

Natural Gas: A Lesson on Density of a Gas

Name _____

Phenomenon: Watch the phenomenon. Ask three questions about what they see.

1.

2.

3.

Look at the Natural Gas reservoir picture. Why do you think the gas is on top of the oil layer?

What challenges do you see in measuring the density of a gas?

Pre-lab questions:

1. What does it take to calculate density?
2. What is the formula for density?
3. Write a density problem of your own and answer.

Conduct the two experiments measuring the **air density** in the cold and hot balloons. Show your work.

Cold Balloon:

Warm Balloon:

Using your data, sketch a model of the air particles in both balloons.

Coldwater Balloon	Warmed Balloon

Summarize your experiments using the following words: cause and effect, particle motion, temperature, density, heat energy, and gases:

State your **claim** of what happens to particles when you add heat energy.

List your **evidence** of why this happened.

Explain your **reasoning** for these phenomena.