

# SURFICIAL GEOLOGY AND AGGREGATE DEPOSITS IN THE RURAL MUNICIPALITY OF ARTHUR

## LEGEND

### QUATERNARY

#### Post Glacial

- 7 Alluvium: deposited by present day streams; primarily silt and clay, some sand and minor gravel

#### Proglacial

- 6.5.4 Lacustrine sediments: deposited in Glacial Lake Souris

- 6 Basinal  
6b silt; usually > 2m thick; includes minor areas of clay  
6a silt; < 1m thick overlying till; includes areas of thicker silt and clay accumulation
- 5 Littoral  
sand; usually > 2m thick, medium to fine-grained, grades westward into deltaic sands
- 4 Deltaic  
4b sand and gravel; generally 2-4m thick; sediments are thicker and coarser to west and north; includes possible flood deposits east of Melita  
4a sand, pebbly sand and local areas of fine gravel; where gravel occurs it is generally < 1.5m thick overlying till or sand; unit includes possible flood deposits east of Melita
- 3 Meltwater channel deposits  
3c sand and gravel; generally < 2m thick overlying till; minor shale; associated with streams carrying meltwater from receding ice front  
3b sand and gravel; generally 1-3m thick, moderate to abundant shale; possible flood deposits  
3a sand and gravel; 1-2m thick over till, minor shale; associated with Souris River Spillway

#### Glacial

- 2 Till: deposited by southeast flowing ice; unit includes organic deposits accumulating in depressions  
2c plain, modified by water erosion; includes pockets of silt and clay, sand and sand and gravel  
2b corrugated moraine; linear ridges 1-3m high, oriented southwest  
2a stagnation moraines; abundant doughnut mounds 1-3m high; rims occasionally in part formed of sand and fine gravel

#### Cretaceous

- 1 Shale of Pierre Formation; generally overlain by < 1m silt, sand and clay; includes areas of lag deposits

## SYMBOLS

- Meltwater stream; channels usually till floored with local accumulations of sand and gravel
- Spillway
- Escarpment
- Sand and gravel pit; intermittent usage
- Sand and gravel pit; abandoned
- Sand and gravel site; minor extraction; intermittent usage
- Sand and gravel site; minor extraction; abandoned
- Field station/sample - s (Site prefix in text:HM)
- Backhoe station/sample - s (Site prefix in text:HB)
- 11800 Deposit number
- Gravel occurrence
- Aggregate Deposit

### Deposit Production Potential

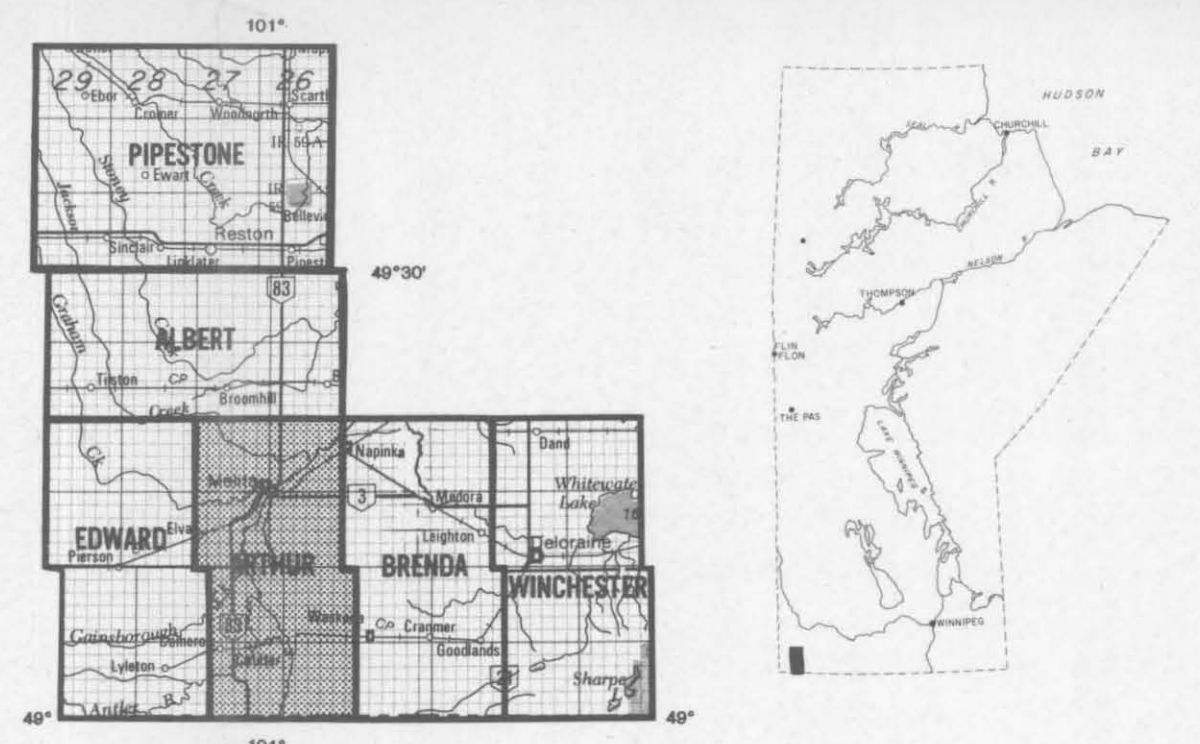
- (H) High (M) Moderate (L) Low

### Deposit Symbol

- 11800 Deposit number  
H Production potential

## INDEX MAP

Parts of  
62F/2, 62F/3, 62F/6 & 62F/7



Geology by H. Groom

Cartography by L. Villeneuve

The base for this map is taken from N.T.S. Maps 62F/2 to 1988, 62F/3 to 1980, 62F/6 to 1980, 62F/7 to 1980.  
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To accompany Aggregate Report AR92-5

Scale 1:50 000

KILOMETRES 0 1 2 3 4 5

