DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
TEMPORARY STATE COMMISSION ON TUG HILL
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WATER-RESOURCES INVESTIGATIONS REPORT 88-4014
PLATE 3E. POTENTIAL WELL YIELDS
RICHLAND AND ORWELL QUADRANGLES

EXPLANATION

POTENTIAL WELL YIELD AND DESCRIPTION OF WATER-BEARING UNIT

Symbols in parentheses indicate type of well suitable for the geologic material described

Scr = Screened Drn = Driven
Opn = Open-ended Dug = Dug

1 — 1 TO 100 GALLONS PER MINUTE--Sand or sand and gravel interbedded with silt, clay, or till. Thin, saturated layers of moderately permeable material occurring at random (Scr, Opn, Drn, Dug)

2 — 1 TO 50 GALLONS PER MINUTE--Sand under water-table conditions (Scr, Drn, Dug)

3 — 10 TO 100 GALLONS PER MINUTE--Sand and gravel under water-table conditions but with thin saturated zone. May be necessary to drill into underlying bedrock to obtain adequate supply. Yield is for a dug well (Dug)

4 — 1 TO 100 GALLONS PER MINUTE--Sand under confined conditions, overlain by very fine sand, silt and clay, or till (Scr)

5 — 10 TO 250 GALLONS PER MINUTE--Sand and gravel of moderate transmissivity under water-table conditions (Scr, Opn, Drn, Dug)

6 — 10 TO 250 GALLONS PER MINUTE--Sand and gravel of moderate transmissivity under confined conditions, overlain by very fine sand, silt and clay, or till (Scr, Opn)

7 — GREATER THAN 250 GALLONS PER MINUTE--Coarse sand and gravel of high transmissivity, under water-table conditions (Scr, Opn, Dug)

8 — GREATER THAN 250 GALLONS PER MINUTE--Coarse sand and gravel of high transmissivity under confined conditions, overlain by very fine sand, silt and clay, or till (Scr, Opn)

9 — 10 TO 250 GALLONS PER MINUTE--From surficial sand and gravel aquifer that is underlain by lacustrine fine sand and silt. Underlying the lacustrine deposits in some places is a confined sand and gravel aquifer that may yield 10 to more than 250 gallons per minute

10 — 1 TO 50 GALLONS PER MINUTE--From surficial sand deposit that is underlain by lacustrine fine sand and silt. Underlying the lacustrine deposits in some places is a confined sand and gravel aquifer that may yield 10 to more than 250 gallons per minute

AQUIFER BOUNDARY--Dashed where valley aquifer is adjacent to permeable material on uplands and valley walls for which there are little data to determine whether deposits are saturated year round. These areas would contribute recharge to the valley aquifer

AREA OF TILL WITHIN AQUIFER

0 ½ 1 MILE
0 ½ 1 KILOMETER

Base from U.S. Geological Survey, 1960; revised by New York State Department of Transportation, Richland and Orwell, 1975, 1:24,000

HYDROGEOLOGY AND WATER QUALITY OF THE TUG HILL GLACIAL AQUIFER IN NORTHERN NEW YORK

By
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