Varian, Inc.
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Varian MS Workstation
Version 6

EnviroPro Operation Manual

QUALITY SYSTEM ISO 9001 CERTIFIED

Printed in U.S.A. 03-914855-00:Rev. 3

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Quality Systems At Varian, Inc.

The ISO 9000 series standards were created in Geneva in 1987 to cut through a morass of conflicting quality definitions. These standards define a model for quality assurance systems in product design, development, manufacturing, installation, service, and customer support. They are now the worldwide quality assurance benchmark used to gauge the strength of a company's commitment to quality, and the value of its quality systems.

Various organizations around the world, such as the British Standards Institution (BSI), provide certified, objective auditors to scrutinize quality procedures, product development, manufacturing processes, and customer satisfaction programs. No company can claim ISO 9000 series registration unless it receives a stamp of approval from the demanding quality assessors of BSI or similar accredited examining body. ISO 9000 series registration constitutes an objective third-party report to determine the level of a supplier's commitment to quality.

In 1992, Varian, Inc., Analytical Instruments became registered to the most comprehensive of the ISO 9000 series standards — ISO 9001. ISO 9001 registration means that every stage of our quality system, including product development, manufacturing, final test, shipping, and parts and supplies has been rigorously examined against the most exacting set of internationally recognized standards. It means we live up to a standard of quality that you can count on today, and into the future. Our Quality System has received ISO 9001 certification number FM21797.

The quality systems that earned us ISO 9001 registration have direct benefits for our customers:

- We can speed instruments to you faster than ever before. Emergency orders can be processed even faster.
- We fill your orders promptly and completely.
- We have implemented a system of continuous feedback from our customers — we are aware of your needs today and tomorrow.
- We have improved your productivity by cutting systems failure rates in half and speeding service response time.
- We have embedded continuous improvement into the fabric of our organization so that we can achieve even higher levels of quality in the future.
- We are embedding GLP requirements into our products and services to help you meet your regulatory compliance requirements.

ISO 9001 registration is not enough. For us, quality is defined by our customers. We are not satisfied unless you are satisfied. We are striving to understand customer needs, using independent surveys, user groups, customer advisory boards, and our “Hallmark of Quality” response program, in addition to individual face-to-face customer contact. Our products and our processes are configured to meet those needs.

We know that you are seeking more than the most advanced processes and top-notch applications expertise. You want to join forces with a partner committed to delivering world-class quality, reliability, and value — on time, every time.

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Our overriding aim is to be that partner.

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Qualitätssysteme bei Varian, Inc.

Die Standards der ISO 9000 Serien wurden 1987 in Genf mit dem Ziel geschaffen, das Durcheinander gegensätzlicher Qualitätsbestimmungen zu entwirren. Diese Standards legen ein Modell für Qualitätssicherungssysteme hinsichtlich Produktdesign, Entwicklung, Herstellung, Installation, Service und Kundenbetreuung fest. Sie sind nun die weltweiten Maßstäbe der Qualitätssicherung, die die Anstrengungen eines Unternehmens bezüglich der Qualität und der Bedeutung seiner Qualitätssysteme messen.

Verschiedene Organisationen in der ganzen Welt, wie die British Standards Institution (BSI), stellen ausgebildete, objektive Prüfer zur Begutachtung von Qualitätsmaßnahmen, Produktentwicklung, Herstellungsprozessen und von Programmen zur Erforschung der Kundenzufriedenheit zur Verfügung. Kein Unternehmen kann die ISO 9000 Registrierung beantragen, ohne die Genehmigung von den beauftragten Qualitätsgutachtern der BSI oder einer ähnlichen akkreditierten Stelle erhalten zu haben. Die ISO 9000 Registrierung bildet einen objektiven Bericht von dritter Seite, um den Grad der Qualitätsanstrengung eines Lieferanten zu bestimmen.

1992 wurden die Varian, Inc., Analytical Instruments nach den umfassendsten Standards der ISO 9000 Serie registriert — ISO 9001. Die ISO 9001 Registrierung bedeutet, daß jedes Stadium unseres Qualitätssystems, einschließlich Produktentwicklung, Herstellung, Endkontrolle, Versand, sowie Teile und Zubehör rigoros gegen die anspruchsvollste Serie international anerkannter Standards geprüft worden ist. Das bedeutet, daß wir einen Qualitätsstandard bieten, auf den Sie heute und in Zukunft rechnen können. Unser Qualitätssystem hat die ISO 9001 Zertifikatnummer FM21797 erhalten.

Die Qualitätssysteme der ISO 9001 Registrierung haben für unsere Kunden direkte Vorteile:

- Wir können Instrumente schneller denn je zu Ihnen schicken. Eilbestellungen werden noch schneller durchgeführt.
- Wir erfüllen Ihre Bestellungen pünktlich und vollständig.
- Wir haben ein System kontinuierlichen Informationsrückflusses von unseren Kunden aufgebaut—wir kennen Ihre Anforderungen von heute und von morgen.
- Wir haben Ihre Produktivität durch Halbierung der Systemfehlerraten und durch Verkürzung unserer Reaktionszeit im Service verbessert.
- Wir haben kontinuierliche Verbesserungen in unserer Organisationsstruktur verankert, so daß wir künftig eine noch höhere Qualität erreichen können.
- Wir haben die GLP Anforderungen in unsere Produkte und Dienstleistungen eingeführt, um Ihnen bei der Erfüllung Ihres behördlichen Abnahmeprotokolls zu helfen.

Die ISO 9001 Registrierung ist nicht genug. Für uns wird Qualität durch unsere Kunden definiert. Wir sind nicht zufrieden, wenn Sie es nicht auch sind. Wir bemühen uns, die Anforderungen unserer Kunden durch unabhängige Untersuchungen, Anwendergruppen, Kundenberatungsgremien und unser Antwortprogramm “Gütesiegel der Qualität” zu verstehen, zusätzlich zu persönlichen Kundenkontakten. Unsere Produkte und unsere Prozesse sind so gestaltet, daß sie diese Anforderungen erfüllen.

Wir wissen, daß Sie mehr als fortschrittliche Prozesse und ausgezeichnetes Anwendungswissen suchen. Sie suchen einen Partner, der Qualität von Weltklasse, Verläßlichkeit und Nutzen für Sie liefert— pünktlich und jederzeit.

Unser oberstes Ziel ist, für Sie dieser Partner zu sein.

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Systèmes de qualité chez Varian, Inc.

Les normes ISO série 9000 ont été créées à Genève, en 1987, pour remédier à la confusion dans la définition des normes de qualité. Ces normes définissent un modèle de contrôle de qualité dans le domaine de la conception produit, du développement, de la production, des installations, des services et du support client. Elles constituent à présent la référence mondiale en matière de contrôle de qualité utilisée aux fins d'évaluation du niveau d'engagement d'une entreprise dans ce domaine et la valeur de ses systèmes de qualité.

Plusieurs organisations de par le monde, telle la British Standards Institution (BSI) offrent les services d'auditeurs qualifiés et objectifs, chargés d'examiner les procédures de qualité, le développement de produit, les procédés de fabrication et les programmes de satisfaction du client.

Aucune société ne peut se prévaloir de l'homologation ISO 9000, sans avoir reçu l'approbation des évaluateurs rigoureux de la BSI ou d'un organisme accréditif similaire. L'homologation ISO 9000 constitue une évaluation objective d'un tiers afin de déterminer le niveau d'engagement d'un fournisseur dans le domaine de la qualité.

En 1992, Varian, Analytical Instruments a reçu l'homologation ISO 9001, normes des plus complètes de la série IS0 9000. En d'autres termes, chaque étape du processus de qualité, notamment le développement produit, la fabrication, le test final, l'expédition et les fournitures de pièces a étés oumis à un contrôle rigoureux par rapport à des normes extrêmement strictes, reconnues au niveau international. Nous sommes donc à même de vous garantir et de maintenir un niveau de qualité. Lesdites procédures ont reçu l'homologation ISO 9001 numéro FM21797.

Les systèmes de qualité qui ont reçu l'homologation ISO 9001 présentent des avantages directs pour nos clients :

- Nous sommes en mesure de vous livrer les instruments et de traiter les commandes en urgence dans des délais record.
- Nous répondons pleinement et de manière rapide à vos commandes.
- Nous avons mis en place un système de feedback continu de la part de nos clients et sommes conscients de vos attentes présentes et futures.
- Nous avons amélioré votre productivité en réduisant de moitié les Temps de panne et en accélérant les temps de réponse.
- Nous avons apporté des améliorations constantes au sein de notre structure, afin d'atteindre des niveaux de qualité optima, à l'avenir.
- Nos produits et services reflètent les exigences BPL pour vous permettre de répondre aux impératifs de respect de la règlementation.

Toutefois, nous ne nous contentons pas de l'homologation ISO 9001. Pour nous, la qualité est définie par nos clients. Nous ne sommes satisfaits que lorsque nos clients le sont. Nous nous efforçons de comprendre vos besoins, à l'aide d'évaluations externes, de groupes d'utilisateurs, de comités de conseil clients, et de notre programme “Hallmark of Quality”, outre les contacts directs que nous établissons avec chacun de nos clients. Nos produits et nos procédés sont conçus pour répondre à vos attentes.

Nous n'ignorons pas que vous recherchez plus que des processus évolués et un savoir-faire d'exception dans le domaine des applications. Vous souhaitez conjuguer vos forces avec un partenaire s'étant engagé à offrir une qualité, une fiabilité et une valeur optimales, au moment où il faut et quand il faut.

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Notre principal objectif : devenir votre partenaire !

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I sistemi di qualità della Varian, Inc.

La serie degli standard ISO 9000 è stata presentata nel 1987 a Ginevra con lo scopo di mettere ordine in un groviglio di definizioni contrastanti sulla qualità. Tali standard definiscono un modello che assicura la qualità nella progettazione, nello sviluppo, nella fabbricazione, nell'installazione e nella manutenzione dei prodotti nonché nel servizio assistenza clienti. Oggi come oggi essi costituiscono il punto di riferimento, a livello mondiale, ai fini della valutazione dell'impegno delle diverse aziende sul fronte della qualità e della validità dei sistemi di qualità da esse adottati.

Diverse organizzazioni internazionali, come la British Standard Institution (BSI), dispongono d'ispettori certificati e imparziali per la valutazione delle procedure di qualità, dello sviluppo dei prodotti, dei processi di fabbricazione e dei programmi di soddisfazione del cliente. Nessuna azienda può asserire d'essere in possesso della certificazione ISO 9000 finché non dispone del marchio d'approvazione concesso dai rigorosi ispettori di qualità della BSI o di altri enti di controllo riconosciuti. La certificazione di conformità agli standard ISO 9000 costituisce un'attestazione imparziale di terzi del grado d'impegno di una determinata azienda nei confronti della qualità.

Nel 1992 la Varian, Inc., Analytical Instruments ha ottenuto l'omologazione allo standard più completo della serie ISO 9000, l'ISO 9001. L'omologazione ISO 9001 significa che ogni singola fase del nostro sistema di qualità - compresi lo sviluppo del prodotto, la fabbricazione, le prove finali, la spedizione, i componenti e le forniture - è stata rigorosamente esaminata a fronte della serie più esigente di standard riconosciuti a livello mondiale, il che significa che rispondiamo pienamente ad uno standard qualitativo sul quale il cliente può contare oggi come nel futuro. Il nostro Sistema di Qualità ha ottenuto la certificazione ISO 9001 col numero FM21797.

I sistemi di qualità per i quali abbiamo ottenuto l'omologazione ISO 9001 comportano dei vantaggi diretti per i nostri clienti, ovvero:

- Siamo in grado di consegnare gli strumenti più rapidamente rispetto al passato, con la possibilità di evadere le richieste d'emergenza con una rapidità ancora maggiore.
- Gli ordini vengono evasi tempestivamente ed in modo completo.
- Abbiamo messo a punto un sistema di riscontro costante con la clientela, in modo da poter essere sempre perfettamente informati sulle esigenze attuali e future del cliente.
- Abbiamo migliorato la produttività del cliente riducendo della metà il tasso di guasti dei sistemi e velocizzando i tempi d'intervento della manutenzione.
- Abbiamo introdotto un costante miglioramento nella nostra struttura organizzativa in modo da poter conseguire in futuro livelli qualitativi ancor più elevati.
- Stiamo adeguando i nostri prodotti e servizi agli standard GLP per poter aiutare i clienti a soddisfare i requisiti di conformità posti loro dagli enti normativi.

Ma l'omologazione ISO 9001 non è tutto. Per quanto ci riguarda, la qualità viene definita dai nostri clienti: noi siamo soddisfatti solo se lo è il cliente. Ci adoperiamo al massimo per comprendere le esigenze del cliente, ricorrendo ad indagini di società private, gruppi di utenti, associazioni di consumatori e con il nostro programma di risposta Hallmark of Quality - il marchio di garanzia di qualità - oltre che col contatto diretto coi singoli clienti. I nostri prodotti ed i nostri processi sono configurati per rispondere a tali esigenze.

Sappiamo che a Voi i processi più avanzati e l'esperienza delle applicazioni di prim'ordine non bastano. Sappiamo che intendete unire le vostre forze con quelle d'un partner impegnato a fornire livelli qualitativi internazionali, affidabilità e valore, in modo tempestivo e costante.

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Quel partner vogliamo essere noi.

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Sistemas de calidad en Varian, Inc.

Las normas ISO 9000 fueron creadas en Ginebra en 1987 para acabar con una multitud de definiciones de calidad contradictorias. Estas normas constituyen un modelo de sistemas de garantía de calidad en el diseño, desarrollo, fabricación, instalación, mantenimiento y asistencia técnica de productos. Se han convertido en el banco de pruebas de garantía de calidad a nivel mundial y miden el grado de compromiso de una empresa con la calidad, así como el alcance de sus sistemas de calidad.

Diversas organizaciones mundiales, como la British Standards Institution (BSI), proporcionan expertos titulados de probada objetividad para investigar procedimientos de calidad, desarrollo de productos, procesos de fabricación y programas de servicio al cliente.

Varian, Inc., Analytical Instruments fue registrada en 1992 con la norma más exhaustiva de la serie ISO 9000: la ISO 9001. La certificación por la norma ISO 9001 significa que todas las etapas de nuestro sistema de calidad, como el desarrollo del producto, la fabricación, las pruebas finales, la expedición, así como los suministros y recambios, han sido examinados rigurosamente respecto a las normas más exigentes reconocidas internacionalmente. Significa que nos comprometemos a mantener un nivel de calidad con el que podrá siempre contar, hoy y en el futuro. Il nostro Sistema di Qualità ha ottenuto la certificazione ISO 9001 col numero FM21797.

Los sistemas de calidad que nos valieron la certificación ISO 9001 representan beneficios directos para nuestros clientes:

- haremos llegar nuestros aparatos más rápidamente que nunca. Podemos cumplir con pedidos urgentes aún más deprisa.
- Atenderemos sus pedidos de forma rápida y completa.
- Aplicamos un sistema de retorno de información permanente con nuestros clientes: siempre somos conscientes de sus necesidades, actuales o futuras.
- Hemos mejorado la productividad de nuestros clientes, disminuyendo el índice de defectos a la mitad y acortando el tiempo de respuesta del servicio de mantenimiento.
- Hemos integrado sistemas de mejora continuada en nuestra organización, de forma que podremos obtener niveles de calidad aún superiores en un futuro.
- Estamos integrando los requerimientos GLP en nuestros productos y servicios para ayudarle a cumplir con requerimientos de conformidad obligatorios.

La conformidad con ISO 9001 no nos basta. Para nosotros, los criterios de calidad los definen nuestros clientes. No estaremos satisfechos hasta que usted lo esté. Intentamos comprender las necesidades de nuestros clientes, a través de entidades independientes, grupos de usuarios, oficinas de asesoramiento a usuarios y nuestro programa de respuesta “Hallmark of Quality”, además de los contactos directos con nuestros clientes. Nuestros productos y procedimientos están diseñados para poder corresponder a sus necesidades.

Sabemos que nuestros clientes buscan más que experiencia en procesos avanzados y aplicaciones punteras. Se trata de unir fuerzas con un socio que se compromete a entregar calidad reconocida a nivel mundial, fiabilidad y valor, a tiempo, siempre.

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Nuestra meta principal es ser ese socio.

Contents

Introduction

EnviroPro is a flexible, Microsoft Access 2000 based reporting software package. It allows the generation of numerous graphic and text report formats commonly used in the environmental market but offers reporting capabilities to all kind of analysis.

EnviroPro report data from files processed in Varian MS Workstation 6.2 or later version. Its reports are designed to support analysis by EPA methods 524, 525, 624, 625, 8240, 8250, 8260, 8270 and CLP Volatile and CLP Semivolatile methods. (EnviroPro reports are not designed for direct submission to the EPA Contract Laboratory Program.)

Reports can be generated on internal and external standard based calculations.

Quality control and summary reports can be generated with the software.

There are several different options of numerical and graphical reports for the target and tentatively identified compounds.

The reports can be previewed, printed and or saved as ASCII files for later retrieval.

The software allows report generation immediately after a sample analysis is completed, or reports for a sample or sample list can be easily generated as a post run operation.

The report templates can be "cloned" to generate a separate template for each type of reporting requirement.

The template size will increase after the generation of numerous reports; use the Repair/Compact command (last entry in the menu shown when the MS CUS Icon  is pressed in the Toolbar) to restore the original template size.

Several EnviroPro reports include fields based on statistical calculations. The calculation of such quantities as average RRF, relative standard deviation, control limits, and MDL are based on full precision values read from Varian MS Workstation data files. The values used in the statistical calculations are reported to less than full precision on reports. An independent recalculation of these statistical quantities based on the lower precision printed values of MS Workstation data files will result in statistical results that differ somewhat from EnviroPro reported results that are based on full precision numbers.

Help

Immediate help is available throughout in the software. To see help on a specific field in an EnviroPro form, position the mouse cursor over the item of interest and

click the right mouse button. Select the "What's This?" item from the floating menu which appears.

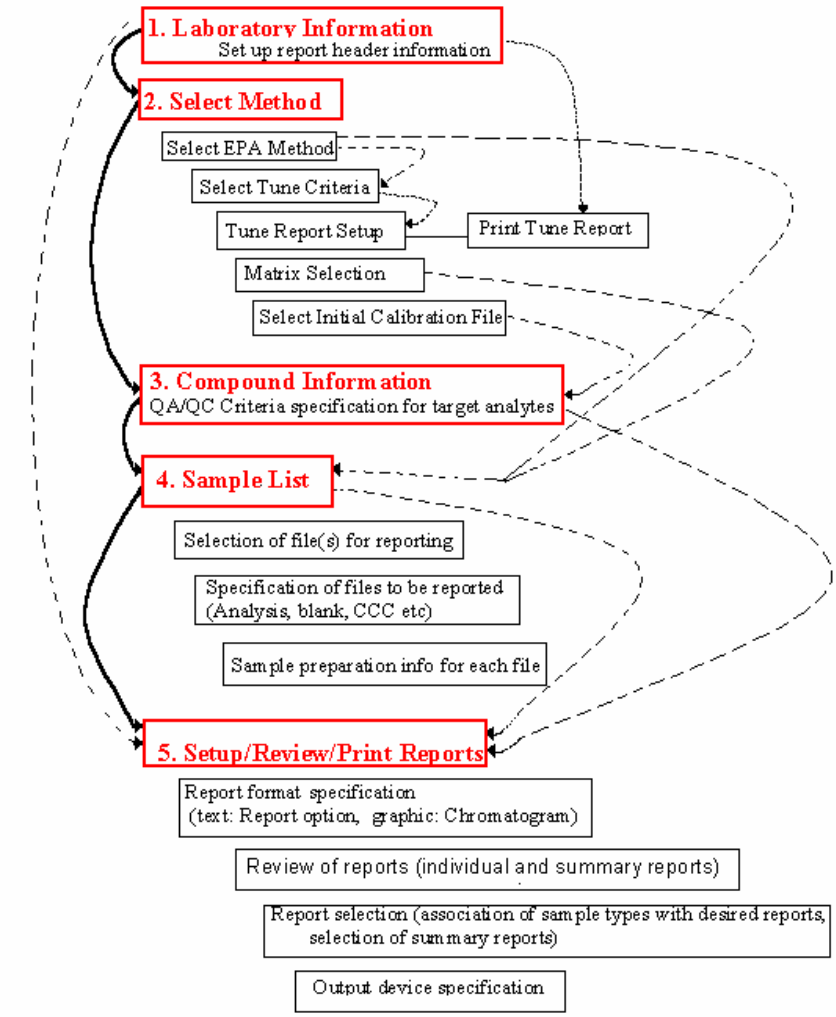
Overview

Components

The EnviroPro software has five major components, as listed below. These sections interact with each other. Therefore the method should be configured in the order shown below.

1. Laboratory Information
2. Select Method
3. Compound Information
4. Sample list
5. Setup/Review/Print Reports

Overview of the Software and its Components



Solid line: Order of template preparation

Dotted line: Information propagation from one section to the other

1. Laboratory Information

Pertinent information about the laboratory is entered here. This information will be included in the report headers.

2. Select Method

The Select Method forms set:

1. EPA method
2. Tune criteria (BFB or DFTPP)
3. Matrix (water or soil)

4. Initial Calibration File (ICC)

These options determine report formats.

The selected EPA method will initiate the appropriate tune criteria for review and acceptance (or edit).

The compound list from the ICC will be automatically entered into the Compound information table.

The selected method and matrix determine the sample descriptors shown in reports. These descriptors are set up in the sample list.

The selection of a new matrix reinitializes the Sample list.

The selection of a new EPA method or an ICC file (processed by a different .mth method than the previous ICC file) reinitializes the Compound Information and the Sample List also.

3. Compound Information

Compound Information forms set up criteria used in reporting specific target compounds.

Criteria may be selected for:

1. Calibration (Initial and Continuing)
2. Analysis report limits (max and min. concentration, min area, min Fit and min S/N, MDL)
3. Quality Control: recovery limits (surrogates and control samples), Specification of surrogate compounds
4. Matrix Spike (Recovery and Duplicate recovery)

4. Sample List

The datafiles to be reported and their attributes are identified in this section.

Selection of files:

Files may be added to this list by any of the following methods:

1. Add all files from a selected directory that are compatible with the ICC file (existing files)
2. Add all files from a Recalc List that are compatible with the ICC file (existing files)
3. Select a single data file (existing data file)
4. Set-up Sample Ids for files to be acquired (see automation section)

Type of files

The type of each file selected must be set. The default type is "A" or analysis. Other types are Blank, CCC, Quality Control, Spike matrix, Matrix spike, Matrix spike duplicate. The type specifies how the file will be treated in all types of reports and summary reports.

Other attributes

Other attributes set on this page are dependent on the EPA method and Sample Matrix set in the Select Method segment. These attributes are printed on report

headers and may be used in computing the compound amounts. (Sample correction factor)

5. Setup/Preview/print reports

This section controls the configuration of the report formats and the selection of reports to be printed for each sample type. It can be used to preview and/or print individual reports for any file in the Sample List or to print all selected reports for all files in the sample list.

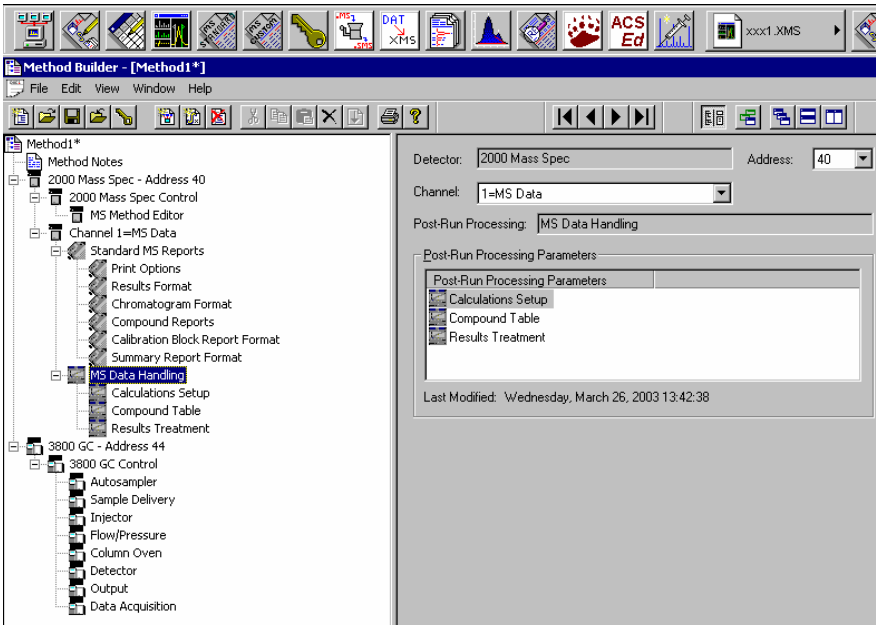
What You Need to Do Before Starting EnviroPro

Getting Started

EnviroPro reports the results of datafiles processed in Varian MS Workstation 6.2 or later version. (Data generated with prior versions of the software also can be processed, but first must be converted to version 6.2 or later format.)

EnviroPro reports the results already stored in the Varian MS GCMS workstation data files. It does not calculate or store data itself.

Before using EnviroPro, a Varian MS Workstation Method (. mth) must be built, calibrated and used to analyze the appropriate samples. The rest of this chapter discusses the use of the Varian MS Workstation Method builder program to build methods for use with EnviroPro.



The data handling section of the method should be built with great care to deliver the best results

In the Compound Table, the compound identification, integration, calculation and quantitation parameters must be optimized to deliver the best results. Review the compound table integration and identification parameters (peak width, slope sensitivity, tangent %, peak window width etc.) before the calibration is carried

out. Verify and adjust as necessary the curve fitting options (including the handling of the origin and the regression weighting parameters) to deliver the most accurate results.

The "Calculation Setup" also must be properly completed to allow the tentatively identified compounds identification.

With the exception of the tune file, all files to be processed with an EnviroPro template need to be quantitated on the same workstation method (.mth). Files processed using a different method will be rejected because of reporting requirement incompatibilities.

Calculations Setup in the Varian MS Workstation (.mth) Method

The following settings are recommended:

General:

Measurement Type: Area or Height

Area is the commonly used measurement type. The " %(None) " measurement type is not supported in EnviroPro.

Calibration type: Internal or External STD

External STD will have some limitations, including that target Compound Report 1 is not available.

Report Missing peaks: Yes (checked) If not checked, EnviroPro will not report target Compounds which were not found, even if the EnviroPro Report Option "Include Compounds not found" is set.

Report Unknown peaks: yes if TICs to be reported

Normalize results: no (not checked)

Ignore Calibration data: no (not checked)

Scale Air Flow Samples: no (not checked)

Chromatogram Processing

Tentative Identification

Library Search Unknown peaks: yes if TICs to be reported

Identify libraries and search parameters as desired.

Specify Quan ion for TICS (usually RIC)

Specify Integration Parameters for TICs

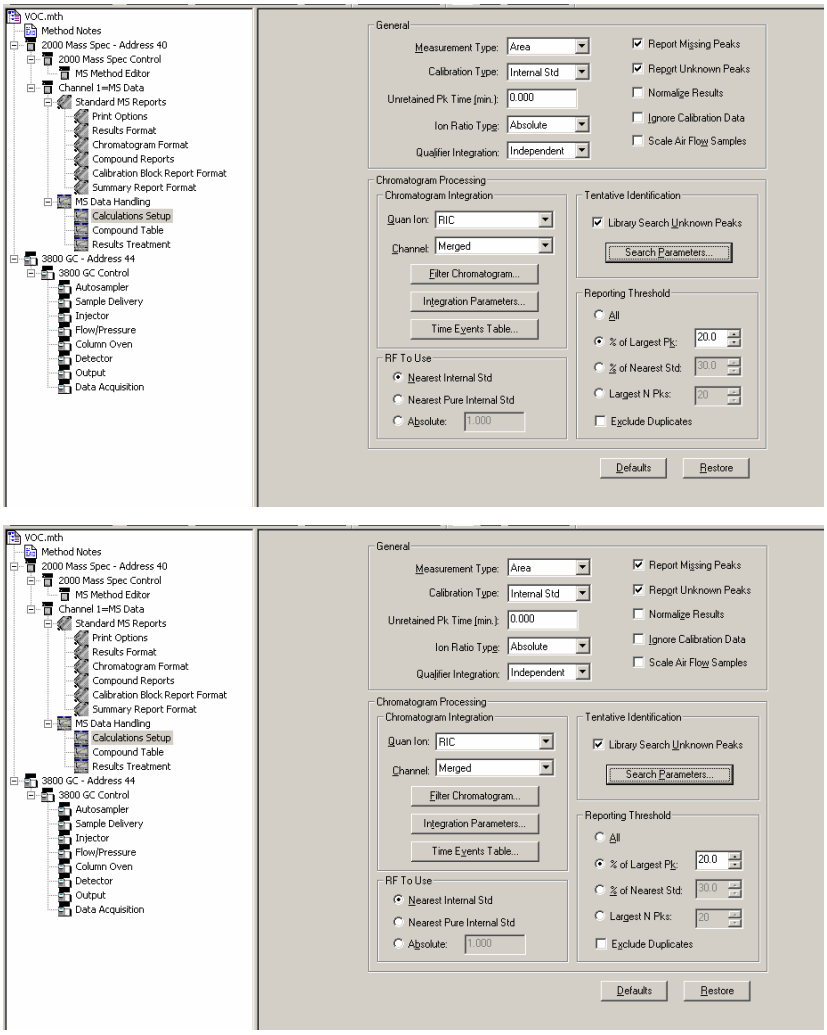
Specify RF to Use (quantitation) parameters for TICs

Reporting Threshold

Exclude Duplicates: no (not checked)

If exclude duplicates is checked, some fields in the EnviroPro TIC reports will report incomplete data for Internal Standard peaks. All EnviroPro TIC compounds will report complete data.

Peaks excluded by the other Report Threshold parameters will be excluded from EnviroPro reports, regardless of EnviroPro Report Option settings. It may be desirable to limit peaks on size here and to limit the number of TIC peaks reported in EnviroPro Report Options. Any TIC peak included in the data file under these parameters will appear as a peak label in the TIC chromatogram report, even if it is excluded in the report body by EnviroPro Report Option parameters, as long as the peak was identified in a library search.



Calculation Setup page of the Data handling section of the .mth method

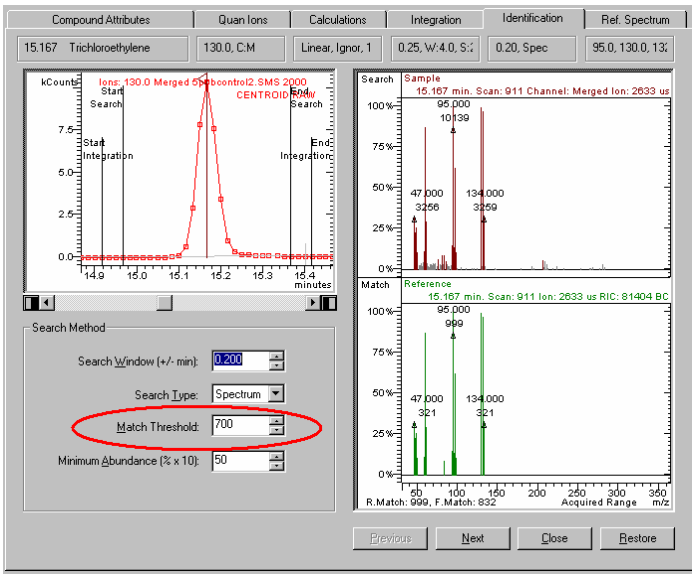
Compound Table Setup in the Varian MS Workstation (.mth) Method

The reporting of target analytes in EnviroPro will be dependent on the parameters set in the Compound table section.

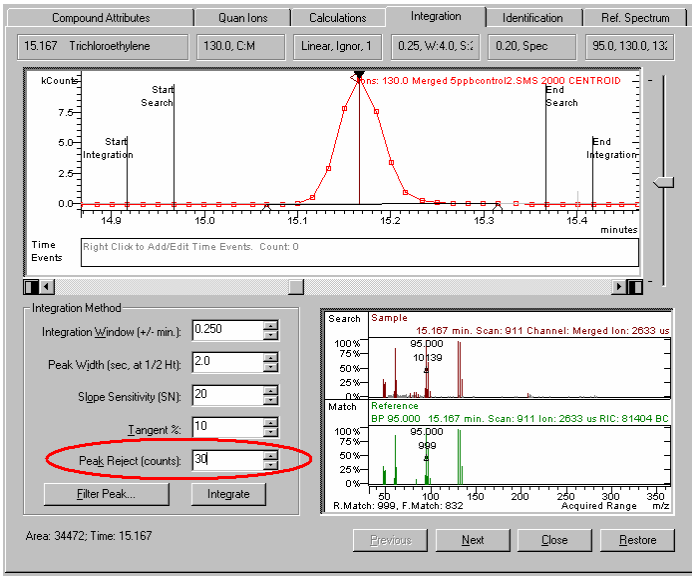
Target compounds excluded by these threshold parameters will be excluded from EnviroPro reports, regardless of the target Compound "Analysis Report Inclusion Limits" or the EnviroPro "Report Option" settings. Coordinate the

following parameters in the .mth method and in the EnviroPro template. These parameters are:

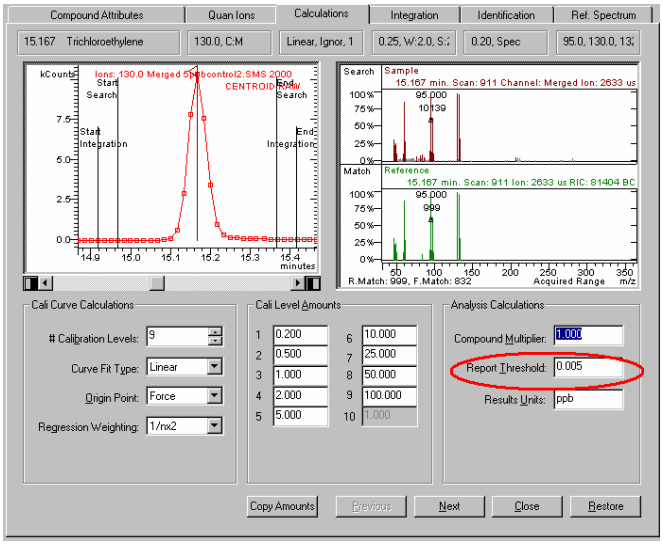
- Identification threshold
- Peak Area/Height rejection threshold
- Report rejection (amount) threshold
- Qualifier Ion Ratios (The use of qualifier ions is not recommended when using EnviroPro.)



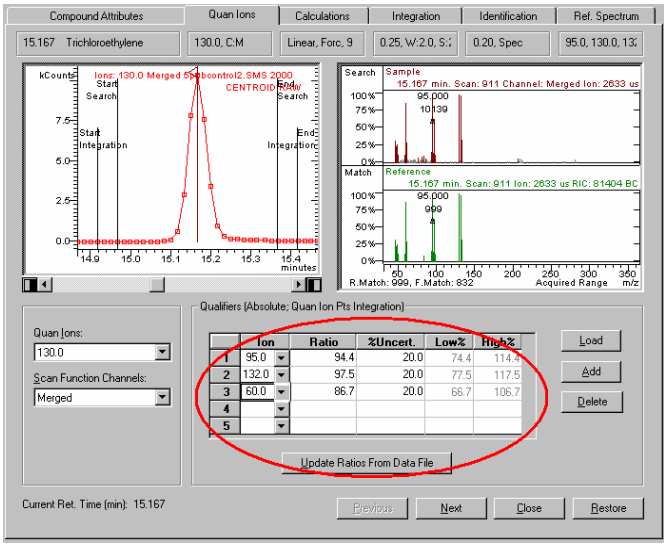
Identification (Match threshold)



Peak Area/Height Rejection (counts)



Report Threshold (Calculated amount)



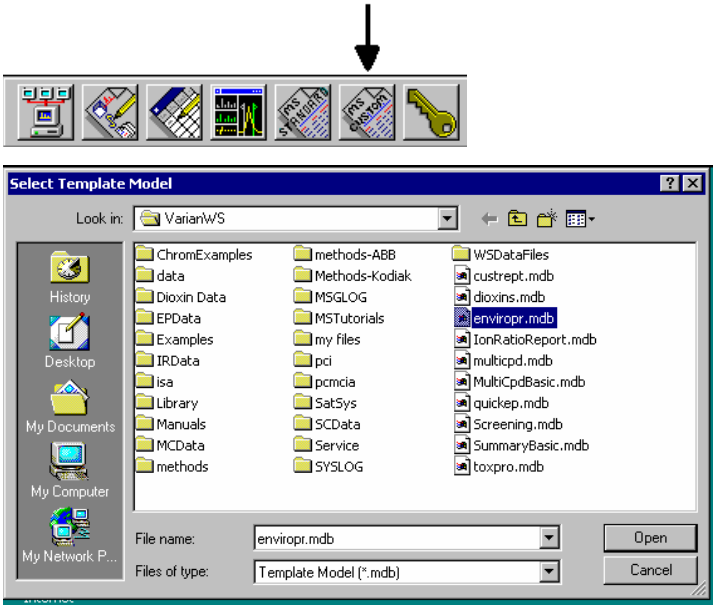
Qualifier Ion Ratios (if any) limits

Start: Main Page

Launching EnviroPro

A Varian MS Workstation method must to be completed before reporting can take place. Please review the **What You Need to do Before Starting EnviroPro** section to configure the data handling section properly.

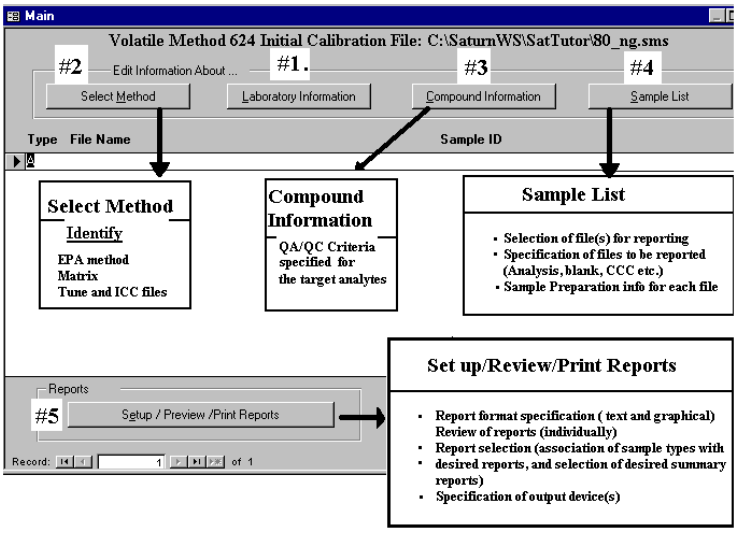
The EnviroPro reporting software is launched from the Workstation Toolbar by pressing the "MS CUSTOM" icon. It also can be started via the Start/Programs/Varian MS Workstation/ Custom MS reports path.



When a new report template is being created, select the ENVIROPR.MDB model-template to start a new reporting format. Save the template under a desired name. The template file will have .swt extension.

Main Page

As mentioned in the overview, a certain order should be followed while creating a *new EnviroPro template*.



Main Page of EnviroPro

The first step is usually the configuration of the **Laboratory Information** section.

Then click on the **Select Method** button to select an EPA Method, Tune Criteria and a Tune file, and an Initial Calibration file.

The **Compound Information** section should be completed in the next step. All the QA/QC criteria are specified here for the target analytes.

When *EnviroPro is entered with the template already setup*, or after completing the actions outlined above, click the **Sample List** button to configure the list of files to be reported.

When all the steps above are complete, select a current file to report by clicking on the report selector button to the left of the file name. Then click the Setup/Print/Preview Reports button to configure report options, preview and print individual reports, or configure and generate report sets to be exported to ASCII files or printed. The two red arrows on this page allow the selection of another file within the Sample list for review/reporting.

Buttons: Main

Help

To see help on a specific field in an EnviroPro form, position the mouse cursor over the item of interest and click the right mouse button. Select the "What's This?" item from the floating menu which appears.

Select Method

When clicked the **Select Method button** opens the Select Method form, allowing the specification of an EPA method, setup of the method tune criteria, the tune report, the matrix and the Initial Calibration Check filename.

Laboratory Information

When clicked the Laboratory Information button opens the Laboratory Information form to edit report header information.

Compound Information

When clicked the **Compound Information button** opens the Initialize Compounds form to edit compound specific information controlling report content.

Sample List

When clicked the **Sample List button** opens the Sample List form, enabling edit of sample specific information.

Setup/Preview/Print Reports

When clicked the **Setup/Preview/Print Reports button** opens the Setup/Preview/Print Reports form, designating the currently selected record as the "Current File" (The two little red arrows allow the selection of another file in the sample list for reporting.) The Setup/Print/Preview Reports allows to configure reports, select reporting options, preview and print individual reports, or configure and generate report sets to be exported to ASCII files or printed.

Opening this form is the gateway to configuring and printing reports in response to an AutoLink invocation from System Control or printing reports in response to a MS Workstation Toolbar print file command.

Exit

Clicking the **Exit** button causes the application to close.

Fields: Main

The fields shown in this page can not be edited here, they are entered/edited in the Sample List page.

Sample ID

The **SampleID** field shows the content of the SampleID field as set on the Sample List form. See help for the SampleID field on the Sample List form for additional information.

File Name

The **file name** field contains the Varian MS Workstation data file name for this sample, as set on the Sample List form.

Type

The **Type** field shows the Sample Type set on the Sample List form for this sample. The options are: A Analysis, B Blank, C CCC or Continuing Calibration

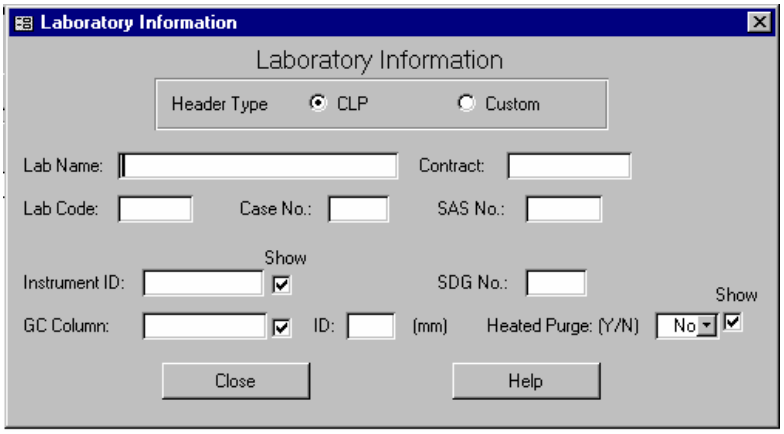
Check, Q Quality Control sample (known compound concentrations), S Spike Matrix, 1 1st Spike (Matrix Spike), 2 2nd Spike (Matrix Spike Duplicate).

Laboratory Information

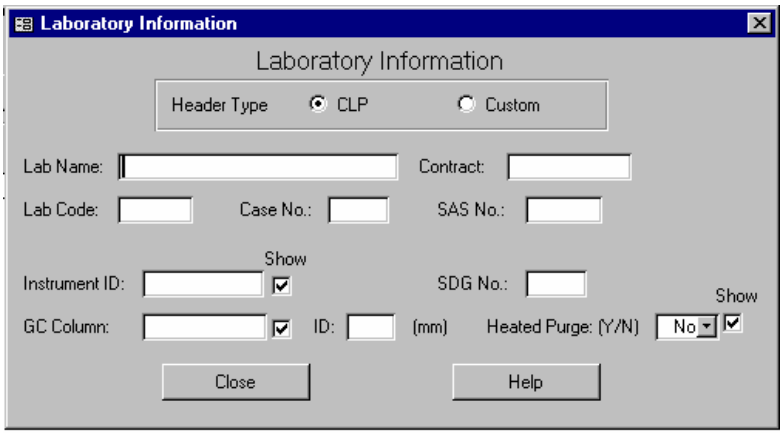
Laboratory Information sets up parameters to be printed in the header section of reports.

There are two header options to choose from: CLP or Custom. In the CLP option the header information content is based on the CLP reporting format. In the custom report, the user has two, 60 character title lines, which can be filled out as desired. Some of the additional information (instrument ID, column, and heated purge) can be selected or ignored for either header format.

The font size and style are preset. Titles are center aligned with the main report title.



Custom Laboratory Information page



CLP Laboratory Information Page

Buttons: Laboratory Information

Header Type: CLP or Custom group

The Header Type radio button group selects between CLP and Custom report headers. CLP headers show Laboratory Name, Contract, Lab Code, Case No, SDG No, and SAS No. Custom headers offer two centered title lines. The configuration of the Laboratory Information form changes to display the configurable fields for the Header Type selected.

Close

Close: The form is closed when the Close button is clicked.

Text Boxes: CLP Type Header

Lab Name

Lab Name is a text field of up to 25 characters

Contract

Contract is a text field of up to 11 characters

Lab Code

Lab Code is a text field of up to 6 characters

Case No.

Case Number is a text field of up to 5 characters

SAS No.

SAS Number (Special Analytical Services Number) is a text field of up to 6 characters.

Instrument ID

Instrument ID is a text field of up to 10 characters.

Show Instrument ID checkbox

If the Show checkbox is not checked, the Instrument ID label and value are hidden on reports.

SDG No.

SDG No. (Sample Delivery Group No.) is a text field of up to 5 characters

GC Column

GC Column is a text field of up to 10 characters.

Show GC Column and ID checkbox

If the Show checkbox is not checked, the GC Column and ID are hidden on reports.

ID

ID (GC Column ID) is a text field of up to 4 characters.

Heated Purge(Y/N)

Heated Purge (Y/N) is a Yes/No field.

Show Heated Purge checkbox

If the Show checkbox is not checked, the Heated Purge label and value on report headers are hidden.

Text Boxes: Custom Type Header

Title 1 text box

The Title 1 field contains the text to be displayed in the top subtitle of the Custom header. The Custom Title 1 field contains a maximum of 60 characters (upper or lower case). The font size and style are preset. Titles are center aligned with the main report title.

Title 2 text box

The Title 2 field contains the text to be displayed in the bottom subtitle of the Custom header. The Custom Title 2 field contains a maximum of 60 characters (upper or lower case). The font size and style are preset. Titles are center aligned with the main report title.

Instrument ID

Instrument ID is a text field of up to 10 characters.

Show Instrument ID checkbox

If the Show checkbox is not checked, the Instrument ID label and value are hidden on reports.

GC Column

GC Column is a text field of up to 10 characters.

Show GC Column and ID checkbox

If the Show checkbox is not checked, the GC Column and ID are hidden on reports.

ID

ID (GC Column ID) is a text field of up to 4 characters.

Heated Purge(Y/N)

Heated Purge (Y/N) is a Yes/No field.

Show Heated Purge checkbox

If the Show checkbox is not checked, the Heated Purge label and value on report headers are hidden.

Select Method

Use the Select Method form to set the following parameters:

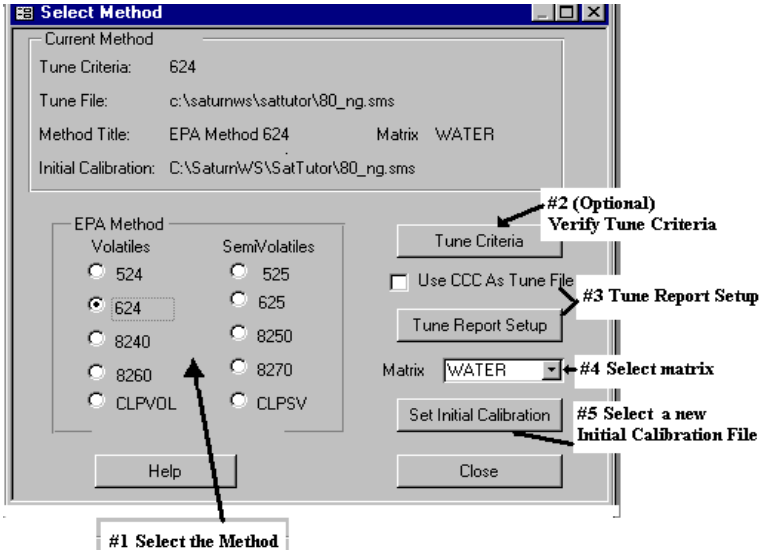
1. EPA method
2. Tune criteria (BFB or DFTPP)
3. Matrix (water or soil)
4. Initial Calibration File (ICC)

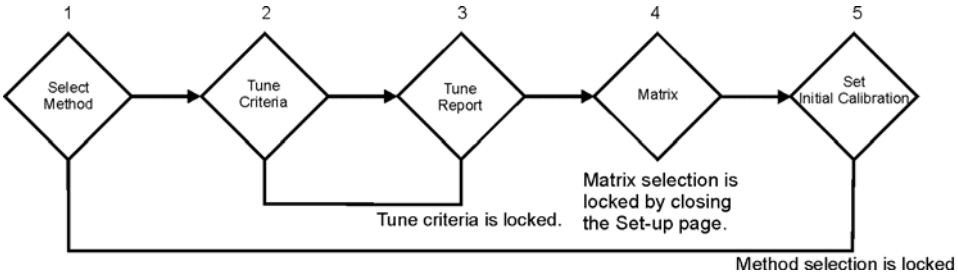
The options selected here determine report formats.

The calibration information included in the ICC file defines the target analyte list shown in the reports. The compound list from the ICC will be automatically entered into the Compound information table.

The selected EPA method and matrix determines what sample preparation fields are shown in the Sample list section and printed in report headers. These sections may also influence the calculation of compound concentrations.

Select these parameters in the following order:





Sequence of the Setup page preparation

1. Select Method

Select the EPA method for report generation.

The method selection will not be "locked" until a file is selected for ICC in step 5.

2. Verify Tune Criteria (optional)

The test procedure has tune criteria for each EPA method (BFB or DFTPP).

The specifications can be verified in this page, or edited if necessary.

The tune criteria selection will not be "locked" until a tune data file is selected in the next step.

3. Tune Report Setup

Select data file for the tune test. The selection of the data file "locks" the selected tune criteria. The Tune Criteria field will be updated in the Current method display. This section also allows the specifications (Rt, scan averaging etc.) to select the scan for the tune test and to perform and print the tune test results.

The software “Find Tune” feature allows to automatically identify a passing tune. This feature will find the scan, scan averaging (if any) and apply background correction to satisfy the EPA criteria.

If the CCC file serves also as a tune file, check the "Use CCC As tune file" box. The CCC then automatically will be selected as the source for tune report/summary tune report.

4. Select Matrix

Select water or soil as the matrix of the samples. (Methods 524, 525, 624, & 625 do not support the SOIL option.) The matrices have different sample attributes in the sample list; therefore, the existing sample list in the template will be erased and must be rebuilt if a new matrix is selected. (The different matrix may have different compound criteria. These have to be adjusted by the operator.)

The selection of the different matrix will take place upon closing the select method form. (No file selection is needed to switch the matrix.)

5. Set Initial Calibration

Select the data file to be used for the ICC test. The selection of the data file "locks" the selected EPA method. The Method Title field will be updated in the Current Method display, and the software will return to the main page.

Hints for selecting an ICC file:

The file should be the last data file entry in the calibration process with method xxx.mth. An analysis run quantitated using the method xxx.mth containing the information of all calibration entries also can be selected. A datafile calibrated on a given .mth method will include the calibration information contained in the .mth file. If manual integration was performed on any of the calibration runs, process an analysis run with the method including all the manual corrections, and use that analysis file for the ICC file. (If there are no analysis runs, copy one of the calibration runs and process it as an analysis sample. The sample type before processing must be changed to analysis.)

Compatibility:

The list and order of analytes and IS (Internal Standards) in the EnviroPro template is extracted from the ICC file. Therefore, when selecting a new ICC file, in order to maintain the compound information tables, the new ICC file must have the same list and order of analytes and Internal Standards (IS) as the original ICC had; otherwise, a new compound information section must be prepared.

Similarly, only data files which were processed by a method (.mth) containing the same list and order of analytes and IS as the method used to process the ICC will be accepted for reporting in EnviroPro.

NOTE: The EPA method setting for tune criteria need not match the setting for the Initial Calibration. They should both be either Volatile or Semivolatile however.

Fields: Select Method

Current Method

When the Select Method form is opened, the current method shows the settings that were in use. (default settings on a new template). These settings remain "locked" (will be shown in the current method fields) until an action outlined below locks a different parameter. The reporting template will be based on files/parameters shown in the Current Method field.

Tune Criteria

Tune Criteria: This box shows the Tune Criteria set currently used for generating tune reports. To change this setting activate the "EPA Method" group button corresponding to the desired Tune Criteria set, then click the Tune Report Setup button and select and accept a Tune File (a .sms file).

Tune File

The Tune File box shows the Varian MS Workstation data file currently used as the source of data for tune reports. To change the file selection, click the Tune Report Setup button.

Method Title

Method Title: The Method Title box shows the title of the currently established EPA method. To use this method, click the Close button. To change the method, select the appropriate "EPA Method" group button, and then click the Set Initial Calibration button.

Matrix

Current Method Matrix: This box shows the matrix ("WATER" or "SOIL") in use by the current EnviroPro method. This is the matrix that will be used if the Close button is clicked. To change this matrix, select the desired matrix in the Matrix combo box, then click the Close button.

If the matrix was changed the Sample List section will be erased, since the different matrices have different information fields in the Sample list page.

NOTE: Methods 524, 525, 624, & 625 do not support the SOIL option.

Initial Calibration

This box shows the data file from which compound data (compound names, order, retention time etc.) and calibration was read when the EnviroPro method was last created. To use this file as the base for the reporting method, click the Close button. To change the EPA method, select the appropriate "EPA Method" group button, and then click the Set Initial Calibration button.

Buttons: Select Method

Tune Criteria

When the **Tune Criteria button** is clicked, the Tune Criteria form is opened showing the tune criteria associated with the active button of EPA Method group. These criteria can be edited. (See edit tune criteria section.)

Tune Report Setup

Tune File: This button has dual function: Selecting a new tune file and/or "locking" a selected EPA tune criteria.

Click the **Tune Report Setup button** to compare a mass spectrum against the system performance check criteria associated with the active "EPA Method" button. The "Select DataFile" dialog will open first. Use it to select a Varian MS data file.

When the data file is selected the "Tune Report Setup" form will open. This form is used to select the specific mass spectrum (scan(s)) to test, or use the “Find

Tune" feature to automatically find the passing scan(s). Note that the EPA Method criteria selected for tune reports need not correspond with the EPA method selected for other reports. (see Tune report Set-up section)

Use CCC as Tune File

Very often during analysis the CCC file contains the tuning compound also. If this is the case, this box should be checked. It will allow the system to automatically select the CCC file (specified in the sample list) as a tune file also, and generate the summary tune report.

If the CCC file does not contain the tuning compound, do not check this field. In this case, the appropriate tune file must be specified in this section to generate the tune report or summary tune report.

Set Initial Calibration

Initial Calibration: This button has dual function: Selecting a new ICC file and/or "locking" a selected EPA method.

EnviroPro uses the selected ICC file to construct its calibration and compound tables from the Varian MS Workstation method stored in this file.

There are two reasons one may select a different initial calibration file than the one already present:

#1. You want to perform reporting on a different EPA method. The different methods have different qualitative, quantitative and reporting requirements (target analyte list, internal standards, calibration range etc.) therefore the same initial calibration file can not be used.

By selecting a new initial calibration file, the newly selected EPA Method is recorded and used to configure reports and forms. All prior method (template) dependent information is erased therefore compound reporting criteria for the new method need to be established.

The Sample List is also erased.

#2. A new initial calibration is generated on the same EPA method.

If the continuous calibration file criteria is not met, (after instrument maintenance) a new initial calibration data set is generated for the same EPA method. In this case only the quantitative information content of the file is changing, therefore the same template may be reused, and the Compound Information and Sample List does not need to be reentered.

When the **Set Initial Calibration button** is clicked, the selections for a new EPA Method is recorded and used to configure reports and forms. All prior method dependent information is erased and reconstructed. The sample table is also erased.

Use the Open dialog displayed to select the initial calibration file. Select the data file used as the last entry in the calibration process. This file will include calibration information about all the data files that were used for calibration. (Once initial calibration is established, you may select a continuing calibration check data file that has been quantitated as an analysis sample using a fully calibrated Varian MS Workstation method.)

EnviroPro uses the file selected to construct its calibration and compound tables from the Varian MS Workstation method stored in this file.

Once a new method has been created the Select Method form is closed, and the Main form is opened.

Compatibility: The list and order of analytes and IS in the EnviroPro template are extracted from the ICC file. Therefore, when selecting a new ICC file, in order to maintain the compound information tables, the new ICC file must have the same list and order of analytes and IS as the original ICC had; otherwise, a new compound information section will have to be prepared.

Similarly, only data files which were processed by a method (.mth) containing the same list and order of analytes and IS as the method used to process the ICC will be accepted for reporting in EnviroPro.

NOTE: The file selected as the EnviroPro Initial Calibration File is a data file (*.sms or .xms), not a Varian MS Method file (*.mth). The calibration data, including the method name and all data files used in the calibration, are read from the Varian MS data file designated as the EnviroPro Initial Calibration File. Since a continuing calibration check sample is an analysis of one of the initial calibration sample levels, it is convenient to designate the same file for use both as the Initial Calibration Check sample and the Continuing Calibration Check sample.

Close

When the Close button is clicked, the Select Method form is closed and the Main form is opened. The new reporting template will be based on parameters /files shown in the current method segment. If the status of the Matrix Combo box has been changed the sample list will be erased (after prompting). This button is used to return to the Main form without recreating the method.

EPA Method Button Group

The choice of EPA method determines the tune criteria used in preparing the tune reports and the information shown on report headers and on the sample list form. It may also control the calculation of report concentrations.

The EPA method choice for Tune Reports and for other reports are separate and may be different.

The active button in the EPA method group is read when the Tune Report Setup button is used to select the file. The EPA method action button is also read when the Set Initial calibration button is used to select the Initial calibration file.

The following EPA Methods are supported:

Volatiles

524 Measurement of Purgeable Organic Compounds in Drinking Water By Capillary Column Gas Chromatography/Mass Spectrometry

624 EPA Test Method Purgeables - Method 624

8240 Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

8260 Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS):Capillary Column Technique

CLPVOL US EPA Contract Laboratory Program - GC/MS Analysis of Volatiles

Semivolatiles

525 Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column Gas Chromatography/Mass Spectrometry

625 EPA Test Method Base/Neutrals and Acids - Method 625

8250 Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

8270 Semivolatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS)

CLPSV US EPA Contract Laboratory Program - GC/MS Analysis of Semivolatiles

Matrix

Matrix: Sample Matrix (SOIL or WATER). Methods 524, 525, 624, & 625 do not support the SOIL option.

The matrices have different parameters in the sample list; therefore, the existing sample list in the template is erased and must be rebuilt if a new matrix is selected. (The different matrix may have different compound criteria also. These must be adjusted by the operator as needed.)

The selection of the different matrix will take place upon closing the set-up window. (No file selection is needed to switch the matrix.)

Tune Criteria

The **Tune Criteria** form shows, and allows edit of the criteria used in generating Tune reports. There are ten sets of criteria, one for each of the EPA Method choices shown on the Select Method form. The method for which criteria are shown is displayed in the title bar.

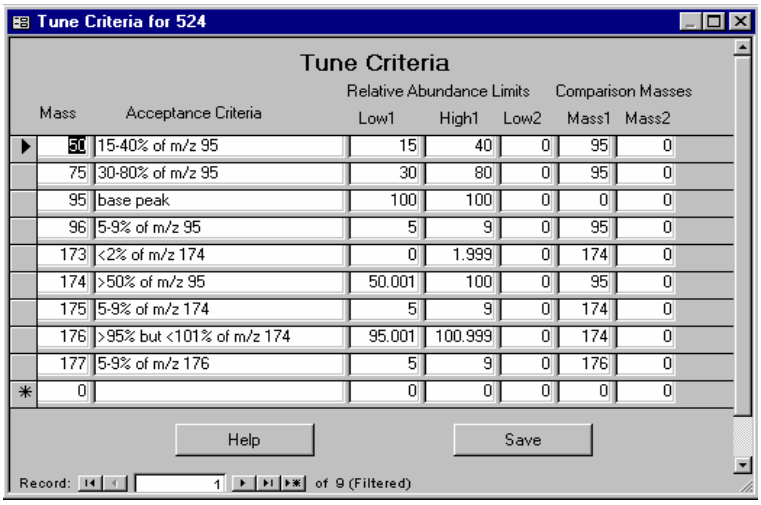
In Tune Reports, the tune acceptance criteria "PASS" if the ratio of the "Mass" intensity to the "Mass1" intensity, expressed as percentage, is greater than or equal to "Low1" and less than "High1". If "Mass2" is greater than zero, then the tune acceptance criteria will "PASS" if the "Mass1" ratio test passes or if the ratio of the "Mass" intensity to the "Mass2" intensity, expressed as percentage, is greater than the "Low2" value. If "Mass1" is zero, the base peak intensity is substituted for "Mass1" intensity.

To edit a field, left click with the cursor in the target field and type.

To add a criteria record, set up the * empty record at the end of the table.

To delete a criteria record, click the left mouse button with the cursor in the selector button at the left edge of the record to be deleted. Then strike the "Delete" key.

Changes are effective when the edited field loses the focus. There is no undo operation.



Mass

Mass is the m/z value whose intensity will be tested.

Acceptance Criteria

Acceptance Criteria is a text string describing the test criteria. This field is printed in Tune reports, but is not used in computing the criteria result.

"Low1"

Relative Abundance Limit **Low1** is the lower acceptance value for the ratio of "Mass" intensity to "Mass1" intensity, expressed as percentage. If the ratio is below this value the Tune Acceptance Criterion will FAIL.

"High1"

Relative Abundance Limit **High1** is the upper acceptance limit for the ratio of the intensity of "Mass" to the intensity of "Mass1", expressed as a percentage. If the ratio is equal to or above High1 value the Tune Acceptance Criterion will FAIL.

"Low2"

Relative Abundance Limit **Low2** is the lower acceptance value for the ratio of "Mass" intensity to "Mass2" intensity, expressed as percentage. If the ratio is below this value the Tune Acceptance Criterion will FAIL.

"Mass1"

The Comparison Masses **Mass1** value is the mass to charge ratio whose intensity is to be used in ratio testing against Low1 and High1. If this value is zero, the base mass intensity will be used.

"Mass2"

The Comparison Masses **Mass2** value is the mass to charge ratio whose intensity is to be used in ratio testing against Low2. If 0, the comparison of the ratio of "Mass" intensity to "Mass2" intensity will be will not be used in determining whether the Tune Acceptance Criterion status is PASS or FAIL.

Tune Report Setup

The selection of a tune file "locks" the tune criteria. The selected file will be tested against these criteria.

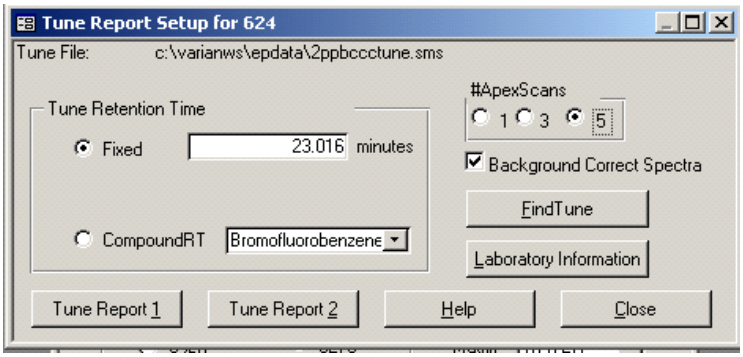
There are two ways to perform the tune test: Automatically or manually.

The selection of a spectrum (specifications for retention time, background correction and spectrum averaging) takes place here.

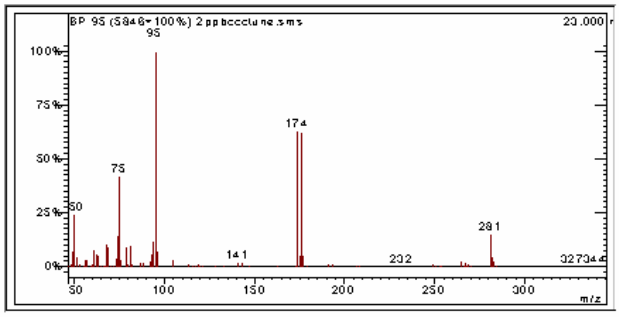
Tune Reports show the result of testing a spectrum from the tune data file against m/z abundance criteria specified in the EPA method. EnviroPro Tune reports cannot use profile mode data files.

Two different Tune Report options are available for viewing/printing.

Tune Report 2 configured on this form will also be reported as part of the Tune Summary Report.



BFB 524.2 Report



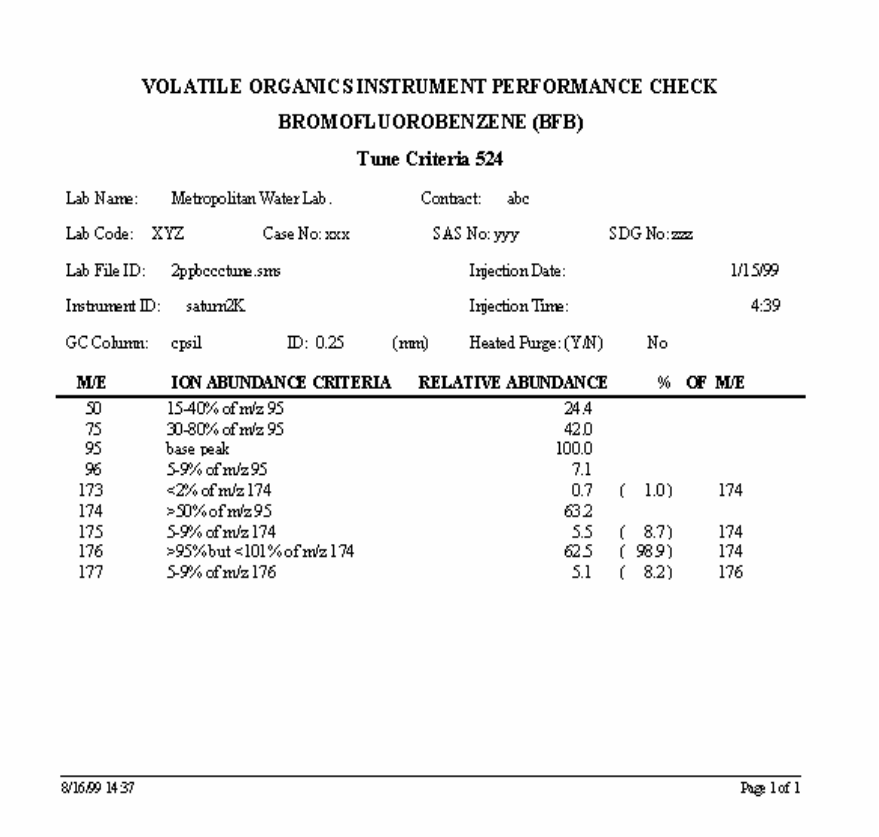
Lab File ID: 2ppbcccctune.sms

Injection Date: 1/15/99

Injection Time 4:39

Mass	Acceptance Criterion	Value	Pass/Fail
50	15-40% of m/z 95	24.36	PASS
75	30-80% of m/z 95	41.98	PASS
95	base peak	100.00	PASS
96	5-9% of m/z 95	7.13	PASS
173	<2% of m/z 174	1.03	PASS
174	>50% of m/z 95	63.21	PASS
175	5-9% of m/z 174	8.71	PASS
176	>95% but <101% of m/z 174	98.86	PASS
177	5-9% of m/z 176	8.16	PASS

Tune Report 1.



VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Tune Criteria 524

Lab Name: Metropolitan Water Lab. Contract: abc

Lab Code: XYZ Case No: xxx SAS No: yyy SDG No: zzz

Lab File ID: 2ppbccctune.sms Injection Date: 1/15/99

Instrument ID: saturn2K Injection Time: 4:39

GC Column: cpsil ID: 0.25 (mm) Heated Purge: (Y/N) No

M/E	ION ABUNDANCE CRITERIA	RELATIVE ABUNDANCE	%	OF M/E
50	15-40% of m/z 95	24.4		
75	30-80% of m/z 95	42.0		
95	base peak	100.0		
96	5-9% of m/z 95	7.1		
173	<2% of m/z 174	0.7	(1.0)	174
174	>50% of m/z 95	63.2		
175	5-9% of m/z 174	5.5	(8.7)	174
176	>95% but <101% of m/z 174	62.5	(98.9)	174
177	5-9% of m/z 176	5.1	(8.2)	176

8/16/99 14:37 Page 1 of 1

Tune Report 2.

Button

Find Tune

The passing scan(s) can be identified automatically using this feature. Once the Tune Retention Time is identified (either by selecting the Fixed time and entering the retention time or selecting the Compound RT) the system will monitor 20 scans before and 20 scans after the specified retention time. It will use background corrected spectra, but will vary spectrum averaging and “step through” the peak to find the passing tune until one is identified and will display a “Tune Report 1”. Upon closing the report display, the Retention time in the Fixed retention time window will be updated to the location where the passing tune was taken and the #ApexScans will display the averaging of the scans, identifying how the passing tune was generated. These parameters may be used to manually reproduce the passing tune. If no passing tune was identified, the system will display the results of scan(s) closest to the passing criteria.

Laboratory Information

Laboratory Information: Click this button to set up the Laboratory Information parameters. Laboratory Information parameters are reported in the Tune Report 2 header and selected other reports. The button opens up the same template

what is accessed from the main page. It can be edited here also before the tune report is printed.

Tune Report 1

Tune Report 1: Click Tune Report 1 button to preview the first tune report. This report displays the tune spectrum, and, for each tune criterion, the tested m/z value, a text description of the criterion, the test results, and whether the criterion was met.

Tune Report 2

Tune Report 2: Click Tune Report 2 to preview the second tune report. This report displays the laboratory and data file information in the header. The body of the report shows tested m/z value, the test criterion, and relative abundance information for the tested m/z value. This report is also incorporated in the Tune Summary Report.

Close

Close: Click this button to close the Tune Report Setup form.

Tune Retention Time group

Tune Retention Time Group: Tune criteria are tested against the spectrum at the time specified by this box.

If the **Fixed** radio button is selected, the spectrum nearest the time entered in the text box will be used.

If the **Compound RT** radio button is selected, the spectrum corresponding to the apex retention time of the specified target compound will be used. The drop down list in the combo box shows all available target compounds in the tune file quantitation results. Select the tune compound to report from this list.

When a report is generated using Compound RT option, the retention time and integration method channel specification used are set into the retention time and channel specification text boxes discussed above.

Apex Scans Box

Apex Scans Box: The average of 1, 3, or 5 spectral scans, centered at the retention time specified, may be used to generate the tune spectrum.

Background Correct Spectra

Background Correct Spectra: If the Background Correct Spectra checkbox is checked, the background correction points bounding the tune spectrum retention time will be used to background correct the tune spectrum. The background correction points may be manually edited in MS Data Review (Background menu).

Compound Information

This section contains the target analyte list, which was automatically imported from the selected ICC file. QA/QC criteria can be specified in this section for all or for selected target analytes.

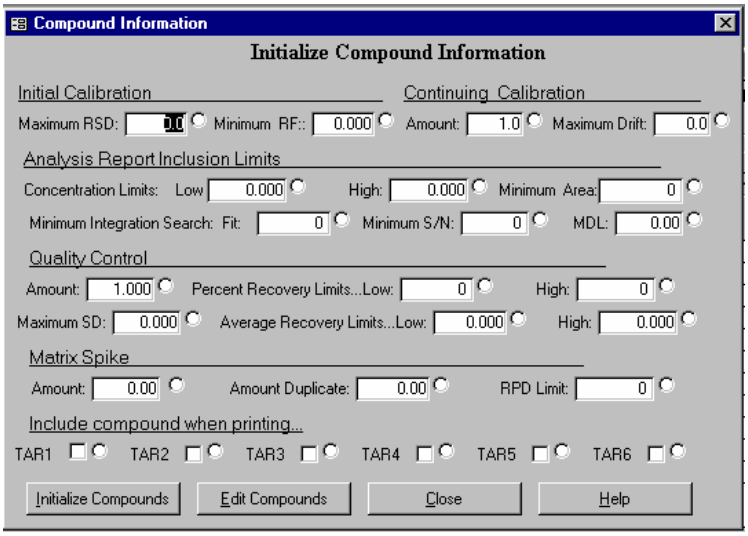
Criteria can be specified for:

1. Initial and Continuous Calibration
2. Analysis report inclusion limits
3. Quality Control
4. Matrix spike
5. Include compounds when printing Target Compound Reports

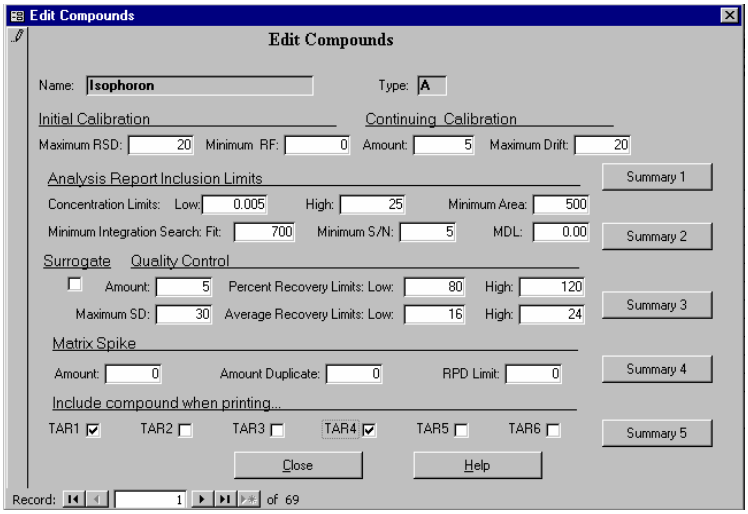
The first page of Compound Information is used to initialize selected fields to a particular value for all compounds in the EnviroPro Compound Table. To initialize selected fields, set the buttons to the right of the chosen fields to the True state (black dot in the middle), set the fields to the desired values, then click the Initialize Compounds button. To edit parameters of particular compounds, click the Edit Compounds button. In the Edit compound page all parameters can be edited for each compound, or using the Summary buttons, a selection of parameters can be viewed, edited and printed for all compounds.

The summary section is a convenience section. All parameters can be specified in the individual compound pages, or all can be set in the summary form. The Summary pages allow fill down/edit for easier set-up. (Many user prefer the Summary forms!)

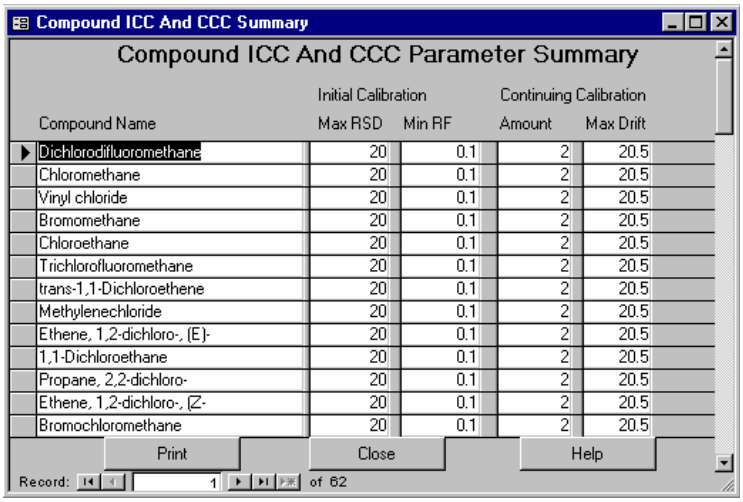
For more information or how and where these parameters are used, consult help for individual reports in Setup/Preview/Print Reports, Preview Target Compound Reports, and Report Options.



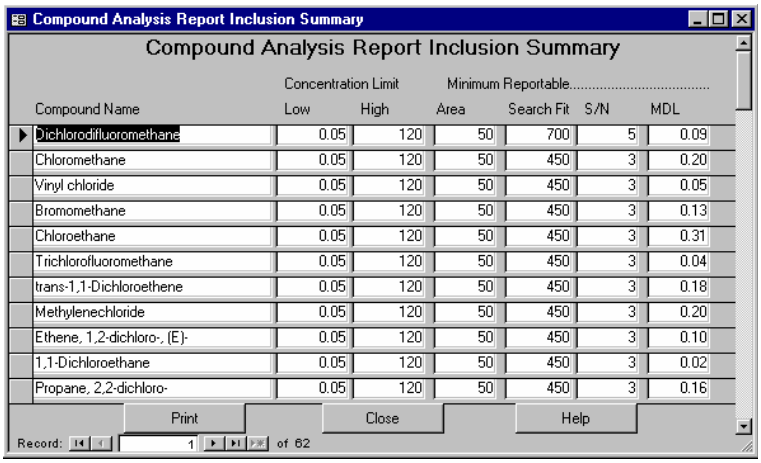
Initialize Compound Information page



Edit Compounds page



Compound Calibration Summary page (Summary 1)



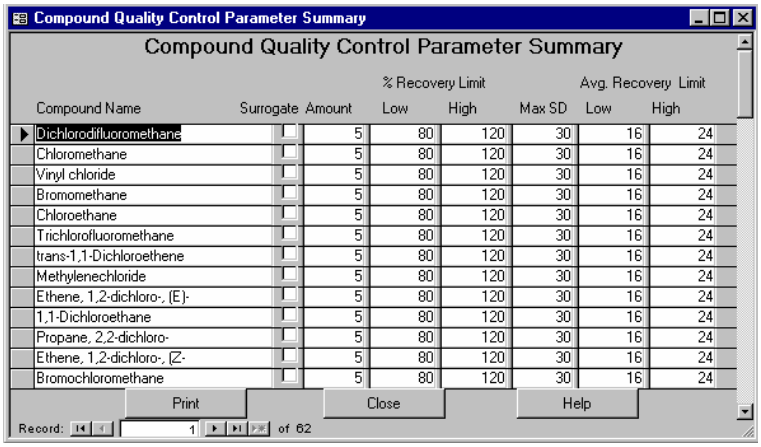
Compound Analysis Report Inclusion Summary

Compound Name	Concentration Limit Low	Concentration Limit High	Minimum Reportable Area	Minimum Reportable Search Fit	Minimum Reportable S/N	Minimum Reportable MDL
Dichlorodifluoromethane	0.05	120	50	700	5	0.09
Chloromethane	0.05	120	50	450	3	0.20
Vinyl chloride	0.05	120	50	450	3	0.05
Bromomethane	0.05	120	50	450	3	0.13
Chloroethane	0.05	120	50	450	3	0.31
Trichlorofluoromethane	0.05	120	50	450	3	0.04
trans-1,1-Dichloroethene	0.05	120	50	450	3	0.18
Methylenechloride	0.05	120	50	450	3	0.20
Ethene, 1,2-dichloro-, (E)-	0.05	120	50	450	3	0.10
1,1-Dichloroethane	0.05	120	50	450	3	0.02
Propane, 2,2-dichloro-	0.05	120	50	450	3	0.16

Print Close Help

Record: 1 of 62

Compound Analysis Report Inclusion Summary (Summary 2)



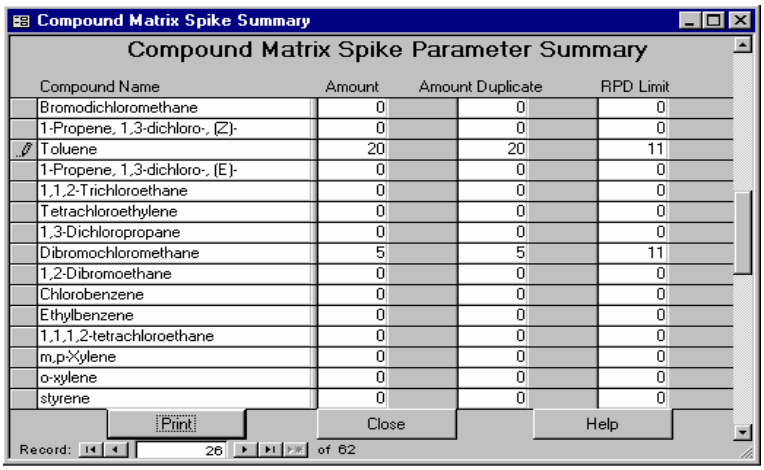
Compound Quality Control Parameter Summary

Compound Name	Surrogate	Amount	% Recovery Limit Low	% Recovery Limit High	Max SD	Avg. Recovery Limit Low	Avg. Recovery Limit High
Dichlorodifluoromethane		5	80	120	30	16	24
Chloromethane		5	80	120	30	16	24
Vinyl chloride		5	80	120	30	16	24
Bromomethane		5	80	120	30	16	24
Chloroethane		5	80	120	30	16	24
Trichlorofluoromethane		5	80	120	30	16	24
trans-1,1-Dichloroethene		5	80	120	30	16	24
Methylenechloride		5	80	120	30	16	24
Ethene, 1,2-dichloro-, (E)-		5	80	120	30	16	24
1,1-Dichloroethane		5	80	120	30	16	24
Propane, 2,2-dichloro-		5	80	120	30	16	24
Ethene, 1,2-dichloro-, (Z-		5	80	120	30	16	24
Bromochloromethane		5	80	120	30	16	24

Print Close Help

Record: 1 of 62

Compound Quality Control Parameter Summary (Summary 3)



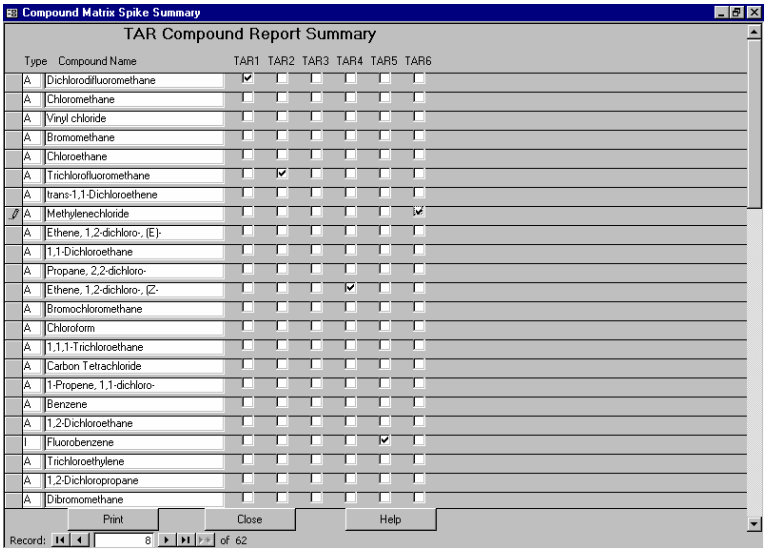
Compound Matrix Spike Parameter Summary

Compound Name	Amount	Amount Duplicate	RPD Limit
Bromodichloromethane	0	0	0
1-Propene, 1,3-dichloro-, (Z)-	0	0	0
Toluene	20	20	11
1-Propene, 1,3-dichloro-, (E)-	0	0	0
1,1,2-Trichloroethane	0	0	0
Tetrachloroethylene	0	0	0
1,3-Dichloropropane	0	0	0
Dibromochloromethane	5	5	11
1,2-Dibromoethane	0	0	0
Chlorobenzene	0	0	0
Ethylbenzene	0	0	0
1,1,1,2-tetrachloroethane	0	0	0
m,p-Xylene	0	0	0
o-xylene	0	0	0
styrene	0	0	0

Print Close Help

Record: 26 of 62

Compound Matrix Spike Parameter Summary (Summary 4)



TAR Compound Report (print) Selection Summary (Summary 5)

Buttons: Compound Information

Initialize Compounds

When the **Initialize Compounds button** is clicked the form is scanned for fields, which have the radio button to their immediate right selected. The value set for each such field is copied into the corresponding field of each entry in the compound table.

Edit Compounds

When the **Edit Compounds button** is clicked, the Initialize Compounds form is closed and the Edit Compound form is opened, allowing edits to the fields of individual compound records.

Close

When the **Close** button is clicked, the Initialize Compounds form is closed, returning control to the Main form.

Initial Calibration Text Boxes

During Initial Calibration the quality of the calibration is checked.

Two parameters can be specified here:

1. Maximum RSD
2. Minimum RF

Maximum RSD

Maximum % RSD - Maximum percent relative standard deviation of relative response factors at the different levels in the initial calibration set for the calibration to be acceptable.

NOTE: **Some methods allow linear quadratic, and cubic curve fitting for quantitation**. Select the "Include COD (r^2) in Initial Calibration" report in the Report Options section if other than the average RRF calculation is used during quantitation. If selected, the COD values will be printed on the ICC report.

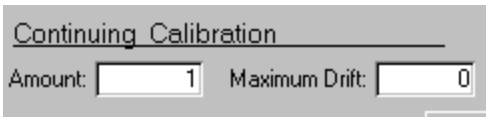
Minimum RF

Minimum RF - Minimum relative response factor acceptable for Initial Calibration and continuing calibration reports.

Continuing Calibration Text Boxes

In this section the daily (or other periodic) single point calibration results are compared to the initial calibration data. Criteria can be specified for:

1. Amount
2. Maximum Drift



Amount

Amount - Known amount or concentration of compound injected in continuing calibration check samples (in the units used for the initial calibration).

Maximum Drift

Maximum Drift - The maximum allowed absolute value of the expression:

100*(ci - cc)/ci

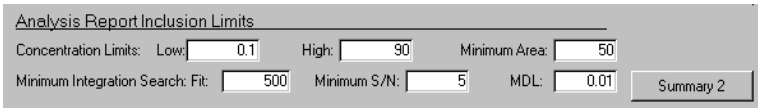
where ci is either the average relative response factor from the initial calibration or the known concentration in the sample and cc is either the measured relative response factor for this sample or the measured concentration for this sample, depending on the report type. In continuing calibration reports, the relative response factors are used in SPCC reports concentrations.

Analysis Report Inclusion Limits Text Boxes

Certain results will not be included in the report or will be marked if they are outside the reporting specification listed in this section. Criteria can be specified for:

1. Concentration Limits
2. Minimum Area

3. Minimum Integration Search Fit
4. Minimum S/N
5. MDL



Concentration Limits: Low-High

Concentration Limits: Low, High: The lowest and highest concentrations for reporting purposes. Concentrations outside these limits may be excluded or flagged for reporting purposes. It is suggested that the low concentration be set at the minimum detectable concentration limit or the lowest concentration calibration level, and the high limit be set at the highest concentration calibration level.

Amounts below the report threshold specified in the workstation method (.mth) / Compound table/ Calculation section will not be reported. Make sure that the report thresholds specified in the workstation method are compatible with the concentration "low" limit specified here.

NOTE: The Low Concentration Limit, not the MDL is used in report MRL columns controlled by the "Show Minimum Amount Limits" report option.

Minimum Area

Minimum Area- The minimum area (counts) below which a compound may be excluded.

Area below the Peak area rejects value specified in the workstation method (.mth) / Compound table/ Integration section will not be reported. Make sure that the Peak area reject values in the workstation method are compatible with the minimum area specified here.

Minimum Integration Search Fit

Minimum Integration Search Fit: The minimum degree of spectral match between the calibration file spectrum and the quantitation file for inclusion in the report. Perfect fit =1000. The search result compared to this parameter is set during quantitation by Varian MS integration using Search by Mass Spectrum.

Compounds below the Spectral match threshold value specified in the workstation method (.mth) / Compound table/ Identification section will not be reported. Make sure that the Spectral match threshold values in the workstation method are compatible with the minimum Integration Search fit parameters specified here.

Minimum S/N

Minimum S/N: The actual S/N of a peak is recorded during quantitation by Varian MS Workstation integration search by time. A peak with an actual signal to noise value below this threshold may be excluded from quantitation reports.

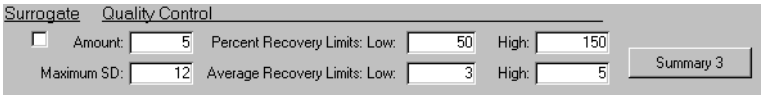
MDL

MDL: Minimum Detection Level. This field may either be computed and set during preview of the MDL Summary report, or manually set. Peaks below this value may be reported as being "Below MDL".

Quality Control Text Boxes

Certain results will not be included in the report or will be marked if they are outside the reporting specification listed in this section. Criteria can be specified for:

1. Amount
2. Percent Recovery Limits (Low/High)
3. Maximum SD
4. Average Recovery Limits (Low/High)



Amount

Amount: The known concentration of the compound in the sample in reporting units. Is used to compute recovery.

Percent Recovery Limits: Low-High

Percent Recovery Limits: Low/High: These limits are set to the minimum and maximum recovery allowed by the method for the analysis to be considered within control limits. These limits are also used by the matrix spike, matrix spike duplicate report, and by the matrix spike recovery report.

Maximum SD

Maximum SD: Set to the method maximum standard deviation (in concentration reporting units) allowed for the compound. Used when reporting summaries of QC Samples.

Average Recovery Limits: Low-High

Average Recovery Limits: Low and High: Set to the lowest and highest acceptable recovery (in units of reported concentration) allowed by the method for quality control samples.

Matrix Spike Text Boxes

Criteria set for matrix spike and matrix spike duplicate recovery acceptance. Criteria can be set for:

1. Amount
2. Amount Duplicate

3. RPD Limit

Amount

Amount: Known concentration of the spike in a spiked matrix sample for the Matrix Spike/Matrix Spike Duplicate Recovery Report. It is also the concentration of the spike in samples included in the Matrix Spike Recovery Summary Report. Applies to samples coded as Sample Type 1.

Compounds with 0 for this parameter will not be reported in either report type.

Amount Duplicate

Amount Duplicate: Known concentration of the spike in a spiked matrix duplicate sample. Applies only to Matrix Spike/Matrix Spike Duplicate reports. Applies to samples coded as Sample Type 2.

Compounds with 0 for this parameter will not be reported.

RPD Limit

RPD Limit: The method QC limit for relative percent difference between the matrix spike recovery and the matrix spike duplicate recovery. Applies only to Matrix Spike/Matrix Spike Duplicate reports.

Include Compounds When Printing Target Reports

When printing any of the 6 available target reports, one page is dedicated to each target compound. Very often it is not needed to generate the target compound reports for each target analyte but it is desirable to print it for some. The selection or omission of the target compound report type (TAR1-TAR6) for each compound will allow the printing of the desired reports for only the selected analytes. TAR reports not marked will not be printed during batch processing. (They still may be printed in manual mode.)

Edit Compounds

Edit Compounds allows review and edit of information about individual compounds in the EnviroPro Compound Table. The number of compounds, their ordering, and the compound name and type are read from the Initial Calibration file when the Initial Calibration is set. They cannot be edited. Any other field may be edited for each compound. Data entered here control whether compounds appear in specific reports and whether reported concentrations, response factors, and recoveries are within acceptance bounds for various types of reports.

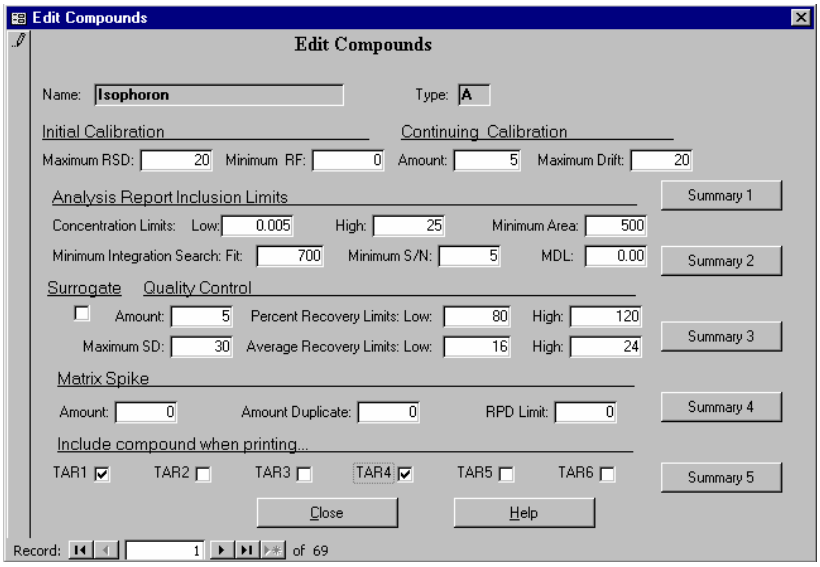
The criteria accessed in this page and specified in the first page of the Compound information section are identical. The only difference is the selection of the surrogate compounds in the "edit" section. (Obviously, all components can not be surrogates.) Criteria can be specified for:

1. Initial and Continuous Calibration
2. Analysis report inclusion limits
3. Quality Control
4. Matrix spike
5. Surrogate specification(s)
6. Target compound report printing

Beside the individual pages, where parameters for each analytes can be specified, there are 5 Summary pages where selected parameters can be edited, previewed or printed for all compounds.

The summary section is a convenience section, all parameters can be specified in the individual compound pages, or all can be set in the summary form

For details, see help for the specific fields listed below. See help for Report Options and help for specific report preview buttons in Setup/Print/Preview Reports and Preview Target Compound Reports for more information.



Buttons: Edit Compounds

Summary 1

Opens the edit and/or review page for the Initial and continuing calibration entries for all compounds

Summary 2

Opens the edit and/or review page for the Analysis Report Inclusion Limit entries for all compounds

Summary 3

Opens the edit and/or review page for Quality Control entries for all compounds

Summary 4

Opens the edit and/or review page for the Matrix Spike information entries for all compounds

Summary 5

Opens the edit and/or review of target compound selection for automated, batch printing by the various target compound reports formats (TAR1-TAR6). Only compounds marked for report(s) will be printed.

Close

Close: Click the close button to close the Edit Compounds form.

Text Boxes

Name

The **Name** field is the compound name as read from the Varian MS Workstation Method. This field is not editable in EnviroPro

Type

The **Type** field is not editable in EnviroPro. It designates the sample type as one of the following:

A - Analyte quantitated by an internal standard method.

E - Analyte quantitated by an external standard method.

I - Internal Standard compound.

Initial Calibration Text Boxes

During Initial Calibration the quality of the calibration is checked.

Two parameters can be specified here:

1. Maximum RSD
2. Minimum RF

Maximum RSD

Maximum % RSD - Maximum percent relative standard deviation of relative response factors in the initial calibration replicate set for the calibration to be acceptable.

[Some methods allow linear, quadratic or cubic curve fitting for quantitation. Select the "Include COD (r^2) in Initial Calibration" in the Report Options section if other than the average RRF calculation is used during quantitation. If selected, the COD (r^2) will be printed on the ICC report.]

Minimum RF

Minimum RF - Minimum relative response factor acceptable for Initial Calibration and continuing calibration reports.

Continuing Calibration Text Boxes

In this section the daily (or other periodic) single point calibration results are compared to the initial calibration data. Criteria can be specified for:

1. Amount
2. Maximum Drift

Amount

Amount - Known amount or concentration of compound injected in continuing calibration check samples (in the units used for the initial calibration).

Maximum Drift

Maximum Drift - The maximum allowed absolute value of the expression:

100*(ci - cc)/ci

where ci is either the average relative response factor from the initial calibration or the known concentration in the sample,

and cc is either the measured relative response factor for this sample or the measured concentration for this sample, depending on the report type. In continuing calibration reports, use relative response factors. In SPCC reports, use concentrations.

Analysis Report Inclusion Limits Text Boxes

Certain results will not be included in the report or will be marked if they are outside the reporting specification listed in this section. Criteria can be specified for:

1. Concentration Limits
2. Minimum Area
3. Minimum Integration Search Fit
4. Minimum S/N
5. MDL

Concentration Limits: Low-High

Concentration Limits: Low, High: The lowest and highest calibrated concentrations for reporting purposes. Concentrations outside these limits may be excluded or flagged for reporting purposes. It is suggested that the low concentration be set at the minimum reportable concentration limit or the lowest concentration calibration level, and the high limit be set at the highest concentration calibration level. (NOTE: The Low Concentration Limit, not the MDL is used in report MRL columns controlled by the "Show Minimum Amount Limits" report option.)

Amounts below the report threshold specified in the workstation method (.mth) / Compound table/ Calculation section will not be reported. Make sure that the report thresholds specified in the workstation method are compatible with the concentration "low" limit specified here.

Minimum Area

Minimum Area- The minimum area (counts) below which a compound may be excluded.

Area below the Peak area rejects value specified in the workstation method (.mth) / Compound table/ Integration section will not be reported. Make

sure that the Peak area reject values in the workstation method are compatible with the minimum area specified here.

Minimum Integration Search Fit

Minimum Integration Search Fit:- The minimum degree of spectral match between the calibration file spectrum and the quantitation file for inclusion in the report. Perfect fit =1000. The search result compared to this parameter is set during quantitation by Varian MS Workstation integration using Search by Mass Spectrum.

Compounds below the Spectral match threshold value specified in the workstation method (.mth) / Compound table/ Identification section will not be reported. Make sure that the Spectral match threshold values in the workstation method are compatible with the minimum Integration Search fit parameters specified here.

Minimum S/N

Minimum S/N: The actual S/N of a peak is recorded during quantitation by Varian MS Workstation integration search by time. A peak with an actual signal to noise value below this threshold may be excluded from quantitation reports.

MDL

MDL: Minimum Detection Level. This field may either be computed and set during preview of the MDL Summary report, or manually set. Peaks below this value may be reported as being "Below MDL".

Surrogate Text Box

Surrogate Check Box: If this box is checked (true), this compound is treated as a Surrogate.

Quality Control Text Boxes

Certain results will not be included in the report or will be marked if they are outside the reporting specification listed in this section. Criteria can be specified for:

1. Amount
2. Percent Recovery Limits (Low/High)
3. Maximum SD (Low /High)
4. Average Recovery Limits

Amount

Amount: The known concentration of the compound in the sample in reporting units. Is used to compute recovery.

Percent Recovery Limit: Low-High

Percent Recovery Limits: Low/High: These limits are set to the minimum and maximum recovery allowed by the method for the analysis to be considered within control limits. These limits are also used by the matrix spike, matrix spike duplicate report, and by the matrix spike recovery report.

Maximum SD

Maximum SD: Set to the method maximum standard deviation (in concentration reporting units) allowed for the compound. Used when reporting summaries of QC Samples.

Average Recovery Limit: Low-High

Average Recovery Limits: Low and High: Set to the lowest and highest allowed recovery (in units of reported concentration) allowed by the method for quality control samples.

Matrix Spike Text Boxes

Criteria set for matrix spike and matrix spike duplicate recovery acceptance. Criteria can be set for:

1. Amount
2. Amount Duplicate
3. RPD Limit

Amount

Amount: Known concentration of the spike in a spiked matrix sample for the matrix spike/matrix spike duplicate. It is also the concentration of the spike in the Matrix Spike Recovery Samples. Applies to samples coded as Sample Type 1.

Compounds with 0 for this parameter will not be reported in either report type.

Amount Duplicate

Amount Duplicate: Known concentration of the spike in a spiked matrix duplicate sample. Applies only to Matrix Spike/Matrix Spike Duplicate reports. Applies to samples coded as Sample Type 2.

Compounds with 0 for this parameter will not be reported.

RPD Limit

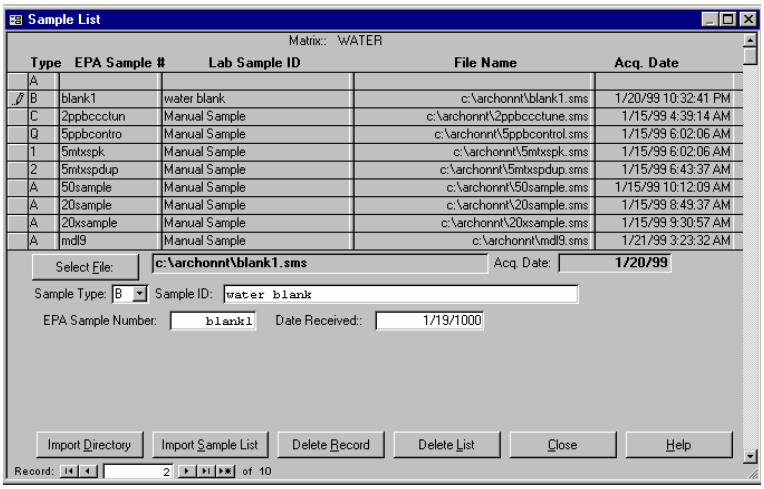
RPD Limit: The method QC limit for relative percent difference between the matrix spike recovery and the matrix spike duplicate recovery. Applies only to Matrix Spike/Matrix Spike Duplicate reports.

Include Compounds When Printing Target Reports

When printing any of the 6 available target reports, one page is dedicated to each target compound. Very often it is not needed to generate the target compound reports for each target analyte but it is desirable to print it for some. The selection or omission of the target compound report type (TAR1-TAR6) for each compound will allow the printing of the desired reports for only the selected analytes. TAR reports not marked will not be printed during batch processing. (They still may be printed in manual mode.)

TAR compounds missing will not be printed in graphic form.

Sample List



The datafiles to be reported and their attributes are identified in this section.

Selection of files:

Files may be added to this list by any of the following methods:

1. Add all files from a selected directory that are compatible with the ICC file.
2. Add all files from a Recalc List that are compatible with the ICC file
3. Select a single data file

Type of files

The type of each file selected is must be set. The default type is "A" or analysis. Other types are Blank, Quality Control, CCC, Spike matrix, Matrix spike, Matrix spike duplicate. The type specifies how the file will be treated in all types of summary reports

Other attributes

The Sample List controls parameters specific to a single data file or sample. The parameters shown on this form depend on the current EPA Method, matrix, and level selected. Information entered here is shown on various report headers. The Sample Type parameter determines how each file is used in reports.

Reports can only be based on data files that are present in the sample list. (Tune file and ICC files are the only exemptions.)

The File name and Acq. date fields are not directly editable and are automatically extracted from the selected files. The Sample ID field is the same as the sample name (see the Sample name filed in the System Control Sample List) entered for a given file in manual control or in automation prior to acquisition. This field can be edited as desired. EPA Sample Number also can be edited. If no EPA Sample

Number is specified for a file, the default will be the sample file name automatically imported from the data file.

It is possible to set up an EnviroPro sample list for files not yet acquired. This sample list can be used to facilitate generation of reports immediately after data acquisition, when using AutoLink to call EnviroPro. See the Automation section of this manual and the Sample ID help topic for details.

Buttons: Sample List

Import Directory

Import Directory: When the Import Directory button opens a dialog to select a directory, all Varian MS Workstation data files (*.sms or .xms) in the selected directory are scanned. Those files that are compatible with the Initial Calibration file are added to the end of the Sample List. Files are always compatible if the same calibrated and unmodified Varian MS Workstation method has been used to quantitate them as analysis samples as it was used to generate the Initial calibration.

Fields not imported from stored data file parameters are set to the values stored in the first entry in the sample list. The exception is Sample Type, which is always initialized to "A". **Therefore, if the sample prep information is identical for all the samples, set the sample information parameters on the first line before importing the directory. This will allow the automatic propagation of the sample prep information to all imported samples files.**

Import Recalc List

Import Recalc List: Clicking the Import Recalc List button opens a dialog to select a Recalc List (*.rcl) file. Once a Recalc List file is selected, Varian MS Workstation files in it will be scanned for compatibility with the Initial Calibration file. If found compatible, files are appended to the end of the Sample List. Files are always compatible if the same calibrated and unmodified Varian MS Workstation method has been used to quantitate them as analysis samples as it was used for the ICC.

Fields not set from stored data file parameters are set to the values stored in the first entry in the Sample List. The exception is Sample Type, which is always initialized to "A". Therefore, if the sample prep information is identical for all the samples, set the sample information parameters on the first line before importing the directory. This will allow the automatic propagation of the sample prep information to all imported samples files.

Delete Record

Clicking the **Delete Record button** will delete (or clear) the currently selected record in the Sample List.

Delete List

Clicking the **Delete List button** will delete all files in the Sample List.

Close

Clicking the **Close** button will close the form.

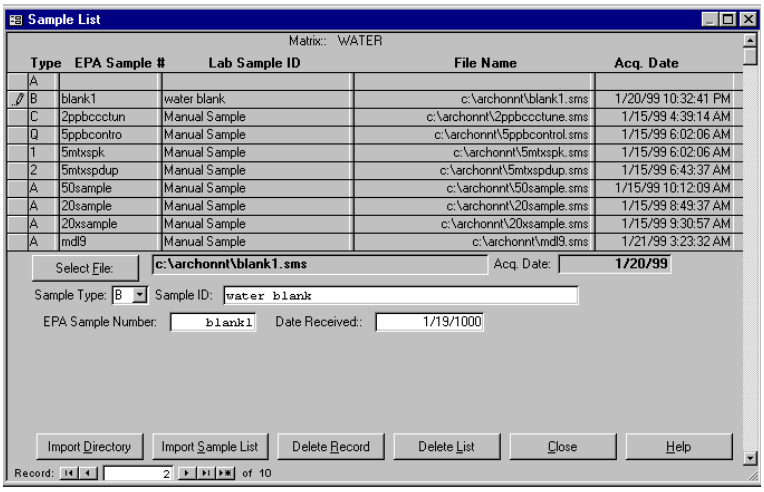
Select File

Click the **Select File button** to open the Select File dialog. Use this dialog to select a data file for this entry in the Sample List. (Only files collected in the centroid mode will be processed.) The file selected should already have been quantitated using the same Varian MS Workstation Method used to quantitate the file listed as the Initial Calibration file.

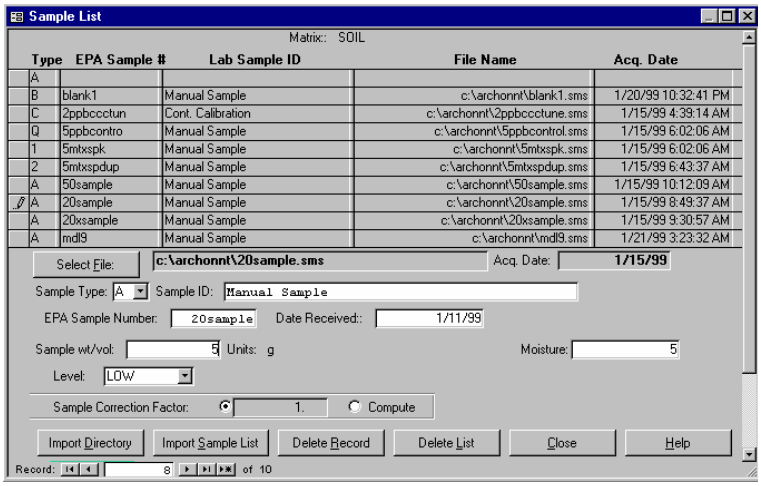
NOTE: Make sure that the arrow at the left of the sample list table is at an empty line when selecting a new file, otherwise the existing sample entry will be overwritten by the newly selected file.

Fields: Sample List

The shown fields will be dependent on the selected method and matrix.



Sample List page: Fields for 524 method; water is the only allowed matrix.



Sample List page: Fields for the CLPVOA method, soil matrix

File Name

The **File Name** field shows the full path name of the Varian MS Workstation data file. This file name is not directly editable, automatically read from the selected file. Click the Select File button to the left of this text box to change this field (by selecting a new file).

Acq. Date

Acq. Date is date of the data file acquisition, as read from the data file. It is not editable.

Sample Type

Sample Type - This field controls the use of the sample record in generating reports. It defaults to "A" (Analysis Sample). The allowed values are:

A - Analysis sample of unknown composition.

B - Blank file. Compounds reported in this sample may be flagged on all analytical samples when using the "Include CLP like letter codes" report option. (analytes being present in the Blank at detectable quantities) This file is also listed on the Blank summary report as the method blank. Only one file in the sample list should be of this type.

C - Continuing Calibration Check (CCC) sample. This should be the standard concentration sample analyzed to confirm validity of the initial calibration. It is the Control Sample in the Control Sample Summary report. Only one file in the sample list should be of this type. The concentrations of compounds in this sample type are entered in the Compound Edit form in the Continuing Calibration Amount field.

Q - Quality control sample. There may be multiple samples in the Sample List with this sample type. All samples with this type are used to generate the MDL Summary Report and/or the QC Recovery Summary Report. The compound concentrations for this sample type are entered in the Compound Edit form in the Quality Control Amount field.

S - Spike Matrix. This is the unspiked matrix used to prepare the Matrix Spike (Sample Type: 1^{st} spike) and Matrix Spike Duplicate (Sample Type: 2^{nd} spike) sample(s). There should not be more than one sample of this Sample Type in a sample list.

1 - Matrix Spike. This sample type may be used for multiple files. The spike concentration of compounds should be entered in the Matrix Spike Amount field of the Compound Edit form. Up to 30 samples of this type may be used to generate a Matrix Spike Recovery Report, or a single sample of this type may be reported on the Matrix Spike/Matrix Spike Duplicate Report.

2 - Matrix Spike Duplicate. No more than one of this type sample should be in the sample list. Enter the amounts of compounds in this sample in the Matrix Spike Amount Duplicate field of the Compound Edit form. This sample type is used by the Matrix Spike/Matrix Spike Duplicate Summary Report.

Sample ID

Sample ID: This field corresponds to the Sample Name field of the Varian MS Workstation- System Control- Sample List. When the Select File button is used

to choose a data file and this field is empty, the Sample Name from the file will be set in this field. If the Sample ID field is not empty, the field content will not be changed by this operation. This field may be manually edited at any time.

When the Import Directory or Import Recalc List buttons are used, this field will always be set to the Sample Name stored in the data file.

This field is used to identify sample parameters during AutoLink invocation of EnviroPro reports during System Control processing of Sample Lists. When a file is handed to EnviroPro by a MS Workstation Toolbar print button or a System Control AutoLink call, the file name is compared to all filenames in the EnviroPro sample list. If a match is found, EnviroPro uses that matching sample entry to prepare reports. If a match is not found, EnviroPro searches for a Sample ID matching the data file Sample Name, and, if found, uses that sample list entry. If all else fails, the first sample entry in the list is used.

As long as each Sample ID is unique in the sample list, and only one file with each Sample ID is processed, the EnviroPro sample list may be set up before data files are acquired, and EnviroPro used to generate reports immediately after data acquisition. If a duplicated Sample Name is presented to EnviroPro, EnviroPro will overwrite the Sample List Entry of the first Sample ID found which matches the file Sample Name.

EPA Sample Number

EPA Sample Number: This is a ten character alphanumeric field that is printed in report headers. It can be used to report customer sample identifiers.

Received Date

Date Received: Date sample was received. Date may be entered in any Windows date format, but it will be translated to the short date format xx/xx/yy. (month/day/year)

Extracted Date

Date Extracted: Date sample was extracted. Date may be entered in any Windows date format, but it will be translated to the short date format xx/xx/yy. (month/day/year)

Sample wt/vol

Sample wt/vol: Sample amount, in the units shown. (Units are automatically selected based on the method and matrix selected.)

Dilution Factor

Dilution Factor, as defined for the EPA Method, Matrix, and Level in use. Default value =1.0 (no dilution)

Moisture

Moisture: Percent moisture in soil sample, if concentrations are to be reported on dry weight basis. Enter 0 if reporting on wet weight basis.

Dry Weight

Dry Weight: May be entered either as dry weight fraction or % dry weight. To enter % value, append % to end of entry. Displayed as % dry weight.

Level

Level: For SOIL matrices only, enter LOW or MED. WATER matrices are always LOW.

Extract Vol

Extract Volume: Volume of the concentrated extract.

Injection Vol

Injection Volume: The volume of extract added to the purge container.

GPC Cleanup (Y/N)

GPC Cleanup (Y/N): Yes or No

Decanted (Y/N)

Decanted (Y/N) Yes or No

pH

pH: pH value

Sample Correction Factor

Sample Correction Factor: "Ignore"(Text Box) or "Compute", selected by radio button.

Ignore (Text Box) - The concentrations reported on EnviroPro reports are read directly from Varian MS data files. The parameters entered on the Sample Edit form are used to annotate report headers, but do not affect computed concentration values.

The text box displays the value of the multiplier/divisor ratio read from the data file. The multiplier and divisor were read from the sample list or recalc list when the data file was last processed by data handling.

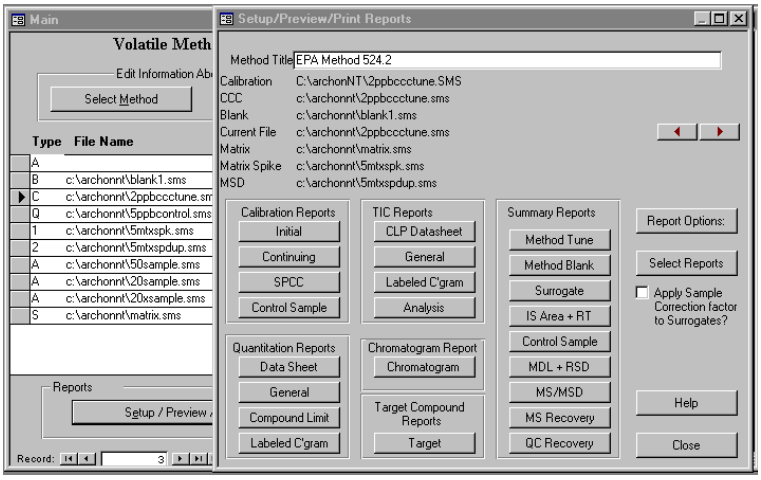
When this option is selected, the value shown in the text box when a data file is ready for reporting should match the sample correction factor computed from the sample parameters entered in the sample list. If they do not match, the CLP like letter code "S" will be printed on reports if the Report Option parameter "Include CLP like letter codes" is set True. If this option is selected the parameter "Apply Sample Correction factor to Surrogates?" has no effect.

Compute - The analyte concentrations reported on EP4 reports are computed from the concentrations read from Varian MS data files by multiplying by the sample correction factor. The sample correction factor is computed from the data entered on the EnviroPro Sample List form.

If this option is selected, the value shown in the text box should be 1. (i.e. The multiplier and divisor parameters in the Varian MS Workstation sample list or recalc list were 1 (default values) when the data file was last processed by Varian MS Workstation data handling.). If it is not one, the CLP like letter code "S" will be printed in report concentration fields when the Report Option parameter "Include CLP like letter codes" is set True.

If "Apply Sample Correction factor to Surrogates" is true, surrogate compound concentrations read from the Varian MS data file are multiplied by the sample correction factor, otherwise the surrogate compound concentrations read from the Varian MS data file are reported without modification.

Setup/Preview/Print Reports



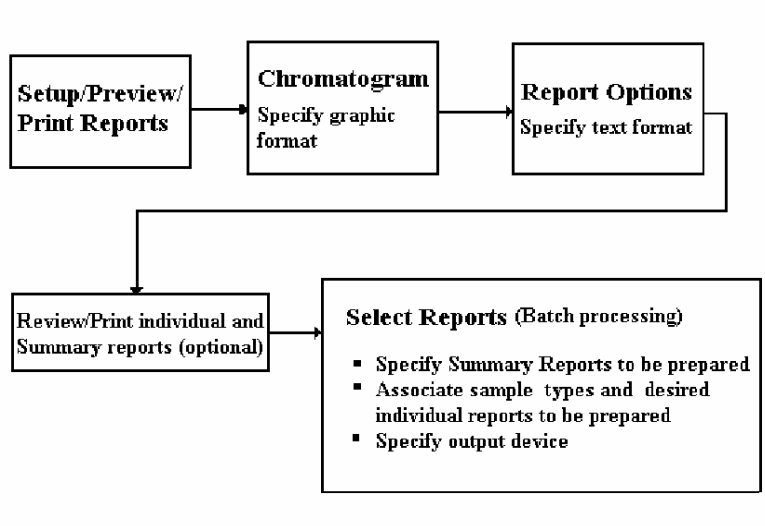
The Setup/Preview/Print Report page. (The sample list page is in the background)

To review this page, the other sections of the template, including the sample list already have to be completed. (The Initial Calibration and Tune criteria report are the only reports, which can be viewed without completing the sample list, since those files are specified in the "Select Method" section.)

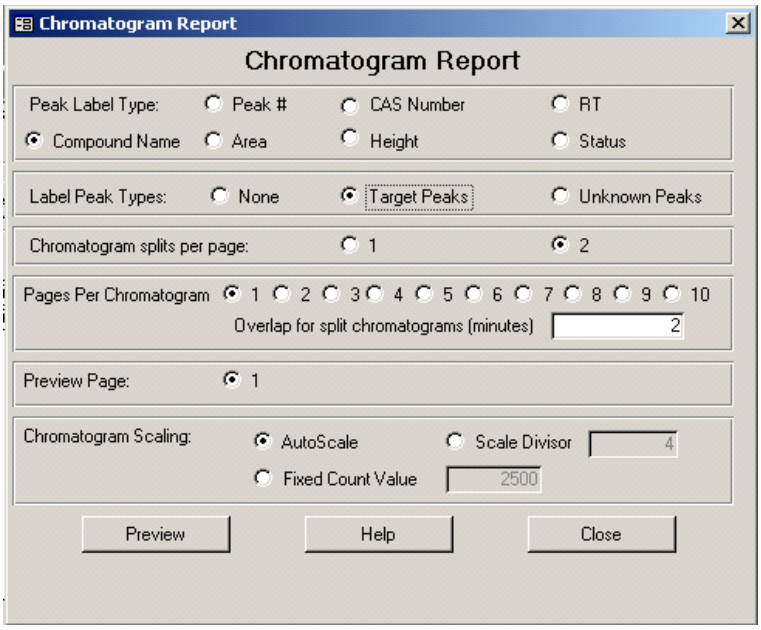
The files shown at the top of this page were selected by setting the Initial Calibration file in "Select Method" and by specifying the appropriate sample type in the Sample list page. To see the source file, sample types, and report options controlling specific reports, refer to help for the specific report button described in this section.

While previewing the individual reports, the current file (displayed in the top part of the page) is the base for the reports. To switch to a different file within the sample list, use the red arrows (upper right corner) to select the next or previous file for review.

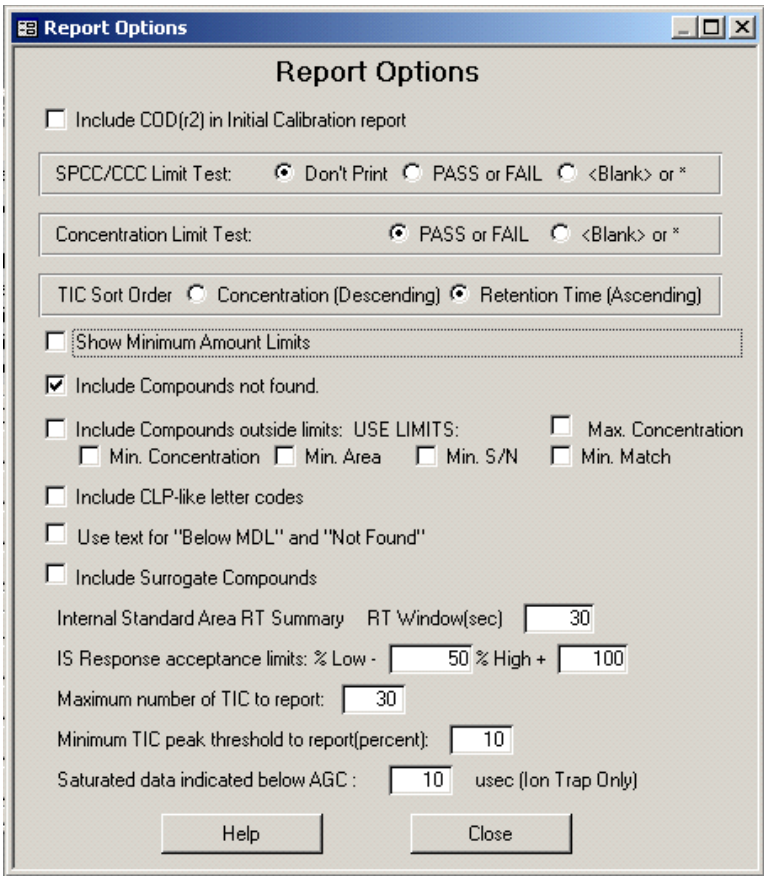
To obtain the right report in the right format, follow the actions outlined in the figure below.



Order of configuring the Setup/Preview/Print page

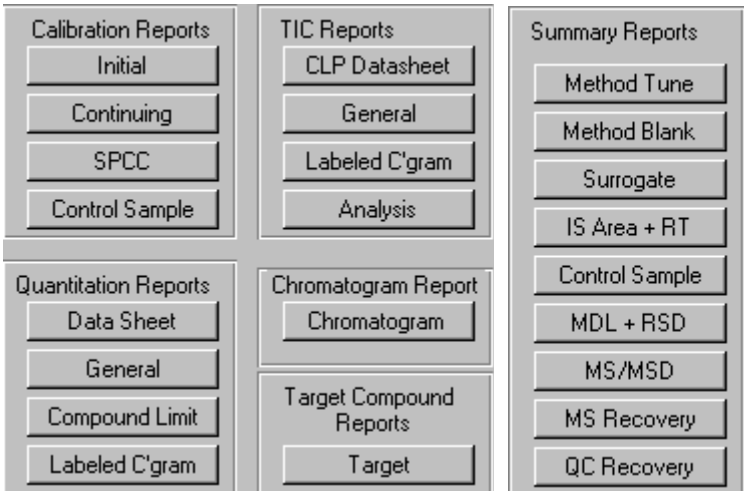


#1. Clicking on the CHROMATOGRAM Button allows the selection of graphic formatting options



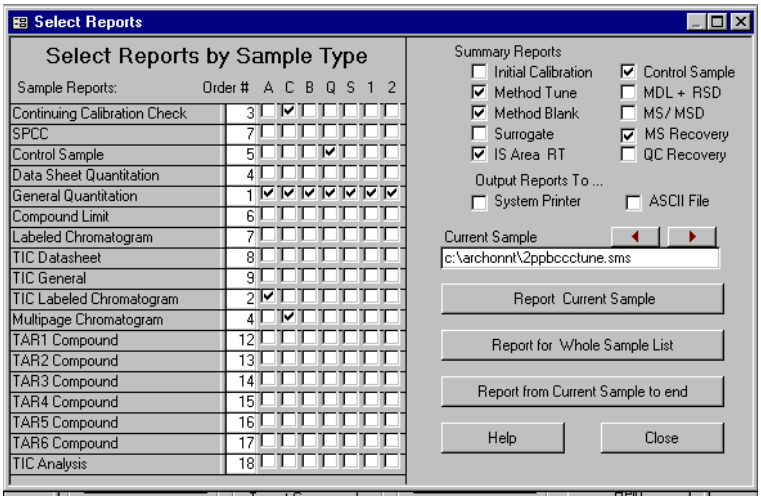
#2. Clicking on the Report Option Button allows the selection of text formatting options

After specifying the reporting options the individual and summary reports may be reviewed.



#3. Individual report review *Summary report review*

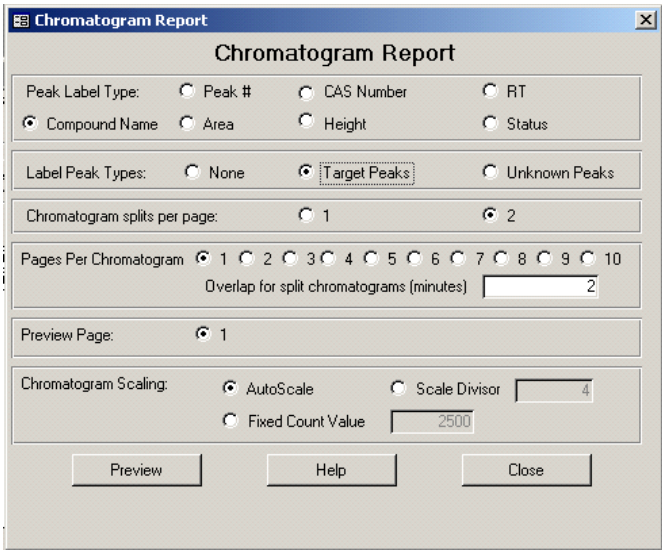
The reports generated by clicking on these buttons are shown in a later part of this section where these reports are discussed in more detail.



 # 4. Select reports (Report generation specifications for batch processing)

Chromatogram Report

The **Chromatogram Report** form configures parameters used to construct the multi page Chromatogram Report. This report shows a chromatogram trace, whose time axis has been scaled to be between 9 inches and 180 inches in length. When the Chromatogram Report is printed under the control of the "Select Reports" form, through System Control Automation, or from the MS Workstation Toolbar Data File Operations-Print MS Report menu, all pages of the multi page report will be generated. Using the Chromatogram Report form individual pages of the report may be shown and printed.



Close

Click the **Close** button to close the Chromatogram Report form.

Preview

Click the **Preview** button to display the page of the multi page Chromatogram Report selected in the "Preview Page" group.

Chromatogram Splits per Page

The **Chromatogram Splits per Page** group selects either one 5.5" high by 9" wide chromatogram section per page or two 2.75 " high by 9 " wide chromatogram sections per page. The time range displayed in each section is determined by the formula [length of the data acquired in the file(minutes)]/[[Chromatogram splits per page]*[Pages per Chromatogram]].

The user may specify the time overlap between the splits.

Peak Label Type

The **Peak Label Type** group selects the type of text label that is to be shown on peaks in the chromatogram trace.

Label Peak Type

The **Label Peak Type** group selects the type of peaks to label with the information selected in the "Peak Label Type" group. Select "None" to disable peak annotation. Select "Target Peaks" to label peaks defined in the Method Compound Table. Select "Unknown Peaks" to label peaks that are integrated using parameters in the Calculation Setup page of the Method Editor.

Pages per Chromatogram

The **Pages per Chromatogram** group selects the number of pages in the Chromatogram Report. The chromatogram time axis length may be scaled from 9 inches (1 page per chromatogram, 1 Chromatogram split per page) to 180 inches (10 pages per chromatogram, 2 chromatogram splits per page).

The user may specify the time overlap between the pages.

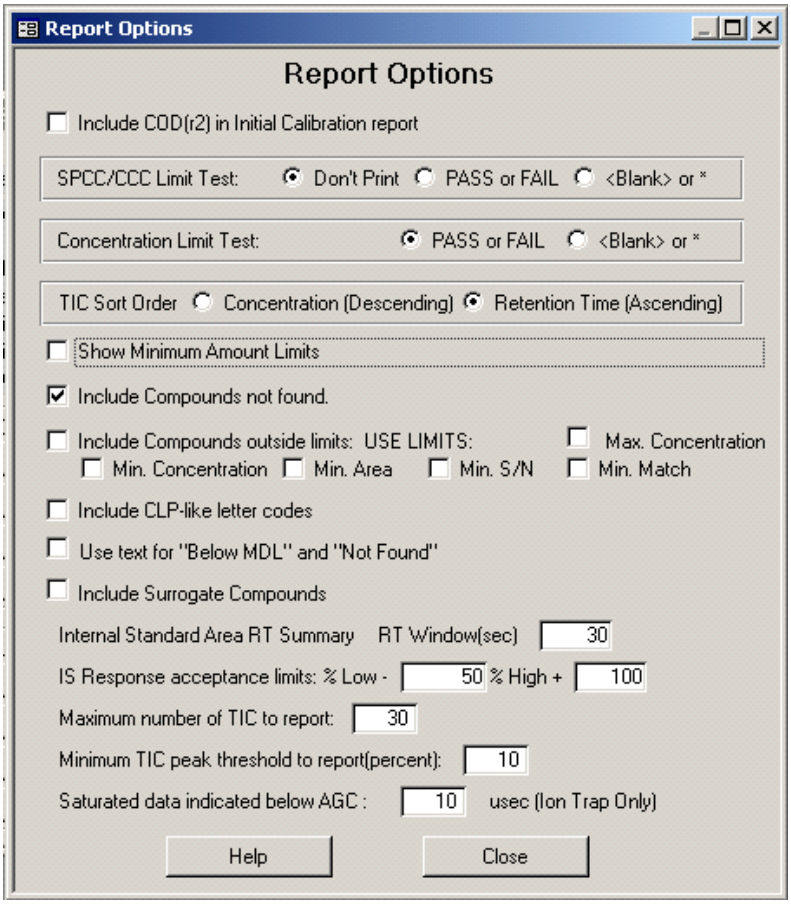
Preview Page

The **Preview Page** group selects the page of the multi page Chromatogram Report to display when the Preview button is clicked.

Display Intensity Range

The **Display Intensity Range** text box controls the vertical (amplitude) scale of the Chromatogram Report. If it is set to Auto, the scale is automatically set so that the largest peak on any page of the report will be approximately full scale. The scale is fixed to the same value for all pages of the report. If the field is set to Scale Divisor, the scale will be amplified by the entered number to allow the view of smaller peaks in presence of a larger one (such as the internal standard). If the Fixed Count Value is specified, the display will be scaled to that value, regardless of the size of the peaks in the chromatogram.

Report Options



Specification of the text portion of the reports

Close Button

Close: Clicking the Close button will close the Report Options form.

Check Boxes

Include COD (r^2) in Initial Calibration Reports

If selected, the COD (r2) results will be printed on the ICC report.

The calculated COD(r2) is based on the parameters selected in the “Calculation” section of the compound table in the Varian MS datahandling method (.mth). The selection of curve fitting, handling of the origin and regression weighting parameters will influence the values of the COD.

NOTE: the COD calculated in the Varian MS Workstation is the unweighted Coefficient of Determination.

SPCC/CCC Limit Test

SPCC/CCC (System Performance Check Compound and calibration Check Compound) Limit test: "Don't Print" or " PASS or FAIL" or "<Blank> or *"

Applies to the rightmost columns of the Initial Calibration, Continuing Calibration and SPCC reports as follows:

Initial Calibration:

SPCC fails if the average response factor is less than the Minimum RF.

CCC fails if the relative standard deviation of the relative response factor is not less than the Maximum RSD.

Continuing Calibration report

SPCC fails if the RRF is less than the Minimum RRF.

CCC fails if the drift based on RRF is greater than the Max%Drift.

SPCC Report

SPCC fails if the RRF is less than the Minimum RRF.

CCC fails if the drift in concentration value between measured and known concentration is greater than the Max%Drift.

Concentration Limit Test

Concentration Limit Test "PASS/FAIL" or "<blank>/*"

Applies to Control Sample Report.

TIC Sort Order

The order of TIC compounds in the reports will be based on the specification here. If the Concentration is selected, the TICs will be listed in order of their descending concentrations. The list will start with the largest peak.

If Retention time is specified, the TICs will be reported based on their retention order, starting with the shortest retention time.

Show Minimum Amount Limits

Show minimum amount limits: True/False

If True, shows the minimum concentration report limit on the right edge of reports.

Applies to: Control Sample Report, General Quantitation Report, Analysis Data Sheet Report

Include Compounds Not Found

Include compounds not found: True/False

If True, compounds included in the Varian MS data file which are not labeled as "Identified" are reported. Even if this parameter is true, not all compounds in the calibration file will necessarily be reported. For this parameter to be effective, Varian MS data system parameters must have been set to write compounds that were not found into the data file.

If the Include Compounds Not Found is marked, analytes will be listed in the text reports, but the TAR reports will not be generated for analytes not identified.

Applies to: Control Sample Report, General Quantitation Report, Analysis Data Sheet Report, Compound Limit Report, Labeled Chromatogram Report, Report 1, Report 2, Report 3, Report 4, Report 5, Report 6.

Include Compounds Outside Limits

Include compounds outside limits: True/False USE LIMITS: Minimum concentration True/False, Maximum Concentration True/False, Minimum Area True/False, Minimum Integration Search Fit True/False, Minimum S/N True/False

If "Include Compounds outside limits" is True, then reports contain all compounds. If false, then compounds outside the specific limits set True in the USE LIMITS group are reported in the Compound Limit Report, but not the other reports. The specific limit values tested are in the Analysis Report Inclusion Limits group of the Compound Edit form on an individual compound basis.

Applies to: Control Sample Report, General Quantitation Report, Analysis Data Sheet Report, Compound Limit Report, Labeled Chromatogram Report, Report 1, Report 2, Report 3, Report 4, Report 5, Report 6.

Max Concentration

Max Concentration: If this checkbox is checked, test the compound concentration against the Analysis Report Inclusion Limits: Concentration Limit: High value for the compound entered on the Compound Edit form when deciding whether to include the compound in a report.

Min Concentration

Min Concentration: If this checkbox is checked, test the compound concentration against the Analysis Report Inclusion Limits: Concentration Limit: Low value for the compound entered on the Compound Edit form when deciding whether to include the compound in a report.

Min Area

Min Area: If this checkbox is checked, test the compound area against the Analysis Report Inclusion Limits: Minimum Area value for the compound entered on the Compound Edit form when deciding whether to include the compound in a report.

Min S/N

Min S/N: If this checkbox is checked, test the compound S/N value against the Analysis Report Inclusion Limits: Minimum S/N value for the compound entered on the Compound Edit form when deciding whether to include the compound in a report.

Min fit

Min Fit: If this checkbox is checked, test the compound Fit value against the Analysis Report Inclusion Limits: Minimum Integration Search Fit value for the compound entered on the Compound Edit form when deciding whether to include the compound in a report.

Include CLP Like Letter Code

Include CLP like letter codes: True/False

If True the following letter codes may be appended to reported concentrations if the condition applies:

"D" if the sample table shows a dilution factor that is not unity.

"B" if the compound was quantitated in the file whose sample type is "B".

(NOTE: This code is not reported for TIC compounds.)

"J" if the concentration is less than the Low Quantitation Report Limit, adjusted for dilution and Moisture if either or both of these factors is used in the Sample Correction Factor. (NOTE: %Dry Weight does not affect this calculation.)

"E" if the concentration exceeds the High Quantitation Report Limit.

"U" if the compound was not found during quantitation. The concentration reported in this case is the Quantitation Low Report Limit, adjusted for Dilution and Moisture if shown on the Sample Edit form for the method and sample. (Dry Weight entries do not affect the concentration calculation).

"JN" if compound was quantitated as a Tentatively Identified Compound".

"S" if peak concentration is not consistent with sample parameters reported in the header. This can happen for one of two reasons: Either the Sample Correction Factor option on the Sample List form is set to "Compute" for this sample and the multiplier/divisor ratio read from the file is not 1; -or- the Sample Correction Factor option on the Sample List form is set to the text box for this sample and the mismatch between the multiplier/divisor ratio read from the data file and the Sample Correction Factor computed from the entries made in the Sample List for this sample is greater than 1%.

NOTE: "Below MDL" and "Not Found" messages take precedence over CLP like Qualifier codes if the "Use Text for Below MDL and Not Found " is True.

Applies to: Control Sample Report, General Quantitation Report, Analysis Data Sheet Report, Labeled Chromatogram Report, Report 1, Report 2, CLP TIC Report, General TIC Report.

Use text for Below MDL and Not Found

Use text for "Below MDL" and "Not Found". True/False

If true, "Below MDL" is substituted for the measured concentration if the concentration is less than the amount entered in the MDL field of the compound form. If the compound was not quantitated , but the compound record is included in the quantitation file, the concentration field is reported as "Not Found".

Applies to: Control Sample Report, General Quantitation Report, Analysis Data Sheet Report, Labeled Chromatogram Report, Report 1, Report 2.

Include surrogate compounds

Include Surrogate Compounds True/False

If True, Surrogate compounds are included in the reports below. If false, Surrogate compounds are excluded. Surrogate compounds are those compounds whose compound records have the Surrogate box checked.

Applies to: Control Sample Report, General Quantitation Report, Analysis Data Sheet Report, Compound Limit Report, Labeled Chromatogram Report, Report 1, Report 2, Report 3, Report 4, Report 5, Report 6, Internal Standard Area and RTg Summary Report, MDL and RSD Summary Report, QC Recovery Report

Fields: Report Options

Internal Standard Area and RT Summary

RT Window (sec)

Specifies the acceptable RT shifts for Internal Standards, expressed in seconds

IS Response Acceptance Limits: %Low - %High+

Specifies the acceptable area count variation of the internal standards in %. Acceptable low and high values can be specified as dictated by the methodology.

Maximum Number of TIC to report

Maximum number of TIC to report: Number

Specifies the maximum number of tentatively identified compounds to report. TIC must have been quantitated and saved into the quantitation file outside EnviroPro in order to be reported, regardless of the value of this parameter.

Applies to: CLP TIC, General TIC Reports.

Minimum TIC threshold to report

Minimum TIC peak threshold to report: Number

This parameter defines the percentage of the amount of the TIC's assigned internal standard peak that the TIC peak must exceed to be reported. This parameter is not useful when external standard calibration is being used.

Applies to: CLP TIC, General TIC Reports

Saturated Data indicated below AGC

Saturated data indicated below AGC: Number

Applies to Labeled Chromatogram Report. If the AGC Ionization time at the peak apex is below this number, the peak is marked as failing. Note that if the option Include Compounds Not Found is true, target compounds that were not located will appear in the report. These compounds have an AGC value of "?" and are marked as failing this test unless the value of this parameter is 0.

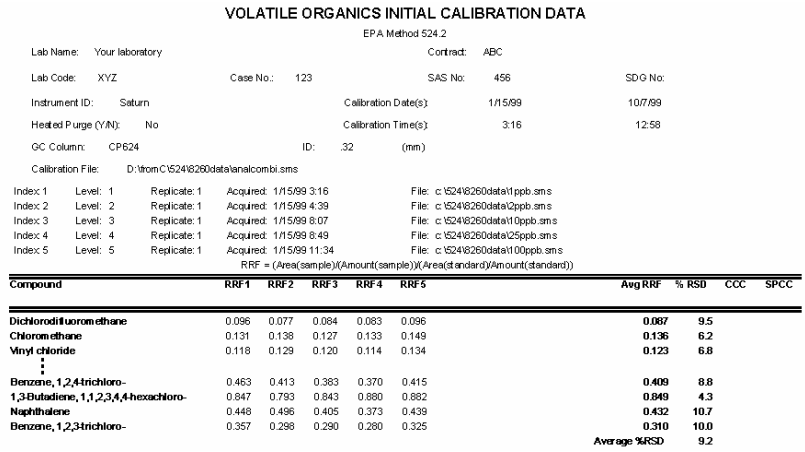
Buttons: Setup/Preview/Print Reports

Calibration Reports

Four different reports may be selected for calibration:

1. Initial
2. Continuing
3. SPCC
4. Control Sample

Initial



VOLATILE ORGANICS INITIAL CALIBRATION DATA

EPA Method 524.2

Lab Name: Your laboratory Contract: ABC

Lab Code: XYZ Case No.: 123 SAS No: 456 SDG No:

Instrument ID: Saturn Calibration Date(s): 1/15/99 10/7/99

Heated Purge (Y/N): No Calibration Time(s): 3:16 12:58

GC Column: CP624 ID: .32 (mm)

Calibration File: D:\fromC\524\8260data\analcombi.sms

Index: 1 Level: 1 Replicate: 1 Acquired: 1/15/99 3:16 File: c:\524\8260data\1ppb.sms
Index: 2 Level: 2 Replicate: 1 Acquired: 1/15/99 4:39 File: c:\524\8260data\2ppb.sms
Index: 3 Level: 3 Replicate: 1 Acquired: 1/15/99 8:07 File: c:\524\8260data\10ppb.sms
Index: 4 Level: 4 Replicate: 1 Acquired: 1/15/99 8:49 File: c:\524\8260data\25ppb.sms
Index: 5 Level: 5 Replicate: 1 Acquired: 1/15/99 11:34 File: c:\524\8260data\100ppb.sms

RRF = (Area(sample)/(Amount(sample))/(Area(standard)/Amount(standard))

Compound	RRF1	RRF2	RRF3	RRF4	RRF5	Avg RRF	% RSD	CCC	SPCC
Dichlorodifluoromethane	0.096	0.077	0.084	0.083	0.096	0.087	9.5		
Chloromethane	0.131	0.138	0.127	0.133	0.149	0.136	6.2		
Vinyl chloride	0.118	0.129	0.120	0.114	0.134	0.123	6.8		
⋮									
Benzene, 1,2,4-trichloro-	0.463	0.413	0.383	0.370	0.415	0.409	8.8		
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	0.847	0.793	0.843	0.880	0.882	0.849	4.3		
Naphthalene	0.448	0.496	0.405	0.373	0.439	0.432	10.7		
Benzene, 1,2,3-trichloro-	0.357	0.298	0.290	0.280	0.325	0.310	10.0		
						Average %RSD	9.2		

Title: (SEMI)VOLATILE ORGANICS INITIAL CALIBRATION DATA

Description: Summarizes (relative) response factors for up to 30 calibration entries. Reports average and percent relative standard deviation for all calibrated compounds.

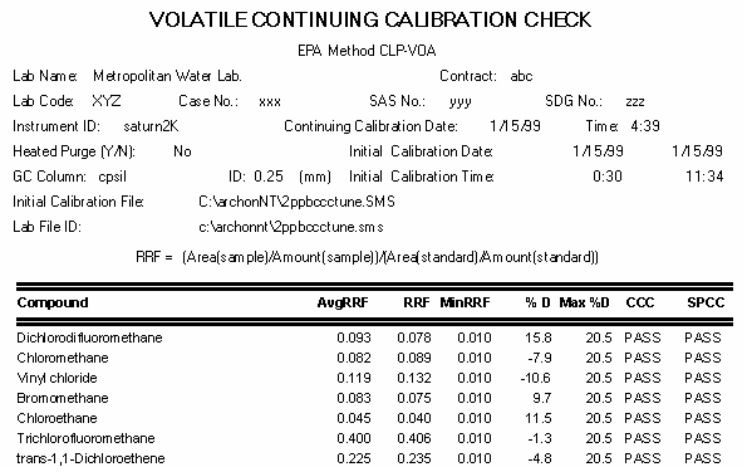
Source file: Initial Calibration File

Report Option controls: SPCC/CCC (System Performance Check Compound and Calibration Check Compound) Limit Test, **COD report**

NOTE: The Average %RSD is now included with the ICC report.

Compound parameters: Maximum RSD, Minimum RF

Continuing



VOLATILE CONTINUING CALIBRATION CHECK

EPA Method CLP-VOA

Lab Name: Metropolitan Water Lab. Contract: abc

Lab Code: XYZ Case No.: xxx SAS No.: yyy SDG No.: zzz

Instrument ID: saturn2K Continuing Calibration Date: 1/15/89 Time: 4:39

Heated Purge (Y/N): No Initial Calibration Date: 1/15/89 1/15/89

GC Column: cpsil ID: 0.25 (mm) Initial Calibration Time: 0:30 11:34

Initial Calibration File: C:\archonNT\2ppbccctune.SMS

Lab File ID: c:\archonnt\2ppbccctune.sms

RRF = (Area(sample)/Amount(sample))/(Area(standard)/Amount(standard))

Compound	AvgRRF	RRF	MinRRF	% D	Max %D	CCC	SPCC
Dichlorodifluoromethane	0.093	0.078	0.010	15.8	20.5	PASS	PASS
Chloromethane	0.082	0.089	0.010	-7.9	20.5	PASS	PASS
Vinyl chloride	0.119	0.132	0.010	-10.6	20.5	PASS	PASS
Bromomethane	0.083	0.075	0.010	9.7	20.5	PASS	PASS
Chloroethane	0.045	0.040	0.010	11.5	20.5	PASS	PASS
Trichlorofluoromethane	0.400	0.406	0.010	-1.3	20.5	PASS	PASS
trans-1,1-Dichloroethene	0.225	0.235	0.010	-4.8	20.5	PASS	PASS

Title: (SEMI)VOLATILE CONTINUING CALIBRATION CHECK

Description: Shows Average RRF (from ICC), this file's RRF, minimum RRF, % Drift, Maximum allowable drift for all calibrated compounds.

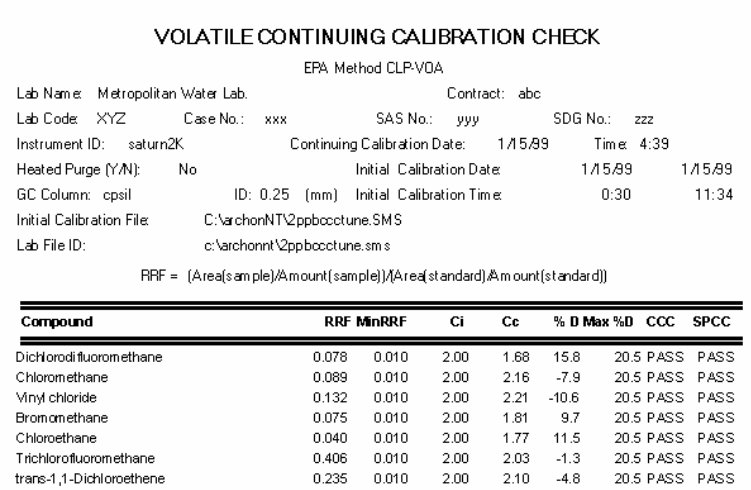
Source file: Current File when previewing individual reports, or during batch process all Sample Types which are specified for this reporting in the "select reports" section.

Report Option controls: SPCC/CCC Limit Test

Compound parameters: Minimum RF, Maximum Drift, and Continuing Calibration Amount

NOTE: Appropriate for 524, 525, and CLP methods.

SPCC



VOLATILE CONTINUING CALIBRATION CHECK

EPA Method CLP-VOA

Lab Name: Metropolitan Water Lab. Contract: abc

Lab Code: XYZ Case No.: xxx SAS No.: yyy SDG No.: zzz

Instrument ID: saturn2K Continuing Calibration Date: 1/15/89 Time: 4:39

Heated Purge (Y/N): No Initial Calibration Date: 1/15/89 1/15/89

GC Column: cpsil ID: 0.25 (mm) Initial Calibration Time: 0:30 11:34

Initial Calibration File: C:\archonNT\2ppbccctune.SMS

Lab File ID: c:\archonnt\2ppbccctune.sms

RRF = (Area(sample)/Amount(sample))/(Area(standard)/Amount(standard))

Compound	RRF	MinRRF	Ci	Cc	% D	Max %D	CCC	SPCC
Dichlorodifluoromethane	0.078	0.010	2.00	1.68	15.8	20.5	PASS	PASS
Chloromethane	0.089	0.010	2.00	2.16	-7.9	20.5	PASS	PASS
Vinyl chloride	0.132	0.010	2.00	2.21	-10.6	20.5	PASS	PASS
Bromomethane	0.075	0.010	2.00	1.81	9.7	20.5	PASS	PASS
Chloroethane	0.040	0.010	2.00	1.77	11.5	20.5	PASS	PASS
Trichlorofluoromethane	0.406	0.010	2.00	2.03	-1.3	20.5	PASS	PASS
trans-1,1-Dichloroethene	0.235	0.010	2.00	2.10	-4.8	20.5	PASS	PASS

Title: (SEMI)VOLATILE CONTINUING CALIBRATION CHECK

Description: Summarizes file RRF, minimum RRF, the known concentration, the analyzed concentration, the % Drift, and the maximum allowed drift for all compounds.

Source file: Current File or during batch process all Sample Types which are specified for this reporting in the "select reports" section.

Report Option controls: SPCC/CCC Limit Test

Compound parameters: Continuing Calibration Amount, Maximum Drift

NOTE: Appropriate for methods 8240, 8260, 8250, and 8270

Control Sample

LABORATORY CONTROL SAMPLE REPORT

Data File: c:\archonnt\5ppbcontrol.sms **Acquisition Date:** 1/15/99 6:02

Comment:

SampleID: Manual Sample **Analyst:**

Calibration File: C:\archonNT\2ppbccctune.SMS

Calibration Dates: First: 1/15/99 0:30 **Last:** 1/15/99 11:34

	Compound	Conc		Units	Amount	Accuracy	Limits	Status	MRL
20)	* Fluorobenzene	5.00	B	ppb	5.00	100 %	80 - 120	PASS	0.05
1)	Dichlorodifluoromethane	4.16	B	ppb	5.00	83 %	80 - 120	PASS	0.05
2)	Chloromethane	4.47	B	ppb	5.00	89 %	80 - 120	PASS	0.05
3)	Vinyl chloride	4.88	B	ppb	5.00	98 %	80 - 120	PASS	0.05

Title: LABORATORY CONTROL SAMPLE REPORT

Description: Designed to report analysis of samples of known concentration. Shows determined amount, known amount, % accuracy, allowed accuracy range, and pass/fail status.

Source file: Current File

Report Option controls: Concentration Limit Test, Show minimum amount limits, Include compounds not found, Include compounds outside limits, Include CLP like letter codes, Use text for "Below MDL" and "Not found", Include Surrogate compounds.

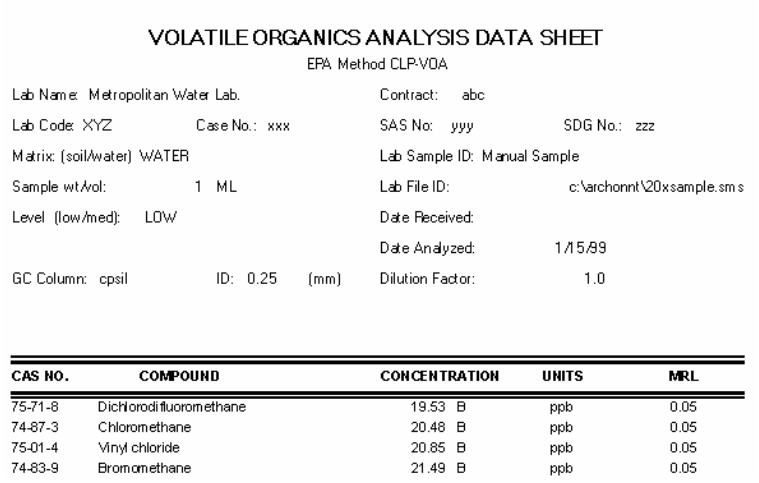
Compound parameters: Quality Control Amount, Percent Recovery Limits Low & High, Analysis Report Inclusion Limits - all items, Surrogates.

Quantitation Reports

Four different quantitation reports can be selected:

1. Data Sheet
2. General
3. Compound Limit
4. Labeled C'gram

Data Sheet



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA Method CLP-VOA

Lab Name: Metropolitan Water Lab. Contract: abc

Lab Code: XYZ Case No.: xxx SAS No: yyy SDG No.: zzz

Matrix: (soil/water) WATER Lab Sample ID: Manual Sample

Sample wt/vol: 1 ML Lab File ID: c:\archonnt\20xsample.sms

Level (low/med): LOW Date Received:

Date Analyzed: 1/15/99

GC Column: cpsil ID: 0.25 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION	UNITS	MRL
75-71-8	Dichlorodifluoromethane	19.53 B	ppb	0.05
74-87-3	Chloromethane	20.48 B	ppb	0.05
75-01-4	Vinyl chloride	20.85 B	ppb	0.05
74-83-9	Bromomethane	21.49 B	ppb	0.05

Title: (SEMI)VOLATILE ORGANICS ANALYSIS DATA SHEET

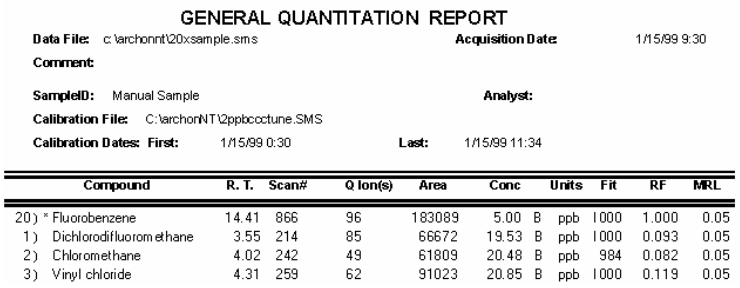
Description: Designed to show target compound concentrations of samples on unknown composition. Shows CAS number, compound name, concentration and concentration units.

Source file: Current File

Report Option controls: Show minimum amount limits, Include compounds outside limits, Include CLP like letter codes, Use text for "Below MDL" and "Not Found", Include Surrogate compounds, Apply sample concentration factor to surrogates

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate.

General



GENERAL QUANTITATION REPORT

Data File: c:\archonnt\20xsample.sms **Acquisition Date:** 1/15/99 9:30

Comment:

SampleID: Manual Sample **Analyst:**

Calibration File: C:\archonNT\2ppbcoctune.SMS

Calibration Dates: First: 1/15/99 0:30 **Last:** 1/15/99 11:34

Compound	R.T.	Scan#	Q Ion(s)	Area	Conc	Units	Fit	RF	MRL
20) * Fluorobenzene	14.41	866	96	183089	5.00 B	ppb	1000	1.000	0.05
1) Dichlorodifluoromethane	3.55	214	85	66672	19.53 B	ppb	1000	0.093	0.05
2) Chloromethane	4.02	242	49	61809	20.48 B	ppb	984	0.082	0.05
3) Vinyl chloride	4.31	259	62	91023	20.85 B	ppb	1000	0.119	0.05

Title: GENERAL QUANTITATION REPORT

Description: Summarizes target compound analysis for one sample. Fields reported are compound name, retention time, apex scan number, ion(s) used to quantitate, peak area or height, concentration, units, peak identification fit result, and response factor.

Source file: Current File

Report Option controls: Show minimum amount limits, Include compounds not found, Include compounds outside limits (all limits), Include CLP like letter codes, Use text for "Below MDL" and "Not Found", Include Surrogate compounds, Apply sample concentration factor to surrogates.

Compound parameters: Analysis Report Inclusion Limits (all items), Surrogate

Compound Limit

COMPOUND LIMIT REPORT

COMPOUNDS FOUND OUTSIDE OF THE ACTIVE LIMITS

Data File: c:\archonnt\5ppbcontrol.sms **Acquisition Date:** 1/15/99 6:02

Comment:

SampleID: xyz **Analyst:**

Calibration File: C:\archonNT\2ppbccctune.SMS

Calibration Dates: First: 1/15/99 0:30 **Last:** 1/15/99 11:34

CAS No.	Compound	Conc	Min Conc.	Max Conc.	Area	Min. Area	S/N	Min. S/N	Fit	Min Fit
None	Fluorobenzene	5.00E+00	0.05	120.00	171442	50	2631	5	1000	700
75-71-8	Dichlorodifluoromethane	4.16E+00	0.05	120.00	13303	50	608	5	999	700
74-87-3	Chloromethane	4.47E+00	0.05	120.00	12638	50	563	5	994	700
75-01-4	Vinyl chloride	4.88E+00	0.05	120.00	19967	50	814	5	999	700

Title: COMPOUND LIMIT REPORT

Description: Shows limits set in compound table for minimum and maximum concentration, minimum area, minimum signal to noise, and minimum fit, the compound values for these items, and flags showing the limit(s) violated.

Source file: Current File

Report Option controls: Include compounds not found, Include compounds outside limits, Include Surrogate Compounds, Apply sample correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate

NOTE: If Include Compounds Outside Limits is set True, then compounds are shown in this report whether or not they are outside limits.

Labeled C'gram

LABELED CHROMATOGRAM REPORT

Method: EPA Method CLP-VOA **Lab Name:**

Data File: c:\archonnt\20sample.sms **Acquisition Date:** 1/15/99 8:49

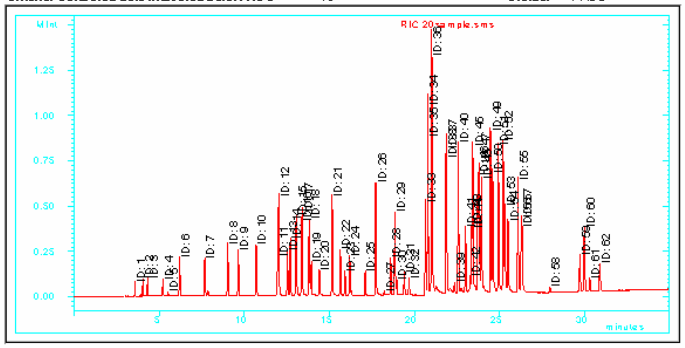
Comment:

SampleID: Manual Sample **Analyst:**

Calibration File: C:\archonNT\2ppbccctune.SMS

Calibration Dates: First: 1/15/99 0:30 **Last:** 1/15/99 11:34

Criteria: Saturated data indicated below AGC = 10 **Status:** PASS



	Compound	Scan #	Conc		R. T.	AGC
20	Fluorobenzene	865	5.00	ppb	14.41	1667
1	Dichlorodifluoromethane	214	22.32	ppb	3.55	2216
2	Chloromethane	242	25.36	ppb	4.02	2774
3	Vinyl chloride	259	23.80	ppb	4.30	2771

Title: LABELED CHROMATOGRAM REPORT

Description: Shows chromatogram with peak labels on all identified and failed peaks. The body of the report shows compound name, scan #, concentration, units, retention time, and AGC ionization time for each included compound.

Source file: Current File

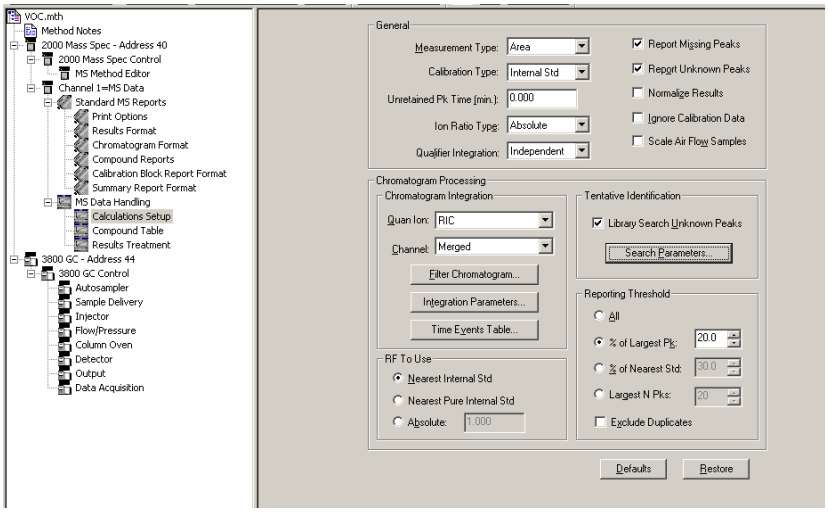
Report Option controls: Include compounds not found, Include compounds outside limits, Include CLP like letter codes, Use text for "Below MDL" and "Not Found", Include Surrogate Compounds, Apply sample correction factors to surrogates.

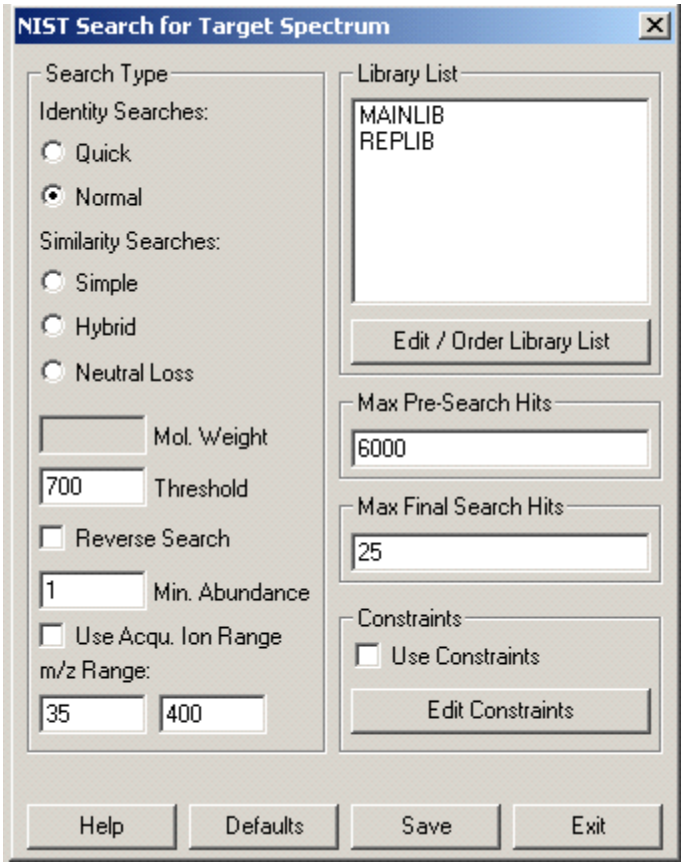
Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate

TIC Reports

The Tentatively Identified Compounds (TICs or non-target analytes) are reported when this report option is selected.

The TIC reports will be available only if the .mth method is set up properly. In the MS Data handling section of the method the Calculation setup section must be set to Report Unknown peaks and the appropriate library and library search parameters must be identified. (see figure below) In the Report Option section of EnviroPro the maximum number of TICs reported and their reporting threshold (intensity) also must be specified for proper reporting.





There are four TIC reports available:

1. CLP Datasheet
2. General
3. Labeled C'gram
4. Analysis

CLP Datasheet

TENTATIVELY IDENTIFIED COMPOUNDS
VOLATILE ORGANICS ANALYSIS DATA SHEET
EPA Method CLP-VOA

Lab Name: Varian — Contract: ABC
Lab Code: xyz — Case No.: 123 — SAS No: 555 — SDG No.:
Matrix: (soil/water) SOIL — Lab Sample ID: Manual Sample
Sample wt/vol: 1 g — Lab File ID: c:\archonnt\sample_x.sms
Level (low/med): LOW — Date Received:
% Moisture: not dec: 0 — Date Analyzed: 1/15/99
GC Column: CP8 — ID: 0.25 (mm)

Number of TICs Found: 6

CAS NO.	COMPOUND NAME	RT	EST. CONC.	
149-73-5	Methane, trimethoxy-	7.86	0.33	ppb
52806-35-6	Methanone, (4-methoxyphenyl)(6-methyl-	26.70	0.26	ppb
29743-33-7	4,6-Octadiyn-3-one, 2-methyl-	21.28	0.26	ppb
103148-59-0	cis-Bicyclo[4.2.0]octa-3,7-diene	22.08	0.22	ppb
19788-52-4	Propionic acid, 2-mercapto-, isopropyl e	16.29	0.18	ppb

Title: TENTATIVELY IDENTIFIED COMPOUNDS (SEMI)VOLATILE ORGANICS DATASHEET

Description: Shows CAS Number, Compound Name, Retention Time and Estimated Concentration for all TIC peak records meeting the acceptance criteria.

Source file: Current File

Report Option controls: Include CLP like letter codes, Maximum number of TIC to report, Minimum TIC peak threshold (percent)

Compound parameters: None

General

TENTATIVELY IDENTIFIED COMPOUNDS
VOLATILE ORGANICS ANALYSIS DATA SHEET
EPA Method CLP-VOA

Lab Name: Varian — Contract: ABC
Lab Code: xyz — Case No.: 123 — SAS No: 555 — SDG No.:
Matrix: (soil/water) SOIL — Lab Sample ID: Manual Sample
Sample wt/vol: 1 g — Lab File ID: c:\archonnt\sample_x.sms
Level (low/med): LOW — Date Received:
% Moisture: not dec: 0 — Date Analyzed: 1/15/99
GC Column: CP8 — ID: 0.25 (mm)

Number of TICs Found: 6

	COMPOUND NAME	RT	SCAN #	EST. CONC.		PEAK AREA	REF
*	Fluorobenzene	14.41	865	5.00	ppb	?	26
	Methane, trimethoxy-	7.86	473	0.33	ppb	23496	26
	Methanone, (4-methoxyphenyl)(6-meth	26.70	1603	0.26	ppb	18770	26
	4,6-Octadiyn-3-one, 2-methyl-	21.28	1278	0.26	ppb	18601	26
	cis-Bicyclo[4.2.0]octa-3,7-diene	22.08	1326	0.22	ppb	15672	26
	Propionic acid, 2-mercapto-, isopropyl	16.29	979	0.18	ppb	12672	26

Title: TENTATIVELY IDENTIFIED COMPOUNDS (SEMI)VOLATILE ORGANICS DATASHEET

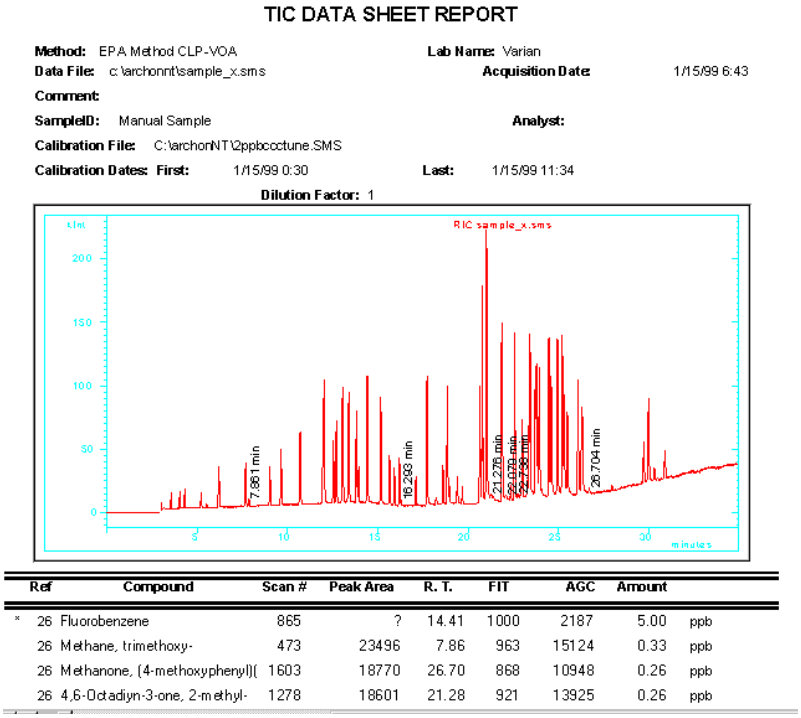
Description: Shows, for each internal standard and TIC meeting the report criteria, the fields Compound Name, RT, Scan #, Estimated Concentration (with units), peak area or height, internal standard reference, if applicable.

Source file: Current File or during batch process all Sample Types which are specified for this reporting in the "Select reports" section.

Report Option controls: Include CLP like letter codes, Maximum number of TIC to report, Minimum TIC peak threshold (percent), Order of TIC compounds (concentration or retention time).

Compound parameters: None

Labeled C'gram



TIC DATA SHEET REPORT

Method: EPA Method CLP-VOA **Lab Name:** Varian
Data File: c:\archonnt\sample_x.sms **Acquisition Date:** 1/15/99 6:43
Comment:
SampleID: Manual Sample **Analyst:**
Calibration File: C:\archonNT\2ppbccctune.SMS
Calibration Dates: First: 1/15/99 0:30 **Last:** 1/15/99 11:34
Dilution Factor: 1

	Ref	Compound	Scan #	Peak Area	R. T.	FIT	AGC	Amount	
*	26	Fluorobenzene	865	?	14.41	1000	2187	5.00	ppb
	26	Methane, trimethoxy-	473	23496	7.86	963	15124	0.33	ppb
	26	Methanone, (4-methoxyphenyl)(	1603	18770	26.70	868	10948	0.26	ppb
	26	4,6-Octadiyn-3-one, 2-methyl-	1278	18601	21.28	921	13925	0.26	ppb

Title: TIC DATA SHEET REPORT

Description: Shows Internal Standard Reference number (if appropriate), Compound Name, Scan #, Peak Area or Height, Retention Time, AGC Ionization time, and Amount with units. Chromatogram trace is included, annotated by retention times of tentatively identified compounds. (Format is specified in the "Chromatogram" page.)

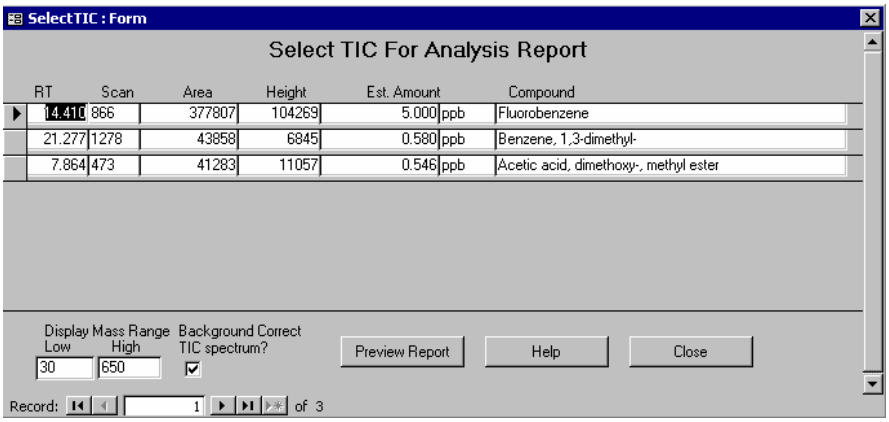
Source file: Current File or during batch process all Sample Types which are specified for this reporting in the "Select reports" section.

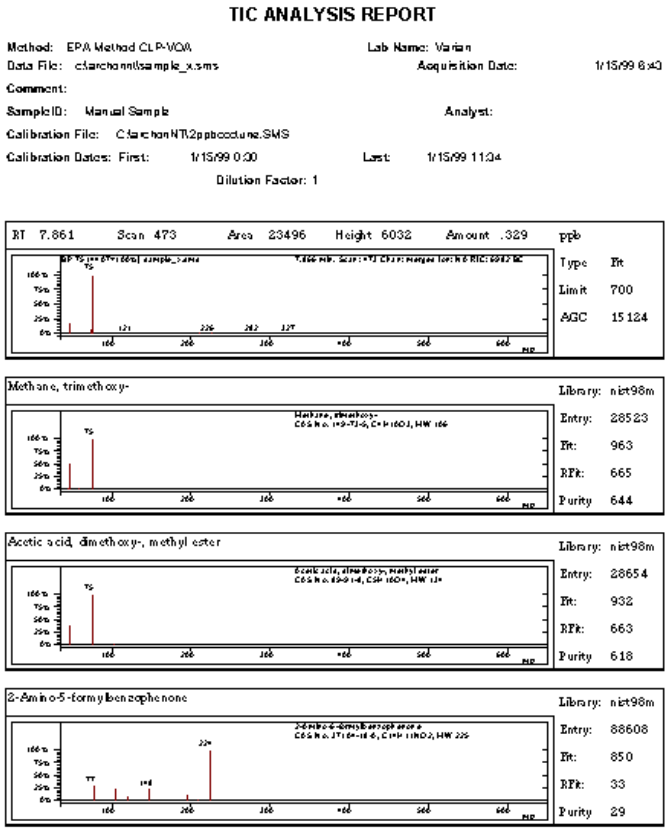
Report Option controls: Include CLP like letter codes, Maximum number of TIC to report, Minimum TIC peak threshold (percent) Order of TIC compounds (concentration or retention time).

Compound parameters: None

Analysis

When EnviroPro is run interactively, clicking on the TIC Reports Analysis button will display the "Select TIC for Analysis Report" dialog shown below. Use this screen to select the TIC record to be displayed in the report. This screen also has options for selecting background correction and the mass range for the TIC's spectum plot. Click on the Preview Report button to display the TIC Analysis Report.





Title: TIC ANALYSIS REPORT

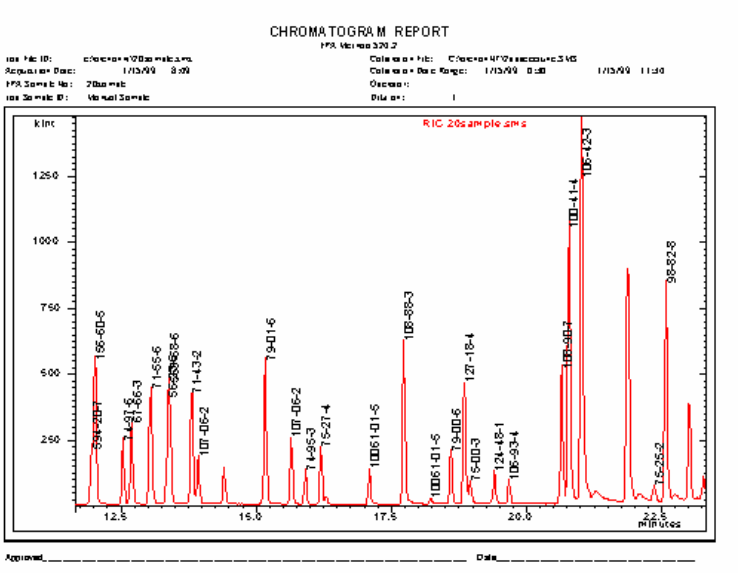
Description: Shows the spectrum (background corrected or unaltered, as specified by the user) of each TIC and the three (or fewer) best library matches from the library the user identified in the .mth method.

Source file: Current File or during batch process all Sample Types which are specified for this reporting in the "Select reports" section.

Report Option controls: Maximum number of TIC to report, Minimum TIC peak threshold (percent). Order of TIC compounds (concentration or retention time).

Compound parameters: None

Chromatogram Report



Chromatogram

Clicking the Chromatogram button opens the Chromatogram Report form. This form is used to configure annotations and number of pages in chromatogram reports, and to preview individual pages of these reports.

Target Compound Reports

Target: Clicking the Target button opens the Preview Target Compound Reports form. This form allows selection of a specific compound and the preview of any of six target compound confirmation reports for that compound.

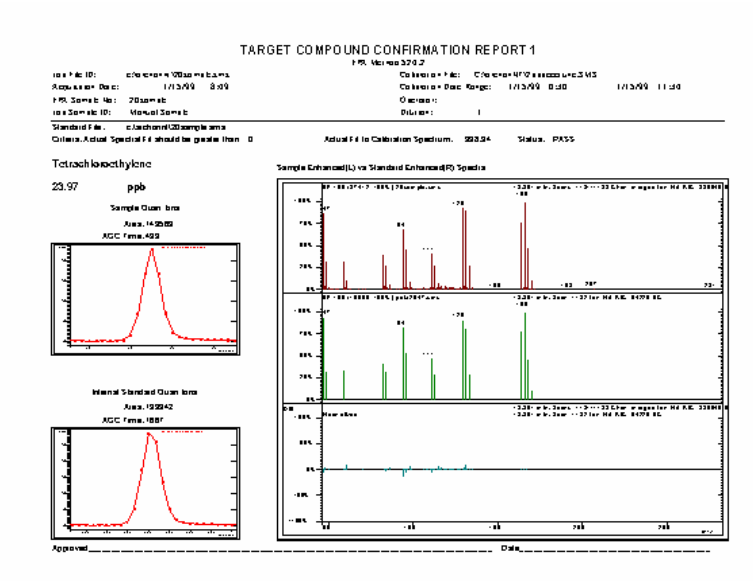
Preview Target Compound Reports

To preview a target compound report:

1. Click on the record selector button of the compound record to report.
2. Click on the Report button of the desired report.

To see a summary of the Compound table and Report Option variables controlling a report, refer to the topics Report 1 through Report 6. The TAR reports are not available if the analyte is not identified/missing.

NOTE: All compounds may be previewed and printed individually, but only the ones selected for TAR1-TAR6 printing in the “Compound Information” section will be printed during batch processing.



Buttons: Preview Target Compound Reports

Report 1

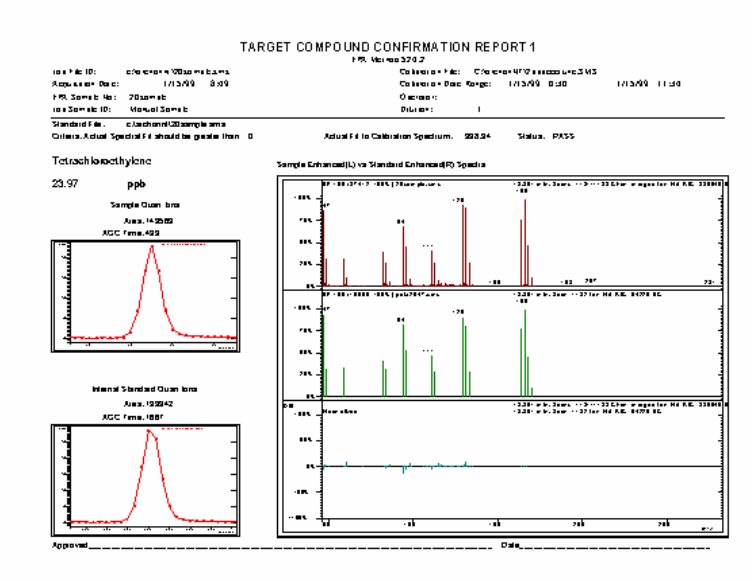
Title: TARGET COMPOUND CONFIRMATION REPORT 1

Description: Shows for the selected compound the quantitation ion(s) profile for the internal standard peak and the target compound peak. Also shows the target compound peak apex spectrum, the method reference spectrum, and their difference

Source file: Current File

Report Option controls: Include compounds outside limits, Include CLP like letter codes, Use text for "Below MDL" and "Not Found", Include Surrogate Compounds, Apply sample correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate



Report 2

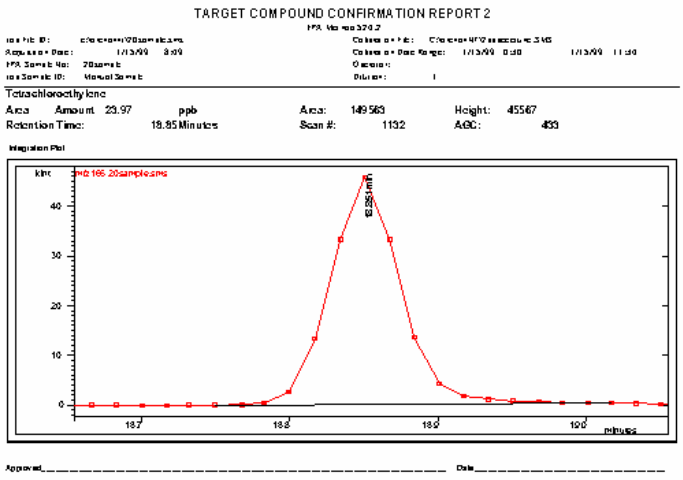
Title: TARGET COMPOUND CONFIRMATION REPORT 2

Description: Shows the quantitation ion(s) profile for the selected peak with baseline drawn.

Source file: Current File

Report Option controls: Include compounds not found, Include compounds outside limits, Include CLP like letter codes, Use text for "Below MDL" and "Not Found", Include Surrogate Compounds, Apply sample correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate



Report 3

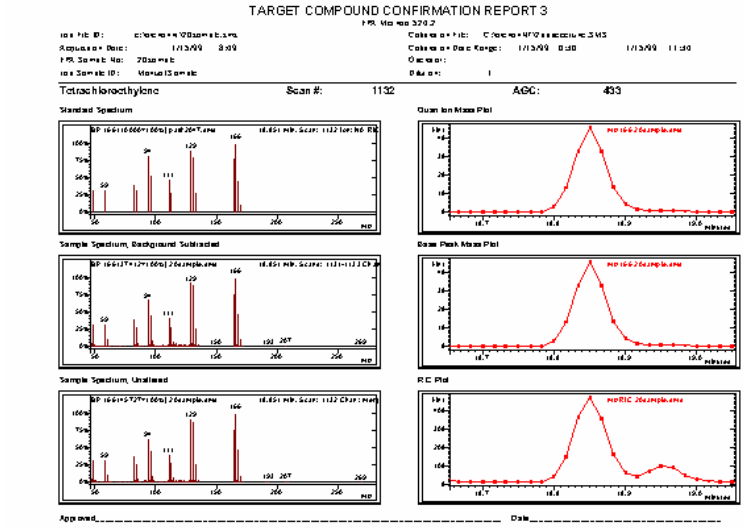
Title: TARGET COMPOUND CONFIRMATION REPORT 3

Description: Shows the target compound standard spectrum, the sample background corrected spectrum, the sample raw spectrum, the quan ion(s) peak profile, the base ion peak profile, and the RIC peak profile.

Source file: Current File

Report Option controls: Include compounds not found, Include compounds outside limits, Include Surrogate Compounds, Apply sample Correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate



Report 4

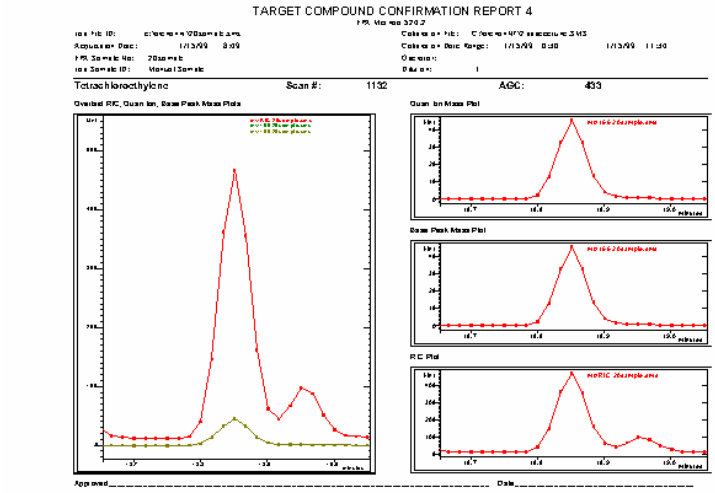
Title: TARGET COMPOUND CONFIRMATION REPORT 4

Description: Shows overlaid and individual target compound peak profile plots of quan ion(s), base ion, and RIC.

Source file: Current File

Report Option controls: Include compounds not found, Include compounds outside limits, Include Surrogate Compounds, Apply sample correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate



Report 5

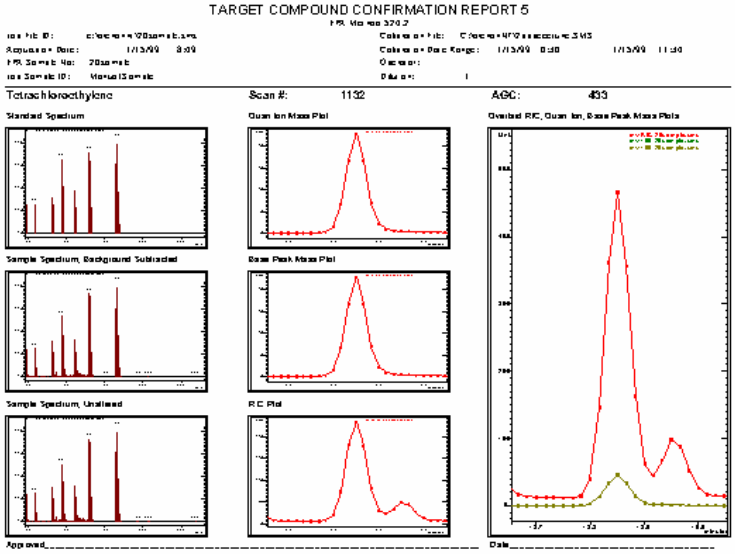
Title: TARGET COMPOUND CONFIRMATION REPORT 5

Description: Shows standard spectrum, background corrected spectrum, and raw spectrum of target compound peak apex, and separate and overlaid plots of the quan ion(s), base peak, and RIC peak profile of the target compound.

Source file: Current File

Report Option controls: Include compounds not found, Include compounds outside limits, Include Surrogate Compounds, Apply sample correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate



Report 6

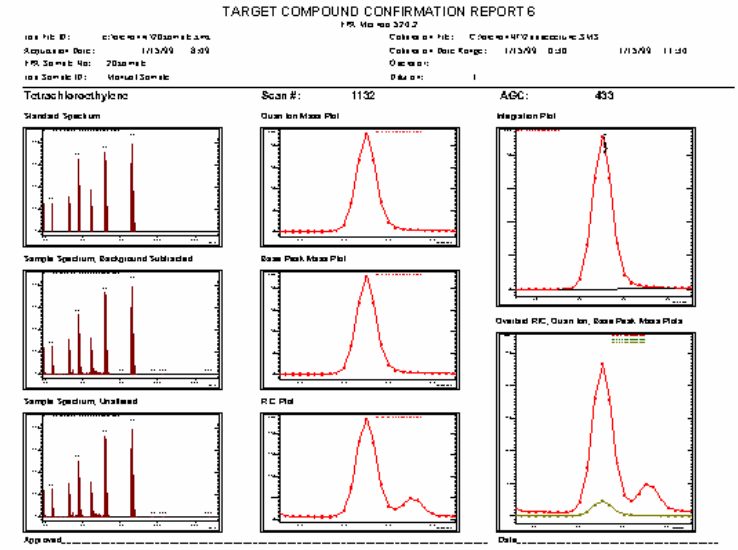
Title: TARGET COMPOUND CONFIRMATION REPORT 6

Description: Shows standard spectrum, background corrected spectrum, and raw spectrum of target compound peak apex, and separate and overlaid plots of the quan ion(s), base peak, and RIC peak profile of the target compound, and the quan ion(s) peak profile with integration baseline.

Source file: Current File

Report Option controls: Include compounds not found, Include compounds outside limits, Include CLP like letter codes, Use text for "Below MDL" and "Not Found", Include Surrogate Compounds, Apply sample correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate



Close

Close: Click the close button to close the form.

Fields: Preview Target Compound Reports

(Calibration Record Number)

#(Calibration Record Number) is the index number of the compound in the method (.mth) used to quantitate the data file at the time the data file was quantitated.

Result Type

Result Type describes the result of target compound peak identification. The allowed values are Identified (target compound peak was located and met the peak identification criteria in the method), Failed (target compound peak was

located, but did not meet the peak identification criteria), or Missing (target compound peak could not be located.)

B (Blank)

If **B (Blank)** box is checked, this compound was detected in the Method Blank sample.

S (Surrogate)

If **S (Surrogate)** box is checked, this compound has been designated as a Surrogate Compound in the EnviroPro compound table.

T (Compound Type)

T (Compound Type) specifies the type of quantitation used to compute the Amount. The allowed values are A (analyte quantitated by internal standard method), E (analyte quantitated by external standard method), and I (internal standard peak of known concentration).

Compound Name

Compound Name reported for this peak in the method used to quantitate the data file.

Actual RT (Actual Retention Time)

Actual RT (Actual Retention Time) is the time (in minutes) of the apex of the identified peak in the profile of integration mass abundance vs. time.

Calib. RT (Calibration Retention Time)

Calib. RT is the calibration retention time (in minutes) reported in the data file for this compound.

Fit

Fit is a measure of similarity between the compound spectrum stored in the method used to quantitate this data file and the apex spectrum of the reported peak.

Peak Area

Peak Area reports the peak area, measured in counts, which was read from the data file.

Peak Height

Peak Height reports the peak height, measured in counts, which was read from the data file.

Amount

The **Amount** field contains either the analyte concentration in the sample or an error message. If the analyte concentration was computed without a detected error, the field will contain the numerical concentration. If the following Report Options are set the numerical field may be modified as follows:

Report Option: Include CLP like letter codes: True/False

If True the following letter codes may be appended to reported concentrations if the condition applies:

"D" if the sample table shows a dilution factor that is not unity.

"B" if the compound was found in the method blank.

"J" if the concentration is less than the Low Quantitation Report Limit, adjusted for dilution and Moisture if either or both of these factors is used in the Sample Correction Factor. (NOTE: %Dry Weight does not affect this calculation.)

"E" if the concentration exceeds the High Quantitation Report Limit.

"U" if the compound was not found during quantitation. The concentration reported in this case is the Quantitation Low Report Limit, adjusted for Dilution and Moisture if shown on the Sample Edit form for the method and sample. (Dry Weight entries do not affect the concentration calculation).

"JN" if compound was quantitated as a Tentatively Identified Compound".

"S" if peak concentration is not consistent with sample parameters reported in the header. This can happen for one of two reasons: Either the Sample Correction Factor option on the Sample List form is set to "Compute" for this sample and the multiplier/divisor ratio read from the file is not 1; -or- the Sample Correction Factor option on the Sample List form is set to the text box for this sample and the mismatch between the multiplier/divisor ratio read from the data file and the Sample Correction Factor computed from the entries made in the Sample List for this sample is greater than 1%.

NOTE: "Below MDL" and "Not Found" messages take precedence over CLP like Qualifier codes if the "Use Text for Below MDL and Not Found " is True.

Report Option: Use text for "Below MDL" and "Not Found". True/False

If true, "Below MDL" is substituted for the measured concentration if the concentration is less than the amount entered in the MDL field of the compound form. If the compound was not quantitated, but the compound record is included in the data file, the concentration field is reported as "Not Found".

Report Options

Clicking the Report Options button opens the Report Options form. This form configures the optional information on reports and the criteria for including peaks in the reports.

Summary Reports

There are several summary reports available for reporting:

1. Initial Calibration
2. Method Tune

3. Method Blank
4. Surrogate
5. IS Area & RT
6. Control Sample
7. MDL&RSD
8. MS/MSD
9. MS Recovery
10. QC Recovery

Initial Calibration

Same report as in the individual setup

Initial

VOLATILE ORGANICS INITIAL CALIBRATION DATA

EPA Method CLP-VOA

Lab Name: Metropolitan Water Lab. Contract: abc

Lab Code: XYZ Case No.: xxx SAS No: yyy SDG No: zzz

Instrument ID: saturn2K Calibration Date(s): 1/15/99 1/15/99

Heated Purge (Y/N): No Calibration Time(s): 0:30 11:34

GC Column: cpsil ID: 0.25 (mm)

Calibration File: C:\archonNT\2ppbccctune.SMS

Index: 1	Level: 1	Replicate: 1	Acquired: 1/15/99 0:30	File: c:\archonnt\pal2038.sms
Index: 2	Level: 2	Replicate: 1	Acquired: 1/15/99 1:53	File: c:\archonnt\pal2040.sms
Index: 3	Level: 3	Replicate: 1	Acquired: 1/15/99 3:16	File: c:\archonnt\pal2042.sms
Index: 4	Level: 4	Replicate: 1	Acquired: 1/15/99 4:39	File: c:\archonnt\pal2044.sms
Index: 5	Level: 5	Replicate: 1	Acquired: 1/15/99 6:43	File: c:\archonnt\pal2046.sms
Index: 6	Level: 6	Replicate: 1	Acquired: 1/15/99 8:07	File: c:\archonnt\pal2049.sms
Index: 7	Level: 7	Replicate: 1	Acquired: 1/15/99 8:49	File: c:\archonnt\pal2050.sms
Index: 8	Level: 8	Replicate: 1	Acquired: 1/15/99 10:12	File: c:\archonnt\pal2052.sms
Index: 9	Level: 9	Replicate: 1	Acquired: 1/15/99 11:34	File: c:\archonnt\pal2054.sms

RRF = (Area(sample)/(Amount(sample))/(Area(standard)/Amount(standard))

Compound	RRF1	RRF2	RRF3	RRF4	RRF5	RRF6	RRF7	RRF8	RRF9	Avg RRF	% RSD	CCC	SPCC
Dichlorodifluoromethane	0.116	0.109	0.097	0.077	0.085	0.084	0.083	0.091	0.096	**0.093**	**13.6**	PASS	PASS
Chloromethane	0.071	0.079	0.081	0.087	0.082	0.080	0.084	0.086	0.091	**0.082**	**6.9**	PASS	PASS
Vinyl chloride	0.101	0.111	0.119	0.129	0.122	0.120	0.114	0.124	0.133	**0.119**	**8.1**	PASS	PASS

Title: (SEMI)VOLATILE ORGANICS INITIAL CALIBRATION DATA

Description: Summarizes (relative) response factors for up to 30 calibration entries. Reports average and percent relative standard deviation for all calibrated compounds.

Source file: Initial Calibration File

Report Option controls: SPCC/CCC (System Performance Check Compound and Calibration Check Compound) Limit Test

Compound parameters: Maximum RSD, Minimum RF

Method Tune

SEMIVOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Tune Criteria 8270

Lab Name: Varian Test Lab Contract: 123456

Lab Code: 54321 Case No: 555 SAS No: xyz SDG No: (**)

Lab File ID: tun082599a.sms Injection Date: 8/25/99

Instrument ID: Thor Injection Time: 9:00

GC Column: CP 5860 ID: 0.25 (mm) Heated Purge: (Y/N) No

M/E	ION ABUNDANCE CRITERIA	RELATIVE ABUNDANCE	% OF M/E	
51	30-60% of m/z 198	43.5		
68	less than 2% of m/z 69	0.0		
69	present	37.3		
70	less than 2% of m/z 69	0.0		
127	40 to 60% of m/z 198	48.1		
197	<1% of m/z 198	0.0		
198	base peak	100.0		
199	5 - 9% of m/z 198	8.6		
275	10-30% of m/z of m/z 198	28.2		
365	>1% of m/z 198	5.9		
441	present and <m/z 443	10.8	(62.8)	443
442	>40% of m/z 198	80.9		
443	17-23% of m/z 442	17.2	(21.2)	442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE TIME ANALYZED
2	Tun082599	Tun082599A	c:\saturnws\data\8270test\tun082599a.sms	8/25/99 9:00
3	blank08259	Blank082599A	c:\saturnws\data\8270test\blank082599a.sms	8/25/99 11:45
4	blank08259	Blank082599A	c:\saturnws\data\8270test\blank082599a.sms	8/25/99 11:45
5	ICC082599	ICC082599B	c:\saturnws\data\8270test\icc082599b.sms	8/25/99 13:21

Title: (SEMI)VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

Description: Shows a comparison of the selected spectrum from the current tune file compared to the currently selected tune criteria, followed by a summary of the sample list

Source file: Current Tune File

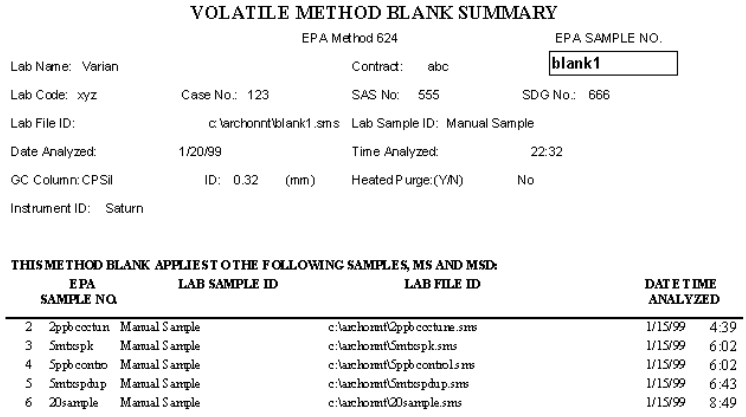
Report Option controls: None

Compound parameters: None

NOTE: To select tune criteria, tune file, or tune spectrum, return to the main form and click the Select Method button. Select the method criteria set by activating the appropriate EPA Method radio button, then click the Tune Report Setup button. After selecting the tune file name and clicking the open button, use the Tune Report Setup form to select the tune spectrum. Clicking the Tune Report 2 button will display the data to be shown in the top half of this report.

If the CCC file is used for tune file also, mark the **"Use CCC as tune file"** button. The tune file in that case will not need to be specified; the CCC file will be used automatically as tune file.

Method Blank



VOLATILE METHOD BLANK SUMMARY

EPA Method 624 EPA SAMPLE NO.

Lab Name: Varian Contract: abc blank1

Lab Code: xyz Case No.: 123 SAS No: 555 SDG No.: 666

Lab File ID: c:\archonnt\blank1.sms Lab Sample ID: Manual Sample

Date Analyzed: 1/20/99 Time Analyzed: 22:32

GC Column: CPSil ID: 0.32 (mm) Heated Purge: (Y/N) No

Instrument ID: Saturn

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE TIME ANALYZED
2	2ppbcctun	Manual Sample	c:\archonnt\2ppbcctune.sms	1/15/99 4:39
3	5mtbspk	Manual Sample	c:\archonnt\5mtbspk.sms	1/15/99 6:02
4	5ppbcontro	Manual Sample	c:\archonnt\5ppbcontrol.sms	1/15/99 6:02
5	5mtbspdup	Manual Sample	c:\archonnt\5mtbspdup.sms	1/15/99 6:43
6	20sample	Manual Sample	c:\archonnt\20sample.sms	1/15/99 8:49

Title: (SEMI)VOLATILE METHOD BLANK SUMMARY

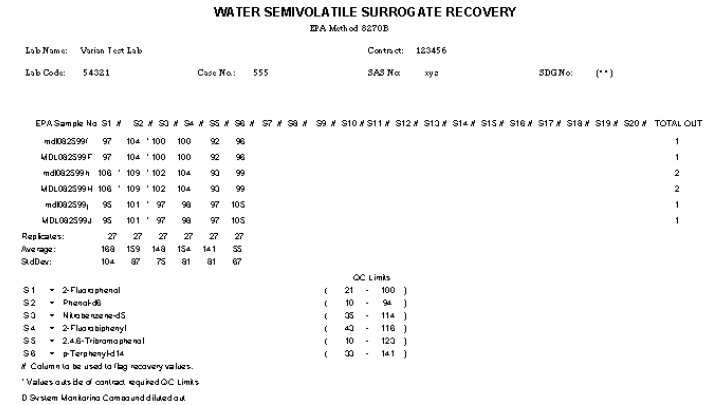
Description: The header shows laboratory information and information about the first sample of sample type "B" in the sample list. The body of the report shows a summary of the sample list, ordered by acquisition date and time.

Source files: Files in sample list. First sample list entry of sample type "B" is source of header information.

Report Option controls: None

Compound parameters: None

Surrogate



WATER SEMIVOLATILE SURROGATE RECOVERY

EPA Method 8270B

Lab Name: Varian Test Lab Contract: 123456

Lab Code: 54321 Case No.: 555 SAS No: xyz SDG No: (**)

EPA Sample No.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	S9 #	S10 #	S11 #	S12 #	S13 #	S14 #	S15 #	S16 #	S17 #	S18 #	S19 #	S20 #	TOTAL OUT
md082599f	97	104	* 100	100	92	96															1
MDL082599F	97	104	* 100	100	92	96															1
md082599h	106	* 109	* 102	104	93	99															2
MDL082599H	106	* 109	* 102	104	93	99															2
md082599j	95	101	* 97	98	97	105															1
MDL082599J	95	101	* 97	98	97	105															1
Replicates:	27	27	27	27	27	27															
Average:	168	159	149	154	141	55															
StdDev:	104	67	73	91	81	67															

		QC Limits
S1	2-Fluorophenol	(21 - 100)
S2	Phenol-d6	(10 - 94)
S3	Nitrobenzene-d5	(35 - 114)
S4	2-Fluorobiphenyl	(43 - 116)
S5	2,4,6-Tribromophenol	(10 - 123)
S6	p-Terphenyl-d14	(33 - 141)

Column to be used to flag recovery values.

* Values outside of contract required QC Limits

D System Monitoring Compound diluted out

Title: {WATER|SOIL}(SEMI)VOLATILE SURROGATE RECOVERY

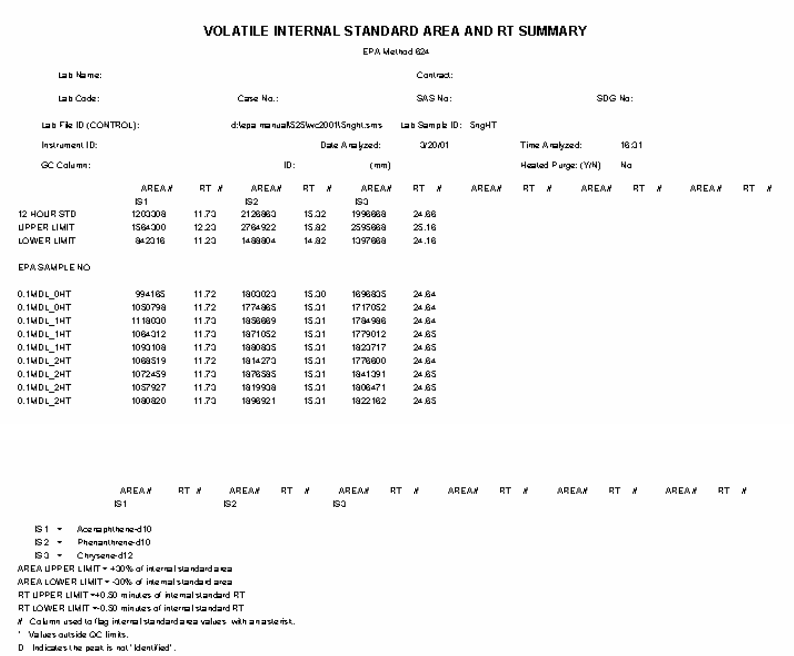
Description: Summarizes surrogate recoveries for up to 20 surrogate compounds for all files in the sample list. Surrogate compounds are those marked as surrogates in the EnviroPro compound table.

Source files: Files in sample list.

Report Option controls: None

Compound parameters: Surrogate, Quality Control Amount, Percent Recovery Limits Low & High

IS Area & RT



VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

EPA Method 624

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Lab File ID (CONTROL): d:\epa manual\525\wc2001\Sngl1.sms Lab Sample ID: SnglHT

Instrument ID: Date Analyzed: 3/20/01 Time Analyzed: 16:31

GC Column: ID: (mm) Heated Purge: (Y/N) No

	AREA # IS1	RT #	AREA # IS2	RT #	AREA # IS3	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	1203308	11.73	2128863	15.32	1996868	24.86						
UPPER LIMIT	1564300	12.23	2764922	15.82	2595868	25.16						
LOWER LIMIT	842316	11.23	1492804	14.82	1397868	24.16						
EPA SAMPLE NO												
0.1MDL_0HT	994165	11.72	1803023	15.30	1696835	24.84						
0.1MDL_0HT	1030798	11.72	1774965	15.31	1717052	24.84						
0.1MDL_1HT	1119000	11.73	1838869	15.31	1794998	24.84						
0.1MDL_1HT	1064312	11.73	1871052	15.31	1779012	24.85						
0.1MDL_1HT	1093108	11.73	1880835	15.31	1822717	24.85						
0.1MDL_2HT	1068519	11.72	1814270	15.31	1776800	24.84						
0.1MDL_2HT	1072459	11.73	1876385	15.31	1841391	24.85						
0.1MDL_2HT	1057927	11.73	1819908	15.31	1806471	24.85						
0.1MDL_2HT	1080820	11.73	1896921	15.31	1822162	24.85						

	AREA # IS1	RT #	AREA # IS2	RT #	AREA # IS3	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #

IS 1 = Acenaphthene-d10
IS 2 = Phenanthrene-d10
IS 3 = Chrysene-d12
AREA UPPER LIMIT = +30% of internal standard area
AREA LOWER LIMIT = -30% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT
Column used to flag internal standard area values with an asterisk.
* Values outside QC limits.
D Indicates the peak is not 'Identified'.

Title: (SEMI)VOLATILE INTERNAL STANDARD AND RT SUMMARY

Description: Summarizes Area and RT of Internal Standards and optionally Surrogate compounds versus the Continuing Calibration Check (CCC) sample

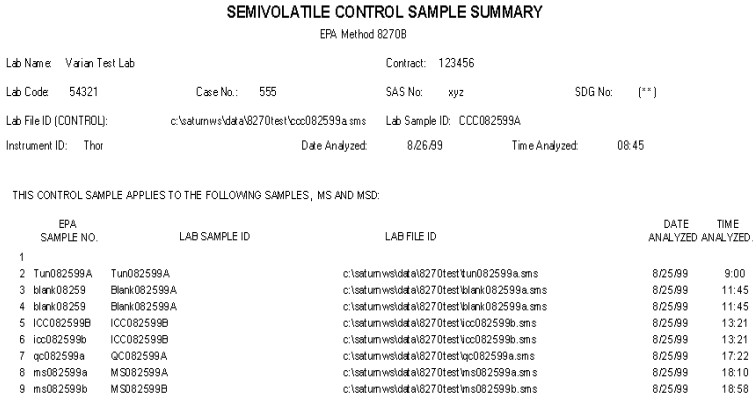
Source files: Files in Sample List. The file of sample type "C" is used as the reference file.

Report Option controls:

Include Surrogate compounds and **RT window (in seconds) and Area precision (%) can be specified.**

Compound parameters: Surrogate

Control Sample



SEMIVOLATILE CONTROL SAMPLE SUMMARY

EPA Method 8270B

Lab Name: Varian Test Lab Contract: 123456

Lab Code: 54321 Case No.: 555 SAS No: xyz SDG No: (**)

Lab File ID (CONTROL): c:\saturnws\data\8270test\ccc082599a.sms Lab Sample ID: CCC082599A

Instrument ID: Thor Date Analyzed: 8/26/99 Time Analyzed: 08:45

THIS CONTROL SAMPLE APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1					
2	Tun082599A	Tun082599A	c:\saturnws\data\8270test\tun082599a.sms	8/25/99	9:00
3	blank08259	Blank082599A	c:\saturnws\data\8270test\blank082599a.sms	8/25/99	11:45
4	blank08259	Blank082599A	c:\saturnws\data\8270test\blank082599a.sms	8/25/99	11:45
5	ICC082599B	ICC082599B	c:\saturnws\data\8270test\icc082599b.sms	8/25/99	13:21
6	icc082599b	ICC082599B	c:\saturnws\data\8270test\icc082599b.sms	8/25/99	13:21
7	qc082599a	QC082599A	c:\saturnws\data\8270test\qc082599a.sms	8/25/99	17:22
8	ms082599a	MS082599A	c:\saturnws\data\8270test\ms082599a.sms	8/25/99	18:10
9	ms082599b	MS082599B	c:\saturnws\data\8270test\ms082599b.sms	8/25/99	18:58

Title: (SEMI)VOLATILE CONTROL SAMPLE SUMMARY

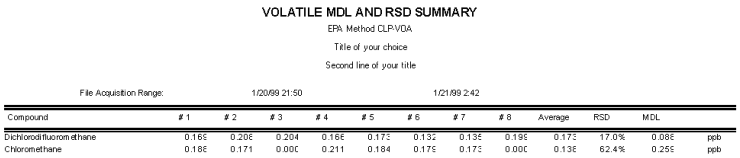
Description: Shows the Continuing Calibration Check sample in the header, followed by a summary of the sample list.

Source files: Files in the Sample List. The file of sample type "C" is used as the Continuing Calibration Check sample.

Report Option controls: None

Compound parameters: None

MDL&RSD



VOLATILE MDL AND RSD SUMMARY

EPA Method CLP-VOA

Title of your choice

Second line of your title

File Acquisition Range: 1/20/99 21:50 1/21/99 2:42

Compound	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	Average	RSD	MDL	
Dichlorodifluoromethane	0.165	0.206	0.204	0.166	0.173	0.132	0.135	0.195	0.173	17.0%	0.088	ppb
Chloromethane	0.186	0.171	0.000	0.211	0.184	0.179	0.173	0.000	0.138	62.4%	0.255	ppb
Bromomethane	0.260	0.311	0.224	0.313	0.276	0.219	0.287	0.274	0.271	13.0%	0.106	ppb
Chloroethane	0.217	0.000	0.000	0.235	0.314	0.000	0.319	0.232	0.165	85.8%	0.424	ppb
trans-1,1-Dichloroethene	0.127	0.138	0.158	0.116	0.042	0.146	0.200	0.000	0.116	55.6%	0.194	ppb
Methylenechloride	0.165	0.182	0.223	0.000	0.175	0.186	0.206	0.192	0.167	41.8%	0.205	ppb
Ethene, 1,2-dichloro-, (E)-	0.194	0.186	0.184	0.086	0.195	0.197	0.187	0.220	0.181	22.1%	0.120	ppb
1,1-Dichloroethane	0.195	0.202	0.205	0.177	0.201	0.204	0.200	0.202	0.195	4.8%	0.027	ppb
Propane, 2,2-dichloro-	0.147	0.177	0.146	0.170	0.165	0.150	0.136	0.000	0.137	41.7%	0.171	ppb
Bromochloromethane	0.180	0.178	0.202	0.178	0.186	0.201	0.189	0.193	0.189	4.9%	0.026	ppb
1,1,1-Trichloroethane	0.203	0.206	0.204	0.196	0.205	0.211	0.203	0.214	0.206	2.4%	0.015	ppb
Carbon Tetrachloride	0.197	0.204	0.215	0.200	0.203	0.196	0.216	0.196	0.205	4.3%	0.026	ppb
1-Propene, 1,1-dichloro-	0.203	0.225	0.000	0.000	0.187	0.191	0.209	0.215	0.154	62.2%	0.287	ppb
1,2-Dichloroethane	0.180	0.191	0.196	0.186	0.196	0.196	0.214	0.182	0.192	5.5%	0.032	ppb
Trichloroethylene	0.217	0.206	0.210	0.180	0.196	0.207	0.196	0.194	0.201	5.3%	0.032	ppb
1,2-Dichloropropane	0.188	0.196	0.192	0.201	0.195	0.208	0.186	0.193	0.195	4.2%	0.024	ppb
Bromodichloromethane	0.196	0.203	0.187	0.200	0.215	0.224	0.195	0.000	0.177	40.9%	0.216	ppb
1-Propene, 1,3-dichloro-, (Z)-	0.203	0.210	0.207	0.220	0.196	0.226	0.216	0.202	0.210	4.8%	0.030	ppb
Toluene	0.192	0.186	0.193	0.180	0.186	0.196	0.194	0.192	0.190	3.0%	0.017	ppb
1-Propene, 1,3-dichloro-, (E)-	0.134	0.012	0.000	0.023	0.203	0.027	0.124	0.081	0.076	96.1%	0.216	ppb
1,1,2-Trichloroethane	0.186	0.162	0.000	0.186	0.175	0.192	0.155	0.176	0.155	41.3%	0.192	ppb
1,3-Dichloropropane	0.175	0.230	0.246	0.205	0.192	0.206	0.200	0.186	0.206	11.1%	0.065	ppb
Chlorobenzene	0.186	0.200	0.195	0.205	0.191	0.210	0.194	0.193	0.192	4.0%	0.024	ppb

Title: (SEMI)VOLATILE MDL AND RSD SUMMARY

Description: Summarizes concentrations of target compounds by sample for up to 30 samples. Shows average, RSD and MDL (minimum detection level). This report is designed to summarize replicate analyses of samples of known composition, coded as QC samples (Sample Type "Q") in the sample list.

Source files: Sample list entries of sample type "Q"

Report Option controls: Include Surrogate Compounds

Compound parameters: Surrogate

NOTE: MDL is computed as Standard Deviation * Student t test value for 0.01 tail area probability and (replicates - 1) degrees of freedom.

MS/MSD

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Method CLP-VOA

Title of your choice

Second line of your title

Matrix Spike - EPA Sample No blank1 Level:(low/med): LOW

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC
1,1-Dichloroethane	5.0	0.1	3.6	69	61 - 145
1,1,1-Trichloroethane	5.0	0.2	5.5	108	71 - 120
Benzene	5.0	0.2	4.5	86	76 - 127
Toluene	5.0	0.2	4.4	84	50 - 150
Chlorobenzene	5.0	0.2	5.0	97	75 - 130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
1,1-Dichloroethane	5.0	6.4	126.0	58 *	14	61 - 145
1,1,1-Trichloroethane	5.0	6.3	122.8 *	13	14	71 - 120
Benzene	5.0	4.8	91.7	7	11	76 - 127
Toluene	5.0	4.8	92.3	10	11	50 - 150
Chlorobenzene	5.0	5.4	104.7	8	13	75 - 130

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

* Values outside of QC limits

RPD: 1 out of 5 outside limits

Spike Recovery: 1 out of 10 outside limits

Title: {WATER|SOIL}(SEMI)VOLATILE MATRIX SPIKE, MATRIX SPIKE DUPLICATE RECOVERY

Description: Reports recovery of spike and spike duplicate amounts of compounds from a sample matrix. Compounds are only included in this report if the Compound parameters Matrix Spike Amount and Amount Duplicate are nonzero.

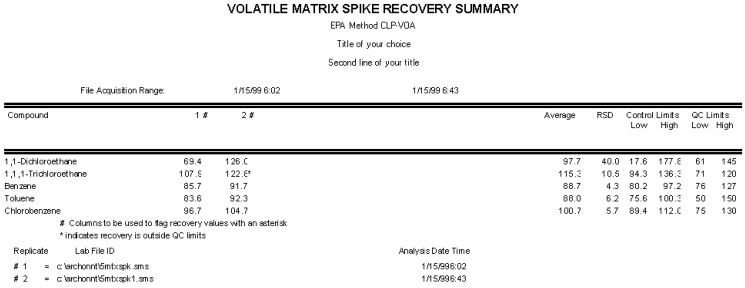
Source files: Sample list entries of sample type "S" (Sample Matrix), "1" (Matrix Spike) and "2" (Matrix Spike Duplicate). There should not be more than one sample of each of these types present in the sample list for this report.

Report Option controls: None

Compound parameters: Matrix Spike Amount, Amount Duplicate, RPD Limit, Quality Control Percent Recovery Limits Low & High

NOTE: Column label units are determined by the sample matrix and may not agree with the units reported by other quantitation reports where the units were determined by the workstation method and quantitation.

MS Recovery



VOLATILE MATRIX SPIKE RECOVERY SUMMARY

EPA Method CLP-VOA

Title of your choice

Second line of your title

File Acquisition Range: 1/15/99 6:02 1/15/99 6:43

Compound	1 #	2 #	Average	RSD	Control Limits Low	Control Limits High	QC Limits Low	QC Limits High
1,1-Dichloroethane	69.4	126.0	97.7	40.0	17.6	177.8	61	145
1,1,1-Trichloroethane	107.8	122.8*	115.3	10.5	94.3	136.3	71	120
Benzene	85.7	91.7	88.7	4.3	80.2	97.2	76	127
Toluene	83.6	92.3	88.0	6.2	75.6	100.3	50	150
Chlorobenzene	96.7	104.7	100.7	5.7	89.4	112.0	75	130

Columns to be used to flag recovery values with an asterisk
* indicates recovery is outside QC limits

Replicate	Lab File ID	Analysis Date Time
# 1 =	c:\archonnt\5mtxspk.sms	1/15/996:02
# 2 =	c:\archonnt\5mtxspk1.sms	1/15/996:43

Title: (SEMI)VOLATILE MATRIX SPIKE RECOVERY SUMMARY

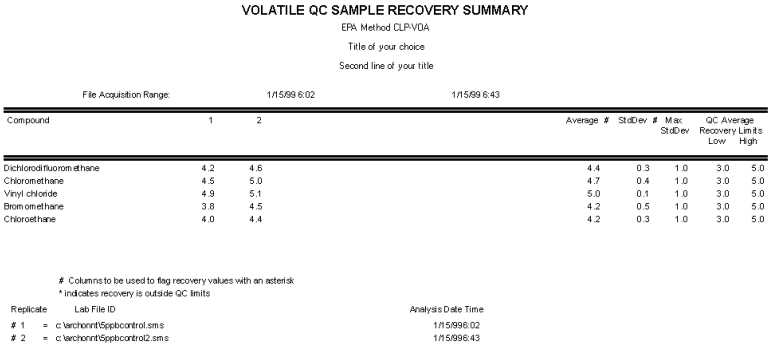
Description: Summarize matrix spike recovery for up to 30 samples for each compound whose compound parameter Matrix Spike Amount is nonzero. The average recovery, standard deviation, and computed control limits are also shown. Control limits are calculated as the average recovery +/- 2*Relative Standard Deviation.

Source files: Sample list entries of sample type "1" (Matrix Spike), maximum of one sample of sample type "S" (Sample Matrix).

Report Option controls: None

Compound parameters: Matrix Spike Amount, Quality Control Percent Recovery Limits Low & High

QC Recovery



VOLATILE QC SAMPLE RECOVERY SUMMARY

EPA Method CLP-VOA

Title of your choice

Second line of your title

File Acquisition Range: 1/15/99 6:02 1/15/99 6:43

Compound	1	2	Average	#	StdDev	#	Max StdDev	QC Average Recovery Limits Low	QC Average Recovery Limits High
Dichlorodifluoromethane	4.2	4.6	4.4		0.3		1.0	3.0	5.0
Chloromethane	4.5	5.0	4.7		0.4		1.0	3.0	5.0
Vinyl chloride	4.9	5.1	5.0		0.1		1.0	3.0	5.0
Bromomethane	3.8	4.5	4.2		0.5		1.0	3.0	5.0
Chloroethane	4.0	4.4	4.2		0.3		1.0	3.0	5.0

Columns to be used to flag recovery values with an asterisk
* indicates recovery is outside QC limits

Replicate	Lab File ID	Analysis Date Time
# 1 =	c:\archonnt\5ppbcontrol.sms	1/15/996:02
# 2 =	c:\archonnt\5ppbcontrol2.sms	1/15/996:43

Title: (SEMI)VOLATILE QC SAMPLE RECOVERY SUMMARY

Description: Summarizes concentrations of target compounds for up to 30 samples, the average, standard deviation, maximum allowed standard deviation, and Quality Control Average Recovery Limits - Low and High. Average and standard deviation values out of limits are flagged.

Source files: Sample list entries of sample type "Q"

Report Option controls: Include Surrogate Compounds

Compound parameters: Quality Control Maximum SD, Average Recovery Limits- Low & High, Surrogate

Select Reports

Click the Select Reports button to open the Select Reports form. This form is used to configure reports sets to be printed for each sample type and to configure the summary report set. It can be used to print the selected report set for one file or for all files in the sample list. This form also configures the report set to be printed when a data file is passed to this application for printing from a MS Workstation Toolbar button or from System Control through an AutoLink call during Sample List or Recalc List processing.

Apply Sample Correction Factor to Surrogates

Apply sample correction factor to surrogates. True or False

This parameter is effective only for samples where the "Compute" option has been selected for "Sample Correction Factor". If true, all analyte concentrations will be multiplied by the sample correction factor derived from sample table entries. If False, concentrations of compounds which have the Surrogate box checked on the Compound Edit form will not be multiplied by the sample correction factor.

Two Arrows to Allow Current Sample Selection

The two red arrows in the upper right corner of the page allow to select a different "current file" from the sample list. Right arrow moves down, left arrow moves up from the current "current sample" position in the sample list.

Close

Close: Clicking this button will close the form.

Fields: Setup/Preview/Print Reports

Method Title

Method Title: An editable string printed as a subtitle on most reports. It defaults to the EPA Method number currently being used.

Calibration

Calibration: The full path name of the Varian MS data file from which calibration data is read. The Initial Calibration Report uses data from this file.

CCC

CCC: The first sample list entry with sample type "C". This should be the sample used as the continuing calibration check / system performance check sample.

Blank

Blank: The first sample list entry with sample type "B". This sample should be a method blank. This file will be reported as the Method Blank on the Method Blank Summary Report. Compounds that are detected in this file will be tagged with a "B" on all quantitation report concentration fields if the "Include CLP like letter codes" option is selected on the Report Options form.

Current File

Current File: This is the file selected on the Main form before opening this form. It is the file which will be reported by all reports which can be previewed using the buttons on this form, excepting initial calibration and summary reports.

Matrix

Matrix: This is the first sample list entry having sample type "S". It is the file that will be reported as the Matrix in the Matrix Spike/Matrix Spike Duplicate report. It is also used by the Matrix Spike Recovery report. The concentrations of compounds in this file are subtracted from the corresponding compound concentrations in the Matrix Spike files (Sample Type 1 and 2) when computing Matrix Spike Recovery reports.

Matrix Spike

Matrix Spike: This is the first sample table entry with sample type "1", and is the file which will be reported as the matrix spike sample in the Matrix Spike/Matrix Spike Duplicate report.

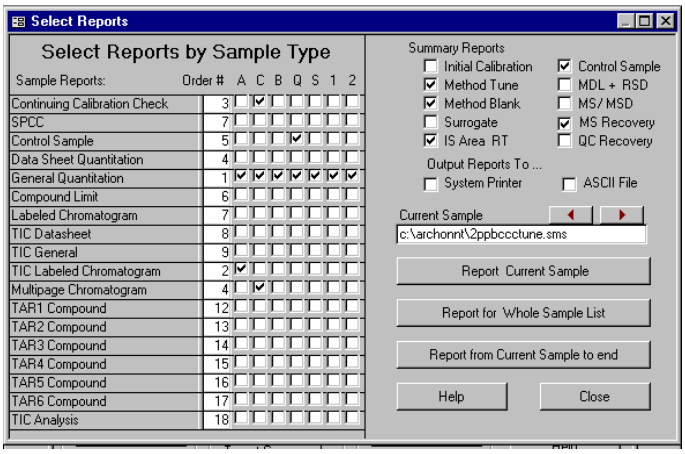
MSD

MSD: This is the file to be reported as the Matrix Spike Duplicate in the Matrix Spike/Matrix Spike Duplicate report. It is the first file in the sample table with the sample type coded as "2".

Select Reports

Select Reports is used to configure reporting profiles for each sample type. When EnviroPro is opened to report a file, either by the MS Workstation Toolbar Data File Operations-Print MS Report, or by an AutoLink call from System Control's Recalc List or Sample List, EnviroPro determines its sample type by consulting the Sample List. All reports that are set for this sample type are then generated in sequence order. The sequence order and selected reports by type are set in the left side of this form.

This form can also be used to generate a sequence of reports based on the EnviroPro sample list and selected "Current File". Summary reports are based on all files currently in the sample list and their sample types. They are produced at the end of the reporting sequence. Summary reports are not produced when an individual file report set is generated by AutoLink call, MS Workstation Toolbar command, or the Report Current Sample button.



Summary Reports Check Boxes

Initial Calibration

Initial Calibration: If this box is checked, the "Initial Calibration Data" report will be produced when summary reports are generated.

Method Tune

Method Tune: If this box is checked, the "Instrument Performance Check Summary" report will be produced when summary reports are generated.

Method Blank

Method Blank: If this box is checked, the "Method Blank Summary" report will be produced when summary reports are generated.

Surrogate

Surrogate: If this box is checked, the "Surrogate Recovery" report will be produced when summary reports are generated.

IS Amount & RT

IS Amount & RT: If this box is checked the "Internal Standard Area and RT Summary" report will be produced when summary reports are generated.

Control Sample

Control Sample: If this box is checked the "Control Sample Summary" report will be produced when summary reports are generated.

MDL&RSD

MDL & RSD: If this box is checked the "MDL and RSD Summary" report will be produced when summary reports are generated.

MS/MSD

MS/MSD: If this box is checked the "Matrix Spike/Matrix Spike Duplicate Recovery" report will be produced when summary reports are generated.

MS Recovery

MS Recovery: If this box is checked the "Matrix Spike Recovery" report will be produced when summary reports are generated.

QC Recovery

QC Recovery: If this box is checked the "QC Sample Recovery" report will be produced when summary reports are generated.

Output Reports To Check Boxes

System Default Printer

System Printer: If this box is checked, when a report is produced it is printed to the system default printer. The system default printer is selected on the Start-Settings-Printer menu as the default printer. The selected printer should support graphics and True Type fonts.

ASCII File

ASCII File: If this box is checked, when a report is produced an ASCII file is written to disk in the same directory as the data file. The file name will be the same as the data file being processed with an extension that reflects the type of report, as shown below. Summary reports are stored under the Initial Calibration file name.

1A1 CLP Data Sheet

1A2 General Quantitation Report

1A3 Compound Limit Report

1A4 Labeled Chromatogram Report

1E1 CLP TIC Report

1E2 General TIC Report

1E3 TIC Data Sheet Report

2A1 Surrogate Recovery Summary

3A1 Matrix Spike/Matrix Spike Duplicate Recovery

3A2 Matrix Spike Recovery Summary

3B1 QC Recovery Summary

4A1 Method Blank Summary

4A2 Control Sample Summary

5A1 Instrument Performance Check

5B1 Instrument Performance Check Summary Report

6A1 Initial Calibration Data Report

7A1 Continuing Calibration Check (CCC)

7A2 Continuing Calibration Check (SPCC)

7A3 Laboratory Control Sample Report

8A1 Internal Standard Area & RT Summary

Buttons: Select Reports

Report for Whole Sample List

Report for Whole Sample List: When this button is clicked the EnviroPro sample list is processed file by file. For each file the reports selected for the file Sample Type are produced. When this is completed, the selected summary reports are produced.

Report Current Sample

Report Current Sample: When this button is clicked, the reports selected for the sample type of the current file are produced. No summary reports are generated.

Report from Current Sample to End

Report from Current Sample to End: When this button is clicked the selected reports for the sample types of each file from the current file to the end of the sample list are generated. The selected summary reports are then generated.

Two Arrows to Allow Current Sample Selection

The two red arrows in the upper right corner of the page allow the selection of a different "current file" from the sample list. Right arrow moves down, left arrow moves up from the current "current sample" position in the sample list.

Close

Close: Clicking the close button will close this form.

Sample Reports Fields

Sample Reports

Sample Reports: This field contains the name of one of the reports that may be printed when a data file is printed.

Order

Order #: This field shows the order in which per sample reports will be generated. Editing this field will alter the printing order. **Note** that when a Target Compound report is printed, one page for each reportable compound in the sample will be printed consecutively before another report type is processed.

A

A: When a check box in this column is checked, the report named in the row will be generated for each sample list entry processed that has a sample type of "A" (Analysis).

C

C: When a check box in this column is checked, the report named in the row will be generated for each sample list entry processed that has a sample type of "C" (Continuing Calibration Check).

B

B: When a check box in this column is checked, the report named in the row will be generated for each sample list entry processed that has a sample type of "B" (Method Blank).

Q

Q: When a check box in this column is checked, the report named in the row will be generated for each sample list entry processed that has a sample type of "Q" (Quality Control).

S

S: When a check box in this column is checked, the report named in the row will be generated for each sample list entry processed that has a sample type of "S" (Sample Matrix).

1

1: When a check box in this column is checked, the report named in the row will be generated for each sample list entry processed that has a sample type of "1" (Matrix Spike).

2

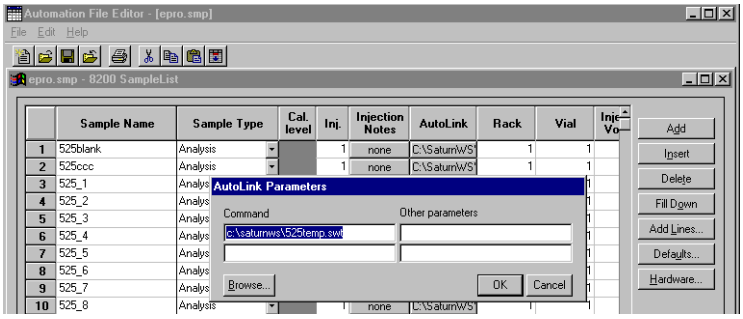
2: When a check box in this column is checked, the report named in the row will be generated for each sample list entry.

Automation

Before online reporting can take place, the reporting template (. swt) must be completed. The Laboratory information, Method setup, Compound Information, Sample List and Reporting specifications must be set up. The name of this completed EnviroPro template (.swt) will be used in the Auto Link field of the Sample List of the core Varian MS software.

EnviroPro reports may be generated immediately after the file acquisition is completed. If this is the desired report generation format, the sample list used in system control to execute data acquisition and the Sample List in EnviroPro must be coordinated.

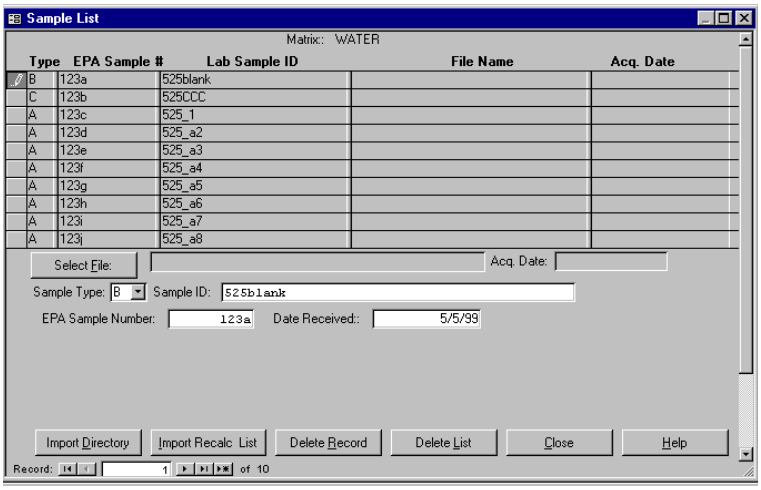
Sample List in the Varian MS software



List of injections to be executed via System Control (Varian MS core software)

Complete the Sample List for data acquisition as desired, specify unique sample names. In the Auto Link field enter the name of the EnviroPro template to be used for reporting once the acquisition is completed.

Sample List in EnviroPro

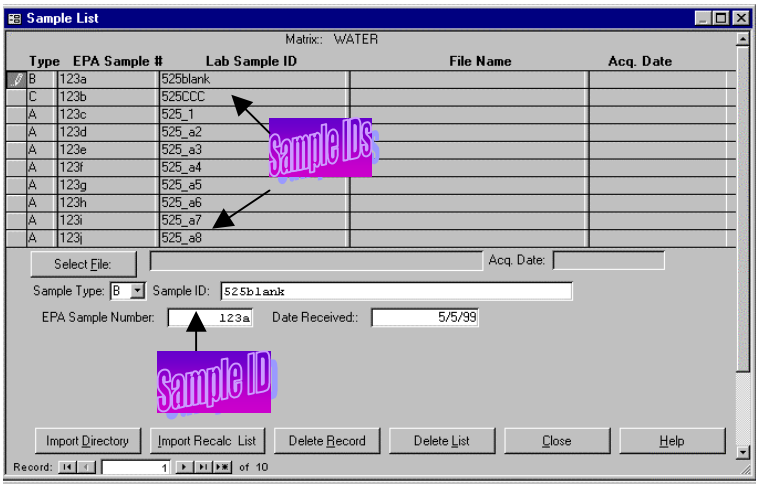


The sample list in the .swt method (used in the Auto Link) must be filled out for proper reporting. The "Sample Name" specified in the automation sample list file should be entered into the "Sample ID" field (will be displayed in the "Lab Sample ID" field) in the EnviroPro sample List. This will be the link between the datafiles to be acquired and the reporting specifications for them. The other sample parameters (EPA sample number, date received on the form shown above) also must be entered for each sample.

Sample ID

This field is used to identify sample parameters during AutoLink invocation of EnviroPro reports during System Control processing of Sample Lists. When a file is handed to EnviroPro by a MS Workstation Toolbar print button or a System Control AutoLink call, EnviroPro searches for a Sample ID matching the data file Sample Name, and, if found, uses that sample list entry. If no match is found, parameters from the first sample entry in the list are used to create a new entry.

As long as each Sample ID is unique in the sample list, and only one file with each Sample ID is processed, the EnviroPro sample list may be set up before data files are acquired, and EnviroPro used to generate reports immediately after data acquisition. If a duplicated Sample Name is presented to EnviroPro, EnviroPro will overwrite the Sample List Entry of the first Sample ID found which matches the file Sample Name.


Sample List
Matrix: WATER
Type EPA Sample # Lab Sample ID File Name Acq. Date
B 123a 525blank
C 123b 525CCC
A 123c 525_1
A 123d 525_a2
A 123e 525_a3
A 123f 525_a4
A 123g 525_a5
A 123h 525_a6
A 123i 525_a7
A 123j 525_a8
Sample IDs
Select File:
Acq. Date:
Sample Type: B
Sample ID: 525blank
EPA Sample Number: 123a
Date Received:: 5/5/99
Sample ID
Import Directory
Import Recalc List
Delete Record
Delete List
Close
Help
Record: 1 of 10

Appendix A

EPA Methods

524.2, Revision 3, 1989

"Measurement of Purgeable Organic Compounds in Water by Capillary Column Chromatography/Mass Spectrometry"

Method Section & Title	EnviroPro Report
9.2.2 Initial Calibration	Tune Reports
9.2.4 Initial Calibration	Chromatogram Report
9.2.6 Initial Calibration	Initial Calibration Report
9.3.1 Continuing Calibration Check	Tune Reports
9.3.3 Continuing Calibration Check	Chromatogram Report
9.3.4 Continuing Calibration Check	Internal Standard Area and RT Summary
9.3.5 Continuing Calibration Check	Continuing Calibration Report
10.3.2 – 10.3.3 Quality Control	MS Recovery, MDL and RSD Summary Reports
12 Calculations	Quantitation Reports

Sample Correction factor = 1

624, July 1982

"Purgeables"

Method Section and Title	EnviroPro Report
7.4.3 Calibration	Initial Calibration Report
8.2.3 Quality Control	Matrix Spike Recovery
8.3.1 Quality Control	Surrogate Recovery
10.3 Daily GC/MS Performance Tests	Tune Reports
13. Calculations	Quantitation Reports
14 Method Performance	MDL and RSD Summary

Sample Correction factor =1

NOTE: 624 Method accuracy is defined as R+/-s. Method Accuracy is reported in the Matrix Spike Recovery report as R+/- 2s.

8240B Revision 2, September 1994

"Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)"

Method Section & Title	EnviroPro Report
7.2.7-7.2.9 Initial Calibration	Initial Calibration Report
7.3.1 Daily GC/MS Calibration	Tune Reports
7.3.3 –7.3.4 Daily GC/MS Calibration	SPCC Report
7.3.5 Daily GC/MS Calibration	Internal Standard Area & RT Summary
7.4.1.4 GC/MS analysis	Tune Reports
7.5 Data Interpretation	Quantitation and Compound Graphical Reports
8.3 Quality Control	Graphical Compound Reports (TAR1-TAR6)
8.4.1 Quality Control	Tune Reports
8.5.4 Quality Control	QC Recovery Report
8.6-8.8 Quality Control	MS Recovery Report
8.9 Quality Control	Surrogate Recovery

Relationship between 8240 method terminology and EnviroPro Sample List form and Report Headers:

8240	Sample List form	Report Header
V_t = Volume of total extract(μL)	Extract Vol	Soil Extract Volume(μL)
V_o = volume of water purged, taking into consideration any dilutions made	Sample wt/vol, Units : mL	Sample wt/vol (mL)
V_i= Volume of extract added for purging(μL)	Injection Vol	Soil Aliquot Volume(μL)
D = % dry weight/100 or 1 for wet weight basis	% Dry Weight	% Dry Weight
W_s = Weight of sample extracted or purged(g)	Sample wt/vol, Units g	Sample wt/vol (g)

Water:

Sample Correction factor = 1/(Sample wt/vol)

Soil:

Sample Correction factor = (Extract Vol))/((Injection Vol)(Sample wt/vol)(Dry Weight fraction))

8260A Revision 2, September 1994

"Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Column Technique"

Method Section & Title	EnviroPro Report
7.3 Initial Calibration	Initial Calibration Report
7.4.1 Daily GC/MS Calibration	Tune Reports
7.4.2 –7.4.4 Daily GC/MS Calibration	SPCC Report
7.4.5 Daily GC/MS Calibration	Internal Standard Area & RT Summary
7.6 Data Interpretation	Quantitation and Compound Graphical Reports
8.3.4 Quality Control	QC Recovery

Relationship between 8260 method terminology and EnviroPro Sample List form and Report Headers:

8260	Sample List form	Report Header
V_t = Volume of total extract(μL)	Extract Vol	Soil Extract Volume(μL)
V_o = volume of water purged, taking into consideration any dilutions made	Sample wt/vol , Units : mL	Sample wt/vol (mL)
V_i= Volume of extract added for purging (μL)	Injection Vol	Soil Aliquot Volume(μL)
D = % dry weight/100 or 1 for wet weight basis	% Dry Weight	% Dry Weight
W_s = Weight of sample extracted or purged(g)	Sample wt/vol, Units g	Sample wt/vol (g)

Water:

Sample Correction factor = 1/(Sample wt/vol)

Soil:

Sample Correction factor = (Extract Vol))/((Injection Vol)(Sample wt/vol)(Dry Weight fraction))

CLP- VOA

"USEPA CONTRACT LABORATORY PROGRAM, STATEMENT OF WORK FOR ORGANICS ANALYSIS", IFB DU0043R1, ATTACHMENT A, GV/MS ANALYSIS OF VOLATILES

Method Section & Title	EnviroPro Report
6.4.4 – 6.4.5 Instrument Operating Conditions	Tune Reports

7 Calibration	Initial Calibration Report
7.4.7 Calibration	Continuing Calibration Report
7.4.8	Internal Standard Area & RT Summary
10 Quantitative Analysis	Quantitation and Compound Graphical Reports
10.8 Quantitative Analysis	Surrogate Recovery
10.9 Quantitative Analysis	MS/MSD Report

Relationship between CLP-VOA method terminology and EnviroPro Sample List form and Report Headers:

CLP-VOA	Sample List form	Report Header
V_t = Total Volume of methanol extract(mL)	Extract Vol (enter in μL)	Soil Extract Volume(μL)
V_o = volume of water purged, in mL	Sample wt/vol , Units : mL	Sample wt/vol (mL)
V_a= Volume of the aliquot of methanol extract added to reagent water for purging(μL)	Injection Vol (enter in μL)	Soil Aliquot Volume(μL)
% moisture	% Moisture	% Moisture
Df = Dilution Factor	Dilution Factor	Dilution Factor
W_s = Weight of soil extracted (g)	Sample wt/vol, Units g	Sample wt/vol (g)

Water:

Sample Correction factor = (Dilution Factor)/(Sample wt/vol)

Low Soil:

Sample Correction factor = 1/((Sample wt/vol)(0.01*(100 -% Moisture)))

Medium Soil *(CAUTION- enter Extract Vol in μL)*

Sample Correction factor = (Extract Vol)(Dilution Factor) /

((Injection Vol)(Sample wt/vol)(0.01*(100-% Moisture)))

NOTE: EnviroPro reports are not designed for compliance with submission requirements for the EPA Contract Laboratory Program.

525.1, Revision 2.2, May 1991

"Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column Gas Chromatography/ Mass Spectrometry"

Method Section & Title	EnviroPro Report
9.2.2 Initial Calibration	Tune Reports
9.2.4 Initial Calibration	Graphical Compound Reports
9.2.6.1 Initial Calibration	Initial Calibration Report
9.3 .1 Continuing Calibration	Tune Reports

Check	
9.3.3 Continuing Calibration Check	Graphical Compound Reports
9.3.4 Continuing Calibration Check	Internal Standard Area and RT Summary
9.3.5 Continuing Calibration Check	Continuing Calibration Report
10.3.2 – 10.3.3, 10.7 Quality Control	MS Recovery, MDL and RSD Summary Reports
12 Calculations	Quantitation Reports

Relationship between 525.1 method terminology and EnviroPro Sample List form and Report Headers:

525.1	**Sample List form**	**Report Header**
V = original water sample volume in L	Sample wt/vol , Units : L	Sample wt/vol (L)

Water:

Sample Correction factor = 1/(Sample wt/vol)

625, July 1982

"Base/Neutrals and Acids"

Method Section and title	**EnviroPro Report**
7.3.2 Calibration	Initial Calibration Report
8.2.3 Quality Control	Matrix Spike Recovery
8.3.1 Quality Control	Surrogate Recovery
12.3 Daily GC/MS Performance Tests	Tune Reports
15.2. Calculations	Quantitation Reports
16 Method Performance	MDL and RSD Summary

Relationship between 625 method terminology and EnviroPro Sample List form and Report Headers:

625	**Sample List form**	**Report Header**
V_o = volume of water extracted (L)	Sample wt/vol , Units : L	Sample wt/vol (L)

Water:

Sample Correction factor = 1/(Sample wt/vol)

NOTE: 625 Method accuracy is defined as R+/-s. Method Accuracy is reported in the Matrix Spike Recovery report as R+/- 2s.

8250A, Revision 1, September 1994

"Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)"

Method Section & Title	EnviroPro Report
7.3 Initial Calibration	Initial Calibration Report
7.4.1 Daily GC/MS Calibration	Tune Reports
7.4.2 –7.4.4 Daily GC/MS Calibration	SPCC Report
7.4.5 Daily GC/MS Calibration	Internal Standard Area & RT Summary
7.6 Data Interpretation	Quantitation and Compound Graphical Reports
8.5 Quality Control	QC Recovery
8.6-8.8 Quality Control	MS Recovery
8.9 Quality Control	Surrogate Recovery Report

Relationship between 8250 method terminology and EnviroPro Sample List form and Report Headers:

8250	Sample List form	Report Header
V_{ex} = extract volume (mL)	Extract Vol	Concentrated Extract Volume
V_o = volume of liquid extracted, (L)	Sample wt/vol , Units : L	Sample wt/vol
W_s = Sample Weight(kg)	Sample wt/vol, Units kg	Sample wt/vol

Sample Correction factor = (Extract Vol)/(Sample wt/vol)

8270 Revision 2, September, 1994

"Semivolatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS): Capillary Column Technique"

Method Section & Title	EnviroPro Report
7.3 Initial Calibration	Initial Calibration Report
7.4.1 Daily GC/MS Calibration	Tune Reports
7.4.2 –7.4.4 Daily GC/MS Calibration	SPCC Report
7.4.5 Daily GC/MS Calibration	Internal Standard Area & RT Summary
7.6 Data Interpretation	Quantitation and Compound Graphical Reports
8.5 Quality Control	QC Recovery
8.6-8.8 Quality Control	MS Recovery
8.9 Quality Control	Surrogate Recovery Report

Relationship between 8270 method terminology and EnviroPro Sample List form and Report Headers:

8270	Sample List form	Report Header
V_{ex} = extract volume (mL)	Extract Vol	Concentrated Extract Volume
V_o = volume of liquid extracted, (L)	Sample wt/vol , Units : L	Sample wt/vol
W_s = Sample Weight(kg)	Sample wt/vol, Units kg	Sample wt/vol

Sample Correction factor = (Extract Vol)/(Sample wt/vol)

CLP-SV

"USEPA CONTRACT LABORATORY PROGRAM, STATEMENT OF WORK FOR ORGANICS ANALYSIS", IFB DU0043R1, ATTACHMENT A, GC/MS ANALYSIS OF SEMIVOLATILES

Method Section & Title	EnviroPro Report
4.3.3 Instrument Operating Conditions	Tune Reports
5.4-5.6 Calibration	Initial Calibration Report
5.7 Calibration	Continuing Calibration Report
5.8 & 8.1 Calibration	Internal Standard Area & RT Summary
8.2 Quantitative Analysis	Quantitation and Compound Graphical Reports
8.5 Quantitative Analysis	Surrogate Recovery
8.6 Quantitative Analysis	MS/MSD Report

Relationship between CLP-SV method terminology and EnviroPro Sample List form and Report Headers:

CLP-SV	Sample List Form	Report Header
V_t = Total Volume of methanol extract (μL)	Extract Vol	Concentrated Extract Volume (μL)
V_o = volume of water extracted in mL	Sample wt/vol , Units : mL	Sample wt/vol (mL)
V_i= Volume of extract injected (μL)	Injection Vol	Injection Volume (μL)
% moisture	% Moisture	% Moisture
Df = Dilution Factor	Dilution Factor	Dilution Factor
W_s = Weight of soil extracted (g)	Sample wt/vol, Units g	Sample wt/vol (g)

Water:

Sample Correction factor =((Extract Vol) (Dilution Factor)) / ((Sample wt/vol)(Injection Vol))

Soil

Sample Correction factor = (Extract Vol)(Dilution Factor) /

((Injection Vol)(Sample wt/vol)(0.01*(100-% Moisture)))

NOTE: EnviroPro reports are not designed for compliance with submission requirements for the EPA Contract Laboratory Program.