Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Data Analysis

Instructions: Now that we have collected data, we need to analyze and interpret our findings. For this part of the assignment, you will pick ONE of the three options listed below and analyze, interpret, and research the data that you have collected to better understand its geologic setting. Write a 2 page (double spaced, 12 pt font) describing the geologic setting and analyzing/interpreting the findings. The internet and textbook are good resources to use when writing this, but be sure to cover all of the material.

**Option 1: Rib Mountain**

Things to consider –

* How does quartzite form?
* What does quartzite form from?
* What is the relative strength of quartzite compared to the protolith rock?
* How does this explain why the mountain exists today?
* Why are there ripple marks on this rock and were they formed on the parent or protolith rock?
* What sort of environment are ripple marks on rocks often found in?

**Option 2: Crystal Falls Banded Iron Formation**

Things to consider –

* How do Banded Iron Formations form?
* When did BIF’s form?
* Where did the iron in BIF’s come from?
* How does the formation of BIF’s relate to the Earth’s atmosphere changing from anaerobic to aerobic?
* What specific minerals are BIF’s typically composed of?
* Explain how compressive metamorphism could have caused the bedding to become vertically oriented?

**Option 3: Lake Ellen Kimberlite**

Things to Consider –

* How does a Kimberlite form?
* Why do some Kimberlites have economic diamonds and this one does not?
* Where are the most economic Kimberlites located?
* Why are there so many mafic minerals found in this Kimberlite pipe?
* Where do the diamonds form?
* Is a Kimberlite a volcano? Explain.