Alpha Analytical

# ADEx & Data Merger

Instruction Manual

6/23/2009

### **1** ADEx Account

For access into the Alpha Data Exchange (ADEx), a client must establish an ADEx Account with our Client Services or Sales staff. Our clients are provided with a unique Username and Password. The username is defined internally based on our internal account number for your company. The password is defined by the client or can be designated by Alpha staff if you prefer. In either case, the client-specific username and password remain confidential to maintain security of our client's project data.

At any time, our Client Services staff can be contacted to provide you with your username and/or password information or reset your password if necessary due to staffing changes. Alpha strongly suggests that your password be modified on a regular basis to maintain confidentiality within your company.

### 2 Access

The Alpha Data Exchange is accessed via the Alpha Analytical web site @ www.alphalab.com.

The ADEx Login fields are located in the upper right-hand corner of the Home page on our web site. Under the ADEx Login, load your username and password and click ADEx Login.

Successful login enters you into the Alpha Data Exchange page for searching, review and download capabilities of your final reports. From the ADEx page, Data Merger can be accessed to allow you to build data tables of your current and/or historical project data and compare it to various regulatory criteria in a selected report format.

Please note an incorrect username and/or password will re-direct the visitor to an 'Unauthorized Access' error page. If this occurs, use the back key to return to the Alpha Home Page and reenter your username and password.

If the Data Merger button appears 'grayed-out', you do not currently have access to Data Merger, In this case, please contact your Sales or Client Services Representative for more information on establishing and activating an account.

### 3 Alpha Data Exchange (ADEx)

The Alpha Data Exchange provides you access to your data as the individual analytical reports for the associated Alpha Job numbers are completed. ADEx allows our clients to manage their data in static report formats.

Once on the ADEx page, two search mechanisms, project number or Alpha Job number, allow you to search for your project results.

### 3.1 Search by Project Number

In order to search for reports by Project Number, begin by entering your project number in the associated field. As you start to type in the characters, the screen will automatically reduce the project number options in the provided list.

Once the project number of interest is located, click on the number. This will populate all associated Alpha Job Numbers in the Alpha Number window to the right.

If you are interested in multiple project numbers, use the <CTRL> key to highlight the additional project numbers to be searched.

NOTE: If at any time during this step, you need to re-start your search, click the 'CLEAR' button and this will clear your entries.

Once the project(s) is selected, click Search to have database searched for all associated jobs listed in the Alpha Number window. This will query our database and retrieve all report results associated with these numbers and provide them in the Results window described in Section 3.3.

It should be noted that if no project number was listed on the original Chain of Custody, the job will be associated to the Project Number of "NA". If one of your Sample Delivery Groups is presented under 'NA" and it should have a Project Number, please email the information to your Client Services representative to initiate a database update.

Please note that searches may be difficult due to punctuation changes used on the original written Chain of Custody documentation. To reduce these inconsistencies, Alpha strongly suggests the use of its electronic Chain of Custody documents to assist with nomenclature and recognition. Our electronic COCs are available on our web site under Chain of Custody Forms in the Support Services menu.

### 3.2 Search by Alpha Number

In order to search for reports by Alpha Job Number, begin by entering the 'L0' number in the associated field. As you start to type in the characters, the screen will automatically reduce the report number options in the provided list with their associated 'Sampling Date'.

Once the Alpha Job Number of interest is located, click on the number. If you are interested in multiple jobs, use the <CTRL> key to highlight the job numbers to be searched. If no specific job numbers are selected, all numbers will be searched. It should be noted that the values in this window can be resorted based on date of sampling by clicking on the 'Sampling Date' header or using the pull-down menu in the header of this window.

Once the job(s) is selected, click Search to have the database searched for the associated reports. This will query our database and retrieve all report results associated with this number and provide them in the Results window described in Section 3.3.

### 3.3 Search Results

The Results table of the ADEx page is populated following the completion of the Search of the database per the defined search criteria loaded.

For each search, the table is populated with the selected reports. For each report, the table is populated with the following information:

#### 3.3.1 Sampling Date

This column contains the sample collection date noted on your original Chain of Custody.

#### 3.3.2 Alpha Number

This column contains the Alpha Job Number associated with your Sample Delivery Group.

#### 3.3.3 Project Number

This column contains your Project Number associated with your Sample Delivery Group as defined on your original Chain of Custody. If a Project Number was not defined, this field will show 'null'.

#### 3.3.4 Site

This column contains your Project Name associated with your Sample Delivery Group as defined on your original Chain of Custody. If a Project Name was not defined, this field will be left blank.

#### 3.3.5 Status

This column contains the status of your report. The status is identified as either 'Completed' or 'Not Completed' based on the authorization of the final report.

Within this window, each column may be resorted to allow for easier review and searching of your reports. To re-sort a column, click on the column header or use the pull-down menu next to each column header.

### 3.4 Download Options

Once a report is 'Completed', it is available to view and/or download in a number of electronic formats. To access the available report formats for each Alpha Job Number, click on a 'Completed' report. The Download window will then populate with all available downloadable report formats.

Here you can click on the associated download link for the file you wish to view and/or download to your personal computer.

At a minimum, Alpha provides our standard summary report and the original Chain of Custody in .pdf format, as well as your data in a generic ASCII .csv spreadsheet format. However, we have a number of available Criteria Checker and EDD formats which can be automatically generated for each of your projects. Please refer to the table of currently available formats in Appendix A.

For more information on project-specific EDD formats, please contact one of our Client Services Representatives.

### 4 Data Merger

Alpha's Data Merger provides our clients with access to both your current and historical data. In addition, this system allows you to build data tables in a number of report formats and compare your results to a number of regulatory criteria simultaneously. This value-added service is a time-saving necessity when reviewing project data over a period of days, weeks, months or even years. Data Merger allows our clients to manage their data in dynamic report formats.

### 4.1 Search by Project Number

In order to search for reports by Project Number, begin by entering your project number in the associated field. As you start to type in the characters, the screen will automatically reduce the project number options in the provided list.

Once the project number of interest is located, click on the number. This will populate all associated Alpha Job Numbers in the Alpha Number window to the right.

If you are interested in multiple project numbers, use the <CTRL> key to highlight the project numbers to be searched.

Once the project(s) is selected, this will query our database and retrieve all reports associated with this number and provide them in the Alpha Job Number window on the right.

It should be noted that if no project number was listed on the original Chain of Custody, the job will be associated to the Project Number of "NA". If one of your Sample Delivery Groups is presented under 'NA" and it should have a Project Number, please email the information to your Client Services representative to initiate a database update.

Please note that searches may be difficult due to punctuation changes used on the original written Chain of Custody documentation. To reduce these inconsistencies, Alpha strongly suggests the use of its electronic Chain of Custody documents to assist with nomenclature and recognition. Our electronic COCs are available on our web site under Chain of Custody Forms in the Support Services menu.

### 4.2 Search by Alpha Job Number

In order to search for reports by Alpha Job Number, begin by entering the 'L0' number in the associated field. As you start to type in the characters, the screen will automatically reduce the report number options in the provided list.

Once the Alpha Job Number of interest is located, click on the number. If you are interested in multiple jobs, use the <CTRL> key to highlight the job numbers to be searched. It should be noted that the values in this window can be resorted based on date of sampling by clicking on the 'Sampling Date' header or using the pull-down menu in the header of this window.

Once the job(s) this will query our database and retrieve all results associated with this number(s).

### 4.3 Matrix Selection

Data tables are generated for the selected projects and/or Alpha Job numbers by sample matrix to be consistent with state and regulatory criteria.

Within the Data Merger screen are three toggle buttons (Soil, Water and Air) to allow you to pre-select the matrix of the sample data to be utilized within your data table. The matrix of the samples to be utilized for the data tables must be defined prior to selection of any regulatory criteria.

Please note that as the matrix is selected, the associated '# of Samples' shown at the top of the page changes to reflect the number of samples for that matrix that will be utilized in the data table.

### 4.4 Criteria Selection

Data tables are generated for the selected projects and/or Alpha Job numbers by sample matrix to be consistent with state and regulatory criteria. Based on the matrix selected in Section 4.3, the available regulatory criteria listed in the Criteria window will change to reflect only the criteria applicable to the selected matrix.

Select the criteria that you wish to use for your table. NOTE: Up to five criteria can be selected for any one table.

For each set of regulatory limits, there are two options to utilize the listed criteria:

#### 4.4.1 Compare

This option will compare the selected regulatory standards against your results and highlight any exceedances for all concentrations as well as reporting limits (RDLs).

If more than one regulatory criteria was selected with the 'Compare' option, all exceedances will be triggered against the lowest value of all selected criteria.

#### 4.4.2 Display Only

This option will only list the selected regulatory standards next to your results; however, no comparisons will be made versus your results.

### 4.5 Advanced Options

Selection of the Advanced Options box opens an additional section of the Data Merger page to allow for more selective criteria in the building and display of your data table.

#### 4.5.1 Category

This field allows you to select the analytical set of parameters to be reviewed and limit the population of the results of interest to the data table.

#### 4.5.2 Analytes

This option allows you to select one or more distinctive parameters/compounds to be populated into the final data table. The analyte list will be modified based on the selection made in the category window.

#### 4.5.3 Client ID (Location)

This option allows you to select the distinct samples to be used in your data table by your Client IDs. It also provides the ability to exclude any trip blanks from the data table. This list will be modified based on any selections made in either the category and/or the analytes windows.

Note: Client ID selection is most commonly used for trend analysis over time.

#### 4.5.4 Sort Samples

This selection provides the option to have the samples populate your data table in alphabetical order by Laboratory ID or Client ID.

#### 4.5.5 Sort Analytes

This selection provides the option to have the analytes populate your data table in either alphabetical order or by the order found on the final standard summary report.

#### 4.5.6 Sample Units

This selection provides the option to have your data displayed in various units including ppm, ppb, %, ppbv (air only)) or 'Match Criteria', which will display the results in the same units as the criteria chosen.

#### 4.5.7 Exceedances Only

This selection provides the option to only show any exceedances (RDL or concentration) on the final data table.

#### 4.5.8 Hits Only

This selection provides the option to only show the detectable values on the final data table regardless of the criteria chosen.

#### 4.6 Report Formats

The final step in building a data table is the selection of the report format in which you wish the data to be displayed. Alpha offers a number of report formats in which to display your data. Examples of the formats listed in this section are provided as attachments in Appendix A.

#### 4.6.1 Standard Report

This report format provides the data in a two column format of result and qualifier. Non-detect values are reported as the limit of quantitation with a 'U' qualifier denoting the analyte was not detected at or above this reporting limit. Detected values are listed without qualification. All reporting limit exceedances are highlighted in gray and all concentration exceedances are highlighted in yellow.

#### 4.6.2 Report Limits

This report format provides the data in a two column format of result and reporting limit (RDL). All non-detect values are reported as 'ND'. Detected values are listed without qualification. Highlighting of exceedances is not available in this format.

#### 4.6.3 Soil Management (MACOMM-97) Report (limit/2)

This report format, widely used for risk assessment projects, provides the data in a single column format. The results column includes both the analyte result and one-half the reporting limit (RL) in parentheses, i.e. 450(5.2). All reporting limit and concentration exceedances are noted in **bold**.

In addition, the CAS (Chemical Abstract Service) Numbers for each analyte are included in this format as well as the Total 'SUM' values for Volatile Organics and Semivolatile Organics (including ABN, PAHs, PCBs and Pesticides).

NOTE: The 'Sum' is defined as the cumulative sum of hits only for all applicable analytes.

It should also be noted that although the result and  $\frac{1}{2}$  RL are listed in a single column, only the result value (or the  $\frac{1}{2}$  RL value for non-detects) is stored in each cell. This cell population enables further calculations by the data users.

#### 4.6.4 Soil Management (MACOMM-97) Report (limit)

This report format, widely used for risk assessment projects, provides the data in a single column format. The results column includes both the analyte result and the reporting limit (RL) in parentheses, i.e. 450(10.4). All reporting limit and concentration exceedances are noted in **bold**.

In addition, the CAS (Chemical Abstract Service) Numbers for each analyte are included in this format as well as the Total 'SUM' values for Volatile Organics and Semivolatile Organics (including ABN, PAHs, PCBs and Pesticides).

NOTE: The 'Sum' is defined as the cumulative sum of hits only for all applicable analytes.

It should also be noted that although the result and the RL are listed in a single column, only the result value (or the RL value for non-detects) is stored in each cell. This cell population enables further calculations by the data users.

#### 4.6.5 Standard Report Grouped by Category

This report format is similar to the format noted in Section 4.6.1. It provides the data in a two column format of result and qualifier; however, each analytical category is provided on a separate excel worksheet within the workbook. Non-detect values are reported as the limit of quantitation with a "U" qualifier denoting the analyte was not

detected at or above this reporting limit. Detected values are listed without qualification. All reporting limit exceedances are highlighted in gray and all concentration exceedances are highlighted in yellow.

#### 4.6.6 Soil Management (MACOMM-97) Report (limit/2) Grouped by Category

This report format is similar to the format noted in Section 4.6.3. It provides the data in a single column format; however, each analytical category is provided on a separate excel worksheet within the workbook.

The results column includes both the analyte result and one-half the reporting limit (RL) in parentheses, i.e. 450(5.2). All reporting limit and concentration exceedances are noted in **bold**.

In addition, the CAS (Chemical Abstract Service) Numbers for each analyte are included in this format as well as the Total 'SUM' values for Volatile Organics and Semivolatile Organics (including ABN, PAHs, PCBs and Pesticides).

NOTE: The 'Sum' is defined as the cumulative sum of hits only for all applicable analytes.

It should also be noted that although the result and  $\frac{1}{2}$  RL are listed in a single column, only the result value (or the  $\frac{1}{2}$  RL value for non-detects) is stored in each cell. This cell population enables further calculations by the data users.

#### 4.6.7 Soil Management (MACOMM)-97 Report (limit) Grouped by Category

This report format is similar to the format noted in Section 4.6.4. It provides the data in a single column format; however, each analytical category is provided on a separate excel worksheet within the workbook.

The results column includes both the analyte result and the reporting limit (RL) in parentheses, i.e. 450(10.4). All reporting limit and concentration exceedances are noted in **bold**.

In addition, the CAS (Chemical Abstract Service) Numbers for each analyte are included in this format as well as the Total 'SUM' values for Volatile Organics and Semivolatile Organics (including ABN, PAHs, PCBs and Pesticides).

NOTE: The 'Sum' is defined as the cumulative sum of hits only for all applicable analytes.

It should also be noted that although the result and the RL are listed in a single column, only the result value (or the RL value for non-detects) is stored in each cell. This cell population enables further calculations by the data users.

#### 4.6.8 Large Sample Set - Grouped by Category

This report format is also similar to the format noted in Section 4.6.1. It provides the data in a two column format of result and qualifier; however, each analytical category is provided on a separate excel worksheet within the workbook.

In addition, this format reverses the axes to allow the worksheet to upload sample sets in excess of Microsoft Excel's data import limits. As such, the applicable result qualifier is presented in parentheses next to the result value.

Non-detect values are reported as the limit of quantitation with a "U" qualifier denoting the analyte was not detected at or above this reporting limit. Detected values are listed without qualification. All reporting limit exceedances are highlighted in gray and all concentration exceedances are highlighted in yellow.

#### 4.6.9 Standard w/TIC

This report format is also similar to the format noted in Section 4.6.1. It provides the data in a two column format of result and qualifier. Non-detect values are reported as the limit of quantitation with a 'U' qualifier denoting the analyte was not detected at or above this reporting limit. Detected values are listed without qualification. All reporting limit exceedances are highlighted in gray and all concentration exceedances are highlighted in yellow.

In addition, results of Reportable Tentatively Identified Compounds (TICs) are included in this format as well as the Total 'SUM' values for Volatile Organics and Semivolatile Organics (including ABN, PAHs, PCBs and Pesticides).

NOTE: The 'Sum' is defined as the cumulative sum of hits only for all applicable analytes.

#### 4.7 Report Generation

Following report format selection, a data table can be generated for review and/or download.

Click the 'Generate Report' button at the bottom of the Data Merger page. This will generate the data table based on the criteria and specifications you selected.

NOTE: The estimated standard time to generate a report is 2-4 minutes; however, this estimate is affected by the number of samples and/or individual analytes selected.

Once the file is generated, you may view the data table and/or download the file to your computer. (Most computers prompt you to either view or save this file via a File Download window.)

#### 4.8 Report Content & Download

The first tab of every report format contains all table specifications and a detailed list of query parameters that were selected on the Data Merger page. It also lists the selected regulatory criteria and the associated regulation dates from which the criteria is referenced as well as general format comments for this report.

The remaining tab(s) includes the data table(s). When the document is opened, it will open on the first data table tab.

### 5 ADEx & Data Merger Links & Logout

Initial login into the Alpha Data Exchange grants you access to both ADEx as well as Data Merger. Each system contains links to the other to allow you access into both data access systems without additional login requirements.

Access into other areas of our website does require logout from the ADEx and/or Data Merger pages. We suggest that when you have completed your review and/or file downloads from these pages, you 'Logout' of the systems, However if you choose to link to one of our web site menus from with ADEx or Data Merger, the site will automatically log you out of your ADEx account.

Upon logged out, you will be returned to the Alpha web site home page, where we invite you to review the information regarding recent company and/or regulatory program news and upcoming webinars. Or feel free to browse our menus for links to a number of sample collection resources and on-line requests services.

Appendix A

Data Merger Formats

# - Standard Report -

LOCATION SAMPLING DATE LAB SAMPLE ID			SAMPLE 1/23/200 1.0801594-0	SAMPLE 1 1/23/2008 1.0801594-01		SAMPLE 1 1/23/2008 L0801594-01 R1	
LAD SAMI LE ID	GW-1-08 G	W-3-08 Units	L0001374-0	Oual	L0001394-01 KI	Oual	
Extractable Petroleum Hydrocarbons	- Westborough	n Lab		•		<b>C</b>	
C9-C18 Aliphatics	700	50000 ug/l	550		539		
C19-C36 Aliphatics	14000	50000 ug/l	370		365		
C11-C22 Aromatics		ug/l	190		190		
C11-C22 Aromatics, Adjusted	200	5000 ug/l	190		190		
Naphthalene	140	20000 ug/l	10.8	U	10.8	U	
2-Methylnaphthalene	10	20000 ug/l	10.8	U	10.8	U	
Acenaphthylene	30	40 ug/l	10.8	U	10.8	U	
Acenaphthene	20	6000 ug/l	10.8	U	10.8	U	
Fluorene	30	40 ug/l	10.8	U	10.8	U	
Phenanthrene	40	10000 ug/l	10.8	U	10.8	U	
Anthracene	60	30 ug/l	10.8	U	10.8	U	
Fluoranthene	90	200 ug/l	10.8	U	10.8	U	
Pyrene	80	20 ug/l	10.8	U	10.8	U	
Benzo(a)anthracene	1	1000 ug/l	10.8	U	10.8	U	
Chrysene	2	70 ug/l	10.8	Ū	10.8	Ū	
Benzo(b)fluoranthene	1	400 ug/l	10.8	U	10.8	U	
Benzo(k)fluoranthene	1	100 ua/l	10.8	Ū	10.8	Ū	
Benzo(a)pyrene	0.2	500 ug/l	10.8	Ū	10.8	Ū	
Indeno(1.2.3-cd)Pvrene	0.5	100 ug/l	10.8	Ŭ	10.8	Ū	
Dibenzo(a,h)anthracene	0.5	40 ug/l	10.8	Ŭ	10.8	Ŭ	
Benzo(ahi)pervlene	50	20 ug/l	10.8	Ŭ	10.8	Ŭ	
MCP Dissolved Metals - Westborough	n Lab			_		_	
Arsenic. Dissolved	10	900 ua/l	5	U	-	-	
Cadmium, Dissolved	5	4 ua/l	4	Ŭ	-	-	
Chromium, Dissolved	100	300 ug/l	10	Ŭ	-	-	
Lead. Dissolved	15	10 ug/l	10	Ũ	-	-	
Mercury, Dissolved	2	20 ug/l	0.2	Ŭ	-	-	
MCP Volatile Organics - Westborough	n Lab			-			
Methylene chloride	5	50000 ua/l	5	U	5	U	
1.1-Dichloroethane	70	20000 ug/l	0.75	Ŭ	0.75	Ŭ	
Chloroform	70	20000 ug/l	0.75	Ŭ	0.75	Ŭ	
Carbon tetrachloride	5	5000 ua/l	0.5	Ū	0.5	Ū	
1.2-Dichloropropane	5	50000 ug/l	1.8	Ū	1.8	Ū	
Dibromochloromethane	2	50000 ug/l	0.5	Ŭ	0.5	Ŭ	
1.1.2-Trichloroethane	5	50000 ug/l	0.75	Ŭ	0.75	Ŭ	
Tetrachloroethene	5	30000 ug/l	0.5	Ŭ	0.5	Ŭ	
Chlorobenzene	100	1000 ug/l	0.5	Ŭ	0.5	Ŭ	
Trichlorofluoromethane		ug/l	2.5	Ŭ	2.5	Ŭ	
1.2-Dichloroethane	5	20000 ug/l	0.5	Ŭ	0.5	Ŭ	
1.1.1-Trichloroethane	200	20000 ug/l	0.5	Ŭ	0.5	Ŭ	
Bromodichloromethane	3	50000 ug/l	0.5	Ŭ	0.5	Ŭ	
trans-1.3-Dichloropropene	0.4	200 ug/l	0.5	Ū	0.5	Ū	
cis-1.3-Dichloropropene	0.4	200 ug/l	0.5	Ŭ	0.5	Ŭ	
1.1-Dichloropropene	011	ua/l	2.5	Ŭ	2.5	Ŭ	
Bromoform	4	50000 ug/l	2	Ŭ	2	Ŭ	
1.1.2.2-Tetrachloroethane	2	50000 ug/l	0.5	Ŭ	0.5	Ŭ	
Benzene	5	10000 ug/l	0.5	Ŭ	0.5	Ŭ	
Toluene	1000	40000 ug/l	0.75	ŭ	0.75	1	
Ethylbenzene	700	5000 ug/l	0.5	ŭ	0.5	11	
Chloromethane	,	un/l	2.5	ii	25	11	
Bromomethane	10	800 ug/l	2.5	11	2.0	11	
Vinyl chloride	2	50000 ug/l	15	0	24	0	
Chloroethane	2	un/l	1.5	11	1	11	
1 1-Dichloroethene	7	30000 ug/l	0.5	11	05	11	
trans-1,2-Dichloroethene	100	50000 ua/l	25	-	32	0	

# - Report Limits -

LOCATION			SAMPLE 1		SAMPLE 1	
SAMPLING DATE			1/23/2008		1/23/2008	
LAB SAMPLE ID			L0801594-01		L0801594-01 R1	
	GW-1-08 G	W-3-08 Units	1000107101	Reporting Limit	200010710110	Reporting Limit
Extractable Petroleum Hydrocarbons - V	Vestborouat	n Lab		Reporting Linit		Reporting Linit
C9-C18 Alighetics	700	50000 ug/l	550	108	530	108
C19-C36 Aliphatics	14000	50000 ug/l	370	108	365	108
C11 C22 Aromatics	14000	50000 ug/l	100	100	100	100
C11-C22 Aromatics	200	ug/1	190	100	190	100
CTT-C22 Afomalics, Adjusted	200	5000 ug/l	190 ND	108	190	108
	140	20000 ug/l	ND	10.8	ND	10.8
2-Methylnaphthalene	10	20000 ug/i	ND	10.8	ND	10.8
Acenaphthylene	30	40 ug/l	ND	10.8	ND	10.8
Acenaphthene	20	6000 ug/l	ND	10.8	ND	10.8
Fluorene	30	40 ug/l	ND	10.8	ND	10.8
Phenanthrene	40	10000 ug/l	ND	10.8	ND	10.8
Anthracene	60	30 ug/l	ND	10.8	ND	10.8
Fluoranthene	90	200 ug/l	ND	10.8	ND	10.8
Pvrene	80	20 uɑ/l	ND	10.8	ND	10.8
Benzo(a)anthracene	1	1000 ug/l	ND	10.8	ND	10.8
Chrysene	2	70 ug/l	ND	10.8	ND	10.8
Bonzo(b)fluoranthono	- 1	400 ug/l	ND	10.0	ND	10.8
Denzo(b)iluoranthene	1	400 ug/i	ND	10.0	ND	10.0
Benzo(k)nuorantnene	1	100 ug/i	ND	10.8	ND	10.8
Benzo(a)pyrene	0.2	500 ug/i	ND	10.8	ND	10.8
Indeno(1,2,3-cd)Pyrene	0.5	100 ug/l	ND	10.8	ND	10.8
Dibenzo(a,h)anthracene	0.5	40 ug/l	ND	10.8	ND	10.8
Benzo(ghi)perylene	50	20 ug/l	ND	10.8	ND	10.8
MCP Dissolved Metals - Westborough L	ab					
Arsenic, Dissolved	10	900 ug/l	ND	5	-	-
Cadmium, Dissolved	5	4 ug/l	ND	4	-	-
Chromium, Dissolved	100	300 ug/l	ND	10	-	-
Lead, Dissolved	15	10 ug/l	ND	10	-	-
Mercury Dissolved	2	20 ug/l	ND	0.2	-	-
MCP Volatile Organics - Westborough I	ah	20 49/1	T(D)	0.2		
Methylene chloride	5	50000 ug/l	ND	5	ND	5
1 1 Diobleroothono	70	20000 ug/l	ND	0.75	ND	0.75
Chleneferrer	70	20000 ug/i	ND	0.75	ND	0.75
	70	20000 ug/i	ND	0.75	ND	0.75
Carbon tetrachioride	5	5000 ug/i	ND	0.5	ND	0.5
1,2-Dichloropropane	5	50000 ug/l	ND	1.8	ND	1.8
Dibromochloromethane	2	50000 ug/l	ND	0.5	ND	0.5
1,1,2-Trichloroethane	5	50000 ug/l	ND	0.75	ND	0.75
Tetrachloroethene	5	30000 ug/l	ND	0.5	ND	0.5
Chlorobenzene	100	1000 ug/l	ND	0.5	ND	0.5
Trichlorofluoromethane		ug/l	ND	2.5	ND	2.5
1,2-Dichloroethane	5	20000 ug/l	ND	0.5	ND	0.5
1.1.1-Trichloroethane	200	20000 ug/l	ND	0.5	ND	0.5
Bromodichloromethane	3	50000 ug/l	ND	0.5	ND	0.5
trans-1 3-Dichloropropene	04	200 ug/l	ND	0.5	ND	0.5
cis-1 3-Dichloropropene	0.4	200 ug/l	ND	0.5	ND	0.5
	0.4	200 ug/l	ND	0.5	ND	0.5
Remeform	4	ug/1		2.5		2.5
	4	50000 ug/i	ND	2	ND	2
1,1,2,2-1 etrachioroethane	2	50000 ug/i	ND	0.5	ND	0.5
Benzene	5	10000 ug/l	ND	0.5	ND	0.5
loluene	1000	40000 ug/l	ND	0.75	ND	0.75
Ethylbenzene	700	5000 ug/l	ND	0.5	ND	0.5
Chloromethane		ug/l	ND	2.5	ND	2.5
Bromomethane	10	800 ug/l	ND	1	ND	1
Vinyl chloride	2	50000 ug/l	1.5	1	2.4	1
Chloroethane		ug/l	ND	1	ND	1
1,1-Dichloroethene	7	30000 ua/l	ND	0.5	ND	0.5
trans-1,2-Dichloroethene	100	50000 ua/l	25	0.75	32	0.75
· · · · · · ·			-	-		-

### - Soil Management (MACOMM-97) Report (Limit/2) -

Sample Results Comparison with Reportable Concentrations GW-1-08, GW-3-08 Criteria.

LOCATION SAMPLING DATE LAB SAMPLE ID					SAMPLE 1 1/23/2008 L0801594-01	SAMPLE 1 1/23/2008 L0801594-01 R1
	CasNum	GW-1-08	GW-3-08	Units		
Extractable Petroleum Hydrocarbons - West	oorough Lab					
C9-C18 Aliphatics	C9-C18-ALPHA-UJ	700	50000	ug/l	550	539
C19-C36 Aliphatics	C19-C36-ALPHA-UJ	14000	50000	ug/l	370	365
C11-C22 Aromatics	C11-C22-ALPHA-UJ			ug/l	190	190
C11-C22 Aromatics, Adjusted	C11-C22-ALPHA-J	200	5000	ug/l	190	190
Naphthalene	91-20-3	140	20000	ug/l	ND(5.4)	ND(5.4)
2-Methylnaphthalene	91-57-6	10	20000	ug/l	ND(5.4)	ND(5.4)
Acenaphthylene	208-96-8	30	40	ug/l	ND(5.4)	ND(5.4)
Acenaphthene	83-32-9	20	6000	ug/l	ND(5.4)	ND(5.4)
Fluorene	86-73-7	30	40	ug/l	ND(5.4)	ND(5.4)
Phenanthrene	85-01-8	40	10000	ug/l	ND(5.4)	ND(5.4)
Anthracene	120-12-7	60	30	ug/l	ND(5.4)	ND(5.4)
Fluoranthene	206-44-0	90	200	ug/l	ND(5.4)	ND(5.4)
Pyrene	129-00-0	80	20	ug/l	ND(5.4)	ND(5.4)
Benzo(a)anthracene	56-55-3	1	1000	ug/l	ND(5.4)	ND(5.4)
Chrysene	218-01-9	2	70	ug/l	ND(5.4)	ND(5.4)
Benzo(b)fluoranthene	205-99-2	1	400	ug/l	ND(5.4)	ND(5.4)
Benzo(k)fluoranthene	207-08-9	1	100	ug/l	ND(5.4)	ND(5.4)
Benzo(a)pyrene	50-32-8	0.2	500	ug/l	ND(5.4)	ND(5.4)
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	100	ug/l	ND(5.4)	ND(5.4)
Dibenzo(a,h)anthracene	53-70-3	0.5	40	ug/l	ND(5.4)	ND(5.4)
Benzo(ghi)perylene	191-24-2	50	20	ug/l	ND(5.4)	ND(5.4)
MCP Dissolved Metals - Westborough Lab						
Arsenic, Dissolved	7440-38-2	10	900	ug/l	ND(2.5)	-
Cadmium, Dissolved	7440-43-9	5	4	ug/l	ND(2)	-
Chromium, Dissolved	7440-47-3	100	300	ug/l	ND(5)	-
Lead, Dissolved	7439-92-1	15	10	ug/l	ND(5)	-
Mercury, Dissolved	7439-97-6	2	20	ug/l	ND(0.1)	-
MCP Volatile Organics - Westborough Lab						
Methylene chloride	75-09-2	5	50000	ug/l	ND(2.5)	ND(2.5)
1,1-Dichloroethane	75-34-3	70	20000	ug/l	ND(0.375)	ND(0.375)
Chloroform	67-66-3	70	20000	ug/l	ND(0.375)	ND(0.375)

#### Further down in the table, shows the following.....

n-Propylbenzene	103-65-1		ug/l	ND(0.25)	ND(0.25)
1,2,3-Trichlorobenzene	87-61-6		ug/l	ND(1.25)	ND(1.25)
1,2,4-Trichlorobenzene	120-82-1	70	50000 ug/l	ND(1.25)	ND(1.25)
1,3,5-Trimethylbenzene	108-67-8		ug/l	ND(1.25)	ND(1.25)
1,2,4-Trimethylbenzene	95-63-6		ug/l	ND(1.25)	ND(1.25)
Ethyl ether	60-29-7		ug/l	ND(1.25)	ND(1.25)
Isopropyl Ether	108-20-3		ug/l	ND(1)	ND(1)
Ethyl-Tert-Butyl-Ether	637-92-3		ug/l	ND(1)	ND(1)
Tertiary-Amyl Methyl Ether	994-05-8		ug/l	ND(1)	ND(1)
1,4-Dioxane	123-91-1	3	50000 ug/l	ND(125)	ND(125)
SUM			· ·	26.5	34.4

### - Soil Management (MACOMM-97) Report (Limit) -

Sample Results Comparison with Reportable Concentrations GW-1-08, GW-3-08 Criteria.

LC	OCATION					SAMPLE 1	SAMPLE 1
SA	MPLING DATE					1/23/2008	1/23/2008
LA	AB SAMPLE ID					L0801594-01	L0801594-01 R1
		CasNum	GW-1-08	GW-3-08	Units		
Extractable Pe	etroleum Hydrocarbons - West	borough Lab					
C9	-C18 Aliphatics	C9-C18-ALPHA-UJ	700	50000	ug/l	550	539
C1	9-C36 Aliphatics	C19-C36-ALPHA-UJ	14000	50000	ug/l	370	365
C1	1-C22 Aromatics	C11-C22-ALPHA-UJ			ug/l	190	190
C1	1-C22 Aromatics, Adjusted	C11-C22-ALPHA-J	200	5000	ug/l	190	190
Na	phthalene	91-20-3	140	20000	ug/l	ND(10.8)	ND(10.8)
2-1	Vethylnaphthalene	91-57-6	10	20000	ug/l	ND(10.8)	ND(10.8)
Ac	enaphthylene	208-96-8	30	40	ug/l	ND(10.8)	ND(10.8)
Ac	enaphthene	83-32-9	20	6000	ug/l	ND(10.8)	ND(10.8)
Flu	Jorene	86-73-7	30	40	ug/l	ND(10.8)	ND(10.8)
Ph	enanthrene	85-01-8	40	10000	ug/l	ND(10.8)	ND(10.8)
An	thracene	120-12-7	60	30	ug/l	ND(10.8)	ND(10.8)
Flu	Joranthene	206-44-0	90	200	ug/l	ND(10.8)	ND(10.8)
Py	rene	129-00-0	80	20	ug/l	ND(10.8)	ND(10.8)
Be	nzo(a)anthracene	56-55-3	1	1000	ug/l	ND(10.8)	ND(10.8)
Ch	irysene	218-01-9	2	70	ug/l	ND(10.8)	ND(10.8)
Be	nzo(b)fluoranthene	205-99-2	1	400	ug/l	ND(10.8)	ND(10.8)
Be	nzo(k)fluoranthene	207-08-9	1	100	ug/l	ND(10.8)	ND(10.8)
Be	nzo(a)pyrene	50-32-8	0.2	500	ug/l	ND(10.8)	ND(10.8)
Inc	leno(1,2,3-cd)Pyrene	193-39-5	0.5	100	ug/l	ND(10.8)	ND(10.8)
Dit	penzo(a,h)anthracene	53-70-3	0.5	40	ug/l	ND(10.8)	ND(10.8)
Be	nzo(ghi)perylene	191-24-2	50	20	ug/l	ND(10.8)	ND(10.8)
MCP Dissolve	d Metals - Westborough Lab						
Ars	senic, Dissolved	7440-38-2	10	900	ug/l	ND(5)	-
Ca	dmium, Dissolved	7440-43-9	5	4	ug/l	ND(4)	-
Ch	romium, Dissolved	7440-47-3	100	300	ug/l	ND(10)	-
Le	ad, Dissolved	7439-92-1	15	10	ug/l	ND(10)	-
Me	ercury, Dissolved	7439-97-6	2	20	ug/l	ND(0.2)	-
MCP Volatile	Organics - Westborough Lab				•		
Me	ethylene chloride	75-09-2	5	50000	ug/l	ND(5)	ND(5)
1,1	I-Dichloroethane	75-34-3	70	20000	ug/l	ND(0.75)	ND(0.75)
Ch	loroform	67-66-3	70	20000	ug/l	ND(0.75)	ND(0.75)

#### Further down in the table, shows the following.....

n-Propylbenzene	103-65-1		ug/l	ND(0.5)	ND(0.5)
1,2,3-Trichlorobenzene	87-61-6		ug/l	ND(2.5)	ND(2.5)
1,2,4-Trichlorobenzene	120-82-1	70	50000 ug/l	ND(2.5)	ND(2.5)
1,3,5-Trimethylbenzene	108-67-8		ug/l	ND(2.5)	ND(2.5)
1,2,4-Trimethylbenzene	95-63-6		ug/l	ND(2.5)	ND(2.5)
Ethyl ether	60-29-7		ug/l	ND(2.5)	ND(2.5)
Isopropyl Ether	108-20-3		ug/l	ND(2)	ND(2)
Ethyl-Tert-Butyl-Ether	637-92-3		ug/l	ND(2)	ND(2)
Tertiary-Amyl Methyl Ether	994-05-8		ug/l	ND(2)	ND(2)
1,4-Dioxane	123-91-1	3	50000 ug/l	ND(250)	ND(250)
SUM				26.5	34.4

# - Standard Report Grouped by Category -

	А	B	С	D	Н	1	J	K	L.	M	
1											
2			_								
3									_		
4		LOCATION				SAMPLE 1		SAMPLE 1			
5	1	SAMPLING DATE				1/23/2008		1/23/2008			
6		LAB SAMPLE ID				L0801594-01		L0801594-01 R1			
9			GW-1-08	GW-3-08	Units				Qual		
10	Extra	actable Petroleum Hydrocarbons	- Westbord	ough Lab					120-1		
11		C9-C18 Aliphatics	700	50000	ug/l	550		539			
12		C19-C36 Aliphatics	14000	50000	ug/l	370		365			
13	-	C11-C22 Aromatics			ug/l	190		190			
14		C11-C22 Aromatics, Adjusted	200	5000	ug/l	190		190	4		
15	1	Naphthalene	140	20000	ug/l	10.8	U	10.8	U		
16		2-Methylnaphthalene	10	20000	ug/l	10.8	U	10.8	U		
17		Acenaphthylene	30	40	ug/l	10.8	U	10.8	U		
18		Acenaphthene	20	6000	ug/l	10.8	U	10.8	U		
19		Fluorene	30	40	ug/l	10.8	U	10.8	U		
20		Phenanthrene	40	10000	ug/l	10.8	U	10.8	U		
21		Anthracene	60	30	ug/l	10.8	U	10.8	U		
22		Fluoranthene	90	200	ug/l	10.8	U	10.8	U		
23		Pyrene	80	20	ug/l	10.8	U	10.8	U		
24		Benzo(a)anthracene	1	1000	ug/l	10.8	U	10.8	U		
25		Chrysene	2	70	ug/l	10.8	U	10.8	U		
26		Benzo(b)fluoranthene	1	400	ug/l	10.8	U	10.8	U		
27		Benzo(k)fluoranthene	1	100	ug/l	10.8	U	10.8	U		
28		Benzo(a)pyrene	0.2	500	ug/l	10.8	U	10.8	U		
29		Indeno(1,2,3-cd)Pyrene	0.5	100	ug/l	10.8	U	10.8	U		
30		Dibenzo(a,h)anthracene	0.5	40	ug/l	10.8	U	10.8	U		
31		Benzo(ghi)perylene	50	20	ug/l	10.8	U	10.8	U		
32		NI 2000 20									
14 4	-	Alphalab EPH and VPH Tests	Volatile Or	idanics	Trace Metals	/2/			1 1		
Rea	dy									Œ	

# - Soil Management (MACOMM-97) Report (Limit/2) -

# - Grouped by Category -

	A	В	С	D	E	1	J	K	Ls	M
1	Sample Re	sults Comparison with Reportabl	e Concentrations GV	V-1-08, GW-	-3-08 Criter	a.				
2										
3										
4		LOCATION					SAMPLE 1	SAMPLE 1		
5		SAMPLING DATE					1/23/2008	1/23/2008		
6	1	LAB SAMPLE ID				100	L0801594-01	L0801594-01 R1		
9			CasNum	GW-1-08	GW-3-08	Units				
10	MCP Volat	tile Organics - Westborough Lab			a hour of the			25-25-51 (Sector 55		
11		Methylene chloride	75-09-2	5	50000	ug/l	ND(2.5)	ND(2.5)		
12		1,1-Dichloroethane	75-34-3	70	20000	ug/l	ND(0.375)	ND(0.375)		
13		Chloroform	67-66-3	70	20000	ug/l	ND(0.375)	ND(0.375)		
14		Carbon tetrachloride	56-23-5	5	5000	ug/l	ND(0.25)	ND(0.25)		
15		1,2-Dichloropropane	78-87-5	5	50000	ug/l	ND(0.9)	ND(0.9)		
16		Dibromochloromethane	124-48-1	2	50000	ug/l	ND(0.25)	ND(0.25)		
17		1,1,2-Trichloroethane	79-00-5	5	50000	ug/l	ND(0.375)	ND(0.375)		
18		Tetrachloroethene	127-18-4	5	30000	ug/l	ND(0.25)	ND(0.25)		
19		Chlorobenzene	108-90-7	100	1000	ug/l	ND(0.25)	ND(0.25)		
20		Trichlorofluoromethane	75-69-4		240,000,000,000	ug/l	ND(1.25)	ND(1.25)		
21		1,2-Dichloroethane	107-06-2	5	20000	ug/l	ND(0.25)	ND(0.25)		
22		1,1,1-Trichloroethane	71-55-6	200	20000	ug/l	ND(0.25)	ND(0.25)		
23		Bromodichloromethane	75-27-4	3	50000	ug/l	ND(0.25)	ND(0.25)		
24		trans-1,3-Dichloropropene	10061-02-6	0.4	200	ug/l	ND(0.25)	ND(0.25)		
25		cis-1,3-Dichloropropene	10061-01-5	0.4	200	ug/l	ND(0.25)	ND(0.25)		
26		1,1-Dichloropropene	563-58-6			ug/l	ND(1.25)	ND(1.25)		
27		Bromoform	75-25-2	4	50000	ug/l	ND(1)	ND(1)		
28		1,1,2,2-Tetrachloroethane	79-34-5	2	50000	ug/l	ND(0.25)	ND(0.25)		
29		Benzene	71-43-2	5	10000	ug/l	ND(0.25)	ND(0.25)		
30		Toluene	108-88-3	1000	40000	ug/l	ND(0.375)	ND(0.375)		
31		Ethylbenzene	100-41-4	700	5000	ug/l	ND(0.25)	ND(0.25)		
32		Chloromethane	74-87-3			ug/l	ND(1.25)	ND(1.25)		
11	Alph	alab FPH and VPH Tests Vola	tile Organics	Metals	000	7	ND/0 D	ND/0 D		
			and organics _ 11000	Charlen and Car				G		

# - Soil Management (MACOMM-97) Report (Limit) -

# - Grouped by Category -

A	A	В	С	D E		1	J	К	L	М
1	Sample Res	Its Comparison with Reportable	Concentrations GW-1	-08, GW-3-	08 Criteria					
2	e 1. 1. 1									
3										
4		LOCATION					SAMPLE 1	SAMPLE 1		
5		SAMPLING DATE					1/23/2008	1/23/2008		
6		LAB SAMPLE ID					L0801594-01	L0801594-01 R1		
9			CasNum	GW-1-08	GW-3-08	Units				
10	MCP Dissolv	ved Metals - Westborough Lab								
11		Arsenic, Dissolved	7440-38-2	10	900	ug/l	ND(5)	-		
12		Cadmium, Dissolved	7440-43-9	5	4	ug/l	ND(4)	-		
13		Chromium, Dissolved	7440-47-3	100	300	ug/l	ND(10)	-		
14		Lead, Dissolved	7439-92-1	15	10	ug/l	ND(10)			
15		Mercury, Dissolved	7439-97-6	2	20	ug/l	ND(0.2)	) <b>-</b>		
16										
17										
18				-				-		
19	1							-		
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22	-									
23										
24										
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28										
29										
30										
31										
32				and the second						
14	Alpha	lab 🖉 EPH and VPH Tests 🏑 Volat	ile Organics Trace Me	tals 🖉				11		
Rea	ady							(III C	100%	. 🕞

# - Large Sample Set Grouped by Category -

	A	В	С	D	E	F	G	Н	1
1									
2									
3					MCP Dissolved Metals - Westborough Lab				
4					Arsenic, Dissolved	Cadmium, Dissolved	Chromium, Dissolved	Lead, Dissolved	Mercury, Dissolved
5				GW-1-08	10	5	100	15	2
6	a survey and the second	and the second se		GW-3-08	900	4	300	10	20
10	LOCATION	SAMPLING DATE	LAB SAMPLE ID	Units	ug/l	ug/l	ug/l	ug/l	ug/l
11	SAMPLE 1	1/23/2008	L0801594-01		5(U)	4(U)	10(U)	10(U)	0.2(U)
12					0.000			u strait	
13									
14	1								
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18									
19									
20									
21	-								
22	1								
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26									
27									
28									
29									
30	1								8
31									
32									
33									
34									
35									
14 4	🕨 🕨 Alphalab	EPH and VPH Test	ts 📈 Volatile Orga	nics Tra	ace Metals 🏾 🖓 🖉	14			×
Rea	dy							90%	