Refer to this map as: 31 G/3 W EDITION 3MCE SERIES A 751

GEOLOGICAL SURVEY OF CANADA COMMISSION GÉOLOGIQUE DU CANADA

DEPARTMENT OF ENERGY, MINES AND RESOURCES
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES

SURFICIAL GEOLOGY, WINCHESTER, ONT. 31G/3 W½

SCALE 1:50,000

LEGEND

SURFICIAL DEPOSITS AND TERRAIN FEATURES

QUATERNARY

POSTGLACIAL - 10,000 years BP to present

7 — Organic deposits: muck and peat; mainly peat bogs and poorly drained areas supporting fen, swamp, marsh and meadow vegetation

6 — Alluvial deposits: stratified sand, silty sand, silt and silty clay; includes fluvial deposits, sand bars and spits of modern floodplain of present streams

MARINE - CHAMPLAIN SEA 12,800 to 10,000 years BP approx.

5 — Marine beach deposits: gravel and sand, fossiliferous; derived mainly from the reworking by the Champlain Sea of older glacial or glacio-fluvial deposits; includes abandoned raised beaches, bars, spits, beach ridges, boulder beaches and boulder pavements

4 — Marine sand: uniform, fine-grained, buff to grey sand, fossiliferous; shallow-water facies of off-shore sediments of the Champlain Sea; upper part of this sand is buff and has often been reworked by wind into low dunes; when exposed in fresh cuts below the chemically weathered zone this sand is grey in colour

3 — Marine clay: blue-grey clay, silty clay and silt, calcareous, fossiliferous; deep-water facies of off-shore sediments of Champlain Sea; locally this unit is overlain by a thin layer of sand; in the northeastern part of the map-area the upper part of these sediments is unfossiliferous, somewhat less calcareous and consists of laminated red and greenish grey clay

GLACIAL-LATE OR CLASSICAL WISCONSIN - 12,800 years BP and/or older

2 — Drumlinized glacial deposits: compact, grey to brown when leached and oxidized, calcareous, sandy glacial till; drumlinized surface topography modified by the marine waters of the Champlain Sea during the postglacial submergence; many drumlins are overlain by gravel and sand lag deposits and abandoned beach and boulder ridges

1 — Bevelled or modified till deposits: compact, grey to brown when leached and oxidized, calcareous, sandy glacial till; topography flat to gently rolling with surface materials reworked and winnowed by the marine waters of the Champlain Sea; includes bouldery, washed till on slopes and plains which grades downwards into unmodified till

BEDROCK AREAS

PALEOZOIC

R — Limestone, dolomite and shale; mainly bare limestone, dolomite and locally shale bedrock; includes areas thinly veneered by Quaternary unconsolidated sediments up to 1m. (3') thick, most commonly consisting of washed and reworked glacial till and limestone and dolomite slabs and shingles; limestone and dolomite normally occur as tabular outcrops

.....Geological boundary

.....Bedrock scarps

.....Direction of ice movement indicated by drumlin

Former strandline positions of Champlain Sea
.....indicated by flights of abandoned marine beaches

Abandoned postglacial river channels; valley walls, gullies and present day drainage ways; includes some man-made
.....field and road side drainage ditches

Ⓕ .....Fossil locality

× .....Gravel or sand pit

⚒ .....Bedrock quarry

10,000± 320 GSC-1553 .....Locality of specimen, dated in years by radiocarbon method

GEOLOGY BY S.H. RICHARD 1970, 71, 72

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada.

Produced, 1965, by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES, from aerial photographs taken in 1964. Field surveys 1960 and 1964. Culture check 1965. Printed 1968.

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WINCHESTER
ONTARIO

Établie en 1965, par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES, d'après des photographies aériennes prises en 1964. Levés sur le terrain en 1960 et 1964. Vérification des ouvrages en 1965. Imprimée en 1968.

Ces cartes sont en vente au Bureau de distribution des cartes, ministère de l'Énergie, des Mines et des Ressources, Ottawa.

SCALE 1:50,000 ÉCHELLE

Miles 1 0 1 2 3 Milles
Metres 1000 500 0 1000 2000 3000 4000 Mètres
Yards 1000 500 0 1000 2000 3000 4000 Verges

CONTOUR INTERVAL 25 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

ÉQUIDISTANCE DES COURBES 25 PIEDS
Élévations en pieds au dessus du niveau moyen de la mer
Niveau de référence nord américain 1927
Projection transverse de Mercator

Roads:	Routes:	
hard surface, all weather	pavée, toute saison	more than 2 lanes, plus de 2 voies / 2 lanes, 2 voies
hard surface, all weather	pavée, toute saison	less than 2 lanes, moins de 2 voies
loose or stabilized surface, all weather	gravier aggloméré, toute saison	2 lanes or more, 2 voies ou plus / less than 2 lanes, moins de 2 voies
loose surface, dry weather	de gravier, période sèche	
cart track	de terre	
trail or portage	sentier ou portage	
Railway, normal gauge, single track	Chemin de fer, voie unique (écartement normal)	siding, voie d'évitement / station
Horizontal control point, with elevation	Point géodésique avec cote	211 △
Bench mark, with elevation	Repère de nivellement avec cote	BM 218→

Building	Bâtiment	Barn	Grange
School	École	Post office	Bureau de poste (P)
Church	Église	Cemetery	Cimetière
Mine or Open cut	Mine ou fosse à ciel ouvert		
Lighthouse	Phare		
Power transmission line	Ligne de transport d'énergie		
River with bridge	Rivière avec pont		
Stream, intermittent or dry	Cours d'eau intermittent ou à sec		
Lake intermittent; undefined	Lac intermittent; nivé imprécise		
Marsh or Swamp	Marais ou marécage	rice	riz
Depression contours	Courbes de cuvette		

CONVERSION SCALE FOR ELEVATIONS
Metres 100 50 0 100 200 300 400 500 600 700 800 900 1000
Feet 300 250 200 150 100 50 0 50 100 150 200 250 300

T.N.
Grid North
Magnetic North
12° 44' or 226 Mils
0° 16' or 5 Mils

Use diagram only to obtain numerical values.
APPROXIMATE MEAN DECLINATION 1966
FOR CENTRE OF MAP
Annual change increasing 0.4'

GRID ZONE DESIGNATION	100,000 M. SQUARE IDENTIFICATION
18 T	VF / VE — 50

TO GIVE A REFERENCE TO NEAREST 100 METRES

EXAMPLE — SCHOOL	
EASTING: Read number on grid line immediately to left of point	68
Estimate tenths of a square from this line eastward to point	5
	685
NORTHING: Read number on grid line immediately below point	95
Estimate tenths of a square from this line northward to point	8
	958
MILITARY GRID REFERENCE	685958

Nearest similar grid reference 100,000 metres (about 62 miles)

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 18

TABLEAU D'ASSEMBLAGE DU SYSTÈME NATIONAL DE RÉFÉRENCE CARTOGRAPHIQUE

31 G/5E	31 G/6W	31 G/6E
31 G/4E	31 G/3W WINCHESTER	31 G/3E
31 B/13E	31 B/14W	31 B/14E

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WINCHESTER
31 G/3 W
EDITION 3