

- ARTIFICIAL FILL** - Excavated surficial material and bedrock; and discarded man-made construction debris, cinders, and other waste material deposited by the Terminal Marine and the remaining ice margin. Composed by a pathway or waste across the Terminal Marine at an elevation of 130 feet. Lake lowered to the level of Lake Woodbridge when the ice margin retreated east of the Springfield Avenue.
- DETAILED SECTION** - Unidirectional detrital lacustrine fan, and lake-bottom sand, silt, and pebble-to-cobble gravel. Maximum thickness 100 feet. Deposited in the Springfield Avenue valley. The detrital fill is a silty clay with pebbles to cobbles. The detrital fill is a silty clay with pebbles to cobbles. The detrital fill is a silty clay with pebbles to cobbles.
- ALLUVIUM** - Silt, sand, clay, and minor pebble-to-cobble gravel. The alluvium is a silty clay with pebbles to cobbles. The alluvium is a silty clay with pebbles to cobbles. The alluvium is a silty clay with pebbles to cobbles.
- NONMARINE DEPOSIT** - Unidirectional detrital lacustrine fan, and lake-bottom sand, silt, and pebble-to-cobble gravel. Maximum thickness 100 feet. Deposited in the Springfield Avenue valley. The detrital fill is a silty clay with pebbles to cobbles. The detrital fill is a silty clay with pebbles to cobbles. The detrital fill is a silty clay with pebbles to cobbles.
- SOUTH MOUNTAIN DEPOSIT** - Unidirectional detrital lacustrine fan, and lake-bottom sand, silt, and pebble-to-cobble gravel. Maximum thickness 100 feet. Deposited in the Springfield Avenue valley. The detrital fill is a silty clay with pebbles to cobbles. The detrital fill is a silty clay with pebbles to cobbles. The detrital fill is a silty clay with pebbles to cobbles.
- SUMMIT EAST DEPOSIT** - Detrital sand and pebble-to-cobble gravel. Maximum thickness 40 feet (estimated). Deposited in a small lake ponded between the Terminal Marine and the remaining ice margin. Composed by a pathway to the north across the concrete at an elevation of 130 feet. Lake drained when the ice margin retreated east of the Springfield Avenue.
- SUMMIT WEST DEPOSIT** - Unidirectional detrital lacustrine fan, and lake-bottom sand, silt, and pebble-to-cobble gravel. Maximum thickness 40 feet (estimated). Deposited in a small lake ponded between the Terminal Marine and the remaining ice margin. Composed by a pathway to the south across the concrete at an elevation of 130 feet. Lake drained when the ice margin retreated east of the Springfield Avenue.
- SWAMP AND MARSH DEPOSITS** - Gray to brown and red clay, overlain with silt. An elevation of 20 feet. The detrital fill is a silty clay with pebbles to cobbles. The detrital fill is a silty clay with pebbles to cobbles. The detrital fill is a silty clay with pebbles to cobbles.
- GLACIAL DEPOSITS** - Deposits of three glacial zones in the Roselle quadrangle. Till of pre-Illinoian age (Orange Hill, Q1) covers beneath the till of the Wisconsin I (West Branch) and Wisconsin II (East Branch) glacial zones. The Wisconsin I till is a silty clay with pebbles to cobbles. The Wisconsin II till is a silty clay with pebbles to cobbles. The Wisconsin III till is a silty clay with pebbles to cobbles.
- IC CONTACT DEPOSITS** - Sand, pebble-to-cobble gravel, and minor cobble-to-boulder gravel. The contact deposits are a silty clay with pebbles to cobbles. The contact deposits are a silty clay with pebbles to cobbles. The contact deposits are a silty clay with pebbles to cobbles.
- ILLINOIAN TILL** - Sand, silt, clay, and gravel. The Illinoian till is a silty clay with pebbles to cobbles. The Illinoian till is a silty clay with pebbles to cobbles. The Illinoian till is a silty clay with pebbles to cobbles.
- RAILWAY OUTWASH** - Sand, pebble, and pebble-to-cobble gravel. The railway outwash is a silty clay with pebbles to cobbles. The railway outwash is a silty clay with pebbles to cobbles. The railway outwash is a silty clay with pebbles to cobbles.
- EAST BRANCH OUTWASH** - Sand and pebble-to-cobble gravel. The east branch outwash is a silty clay with pebbles to cobbles. The east branch outwash is a silty clay with pebbles to cobbles. The east branch outwash is a silty clay with pebbles to cobbles.
- SUMMIT OUTWASH** - Sand and pebble-to-cobble gravel. The summit outwash is a silty clay with pebbles to cobbles. The summit outwash is a silty clay with pebbles to cobbles. The summit outwash is a silty clay with pebbles to cobbles.
- BLUE BROOK OUTWASH** - Sand and pebble-to-cobble gravel. The blue brook outwash is a silty clay with pebbles to cobbles. The blue brook outwash is a silty clay with pebbles to cobbles. The blue brook outwash is a silty clay with pebbles to cobbles.
- RAILWAY TILL (YELLOW PHASE)** - Till above, except fine sand silt to a middle yellow to yellow sandy silt to clayey silt, and bank clays and silts. Detrital from ice contact with pebbles and weathered bank bedrock on First Washington Mountain. Glacial contact with ice. The detrital fill is a silty clay with pebbles to cobbles. The detrital fill is a silty clay with pebbles to cobbles. The detrital fill is a silty clay with pebbles to cobbles.

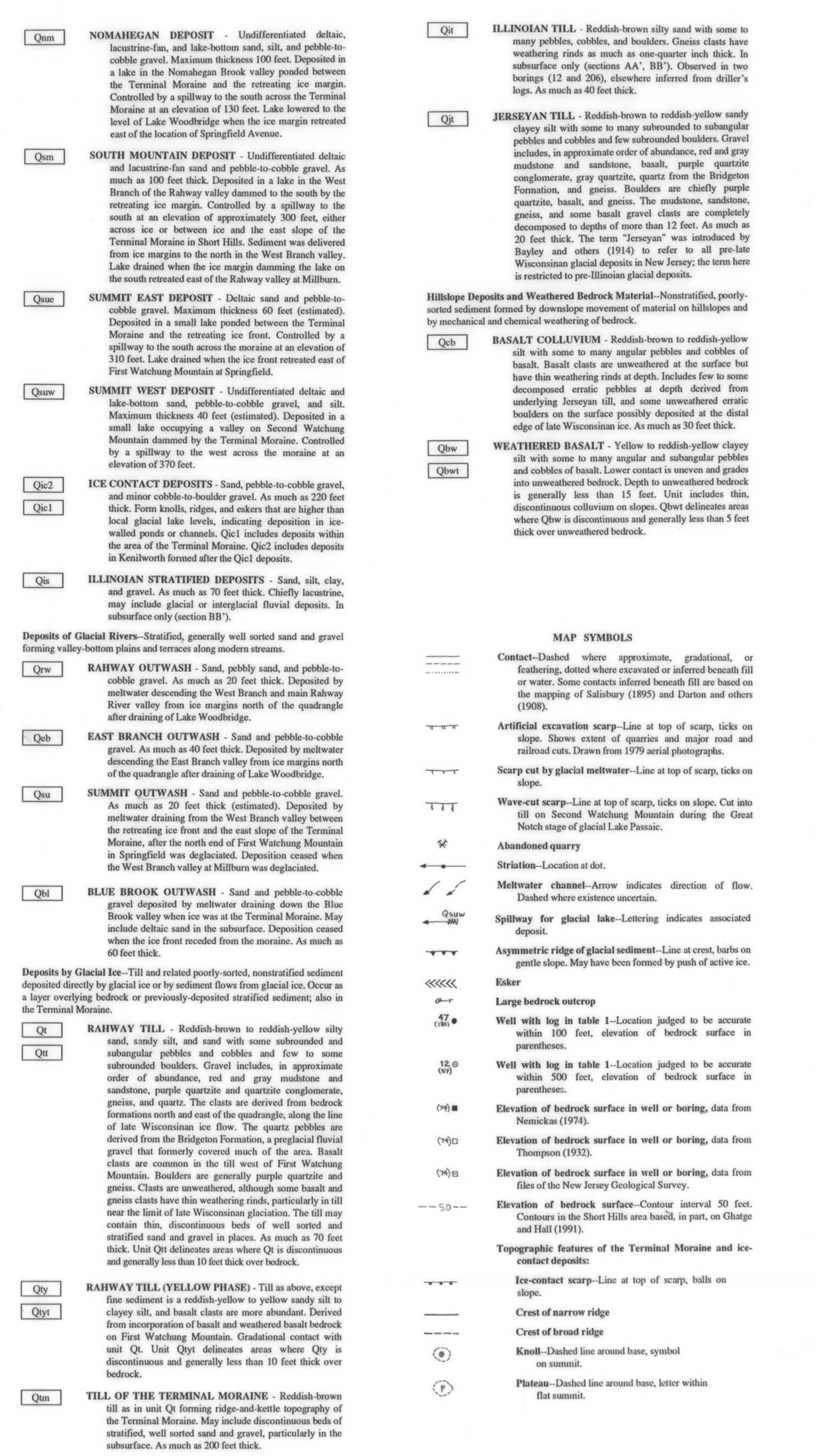
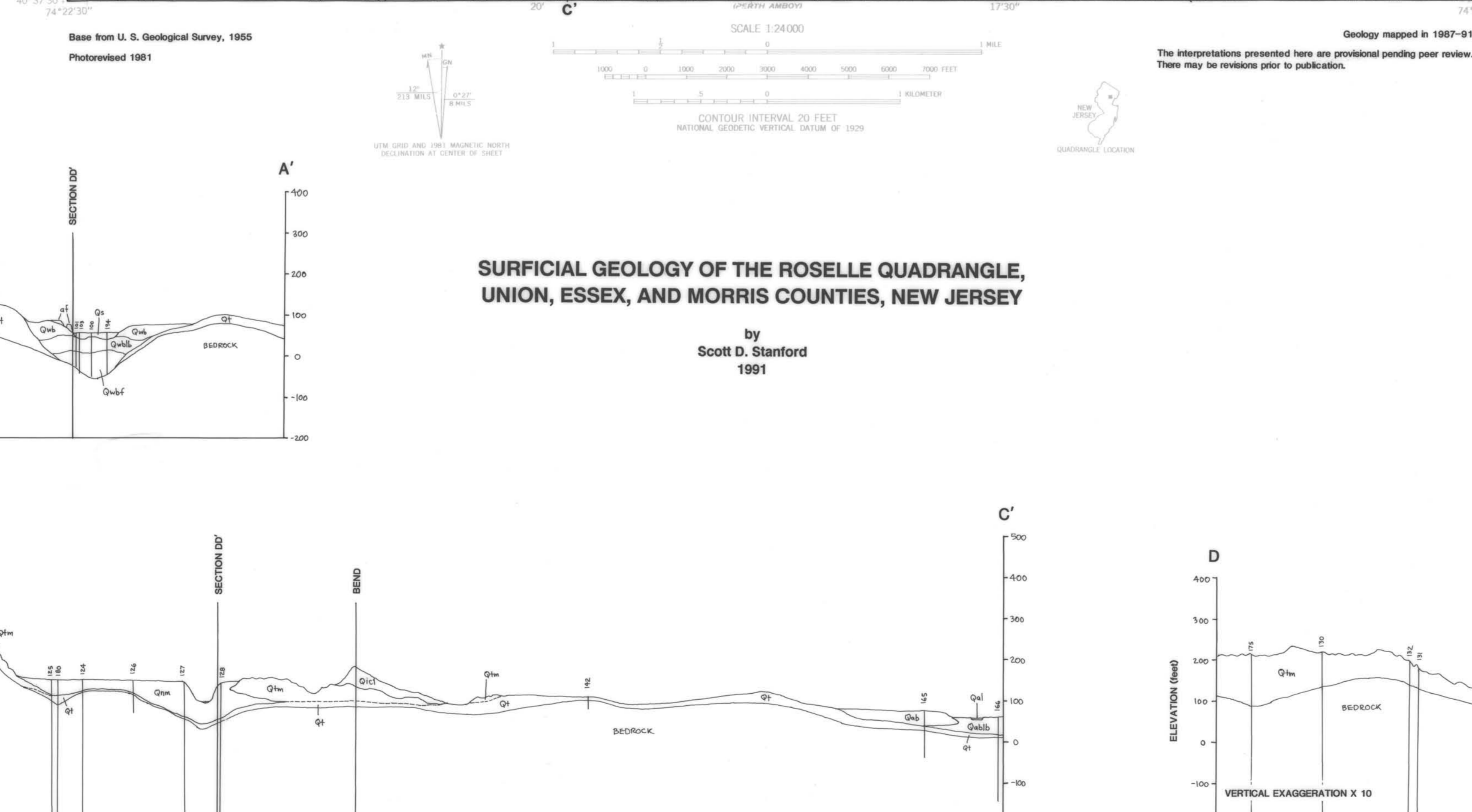
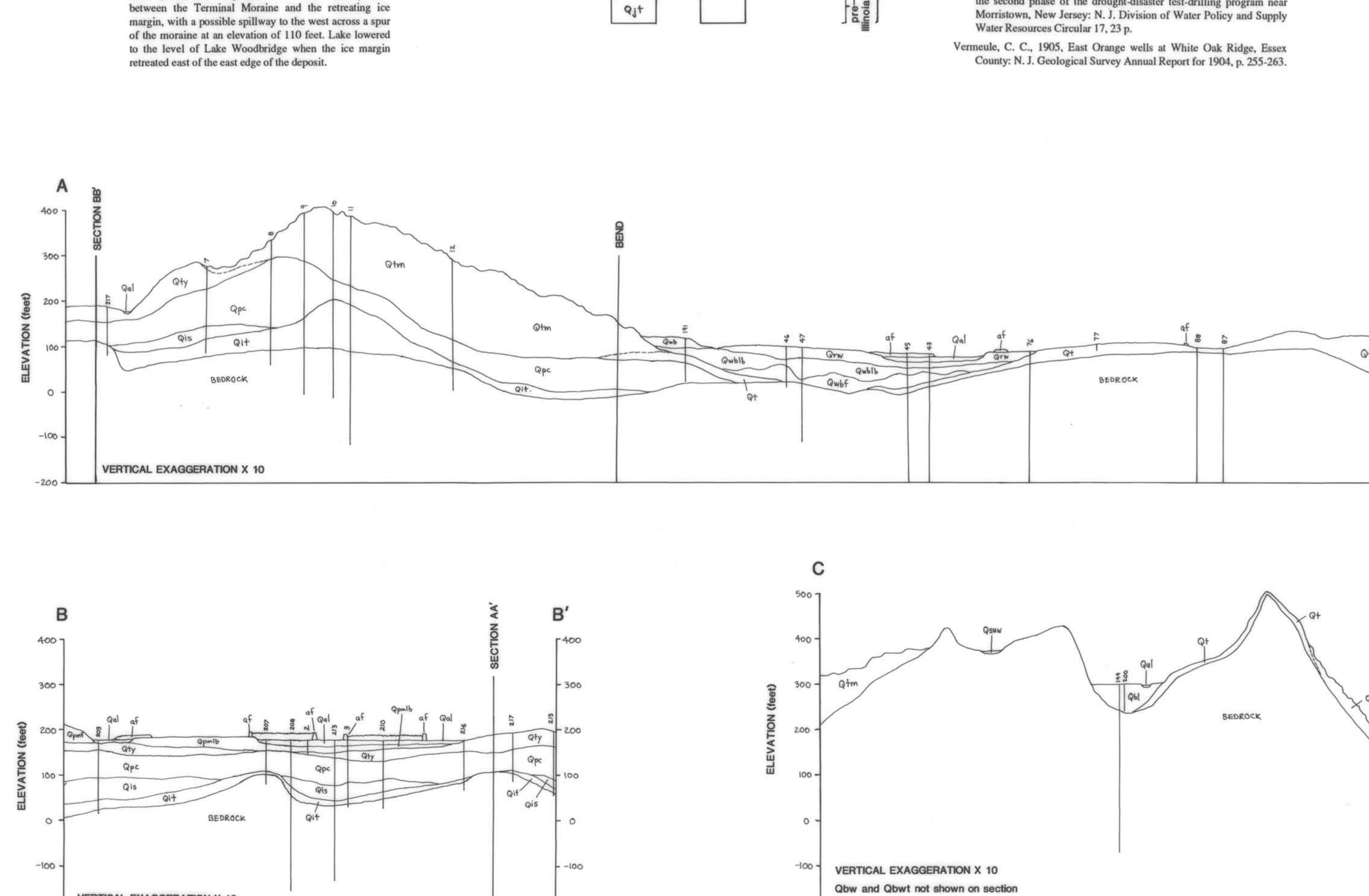


Table 1 - Selected Well Logs

Well No.	Depth (feet)	Description	Remarks
35-2325	24.5	clay, sand, silt, pebbles, gravel	
35-2326	24.5	clay, sand, silt, pebbles, gravel	
35-2327	24.5	clay, sand, silt, pebbles, gravel	
35-2328	24.5	clay, sand, silt, pebbles, gravel	
35-2329	24.5	clay, sand, silt, pebbles, gravel	
35-2330	24.5	clay, sand, silt, pebbles, gravel	
35-2331	24.5	clay, sand, silt, pebbles, gravel	
35-2332	24.5	clay, sand, silt, pebbles, gravel	
35-2333	24.5	clay, sand, silt, pebbles, gravel	
35-2334	24.5	clay, sand, silt, pebbles, gravel	
35-2335	24.5	clay, sand, silt, pebbles, gravel	
35-2336	24.5	clay, sand, silt, pebbles, gravel	
35-2337	24.5	clay, sand, silt, pebbles, gravel	
35-2338	24.5	clay, sand, silt, pebbles, gravel	
35-2339	24.5	clay, sand, silt, pebbles, gravel	
35-2340	24.5	clay, sand, silt, pebbles, gravel	
35-2341	24.5	clay, sand, silt, pebbles, gravel	
35-2342	24.5	clay, sand, silt, pebbles, gravel	
35-2343	24.5	clay, sand, silt, pebbles, gravel	
35-2344	24.5	clay, sand, silt, pebbles, gravel	
35-2345	24.5	clay, sand, silt, pebbles, gravel	
35-2346	24.5	clay, sand, silt, pebbles, gravel	
35-2347	24.5	clay, sand, silt, pebbles, gravel	
35-2348	24.5	clay, sand, silt, pebbles, gravel	
35-2349	24.5	clay, sand, silt, pebbles, gravel	
35-2350	24.5	clay, sand, silt, pebbles, gravel	
35-2351	24.5	clay, sand, silt, pebbles, gravel	
35-2352	24.5	clay, sand, silt, pebbles, gravel	
35-2353	24.5	clay, sand, silt, pebbles, gravel	
35-2354	24.5	clay, sand, silt, pebbles, gravel	
35-2355	24.5	clay, sand, silt, pebbles, gravel	
35-2356	24.5	clay, sand, silt, pebbles, gravel	
35-2357	24.5	clay, sand, silt, pebbles, gravel	
35-2358	24.5	clay, sand, silt, pebbles, gravel	
35-2359	24.5	clay, sand, silt, pebbles, gravel	
35-2360	24.5	clay, sand, silt, pebbles, gravel	
35-2361	24.5	clay, sand, silt, pebbles, gravel	
35-2362	24.5	clay, sand, silt, pebbles, gravel	
35-2363	24.5	clay, sand, silt, pebbles, gravel	
35-2364	24.5	clay, sand, silt, pebbles, gravel	
35-2365	24.5	clay, sand, silt, pebbles, gravel	
35-2366	24.5	clay, sand, silt, pebbles, gravel	
35-2367	24.5	clay, sand, silt, pebbles, gravel	
35-2368	24.5	clay, sand, silt, pebbles, gravel	
35-2369	24.5	clay, sand, silt, pebbles, gravel	
35-2370	24.5	clay, sand, silt, pebbles, gravel	
35-2371	24.5	clay, sand, silt, pebbles, gravel	
35-2372	24.5	clay, sand, silt, pebbles, gravel	
35-2373	24.5	clay, sand, silt, pebbles, gravel	
35-2374	24.5	clay, sand, silt, pebbles, gravel	
35-2375	24.5	clay, sand, silt, pebbles, gravel	
35-2376	24.5	clay, sand, silt, pebbles, gravel	
35-2377	24.5	clay, sand, silt, pebbles, gravel	
35-2378	24.5	clay, sand, silt, pebbles, gravel	
35-2379	24.5	clay, sand, silt, pebbles, gravel	
35-2380	24.5	clay, sand, silt, pebbles, gravel	
35-2381	24.5	clay, sand, silt, pebbles, gravel	
35-2382	24.5	clay, sand, silt, pebbles, gravel	
35-2383	24.5	clay, sand, silt, pebbles, gravel	
35-2384	24.5	clay, sand, silt, pebbles, gravel	
35-2385	24.5	clay, sand, silt, pebbles, gravel	
35-2386	24.5	clay, sand, silt, pebbles, gravel	
35-2387	24.5	clay, sand, silt, pebbles, gravel	
35-2388	24.5	clay, sand, silt, pebbles, gravel	
35-2389	24.5	clay, sand, silt, pebbles, gravel	
35-2390	24.5	clay, sand, silt, pebbles, gravel	
35-2391	24.5	clay, sand, silt, pebbles, gravel	
35-2392	24.5	clay, sand, silt, pebbles, gravel	
35-2393	24.5	clay, sand, silt, pebbles, gravel	
35-2394	24.5	clay, sand, silt, pebbles, gravel	
35-2395	24.5	clay, sand, silt, pebbles, gravel	
35-2396	24.5	clay, sand, silt, pebbles, gravel	
35-2397	24.5	clay, sand, silt, pebbles, gravel	
35-2398	24.5	clay, sand, silt, pebbles, gravel	
35-2399	24.5	clay, sand, silt, pebbles, gravel	
35-2400	24.5	clay, sand, silt, pebbles, gravel	



SURFICIAL GEOLOGY OF THE ROSELLE QUADRANGLE, UNION, ESSEX, AND MORRIS COUNTIES, NEW JERSEY

by Scott D. Stanford 1991

1. Well point numbers listed by the New Jersey Environmental Protection and Energy, Water Technical Programs, Bureau of Water Allocation.

2. Inferred map units and contacts in parentheses. Depth of inferred interval and reported depth is given for comparison to open and closed file data. The log for the well is completed in glacial sediment.