

## OREGON OBSIDIAN SOURCES



Outcrop of Tumalo Creek obsidian at the top of Tam McArthur Rim, Three Sisters Wilderness Area, Oregon High Cascades - the North Sister and Middle Sister are visible in the left background. The ground surface in the vicinity of the figure is covered with small nodules of non-cultural obsidian.

### TUMALO CREEK

*The topmost flow in the cliffs a short distance west of the Lookout Station is notable as the only obsidian erupted by any of the older group of volcanoes. Its crust and bottom consist of black and varicolored, streaky glass; the inter, on the other hand, is composed of dense, lithoidal lava so closely jointed parallel to the banding as to appear from a distance like slate. (Williams 1944:45)*

**ALTERNATE NAMES:** North Fork Tumalo Creek, Tam McArthur, Tam McArthur Rim.

**GEOCHEMICAL SOURCE:** Tumalo Creek.

**LOCATION - COUNTY:** Deschutes.

**LOCATION - GIS:** -121.64, 44.09 (Tam McArthur Rim); -121.63, 44.06 (Tumalo Creek).

**ACCESS AND OWNERSHIP:** Three Sisters Wilderness and Deschutes National Forest. Access is limited by snow in winter months. Self-issuing permit at the trailhead is required for Three Sisters Wilderness locations.

**GEOLOGIC BACKGROUND/SETTING:** Mapped as units PsRdLa6 and PsRdPt11 (Taylor 1978) and as part of unit Qr by Taylor et al. (1987). Three small fragments of porphyritic volcanic glass from a second unique geochemical source were also found near the Tam McArthur Rim outcrop pictured at the top of this page. It is likely that these samples are from airfall deposits originating from explosive eruptions of tephra and obsidian from the South Sister Dome Chain or Rock Mesa sources located a few miles to the west.

**ARCHAEOLOGICAL SIGNIFICANCE:** Trace element studies of artifacts from regional archaeological sites indicate that this source was only rarely used as a prehistoric toolstone.

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### REFERENCES

- Taylor, Edward M.  
1978 *Field Geology of the S. W. Broken Top Quadrangle*. Oregon Department of Geology and Mineral Industries Special Paper 2, Portland, Oregon.

Taylor, Edward M., N. S. MacLeod, D. R. Sherrod, and G. W. Walker

1987 *Geologic Map of the Three Sisters Wilderness, Deschutes, Lane, and Linn Counties, Oregon*. U. S. Geological Survey Miscellaneous Field Studies Map MF-1952, scale 1:63,360.

Williams, Howel

1944 Volcanoes of the Three Sisters Region, Oregon Cascades. *University of California Publications in Geological Sciences* 27:37-84.