

State Department of Geology and Mineral Industries

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Memo Report

STATE DEPT. OF GEOLOGY
& MINERAL INDS.

1069 State Office Building
Portland 1, Oregon

Mowitch Cave

Douglas County
Umpqua Dist.

Mowitch Cave is located in sec. 3, T. 27 S., R. 4 E. about $\frac{1}{2}$ mile east of the Mowitch Power station (COPCO) along the Clearwater River in eastern Douglas County.

The cave was examined at the request of Kenneth Miller and Robert Patterson who believed it contained a large deposit of bat guano.

The cave is in part of the lava tube type, at least for the first 200 feet from the entrance. At the mouth the opening is about 10 feet high and 20 feet wide and opens into a larger room with a ceiling about 20 feet high, 35 feet wide, and 50 feet long. The cave quickly narrows and at many places it was difficult to crawl. It was examined for about 450 feet and then became too narrow for further entry.

The cave is developed in the lowest of a series of basalt flows that total about 100 feet in thickness. The basalt is underlain by friable tuffaceous lake sediments that may represent an old erosion surface.

The roof and sides of the cave are of a dark vesicular lava (probably andesite). There are numerous drip-like lava stalactite forms hanging from the ceiling for about 200 feet in the cave. The floor for the entire length is in thinly laminated fine to medium-grained lake sediments. In some places the cross-bedding is pronounced. The sediments are only slightly indurated and show deformation from the lava flows and fragments are embedded near the base of the flow.

The slightly irregular contact between the lava and sediments can be seen in most parts of the cave.

At the present time the cave is dry but the sediments have been eroded by running water and a small stream channel has been developed in the floor for the entire length.

The cave is the result of a lava tube that formed when the lava flowed out on an erosional surface of the lake sediments. Later an underground stream removed part of the sediments that make up the floor.

Only 1 bat was seen although in places there were up to 2 inches of bat droppings on the floor. Not enough to make an economic deposit.

Date visited: January 7, 1958.

Accompanied by: K. Miller and R. Patterson.

Report by: Norm Peterson.

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Write memo Report on this

January 7, 1958 - Monthly Report *Interim* - *Impugn*
Mowitch Cave, Douglas Co.

Accompanied by Kenneth Miller and Bob Patterson of Grants Pass to examine a cave which is reported to contain a large amount of *Bet* guano.

The cave was reached via the North Umpqua road and is about 70 miles east of Roseburg. It is located in sec. 3, T. 27 S., R. 4 E. 0.4 miles east of the Mowitch power station (COPCO) along the Clearwater River.

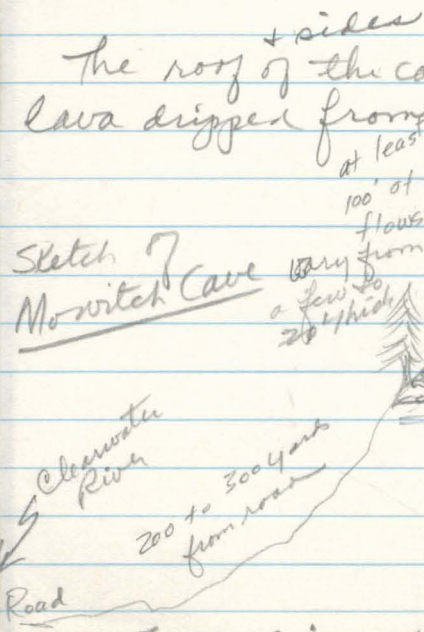
The cave is of the lava tube type at least the first 200 ft. from the entrance. At the mouth the opening is about 10' high and 20' wide but opens into a larger room with a ceiling about 50' high and 35' wide and 50' long.

The entrance

The lava flowed onto an erosional surface of thinly laminated fine to medium grained sedimentary rocks (most likely lake ^{beds}) and this material makes up the floor of the cave for its entire length.

The cave was examined for about 450' and then the opening became so small that it was difficult to crawl.

The roof of the cave are of a vesicular lava - there is evidence that lava dripped from the roof and small stalactitic lava forms are numerous on the roof. The floor of the cave is entirely in the bedded sediments and an underground stream has cut into the sediments at various places and a definite stream channel shows in the cave floor although there is no water present at this time.



The sediments show cross-bedding and are probably old

Lake sediments.

Only 1 bat was seen although in places there was from 1/2 to 2 inches of bat droppings on the floor of the cave. It was determined to be of too small a quantity to be ~~the~~ collected as fertilizer.

The cave is an interesting ~~in that~~ geologic phenomenon. The contact between the sediments and basalt can be seen in several places and fragments of the ~~stuff~~ are imbedded in the lower part of the lava flow - the sediments were not indurated and show some deformation from the lava flowage.

The cave resulted from a combination of lava tube and erosion by running water.

There are numerous ^{vesicular} lava stalactites hanging from the roof - mostly from 1/2 to 1 inch long - the flow must have been extremely gaseous and fluid.

