Title
An Energy-Dispersive X-Ray Fluorescence Analysis of Obsidian Artifacts from AZ P:8:63 (Five Mile Draw) and AZ P:8:65 (Beethoven), Navajo County, Arizona

Permalink
https://escholarship.org/uc/item/1t59732n

Author
Shackley, M. Steven

Publication Date
2013-08-01

Supplemental Material
https://escholarship.org/uc/item/1t59732n#supplemental

License
https://creativecommons.org/licenses/by-nc/4.0/
1 August 2013

Stacy Ryan
Desert Archaeology, Inc.
3975 N Tucson Blvd.
Tucson, AZ 85716

Dear Stacy,

The assemblage is quite diverse, although small, with sources from northern and central Arizona (Government Mountain and Superior) and northern New Mexico (El Rechuelos) [Shackley 2005]. All analyses for this study were conducted on the ThermoScientific Quant’X XRF spectrometer at the Geoarchaeological XRF Laboratory, Albuquerque, New Mexico. Specific instrumental methods can be found at http://www.swxrflab.net/analysis.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

VOICE: 510-393-3931
INTERNET: shackley@berkeley.edu
http://www.swxrflab.net/
REFERENCE CITED

Shackley, M.S.  

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

<table>
<thead>
<tr>
<th>Sample</th>
<th>Ti</th>
<th>Mn</th>
<th>Fe</th>
<th>Rb</th>
<th>Sr</th>
<th>Y</th>
<th>Zr</th>
<th>Nb</th>
<th>Pb</th>
<th>Th</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>P:8:63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Superior (Picketpost Mtn)</td>
</tr>
<tr>
<td>2008</td>
<td>726</td>
<td>487</td>
<td>1038</td>
<td>123</td>
<td>23</td>
<td>27</td>
<td>92</td>
<td>30</td>
<td>20</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>P:8:65</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>El Rechuelos</td>
</tr>
<tr>
<td>2781</td>
<td>409</td>
<td>556</td>
<td>1045</td>
<td>168</td>
<td>17</td>
<td>37</td>
<td>64</td>
<td>47</td>
<td>34</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>3009</td>
<td>450</td>
<td>497</td>
<td>1159</td>
<td>114</td>
<td>82</td>
<td>21</td>
<td>77</td>
<td>56</td>
<td>35</td>
<td>8</td>
<td>Government Mtn</td>
</tr>
<tr>
<td>3197</td>
<td>529</td>
<td>476</td>
<td>1143</td>
<td>109</td>
<td>78</td>
<td>16</td>
<td>80</td>
<td>54</td>
<td>31</td>
<td>14</td>
<td>Government Mtn</td>
</tr>
<tr>
<td>RGM1-S4</td>
<td>167</td>
<td>299</td>
<td>1375</td>
<td>151</td>
<td>109</td>
<td>24</td>
<td>217</td>
<td>9</td>
<td>21</td>
<td>16</td>
<td>standard</td>
</tr>
</tbody>
</table>