An Energy-dispersive X-Ray Fluorescence Analysis of Obsidian Artifacts from AZ N:7:308 and 311 (ASM), Northern Arizona

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LETTER REPORT

AN ENERGY-DISPERSIVE X-RAY FLUORESCENCE ANALYSIS OF OBSIDIAN ARTIFACTS FROM AZ N:7:308 AND 311 (ASM), NORTHERN ARIZONA

28 July 2004

John N. Rapp
Logan Simpson Design, Inc.
51 West Third Street, Suite 450
Tempe, AZ 85281

Dear John,

For a small sample, the obsidian source provenance was relatively diverse (Table 1). If indeed these sites are preclassic Hohokam, the presence of Sauceda Mountains and Vulture obsidian from the Sonoran Desert makes sense. The remaining sources were from northern Arizona, including a newly identified source, Bull Creek, from near Bagdad, Arizona. Source determination was made using source standards at Berkeley (http://www.swxrflab.net/) as reported in Shackley (1998, 1995).

The samples were analyzed with a Spectrace (ThermoNoran) QuanX EDXRF spectrometer in the Archaeological XRF Laboratory, University of California, Berkeley. Instrumental methods can be found at http://www.swxrflab.net/analysis.htm. Analysis of the USGS RGM-1 standard indicates high machine precision for the elements of interest (Govnidaraju 1994; Table 1 here).

Sincerely,

M. Steven Shackley, Ph.D.
Director

VOICE: (510) 642-2533
INTERNET: shackley@berkeley.edu
http://www.swxrflab.net/
REFERENCES CITED

Govindaraju, K.
1994 1994 Compilation of Working Values and Sample Description for 383

Shackley, M. Steven
1988 Sources of Archaeological Obsidian in the Southwest: An Archaeological, Petrological, and

1995 Sources of Archaeological Obsidian in the Greater American Southwest: An Update and

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

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<th>Fe</th>
<th>Rb</th>
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