

Lab Report Template

Gavin Scott
Project 4.3.5 Drink This

Problem

What water source out of Indian creek, school water, Cedar Rapids water and Dasani water is safe to drink?

Hypothesis

The water that will be safe to drink will be School water, Cedar Rapids and Dasani I do not think that Indian creek water will be safe to drink.

Materials

- Water samples previously mentioned
- LabQuest2
- Temperate sensor
- pH sensor
- chloride sensor
- dissolved oxygen sensor
- turbidity sensor
- 4 50 ml beakers
- Lab Notebook
- Pencil
- Lab tape and Sharpe

Procedures

1. Gather all of the materials and label the 4 50 ml beakers Indian creek water, School water, Cedar Rapids and Dasani and put the corresponding water in the beakers and put 30 ml of water in the beakers.
2. Then test the temperate in degrees Celsius, ph, dissolved oxygen turbidity and chloride. Then I recorded in my lab notebook.
3. You test Chloride by taking the titrator and sticking it in the water but you do not let it touch the yellow bar at the top when the yellow bar turns black the reaction is done there will be a white line and that is where your number is and then you need to convert it with the conversion chart on the label.
4. Then we googled the Iowa DNR recommended drinking water standard and we determined which water sources we good enough to drink.

Data Collection

	ph	Dissolved oxygen	Turbidity	Temperature	Chloride
Indian Creek	6.57	1mg/L	11.2	22.30	97 pph
Dasani	7.80	1.1mg/L	8.7	21.5	0 pph
Cedar Rapids	7.20	1.1mg/L	-12.2	22.14	0 pph
School Water	7.45	1.2mg/L	-9.8	18.6	0 pph

Analysis of Results

As you can see the results for all the waters were around the same except for Indian creek which had a low pH of 6.57 compared to the other which were 7.8 for Dasani 7.20 for Cedar Rapids and 7.45 for school water. For dissolved oxygen all the were very much the same there was only a same range of .2 from 1mg/l for Indian creek and are highest which was 1.2 for School Water. Turbidity was very different for all of the water

sources Are highest turbidity was 11.2 for Indian Creek and are lowest was -12.2 for Cedar Rapids. Temperature was very much the same but school water was a little colder because the water fountain I got it from has cold water instead of room temperature. For Chloride as you can see all of the water sources were o except for Indian creek which had 97 pph in it. So after looking at the DNR recommended water source levels we determined that. Indian creek water is not ok to drink but Dasani, School Water and Cedar Rapids water are ok to drink.

Conclusions

Based on the results I can infer that Indian Creek water is not ok to drink but all of the others are. My prediction was right that Indian creek water would not be expectable to drink and the others would be. A error that my group made was that a don't think that there can be a negative turbidity number. Plus, I do not think that the chloride number was right because nothing happened on every test expect for the Indian creek water which could have meant that there was just no salt in the water but I don't think that that is true. No questions were raised during my experiment expect for if the turbidity number was right. And if the chloride test was also right.