SOP 009 – Introduction to Toxlog

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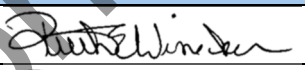
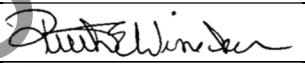
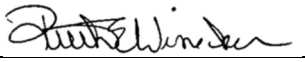
SOP Name: Introduction to Toxlog		SOP #: 009
North Carolina Office of the Chief Medical Examiner Toxicology Laboratory	**Revision:**	**Revision Date/Initials:**
Approving Authority Name	**Approving Authority Signature**	**Approval Date**
Ruth E. Winecker, Ph.D.		04/07/2015
Ruth E. Winecker, Ph.D.		06/10/2016
Ruth E. Winecker, Ph.D.		08/29/2017

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SOP 009 – Introduction to Toxlog

1.1. Principle

1.2. **Toxlog is the name of the Microsoft Access based Laboratory Information Management System (LIMS) used in the NC OCME Toxicology Laboratory. Toxlog is linked to the Medical Examiner Information System (MEIS), which transfers accessioning information, creating records to which toxicology tests can be added and the results stored. This information is then transferred back to MEIS for the creation of final Toxicology reports which are sent out to Medical Examiners, Pathologists, and other requestors as part of the death investigation report.**

1.3. This document is designed to allow a new user to navigate Toxlog and to become familiar with some of its main functions.

1.4. Specimens

1.5. N/A

1.6. Reagents and Materials

1.7. N/A

1.8. Instrumentation and Equipment

1.9. Networked PC Configured for Toxlog.

1.10. Procedure

1.10.1. Open Toxlog using the shortcut:

1.10.2.

1.10.3. If no shortcut is available, the program can be found here: S:\toxicology\analyst\access\toxlog

1.11. **Display Pending List**

1.11.1. From the "Main Switchboard" screen, select "Miscellaneous Reports – Pending Cases"

1.11.2. The report displays the available assays listed alphabetically (headings) and a list of specimens requiring that test under each.

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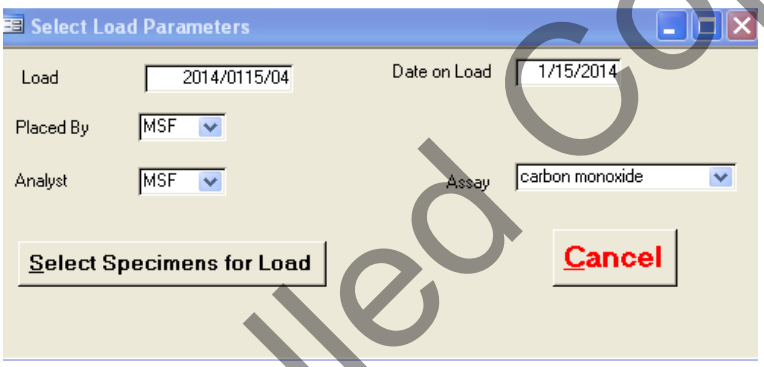
1.11.3. Navigate through the report using the small arrows located in the lower left of the page or print the report using the printer icon.

1.11.4. Select "Close" to close the report.

1.11.5. Select "Exit" to go back to the "Main Switchboard".

1.12. Create a Load (Batch)

1.12.1. From the "Main Switchboard" screen, select "Worklists – New Worklist".

1.12.1.1. 

1.12.2. Populate each blank field with appropriate information

1.12.2.1. Load: Software generated – YYYYMMDD##

1.12.2.1.1. YYYY = current year

1.12.2.1.2. MM = current month

1.12.2.1.3. DD = current day

1.12.2.1.4. ## = load number (starts at 01 and increases by one with each subsequent load) – resulting in a unique load identifier

a. If creating the first load on a given day, change the day and ## to reflect the date and the 1st load of the day (e.g. 2014/0115/04 changed to 2014/0116/01 for the first load of Jan. 16th, 2014).

1.12.2.2. Placed by: Initials of person creating the load

1.12.2.3. Analyst: Initials of person performing analysis (often the same as "Placed by")

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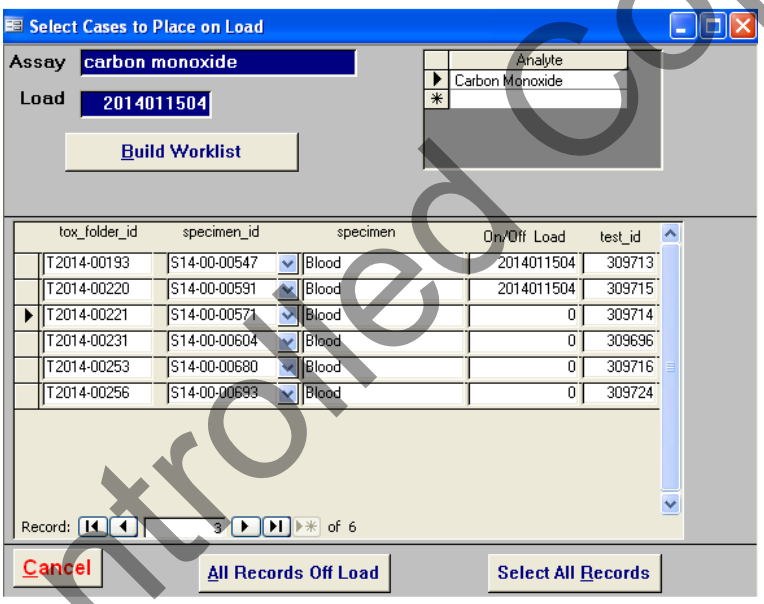
1.12.2.4. Date on Load: Software generated

1.12.2.5. Assay: Test to be performed (Dropdown list).

1.12.3. Choose "Select Specimens for Load".

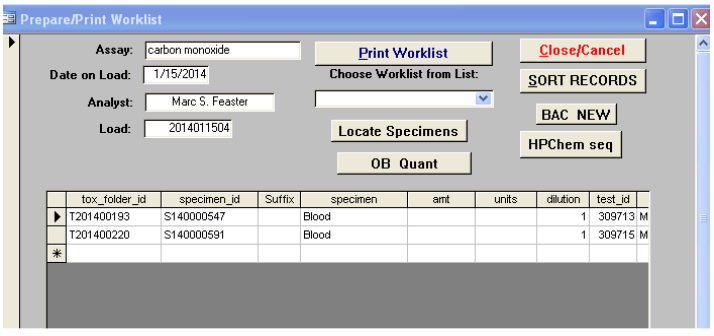
1.12.4. A list of available specimens will appear.

1.12.5. To place a specimen on load, click the adjacent cell in the "On/Off Load" column. Click the same cell again to remove the specimen from the load.

1.12.5.1. 

1.12.6. To place all of the available specimens on load, select the "Select All Records" button.

1.12.7. Select "Build Worklist"

1.12.7.1. 

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1.12.8. To Print the storage locations of the specimens on this load, select "Locate Specimens"

1.12.9. From the dropdown menu (below "Choose Worklist from List :"), select the load type (typically Generic for chromatographic assays, color tests have worklists with the same name as the assay E.G. Chromotropic acid, salicylates, and Palladium Chloride).

1.12.10. Select "Print Worklist"

1.12.10.1. If performing a Volatiles Load, click the "BAC New" button – this will create a sequence for the headspace instrument (see SOP 101).

1.12.10.2. If performing a quantitation, click the "OB Quant" button - this will create a report displaying which analytes correspond with which cases on the load (SOP 202).

1.12.11. Select "Close/Cancel" to exit.

1.13. **Edit a Load**

1.13.1. From the "Main Switchboard" screen, select "Worklists – Previous Load".

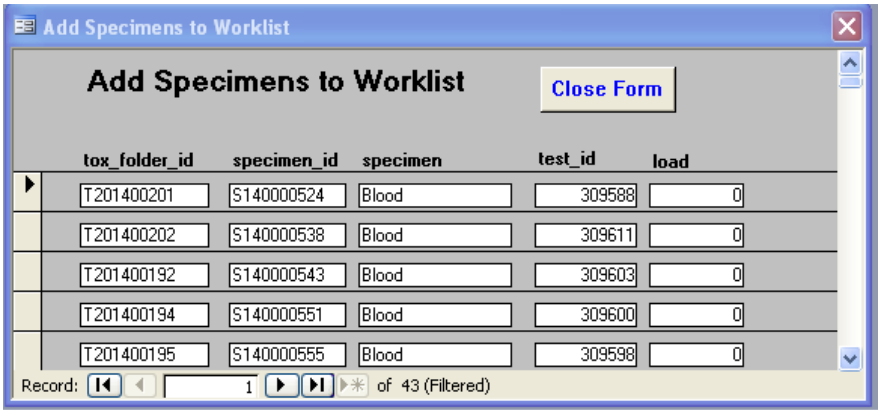
1.13.2. From the Load dropdown menu, select the load to be edited.

1.13.3. To remove specimen(s) from the load, click on the adjacent cell in the "On/Off Load" column to remove the load number.

1.13.3.1. **NOTE: Be careful not to remove the "0" from the load number field.**

1.13.4. To add a specimen to the load, select "Add Specimens to Worklist".

1.13.4.1.



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1.13.4.2. Click in the "load" column adjacent to the specimen(s) to be added. Click "Close Form" when done.

1.13.5. Select "Build Worklist"

1.13.6. To Print the storage locations of the specimens on this load, select "Locate Specimens"

1.13.7. From the dropdown menu (below "Choose Worklist from List:"), select the load type (typically Generic).

1.13.8. Select "Print Worklist"

1.13.9. Select "Close/Cancel" to exit.

1.14. Chain of Custody (COC)

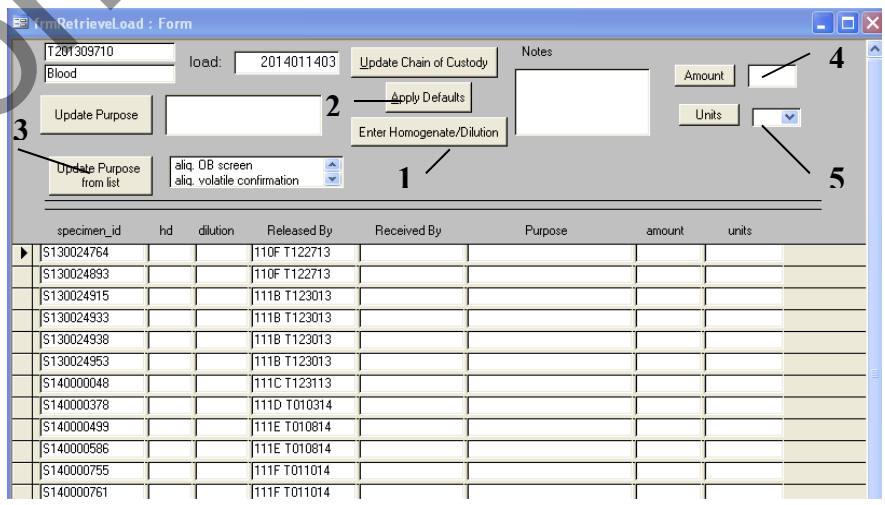
1.14.1. After aliquoting and replacing specimens into storage, the electronic COC must be completed.

1.14.2. Record Specimens used and aliquot amounts.

1.14.2.1. From the "Main Switchboard", select "Chain of Custody – Retrieve Specimens by Load".

1.14.2.2. Enter load number and select "OK".

1.14.2.3. A load specimen table is displayed

1.14.2.3.1. 

1.14.2.4. Entering Tissue Homogenates (SOP 005) (If Applicable):

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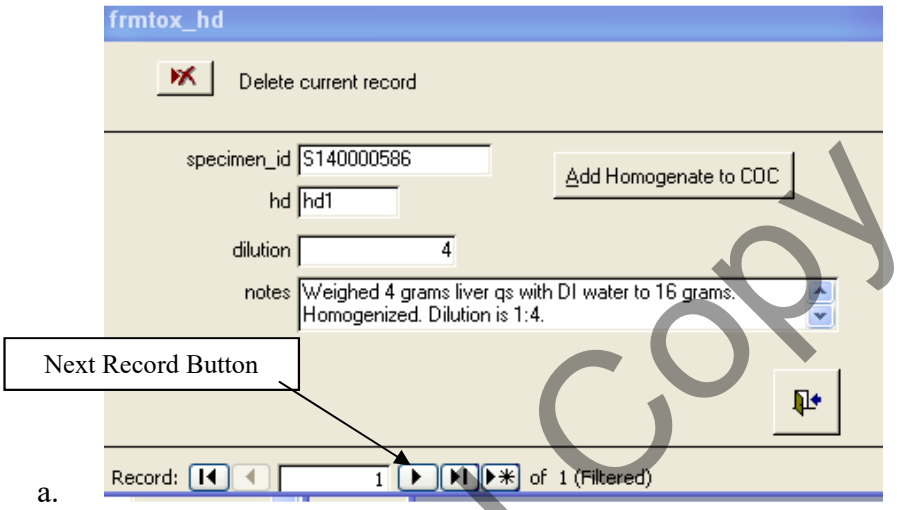
1.14.2.4.1. Select the specimen from which the homogenate was prepared (click on the appropriate row) and click the "Enter Homogenate Dilution" button.

a.



1.14.2.4.2. Fill in the hd, dilution and notes fields as appropriate (see above - recording the actual details of the prepared homogenate) and select "Add Homogenate to COC".

1.14.2.4.3. Alternatively, if the tissue homogenate had been prepared on a previous date, the homogenate specimen will already appear on the COC.

a. Select the associated non-homogenate specimen and press the delete key on the keyboard. (The recorded aliquot will come from the homogenate not the tissue).

1.14.2.4.4. Alternatively, if another tissue homogenate is to be made, click the next record button at the bottom of the screen until you get a blank form. Fill in the hd field and increase the number by 1 (e.g. hd2, hd3, etc). Fill in the remaining fields as above. Select "Add Homogenate to COC".

a. Select the previously prepared HD specimens that you are not using for the assay and press the delete key on the keyboard

1.14.2.4.5. **Note: Do not EVER select the "Delete Current Record" button on the form. It will cause problems with the COC downstream.**

1.14.2.5. Choose "Apply Defaults" – user initials will populate the "Received By" column.

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1.14.2.6. Choose the appropriate assay in the “Purpose” dropdown menu and select “Update Purpose from List”. This will populate the “Purpose Column.

1.14.2.6.1. If the desired assay cannot be found on the drop down list, a custom purpose can be entered in the “Update Purpose” field. See a senior chemist for advice.

1.14.2.7. Enter a default amount of aliquot in the “Amount” field (the aliquot amount in the table can be changed later). Select “Amount” to fill the “amount” column.

1.14.2.8. From the dropdown menu, select the default units (the units in the table can be changed later). Select “Units” to fill the “unit” column.

1.14.2.9. Go through the COC table and make corrections to aliquot amounts and units to reflect what actually occurred at the bench.

1.14.2.10. For each specimen row, add comments in the “Notes” field to describe the aliquot amounts, if necessary. (Duplicate aliquots, tissue homogenate, etc – see senior chemist). – Copy and paste from comments.txt

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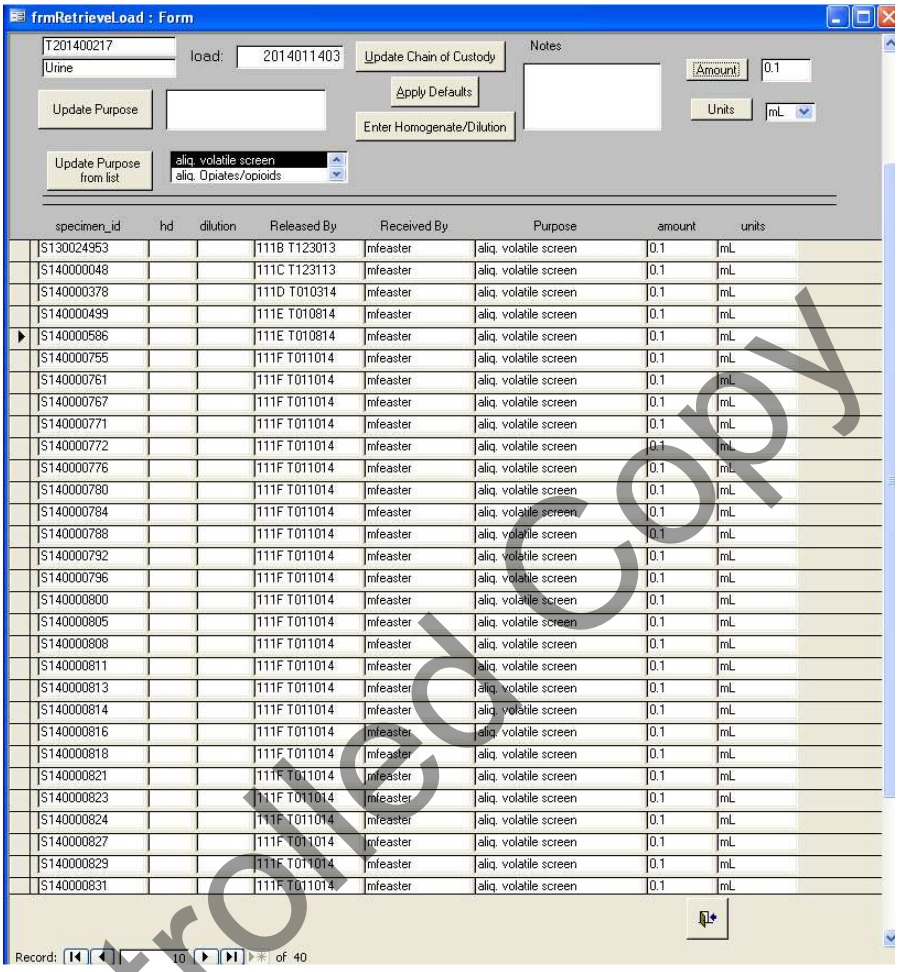
1.14.2.11. 

1.14.2.12. Check to make sure all information is correct and select “Update Chain of Custody”.

1.14.2.13. If an error message appears during this process, **do not re-attempt**, consult with a senior chemist.

1.14.3. Record replacement of specimens to storage.

1.14.3.1. From the “Chain of Custody” screen select “Replace Specimens by Load”.

1.14.3.2. Enter Load number and select “OK”.

1.14.3.3. Select “Apply Defaults” – the “Released By” and “Received By” columns will be populated.

1.14.3.4. Check to make sure all information is correct and select “Update Chain of Custody”.

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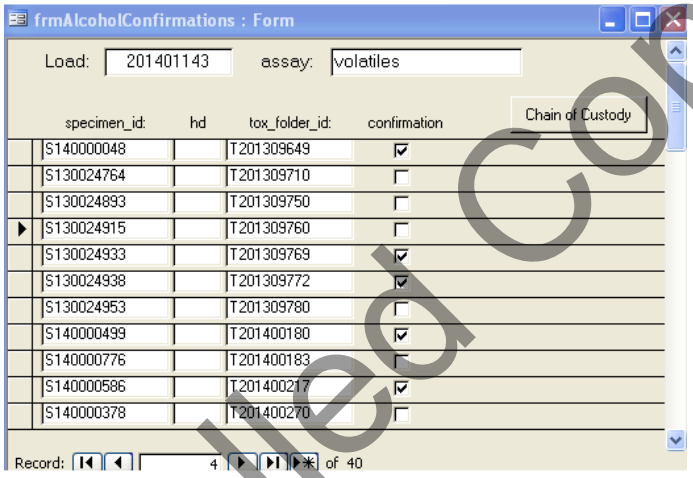
1.14.3.4.1. If an error message appears during this process, do not re-attempt, consult with a senior chemist.

1.14.4. Volatiles Confirmations - Record Specimens used and aliquot amounts.

1.14.4.1. From the “Chain of Custody” screen select “Alcohol Confirmations”.

1.14.4.2. Enter load number and select “OK”.

1.14.4.2.1. 

1.14.4.3. In the “Load” field, delete the second to last digit of the load number (e.g. 2014011403 becomes 201401143).

1.14.4.4. Under the “confirmation” column, select the specimens that are being confirmed by checking the adjacent boxes.

1.14.4.5. Select “Chain of Custody”

1.14.4.6. Follow steps outlined in 1.14.2.4– 1.14.3.4

1.14.5. Print COCs

1.14.5.1. From the “Chain of Custody” screen select “Print Chain of Custody by Load”.

1.14.5.2. Enter load number and select “OK”.

1.14.5.3. View the COC to check for errors, navigating between pages using the arrows in the lower left.

1.14.5.4. Print the COC using the printer icon, then select “Close”.

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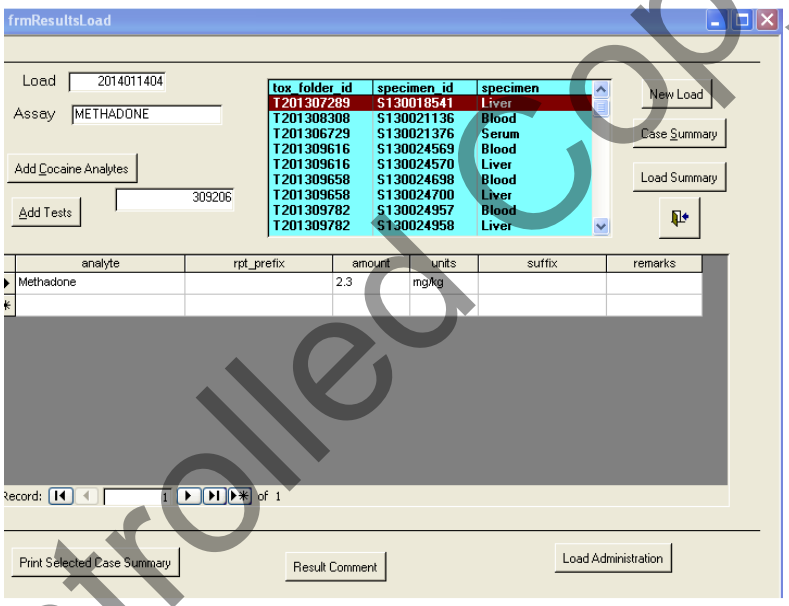
1.14.5.5. From the "Chain of Custody" screen select "Exit" to return to the "Main Switchboard".

1.15. Data Entry

1.15.1. From the "Main Switchboard" screen, select "Results – Enter Results by Load".

1.15.1.1. Enter load number and select "OK".

1.15.1.1.1. 

1.15.1.2. Click to select a specimen number from the list.

1.15.1.3. Enter the following specimen results in the table - see assay specific SOPs for instructions:

1.15.1.3.1. Analyte – one per row

1.15.1.3.2. rpt_prefix – if needed, dropdown menu (E.G. Present, Less Than, Greater than)

1.15.1.3.3. amount – if needed - numerical concentration of analyte

1.15.1.3.4. units – select the appropriate units for result

1.15.1.3.5. suffix – if needed - assay specific

1.15.1.3.6. remarks – if needed – denotes a non-reportable result

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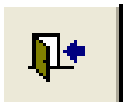
1.15.1.4. Print Load Summary

1.15.1.4.1. Select “Load Summary”

1.15.1.4.2. Review the load summary report and check for errors, navigating between pages using the arrows in the lower left.

a. If errors are found, close report and make the necessary changes in the results table

1.15.1.4.3. Print the load summary report using the printer icon, then select “Close”.

1.15.1.5. Select  to exit.

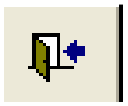
1.15.2. Add test – often during data entry, it will be necessary to add additional test(s) to a specimen (repeat, screen result needing confirmation).

1.15.2.1. From the “Enter Results by Load” screen select “Add Tests”.

1.15.2.2. In the upper right, choose the specimen to which the test is to be added.

1.15.2.3. In a blank row under the “assay” column, enter the assay name.

1.15.2.4. To add a specific analyte to be tested (not always applicable), select the “Analytes” tab and enter the analyte name in the “analyte” column.

1.15.2.5. Select  to close and return to the previous screen.

1.16. References

1.17. N/A

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