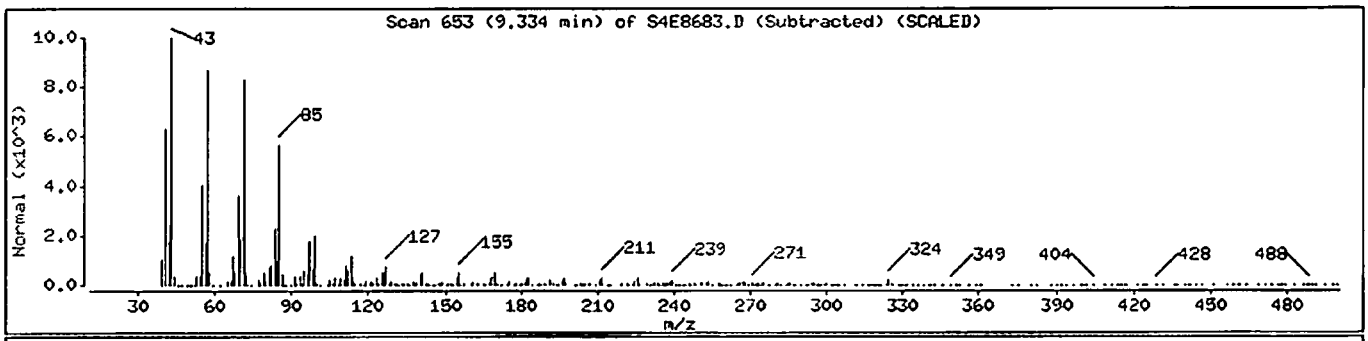
Client ID: H30R8 Instrument: S4.i

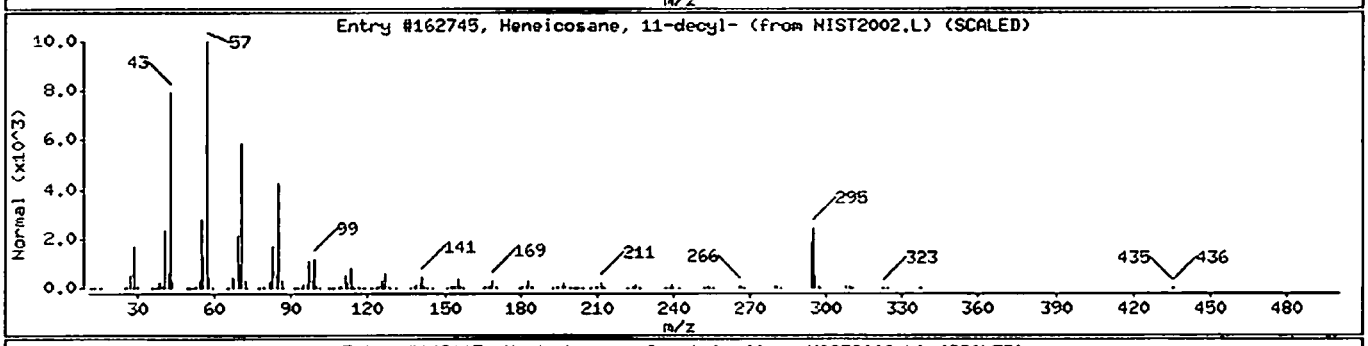
Sample Info: K2199-11A,,62801,,

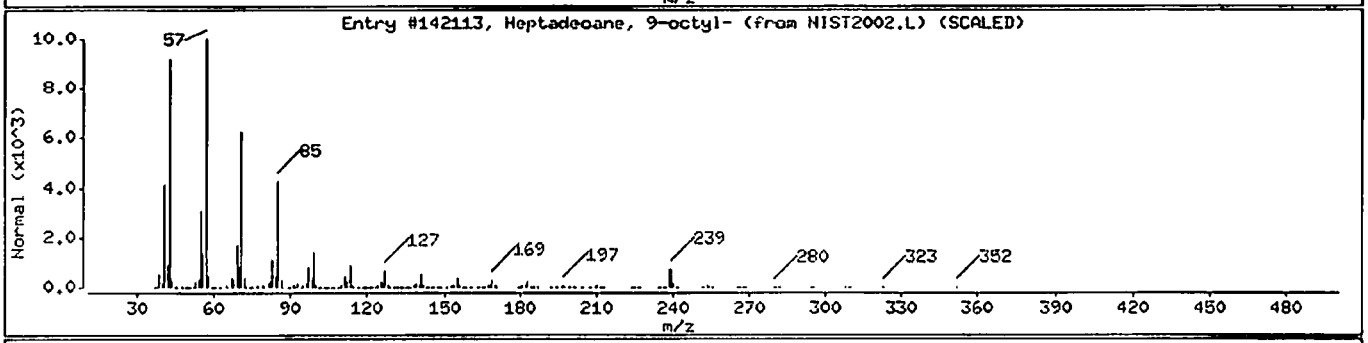
Volume Injected (uL): 2.0 Operator: HHS SRC: LIHS

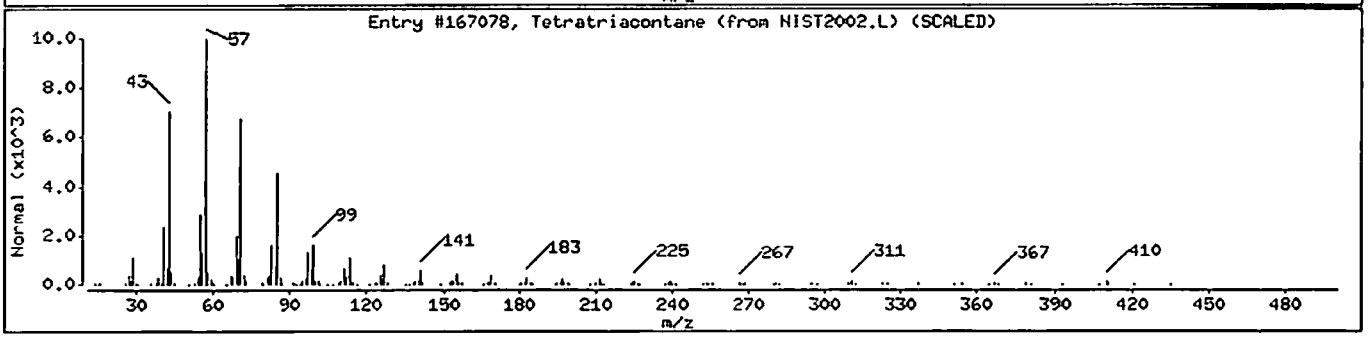
Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Branched Alkane						
Heneicosane, 11-decyl-	55320-06-4	NIST2002.L	162745	93	C31H64	437
Heptadecane, 9-octyl-	7225-64-1	NIST2002.L	142113	91	C25H52	352
Tetratriacontane	14167-59-0	NIST2002.L	167078	90	C34H70	479









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

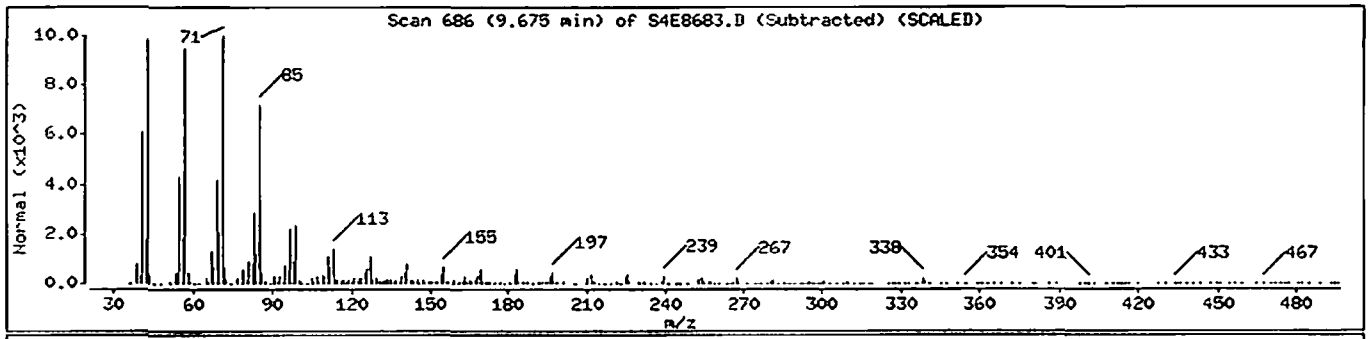
Client ID: H30R8 Instrument: S4.i

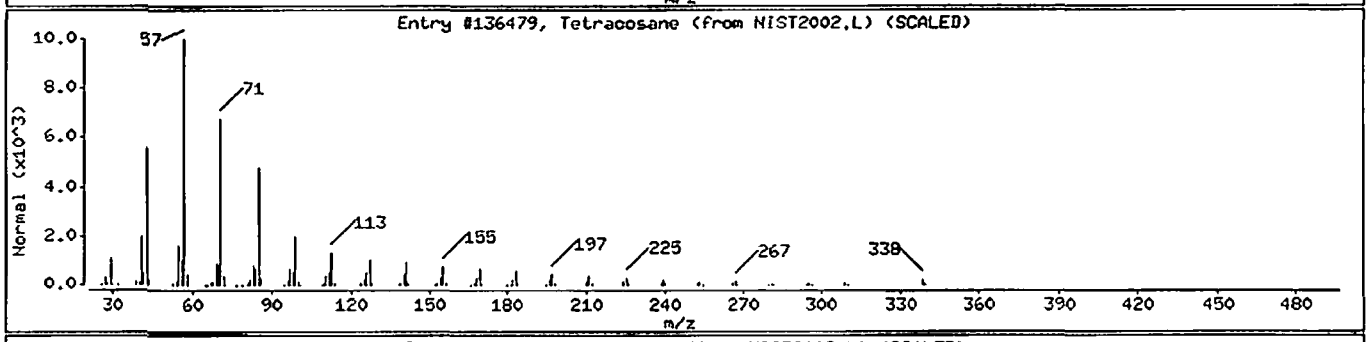
Sample Info: K2199-11A,,62801,,

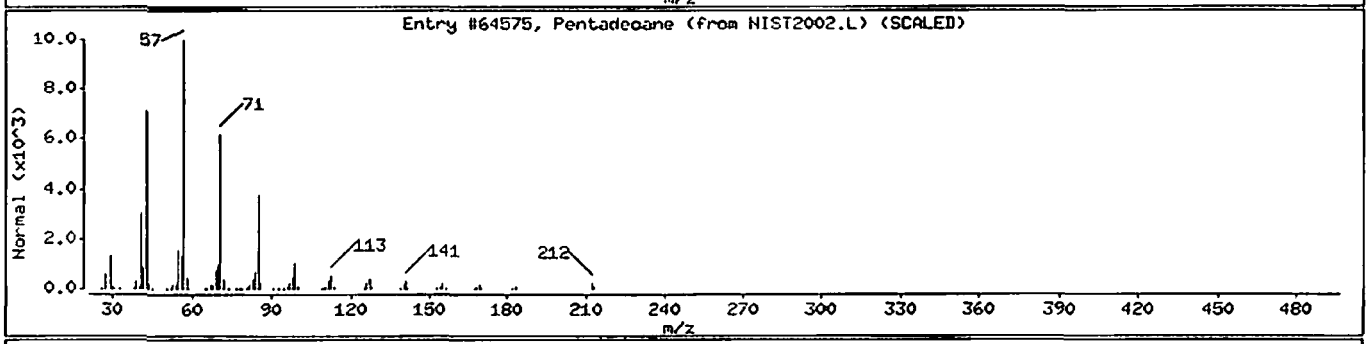
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

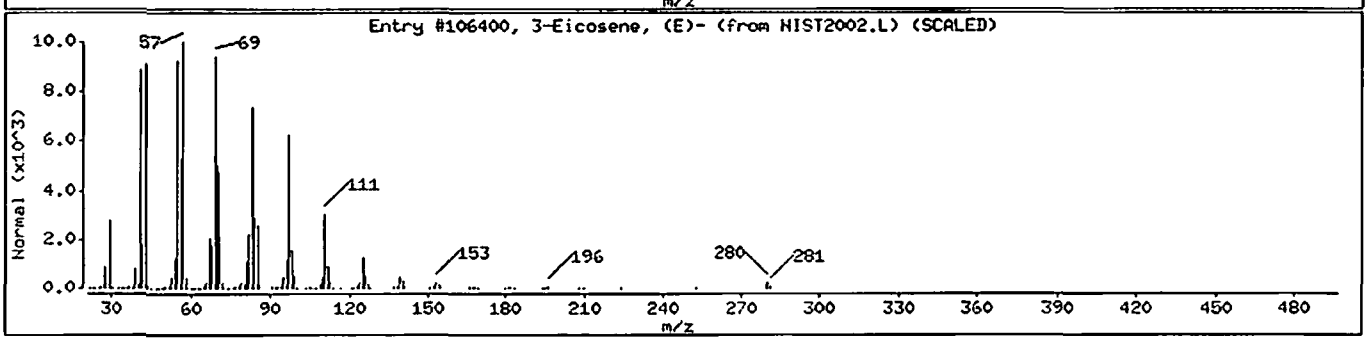
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Tetracosane	646-31-1	NIST2002.L	136479	96	C24H50	338
Pentadecane	629-62-9	NIST2002.L	64575	95	C15H32	212
3-Eicosene, (E)-	74685-33-9	NIST2002.L	106400	95	C20H40	280









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

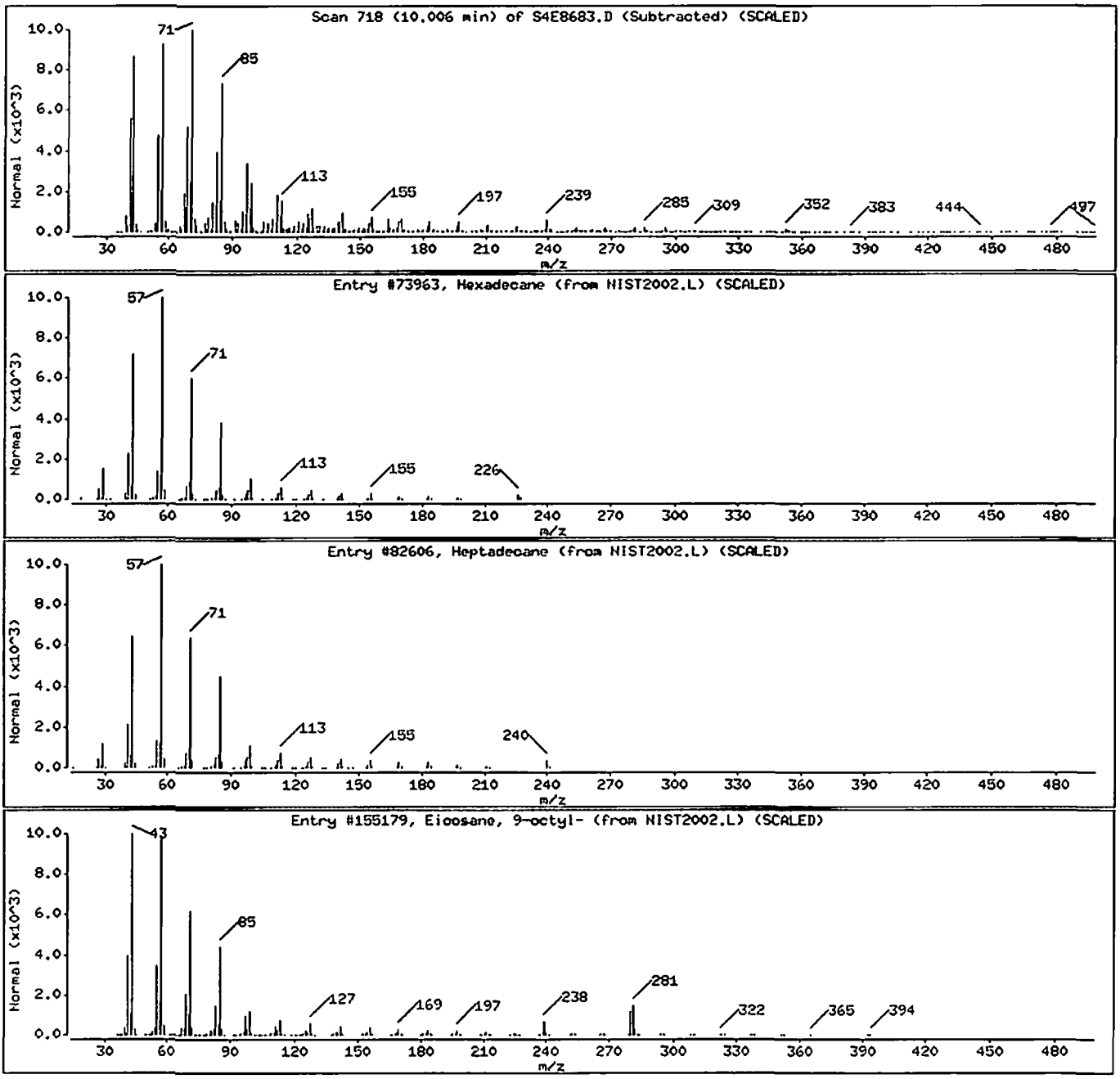
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Hexadecane	544-76-3	NIST2002.L	73963	97	C16H34	226
Heptadecane	629-78-7	NIST2002.L	82606	95	C17H36	240
Eicosane, 9-octyl-	13475-77-9	NIST2002.L	155179	91	C28H58	394



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

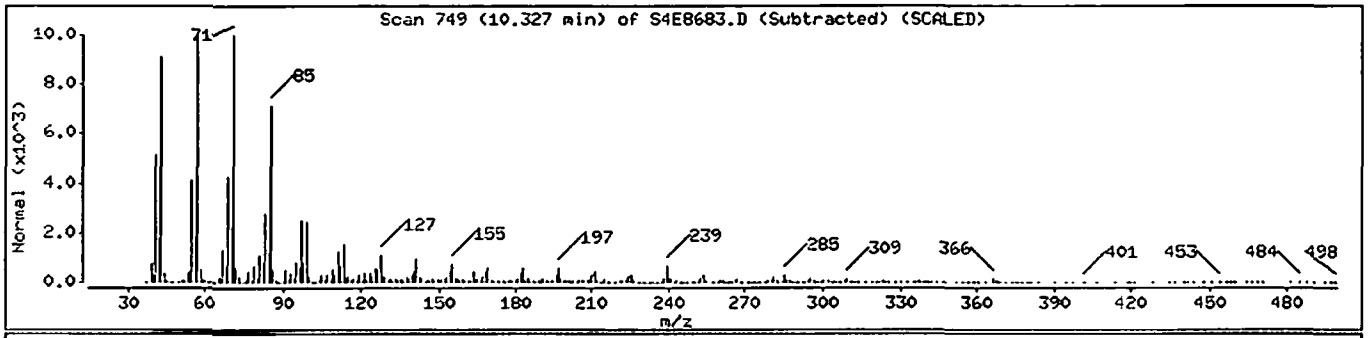
Client ID: H30R8 Instrument: S4.i

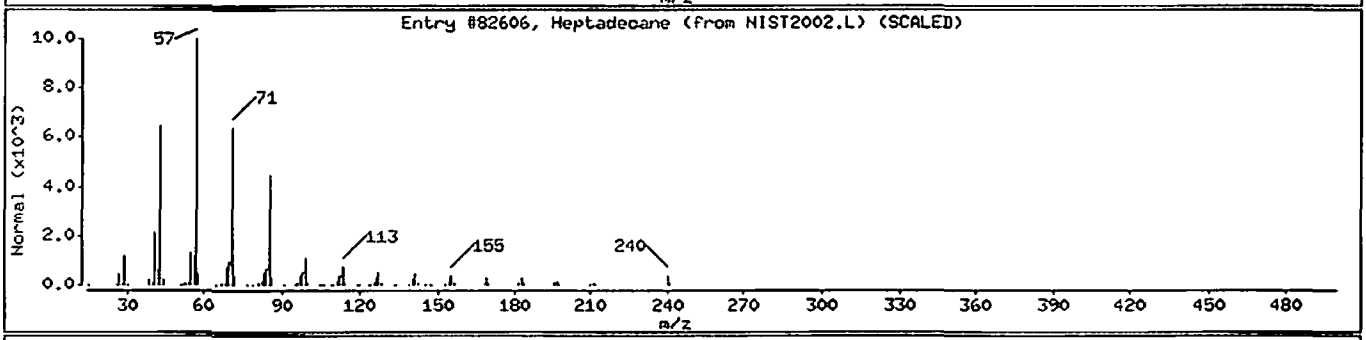
Sample Info: K2199-11A,,62801,,

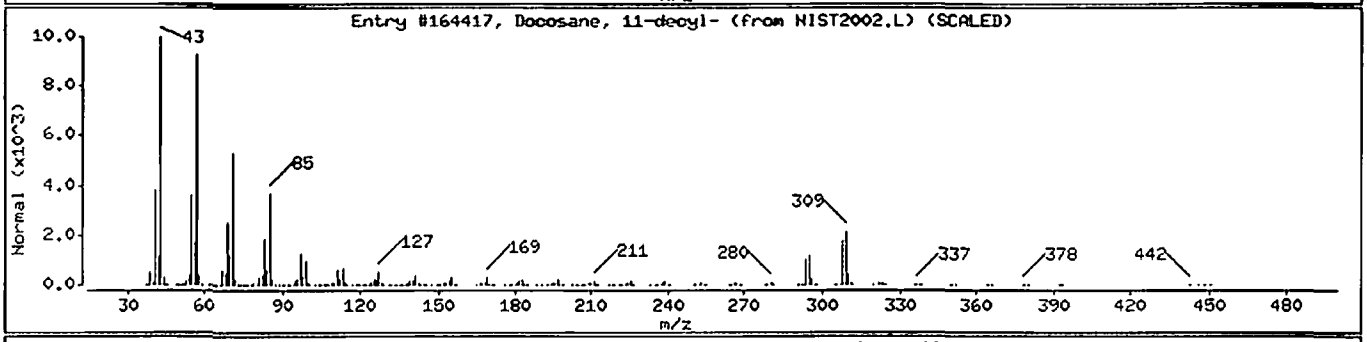
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

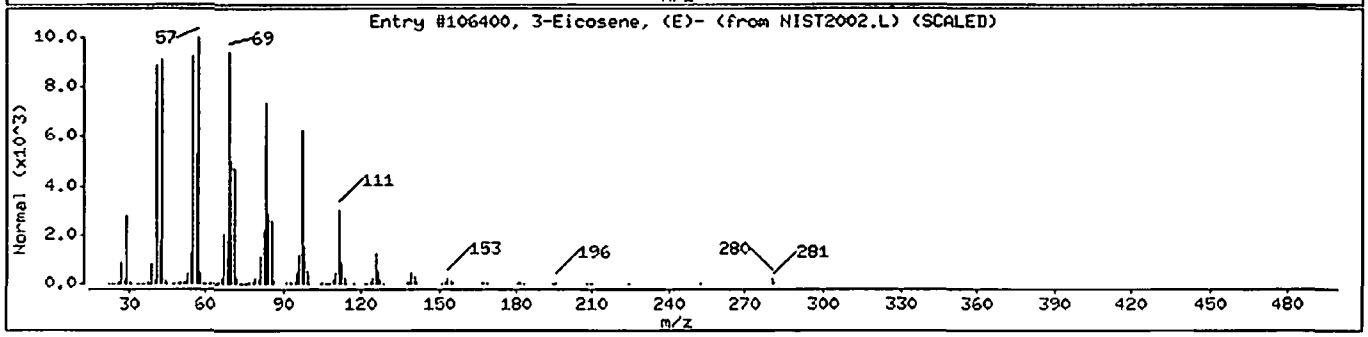
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Heptadecane	629-78-7	NIST2002.L	82606	95	C17H36	240
Docosane, 11-decyl-	55401-55-3	NIST2002.L	164417	95	C32H66	451
3-Eicosene, (E)-	74685-33-9	NIST2002.L	106400	92	C20H40	280









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

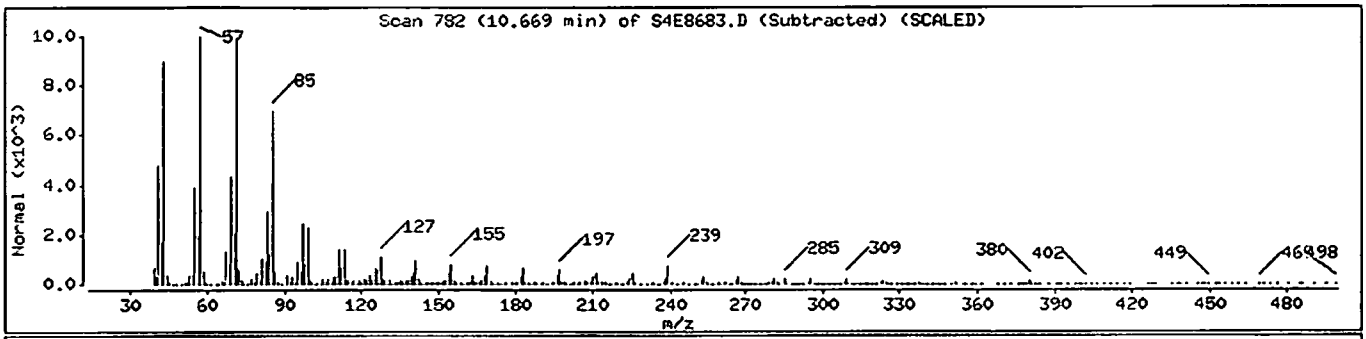
Client ID: H30R8 Instrument: S4.i

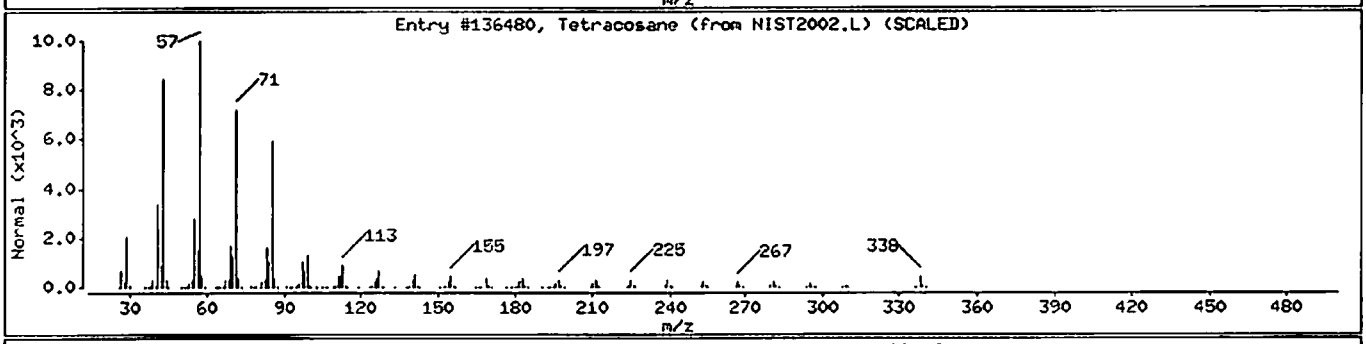
Sample Info: K2199-11A,,62801,,

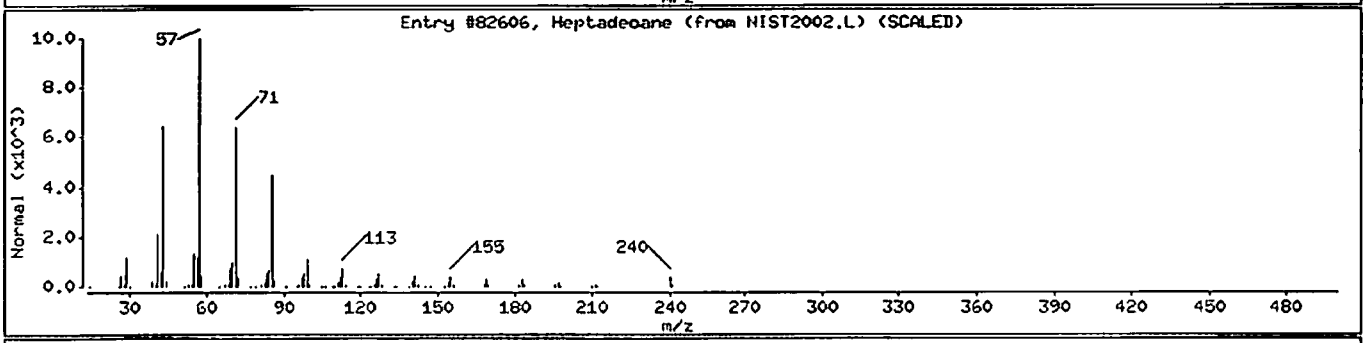
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

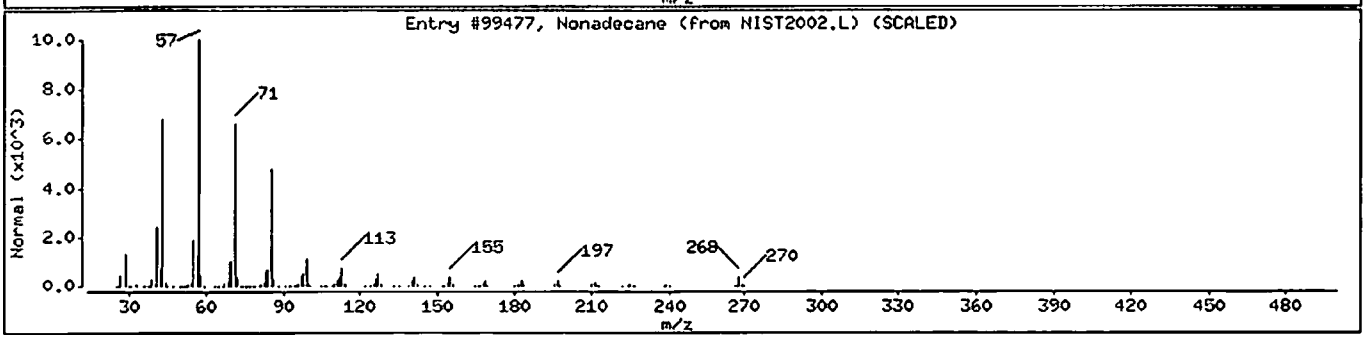
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Tetracosane	646-31-1	NIST2002.L	136480	96	C24H50	338
Heptadecane	629-78-7	NIST2002.L	82606	95	C17H36	240
Nonadecane	629-92-5	NIST2002.L	99477	94	C19H40	268









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

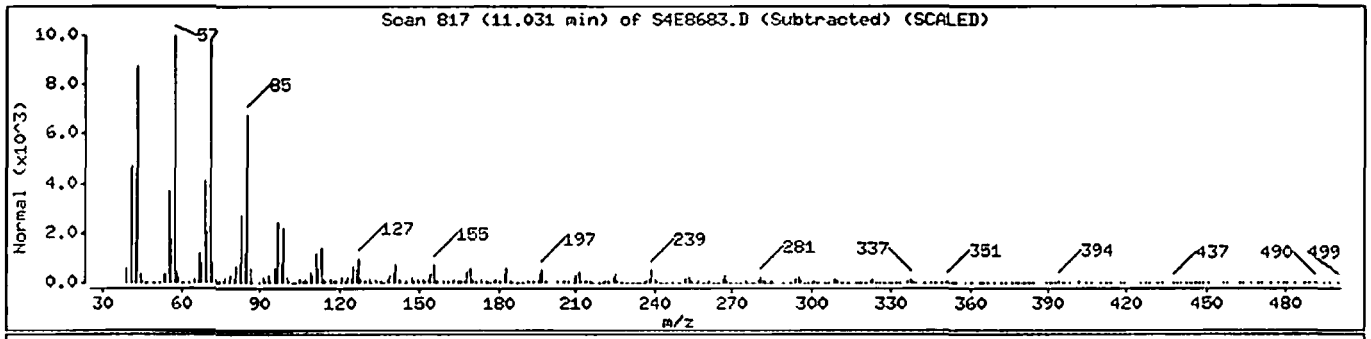
Client ID: H30R8 Instrument: S4.i

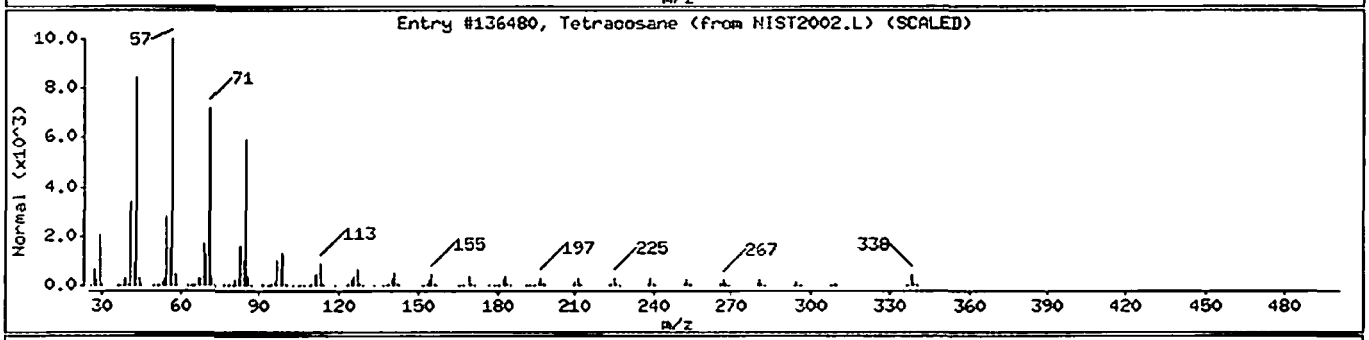
Sample Info: K2199-11A,,62801,,

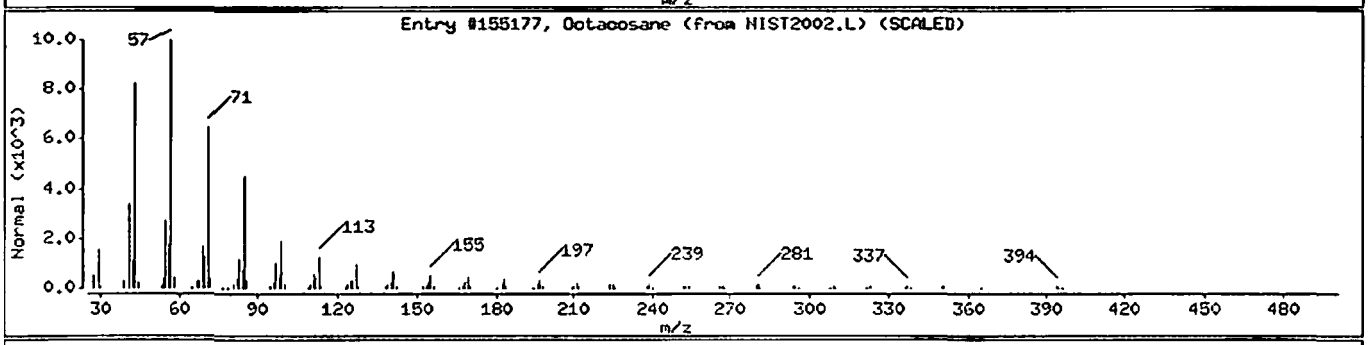
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

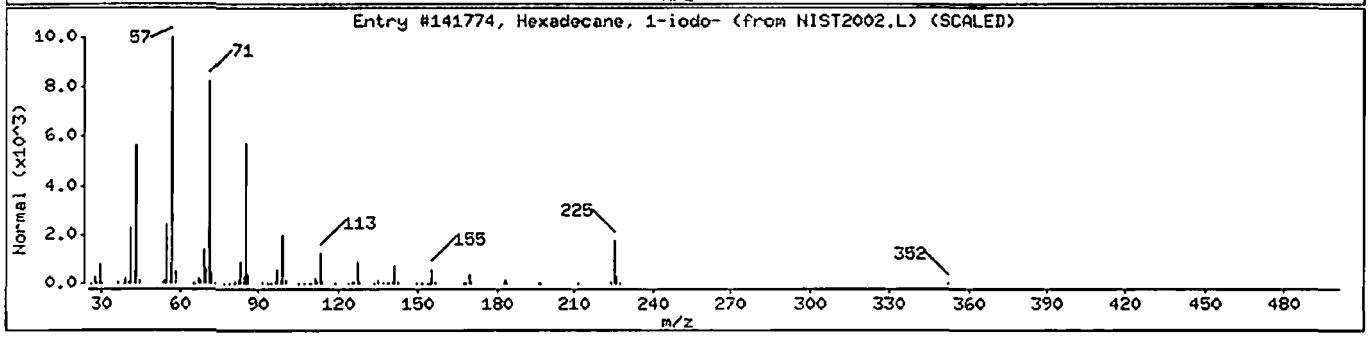
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Tetracosane	646-31-1	NIST2002.L	136480	97	C24H50	338
Octacosane	630-02-4	NIST2002.L	155177	96	C28H58	394
Hexadecane, 1-iodo-	544-77-4	NIST2002.L	141774	96	C16H33I	352









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

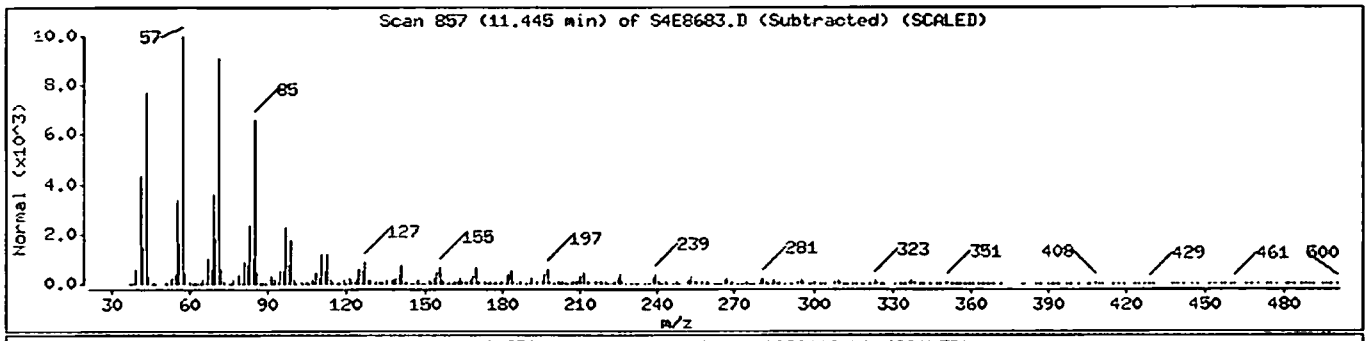
Client ID: H30R8 Instrument: S4.i

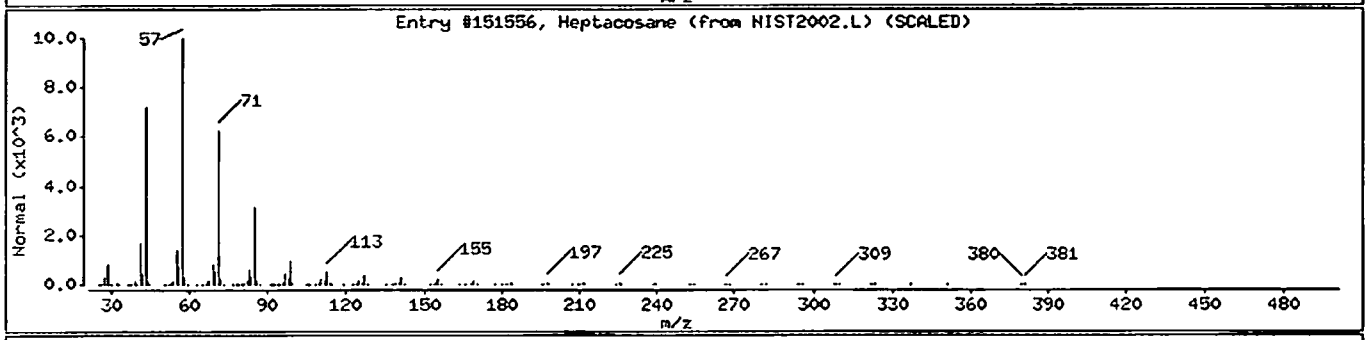
Sample Info: K2199-11A,,62801,,

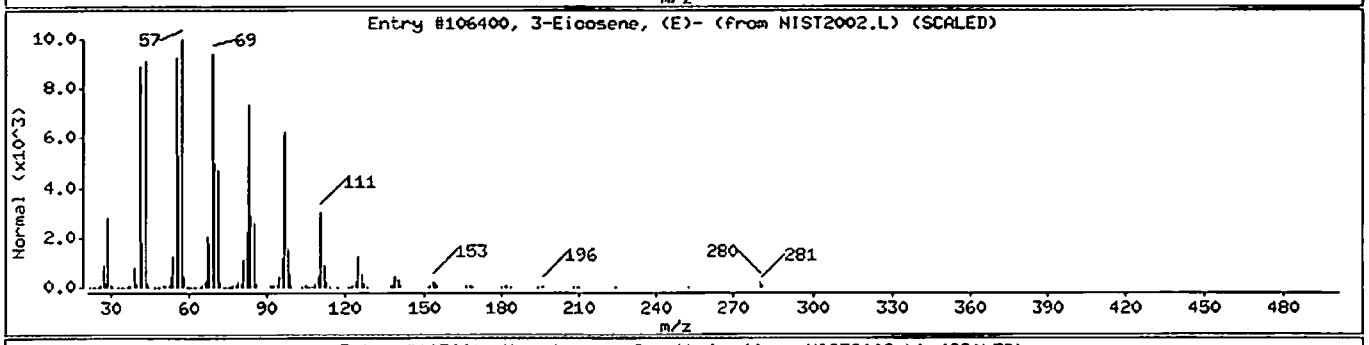
Volume Injected (uL): 2.0 Operator: HMS SRC: LIMS

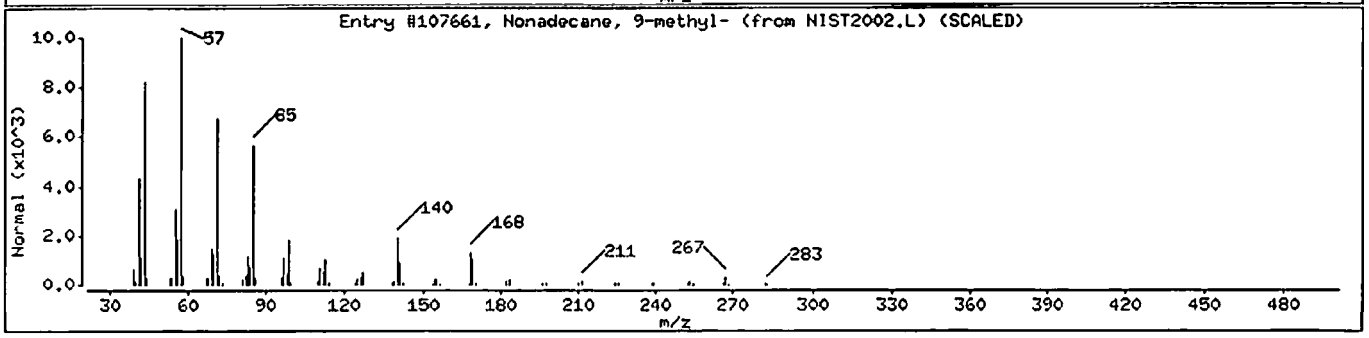
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Heptacosane	593-49-7	NIST2002.L	151556	96	C27H56	380
3-Eicosene, (E)-	74685-33-9	NIST2002.L	106400	93	C20H40	280
Nonadecane, 9-methyl-	13287-24-6	NIST2002.L	107661	93	C20H42	282









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

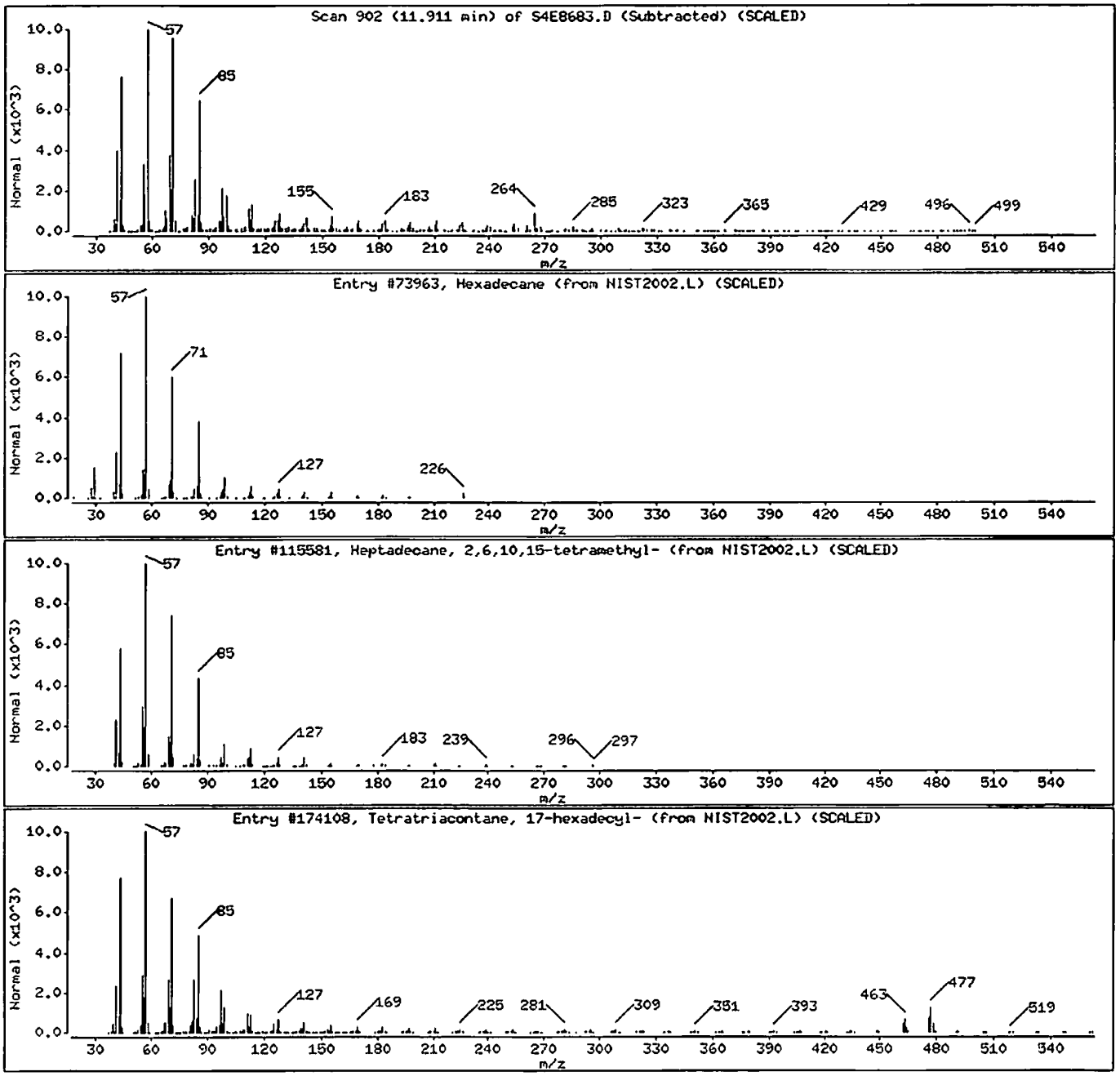
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Hexadecane	544-76-3	NIST2002.L	73963	95	C16H34	226
Heptadecane, 2,6,10,15-tetramethyl-	54833-48-6	NIST2002.L	115581	94	C21H44	296
Tetratriacontane, 17-hexadecyl-	55256-07-0	NIST2002.L	174108	90	C50H102	703



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

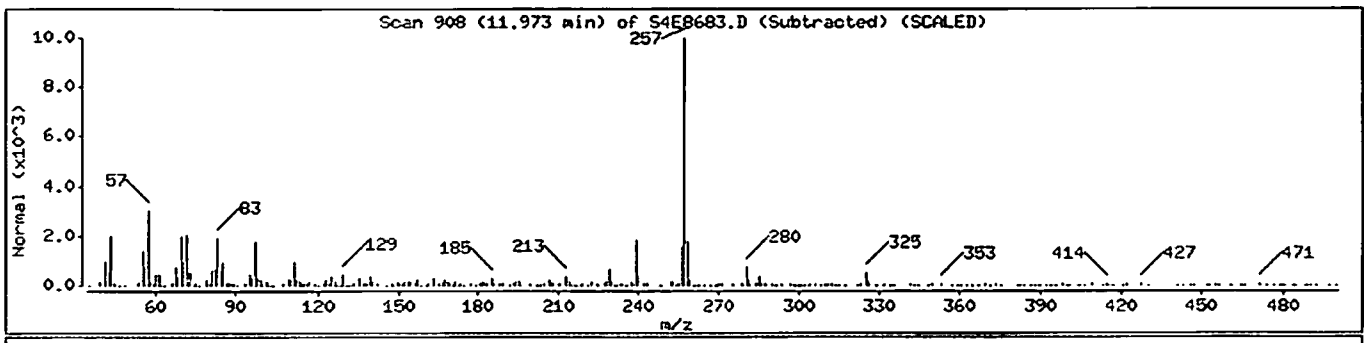
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

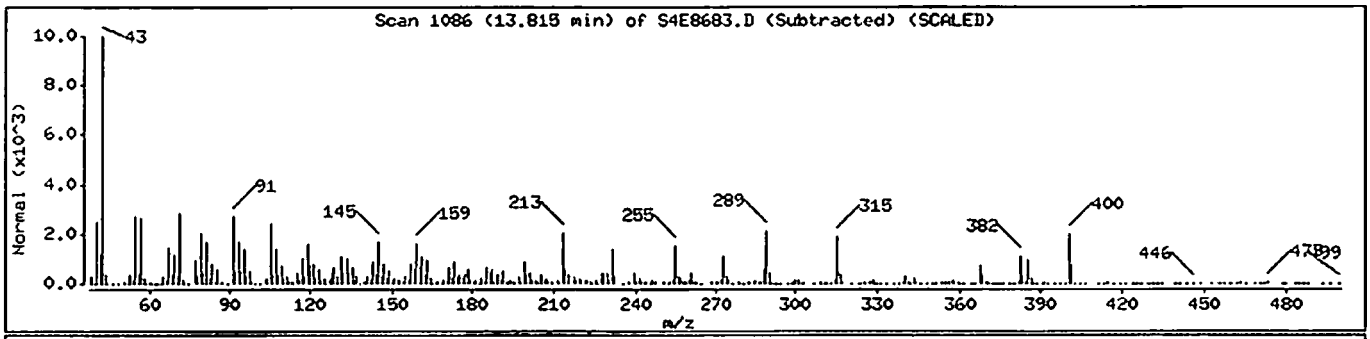
Client ID: H30R8 Instrument: S4.i

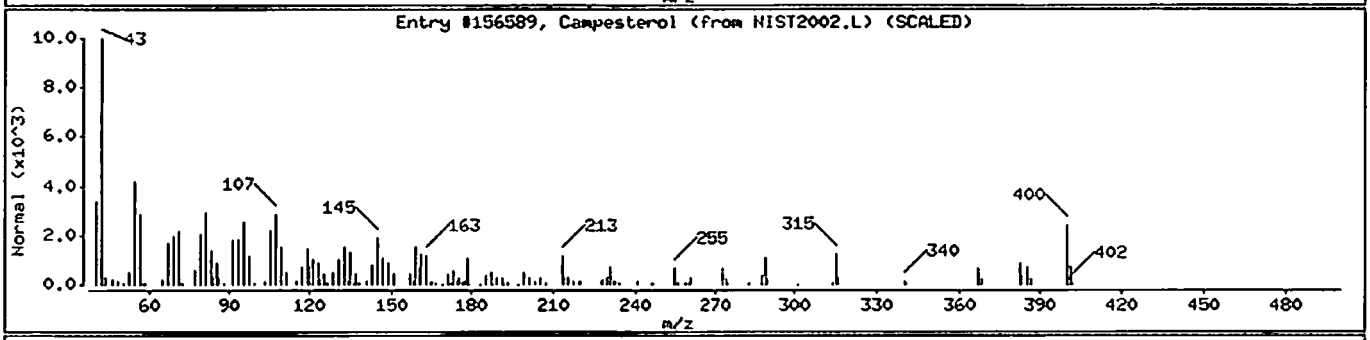
Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Campesterol	474-62-4	NIST2002.L	156589	90	C28H48O	400





Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

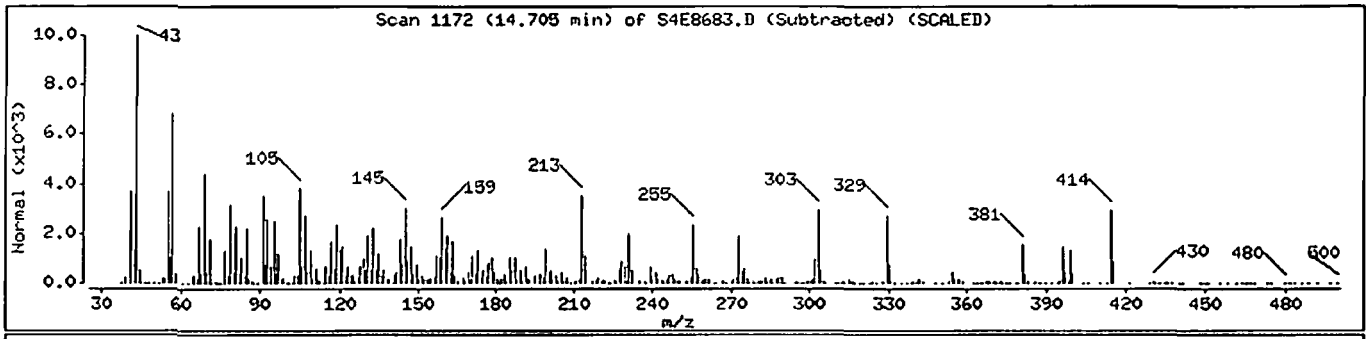
Client ID: H30R8 Instrument: S4.i

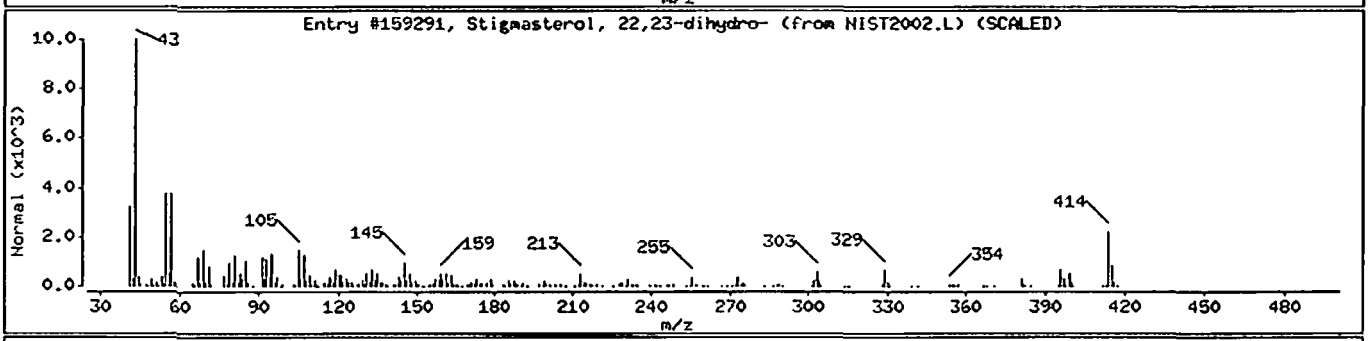
Sample Info: K2199-11A,,62801,,

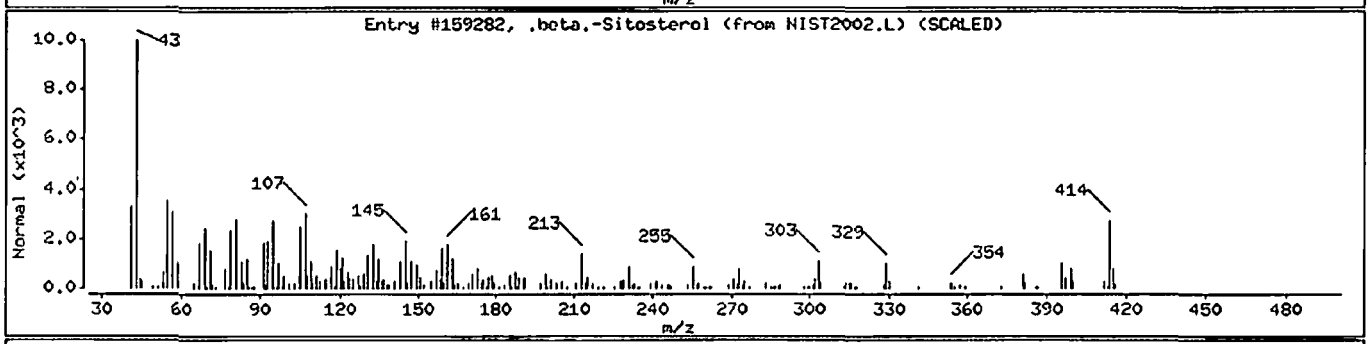
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

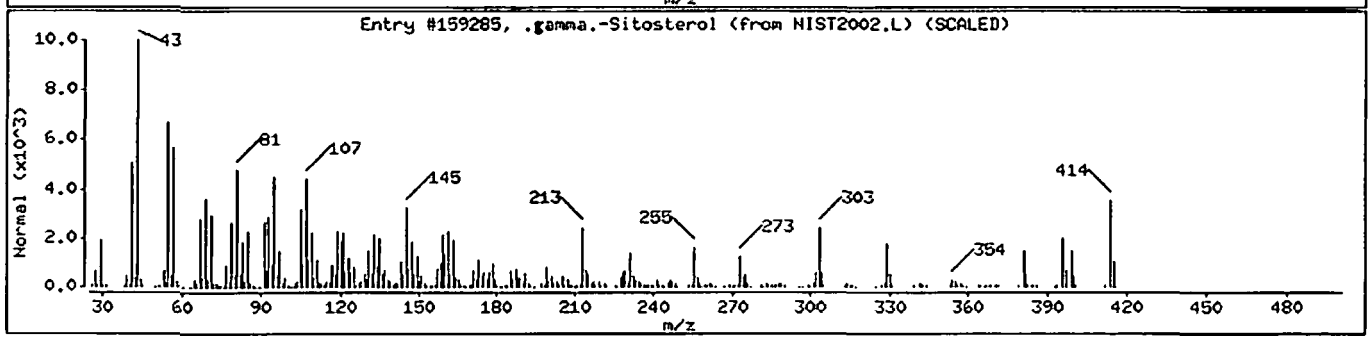
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST2002.L	159291	95	C29H500	414
.beta.-Sitosterol	83-46-5	NIST2002.L	159282	94	C29H500	414
.gamma.-Sitosterol	83-47-6	NIST2002.L	159285	90	C29H500	414









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

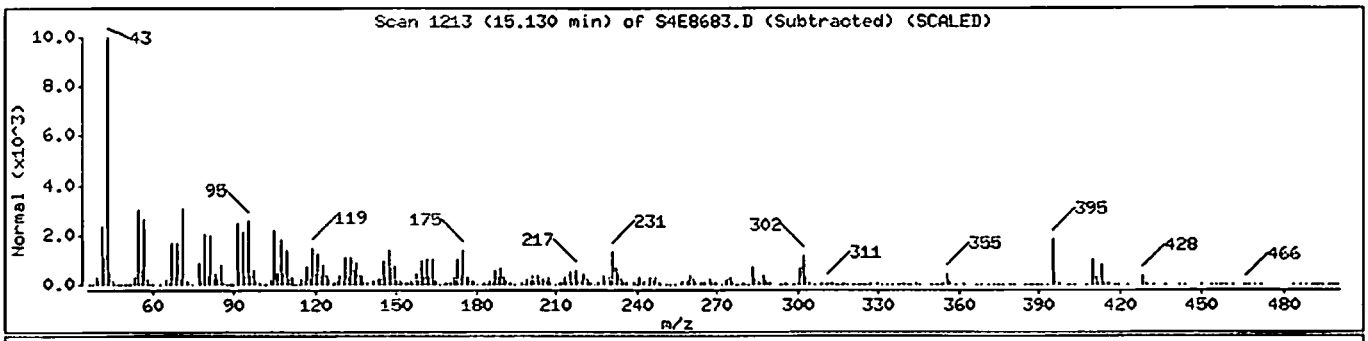
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8683.D

Date : 13-NOV-2011 18:00

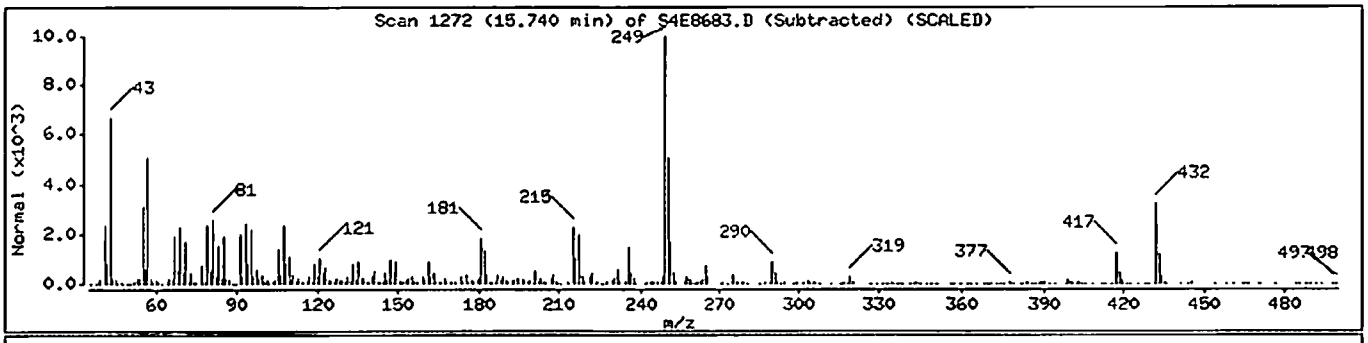
Client ID: H30R8 Instrument: S4.i

Sample Info: K2199-11A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-12A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S4E8705.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 44 Decanted: (Y/N) N Date Received: 11/03/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 7.8 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	300	U
108-95-2	Phenol	300	U
111-44-4	Bis(2-chloroethyl)ether	300	U
95-57-8	2-Chlorophenol	300	U
95-48-7	2-Methylphenol	300	U
108-60-1	2,2'-Oxybis(1-chloropropane)	300	U
98-86-2	Acetophenone	300	U
106-44-5	4-Methylphenol	60	J
621-64-7	N-Nitroso-di-n-propylamine	300	U
67-72-1	Hexachloroethane	300	U
98-95-3	Nitrobenzene	300	U
78-59-1	Isophorone	300	U
88-75-5	2-Nitrophenol	300	U
105-67-9	2,4-Dimethylphenol	300	U
111-91-1	Bis(2-chloroethoxy)methane	300	U
120-83-2	2,4-Dichlorophenol	300	U
91-20-3	Naphthalene	300	U
106-47-8	4-Chloroaniline	300	U
87-68-3	Hexachlorobutadiene	300	U
105-60-2	Caprolactam	300	U
59-50-7	4-Chloro-3-methylphenol	300	U
91-57-6	2-Methylnaphthalene	300	U
77-47-4	Hexachlorocyclopentadiene	300	U
88-06-2	2,4,6-Trichlorophenol	300	U
95-95-4	2,4,5-Trichlorophenol	300	U
92-52-4	1,1'-Biphenyl	300	U
91-58-7	2-Chloronaphthalene	300	U
88-74-4	2-Nitroaniline	580	U
131-11-3	Dimethylphthalate	300	U
606-20-2	2,6-Dinitrotoluene	300	U
208-96-8	Acenaphthylene	300	U
99-09-2	3-Nitroaniline	580	U
83-32-9	Acenaphthene	300	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-12A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S4E8705.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 44 Decanted: (Y/N) N Date Received: 11/03/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 7.8 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	580	U
100-02-7	4-Nitrophenol	580	U
132-64-9	Dibenzofuran	300	U
121-14-2	2,4-Dinitrotoluene	300	U
84-66-2	Diethylphthalate	300	U
86-73-7	Fluorene	300	U
7005-72-3	4-Chlorophenyl-phenylether	300	U
100-01-6	4-Nitroaniline	580	U
534-52-1	4,6-Dinitro-2-methylphenol	580	U
86-30-6	N-Nitrosodiphenylamine (1)	300	U
95-94-3	1,2,4,5-Tetrachlorobenzene	300	U
101-55-3	4-Bromophenyl-phenylether	300	U
118-74-1	Hexachlorobenzene	300	U
1912-24-9	Atrazine	300	U
87-86-5	Pentachlorophenol	580	U
85-01-8	Phenanthrene	86	J
120-12-7	Anthracene	300	U
86-74-8	Carbazole	300	U
84-74-2	Di-n-butylphthalate	260	BJ
206-44-0	Fluoranthene	300	U
129-00-0	Pyrene	300	U
85-68-7	Butylbenzylphthalate	300	U
91-94-1	3,3'-Dichlorobenzidine	300	U
56-55-3	Benzo(a)anthracene	300	U
218-01-9	Chrysene	300	U
117-81-7	Bis(2-ethylhexyl)phthalate	1200	
117-84-0	Di-n-octylphthalate	300	U
205-99-2	Benzo(b)fluoranthene	300	U
207-08-9	Benzo(k)fluoranthene	300	U
50-32-8	Benzo(a)pyrene	300	U
193-39-5	Indeno(1,2,3-cd)pyrene	300	U
53-70-3	Dibenzo(a,h)anthracene	300	U
191-24-2	Benzo(g,h,i)perylene	300	U
58-90-2	2,3,4,6-Tetrachlorophenol	300	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30S0

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-12A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S4E8705.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 44 Decanted: (Y/N) N Date Received: 11/03/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 7.8 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.958	200	J
02		Unknown-02	3.279	270	J
03	527-84-4	Benzene, 1-methyl-2-(1-methy	3.361	6000	NJ
04		Unknown-03	3.392	210	J
05		Unknown-04	3.424	240	J
06		Unknown-05	4.076	170	J
07		Unknown-06	4.293	230	J
08		Unknown-07	4.334	280	J
09		Unknown-08	4.873	180	J
10		Unknown-09	4.914	230	J
11	5989-08-2	Tricyclo[5.4.0.0(2,8)]undec-	5.338	250	NJ
12	17699-14-8	.alpha.-Cubebene	5.452	250	NJ
13	1000109-88-1	(+)-Cycloisosativene	5.494	170	NJ
14		Unknown-10	5.607	170	J
15		Unknown-11	5.690	1500	J
16	483-75-0	Naphthalene, 1,2,4a,5,6,8a-h	5.959	420	NJ
17		Unknown-12	6.135	170	J
18	30021-74-0	Naphthalene, 1,2,3,4,4a,5,6,	6.166	500	NJ
19		Unknown-13	6.922	580	J
20	345256-81-7	2-(2-Bromo-4-methoxyphenoxy)	7.088	240	NJ
21		Unknown-14	7.367	450	J
22		Unknown-15	8.236	7100	J
23	84-65-1	9,10-Anthracenedione	8.330	2700	NJ
24		Unknown-16	8.464	53000	J
25		Unknown-17	9.189	3800	J
26	6765-39-5	1-Heptadecene	9.965	3200	NJ
27		Unknown-18	11.859	11000	J
28	83-46-5	.beta.-Sitosterol	14.498	8400	NJ
29	1000210-86-9	17-(1,5-Dimethylhexyl)-10,13	15.005	18000	NJ
30		Unknown-19	15.616	13000	J
	E96679[2]	Total Alkanes	N/A	10000	J

[2]EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D
Report Date: 15-Nov-2011 12:00

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8705.D
Lab Smp Id: K2199-12A Client Smp ID: H30S0
Inj Date : 14-NOV-2011 15:43
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-12A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 11:59 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.600	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 2 Phenol-d5	71	3.040	2.999	(0.913)	49984	36.6043	600(Q)
$ 4 bis(2-Chloroethyl)ether-d8	67	3.061	3.040	(0.919)	33270	32.7562	540(Q)
$ 6 2-Chlorophenol-d4	132	3.175	3.143	(0.953)	63312	39.5099	650
* 8 1,4-Dichlorobenzene-d4	152	3.330	3.309	(1.000)	50778	40.0000	(Q)
$ 11 4-Methylphenol-d8	113	3.599	3.557	(1.081)	58558	40.4941	660
12 4-Methylphenol	108	3.620	3.578	(1.087)	3032	2.04499	33(a)
$ 16 Nitrobenzene-d5	128	3.754	3.733	(0.864)	34907	45.3319	740(Q)
$ 19 2-Nitrophenol-d4	143	4.034	4.013	(0.929)	42631	43.4346	710(H)
$ 23 2,4-Dichlorophenol-d3	165	4.261	4.230	(0.981)	83169	45.2217	740(H)
* 25 Naphthalene-d8	136	4.396	4.365	(1.000)	183955	40.0000	(H)
$ 27 4-Chloroaniline-d4	131	4.448	4.417	(1.024)	3104	1.71063	28(aQH)
$ 40 Dimethylphthalate-d6	166	5.741	5.721	(0.947)	253025	43.2328	710
$ 43 Acenaphthylene-d8	160	5.907	5.876	(0.974)	296984	45.8283	750
* 46 Acenaphthene-d10	164	6.062	6.031	(1.000)	148014	40.0000	
$ 49 4-Nitrophenol-d4	143	6.197	6.145	(1.022)	115759	105.061	1700(Q)
$ 54 Fluorene-d10	176	6.570	6.538	(1.084)	222697	42.6786	700
$ 58 4,6-Dinitro-2-methylphenol-d2	200	6.621	6.600	(0.880)	34347	28.0834	460
* 65 Phenanthrene-d10	188	7.522	7.480	(1.000)	304905	40.0000	
66 Phenanthrene	178	7.542	7.511	(1.003)	23715	2.92805	48(a)

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D
Report Date: 15-Nov-2011 12:00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 67 Anthracene-d10	188	7.573	7.542	(1.007)	385163	45.9952	750(H)
70 Di-n-butylphthalate	149	8.050	8.018	(1.070)	78611	8.87246	140(aQ)
$ 72 Pyrene-d10	212	8.940	8.888	(0.890)	384092	51.0296	830
79 bis(2-Ethylhexyl)phthalate	149	10.026	10.037	(0.998)	23777	4.19924	69(aQH)
* 77 Chrysene-d12	240	10.151	10.078	(1.000)	386169	40.0000	(QH)
$ 83 Benzo(a)pyrene-d12	264	11.579	11.651	(0.984)	11165	1.53056	25(aQRH)
* 85 Perylene-d12	264	11.879	11.765	(1.000)	329203	40.0000	(H)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D
Report Date: 15-Nov-2011 12:00

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8705.D
Lab Smp Id: K2199-12A Client Smp ID: H30S0
Inj Date : 14-NOV-2011 15:43
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-12A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 11:59 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.600	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	3.330	424338	40.000
* 25 Naphthalene-d8	4.396	641848	40.000
* 46 Acenaphthene-d10	6.063	1419065	40.000
* 65 Phenanthrene-d10	7.522	1078556	40.000

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.958	73253	6.90510233	110	0		0	8
Unknown				CAS #:			
3.279	96580	9.10409238	150	0		0	8

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D
Report Date: 15-Nov-2011 12:00

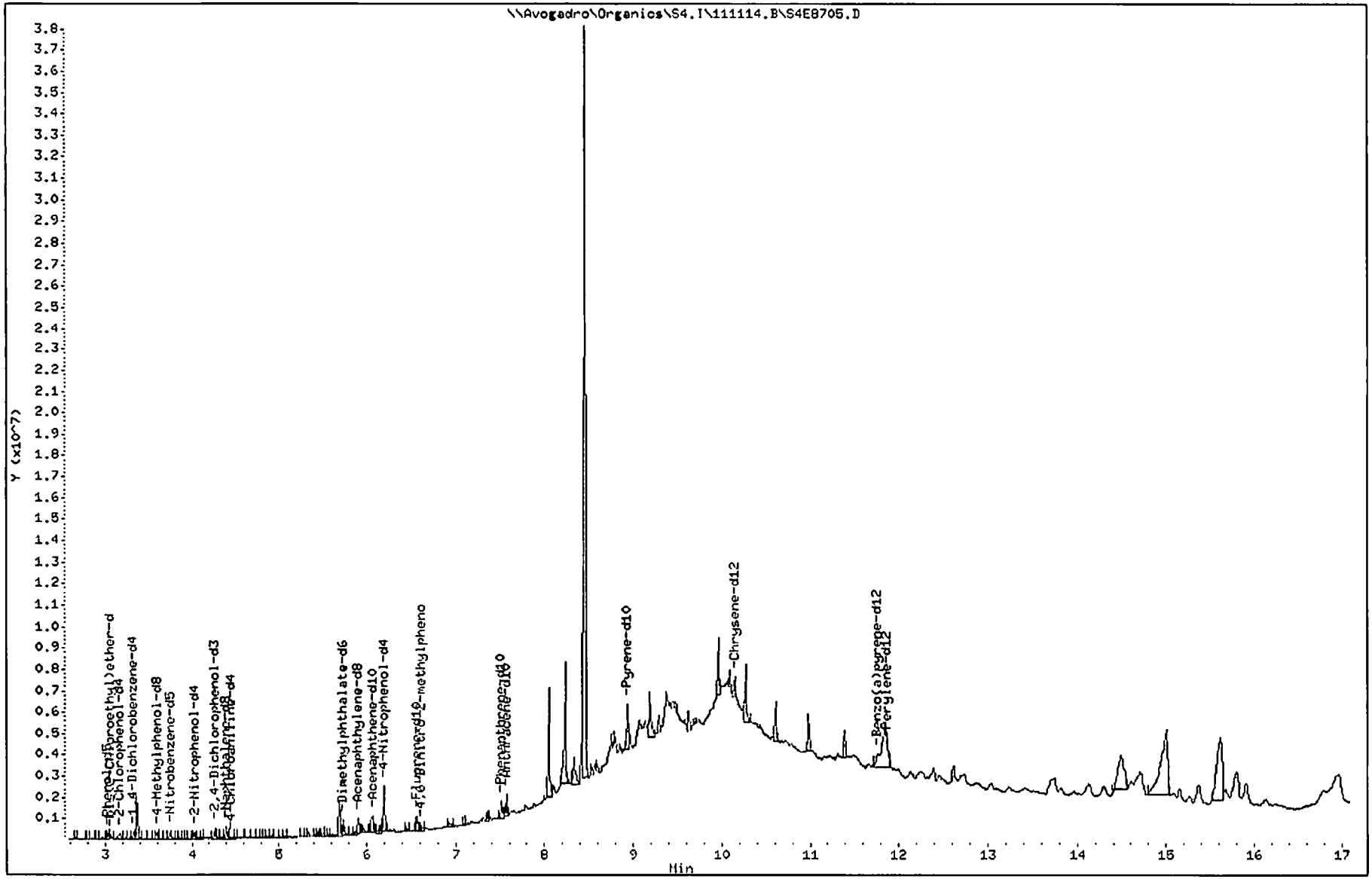
RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Benzene, 1-methyl-2-(1-methylethyl)-					CAS #: 527-84-4		
3.361	2164226	204.009308	3300	96	NIST2002.L	14395	8
Unknown					CAS #:		
3.392	77848	7.33828469	120	0		0	8
Unknown					CAS #:		
3.424	88068	8.30164712	140	0		0	8
Unknown					CAS #:		
4.076	90829	5.66044746	92	0		0	25
Unknown					CAS #:		
4.293	125179	7.80117882	130	0		0	25
Unknown					CAS #:		
4.334	155991	9.72139338	160	0		0	25
Unknown					CAS #:		
4.873	96264	5.99919502	98	0		0	25
Unknown					CAS #:		
4.914	126822	7.90356163	130	0		0	25
Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6					CAS #: 5989-08-2		
5.338	298427	8.41191898	140	89	NIST2002.L	58744	46
.alpha.-Cubebene					CAS #: 17699-14-8		
5.452	303295	8.54913661	140	95	NIST2002.L	58658	46
(+)-Cycloisosativene					CAS #: 1000109-88-1		
5.494	210788	5.94159892	97	91	NIST2002.L	58679	46
Unknown					CAS #:		
5.607	202331	5.70322288	93	0		0	46
Unknown					CAS #:		
5.690	1781930	50.2282716	820	0		0	46
Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7					CAS #: 483-75-0		
5.959	512190	14.4373994	240	91	NIST2002.L	58790	46
Unknown					CAS #:		
6.135	207677	5.85391156	96	0		0	46
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro					CAS #: 30021-74-0		
6.166	603385	17.0079501	280	90	NIST2002.L	58912	46
Straight-chain Alkane					CAS #:		
6.456	196520	5.53941594	91	0		0	46
Unknown					CAS #:		
6.922	534555	19.8248278	320	0		0	65

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D
Report Date: 15-Nov-2011 12:00

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
2-(2-Bromo-4-methoxyphenoxy)-N'-[1-(2-th					CAS #: 345256-81-7		
7.088	218491	8.10310417	130	92	NIST2002.L	151781	65
Unknown					CAS #:		
7.367	416367	15.4416555	250	0		0	65
Unknown					CAS #:		
8.236	6538421	242.487820	4000	0		0	65
9,10-Anthracenedione					CAS #: 84-65-1		
8.330	2470183	91.6107150	1500	95	NIST2002.L	61654	65
Unknown					CAS #:		
8.464	49080536	1820.23045	30000	0		0	65
Unknown					CAS #:		
9.189	3528199	130.848926	2100	0		0	65
1-Heptadecene					CAS #: 6765-39-5		
9.965	2922224	108.375374	1800	93	NIST2002.L	81253	65
Straight-chain Alkane					CAS #:		
10.275	3444665	127.750940	2100	0		0	65
Straight-chain Alkane					CAS #:		
10.617	2365761	87.7380430	1400	0		0	65
Straight-chain Alkane					CAS #:		
10.979	2114270	78.4110830	1300	0		0	65
Straight-chain Alkane					CAS #:		
11.393	1562389	57.9436964	950	0		0	65
Unknown					CAS #:		
11.859	9979382	370.101416	6000	0		0	65
.beta.-Sitosterol					CAS #: 83-46-5		
14.498	7734272	286.837907	4700	89	NIST2002.L	159282	65
17-(1,5-Dimethylhexyl)-10,13-dimethyl-4-					CAS #: 1000210-86-9		
15.005	16838537	624.484160	10000	90	NIST2002.L	159311	65
Unknown					CAS #:		
15.616	12374017	458.910297	7500	0		0	65

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D
Date : 14-NOV-2011 15:43
Client ID: H30S0
Sample Info: K2199-12A,,62801,,
Volume Injected (uL): 2.0
Column phase: RXI-5SILMS

Instrument: S4.I
Operator: MMS SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

Client ID: H3OSO

Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0

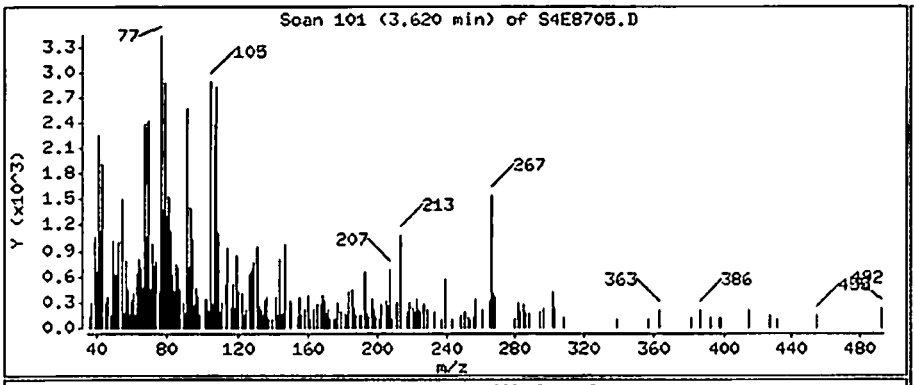
Operator: MHS SRC: LIMS

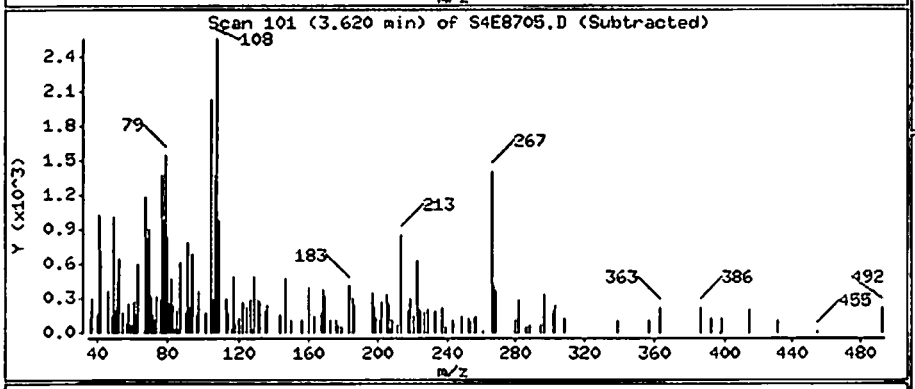
Column phase: RXI-5SILMS

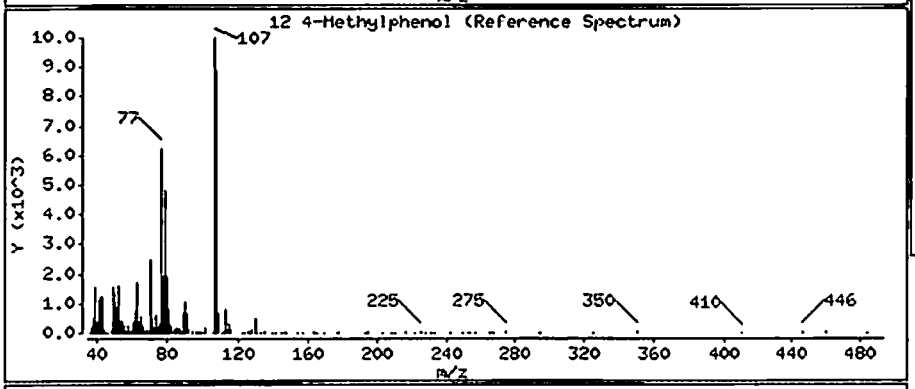
Column diameter: 0.25

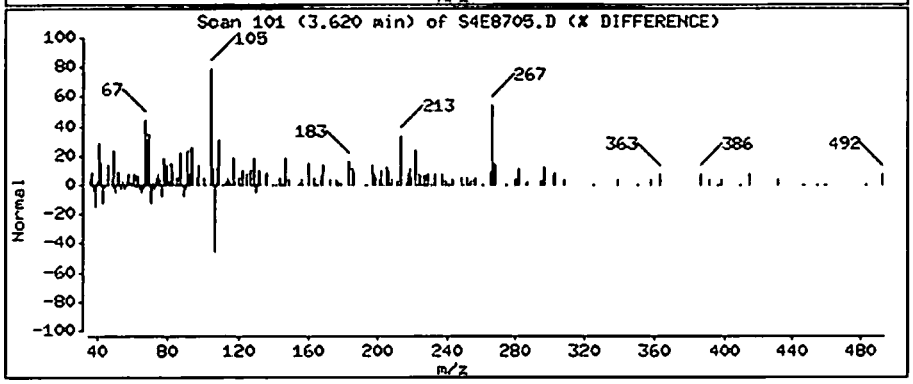
12 4-Methylphenol

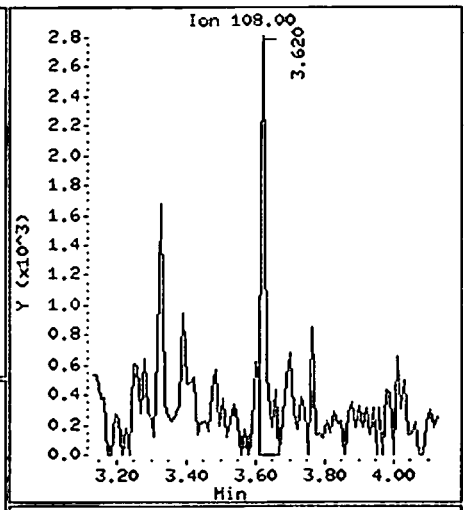
Concentration: 33 ug/Kg

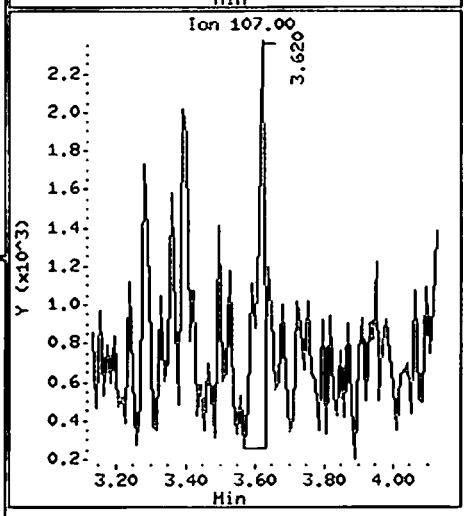












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

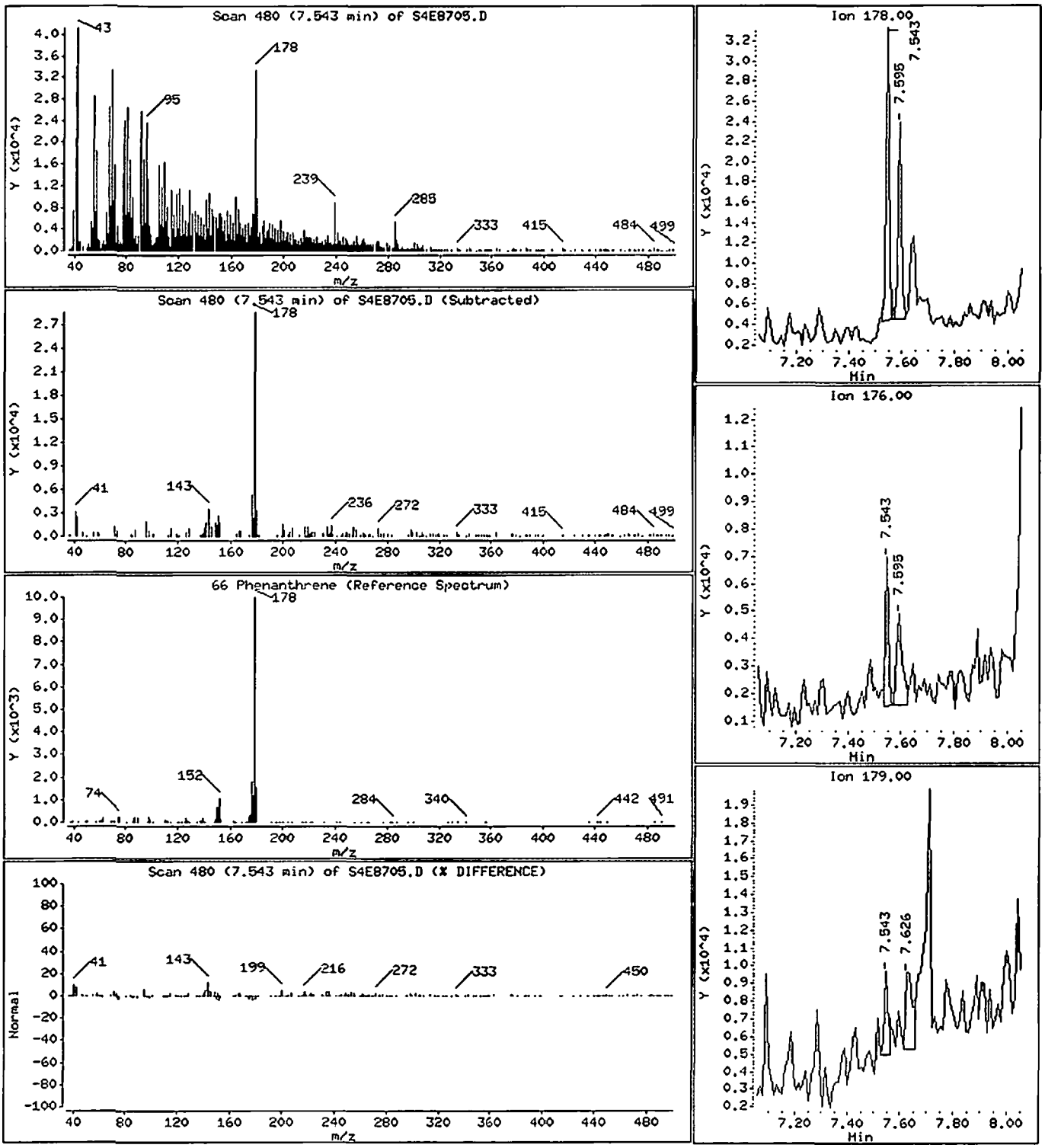
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

66 Phenanthrene Concentration: 48 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

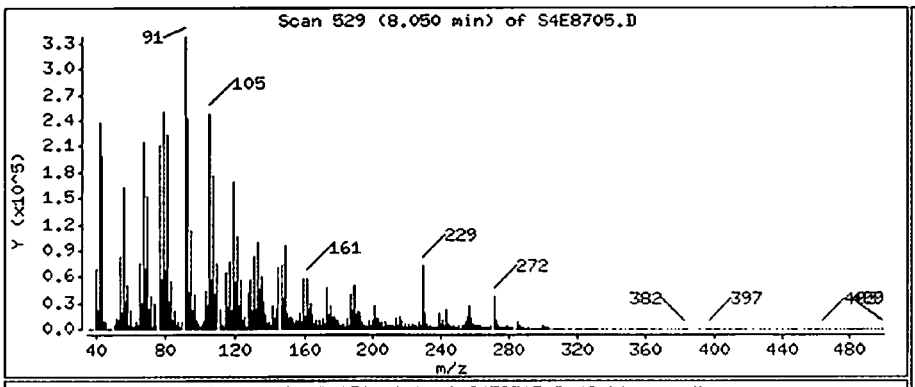
Client ID: H30S0 Instrument: S4.i

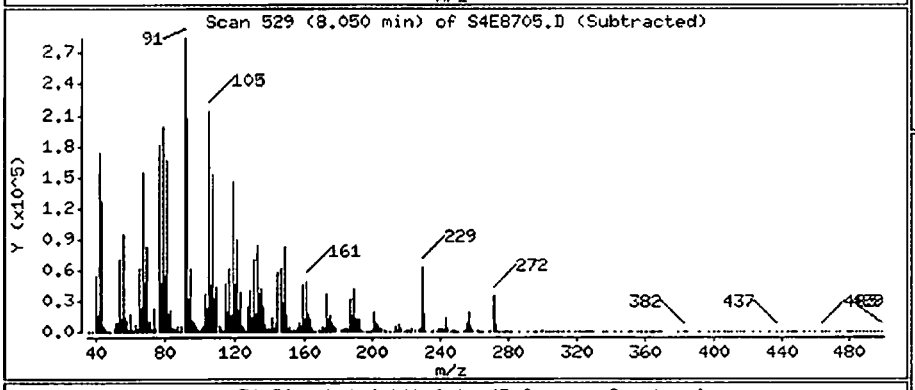
Sample Info: K2199-12A,,62801,,

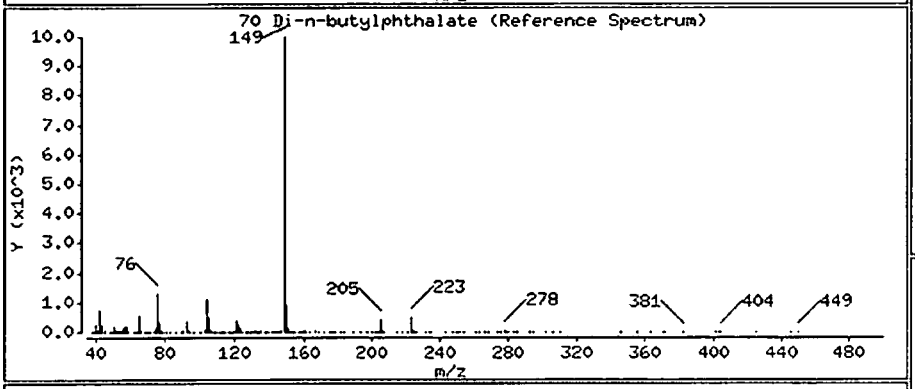
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

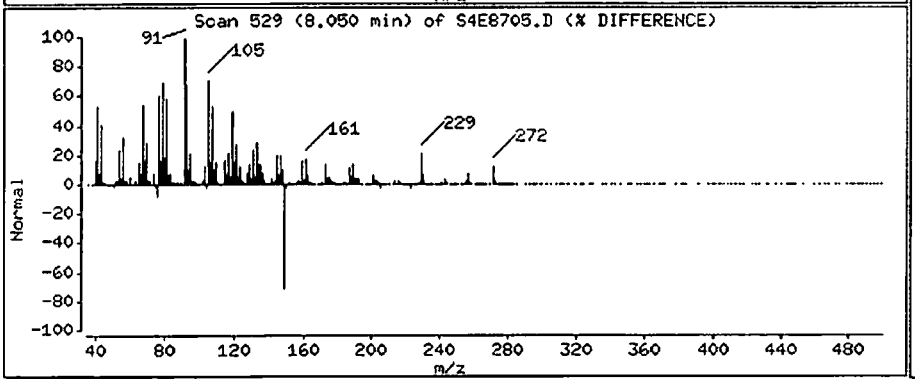
Column phase: RXI-5SILMS Column diameter: 0.25

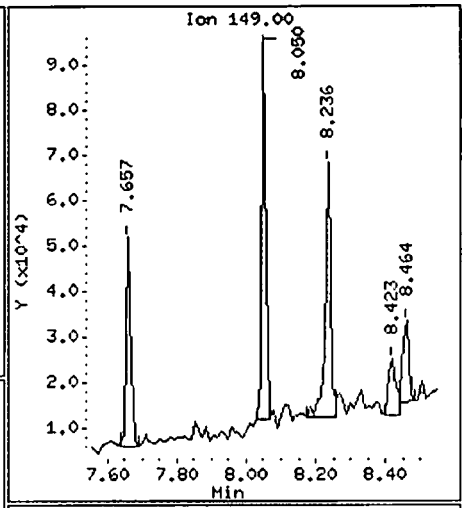
70 Di-n-butylphthalate Concentration: 140 ug/Kg

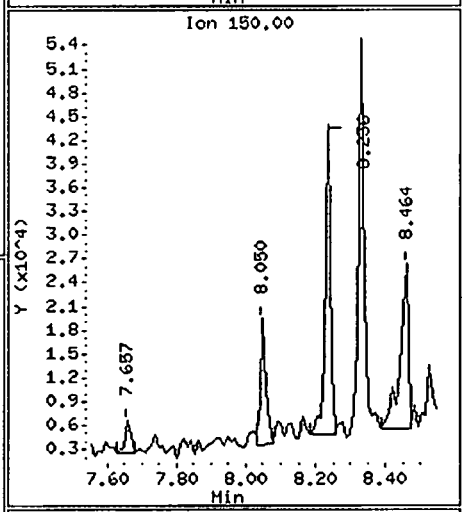


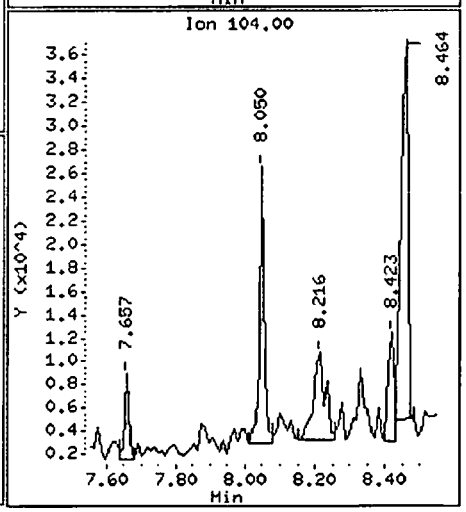












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

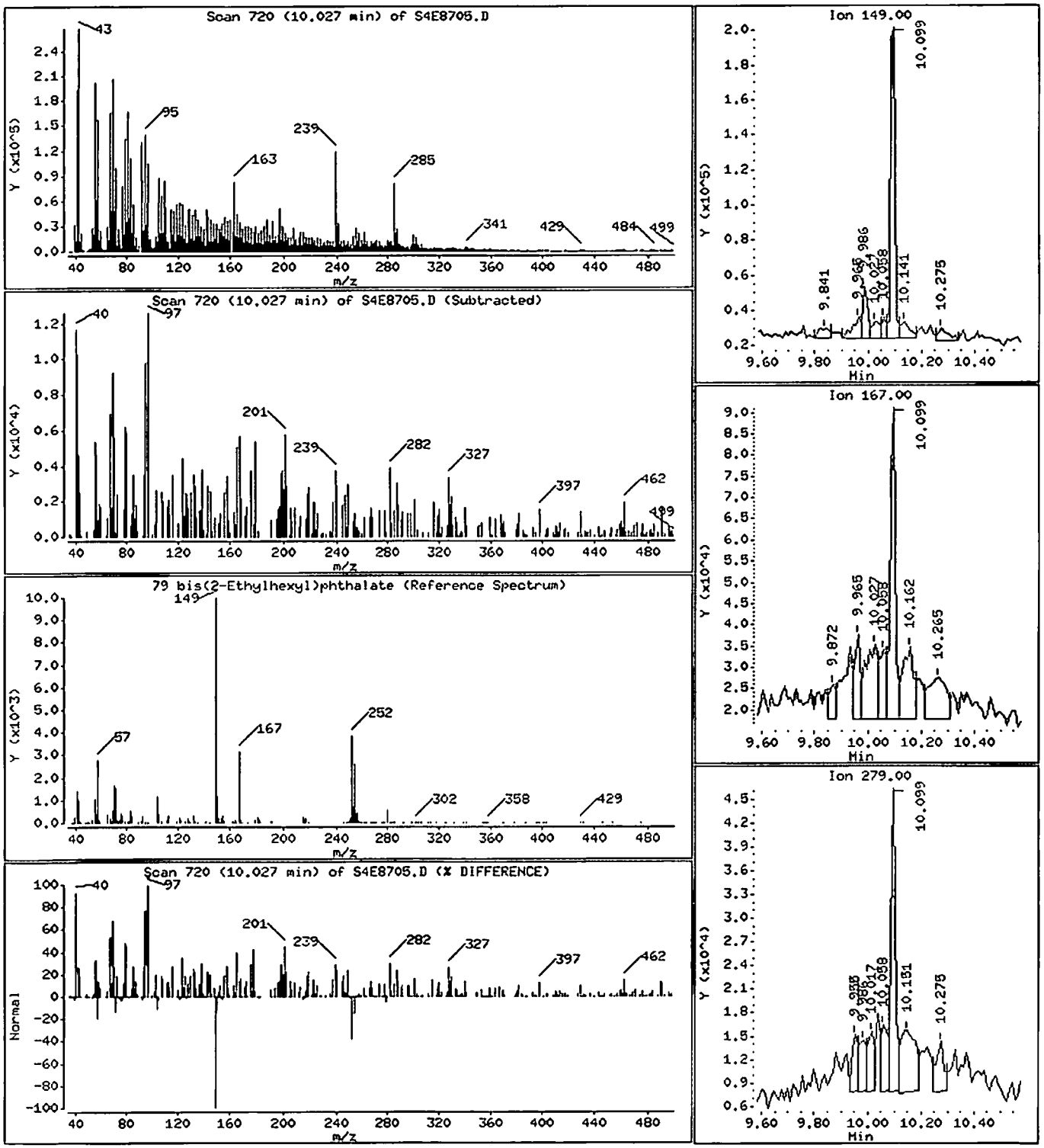
Client ID: H30S0 | Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 | Operator: HMS SRC: LIHS

Column phase: RXI-5SILHS | Column diameter: 0.25

79 bis(2-Ethylhexyl)phthalate | Concentration: 69 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

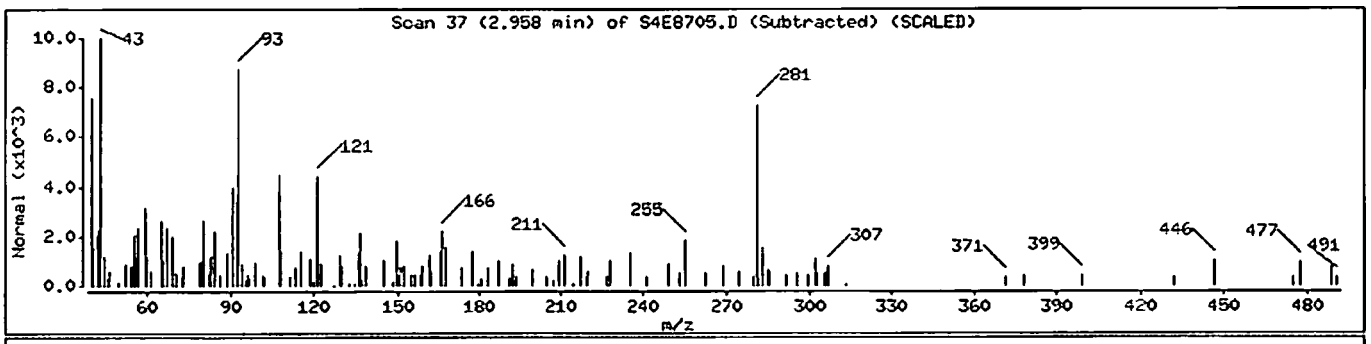
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

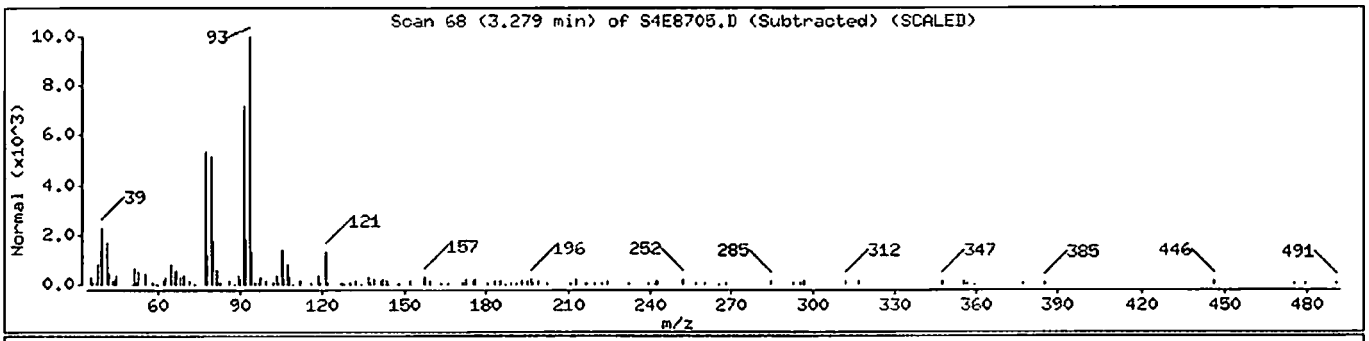
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

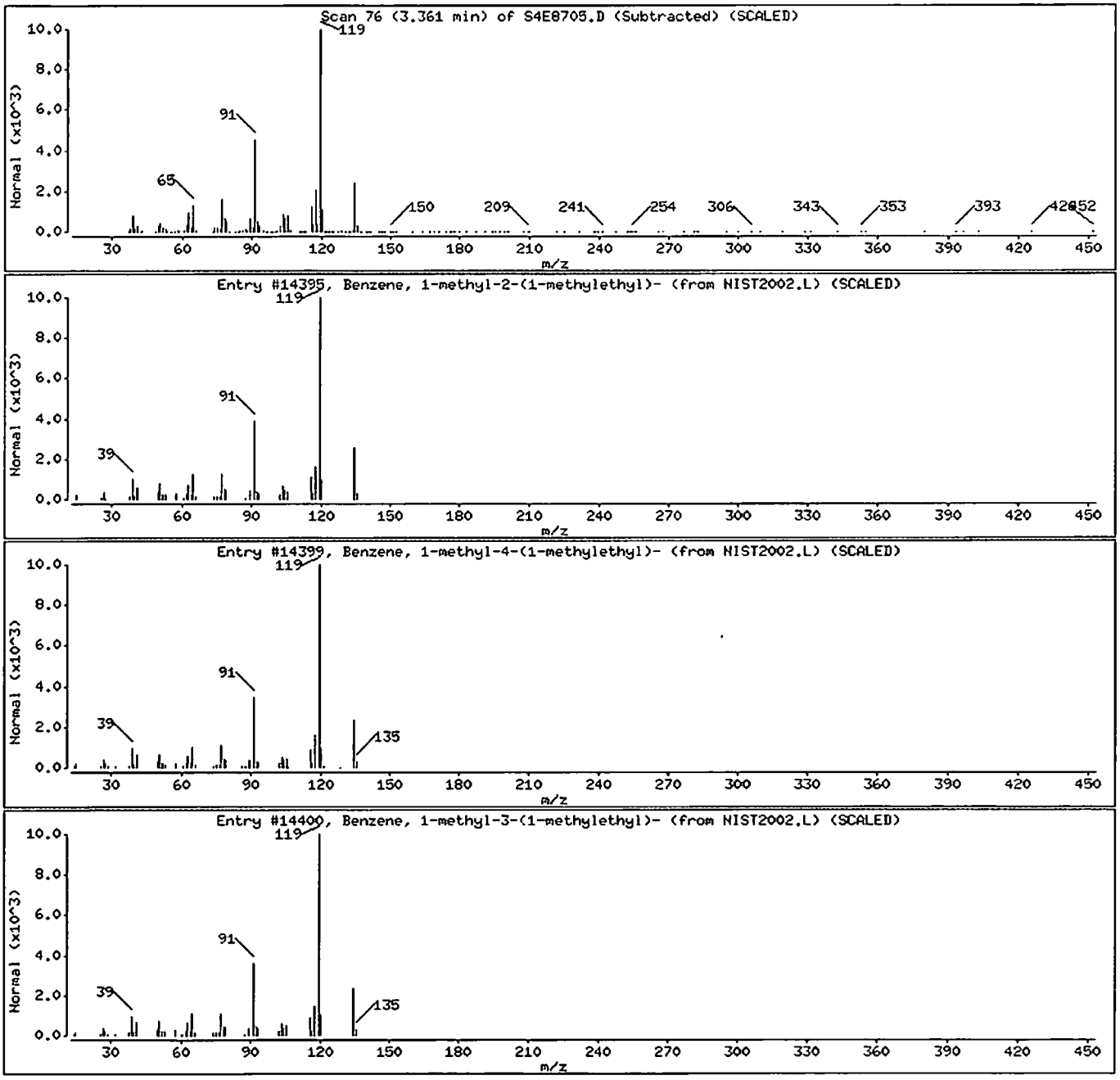
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	96	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST2002.L	14399	96	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST2002.L	14400	96	C10H14	134



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

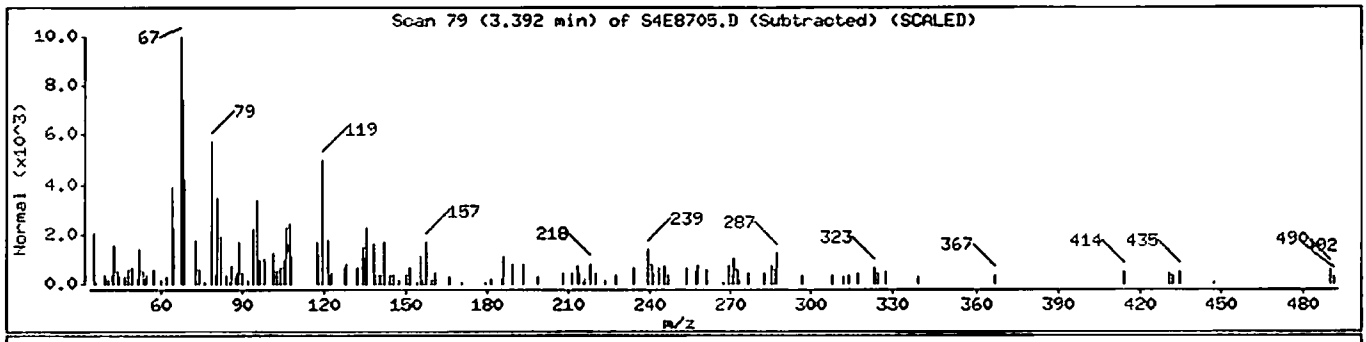
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

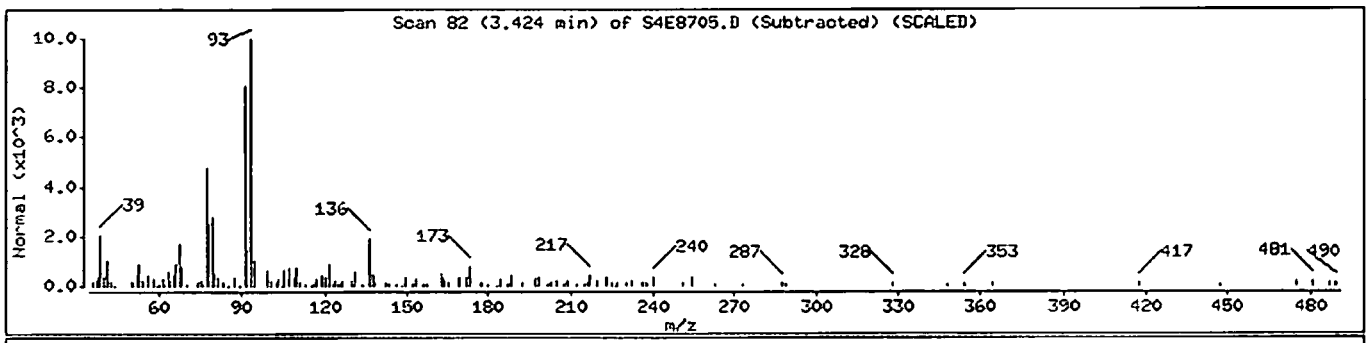
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

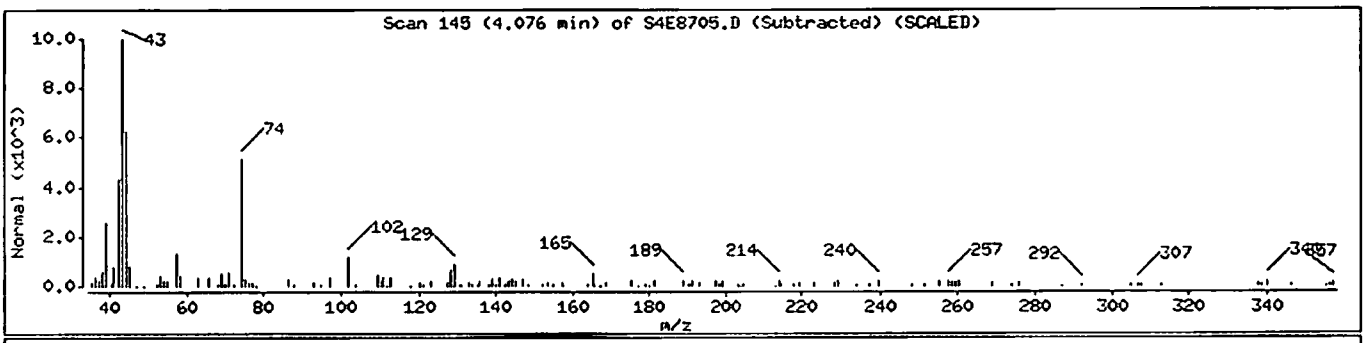
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

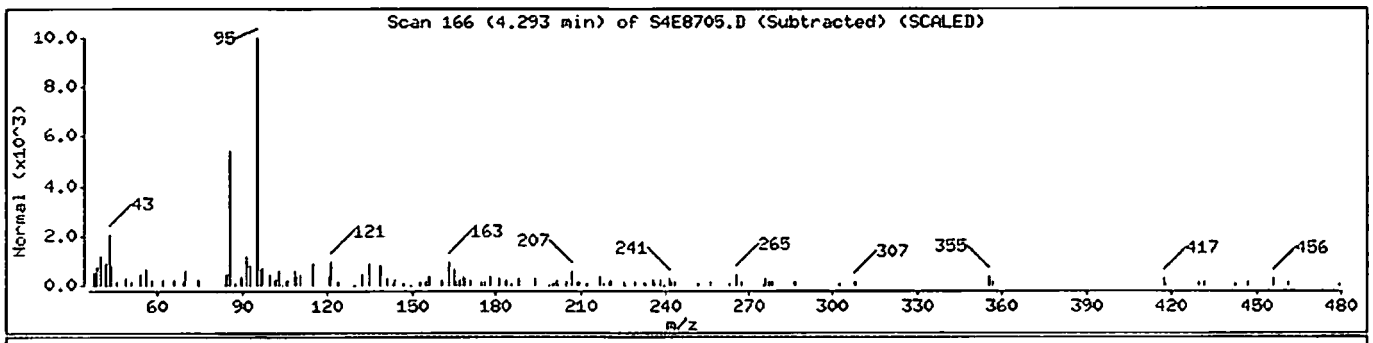
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

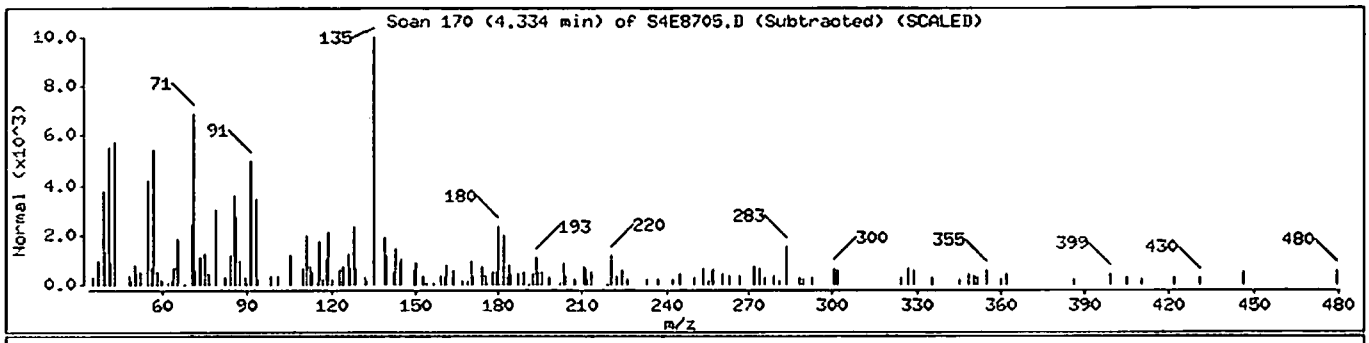
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

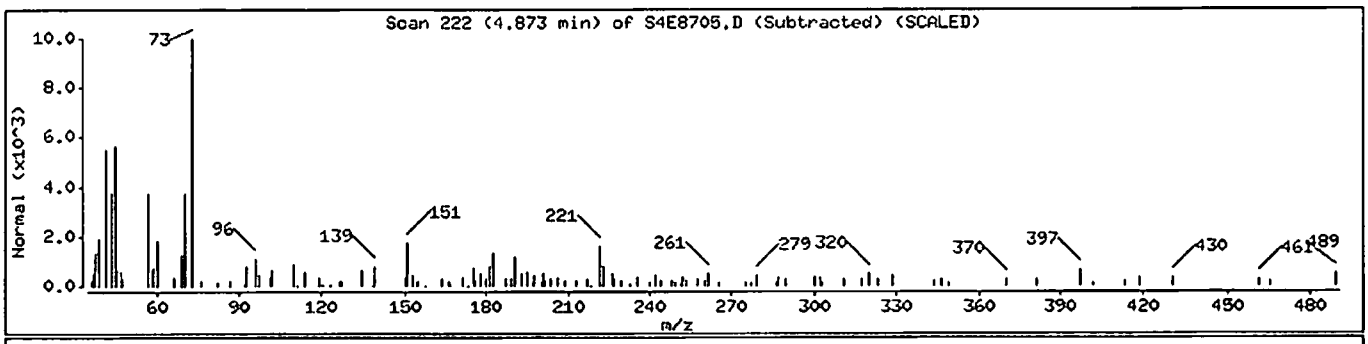
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: HHS SRC: LIHS

Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

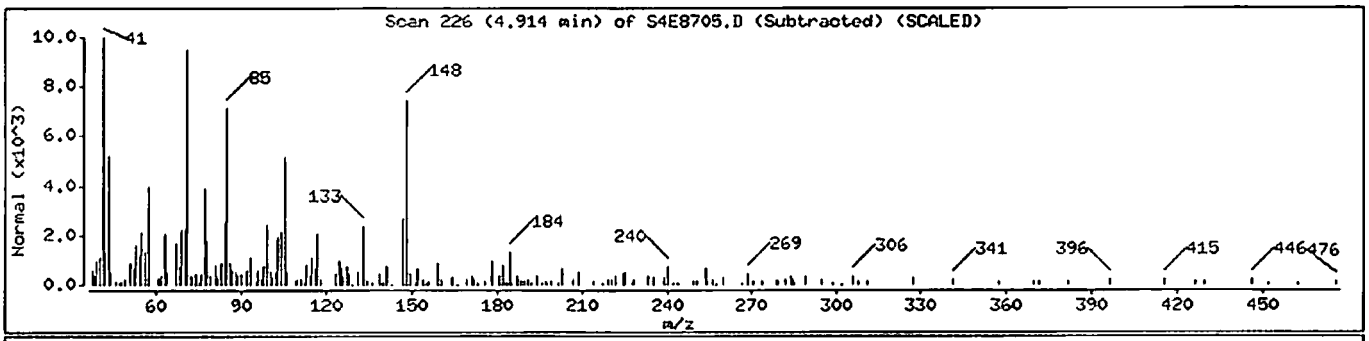
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

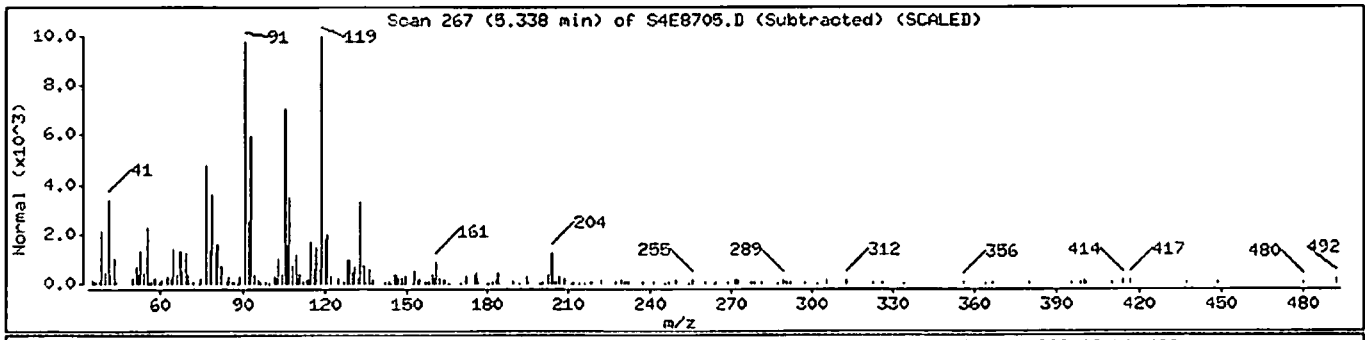
Client ID: H30S0 Instrument: S4.i

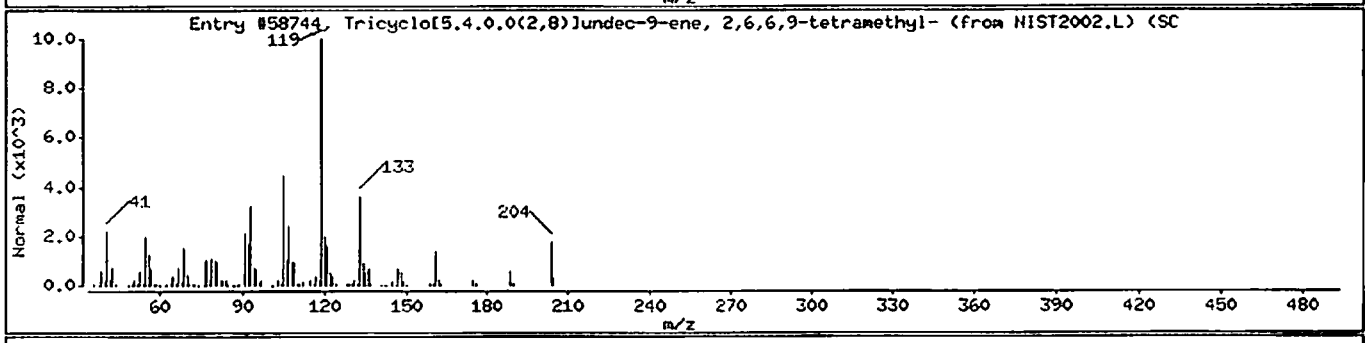
Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6	5989-08-2	NIST2002.L	58744	89	C15H24	204





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

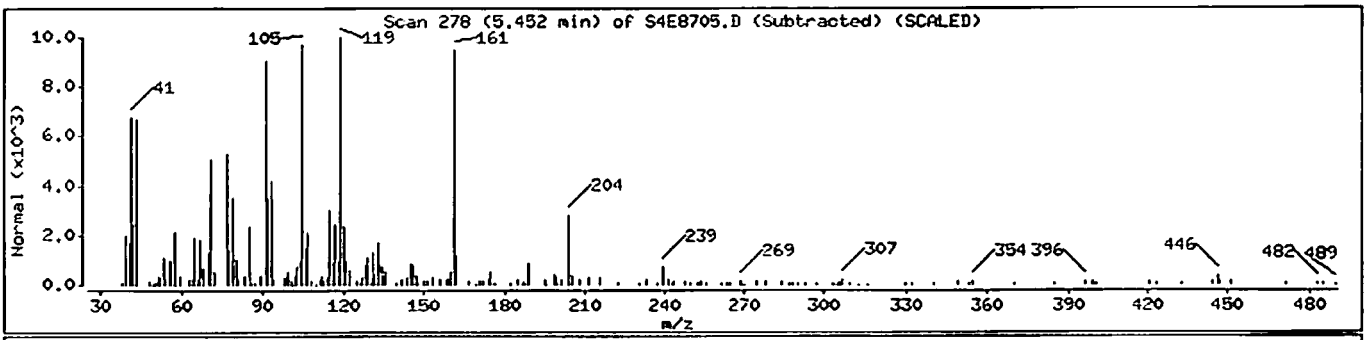
Client ID: H30S0 Instrument: S4.i

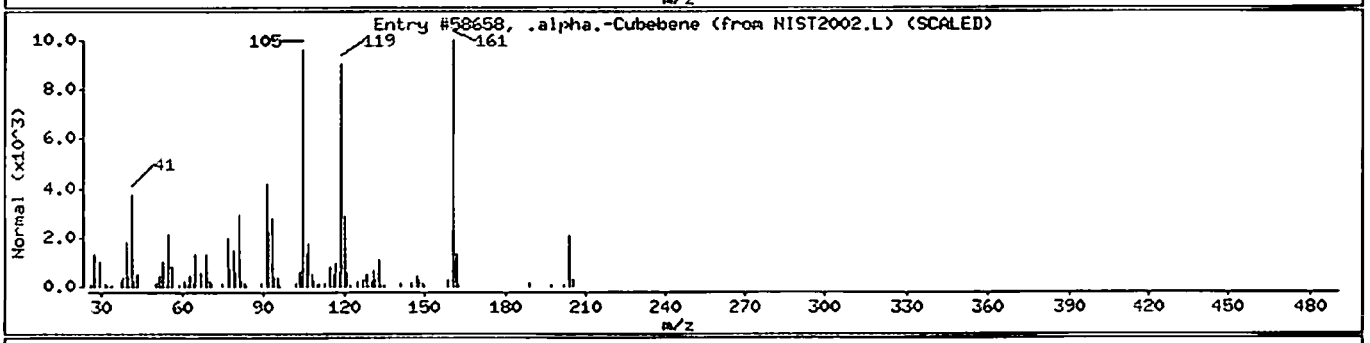
Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.alpha.-Cubebene	17699-14-8	NIST2002.L	58658	95	C15H24	204





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

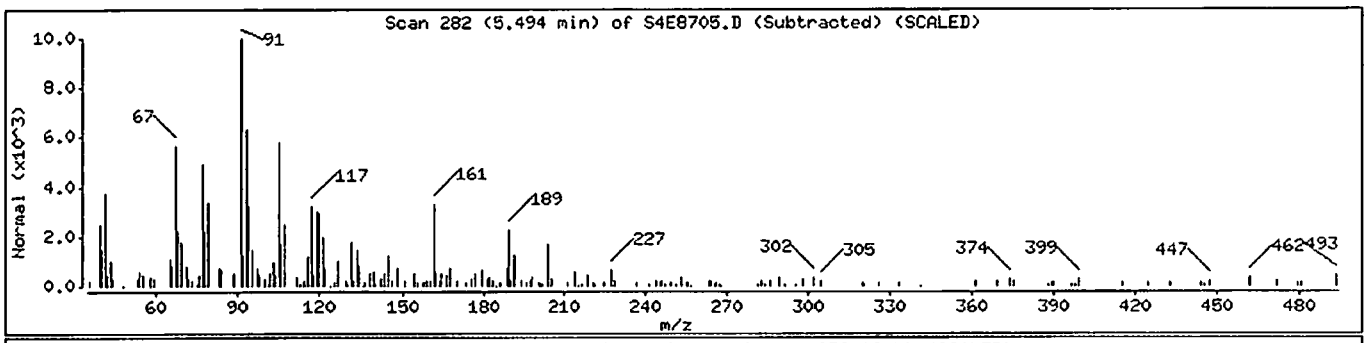
Client ID: H30S0 Instrument: S4.i

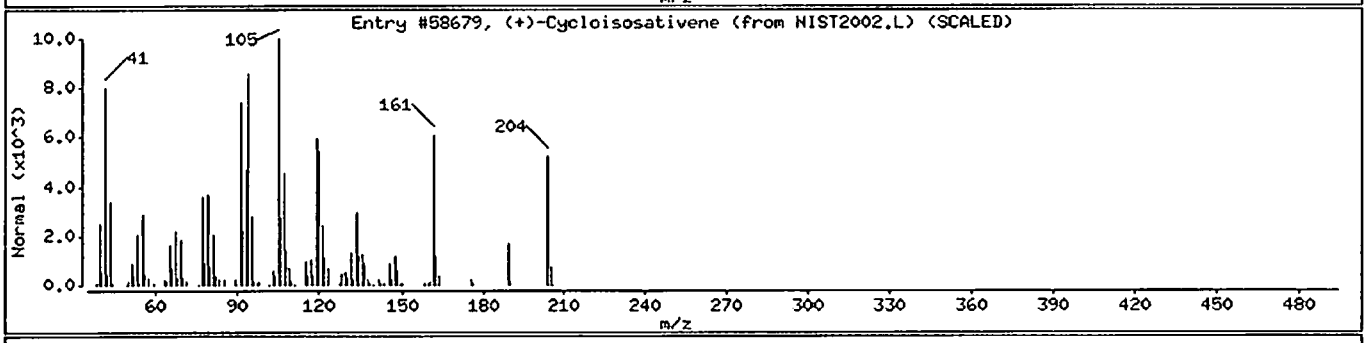
Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
(+)-Cycloisosativene	1000109-88-1	NIST2002.L	58679	91	C15H24	204





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

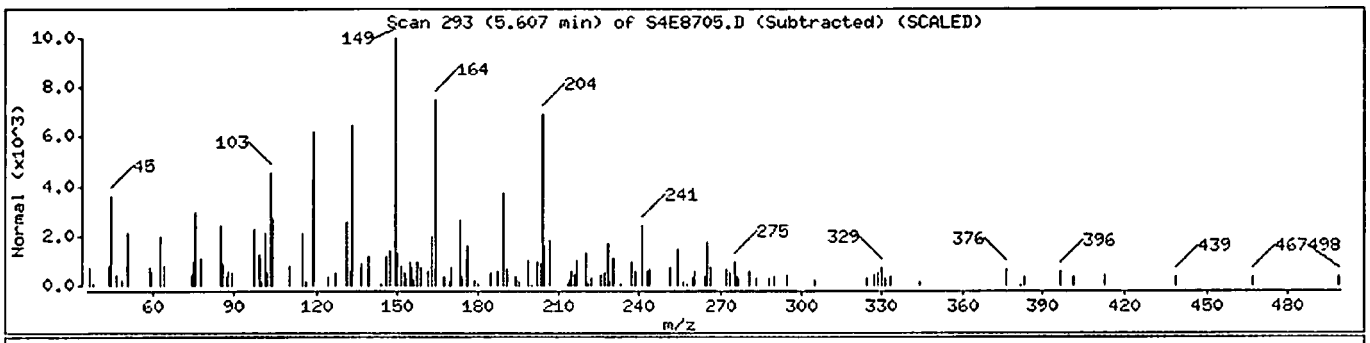
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

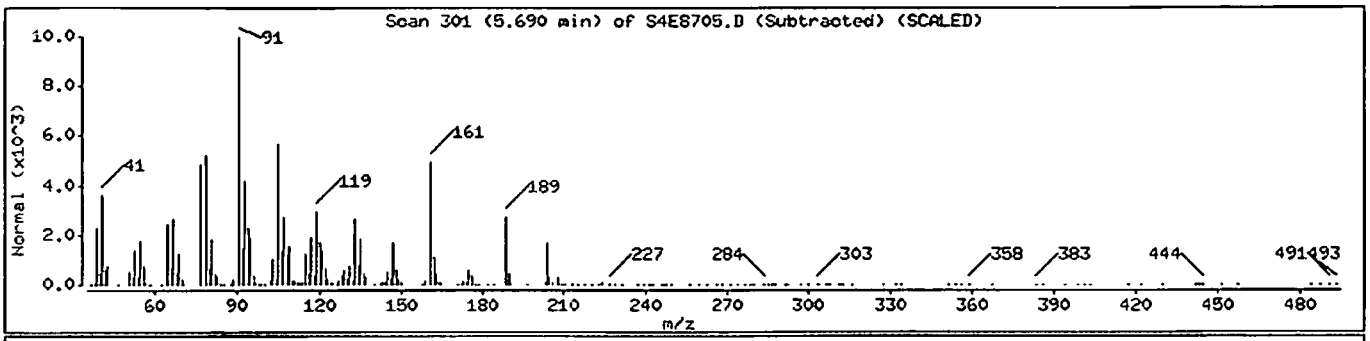
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

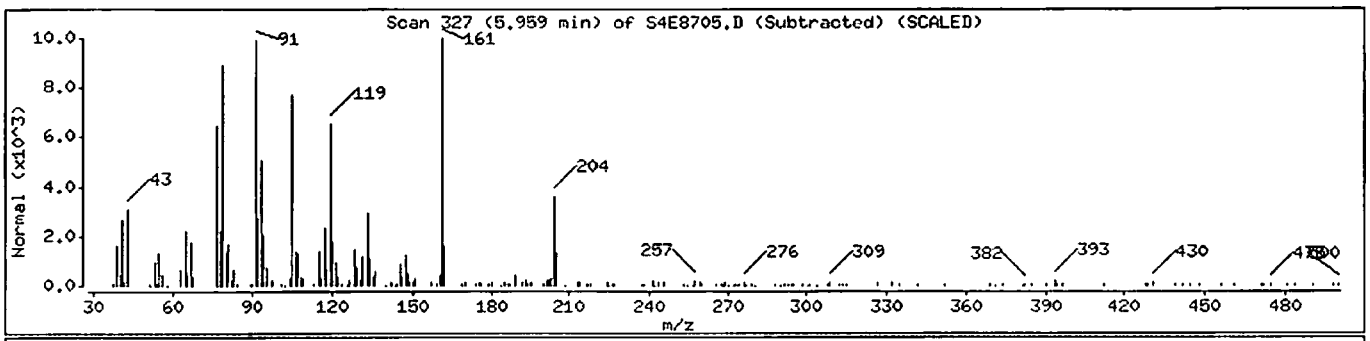
Client ID: H30S0 Instrument: S4.i

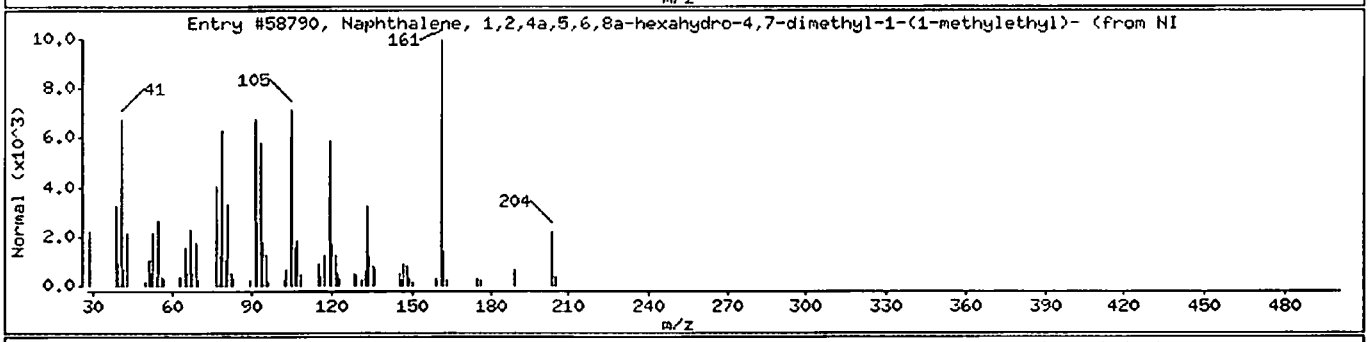
Sample Info: K2199-12A,,62801,,

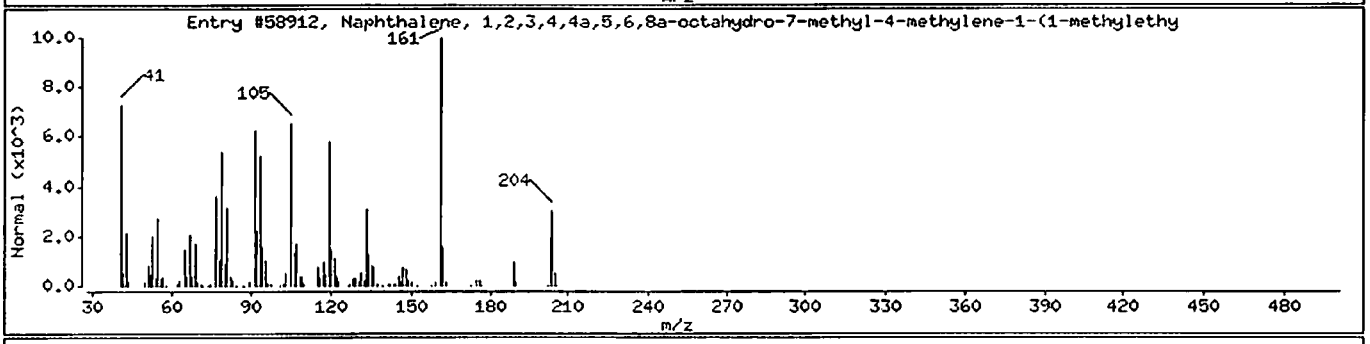
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7	483-75-0	NIST2002.L	58790	91	C15H24	204
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	30021-74-0	NIST2002.L	58912	90	C15H24	204







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

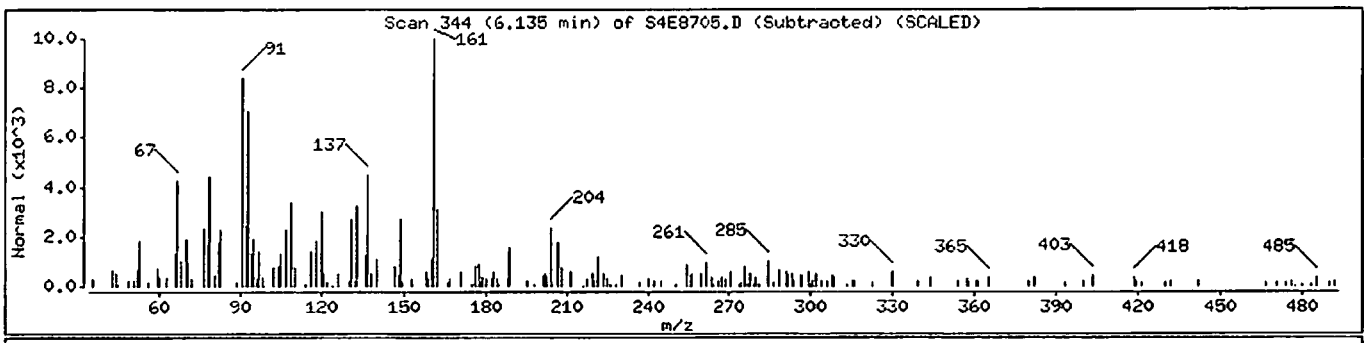
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

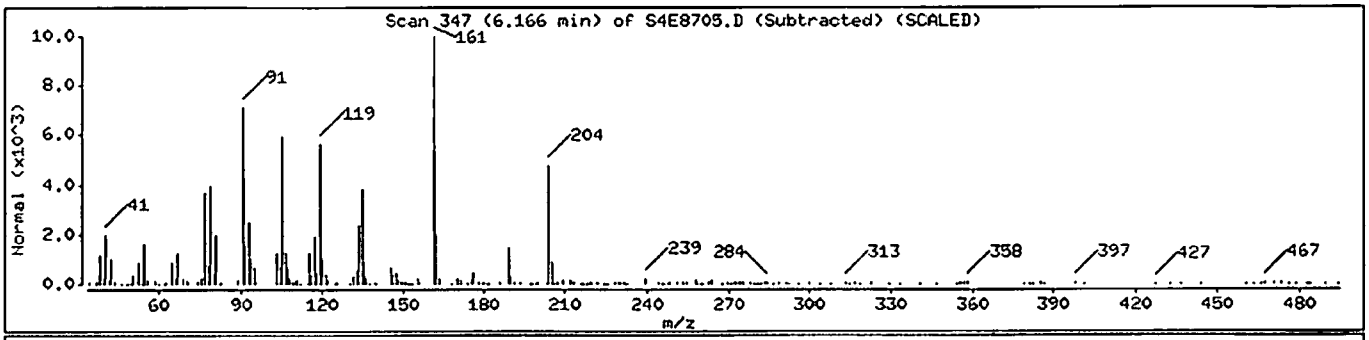
Client ID: H30S0 Instrument: S4.i

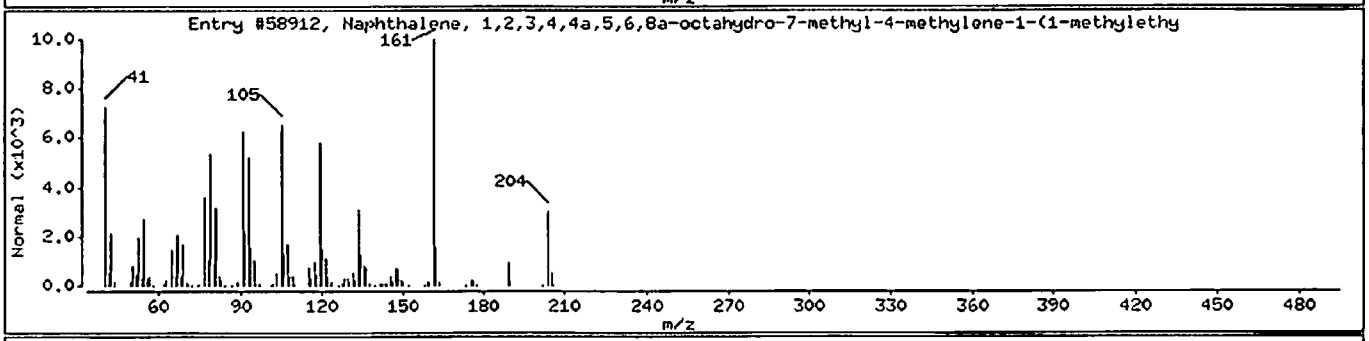
Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	30021-74-0	NIST2002.L	58912	90	C15H24	204





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

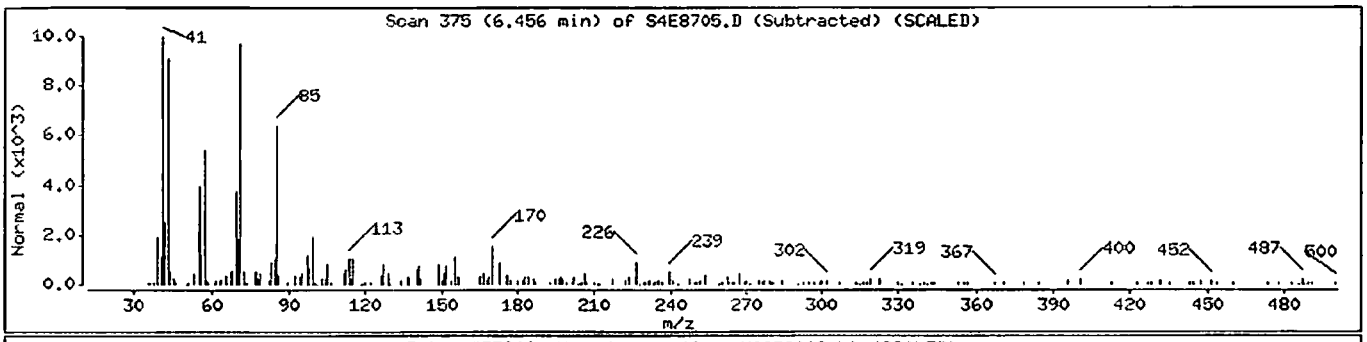
Client ID: H30S0 Instrument: S4.i

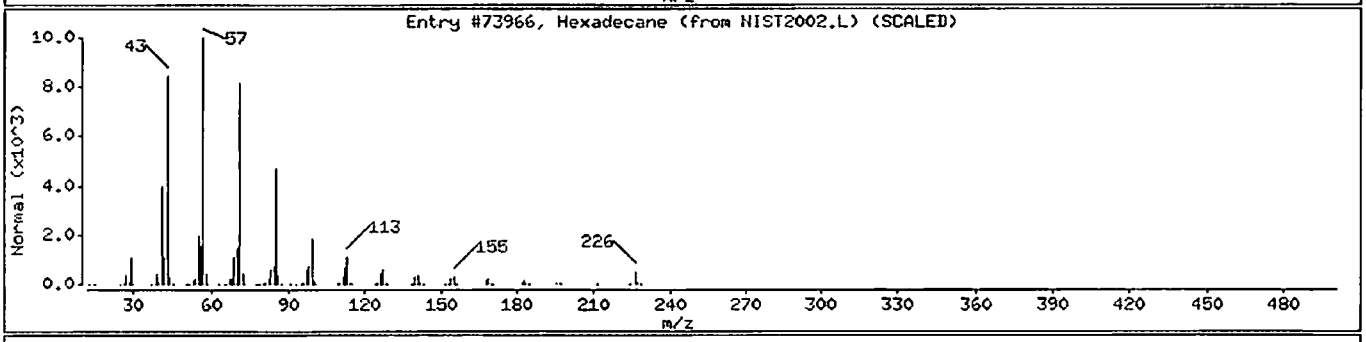
Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Hexadecane	544-76-3	NIST2002.L	73966	90	C16H34	226





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

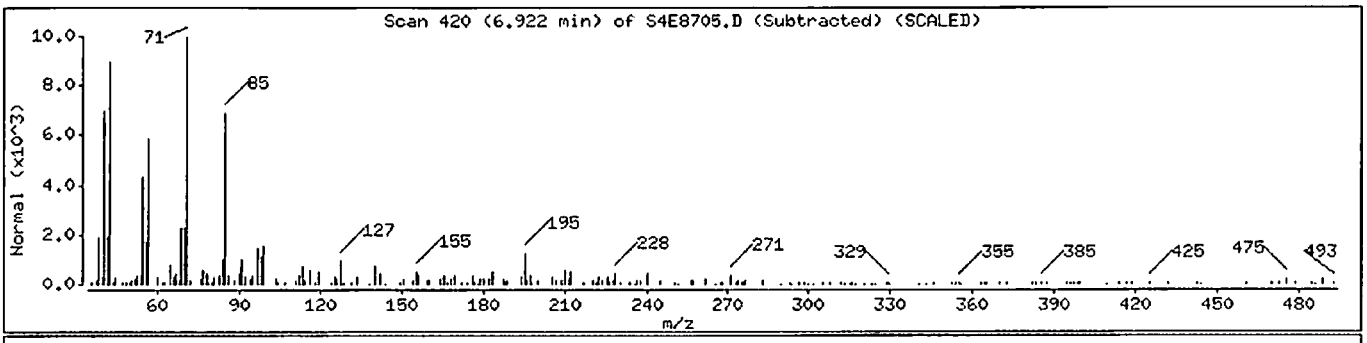
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

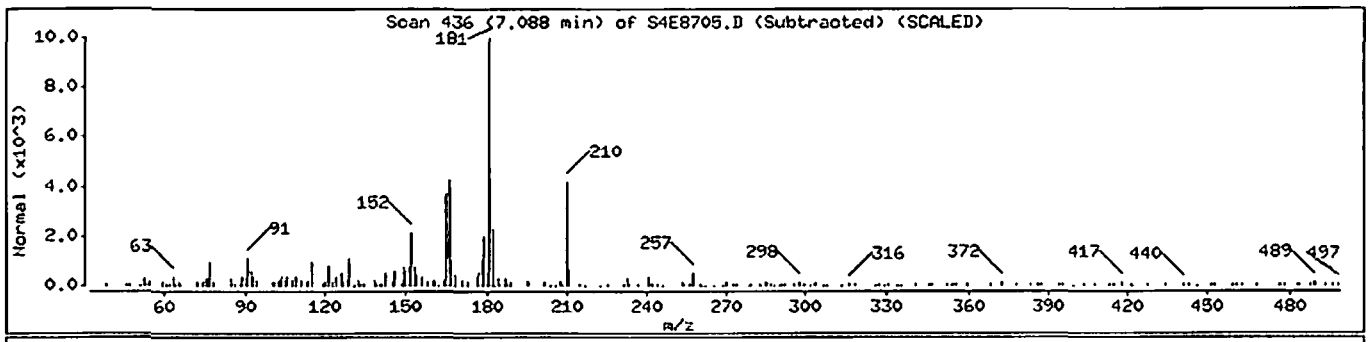
Client ID: H30S0 Instrument: S4.i

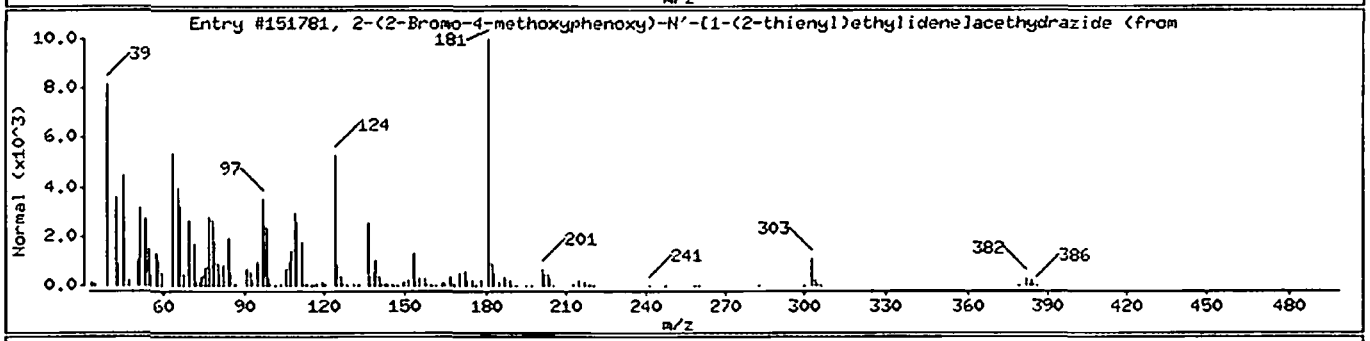
Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-(2-Bromo-4-methoxyphenoxy)-N'-[1-(2-th	345256-81-7	NIST2002.L	151781	92	C15H15BrN2O3S	382





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

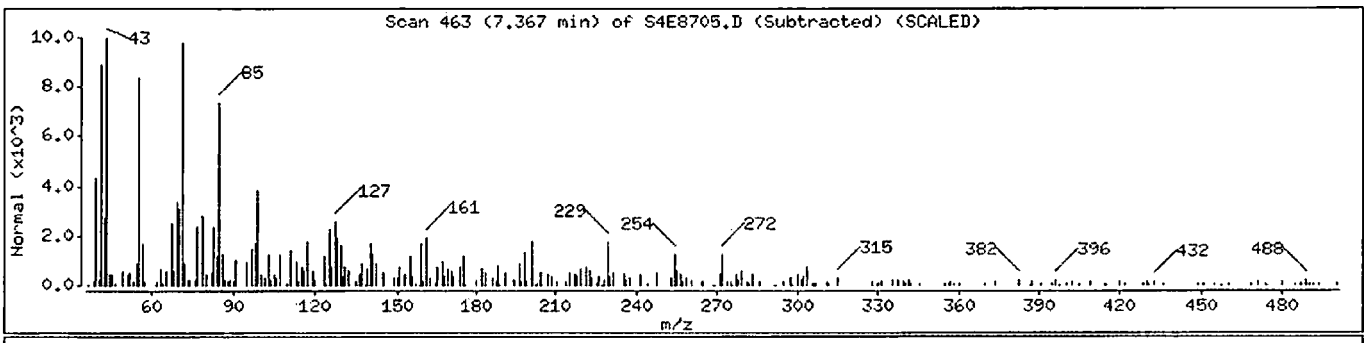
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

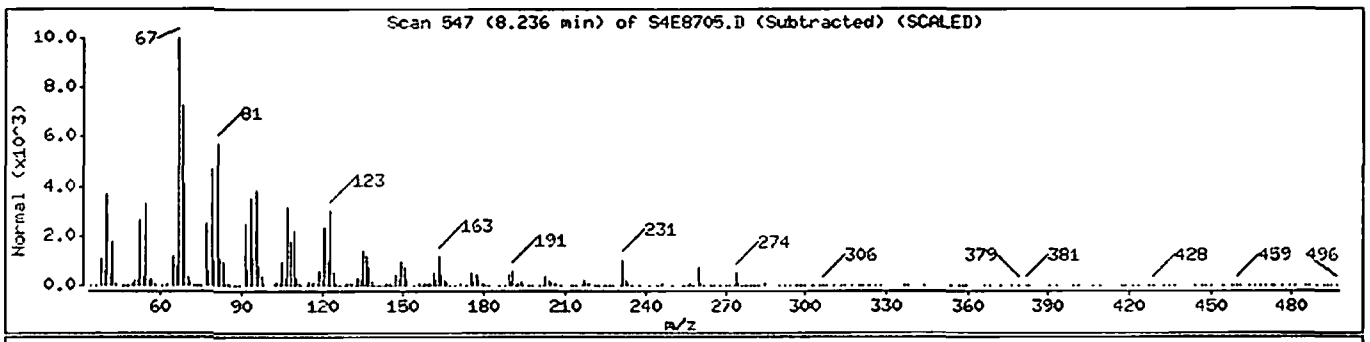
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

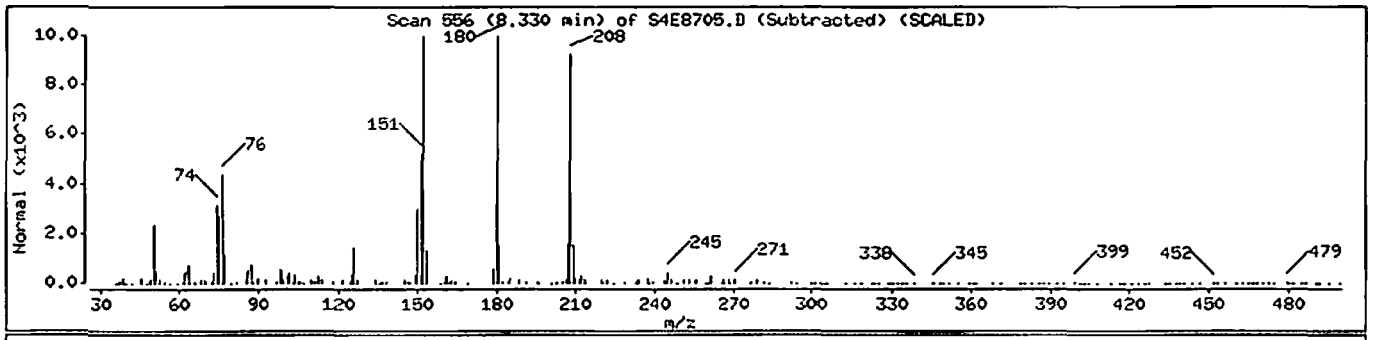
Client ID: H30S0 Instrument: S4.i

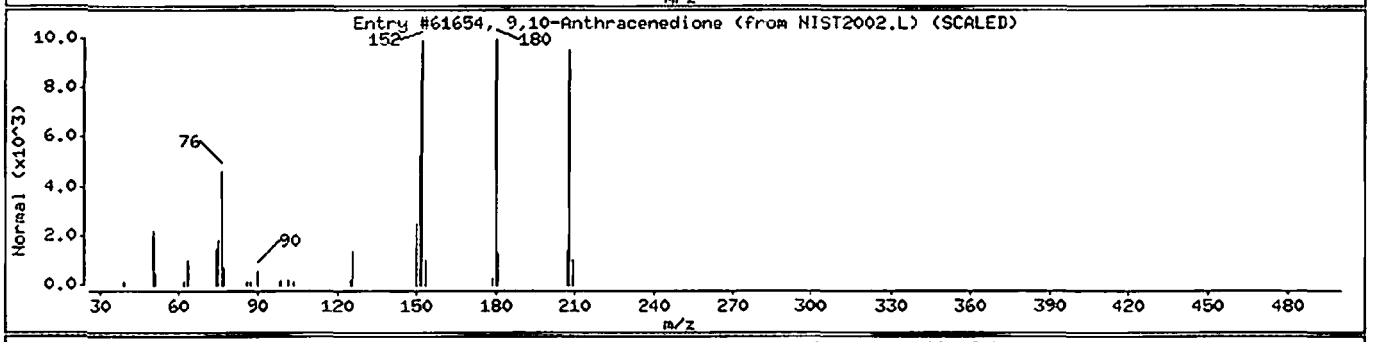
Sample Info: K2199-12A,,62801,,

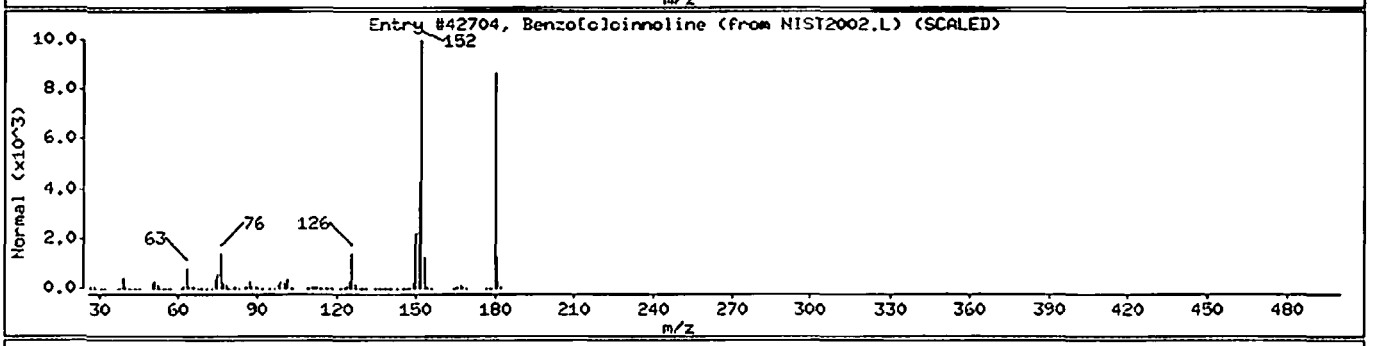
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9,10-Anthracenedione	84-65-1	NIST2002.L	61654	95	C14H8O2	208
Benzo[c]cinnoline	230-17-1	NIST2002.L	42704	95	C12H8N2	180







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

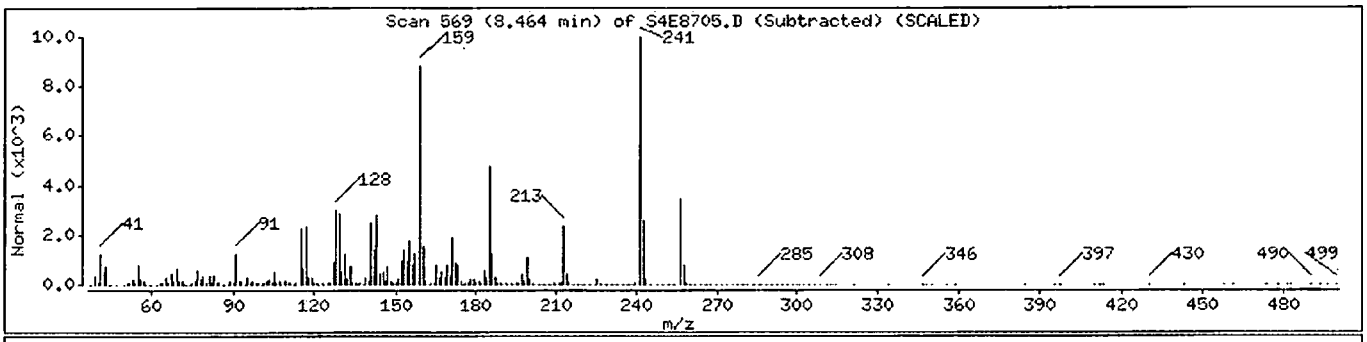
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

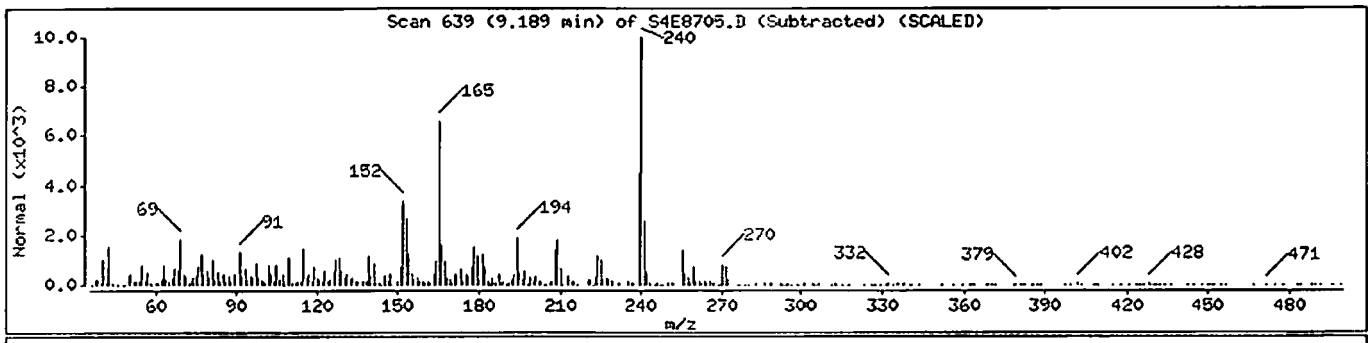
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

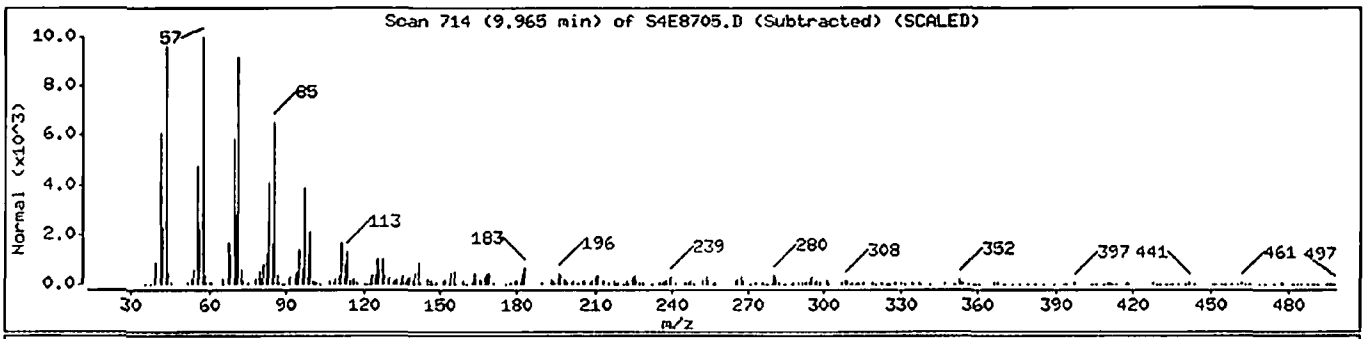
Client ID: H30S0 Instrument: S4.i

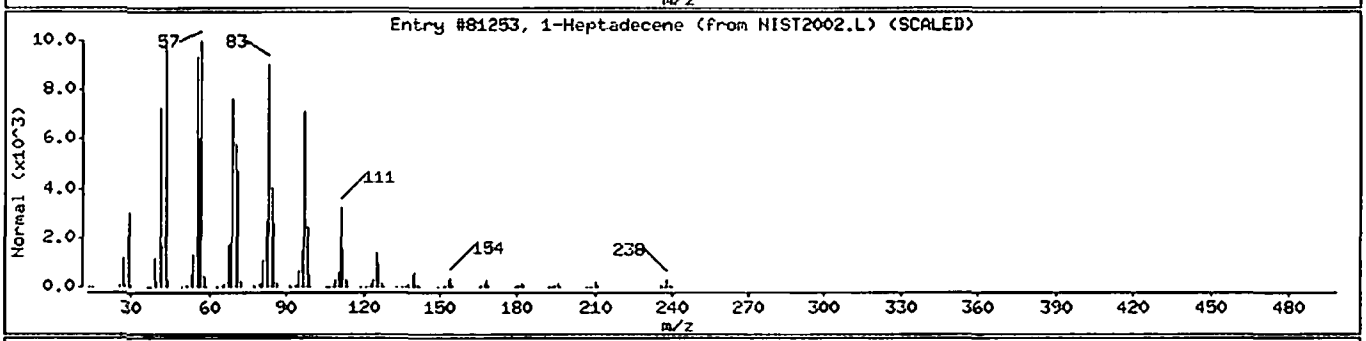
Sample Info: K2199-12A,,62801,,

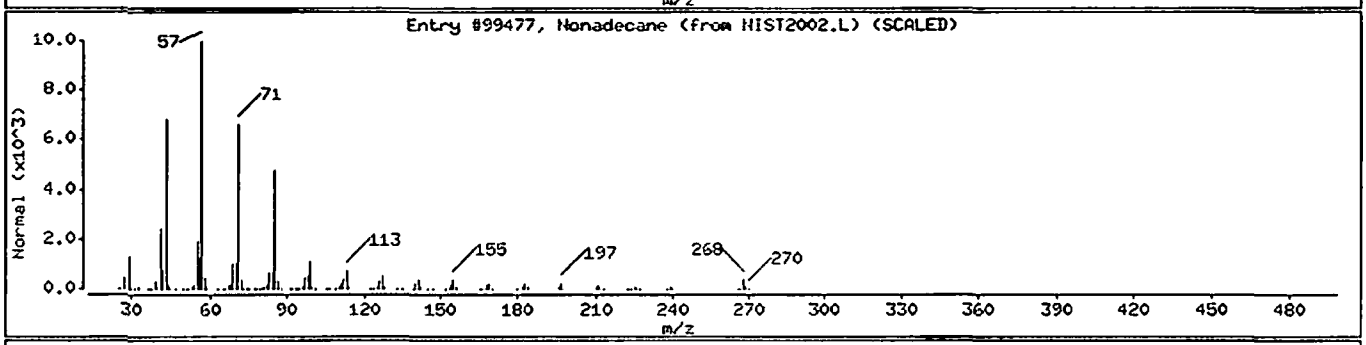
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

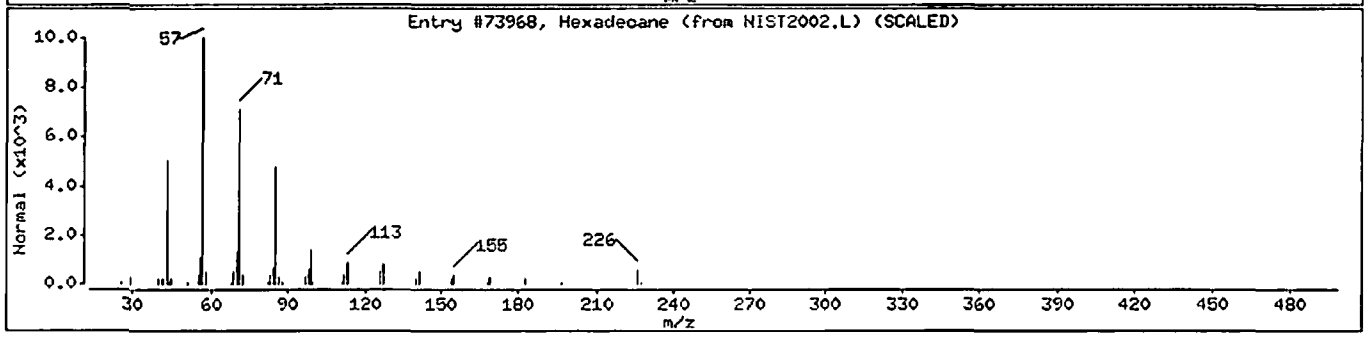
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Heptadecene	6765-39-5	NIST2002.L	81253	93	C17H34	238
Nonadecane	629-92-5	NIST2002.L	99477	91	C19H40	268
Hexadecane	544-76-3	NIST2002.L	73968	91	C16H34	226









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

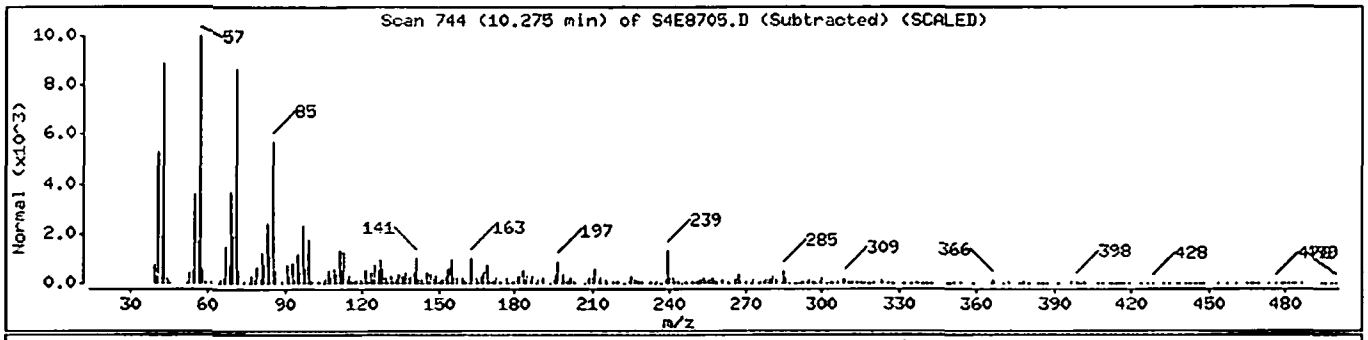
Client ID: H30S0 Instrument: S4.i

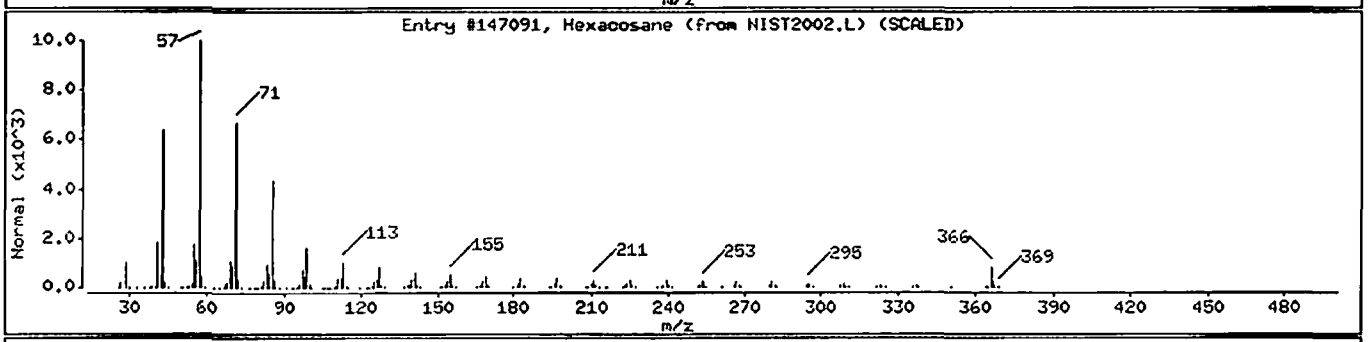
Sample Info: K2199-12A,,62801,,

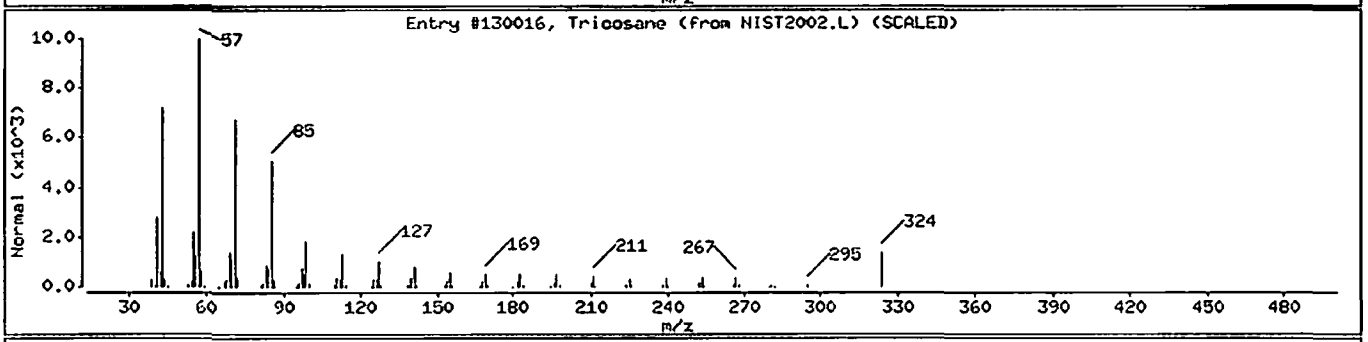
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

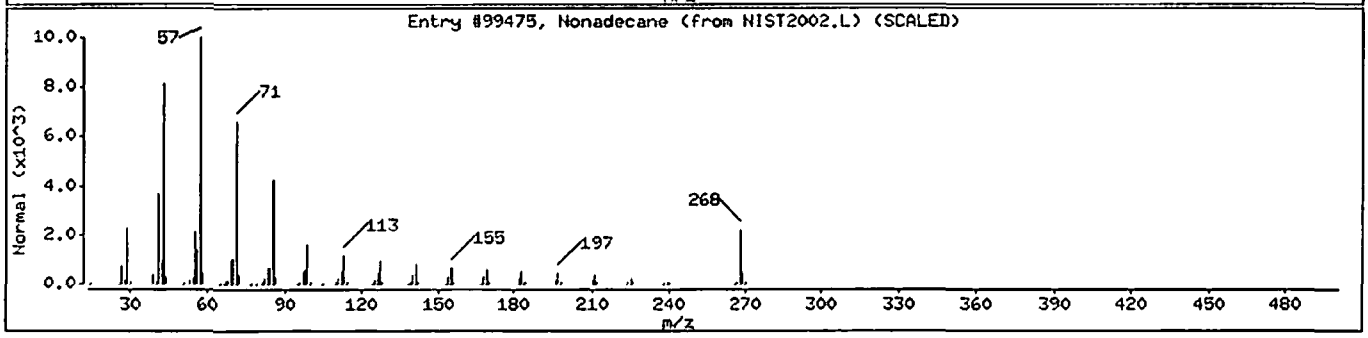
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Hexacosane	630-01-3	NIST2002.L	147091	94	C26H54	366
Tricosane	638-67-5	NIST2002.L	130016	92	C23H48	324
Nonadecane	629-92-5	NIST2002.L	99475	90	C19H40	268









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

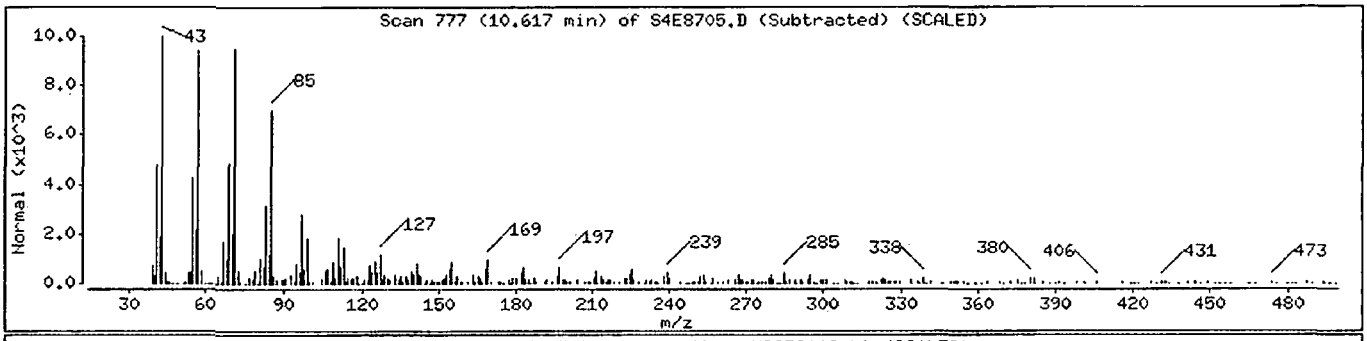
Client ID: H30S0 Instrument: S4.i

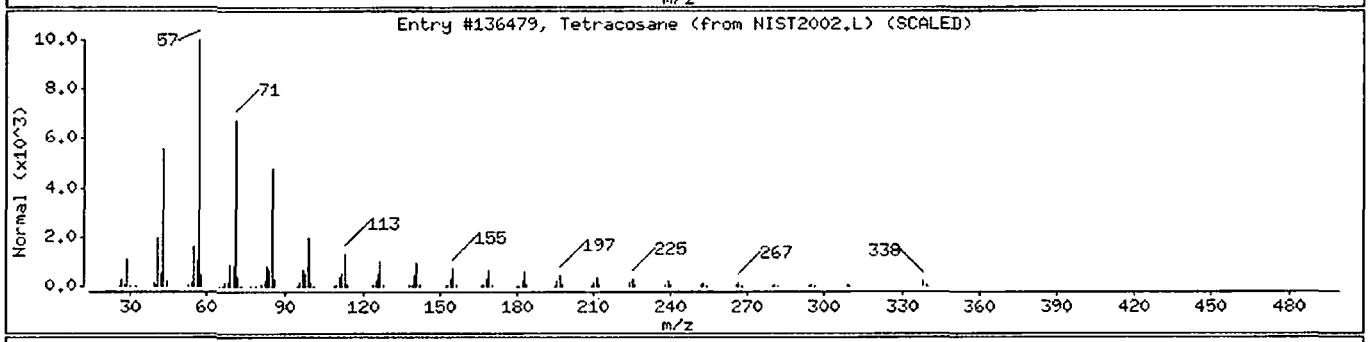
Sample Info: K2199-12A,,62801,,

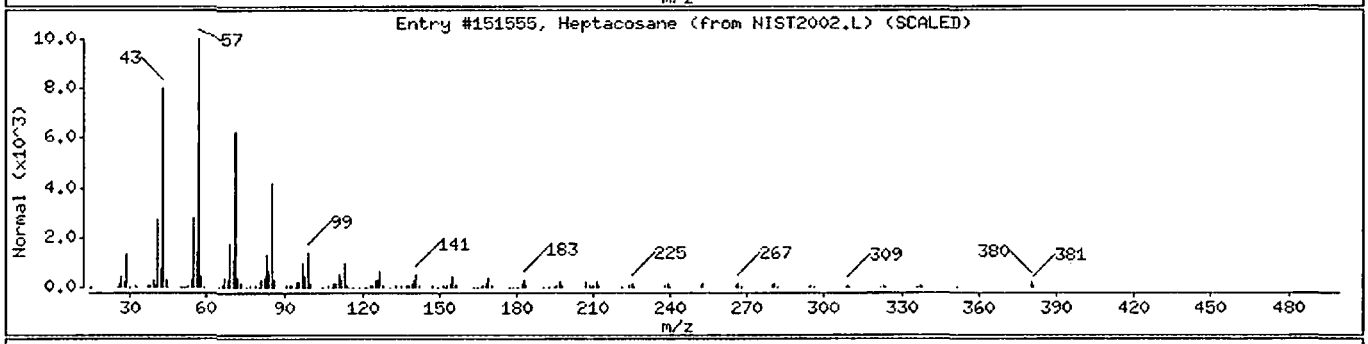
Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

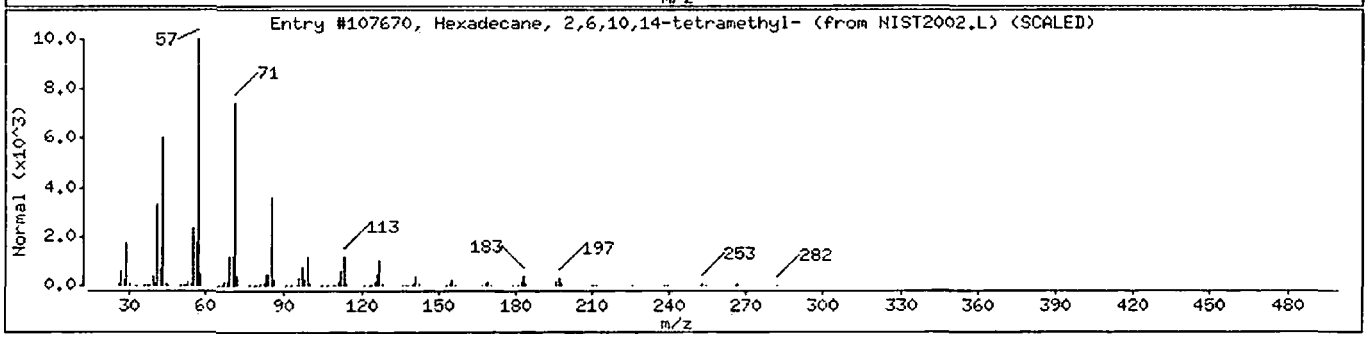
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Tetracosane	646-31-1	NIST2002.L	136479	95	C24H50	338
Heptacosane	593-49-7	NIST2002.L	151555	93	C27H56	380
Hexadecane, 2,6,10,14-tetramethyl-	638-36-8	NIST2002.L	107670	89	C20H42	282









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

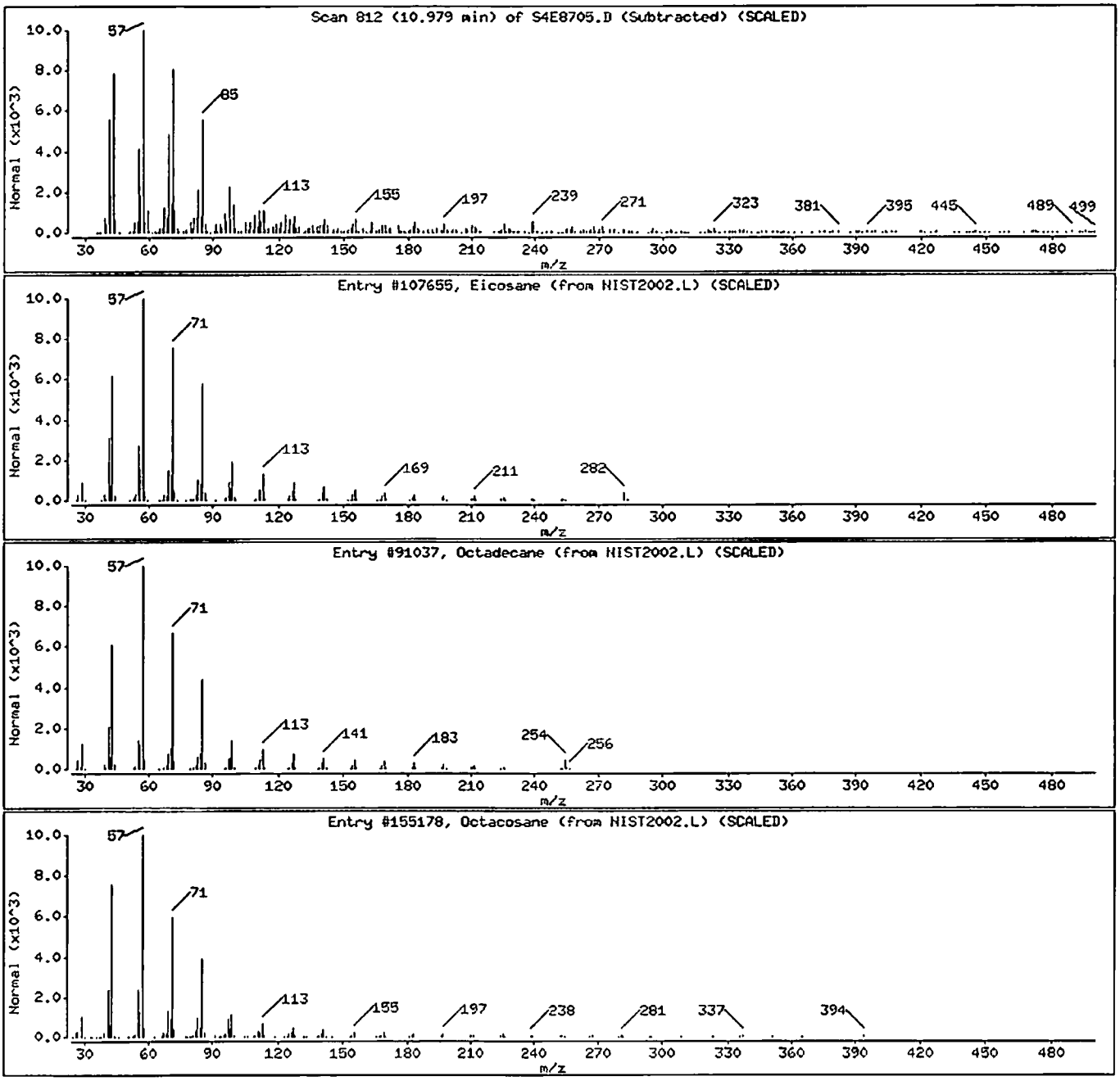
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: HHS SRC: LIHS

Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Eicosane	112-95-8	NIST2002.L	107655	97	C20H42	282
Octadecane	593-45-3	NIST2002.L	91037	95	C18H38	254
Octacosane	630-02-4	NIST2002.L	155178	93	C28H58	394



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

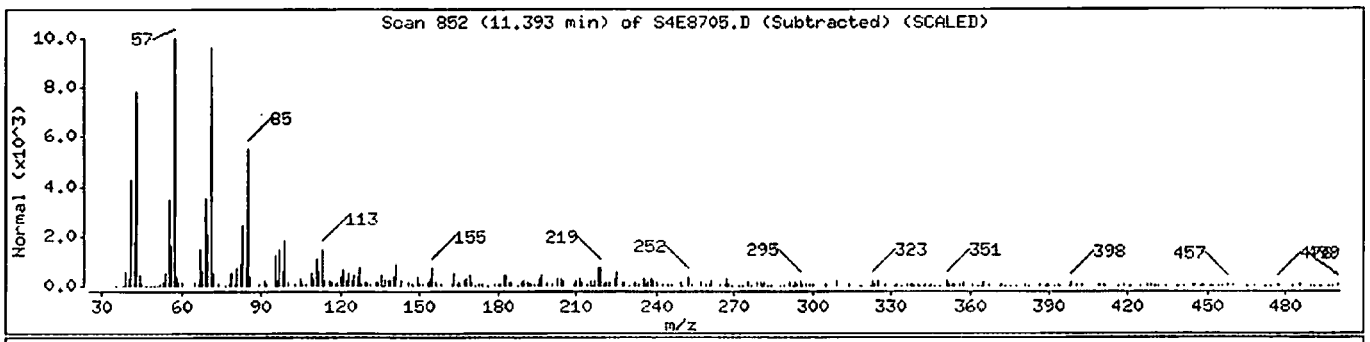
Client ID: H30S0 Instrument: S4.i

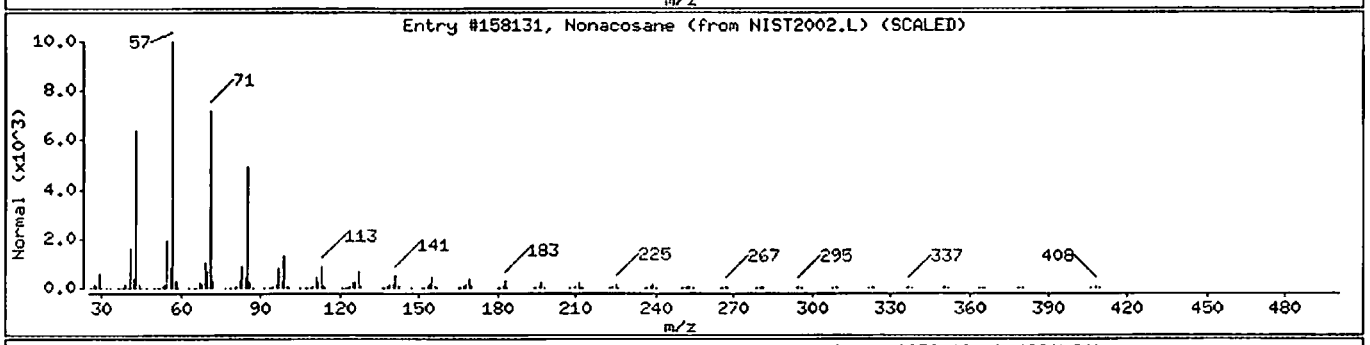
Sample Info: K2199-12A,,62801,,

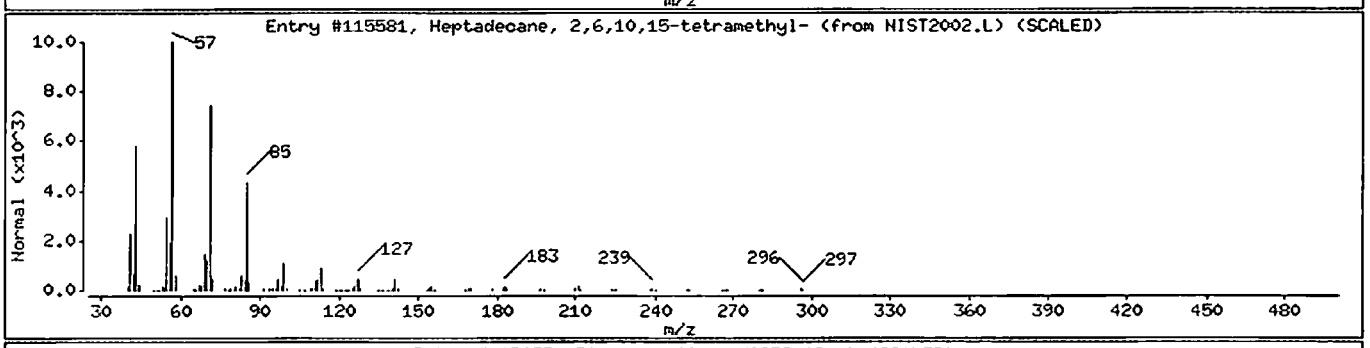
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

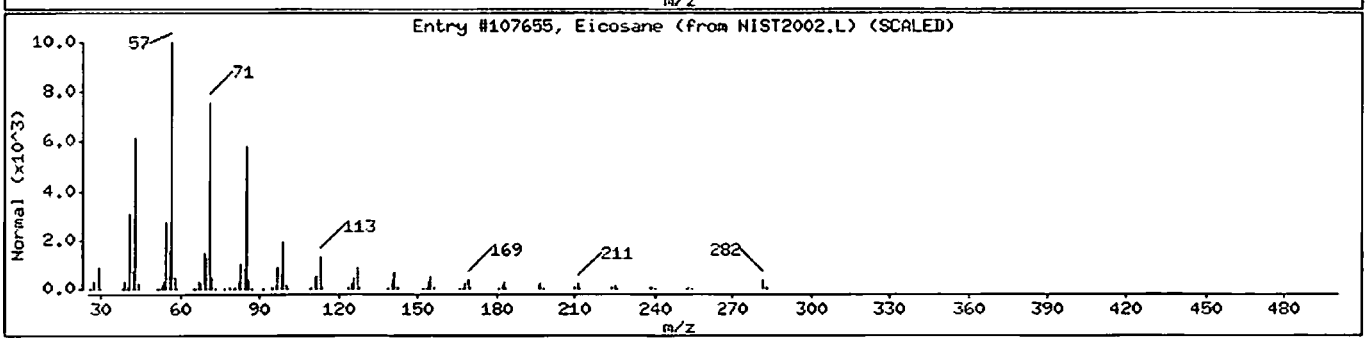
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Nonacosane	630-03-5	NIST2002.L	158131	96	C29H60	408
Heptadecane, 2,6,10,15-tetramethyl-	54833-48-6	NIST2002.L	115581	94	C21H44	296
Eicosane	112-95-8	NIST2002.L	107655	93	C20H42	282









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

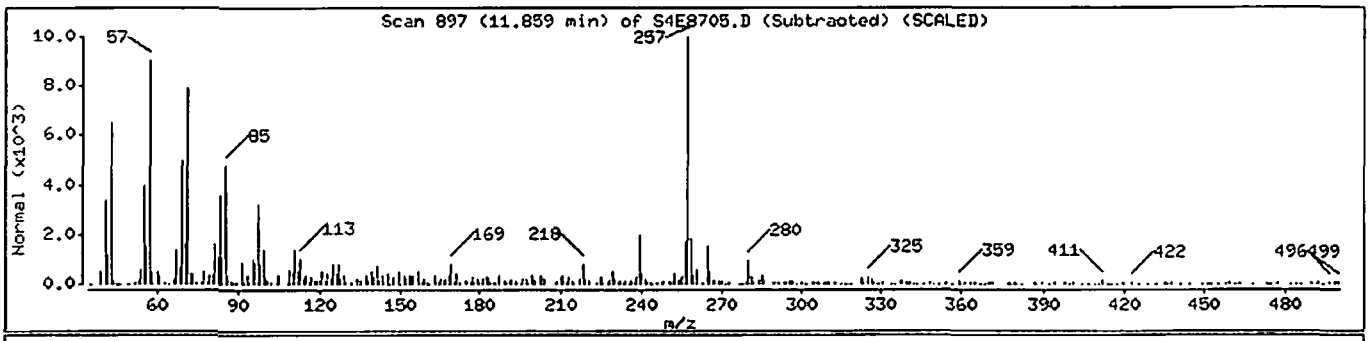
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

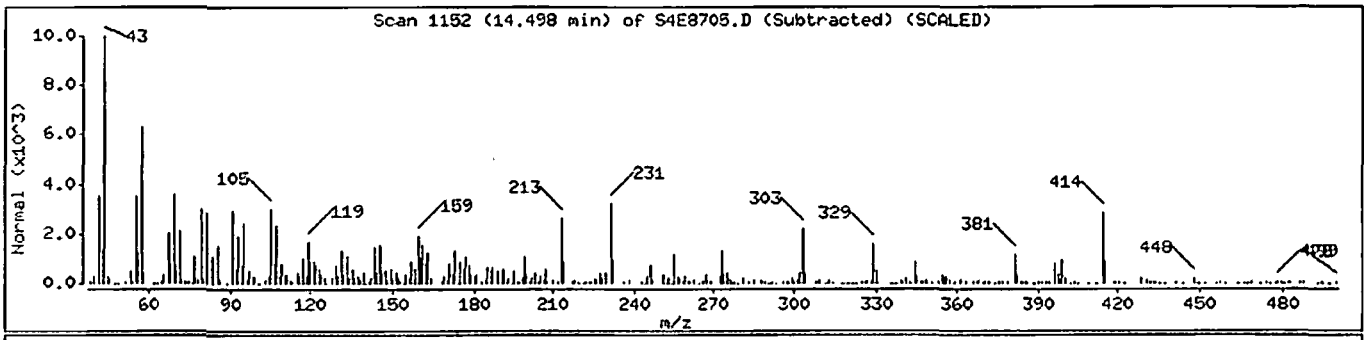
Client ID: H30S0 Instrument: S4.i

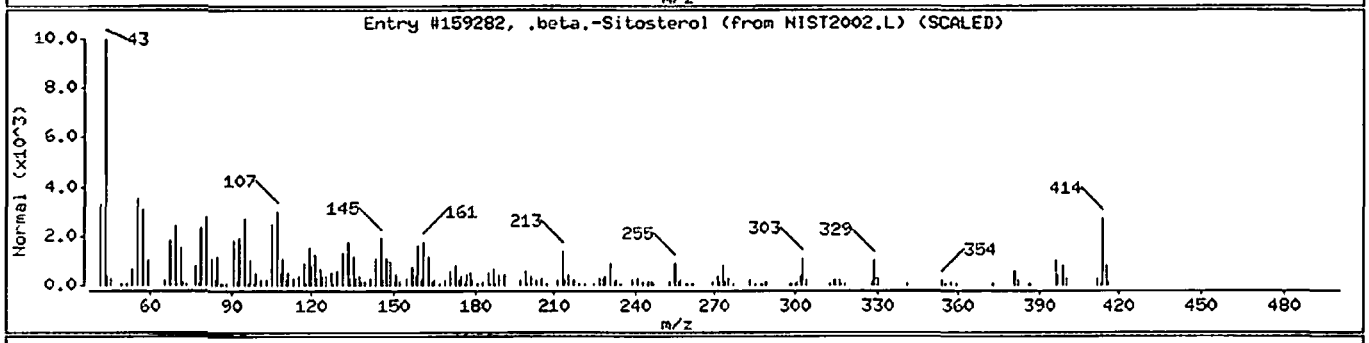
Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST2002.L	159282	89	C29H50O	414





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

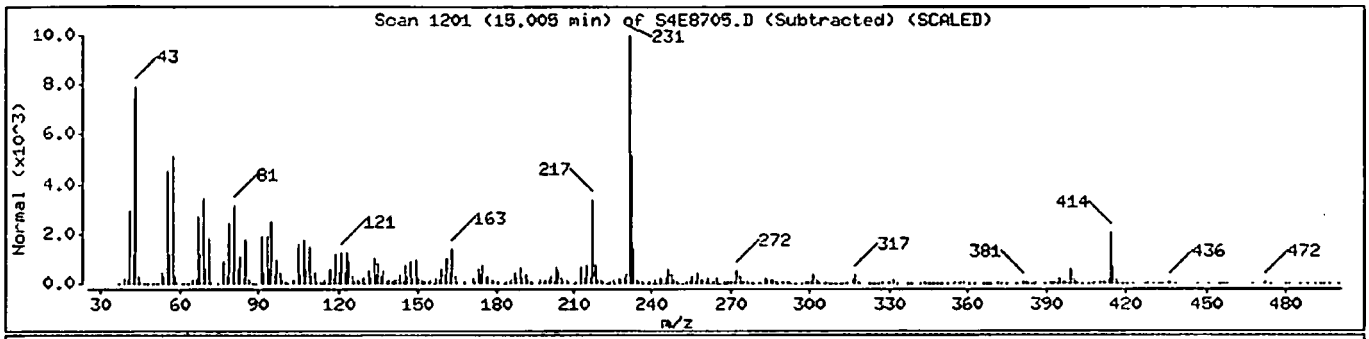
Client ID: H30S0 Instrument: S4.i

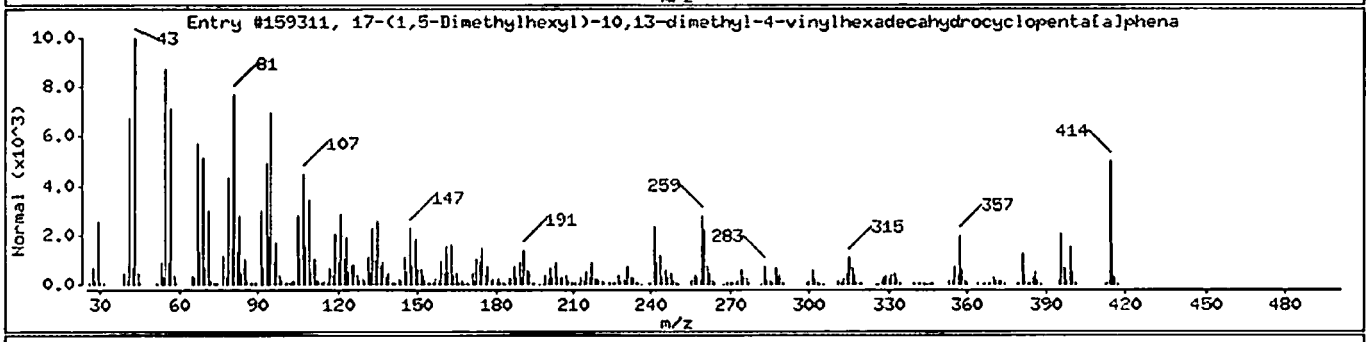
Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
17-(1,5-Dimethylhexyl)-10,13-dimethyl-4-	1000210-86-9	NIST2002.L	159311	90	C29H50O	414





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8705.D

Date : 14-NOV-2011 15:43

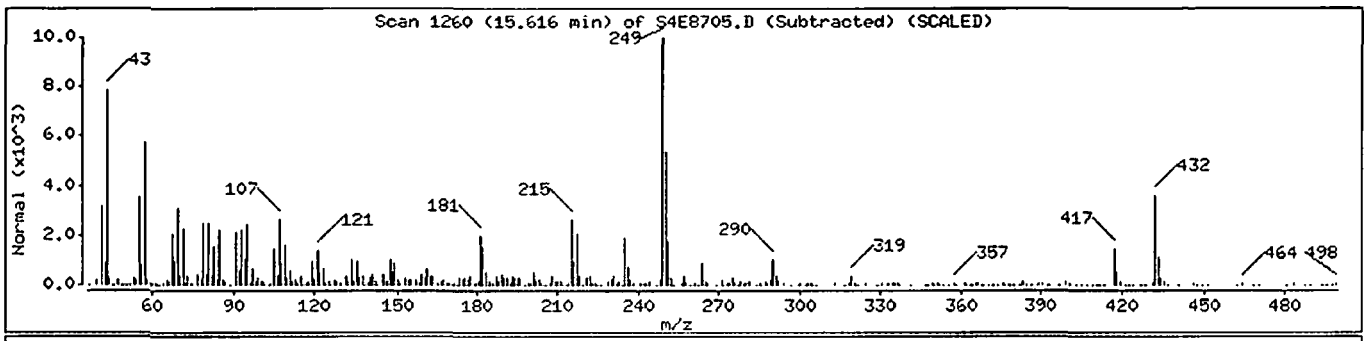
Client ID: H30S0 Instrument: S4.i

Sample Info: K2199-12A,,62801,,

Volume Injected (uL): 2.0 Operator: HMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-13A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S4E8687.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 29 Decanted: (Y/N) N Date Received: 11/03/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 8.8 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	230	U
108-95-2	Phenol	230	U
111-44-4	Bis(2-chloroethyl)ether	230	U
95-57-8	2-Chlorophenol	230	U
95-48-7	2-Methylphenol	230	U
108-60-1	2,2'-Oxybis(1-chloropropane)	230	U
98-86-2	Acetophenone	230	U
106-44-5	4-Methylphenol	230	U
621-64-7	N-Nitroso-di-n-propylamine	230	U
67-72-1	Hexachloroethane	230	U
98-95-3	Nitrobenzene	230	U
78-59-1	Isophorone	230	U
88-75-5	2-Nitrophenol	230	U
105-67-9	2,4-Dimethylphenol	230	U
111-91-1	Bis(2-chloroethoxy)methane	230	U
120-83-2	2,4-Dichlorophenol	230	U
91-20-3	Naphthalene	230	U
106-47-8	4-Chloroaniline	230	U
87-68-3	Hexachlorobutadiene	230	U
105-60-2	Caprolactam	230	U
59-50-7	4-Chloro-3-methylphenol	230	U
91-57-6	2-Methylnaphthalene	230	U
77-47-4	Hexachlorocyclopentadiene	230	U
88-06-2	2,4,6-Trichlorophenol	230	U
95-95-4	2,4,5-Trichlorophenol	230	U
92-52-4	1,1'-Biphenyl	230	U
91-58-7	2-Chloronaphthalene	230	U
88-74-4	2-Nitroaniline	450	U
131-11-3	Dimethylphthalate	230	U
606-20-2	2,6-Dinitrotoluene	230	U
208-96-8	Acenaphthylene	230	U
99-09-2	3-Nitroaniline	450	U
83-32-9	Acenaphthene	230	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-13A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S4E8687.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 29 Decanted: (Y/N) N Date Received: 11/03/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 8.8 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	450	U
100-02-7	4-Nitrophenol	450	U
132-64-9	Dibenzofuran	230	U
121-14-2	2,4-Dinitrotoluene	230	U
84-66-2	Diethylphthalate	230	U
86-73-7	Fluorene	230	U
7005-72-3	4-Chlorophenyl-phenylether	230	U
100-01-6	4-Nitroaniline	450	U
534-52-1	4,6-Dinitro-2-methylphenol	450	U
86-30-6	N-Nitrosodiphenylamine (1)	230	U
95-94-3	1,2,4,5-Tetrachlorobenzene	230	U
101-55-3	4-Bromophenyl-phenylether	230	U
118-74-1	Hexachlorobenzene	230	U
1912-24-9	Atrazine	230	U
87-86-5	Pentachlorophenol	450	U
85-01-8	Phenanthrene	230	U
120-12-7	Anthracene	230	U
86-74-8	Carbazole	230	U
84-74-2	Di-n-butylphthalate	230	U
206-44-0	Fluoranthene	230	U
129-00-0	Pyrene	230	U
85-68-7	Butylbenzylphthalate	230	U
91-94-1	3,3'-Dichlorobenzidine	230	U
56-55-3	Benzo(a)anthracene	230	U
218-01-9	Chrysene	230	U
117-81-7	Bis(2-ethylhexyl)phthalate	230	U
117-84-0	Di-n-octylphthalate	230	U
205-99-2	Benzo(b)fluoranthene	230	U
207-08-9	Benzo(k)fluoranthene	230	U
50-32-8	Benzo(a)pyrene	230	U
193-39-5	Indeno(1,2,3-cd)pyrene	230	U
53-70-3	Dibenzo(a,h)anthracene	230	U
191-24-2	Benzo(g,h,i)perylene	230	U
58-90-2	2,3,4,6-Tetrachlorophenol	230	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30S1

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-13A

Sample wt/vol: 30.6 (g/mL) G Lab File ID: S4E8687.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 29 Decanted: (Y/N) N Date Received: 11/03/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/13/2011

GPC Cleanup: (Y/N) Y pH: 8.8 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.875	190	J
02		Unknown-02	3.009	120	J
03		Unknown-03	3.154	110	J
04		Unknown-04	3.910	100	J
05		Unknown-05	4.117	280	J
06	464-49-3	Bicyclo[2.2.1]heptan-2-one,	4.200	420	NJ
07		Unknown-06	4.345	140	J
08		Unknown-07	5.017	120	J
09	4630-07-3	Naphthalene, 1,2,3,5,6,7,8,8	5.742	280	NJ
10	483-77-2	Naphthalene, 1,2,3,4-tetrahy	6.239	1100	NJ
11		Unknown-08	8.288	1400	J
12		Unknown-09	8.402	2700	J
13		Unknown-10	8.485	7200	J
14	6566-19-4	10,18-Bisnorabieta-5,7,9(10)	8.795	6000	NJ
15		Unknown-11	8.837	120	J
16	483-65-8	Phenanthrene, 1-methyl-7-(1-	9.271	14000	NJ
17		Unknown-12	9.302	800	J
18	83-47-6	.gamma.-Sitosterol	14.467	2000	NJ
19		Unknown-13	14.912	1900	J
20		Unknown-14	15.792	2300	J
	E96679[2]	Total Alkanes	N/A		

[2]EPA-designated Registry Number.

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D
Report Date: 14-Nov-2011 13:32

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111113.B\S4E8687.D
Lab Smp Id: K2199-13A Client Smp ID: H30S1
Inj Date : 13-NOV-2011 19:37
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-13A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111113.B\S4_SOM.m
Meth Date : 14-Nov-2011 13:30 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.600	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 2 Phenol-d5	71	3.071	3.030	(0.911)	48058	51.4059	840
$ 4 bis(2-Chloroethyl)ether-d8	67	3.102	3.081	(0.920)	24178	34.7702	570(Q)
$ 6 2-Chlorophenol-d4	132	3.216	3.185	(0.954)	55380	50.4800	820
* 8 1,4-Dichlorobenzene-d4	152	3.371	3.340	(1.000)	34764	40.0000	(Q)
$ 11 4-Methylphenol-d8	113	3.630	3.588	(1.077)	63239	63.8758	1000
$ 16 Nitrobenzene-d5	128	3.795	3.775	(0.855)	33757	45.2949	740(Q)
$ 19 2-Nitrophenol-d4	143	4.075	4.044	(0.918)	42765	45.0187	740
$ 23 2,4-Dichlorophenol-d3	165	4.303	4.251	(0.970)	89190	50.1067	820
* 25 Naphthalene-d8	136	4.437	4.406	(1.000)	178040	40.0000	
$ 27 4-Chloroaniline-d4	131	4.479	4.448	(1.009)	23142	13.1774	220(Q)
$ 40 Dimethylphthalate-d6	166	5.783	5.752	(0.947)	287078	41.4593	680
$ 43 Acenaphthylene-d8	160	5.948	5.907	(0.975)	338888	44.2007	720
* 46 Acenaphthene-d10	164	6.104	6.062	(1.000)	175118	40.0000	
$ 49 4-Nitrophenol-d4	143	6.228	6.155	(1.020)	99401	76.2516	1200(QH)
$ 54 Fluorene-d10	176	6.611	6.559	(1.083)	270002	43.7355	710
$ 58 4,6-Dinitro-2-methylphenol-d2	200	6.662	6.621	(0.882)	68937	39.4064	640(Q)
* 65 Phenanthrene-d10	188	7.553	7.511	(1.000)	436125	40.0000	
$ 67 Anthracene-d10	188	7.615	7.563	(1.008)	574477	47.9616	780(H)
$ 72 Pyrene-d10	212	8.971	8.908	(0.893)	393884	38.5880	630(RH)

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D
Report Date: 14-Nov-2011 13:32

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)	
* 77 Chrysene-d12	240	10.171	10.099	(1.000)	523697	40.0000		(QH)
$ 83 Benzo(a)pyrene-d12	264	11.786	11.662	(1.000)	448601	46.5836	760	
* 85 Perylene-d12	264	11.900	11.775	(1.000)	434592	40.0000		(H)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D
Report Date: 14-Nov-2011 13:32

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111113.B\S4E8687.D
Lab Smp Id: K2199-13A Client Smp ID: H30S1
Inj Date : 13-NOV-2011 19:37
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-13A,,62801,,
Misc Info :
Comment :
Method : \\Avogadro\Organics\S4.I\111113.B\S4_SOM.m
Meth Date : 14-Nov-2011 13:30 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.600	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	3.372	330408	40.000
* 25 Naphthalene-d8	4.438	484434	40.000
* 46 Acenaphthene-d10	6.104	1043655	40.000
* 65 Phenanthrene-d10	7.553	1322265	40.000
* 77 Chrysene-d12	10.172	1548612	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.875	67624	8.18675662	130	0		0	8
Unknown				CAS #:			
3.009	44177	5.34812566	87	0		0	8

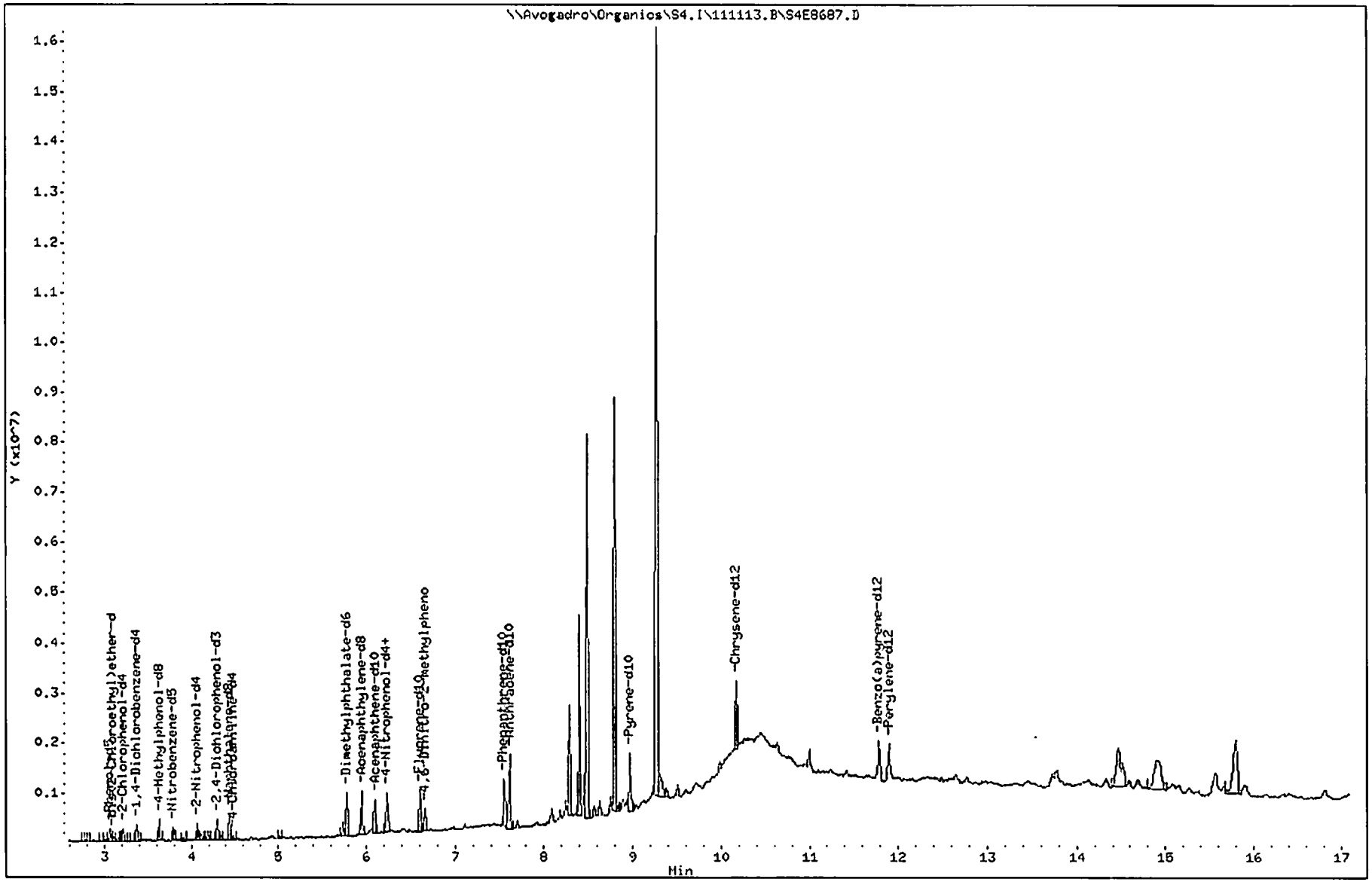
Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D
Report Date: 14-Nov-2011 13:32

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
3.154	38732	4.68902620	77	0		0	8
Unknown				CAS #:			
3.910	55244	4.56148537	75	0		0	25
Unknown				CAS #:			
4.117	146639	12.1080699	200	0		0	25
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet				CAS #: 464-49-3			
4.200	221251	18.2688107	300	93	NIST2002.L	24203	25
Unknown				CAS #:			
4.345	73000	6.02765329	98	0		0	25
Unknown				CAS #:			
5.017	62114	5.12875470	84	0		0	25
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-				CAS #: 4630-07-3			
5.742	323629	12.4036596	200	93	NIST2002.L	58891	46
Naphthalene, 1,2,3,4-tetrahydro-1,6-dime				CAS #: 483-77-2			
6.239	1244663	47.7039921	780	89	NIST2002.L	57467	46
Unknown				CAS #:			
8.288	2089563	63.2115921	1000	0		0	65
Unknown				CAS #:			
8.402	3875086	117.225626	1900	0		0	65
Unknown				CAS #:			
8.485	10363540	313.508535	5100	0		0	65
10,18-Bisnorabieta-5,7,9(10),11,13-penta				CAS #: 6566-19-4			
8.795	8718791	263.753046	4300	97	NIST2002.L	81281	65
Unknown				CAS #:			
8.837	169159	5.11724178	84	0		0	65
Phenanthrene, 1-methyl-7-(1-methylethyl)				CAS #: 483-65-8			
9.271	24425509	630.900463	10000	95	NIST2002.L	78744	77
Unknown				CAS #:			
9.302	1359930	35.1264045	570	0		0	77
.gamma.-Sitosterol				CAS #: 83-47-6			
14.467	3324612	85.8733148	1400	86	NIST2002.L	159285	77
Unknown				CAS #:			
14.912	3279084	84.6973462	1400	0		0	77
Unknown				CAS #:			
15.792	3829288	98.9088678	1600	0		0	77

Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D
Date : 13-NOV-2011 19:37
Client ID: H30S1
Sample Info: K2199-13A,,62801,,
Volume Injected (uL): 2.0
Column phase: RXI-5SILMS

Instrument: S4.i

Operator: MMS SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

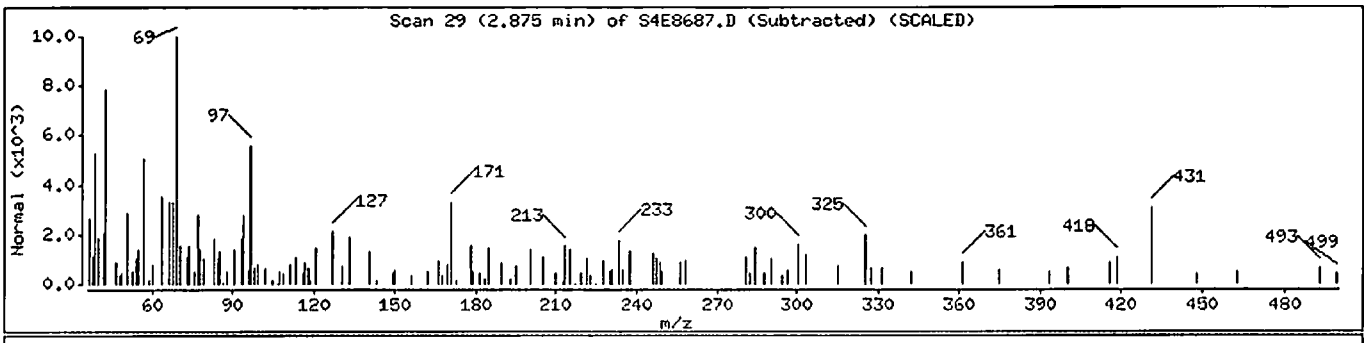
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

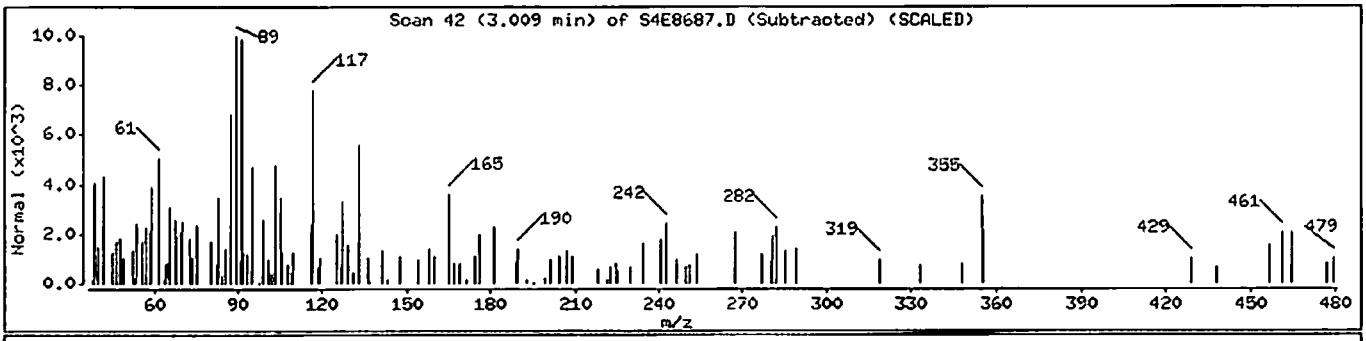
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: HMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

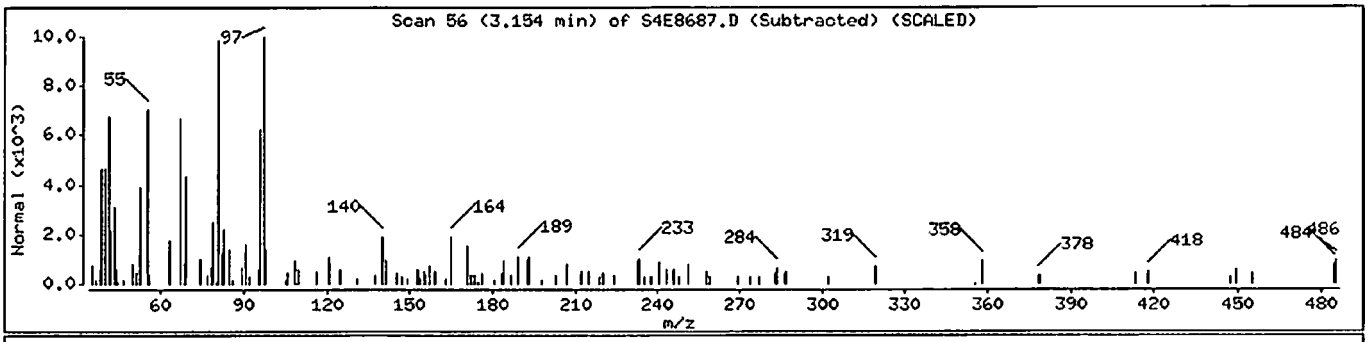
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

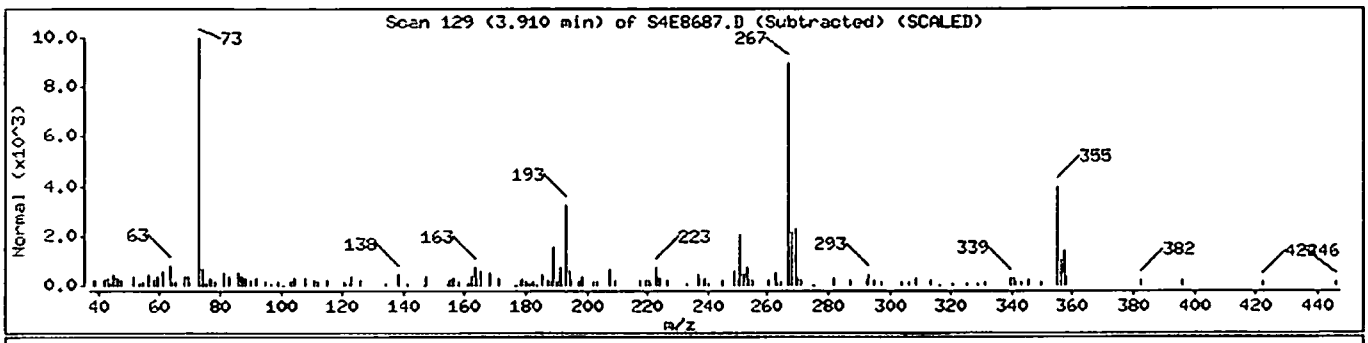
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

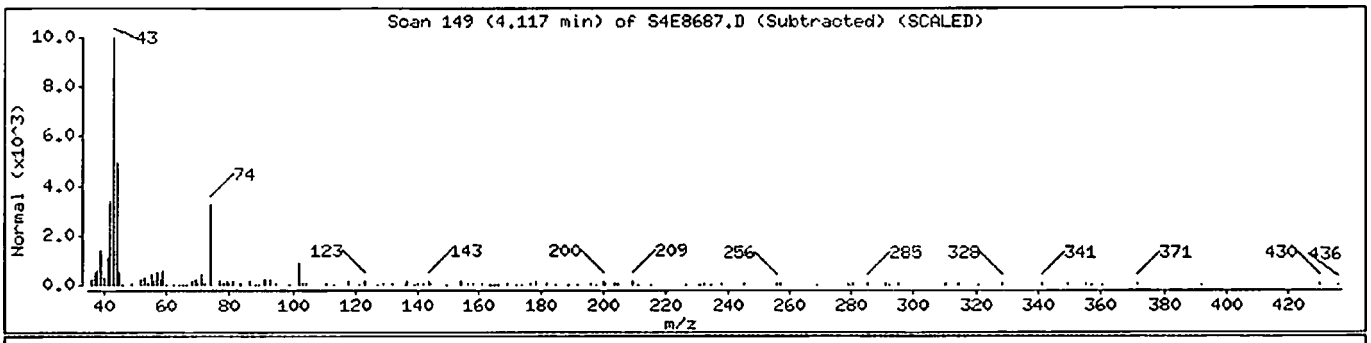
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

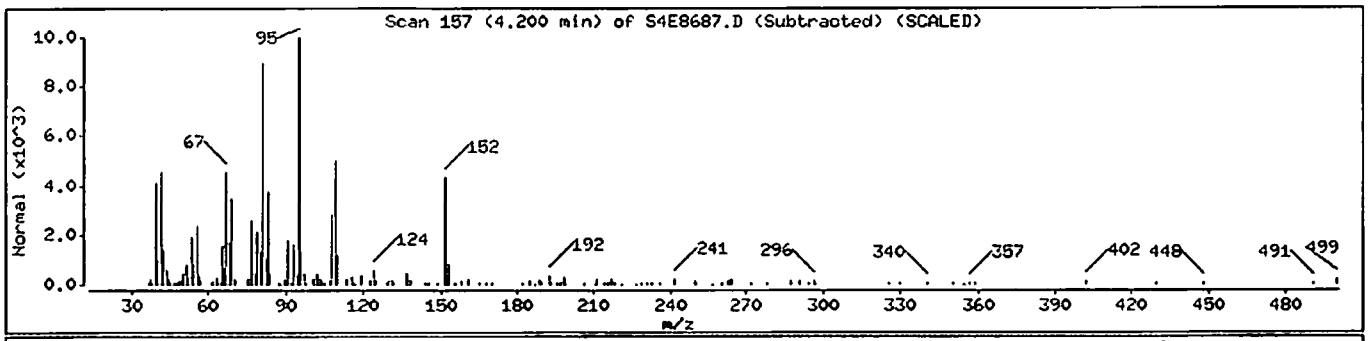
Client ID: H30S1 Instrument: S4.i

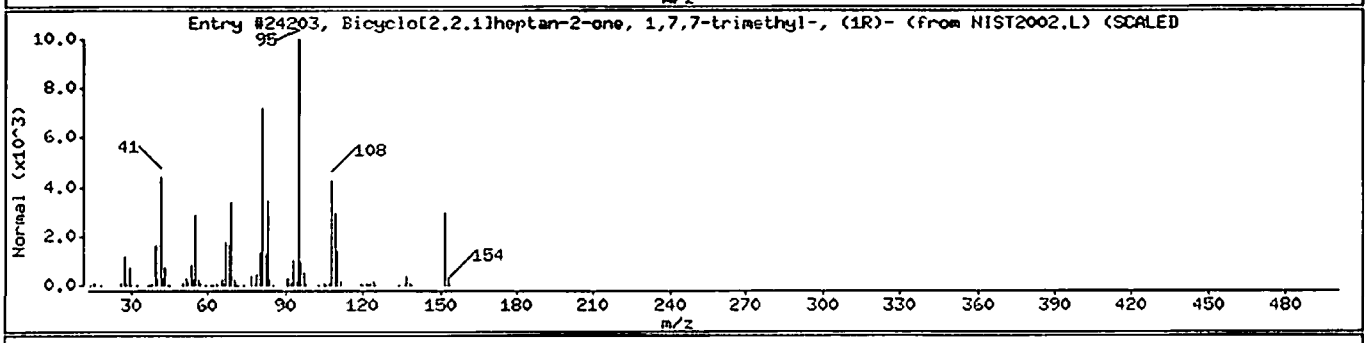
Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet	464-49-3	NIST2002.L	24203	93	C10H16O	152





Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

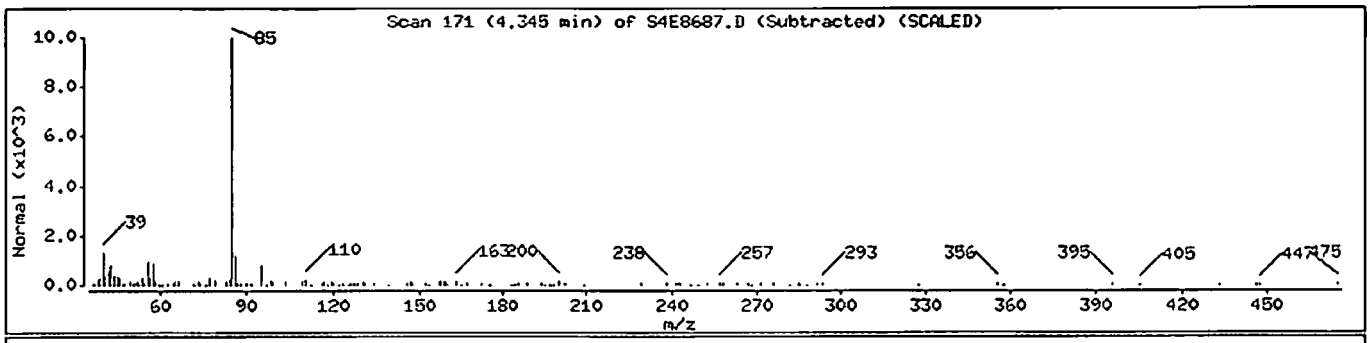
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

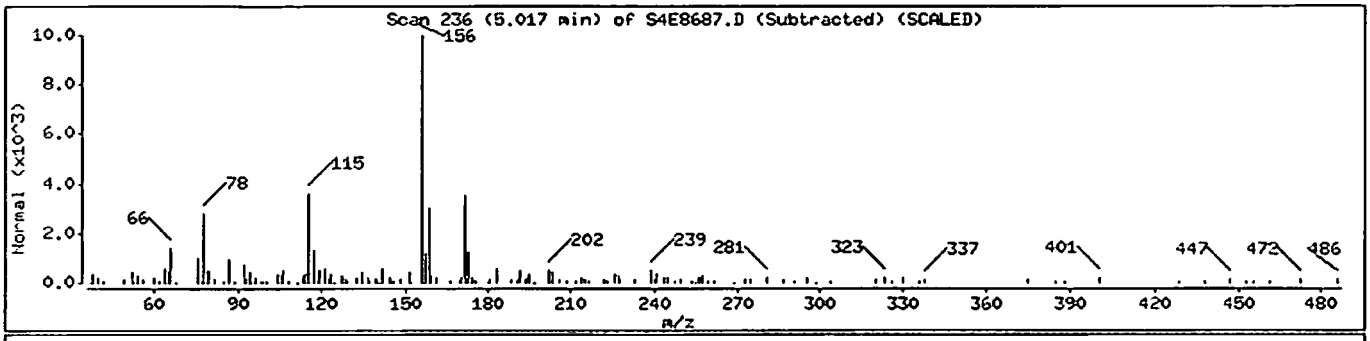
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

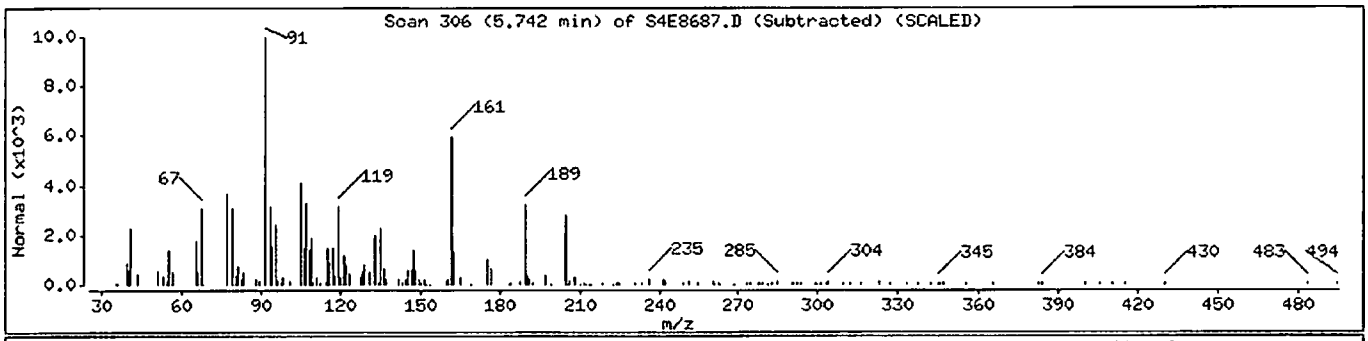
Client ID: H30S1 Instrument: S4.i

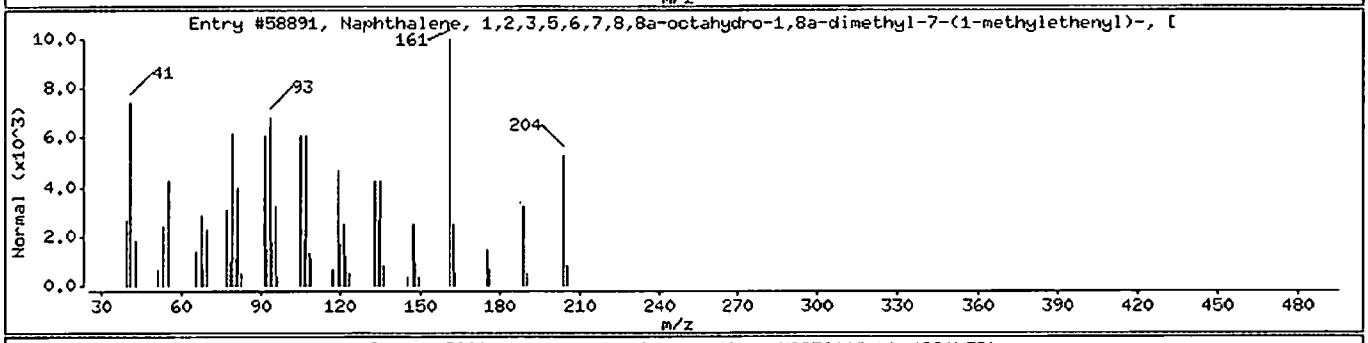
Sample Info: K2199-13A,,62801,,

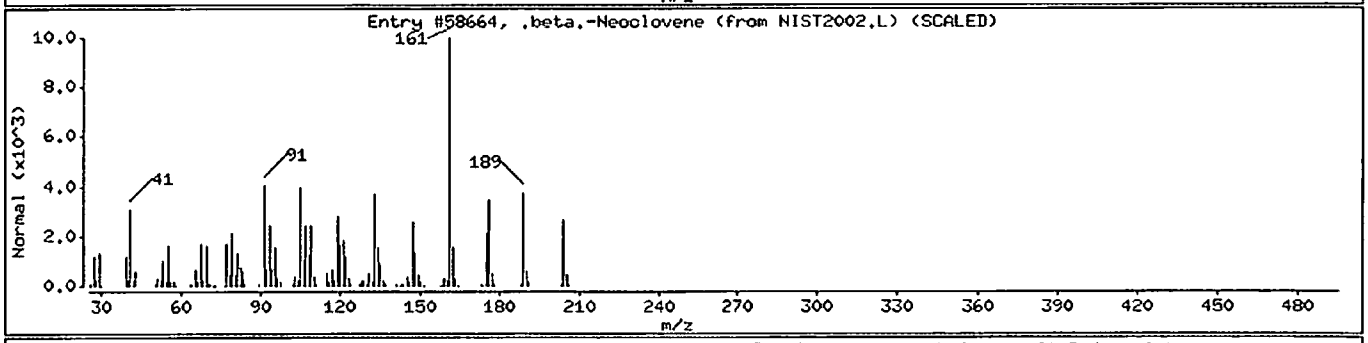
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

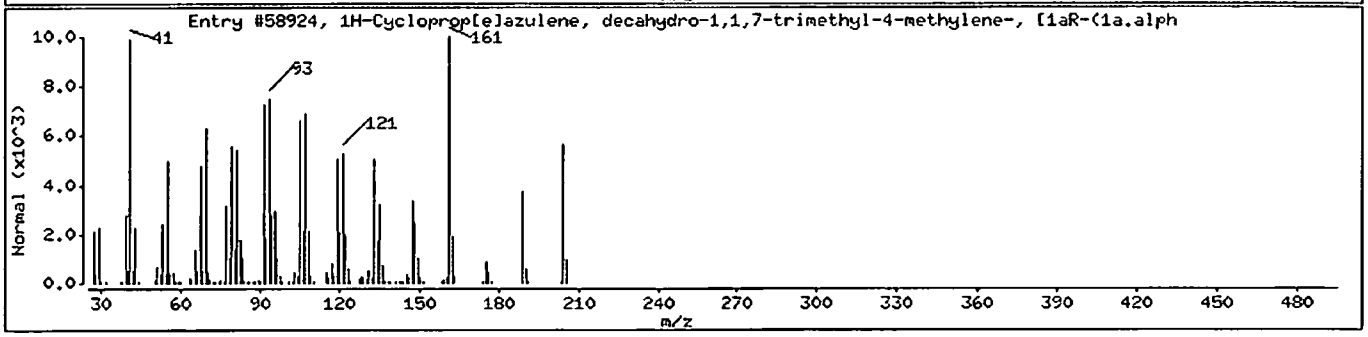
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST2002.L	58891	93	C15H24	204
.beta.-Neoclovene	56684-96-9	NIST2002.L	58664	86	C15H24	204
1H-Cycloprop[e]azulene, decahydro-1,1,7-	489-39-4	NIST2002.L	58924	86	C15H24	204









Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

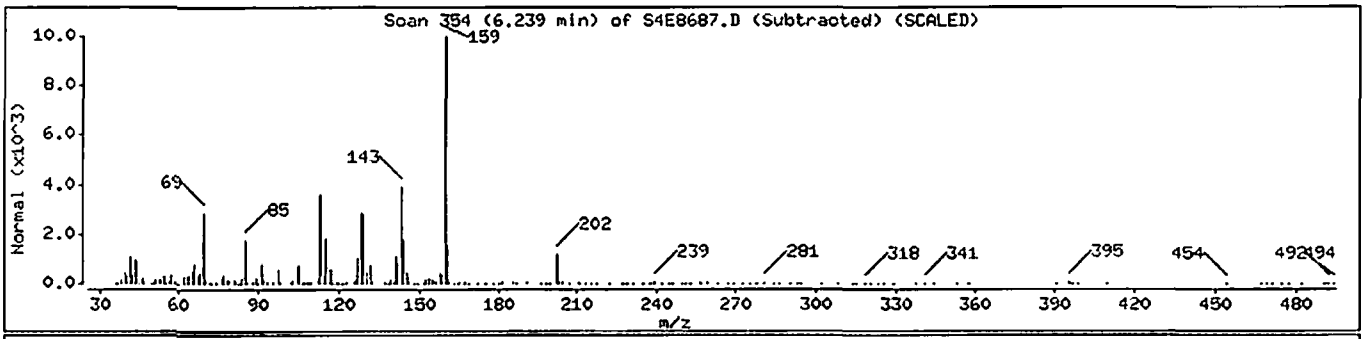
Client ID: H30S1 Instrument: S4.i

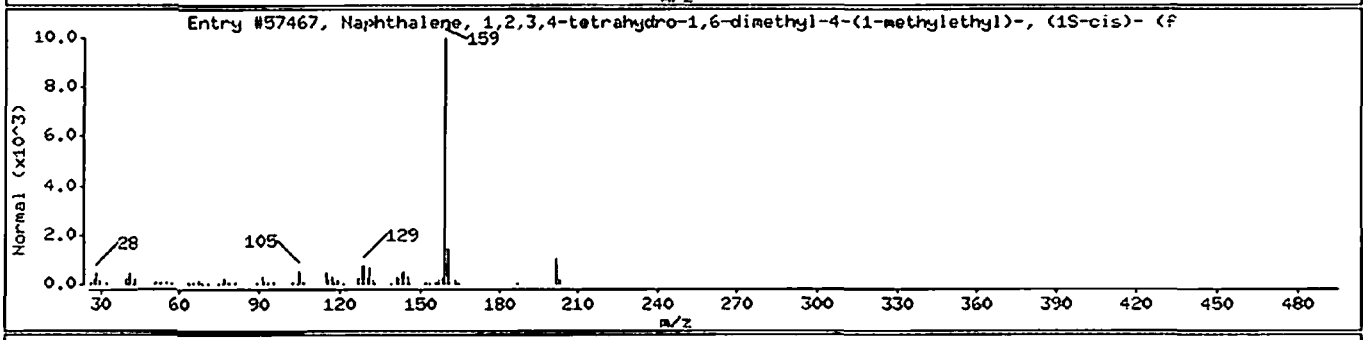
Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,4-tetrahydro-1,6-dime	483-77-2	NIST2002.L	57467	89	C15H22	202





Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

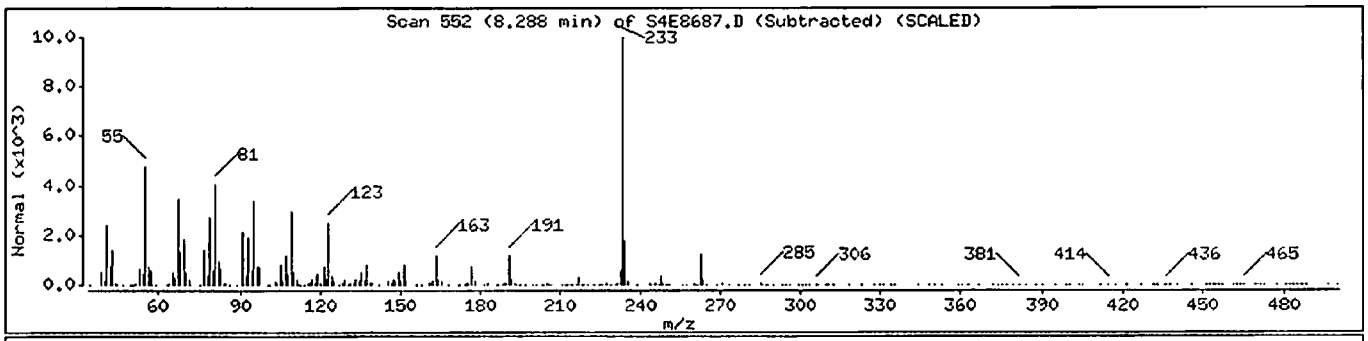
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

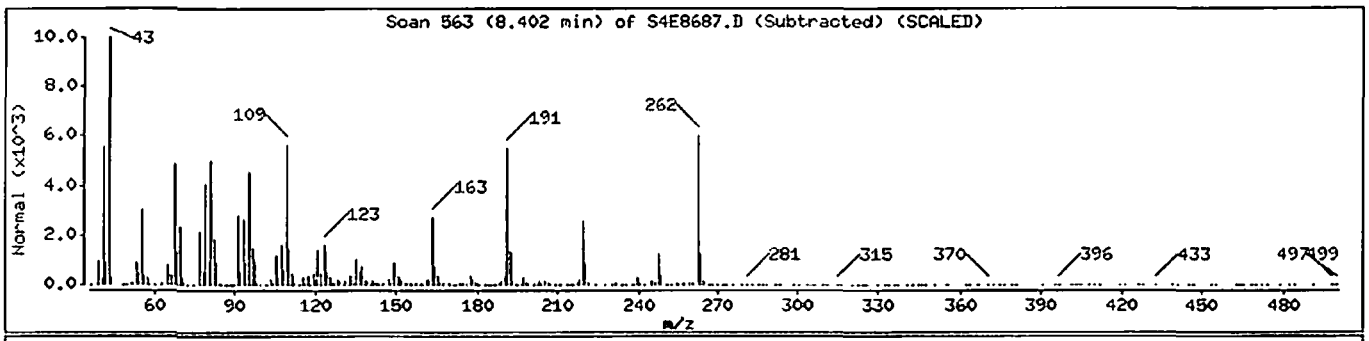
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

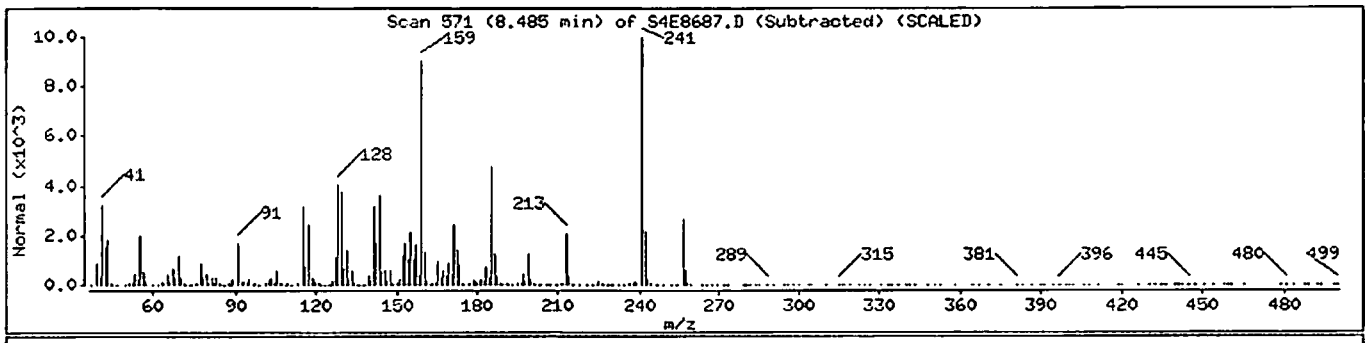
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

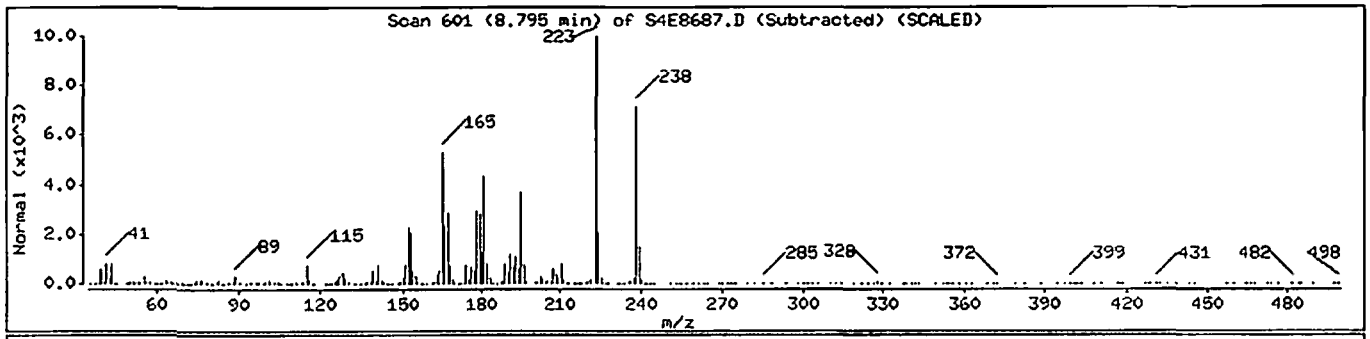
Client ID: M30S1 Instrument: S4.i

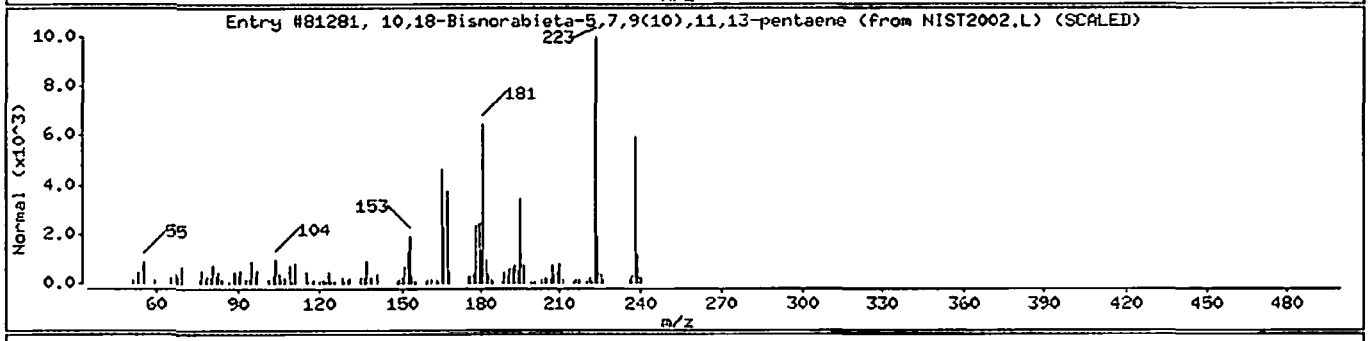
Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
10,18-Bisnorabieta-5,7,9(10),11,13-penta	6566-19-4	NIST2002.L	81281	97	C18H22	238





Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

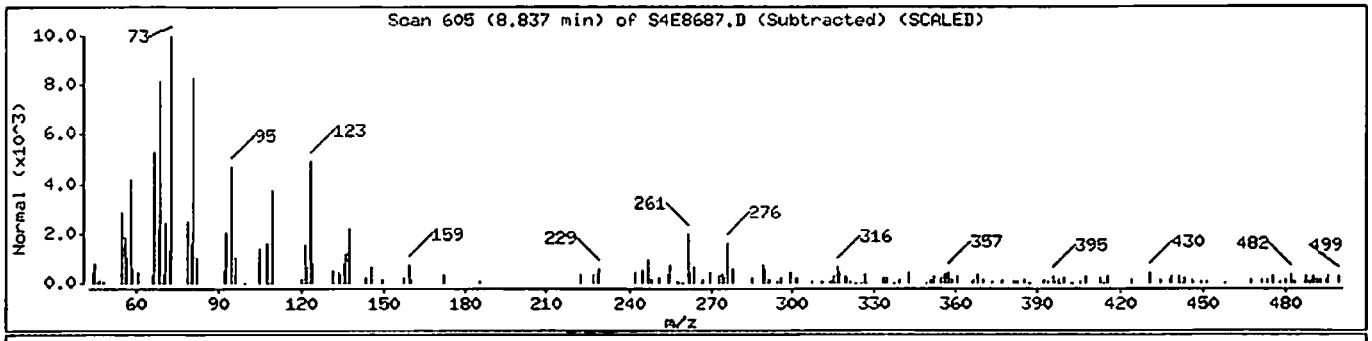
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

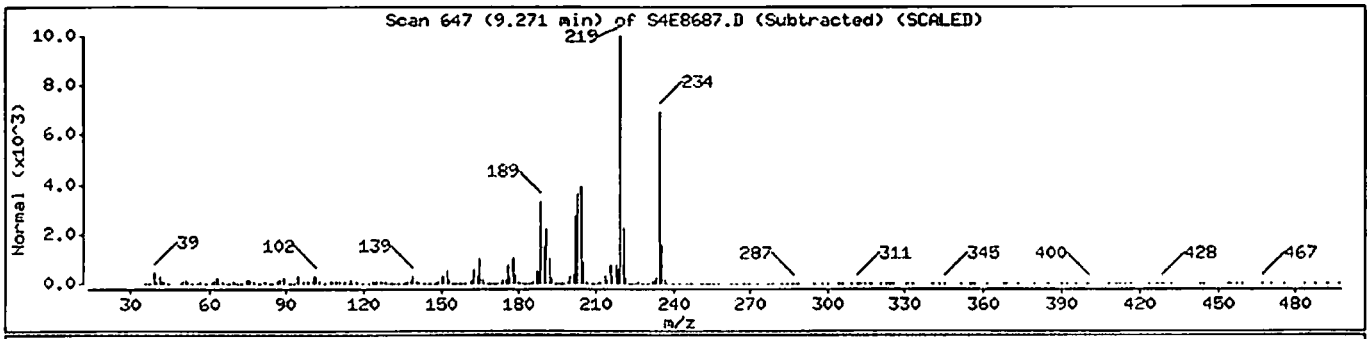
Client ID: H30S1 Instrument: S4.i

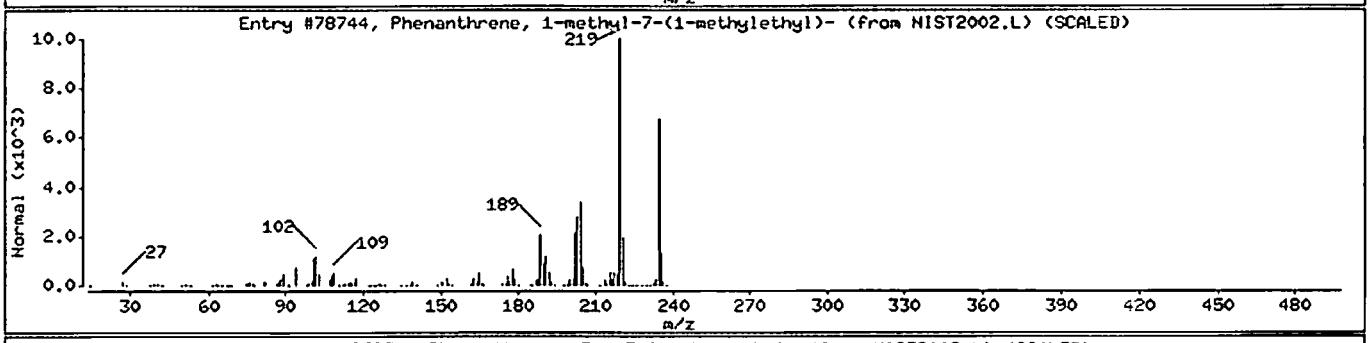
Sample Info: K2199-13A,,62801,,

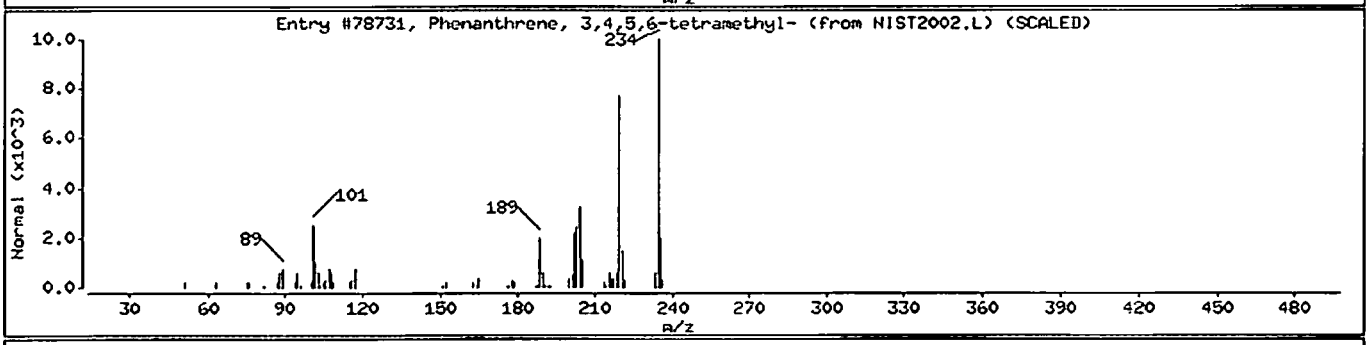
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 1-methyl-7-(1-methylethyl)	483-65-8	NIST2002.L	78744	95	C18H18	234
Phenanthrene, 3,4,5,6-tetramethyl-	7343-06-8	NIST2002.L	78731	87	C18H18	234







Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

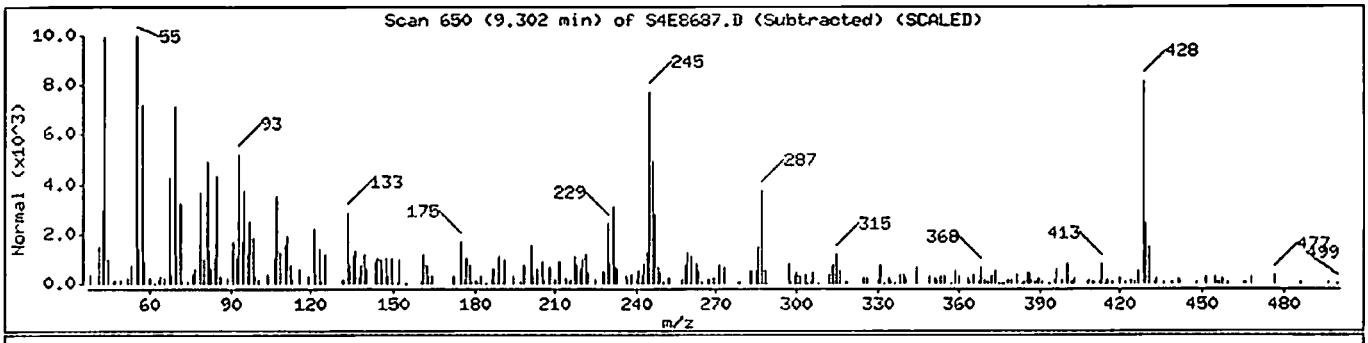
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

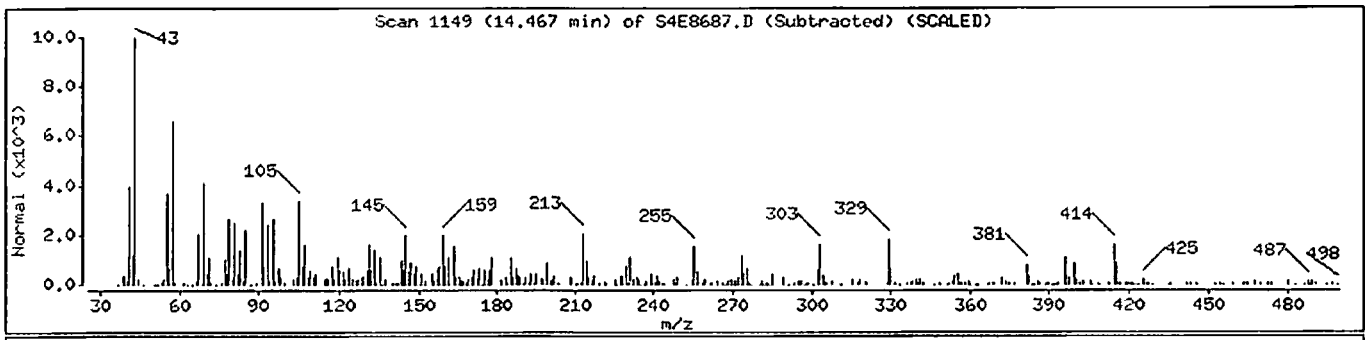
Client ID: H30S1 Instrument: S4.i

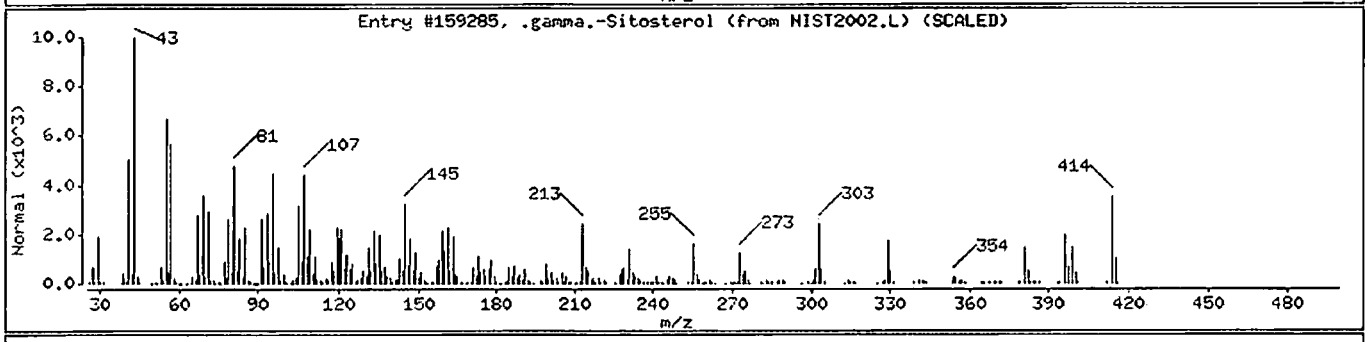
Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.gamma.-Sitosterol	83-47-6	NIST2002.L	159285	86	C29H50O	414





Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

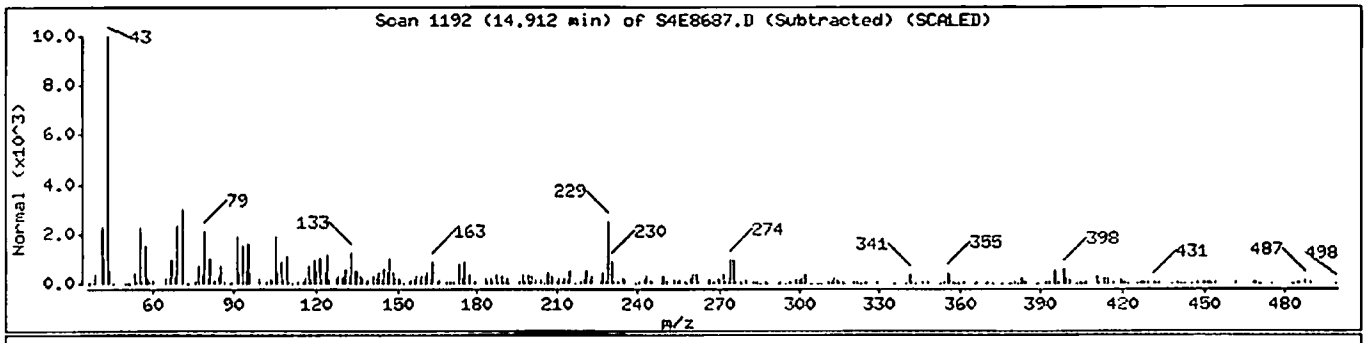
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: HMS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111113.B\S4E8687.D

Date : 13-NOV-2011 19:37

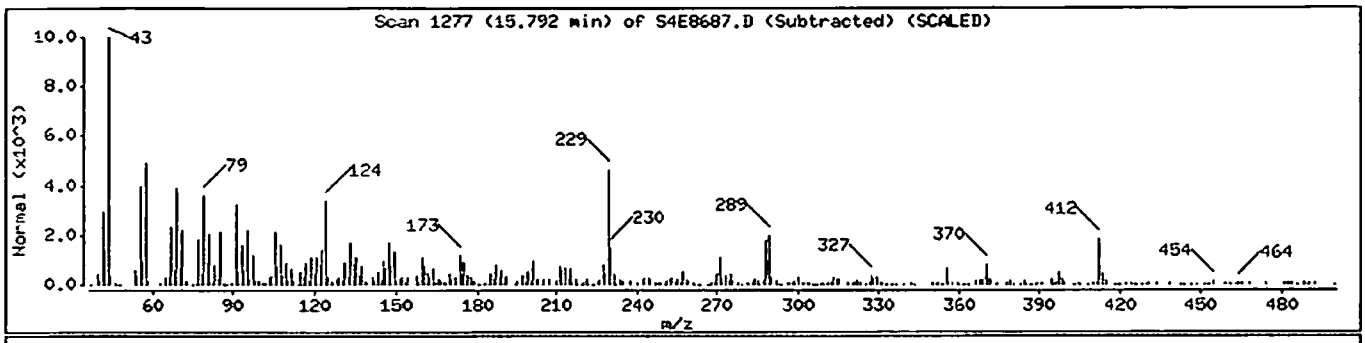
Client ID: H30S1 Instrument: S4.i

Sample Info: K2199-13A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-14A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4E8713.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 72 Decanted: (Y/N) N Date Received: 11/03/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
100-52-7	Benzaldehyde	610	U
108-95-2	Phenol	610	U
111-44-4	Bis(2-chloroethyl)ether	610	U
95-57-8	2-Chlorophenol	610	U
95-48-7	2-Methylphenol	610	U
108-60-1	2,2´-Oxybis(1-chloropropane)	610	U
98-86-2	Acetophenone	510	J
106-44-5	4-Methylphenol	1200	
621-64-7	N-Nitroso-di-n-propylamine	610	U
67-72-1	Hexachloroethane	610	U
98-95-3	Nitrobenzene	610	U
78-59-1	Isophorone	610	U
88-75-5	2-Nitrophenol	610	U
105-67-9	2,4-Dimethylphenol	610	U
111-91-1	Bis(2-chloroethoxy)methane	610	U
120-83-2	2,4-Dichlorophenol	610	U
91-20-3	Naphthalene	680	
106-47-8	4-Chloroaniline	610	U
87-68-3	Hexachlorobutadiene	610	U
105-60-2	Caprolactam	610	U
59-50-7	4-Chloro-3-methylphenol	610	U
91-57-6	2-Methylnaphthalene	160	J
77-47-4	Hexachlorocyclopentadiene	610	U
88-06-2	2,4,6-Trichlorophenol	610	U
95-95-4	2,4,5-Trichlorophenol	610	U
92-52-4	1,1´-Biphenyl	610	U
91-58-7	2-Chloronaphthalene	610	U
88-74-4	2-Nitroaniline	1200	U
131-11-3	Dimethylphthalate	610	U
606-20-2	2,6-Dinitrotoluene	610	U
208-96-8	Acenaphthylene	300	J
99-09-2	3-Nitroaniline	1200	U
83-32-9	Acenaphthene	610	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30S2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-14A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4E8713.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 72 Decanted: (Y/N) N Date Received: 11/03/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG	Q
51-28-5	2,4-Dinitrophenol	1200	U
100-02-7	4-Nitrophenol	1200	U
132-64-9	Dibenzofuran	610	U
121-14-2	2,4-Dinitrotoluene	610	U
84-66-2	Diethylphthalate	610	U
86-73-7	Fluorene	190	J
7005-72-3	4-Chlorophenyl-phenylether	610	U
100-01-6	4-Nitroaniline	1200	U
534-52-1	4,6-Dinitro-2-methylphenol	1200	U
86-30-6	N-Nitrosodiphenylamine 1	610	U
95-94-3	1,2,4,5-Tetrachlorobenzene	610	U
101-55-3	4-Bromophenyl-phenylether	610	U
118-74-1	Hexachlorobenzene	610	U
1912-24-9	Atrazine	610	U
87-86-5	Pentachlorophenol	1200	U
85-01-8	Phenanthrene	1400	
120-12-7	Anthracene	290	J
86-74-8	Carbazole	610	U
84-74-2	Di-n-butylphthalate	5900	B
206-44-0	Fluoranthene	3300	
129-00-0	Pyrene	1900	
85-68-7	Butylbenzylphthalate	610	U
91-94-1	3,3'-Dichlorobenzidine	610	U
56-55-3	Benzo(a)anthracene	610	U
218-01-9	Chrysene	610	U
117-81-7	Bis(2-ethylhexyl)phthalate	610	U
117-84-0	Di-n-octylphthalate	610	U
205-99-2	Benzo(b)fluoranthene	360	J
207-08-9	Benzo(k)fluoranthene	220	J
50-32-8	Benzo(a)pyrene	250	J
193-39-5	Indeno(1,2,3-cd)pyrene	610	U
53-70-3	Dibenzo(a,h)anthracene	610	U
191-24-2	Benzo(g,h,i)perylene	610	U
58-90-2	2,3,4,6-Tetrachlorophenol	610	U

(1) Cannot be separated from Diphenylamine

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30S2

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30T6

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: K2199-14A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: S4E8713.D

Level: (TRACE or LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 72 Decanted: (Y/N) N Date Received: 11/03/2011

Concentrated Extract Volume: 500 (uL) Date Extracted: 11/08/2011

Injection Volume: 2.0 (uL) GPC Factor: 2.00 Date Analyzed: 11/14/2011

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	3.154	1000	J
02	99-83-2	.alpha.-Phellandrene	3.268	2100	NJ
03	527-84-4	Benzene, 1-methyl-2-(1-methy	3.372	3900	NJ
04	99-85-4	1,4-Cyclohexadiene, 1-methyl	3.434	2400	NJ
05		Unknown-02	4.914	3200	J
06	5989-08-2	Tricyclo[5.4.0.0(2,8)]undec-	5.349	1600	NJ
07		Unknown-03	5.463	1200	J
08	88-84-6	Azulene, 1,2,3,4,5,6,7,8-oct	5.504	2300	NJ
09		Unknown-04	5.576	1200	J
10	475-20-7	1,4-Methanoazulene, decahydr	5.721	42000	NJ
11	30021-74-0	Naphthalene, 1,2,3,4,4a,5,6,	5.970	2100	NJ
12	30021-74-0	Naphthalene, 1,2,3,4,4a,5,6,	6.177	3000	NJ
13		Unknown-05	6.674	1700	J
14		Unknown-06	6.953	3300	J
15		Unknown-07	7.336	2300	J
16		Unknown-08	7.388	1500	J
17	92-91-1	Ethanone, 1-[1,1'-biphenyl]-	7.688	1600	NJ
18		Unknown-09	7.895	5300	J
19		Unknown-10	8.019	6300	J
20		Unknown-11	8.257	84000	J
21		Unknown-12	8.619	1100000	J
22		Unknown-13	8.650	15000	J
23		Unknown-14	8.692	38000	J
24		Unknown-15	8.951	15000	J
25		Unknown-16	9.137	19000	J
26		Unknown-17	9.251	14000	J
27		Unknown-18	9.375	7200	J
28	1000214-16-4	Stigmastan-3,5-diene	12.873	17000	NJ
29	1000210-86-9	17-(1,5-Dimethylhexyl)-10,13	15.399	73000	NJ
30	1058-61-3	Stigmast-4-en-3-one	16.299	69000	NJ
	E96679[2]	Total Alkanes	N/A	210000	J

[2] EPA-designated Registry Number.

SOM01.2 (6/2007)

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D
Report Date: 15-Nov-2011 12:01

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8713.D
Lab Smp Id: K2199-14A Client Smp ID: H30S2
Inj Date : 14-NOV-2011 19:44
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-14A,,62801,,
Misc Info : 2,3
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 12:01 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.500	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 2 Phenol-d5	71	3.050	3.050	(0.916)	68074	64.0338	1000(Q)
$ 4 bis(2-Chloroethyl)ether-d8	67	3.061	3.061	(0.919)	55063	69.6349	1100(H)
$ 6 2-Chlorophenol-d4	132	3.175	3.175	(0.953)	77965	62.4952	1000
* 8 1,4-Dichlorobenzene-d4	152	3.330	3.330	(1.000)	39532	40.0000	(Q)
$ 11 4-Methylphenol-d8	113	3.609	3.609	(1.084)	74987	66.6067	1100(Q)
12 4-Methylphenol	108	3.630	3.630	(1.090)	23730	20.5583	340
13 Acetophenone	105	3.630	3.630	(1.090)	15808	8.58088	140(aQ)
$ 16 Nitrobenzene-d5	128	3.765	3.765	(0.856)	40029	66.4460	1100
$ 19 2-Nitrophenol-d4	143	4.034	4.044	(0.918)	52478	68.3424	1100
$ 23 2,4-Dichlorophenol-d3	165	4.272	4.272	(0.972)	97569	67.8110	1100
* 25 Naphthalene-d8	136	4.396	4.406	(1.000)	143916	40.0000	
26 Naphthalene	128	4.417	4.427	(1.005)	43496	11.4218	190
$ 27 4-Chloroaniline-d4	131	4.489	4.448	(1.021)	10157	7.15487	120(aQ)
32 2-Methylnaphthalene	142	5.058	5.069	(1.151)	7892	2.70352	44(a)
$ 40 Dimethylphthalate-d6	166	5.752	5.752	(0.947)	322307	59.0035	970(Q)
$ 43 Acenaphthylene-d8	160	5.928	5.928	(0.976)	372092	61.5190	1000
44 Acenaphthylene	152	5.938	5.938	(0.978)	32212	5.07901	83(a)
* 46 Acenaphthene-d10	164	6.073	6.073	(1.000)	138148	40.0000	(Q)
$ 49 4-Nitrophenol-d4	143	6.218	6.228	(1.024)	351773	342.064	5600(AQR)

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D
Report Date: 15-Nov-2011 12:01

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 54 Fluorene-d10	176	6.580	6.580	(1.084)	321466	66.0068	1100
56 Fluorene	166	6.611	6.611	(1.089)	17922	3.25289	53(aQ)
$ 58 4,6-Dinitro-2-methylphenol-d2	200	6.642	6.642	(0.881)	71795	55.8106	910
* 65 Phenanthrene-d10	188	7.542	7.532	(1.000)	320703	40.0000	
66 Phenanthrene	178	7.563	7.563	(1.003)	198888	23.3467	380
$ 67 Anthracene-d10	188	7.594	7.594	(1.007)	661196	75.0688	1200
68 Anthracene	178	7.615	7.615	(1.010)	42906	4.84381	79(aQ)
70 Di-n-butylphthalate	149	8.081	8.060	(1.071)	922095	98.9460	1600(Q)
71 Fluoranthene	202	8.826	8.743	(1.170)	679572	55.6825	910(QH)
$ 72 Pyrene-d10	212	9.043	8.950	(0.891)	1153137	86.9711	1400(QH)
73 Pyrene	202	9.054	8.960	(0.892)	528813	32.4558	530(H)
* 77 Chrysene-d12	240	10.223	10.151	(1.000)	680253	40.0000	(MH)M3 MMS 11/15
81 Benzo(b)fluoranthene	252	11.465	11.362	(0.957)	97642	6.10309	100(aQM)M2 MMS 11/15
82 Benzo(k)fluoranthene	252	11.465	11.393	(0.957)	62154	3.78094	62(aQM)M2 MMS 11/15
$ 83 Benzo(a)pyrene-d12	264	11.869	11.776	(1.000)	686043	60.2204	990(Q)
84 Benzo(a)pyrene	252	11.910	11.807	(1.003)	61316	4.13490	68(aQH)
* 85 Perylene-d12	264	11.983	11.890	(1.000)	514117	40.0000	(H)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D
Report Date: 15-Nov-2011 12:01

Spectrum Analytical, Inc. RI Division

CLP SOM QUANTITATION REPORT

Data file : \\Avogadro\Organics\S4.I\111114.B\S4E8713.D
Lab Smp Id: K2199-14A Client Smp ID: H30S2
Inj Date : 14-NOV-2011 19:44
Operator : MMS SRC: LIMS Inst ID: S4.i
Smp Info : K2199-14A,,62801,,
Misc Info : 2,3
Comment :
Method : \\Avogadro\Organics\S4.I\111114.B\S4_SOM.m
Meth Date : 15-Nov-2011 12:01 S4.i Quant Type: ISTD
Cal Date : 10-NOV-2011 18:10 Cal File: S4E8639.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	2.000	GPC correction factor
Vt	500.000	Volume of final extract (uL)(1000 low, 2
Vi	2.000	Volume injected (uL)
Ws	30.500	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	3.330	4150874	40.000
* 25 Naphthalene-d8	4.396	977266	40.000
* 46 Acenaphthene-d10	6.073	3895782	40.000

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
3.154	1804498	17.3890881	290	0		0	8
.alpha.-Phellandrene				CAS #: 99-83-2			
3.268	3743951	36.0786682	590	86	NIST2002.L	15179	8
Benzene, 1-methyl-2-(1-methylethyl)-				CAS #: 527-84-4			
3.372	6839986	65.9136875	1100	87	NIST2002.L	14395	8

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D
Report Date: 15-Nov-2011 12:01

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl					CAS #: 99-85-4		
3.434	4168090	40.1658936	660	89	NIST2002.L	15322	8
Unknown					CAS #:		
4.914	1297996	53.1276268	870	0		0	25
Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6					CAS #: 5989-08-2		
5.349	2576902	26.4583778	430	96	NIST2002.L	58744	46
Unknown					CAS #:		
5.463	1907540	19.5856921	320	0		0	46
Azulene, 1,2,3,4,5,6,7,8-octahydro-1,4-d					CAS #: 88-84-6		
5.504	3742558	38.4267675	630	91	NIST2002.L	58831	46
Unknown					CAS #:		
5.576	1907622	19.5865338	320	0		0	46
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
5.721	68939180	707.833944	12000	98	NIST2002.L	58866	46
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro					CAS #: 30021-74-0		
5.970	3470591	35.6343432	580	97	NIST2002.L	58914	46
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro					CAS #: 30021-74-0		
6.177	4926804	50.5860265	830	90	NIST2002.L	58914	46
Unknown					CAS #:		
6.674	2781337	28.5574111	470	0		0	46
Unknown					CAS #:		
6.953	5347579	54.9063395	900	0		0	46
Unknown					CAS #:		
7.336	3754742	38.5518607	630	0		0	46
Unknown					CAS #:		
7.388	2491939	25.5860154	420	0		0	46
Ethanone, 1-[1,1'-biphenyl]-4-yl-					CAS #: 92-91-1		
7.688	2566900	26.3556799	430	91	NIST2002.L	53591	46
Unknown					CAS #:		
7.895	8665535	88.9734916	1500	0		0	46
Unknown					CAS #:		
8.019	10277102	105.520278	1700	0		0	46
Unknown					CAS #:		
8.257	1.379e+008	1416.34378	23000	0		0	46
Unknown					CAS #:		
8.619	1.825e+009	18742.0998	310000	0		0	46

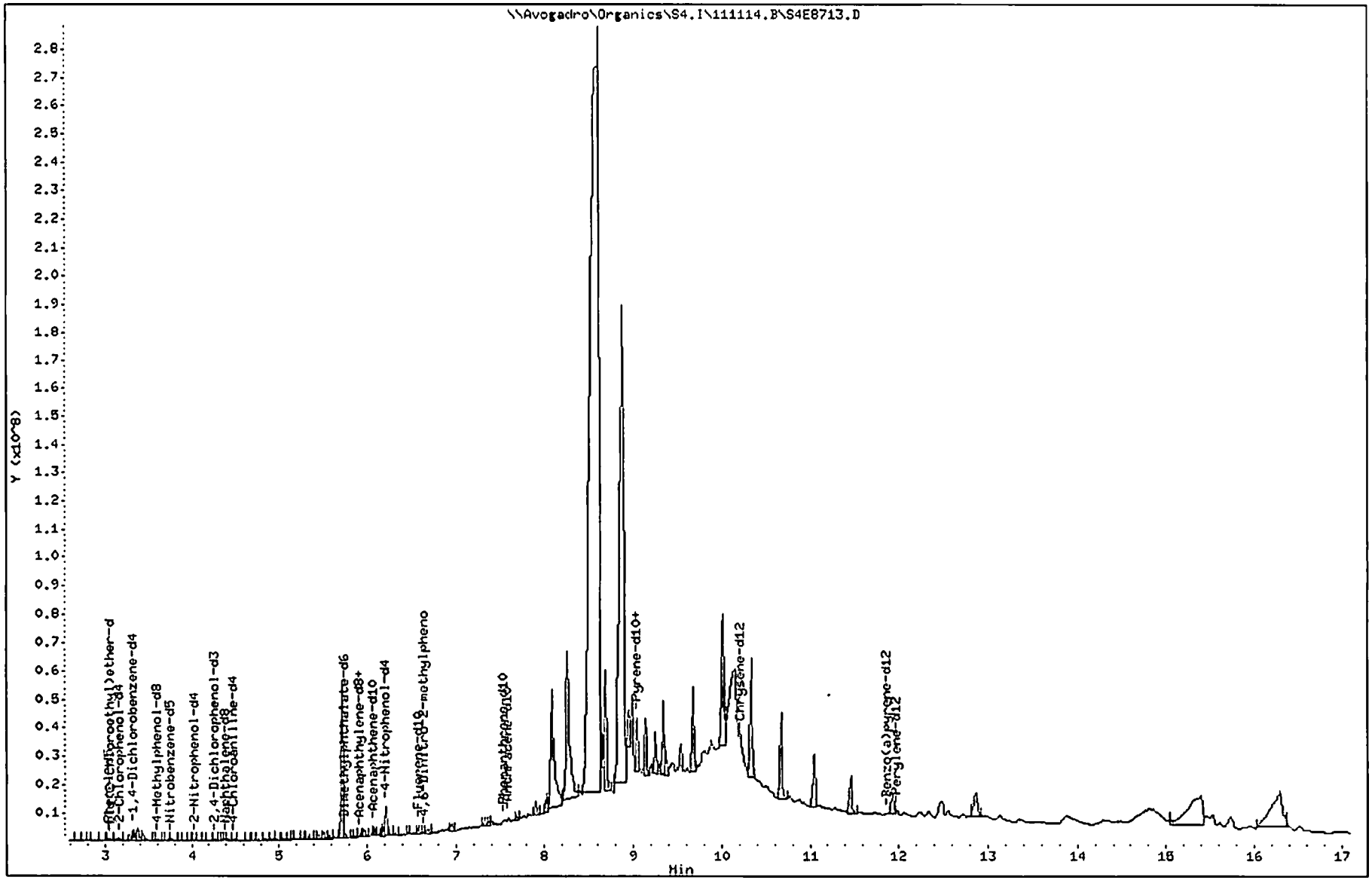
Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D
Report Date: 15-Nov-2011 12:01

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
8.650	24300889	249.509698	4100	0		0	46
Unknown				CAS #:			
8.692	61853693	635.083612	10000	0		0	46
Unknown				CAS #:			
8.951	23907608	245.471685	4000	0		0	46
Unknown				CAS #:			
9.137	31748728	325.980487	5300	0		0	46
Unknown				CAS #:			
9.251	22415211	230.148478	3800	0		0	46
Straight-chain Alkane				CAS #:			
9.344	32709812	335.848428	5500	0		0	46
Unknown				CAS #:			
9.375	11795363	121.109051	2000	0		0	46
Straight-chain Alkane				CAS #:			
9.685	45334807	465.475734	7600	0		0	46
Straight-chain Alkane				CAS #:			
10.017	93270042	957.651392	16000	0		0	46
Straight-chain Alkane				CAS #:			
10.338	65576649	673.309110	11000	0		0	46
Straight-chain Alkane				CAS #:			
10.679	51025487	523.904867	8600	0		0	46
Straight-chain Alkane				CAS #:			
11.052	34945422	358.802589	5900	0		0	46
Straight-chain Alkane				CAS #:			
11.942	14788081	151.836818	2500	0		0	46
Stigmastan-3,5-diene				CAS #: 1000214-16-4			
12.873	27275838	280.055026	4600	95	NIST2002.L	155644	46
17-(1,5-Dimethylhexyl)-10,13-dimethyl-4-				CAS #: 1000210-86-9			
15.399	1.200e+008	1232.10507	20000	91	NIST2002.L	159311	46
Stigmast-4-en-3-one				CAS #: 1058-61-3			
16.299	1.128e+008	1157.90001	19000	96	NIST2002.L	158845	46

Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D
Date : 14-NOV-2011 19:44
Client ID: H30S2
Sample Info: K2199-14A,,62801,,
Volume Injected (uL): 2.0
Column phase: RXI-5SILMS

Instrument: S4.I

Operator: HMS SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

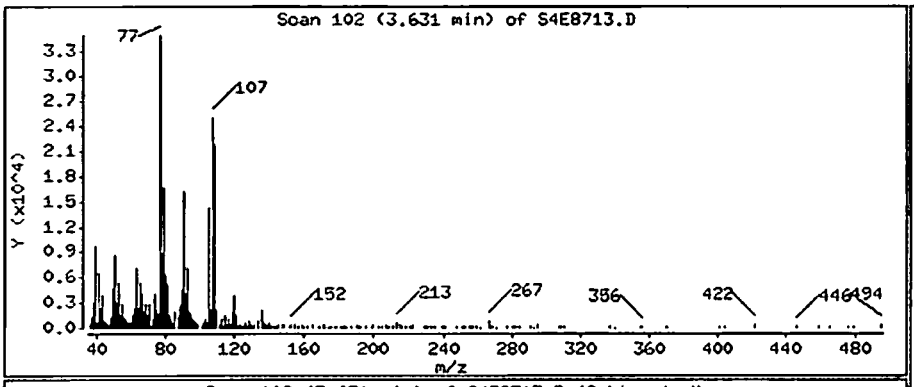
Client ID: H30S2 Instrument: S4.i

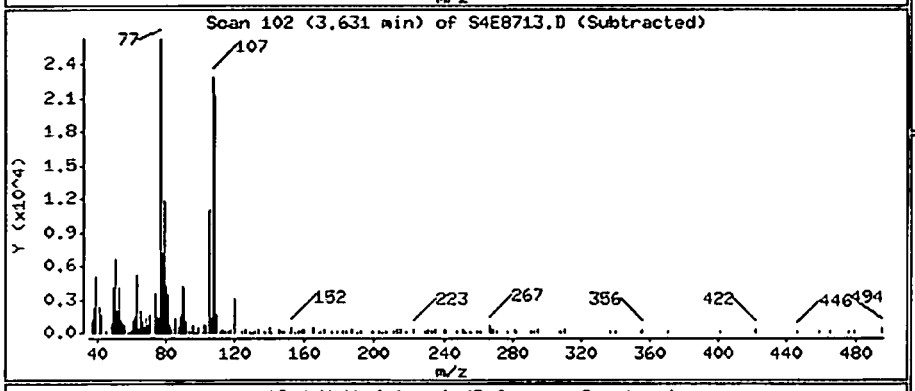
Sample Info: K2199-14A,,62801,,

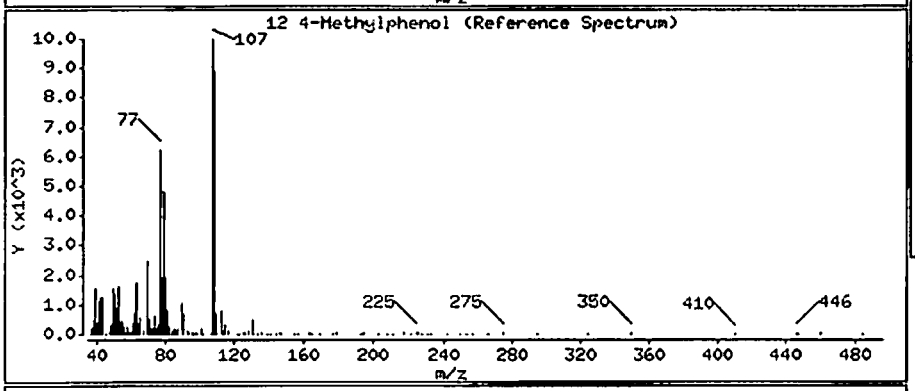
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

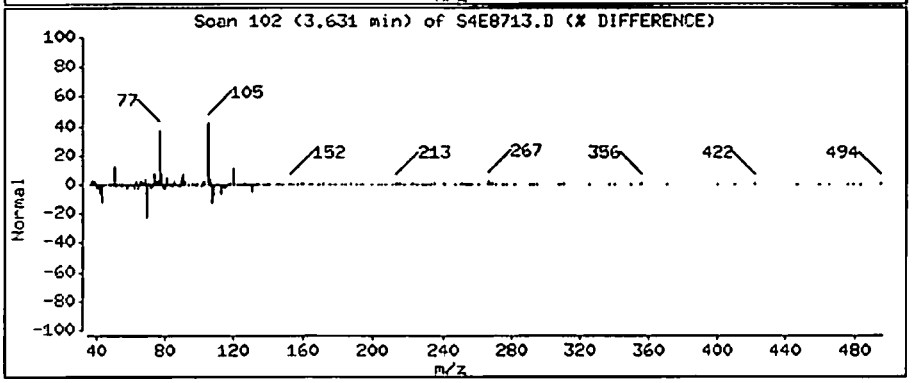
Column phase: RXI-5SILMS Column diameter: 0.25

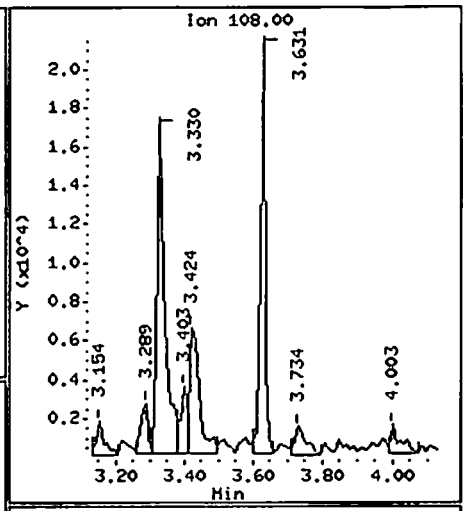
12 4-Methylphenol Concentration: 340 ug/Kg

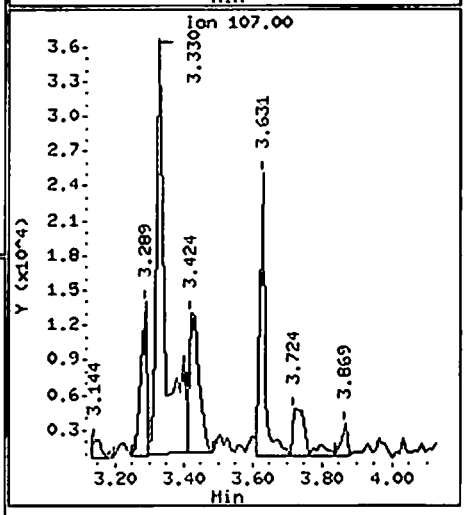












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

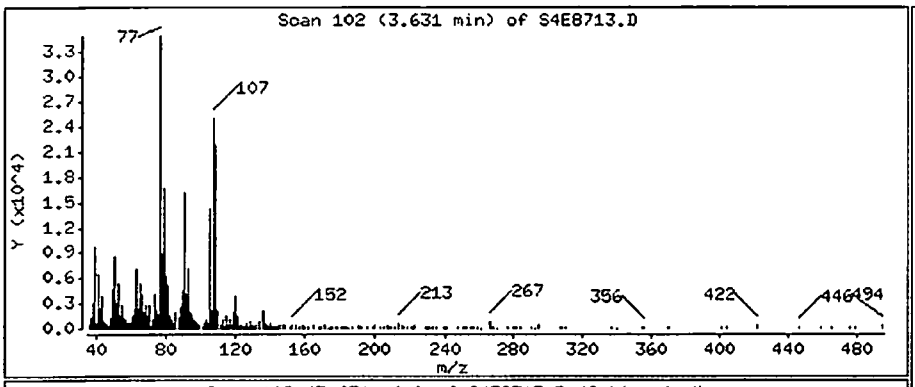
Client ID: H30S2 Instrument: S4.i

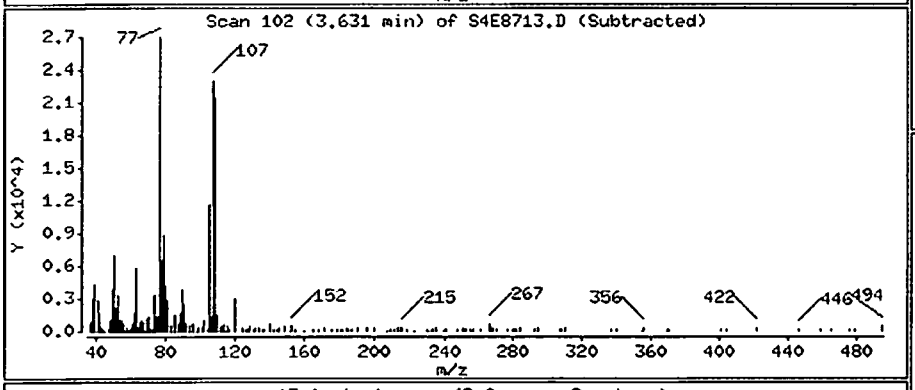
Sample Info: K2199-14A,,62801,,

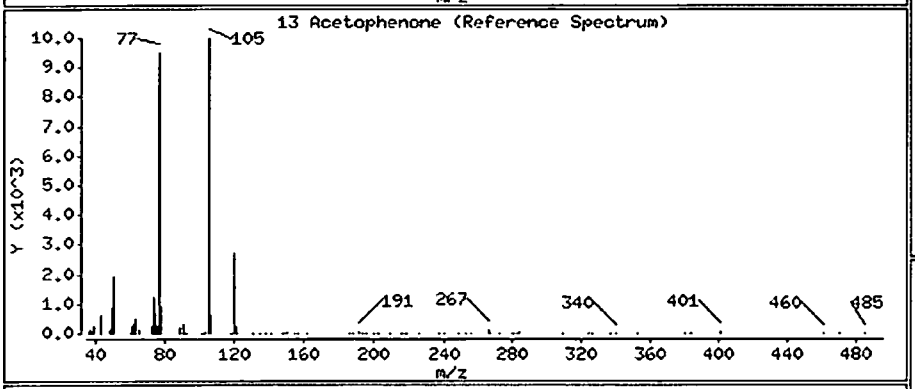
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

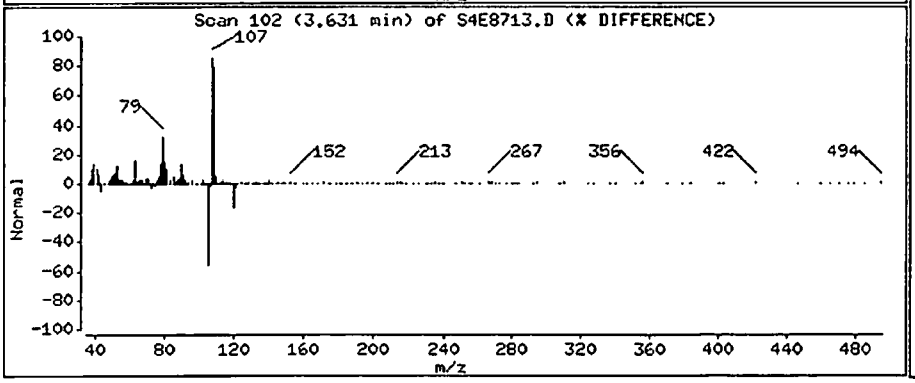
Column phase: RXI-5SILMS Column diameter: 0.25

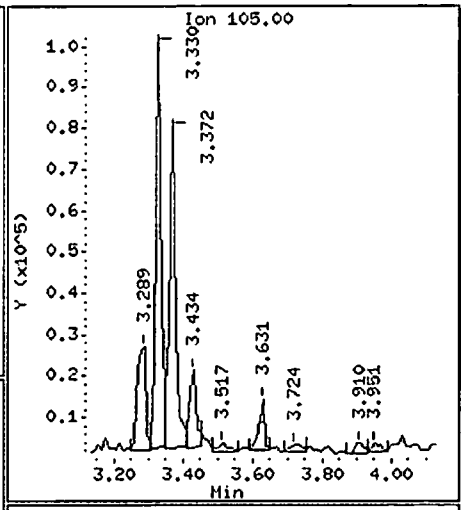
13 Acetophenone Concentration: 140 ug/Kg

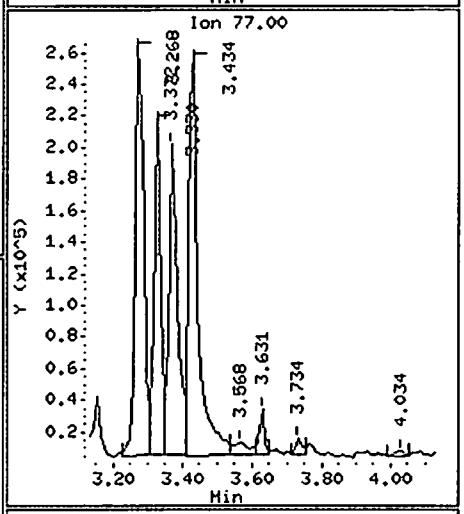


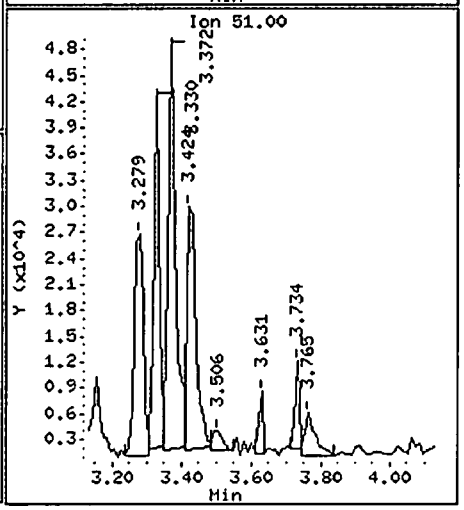












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

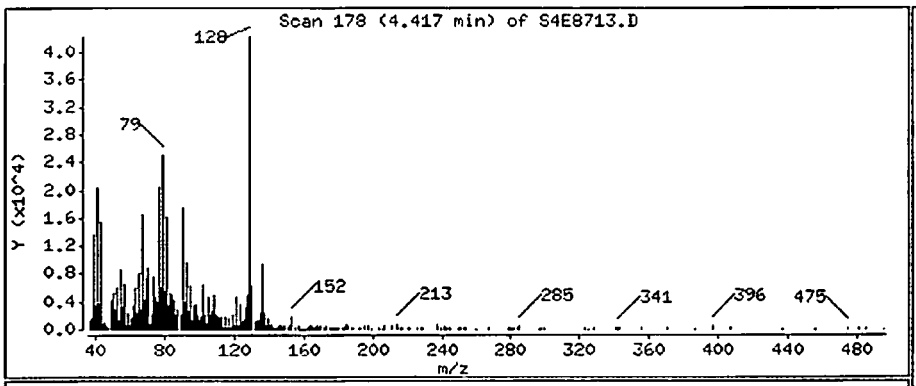
Client ID: H30S2 | Instrument: S4.i

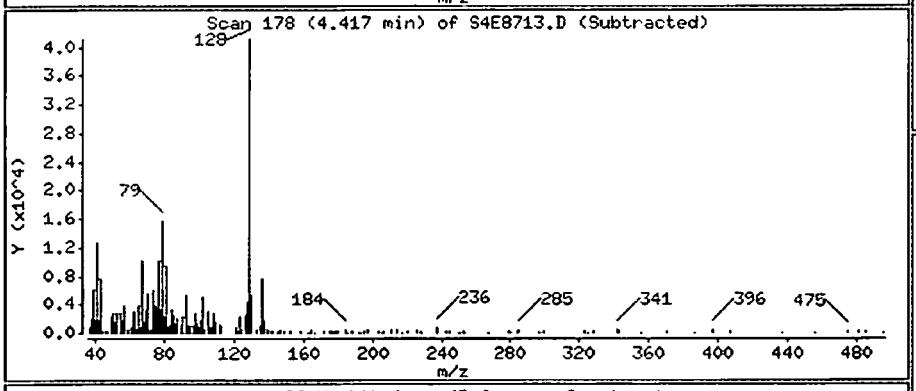
Sample Info: K2199-14A,,62801,,

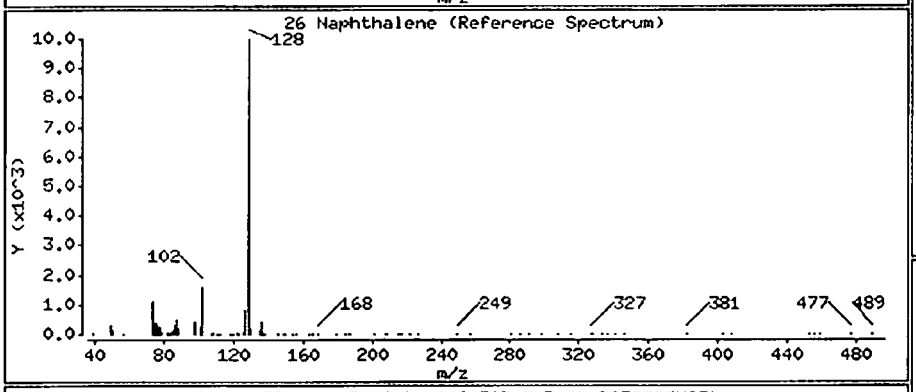
Volume Injected (uL): 2.0 | Operator: MMS SRC: LIMS

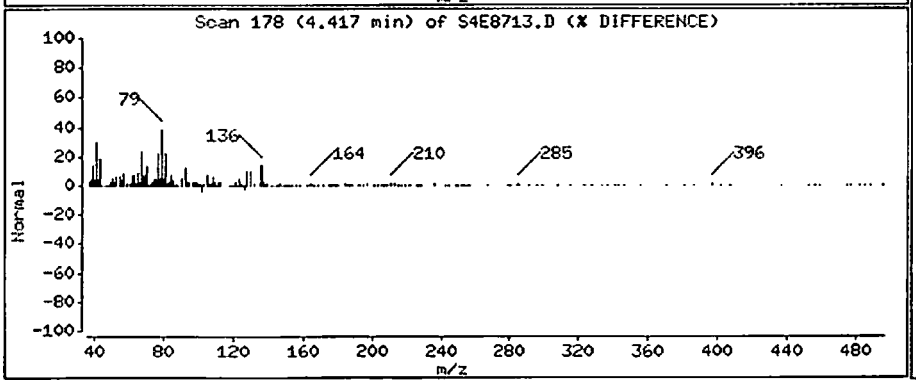
Column phase: RXI-5SILMS | Column diameter: 0.25

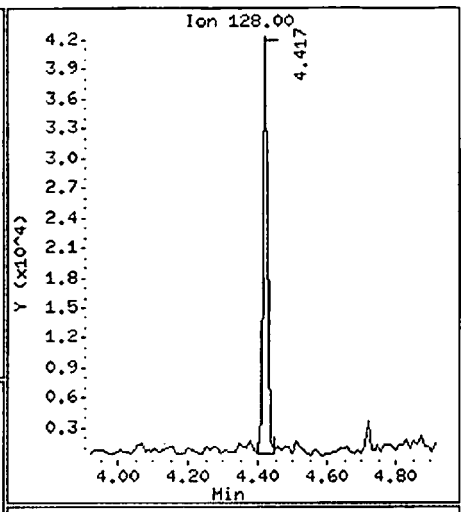
26 Naphthalene | Concentration: 190 ug/Kg

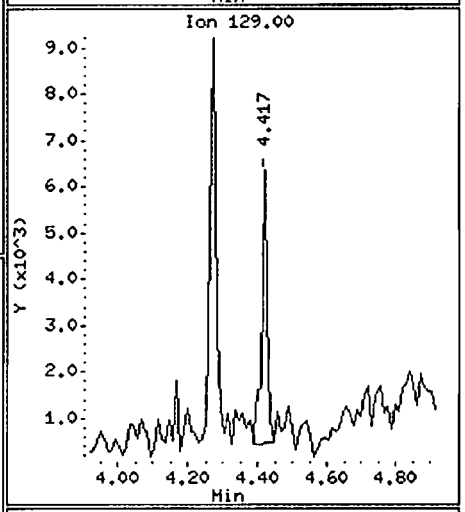


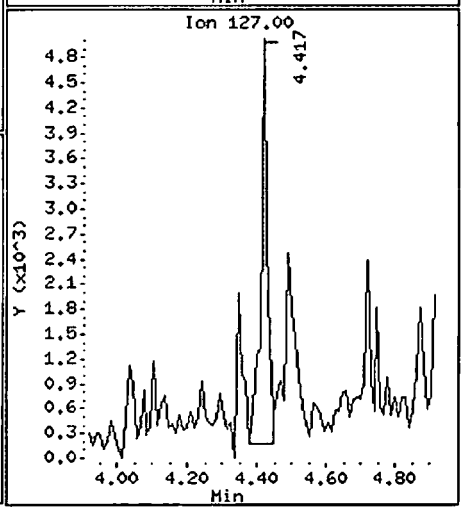












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

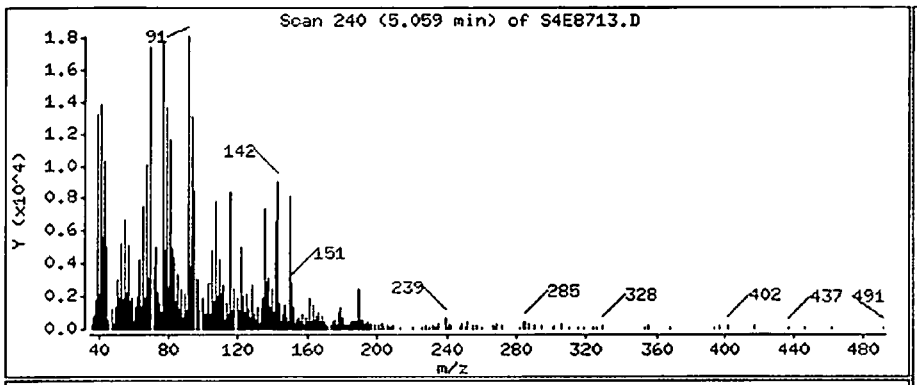
Client ID: H30S2 Instrument: S4.i

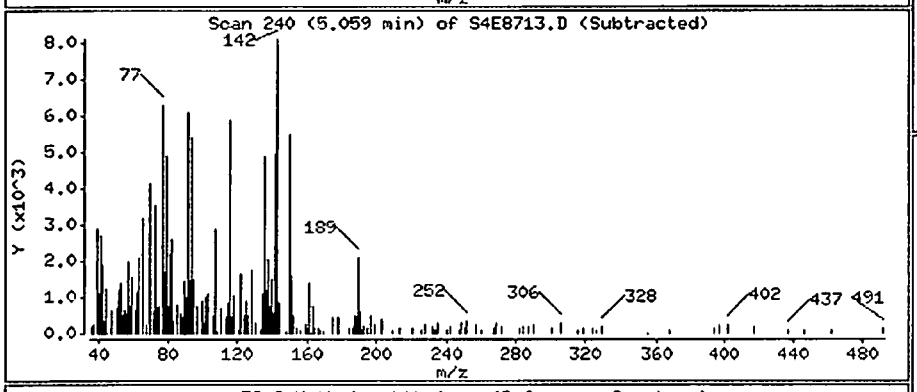
Sample Info: K2199-14A,,62801,,

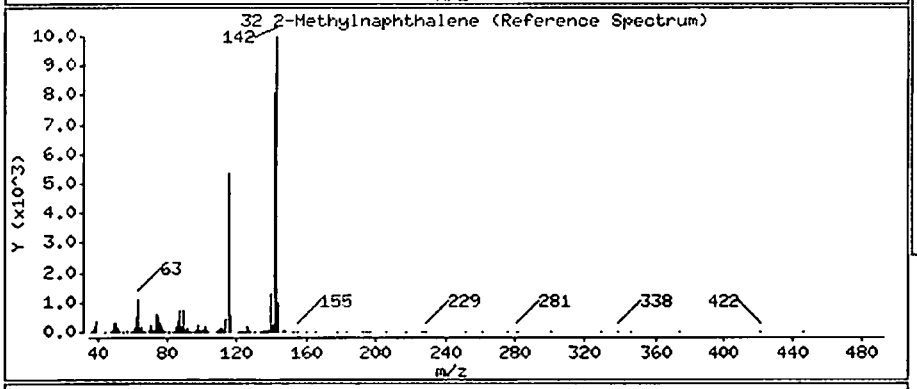
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

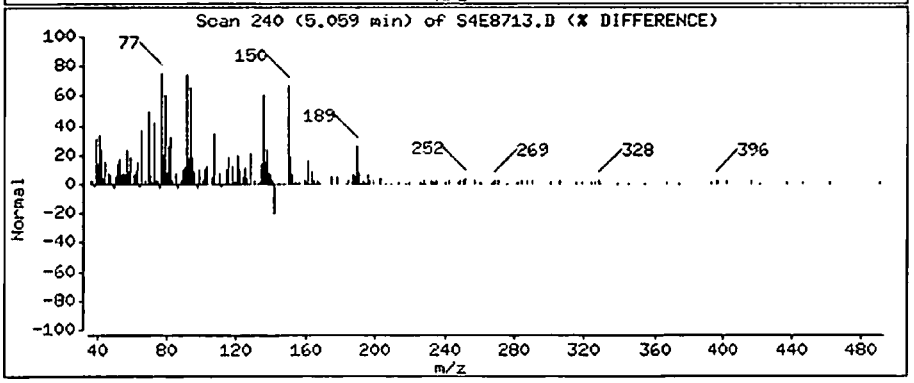
Column phase: RXI-5SILMS Column diameter: 0.25

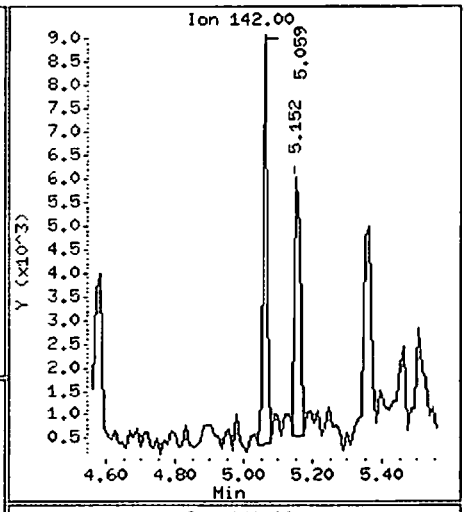
32 2-Methylnaphthalene Concentration: 44 ug/Kg

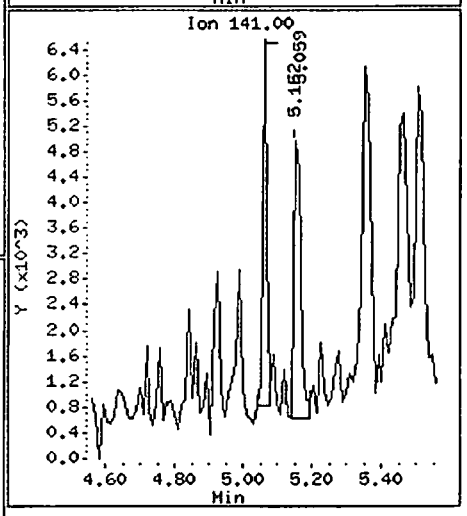












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

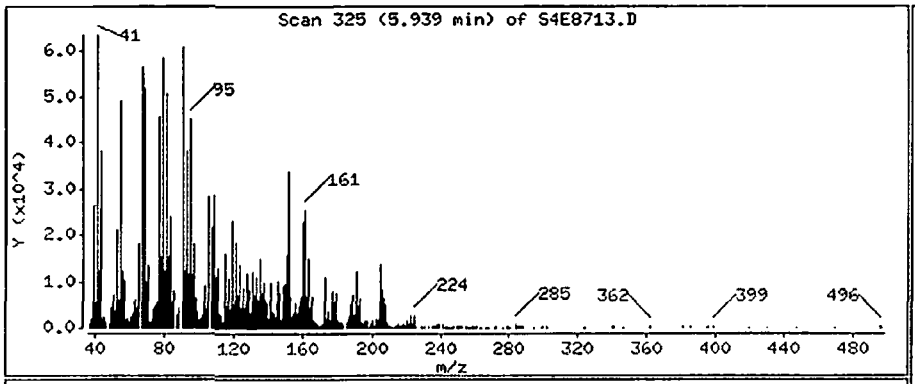
Client ID: H30S2 Instrument: S4.i

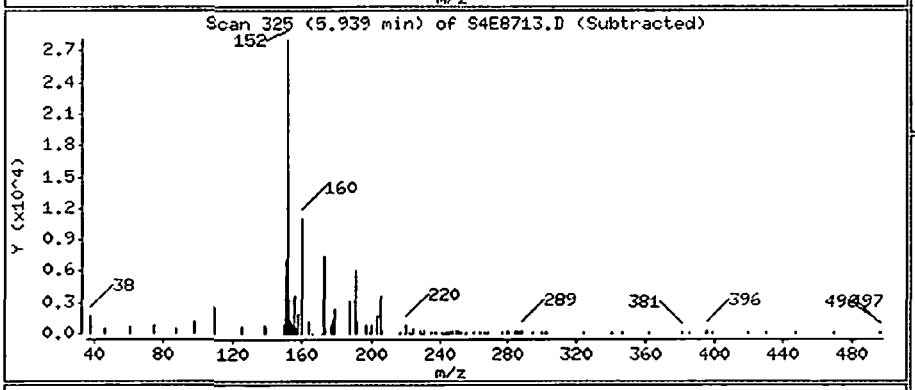
Sample Info: K2199-14A,,62801,,

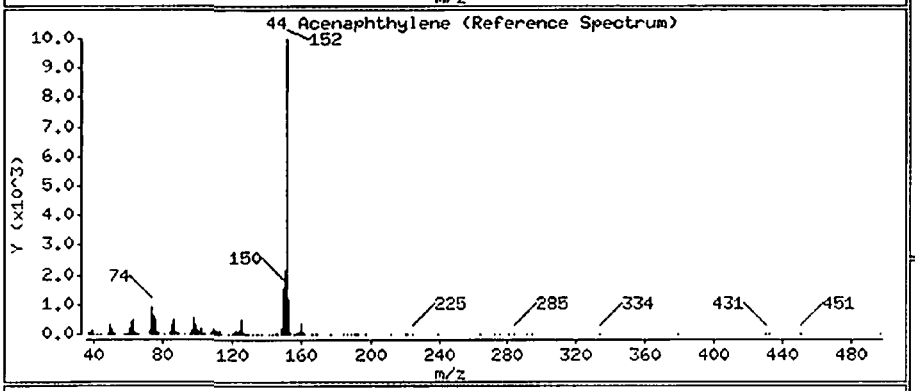
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

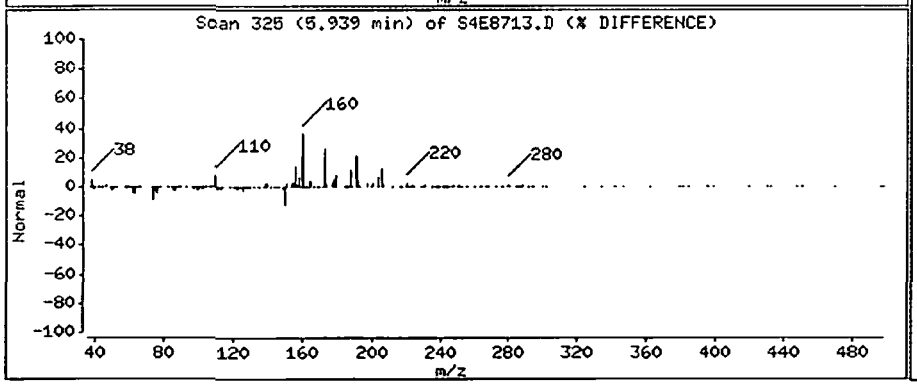
Column phase: RXI-5SILMS Column diameter: 0.25

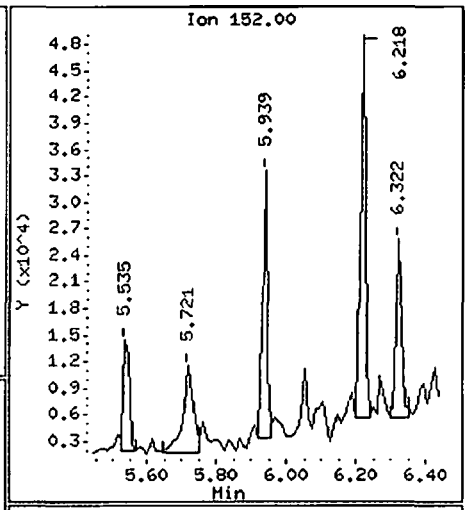
44 Acenaphthylene Concentration: 83 ug/Kg

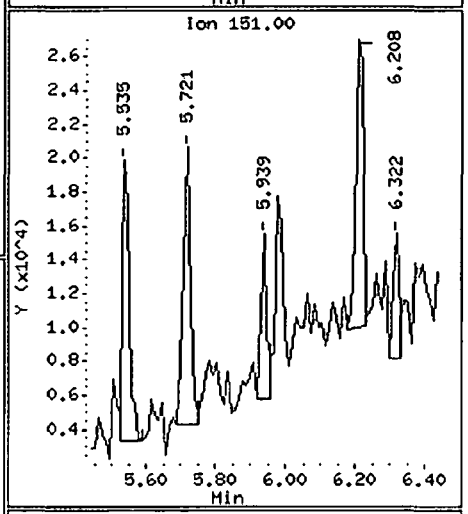


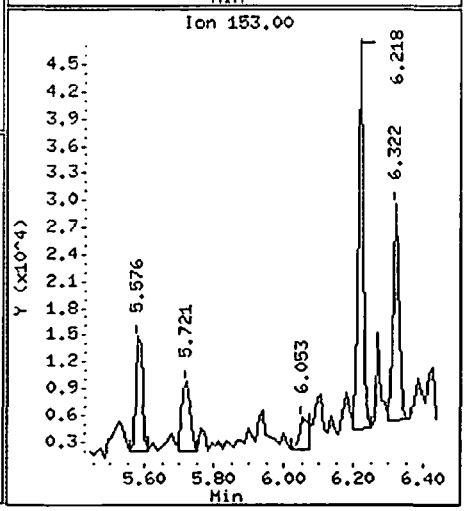












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

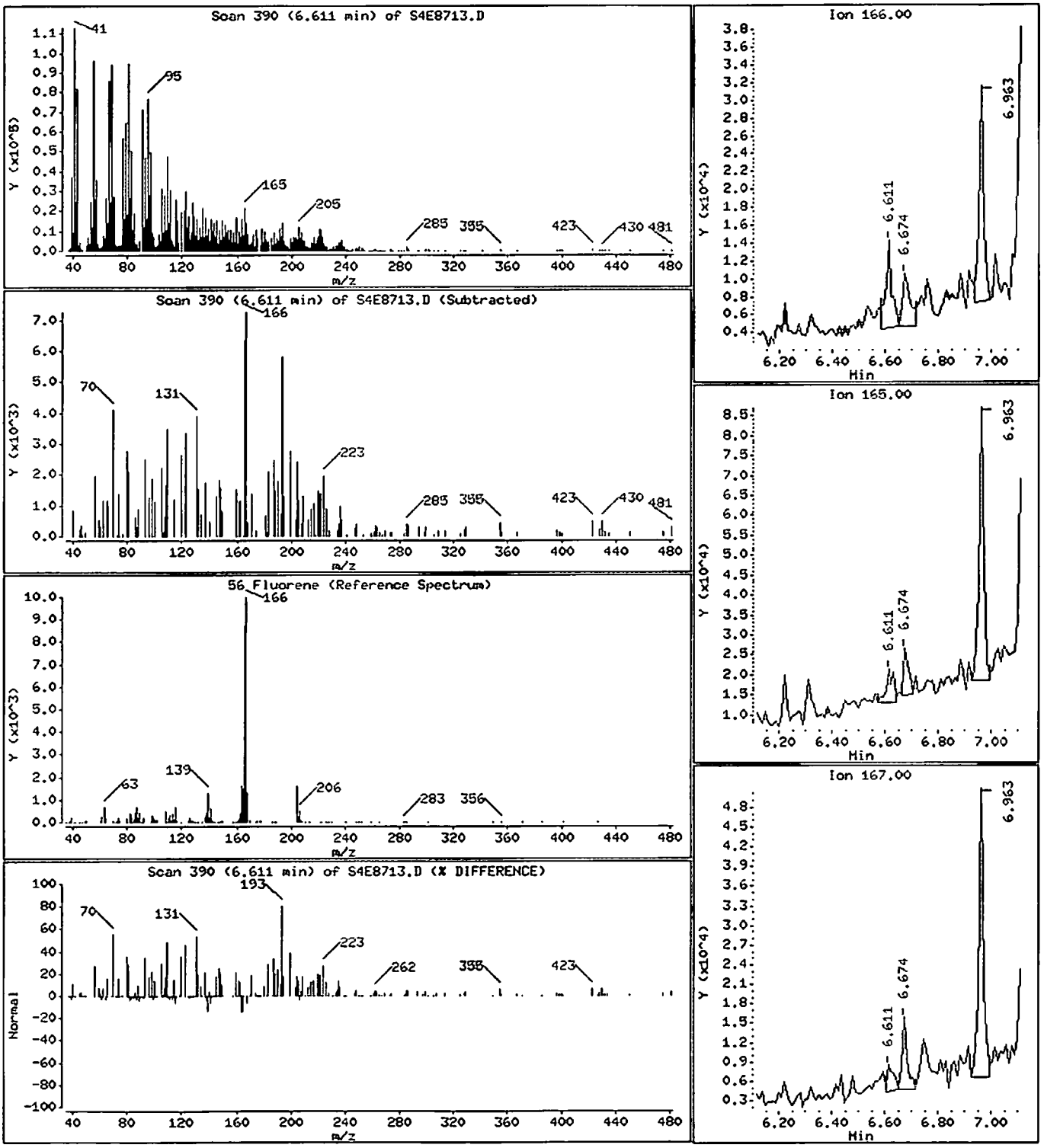
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

56 Fluorene Concentration: 53 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

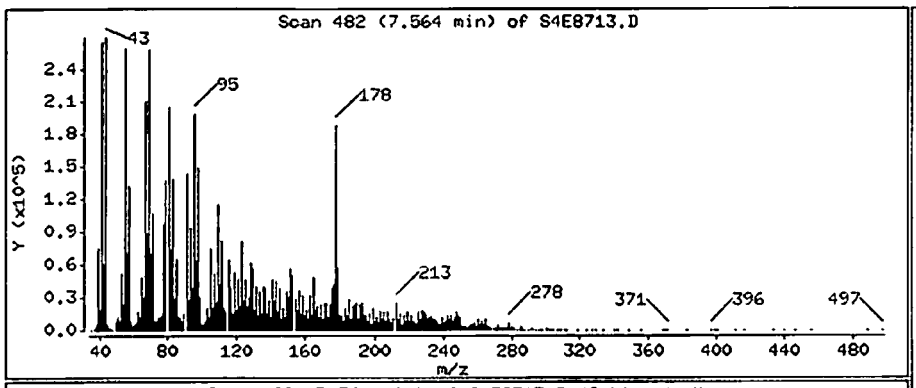
Client ID: H30S2 Instrument: S4.i

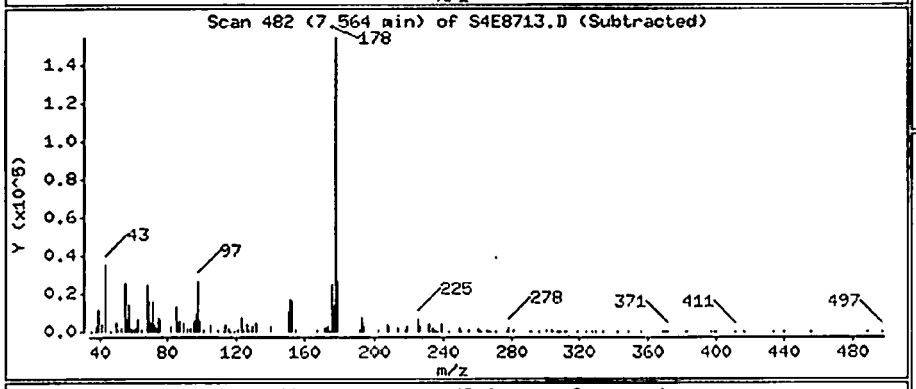
Sample Info: K2199-14A,,62801,,

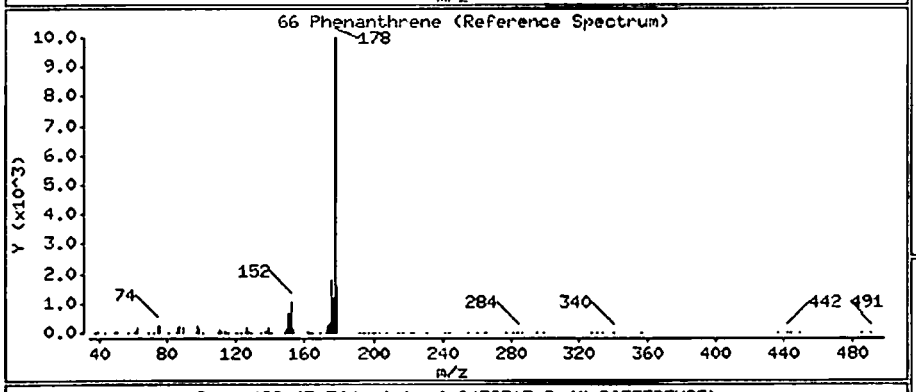
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

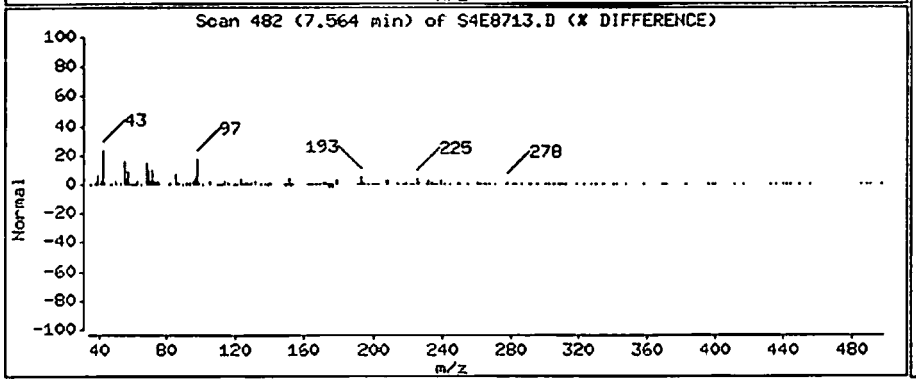
Column phase: RXI-5SILMS Column diameter: 0.25

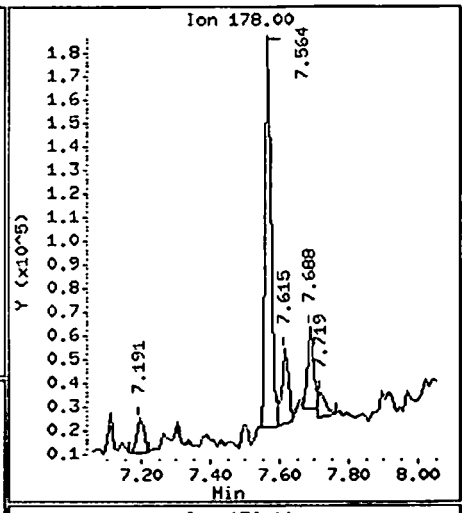
66 Phenanthrene Concentration: 380 ug/Kg

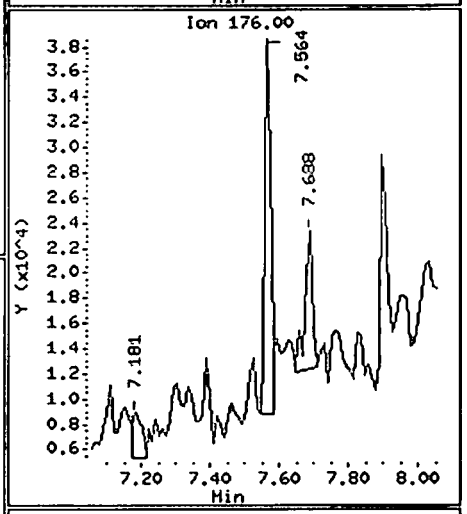


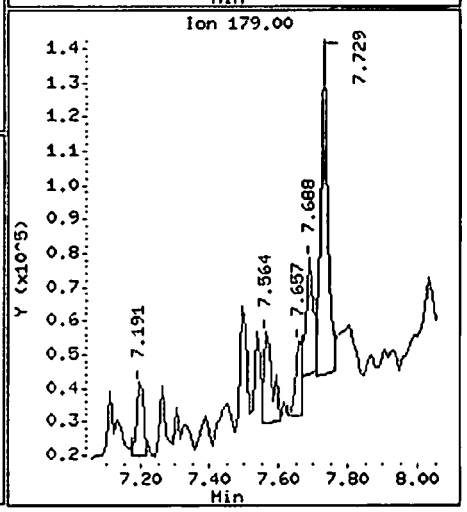












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

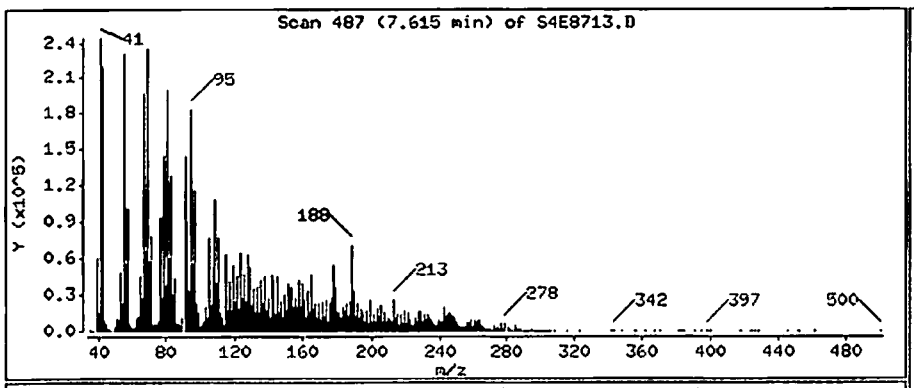
Client ID: H30S2 Instrument: S4.i

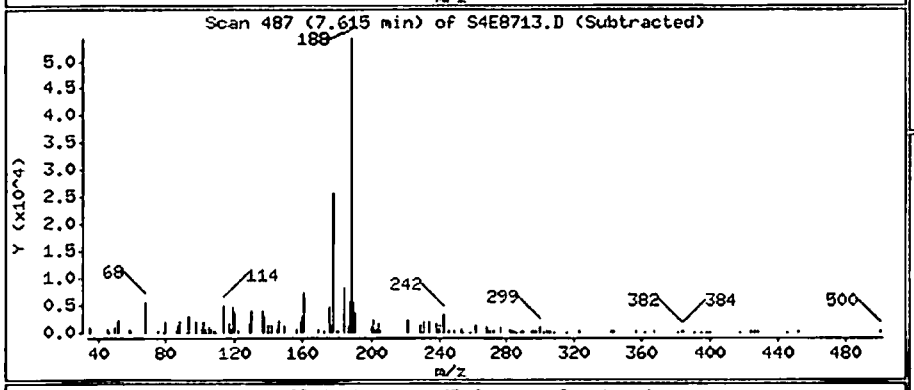
Sample Info: K2199-14A,,62801,,

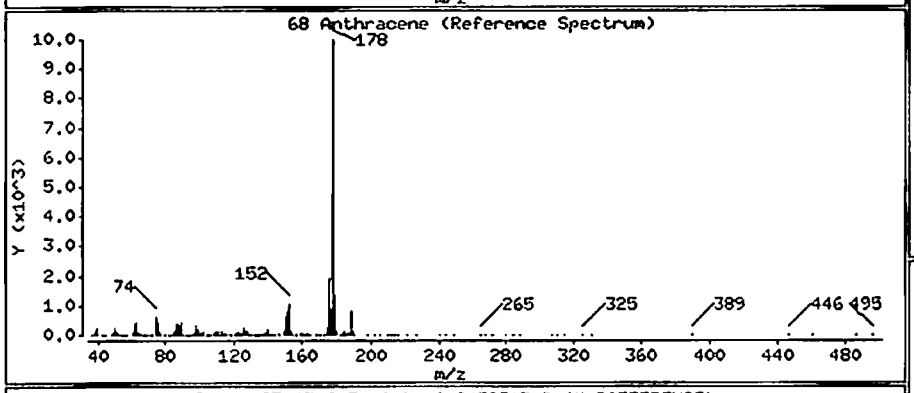
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

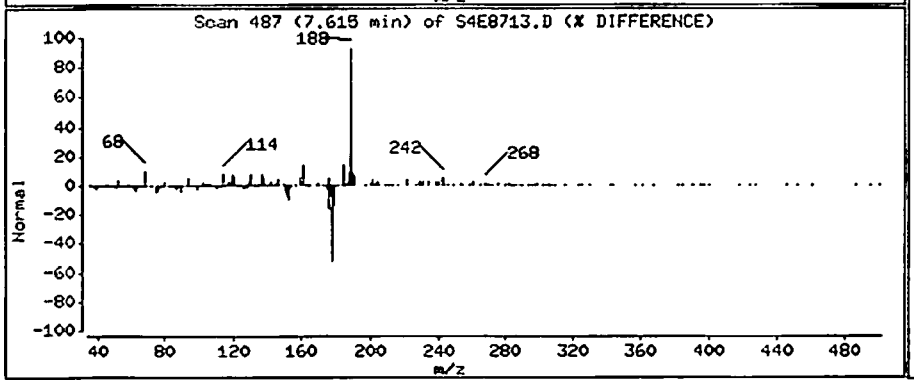
Column phase: RXI-5SILMS Column diameter: 0.25

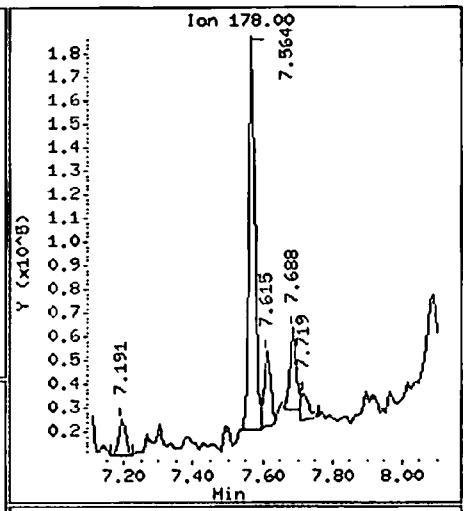
68 Anthracene Concentration: 79 ug/Kg

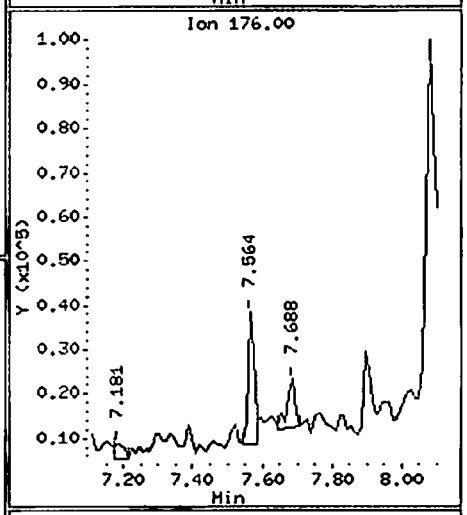


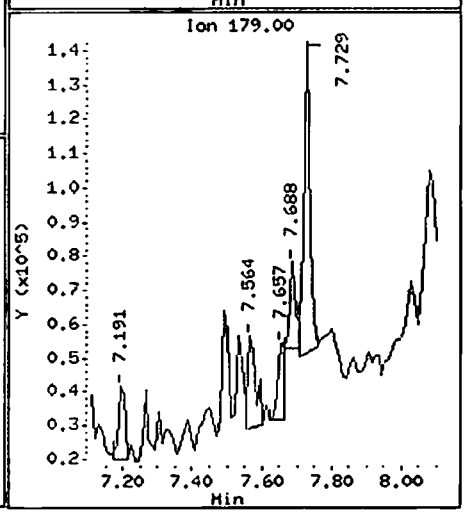












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

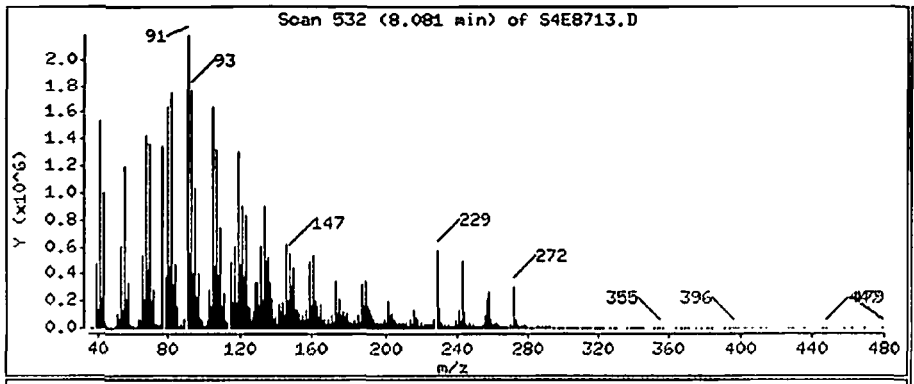
Client ID: H30S2 Instrument: S4.i

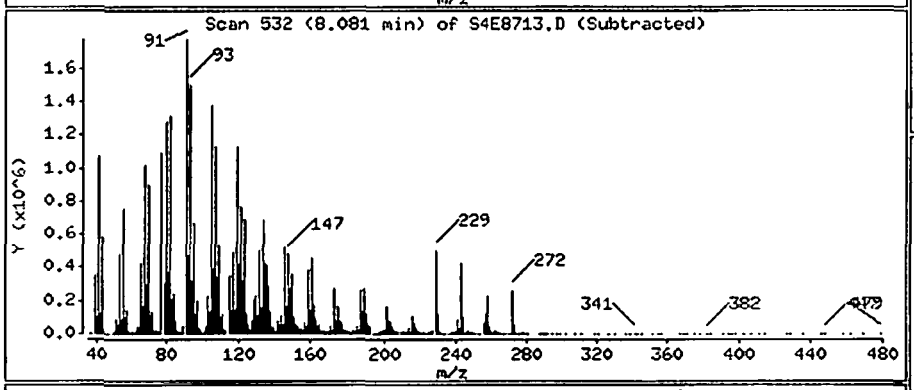
Sample Info: K2199-14A,,62801,,

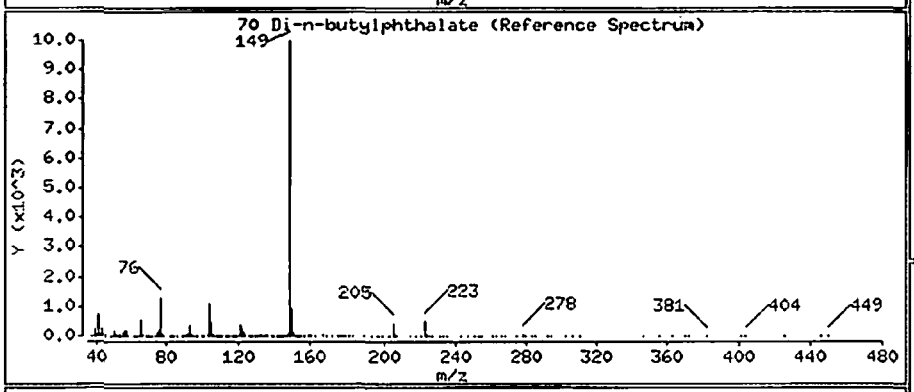
Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

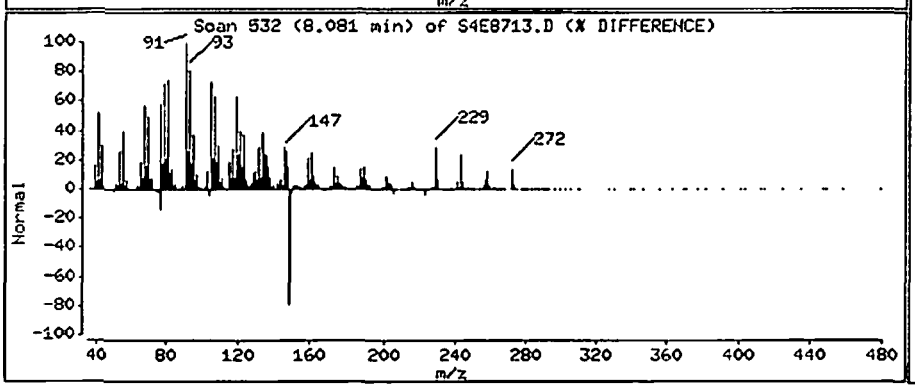
Column phase: RXI-5SILMS Column diameter: 0.25

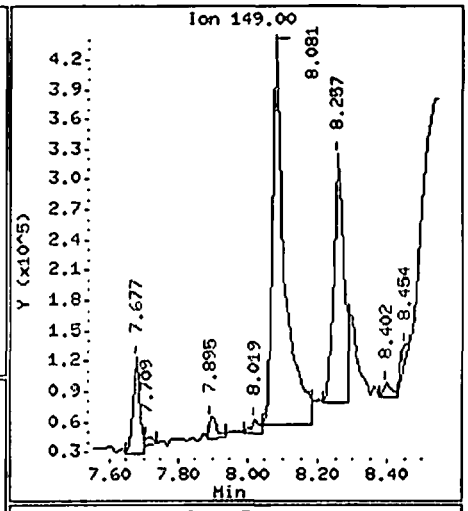
70 Di-n-butylphthalate Concentration: 1600 ug/Kg

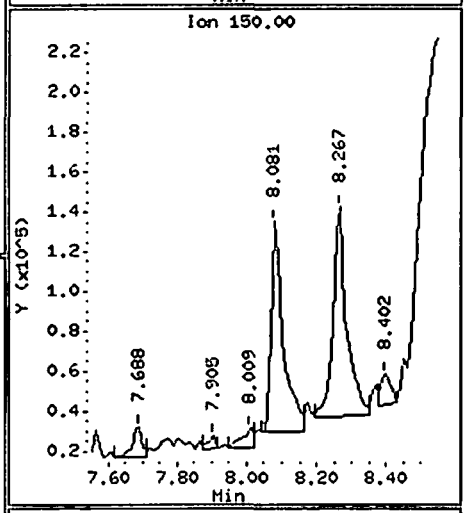


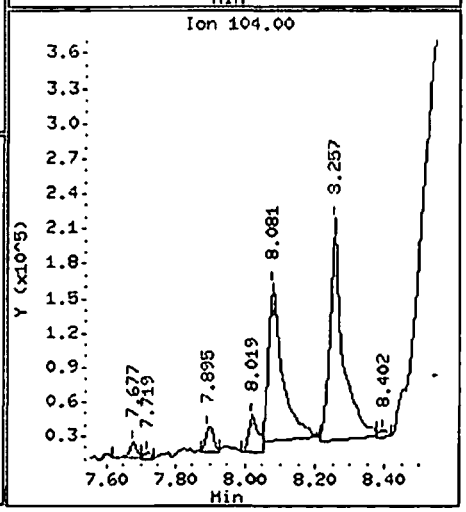












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

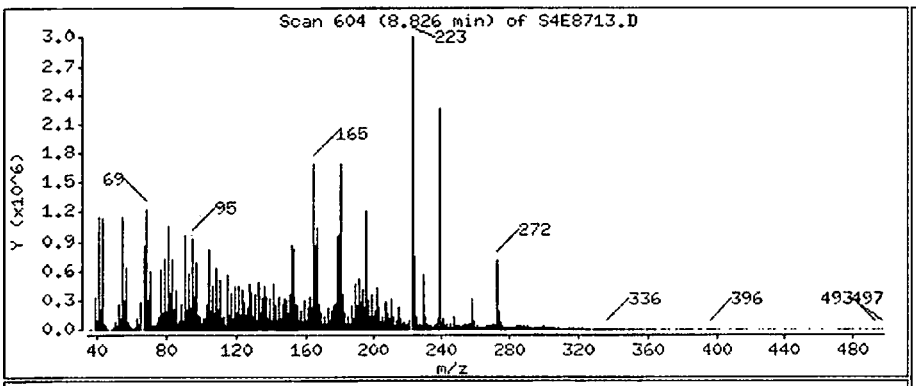
Client ID: H30S2 Instrument: S4.i

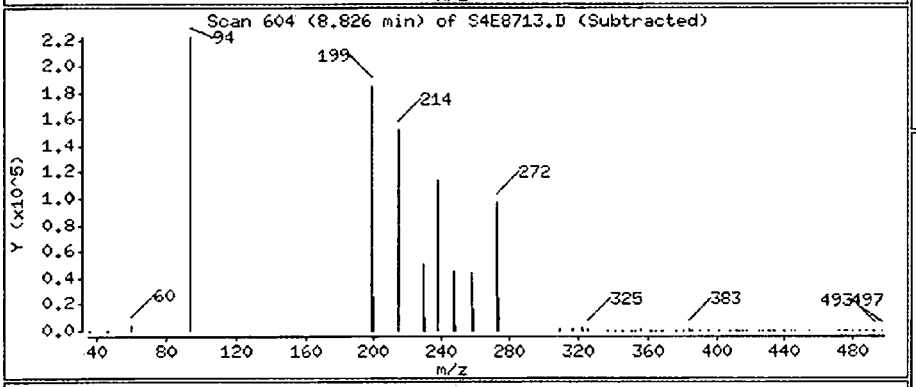
Sample Info: K2199-14A,,62801,,

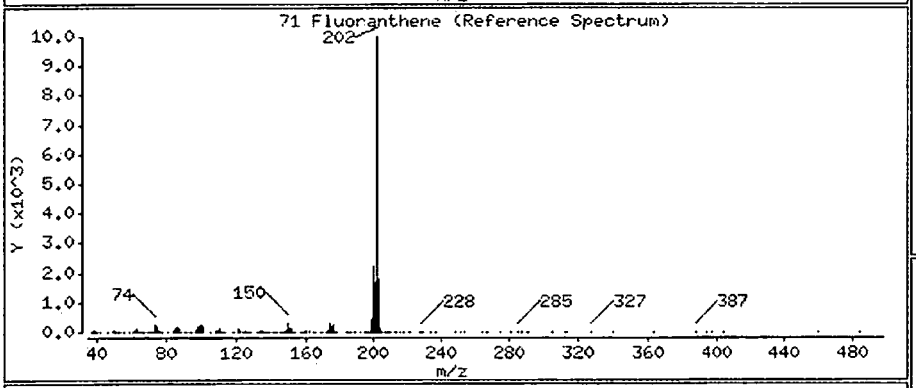
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

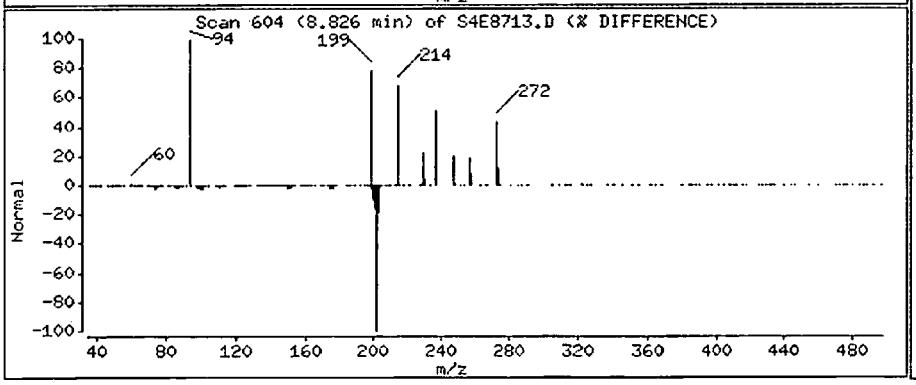
Column phase: RXI-5SILMS Column diameter: 0.25

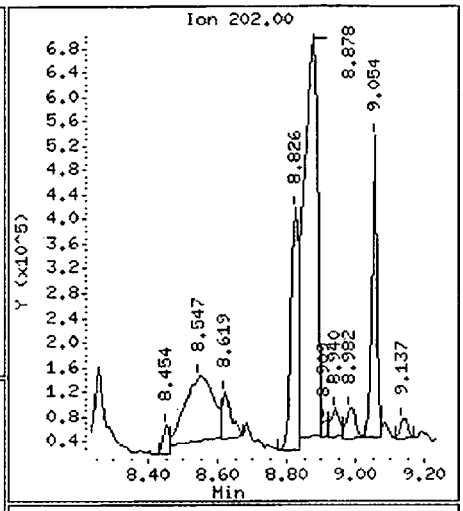
71 Fluoranthene Concentration: 910 ug/Kg

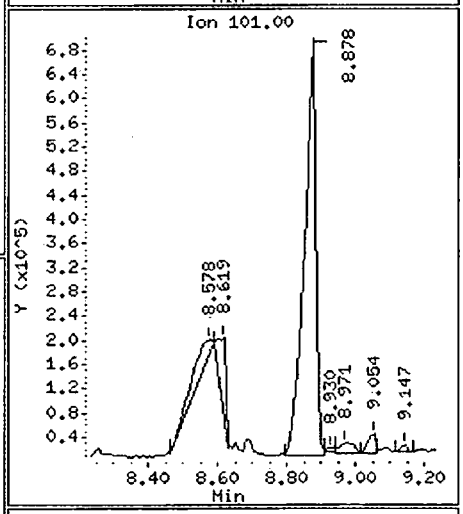


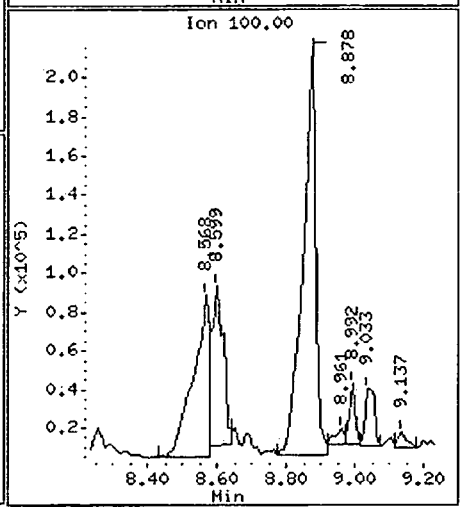












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

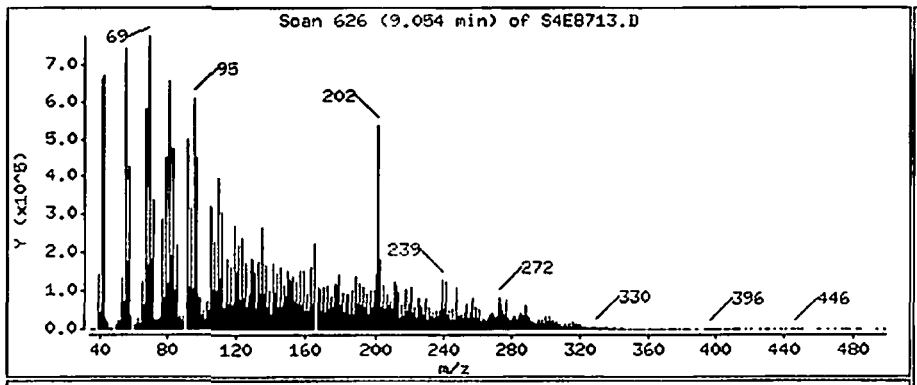
Client ID: H30S2 Instrument: S4.i

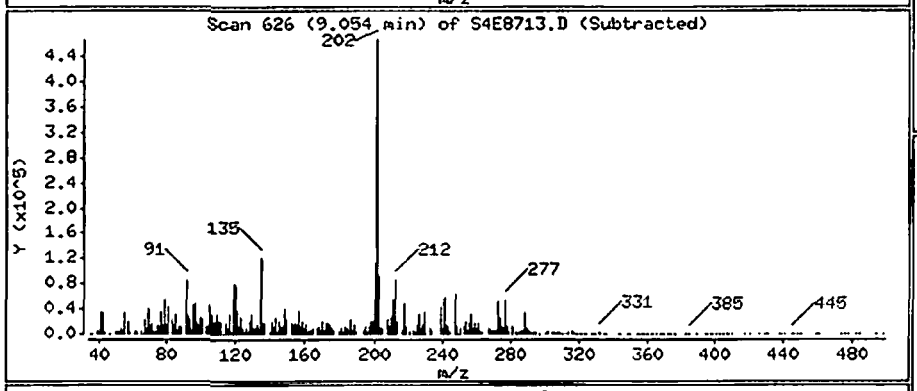
Sample Info: K2199-14A,,62801,,

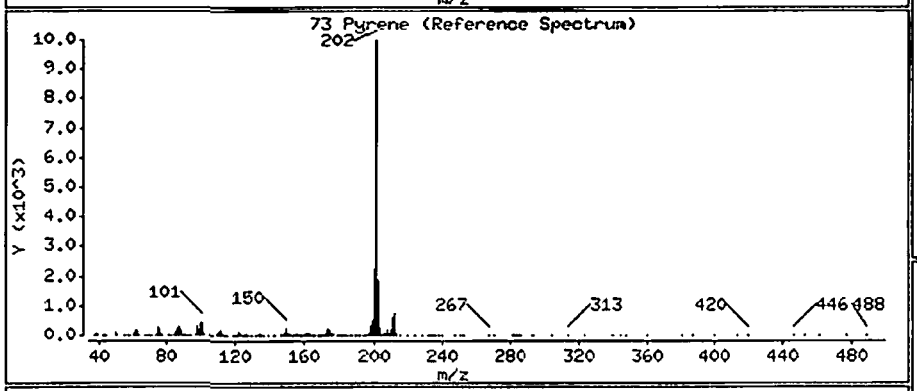
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

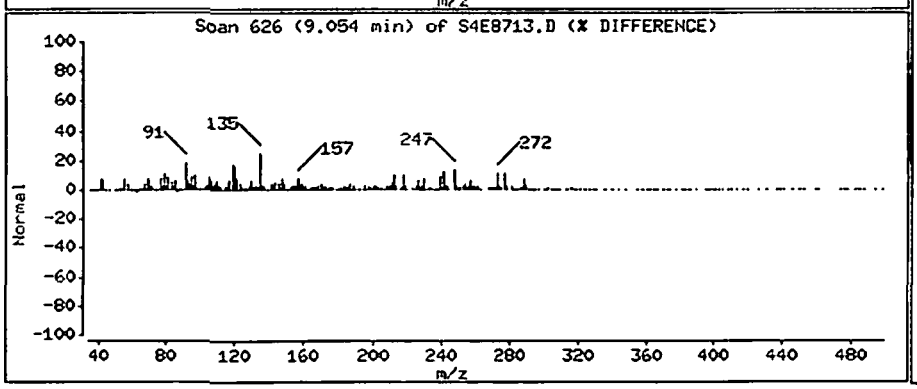
Column phase: RXI-5SILMS Column diameter: 0.25

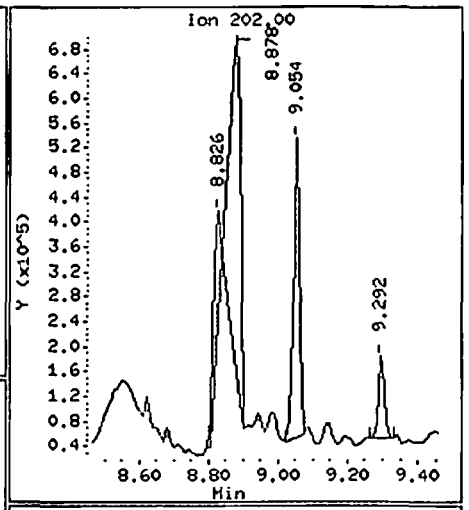
73 Pyrene Concentration: 530 ug/Kg

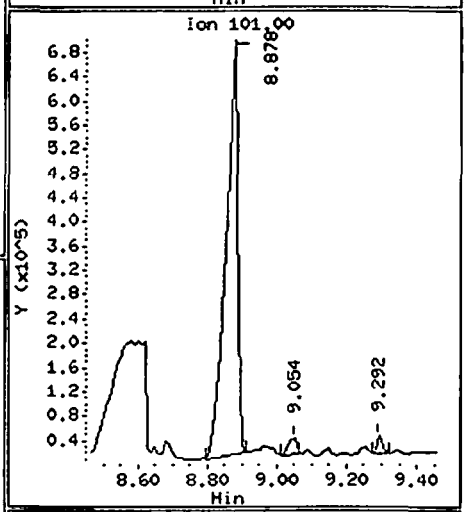


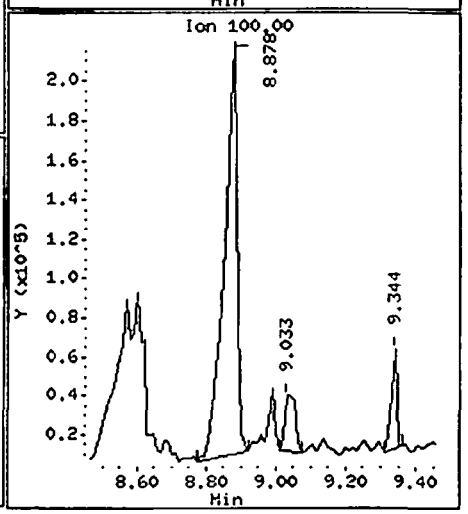












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

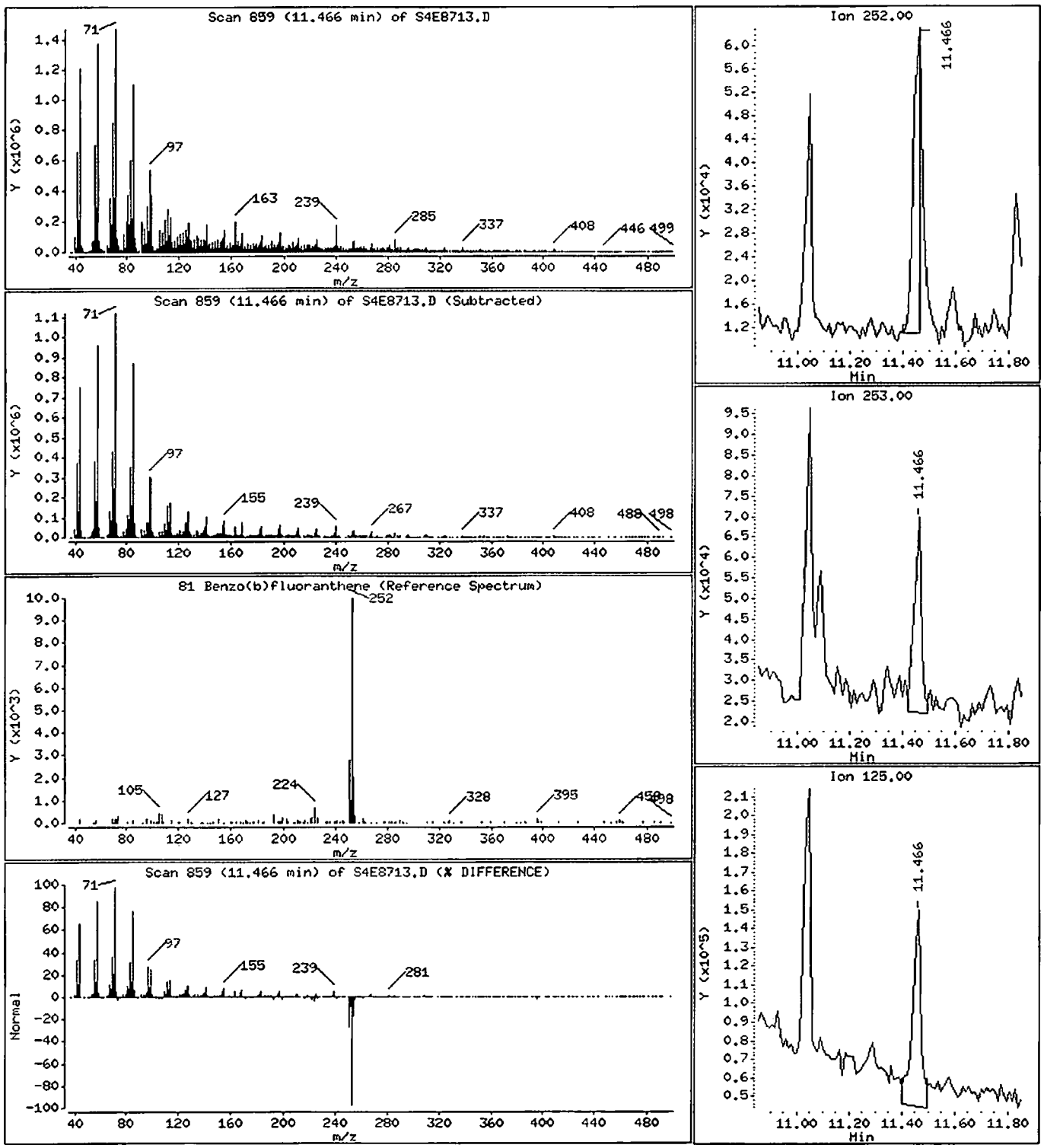
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

81 Benzo(b)fluoranthene Concentration: 100 ug/Kg



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

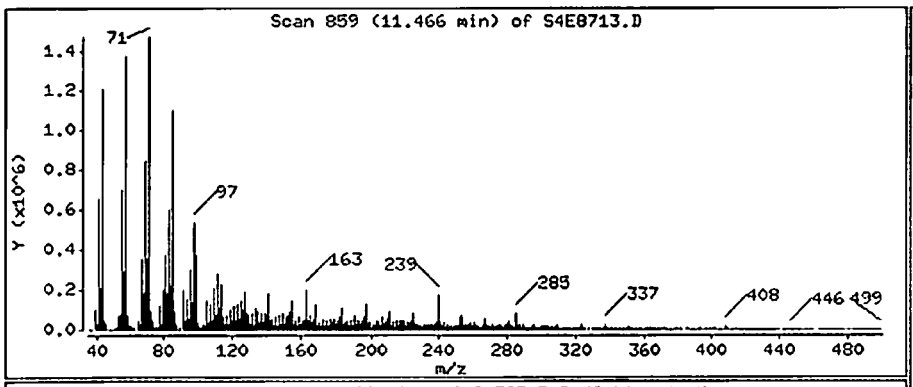
Client ID: H30S2 Instrument: S4.i

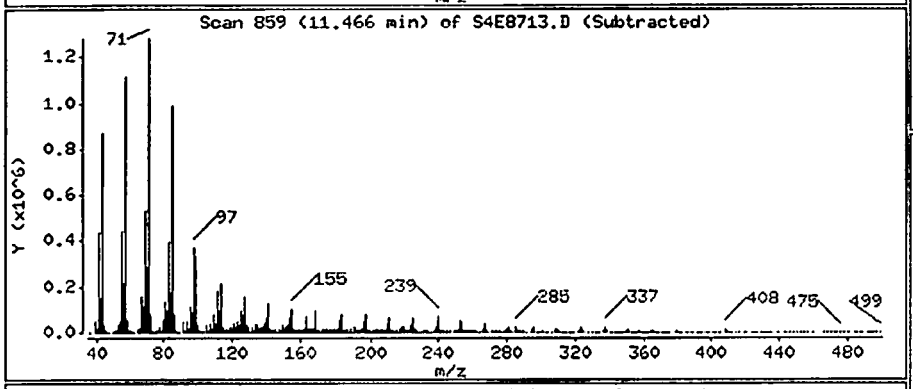
Sample Info: K2199-14A,,62801,,

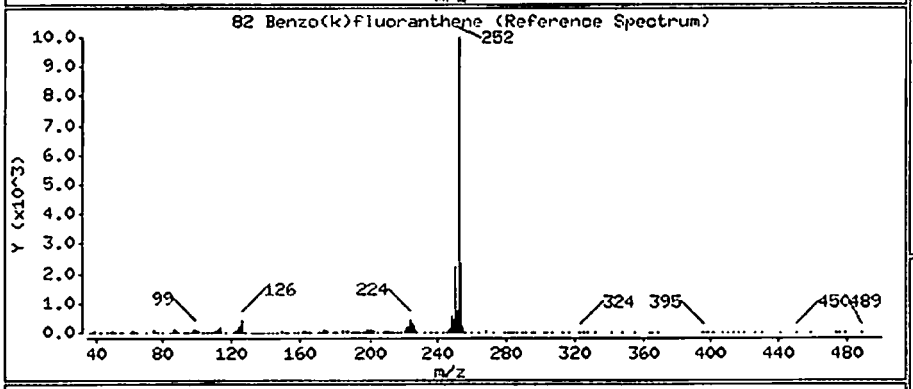
Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

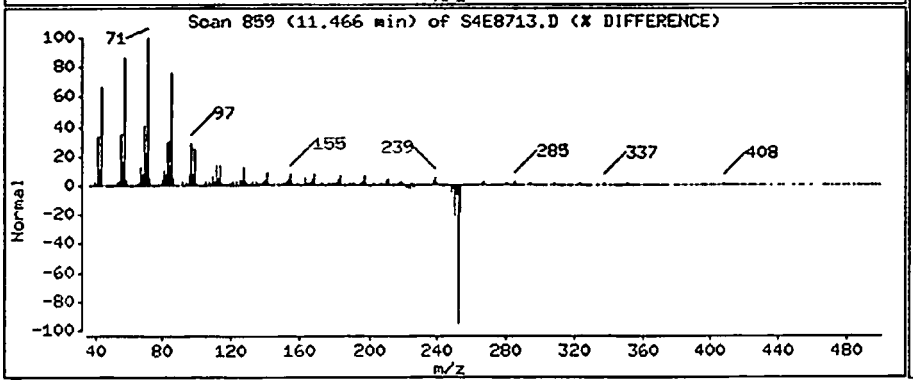
Column phase: RXI-5SILHS Column diameter: 0.25

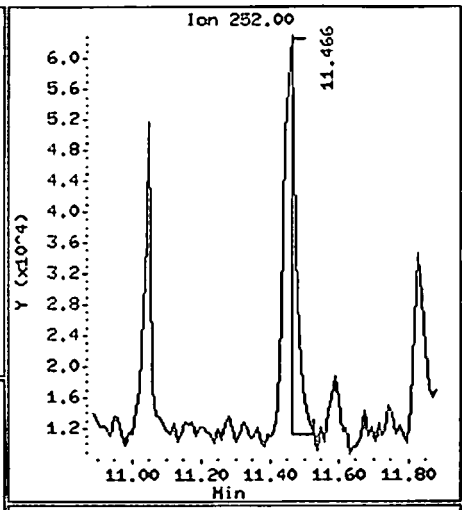
82 Benzo(k)fluoranthene Concentration: 62 ug/Kg

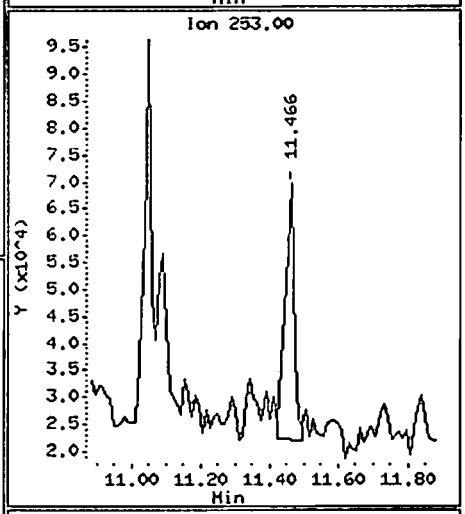


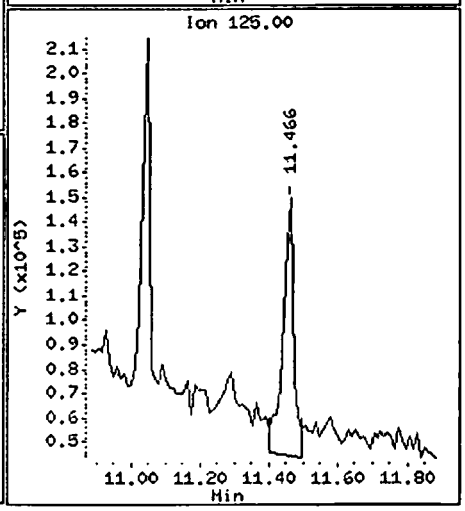












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

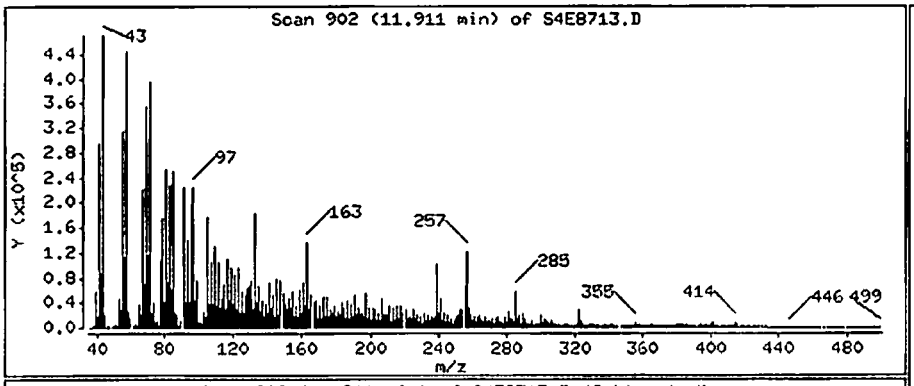
Client ID: H30S2 Instrument: S4.i

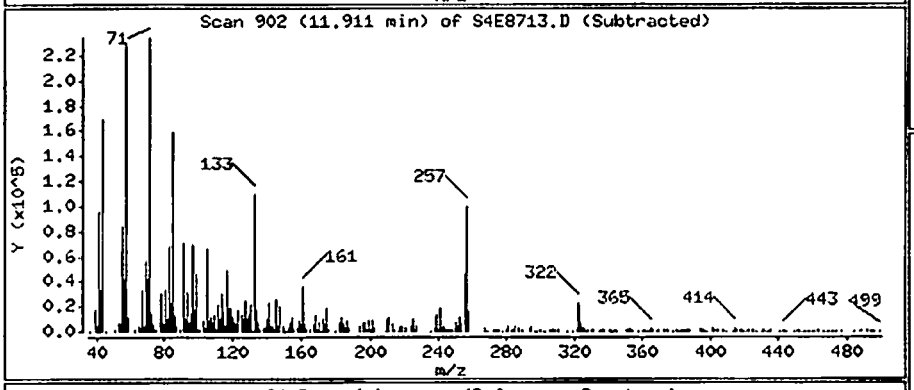
Sample Info: K2199-14A,,62801,,

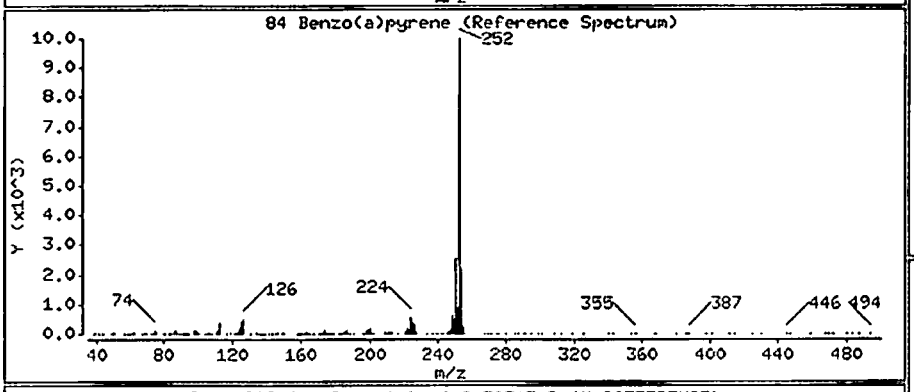
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

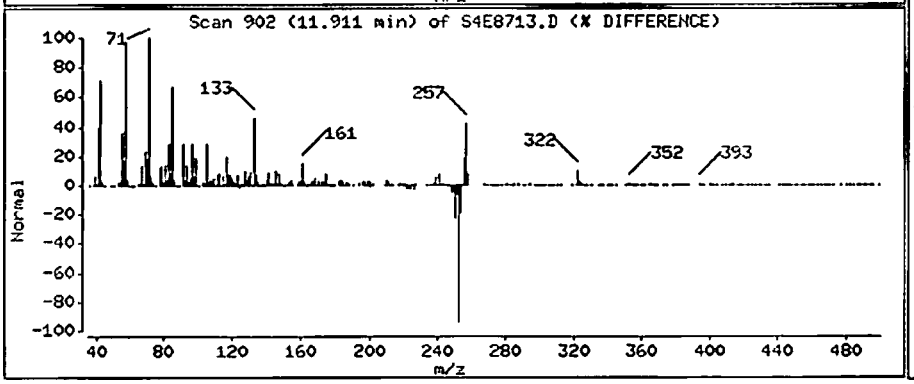
Column phase: RXI-5SILMS Column diameter: 0.25

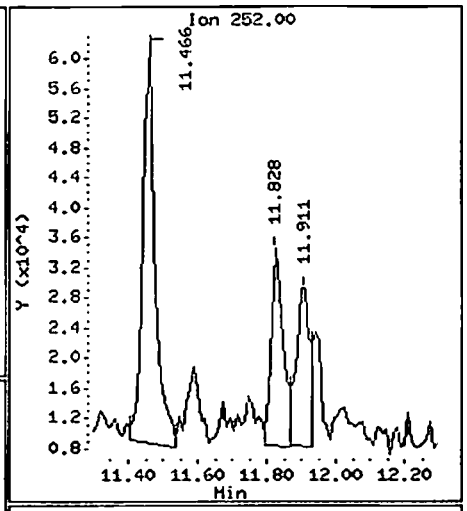
84 Benzo(a)pyrene Concentration: 68 ug/Kg

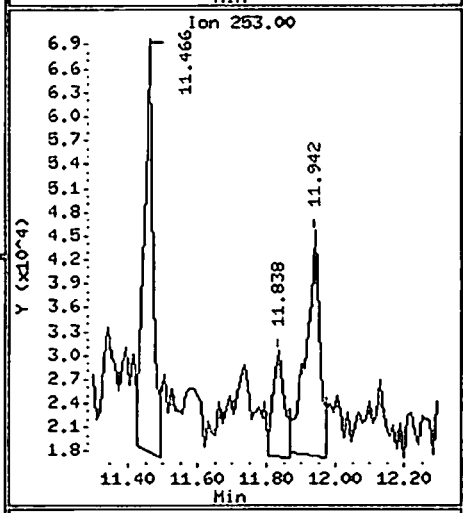


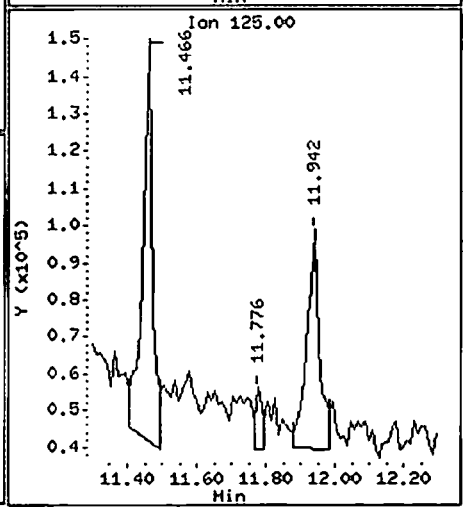












Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

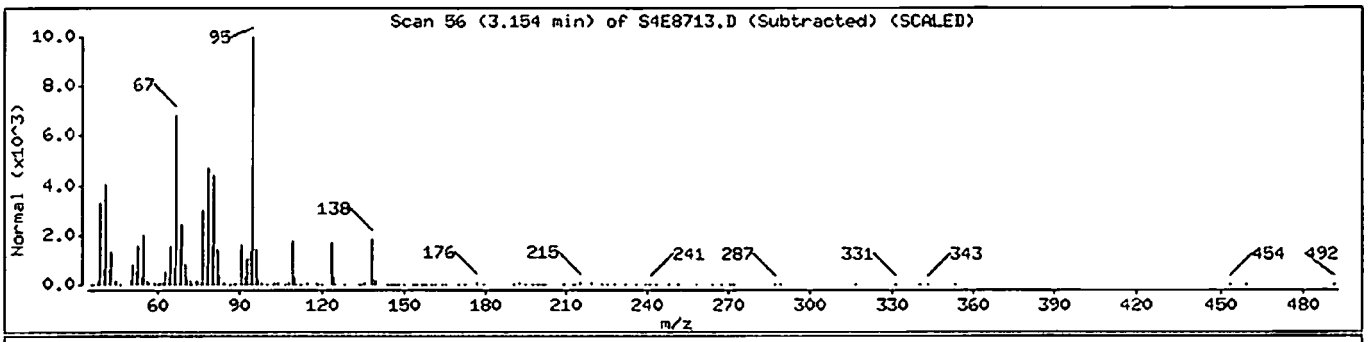
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

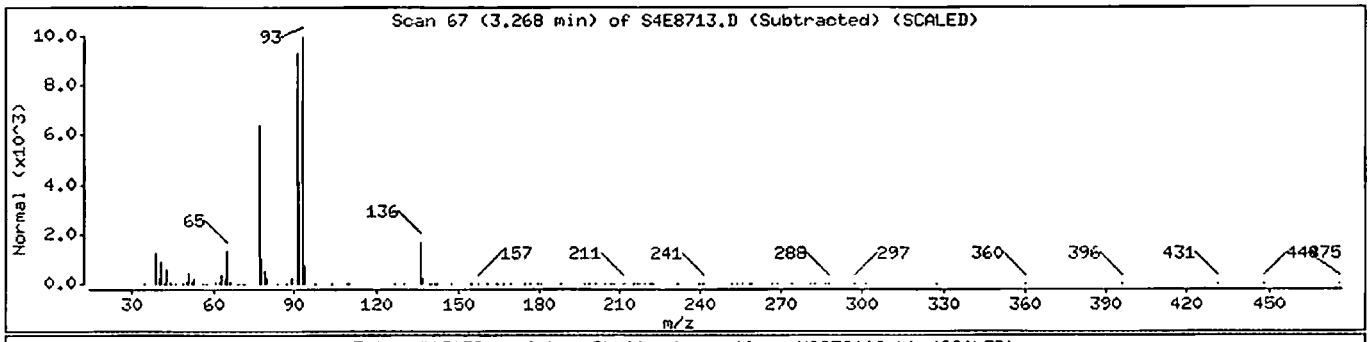
Client ID: H30S2 Instrument: S4.i

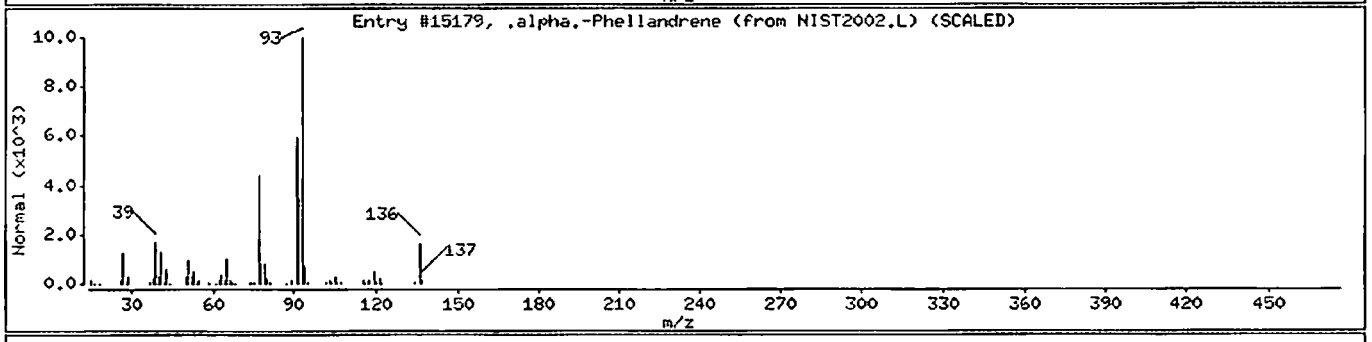
Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.alpha.-Phellandrene	99-83-2	NIST2002.L	15179	86	C10H16	136





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

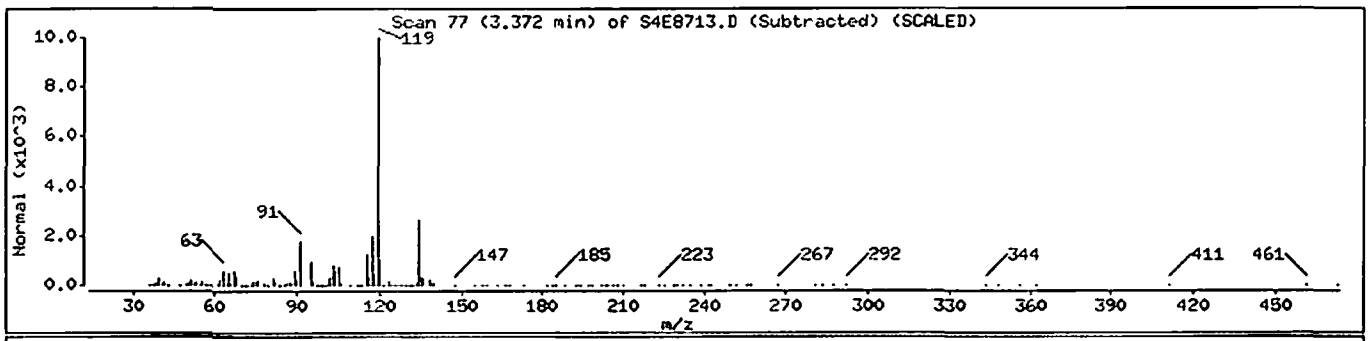
Client ID: H30S2 Instrument: S4.i

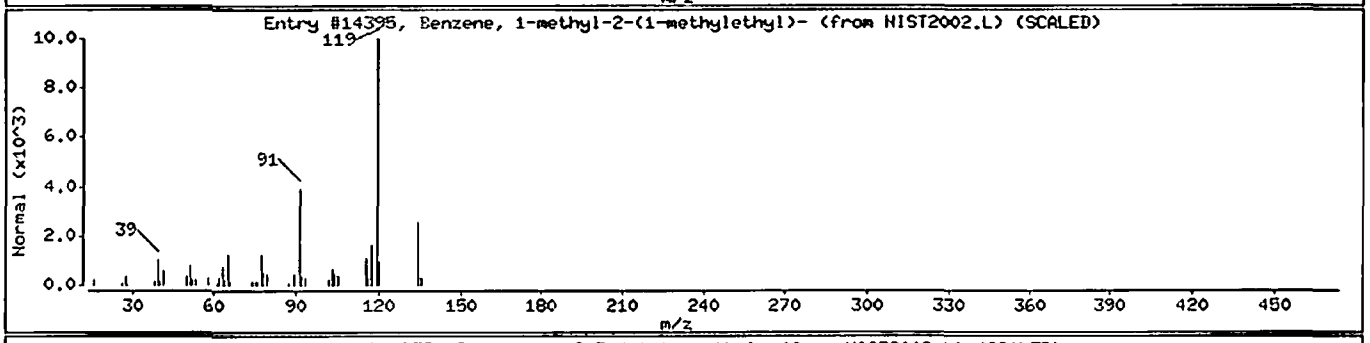
Sample Info: K2199-14A,,62801,,

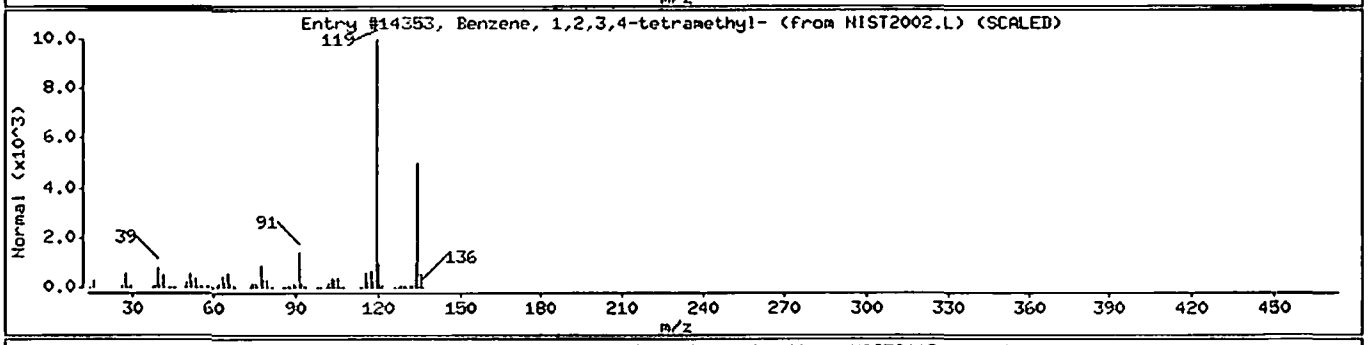
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

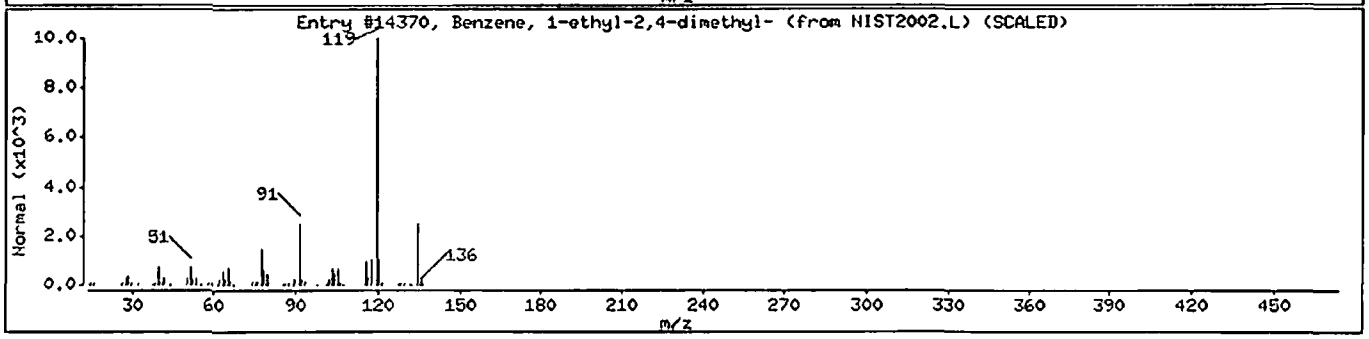
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST2002.L	14395	87	C10H14	134
Benzene, 1,2,3,4-tetramethyl-	488-23-3	NIST2002.L	14353	87	C10H14	134
Benzene, 1-ethyl-2,4-dimethyl-	874-41-9	NIST2002.L	14370	87	C10H14	134









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

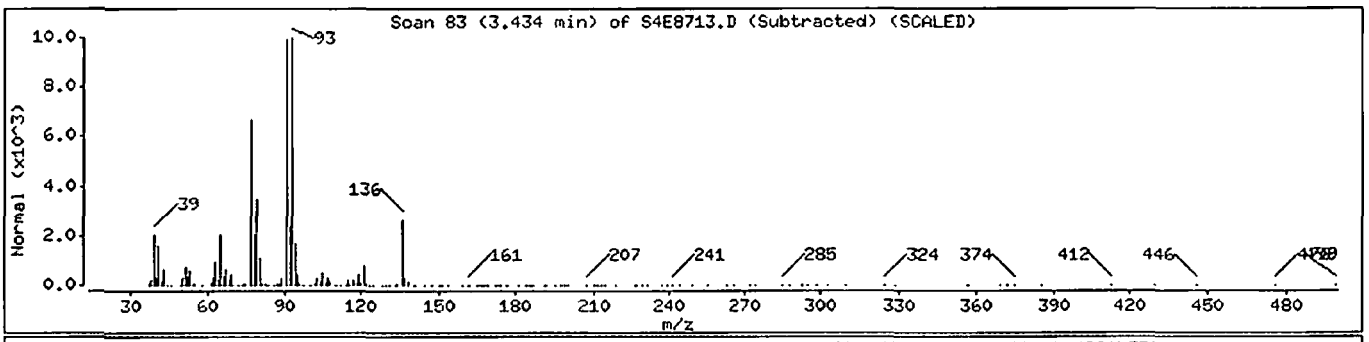
Client ID: H30S2 Instrument: S4.i

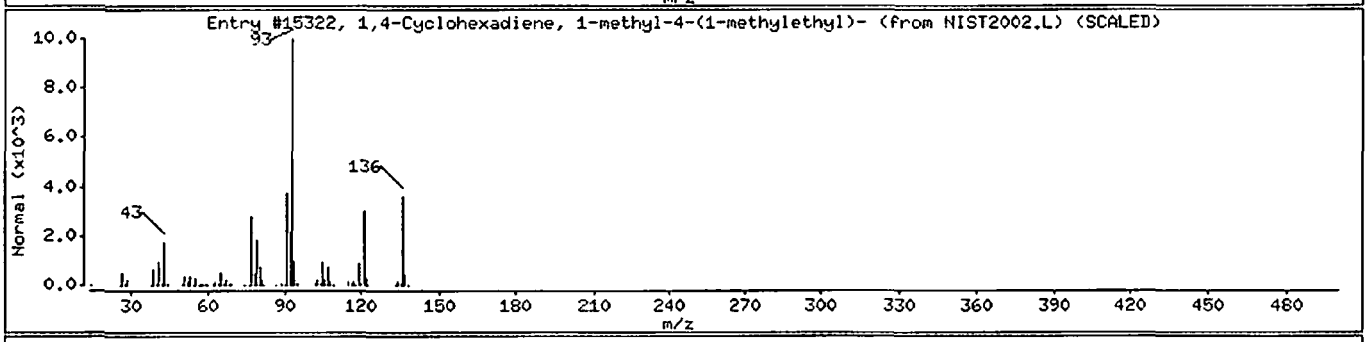
Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl	99-85-4	NIST2002.L	15322	89	C10H16	136





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

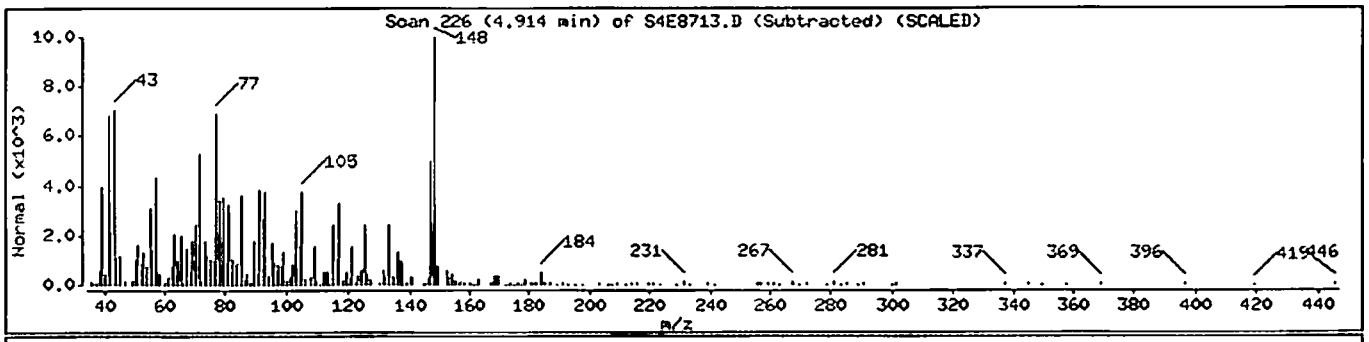
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

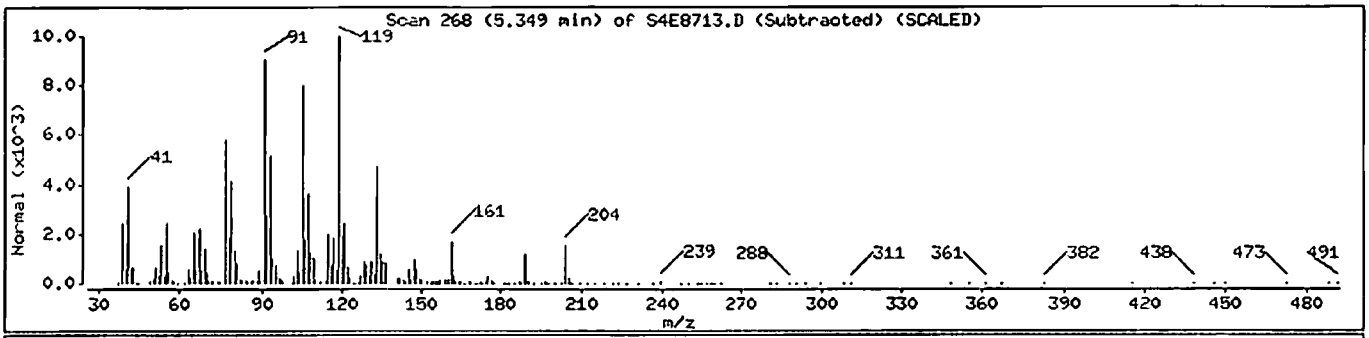
Client ID: H30S2 Instrument: S4.i

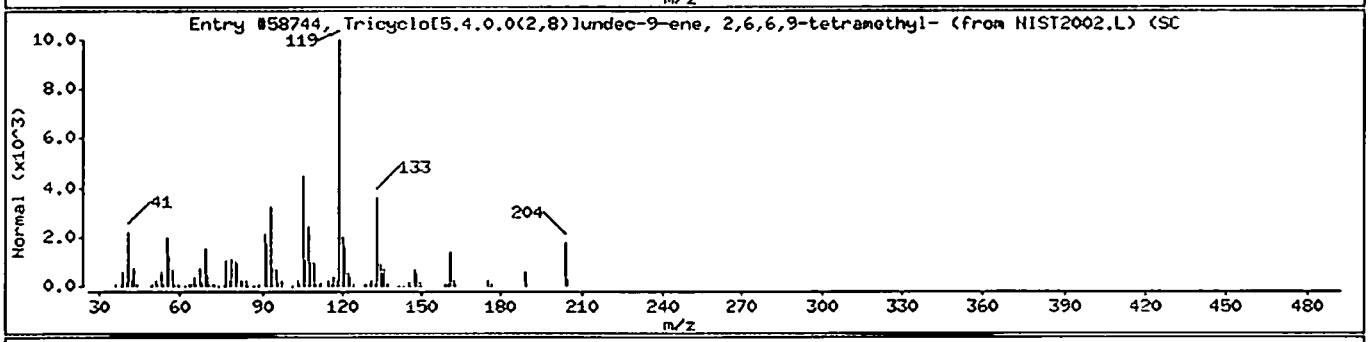
Sample Info: K2199-14A,,62801,,

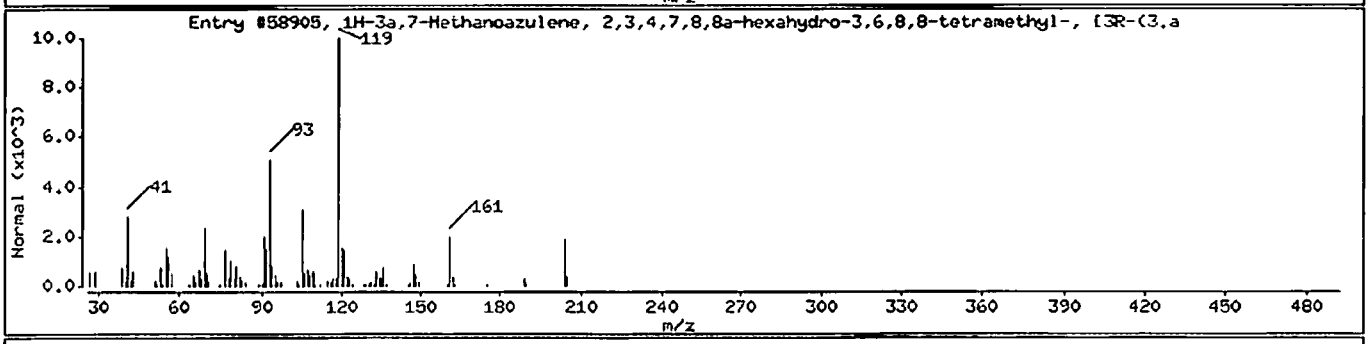
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6	5989-08-2	NIST2002.L	58744	96	C15H24	204
1H-3a,7-Methanoazulene, 2,3,4,7,8,8a-hex	469-61-4	NIST2002.L	58905	86	C15H24	204







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

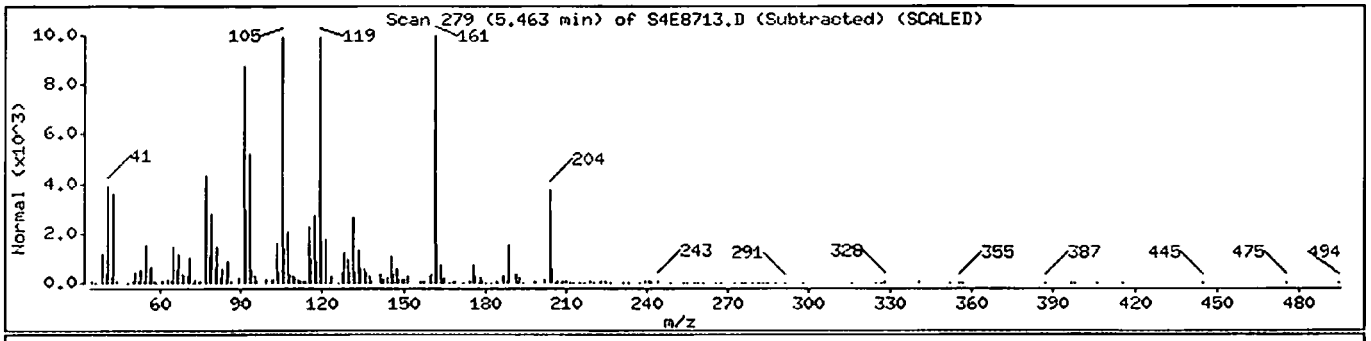
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

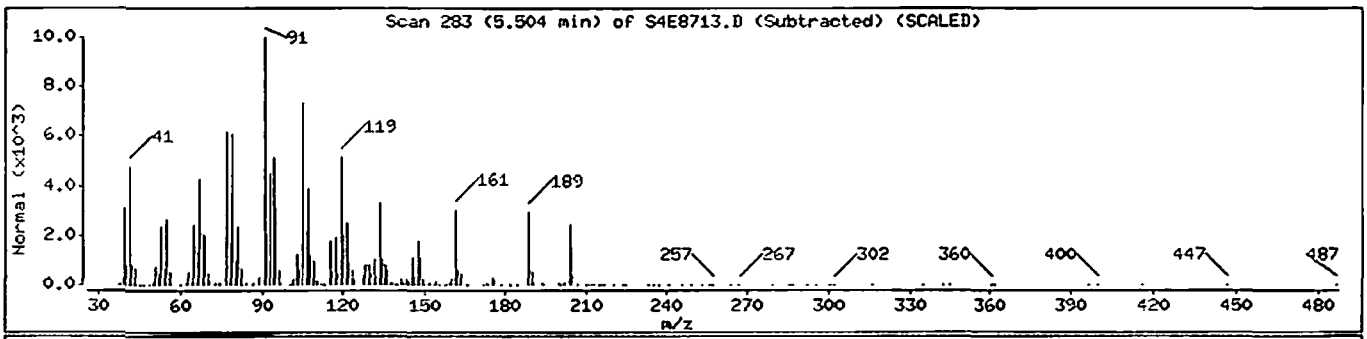
Client ID: H30S2 Instrument: S4.i

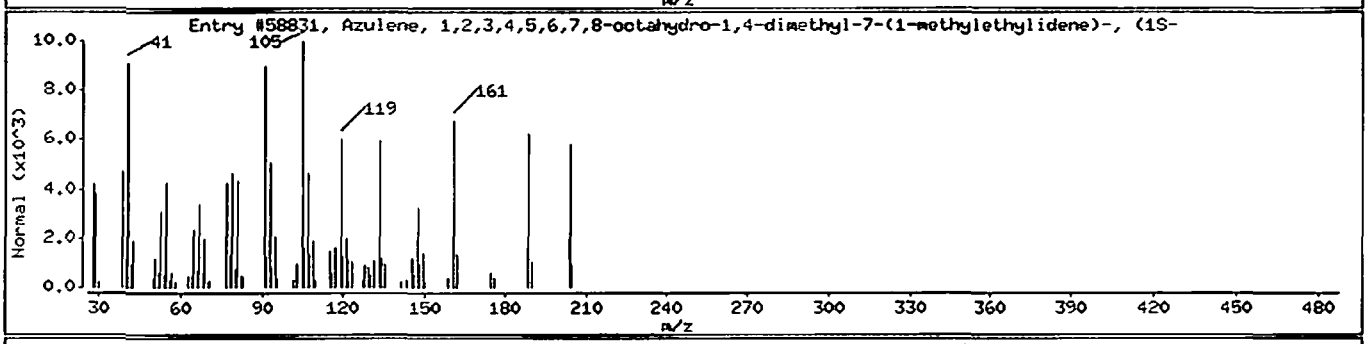
Sample Info: K2199-14A,,62801,,

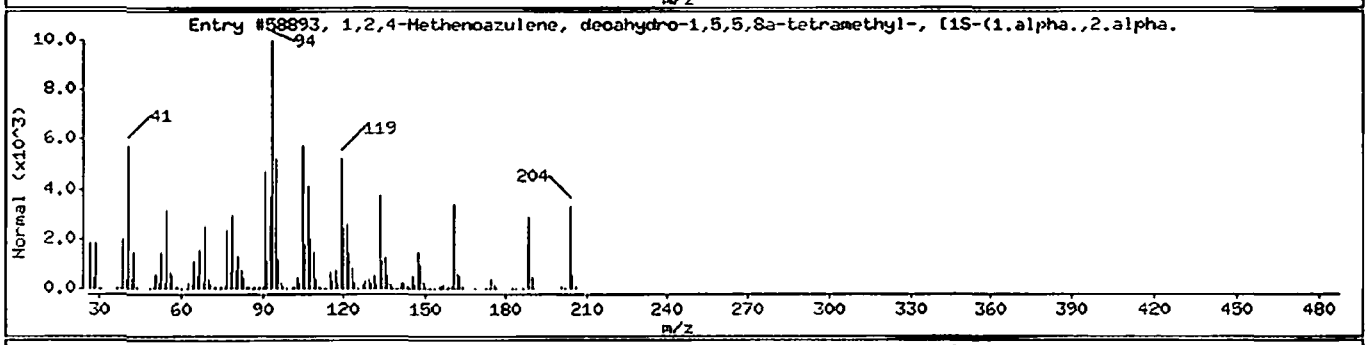
Volume Injected (uL): 2.0 Operator: HMS SRC: LIMS

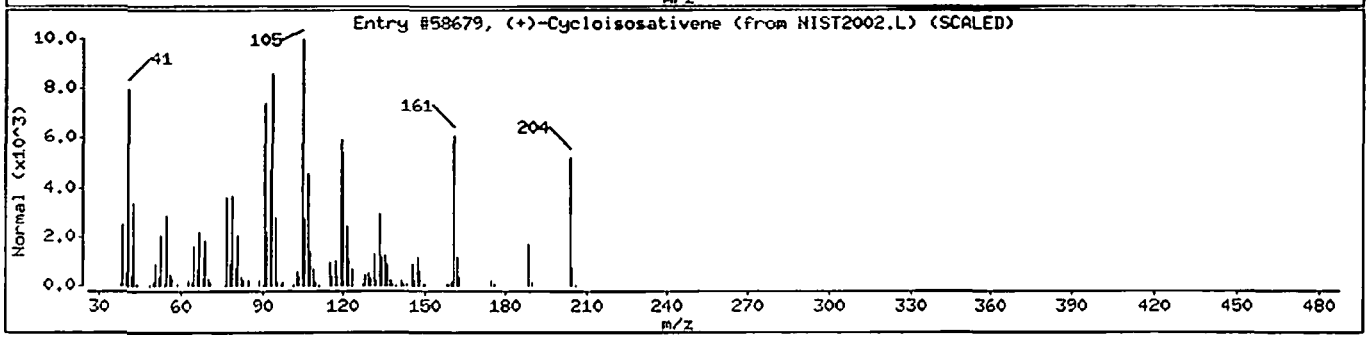
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Azulene, 1,2,3,4,5,6,7,8-octahydro-1,4-d	88-84-6	NIST2002.L	58831	91	C15H24	204
1,2,4-Methenoazulene, decahydro-1,5,5,8a	1137-12-8	NIST2002.L	58893	91	C15H24	204
(+)-Cycloisosativene	1000109-88-1	NIST2002.L	58679	86	C15H24	204









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

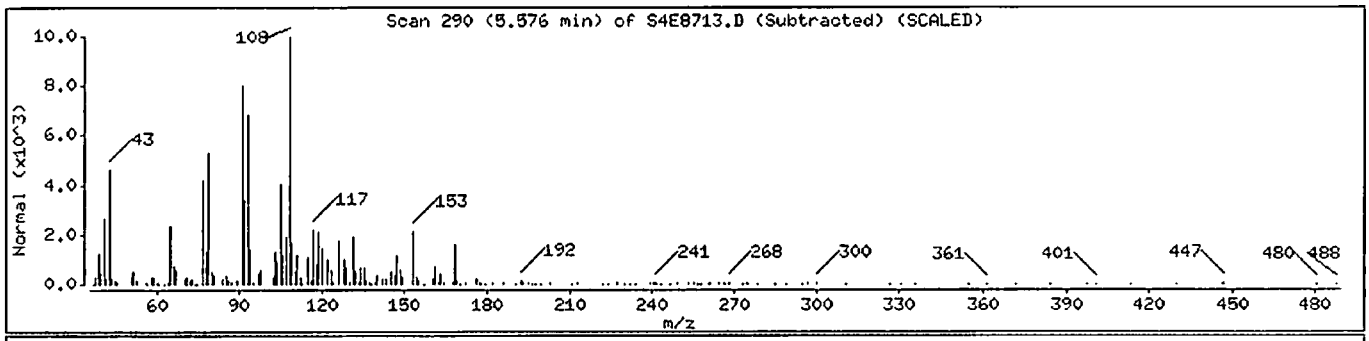
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

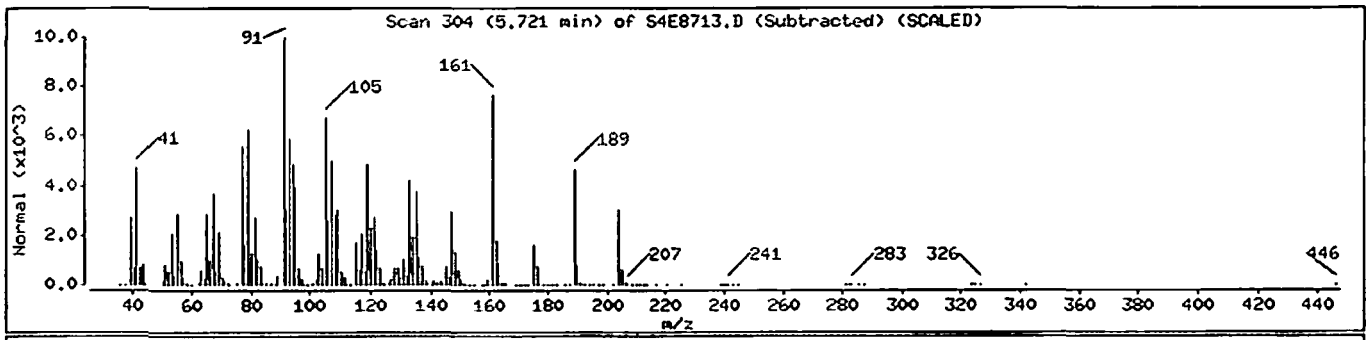
Client ID: H30S2 Instrument: S4.i

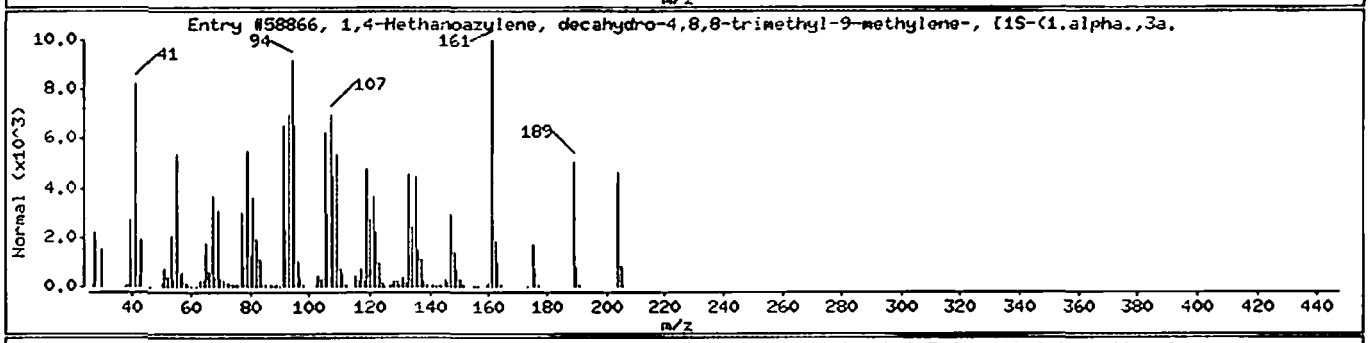
Sample Info: K2199-14A,,62801,,

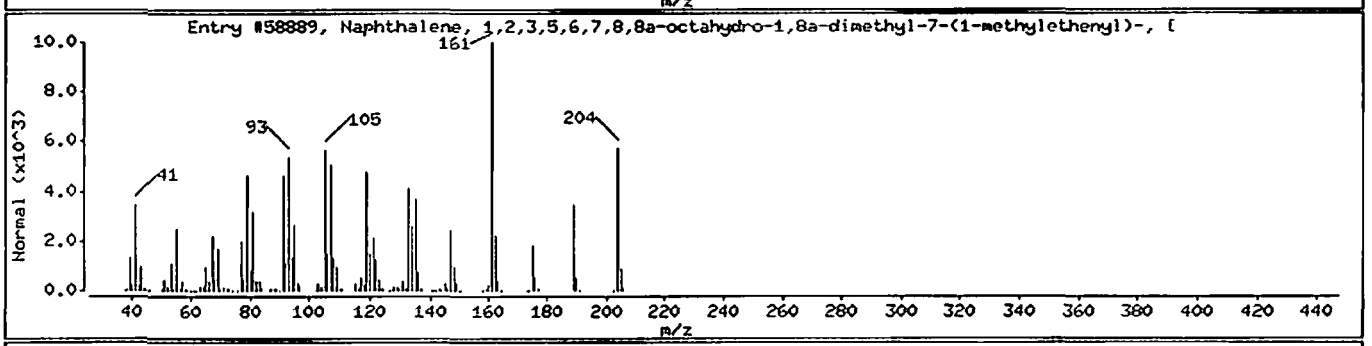
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

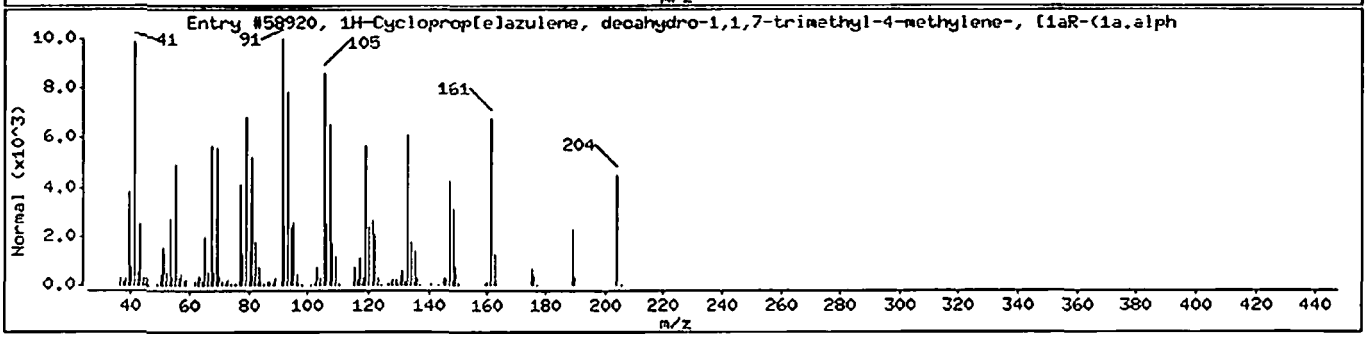
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST2002.L	58866	98	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST2002.L	58889	97	C15H24	204
1H-Cyclopropl[e]azulene, decahydro-1,1,7-	25246-27-9	NIST2002.L	58920	90	C15H24	204









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

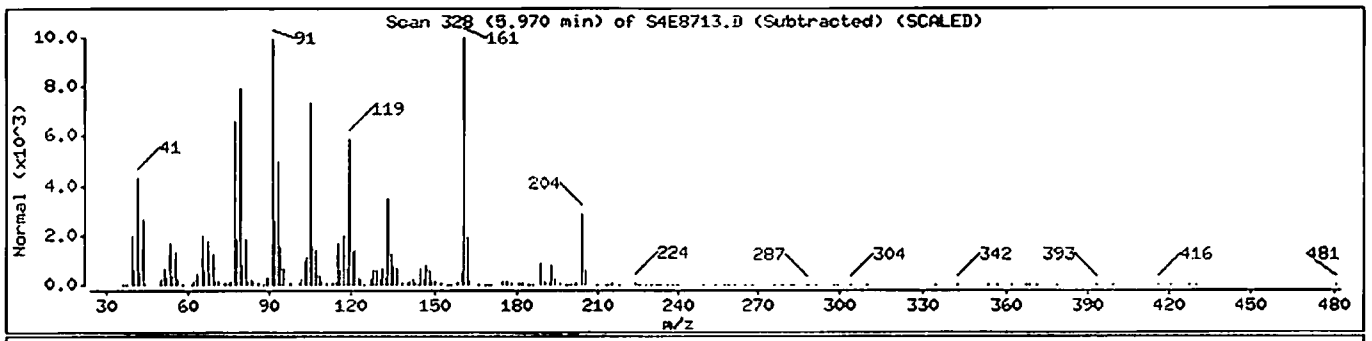
Client ID: H30S2 Instrument: S4.i

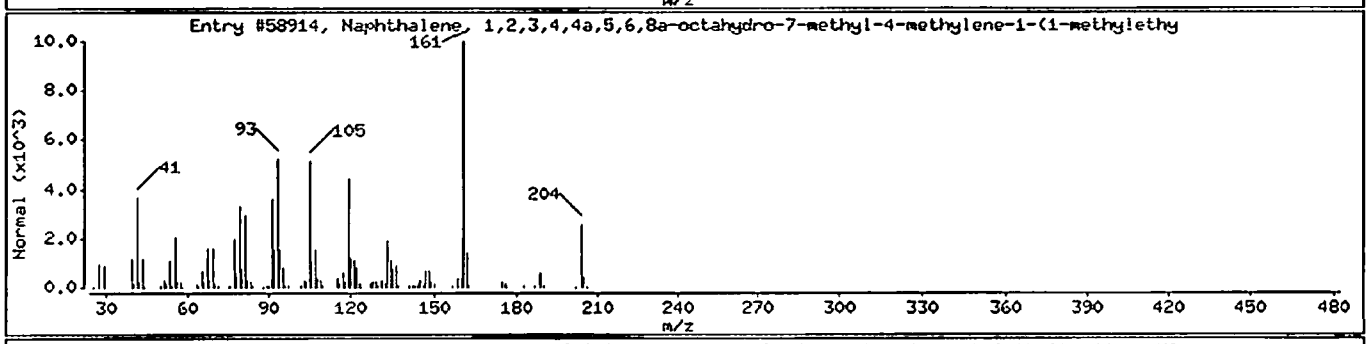
Sample Info: K2199-14A,,62801,,

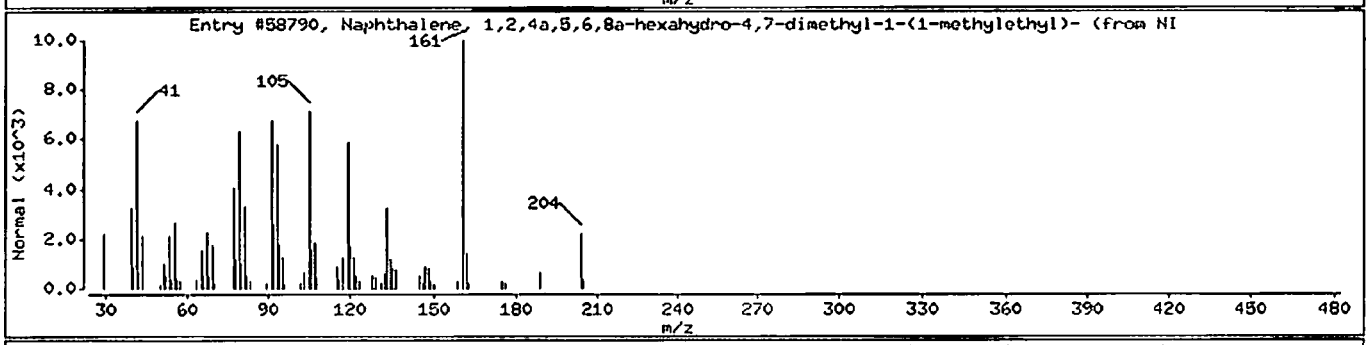
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

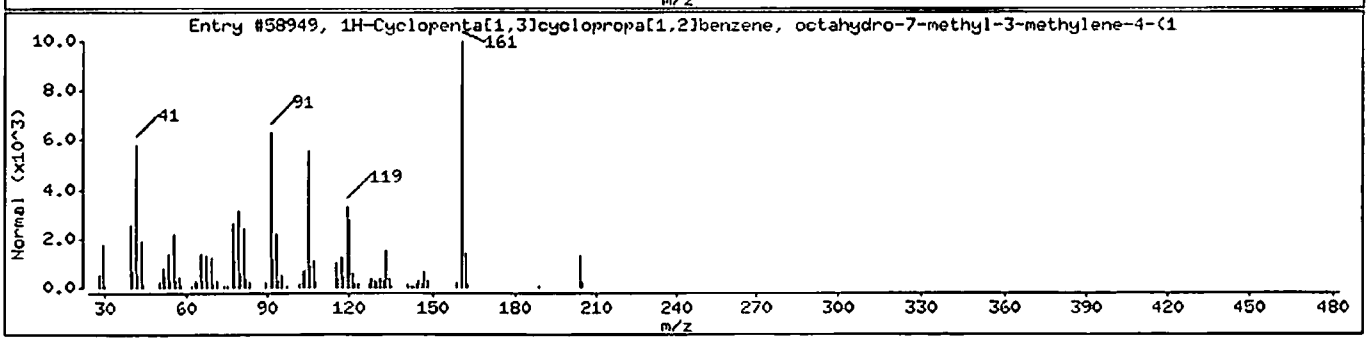
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	30021-74-0	NIST2002.L	58914	97	C15H24	204
Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7	483-75-0	NIST2002.L	58790	94	C15H24	204
1H-Cyclopenta[1,3]cyclopropa[1,2]benzene	13744-15-5	NIST2002.L	58949	93	C15H24	204









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

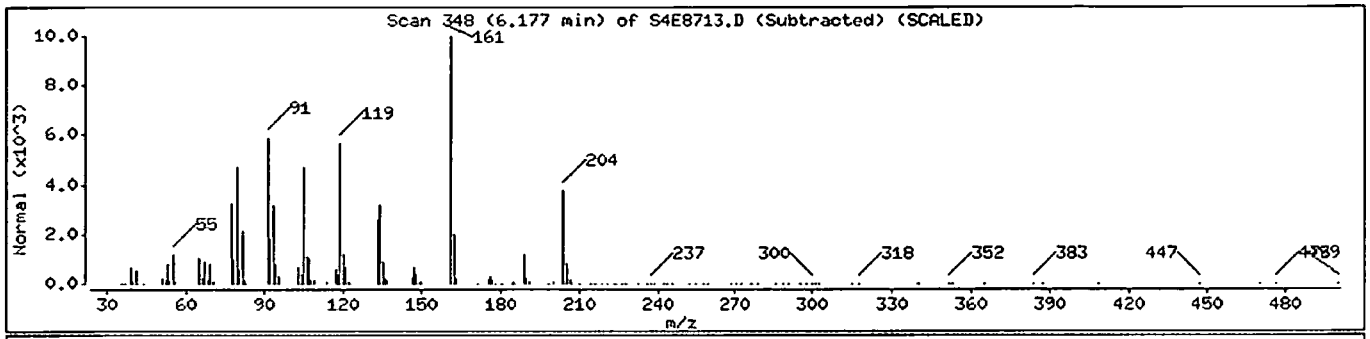
Client ID: H30S2 Instrument: S4.i

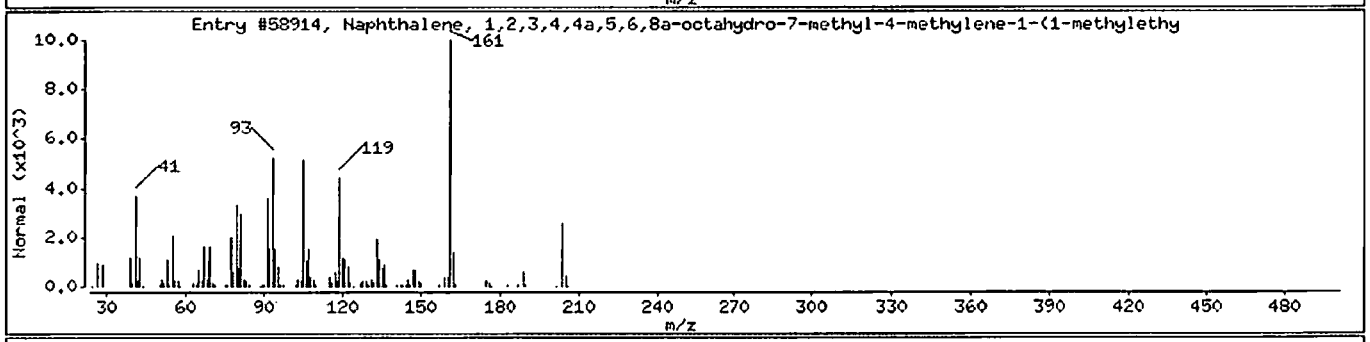
Sample Info: K2199-14A,,62801,,

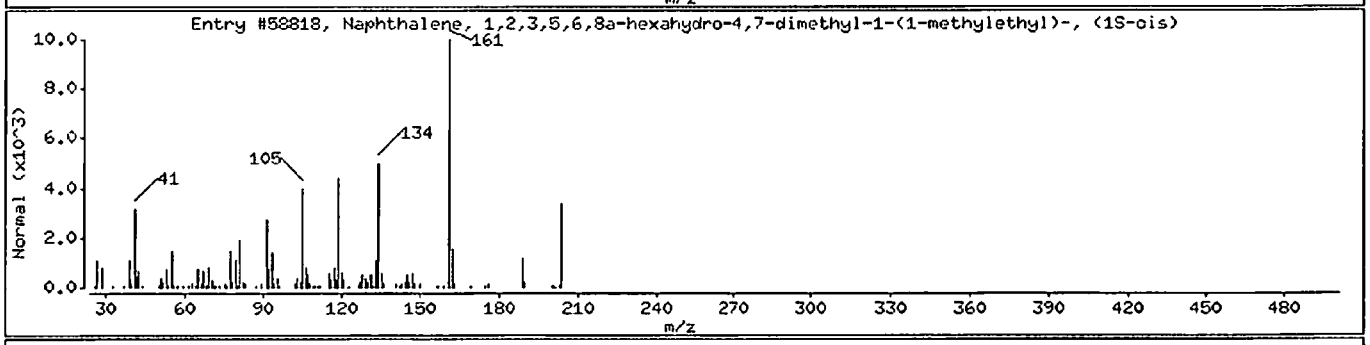
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	30021-74-0	NIST2002.L	58914	90	C15H24	204
Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-	483-76-1	NIST2002.L	58818	89	C15H24	204







Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

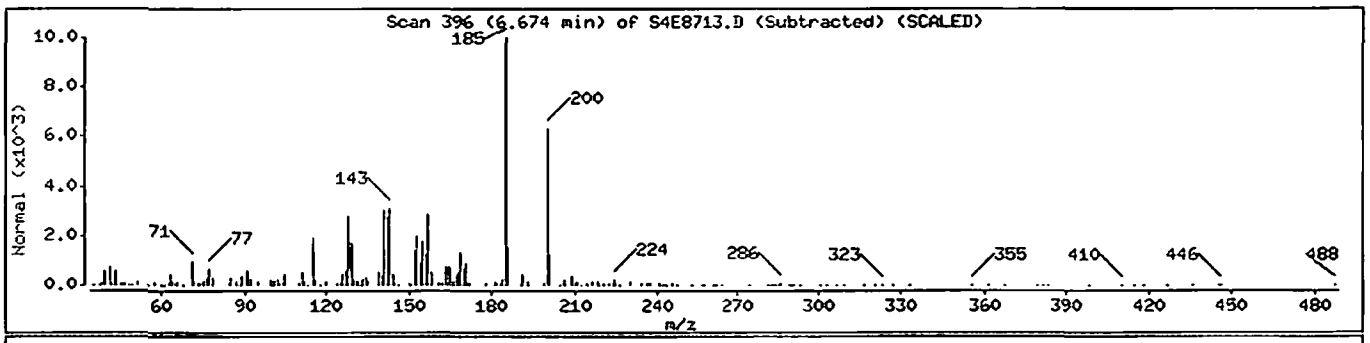
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: HMS SRC: LIHS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

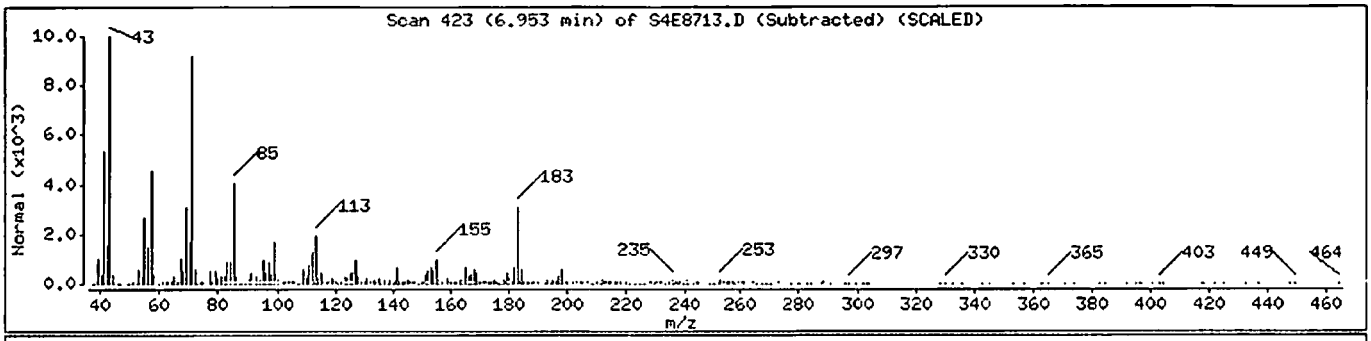
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

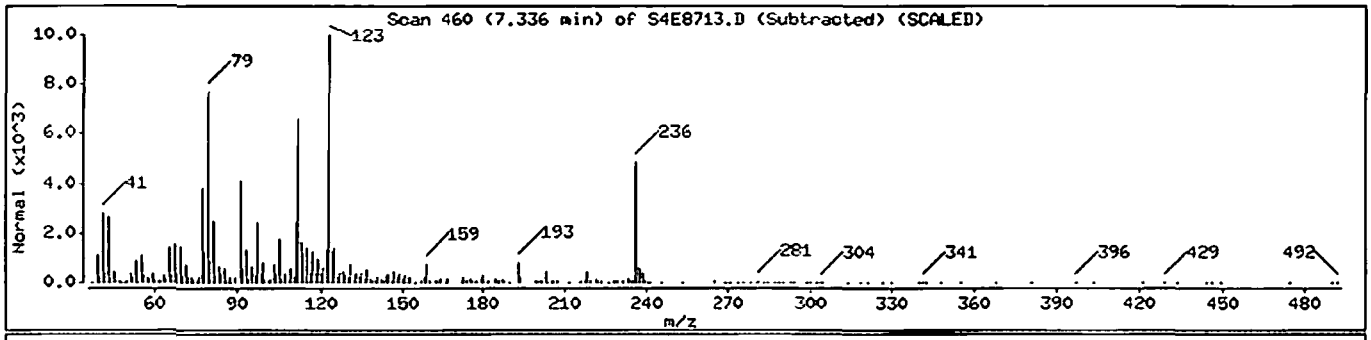
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

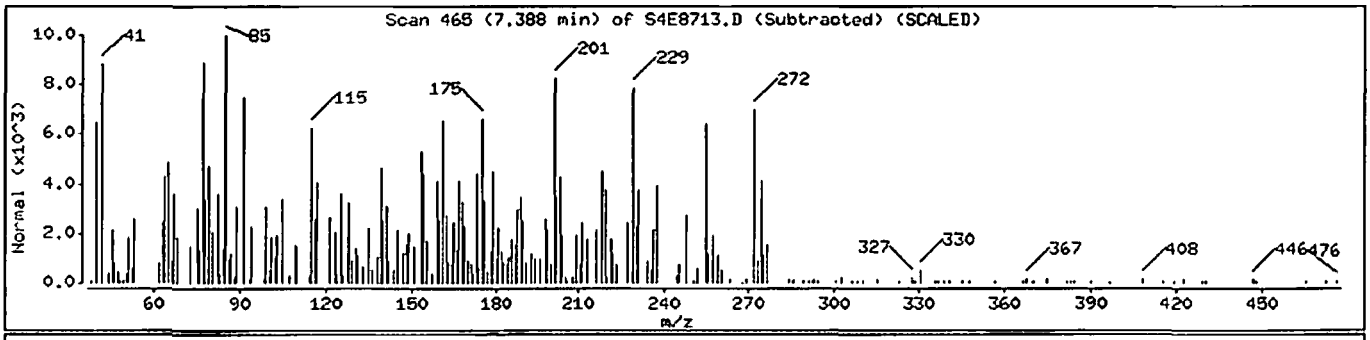
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

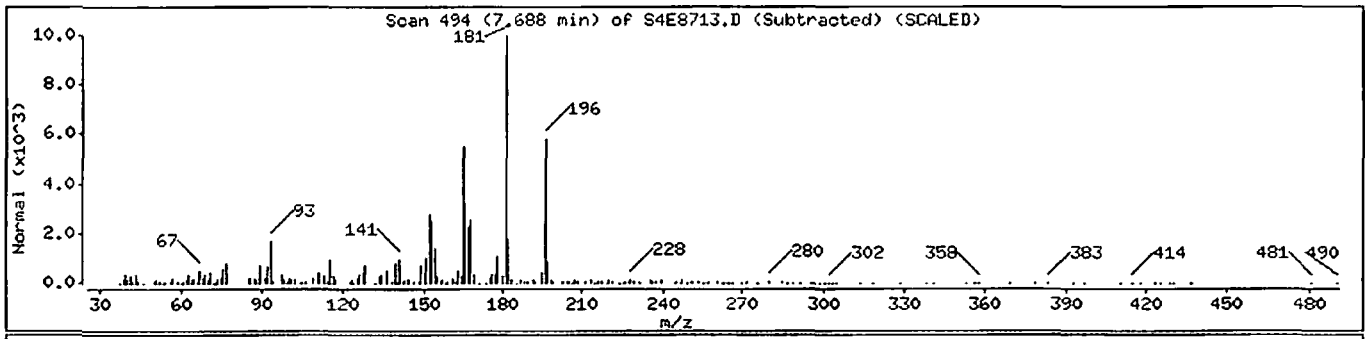
Client ID: H30S2 Instrument: S4.i

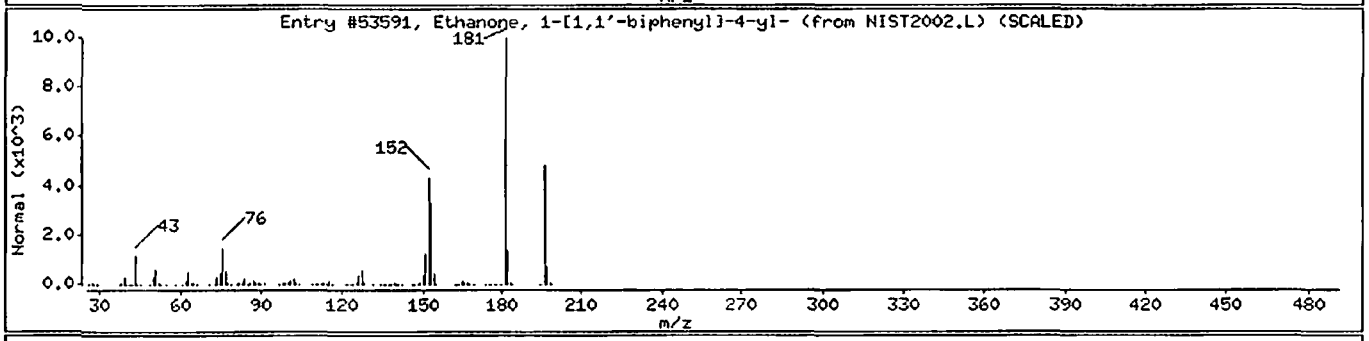
Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethanone, 1-[1,1'-biphenyl]-4-yl-	92-91-1	NIST2002.L	53591	91	C14H12O	196





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

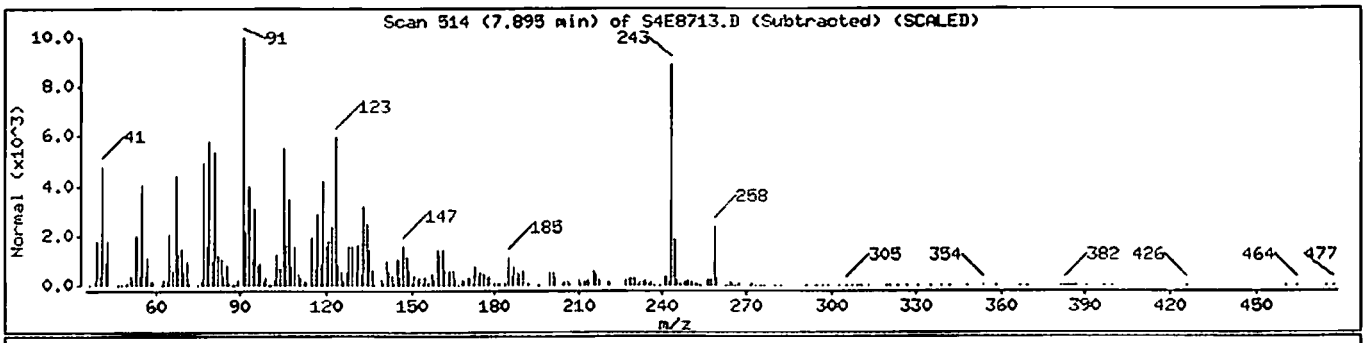
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

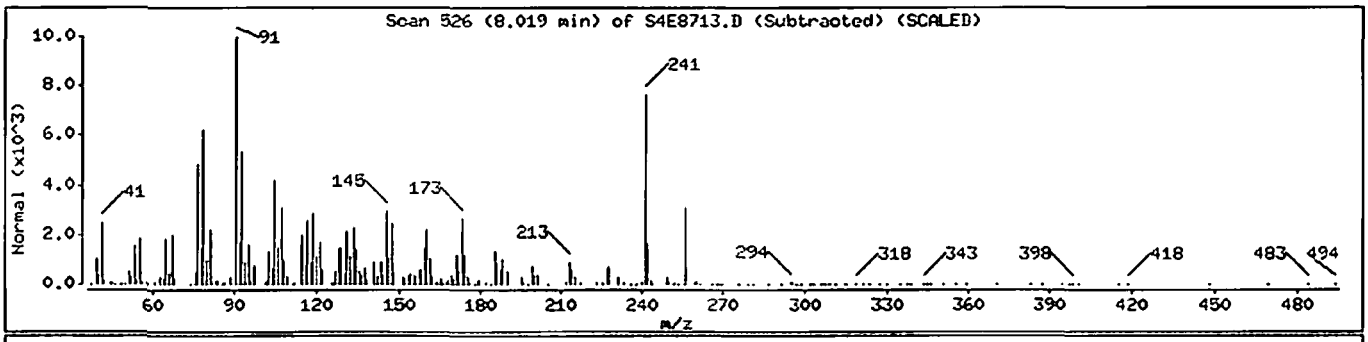
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

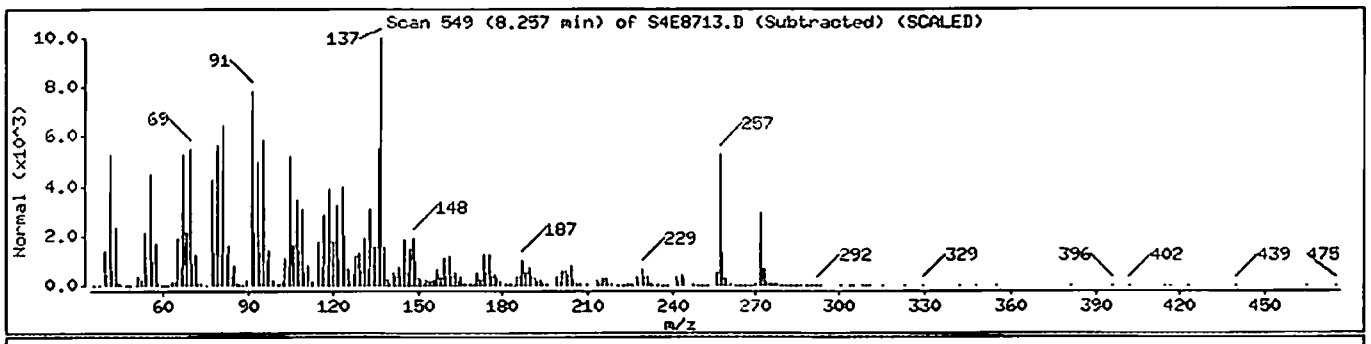
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

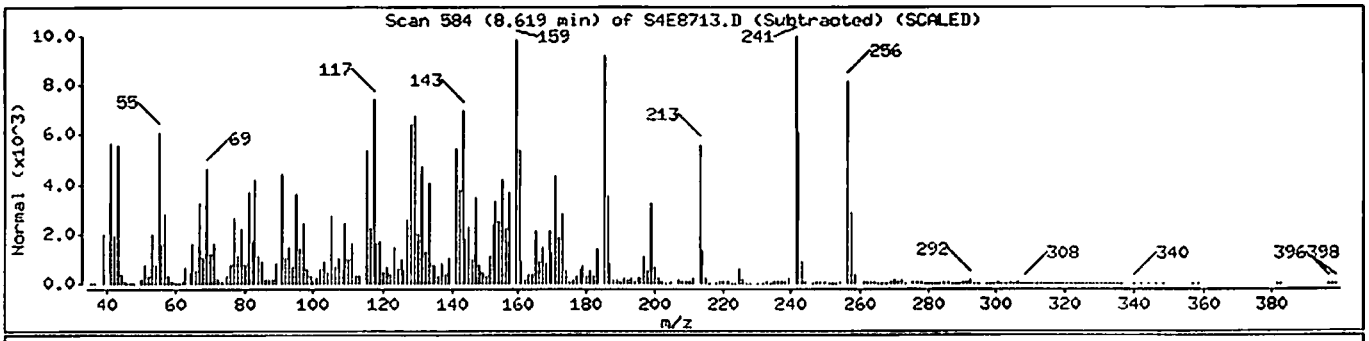
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

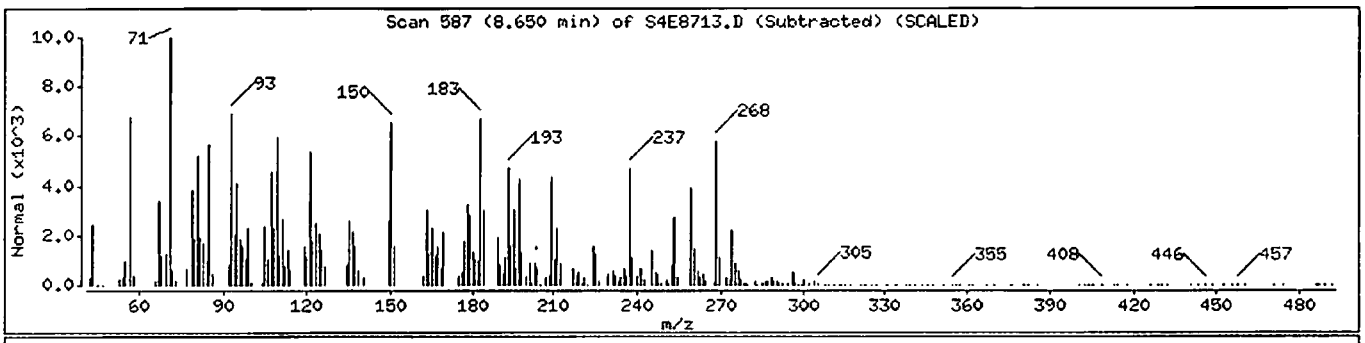
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

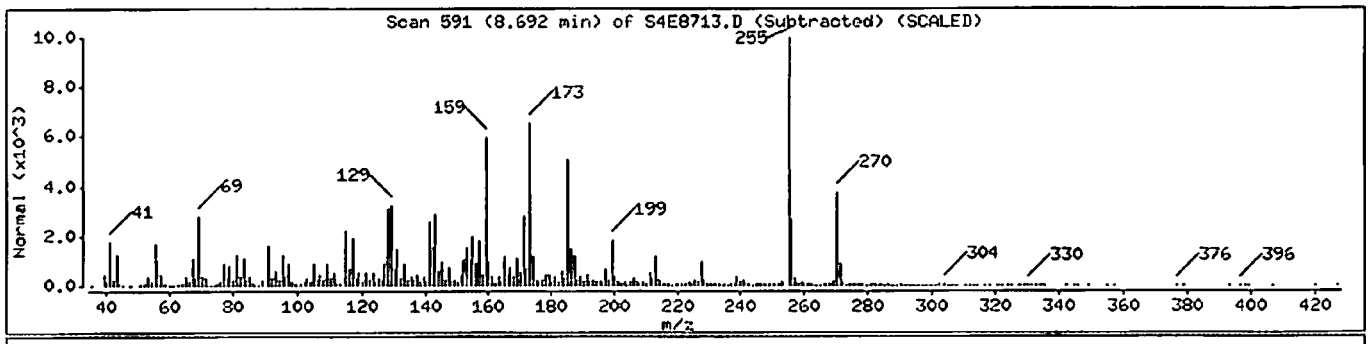
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

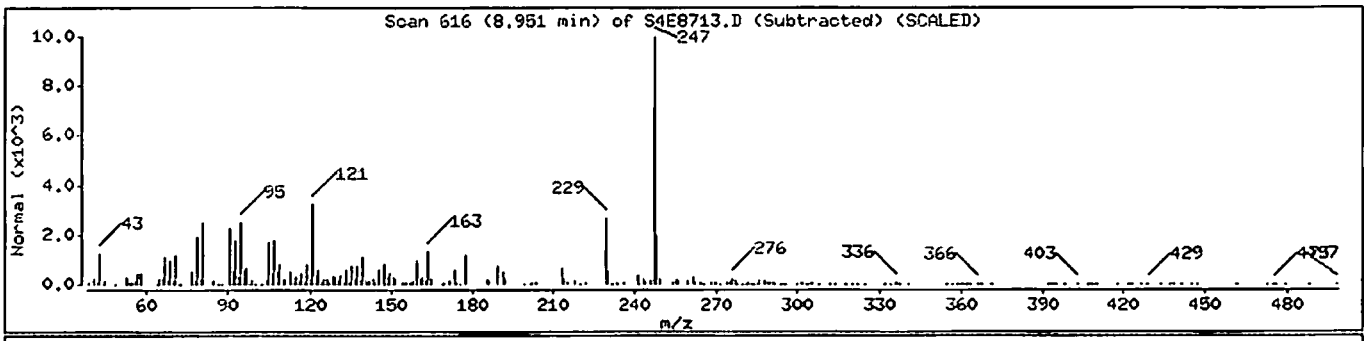
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

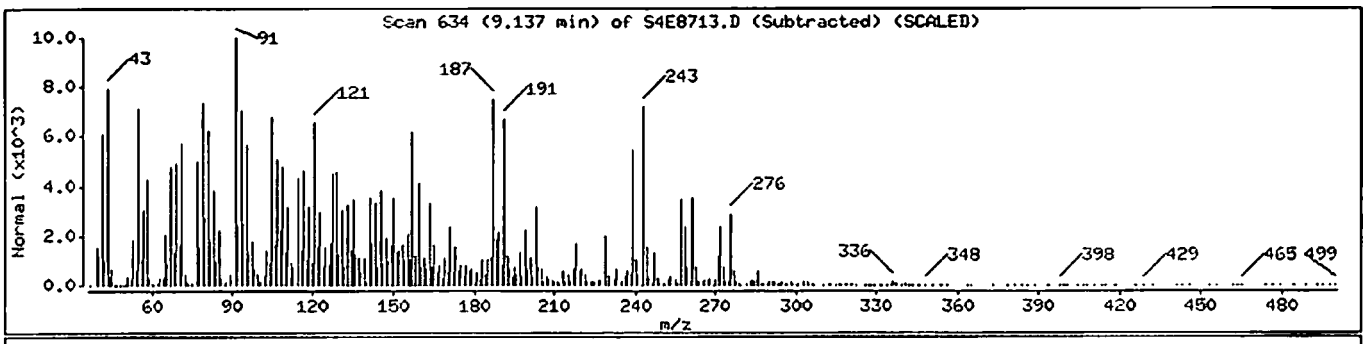
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

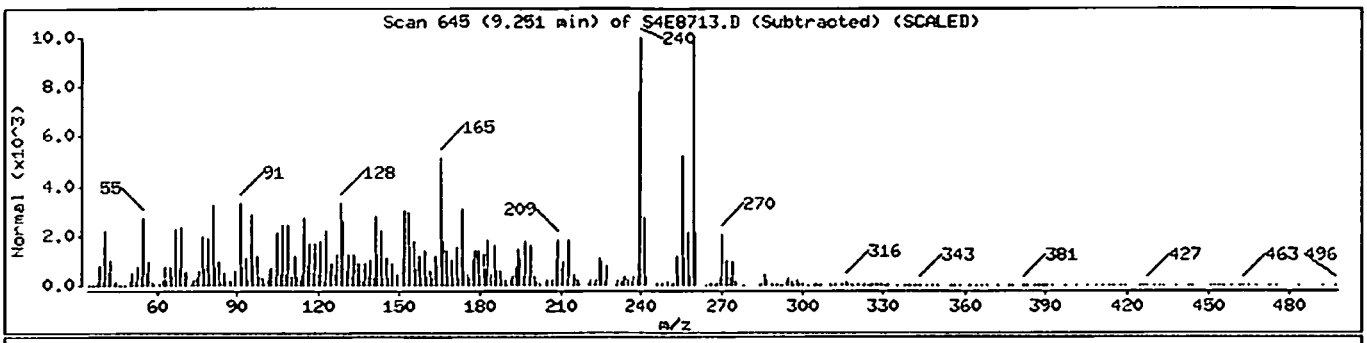
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

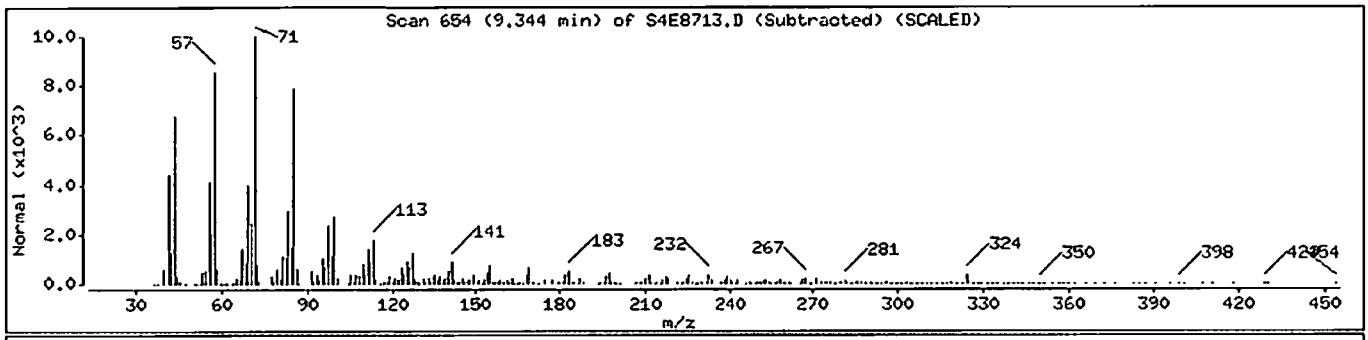
Client ID: H30S2 Instrument: S4.i

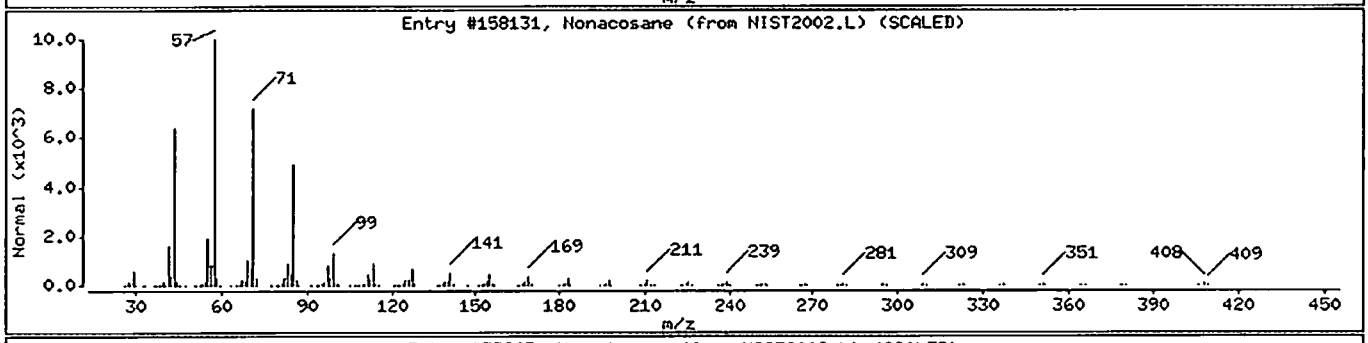
Sample Info: K2199-14A,,62801,,

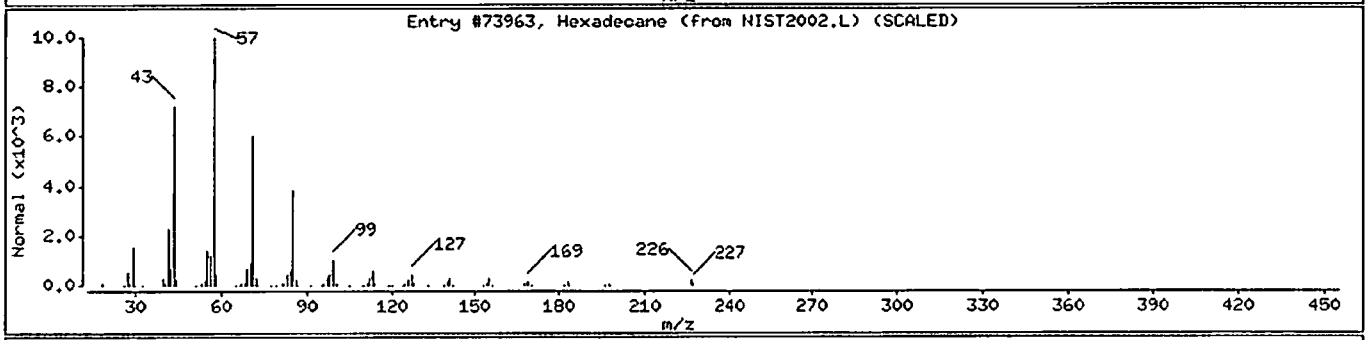
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

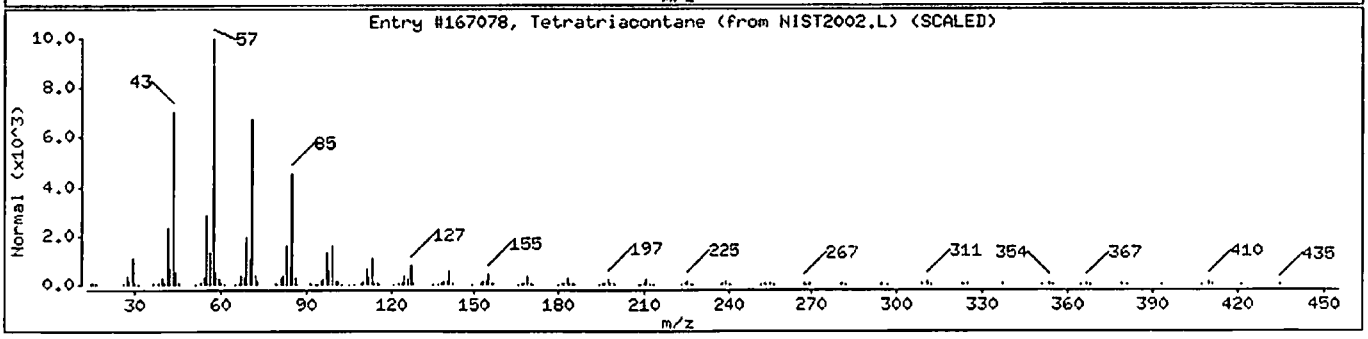
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Nonacosane	630-03-5	NIST2002.L	158131	93	C29H60	408
Hexadecane	544-76-3	NIST2002.L	73963	92	C16H34	226
Tetratriacontane	14167-59-0	NIST2002.L	167078	91	C34H70	479









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

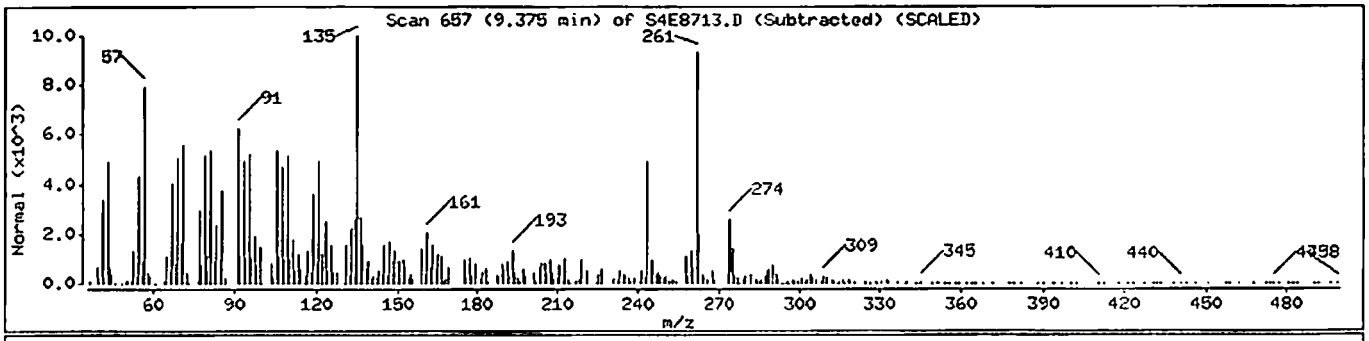
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Unknown			0	0		0



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

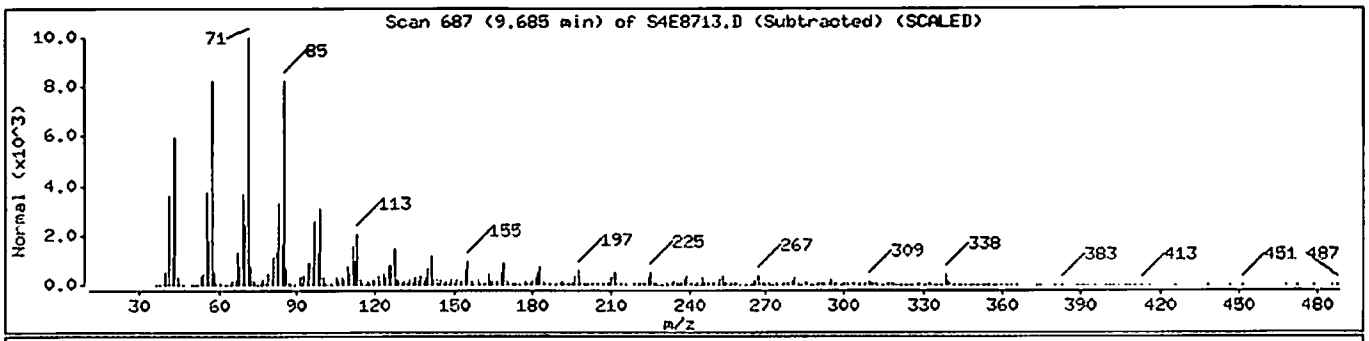
Client ID: H30S2 Instrument: S4.i

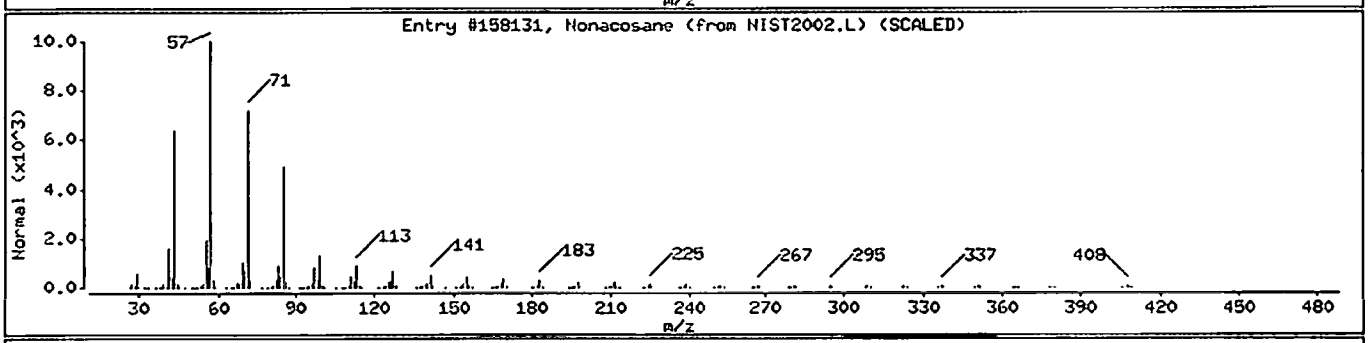
Sample Info: K2199-14A,,62801,,

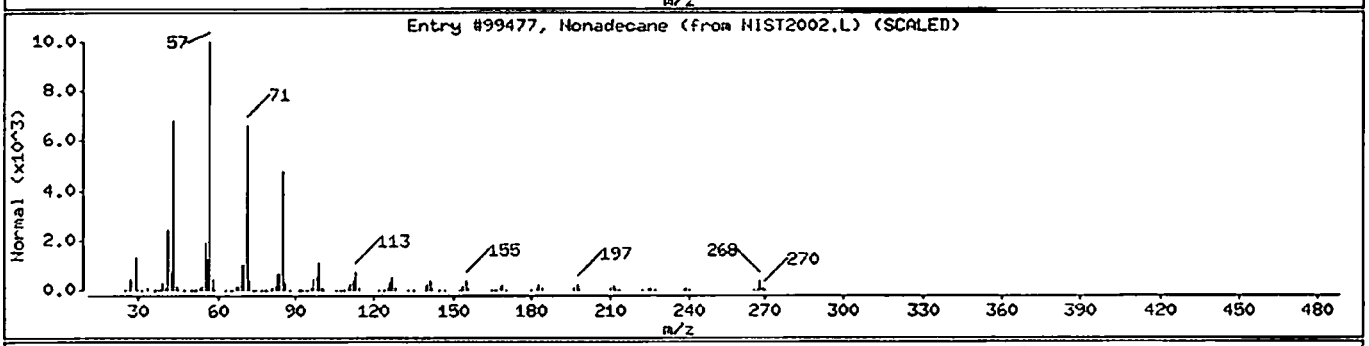
Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

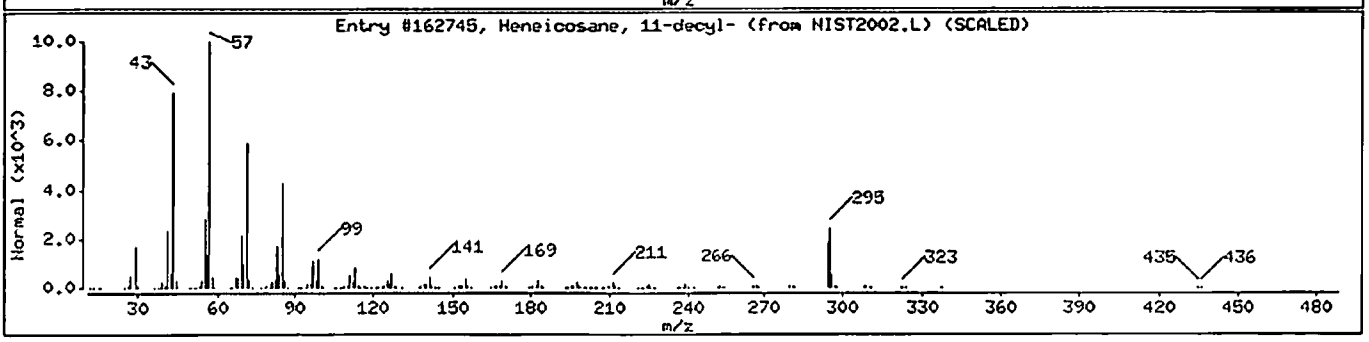
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Nonacosane	630-03-5	NIST2002.L	158131	98	C29H60	408
Nonadecane	629-92-5	NIST2002.L	99477	96	C19H40	268
Heneicosane, 11-decyl-	55320-06-4	NIST2002.L	162745	96	C31H64	437









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

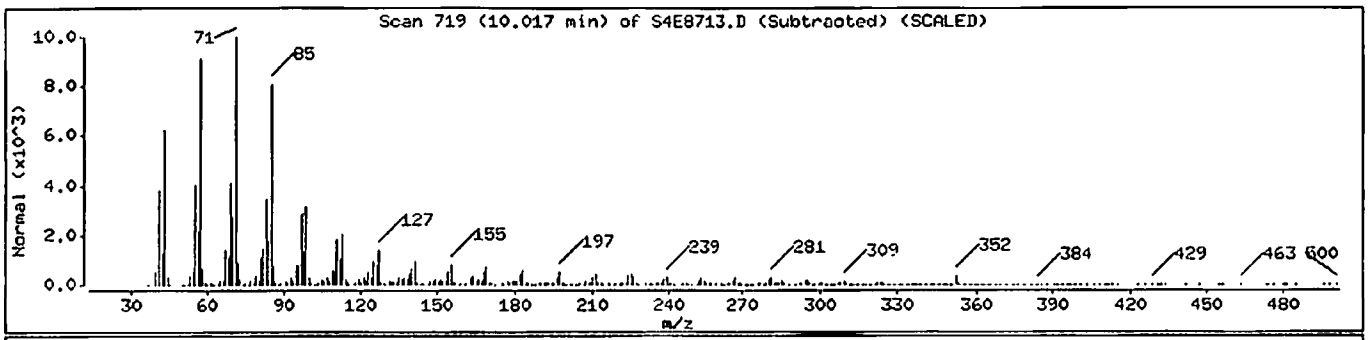
Client ID: H30S2 Instrument: S4.i

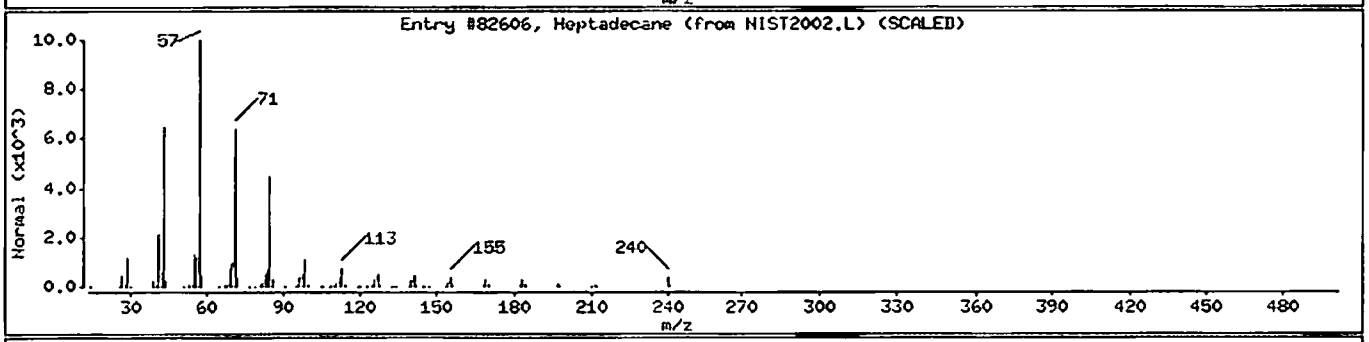
Sample Info: K2199-14A,,62801,,

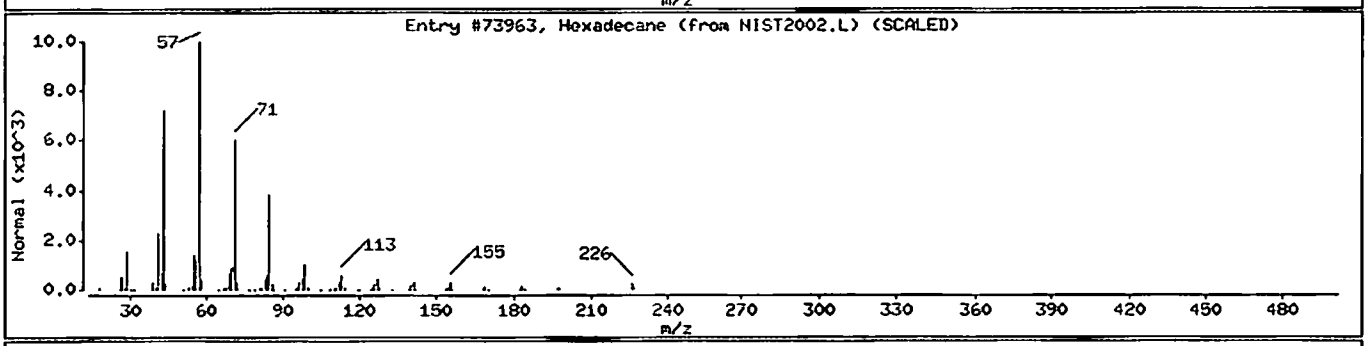
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

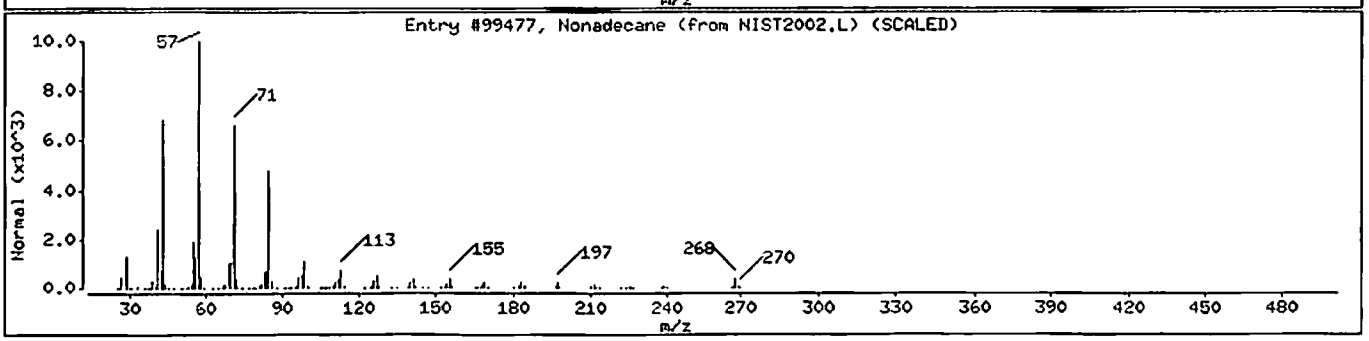
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Heptadecane	629-78-7	NIST2002.L	82606	95	C17H36	240
Hexadecane	544-76-3	NIST2002.L	73963	95	C16H34	226
Nonadecane	629-92-5	NIST2002.L	99477	94	C19H40	268









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

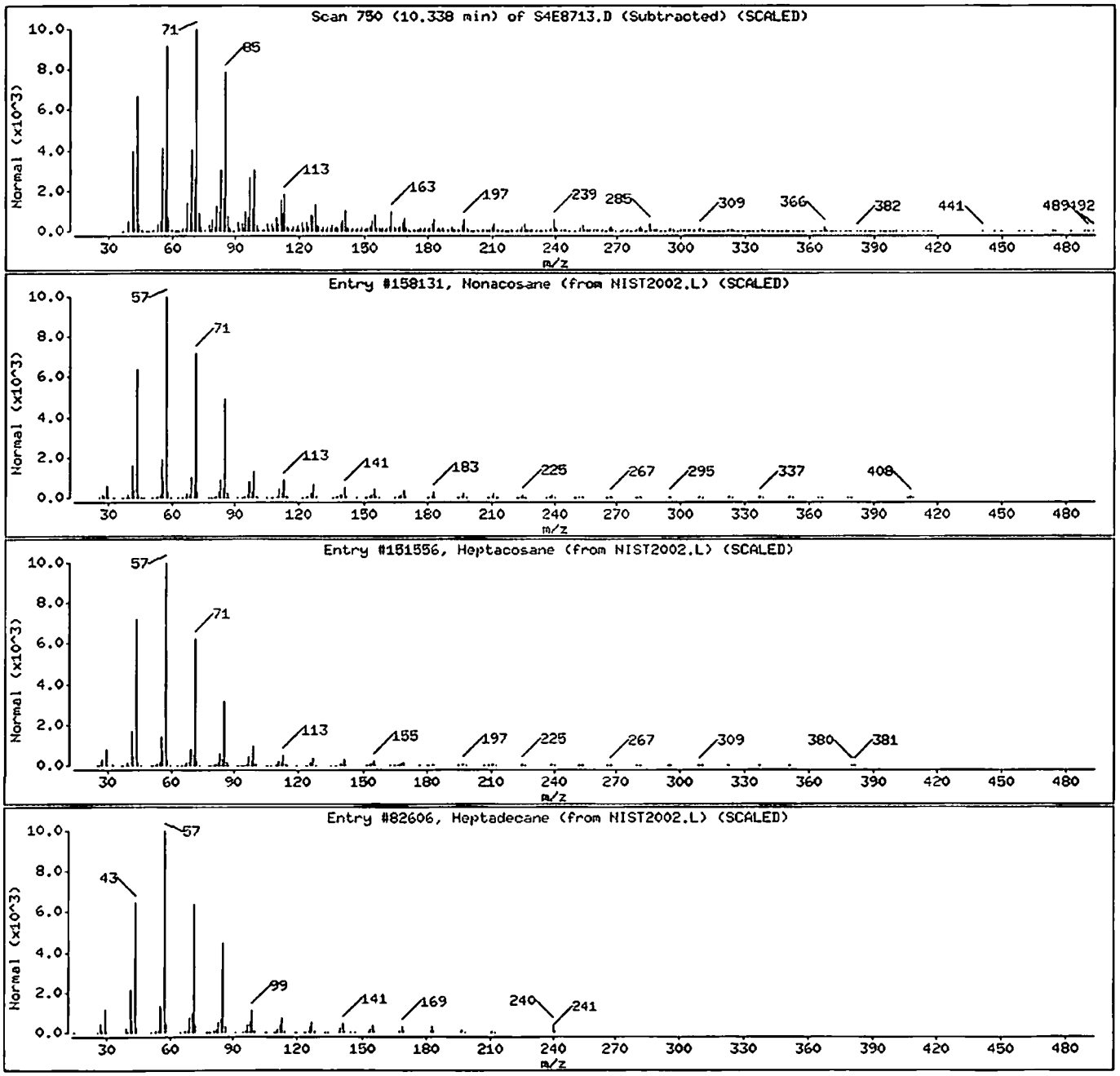
Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Nonacosane	630-03-5	NIST2002.L	158131	97	C29H60	408
Heptacosane	593-49-7	NIST2002.L	151556	96	C27H56	380
Heptadecane	629-78-7	NIST2002.L	82606	95	C17H36	240



Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

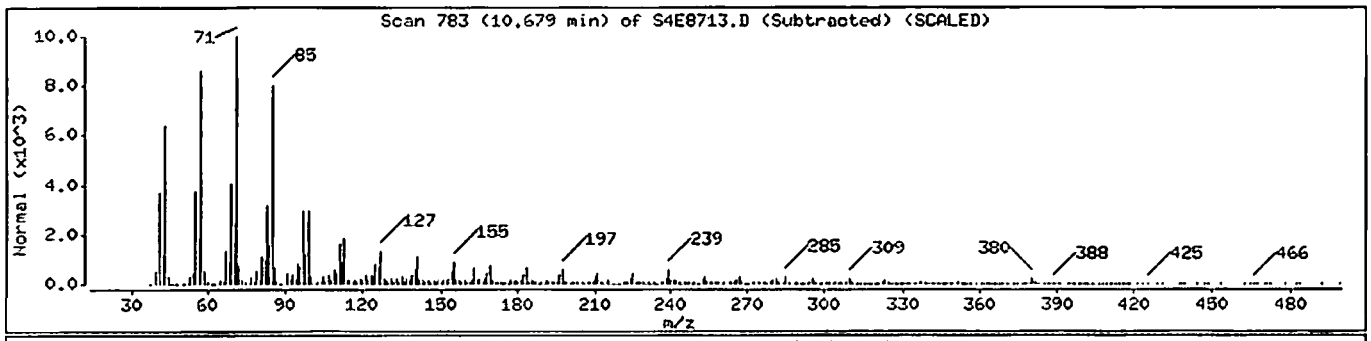
Client ID: H30S2 Instrument: S4.i

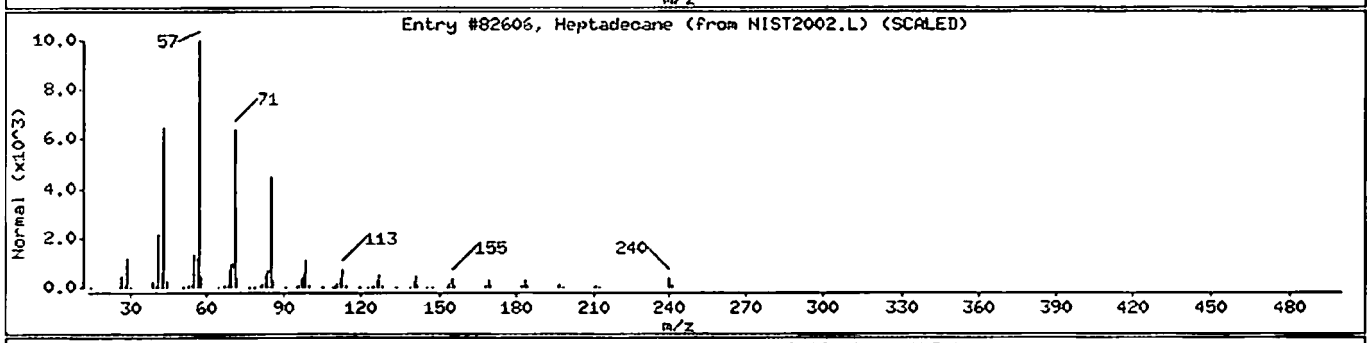
Sample Info: K2199-14A,,62801,,

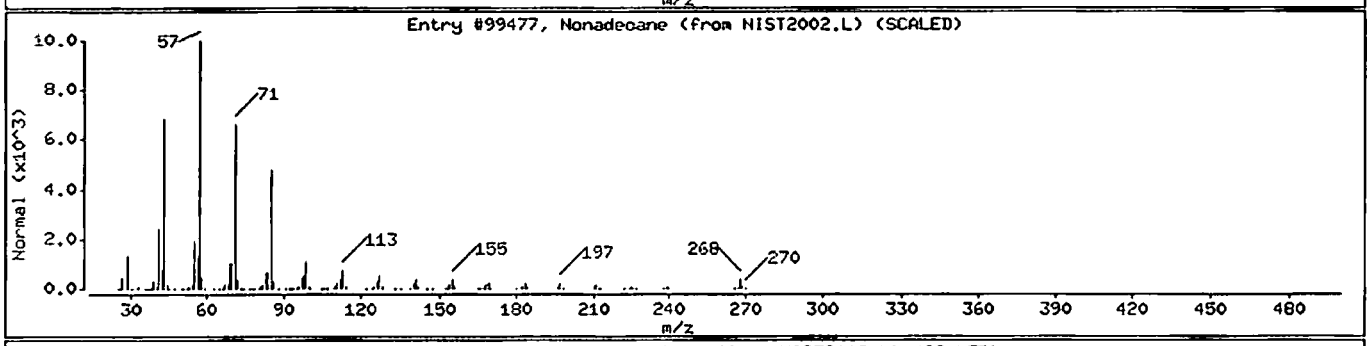
Volume Injected (uL): 2.0 Operator: HMS SRC: LIMS

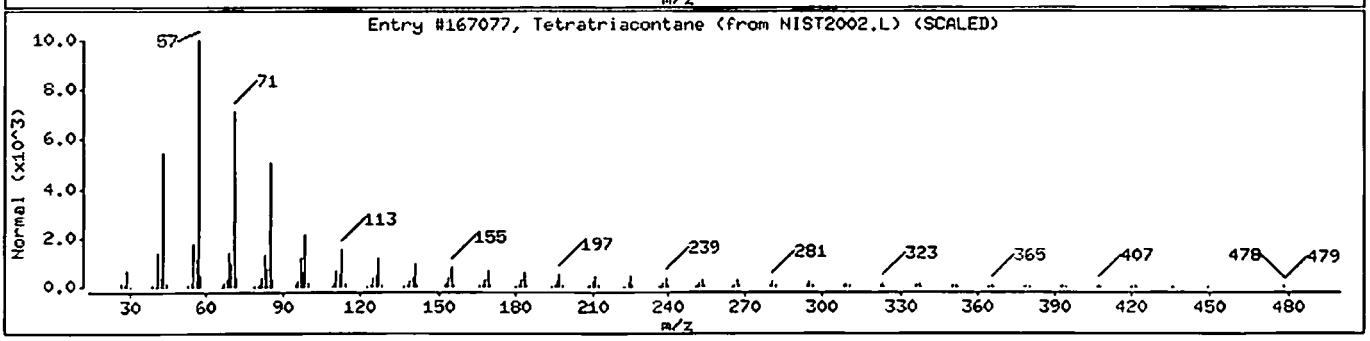
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Heptadecane	629-78-7	NIST2002.L	82606	96	C17H36	240
Nonadecane	629-92-5	NIST2002.L	99477	95	C19H40	268
Tetratriacontane	14167-59-0	NIST2002.L	167077	95	C34H70	479









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

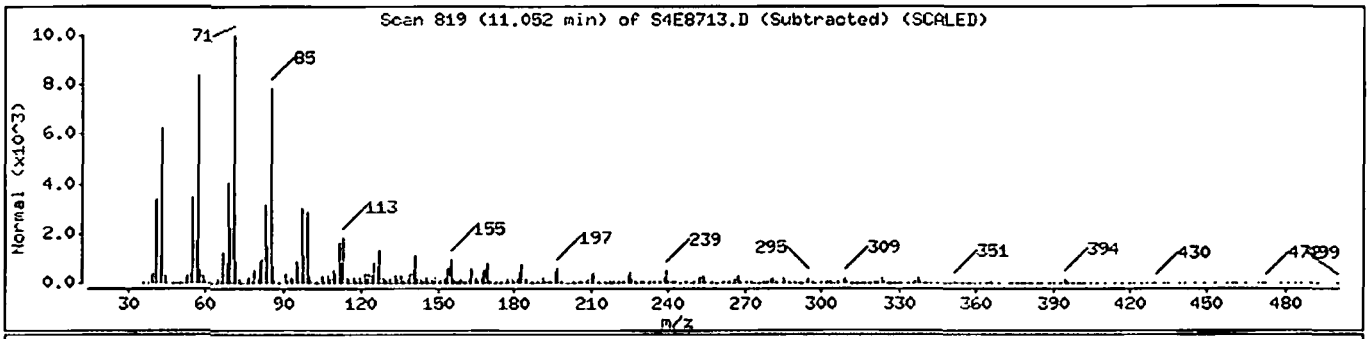
Client ID: H30S2 Instrument: S4.i

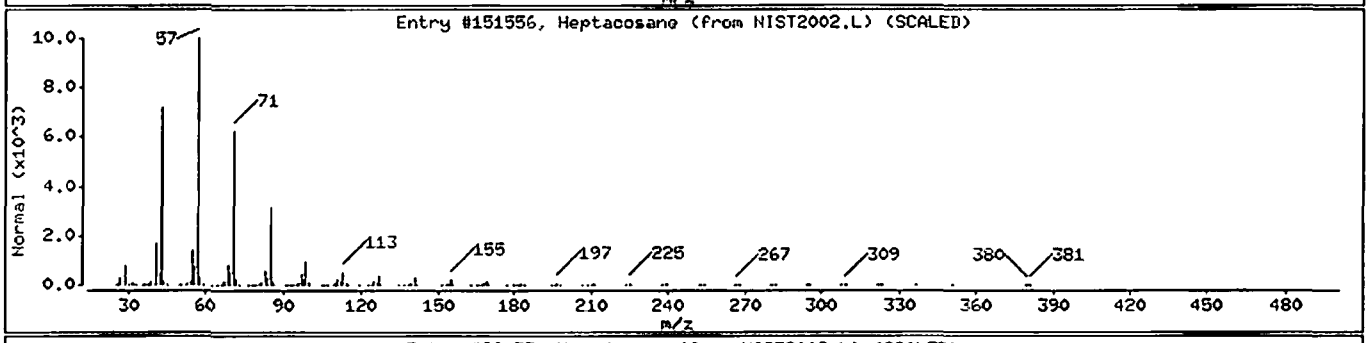
Sample Info: K2199-14A,,62801,,

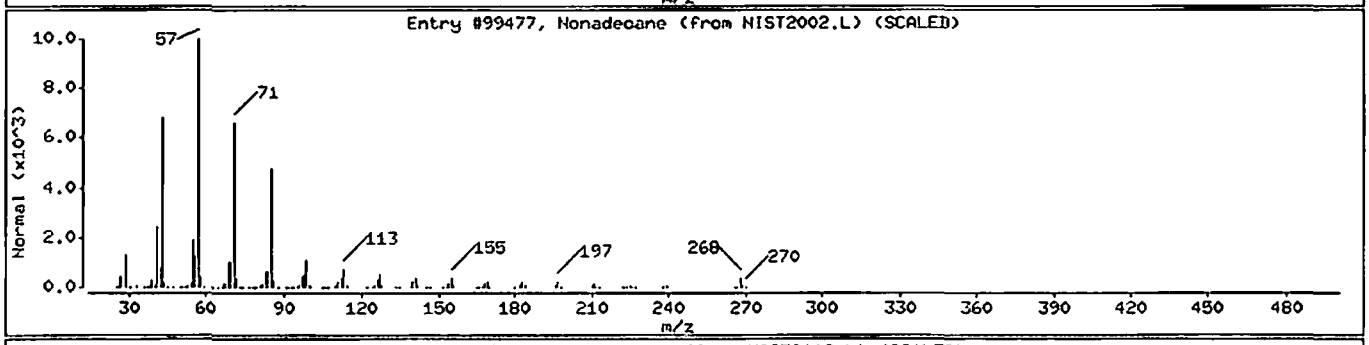
Volume Injected (uL): 2.0 Operator: HMS SRC: LIHS

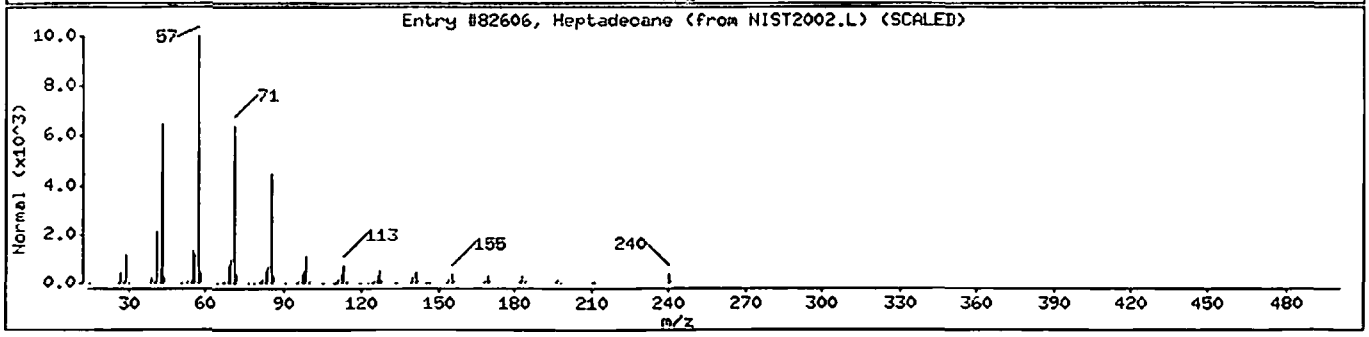
Column phase: RXI-5SILHS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Heptacosane	593-49-7	NIST2002.L	151556	97	C27H56	380
Nonadecane	629-92-5	NIST2002.L	99477	96	C19H40	268
Heptadecane	629-78-7	NIST2002.L	82606	96	C17H36	240









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

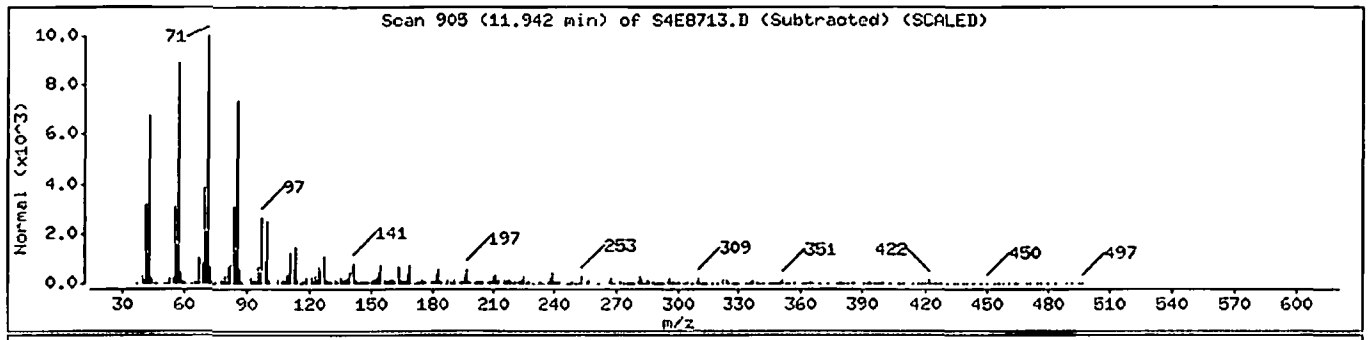
Client ID: H30S2 Instrument: S4.i

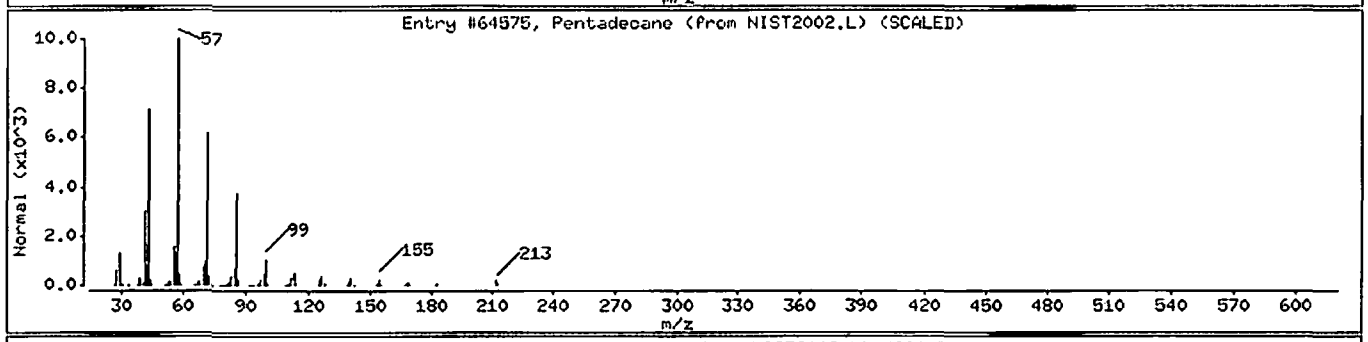
Sample Info: K2199-14A,,62801,,

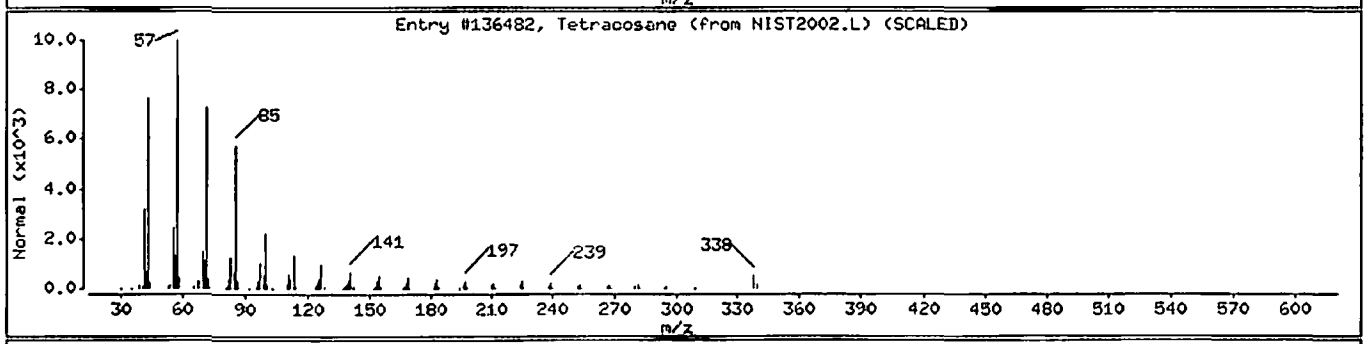
Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

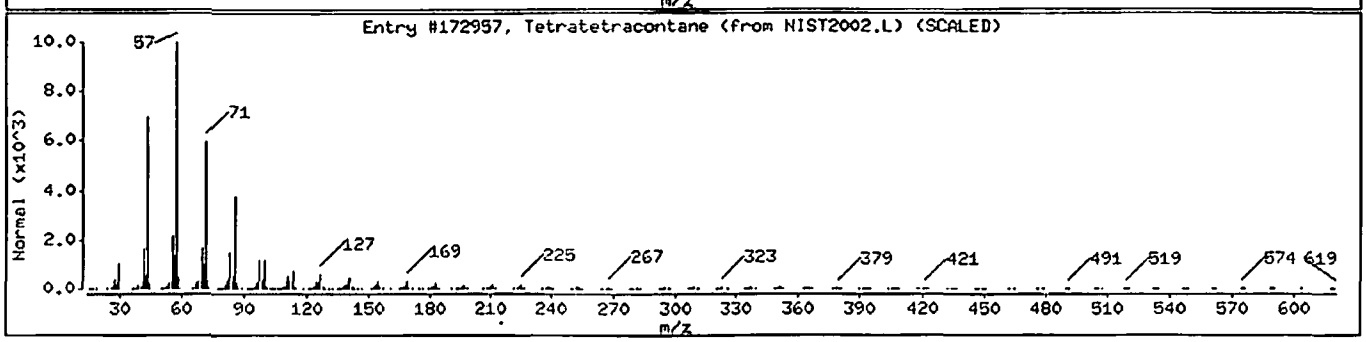
Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Straight-chain Alkane						
Pentadecane	629-62-9	NIST2002.L	64575	95	C15H32	212
Tetracosane	646-31-1	NIST2002.L	136482	91	C24H50	338
Tetratetracontane	7098-22-8	NIST2002.L	172957	91	C44H90	619









Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

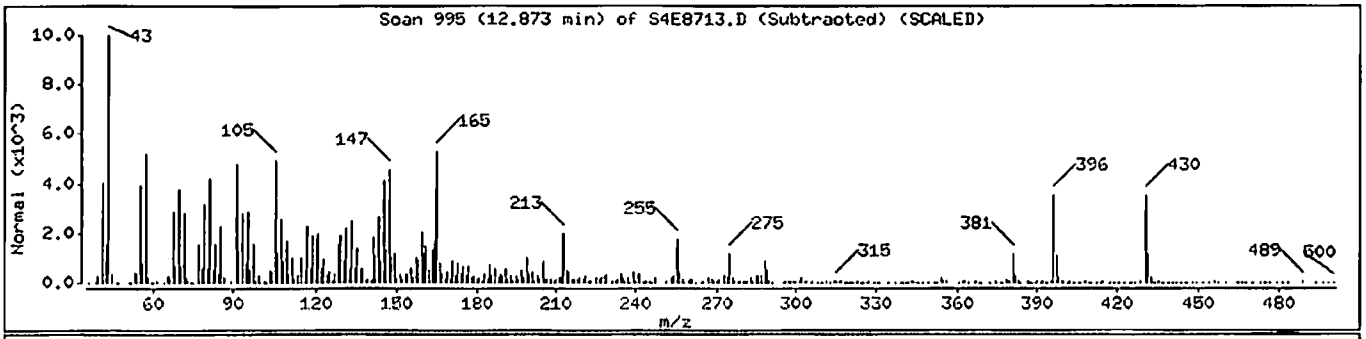
Client ID: H30S2 Instrument: S4.i

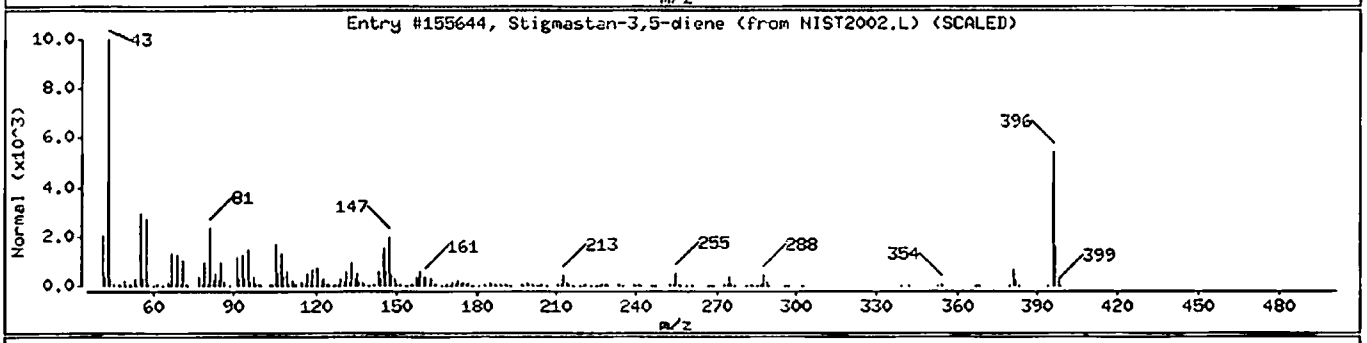
Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MHS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmastan-3,5-diene	1000214-16-4	NIST2002.L	155644	95	C29H48	396





Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

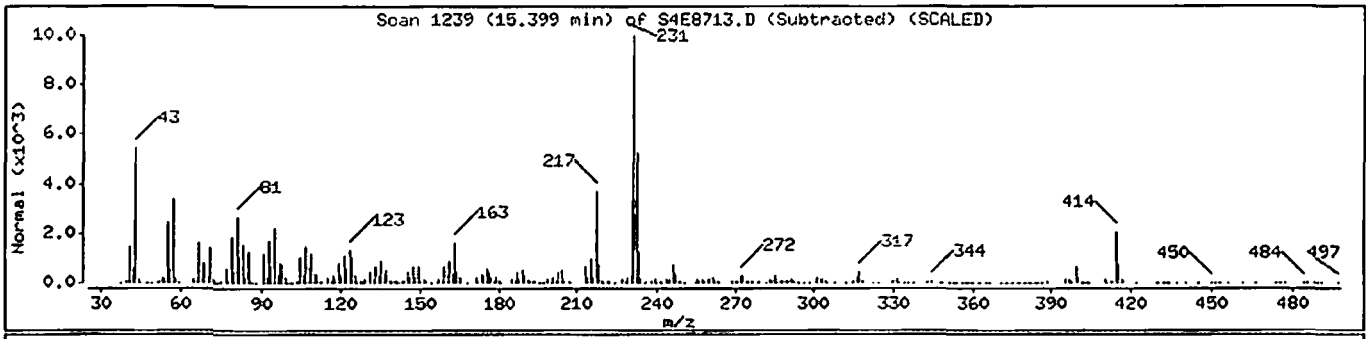
Client ID: H30S2 Instrument: S4.i

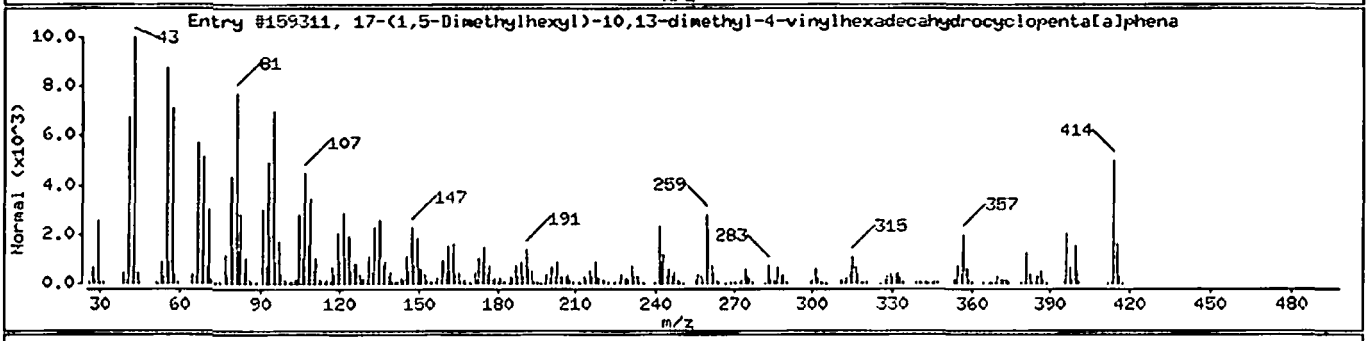
Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
17-(1,5-Dimethylhexyl)-10,13-dimethyl-4-	1000210-86-9	NIST2002.L	159311	91	C29H500	414





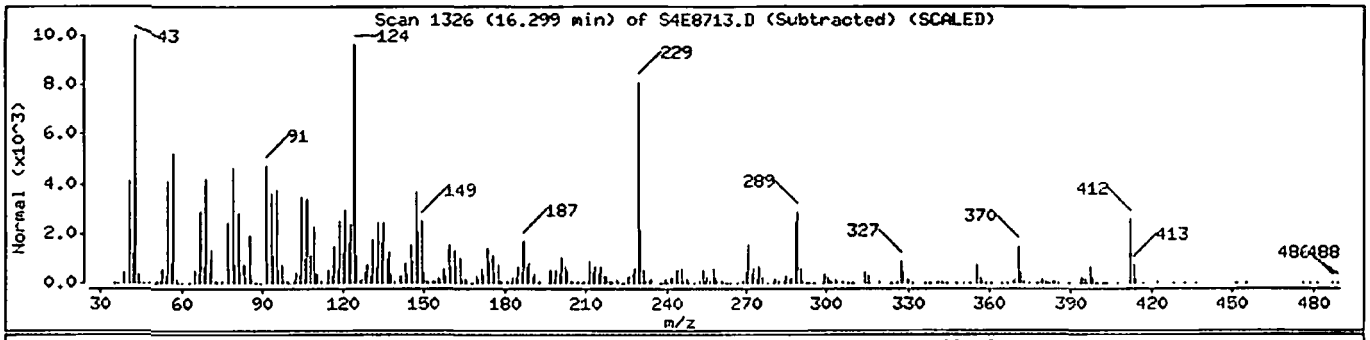
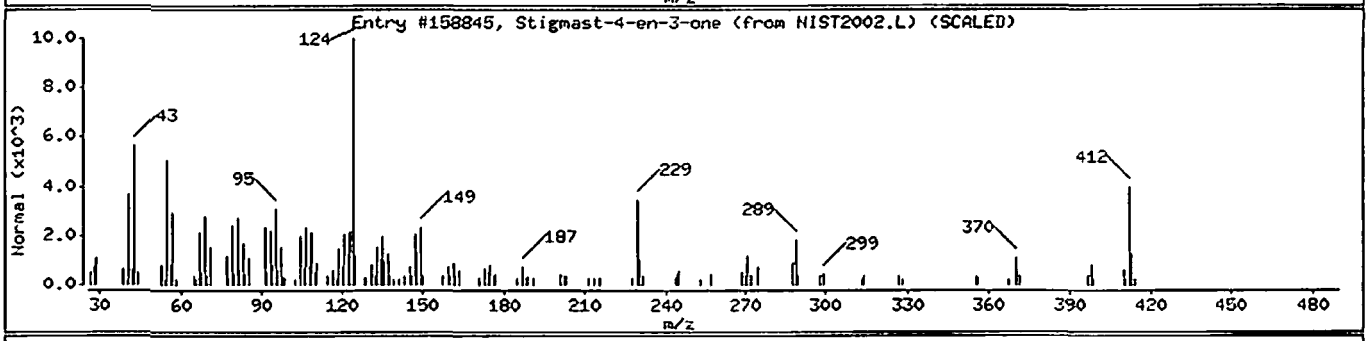
Data File: \\Avogadro\Organics\S4.I\111114.B\S4E8713.D

Date : 14-NOV-2011 19:44

Client ID: H30S2 Instrument: S4.i

Sample Info: K2199-14A,,62801,,

Volume Injected (uL): 2.0 Operator: MMS SRC: LIMS

Column phase: RXI-5SILMS Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmast-4-en-3-one	1058-61-3	NIST2002.L	158845	96	C29H48O	412