

Pollution Spill Mystery Worksheet

Data

Part 1

Reagent Added	Precipitation	
	Yes	No
AgNO ₃	<input type="checkbox"/>	<input type="checkbox"/>
Ba(NO ₃) ₂	<input type="checkbox"/>	<input type="checkbox"/>

Part 2

Mass of filter paper + AgCl	_____g	Mass of filter paper + BaSO ₄	_____g
Mass of filter paper	_____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?