

Vole Knoll

133° 27' W x 63° 35' N

B

P. DEAN & P. CLARIDGE

4 JUNE → 8 June 1968

Silt Samples Taken:

105 - N - 11

P. DEAN - PD 68-48 → PD 68-65 18

P. CLARIDGE - PC 68-24 → PC 68-66 43

TOTAL FOR AREA — 61

↙ perhaps chert?

Black quartzite seems to be the only rock type present in the area examined, with the exception of very small amounts of schists and/or slates. In some places the quartzite has been altered to a soft, brown, vesicular form, and in other places is of a red-brown colour & contains enough CaCO_3 to fizz in 10% HCl.

The topography in the Vole Knoll area is rather peculiar in being cut into numerous subparallel trench-like valleys. These are mostly very steep walled and vary in size from a few hundred feet long and ~100 feet deep to several miles long. They strike approximately south east and are subparallel to the adjacent 15 mile stretch of Pleasant Creek and also to the system of valleys which mark the northern limit of the Vole Mountain Group. It seems very likely that these small & large parallel valleys are the surface expression of a major fault system. Slickensided quartzite float was

Found in one of the smaller trenches.

There are numerous small & large zones in the quartzites that appear rusty due to pyrite? in the fractures. The quartzites in these rusty zones frequently contain veins & blobs of white quartz. Most of the rusty zones in the quartzite were observed on the walls of the "trenches", however, these are the areas of most rock exposure so the trenchest rusty zones may not be related.

Numerous seepage and swamp type gossans were found in the course of cilt sampling. These appear to be associated with the south-east trending linears. However, swamps & seepages rarely occur on ridge-tops, and most of the drainage channels in the area trend south-east, so again there may be no significant relation between the two. The rusty quartzite does not seem to be the cause of the gossans. In no case was a gossan found near a rusty quartzite zone. Where outcrops did occur near gossans they were of barren black quartzite.

P. Dean. 9 June 1968

Map showing S-E trending linears
in the Vole Knoll Area.
9 June 1968 P. DEAN

Photographs: A12328-84
A12339-220

red spots represent rust seepages &
swamp gossans.

