

## Forensics Day 27 Virtual Density Lab: Worksheet

### Procedure

1. Select which mineral you want to test from the list on the right-hand side.
2. An image of the mineral will appear in the top center box. Record a description of the mineral in the results table.
3. Record the water level in the left cylinder to the nearest 10ml in the results table.
4. Click on immerse the mineral and record the water level in the right cylinder to the nearest 10ml in the table.
5. Work out the volume of the mineral by subtracting the water level in the left cylinder from the water level in the right cylinder, and record your answer in the table.
6. Click on weigh the mineral and record the weight of the mineral to the nearest tenth of a gram in the table.
7. Work out the density of the mineral and record the answer in the table by using the following equation:

$$\text{Density} = \text{Weight} / \text{Volume}$$

Mineral	Left cylinder water level	Right cylinder water level	Volume of mineral	Weight of mineral	Density of mineral	Description	Mineral Identified
#12							
#6							
#9							
#21							
#13							
#24							
#19							
#113							
#112							

8. Compare your results with densities of common minerals, and see if you can identify what each mineral is. You may also need the following minerals and their densities. Record your answers in the table.

<b>Mineral</b>	<b>Density</b>
Stannite	4.3
Barite	4.48
Illementite	4.72

9. Using pictures from the Internet of any minerals identified and your initial observation of what each mineral looked like, would you say that this is a good method of identifying minerals. Why or why not? How could this lab be improved?