Name_____Section_____

CHM 115 Lab 2 Report Form

Add all 4 reaction steps together to get the overall reaction. Remember to cross out anything that occurs on both the reactant and product sides. Write your overall balanced equation in the box. As always, attach work showing sample work for each type of question.

For each reactant except water, calculate the number of moles you added.

Al _____ moles

KOH _____ moles

H_2SO_4 _____ moles

Use the stoichiometry of the balanced reaction to identify the limiting reactant. Circle it.

Your product is a hydrate, meaning that when the crystals are completely dry, there are still water molecules bound inside them. Specifically, it's a "dodeca"hydrate because that's how chemists say 12. This is important because those waters influence the molecular mass (g/mol) of your product.
Molecular mass of alum _____

Based on the balanced equation (if the reaction went perfectly and you didn't spill a single drop or lose one crystal) how much product could you make? This is the theoretical yield.

Moles alum (theoretical) _____

Mass alum (theoretical) _____

Mass alum (actual) _____

The percent yield is (mass actual/mass theoretical) * 100%. With good technique, this reaction gives 98% yield.

% yield _____