Title
An Energy-Dispersive X-Ray Fluorescence Analysis of Obsidian Artifacts from the Water Canyon Site (LA 134764), South-Central New Mexico

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LETTER REPORT

AN ENERGY-DISPERSIVE X-RAY FLUORESCENCE ANALYSIS OF OBSIDIAN ARTIFACTS FROM THE WATER CANYON SITE (LA 134764), SOUTH-CENTRAL NEW MEXICO

26 March 2013

James Moore
Office of Archaeological Studies
Museum of New Mexico

Dear Jim,

I have taken the liberty of submitting a letter report, given the short time frame. This assemblage exhibits a diverse set of obsidian source provenances and increases the sample size for this site substantially (Table 1). Cerro Toledo Rhyolite and the Mount Taylor sources are available in the Rio Grande Quaternary alluvium, but the rest of the sources do not erode into Rio Grande alluvial contexts or erode into stream basins a great distance from these sites (Shackley 2005, 2012). Specific instrumental methods can be found at http://www.swxrflab.net/anlysis.htm, and Shackley (2005). Source assignment was made by comparison to source standard data in the laboratory. Analysis of the USGS RGM-1 standard indicates high machine precision for the elements of interest (Table 1 here).

Sincerely,

M. Steven Shackley, Ph.D.
Director

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INTERNET: shackley@berkeley.edu
http://www.swxrflab.net/
REFERENCES CITED

M.K. Davis, T.L. Jackson, M.S. Shackley, T. Teague, and J.H. Hampel

Shackley, M.S.


Table 1. Elemental concentrations for the archaeological samples. All measurements in parts per million (ppm).

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¹ Mainly due to sample size, some of the artifacts produced from Mount Taylor obsidian could not be parsed into one of the two localities (Davis et al. 2011).