

Name _____

Class/Period _____

Qualitative Water Analysis — Lab Worksheet

RESULTS

Record your results for each test in the appropriate space below.

Data Table I

| Solution Test | (+) Control Color | (-) Control Color | Your Water Sample |
|---------------|-----------------------------------|--|-------------------|
| Nitrate | dark red complex with precipitate | orange solution with pink & little precipitate | |
| Iron | dark orange or purple | clear solution | |
| Phosphate | blue solution | yellow solution | |
| Chloride | white precipitate | clear solution | |
| Ammonia | dark orange precipitate | no precipitate | |
| Hard water | blue solution | purple solution | |
| Sulfate | white precipitate | no precipitate | |
| Chlorine | yellow solution | clear solution | |
| pH | | | |

QUESTIONS

- 1) Describe the source of your water sample.
- 2) Describe the smell of your water sample.
- 3) Describe the local conditions from which your water sample was taken (wooded area, industrialized area, park setting, etc.).
- 4) If your water sample was clear, would it be safe to drink? Support your answer with evidence from the lab.
- 5) Draw a simple graph that shows the relationship between untreated water quality and increasing population size.
- 6) Describe the purpose of the Clean Water Act, originally established in 1972.
- 7) What is the purpose of the EPA?
- 8) Is all water pollution anthropogenic? Support your answer.
- 9) What effect will excess nutrients such as nitrates and phosphates added to a lake through agricultural runoff have on a lake community?
- 10) Using information from this lab, explain how can humans potentially limit the amount of pollution introduced into our fresh water.