INTRODUCTION
Lithic provenance analyses are an important tool for examining prehistoric behaviors associated with raw material procurement and mobility, and for reconstructing land use strategies. In Eastern Beringia such studies are in their infancy and have largely been confined to sites on other kinds of fine-grained volcanic rocks that are even more common in lithic assemblages of Interior Alaska and are also well suited to geochemical characterization using a variety of techniques. Provenance studies using lithics other than obsidian, however, are limited by a lack of such data, and large datasets of geochemical data against which new analyses can be compared. We present here an initial attempt to describe geochemical variation among rhyolite artifacts from Interior Alaska through the identification of major and trace element patterns that can be used to discriminate between populations of rhyolite from different contexts that range from late Paleolithic through the late Prehistoric period (ca. 200 BP). A growing body of geologic source samples have been produced from rhyolite localities in the geologic origin of primary and secondary sources of rhyolite raw materials. Our preliminary results recognize ten distinct geochemical sources that are likely the sources of rhyolite that have been produced, one (Group 18) in the central Alaska Range and the second (Group 51M) in the Talkeetna Mountains. The remaining eight are believed to be located in the central Alaska Range, likely around the Hanako River valley and Talkeetna Mountains.

METHODOLOGY AND GROUP DEFINITIONS
Non-destructive x-ray Fluorescence (XRF) analyses were conducted at the University of Alaska Museum Archaeological Department using a portable Bruker Tracer III TD portable XRF analyzer with a 10 gram sample loaded in a standard 100 micron stainless steel pan. A fixed 100 gram sample was run on a Waters iCAP 7400 Duo using the 119 line, with 5 minute run time. All analyses were done in triplicate and run in the dark to minimize fluorescence from lamp discharge. In all cases, the glass body of the rhyolite fragments was sampled along with the entire sample. Source groups were defined through the analysis of a few distinct elements included in the XRF datasets. A set of five elements were selected for further analysis after the first round of analyses. These were Al, Na, Mg, Si, and Ca. These five elements were selected because they showed the most variation among the source groups. This was helpful for the purpose of future work where the rhyolite samples will be used to identify potential sources.

SOURCE GROUP A and A2
Rhyolite assigned to Groups A (n=337) and A2 (n=19) are beige to white in color (Figure 5), with some artifacts exhibiting a slight luster to them. These two distinct rhyolite groups range in age from the Late Paleolithic to Late Prehistoric (last 200 years). Sites containing these two types of rhyolite span much of Interior Alaska and cover an area of approximately 9,200,000 km^2 (Figure 4).

Almost half of the rhyolite artifacts analyzed in this study were assigned to Group A. This material is excellent quality for flintknapping and was frequently used in the manufacture of microblades (A: n=51; 15%; A2: n=2, 2%). This may be due to the fresh, bright, white nature, and lack of tensile fractures (microfracturing) of the stones, making it ideal to produce microblades. This material represents Group A in the Beringia rhyolite source studies.

The precise geological sources for these two rhyolite groups are currently unknown, but the densest concentration of sites with abundant Group A and A2 rhyolite occur in interior Alaska, suggesting source locations in the central Alaska Range (Figures 7 and 8).

SOURCE GROUP B, bb, and Tekelkana
Rhyolite assigned to Groups B (n=173), bb (n=22), and Tekelkana (11) and (n=36) is predominantly white to beige in color (Figure 9) with some artifacts exhibiting shades of light purple and grey. Similar to Groups A and 2, Groups B, bb, and Tekelkana were all used from the Late Paleolithic through the Late Prehistoric. These three groups are spatially restricted to the interior of Alaska and are most instances co-occur with Group A and 2 rhyolite (Figure 10).

Group B is the second most common type of rhyolite artifacts analyzed in this study, with 129 (17%) and 38 (12%) being the most common elements. Microblades (B: n=72; 11%) are more common as with Group A and 2 rhyolite. This material is also well adapted to production of microblades. This material represents Group A in the Beringia rhyolite source studies.

The precise geology for these two rhyolite groups is currently unknown, but the densest concentration of sites with abundant Group B and 2 rhyolite occur in interior Alaska, suggesting source locations in the central Alaska Range (Figures 7 and 8).

SOURCE GROUP C, D, E, F, Talkeetna River
Rhyolite assigned to source groups C (n=27), D (n=9), E (n=17), F (n=14), and Talkeetna Mountains, (n=6) is a light brown to grey in color with some artifacts also being olive green to light brown (Figure 13). With the exception of Group C rhyolite, these two types of rhyolite are predominantly found in the interior of Alaska and have been assembled in an attempt to identify a source for these rhyolite artifacts. This material is also well adapted to production of microblades. This material represents Group B in the Beringia rhyolite source studies.