COELT USERS MANUAL

VERSION 1.2a

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Prepared for

Department of the Army
Pacific Ocean Division
U.S. Army Engineer District, Alaska
P.O. Box 898
Anchorage, Alaska 99506-0898

Prepared by

Arsenault & Associates, Inc.
9600 Main Tree Drive
Anchorage, Alaska 99516

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1.0 Introduction

The Corps of Engineers Loading Tool (COELT) program is a relational database that is designed to run with the Microsoft Windows operating system. COELT places laboratory data into a standard format, facilitating the efficient and accurate transfer of data between the laboratory and the end user. The program can accept Laboratory Information Management System (LIMS) data or data may be entered into COELT manually. COELT helps the user enter data, find errors, and comply with the laboratory data requirements of the U.S. Army Corps of Engineers (COE).

Key Concepts

To make the program easier to learn and understand, certain key elements of COELT are described below:

- COELT puts analytical data into a standard electronic format that fits COE electronic deliverable requirements.

- COELT allows the user to form complete records of individual samples and the tests associated with them. These records include information on the analyses performed on a sample, the methods of testing, the sample preparation, and the tests performed for quality control. The user can, therefore, access the entire analytical history of a given sample and its quality controls.

- The COELT program distinguishes between complete records and partial records. Complete records meet all COE data requirements for a sample record. Since some imported files may be incomplete, COELT separates those files out and tags them as partial records, which can be completed later.

- Laboratories may define their own method information (i.e., method detection limits, control limits, and the order of the parameter list) for each analytical method they use. This customized information may then be retrieved and entered automatically in the sample record using "hot keys."

- The COELT format lets the user search analytical databases for specific information and sorts the data by specific fields. This makes it easy to search for desired sample data, compare information across fields, and track errors.

- COELT may be used on a networked system.

2.0   Conventions

If the user already has experience with windows-based programs,   Chapter 2 (with the exception of Table 2-1 which describes the program function keys) can be bypassed.

Keyboard Entries

For the purposes of this manual the key board entries will be described using the following conventions. All keyboard entries are enclosed in square brackets: [ ] when the user should press them. Example: The "Enter" key and the function key "F2" appear as [Enter] and [F2], respectively.

Some keys need to be pressed at the same time to perform a desired function. When this kind of entry is necessary, it is displayed with a hyphen. For instance, the entry [Ctrl-E] means that the "Ctrl" and "E" keys should be held down at the same time.

The terms "up arrow," "down arrow," "left arrow," and "right arrow" refer to the directional arrows found on most keyboards. On many keyboards these arrows are on the alpha-numeric pad, on the 8, 2, 4 and 6, respectively. They can be used when the "number lock" function is off.

The Mouse

The COELT program utilizes a hand-held mouse. The mouse allows the user to move an arrow-shaped pointer around the screen. When this manual instructs the user to "click on the microscope icon," it means that the user should move the mouse until the pointer is over the microscope icon (picture), press the button on the mouse, and let it up. When this manual instructs the user to "double click" it means that the user should press the button twice in rapid succession.

Buttons

A number of functions in this program are activated by clicking on "buttons." These small buttons can be selected by moving to the button and clicking on it.

Message Screens

Occasionally the user will do something that prompts the appearance of a message screen. These small screens pop up to indicate errors, warnings, and incomplete entries. Message screens will either give users a choice of actions or an informational message. If a choice of actions is offered, the screen can be removed by choosing an action and clicking on it. If the message is informational, the user can remove the screen by pressing any key or clicking the mouse button anywhere on the screen.

Hot Keys **(Function and Control Keys)**

The function keys (F1, F2,. . ., F12) and some keys pressed in combination with the control key have special capabilities. Generally the function keys and control keys are only functional when the program is in "New" or "Modify" mode. (F1 and Alt-F1 are functional in any mode.) For a description of the functions of these keys, refer to the Table 2-1.


```
┌─────────────────────────────────────────────┐
│ ▬              Hot Keys                      │
├─────────────────────────────────────────────┤
│                                             │
│    F2          Valid value lookup           │
│    F3          Analytes left to enter       │
│    F4          TIC lookup                   │
│    F9          Validate current record      │
│    F11         Toggle line checking         │
│    F12         Toggle line adding           │
│    Ctrl+r      Copy prior record            │
│    Ctrl+f      Copy prior field             │
│    Ctrl+e      Expand method's analytes     │
│    Ctrl+u      Undo last modification       │
│    Ctrl+v      Quick control limit entry    │
│                                             │
│                  ┌─────┐                    │
│                  │ Ok  │                    │
│                  └─────┘                    │
└─────────────────────────────────────────────┘
```
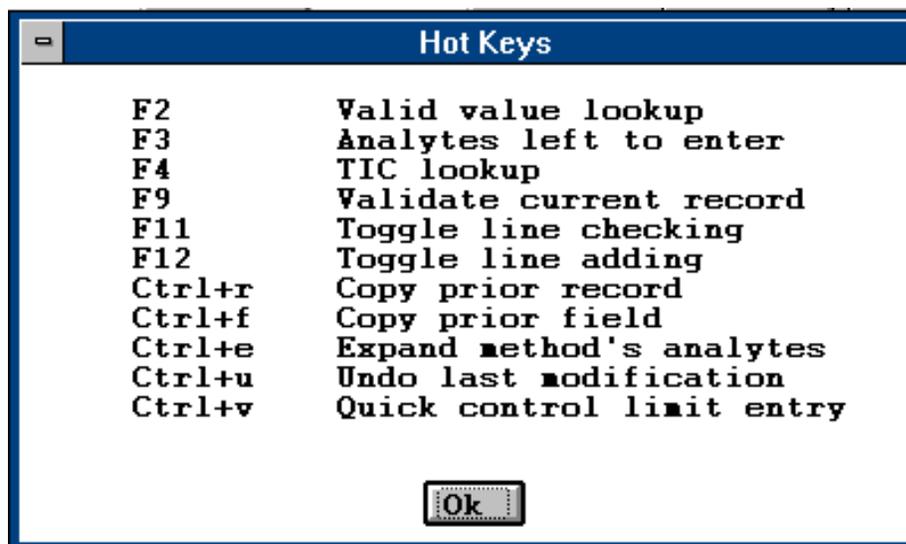
Figure 2-1. List of "Hot Keys" [Alt-F1].

Pull-Down Menus

Many of the COELT program functions can be accessed through pull-down menus running along the top of the screen. Clicking on the main subject words will bring up these menus. The user can select a function by placing the pointer on the desired function and clicking on it.

Menu Pad   Menu Bar

| File | **Edit** | Options | Look Up | Sort | Browse | Help |

Delete Current Item ← Selected
New Sample

Exit Modify ← Disabled
Modify

Menu Popup

Undo   CTRL+Z

Copy Prior Record
Copy Prior Field
Duplicate Sample ← Available

Expand Method's Analytes

Control Limit Quick Entry
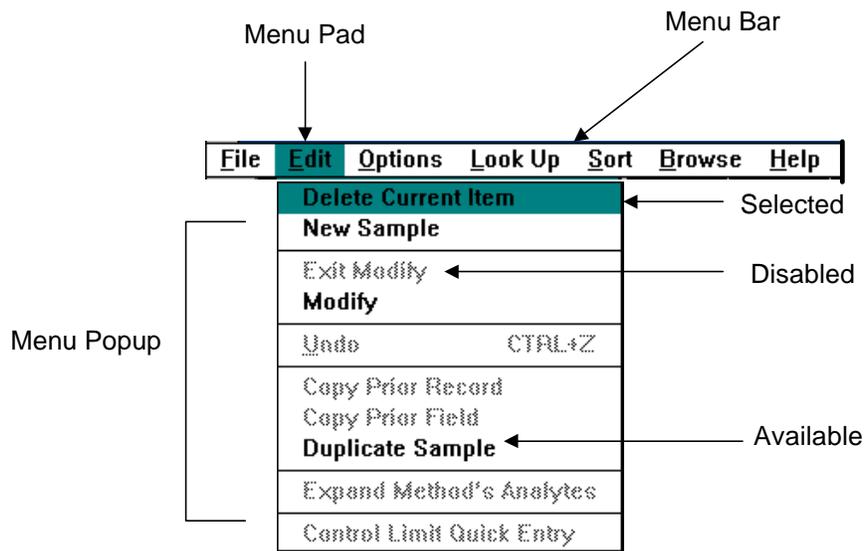
Figure 2-2. Pull-Down Menu from the "Enter Sample Results" screen.

2-3

Window Controls

COELT provides several features for moving throughout the program as well as providing sizing options to fit user preferences. These features are noted below and described in Table 2-2.
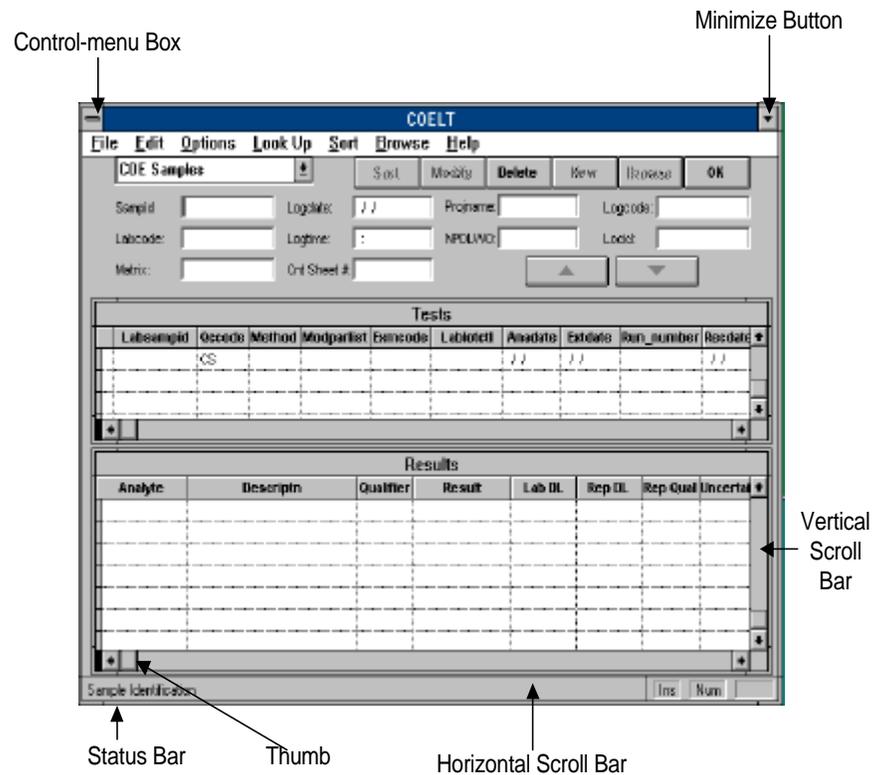
Figure 2-3. Window Controls.

Table 2-1. Function Key and Control Key Descriptions

Key(s)	Description
Alt-F1	FUNCTION KEY LIST - Lists the available function keys.
F1	ONLINE HELP - Provides context sensitive online help.
F2	VALID VALUE LOOKUP - Context sensitive valid value codes and code descriptions.
F3	ANALYTES LEFT TO ENTER - Lists the remaining compounds to be entered for a given method.
F4	TIC LOOKUP - Valid value codes for tentatively identified compounds.
F9	VALIDATE CURRENT RECORD - Moves valid record from partial to complete. If the record is not complete, error messages will appear to help the user complete the record.
F11	TOGGLE LINE CHECKING - Allows the user to disable the format checking functions of the program. This function key will not disable program checking of the valid value codes.
F12	TOGGLE LINE ADDING - Adds a blank record to the highlighted section.
Ctrl-R	COPY PRIOR RECORD - Copies down the record of the preceding line.
Ctrl-F	COPY PRIOR FIELD - Copies down the field above to the current record.
Ctrl-E	EXPAND METHOD ANALYTES - Copies the compound list, method detection limits, and default values into the results section of the program. Detection limits may also be adjusted for dilution using this function. (Method detection limits must be entered into the Modify Method Detection Limits section of the program prior to using this function.)
Ctrl-U	UNDO LAST MODIFICATION - Reverses the last entry into a field.
Ctrl-V	QUICK CONTROL LIMIT ENTRY - Provides a quick entry screen for control limit entry.

Table 2-2. Window Control Functions

__Window Control__	__Function__
Control-Menu Box	Provides a menu of options to either "Minimize" the program screen or "Switch To" another window or screen format.
Minimize Button	Minimizes the program screen to an icon at the bottom of the screen. To "Restore" the program screen to its standard size, double click on the icon.
Status Bar	Indicates the full name of the highlighted field in the "Enter Sample Results" screen. In all other screens, the status bar indicates the current screen and the status of the records associated with that screen.
Thumb	The "Thumb" provides rapid access to additional fields tha are not currently visible on the screen. Press and drag the "Thumb" in the direction of the additional fields that the user wishes to view.
Horizontal Scroll Bar	The "Horizontal Scroll Bar" provides access to additional fields that are not currently visible on the screen. Clicking on the arrow pointing to the right, makes visible the fields on the right side of the screen section. Clicking on the arrow pointing to the left, makes visible the fields on the left side of the screen section.
Vertical Scroll Bar	The "Vertical Scroll Bar" provides access to additional records that are not currently visible on the screen. Clicking on the "down arrow" records below the visible portion of the screen section. Clicking on the "up arrow" reveals records above the visible portion of the screen section.

3.0   Getting Started

The following section introduces the user to the fundamentals of COELT from program installation to the basic program design.

Hardware Requirements

COELT requires an IBM-compatible 386 or higher, with a hard disk and a 3.5-inch floppy-disk drive. The program requires a minimum of 4 megabytes of RAM (8 megabytes of RAM are recommended). A minimum of 6 megabytes of storage is required on the hard disk, although importing and storing data files can take up much more disk space. For this reason, at least 20 megabytes of available hard disk storage is recommended.

Most standard printers can be utilized with this program. The printer should be capable of graphics outputs and accessible to Windows based programs.

Networking Capabilities

The COELT program may be used on a networked system. Functions of the program that allow multiple user access are:

> Enter Sample Results

> Enter Control Limit Information

> Modify Method Detection Limits

Program functions that may be entered while only one user is on the system are:

> Import LIMS Files

> Perform Database Maintenance

COELT will exclude the user from accessing these functions if another user is on the system. Alternatively, if either of these functions is in use, no other function may be accessed by an additional user.

To Install COELT:

The COELT program is installed using three, 3.5-inch floppy disks.

1.   Start Microsoft Windows.

2.   Place the disk labeled "COELT Disk One" in the 3.5-inch floppy disk drive.

3.   Open the Program Manager window.

4.   Click on "File" and, while holding the mouse button down, drag the cursor down until "Run..." is highlighted.

5.   A "Run" screen will come up.

6.   If the floppy disk is in the "A" drive, the user should type [A:\Setup.exe].

7.   Click on the "OK" button.

8.   Follow on-screen instructions to determine when to put the two other COELT disks into the disk drive.

9.   When the program is fully installed the screen will reveal the message "Set-up is complete".

To Start the COELT Program:

1.   Start Microsoft Windows.

2.   Open the Program Manager window.

3.   Click on COELT program group.

4.   The window will reveal the COELT icon, a lab notebook. Double-click on this icon.

5.   The first screen that comes up asks the user for a password, enter [coelt].

After the program begins running, it will display the title screen. For maximum database security the user should change the password as soon as possible using "Perform Database Maintenance."

Program Overview

The title screen shows the name of the program, and the eight main functions of COELT. Each of the functions is displayed as an icon with a written description next to it. Any function can be accessed by placing the pointer on the icon and clicking the mouse once. A general description of each function follows.
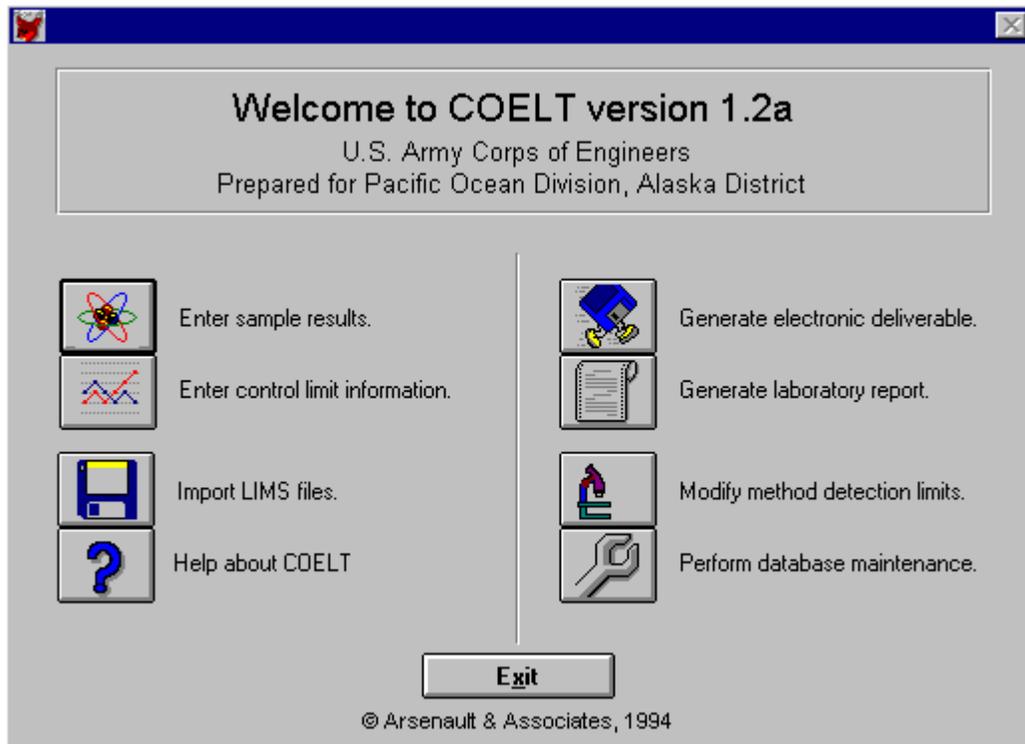
Figure 3-1. COELT Title Screen.
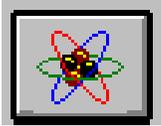
Entering Sample Results

The "Enter Sample Results" area of the program is the section where the sample results may be manually entered. Additionally, imported data may be accessed from the "Enter Sample Results" section of the program for modification and previewing. This section of the program also provides data search functions.
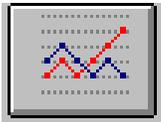
Entering Control Limit Information

COELT provides a convenient format for the entry and storage of information on laboratory control limits. (The user does not have to reenter control limits each time laboratory reports are generated). The user only needs to enter control limit data once, and "Modify" it occasionally when control limits change. The reports will automatically include the stored control limits.
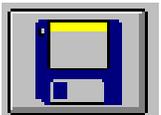
Importing LIMS Files

COELT can import and format dBase files or ASCII (text) files.
COELT reformats the data to comply with COE guidelines. Those records that are not in compliance with the format or COE guidelines are held in a "partial area." These records can then be displayed in the "Enter Sample Results" area so the user can make the necessary changes and additions.

Online Help

On-line help provides descriptions of various features and functions of the program. This section will guide the user through tasks in a step-by-step manner.

Generating Electronic Deliverables

The electronic deliverables feature moves the data from the COELT database into a standardized, digital format. The standardized format minimizes data manipulation by the end users, as well as eliminating laborious reentry of hard copy laboratory data.

Printing Laboratory Reports

Quick, complete laboratory reports with a standardized format are printed using this function. Printing laboratory reports directly from the database ensures that the digital data is representative of the hard copy report.

Modify Method Detection Limits

COE specified method lists may be developed to include laboratory determined detection limits. This method list may also be reordered to reflect a laboratories standard analyte order for a given method. The custom lists containing the detection limits and analyte order will automatically be referred to by the program for rapid data entry.
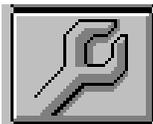
Performing Database Maintenance

Database maintenance and security is performed using this function. Users may delete or condense records in the databases, as well as change the passwords.

4.0 Valid Values

Valid values are built-in codes that the program requires for certain fields, such as analyte names, matrices, and laboratories. The reason for using a set value for these fields is to standardize the entries and prevent errors. Freely entered data might contain an extra comma or dash that would make meaningful data manipulation and thorough data searches impossible.

Most valid values are abbreviations of common or proper names, hence selecting the correct code is generally straight forward. However some valid values are codes which help the computer link up data properly (e.g., "Qccodes" linking a matrix spike (MS1) to a matrix spike duplicate (SD1)). The use of these valid values requires more attention and is generally dictated by the guidelines and restrictions outlined in *The Electronic Deliverable Format (EDF)* document and summarized in the next section "Valid Value Guidelines".

Valid Value Guidelines

Valid value fields are used throughout the COELT program to standardize data entry. Table 4-1 presents a list of COELT's valid value fields.

Valid values such as "Labcode", "Logcode", "Sub", and "Srm" are abbreviations of common and proper names. The remaining valid values are applied within specific sets of guidelines as described in this section. For more detailed information refer to the *Electronic Deliverable Format (EDF)* document in Chapter 15.

Some of the field names in COELT are more descriptive than the names that appear in the *EDF*. For field name translations between COELT and the *EDF* refer to Appendix A.

A comprehensive list of valid values is available in the *EDF*. If an additional value is required, this list may be updated (refer to Page 4-11).

Analyte:

The "Analyte" valid value is an abbreviation of the common chemical name. Most of the names describing the "Analyte" valid values are as they appear in US EPA Methods for Solid and Hazardous Waste SW-846. For ease of code searches use COELT's "F2" function key or refer to the *EDF*.

For Tentatively Identified Compounds (TIC), the user does <u>not</u> require a standard "Analyte" valid value. The user may enter the Chemical Abstract Number (CAS) of the TIC, use the hot key "F4" to find a TIC valid value, or enter in a compound name abbreviation.

Basis:

The "Basis" valid value is used to distinguish whether a soil sample result has been reported as a wet weight (W) or a dry weight (D) result. Samples that are not reported in wet or dry weight, such as water samples, are reported as Lab Filtered (L), Field Filtered (F), or Not Filtered (N). Also carried in this field is information regarding leaching procedures. Refer to Table 4-8 for "Basis" codes.

Clcode:

The "Clcode" indicates the source and type of control limit reported. The source of the control limit is determined by where the laboratory obtained the control limit (i.e., SW-846, Contract Laboratory Program, or internally determined by the laboratory). The type of control limit indicates whether the limit is for precision or accuracy criteria,

and the type of quality control sample (i.e., continuing calibration, matrix spike, laboratory duplicate, etc.). There are six types of control limits. Each of these types of control limits and their associated codes are listed in Tables 4-2 through 4-7.

The user must choose the appropriate limit for the sample or analyte type for the control limits to print on the report. For example, if a surrogate limit is not selected for a surrogate, the limit will not print out on the final report. This feature makes it possible for the user to attach the actual limit they used electronically, but flags a non standard control limit usage to the end user. For more information about how the laboratory report selects and prints the control limits and their associated codes, refer to Chapter 11.

Exmcode:

There are five categories to differentiate the extraction or digestion procedure used in the analysis of a sample. They are:

- NONE - Selected when no preparation procedure is used or called for in the analytical method. Examples include determinations such as pH, temperature, percent moisture, etc.

- METHOD - Most commonly used with EPA drinking water procedure or laboratory modified methods where the preparation procedure is directly specified within the analytical method.

- DI - Sample is directly injected into the instrument.

- Specific EPA methods - Documented, published extraction or digestion methods for which a code exists in the "Exmcode" valid value list.

- Field Preparation - For Method AK101 Gasoline Range Organics (see page 5-31a).

Lnote:

"Lnotes" are descriptive notes and/or data qualifiers that may be used to more completely describe the data. Both the "Tests" and "Results" sections of the "Enter Sample Results" area include "Lnote" fields. The same set of "Lnote" valid values may be utilized in either section.

Matrix:

The "Matrix" field indicates the matrix of the sample. There are three general matrix types: environmental, reagent, and leachate.

An environmental matrix is the actual matrix collected in the field. When the laboratory is not completely informed about the exact environmental sample matrix, the laboratory should enter the more general "Matrix" codes (such as WX). This indicates that the sample is an aqueous matrix but does not specify the water source (e.g., it is not specifically understood to be waste water). More specific valid value codes (such as WW) should be assigned only when there is sufficient information to do so (i.e., the sample origin is actually known and listed on the chain-of-custody). If the laboratory is unsure of the exact sample matrix they should use the following codes: "SX" (solid), "WX" (water), "TX" (tissue), "AX" (air), or "MX" (multiple phases).

A reagent matrix is a laboratory-generated quality assurance sample using only laboratory reagents. These samples can be assigned quality control matrix codes such as "WQ" (water quality control matrix) for a blank spike. (The use of "*Q" matrix codes is recommended for data that will be converted into IRPIMS formats, but is not required.) Laboratory-generated samples which use the original environmental sample matrix are assigned the "Matrix" valid value code that describes the original sample matrix, rather than the quality assurance sample matrix, [e.g., a matrix spiked waste water sample would be assigned "WW" (waste water) rather than "WQ" (water quality control matrix)]. Refer to Table 4-9 for "Matrix" valid values associated with quality control samples.

A leachate matrix is the matrix of the solution that results from leaching a sample. The valid value for a leachate matrix is "WL" (water leachate).

Method:
Samples are assigned an analytical method using the "Method" field. Although many of the analytical methods are similar, compound lists are often slightly different (i.e., SW8260 and E524.2). Each "Method" implies a specific list of analytes (refer to Appendix B) . These analytes must all be reported or the list must be indicated as modified by entering "T" (true) into the "Modified Parameter List" field. "F" false should be entered into this field unless the parameter list has actually been modified. A "Method" list is considered modified when compounds are deleted from the "Method" list. Reporting additional compounds is not considered a method list modification.

Pvccode:
The "Pvccode" distinguishes between primary and confirmatory results. Whenever confirmatory results are presented (e.g., chromatographic analyses), two records per result should be established. All fields in the two records will be exactly the same

except for "Pvccode" and possibly the "Qualifier" and "Result". The confirmatory record will be assigned a "Pvccode" of "1C" (first column result), "2C" (second column result) or "MS" (GC/MS) result. And the primary record will be assigned a "Pvccode" of "PR" for primary result. The primary result will be assigned to the column result that the laboratory places the most confidence. (The primary result will generally be assigned to the first column results). Averaging of first and second column results is not allowed.

Qccode:

The "Qccode" field provides a means by which the type of sample can be distinguished. Standard field samples are assigned a "Qccode" of "CS". Tests performed on spiked field samples are assigned "Qccodes" of "MS#" or "SD#". Tests performed on replicates of a field sample are assigned codes of "LR#". All other available "Qccodes" are assigned to laboratory-generated quality assurance samples, with the exception of the "NC" code that identifies "Non-COE Samples"

Qualifier:

There are four different types of analytes (common parameters, surrogates, internal standards, and tentatively identified compounds), that are distinguished by the "Qualifier" field . A common parameter is a compound that is analyzed to determine its presence in an environmental sample. This type of analyte may use a "Qualifier" of "ND", "NA", "NR", "<"," >", or "=".

Surrogates and internal standards must use "Qualifiers" of "SU" and "IN" respectively. If the user does not use these "Qualifiers", the surrogate and internal standard results will not be properly calculated and segregated in the laboratory report (refer to Chapter 11).

Tentatively identified compounds (TIC) must use "Qualifiers" of "TI". When the record of an "Analyte" has a "Qualifier" of "TI", the user should enter a value into the "Rt" field. For Tentatively Identified Compounds (TIC), the user does <u>not</u> require a standard "Analyte" valid value. The user may enter the Chemical Abstract Number (CAS) of the TIC, use the hot key "F4" to find a TIC valid value, or enter in a compound name abbreviation.

Units:

The codes for units can be found in the "Units" valid value list. Enter "NONE" for methods that do not require a unit of measure (e.g., pH). Blank spikes, blank spike duplicates, matrix spikes, and matrix spike duplicates must be expressed in absolute units. Surrogates and internal standards must be entered in percent units. For all analytes reporting as "PERCENT", enter zero into the "Labdl" field and "Repdl" fields.

When entering percent moisture and solids data use the "Analyte" and the unit of measure given below:

<u>Analyte</u>	<u>Units</u>
MOIST - Percent Moisture	PERCENT
SOLID - Solids, Percent	PERCENT
SOLIDVOA-Percent Solids of Volatile Samples	PERCENT
SS - Suspended Solids	per unit volume
TDS - Total Dissolved Solids	per unit volume
TSO - Total Solids	per unit volume
TVS - Total Volatile Solids	per unit volume

If soil samples are expressed on a dry weight basis, then percent moisture must be reported and affected parameters detection limits should be provided on a dry-weight basis.

Whenever multiple percent moisture determinations have been performed on a sample, (i.e., one determination for each analytical method), report the percent moisture results as an additional analyte to the method for which the percent moisture was performed.

Entering Valid Values

When one of the valid value fields is selected, the user can push the function key "F2" to call up a list of valid values for that field. A typical valid value list contains the valid value codes on the left side and meaning of those codes on the right.

Selecting a Valid Value:

1.   Push the function key [F2]

2.   Selecting the right code can be accomplished by either using the scroll bar or holding down the up arrow or down arrow until the right code is highlighted.

3.   Click on the desired valid value and press [Enter].

Searching for Valid Values by Code:

If the user knows the beginning of a code, they may select the full code by typing the beginning.

1.   Make sure that the codes on the left are highlighted.

2.   If they are not, click on the left side of the list to highlight them (The "Tab" or "arrow" may also be used to move from one list to the next.)

3.   Type the first letter or number of the code.

4.   Continue to type the code until the cursor highlights the correct location.

Example:
If the user knows, for instance, that the standard method code for chlorinated herbicides begins with "E6" the user can type "E" (which will bring the user to the first code beginning with an "E") and then a "6" (which will bring the user to the first code beginning with an "E6"). Among the seven entries beginning with "E6" the user can clearly spot code "E615--Chlorinated Herbicides." Clicking on the code or typing the rest of the code (entering "15") will select this value. Press [Enter] to select it.

Searching for Valid Values by Description:

1.   Click on the column of full descriptive names on the right side of the
        list to highlight them.

2.   Begin typing the first letters or numbers of the name. The full name will
        automatically be selected.

Example:
If the user is utilizing the valid value list for analytical methods and looking for
the standard method code for chlorinated herbicides, the user can find the code
by typing the beginning of the method description. First, make sure that the
descriptions are highlighted rather than the codes. If they are not, click on the
right side of the list, where the descriptions are. Then begin typing
"chlorinated herbicides." In this case, by the time "C" and "H" are entered, the
correct code is selected. Press [Enter] to place the code in the database.

Method Lists

The COELT program has built in method lists that make it easy to find and enter the correct parameters for a given test. Refer to Appendix B for COE specific method lists.

There are two kinds of method lists: custom lists and standard COE lists. The standard COE list, as the name implies, carries information about the standard parameters for a given method as assigned by the COE. When there is no standard list or the list varies, the user may set their own custom list. The standard COE list may also be customized to reflect a laboratory's standard parameter order and detection limits. To customize a COE list, refer to Chapter 9.

Valid Value Updates

Periodically, a new valid value code is required to enter data. If a code does not exist in COELT, contact the EDF Help Desk (Arsenault & Associates, Inc., at 907-346-3887) and a valid value code update will be generated and posted on the Pacific Ocean Division, Alaska District (AKD) FTP site (AKD FTP).   Please allow 72 hours for update preparation and posting.

To Install an Update:

1.   Download the update from the FTP.

2.   Using Pkunzip Version 2.04g unzip the update to a disk or directory.
        (Pkzip and Pkunzip are available on the AKD FTP.)

3.   Determine the location of the EDCC and COELT on the computer.

4.   Type [update (space) *edcc location* (space) *coelt location*] [Enter].

A message will appear on the screen indicating that the update has been successful.

Example:
If the EDCC resides in the EDCC directory on the c:\ drive and the COELT resides in the COELT directory on the c:\ drive, the valid values would be updated using the following command:

        update c:\edcc c:\coelt [Enter]

Table 4-1. Valid Value Fields

Field Name	Definition
Analyte	ANALYTE - The parameter label associated with a parameter (PARLABEL).
Basis	BASIS - The basis for soil samples (wet or dry). Also carried in this field is information regarding filtration and leaching procedures.
Clcode	CONTROL LIMIT CODE - The code identifying the type of control limit.
Exmcode	EXTRACTION METHOD CODE - The code identifying the method of preparation.
Labcode	LABORATORY - The code identifying the laboratory.
Lnote	LABORATORY NOTES - The analytical notes providing descriptive information.
Logcode	SAMPLE COLLECTION COMPANY - The company that collects the sample.
Matrix	MATRIX - The medium or make-up of a sample.
Method	ANALYTICAL METHOD CODE - The code identifying the analytical method of analysis (ANMCODE).
Pvccode	PRIMARY VALUE CODE - The code identifying whether a value is primary or confirmatory.
Qccode	QUALITY CONTROL CODE - The code identifying the type of sample (i.e. environmental or laboratory-generated).
Qualifier	PARAMETER QUALIFIER - The code for qualifying results (PARVQ).
Rep Qual	REPORTED DETECTION LIMIT QUALIFIER - The code identifying the type of reporting limit (i.e., practical quantitation limit, instrument detection limit, etc.) (REPDLVQ).
Sub	SUBCONTRACTED LABORATORY - The Labcode of the subcontracted laboratory.
Srm	STANDARD REFERENCE MATERIAL - The code identifying the source of the reference material for the calibration.
Units	UNITS - The units of measure used to report a result.

Table 4-2. Clcodes for Surrogates

Clcode   **Description**

SLSA   SURROGATE LABORATORY SAMPLE ACCURACY - Surrogate percent recovery limits determined using a reagent blank, method blank, or laboratory control sample solution.

SLSP   SURROGATE LABORATORY SAMPLE PRECSION - Surrogate relative percent difference limits determined using a reagent blank, method blank or laboratory control sample solution.

SMSA   SURROGATE MATRIX SAMPLE ACCURACY - Surrogate percent recovery limits determined using a sample matrix.

SMSP   SURROGATE MATRIX SAMPLE PRECISION - Surrogate relative percent difference limits determined using a sample matrix.

SBSA   SURROGATE BOTH SAMPLE ACCURACY - Surrogate recovery limits determined using both reagent blanks and sample matrices.

SBSP   SURROGATE BOTH SAMPLE PRECISION - Surrogate relative percent difference limits determined using both reagent blanks and sample matrices.

SMEA   SURROGATE METHOD ESTABLISH ACCURACY - Surrogate recovery limits listed in the method.

SMEP   SURROGATE METHOD ESTABLISH PRECISION - Surrogate relative percent difference limits listed in the method.

SCLA   SURROGATE CONTRACT LABORATORY PROGRAM ACCURACY - Surrogate recovery limits listed in the Contract Laboratory Program requirements.

SCLP   SURROGATE CONTRACT LABORATORY PROGRAM PRECISION - Surrogate relative percent difference limits listed in the Contract Laboratory Program requirements.

Table 4-3. Clcodes for Initial Calibration

Clcode	Description
LIC	LABORATORY INITIAL CALIBRATION - Initial calibration percent recovery limits determined using reagent solution.
MEIC	METHOD ESTABLISHED INITIAL CALIBRATION - Initial calibration percent recovery limits listed in the method.
CLPIC	CONTRACT LABORATORY PROGRAM INITIAL CALIBRATION - Initial calibration percent recovery limits listed in the Contract Laboratory Program requirements.

Table 4-4. Clcodes for Continuing Calibration

Clcode	Description
LCC	LABORATORY CONTINUING CALIBRATION - Continuing calibration percent recovery limits determined using reagent solution.
MECC	METHOD ESTABLISH CONTINUING CALIBRATION - Continuing calibration percent recovery limit listed in the method.
CLPCC	CONTRACT LABORATORY PROGRAM CONTINUING CALIBRATION - Continuing calibration percent recovery limit listed in the Contract Laboratory Program requirements.

Table 4-5. Clcodes for Standard Reference Material

Clcode	Description
SRAD	STANDARD REFERENCE ACCURACY DEFINED - Standard reference material percent recovery limits as defined by the manufacturer or government agency.
SRPD	STANDARD REFERENCE PRECISION DEFINED - Standard reference material relative percent difference as defined by the manufacturer or government agency.
SRMA	STANDARD REFERENCE MATERIAL ACCURACY - Standard reference material percent recovery limits determined by the laboratory.
SRMP	STANDARD REFERENCE MATERIAL PRECISION - Standard reference material relative percent difference limits determined by the laboratory.

Table 4-6. Clcodes for Laboratory Replicates

Clcode   **Description**

LLR   LABORATORY, LABORATORY REPLICATE - Laboratory replicate
                    relative percent difference limits determined using a reagent blank solution.

MLR   MATRIX LABORATORY REPLICATE - Laboratory replicate relative
                    percent difference limits determined using a sample matrix.

MELR   METHOD ESTABLISHED LABORATORY REPLICATE - Laboratory
                    replicate relative percent difference limits listed in the method.

CLPLR   CONTRACT LABORATORY PROGRAM LABORATORY REPLICATE -
                    Laboratory replicate relative percent difference limits listed in the Contract
                    Laboratory Program requirements.

Table 4-7. Clcodes for Spiked Samples

Clcode   **Description**

LSA   LABORATORY SAMPLE ACCURACY - Spiked samples percent recovery limits determined in a reagent blank slolution.

LSP   LABORATORY SAMPLE PRECISION - Spiked samples relative percent difference limits determined in a reagent blank solution.

MSA   MATRIX SPIKE ACCURACY - Spiked samples percent recovery limits determined in a sample matrix.

MSP   MATRIX SPIKE PRECISION - Spiked samples relative percent difference limits determined in a sample matrix.

MEA   METHOD ESTABLISHED ACCURACY - Spiked samples percent recovery limits listed in the method.

MEP   METHOD ESTABLISHED PRECISION - Spiked samples relative percent difference listed in the method.

CLPA   CONTRACT LABORATORY PROGRAM ACCURACY - Spiked samples percent recovery limits listed in the Contract Laboratory Program requirements.

CLPP   CONTRACT LABORATORY PROGRAM PRECISION - Spiked samples relative percent difference limits listed in the Contract Laboratory Program requirements.

SRMA   STANDARD REFERENCE MATERIAL ACCURACY - Standard reference material percent recovery limits determined by the laboratory.

SRMP   STANDARD REFERENCE MATERIAL PRECISION - Standard reference material relative percent difference limits determined by the laboratory.

SRAD   STANDARD REFERENCE ACCURACY DEFINED - Standard reference material percent recovery limits as defined by the manufacturer or generating agency.

SRPD   STANDARD REFERENCE PRECISION DEFINED - Standard reference material relative percent difference as defined by the manufacturer or generating agency.

Table 4-8. Basis Codes

Code	Name
D	Dry
W	Wet
C	California Waste Extraction (WET) - Title22 of CAC
F	Field Filtered
L	Lab Filtered
N	Not Filtered
T	SW Method 1311 Toxicity Characteristic Leaching Procedure
E	SW Method 1310A Extraction Procedure (EP) Toxicity Test
A	Air

Table 4-9. Values Used for Entry of Quality Control Samples

QC Sample Type	Matrix	Qccode	Expected
Blank Spike	xQ	BS1	[Amount added]
Blank Spike Duplicate	xQ	BD1	[Amount added]
Lab Blank	xQ	LB1	0
Lab Matrix Spike	[Actual]	MS1	[Amount added + amount measured in sample]
Lab Matrix Spike Duplicate	[Actual]	SD1	[Amount added + amount measured in sample]
Lab Replicate	[Actual]	LR1	[Concentration amount in the original sample]
Reference Material	xQ	RM1	[Amount present in reference material]
Reference Material	xQ	KD1	[Amount present in Duplicate reference material duplicate]
Continuing Calibration	xQ	CC1	[Amount added]
Initial Calibration	xQ	IC1	[Amount added]

x - Use of WQ, SQ, AQ, or TQ for aqueous, solid, gaseous, and tissue quality control samples is recommended if data is intended for conversion from EDF to IRPIMS, but are not required.

5.0 Enter Sample Results

The "Enter Sample Results" area is the section of the program where the sample results may be manually entered or viewed.

COELT provides several time saving features in the "Enter Sample Results" section. Sample results may be copied over from one sample to the next, detection and reporting limits may be adjusted for dilution, and laboratory specific information (such as the ordering of the analytes in a method), may be accessed with little or limited user interaction. However, these time saving features are not, for the most part, readily available unless the user provides laboratory specific information to other sections of the COELT program.   (Refer to Chapters 8 and 9.)

Data that has been imported from LIMS or other electronic sources may be viewed in the "Enter Sample Results" section, and if necessary, augmented or modified. Electronic data which does not entirely conform to the COE required format or is not entirely complete (i.e., missing an informational field), may be viewed in the "Partial" data areas of this section.

The "Enter Sample Results" area also accommodates data search functions. The user may sort the data by any of the sample or test informational fields. Once the record of interest has been located, all of the associated data (i.e., sample, test, and results) may be viewed by selecting the record of interest.

Enter Sample Results Screen

The "Enter Sample Results" screen tracks information about the sample collection, the tests performed, and the results associated with the tests. This screen consists of a sample type selection box, function buttons, pull down menus, and three major data entry sections (sample, tests, and results). Each entry area accommodates a specific portion of the data required to complete an analytical report. The main features of the screen are identified in Figure 5-1 and are described below.
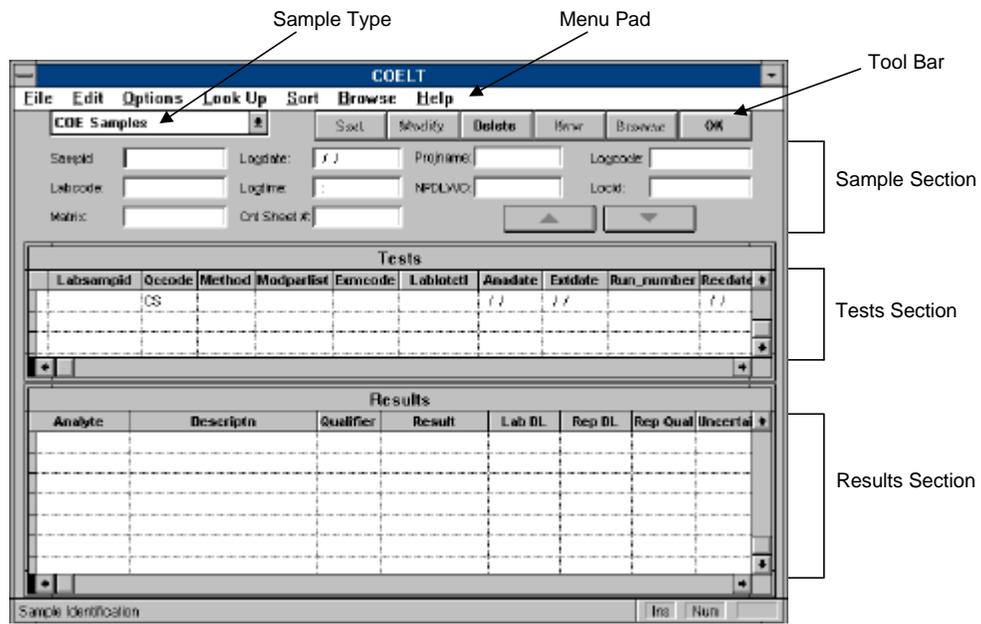
Figure 5-1. Enter Sample Results Screen.

Sample Type Selection Box

The "Sample Type" selection box is a pull-down box. Selection of the sample type will move the user to a specific type of data. (i.e., if the user selects QC Entries, only quality assurance information will be visible to the user.)

Sample Section

The "Sample" section contains details about the sample. This section mainly contains the information carried on the chain-of-custody sheet that accompanies the sample when it enters the laboratory. The "up" and "down" in the lower right corner of the "Sample" section moves the user through the sample records.

Tests Section

The "Test" section contains most of the information carried on the header of a lab report or bench sheet. The tests that appear in the "Tests" section are always associated with the sample listed in the sample section.
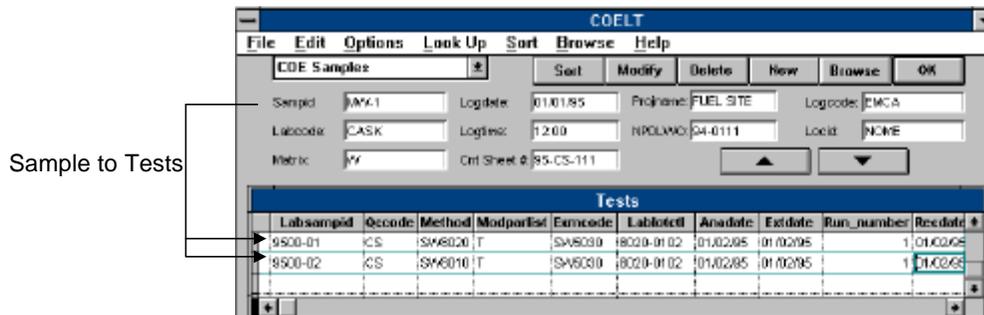
Figure 5-2. Sample Record Connecting to its Associated Tests.

Results Section

Most of the information required in the "Results"section is available on the body of a bench sheet or laboratory report. The results in the "Results"section reflect the starred test in the "Tests"section.

Figure 5-3. Test Record Connecting to its Associated Results.

Tool Bar

The "Tool Bar" buttons provide the user quick access to routinely utilized program operations. The following section describes these functions.

Sort

The "Sort" option allows the user to reorder samples or tests by any informational field. The user highlights any field that they wish to sort the samples or tests by, and COELT will rearrange the records based on the values in the chosen field.

Modify
The "Modify" option is used to correct incomplete entries. This function can also be used to change previously entered records.

Delete
The "Delete" option deletes the whole record and all associated records. For instance, if the pointer is on the sample section, pushing this button will delete the sample and all associated tests and results. However, if the pointer is on a results record, pushing this button will only delete that result.

New
The "New" option creates a new sample or quality assurance entry.

Browse
The "Browse" option allows the user to view records for all tests or all samples in a spreadsheet-style screen. This feature assists users attempting to find individual sample or test records.

The "Browse" feature becomes even more powerful when it is used in conjunction with the "Sort" function. The sort feature provides a way to reorder the records based upon a particular information field. Once the records have been sorted the user may then "Browse" them in that order.

OK
"OK" moves the user out of "New" or "Modify" mode to "Read-Only" mode. If the user is in "Read Only" mode, "OK" will move the user to the main menu screen.

Pull Down Menus
The functionality of the "Tool Bar" buttons, "hot keys" and "control keys" can be accessed through the pull-down menus.

Sample Type

COELT organizes data in three different ways, as "COE Samples", "Non-COE Samples", and "QC Entries". The data is organized in these three areas for convenient entry, management, and retrieval. Records containing incomplete or invalid information can be accessed by moving to the "Partial COE Samples", "Partial Non-COE Samples", or "Partial QC Entries" sections of the program. "Sample Type" definitions are presented in Table 5-1.

To begin the process of entering data select a "Sample Type". Most samples will be either routine COE environmental samples (COE Samples) or quality assurance samples (QC Entries). Occasionally, the user will need to enter environmental samples that were not collected by the COE but were used for quality control information (Non-COE Samples). Note that if the user selects "COE Sample" (CS) or "Non-COE Sample" (NC), "CS" or "NC" will automatically appear in the "Qccode" field. The "Qccode" associated with "Sample Type" is listed in Table 5-2.

Selecting a Sample Type:

1.   Move the pointer to the "Sample Type" selection box in the upper left
      corner of the screen.

2.   Click on the "down" arrow to reveal the pull-down menu.

3.   Click on the sample type for entry.

Click on the arrow to reveal pull-
down box

Highlight Sample Type
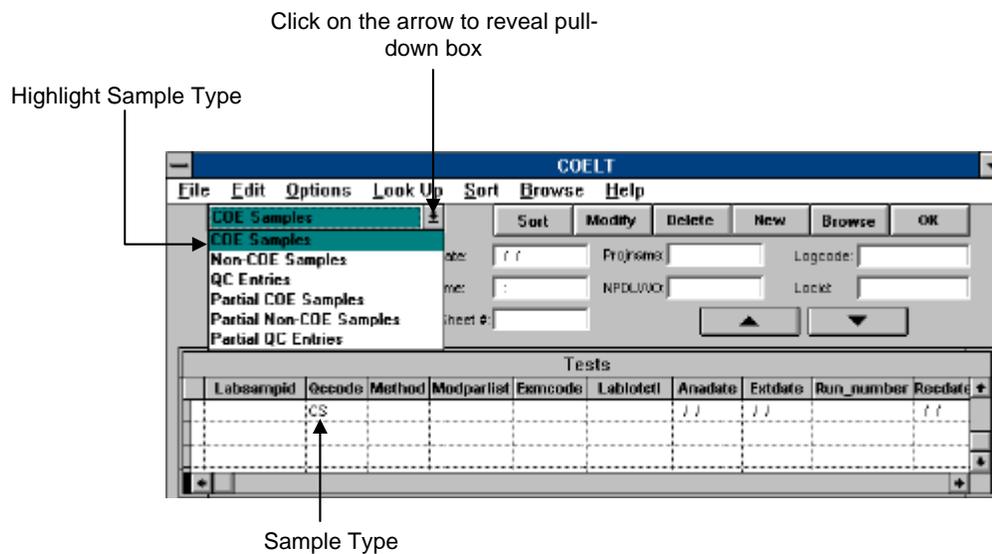
Sample Type

Figure 5-4. Sample Type Pull-Down Menu.

Sample Section

The "Sample" section serves two functions. When the "Sample Type" is "COE Sample, this section contains both field and administrative information about the environmental sample. However, if the "Sample Type"is "Non-COE" or "QC Entries", this section of the program defines the quality assurance batch. Table 5-3 defines each of the field names listed in the "Sample" section.

Creating a New Sample or QC Entry:

1.   Select a "Sample Type".

2.   Click on the "New" button at the top of the screen.

3.   A blinking cursor will automatically appear in the "Sampid" field.

4.   Enter data in each field.

Selecting Next and Previous Samples:
The "Next" and "Previous" Samples buttons make it possible to quickly locate
samples without using the "Browse" function.

1.   Move the pointer to the "up" or "down" arrow button below "Locid".

2.   Click on the "Previous" button to move one up on the sample list.

3.   Click on the "Next" button to move one down on the sample list.

Previous   Next
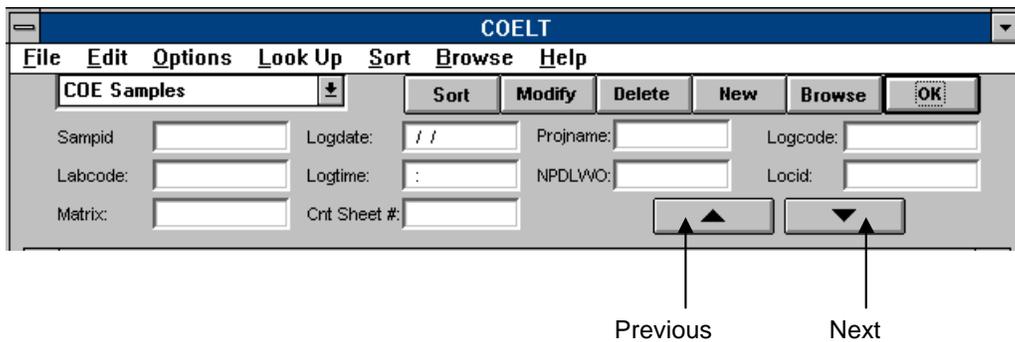
Figure 5-5. Sample Section.

Modifying a Sample:

If sample information is missing or incomplete the sample will require modification.

1.   Select a sample to "Modify".

2.   Click on the "Modify" button at the top of the screen. ("Modify" will become gray.)

3.   Move the pointer to the field that the user wishes to change.

4.   Enter in new value.

TIP:

Records cannot be added or altered unless the user is in "New"or "Modify"mode.

General sample information is often repeated over several samples collected during the same field event. Rather than reentering this general information several times, the user may enter this information once and then copy it over again and again. To complete the duplicated sample entries, the user need only enter the specific sample information that is different from the original (e.g., field sample identification).

Duplicating a Sample:

1.   Locate the sample that the user wishes to duplicate.

2.   Click on the "Edit" menu pad from the menu bar.

3.   Select the "Duplicate Sample" menu option.

4.   The program will reveal a message indicating that the sample is being duplicated.

5.   COELT will automatically move to the location that the duplicate sample resides.

6..   Click on "Modify".

7.   Enter the new field sample identification and the new laboratory sample identification.

8.   Make any required changes between the original sample and the new sample (sample created from duplicating the original.)

Note: A sample may be duplicated in its entirety with the exception of its sample and laboratory sample identifications. For example, if a group of field samples are logged into the laboratory all requiring SW8270 and SW8260 analyses, only one full entry would need to be entered. This entry could then be copied over several times. And if all results were not detected, the user may only need to add sample identification information, surrogate recoveries and quality assurance results.

*Deleting a Sample***:**

1.   Select the sample record to delete.

2.   Move the pointer to any sample information field.

3.   Click on the "Delete" button at the top of the screen.

4.   Another screen will appear to ask if the user really wants to delete the whole sample record.

5.   Click on "Yes".

Note: If the user delete a sample, all associated tests and results will also be deleted. Deleting a test will delete the test and all of its associated results. Whereas deleting a result will delete only the chosen results record.

Sorting Samples:

The "Sort" function reorders the samples based upon any of the informational fields in the "Sample" section of the program. For example, if the user is searching for a group of samples from a specific sampling site, the user can sort on the "Locid" (location) and the samples will be reordered alphabetically based upon location.

1.   Move the pointer to the sample information field the user wishes to sort.

2.   Click on the "Sort" button at the top of the screen.

3.   COELT reorders the samples based upon the consecutive letters of the field selected.

Example:

If a laboratory wishes to find a sample from a particular consulting firm, they would place the pointer on the "Logcode" field and press the "Sort" button. The samples would then be reordered by the consulting firm.

Tip:

The "Sort" function is most useful when used in conjunction with the "Browse" function. This allows the user to "Browse" the samples in a particular way prior to viewing.

Browsing Samples:

The "Browse" function provides a means by which the user can view the samples in a spreadsheet-type format.

1.   Move the pointer to one of the sample information fields at the top of the screen.

2.   Click on the "Browse" button at the top of the screen.

3.   All existing samples are displayed in a spreadsheet-type format.

4.   Browse through these entries by clicking on the scroll bar and/or the "up" and "down" arrows at the right.

Selecting a Sample Using Browse:

1.   Move the pointer to the sample of interest.

2.   Close the "Browse" window by double clicking on the control box in the upper left corner of the "Browse" screen.

3.   Once returned to the main screen, the sample record of interest will be displayed.

Entering a COE Sample:

"COE" samples are environmental samples that have been collected by the Corps of Engineers or one of their contractors. Most of the information required to enter a "COE Sample" is available on its sample chain-of-custody. The following example presents the entry of sample information into the COELT program.

Example:

If for instance, a chain-of-custody indicates that a Corps contractor, say EMCON, Alaska submits a sample labeled MW-1 (from Fuelsite, Control Sheet # 95-CS-111, WO# 94-0111) for SW8020 analysis to Columbia Analytical Services Laboratory in Kelso, Washington. The sample MW-1 was collected on January 1, 1995 at 12:00 noon, in Nome, Alaska.

Click on the "New" button at the top of the screen.

Sampid   Type MW-1 and press [Enter]
Labcode   Press [F2] highlight CASK, and press [Enter]
Matrix   Press [F2] highlight W and press [Enter]
Logdate   Type 010195 [Enter]
Logtime   Type 1200 [Enter]
Projname   Type FUELSITE [Enter]
Cnt Sheet #   Type 95-CS-111 [Enter]
NPDLWO   Type 94-0111 [Enter]
Logcode   Press [F2] highlight EMCA and press [Enter]
Locid   Type NOME [Enter]

Figures 5-6 and 5-7 present how this information would appear in the sample section of the COELT program.   A completed "COE Sample" entry, including the associated tests and results, is presented in Appendix C.

Figure 5-6. Chain-of-custody entry into the Sample Section.

Figure 5-7. Chain-of-custody entry into the Sample Section.

Non-COE Sample Record:

"Non-COE Samples" are samples that have been manipulated for quality control analyses, and are batched with Corps samples. COELT requires little information about these samples because it is only interested in tracking the quality assurance information associated with them. The program only requires the users laboratory code and the matrix of the sample. The identifier field is available as a tracking tool for the laboratory.

The following example outlines a "Non-COE Sample" entry for a sample that is associated with the previous example.

Example:

Click on the "New" button at the top of the screen.

Identifier	Type ADMIN# and press [Enter] - (Note: the identifier field may contain any identifier that the laboratory wishes to use to track the sample.)
Labcode	Press [F2] to select CASK and press [Enter]
Matrix	Press [F2] to select W and press [Enter].

Click on the "OK" button at the top of the screen.

Figure 5-8 presents how this information would appear in the "Sample"section of the program. A completed "Non-COE Sample"entry, including the associated tests and results, is presented in Appendix C.
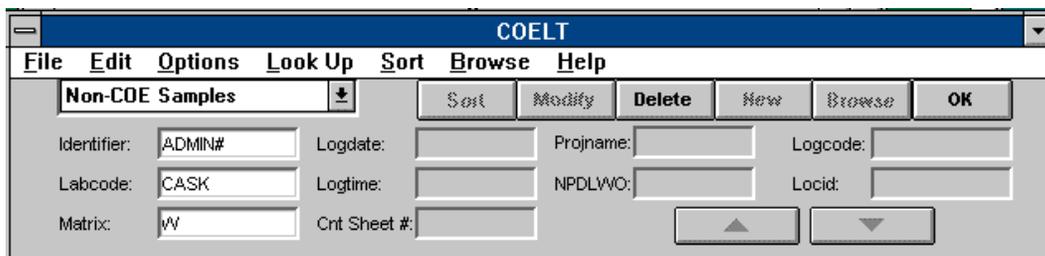
Figure 5-8. Non-COE Sample Entry Screen.

Entering a QC Entry:

The "QC Entries" section identifies the quality assurance batch, the matrix, and the laboratory for a group of samples sharing the same quality assurance information. The information required to enter a "QC Entry" should be available from a standard bench sheet. The following example outlines the entry of a batch with which the sample MW-1 is associated (Refer to Figures 5-4 and 5-5.)

Example:

Click on the "New" button at the top of the screen.

Lablotctl   Type 8020-0102 and press [Enter]
Labcode   Press [F2] highlight CASK and press [Enter]
Matrix   Press [F2] highlight W and press [Enter]

Figure 5-9 presents how this information would appear in the "Sample" section of the program.   A completed "QC Entry", including the associated tests and results, is presented in Appendix C.
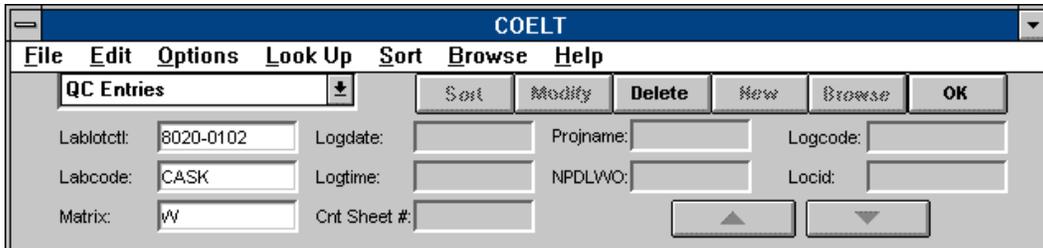
Figure 5-9. QC Entries Screen.

Tests Section

New "Test" entries are created automatically once the user finishes entering data into the "Sample" section. If the user presses [Enter] after filling the last field in the "Sample" section, the pointer will automatically move to the first field of the first "Tests" line. Table 5-4 defines each of the field names listed in the "Tests" section.

Creating a New Test:

New "Tests" are created automatically once the user finishes entering data in the "Sample" section.

1.   Press [Enter] after filling the last field in the "Sample ID" section.

2.   The pointer will automatically move to the first field of the first "Tests" line.

3.   Enter the new test into this record.

TIP:

If the user is coming back to a previously existing sample and creating a new test, the user must click on the "Modify" button and highlight the "Tests" section. Then click on the last existing "Tests" record and press the "down arrow" key.

Selecting a Test:
Select the sample containing the test of interest.

1. Press the "Modify" button.

2. Click on the "Tests" section of the screen. (The top of the "Tests" will appear blue.)

3. Search for a test by using the scroll bar and/or the "up" and "down" arrows at the right of the "Tests" section.

4. To select a test, click on the test record of interest.

Tip:
When the user moves off the selected test to the "Results" section, an asterisk will appear to the left of the selected test record.

Adding a New Test to an Existing Sample:

1.   Select the sample requiring a new test.

2.   Click on the "Modify" button.

3.   Click on the last line in the "Tests" section.

4.   Press the "down arrow" key on the keyboard.

5.   This will move the pointer to a blank test record.

6.   Enter the new test into this record.

Tip:

For quick entry use the control keys. "Ctrl-F" will copy the field from the record listed above. "Ctrl-R" will copy the previous record in its entirety.

Modifying a Test:

1.   Locate the sample containing the test to be modified.

2.   Click on the "Modify" button.

3.   Locate the test the user wishes to "Modify".

4.   Click on any field the user wants to "Modify" and enter new data.

5.   Click on the "OK" button at the top of the screen.

Tip:
Protect data from unauthorized modification by setting up "Read-Only" passwords for individuals that are not authorized to change data.

Deleting a Test:

1.   Locate the test the user wishes to delete.

2.   Place the pointer on any field in that test and click on the "Delete" button.

3.   A warning sign with the message "Delete current test record?" will appear.

4.   Click on the "Yes" button.

5.   The test record and all the results associated with it will be deleted.

Warning:
Deleted records can <u>not</u> be recovered.

Browsing a Test:

The "Browse" function allows the user to view records for all tests.

1.   Place the pointer on the "Tests" section and click.

2.   Click on the "Browse" button at the top of the screen.

3.   A spreadsheet-style screen will appear with all tests for all samples.

Selecting a Test, from the Browse screen:

1.   Place the pointer on the test of interest.

2.   Click on the test.

3.   Close the "Browse" screen (double-click on the control box in the upper left corner of the screen)

4.   The test selected in the "Browse" screen will appear in the "Tests" section.

Tip:

"Browse" is a "Read-Only" function. Data can not be modified in the "Browse" screen.

Sorting Tests:

The "Sort" function is used to quickly locate tests by sorting the tests based upon the specific information of interest.

1.   Place the pointer on the field of interest.

2.   Click on the "Sort" button.

3.   The "Test" will be reordered based upon the hierarchy of the information in that field.

Tip:

Samples are most easily located using a combination of the "Sort" button and then "Browse" the records. (The pointer needs to be on the field of interest prior to pushing the "Sort" button.)

Entering a COE Sample Test:
"COE Sample Tests" are performed on "COE Samples". Most of the information about a "COE Sample" test can be found on the header of a bench sheet. Figures 5-10 and 5-11 present how a "COE Sample" that was analyzed and reported on the bench sheet may be entered into the "Tests" section of COELT.

The test information would be entered into COELT as presented in the following example.

Example:
If for instance, a laboratory sample labeled 9500-01 was analyzed for SW8020 on January 2, 1995 and reported on January 3, 1995.

Labsampid	Type 9500-01 and press [Enter]
Qccode	CS will appear in this field automatically
Method	Press [F2] to select SW8020 and press [Enter]
Modparlist	Type F and press [Enter]
Exmcode	Press [F2] to select SW5030 and press [Enter]
Lablotctl	Type 8020-0102 and press [Enter]
Anadate	Type 010295 [Enter]
Extdate	Type 010295 [Enter]
Run-num	Type 1 [Enter]
Recdate	Type 010295 [Enter]
Cocnum	Type CL-9501 [Enter]
Basis	Press [F2] to select X and press [Enter]
Prescode	Press [F2] to select P05 and press [Enter]
Sub	Press [F2] to select NA and press [Enter]
Rep-date	Type 010395 [Enter]
Lab-repno	Type 010395-01 and press [Enter]
Apprvd	Type KDW and press [Enter]
Lnote	Press [F2], select CH and press [Enter]

Figure 5-10. Bench Sheet entry into the Tests Section.

Tests

Labsampid	Qccode	Method	Modparlist	Exmcode	Lablotctl	Anadate	Extdate	Run_number	Recdate
9500-01	CS	SW8020	F	SW5030	8020-0102	01/02/95	01/02/95	1	01/02/5

ANALYTICAL BENCH SHEET   **QC Batch No.** 8020-0102

Extraction Method: SW5030		Sample Number: 9500-01	
Matrix:	WATER	Method Number:	SW8020

Analyte	Initial Volume (ML)	Final Volume (ML)	Dilution Factor	Result (ug/L)
Chlorobenzene	5	5	1	2
Ethyl Benzene	5	5	1	25
1,4-DCB	5	5	1	2
1,3-DCB	5	5	1	2
1,2-DCB	5	5	1	100
Xylenes	5	5	1	100
Benzene	5	5	1	25
Toluene	5	5	1	100

Analyst: PLG	Extraction Date: 1-2-95	Analysis Date: 1-2-95
Reviewed By: KDW	Date: 1-3-95	

Figure 5-11. Bench Sheet Entry into the Tests Section.

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Entering a Non-COE Sample Test:

"Non-COE Sample" tests are entered into the program in the same fashion as the "COE Samples" except that the "Qccode" is "NC" instead of "CS" and not all of the information is required (i.e., chain-of-custody number). The following example presents entry of a "Non-COE Sample".

Example:

Labsampid	Type 9500-01 and press [Enter]
Qccode	NC will appear in this field automatically
Method	Press [F2] to select SW8020 and press [Enter]
Modparlist	Type F and press [Enter]
Exmcode	Press [F2] to select SW5030 and press [Enter]
Lablotctl	Type 8020-0102 and press [Enter]
Anadate	Type 010295 [Enter]
Extdate	Type 010295 [Enter]
Run_num	Type 1 [Enter]
Recdate	Type 010295 [Enter]
Cocnum	Type CL-9501 [Enter]
Basis	Press [F2] to select N and press [Enter]
Prescode	Press [F2] to select P05 and press [Enter]
Sub	Press [F2] to select NA and press [Enter]
Rep_date	Not accessible
Lab_repno	Not accessible
Apprvd	Not accessible
Lnote	Press [F2] select CH and press [Enter]

Quality Assurance Test

Quality Assurance Entry tests are entered in the same fashion as the "COE Samples"
and "Non-COE Samples" except that some of the chain-of-custody information is not
necessary to complete the record and the "Qccode" is something other than "CS" or
"NC".

Example:

Labsampid	Type MB-0102 and press [Enter]
Qccode	Type LB1 and press [Enter]
Method	Press [F2] to select SW8020 and press [Enter]
Modparlist	Type F and press [Enter]
Exmcode	Press [F2] to select SW5030 and press [Enter]
Lablotctl	8020-0102 will appear in this field automatically
Anadate	Type 010295 [Enter]
Extdate	Type 010295 [Enter]
Run_num	Type 1 [Enter]
Recdate	Type 010295 [Enter]
Cocnum	Type CL-9501 [Enter]
Basis	Press [F2] to select N and press [Enter]
Prescode	Press [Enter]
Sub	Press [F2] to select NA and press [Enter]
Rep_date	Not accessible
Lab_repno	Not accessible
Apprvd	Not accessible
Lnote	Press [Enter]

Entering a Field Prepared Test (e.g., AK101):

The State of Alaska Method 101 for the Determination of Gasoline-Range Organics requires field preparation for soil and solid samples. This preparation is the addition of a methanol solution (containing appropriate surrogates) to the soil sample. This procedure is not always performed, therefore it is necessary to distinguish between times when it is performed and when it is not. The *EXMCODE* field is used for this purpose. If the sample was prepared in the field, use "AK101PR" in the *EXMCODE* field. If the sample was not prepared in the field, use "METHOD" in the *EXMCODE* field.

Example:
The following example assumes the sample was prepared in the field.

Labsampid	Type 9500-01 and press [Enter]
Qccode	CS will appear in this field automatically
Method	Press [F2] to select AK101 and press [Enter]
Modparlist	Type F and press [Enter]
Exmcode	Press [F2] to select AK101PR and press [Enter]
Lablotctl	Type 101-0102 and press [Enter]
Anadate	Type 010295 [Enter]
Extdate	Type 010295 (date was prepared in field) [Enter]
Run_num	Type 1 [Enter]
Recdate	Type 010295 [Enter]
Cocnum	Type CL-9501[Enter]
Basis	Press [F2] to select D and press [Enter]
Prescode	Type P13 and press [Enter]
Sub	Press [F2] to select NA and press [Enter]
Rep_date	Type 010395 [Enter]
Lab_repno	Type 010395-01 and press [Enter]
Apprvd	Type KDW and press [Enter]
Lnote	Press [Enter]

NOTE: If field preparation was conducted, the *EXTDATE* is the date of field preparation.

Results Section

New "Results" entries are created automatically once the user finishes entering data in the previous section. When the user presses [Enter] after filling the last field in the "Test" section, the pointer will automatically move to the first field of the first "Results" line. Similarly, when the user press [Enter] after filling the last field of a "Results" line, the pointer will move to the first field of the new line.

Selecting a Result:

1.   Select the test containing the result of interest.

2.   The test selected will have an asterisk present to the left of the test record. (The top of the "Results" will appear blue.)

3.   Search for the result using the scroll bar and/or the "up" and "down" arrows at the right of the "Results" section.

4.   Click on the result record of interest.

Creating a New Result:

New Results are created automatically once the user finishes entering data in the "Tests" section.

1.   Press [Enter] after filling the last field in the "Tests" section.

2.   The pointer will automatically move to the first field of the first "Results" record.

3.   Enter the new result into this record.

Tip:

Use the [F3] function key to quickly enter all of the parameters associated with a test.

Adding a New Result to an Existing Test:

1. Click on the "Modify" button.

2. Select the test requiring a parameter result.

3. Click on the last line in the "Results" section.

4. Press the "down arrow" key on the keyboard.

5. This will move the pointer to the first field of a blank "Results" record.

6. Enter the new result into this record.

Tip:

Each test requires a specific list of parameters (refer to Appendix B). If any of these parameters are not available, enter "T" in the MODPARLIST (modified parameter list field) to indicate that the method's parameter list is not complete. (Additional parameters do not require a "T" entry in the MODPARLIST field.)

Modifying a Result:

1.   Click on the "Modify" button at the top of the screen.

2.   Locate the sample and test for the result that the user wishes to "Modify".

3.   Click on the results field the user wants to "Modify" and enter the data.

4.   Click on the "OK" button at the top of the screen.

Tip:
If the user is having difficulty completing a result, move the sample to the partial section of the program rather than deleting it (refer to end of Chapter 5).

Entering a COE Sample Result

To enter the remaining analytes, the user may use the copy record function. This function will copy down the result record from the previous line. To use this function use the [down arrow] to bring the pointer to the next results record.

Example:

Assume that the result is from SW-846 method 8020.

Analyte	Press [F3], the 8020 method list will appear with Benzene at the top, press [Enter]
Descriptn	Benzene will appear in this field automatically
Qualifier	Press [F2], select =, press [Enter]
Result	Type 25 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1 [Enter]
Rep Qual	Press [F2], select PQL and press [Enter]
Uncertainty	No entry is necessary
Units	Press [F2], select UG/L and press [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	No entry is necessary [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]

Click on the "OK" button at the top of the screen.

NOTE: Significant figures are tracked by the software, so that "400.0" is seen as 4 significant figures and "400." is seen as 3 significant figures. If the user types "400" into the *PARVAL* field, "400" is returned. If "400.0" is typed, "400.0" is returned. No extra zeros are attached to any number field in this version of COELT.

ANALYTICAL BENCH SHEET   QC Batch No. 8020-0102

| Extraction Method: SW5030 | Sample Number: 9500-01 |
| Matrix: WATER | Method Number: SW8020 |

Analyte	Initial Volume (ML)	Final Volume (ML)	Dilution Factor	Result (ug/L)
Chlorobenzene	5	5	1	2
Ethyl Benzene	5	5	1	25
1,4-DCB	5	5	1	2
1,3-DCB	5	5	1	2
1,2-DCB	5	5	1	100
Xylenes	5	5	1	100
Benzene	5	5	1	25
Toluene	5	5	1	100

| Analyst: PLG | Extraction Date: 1-2-95 | Analysis Date: 1-2-95 |
| Reviewed By: KDW | Date: 1-3-95 | |

Results

Analyte	Descriptn	Qualifier	Result	Lab DL	Rep DL	Units	Dilution
BZ	Benzene	=	25.0000	0.2000	1.0000	UG/L	1.000
BZME	Toluene	=	100.0000	0.2000	1.0000	UG/L	1.000
CLBZ	Chlorobenzene	=	2.0000	0.2000	1.0000	UG/L	1.000
DCBZ12	1,2-Dichlorobenzene	=	2.0000	0.2000	1.0000	UG/L	1.000
DCBZ13	1,3-Dichlorobenzene	=	2.0000	0.2000	1.0000	UG/L	1.000
DCBZ14	1,4-Dichlorobenzene	=	2.0000	0.2000	1.0000	UG/L	1.000
EBZ	Ethylbenzene	=	25.0000	0.2000	1.0000	UG/L	1.000

Figure 5-12. Bench Sheet Entry into the Results Section.

Entering a COE Sample Radiochemistry Result:

Radiochemistry results require an entry in the "Uncertainty" field.

Example:

Assume that the result is from method 903.1.

Analyte	Press [F3], to select RA-228, press [Enter]
Descriptn	Radium-228 will appear in this field automatically
Qualifier	Press [F2], select =, press [Enter]
Result	Type 100 [Enter]
Lab DL	Type 1 [Enter]
Rep DL	Type 10 [Enter]
Rep Qual	Press [F2], select LLD and press [Enter]
Uncertainty	Type 20 [Enter]
Units	Press [F2], select PCI/L and press [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	No entry is necessary [Enter]
Srm	Press [F2], select NA and press [Enter]
Lnote	No entry is necessary [Enter]

Click on the "OK" button at the top of the screen.

Entering a COE Sample Dioxin Result

Dioxin results require entry in the "Uncertainty" and "Retention Time" fields. Use the "Uncertainty" field to record the Ion Abundance Ratio.

Example:

Assume that the result is from method SW8290.

Analyte	Press [F3], to select HXCBPH224456, press [Enter]
Descriptn	2,2,4,4,5,6-Hexachlorobiphenyl will appear in this field automatically
Qualifier	Press [F2], select =, press [Enter]
Result	Type 25.0 [Enter]
Lab DL	Type 1.1 [Enter]
Rep DL	Type 5.5 [Enter]
Rep Qual	Press [F2], select PQL and press [Enter]
Uncertainty	Type 1.23 [Enter]
Units	Press [F2], select PG/L and press [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	Type 23.4 [Enter]
Dilution	Type 1 [Enter]
Clrevdate	No entry is necessary [Enter]
Srm	Press [F2], select NA and press [Enter]
Lnote	No entry is necessary [Enter]

Click on the "OK" button at the top of the screen.

Entering a Non-COE Sample Result:

A "Non-COE Sample" result is entered into the system in the same way that a "COE Sample" result is entered.

Example:
Assume that the following result is from method SW-846 8020.

Analyte	Press [F3], the 8020 method list will appear with Benzene at the top, press [Enter]
Descriptn	Benzene will appear in this field automatically
Qualifier	Press [F2], select =, press [Enter]
Result	Type 25 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1 [Enter]
Rep Qual	Press [F2], select PQL and press [Enter]
Uncertainty	[Enter]
Units	Press [F2], select UG/L and press [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	[Enter](Entry required for TIC's only)
Dilution	Type 1 [Enter]
Clrevdate	[Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]

Click on the "OK" button at the top of the screen.

Entering a Method Blank:

Method Blanks are entered into COELT in a similar fashion as a typical analytical result except that when entering a method blank result the user will be prompted for an expected value and a labrefid. The user does not need to enter information into either of these fields. The following example describes a laboratory prepared blank result entry.

Example:

Analyte	Press [F2] and select BZ.
Description	Benzene will automatically appear in this field.
Qualifier	Type ND [Enter]
Result	Type 0 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1.0 [Enter]
Rep Qual	Press [F2] to select PQL and press [Enter]
Uncertainty	No entry is necessary [Enter]
Unit	Press [F2], select UG/L and press [Enter]
PVC Code	Press [F2] , select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	No entry is necessary [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]
Labrefid	No entry is necessary [Enter]
Expected	No entry is necessary [Enter]

Click on the "OK" button at the top of the screen.

Entering a Matrix Spike Quality Control Result:

Example:
For the following example, assume that the test method is SW8020 and the laboratory sample identification of the sample prior to being spiked is 9500-01.

Analyte	Press [F3], select BZ and press [Enter]
Descriptn	Benzene will automatically appear in this field
Qualifier	Type = [Enter]
Result	Type 46 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1.0 [Enter]
Rep Qual	Press [F2] to select PQL and press [Enter]
Uncertainty	No entry is necessary [Enter]
Units	Press [F2], select UG/L and press [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	Type 123194 [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]
Labrefid	Type 9500-01 [Enter]
Expected	Type 50 [Enter]

Click on the "OK" button at the top of the screen.

Entering a Blank Spike Quality Control Result:

Example:

For the following example, assume that the test method is SW8020.

Analyte	Press [F3], select BZ and press [Enter]
Descriptn	Benzene will automatically appear in this field
Qualifier	Type = [Enter]
Result	Type 46 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1.0 [Enter]
Rep Qual	Press [F2] to select PQL and press [Enter]
Uncertainty	[Enter]
Units	Press [F2], select UG/L and press[Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	Type 123194 [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]
Labrefid	No entry is necessary
Expected	Type 50 [Enter]

Click on the "OK" button at the top of the screen.

*Entering a Laboratory Replicate***:**

Example:
For the following result assume that the test method performed was SW8020, and the associated duplicate laboratory sample identification is 9500-01.

Analyte	Press [F3], select BZ and press [Enter]
Descriptn	Benzene will automatically appear in this field
Qualifier	Type = [Enter]
Result	Type 27 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1.0 [Enter]
Rep Qual	Press [F2] to select PQL and press [Enter]
Uncertainty	[Enter]
Units	Press [F2], select UG/L and press[Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	Type 123194 [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]
Labrefid	Type 9500-01 [Enter]
Expected	Type 25 [Enter]

Click on the "OK" button at the top of the screen.

Entering a Surrogate Result:

Example:

For the following example, assume that the test method performed was SW8020.

Analyte	Press [F3], select F3BZME and press [Enter]
Descriptn	Trifluorotoluene will appear in this field automatically
Qualifier	Press [F2], select SU and press [Enter]
Result	Type 89 [Enter]
Lab DL	Type 0 [Enter]
Rep DL	Type 0 [Enter]
Rep Qual	Press [F2], select NA and press [Enter]
Uncertainty	No entry is necessary [Enter]
Units	Press [F2], select PERCENT, [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	Type 123193 [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]

Click on the "OK" button at the top of the screen.

Entering a Tentatively Identified Compound Result:

All tentatively identified compounds are entered in a similar manner. The main differences between entering a tentatively identified compound and a target list analyte are that the "Qualifier" field requires a "TI" and a retention time (Rt) should be entered.

Example:

Suppose that a tentatively identified compound appeared with an approximate concentration of 12 ug/L 35 minutes into the analysis. Unknown PAH was the best fit for this compound. The following example presents the entry of this result.

Analyte	Press [F4], select UNKPAH and press [Enter]
Description	Unknown PAH will appear in this field
Qualifier	Press [F2], select TI and press [Enter]
Result	Type 12 [Enter]
Lab DL	Type 0 [Enter]
Rep DL	Type 0 [Enter]
Rep Qual	Press [F2], select NA and press [Enter]
Uncertainty	No entry is necessary [Enter]
Units	Press [F2], select UG/L and press [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	Type 35 [Enter]
Dilution	Type 1 [Enter]
Clrevdate	No entry is necessary [Enter]
Srm	Press [F2], select NA and press [Enter]
Lnote	No entry is necessary [Enter]

Click on the "OK" button at the top of the screen.

Auto-Filling with Custom Parameter Lists

Parameter lists have their own "hot key". Each laboratory can set its own custom parameter list for each analytical method when method detection limits are set (Refer to Chapter 9). Once the laboratory has defined a parameter list, the user can fill in all required parameters in the "Results" section by pressing [Ctrl-E] when the cursor is in the first field of that section. The COELT program will check the method code used in the "Tests" section and copy the laboratory-defined list for that method into the "Results" section.

Auto-filling Results:

The "Auto-Filling Results" function is only operational if the user has first entered the method detection limit information into the "MDL" section of the program for the selected method.

1.   Click on the "New" or "Modify" button.

2.   Select the test for which the user wants to Enter results.

3.   Move the pointer to the first blank record of the "Results" section.

4.   Click in the "Analyte" field of the "Results" section.

5.   Press [Ctrl-E].

6.   A quick entry screen called "MDL Factor" will appear.

7.   Enter the factor that the user wishes to multiply the detection limits by.

8.   Enter in the appropriate values into the "Qualifier", "Results", "Srm", and "RepQual" fields.

Press "OK" and all of the information in the "MDL Factor" screen and the information listed in the "MDL Entry" section of the program will auto-fill the results for a given method.

Warning:

If a result is "not detected", an "ND" must be entered into the "Qualifier" (parameter value qualifier - PARVQ) field. Do not enter "="with a result of "0.0".

Figure 5-13. MDL Factor Screen.

COE Parameter Lists [F3]

When entering parameters into the "Results" section, the user can quickly check to see if any parameters on the standard COE list remain unentered by pressing [F3] when the cursor is in the "parameter" field . The "F3" key will cause COELT to compare the COE-defined parameter list for the method entered in the "Tests" section with the parameters that have already been entered. The list of unentered parameters will be displayed. One of these can be selected with the mouse or the "up" or "down" arrows and entered by pressing [Enter].

Quick Entry Control Limits

When the user is entering a control limit revision date (Clrevdate) into the results section, the program will automatically check the entered date against the stored control limits. If there is no stored Clrevdate that matches the user's entry, COELT will display an error screen noting that the entered Clrevdate does not exist. If the user presses [Ctrl-V], a CL quick-entry screen will pop up.

The user does not have to exit the Sample/Test/Results Entry function in order to "Modify" the stored control limit information to match the user entry. The CL quick entry screen contains all the fields found in the CL entry function and two buttons: "OK" and "Cancel." Most of the fields in the CL quick entry screen will automatically be filled using information from elsewhere in the test data the user has already entered. Enter only the Clcode, the upper control limit (uppercl) and the lower control limit (lowercl). Press [OK] to store the control limit and continue entering data in the results fields.

Figure 5-14. Quick Entry Control Limit Screen.

Partially Completed Samples

Partially completed samples are samples that do not conform to the *Corps of Engineers Electronic Deliverable Format (EDF)*. Incomplete data or data that is not in the correct format is often produced when a user imports electronic data into the program (e.g., LIMS data would not necessarily contain COE administrative tracking numbers, thus it would be incomplete upon import).

The program accommodates "incomplete" or "invalid" data by separating these records from the "valid" or "good" data. With the records separated, the user may quickly locate the incomplete records in the program, complete them, and then generate their electronic deliverable.

Correcting Incomplete Records

To correct an incomplete record the user must first find out why the record is incomplete and correct the data. Records that are "Incomplete" reside in the "Partial" sections of the program (i.e., "Partial COE Samples", "Partial Non-COE Samples", and "Partial QC Entries"). The "Partial" areas of the program have an additional field, the "Status" field, that helps the user find the "Invalid" records. Once all the records associated with a sample or QC entry have been corrected, the sample or QC entry may then be moved to the completed areas of the program (i.e., "COE Samples", "Non-COE Samples", and "QC Entries").
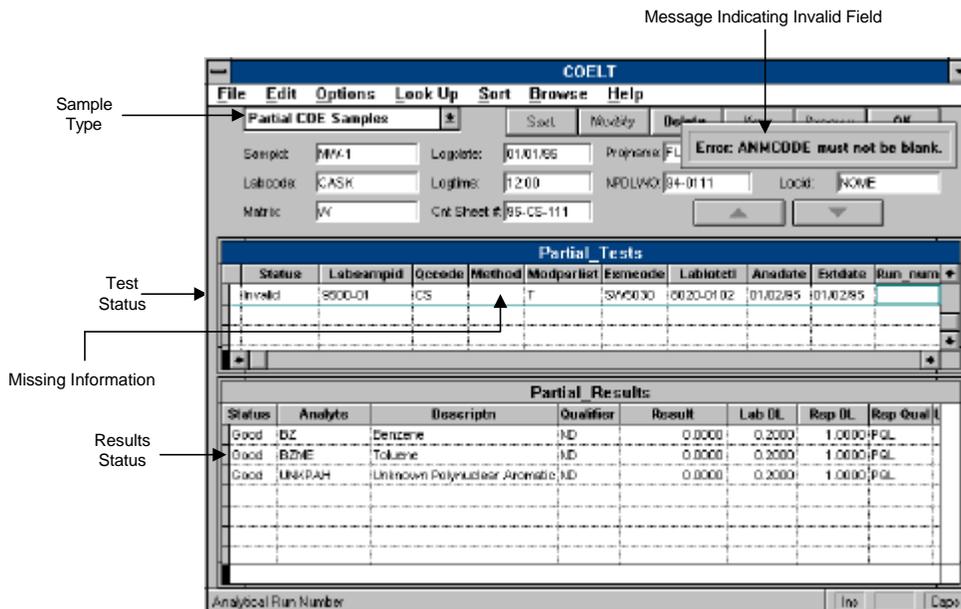
Figure 5.15 "Partial COE Samples" Entry Screen.

Determining Why A Sample Is Invalid:

Sometimes a sample is entered into COELT containing information that is in-complete or invalid. COELT will not generate electronic deliverables or hard copy reports from incomplete data, so it is necessary to discover why the sample is incomplete.

1.   Click on the "Modify" button.

2.   Select the partial record to be completed (incomplete records will have a "Status" of "Invalid").

3.   Press the [F9] function key.

4.   The program will indicate which field is incomplete or incorrect.

5.   To remove the message press [Enter].

Correcting an Incomplete COE Sample:

1.   Press the "Modify" button.

2.   Locate the incomplete record. ("Status" field on the far left hand side of the screen will read "Invalid" .)

3.   Enter the correct information and press [Enter].

4.   When all "Tests" and "Results" records have a "Status" of "Good", click on "OK".

5.   If the "Sample" is complete, the following message will appear "Current entries are all good. Records moved to Good CS Samples".

6.   If the "Sample" is not complete, a message will appear indicating which field is not complete.

Note:
In order for a sample to be considered complete all of its tests and associated results must also be complete.

Common problems with COE Samples:

If a "COE Sample" is in the "Partial COE Samples" section of the program with a status of "invalid", it will generally be for one or more of the following reasons:

▸   Missing a required field (refer to the *EDF*).

▸   Date inconsistency between Logdate (collection date), preparation date (Exmdate), analysis date (Anadate), and reporting date (Repdate). These dates should appear as follows:

           Collection date less than or equal to preparation date.
           Preparation date less than or equal to analysis date.
           Analysis date less than or equal to report date.

▸   The surrogates or internal standards require Clrevdates (control limit revision dates).

▸   Incomplete method list. (Refer to Appendix B).

▸   Surrogates and internal standards require percent units.

Correcting an Incomplete Non-COE Sample:

1.   Press the "Modify" button.

2.   Locate the incomplete record. ("Status" field on the far left hand side of the screen will read "Invalid" .)

3.   Enter the correct information and press [Enter].

4.   When all "Tests" and "Results" records have a "Status" of "Good", click on "OK".

5.   If the "Sample" is complete, the following message will appear "Current entries are all good. Records moved to Good NC Samples".

6.   If the "Sample" is not complete, a message will appear indicating which field is not complete.

Note:
The "Status" of the record will not change after being corrected until the user moves the cursor off the corrected record or presses [F9].

Common problems with Non-COE Samples:

If a "Non-COE Sample" is in the "Partial Non-COE Samples" section of the program with a status of invalid, it will generally be attributed to one or more of the following:

- Missing required fields (refer to the *EDF*).

- Date inconsistency between preparation date (Extdate) and analysis date (Anadate). These dates should appear as preparation date less than or equal to analysis date.

- The surrogates and/or internal standards require "Clrevdates" (control limit revision dates).

- Incomplete Method list. (Refer to Appendix B.)

- Surrogates and internal standards require units of "Percent."

Correcting an Incomplete QC Entry:

1.   Press the "Modify" button.

2.   Locate the incomplete record. ("Status" field on the far left hand side
        of the screen will read "Invalid" .)

3.   Enter the correct information and press [Enter].

4.   When all "Tests" and "Results" records have a "Status" of "Good",
        click on "OK".

5.   If the "Sample" is complete, the following message will appear
        "Current entries are all good. Records moved to Good QC Entries".

6.   If the "QC Entry " is not complete, a message will appear indicating
        which field is not complete.

Common Problems with QC Entries:

If a "QC Entry" is in the "Partial QC Entries" section of the program with a status of invalid, it will generally be attributed to one or more of the following:

- Missing required fields (refer to the *EDF*).

- Date inconsistency between preparation date (Extdate) and analysis date (Anadate). These dates should appear as preparation date less than or equal to the analysis date.

- Matrix spikes, blank spikes, lab replicates, continuing calibrations, initial calibrations, standard reference material, internal standards, and surrogates require "Clrevdates" (control limit revision dates).

- Surrogates and internal standards require percent units.

- The referenced sample (Labrefid) needs to be present in the "COE Samples" or "Non-COE Samples" for matrix spikes and laboratory replicates.

- The "Expected" field requires a value for matrix spikes, blank spikes, continuing calibrations, initial calibrations, and standard reference material (on spiked parameters only [sample result plus spike amount]).

Moving a COE Sample to the Complete Area:

Determine that all sections of the "COE Sample" are complete.

1.   Press the "OK" button.

2.   The screen will reveal the following message: "Current entries are all good. Records moved to good CS samples."

3.   Click on the "OK" button to move the corrected sample record.

Note:

When the Status field indicates "Good", pressing [F9] will yield no response. The status field "Good" indicates the records have been validated.

Moving a Non-COE Sample to the Complete Area:

Determine that all sections of the "Non-COE Sample" are complete.

1.   Press the "OK" button.

2.   The screen will reveal the following message: "Current entries are all good. Records moved to good NC samples."

3.   Click on the "OK" button to move the corrected sample record.

Moving a QC Entry to the Complete Area:

Determine that all sections of the "QC Entries" are complete.

1.   Press the "OK" button.

2.   The screen will reveal the following message: "Current entries are all good. Records moved to good QC Entries samples."

3.   Click on the "OK" button to move the corrected sample record.

Table 5-1. Sample Type Definitions

Sample Type	**Definitions**
COE Sample	Samples collected by the Corps of Engineers or a contractor of the Corps of Engineers. Most environmental samples reported by the laboratory will be COE Samples.
Non-COE Sample	Samples used for assessing the quality of results from a quality assurance batch that contained a COE Sample. This sample is not a Corps of Engineers sample, but a sample submitted by some other laboratory customer.
QC Entries	Quality assurance samples generated by the laboratory or an environmental sample manipulated by the laboratory (i.e., matrix spike).
Partial COE Sample	COE Samples containing incomplete or invalid information.
Partial Non-COE Sample	Non-COE Samples containing incomplete or invalid information.
Partial QC Entries	QC Entries containing incomplete or invalid information.

Table 5-2.   Qccode Associated with Each Sample Type

Sample Type	Qccode
COE Sample	CS
Non-COE Sample	NC
QC Entries	BS#, BD#, CC#, IC#, KD#, LB#, LR#, MS#, SD#, RM#
Partial COE Sample	CS
Partial Non-COE Sample	NC
Partial QC Entries	BS#, BD#, CC#, IC#, KD#, LB#, LR#, MS#, SD#, RM#

Table 5-3. Sample Section Field Definitions

Field Name	Definition
Sampid	FIELD ASSIGNED SAMPLE NUMBER - The number assigned to the sample at the time of collection.
Labcode [F2]	LABORATORY - The code identifying the laboratory receiving the sample.
Matrix [F2]	MATRIX - The medium or make-up of the sample.
Logdate	SAMPLE COLLECTION DATE - The date that the sample is collected.
Logtime	SAMPLE COLLECTION TIME - The time that the sample is collected.
Projname	PROJECT NAME - COE-assigned project name.
Cnt. Sheet #	CONTROL SHEET NUMBER - COE-assigned administrative number.
Npdlwo	WORK ORDER NUMBER - COE-assigned work order number.
Logcode [F2]	SAMPLE COLLECTION COMPANY - The company that collected the sample or performed the field test.
Locid	LOCATION - The location from which the sample is collected.

Table 5-4. Test Section Field Definitions

Field Name	**Definition**
Labsampid	LABORATORY SAMPLE IDENTIFICATION - The identification number assigned to the sample by the laboratory.
Qccode [F2]	QUALITY CONTROL CODE - The code identifying the source/type of quality control sample (CS,NC or QC type).
Method [F2]	ANALYTICAL METHOD CODE - The code identifying the analytical method of analysis. (ANMCODE)
Modparlist	MODIFIED PARAMETER LIST - The database field indicating whether the parameter list of an analytical method has been modified.
Exmcode	EXTRACTION METHOD CODE - The code identifying the extraction or digestion method used during sample preparation.
Lablotctl	LABORATORY CONTROL NUMBER - The number identifying a group of samples sharing the same quality assurance information.
Anadate	ANALYSIS DATE - The date the sample (aliquot, extract, digest and/or leachate) is analyzed.
Extdate	EXTRACTION DATE - The date a sample is prepared or extracted.
Run_Number	RUN-NUMBER - The numeric code distinguishing multiple or repeat analyses of a sample by the same method.

Table 5-4. Test Section Field Definitions (continued)

<u>Field</u>	<u>Definition</u>
Recdate	RECEIVED DATE - The date that the laboratory physically assumes custody of the sample.
Cocnum	CHAIN-OF-CUSTODY NUMBER - The number assigned to the chain-of-custody.
Basis [F2]	BASIS - Wet or Dry (Basis for Soil Samples). This field also carries information regarding filtration and leaching procedures.
Prescode	PRESERVATIVE CODE - The code(s) identifying the type of preservative added to the sample.
Sub [F2]	SUBCONTRACTED LABORATORY - The Labcode of the subcontracted laboratory.
Rep_date	REPORT DATE - The date of the laboratory report.
Lab_repno	LABORATORY REPORT NUMBER - The laboratory-assigned number uniquely identifying the hard copy report.
Apprvd	APPROVED BY - The initials of the individual approving the laboratory report.
Lnote	LABORATORY NOTES - Analytical notes providing descriptive information.

Table 5-5. Results Section Field Definitions

Field	**Definition**
Analyte [F2]	ANALYTE - The parameter label associated with a given parameter. (PARLABEL)
Descriptn	DESCRIPTION - The description of the analyte field. (This field will be automatically filled in from the valid value list.)
Qualifier	QUALIFIER -The code for qualifying the analytical result (i.e., greater than, equal to, etc.). (PARVQ)
Result	RESULT - The analytical value for a compound or analyte.
Lab DL	METHOD DETECTION LIMIT - The laboratory-established method detection limit.
Rep DL	REPORTED DETECTION LIMIT - The detection limit reported by the laboratory to determine whether a parameter is detectable.
Rep Qual [F2]	REPORTED DETECTION LIMIT QUALIFIER - The code identifying the type of reporting limit (i.e., practical quantitation limit, instrument detection limit, etc.).
Uncertainty	PARAMETER UNCERTAINTY - The uncertainty associated with a test result.

Table 5-5. Results Section Field Definitions (continued)

Field	Definition
Units	UNITS - The units of measure used to report a result.
PVC Code	PRIMARY VALUE CODE - The code identifying whether a sample result is a primary or a confirmatory value.
Rt	RETENTION TIME - The retention time of a tentatively identified compound.
Dilution	DILUTION FACTOR - Numeric factor indicating level of sample diluton.
Clrevdate	CONTROL LIMIT REVISION DATE - The date limits were established for a given parameter.
SRM [F2]	STANDARD REFERENCE MATERIAL - A code identifying the source of the reference material for the calibration method.
Lnote [F2]	LABORATORY NOTES - Analytical notes providing descriptive information.
Labrefid*	LABORATORY REFERENCE IDENTIFICATION - The laboratory- assigned reference sample identification number.
Expected*	EXPECTED PARAMETER VALUE - The target result for a quality control sample or surrogate spike (sample result plus spike amount).

* These fields are present in the results section when the sample type is QC entries.

6.0   Import LIMS Files

One of the major functions of the COELT program is to import analytical data from other computer programs. The LIMS (Laboratory Information Management System) import function allows users to directly import either dBase files or other database files that have been converted to ASCII (text) files. Once the files are loaded into COELT, the program will put them into the required format. COELT will also identify any missing data and help prompt the user to make the data conform to COELT data requirements.

LIMS Import Screen

The LIMS Import Screen lets the user select the type of file (dBase or ASCII) to import as well as the import type (flat files or relational files). The ordering of the fields within a file may be adjusted, using the "Field Order" section. Additionally, the "Options" area of the LIMS Import Screen lets the user tailor COELT's validation procedures to the file that they wish to import.
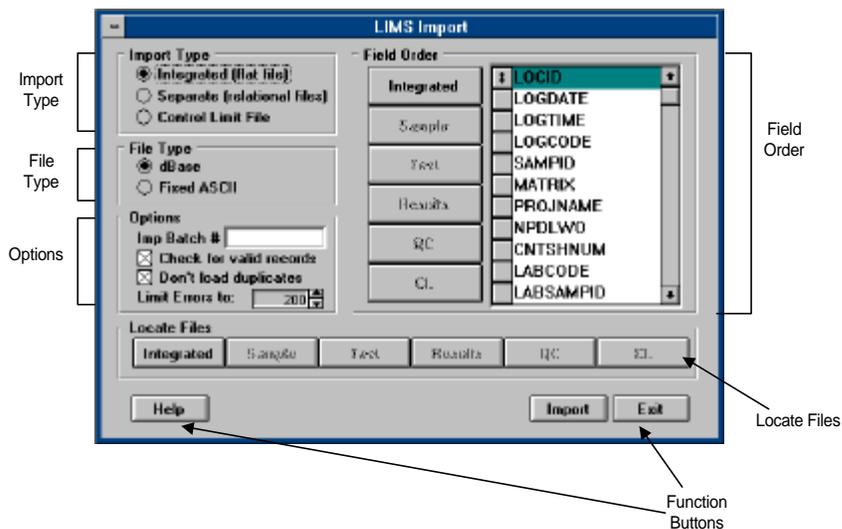
Figure 6.1 LIMS Import Screen

Import Type

The "Import Type" lets the user select the structure of the file they wish to import.

"Separate (relational files)" are in the *EDF* five-file structure (i.e., NPDLSAMP, NPDLTEST, etc.). These have data fields for only one kind of record: i.e., sample, test, results, or quality control records. The "Control Limit File" is a separate "Import Type" because it only needs to be imported once and then updated as control limits are updated.

File Type

"File Type" lets the program know what format the data is in: dBase or ASCII. If the format of the file is neither dBase or ASCII format, the user may generally translate the file into ASCII format prior to COELT interface.
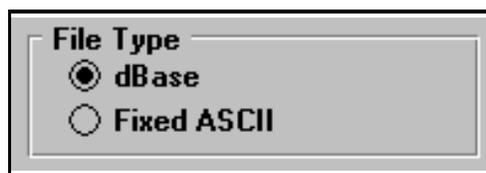
Field Order

The order of the fields within a file may be adjusted using the "Field Order" section of the program. Adjusting a file's field order is only necessary if the file to be imported is an ASCII file. When COELT imports ASCII files, it assumes that the file being imported is in COELT's default field order unless the user changes the field order. COELT's default field orders are listed in Tables 6-1 through 6-6.
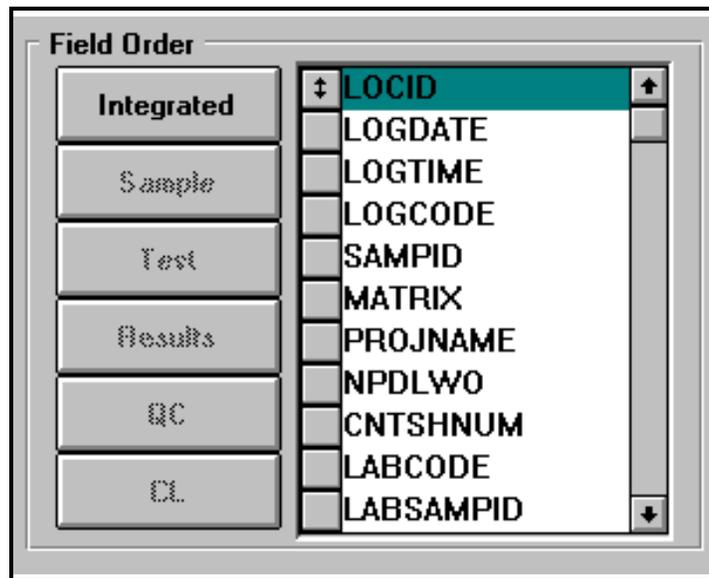
Options

The "Options" area provides two functions, batch identification and the level of data validation performed during the import.
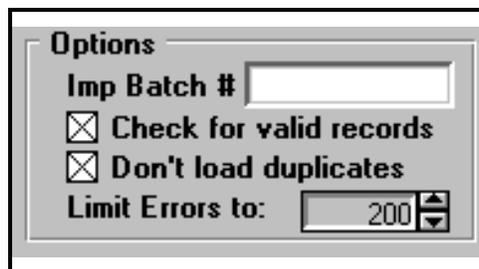
Import Batch Number

The batch number is assigned for tracking purposes. Imported batches with problems may be removed from COELT by deleting the import batch instead of deleting the problem data from COELT sample by sample or record by record.

Level of Data Validation

The data validation option provides the user with tools to customize the import validation procedures.

Check for Valid Records

When there is an "X" in the "Check for valid records" box, the programs validation routines will check the file being imported for errors. All erroneous records will be placed in the "Partial" section of the program and all valid records will be moved to the "Complete" section of the program. If the "Check for valid records" box is not checked, the program's validation routines are inactive and all data will be moved to the "Partial" section of the program. The file will be imported more quickly with the validation off. However, once the file is imported, it will need to be validated entirely by hand (refer to Chapter 5).

Limit Errors To

The "Limit Errors to" function is similar to the "Check for valid records" function except that it validates the data up to a certain number of errors and then moves the rest to the "Partial" section. For example, if the user limited the number of errors to 10, COELT would validate and move valid data to the complete section of the program until it found 10 errors. After finding the tenth error, COELT would turn off its validation and move the remaining data to the "Partial" section of the program.

Don't Load Duplicates

Checking the "Don't load duplicates" box means that COELT will not import duplicate records. If the box is not checked, COELT will load duplicate records and cause errors.

Locate Files

The "Locate Files" function indicates to COELT which file(s) the user wishes to import and the location of those files.

Preparing Data for Import

The process of preparing data for import will vary from laboratory to laboratory based upon the type of LIMS utilized and the level of detail tracked. However, there are two functions that need to be completed by the user prior to importing data into COELT. First, the valid values from the LIMS need to be translated to Corps of Engineers North Pacific Division valid values. And second, the fields tracked in the LIMS need to be correlated to the fields tracked in *EDF* (refer to Appendix A). Once the two tasks are accomplished, the import process can be initiated.

LIMS Fields to EDF Fields:

1.   Review the EDF field definitions. (Refer to EDF.)

2.   Determine LIMS fields with equivalent definitions.

Note: LIMS fields with EDF equivalents will be the fields that will be imported into COELT.

3.   Extract the LIMS fields with EDF equivalents from the LIMS.

4.   Organize these fields as relational files (adhering to the EDF structure) or integrated files (refer to EDF for rules, i.e., one test to many results).

Note: If the user's LIMS does not track all of EDF's fields, the data will need to be augmented in the "Partial Sample Results" entry area.

LIMS Valid Values to EDF Valid Values:

1.   Review EDF valid values. (Refer to EDF.)

2.   Determine LIMS valid value equivalents.

3.   Translate LIMS valid values to EDF valid values. (This may be accomplished before or after export.)

Importing Data

Selecting an Import Type:

1.   Place the pointer on the radio button (circle) next to the desired type.

2.   Click on the radio button (circle).

The selected "Import Type" is indicated by a black dot inside of the circle and a dotted line around the "Import Type" description.

Selecting a File Type:

1.   Place the cursor on the circle adjacent to the desired "File Type".

2.   Click on the circle.

The selected "File Type" is indicated by a black dot inside the circle.

Ordering Fields:

1.   Select the "Import Type" ("Integrated" or one of the individual "relational files").

2.   Place the pointer on the box to the left of the field to be moved.

3.   Hold down the mouse button and drag the field to the desired location.

4.   Repeat this process until the order in the "Field Order" box reflects the order of the files to be imported.

Note: If any fields in the "Field Order" section are not included in the file being imported, drag them to the bottom of the "Field Order" box and the program will ignore them.

Importing Integrated ASCII Files:

1.   Using the mouse, select the "Integrated (flat file)"option in the "Import Type" box.

2.   Click on the "Fixed ASCII" option in the "File Type" box.

3.   In the "Options" box enter a unique import batch number.

4.   If the user's ASCII file is not ordered in the same manner as found in the "Field Order" box, then the user needs to reorder the field order.

5.   Select the option "Check for valid records".

6.   Choose the maximum number of errors to store.

7.   Click on the "Integrated" button in the "Locate File" box and then locate the ASCII file to import.

8.   Click on the "Import" button to initiate the import.

Importing Integrated dBase Files:

1.   Using the mouse, select the "Integrated (flat file)" option in the "Import Type" box.

2.   Click on the "dBase" option in the "File Type" box.

3.   In the "Options" box enter a unique import batch number.

4.   Field ordering may be ignored for dBase files.

5.   Select the option "Check for valid records".

6.   Choose the maximum number of errors to store.

7.   Click on the "Integrated" button in the "Locate File" box and then locate the dBase file to import.

8.   Click on the "Import" button to initiate the import.

Importing ASCII Control Limit Files:

1. Using the mouse, select the "Control Limit" option in the "Import Type" box.

2. Click on the "Fixed ASCII" option in the "File Type" box.

3. In the "Options" box enter a unique import batch number.

4. If the user's ASCII file is not ordered in the same manner as found in the "Field Order" box, then the user will need to reorder the field order.

5. Select the option "Check for valid records".

6. Choose the maximum number of errors for the validation routine to check.

7. Click on the "CL" button in the "Locate File" box and then locate the ASCII file to import.

8. Click on the "Import" button to initiate the import.

Importing dBase Control Limit Files:

1   Using the mouse, select the "Control Limit" option in the "Import Type" box.

2.   Click on the "dBase" option in the "File Type" box.

3.   In the "Options" box enter a unique import batch number.

4.   Field ordering may be ignored for dBase files.

5.   Select the option "Check for valid records".

6.   Choose the maximum number of errors to store.

7.   Click on the "CL" button in the "Locate File" box and then locate the dBase file to import.

8.   Click on the "Import" button to initiate the import.

Importing Separate Relational ASCII Files:

1.   Using the mouse, select the "Separate (relational files)" option in the "Import Type" box.

2.   Click on the "Fixed ASCII" option in the "File Type" box.

3.   In the "Options" box enter a unique import batch number.

4.   If the user's ASCII file is not ordered in the same manner as found in the "Field Order" box, then the user will need to reorder the field order. (See Tables 6-1 through 6-6).

5.   Select the option "Check for valid records".

6.   Choose the maximum number of errors to store.

7.   Click on the "Sample" button in the "Locate File" box and then locate the ASCII file to import.

8.   Click on the "Test" button in the "Locate File" box and then locate the ASCII file to import.

9.   Click on the "Results" button in the "Locate File" box and then locate the ASCII file to import.

10.   Click on the "QC" button in the "Locate File" box and then locate the ASCII file to import.

11.   Click on the "Import " button to initiate the import.

Correcting Partial Files

Imported files may not have all the information required by the COELT program. Such incomplete files will be held in a "Partial" area until they are completed. To amend these partial files, go to the "Enter Sample Data" area (refer to Chapter 5).

Table 6-1. Integrated Field Order

Field Name	Definition
LOCID	The location from which the sample is collected.
LOGDATE	The date the sample is collected.
LOGTIME	The time the sample is collected.
LOGCODE	The company that collects the sample.
SAMPID	The number assigned to the sample at time of collection.
MATRIX	The medium or makeup of a sample.
PROJNAME	COE-assigned project name.
NPDLWO	COE-assigned work order number.
CNTSHNUM	The control sheet number assigned by the COE.
LABCODE	Code identifying the lab generating the report.
LABSAMPID	The identification number assigned to the sample by the laboratory.
QCCODE	The code identifying laboratory-generated quality control samples.
ANMCODE/ METHOD	The code identifying the analytical method of analysis.
MODPARLIST	A field indicating whether the parameter list of an analytical method has been modified.
EXMCODE	A code identifying the method of preparation.
LABLOTCTL	A number identifying a group of samples prepared together.
ANADATE	The date the sample is analyzed.
EXTDATE	The date a sample is prepared or extracted.
RUN_NUMBER	The numeric code distinguishing multiple analyses of a sample by the same method.
RECDATE	The date the lab physically assumes custody of the sample.
COCNUM	The number assigned to the chain-of-custody.
BASIS	Basis (wet or dry) for soil samples. Also carried in this field is information regarding filtration and leaching procedures.
PRESCODE	The code(s) identifying the type of preservative added to the sample.
SUB	The labcode of the subcontracted laboratory.

Table 6-1. Integrated Field Order (continued)

Field Name	Definition
REPDATE	The date of the lab report.
LABREPNO	The laboratory-assigned number uniquely identifying the hard copy report.
APPRVD	The initials of the individual approving the laboratory report.
TLNOTE	The test analytical notes providing descriptive information.
PVCCODE	The code identifying whether a value is primary or confirmatory.
PARLABEL/ANALYTE	The parameter label associated with a given parameter.
PARVAL/RESULT	The analytical value for a compound or ANALYTE .
PARVQ/QUALIFIER	The code for qualifying analytical results.
LABDL	The laboratory-established method detection limit.
REPDL	The detection limit reported by the lab to determine whether a parameter is detectable.
REPDLVQ/REPQUAL	The code identifying the type of reporting limit (e.g., practical quantitation limit.)
PARUN/UNCERTAINTY	The uncertainty associated with a test result.
UNITS	The units of measure used to report a result.
RT	The retention time of a tentatively identified compound.
DILFAC/DILUTION	The numeric factor indicating level of sample dilution.
CLREVDATE	The date assigned to the control limit for a given parameter.
SRM	The code identifying the source of the reference material for the calibration.
LABREFID	The laboratory-assigned reference sample identification number.
EXPECTED	The target result for a quality control sample or surrogate spike.
RLNOTE	The result analytical notes providing descriptive information.

Table 6.2. Separate (Relational) Sample Field Order

Field Name	Definition
LOCID	The location from which the sample is collected.
LOGDATE	The date the sample is collected.
LOGTIME	The time the sample is collected.
LOGCODE	The company that collects the sample
SAMPID	The number assigned to the sample at the time of collection.
MATRIX	The medium or makeup of a sample.
PROJNAME	The COE-assigned project name.
NPDLWO	The COE-assigned work order number.
CNTSHNUM	The control sheet number assigned by the COE.
LABCODE	The code identifying the lab generating the report.

Table 6-3. Separate (Relational) Test Field Order

Field Name	Definition
LOCID	The location from which the sample is collected.
LOGDATE	The date the sample is collected.
LOGTIME	The time the sample is collected.
LOGCODE	The company that collects the sample.
SAMPID	The number assigned to the sample at time of collection.
MATRIX	The medium or makeup of a sample.
LABCODE	The code identifying the lab generating the lab report.
LABSAMPID	The identification number assigned to the sample by the laboratory.
QCCODE	The code identifying laboratory-generated quality control samples.
ANMCODE/METHOD	The code identifying the analytical method of analysis.
MODPARLIST	The field indicating whether the parameterlist of an analytical method has been modified.
EXMCODE	The code identifying the method of preparation.
LABLOTCTL	The number identifying a group of samples.
ANADATE	The date the sample is analyzed.
EXTDATE	The date a sample is prepared or extracted.
RUN_NUMBER	The numeric code distinguishing multiple analyses of a sample by the same method.
RECDATE	The date the lab physically assumes custody of the sample.
COCNUM	The number assigned to the chain-of-custody.
BASIS	The basis for soil samples. Also carried in this field is information regarding filtration and leaching procedures.
PRESCODE	The code(s) identifying the type of preservative added to a sample.
SUB	The labcode of the subcontracted lab.
REP_DATE	The date of the lab report.
LAB_REPNO	The lab-assignednumber uniquely identifying the hard copy report.
APPRVD	The initials of the individual approving the laboratory report.
LNOTE	The analytical notes providing descriptive information.

Table 6-4. Separate (Relational) Results Field Order

Field	Definition
MATRIX	The medium or makeup of a sample.
LABCODE	The code identifying the lab generating the report.
LABSAMPID	The identification number assigned to the sample by the laboratory.
QCCODE	The code identifying laboratory-generated quality control sample.
ANMCODE/METHOD	The code identifying the analytical method of analysis.
EXMCODE	The code identifying the method of preparation.
PVCCODE	The code identifying whether a value is primary or confirmatory.
ANADATE	The date the sample is analyzed.
RUN_NUMBER	The numeric code distinguishing multiple analyses of a sample by the same method.
PARLABEL/ANALYTE	The parameter label associated with a given parameter.
PARVAL/RESULT	The analytical value for a compound or ANALYTE.
PARVQ/QUALIFIER	The code for qualifying analytical results.
LABDL	The laboratory-established method detection limit.
REPDL	The detection limit reported by the lab to determine whether a parameter is detectable.
REPDLVQ/REPQUAL	The code identifying the type of reporting limit (e.g., practical quantitation limit)
PARUN/UNCERTAINTY	The uncertainty associated with a test result.
UNITS	The units of measure used to report a result.
RT	The retention time of a tentatively identified compound.
DILFAC/DILUTION	The numeric factor indicating level of sample dilution.
CLREVDATE	The date assigned to the control limit for a given parameter.
SRM	The code identifying the source of the reference material.
LNOTE	The analytical notes providing descriptive information.

Table 6-5. Separate (Relational) QC Field Order

Field	Definition
MATRIX	The medium or makeup of a sample.
LABCODE	The code identifying the lab generating the report.
LABLOTCTL	The number identifying a group of samples.
ANMCODE/METHOD	The code identifying the analytical method of analysis.
PARLABEL/ANALYTE	The parameter label associated with a given parameter.
QCCODE	The code identifying laboratory-generated quality control samples.
LABQCID	The number assigned by the lab identifying the type of quality control used.
LABREFID	The laboratory-assigned reference sample identification number.
EXPECTED	The target result for a quality control sample or surrogate spike.
UNITS	The units of measure used to report a result.

Table 6-6. CL File Field Order

Field	Definition
LABCODE	The code identifying the lab generating the report.
MATRIX	The medium or makeup of a sample.
ANMCODE/METHOD	The code identifying the analytical method of analysis.
EXMCODE	The code identifying the method of preparation.
PARLABEL/ANALYTE	The parameter label associated with a given parameter.
CLREVDATE	The date assigned to the control limit for a given parameter.
CLCODE	The code identifying the type of control limit.
UPPERCL	The upper control limit.
LOWERCL	The lower control limit.

7.0   Online Help

The "Online Help" function provides quick and convenient access to program instructions. The "Help" functions are context-sensitive so that when the user clicks on "Help", the information that appears is relevant to the function or screen that the user is attempting to navigate. Additionally, the "Help" function provides a glossary of terms and answers to commonly asked questions.

8.0 Control Limit Information

COELT provides a convenient format for entering and storing laboratory control limits. The list of laboratory control limits is entered once when the user first starts using COELT, and then revised occasionally when a control limit needs updating. The user does not have to reenter control limits each time laboratory reports are generated. The electronic deliverable will automatically include the stored control limits.

Control Limit Entry Screen

To access the control limit entry screen, click on the "Enter Control Limits" icon. The "Control Limits" screen will appear:

Figure 8-1. Control Limit Entry Screen.

Tool Bar

Undo
The "Undo" button reverses the last entry in a field.

Delete
Clicking on the "Delete" button will delete the record where the cursor is located.

Modify
The "Modify" button is used to add new records or change existing entries.

Ok
The "OK" button moves the user out of "Modify" mode to "Browse" mode. If the user is in "Browse" mode, clicking on "OK" will move the user out of the "Control Limit" screen and back to the main menu.

Menu Bar
The menu bar provides quick access to the functionality provided by the "hot key", "control keys", and function buttons.

Control Limit Entry Area
The "Control Limit" entry area provides a location where the user can enter control limit criteria into the program. Control limits may be entered into the program for each type of criteria that the laboratory uses for comparison. (Some laboratories use method-established limits while others use internally-generated control limits. Hence the "Control Limit" area of the program may contain several different limits for the same method, matrix, parameter combination.)

The field definitions for the "Control Limit" entry area are listed in Table 8-1. Fields requiring valid values are noted with [F2].

Control Limit Codes

The "Clcodes" (control limit codes) distinguishes the type of control limit being entered into the system. "Clcodes" are separated into six groups, with codes for surrogates, initial calibration, continuing calibration, laboratory replicates, standard reference material, and spiked samples. The codes associated with each of these groups are listed in Tables 8-2 through 8-7.

A single parameter may have several different limits in COELT. For instance, benzene may require control limits for several different method/preparation method/matrix combinations for the spiked samples, calibration, and laboratory replicate groups. And within each group, the user may wish to track the different type of limits such as the Contract Laboratory Program limits for a benzene matrix spike or their own laboratory-determined internal limits. The user assigns these limits to a result in the "Enter Sample Results" area by selecting the appropriate "Clrevdate" (Control Limit Revision Date). If two limits within the same group have the same "Clrevdate", COELT will choose a limit to print next to the result based upon the hierarchy listed in Table 8-8.

Control Limit Revision Date

"Control limit revision dates" (Clrevdate) are based upon the date that they were established. If the limits are from a method or the Contract Laboratory Program, use the date of the document.

Selecting a Control Limit:

1. Scroll down to the control limit and select it using the mouse and the scroll bar to the right.

2. Click on the record of interest.

Creating a New Control Limit:

1.   Click on the "Modify" button.

2.   Move the pointer and click on the parameter field in the last record in the list.

3.   Click on the last existing test record and hit the "down arrow" key.

4.   This will bring the cursor to a blank test line.

5.   Fill in all required fields on the line.

Modifying a Control Limit:

When control limits are re-established in the laboratory, they need to be modified in COELT to reflect changes.

1.   Select the control limit to "Modify".

2.   Click on the "Modify" button at the top of the screen.

3.   Enter the new information into this record.

Note: Each time a new method is reported or results are compared to new quality control criteria, a new set of control limits need to be entered into COELT.

*Deleting a Control Limit***:**

1.   Click on any record in the control limit file the user wants to delete.

2.   Click on the "Delete" button at the top of the screen.

Note: Quality control limits are also required for results originating from sub-contracted laboratories.

Table 8-1. Control Limit Field Definitions

Field Name	**Definition**
Labcode [F2]	LABORATORY - The code identifying the laboratory reporting the result.
Matrix [F2]	MATRIX - The medium or makeup of the sample.
Method [F2]	ANALYTICAL METHOD CODE - The code identifying the analytical method of analysis.
Exmcode [F2]	EXTRACTION METHOD CODE - The code identifying the extraction method of analysis.
Analyte [F2]	PARAMETER CODE - The code assigned to the measurement parameter.
Clrevdate [F2]	CONTROL LIMIT REVISION DATE - The date assigned to the control limit for a given parameter.
Clcode [F2]	CONTROL LIMIT CODE - The code identifying the type of quality control limit.
Uppercl	UPPER CONTROL LIMIT - The upper control limit of a quality control chart and the field used to report relative percent diference.
Lowercl	LOWER CONTROL LIMIT - The lower control limit of a quality control chart.

Table 8-2. Clcodes for Surrogates

Clcode	**Description**
SLSA	SURROGATE LABORATORY SAMPLE ACCURACY Surrogate Percent Recovery Limits determined using a reagent blank, method blank, or laboratory control limit solution.
SLSP	SURROGATE LABORATORY SAMPLE PRECISION - Surrogate Relative Percent Difference Limits determined using a reagent blank, method blank, or laboratory control limit solution.
SMSA	SURROGATE MATRIX SAMPLE ACCURACY - Surrogate Percent Recovery Limits determined using a sample matrix.
SMSP	SURROGATE MATRIX SAMPLE PRECISION - Surrogate Relative Percent Difference Limits determined using a sample matrix.
SBSA	SURROGATE BOTH SAMPLE ACCURACY - Surrogate Recovery Limits determined using both reagent blanks and sample matrices.
SBSP	SURROGATE BOTH SAMPLE PRECISION - Surrogate Relative Percent Difference Limits determined using both reagent blanks and sample matrices.
SMEA	SURROGATE METHOD ESTABLISH ACCURACY - Surrogate Recovery Limits listed in the method.
SMEP	SURROGATE METHOD ESTABLISH PRECISION - Surrogate Relative Percent Difference Limits listed in the method.
SCLA	SURROGATE CONTRACT LABORATORY PROGRAM ACCURACY - Surrogate Recovery Limits listed in the Contract Laboratory Program requirements.
SCLP	SURROGATE CONTRACT LABORATORY PROGRAM PRECISION - Surrogate Relative Percent Difference Limits listed in the Contract Laboratory Program requirements.

Table 8-3. Clcodes for Initial Calibration

Clcode	**Description**
LIC	LABORATORY INITIAL CALIBRATION - Initial Calibration Percent Recovery Limits determined using reagent solution.
MEIC	METHOD ESTABLISHED INITIAL CALIBRATION - Initial Calibration Percent Recovery Limits listed in the method.
CLPIC	CONTRACT LABORATORY PROGRAM INITIAL CALIBRATION - Initial Calibration Percent Recovery Limits listed in the Contract Laboratory Program requirements.

Table 8-4. Clcodes for Continuing Calibration

Clcode	**Description**
LCC	LABORATORY CONTINUING CALIBRATION - Continuing Calibration Percent Recovery Limits determined using reagent solution.
MECC	METHOD ESTABLISH CONTINUING CALIBRATION - Continuing Calibration Percent Recovery Limit listed in the method.
CLPCC	CONTRACT LABORATORY PROGRAM CONTINUING CALIBRATION - Continuing Calibration Percent Recovery Limit listed in the Contract Laboratory Program requirements.

Table 8-5. Clcodes for Standard Reference Material

Clcode	Description
SRAD	STANDARD REFERENCE ACCURACY DEFINED - Standard Reference Material Percent Recovery Limits as defined by the manufacturer or government agency.
SRPD	STANDARD REFERENCE PRECISION DEFINED - Standard Reference Material Relative Percent Difference as defined by the manufacturer or government agency.
SRMA	STANDARD REFERENCE MATERIAL ACCURACY - Standard Reference Material Percent Recovery limits determined by the laboratory.
SRMP	STANDARD REFERENCE MATERIAL PRECISION - Standard Reference Material Relative Percent Difference Limits determined by the laboratory.

Table 8-6. Clcodes for Laboratory Replicates

Clcode	Description
LLR	LABORATORY, LABORATORY REPLICATE - Laboratory Replicate Relative Percent Difference Limits determined using reagent solution.
MLR	MATRIX LABORATORY REPLICATE - Laboratory Replicate Relative Percent Difference Limits determined using a sample matrix.
MELR	METHOD ESTABLISHED LABORATORY REPLICATE - Laboratory Replicate Relative Percent Difference Limits listed in the method.
CLPLR	CONTRACT LABORATORY PROGRAM LABORATORY REPLICATE - Laboratory Replicate Relative Percent Difference Limits listed in the Contract Laboratory Program requirements.

Table 8-7. Clcodes for Spiked Samples

Clcode	**Description**
LSA	LABORATORY SAMPLE ACCURACY - Spiked Samples Percent Recovery Limits determined in reagent solution.
LSP	LABORATORY SAMPLE PRECISION - Spiked Samples Relative Percent Difference Limits determined in reagent solution.
MSA	MATRIX SPIKE ACCURACY - Spiked Samples Percent Recovery Limits determined in a sample matrix.
MSP	MATRIX SPIKE PRECISION - Spiked Samples Relative Percent Difference Limits determined in a sample matrix.
MEA	METHOD ESTABLISHED ACCURACY - Spiked Samples Percent Recovery Limits listed in the method.
MEP	METHOD ESTABLISHED PRECISION - Spiked Samples Relative Percent Difference listed in the method.
CLPA	CONTRACT LABORATORY PROGRAM ACCURACY - Spiked Samples Percent Recovery Limits listed in the Contract Laboratory Program requirements.
CLPP	CONTRACT LABORATORY PROGRAM PRECISION - Spiked Samples Relative Percent Difference Limits listed in the Contract Laboratory Program requirements.
SRMA	STANDARD REFERENCE MATERIAL ACCURACY - Standard Reference Material Percent Recovery limits determined by the laboratory.
SRMP	STANDARD REFERENCE MATERIAL PRECISION - Standard Reference Material Relative Percent Difference limits determined by the laboratory.
SRAD	STANDARD REFERENCE ACCURACY DEFINED - Standard Reference Material Percent Recovery limits as defined by the manufacturer or government agency.
SRPD	STANDARD REFERENCE PRECISION DEFINED - Standard Reference Material Relative Percent Difference as defined by the manufacturer or government agency.

Table 8-8 Clcode Hierarchy

Group	Clcode Hierarchy
Surrogates	SLSA/SLSP
	SMSA/SMSP
	SBSA/SBSP
	SMEA/SMEP
	SCLA/SCLP
Initial Calibration	LIC
	MEIC
	CLPIC
Continuing Calibration	LCC
	MECC
	CLPCC
Standard Reference Material	SRAD/SRPD
	SRMA/SRMP
Laboratory Replicates	LLR
	MLR
	MELR
	CLPLR
Spiked Samples	LSA/LSP
(Matrix or Blank Solution)	MSA/MSP
	CLPA/CLPP
	SRMA/SRMP
	SRAD/SRPD

9.0   Modify Method Detection Limits

The "Modify Method Detection Limits" (MDL) section of the program provides a location where the user can customize COELT to reflect the actual internal laboratory operations. The user may build method lists that reflect the order and detection limits of an analytical method as they appear on their laboratory bench sheets. After the user has established a method in this section of the program, this method information may be accessed by other sections of COELT for rapid results entry.

The "MDL" area of the program is an optional area of COELT and is not required for imported data, however it is strongly recommended for laboratories manually entering data into COELT.

MDL Entry Screen

MDL Source

The "MDL Source" entry areas contain the laboratory, method, and matrix information associated with the detections limits. Each new method and/or matrix needs to be reported, and a new set of detection limits should be entered into the program.

Figure 9-1. Modify Method Detection Limits Screen.

Function Buttons

Build

The "Build" button is used to list the parameters associated with an analytical method.

Order

The "Order" button activates a screen that allows the user to change the order of a method's analytes.

Delete

The "Delete"button can delete either a parameter within a method or the entire method depending on the location of the cursor at the time that the button is pressed. (In either case, the user is prompted with a message to ensure that information is not inadvertently deleted.)

OK

The "OK" button is used to accept a method's analyte ordering. Double click on the "OK" button to exit the "MDL" screen.

Menu Bar

The menu bar provides quick access to "hot keys", "control keys", and "function buttons".

MDL Entry Area

The "MDL" entry area provides a program location where the user can enter laboratory specific detection limits, units, and reporting limits. Once these limits have been entered into the system they can be accessed in the "Sample Results Entry" area of the program. (These detection limits can be adjusted to reflect dilution in the "Sample Results Entry" portion of the program.) The field definitions for the "MDL" section of the program are listed in Table 9-1. Fields requiring valid value entries are noted with [F2].

Creating a Method Detection Limit List

Method lists have two functions: they establish the laboratory's standard parameter list for each method, and they hold the method detection limits for parameters in the list. In order to create a "Method List" the user must first select a method.

Selecting a Method:

1. Click on the "Modify Method Detection Limits" icon on the main COELT screen.

2. When the "MDL" entry screen appears, the program will automatically highlight the "Analytical Method" field.

3. If another method is on the screen, ignore it. (Entering a new method in the "Analytical Method" field will not erase the old record.)

4. To enter a method in the "Analytical Method" field, press [F2] for valid method codes or enter one directly.

5. To enter a laboratory code, press [F2] for valid "Labcodes" or enter one directly.

6. To enter a matrix, press [F2] for valid "Matrix" or enter one directly.

Note: If parameters do not appear in the "MDL" entry area after a method has been entered into the "Analytical Method" field, a method list needs to be "Built".

Once the method has been selected the user needs to assign a laboratory code and matrix. Each matrix entered into the system will require its own method list (as the units and the limits will necessarily be different from matrix to matrix.) Also note that if the user is entering results into the system from a laboratory that has been subcontracted, the subcontractor's limits will need to be in the system under the

subcontractor's "Labcode".

Assigning the Method's Laboratory and Matrix:

1.　Select a method.

2.　Enter the laboratory. Press [F2] for valid "Labcode" values.

3.　Assign a matrix. Press [F2] for valid "Matrix" values.

Building a Parameter List:

1.　Select a method.

2.　Assign a laboratory and matrix.

3.　Click on the button marked "Build," on the right-hand side of the screen.

4.　The parameters associated with the selected method will appear in the "MDL" entry area.

Note: Most methods have a preset list of the parameters required by the COE for that method. If pressing "Build" does not cause a parameter list to appear in the "MDL" entry area, create a list directly.

If there is a COE parameter list does not exist for a method, the user may create a parameter list directly.

Creating a List Directly:

1.   Select a method.

2.   Assign the laboratory and matrix.

3.   Place the cursor in the "Analytical Method" field.

4.   Press [F2] to select valid "Analytical Method" codes.

Laboratories often will carry additional analytes or surrogates on their standard compound list. COELT accommodates additional compounds by providing a means by which the user may add additional compounds to the COELT list.

Adding an Analyte to a Method:

1. Highlight the last "Analyte" in the method list.

2. Press the "down-arrow" key.

3. This will put the cursor in a blank field. The user may then enter a new code directly or press [F2] for a list of valid codes.

If a laboratory orders a methods analytes differently than listed in COELT, the user may wish to adjust the ordering of the COELT list to reflect the laboratory's list. This feature is particularly useful for laboratories entering data from bench sheets into COELT.

Reordering the Analytes on a Method:

1. Click on the "Order" button in the upper right portion of the screen.

2. A small screen will appear with a list of all the parameters present in the "MDL" entry area.

3. Scroll up and down the list by clicking on the scroll bar, or on the up and down arrows to the right of the list.

4. When the desired parameter appears, grab it by clicking and holding down the mouse button on the gray box to the left of the parameter name.

5. Move the parameter up or down by dragging the mouse up or down while holding down the mouse button.

6. When the field name is in the right place, drop the parameter by releasing the mouse button.

7. Click on the "OK" button.

Click on button and drag parameter to desired location
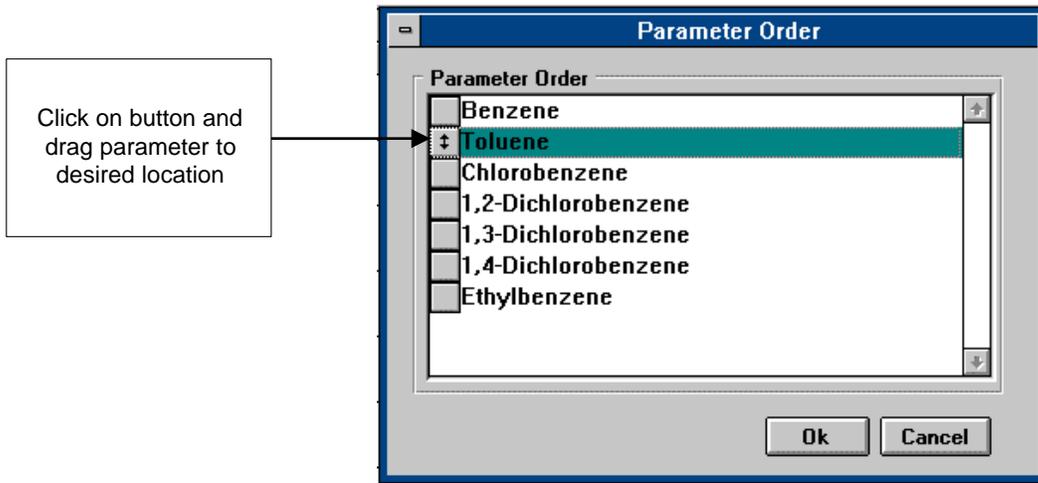
Figure 9-2. Parameter Ordering Box.
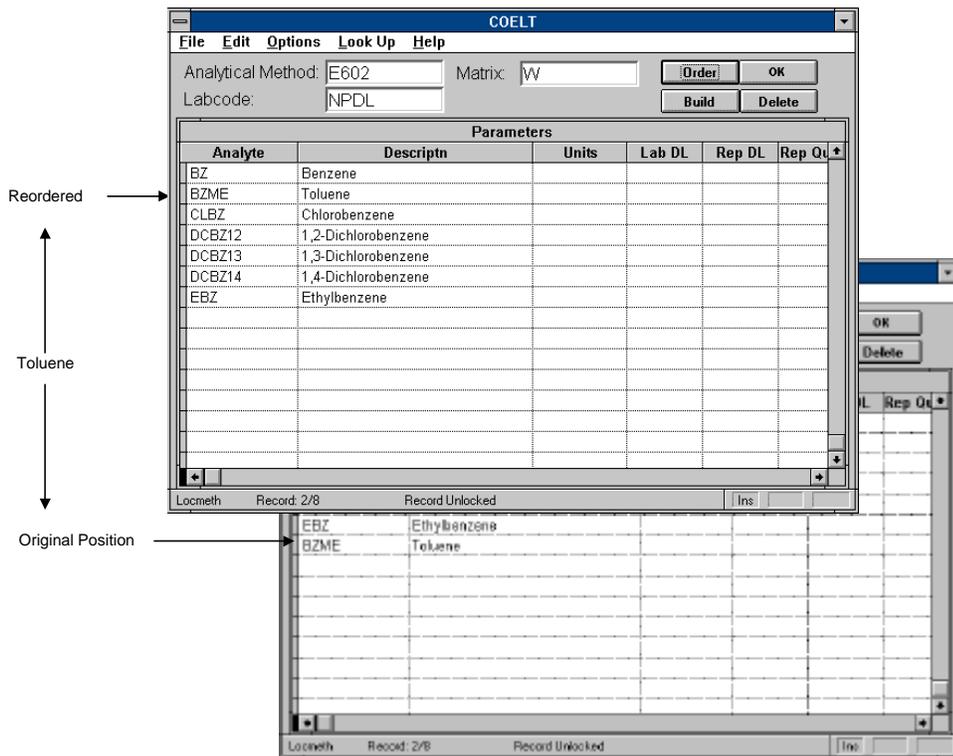
Figure 9-3. Parameter Reordering.

Deleting an Analyte from a Method:

1.   Highlight the parameter that is to be deleted

2.   Click on the "Delete" button.

Deleting a Method:

1.   Highlight the method in the "Analytical Method" field at the top left
         corner of the screen.

2.   Click on the "Delete" button.

Creating a Method List

Example:
The following example creates a method list for EPA Method 602 in a water
matrix. Suppose the list is being prepared for North Pacific Division
Laboratory .

Analytical Method	Type E602 and press [Enter].
Labcode	Type NPDL and press [Enter].
Matrix	Type W and press [Enter].

Click on the "Build" button and the parameter list for EPA Method 602 will
appear in the "MDL" entry area.

Click on the "Order" button and drag toluene to the position just below
benzene.

Click on the "OK" button.

Analyte	BZ will appear in this field automatically.
Descriptn	Benzene will appear in this field automatically.
Units	Press [F2] and select units (say UG/L).
Lab DL	Type 0.5 and press [Enter].
Rep DL	Type 5 and press [Enter].
Rep Qual	Press [F2] and select PQL.

Table 9-1. Method Detection Limit Field Definitions

Field Name	Definition
Analyte [F2]	ANALYTE -The parameter label associated with a given parameter.
Descriptn	DESCRIPTION - The description of the analyte field.
Units [F2]	UNITS - The units of measure associated with the detection limits.
Lab DL	METHOD DETECTION LIMIT - The laboratory statistically established method detection limit.
Rep DL	REPORTED DETECTION LIMIT - The detection limit used by the laboratory to determine whether a parameter is detectable (i.e.,practical quantitation limit, reporting limit, etc.)
Rep Qual [F2]	REPORTED DETECTION LIMIT QUALIFIER - A code identifying the type of reporting limit (i.e., practical quantitation limit, instrument detection limit, etc.)

10.0 Electronic Deliverables

The export feature moves the data from the database into a standardized, digital format. Transmitting data electronically in the EDF format eliminates the need for laborious reentry of hard copy laboratory data by the end user. The errors that can be generated by reentering data are also eliminated, increasing the efficiency and reliability of data transmission.

Exporting an Electronic Deliverable

Lab Report to Export

The "Lab Report to Export" box lists the laboratory reports that are available for exporting. The report highlighted is the report that will be exported.
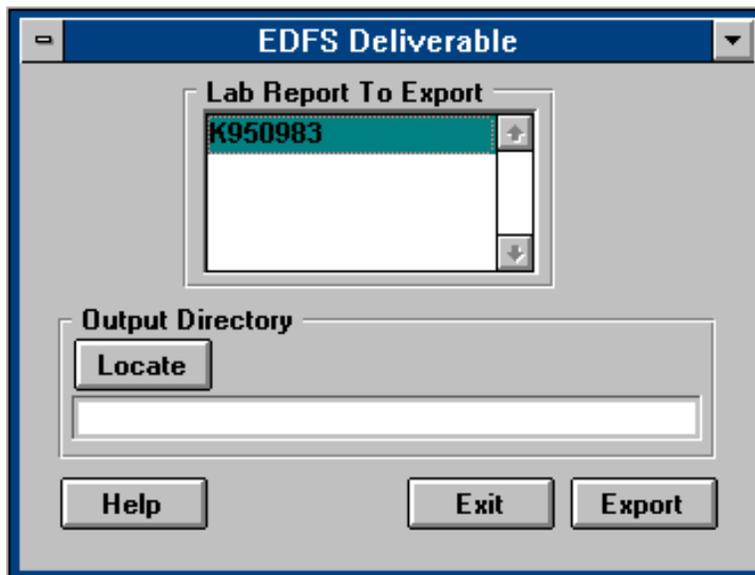
Figure 10-1. Electronic Deliverable Export Screen.

Output Directory

The "Output Directory" is where the report will be exported. (Note: the user may choose the output location).

Export Button

Select the "Export" button starts the export process.

Exporting a Report:

1. Select the report to be exported by clicking on the report the user wishes to export.

2. Press the "Locate" button to find the directory or disk drive to send the data.

(Note: Generally, files are exported to a floppy disk. A floppy disk should first be placed in the disk drive, then click on the "Locate" button.)

3. A standard directory selection screen will appear.

4. Click on the directory or drive and press the "Select" button.

5. Press the "Export" button.

6. The screen will indicate that the program is beginning to export.

7. Once the export is complete, the program will indicate that the export was successful.

8. Click on "OK" and the data will be in the selected location.

Note: All laboratory reports currently in the program will appear as available for export, even if they are not complete. However, the program will only export completed reports. If an incomplete report is selected, a message screen will appear indicating which section of the report is incomplete.

Checking the Electronic Deliverable Format

Each electronic report exported from COELT must be verified using the Electronic Deliverable Consistency Checker (EDCC) program. This program is available on the AKD FTP site, and instructions for its use are presented in the *Electronic Deliverable Format (EDF)* document.

11.0 Hard Copy Laboratory Reports

Printing laboratory reports directly from a database with a standard format makes communication clearer between parties sharing data. And since the data comes directly from the database, a printed report ensures that the data on the report is the same as the data in the database as well as the digital deliverable. Additionally, the laboratory report feature prepares the reports in the format approved by the Corps of Engineers.

Generating a Laboratory Report

Selecting a Laboratory Report:

1.   Select the report to be printed by clicking on the report the user wishes
        to print.

2.   Click on the "Generate" button.

3.   The screen will indicate that the data is beginning to be processed for
        printing.

4.   The "Print Options Screen" will appear indicating that the report is
        ready to view.
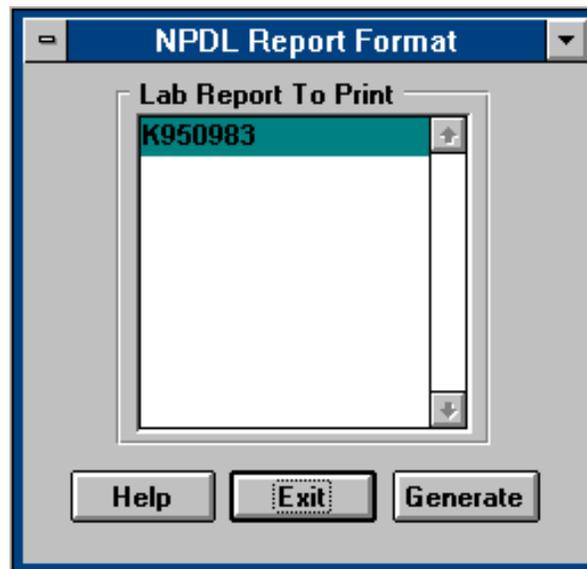
Figure 11-1. Generate Laboratory Report Screen.

The "Print Options Screen" provides the user the option of printing the entire report (Print All) or a portion of the report (Print). This screen also provides a location for the user to create a narrative report.

.
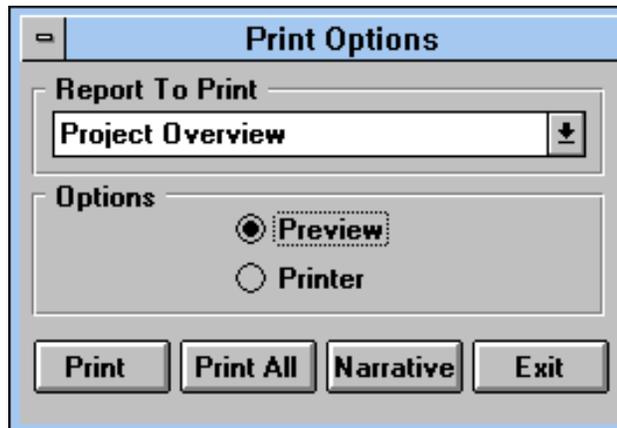
Figure 11-2. Print Options Screen

Creating A Laboratory Report Narrative:

1.   Click on "Generate a Report".

2.   The "Print Options Screen" will appear. Click on "Narrative" and a
        "Narrative" entry screen will appear (Figure 11-3).

3.   Type in the narrative comments.

4.   Click on "Ok" to save the comments for export.

Note: Click on "Cancel" to erase the comments.
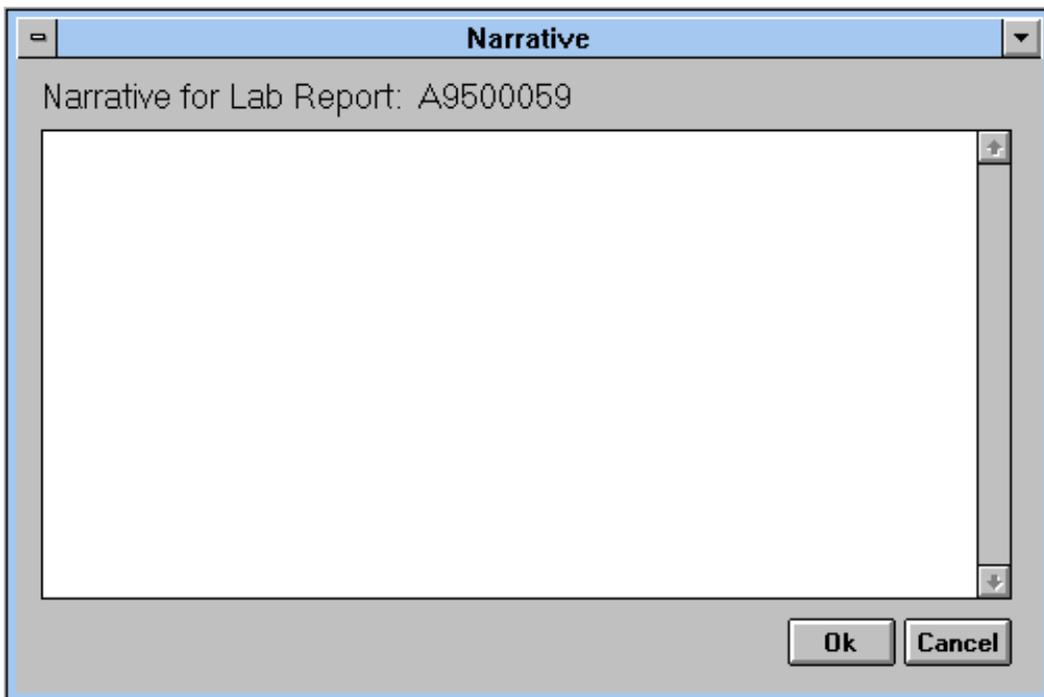
Figure 11-3. Narrative Report

Previewing a Laboratory Report:

1.   Select the report to be previewed.

2.   Click on "Preview".

3.   Click on "Print".

Note: To preview the entire lab report select "Print All".

Printing a Laboratory Report:

1.   Select the Report to be printed.

2.   Click on "Printer".

3.   Click on "Print".

Note: To print the entire lab report select "Print All".

Report Formats

The COELT program is capable of printing out several different types of reports, depending on the data associated with a particular laboratory report number. The types of reports available for printing are listed in Table 11-1.

Method Groups

There are four basic types of formats for reporting standard results. These formats assigned by COELT are based upon the method that is to be reported. These types of formats are described in Table 11-2 and the methods associated with each report type are presented in Appendix E. Method groups are preassigned by the COELT program and do not require user selection.

Calculations

Many of the Quality Control Reports print out COELT calculated values for comparison to quality control criteria. There are two basic calculations that COELT performs. The general calculations are listed below. For the specific type of quality assurance sample, refer to Appendix D. (**NOTE:** For negative result values, some calculations will not function as described below [e.g., percent recovery is calculated using absolute values when negative results are involved]. This is only an issue on COELT reports containing calculated values. The electronic data is not affected.)

Percent Recovery

$$\frac{\text{spike result } - \text{ sample result}}{\text{spike level}} * 100 = \text{\% Recovery}$$

Relative Percent Difference

$$\frac{|[\text{result - duplicate result}]|}{[\text{result + duplicate result}]/ 2} * 100 = \text{RPD}$$

Significant Figures: COELT tracks significant figures for calculation purposes in the following manner: zeros used to hold places to either side of the decimal point are not considered significant (e.g., 0.01 and 100 both have only one significant figure). Any zeros to the right of a decimal point are considered significant (e.g., 100.0 has 4 significant figures). To make the number 100 be seen as having 3 significant figures, the user must place a decimal point after it (e.g., 100.).

Rounding: For calculated fields, numbers are rounded based on the following rules:

1. If the number to the right of the last significant figure is greater than 5, the last significant figure is rounded up (e.g., 101.6 becomes 102 to make 3 significant figures).

2. If the number to the right of the last significant figure is less than 5, the last significant figure remains unchanged (e.g., 101.2 becomes 101 to make 3 significant figures).

3. If the number to the right of the last significant figure is exactly 5, the last significant figure is rounded up (e.g., 101.5 becomes 102 to make 3 significant figures).

4. When there are several numbers to the right of the last significant figure, the numbers are considered as a group, using the above rules (e.g., to make 3 significant figures, 101.498 becomes 101, because (498) is less than 5, and 101.512 becomes 102, because (512) is greater than 5).

COELT does not perform any other data calculations or dilution adjustments on the laboratory reports. (Refer to Chapter 5 for user-initiated dilution adjustments.)

If a percent recovery value is too large for the space on the report, the number will wrap in such a way that the number of significant figures will be preserved and any additional figures to the LEFT of the decimal point that do not fit will be wrapped below the number. An example of this follows:

If the percent recovery is calculated to be 12345.6 (there is only room for 4 spaces), the number will print as   12.6
                                             345
This wrapping only occurs in calculated fields.

Control Limits

COELT carries many different types of control limits. The system prints these limits based upon a COE-requested hierarchy. For instance, if the user has two limits in the system for matrix spike recovery (assuming the same "Method", "Extraction Method", "Parameter", "Matrix", and "Clrevdate"), COELT will print out the limit that is highest in the COE hierarchy. The "Clcodes" are listed in the order in which they will print in Table 11-3.

Table 11-1. Report Formats

Report Format	Description
Project Overview	Laboratory Report Cover Page
Narrative	Text Comments
Report Summary	Summary of Samples Analyzed
CS Report A	COE Sample Analytical Results for a Single Method
CS Report B	COE Sample Analytical Results for Multiple Methods
CS Radio-chemistry	COE Sample Analytical Results for a Single Radiochemistry Method
CS Dioxin	COE Sample Analytical Results for a Single Dioxin Method
MB Report A	Method Blank Results for a Single Method
MB Report B	Method Blank Results for Multiple Methods, Dioxin, and Radiochemistry Methods
Reagent Blank Report A	Reagent Blank Results for a Single Method
Reagent Blank Report B	Reagent Blank Results for Multiple Methods, Dioxin, and Radiochemistry Methods
Lab Rep Report	Laboratory Replicate Report
MS/MSD Report	Matrix Spike/Matrix Spike Duplicate Report
BS/BSD Report	Blank Spike/Blank Spike Duplicate Report
RM/RMD Report	Reference Material/Reference Material Duplicate Report
ICV Report	Initial Calibration Verification Report
CCV Report	Continuing Calibration Verification Report
Code List	List of codes used on reports

Table 11-2. COELT-Assigned Report Formats

Report Type	**Description**
A	Report format supporting a single method.
B	Report format supporting multiple methods (e.g., metals and wet chemistry results).
Radiochemistry	Report format supporting a single radiochemistry method (e.g., gross alpha radiation).
Dioxin	Report format supporting a single dioxin method.

Table 11-3. Clcode Hierarchy

Group	**Clcode Hierarchy**
Surrogates	SLSA/SLSP
	SMSA/SMSP
	SBSA/SBSP
	SMEA/SMEP
	SCLA/SCLP
Initial Calibration	LIC
	MEIC
	CLPIC
Continuing Calibration	LCC
	MECC
	CLPCC
Standard Reference Material	SRAD/SRPD
	SRMA/SRMP
Laboratory Replicates	LLR
	MLR
	MELR
	CLPLR
Spiked Samples	LSA/LSP
	MSA/MSP
	CLPA/CLPP
	SRMA/SRMP
	SRAD/SRPD

12.0   Database Maintenance

The "Database Maintenance" area provides tools for managing the COELT database.
Proper database management will increase the program's overall performance. Hence,
regularly scheduled database packing and data archiving is highly recommended, in
addition to backing up the data files on a daily basis.
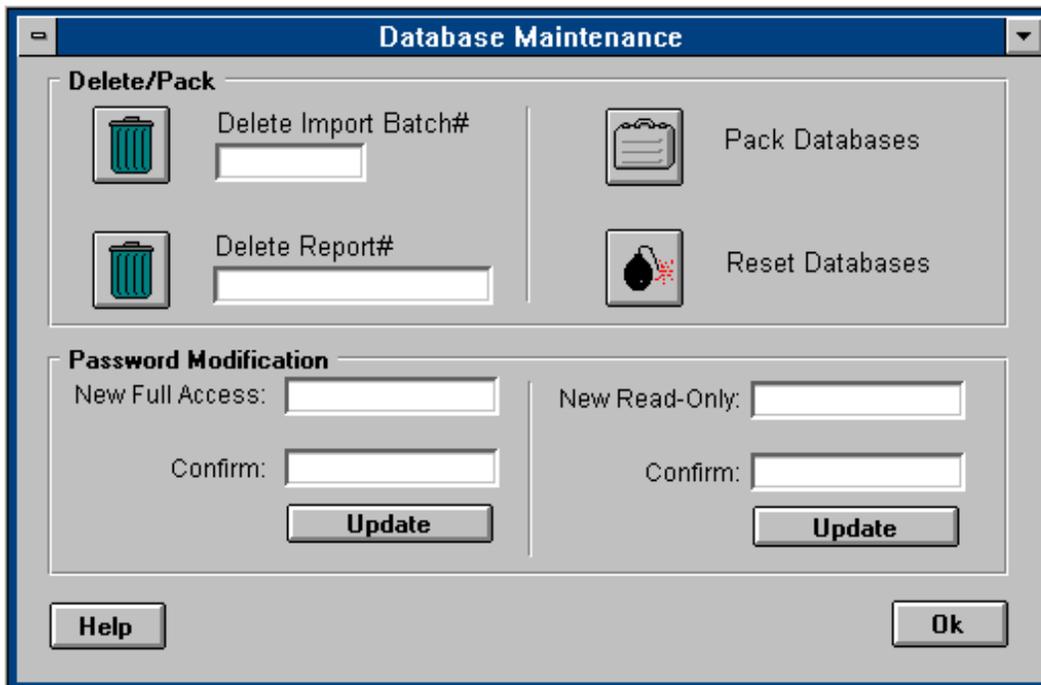
Figure 12-1. Database Maintenance Screen.

Data Management

Deleting an Import Batch

1.   Enter the batch number in the window under "Delete Import Batch#".

2.   Click on the 'Trash Can" icon.

Note: This should not be done unless the data has been exported and sent to AKD or the user wishes to re-import a modified version of the import batch.

Tip: Backup the COELT databases prior to deleting import batches.

Deleting a Report

1.   Enter the report number in the field.

2.   Click on the 'Trash Can" icon.

Note: This should not be done unless the data has been exported and sent to AKD with a hard-copy report and the user is confident that changes to the data will no longer be necessary.

Packing Databases

This function reorganizes the databases, resulting in smaller database files which provide better overall program performance. To pack databases click on the" Pack Databases" button.

Resetting Databases

This function will remove all of the data from the time of installation. Use this function with EXTREME CAUTION because all data will be removed from the user's system, including "Control Limit Information" and "Method Lists". To reset the databases click on the "Reset Databases" button.

Password Modification

The lower half of the screen governs the assignment of passwords. Passwords can be assigned with full system access or with read-only access. The read-only access allows the user to view data, but does not permit data modification or data importing. This feature is intended to protect data from individuals who do not have authorization to "Modify" analytical results.

Modifying The Full Access Password:

1.   Type the new full access password into the " New Full Access" field.

2.   Type the new password in the "Confirm" field.

3.   Click on the "Update" button.

Modifying The Read-Only Password:

1.   Type the read-only access password into the "Read Only" field.

2.   Retype the new password in the "Confirm" field.

3.   Click on the "Update" button.

13.0 Glossary

ACCURACY - The closeness of agreement between an observed value and an accepted reference value. When applied to a set of observed values, accuracy will be a combination of a random component and of a common systematic error (or bias) component.

ANADATE (Analysis Date) - The date a sample or extract is analyzed in a laboratory.

ANALYTE - A Parameter Label (PARLABEL) associated with a given parameter.

ANMCODE (Analytical Method) - The code identifying the method of analysis by which the sample was analyzed.

APPRVD (Approved By) - Initials of the individual approving the laboratory report.

ATTRIBUTES - The characteristics of a given field, such as the length and type of field (e.g., date, character, or numeric).

BASIS (Basis) - Identifies the basis (W = wet, D=dry, F = field filtered, L = lab filtered, or N = no filtered) on which analytical results are reported for all matrices. The basis for tissue, soil, sludge, and sediment samples may be W or D. The *BASIS* field is also used for information regarding leaching procedures. Refer to Table 4-8 for "Basis" codes.

BATCH - A group of samples which have been handled similarly with respect to the testing procedures being employed and which are processed as a unit.

CLCODE (Control Limit Code) - Defines the type of quality control limits (e.g., matrix spike percent recovery).

CLREVDATE (Control Limit Revision Date) - The date a quality control limit is established.

CNTSHNUM (Control Sheet Number) - COE-assigned administrative number.

custody.

COE SAMPLES - A sample collected by the Corps of Engineers or a contractor of the Corps of Engineers. Most environmental samples analyzed by the laboratory will be COE Samples.

DESCRIPTN - The description of the analyte field.

DILFAC (Dilution Factor) - Numeric factor indicating level of sample dilution.

DILUTION - Numeric factor indicating level of sample dilution.

ESTIMATED QUANTITATION LIMIT (EQL) - The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. The EQL analyte concentration is selected as the lowest non-zero standard in the calibration curve. Sample EQL's are highly matrix-dependent.

EXLABLOT (Extraction Lot Number) -This is an obsolete field.

EXPECTED (Expected Value) - The target result for a quality control sample or surrogate spike. Samples that are reported in percent units have expected values of 100.

EXTDATE (Extraction Date) - The date a sample is extracted or prepared for analysis.

EXMCODE (Extraction Method) - A code showing the method that was used to extract or prepare a sample for analysis.

FIELD - An area of a database that contains a particular piece of information. Fields are defined by the attributes of format and size.

FILE - A group of electronic data in a particular format.

LABCODE (Laboratory) - A code identifying the analytical laboratory.

LABORATORY CONTROL SAMPLE - A known matrix spiked with

compound(s) representative of the target analytes. This is used to document laboratory performance.

LABDL (Detection Limit) - The laboratory-established method detection limit (i.e., the minimum detectable concentration of an analyte that can be measured and reported with 99% confidence that the analyte concentration is different from a blank for a given matrix). This limit must be adjusted for dilution. The LABDL field may or may not contain the same value as the REPDL field, depending on the reporting format of the individual laboratory. Regardless, the laboratory must enter a value into LABDL unless the parameter is a tentatively identified compound.

LABLOTCTL (Lab QC Lot Number) - A unique number identifying an autonomous batch or group of environmental samples prepared together, and sharing the same quality control within the same time period. This group is equivalent to the EPA SW-846 concept of a "Quality Assurance Batch".

LABORATORY REPLICATES - Aliquots of samples taken from the same container and analyzed independently.

LABQCID (Laboratory QC Sample ID) - The laboratory-assigned QC sample ID number. All quality assurance samples are entered into this field, including laboratory-generated samples (blanks and laboratory control samples), as well as environmental samples that have been altered by the laboratory (matrix spike). This field requires unique laboratory-assigned sample identifiers.

LABREFID (Laboratory Reference Sample ID) - The reference sample is the sample upon which the quality control sample is referenced in order to calculate the quality assurance result. A reference sample is used in conjunction with a quality control sample (LABQCID) to determine precision and accuracy.

LAB_ REPNO (Laboratory Report Number) - Laboratory-assigned number uniquely identifying the hard copy report.

LABSAMPID (Lab Sample ID) - The unique identification number assigned to a sample by the laboratory doing the testing.

LEACHATE - A solution obtained by extracting the soluble constituents from

insoluble materials.

LNOTE (Laboratory Notes) - Data qualifiers describing various observations and difficulties with the analysis associated with a test or analyte.

LOCID (Location Identification) - A unique identifier assigned to a specific point (location) where measurements or samples are taken.

LOGCODE (Logging Company) - A code identifying the company responsible for the collection of samples or the performing of field tests (environmental sampling information).

LOGDATE (Log Date) - The date that a sample is collected.

LOGTIME (Sample Collection Time) - The time that an environmental sample is collected.

LOWERCL (Lower Control Limit) - The lower limit of a quality control acceptance criterion.

MATRIX (Matrix) - A code identifying a sample's medium or makeup (e.g., soil, water, air, etc.).

MATRIX DUPLICATE - An intralaboratory split sample which is used to document the precision of a method in a given sample matrix.

MATRIX SPIKE - An aliquot of sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

METHOD (ANMCODE) - The code identifying the analytical method of analysis.

METHOD BLANK - An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

METHOD DETECTION LIMIT (MDL) - The minimum concentration of a

METHOD DETECTION LIMIT (MDL) - The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

MODPARLIST (Modified Parameter List) - A field indicating whether the compound list of a method has been amended. If the parameter list is modified, enter T (True) into this field. Modifications include the deletion of compounds from the list.

NON-COE SAMPLE - A sample used for assessing the quality of results from a quality assurance batch that contains a COE Sample. This sample is not a COE sample, but a sample submitted by some other laboratory customer.

NPDLWO (Work Order Number) - COE-assigned administrative number.

pH - A measure of acidity or alkalinity expressed as -log10 [hydrogen ion concentration].

PARENT TABLE - The "one" table of a one-to-many records relationship between two tables.

PARLABEL (Parameter Label) - The code assigned to a measurement parameter. The code is generally a common acronym representing the parameter or analyte. The PARLABEL is used in the database instead of the full analyte name to reduce the error inherent in transferring large names with numbers, commas and spaces.

PARTIAL COE SAMPLES - A COE sample containing incomplete or invalid information.

PARTIAL NON-COE SAMPLES - A Non-COE Sample containing incomplete or invalid information.

PARTIAL QC ENTRIES - A QC Entry containing incomplete or invalid information.

laboratory result. This field is present only for radiochemical results.

PARVAL (Parameter Value) - This field represents the actual analytical value for a compound or analyte. It is the result generated after a sample has been analyzed or a test performed.

PARVQ (Parameter Value Qualifier) - A code qualifying the analytical result. The parameter value qualifier is designed to describe to what the analytical value is equivalent, (i.e., not detected, equals to, or not reported). These codes also identify TICs and surrogates.

PRECISION - The agreement among a set of replicate measurements without assumption of knowledge of the true value. Precision is estimated by means of duplicate/replicate analyses.

PRESCODE (Preservative Added Code) -The code identifying the type of chemical preservative added to the sample. This code only applies to the chemical additives-- holding temperature and container selection is assumed to be within EPA guidelines, unless otherwise identified in the LNOTE field. More than one PRESCODE may be entered into this field.

PRIMARY KEY - One of a set of fields that when combined create a unique record.

PROJNAME (Corps of Engineers Project Name) - COE-assigned project name.
PVCCODE (PVC Code) - This allows the coding of Gas Chromatography or Gas Chromatography/Mass Spectroscopy results to show whether the reported result was obtained from a primary or a confirmatory analysis. Methods or analytes not requiring confirmation and requiring only one analysis run, should be reported with the PVCCODE "PR".

QCCODE (Quality Control Code) - A code identifying the sample type, i.e., field samples or laboratory-generated quality control samples.

QC ENTRIES - All quality assurance samples generated by the laboratory or manipulated by the laboratory (i.e., matrix spike) need to be entered into the quality assurance section of the program. They are entered as a batch, with the batch identifier entered in the same location as the sample identifier for a COE or Non-COE sample.

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QUALIFIER - A code (PARVQ) for qualifying analytical results.

REAGENT WATER - Water that has been generated by any method which would achieve the performance specifications for ASTM Type II water.

RECDATE (Date Laboratory Received Sample) - Date that the laboratory physically takes custody of the sample.

RECORD- A line of data in a table or file made up of distinct fields of information.

REFERENCE MATERIAL - A material containing known quantities of target analytes in solution or in a homogeneous matrix. It is used to document the bias of the analytical process.

REPQUAL (REPDLVQ) - A code identifying the type of reporting limit (i.e., practical quantitation limit).

RESULT - The analytical value for a compound or analyte.

REP_DATE (Report Date) - Date that the laboratory generates the hard-copy report.

REPDL (Reported Detection Limit) - The detection limit reported by the laboratory to determine whether a parameter is detectable.

REPDLVQ (Reported Laboratory Detection Limit Qualifier) - A qualifier used to define the type of detection limit that the laboratory is reporting, (i.e., practical quantitation limits, instrument detection limits, etc.).

RT (Retention Time) - Retention time of the Tentatively Identified Compounds (TIC).

RUN_NUMBER (Run Number) - This field permits the numerical coding of multiple or repeat analyses of a sample (one LABSAMPID) by the same analytical method.

SAMPID (Field Assigned Sample Number) - The number assigned during sample collection in the field.

SRM (Standard Reference Material) - Code identifying source of reference material

for calibration standard confirmation.

SUB (Subcontracted) - Field identifying the subcontract laboratory.

SURROGATE - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples.

TABLE - A format for data that allows for data manipulation within a database. Tables are organized with columns and rows of information.

TENTATIVELY IDENTIFIED COMPOUNDS - Compounds that are present in a sample but not part of the target compound list and are not analytes, surrogates or internal standards.

UPPERCL (Upper Control Limit) - The upper limit of a quality control acceptance criterion.

UNCERTAINTY - The uncertainty associated with a test result.

UNITS (Units) - The units of measure used to report a result.

VALID VALUES - Specially assigned, standardized code values designating approved "valid" values for the database.

APPENDIX A

APPENDIX A: COELT/EDF FIELD CROSS-REFERENCE

COELT FIELD	EDF FIELD	DEFINITION
ANADATE	ANADATE	The date the sample is analyzed.
ANALYTE	PARLABEL	Parameter label associated with a given parameter.
APPRVD	APPRVD	The initials of the individual approving the laboratory report.
BASIS	BASIS	Basis (Wet or Dry) for soil samples; Field Filtered, Lab Filtered, or Not Filtered for water samples. This field is also used to indicate leaching procedures.
CLCODE	CLCODE	Code identifying the type of control limit.
CLREVDATE	CLREVDATE	The date assigned to the control limit for a given parameter.
CNTSHEET#	CNTSHNUM	A COE-assigned administrative number.
COCNUM	COCNUM	The number assigned to the chain-of-custody.
DESCRIPTN		The description of the analyte field.
DILUTION	DILFAC	Numeric factor indicating level of sample dilution.
EXLABLOT	EXLABLOT	Obsolete field.
EXMCODE	EXMCODE	Code identifying the extraction or digestion method.
EXPECTED	EXPECTED	The target result for a quality control sample or surrogate spike.
EXTDATE	EXTDATE	The date a sample is prepared or extracted.
LABCODE	LABCODE	Code identifying the lab generating the report.
LABDL	LABDL	The laboratory-established method detection limit.
LABLOTCTL	LABLOTCTL	A number identifying a group of samples extracted or analyzed together.
LABREFID	LABREFID	The laboratory-assigned reference sample identification number.
LABREPNO	LABREPNO	The laboratory-assigned number uniquely identifying the hard copy report.
LABSAMPID	LABSAMPID	The identification number assigned to the sample by the laboratory.
LNOTE	LNOTE	Analytical notes providing descriptive information.

APPENDIX A: COELT/EDF FIELD CROSS-REFERENCE *(continued)*

COELT FIELD	EDF FIELD	DEFINITION
LOCID	LOCID	The location from which the sample is collected.
LOGCODE	LOGCODE	The company that collects the sample.
LOGDATE	LOGDATE	The date the sample is collected.
LOGTIME	LOGTIME	The time the sample is collected.
MATRIX	MATRIX	The medium or makeup of a sample.
METHOD	ANMCODE	The code identifying the analytical method of analysis.
MODPARLIST	MODPARLIST	A field indicating whether the parameter list of an analytical method has been modified.
NPDLWO	NPDLWO	COE-assigned administrative number.
PRESCODE	PRESCODE	The codes identifying the type of preservative added to the sample.
PROJNAME	PROJNAME	COE-assigned project name.
PVCCODE	PVCCODE	The code identifying whether a value is primary or confirmatory.
QCCODE	QCCODE	The code identifying laboratory-generated quality control samples.
QUALIFIER	PARVQ	A code for qualifying analytical results.
RECDATE	RECDATE	The date the lab physically assumes custody of the sample.
REPDATE	REPDATE	The date of the lab report.
REPDL	REPDL	The detection limit reported by the lab to determine whether a parameter is detectable.
REPQUAL	REPDLVQ	A code identifying the type of reporting limit (i.e., practical quantitation limit, PQL).
RESULT	PARVAL	The analytical value for a compound or analyte.
RT	RT	The retention time of a tentatively identified compound.

APPENDIX A: COELT/EDF FIELD CROSS-REFERENCE (continued)

COELT FIELD	EDF FIELD	DEFINTION
RUN_NUMBER	RUNNUMBER	The numeric code distinguishing multiple analysis of a sample by the same method.
SAMPID	SAMPID	The number assigned to the sample at time of collection.
SRM	SRM	A code identifying the source of the reference material for the calibration.
SUB	SUB	The labcode of the subcontracted laboratory.
UNCERTAINTY	PARUN	The uncertainty associated with a test result.
UNITS	UNITS	The units of measure used to report a result.

APPENDIX B

ANMCODE	CODE	NAME
A2120B	COLOR	Color
A2150B	ODOR	Odor
A2330B	LAI	Langelier Index
A2510B	SC	Specific Conductance
A2520B	SALINITY	Salinity
A2540G	TFS	Total Fixed Solids
A2580B	REDOX	Oxidation-Reduction Potential
A4500NH	NH3N	Nitrogen, Ammonia (as N)
A5550B	TAL	Tannin and Lignin
A9215D	HPC	Heterotrophic Plate Count
A9222B	COLIFORM	Coliform, Total
A9240D	SRB	Sulfate Reducing Bacteria
A9260D	SALMONELLA	Salmonella
AK101	GRO	Gasoline Range Organics
AK102	DRO	Diesel Range Organics
AK103	RRO	Residual Range Organics
AKD	DRO	Diesel Range Organics
AKD	PHENO	o-Terphenyl
AKG	GRO	Gasoline Range Organics
AKG	TFBZME	Trifluorotoluene
CENPD	BUNKERC	Fuel Oil No. 6 (BUNKER C)
CENPD	DIESEL2	Diesel Fuel #2
CENPD	GASOLINE	Gasoline
CENPD	JETFUEL	Jet Fuel
CENPD	KEROSENE	Kerosene
CENPD	OILM	Oil, Misc.
CENPD	OTHERS	Unidentified light- and/or medium-weight fuels
D1945	C2H4	Ethene
D1945	C2H6	Ethane
D1945	CH4	Methane
D2015	HHV	High Heat Value
D240	HHV	High Heat Value
E150.1	PH	pH
E160.1	TDS	Total Dissolved Solids
E160.2	SS	Suspended Solids
E160.3	TSO	Total Solids
E160.4	TVS	Total Volatile Solids
E160.5	SETMAT	Settleable Matter
E170.1	TEMP	Temperature
E180.1	TURB	Turbidity
E200.7	AG	Silver
E200.7	AL	Aluminum
E200.7	AS	Arsenic
E200.7	B	Boron
E200.7	BA	Barium
E200.7	BE	Beryllium
E200.7	CA	Calcium
E200.7	CD	Cadmium
E200.7	CO	Cobalt

E200.7	CR	Chromium
E200.7	CU	Copper
E200.7	FE	Iron
E200.7	K	Potassium
E200.7	MG	Magnesium
E200.7	MN	Manganese
E200.7	MO	Molybdenum
E200.7	NA	Sodium
E200.7	NI	Nickel
E200.7	PB	Lead
E200.7	SB	Antimony
E200.7	SE	Selenium
E200.7	SI	Silicon
E200.7	TL	Thallium
E200.7	V	Vanadium
E200.7	ZN	Zinc
E202.1	AL	Aluminum
E202.2	AL	Aluminum
E204.1	SB	Antimony
E204.2	SB	Antimony
E206.2	AS	Arsenic
E206.3	AS	Arsenic
E206.4	AS	Arsenic
E208.1	BA	Barium
E208.2	BA	Barium
E210.1	BE	Beryllium
E210.2	BE	Beryllium
E212.3	B	Boron
E213.1	CD	Cadmium
E213.2	CD	Cadmium
E215.1	CA	Calcium
E215.2	CA	Calcium
E218.1	CR	Chromium
E218.2	CR	Chromium
E218.3	CR	Chromium
E218.4	CR6	Chromium, Hexavalent
E218.5	CR6	Chromium, Hexavalent
E219.1	CO	Cobalt
E219.2	CO	Cobalt
E220.1	CU	Copper
E220.2	CU	Copper
E231.1	AU	Gold
E231.2	AU	Gold
E235.1	IR	Iridium
E235.2	IR	Iridium
E236.1	FE	Iron
E236.2	FE	Iron
E239.1	PB	Lead
E239.2	PB	Lead
E242.1	MG	Magnesium
E243.1	MN	Manganese

E243.2	MN	Manganese
E245.1	HG	Mercury
E245.2	HG	Mercury
E245.5	HG	Mercury
E246.1	MO	Molybdenum
E246.2	MO	Molybdenum
E249.1	NI	Nickel
E249.2	NI	Nickel
E252.1	OS	Osmium
E252.2	OS	Osmium
E253.1	PL	Palladium
E253.2	PL	Palladium
E255.1	PT	Platinum
E255.2	PT	Platinum
E258.1	K	Potassium
E265.1	RH	Rhodium
E265.2	RH	Rhodium
E267.1	RU	Ruthenium
E267.2	RU	Ruthenium
E270.2	SE	Selenium
E270.3	SE	Selenium
E272.1	AG	Silver
E272.2	AG	Silver
E273.1	NA	Sodium
E273.2	NA	Sodium
E279.1	TL	Thallium
E279.2	TL	Thallium
E282.1	SN	Tin
E282.2	SN	Tin
E283.1	TI	Titanium
E283.2	TI	Titanium
E286.1	V	Vanadium
E286.2	V	Vanadium
E289.1	ZN	Zinc
E289.2	ZN	Zinc
E305.1	ACID	Acidity , Total
E305.2	ACID	Acidity , Total
E310.1	ALK	Alkalinity, Total
E310.2	ALK	Alkalinity, Total
E320.1	BR	Bromide
E325.1	CL	Chloride
E325.2	CL	Chloride
E325.3	CL	Chloride
E340.1	F	Fluoride
E340.2	F	Fluoride
E340.3	F	Fluoride
E345.1	I	Iodide (As I)
E350.1	NH3N	Nitrogen, Ammonia (as N)
E350.2	NH3N	Nitrogen, Ammonia (as N)
E350.3	NH3N	Nitrogen, Ammonia (as N)
E351.1	KN	Nitrogen, Kjeldahl, Total

E351.2	KN	Nitrogen, Kjeldahl, Total
E351.3	KN	Nitrogen, Kjeldahl, Total
E351.4	KN	Nitrogen, Kjeldahl, Total
E352.1	NO3N	Nitrogen, Nitrate (as N)
E353.1	NO3NO2N	Nitrogen, Nitrate-Nitrite
E353.2	NO3NO2N	Nitrogen, Nitrate-Nitrite
E353.3	NO3NO2N	Nitrogen, Nitrate-Nitrite
E354.1	NO2N	Nitrogen, Nitrite
E360.1	DO	Oxygen, Dissolved
E360.2	DO	Oxygen, Dissolved
E365.1	P	Phosphorus, Total (as P)
E365.2	P	Phosphorus, Total (as P)
E365.3	P	Phosphorus, Total (as P)
E365.3M	PO4RS	Phosphorus, Reactive Soluble
E365.4	P	Phosphorus, Total (as P)
E370.1	SIL	Silica
E375.1	SO4	Sulfate
E375.2	SO4	Sulfate
E375.3	SO4	Sulfate
E375.4	SO4	Sulfate
E376.1	S	Sulfide
E376.2	S	Sulfide
E377.1	SO3	Sulfite
E405.1	BOD5	Biologic Oxygen Demand, Five day
E410.1	COD	Chemical Oxygen Demand
E410.2	COD	Chemical Oxygen Demand
E413.1	OILGREASE	Oil and Grease
E418.1	PHC	Petroleum Hydrocarbons (TPH)
E420.1	TOTPHEN	Phenolics, Total Recoverable
E504	DBCP	1,2-Dibromo-3-chloropropane
E504	EDB	1,2-Dibromoethane
E524.2	11DCPROPN	1,1-Dichloropropanone
E524.2	ACE	Acetone
E524.2	ACRN	Acrylamide
E524.2	BDCME	Bromodichloromethane
E524.2	BR4FBZ	4-Bromofluorobenzene
E524.2	BRBZ	Bromobenzene
E524.2	BRCLME	Bromochloromethane
E524.2	BRME	Bromomethane
E524.2	BTBZN	n-Butylbenzene
E524.2	BTBZS	sec-Butylbenzene
E524.2	BTBZT	tert-Butylbenzene
E524.2	BTCL	1-Chlorobutane
E524.2	BZ	Benzene
E524.2	BZME	Toluene
E524.2	BZMED8	Toluene-d8
E524.2	CDS	Carbon disulfide
E524.2	CLAN	Chloroacetonitrile
E524.2	CLBZ	Chlorobenzene
E524.2	CLBZME2	2-Chlorotoluene
E524.2	CLBZME4	4-Chlorotoluene

E524.2	CLEA	Chloroethane
E524.2	CLME	Chloromethane
E524.2	CLPE3	Allyl chloride
E524.2	CTCL	Carbon tetrachloride
E524.2	CYMP	4-Isopropyltoluene
E524.2	DBCME	Dibromochloromethane
E524.2	DBCP	1,2-Dibromo-3-chloropropane
E524.2	DBMA	Dibromomethane
E524.2	DCA11	1,1-Dichloroethane
E524.2	DCA12	1,2-Dichloroethane
E524.2	DCBE14T	trans-1,4-Dichloro-2-butene
E524.2	DCBZ12	1,2-Dichlorobenzene
E524.2	DCBZ13	1,3-Dichlorobenzene
E524.2	DCBZ14	1,4-Dichlorobenzene
E524.2	DCE11	1,1-Dichloroethene
E524.2	DCE12C	cis-1,2-Dichloroethene
E524.2	DCE12T	trans-1,2-Dichloroethene
E524.2	DCP11	1,1-Dichloropropene
E524.2	DCP13C	cis-1,3-Dichloropropene
E524.2	DCP13T	trans-1,3-Dichloropropene
E524.2	DCPA12	1,2-Dichloropropane
E524.2	DCPA13	1,3-Dichloropropane
E524.2	DCPA22	2,2-Dichloropropane
E524.2	EBZ	Ethylbenzene
E524.2	EDB	1,2-Dibromoethane
E524.2	EE	Diethyl ether
E524.2	EMETHACRY	Ethyl methacrylate
E524.2	FC11	Trichlorofluoromethane
E524.2	FC12	Dichlorodifluoromethane
E524.2	HCBU	Hexachlorobutadiene
E524.2	HCLEA	Hexachloroethane
E524.2	HXO2	2-Hexanone
E524.2	IME	Methyl iodide
E524.2	IPBZ	Isopropylbenzene
E524.2	MACRYLATE	Methyl acrylate
E524.2	MEK	2-Butanone
E524.2	METHACRN	Methacrylonitrile
E524.2	MIBK	4-Methyl-2-pentanone
E524.2	MMETHACRY	Methylmethacrylate
E524.2	MTLNCL	Methylene chloride
E524.2	NAPH	Naphthalene
E524.2	NO2BZ	Nitrobenzene
E524.2	NPR2	2-Nitropropane
E524.2	PACN	Propionitrile
E524.2	PBZN	n-Propylbenzene
E524.2	PCA	1,1,2,2-Tetrachloroethane
E524.2	PCE	Tetrachloroethene
E524.2	PCLEA	Pentachloroethane
E524.2	STY	Styrene
E524.2	TBME	Bromoform
E524.2	TBUTMEE	Methyl-t-butyl ether

E524.2	TC1112	1,1,1,2-Tetrachloroethane
E524.2	TCA111	1,1,1-Trichloroethane
E524.2	TCA112	1,1,2-Trichloroethane
E524.2	TCB123	1,2,3-Trichlorobenzene
E524.2	TCB124	1,2,4-Trichlorobenzene
E524.2	TCE	Trichloroethene
E524.2	TCLME	Chloroform
E524.2	TCPR123	1,2,3-Trichloropropane
E524.2	THF	Tetrahydrofuran
E524.2	TMB124	1,2,4-Trimethylbenzene
E524.2	TMB135	1,3,5-Trimethylbenzene
E524.2	VC	Vinyl chloride
E524.2	XYLM	m-Xylene
E524.2	XYLO	o-Xylene
E524.2	XYLP	p-Xylene
E601	BDCME	Bromodichloromethane
E601	BRME	Bromomethane
E601	CEVETH	2-Chloroethyl vinyl ether
E601	CLBZ	Chlorobenzene
E601	CLEA	Chloroethane
E601	CLME	Chloromethane
E601	CTCL	Carbon tetrachloride
E601	DBCME	Dibromochloromethane
E601	DCA11	1,1-Dichloroethane
E601	DCA12	1,2-Dichloroethane
E601	DCBZ12	1,2-Dichlorobenzene
E601	DCBZ13	1,3-Dichlorobenzene
E601	DCBZ14	1,4-Dichlorobenzene
E601	DCE11	1,1-Dichloroethene
E601	DCE12T	trans-1,2-Dichloroethene
E601	DCP13C	cis-1,3-Dichloropropene
E601	DCP13T	trans-1,3-Dichloropropene
E601	DCPA12	1,2-Dichloropropane
E601	FC11	Trichlorofluoromethane
E601	FC12	Dichlorodifluoromethane
E601	MTLNCL	Methylene chloride
E601	PCA	1,1,2,2-Tetrachloroethane
E601	PCE	Tetrachloroethene
E601	TBME	Bromoform
E601	TCA111	1,1,1-Trichloroethane
E601	TCA112	1,1,2-Trichloroethane
E601	TCE	Trichloroethene
E601	TCLME	Chloroform
E601	VC	Vinyl chloride
E602	BZ	Benzene
E602	BZME	Toluene
E602	CLBZ	Chlorobenzene
E602	DCBZ12	1,2-Dichlorobenzene
E602	DCBZ13	1,3-Dichlorobenzene
E602	DCBZ14	1,4-Dichlorobenzene
E602	EBZ	Ethylbenzene

E608	ALDRIN	Aldrin
E608	BHCALPHA	alpha-BHC
E608	BHCBETA	beta-BHC
E608	BHCDELTA	delta-BHC
E608	BHCGAMMA	gamma-BHC (Lindane)
E608	CHLORDANE	Chlordane
E608	CL10BZ2	Decachlorobiphenyl
E608	DDD44	4,4'-DDD
E608	DDE44	4,4'-DDE
E608	DDT44	4,4'-DDT
E608	DIELDRIN	Dieldrin
E608	ENDOSULFANA	Endosulfan I
E608	ENDOSULFANB	Endosulfan II
E608	ENDOSULFANS	Endosulfan sulfate
E608	ENDRIN	Endrin
E608	ENDRINALD	Endrin aldehyde
E608	HEPT-EPOX	Heptachlor epoxide
E608	HEPTACHLOR	Heptachlor
E608	PCB1016	PCB-1016 (Aroclor 1016)
E608	PCB1221	PCB-1221 (Aroclor 1221)
E608	PCB1232	PCB-1232 (Aroclor 1232)
E608	PCB1242	PCB-1242 (Aroclor 1242)
E608	PCB1248	PCB-1248 (Aroclor 1248)
E608	PCB1254	PCB-1254 (Aroclor 1254)
E608	PCB1260	PCB-1260 (Aroclor 1260)
E608	TOXAP	Toxaphene
E608	XYL246CLM	2,4,5,6-Tetrachloro-meta-xylene
E610	ACNP	Acenaphthene
E610	ACNPY	Acenaphthylene
E610	ANTH	Anthracene
E610	BZAA	Benzo(a)anthracene
E610	BZAP	Benzo(a)pyrene
E610	BZBF	Benzo(b)fluoranthene
E610	BZGHIP	Benzo(g,h,i)perylene
E610	BZKF	Benzo(k)fluoranthene
E610	CHRYSENE	Chrysene
E610	DBAHA	Dibenzo(a,h)anthracene
E610	FL	Fluorene
E610	FLA	Fluoranthene
E610	INP123	Indeno(1,2,3-cd)pyrene
E610	NAPH	Naphthalene
E610	PHAN	Phenanthrene
E610	PYR	Pyrene
E614	AZIPM	Azinphos methyl
E614	DEMETON	Demeton, -O and -S
E614	DIAZ	Diazinon
E614	DISUL	Disulfoton
E614	ETHION	Ethion
E614	MALA	Malathion
E614	PARAE	Parathion ethyl
E614	PARAM	Parathion methyl

E615	245T	2,4,5-T
E615	24D	2,4-D
E615	24DB	2,4-DB
E615	DALAPON	Dalapon
E615	DCPROP	Dichlorprop
E615	DICAMBA	Dicamba
E615	DINOSEB	Dinoseb
E615	MCPA	MCPA
E615	MCPP	MCPP
E615	SILVEX	2,4,5-TP (Silvex)
E625	ACNP	Acenaphthene
E625	ACNPY	Acenaphthylene
E625	ALDRIN	Aldrin
E625	ANTH	Anthracene
E625	BBP	Benzyl butyl phthalate
E625	BECEM	bis-(2-chloroethoxy)methane
E625	BHCBETA	beta-BHC
E625	BHCGAMMA	gamma-BHC (Lindane)
E625	BIS2CEE	bis-(2-chloroethyl)ether
E625	BIS2CIE	Bis(2-chloroisopropyl)ether
E625	BIS2EHP	bis-(2-ethylhexyl)phthalate
E625	BPPE4	4-Bromophenyl phenyl ether
E625	BZAA	Benzo(a)anthracene
E625	BZAP	Benzo(a)pyrene
E625	BZBF	Benzo(b)fluoranthene
E625	BZD	Benzidine
E625	BZGHIP	Benzo(g,h,i)perylene
E625	BZKF	Benzo(k)fluoranthene
E625	C4M3PH	4-Chloro-3-methyl phenol
E625	CHLORDANE	Chlordane
E625	CHRYSENE	Chrysene
E625	CLPH2	2-Chlorophenol
E625	CNPH2	2-Chloronaphthalene
E625	CPPE4	4-Chlorophenyl phenyl ether
E625	DBAHA	Dibenzo(a,h)anthracene
E625	DBZD33	3,3'-Dichlorobenzidine
E625	DCBZ12	1,2-Dichlorobenzene
E625	DCBZ13	1,3-Dichlorobenzene
E625	DCBZ14	1,4-Dichlorobenzene
E625	DCP24	2,4-Dichlorophenol
E625	DDD44	4,4'-DDD
E625	DDE44	4,4'-DDE
E625	DDT44	4,4'-DDT
E625	DEPH	Diethyl phthalate
E625	DIELDRIN	Dieldrin
E625	DMP24	2,4-Dimethylphenol
E625	DMPH	Dimethyl phthalate
E625	DN46M	2-Methyl-4,6-dinitrophenol
E625	DNBP	Di-n-butyl phthalate
E625	DNOP	Di-n-octyl phthalate
E625	DNP24	2,4-Dinitrophenol

E625	DNT24	2,4-Dinitrotoluene
E625	DNT26	2,6-Dinitrotoluene
E625	ENDOSULFANA	Endosulfan I
E625	ENDOSULFANB	Endosulfan II
E625	ENDOSULFANS	Endosulfan sulfate
E625	ENDRIN	Endrin
E625	ENDRINALD	Endrin aldehyde
E625	FL	Fluorene
E625	FLA	Fluoranthene
E625	HCBU	Hexachlorobutadiene
E625	HCCP	Hexachlorocyclopentadiene
E625	HCLBZ	Hexachlorobenzene
E625	HCLEA	Hexachloroethane
E625	HEPT-EPOX	Heptachlor epoxide
E625	HEPTACHLOR	Heptachlor
E625	INP123	Indeno(1,2,3-cd)pyrene
E625	ISOP	Isophorone
E625	NAPH	Naphthalene
E625	NNSM	n-Nitrosodimethylamine
E625	NNSPH	n-Nitrosodiphenylamine
E625	NNSPR	n-Nitrosodi-n-propylamine
E625	NO2BZ	Nitrobenzene
E625	NO2BZD5	Nitrobenzene-d5
E625	NTPH2	2-Nitrophenol
E625	NTPH4	4-Nitrophenol
E625	PCB1016	PCB-1016 (Aroclor 1016)
E625	PCB1221	PCB-1221 (Aroclor 1221)
E625	PCB1232	PCB-1232 (Aroclor 1232)
E625	PCB1242	PCB-1242 (Aroclor 1242)
E625	PCB1248	PCB-1248 (Aroclor 1248)
E625	PCB1254	PCB-1254 (Aroclor 1254)
E625	PCB1260	PCB-1260 (Aroclor 1260)
E625	PCP	Pentachlorophenol
E625	PH246BR	2,4,6-Tribromophenol
E625	PH2F	2-Fluorophenol
E625	PHAN	Phenanthrene
E625	PHD5	Phenol-d5
E625	PHEN2F	2-Fluorobiphenyl
E625	PHEND14	Terphenyl-d14
E625	PHENOL	Phenol
E625	PYR	Pyrene
E625	TCB124	1,2,4-Trichlorobenzene
E625	TCP246	2,4,6-Trichlorophenol
E625	TOXAP	Toxaphene
M8015	BR4FBZ	4-Bromofluorobenzene
M8015	GRO	Gasoline Range Organics
M8100	DRO	Diesel Range Organics
M8100	PHENO	o-Terphenyl
N0502	DUST	Dust
OHCID	DIESEL2	Diesel Fuel #2
OHCID	GASOLINE	Gasoline

OHCID	OILM	Oil, Misc.
OSCACO3	CACO3	Carbonate as CaCO3
OTPH-D	DIESEL2	Diesel Fuel #2
OTPH-G	GASOLINE	Gasoline
SHEEN	ODB	Oil Degrading Bacteria
SW6010	AG	Silver
SW6010	AL	Aluminum
SW6010	AS	Arsenic
SW6010	B	Boron
SW6010	BA	Barium
SW6010	BE	Beryllium
SW6010	CA	Calcium
SW6010	CD	Cadmium
SW6010	CO	Cobalt
SW6010	CR	Chromium
SW6010	CU	Copper
SW6010	FE	Iron
SW6010	K	Potassium
SW6010	MG	Magnesium
SW6010	MN	Manganese
SW6010	MO	Molybdenum
SW6010	NA	Sodium
SW6010	NI	Nickel
SW6010	PB	Lead
SW6010	SB	Antimony
SW6010	SE	Selenium
SW6010	SI	Silicon
SW6010	TL	Thallium
SW6010	V	Vanadium
SW6010	ZN	Zinc
SW6010A	AG	Silver
SW6010A	AL	Aluminum
SW6010A	AS	Arsenic
SW6010A	BA	Barium
SW6010A	BE	Beryllium
SW6010A	CA	Calcium
SW6010A	CD	Cadmium
SW6010A	CO	Cobalt
SW6010A	CR	Chromium
SW6010A	CU	Copper
SW6010A	FE	Iron
SW6010A	K	Potassium
SW6010A	LI	Lithium
SW6010A	MG	Magnesium
SW6010A	MN	Manganese
SW6010A	MO	Molybdenum
SW6010A	NA	Sodium
SW6010A	NI	Nickel
SW6010A	P	Phosphorus, Total (as P)
SW6010A	PB	Lead
SW6010A	SB	Antimony

SW6010A	SE	Selenium
SW6010A	SR	Strontium
SW6010A	TL	Thallium
SW6010A	V	Vanadium
SW6010A	ZN	Zinc
SW7020	AL	Aluminum
SW7040	SB	Antimony
SW7041	SB	Antimony
SW7060	AS	Arsenic
SW7061A	AS	Arsenic
SW7080	BA	Barium
SW7081	BA	Barium
SW7090	BE	Beryllium
SW7091	BE	Beryllium
SW7130	CD	Cadmium
SW7131	CD	Cadmium
SW7140	CA	Calcium
SW7190	CR	Chromium
SW7191	CR	Chromium
SW7195	CR6	Chromium, Hexavalent
SW7196A	CR6	Chromium, Hexavalent
SW7197	CR6	Chromium, Hexavalent
SW7198	CR6	Chromium, Hexavalent
SW7200	CO	Cobalt
SW7201	CO	Cobalt
SW7210	CU	Copper
SW7211	CU	Copper
SW7380	FE	Iron
SW7381	FE	Iron
SW7420	PB	Lead
SW7421	PB	Lead
SW7430	LI	Lithium
SW7450	MG	Magnesium
SW7460	MN	Manganese
SW7461	MN	Manganese
SW7470	HG	Mercury
SW7471	HG	Mercury
SW7480	MO	Molybdenum
SW7481	MO	Molybdenum
SW7520	NI	Nickel
SW7550	OS	Osmium
SW7610	K	Potassium
SW7740	SE	Selenium
SW7741	SE	Selenium
SW7760A	AG	Silver
SW7761	AG	Silver
SW7770	NA	Sodium
SW7780	SR	Strontium
SW7840	TL	Thallium
SW7841	TL	Thallium
SW7870	SN	Tin

SW7910	V	Vanadium
SW7911	V	Vanadium
SW7950	ZN	Zinc
SW7951	ZN	Zinc
SW8010	BDCME	Bromodichloromethane
SW8010	BECEM	bis-(2-chloroethoxy)methane
SW8010	BIS2CIE	Bis(2-chloroisopropyl)ether
SW8010	BRBZ	Bromobenzene
SW8010	BRME	Bromomethane
SW8010	BZLCL	Chlorotoluene
SW8010	CEVETH	2-Chloroethyl vinyl ether
SW8010	CLACTH	Chloroacetaldehyde
SW8010	CLBZ	Chlorobenzene
SW8010	CLEA	Chloroethane
SW8010	CLHX1	1-Chlorohexane
SW8010	CLME	Chloromethane
SW8010	CLMME	Chloromethylmethyl ether
SW8010	CTCL	Carbon tetrachloride
SW8010	DBCME	Dibromochloromethane
SW8010	DBMA	Dibromomethane
SW8010	DCA11	1,1-Dichloroethane
SW8010	DCA12	1,2-Dichloroethane
SW8010	DCBTA14	1,4-Dichlorobutane
SW8010	DCBZ12	1,2-Dichlorobenzene
SW8010	DCBZ13	1,3-Dichlorobenzene
SW8010	DCBZ14	1,4-Dichlorobenzene
SW8010	DCE11	1,1-Dichloroethene
SW8010	DCE12T	trans-1,2-Dichloroethene
SW8010	DCP13T	trans-1,3-Dichloropropene
SW8010	DCPA12	1,2-Dichloropropane
SW8010	FC11	Trichlorofluoromethane
SW8010	FC12	Dichlorodifluoromethane
SW8010	MTLNCL	Methylene chloride
SW8010	PCA	1,1,2,2-Tetrachloroethane
SW8010	PCE	Tetrachloroethene
SW8010	PR2BRCL	2-Bromo-1-chloropropane
SW8010	TBME	Bromoform
SW8010	TC1112	1,1,1,2-Tetrachloroethane
SW8010	TCA111	1,1,1-Trichloroethane
SW8010	TCA112	1,1,2-Trichloroethane
SW8010	TCE	Trichloroethene
SW8010	TCLME	Chloroform
SW8010	TCPR	Trichloropropane
SW8010	TFBZME	Trifluorotoluene
SW8010	VC	Vinyl chloride
SW8010A	BDCME	Bromodichloromethane
SW8010A	BRBZ	Bromobenzene
SW8010A	BRME	Bromomethane
SW8010A	BZLCL	Chlorotoluene
SW8010A	CEVETH	2-Chloroethyl vinyl ether
SW8010A	CLBZ	Chlorobenzene

SW8010A	CLEA	Chloroethane
SW8010A	CLME	Chloromethane
SW8010A	CTCL	Carbon tetrachloride
SW8010A	DBCME	Dibromochloromethane
SW8010A	DBMA	Dibromomethane
SW8010A	DCA11	1,1-Dichloroethane
SW8010A	DCA12	1,2-Dichloroethane
SW8010A	DCBZ12	1,2-Dichlorobenzene
SW8010A	DCBZ13	1,3-Dichlorobenzene
SW8010A	DCBZ14	1,4-Dichlorobenzene
SW8010A	DCE11	1,1-Dichloroethene
SW8010A	DCE12T	trans-1,2-Dichloroethene
SW8010A	DCP13C	cis-1,3-Dichloropropene
SW8010A	DCP13T	trans-1,3-Dichloropropene
SW8010A	DCPA12	1,2-Dichloropropane
SW8010A	FC11	Trichlorofluoromethane
SW8010A	FC12	Dichlorodifluoromethane
SW8010A	MTLNCL	Methylene chloride
SW8010A	PCA	1,1,2,2-Tetrachloroethane
SW8010A	PCE	Tetrachloroethene
SW8010A	TBME	Bromoform
SW8010A	TC1112	1,1,1,2-Tetrachloroethane
SW8010A	TCA111	1,1,1-Trichloroethane
SW8010A	TCA112	1,1,2-Trichloroethane
SW8010A	TCE	Trichloroethene
SW8010A	TCLME	Chloroform
SW8010A	TCPR123	1,2,3-Trichloropropane
SW8010A	VC	Vinyl chloride
SW8020	BZ	Benzene
SW8020	BZME	Toluene
SW8020	CLBZ	Chlorobenzene
SW8020	DCBZ12	1,2-Dichlorobenzene
SW8020	DCBZ13	1,3-Dichlorobenzene
SW8020	DCBZ14	1,4-Dichlorobenzene
SW8020	EBZ	Ethylbenzene
SW8020	TFBZME	Trifluorotoluene
SW8020	XYLENES	Xylenes
SW8040A	C4M3PH	4-Chloro-3-methyl phenol
SW8040A	CLPH2	2-Chlorophenol
SW8040A	CYHEX2DNP46	2-Cyclohexyl-4,6-dinitrophenol
SW8040A	DCP24	2,4-Dichlorophenol
SW8040A	DCP26	2,6-Dichlorophenol
SW8040A	DINOSEB	Dinoseb
SW8040A	DMP24	2,4-Dimethylphenol
SW8040A	DN46M	2-Methyl-4,6-dinitrophenol
SW8040A	DNP24	2,4-Dinitrophenol
SW8040A	MEPHS	Cresols (methyl phenols)
SW8040A	NTPH2	2-Nitrophenol
SW8040A	NTPH4	4-Nitrophenol
SW8040A	PCP	Pentachlorophenol
SW8040A	PH2F	2-Fluorophenol

SW8040A	PHENOL	Phenol
SW8040A	TCP246	2,4,6-Trichlorophenol
SW8040A	TECLPHS	Tetrachlorophenols
SW8040A	TRICLPHS	Trichlorophenols
SW8060	BBP	Benzyl butyl phthalate
SW8060	BIS2EHP	bis-(2-ethylhexyl)phthalate
SW8060	DEPH	Diethyl phthalate
SW8060	DMPH	Dimethyl phthalate
SW8060	DNBP	Di-n-butyl phthalate
SW8060	DNOP	Di-n-octyl phthalate
SW8080	ALDRIN	Aldrin
SW8080	BHCALPHA	alpha-BHC
SW8080	BHCBETA	beta-BHC
SW8080	BHCDELTA	delta-BHC
SW8080	BHCGAMMA	gamma-BHC (Lindane)
SW8080	CHLORDANE	Chlordane
SW8080	CL10BZ2	Decachlorobiphenyl
SW8080	DDD44	4,4'-DDD
SW8080	DDE44	4,4'-DDE
SW8080	DDT44	4,4'-DDT
SW8080	DIELDRIN	Dieldrin
SW8080	ENDOSULFANA	Endosulfan I
SW8080	ENDOSULFANB	Endosulfan II
SW8080	ENDOSULFANS	Endosulfan sulfate
SW8080	ENDRIN	Endrin
SW8080	ENDRINALD	Endrin aldehyde
SW8080	HEPT-EPOX	Heptachlor epoxide
SW8080	HEPTACHLOR	Heptachlor
SW8080	MTXYCL	Methoxychlor
SW8080	PCB1016	PCB-1016 (Aroclor 1016)
SW8080	PCB1221	PCB-1221 (Aroclor 1221)
SW8080	PCB1232	PCB-1232 (Aroclor 1232)
SW8080	PCB1242	PCB-1242 (Aroclor 1242)
SW8080	PCB1248	PCB-1248 (Aroclor 1248)
SW8080	PCB1254	PCB-1254 (Aroclor 1254)
SW8080	PCB1260	PCB-1260 (Aroclor 1260)
SW8080	TOXAP	Toxaphene
SW8080	XYL246CLM	2,4,5,6-Tetrachloro-meta-xylene
SW8100	ACNP	Acenaphthene
SW8100	ACNPY	Acenaphthylene
SW8100	ANTH	Anthracene
SW8100	BZAA	Benzo(a)anthracene
SW8100	BZAP	Benzo(a)pyrene
SW8100	BZBF	Benzo(b)fluoranthene
SW8100	BZGHIP	Benzo(g,h,i)perylene
SW8100	BZJF	Benzo(j)fluoranthene
SW8100	BZKF	Benzo(k)fluoranthene
SW8100	CHRYSENE	Chrysene
SW8100	DB7HCGCBZ	7H-Dibenzo(c,g)carbazole
SW8100	DBAHA	Dibenzo(a,h)anthracene
SW8100	DBAHACR	Dibenz(a,h)acridine

SW8100	DBAJACR	Dibenz(a,,j)acridine
SW8100	DBZAEP	Dibenzo(a,e)pyrene
SW8100	DBZAHP	Dibenzo(a,h)pyrene
SW8100	DBZAIP	Dibenzo(a,i)pyrene
SW8100	FL	Fluorene
SW8100	FLA	Fluoranthene
SW8100	INP123	Indeno(1,2,3-cd)pyrene
SW8100	MECHLAN3	3-Methylcholanthrene
SW8100	NAPH	Naphthalene
SW8100	PHAN	Phenanthrene
SW8100	PHEN2F	2-Fluorobiphenyl
SW8100	PYR	Pyrene
SW8140	AZIPM	Azinphos methyl
SW8140	CL3NATE	Trichloronate
SW8140	CLPYRIFOS	Chlorpyrifos
SW8140	COUMAPHOS	Coumaphos
SW8140	DEMETONO	Demeton-O
SW8140	DEMETONS	Demeton-S
SW8140	DIAZ	Diazinon
SW8140	DICHLORVOS	Dichlorovos
SW8140	DISUL	Disulfoton
SW8140	DM13NBZ2	1,3-Dimethyl-2-nitrobenzene
SW8140	ETHOPROP	Ethoprop
SW8140	FENSTHION	Fensulfothion
SW8140	FENTHION	Fenthion
SW8140	MERPHOS	Merphos
SW8140	MEVINPHOS	Mevinphos
SW8140	NALED	Naled
SW8140	PARAM	Parathion methyl
SW8140	PHORATE	Phorate
SW8140	RONNEL	Ronnel
SW8140	STIROFOS	Tetrachlorvinphos (Stirophos)
SW8140	SULPROFOS	Bolstar (Sulprofos)
SW8140	TBP	Tributyl phosphate
SW8140	TOKUTHION	Tokuthion (Prothiofos)
SW8140	TPHP	Triphenyl phosphate
SW8141	AZIPM	Azinphos methyl
SW8141	CL3NATE	Trichloronate
SW8141	CLPYRIFOS	Chlorpyrifos
SW8141	COUMAPHOS	Coumaphos
SW8141	DEMETON	Demeton, -O and -S
SW8141	DIAZ	Diazinon
SW8141	DICHLORVOS	Dichlorovos
SW8141	DIMETHAT	Dimethoate
SW8141	DISUL	Disulfoton
SW8141	DM13NBZ2	1,3-Dimethyl-2-nitrobenzene
SW8141	EPN	EPN
SW8141	ETHOPROP	Ethoprop
SW8141	FENSTHION	Fensulfothion
SW8141	FENTHION	Fenthion
SW8141	MALA	Malathion

SW8141	MERPHOS	Merphos
SW8141	MEVINPHOS	Mevinphos
SW8141	MONOCROPHOS	Monocrotophos
SW8141	NALED	Naled
SW8141	PARAE	Parathion ethyl
SW8141	PARAM	Parathion methyl
SW8141	PHORATE	Phorate
SW8141	RONNEL	Ronnel
SW8141	STIROFOS	Tetrachlorvinphos (Stirophos)
SW8141	SULFOTEP	Sulfotep
SW8141	SULPROFOS	Bolstar (Sulprofos)
SW8141	TBP	Tributyl phosphate
SW8141	TEPP	Tetraethyl pyrophosphate
SW8141	TOKUTHION	Tokuthion (Prothiofos)
SW8141	TPHP	Triphenyl phosphate
SW8150	245T	2,4,5-T
SW8150	24D	2,4-D
SW8150	24DB	2,4-DB
SW8150	24DCPHYAA	2,4-Dichlorophenylacetic acid
SW8150	DALAPON	Dalapon
SW8150	DCPROP	Dichlorprop
SW8150	DICAMBA	Dicamba
SW8150	DINOSEB	Dinoseb
SW8150	MCPA	MCPA
SW8150	MCPP	MCPP
SW8150	SILVEX	2,4,5-TP (Silvex)
SW8150A	245T	2,4,5-T
SW8150A	24D	2,4-D
SW8150A	24DB	2,4-DB
SW8150A	24DCPHYAA	2,4-Dichlorophenylacetic acid
SW8150A	DALAPON	Dalapon
SW8150A	DCPROP	Dichlorprop
SW8150A	DICAMBA	Dicamba
SW8150A	DINOSEB	Dinoseb
SW8150A	MCPA	MCPA
SW8150A	MCPP	MCPP
SW8150A	SILVEX	2,4,5-TP (Silvex)
SW8240	ACE	Acetone
SW8240	ACRL	Acrolein
SW8240	ACRN	Acrylamide
SW8240	BDCME	Bromodichloromethane
SW8240	BR4FBZ	4-Bromofluorobenzene
SW8240	BRME	Bromomethane
SW8240	BZ	Benzene
SW8240	BZME	Toluene
SW8240	BZMED8	Toluene-d8
SW8240	CDS	Carbon disulfide
SW8240	CEVETH	2-Chloroethyl vinyl ether
SW8240	CLBZ	Chlorobenzene
SW8240	CLEA	Chloroethane
SW8240	CLME	Chloromethane

SW8240	CTCL	Carbon tetrachloride
SW8240	DBCME	Dibromochloromethane
SW8240	DBMA	Dibromomethane
SW8240	DCA11	1,1-Dichloroethane
SW8240	DCA12	1,2-Dichloroethane
SW8240	DCA12D4	1,2-Dichloroethane-d4
SW8240	DCBTA14	1,4-Dichlorobutane
SW8240	DCE11	1,1-Dichloroethene
SW8240	DCE12T	trans-1,2-Dichloroethene
SW8240	DCP13C	cis-1,3-Dichloropropene
SW8240	DCP13T	trans-1,3-Dichloropropene
SW8240	DCPA12	1,2-Dichloropropane
SW8240	EBZ	Ethylbenzene
SW8240	EMETHACRY	Ethyl methacrylate
SW8240	ETHANOL	Ethanol
SW8240	FC11	Trichlorofluoromethane
SW8240	FC12	Dichlorodifluoromethane
SW8240	HXO2	2-Hexanone
SW8240	IME	Methyl iodide
SW8240	MEK	2-Butanone
SW8240	MIBK	4-Methyl-2-pentanone
SW8240	MTLNCL	Methylene chloride
SW8240	PCA	1,1,2,2-Tetrachloroethane
SW8240	PCE	Tetrachloroethene
SW8240	STY	Styrene
SW8240	TBME	Bromoform
SW8240	TCA111	1,1,1-Trichloroethane
SW8240	TCA112	1,1,2-Trichloroethane
SW8240	TCE	Trichloroethene
SW8240	TCLME	Chloroform
SW8240	TCPR123	1,2,3-Trichloropropane
SW8240	VA	Vinyl acetate
SW8240	VC	Vinyl chloride
SW8240	XYLENES	Xylenes
SW8260	ACE	Acetone
SW8260	BDCME	Bromodichloromethane
SW8260	BR4FBZ	4-Bromofluorobenzene
SW8260	BRBZ	Bromobenzene
SW8260	BRCLME	Bromochloromethane
SW8260	BRME	Bromomethane
SW8260	BTBZN	n-Butylbenzene
SW8260	BTBZS	sec-Butylbenzene
SW8260	BTBZT	tert-Butylbenzene
SW8260	BZ	Benzene
SW8260	BZME	Toluene
SW8260	BZMED8	Toluene-d8
SW8260	CDS	Carbon disulfide
SW8260	CLBZ	Chlorobenzene
SW8260	CLBZME2	2-Chlorotoluene
SW8260	CLBZME4	4-Chlorotoluene
SW8260	CLEA	Chloroethane

SW8260	CLME	Chloromethane
SW8260	CTCL	Carbon tetrachloride
SW8260	CYMP	4-Isopropyltoluene
SW8260	DBCME	Dibromochloromethane
SW8260	DBCP	1,2-Dibromo-3-chloropropane
SW8260	DBFM	Dibromofluoromethane
SW8260	DBMA	Dibromomethane
SW8260	DCA11	1,1-Dichloroethane
SW8260	DCA12	1,2-Dichloroethane
SW8260	DCA12D4	1,2-Dichloroethane-d4
SW8260	DCBZ12	1,2-Dichlorobenzene
SW8260	DCBZ13	1,3-Dichlorobenzene
SW8260	DCBZ14	1,4-Dichlorobenzene
SW8260	DCE11	1,1-Dichloroethene
SW8260	DCE12C	cis-1,2-Dichloroethene
SW8260	DCE12T	trans-1,2-Dichloroethene
SW8260	DCP11	1,1-Dichloropropene
SW8260	DCP13C	cis-1,3-Dichloropropene
SW8260	DCP13T	trans-1,3-Dichloropropene
SW8260	DCPA12	1,2-Dichloropropane
SW8260	DCPA13	1,3-Dichloropropane
SW8260	DCPA22	2,2-Dichloropropane
SW8260	EBZ	Ethylbenzene
SW8260	EDB	1,2-Dibromoethane
SW8260	FC11	Trichlorofluoromethane
SW8260	FC12	Dichlorodifluoromethane
SW8260	HCBU	Hexachlorobutadiene
SW8260	HXO2	2-Hexanone
SW8260	IPBZ	Isopropylbenzene
SW8260	MEK	2-Butanone
SW8260	MIBK	4-Methyl-2-pentanone
SW8260	MTLNCL	Methylene chloride
SW8260	NAPH	Naphthalene
SW8260	PBZN	n-Propylbenzene
SW8260	PCA	1,1,2,2-Tetrachloroethane
SW8260	PCE	Tetrachloroethene
SW8260	STY	Styrene
SW8260	TBME	Bromoform
SW8260	TC1112	1,1,1,2-Tetrachloroethane
SW8260	TCA111	1,1,1-Trichloroethane
SW8260	TCA112	1,1,2-Trichloroethane
SW8260	TCB123	1,2,3-Trichlorobenzene
SW8260	TCB124	1,2,4-Trichlorobenzene
SW8260	TCE	Trichloroethene
SW8260	TCLME	Chloroform
SW8260	TCPR123	1,2,3-Trichloropropane
SW8260	TMB124	1,2,4-Trimethylbenzene
SW8260	TMB135	1,3,5-Trimethylbenzene
SW8260	VC	Vinyl chloride
SW8260	XYLM	m-Xylene
SW8260	XYLO	o-Xylene

SW8260	XYLP	p-Xylene
SW8270	ACNP	Acenaphthene
SW8270	ACNPY	Acenaphthylene
SW8270	ACPHN	Acetophenone
SW8270	ALDRIN	Aldrin
SW8270	AMINOBPH4	4-Aminobiphenyl
SW8270	AMINONAPH1	1-Naphthylamine
SW8270	AMINONAPH2	2-Naphthylamine
SW8270	ANILINE	Aniline
SW8270	ANTH	Anthracene
SW8270	BBP	Benzyl butyl phthalate
SW8270	BECEM	bis-(2-chloroethoxy)methane
SW8270	BHCALPHA	alpha-BHC
SW8270	BHCBETA	beta-BHC
SW8270	BHCDELTA	delta-BHC
SW8270	BHCGAMMA	gamma-BHC (Lindane)
SW8270	BIS2CEE	bis-(2-chloroethyl)ether
SW8270	BIS2CIE	Bis(2-chloroisopropyl)ether
SW8270	BIS2EHP	bis-(2-ethylhexyl)phthalate
SW8270	BPPE4	4-Bromophenyl phenyl ether
SW8270	BZAA	Benzo(a)anthracene
SW8270	BZACID	Benzoic acid
SW8270	BZAP	Benzo(a)pyrene
SW8270	BZBF	Benzo(b)fluoranthene
SW8270	BZD	Benzidine
SW8270	BZGHIP	Benzo(g,h,i)perylene
SW8270	BZKF	Benzo(k)fluoranthene
SW8270	BZLAL	Benzyl alcohol
SW8270	C4BZ1245	1,2,4,5-Tetrachlorobenzene
SW8270	C4M3PH	4-Chloro-3-methyl phenol
SW8270	CHLORDANE	Chlordane
SW8270	CHRYSENE	Chrysene
SW8270	CLANIL4	4-Chloroaniline
SW8270	CLNPH1	1-Chloronaphthalene
SW8270	CLPH2	2-Chlorophenol
SW8270	CNPH2	2-Chloronaphthalene
SW8270	CPPE4	4-Chlorophenyl phenyl ether
SW8270	DBAHA	Dibenzo(a,h)anthracene
SW8270	DBAJACR	Dibenz(a,,j)acridine
SW8270	DBF	Dibenzofuran
SW8270	DBZD33	3,3'-Dichlorobenzidine
SW8270	DCBZ12	1,2-Dichlorobenzene
SW8270	DCBZ13	1,3-Dichlorobenzene
SW8270	DCBZ14	1,4-Dichlorobenzene
SW8270	DCP24	2,4-Dichlorophenol
SW8270	DCP26	2,6-Dichlorophenol
SW8270	DDD44	4,4'-DDD
SW8270	DDE44	4,4'-DDE
SW8270	DDT44	4,4'-DDT
SW8270	DEPH	Diethyl phthalate
SW8270	DIELDRIN	Dieldrin

SW8270	DMBZA712	7,12-Dimethylbenz(a)anthracene
SW8270	DMP24	2,4-Dimethylphenol
SW8270	DMPH	Dimethyl phthalate
SW8270	DN46M	2-Methyl-4,6-dinitrophenol
SW8270	DNBP	Di-n-butyl phthalate
SW8270	DNOP	Di-n-octyl phthalate
SW8270	DNP24	2,4-Dinitrophenol
SW8270	DNT24	2,4-Dinitrotoluene
SW8270	DNT26	2,6-Dinitrotoluene
SW8270	DPA	Diphenylamine
SW8270	DPHY12	1,2-Diphenylhydrazine
SW8270	EMSULFN	Ethyl methanesulfonate
SW8270	ENDOSULFANA	Endosulfan I
SW8270	ENDOSULFANB	Endosulfan II
SW8270	ENDOSULFANS	Endosulfan sulfate
SW8270	ENDRIN	Endrin
SW8270	ENDRINALD	Endrin aldehyde
SW8270	ENDRINKET	Endrin ketone
SW8270	FL	Fluorene
SW8270	FLA	Fluoranthene
SW8270	HCBU	Hexachlorobutadiene
SW8270	HCCP	Hexachlorocyclopentadiene
SW8270	HCLBZ	Hexachlorobenzene
SW8270	HCLEA	Hexachloroethane
SW8270	HEPT-EPOX	Heptachlor epoxide
SW8270	HEPTACHLOR	Heptachlor
SW8270	INP123	Indeno(1,2,3-cd)pyrene
SW8270	ISOP	Isophorone
SW8270	MECHLAN3	3-Methylcholanthrene
SW8270	MEPH2	2-Methylphenol (o-cresol)
SW8270	MEPH4	4-Methylphenol (p-cresol)
SW8270	MMSULFN	Methyl methanesulfonate
SW8270	MPEA11	a,a-Dimethylphenethylamine
SW8270	MTNPH2	2-Methylnaphthalene
SW8270	MTXYCL	Methoxychlor
SW8270	NAPH	Naphthalene
SW8270	NNSBU	n-Nitroso-di-n-butylamine
SW8270	NNSM	n-Nitrosodimethylamine
SW8270	NNSPH	n-Nitrosodiphenylamine
SW8270	NNSPPRD	n-Nitrosopiperidine
SW8270	NNSPR	n-Nitrosodi-n-propylamine
SW8270	NO2ANIL2	2-Nitroaniline
SW8270	NO2ANIL3	3-Nitroaniline
SW8270	NO2ANIL4	4-Nitroaniline
SW8270	NO2BZ	Nitrobenzene
SW8270	NO2BZD5	Nitrobenzene-d5
SW8270	NTPH2	2-Nitrophenol
SW8270	NTPH4	4-Nitrophenol
SW8270	PCB1016	PCB-1016 (Aroclor 1016)
SW8270	PCB1221	PCB-1221 (Aroclor 1221)
SW8270	PCB1232	PCB-1232 (Aroclor 1232)

SW8270	PCB1242	PCB-1242 (Aroclor 1242)
SW8270	PCB1248	PCB-1248 (Aroclor 1248)
SW8270	PCB1254	PCB-1254 (Aroclor 1254)
SW8270	PCB1260	PCB-1260 (Aroclor 1260)
SW8270	PCP	Pentachlorophenol
SW8270	PDMAABZ	p-Dimethylaminoazobenzene
SW8270	PECLBZ	Pentachlorobenzene
SW8270	PECLNO2BZ	Pentachloronitrobenzene
SW8270	PH246BR	2,4,6-Tribromophenol
SW8270	PH2F	2-Fluorophenol
SW8270	PHAN	Phenanthrene
SW8270	PHD5	Phenol-d5
SW8270	PHEN2F	2-Fluorobiphenyl
SW8270	PHEND14	Terphenyl-d14
SW8270	PHENOL	Phenol
SW8270	PHENOLD6	Phenol-d6
SW8270	PHNACTN	Phenacetin
SW8270	PICOLINE2	2-Picoline
SW8270	PRONAMD	Pronamide
SW8270	PYR	Pyrene
SW8270	TCB124	1,2,4-Trichlorobenzene
SW8270	TCP2346	2,3,4,6-Tetrachlorophenol
SW8270	TCP245	2,4,5-Trichlorophenol
SW8270	TCP246	2,4,6-Trichlorophenol
SW8270	TOXAP	Toxaphene
SW8270A	13BZDIOL	Resorcinol
SW8270A	4N2PHEN	4-Nitrobiphenyl
SW8270A	4NQO	4-Nitroquinoline n-oxide
SW8270A	AC2T	1-Acetyl-2-thiourea
SW8270A	ACAMFL2	2-Acetylaminofluorene
SW8270A	ACNP	Acenaphthene
SW8270A	ACNPY	Acenaphthylene
SW8270A	ACPHN	Acetophenone
SW8270A	ALDRIN	Aldrin
SW8270A	AMAQ2	2-Aminoanthraquinone
SW8270A	AMAZOBENZ	Aminoazobenzene
SW8270A	AMINOBPH4	4-Aminobiphenyl
SW8270A	AMINONAPH1	1-Naphthylamine
SW8270A	AMINONAPH2	2-Naphthylamine
SW8270A	ANILINE	Aniline
SW8270A	ANLNAM4	1,4-Phenylenediamine
SW8270A	ANSD2	o-Anisidine
SW8270A	ANTH	Anthracene
SW8270A	ANZIN	Anilazine
SW8270A	ARAMITE	Aramite
SW8270A	AZIPM	Azinphos methyl
SW8270A	BARBAN	Barban
SW8270A	BBP	Benzyl butyl phthalate
SW8270A	BECEM	bis-(2-chloroethoxy)methane
SW8270A	BHCALPHA	alpha-BHC
SW8270A	BHCBETA	beta-BHC

SW8270A	BHCDELTA	delta-BHC
SW8270A	BHCGAMMA	gamma-BHC (Lindane)
SW8270A	BIDRIN	Dicrotophos
SW8270A	BIS2CEE	bis-(2-chloroethyl)ether
SW8270A	BIS2CIE	Bis(2-chloroisopropyl)ether
SW8270A	BIS2EHP	bis-(2-ethylhexyl)phthalate
SW8270A	BPPE4	4-Bromophenyl phenyl ether
SW8270A	BROXL	Bromoxynil
SW8270A	BZAA	Benzo(a)anthracene
SW8270A	BZACID	Benzoic acid
SW8270A	BZAP	Benzo(a)pyrene
SW8270A	BZBF	Benzo(b)fluoranthene
SW8270A	BZD	Benzidine
SW8270A	BZGHIP	Benzo(g,h,i)perylene
SW8270A	BZKF	Benzo(k)fluoranthene
SW8270A	BZLAL	Benzyl alcohol
SW8270A	BZS	Thiophenol (Benzenethiol)
SW8270A	C4BZ1245	1,2,4,5-Tetrachlorobenzene
SW8270A	C4M3PH	4-Chloro-3-methyl phenol
SW8270A	CAPT	Captafol
SW8270A	CAPTAN	Captan
SW8270A	CARBOPHENOTH	Carbophenothion
SW8270A	CHLORDANE	Chlordane
SW8270A	CHRYSENE	Chrysene
SW8270A	CL5MANIL2	5-Chloro-2-methylaniline
SW8270A	CLANIL4	4-Chloroaniline
SW8270A	CLBZLATE	Chlorobenzilate
SW8270A	CLM3CPYRDN	3-(Chloromethyl)pyridine hydrochloride
SW8270A	CLNPH1	1-Chloronaphthalene
SW8270A	CLPH2	2-Chlorophenol
SW8270A	CNPH2	2-Chloronaphthalene
SW8270A	COUMAPHOS	Coumaphos
SW8270A	CPPE4	4-Chlorophenyl phenyl ether
SW8270A	CRBFN	Carbofuran
SW8270A	CRESP	p-Cresidine
SW8270A	CROTOX	Crotoxyphos
SW8270A	CVP	Chlorfenvinphos
SW8270A	CYHEX2DNP46	2-Cyclohexyl-4,6-dinitrophenol
SW8270A	DBAHA	Dibenzo(a,h)anthracene
SW8270A	DBAJACR	Dibenz(a,,j)acridine
SW8270A	DBF	Dibenzofuran
SW8270A	DBZAEP	Dibenzo(a,e)pyrene
SW8270A	DBZD33	3,3'-Dichlorobenzidine
SW8270A	DCBZ12	1,2-Dichlorobenzene
SW8270A	DCBZ13	1,3-Dichlorobenzene
SW8270A	DCBZ14	1,4-Dichlorobenzene
SW8270A	DCLN	Dichlone
SW8270A	DCP24	2,4-Dichlorophenol
SW8270A	DCP26	2,6-Dichlorophenol
SW8270A	DDD44	4,4'-DDD
SW8270A	DDE44	4,4'-DDE

SW8270A	DDT44	4,4'-DDT
SW8270A	DEMETONO	Demeton-O
SW8270A	DEMETONS	Demeton-S
SW8270A	DEPH	Diethyl phthalate
SW8270A	DES	Diethyl stilbestrol
SW8270A	DESO4	Diethyl sulfate
SW8270A	DIALLATE	Diallate (cis- or trans-)
SW8270A	DICHLORVOS	Dichlorovos
SW8270A	DIELDRIN	Dieldrin
SW8270A	DIMETHAT	Dimethoate
SW8270A	DINOSEB	Dinoseb
SW8270A	DISUL	Disulfoton
SW8270A	DMBZA712	7,12-Dimethylbenz(a)anthracene
SW8270A	DMBZD33	3,3'-Dimethylbenzidine
SW8270A	DMOBZD33	3,3'-Dimethoxybenzidine
SW8270A	DMP24	2,4-Dimethylphenol
SW8270A	DMPH	Dimethyl phthalate
SW8270A	DN46M	2-Methyl-4,6-dinitrophenol
SW8270A	DNB13	1,3-Dinitrobenzene
SW8270A	DNBP	Di-n-butyl phthalate
SW8270A	DNBZ12	1,2-Dinitrobenzene
SW8270A	DNBZ14	1,4-Dinitrobenzene
SW8270A	DNOCP	Dinocap
SW8270A	DNOP	Di-n-octyl phthalate
SW8270A	DNP24	2,4-Dinitrophenol
SW8270A	DNT24	2,4-Dinitrotoluene
SW8270A	DNT26	2,6-Dinitrotoluene
SW8270A	DPA	Diphenylamine
SW8270A	DPHY12	1,2-Diphenylhydrazine
SW8270A	ECARB	Ethyl carbamate
SW8270A	EMSULFN	Ethyl methanesulfonate
SW8270A	ENDOSULFANA	Endosulfan I
SW8270A	ENDOSULFANB	Endosulfan II
SW8270A	ENDOSULFANS	Endosulfan sulfate
SW8270A	ENDRIN	Endrin
SW8270A	ENDRINALD	Endrin aldehyde
SW8270A	ENDRINKET	Endrin ketone
SW8270A	EPN	EPN
SW8270A	ETHION	Ethion
SW8270A	FAMPHUR	Famphur
SW8270A	FENSTHION	Fensulfothion
SW8270A	FENTHION	Fenthion
SW8270A	FL	Fluorene
SW8270A	FLA	Fluoranthene
SW8270A	FLUCHLOR	Fluchloralin
SW8270A	HCBU	Hexachlorobutadiene
SW8270A	HCCP	Hexachlorocyclopentadiene
SW8270A	HCLBZ	Hexachlorobenzene
SW8270A	HCLEA	Hexachloroethane
SW8270A	HCPR	Hexachloropropene
SW8270A	HEPT-EPOX	Heptachlor epoxide

SW8270A	HEPTACHLOR	Heptachlor
SW8270A	HMPA	Hexamethylphosphoramide
SW8270A	HXCP	Hexachlorophene
SW8270A	INP123	Indeno(1,2,3-cd)pyrene
SW8270A	ISODRIN	Isodrin
SW8270A	ISOP	Isophorone
SW8270A	ISOSAFR	Isosafrole
SW8270A	KEP	Kepone
SW8270A	LEPTO	Leptophos
SW8270A	MALA	Malathion
SW8270A	MALANH	Maleic Anhydride
SW8270A	MB2CAN44	4,4'-Methylenebis(2-chloraniline)
SW8270A	MECHLAN3	3-Methylcholanthrene
SW8270A	MEPH2	2-Methylphenol (o-cresol)
SW8270A	MEPH3	3-Methylphenol
SW8270A	MEPH4	4-Methylphenol (p-cresol)
SW8270A	MEVINPHOS	Mevinphos
SW8270A	MEXACARBATE	Mexacarbate
SW8270A	MIREX	Mirex
SW8270A	MMSULFN	Methyl methanesulfonate
SW8270A	MONOCROPHOS	Monocrotophos
SW8270A	MPEA11	a,a-Dimethylphenethylamine
SW8270A	MSNL	Mestranol
SW8270A	MTD	2,4-Diaminotoluene
SW8270A	MTNPH2	2-Methylnaphthalene
SW8270A	MTPYRLN	Methapyrilene
SW8270A	MTXYCL	Methoxychlor
SW8270A	N2ANSD5	5-Nitro-o-anisidine
SW8270A	NACN5	5-Nitroacenaphthene
SW8270A	NALED	Naled
SW8270A	NAPH	Naphthalene
SW8270A	NAPHQ14	1,4-Naphthoquinone
SW8270A	NICOTINE	Nicotine
SW8270A	NITROFEN	Nitrofen
SW8270A	NNSBU	n-Nitroso-di-n-butylamine
SW8270A	NNSE	n-Nitrosodiethylamine
SW8270A	NNSM	n-Nitrosodimethylamine
SW8270A	NNSME	n-Nitrosomethylethylamine
SW8270A	NNSMRPH	n-Nitrosomorpholine
SW8270A	NNSPH	n-Nitrosodiphenylamine
SW8270A	NNSPPRD	n-Nitrosopiperidine
SW8270A	NNSPR	n-Nitrosodi-n-propylamine
SW8270A	NNSPYRL	n-Nitrosopyrrolidine
SW8270A	NO2ANIL2	2-Nitroaniline
SW8270A	NO2ANIL3	3-Nitroaniline
SW8270A	NO2ANIL4	4-Nitroaniline
SW8270A	NO2BZ	Nitrobenzene
SW8270A	NO2BZD5	Nitrobenzene-d5
SW8270A	NTPH2	2-Nitrophenol
SW8270A	NTPH4	4-Nitrophenol
SW8270A	ODA	4,4'-Oxydianiline

SW8270A	OMPA	Octamethyl pyprophosphoramide
SW8270A	PARAE	Parathion ethyl
SW8270A	PARAM	Parathion methyl
SW8270A	PBZQUINONE	p-Benzoquinone
SW8270A	PCB1016	PCB-1016 (Aroclor 1016)
SW8270A	PCB1221	PCB-1221 (Aroclor 1221)
SW8270A	PCB1232	PCB-1232 (Aroclor 1232)
SW8270A	PCB1242	PCB-1242 (Aroclor 1242)
SW8270A	PCB1248	PCB-1248 (Aroclor 1248)
SW8270A	PCB1254	PCB-1254 (Aroclor 1254)
SW8270A	PCB1260	PCB-1260 (Aroclor 1260)
SW8270A	PCP	Pentachlorophenol
SW8270A	PDMAABZ	p-Dimethylaminoazobenzene
SW8270A	PECLBZ	Pentachlorobenzene
SW8270A	PECLNO2BZ	Pentachloronitrobenzene
SW8270A	PH246BR	2,4,6-Tribromophenol
SW8270A	PH2F	2-Fluorophenol
SW8270A	PHAN	Phenanthrene
SW8270A	PHANHY	Phthalic anhydride
SW8270A	PHEN2F	2-Fluorobiphenyl
SW8270A	PHEND14	Terphenyl-d14
SW8270A	PHENOBAL	Phenobarbital
SW8270A	PHENOL	Phenol
SW8270A	PHENOLD6	Phenol-d6
SW8270A	PHENYTOIN	5,5-Diphenylhydantoin
SW8270A	PHNACTN	Phenacetin
SW8270A	PHORATE	Phorate
SW8270A	PHOSAL	Phosalone
SW8270A	PHOSMET	Phosmet
SW8270A	PHOSPHAM	Phosphamidon
SW8270A	PICOLINE2	2-Picoline
SW8270A	PRONAMD	Pronamide
SW8270A	PROPYCIL	Propylthiouracil
SW8270A	PYR	Pyrene
SW8270A	PYRDN	Pyridine
SW8270A	SAFROLE	Safrole
SW8270A	SEVIN	Carbaryl
SW8270A	STIROFOS	Tetrachlorvinphos (Stirophos)
SW8270A	STRYCHNINE	Strychnine
SW8270A	SULFAL	Sulfallate
SW8270A	SULFX	Piperonyl sulfoxide
SW8270A	T23P	Tris(2,3-dibromopropyl)phosphate
SW8270A	TCB124	1,2,4-Trichlorobenzene
SW8270A	TCP2346	2,3,4,6-Tetrachlorophenol
SW8270A	TCP245	2,4,5-Trichlorophenol
SW8270A	TCP246	2,4,6-Trichlorophenol
SW8270A	TDI	Toluene diisocyanate
SW8270A	TEPP	Tetraethyl pyrophosphate
SW8270A	TEPTH	o,o,o-Triethyl phosphorothioate
SW8270A	TERBUFOS	Terbufos
SW8270A	TLDNO	o-Toluidine

SW8270A	TLDNONT5	5-Nitro-o-toluidine
SW8270A	TMANIL245	2,4,5-Trimethylaniline
SW8270A	TMEP	Trimethyl phosphate
SW8270A	TNB135	1,3,5-Trinitrobenzene
SW8270A	TOXAP	Toxaphene
SW8270A	TRIFLURALIN	Trifluralin
SW8270A	TT4P	Tri-p-tolyl phosphate
SW8270A	ZINOPHOS	Thionazine
SW8280	DD1234678C13	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin-C13
SW8280	DD123478C13	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin-C13
SW8280	DD123678C13	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin-C13
SW8280	DD12378C13	1,2,3,7,8-Pentachlorodibenzo-p-dioxin-C13
SW8280	DF1234789C13	1,2,3,4,7,8,9-Heptachlorodibenzofuran-C13
SW8280	DF123478C13	1,2,3,4,7,8-Hexachlorodibenzofuran-C13
SW8280	DF123678C13	1,2,3,6,7,8-Hexachlorodibenzofuran-C13
SW8280	DF123789C13	1,2,3,7,8,9-Hexachlorodibenzofuran-C13
SW8280	DF12378C13	1,2,3,7,8-Pentachlorodibenzofuran-C13
SW8280	DF234678C13	2,3,4,6,7,8-Hexachlorodibenzofuran-C13
SW8280	DF23478C13	2,3,4,7,8-Pentachlorodibenzofuran-C13
SW8280	HPCDD	Total Heptachlorodibenzo-p-dioxins (HpCDD)
SW8280	HPCDD1234678	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin
SW8280	HPCDF	Total Heptachlorodibenzofurans (HpCDF)
SW8280	HPCDF1234678	1,2,3,4,6,7,8-Heptachlorodibenzofuran
SW8280	HPCDF1234789	1,2,3,4,7,8,9-Heptachlorodibenzofuran
SW8280	HXCDD	Total Hexachlorodibenzo-p-dioxins (HxCDD)
SW8280	HXCDD123478	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin
SW8280	HXCDD123678	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin
SW8280	HXCDD123789	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin
SW8280	HXCDF	Total Hexachlorodibenzofurans (HxCDF)
SW8280	HXCDF123478	1,2,3,4,7,8-Hexachlorodibenzofuran
SW8280	HXCDF123678	1,2,3,6,7,8-Hexachlorodibenzofuran
SW8280	HXCDF123789	1,2,3,7,8,9-Hexachlorodibenzofuran
SW8280	HXCDF234678	2,3,4,6,7,8-Hexachlorodibenzofuran
SW8280	OCDD	Octachlorodibenzo-p-dioxin
SW8280	OCDDC13	Octachlorodibenzo-p-dioxin-C13
SW8280	OCDF	Octachlorodibenzofuran
SW8280	OCDFC13	Octachlorodibenzofuran-C13
SW8280	PECDD	Total Pentachlorodibenzo-p-dioxin (PeCDD)
SW8280	PECDD12378	1,2,3,7,8-Pentachlorodibenzo-p-dioxin
SW8280	PECDF	Total Pentachlorodibenzofurans (PeCDF)
SW8280	PECDF12378	1,2,3,7,8-Pentachlorodibenzofuran
SW8280	PECDF23478	2,3,4,7,8-Pentachlorodibenzofuran
SW8280	TCDD	Total Tetrachlorodibenzo-p-dioxins (TCDD)
SW8280	TCDD2378	2,3,7,8-Tetrachlorodibenzo-p-dioxin
SW8280	TCDF	Total Tetrachlorodibenzofurans (TCDF)
SW8280	TCDF2378	2,3,7,8-Tetrachlorodibenzofuran
SW8290D	DD1234678C13	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin-C13
SW8290D	DD123478C13	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin-C13
SW8290D	DD123678C13	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin-C13
SW8290D	DD12378C13	1,2,3,7,8-Pentachlorodibenzo-p-dioxin-C13
SW8290D	DF1234789C13	1,2,3,4,7,8,9-Heptachlorodibenzofuran-C13

SW8290D	DF123478C13	1,2,3,4,7,8-Hexachlorodibenzofuran-C13
SW8290D	DF123678C13	1,2,3,6,7,8-Hexachlorodibenzofuran-C13
SW8290D	DF123789C13	1,2,3,7,8,9-Hexachlorodibenzofuran-C13
SW8290D	DF12378C13	1,2,3,7,8-Pentachlorodibenzofuran-C13
SW8290D	DF234678C13	2,3,4,6,7,8-Hexachlorodibenzofuran-C13
SW8290D	DF23478C13	2,3,4,7,8-Pentachlorodibenzofuran-C13
SW8290D	HPCDD	Total Heptachlorodibenzo-p-dioxins (HpCDD)
SW8290D	HPCDD1234678	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin
SW8290D	HPCDF	Total Heptachlorodibenzofurans (HpCDF)
SW8290D	HPCDF1234678	1,2,3,4,6,7,8-Heptachlorodibenzofuran
SW8290D	HPCDF1234789	1,2,3,4,7,8,9-Heptachlorodibenzofuran
SW8290D	HXCDD	Total Hexachlorodibenzo-p-dioxins (HxCDD)
SW8290D	HXCDD123478	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin
SW8290D	HXCDD123678	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin
SW8290D	HXCDD123789	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin
SW8290D	HXCDF	Total Hexachlorodibenzofurans (HxCDF)
SW8290D	HXCDF123478	1,2,3,4,7,8-Hexachlorodibenzofuran
SW8290D	HXCDF123678	1,2,3,6,7,8-Hexachlorodibenzofuran
SW8290D	HXCDF123789	1,2,3,7,8,9-Hexachlorodibenzofuran
SW8290D	HXCDF234678	2,3,4,6,7,8-Hexachlorodibenzofuran
SW8290D	OCDD	Octachlorodibenzo-p-dioxin
SW8290D	OCDDC13	Octachlorodibenzo-p-dioxin-C13
SW8290D	OCDF	Octachlorodibenzofuran
SW8290D	OCDFC13	Octachlorodibenzofuran-C13
SW8290D	PECDD	Total Pentachlorodibenzo-p-dioxin (PeCDD)
SW8290D	PECDD12378	1,2,3,7,8-Pentachlorodibenzo-p-dioxin
SW8290D	PECDF	Total Pentachlorodibenzofurans (PeCDF)
SW8290D	PECDF12378	1,2,3,7,8-Pentachlorodibenzofuran
SW8290D	PECDF23478	2,3,4,7,8-Pentachlorodibenzofuran
SW8290D	TCDD	Total Tetrachlorodibenzo-p-dioxins (TCDD)
SW8290D	TCDD2378	2,3,7,8-Tetrachlorodibenzo-p-dioxin
SW8290D	TCDF	Total Tetrachlorodibenzofurans (TCDF)
SW8290D	TCDF2378	2,3,7,8-Tetrachlorodibenzofuran
SW8310	9PHENAN	9-Phenylanthracene
SW8310	ACNP	Acenaphthene
SW8310	ACNPY	Acenaphthylene
SW8310	ANTH	Anthracene
SW8310	BZAA	Benzo(a)anthracene
SW8310	BZAP	Benzo(a)pyrene
SW8310	BZBF	Benzo(b)fluoranthene
SW8310	BZGHIP	Benzo(g,h,i)perylene
SW8310	BZKF	Benzo(k)fluoranthene
SW8310	CHRYSENE	Chrysene
SW8310	DBAHA	Dibenzo(a,h)anthracene
SW8310	FL	Fluorene
SW8310	FLA	Fluoranthene
SW8310	INP123	Indeno(1,2,3-cd)pyrene
SW8310	NAPH	Naphthalene
SW8310	PHAN	Phenanthrene
SW8310	PYR	Pyrene
SW8330	A2DNT46	2-Amino-4,6-dinitrotoluene

SW8330	A4DNT26	4-Amino-2,6-dinitrotoluene
SW8330	DNB13	1,3-Dinitrobenzene
SW8330	DNBZ14	1,4-Dinitrobenzene
SW8330	DNT24	2,4-Dinitrotoluene
SW8330	DNT26	2,6-Dinitrotoluene
SW8330	HMX	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
SW8330	NBZME2	2-Nitrotoluene
SW8330	NBZME3	3-Nitrotoluene
SW8330	NBZME4	4-Nitrotoluene
SW8330	NO2BZ	Nitrobenzene
SW8330	RDX	Hexahydro-1,3,5-trinitro-1,3,5-triazine
SW8330	TETRYL	Methyl-2,4,6-trinitrophenylnitramine
SW8330	TNB135	1,3,5-Trinitrobenzene
SW8330	TNT	2,4,6-Trinitrotoluene
SW9045A	PH	pH
SW9066	TOTPHEN	Phenolics, Total Recoverable
SW9076D	TOTX	Total Halogens
WDOEEPH	C10C12ALIPH	C10-C12 Aliphatics
WDOEEPH	C10C12AROM	C10-C12 Aromatics
WDOEEPH	C12C16ALIPH	C12-C16 Aliphatics
WDOEEPH	C12C16AROM	C12-C16 Aromatics
WDOEEPH	C16C21ALIPH	C16-C21 Aliphatics
WDOEEPH	C16C21AROM	C16-C21 Aromatics
WDOEEPH	C21C34ALIPH	C21-C34 Aliphatics
WDOEEPH	C21C34AROM	C21-C34 Aromatics
WDOEEPH	C8C10ALIPH	C8-C10 Aliphatics
WDOEEPH	C8C10AROM	C8-C10 Aromatics
WDOEVPH	C10C12ALIPH	C10-C12 Aliphatics
WDOEVPH	C10C12AROM	C10-C12 Aromatics
WDOEVPH	C5C6ALIPH	C5-C6 Aliphatics
WDOEVPH	C6C8ALIPH	C6-C8 Aliphatics
WDOEVPH	C8C10ALIPH	C8-C10 Aliphatics
WDOEVPH	C8C10AROM	C8-C10 Aromatics
WHCID	DIESEL2	Diesel Fuel #2
WHCID	GASOLINE	Gasoline
WHCID	OILM	Oil, Misc.
WTPH-D	DIESEL2	Diesel Fuel #2
WTPH-G	GASOLINE	Gasoline

APPENDIX C

The following set of examples present a group of analytical entries that may occur for a given sample. These entries are not extended to be chemically correct, but are presented to demonstrate proper entry into COELT.

APPENDIX C

Entering a COE Sample:

COE samples are environmental samples that have been collected by the Corps of Engineers or one of their contractors. Most of the information required to enter a COE sample is available on the sample chain-of-custody. The following example presents the entry of sample information into the COELT program.

If for instance, a chain-of-custody indicates that a Corps contractor, say EMCON, Alaska submits a sample labeled MW-1 for SW8020 analysis to Columbia Analytical Services Laboratory in Kelso, Washington. The sample MW-1 was collected on January 1, 1995 at 12:00 noon, in Nome, Alaska.

Click on the "New" button at the top of the screen.

Sampid	Type MW-1 and press [Enter]
Labcode	Press [F2] to select CASK and press [Enter]
Matrix	Press [F2] to select W and press [Enter]
Logdate	Type 010195 [Enter]
Logtime	Type 1200 [Enter]
Cnt Sheet #	Type 95-CS-111 [Enter]
Projname	Type FUELSITE [Enter]
NPDLWO	Type 94-0111 [Enter]
Logcode	Press [F2] to select EMCA and press [Enter]
Locid	Type NOME [Enter]

The tests and results associated with this sample are presented in the following pages.

Entering a COE Sample Test:

If sample MW-1 was analyzed using Solid and Hazardous Waste Method 8020, it would be entered as listed below.

Labsampid	Type 9500-01 and press [Enter]
Qccode	CS will appear in this field automatically
Method	Press [F2] to select SW8020 and press [Enter]
Modparlist	Type T and press [Enter]
Exmcode	Press [F2] to select SW5030 and press [Enter]
Lablotctl	Type 8020-0102 and press [Enter]
Anadate	Type 010295 [Enter]
Extdate	Type 010295 [Enter]
Run_num	Type 1 [Enter]
Recdate	Type 010295 [Enter]
Cocnum	Type CL-9501 [Enter]
Basis	Press [F2] to select N and press [Enter]
Prescode	Press [F2] to select P05 and press [Enter]
Sub	Press [F2] to select NA and press [Enter]
Rep_date	Type 010395 [Enter]
Lab_repno	Type 010395-01 and press [Enter]
Apprvd	Type ABC and press [Enter]
Lnote	Press [F2] select CH and press [Enter]

Note: The parameter list has been modified (Modparlist = T) for ease of moving from one type of example to the next. For all examples presented in Appendix C, the SW8020 list will consist of one compound, Benzene.

Entering a COE Sample Result:

The results from sample MW-1, analyzed for SW8020, are listed below.

Analyte	Press [F3] and press [Enter]
Descriptn	Benzene will appear in this field automatically
Qualifier	Press [F2], select =, press [Enter]
Result	Type 25 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1 [Enter]
Rep Qual	Press [F2], select PQL and press [Enter]
Uncertainty	No entry is necessary
Units	Press [F2], select UG/L and press [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	No entry is necessary [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]

Entering a Surrogate Result:

If a surrogate result was available, it would be entered as follows:

Analyte	Press [F3], selected F3BZME and press [Enter]
Descriptn	Trifluorotoluene will appear in this field automatically
Qualifier	Press [F2], select SU and press [Enter]
Result	Type 89 [Enter]
Lab DL	Type 0 [Enter]
Rep DL	Type 0 [Enter]
Rep Qual	Press [F2], select NA and press [Enter]
Uncertainty	No entry is necessary [Enter]
Units	Press [F2], select PERCENT, [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	Type 123193 [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]

Entering a Tentatively Identified Compound Result:

Suppose that a tentatively identified compound appeared with an approximate concentration of 12 ug/L 35 minutes into the analysis. Unknown PAH was the best fit for this compound. The following example presents the entry of this result.

Analyte	Press [F4], select UNKPAH and press [Enter]
Description	Unknown PAH will appear in this field
Qualifier	Press [F2], select TI and press [Enter]
Result	Type 12 [Enter]
Lab DL	Type 0 [Enter]
Rep DL	Type 0 [Enter]
Rep Qual	Press [F2], select NA and press [Enter]
Uncertainty	No entry is necessary [Enter]
Units	Press [F2], select UG/L and press [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	Type 35 [Enter]
Dilution	Type 1 [Enter]
Clrevdate	No entry is necessary [Enter]
Srm	Press [F2], select NA and press [Enter]
Lnote	No entry is necessary [Enter]

Entering a QC Entry:

QC entries in the sample area identify the quality assurance batch and identify the matrix for the samples that are grouped in that batch and the laboratory to which the batch belongs. The information required to enter a QC entry should be available from a standard bench sheet. The following example outlines the entry of a batch with which the sample MW-1 is associated

Click on the "New" button at the top of the screen.

Lablotctl	Type 8020-0102 and press [Enter]
Labcode	Press [F2] to select CASK and press [Enter]
Matrix	Press [F2] to select W and press [Enter]

Quality Assurance Test For Method Blank:

Labsampid	Type MB-0102 and press [Enter]
Qccode	Type LB1 and press [Enter]
Method	Press [F2] to select SW8020 and press [Enter]
Modparlist	Type T and press [Enter]
Exmcode	Press [F2] to select SW5030 and press [Enter]
Lablotctl	8020-0102 will appear in this field automatically
Anadate	Type 010295 [Enter]
Extdate	Type 010295 [Enter]
Run_num	Type 1 [Enter]
Recdate	Type 010295 [Enter]
Basis	Press [F2] to select N and press [Enter]
Prescode	No entry is necessary [Enter]
Sub	Press [F2] to select NA and press [Enter]
Lnote	No entry is necessary [Enter]

Entering Method Blank Results:

Analyte	Press [F2] and select BZ.
Description	Benzene will automatically appear in this field.
Qualifier	Type ND [Enter]
Result	Type 0 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1 [Enter]
Rep Qual	Press [F2] to select PQL and press [Enter]
Uncertainty	No entry is necessary [Enter]
Unit	Press [F2], select UG/L and press [Enter]
PVC Code	Press [F2] , select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	No entry is necessary [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]
Labrefid	No entry is necessary [Enter]
Expected	No entry is necessary [Enter]

Quality Assurance Test For Matrix Spike:

Labsampid	Type MS-0102 and press [Enter]
Qccode	Type MS1 and press [Enter]
Method	Press [F2] to select SW8020 and press [Enter]
Modparlist	Type T and press [Enter]
Exmcode	Press [F2] to select SW5030 and press [Enter]
Lablotctl	8020-0102 will appear in this field automatically
Anadate	Type 010295 [Enter]
Extdate	Type 010295 [Enter]
Run_num	Type 1 [Enter]
Recdate	Type 010295 [Enter]
Basis	Press [F2] to select N and press [Enter]
Prescode	No entry is necessary [Enter]
Sub	Press [F2] to select NA and press [Enter]
Lnote	No entry is necessary [Enter]

Entering a Matrix Spike Quality Control Result:

Analyte	Press [F3] and press [Enter]
Descriptn	Benzene will automatically appear in this field
Qualifier	Type = [Enter]
Result	Type 46 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1.0 [Enter]
Rep Qual	Press [F2] to select PQL and press [Enter]
Uncertainty	Press [Enter]
Units	Press [F2], select UG/L and press [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	Type 123194 [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]
Labrefid	Type 9500-01 [Enter]
Expected	Type 50 [Enter]

Quality Assurance Test For Matrix Spike Duplicate:

Labsampid	Type MSD-0102 and press [Enter]
Qccode	Type SD1 and press [Enter]
Method	Press [F2] to select SW8020 and press [Enter]
Modparlist	Type T and press [Enter]
Exmcode	Press [F2] to select SW5030 and press [Enter]
Lablotctl	8020-0102 will appear in this field automatically
Anadate	Type 010295 [Enter]
Extdate	Type 010295 [Enter]
Run_num	Type 1 [Enter]
Recdate	Type 010295 [Enter]
Basis	Press [F2] to select N and press [Enter]
Prescode	No entry is necessary [Enter]
Sub	Press [F2] to select NA and press [Enter]
Lnote	No entry is necessary [Enter]

Entering a Matrix Spike Duplicate Quality Control Result:

Analyte	Press [F3] and press [Enter]
Descriptn	Benzene will automatically appear in this field
Qualifier	Type = [Enter]
Result	Type 46 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1 [Enter]
Rep Qual	Press [F2] to select PQL and press [Enter]
Uncertainty	No entry necessary
Units	Press [F2], select UG/L and press [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	Type 123194 [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]
Labrefid	Type 9500-01 [Enter]
Expected	Type 50 [Enter]

Quality Assurance Test for Blank Spike:

Labsampid	Type LCS-0102 and press [Enter]
Qccode	Type BS1 and press [Enter]
Method	Press [F2] to select SW8020 and press [Enter]
Modparlist	Type T and press [Enter]
Exmcode	Press [F2] to select SW5030 and press [Enter]
Lablotctl	8020-0102 will appear in this field automatically
Anadate	Type 010295 [Enter]
Extdate	Type 010295 [Enter]
Run_num	Type 1 [Enter]
Recdate	Type 010295 [Enter]
Basis	Press [F2] to select N and press [Enter]
Prescode	No entry is necessary [Enter]
Sub	Press [F2] to select NA and press [Enter]
Lnote	No entry is necessary [Enter]

Entering a Blank Spike Quality Control Result:

Analyte	Press [F3] and press [Enter]
Descriptn	Benzene will automatically appear in this field
Qualifier	Type = [Enter]
Result	Type 46 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1 [Enter]
Rep Qual	Press [F2] to select PQL and press [Enter]
Uncertainty	Press [Enter]
Units	Press [F2], select UG/L and press [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	Type 123194 [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]
Labrefid	No entry is necessary [Enter]
Expected	Type 50 [Enter]

Quality Assurance Test For Lab Replicate:

Labsampid	Type LR-0102 and press [Enter]
Qccode	Type LR1 and press [Enter]
Method	Press [F2] to select SW8020 and press [Enter]
Modparlist	Type T and press [Enter]
Exmcode	Press [F2] to select SW5030 and press [Enter]
Lablotctl	8020-0102 will appear in this field automatically
Anadate	Type 010295 [Enter]
Extdate	Type 010295 [Enter]
Run_num	Type 1 [Enter]
Recdate	Type 010295 [Enter]
Basis	Press [F2] to select N and press [Enter]
Prescode	No entry is necessary [Enter]
Sub	Press [F2] to select NA and press [Enter]

Entering a Laboratory Replicate Result:

Analyte	Press [F3] and press [Enter]
Descriptn	Benzene will automatically appear in this field
Qualifier	Type = [Enter]
Result	Type 27 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1 [Enter]
Rep Qual	Press [F2] to select PQL and press [Enter]
Uncertainty	Press [Enter]
Units	Press [F2], select UG/L and press [Enter]
PVC Code	Press [F2], select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	Type 123194 [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]
Labrefid	Type 9500-01 [Enter]

Quality Assurance Test for Initial Calibration:

Labsampid	Type IC-0102 and press [Enter]
Qccode	Type IC1 and press [Enter]
Method	Press [F2] to select SW8020 and press [Enter]
Modparlist	Type T and press [Enter]
Exmcode	Press [F2] to select SW5030 and press [Enter]
Lablotctl	8020-0102 will appear in this field automatically
Anadate	Type 010295 [Enter]
Extdate	Type 010295 [Enter]
Run_num	Type 1 [Enter]
Recdate	Type 010295 [Enter]
Basis	Press [F2] to select N and press [Enter]
Prescode	No entry is necessary [Enter]
Sub	Press [F2] to select NA and press [Enter]
Lnote	No entry is necessary [Enter]

Entering an Initial Calibration Result:

Analyte	Press [F3] and press [Enter].
Descriptn	Benzene will appear in this field.
Qualifier	Type = [Enter]
Result	Type 95 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1 [Enter]
Rep Qual	Press [F2] to select PQL and press [Enter]
Uncertainty	No entry is necessary [Enter]
Units	Press [F2] to select UG/L and press [Enter]
PVC Code	Press [F2] to select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	Type 123194 [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]
Labrefid	No entry is necessary [Enter]
Expected	100

Quality Assurance Test for Continuing Calibration:

Labsampid	Type CC-0102 and press [Enter]
Qccode	Type CC1 and press [Enter]
Method	Press [F2] to select SW8020 and press [Enter]
Modparlist	Type T and press [Enter]
Exmcode	Press [F2] to select SW5030 and press [Enter]
Lablotctl	8020-0102 will appear in this field automatically
Anadate	Type 010295 [Enter]
Extdate	Type 010295 [Enter]
Run_num	Type 1 [Enter]
Recdate	Type 010295 [Enter]
Basis	Press [F2] to select N and press [Enter]
Prescode	No entry is necessary [Enter]
Sub	Press [F2] to select NA and press [Enter]
Lnote	No entry is necessary [Enter]

Entering a Continuing Calibration Result:

Analyte	Press [F3] and press [Enter].
Descriptn	Benzene will appear in this field.
Qualifier	Type = [Enter]
Result	Type 105 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1 [Enter]
Rep Qual	Pres [F2] to select PQL and press [Enter]
Uncertainty	No entry is necessary [Enter]
Units	Press [F2] to select UG/L and press [Enter]
PVC Code	Press [F2] to select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	Type 123194 [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]
Labrefid	No entry is necessary [Enter]
Expected	100

Quality Assurance Test for Known Reference Material:

Labsampid	Type KM-0102 and press [Enter]
Qccode	Type KM1 and press [Enter]
Method	Press [F2] to select SW8020 and press [Enter]
Modparlist	Type T and press [Enter]
Exmcode	Press [F2] to select SW5030 and press [Enter]
Lablotctl	8020-0102 will appear in this field automatically
Anadate	Type 010295 [Enter]
Extdate	Type 010295 [Enter]
Run_num	Type 1 [Enter]
Recdate	Type 010295 [Enter]
Basis	Press [F2] to select N and press [Enter]
Prescode	No entry is necessary [Enter]
Sub	Press [F2] to select NA and press [Enter]
Lnote	No entry is necessary [Enter]

Entering a Known Reference Material Result:

Analyte	Press [F3] and press [Enter]
Descriptn	Benzene will appear in this field
Qualifier	Type = [Enter]
Result	Type 9.0 [Enter]
Lab DL	Type 0.2 [Enter]
Rep DL	Type 1 [Enter]
Rep Qual	Pres [F2] to select PQL and press [Enter]
Uncertainty	No entry is necessary [Enter]
Units	Press [F2] to select UG/L and press [Enter]
PVC Code	Press [F2] to select PR and press [Enter]
Rt	No entry is necessary [Enter]
Dilution	Type 1 [Enter]
Clrevdate	Type 123194 [Enter]
Srm	Press [F2], select SUPELCO and press [Enter]
Lnote	No entry is necessary [Enter]
Labrefid	No entry is necessary [Enter]
Expected	10.0

APPENDIX D

APPENDIX D: Calculations

Matrix Spikes

Percent Recovery for Matrix Spikes

$$\frac{\text{spike result (MS) - sample result}}{\text{spike level}} * 100 \; = \; \text{\% Recovery}$$

Relative Percent Difference for Matrix Spike/Matrix Spike Dupicates

$$\frac{\text{[matrix spike recovery (MS) - matrix spike duplicate recovery (DMS)]}}{\text{[matrix spike recovery (MS) + matrix spike duplicate recovery (DMS)]/ 2}} * 100 = \text{RPD}$$

Where [matrix spike recovery (MS) - matrix spike duplicate recovery (DMS)] is an absolute value.

Note: If internal laboratory matrix spike recovery result does not reflect the COELT result, refer to the value entered into the "Expected" field. The "Expected" field should contain a value equivalent to the sample result plus the spike level.

<div style="border: 1px solid black; padding: 20px;">

Blank Spikes

Percent Recovery for Blank Spikes

<u>blank spike result (LCS)</u> * 100 = % Recovery
   spike level

Relative Percent Difference for Blank Spike/Blank Spike Dupicates
<u>[blank spike result(LCS) - blank spike duplicate result(LCD)]</u> * 100 = RPD
[blank spike result(LCS) + blank spike duplicate result (LCD)]/ 2

Where [blank spike result(LCS) - blank spike duplicate result (LCD)] is an absolute value.

Note: If the internal laboratory blank spike recovery does not reflect the COELT result, refer to the "Expected" field. The "Expected" field should contain a value equivalent to the spike level.

</div>

Known Reference Material

Percent Recovery for Known Reference Material

known reference result(KR)   * 100   =   % Recovery
   spike level

Relative Percent Difference for Known Reference Material

[known reference result(KR) - known reference duplicate result(DKR)]   * 100   = RPD [known reference result(KR) +known reference duplicate result(DKR)]/ 2

Where [known reference result (KR) - known reference duplicate result(DKR)] is an absolute value.

Note: If the internal laboratory known reference recovery does not reflect the COELT result, refer to the "Expected" field. The "Expected" field should contain a value equivalent to the spike level.

Initial Calibration

Percent Recovery for Initial Calibration Verification

Initial calibration * 100   =   % Recovery
True Level

Note: If the internal initial calibration recovery does not reflect the COELT result, refer to the "Expected" field. The "Expected" field should contain a value equivalent to the true level.

Continuing Calibration

Percent Recovery for Continuing Calibration Verification

Result   *100   =   % Recovery
True Level

Note: If the internal laboratory continuing calibration recovery does not reflect the COELT result, refer to the "Expected" field. The "Expected" field should contain a value equivalent to the true level.

Laboratory Duplicates

Relative Percent Difference for Laboratory Duplicates

$$\frac{[\text{Result} - \text{Duplicate Result (LR)}] * 100}{[\text{Result} + \text{Duplicate Result (LR)}]/2} = \text{RPD}$$

Where [Result - Duplicate Result (LR)] is an absolute value.

APPENDIX E

reptype	group	anmcode
A		3810HVO
A		8270SIM
A		AK101
A		AK101E
A		AK102
A		AK102E
A		AK103
A		AKD
A		AKG
A		CAPBO
A		CATFH
A		CATPH-D
A		CATPH-G
A		CENPD
A		D1945
A		D3341
A		DOCH4
A		E1613A
A		E504
A		E508
A		E515.1
A		E524.2
A		E525.1M
A		E601
A		E601-2
A		E602
A		E6045
A		E608
A		E610
A		E614
A		E615
A		E624
A		E625
A		M8015
A		M8100
A		MTTPH-D
A		MTTPH-G
A		N1501
A		OHCID
A		OPHC
A		OTPH-D
A		OTPH-G
A		PAHSIM
A		SCID
A		SIM
A		SW8010
A		SW8010A
A		SW8010B
A		SW8015
A		SW8020

A	SW8020A
A	SW8020F
A	SW8021A
A	SW8040A
A	SW8060
A	SW8080
A	SW8080A
A	SW8081
A	SW8100
A	SW8140
A	SW8141
A	SW8150
A	SW8150A
A	SW8151
A	SW8240
A	SW8240A
A	SW8240B
A	SW8260
A	SW8260A
A	SW8270
A	SW8270A
A	SW8270B
A	SW8310
A	SW8330
A	SWVOL
A	UL09
A	UW46
A	WDOEEPH
A	WDOEVPH
A	WHCID
A	WTPH-D
A	WTPH-G
B	A2120B
B	A2150B
B	A2320B
B	A2510B
B	A2540C
B	A2580B
B	A4500F
B	A4500NH
B	A9215D
B	A9221B
B	A9222B
B	A9240D
B	A9260D
B	ASA2451
B	D1744
B	D482
B	D808
B	E410.1
B	E413.2

B		LPFE3
B		SHEEN
B		SW6020
B		SW9077
B	1	E200.7
B	1	E200.8
B	1	E200.9
B	1	E202.1
B	1	E202.2
B	1	E204.1
B	1	E204.2
B	1	E206.2
B	1	E206.3
B	1	E206.4
B	1	E208.1
B	1	E208.2
B	1	E210.1
B	1	E210.2
B	1	E212.3
B	1	E213.1
B	1	E213.2
B	1	E215.1
B	1	E215.2
B	1	E218.1
B	1	E218.2
B	1	E218.3
B	1	E218.4
B	1	E218.5
B	1	E219.1
B	1	E219.2
B	1	E220.1
B	1	E220.2
B	1	E231.1
B	1	E231.2
B	1	E235.1
B	1	E235.2
B	1	E236.1
B	1	E236.2
B	1	E239.1
B	1	E239.2
B	1	E242.1
B	1	E243.1
B	1	E243.2
B	1	E245.1
B	1	E245.2
B	1	E245.5
B	1	E246.1
B	1	E246.2
B	1	E249.1
B	1	E249.2
B	1	E252.1

B	1	E252.2
B	1	E253.1
B	1	E253.2
B	1	E255.1
B	1	E255.2
B	1	E258.1
B	1	E265.1
B	1	E265.2
B	1	E267.1
B	1	E267.2
B	1	E270.1
B	1	E270.2
B	1	E270.3
B	1	E272.1
B	1	E272.2
B	1	E273.1
B	1	E273.2
B	1	E279.1
B	1	E279.2
B	1	E282.1
B	1	E282.2
B	1	E283.1
B	1	E283.2
B	1	E286.1
B	1	E286.2
B	1	E289.1
B	1	E289.2
B	1	SW6010
B	1	SW6010A
B	1	SW7020
B	1	SW7040
B	1	SW7041
B	1	SW7060
B	1	SW7061
B	1	SW7061A
B	1	SW7080
B	1	SW7081
B	1	SW7090
B	1	SW7091
B	1	SW7130
B	1	SW7131
B	1	SW7140
B	1	SW7190
B	1	SW7191
B	1	SW7195
B	1	SW7196
B	1	SW7196A
B	1	SW7197
B	1	SW7198
B	1	SW7200
B	1	SW7201

B	1	SW7210
B	1	SW7211
B	1	SW7380
B	1	SW7381
B	1	SW7420
B	1	SW7421
B	1	SW7430
B	1	SW7450
B	1	SW7460
B	1	SW7461
B	1	SW7470
B	1	SW7471
B	1	SW7480
B	1	SW7481
B	1	SW7520
B	1	SW7550
B	1	SW7610
B	1	SW7740
B	1	SW7741
B	1	SW7760
B	1	SW7760A
B	1	SW7761
B	1	SW7770
B	1	SW7780
B	1	SW7840
B	1	SW7841
B	1	SW7870
B	1	SW7910
B	1	SW7911
B	1	SW7950
B	1	SW7951
B	2	A4500CL
B	2	A4500CN
B	2	E300
B	2	E305.1
B	2	E305.2
B	2	E310.1
B	2	E310.2
B	2	E320.1
B	2	E325.1
B	2	E325.2
B	2	E325.2M
B	2	E325.3
B	2	E325.3M
B	2	E335.1
B	2	E335.2
B	2	E335.3
B	2	E340.1
B	2	E340.2
B	2	E340.2M
B	2	E340.3

B	2	E345.1
B	2	E350.1
B	2	E350.1M
B	2	E350.2
B	2	E350.3
B	2	E351.1
B	2	E351.2
B	2	E351.3
B	2	E351.4
B	2	E351.4M
B	2	E352.1
B	2	E353.1
B	2	E353.2
B	2	E353.2M
B	2	E353.3
B	2	E354.1
B	2	E360.1
B	2	E360.2
B	2	E365.1
B	2	E365.2
B	2	E365.3
B	2	E365.4
B	2	E370.1
B	2	E375.1
B	2	E375.2
B	2	E375.3
B	2	E375.4
B	2	E376.1
B	2	E376.2
B	2	E377.1
B	2	E410.3M
B	2	E420.1
B	2	E420.1M
B	2	PSEPSID
B	2	SW9038
B	2	SW9253
B	3	A2330B
B	3	A2340B
B	3	A2520B
B	3	A2540G
B	3	A2710F
B	3	A4500B
B	3	A4500C
B	3	A4500DA
B	3	A5540A
B	3	A5540C
B	3	A5550B
B	3	A9221E
B	3	A9222D
B	3	AG7-2.2
B	3	AHERA

B	3	ASTMD93
B	3	BDTL
B	3	BTSNTOT
B	3	CLPPM
B	3	D1217
B	3	D2015
B	3	D2196
B	3	D2216
B	3	D240
B	3	D287
B	3	D3416
B	3	D4129
B	3	D445
B	3	D91AVSM
B	3	E110.2
B	3	E120.1
B	3	E130.1
B	3	E130.2
B	3	E150.1
B	3	E160.1
B	3	E160.2
B	3	E160.3
B	3	E160.3M
B	3	E160.4
B	3	E160.4M
B	3	E160.5
B	3	E170.1
B	3	E180.1
B	3	E365.3M
B	3	E405.1
B	3	E410.2
B	3	E600M4
B	3	N0502
B	3	OSCACO3
B	3	SACIDSL
B	3	SW1010
B	3	SW1020
B	3	SW1020A
B	3	SW1110
B	3	SW7.1
B	3	SW7.2
B	3	SW7.3
B	3	SW9010
B	3	SW9010A
B	3	SW9012
B	3	SW9013
B	3	SW9020
B	3	SW9020A
B	3	SW9030A
B	3	SW9031
B	3	SW9040

B	3	SW9040B
B	3	SW9045A
B	3	SW9045C
B	3	SW9060
B	3	SW9066
B	3	SW9071
B	3	SW9076D
B	3	SW9081
B	3	SW9095
B	3	SW9252
B	4	A5520C
B	4	A5520F
B	4	E410.4
B	4	E413.1
B	4	E415.1
B	4	E415.2
B	4	E418.1
B	4	ME418.1
B	4	OR418.1
B	4	WA418.1
B	4	WBLACK
B	4	WPHC
C		E900
C		E901.1
C		E903.0
C		E903.1
C		E905.0
C		ISOPU
C		ISOU
C		SW9310
C		SW9315
C		SW9320
D		SW8280
D		SW8290
D		SW8290D

ELECTRONIC DELIVERABLE FORMAT

VERSION 1.2a

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Prepared by

Arsenault & Associates, Inc.
9600 Main Tree Drive
Anchorage, Alaska 99516
phone (907) 346-3827
fax (907) 346-1577
information@arsenault.com

TABLE OF CONTENTS

1 INTRODUCTION

The Electronic Deliverable Format (EDF) is a relational database organized to facilitate the transfer of data files from the laboratory to the end user. This structure is loosely based on the Air Force Center for Environmental Excellence (AFCEE) Installation Restoration Program Information Management System (IRPIMS), incorporating similar data file organization and utilizing many IRPIMS field definitions and valid value codes. However, the EDF contains many fields and data files that have no IRPIMS counterparts. Moreover, occasionally EDF applies the IRPIMS valid value codes in a more restrictive fashion. Therefore, while IRPIMS provided a design model for the EDF, IRPIMS guidelines and documentation do not directly apply to the resultant EDF. Reference to IRPIMS has been maintained throughout this document in efforts to assist and facilitate transition to the EDF for those laboratories currently familiar with the preparation of IRPIMS deliverables.

2 DATABASE DESCRIPTION

The EDF is a relational database consisting of five files, related to one another through key fields. Three of the files, NPDLSAMP, NPDLTEST, and NPDLRES, will be familiar to those with IRPIMS experience. These files include most of the mandatory IRPIMS fields, (with the exception of the site and boring information, which for EDF, has been replaced by *SAMPID* for ease of laboratory use), as well as additional fields to collect non-IRPIMS information required by the U.S. Army Corps of Engineers (COE). The remaining two files, NPDLQC and NPDLCL, containing QC and control limit information respectively, do not have IRPIMS equivalents. The structure of each of these files is discussed below.

The NPDLSAMP file contains site and administrative information concerning field samples. Most of the information in this file should be available on the chain-of-custody form.

The NPDLTEST file, containing information regarding analytical tests performed on samples, is related to the NPDLSAMP file by sample collection information and field sample number. There is a one-to-many relationship between the NPDLSAMP file and the NPDLTEST file. Meaning, one record in the NPDLSAMP file can link to many NPDLTEST records. The files are linked through a group of fields that are the same in each file. These fields collectively are called the primary key and make the records unique.

One may envision that the sample collection information is unnecessary in the NPDLTEST file and that the field sample identification should be sufficient to link the NPDLSAMP file to the NPDLTEST file. However, not all consultants provide unique field sample numbers. It is conceivable that a sampling technician may assign sample numbers sequentially, starting over with the number "one" at each site. There are many instances of MW-1 (i.e., a sample from monitoring well #1) having been assigned to a variety of separate sites. Certainly, this does not represent a unique sample identifier. However, given the frequency of use, it would seem to have universal appeal. The information carried in the site related fields in the NPDLTEST file

will allow the EDF to distinguish among samples collected from different sites, yet having been assigned the same sample number.

The NPDLRES file contains information on results generated by the laboratory. The NPDLTEST file relates to the NPDLRES file through lab sample ID and analytical information. There is also a one-to-many relationship between the NPDLTEST file and the NPDLRES file, as noted above (i.e., there can be more than one result generated for a test). Each NPDLRES record contains information from a specific result.

The NPDLQC file contains data relating to laboratory quality control samples. Each quality control sample is identified as belonging to a particular quality control batch which serves to relate the NPDLQC and NPDLTEST files. However, the actual result for a quality control sample and its related reference sample, (i.e., the original sample of a duplicate or a spike), is stored in the NPDLRES file.

The NPDLCL file contains data associated with analytical control limits. Each record contains control limit information for a parameter analyzed by a particular analytical method. The NPDLCL file and the NPDLRES file are related through the analytical method, parameter, and control limit revision date, collectively.

3   FILE FORMATS AND RESTRICTIONS

The following sections describe the format and restrictions associated with each of the five EDF data files.

3.1 NPDLSAMP - Sample Data File

The purpose of the NPDLSAMP file is to track the administrative and site information associated with a sample. For every field-generated sample entering the laboratory, one record will be added to this file. Most of the information in this file should be available on the chain-of-custody form, and is to be entered exactly as it appears on that form. Table 1, on page 15-19, presents the NPDLSAMP file structure and field attributes. A populated NPDLSAMP file is available in the binder pocket.

NPDLSAMP FILE Guidelines and Restrictions:

- *LOCID*, *LOGDATE*, *LOGTIME*, *LOGCODE*, *SAMPID*, *MATRIX* and *LABCODE* comprise the primary key.

- Non-COE and laboratory-generated quality assurance samples prepared in the laboratory are not to be entered into this file. (Non-COE samples are samples that do not originate from COE sites but were used to generate quality assurance results for a COE group of samples.)

NPDLSAMP FIELD Guidelines and Restrictions:

- All fields require values.

- The *LABCODE*, *LOGCODE*, and *MATRIX* fields require valid value entries. Refer to Appendix A for valid value codes.

- The *LABCODE* field reflects the laboratory that received the sample and is responsible for generating the electronic deliverable.

3.2 NPDLTEST - Test Data File

The NPDLTEST file contains information concerning the analytical test associated with the sample. Each time a test is performed that results in usable data, a test record is generated. Five fields (*LOGDATE*, *LOGTIME*, *LOGCODE*, *SAMPID* and *LABCODE*) from the NPDLSAMP file are carried over to the NPDLTEST file. Most of the information in the NPDLTEST file can be located at the top portion of a standard laboratory bench sheet. Table 2, on page 15-20, presents the NPDLTEST file structure and attributes. A populated NPDLTEST file is available in the binder pocket.

NPDLTEST FILE Guidelines and Restrictions:

- *MATRIX*, *LABCODE*, *LABSAMPID*, *QCCODE*, *ANMCODE*, *EXMCODE*, *ANADATE*, *EXTDATE*, and *RUN_NUMBER* comprise the primary key.

- Each NPDLTEST record must have a corresponding NPDLRES record.

- All sample types must be entered into this file.

NPDLTEST FIELD Guidelines and Restrictions:

- The *LABCODE*, *LOGCODE*, *MATRIX*, *QCCODE*, *ANMCODE*, *EXMCODE*, *BASIS*, *PRESCODE*, *SUB* and *LNOTE* fields require valid value entries. Refer to Appendix A for valid value codes.

- Modified parameter list (*MODPARLIST*) requires a "T" entry (true) if a parameter from the COE-approved parameter list (Appendix B) is not reported. The parameter list is not considered modified if extra parameters are reported.

- *LABSAMPID* must be unique.

- *RUN_NUMBER* should have a value of one or greater.

- Multiple *PRESCODE*s may be entered into the *PRESCODE* field separated by commas. If the test sample was not preserved, spaces may be entered in this field.

- Multiple *LNOTE*s may be entered into the *LNOTE* field separated by commas. If the test does not require qualification, spaces may be entered into this field.

- Blank spaces may be entered into the *EXTDATE* field when the *EXMCODE* is NONE or DI.

- *LABLOTCTL* must uniquely distinguish a group of samples that are prepared together.

- *LABCODE* reflects the laboratory that first receives the sample.

- Enter a *LABCODE* (other than NA) in the *SUB* field if the lab performing the analysis is not the laboratory that received the sample. **NA must be entered into this field unless the test is subcontracted out.** Additional *LABCODE*s are available upon request.

- Blank spaces are entered in the *LOCID*, *LOGDATE*, *LOGTIME*, *SAMPID*, *LOGCODE*, *LAB_REPNO*, *REP_DATE*, and *COCNUM* fields for laboratory-generated and non-COE samples.

- Enter spaces into the *APPRVD* field for non-COE samples.

3.3 NPDLRES - Results Data File

The NPDLRES data file contains information concerning analytical results generated by the laboratory. Each record contains a parameter result. Parameter results are coded using the *PVCCODE* to distinguish whether they are primary results or supporting analytical data (i.e., second column confirmation). Results and detection limits are to be adjusted for dilution prior to data entry. Dilution adjustments are the only calculations necessary prior to entering values into the format. All other quality control calculations will be performed in the database receiving the electronic deliverable. **(Note: The exception to this is surrogates, which must be reported in percent.)** Table 3, on page 15-22, presents the NPDLRES file structure and field attributes. A populated NPDLRES file is available in the binder pocket.

NPDLRES FILE Guidelines and Restrictions:

- *MATRIX*, *LABCODE*, *LABSAMPID*, *QCCODE*, *ANMCODE*, *EXMCODE*, *PVCCODE*, *ANADATE*, *PARLABEL*, and *RUN_NUMBER* comprise the primary key.

- Each NPDLRES record must have a corresponding NPDLTEST record.

- All sample types must be entered into this file.

NPDLRES FIELD Guidelines and Restrictions:

- *MATRIX*, *LABCODE*, *QCCODE*, *ANMCODE*, *EXMCODE*, *PVCCODE*, *PARLABEL*, *PARVQ*, *REPDLVQ*, *UNITS*, *SRM*, and *LNOTE* fields require valid value entries. Refer to Appendix A for valid value codes.

- *LABCODE* reflects the laboratory that receives the sample.

- *RUN_NUMBER* should have a value of one or greater.

- Values less than detection must have a *PARVQ* of ND.

- Multiple *LNOTE*s may be entered into the *LNOTE* field separated by commas. If the test does not require qualification, spaces may be entered into this field.

- Enter blank spaces into the *CLREVDATE* field for environmental samples (*QCCODE* of CS or NC), laboratory-generated blanks (*QCCODE* of LB# or RS#) and non-spiked parameter results, except for surrogate results (*PARVQ* of SU).

- Enter zero into the *LABDL* and *REPDL* fields for parameters with units of percent.

- Blank spaces are entered into the *EXPECTED* field for all environmental sample results. For spiked samples, enter the **AMOUNT OF THE SPIKE PLUS THE SAMPLE VALUE** in this field. For non-spiked samples, enter the value expected into this field (i.e., for a distilled water blank, enter zero).

- *CLREVDATE* requires an entry for the following *QCCODE*s: MS/SD, BS/BD, RM/KD, LR, IC, CC.

- *CLREVDATE* requires an entry for *PARVQ*s, SU and IN.

Field Guidelines and Restrictions for Surrogate Compounds:

- SU needs to be entered into the *PARVQ* field.

- **The units of a surrogate record need to be "PERCENT."**

- Enter 100 into the *EXPECTED* field.

Field Guidelines and Restrictions for Tentatively Identified Compounds (TICs):

- TI needs to be entered into the *PARVQ* field.

- Chemical Abstract Service (CAS) numbers may be used (FOR TICs ONLY) instead of valid value *PARLABEL*s to identify the parameter being reported. It is recommended that TICs without CAS numbers have *PARLABEL* valid values.

- TIC entry does not require a *LABDL* or *REPDL* entry. Additionally, not applicable (NA) may be entered into the *REPDLVQ* and *SRM* fields.

- Retention Time (*RT*) is a recommended entry field for TIC results.

3.4 NPDLQC - Quality Control File

The quality assurance information in the NPDLQC file is associated with an analytical result contained in the NPDLRES file. The NPDLQC records will contain information on blanks, spikes, duplicates and standard reference materials. No calculated results are required for this file. All quality assurance calculations are performed by the database receiving the electronic deliverable.

Quality assurance samples are entered into the NPDLQC file based upon the quality assurance batch (*LABLOTCTL*) with which they are associated. The *LABLOTCTL* allows the environmental samples to be grouped with their quality control samples in order to evaluate the quality of the analytical results. The *LABLOTCTL* is an arbitrary number assigned by the laboratory to represent a group of samples prepared together, sharing the same quality assurance samples.

Table 4, on page 15-23, presents the NPDLQC file structure and field attributes. A populated NPDLQC file is available in the binder pocket.

NPDLQC FILE Guidelines and Restrictions:

- *MATRIX*, *LABCODE*, *LABLOTCTL*, *ANMCODE*, *PARLABEL*, *QCCODE*   and *LABQCID* comprise the primary key.

- All spiked or split samples and all laboratory-generated quality control samples need to be entered into this file.

- All quality assurance data from subcontracted laboratories must be entered into this file.

NPDLQC FIELD Guidelines and Restrictions:

- *MATRIX*, *LABCODE*, *QCCODE*, *ANMCODE*, *PARLABEL*, and *UNITS* fields require valid value entries. Refer to Appendix A for valid value codes.

- The valid value entered into the *QCCODE* field is the *QCCODE* of the *LABQCID* sample.

- The *EXPECTED* value is the expected result of the *LABQCID* sample (i.e., **the EXPECTED field result for a matrix spike is the value of the spike plus the value of the original sample, LABREFID**).

- Enter spaces into the *EXPECTED* field for laboratory-generated blanks (*QCCODE*s, LB# and RS#).

- Enter spaces into the *LABREFID* field for laboratory-generated blanks, reference materials, calibration standards, and spiked blanks (*QCCODE*s, LB#, RS#, RM#, KD#, IC#, CC#, BS#, and BD#).

- *LABCODE* reflects the laboratory that receives the sample, even if the sample has been subcontracted out.

3.5 NPDLCL - Quality Control Limit File

This data file contains control limit information concerning the quality control result. The file does not have to be revised unless new control charts are generated. However, for tracking purposes, it must be submitted with each digital deliverable. Table 5, on page 15-24, presents the NPDLCL file structure and field attributes.

NPDLCL FILE Guidelines and Restrictions:

- *MATRIX*, *LABCODE*, *ANMCODE*, *EXMCODE*, *PARLABEL*, *CLCODE* and *CLREVDATE* comprise the primary key.

- All results with associated quality control criteria must have an associated entry in this file.

NPDLCL FIELD Guidelines and Restrictions:

- *MATRIX*, *LABCODE*, *CLCODE*, *ANMCODE*, *EXMCODE*, and *PARLABEL* fields require valid value entries. Refer to Appendix A for valid value codes.

- Use *UPPERCL* for relative percent difference (RPD) and upper recovery limit entries.

- Enter spaces into *LOWERCL* for RPD.

- The *LABCODE* field reflects the laboratory that performed the analysis (i.e., if a sub-contract laboratory performed the analysis, the *LABCODE* would be the valid value for the sub-contracted laboratory).

3.6 NPDLNARR - Narrative File

The NPDLNARR file provides a means to transfer descriptive information about analyses that do not easily fit in a standardized format. This file does not require a specific format but should be delivered as an ASCII file. A populated NPDLNARR file is available in the binder pocket.

4 VALID VALUE GUIDELINES AND RESTRICTIONS

Choosing the correct valid values for many of the valid value fields requires little interpretation as they are only abbreviations of common and proper names. However, there are several valid values that must be applied within a group of specific guidelines. The following section details these guidelines.

4.1 ANMCODE

Samples are assigned an analytical method using the *ANMCODE* field. Although many of the analytical methods are similar, compound lists are often slightly different (i.e., SW8260 and E524.2). Each *ANMCODE* implies a specific list of analytes (refer to Appendix B). These analytes must all be reported or the list must be indicated as modified by entering true (T) into the modified parameter list field (*MODPARLIST*) of the NPDLTEST file.

The fuel methods are groups of methods that generally do not have well defined parameter lists. Since data comparability is difficult without fuel parameter lists, the COE has established the following lists.

Fuel Method List

Code	Parlabel	Name
AK101	GRO	Gasoline Range Organics
AK102	DRO	Diesel Range Organics
AK103	RRO	Residual Range Organics
AKD	DRO	Diesel Range Organics
AKG	GRO	Gasoline Range Organics
CENPD	DIESEL2	Diesel Fuel #2
	GASOLINE	Gasoline
	KEROSENE	Kerosene
	OILM	Oil Misc.
	JETFUEL	Jet Fuel
	BUNKERC	Bunker C
	OTHERS	Others
E418.1	PHC	Petroleum Hydrocarbons (TPH418.1)
M8015	GRO	Gasoline Range Organics
M8100	DRO	Diesel Range Organics
OHCID	DIESEL2	Diesel Fuel #2
OTPH-D	DIESEL2	Diesel Fuel #2
WHCID	DIESEL2	Diesel Fuel #2
WTPH-D	DIESEL2	Diesel Fuel #2
WTPH-G	GASOLINE	Gasoline

If a fuel parameter does not match the COE-designated parameter for a given method, use an appropriate *LNOTE* or enter a T into the *MODPARLIST* field.

4.2 BASIS

The Basis field is used to indicate wet or dry weight, filtration, and leaching procedures and is coded as follows:

Code	Name
D	Dry
W	Wet
A	Air
C	California Waste Extraction Test (WET) - Title 22 of CAC
F	Field Filtered
L	Lab Filtered
N	Not Filtered
T	SW Method 1311 Toxicity Characteristic Leaching Procedure
E	SW Method 1310A Extraction Procedure (EP) Toxicity Test

If a sample preparation includes a leaching procedure, the *EXMCODE* assigned to the sample is not the leachate method, but the preparation procedure listed in the analytical method that has been performed on the leachate.

4.3 CLCODE

The quality control limit file is used to transfer the quality control limits associated with a given result. The EDF provides a mechanism for identifying the type of control limit associated with a given result. In order to define the type of control limit used to validate the data, a *CLCODE* needs to be assigned. *CLCODE*s are assigned based upon the type of quality assurance sample being analyzed, as well as the system of validation being used.

4.4 EXMCODE

There are five categories to differentiate the extraction or digestion procedure used in the analysis of a sample. They are:

- NONE - Selected when no extraction procedure is used or called for in the analytical method. Examples include determinations such as pH, temperature, percent moisture, etc.

- METHOD - Most commonly used with EPA drinking water procedure or laboratory modified methods where the extraction procedure is directly specified within the analytical method.

- DI - Sample is directly injected into the instrument.

- Specific EPA methods - Documented, published methods for which a code exists in the *EXMCODE* valid value list.

- Field Preparation - For Method AK101 Gasoline Range Organics (refer to the *COELT User's Manual, Version 1.2a, May 1997*, page 5-31a, for details).

4.5 MATRIX

Laboratory-generated quality assurance samples using only laboratory reagents are assigned quality control matrix codes such as WQ (water quality control matrix) for a blank spike. (The use of "*Q" matrix codes is recommended for data that will be converted into IRPIMS formats, but is not required.) Laboratory-generated samples which use the original environmental sample matrix are assigned the *MATRIX* valid value code that describes the original sample matrix, rather than the quality assurance sample matrix, [e.g., a matrix spiked waste water sample would be assigned WW (waste water) rather than WQ (water quality control matrix)]. Refer to Table 6, on page 15-25, for matrix valid values associated with quality control samples.

When the laboratory is not completely informed about the exact sample matrix, the laboratory should enter the more general *MATRIX* codes (such as WX). This indicates that the sample is an aqueous matrix but does not specify the water source (i.e., it is not specifically understood to be waste water). More specific valid value codes (such as WW) should be assigned only when there is sufficient information to do so (i.e., the sample origin is actually known). If the laboratory is unsure of the exact sample matrix they should use the following codes: SX (soil), WX (water), TX (tissue), AX (air), or MX (multiple phases).

4.6 PARVQ (Qualifier)

The *PARVQ* field may be used in several ways. The field is most commonly used with qualified results. Standard analytical results will be qualified with = or ND. The *PARVQ* field may also be used to identify a special type of parameter such as a tentatively identified compound (TI), surrogates (SU), or Internal Standards (IN). And last, the *PARVQ* field may be used to indicate that data is not usable for a given parameter, such as NR for Not Reported.

4.7 PVCCODE

The *PVCCODE* distinguishes between primary and confirmatory results. *PVCCODE*s are used to report supporting GC confirmation information. The gas chromatography confirmation (used to verify compound identification) results are entered using the first column (1C), second column (2C), and Gas Chromatography/Mass Spectroscopy (MS) *PVCCODE*s. For example, if the sample is confirmed using the first column, 1C is entered into the *PVCCODE* field of the confirmation result. The primary result (*PVCCODE* = PR) will be assigned to the column result in which the laboratory places the most confidence. (The primary result will generally be assigned to the first column results.)

4.8 QCCODE

The *QCCODE* field provides a means by which the type of sample can be distinguished. Standard field samples are assigned a *QCCODE* of CS. Tests performed on spiked field samples are assigned *QCCODE*s of MS# or SD#. Tests performed on replicates of a field sample are assigned codes of LR#. All other available *QCCODE*s are assigned to laboratory-generated quality assurance samples, with the exception of the NC code that identifies non-COE samples that have been included in the database to provide quality assurance information.

*QCCODE*s follow a form of alphanumeric coding where, in most cases, the first two characters define the type of sample and the third character is for sequential numbering. For example, if two laboratory blanks were associated with an analytical batch, the first blank would be assigned the *QCCODE* of LB1 and the second blank prepared would be assigned the *QCCODE* of LB2.

4.9 UNITS

The codes for units can be found in the *UNITS* valid value list. Blank spikes, blank spike duplicates, matrix spike and matrix spike duplicates must be expressed in absolute units. For all analytes reporting as PERCENT, enter zero into the *LABDL* field and *REPDL* fields, and NA into the *REPDLVQ* field.

When entering percent moisture and solids data use the *PARLABEL* and the unit of measure given below:

PARLABEL	UNITS
SOLIDVOA	PERCENT
MOIST	PERCENT
SOLID	PERCENT
SS	per unit volume
TDS	per unit volume
TSO	per unit volume
TVS	per unit volume

If soil samples are expressed on a dry-weight basis, then percent moisture must be reported and detection limits should be provided on a dry-weight basis.

Whenever multiple percent moisture determinations have been performed on a sample, (i.e., one determination for each analytical method), report the percent moisture results (*PARLABEL* and *PARVAL*) within the analytical method for that particular *ANMCODE*. (Note: Not all analytical methods require percent moisture determinations.)

When entering surrogates and internal standards use the units of measure given below:

QUALIFIER	UNITS
SU	PERCENT
IN	PERCENT

5 FILE, RECORD AND DATA FIELD REQUIREMENTS

File, record and data field requirements, identified below, must be strictly followed in order to generate acceptable electronic deliverables.

5.1 File and Record Requirements

Each line of data is equivalent to a single record in the data submission. Each record is made up of distinct fields of information. A record must not be dependent on another record or field for data. Valid data must be entered in each record. Listed below are the ASCII file and record specifications for entering each record of data in its specified file.

- Do not enter the column heading or field name in the ASCII file. This information is not part of the file. Only authorized codes from the valid value list should be keyed into fields requiring valid values.

- Do not create left margins. In each file, every record starts in the farthest left position of "position number 1". If entering the data via a spreadsheet, set the left margin at zero and the right margin at the end position of the last field of the record. The first record or row in the file, and every subsequent record or row must contain valid data. Blank or empty rows (lines) or records are not allowed in ASCII files.

- Every record within a file must be unique. If, for each key field, a record's data appears exactly the same in another record, these two records are considered to be duplicate records. Do not enter data that refers to another record.

Data formats (attributes) must be strictly followed. Valid data must be entered for every field. Do not add, delete or otherwise omit any fields.

Data fields in a file are limited to a certain number of spaces and the data must be in a specific position. Character data must be left-justified within a field. Numeric data must be right-justified within a field.   If the information to be entered is shorter than the field width, insert blank spaces in the field's remaining positions. If the data to be entered is longer than the allowed field width, the data must be shortened to a unique identifier or significant value.

The start- and end-position numbers indicate the exact character locations where the applicable data must be placed in the file (refer to Table 7, on page 15-26). There are some cases where the field is a single character wide. It, therefore, will have the same start and end position number. The single character of data must be put in that position of the record.

5.2 Diskette Submittal

Data disks are submitted on a per laboratory report basis. Hence, as a laboratory report is completed and converted into the electronic deliverable format, it then must be processed for submittal. The submittal process is outlined below:

- Copy files onto an MS-DOS formatted disk.

- Check the consistency of the file formats by loading them into the Electronic Deliverable Consistency Checker (EDCC). The EDCC is a stand-alone software that checks each data submission for the proper EDF format, warns the user of potential formatting problems, and reports the results of the consistency check.

- The EDF deliverable that does not pass the EDCC will not be accepted.

- Each of the five files must be named exactly as specified in this document (i.e., NPDLSAMP.TXT, NPDLTEST.TXT, NPDLRES.TXT, NPDLQC.TXT, and NPDLCL.TXT).

- Try to place all five files associated with one laboratory report on a single diskette. If the files are too large, compress each file individually with PKZIP 2.04g and attempt to place all of the compressed files onto one diskette.

- Note, if the files are compressed, they must be delivered with a "ZIP" file extension. The files then would be named NPDLSAMP.ZIP, NPDLTEST.ZIP, NPDLRES.ZIP, etc.

- Use multiple diskettes only if all five of the compressed files will not fit on a single diskette.

- Each diskette must be externally labeled with the Laboratory name, date, the Report Number, the Work Order Number, and the names of the files supplied on that specific diskette.

- Write-protect all disks before submittal.

- Provide a hard copy of the laboratory report.

- Include an EDCC Error Report with each submittal.

FIELD DEFINITIONS AND ATTRIBUTES

ANADATE (Analysis Date) - The date a sample or extract is analyzed. The date format for this field is YYYYMMDD. (D8)

ANMCODE (Analytical Method) - The code identifying the method of analysis by which the sample was analyzed. Refer to Section 4.1 for field guidelines and description and Appendix A for valid value codes. (C7)

APPRVD (Approved By) - Initials of the individual approving the laboratory report. (C3)

BASIS (Basis) - Identifies the basis (W = wet, D = dry, F = field filtered, L = lab filtered, or N = not filtered) on which analytical results are reported for all matrices. This field is also used to indicate leaching procedures. Refer to page 15-9 for codes. (C1)

CLCODE (Control Limit Code) - The code identifying the type of quality control limits. *CLCODE*s are assigned based upon the type of quality assurance sample as well as the source of validation criteria. Refer to Section 4.2 for field guidelines and descriptions and Appendix A for valid value codes. (C6)

CLREVDATE (Control Limit Revision Date) - The date that the control limit is established. The format of this field is YYYYMMDD. (D8)

CNTSHNUM (Control Sheet Number) - COE-assigned administration number. (C12)

COCNUM (Chain-of-Custody Number) - The number assigned to the chain-of-custody. (C16)

DILFAC (Dilution Factor) - Numeric factor indicating level of sample dilution. (N10,3)

EXLABLOT (Extraction QC Lot Number) - An obsolete field into which spaces need to be entered. (C10)

EXMCODE (Extraction Method) - A code showing the method that was used to extract or prepare a sample for analysis. Refer to Section 4.3 for field guidelines and restrictions and Appendix A for valid value codes. (C7)

EXTDATE (Extraction Date) - The date a sample is extracted or prepared for analysis. The format of this field is YYYYMMDD. (D8)

EXPECTED - (Expected Value) - The target result for a quality control sample. Samples that are reported in units of PERCENT have expected values of 100. (N14,4)

LABCODE (Laboratory) - A code identifying the analytical laboratory. Refer to Appendix A for valid value code descriptions. (C4)

LABDL (Detection Limit) - The laboratory-established method detection limit (i.e., the minimum detectable concentration of an analyte that can be measured and reported with 99% confidence that the analyte concentration is different from a blank for a given matrix). This limit must be adjusted for dilution. The *LABDL* field may or may not contain the same value as the *REPDL* field, depending on the reporting format of the individual laboratory. Regardless, the laboratory must enter a value into *LABDL* unless the parameter is a tentatively identified compound, or has units of PERCENT. (N9,4)

LABLOTCTL (Lab QC Lot Number) - A unique number identifying an autonomous batch or group of environmental samples prepared together, and sharing the same quality control within the same time period. This group is equivalent to the EPA SW-846 concept of a "Quality Assurance Batch". (C10)

LABQCID (Laboratory QC Sample ID) - The laboratory-assigned QC sample ID number. All quality assurance samples are entered into this field, including laboratory-generated samples (blanks and laboratory control samples), as well as environmental samples that have been altered by the laboratory (matrix spike). This field requires unique laboratory-assigned sample identifiers. (C12)

LABREFID (Laboratory Reference Sample ID) - The reference sample is the sample upon which the quality control sample is referenced in order to calculate the quality assurance result. A reference sample is used in conjunction with a quality control sample (*LABQCID*) to determine precision and accuracy. (C12)

LAB_REPNO (Laboratory Report Number) - Laboratory-assigned number uniquely identifying the hard copy report. (C20)

LABSAMPID (Lab Sample ID) - The unique identification number assigned to a sample by the laboratory doing the testing. (C12)

LNOTE (Laboratory Notes) - These are data qualifiers describing various observations and difficulties with the analysis associated with a test or analyte. Multiple data qualifiers may be entered into this field separated by commas. For laboratory data without qualifiers, spaces may be entered into this field. Refer to Appendix A for the valid value code descriptions. (C20)

LOCID (Location Identification) - This is a unique identifier assigned to a specific point (location) where measurements or samples are taken. (C10)

LOGCODE (Logging Company) - A code identifying the company responsible for the collection of samples or the performing of field tests (environmental sampling information). Refer to Appendix A for valid value code descriptions. (C4)

LOGDATE (Log Date) - This is the date that a sample is collected. The format of this field is YYYYMMDD. (D8)

LOGTIME (Sample Collection Time) - The time that an environmental sample is collected. The format of this field is a 24-hour military clock HHMM. (C4)

LOWERCL (Lower Control Limit) - The lower limit of a quality control acceptance criterion. Enter spaces into this field for relative percent difference. (N4)

MATRIX (Matrix) - A code identifying a sample's medium or makeup (e.g., soil, water, air, etc.). Refer to Section 4.4 for field guidelines and descriptions, Appendix A for valid value codes, or Table 6 (page 15-25) for further clarification. (C2)

MODPARLIST (Modified Parameter List) - A field indicating whether the compound list of a method has been amended. If the parameter list is modified, enter T (True) into this field. A modification indicates the deletion of compounds analyzed within a method, as listed in SW-846. (L1)

NPDLWO (Work Order Number) - Administrative number assigned by the COE. (C7)

PARLABEL (Parameter Label) - The parameter label is the code assigned to a measurement parameter. The code is generally a common acronym representing the parameter or analyte. The *PARLABEL* is used in the database instead of the full analyte name to reduce the error inherent in transferring large names with numbers, commas and spaces. Refer to Appendix A for valid value codes. (C12)

PARUN (Parameter Uncertainty) - The analytical uncertainty associated with a laboratory result. This field is present only for radiochemical results. For all other analytes enter a zero. (N12,4)

PARVAL (Parameter Value) - This field represents the actual analytical value for a compound or analyte. It is the result generated after a sample has been analyzed or a test performed. For parameter results not calculated due to multiple runs, or if the analyte is below the *LABDL*, enter a zero into this field. (N14,4)

PARVQ (Parameter Value Qualifier) - A code qualifying the analytical result. The parameter value qualifier is designed to describe to what the analytical value is equivalent, (i.e., not detected, equals to, or not reported). These codes also identify TICs and surrogates. Refer to Section 4.5 for field guidelines and descriptions and Appendix A for valid value codes. (C2)

PRESCODE (Preservative Added Code) - This is the code identifying the type of chemical preservative added to the sample. This code only applies to the chemical additives--holding temperature and container selection is assumed to be within EPA guidelines, unless otherwise identified in the *LNOTE* field. More than one *PRESCODE* may be entered into this field. Use commas to separate multiple code entries. If the sample is not chemically preserved, enter spaces into this field. Refer to Appendix A for valid value code descriptions. (C15)

PROJNAME (Corps of Engineers Project Name) - COE-assigned project name. (C25)

PVCCODE (PVC Code) - This allows the coding of Gas Chromatography or Gas Chromatography/Mass Spectroscopy results to show whether the reported result was obtained from a primary or a confirmatory analysis. Methods or analytes not requiring confirmation and requiring only one analysis run, should be reported with the *PVCCODE* of PR. Refer to Section 4.6 for field guidelines and descriptions and Appendix A for valid value codes. (C2)

QCCODE (Quality Control Code) - A code identifying the sample type, i.e., field samples or laboratory-generated quality control samples. Refer to Section 4.7 for field guidelines and description, Appendix A for valid value codes, or Table 6 (page 15-25) for further clarification. (C3)

RECDATE (Date Laboratory Received Sample) - Date that the laboratory physically takes custody of the sample. The format of this field is YYYYMMDD. (D8)

REP_DATE (Report Date) - Date that the laboratory generates the hard copy report. The format for this field is YYYYMMDD. (D8)

REPDL (Reported Detection Limit) - The detection limit reported by the laboratory to determine whether a parameter is detectable. (N9,4)

REPDLVQ (Reported Laboratory Detection Limit Qualifier) - A qualifier used to define the type of detection limit that the laboratory is reporting, (i.e., practical quantitation limits, instrument detection limits, etc.). Refer to Appendix A for valid value codes. (C3)

RT (Retention Time) - Retention time of a TIC. It is reported in minutes. (N7,2)

RUN_NUMBER (Run Number) - This field permits the numerical coding of multiple or repeat analyses of a sample (one *LABSAMPID*) by the same analytical method. (N2)

SAMPID (Field-Assigned Sample Number) - The number assigned during sample collection in the field. (C25)

SRM (Standard Reference Material) - Code identifying source of reference material for calibration standard confirmation. Refer to Appendix A for valid value code descriptions. (C12)

SUB (Subcontracted) - Field identifying the subcontract laboratory. (C4)

UPPERCL (Upper Control Limit) - The upper limit of a quality control acceptance criterion. Enter relative percent difference and percent difference limits into the *UPPERCL*. (N4)

UNITS (Units) - The units of measure used to report a result (e.g., for soil or for water). Refer to Section 4.8 for field guidelines and descriptions and Appendix A for valid value codes. (C10)

TABLE 1. NPDLSAMP FILE INFORMATION

FIELD NAME	VVL	DEFINITION
LOCID		**LOCATION (C10) - The location from which the sample is collected.**
LOGDATE		**SAMPLE COLLECTION DATE (D8) - The date that the sample is collected.**
LOGTIME		**SAMPLE COLLECTION TIME (C4) - The time that the sample is collected.**
LOGCODE	VVL	**SAMPLE COLLECTION COMPANY (C4) - The company that collected the sample or performed the field test.**
SAMPID		**FIELD-ASSIGNED SAMPLE NUMBER (C25) - The number assigned to the sample at the time of collection.**
MATRIX	VVL	**MATRIX (C2) - The medium or make-up of the sample.**
PROJNAME		**PROJECT NAME (C25) - COE-assigned project name.**
NPDLWO		**WORK ORDER NUMBER (C7) - COE-assigned administrative number.**
CNTSHNUM		**CONTROL SHEET NUMBER (C12) - An administrative number assigned by the COE.**
LABCODE	VVL	**LABORATORY (C4) - The code identifying the laboratory receiving the sample.**

TABLE 2. NPDLTEST FILE INFORMATION

FIELD NAME	VVL	DEFINITION
LOCID		LOCATION (C10) - The location from which the sample is collected.
LOGDATE		SAMPLE COLLECTION DATE (D8) - The date that the sample is collected.
LOGTIME		SAMPLE COLLECTION TIME (C4) - The time that the sample is collected.
LOGCODE	VVL	SAMPLE COLLECTION COMPANY (C4) - The company that collected the sample or performed the field test.
SAMPID		FIELD-ASSIGNED SAMPLE NUMBER (C25) - The number assigned to the sample at the time of collection.
MATRIX	VVL	MATRIX (C2) - The medium or make-up of the sample.
LABCODE	VVL	LABORATORY (C4) - The code identifying the laboratory receiving the sample.
LABSAMPID		LABORATORY SAMPLE IDENTIFICATION (C12) - The unique identification number assigned to the sample by the laboratory.
QCCODE	VVL	QUALITY CONTROL CODE (C3) - The code identifying laboratory-generated quality control samples. __All__ samples require a QCCODE.
ANMCODE	VVL	ANALYTICAL METHOD CODE (C7) - The code identifying the analytical method of analysis.
MODPARLIST		MODIFIED PARAMETER LIST (L1) - A database field indicating whether the parameter list of an analytical method has been modified.
EXMCODE	VVL	EXTRACTION METHOD CODE (C7) - The code identifying the extraction or digestion method used during sample preparation.
LABLOTCTL		LABORATORY CONTROL NUMBER (C10) - A number identifying a group of samples prepared together, sharing the same quality assurance information.
EXLABLOT		EXTRACTION LABORATORY LOT NUMBER - obsolete field.
ANADATE		ANALYSIS DATE (D8) - The date the sample (aliquot, extract, digest and/or leachate) is analyzed.
EXTDATE		EXTRACTION DATE (D8) - The date the sample is prepared or extracted.
RUN_NUMBER		RUN_NUMBER (N2) - The numeric code distinguishing multiple or repeat analysis of a sample (one *SAMPID*) by the same method.
RECDATE		RECEIVED DATE (D8) - The date that the laboratory physically assumes custody of the sample.
COCNUM		CHAIN-OF-CUSTODY NUMBER (C16) - The number assigned to the chain-of-custody.
BASIS	VVL	BASIS (C1) - Wet or Dry (Basis for Soil Samples). This field is also used to indicate filtration and leaching procedures.
PRESCODE	VVL	PRESERVATIVE CODE (C15) - The code identifying the type of preservative added to the sample.
SUB	VVL	SUBCONTRACTED LABORATORY (C4) - The *LABCODE* of the subcontracted laboratory.
REP_DATE		REPORT DATE (D8) - The date of the laboratory report.

TABLE 2. NPDLTEST FILE INFORMATION (CONTINUED)

LAB_REPNO		**LABORATORY REPORT NUMBER (C20) - The laboratory-assigned number uniquely identifying the hard copy report.**
APPRVD		**APPROVED BY (C3) - The initials of the individual approving the laboratory report.**
LNOTE	VVL	**LABORATORY NOTES (C20) - Analytical notes providing descriptive information.**

TABLE 3. NPDLRES FILE INFORMATION

FIELD NAME	VVL	DEFINITION
MATRIX	VVL	**MATRIX (C2) - The medium or make-up of the sample.**
LABCODE	VVL	**LABORATORY (C4) - The code identifying the laboratory receiving the sample.**
LABSAMPID		**LABORATORY SAMPLE IDENTIFICATION (C12) - The identification number assigned to a sample by the laboratory performing the analyses.**
QCCODE	VVL	**QUALITY CONTROL CODE (C3) - The code identifying laboratory-generated quality control samples.**
ANMCODE	VVL	**ANALYTICAL METHOD CODE (C7) - The code identifying the analytical method of analysis.**
EXMCODE	VVL	**EXTRACTION METHOD CODE (C7) - The code identifying the extraction or digestion method.**
PVCCODE	VVL	**PRIMARY VALUE CODE (C2) - The code identifying whether a sample result is a primary or a confirmatory value.**
ANADATE		**ANALYSIS DATE (D8) - The date the sample (aliquot, extract, digest and/or leachate) is analyzed.**
RUN_NUMBER		**RUN NUMBER (N2) - The numeric code distinguishing multiple or repeat analysis of a sample by the same method.**
PARLABEL	VVL	**PARAMETER LABEL (C12) - The parameter label associated with a given parameter.**
PARVAL		**PARAMETER VALUE (N14,4) - The analytical value for a compound or analyte.**
PARVQ	VVL	**PARAMETER VALUE QUALIFIER (C2) - A code for qualifying analytical results (i.e., greater than, equal to, etc.).**
LABDL		**METHOD DETECTION LIMIT (N9,4) - The laboratory-established method detection limit.**
REPDL		**REPORTED DETECTION LIMIT (N9,4) - The detection limit reported by the laboratory to determine whether a parameter is detectable.**
REPDLVQ	VVL	**REPORTED DETECTION LIMIT QUALIFIER (C3) - A code identifying the type of reporting limit (i.e., practical quantitation limit, instrument detection limit, etc.).**
PARUN		**PARAMETER UNCERTAINTY (N12,4) - The uncertainty associated with a test result.**
UNITS	VVL	**UNITS (C10) - The units of measure used to report a result.**
RT		**RETENTION TIME (N7,2) - The retention time of a tentatively identified compound.**
DILFAC		**DILUTION FACTOR (N10,3) - Numeric factor indicating level of sample dilution.**
CLREVDATE		**CONTROL LIMIT REVISION DATE (D8) - The date the control limit is established.**
SRM	VVL	**STANDARD REFERENCE MATERIAL (C12) - A code identifying the source of the reference material for the calibration method.**
LNOTE	VVL	**LABORATORY NOTES (C20) - Analytical notes providing descriptive information.**

TABLE 4. NPDLQC FILE INFORMATION

FIELD NAME	VVL	DEFINITION
MATRIX	VVL	MATRIX (C2) - The medium or make-up of the sample.
LABCODE	VVL	LABORATORY (C4) - The code identifying the laboratory receiving the sample.
LABLOTCL		LABORATORY CONTROL NUMBER (C10) - A unique number identifying a group of samples prepared together, sharing the same quality assurance information.
ANMCODE	VVL	ANALYTICAL METHOD CODE (C7) - The code identifying the analytical method used to perform the analysis.
PARLABEL	VVL	PARAMETER CODE (C12) - The code assigned to the measurement parameter.
OCCODE	VVL	QUALITY CONTROL CODE (C3) - The code identifying laboratory-generated quality control samples.
LABQCID		LABORATORY QUALITY CONTROL SAMPLE IDENTIFICATION (C12) - The laboratory-assigned sample identification number for a quality control sample, e.g., MS/MSD, LCS/LCSD. This number is equivalent to the *LABSAMPID*.
LABREFID		LABORATORY REFERENCE IDENTIFICATION (C12) - The laboratory-assigned reference sample identification number.
EXPECTED		EXPECTED PARAMETER VALUE (N14,4) - The target result for a quality control sample or surrogate spike.
UNITS	VVL	UNITS OF MEASURE (C10) - Units of measure used to report a result.

TABLE 5. NPDLCL FILE INFORMATION

FIELD NAME	VVL	DEFINITION
LABCODE	VVL	**LABORATORY (C4) - The code identifying the laboratory performing the analysis.**
MATRIX	VVL	**MATRIX (C2) - The medium or make-up of the sample.**
ANMCODE	VVL	**ANALYTICAL METHOD CODE (C7) - The code identifying the analytical method of analysis.**
EXMCODE	VVL	**EXTRACTION METHOD CODE (C7) - The code identifying the extraction method of analysis.**
PARLABEL	VVL	**PARAMETER CODE (C12) - The code assigned to the measurement parameter.**
CLREVDATE		**CONTROL LIMIT REVISION DATE (D8) - The date a control limit is established.**
CLCODE	VVL	**CONTROL LIMIT CODE (C6) - The code identifying the type of quality control limit.**
UPPERCL		**UPPER CONTROL LIMIT (N4) - The upper control limit of a quality control criterion.**
LOWERCL		**LOWER CONTROL LIMIT (N4) - The lower control limit of a quality control criterion.**

TABLE 6.   VALUES USED FOR ENTRY OF QUALITY CONTROL SAMPLES

QC Sample Type	Matrix	QCCode	Expected
Blank Spike	xQ	BS1	[Amount added]
Blank Spike Duplicate	xQ	BD1	[Amount added]
Lab Blank	xQ	LB1	0
Lab Matrix Spike	[Actual]	MS1	[Amount added + amount in original sample]
Lab Matrix Spike Duplicate	[Actual]	SD1	[Amount added + amount in original duplicate sample]
Lab Replicate	[Actual]	LR1	[Concentration amount in the original sample]
Reference Material	xQ	RM1	[Amount present in reference material]
Reference Material Duplicate	xQ	KD1	[Amount present in reference material duplicate]
Continuing Calibration	xQ	CC1	[Amount added]
Initial Calibration	xQ	IC1	[Amount added]

Note: x - Use of WQ, SQ, AQ, or TQ for aqueous, solid, gaseous, and tissue quality control samples is recommended for data that will be converted from EDF to IRPIMS, but is not required.

TABLE 7. DATA FIELD POSITIONS

POSITION	FIELD	START/END
NPDLSAMP	LOCID	1--10
	LOGDATE	11--18
	LOGTIME	19--22
	LOGCODE	23--26
	SAMPID	27--51
	MATRIX	52--53
	PROJNAME	54--78
	NPDLWO	79--85
	CNTSHNUM	86--97
	LABCODE	98--101
NPDLTEST	LOCID	1--10
	LOGDATE	11--18
	LOGTIME	19--22
	LOGCODE	23--26
	SAMPID	27--51
	MATRIX	52--53
	LABCODE	54--57
	LABSAMPID	58--69
	QCCODE	70--72
	ANMCODE	73--79
	MODPARLIST	80--80
	EXMCODE	81--87
	LABLOTCTL	88--97
	EXLABLOT	98--107 (obsolete)
	ANADATE	108--115
	EXTDATE	116--123
	RUN_NUMBER	124--125
	RECDATE	126--133
	COCNUM	134--149
	BASIS	150--150
	PRESCODE	151--165
	SUB	166--169
	REP_DATE	170--177
	LAB_REPNO	178--197
	APPRVD	198--200
	LNOTE	201--220

TABLE 7. DATA FIELD POSITIONS (continued)

POSITION	FIELD	START/END
NPDLRES	**MATRIX**	**1--2**
	LABCODE	**3--6**
	LABSAMPID	**7--18**
	QCCODE	**19--21**
	ANMCODE	**22--28**
	EXMCODE	**29--35**
	PVCCODE	**36--37**
	ANADATE	**38--45**
	RUN_NUMBER	**46--47**
	PARLABEL	**48--59**
	PARVAL	**60--73**
	PARVQ	**74--75**
	LABDL	**76--84**
	REPDL	**85--93**
	REPDLVQ	**94--96**
	PARUN	**97--108**
	UNITS	**109--118**
	RT	**119--125**
	DILFAC	**126--135**
	CLREVDATE	**136--143**
	SRM	**144--155**
	LNOTE	**156--175**
NPDLQC	**MATRIX**	**1--2**
	LABCODE	**3--6**
	LABLOTCTL	**7--16**
	ANMCODE	**17--23**
	PARLABEL	**24--35**
	QCCODE	**36--38**
	LABQCID	**39--50**
	LABREFID	**51--62**
	EXPECTED	**63--76**
	UNITS	**77--86**
NPDLCL	**LABCODE**	**1--4**
	MATRIX	**5--6**
	ANMCODE	**7--13**
	EXMCODE	**14--20**
	PARLABEL	**21--32**
	CLREVDATE	**33--40**
	CLCODE	**41--46**
	UPPERCL	**47--50**
	LOWERCL	**51--54**

APPENDIX B

METHPAR

ANMCODE	CODE	NAME
A2120B	COLOR	Color
A2150B	ODOR	Odor
A2330B	LAI	Langelier Index
A2510B	SC	Specific Conductance
A2520B	SALINITY	Salinity
A2540G	TFS	Total Fixed Solids
A2580B	REDOX	Oxidation-Reduction Potential
A4500NH	NH3N	Nitrogen, Ammonia (as N)
A5550B	TAL	Tannin and Lignin
A9215D	HPC	Heterotrophic Plate Count
A9222B	COLIFORM	Coliform, Total
A9240D	SRB	Sulfate Reducing Bacteria
A9260D	SALMONELLA	Salmonella
AK101	GRO	Gasoline Range Organics
AK102	DRO	Diesel Range Organics
AK103	RRO	Residual Range Organics
AKD	DRO	Diesel Range Organics
AKD	PHENO	o-Terphenyl
AKG	GRO	Gasoline Range Organics
AKG	TFBZME	Trifluorotoluene
CENPD	BUNKERC	Fuel Oil No. 6 (BUNKER C)
CENPD	DIESEL2	Diesel Fuel #2
CENPD	GASOLINE	Gasoline
CENPD	JETFUEL	Jet Fuel
CENPD	KEROSENE	Kerosene
CENPD	OILM	Oil, Misc.
CENPD	OTHERS	Unidentified light- and/or medium-weight fuels
D1945	C2H4	Ethene
D1945	C2H6	Ethane
D1945	CH4	Methane
D2015	HHV	High Heat Value
D240	HHV	High Heat Value
E150.1	PH	pH
E160.1	TDS	Total Dissolved Solids
E160.2	SS	Suspended Solids
E160.3	TSO	Total Solids
E160.4	TVS	Total Volatile Solids
E160.5	SETMAT	Settleable Matter
E170.1	TEMP	Temperature
E180.1	TURB	Turbidity
E200.7	AG	Silver
E200.7	AL	Aluminum
E200.7	AS	Arsenic
E200.7	B	Boron
E200.7	BA	Barium
E200.7	BE	Beryllium
E200.7	CA	Calcium
E200.7	CD	Cadmium
E200.7	CO	Cobalt

E200.7	CR	Chromium
E200.7	CU	Copper
E200.7	FE	Iron
E200.7	K	Potassium
E200.7	MG	Magnesium
E200.7	MN	Manganese
E200.7	MO	Molybdenum
E200.7	NA	Sodium
E200.7	NI	Nickel
E200.7	PB	Lead
E200.7	SB	Antimony
E200.7	SE	Selenium
E200.7	SI	Silicon
E200.7	TL	Thallium
E200.7	V	Vanadium
E200.7	ZN	Zinc
E202.1	AL	Aluminum
E202.2	AL	Aluminum
E204.1	SB	Antimony
E204.2	SB	Antimony
E206.2	AS	Arsenic
E206.3	AS	Arsenic
E206.4	AS	Arsenic
E208.1	BA	Barium
E208.2	BA	Barium
E210.1	BE	Beryllium
E210.2	BE	Beryllium
E212.3	B	Boron
E213.1	CD	Cadmium
E213.2	CD	Cadmium
E215.1	CA	Calcium
E215.2	CA	Calcium
E218.1	CR	Chromium
E218.2	CR	Chromium
E218.3	CR	Chromium
E218.4	CR6	Chromium, Hexavalent
E218.5	CR6	Chromium, Hexavalent
E219.1	CO	Cobalt
E219.2	CO	Cobalt
E220.1	CU	Copper
E220.2	CU	Copper
E231.1	AU	Gold
E231.2	AU	Gold
E235.1	IR	Iridium
E235.2	IR	Iridium
E236.1	FE	Iron
E236.2	FE	Iron
E239.1	PB	Lead
E239.2	PB	Lead
E242.1	MG	Magnesium
E243.1	MN	Manganese

E243.2	MN	Manganese
E245.1	HG	Mercury
E245.2	HG	Mercury
E245.5	HG	Mercury
E246.1	MO	Molybdenum
E246.2	MO	Molybdenum
E249.1	NI	Nickel
E249.2	NI	Nickel
E252.1	OS	Osmium
E252.2	OS	Osmium
E253.1	PL	Palladium
E253.2	PL	Palladium
E255.1	PT	Platinum
E255.2	PT	Platinum
E258.1	K	Potassium
E265.1	RH	Rhodium
E265.2	RH	Rhodium
E267.1	RU	Ruthenium
E267.2	RU	Ruthenium
E270.2	SE	Selenium
E270.3	SE	Selenium
E272.1	AG	Silver
E272.2	AG	Silver
E273.1	NA	Sodium
E273.2	NA	Sodium
E279.1	TL	Thallium
E279.2	TL	Thallium
E282.1	SN	Tin
E282.2	SN	Tin
E283.1	TI	Titanium
E283.2	TI	Titanium
E286.1	V	Vanadium
E286.2	V	Vanadium
E289.1	ZN	Zinc
E289.2	ZN	Zinc
E305.1	ACID	Acidity , Total
E305.2	ACID	Acidity , Total
E310.1	ALK	Alkalinity, Total
E310.2	ALK	Alkalinity, Total
E320.1	BR	Bromide
E325.1	CL	Chloride
E325.2	CL	Chloride
E325.3	CL	Chloride
E340.1	F	Fluoride
E340.2	F	Fluoride
E340.3	F	Fluoride
E345.1	I	Iodide (As I)
E350.1	NH3N	Nitrogen, Ammonia (as N)
E350.2	NH3N	Nitrogen, Ammonia (as N)
E350.3	NH3N	Nitrogen, Ammonia (as N)
E351.1	KN	Nitrogen, Kjeldahl, Total

E351.2	KN	Nitrogen, Kjeldahl, Total
E351.3	KN	Nitrogen, Kjeldahl, Total
E351.4	KN	Nitrogen, Kjeldahl, Total
E352.1	NO3N	Nitrogen, Nitrate (as N)
E353.1	NO3NO2N	Nitrogen, Nitrate-Nitrite
E353.2	NO3NO2N	Nitrogen, Nitrate-Nitrite
E353.3	NO3NO2N	Nitrogen, Nitrate-Nitrite
E354.1	NO2N	Nitrogen, Nitrite
E360.1	DO	Oxygen, Dissolved
E360.2	DO	Oxygen, Dissolved
E365.1	P	Phosphorus, Total (as P)
E365.2	P	Phosphorus, Total (as P)
E365.3	P	Phosphorus, Total (as P)
E365.3M	PO4RS	Phosphorus, Reactive Soluble
E365.4	P	Phosphorus, Total (as P)
E370.1	SIL	Silica
E375.1	SO4	Sulfate
E375.2	SO4	Sulfate
E375.3	SO4	Sulfate
E375.4	SO4	Sulfate
E376.1	S	Sulfide
E376.2	S	Sulfide
E377.1	SO3	Sulfite
E405.1	BOD5	Biologic Oxygen Demand, Five day
E410.1	COD	Chemical Oxygen Demand
E410.2	COD	Chemical Oxygen Demand
E413.1	OILGREASE	Oil and Grease
E418.1	PHC	Petroleum Hydrocarbons (TPH)
E420.1	TOTPHEN	Phenolics, Total Recoverable
E504	DBCP	1,2-Dibromo-3-chloropropane
E504	EDB	1,2-Dibromoethane
E524.2	11DCPROPN	1,1-Dichloropropanone
E524.2	ACE	Acetone
E524.2	ACRN	Acrylamide
E524.2	BDCME	Bromodichloromethane
E524.2	BR4FBZ	4-Bromofluorobenzene
E524.2	BRBZ	Bromobenzene
E524.2	BRCLME	Bromochloromethane
E524.2	BRME	Bromomethane
E524.2	BTBZN	n-Butylbenzene
E524.2	BTBZS	sec-Butylbenzene
E524.2	BTBZT	tert-Butylbenzene
E524.2	BTCL	1-Chlorobutane
E524.2	BZ	Benzene
E524.2	BZME	Toluene
E524.2	BZMED8	Toluene-d8
E524.2	CDS	Carbon disulfide
E524.2	CLAN	Chloroacetonitrile
E524.2	CLBZ	Chlorobenzene
E524.2	CLBZME2	2-Chlorotoluene
E524.2	CLBZME4	4-Chlorotoluene

E524.2	CLEA	Chloroethane
E524.2	CLME	Chloromethane
E524.2	CLPE3	Allyl chloride
E524.2	CTCL	Carbon tetrachloride
E524.2	CYMP	4-Isopropyltoluene
E524.2	DBCME	Dibromochloromethane
E524.2	DBCP	1,2-Dibromo-3-chloropropane
E524.2	DBMA	Dibromomethane
E524.2	DCA11	1,1-Dichloroethane
E524.2	DCA12	1,2-Dichloroethane
E524.2	DCBE14T	trans-1,4-Dichloro-2-butene
E524.2	DCBZ12	1,2-Dichlorobenzene
E524.2	DCBZ13	1,3-Dichlorobenzene
E524.2	DCBZ14	1,4-Dichlorobenzene
E524.2	DCE11	1,1-Dichloroethene
E524.2	DCE12C	cis-1,2-Dichloroethene
E524.2	DCE12T	trans-1,2-Dichloroethene
E524.2	DCP11	1,1-Dichloropropene
E524.2	DCP13C	cis-1,3-Dichloropropene
E524.2	DCP13T	trans-1,3-Dichloropropene
E524.2	DCPA12	1,2-Dichloropropane
E524.2	DCPA13	1,3-Dichloropropane
E524.2	DCPA22	2,2-Dichloropropane
E524.2	EBZ	Ethylbenzene
E524.2	EDB	1,2-Dibromoethane
E524.2	EE	Diethyl ether
E524.2	EMETHACRY	Ethyl methacrylate
E524.2	FC11	Trichlorofluoromethane
E524.2	FC12	Dichlorodifluoromethane
E524.2	HCBU	Hexachlorobutadiene
E524.2	HCLEA	Hexachloroethane
E524.2	HXO2	2-Hexanone
E524.2	IME	Methyl iodide
E524.2	IPBZ	Isopropylbenzene
E524.2	MACRYLATE	Methyl acrylate
E524.2	MEK	2-Butanone
E524.2	METHACRN	Methacrylonitrile
E524.2	MIBK	4-Methyl-2-pentanone
E524.2	MMETHACRY	Methylmethacrylate
E524.2	MTLNCL	Methylene chloride
E524.2	NAPH	Naphthalene
E524.2	NO2BZ	Nitrobenzene
E524.2	NPR2	2-Nitropropane
E524.2	PACN	Propionitrile
E524.2	PBZN	n-Propylbenzene
E524.2	PCA	1,1,2,2-Tetrachloroethane
E524.2	PCE	Tetrachloroethene
E524.2	PCLEA	Pentachloroethane
E524.2	STY	Styrene
E524.2	TBME	Bromoform
E524.2	TBUTMEE	Methyl-t-butyl ether

E524.2	TC1112	1,1,1,2-Tetrachloroethane
E524.2	TCA111	1,1,1-Trichloroethane
E524.2	TCA112	1,1,2-Trichloroethane
E524.2	TCB123	1,2,3-Trichlorobenzene
E524.2	TCB124	1,2,4-Trichlorobenzene
E524.2	TCE	Trichloroethene
E524.2	TCLME	Chloroform
E524.2	TCPR123	1,2,3-Trichloropropane
E524.2	THF	Tetrahydrofuran
E524.2	TMB124	1,2,4-Trimethylbenzene
E524.2	TMB135	1,3,5-Trimethylbenzene
E524.2	VC	Vinyl chloride
E524.2	XYLM	m-Xylene
E524.2	XYLO	o-Xylene
E524.2	XYLP	p-Xylene
E601	BDCME	Bromodichloromethane
E601	BRME	Bromomethane
E601	CEVETH	2-Chloroethyl vinyl ether
E601	CLBZ	Chlorobenzene
E601	CLEA	Chloroethane
E601	CLME	Chloromethane
E601	CTCL	Carbon tetrachloride
E601	DBCME	Dibromochloromethane
E601	DCA11	1,1-Dichloroethane
E601	DCA12	1,2-Dichloroethane
E601	DCBZ12	1,2-Dichlorobenzene
E601	DCBZ13	1,3-Dichlorobenzene
E601	DCBZ14	1,4-Dichlorobenzene
E601	DCE11	1,1-Dichloroethene
E601	DCE12T	trans-1,2-Dichloroethene
E601	DCP13C	cis-1,3-Dichloropropene
E601	DCP13T	trans-1,3-Dichloropropene
E601	DCPA12	1,2-Dichloropropane
E601	FC11	Trichlorofluoromethane
E601	FC12	Dichlorodifluoromethane
E601	MTLNCL	Methylene chloride
E601	PCA	1,1,2,2-Tetrachloroethane
E601	PCE	Tetrachloroethene
E601	TBME	Bromoform
E601	TCA111	1,1,1-Trichloroethane
E601	TCA112	1,1,2-Trichloroethane
E601	TCE	Trichloroethene
E601	TCLME	Chloroform
E601	VC	Vinyl chloride
E602	BZ	Benzene
E602	BZME	Toluene
E602	CLBZ	Chlorobenzene
E602	DCBZ12	1,2-Dichlorobenzene
E602	DCBZ13	1,3-Dichlorobenzene
E602	DCBZ14	1,4-Dichlorobenzene
E602	EBZ	Ethylbenzene

E608	ALDRIN	Aldrin
E608	BHCALPHA	alpha-BHC
E608	BHCBETA	beta-BHC
E608	BHCDELTA	delta-BHC
E608	BHCGAMMA	gamma-BHC (Lindane)
E608	CHLORDANE	Chlordane
E608	CL10BZ2	Decachlorobiphenyl
E608	DDD44	4,4'-DDD
E608	DDE44	4,4'-DDE
E608	DDT44	4,4'-DDT
E608	DIELDRIN	Dieldrin
E608	ENDOSULFANA	Endosulfan I
E608	ENDOSULFANB	Endosulfan II
E608	ENDOSULFANS	Endosulfan sulfate
E608	ENDRIN	Endrin
E608	ENDRINALD	Endrin aldehyde
E608	HEPT-EPOX	Heptachlor epoxide
E608	HEPTACHLOR	Heptachlor
E608	PCB1016	PCB-1016 (Aroclor 1016)
E608	PCB1221	PCB-1221 (Aroclor 1221)
E608	PCB1232	PCB-1232 (Aroclor 1232)
E608	PCB1242	PCB-1242 (Aroclor 1242)
E608	PCB1248	PCB-1248 (Aroclor 1248)
E608	PCB1254	PCB-1254 (Aroclor 1254)
E608	PCB1260	PCB-1260 (Aroclor 1260)
E608	TOXAP	Toxaphene
E608	XYL246CLM	2,4,5,6-Tetrachloro-meta-xylene
E610	ACNP	Acenaphthene
E610	ACNPY	Acenaphthylene
E610	ANTH	Anthracene
E610	BZAA	Benzo(a)anthracene
E610	BZAP	Benzo(a)pyrene
E610	BZBF	Benzo(b)fluoranthene
E610	BZGHIP	Benzo(g,h,i)perylene
E610	BZKF	Benzo(k)fluoranthene
E610	CHRYSENE	Chrysene
E610	DBAHA	Dibenzo(a,h)anthracene
E610	FL	Fluorene
E610	FLA	Fluoranthene
E610	INP123	Indeno(1,2,3-cd)pyrene
E610	NAPH	Naphthalene
E610	PHAN	Phenanthrene
E610	PYR	Pyrene
E614	AZIPM	Azinphos methyl
E614	DEMETON	Demeton, -O and -S
E614	DIAZ	Diazinon
E614	DISUL	Disulfoton
E614	ETHION	Ethion
E614	MALA	Malathion
E614	PARAE	Parathion ethyl
E614	PARAM	Parathion methyl

E615	245T	2,4,5-T
E615	24D	2,4-D
E615	24DB	2,4-DB
E615	DALAPON	Dalapon
E615	DCPROP	Dichlorprop
E615	DICAMBA	Dicamba
E615	DINOSEB	Dinoseb
E615	MCPA	MCPA
E615	MCPP	MCPP
E615	SILVEX	2,4,5-TP (Silvex)
E625	ACNP	Acenaphthene
E625	ACNPY	Acenaphthylene
E625	ALDRIN	Aldrin
E625	ANTH	Anthracene
E625	BBP	Benzyl butyl phthalate
E625	BECEM	bis-(2-chloroethoxy)methane
E625	BHCBETA	beta-BHC
E625	BHCGAMMA	gamma-BHC (Lindane)
E625	BIS2CEE	bis-(2-chloroethyl)ether
E625	BIS2CIE	Bis(2-chloroisopropyl)ether
E625	BIS2EHP	bis-(2-ethylhexyl)phthalate
E625	BPPE4	4-Bromophenyl phenyl ether
E625	BZAA	Benzo(a)anthracene
E625	BZAP	Benzo(a)pyrene
E625	BZBF	Benzo(b)fluoranthene
E625	BZD	Benzidine
E625	BZGHIP	Benzo(g,h,i)perylene
E625	BZKF	Benzo(k)fluoranthene
E625	C4M3PH	4-Chloro-3-methyl phenol
E625	CHLORDANE	Chlordane
E625	CHRYSENE	Chrysene
E625	CLPH2	2-Chlorophenol
E625	CNPH2	2-Chloronaphthalene
E625	CPPE4	4-Chlorophenyl phenyl ether
E625	DBAHA	Dibenzo(a,h)anthracene
E625	DBZD33	3,3'-Dichlorobenzidine
E625	DCBZ12	1,2-Dichlorobenzene
E625	DCBZ13	1,3-Dichlorobenzene
E625	DCBZ14	1,4-Dichlorobenzene
E625	DCP24	2,4-Dichlorophenol
E625	DDD44	4,4'-DDD
E625	DDE44	4,4'-DDE
E625	DDT44	4,4'-DDT
E625	DEPH	Diethyl phthalate
E625	DIELDRIN	Dieldrin
E625	DMP24	2,4-Dimethylphenol
E625	DMPH	Dimethyl phthalate
E625	DN46M	2-Methyl-4,6-dinitrophenol
E625	DNBP	Di-n-butyl phthalate
E625	DNOP	Di-n-octyl phthalate
E625	DNP24	2,4-Dinitrophenol

E625	DNT24	2,4-Dinitrotoluene
E625	DNT26	2,6-Dinitrotoluene
E625	ENDOSULFANA	Endosulfan I
E625	ENDOSULFANB	Endosulfan II
E625	ENDOSULFANS	Endosulfan sulfate
E625	ENDRIN	Endrin
E625	ENDRINALD	Endrin aldehyde
E625	FL	Fluorene
E625	FLA	Fluoranthene
E625	HCBU	Hexachlorobutadiene
E625	HCCP	Hexachlorocyclopentadiene
E625	HCLBZ	Hexachlorobenzene
E625	HCLEA	Hexachloroethane
E625	HEPT-EPOX	Heptachlor epoxide
E625	HEPTACHLOR	Heptachlor
E625	INP123	Indeno(1,2,3-cd)pyrene
E625	ISOP	Isophorone
E625	NAPH	Naphthalene
E625	NNSM	n-Nitrosodimethylamine
E625	NNSPH	n-Nitrosodiphenylamine
E625	NNSPR	n-Nitrosodi-n-propylamine
E625	NO2BZ	Nitrobenzene
E625	NO2BZD5	Nitrobenzene-d5
E625	NTPH2	2-Nitrophenol
E625	NTPH4	4-Nitrophenol
E625	PCB1016	PCB-1016 (Aroclor 1016)
E625	PCB1221	PCB-1221 (Aroclor 1221)
E625	PCB1232	PCB-1232 (Aroclor 1232)
E625	PCB1242	PCB-1242 (Aroclor 1242)
E625	PCB1248	PCB-1248 (Aroclor 1248)
E625	PCB1254	PCB-1254 (Aroclor 1254)
E625	PCB1260	PCB-1260 (Aroclor 1260)
E625	PCP	Pentachlorophenol
E625	PH246BR	2,4,6-Tribromophenol
E625	PH2F	2-Fluorophenol
E625	PHAN	Phenanthrene
E625	PHD5	Phenol-d5
E625	PHEN2F	2-Fluorobiphenyl
E625	PHEND14	Terphenyl-d14
E625	PHENOL	Phenol
E625	PYR	Pyrene
E625	TCB124	1,2,4-Trichlorobenzene
E625	TCP246	2,4,6-Trichlorophenol
E625	TOXAP	Toxaphene
M8015	BR4FBZ	4-Bromofluorobenzene
M8015	GRO	Gasoline Range Organics
M8100	DRO	Diesel Range Organics
M8100	PHENO	o-Terphenyl
N0502	DUST	Dust
OHCID	DIESEL2	Diesel Fuel #2
OHCID	GASOLINE	Gasoline

OHCID	OILM	Oil, Misc.
OSCACO3	CACO3	Carbonate as CaCO3
OTPH-D	DIESEL2	Diesel Fuel #2
OTPH-G	GASOLINE	Gasoline
SHEEN	ODB	Oil Degrading Bacteria
SW6010	AG	Silver
SW6010	AL	Aluminum
SW6010	AS	Arsenic
SW6010	B	Boron
SW6010	BA	Barium
SW6010	BE	Beryllium
SW6010	CA	Calcium
SW6010	CD	Cadmium
SW6010	CO	Cobalt
SW6010	CR	Chromium
SW6010	CU	Copper
SW6010	FE	Iron
SW6010	K	Potassium
SW6010	MG	Magnesium
SW6010	MN	Manganese
SW6010	MO	Molybdenum
SW6010	NA	Sodium
SW6010	NI	Nickel
SW6010	PB	Lead
SW6010	SB	Antimony
SW6010	SE	Selenium
SW6010	SI	Silicon
SW6010	TL	Thallium
SW6010	V	Vanadium
SW6010	ZN	Zinc
SW6010A	AG	Silver
SW6010A	AL	Aluminum
SW6010A	AS	Arsenic
SW6010A	BA	Barium
SW6010A	BE	Beryllium
SW6010A	CA	Calcium
SW6010A	CD	Cadmium
SW6010A	CO	Cobalt
SW6010A	CR	Chromium
SW6010A	CU	Copper
SW6010A	FE	Iron
SW6010A	K	Potassium
SW6010A	LI	Lithium
SW6010A	MG	Magnesium
SW6010A	MN	Manganese
SW6010A	MO	Molybdenum
SW6010A	NA	Sodium
SW6010A	NI	Nickel
SW6010A	P	Phosphorus, Total (as P)
SW6010A	PB	Lead
SW6010A	SB	Antimony

SW6010A	SE	Selenium
SW6010A	SR	Strontium
SW6010A	TL	Thallium
SW6010A	V	Vanadium
SW6010A	ZN	Zinc
SW7020	AL	Aluminum
SW7040	SB	Antimony
SW7041	SB	Antimony
SW7060	AS	Arsenic
SW7061A	AS	Arsenic
SW7080	BA	Barium
SW7081	BA	Barium
SW7090	BE	Beryllium
SW7091	BE	Beryllium
SW7130	CD	Cadmium
SW7131	CD	Cadmium
SW7140	CA	Calcium
SW7190	CR	Chromium
SW7191	CR	Chromium
SW7195	CR6	Chromium, Hexavalent
SW7196A	CR6	Chromium, Hexavalent
SW7197	CR6	Chromium, Hexavalent
SW7198	CR6	Chromium, Hexavalent
SW7200	CO	Cobalt
SW7201	CO	Cobalt
SW7210	CU	Copper
SW7211	CU	Copper
SW7380	FE	Iron
SW7381	FE	Iron
SW7420	PB	Lead
SW7421	PB	Lead
SW7430	LI	Lithium
SW7450	MG	Magnesium
SW7460	MN	Manganese
SW7461	MN	Manganese
SW7470	HG	Mercury
SW7471	HG	Mercury
SW7480	MO	Molybdenum
SW7481	MO	Molybdenum
SW7520	NI	Nickel
SW7550	OS	Osmium
SW7610	K	Potassium
SW7740	SE	Selenium
SW7741	SE	Selenium
SW7760A	AG	Silver
SW7761	AG	Silver
SW7770	NA	Sodium
SW7780	SR	Strontium
SW7840	TL	Thallium
SW7841	TL	Thallium
SW7870	SN	Tin

SW7910	V	Vanadium
SW7911	V	Vanadium
SW7950	ZN	Zinc
SW7951	ZN	Zinc
SW8010	BDCME	Bromodichloromethane
SW8010	BECEM	bis-(2-chloroethoxy)methane
SW8010	BIS2CIE	Bis(2-chloroisopropyl)ether
SW8010	BRBZ	Bromobenzene
SW8010	BRME	Bromomethane
SW8010	BZLCL	Chlorotoluene
SW8010	CEVETH	2-Chloroethyl vinyl ether
SW8010	CLACTH	Chloroacetaldehyde
SW8010	CLBZ	Chlorobenzene
SW8010	CLEA	Chloroethane
SW8010	CLHX1	1-Chlorohexane
SW8010	CLME	Chloromethane
SW8010	CLMME	Chloromethylmethyl ether
SW8010	CTCL	Carbon tetrachloride
SW8010	DBCME	Dibromochloromethane
SW8010	DBMA	Dibromomethane
SW8010	DCA11	1,1-Dichloroethane
SW8010	DCA12	1,2-Dichloroethane
SW8010	DCBTA14	1,4-Dichlorobutane
SW8010	DCBZ12	1,2-Dichlorobenzene
SW8010	DCBZ13	1,3-Dichlorobenzene
SW8010	DCBZ14	1,4-Dichlorobenzene
SW8010	DCE11	1,1-Dichloroethene
SW8010	DCE12T	trans-1,2-Dichloroethene
SW8010	DCP13T	trans-1,3-Dichloropropene
SW8010	DCPA12	1,2-Dichloropropane
SW8010	FC11	Trichlorofluoromethane
SW8010	FC12	Dichlorodifluoromethane
SW8010	MTLNCL	Methylene chloride
SW8010	PCA	1,1,2,2-Tetrachloroethane
SW8010	PCE	Tetrachloroethene
SW8010	PR2BRCL	2-Bromo-1-chloropropane
SW8010	TBME	Bromoform
SW8010	TC1112	1,1,1,2-Tetrachloroethane
SW8010	TCA111	1,1,1-Trichloroethane
SW8010	TCA112	1,1,2-Trichloroethane
SW8010	TCE	Trichloroethene
SW8010	TCLME	Chloroform
SW8010	TCPR	Trichloropropane
SW8010	TFBZME	Trifluorotoluene
SW8010	VC	Vinyl chloride
SW8010A	BDCME	Bromodichloromethane
SW8010A	BRBZ	Bromobenzene
SW8010A	BRME	Bromomethane
SW8010A	BZLCL	Chlorotoluene
SW8010A	CEVETH	2-Chloroethyl vinyl ether
SW8010A	CLBZ	Chlorobenzene

SW8010A	CLEA	Chloroethane
SW8010A	CLME	Chloromethane
SW8010A	CTCL	Carbon tetrachloride
SW8010A	DBCME	Dibromochloromethane
SW8010A	DBMA	Dibromomethane
SW8010A	DCA11	1,1-Dichloroethane
SW8010A	DCA12	1,2-Dichloroethane
SW8010A	DCBZ12	1,2-Dichlorobenzene
SW8010A	DCBZ13	1,3-Dichlorobenzene
SW8010A	DCBZ14	1,4-Dichlorobenzene
SW8010A	DCE11	1,1-Dichloroethene
SW8010A	DCE12T	trans-1,2-Dichloroethene
SW8010A	DCP13C	cis-1,3-Dichloropropene
SW8010A	DCP13T	trans-1,3-Dichloropropene
SW8010A	DCPA12	1,2-Dichloropropane
SW8010A	FC11	Trichlorofluoromethane
SW8010A	FC12	Dichlorodifluoromethane
SW8010A	MTLNCL	Methylene chloride
SW8010A	PCA	1,1,2,2-Tetrachloroethane
SW8010A	PCE	Tetrachloroethene
SW8010A	TBME	Bromoform
SW8010A	TC1112	1,1,1,2-Tetrachloroethane
SW8010A	TCA111	1,1,1-Trichloroethane
SW8010A	TCA112	1,1,2-Trichloroethane
SW8010A	TCE	Trichloroethene
SW8010A	TCLME	Chloroform
SW8010A	TCPR123	1,2,3-Trichloropropane
SW8010A	VC	Vinyl chloride
SW8020	BZ	Benzene
SW8020	BZME	Toluene
SW8020	CLBZ	Chlorobenzene
SW8020	DCBZ12	1,2-Dichlorobenzene
SW8020	DCBZ13	1,3-Dichlorobenzene
SW8020	DCBZ14	1,4-Dichlorobenzene
SW8020	EBZ	Ethylbenzene
SW8020	TFBZME	Trifluorotoluene
SW8020	XYLENES	Xylenes
SW8040A	C4M3PH	4-Chloro-3-methyl phenol
SW8040A	CLPH2	2-Chlorophenol
SW8040A	CYHEX2DNP46	2-Cyclohexyl-4,6-dinitrophenol
SW8040A	DCP24	2,4-Dichlorophenol
SW8040A	DCP26	2,6-Dichlorophenol
SW8040A	DINOSEB	Dinoseb
SW8040A	DMP24	2,4-Dimethylphenol
SW8040A	DN46M	2-Methyl-4,6-dinitrophenol
SW8040A	DNP24	2,4-Dinitrophenol
SW8040A	MEPHS	Cresols (methyl phenols)
SW8040A	NTPH2	2-Nitrophenol
SW8040A	NTPH4	4-Nitrophenol
SW8040A	PCP	Pentachlorophenol
SW8040A	PH2F	2-Fluorophenol

SW8040A	PHENOL	Phenol
SW8040A	TCP246	2,4,6-Trichlorophenol
SW8040A	TECLPHS	Tetrachlorophenols
SW8040A	TRICLPHS	Trichlorophenols
SW8060	BBP	Benzyl butyl phthalate
SW8060	BIS2EHP	bis-(2-ethylhexyl)phthalate
SW8060	DEPH	Diethyl phthalate
SW8060	DMPH	Dimethyl phthalate
SW8060	DNBP	Di-n-butyl phthalate
SW8060	DNOP	Di-n-octyl phthalate
SW8080	ALDRIN	Aldrin
SW8080	BHCALPHA	alpha-BHC
SW8080	BHCBETA	beta-BHC
SW8080	BHCDELTA	delta-BHC
SW8080	BHCGAMMA	gamma-BHC (Lindane)
SW8080	CHLORDANE	Chlordane
SW8080	CL10BZ2	Decachlorobiphenyl
SW8080	DDD44	4,4'-DDD
SW8080	DDE44	4,4'-DDE
SW8080	DDT44	4,4'-DDT
SW8080	DIELDRIN	Dieldrin
SW8080	ENDOSULFANA	Endosulfan I
SW8080	ENDOSULFANB	Endosulfan II
SW8080	ENDOSULFANS	Endosulfan sulfate
SW8080	ENDRIN	Endrin
SW8080	ENDRINALD	Endrin aldehyde
SW8080	HEPT-EPOX	Heptachlor epoxide
SW8080	HEPTACHLOR	Heptachlor
SW8080	MTXYCL	Methoxychlor
SW8080	PCB1016	PCB-1016 (Aroclor 1016)
SW8080	PCB1221	PCB-1221 (Aroclor 1221)
SW8080	PCB1232	PCB-1232 (Aroclor 1232)
SW8080	PCB1242	PCB-1242 (Aroclor 1242)
SW8080	PCB1248	PCB-1248 (Aroclor 1248)
SW8080	PCB1254	PCB-1254 (Aroclor 1254)
SW8080	PCB1260	PCB-1260 (Aroclor 1260)
SW8080	TOXAP	Toxaphene
SW8080	XYL246CLM	2,4,5,6-Tetrachloro-meta-xylene
SW8100	ACNP	Acenaphthene
SW8100	ACNPY	Acenaphthylene
SW8100	ANTH	Anthracene
SW8100	BZAA	Benzo(a)anthracene
SW8100	BZAP	Benzo(a)pyrene
SW8100	BZBF	Benzo(b)fluoranthene
SW8100	BZGHIP	Benzo(g,h,i)perylene
SW8100	BZJF	Benzo(j)fluoranthene
SW8100	BZKF	Benzo(k)fluoranthene
SW8100	CHRYSENE	Chrysene
SW8100	DB7HCGCBZ	7H-Dibenzo(c,g)carbazole
SW8100	DBAHA	Dibenzo(a,h)anthracene
SW8100	DBAHACR	Dibenz(a,h)acridine

SW8100	DBAJACR	Dibenz(a,,j)acridine
SW8100	DBZAEP	Dibenzo(a,e)pyrene
SW8100	DBZAHP	Dibenzo(a,h)pyrene
SW8100	DBZAIP	Dibenzo(a,i)pyrene
SW8100	FL	Fluorene
SW8100	FLA	Fluoranthene
SW8100	INP123	Indeno(1,2,3-cd)pyrene
SW8100	MECHLAN3	3-Methylcholanthrene
SW8100	NAPH	Naphthalene
SW8100	PHAN	Phenanthrene
SW8100	PHEN2F	2-Fluorobiphenyl
SW8100	PYR	Pyrene
SW8140	AZIPM	Azinphos methyl
SW8140	CL3NATE	Trichloronate
SW8140	CLPYRIFOS	Chlorpyrifos
SW8140	COUMAPHOS	Coumaphos
SW8140	DEMETONO	Demeton-O
SW8140	DEMETONS	Demeton-S
SW8140	DIAZ	Diazinon
SW8140	DICHLORVOS	Dichlorovos
SW8140	DISUL	Disulfoton
SW8140	DM13NBZ2	1,3-Dimethyl-2-nitrobenzene
SW8140	ETHOPROP	Ethoprop
SW8140	FENSTHION	Fensulfothion
SW8140	FENTHION	Fenthion
SW8140	MERPHOS	Merphos
SW8140	MEVINPHOS	Mevinphos
SW8140	NALED	Naled
SW8140	PARAM	Parathion methyl
SW8140	PHORATE	Phorate
SW8140	RONNEL	Ronnel
SW8140	STIROFOS	Tetrachlorvinphos (Stirophos)
SW8140	SULPROFOS	Bolstar (Sulprofos)
SW8140	TBP	Tributyl phosphate
SW8140	TOKUTHION	Tokuthion (Prothiofos)
SW8140	TPHP	Triphenyl phosphate
SW8141	AZIPM	Azinphos methyl
SW8141	CL3NATE	Trichloronate
SW8141	CLPYRIFOS	Chlorpyrifos
SW8141	COUMAPHOS	Coumaphos
SW8141	DEMETON	Demeton, -O and -S
SW8141	DIAZ	Diazinon
SW8141	DICHLORVOS	Dichlorovos
SW8141	DIMETHAT	Dimethoate
SW8141	DISUL	Disulfoton
SW8141	DM13NBZ2	1,3-Dimethyl-2-nitrobenzene
SW8141	EPN	EPN
SW8141	ETHOPROP	Ethoprop
SW8141	FENSTHION	Fensulfothion
SW8141	FENTHION	Fenthion
SW8141	MALA	Malathion

SW8141	MERPHOS	Merphos
SW8141	MEVINPHOS	Mevinphos
SW8141	MONOCROPHOS	Monocrotophos
SW8141	NALED	Naled
SW8141	PARAE	Parathion ethyl
SW8141	PARAM	Parathion methyl
SW8141	PHORATE	Phorate
SW8141	RONNEL	Ronnel
SW8141	STIROFOS	Tetrachlorvinphos (Stirophos)
SW8141	SULFOTEP	Sulfotep
SW8141	SULPROFOS	Bolstar (Sulprofos)
SW8141	TBP	Tributyl phosphate
SW8141	TEPP	Tetraethyl pyrophosphate
SW8141	TOKUTHION	Tokuthion (Prothiofos)
SW8141	TPHP	Triphenyl phosphate
SW8150	245T	2,4,5-T
SW8150	24D	2,4-D
SW8150	24DB	2,4-DB
SW8150	24DCPHYAA	2,4-Dichlorophenylacetic acid
SW8150	DALAPON	Dalapon
SW8150	DCPROP	Dichlorprop
SW8150	DICAMBA	Dicamba
SW8150	DINOSEB	Dinoseb
SW8150	MCPA	MCPA
SW8150	MCPP	MCPP
SW8150	SILVEX	2,4,5-TP (Silvex)
SW8150A	245T	2,4,5-T
SW8150A	24D	2,4-D
SW8150A	24DB	2,4-DB
SW8150A	24DCPHYAA	2,4-Dichlorophenylacetic acid
SW8150A	DALAPON	Dalapon
SW8150A	DCPROP	Dichlorprop
SW8150A	DICAMBA	Dicamba
SW8150A	DINOSEB	Dinoseb
SW8150A	MCPA	MCPA
SW8150A	MCPP	MCPP
SW8150A	SILVEX	2,4,5-TP (Silvex)
SW8240	ACE	Acetone
SW8240	ACRL	Acrolein
SW8240	ACRN	Acrylamide
SW8240	BDCME	Bromodichloromethane
SW8240	BR4FBZ	4-Bromofluorobenzene
SW8240	BRME	Bromomethane
SW8240	BZ	Benzene
SW8240	BZME	Toluene
SW8240	BZMED8	Toluene-d8
SW8240	CDS	Carbon disulfide
SW8240	CEVETH	2-Chloroethyl vinyl ether
SW8240	CLBZ	Chlorobenzene
SW8240	CLEA	Chloroethane
SW8240	CLME	Chloromethane

SW8240	CTCL	Carbon tetrachloride
SW8240	DBCME	Dibromochloromethane
SW8240	DBMA	Dibromomethane
SW8240	DCA11	1,1-Dichloroethane
SW8240	DCA12	1,2-Dichloroethane
SW8240	DCA12D4	1,2-Dichloroethane-d4
SW8240	DCBTA14	1,4-Dichlorobutane
SW8240	DCE11	1,1-Dichloroethene
SW8240	DCE12T	trans-1,2-Dichloroethene
SW8240	DCP13C	cis-1,3-Dichloropropene
SW8240	DCP13T	trans-1,3-Dichloropropene
SW8240	DCPA12	1,2-Dichloropropane
SW8240	EBZ	Ethylbenzene
SW8240	EMETHACRY	Ethyl methacrylate
SW8240	ETHANOL	Ethanol
SW8240	FC11	Trichlorofluoromethane
SW8240	FC12	Dichlorodifluoromethane
SW8240	HXO2	2-Hexanone
SW8240	IME	Methyl iodide
SW8240	MEK	2-Butanone
SW8240	MIBK	4-Methyl-2-pentanone
SW8240	MTLNCL	Methylene chloride
SW8240	PCA	1,1,2,2-Tetrachloroethane
SW8240	PCE	Tetrachloroethene
SW8240	STY	Styrene
SW8240	TBME	Bromoform
SW8240	TCA111	1,1,1-Trichloroethane
SW8240	TCA112	1,1,2-Trichloroethane
SW8240	TCE	Trichloroethene
SW8240	TCLME	Chloroform
SW8240	TCPR123	1,2,3-Trichloropropane
SW8240	VA	Vinyl acetate
SW8240	VC	Vinyl chloride
SW8240	XYLENES	Xylenes
SW8260	ACE	Acetone
SW8260	BDCME	Bromodichloromethane
SW8260	BR4FBZ	4-Bromofluorobenzene
SW8260	BRBZ	Bromobenzene
SW8260	BRCLME	Bromochloromethane
SW8260	BRME	Bromomethane
SW8260	BTBZN	n-Butylbenzene
SW8260	BTBZS	sec-Butylbenzene
SW8260	BTBZT	tert-Butylbenzene
SW8260	BZ	Benzene
SW8260	BZME	Toluene
SW8260	BZMED8	Toluene-d8
SW8260	CDS	Carbon disulfide
SW8260	CLBZ	Chlorobenzene
SW8260	CLBZME2	2-Chlorotoluene
SW8260	CLBZME4	4-Chlorotoluene
SW8260	CLEA	Chloroethane

SW8260	CLME	Chloromethane
SW8260	CTCL	Carbon tetrachloride
SW8260	CYMP	4-Isopropyltoluene
SW8260	DBCME	Dibromochloromethane
SW8260	DBCP	1,2-Dibromo-3-chloropropane
SW8260	DBFM	Dibromofluoromethane
SW8260	DBMA	Dibromomethane
SW8260	DCA11	1,1-Dichloroethane
SW8260	DCA12	1,2-Dichloroethane
SW8260	DCA12D4	1,2-Dichloroethane-d4
SW8260	DCBZ12	1,2-Dichlorobenzene
SW8260	DCBZ13	1,3-Dichlorobenzene
SW8260	DCBZ14	1,4-Dichlorobenzene
SW8260	DCE11	1,1-Dichloroethene
SW8260	DCE12C	cis-1,2-Dichloroethene
SW8260	DCE12T	trans-1,2-Dichloroethene
SW8260	DCP11	1,1-Dichloropropene
SW8260	DCP13C	cis-1,3-Dichloropropene
SW8260	DCP13T	trans-1,3-Dichloropropene
SW8260	DCPA12	1,2-Dichloropropane
SW8260	DCPA13	1,3-Dichloropropane
SW8260	DCPA22	2,2-Dichloropropane
SW8260	EBZ	Ethylbenzene
SW8260	EDB	1,2-Dibromoethane
SW8260	FC11	Trichlorofluoromethane
SW8260	FC12	Dichlorodifluoromethane
SW8260	HCBU	Hexachlorobutadiene
SW8260	HXO2	2-Hexanone
SW8260	IPBZ	Isopropylbenzene
SW8260	MEK	2-Butanone
SW8260	MIBK	4-Methyl-2-pentanone
SW8260	MTLNCL	Methylene chloride
SW8260	NAPH	Naphthalene
SW8260	PBZN	n-Propylbenzene
SW8260	PCA	1,1,2,2-Tetrachloroethane
SW8260	PCE	Tetrachloroethene
SW8260	STY	Styrene
SW8260	TBME	Bromoform
SW8260	TC1112	1,1,1,2-Tetrachloroethane
SW8260	TCA111	1,1,1-Trichloroethane
SW8260	TCA112	1,1,2-Trichloroethane
SW8260	TCB123	1,2,3-Trichlorobenzene
SW8260	TCB124	1,2,4-Trichlorobenzene
SW8260	TCE	Trichloroethene
SW8260	TCLME	Chloroform
SW8260	TCPR123	1,2,3-Trichloropropane
SW8260	TMB124	1,2,4-Trimethylbenzene
SW8260	TMB135	1,3,5-Trimethylbenzene
SW8260	VC	Vinyl chloride
SW8260	XYLM	m-Xylene
SW8260	XYLO	o-Xylene

SW8260	XYLP	p-Xylene
SW8270	ACNP	Acenaphthene
SW8270	ACNPY	Acenaphthylene
SW8270	ACPHN	Acetophenone
SW8270	ALDRIN	Aldrin
SW8270	AMINOBPH4	4-Aminobiphenyl
SW8270	AMINONAPH1	1-Naphthylamine
SW8270	AMINONAPH2	2-Naphthylamine
SW8270	ANILINE	Aniline
SW8270	ANTH	Anthracene
SW8270	BBP	Benzyl butyl phthalate
SW8270	BECEM	bis-(2-chloroethoxy)methane
SW8270	BHCALPHA	alpha-BHC
SW8270	BHCBETA	beta-BHC
SW8270	BHCDELTA	delta-BHC
SW8270	BHCGAMMA	gamma-BHC (Lindane)
SW8270	BIS2CEE	bis-(2-chloroethyl)ether
SW8270	BIS2CIE	Bis(2-chloroisopropyl)ether
SW8270	BIS2EHP	bis-(2-ethylhexyl)phthalate
SW8270	BPPE4	4-Bromophenyl phenyl ether
SW8270	BZAA	Benzo(a)anthracene
SW8270	BZACID	Benzoic acid
SW8270	BZAP	Benzo(a)pyrene
SW8270	BZBF	Benzo(b)fluoranthene
SW8270	BZD	Benzidine
SW8270	BZGHIP	Benzo(g,h,i)perylene
SW8270	BZKF	Benzo(k)fluoranthene
SW8270	BZLAL	Benzyl alcohol
SW8270	C4BZ1245	1,2,4,5-Tetrachlorobenzene
SW8270	C4M3PH	4-Chloro-3-methyl phenol
SW8270	CHLORDANE	Chlordane
SW8270	CHRYSENE	Chrysene
SW8270	CLANIL4	4-Chloroaniline
SW8270	CLNPH1	1-Chloronaphthalene
SW8270	CLPH2	2-Chlorophenol
SW8270	CNPH2	2-Chloronaphthalene
SW8270	CPPE4	4-Chlorophenyl phenyl ether
SW8270	DBAHA	Dibenzo(a,h)anthracene
SW8270	DBAJACR	Dibenz(a,,j)acridine
SW8270	DBF	Dibenzofuran
SW8270	DBZD33	3,3'-Dichlorobenzidine
SW8270	DCBZ12	1,2-Dichlorobenzene
SW8270	DCBZ13	1,3-Dichlorobenzene
SW8270	DCBZ14	1,4-Dichlorobenzene
SW8270	DCP24	2,4-Dichlorophenol
SW8270	DCP26	2,6-Dichlorophenol
SW8270	DDD44	4,4'-DDD
SW8270	DDE44	4,4'-DDE
SW8270	DDT44	4,4'-DDT
SW8270	DEPH	Diethyl phthalate
SW8270	DIELDRIN	Dieldrin

SW8270	DMBZA712	7,12-Dimethylbenz(a)anthracene
SW8270	DMP24	2,4-Dimethylphenol
SW8270	DMPH	Dimethyl phthalate
SW8270	DN46M	2-Methyl-4,6-dinitrophenol
SW8270	DNBP	Di-n-butyl phthalate
SW8270	DNOP	Di-n-octyl phthalate
SW8270	DNP24	2,4-Dinitrophenol
SW8270	DNT24	2,4-Dinitrotoluene
SW8270	DNT26	2,6-Dinitrotoluene
SW8270	DPA	Diphenylamine
SW8270	DPHY12	1,2-Diphenylhydrazine
SW8270	EMSULFN	Ethyl methanesulfonate
SW8270	ENDOSULFANA	Endosulfan I
SW8270	ENDOSULFANB	Endosulfan II
SW8270	ENDOSULFANS	Endosulfan sulfate
SW8270	ENDRIN	Endrin
SW8270	ENDRINALD	Endrin aldehyde
SW8270	ENDRINKET	Endrin ketone
SW8270	FL	Fluorene
SW8270	FLA	Fluoranthene
SW8270	HCBU	Hexachlorobutadiene
SW8270	HCCP	Hexachlorocyclopentadiene
SW8270	HCLBZ	Hexachlorobenzene
SW8270	HCLEA	Hexachloroethane
SW8270	HEPT-EPOX	Heptachlor epoxide
SW8270	HEPTACHLOR	Heptachlor
SW8270	INP123	Indeno(1,2,3-cd)pyrene
SW8270	ISOP	Isophorone
SW8270	MECHLAN3	3-Methylcholanthrene
SW8270	MEPH2	2-Methylphenol (o-cresol)
SW8270	MEPH4	4-Methylphenol (p-cresol)
SW8270	MMSULFN	Methyl methanesulfonate
SW8270	MPEA11	a,a-Dimethylphenethylamine
SW8270	MTNPH2	2-Methylnaphthalene
SW8270	MTXYCL	Methoxychlor
SW8270	NAPH	Naphthalene
SW8270	NNSBU	n-Nitroso-di-n-butylamine
SW8270	NNSM	n-Nitrosodimethylamine
SW8270	NNSPH	n-Nitrosodiphenylamine
SW8270	NNSPPRD	n-Nitrosopiperidine
SW8270	NNSPR	n-Nitrosodi-n-propylamine
SW8270	NO2ANIL2	2-Nitroaniline
SW8270	NO2ANIL3	3-Nitroaniline
SW8270	NO2ANIL4	4-Nitroaniline
SW8270	NO2BZ	Nitrobenzene
SW8270	NO2BZD5	Nitrobenzene-d5
SW8270	NTPH2	2-Nitrophenol
SW8270	NTPH4	4-Nitrophenol
SW8270	PCB1016	PCB-1016 (Aroclor 1016)
SW8270	PCB1221	PCB-1221 (Aroclor 1221)
SW8270	PCB1232	PCB-1232 (Aroclor 1232)

SW8270	PCB1242	PCB-1242 (Aroclor 1242)
SW8270	PCB1248	PCB-1248 (Aroclor 1248)
SW8270	PCB1254	PCB-1254 (Aroclor 1254)
SW8270	PCB1260	PCB-1260 (Aroclor 1260)
SW8270	PCP	Pentachlorophenol
SW8270	PDMAABZ	p-Dimethylaminoazobenzene
SW8270	PECLBZ	Pentachlorobenzene
SW8270	PECLNO2BZ	Pentachloronitrobenzene
SW8270	PH246BR	2,4,6-Tribromophenol
SW8270	PH2F	2-Fluorophenol
SW8270	PHAN	Phenanthrene
SW8270	PHD5	Phenol-d5
SW8270	PHEN2F	2-Fluorobiphenyl
SW8270	PHEND14	Terphenyl-d14
SW8270	PHENOL	Phenol
SW8270	PHENOLD6	Phenol-d6
SW8270	PHNACTN	Phenacetin
SW8270	PICOLINE2	2-Picoline
SW8270	PRONAMD	Pronamide
SW8270	PYR	Pyrene
SW8270	TCB124	1,2,4-Trichlorobenzene
SW8270	TCP2346	2,3,4,6-Tetrachlorophenol
SW8270	TCP245	2,4,5-Trichlorophenol
SW8270	TCP246	2,4,6-Trichlorophenol
SW8270	TOXAP	Toxaphene
SW8270A	13BZDIOL	Resorcinol
SW8270A	4N2PHEN	4-Nitrobiphenyl
SW8270A	4NQO	4-Nitroquinoline n-oxide
SW8270A	AC2T	1-Acetyl-2-thiourea
SW8270A	ACAMFL2	2-Acetylaminofluorene
SW8270A	ACNP	Acenaphthene
SW8270A	ACNPY	Acenaphthylene
SW8270A	ACPHN	Acetophenone
SW8270A	ALDRIN	Aldrin
SW8270A	AMAQ2	2-Aminoanthraquinone
SW8270A	AMAZOBENZ	Aminoazobenzene
SW8270A	AMINOBPH4	4-Aminobiphenyl
SW8270A	AMINONAPH1	1-Naphthylamine
SW8270A	AMINONAPH2	2-Naphthylamine
SW8270A	ANILINE	Aniline
SW8270A	ANLNAM4	1,4-Phenylenediamine
SW8270A	ANSD2	o-Anisidine
SW8270A	ANTH	Anthracene
SW8270A	ANZIN	Anilazine
SW8270A	ARAMITE	Aramite
SW8270A	AZIPM	Azinphos methyl
SW8270A	BARBAN	Barban
SW8270A	BBP	Benzyl butyl phthalate
SW8270A	BECEM	bis-(2-chloroethoxy)methane
SW8270A	BHCALPHA	alpha-BHC
SW8270A	BHCBETA	beta-BHC

SW8270A	BHCDELTA	delta-BHC
SW8270A	BHCGAMMA	gamma-BHC (Lindane)
SW8270A	BIDRIN	Dicrotophos
SW8270A	BIS2CEE	bis-(2-chloroethyl)ether
SW8270A	BIS2CIE	Bis(2-chloroisopropyl)ether
SW8270A	BIS2EHP	bis-(2-ethylhexyl)phthalate
SW8270A	BPPE4	4-Bromophenyl phenyl ether
SW8270A	BROXL	Bromoxynil
SW8270A	BZAA	Benzo(a)anthracene
SW8270A	BZACID	Benzoic acid
SW8270A	BZAP	Benzo(a)pyrene
SW8270A	BZBF	Benzo(b)fluoranthene
SW8270A	BZD	Benzidine
SW8270A	BZGHIP	Benzo(g,h,i)perylene
SW8270A	BZKF	Benzo(k)fluoranthene
SW8270A	BZLAL	Benzyl alcohol
SW8270A	BZS	Thiophenol (Benzenethiol)
SW8270A	C4BZ1245	1,2,4,5-Tetrachlorobenzene
SW8270A	C4M3PH	4-Chloro-3-methyl phenol
SW8270A	CAPT	Captafol
SW8270A	CAPTAN	Captan
SW8270A	CARBOPHENOTH	Carbophenothion
SW8270A	CHLORDANE	Chlordane
SW8270A	CHRYSENE	Chrysene
SW8270A	CL5MANIL2	5-Chloro-2-methylaniline
SW8270A	CLANIL4	4-Chloroaniline
SW8270A	CLBZLATE	Chlorobenzilate
SW8270A	CLM3CPYRDN	3-(Chloromethyl)pyridine hydrochloride
SW8270A	CLNPH1	1-Chloronaphthalene
SW8270A	CLPH2	2-Chlorophenol
SW8270A	CNPH2	2-Chloronaphthalene
SW8270A	COUMAPHOS	Coumaphos
SW8270A	CPPE4	4-Chlorophenyl phenyl ether
SW8270A	CRBFN	Carbofuran
SW8270A	CRESP	p-Cresidine
SW8270A	CROTOX	Crotoxyphos
SW8270A	CVP	Chlorfenvinphos
SW8270A	CYHEX2DNP46	2-Cyclohexyl-4,6-dinitrophenol
SW8270A	DBAHA	Dibenzo(a,h)anthracene
SW8270A	DBAJACR	Dibenz(a,,j)acridine
SW8270A	DBF	Dibenzofuran
SW8270A	DBZAEP	Dibenzo(a,e)pyrene
SW8270A	DBZD33	3,3'-Dichlorobenzidine
SW8270A	DCBZ12	1,2-Dichlorobenzene
SW8270A	DCBZ13	1,3-Dichlorobenzene
SW8270A	DCBZ14	1,4-Dichlorobenzene
SW8270A	DCLN	Dichlone
SW8270A	DCP24	2,4-Dichlorophenol
SW8270A	DCP26	2,6-Dichlorophenol
SW8270A	DDD44	4,4'-DDD
SW8270A	DDE44	4,4'-DDE

SW8270A	DDT44	4,4'-DDT
SW8270A	DEMETONO	Demeton-O
SW8270A	DEMETONS	Demeton-S
SW8270A	DEPH	Diethyl phthalate
SW8270A	DES	Diethyl stilbestrol
SW8270A	DESO4	Diethyl sulfate
SW8270A	DIALLATE	Diallate (cis- or trans-)
SW8270A	DICHLORVOS	Dichlorovos
SW8270A	DIELDRIN	Dieldrin
SW8270A	DIMETHAT	Dimethoate
SW8270A	DINOSEB	Dinoseb
SW8270A	DISUL	Disulfoton
SW8270A	DMBZA712	7,12-Dimethylbenz(a)anthracene
SW8270A	DMBZD33	3,3'-Dimethylbenzidine
SW8270A	DMOBZD33	3,3'-Dimethoxybenzidine
SW8270A	DMP24	2,4-Dimethylphenol
SW8270A	DMPH	Dimethyl phthalate
SW8270A	DN46M	2-Methyl-4,6-dinitrophenol
SW8270A	DNB13	1,3-Dinitrobenzene
SW8270A	DNBP	Di-n-butyl phthalate
SW8270A	DNBZ12	1,2-Dinitrobenzene
SW8270A	DNBZ14	1,4-Dinitrobenzene
SW8270A	DNOCP	Dinocap
SW8270A	DNOP	Di-n-octyl phthalate
SW8270A	DNP24	2,4-Dinitrophenol
SW8270A	DNT24	2,4-Dinitrotoluene
SW8270A	DNT26	2,6-Dinitrotoluene
SW8270A	DPA	Diphenylamine
SW8270A	DPHY12	1,2-Diphenylhydrazine
SW8270A	ECARB	Ethyl carbamate
SW8270A	EMSULFN	Ethyl methanesulfonate
SW8270A	ENDOSULFANA	Endosulfan I
SW8270A	ENDOSULFANB	Endosulfan II
SW8270A	ENDOSULFANS	Endosulfan sulfate
SW8270A	ENDRIN	Endrin
SW8270A	ENDRINALD	Endrin aldehyde
SW8270A	ENDRINKET	Endrin ketone
SW8270A	EPN	EPN
SW8270A	ETHION	Ethion
SW8270A	FAMPHUR	Famphur
SW8270A	FENSTHION	Fensulfothion
SW8270A	FENTHION	Fenthion
SW8270A	FL	Fluorene
SW8270A	FLA	Fluoranthene
SW8270A	FLUCHLOR	Fluchloralin
SW8270A	HCBU	Hexachlorobutadiene
SW8270A	HCCP	Hexachlorocyclopentadiene
SW8270A	HCLBZ	Hexachlorobenzene
SW8270A	HCLEA	Hexachloroethane
SW8270A	HCPR	Hexachloropropene
SW8270A	HEPT-EPOX	Heptachlor epoxide

SW8270A	HEPTACHLOR	Heptachlor
SW8270A	HMPA	Hexamethylphosphoramide
SW8270A	HXCP	Hexachlorophene
SW8270A	INP123	Indeno(1,2,3-cd)pyrene
SW8270A	ISODRIN	Isodrin
SW8270A	ISOP	Isophorone
SW8270A	ISOSAFR	Isosafrole
SW8270A	KEP	Kepone
SW8270A	LEPTO	Leptophos
SW8270A	MALA	Malathion
SW8270A	MALANH	Maleic Anhydride
SW8270A	MB2CAN44	4,4'-Methylenebis(2-chloraniline)
SW8270A	MECHLAN3	3-Methylcholanthrene
SW8270A	MEPH2	2-Methylphenol (o-cresol)
SW8270A	MEPH3	3-Methylphenol
SW8270A	MEPH4	4-Methylphenol (p-cresol)
SW8270A	MEVINPHOS	Mevinphos
SW8270A	MEXACARBATE	Mexacarbate
SW8270A	MIREX	Mirex
SW8270A	MMSULFN	Methyl methanesulfonate
SW8270A	MONOCROPHOS	Monocrotophos
SW8270A	MPEA11	a,a-Dimethylphenethylamine
SW8270A	MSNL	Mestranol
SW8270A	MTD	2,4-Diaminotoluene
SW8270A	MTNPH2	2-Methylnaphthalene
SW8270A	MTPYRLN	Methapyrilene
SW8270A	MTXYCL	Methoxychlor
SW8270A	N2ANSD5	5-Nitro-o-anisidine
SW8270A	NACN5	5-Nitroacenaphthene
SW8270A	NALED	Naled
SW8270A	NAPH	Naphthalene
SW8270A	NAPHQ14	1,4-Naphthoquinone
SW8270A	NICOTINE	Nicotine
SW8270A	NITROFEN	Nitrofen
SW8270A	NNSBU	n-Nitroso-di-n-butylamine
SW8270A	NNSE	n-Nitrosodiethylamine
SW8270A	NNSM	n-Nitrosodimethylamine
SW8270A	NNSME	n-Nitrosomethylethylamine
SW8270A	NNSMRPH	n-Nitrosomorpholine
SW8270A	NNSPH	n-Nitrosodiphenylamine
SW8270A	NNSPPRD	n-Nitrosopiperidine
SW8270A	NNSPR	n-Nitrosodi-n-propylamine
SW8270A	NNSPYRL	n-Nitrosopyrrolidine
SW8270A	NO2ANIL2	2-Nitroaniline
SW8270A	NO2ANIL3	3-Nitroaniline
SW8270A	NO2ANIL4	4-Nitroaniline
SW8270A	NO2BZ	Nitrobenzene
SW8270A	NO2BZD5	Nitrobenzene-d5
SW8270A	NTPH2	2-Nitrophenol
SW8270A	NTPH4	4-Nitrophenol
SW8270A	ODA	4,4'-Oxydianiline

SW8270A	OMPA	Octamethyl pyprophosphoramide
SW8270A	PARAE	Parathion ethyl
SW8270A	PARAM	Parathion methyl
SW8270A	PBZQUINONE	p-Benzoquinone
SW8270A	PCB1016	PCB-1016 (Aroclor 1016)
SW8270A	PCB1221	PCB-1221 (Aroclor 1221)
SW8270A	PCB1232	PCB-1232 (Aroclor 1232)
SW8270A	PCB1242	PCB-1242 (Aroclor 1242)
SW8270A	PCB1248	PCB-1248 (Aroclor 1248)
SW8270A	PCB1254	PCB-1254 (Aroclor 1254)
SW8270A	PCB1260	PCB-1260 (Aroclor 1260)
SW8270A	PCP	Pentachlorophenol
SW8270A	PDMAABZ	p-Dimethylaminoazobenzene
SW8270A	PECLBZ	Pentachlorobenzene
SW8270A	PECLNO2BZ	Pentachloronitrobenzene
SW8270A	PH246BR	2,4,6-Tribromophenol
SW8270A	PH2F	2-Fluorophenol
SW8270A	PHAN	Phenanthrene
SW8270A	PHANHY	Phthalic anhydride
SW8270A	PHEN2F	2-Fluorobiphenyl
SW8270A	PHEND14	Terphenyl-d14
SW8270A	PHENOBAL	Phenobarbital
SW8270A	PHENOL	Phenol
SW8270A	PHENOLD6	Phenol-d6
SW8270A	PHENYTOIN	5,5-Diphenylhydantoin
SW8270A	PHNACTN	Phenacetin
SW8270A	PHORATE	Phorate
SW8270A	PHOSAL	Phosalone
SW8270A	PHOSMET	Phosmet
SW8270A	PHOSPHAM	Phosphamidon
SW8270A	PICOLINE2	2-Picoline
SW8270A	PRONAMD	Pronamide
SW8270A	PROPYCIL	Propylthiouracil
SW8270A	PYR	Pyrene
SW8270A	PYRDN	Pyridine
SW8270A	SAFROLE	Safrole
SW8270A	SEVIN	Carbaryl
SW8270A	STIROFOS	Tetrachlorvinphos (Stirophos)
SW8270A	STRYCHNINE	Strychnine
SW8270A	SULFAL	Sulfallate
SW8270A	SULFX	Piperonyl sulfoxide
SW8270A	T23P	Tris(2,3-dibromopropyl)phosphate
SW8270A	TCB124	1,2,4-Trichlorobenzene
SW8270A	TCP2346	2,3,4,6-Tetrachlorophenol
SW8270A	TCP245	2,4,5-Trichlorophenol
SW8270A	TCP246	2,4,6-Trichlorophenol
SW8270A	TDI	Toluene diisocyanate
SW8270A	TEPP	Tetraethyl pyrophosphate
SW8270A	TEPTH	o,o,o-Triethyl phosphorothioate
SW8270A	TERBUFOS	Terbufos
SW8270A	TLDNO	o-Toluidine

SW8270A	TLDNONT5	5-Nitro-o-toluidine
SW8270A	TMANIL245	2,4,5-Trimethylaniline
SW8270A	TMEP	Trimethyl phosphate
SW8270A	TNB135	1,3,5-Trinitrobenzene
SW8270A	TOXAP	Toxaphene
SW8270A	TRIFLURALIN	Trifluralin
SW8270A	TT4P	Tri-p-tolyl phosphate
SW8270A	ZINOPHOS	Thionazine
SW8280	DD1234678C13	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin-C13
SW8280	DD123478C13	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin-C13
SW8280	DD123678C13	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin-C13
SW8280	DD12378C13	1,2,3,7,8-Pentachlorodibenzo-p-dioxin-C13
SW8280	DF1234789C13	1,2,3,4,7,8,9-Heptachlorodibenzofuran-C13
SW8280	DF123478C13	1,2,3,4,7,8-Hexachlorodibenzofuran-C13
SW8280	DF123678C13	1,2,3,6,7,8-Hexachlorodibenzofuran-C13
SW8280	DF123789C13	1,2,3,7,8,9-Hexachlorodibenzofuran-C13
SW8280	DF12378C13	1,2,3,7,8-Pentachlorodibenzofuran-C13
SW8280	DF234678C13	2,3,4,6,7,8-Hexachlorodibenzofuran-C13
SW8280	DF23478C13	2,3,4,7,8-Pentachlorodibenzofuran-C13
SW8280	HPCDD	Total Heptachlorodibenzo-p-dioxins (HpCDD)
SW8280	HPCDD1234678	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin
SW8280	HPCDF	Total Heptachlorodibenzofurans (HpCDF)
SW8280	HPCDF1234678	1,2,3,4,6,7,8-Heptachlorodibenzofuran
SW8280	HPCDF1234789	1,2,3,4,7,8,9-Heptachlorodibenzofuran
SW8280	HXCDD	Total Hexachlorodibenzo-p-dioxins (HxCDD)
SW8280	HXCDD123478	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin
SW8280	HXCDD123678	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin
SW8280	HXCDD123789	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin
SW8280	HXCDF	Total Hexachlorodibenzofurans (HxCDF)
SW8280	HXCDF123478	1,2,3,4,7,8-Hexachlorodibenzofuran
SW8280	HXCDF123678	1,2,3,6,7,8-Hexachlorodibenzofuran
SW8280	HXCDF123789	1,2,3,7,8,9-Hexachlorodibenzofuran
SW8280	HXCDF234678	2,3,4,6,7,8-Hexachlorodibenzofuran
SW8280	OCDD	Octachlorodibenzo-p-dioxin
SW8280	OCDDC13	Octachlorodibenzo-p-dioxin-C13
SW8280	OCDF	Octachlorodibenzofuran
SW8280	OCDFC13	Octachlorodibenzofuran-C13
SW8280	PECDD	Total Pentachlorodibenzo-p-dioxin (PeCDD)
SW8280	PECDD12378	1,2,3,7,8-Pentachlorodibenzo-p-dioxin
SW8280	PECDF	Total Pentachlorodibenzofurans (PeCDF)
SW8280	PECDF12378	1,2,3,7,8-Pentachlorodibenzofuran
SW8280	PECDF23478	2,3,4,7,8-Pentachlorodibenzofuran
SW8280	TCDD	Total Tetrachlorodibenzo-p-dioxins (TCDD)
SW8280	TCDD2378	2,3,7,8-Tetrachlorodibenzo-p-dioxin
SW8280	TCDF	Total Tetrachlorodibenzofurans (TCDF)
SW8280	TCDF2378	2,3,7,8-Tetrachlorodibenzofuran
SW8290D	DD1234678C13	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin-C13
SW8290D	DD123478C13	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin-C13
SW8290D	DD123678C13	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin-C13
SW8290D	DD12378C13	1,2,3,7,8-Pentachlorodibenzo-p-dioxin-C13
SW8290D	DF1234789C13	1,2,3,4,7,8,9-Heptachlorodibenzofuran-C13

SW8290D	DF123478C13	1,2,3,4,7,8-Hexachlorodibenzofuran-C13
SW8290D	DF123678C13	1,2,3,6,7,8-Hexachlorodibenzofuran-C13
SW8290D	DF123789C13	1,2,3,7,8,9-Hexachlorodibenzofuran-C13
SW8290D	DF12378C13	1,2,3,7,8-Pentachlorodibenzofuran-C13
SW8290D	DF234678C13	2,3,4,6,7,8-Hexachlorodibenzofuran-C13
SW8290D	DF23478C13	2,3,4,7,8-Pentachlorodibenzofuran-C13
SW8290D	HPCDD	Total Heptachlorodibenzo-p-dioxins (HpCDD)
SW8290D	HPCDD1234678	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin
SW8290D	HPCDF	Total Heptachlorodibenzofurans (HpCDF)
SW8290D	HPCDF1234678	1,2,3,4,6,7,8-Heptachlorodibenzofuran
SW8290D	HPCDF1234789	1,2,3,4,7,8,9-Heptachlorodibenzofuran
SW8290D	HXCDD	Total Hexachlorodibenzo-p-dioxins (HxCDD)
SW8290D	HXCDD123478	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin
SW8290D	HXCDD123678	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin
SW8290D	HXCDD123789	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin
SW8290D	HXCDF	Total Hexachlorodibenzofurans (HxCDF)
SW8290D	HXCDF123478	1,2,3,4,7,8-Hexachlorodibenzofuran
SW8290D	HXCDF123678	1,2,3,6,7,8-Hexachlorodibenzofuran
SW8290D	HXCDF123789	1,2,3,7,8,9-Hexachlorodibenzofuran
SW8290D	HXCDF234678	2,3,4,6,7,8-Hexachlorodibenzofuran
SW8290D	OCDD	Octachlorodibenzo-p-dioxin
SW8290D	OCDDC13	Octachlorodibenzo-p-dioxin-C13
SW8290D	OCDF	Octachlorodibenzofuran
SW8290D	OCDFC13	Octachlorodibenzofuran-C13
SW8290D	PECDD	Total Pentachlorodibenzo-p-dioxin (PeCDD)
SW8290D	PECDD12378	1,2,3,7,8-Pentachlorodibenzo-p-dioxin
SW8290D	PECDF	Total Pentachlorodibenzofurans (PeCDF)
SW8290D	PECDF12378	1,2,3,7,8-Pentachlorodibenzofuran
SW8290D	PECDF23478	2,3,4,7,8-Pentachlorodibenzofuran
SW8290D	TCDD	Total Tetrachlorodibenzo-p-dioxins (TCDD)
SW8290D	TCDD2378	2,3,7,8-Tetrachlorodibenzo-p-dioxin
SW8290D	TCDF	Total Tetrachlorodibenzofurans (TCDF)
SW8290D	TCDF2378	2,3,7,8-Tetrachlorodibenzofuran
SW8310	9PHENAN	9-Phenylanthracene
SW8310	ACNP	Acenaphthene
SW8310	ACNPY	Acenaphthylene
SW8310	ANTH	Anthracene
SW8310	BZAA	Benzo(a)anthracene
SW8310	BZAP	Benzo(a)pyrene
SW8310	BZBF	Benzo(b)fluoranthene
SW8310	BZGHIP	Benzo(g,h,i)perylene
SW8310	BZKF	Benzo(k)fluoranthene
SW8310	CHRYSENE	Chrysene
SW8310	DBAHA	Dibenzo(a,h)anthracene
SW8310	FL	Fluorene
SW8310	FLA	Fluoranthene
SW8310	INP123	Indeno(1,2,3-cd)pyrene
SW8310	NAPH	Naphthalene
SW8310	PHAN	Phenanthrene
SW8310	PYR	Pyrene
SW8330	A2DNT46	2-Amino-4,6-dinitrotoluene

SW8330	A4DNT26	4-Amino-2,6-dinitrotoluene
SW8330	DNB13	1,3-Dinitrobenzene
SW8330	DNBZ14	1,4-Dinitrobenzene
SW8330	DNT24	2,4-Dinitrotoluene
SW8330	DNT26	2,6-Dinitrotoluene
SW8330	HMX	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
SW8330	NBZME2	2-Nitrotoluene
SW8330	NBZME3	3-Nitrotoluene
SW8330	NBZME4	4-Nitrotoluene
SW8330	NO2BZ	Nitrobenzene
SW8330	RDX	Hexahydro-1,3,5-trinitro-1,3,5-triazine
SW8330	TETRYL	Methyl-2,4,6-trinitrophenylnitramine
SW8330	TNB135	1,3,5-Trinitrobenzene
SW8330	TNT	2,4,6-Trinitrotoluene
SW9045A	PH	pH
SW9066	TOTPHEN	Phenolics, Total Recoverable
SW9076D	TOTX	Total Halogens
WDOEEPH	C10C12ALIPH	C10-C12 Aliphatics
WDOEEPH	C10C12AROM	C10-C12 Aromatics
WDOEEPH	C12C16ALIPH	C12-C16 Aliphatics
WDOEEPH	C12C16AROM	C12-C16 Aromatics
WDOEEPH	C16C21ALIPH	C16-C21 Aliphatics
WDOEEPH	C16C21AROM	C16-C21 Aromatics
WDOEEPH	C21C34ALIPH	C21-C34 Aliphatics
WDOEEPH	C21C34AROM	C21-C34 Aromatics
WDOEEPH	C8C10ALIPH	C8-C10 Aliphatics
WDOEEPH	C8C10AROM	C8-C10 Aromatics
WDOEVPH	C10C12ALIPH	C10-C12 Aliphatics
WDOEVPH	C10C12AROM	C10-C12 Aromatics
WDOEVPH	C5C6ALIPH	C5-C6 Aliphatics
WDOEVPH	C6C8ALIPH	C6-C8 Aliphatics
WDOEVPH	C8C10ALIPH	C8-C10 Aliphatics
WDOEVPH	C8C10AROM	C8-C10 Aromatics
WHCID	DIESEL2	Diesel Fuel #2
WHCID	GASOLINE	Gasoline
WHCID	OILM	Oil, Misc.
WTPH-D	DIESEL2	Diesel Fuel #2
WTPH-G	GASOLINE	Gasoline

NPDLCL.TXT

Field Positions:

1-4	5-6	7-13	14-20	21-32	33-40	41-46	47-50	51-54

Fields:

LABCODE	MATRIX	ANMCODE	EXMCODE	PARLABEL	CLREVDATE	CLCODE	UPPERCL	LOWERCL
CASK	W	SW8020	SW5030	BZ	19941231	CLPCC	110	90
CASK	W	SW8020	SW5030	BZ	19941231	CLPIC	110	90
CASK	W	SW8020	SW5030	BZ	19941231	LLR	110	90
CASK	W	SW8020	SW5030	BZ	19941231	LSA	120	80
CASK	W	SW8020	SW5030	BZ	19941231	LSP	30	0
CASK	W	SW8020	SW5030	BZ	19941231	MSA	120	80
CASK	W	SW8020	SW5030	BZ	19941231	MSP	30	0
CASK	W	SW8020	SW5030	BZ	19941231	SRMA	120	80
CASK	W	SW8020	SW5030	BZ	19941231	SRMP	30	0
CASK	W	SW8020	SW5030	F3BZME	19931231	SCLA	120	80
CASK	W	SW8020	SW5030	F3BZME	19931231	SCLP	30	0

NPDLNARR.TXT

Field Positions:

1-...

Fields:

NARRATIVE
This is an example of the narrative text file.

NPDLQC.TXT

Field Positions:

1-2	3-6	7-16	17-23	24-35	36-38	39-50	51-62	63-76	77-86

Fields:

MATRIX	LABCODE	LABLOTCTL	ANMCODE	PARLABEL	QCCODE	LABQCID	LABREFID	EXPECTED	UNITS
W	CASK	8020-0102	SW8020	BZ	BS1	LCS-0102		50	UG/L
W	CASK	8020-0102	SW8020	BZ	CC1	CC-0102		100	UG/L
W	CASK	8020-0102	SW8020	BZ	IC1	IC-0102		100	UG/L
W	CASK	8020-0102	SW8020	BZ	LB1	MB-0102		0	UG/L
W	CASK	8020-0102	SW8020	BZ	LR1	LR-0102	9500-01	25	UG/L
W	CASK	8020-0102	SW8020	BZ	MS1	MS-0102	9500-01	50	UG/L
W	CASK	8020-0102	SW8020	BZ	RM1	KM-0102		10	UG/L
W	CASK	8020-0102	SW8020	BZ	SD1	MSD-0102	9500-01	50	UG/L

NPDLRES.TXT

Field Positions:

1-2	3-6	7-18	19-21	22-28	29-35	36-37	38-45	46-47	48-59	60-73	74-75	76-84	85-93	94-96

Fields:

MATRIX	LABCODE	LABSAMPID	QCCODE	ANMCODE	EXMCODE	PVCCODE	ANADATE	RUN_NUMBER	PARLABEL	PARVAL	PARVQ	LABDL	REPDL	REPDLVQ
W	CASK	9500-01	CS	SW8020	SW5030	PR	19950102	1	BZ	25	=	0.2	1	PQL
W	CASK	9500-01	CS	SW8020	SW5030	PR	19950102	1	F3BZME	89	SU	0	0	NA
W	CASK	9500-01	CS	SW8020	SW5030	PR	19950102	1	UNKPAH	12	TI	0	0	NA
W	CASK	CC-0102	CC1	SW8020	SW5030	PR	19950102	1	BZ	105	=	0.2	1	PQL
W	CASK	IC-0102	IC1	SW8020	SW5030	PR	19950102	1	BZ	95	=	0.2	1	PQL
W	CASK	KM-0102	RM1	SW8020	SW5030	PR	19950102	1	BZ	9	=	0.2	1	PQL
W	CASK	LCS-0102	BS1	SW8020	SW5030	PR	19950102	1	BZ	46	=	0.2	1	PQL
W	CASK	LR-0102	LR1	SW8020	SW5030	PR	19950102	1	BZ	27	=	0.2	1	PQL
W	CASK	MB-0102	LB1	SW8020	SW5030	PR	19950102	1	BZ	0	ND	0.2	1	PQL
W	CASK	MS-0102	MS1	SW8020	SW5030	PR	19950102	1	BZ	46	=	0.2	1	PQL
W	CASK	MSD-0102	SD1	SW8020	SW5030	PR	19950102	1	BZ	46	=	0.2	1	PQL

Field Positions:

97-108	109-118	119-125	126-135	136-143	144-155	156-175

Fields:

PARUN	UNITS	RT	DILFAC	CLREVDATE	SRM	LNOTE
0	UG/L	0	1		SUPELCO	
0	PERCENT	0	1	19931231	SUPELCO	
0	UG/L	35	1		NA	
0	UG/L	0	1	19941231	SUPELCO	
0	UG/L	0	1	19941231	SUPELCO	
0	UG/L	0	1	19941231	SUPELCO	
0	UG/L	0	1	19941231	SUPELCO	
0	UG/L	0	1		SUPELCO	
0	UG/L	0	1	19941231	SUPELCO	
0	UG/L	0	1	19941231	SUPELCO	

NPDLSAMP.TXT

Field Positions:

1-10	11-18	19-22	23-26	27-51	52-53	54-78	79-85	86-97	98-101

Fields:

LOCID	LOGDATE	LOGTIME	LOGCODE	SAMPID	MATRIX	PROJNAME	NPDLWO	CNTSHNUM	LABCODE
NOME	19950101	1200	EMCA	MW-1	W	FUELSITE	94-0111	95-CS-111	CASK

NPDLTEST.TXT

Field Positions:

1-10	11-18	19-22	23-26	27-51	52-53	54-57	58-69	70-72	73-79	80-80	81-87	88-97	98-107	108-115	116-123	124-125

Fields:

LOCID	LOGDATE	LOGTIME	LOGCODE	SAMPID	MATRIX	LABCODE	LABSAMPID	QCCODE	ANMCODE	MODPARLIST	EXMCODE	LABLOTCTL	EXLABLOT	ANADATE	EXTDATE	RUN_NUMBER
					W	CASK	CC-0102	CC1	SW8020	T	SW5030	8020-0102		19950102	19950102	1
					W	CASK	IC-0102	IC1	SW8020	T	SW5030	8020-0102		19950102	19950102	1
					W	CASK	KM-0102	RM1	SW8020	T	SW5030	8020-0102		19950102	19950102	1
					W	CASK	LCS-0102	BS1	SW8020	T	SW5030	8020-0102		19950102	19950102	1
					W	CASK	LR-0102	LR1	SW8020	T	SW5030	8020-0102		19950102	19950102	1
					W	CASK	MB-0102	LB1	SW8020	T	SW5030	8020-0102		19950102	19950102	1
					W	CASK	MS-0102	MS1	SW8020	T	SW5030	8020-0102		19950102	19950102	1
					W	CASK	MSD-0102	SD1	SW8020	T	SW5030	8020-0102		19950102	19950102	1
NOME	19950101	1200	EMCA	MW-1	W	CASK	9500-01	CS	SW8020	T	SW5030	8020-0102		19950102	19950102	1

Field Positions:

126-133	134-149	150-150	151-165	166-169	170-177	178-197	198-200	201-220

Fields:

RECDATE	COCNUM	BASIS	PRESCODE	SUB	REP_DATE	LAB_REPNO	APPRVD	LNOTE
19950102		X		NA				
19950102		X		NA				
19950102		X		NA				
19950102		X		NA				
19950102		X		NA				
19950102		X		NA				
19950102		X		NA				
19950102		X		NA				
19950102	CL-9501	X	P05	NA	19950103	010395-01	ABC	CH