



# Florida Department of TRANSPORTATION

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## Materials Acceptance and Certification (MAC) Data Entry for Structural Concrete Production Facility Chloride Samples

September 23, 2016





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### **Structural Concrete Production Facility Chloride Samples**

The Florida Department of Transportation Materials Manual, Section 9.2 Volume II requires the structural concrete production facilities to input the results of the chloride testing into MAC. A typical sample in MAC has a sample chain of custody that must be observed. Because the focus of these samples is to collect the data from the test results, the chain of custody requirements have been relaxed.

These instructions describe the sample life cycle for chloride samples entered under the requirements of Materials Manual 9.2 Volume II. They are not intended to replace the requirements in the Materials Manual. If there is a conflict between these instructions and the Materials Manual requirements, the Materials Manual requirements take precedence over these instructions.

The company of the structural concrete production facility must have at least one user with the company roles of data entry and data reviewer to complete the steps. The samples are finalized by a user with the system role of FDOT Verifier. These instructions are addressed to the users in these roles.

## Chapter 1 – Creating a Chloride Sample

Chloride sample data is normally entered by a data entry person in the company of the production facility after the test report has been received by the company from the testing laboratory.

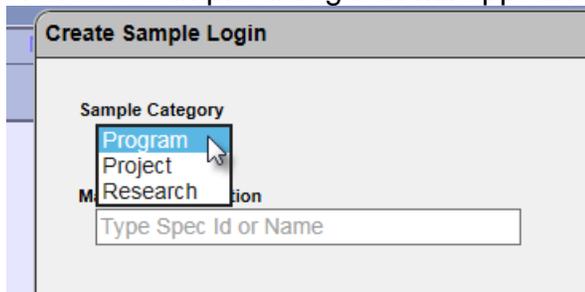


1. From the MAC home screen, select the Manage Samples menu option.

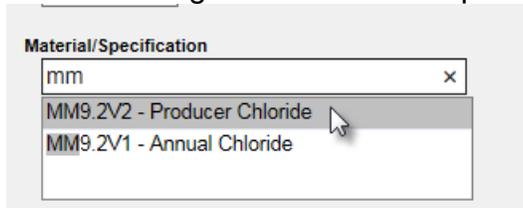


2. Select the Create Sample Login page level action on the left side of the screen.

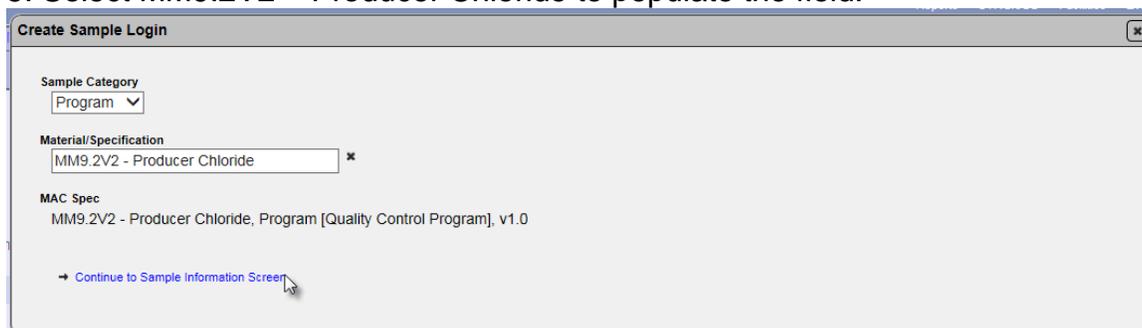
A Create Sample dialog box will appear.



3. Select Program from the Sample Category drop down list.

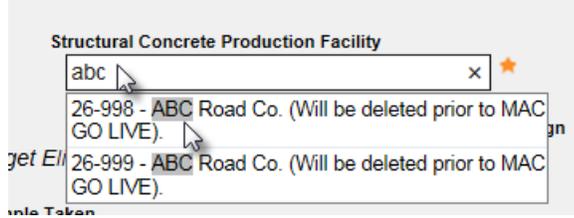


4. Begin typing the Material MM9.2V2 in the Materials Specification field.
5. Select MM9.2V2 – Producer Chloride to populate the field.



6. Select the Continue to Sample Information Screen to continue.

The dialog box will be expanded to show more fields. Additional fields will be added as more information is provided. A red star (★) indicates a required field.

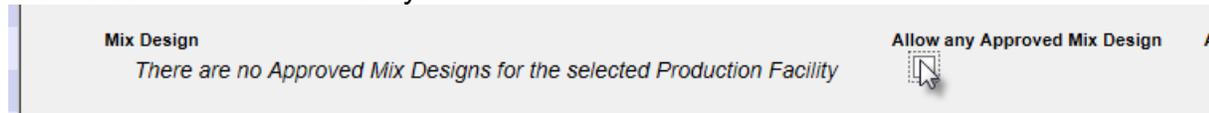


7. Begin typing the company name or production facility number in the Structural Concrete Production Facility field.
8. Select the entry from the list that matches the production facility.

**NOTE:** If your search returns only one result, you still must click on the entry or hit enter to populate the field.



When concrete mix designs are required on sample login screen, the project sample login logic is always applied. MAC is looking to see if the structural concrete production facility supplied in Step 8 is on the Contractor Quality Control Plan on the project. Since this is a program sample, there is no Financial Project Id. So you will see the message “There are no Approved Mix Designs for the Select Production Facility”.



9. Click on the Allow any Approved Mix Design indicator to get the Mix Design field to appear.

10. Enter the mix design that the sample was actually taken from in the Mix Design field.
11. Enter any additional mix designs that the sample also represents in the Additional Mix Designs field. As you add more mix designs, a new blank field will appear to continue to add mix designs.
12. Enter the name of the person who took the chloride sample in the Sampled By field.
13. Enter the date the sample was taken in the Date Sample Taken field.

Testing Lab

Testing Lab  
 \*

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Comment

Comment

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Document

Select File

Description

14. Enter the FDOT Lab Id or name of the lab in the Testing Lab Field.

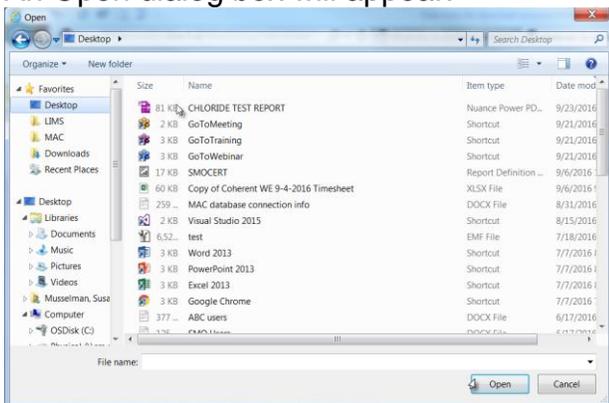
**NOTE:** For chloride samples, the laboratory is not required to acknowledge custody of the sample and enter the test results. The laboratory must be qualified to perform chloride testing. Providing the laboratory in the testing lab field allows the system to confirm the lab's qualifications, but it not related to sample chain of custody.

15. Enter a comment, if desired.

16. Attach the test report from the laboratory for the chloride sample results to the sample.

a. Click on the Select File option.

An Open dialog box will appear.



b. Navigate to the file location and click on it to select it.

c. Select the Open option to upload the document to the sample.

The sample dialog box will show that the upload is 100% complete.



d. If you need to delete the document, select the x beside the Upload Complete message.

17. Enter a document description, if desired.

18. Select Save and Submit to save the sample record in MAC and continue with the test result entry.

[Create New Sample Login from this Sample](#) [View Sample Transmittal Information for Print](#) [View History](#)

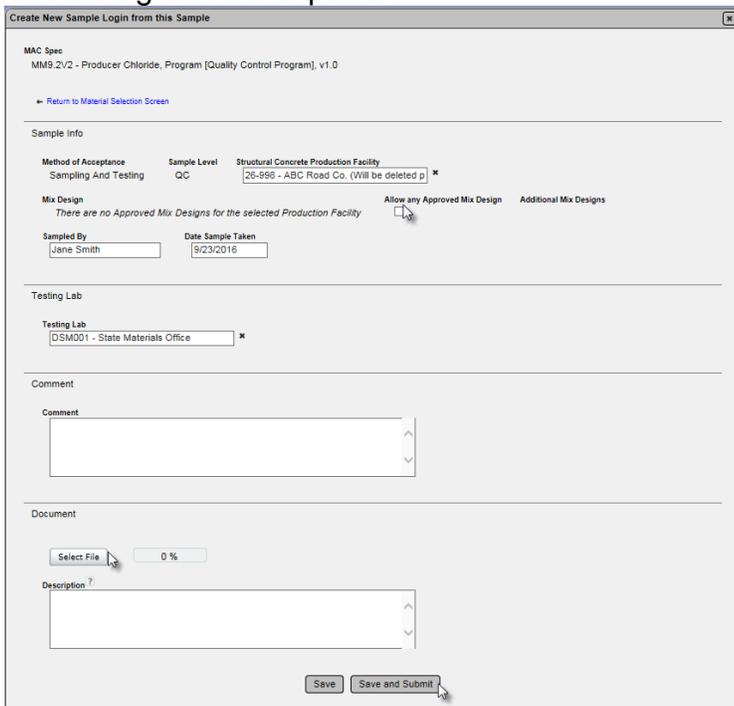
19. You can use the Create New Sample Login from this Sample option to copy the already entered sample information to a new sample.

A Create New Sample Login from this Sample dialog box will appear.



20. Select the Continue to Sample Information Screen option.

The dialog box will expand.



21. You will need to select the Allow any Approved Mix Design to get the Mix Design entry field.

22. Enter the appropriate mix design for the new sample.

23. Enter any additional mix designs.
24. Change the Testing Lab entry if a different laboratory tested the sample.
25. Attach the test report for this sample.
26. Select Save and Submit.

[Create New Sample Login from this Sample](#)   
 [View Sample Transmittal Information for Print](#)   
 [View History](#)

The View Sample Transmittal Information for Print will provide a detailed report of the sample information, but it does not contain test results.

The View History option is an online sample audit report that will show all the sample and test data entries, who made the changes and when.

Field	Old Value	New Value
<b>Sample Updated by Susan Musselman on 9/23/2016 4:48:09 PM</b>		
Sample Status	Sample Data and Test Correction Needed	Pending Finalization
<b>Sample Updated by Susan Musselman on 9/23/2016 4:35:06 PM</b>		
Sample Status	Finalized	Sample Data and Test Correction Needed
<b>Sample Updated by Susan Musselman on 9/23/2016 4:29:54 PM</b>		
Sample Status	Pending Finalization	Finalized
<b>Sample Updated by Susan Musselman on 9/23/2016 4:01:42 PM</b>		
Sample Status	Submitted for Lab Testing	Pending Finalization
<b>FM 5-516 Chloride in Concrete Updated by Susan Musselman on 9/23/2016 3:59:55 PM</b>		
Tester		Jane Doe
Lab Performing Test		DSM001 - State Materials Office
Lab Is Qualified To Test YN		No
Specimen Count		1
Date Test Performed		9/23/2016
Test Passes for Primary Category		Yes
Test Complete		Yes

Showing 1 to 11 of 11    [Export Results](#)

## Chapter 2 – Entering Test Results

Chloride samples do not need to be received so you can proceed to test result entry. Users with the role of Data Entry can add the test results. A user with the role of Data Reviewer must submit the sample to FDOT.

The screenshot shows a web interface for sample management. At the top, there are navigation links: "Create Sample Login", "Submit Multiple Samples to FDOT", "My Samples", and "Search". Below this is a header bar with "Sample 1600015260 [Submitted for Lab Testing]" on the left and "Go To Sample" with a text input field on the right. A secondary bar contains links: "Create New Sample Login from this Sample", "View Sample Transmittal Information for Print", and "View History". The main content area lists sample details: "Sample ID: 1600015260", "Sample Status: Submitted for Lab Testing", "Sample Initiated By: Susan Musselman", "Sample Initiated Date: 9/23/2016", "Last Updated By: Susan Musselman", and "Last Updated On: 9/23/2016". Below this are expandable tabs for "Material Information", "Sample Information", "Laboratory Information", "Sample Comments [0]", "Documents [1]", and "Associated Tests [1]".

1. On the same sample screen, click anywhere on the Associated Tests tab to expand it.

The screenshot shows the "Associated Tests [1]" section expanded. It contains a table with the following columns: "Lab or Field", "Lab ID", "Tester", "Test Disposition", "Test Status", "Required", and "Which test Rules?". The table has one row for "FM 5-516 Chloride in Concrete" with the following values: "1", "Initial Test", "Lab", "Ready for Testing", "Required", and "Perform Test" and "Mark Test Not Performed" (with a mouse cursor over "Perform Test"). Below the table, it says "Showing 1 to 1 of 1".

2. Click on the Perform Test option.

A Perform Test dialog box for FM 5-516 Chlorides in Concrete will appear.

The screenshot shows a "Perform Test" dialog box. It has a title bar "Perform Test" and a close button. The content includes: "Test: FM 5-516 Chloride in Concrete", "Tester: [Type Technician Name or TIN]", "Testing Lab: DSM001 - State Materials Office", and "Date Test Performed: [ ]" with a red star icon. Below these are input fields for "Unit Weight (lbs/yd<sup>3</sup>)", "Is this sample being sliced?" (with a "No" dropdown), "Chloride A (lbs/yd<sup>3</sup>)", "Chloride B (lbs/yd<sup>3</sup>)", "Chloride C (lbs/yd<sup>3</sup>)", and "Average Chloride (lbs/yd<sup>3</sup>) Range". At the bottom, there is a "Test Notes" section with a plus icon and a "Save" button.

The screenshot shows a search dialog for the "Tester" field. It has a title "Tester" and a search input field containing "Jane Doe" with a close button. Below the search input is a results area that says "No Results Found".

3. Enter the name of the person who performed the test. The tester does not have to be qualified.

- a. If the tester has a CTQP TIN, the system will return the user with name and TIN.
- b. If the person does not (as shown in the example above) the system will say No Results Found.
- c. Simply click in the Date Test Performed field to populate the field with a user with no TIN and dismiss the No Results found message.



4. Enter the date the test was performed or select it from the calendar in the Date Test Performed field.

The image shows a data entry form with the following fields and values:

- Unit Weight (lbs/yd<sup>3</sup>): 5
- Is this sample being sliced?: No
- Chloride A (lbs/yd<sup>3</sup>): 7
- Chloride B (lbs/yd<sup>3</sup>): 8
- Chloride C (lbs/yd<sup>3</sup>): 9
- Average Chloride (lbs/yd<sup>3</sup>): Range
- Test Notes: + 10
- Save button

5. Enter the unit weight of the concrete from the mix design in pounds (lbs). in the Unit Weight field.
  6. Select the Yes or No indicator for the “Is the sample being sliced?” field. Normally samples tested for chlorides from structural concrete production facilities are not sliced.
  - 7 – 9. Enter the appropriate results in the fields.
- MAC will calculate the Average and the range.
10. Add any test notes, if desired by clicking on the + next to the Test Notes label.
  11. Select Save to save the results.
  12. Review the data to ensure it ensure it is correct and complete.

Sample 1600015260 [Submitted for Lab Testing]

[Submit for FDOT Verification](#)    [Create New Sample Login from this](#)

Sample ID	Sample Status	Sample Initiated By	Sample Initiated Date	Last Updated By	Last Updated On
1600015260	Submitted for Lab Testing	Suean Muecalman	0/23/2016	Suean Muecalman	0/23/2016

13. A Data Reviewer must select the Submit for FDOT Verification option to indicate to the Department that it is ready to be finalized.

## Chapter 3 – Finalizing the Samples

A user with the role of FDOT Verifier must finalize producer chloride samples.

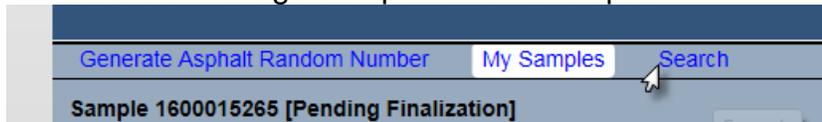


1. Ensure that you are in your system roles to begin.

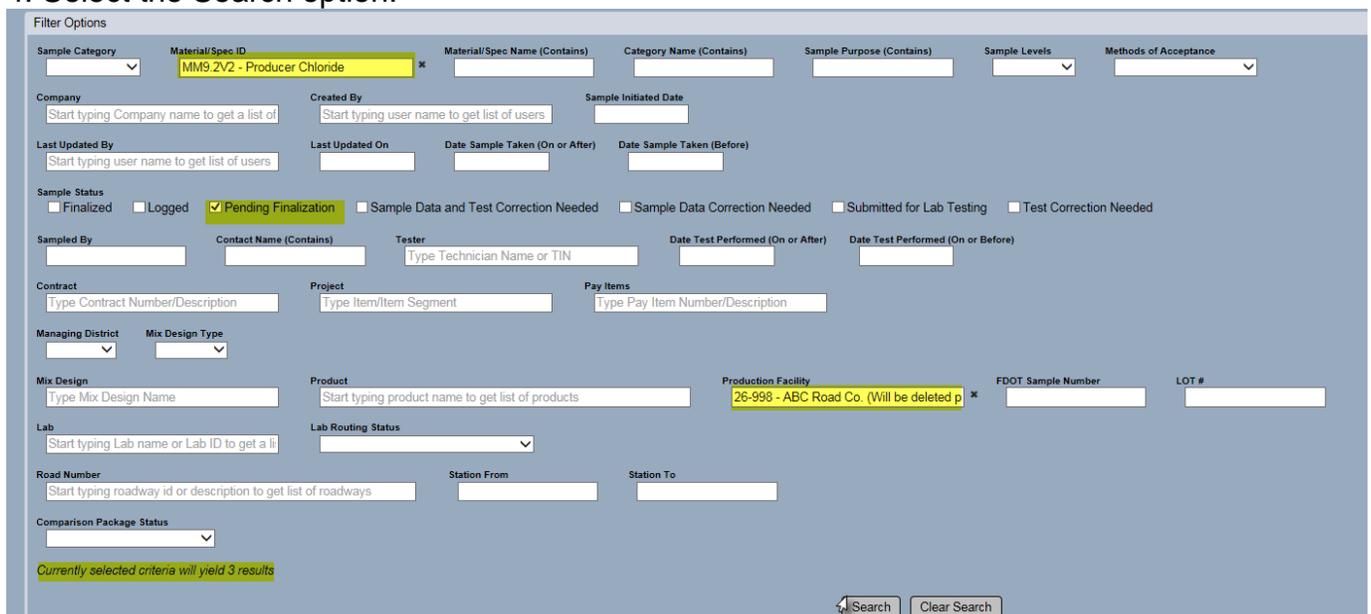


2. Select the Samples menu option.

3. Select the Manage Samples submenu option.



4. Select the Search option.



Filter Options

Sample Category:  Material/Spec ID:  Material/Spec Name (Contains):  Category Name (Contains):  Sample Purpose (Contains):  Sample Levels:  Methods of Acceptance:

Company:  Created By:  Sample Initiated Date:

Last Updated By:  Last Updated On:  Date Sample Taken (On or After):  Date Sample Taken (Before):

Sample Status:  Finalized  Logged  Pending Finalization  Sample Data and Test Correction Needed  Sample Data Correction Needed  Submitted for Lab Testing  Test Correction Needed

Sampled By:  Contact Name (Contains):  Tester:  Date Test Performed (On or After):  Date Test Performed (On or Before):

Contract:  Project:  Pay Items:

Managing District:  Mix Design Type:

Mix Design:  Product:  Production Facility:  FDOT Sample Number:  LOT #:

Lab:  Lab Routing Status:

Road Number:  Station From:  Station To:

Comparison Package Status:

Currently selected criteria will yield 3 results

5. Use the following filter options:

a. Material/Spec ID = MM9.2v2 – Producer Chlorides

b. Sample Status = Pending Finalization

c. Production Facility = Production Facility Id.

**NOTE:** If you leave the Production Facility field blank, you will get all producer chloride samples in the system pending finalization.

The search results are appended to the bottom of the search sub-screen.

Currently selected criteria will yield 3 results

Search Clear Search

Sample ID	MAC Spec	Sample Level	Sample Status	Contract/Project (s)	FDOT Sample Number	Mix Design	LOT #
1 1600015260	MM9.2V2 - Producer Chloride, Program [Quality Control Program], v1.0	QC	Pending Finalization			02-9901	
2 1600015264	MM9.2V2 - Producer Chloride, Program [Quality Control Program], v1.0	QC	Pending Finalization			02-9901	
3 1600015265	MM9.2V2 - Producer Chloride, Program [Quality Control Program], v1.0	QC	Pending Finalization			02-9902	

Showing 1 to 3 of 3 [Export Results](#)

6. Click anywhere on the row of a sample to select it.

You will be navigated to the sample screen.

7. Review the following information:

- Is the mix Design the correct one?
- Are there additional mix designs listed? If so, are they appropriate for the mix design?
- Is the laboratory qualified?
- Is the test report attached?
- Do the test results entered match the test report?

If errors are found:

[Finalize Sample](#) [Return Sample](#) [View Sample Transmittal Information for Print](#) [View History](#)

8. Select the Return Sample option.

A Return Sample dialog box will appear.

Return Sample

By returning this Sample it will be resubmitted to the User to update and Resubmit for Finalization.

Correction Type

Sample Data Correction  
Test Correction  
Sample Data and Test Correction

Return

9. Select the correction type that is needed from the correction type drop down list:

- Sample Data Correction – sample data is in error, but test data is incorrect.
- Test Correction – sample data is correct, but test data is in error.
- Sample Data and Test Correction – data corrections are needed for both sample and test data.

10. Enter the specific corrections needed in the Reason field, for example, mix design number is in error.

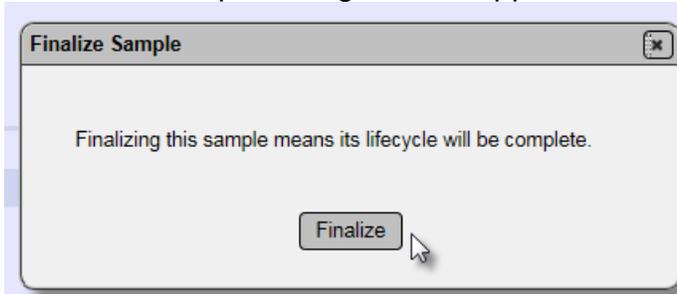
11. Select the Return option.

The sample is returned to the Data Reviewer users in the company profile of the sample. The user makes corrections and returns the sample to the FDOT for finalization.

[Finalize Sample](#) [Return Sample](#) [View Sample](#)

12. After the sample is returned, or if there are no errors, select the finalize sample option.

A Finalize Sample dialog box will appear.



13. Select the Finalize option.

When the sample is finalized, it is considered closed (at the end of the sample life cycle).

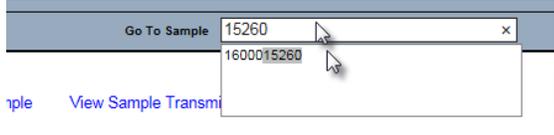
**NOTE:** If an error is encountered in the data after the sample is finalized, the sample can still be returned to the Data Reviewer for corrections by selecting the Return Sample option.

## Chapter 4 – Data Entry Corrections for Returned Sample

If the FDOT Verifier returns a sample for data corrections, a user with the role of Data Reviewer must make the corrections and return the samples back to the FDOT for finalization. The producer chloride samples can be corrected for sample data or test data by any user with the role of Data Reviewer in the company the sample belongs to.



1. From the MAC home screen, select the Manage Samples menu option.



You will be navigated to the last sample you created or updated.

2. If this is not the correct sample, in the Go To Sample field, enter all or part of the MAC Sample Id.
3. Select the sample from the returned list.

You will be navigated to the sample screen for that sample. The sample status will be Sample Data Correction Needed, Test Correction Needed or Sample Data and Test Correction Needed.

A screenshot of the sample details page for sample 1600015260. The page title is 'Sample 1600015260 [Sample Data and Test Correction Needed]'. The page contains several sections: 'Sample ID' (1600015260), 'Sample Status' (Sample Data and Test Correction Needed), 'Sample Initiated By' (Susan Musselman), 'Sample Initiated Date' (9/23/2016), 'Last Updated By' (Susan Musselman), and 'Last Updated On' (9/23/2016). Below these are tabs for 'Material Information', 'Sample Information', and 'Laboratory Information'. At the bottom, there is a 'Sample Comments [1]' section. One comment is visible, dated 9/23/2016 4:35:06 PM, stating: 'The mix design is incorrect and the test result entered don't match the test report attached.' There is an 'Add Response' link below the comment.

4. Click on the Sample Comments tab to expand it. One of the comments will be related to why the sample was returned. You can respond if you desire, but it is not required.

- If sample data corrections are needed, click on the Sample Information tab to expand it.
- Click on the Update Sample Info option.



An Update Sample Info dialog box will appear.

- If the mix design needs to be corrected, select the Allow any Approved Mix Design option. A blank Mix Design field will appear.
- Enter the correct mix design in the field.
- Make any other needed corrections.
- Select Save to update the sample data.

Associated Tests [1]

	Lab or Field	Lab ID	Tester	Test Disposition	Test Status	Required	Which test Rules?
<b>FM 5-516 Chloride in Concrete</b>							
1	Initial Test	Lab	DSM001	Jane Doe	Pass	Test Complete	Required
							<a href="#">Perform Test</a> <a href="#">Mark Test Not Performed</a> <a href="#">Retest</a>

Showing 1 to 1 of 1

- If test data needs to be corrected, click on the Associated Tests tab to expand it.
- Click on the Perform Test option.

A Perform Test dialog box will appear with the test data.

- Make revisions as needed.
- Select Save to save the test corrections.

15. When the data corrections are complete, review the new information to confirm the corrections have been made.

[Correction Made - Submit for FDOT Verification](#)

[Create New Sample Login fr](#)

16. Select the Correction Made – Submit for FDOT Verification option.

The sample will be returned to the FDOT Verifier for finalization.