Final Report
Phase I
The Determination of Several Effluent Properties from Food Service Establishments that Employ On Site Sewage Treatment Systems

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EXECUTIVE SUMMARY

Executive Summary

It has been observed that restaurants which engage in the on-site treatment of sewage, fail at an increased rate compared to domestic septic systems (Siegrist et.al., 1984). However, regulations in the Chapter 10D-6 of the Florida Administrative Code governing on-site wastewater treatment and disposal systems were written primarily for domestic strength wastewater. A question therefore exists as to whether modifications to 10D-6 should be considered to help prolong the life of restaurant septic systems. Before any such modifications can be implemented, a careful examination and characterization of restaurant effluent must be carried out, since there is a general lack of data on effluent quality from restaurant septic systems.

On July 1, 1995 a project to determine several effluent properties from food service establishments that employ on-site sewage treatment was undertaken. The principal investigators include Dr. David Bloomquist from the University of Florida Department of Civil Engineering, and Charles J. Schmidt from the University of Florida Department of Environmental Engineering Sciences. In addition, graduate students David Paulsen from the Department of Environmental Engineering Sciences and Vivek B Ajmani from the Department of Statistics were included in the project. In January of 1996, graduate student, Christopher J. Waters, replaced David Paulsen. A statistical analysis was completed by Juneyoung Lee, a Ph.D. candidate from the Department of Statistics who also joined the project after its inception. A number of undergraduates have also participated in the project providing help with the laboratory and sampling work. Phase I was completed in December of 1996.

The experiment was set up to look at several chemical parameters in the effluent of restaurants which employ on-site treatment. The restaurants examined were divided into eleven groups (see Appendix B). An extensive search was conducted to locate restaurants in the area which both employ on-site wastewater treatment and would allow sampling of their effluent. A list of restaurants which employ on-site treatment was generated through

telephone interviews (see Appendix A). Permission for sampling was sought from all of the restaurants on this list. While many restaurants were called only several actually granted permission to sample. Once a restaurant was selected, it was then necessary to visit the site and perform an inspection to determine if the system was suitable for sampling. If the site had a lift station, the sample could be pulled directly from that lift station. Otherwise Florida Septic (an area septic tank installer/contractor) installed a sampling port between the septic tank and the drainfield.

Once the preliminary investigative work had been done, samples were collected. Wilson Hill was hired as an Environmental Specialist and Sampling Technician to aid in the sampling activities and ensure that a representative sample was collected. Mr. Hill is a certified sampler, allowing for strict adherence to EPA sampling protocol throughout the study. On each sampling trip, samples were collected for Oil and Grease, Total Suspended Solids, and $CBOD_5$ tests. Observations were made and recorded as to the condition and layout of the system and drainfield. Several of the systems examined were clearly close to failure with some even showing raw sewage forming puddles on the drainfield (See Photos 1 and 2). The samples were returned to the lab where EPA test methods were used to carry out the above listed parameters.

Later in the study Paul Myers, an Environmental Engineering graduate student and environmental specialist with the State of Florida Department of Health joined the project to provide soil evaluations for each of the sites. Such an evaluation was helpful in determining whether or not soil type was leading to a system's poor performance.

Samples were also collected and analyzed for trace organics using a gas chromatography and mass spectrometry test procedure. Test method EPA 625 was used for both the extraction and analysis.

Results showed high levels of BOD, Oils and Grease, and Total Suspended solids in nearly all of the samples. The one notable exception was the restaurant which was using an

aeration septic system (Nibbler™). This system had much better removal of BOD, oils and greases and solids. Category 7 restaurants (drive-ins) had significantly higher results for BOD and TSS. Values tended to have a wide range in each of the categories. For example, Category 3 restaurants had BOD results which ranged from 1440 mg/L to 162 mg/L. This may be due to the fact that different restaurants within the same category have different types of treatment system designs. Some restaurants have one grease trap while others have two or more. Some restaurants might have properly sized septic tanks while others may use septic tanks which are inadequate in size. The values for BOD, TSS and Oil and Grease appear to be more closely related to the design of the septic system rather than which group the restaurant falls in.

Soil evaluations ruled out drainfield soil as a possible reason for failure. All but two of the restaurants were installed properly in well draining soils. The two exceptions were installed in the correct type of soil, but were installed to close to the water table. The GC/MS analysis did not show any unexpected compounds in the septic wastestream. No pesticides were found. Typical compounds found included: phthalates (commonly found in plastics), fatty acids, butanoic and pentanoic acids (break down compounds) as well as other acids commonly found as byproducts in the natural decomposition of organic matter.

Phase I of this project clearly identified on-site sewage treatment at restaurants as a serious problem and produced data which measured the scope of that problem. Phase II will provide for a more focused study to look at the causes of the restaurant OST problem and offer suggestions for a solution. The project will study the treatment systems at 15 restaurants. The system design and detailed flowrates will be looked at more closely in Phase II. The capacity for soils in the subsurface to absorb varying wastewater strength effluents will be examined using laboratory lysimeters. At the end of Phase II, conclusions will be drawn and recommendations made as to why some OST systems continue to operate without any problems and other systems are routinely failing.

LITERATURE REVIEW

Literature Review

The failure of any septic tank system represents a serious threat to the public health. A study by Marylynn Yates entitled "Septic Tank Density and Ground-Water Contamination," reports, "Septic tanks contribute the largest volume of wastewater, 800 billion gallons per year to the subsurface, and are the most frequently reported cause of ground-water contamination associated with disease outbreaks." The study went on to say, "Overflow or seepage of sewage from septic tanks or cesspools was responsible for 43% of the outbreaks and 63% of the cases of illness caused by the use of untreated, contaminated ground water. Thus, septic tanks represent a significant threat not only to preserving the potability of ground water, but also to human health." Such problem occur when a septic system fails and seepage occurs. Restaurants are known to have much higher strength wastewater and consequently fail at an increased rate.

A very limited number of studies have been done specifically on restaurant septic systems. The studies almost always point to a restaurant's grease and solids build up as the major factor in failure. One study was carried out by William L. Stuth, the president of Aqua Test Inc. in Maple Valley WA, and Maryanne Guichard, Environmental Health Supervisor for the Seattle-King County Department of Public Health. The study was titled "Managing Grease and Oil In Restaurant Waste." In 1987, the King County Board of Health put forth a regulation prohibiting restaurants from using on-site sewage disposal systems. The regulations did allow for an appeals process. This study was carried out to answer questions on what the appeal criteria should be. The study determined that grease traps alone are not enough to keep oils and greases out of the drainfield. This study also looked at the Nibbler™ aeration system, and determined that it was a highly effective means for controlling high strength wastestreams. It was decided at the conclusion of this study that septic systems serving restaurants should be designed according to effluent strength rather than effluent quantity.

Another study was carried out by Anish Jantranis, Ph.D., an NSFC Research Assistant Professor. The study was titled "Dealing with Oil and Grease in Restaurant Wastewater." The study noted the problem of increased effluent temperature in the typical restaurant wastestream. Restaurants use various mechanical dish washing devices as a means for removing oils and greases. These devices typically employ high temperature water to clean. This causes the grease and oil to liquefy and enter the wastestream. If the system is undersized the retention time will be very short and the liquefied oil and grease will be sent out to the drainfield. Once in the drainfield, the grease and oil will cool and emulsify clogging the drainfield. The report notes, "At least half of the restaurants using on-site sewage disposal systems in the state of Washington have experienced major problems." The study recommends the separation of graywater and blackwater prior to treatment. The study concluded, " the strength of restaurant wastewater is significantly higher than domestic wastewater. Onsite treatment and disposal systems for restaurants should be designed based on the estimated strength" This study proposes to examine why some restaurant septic system are performing well while others continually fail.

Another study which focused on restaurant septic systems was carried out at the University of Wisconsin in 1984 by R. Siegrist, D. Anderson, and J. Converse. The report was titled "Onsite Treatment and Disposal Of Restaurant Wastewater." The study investigated the septic tank/soil absorption systems for restaurant OST effluent. The study reported that, "the performance of onsite wastewater treatment and disposal systems receiving wastewater from restaurant establishments was markedly different from that of systems receiving household wastewater." It was also determined that the long-term infiltration capacity for restaurant soil absorption systems is significantly lower than that for domestic septic systems. The study made several recommendations including: separating the gray and black water, designing systems with multiple septic tanks in series, and collection of accurate flow data. In addition, the authors stressed the need for, "further field and laboratory investigation of restaurant septic systems...to enhance the data base established by this investigation."

SUMMARY
OF
SERVICES PROVIDED

Summary of Services Provided/Research Methodology

The sequence of events involved in this project included: 1) the development of a statistical sampling plan, 2) making contact with selected restaurants and obtaining permission for sampling, 3) developing a plan specific to each restaurant to obtain samples, 4) installation of sampling ports (when needed), 5) determination of the restaurant's water usage rate (loading), 6) collection and analysis of samples, 7) soil evaluations, 8) GC/MS analysis for organic constituents.

The State of Florida Department of Health and Rehabilitative Services (HRS) provided a comprehensive list of all Food Service Establishments (FSE) in the surrounding counties (Alachua, Marion, Levy, Columbia, and Gilchrist). From these, inquires were made as to whether they used on-site treatment. Based on this survey, a list of 161 potential FSE was produced (see Appendix A). A statistical sampling plan was developed by Vivek B. Ajmani from the University of Florida's Department of Statistics. A random number generator was used to select restaurants from this list to be sampled. For the purposes of data analysis, all restaurants participating in this study were divided into 11 categories (see Appendix B). Comparisons could then be make between the categories. In order to facilitate sampling and reduce the time required for sample collection, it was decided that the study would focus on restaurants in the North Central Florida area.

Once a restaurant was chosen, it was necessary to contact the owners and obtain permission for sampling. A letter was sent to the selected restaurants (See Appendix C). Unfortunately, the response was poor and this effort proved to be one of the most difficult tasks of the project. It was found that those restaurants whose on-site treatment systems (OST) were performing poorly and close to failure were the most reluctant to allow sampling. It generally took several assurances that this was simply a research project and not an enforcement action before permission for sampling was granted. Nevertheless, several restaurants went unsampled because consent was never provided. This resistance to sampling was unfortunate because the effluent characteristics of these soon to be failing

systems are of particular interest to the project. Such data might provide important information on why restaurant septic systems fail at a higher rate than domestic systems.

After a restaurant had been chosen and permission granted for sampling, it was necessary to devise a plan to obtain the sample. It was originally thought that one sampling plan could be developed for all restaurants in the study. However, each septic system was different and thus would require its own sampling plan. The original plan called for the installation of sampling ports on all systems, but this was not always possible or practical. In some instances, the fragility of the clay pipe leading from the septic tank to the drainfield prevented the safe installation of the sampling port. In such cases, Florida Septic Inc. (the firm contracted to install the sampling ports) advised against the installation of a sampling port. When possible, samples were taken from a lift station thus eliminating the need to install a sampling port. It was felt that this was a suitable replacement for the sampling ports because the lift station acts as a large sampling port, holding the effluent after treatment in the septic tank and prior to discharge to the drainfield.

Samples were collected using one of two techniques. If a lift station was present, a sampling cup attached to two cables was lowered to the effluent. When no lift station was present, a sampling port was installed. In this instance, a hand pumping device was used to retrieve the sample. Samples were collected in brown amber glass bottles and the necessary preservatives added. A pH reading was taken and the samples were put on ice for the return trip to the laboratory. An as built sketch was made showing the known location of the septic system's main elements (See Appendix J).

Three different tests were carried out on the samples. The tests included: $CBOD_5$ (5-day Carbonaceous Biochemical Oxygen Demand), TSS (Total Suspended Solids), and Oils and Greases. It was later decided to carry out the 5-day Biochemical Oxygen Demand test as well. The CBOD and BOD tests were run using EPA Method 405.1. EPA

Method 160.2 was used in testing for Total Suspended Solids. A hexane extraction technique (EPA Method 1664) was used to test for oils and greases.

These tests were selected to provide insight into potential restaurant septic system problems. The BOD and CBOD analyses were conducted to give a general indication of the amount of biodegradable organic matter in the restaurant's effluent. These tests examine matter which is capable of being consumed by bacteria present in the waste stream. The TSS test measures the amount of suspended solids in the effluent. Ideally, many of the solids would settle in the septic tank and would not be transported to the drainfield. It is believed that a correlation exists between the amount of solids applied to the drainfield and drainfield failure. It is also reasonable to assume that a similar correlation exists between oil and grease levels and septic system failure.

A soil analysis was conducted at each of the restaurants in the study. The drainfield is one of the most important components of wastewater treatment in the septic system. One possible explanation for the failure of a septic system is the placement of the system in an improper soil type. Such a failure could have several results: 1) surfacing of raw effluent onto the ground surface, 2) non-conduit related sewage backup into the establishment, 3) lack of effective treatment in the drainfield. This examination was conducted to determine the adequacy of the soil to treat the septic system effluent.

The soil identification was carried out by Paul D. Myers, a septic tank inspector with the State of Florida Department of Health in Alachua County. Paul is also a graduate student in the University of Florida Department of Environmental Engineering Sciences. A Soil Conservation Survey map was first used to identify the charted soil types. A 6ft soil auger was used to take two soil borings in the proximity of the drainfield. The soils were analyzed in the field for texture (using the USDA methodology, see Appendix H). and color using the Munsell Soil Color Chart). HRS for 4015 was used to record the results

(See Appendix G). After comparison with the Soil Conservation Mapping Unit, a field determination of the USDA soil series was made.

EPA Method 625 was used to analyze several of the restaurant's waste effluent for trace amounts of semi-volatile organics. The extraction involved the partioning of organic compounds from the liquid phase sample into an organic solvent. The concentrated samples were then run on the Perkin Elmer Q-Mass 910 gas chromatograph/mass spectrometer. The results are presented in Appendix I.

DATA SUMMARY

Data Analysis

A total of 19 restaurants were sampled from 8 of the 11 categories. The three categories which were not sampled include: #2 - restaurants operating more than 16 hrs per day, #6-carry out restaurants, and #8 institutional food services. All 8 of the categories sampled were sampled twice. Follow-up sampling was done on each of the restaurants. The results for each of the three parameters are given in Tables 1, 2, and 3. The data are presented graphically in Figures 1, 2, and 3.

Table 1 shows the BOD and CBOD data. Results are given for the initial and follow-up testing of the 19 restaurants. It was not decided until midway through the study to run both BOD and CBOD, consequently restaurants 1-7 and restaurant #19 were only tested for BOD. The second and third restaurants had BOD results which unexpectedly exceeded our dilution ranges due to their high strength. The average results for each category are illustrated graphically in Figure 1. At one of the restaurants, a thick solid grease layer developed over the effluent in the lift station. This solid hindered access to the effluent and prevented sampling. On one sampling trip to another restaurant, it was discovered that the lift station was locked. The assistant managers on duty did not know how to open the system and consequently sampling was not possible.

Table 2 shows the oil and grease results. Those showing (<5) values are less than the detection limit of 5 mg/L. Restaurant 15 had matrix interferences making it impossible to conduct the test. Results are presented graphically in Figure 2. An accident during transport prevented tests from being run on two of the samples.

Table 3 shows the total suspended solids results. The concentration averages for each individual category are shown in Figure 3.

One of the FSE sampled used the Nibbler™ System. This is the commercial name for a system which employs aerobic digestion in the treatment of gray water which has already

been treated by a grease trap. The manufacturer claims that the system is "designed to treat high-strength wastewater to at least residential sewage septic tank effluent quality." In the system we looked at, it was possible to collect a raw sample and a final sample. The results are given in Table 4. The data show a significant reduction in BOD, TSS and Oil and Grease concentrations with the percent removal for all three parameters above 92%.

Flowrate data are given in Appendix D. Flowrates were calculated by recording the water meter reading on two different sampling dates and then dividing by the time difference to come up with a gallons per day result.

The soil identification results are shown in Appendix G. HRS Form 4015 was used to record information about soil conditions. A summary of that data is presented in Table 5.

The GC/MS data are given in Appendix I. The restaurants evaluated include: Restaurant Numbers 1, 13,14, 16, 17, 18. The correlation between the GC/MS scan and restaurant number is given in Table 6. The data in Appendix I are divided into different scan numbers (1, 3,4,5,6,9,10,11,12,14,15,16). Under each scan number, various pages of information are given. First the Total Ion Count scan is given. Next the Quantitation Report is given listing all surrogate standard compounds in the sample as well as any other organic compounds. The last page in the group is a list of tentatively identified compounds listed in order of decreasing concentration. These are suspect compounds which must be confirmed with further testing to accurately verify their presence. If an unexpected contaminant turned up in this list, follow-up sampling and analysis would be warranted.

STATISTICAL ANALYSES

Statistical Evaluation

A statistical evaluation of this data was completed by Juneyoung Lee, a Ph.D. candidate from the Department of Statistics. Two main evaluations were made 1) An ANOVA (Analysis of Variance) was done for each of the four parameters tested (BOD, CBOD, TSS, and Oil and Grease). This analysis was carried out for each of the two sampling events. 2) A measurement of the sample size required to detect a statistical difference between two categories which are a given number of standard deviations apart. The analysis was carried out for various error values (alpha and beta).

The results (along with the computer programs used) are presented in Appendix E. Page E-1 shows the computer program used to determine the ANOVA among the data for each parameter. Page E-2 gives CBOD results for the first sampling event, while page E-3 shows the ANOVA results. On the right side of the page, the mean value for each category along with the number of observations in that category are given. Note that under the "Duncan Grouping" heading, all categories have the same classification "A". This is an indication that no statistical variance was detected between the categories even though the mean values range from 432 to 737 mg/L. Page E-4 shows the BOD results for the first sampling event. The ANOVA results are given on page E-5. The results show that no statistical variation exists between the categories even though the results range from 501 to 1020 mg/L. Pages E-6 and E-7 give the CBOD and ANOVA results for the second sampling event. In this case, a statistical difference was detected between category 7 and the remaining categories. The same is true for the BOD results given on pages E-8 and E-9.

The Oil and Grease results and ANOVA analysis data are shown on pages E-10 through E-13. For the first sampling event, no statistical difference was detected between the categories. On the second sampling event shown on page E-13, the ANOVA analysis divides the results into four distinct groupings (A, B, C, and D). This means that each

group (A,B,C, D) is statistically different from the other. Category 7 was shown to be statistically different from all other categories.

Pages E-14 through E-17 give the results for the TSS analysis. No statistical difference was detected in the first sampling event but the ANOVA analysis of the second sampling event showed a statistical difference between group 7 and the remaining categories. It should be noted that the mean values for categories 11 and 3 for the first sampling event were too high because an outlier from restaurant 15 was incorrectly included in the ANOVA analysis. This sample was not representative of the effluent being discharged to the drainfield. The septic system design was unusual and the sample was taken from a part of the system where a thick black sludge was being mechanically aerated. Design plans for this unusual system were sought but not found. When tests were run on this sludge sample, the results were much higher than tests done on other restaurant effluent samples. Even with this outlier included in the data set, no statistical difference could be detected between the categories.

The detection of differences between categories is directly related to the number of samples taken from each category. The Pr>F value given in the ANOVA analysis is a general indicator of the accuracy of the ANOVA analysis. This number should be 0.05 in order to give the best representation of differences between the categories. As the number of samples taken from each category increases, this number should approach 0.05.

Pages E-18 through E-20 show the amount of samples which must be collected in order to detect a statistical difference between the categories. The program used for this analysis is presented on page E-18. The Alpha, Power, and Detect, values were varied in order to come up with the results shown. Page E-19 presents the results when the total number of categories is eight. This is the number of categories which have been sampled so far. When all 11 categories are sampled, the results given on page E-20 are appropriate. The data is arranged into five groups with different Alpha and Power values (where Power = 1-Beta). The Alpha and Beta values correspond to the amount of error applied to the

analysis. The values given in these five groups are the typical values used in conducting this type of analysis. The Detect category gives the number of standard deviations between the two restaurant categories of interest. The value under the "N" category indicates the number of samples which must be taken in order to detect a statistical difference between the two categories. For example, on page E-20 when the alpha error is 0.05 and the power value is 0.9, in order to detect a statistical difference between two categories when their mean values differ by 0.75 standard deviation units, 38 samples must be taken from each category.

This analysis clearly shows that one sample from each of the eleven categories is not sufficient to make a statistical determination as to variations between categories. With a greater sample size, the accuracy of the data will improve and subsequently any final determinations will be much more valid. Another statistical evaluation will need to be carried out at the conclusion of Phase II. Such an evaluation will give an indication as to the validity of the data set. Any conclusions or recommendations made at that time must be based in a statistically sound data set. The increased sampling suggested in Phase II should provide for much more accurate results.

Interpretations & Conclusions

Interpretations and Conclusions

The data collected to date have already shown some interesting results. The first restaurant tested uses the Nibbler™ system. As mentioned in the previous section, this type of system appears to provide effective treatment of high strength wastewater. It might prove beneficial to examine more restaurants using this type of system. Other commercially available systems operate on similar principles. Microaeration Technologies, Inc. in Ruskin Florida distributes the Vacuum Bubble Aerator - Sewage Aeration System™ . The effectiveness of such a system in the field should be investigated.

The data for the other restaurants show some variation among categories. The BOD data given in Table 1 and Figure 1 show that several categories have higher BOD concentrations than others. For example, Drive-in restaurants clearly had the highest BOD concentrations of any restaurant category. Single service restaurants operation more than 16 hours per day, bar and cocktail lounges and convenience stores all had the lowest BOD concentrations. Such data however must be interpreted cautiously. Only some restaurant from category 7 was sampled and category 3 had BOD values which ranged from 1140 mg/L to 278 mg/L. Such statistical deficiencies should be eliminated by sampling more restaurants from each category and sampling at different hours of the day.

The fluctuation in oil and grease concentrations between different categories was even greater. The categories with the highest oil and grease concentrations include restaurants operation less than 16 hours per day, single service restaurants operating more than 16 hours per day, drive-ins, food outlets and bakeries. Those categories with the least concentration of oil and grease include convenience stores, bars and cocktail lounges and single service restaurants operating less than 16 hrs per day.

The results for the suspended solids data can be divided into two distinct groups. Categories 1, 7, 9, and 10 showed the highest results while categories 3, 4, 5, and 11 showed the lowest results.

Certain trends were observe among the three parameters. Restaurants operating less than 16 hours per day, food outlets, bakeries, drive-ins all had high concentrations of the three parameters tested. Category 9 included two grocery stores. It was observed that each of these grocery store OSTs were near failure. In one instance, the drainfield was completely clogged and the septic tank required daily pumping. In each case, raw sewage was observed being discharged onto the ground surface. One possible explanation is the inadequate size of the septic system and inability to deal with the high volume of wastewater provided from a grocery store facility. Some of the other systems visited were in a similar condition. At one facility, the system had become completely clogged with grease (Photo 1). When wastewater flowed into the tank, it simply moved across the oil and grease layer and through the outlet pipe without receiving any treatment. The drainfield for this system had several inches of wastewater on the ground surface (Photo 2).

Category 11, convenience stores seemed to have low results for all three parameters. This could be due to the fact that each of the convenience stores tested had several tanks in series with a lift station. Bars and Cocktail lounges, category 5, also had low results fro all three parameters. This is most likely due to such facilities generating less greases and oils than the other types of restaurants.

A comparison was made between results obtained in this study and values associated with domestic systems published in the University of Wisconsin study (Siegrist, et. al., 1984). The maximum concentrations for each of the three parameters are shown in Figure 4. A clear difference exists between the domestic septic system waste stream and the typical restaurant septic system waste stream.

All but three of the restaurants evaluated had soils which are conducive to an "in ground" type of drainfield installation and as such were not elevated. Of the remaining three sites, 1 was appropriately "mounded and 2 were determined to not meet the standards set forth

by Chapter 10D-6 of the Florida Administrative Code in terms of drainfield absorption surface separation to the Estimated Seasonal High Water Table (E.S.H.W.T.). The F.A.C. mandates a 24 - inch zone of unsaturated soil below the bottom of the drainfield. These two restaurants lacked an elevated drainfield and were installed too close to the E.S.H.W.T. In such instances, the effluent is not satisfactorily treated, resulting in contamination of surface and groundwater supplies.

No unexpected compounds showed up in the GC/MS analysis. It was thought that some restaurants might be using organic solvents as degreasers, but no evidence was found. Some compounds that would be expected did show up. Various forms of amines were found, compounds characteristic of most wastestreams. Various acids were also found e.g. Butanoic Acid, Propanoic Acid, Hexanoic Acid, etc. These types of compounds are typical byproducts of the natural biodegradation of organic matter. Interestingly many of the samples were found to contain Caffeine. Various types of phthalates were also found. Phthalates are common plasticisers which would show up in a wastestream if the restaurant was using and rinsing plastic materials.

Phase II

Phase II of the study will provide a more in depth investigation of restaurant septic systems. In order to provide a more focused study, the total number or restaurants in the study will be fixed at 15. The restaurants will be chosen based on the amount of background information available on the septic system. In order to derive some clear inferences from the recovered data, detailed system parameters must be determined. It is not enough to just know that a system is performing poorly, but to provide some indication as to the reason for the system's poor performance. Thus, information on the system design will be obtained. For example, the size of the septic tank, the number of grease traps, etc., will be determined and compared with the system's operational condition. These are the types of questions to be addressed in Phase II. Systems which have site plans including design parameters will be given priority.

The manner in which the restaurants are categorized (1-11) will also be changed. The eleven categories used in Phase I will be replaced with three categories based on effluent strength (high, medium, low). This should result in less statistical fluctuation of the data. The samples well be taken at various times during the 18 month study in order to factor out seasonal fluctuations of effluent strength. Auto samplers will be used in Phase II to collect composite samples. In Phase I, samples were selected at discrete points in time (i.e. grab samples) and only provided a "snapshot" representation of the effluent characteristics. The composite sample will provide analytical data which represents an average of the daily wastestream.

A more detailed look at restaurant flowrate data will also be made in Phase II. The ISCO 4501 Pump Station Flow Monitor will be used to collect detailed flowrate data. The ISCO 4501 is essentially a data logger which connects to the lift station pump controller. Once connected, it will measure the pumps activities over a predetermined period of time. Outputs from such a device include: total and average flow discharged to the drainfield, minimum and maximum discharge and time of occurrence etc. The data will be stored on

Phase II Recommendations

a PCMCIA card. This data can then be downloaded to a spreadsheet for data analysis. Various plots can be made such as flow vs. time. This type of graph will show when the system is most active and when most of the effluent is being discharged to the drainfield. If an accurate sizing of tanks in the system is made, a determination of retention time can also be made.

An evaluation of management practices will be carried out to observe any connection to wastestream characteristics. For example, it appears that septic systems at restaurants where the owner ran the day to day operations were generally better maintained. Large franchise chain restaurants which had a group of managers and assistant managers running the day to day operations typically were not as well maintained. Additional information to be gathered will include: What types of meals are served at the restaurant? How many meals are served ? How many seats does the restaurant have? What types of cleaning practices are employed at the restaurant? Does the restaurant use any special cleaning products to degrease kitchen instruments? Questions regarding the septic system itself will also be addressed. Items such as: How often has the septic tank and grease trap been cleaned? Have there been any problems with the drainfield? When was it last necessary to replace the septic system and why?

The ability of drainfield soils to handle the higher strength restaurant wastestream will also be studied. Laboratory tests using lysimeters will be conducted to determine how the hydraulic conductivity of drainfield soils changes with increases loading of different strength wastewater. As the hydraulic conductivity decreases, the system moves closer to failure. A graduate student from the Soil Science Department at the University of Florida may take up this study as a master's project. This graduate student will have the majority of input on how the test is designed and carried out in the laboratory.

Phase II should allow conclusions to be made as to the nature and reasons for restaurant septic system failure. An increase in the amount of data obtained should be beneficial and provide the State of Florida Department of Health with information that can be used to

reassess current septic system specifications. It is worth noting that many of the restaurant managers who agreed to participate in this study, particularly from restaurants where the owner ran the day-to-day operations, welcomed such research. They were well aware of the reputation and challenges of managing a restaurant septic system. This study should provide some insight into addressing those challenges.

Tables
&
Figures

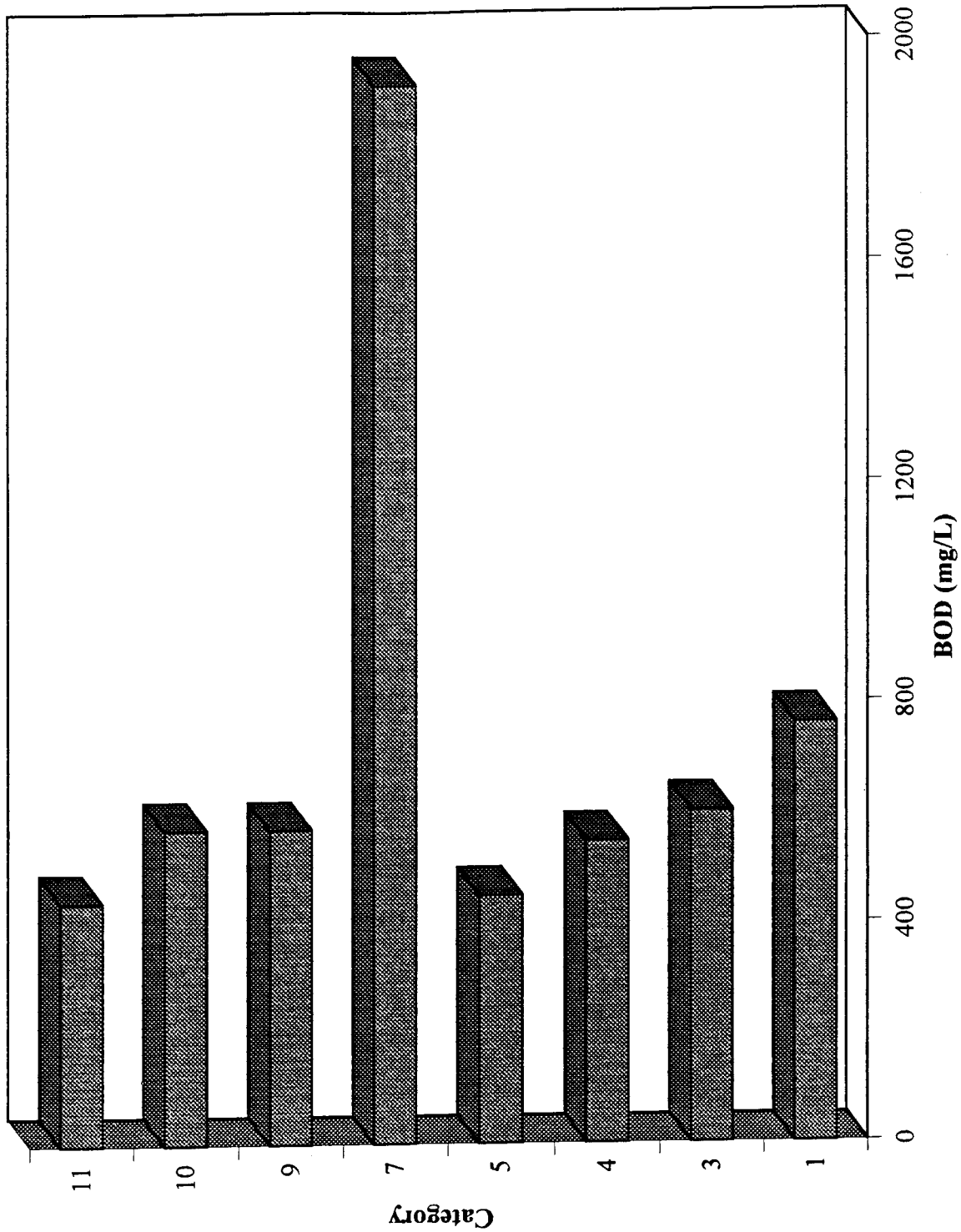
Table 1. BOD & CBOD Data

Rest. Number	Category Number	Sample No. 1 CBOD (mg/L)	Sample No. 1 BOD (mg/L)	Sample No. 2 CBOD (mg/L)	Sample No. 2 BOD (mg/L)
1	4	-	103	168	174
2	3	-	> 1020	1440	1095
3	7	-	> 1020	2466	2820
4	11 & 3	-	278	223	228
5	3	-	510	555	510
6	1	-	600	780	615
7	11 & 3	-	525	392	420
8	4	588	843	587	720
9	11 & 3	519	693	163	162
10	4	663	588	705	690
11	4	669	-	572	720
12	1	699	1068	*	*
13	3	623	465	152	159
14	3	1590	1140	471	593
15	11 & 3	345	780	**	**
16	9 & 10	681	1140	675	540
17	5	516	501	310	401
18	3	606	891	624	762
19	9 & 10	-	270	390	335

* Samples could not be collected from this restaurant because the lift station had developed a thick grease layer just above the effluent.

** Samples could not be collected from this restaurant due to a scheduling error with management.

Figure 1. BOD Values for Various Categories



Food Service Categories

1. Restaurants operating less than 16 hrs/day
2. Restaurants operaing more than 16 hrs/day
3. Single service restaurants operating less than 16 hrs/day
4. Single service restaurants operating more than 16 hrs/day
5. Bars and Cocktail lounges
6. Carry - out restaurants
7. Drive - in
8. Institutional Food Services
9. Food Outlets
10. Bakeries
11. Convenience Stores

Table 2. Oil & Grease Data

Rest. Number	Category Number	Run No. 1 O & G (mg/L)	Run No. 2 O & G (mg/L)
1	4	12.3	6.1
2	3	23.7	25.8
3	7	30.3	125
4	11 & 3	52.6	21.0
5	3	20.6	31.4
6	1	160	79.4
7	11 & 3	<5	12.1
8	4	300	91.0
9	11 & 3	<5	9.00
10	4	50.0	92.4
11	4	50.0	40.0
12	1	10.0	*
13	3	13.6	10.2
14	3	101	35
15	11 & 3	-	**
16	9 & 10	40.8	142
17	5	23.6	***
18	3	122	***
19	9 & 10	115	34.0

* Samples could not be collected from this restaurant because the lift station had developed a thick grease layer just above the effluent

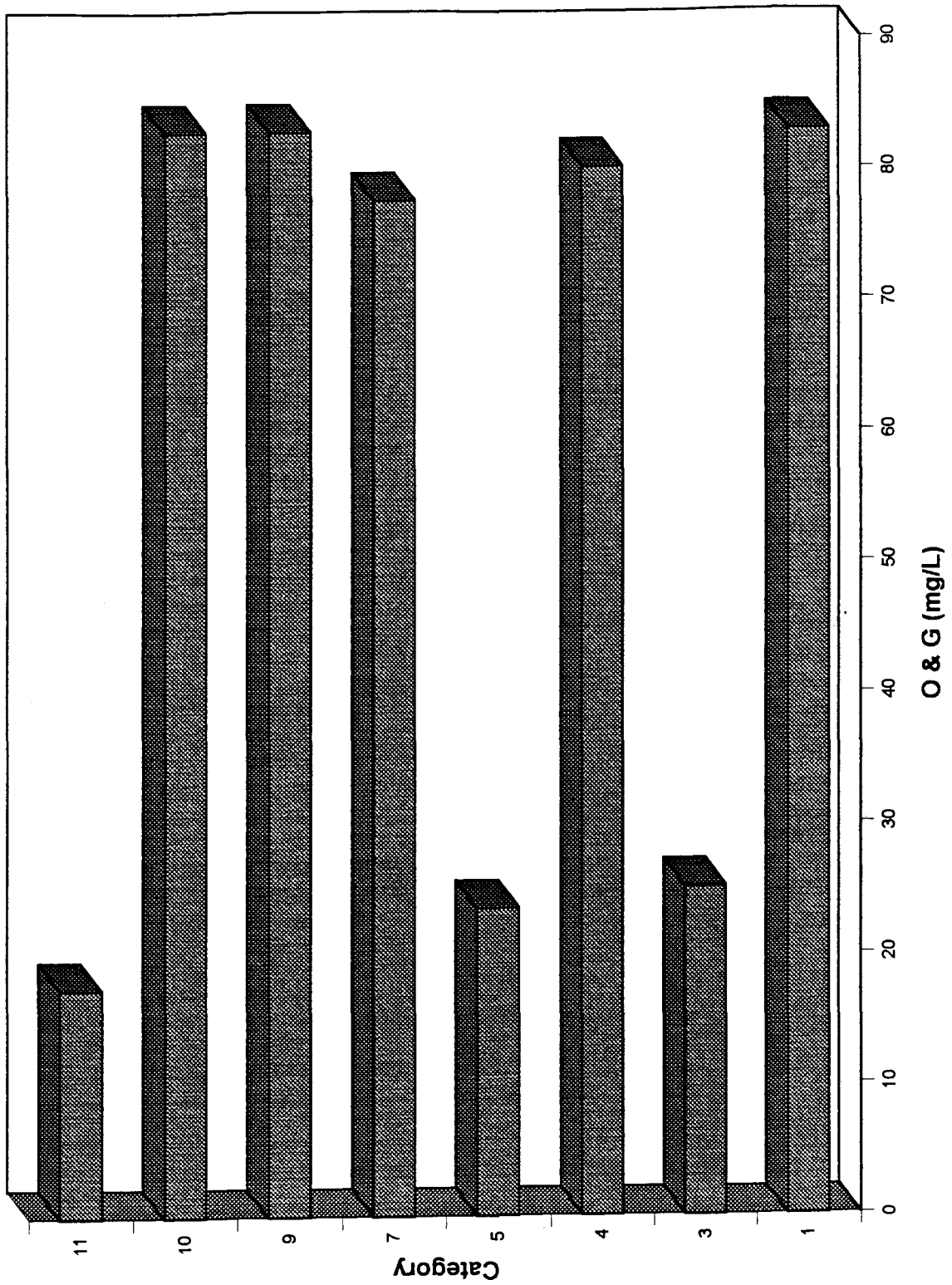
** Samples could not be collected from this restaurant due to a scheduling error with management

*** Lost samples

$\bar{X}_{35} = 57.3$

$\sigma = 22.1$

Figure 2. Oil & Grease Values for Various Categories



Food Service Categories

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7. Drive - in
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9. Food Outlets
10. Bakeries
11. Convenience Stores

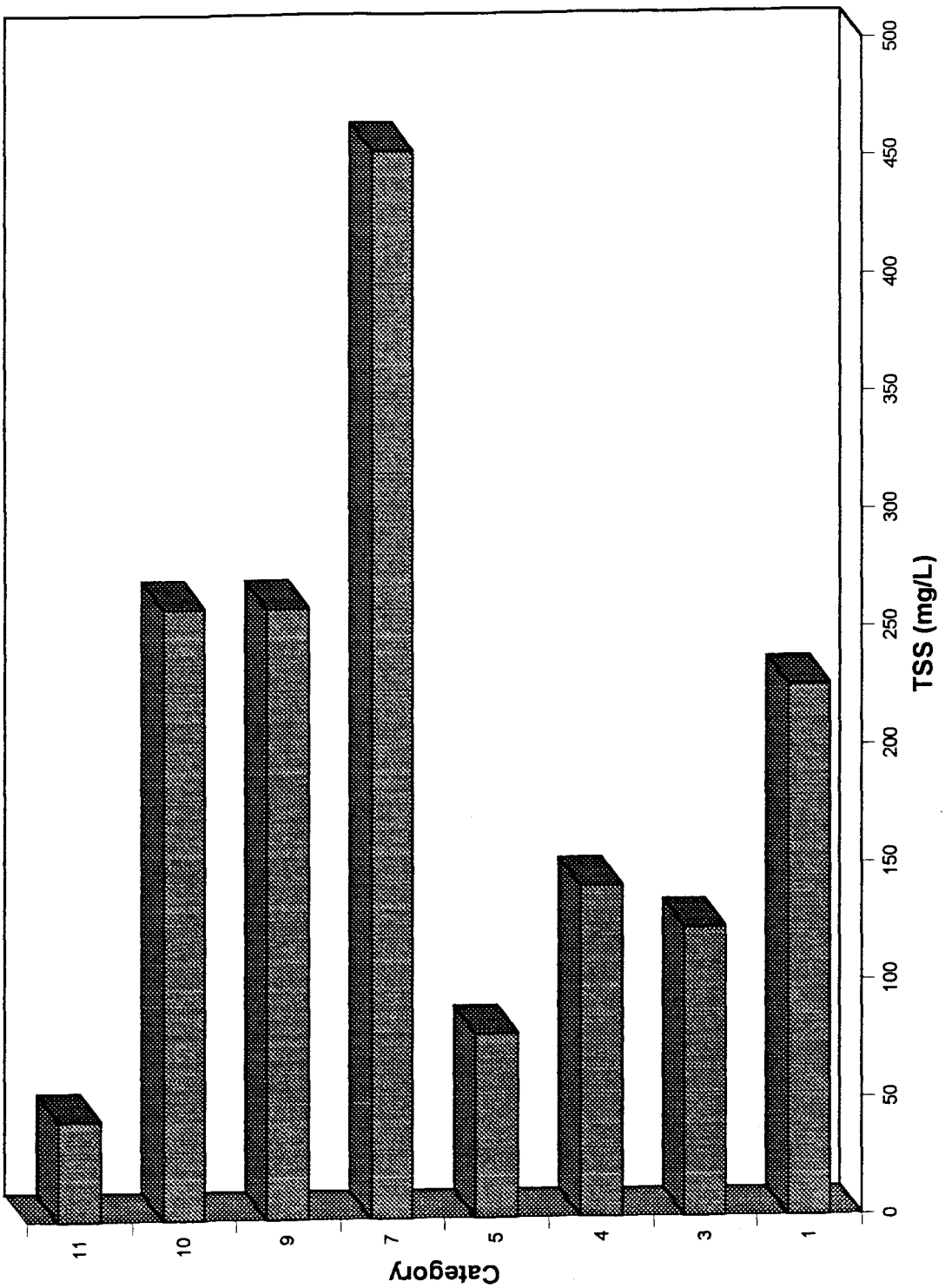
Table 3. Total Suspended Solids Data

Rest. Number	Category Number	Run No. 1 TSS (mg/L)	Run No. 2 TSS (mg/L)
1	4	46.0	90.0
2	3	237	187
3	7	264	644
4	11 & 3	26.0	58.0
5	3	60.0	87.0
6	1	220	210
7	11 & 3	60.0	12.0
8	4	72.0	105
9	11 & 3	42.0	58.0
10	4	190	515
11	4	46.0	66.7
12	1	247	*
13	3	150	39.0
14	3	465	115
15	11 & 3	4775	**
16	9 & 10	127	458
17	5	52.0	105
18	3	44.7	328
19	9 & 10	413	40.0

* Samples could not be collected from this restaurant because the lift station had developed a thick grease layer just above the effluent

** Samples could not be collected from this restaurant due to a scheduling error with management

Figure 3.
TSS Values for Various Categories



Food Service Categories

1. Restaurants operating less than 16 hrs/day
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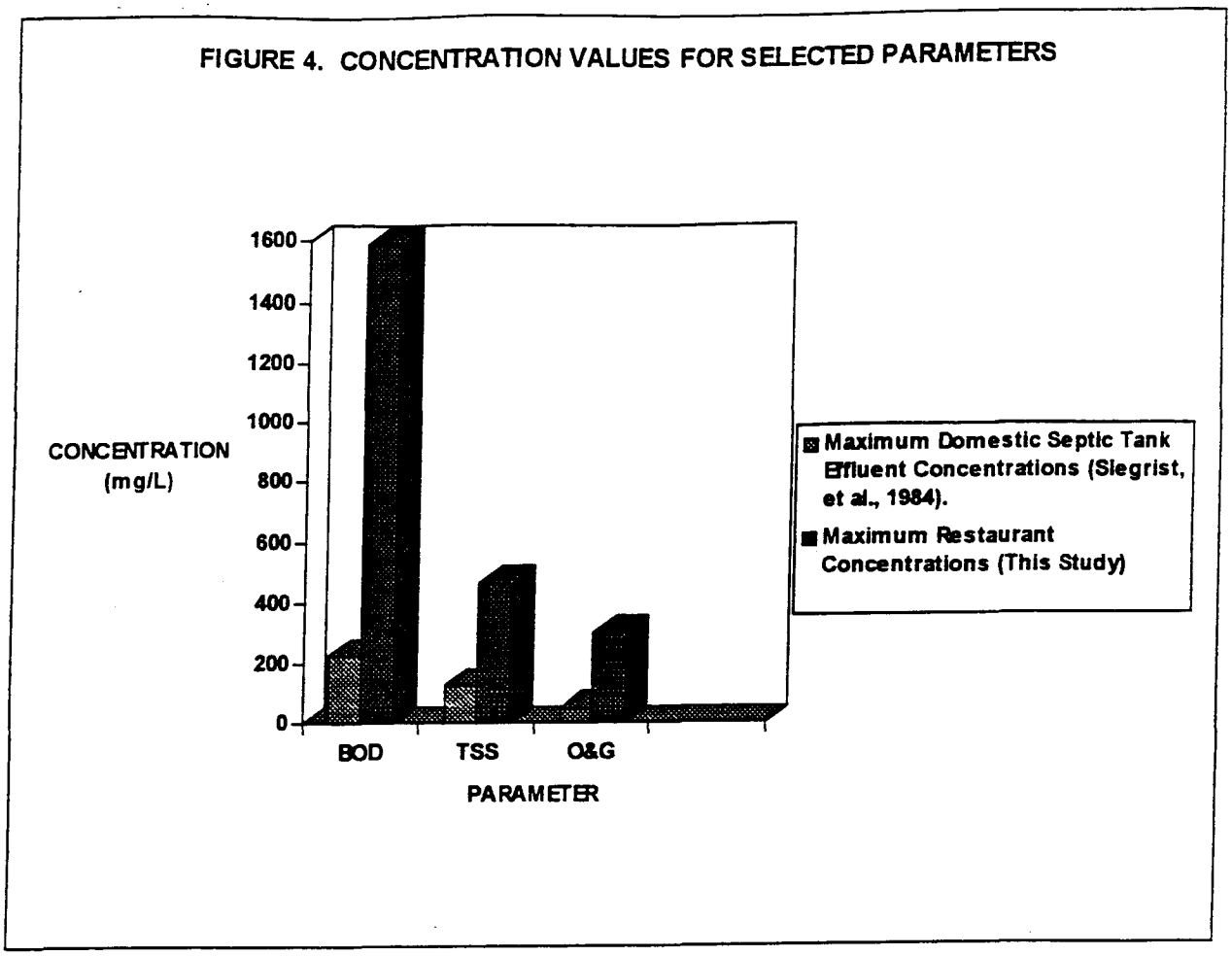

Table 4. Nibbler System Results

	Oils & Greases (mg/L)	BOD (mg/L)	TSS (mg/L)
RAW - Untreated	19250	1325	23650
FINAL - Treated	12.33	103	46
Percent Removal	99.94	92.22	99.81

Table 5. Soil Evaluation Results

Rest. No.	USDA Soil Series	Soil Profile	Notes
1	Lake	Fine Sand	
2	Candler	Fine Sand	
3	Tavares	Fine Sand	
4	Ft. Meade	Fine Sand	
5	Unknown	Fine Sand	
6	Pelham	Fine Sand - S.Clay Loam	
7	SIM------> Millhopper	Fine Sand - S. Clay Loam	System unnecessarily mounded
8	*		
9	*		
10	SIM ---> Zolfo	Fine Sand	Does not meet 24'' requirement
11	Candler	Fine Sand	Lamellae
12	SIM---> Cassia	Fine Sand	Does not meet 24'' requirement
13	Candler	Fine Sand	Lamellae >55''
14	Arredondo	Fine Sand - S. Clay Loam	
15	Millhopper	Fine Sand - Loamy Sand- S. Clay Loam	
16	Lake	Fine Sand - Loamy Sand	System Currently Failing
17	*		
18	*		
19	SIM--> Candler	Fine Sand	

* System could not be sampled

Table 6. GC/MS Key

GC/MS Scan Number	Restaurant Number	Type of Scan
1	-	Blank
3	14	Base Neutral
4	16	Base Neutral
5	-	Blank
6	13	Base Neutral
9	18	Base Neutral
10	17	Base Neutral
11	13	Matrix Spike
12	13	Matrix Spike Dupe
14	17	Acid Extractables
15	13	Acid Extractables Matrix Spike
16	13	Acid Extractables Matrix Spike Dupe

Appendices

APPENDIX A - FOOD SERVICE ESTABLISHMENTS CONTACTED

Company	Address	City	#	Postal Code	# of Seat s	Telephone #
China Dragon	14212 NW 154 Ave.	Alachua	1	32615	46	
B J's Post Time Cafe	9475 NE Jacksonville Rd	Anthony	1	32617	40	629-2765
Casey's Cafe	US 41	Archer	1	32618	100	
Market of Marion	12888 SE US 441	Belleview	1	34420	80	245-6766
Mason Jar Restaurant	11685 S US HWY 441	Belleview	1	34420	49	347-6064
A & A BBQ	S US Alt 27	Bronson	1	32621	17	
Cambell Seafood	W HWY 24 1M	Bronson	1	32621	35	
Italian Village	760 E Hathaway St	Bronson	1	32621	16	
Rose's Restaurant	745 E Hathaway Ave	Bronson	1	32621	60	
Grandma Pams	17575 S US HWY 301	Citra	1	32113	26	
K's Italian Rest & Bakery	18215 N US HWY 301	Citra	1	32113	28	595-7152
Ma's Kitchen	US HWY 301 1 M	Citra	1	32113	50	595-2913
Rainbow End Golf & Country Club	20650 SW 80 Place Rd	Dunnellon	1	34430	25	489-4566
Stumpknockers On The River	13821 SW SR 200	Dunnellon	1	34430	80	
Buddy's Restaurant	SR 200 A	Earleton Bch	1	32631	100	468-2394
Gold Skillet Restaurant	13969 E HWY 316	Ft McCoy	1	32134	42	236-3319
The Other Place	13131 E HWY 316	Ft McCoy	1	32134	76	237-7792
Great Outdoors Cafe	85 N Main St.	High Springs	1	32643	50	
Joy's Country Kitchen	625 Santa FL Blvd	High Springs	1	32643	60	
Parkside Restaurant	615 Santa FL Blvd	High Springs	1	32643	39	
Pat's Corner Cafe	315 NW Santa FL Blvd	High Springs	1	32643	36	
December's Fine Food	US 19	Inglis	1	34449	75	447-3451
Dino's Restaurant	26 S US 19	Inglis	1	34449	60	447-3300
Nancy's Grill	491 E US HWY 40	Inglis	1	34449	16	447-4756
Port Inglis Restaurant	US 19	Inglis	1	34449	84	447-2467
Riverland Cafe	14 HWY 19	Inglis	1	34449	32	447-4230
The Cottage Cafe	22050 N US HWY 441	McIntosh	1	32664	50	591-3111
Harley's Smokehouse	5910 Hampton St.	Melrose	1	32666	65	475-5886
Silver Spur Supper Club	22822 N HWY 441	Micanopy	1	32667	60	
Wild FLowers Cafe	201 US HWY 441	Micanpy	1	32667	136	
Alvey's Restaurant	2901 NE Jax Rr	Ocala	1	34471	50	351-0800
Baseline Golf Coarse	8600 SE 58 Ave	Ocala	1	34471	35	245-4414
Big Rascal BBQ	3437 NW Blitchton RD	Ocala	1	34475	120	732-0344
Big Rascals BBQ II	3750 S Pine Ave	Ocala	1	34471	150	368-6626
C & S Rainbow Rest	4742 N Old Gainesville Rd	Ocala	1	34475	30	
Family Affair Rest	3452 NE Old Jax Rd 301 Plaza	Ocala	1	34470	43	629-1771
Jungle Garden	4201 NE Jacksonville Rd	Ocala	1	34479	159	
Labellas Ital Piatto & Pizzeri	3909 SE Lake Weir Ave	Ocala	1	34480	28	620-8820
Mary Lous	2507 NE Jacksonville Rd	Ocala	1	34470	25	
Pegasus Airport Restaurant	1200 SW 60 Ave	Ocala	1	34474	45	237-2161
Rocky's Italian Rest	4279 W HWY 40	Ocala	1	34475	40	622-7400
Shootze's Diner	10387 NW HWY 27	Ocala	1	34475	40	
Wings N Curls	4185 W HWY 40	Ocala	1	34475	102	867-1515
Woods BarBar & Restaurant	18615 SE 115 St	Ocklawaha	1	32179	50	288-4144
Alfies	11677 SE County Highway 25	Oklawaha	1	32179	50	
Club Calabash	12473 SE 135 Ave	Oklawaha	1	32179	90	
Ma Barkers Hide A Way	HWY C 25	Oklawaha	1	32179	45	288-1600
Rumpy's Restaurant	CR-25	Oklawaha	1	32179	40	
The Dam Diner	9748 SE HWY 464-C	Oklawaha	1	32179	29	288-8332
Orange Lake Rest & Pizzeria	18501 W HWY 441	Orange Lake	1	32681	60	591-2280
Renee's Restaurant	12991 NE 245 ST Rd	Orange Springs	1	32182	30	546-2777
B&B Salt Springs Seafood Rest	23626 NE HWY 314	Salt Springs	1	32134	90	
Cactus Jacks	23740 E HWY 314	Salt Springs	1	32134	100	685-2244
Leanor's Restaurant	14100 HWY 19	Salt Springs	1	32134	62	685-0527
Square Meal	HWY 19 & 316	Salt Springs	1	32134	36	685-2288
German Kitchen	5340 E Silver Springs Blvd	Silver Springs	1	34488	41	236-3055
Larocco's III	5545 E Silver Spgs Blvd	Silver Springs	1	34488	99	236-5900
Lena's Seafood	18478 E HWY 40 10 M	Silver Springs	1	34488	49	625-6489
Mama G's Restaurant	16275 E HWY 40	Silver Springs	1	34488	74	625-1866

Company	Address	City	#	Postal Code	# of Seats	Telephone #
Springside Cafe	5656 NE Silver Springs Blvd	Silver Springs	1	34488	25	
Anchor Inn	10135 SE 100 Ave	Summerfield	1	34491	60	288-8665
Sand Trap Grille	11560 SW 176 Pl Rd	Summerfield	1	34491	90	245-1101
Eaton's Beach	15790 SE 134 Ave	Weirsdale	1	32195	35	821-3565
Shamrock Thistle & Crown	16400 SE 130 Ave	Weirsdale	1	32195	20	821-1887
Dallas Inn	S US 301 2 M	Summerfield	2	34491	60	245-5002
Clubroom at West End	W Hwy 26 31/2M of I-75	Gainesville	2	32604	54	
Scottish Inn Restaurant	I-75 & HWY 234	Micanopy	2	32667	64	
Waffle House #368	3860 NW Blitchton Rd	Ocala	2	34470	50	732-6811
Waffle House #422	3921 W Broadway	Ocala	2	34470	50	
Bob's Subs	9520 NE Jacksonville Rd	Anthony	3	32617	16	732-2274
Calaste Famous Spaghetti	12180 S US 441	Belleview	3	34420	90	
Gregs Old Fashion Sandwich Shop	US 441	High Springs	3	32643	24	
Lord Munchies	HWY 41	High Springs	3	32643	28	
Betty's Pizza & Subs	5918 Center St.	Melrose	3	32666	17	
E T's Pizza	3541 NE Jacksonville Rd	Ocala	3	34470	60	629-6775
Luigi Pizzeria	4627 N US 441	Ocala	3	34470	43	629-2990
Minucci's Subs	2502 NE Jax Rd #103	Ocala	3	34470	15	629-8960
Racks BBQ	13280 N HWY 19	FtMcoy	3	32134	16	685-0442
Billy Bowlegs Chicken	5656 NE Silver Springs Blvd	Silver Springs	3	34488	25	236-2121
Dairy Queen	5240 E Silver Springs Blvd	Silver Springs	3	34488	48	236-4747
Pizza Palace WW	5656 NE Silver Springs Blvd	Silver Springs	3	34488	25	236-2121
Rogers B B Q	HWY 40 & 314	Silver Springs	3	34488	78	625-2020
S S Ice Cream Parlor	5656 NE Silver Springs Blvd	Silver Springs	3	34488	25	236-2121
Blue Heron Cove B B Q	E HWY 42 5 M	Weirsdale	3	32195	24	821-3701
Hardees	10 NW Santa FL Blvd	High Springs	4	32643	92	
Hardees	6980 NE Jax Rd	Ocala	4	34470	68	620-0650
McDonalds Restaurant	8240 SW Sr 200	Ocala	4	34476	115	854-4005
Hardee's	15949 E HWY 40	Silver Springs	4	34488	100	625-4511
Susie's Tavern	8921 SE CR C 25	Belleview	5	34420	115	347-7340
Bronson Heights Rest & Tavern	S US Alt 27 2M	Bronson	5	32621	50	
Woodland Acres Bar	S HWY 337 12 M	Bronson	5	32621	25	
Old Mill Lounge	SR 40 9 M E	dunnelon	5	34449	28	489-2555
Our Pub	W HWY 40 1 M	Inglis	5	34449	50	447-2406
Squirl Lin's Saloon	48 N HWY 19	Inglis	5	34449	50	447-4051
Rosie's	HWY 26 & 241 N	Jonesville	5	32669	51	
Dnady Pub	12210 N US HWY 27	Ocala	5	34482	60	
Mr Pub	9360 S HWY 441 #12	Ocala	5	34471	80	245-3330
Nico's Bar & Grill	5314 S Maricamp Rd	Ocala	5	34471	36	624-0057
SJ's Liquors & Lounge	2220 SW 135 St STE B	Ocala	5	34473	56	
One More Saloon	6485 S HWY 314-A	Oklawaha	5	32679	58	625-4022
Backporch Lounge	5051 191 Pl	Orange Lake	5	32681	56	
Back 40 Lounge	15949 E HWY 40	Silver Springs	5	34488	50	
County Line Bar	S CR 25 IM	Weirsdale	5	32195	150	
Jungle Junction	5656 E Sr 40	Silver Springs	6	34488		236-2121
Springs Restaurant	5300 E Silver Springs Blvd	Silver Springs	6	34488		236-5454
W W Surfs Up Cafe	5656 NE Silver Springs Blvd	Silver Springs	6	34488		236-2121
Julies Hot Dog	12200 W HWY 27	Blitchton	6	32675		
Brend's Pizza Plus	140 N Main St.	High Springs	6	32643	15	
BJ's Pizza	9020 SW 27 Ave	Ocala	6	34476		237-3387
Country Delight Eatery	4111 N 100 St	Ocala	6	34482		629-7522
Dave's B B Q	6191 S Pine Ave	Ocala	6	34471		
Elegant Edibles By Janice	1817 NW 58 Lane	Ocala	6	34475		620-8001
Hungry Howies Pizza & Subs #2	3380 SE Lake Weir Rd	Ocala	6	34471		351-1004
Lees Texas Style BBQ	13572 NW HWY 27	Ocala	6	34470		
Poole's B B Q	13572 NW HWY 27	Ocala	6	34470		
Roberto's Place	2699 NE 35 St	Ocala	6	34479		351-3334
Blue Ribbon Pizza	12909 SE HWY C 25	Oklawaha	6	32179		288-8700
Sandy's Drive Inn B B Q	N US 441 1M	McIntosh	7	32664		591-4255

Company	Address	City	#	Postal Code	# of Seats	Telephone #
Dairy Queen	I 75 & HWY 326	Ocala	7	34471		629-3417
Juicy Lucys Drive Thru	101 SW 60 Ave	Ocala	7	34474	32	873-2660
Florida State Fire College	11655 NW Gainesville Rd	Ocala	8	34482	92	732-1330
Custom Caters	9300 NW 230 St	Micanopy	9	32667		
PJ's Catering	3650 NE 25 ST #2	Ocala	9	34470		622-6994
S & D Catering	9520 NE Jacksonville Rd #B	Ocala	9	32617		
S&D Catering	9520 NE Jacksonville Rd B	Ocala	9	34475		
M of M Con#E	"	"	11	"		245-6766
M of M Con#D	"	"	11	"		245-6766
M of M Con#C	12888 SE US HWY 441	Belleview	11	34420		245-6766
M of M Con#F	12888 SE US HWY 441	Belleview	11	34420		245-6766
Market Of Marion Conc #H	12888 SE US HWY 441	Belleview	11	34421		245-6766
Bronson Motor Speedway	E HWY 24 2M	Bronson	11	32621		
Diamond Sports Park	4000 SW 122 St	Gainesville	11	32608		
Pot O' Gold Gift Shoppe	30 N Main St	High Springs	11	32643	8	
T&J Concessions	615 NE Santa FL Blvd	High Springs	11	32643		
Big Sun Concessions	2901 NE Jacksonville Rd	Ocala	11	34471		
General East	9050 NW Gainesville Rd	Ocala	11	34476		
Jody's Ocala Livestock Market	9100 NW Cr 25A	Ocala	11	34475	28	732-4454
Ocala Drive In Theater	4850 S Pine Ave	Ocala	11	34471		629-1325
Ocala Drive In Theater #2	4850 S Pine Ave	Ocala	11	34471		629-1325
Ocala Drive In Theater #3	4850 S Pine Ave	Ocala	11	34471		629-1325
Pits West	9050 NW Gainesville Rd	Ocala	11	34476		
Skate Mania	5499 SE Maricamp Rd	Ocala	11	34472	60	624-4222
Sunset Mobile Foods	5201 S Pine Ave	Ocala	11	34472		
KC Vendor	6300 NW CR 318	Orange Lake	11	32681		
Juniper Springs Snack BAr	26701 E Highway 40	Silver Springs	11	34488		625-3147
Columbia Livestock Market Cafe	S US HWY 41 5 M	Lake City	1	32055	30	755-2300
Domino's Pizza	1167 W HWY 90	Lake City	6	32055		758-3130
El Potro	4290 W US HWY 90	Lake City	1	32055	155	758-3100
J J's Place	N HWY 441	Lake City	6	32055		
Little Ceasars Pizza	I-75 & SR 47	Lake City	3	32024	24	755-1060
McCray's BBQ Pit	Hi Hat Road	Lake City	1	32056	104	752-2135
N Fl Farmers Livestock MKT	I-75 & US 41	Lake City	1	32055	50	755-3576
Quail Heigat C C Snack Bar	HWY 247	Lake City	11	32055	200	752-3339
Robert's Dock	HWY 90 E	Lake City	1	32055	110	752-7504
South Ridge Raceway	N 441 & CR 133 A	Lake City	11	32055		758-8113
Skate Palace	Hall of Fame Dr 90 W	Lake City	11	32055	64	755-2232
Tom's Sea Cruise	HWY 41 & C-252	Lake City	1	32055	310	752-2864

Appendix B - Food Service Categories

1. Restaurants operating less than 16 hrs per day
2. Restaurants operating more than 16 hrs per day
3. Single service restaurants operating less than 16 hrs per day
4. Single service restaurants operating more than 16 hrs per day
5. Bars and Cocktail lounges
6. Carry - out restaurants
7. Drive - in
8. Institutional Food Services
9. Food Outlets
10. Bakeries
11. Convenience Stores

Appendix C
Contact Letter

UNIVERSITY OF
FLORIDA

College of Engineering
Department of Civil Engineering

345 Weil Hall
Gainesville, FL 32611
Department Chairman: (904) 392-9537
Student Records: (904) 392-0933

Blue Heron Cove B-B-Q
E HWY 425 M
Weirsdale, FL 32195

Dear Manager:

Greetings from Gator Country. The University of Florida's Department of Environmental Engineering Sciences and the Dept. of Civil Engineering are conducting a small scale research project on septic tank and drainfield designs. As part of the research we need to determine the typical types of effluent being produced. Hence we have randomly selected 44 establishments to sample, and your business was one of those chosen.

We would like permission to install a small tap on your septic tank so that we can sample it several times over the next 3 months. After that it will be removed. The tap will not interfere in either the aesthetics nor your operation in any way.

Since your establishment was chosen at random, it is important that we stress the importance of maintaining anonymity. Thus, all references and facets of the project will be completely devoid of any mention of you. The name of your business, the results of the samples and any inferences made from the tests will be strictly confidential and will in no way be used for other than statistical purposes. This project has been endorsed by both the Florida Restaurant Association and the Florida Septic Tank Association.

We will be calling you shortly to confirm your permission to proceed. If you need additional information, please do not hesitate to contact either myself, Dave Bloomquist (392-0914) or Charlie Schmidt (392-6223). Thank you for your consideration.

Sincerely,

Dave Bloomquist Ph.D., PE
Associate Professor

Equal Opportunity/Affirmative Action Institution

Appendix D. Flow Rate Data

Restaurant No		First Reading	Second Reading	Flow Rate (gal/day)
1		Jan 10, '96: 1843890 gal	Jul. 20, '96: 2081640 gal	1238
2		Feb 10,'96: 412601 gal	May 4,'96: 427840 gal	181
3		Feb 10,'96: 669230 gal	May 19,'96 692030 gal	230
4	*	-	May 19,'96: 05117730 gal	
5	*	-	May 4,'96: 0861090 gal	
6	**	Feb 10,'96: 258897 gal	May 4, '96: 275796 gal	201
7		-	May 4, '96: 143225 gal	
8		Mar 6,'96: 9998090 gal	May 19, '96: 0278660 gal	3791
9	*	Feb 10, '96: 116418 gal	-	
10		Mar 6, '96: 5528.12 gal	July 13,'96: 5702.64	1.35
11		Mar 6, '96: 1113 gal	May 19, '96: 20050 gal	256
12	*	Mar 6, '96: 465870 gal	-	
13	*	Apr 5, '96: 387249 gal	-	
14		Apr 5, '96: 159171 gal	July 7,'96: 167587 gal	90.5
15		Apr 5, '96 61150 gal	July 7, '96: 67954 gal	73.2
16		May 1, '96: 114652 gal	-	
17	***	May 1, '96: 5989660 gal		
18	***	May 1, '96; 280683 gal		
19	*	-	-	

* Could not gain access to water meter on the date sample was taken - reading will taken on subsequent sampling trip

** Reading includes restaurant plus four homes

*** Follow up - sampling yet to be completed - water meter reading will be taken at that time

Appendix E
Statistical Evaluation

c

```
data cbod1;
  input category cbod_no1 @@;
cards;
4 588 11 519 3 519 4 663 4 669 1 699 3 623 3 1590
11 345 3 345 9 681 10 681 5 516 3 606
;
proc print data=cbod1;
run;
proc anova data=cbod1;
  class category;
  model cbod_no1 = category;
  means category/duncan;
run;

data bod1;
  input category bod_no1 @@;
cards;
4 103 3 1020 7 1020 11 278 3 278 3 510 1 600 11 525
3 525 4 843 11 693 3 693 4 588 1 1068 3 465 3 1140
11 780 3 780 9 1140 10 1140 5 501 3 891 9 270 10 270
;
proc print data=bod1;
run;
proc anova data=bod1;
  class category;
  model bod_no1 = category;
  means category/duncan;
run;

data cbod2;
  input category cbod_no2 @@;
cards;
3 1440 7 2466 11 223 3 223 3 555 1 780 11 392 3 392
4 587 11 163 3 163 4 572 9 390 10 390
;
proc print data=cbod2;
run;
proc anova data=cbod2;
  class category;
  model cbod_no2 = category;
  means category/duncan;
run;

data bod2;
  input category bod_no2 @@;
cards;
3 1095 7 2820 11 228 3 228 3 510 1 615 11 420 3 420
4 720 11 162 3 162 4 720 9 335 10 335
;
proc print data=bod2;
run;
proc anova data=bod2;
  class category;
  model bod_no2 = category;
  means category/duncan;
run;

data oil1;
  input category oil_no1 @@;
cards;
4 12.3 3 23.7 7 30.3 11 52.6 3 52.6 3 20.6 1 160 11 5 3 5
4 300 11 5 3 5 4 50 4 50 1 10 3 13.6 3 101 9 40.8 10 40.8
5 23.6 3 122 9 115 10 115
;
proc print data=oil1;
run;
proc anova data=oil1;
  class category;
  model oil_no1 = category;
  means category/duncan;
run;

data oil2;
  input category oil_no2 @@;
cards;
3 25.8 7 125 11 21 3 21 3 31.4 1 79.4 11 12.1 3 12.1 4 91
11 9 3 9 4 40 9 34 10 34
;
proc print data=oil2;
run;
proc anova data=oil2;
  class category;
  model oil_no2 = category;
  means category/duncan;
run;

data tss1;
  input category tss_no1 @@;
cards;
4 46 3 237 7 264 11 26 3 26 3 60 1 220 11 60 3 60 4 72
11 42 3 42 4 190 4 46 1 247 3 150 3 465 11 4775 3 4775
9 127 10 127 5 52 3 44.7 9 413 10 413
;
proc print data=tss1;
run;
proc anova data=tss1;
  class category;
  model tss_no1 = category;
  means category/duncan;
run;

data tss2;
  input category tss_no2 @@;
cards;
3 187 7 644 11 58 3 58 3 87 1 210 11 12 3 12 4 105 4 66.7 9 40 10 10
;
proc print data=tss2;
run;
proc anova data=tss2;
  class category;
  model tss_no2 = category;
  means category/duncan;
run;
```

OBS	CATEGORY	CBOD_NO1
1	4	588
2	11	519
3	3	519
4	4	663
5	4	669
6	1	699
7	3	623
8	3	1590
9	11	345
10	3	345
11	9	681
12	10	681
13	5	516
14	3	606

Analysis of Variance Procedure
Class Level Information

Class	Levels	Values
CATEGORY	7	1 3 4 5 9 10 11

Number of observations in data set = 14

Analysis of Variance Procedure

Dependent Variable: CBOD_NO1

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	154900.80	25816.80	0.18	0.9718
Error	7	978165.20	139737.89		
Corrected Total	13	1133066.00			

R-Square	C.V.	Root MSE	CBOD_NO1 Mean
0.136709	57.86615	373.82	646.00

Source	DF	Anova SS	Mean Square	F Value	Pr > F
CATEGORY	6	154900.80	25816.80	0.18	0.9718

Analysis of Variance Procedure

Duncan's Multiple Range Test for variable: CBOD_NO1

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

Alpha= 0.05 df= 7 MSE= 139737.9
WARNING: Cell sizes are not equal.
Harmonic Mean of cell sizes= 1.390728

Number of Means	2	3	4	5	6	7
Critical Range	1060	1102	1125	1137	1144	1148

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	CATEGORY
A	736.6	5	3
A			
A	699.0	1	1
A			
A	681.0	1	9
A			
A	681.0	1	10
A			
A	640.0	3	4
A			
A	516.0	1	5
A			
A	432.0	2	11

OBS	CATEGORY	BOD_NO1
1	4	103
2	3	1020
3	7	1020
4	11	278
5	3	278
6	3	510
7	1	600
8	11	525
9	3	525
10	4	843
11	11	693
12	3	693
13	4	588
14	1	1068
15	3	465
16	3	1140
17	11	780
18	3	780
19	9	1140
20	10	1140
21	5	501
22	3	891
23	9	270
24	10	270

Analysis of Variance Procedure
Class Level Information

Class	Levels	Values
CATEGORY	8	1 3 4 5 7 9 10 11

Number of observations in data set = 24

Analysis of Variance Procedure

Dependent Variable: BOD_NO1

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	334232.74	47747.53	0.39	0.8917
Error	16	1934506.22	120906.64		
Corrected Total	23	2268738.96			

R-Square	C.V.	Root MSE	BOD_NO1 Mean
0.147321	51.76597	347.72	671.71

Source	DF	Anova SS	Mean Square	F Value	Pr > F
CATEGORY	7	334232.74	47747.53	0.39	0.8917

Analysis of Variance Procedure

Duncan's Multiple Range Test for variable: BOD_NO1

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

Alpha= 0.05 df= 16 MSE= 120906.6
WARNING: Cell sizes are not equal.
Harmonic Mean of cell sizes= 1.907285

Number of Means	2	3	4	5	6	7	8
Critical Range	754.8	791.5	814.5	830.2	841.6	850.1	856.5

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	CATEGORY
A	1020.0	1	7
A			
A	834.0	2	1
A			
A	705.0	2	9
A			
A	705.0	2	10
A			
A	700.2	9	3
A			
A	569.0	4	11
A			
A	511.3	3	4
A			
A	501.0	1	5

OBS	CATEGORY	CBOD_NO2
1	3	1440
2	7	2466
3	11	223
4	3	223
5	3	555
6	1	780
7	11	392
8	3	392
9	4	587
10	11	163
11	3	163
12	4	572
13	9	390
14	10	390

Analysis of Variance Procedure
Class Level Information

Class	Levels	Values
CATEGORY	7	1 3 4 7 9 10 11

Number of observations in data set = 14

Analysis of Variance Procedure

Dependent Variable: CBOD_NO2

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	3953799.6	658966.6	4.19	0.0414
Error	7	1101994.4	157427.8		
Corrected Total	13	5055794.0			

R-Square	C.V.	Root MSE	CBOD_NO2 Mean
0.782033	63.58521	396.77	624.00

Source	DF	Anova SS	Mean Square	F Value	Pr > F
CATEGORY	6	3953799.6	658966.6	4.19	0.0414

Analysis of Variance Procedure

Duncan's Multiple Range Test for variable: CBOD_NO2

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

Alpha= 0.05 df= 7 MSE= 157427.8
WARNING: Cell sizes are not equal.
Harmonic Mean of cell sizes= 1.390728

Number of Means	2	3	4	5	6	7
Critical Range	1125	1170	1194	1207	1215	1219

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	CATEGORY
A	2466.0	1	7
B	780.0	1	1
B			
B	579.5	2	4
B			
B	554.6	5	3
B			
B	390.0	1	9
B			
B	390.0	1	10
B			
B	259.3	3	11

OBS	CATEGORY	BOD_NO2
1	3	1095
2	7	2820
3	11	228
4	3	228
5	3	510
6	1	615
7	11	420
8	3	420
9	4	720
10	11	162
11	3	162
12	4	720
13	9	335
14	10	335

Analysis of Variance Procedure
Class Level Information

Class	Levels	Values
CATEGORY	7	1 3 4 7 9 10 11

Number of observations in data set = 14

Analysis of Variance Procedure

Dependent Variable: BOD_NO2

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	5483241.4	913873.6	10.97	0.0029
Error	7	583236.0	83319.4		
Corrected Total	13	6066477.4			

R-Square	C.V.	Root MSE	BOD_NO2 Mean
0.903859	46.07884	288.65	626.43

Source	DF	Anova SS	Mean Square	F Value	Pr > F
CATEGORY	6	5483241.4	913873.6	10.97	0.0029

Analysis of Variance Procedure

Duncan's Multiple Range Test for variable: BOD_NO2

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

Alpha= 0.05 df= 7 MSE= 83319.43
WARNING: Cell sizes are not equal.
Harmonic Mean of cell sizes= 1.390728

Number of Means	2	3	4	5	6	7
Critical Range	818.5	851.1	868.5	878.3	883.7	886.5

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	CATEGORY
A	2820.0	1	7
B	720.0	2	4
B			
B	615.0	1	1
B			
B	483.0	5	3
B			
B	335.0	1	9
B			
B	335.0	1	10
B			
B	270.0	3	11

OBS	CATEGORY	OIL_NO1
1	4	12.3
2	3	23.7
3	7	30.3
4	11	52.6
5	3	52.6
6	3	20.6
7	1	160.0
8	11	5.0
9	3	5.0
10	4	300.0
11	11	5.0
12	3	5.0
13	4	50.0
14	4	50.0
15	1	10.0
16	3	13.6
17	3	101.0
18	9	40.8
19	10	40.8
20	5	23.6
21	3	122.0
22	9	115.0
23	10	115.0

Analysis of Variance Procedure
Class Level Information

Class	Levels	Values
CATEGORY	8	1 3 4 5 7 9 10 11

Number of observations in data set = 23

Analysis of Variance Procedure

Dependent Variable: OIL_NO1

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	19054.179	2722.026	0.48	0.8352
Error	15	85243.353	5682.890		
Corrected Total	22	104297.532			

R-Square	C.V.	Root MSE	OIL_NO1 Mean
0.182691	128.0637	75.385	58.865

Source	DF	Anova SS	Mean Square	F Value	Pr > F
CATEGORY	7	19054.179	2722.026	0.48	0.8352

Analysis of Variance Procedure

Duncan's Multiple Range Test for variable: OIL_NO1

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

Alpha= 0.05 df= 15 MSE= 5682.89
WARNING: Cell sizes are not equal.
Harmonic Mean of cell sizes= 1.90099

Number of Means	2	3	4	5	6	7	8
Critical Range	164.8	172.8	177.7	181.1	183.5	185.3	186.6

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	CATEGORY
A	103.08	4	4
A			
A	85.00	2	1
A			
A	77.90	2	9
A			
A	77.90	2	10
A			
A	42.94	8	3
A			
A	30.30	1	7
A			
A	23.60	1	5
A			
A	20.87	3	11

OBS	CATEGORY	OIL_NO2
1	3	25.8
2	7	125.0
3	11	21.0
4	3	21.0
5	3	31.4
6	1	79.4
7	11	12.1
8	3	12.1
9	4	91.0
10	11	9.0
11	3	9.0
12	4	40.0
13	9	34.0
14	10	34.0

Analysis of Variance Procedure
Class Level Information

Class	Levels	Values
CATEGORY	7	1 3 4 7 9 10 11

Number of observations in data set = 14

Analysis of Variance Procedure

Dependent Variable: OIL_NO2

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	14184.258	2364.043	9.59	0.0044
Error	7	1726.019	246.574		
Corrected Total	13	15910.277			

R-Square	C.V.	Root MSE	OIL_NO2 Mean
0.891515	40.35196	15.703	38.914

Source	DF	Anova SS	Mean Square	F Value	Pr > F
CATEGORY	6	14184.258	2364.043	9.59	0.0044

Analysis of Variance Procedure

Duncan's Multiple Range Test for variable: OIL_NO2

NOTE: This test controls the type I comparisonwise error rate,
not the experimentwise error rate

Alpha= 0.05 df= 7 MSE= 246.5741
WARNING: Cell sizes are not equal.
Harmonic Mean of cell sizes= 1.390728

Number of Means	2	3	4	5	6	7
Critical Range	44.52	46.30	47.25	47.78	48.08	48.22

Means with the same letter are not significantly different.

Duncan Grouping				Mean	N	CATEGORY
	A			125.00	1	7
	B			79.40	1	1
	B					
C	B			65.50	2	4
C	B					
C	B	D		34.00	1	10
C	B	D				
C	B	D		34.00	1	9
C		D				
C		D		19.86	5	3
		D				
		D		14.03	3	11

OBS	CATEGORY	TSS_H01
1	4	46.0
2	3	237.0
3	7	264.0
4	11	26.0
5	3	26.0
6	3	60.0
7	1	220.0
8	11	60.0
9	3	60.0
10	4	72.0
11	11	42.0
12	3	42.0
13	4	190.0
14	4	46.0
15	1	247.0
16	3	150.0
17	3	465.0
18	11	4775.0
19	3	4775.0
20	9	127.0
21	10	127.0
22	5	52.0
23	3	44.7
24	9	413.0
25	10	413.0

Analysis of Variance Procedure
Class Level Information

Class	Levels	Values
CATEGORY	8	1 3 4 5 7 9 10 11

Number of observations in data set = 25

Analysis of Variance Procedure

Dependent Variable: TSS_NO1

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	3590441.7	512920.2	0.24	0.9685
Error	17	36185196.9	2128541.0		
Corrected Total	24	39775638.6			

R-Square	C.V.	Root MSE	TSS_NO1 Mean
0.090267	281.0065	1459.0	519.19

Source	DF	Anova SS	Mean Square	F Value	Pr > F
CATEGORY	7	3590441.7	512920.2	0.24	0.9685

Analysis of Variance Procedure

Duncan's Multiple Range Test for variable: TSS_NO1

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

Alpha= 0.05 df= 17 MSE= 2128541
WARNING: Cell sizes are not equal.
Harmonic Mean of cell sizes= 1.945946

Number of Means	2	3	4	5	6	7	8
Critical Range	3121	3273	3369	3435	3484	3520	3547

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	CATEGORY
A	1226	4	11
A			
A	651	9	3
A			
A	270	2	10
A			
A	270	2	9
A			
A	264	1	7
A			
A	234	2	1
A			
A	89	4	4
A			
A	52	1	5

OBS	CATEGORY	TSS_NO2
1	3	187.0
2	7	644.0
3	11	58.0
4	3	58.0
5	3	87.0
6	1	210.0
7	11	12.0
8	3	12.0
9	4	105.0
10	4	66.7
11	9	40.0
12	10	40.0

Analysis of Variance Procedure
Class Level Information

Class	Levels	Values
CATEGORY	7	1 3 4 7 9 10 11

Number of observations in data set = 12

Analysis of Variance Procedure

Dependent Variable: TSS_NO2

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	316353.10	52725.52	14.44	0.0051
Error	5	18253.45	3650.69		
Corrected Total	11	334606.55			

R-Square	C.V.	Root MSE	TSS_NO2 Mean
0.945448	47.71015	60.421	126.64

Source	DF	Anova SS	Mean Square	F Value	Pr > F
CATEGORY	6	316353.10	52725.52	14.44	0.0051

Analysis of Variance Procedure

Duncan's Multiple Range Test for variable: TSS_NO2

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

Alpha= 0.05 df= 5 MSE= 3650.689
WARNING: Cell sizes are not equal.
Harmonic Mean of cell sizes= 1.333333

Number of Means	2	3	4	5	6	7
Critical Range	190.2	196.1	198.7	199.6	199.6	199.1

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	CATEGORY
A	644.00	1	7
B	210.00	1	1
B			
B	86.00	4	3
B			
B	85.85	2	4
B			
B	40.00	1	9
B			
B	40.00	1	10
B			
B	35.00	2	11

```
* 7/31/1996;
* For Chris Waters(w:392-6223), Dr. Bloomquist(392-0914 Civil Engineering);

/* Sample size determination: one-way ANOVA, Fixed effects model */


*** t=8 ***;

*********** alpha=0.05, power=0.9 **************;

data power;
  alpha=0.05;
  power=0.90;
  detect=0.5;
  lambdap=0.25;
  t=8;
  df1=t-1;
  n=1;
  apower=0;
  cv=20.0;
  do while (apower<power);
    n=n+1;
    df2=t*(n-1);
    lambda=n*lambdap;
    p=1.0-probf(cv,df1,df2);
    do until (p>alpha);
      cv=cv-0.001;
      p=1-probf(cv,df1,df2);
    end;
    cv=cv+0.001;
    apower=1.0-probf(cv,df1,df2,lambda);
  end;
```

total number of categories = 8 1
12:54 Thursday, August 1, 1996

OBS	DETECT	LAMBDA	ALPHA	POWER	CV	N	APOWER
1	0.5	14.75	0.05	0.8	2.03	59	0.80563
1	0.75	15.12	0.05	0.8	2.054	27	0.80872
1	1	16	0.05	0.8	2.087	16	0.82350
1	1.5	18	0.05	0.8	2.179	8	0.84661
1	2	20	0.05	0.8	2.313	5	0.85368
1	0.5	18.75	0.05	0.9	2.026	75	0.90432
1	0.75	19.04	0.05	0.9	2.045	34	0.90461
1	1	20	0.05	0.9	2.071	20	0.91420
1	1.5	22.5	0.05	0.9	2.14	10	0.93375
1	2	24	0.05	0.9	2.25	6	0.93078
1	0.5	24.75	0.01	0.9	2.663	99	0.90354
1	0.75	25.2	0.01	0.9	2.691	45	0.90499
1	1	26	0.01	0.9	2.73	26	0.90944
1	1.5	27	0.01	0.9	2.85	12	0.90145
1	2	32	0.01	0.9	2.977	8	0.93968
1	0.5	15.75	0.1	0.9	1.729	63	0.90290
1	0.75	16.24	0.1	0.9	1.744	29	0.90767
1	1	17	0.1	0.9	1.765	17	0.91504
1	1.5	18	0.1	0.9	1.827	8	0.91480
1	2	20	0.1	0.9	1.914	5	0.92274
1	0.5	29.5	0.05	0.99	2.02	118	0.99006
1	0.75	30.24	0.05	0.99	2.032	54	0.99106
1	1	31	0.05	0.99	2.048	31	0.99180
1	1.5	31.5	0.05	0.99	2.099	14	0.99045
1	2	36	0.05	0.99	2.157	9	0.99508

total number of categories=11 1
12:56 Thursday, August 1, 1996

OBS	DETECT	LAMBDA	ALPHA	POWER	CV	N	APOWER
1	0.5	16.5	0.05	0.8	1.844	66	0.80147
1	0.75	16.8	0.05	0.8	1.861	30	0.80243
1	1	18	0.05	0.8	1.882	18	0.82592
1	1.5	20.25	0.05	0.8	1.941	9	0.85476
1	2	20	0.05	0.8	2.054	5	0.80566
1	0.5	21	0.05	0.9	1.842	84	0.90416
1	0.75	21.28	0.05	0.9	1.854	38	0.90467
1	1	22	0.05	0.9	1.872	22	0.91017
1	1.5	22.5	0.05	0.9	1.928	10	0.90036
1	2	28	0.05	0.9	1.978	7	0.95078
1	0.5	27.25	0.01	0.9	2.336	109	0.90001
1	0.75	28	0.01	0.9	2.354	50	0.90632
1	1	29	0.01	0.9	2.379	29	0.91376
1	1.5	31.5	0.01	0.9	2.448	14	0.92803
1	2	32	0.01	0.9	2.561	8	0.90926
1	0.5	17.75	0.1	0.9	1.608	71	0.90302
1	0.75	17.92	0.1	0.9	1.618	32	0.90208
1	1	19	0.1	0.9	1.632	19	0.91468
1	1.5	20.25	0.1	0.9	1.673	9	0.91905
1	2	24	0.1	0.9	1.718	6	0.94843
1	0.5	32.75	0.05	0.99	1.838	131	0.99035
1	0.75	33.04	0.05	0.99	1.846	59	0.99042
1	1	34	0.05	0.99	1.857	34	0.99157
1	1.5	36	0.05	0.99	1.889	16	0.99309
1	2	36	0.05	0.99	1.941	9	0.99026

Appendix F
Costs for Composite Samplers

AMJ Equipment Corporation

1755 West Olive Street, Lakeland, FL 33815
Tel: 941-682-4500, 800-881-1487 Fax: 941-687-0077

Proposal 0002-9167

Submitted to:

Charlie Schmidt
University of Florida
Environmental Engineering
Black Hall
Gainesville, FL 32607
Tel: (352) 392-6223
Fax: (352) 378-6483

Date:	08/06/96	Needed by	08/14/96
Submitted by:	Ross Toepel	Delivery	30 Days
Ref Inquiry #		Valid	30 Days
Ref Job #			

Terms: New/Pending Approval

Ship Via: UPS

Thank you for your interest in AMJ Equipment Corporation. We are pleased to submit the following for your approval. If you have any questions or require additional information, please call us at 1-800-881-1487.

U	Qty	Item Num	Description	Price Each	Total Price
√	6	68-6700-063	ISCO Model 6700 Portable Sampler, Full Size	2,425.5000	14,553.00
√	6	60-1394-023	ISCO Connect Cable, External 12VDC Source, QA	54.0000	324.00
√	6	60-3704-071	ISCO Vinyl Suction Line, 3/8" ID x 10' With Poly/S. Steel Strainer	58.5000	351.00
√	6	68-6700-006	ISCO 24 Each, Polypropylene,1 Liter Wedge Shaped Bottles	139.5000	837.00

Please list the Vendor as ISCO C/O AMJ Equipment Corporation, P.O. Drawer 6320, Lakeland, FL 33807.□□□□ FOB: Factory, Freight allowed UPS ground. Please reference this proposal number on all correspondance.

Amount	$16,065.00
Freight	$0.00
Tax	$0.00
Total	**$16,065.00**

The items not checked in the "U" column are for price comparison purposes and are not included in proposal total.

Appendix G
Soil Evaluations

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 1 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: 10 NW SANTA FE BLVD., HIGH SPRINGS

PROPERTY ID #: ALACHUA COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

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PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: >1.8 ACRES
TOTAL ESTIMATED SEWAGE FLOW: 4000 GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: 5375 GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: >10,000 SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE ~~PROPOSED~~ EXISTING SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: N/A FT DITCHES/SWALES: >50' FT NORMALLY WET? [ ] YES [✓] NO
WELLS: PUBLIC: N/A FT LIMITED USE: N/A FT PRIVATE: N/A FT NON-POTABLE: >50 FT
BUILDING FOUNDATIONS: >5 FT PROPERTY LINES: >5 FT POTABLE WATER LINES: >10 FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [✓] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

Munsell #/Color	Texture	Depth
12 4/2 D. Gr. Brown	Fine Sand	0 to 12
7/4 V. Pale Brown	Fine Sand	12 to 48
8/3 V. Pale Br.	Fine Sand	48 to 65
6/8 Br. Yellow	Loamy Sand	65 to 72
		to
		to
		to
		to
		to

USDA SOIL SERIES: LAKE

SOIL PROFILE INFORMATION SITE 2

Munsell #/Color	Texture	Depth
10YR 4/2 D. Gr. Br.	Fine Sand	0 to 12
7/4 V. Pale Br.	Fine Sand	12 to 42
8/3 V. Pale Br.	Fine Sand	42 to 54
8/2 V. Pale Br.	Fine Sand	54 to 60
6/8 Br. Yellow	Loamy Sand	60 to 72
		to
		to
		to
		to

USDA SOIL SERIES: LAKE

OBSERVED WATER TABLE: >72 INCHES [ABOVE / (BELOW)] EXISTING GRADE. TYPE: [PERCHED / (APPARENT)]
ESTIMATED WET SEASON WATER TABLE ELEVATION: >72 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [ ] YES [✓] NO MOTTLING: [ ] YES [✓] NO DEPTH: N/A INCHES
→ IF SUBSURFACE TRENCH INSTALLED:
SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: 0.9 g/ft²/d DEPTH OF EXCAVATION: N/A INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: ALACHUA COUNTY SOIL SURVEY P. 8/15; VARIEGATE >40" (1+2) IN GROUNDED SYSTEM W/ HIBBLER CONFIGURATION ON TANKS.

SITE EVALUATED BY: [signature] DATE: 10/13/96.

HRS-H Form 4015, Mar 92 (Obsoletes previous editions which may not be used)
(Stock Number: 5744-003-4015-1)

~~Page 3 of 3~~

ATTACHMENT II

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 2 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: _____

PROPERTY ID #: CLAY COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

==========

PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: _____ ACRES
TOTAL ESTIMATED SEWAGE FLOW: _____ GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: _____ GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: _____ SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE ~~PROPOSED~~ EXISTING SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: >75 FT DITCHES/SWALES: >15 FT NORMALLY WET? [ ] YES [✓] NO
WELLS: PUBLIC: >200 FT LIMITED USE: >100 FT PRIVATE: >75 FT NON-POTABLE: >50 FT
BUILDING FOUNDATIONS: >5 FT PROPERTY LINES: • FT POTABLE WATER LINES: _____ FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [✓] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

	Munsell #/Color	Texture	Depth
1R	3/2 V.D.Gr.Br.	FINE SAND	0 to 9
	4/3 BROWN	FINE SAND	9 to 19
	6/4 Lt.-Yell.Br.	FINE SAND	19 to 45
	6/8 Br. Yellow	FINE SAND	45 to 55
	7/4 V. Pale Br.	FINE SAND	55 to 72
			to
			to
			to
			to

USDA SOIL SERIES: GAINESVILLE

SOIL PROFILE INFORMATION SITE 2

	Munsell #/Color	Texture	Depth
10YR	3/2 V.D.Gr.Br.	FINE SAND	0 to 8
	4/3 BROWN	FINE SAND	8 to 19
	6/4 Lt.-Yell.Br.	FINE SAND	19 to 46
	6/6 Br. Yell.	FINE SAND	46 to 58
	7/3 V. Pale Br.	FINE SAND	58 to 72
			to
			to
			to
			to

USDA SOIL SERIES: GAINESVILLE

OBSERVED WATER TABLE: >72 INCHES [ABOVE / (BELOW)] EXISTING GRADE. TYPE: [PERCHED / (APPARENT)]
ESTIMATED WET SEASON WATER TABLE ELEVATION: >72 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [ ] YES [✓] NO MOTTLING: [ ] YES [✓] NO DEPTH: N/A INCHES

SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: FS / 0.9 gal/ft²/d. DEPTH OF EXCAVATION: N/A INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: HAMELLAR ≥ 52" SITES 1+2. "IN-GROUND" SYSTEM / SUBSURFACE INSTALLATION. BORINGS CONDUCTED ≤15' FROM DRAINFIELD.

SITE EVALUATED BY: Paul D. Myers DATE: _____

HRS-H Form 4015, Mar 92 (Obsoletes previous editions which may not be used)
(Stock Number: 5744-003-4015-1)

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 3 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: US HWY 301 HAWTHORNE

PROPERTY ID #: ALACHUA COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

==========

PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: _____ ACRES
TOTAL ESTIMATED SEWAGE FLOW: _____ GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: _____ GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: _____ SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE ~~PROPOSED~~ EXISTING SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: >200 FT DITCHES/SWALES: >15 FT NORMALLY WET? [ ] YES [✓] NO
WELLS: PUBLIC: >200 FT LIMITED USE: >100 FT PRIVATE: >75 FT NON-POTABLE: >50 FT
BUILDING FOUNDATIONS: _____ FT PROPERTY LINES: _____ FT POTABLE WATER LINES: _____ FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [✓] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

Munsell #/Color	Texture	Depth
2 3/1 V.D. GRAY	FINE SAND	0 to 9
5/1 GRAY	FINE SAND	9 to 24
6/3 PALE BROWN	FINE SAND	24 to 30
7/3 V.P. BROWN	FINE SAND	30 to 50
8/2 V.P. BROWN	SAND	50 to 72
		to
		to
		to
		to
USDA SOIL SERIES: TAVARES		

SOIL PROFILE INFORMATION SITE 2

Munsell #/Color	Texture	Depth
10YR 3/1 V.D. Gray	FINE SAND	0 to 8
5/1 GRAY	FINE SAND	8 to 21
6/3 Pale Brown	FINE SAND	21 to 36
7/3 V.P. Brown	FINE SAND	36 to 48
8/2 V.P. Brown	SAND	48 to 72
		to
		to
		to
		to
USDA SOIL SERIES: TAVARES		

OBSERVED WATER TABLE: 70 INCHES [ABOVE / (BELOW)] EXISTING GRADE. TYPE: [PERCHED / (APPARENT)]
ESTIMATED WET SEASON WATER TABLE ELEVATION: ≥ 50 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [ ] YES [✓] NO MOTTLING: [✓] YES [ ] NO DEPTH: ≥48 INCHES
→ IF INSTALLED IN SUBSURFACE TRENCH:
SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: 1.2 gl/ft²/d. DEPTH OF EXCAVATION: _____ INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: IN GROUND SYSTEM; DRAINFIELD IN "ISLAND" SURROUNDED BY PAVEMENT, PARTIALLY COVERED. CENTRAL H2O SUPPLY.
ALACHUA COUNTY SOIL SURVEY P. 82.

SITE EVALUATED BY: Paul D. Myers DATE: 11/3/96.

HRS-H Form 4015, Mar 92 (Obsoletes previous editions which may not be used)
(Stock Number: 5744-003-4015-1)

ATTACHMENT XI

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM

PERMIT # _____

CATIONS

APPLICANT: Restaurant Number 4 AGENT: ACROSS FROM MCDONALDS

LOT: _____ BLOCK: _____ SUBDIVISION: _____

PROPERTY ID #: PUTNAM COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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==========

PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: _____ ACRES
TOTAL ESTIMATED SEWAGE FLOW: _____ GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: _____ GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: _____ SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE ~~PROPOSED~~ EXISTING SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: >75 FT DITCHES/SWALES: >15 FT NORMALLY WET? [ ] YES [✓] NO
WELLS: PUBLIC: >200 FT LIMITED USE: >100 FT PRIVATE: >75 FT NON-POTABLE: >50 FT
BUILDING FOUNDATIONS: >5 FT PROPERTY LINES: _____ FT POTABLE WATER LINES: _____ FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [✓] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

Munsell #/Color	Texture	Depth
3/2 V.D. Gr. Br.	FINE SAND	0 to 13
4/3 BROWN	FINE SAND	13 to 29
5/3 BROWN	FINE SAND	29 to 36
5/6 Yell. Brown	FINE SAND	36 to 72
		to
		to
		to
		to
		to
		to

USDA SOIL SERIES: FT. MEADE

SOIL PROFILE INFORMATION SITE 2

Munsell #/Color	Texture	Depth
3/2 V.D. Gr. Br.	FINE SAND	0 to 14
4/3 BROWN	FINE SAND	14 to 30
5/6 Yell. Br.	FINE SAND	30 to 72
		to
		to
		to
		to
		to
		to

USDA SOIL SERIES: FT. MEADE

OBSERVED WATER TABLE: >72 INCHES [ABOVE / (BELOW)] EXISTING GRADE. TYPE: [PERCHED / (APPARENT)]
ESTIMATED WET SEASON WATER TABLE ELEVATION: >72 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [ ] YES [✓] NO MOTTLING: [ ] YES [✓] NO DEPTH: N/A INCHES

SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: FS/0.9 g/ft²/d. DEPTH OF EXCAVATION: N/A INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: PUTNAM COUNTY S.S. PAGE 51. MAPPED GANDEER. SUBSURFACE SYSTEM.

SITE EVALUATED BY: [signature] DATE: _____

HRS-H Form 4015, Mar 92 (Obsoletes previous editions which may not be used)
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STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 5 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: _____

PROPERTY ID #: PUTNAM COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

==========

PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: _____ ACRES
TOTAL ESTIMATED SEWAGE FLOW: _____ GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: _____ GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: _____ SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE PROPOSED SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: >75 FT DITCHES/SWALES: >75 FT NORMALLY WET? [✓] YES [ ] NO
WELLS: PUBLIC: >200 FT LIMITED USE: >100 FT PRIVATE: >75 FT NON-POTABLE: >50 FT
BUILDING FOUNDATIONS: >5 FT PROPERTY LINES: _____ FT POTABLE WATER LINES: _____ FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [✓] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

Munsell #/Color	Texture	Depth
2 4/1 D. GRAY	FINE SAND	0 to 9
5/1 D. GRAY	FINE SAND	9 to 18
7/2 Lt. GRAY	F.S / SAND	18 to 24
7/1 Lt. GRAY	F.S. / SAND	24 to 40
8/1 WHITE	SAND	40 to 53
7/2 Lt. GRAY	SAND	53 to 65
8/2 V.P. BROWN	SAND	65 to 72
		to
		to

USDA SOIL SERIES: UNKNOWN.

SOIL PROFILE INFORMATION SITE 2

Munsell #/Color	Texture	Depth
10 4/1 D. GRAY	FINE SAND	0 to 9
5/1 GRAY	FINE SAND	9 to 17
7/2 Lt. GRAY	FINE SAND	17 to 26
7/1 Lt. GRAY	FINE SAND	26 to 41
8/1 WHITE	SAND	41 to 53
7/2 Lt. GRAY	SAND	53 to 61
8/2 V. Pale Br.	SAND	61 to 72
		to
		to

USDA SOIL SERIES: UNKNOWN.

OBSERVED WATER TABLE: 55 INCHES [ABOVE / (BELOW)] EXISTING GRADE. TYPE: [PERCHED / (APPARENT)]
ESTIMATED WET SEASON WATER TABLE ELEVATION: 9 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [✓] YES [ ] NO MOTTLING: [✓] YES [ ] NO DEPTH: ≥ 9 INCHES

SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: FS / 0.8 gal/ft²/d. (MOUND SIZING) DEPTH OF EXCAVATION: N/A INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: PUTNAM COUNTY S.S. Page 25. MAPPED MYAKKA, HOWEVER LACKS SPODIC HORIZON CHARACTERISTICS OF MYAKKA. MOUND SYSTEM.

SITE EVALUATED BY: Paul S. [signature] DATE: _____

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STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 6 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: S.R. 200-A EARLETON BEACH

PROPERTY ID #: ALACHUA COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

==========

PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: _____ ACRES
TOTAL ESTIMATED SEWAGE FLOW: _____ GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: _____ GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: _____ SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE ~~PROPOSED~~ EXISTING SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: >400 FT DITCHES/SWALES: >25 FT NORMALLY WET? [✓] YES [ ] NO
WELLS: PUBLIC: >200 FT LIMITED USE: >100 FT PRIVATE: >75 FT NON-POTABLE: >50 FT
BUILDING FOUNDATIONS: >200 FT PROPERTY LINES: _____ FT POTABLE WATER LINES: _____ FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [✓] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

	Munsell #/Color	Texture	Depth	
R	3/1 V.D. GRAY	FINE SAND	0	to 9
	5/1 GRAY	FINE SAND	9	to 20
	6/1 GRAY	FINE SAND	20	to 33
	7/1 Lt. GRAY	FINE SAND	33	to 40
	7/1 Lt. GRAY	F. SANDY LOAM	40	to 46
	6/1 GRAY	S. CLAY LOAM	46	to 55
	5/1 GRAY	S. CLAY LOAM	55	to 72
				to
				to

USDA SOIL SERIES: PELHAM

SOIL PROFILE INFORMATION SITE 2

	Munsell #/Color	Texture	Depth	
10YR	3/1 V.D. GRAY	FINE SAND	0	to 8
"	5/1 GRAY	FINE SAND	8	to 21
"	6/1 GRAY	FINE SAND	21	to 30
"	7/1 Lt. GRAY	FINE SAND	30	to 40
"	7/1 Lt. GRAY	FINE S. LOAM	40	to 47
"	6/1 GRAY	S. CLAY LOAM	47	to 56
"	5/1 GRAY	S. CLAY LOAM	56	to 72
				to
				to

USDA SOIL SERIES: PELHAM

OBSERVED WATER TABLE: 48 INCHES [ABOVE / (BELOW) EXISTING GRADE. TYPE: (PERCHED) / APPARENT]
ESTIMATED WET SEASON WATER TABLE ELEVATION: ≤9 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [✓] YES [ ] NO MOTTLING: [✓] YES [ ] NO DEPTH: ≥9 INCHES

SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: FS / 0.8 g/ft²/d. DEPTH OF EXCAVATION: N/A INCHES
DRAINFIELD CONFIGURATION: [✓] TRENCH [ ] BED [ ] OTHER (SPECIFY) MOUND SYSTEM INSTALLED
REMARKS/ADDITIONAL CRITERIA:
ALACHUA COUNTY SOIL SURVEY MAP p. 42 (MAPPING UNIT # 13); OPEN FIELD SITE
EFFLUENT PUMPED FROM ESTABLISHMENT TO DRAINFIELD.
MOTTLES > 40" TO 55" (10YR 6/4 → 6/8) MOTTLES > 55" 2.5YR 3/6.

SITE EVALUATED BY: Paul D. Myers DATE: 11/3/96

HRS-H Form 4015, Mar 92 (Obsoletes previous editions which may not be used)
(Stock Number: 5744-003-4015-1)

ATTACHMENT IX

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 9 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: _____

PROPERTY ID #: PUTNAM COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

==========

PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: _____ ACRES
TOTAL ESTIMATED SEWAGE FLOW: _____ GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: _____ GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: _____ SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE ~~PROPOSED~~ EXISTING SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: >75 FT DITCHES/SWALES: >15 FT NORMALLY WET? [ ] YES [✓] NO
WELLS: PUBLIC: >200 FT LIMITED USE: >100 FT PRIVATE: >75 FT NON-POTABLE: >50 FT
BUILDING FOUNDATIONS: >5 FT PROPERTY LINES: _____ FT POTABLE WATER LINES: _____ FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [✓] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

	Munsell #/Color	Texture	Depth
2	5/2 Gr. Brown	Fine Sand	0 to 6
	6/3 Pale Brown	Fine Sand	6 to 26
	7/3 V. Pale Br.	Fine Sand	26 to 40
	5/6 Yell. Br.	Sandy Clay Loam	40 to 54
	5/6+5/8 " "	Sandy Clay Loam	54 to 72
			to
			to
			to
			to
USDA SOIL SERIES:	S/M → MILLHOPPER		

SOIL PROFILE INFORMATION SITE 2

	Munsell #/Color	Texture	Depth
10YR	5/2 Gr. Brown	Fine Sand	0 to 7
	6/3 Pale Brown	Fine Sand	7 to 25
	7/3 V. Pale Br.	Fine Sand	25 to 42
	5/6 Yell. Br.	S. Clay Loam	42 to 55
	5/6+5/8 "	S. Clay Loam	55 to 72
			to
			to
			to
			to
USDA SOIL SERIES:	S/M → MILLHOPPER		

OBSERVED WATER TABLE: >72 INCHES [ABOVE / (BELOW) EXISTING GRADE. TYPE: (PERCHED) / APPARENT]
ESTIMATED WET SEASON WATER TABLE ELEVATION: ≥ 42 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [ ] YES [✓] NO MOTTLING: [✓] YES [ ] NO DEPTH: ≥ 42 INCHES

SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: 0.65 g/ft²/d (S.C.L.) DEPTH OF EXCAVATION: _____ INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: SYSTEM UNNECESSARILY MOUNTED. PUTNAM COUNTY S.S. PAGE # 49. MAPPED APOPKA.

SITE EVALUATED BY: Paul S. Myers DATE: _____

HRS-H Form 4015, Mar 92 (Obsoletes previous editions which may not be used)
(Stock Number: 5744-003-4015-1)

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 10 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: PALATKA US HWY 17

PROPERTY ID #: PUTNAM COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

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PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: _____ ACRES
TOTAL ESTIMATED SEWAGE FLOW: _____ GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: _____ GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: _____ SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE ~~PROPOSED~~ EXISTING SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: 75 FT DITCHES/SWALES: 75 FT NORMALLY WET? [ ] YES [✓] NO
WELLS: PUBLIC: _____ FT LIMITED USE: _____ FT PRIVATE: _____ FT NON-POTABLE: _____ FT
BUILDING FOUNDATIONS: _____ FT PROPERTY LINES: _____ FT POTABLE WATER LINES: _____ FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [✓] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1 (IN "ISLAND")

Munsell #/Color	Texture	Depth
2/1 BLACK	FINE SAND	0 to 12
5/1 GRAY	FINE SAND	12 to 24
7/1 Lt. GRAY	FINE SAND	24 to 30
8/1 WHITE	FINE SAND	30 to 60
7/2 Lt. GRAY	FINE SAND	60 to 66
3/2 V.D.Gr.Br.	FINE SAND	66 to 71
3/3 D. BROWN	FINE SAND	71 to 72
		to
		to

USDA SOIL SERIES: SIM → ZOLFO

SOIL PROFILE INFORMATION SITE 2 (BY FENCE)

Munsell #/Color	Texture	Depth
10YR 2/1 BLACK	FINE SAND	0 to 10
5/1 GRAY	FINE SAND	10 to 18
7/1 Lt. GRAY	FINE SAND	18 to 30
8/1 WHITE	FINE SAND	30 to 56
7/2 Lt. GRAY	FINE SAND	56 to 64
3/2 V.D.Gr.Br.	FINE SAND	64 to 69
3/3 D. BROWN	FINE SAND	69 to 72
		to
		to

USDA SOIL SERIES: SIM → ZOLFO

OBSERVED WATER TABLE: >72 INCHES [ABOVE / (BELOW)] EXISTING GRADE. TYPE: [PERCHED / (APPARENT)]
ESTIMATED WET SEASON WATER TABLE ELEVATION: ≥ 24 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [ ] YES [ ] NO MOTTLING: [ ] YES [✓] NO DEPTH: N/A INCHES
→ IF NEW SYSTEM INSTALLED IN FINE SAND MOUND TRENCH.
SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: 0.8 gpd/ft²d. DEPTH OF EXCAVATION: N/A INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: CENTRAL H₂O SUPPLY; FACILITY ≈ 15 YRS. OLD.
DRAINFIELD ≈ 48" DEEP.; PUTNAM COUNTY SOIL SURVEY MAP P. 47.
DRAINFIELD INSTALLED IN "ISLAND" BEHIND RESTAURANT. SPODIC HORIZON > 60".
DRAINFIELD ≈ 75' TO ST. JOHN'S RIVER.

SITE EVALUATED BY: Paul S. Myers DATE: 7/11/96.

HRS-H Form 4015, Mar 92 (Obsoletes previous editions which may not be used)
(Stock Number: 5744-003-4015-1)

ATTACHMENT VI

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 11 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: _____

PROPERTY ID #: PUTNAM COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

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PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: _____ ACRES
TOTAL ESTIMATED SEWAGE FLOW: _____ GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: _____ GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: _____ SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE ~~PROPOSED~~ EXISTING SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: >75 FT DITCHES/SWALES: >25 FT NORMALLY WET? [ ] YES [✓] NO
WELLS: PUBLIC: >200 FT LIMITED USE: >100 FT PRIVATE: >75 FT NON-POTABLE: >50 FT
BUILDING FOUNDATIONS: >5 FT PROPERTY LINES: _____ FT POTABLE WATER LINES: _____ FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [✓] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

Munsell #/Color	Texture	Depth
* 3/2 V.D.Gr.Br.	FINE SAND	0 to 12
4/3 BROWN	FINE SAND	12 to 18
6/4 Lt. Yell. Br.	FINE SAND	18 to 48
6/6 Br. Yellow	FINE SAND	48 to 54
7/4 V. Pale Br.	FINE SAND	54 to 72
		to
		to
		to
		to

USDA SOIL SERIES: CANDLER

SOIL PROFILE INFORMATION SITE 2

Munsell #/Color	Texture	Depth
10YR 3/2 V.D.Gr.Br.	FINE SAND	0 to 9
4/3 BROWN	FINE SAND	9 to 17
6/4 Lt. Yell. Br.	FINE SAND	17 to 47
6/6 Br. Yellow	FINE SAND	47 to 56
7/4 V. Pale Br.	FINE SAND	56 to 72
		to
		to
		to
		to

USDA SOIL SERIES: CANDLER

OBSERVED WATER TABLE: >72 INCHES [ABOVE / (BELOW)] EXISTING GRADE. TYPE: [PERCHED / (APPARENT)]
ESTIMATED WET SEASON WATER TABLE ELEVATION: >72 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [ ] YES [✓] NO MOTTLING: [ ] YES [✓] NO DEPTH: N/A INCHES

SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: FS/0.9 gal/ft²/d. DEPTH OF EXCAVATION: N/A INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: LAMELLAE 10YR 5/4 ≥ 50" SITES 1+2.
BORINGS CONDUCTED @ BACK FENCE.

SITE EVALUATED BY: Paul D. Myers DATE: 7/11/96.

HRS-H Form 4015, Mar 92 (Obsoletes previous editions which may not be used)
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ATTACHMENT X

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 12 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: U.S. HWY 17, PALATKA

PROPERTY ID #: PUTNAM COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

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PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: _____ ACRES
TOTAL ESTIMATED SEWAGE FLOW: _____ GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: _____ GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: _____ SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE PROPOSED SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: >100 FT DITCHES/SWALES: >15 FT NORMALLY WET? [✓] YES [ ] NO
WELLS: PUBLIC: _____ FT LIMITED USE: _____ FT PRIVATE: _____ FT NON-POTABLE: _____ FT
BUILDING FOUNDATIONS: _____ FT PROPERTY LINES: _____ FT POTABLE WATER LINES: _____ FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [ ] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

Munsell #/Color	Texture	Depth
10YR 5/2 GR. BROWN	FINE SAND	0 to 6
6/2 LT. BR. GRAY	FINE SAND	6 to 18
		18 to REF
		to
		to
		to
		to
		to
		to
USDA SOIL SERIES: UNKNOWN		

SOIL PROFILE INFORMATION SITE 2

Munsell #/Color	Texture	Depth
10YR 4/1 D. GRAY	FINE SAND	0 to 6
5/3 BROWN	FINE SAND	6 to 18
7/1 LT. GRAY	FINE SAND	18 to 30
8/1 WHITE	FINE SAND	30 to 44
4/3 BROWN	FINE SAND	44 to 54
6/3 PALE BROWN	FINE SAND	54 to 60
7/3 V. PALE BR.	FINE SAND	60 to 66
7/2 LT. GRAY	FINE SAND	66 to 72
		to
USDA SOIL SERIES: SIMILAR → CASSIA		

OBSERVED WATER TABLE: 50 INCHES [ABOVE / (BELOW)] EXISTING GRADE. TYPE: [PERCHED / (APPARENT)]
ESTIMATED WET SEASON WATER TABLE ELEVATION: 15 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [✓] YES [ ] NO MOTTLING: [✓] YES [ ] NO DEPTH: ≥15 INCHES

→ IF INSTALLED NEW FOR MOUND:
SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: FS/0.8 gal/ft²/d. DEPTH OF EXCAVATION: _____ INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: SITE #1 ENCOUNTERED REFUSAL @ 18" DUE TO TOP OF DRAINFIELD. BORING #1 DONE @ FENCE LINE DIRECTLY BEHIND RESTAURANT. BORING #2 DONE NEXT TO GREASE RECEPTACLE. PUTNAM COUNTY SOIL SURVEY P. 47. MAPPED UNIT # 14, 52. SYSTEM INSTALLED "IN-GROUND."

SITE EVALUATED BY: Paul D. Myers DATE: 7/11/96

HRS-H Form 4015, Mar 92 (Obsoletes previous editions which may not be used)
(Stock Number: 5744-003-4015-1)

ATTACHMENT VII

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 13 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: US HWY 441

PROPERTY ID #: MARION COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

==========

PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: _____ ACRES
TOTAL ESTIMATED SEWAGE FLOW: _____ GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: _____ GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: _____ SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE ~~PROPOSED~~ EXISTING SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: N/A FT DITCHES/SWALES: N/A FT NORMALLY WET? [ ] YES [ ] NO
WELLS: PUBLIC: _____ FT LIMITED USE: _____ FT PRIVATE: _____ FT NON-POTABLE: _____ FT
BUILDING FOUNDATIONS: _____ FT PROPERTY LINES: _____ FT POTABLE WATER LINES: _____ FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [ ] NO 10 YEAR FLOODING? [ ] YES [ ] NO
10 YEAR FLOOD ELEVATION FOR SITE: _____ FT MSL/NGVD SITE ELEVATION: _____ FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

	Munsell #/Color	Texture	Depth
2	4/3 BROWN	FINE SAND	0 to 9
	5/4 Yell. BROWN	FINE SAND	9 to 43
	6/6 BR. Yellow	FINE SAND	43 to 72
			to
			to
			to
			to
			to
			to
USDA SOIL SERIES:	CANDLER		

SOIL PROFILE INFORMATION SITE 2

	Munsell #/Color	Texture	Depth
10YR	3/2 V.D.Gr. Br.	FINE SAND	0 to 6
	4/3 BROWN	FINE SAND	6 to 28
	5/4 Yell. BR.	FINE SAND	28 to 55
	5/6 Yell. BR.	FINE SAND	55 to 62
	7/6 Yellow	FINE SAND	62 to 72
			to
			to
			to
			to
USDA SOIL SERIES:	CANDLER		

OBSERVED WATER TABLE: 72 INCHES [ABOVE / (BELOW)] EXISTING GRADE. TYPE: [PERCHED (APPARENT)]
ESTIMATED WET SEASON WATER TABLE ELEVATION: 72 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [ ] YES [✓] NO MOTTLING: [ ] YES [✓] NO DEPTH: N/A INCHES
→ IF INSTALLED IN SUBSURFACE TRENCH
SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: 0.9 g/ft²/d. DEPTH OF EXCAVATION: _____ INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: OPEN FIELD SITE. IN GROUND SYSTEM. MARION COUNTY SOIL SURVEY P. 151; WATERTABLE > 55". (10YR 5/4)
2012 BORINGS CONDUCTED ≈ 20' NORTH OF TANKS.

SITE EVALUATED BY: [signature] DATE: 9/8/96.

HRS-H Form 4015, Mar 92 (Obsoletes previous editions which may not be used)
(Stock Number: 5744-003-4015-1)

ATTACHMENT VIII

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 14 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: HWY 441 (11685 US HWY 441 Belleview)

PROPERTY ID #: MARION COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

==========

PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: _____ ACRES
TOTAL ESTIMATED SEWAGE FLOW: _____ GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: _____ GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: _____ SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE ~~PROPOSED~~ EXISTING SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: >200 FT DITCHES/SWALES: 715 FT NORMALLY WET? [ ] YES [✓] NO
WELLS: PUBLIC: _____ FT LIMITED USE: _____ FT PRIVATE: _____ FT NON-POTABLE: _____ FT
BUILDING FOUNDATIONS: _____ FT PROPERTY LINES: _____ FT POTABLE WATER LINES: _____ FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [✓] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

Munsell #/Color	Texture	Depth
4/2 D.Gr. Brown	FINE SAND	0 to 10
7/4 V. Pale Brown	FINE SAND	10 to 46
5/6 Yell. Brown	LOAMY SAND	46 to 52
5/6 Yell. Brown	SANDY LOAM	52 to 60
6/6 Br. Yellow	S. CLAY LOAM	60 to 72
		to
		to
		to
		to

USDA SOIL SERIES: ARREDONDO

SOIL PROFILE INFORMATION SITE 2

Munsell #/Color	Texture	Depth
4/2 D.Gr. Brown	FINE SAND	0 to 9
7/3 V. Pale Br.	FINE SAND	9 to 45
5/4 Yell. Brown	LOAMY SAND	45 to 51
5/6 Yell. Brown	SANDY LOAM	51 to 59
6/6 Br. Yellow	S. CLAY LOAM	59 to 72
		to
		to
		to
		to

USDA SOIL SERIES: ARREDONDO

OBSERVED WATER TABLE: >72 INCHES [ABOVE / (BELOW)] EXISTING GRADE. TYPE: [PERCHED / (APPARENT)]
ESTIMATED WET SEASON WATER TABLE ELEVATION: >72 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [ ] YES [✓] NO MOTTLING: [ ] YES [✓] NO DEPTH: N/A INCHES
IF INSTALLED IN SUBSURFACE TRENCH
SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: SL/0.9 g/ft²/d. DEPTH OF EXCAVATION: N/A INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: MARION COUNTY SOIL SURVEY P. 140. BORINGS CONDUCTED ON SOUTH PROPERTY LINE @ 50' & 65' EAST OF HWY. SWALE.

SITE EVALUATED BY: [signature] DATE: 9/8/96.

HRS-H Form 4015, Mar 92 (Obsoletes previous editions which may not be used)
(Stock Number: 5744-003-4015-1)

ATTACHMENT IV

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 15 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: INTERSECTION CR 326 & HWY 441 OCALA

PROPERTY ID #: MARION COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

==========

PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: _____ ACRES
TOTAL ESTIMATED SEWAGE FLOW: _____ GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: _____ GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: _____ SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE ~~PROPOSED~~ EXISTING SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: >75 FT DITCHES/SWALES: >15 FT NORMALLY WET? [ ] YES [✓] NO
WELLS: PUBLIC: _____ FT LIMITED USE: _____ FT PRIVATE: _____ FT NON-POTABLE: _____ FT
BUILDING FOUNDATIONS: _____ FT PROPERTY LINES: _____ FT POTABLE WATER LINES: _____ FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [ ] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

Munsell #/Color	Texture	Depth
4/1 D. GRAY	FINE SAND	0 to 9
6/3 Pale Brown	FINE SAND	9 to 28
7/3 V. P. Brown	FINE SAND	28 to 45
7/2 Lt. GRAY	FINE SAND	45 to 53
7/3 V. P. Brown	FINE SAND	53 to 62
6/4 Lt. Yell. Br.	LOAMY SAND	62 to 65
6/2 Lt. Br. Gray	SANDY LOAM	65 to 70
7/2 Lt. GRAY	S. CLAY LOAM	70 to 72
		to

USDA SOIL SERIES: MILLHOPPER

SOIL PROFILE INFORMATION SITE 2

Munsell #/Color	Texture	Depth
4/1 D. GRAY	FINE SAND	0 to 8
6/3 Pale Brown	FINE SAND	8 to 30
7/3 V. P. Brown	FINE SAND	30 to 48
7/2 Lt. GRAY	FINE SAND	48 to 52
7/3 V. P. Brown	FINE SAND	52 to 60
6/4 Lt. Yell. Br.	LOAMY SAND	60 to 64
6/2 Lt. Br. Gray	SANDY LOAM	64 to 68
7/2 Lt. GRAY	S. CLAY LOAM	68 to 72
		to

USDA SOIL SERIES: MILLHOPPER

OBSERVED WATER TABLE: >72 INCHES [ABOVE / (BELOW) EXISTING GRADE. TYPE: (PERCHED) / APPARENT]
ESTIMATED WET SEASON WATER TABLE ELEVATION: >45 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [ ] YES [✓] NO MOTTLING: [✓] YES [ ] NO DEPTH: ≥50 INCHES

→ IF INSTALLED NOW IN SUBSURFACE TRENCH:
SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: 0.9 g/ft²/d. DEPTH OF EXCAVATION: N/A INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: MARION COUNTY SOIL SURVEY MAP P. 67. BORINGS 1+2 CONDUCTED ≈ 5' EAST OF FENCE.

SITE EVALUATED BY: Paul S. Myers DATE: 9/8/96.

HRS-H Form 4015, Mar 92 (Obsoletes previous editions which may not be used)
(Stock Number: 5744-003-4015-1)

ATTACHMENT V

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 16 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: HWY 441 HIGH SPRINGS

PROPERTY ID #: ALACHUA COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

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TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

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PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: ≈ 3.0 ACRES
TOTAL ESTIMATED SEWAGE FLOW: 3367 GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: 8750 GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: >10,000 SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE ~~PROPOSED~~ EXISTING SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: N/A FT DITCHES/SWALES: N/A FT NORMALLY WET? [ ] YES [✓] NO
WELLS: PUBLIC: >200 FT LIMITED USE: >100 FT PRIVATE: >75 FT NON-POTABLE: >50 FT
BUILDING FOUNDATIONS: >25 FT PROPERTY LINES: >5 FT POTABLE WATER LINES: >25 FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [✓] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

Munsell #/Color	Texture	Depth
4/2 D. Gr. Brown	Fine Sand	0 to 7
4/4 D. Yell. Br.	Fine Sand	7 to 18
6/4 Lt. Yell. Br.	Fine Sand	18 to 30
7/3 V. Pale Br.	Fine Sand	30 to 42
8/2 V. Pale Br.	Fine Sand	42 to 60
5/6 Yell. Br.	Loamy Sand	60 to 72
		to
		to
		to

USDA SOIL SERIES: LAKE

SOIL PROFILE INFORMATION SITE 2

Munsell #/Color	Texture	Depth
4/2 D. Gr. Brown	Fine Sand	0 to 8
4/4 D. Yell. Br.	Fine Sand	8 to 18
6/4 Lt. Yell. Br.	Fine Sand	18 to 29
7/3 V. Pale Br.	Fine Sand	29 to 43
8/3 V. Pale Br.	Fine Sand	43 to 61
5/6 Yell. Br.	Loamy Sand	61 to 72.
		to
		to
		to

USDA SOIL SERIES: LAKE

OBSERVED WATER TABLE: >72 INCHES [ABOVE / BELOW] EXISTING GRADE. TYPE: [PERCHED / APPARENT]
ESTIMATED WET SEASON WATER TABLE ELEVATION: ≥ 72 INCHES [ABOVE / BELOW] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [ ] YES [✓] NO MOTTLING: [ ] YES [✓] NO DEPTH: N/A INCHES
> 18 INSTALLED IN SUBSURFACE TRENCH
SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: 0.9 g/ft²/d. DEPTH OF EXCAVATION: N/A. INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: ALACHUA COUNTY SOIL SURVEY P. 8/15. IN GROUND SYSTEM CURRENTLY MALFUNCTIONING.

SITE EVALUATED BY: Paul D. Meyer DATE: 11/3/96

HRS-H Form 4015, Mar 92 (Obsoletes previous editions which may not be used)
(Stock Number: 5744-003-4015-1)

ATTACHMENT III

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT # _____

APPLICANT: Restaurant Number 19 AGENT: _____

LOT: _____ BLOCK: _____ SUBDIVISION: _____

PROPERTY ID #: CLAY COUNTY [Section/Township/Range/Parcel No. or Tax ID Number]

==========

TO BE COMPLETED BY ENGINEER, HEALTH UNIT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER'S MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

==========

PROPERTY SIZE CONFORMS TO SITE PLAN: [ ] YES [ ] NO NET USABLE AREA AVAILABLE: _____ ACRES
TOTAL ESTIMATED SEWAGE FLOW: _____ GALLONS PER DAY [RESIDENCES-TABLE 1 / OTHER-TABLE 2]
AUTHORIZED SEWAGE FLOW: _____ GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: _____ SQFT UNOBSTRUCTED AREA REQUIRED: _____ SQFT

BENCHMARK/REFERENCE POINT LOCATION: _____
ELEVATION OF PROPOSED SYSTEM SITE IS _____ [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE ~~PROPOSED~~ EXISTING SYSTEM TO THE FOLLOWING FEATURES:
SURFACE WATER: >75 FT DITCHES/SWALES: >15 FT NORMALLY WET? [ ] YES [✓] NO
WELLS: PUBLIC: >200 FT LIMITED USE: >100 FT PRIVATE: >75 FT NON-POTABLE: >50 FT
BUILDING FOUNDATIONS: >5 FT PROPERTY LINES: _____ FT POTABLE WATER LINES: _____ FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [✓] NO 10 YEAR FLOODING? [ ] YES [✓] NO
10 YEAR FLOOD ELEVATION FOR SITE: N/A FT MSL/NGVD SITE ELEVATION: N/A FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

Munsell #/Color	Texture	Depth
10YR 3/2 V.D.Gr.Br.	FINE SAND	0 to 12
4/3 BROWN	FINE SAND	12 to 16
6/3 Pale Br.	FINE SAND	16 to 48
7/4 V. Pale Br.	FINE SAND	48 to 61
7/3 V. Pale Br.	FINE SAND	61 to 72
		to
		to
		to
		to
USDA SOIL SERIES:	SIM → GANDLER	

SOIL PROFILE INFORMATION SITE 2

Munsell #/Color	Texture	Depth
10YR 3/2 V.D.Gr.Br.	FINE SAND	0 to 11
4/2 D.Gr.Br.	FINE SAND	11 to 17
4/3 BROWN	FINE SAND	17 to 36
6/3 Pale Br.	FINE SAND	36 to 45
7/4 V.P.Br.	FINE SAND	45 to 58
7/3 V.P.Br.	FINE SAND	58 to 72
		to
		to
		to
USDA SOIL SERIES:	SIM → GANDLER	

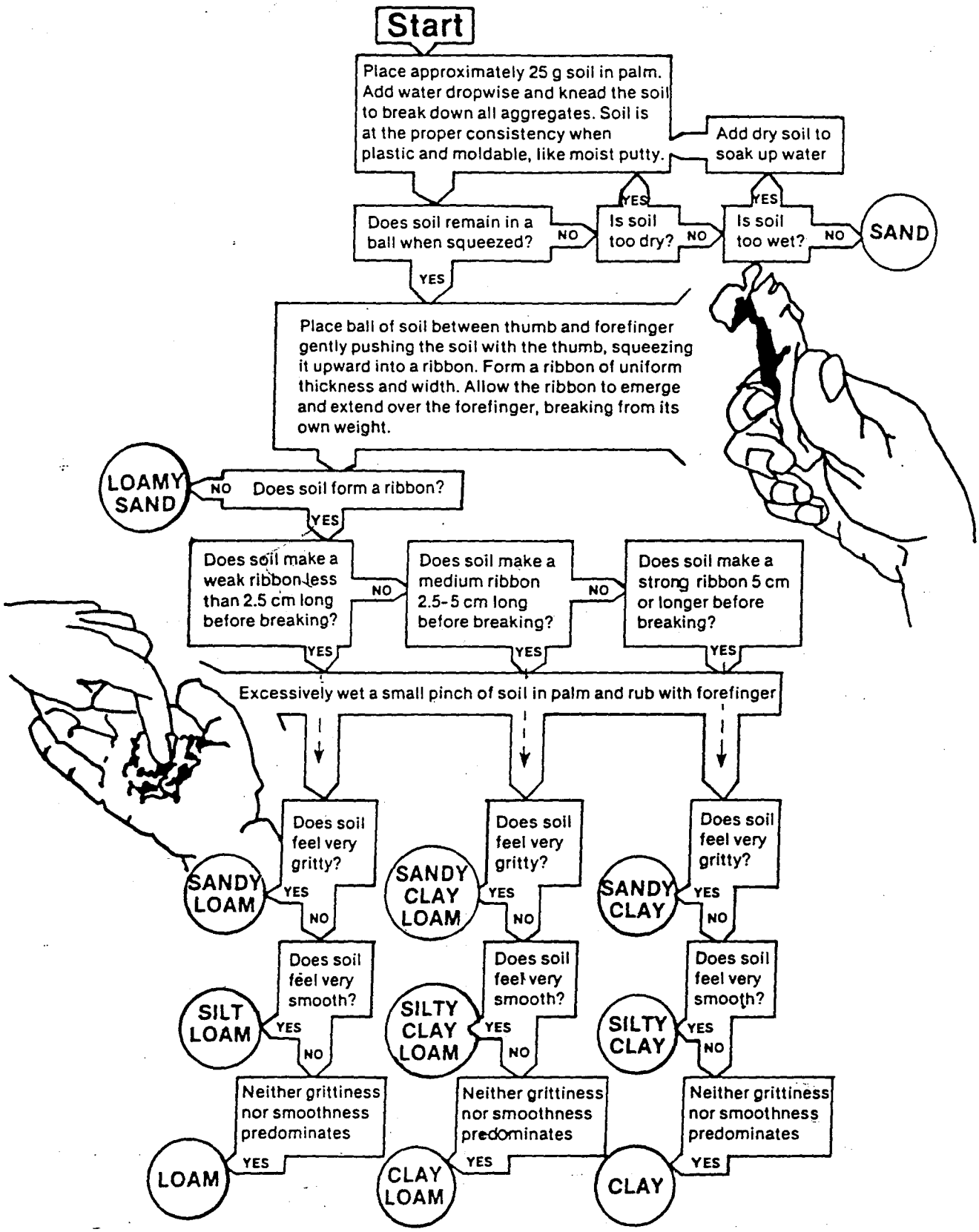
OBSERVED WATER TABLE: >72 INCHES [ABOVE / (BELOW)] EXISTING GRADE. TYPE: [PERCHED / (APPARENT)]
ESTIMATED WET SEASON WATER TABLE ELEVATION: >72 INCHES [ABOVE / (BELOW)] EXISTING GRADE.
HIGH WATER TABLE VEGETATION: [ ] YES [✓] NO MOTTLING: [ ] YES [✓] NO DEPTH: N/A INCHES

SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: FS/0.9 g/ft²/d. DEPTH OF EXCAVATION: N/A INCHES
DRAINFIELD CONFIGURATION: [ ] TRENCH [ ] BED [ ] OTHER (SPECIFY) _____
REMARKS/ADDITIONAL CRITERIA: SUBSURFACE SYSTEM. BORINGS CONDUCTED 210' FROM DRAINFIELD.

SITE EVALUATED BY: Robert S. Myers DATE: _____

Appendix H
Soil Texture Identification Method

Flow diagram for estimating soil texture by feel



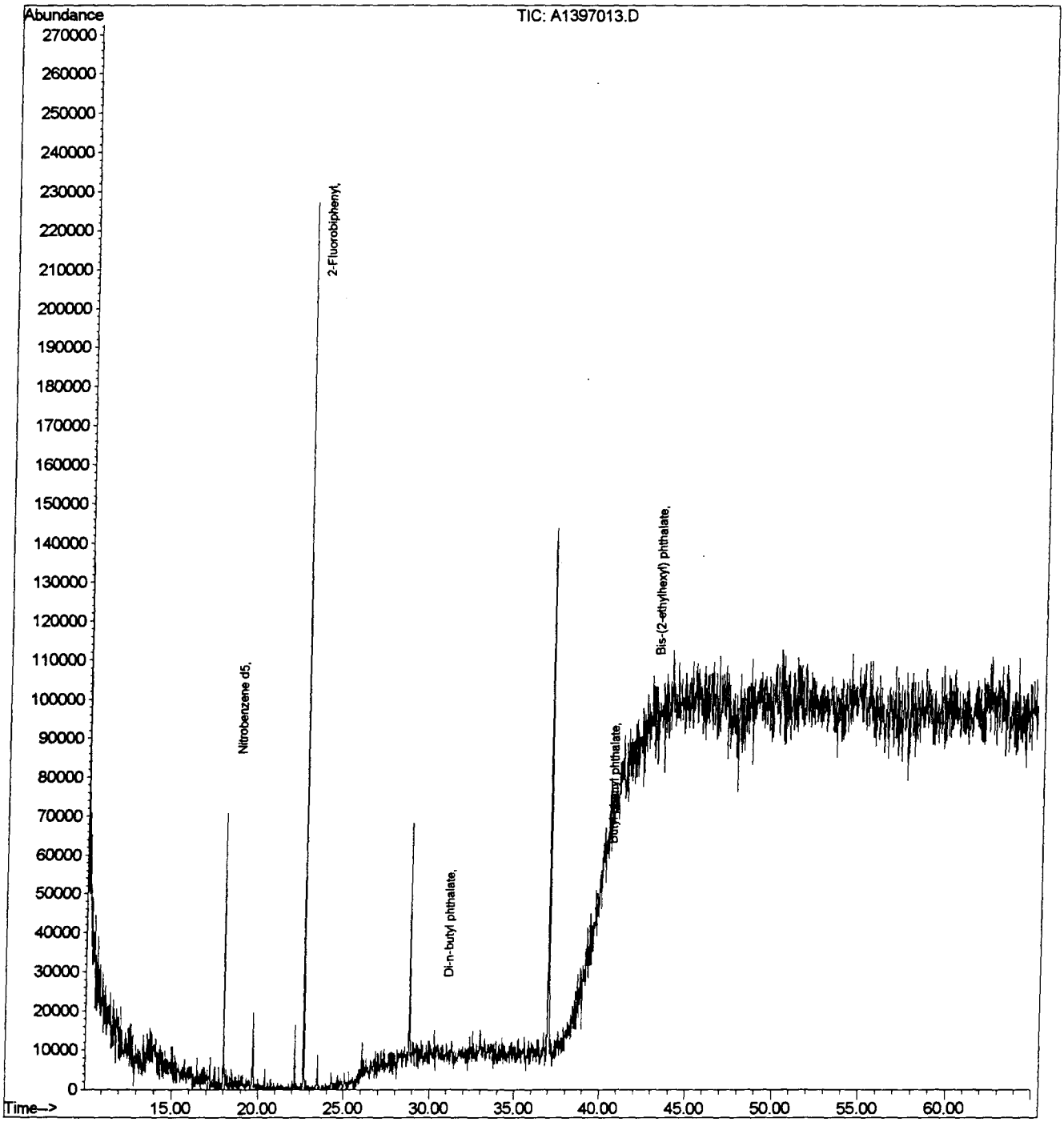
ATTACHMENT I

Appendix I
GC/MS
Data

Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397013.D Vial: 0
Acq On : 14 JAN 97 3:47 Operator:
Sample : Inst :
Misc : HRS #1 (13) Multiplr: 1.00
Quant Time: Feb 4 0:12 1997 Quant Results File: BASENEUT.RES

Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397013.D Vial: 0
Acq On : 14 JAN 97 3:47 Operator:
Sample : Inst :
Misc : HRS #1 (13) Multiplr: 1.00
Quant Time: Feb 4 0:12 1997 Quant Results File: BASENEUT.RES

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration
DataAcq Meth :
IS QA File : 4 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)

System Monitoring Compounds

Target Compounds						Qvalue
11) Nitrobenzene d5	17.98	128	16573	4.67		# 1
20) 2-Fluorobiphenyl	22.64	172	212421	9.23		93
33) Di-n-butyl phthalate	30.24	149	14077	1.45	ng	# 80
34) Butyl phenyl phthalate	39.77	149	2049	0.69	ng	# 38
35) Bis-(2-ethylhexyl) phthala	42.34	149	4753	0.96	ng	# 50

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

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397013.D Vial: 0
Acq On : 14 JAN 97 3:47 Operator:
Sample : Inst :
Misc : HRS #1 (13) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 1 .beta.-Chlordene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.25	105376.00	105376	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.beta.-Chlordene	336	C10H6Cl6	056534-03-3	2
2	Ethanol, 2,2,2-trichloro-	148	C2H3Cl3O	000115-20-8	2
3	Propanoyl chloride	92	C3H5ClO	000079-03-8	1
4	Difluorine monoxide	54	F2O	007783-41-7	1
5	Methane, chlorotrinitro-	185	CClN3O6	001943-16-4	1

****
Peak Number 2 4,7,10-Triazabicyclo[12.3.1]oc Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.72	50090.00	50090	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4,7,10-Triazabicyclo[12.3.1]octadec	472	C26H40N4O4	038840-27-6	3
2	Cholest-4-en-3-one, 2-(phenylmethyl	472	C34H48O	074421-21-9	3
3	Borane, trifluoro-	68	BF3	007637-07-2	2
4	Octanoic acid, 8-bromo-, methyl est	236	C9H17BrO2	026825-92-3	2
5	2-Methyl-4-propyl-1,3-oxathiane 3-o	176	C8H16O2S	000000-00-0	2

****
Peak Number 3 2H,6H-Benzo[1,2-b:5,4-b']dipyr Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
11.02	86701.00	86701	External Standard	1	0.00

Hit# of 3	Tentative ID	MW	MolForm	CAS#	Qual
1	2H,6H-Benzo[1,2-b:5,4-b']dipyran-10	528	C27H32N2O9	026537-44-0	4
2	Vanadium, oxo[2,7,12,17-tetraethyl-	543	C32H36N4OV	014055-20-0	3
3	Copper, [2,8,12,18-tetraethyl-3,7,1	539	C32H36CuN4	014055-18-6	3

Library Search Compound Report

```
Data File : C:\QMASS\DATA\97JAN\A1397013.D                Vial: 0
Acq On    : 14 JAN 97   3:47                           Operator:
Sample    :                                            Inst    :
Misc      : HRS #1 (13)                                Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title        : Base-Neutrals
Library      : C:\DATABASE\NBS75K.L
```

****

Peak Number 4 3',4',5'-Triiodobenzo[1',2'-b] Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
11.68	59923.00	59923	External Standard	1	0.00

Hit# of 2	Tentative ID	MW	MolForm	CAS#	Qual
1	3',4',5'-Triiodobenzo[1',2'-b]-1,4-	538	C10H9I3N2	000000-00-0	9
2	1'H-Cholest-2-eno[3,2-b]indole, 5'-	538	C33H47ClN2O2	038389-17-2	3

****

Peak Number 5 .beta.,.beta.-Carotene, neo B Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
11.83	74773.00	74773	External Standard	1	0.00

Hit# of 1	Tentative ID	MW	MolForm	CAS#	Qual
1	.beta.,.beta.-Carotene, neo B	536	C40H56	006811-73-0	1

****

Peak Number 6 Silane, 3,4-pentadien-1-yne-1, Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.75	60939.00	60939	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silane, 3,4-pentadien-1-yne-1,3-diy	520	C29H60Si4	041898-92-4	5
2	Butanamide, 2-(dimethylamino)-N-[7-	536	C30H40N4O5	064408-10-2	4
3	1,2,4,5-Benzenetetracarboxylic 1,2:	520	C34H20N2O4	031664-78-5	4
4	Mirex	540	C10Cl12	002385-85-5	4
5	Silane, [[(3.beta.,17.beta.)-andros	520	C28H52O3Si3	057397-22-5	3

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397013.D Vial: 0
Acq On : 14 JAN 97 3:47 Operator:
Sample : Inst :
Misc : HRS #1 (13) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 7 Morphinan-6-ol, 7,8-didehydro- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
19.70	65722.00	65722	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Morphinan-6-ol, 7,8-didehydro-4,5-e	341	C20H23NO4	006703-27-1	5
2	Thebacon	341	C20H23NO4	000466-90-0	5
3	2H-Pyrrol-2-one, 1,5-dihydro-1-(4-m	341	C23H19NO2	053774-23-5	5
4	Morphinan-6-ol, 7,8-didehydro-4,5-e	341	C20H23NO4	006703-27-1	5
5	Corydine	341	C20H23NO4	000476-69-7	5

****
Peak Number 8 1,2-Benzenedicarboxylic acid, Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
28.79	145029.00	145029	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, butyl	334	C20H30O4	000084-78-6	43
2	1,2-Benzenedicarboxylic acid, butyl	334	C20H30O4	000085-69-8	43
3	Bis(2-methoxyethyl) phthalate	282	C14H18O6	000117-82-8	40
4	Di-n-octyl phthalate	390	C24H38O4	000117-84-0	9
5	1,2-Benzenedicarboxylic acid, decyl	418	C26H42O4	000119-07-3	9

****
Peak Number 9 p-Terphenyl-d14 Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
36.98	619950.00	619950	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	p-Terphenyl-d14	244	C18D14	001718-51-0	80
2	1,4-Cyclohexadiene, 6-methylene-3,3	244	C19H16	018636-59-4	9
3	Ferrocene, (3-hydroxypropyl)-	244	C13H16FeO	012093-88-8	9
4	9H-Xanthen-9-one, 1,3,8-trihydroxy-	244	C13H8O5	006052-93-3	9
5	2-Propenoic acid, 2-cyano-3-(4-dime	244	C14H16N2O2	001886-52-8	9

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397013.D Vial: 0
Acq On : 14 JAN 97 3:47 Operator:
Sample : Inst :
Misc : HRS #1 (13) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 10 10-Carbazoyl-1,2,3,4-tetrafluo Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
38.65	49228.00	49228	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	10-Carbazoyl-1,2,3,4-tetrafluoro-10	327	C14H9F4N3O2	000000-00-0	5
2	10-Carbazoyl-1,2,3,4-tetrafluoro-10	327	C14H9F4N3O2	000000-00-0	5
3	2H-1,5-Benzodiazepin-2-one, 1,3-dih	326	C22H18N2O	056771-67-6	5
4	6(2H)-Benzofuranone, 2-(1,3-benzodi	340	C20H20O5	057430-03-2	5
5	[1,2]Dithiolo[1,5-b][1,2]dithiole-7	326	C18H14S3	038443-42-4	5

****
Peak Number 11 1-(3,4-Methylenedioxyphenyl-2- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
38.83	76228.00	76228	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-(3,4-Methylenedioxyphenyl-2-propa	193	C10H11NO3	000000-00-0	5
2	1,2,4-Triazolo[4,3-a]pyridine-8-car	193	C8H7N3O3	053975-71-6	5
3	Benzonitrile, 2,4-dinitro-6-tricycl	327	C17H17N3O4	071466-65-4	3
4	Acetamide, N-[4-(trimethylsilyl)phe	207	C11H17NOSi	017983-71-0	2
5	N-Cyano-N',N',N'',N''-tetramethyl-1	207	C8H13N7	074150-88-2	2

****
Peak Number 12 Glycine, N-[2-[(trimethylsilyl Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
38.97	71804.00	71804	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Glycine, N-[2-[(trimethylsilyl)oxy]	339	C15H25NO4Si2	055887-56-4	9
2	3-Isopropoxy-1,1,1,5,5,5-hexamethyl	354	C12H34O4Si4	072182-11-7	9
3	Acetophenone, 3'-(trimethylsiloxy)-	208	C11H16O2Si	033342-86-8	5
4	Acetophenone, 2'-(trimethylsiloxy)-	208	C11H16O2Si	033342-85-7	5
5	Silanamine, N-[2,6-dimethyl-4-[(tri	281	C14H27NOSi2	072088-09-6	5

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397013.D Vial: 0
Acq On : 14 JAN 97 3:47 Operator:
Sample : Inst :
Misc : HRS #1 (13) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 13 1,1,1,3,5,7,9,9,9-Nonamethylpe Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
39.95	70067.00	70067	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,1,1,3,5,7,9,9,9-Nonamethylpentasi	342	C9H30O4Si5	084409-41-6	25
2	7a,9c-(Iminoethano)phenanthro[4,5-b	281	C18H19NO2	024695-70-3	5
3	1,2-Dihydroanthra[1,2-d]thiazole-2,	281	C15H7NO3S	000000-00-0	5
4	1H-Indole-3-carboxaldehyde, 2-(1,1-	281	C19H23NO	025584-28-5	5
5	3,6-Bis(N-dimethylamino)-9-ethylcar	281	C18H23N3	057103-04-5	4

****
Peak Number 14 1,1,1,3,5,7,9,9,9-Nonamethylpe Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
47.86	180113.00	180113	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,1,1,3,5,7,9,9,9-Nonamethylpentasi	342	C9H30O4Si5	084409-41-6	35
2	3-Ethoxy-1,1,1,5,5,5-hexamethyl-3-(	340	C11H32O4Si4	000000-00-0	12
3	1,2-Dihydroanthra[1,2-d]thiazole-2,	281	C15H7NO3S	000000-00-0	10
4	Quinoline, 2-chloro-6-methoxy-4-met	207	C11H10ClNO	006340-55-2	9
5	2-Methyl-7-phenylindole	207	C15H13N	000000-00-0	9

****
Peak Number 15 1,3,5-Tris(trimethylsiloxy)ben Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
48.63	115169.00	115169	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,5-Tris(trimethylsiloxy)benzene	342	C15H30O3Si3	010586-12-6	16
2	Silane, [[(16.alpha.,17.alpha.)-16,	342	C21H30O2Si	074312-41-7	10
3	10-Carbazoyl-1,2,3,4-tetrafluoro-10	327	C14H9F4N3O2	000000-00-0	10
4	Acenaphtho[1,2-b]phenanthro[9,10-d]	342	C26H14O	000000-00-0	9
5	6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397013.D Vial: 0
Acq On : 14 JAN 97 3:47 Operator:
Sample : Inst :
Misc : HRS #1 (13) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 16 Stannane, trimethyl-9-phenanth Concentration Rank 14

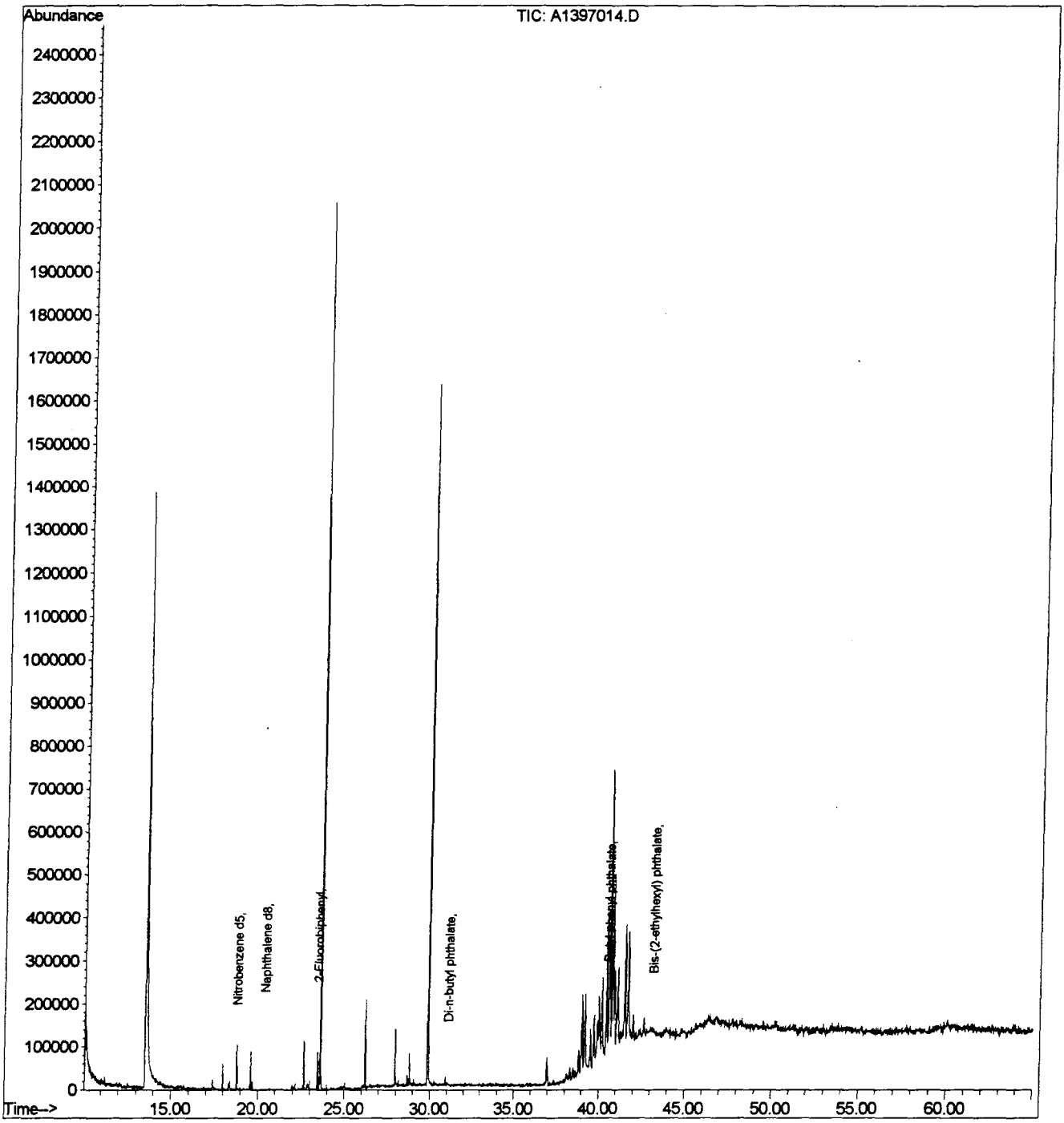
R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
63.16	59136.00	59136	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Stannane, trimethyl-9-phenanthryl-	342	C17H18Sn	000957-74-4	27
2	1-Propylpentachlorotriphosphazene	353	C3H7Cl5N3P3	075132-80-8	22
3	2-(Acetoxymethyl)-3-(methoxycarbony	282	C17H14O4	093103-70-9	10
4	Pyridine, 1,2,3,6-tetrahydro-1-meth	207	C12H14ClN	000000-00-0	9
5	Sarcocapnidine	327	C19H21NO4	087069-33-8	8

Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397014.D Vial: 0
Acq On : 14 JAN 97 5:10 Operator:
Sample : Inst :
Misc : HRS #3 (14) Multiplr: 1.00
Quant Time: Feb 4 0:17 1997 Quant Results File: BASENEUT.RES

Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397014.D Vial: 0
Acq On : 14 JAN 97 5:10 Operator:
Sample : Inst :
Misc : HRS #3 (14) Multiplr: 1.00
Quant Time: Feb 4 0:17 1997 Quant Results File: BASENEUT.RES

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration
DataAcq Meth :
IS QA File : 4 level for IS QA unknown. No recoveries calculated.

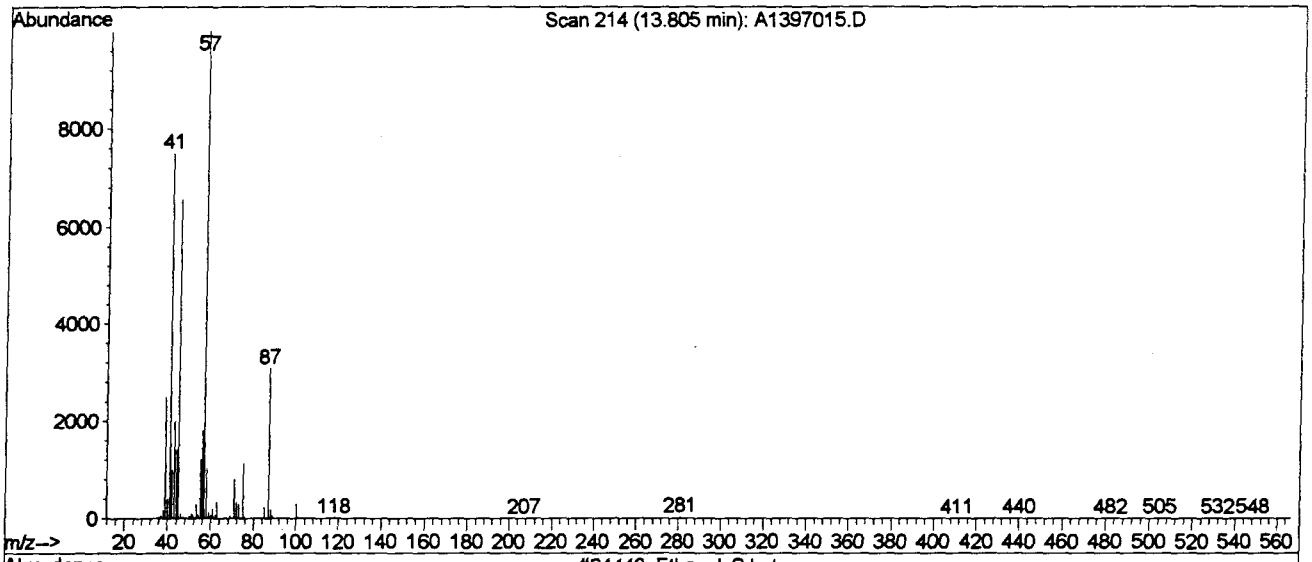
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)

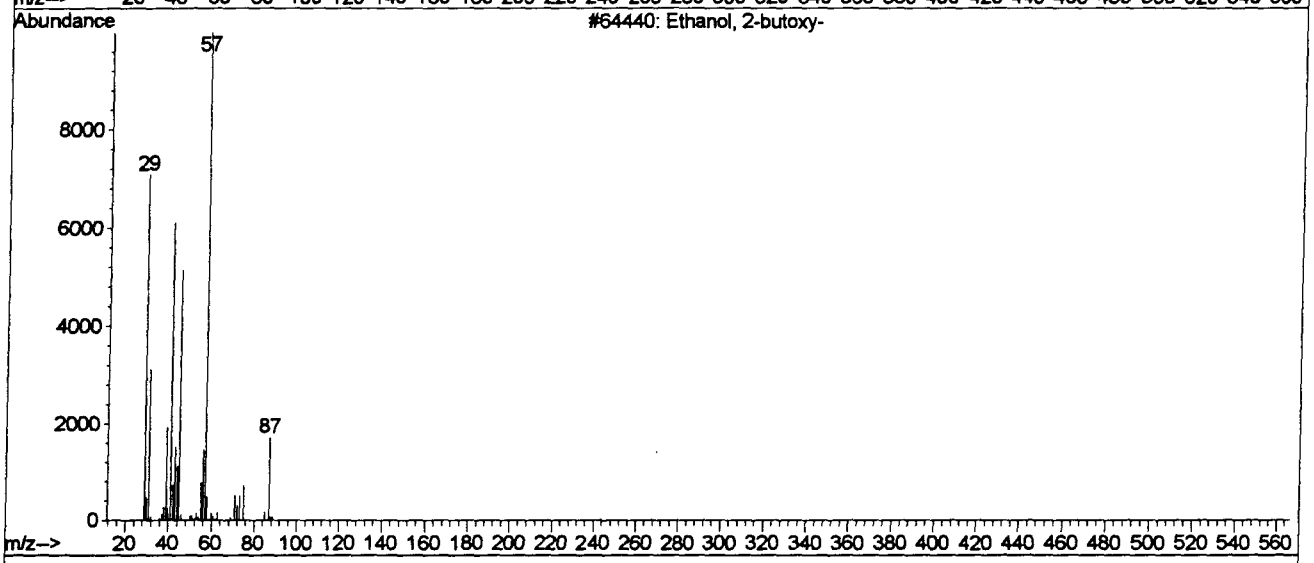
System Monitoring Compounds

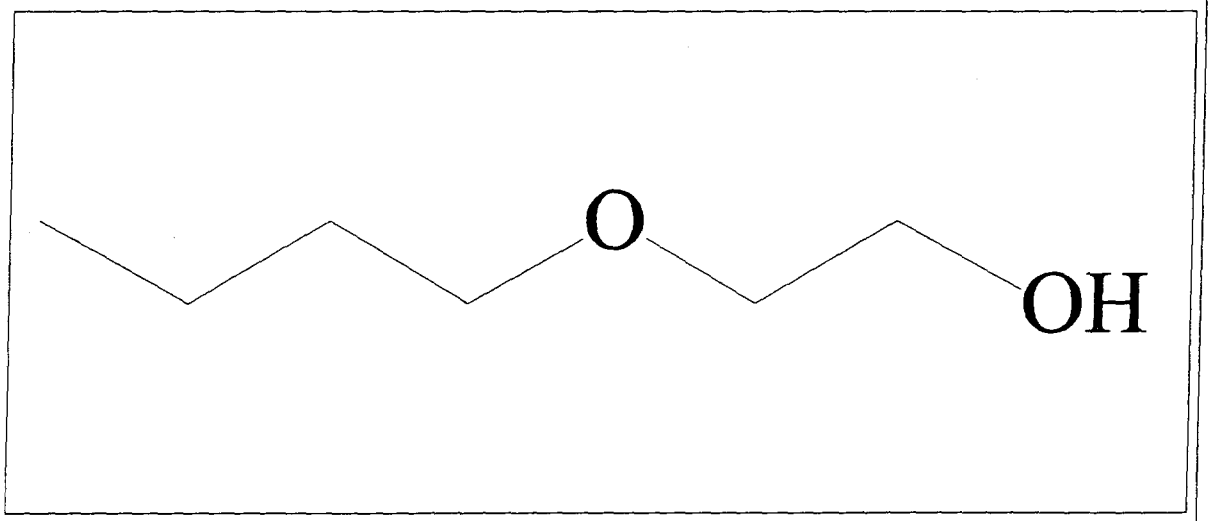
Target Compounds					Qvalue
11) Nitrobenzene d5	17.97	128	12928m	3.64	1
16) Naphthalene d8	19.58	136	5518	1.61 ng	100
20) 2-Fluorobiphenyl	22.62	172	133622	5.80	95
33) Di-n-butyl phthalate	30.23	149	15388m	1.59 ng	80
34) Butyl phenyl phthalate	39.69	149	275245m	92.70 ng	38
35) Bis-(2-ethylhexyl) phthala	42.37	149	44185m	8.97 ng	50

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

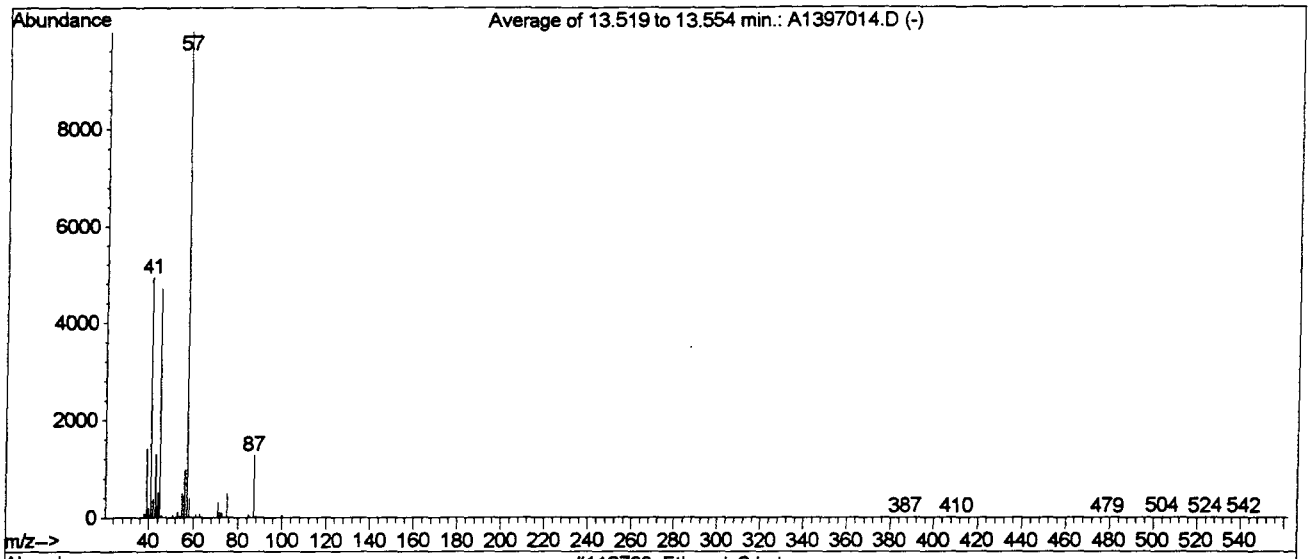
Library Searched : C:\DATABASE\NBS75K.L
Quality : 53
ID : Ethanol, 2-butoxy-

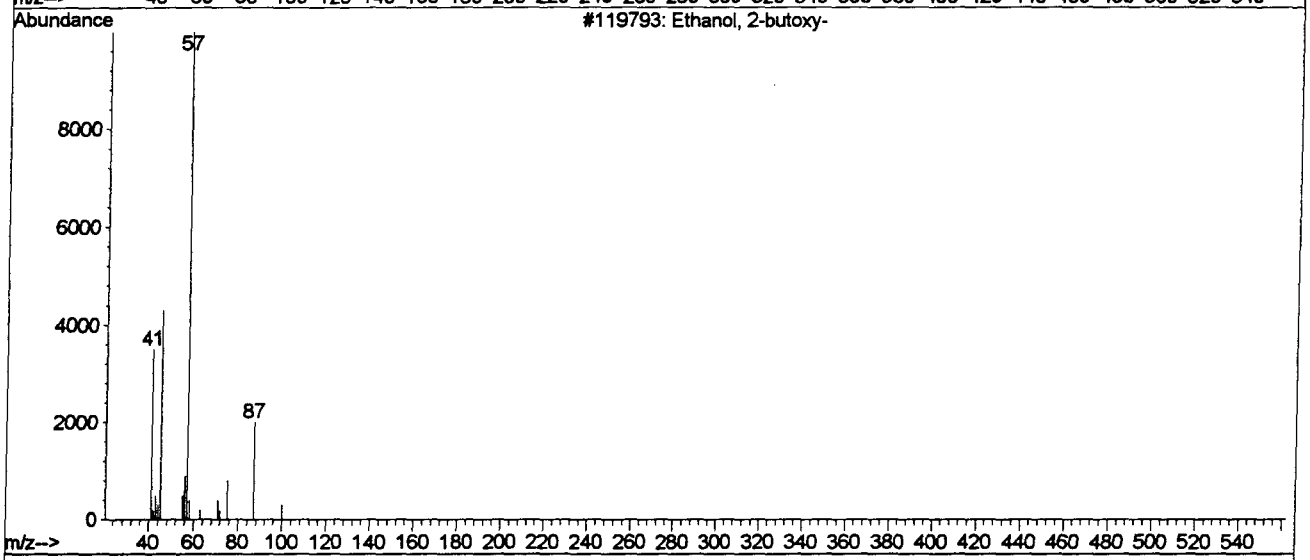


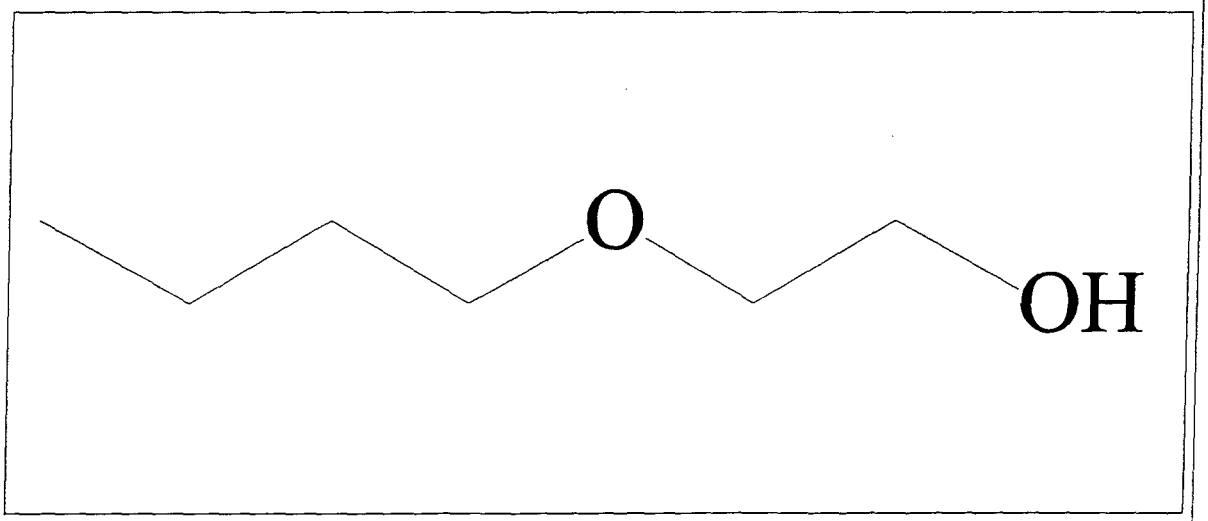




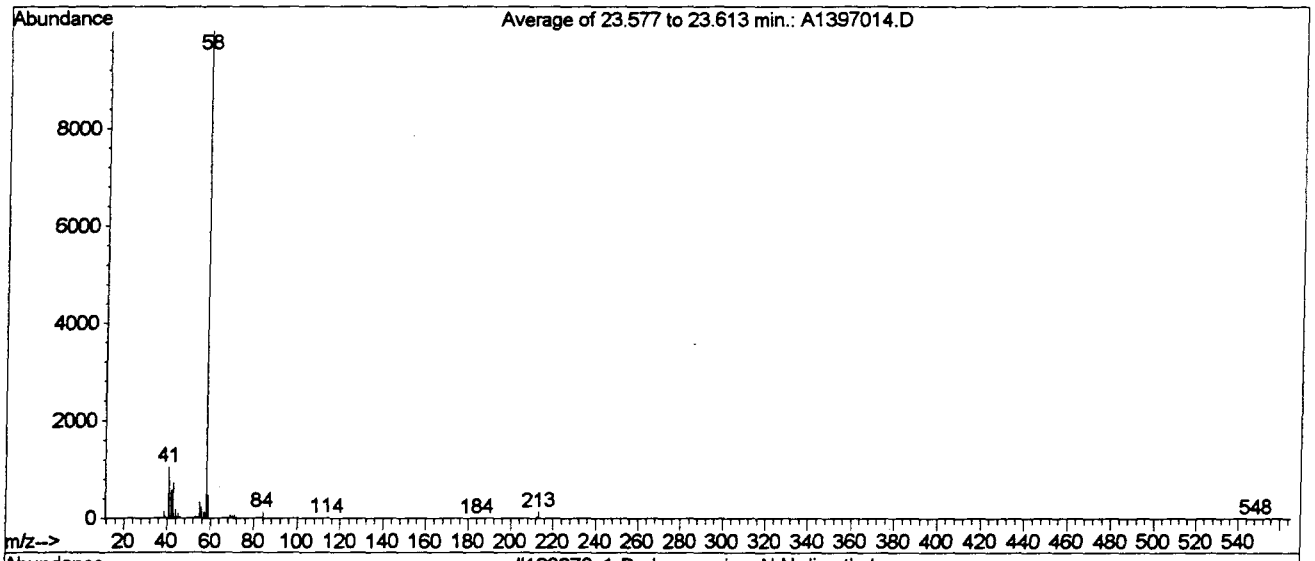
Library Searched : C:\DATABASE\wiley138.L
Quality : 78
ID : Ethanol, 2-butoxy-

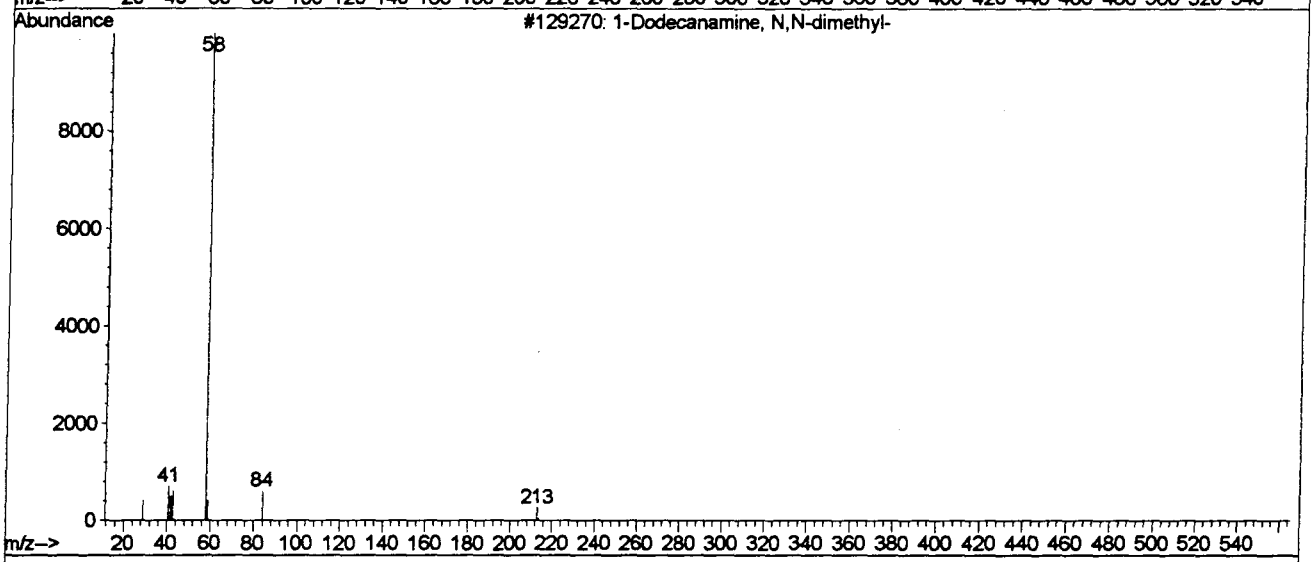


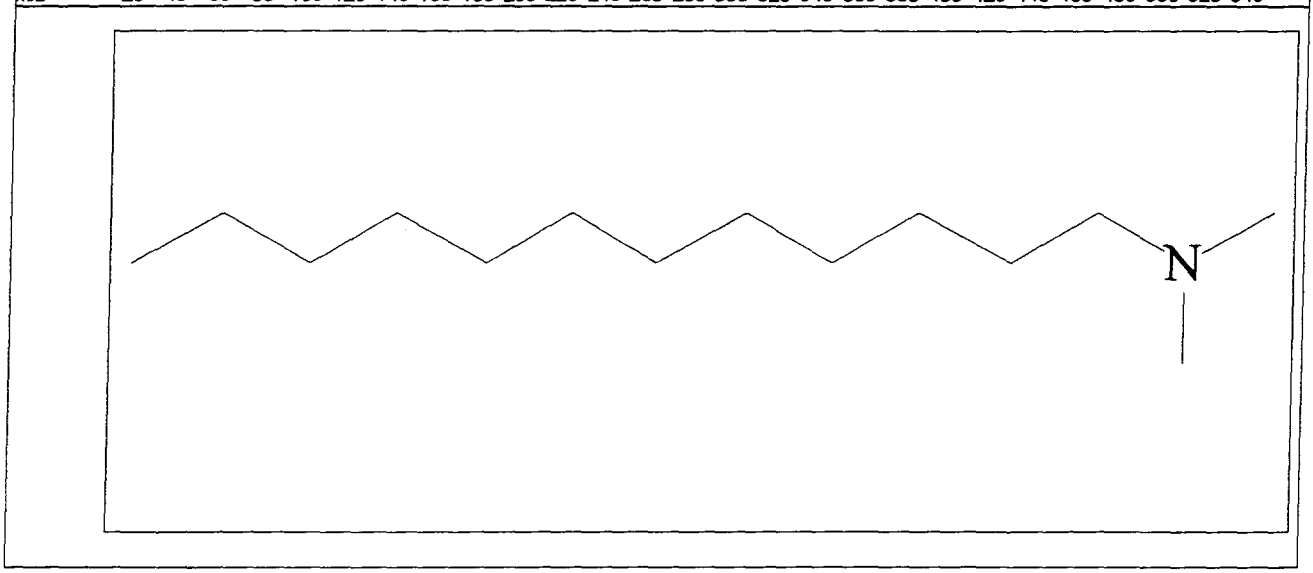




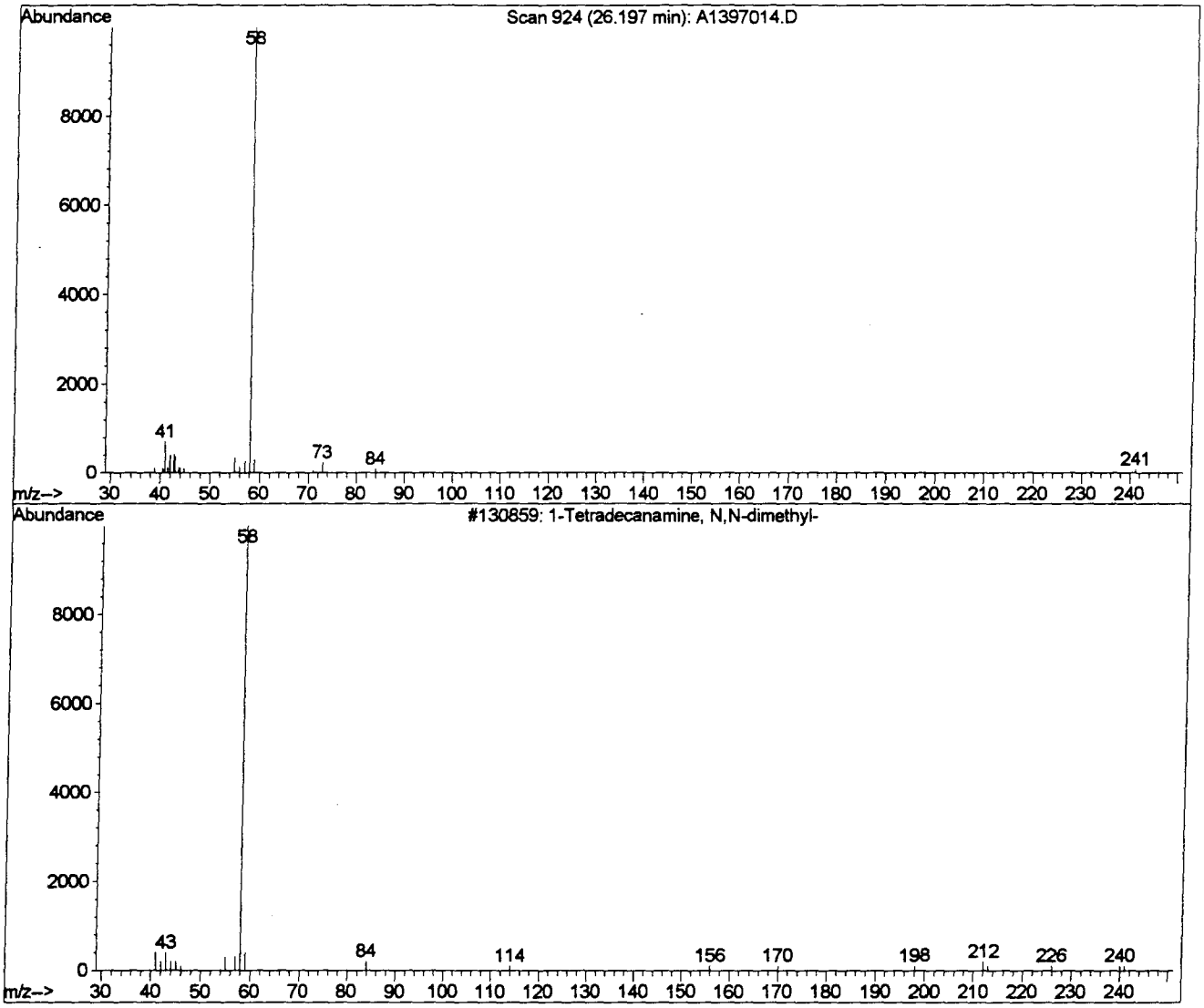
Library Searched : C:\DATABASE\wiley138.L
Quality : 9
ID : 1-Dodecanamine, N,N-dimethyl-







Library Searched : C:\DATABASE\wiley138.L
Quality : 78
ID : 1-Tetradecanamine, N,N-dimethyl-



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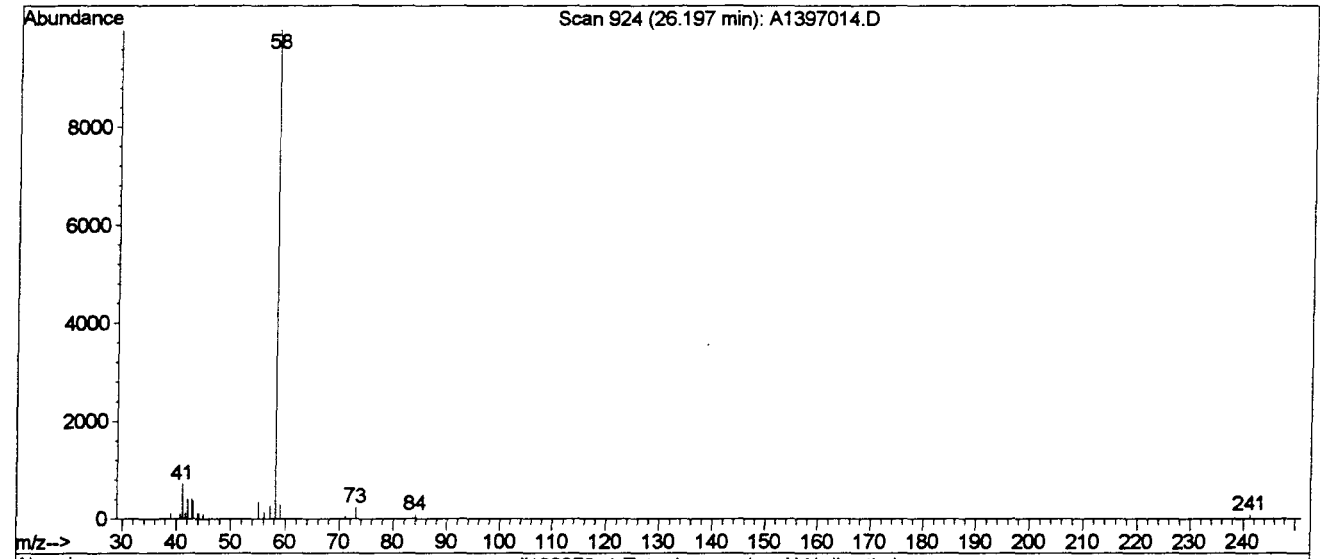
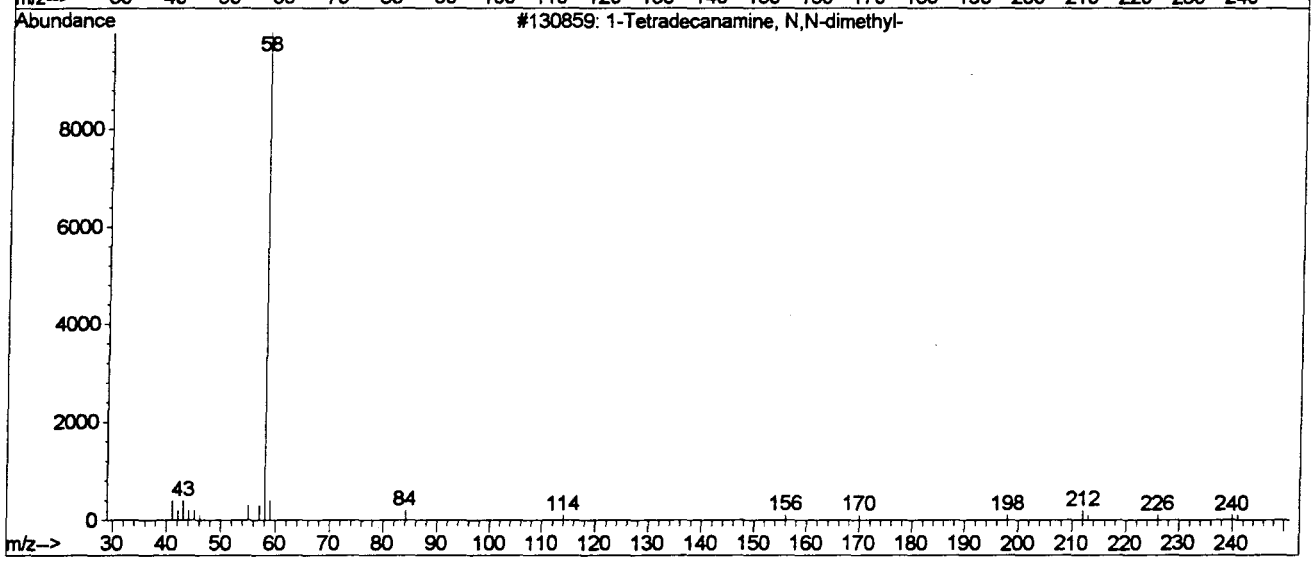
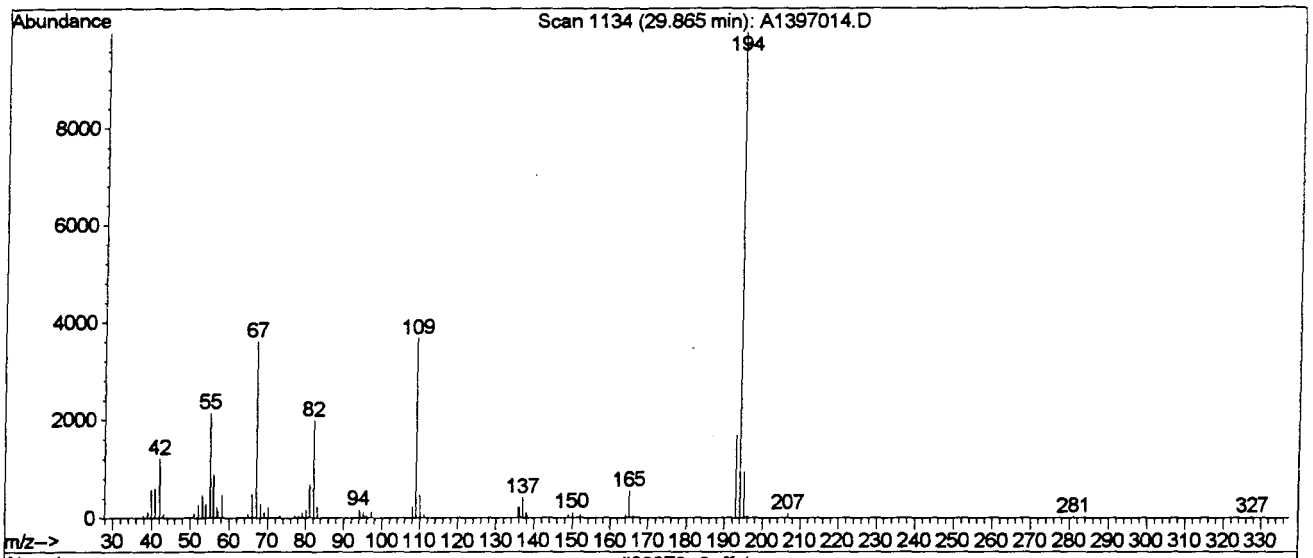
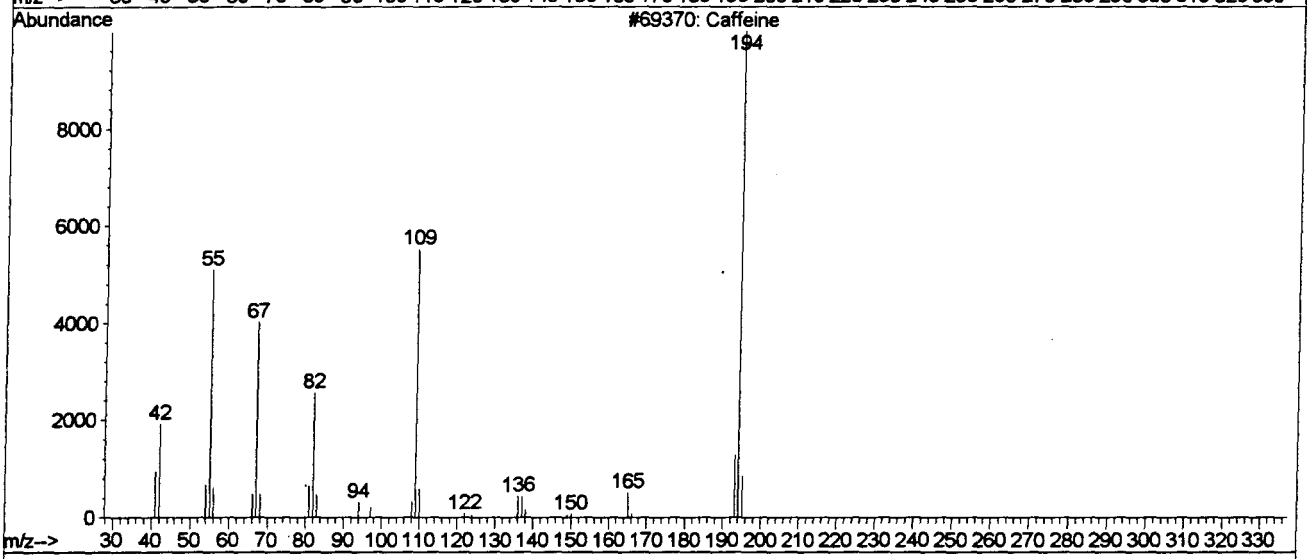
Quality : 78
ID : 1-Tetradecanamine, N,N-dimethyl-

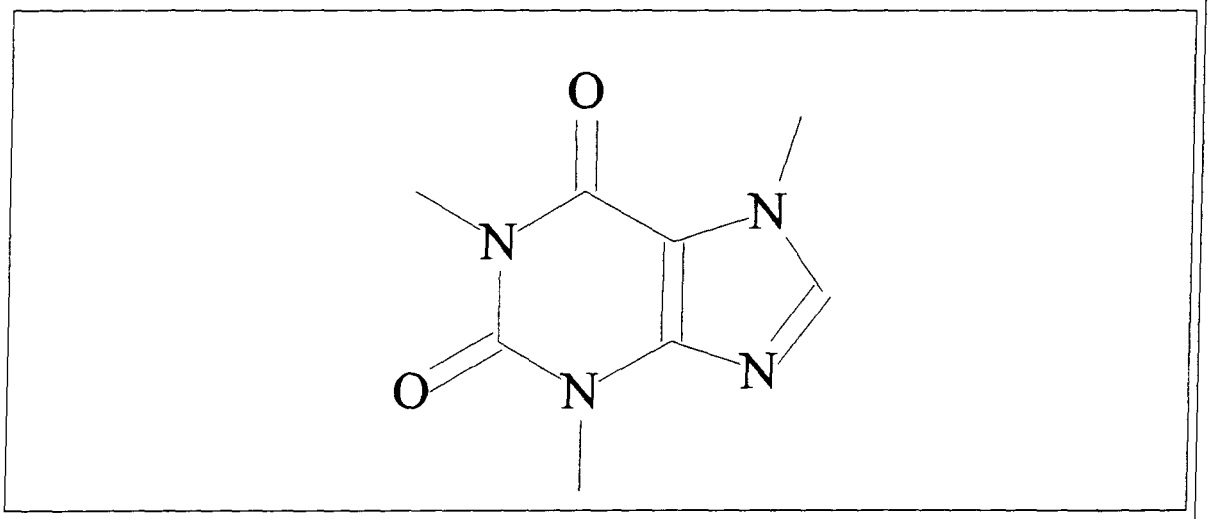




Library Searched : C:\DATABASE\NBS75K.L
Quality : 94
ID : Caffeine







Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397014.D Vial: 0
Acq On : 14 JAN 97 5:10 Operator:
Sample : Inst :
Misc : HRS #3 (14) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 1 Unknown Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.16	605300.00	605300	External Standard	1	0.00

Hit# of 1	Tentative ID	MW	MolForm	CAS#	Qual
1	No Hits From C:\DATABASE\NBS75K.L	0			0

****
Peak Number 2 Ethanol, 2-butoxy- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.52	6308490.00	6308490	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-butoxy-	118	C6H14O2	000111-76-2	50
2	2-Butanone, 3,3-dimethyl-	100	C6H12O	000075-97-8	30
3	Ethanol, 2-butoxy-	118	C6H14O2	000111-76-2	28
4	Propane, 2-methyl-2-nitro-	103	C4H9NO2	000594-70-7	27
5	Propanoic acid, 2,2-dimethyl-	102	C5H10O2	000075-98-9	23

****
Peak Number 3 N,N-Dimethyloctylamine Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
23.60	3627220.00	3627220	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	N,N-Dimethyloctylamine	157	C10H23N	007378-99-6	56
2	N,N-Dimethyl-2-butoxyethylamine	145	C8H19NO	071126-58-4	40
3	1-Dimethylaminohexane	129	C8H19N	004385-04-0	40
4	N,N-Dimethyl-3-ethoxypropylamine	131	C7H17NO	025277-18-3	40
5	2-Butanol, 1-(dimethylamino)-	117	C6H15NO	003760-96-1	40

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397014.D Vial: 0
Acq On : 14 JAN 97 5:10 Operator:
Sample : Inst :
Misc : HRS #3 (14) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 4 Propanal Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
26.20	447389.00	447389	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanal	58	C3H6O	000123-38-6	9
2	Propanal	58	C3H6O	000123-38-6	9
3	Trimethylene oxide	58	C3H6O	000503-30-0	7
4	2-Propanamine, 2-methyl-	73	C4H11N	000075-64-9	7
5	Trimethylene oxide	58	C3H6O	000503-30-0	4

****
Peak Number 5 Caffeine Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
29.87	4307490.00	4307490	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Caffeine	194	C8H10N4O2	000058-08-2	94
2	Caffeine	194	C8H10N4O2	000058-08-2	94
3	Caffeine	194	C8H10N4O2	000058-08-2	94
4	Caffeine	194	C8H10N4O2	000058-08-2	91
5	Caffeine	194	C8H10N4O2	000058-08-2	91

****
Peak Number 6 1,2-Benzenedicarboxylic acid, Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
39.00	772294.00	772294	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, isode	418	C26H42O4	001330-96-7	42
2	1,2-Benzenedicarboxylic acid, decyl	418	C26H42O4	000119-07-3	40
3	1,2-Benzenedicarboxylic acid, butyl	362	C22H34O4	000089-19-0	40
4	1,2-Benzenedicarboxylic acid, bis(8	446	C28H46O4	000089-16-7	39
5	1,2-Benzenedicarboxylic acid, diiso	418	C26H42O4	028553-12-0	38

Library Search Compound Report

```
Data File : C:\QMASS\DATA\97JAN\A1397014.D                Vial: 0
Acq On    : 14 JAN 97   5:10                           Operator:
Sample    :                                            Inst    :
Misc      : HRS #3 (14)                                Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title        : Base-Neutrals
Library      : C:\DATABASE\NBS75K.L
```

****

Peak Number 7 1,2-Benzenedicarboxylic acid, Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
39.20	739260.00	739260	External Standard	1	0.00

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		1,2-Benzenedicarboxylic acid, bis(8	446	C28H46O4	000089-16-7	38
2		1,2-Benzenedicarboxylic acid, dicyc	330	C20H26O4	000084-61-7	36
3		1,2-Benzenedicarboxylic acid, diiso	418	C26H42O4	028553-12-0	36
4		1,2-Benzenedicarboxylic acid, dipen	306	C18H26O4	000131-18-0	28
5		Di-n-octyl phthalate	390	C24H38O4	000117-84-0	9

****

Peak Number 8 1,2-Benzenedicarboxylic acid, Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
39.97	507774.00	507774	External Standard	1	0.00

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		1,2-Benzenedicarboxylic acid, isode	418	C26H42O4	001330-96-7	38
2		1,2-Benzenedicarboxylic acid, dihep	362	C22H34O4	003648-21-3	38
3		1,2-Benzenedicarboxylic acid, mono(	278	C16H22O4	004376-20-9	33
4		1,2-Benzenedicarboxylic acid, ditri	530	C34H58O4	000119-06-2	23
5		Furo[3,2-b]pyridine, 2-methyl-, 4-o	149	C8H7NO2	069022-83-9	9

****

Peak Number 9 1,2-Benzenedicarboxylic acid, Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
40.16	705506.00	705506	External Standard	1	0.00

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		1,2-Benzenedicarboxylic acid, bis(8	446	C28H46O4	000089-16-7	38
2		Di-n-octyl phthalate	390	C24H38O4	000117-84-0	38
3		1,2-Benzenedicarboxylic acid, diiso	418	C26H42O4	028553-12-0	36
4		Bis(2-ethylhexyl) phthalate	390	C24H38O4	000117-81-7	28
5		1,2-Benzenedicarboxylic acid, dipen	306	C18H26O4	000131-18-0	28

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397014.D Vial: 0
Acq On : 14 JAN 97 5:10 Operator:
Sample : Inst :
Misc : HRS #3 (14) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 10 1,2-Benzenedicarboxylic acid, Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
40.42	1198080.00	1198080	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, dihep	362	C22H34O4	003648-21-3	64
2	1,2-Benzenedicarboxylic acid, isode	418	C26H42O4	001330-96-7	53
3	1,2-Benzenedicarboxylic acid, butyl	362	C22H34O4	000089-18-9	53
4	1,2-Benzenedicarboxylic acid, decyl	418	C26H42O4	000119-07-3	42
5	Bis(2-ethylhexyl) phthalate	390	C24H38O4	000117-81-7	42

****
Peak Number 11 1,2-Benzenedicarboxylic acid, Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
40.60	2542800.00	2542800	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, dihep	362	C22H34O4	003648-21-3	72
2	Pseudo-gem-(E)-12,14-dioxobicyclo<8	266	C16H14N2O2	078740-10-0	59
3	Bis(2-methoxyethyl) phthalate	282	C14H18O6	000117-82-8	59
4	Di-n-octyl phthalate	390	C24H38O4	000117-84-0	53
5	Bis(2-ethylhexyl) phthalate	390	C24H38O4	000117-81-7	45

****
Peak Number 12 Pseudo-gem-(E)-12,14-dioxobicy Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
40.77	1772580.00	1772580	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pseudo-gem-(E)-12,14-dioxobicyclo<8	266	C16H14N2O2	078740-10-0	53
2	1,2-Benzenedicarboxylic acid, dihep	362	C22H34O4	003648-21-3	50
3	Di-n-octyl phthalate	390	C24H38O4	000117-84-0	42
4	1,2-Benzenedicarboxylic acid, butyl	334	C20H30O4	000085-69-8	42
5	1,2-Benzenedicarboxylic acid, bis(4	334	C20H30O4	000146-50-9	42

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397014.D Vial: 0
Acq On : 14 JAN 97 5:10 Operator:
Sample : Inst :
Misc : HRS #3 (14) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 13 1,2-Benzenedicarboxylic acid, Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
40.89	648085.00	648085	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, dihep	362	C22H34O4	003648-21-3	59
2	1,2-Benzenedicarboxylic acid, butyl	304	C18H24O4	000084-64-0	50
3	1,2-Benzenedicarboxylic acid, dipen	306	C18H26O4	000131-18-0	50
4	Didodecyl phthalate	502	C32H54O4	002432-90-8	40
5	1,2-Benzenedicarboxylic acid, dipro	250	C14H18O4	000131-16-8	40

****
Peak Number 14 1,2-Benzenedicarboxylic acid, Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
41.07	967823.00	967823	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, decyl	418	C26H42O4	000119-07-3	50
2	1,2-Benzenedicarboxylic acid, bis(4	334	C20H30O4	000146-50-9	50
3	1,2-Benzenedicarboxylic acid, butyl	362	C22H34O4	000089-19-0	40
4	Di-n-octyl phthalate	390	C24H38O4	000117-84-0	40
5	1,2-Benzenedicarboxylic acid, isode	418	C26H42O4	001330-96-7	33

****
Peak Number 15 Bis(2-chlorocyclohexyl) S,S-di Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
41.49	1111160.00	1111160	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bis(2-chlorocyclohexyl) S,S-dithioc	326	C13H20Cl2OS2	105214-29-7	59
2	Pseudo-gem-(E)-12,14-dioxobicyclo<8	266	C16H14N2O2	078740-10-0	59
3	1,2-Benzenedicarboxylic acid, dihep	362	C22H34O4	003648-21-3	56
4	1,2-Benzenedicarboxylic acid, isode	418	C26H42O4	001330-96-7	53
5	1,2-Benzenedicarboxylic acid, butyl	362	C22H34O4	000089-19-0	36

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397014.D Vial: 0
Acq On : 14 JAN 97 5:10 Operator:
Sample : Inst :
Misc : HRS #3 (14) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 16 1,2-Benzenedicarboxylic acid, Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
41.68	1168870.00	1168870	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, decyl	390	C24H38O4	025724-58-7	59
2	1,2-Benzenedicarboxylic acid, butyl	362	C22H34O4	000089-19-0	59
3	1,2-Benzenedicarboxylic acid, isode	418	C26H42O4	001330-96-7	50
4	1,2-Benzenedicarboxylic acid, decyl	418	C26H42O4	000119-07-3	50
5	1,2-Benzenedicarboxylic acid, bis(2	278	C16H22O4	000084-69-5	39

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 14 JAN 97 5:10
Data File: C:\QMASS\DATA\97JAN\A1397014.D
Name:
Misc: HRS #3 (14)
Method:
Title: Base-Neutrals
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc Units	Area	IntStd	ISRT	ISArea	ISConc
No Hits From C:\DATA	10.16	605300.0	605300	ISTD00	0.00	1	1.0
Ethanol, 2-butoxy-	13.52	6308490.0	6308490	ISTD00	0.00	1	1.0
N,N-Dimethyloctylami	23.60	3627220.0	3627220	ISTD00	0.00	1	1.0
Propanal	26.20	447389.0	447389	ISTD00	0.00	1	1.0
Caffeine	29.87	4307490.0	4307490	ISTD00	0.00	1	1.0
1,2-Benzenedicarboxy	39.00	772294.0	772294	ISTD00	0.00	1	1.0
1,2-Benzenedicarboxy	39.20	739260.0	739260	ISTD00	0.00	1	1.0
1,2-Benzenedicarboxy	39.97	507774.0	507774	ISTD00	0.00	1	1.0
1,2-Benzenedicarboxy	40.16	705506.0	705506	ISTD00	0.00	1	1.0
1,2-Benzenedicarboxy	40.42	1198080.0	1198080	ISTD00	0.00	1	1.0
1,2-Benzenedicarboxy	40.60	2542800.0	2542800	ISTD00	0.00	1	1.0
Pseudo-gem-(E)-12,14	40.77	1772580.0	1772580	ISTD00	0.00	1	1.0
1,2-Benzenedicarboxy	40.89	648085.0	648085	ISTD00	0.00	1	1.0
1,2-Benzenedicarboxy	41.07	967823.0	967823	ISTD00	0.00	1	1.0
Bis(2-chlorocyclohex	41.49	1111160.0	1111160	ISTD00	0.00	1	1.0
1,2-Benzenedicarboxy	41.68	1168870.0	1168870	ISTD00	0.00	1	1.0

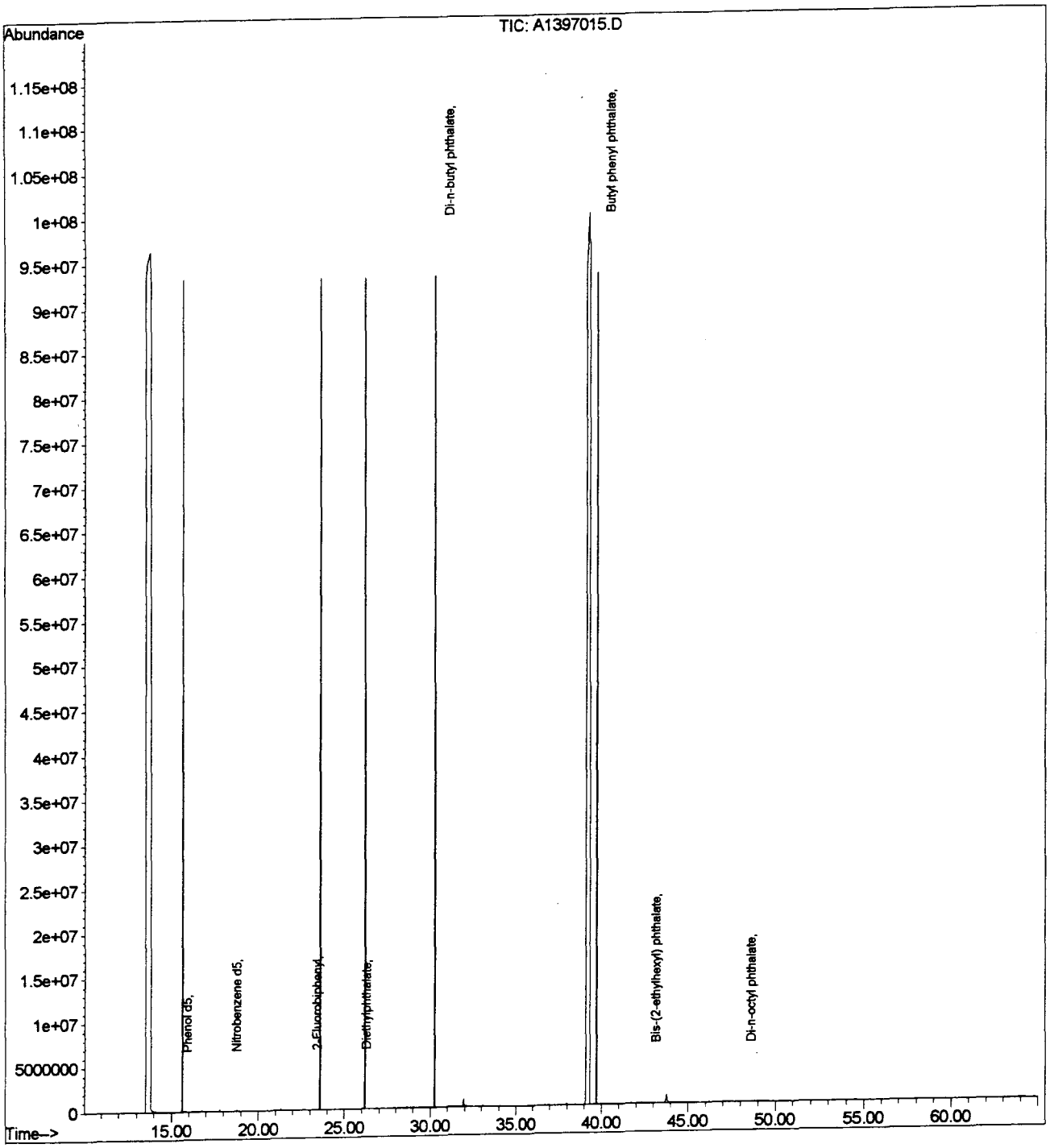
A1397014.D BASENEUT.M Tue Feb 04 09:06:22 1997

Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397015.D
Acq On : 14 JAN 97 6:33
Sample :
Misc : HRS #4 (15)
Quant Time: Feb 4 0:30 1997

Vial: 0
Operator:
Inst :
Multiplr: 1.00
Quant Results File: BASENEUT.RES

Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397015.D Vial: 0
Acq On : 14 JAN 97 6:33 Operator:
Sample : Inst :
Misc : HRS #4 (15) Multiplr: 1.00
Quant Time: Feb 4 0:30 1997 Quant Results File: BASENEUT.RES

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration
DataAcq Meth :
IS QA File : 4 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)

System Monitoring Compounds

Target Compounds						Qvalue
2) Phenol d5	15.10	99	6709	1.46		# 1
11) Nitrobenzene d5	17.96	128	64097m	18.04		16
20) 2-Fluorobiphenyl	22.63	172	451816	19.62		99
26) Diethylphthalate	25.46	149	13024m	2.36	ng	90
33) Di-n-butyl phthalate	30.25	149	6591206m	680.88	ng	71
34) Butyl phenyl phthalate	39.70	149	5836850m	1965.79	ng	82
35) Bis-(2-ethylhexyl) phthala	42.34	149	1616355	328.15	ng	94
37) Di-n-octyl phthalate	47.79	149	122925m	15.93	ng	39

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

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397015.D Vial: 0
Acq On : 14 JAN 97 6:33 Operator:
Sample : Inst :
Misc : HRS #4 (15) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 1 2-Butenoic acid, 2-methyl-, (E Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.77	1805210000.00	18052100	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Butenoic acid, 2-methyl-, (E)-	100	C5H8O2	000080-59-1	83
2	2H-Thiopyran, 3,4-dihydro-	100	C5H8S	013042-80-3	83
3	1,3-Butadiene, 1,4-dichloro-	122	C4H4Cl2	002984-42-1	83
4	2-Butenenitrile	67	C4H5N	004786-20-3	83
5	2H-Pyran, tetrahydro-2-(2,2,2-trifl	184	C7H11F3O2	016408-83-6	83

****
Peak Number 2 Ethanol, 2-(2-ethoxyethoxy)- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.63	99347000.00	99347000	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-(2-ethoxyethoxy)-	134	C6H14O3	000111-90-0	83
2	Ethanol, 2-(2-ethoxyethoxy)-	134	C6H14O3	000111-90-0	50
3	Ethane, 1,1'-oxybis[2-ethoxy-]	162	C8H18O3	000112-36-7	45
4	Benzeneethanamine, 2-fluoro-.beta.,	229	C11H16FNO3	000000-00-0	39
5	Silane, dimethyl-	60	C2H8Si	001111-74-6	36

****
Peak Number 3 1-Propanol, 3-(dimethylamino)- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
23.59	195795000.00	19579500	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propanol, 3-(dimethylamino)-	103	C5H13NO	003179-63-3	59
2	1,6-Hexanediamine, N,N,N',N'-tetram	172	C10H24N2	000111-18-2	59
3	Pentanal, 2,3-dimethyl-	114	C7H14O	032749-94-3	43
4	1,3-Propanediamine, N,N-dimethyl-	102	C5H14N2	000109-55-7	39
5	Silacyclopentane	86	C4H10Si	000288-06-2	38

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397015.D Vial: 0
Acq On : 14 JAN 97 6:33 Operator:
Sample : Inst :
Misc : HRS #4 (15) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 4 N,N-Dimethyl-3-tert-butoxyprop Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
26.18	195598000.00	19559800	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	N,N-Dimethyl-3-tert-butoxypropylami	159	C9H21NO	071126-68-6	50
2	Cetrimonium Bromide	363	C19H42BrN	000057-09-0	50
3	1,2-Ethanediamine, N'-ethyl-N,N-dim	116	C6H16N2	000123-83-1	50
4	Propylhexedrine	155	C10H21N	000101-40-6	42
5	2-Butanone, 4-(dimethylamino)-3-met	129	C7H15NO	022104-62-7	39

****
Peak Number 5 1-Phenylthio-1-phenyl-3-acetox Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
39.28	1238640000.00	12386400	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Phenylthio-1-phenyl-3-acetoxy-2-p	300	C17H16O3S	053258-90-5	91
2	Benzamide, 4-chloro-	155	C7H6ClNO	000619-56-7	91
3	Tridecane-2,4-dione	212	C13H24O2	025276-80-6	91
4	Bicyclo[3.3.1]nonan-3-one, 7-(amino	167	C10H17NO	056701-31-6	90
5	2-Naphthalenepropanoic acid, .beta.	300	C19H24O3	057289-68-6	90

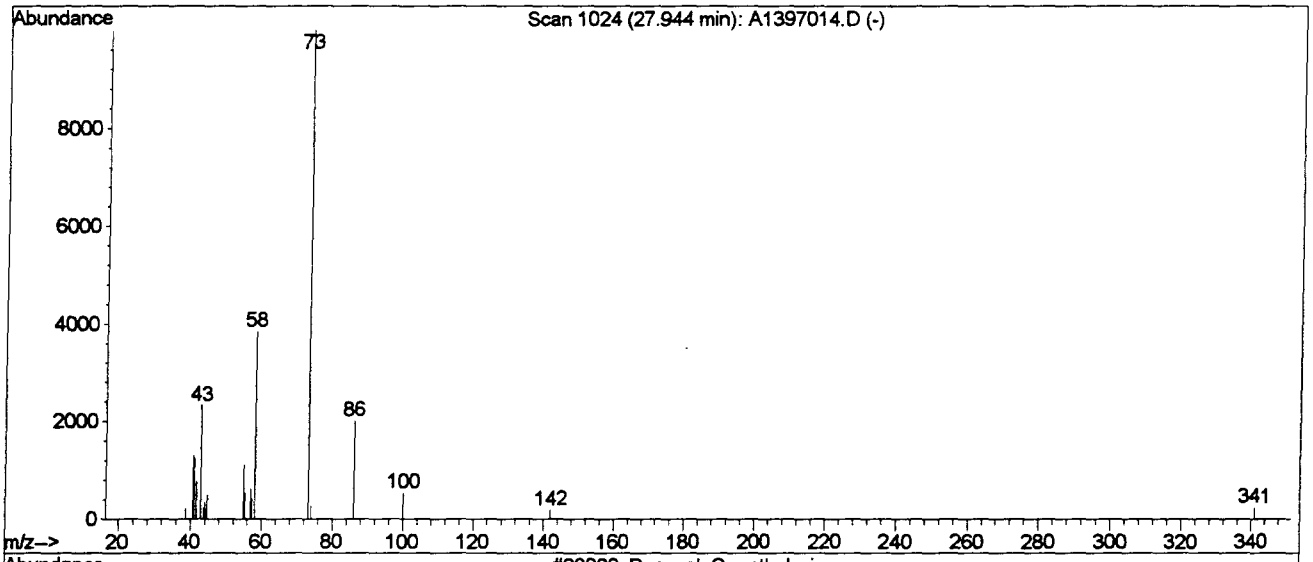
Tentatively Identified Compound (LSC) summary

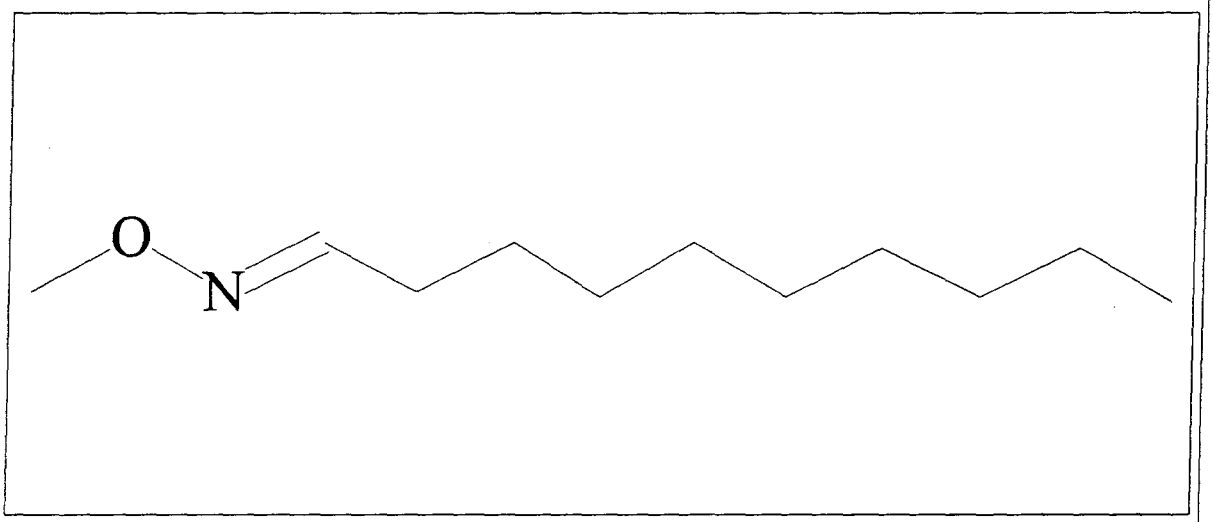
Operator ID: Date Acquired: 14 JAN 97 6:33
Data File: C:\QMASS\DATA\97JAN\A1397015.D
Name:
Misc: HRS #4 (15)
Method:
Title: Base-Neutrals
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
2-Butenoic acid, 2-m	13.77	1805210000.0		1805210000	ISTD00	0.00		1
Ethanol, 2-(2-ethoxy	15.63	99347000.0		99347000	ISTD00	0.00	1	1.
1-Propanol, 3-(dimet	23.59	195795000.0		195795000	ISTD00	0.00	1	
N,N-Dimethyl-3-tert-	26.18	195598000.0		195598000	ISTD00	0.00	1	
1-Phenylthio-1-pheny	39.28	1238640000.0		1238640000	ISTD00	0.00		1

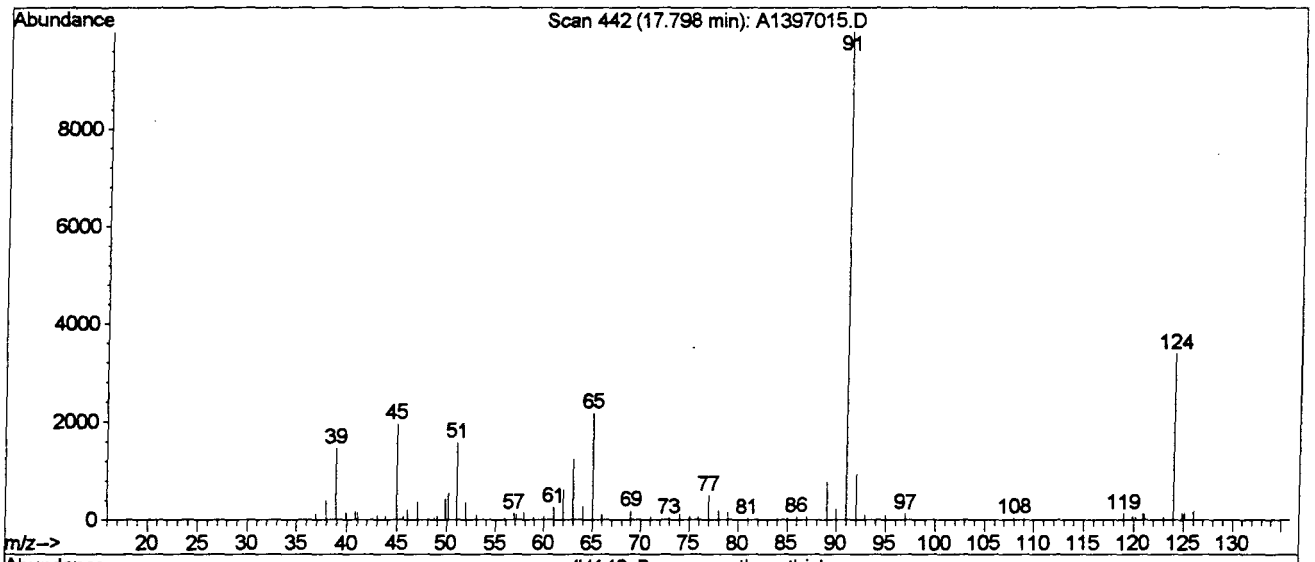
A1397015.D BASENEUT.M Tue Feb 04 09:02:37 1997

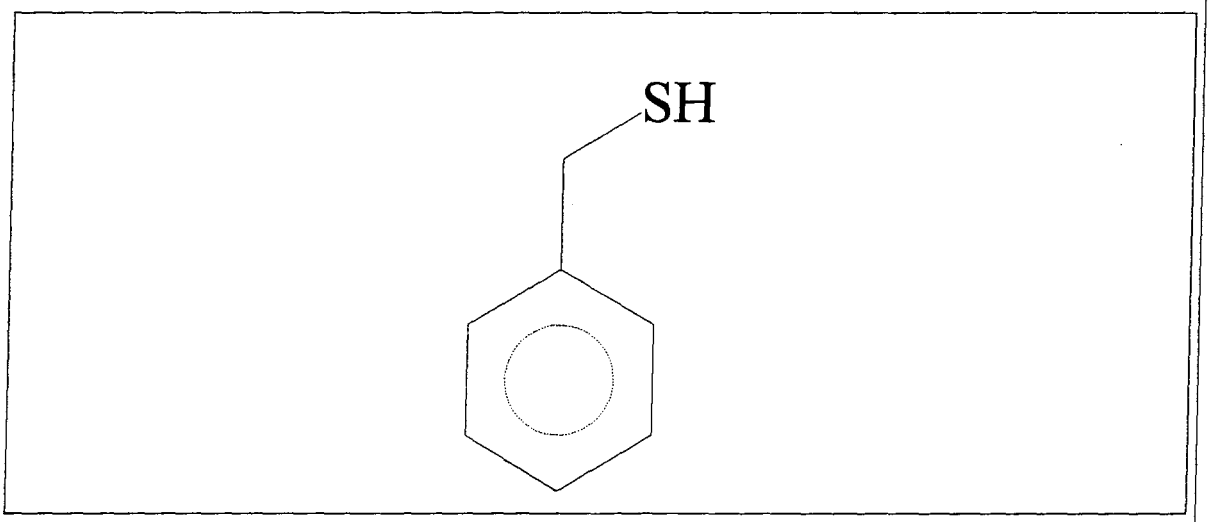
Library Searched : C:\DATABASE\wiley138.L
Quality : 9
ID : Decanal, O-methyloxime



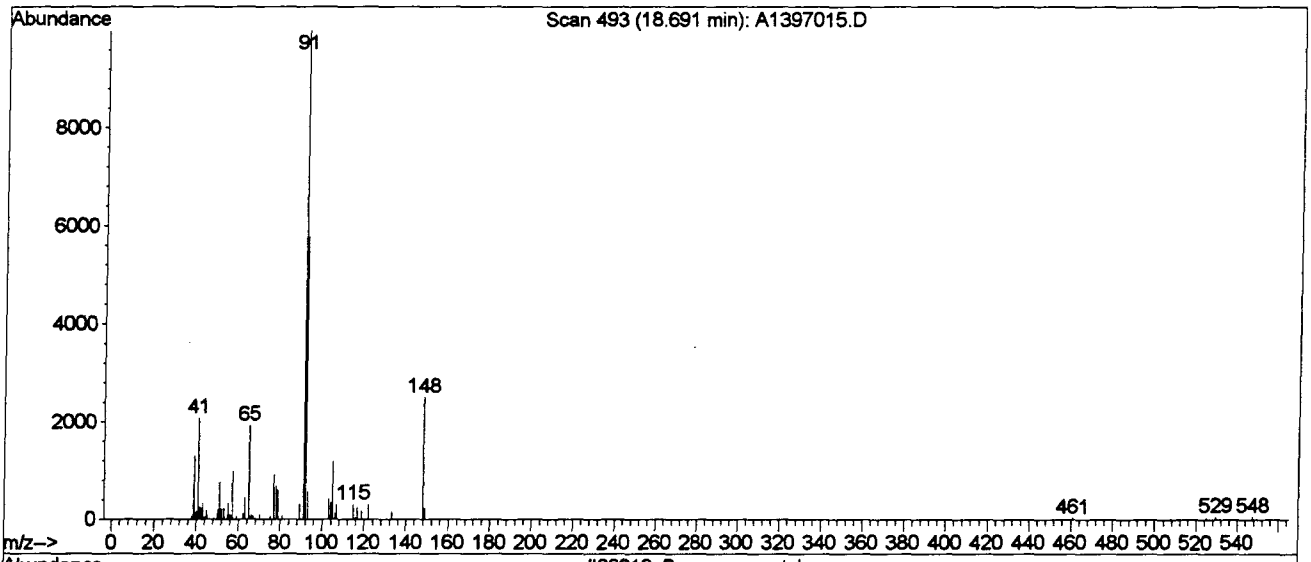


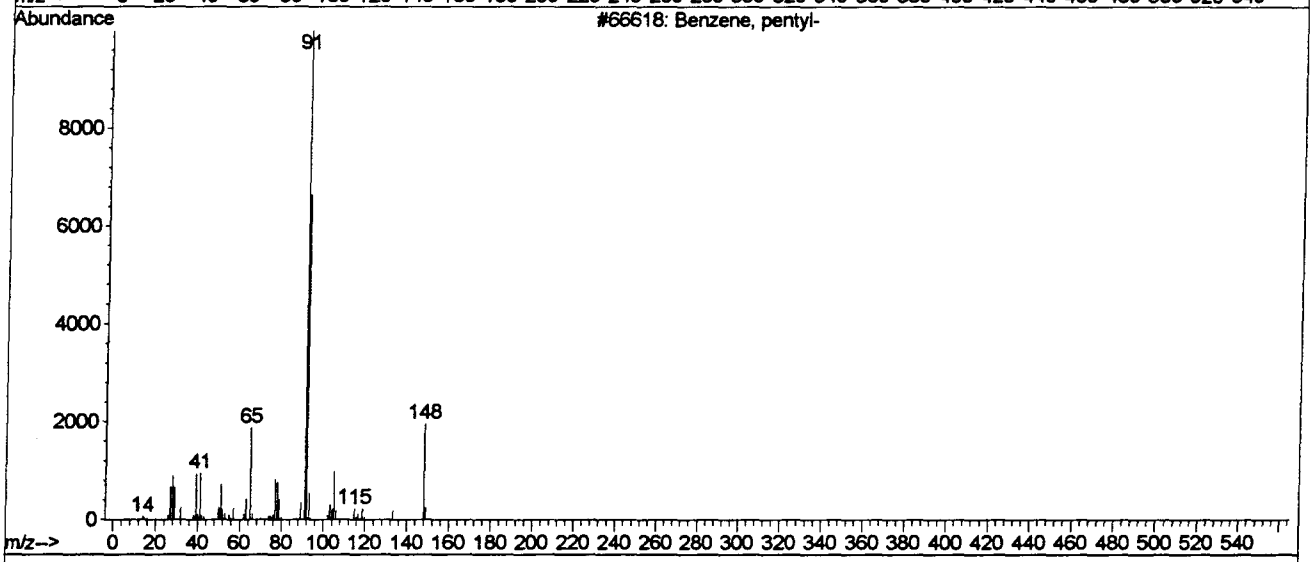
Library Searched : C:\DATABASE\NBS75K.L
Quality : 87
ID : Benzenemethanethiol

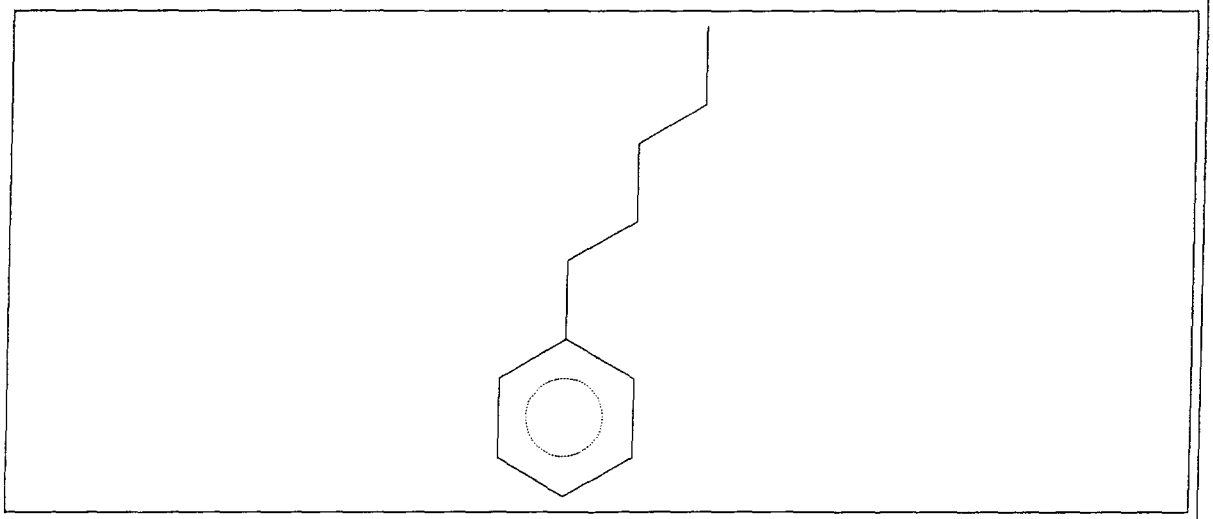




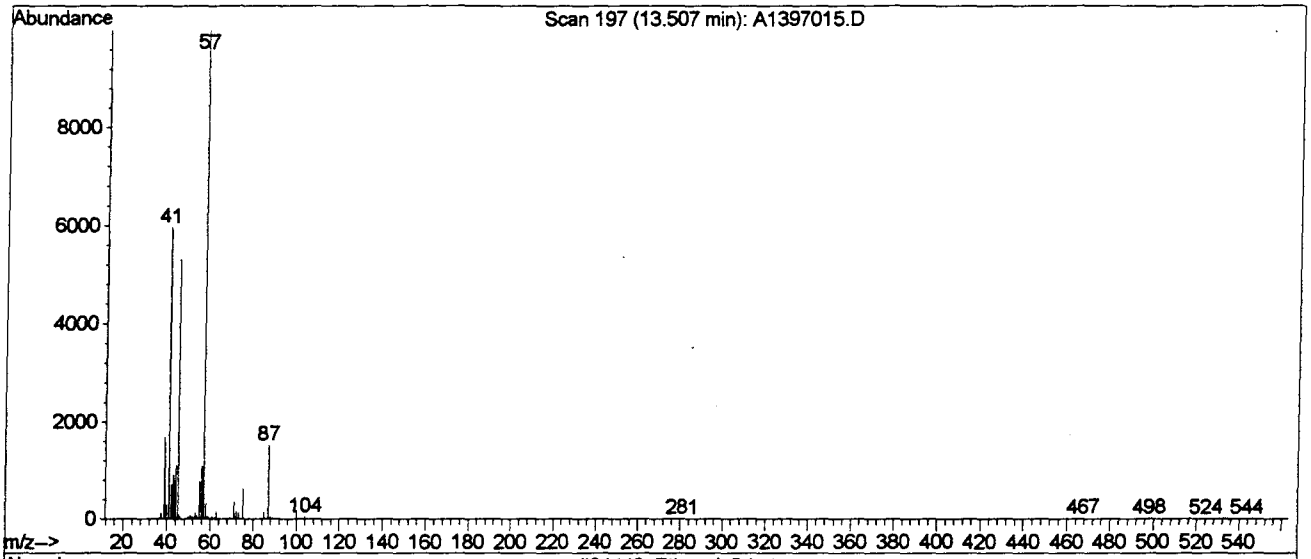
Library Searched : C:\DATABASE\NBS75K.L
Quality : 90
ID : Benzene, pentyl-

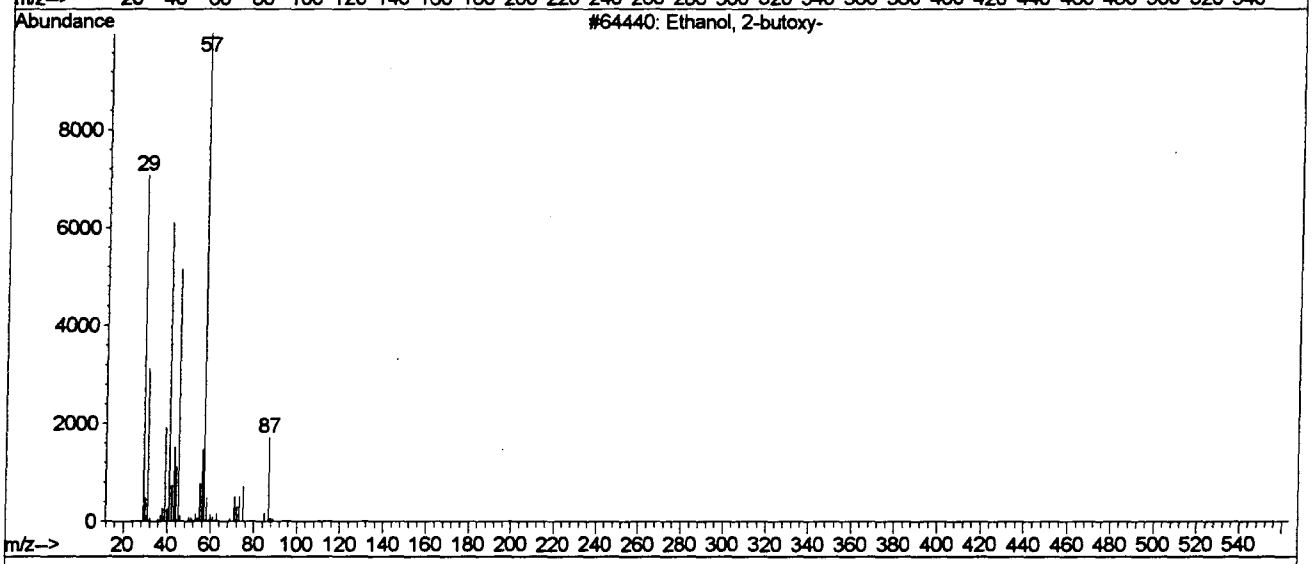


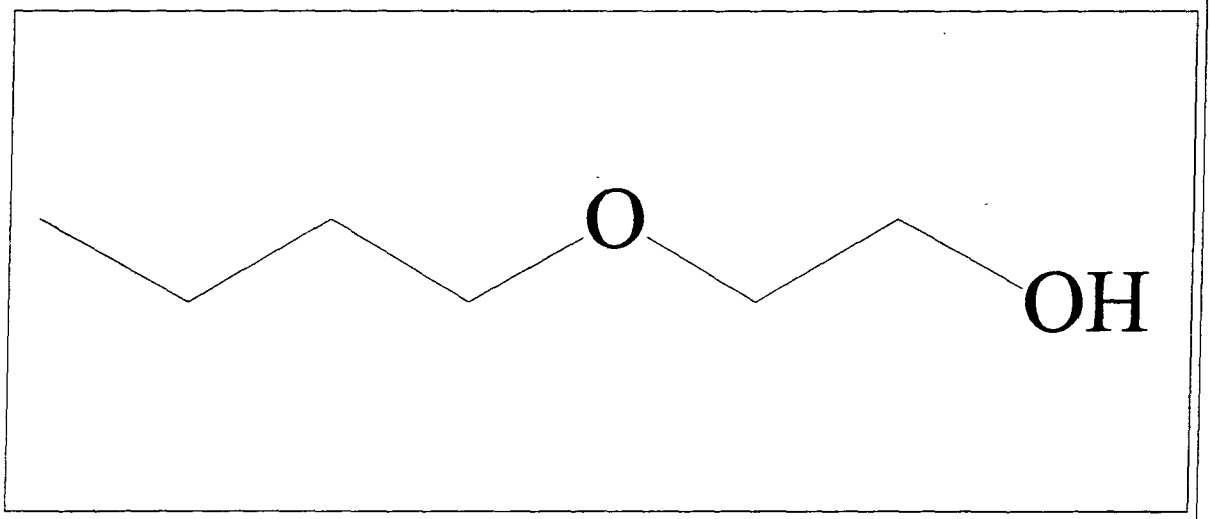




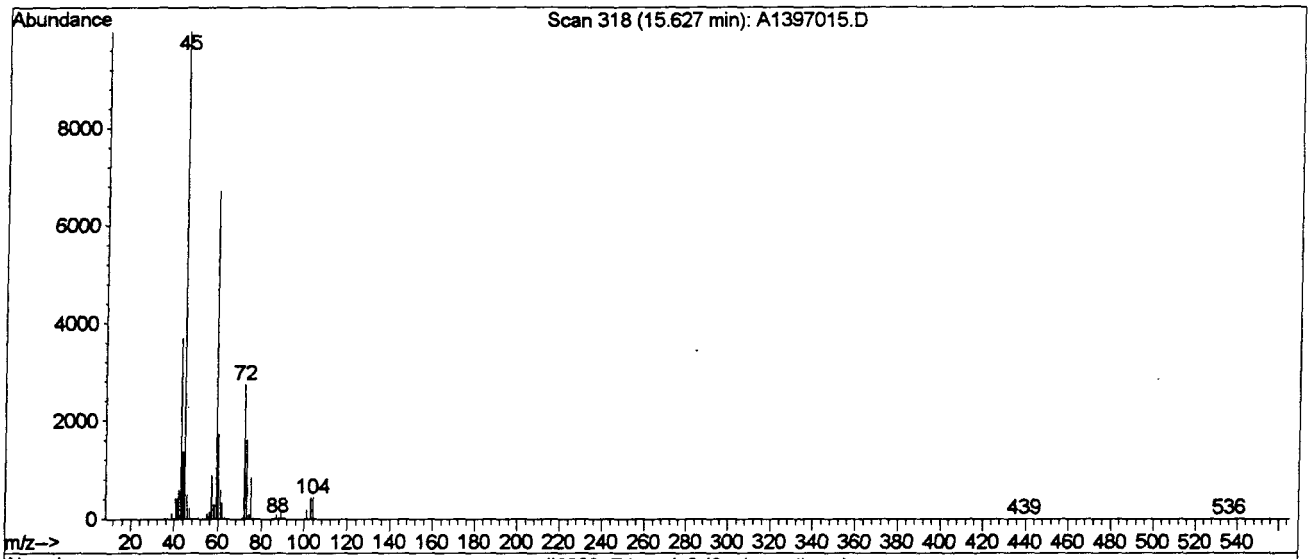
Library Searched : C:\DATABASE\NBS75K.L
Quality : 74
ID : Ethanol, 2-butoxy-

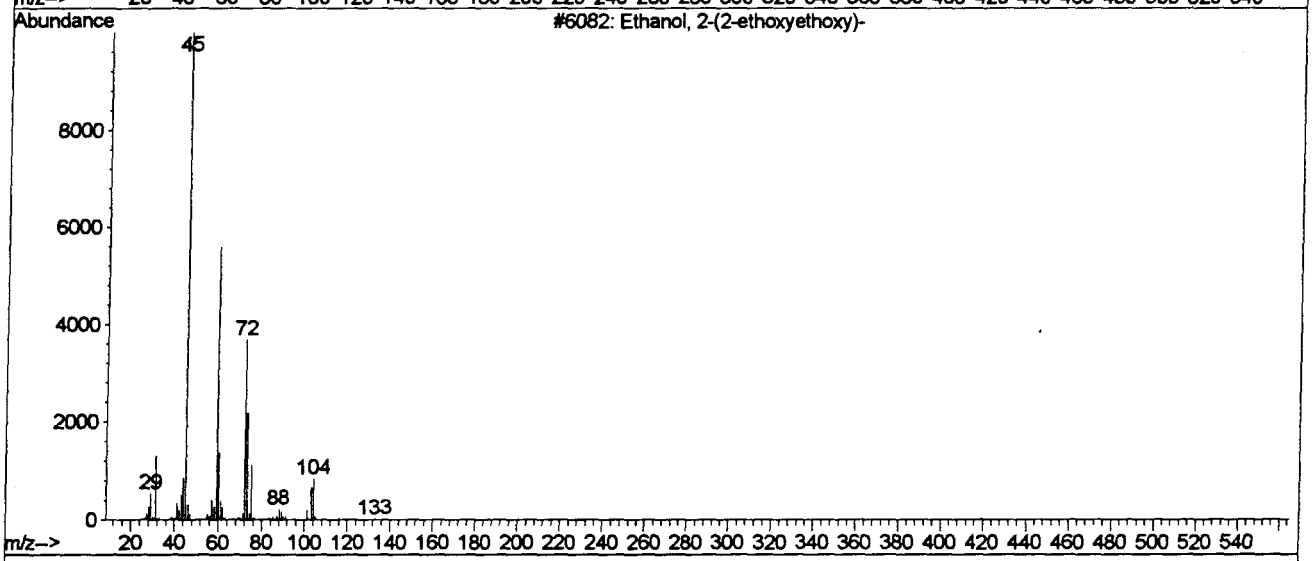


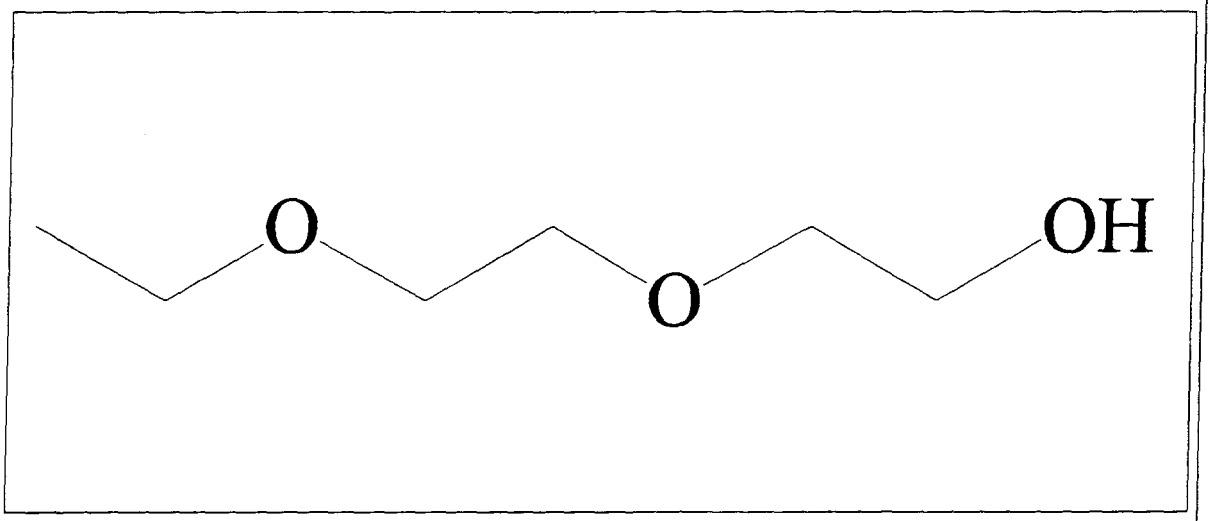




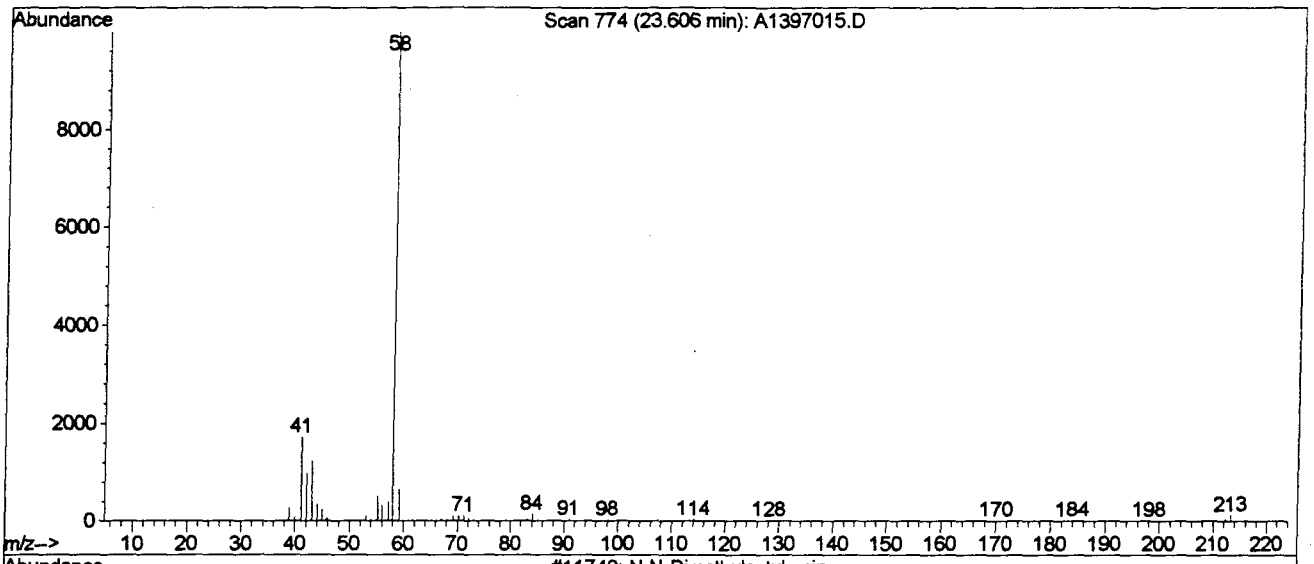
Library Searched : C:\DATABASE\NBS75K.L
Quality : 78
ID : Ethanol, 2-(2-ethoxyethoxy)-

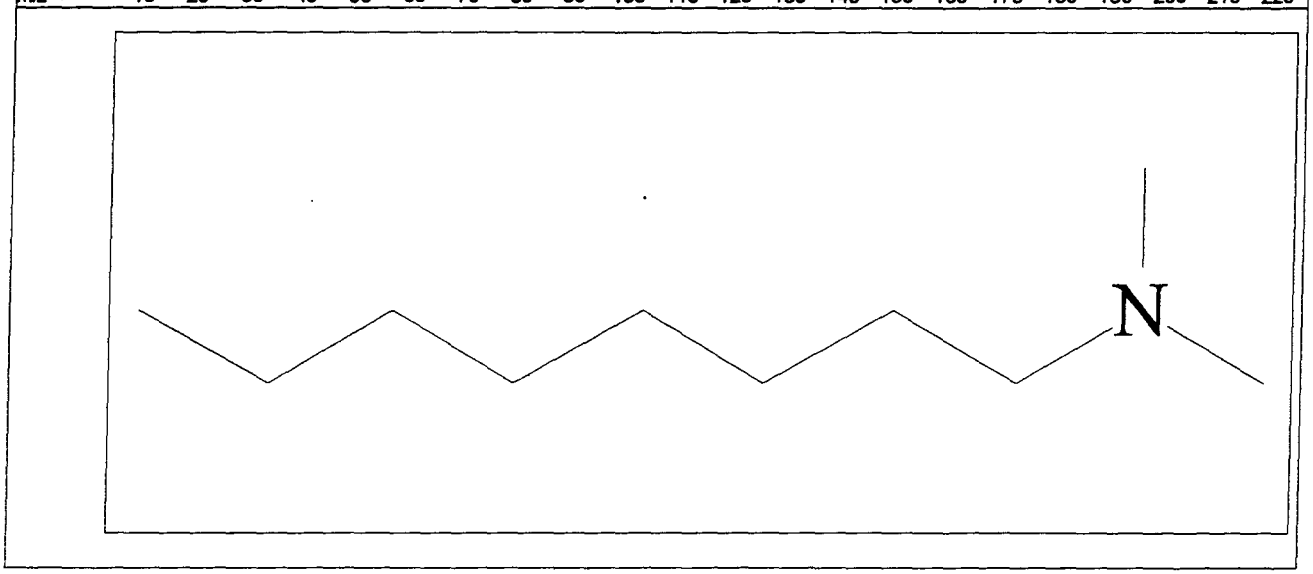




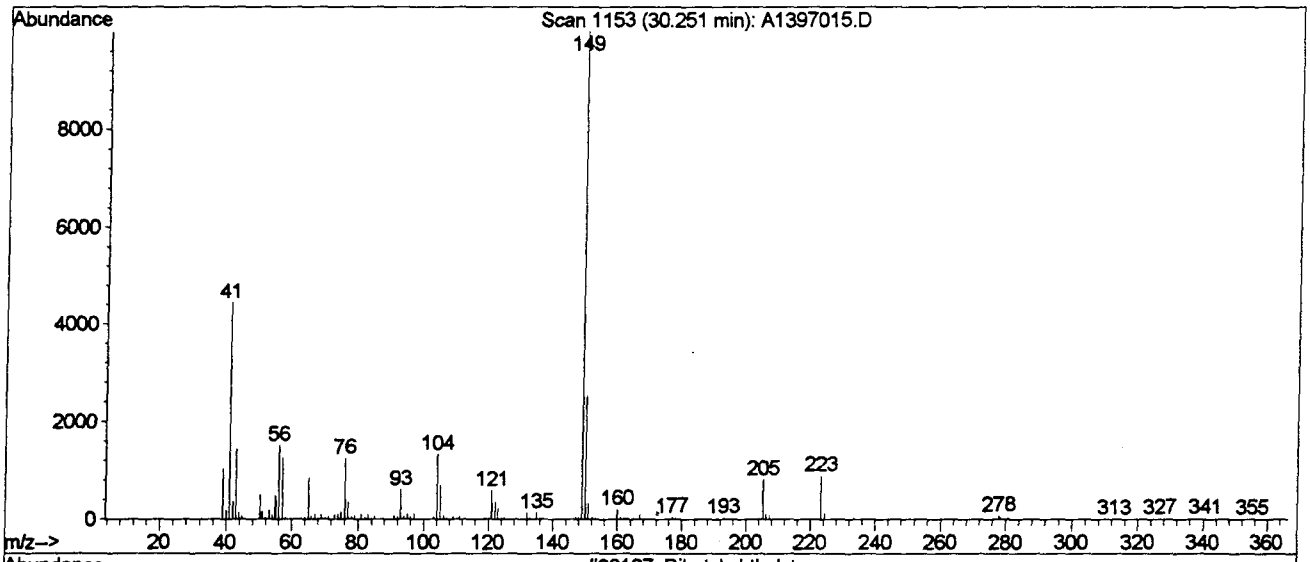


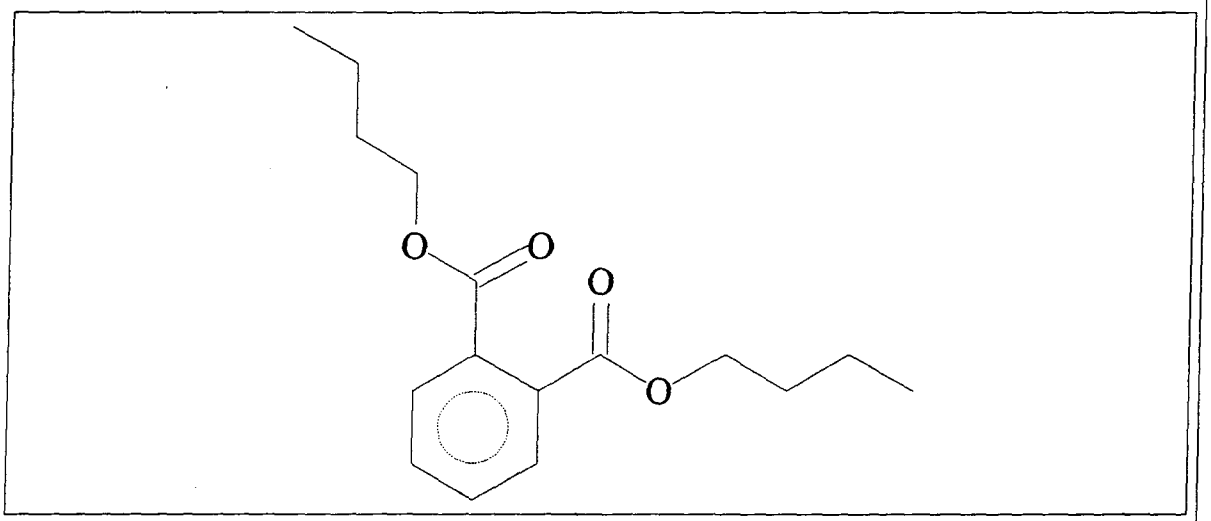
Library Searched : C:\DATABASE\NBS75K.L
Quality : 64
ID : N,N-Dimethyloctylamine



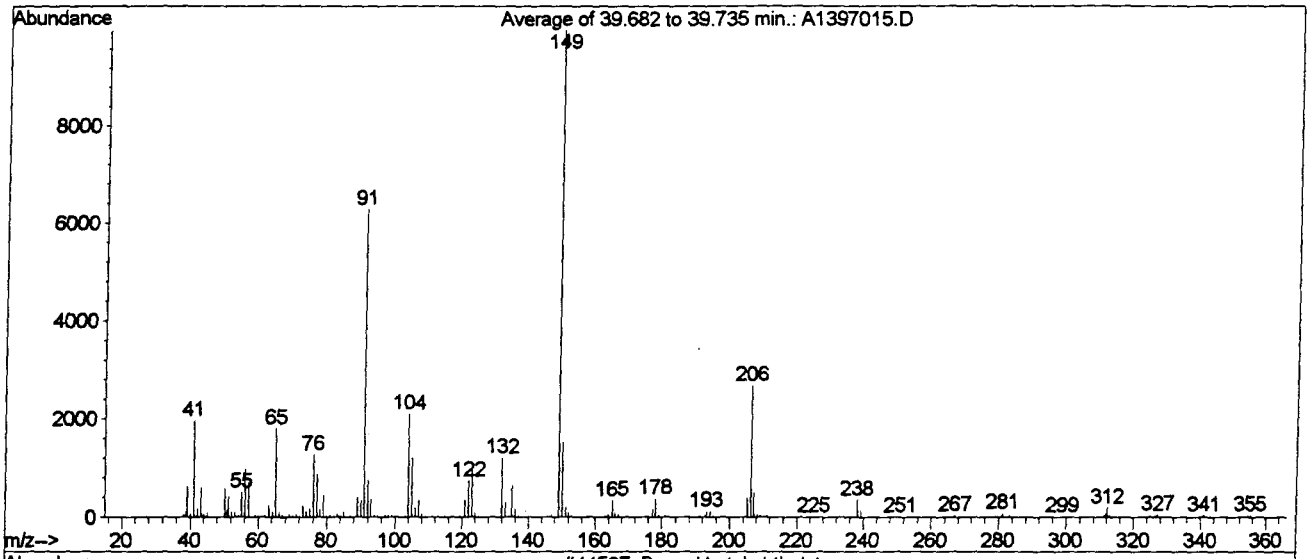


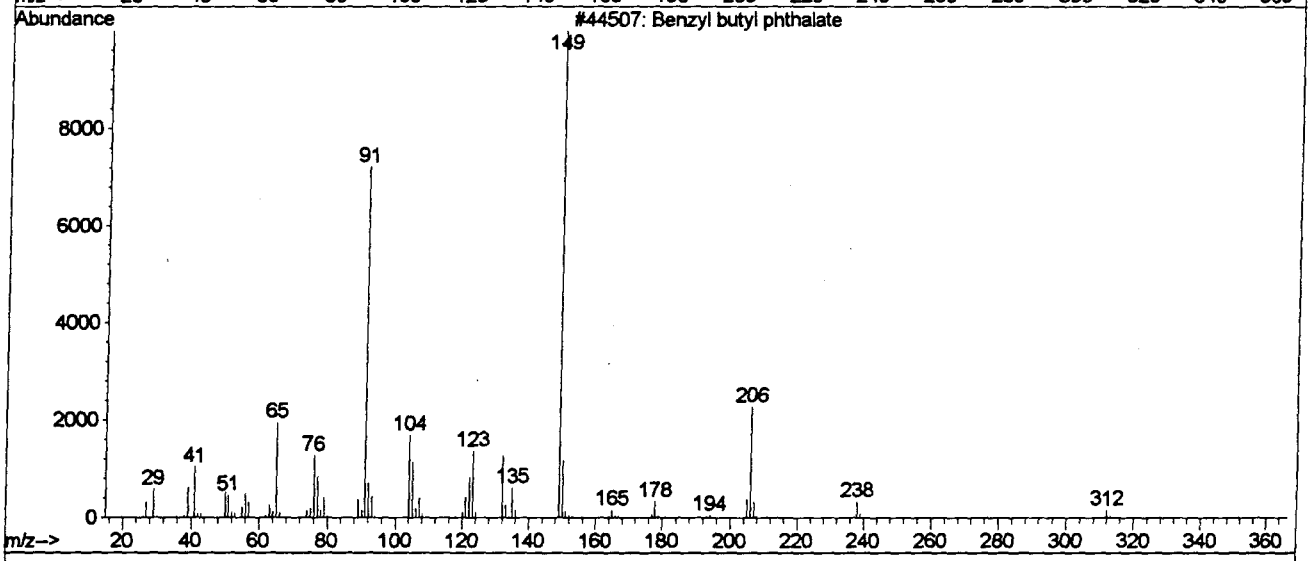
Library Searched : C:\DATABASE\NBS75K.L
Quality : 95
ID : Dibutyl phthalate

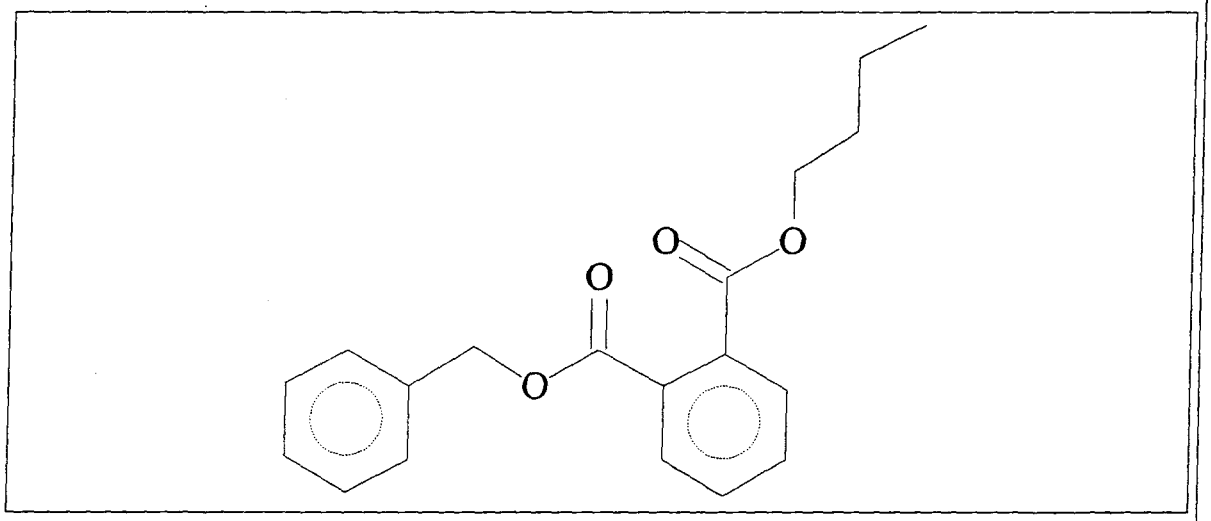




Library Searched : C:\DATABASE\NBS75K.L
Quality : 99
ID : Benzyl butyl phthalate



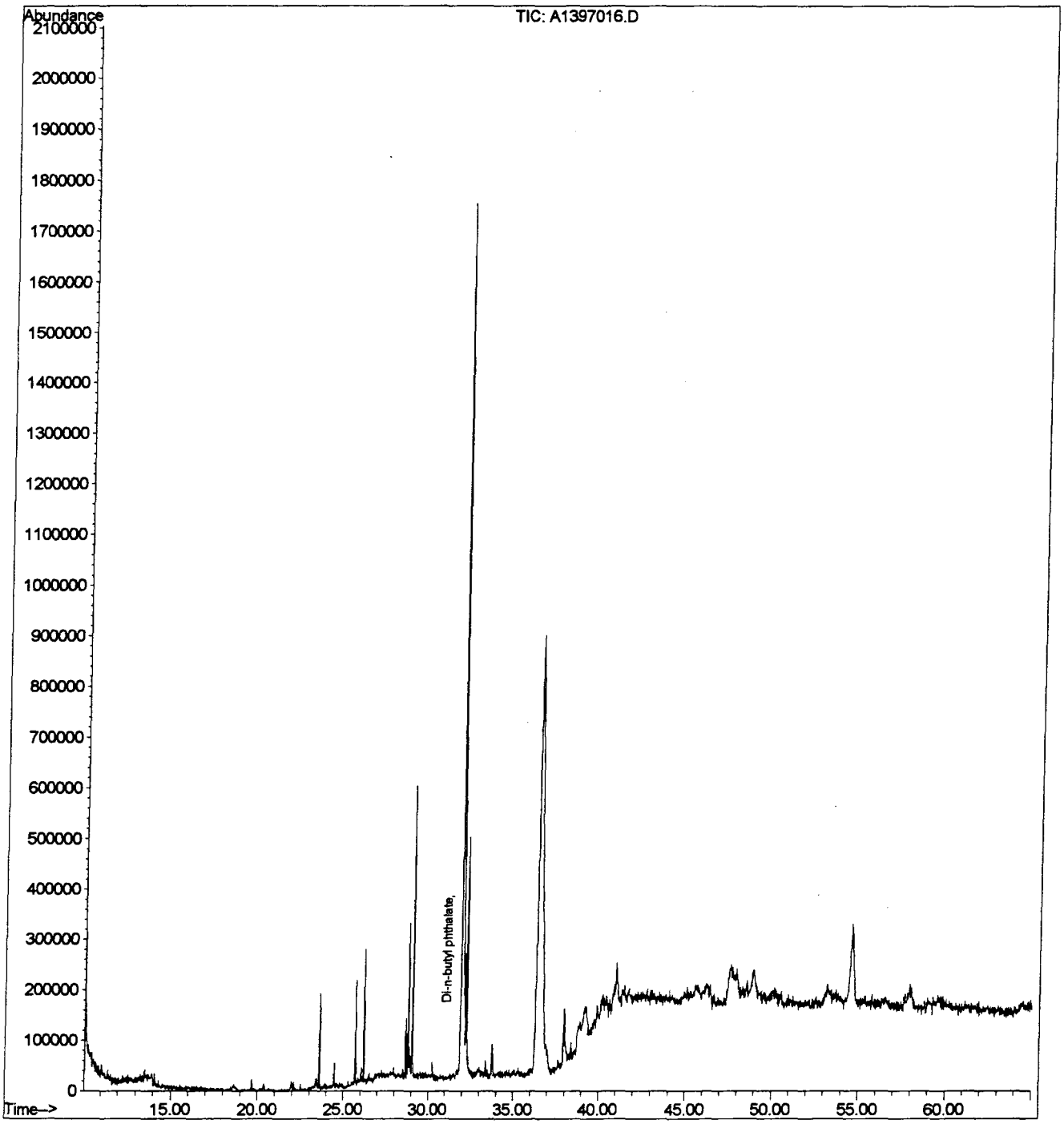




Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397016.D Vial: 0
Acq On : 14 JAN 97 7:57 Operator:
Sample : Inst :
Misc : HRS #5 (16) Multiplr: 1.00
Quant Time: Feb 4 0:39 1997 Quant Results File: BASENEUT.RES

Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397016.D Vial: 0
Acq On : 14 JAN 97 7:57 Operator:
Sample : Inst :
Misc : HRS #5 (16) Multiplr: 1.00
Quant Time: Feb 4 0:39 1997 Quant Results File: BASENEUT.RES

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration
DataAcq Meth :
IS QA File : 4 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)

System Monitoring Compounds

Target Compounds						Qvalue
33) Di-n-butyl phthalate	30.23	149	51907	5.36	ng	# 81

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

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397016.D Vial: 0
Acq On : 14 JAN 97 7:57 Operator:
Sample : Inst :
Misc : HRS #5 (16) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 1 4-(3-Dimethylaminopropoxy)benz Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
23.59	440705.00	440705	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-(3-Dimethylaminopropoxy)benzaldeh	207	C12H17NO2	026934-35-0	43
2	Propylene oxide	58	C3H6O	000075-56-9	9
3	Propanal	58	C3H6O	000123-38-6	9
4	Propanal	58	C3H6O	000123-38-6	9
5	N,N-Dimethyl-2-cyclohexyloxyethylam	171	C10H21NO	000000-00-0	9

****
Peak Number 2 2,3-Epoxypropyl methyl sulfide Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
25.68	445988.00	445988	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,3-Epoxypropyl methyl sulfide	104	C4H8OS	000000-00-0	14
2	Thiabendazole	201	C10H7N3S	000148-79-8	12
3	Octane, 1-(butylthio)-	202	C12H26S	016900-07-5	10
4	Cyclopentane, 1,1,3-trimethyl-	112	C8H16	004516-69-2	10
5	1-Decene	140	C10H20	000872-05-9	9

****
Peak Number 3 N,N-Dimethyl-2-tert-butoxyethy Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
26.19	474240.00	474240	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	N,N-Dimethyl-2-tert-butoxyethylamin	145	C8H19NO	071126-61-9	56
2	Propanal	58	C3H6O	000123-38-6	56
3	N,N-Dimethyl-2-cyclohexyloxyethylam	171	C10H21NO	000000-00-0	40
4	1,3-Dioxolane-4,5-dimethanamine, N,	216	C11H24N2O2	074764-43-5	40
5	N,N-Dimethyloctylamine	157	C10H23N	007378-99-6	40

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397016.D Vial: 0
Acq On : 14 JAN 97 7:57 Operator:
Sample : Inst :
Misc : HRS #5 (16) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 4 1,2-Benzenedicarboxylic acid, Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
28.78	701765.00	701765	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, dihep	362	C22H34O4	003648-21-3	72
2	Bis(2-methoxyethyl) phthalate	282	C14H18O6	000117-82-8	72
3	Di-n-octyl phthalate	390	C24H38O4	000117-84-0	64
4	1,2-Benzenedicarboxylic acid, bis(2	278	C16H22O4	000084-69-5	64
5	1,2-Benzenedicarboxylic acid, butyl	304	C18H24O4	000084-64-0	64

****
Peak Number 5 Hexadecanoic acid, methyl este Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
29.02	1428800.00	1428800	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecanoic acid, methyl ester	270	C17H34O2	000112-39-0	98
2	Hexadecanoic acid, methyl ester	270	C17H34O2	000112-39-0	97
3	Pentadecanoic acid, 14-methyl-, met	270	C17H34O2	005129-60-2	95
4	9-Octadecenoic acid, 12-(acetyloxy)	354	C21H38O4	000140-03-4	87
5	Hexadecanoic acid, methyl ester	270	C17H34O2	000112-39-0	81

****
Peak Number 6 9-Octadecenoic acid (Z)-, meth Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
31.92	8498170.00	8498170	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9-Octadecenoic acid (Z)-, methyl es	296	C19H36O2	000112-62-9	97
2	8-Octadecenoic acid, methyl ester,	296	C19H36O2	026528-50-7	95
3	9-Octadecenoic acid (Z)-, methyl es	296	C19H36O2	000112-62-9	94
4	7-Octadecenoic acid, methyl ester	296	C19H36O2	057396-98-2	94
5	10-Octadecenoic acid, methyl ester,	296	C19H36O2	013038-45-4	93

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397016.D Vial: 0
Acq On : 14 JAN 97 7:57 Operator:
Sample : Inst :
Misc : HRS #5 (16) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 7 Cyclohexene, 3,3,5-trimethyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
32.10	814289.00	814289	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 3,3,5-trimethyl-	124	C9H16	000503-45-7	47
2	3-Octyne, 7-methyl-	124	C9H16	037050-06-9	47
3	3-Dodecyne	166	C12H22	006790-27-8	47
4	3-Undecyne	152	C11H20	060212-30-8	38
5	Oxonin, 4,5,6,7-tetrahydro-, (Z,Z)-	124	C8H12O	017123-56-7	35

****
Peak Number 8 Heptadecanoic acid, 15-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
32.22	1738120.00	1738120	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptadecanoic acid, 15-methyl-, met	298	C19H38O2	054833-55-5	91
2	Heptadecanoic acid, 14-methyl-, met	298	C19H38O2	057274-45-0	91
3	Heptadecanoic acid, 14-methyl-, met	298	C19H38O2	002490-23-5	91
4	Octadecanoic acid, methyl ester	298	C19H38O2	000112-61-8	87
5	Octadecanoic acid, methyl ester	298	C19H38O2	000112-61-8	87

****
Peak Number 9 4H-1-Benzopyran-4-one, 3,5,7-t Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
36.44	15708300.00	15708300	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4H-1-Benzopyran-4-one, 3,5,7-trihyd	316	C16H12O7	000480-19-3	38
2	Coprostan-3-one	386	C27H46O	000000-00-0	35
3	Pregnan-20-one, 3,11-dihydroxy-, (3	334	C21H34O3	000565-89-9	32
4	Pregnan-20-one, 3,11-dihydroxy-, (3	334	C21H34O3	023930-29-2	25
5	D-Homoandrosta-4,17-dien-3-one, 17,	316	C20H28O3	030298-69-2	16

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397016.D Vial: 0
Acq On : 14 JAN 97 7:57 Operator:
Sample : Inst :
Misc : HRS #5 (16) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 10 Octadecanal Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
37.96	841707.00	841707	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octadecanal	268	C18H36O	000638-66-4	38
2	Cyclopentane, 1-methyl-3-(2-methylp	140	C10H20	029053-04-1	35
3	Cyclopentane, 2-isopropyl-1,3-dimet	140	C10H20	032281-85-9	35
4	Oxirane, tetradecyl-	240	C16H32O	007320-37-8	27
5	11-Dodecenol	184	C12H24O	035289-31-7	27

****
Peak Number 11 4H-1-Benzopyran-4-one, 5,6,7-t Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
38.87	772388.00	772388	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4H-1-Benzopyran-4-one, 5,6,7-trimet	342	C19H18O6	001168-42-9	9
2	Con-5-enin-3-amine, N-methyl-, (3.b	342	C23H38N2	000468-36-0	9
3	4-Imino-1,5,5-triphenyl-2-imidazoli	327	C21H17N3O	000000-00-0	5
4	Chola-5,22-dien-3-ol, (3.beta.,22Z)	342	C24H38O	057597-14-5	4
5	Pregna-4,16-diene-3,20-dione, 16-me	326	C22H30O2	013485-43-3	2

****
Peak Number 12 Estra-1,3,5(10),7-tetraen-17-o Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
40.87	368475.00	368475	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Estra-1,3,5(10),7-tetraen-17-one, 3	297	C19H23NO2	069834-04-4	14
2	2H-Benzimidazole-2-methanol, 5,6-di	297	C16H15N3O3	054833-62-4	9
3	Pregn-4-ene-3,20-dione, 14,21-dihyd	346	C21H30O4	000595-71-1	9
4	Sarcocapnidine	327	C19H21NO4	087069-33-8	7
5	Stannane, trimethyl-9-phenanthryl-	342	C17H18Sn	000957-74-4	7

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397016.D Vial: 0
Acq On : 14 JAN 97 7:57 Operator:
Sample : Inst :
Misc : HRS #5 (16) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 13 1-Oxa-3-aza-2-silacyclopentan- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
40.99	580238.00	580238	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Oxa-3-aza-2-silacyclopentan-5-one	207	C10H13NO2Si	057954-43-5	9
2	L-Threonine, N-[(1H-purin-6-ylamino	280	C10H12N6O4	033422-66-1	9
3	Tricyclo[3.3.1.13,7]decane, 2-bromo	214	C10H15Br	007314-85-4	9
4	Urea, N-2-propenyl-N'-1H-purin-6-yl	218	C9H10N6O	029670-98-2	9
5	1-(Hydroxyamino)adamantane	167	C10H17NO	031463-23-7	9

****
Peak Number 14 Silane, trimethyl-[[(17.alpha. Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
47.58	679140.00	679140	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silane, trimethyl-[[(17.alpha.)-19-	356	C23H36OSi	056771-62-1	22
2	Silane, trimethyl-[[(17.alpha.)-19-	356	C23H36OSi	056771-62-1	12
3	1,1,1,3,5,7,9,9,9-Nonamethylpentasi	342	C9H30O4Si5	084409-41-6	12
4	6,7,8-Trimethyl-7H-dibenzo[C,H]xant	356	C24H20O3	099893-92-2	9
5	Benzene, 1-phenyl-4-(2-cyano-2-phen	281	C21H15N	027869-56-3	9

****
Peak Number 15 Stannane, trimethyl-9-phenanth Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
48.90	678625.00	678625	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Stannane, trimethyl-9-phenanthryl-	342	C17H18Sn	000957-74-4	27
2	4H-1-Benzopyran-4-one, 2-(2,6-dimet	342	C19H18O6	014813-19-5	18
3	4H-1-Benzopyran-4-one, 2-(2,6-dimet	342	C19H18O6	014813-19-5	14
4	Benzonitrile, 2,4-dinitro-6-tricycl	327	C17H17N3O4	071466-65-4	10
5	Benzoic acid, 2-[(2-aminophenyl)[3-	327	C19H25N3O2	013450-59-4	10

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397016.D Vial: 0
Acq On : 14 JAN 97 7:57 Operator:
Sample : Inst :
Misc : HRS #5 (16) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 16 2,6-Phenanthrenediol, 1,2,3,4, Concentration Rank 3

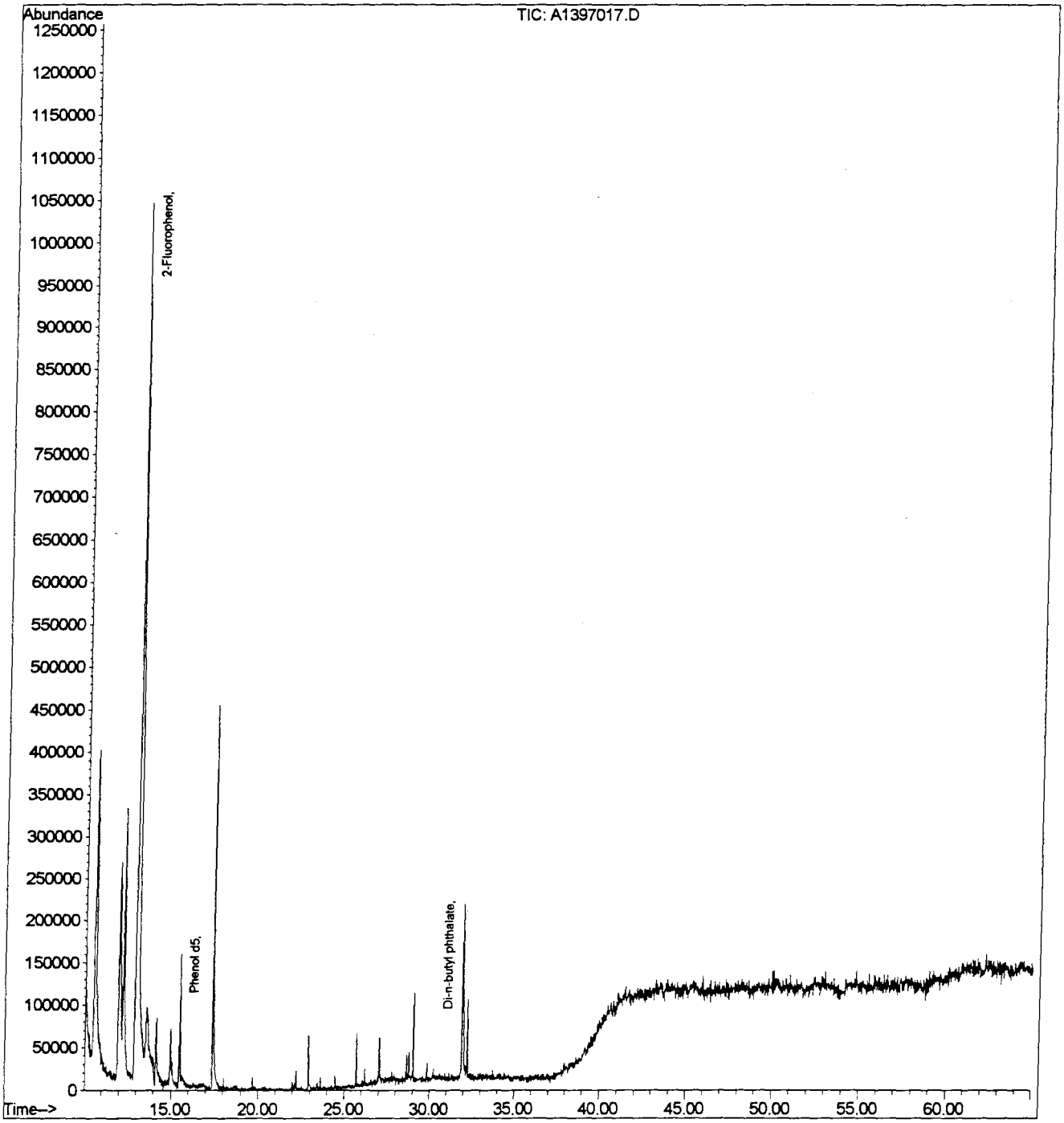
R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
54.60	2107280.00	2107280	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,6-Phenanthrenediol, 1,2,3,4,4a,9,	386	C24H34O4	018326-15-3	10
2	2,6-Phenanthrenediol, 1,2,3,4,4a,9,	386	C24H34O4	018326-15-3	10
3	1,3,5-Triazine, 2-[2-(4,6-dimethoxy	344	C15H16N6O4	055429-31-7	9
4	6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9
5	1-Pentanone, 1-[(5.alpha.,17.beta.)	344	C24H40O	054411-84-6	9

Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397017.D Vial: 0
Acq On : 14 JAN 97 9:20 Operator:
Sample : Inst :
Misc : HRS #6 (17) Multiplr: 1.00
Quant Time: Feb 4 0:43 1997 Quant Results File: BASENEUT.RES

Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397017.D Vial: 0
Acq On : 14 JAN 97 9:20 Operator:
Sample : Inst :
Misc : HRS #6 (17) Multiplr: 1.00
Quant Time: Feb 4 0:43 1997 Quant Results File: BASENEUT.RES

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration
DataAcq Meth :
IS QA File : 4 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)

System Monitoring Compounds

Target Compounds						Qvalue
1) 2-Fluorophenol	13.10	112	60424	12.79		# 54
2) Phenol d5	15.46	99	36959	8.06		# 91
33) Di-n-butyl phthalate	30.24	149	16201	1.67	ng	# 80

er out of range (m) = manual integration

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397017.D Vial: 0
Acq On : 14 JAN 97 9:20 Operator:
Sample : Inst :
Misc : HRS #6 (17) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****

Peak Number 1 Butanoic acid Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.65	3020030.00	3020030	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanoic acid	88	C4H8O2	000107-92-6	28
2	Hydrazine, 1,1-dimethyl-	60	C2H8N2	000057-14-7	7
3	5-Hexenoic acid	114	C6H10O2	001577-22-6	4
4	Hexanoic acid, 6-bromo-	194	C6H11BrO2	004224-70-8	4
5	Urea	60	CH4N2O	000057-13-6	4

****

Peak Number 2 Hydrazine, 1,1-dimethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
11.96	1991230.00	1991230	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydrazine, 1,1-dimethyl-	60	C2H8N2	000057-14-7	56
2	Butanoic acid, 3-methyl-	102	C5H10O2	000503-74-2	53
3	Butanoic acid, 3-methyl-	102	C5H10O2	000503-74-2	42
4	Thiazole, 4,5-dihydro-2-methyl-	101	C4H7NS	002346-00-1	40
5	Butanoic acid, 3-methyl-	102	C5H10O2	000503-74-2	16

****

Peak Number 3 Butanoic acid, 2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.24	1906840.00	1906840	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanoic acid, 2-methyl-	102	C5H10O2	000116-53-0	43
2	Butanoic acid, 2-methyl-	102	C5H10O2	000116-53-0	37
3	Pentanoic acid, 2-methyl-	116	C6H12O2	000097-61-0	25
4	Propanoic acid	74	C3H6O2	000079-09-4	9
5	Propanoic acid	74	C3H6O2	000079-09-4	9

Data File : C:\QMASS\DATA\97JAN\A1397017.D Vial: 0
Acq On : 14 JAN 97 9:20 Operator:
Sample : Inst :
Misc : HRS #6 (17) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 4 Propane, 2-bromo-1-chloro- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.57	471713.00	471713	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane, 2-bromo-1-chloro-	156	C3H6BrCl	003017-95-6	23
2	1-Butene	56	C4H8	000106-98-9	9
3	1-Butene	56	C4H8	000106-98-9	9
4	1-Propene, 2-methyl-	56	C4H8	000115-11-7	9
5	Acetic acid, (2-propenylthio)-	132	C5H8O2S	020600-63-9	9

****
Peak Number 5 trans-3,5-Diethyl-1,2,4-trithi Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.15	408104.00	408104	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	trans-3,5-Diethyl-1,2,4-trithiolane	180	C6H12S3	038348-26-4	42
2	Propanoic acid	74	C3H6O2	000079-09-4	42
3	Butanoic acid, heptafluoro-, 4-buto	356	C12H15F7O4	055649-46-2	17
4	Butanoic acid, 3-methyl-, methyl es	116	C6H12O2	000556-24-1	9
5	Acetamide, N-acetyl-N-methyl-	115	C5H9NO2	001113-68-4	9

****
Peak Number 6 Pentanoic acid Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.95	329205.00	329205	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanoic acid	102	C5H10O2	000109-52-4	78
2	Pentanoic acid	102	C5H10O2	000109-52-4	38
3	Hexanoic acid	116	C6H12O2	000142-62-1	38
4	Butanoic acid, 3-methyl-	102	C5H10O2	000503-74-2	9
5	Pentanoic acid	102	C5H10O2	000109-52-4	9

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397017.D Vial: 0
Acq On : 14 JAN 97 9:20 Operator:
Sample : Inst :
Misc : HRS #6 (17) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 7 Phenol, 2-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.38	1424640.00	1424640	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 2-methyl-	108	C7H8O	000095-48-7	94
2	Phenol, 4-methyl-	108	C7H8O	000106-44-5	94
3	Phenol, 4-methyl-	108	C7H8O	000106-44-5	90
4	Phenol, 3-methyl-	108	C7H8O	000108-39-4	80
5	Phenol, 3-methyl-	108	C7H8O	000108-39-4	64

****
Peak Number 8 4-Aminobenzofurazan Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
22.88	211226.00	211226	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Aminobenzofurazan	135	C6H5N3O	000000-00-0	37
2	Benzene, isothiocyanato-	135	C7H5NS	000103-72-0	9
3	2H-Imidazo[4,5-b]pyridin-2-one, 1,3	135	C6H5N3O	016328-62-4	7
4	Benzenamine, 2,4,6-trimethyl-	135	C9H13N	000088-05-1	7
5	Benzaldehyde, 3-methyl-, oxime	135	C8H9NO	041977-54-2	7

****
Peak Number 9 Cycloheptane, methyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
25.70	148783.00	148783	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cycloheptane, methyl-	112	C8H16	004126-78-7	22
2	Acetic acid, decyl ester	200	C12H24O2	000112-17-4	22
3	1-Undecanol	172	C11H24O	000112-42-5	14
4	1-Dodecanol	186	C12H26O	000112-53-8	14
5	Cyclododecane	168	C12H24	000294-62-2	14

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397017.D Vial: 0
Acq On : 14 JAN 97 9:20 Operator:
Sample : Inst :
Misc : HRS #6 (17) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 10 N-Methyl bromoazepam Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.04	197099.00	197099	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	N-Methyl bromoazepam	329	C15H12BrN3O	000000-00-0	47
2	7-Bromo-2,3-dihydro-5-phenyl-1H-1,4	330	C15H11BrN2S	034099-70-2	32
3	Pregn-14-en-20-one, 3,6-dihydroxy-,	332	C21H32O3	040148-15-0	10
4	Benzenamine, 2,4,6-tribromo-	327	C6H4Br3N	000147-82-0	7
5	Benzenamine, ar,ar,ar-tribromo-	327	C6H4Br3N	052628-37-2	7

****
Peak Number 11 Hexadecanoic acid, methyl este Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
29.03	293877.00	293877	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecanoic acid, methyl ester	270	C17H34O2	000112-39-0	83
2	9-Octadecenoic acid, 12-(acetyloxy)	354	C21H38O4	000140-03-4	80
3	Undecanoic acid, methyl ester	200	C12H24O2	001731-86-8	72
4	Hexadecanoic acid, methyl ester	270	C17H34O2	000112-39-0	72
5	Pentadecanoic acid, 14-methyl-, met	270	C17H34O2	005129-60-2	72

****
Peak Number 12 12-Octadecenoic acid, methyl e Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
31.92	1058760.00	1058760	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	12-Octadecenoic acid, methyl ester	296	C19H36O2	056554-46-2	68
2	9-Octadecenoic acid (Z)-, methyl es	296	C19H36O2	000112-62-9	64
3	6-Octadecenoic acid, methyl ester,	296	C19H36O2	002777-58-4	64
4	10-Octadecenoic acid, methyl ester,	296	C19H36O2	013038-45-4	59
5	9-Octadecenoic acid (Z)-, methyl es	296	C19H36O2	000112-62-9	59

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397017.D Vial: 0
Acq On : 14 JAN 97 9:20 Operator:
Sample : Inst :
Misc : HRS #6 (17) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 13 Tridecanoic acid, methyl ester Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
32.23	304155.00	304155	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecanoic acid, methyl ester	228	C14H28O2	001731-88-0	59
2	Hexadecanoic acid, methyl ester	270	C17H34O2	000112-39-0	53
3	Tetradecanoic acid, methyl ester	242	C15H30O2	000124-10-7	53
4	Tetradecanoic acid, methyl ester	242	C15H30O2	000124-10-7	53
5	Decanoic acid, methyl ester	186	C11H22O2	000110-42-9	53

****
Peak Number 14 Thebacon Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
43.49	166620.00	166620	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thebacon	341	C20H23NO4	000466-90-0	22
2	Thebacon	341	C20H23NO4	000466-90-0	22
3	4H-1-Benzopyran-4-one, 5,6,7-trimet	342	C19H18O6	001168-42-9	9
4	2H-Pyrrol-2-one, 1,5-dihydro-1-(4-m	341	C23H19NO2	053774-23-5	9
5	Dihydro-O,N-dimethyldehydrococcinin	341	C20H23NO4	000000-00-0	9

****
Peak Number 15 18,19-Seco-15.beta.-yohimban-1 Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
51.94	129111.00	129111	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	18,19-Seco-15.beta.-yohimban-19-oic	354	C21H26N2O3	005552-25-0	12
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	10
3	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	10
4	Corydine	341	C20H23NO4	000476-69-7	10
5	6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397017.D Vial: 0
Acq On : 14 JAN 97 9:20 Operator:
Sample : Inst :
Misc : HRS #6 (17) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 16 1,1,1,3,5,7,9,9,9-Nonamethylpe Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
63.29	183838.00	183838	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,1,1,3,5,7,9,9,9-Nonamethylpentasi	342	C9H30O4Si5	084409-41-6	32
2	4H-1-Benzopyran-4-one, 2-(2,6-dimet	342	C19H18O6	014813-19-5	22
3	3-Ethoxy-1,1,1,5,5,5-hexamethyl-3-(	340	C11H32O4Si4	000000-00-0	10
4	8-Methyl-13,14-dioxo-8H,13H,14H-nap	327	C21H13NO3	059050-31-6	9
5	2-(4-(Dimethylamino)-1-naphthyl)nap	327	C22H17NO2	000000-00-0	9

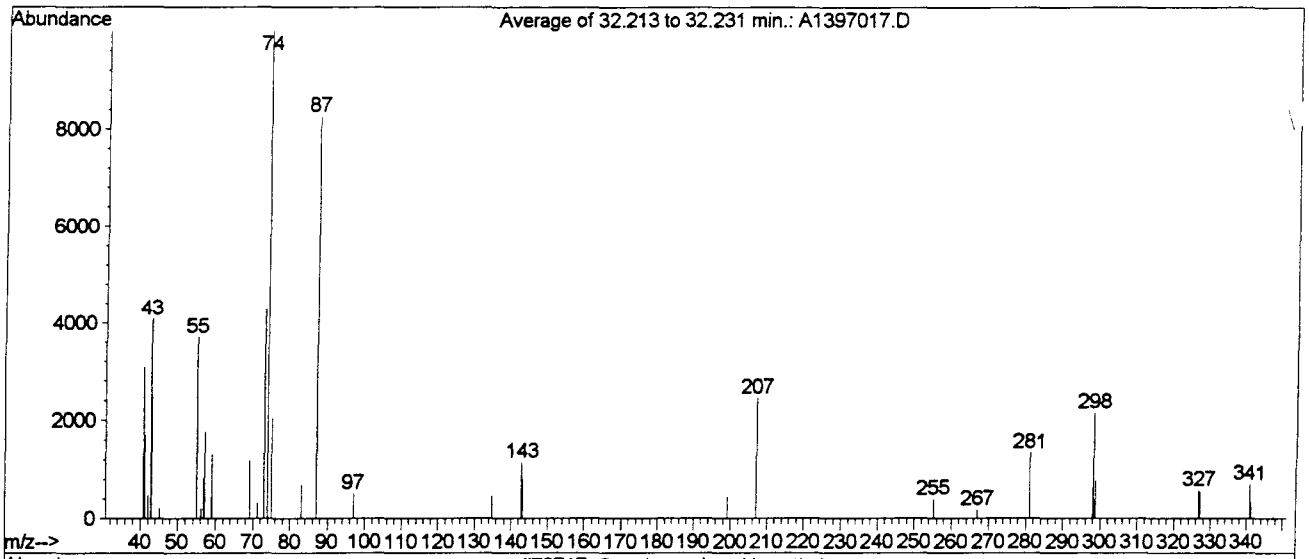
Tentatively Identified Compound (LSC) summary

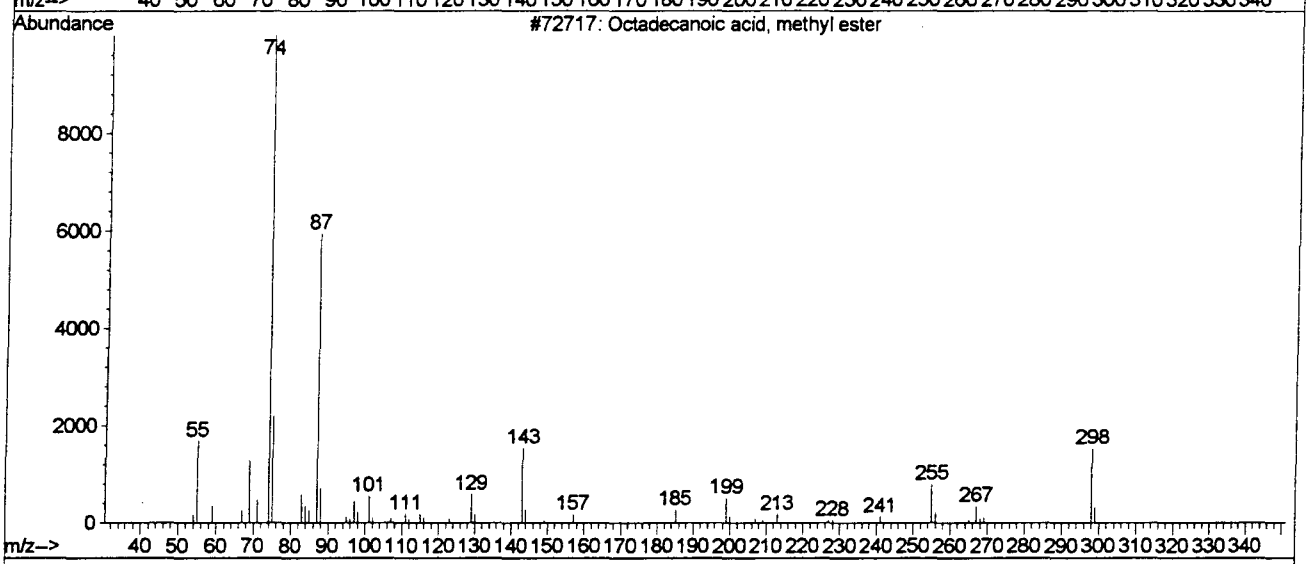
Operator ID: Date Acquired: 14 JAN 97 9:20
Data File: C:\QMASS\DATA\97JAN\A1397017.D
Name:
Misc: HRS #6 (17)
Method:
Title: Base-Neutrals
Library Searched: C:\DATABASE\NBS75K.L

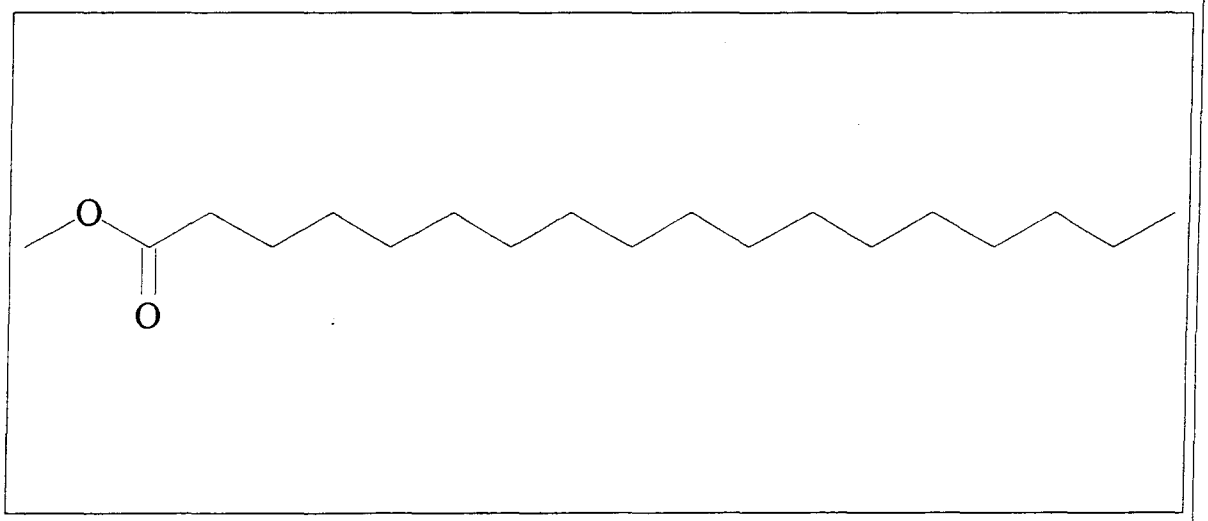
TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Butanoic acid	10.65	3020030.0		3020030	ISTD00	0.00	1	1.0
Hydrazine, 1,1-dimet	11.96	1991230.0		1991230	ISTD00	0.00	1	1.0
Butanoic acid, 2-met	12.24	1906840.0		1906840	ISTD00	0.00	1	1.0
Propane, 2-bromo-1-c	13.57	471713.0		471713	ISTD00	0.00	1	1.0
trans-3,5-Diethyl-1,	14.15	408104.0		408104	ISTD00	0.00	1	1.0
Pentanoic acid	14.95	329205.0		329205	ISTD00	0.00	1	1.0
Phenol, 2-methyl-	17.38	1424640.0		1424640	ISTD00	0.00	1	1.0
4-Aminobenzofurazan	22.88	211226.0		211226	ISTD00	0.00	1	1.0
Cycloheptane, methyl	25.70	148783.0		148783	ISTD00	0.00	1	1.0
1-Methyl bromoazepam	27.04	197099.0		197099	ISTD00	0.00	1	1.0
Hexadecanoic acid, m	29.03	293877.0		293877	ISTD00	0.00	1	1.0
12-Octadecenoic acid	31.92	1058760.0		1058760	ISTD00	0.00	1	1.0
Tridecanoic acid, me	32.23	304155.0		304155	ISTD00	0.00	1	1.0
Thebacon	43.49	166620.0		166620	ISTD00	0.00	1	1.0
18,19-Seco-15.beta.-	51.94	129111.0		129111	ISTD00	0.00	1	1.0
,1,1,3,5,7,9,9,9-No	63.29	183838.0		183838	ISTD00	0.00	1	1.0

A1397017.D BASENEUT.M Tue Feb 04 08:57:33 1997

Library Searched : C:\DATABASE\NBS75K.L
Quality : 59
ID : Octadecanoic acid, methyl ester







Library Searched : C:\DATABASE\NBS75K.L
Quality : 53
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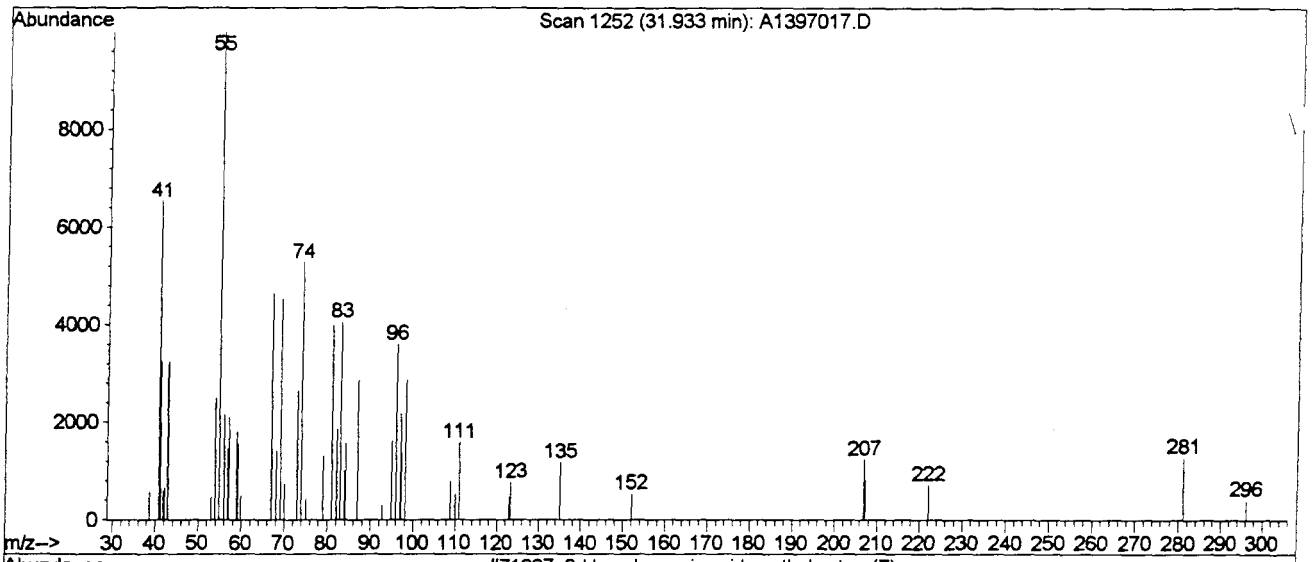

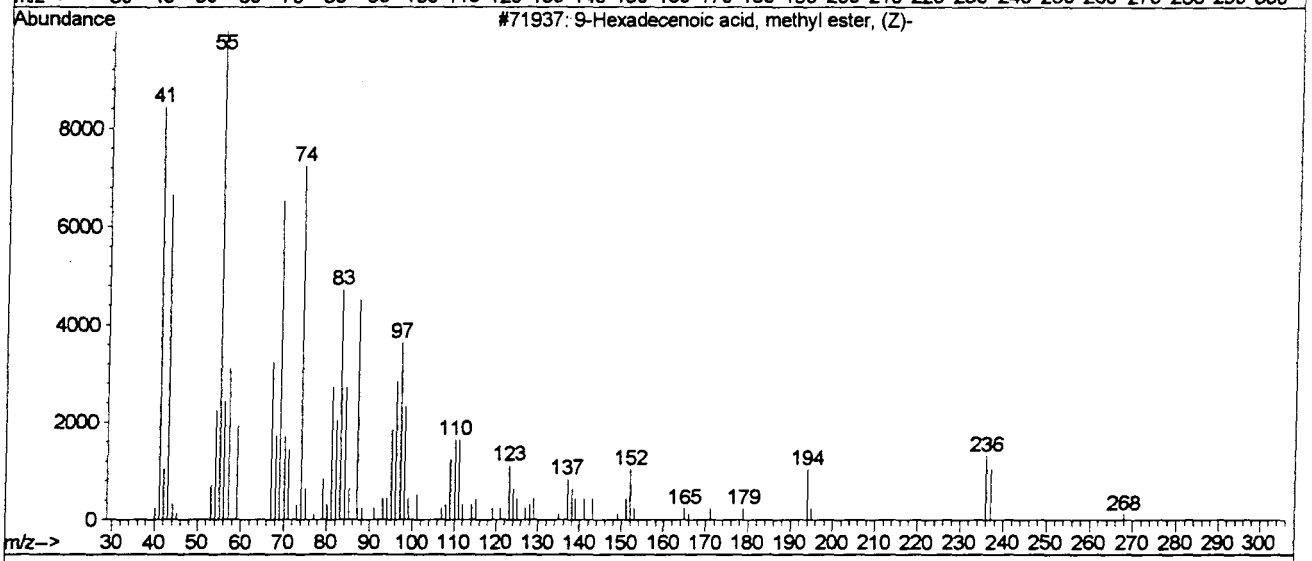

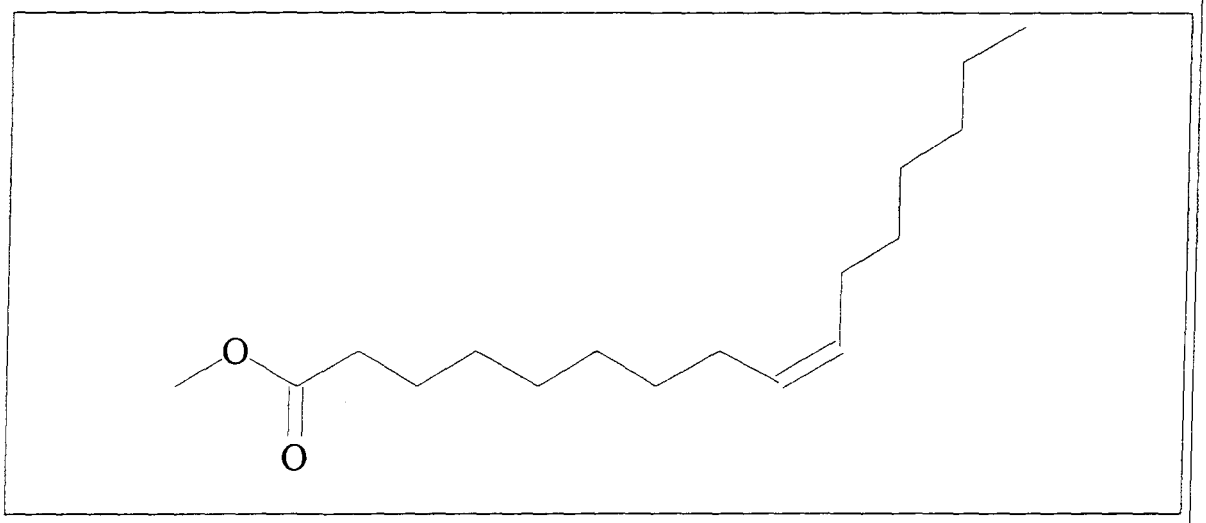

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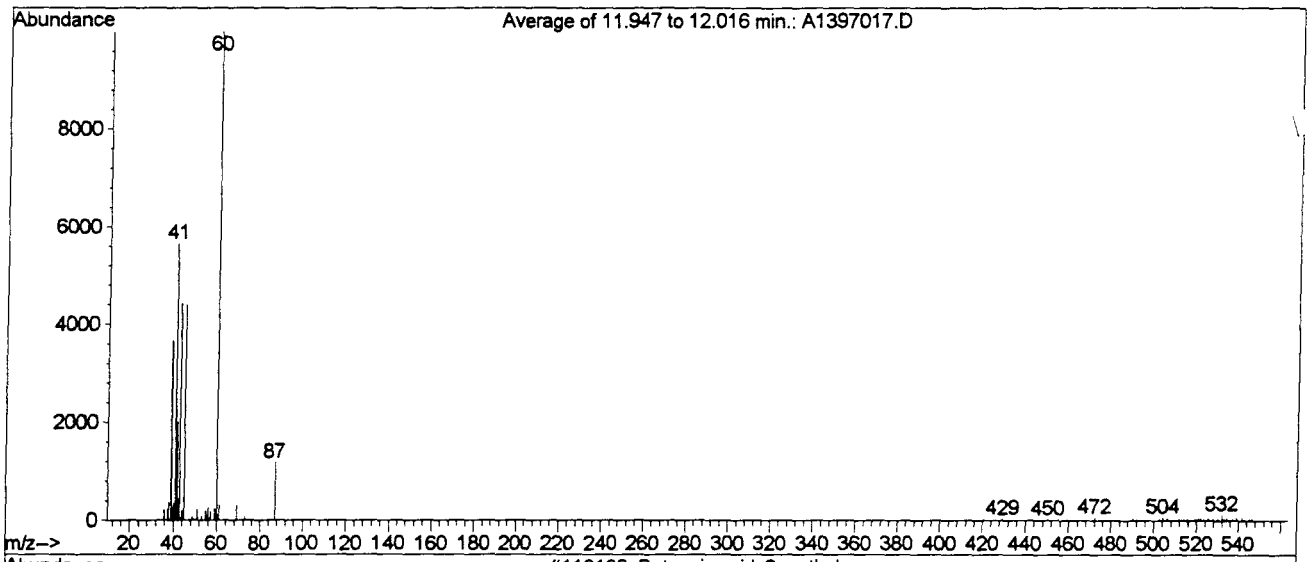
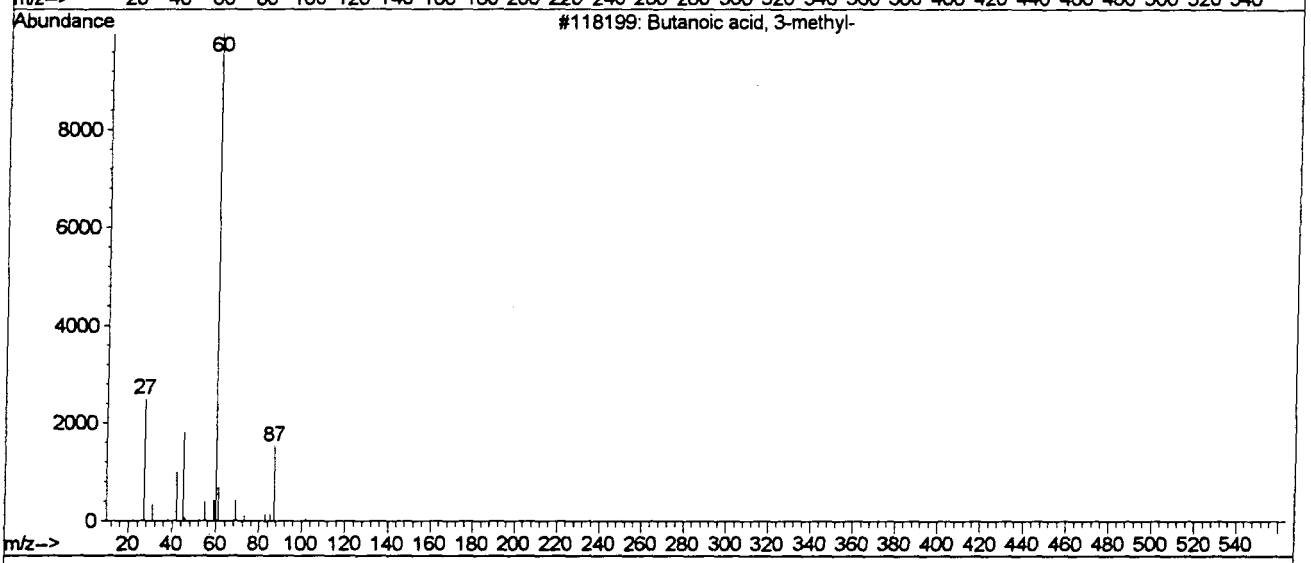
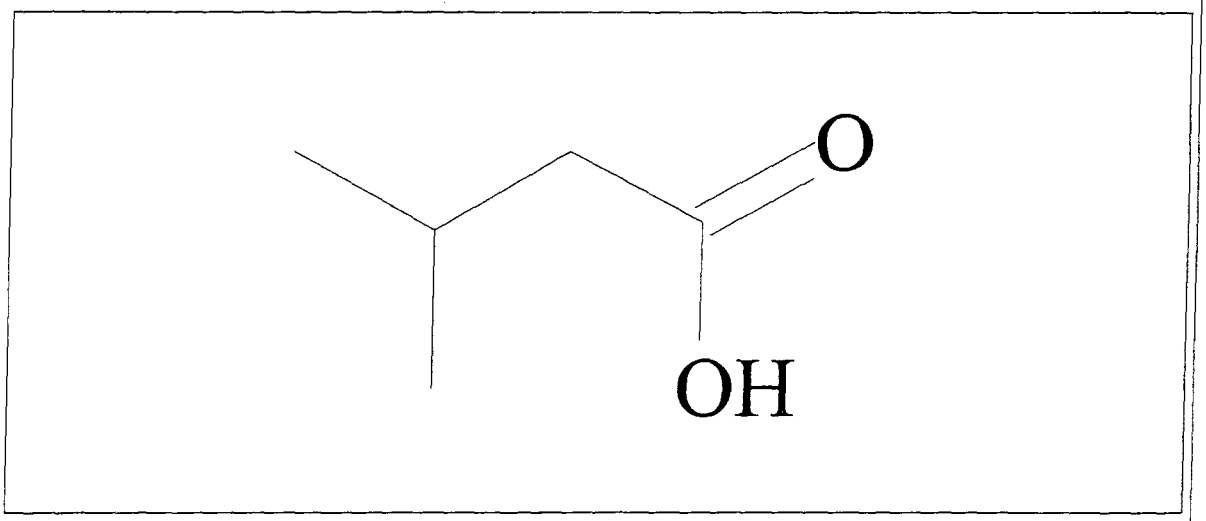
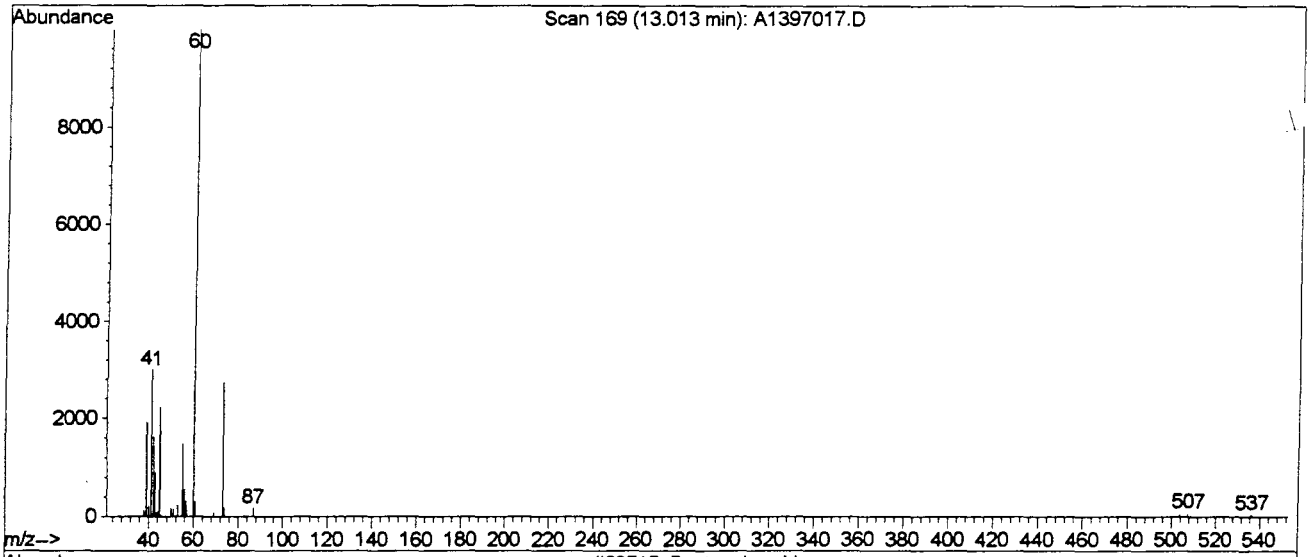
Quality : 9
ID : Butanoic acid, 3-methyl-

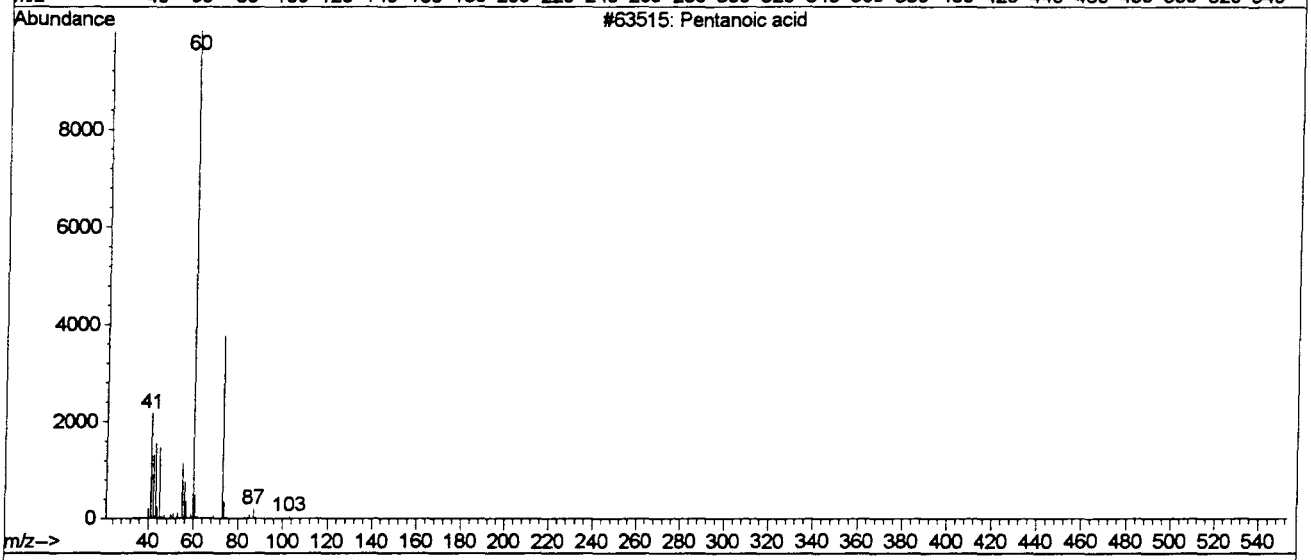


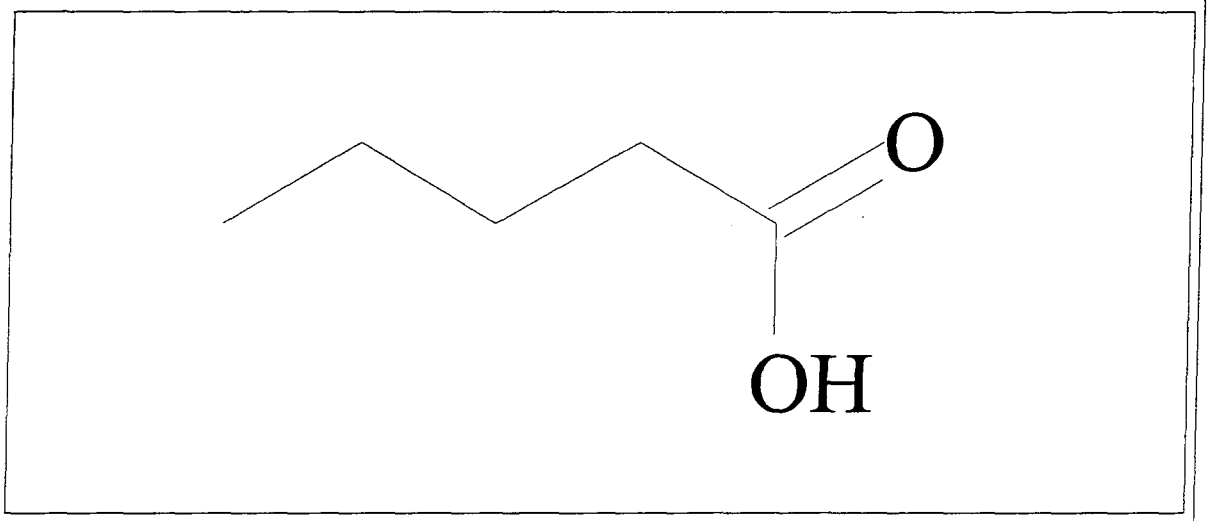




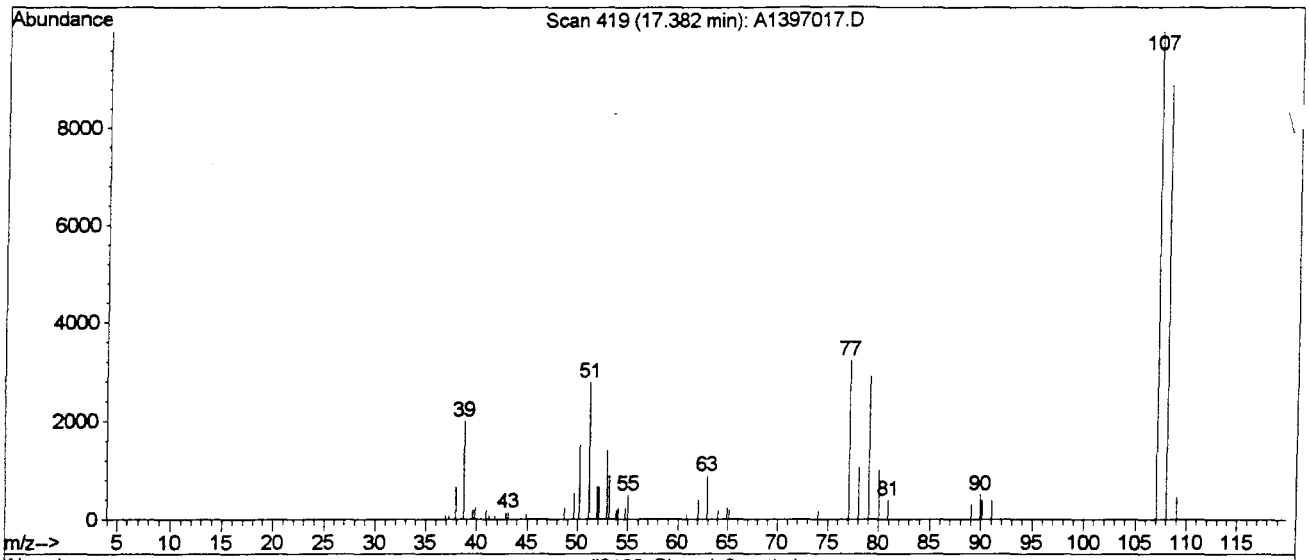
Library Searched : C:\DATABASE\NBS75K.L
Quality : 45
ID : Pentanoic acid

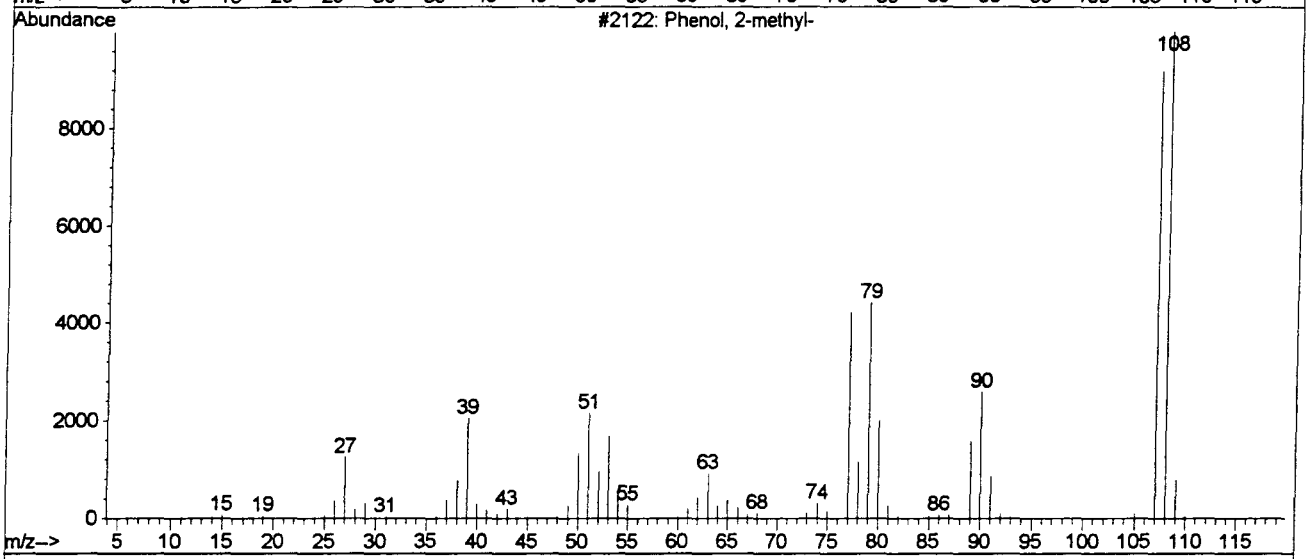


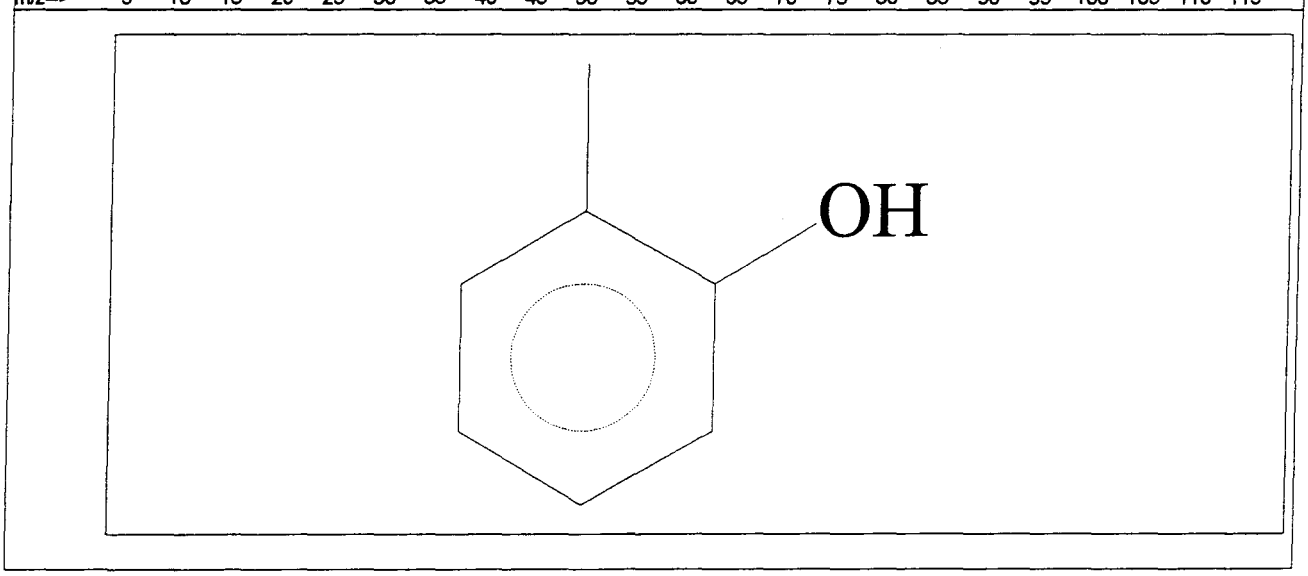




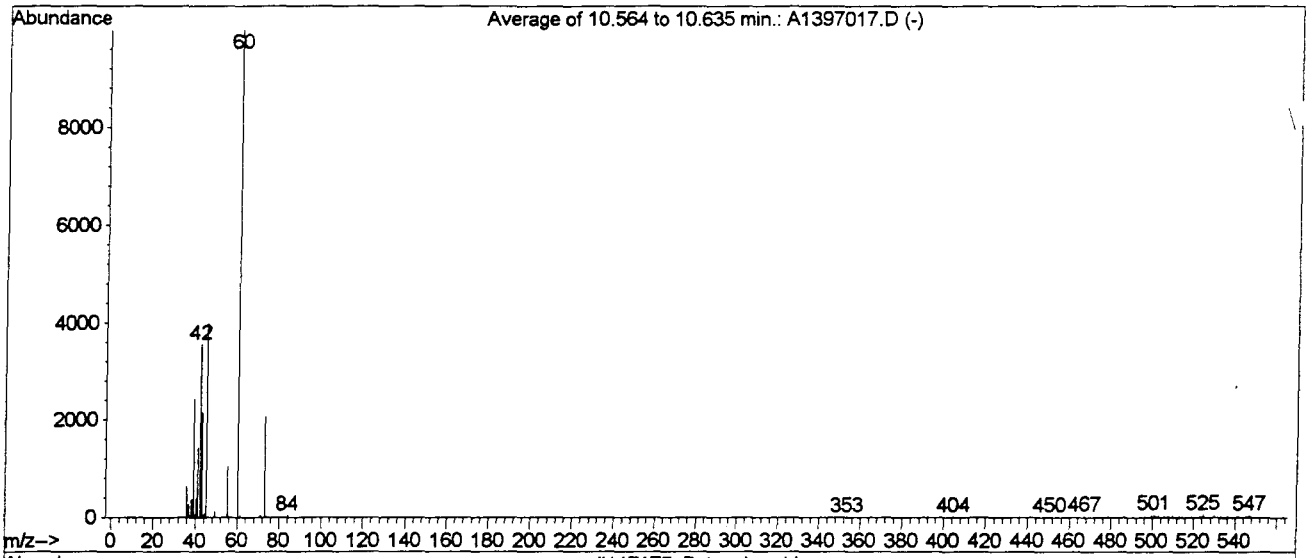
Library Searched : C:\DATABASE\NBS75K.L
Quality : 94
ID : Phenol, 2-methyl-

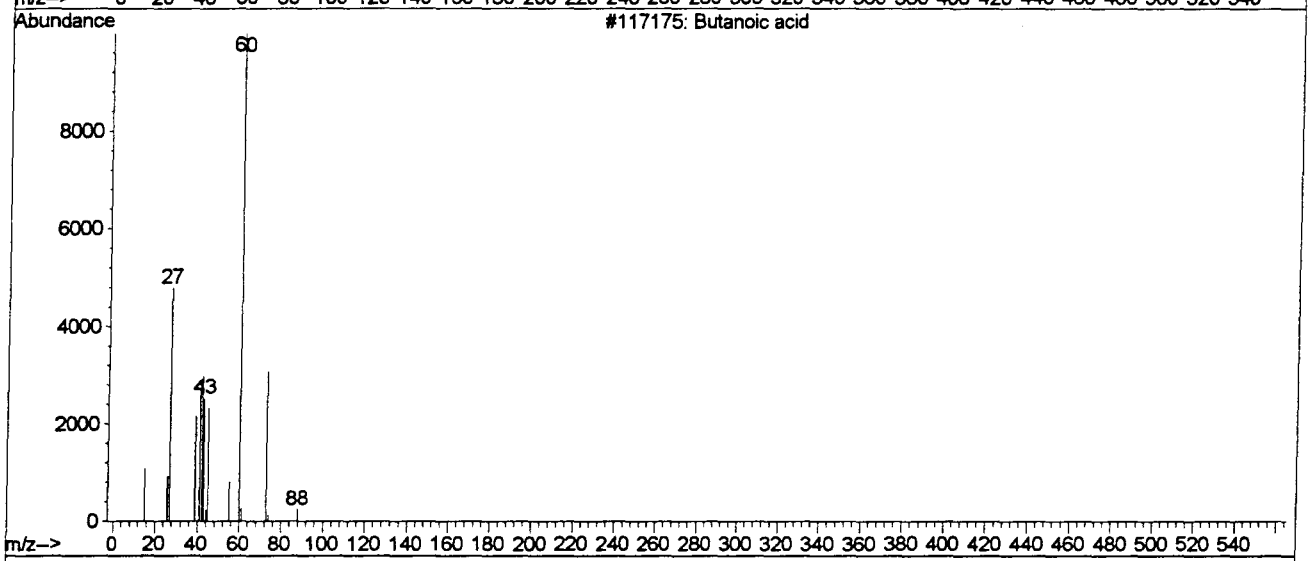


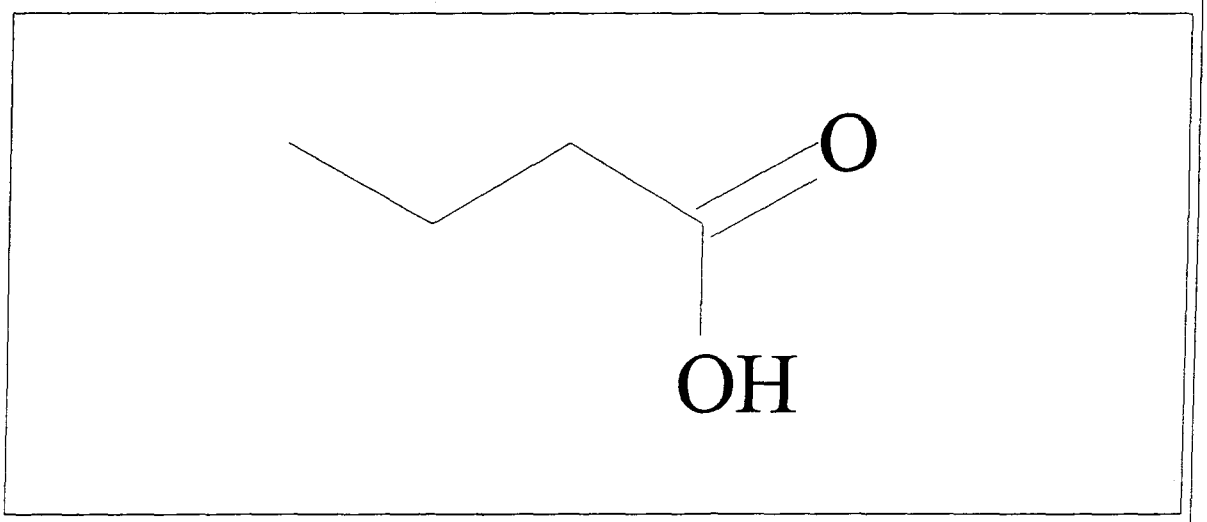




Library Searched : C:\DATABASE\wiley138.L
Quality : 28
ID : Butanoic acid



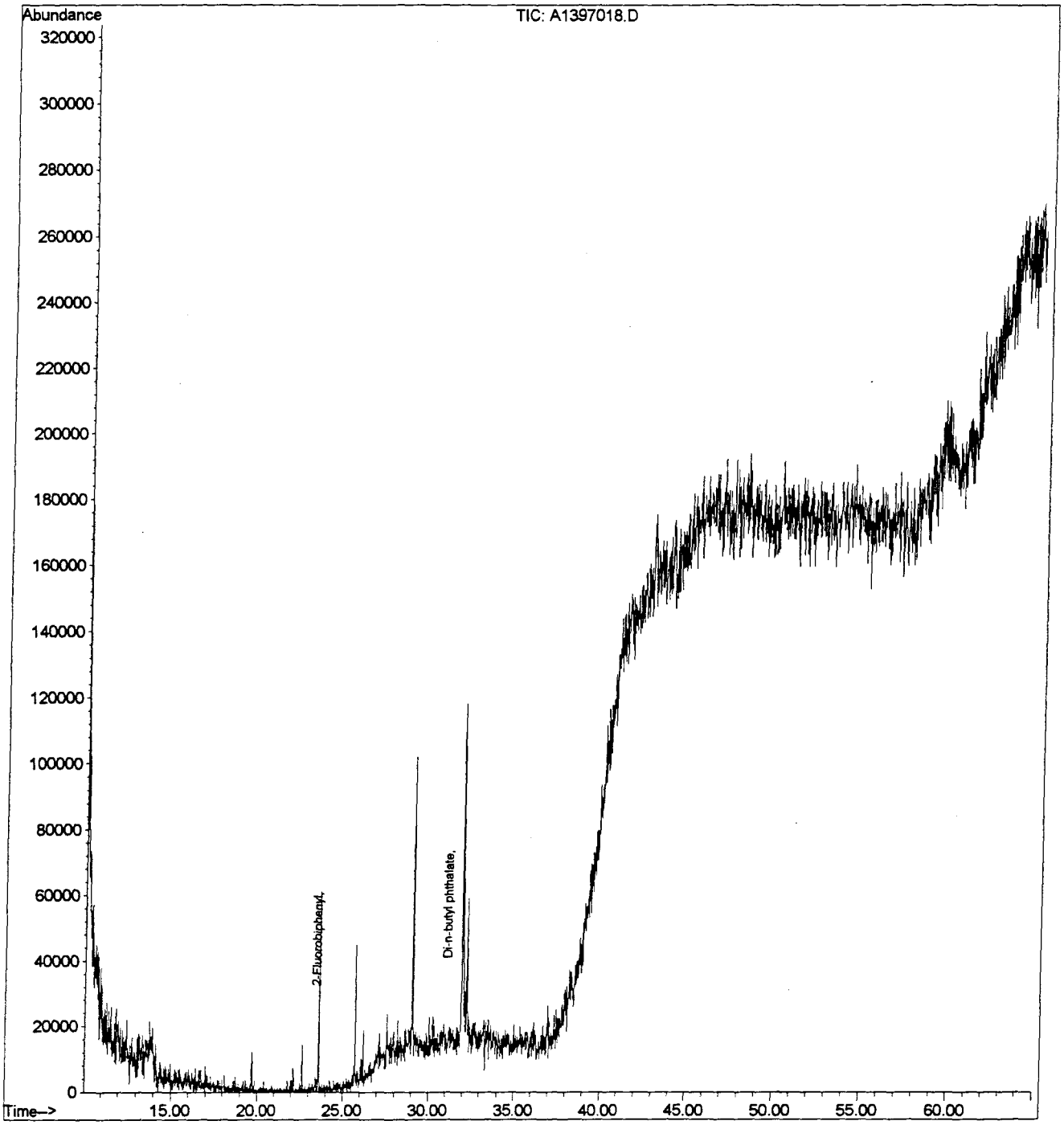




Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397018.D Vial: 0
Acq On : 14 JAN 97 10:43 Operator:
Sample : Inst :
Misc : HRS #9 (18) Multiplr: 1.00
Quant Time: Feb 4 0:50 1997 Quant Results File: BASENEUT.RES

Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397018.D Vial: 0
Acq On : 14 JAN 97 10:43 Operator:
Sample : Inst :
Misc : HRS #9 (18) Multiplr: 1.00
Quant Time: Feb 4 0:50 1997 Quant Results File: BASENEUT.RES

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration
DataAcq Meth :
IS QA File : 4 level for IS QA unknown. No recoveries calculated.

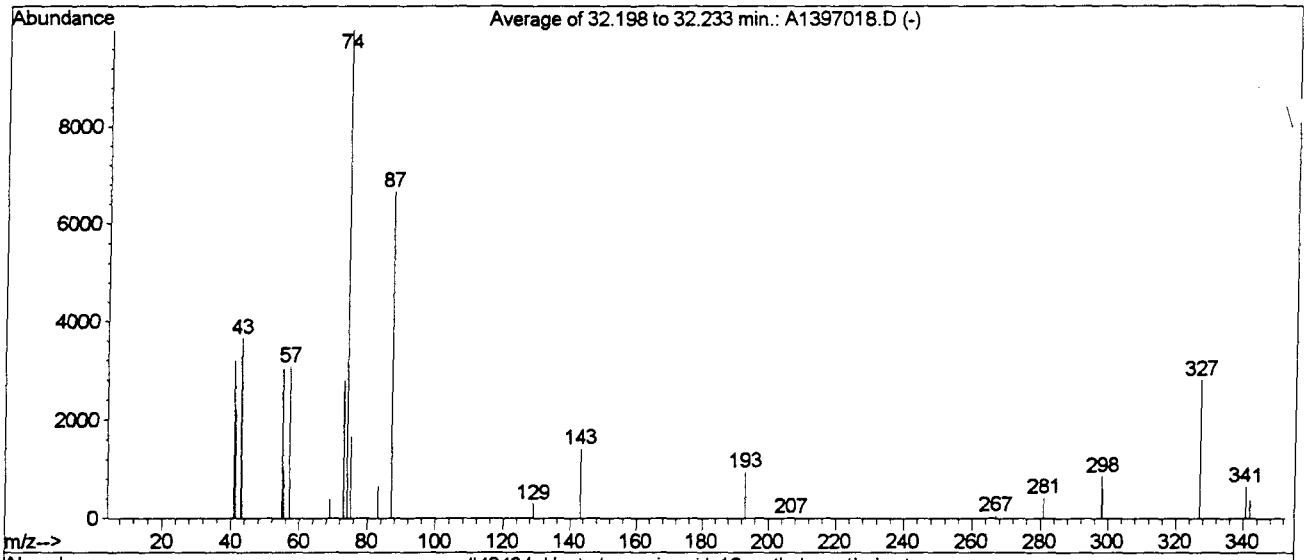
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)

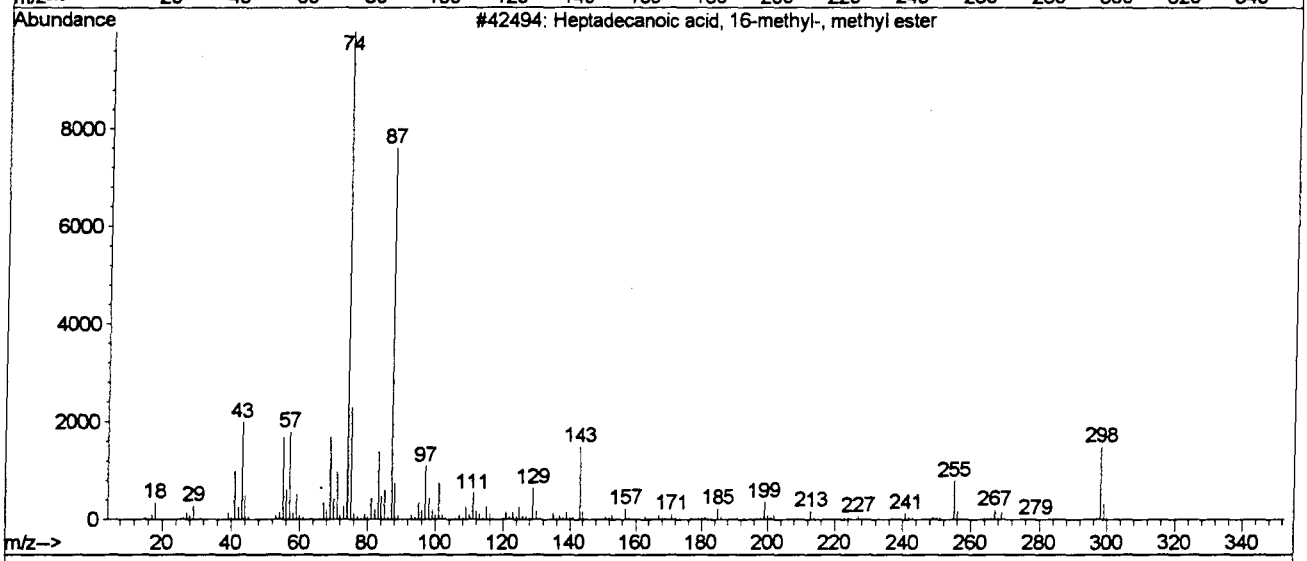
System Monitoring Compounds

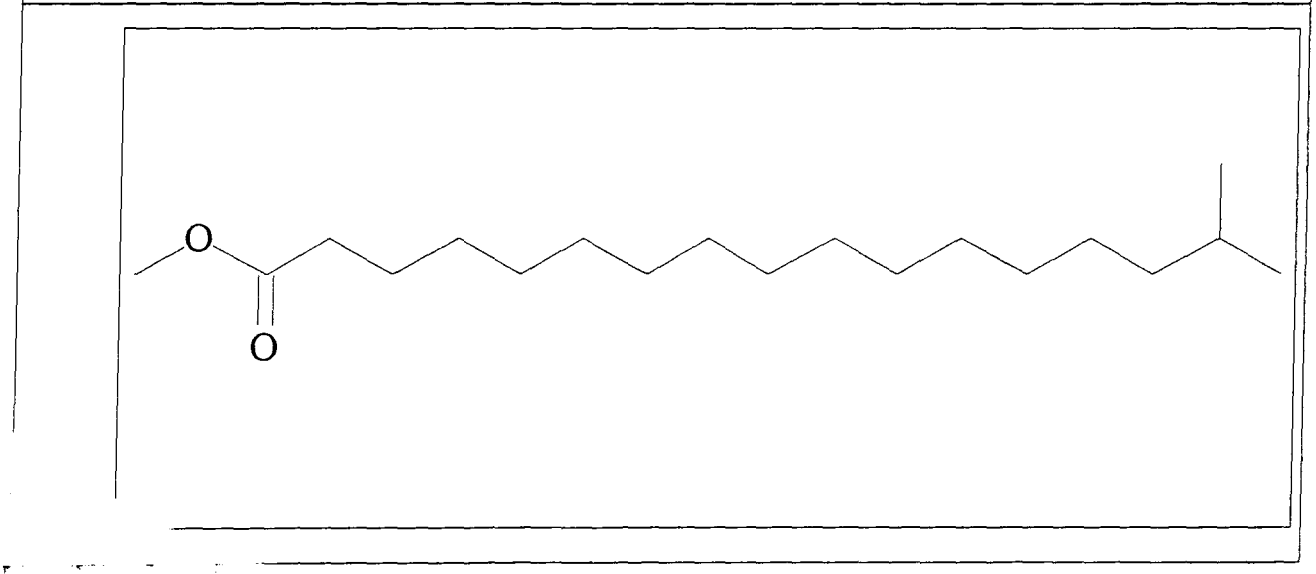
Target Compounds						Qvalue
20) 2-Fluorobiphenyl	22.62	172	17609	0.76		# 55
33) Di-n-butyl phthalate	30.22	149	11783	1.22	ng	# 80

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

Library Searched : C:\DATABASE\NBS75K.L
Quality : 50
ID : Heptadecanoic acid, 16-methyl-, methyl ester



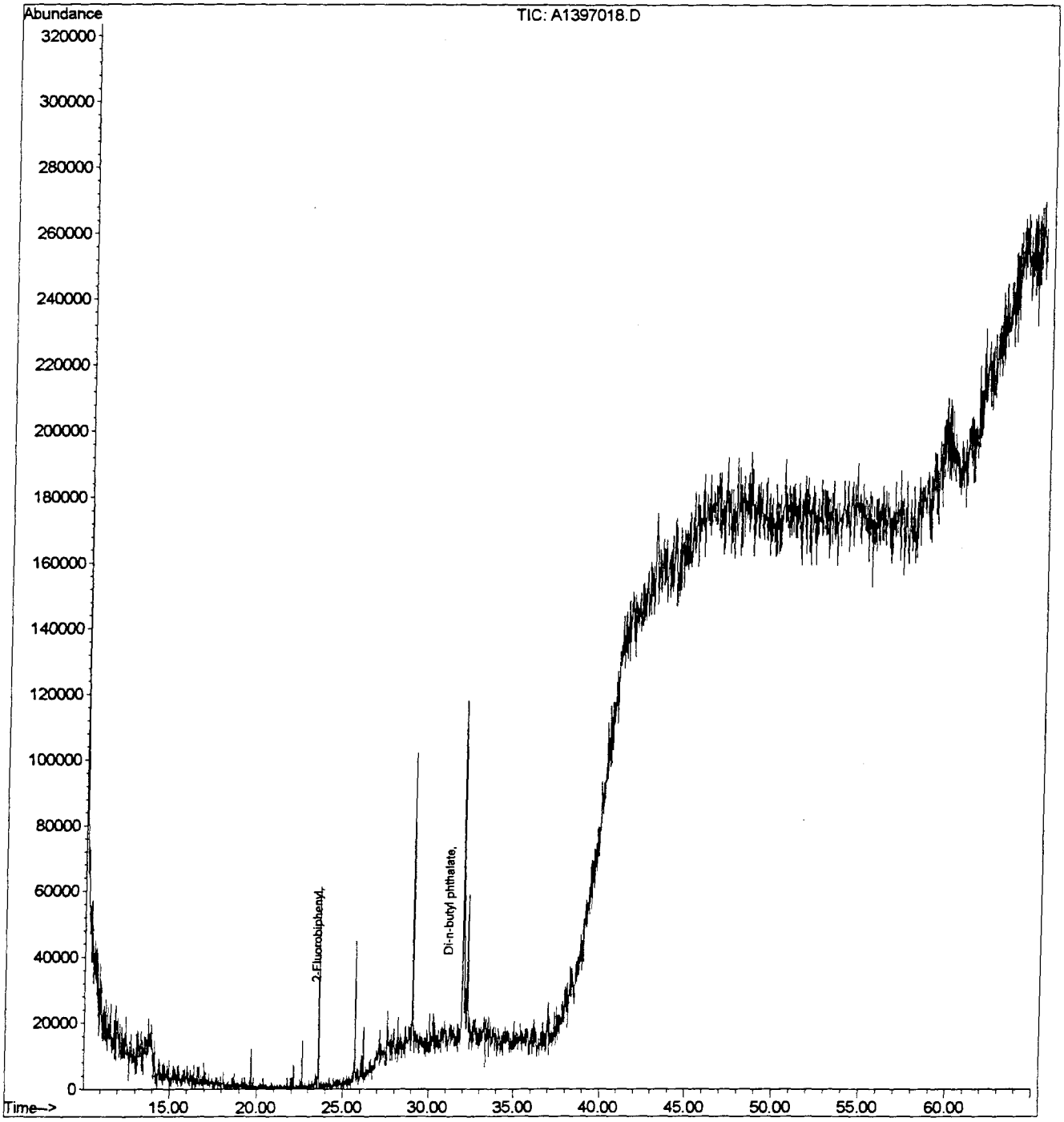




Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397018.D Vial: 0
Acq On : 14 JAN 97 10:43 Operator:
Sample : Inst :
Misc : HRS #9 (18) Multiplr: 1.00
Quant Time: Feb 4 0:50 1997 Quant Results File: BASENEUT.RES

Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397018.D Vial: 0
Acq On : 14 JAN 97 10:43 Operator:
Sample : Inst :
Misc : HRS #9 (18) Multiplr: 1.00
Quant Time: Feb 4 0:50 1997 Quant Results File: BASENEUT.RES

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration
DataAcq Meth :
IS QA File : 4 level for IS QA unknown. No recoveries calculated.

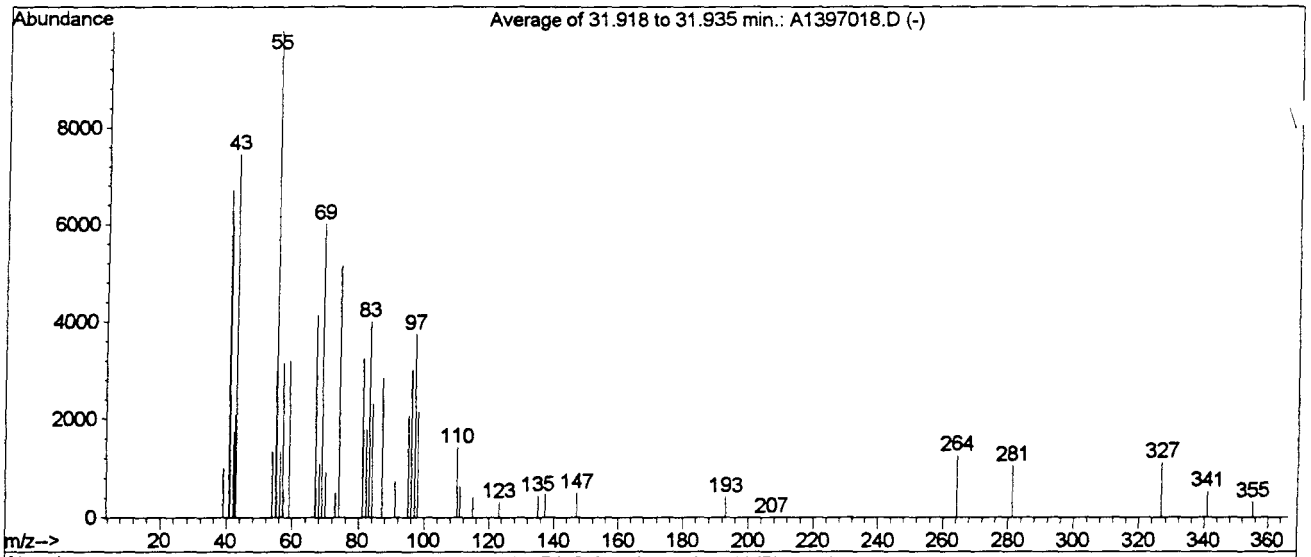
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)

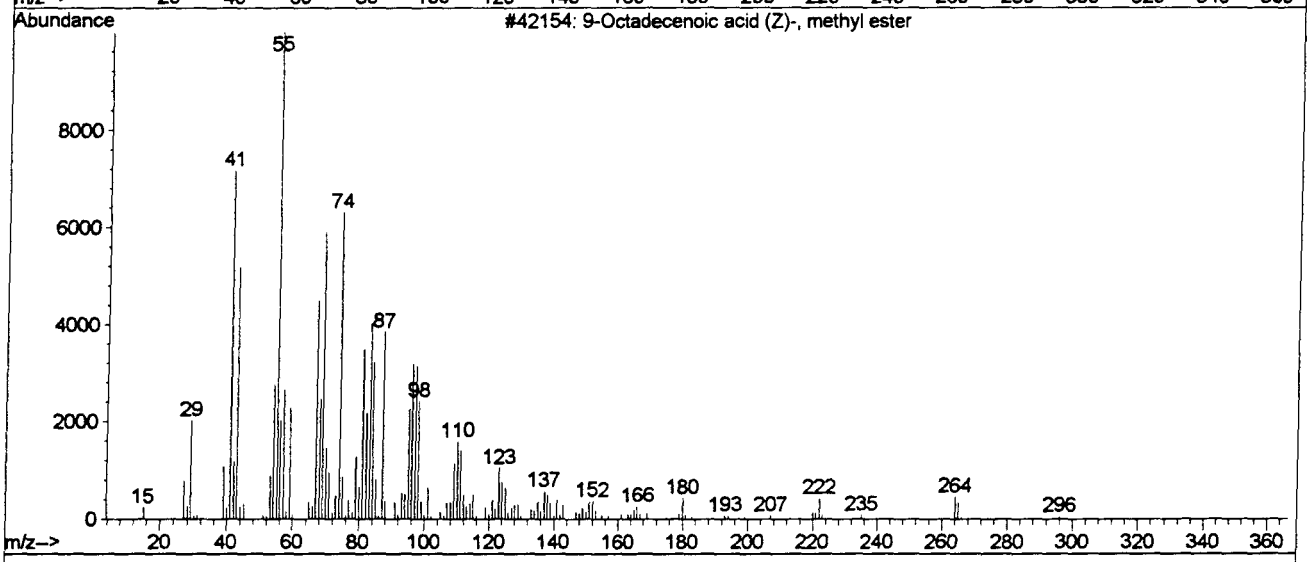
System Monitoring Compounds

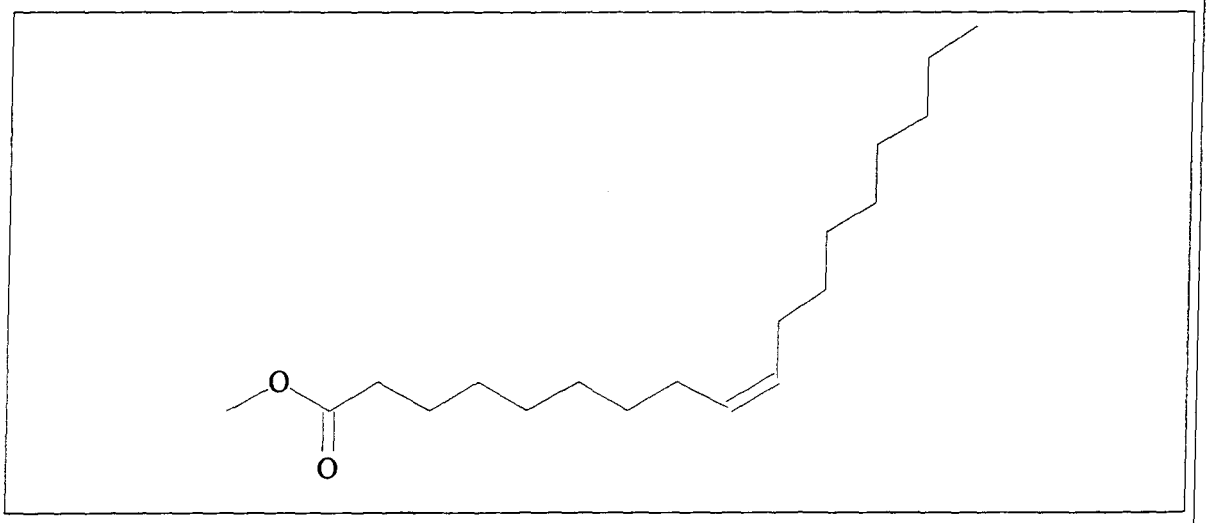
Target Compounds						Qvalue
20) 2-Fluorobiphenyl	22.62	172	17609	0.76		# 55
33) Di-n-butyl phthalate	30.22	149	11783	1.22	ng	# 80

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

Library Searched : C:\DATABASE\NBS75K.L
Quality : 80
ID : 9-Octadecenoic acid (Z)-, methyl ester







Library Search Compound Report

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Data File : C:\QMASS\DATA\97JAN\A1397018.D                Vial: 0
Acq On    : 14 JAN 97  10:43                           Operator:
Sample    :                                            Inst    :
Misc      : HRS #9 (18)                                Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title        : Base-Neutrals
Library      : C:\DATABASE\NBS75K.L
```

****

Peak Number 1 Heptamethylethyloctasilsesquio Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.99	56699.00	56699	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptamethylethyloctasilsesquioxane	550	C9H26O12Si8	077626-17-6	2
2	Propanoyl chloride	92	C3H5ClO	000079-03-8	1
3	4,4'-Diacetoxy-6,6'-dimethyl-5,5',8	518	C30H30O8	101459-22-7	1
4	Ethanol, 2,2,2-trifluoro-	100	C2H3F3O	000075-89-8	1
5	Ethanol, 2,2,2-trifluoro-	100	C2H3F3O	000075-89-8	1

****

Peak Number 2 1'H-Cholest-2-eno[3,2-b]indole Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
11.98	75682.00	75682	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1'H-Cholest-2-eno[3,2-b]indole, 5'-	538	C33H47ClN2O2	038389-17-2	3
2	3,3''-Biflavone, 4',4''',5,5'',7,7'	538	C30H18O10	027090-20-6	3
3	[1,1'-Bianthracene]-9,9',10,10'-tet	538	C30H18O10	000568-42-3	3
4	2,2'-Di(4-hexyloxyphenyl)-5,5'-azop	538	C32H38N6O2	000000-00-0	3
5	Copper, [2,8,12,18-tetraethyl-3,7,1	539	C32H36CuN4	014055-18-6	2

****

Peak Number 3 Unknown Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.54	58713.00	58713	External Standard	1	0.00

Hit# of 1	Tentative ID	MW	MolForm	CAS#	Qual
1	No Hits From C:\DATABASE\NBS75K.L	0			0

Library Search Compound Report

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Data File : C:\QMASS\DATA\97JAN\A1397018.D                Vial: 0
Acq On    : 14 JAN 97  10:43                           Operator:
Sample    :                                            Inst    :
Misc      : HRS #9 (18)                                Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title        : Base-Neutrals
Library      : C:\DATABASE\NBS75K.L
```

****

Peak Number 4 Nickel[ii] bis(dibutyldithioph Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.61	60351.00	60351	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nickel[ii] bis(dibutyldithiophospha	540	C16H36NiO4P2S4	037913-22-7	3
2	5,10,15,20(22H,24H)-Porphinetetrone	540	C32H36N4O4	027800-02-8	3
3	5,10,15,20(22H,24H)-Porphinetetrone	540	C32H36N4O4	027800-00-6	3
4	Zeta-carotene	540	C40H60	000000-00-0	3
5	1,2,3-Tris(3,4,5-trimethoxyphenyl)p	540	C30H36O9	000000-00-0	3

****

Peak Number 5 Borazine, hexaphenyl- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.75	56702.00	56702	External Standard	1	0.00

Hit# of 1	Tentative ID	MW	MolForm	CAS#	Qual
1	Borazine, hexaphenyl-	537	C36H30B3N3	016672-48-3	3

****

Peak Number 6 Androst-4-en-3-one, 16,17-bis[Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.85	80946.00	80946	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Androst-4-en-3-one, 16,17-bis[(trim	477	C26H47NO3Si2	069688-34-2	3
2	4-Amino-5-(4-acetylphenylazo)benzof	281	C14H11N5O2	000000-00-0	3
3	4,5-Ethylene-8,9-dimethoxy-6-phenan	281	C17H15NO3	000000-00-0	3
4	1,2-Dihydroanthra[1,2-d]thiazole-2,	281	C15H7NO3S	000000-00-0	3
5	7a,9c-(Iminoethano)phenanthro[4,5-b	281	C18H19NO2	024695-70-3	3

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397018.D Vial: 0
Acq On : 14 JAN 97 10:43 Operator:
Sample : Inst :
Misc : HRS #9 (18) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 7 Distannoxane, hexabutyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.92	77636.00	77636	External Standard	1	0.00

Hit# of 1	Tentative ID	MW	MolForm	CAS#	Qual
1	Distannoxane, hexabutyl-	598	C24H54OSn2	000056-35-9	4

****
Peak Number 8 Propanal Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
23.58	117757.00	117757	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanal	58	C3H6O	000123-38-6	5
2	Propanal	58	C3H6O	000123-38-6	4
3	Propanal	58	C3H6O	000123-38-6	4
4	Trimethylene oxide	58	C3H6O	000503-30-0	4
5	2-Propanamine, N-methyl-	73	C4H11N	004747-21-1	4

****
Peak Number 9 Cyclononanone Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
25.68	90755.00	90755	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclononanone	140	C9H16O	003350-30-9	27
2	Acetic acid, isononyl ester	186	C11H22O2	040379-24-6	23
3	Allyl methallyl ether	112	C7H12O	014289-96-4	17
4	1,5-Pentanediol, 3-methyl-	118	C6H14O2	004457-71-0	9
5	1-Undecanethiol	188	C11H24S	005332-52-5	9

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397018.D Vial: 0
Acq On : 14 JAN 97 10:43 Operator:
Sample : Inst :
Misc : HRS #9 (18) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 10 1,1,1,3,5,7,7,7-Octamethyltetr Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.95	55120.00	55120	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,1,1,3,5,7,7,7-Octamethyltetrasilo	282	C8H26O3Si4	000000-00-0	4
2	Tranylcypromine, pentafluorobenzoyl	327	C16H10F5NO	000000-00-0	3
3	1-Benzopyrylium, 2-phenyl-	207	C15H11O	014051-53-7	2
4	3-Methyl-2-phenylindole	207	C15H13N	010257-92-8	2
5	1H-Indole, 2-methyl-3-phenyl-	207	C15H13N	004757-69-1	2

****
Peak Number 11 9-Octadecenoic acid, 12-(acety Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
29.02	237713.00	237713	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9-Octadecenoic acid, 12-(acetyloxy)	354	C21H38O4	000140-03-4	72
2	Tridecanoic acid, methyl ester	228	C14H28O2	001731-88-0	50
3	Dodecanoic acid, methyl ester	214	C13H26O2	000111-82-0	50
4	2-Naphthalenol, 8-amino-	159	C10H9NO	000118-46-7	50
5	Undecanoic acid, methyl ester	200	C12H24O2	001731-86-8	50

****
Peak Number 12 9-Octadecenoic acid, methyl es Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
31.92	548821.00	548821	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9-Octadecenoic acid, methyl ester,	296	C19H36O2	001937-62-8	50
2	10-Octadecenoic acid, methyl ester	296	C19H36O2	013481-95-3	50
3	9-Octadecenoic acid (Z)-, methyl es	296	C19H36O2	000112-62-9	46
4	13-Octadecenoic acid, methyl ester	296	C19H36O2	056554-47-3	46
5	14-Octadecenoic acid, methyl ester	296	C19H36O2	056554-48-4	46

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397018.D Vial: 0
Acq On : 14 JAN 97 10:43 Operator:
Sample : Inst :
Misc : HRS #9 (18) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 13 Heptadecanoic acid, 9-methyl-, Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
32.22	136666.00	136666	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptadecanoic acid, 9-methyl-, meth	298	C19H38O2	054934-57-5	64
2	Heptadecanoic acid, 16-methyl-, met	298	C19H38O2	005129-61-3	59
3	Octadecanoic acid, methyl ester	298	C19H38O2	000112-61-8	59
4	Heptadecanoic acid, 15-methyl-, met	298	C19H38O2	054833-55-5	49
5	Heptadecanoic acid, 10-methyl-, met	298	C19H38O2	002490-25-7	42

****
Peak Number 14 1,4-Naphthoquinone, 2-p-dioxan Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
36.97	78422.00	78422	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Naphthoquinone, 2-p-dioxan-2-yl	244	C14H12O4	024161-37-3	5
2	3H-2,5-Methano-1H-pyrrolo[3,4-i]qui	244	C15H20N2O	070711-82-9	3
3	Phenazine, 2-chloro-8-methoxy-	244	C13H9ClN2O	018450-08-3	3
4	Ferrocene, 1-(1-hydroxyethyl)-3-met	244	C13H16FeO	012289-11-1	3
5	Ferrocene, (3-hydroxypropyl)-	244	C13H16FeO	012093-88-8	3

****
Peak Number 15 N-Cyano-N',N',N'',N''-tetramet Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
38.21	102524.00	102524	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	N-Cyano-N',N',N'',N''-tetramethyl-1	207	C8H13N7	074150-88-2	5
2	6-Azaestra-1,3,5(10),6,8-pentaen-17	281	C18H19NO2	005144-20-7	3
3	4-Amino-5-(4-acetylphenylazo)benzof	281	C14H11N5O2	000000-00-0	3
4	4-(2-Hydroxyethylamino)-1-oxo-2-phe	281	C16H15N3O2	000000-00-0	3
5	Benzene, 1-phenyl-4-(2-cyano-2-phen	281	C21H15N	027869-56-3	3

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397018.D Vial: 0
Acq On : 14 JAN 97 10:43 Operator:
Sample : Inst :
Misc : HRS #9 (18) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 16 1,1,1,3,5,7,7,7-Octamethyltetr Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
38.31	61242.00	61242	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,1,1,3,5,7,7,7-Octamethyltetrasilo	282	C8H26O3Si4	000000-00-0	23
2	1,3,5-Triazine, 2-chloro-4,6-bis(me	207	C5H6ClN3S2	004407-40-3	4
3	Phenol, 3-[2-(dimethylamino)ethyl]-	327	C20H25NO3	002609-29-2	3
4	Benzonitrile, 2,4-dinitro-6-tricycl	327	C17H17N3O4	071466-65-4	3
5	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	2

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 14 JAN 97 10:43
Data File: C:\QMASS\DATA\97JAN\A1397018.D
Name:
Misc: HRS #9 (18)
Method:
Title: Base-Neutrals
Library Searched: C:\DATABASE\NBS75K.L

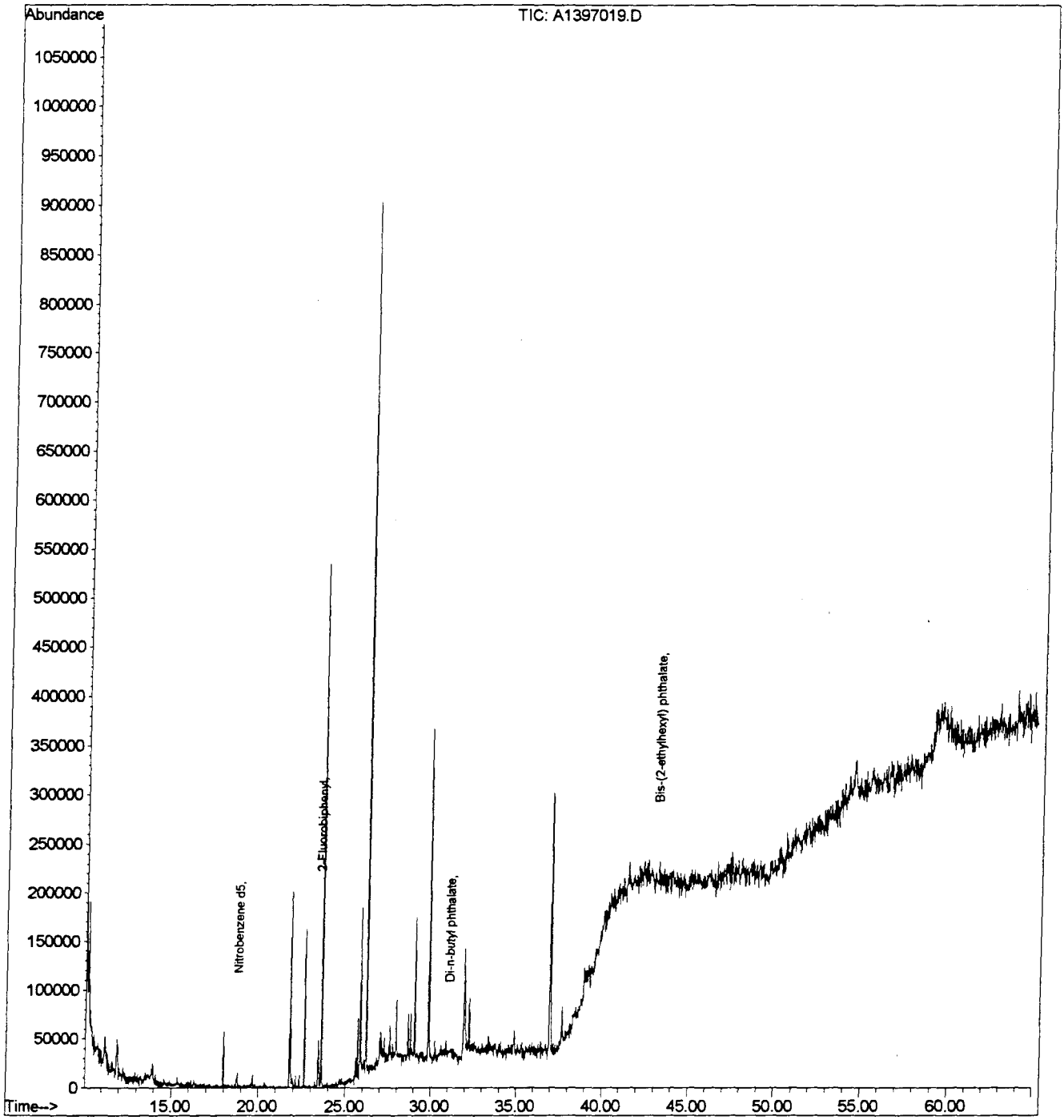
TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Heptamethylethylocta	10.99	56699.0		56699	ISTD00	0.00	1	1.0
1'H-Cholest-2-eno[3,	11.98	75682.0		75682	ISTD00	0.00	1	1.0
No Hits From C:\DATA	12.54	58713.0		58713	ISTD00	0.00	1	1.0
Nickel[ii] bis(dibut	13.61	60351.0		60351	ISTD00	0.00	1	1.0
Borazine, hexaphenyl	13.75	56702.0		56702	ISTD00	0.00	1	1.0
Androst-4-en-3-one,	13.85	80946.0		80946	ISTD00	0.00	1	1.0
Distannoxane, hexabu	13.92	77636.0		77636	ISTD00	0.00	1	1.0
Propanal	23.58	117757.0		117757	ISTD00	0.00	1	1.0
Cyclononanone	25.68	90755.0		90755	ISTD00	0.00	1	1.0
1,1,1,3,5,7,7,7-Octa	27.95	55120.0		55120	ISTD00	0.00	1	1.0
9-Octadecenoic acid,	29.02	237713.0		237713	ISTD00	0.00	1	1.0
9-Octadecenoic acid,	31.92	548821.0		548821	ISTD00	0.00	1	1.0
Heptadecanoic acid,	32.22	136666.0		136666	ISTD00	0.00	1	1.0
1,4-Naphthoquinone,	36.97	78422.0		78422	ISTD00	0.00	1	1.0
N-Cyano-N',N',N'',N'	38.21	102524.0		102524	ISTD00	0.00	1	1.0
1,1,1,3,5,7,7,7-Octa	38.31	61242.0		61242	ISTD00	0.00	1	1.0

A1397018.D BASENEUT.M Tue Feb 04 08:55:21 1997

Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397019.D Vial: 0
Acq On : 14 JAN 97 12:07 Operator:
Sample : Inst :
Misc : HRS #10 (19) Multiplr: 1.00
Quant Time: Feb 4 7:40 1997 Quant Results File: BASENEUT.RES

Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397019.D Vial: 0
Acq On : 14 JAN 97 12:07 Operator:
Sample : Inst :
Misc : HRS #10 (19) Multiplr: 1.00
Quant Time: Feb 4 7:40 1997 Quant Results File: BASENEUT.RES

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration
DataAcq Meth :
IS QA File : 4 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)

System Monitoring Compounds

Target Compounds						Qvalue
11) Nitrobenzene d5	17.97	128	14997	4.22	#	27
20) 2-Fluorobiphenyl	22.64	172	165298	7.18		92
33) Di-n-butyl phthalate	30.24	149	29687	3.07 ng	#	80
35) Bis-(2-ethylhexyl) phthala	42.31	149	29593	6.01 ng	#	55

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

Library Search Compound Report

```
Data File : C:\QMASS\DATA\97JAN\A1397019.D                Vial: 0
Acq On    : 14 JAN 97  12:07                           Operator:
Sample    :                                            Inst    :
Misc      : HRS #10 (19)                               Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title        : Base-Neutrals
Library      : C:\DATABASE\NBS75K.L
```

****

Peak Number 1 Toluene Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.25	349601.00	349601	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Toluene	92	C7H8	000108-88-3	43
2	Toluene	92	C7H8	000108-88-3	43
3	1,3,5-Cycloheptatriene	92	C7H8	000544-25-2	38
4	Toluene	92	C7H8	000108-88-3	38
5	1,5-Heptadien-3-yne	92	C7H8	003511-27-1	38

****

Peak Number 2 Unknown Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
11.20	271008.00	271008	External Standard	1	0.00

Hit# of 1	Tentative ID	MW	MolForm	CAS#	Qual
1	No Hits From C:\DATABASE\NBS75K.L	0			0

****

Peak Number 3 Lanosta-9(11),25-dien-18-oic a Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
11.88	278933.00	278933	External Standard	1	0.00

Hit# of 2	Tentative ID	MW	MolForm	CAS#	Qual
1	Lanosta-9(11),25-dien-18-oic acid,	510	C32H46O5	056052-65-4	1
2	Lanost-9(11)-en-18-oic acid, 3-(ace	528	C32H48O6	053534-45-5	1

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397019.D Vial: 0
Acq On : 14 JAN 97 12:07 Operator:
Sample : Inst :
Misc : HRS #10 (19) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 4 Benzeneacetonitrile Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
21.80	510766.00	510766	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneacetonitrile	117	C8H7N	000140-29-4	90
2	Indole	117	C8H7N	000120-72-9	90
3	Indole	117	C8H7N	000120-72-9	87
4	Benzene, 1-isocyano-4-methyl-	117	C8H7N	007175-47-5	87
5	Indole	117	C8H7N	000120-72-9	86

****
Peak Number 5 Azetidine Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
23.40	173766.00	173766	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Azetidine	57	C3H7N	000503-29-7	5
2	Methane, isocyanato-	57	C2H3NO	000624-83-9	4
3	Methane, isocyanato-	57	C2H3NO	000624-83-9	4
4	Butane, 2-methyl-	72	C5H12	000078-78-4	4
5	1,5-Pentanediol	104	C5H12O2	000111-29-5	4

****
Peak Number 6 Propanal Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
23.60	1019230.00	1019230	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanal	58	C3H6O	000123-38-6	56
2	Propanal	58	C3H6O	000123-38-6	9
3	1,2-Ethanediamine, N-ethyl-	88	C4H12N2	000110-72-5	9
4	1-Dimethylaminohexane	129	C8H19N	004385-04-0	9
5	Ethanamine, N,N-dimethyl-2-(phenylm	179	C11H17NO	027058-12-4	9

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397019.D Vial: 0
Acq On : 14 JAN 97 12:07 Operator:
Sample : Inst :
Misc : HRS #10 (19) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 7 Phenol, 4-(2,2,4-trimethylpent Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
25.85	582012.00	582012	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 4-(2,2,4-trimethylpentyl)-	206	C14H22O	000000-00-0	78
2	2H-Imidazo[4,5-b]pyridin-2-one, 1,3	135	C6H5N3O	016328-62-4	45
3	Phenol, 4-(1,1,3,3-tetramethylbutyl	206	C14H22O	000140-66-9	39
4	Benzene, 1-(1,3-dimethyl-3-butenyl)	190	C13H18O	074672-05-2	36
5	Benzenamine, 2,4,6-trimethyl-	135	C9H13N	000088-05-1	9

****
Peak Number 8 Propanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
26.20	1679190.00	1679190	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanal	58	C3H6O	000123-38-6	40
2	2-Propanamine, N-methyl-	73	C4H11N	004747-21-1	39
3	Propanal	58	C3H6O	000123-38-6	9
4	1-Dimethylaminohexane	129	C8H19N	004385-04-0	9
5	3-Hexanamine, 3-ethyl-	129	C8H19N	056667-17-5	9

****
Peak Number 9 3,4-Methylenedioxy-N-ethyl-N-m Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.02	198846.00	198846	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,4-Methylenedioxy-N-ethyl-N-methyl	193	C11H15NO2	000000-00-0	9
2	2-Nonylphenol	220	C15H24O	000136-83-4	9
3	9H-Purine-9-ethanol, 6-amino-.alpha	193	C8H11N5O	000712-00-5	9
4	3-(3-Pyridyl)propenoic acid	149	C8H7NO2	001126-74-5	5
5	Benzeneacetonitrile, 2-fluoro-	135	C8H6FN	000326-62-5	5

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397019.D Vial: 0
Acq On : 14 JAN 97 12:07 Operator:
Sample : Inst :
Misc : HRS #10 (19) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 10 Hexadecanoic acid, methyl este Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
29.03	399119.00	399119	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecanoic acid, methyl ester	270	C17H34O2	000112-39-0	52
2	Tetradecanoic acid, methyl ester	242	C15H30O2	000124-10-7	50
3	Dodecanoic acid, methyl ester	214	C13H26O2	000111-82-0	50
4	Tetradecanoic acid, methyl ester	242	C15H30O2	000124-10-7	47
5	Undecanoic acid, methyl ester	200	C12H24O2	001731-86-8	47

****
Peak Number 11 Caffeine Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
29.85	996823.00	996823	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Caffeine	194	C8H10N4O2	000058-08-2	91
2	Caffeine	194	C8H10N4O2	000058-08-2	91
3	Caffeine	194	C8H10N4O2	000058-08-2	91
4	Caffeine	194	C8H10N4O2	000058-08-2	91
5	Caffeine	194	C8H10N4O2	000058-08-2	90

****
Peak Number 12 3,9,10-Tribromo-(+)-camphor Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
31.93	766540.00	766540	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,9,10-Tribromo-(+)-camphor	386	C10H13Br3O	085706-52-1	14
2	7-Hexadecenoic acid, methyl ester,	268	C17H32O2	056875-67-3	10
3	9-Hexadecenoic acid, methyl ester,	268	C17H32O2	001120-25-8	10
4	3-Tridecanol	200	C13H28O	010289-68-6	10
5	8-Octadecenoic acid, methyl ester	296	C19H36O2	002345-29-1	10

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397019.D Vial: 0
Acq On : 14 JAN 97 12:07 Operator:
Sample : Inst :
Misc : HRS #10 (19) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 13 Heptadecanoic acid, 14-methyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
32.23	173846.00	173846	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptadecanoic acid, 14-methyl-, met	298	C19H38O2	002490-23-5	38
2	Heptadecanoic acid, 14-methyl-, met	298	C19H38O2	057274-45-0	38
3	Heptadecanoic acid, 9-methyl-, meth	298	C19H38O2	054934-57-5	33
4	Hexadecanoic acid, methyl ester	270	C17H34O2	000112-39-0	28
5	Nonanoic acid, 7-methyl-, methyl es	186	C11H22O2	005129-63-5	25

****
Peak Number 14 p-Terphenyl-d14 Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
36.95	1342520.00	1342520	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	p-Terphenyl-d14	244	C18D14	001718-51-0	72
2	9H-Xanthen-9-one, 1,3,8-trihydroxy-	244	C13H8O5	006052-93-3	42
3	Carbonic acid, 3-methoxyphenyl phen	244	C14H12O4	017145-96-9	40
4	Ferrocene, (3-hydroxypropyl)-	244	C13H16FeO	012093-88-8	36
5	1,4-Cyclohexadiene, 6-methylene-3,3	244	C19H16	018636-59-4	9

****
Peak Number 15 1,2,4-Triazolo[4,3-a]pyridin-3 Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
37.65	230910.00	230910	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2,4-Triazolo[4,3-a]pyridin-3-amin	134	C6H6N4	000767-62-4	4
2	s-Triazolo[4,3-a]pyrazine, 8-methyl	134	C6H6N4	023126-45-6	4
3	Phenol, 4-(2-propenyl)-	134	C9H10O	000501-92-8	4
4	[1,2,4]Triazolo[1,5-a]pyridin-2-ami	134	C6H6N4	000874-46-4	4
5	Benzene, 1-ethenyl-3-methoxy-	134	C9H10O	000626-20-0	4

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397019.D Vial: 0
Acq On : 14 JAN 97 12:07 Operator:
Sample : Inst :
Misc : HRS #10 (19) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 16 Morphinan-6-ol, 7,8-didehydro- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
43.96	182973.00	182973	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Morphinan-6-ol, 7,8-didehydro-4,5-e	341	C20H23NO4	006703-27-1	10
2	Morphinan-6-ol, 7,8-didehydro-4,5-e	341	C20H23NO4	006703-27-1	10
3	(1H)Indolo[2,1-a]isoquinoline, 5,6,	341	C20H23NO4	000000-00-0	10
4	2-Oxo-4-phenyl-6-(4-chlorophenyl)-1	282	C16H11ClN2O	000000-00-0	10
5	2(1H)-Pyrimidinone, 5-chloro-4,6-di	282	C16H11ClN2O	028567-83-1	10

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 14 JAN 97 12:07
Data File: C:\QMASS\DATA\97JAN\A1397019.D
Name:
Misc: HRS #10 (19)
Method:
Title: Base-Neutrals
Library Searched: C:\DATABASE\NBS75K.L

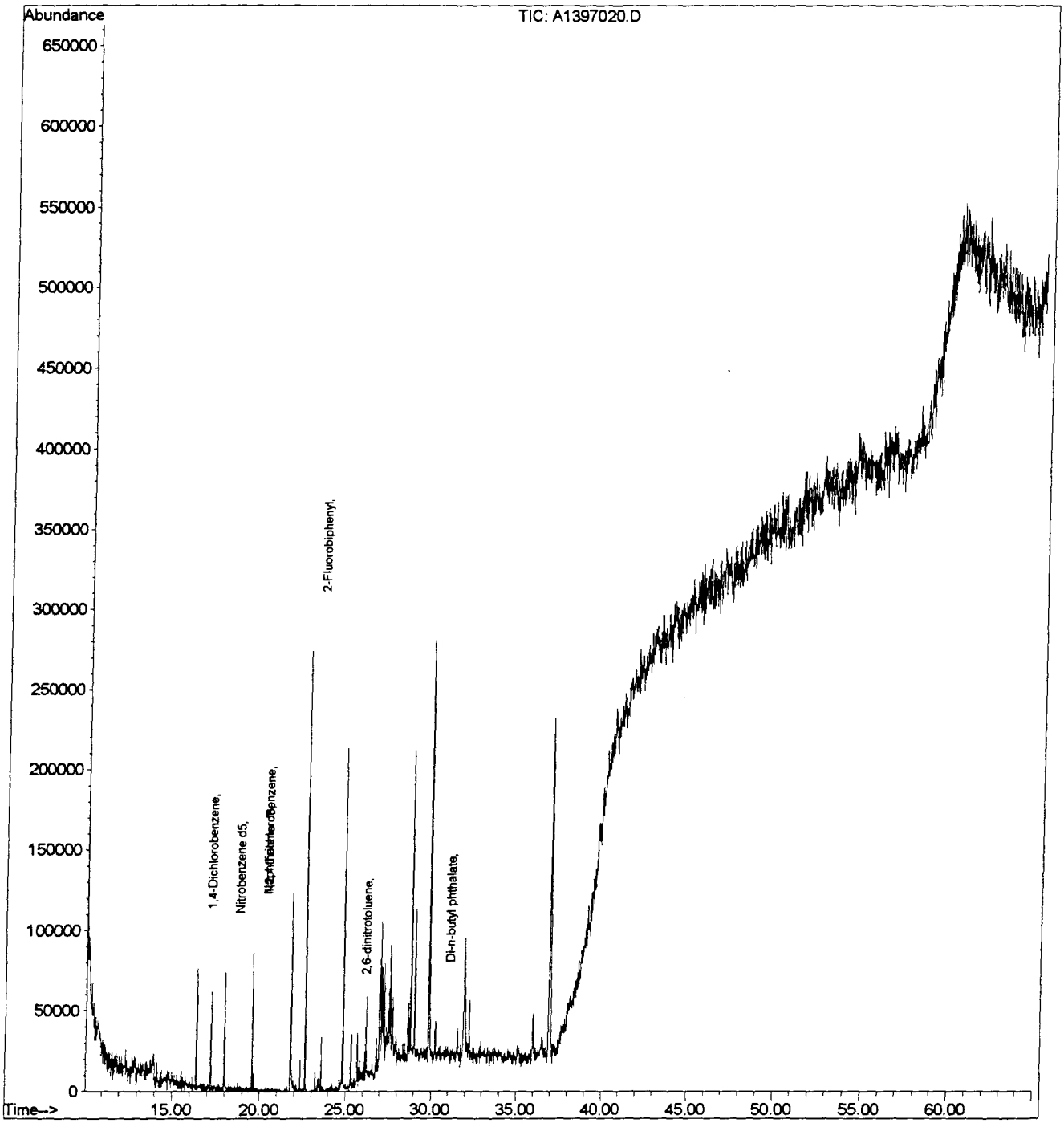
TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Toluene	10.25	349601.0		349601	ISTD00	0.00	1	1.0
No Hits From C:\DATA	11.20	271008.0		271008	ISTD00	0.00	1	1.0
Lanosta-9(11),25-die	11.88	278933.0		278933	ISTD00	0.00	1	1.0
Benzeneacetonitrile	21.80	510766.0		510766	ISTD00	0.00	1	1.0
Azetidine	23.40	173766.0		173766	ISTD00	0.00	1	1.0
Propanal	23.60	1019230.0		1019230	ISTD00	0.00	1	1.0
Phenol, 4-(2,2,4-tri	25.85	582012.0		582012	ISTD00	0.00	1	1.0
Propanal	26.20	1679190.0		1679190	ISTD00	0.00	1	1.0
3,4-Methylenedioxy-N	27.02	198846.0		198846	ISTD00	0.00	1	1.0
Hexadecanoic acid, m	29.03	399119.0		399119	ISTD00	0.00	1	1.0
Caffeine	29.85	996823.0		996823	ISTD00	0.00	1	1.0
3,9,10-Tribromo-(+)-	31.93	766540.0		766540	ISTD00	0.00	1	1.0
Heptadecanoic acid,	32.23	173846.0		173846	ISTD00	0.00	1	1.0
p-Terphenyl-d14	36.95	1342520.0		1342520	ISTD00	0.00	1	1.0
1,2,4-Triazolo[4,3-a	37.65	230910.0		230910	ISTD00	0.00	1	1.0
Morphinan-6-ol, 7,8-	43.96	182973.0		182973	ISTD00	0.00	1	1.0

A1397019.D BASENEUT.M Tue Feb 04 08:51:35 1997

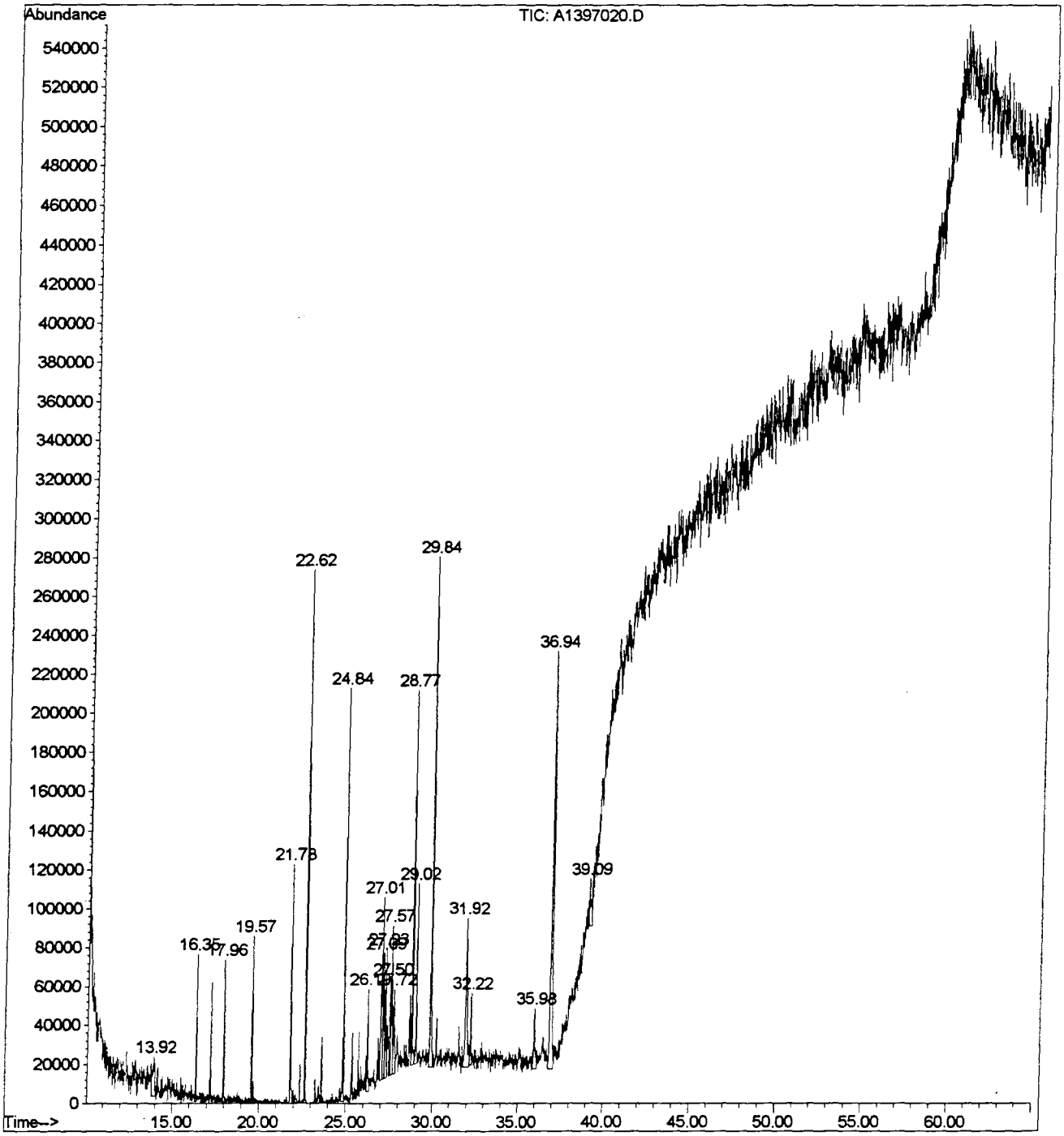
Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397020.D Vial: 0
Acq On : 14 JAN 97 13:31 Operator:
Sample : Inst :
Misc : HRS #11 (20) Multiplr: 1.00
Quant Time: Feb 4 7:51 1997 Quant Results File: BASENEUT.RES

Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration



File : C:\QMASS\DATA\97JAN\A1397020.D
Operator :
Acquired : 14 JAN 97 13:31 using AcqMethod
Instrument :
Sample Name:
Misc Info : HRS #11 (20)
Vial Number: 0



Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397020.D Vial: 0
Acq On : 14 JAN 97 13:31 Operator:
Sample : Inst :
Misc : HRS #11 (20) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 1 Diphosphoric acid, mono[[2-met Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.92	160039.00	160039	External Standard	1	0.00

Hit# of 1	Tentative ID	MW	MolForm	CAS#	Qual
1	Diphosphoric acid, mono[[2-methyl-3	722	C40H6807P2	038005-61-7	2

****
Peak Number 2 Indole Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
21.78	326923.00	326923	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indole	117	C8H7N	000120-72-9	80
2	Benzonitrile, 2-methyl-	117	C8H7N	000529-19-1	80
3	Indole	117	C8H7N	000120-72-9	72
4	Benzonitrile, 4-methyl-	117	C8H7N	000104-85-8	72
5	Benzonitrile, 3-methyl-	117	C8H7N	000620-22-4	72

****
Peak Number 3 Acenaphthene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
24.84	389914.00	389914	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acenaphthene	154	C12H10	000083-32-9	45
2	Acenaphthene	154	C12H10	000083-32-9	42
3	3-Fluoro-para-anisaldehyde	154	C8H7FO2	000351-54-2	42
4	Acenaphthene	154	C12H10	000083-32-9	38
5	Biphenyl	154	C12H10	000092-52-4	32

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397020.D Vial: 0
Acq On : 14 JAN 97 13:31 Operator:
Sample : Inst :
Misc : HRS #11 (20) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 4 1-Propanamine, N,N-dimethyl-3- Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
26.19	140741.00	140741	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propanamine, N,N-dimethyl-3-(trim	207	C8H21NO3Si	002530-86-1	5
2	Propanal	58	C3H6O	000123-38-6	4
3	Propylhexedrine	155	C10H21N	000101-40-6	4
4	Propylene oxide	58	C3H6O	000075-56-9	3
5	Propanal	58	C3H6O	000123-38-6	3

****
Peak Number 5 Phenol, nonyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.01	398984.00	398984	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, nonyl-	220	C15H24O	025154-52-3	43
2	Phenol, nonyl-	220	C15H24O	025154-52-3	38
3	4-Nonylphenol	220	C15H24O	000104-40-5	35
4	4-Nonylphenol	220	C15H24O	000104-40-5	28
5	Phenol, 4,4'-(1,2-diethyl-1,2-ethan	270	C18H22O2	000084-16-2	25

****
Peak Number 6 3'-Methoxy-N-methyl-2-oxo-2-ph Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.09	214482.00	214482	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3'-Methoxy-N-methyl-2-oxo-2-phenyle	325	C13H12F5NO3	000000-00-0	64
2	1H-Indole, 5-fluoro-	135	C8H6FN	000399-52-0	9
3	2H-Imidazo[4,5-b]pyridin-2-one, 1,3	135	C6H5N3O	016328-62-4	9
4	Pyridine, 4-ethyl-2,6-dimethyl-	135	C9H13N	036917-36-9	9
5	2-Bromo-3'-methoxyacetophenone	228	C9H9BrO2	005000-65-7	9

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397020.D Vial: 0
Acq On : 14 JAN 97 13:31 Operator:
Sample : Inst :
Misc : HRS #11 (20) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 7 Phenol, 2-(1,1-dimethylethyl)- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.23	197815.00	197815	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 2-(1,1-dimethylethyl)-4-met	164	C11H16O	002409-55-4	43
2	Tricyclo[3.3.1.13,7]decanone, 4-iod	276	C10H13IO	056781-85-2	25
3	Phenol, nonyl-	220	C15H24O	025154-52-3	25
4	Piperazine, 2,3-bis(4-methoxyphenyl	340	C21H28N2O2	000000-00-0	22
5	Phenol, nonyl-	220	C15H24O	025154-52-3	16

****
Peak Number 8 1-Hydroxy-2,2,5,5-tetramethyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.50	172370.00	172370	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Hydroxy-2,2,5,5-tetramethyl-4-(p-	252	C13H17FN2O2	072342-93-9	9
2	Phenol, 2-(1,1-dimethylethyl)-5-met	164	C11H16O	000088-60-8	9
3	Cyclopropanecarboxylic acid, 3-(3-m	360	C21H28O5	000121-20-0	9
4	1-Phenyl-1-nonanol	220	C15H24O	000000-00-0	9
5	1H-Purin-6-amine, N-methyl-	149	C6H7N5	000443-72-1	7

****
Peak Number 9 Phenol, 4-(1,1,3,3-tetramethyl Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.57	313042.00	313042	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 4-(1,1,3,3-tetramethylbutyl	206	C14H22O	000140-66-9	39
2	Phenol, 4-(2,2,3,3-tetramethylbutyl	206	C14H22O	054932-78-4	39
3	Dimethylphosphinothioic azide	135	C2H6N3PS	027260-90-8	9
4	Phenol, 4-(1,1,3,3-tetramethylbutyl	206	C14H22O	000140-66-9	9
5	Phenol, 4-(2,2,4-trimethylpentyl)-	206	C14H22O	000000-00-0	9

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397020.D Vial: 0
Acq On : 14 JAN 97 13:31 Operator:
Sample : Inst :
Misc : HRS #11 (20) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 10 Furo[3,2-b]pyridine, 2-methyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.72	184414.00	184414	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furo[3,2-b]pyridine, 2-methyl-, 4-o	149	C8H7NO2	069022-83-9	4
2	Benzene, 1-ethenyl-3-nitro-	149	C8H7NO2	000586-39-0	4
3	1H-Purin-6-amine, N-methyl-	149	C6H7N5	000443-72-1	4
4	5-Chloro-2-methyl-3(2H)-isothiazolo	149	C4H4ClNOS	026172-55-4	4
5	1,2-Benzisothiazole, 3-methyl-	149	C8H7NS	006187-89-9	4

****
Peak Number 11 1,2-Benzenedicarboxylic acid, Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
28.77	441258.00	441258	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, bis(2	278	C16H22O4	000084-69-5	78
2	1,2-Benzenedicarboxylic acid, dihep	362	C22H34O4	003648-21-3	72
3	1,2-Benzenedicarboxylic acid, butyl	304	C18H24O4	000084-64-0	56
4	Di-n-octyl phthalate	390	C24H38O4	000117-84-0	56
5	1,2-Benzenedicarboxylic acid, butyl	362	C22H34O4	000089-18-9	43

****
Peak Number 12 Hexadecanoic acid, methyl este Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
29.02	248727.00	248727	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecanoic acid, methyl ester	270	C17H34O2	000112-39-0	72
2	Hexadecanoic acid, methyl ester	270	C17H34O2	000112-39-0	72
3	Eicosanoic acid, methyl ester	326	C21H42O2	001120-28-1	59
4	9-Octadecenoic acid, 12-(acetyloxy)	354	C21H38O4	000140-03-4	56
5	Tridecanoic acid, methyl ester	228	C14H28O2	001731-88-0	53

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397020.D Vial: 0
Acq On : 14 JAN 97 13:31 Operator:
Sample : Inst :
Misc : HRS #11 (20) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 13 Caffeine Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
29.84	790135.00	790135	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Caffeine	194	C8H10N4O2	000058-08-2	91
2	Caffeine	194	C8H10N4O2	000058-08-2	91
3	Caffeine	194	C8H10N4O2	000058-08-2	90
4	Caffeine	194	C8H10N4O2	000058-08-2	90
5	Caffeine	194	C8H10N4O2	000058-08-2	86

****
Peak Number 14 7-Nonenoic acid, methyl ester Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
31.92	531965.00	531965	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	7-Nonenoic acid, methyl ester	170	C10H18O2	020731-22-0	32
2	9-Octadecenoic acid (Z)-, methyl es	296	C19H36O2	000112-62-9	22
3	3-Tridecanol	200	C13H28O	010289-68-6	14
4	Oxiraneundecanoic acid, 3-pentyl-,	312	C19H36O3	038520-30-8	14
5	7-Hexadecenoic acid, methyl ester,	268	C17H32O2	056875-67-3	12

****
Peak Number 15 1,3-Cyclopentanedione Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
35.98	164361.00	164361	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3-Cyclopentanedione	98	C5H6O2	003859-41-4	5
2	5-Acetyl-4-amino-3-(2-N-piperidinyl	341	C14H19N3OS3	097090-69-2	5
3	4H-1,2,4-Triazol-3-amine, 4-methyl-	98	C3H6N4	016681-76-8	4
4	1H-1,2,4-Triazol-3-amine, 5-methyl-	98	C3H6N4	004923-01-7	3
5	1H-Imidazole-2-methanol	98	C4H6N2O	003724-26-3	2

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397020.D Vial: 0
Acq On : 14 JAN 97 13:31 Operator:
Sample : Inst :
Misc : HRS #11 (20) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****

Peak Number 16 p-Terphenyl-d14 Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
36.94	1293430.00	1293430	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	p-Terphenyl-d14	244	C18D14	001718-51-0	50
2	2-Propenoic acid, 2-cyano-3-(4-dime	244	C14H16N2O2	001886-52-8	38
3	2-Propenoic acid, 2-cyano-3-(4-dime	244	C14H16N2O2	001886-52-8	38
4	1,1'-Biphenyl, 2,2',5-trimethoxy-	244	C15H16O3	019718-53-7	37
5	Ferrocene, (3-hydroxypropyl)-	244	C13H16FeO	012093-88-8	37

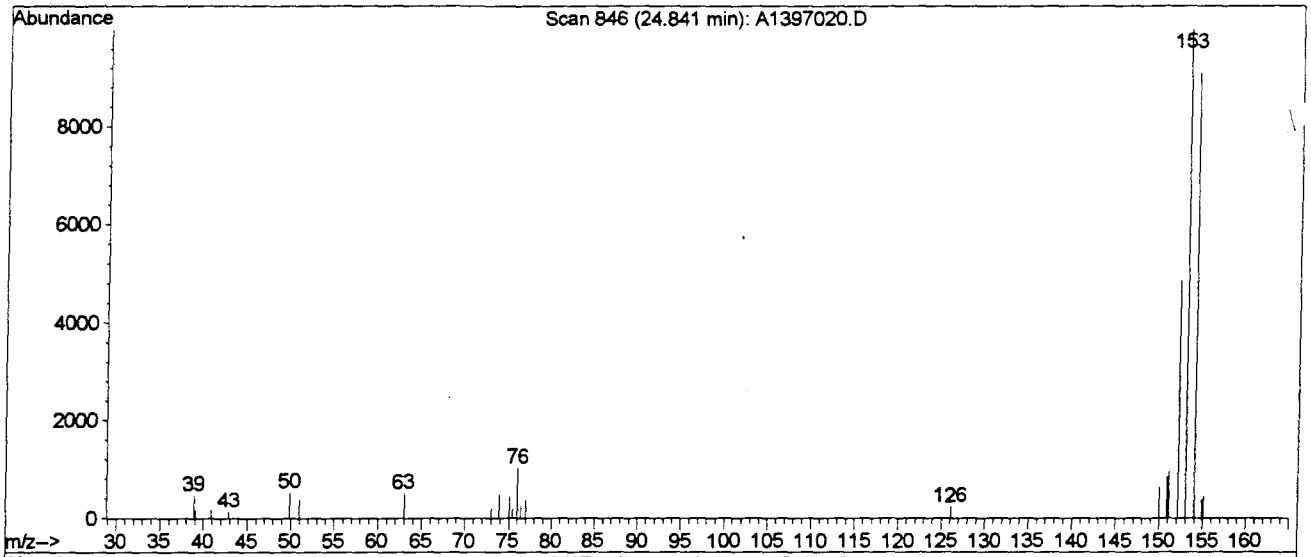
Tentatively Identified Compound (LSC) summary

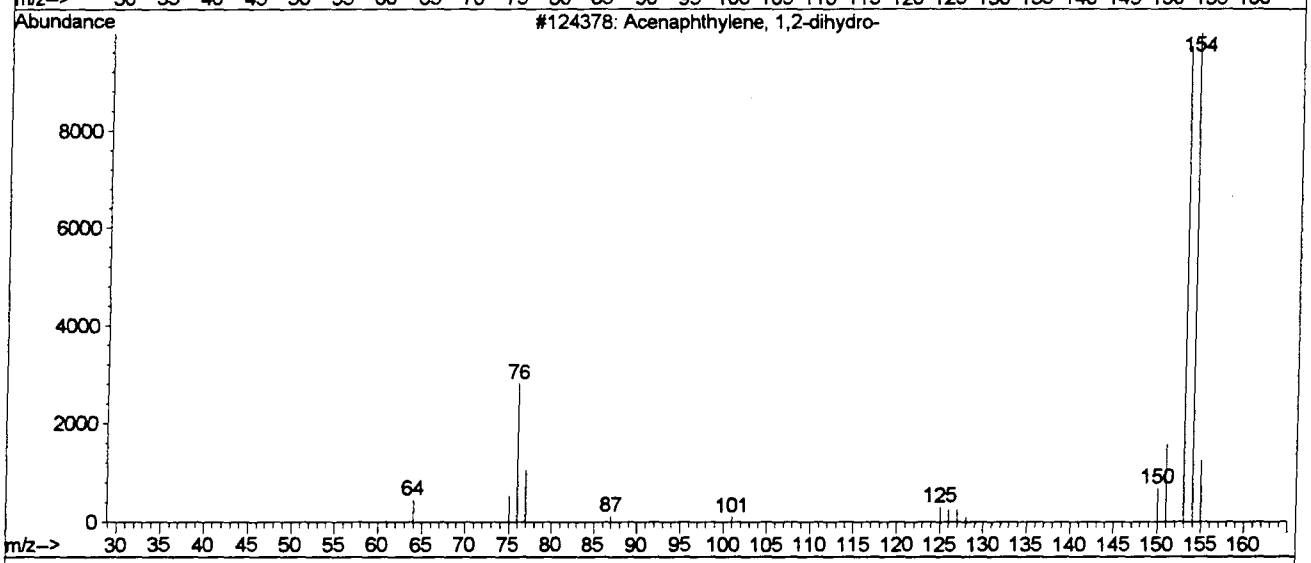
Operator ID: Date Acquired: 14 JAN 97 13:31
Data File: C:\QMASS\DATA\97JAN\A1397020.D
Name:
Misc: HRS #11 (20)
Method:
Title: Base-Neutrals
Library Searched: C:\DATABASE\NBS75K.L

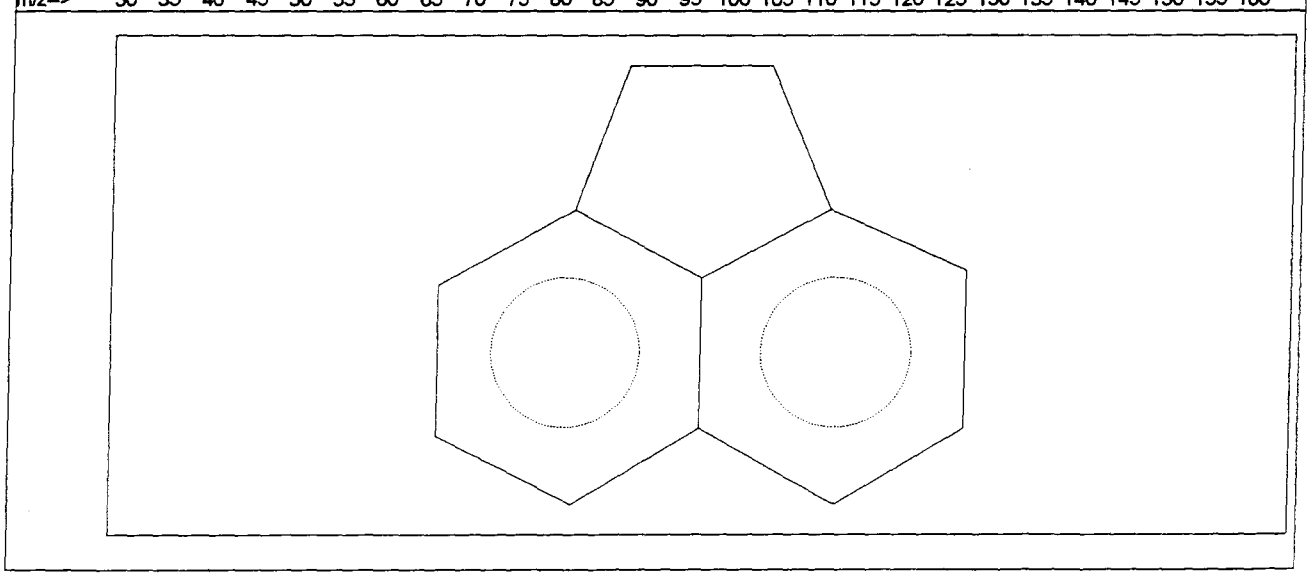
TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Diphosphoric acid, m	13.92	160039.0		160039	ISTD00	0.00	1	1.0
Indole	21.78	326923.0		326923	ISTD00	0.00	1	1.0
Acenaphthene	24.84	389914.0		389914	ISTD00	0.00	1	1.0
1-Propanamine, N,N-d	26.19	140741.0		140741	ISTD00	0.00	1	1.0
Phenol, nonyl-	27.01	398984.0		398984	ISTD00	0.00	1	1.0
3'-Methoxy-N-methyl-	27.09	214482.0		214482	ISTD00	0.00	1	1.0
Phenol, 2-(1,1-dimet	27.23	197815.0		197815	ISTD00	0.00	1	1.0
1-Hydroxy-2,2,5,5-te	27.50	172370.0		172370	ISTD00	0.00	1	1.0
Phenol, 4-(1,1,3,3-t	27.57	313042.0		313042	ISTD00	0.00	1	1.0
Furo[3,2-b]pyridine,	27.72	184414.0		184414	ISTD00	0.00	1	1.0
1,2-Benzenedicarboxy	28.77	441258.0		441258	ISTD00	0.00	1	1.0
Hexadecanoic acid, m	29.02	248727.0		248727	ISTD00	0.00	1	1.0
Caffeine	29.84	790135.0		790135	ISTD00	0.00	1	1.0
7-Nonenoic acid, met	31.92	531965.0		531965	ISTD00	0.00	1	1.0
1,3-Cyclopentanedion	35.98	164361.0		164361	ISTD00	0.00	1	1.0
p-Terphenyl-d14	36.94	1293430.0		1293430	ISTD00	0.00	1	1.0

A1397020.D BASENEUT.M Tue Feb 04 08:43:39 1997

Library Searched : C:\DATABASE\wiley138.L
Quality : 59
ID : Acenaphthylene, 1,2-dihydro-







Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397020.D Vial: 0
Acq On : 14 JAN 97 13:31 Operator:
Sample : Inst :
Misc : HRS #11 (20) Multiplr: 1.00
Quant Time: Feb 4 7:51 1997 Quant Results File: BASENEUT.RES

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration
DataAcq Meth :
IS QA File : 4 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min) Rcv(Ar)

System Monitoring Compounds

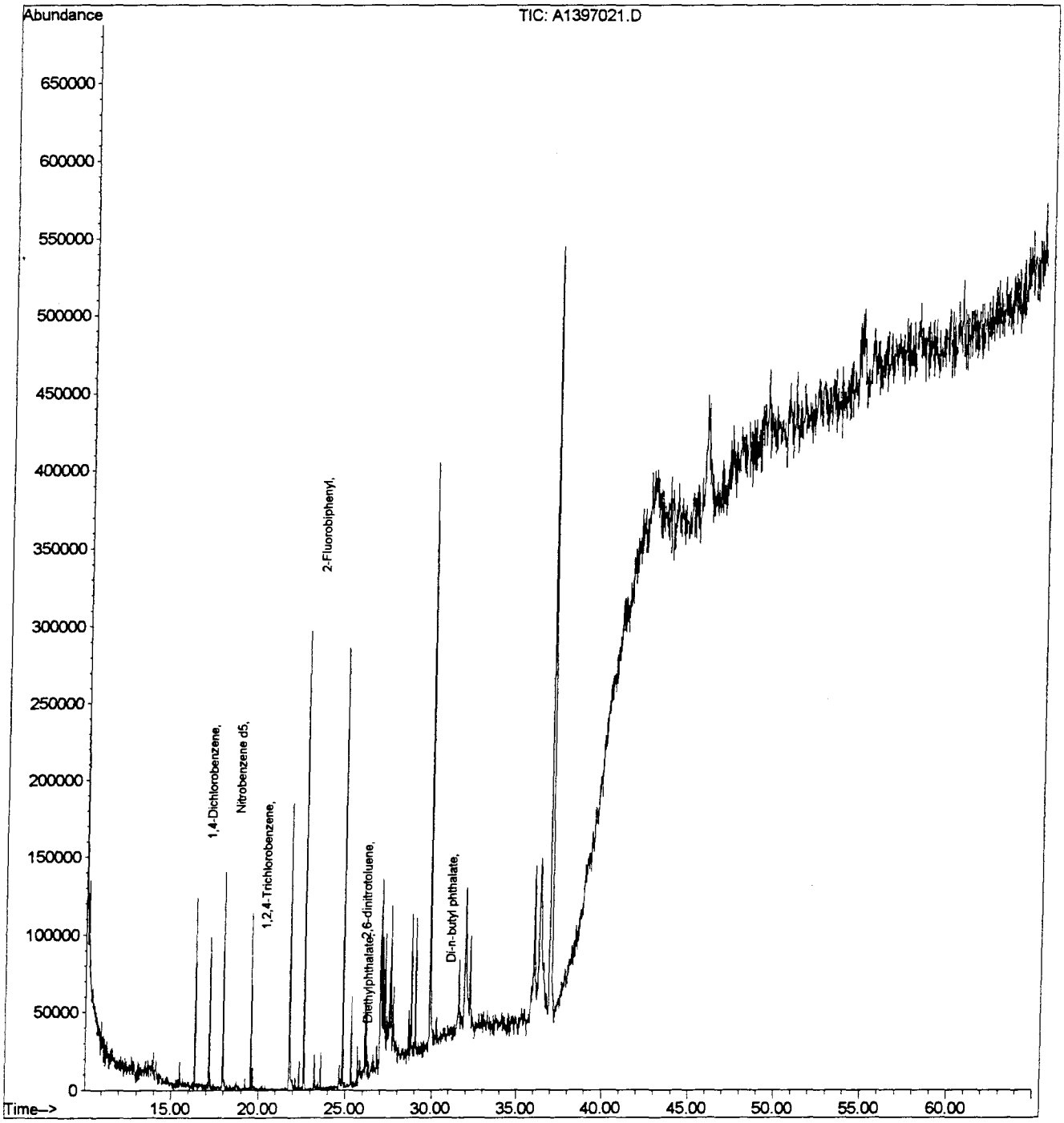
Target Compounds							Qvalue
6) 1,4-Dichlorobenzene	16.35	146	39072	8.46	ng		91
11) Nitrobenzene d5	17.96	128	16191	4.56		#	1
15) 1,2,4-Trichlorobenzene	19.57	180	22615	6.31	ng		90
16) Naphthalene d8	19.57	136	2117	0.62	ng		100
20) 2-Fluorobiphenyl	22.62	172	218828	9.50			94
25) 2,6-dinitrotoluene	25.33	165	25419	21.18	ng		95
33) Di-n-butyl phthalate	30.22	149	46444	4.80	ng	#	80

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

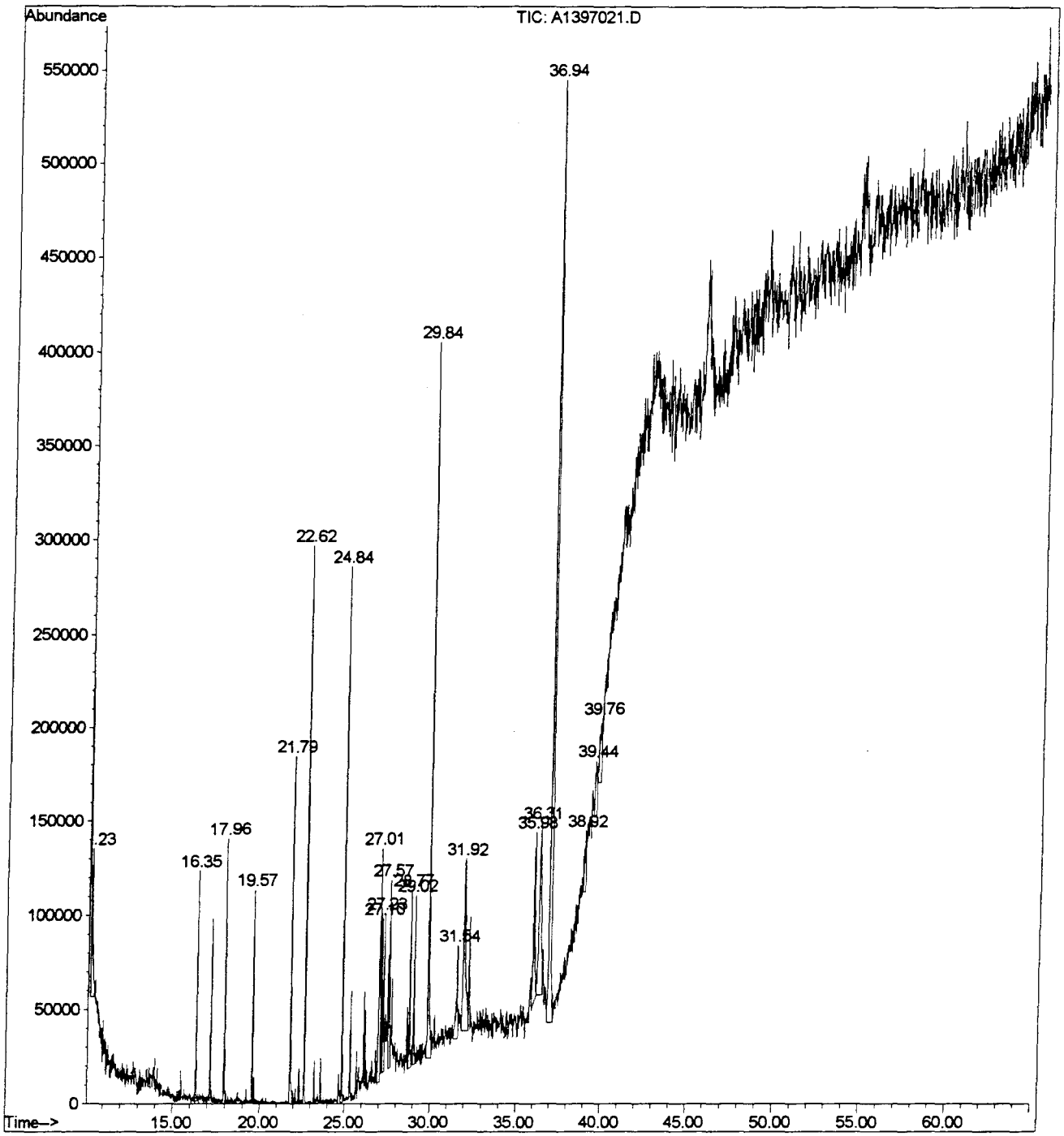
Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397021.D Vial: 0
Acq On : 14 JAN 97 14:55 Operator:
Sample : Inst :
Misc : HRS #12 (21) Multiplr: 1.00
Quant Time: Feb 4 7:55 1997 Quant Results File: BASENEUT.RES

Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration



File : C:\QMASS\DATA\97JAN\A1397021.D
Operator :
Acquired : 14 JAN 97 14:55 using AcqMethod
Instrument :
Sample Name:
Misc Info : HRS #12 (21)
Vial Number: 0



Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397021.D Vial: 0
Acq On : 14 JAN 97 14:55 Operator:
Sample : Inst :
Misc : HRS #12 (21) Multiplr: 1.00
Quant Time: Feb 4 7:55 1997 Quant Results File: BASENEUT.RES

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration
DataAcq Meth :
IS QA File : 4 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)

System Monitoring Compounds

Target Compounds						Qvalue
6) 1,4-Dichlorobenzene	16.35	146	66550	14.41	ng	93
11) Nitrobenzene d5	17.96	128	32053	9.02	#	24
15) 1,2,4-Trichlorobenzene	19.55	180	39418	11.00	ng #	95
20) 2-Fluorobiphenyl	22.62	172	284065	12.34		99
25) 2,6-dinitrotoluene	25.31	165	43106	35.92	ng	97
26) Diethylphthalate	25.45	149	3090	0.56	ng #	59
33) Di-n-butyl phthalate	30.22	149	34675	3.58	ng #	80

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

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397021.D Vial: 0
Acq On : 14 JAN 97 14:55 Operator:
Sample : Inst :
Misc : HRS #12 (21) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 1 Unknown Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.23	305868.00	305868	External Standard	1	0.00

Hit# of 1	Tentative ID	MW	MolForm	CAS#	Qual
1	No Hits From C:\DATABASE\NBS75K.L	0			0

****
Peak Number 2 Benzonitrile, 2-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
21.79	569714.00	569714	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzonitrile, 2-methyl-	117	C8H7N	000529-19-1	87
2	Indole	117	C8H7N	000120-72-9	86
3	Benzeneacetonitrile	117	C8H7N	000140-29-4	80
4	Indole	117	C8H7N	000120-72-9	80
5	Benzeneacetonitrile	117	C8H7N	000140-29-4	78

****
Peak Number 3 Acenaphthene Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
24.84	561583.00	561583	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acenaphthene	154	C12H10	000083-32-9	64
2	Benzene, (2,4-cyclopentadien-1-ylid	154	C12H10	007338-50-3	59
3	Acenaphthene	154	C12H10	000083-32-9	53
4	Acenaphthene	154	C12H10	000083-32-9	50
5	Acenaphthene	154	C12H10	000083-32-9	45

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397021.D Vial: 0
Acq On : 14 JAN 97 14:55 Operator:
Sample : Inst :
Misc : HRS #12 (21) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 4 Phenol, nonyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.01	574463.00	574463	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, nonyl-	220	C15H24O	025154-52-3	43
2	Phenol, nonyl-	220	C15H24O	025154-52-3	43
3	Phenol, nonyl-	220	C15H24O	025154-52-3	35
4	2-Nonylphenol	220	C15H24O	000136-83-4	33
5	Butanamide, N-(2-methylphenyl)-3-ox	191	C11H13NO2	000093-68-5	14

****
Peak Number 5 Phenol, nonyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.23	223947.00	223947	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, nonyl-	220	C15H24O	025154-52-3	23
2	Phenol, nonyl-	220	C15H24O	025154-52-3	10
3	Adenosine, N-methyl-	281	C11H15N5O4	001867-73-8	10
4	Benzenamine, 2,5-dimethyl-	121	C8H11N	000095-78-3	9
5	Butanamide, N-(2-methylphenyl)-3-ox	191	C11H13NO2	000093-68-5	9

****
Peak Number 6 Phenol, 4-(1,1,3,3-tetramethyl Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.57	306062.00	306062	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 4-(1,1,3,3-tetramethylbutyl	206	C14H22O	000140-66-9	72
2	1-Pentanone, 1-(4-methoxyphenyl)-,	207	C12H17NO2	055937-94-5	45
3	Phenol, 4-(1,1,3,3-tetramethylbutyl	206	C14H22O	000140-66-9	40
4	Phenol, 4-(2,2,3,3-tetramethylbutyl	206	C14H22O	054932-78-4	40
5	Phenol, 4-dodecyl-	262	C18H30O	000104-43-8	39

Library Search Compound Report

```
Data File : C:\QMASS\DATA\97JAN\A1397021.D                Vial: 0
Acq On    : 14 JAN 97  14:55                           Operator:
Sample    :                                            Inst    :
Misc      : HRS #12 (21)                               Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title        : Base-Neutrals
Library      : C:\DATABASE\NBS75K.L
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****

Peak Number 7 Bis(2-methoxyethyl) phthalate Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
28.77	244019.00	244019	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bis(2-methoxyethyl) phthalate	282	C14H18O6	000117-82-8	9
2	Dibutyl phthalate	278	C16H22O4	000084-74-2	9
3	1,2-Benzenedicarboxylic acid, bis(2	278	C16H22O4	000084-69-5	9
4	Di-n-octyl phthalate	390	C24H38O4	000117-84-0	9
5	4-(Methylthio)benzonitrile	149	C8H7NS	021382-98-9	7

****

Peak Number 8 Hexadecanoic acid, methyl este Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
29.02	231205.00	231205	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecanoic acid, methyl ester	270	C17H34O2	000112-39-0	72
2	Heneicosanoic acid, methyl ester	340	C22H44O2	006064-90-0	64
3	Tridecanoic acid, methyl ester	228	C14H28O2	001731-88-0	64
4	Hexadecanoic acid, methyl ester	270	C17H34O2	000112-39-0	64
5	Tetradecanoic acid, methyl ester	242	C15H30O2	000124-10-7	64

****

Peak Number 9 Caffeine Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
29.84	1235250.00	1235250	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Caffeine	194	C8H10N4O2	000058-08-2	91
2	Caffeine	194	C8H10N4O2	000058-08-2	90
3	Caffeine	194	C8H10N4O2	000058-08-2	87
4	Caffeine	194	C8H10N4O2	000058-08-2	87
5	Caffeine	194	C8H10N4O2	000058-08-2	87

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397021.D Vial: 0
Acq On : 14 JAN 97 14:55 Operator:
Sample : Inst :
Misc : HRS #12 (21) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 10 5-Acetyl-4-amino-3-(2-N-piperi Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
31.54	271488.00	271488	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	5-Acetyl-4-amino-3-(2-N-piperidinyl	341	C14H19N3OS3	097090-76-1	38
2	1H-1,2,4-Triazol-3-amine, N-methyl-	98	C3H6N4	015285-16-2	9
3	4H-1,2,4-Triazol-3-amine, 4-methyl-	98	C3H6N4	016681-76-8	9
4	3H-Pyrazol-3-one, 2,4-dihydro-5-met	98	C4H6N2O	000108-26-9	9
5	Piperidine, 1,1'-methylenebis-	182	C11H22N2	000880-09-1	9

****
Peak Number 11 2-n-Butylcyclohexanone Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
31.92	768080.00	768080	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-n-Butylcyclohexanone	154	C10H18O	000000-00-0	38
2	Timolol methylboronate	340	C14H25BN4O3S	000000-00-0	17
3	Timolol methylboronate	340	C14H25BN4O3S	000000-00-0	17
4	Cyclononanone	140	C9H16O	003350-30-9	10
5	Octadecanoic acid, 13-oxo-, methyl	312	C19H36O3	002380-28-1	10

****
Peak Number 12 1H-Tetrazaborole, 4,5-dihydro- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
35.98	469132.00	469132	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Tetrazaborole, 4,5-dihydro-1,4-d	98	C2H7BN4	006982-51-0	7
2	1H-1,2,4-Triazol-5-amine, 1-methyl-	98	C3H6N4	015795-39-8	5
3	4H-1,2,4-Triazol-3-amine, 4-methyl-	98	C3H6N4	016681-76-8	5
4	4-Pentynoic acid	98	C5H6O2	006089-09-4	4
5	3-Isoxazolamine, 5-methyl-	98	C4H6N2O	001072-67-9	4

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397021.D Vial: 0
Acq On : 14 JAN 97 14:55 Operator:
Sample : Inst :
Misc : HRS #12 (21) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 13 Furostan, (5.alpha.)- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
36.31	890255.00	890255	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furostan, (5.alpha.)-	386	C27H46O	054515-00-3	35
2	4-(1,1'-Biphenyl-2-yl)-7-chloro-1,2	316	C22H17Cl	000000-00-0	17
3	13H-Benz[6,7]indolo[3,2-c]quinoline	316	C20H13ClN2	004240-59-9	9
4	D-Homoandrosta-4,17-dien-3-one, 17,	316	C20H28O3	030298-69-2	9
5	Benzaldehyde, 4-methoxy-, (2,4-dini	316	C14H12N4O5	001773-49-5	9

****
Peak Number 14 Ferrocene, (3-hydroxypropyl)- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
36.94	3271600.00	3271600	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ferrocene, (3-hydroxypropyl)-	244	C13H16FeO	012093-88-8	43
2	9H-Xanthen-9-one, 1,3,8-trihydroxy-	244	C13H8O5	006052-93-3	37
3	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-	244	C14H16N2O2	000119-90-4	25
4	p-Terphenyl-d14	244	C18D14	001718-51-0	12
5	1,2,3,4-Phenazinetetrol	244	C12H8N2O4	025187-21-7	9

****
Peak Number 15 4H-1-Benzopyran-4-one, 5,6,7-t Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
39.44	219017.00	219017	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4H-1-Benzopyran-4-one, 5,6,7-trimet	342	C19H18O6	001168-42-9	10
2	2-(4-(Dimethylamino)-1-naphthyl)nap	327	C22H17NO2	000000-00-0	9
3	Morphinan-6-one, 4,5-epoxy-3,14-dih	327	C19H21NO4	000465-65-6	9
4	12,13-Dihydro-12-methyl-13,14-dioxo	327	C21H13NO3	059050-19-0	9
5	4H-1-Benzopyran-4-one, 2-(2,6-dimet	342	C19H18O6	014813-19-5	9

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397021.D Vial: 0
Acq On : 14 JAN 97 14:55 Operator:
Sample : Inst :
Misc : HRS #12 (21) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 16 Noradrenaline, tetra-TMS Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
39.76	290558.00	290558	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Noradrenaline, tetra-TMS	457	C20H43NO3Si4	000000-00-0	9
2	3-Isopropoxy-1,1,1,5,5,5-hexamethyl	354	C12H34O4Si4	072182-11-7	9
3	Sulindac	356	C20H17FO3S	038194-50-2	9
4	Corynan-17-ol, 18,19-didehydro-10-m	326	C20H26N2O2	056053-12-4	9
5	1,1,1,3,5,7,9,9,9-Nonamethylpentasi	342	C9H30O4Si5	084409-41-6	9

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 14 JAN 97 14:55
Data File: C:\QMASS\DATA\97JAN\A1397021.D
Name:
Misc: HRS #12 (21)
Method:
Title: Base-Neutrals
Library Searched: C:\DATABASE\NBS75K.L

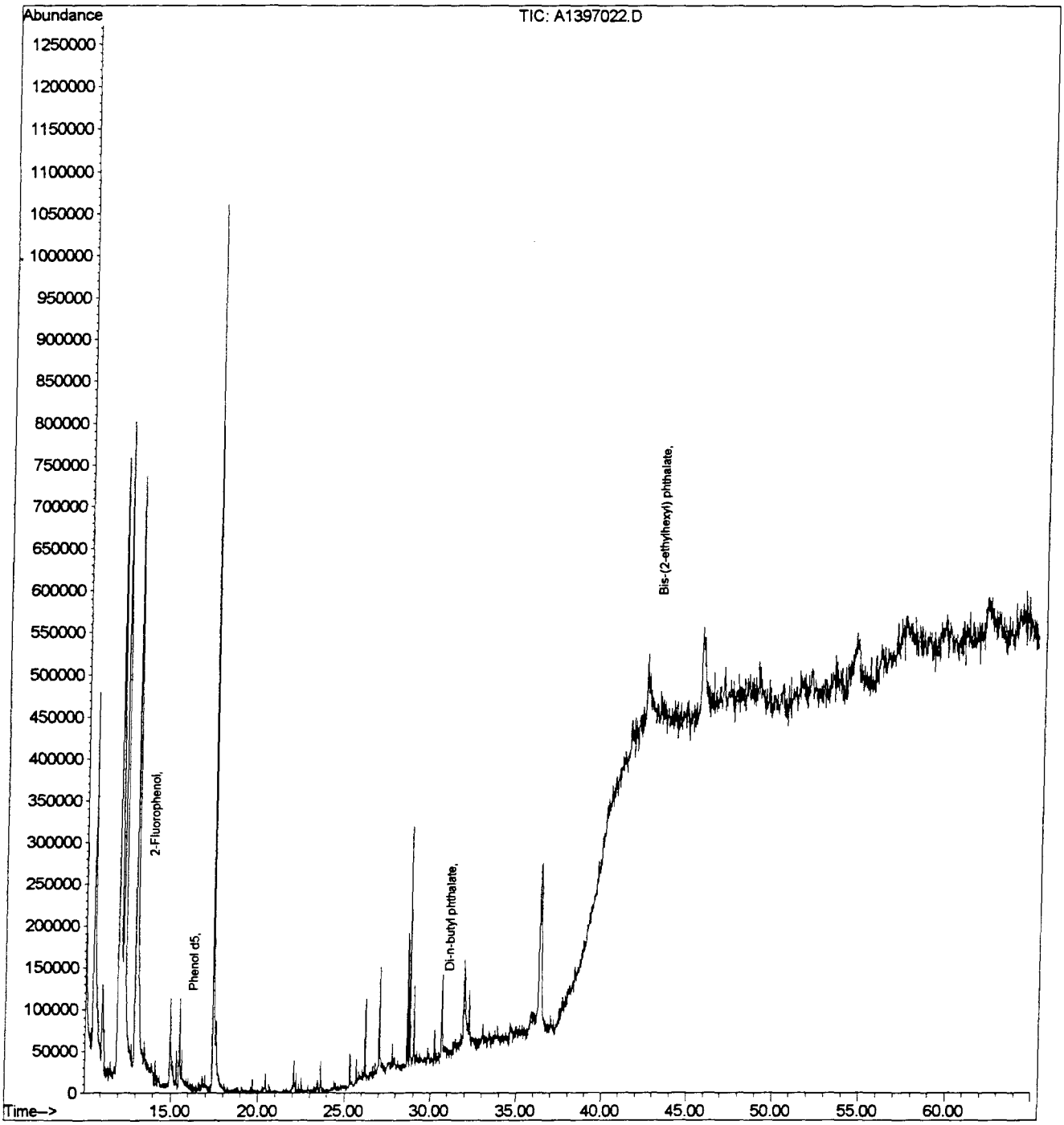
TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
No Hits From C:\DATA	10.23	305868.0		305868	ISTD00	0.00	1	1.0
Benzonitrile, 2-meth	21.79	569714.0		569714	ISTD00	0.00	1	1.0
Acenaphthene	24.84	561583.0		561583	ISTD00	0.00	1	1.0
Phenol, nonyl-	27.01	574463.0		574463	ISTD00	0.00	1	1.0
Phenol, nonyl-	27.23	223947.0		223947	ISTD00	0.00	1	1.0
Phenol, 4-(1,1,3,3-t	27.57	306062.0		306062	ISTD00	0.00	1	1.0
Bis(2-methoxyethyl)	28.77	244019.0		244019	ISTD00	0.00	1	1.0
Hexadecanoic acid, m	29.02	231205.0		231205	ISTD00	0.00	1	1.0
Caffeine	29.84	1235250.0		1235250	ISTD00	0.00	1	1.0
5-Acetyl-4-amino-3-(	31.54	271488.0		271488	ISTD00	0.00	1	1.0
2-n-Butylcyclohexano	31.92	768080.0		768080	ISTD00	0.00	1	1.0
1H-Tetrazaborole, 4,	35.98	469132.0		469132	ISTD00	0.00	1	1.0
Furostan, (5.alpha.)	36.31	890255.0		890255	ISTD00	0.00	1	1.0
Ferrocene, (3-hydrox	36.94	3271600.0		3271600	ISTD00	0.00	1	1.0
4H-1-Benzopyran-4-on	39.44	219017.0		219017	ISTD00	0.00	1	1.0
Noradrenaline, tetra	39.76	290558.0		290558	ISTD00	0.00	1	1.0

A1397021.D BASENEUT.M Tue Feb 04 08:37:09 1997

Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397022.D Vial: 0
Acq On : 14 JAN 97 16:19 Operator:
Sample : Inst :
Misc : HRS #14 (22) Multiplr: 1.00
Quant Time: Feb 4 7:59 1997 Quant Results File: BASENEUT.RES

Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397022.D Vial: 0
Acq On : 14 JAN 97 16:19 Operator:
Sample : Inst :
Misc : HRS #14 (22) Multiplr: 1.00
Quant Time: Feb 4 7:59 1997 Quant Results File: BASENEUT.RES

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration
DataAcq Meth :
IS QA File : 4 level for IS QA unknown. No recoveries calculated.

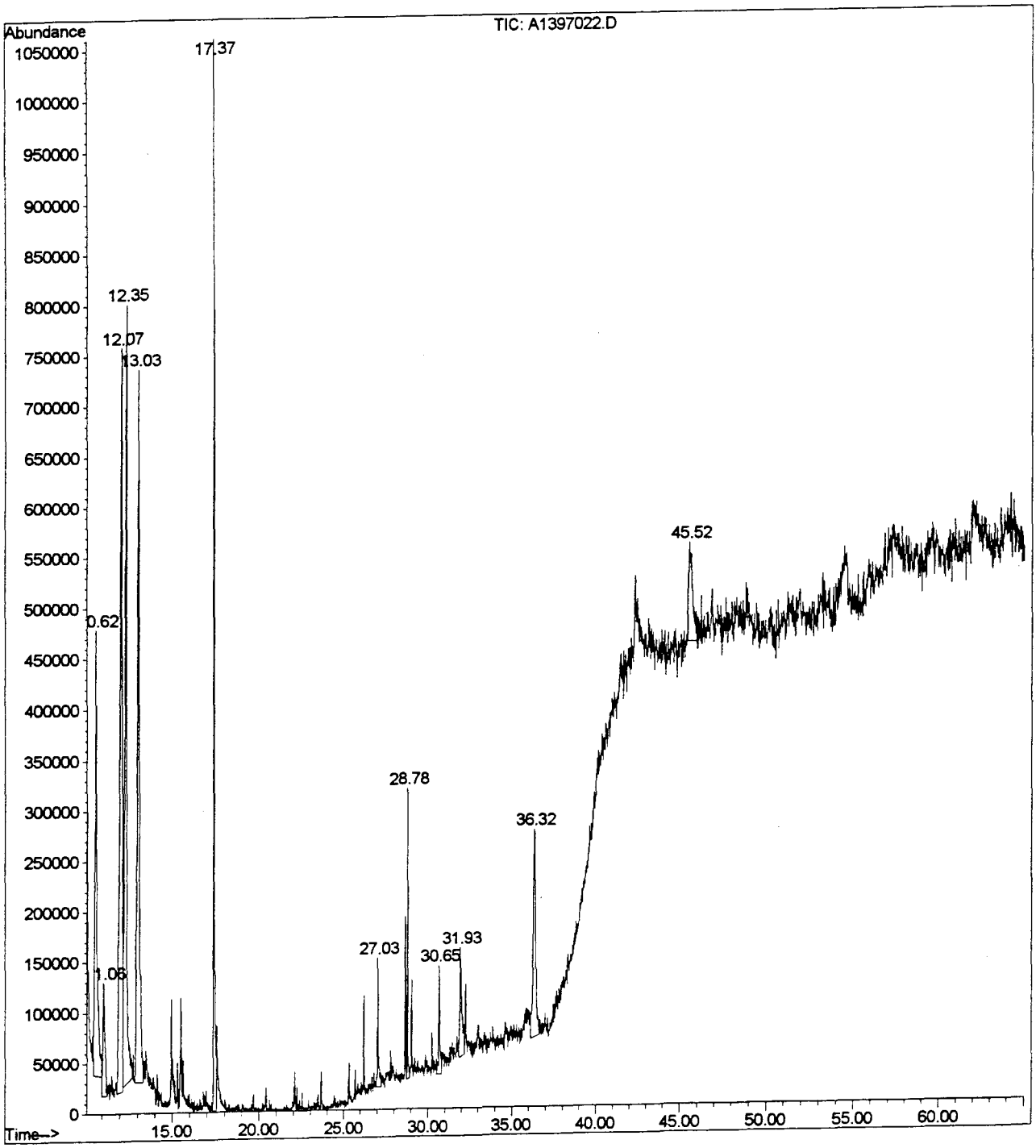
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)

System Monitoring Compounds

Target Compounds						Qvalue
1) 2-Fluorophenol	13.09	112	73029	15.45		# 62
2) Phenol d5	15.45	99	50663	11.05		# 63
33) Di-n-butyl phthalate	30.23	149	62066	6.41	ng	# 90
35) Bis-(2-ethylhexyl) phthala	42.32	149	68120	13.83	ng	# 74

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

File : C:\QMASS\DATA\97JAN\A1397022.D
Operator :
Acquired : 14 JAN 97 16:19 using AcqMethod
Instrument :
Sample Name:
Misc Info : HRS #14 (22)
Vial Number: 0



Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397022.D Vial: 0
Acq On : 14 JAN 97 16:19 Operator:
Sample : Inst :
Misc : HRS #14 (22) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 1 Butanoic acid Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.62	3537620.00	3537620	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanoic acid	88	C4H8O2	000107-92-6	9
2	Urea	60	CH4N2O	000057-13-6	5
3	Carbonyl sulfide	60	COS	000463-58-1	4
4	Urea	60	CH4N2O	000057-13-6	4
5	Butanoic acid	88	C4H8O2	000107-92-6	4

****
Peak Number 2 Propane Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
11.06	919794.00	919794	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane	44	C3H8	000074-98-6	4
2	Propane	44	C3H8	000074-98-6	4
3	Propane	44	C3H8	000074-98-6	4
4	1-Octanamine	129	C8H19N	000111-86-4	2
5	Acetic acid, (2-propenylthio)-	132	C5H8O2S	020600-63-9	2

****
Peak Number 3 Butanoic acid, 3-methyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.07	6693650.00	6693650	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanoic acid, 3-methyl-	102	C5H10O2	000503-74-2	42
2	Butanoic acid, 3-methyl-	102	C5H10O2	000503-74-2	28
3	Hydrazine, 1,1-dimethyl-	60	C2H8N2	000057-14-7	25
4	Butanoic acid, 3-methyl-	102	C5H10O2	000503-74-2	17
5	Ethylamine	45	C2H7N	000075-04-7	4

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397022.D Vial: 0
Acq On : 14 JAN 97 16:19 Operator:
Sample : Inst :
Misc : HRS #14 (22) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 4 Butanoic acid, 2-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.35	5713300.00	5713300	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanoic acid, 2-methyl-	102	C5H10O2	000116-53-0	47
2	trans-3,5-Diethyl-1,2,4-trithiolane	180	C6H12S3	038348-26-4	39
3	Butanoic acid, 2-methyl-	102	C5H10O2	000116-53-0	38
4	Butanoic acid, 2-methyl-	102	C5H10O2	000116-53-0	37
5	2-Butanol, 3,3-dimethyl-	102	C6H14O	000464-07-3	35

****
Peak Number 5 Pentanoic acid Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
13.03	5621980.00	5621980	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanoic acid	102	C5H10O2	000109-52-4	72
2	Pentanoic acid	102	C5H10O2	000109-52-4	64
3	Butanoic acid	88	C4H8O2	000107-92-6	64
4	Butanoic acid	88	C4H8O2	000107-92-6	64
5	Hexanoic acid, 6-bromo-	194	C6H11BrO2	004224-70-8	56

****
Peak Number 6 Phenol, 4-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.37	2890940.00	2890940	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 4-methyl-	108	C7H8O	000106-44-5	94
2	Phenol, 2-methyl-	108	C7H8O	000095-48-7	94
3	Phenol, 3-methyl-	108	C7H8O	000108-39-4	90
4	Phenol, 4-methyl-	108	C7H8O	000106-44-5	87
5	Phenol, 4-methyl-	108	C7H8O	000106-44-5	80

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397022.D Vial: 0
Acq On : 14 JAN 97 16:19 Operator:
Sample : Inst :
Misc : HRS #14 (22) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 7 N-Methyl bromoazepam Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.03	475537.00	475537	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	N-Methyl bromoazepam	329	C15H12BrN3O	000000-00-0	32
2	Benzenamine, ar,ar,ar-tribromo-	327	C6H4Br3N	052628-37-2	17
3	Cephalotaxine, 11-hydroxy-, (11.alp	331	C18H21NO5	049686-55-7	12
4	2-Bromo-4-chloro-5,8-dimethoxy-3-me	330	C13H12BrClO3	104506-11-8	12
5	Stirofos	364	C10H9Cl4O4P	022248-79-9	9

****
Peak Number 8 1,2-Benzenedicarboxylic acid, Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
28.78	638715.00	638715	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, butyl	334	C20H30O4	000084-78-6	72
2	Phthalic acid, butyl ester, ester w	336	C18H24O6	000085-70-1	72
3	Bis(2-methoxyethyl) phthalate	282	C14H18O6	000117-82-8	72
4	Dibutyl phthalate	278	C16H22O4	000084-74-2	64
5	1,2-Benzenedicarboxylic acid, dipro	250	C14H18O4	000131-16-8	64

****
Peak Number 9 .alpha.-D-Galactofuranoside, m Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
30.65	515597.00	515597	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.alpha.-D-Galactofuranoside, methyl	250	C11H22O6	010225-58-8	35
2	.alpha.-D-Galactofuranoside, methyl	250	C11H22O6	010225-58-8	35
3	Hexadecanoic acid, 3,7,11,15-tetram	326	C21H42O2	001118-77-0	22
4	.alpha.-d-Xylofuranoside, methyl 2,	192	C8H16O5	015821-56-4	17
5	2-Quinazolinamine	145	C8H7N3	001687-51-0	10

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397022.D Vial: 0
Acq On : 14 JAN 97 16:19 Operator:
Sample : Inst :
Misc : HRS #14 (22) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 10 9-Hexadecenoic acid, methyl es Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
31.93	956602.00	956602	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9-Hexadecenoic acid, methyl ester,	268	C17H32O2	001120-25-8	14
2	Oxiraneundecanoic acid, 3-pentyl-,	312	C19H36O3	038520-30-8	12
3	Cyclopropanenonanoic acid, methyl e	212	C13H24O2	010152-60-0	12
4	9-Hexadecenoic acid, methyl ester,	268	C17H32O2	001120-25-8	10
5	7-Hexadecenoic acid, methyl ester,	268	C17H32O2	056875-67-3	10

****
Peak Number 11 4H-1-Benzopyran-4-one, 3,5,7-t Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
36.32	2366650.00	2366650	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4H-1-Benzopyran-4-one, 3,5,7-trihyd	316	C16H12O7	000480-19-3	43
2	Phenanthro[3,2-b]furan-4-carboxylic	316	C20H28O3	019941-61-8	43
3	D-Homoandrosta-4,17-dien-3-one, 17,	316	C20H28O3	030298-69-2	38
4	4H-1-Benzopyran-4-one, 2-(3,4-dihyd	316	C16H12O7	000520-11-6	37
5	Pregnan-20-one, 3,11-dihydroxy-, (3	334	C21H34O3	048200-75-5	32

****
Peak Number 12 4H-1-Benzopyran-4-one, 2-(2,6- Concentration Rank 7

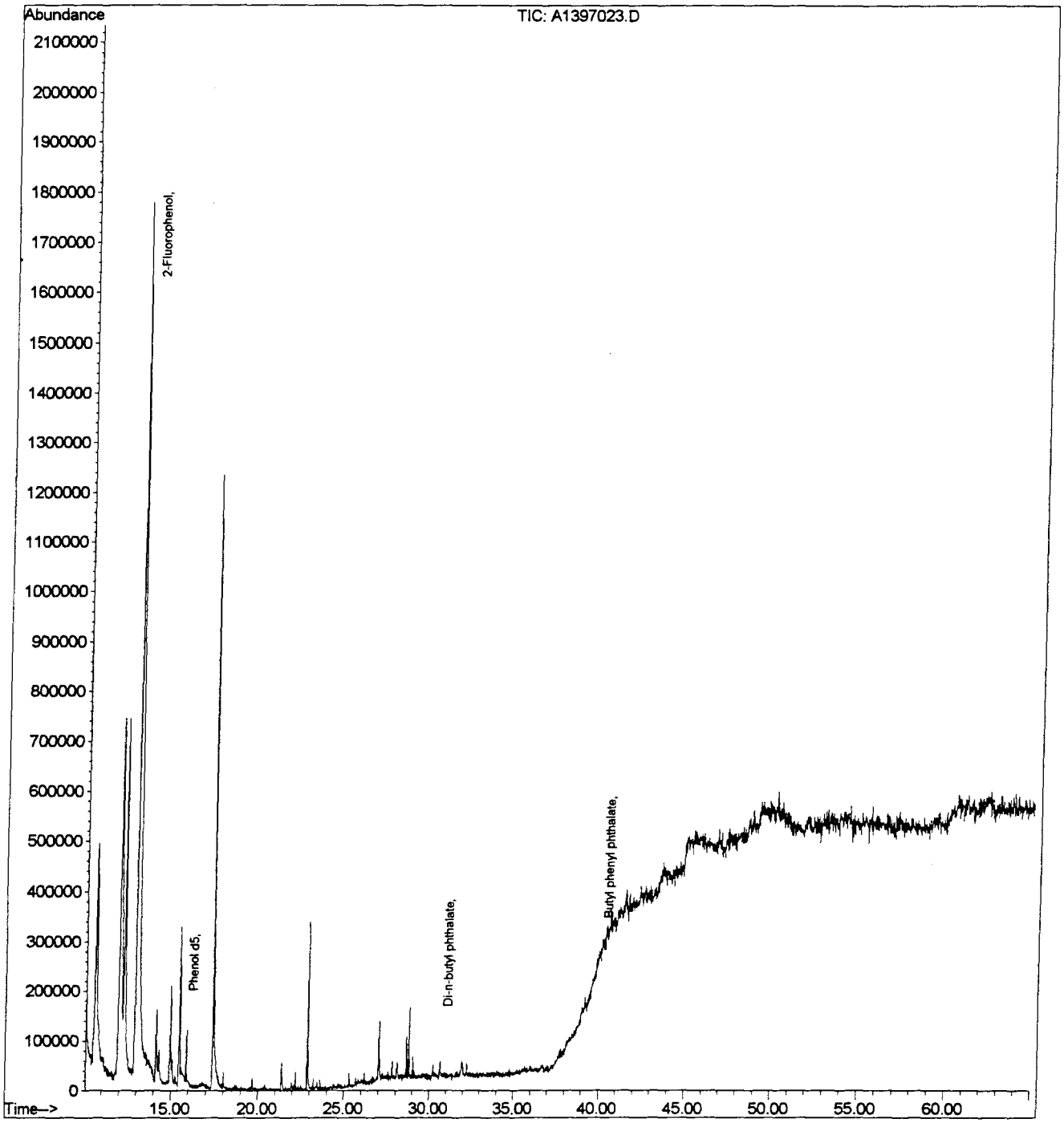
R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
45.52	1398300.00	1398300	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4H-1-Benzopyran-4-one, 2-(2,6-dimet	342	C19H18O6	014813-19-5	25
2	4H-1-Benzopyran-4-one, 2-(2,6-dimet	342	C19H18O6	014813-19-5	22
3	Morphinan-6-ol, 7,8-didehydro-4,5-e	341	C20H23NO4	006703-27-1	10
4	1,2,3,4-Tetrahydro-1-methyl-7-(4-ni	327	C14H9N5O5	000000-00-0	10
5	Sarcocapnidine	327	C19H21NO4	087069-33-8	10

Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397023.D Vial: 0
Acq On : 14 JAN 97 17:44 Operator:
Sample : Inst :
Misc : HRS #15 (23) Multiplr: 1.00
Quant Time: Feb 4 8:02 1997 Quant Results File: BASENEUT.RES

Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397023.D Vial: 0
Acq On : 14 JAN 97 17:44 Operator:
Sample : Inst :
Misc : HRS #15 (23) Multiplr: 1.00
Quant Time: Feb 4 8:02 1997 Quant Results File: BASENEUT.RES

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration
DataAcq Meth :
IS QA File : 4 level for IS QA unknown. No recoveries calculated.

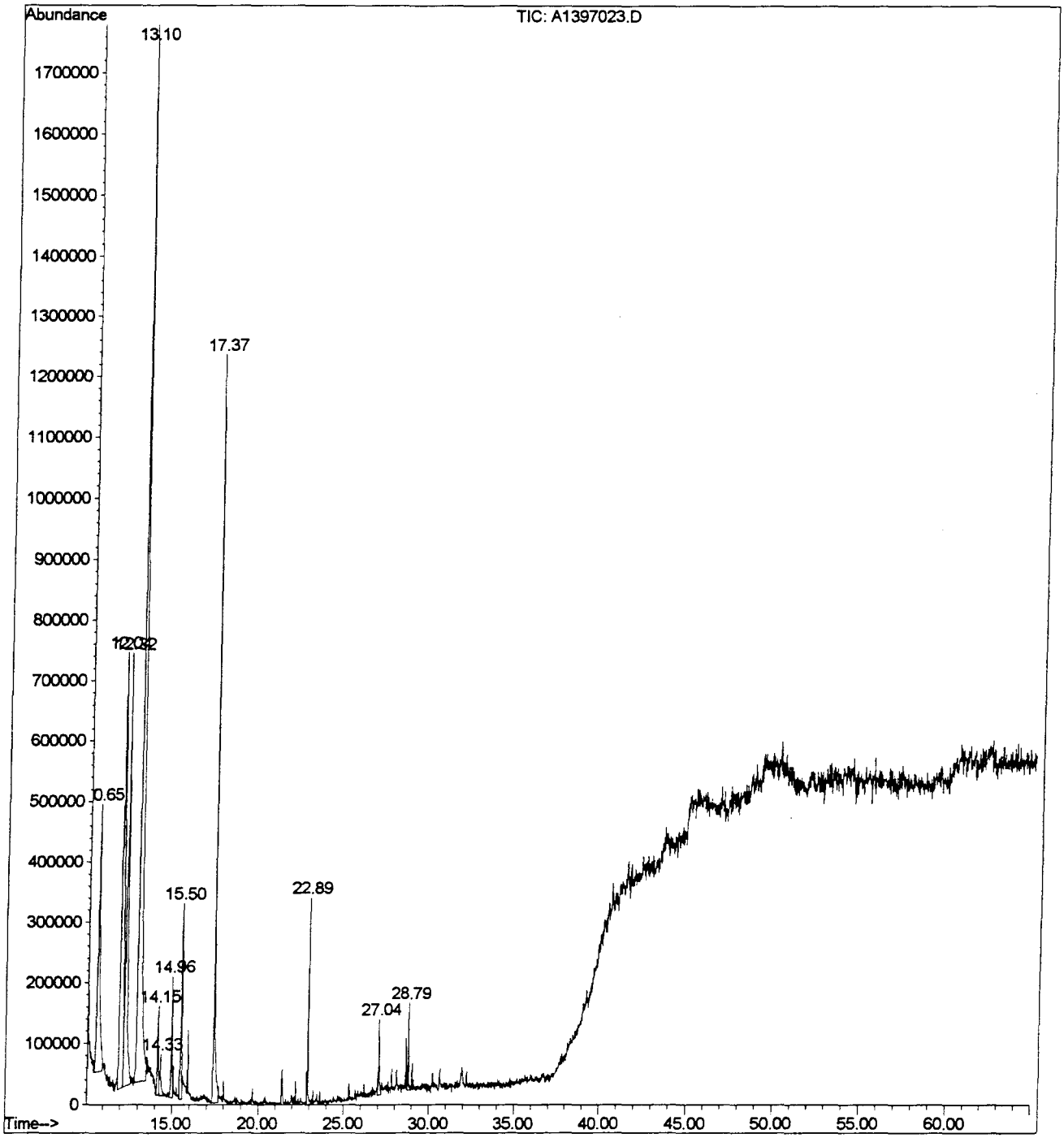
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)

System Monitoring Compounds

Target Compounds					Qvalue
1) 2-Fluorophenol	13.10	112	114608	24.25	# 56
2) Phenol d5	15.45	99	67250	14.67	# 29
33) Di-n-butyl phthalate	30.24	149	54437	5.62 ng	# 80
34) Butyl phenyl phthalate	39.68	149	38065	12.82 ng	# 43

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

File : C:\QMASS\DATA\97JAN\A1397023.D
Operator :
Acquired : 14 JAN 97 17:44 using AcqMethod
Instrument :
Sample Name:
Misc Info : HRS #15 (23)
Vial Number: 0



Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397023.D Vial: 0
Acq On : 14 JAN 97 17:44 Operator:
Sample : Inst :
Misc : HRS #15 (23) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 1 Butanoic acid Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.65	3886350.00	3886350	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanoic acid	88	C4H8O2	000107-92-6	59
2	Hydrazine, 1,1-dimethyl-	60	C2H8N2	000057-14-7	9
3	Xylopyranoside, methyl 4-azido-4-de	189	C6H11N3O4	020379-31-1	4
4	Butanoic acid	88	C4H8O2	000107-92-6	4
5	1,3-Oxathiolane, 2-ethyl-2-methyl-	132	C6H12OS	006712-26-1	4

****
Peak Number 2 Butanoic acid, 3-methyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.04	6319670.00	6319670	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanoic acid, 3-methyl-	102	C5H10O2	000503-74-2	47
2	Butanoic acid, 3-methyl-	102	C5H10O2	000503-74-2	42
3	Thiazole, 4,5-dihydro-2-methyl-	101	C4H7NS	002346-00-1	40
4	Hydrazine, 1,1-dimethyl-	60	C2H8N2	000057-14-7	9
5	Pentanoic acid	102	C5H10O2	000109-52-4	9

****
Peak Number 3 Propanoic acid Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.32	4710160.00	4710160	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanoic acid	74	C3H6O2	000079-09-4	72
2	Thiirane, methyl-	74	C3H6S	001072-43-1	53
3	Butanoic acid, 2-methyl-	102	C5H10O2	000116-53-0	50
4	Propanoic acid	74	C3H6O2	000079-09-4	9
5	Butane, 1-methoxy-	88	C5H12O	000628-28-4	9

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397023.D Vial: 0
Acq On : 14 JAN 97 17:44 Operator:
Sample : Inst :
Misc : HRS #15 (23) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 4 Pentanoic acid, 2-methyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.15	678990.00	678990	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanoic acid, 2-methyl-	116	C6H12O2	000097-61-0	33
2	trans-3,5-Diethyl-1,2,4-trithiolane	180	C6H12S3	038348-26-4	33
3	Butanoic acid, methyl ester	102	C5H10O2	000623-42-7	25
4	Butanoic acid, methyl ester	102	C5H10O2	000623-42-7	25
5	.alpha.-D-Mannopyranoside, methyl 3	176	C7H12O5	015814-56-9	17

****
Peak Number 5 Propanoic acid, 2-(aminooxy)- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.33	347794.00	347794	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanoic acid, 2-(aminooxy)-	105	C3H7NO3	002786-22-3	28
2	Hydrazine, 1,2-dimethyl-	60	C2H8N2	000540-73-8	9
3	Acetic acid	60	C2H4O2	000064-19-7	9
4	Azelaic Acid	188	C9H16O4	000123-99-9	9
5	.alpha.-D-Mannopyranoside, methyl 3	176	C7H12O5	015814-56-9	9

****
Peak Number 6 Hexanoic acid Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.96	846230.00	846230	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanoic acid	116	C6H12O2	000142-62-1	50
2	Pentanoic acid	102	C5H10O2	000109-52-4	39
3	Pentanoic acid	102	C5H10O2	000109-52-4	38
4	Butanoic acid, 3-methyl-	102	C5H10O2	000503-74-2	38
5	Hexanoic acid	116	C6H12O2	000142-62-1	38

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397023.D Vial: 0
Acq On : 14 JAN 97 17:44 Operator:
Sample : Inst :
Misc : HRS #15 (23) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****

Peak Number 7 Phenol Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
15.50	1139930.00	1139930	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol	94	C6H6O	000108-95-2	91
2	Phenol	94	C6H6O	000108-95-2	83
3	Phenol	94	C6H6O	000108-95-2	80
4	Acetic acid, phenyl ester	136	C8H8O2	000122-79-2	72
5	Phenol	94	C6H6O	000108-95-2	64

****

Peak Number 8 Phenol, 4-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.37	4079920.00	4079920	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 4-methyl-	108	C7H8O	000106-44-5	94
2	Phenol, 3-methyl-	108	C7H8O	000108-39-4	91
3	Phenol, 3-methyl-	108	C7H8O	000108-39-4	90
4	Phenol, 4-methyl-	108	C7H8O	000106-44-5	83
5	Phenol, 2-methyl-	108	C7H8O	000095-48-7	70

****

Peak Number 9 Benzothiazole Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
22.89	736470.00	736470	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzothiazole	135	C7H5NS	000095-16-9	47
2	2-Bromo-2'-methoxyacetophenone	228	C9H9BrO2	031949-21-0	47
3	Benzothiazole	135	C7H5NS	000095-16-9	43
4	1,2-Benzisothiazole	135	C7H5NS	000272-16-2	38
5	Dimethylphosphinothioic azide	135	C2H6N3PS	027260-90-8	38

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397023.D Vial: 0
Acq On : 14 JAN 97 17:44 Operator:
Sample : Inst :
Misc : HRS #15 (23) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 10 Phosphoric acid, 2,2-dimethoxy Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.04	403053.00	403053	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phosphoric acid, 2,2-dimethoxy-3-[(	432	C14H37O7PSi3	055319-96-5	8
2	Benzenamine, 2,4,6-tribromo-	327	C6H4Br3N	000147-82-0	7
3	Salutaridinol	329	C19H23NO4	000000-00-0	5
4	3-Phenyl-1,2,3,4-tetrahydropyrazino	329	C20H15N3O2	000000-00-0	5
5	Cephalotaxine, 3,11-epoxy-, (3.beta	329	C18H19NO5	049686-61-5	5

****
Peak Number 11 1,2-Benzenedicarboxylic acid, Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
28.79	353859.00	353859	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, bis(2	278	C16H22O4	000084-69-5	78
2	Di-n-octyl phthalate	390	C24H38O4	000117-84-0	72
3	1,2-Benzenedicarboxylic acid, dihep	362	C22H34O4	003648-21-3	72
4	Bis(2-methoxyethyl) phthalate	282	C14H18O6	000117-82-8	72
5	1,2-Benzenedicarboxylic acid, butyl	304	C18H24O4	000084-64-0	72

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 14 JAN 97 17:44
Data File: C:\QMASS\DATA\97JAN\A1397023.D
Name:
Misc: HRS #15 (23)
Method:
Title: Base-Neutrals
Library Searched: C:\DATABASE\NBS75K.L

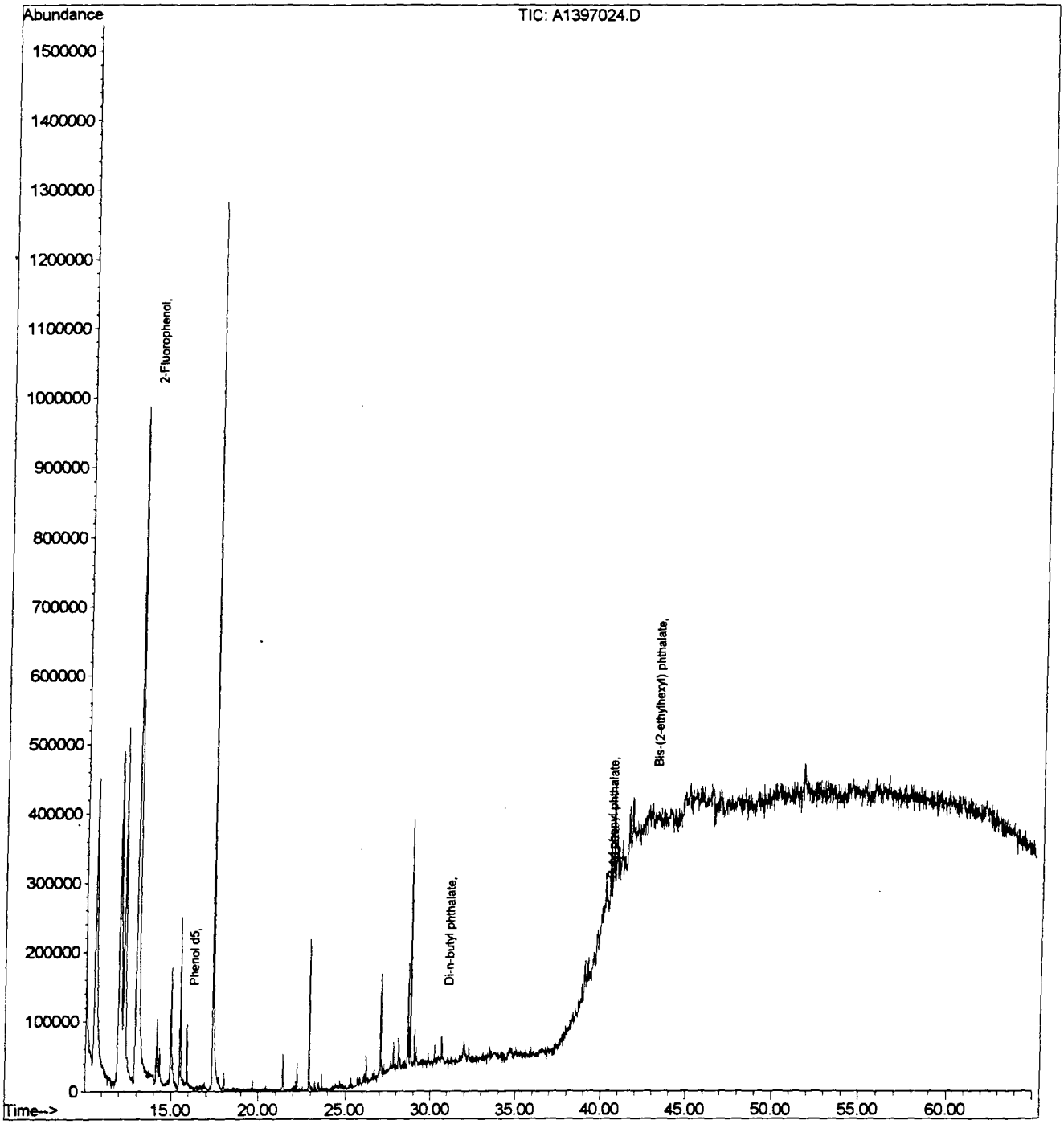
TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Butanoic acid	10.65	3886350.0		3886350	ISTD00	0.00	1	1.0
Butanoic acid, 3-met	12.04	6319670.0		6319670	ISTD00	0.00	1	1.0
Propanoic acid	12.32	4710160.0		4710160	ISTD00	0.00	1	1.0
Pentanoic acid, 2-me	14.15	678990.0		678990	ISTD00	0.00	1	1.0
Propanoic acid, 2-(a	14.33	347794.0		347794	ISTD00	0.00	1	1.0
Hexanoic acid	14.96	846230.0		846230	ISTD00	0.00	1	1.0
Phenol	15.50	1139930.0		1139930	ISTD00	0.00	1	1.0
Phenol, 4-methyl-	17.37	4079920.0		4079920	ISTD00	0.00	1	1.0
Benzothiazole	22.89	736470.0		736470	ISTD00	0.00	1	1.0
Phosphoric acid, 2,2	27.04	403053.0		403053	ISTD00	0.00	1	1.0
.,2-Benzenedicarboxy	28.79	353859.0		353859	ISTD00	0.00	1	1.0

A1397023.D BASENEUT.M Tue Feb 04 08:22:41 1997

Quantitation Report

Data File : C:\QMASS\DATA\97JAN\A1397024.D Vial: 0
Acq On : 14 JAN 97 19:09 Operator:
Sample : Inst :
Misc : HRS #16 (24) Multiplr: 1.00
Quant Time: Feb 4 8:07 1997 Quant Results File: BASENEUT.RES

Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration



Quantitation Report

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Acq On : 14 JAN 97 19:09 Operator:
Sample : Inst :
Misc : HRS #16 (24) Multiplr: 1.00
Quant Time: Feb 4 8:07 1997 Quant Results File: BASENEUT.RES

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Last Update : Tue Feb 04 00:08:57 1997
Response via : Multiple Level Calibration
DataAcq Meth :
IS QA File : 4 level for IS QA unknown. No recoveries calculated.

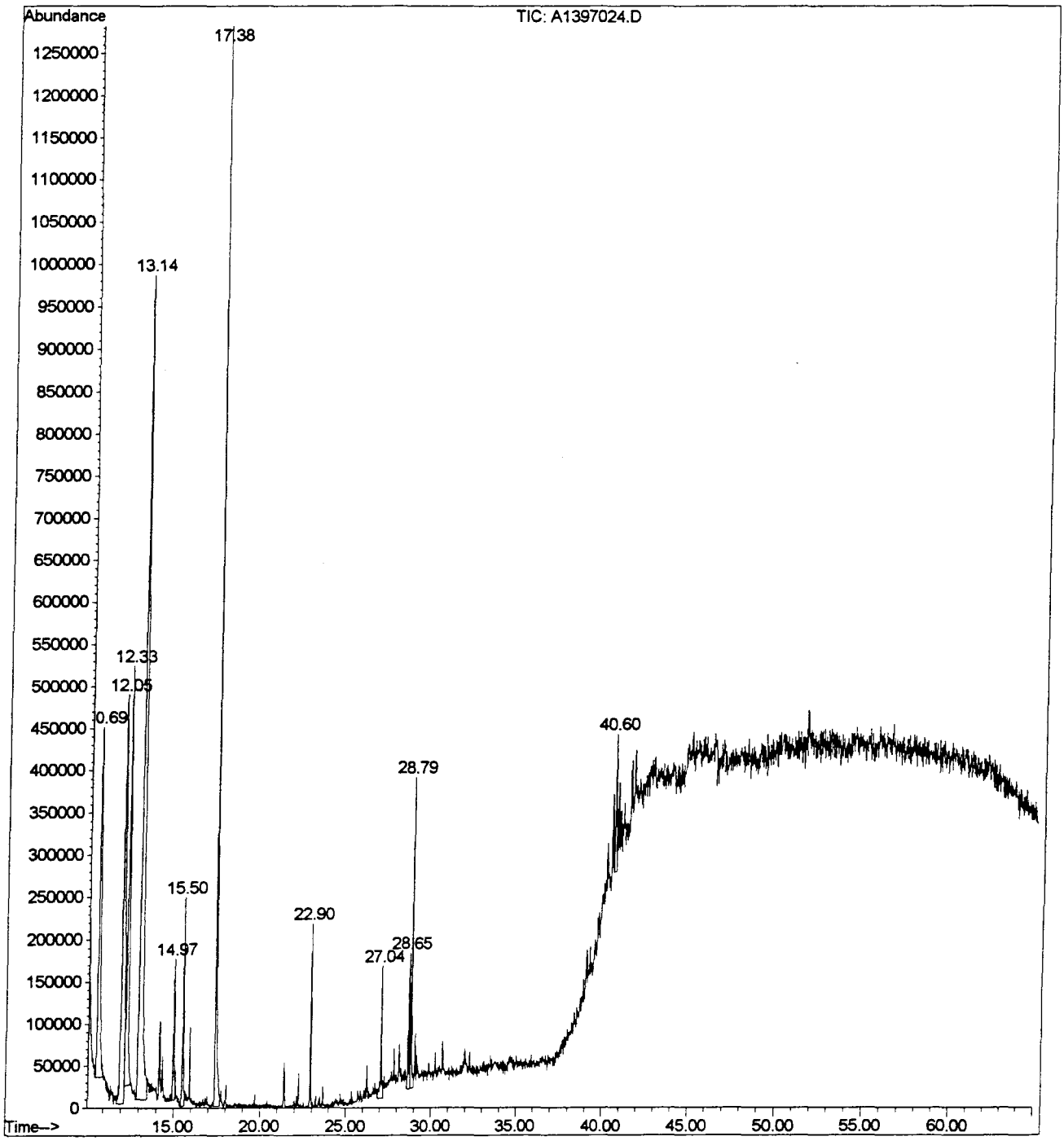
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)

System Monitoring Compounds

Target Compounds						Qvalue
1) 2-Fluorophenol	13.10	112	48056	10.17		# 43
2) Phenol d5	15.46	99	41439	9.04		# 23
33) Di-n-butyl phthalate	30.24	149	48679	5.03	ng	# 80
34) Butyl phenyl phthalate	39.69	149	98328	33.12	ng	# 57
35) Bis-(2-ethylhexyl) phthala	42.33	149	53294	10.82	ng	# 65

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

File : C:\QMASS\DATA\97JAN\A1397024.D
Operator :
Acquired : 14 JAN 97 19:09 using AcqMethod
Instrument :
Sample Name:
Misc Info : HRS #16 (24)
Vial Number: 0



Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397024.D Vial: 0
Acq On : 14 JAN 97 19:09 Operator:
Sample : Inst :
Misc : HRS #16 (24) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 1 Butanoic acid Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
10.69	3590610.00	3590610	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanoic acid	88	C4H8O2	000107-92-6	40
2	Hydrazine, 1,1-dimethyl-	60	C2H8N2	000057-14-7	7
3	1-Propanol	60	C3H8O	000071-23-8	4
4	Xylopyranoside, methyl 4-azido-4-de	189	C6H11N3O4	020379-31-1	4
5	Urea	60	CH4N2O	000057-13-6	4

****
Peak Number 2 Butanoic acid, 3-methyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.05	4331750.00	4331750	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butanoic acid, 3-methyl-	102	C5H10O2	000503-74-2	53
2	Butanoic acid, 3-methyl-	102	C5H10O2	000503-74-2	36
3	Butanoic acid, 3-methyl-	102	C5H10O2	000503-74-2	36
4	Hydrazine, 1,1-dimethyl-	60	C2H8N2	000057-14-7	9
5	Propanoic acid, 2-(aminooxy)-	105	C3H7NO3	002786-22-3	9

****
Peak Number 3 Propanoic acid Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
12.33	3003760.00	3003760	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propanoic acid	74	C3H6O2	000079-09-4	42
2	Thiirane, methyl-	74	C3H6S	001072-43-1	27
3	Hexanoic acid, 2-methyl-	130	C7H14O2	004536-23-6	25
4	2-Propenoic acid, 2-methyl-, butyl	142	C8H14O2	000097-88-1	14
5	1-Propene, 2-methyl-	56	C4H8	000115-11-7	10

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397024.D Vial: 0
Acq On : 14 JAN 97 19:09 Operator:
Sample : Inst :
Misc : HRS #16 (24) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 4 Pentanoic acid Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
14.97	644752.00	644752	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanoic acid	102	C5H10O2	000109-52-4	64
2	Hexanoic acid	116	C6H12O2	000142-62-1	50
3	Octane, 1-(ethenylthio)-	172	C10H20S	042779-08-8	40
4	1,3,4-Thiadiazol-2-amine, 5-ethyl-	129	C4H7N3S	014068-53-2	40
5	Butanoic acid	88	C4H8O2	000107-92-6	40

****
Peak Number 5 Phenol, 2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
17.38	3366710.00	3366710	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 2-methyl-	108	C7H8O	000095-48-7	94
2	Phenol, 4-methyl-	108	C7H8O	000106-44-5	94
3	Phenol, 3-methyl-	108	C7H8O	000108-39-4	93
4	Phenol, 3-methyl-	108	C7H8O	000108-39-4	91
5	Phenol, 3-methyl-	108	C7H8O	000108-39-4	74

****
Peak Number 6 3,4-Methylenedioxybenzyl aceta Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
22.90	501524.00	501524	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,4-Methylenedioxybenzyl acetate	194	C10H10O4	000326-61-4	40
2	2-Bromo-2'-methoxyacetophenone	228	C9H9BrO2	031949-21-0	38
3	Benzothiazole	135	C7H5NS	000095-16-9	25
4	Ethanone, 2-bromo-1-(4-methoxypheny	228	C9H9BrO2	002632-13-5	25
5	Ethanedione, (4-methoxyphenyl)pheny	240	C15H12O3	022711-21-3	25

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397024.D Vial: 0
Acq On : 14 JAN 97 19:09 Operator:
Sample : Inst :
Misc : HRS #16 (24) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 7 Benzenamine, ar,ar,ar-tribromo Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
27.04	625161.00	625161	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzenamine, ar,ar,ar-tribromo-	327	C6H4Br3N	052628-37-2	9
2	Benzenamine, 2,4,6-tribromo-	327	C6H4Br3N	000147-82-0	9
3	4H-1-Benzopyran-4-one, 2-(3,4-dihyd	330	C17H14O7	002068-02-2	7
4	N-Methyl bromoazepam	329	C15H12BrN3O	000000-00-0	7
5	3-Phenyl-1,2,3,4-tetrahydropyrazino	329	C20H15N3O2	000000-00-0	5

****
Peak Number 8 1,2-Propanediol, 3-(dimethylam Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
28.65	542817.00	542817	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Propanediol, 3-(dimethylamino)-	119	C5H13NO2	000623-57-4	40
2	Oxirane, methyl-, (S)-	58	C3H6O	016088-62-3	9
3	Propylene oxide	58	C3H6O	000075-56-9	9
4	Cyclopentaneethanamine, N,.alpha.-d	141	C9H19N	000102-45-4	9
5	Benzenemethanol, .alpha.-[1-(methyl	165	C10H15NO	000090-81-3	9

****
Peak Number 9 1,2-Benzenedicarboxylic acid, Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
28.79	928313.00	928313	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, butyl	334	C20H30O4	000084-78-6	78
2	Dibutyl phthalate	278	C16H22O4	000084-74-2	72
3	1,2-Benzenedicarboxylic acid, bis(2	278	C16H22O4	000084-69-5	64
4	1,2-Benzenedicarboxylic acid, butyl	334	C20H30O4	000085-69-8	56
5	Bis(2-methoxyethyl) phthalate	282	C14H18O6	000117-82-8	56

Library Search Compound Report

Data File : C:\QMASS\DATA\97JAN\A1397024.D Vial: 0
Acq On : 14 JAN 97 19:09 Operator:
Sample : Inst :
Misc : HRS #16 (24) Multiplr: 1.00

Quant Method : C:\1HP5985\METHODS\BASENEUT.M
Title : Base-Neutrals
Library : C:\DATABASE\NBS75K.L

****
Peak Number 10 Di-n-octyl phthalate Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	IS Area	R.T.
40.60	649041.00	649041	External Standard	1	0.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Di-n-octyl phthalate	390	C24H38O4	000117-84-0	32
2	Didodecyl phthalate	502	C32H54O4	002432-90-8	9
3	Didecyl phthalate	446	C28H46O4	000084-77-5	9
4	Bis(2-methoxyethyl) phthalate	282	C14H18O6	000117-82-8	9
5	1,2-Benzenedicarboxylic acid, diiso	446	C28H46O4	026761-40-0	9

Tentatively Identified Compound (LSC) summary

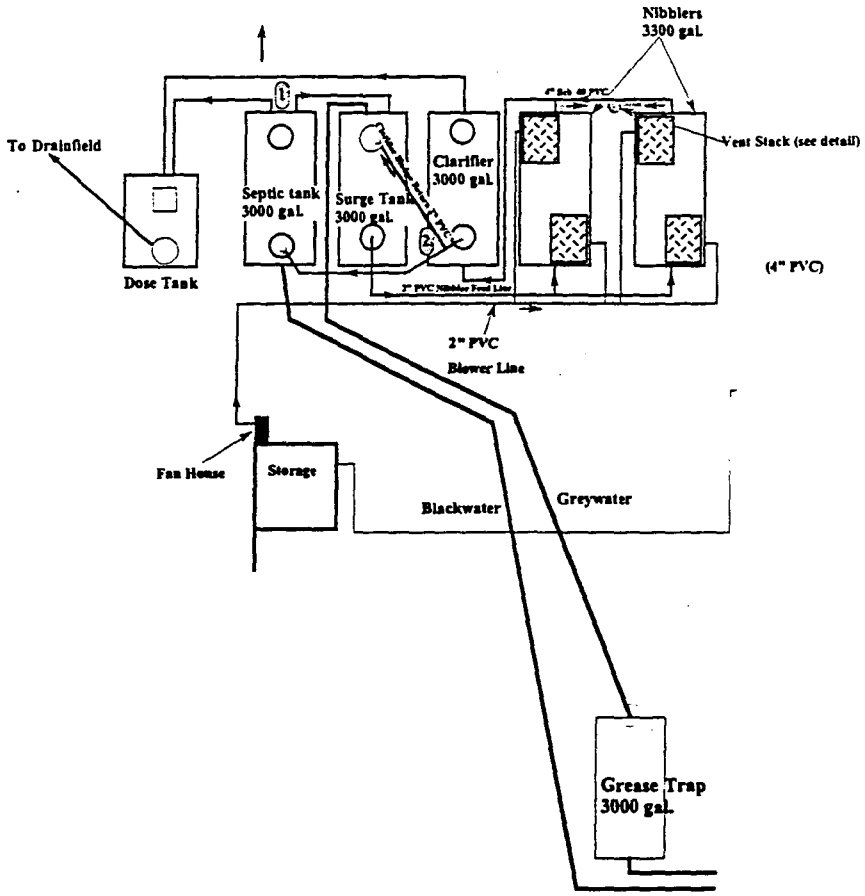
)perator ID: Date Acquired: 14 JAN 97 19:09
)ata File: C:\QMASS\DATA\97JAN\A1397024.D
Iame:
Iisc: HRS #16 (24)
Iethod:
Iitle: Base-Neutrals
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Butanoic acid	10.69	3590610.0		3590610	ISTD00	0.00	1	1.0
Butanoic acid, 3-met	12.05	4331750.0		4331750	ISTD00	0.00	1	1.0
Propanoic acid	12.33	3003760.0		3003760	ISTD00	0.00	1	1.0
Pentanoic acid	14.97	644752.0		644752	ISTD00	0.00	1	1.0
Phenol, 2-methyl-	17.38	3366710.0		3366710	ISTD00	0.00	1	1.0
3,4-Methylenedioxybe	22.90	501524.0		501524	ISTD00	0.00	1	1.0
Benzenamine, ar,ar,a	27.04	625161.0		625161	ISTD00	0.00	1	1.0
.,2-Propanediol, 3-(	28.65	542817.0		542817	ISTD00	0.00	1	1.0
.,2-Benzenedicarboxy	28.79	928313.0		928313	ISTD00	0.00	1	1.0
Di-n-octyl phthalate	40.60	649041.0		649041	ISTD00	0.00	1	1.0

A1397024.D BASENEUT.M Tue Feb 04 08:19:14 1997

Appendix J
As Built
Sketches

Restaurant No. 1



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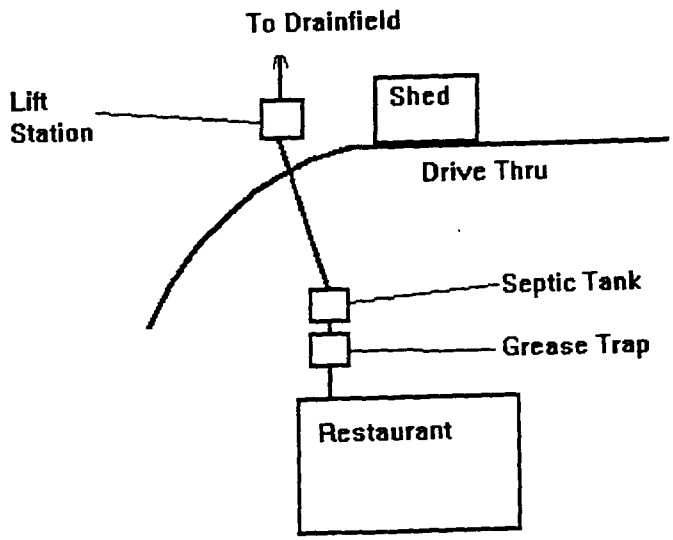

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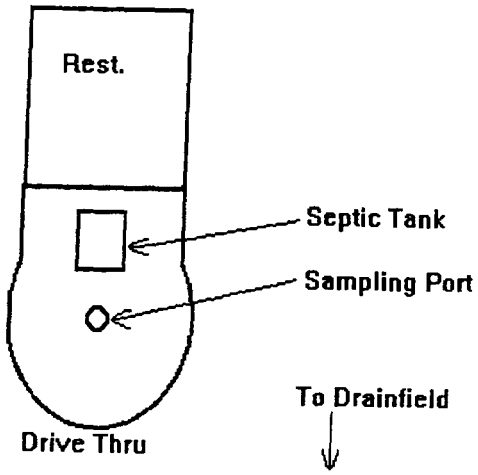

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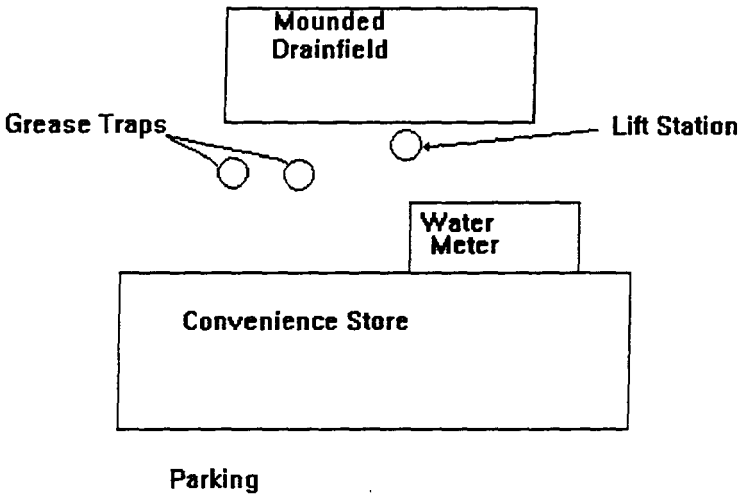

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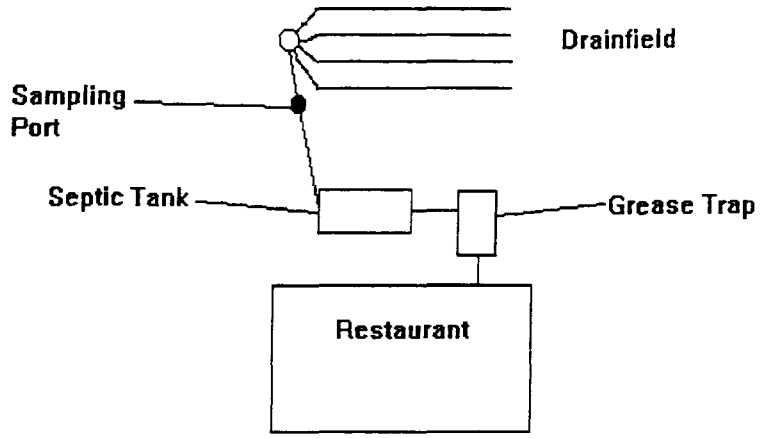

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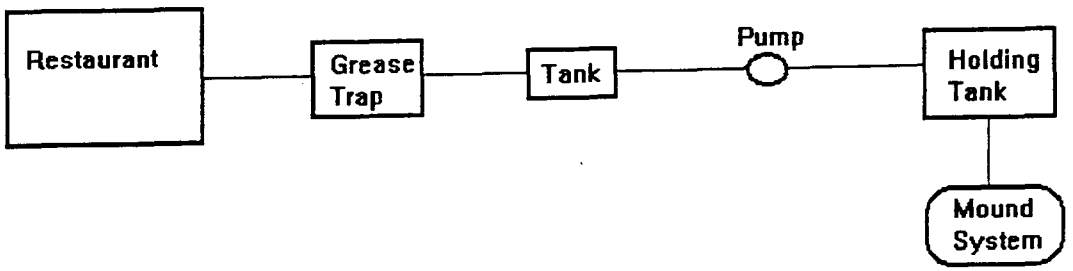

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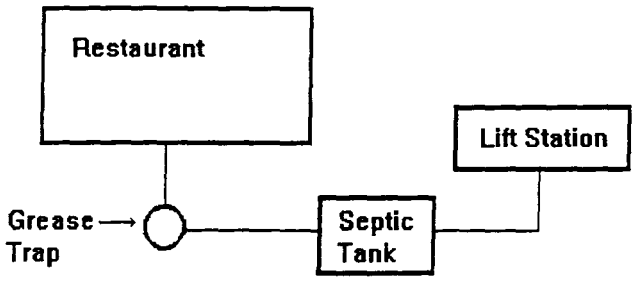
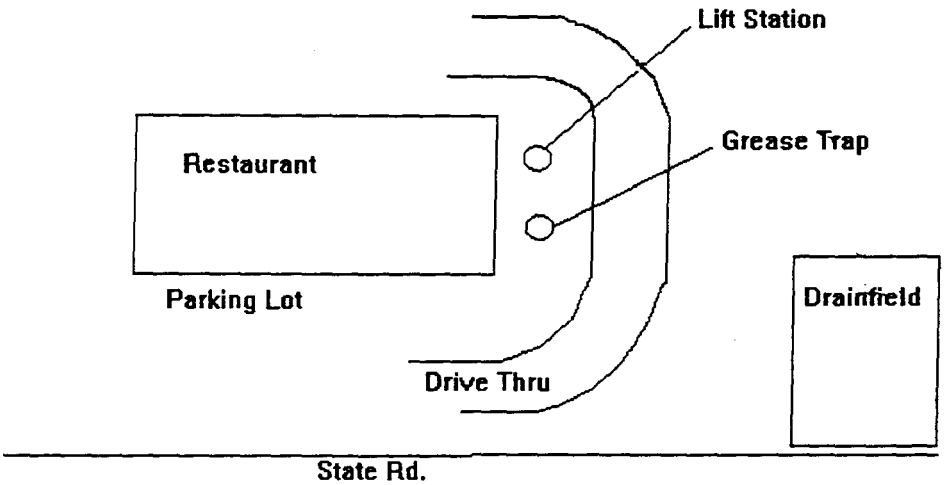


Restaurant No 8



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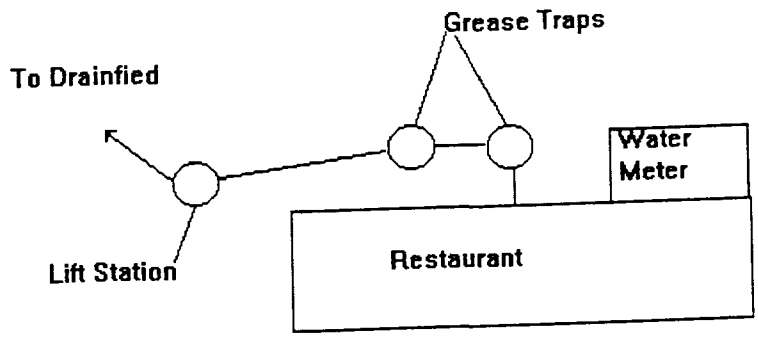

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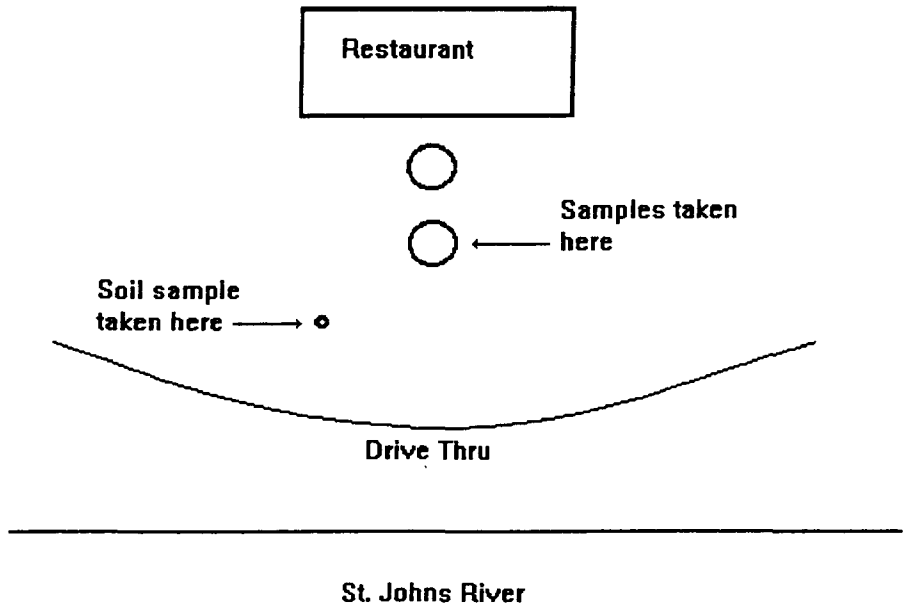

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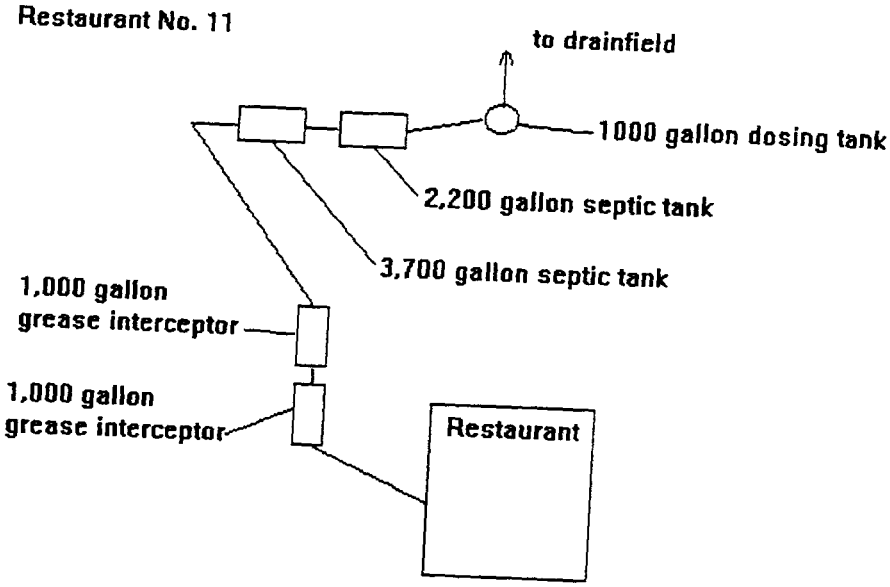
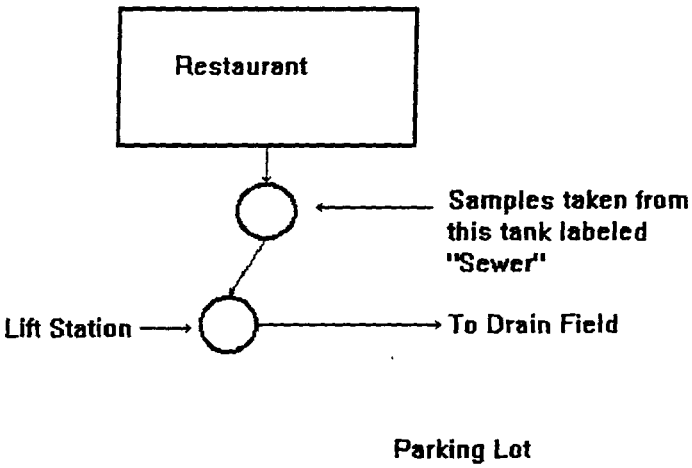


Restaurant No. 12



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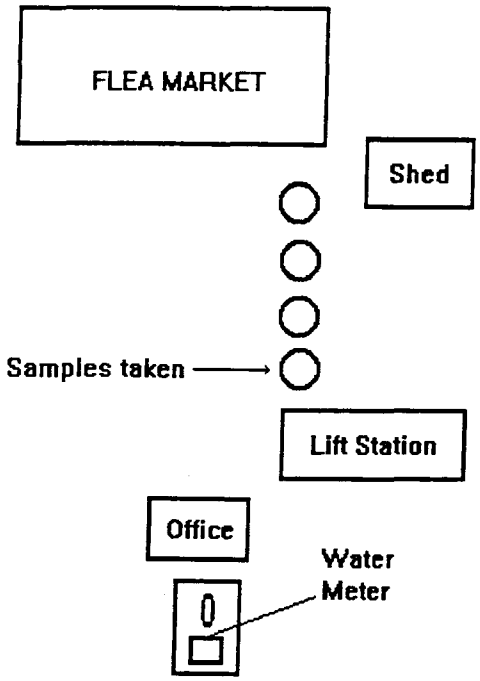

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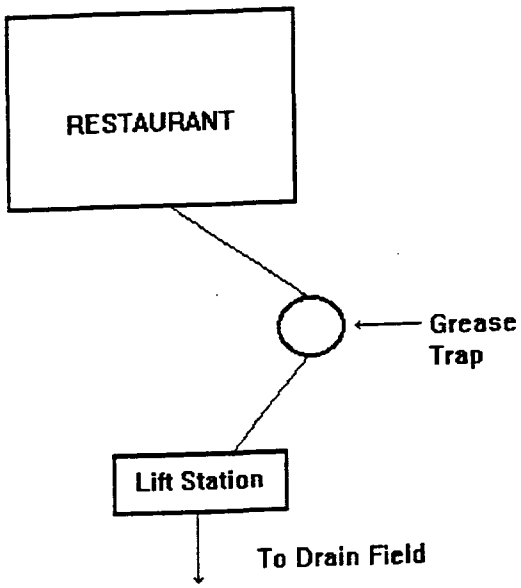

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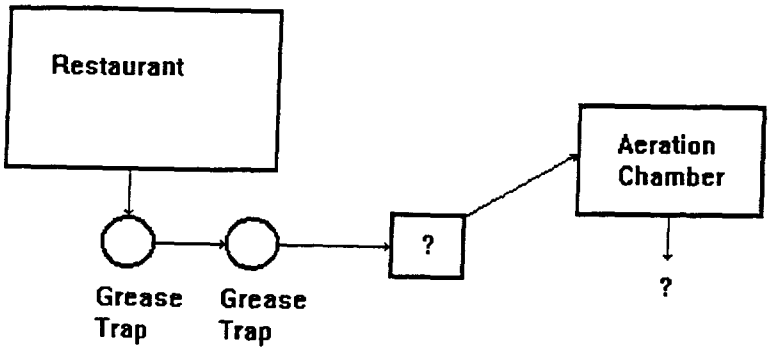

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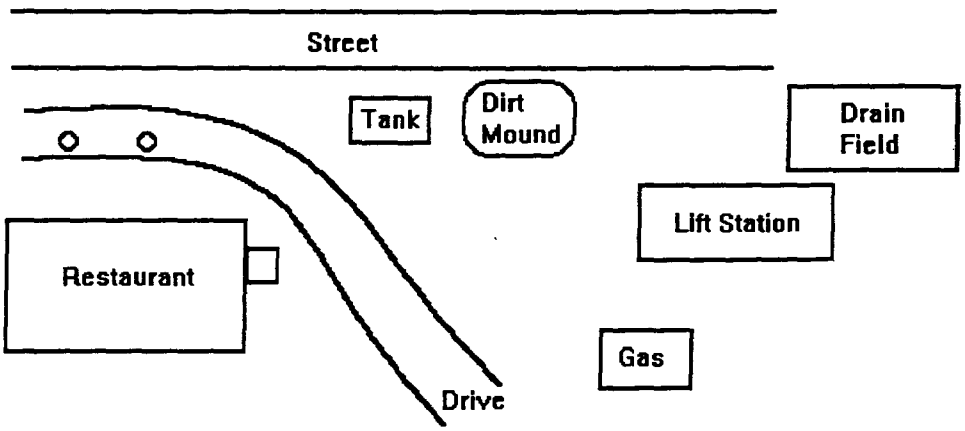
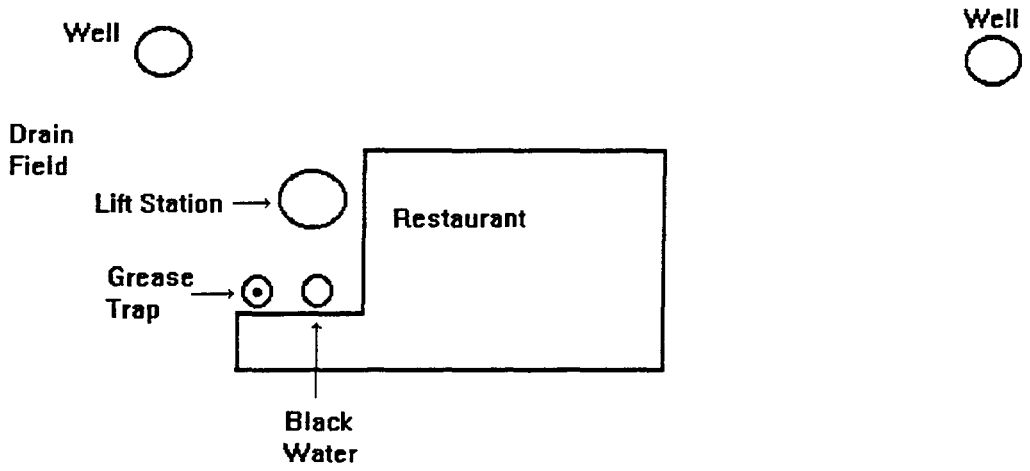
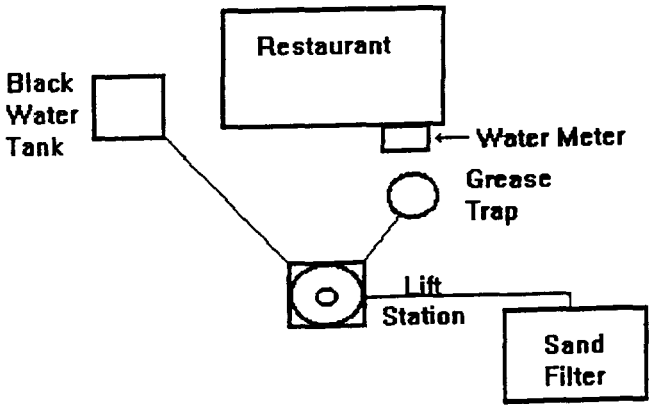


Restaurant No. 17



Restaurant No. 18



Restaurant
No. 19

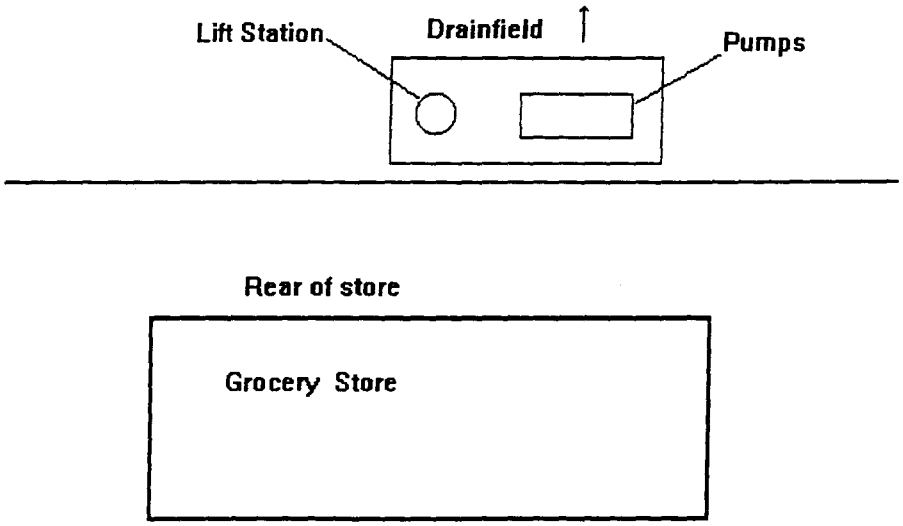


Photo 1 Septic Tank clogged with oils and grease

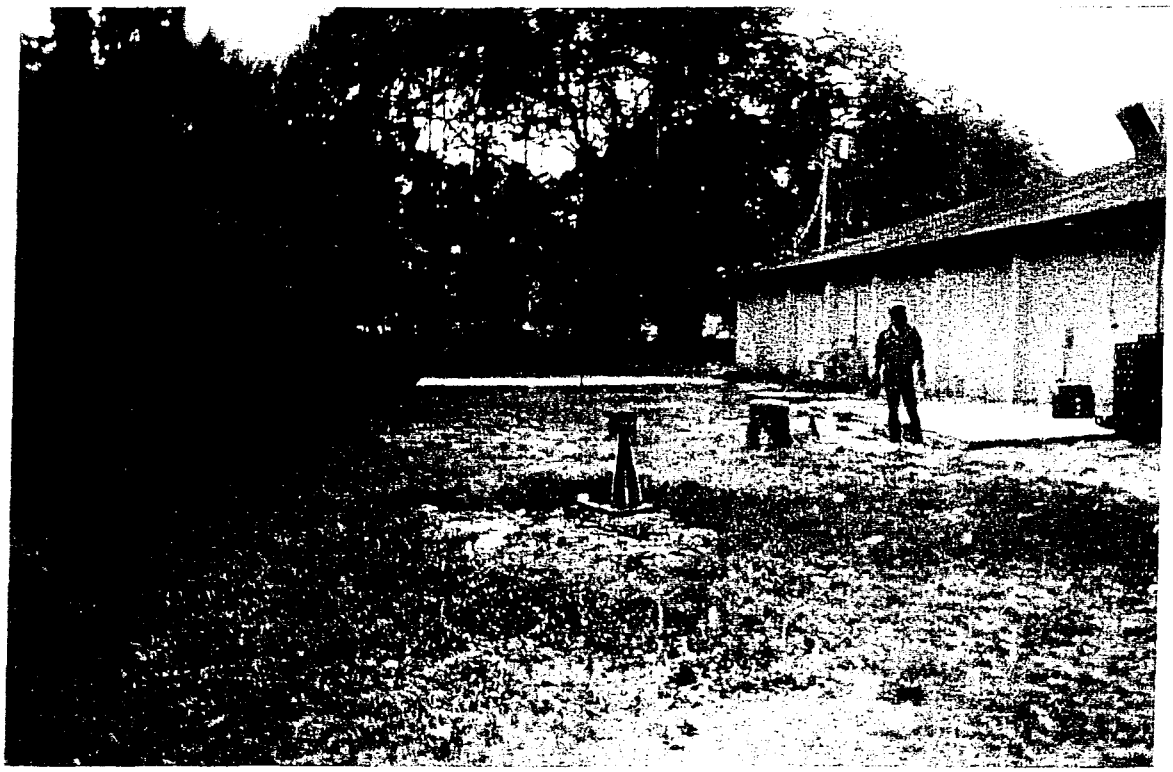



Photo 2. Drainfield showing standing wastewater