Key.

Electrochemistry #4

Use the following unbalanced equation to answer questions 1 - 9.

$$CrO_2^- + ClO^- ---> Cl^- + CrO_4^{2-}$$
 (acid solution)

- 1. What is the highest oxidation number of chromium in the equation?
- 2. What is the highest oxidation number of chlorine in the equation?
- Write the balanced reduction half reaction in an acid solution. 3.

 $2e^- + 2H^+ + Clo^- \rightarrow Cl^- + H_2O$ Write the balanced oxidation half reaction in an acid solution. 4.

5. Write the balanced full reaction in an acid solution.

Write the formula for the oxidizing agent. 6.

- Write the formula of the species that is getting reduced. 7. C10-
- What effect would the addition of NaOH_(SOLID) have on the equilibrium? 8.
- Shift reaction to products CH+H+ > NO TH+JJ egm shifts What effect would the addition of NaOH_(SOLID) have on the cell potential? 9.