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

Authors: Stacia M. Martineau, Dustin L. Rambur, Patrick W. Moffitt, Garrett C. Woodson, Chad M. Dunshee  
Advisor James W. Sears, Department of Geosciences

## 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

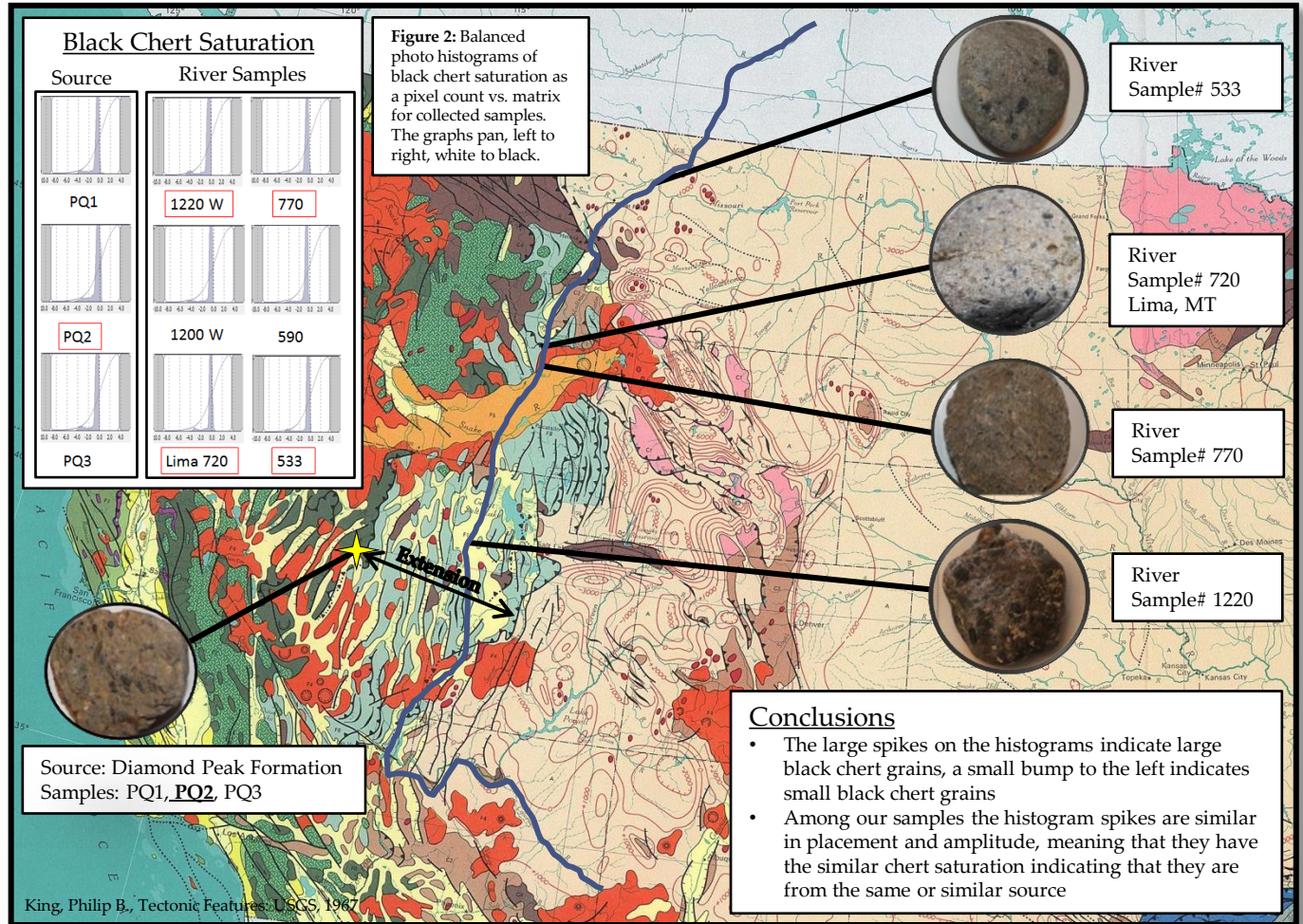
## Bell River Drainage Basin



Figure 1: The Bell River basin before the ice sheet cut it off and rerouted drainage to modern systems. Sears, 2013

## 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)



**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.

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