

(51) NICHOLSVILLE

U.T.M.G. - N-4981719

E-355220

N.T.S. - 21A/15C (1:50,000)

The deposit is located west of Nicholsville and just east of the Palmer Road on Zeke Brook (Fig. 154, and 155).

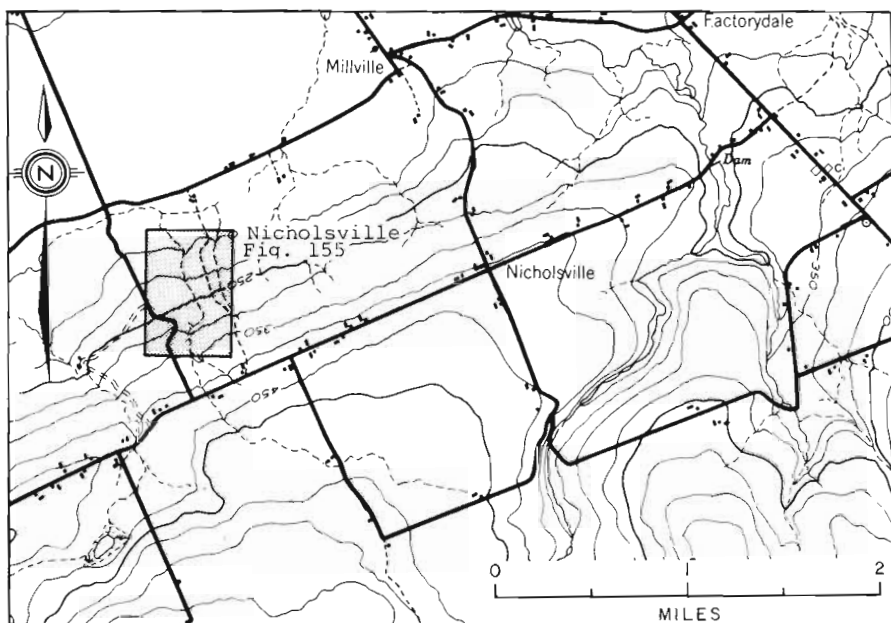


Figure 154

This occurrence has had a lengthy history primarily as a manganese prospect with the earliest work done in 1885. Intermittent exploratory work was undertaken in the years that followed by various individuals, mainly in a search for manganese ore. It was not until 1968 (Bishop and Wright, 1974) that barite was recognized to be present as a gangue mineral forming less than five per cent of the minerals present.

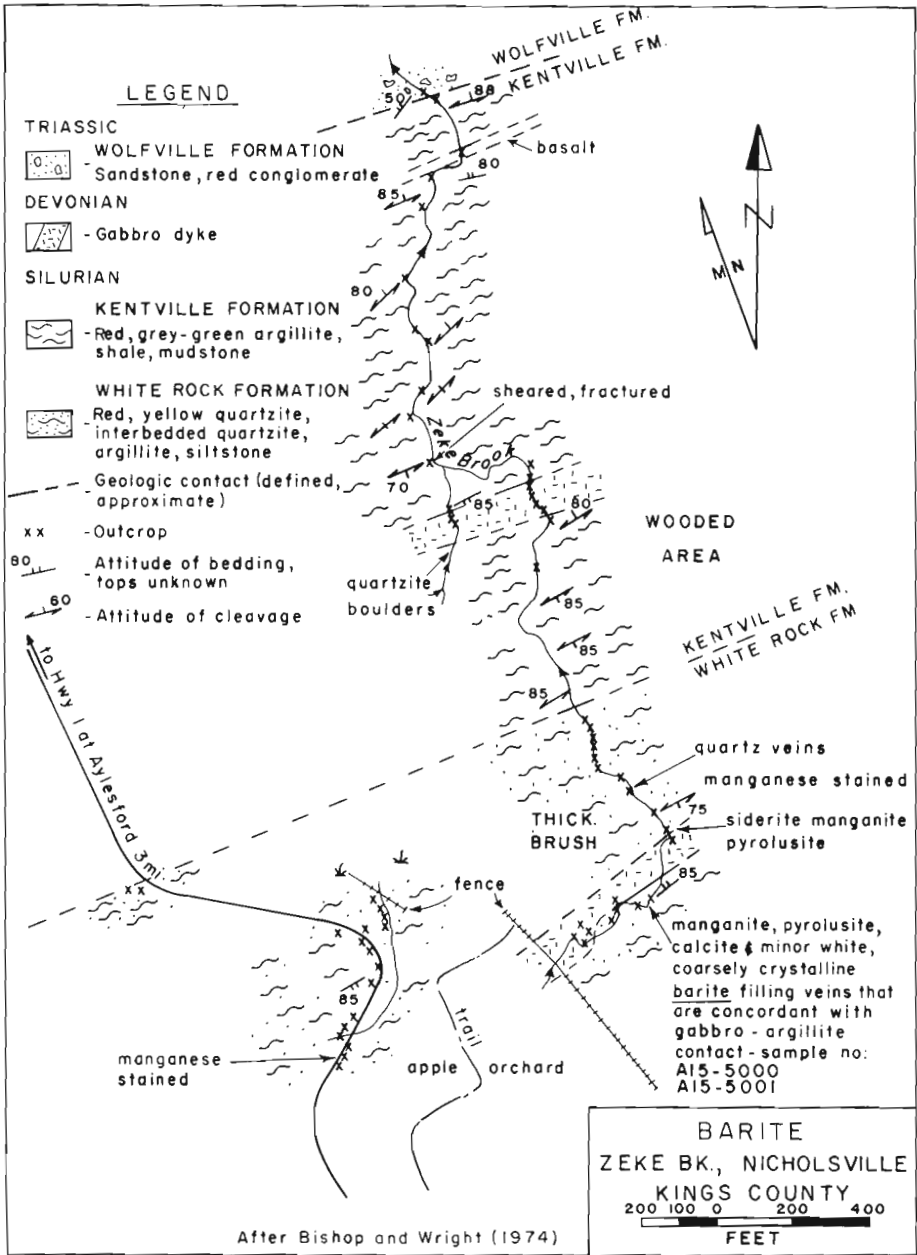


Figure 155

In 1972, diamond drilling totalling 2,935 feet carried out by the Nova Scotia Department of Mines (Bishop and Wright, 1974) encountered massive sulphides (primarily pyrite with minor copper and lead) in the argillite on the footwall of a gabbroic dyke. Minor barite was cut in only one hole, D.D.H. 6. The following excerpt (Bishop and Wright, 1974, p. 204) gives a brief description of the hole:

"The section revealed a sequence of red shale, altered dike with siderite veins, fault zone, a sixty foot section of red and green mottled shales (the shales contains veins of siderite with minor barite and manganese oxides), and the gabbro dike. The intrusive is sheared and highly calcareous with calcite veins throughout."

The showing is situated in sedimentary rocks of the White Rock Formation (Silurian or Older), which is underlain by the Halifax Formation (Cambro-Ordovician), and overlain by the Kentville Formation (Silurian). The contacts between these formations are gradational (Smitheringale, 1973). These units have been folded into a northeasterly trending syncline and variously metamorphosed during the Acadian Orogeny (Devonian Age). Intrusions of gabbroic dykes and sills followed by emplacement of the South Mountain Batholith accompanied the Acadian Orogeny. North and northwest of the prospect area a cover of clastic sedimentary rocks of the Wolfville Formation (Triassic Age) rest unconformably on top of the older rock units.

The host rock is a grey-brown argillite of the White Rock Formation. The beds are found to strike 050° azimuth, dip 85° towards the northwest and display a cleavage generally concordant to the bedding. The beds form the southeast limb of the northeasterly trending syncline.

The mineralization was structurally controlled with white, medium-grained crystalline barite occurring as small irregular masses and veinlets in the centre of pyrolusite and manganite veins. The manganese veins are themselves irregular, occurring as stringers and lenses concordant to the host rock, and at the contact of the gabbroic dyke. The lenses are generally only a few inches in width though it is reported (Faribault, 1920) that at the bottom of one of the old shafts a vein attained a width of approximately 3.5 feet. Small veinlets of

manganese oxides and quartz are also found to intersect the larger ones at right angles. Other minerals found associated with these minerals include psilomelane, calcite, siderite and iron oxides.

Grab samples collected from the mineralized veins and the host rock were chemically analysed. The location sampled is indicated on Figure 155, and the analytical results are listed below and in appendix III.

Rock Type	Sample No.	Per cent				ppm	
		BaSO ₄	SrSO ₄	F	Cu	Pb	Zn
Argillite	A15-5000	.58	.03	.05	100	100	50
Magnetite, pyrolusite, barite	A15-5001	5.01	.23	.25	65	110	6

This occurrence probably has little merit as a potential barite prospect because it appears that where manganese oxides occur, barite is generally present, but only in small amounts.

Bibliography

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1960: Geology of part of Digby, Bridgetown, and Gaspereau Lake map-areas, N.S.; Geol. Surv. Can. Memoir 375, 78p.