Constant Volume Gas Analysis Data Sheet

Student Name:

Partner Name:

Date	Instructor's Initials	Grade

Part One			
	Trial 1	Trial 2	Trial 3
Initial Pressure			
Final Pressure			

Part Two	
Mass of Empty Flask	
Mass Flask + Water	
Mass of Water	
Temperature of Water	
Density of Water	
Volume of Flask	

Show your work for calculating the volume of your flask.

Part Three			
	Trial 1	Trial 2	Trial 3
Mass of Calcium Carbonate			
Initial Pressure			
Final Pressure			
Temperature of Water			
Density of Water			
Vapor Pressure of Water			

Calculate the pressure of the carbon dioxide gas evolved for all three trials. Make sure to apply the corrections for the water vapor pressure.

Calculate the moles reacted for all three trials.

Calculate the actual number of moles reacted for all three trials.

Calculate the percent yield for each trial and report an average.

Part Four			
	Trial 1	Trial 2	Trial 3
Mass of Unknown Mixture			
Initial Pressure			
Final Pressure			
Temperature of Water			
Density of Water			
Vapor Pressure of Water			

Calculate the pressure of the carbon dioxide gas evolved for all three trials. Make sure to apply the corrections for the water vapor pressure.

Calculate the number of moles reacted for each trial.

Use the average percent yield from Part One to determine the actual number of moles.

Convert the actual number of moles to mass for each trial.

Calculate the %mass of calcium carbonate in your unknown mixture for each trial and report an average.