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Pollution Spill Mystery Worksheet

Data

Part 1

		Precipitation		
	Reagent Added	Yes	No	
	$AgNO_3$			
	$Ba(NO_3)_2$			
Part 2				
Mass of filter paper + AgCl		g	Mass of filter paper + $BaSO_4$	g
Mass of filter paper	r	g	Mass of filter paper	g
Mass of AgCl		g	Mass of BaSO ₄	g

Post-Lab Questions

1. Which company was responsible for the copper discharge?

2. Based on the Part 2 data, calculate the equivalent mass of copper in the sample.

3. The sample volume was reduced from 500 mL to 50 mL. Parts per million (ppm) is a standard unit of concentration used to identify levels of pollutants in lakes, streams, and ground waters. The units are microgram (µg) per gram, or milligram (mg) per liter.

Calculate the ppm (mg/L) of copper in the original 500-mL sample. If the EPA standard for copper concentration sanctions is 5.0 ppm, are legal proceedings in order for this pollution violation?