Procedure

1) Follow the asphalt compaction procedures as outlined on the board, in class, and in the http://www.csun.edu/~rdconner/220L/Lab%20Instruction/Marshall%20Stability%20and%20Flow%20of%20Asphalt%20Concrete.doc document.

2) Obtain the manufacturer information (manufacturer, model number) for the scale and other equipment used in the lab. Record this information.

3) Record the material information for the materials used in the asphalt mix.

Lab Report

1) In a table, display the mass of asphalt used.

2) Where does asphalt come from?

3) Did the initial asphalt cylinder fail? Why do you think that it failed?

4) Did the new asphalt cylinder fail? If not, then why do you think that it was successfully compacted and formed?

Report Discussion Questions (Post-Lab Questions):

1) What is the stability of the first batch of asphalt? Review the documents posted online about asphalt stability and use that as your reference.

2) What is the stability of the second batch of asphalt? Review the documents posted online about asphalt stability and use that as your reference.

3) What do you think made the difference between the two batches of asphalt?

4) What recommendations do you have for compacting ready-made cold asphalt (as opposed to hot asphalt)?

5) “Describe how the samples were initially prepared.”

6) “Calculate the average Marshall stability and flow and standard deviation for the samples tested.”

7) “Discuss why the stability is important, and the significance of what the data from the Marshall stability and flow test provides.”
*8) “Discuss the factors that influence stability and flow of asphalt concrete, and how the stability and flow may be increased.”

*9) “Discuss what affect temperature susceptibility has on stability and flow of asphalt concrete.”

Follow the steps as specified in the CVEN 3121 Laboratory Manual Lab Report Format section.

Refer to the Class Syllabus for information on how to properly cite references and display tables and figures.

*Source

http://www.csun.edu/~rdconner/220L/Lab%20Instruction/Marshall%20Stability%20and%20Flow%20of%20Asphalt%20Concrete.doc

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