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Title

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Author

Shackley, M. Steven

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Department of Anthropology
232 Kroeber Hall
University of California
Berkeley, CA 94720-3710

LETTER REPORT

AN ENERGY-DISPERSIVE X-RAY FLUORESCENCE ANALYSIS OF OBSIDIAN ARTIFACTS FROM ARCHAEOLOGICAL SITES ALONG COMB WASH, SOUTHEASTERN UTAH

30 September 2005

James Carter
Bureau of Land Management
435 North Main Street
Monticello, UT 84535

Dear James,

The two samples from 42SA24644 were produced from obsidian procured from the Schoo Mine area in the Mineral Mountains of Beaver County, Utah to the west. The other sample from the other site, unfortunately, is not obsidian. Source assignment was made by reference to the data library at Berkeley, and (Shackley 1995, 2005).

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/anlysis.htm>. Analysis of the USGS RGM-1 standard indicates high machine precision for the elements of interest (Govindaraju 1994; Table 1 here).

Sincerely,

M. Steven Shackley
Professor and 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 Geostandards. *Geostandards Newsletter* 18 (special issue).

Shackley, M. Steven

1995 Sources of Archaeological Obsidian in the Greater American Southwest: An Update and Quantitative Analysis. *American Antiquity* 60:531-551.

2005 *Obsidian: Geology and Archaeology in the North American Southwest*. University of Arizona Press, Tucson.

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

Site/Sample	Ti	Mn	Fe	Rb	Sr	Y	Zr	Nb	Source
42SA24645-CW3	920	86	4869	3	12	4	12	-1	not obsidian
42SA24644-CW2	1218	417	7309	198	46	20	118	24	Schoo Mine, UT
42SA24644-CW1	1116	405	7071	184	48	19	109	26	Schoo Mine, UT
RGM-1S1	1559	329	13018	146	108	18	220	5	standard