

North Carolina Division of Air Quality

Quality Assurance Project Plan

2.51 Volatile Organic Compounds (VOCs) by TO-15

Section 4.2

Raleigh Central Office Responsibilities

**Standard Operating Procedure to
Transfer VOC Data from the Lab to
the Master Spreadsheet**

Version 2015

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Approval Sign-Off Sheet

I certify that I have read and approve of the contents of this revision of the SOP to Transfer VOC Data from the Lab to the Master Spreadsheet with an effective date of 7/31/15.

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2.51.4.2 Standard Operating Procedure to Transfer VOC Data from the Lab to the Master Spreadsheet

2.51.4.2.1 Purpose: The purpose of this SOP is to describe the steps needed to transfer VOC analysis data from the files generated by the GC/MS system to the master VOC spreadsheet.

2.51.4.2.2 Equipment Description: PC connected to the network drive -- group on 'air.ncdenr.net\dfs' – usually mapped to drive letter P.

2.51.4.2.3 Directions for using the macro with the spreadsheet:

2.51.4.2.3.1 At P:\Toxics\Urban Air Toxics\VOC's Current Year Data\, select one folder of data you want to put into the master spreadsheet (for example 09-13-13 TO15). Open the folder and make a new folder named “Other” then move all blk and s files to the “Other” folder.

2.51.4.2.3.2 Check to compare the “inj. Notes” IDs in the CSV files. Move “bad” record indicated files to the “Other” folder.

2.51.4.2.3.3 If samples were analyzed on more than one day, open the QA/QC excel file, and save it with another name for each additional day.

- For TO15 folder: Open excel file, in row 18 change date and save with another name. For example, at 09-13-13 TO15 folder open Sep 13 13.xls and in row 18 change 9/13/2013 to 9/14/2013 and save it with a name Sep 14 13.xls. (The idea here is that there must be a file for each analysis date that there is data for, and those files must have the analysis date in column E row 18 of the QA/QC spreadsheet.).
- For “A” folder if any: Open the A excel file, in row 18 change date and save with another name. (do same thing like TO15 folder). Copy row 17 to row 25 and paste to row 90 column A of the TO-15 QA/QC spreadsheet, make sure Acetaldehyde is located row 94 column A. (The macro runs from row 94 column A)

2.51.4.2.3.4 Open P:\Toxics\Urban Air Toxics\VOC's Current Year Data\ UAT Data xxxx Spreadsheetkec.xls. If necessary (Figure 1), at left upper corner click security warning options, click enable this content and click OK button.

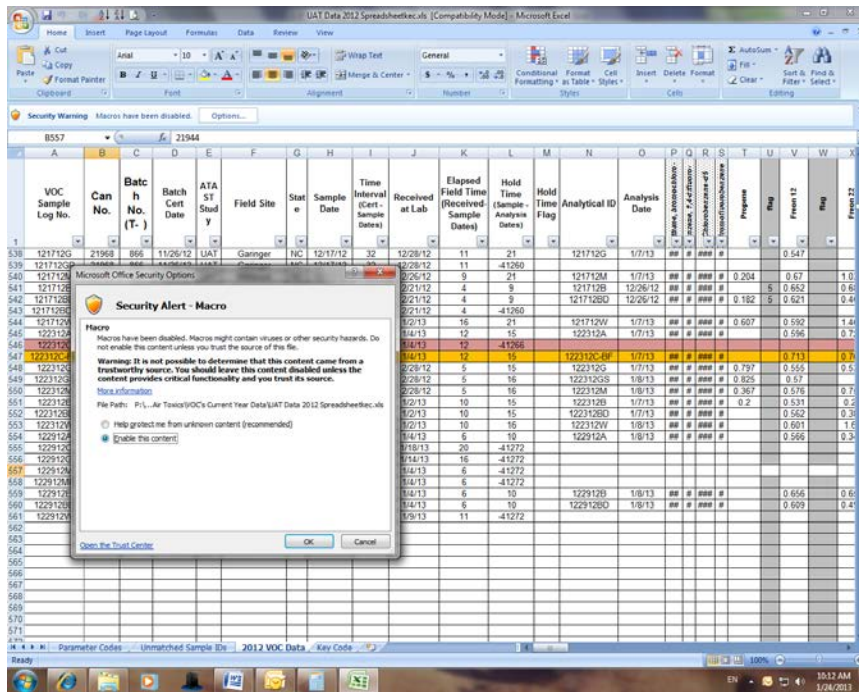


Figure 1. Screen shot of security alert requiring action.

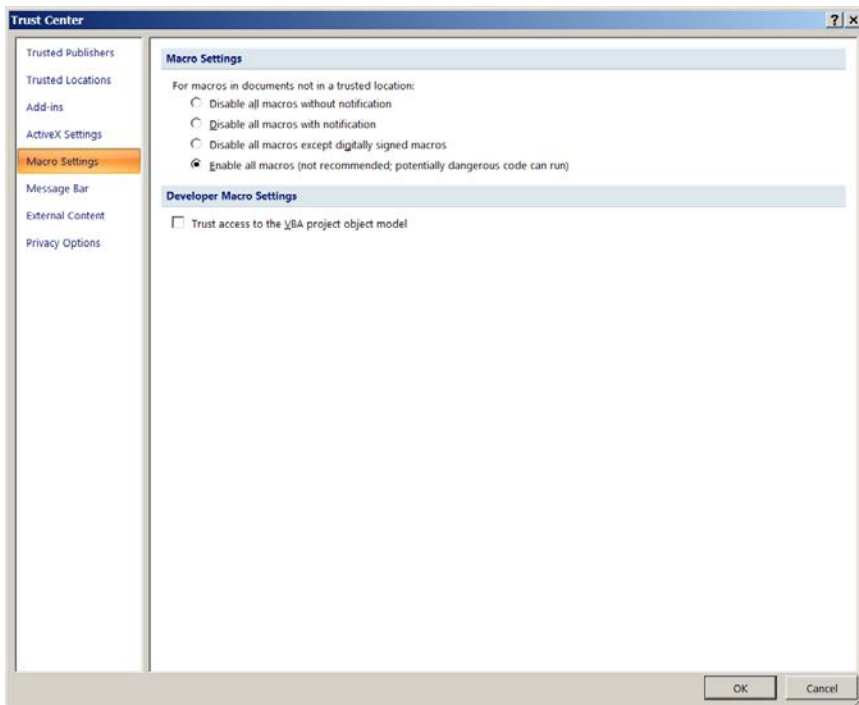


Figure 2. Trust Center Macro Settings Enabled

If your PC already has the setting shown in Figure 2 you will never see the “Security Alert Macro” and this step is OK.

2.51.4.2.3.5 To run the Macro, go to View on the top tool bar. Click on View and then Macro (see Figure 3) and click on KevinOursFunction1, then click Edit. Microsoft Visual Basic will open up (Figure 4). The system may have only two KevinOurs macros and a Runall macro. In that case skip to step 2.51.4.2.3.15.

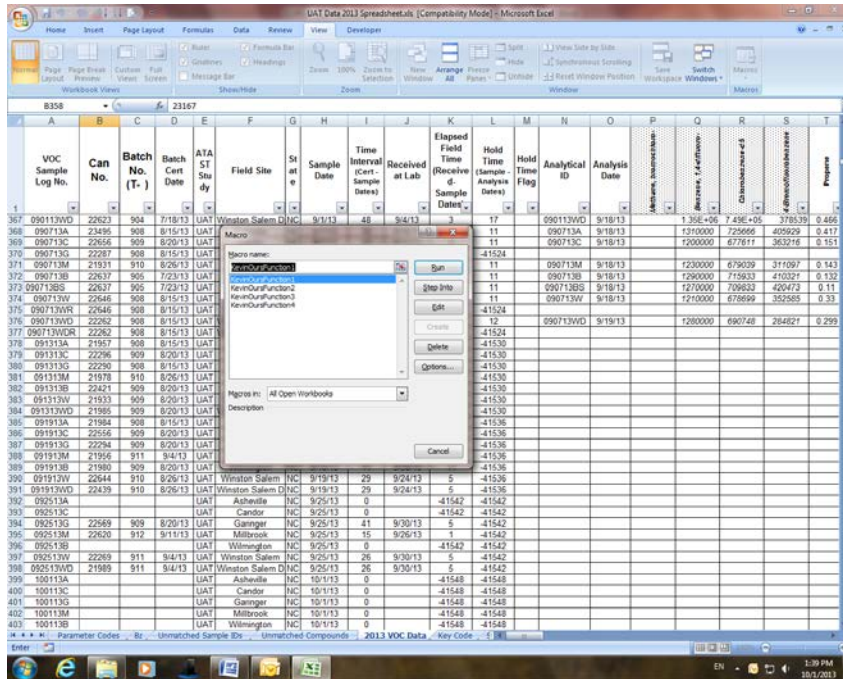


Figure 3. View Macros Screen.

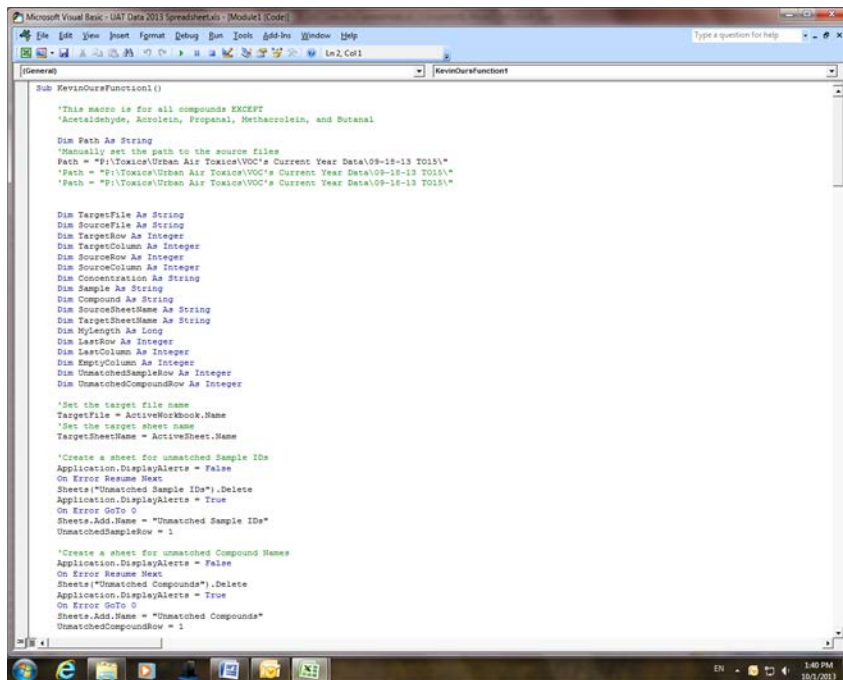


Figure 4. Macro opened for editing with Visual Basic Editor.

- 2.51.4.2.3.6 The Macro's are already imported into visual Basic editor (Figure 4). If there are four macros, the first macro is for all compounds EXCEPT Acetaldehyde, Acrolein, Propanal, Methacrolein, and Butanal. Change the Path to match your source files location. For example, if you want to put P:\Toxics\Urban Air Toxics\VOC's Current Year Data\09-18-13 TO15 data into spreadsheet, the path must match your folder location. Now two excel files open, one is data spreadsheet, the other is visual Basic. Save it.
- 2.51.4.2.3.7 Back to the data spreadsheet. Click on KevinOursFunction1 then click Run.
- 2.51.4.2.3.8 After Run, click the unmatched compounds sheet check if there are any compounds here. If you see Methane, bromochloro- just ignore it, it is an internal standard.
- 2.51.4.2.3.9 Click the unmatched sample ID sheet, check if any sample IDs appear. If there are, create rows in the master spreadsheet to accommodate the missed samples or correct the ID in the CSV file depending on where the error lies. If the unmatched ID ends with D, R or S, find the row in the master spreadsheet that matches except for the D, R or S. Insert a row below it, copy information from columns A to M in the matching row, paste in the added row and change the ID in the added row by adding the D, R or S. Then run the macro again.
- 2.51.4.2.3.10 Repeat 2.51.4.2.3.8 and 2.51.4.2.3.9.
- 2.51.4.2.3.11 Click on KevinOursFunction2, then click Edit. This macro is ONLY for Acetaldehyde, Acrolein, Propanal, Methacrolein, and Butanal. Repeat steps above for this macro.
- 2.51.4.2.3.12 Click on KevinOursFunction3, then click Edit. This macro is to get the flags from the QA/QC excel file for all compounds EXCEPT Acetaldehyde, Acrolein, Propanal, Methacrolein, and Butanal. Edit the path, save and run.
- 2.51.4.2.3.13 Click on KevinOursFunction4, then click Edit. This macro is to get flags for only Acetaldehyde, Acrolein, Propanal, Methacrolein, and Butanal. Edit the path, save and run.
- 2.51.4.2.3.14 The Macros will fill in all the data and the flags from the QA/AC report. After the process is complete, Save it.
- 2.51.4.2.3.15 If there are just two KevinOurs macros and a Runall macro, open the first and edit the path. Scroll down and you should find the second macro, edit the path. Save and run the Runall macro. Check the unmatched compounds sheet and the unmatched sample ID sheet. Make corrections as needed.

2.51.4.2.4 Troubleshooting

After running the KevinOursFunction3 macro, check the “unmatched compounds” sheet. If there are only one or two compounds listed, correct them manually. If there are a lot of compounds listed follow the process below:

- 2.51.4.2.4.1 In P:\Toxics\Urban Air Toxics\ find the \09-18-13 TO15\ folder.
- 2.51.4.2.4.2 Open the file Sep 18, 13.xls
- 2.51.4.2.4.3 Copy column A row 21 to 87 and paste in the file that you want to input (paste to column A row 21).
- 2.51.4.2.4.4 Run the macro again.