|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Laboratory Tap****Trial 1** | **Laboratory Tap Trial 2** | **Laboratory Distilled** | **Laboratory Tap Softened** | **Home Sample Trial #1** | **Home Sample Trial #2** |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| EDTA | **Initial Buret Reading (mL)** |  |  |  |  |  |  |
|  | **Final Buret Reading (mL)** |  |  |  |  |  |  |
|  | **Vol. dispensed (mL)** |  |  |  |  |  |  |
|  | **Moles (#)** |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **Water Sample** | Water Sample Volume (mL) | **50.0** | **50.0** | **50.0** | **50.0** | **50.0** | **50.0** |
|  | Ca+2/Mg+2Total Moles (1:1 ratio) |  |  |  |  |  |  |
|  | **Total Ion Concentration in H2O Sample (M)**  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **A.A.** | **[Ca2+] (ppm = mg/L)** | ! | **!** |  |  | !! | !! |
|  | **[Ca2+] \*\* (M)** |  |  |  |  |  |  |
|  | **[Ca2+] + [Mg2+] (same as \* above)** |  |  |  |  |  |  |
|  | **[Mg2+] (M)** |  |  |  |  |  |  |
|  | **[Mg2+] \*\*\* (ppm)** |  |  |  |  |  |  |

**\*\***Calculate using the molar mass of calcium: 40.078000 g/mol.

**\*\*\***Calculate using the molar mass of magnesium 24.305000 g/mol

**!** Results of A.A.S. analysis of Minneapolis Laboratory Tap Water. Announced by instructor.

**!!** Results of A.A.S analysis of your water sample. Announced by instructor.