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LETTER REPORT

AN ENERGY-DISPERSIVE X-RAY FLUORESCENCE ANALYSIS OF OBSIDIAN ARTIFACTS FROM SL01, LAS ANIMAS COUNTY, COLORADO

12 September 2021

Marcus Espinosa
Ero Resources Corp
1842 Clarkson St
Denver, CO 80218

Dear Marcus:

Both the artifacts were produced from the Valles Rhyolite (Cerro del Medio) source in the Jemez Mountains, northern New Mexico (Shackley 2005; Table 1 and Figure 1 here).

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

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INTERNET: shackley@berkeley.edu
<http://www.swxrflab.net/>

REFERENCE CITED

Shackley, M.S.

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

Table 1. Elemental concentrations for the archaeological samples and USGS RGM-1 rhyolite standard. All measurements in parts per million (ppm).

Catalog #	Ti	Mn	Fe	Zn	Rb	Sr	Y	Zr	Nb	Pb	Th	Source
1	682	378	11602	70	152	11	45	166	50	23	10	Valles Rhy (Cerro del Medio)
2	575	373	11672	65	156	13	48	164	58	24	23	Valles Rhy (Cerro del Medio)
RGM1-S7	1474	302	13625	36	143	108	23	214	6	18	15	standard

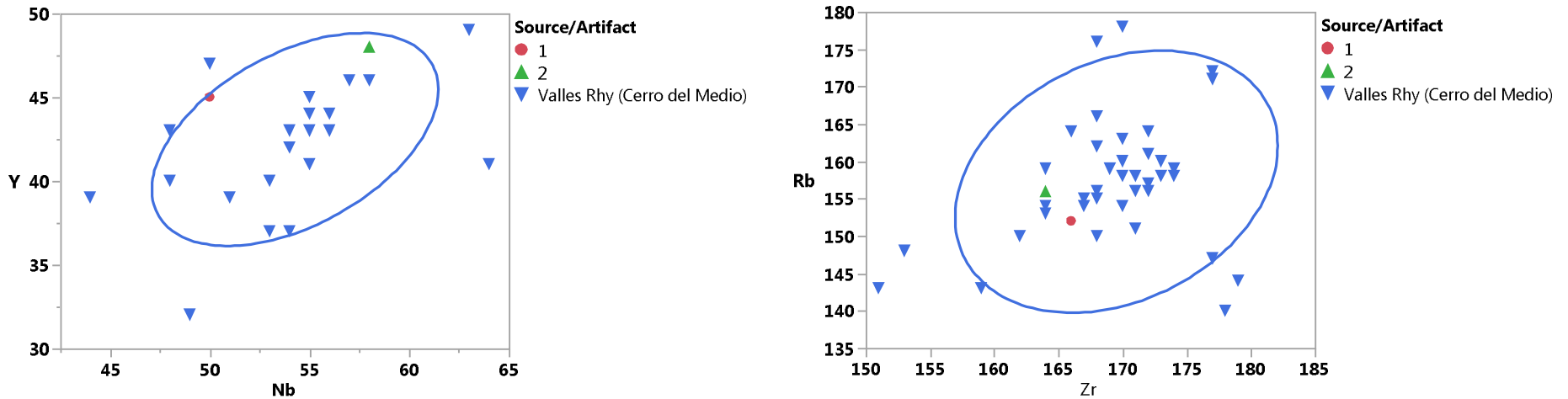


Figure 1. Nb/Y and Zr/Rb bivariate plots of the artifacts and Valles Rhyolite (Cerro del Medio) source standards. Confidence ellipses at 90%.