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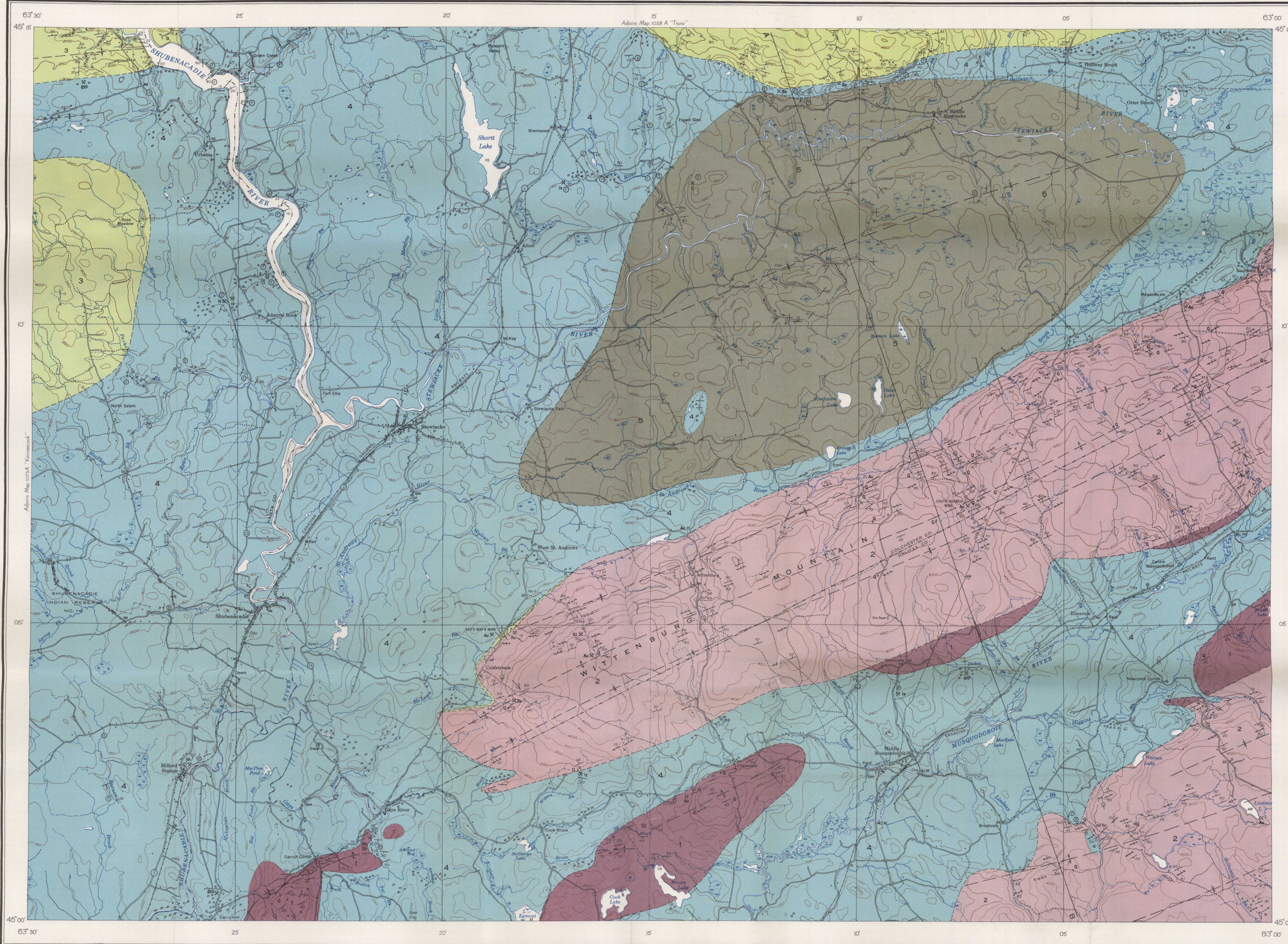
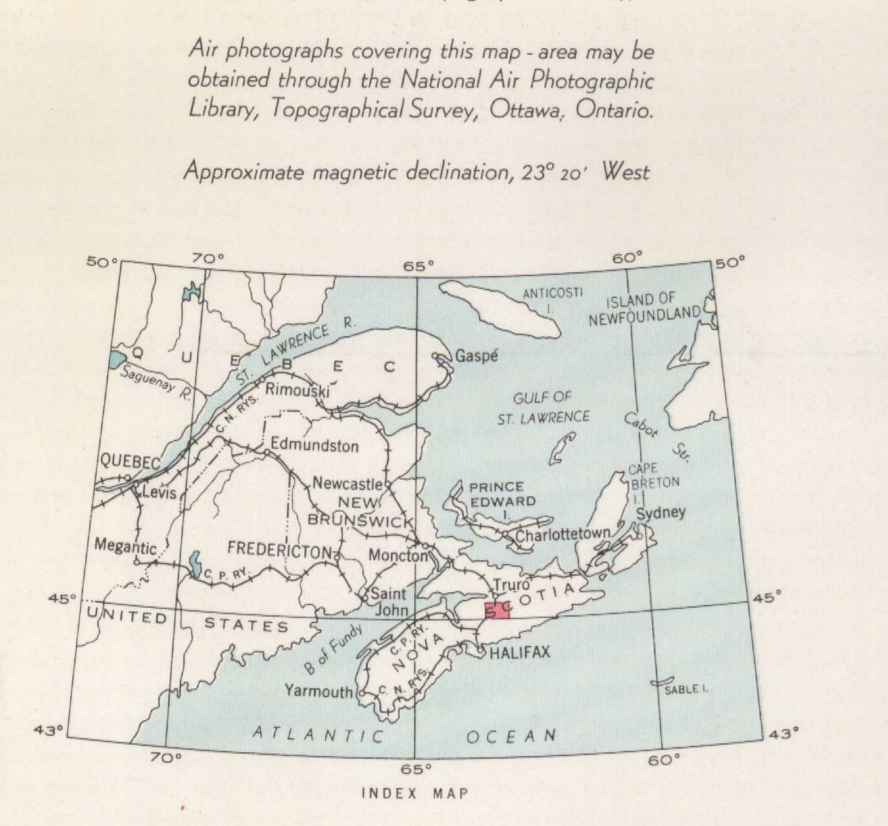
LEGEND

PALAEZOIC (?)	5	PENNSYLVANIAN RIVERSDALE GROUP SCOTCH VILLAGE FORMATION: grey sandstone, grey and red shale
	4	MISSISSIPPIAN WINDSOR GROUP (undivided) Red and green shale, limestone, gypsum and anhydrite, minor sandstone, salt (?)
	3	HORTON GROUP (undivided) Grey and red sandstone, grit, shale, conglomerate
	2	ORDOVICIAN (?) MEGUMA GROUP (1, 2) HALIFAX FORMATION: black and grey slate, argillite, minor quartzite
	1	GOLDENVILLE FORMATION: grey and green quartzite, minor slate

Observed rock outcrop, area of outcrop	.....
Bedding (horizontal, inclined, vertical)	.....
Schistosity or cleavage (inclined, vertical)	.....
Drag fold (arrow indicates plunge)	.....
Fault (defined, approximate, assumed)	.....
Fault (solid circle indicates downthrow side)	.....
Anticlinal axis (defined, approximate; arrow indicates plunge)	.....
Synclinal axis (defined, approximate)	.....
Glacial striae	.....
Fossil locality	.....
Observed karst topography	.....
Quarry (gypsum, limestone, sh, slate, sh, shale, sh)	.....
Mine (gold, Au, barite, Ba)	.....
Mineral prospect (gold, Au, lead, Pb, coal, C, barite, Ba)	.....
Gold placer deposit	.....
Quartz vein	.....
Drift or tunnel	.....
Spring deposit of yellow ochre	.....

Geology by I. M. Stevenson, 1953, 1950
To accompany G. S. C. Memoir 302 by I. M. Stevenson
Cartography by the Geological Survey of Canada, 1950

Main highway	.....
Road buildings	.....
Road not well travelled	.....
Trail	.....
Church	.....
School	.....
Post Office	.....
Cemetery	.....
Saw mill	.....
County boundary	.....
Indian Reserve boundary	.....
Intermittent stream	.....
Stream (position approximate)	.....
Falls	.....
Marsh	.....
Sand or gravel	.....
Contours (interval 30 feet)	.....
Depression contour	.....
Height in feet above mean sea-level	.....



DESCRIPTIVE NOTES

The entire northwest half of the map-area and the valley of Musquodoboitt River, is underlain by sedimentary rocks of Carboniferous age which characteristically produce a gently rolling topography. In the southeast half of the area, the more competent slates and quartzites of the Meguma group emerge steeply from beneath the Carboniferous strata and present a monotonously even skyline about 550 feet above sea-level. The original rugged relief has been subdued by glaciation and the low-lying areas are covered by a thick mantle of glacial drift.

The Goldenville formation (1) consists of alternating beds of quartzite and slate, with the former predominant. The quartzite is grey to greenish grey, breaks with a conchoidal fracture, and commonly passes gradually into narrow bands of siliceous, micaceous slate. The Goldenville formation is conformably overlain by bluish black, ferruginous, graphitic slates of the Halifax formation (2). The latter formation contains narrow bands of schistose, greyish green quartzite, rarely exceeding a few feet in thickness. Both slates and quartzites commonly contain cubes of pyrite along the bedding planes.

The Meguma group strata have been folded into parallel, northeast-striking folds. The resulting anticlines are generally domed and plunge gently to the northeast and southwest. The folds are tightly compressed, and the strata commonly dip at angles ranging from 60 to 90 degrees. Schistosity is particularly well developed in the more competent quartzitic beds of the Halifax formation. Numerous quartz veins of both bedded and transverse types, a few of which are auriferous, occur in the strata of both the Halifax and Goldenville formations. The veins are particularly abundant on the crests and noses of the anticlines.

The Horton group, wherever present, is unconformably overlain by a basal conglomerate of the Horton group (3). This conglomerate, which in places attains a thickness of 25 feet, is composed of detritus derived mainly from the Meguma group to the south. Excellent exposures of the conglomerate are found on McLean Brook near Coldstream, Shales and sandstones of Horton age outcrop on Putnam, Field, and Brenton Brooks.

The Horton group, wherever present, is overlain conformably by a series of limestone, gypsum, anhydrite, and red shale beds (4) whose age relationships are in doubt. Although much of the series is of lower Windsor age, fossils from various localities on Shubenacadie River and Forest Glen indicate an upper Windsor age for at least part of it.

In a gentle syncline north of Wittenburg Mountain, the Windsor group is overlain, apparently conformably, by a succession of buff weathering sandstones and shales of continental origin, referred to as the Scotch Village formation (5). Poorly preserved plant fossils indicate these rocks to be of probable early Pennsylvanian (Riversdale) age.

All rocks in the area are considerably faulted, but because of the extensive drift covering, surface expression of only a few faults can be recognized. Strata of the Meguma group have been flexed into a series of parallel, tight folds. Rocks of the Horton and Windsor groups are locally much disturbed, but those of the Scotch Village formation are relatively undisturbed.

Evidence of glaciation is found throughout the area. Wittenburg Mountain, which in places attains a maximum elevation of over 550 feet, has been rounded and striated by the ice.

The Gays River gold prospect, 1 mile north of Coldstream, is of the fossiliferous type. The gold, which originated in the Meguma group to the south, is found largely near the base of the band of Horton conglomerate that lies unconformably upon the Gold-bearing series. The property, worked intermittently since 1862, is now inactive. The South Branch gold mine, 3 miles northwest of Elmsvale, was worked intermittently from 1895 to 1908. The gold is found in bedded and transverse veins of milky quartz. Quartz veins have been prospected for gold on various brooks, and minor amounts of free gold have been panned from the gravel of several streams.

A deposit of argenteriferous galena occurs on Gays River. The ore consists of small crystals of galena diffused through Carboniferous limestone that rests unconformably on Goldenville quartzites.

A small deposit of barite has been mined on a brook 2 miles west of Middle Stewiacke.

The area contains several limestone quarries which, with the exception of Admiral Rock, are at present inactive.

A large gypsum quarry is being opened at Dutch Settlement, 2 miles southwest of Carrol Corner. The crude gypsum will be shipped via Canadian National Railways to Halifax for export.

A deposit of highly plastic fireclay at Middle Musquodoboitt is worked intermittently. Coal has been prospected for, near Little River and on Fisher Brook. Slate has been quarried near Coldstream. The glacial deposits include large quantities of gravel and sand.

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MAP 1076A
GEOLOGY
SHUBENACADIE
COLCHESTER, HALIFAX, AND HANTS COUNTIES
NOVA SCOTIA

Scale: One Inch to One Mile = $\frac{1}{63,360}$ Miles

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