Do Montana's Sixmile Creek Cobbles Have Nevada Origins? Evidence for Headwaters of the Miocene Bell River Basin

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DO MONTANA'S SIXMILE CREEK COBBLES HAVE NEVADA ORIGINS? EVIDENCE FOR HEADWATERS OF THE MIocene BELL RIVER BASIN

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Introduction
- Distinctive river cobbles from the Sixmile Creek Formation have no confirmed source
- The proposed Miocene Bell River drainage basin indicates a southern source
- The Diamond Peak Formation in Nevada matches the unique chert distribution of Sixmile Creek cobbles
- Matching the Sixmile Creek cobbles with Diamond Peak Formation samples would confirm the cobble source

Bell River Drainage Basin

Methods
- Samples were collected along the Miocene river bed from Montana to the proposed Nevada source
- To find the chert saturation, the black chert was isolated against equated matrix
- Photo histograms were made for each sample (Figure 2)

Conclusions
- The large spikes on the histograms indicate large black chert grains, a small bump to the left indicates small black chert grains
- Among our samples the histogram spikes are similar in placement and amplitude, meaning that they have the similar chert saturation indicating that they are from the same or similar source

Acknowledgements and Related Research
This project is part of a series providing evidence for the Miocene Bell River Basin and its possible origins in the southwest United States, as proposed by James W. Sears.