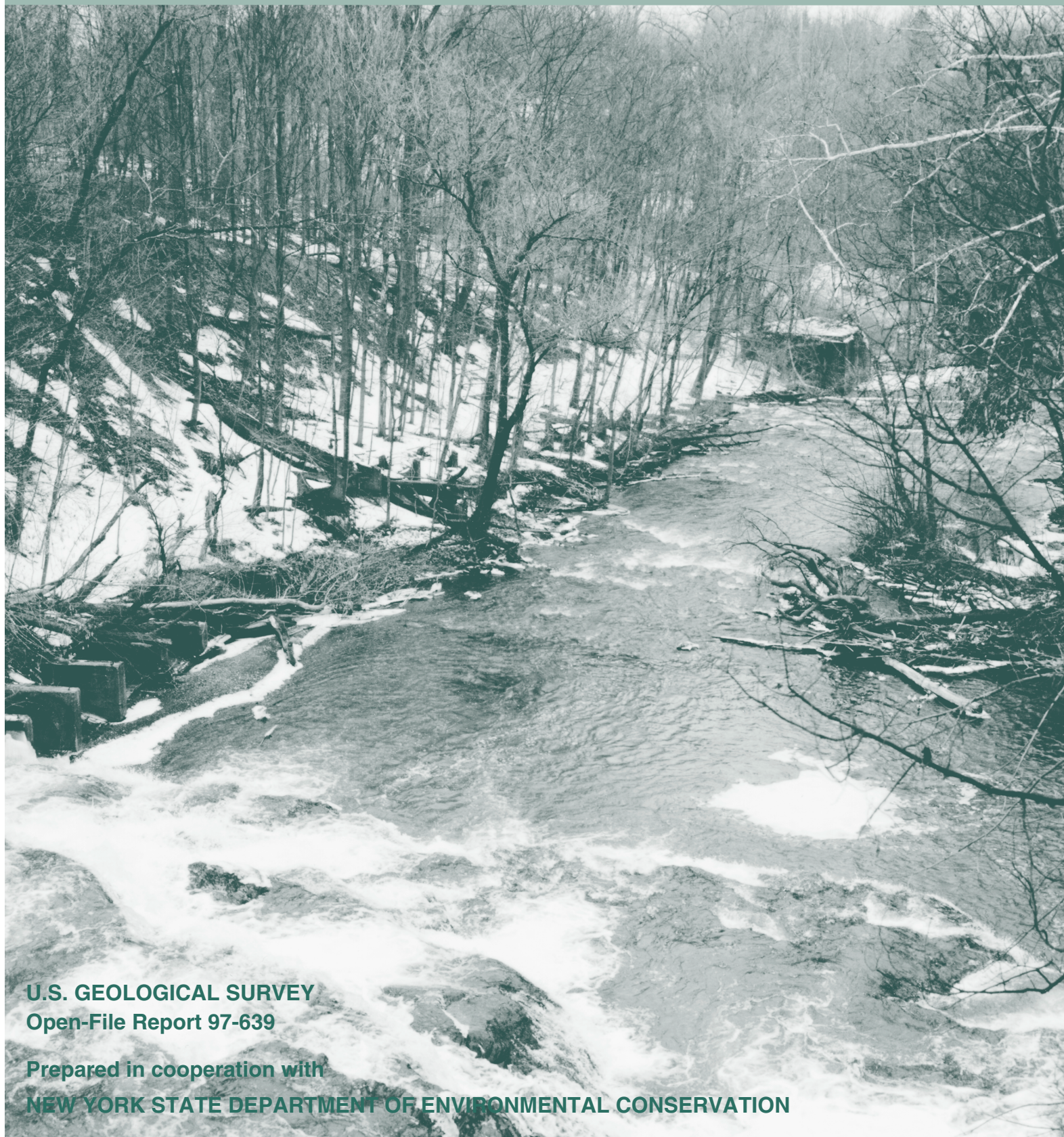


Hydrogeology of the Schodack-Kinderhook Area, Rensselaer and Columbia Counties, New York



U.S. GEOLOGICAL SURVEY
Open-File Report 97-639

Prepared in cooperation with
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Cover: View of Moordener Kill from State Rt. 150 in Brookview, N.Y., looking west (downstream).
Note exposed bedrock in streambed. (Photo by R.J. Reynolds, 1999).

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Troy, New York
1999

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CONVERSION FACTORS, ABBREVIATIONS, AND VERTICAL DATUM

Multiply	by	To Obtain
<i>Length</i>		
inch (in.)	2.54	centimeter
foot (ft)	0.3048	meter
mile (m)	1.609	kilometer
foot per mile (ft/mi)	0.1894	meter per kilometer
<i>Area</i>		
square mile (mi ²)	2.59	square kilometer
<i>Flow</i>		
cubic foot per second (ft ³ /s)	0.02832	cubic meter per second
cubic foot per second (ft ³ /s)	28.32	liter per second
gallon per minute (gal/min)	0.06309	liter per second
million gallons per day (Mgal/d)	0.04381	cubic meters per second
million gallons per day (Mgal/d)	3,785	cubic meters per day
million gallons per day per square mile [(Mgal/d)/mi ²]	1,461.4	cubic meters per day per square kilometer
gallons per day per square mile [(gal/d)/mi ²]	0.001462	cubic meters per day per square kilometer
gallon per day per foot [(gal/d)/ft]	0.0001437	liter per second per meter
<i>Hydraulic Units</i>		
transmissivity, feet squared per day (ft ² /d)	0.0929	meter squared per day
hydraulic conductivity, feet per day (ft/d)	0.3048	meter per day
specific capacity, gallons per minute per foot [(gal/min)/ft]	0.2070	liter per second per meter

Sea level: In this report, “sea level” refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea level Datum of 1929.

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ABSTRACT

Two glaciodeltaic outwash terraces in southern Rensselaer and northern Columbia Counties, known locally as the Schodack and Kinderhook terraces, consist of ice-contact and outwash sand and gravel and together form a regional, unconfined, stratified-drift aquifer with a combined area of 18.75 square miles. The hydrogeology of these aquifers is summarized on four maps at 1:24,000 scale, that depict (1) locations of wells and test holes, (2) surficial geology, (3) altitude of the water table, and (4) altitude of the bedrock surface.

Both terraces are associated with a thin and probably discontinuous confined aquifer consisting of beds of glaciofluvial sand and gravel derived from the outwash deltas that form the two terraces. The confined aquifer is overlain by thick deposits of lacustrine silt and clay. Consultants' estimates of average hydraulic conductivity, based on aquifer tests conducted at four test wells screened in thicker sections of the confined aquifer, range from 430 to 2,360 ft/d (feet per day), with a mean of 1,150 ft/d. The mean estimate of hydraulic conductivity derived from specific-capacity data from 16 test wells screened in confined and unconfined sections of the aquifer is 640 ft/d.

Reported yields for domestic wells completed in unconfined sections of the Schodack and Kinderhook terrace aquifers average 16.1 and 18.3 gal/min (gallons per minute), respectively, and reported yields of domestic wells completed in hydraulically confined sections of these terraces average 15.3 and 12.8 gal/min, respectively. Yields from public-supply wells screened in the confined sections of the Schodack Terrace aquifer range from 50 to 1,050 gal/min and average 305 gal/min. Average annual recharge to the Schodack Terrace aquifer and adjacent upland till deposits, as estimated in a 1960 U.S. Geological

Survey study, were 16.3 and 7.1 inches per square mile, respectively. Bedrock that underlies the study area has been highly modified by tectonic activity, differential weathering, and preglacial erosion which produced about 900 ft of relief on the bedrock surface. A major thrust fault that runs north-south through the area separates autochthonous Ordovician rock units to the west from allochthonous Cambrian (Taconic) rocks to the east.

INTRODUCTION

Most productive aquifers in upstate New York consist of unconsolidated deposits of glacial and alluvial sand and gravel that occupy major river and stream valleys or cover large areas as glaciodeltaic terraces or lacustrine sand plains. Ground water in these valley-fill or glaciodeltaic aquifers can occur under either water-table (unconfined) or artesian (confined) conditions. Farms, industries, or municipalities have been built over many of these aquifers because they typically form flat areas suitable for development and generally provide an ample ground-water supply. This development, coupled with the generally high permeability of these deposits and a typically shallow depth to the water table, makes these aquifers vulnerable to contamination from point sources such as landfills, road-salt stockpiles, hydrocarbon-fuel storage, and other industrial facilities with a potential for contaminant leakage, in addition to nonpoint sources such as urban and agricultural runoff and septic-tank leachate.

The USGS, in cooperation with the New York State Department of Health, began a study in 1980 to define the hydrogeology of 18 extensively used stratified-drift aquifers in upstate New York to facilitate water-management decisions by State and local government agencies. To date (1998), 15 of these

aquifers have been studied and the results published as individual sets of maps (at 1:24,000 scale); results from the first 11 are summarized by Waller and Finch (1982) and the remaining four by Cosner (1984).

As a continuation of that project, the USGS, in cooperation with the New York State Department of Environmental Conservation, began a study in 1983 to investigate the hydrogeology of several additional extensively used stratified-drift aquifers in New York. Each report from both studies consists of a set of 1:24,000-scale (or larger) maps that describe the hydrogeology of a specific aquifer or area and depict selected hydrogeologic characteristics, such as well and test-hole locations, surficial geology, bedrock-surface altitude, geologic sections, land use, soil permeability, water-table or potentiometric-surface altitude, saturated thickness, and estimated well yields. The numbers of maps and topics differ among the reports, depending upon the amount of hydrogeologic data that was available for each particular area studied. To date (1998), 15 reports from this second series, including this one, have been published.

Purpose and Scope

This report and its four maps summarize the hydrogeology of the glaciodeltaic aquifers and the underlying bedrock in southwestern Rensselaer and northwestern Columbia Counties (fig. 1). The maps are based on available hydrogeologic data in USGS files and previously published reports and depict the following information: plate 1, locations of wells and test holes; plate 2, surficial geology; plate 3, altitude of the water table; and plate 4, altitude of the bedrock surface. A table of well records is included as an appendix.

Acknowledgments

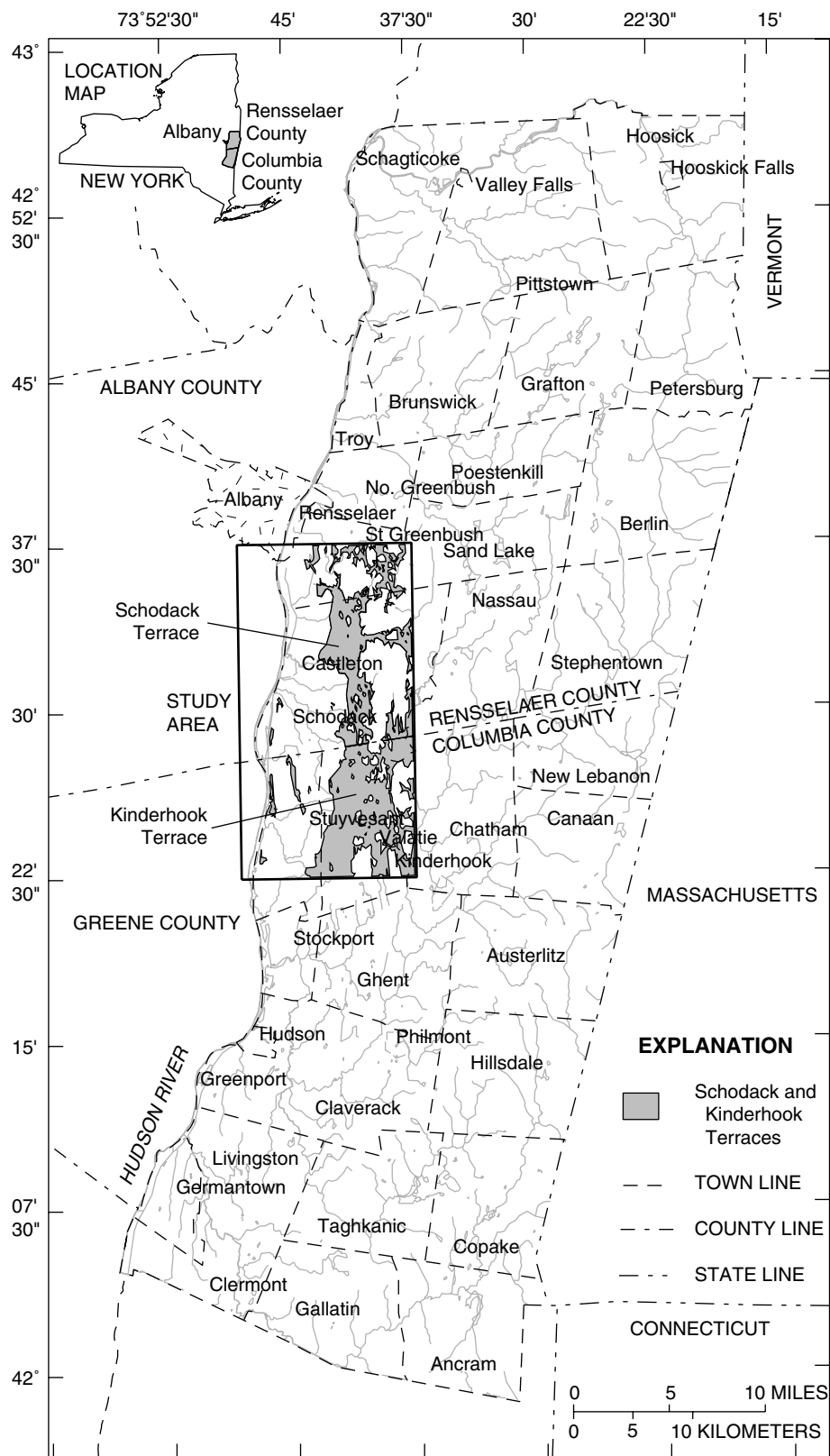
The author thanks Dr. Robert G. LaFleur of Rensselaer Polytechnic Institute for making recently collected well data and well logs within the Town of Schodack available for inclusion in this report, and the Town of East Greenbush, for providing a copy of a consultant's report (Myrick and Associates, 1960).

Study Area

The two glaciodeltaic terraces described in this report encompass a combined area of 18.75 mi² in southern Rensselaer and northern Columbia counties (fig 1). These terraces consist of both ice-contact deposits, composed of esker and kame sand and gravel, and outwash fans, deposited as prograding sand and gravel deltas into glacial Lake Albany. The study area encompasses the Town of Schodack and the southern half of the Town of East Greenbush in Rensselaer County, as well as parts of the Towns of Stuyvesant, Kinderhook, and Chatham in Columbia County. Major population centers include the villages of East Greenbush, Schodack, Kinderhook, and Valatie. These towns, which are largely residential areas for employees working in the Albany area, have undergone rapid population growth in recent years. Concurrent with this growth, the demand for publicly supplied water to new housing developments has increased dramatically. For example, the Town of East Greenbush's population grew only 9 percent during 1980-90, from 12,913 to 14,076, but the number of housing units increased almost 21 percent. During the same period, the Town of Schodack's population increased 4.4 percent from 11,345 to 11,839, but the number of housing units increased 11.8 percent (Capital District Regional Planning Commission, 1993, p. 28-29). Most of this demand can be met only by publicly-supplied or self-supplied ground water. The increasing demand for this resource has made aquifer delineation and protection a concern and has also created a need for hydrogeologic information to enable local and regional planning commissions, public water suppliers, and State water-regulatory agencies to prudently expand existing public water-supply service areas.

HYDROGEOLOGY

The Schodack-Kinderhook area is dominated by two large glaciodeltaic terraces--the Schodack and Kinderhook Terraces--that together form a large, regional unconfined aquifer that stretches 12.5 mi north to south from the village of East Greenbush in Rensselaer County to the Valatie-Kinderhook area in Columbia County. This aquifer, and the associated confined sections, encompasses a combined area of 18.75 mi² and supplies groundwater to 12 public water



Base from U.S. Geological Survey digital data, 1:100,000, 1983,
Universal Transverse Mercator projection, Zone 18

Figure 1. Location of study area within Rensselaer and Columbia counties and areal extent of Schodack and Kinderhook terraces (shaded).

suppliers through 30 wells, and to many privately-owned domestic wells.

The hydrogeology of these two terraces is described in this report in terms of surficial geology, morphogenesis, cross-sectional structure, distribution of unconfined and confined aquifers, water-table altitude, direction of groundwater flow, rate of recharge, hydraulic properties, and well yields.

The underlying bedrock is described in terms of surface altitude and topography, distribution of faults and preglacial drainage channels, and relation between faults and bedrock well yields.

Surficial Deposits

The areal distribution of Holocene and Pleistocene-age morphostratigraphic units that comprise the Schodack and Kinderhook terraces, as well as the distribution of ice-contact units in the adjacent uplands and lacustrine units in the Hudson Valley are shown on plate 2. The mapped area comprises the East Greenbush (1974), Kinderhook (1976), and parts of the Delmar (1983) and Ravena (1983) 7¹/₂-min quadrangles. The geologic mapping was done by Dr. Robert LaFleur of Rensselaer Polytechnic Institute in the 1960's and 70's, part of which (the East Greenbush quadrangle) is published in a New York State Museum Map and Chart Series report (LaFleur, 1965a).

Schodack Terrace

The Schodack Terrace, first named by Woodworth (1905), is a broad, flat-topped outwash and kame terrace, that encompasses about 9 mi² within the Towns of East Greenbush and Schodack in Rensselaer County (fig. 1). The terrace extends about 8 mi from the northern end of the village of East Greenbush, south to the New York State Thruway interchange with the Berkshire Spur (I-90), where it merges with the slightly larger Kinderhook Terrace. The Schodack Terrace ranges from less than 0.5 mi in width at its northern and southern ends to a maximum of about 2.4 mi at its midpoint, where it is crossed by the Moordener Kill. The Schodack Terrace is bounded on its eastern edge by till-covered bedrock hills, and on its western side by its contact with lacustrine silt, sand, and clay. It consists of two major morphostratigraphic units: (1) a kame-and-esker sand and gravel unit (ksg and eg on pl. 2) that was deposited during the ice-

contact phase of deglaciation, and (2) an outwash delta unit (osg on pl. 2) that was deposited during the subsequent lacustrine phase of deglaciation (LaFleur, 1961). The outwash unit was deposited as a prograding delta into glacial Lake Albany and, in some areas, overlies previously deposited ice-contact sand and gravel. As a result, this outwash delta now forms the widest and thickest section of the 8-mi-long terrace. The log of well Re-538 (pl. 1), just south of the Moordener Kill, shows a thickness of at least 112 ft of sand and gravel at this location.

The surface of the Schodack Terrace is pitted with many small, closed depressions called "kettles," which formed where blocks of detached ice were buried during the ice-contact phase of deglaciation and later melted, leaving surface depressions. Many of these depressions on the terrace (and elsewhere in the study area) intersect the water table to form ponds, lakes, or swampy areas. These depressions typically are partly filled with peat or postglacial alluvium. A large ice-block depression in the outwash delta, southeast of Brookview and just north of the Vlockie Kill (pl. 2), is bordered by esker and ice-contact deposits and may show undisturbed ice-contact faces (LaFleur, 1961, p. A14). One of the largest ice-block depressions in the study area is now occupied by Kinderhook Lake, which is surrounded by deposits of kame and esker sand and gravel (pl. 2).

Throughout the length of the Schodack Terrace, the ice-contact deposits (ksg) and deltaic deposits (osg) are punctuated by till drumlins, as well as by previously deposited eskers and kames. Till-cored drumlins (tt) in the area generally display a strike (long-axis trend) of N 20° W, indicating the predominant direction of ice movement, whereas bedrock-cored drumlins (also tt) show strikes of north-south to N 15° E, which reflects the general structural trend of the bedrock (LaFleur, 1961, p. A-9).

Kinderhook Terrace

Little has been written about the deposits that form the Kinderhook Terrace. Cook (1943) was the first to describe some of the glacial features within the Kinderhook quadrangle, and LaFleur (1965a) makes a passing reference to it. The northern two-thirds of the Kinderhook Terrace is primarily an outwash terrace that was deposited over older ice-contact deposits and till, between a shrinking Hudson Valley ice tongue and the till uplands to the east. The southern third of the Terrace, however, was deposited as a prograding delta

(1d) into the northward advancing glacial Lake Albany and around large, detached ice blocks. Cook (1943, p. 348) suggests that the part of the present-day Kinderhook Creek valley that is at an elevation of 190-200 ft, is a large former ice-block depression. This depression is ringed with ice-contact deposits, drumlins, and till uplands, and its western edge is marked with a steep ice-contact slope that can be traced from the hamlet of Sunnyside eastward to north of the village of Kinderhook. This steep ice-contact slope also forms the eastern edge of a large deltaic unit (1d) that forms the southern third of the Kinderhook Terrace. The meltwater drainage that produced this deltaic unit probably emanated from the upland areas of the Kinderhook and Kline Kill Creeks. The main outwash terrace, however, was probably fed by (1) meltwater flowing through ice tunnels or crevasses from the adjacent northeast-southwest trending ice front, and (2) meltwater from the Valatie Kill, which carried sand and gravel around the ice block that occupied the area of Kinderhook Lake at the time. This is evidenced by several prominent eskers at the northern end of the outwash terrace, just north of Knickerbocker Lake (also an ice-block depression) and eskers and ice-contact sand and gravel on the northern and eastern sides of Kinderhook Lake. The outwash terrace (osg) and adjacent lacustrine delta (1d) together form the Kinderhook Terrace and occupy an area of 9.75 mi², just slightly larger than the Schodack Terrace, to the north. Within the southern half of the mapped area, the Kinderhook Terrace abuts another 16 mi² of contiguous upland ice-contact and outwash sand and gravel deposits. Much like the Schodack Terrace, the surface of the Kinderhook Terrace is pitted with several small kettles that are now partly filled with postglacial alluvium. LaFleur (1965a, p. 6) notes that the Kinderhook Terrace is, at least in part, older than the Schodack Terrace to the north. The southern half of the Kinderhook Terrace (the lacustrine delta) may have been partly contemporaneous with early depositional phases of the Schodack Terrace.

Deglacial Sequence

The Kinderhook outwash terrace (elevation 310 ft) was almost completely formed before the southern end of the Schodack Terrace began to develop. Meltwater from the glacial Vlockie Kill and small tributary streams draining the ice-plugged Moordener Kill valley near East Schodack drained southward and westward into the Vlockie Kill

drainage to deposit the outwash terrace between the present-day Vlockie Kill and the I-90 interchange. The expanding terrace at this time consisted of outwash, kame sand and gravel, and esker gravel deposits that formed between the till uplands and the shrinking Hudson Valley ice tongue. The ice terminus at this time was probably located somewhere between Schodack and Kinderhook. As the ice tongue receded northward, glacial Lake Albany spread northward also, forming an embayment between the southwest-northeast-trending ice front and the till uplands to the east. As the ice recession continued, the Moordener Kill became unblocked at Schodack Center (Rice Corners); the ice margin at that time trailed off to the southwest from Rice Corners along the present course of the Moordener Kill. This former ice margin is now marked by several deposits of esker gravel on both sides of the Moordener Kill valley (LaFleur, 1965a, p. 11). Subsequently, large volumes of meltwater from the ice-free Moordener Kill eroded the kame sand and gravel deposits in the upper reaches of its valley and redeposited them as an outwash delta (osg) of sand and gravel that eventually prograded 2 mi southwestward into Lake Albany from its origin at Rice Corners. The surface elevation of glacial Lake Albany at this time was 330 ft (LaFleur, 1965a). This outwash delta now forms the widest and thickest section of the 8-mi-long Schodack Terrace aquifer.

At the same time that the Moordener Kill outwash delta was being deposited, the North Branch Moordener Kill became unblocked, and subsequent glacial meltwater deposited a large area of outwash (osg) and kame-terrace sand and gravel (ksg) between East Greenbush and Schodack Center. This deposition of kame and outwash eventually expanded southward to abut the Moordener Kill outwash delta, where it today forms the northern part of the Schodack Terrace aquifer. Remnants of eskers that once fed this kame terrace can be seen just west and south of the hamlet of East Greenbush.

As the ice margin receded to the north, allowing glacial Lake Albany to spread northward as far as Couse Corners, meltwater from the ice margin deposited a southeastward-prograding kame delta (the Hampton Park kame delta) just north of Sherwood Park. Subsequent northward retreat of the ice margin allowed glacial Lake Albany to spread northwest of this delta, where it accumulated lake clay and reworked the western edge of this kame delta into a prominent beach (LaFleur, 1965a, p. 11). The

bottomset lacustrine sands of the Hampton Park kame delta abut the older kame gravel of the Schodack Terrace at its northern margin between Sherwood Park and East Greenbush. The Hampton Park kame delta was deposited when glacial Lake Albany was at an elevation of 350 ft (LaFleur, 1965a, p. 11).

As the ice receded north of the Hampton Park area, the level of glacial Lake Albany dropped again to about 330 ft. During this time, wave action reworked the kame and outwash deposits of the Schodack Terrace into a prominent beach. The western edge of the Schodack Terrace is defined by these beach gravels (bsg), which extend from East Greenbush south to the Moordener Kill and then from the Vlockie Kill south to Bame Road in the Town of Schodack (pl. 2). These beach deposits tended to form most conspicuously on northwest-facing exposures of the Schodack Terrace, which were evidently open to a fairly large expanse of glacial Lake Albany. LaFleur (1965a) notes that the southernmost of the two beach deposits is at an elevation of 320 ft, whereas the northern section is at a slightly higher elevation of 330 ft, as a result of isostatic rebound of about 2.5 ft/mi after the removal of ice. These beach gravels are mostly underlain by westward-dipping foreset beds of the kame delta (LaFleur, 1961).

With the subsequent draining of glacial Lake Albany to near present-day levels, the postglacial Moordener Kill incised a steep-walled valley though the widest part of the Schodack Terrace, downcutting as much as 100 ft into the outwash delta and exposing bedrock in several places. Coarse esker gravel that marks the location of a former ice margin forms segments of this steep valley wall in areas. Modern postglacial alluvium of reworked outwash now floors the Moordener Kill flood plain, which is as much as 1800 ft wide. Similarly, the postglacial Vlockie and Muitzes Kill drainage systems have eroded an extensive network of stream channels through the Lake Albany lacustrine sand and underlying clay, exposing bedrock at many places and at their nickpoints where they enter the Hudson River gorge.

Geologic Sections

Two geologic sections through the Schodack and Kinderhook terraces were constructed to illustrate the stratigraphic relationships of the geologic units shown on plate 2. Section A-A' stretches 4.2 mi across the Schodack terrace and trends southwest-to-northeast from the Vlockie Kill to Rice Corners; Section B-B'

stretches 5.2 mi west-to-east across the Kinderhook Terrace from Stuyvesant Brook to the bedrock uplands south of Niverville. The traces of these sections are shown on plate 1.

Schodack Terrace

Section A-A' (fig. 2a) extends from southwest to northeast through the Schodack Terrace and shows the stratigraphic relation between the outwash sand and gravel (osg) that forms the Schodack outwash delta, and the underlying ice-contact and lacustrine deposits. At the eastern (right) end of the section, the outwash sand and gravel is underlain by large thicknesses of esker and kame sand and gravel. In some areas, notably within the Moordener Kill valley, about 15 ft of lacustrine silt and clay is interposed between the outwash and the underlying ice-contact sand and gravel. The trace of this section cuts across two prominent eskers emplaced along the Moordener Kill valley (plate 2); these represent some of the thickest deposits; of sand and gravel within the Schodack Terrace. The thickness of sand and gravel beneath these eskers ranges up to 150 ft, but only the lower 70 to 80 ft are saturated. Southwest of these eskers, the surficial outwash sand and gravel (osg) overlies as much as 140 ft of lacustrine silt, sand, and clay (lss and lsc). Although the surficial outwash unit (osg) is between 70 and 80 feet thick here, its saturated thickness is only about 10 ft in areas where it is underlain by Lake Albany lacustrine silt and clay. Further west along section A-A', the surficial outwash is again underlain by buried kame sand and gravel, and results in a combined thickness of up to 150 ft in places. In this area, the saturated thickness of combined outwash and kame sand and gravel may range from 90 to 120 ft, partly because of a dip in the underlying bedrock surface. West of the surficial outwash unit (osg) that defines the limit of the Schodack Terrace, section A-A' shows thin lacustrine sand and silt (lss) overlying slightly thicker deposits of lacustrine silt and clay (lsc). These units overlie a small deposit of kame sand and gravel that occupies a bedrock trough east of the Vlockie Kill valley.

The locations of three thrust faults—the Rysedorph, Ferry St., and Logan's Line faults—are also shown on Section A-A'. These faults have little or no exposure at land surface, therefore, the dips of these faults are not accurately known. Elam (1960) states that the only exposure of the Logan's Line fault on the East Greenbush quadrangle is in the Vierda Kill

valley, where it displays a strike of N10° E and an eastward dip of 70°. Elam (1960, p. 99-102) suggests that, like Logan's Line, both the Rysedorph and Ferry St. faults are high-angle faults at the surface, and that their eastward dip flattens with depth. Thus, the dips of these fault planes as shown in Section A-A' is only an approximation used to illustrate their locations along the section line.

Kinderhook Terrace

Section B-B' (fig. 2b) extends from west to east across the Kinderhook Terrace from west of Stuyvesant Brook to the bedrock uplands east of the Valatie Kill. Section B-B' indicates that whereas the stratigraphy of the Kinderhook Terrace is similar to that of the Schodack Terrace, its overlying surficial outwash sand and gravel is thinner. The outwash sand and gravel unit (osg) that defines the Kinderhook Terrace is about 20 feet thick throughout most of section B-B' and ranges up to 40 ft thick at the eastern end of the section. Within and adjacent to the Valatie Kill valley, the outwash is underlain by 15 to 20 feet of ice-contact sand and gravel (ksg). In the center of the section, the thin outwash (osg) is underlain by as much as 150 feet of lacustrine sand, silt, and clay (lss and lsc units). Beneath the lacustrine silt and clay unit (lsc) is a thin (less than 10 ft thick) confined sand and gravel aquifer (fd) that probably represents either subaquatic fan deposits or proximal bottomset beds of the prograding outwash delta. This confined aquifer provides adequate water supplies to several drilled domestic wells in the area. At the western end of the section, the lacustrine sand unit pinches out to leave only 15 to 20 ft of lacustrine silt and clay (lsc) overlying bedrock. A minor thrust fault, one of a series of parallel thrust faults that pass through the region, is shown on the right side of section B-B'.

Unconfined Aquifers

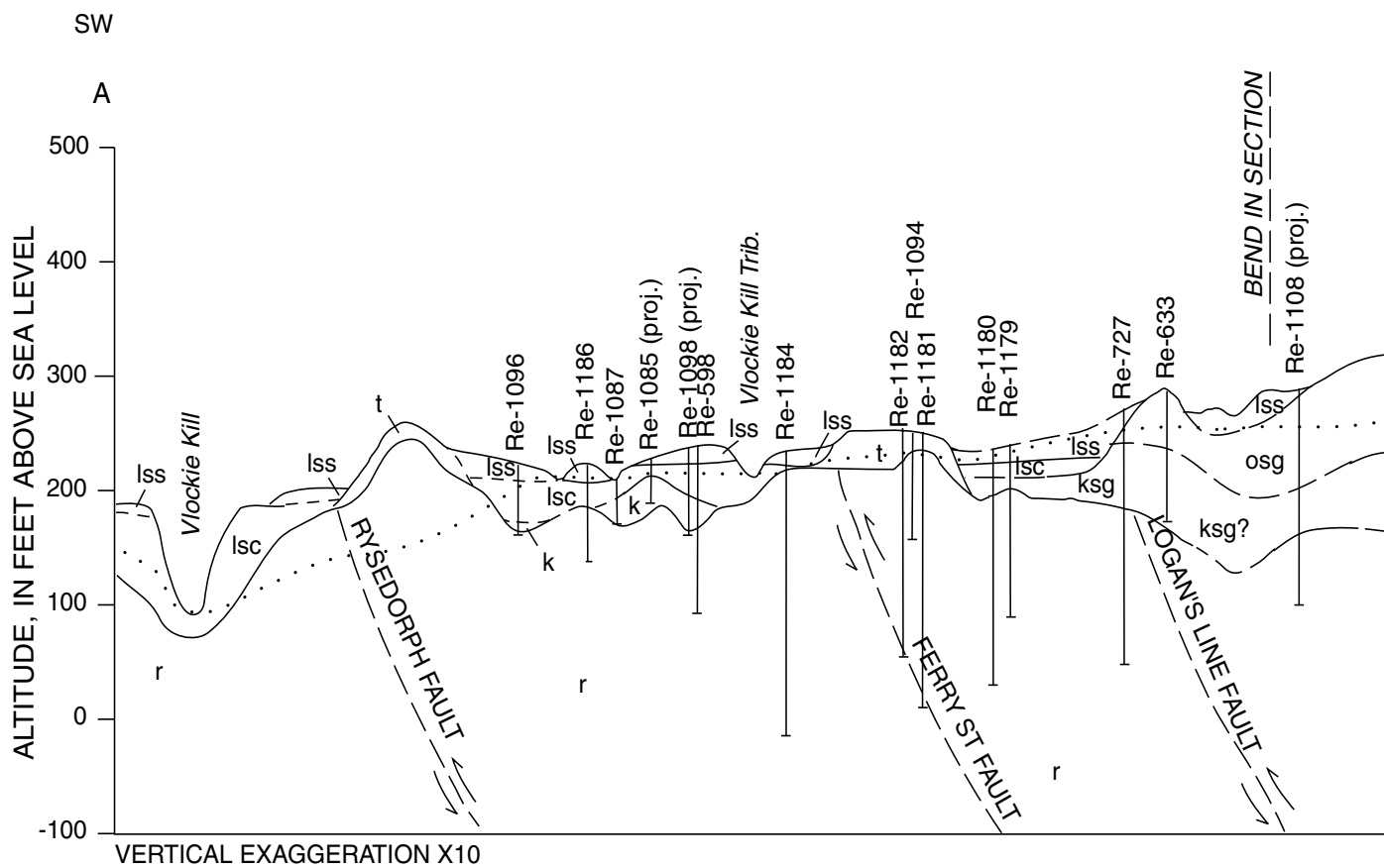
Both the Schodack and Kinderhook Terraces consist primarily of outwash sand and gravel that was deposited as prograding outwash deltas into glacial Lake Albany. These surficial outwash units provide an extensive, unconfined (water-table) aquifer where they are sufficiently saturated. The greatest unconfined saturated thickness occurs in areas where the outwash is directly underlain by ice-contact (kame or esker) sand and gravel (see section A-A'). Conversely, the unconfined-outwash aquifer is only thinly saturated or,

in some places, may be completely unsaturated in areas where the outwash is relatively thin and overlies comparatively thick sections of fine-grained lacustrine sediments, as in the Kinderhook Terrace (section B-B'). Typically, the water table in these areas is within the underlying lacustrine sediments. Section B-B' through the Kinderhook Terrace shows the extent of the unconfined aquifer (units osg and ksg) and the approximate average altitude of the water table. Note that the altitude and slope of the water table are largely controlled by the presence of major streams, such as the Moordener and Vlockie Kills in the Schodack Terrace and the Valatie Kill, Kinderhook Creek, and Stuyvesant Brook in the Kinderhook Terrace. Section B-B' shows the location of a major ground-water divide (just to the right of well Cb-1059); ground water to the east of this divide moves eastward toward the Valatie Kill, and ground water to the west moves westward through the lacustrine sediments and ultimately to Stuyvesant Brook.

Although the surficial outwash unit in the Schodack Terrace has more than twice the thickness of the surficial outwash unit in the Kinderhook Terrace (compare sections A-A' and B-B'), its saturated thickness above the underlying lacustrine sediments is less than that of the Kinderhook Terrace. This is a result of the relatively low altitude of the streambed of the nearby Moordener Kill, which is the primary discharge point for ground water stored in the adjacent Schodack Terrace aquifer. The Moordener Kill is deeply incised across the Schodack Terrace, and thus provides a large ground-water drain, which significantly alters the natural ground-water flowpaths within the unconfined Schodack Terrace aquifer (see pl. 3, water-table altitude). Recharge to the surficial outwash aquifer here is balanced by continuous ground-water discharge to the Moordener Kill; thus, the average water-table profile (section A-A') represents an equilibrium condition in which the thickness of the unsaturated zone of the surficial outwash aquifer approaches 65 ft in some places (see section A-A'). Seasonal variations in recharge to the surficial aquifer can be expected to cause annual water table fluctuations of about 5 feet, however.

Confined Aquifers

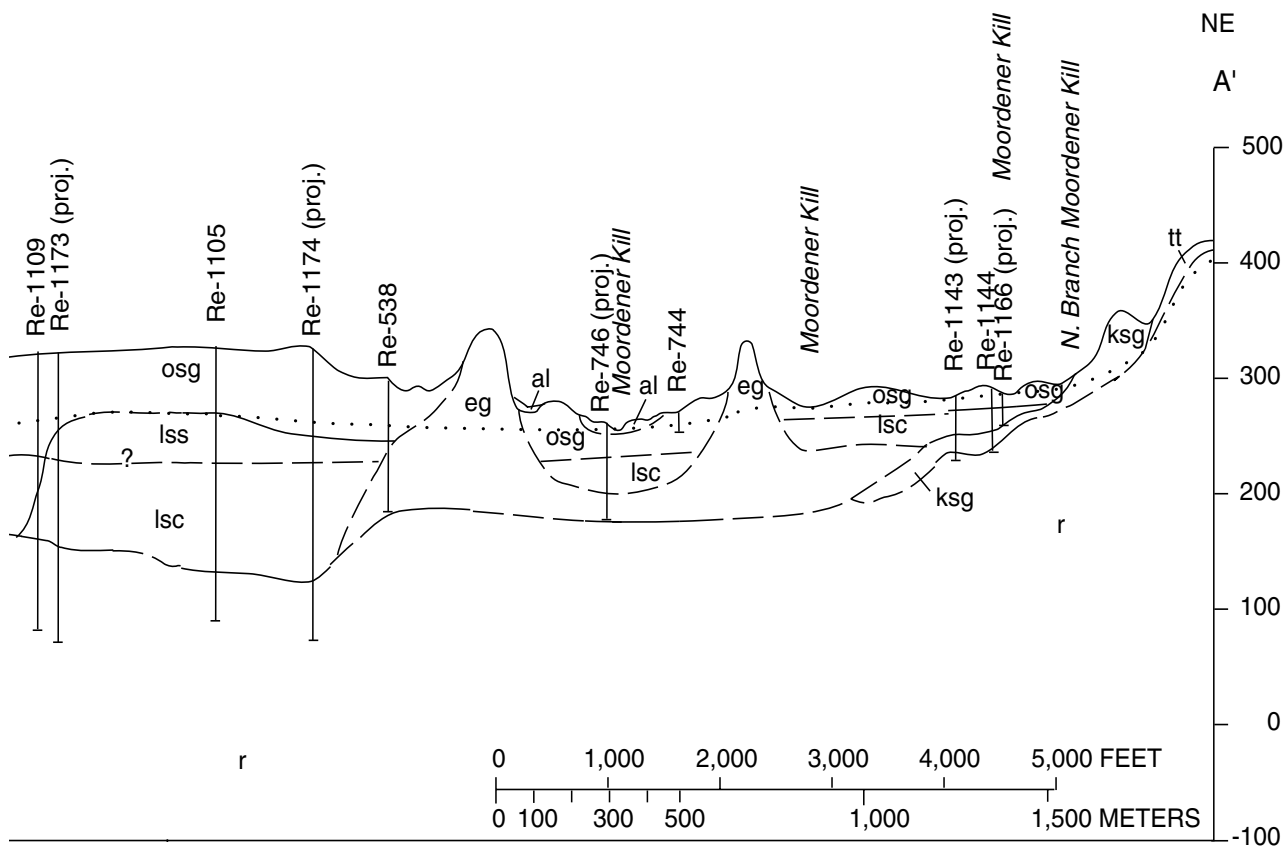
Several domestic wells and test holes west and southwest of the Schodack Terrace have been drilled through the overlying Lake Albany silt and clay and terminate in several feet of sand and gravel



Complete descriptions of these stratigraphic units are given on plate 2.

- al ALLUVIUM
- ls LACUSTRINE SAND
- lss LACUSTRINE SAND AND SILT
- lsc LACUSTRINE SILT AND CLAY
- osg OUTWASH SAND AND GRAVEL

Figure 2A. Geologic section A-A' through the Schodack Terrace, Rensselaer County, New York



EXPLANATION

ksg KAME SAND AND GRAVEL

eg ESKER GRAVEL

t TILL (GROUND MORaine)

tt THICK TILL

r BEDROCK

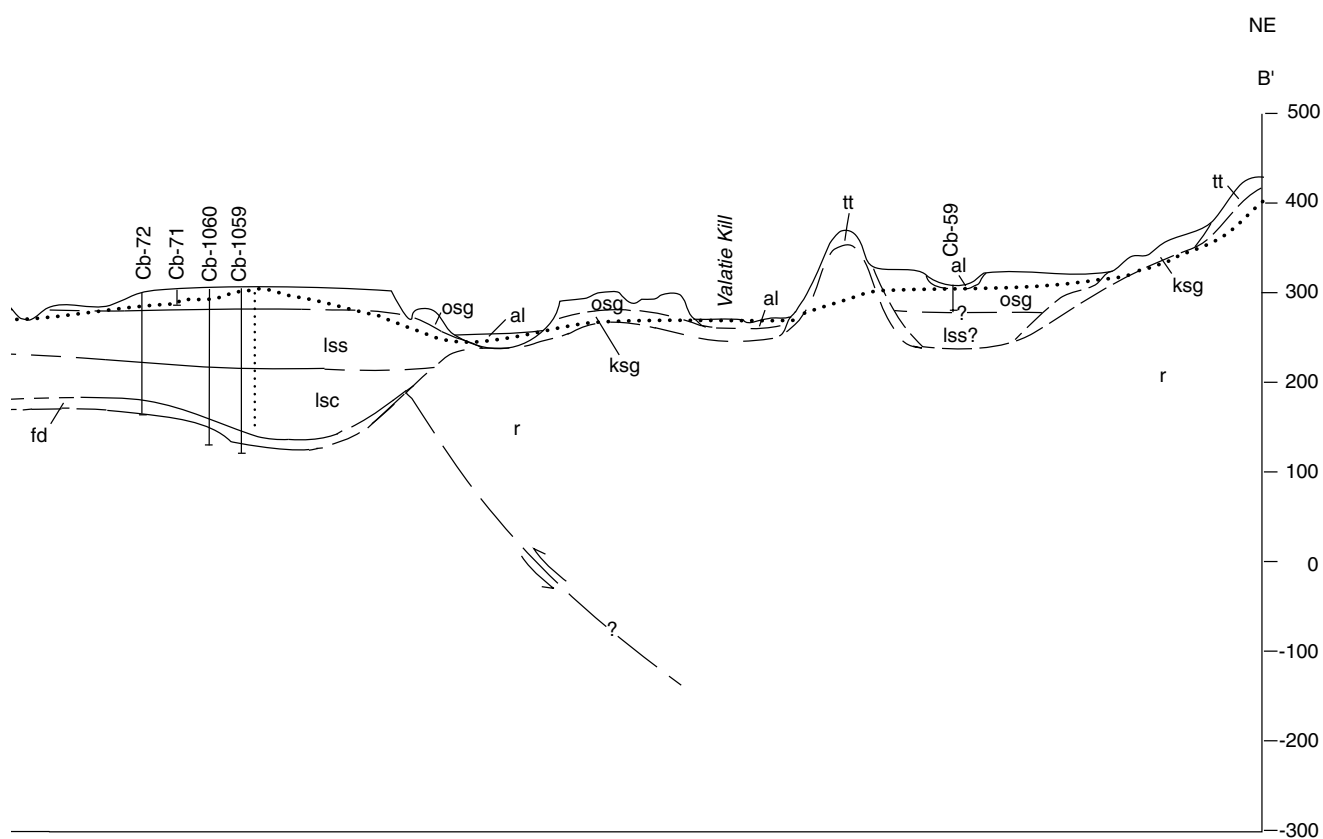
· · · · AVERAGE WATER TABLE

— GEOLOGIC CONTACT, dashed where inferred

— - THRUST FAULT, approximately located

┆ WELL OR TEST BORING

Figure 2A. (Continued) Geologic section A-A' through the Schodack Terrace, Rensselaer County, New York



EXPLANATION

osg OUTWASH SAND AND GRAVEL

ksg KAME SAND AND GRAVEL

tt THICK TILL

r BEDROCK

· · · · AVERAGE WATER TABLE

— - GEOLOGIC CONTACT, dashed where inferred

⇐ THRUST FAULT, approximately located

⊥ WELL OR TEST BORING

· · · · GROUND-WATER DIVIDE, approximately located

Figure 2B. (Continued) Geologic section B-B' through the Kinderhook Terrace, Columbia County, New York

immediately overlying bedrock (sheet 1). Several drillers have been able to exploit this thin confined aquifer and are able to obtain yields averaging 10 gal/min through open-ended casing (Cushman, 1950, p. 20). This thin confined aquifer probably consists of either the proximal bottomset beds of the outwash delta that forms the widest part of the Schodack Terrace, or subaquatic fan deposits from an earlier ice-marginal position. This confined aquifer is probably not areally extensive, and its western limit is probably defined by the bedrock ridge that extends southward from Grandview Hill to Brookview, then southeast to South Schodack. LaFleur (1961, p. A15) suggests that this ridge may have been a point at which the ice margin lingered during the glacial Lake Schodack phase of deposition. This confined aquifer, if present, is probably thickest where it occupies buried bedrock channels. Two such channels, one trending north-south just east of the limiting bedrock ridge and another trending east-west just south of the Moordener Kill, are cut to as low as 50 to 100 ft above sea level (sheet 4). One well, Re-1112 at Brookview, is near the junction of these two channels and terminates in confined gravel at a depth of 140 feet and yields about 80 gal/min. Another major bedrock channel extends eastward for about 3 mi from the Hudson River gorge, and is approximately 1.3 mi southwest of South Schodack (sheet 4). Two wells on either side of this channel, Re-1266 on the northeast side and Re-1267 on the southwest side (sheet 1), are completed in confined sand and gravel above bedrock. At least 25 ft of confined sand and gravel is reported for well Re-1266, but only 10 ft of confined gravel is reported for well Re-1267. Three supply wells, about 1 mi north of South Schodack and owned by the Maple Hill Water Company (Re-1187, 1188, 1189) also are completed in this thin confined aquifer. These wells are either 6 or 8 in. in diameter, are screened in 13 to 15 ft of fine gravel, and have yields ranging from 50 to 275 gal/min.

The Kinderhook Terrace, like the Schodack Terrace, is also underlain in places by a thin confined gravel aquifer. Several domestic wells in Columbia County (Cb-10, 12, 68, 69, 70, 72, 75, 96, and 1049) (sheet 1) ranging in depth from 70 to 138 ft penetrate the thin surficial outwash and the underlying lacustrine sand, silt, and clay and are completed in a confined coarse gravel aquifer that directly overlies bedrock. This coarse gravel aquifer probably represents the subaquatic-fan deposits or the proximal bottomset

beds of the Kinderhook outwash delta and is less than 5 ft thick in most places. The wells that are completed in this confined aquifer extend south about 2.5 mi from Knickerbocker Lake to Bishop Nelson Road. The western limit of this aquifer is unknown but it probably underlies at least the eastern part of the adjacent lacustrine sand unit (lss) west of the Kinderhook outwash terrace (osg). Yields from nine domestic wells completed in this aquifer range from 2.5 to 25 gal/min and average 12.6 gal/min, and all but one of these wells is finished open ended. Section B-B' (fig. 26) shows the stratigraphic relation of this confined aquifer to the overlying geologic units.

Altitude of the Water Table

The water-table altitude in an unconfined aquifer is the static level to which ground water rises in tightly cased shallow wells that extend a few feet into the zone of saturation. Streams and rivers that are fed by ground water also reflect the approximate water-table altitude during dry weather stream flow conditions (baseflow). The average altitude of the water table in the unconfined Schodack and Kinderhook aquifers and adjacent lacustrine sediments is depicted on plate 3. The map was constructed from (1) historical water-level data from shallow drilled and dug wells obtained from driller's records that were collected during well inventories of Rensselaer and Columbia counties in the late 1940's (Cushman, 1950; Arnow, 1951), (2) water-level measurements made by the USGS in selected wells during a well inventory in the 1960's, (3) recent water-level measurements at selected wells (LaFleur, 1993), and (4) the elevation of stream surfaces as indicated by the topographic base map.

Ground-water flow

The general direction of ground water flow in the Schodack Terrace aquifer and adjacent lacustrine sediments is westward, toward the Hudson River valley. Two major stream networks--the Moordener Kill and its tributary, the Vlockie Kill--bisect the Schodack Terrace aquifer from east to west. These streams act as major ground water drains for the aquifer and significantly alter the directions of ground-water flow in the Schodack Terrace aquifer. Results of a seepage investigation conducted by the USGS on October 18, 1960 on the Moordener Kill (data summarized in table 1) indicates that the 16,000-ft stream reach from New York State Route 9

Table 1. Summary of Moordener Kill seepage investigation, October 18, 1960.

[Site locations shown on plate 1; data from J.F. Joyce, U.S. Geological Survey, 1960, written commun.; ft³/s, cubic feet per second; mi², square miles; ft, feet; n.a., not applicable.]

USGS site number	Distance upstream from gage (ft)	Site name	Topographic drainage area (mi ²)	Measured discharge (ft ³ /s)	Net gain within reach (ft ³ /s)	Length of reach (ft)	Ground-water gain per 1,000 ft of channel (ft ³ /s)
013597.50	0	Moordener Kill at Castleton-on-Hudson	32.6	17*	1.54	7,000	0.22
013597.40	7,500	Moordener Kill Tributary near Brookview, N.Y.	0.46	.058	n.a.	n.a.	n.a.
013597.30	7,000	Moordener Kill at Brookview, N.Y.	29.7	15.4	2.8	16,000	0.175
013596.50	23,450	Moordner Kill at Schodack Center, N.Y.	13.7	6.0	n.a.	n.a.	n.a.
013596.60	23,150	North Branch Moordener Kill at Schodack Center, N.Y.	13.3	6.6	n.a.	n.a.	n.a.
	23,000 to confluence	Combined flow of 013596.5 and 013596.6	na	12.6	n.a.	n.a.	n.a.

* mean daily discharge

(site 013596.50, at the confluence with the North Branch Moordener Kill) to Brookview (site 013597.30) displays a ground water seepage gain of 2.8 ft³/s under baseflow conditions. This relatively large gain reflects the high permeability of the outwash sand and gravel that underlies this reach, as do the sharp inflections in the water-table contours (see pl. 3), which indicate ground water flow horizontally perpendicular to this stream reach.

Ground water in the Kinderhook Terrace aquifer flows in two directions from a prominent ground-water divide that runs generally northeast-southwest from just to the west of Kinderhook Lake, parallel to Kinderhook Creek to the hamlet of Sunnyside (pl. 3). Ground water east of this divide moves generally east and southeastward, toward Kinderhook Lake and, further south, toward Kinderhook Creek. Ground water west of this divide moves generally northwestward towards the Muitzes Kill drainage or west and southwestward toward the Stuyvesant Brook drainage. A secondary east-west ground-water divide separates ground water moving northward to the Muitzes Kill drainage from ground water moving southward to the Stuyvesant Brook drainage.

Recharge

Regional rates of recharge to sand and gravel and till deposits in southwestern Rensselaer county were estimated during a 1959-60 reconnaissance study of the Schodack Terrace aquifer by J.F. Joyce (U.S. Geological Survey, 1960, written commun.), who used a technique later documented by Randall and others (1966). The method uses a relationship developed between water levels in an observation well screened in the Schodack Terrace aquifer and corresponding flow of the Moordener Kill as measured at the gaging station at Castleton-on-Hudson. Joyce then used this "ground-water-rating curve" to synthesize a 1958-60 base-flow hydrograph for the Moordener Kill, based on average daily discharges at the gaging station, and determined from the baseflow hydrograph that the average daily ground-water discharge to the Moordener Kill for 1960 was 16.9 ft³/s. Because this average daily ground-water yield represented the combined ground-water discharge from outwash sand and gravel, fine-grained lacustrine sediments, and adjacent upland till, additional streamflow measurements at Brookview and at the confluence of the North Branch and main stem Moordener Kill were used to differentiate the relative contributions from

sand and gravel and upland till. On October 18, 1960, a streamflow gain of $2.8 \text{ ft}^3/\text{s}$ was measured for a 16,000 ft reach of the Moordener Kill between Rt. 9 (site 013596.50) and Brookview (site 013597.30) (Table 1). This $2.8 \text{ ft}^3/\text{s}$ represented 18.2 percent of the total flow measured in the Moordener Kill at Brookview. Joyce assumed that this percentage of ground water discharge was relatively constant, and estimated the average daily groundwater discharge to the Moordener Kill at Castle-on-Hudson for 1960 as 18.2 percent of $16.9 \text{ ft}^3/\text{s}$, or $3.4 \text{ ft}^3/\text{s}$. The area of sand and gravel that supplied this ground water contribution is 2.9 mi^2 ; thus, the average daily ground-water yield of the Schodack Terrace outwash gravel was calculated to be $1.2 (\text{ft}^3/\text{s})/\text{mi}^2$, and the average daily ground-water yield from till was similarly calculated to be $0.52 (\text{ft}^3/\text{s})/\text{mi}^2$. Joyce converted these average daily ground water yields to annual inches of precipitation per square mile and calculated that the ground-water discharge from (and by inference, the recharge to) the Schodack Terrace outwash sand and gravel was $16.3 \text{ in}/\text{mi}^2$, while the similar value for upland till was $7.1 \text{ in}/\text{mi}^2$. These figures are comparable to values calculated by Randall and others (1966, p. 66) for areas of till and stratified drift in the Quinnebaug River basin, in Connecticut.

Aquifer Properties

A series of exploratory test wells were drilled in selected areas of the Town of East Greenbush during 1959-60 as part of a general water-resources study conducted by a private consultant for the Town of East Greenbush to evaluate the potential for developing municipal wellfields. Aquifer tests were conducted at four sites, and all of the pumped wells were screened in confined ice-contact or deltaic sand and gravel. All of the pumped wells were either 8- or 12-in. in diameter and were pumped at rates ranging from 200 to more than 1050 gal/min. Aquifer properties were estimated by the consultant through log-log (Theis) or semi-log analysis of drawdown and recovery data. A summary of aquifer properties and their values, as calculated by Myrick and Associates (1960), are given in Table 2.

All four of these aquifer-test sites are north of the recognizable Schodack terrace aquifer and are screened in ice-contact or deltaic sand and gravel deposits that occupy narrow preglacial bedrock channels (pl. 4). These buried ice-contact deposits, although localized, are highly transmissive. Average

hydraulic conductivity at these four sites ranges from 430 to $2,360 \text{ ft/d}$, with a mean of 1150 ft/d for the seven estimates shown in Table 2.

Well Yields

The reported yields of domestic and large-capacity production wells screened in deltaic and ice-contact sand and gravel deposits of the Schodack and Kinderhook terraces range widely. The yield of any well completed in sand and gravel is dependent on many factors, some of which are related to the physical properties of the aquifer, and some to the design of the well. Well-design factors include: (1) type of well construction, (2) amount of development, (3) screen length, (4) screen-slot size, (5) pump capacity, and (6) interference from nearby pumping wells. Aquifer-related factors include: (1) saturated thickness, (2) hydraulic conductivity, (3) storage coefficient, (4) amount and distribution of recharge to the aquifer, and (5) potential for induced infiltration from nearby surface-water bodies. Public-supply and industrial-supply wells obtain the largest yields from sand and gravel because they are typically of larger diameter (10-12 in.) than domestic wells and are screened for the maximum available yield. Domestic wells, by comparison, are typically 6-in. diameter and finished without screens; that is, open-ended, allowing water to enter only through the bottom. This factor, more than any other, severely limits the amount of water that such a well can produce. The yields of domestic wells finished in bedrock are much more variable than those finished in sand and gravel and are primarily dependent on the number and size of water-bearing fractures that the well bore intersects.

Reported well-yield data for 375 wells in the Schodack-Kinderhook area are summarized in Table 3. For comparative purposes, the study area was divided into halves, the northern half containing the Schodack Terrace aquifer, and the southern half containing the Kinderhook Terrace aquifer. The boundary between these two sections is arbitrarily placed along the $42^\circ 30'$ latitude line.

Most of the domestic wells drilled in the Schodack-Kinderhook area are open-bore wells completed in bedrock and are typically 6-in. in diameter. As indicated in table 3, the average reported yield for 176 bedrock wells in the northern half of the study area is 7.5 gal/min (median, 5.25 gal/min), and the average for 86 bedrock wells in the southern half is

Table 2. Summary of aquifer tests in Rensselaer County, N.Y. (from Myrick and Associates, 1960).[ft, feet; gal/min, gallons per minute; ft/d, feet per day, ft²/d, feet squared per day. Well locations are shown on plate 1.]**A. Test Conditions (well and test data)**

Site name and well number	Well diameter (inches)	Well depth (feet)	Screened interval (feet below land surface)	Test-pumping rate (gal/min)	Test duration (hours)	Saturated thickness of aquifer (b) (ft)*	Drawdown in pumped well (ft)
Little League Re-701	12	97	82-96	610	100	28	34
Laraway Re-791	8	81	70-80.5	400	100	63	13
Witbeck no. 1 Re-811	12	105	90-105	200	44	35	55
Witbeck no. 2 Re-1137	8	87	73-87	1050	100	74	15.7

B. Test Results (hydraulic values for aquifer)

Site name and well number	Specific capacity [(gal/min)/ft]	Close observation well			Distant observation well			Mean hydraulic conductivity (K) (ft/d)
		Transmissivity (T_1) (ft/d)	Storage coefficient (S_1)	Hydraulic conductivity (K_1) (ft/d)	Transmissivity (T_2) (ft ² /d)	Storage coefficient (S_2)	Hydraulic conductivity (K_2) (ft/d)	
Little League Re-701	17.6	41,845 ^a	1.2×10^{-11}	1,494	200,534 ^b	2.8×10^{-3}	3,234	2,364
Laraway Re-791	30.5	49,866 ^c	8.0×10^{-3}	791	51,470 ^d	1.8×10^{-3}	817	804
Witbeck no. 1 Re-811	3.6	—	—	—	15,107 ^e	3.25×10^{-4}	432	432
Witbeck no. 2 Re-1137	66.9	61,898 ^f	1.2×10^{-5}	836	31,417 ^g	4.0×10^{-3}	424	630

* at pumped well

a) from time-drawdown data, Re-774

e) from recovery data, Re-813

b) from time-drawdown data, Re-807

f) from time-drawdown data, Re-1138

c) from time-drawdown data, Re-792

g) from time-drawdown data, Re-1139

d) from time-drawdown data, Re-794

essentially the same--7.2 gal/min (median, 5 gal/min). Nearly all of these yield estimates are based on bail tests performed and reported by the driller. Comparatively few domestic wells within the study area are finished in confined or unconfined sand and gravel; most of these are located on outwash or surface exposures of kame sand and gravel, and may be either large-diameter dug wells, small-diameter (2-in.) driven wells (well points) or most commonly, 6-in.-diameter drilled wells. Drilled wells completed in unconfined sand and gravel in the study area are typically less than 50 ft deep and are completed open ended. Yields from domestic wells completed in unconfined sand and gravel in the northern half of the study area range from 4 to 50 gal/min, with an average of 16 gal/min (median, 15 gal/min), and yields from similarly completed domestic wells in the southern half of the study area range from 2 to 68 gal/min, with

an average of 18 gal/min (median, 15 gal/min) (table 3).

In areas that lack a surficial sand and gravel aquifer, drillers have no choice but to drill deeper, possibly into bedrock, for a domestic supply. Several drillers in this area have obtained adequate domestic supplies from a thin, confined sand and gravel aquifer that extends westward and southwestward from the Schodack outwash terrace, and similarly westward and southwestward from the Kinderhook outwash terrace. These confined aquifers consist of either the coarse fractions of proximal bottomset beds of the prograding deltas that make up the Schodack and Kinderhook terraces, or coarse beds of subglacial fan deposits. The confined aquifer is commonly less than 5 ft thick and is overlain by as much as 150 ft of Lake Albany clay and silt. Most drilled domestic wells completed in this confined aquifer are finished without a screen (open ended), and water levels in these wells are commonly

Table 3. Well yield, by water-use and aquifer type, for the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.
[gal/min, gallons per minute]

A. Northern half of study area (Schodack Terrace aquifer)					
Well use/aquifer	Number of wells	Range of reported yields (gal/min)	Mean yield (gal/min)	Median yield (gal/min)	Remarks
Domestic/bedrock	176	0.1-60	7.5	5.25	Primarily 6-inch diameter wells.
Domestic/unconfined sand & gravel	17	4.0-50	16.1	15	Includes dug wells, driven wells, and 6-inch unscreened observation wells.
Domestic/confined sand & gravel	20	1.0-80	15.3	10	Includes 6-inch unscreened observation wells.
Public supply/unconfined sand & gravel	10	25-450	173.1	120	Well diameters from 8 to 12 inches.
Public supply/confined sand & gravel	12	50-1050	305.4	210	Well diameters from 8 to 12 inches.
Public supply/bedrock	4	13-120	52	37.5	Well diameters from 6 to 12 inches.

B. Southern half of study area (Kinderhook Terrace aquifer)					
Well use/aquifer	Number of wells	Range of reported yields (gal/min)	Mean yield (gal/min)	Median yield (gal/min)	Remarks
Domestic/bedrock	86	0.7-427	7.2	5	Primarily 6-inch diameter wells.
Domestic/unconfined sand & gravel	15	2.0-68	18.3	15	Includes dug wells, driven wells, and 6-inch unscreened observation wells.
Domestic/confined sand & gravel	18	1.0-30	12.8	8.75	Includes 6-inch unscreened observation wells.
Public supply/unconfined sand & gravel	15	35-300	104	100	Includes drilled wells of 4.5 to 12 inches in diameter and dug wells up to 36 inches in diameter.

at or above land surface during the spring. The average yield of 20 domestic wells finished in this confined aquifer in the northern half of the study area is 15 gal/min (median, 10 gal/min), with a range in reported yields from 1 to 80 gal/min (table 3). Similarly, the average yield of 18 domestic wells completed in the confined aquifer in the southern half of the study area is about 13 gal/min (median,

8.75 gal/min), with a range in reported yields from 1 to 30 gal/min.

Several municipalities within the study area have installed high-capacity public-supply wells that are screened in either confined or unconfined sand and gravel aquifers. Some of the highest individual well yields obtained thus far have been from confined ice-contact sand and gravel deposits that occupy bedrock

channels in the southern part of the Town of East Greenbush. Four test wells ranging from 8 to 12 in. in diameter were test pumped at rates ranging from 200 to 1,050 gal/min in 1960 as part of a general water-resources study conducted by a private consultant for the Town of East Greenbush (table 2; Myrick and Associates, 1960). The average yield of 10 public-supply wells finished in unconfined sand and gravel in the northern half of the study area was 173 gal/min (median, 120 gal/min), and ranged from 25 to 450 gal/min, whereas, the average yield of 12 public supply wells finished in confined sand and gravel in the same area was 305 gal/min (median, 210 gal/min), and ranged from 50 to 1,050 gal/min. This would seem to indicate that the confined sand and gravel aquifers in the study area are, for the most part, more transmissive than the overlying unconfined sand and gravel aquifer.

The southern half of the study area contains 15 high-capacity wells finished in the unconfined sand and gravel aquifer, most of which are supply wells or test wells for the villages of Valatie and Kinderhook. These wells are completed in coarse-grained recent alluvium and underlying outwash occupying the Kinderhook Creek valley and are under water-table (unconfined) conditions. These wells range from shallow dug wells of 36-in. diameter to drilled wells up to 12 in. in diameter, and the reported yields range from 35 to 300 gal/min, with a mean of 104 gal/min (median, 100 gal/min).

Specific Capacity

Another common measure of the relative yield of a production well is specific capacity (Q/s), which is the ratio of the pumping rate (Q) to drawdown (s). Specific-capacity data can be used to estimate the transmissivity of an aquifer, and a high specific capacity generally indicates high aquifer transmissivity (Walton, p. 314, 1970). Specific capacity data are available for 16 wells (6 to 12 in. in diameter) that are finished in either confined or unconfined sand and gravel within the study area. Specific capacities (unadjusted for the effects of partial penetration) ranged from 0.55 (gal/min)/ft for a confined 6-in. domestic well finished in deltaic sand to 151 (gal/min)/ft for an 8-in. diameter supply well completed in unconfined kame and esker sand and gravel. Selected hydraulic characteristics obtained for these 16 wells are given in Table 4.

The estimates of transmissivity were made through a computer program (Bradbury and

Rothschild, 1985) that corrects for well loss and partial penetration, then solves the following equation for transmissivity (T) in an iterative manner, using an initial estimate of T :

$$T = \frac{Q}{4\pi(s - s_w)} \left[\ln \frac{2.25 T t}{r_w^2 S} + 2s_p \right]$$

where	T	= transmissivity (feet squared per day)
	Q	= pumping rate (gallons per minute)
	s	= drawdown in pumped well (feet)
	s_w	= well loss (feet)
	t	= duration of pumping test (hours)
	r_w	= radius of well (inches)
	S	= storage coefficient (dimensionless)
	s_p	= partial penetration factor

The program then calculates an estimate of aquifer hydraulic conductivity from the calculated transmissivity and known saturated thickness. The calculated transmissivities for 16 wells screened in sand and gravel (table 4) range from 170 to 153, 480 ft²/d, and estimated hydraulic conductivities range from 75 to 2,650 ft/d. The mean transmissivity of these 16 wells is 31,090 ft²/d, and the mean hydraulic conductivity is 635 ft/d. A comparison of the transmissivity values estimated from specific-capacity data for wells Re-701, Re-791, Re-811, and Re-1137 (table 4) with those estimated from analysis of time-drawdown data (table 2) shows several large discrepancies--the values of T estimated from time-drawdown analysis, with the exception of Re-1137 (table 2) are 2 to 10 times higher than corresponding T values estimated from specific-capacity data (table 4). Similarly, estimates of hydraulic conductivity (K) from time-drawdown data (table 2) are much higher than the corresponding values estimated from specific capacity (table 4). Bradbury and Rothschild (1985) note that, in general, estimates of T from specific capacity are smaller than comparable T values estimated from time-drawdown analysis but are typically of the same order of magnitude. The values of T shown in table 4 appear to be more reasonable than those given in table 2 for the ice-contact, outwash, and deltaic sands and gravels in the study area. Moreover, the transmissivity and hydraulic conductivity estimates for these 16 wells (table 4) show a smaller range in values than those estimated from time-drawdown data obtained from observation wells at the four test sites (table 2).

Bedrock

The bedrock underlying the Schodack-Kinderhook area consists primarily of sedimentary shales, sandstones, mudstones, and interbedded limestones, all of which are of Ordovician or Cambrian age. The bedrock in this area has been extensively folded, faulted, and thrust—older Cambrian rock units to the east have been thrust over younger Ordovician rocks to the west along a major fault line known as “Logans’ Line”, an overthrust fault that is a segment of a discontinuous overthrust line that extends from Canada through Vermont and New York into the southern Appalachian Mountains. It is named after Sir William Logan, former director of the Canadian Geological Survey, who first recognized its size and structural importance (Ruedemann, 1930, p. 143). In addition to faults, the bedrock units in this area were subjected to preglacial and glacial erosion, which created a network of broad drainage channels on the now-buried bedrock surface.

Bedrock Surface Configuration

The generalized topography of the buried bedrock surface in the Schodack-Kinderhook area is depicted on plate 4. This map was constructed from (1) surficial geologic map data showing areas of exposed bedrock at land surface, and (2) logs of wells stored in the USGS computerized GWSI well database. Most of the well data used to construct this map were collected during well inventories conducted in Columbia and Rensselaer Counties in the late 1940’s, in conjunction with countywide ground-water studies (Arnow, 1951; Cushman, 1950). Other data were provided by Dr. Robert G. LaFleur of Rensselaer Polytechnic Institute, as part of a study of the hydrogeology of Town of Schodack (LaFleur, 1993). Plate 4 also shows the approximate locations of traces of major thrust and cross faults that transect the area (Elam, 1960; Fisher and others, 1970) and areas mapped as exposed bedrock (LaFleur, 1965, 1977a,b,c).

The configuration of the bedrock surface in the Schodack-Kinderhook area (pl. 4) is a result of tectonic activity, differential weathering, and preglacial and glacial erosion. The altitude of the bedrock surface in the mapped area ranges from 150 ft below sea level in buried channels to approximately 750 ft above sea level in the uplands, resulting in about 900 ft of relief. Rock units that are resistant to weathering, such as conglomerates, cherts, sandstones, slates, and

graywackes, form ridges and bedrock hills in the area. For example, Teller and Grandview Hills (near Sherwood Park), and Vandenburg Hill (near Brookview), form a ridge along the eastern edge of the Hudson River gorge and consist of large “slide” blocks of resistant chert or limestone embedded in the otherwise easily erodible Snake Hill shale (Elam, 1960, p. 7). These “slide” blocks are large blocks of the older Mt. Merino Formation that were incorporated into the younger Snake Hill Shale during episodes of tectonic activity.

Faults and bedrock channels can be important hydrogeologic features in the development of ground-water supplies. Faults represent areas where the rock has been intensely fractured by tectonic forces, thereby increasing the secondary permeability of the rock (see next section). Bedrock channels may be filled, in part, with glaciodeltaic or ice-contact sand and gravel that can be used as productive aquifers, although they may not be really extensive (see sheet 2).

Preglacial Drainage Channels

Several major preglacial drainage channels in the bedrock surface are evident on plate 4. In the northern half of the study area, a channel cut to about 50 ft above sea level extends from the east side of Teller Hill (at Sherwood Park) south for about 4.5 mi to Brookview, where it meets an east-west channel that was probably the path of the preglacial Moordener Kill. This east-west bedrock channel parallels the course of the present-day Moordener Kill and meets it at Castleton-on-Hudson.

South of Castleton-on-Hudson, another east-west trending channel extends southeastward for about 3 mi from the confluence of the Muitzes Kill and the Hudson River. This channel is also cut down to about 50 ft above sea level and may represent the northwestward-draining preglacial Muitzes Kill. A broad, sinuous channel in the southern part of the study area runs southwestward from North Chatham to Niverville, then turns south at Bishop Nelson Road to continue southward (just west of Kinderhook); this channel may be the course of the preglacial Valatie Kill-Kinderhook Creek drainage system.

In the southwestern corner of the mapped area, a deep, narrow channel curves around a bedrock ridge and is eroded down to altitudes as low as 155 ft below sea level. Well Cb-157, east of the village of Stuyvesant, is completed in this channel and represents the greatest documented thickness (275 ft)

Table 4. Reported specific capacity, estimated transmissivity, and estimated hydraulic conductivity at selected wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

[gal/min, gallons per minute; in., inch; (gal/min)/ft, gallons per minute per foot; ft²/d, feet squared per day; ft/d, feet per day; ft, feet. Locations of wells shown on plate 1.]

Well No.	Aquifer type	Pumping rate (gal/min)	Well diameter (in)	Specific capacity, unadjusted (gal/min)/ft	Specific capacity adjusted* (gal/min)/ft	Estimated transmissivity (ft ² /d)	Estimated hydraulic conductivity (ft/d)	Saturated thickness of aquifer (ft)	Length of screen zone (ft)	Storage coefficient used in estimate	Drawdown in pumped well (ft)	Length of test (hours)
Re-459	confined sand & gravel	135	8	7.94	7.98	2,450	120	20.5	20.5	.0001	17	24
Re-1128	confined sand & gravel	190	8	12.67	12.82	4,030	270	15	15	.0001	15	24
Re-1129	confined sand & gravel	275	8	14.86	15.17	4,800	130	36	36	.0001	18.5	24
Re-1130	confined sand & gravel	220	8	10.00	10.11	3,140	120	26	26	.0001	22	24
Re-1131	unconfined sand & gravel	407	10	19.54	20.35	11,770	235	50	10	0.20	20.82	72
Re-1137	confined sand & gravel	1050	8	67.00	102.62	85,970	1,160	74	14	.0001	15.7	96
Re-701	confined sand & gravel	610	12	17.60	18.97	6,760	240	28	14	.0028	34	100
Re-791	confined sand & gravel	400	8	30.50	32.77	26,690	420	63	10.5	.0018	13	100
Re-811	confined sand & gravel	200	12	3.64	3.65	1,530	45	35	15	.0003	55	44
Re-475	unconfined sand & gravel	50	8	151.5	210	153,480	2,650	58	10	0.20	0.25	48
Re-703	confined sand & gravel	12	6	2.30	2.30	4,020	75	53	2.9	.0001	5.21	1
Re-774	confined sand & gravel	40	6	6.67	6.68	13,100	470	28	1†	.0001	6	1
Re-807	confined sand & gravel	40	6	26.67	26.81	114,540	2,200	52	1†	.0001	1.5	1
Re-1049	confined sand & gravel	7.5	6	0.55	0.55	170	30	6.5	3	.0001	13.66	6
Cb-855	unconfined sand & gravel	110	6	73.3	76.4	46,900	1,470	32	6	0.20	1.5	8
Cb-856	unconfined sand & gravel	220	12	29.3	30.30	18,030	560	32	6	0.20	7.5	6
Mean :						31,090	635					

* Adjusted for the effects of partial penetration

† well is finished open-ended; 1 ft screened zone assumed.

of stratified drift in Columbia County (Arnow, 1951, p. 14). This narrow channel may have been the path of the preglacial Stuyvesant Creek, but was more likely an alternative outlet of the Kinderhook-Valatie Creek drainage network to the Hudson River. This is supported by limited bedrock-surface altitude data from areas within the Hudson River gorge that indicate a narrow channel cut down to about 150 ft below sea level (Dineen, 1977b,d).

Faults

The bedrock underlying the Schodack-Kinderhook area is divided into two structural provinces by a major thrust fault that runs north-south through the area, and which separates the younger, autochthonous, Ordovician shales of the Normanskill Formation, on the west, from the older, allocthonous, Cambrian rocks of the Bull and West Castleton Groups to the east. This fault is known as Logan's Line, and may represent the western edge of the Taconic Allocthon (klippe) (Elam, 1960, p. 111-112). Rock units on both sides of this fault plane display typical signs of old fault movement such as mylonite and fault breccia. Elam (1960) reported that rocks east of Logan's line show a well-developed fracture cleavage system, whereas rocks west of the line are cataclastically deformed, highly stratified, slickensided, and crushed (Elam, 1960, p. 139). Older deposits of fault breccia have now become brecciolas, a resistant rock resembling a conglomerate. A rare exposure of the Logan's Line fault plane (one of two in this area) is found where it crosses the Vierda Kill, northwest of Brookview, and shows the fault striking N10°E, and dipping 70° to the east (Elam, 1960, p. 98). Elam has mapped two subsidiary thrust faults in this area--the Rysdorph Fault, and the Ferry St. Fault (fig. 2b)--both of which have been overridden by the large thrust block of Cambrian rocks to the north of the northern cross fault, and are shown again in the center of the mapped area. The westward displacement of Logan's Line in the southern half of the mapped area implies the presence of a second tear fault (cross fault), shown here near the 42° 30' latitude line, thus delineating a much larger overthrust block of Cambrian rocks to the south (Fisher and others, 1970).

Effects of Faults on Well Yields

Joints and fracture traces in rock generally represent areas in which secondary permeability has

been enhanced through fracturing. Wells drilled near extensive fracture zones can be expected to have greater yields than wells drilled into the same formation at some distance from these zones. The only exceptions are faults along which significant movement and, thus, rock disintegration, has occurred over geologic time. These crushed and decayed zones of faults typically contain a virtually impermeable mixture of pulverized rock flour (gouge) and coarser fragments (fault breccia) (van der Leedan, 1962, p. 59). Wells drilled directly into a fault zone tend to produce little or no water because the faults typically contain clayey rock flour (especially in shale or slate terrain), whereas wells drilled to either side of the fault would be likely to intercept "cleaner," jointed and broken rock and would thus be likely to have larger yields. A cursory examination of some reported bedrock well yields in the vicinity of the thrust faults in this area shows several wells that have yields considerably above the mean for the study area (table 3A). For example, well Re-803, a 6-in. diameter well with a 98-ft. rock wellbore, is reported to yield 60 gal/min, and is about 500 ft west of Logan's Line. Similarly, wells Re-1107 and Re-1108 have reported yields of 19 and 20 gal/min, and are 300 and 500 ft east of Logan's Line, respectively. Well, Re-1244, only 100 ft west of Logan's Line, also has a reported yield of 19 gal/min, and well Re-1101, about 100 ft east of the Rysdorph Fault, has a reported yield of 15 gal/min. In contrast, the mean of 176 reported well yields from 6-in domestic bedrock wells in the northern half of the study area is 7.5 gal/min (median, 5.25 gal/min) (table 3A). Some wells near these fault zones have also been reported to have very low well yields, for example, well Re-461, which is 300 ft west of the Ferry St. fault at Brookview, is 326 ft deep (221 ft of open bedrock borehole) and yielded only 0.1 gal/min when drilled and was subsequently abandoned.

SUMMARY AND CONCLUSIONS

Two glaciodeltaic outwash terraces in southern Rensselaer and northern Columbia counties known locally as the Schodack and Kinderhook Terraces, consist of ice-contact and outwash sand and gravel and together form a regional, unconfined, stratified drift aquifer with a combined area of 18.75 mi². The hydrogeology of these aquifers is summarized on four maps at 1:24,000 scale and depict (1) locations of

wells and test holes, (2) surficial geology, (3) altitude of the water table, and (4) altitude of the bedrock surface. Hydrogeologic data indicate that both aquifers are associated with a thin, and probably discontinuous, confined aquifer that consists of glaciofluvial sand and gravel confined beneath thick deposits of lacustrine sand, silt, and clay.

Estimates of average hydraulic conductivity based on a consultant's aquifer tests conducted at four test wells screened in thicker sections of the confined aquifer, range from 430 to 2,360 ft/d, with a mean of 1,150 ft/d. The mean estimate of hydraulic conductivity derived from specific-capacity data from 16 test wells screened in confined and unconfined sections of the aquifers is 640 ft/d.

Reported yields of domestic well completed in unconfined sections of the Schodack and Kinderhook Terrace aquifers average 16.1 and 18.3 gal/min, respectively, and reported yields of domestic wells finished in the confined sections of these aquifers averaged 15.3 and 12.8 gal/min, respectively. Yields from public-supply wells screened in the confined sections of the Schodack Terrace aquifer range from 50 to 1,050 gal/min and average 305 gal/min.

Estimates of average annual recharge to the Schodack Terrace aquifer and adjacent upland till deposits, derived from a 1960 USGS study, were 16.3 and 7.1 in/mi², respectively.

Two hydrogeologic sections through the Schodack and Kinderhook Terraces show that the eastern half of the Schodack Terrace is underlain, in most places, by a considerable thickness of ice-contact sand and gravel, whereas most of the Kinderhook Terrace is underlain by lacustrine sand, silt, and clay. This difference in underlying geologic structure produces greater, but more variable, saturated thicknesses of the unconfined aquifer in the Schodack Terrace than in the Kinderhook Terrace. In addition, the surficial outwash unit in the Schodack Terrace has a relatively large unsaturated zone (up to 60 ft), produced by the low base level of the Moordener Kill, which bisects the terrace and functions as a major ground water drain for the aquifer.

Bedrock that underlies the area has been highly modified through tectonic activity, differential weathering, and preglacial erosion to produce a surface with approximately 900 ft of relief. A major thrust fault (Logan's Line) and several smaller subsidiary thrust and faults traverse the area in a north-

south direction and appear to enhance the yield of bedrock wells drilled in their vicinity.

SELECTED REFERENCES

- Arnow, Theodore, 1951, The ground-water resources of Columbia County, New York: New York State Department of Conservation Bulletin GW-25, 48 p.
- Bradbury, K.R., and Rothschild, E.R., 1985, A computerized technique for estimating the hydraulic conductivity of aquifers from specific capacity data: *Ground Water*, v. 23, no. 2, pp. 240-246.
- Capital District Regional Planning Commission, 1993, Groundwater/wellhead protection program-phase I, southwestern Rensselaer County: Schenectady, N.Y., Capital District Regional Planning Commission, 123 p.
- Clough, Harbor, & Associates, 1988, Comprehensive water supply plan for the Town of Schodack, Rensselaer County, New York: Albany, N.Y., Clough, Harbor, & Associates, Engineers & Planners, 250 p.
- Cook, J.H., 1943, Glacial geology of the Coxsackie quadrangle, in Goldring, Winifred, *Geology of the Coxsackie quadrangle*, New York: New York State Museum Bulletin No. 332, p. 321-357.
- Craddock, J.C., 1957, Stratigraphy and structure of the Kinderhook quadrangle: *Geological Society of America Bulletin*, v. 68, n. 6, p. 675-724.
- Cushman, R.V., 1950, The ground-water resources of Rensselaer County, New York: New York State Department of Conservation Bulletin GW-21, 56 p.
- Dale, T.N., 1904, *Geology of the Hudson Valley between Hoosic and Kinderhook*: U.S. Geological Survey Bulletin 242, 63 p.
- DeSimone, D.J. and LaFleur, R.G., 1985, Glacial geology and history of the northern Hudson basin, New York and Vermont, in Lindermann, R.H. (ed.), *New York State Geological Association 57th Annual Meeting Field Trip Guidebook*: Saratoga Springs, N.Y., Skidmore College, p. 82-116.
- DeSimone, D.J. and LaFleur, R.G., 1986, Glaciolacustrine phases in the northern Hudson lowland and correlation in western Vermont: *Northeastern Geology*, v. 8, p. 218-229.
- Dineen, R.J., 1977a, Generalized bedrock surface map, Kinderhook, East Chatham, Stottville, and Chatham quadrangle: New York State Geological Survey Open-File Report 2100.667, 1 sheet, 1:24,000 scale.
- , 1977b, Generalized bedrock surface map of part of the Kinderhook quadrangle: New York State Geological Survey Open-File Report 1p223, 1 sheet, 1:24,000 scale.
- , 1977c, Generalized bedrock surface map, East Greenbush quadrangle: New York State Geological

- Survey Open-File Report 1p357, 1 sheet, 1:24,000 scale.
- , 1977d, Generalized bedrock surface map of part of the Ravena quadrangle: New York State Geological Survey Open-File Report 1p355, 1 sheet, 1:24,000 scale.
- , 1986, Deglaciation of the Hudson valley between Hyde Park and Albany, N.Y., *in* Cadwell, D.H. (ed.), *The Wisconsin stage of the First Geological District, Eastern New York*: New York State Museum Bulletin 455, p. 89-108.
- Dineen, R.J. and Rogers, W.B., 1979, Sedimentary environments in glacial Lake Albany in the Albany section of the Hudson-Champlain lowlands, *in* Friedman, G.M. (ed.), *Joint annual meeting of the New York State Geological Association and New England Intercollegiate Geological Conference, Field Trip Guidebook*: Troy, N.Y., Rensselaer Polytechnic Institute, p. 87-119.
- Elam, J.G., 1960, *Geology of the Troy South and East Greenbush quadrangles*, New York: Troy, N.Y., Rensselaer Polytechnic Institute, unpublished Ph.D. thesis, 200 p.
- LaFleur, R.G., 1961, Glacial features in the vicinity of Troy, N.Y., *in* LaFleur, R.G. (ed.), *Guidebook to field trips, New York State Geological Association 33rd Annual Meeting*: Troy, N.Y., Rensselaer Polytechnic Institute, p. A1-A21.
- , 1963, *Origin of sand and gravel deposits in New York: First Annual Sand and Gravel Symposium, Empire State Sand, Gravel and Road's-Mix Association*.
- , 1965a, Glacial geology of the Troy, N.Y. quadrangle: New York State Museum and Science Services Map and Chart Series, no. 7, 22 p.
- , 1965b, Glacial lake sequences in the eastern Mohawk-northern Hudson region, *in* Hewitt, P.C. and Hall, L.M. (eds.), *Guidebook to field trips, New York State Geological Association 37th Annual Meeting*: Schenectady, N.Y., Union College, p. C1-C23.
- , 1977a, Surficial geologic map of the Kinderhook 7 1/2-minute quadrangle: open-file map, New York State Geological Survey, Albany, N.Y., 1 sheet, 1:24,000 scale.
- , 1977b, Surficial geologic map of part of the Delmar 7 1/2-minute quadrangle: open-file map, New York State Geological Survey, Albany, N.Y., 1 sheet, 1:24,000 scale.
- , 1977c, Surficial geologic map of part of the Ravena 7 1/2-minute quadrangle: open-file map, New York State Geological Survey, Albany, N.Y., 1 sheet, 1:24,000 scale.
- , 1979, Deglacial events in the eastern Mohawk-northern Hudson lowland, *in* Friedman, G.M. (ed.), *Joint annual meeting of the New York State Geological Association, and New England Intercollegiate Geological Conference, Field Trip Guidebook*: Troy, N.Y., Rensselaer Polytechnic Institute, p. 326-350.
- , 1993, Schodack aquifer hydrogeological report--underground injection control and wellhead protection demonstration project: Troy, N.Y., Rensselaer Polytechnic Institute, 104 p.
- Myrick, G.C., and Associates, 1960, *Report on water resources survey, Town of East Greenbush, Rensselaer County, New York*: Albany, N.Y., George C. Myrick and Associates, 150 p.
- Randall, A.D., and others, 1966, *Water resources inventory of Connecticut-Part 1, Quinebaug River basin*: Connecticut Water Resources Bulletin no. 8, 102 p.
- Ruedemann, Rudolf, 1930, *Geology of the Capital District*: New York State Museum Bulletin no. 285, 218 p.
- van der Leeden, Frits, 1962, *The ground-water resources of Westchester County, New York*: New York University, unpublished Masters thesis, 90 p.
- Walton, W.C., 1970, *Groundwater resource evaluation*: New York, McGraw-Hill, 664 p.
- Woodworth, J.B., 1905, *Ancient water levels of the Champlain and Hudson valleys*: New York State Museum Bulletin n. 84, 263 p.

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

Explanation of Column Headings

Local well number:	Local well numbers are assigned by the USGS to each well in the USGS Ground Water Site Inventory (GWSI) data base. County well numbers are sequential within each county, and wells within each county are identified by a two-letter county prefix. For example, wells within Rensselaer County are identified by the prefix “Re,” and wells within Columbia County are identified by the prefix “Cb.”
Site Identifier:	The Site Identifier is a unique 15-digit number that identifies each well within the GWSI data-base. It initially consists of the latitude and longitude of the well location, followed by a two-digit sequence number; subsequent revisions in latitude-longitude of any given well location are reflected in the latitude and longitude columns, and not in the Site Identifier. Multiple wells share essentially the same location (Site Identifier) and are distinguished by sequential sequence numbers (eg: 01, 02, 03).
Latitude:	The latitude of the well location in degrees, minutes, and seconds written together. The format used here is DDMMSS (degrees, minutes, seconds).
Longitude:	The longitude of the well location in degrees, minutes, and seconds written together. The format used here is DDDMMSS (degrees, minutes, seconds). Note that 73° west longitude appears as “073” in this column.
Owner:	The owner of the well at the time that the well was inventoried or the well information was obtained by the USGS. Some names are shortened or abbreviated.
Altitude:	The altitude of the land surface datum at each well, in feet above sea level. Land surface altitudes were estimated to the nearest foot from 1:24,000 scale topographic maps having a contour interval of 10 ft. Altitudes shown to the nearest tenth or hundredth of a foot were determined by spirit leveling by consulting engineers or USGS personnel.
Primary use of water:	The primary use of the water pumped from a site are as indicated by letter codes as follows: C - Commercial (light industry, commercial establishments) H - Domestic (individual residence) I - Irrigation (for crops or orchards) N - Industrial P - Public supply (municipal supply wells) S - Stock (primarily for watering livestock) T - Institutional (schools, colleges, etc.) U - Unused (water not used)
Date of construction:	Represents exact date of well completion if known; otherwise the month and year, or simply year in which well was drilled. Format is MM-DD-YY (month, day, year).
Method of construction:	Letter codes indicate the drilling method used to construct the well, as follows: A - Air-rotary drilling - uses air to drill, drive casing, and remove cuttings B - Bored or augered - generally with hollow-stem auger C - Cable-tool drilling - also called “percussion drilling” D - Dug well - generally stone curbed and of large diameter H - Hydraulic rotary drilling - uses water to remove cuttings J - Jetted - uses water to wash out the hole P - Air-percussion drilling - a variation of air-rotary R - Reverse-rotary drilling - a variation of hydraulic rotary V - Driven well - commonly shallow “well points” of small diameter W - Drive and wash method - also called “wash boring”
Diameter of casing:	Nominal inside diameter of well casing or test hole (if no casing used), in inches. When more than two sizes of casing are used, the diameter of the upper section is listed first.
Depth of well:	Depth of completed well, in feet below land surface. Where observation wells or production wells are installed in former test holes, depth refers to finished well depth. The hole depth in some wells may be greater than the well depth.
Source of depth data:	Letter codes indicate where the information about well depth was obtained, as follows: D - From drillers’ log or report G - From private geologist, consultant, or university associate L - Interpreted by USGS personnel from geophysical logs M - Memory of the owner or driller O - Reported by the owner of the well R - Reported by a person other than the owner or driller S - Measured by USGS personnel

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y. (continued)

Explanation of Column Headings

Bottom of casing:	Depth to bottom of casing, in feet below land surface. In open-ended wells, this is the total depth of the finished well. In bedrock wells, this depth may be the approximate depth to bedrock. In screened wells, this depth is less than the total depth of the finished well.
Type of finish:	<p>Letter codes indicate how the well is completed or the nature of the openings that admit water to the well, as follows:</p> <p>C - porous concrete F - gravel pack with perforated casing G - gravel pack with screen H - horizontal gallery O - open-ended casing P - perforated or slotted casing S - well screen (in native formation) T - sand point (drive point) W - walled (dug wells) - using fieldstone, brick, tile, concrete blocks, or other material. X - open hole in consolidated rock</p>
Aquifer code:	<p>An eight-character code that indicates the primary aquifer from which the well produces. Aquifer codes used in this study area include:</p> <p>111ALVM - Postglacial alluvium occupying stream valleys. 112OTSH - Glacial outwash sand and gravel. 112ICNC - Ice-contact deposits of predominantly sand and gravel including kames, kame terraces, kame deltas, and eskers. 112LAKE - Glaciolacustrine sediments of fine sand, silt, and clay deposited in glacial Lake Albany and its successive lake stages. 112GLCD - Glaciodeltaic sediments of sand, gravel, and silt associated with the prograding outwash deltas of the Schodack and Kinderhook terraces. Includes proximal bottomset beds of outwash deltas and subglacial fan deposits, both of which form the thin confined aquifers associated with these two terraces. 112TILL - Deposits of till overlying bedrock. 377SCCK - Schodack Formation (Lower Cambrian) of Ruedemann (1930) described by Cushman (1950) as a greenish-gray, fine-grained, siliceous shale locally interbedded with a red grit, calcareous sandstone, a thinly bedded limestone, or a red and purple shale. Water reported as moderately hard with some iron. 377NSSU - Nassau Formation (Lower Cambrian) of Bird (1962), described by Cushman (1950) as a dark red and green soft shale, interbedded with quartzite and sandstone. 364NMKL - Normanskill Shale (Middle Ordovician) of Clarke (1903), described by Cushman (1950) as dark green to black argillaceous shale containing calcareous and chert beds. Water may contain hydrogen sulfide. 371TCSQ - Taconic Sequence rocks (upper Cambrian and lower Ordovician, undifferentiated) - Indicates rock units that are considered part of the Taconic Allocthon. In the study area, this includes the Germantown Formation (shale, conglomerate, limestone); the Stuyvesant Falls Formation (shales, siltstones); the Mount Merino and Indian River Formations (shales, slates, cherts); and the Austin Glen Formation (graywackes, shale) (Fisher, 1970).</p>
Lithology code:	<p>Letter codes that indicate the principal lithology of the primary aquifer listed (preceding column) encountered at the drillhole. Much of this information comes from drillers' logs. Lithology codes used in this study area are:</p> <p>ALVM - Alluvium CLSD - Clay, with some sand GRVL - Gravel LMSN - Limestone SAND - Sand SDCL - Sand and clay SDGL - Sand and gravel SDST - Sand and silt SHLE - Shale SLTE - Slate TILL - Till</p>

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y. (continued)

Explanation of Column Headings

Depth to top of aquifer (feet):	Indicates the depth, in feet below land surface, to the top of the primary aquifer indicated under the column "Aquifer Code." A "zero" in this column indicates that the aquifer material appears at land surface.
Water level (feet):	Indicates the water level in the well, in feet below land surface, at the time that the well was inventoried. A minus sign (-) preceding the water level indicates a water level above land surface.
Date of water level measurement	Indicates exact date that the water level was measured, if known; otherwise month and year, or simply year. Format is MM-DD-YY.
Method water level measured:	Letter code indicates manner in which water level-data were obtained. Letter codes used are: E - Estimated R - Reported, method not known. (Generally indicates water level reported by driller at time of drilling) S - Steel tape measurement, generally by USGS personnel T - Electric tape measurement, generally by USGS personnel.
Discharge (gallons per minute):	Indicates discharge (yield) of the well, in gallons per minute. Most yield data reported here for domestic wells are estimated from driller's bail tests. Discharge values for high-capacity test or supply wells are generally obtained during aquifer tests.
Contractor:	Name of the contractor who initially drilled the well. Some abbreviations are use; for example "Grmntn Artsn" or "Germantown" both indicate the Germantown Artesian Well Co.
Remarks:	Includes any miscellaneous data or information pertaining to the well. Abbreviations commonly used here include: <div style="margin-left: 40px;"> WL - Water level GPD - gallons per day (gal/d) rept. - reported avg. - average H2S - Hydrogen sulfide Bull. GW-21 - Refers to New York State Dept. of Conservation Bulletin GW-21, "The Ground-water resources of Rensselaer County, New York" by R.V. Cushman SWL - Static water level PWL - Pumping water level Shle - shale Lmsn - limestone DD - drawdown NO³ as N - Total nitrate reported as nitrogen Cl - Chloride mg/L - milligrams per liter RCHD - Rensselaer County Health Dept. grvl - gravel LSD - land surface datum QW - quality of water FeOH - Iron oxide S&G - sand and gravel Obs - observation WSA - Water Supply Application (New York State) NYSDOH - New York State Department of Health Sta. - Station Fm. - formation in. - inches </div>

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-408	423655073381602	423653	0733814	Peterson, A.	470	H	00-00-42	C	6	150	D	--	X
Re-409	423655073381601	423655	0733818	Mowry, John E.	480	H	00-00-41	C	6	87	O	6	-
Re-411	423727073383401	423727	0733834	Southworth, T.	570	H	00-00-42	C	8	80	D	17	X
Re-413	423708073390401	423708	0733904	Powell, John	485	H	--	D	36	22	O	22	-
Re-429	423703073383501	423703	0733835	Hotaling, B.	505	H	00-00-32	C	6	85	O	20	X
Re-442	423546073405201	423544	0734058	Bastian, Joseph	450	H	--	C	6	64	D	20	X
Re-443	423503073410501	423503	0734105	Fellows, Charles B.	380	H	--	D	24	10.3	O	10.3	W
Re-444	423605073403701	423605	0734037	Miller, Alyda	460	H	00-00-30	C	6	101	O	--	X
Re-445	423716073412601	423716	0734126	Sager, Fred B.	345	H	--	D	42	25	O	25	W
Re-446	423612073424101	423612	0734241	Gilligan, George	235	H	00-00-28	C	8	185	D	--	-
Re-447	423614073424601	423614	0734246	Shurttiff, John	250	H	00-00-26	C	6	70	D	18	X
Re-448	423701073420701	423635	0734221	Onderkirk, Ervin	280	H	--	D	26	24	R	24	C
Re-449	423640073421601	423644	0734214	Herberts, Martin	285	H	--	D	48	20	O	20	W
Re-450	423638073421001	423642	0734211	Herrington, C.W.	295	H	--	C	6	180	R	30	X
Re-451	423702073420801	423702	0734208	Rieck, H.	310	H	--	C	6	149	O	149	O
Re-452	423713073420401	423713	0734209	Neale, Charles	320	H	00-00-33	C	8	145	S	34	X
Re-456	423638073433401	423638	0734339	W. Onderdonk Estate	290	H	09-12-25	C	6	131	D	85	X
Re-458	423219073440501	423217	0734402	Peter, Charles	215	H	00-00-31	C	6	103	R	6	X
Re-459	423218073444601	423218	0734441	Fort Orange Paper Co.	15	U	--	C	12	97	O	26	F
Re-460	423227073432001	423227	0734316	Cooper, Charles J.	220	H	00-00-46	D	24	18	O	18	W
Re-461	423237073430901	423237	0734306	Brookview School	240	U	00-00-18	C	6	326	D	105	X
Re-462	423051073422101	423051	0734221	Lansing, M.T.	275	H	05-25-15	C	6	96	D	11	X
Re-463	423045073422101	423045	0734221	Masten, Sarah D.	275	H	05-29-15	C	6	150	D	90	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-408	377SCCK	SHLE	3	8	00-00-42	--	2.5	Jensen, R.	Soft water reported
Re-409	377SCCK	SHLE	6	4	00-00-41	--	5	Jensen, R.	Water very soft
Re-411	377SCCK	SHLE	17	28	00-00-42	E	3	Hall & Co.	Very hard water reported
Re-413	371TCSQ	SHLE	--	--	--	-	--	--	WL 18 ft, 50 gpd
Re-429	377SCCK	SHLE	20	10	00-00-32	R	6	Koons	Hard water reported
Re-442	377SCCK	SHLE	20	--	--	-	2.6	McQueen	Soft water reported
Re-443	112OTSH	GRVL	0	3.1	04-00-46	S	--	--	150 gpd, soft water reported
Re-444	377NSSU	SHLE	12	18	00-00-30	R	--	Kornetzki	150 gpd, hard water reported
Re-445	112ICNC	SDGL	0	12	04-00-46	R	--	--	Hard water reported
Re-446	377SCCK	SHLE	--	100	00-00-28	-	--	Stewart Bros.	200 gpd, hard water reported
Re-447	377SCCK	SHLE	18	18	00-00-26	R	.25	Grmntn Artsn	Avg pumpage 100 gpd w
Re-448	112LAKE	SAND	0	--	--	-	--	--	WL 21 ft, 250 gpd, soft
Re-449	112LAKE	SAND	0	--	--	-	--	--	WL 17 ft, hard water reported
Re-450	377SCCK	SHLE	30	35	04-00-46	-	--	Kornetzki	H2S reported, 150 gpd, soft water
Re-451	112OTSH	SAND	0	--	--	-	5.0	Shortsleeves	--
Re-452	377SCCK	SHLE	34	17	00-00-33	S	20	Grmntn Artsn	Soft water, Driller reports yield of 20 gpm
Re-456	364NMKL	SHLE	85	76	09-12-25	S	2	Grmntn Artsn	Hard water reported
Re-458	364NMKL	SHLE	6	13	00-00-31	R	7.5	McQueen, J.	Moderate hardness and H2S reported
Re-459	112GLCD	SDGL	26	6	05-16-46	R	135	Hall & Co.	Well abandoned due to high iron
Re-460	112OTSH	SAND	15	12.5	05-16-46	R	4	--	Hardpan 11-15 ft, black sand 15-18 ft
Re-461	364NMKL	SHLE	105	63	00-00-18	R	.10	Grmntn Artsn	Strong H2S odor, poor yield; well abandoned
Re-462	377SCCK	SHLE	--	36	05-25-15	R	1.0	McQueen	Very hard water reported
Re-463	377SCCK	SHLE	--	--	--	-	--	McQueen	Tastes of kerosene

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.
A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-464	423156073442101	423156	0734424	Marsh, Theodore	185	U	00-00-41	C	6	366	D	97	X
Re-465	423238073435901	423237	0734355	Newkirk, Irwin	230	H	00-00-31	C	6	111	D	13	X
Re-466	423338073405101	423338	0734054	Shappey, James	350	H	00-00-28	C	6	152	D	117	X
Re-467	423341073404801	423341	0734048	Haight, Edward	350	H	00-00-33	C	6	193	D	149	-
Re-468	423339073390301	423341	0733906	Raeder, Philip	460	H	00-00-28	C	6	83	D	14	X
Re-470	423340073380001	423340	0733804	East Schodack School	450	T	00-00-30	C	6	200	D	32	X
Re-471	423302073421801	423302	0734218	Beaudorn, Arthur	230	H	00-00-28	C	6	88	D	34	X
Re-472	423355073422001	423355	0734220	Corey, A.B.	270	H	--	D	36	38	O	38	W
Re-473	423427073422501	423427	0734225	Lanford, O.E.	245	H	--	D	--	24	O	24	W
Re-474	423519073420601	423519	0734210	Fisher, M.	315	H	00-00-26	C	6	128	S	95	X
Re-475	423527073421701	423525	0734219	E. Greenbush Water & Improv.	270	P	00-00-37	C	8	78	O	--	S
Re-476	423504073433501	423504	0734341	Wishart, J.	190	H	00-00-23	C	6	76	D	13	X
Re-477	423504073441201	423502	0734413	Van Patten, A.E.	140	H	00-00-46	C	6	38	O	8	X
Re-478	423655073435601	423645	0734354	Weavell, Joseph	315	H	00-00-25	C	6	66	D	16	X
Re-479	423654073434201	423654	0734349	Cunningham, Jesse	250	H	00-00-25	C	6	77	D	15.3	X
Re-480	423658073435401	423658	0734354	Van Acker, J.B.	270	U	00-00-25	C	6	72	D	14.6	X
Re-482	423631073445501	423631	0734455	Van Amerongen, John	20	H	--	D	24	16	O	16	W
Re-483	423115073381101	423115	0733811	Fremont, Chris	505	H	00-00-26	C	6	108	D	28	X
Re-484	423107073373401	423107	0733734	Young, George	420	H	00-00-26	C	6	100	D	6	X
Re-485	423249073401401	423249	0734017	Brehm, E.	350	H	00-00-28	C	6	146	D	95	X
Re-486	423215073394501	423215	0733945	Beberwyck, E.	445	U	00-00-26	C	6	43	D	8	X
Re-487	423225073395601	423225	0733956	Hacker, Wm.	430	H	00-00-26	C	6	64	D	15	X
Re-488	423303073444401	423303	0734441	Schodack School, Stony Pt.	105	U	00-00-25	C	6	170	D	170	O
Re-490	423659073434301	423659	0734343	Veeder, H.G.	230	U	00-00-25	C	6	151	D	151	O

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-464	364NMKL	SHLE	--	--	00-00-41	-	--	Goold, G.	Dry well, abandoned
Re-465	364NMKL	SHLE	13	9	00-00-31	R	1.5	Grmntn Artsn	--
Re-466	377SCCK	SHLE	117	35	00-00-28	R	.75	Grmntn Artsn	Well later deepened to 200 ft, H2S reported
Re-467	377SCCK	SHLE	149	37	00-00-33	R	--	Hall & Co.	Well probably destroyed by Thruway exit ramp
Re-468	377SCCK	SHLE	14	10	00-00-28	R	4	Grmntn Artsn	Bailer tested on completion at 4 gpm
Re-470	377SCCK	SHLE	32	21	00-00-30	S	2.5	Grmntn Artsn	Bailer test yield 2.5 gpm with PWL at 93 ft
Re-471	377SCCK	SHLE	34	30	00-00-28	R	--	Germantown	Soft water reported
Re-472	112GLCD	GRVL	0	37	05-00-46	S	--	--	Abandoned dug well of same depth nearby
Re-473	112GLCD	SDGL	0	16	12-00-54	R	--	--	--
Re-474	377SCCK	SHLE	95	53	00-00-26	S	1.5	Grmntn Artsn	--
Re-475	112ICNC	SDGL	8	20	00-00-37	R	50	Shaver, Wm.	Re-810 also at this location
Re-476	364NMKL	SHLE	13	20	00-00-23	R	1	Grmntn Artsn	Owner reports H2S Bailed at 1 gpm
Re-477	364NMKL	SHLE	8	--	--	-	.25	Fick Bros	Analysis shows iron. Bailed at 15 GPH
Re-478	364NMKL	SHLE	16	16	00-00-25	S	.5	Germantown	Hard water reported, well in cemetery
Re-479	364NMKL	SHLE	15.3	15	00-00-25	S	1	Grmntn Artsn	Water table at rock surface
Re-480	364NMKL	SHLE	14.6	12	00-00-25	S	--	Germantown	Well contaminated from nearby cesspool
Re-482	111ALVM	SDGL	0	--	--	-	--	--	WL 11 ft reported
Re-483	377SCCK	SHLE	28	9	00-00-26	-	1.5	Grmntn Artsn	--
Re-484	377SCCK	SHLE	6	18	00-00-26	R	.5	Grmntn Artsn	Moderate hardness reported
Re-485	377SCCK	SHLE	95	23	00-00-28	R	.5	Grmntn Artsn	Moderate hardness reported
Re-486	377SCCK	SHLE	8	18	00-00-26	R	1.5	Germantown	Abandoned-contaminated from surface drainage
Re-487	377SCCK	SHLE	15	15	00-00-26	R	10	Grmntn Artsn	1 gpm @ 21 ft, 3 gpm @ 28 ft, 10 gpm @ 50 ft
Re-488	112LAKE	SAND	--	145	00-00-25	S	--	Grmntn Artsn	Well abandoned because of poor yield
Re-490	112GLCD	SAND	151	51	00-00-25	S	1	Grmntn Artsn	Well ends in black sand; not used

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.
A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-491	423617073430701	423617	0734310	Corliss Reality Co.	250	H	00-00-27	C	6	130	D	52	X
Re-492	423538073422001	423536	0734220	Geir, Frank	280	H	00-00-27	C	6	175	R	100	X
Re-493	423426073412101	423426	0734121	Meimelstein, Morris	370	H	00-00-30	C	6	80	S	40	X
Re-494	423033073380601	423035	0733803	Lexemus, C.	440	H	00-00-37	C	6	118	S	22	X
Re-516	423236073373401	423236	0733734	Rice, Thomas	440	H	00-00-46	C	6	124	D	15	X
Re-517	423242073374701	423242	0733749	Herring, John W.	450	H	00-00-46	C	6	286	O	135	X
Re-518	423150073384201	423150	0733842	School District No. 5	530	T	--	C	6	100	O	--	X
Re-519	423202073380401	423202	0733804	Kells, Edward	530	S	--	C	6	166	D	--	X
Re-531	423203073441401	423206	0734406	Hoffman, Louis W.	165	U	00-00-37	C	6	210	D	124	X
Re-532	423158073443301	423158	0734430	Bristo, Earl	175	H	00-00-18	C	6	57	D	6	X
Re-533	423429073422101	423429	0734221	Wright, Leon J.	270	H	00-00-39	C	6	96	D	6	X
Re-534	423435073422101	423435	0734221	Burns, Austin F.	255	H	--	C	6	96	D	7	X
Re-535	423404073421601	423404	0734219	Stammel, Harry	285	H	00-00-41	C	6	120	D	30	X
Re-536	423054073421501	423054	0734212	Dederick, Herman	260	H	00-00-42	C	6	101	D	--	X
Re-538	423243073413801	423243	0734141	Van Campen, Jacob	300	H	00-00-33	C	6	112	D	112	O
Re-539	423255073402101	423255	0734021	Hallenbeck, H.E.	350	C	00-00-40	C	6	108	D	45	X
Re-540	423325073375101	423325	0733751	Babcock, Ervin	440	H	--	C	6	220	D	--	X
Re-541	423341073381001	423341	0733810	Perry, Ernest J.	450	H	00-00-39	C	6	154	D	50	X
Re-544	423436073412401	423436	0734124	Towse, Dr. Robert C.	375	H	05-00-46	C	--	130	S	--	X
Re-545	423113073375701	423113	0733757	Panitch, Dr. M.E.	420	H	07-00-39	C	6	200	D	17	X
Re-548	423554073384801	423357	0734100	Bambrick, Monica	360	H	00-00-42	C	--	150	D	--	X
Re-549	423357073405801	423554	0733852	Schacht, Franklin	485	H	00-00-39	C	6	93	D	5	X
Re-550	423712073413701	423712	0734148	Fredericks, George A.	340	H	00-00-40	C	6	100	D	45	X
Re-551	423604073422301	423604	0734228	East Greenbush School	265	P	00-00-39	C	8	105	D	75	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-491	364NMKL	SHLE	52	26	00-00-27	S	7	Grmntn Artsn	Fine sand over bedrock
Re-492	377SCCK	SHLE	100	66	00-00-27	R	--	--	Bailed at 4 gpm on completion
Re-493	377SCCK	SHLE	40	14	00-00-30	R	10	Germantown	Bailing at 10 gpm did not produce any DD
Re-494	377SCCK	SHLE	22	0	05-22-46	-	5	--	Water level at LSD, sometimes flows, very hard
Re-516	377SCCK	SHLE	15	17	00-00-46	R	4	Gardenier, L.	--
Re-517	377SCCK	SHLE	135	18	05-24-46	S	1.5	Gardenier, L.	--
Re-518	377SCCK	SHLE	--	--	--	-	--	Shortsleeves	Soft water reported
Re-519	377SCCK	SHLE	0	--	--	-	--	Shortsleeves	Second 90-ft well supplies residence
Re-531	364NMKL	SHLE	124	--	--	-	--	Hall & Co.	Well abandoned, no water, 30-ft dug well used
Re-532	364NMKL	SHLE	6	22	00-00-18	R	4	Grmntn Artsn	Moderate hardness reported
Re-533	377SCCK	SHLE	6	13	00-00-39	R	4.5	Hall & Co.	Very hard water reported
Re-534	377SCCK	SHLE	7	--	--	-	--	Hall & Co.	WL 13 ft, 3 gpm
Re-535	377SCCK	SHLE	30	13	00-00-41	R	6	Hall & Co.	--
Re-536	377SCCK	SHLE	3	30	00-00-42	R	4	Hall & Co.	0-3 Soil, 3-22 Shle, 22-63 Lmsn, 63-101 Shle
Re-538	112OTSH	GRVL	0	40	00-00-33	R	2	Hall & Co.	Very hard water repth, gravel 0-112 ft
Re-539	377SCCK	SLTE	45	22	00-00-40	R	3	Hall & Co.	Serves roadside diner
Re-540	377SCCK	LMSN	--	--	--	-	--	Hall & Co.	300 gpd, hard, well deepened from 151 to 220
Re-541	377SCCK	SHLE	50	29	00-00-39	R	1.25	Hall & Co.	Soft water, 1/3 gpm @ 115 ft, 1 gpm @ 135 ft
Re-544	377SCCK	SHLE	--	20	05-00-46	S	--	Hall & Co.	--
Re-545	377SCCK	SHLE	17	4	07-00-39	R	2	Stewart Bros	--
Re-548	377SCCK	SLTE	0	9	00-00-42	R	3	Hall & Co.	Hard water reported, bedrock at land surface
Re-549	377SCCK	SLTE	5	14	00-00-39	R	15	Hall & Co.	Very hard water reported
Re-550	377SCCK	SHLE	45	12	00-00-40	R	2.5	Hall & Co.	Hard water reported
Re-551	377SCCK	SLTE	75	35	00-0039	E	17	Hall & Co.	--

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of con- struction	Method con- structed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-552	423518073420801	423518	0734208	East Greenbush School Dist. 3	342	T	00-00-15	C	6	82	D	14	X
Re-553	423438073422101	423438	0734224	Andrews, D.B.	250	H	00-00-37	C	6	103	D	70	X
Re-554	423456073413601	423456	0734136	Ketty, Robert	370	H	00-00-33	C	--	120	D	--	X
Re-555	423442073412701	423442	0734127	Hans, William	330	H	00-00-47	C	6	45	O	3	X
Re-556	423444073405301	423444	0734058	Zimmerman, Roy	360	H	00-00-39	C	6	45	D	45	O
Re-557	423432073412101	423432	0734121	Brodbeck, Elizabeth	370	H	00-00-34	C	6	104	D	22	X
Re-558	423430073412101	423430	0734121	Brodbeck, Elizabeth	370	H	00-00-32	C	6	100	D	16	X
Re-559	423432073411801	423427	0734118	Henniger, Elmer F.	355	H	00-00-40	C	6	140	D	14	X
Re-560	423520073414901	423520	0734149	Roads, Mrs. Orange	355	H	00-00-33	C	6	75	D	14	X
Re-561	423513073415101	423506	0734157	Galer, Deforest I.	350	H	00-00-40	C	6	220	D	45	X
Re-562	423513073415401	423457	0734144	Eldredge, Donald	360	H	00-00-39	C	6	76	D	20	X
Re-563	423510073415001	423500	0734147	Van Schaick, Francis A.	360	H	00-00-40	C	6	98	D	29	X
Re-564	423459073414601	423459	0734146	Aldrich, Donald	360	H	00-00-39	C	6	89	D	25	X
Re-565	423122073391301	423122	0733913	Mead, Prescott Jr.	490	H	00-00-43	C	6	114	D	14	X
Re-598	423136073431101	423134	0734306	Friend, Elizabeth	245	H	09-00-44	C	8	145	D	64	X
Re-623	423015073460001	423015	0734553	Comingo, John	30	U	00-00-25	C	6	232	D	70	X
Re-627	423630073403401	423032	0734034	Recker, Robert	330	H	00-00-46	C	6	130	D	30	X
Re-628	423116073405601	423116	0734056	Sheehy, Frank	310	C	--	C	6	90	D	75	X
Re-633	423209073423601	423209	0734236	Goold, Bertha	290	H	00-00-11	C	6	115	D	115	O
Re-634	423102073444601	423102	0734440	Morgan, Michael J.	170	H	09-12-21	C	6	130	D	98	X
Re-641	423313073444201	423313	0734442	Vandewall, Wm.	30	H	--	D	--	20	O	--	W
Re-642	423332073443901	423332	0734439	Becker, John	95	H	--	C	--	300	O	--	X
Re-646	423457073380501	423436	0733808	Steinberg, Sam	570	S	--	C	6	180	O	10	X
Re-647	423447073382901	423447	0733829	Lout, G.	575	H	--	D	--	20	O	20	W

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-552	377SCCK	SHLE	14	--	--	-	--	Germantown	Site now used as Community Bldg.
Re-553	377SCCK	SHLE	70	28	00-00-37	R	3	Hall & Co.	Soft water reported
Re-554	377SCCK	SLTE	0	18	00-00-33	R	10	Hall & Co.	Existing well deepened from 78 to 120 ft
Re-555	377SCCK	SHLE	3	--	--	-	--	--	QW analysis in Bulletin GW-21
Re-556	112OTSH	SDGL	0	19	00-00-39	R	5	Hall & Co.	Hard water, iron reported
Re-557	377SCCK	SHLE	22	22	00-00-34	R	2.5	Hall & Co.	Very hard water reported
Re-558	377SCCK	SLTE	16	20	00-00-32	R	3.5	Hall & Co.	--
Re-559	377SCCK	SHLE	14	25	00-00-40	R	2	Hall & Co.	Hard water reported
Re-560	377SCCK	SLTE	14	--	--	-	7	Hall & Co.	Soft water reported
Re-561	377SCCK	SHLE	45	47	00-00-40	R	1.5	Hall & Co.	Moderate hardness reported
Re-562	377SCCK	SHLE	20	--	--	-	--	Hall & Co.	3 gpm, hardwater reported
Re-563	377SCCK	SHLE	29	13	00-00-40	E	5	Hall & Co.	--
Re-564	377SCCK	SHLE	25	21	00-00-39	R	5	Hall & Co.	--
Re-565	377SCCK	SHLE	14	11	00-00-43	R	10	Hall & Co.	Very hard water reported
Re-598	364NMKL	SHLE	64	25	09-00-44	R	3	Stewart Bros.	Drillers log: 0-64 till, 64-145 shale
Re-623	364NMKL	SHLE	70	--	11-25-46	-	0	Grmntn Artsn	Dry, well abandoned
Re-627	377SCCK	SHLE	30	--	--	-	3.5	Shaver	QW analysis in Bulletin GW-21, Table 6
Re-628	377SCCK	SHLE	75	20	11-26-46	R	13	Jensen	Soft water reported
Re-633	112OTSH	SDGL	0	--	--	-	--	McQueen	Log ends at 88 ft, well depth uncertain
Re-634	364NMKL	SHLE	97	90	09-12-21	R	4	McQueen	Driller: blue clay, sand, gravel 0-97 ft
Re-641	112TILL	TILL	--	15	11-26-46	R	--	--	Very hard water reported
Re-642	364NMKL	SHLE	--	80	11-26-46	R	--	--	H2S reported
Re-646	377SCCK	SHLE	10	--	--	-	--	Jensen, R.	Soft water, could not reduce DD by bailing
Re-647	377SCCK	SHLE	0	14	11-00-46	R	--	--	Very soft water reported

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of con- struction	Method con- structed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-649	423344073380501	423344	0733805	Auer, Thomas	460	H	--	C	6	132	O	27	X
Re-660	423706073392301	423711	0733923	Hardgrove, Edward	450	U	00-00-00	D	48	15	O	15	W
Re-664	423222073404201	423222	0734042	Rose, Frank	350	H	00-00-32	C	6	90	D	23	X
Re-701	423532073423701	423532	0734237	East Greenbush-Little League Site	261.87	U	05-00-59	C	12	95.5	S	82.0	S
Re-702	423225073430501	423225	0734305	U.S. Geological Survey	175	U	10-21-65	B	2.50	16.3	S	13.3	T
Re-703	423534073423401	423534	0734234	U.S. Geological Survey	275	U	10-14-82	A	6	80.0	G	79.6	S
Re-710	423052073415401	423052	0734154	Knickerbocker, Wm.	260	H	--	C	4	46	S	25	X
Re-711	423137073405201	423137	0734052	Wernig, J. Sr.	310	U	--	D	18	21.5	S	22	W
Re-712	423127073410001	423127	0734100	Davis, Charles H., Sr.	290	H	00-00-56	D	36	13.7	S	13.7	-
Re-713	423131073412801	423131	0734128	Champagne, W.	290	H	--	C	4	69.6	S	69.6	O
Re-714	423157073424601	423157	0734246	Haggerty, Robert	240	H	--	D	--	3.05	S	3.05	W
Re-715	423137073430001	423137	0734300	Morgen, W. K.	240	H	--	C	6	80.3	S	31.0	X
Re-716	423132073423301	423132	0734233	Cantine, Walt	250	H	--	C	6	95.1	S	95.1	O
Re-717	423117073423101	423117	0734231	Tomko, Wasco	250	H	--	D	12	12	S	11.8	O
Re-718	423108073424401	423108	0734244	Walsh, Mrs. C.	245	H	--	D	36	9.6	S	9.6	W
Re-719	423241073403201	423241	0734032	Payne, Floyd	350	H	00-00-40	C	6	71.2	S	--	X
Re-720	423218073405201	423218	0734052	Hogle, J.	345	H	00-00-58	C	--	165	S	--	X
Re-721	423211073404601	423211	0734046	Frazee, William	340	H	--	D	42	12.7	S	12.7	W
Re-722	423251073401601	423251	0734016	Beverwick, Mr. E.	350	H	--	C	6	197	R	--	X
Re-723	423259073411601	423259	0734116	Van Kampen, Jacob	260	S	--	D	30	10.1	R	10.1	O
Re-724	423258073423601	423258	0734236	Roney, Mr. L.	275	H	04-29-60	C	4	89.9	S	87	X
Re-725	423258073423401	423258	0734234	Bohus, Joseph	280	H	--	C	4	89.3	S	--	X
Re-726	423212073425001	423212	0734250	Bolt, Mr. N.	250	H	--	D	36	13.5	S	13.5	W
Re-727	423207073424101	423207	0734241	Rogers, Mr. Lewis	270	H	01-01-52	C	6	218	R	--	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-649	377SCCK	SHLE	27	--	--	-	10	Goold Bros.	SWL is 26 ft, well bailed at 5 gpm at 90 ft
Re-660	112ICNC	SDGL	0	--	--	-	--	--	USGS observation well
Re-664	377SCCK	SLTE	23	--	--	-	4	Hall & Co.	--
Re-701	112ICNC	SDGL	70	21.9	04-17-60	S	610	Hall & Co.	Test well, aquifer test data in Myrick Rept
Re-702	112LAKE	SAND	8	3.56	12-09--65	S	-	USGS	Discontinued as observation well 9/84
Re-703	112SDGV	SDGL	17	45.3	10-14-82	S	12	Ferraioli	QW sample taken during test pumping
Re-710	377SCCK	SHLE	25	11.7	09-07-60	S	--	Shaver	Tenant reports hard water, metallic taste
Re-711	112ICNC	SDGL	0	15.9	07-13-60	S	--	--	Nearby drilled well used for water-no info
Re-712	112OTSH	SDGL	--	3.20	07-13-60	S	--	--	Must boil water before drinking-owner
Re-713	112OTSH	GRVL	0	19.6	08-04-60	S	--	Shaver	--
Re-714	112LAKE	SDST	0	.65	08-09-60	S	--	--	--
Re-715	377SCCK	SHLE	26	24.4	08-09-60	S	--	Shaver	--
Re-716	112GLCD	GRVL	0	15.6	08-09-60	S	--	Seaburger	Well bailed at more than 30 gpm when drilled
Re-717	112LAKE	SAND	3	8.03	09-08-60	S	--	--	Owner reports can pump dry at 2-3 gpm
Re-718	112LAKE	SDGL	0	6.53	09-08-60	S	--	--	--
Re-719	377SCCK	SHLE	11.4	16.2	07-01-60	S	--	Shaver	Well drilled in abandoned dug well
Re-720	377SCCK	SHLE	0	44.2	07-01-60	S	--	Shortsleeves	--
Re-721	112OTSH	SDGL	.0	8.84	08-16-60	S	--	--	Bedrock at 13 ft
Re-722	377SCCK	SHLE	--	31.1	08-16-60	S	--	Gardenier	Well deepened in 1959 to increase yield
Re-723	111ALVM	GRVL	0	7.32	07-17-60	S	--	--	Well may be in direct connection with stream
Re-724	377SCCK	SHLE	87	40.1	04-29-60	S	8.50	Shaver	--
Re-725	377SCCK	SHLE	0	77.7	04-29-60	S	--	Shaver	Well may also tap sand & gravel above rock
Re-726	112LAKE	SDST	0	2.00	05-09-60	S	--	--	--
Re-727	364NMKL	SHLE	--	109	08-09-60	S	--	Seaburger	--

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.
A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of con- struction	Method con- structed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-728	423252073424101	423252	0734241	Browning, Mr. Robert	270	H	--	D	32	23.2	S	23.2	W
Re-729	423246073423501	423246	0734235	Barton, Mr. Lester	205	S	--	D	19	8.60	S	8.6	W
Re-730	423239073430401	423239	0734304	Marquette	240	H	01-01-51	D	40	14.7	S	14.7	O
Re-731	423217073430201	423217	0734302	Buck, MrsL Leah	200	H	--	D	30	29.7	S	29.7	W
Re-732	423235073432801	423235	0734328	Dimura, Joseph	220	H	--	D	30	6.80	S	5.36	C
Re-733	423255073435101	423255	0734351	Finkle, R.A.	235	H	--	C	6	80.2	S	10.0	X
Re-734	423231073431301	423231	0734313	Lewis, Robert	220	H	09-09-60	D	18	10.0	S	10.0	O
Re-735	423225073432001	423225	0734320	Loeffler, William	220	H	01-01-30	D	18	12.4	S	12.4	O
Re-736	423225073432002	423225	0734320	Loeffler, William	220	H	--	D	36	11.9	S	11.9	W
Re-737	423218073433501	423218	0734335	Ashby, Mrs. G.A.	210	H	01-01-57	C	4	133	S	30	X
Re-738	423319073403801	423319	0734038	Hoos, W.J.	295	H	00-00-44	D	26	15.9	S	15.9	O
Re-739	423327073404701	423327	0734047	Wentworth, C.	325	H	00-00-50	C	4	214	O	107	X
Re-740	423316073404601	423316	0734046	Holweg, Arthur	295	H	00-00-56	C	6	20.4	S	20.4	P
Re-741	423326073414101	423326	0734141	Vankampen, Edward	360	U	--	D	36	11.0	S	11.0	-
Re-742	423343073414901	423343	0734149	Byers, Edward & Thomas	350	H	03-00-60	C	6	92.3	S	53	X
Re-743	423346073410601	423346	0734106	Wood, R.	355	H	00-00-59	C	6	84.8	S	45	X
Re-744	423301073411601	423301	0734116	Vankampen, Jacob	270	H	--	D	30	14.4	S	14.4	W
Re-745	423342073410801	423342	0734108	Schurrman, H.	355	H	--	C	6	68.6	S	35	X
Re-746	423306073413101	423306	0734131	Miller, Robert	260	H	00-00-60	C	6	81.2	R	--	X
Re-747	423306073413102	423306	0734131	Miller, Robert	260	H	08-12-60	D	30	10.3	S	10.3	W
Re-748	423342073422301	423342	0734223	Twedall, Jenny	270	H	00-00-45	D	24	11.5	S	11.5	O
Re-749	423330073422401	423330	0734224	Winters, Frank	280	H	00-00-50	C	6	67	O	22	X
Re-750	423326073421601	423326	0734216	Lanford, Oscar	340	H	--	C	6	112	S	70	X
Re-751	423323073422601	423323	0734226	Hyde, Clinton	285	H	--	C	6	221	S	--	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-728	112GLCD	SDGL	0	21.6	08-15-60	S	--	--	--
Re-729	111ALVM	ALVM	0	4.71	08-16-60	S	--	--	Bedrock reported at bottom of dug well
Re-730	112GLCD	SDGL	0	10.6	05-02-60	S	--	--	--
Re-731	112LAKE	SAND	0	25.0	08-09-60	S	--	--	--
Re-732	112LAKE	SDST	0	4.06	09-08-60	S	--	--	--
Re-733	364NMKL	SHLE	3	10.5	09-08-60	S	--	Hall & Co.	Well bailed at 3-5 gpm when drilled
Re-734	112LAKE	SAND	0	5.63	09-09-60	S	--	--	--
Re-735	112LAKE	SDST	0	6.97	09-09-60	S	--	--	2 wells on property, water softener used
Re-736	112LAKE	SAND	0	8.05	09-09-60	S	--	--	Owner alternates using this well and Re-735
Re-737	364NMKL	SHLE	30	46.5	09-09-60	S	--	Shaver	Water softener used
Re-738	111ALVM	SAND	0	8.57	07-08-60	S	--	--	--
Re-739	377SCCK	SHLE	102	37.8	07-13-60	S	1.0	Shaver	Well probably destroyed when Thruway built
Re-740	111ALVM	SDGL	0	13.7	07-17-60	S	10	Seaburger	--
Re-741	112TILL	TILL	0	4.70	04-15-60	S	--	--	Well abandoned
Re-742	377SCCK	SHLE	47	37.9	04-15-60	S	15	Shortsleeves	Quick recovery to SWL after bailing dry
Re-743	377SCCK	SHLE	40	29.8	07-06-60	S	--	Shortsleeves	Model home when inventoried in 1960
Re-744	111ALVM	SDGL	0	13.3	07-17-60	S	--	--	--
Re-745	377SCCK	SHLE	30	33.1	08-09-60	S	--	Gardenier	Well bailed at 30 gpm when drilled
Re-746	377SCCK	SHLE	--	5.22	08-12-60	S	--	Gardenier	--
Re-747	111ALVM	SDGL	0	6.34	08-12-60	S	--	--	Well abandoned. Owner now uses Re-746
Re-748	112GLCD	SDGL	0	8.04	04-15-60	S	--	--	Bedrock at 11.5 ft
Re-749	377SCCK	SHLE	22	--	--	-	6	Shaver	Very soft water reported, faint H2S odor
Re-750	377SCCK	SHLE	70	66.6	04-15-60	S	--	--	Water reported to turn black occasionally
Re-751	377SCCK	SHLE	--	54.8	04-29-60	S	--	--	Owner reports turbid water

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of con- struction	Method con- structed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-752	423302073422401	423302	0734224	Jorden, Harold	250	H	--	C	6	72.3	S	--	X
Re-753	423432073414701	423432	0734147	Haswell, Richard	355	H	00-00-57	C	6	72.9	S	--	X
Re-754	423442073414601	423442	0734146	Goodman, J.D.	350	H	00-00-57	C	6	121	S	--	X
Re-755	423443073415101	423443	0734151	O'Hara, William	350	H	--	C	6	47.3	S	32	X
Re-756	423419073412001	423419	0734120	Sovisky	360	H	00-00-50	C	6	43.5	S	--	X
Re-757	423420073412201	423420	0734122	Sovisky, Mr.	350	H	--	C	6	18.3	S	18.3	O
Re-758	423422073412401	423422	0734124	Sovisky	355	H	--	C	6	141	S	--	X
Re-759	423403073421901	423403	0734219	Hartnegel, Carl	280	H	--	C	6	56.3	S	15	X
Re-760	423404073421602	423404	0734216	Hartnagel, Carl	290	H	00-00-55	D	30	20.4	S	20.4	O
Re-761	423455073421101	423455	0734211	Catino, S.	320	H	05-02-60	C	6	101	S	--	X
Re-762	423547073415101	423547	0734151	Wooding	335	H	00-00-20	C	6	73.7	S	--	X
Re-763	423515073412701	423515	0734127	Goss, H.	450	H	06-00-60	C	6	131	S	58	X
Re-764	423505073412801	423505	0734128	Goss	460	H	07-07-60	C	6	184	S	45	X
Re-766	423504073421301	423504	0734213	Griffin, Francis	290	H	--	C	6	50.8	S	35	X
Re-767	423552073420401	423552	0734204	Beuth, Phillip	280	H	00-00-57	C	6	65.7	S	--	X
Re-768	423554073421201	423554	0734212	Jones, Milton	265	H	00-00-55	C	--	91.1	S	--	X
Re-769	423559073420301	423559	0734203	Roher, Donald	270	H	00-00-58	C	6	125	S	--	X
Re-770	423548073420301	423548	0734203	Harrington, Ronald	280	H	03-00-60	C	6	41.9	S	35	X
Re-771	423530073424701	423530	0734247	Canaday, Bernard L.	280	H	--	C	6	91.8	S	--	X
Re-772	423523073425301	423523	0734253	Vanloan, Dale	275	H	--	C	6	134	S	--	X
Re-773	423507073425201	423507	0734252	Thiele, Karl	260	H	--	C	6	85.6	S	--	X
Re-774	423532073423702	423532	0734237	East Greenbush-Little League Site	261.87	U	05-00-59	C	6	90	R	90.0	O
Re-780	423146073390901	423146	0733909	Nassau Veterinary Clinic	480	C	09-00-92	A	6	300	D	40	X
Re-781	423324073373801	423324	0733738	Phillips, Thomas	450	H	--	C	--	146	R	--	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-752	377SCCK	SHLE	--	38.0	08-15-60	S	--	--	--
Re-753	377SCCK	SDGL	0	9.20	05-08-60	S	--	Shaver	Bedrock reported at 40 ft
Re-754	377SCCK	SHLE	0	18.6	05-08-60	S	--	--	--
Re-755	377SCCK	SHLE	27	19.5	05-08-60	S	--	Schaffer	Bailed at 18 gpm when drilled
Re-756	377SCCK	SHLE	0	14.8	07-07-60	S	--	Shortsleeves	--
Re-757	112ICNC	SDGL	0	5.62	07-07-60	S	--	Shortsleeves	--
Re-758	377SCCK	SHLE	0	9.96	07-07-60	S	--	Shortsleeves	--
Re-759	377SCCK	SHLE	7	8.00	05-02-60	S	--	Gardenier	Owner reports well flows at times in spring
Re-760	112GLCD	SDGL	0	12.8	05-02-60	S	--	Owner	--
Re-761	377SCCK	SHLE	0	39.2	05-02-60	S	5	--	--
Re-762	377SCCK	SHLE	0	17.2	06-29-60	S	--	--	Owner reports FeOH in water
Re-763	377SCCK	SHLE	53	46.7	07-06-60	S	--	Shortsleeves	No pump in well when measured-new home
Re-764	377SCCK	SHLE	40	48.4	07-08-60	S	7.5	Shortsleeves	No pump in well when measured-new home
Re-766	377SCCK	SHLE	30	33.3	05-02-60	S	--	--	--
Re-767	377SCCK	SHLE	0	17.1	06-29-60	S	--	Seaburger	--
Re-768	377SCCK	SHLE	0	17.3	06-29-60	S	--	Seaburger?	--
Re-769	377SCCK	SHLE	--	27.2	06-30-60	S	--	Shortsleeves	Water becomes turbid when large amounts used
Re-770	377SCCK	SHLE	35	3.89	06-30-60	S	--	Seaburger	Bedrock at 35 ft
Re-771	377SCCK	SHLE	0	48.4	07-05-60	S	--	Shortsleeves	--
Re-772	377SCCK	SHLE	--	45.7	07-05-60	S	--	--	Water softener used
Re-773	377SCCK	SHLE	0	18.8	07-05-60	S	--	--	--
Re-774	112ICNC	SDGL	70	25.1	05-00-59	R	40	Hall & Co	DD Data in Myrick Rept
Re-780	377SCCK	SHLE	25	35	09-00-92	R	5	Ekel, R.	Bedrock at 25 ft
Re-781	377SCCK	SHLE	--	25.3	06-05-92	S	4	--	New pump installed 6-5-92

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of con- struction	Method con- structed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-782	423638073422401	423638	0734224	Rust, T.	270	H	--	D	29	15.7	S	15.7	O
Re-783	423634073422801	423634	0734228	Rosbrook, Mrs. P.	260	H	00-00-49	D	30	15.5	S	15.5	O
Re-784	423627073421701	423627	0734217	Kingston, Perc	260	H	00-00-40	D	26	13.3	S	13.3	O
Re-785	423627073421702	423627	0734217	Kingston, Perc	260	U	00-00-40	D	25	13.8	S	13.8	O
Re-786	423628073421901	423628	0734219	Bell, Walter	270	H	00-00-51	D	24	13.7	S	14	O
Re-788	423637073421901	423637	0734219	Duprey, Kathleen	280	H	--	D	24	22.4	S	23	C
Re-789	423629073422601	423629	0734226	Ross, Frank H.	270	H	--	D	24	23.8	S	23.8	O
Re-790	423623073422501	423623	0734225	Andriano, F.	270	H	--	D	24	17.2	S	17.2	O
Re-791	423626073433301	423626	0734333	Town E. Greenbush, Laraway Site	224.23	U	04-00-59	C	8	80.5	R	70	S
Re-792	423627073433301	423627	0734333	Town E. Greenbush, Laraway Site	223.95	U	04-00-59	C	6	102	O	102	O
Re-793	423627073433601	423627	0734336	Town E. Greenbush, Laraway Site	223.09	U	04-00-59	C	6	80	O	80	O
Re-794	423626073433101	423626	0734331	Town E. Greenbush, Laraway Site	222.18	U	04-00-59	C	6	115	R	115	O
Re-795	423626073433302	423626	0734333	USGS-Laraway Site	230	U	11-14-60	B	1.25	16.7	S	15.2	T
Re-796	423720073413801	423720	0734138	Kemmy, Joseph F.	320	H	--	D	36	16.4	S	20	W
Re-798	423720073420401	423720	0734204	Gannon, Richard	340	H	00-00-53	C	6	172	S	20	X
Re-799	423709073420301	423709	0734203	Sliter, John W.	320	H	00-00-47	C	6	102	S	--	X
Re-800	423707073423001	423707	0734230	Danner, Joseph	260	H	--	C	6	119	S	--	X
Re-801	423707073421301	423707	0734213	Longacker, Robert	320	H	00-00-58	C	6	228	S	80	X
Re-802	423703073423601	423703	0734236	Hepinstall, George	210	H	00-00-56	C	6	82.8	S	--	X
Re-803	423710073425201	423710	0734252	Newbury, Robert E.	280	H	00-00-50	C	6	123	S	--	X
Re-804	423726073420601	423726	0734206	Sahxby, F.	330	H	08-18-60	C	6	102	S	22	X
Re-805	423051073414001	423051	0734140	Russel, Kent	265	H	--	C	6	63.9	S	30	X
Re-806	423538073422901	423538	0734229	East Greenbush-Little League Site	244.67	U	05-00-59	C	6	80	D	80	O
Re-807	423532073423101	423532	0734231	East Greenbush-Little League Site	259.74	U	05-00-59	C	6	102	R	102	O

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-782	112LAKE	SAND	0	9.53	06-23-60	S	--	--	--
Re-783	112LAKE	SAND	0	11.4	06-23-60	S	--	--	Water softener used
Re-784	112LAKE	SAND	0	8.06	06-23-60	S	--	--	--
Re-785	112LAKE	SAND	0	9.23	06-23-60	S	--	--	--
Re-786	112LAKE	SAND	0	9.05	06-23-60	S	--	Hall	Well abandoned
Re-788	112LAKE	SAND	0	18.9	06-27-60	S	--	--	--
Re-789	112LAKE	SAND	0	13.1	06-27-60	S	--	--	--
Re-790	112LAKE	SAND	0	11.2	06-27-60	S	--	--	Well deepened in summer of 1957
Re-791	112ICNC	SDGL	40	7.66	04-17-60	S	400	Hall & Co	Aquifer test in Myrick Rept
Re-792	112ICNC	SDGL	40	16.2	05-25-59	R	--	Hall & Co	DD plot & analysis in Myrick Rept
Re-793	112ICNC	SDGL	51	15.1	05-25-59	R	--	Hall & Co	DD plot of test data in Myrick Rept
Re-794	112ICNC	SDGL	53	14.5	05-25-59	R	--	Hall & Co	DD plot and analysis in Myrick Rept
Re-795	112LAKE	SDCI	0	5.66	11-19-60	S	--	USGS	USGS 1.25-inch observation well
Re-796	112ICNC	SDGL	0	13.2	06-22-60	S	--	--	Well fills with fine sand Well ends on shale.
Re-798	377SCCK	SHLE	20	18.1	06-21-60	S	--	Shortsleeves	Thin outwash s&g over bedrock
Re-799	377SCCK	SHLE	--	28.5	06-21-60	S	--	Seaburger	--
Re-800	377SCCK	SHLE	--	49.5	06-21-60	S	--	--	Hydrogen sulfide reported
Re-801	377SCCK	SHLE	--	47.9	06-22-60	S	1.5	Shaver	--
Re-802	377SCCK	SHLE	--	30.5	06-28-60	S	--	Johnston, R.	Water softener used
Re-803	377SCCK	SHLE	25	31.1	06-28-60	S	60	Seaburger	--
Re-804	377SCCK	SHLE	12	27.8	08-19-60	S	4	Shortsleeves	No pump in well when measured-new house
Re-805	377SCCK	SHLE	30	4.16	09-07-60	S	--	Gardenier	Well user Van Hosen Hgts Water Works Co
Re-806	112ICNC	SDGL	40	7.93	05-00-59	R	20	Hall & Co	DD plot in Myrick Rept
Re-807	112ICNC	SDGL	40	21.2	05-00-59	R	40	Hall & Co	DD plot in Myrick Rept

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-808	423530073423501	423530	0734235	East Greenbush-Little League Site	259.90	U	05-00-59	C	6	90	R	90	O
Re-810	423525073421902	423525	0734219	East Greenbush Water & Improve Co	270	P	--	C	--	--	-	--	S
Re-811	423541073431801	423541	0734318	East Greenbush, Witbeck Site 1	216.08	U	09-00-59	C	12	105	D	90	S
Re-812	423541073431802	423541	0734318	East Greenbush, Witbeck Site 1	215.71	U	09-00-59	C	6	99	R	99	X
Re-813	423539073431801	423539	0734318	East Greenbush, Witbeck Site 1	219.16	U	09-00-59	C	6	99	R	99	O
Re-814	423535073431701	423535	0734317	East Greenbush, Witbeck Site 1	221.47	U	09-00-59	C	6	96	R	96	O
Re-815	423504073430401	423504	0734304	Sultan, Peter	242	H	04-00-60	C	6	130	R	80	X
Re-816	423635073414201	423635	0734142	Lindenmeyer, F. J.	340	H	--	D	--	4.5	S	4.5	W
Re-817	423635073414301	423635	0734143	Lindenmeyer, F. J.	330	H	--	D	--	17.3	S	17.3	W
Re-818	423603073415101	423603	0734151	Templeton, Hugo	295	H	--	C	6	72.4	S	--	X
Re-819	423659073420801	423659	0734210	Harrington, Royal	305	H	00-00-32	C	6	112	S	--	X
Re-820	423650073421301	423650	0734213	Haselton, E. W.	280	H	--	D	48	16.8	S	16.8	W
Re-821	423639073421301	423639	0734213	Everson, C. G.	290	H	--	C	6	88.7	S	80	X
Re-822	423107073422901	423107	0734229	Walsh, Mr.	245	H	--	C	6	114	O	96	-
Re-823	423103073412501	423104	0734126	Stockman, James	285	H	--	C	6	48	S	48	O
Re-824	423119073411101	423131	0734108	Bourdion, A.P.	305	H	09-08-60	C	4	66.3	S	66.3	O
Re-825	423224073404201	423224	0734042	Smith, T.	350	H	--	C	6	83.8	S	--	X
Re-826	423340073405401	423340	0734054	Belliveau, Leo	355	P	--	C	6	220	S	--	X
Re-827	423122073411201	423121	0734112	Battisti Water Supply Corp.	290	P	00-00-48	C	8	36	O	36	S
Re-828	423122073411202	423121	0734112	Battisti Water Supply Corp.	290	P	00-00-48	C	8	36	O	36	S
Re-829	423411073420901	423411	0734209	Hendrichs	350	H	00-00-55	C	6	162	S	20	X
Re-830	423325073414301	423325	0734143	Vankampen, Edward	350	-	00-00-46	C	6	240	R	--	-
Re-831	423133073411101	423133	0734111	Beaudoin, A. P.	320	H	07-00-60	C	4	81	O	81	O
Re-1008	423240073405001	423240	0734050	Unknown	350	H	00-00-79	C	6	226	R	72	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-808	112ICNC	SDGL	70	21.6	05-00-59	R	20	Hall & Co	DD plot in Myrick Rept
Re-810	112ICNC	--	--	--	--	-	25	Shaver	See well 423527073421701, Re-475
Re-811	112ICNC	--	84	4.6	04-17-60	S	200	Hall & Co	Aquifer test in Myrick Rept
Re-812	112ICNC	--	84	7.35	10-07-59	R	--	Hall & Co	Recovery plot in Myrick Rept
Re-813	112ICNC	SDGL	72	12.6	10-07-59	R	--	Hall & Co	DD plot and analysis in Myrick Report
Re-814	112ICNC	SDGL	71	12.6	10-07-59	R	--	Hall & Co	Drawdown plot in Myrick Rept
Re-815	377SCCK	SHLE	75	14	04-00-60	R	5.2	Shortsleeves	Soft water reported
Re-816	112TILL	TILL	0	1.43	06-27-60	S	--	--	Well measures 1.5 ft x 6 ft x 4.5 ft deep
Re-817	112TILL	TILL	0	2.09	06-27-60	S	--	--	Well used infrequently
Re-818	377SCCK	SHLE	--	10.0	06-29--60	S	--	--	--
Re-819	377SCCK	SHLE	0	26.9	06-22-60	S	--	Kornetzki	--
Re-820	112LAKE	SAND	--	11.8	06-22-60	-	--	--	Fine sand needed to be cleaned from well
Re-821	377SCCK	SHLE	80	71.1	06-22-60	S	--	Shortsleeves	Bedrock at 80 ft
Re-822	377SCCK	SHLE	0	--	--	-	--	Shaver	Depth to bedrock reported at 91 ft
Re-823	112GLCD	SDGL	0	25.6	09-07-60	S	15	Kaiser	Well taps Pleistocene beach sand & gravel
Re-824	112ICNC	SAND	0	40.0	09-08-60	S	5	Shaver	Not occupied in 1960. Shale at 70 ft
Re-825	377SCCK	SHLE	20	1.84	07-00-60	S	--	--	--
Re-826	377SCCK	SHLE	--	66.4	08-15-60	S	--	Shortsleeves	Serves trailer park, bailed at 12 gpm
Re-827	112OTSH	SDGL	0	--	--	-	--	Seaburger	Bedrock reported at 36 ft
Re-828	377SCCK	SHLE	20	49	--	-	--	Seaburger	Bedrock reported at 36 ft
Re-829	377SCCK	SHLE	--	--	05-08-60	S	--	--	Water softener used
Re-830	112ICNC	SDGL	0	--	--	-	--	--	--
Re-831	377SCCK	SHLE	62	61	--	-	5.0	Shaver	--
Re-1008	377SCCK	SHLE	--	38.0	00-00-79	R	5.5	--	Potable water reported

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of con- struction	Method con- structed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-1009	423240073405601	423240	0734056	Unknown	350	H	00-00-77	C	6	249	D	67	X
Re-1010	423240073405901	423240	0734059	Unknown	350	H	00-00-77	C	6	189	D	88	X
Re-1012	423242073404101	423242	0734041	Unknown	340	H	00-00-69	C	6	300	D	46	X
Re-1013	423242073403801	423242	0734038	Unknown	340	H	00-00-70	C	6	187	R	40	X
Re-1014	423242073404201	423242	0734042	Unknown	330	H	00-00-69	C	6	315	D	47	X
Re-1015	423243073405401	423243	0734054	Unknown	340	H	00-00-77	C	6	234	D	64	X
Re-1016	423244073405301	423244	0734053	Unknown	315	H	00-00-80	C	6	279	D	52	X
Re-1017	423249073404301	423249	0734043	Unknown	330	H	00-00-76	C	6	219	R	40	X
Re-1029	423329073412801	423329	0734128	Unknown	353	H	00-00-71	C	6	121	D	84.5	X
Re-1030	423332073411901	423332	0734119	Unknown	340	H	00-00-69	C	6	102	D	51	X
Re-1031	423332073412701	423332	0734127	Unknown	350	H	00-00-69	C	6	85	D	75	X
Re-1032	423338073411601	423338	0734116	Unknown	350	H	00-00-72	C	6	150	D	39	X
Re-1035	423349073415001	423349	0734150	Unknown	350	H	00-00-77	C	6	233	D	43	X
Re-1036	423350073414101	423350	0734141	Unknown	360	H	00-00-79	C	6	149	D	40	X
Re-1037	423350073415001	423350	0734150	Unknown	345	H	00-00-72	C	6	130	D	40	X
Re-1038	423353073413801	423353	0734138	Unknown	360	H	00-00-80	C	6	151	D	41	X
Re-1039	423353073415101	423353	0734151	Unknown	350	H	00-00-81	C	6	197	D	41	X
Re-1040	423355073414301	423355	0734143	Unknown	355	H	00-00-76	C	6	143	D	42	X
Re-1041	423355073415901	423355	0734159	Unknown	340	H	00-00-67	C	6	171	D	120	X
Re-1042	423358073415401	423358	0734154	Unknown	345	H	00-00-69	C	6	115	D	41	X
Re-1043	423359073415201	423359	0734152	Unknown	352	H	00-00-69	C	6	208	D	41	X
Re-1050	423357073420201	423357	0734202	Unknown	350	H	00-00-68	C	6	164	D	53	X
Re-1055	423407073420401	423407	0734204	Unknown	348	H	00-00-79	C	6	250	D	49	X
Re-1056	423408073420201	423408	0734202	Unknown	340	H	00-00-72	C	6	97	D	45	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-1009	377SCCK	SHLE	64	20	00-00-77	R	4	--	Potable water reported
Re-1010	377SCCK	SHLE	86	20	00-00-77	R	5	R	Potable water reported
Re-1012	377SCCK	SHLE	42	41	00-00-69	R	5	--	Potable water reported
Re-1013	377SCCK	SHLE	27	24	00-00-70	R	8	--	Potable water reported
Re-1014	377SCCK	SHLE	44	40	00-00-69	R	5.25	--	Potable water reported
Re-1015	377SCCK	SHLE	62	50	00-00-77	R	2.5	--	Potable water reported
Re-1016	377SCCK	SHLE	47	--	--	-	6.0	--	Potable water reported
Re-1017	377SCCK	SHLE	33	30	00-00-76	R	4.0	--	Potable water reported
Re-1029	377SCCK	SHLE	80	33	00-00-71	R	10	--	Potable water reported
Re-1030	377SCCK	SHLE	51	16	00-00-69	R	30	--	Potable water reported
Re-1031	377SCCK	SHLE	72	33	00-00-69	R	30	--	Potable water reported
Re-1032	377SCCK	SHLE	37	--	--	-	6	--	Potable water reported
Re-1035	377SCCK	SHLE	20	28	00-00-77	R	6.5	--	Potable water reported
Re-1036	377SCCK	SHLE	18	15	00-00-79	R	5.5	--	Potable water reported
Re-1037	377SCCK	SHLE	25	25	00-00-72	R	5	--	Potable water reported
Re-1038	377SCCK	SHLE	12	18	00-00-80	R	8	--	Potable water reported
Re-1039	377SCCK	SHLE	28	38	00-00-81	R	5.25	--	Potable water reported
Re-1040	377SCCK	SHLE	5	20	00-00-76	R	6.5	--	Potable water reported
Re-1041	377SCCK	SHLE	120	32	00-00-67	R	6	--	Potable water reported
Re-1042	377SCCK	SHLE	40	24	00-00-69	R	7.25	--	Potable water reported
Re-1043	377SCCK	SHLE	36	30	00-00-69	R	5	--	Potable water reported
Re-1050	377SCCK	SHLE	48	--	--	-	5	--	Potable water reported
Re-1055	377SCCK	SHLE	47	50	00-00-79	R	5	--	Potable water reported
Re-1056	377SCCK	SHLE	45	20	00-00-72	R	11	--	--

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of con- struction	Method con- structed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-1057	423449073421701	423448	0734218	Beach, Robert	275	H	--	C	6	178	S	58	X
Re-1071	423435073424101	423435	0734241	Lanford, O. E.	220	H	00-00-52	C	6	55	O	55	O
Re-1073	423009073413101	423009	0734131	Unknown	253	H	--	C	--	70	R	--	-
Re-1074	423010073411901	423010	0734119	Unknown	295	H	00-00-62	C	6	120	D	--	X
Re-1075	423050073413901	423050	0734139	Unknown	265	H	--	C	6	--	-	--	-
Re-1076	423051073415301	423051	0734153	Unknown	258	H	00-00-57	C	6	130	D	--	X
Re-1077	423052073415801	423052	0734158	Unknown	255	H	--	C	6	--	-	--	-
Re-1078	423055073413101	423055	0734131	Unknown	280	H	--	V	--	28	R	--	T
Re-1079	423047073423801	423047	0734238	Unknown	251	H	00-00-82	C	6	300	D	106	X
Re-1080	423017073443001	423017	0734430	Unknown	185	H	00-00-63	C	6	107	D	107	O
Re-1081	423103073413101	423103	0734131	Unknown	275	H	00-00-30	D	--	--	-	--	-
Re-1082	423110073412701	423110	0734127	Unknown	280	H	00-00-24	C	--	--	-	--	-
Re-1083	423112073412601	423112	0734126	Unknown	282	H	--	D	75	4	R	4	W
Re-1084	423129073415401	423129	0734154	Unknown	265	H	00-00-81	C	6	88	D	48	X
Re-1085	423129073415701	423129	0734157	Unknown	265	H	00-00-81	C	6	400	D	73	X
Re-1086	423135073412201	423135	0734122	Spring, Jan	315	H	11-25-77	A	6	230	D	90	X
Re-1087	423135073412401	423135	0734124	Unknown	305	H	00-00-79	C	6	85	D	70	X
Re-1088	423137073412301	423137	0734123	Unknown	315	H	00-00-78	C	6	120	D	110	X
Re-1089	423138073412401	423138	0734124	Unknown	315	H	00-00-77	C	6	110	D	100	X
Re-1090	423139073412601	423139	0734126	Porpeggia, Jim	315	H	08-27-77	C	6	177	G	98	X
Re-1091	423143073412601	423143	0734126	Hall, Allen M.	332	H	06-04-68	C	6	210	D	128	X
Re-1092	423114073422601	423114	0734226	Unknown	251	H	00-00-62	C	4	135	D	--	X
Re-1093	423132073422501	423132	0734225	Unknown	250	H	00-00-73	C	6	80	R	79	X
Re-1094	423149073425101	423149	0734251	Teator, Raymond	262	H	00-00-78	C	6	100	G	41	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-1057	377SCCK	SHLE	55	--	--	-	--	Kornetzki	WL 17 ft, buried well
Re-1071	112GLCD	SAND	50	20	12-07-54	R	4	S&S Well Drl	Owner reports iron, moderate hardness
Re-1073	--	--	--	--	--	-	--	--	Soft, unlimited water reported
Re-1074	377SCCK	SHLE	--	40	00-00-62	R	8	--	Soft water reported
Re-1075	377SCCK	SHLE	--	--	--	-	--	--	Hard water reported
Re-1076	377SCCK	SHLE	--	--	--	-	5	--	Hard, iron stained water reported
Re-1077	--	--	--	--	--	-	--	--	Shallow, good taste & yield, high iron
Re-1078	112GLCD	GRVL	20	--	--	-	--	--	Owner reports good water quality
Re-1079	364NMKL	SHLE	100	45	00-00-82	R	3	--	Potable
Re-1080	112GLCD	SDGL	--	82	00-00-63	R	12	--	Satisfactory quality, water from gravel
Re-1081	112LAKE	SAND	0	--	--	-	--	--	Soft water reported
Re-1082	--	--	--	--	--	-	--	--	Adequate yield, good taste reported
Re-1083	112OTSH	GRVL	5	4.6	--	-	--	--	Well measures 6 ft x 3 ft x 4 ft deep
Re-1084	112OTSH	GRVL	5	3.40	--	-	20	--	1 gpm @ 21 ft, 3 gpm @ 28 ft, 10 gpm @ 50 ft
Re-1085	112ICNC	SDGL	21	5.82	00-00-81	R	3	--	Potable water reported
Re-1086	112ICNC	SDGL	21	5.78	11-25-77	R	7	Hanson	NO3 as N < 0.2 mg/L, Cl 8 mg/L, 9/13/88, RCHD
Re-1087	112ICNC	SDGL	10	.87	00-00-79	R	10	--	--
Re-1088	112LAKE	SDST	14	--	00-00-78	R	10	--	--
Re-1089	112GLCD	SDCI	35	-.6	00-00-77	R	8	--	--
Re-1090	112GLCD	SAND	50	-1.5	08-27-77	R	6	Hanson	NO3 as N < 0.2 mg/L, Cl 22 mg/L 3/14/91, RCHD
Re-1091	112ICNC	SDGL	0	2.5	06-04-68	R	6.5	Shaver	NO3 as N .04 mg/L, Cl 3.0 mg/L 6/4/68, RCHD
Re-1092	112ICNC	SDGL	34	4	00-00-62	R	15	--	Good quality reported
Re-1093	112GLCD	SDST	135	--	--	-	6	--	--
Re-1094	377SCCK	SHLE	55	--	--	-	3	Kleinhans, A	NO3 as N < 0.2 mg/L, Cl 95 mg/L, 2/23/82, RCHD

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-1096	423122073432101	423122	0734321	Unknown	225	H	--	C	6	57	D	56	X
Re-1097	423130073431501	423130	0734315	Unknown	221	H	00-00-76	C	6	45	D	45	O
Re-1098	423134073430501	423134	0734305	Unknown	250	H	00-00-81	C	6	85	D	85	O
Re-1099	423154073434401	423154	0734344	Unknown	227	H	--	C	8	150	D	--	X
Re-1100	423154073434402	423154	0734344	Unknown	227	H	00-00-64	C	6	190	D	--	X
Re-1101	423156073433301	423156	0734333	Unknown	205	H	00-00-54	C	6	150	D	--	X
Re-1102	423159073434301	423159	0734343	Unknown	225	H	00-00-59	C	6	180	D	--	X
Re-1103	423103073441901	423103	0734419	Unknown	183	H	00-00-82	C	6	415	D	114	X
Re-1104	423203073412401	423203	0734124	Lyman, William	333	H	05-08-78	H	6	384	G	125	X
Re-1105	423234073415801	423234	0734158	Unknown	320	H	00-00-71	C	6	236	D	194	X
Re-1106	423208073421701	423208	0734217	Krug Farms	280	H	--	C	6	208	D	41	X
Re-1107	423214073423301	423214	0734233	Unknown	280	H	00-00-09	C	6	129	D	--	X
Re-1108	423222073423001	423222	0734230	Unknown	280	H	00-00-77	C	6	175	D	--	X
Re-1109	423227073421801	423227	0734218	Rice, Donald	320	H	11-18-70	C	6	234	D	156	X
Re-1110	423215073434901	423215	0734349	Unknown	150	H	00-00-68	C	6	85	R	17	X
Re-1111	423223073432201	423223	0734322	Unknown	223	U	00-00-72	C	6	623	D	64	X
Re-1112	423233073431901	423233	0734319	Unknown	222	H	00-00-81	C	6	140	D	140	O
Re-1113	423020073403201	423020	0734032	Unknown	330	H	00-00-58	C	6	46	R	46	O
Re-1118	423305073402201	423305	0734022	Polsinello Fuels	345	C	02-21-90	A	6	182	D	73.3	X
Re-1127	423236073430601	423236	0734306	Brookview School Dist. No. 12	240	T	--	D	60	16	O	16	W
Re-1128	423220073444701	423220	0734447	Fort Orange Paper Company	10	U	--	C	8	45	D	29	G
Re-1129	423223073445201	423223	0734452	Fort Orange Paper Company	10	U	--	C	8	73	D	37	G
Re-1130	423221073444901	423221	0734449	Fort Orange Paper Company	10	U	--	C	8	63	D	37	G
Re-1131	423312073401501	423312	0734015	Town Of Schodack	310	U	12-18-87	C	10	39	D	29.5	S

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-1096	377SCCK	SHLE	20	20	--	-	--	--	5 gpm, poor quality reported
Re-1097	377SCCK	SHLE	55	31	--	-	8	--	Water level fluctuates with Moordener Kill
Re-1098	377SCCK	SHLE	8	--	--	-	10	--	--
Re-1099	377SCCK	SHLE	76	20	--	-	--	--	1 gpm, hard, old well, Clear water reported
Re-1100	377SCCK	SHLE	100	80	00-00-64	R	13	--	Clear, hard water reported
Re-1101	377SCCK	SHLE	55	35	--	-	15	--	Hard, Clear water; Slight H2S odor reported
Re-1102	377SCCK	SHLE	66	--	00-00-59	R	--	--	Hard water, some iron reported, softener used
Re-1103	377SCCK	SHLE	20	4	--	-	--	--	Low yield, potable
Re-1104	377SCCK	SHLE	47	29	--	-	2.5	Hanson	NO3 as N < 0.5 mg/L, Cl 9 mg/L, 12/12/78, RCHD
Re-1105	377SCCK	SHLE	57	35	00-00-71	R	10	--	Driller notes all water from rock
Re-1106	377SCCK	SHLE	34	38	--	-	--	--	WL 30 ft, 8 gpm, contact spring near here
Re-1107	377SCCK	SHLE	72	--	--	-	--	--	19 gpm yield reported
Re-1108	377SCCK	SHLE	65	--	--	-	20	--	--
Re-1109	112GLCD	GRVL	55	39.8	11-18-70	R	5.5	Shortsleeves	NO3 as N < 0.2 mg/L, Cl 6 mg/L, 11/6/83, RCHD
Re-1110	377SCCK	SHLE	50	--	--	-	20	D	--
Re-1111	377SCCK	SHLE	83	--	00-00-72	R	1	--	Flowing 1 gpm, not potable
Re-1112	112ICNC	SDGL	--	38.6	--	-	80	--	--
Re-1113	112ICNC	SDGL	--	--	--	-	--	--	Owner reports "unlimited water." soft
Re-1118	111ALVM	SDGL	0	--	03-07-90	S	6	Dunavin	Weekly WL measurements, March-July 1990
Re-1127	111ALVM	SDGL	0	--	05-16-46	R	--	Danby, G	Soft, supplied school, Re-461 (abandoned) here
Re-1128	377SCCK	SHLE	71	--	00-00-46	R	190	Hall & Co	Well abandoned due to high iron
Re-1129	111ALVM	GRVL	0	19.3	05-00-46	R	275	Hall & Co	Well abandoned due to high iron
Re-1130	111ALVM	SDGL	0	8.67	00-00-46	R	220	Hall & Co	Well abandoned due to high iron
Re-1131	111ALVM	SDGL	0	--	02-09-88	T	407	Ferraioli	Aquifer test data on file

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.
A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-1132	423314073401601	423314	0734016	Town Of Schodack	313	U	12-03-87	B	2.0	40.9	G	28.9	S
Re-1133	423313073401601	423313	0734016	Town Of Schodack	310	U	12-02-87	B	2.0	40	G	30.0	S
Re-1137	423547073430101	423547	0734301	East Greenbush, Witbeck Site 2	224.21	U	12-00-59	C	8	87	R	73	S
Re-1138	423547073430102	423547	0734301	East Greenbush, Whitbeck Site 2	224.21	U	12-00-59	C	6	90	R	90	O
Re-1139	423547073425901	423547	0734259	East Greenbush, Witbeck Site 2	220.03	U	12-00-59	C	6	45	R	45	O
Re-1140	423454073423401	423454	0734234	East Greenbush, Canaday Site	240	U	10-00-59	C	6	75	R	75	O
Re-1141	423444073423401	423444	0734234	East Greenbush, Comstock Site	220	Y	10-00-59	C	6	72	R	27	O
Re-1142	423357073425101	423357	0734251	East Greenbush, Lemka Site	215	U	10-00-59	C	6	70	R	70	O
Re-1143	423318073405101	423318	0734051	East Greenbush, Lauster Site	288	U	10-00-59	C	6	56	R	56	O
Re-1144	423318073404701	423318	0734047	East Greenbush, Lauster Site	290	U	10-00-59	C	6	55	R	55	O
Re-1145	423512073433701	423512	0734337	East Greenbush, Henderson Site	200	U	10-00-59	C	6	152	R	152	O
Re-1146	423348073412801	423348	0734128	Goldstein, Alan	345	H	--	C	6	402	G	60	X
Re-1147	423345073413801	423345	0734138	Demarco, Valentin A.	353	H	03-19-89	C	6	223	G	40	-
Re-1148	423345073412101	423345	0734121	Hogan, Carla	372	H	09-29-65	A	6	150	G	55	X
Re-1149	423342073411701	423342	0734117	Board Of Coop. Educ. Services	355	T	--	-	6	502	D	40	X
Re-1150	423335073421801	423335	0734218	Olsen, Dennis	315	H	04-27-90	H	6	342	G	80	X
Re-1151	423334073420401	423334	0734204	Mahlstedt, Richard	320	H	10-00-87	C	6	280	G	100	X
Re-1152	423349073410301	423349	0734103	Rich Wood Brothers, Inc.	355	H	06-16-70	A	6	130	G	55	-
Re-1153	423348073410301	423348	0734103	Annette, Ronald	355	H	06-10-87	-	6	302	D	68	X
Re-1154	423343073410501	423343	0734105	Howard, Elizabeth	355	H	10-15-74	A	6	150	G	40	X
Re-1155	423340073410501	423340	0734105	Larson, Pamela	348	H	04-14-70	A	6	151	G	47	X
Re-1156	423336073410601	423336	0734106	Robinson, Joseph	350	H	08-14-75	H	6	323	G	61	X
Re-1157	423336073410801	423336	0734108	Shaefer, Alfred	351	H	11-00-74	-	6	168	G	41	X
Re-1158	423325073411601	423325	0734116	Sterantino, Joseph	350	H	--	-	6	88	G	--	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-1132	377SCCK	SHLE	64	20	12-03-87	T	--	SMT, Inc	Obs well MW-1 is 126 ft north of pumped well
Re-1133	377SCCK	SHLE	86	20	12-02-87	T	--	SMT, Inc	Obs well MW-2 is 27 ft north of pumped well
Re-1137	377SCCK	SHLE	42	41	01-04-60	R	1050	Hall & Co	Aquifer test in Myrick Rept
Re-1138	377SCCK	SHLE	27	24	01-04-60	R	--	Hall & Co	DD plot and analysis in Myrick Rept
Re-1139	377SCCK	SHLE	44	40	01-04-60	R	--	Hall & Co	DD plot and analysis in Myrick Rept
Re-1140	377SCCK	SHLE	62	50	--	-	--	Hall & Co	Canaday Site test well from Myrick Report
Re-1141	377SCCK	SHLE	47	--	10-00-59	R	5	Hall & Co	Comstock Site test well; flows 8 in above LSD
Re-1142	377SCCK	SHLE	33	30	10-00-59	E	10	Hall & Co	Lemka Site test well, flows 1.5 ft above LSD
Re-1143	377SCCK	SHLE	80	33	10-00-59	R	30	Hall & Co	Lauster Site test well from Myrick Report
Re-1144	377SCCK	SHLE	51	16	10-00-59	R	50	Hall & Co	Lauster Site test well from Myrick Report
Re-1145	377SCCK	SHLE	72	33	--	-	--	Hall & Co	Henderson Site test well from Myrick Report
Re-1146	377SCCK	SHLE	37	--	--	-	--	--	SWL reported at 60 ft, yield 10 gpm
Re-1147	377SCCK	SHLE	20	28	03-19-89	R	10	Kleinhaus, A	NO3 as N, 0.4 mg/L, Cl 22 mg/L, 10/30/89, RCHD
Re-1148	377SCCK	SHLE	18	15	09-29-65	R	9	Shortsleeves	NO3 as N, < 0.2 mg/L, Cl 3 mg/L, 5/1/84, RCHD
Re-1149	377SCCK	SHLE	25	25	--	-	--	--	SWL 25 ft, yield reported 6 gpm
Re-1150	377SCCK	SHLE	12	18	04-27-90	R	10	Hanson	NO3 as N, < 0.2 mg/L, Cl 52 mg/L, 9/17/90, RCHD
Re-1151	377SCCK	SHLE	28	38	10-00-87	R	5	Eckel	NO3 as N, < 0.2 mg/L, Cl 2 mg/L, 4/22/88, RCHD
Re-1152	377SCCK	SHLE	5	20	06-17-70	R	6.25	Shortsleeves	NO3 as N, 0.04 mg/L, Cl > 60 mg/L, 1/5/71, RCHD
Re-1153	377SCCK	SHLE	120	32	--	-	10	Hanson	NO3 as N, 3.8 mg/L, Cl 51 mg/L, 12/2/88, RCHD
Re-1154	377SCCK	SHLE	40	24	10-15-74	R	5	Hanson	Gravel 0-8 ft, till 8-20 ft, shale 20-150 ft
Re-1155	377SCCK	SHLE	36	30	04-14-70	R	5	Shortsleeves	NO3 as N, < 0.5 mg/L, Cl 50 mg/L, 1/12/81, RCHD
Re-1156	377SCCK	SHLE	48	--	08-14-75	R	5	Hanson	NO3 as N, 0.5 mg/L, Cl 40 mg/L, 11/12/75, RCHD
Re-1157	377SCCK	SHLE	47	50	11-00-74	R	8	Shaver	NO3 as N, 3.g mg/L, Cl 16 mg/L, 6/28/83, RCHD
Re-1158	377SCCK	SHLE	45	20	--	-	--	--	Fine grvl 0-48 ft, clay 48-72 ft, shale 72-88 ft

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-1159	423324073411501	423324	0734115	Kingston, Frederick	350	H	--	-	6	94	G	--	X
Re-1160	423325073411301	423325	0734113	Steen, Cahterine	350	H	--	-	6	74	G	--	O
Re-1161	423325073411101	423325	0734111	Steverson, Linda	350	H	--	-	--	66	G	--	X
Re-1162	423325073410601	423325	0734106	Rowe, Norman	350	H	--	-	--	106	G	--	X
Re-1163	423324073410601	423324	0734106	Mahlstedt, David	350	H	10-00-70	-	6	65	G	65	O
Re-1164	423323073410501	423323	0734105	Paul, Robert D.	350	H	07-00-73	-	6	69	G	69	O
Re-1165	423316073404301	423316	0734043	Creekside MHP (Darwin Delappa)	300	P	--	V	1.5	30	G	--	T
Re-1166	423316073404201	423316	0734042	Creekside MHP (Darwin Delappa)	300	P	--	V	2.0	30	G	--	T
Re-1167	423259073402011	423259	0734020	Hess Service Station	340	C	08-09-71	-	6	214	G	71	X
Re-1168	423302073421701	423302	0734217	Herbst, Mrs. Karen	230	H	05-25-79	C	6	58	G	58	X
Re-1169	423300073421501	423300	0734215	Calarco, David	225	H	--	C	6	60	G	60	O
Re-1170	423301073421201	423301	0734212	Balt, James	225	H	--	-	6	60	G	60	-
Re-1171	423259073420901	423259	0734209	Dorrbecker, Bruce	215	H	06-30-77	A	6	219	G	40	-
Re-1172	423244073402101	423244	0734021	Latch, Phillip	345	H	07-08-88	C	6	228	G	82	X
Re-1173	423230073421901	423230	0734219	Anderson, Keith	320	H	06-23-77	-	6	243	D	185	X
Re-1174	423235073414301	423235	0734143	Doolittle, Lawrence	315	H	04-26-71	-	6	236	D	194	X
Re-1175	423226073414001	423226	0734140	Fuller, Jeffery	330	H	04-13-89	-	6	223	D	175	X
Re-1176	423223073404201	423223	0734042	Collier, John	345	H	11-15-77	-	6	125	-	41	X
Re-1177	423222073400301	423222	0734003	Hempstead, Sandra	440	H	10-08-78	-	6	159	G	40	X
Re-1178	423203073404301	423203	0734043	House Of Praise Ministries	355	T	08-31-87	-	6	420	G	39	X
Re-1179	423158073425001	423158	0734250	Crowley, P. & M.	240	H	--	C	6	145	G	38	-
Re-1180	423157073424901	423157	0734249	Bult Subdivision	238	H	10-00-86	H	6	200	G	43.5	X
Re-1181	423153073425401	423153	0734254	Isabelle, Fernand	255	H	08-00-73	-	6	240	G	39	-
Re-1182	423150073425401	423150	0734254	Beerle	260	H	09-09-86	H	6	200	G	41.5	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-1159	377SCCK	SHLE	55	--	--	-	--	--	Grvl 0-18 ft, fine sand 18-65 ft, shale 65-94 ft
Re-1160	112GLCD	SAND	50	20	11-19-92	S	--	--	Grvl 0-20 ft, fine sand 20-55 ft, fine gravel 55-74 ft
Re-1161	--	--	--	--	--	-	--	--	Grvl 0-25 ft, sand 25-50 ft, shale 50-66 ft
Re-1162	377SCCK	SHLE	--	40	--	-	--	--	Grvl 0-30 ft, till 30-83 ft, shale 83-106 ft
Re-1163	377SCCK	SHLE	--	--	11-12-92	S	20	Shaver	NO3 as N, 3.0 mg/L, Cl 13 mg/L, 11/28/79, RCHD
Re-1164	377SCCK	SHLE	--	--	--	-	8	Shaver	NO3 as N, 0.2 mg/L, Cl 4 mg/L, 9/17/73, RCHD
Re-1165	--	--	--	--	--	-	7.5	--	NO3 as N, 0.92 mg/L, 12/23/81, RCHD
Re-1166	112GLCD	GRVL	20	--	--	-	7.5	--	--
Re-1167	364NMKL	SHLE	100	45	--	-	8.0	Hanson	Second well at this location
Re-1168	112GLCD	SDGL	--	82	11-12-92	S	25	D Horton	NO3 as N, < 0.5 mg/L, Cl 14 mg/L, 7/12/79, RCHD
Re-1169	112LAKE	SAND	0	--	11-12-92	S	--	Kleinhaus	NO3 as N, < 0.2 mg/L, Cl 141 mg/L, 12/26/85, RCHD
Re-1170	--	--	--	--	--	-	15	Eckel	NO3 as N, < 0.2 mg/L, Cl 5 mg/L, 3/31/87, RCHD
Re-1171	377SCCK	SHLE	32	10	06-30-77	R	5	Hanson	NO3 as N, < 0.5 mg/L, Cl 8 mg/L, 5/10/78, RCHD
Re-1172	377SCCK	SHLE	82	45	07-08-88	R	30	Jeff Smith	0-82 ft till w/gravel seams, 82-228 ft shale
Re-1173	364NMKL	SHLE	168	35	06-23-77	R	4	Hanson	NO3 as N, < 0.2 mg/L, Cl 12 mg/L, 11/28/89, RCHD
Re-1174	377SCCK	SHLE	194	96	04-26-71	R	10	Shortsleeves	NO3 as N, < 0.2 mg/L, Cl 21 mg/L, 9/15/86, RCHD
Re-1175	377SCCK	SHLE	170	40	04-13-89	R	15	Hanson	NO3 as N, < 0.2 mg/L, Cl 85 mg/L, 9/29/89, RCHD
Re-1176	377SCCK	SHLE	15	--	--	-	5	Gordon Goold	NO3 as N, 5.0 mg/L, Cl 76 mg/L, 10/4/77, RCHD
Re-1177	377SCCK	SHLE	15	--	--	-	5	Hanson	NO3 as N, < 0.2 mg/L, Cl 6 mg/L, 7/24/84, RCHD
Re-1178	377SCCK	SHLE	12	--	--	-	5	Gordon Goold	Two wells at this location
Re-1179	364NMKL	SHLE	32	20	11-18-61	R	4	Laureny, Hr	NO3 as N, < 0.2 mg/L, Cl 13 mg/L, 7/13/84, RCHD
Re-1180	364NMKL	SHLE	40	35	10-00-86	R	5	--	NO3 as N, < 0.2 mg/L, Cl 6 mg/L, 3/5/87, RCHD
Re-1181	364NMKL	SHLE	12	26	08-00-73	R	6	Shaver	Till 0-12 ft, shale 12-240 ft
Re-1182	364NMKL	SHLE	35	--	--	-	--	Eckel, RB	NO3 as N, < 0.2 mg/L, Cl 69 mg/L, 8/6/87, RCHD

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-1183	423504073441202	423504	0734412	Van Patten, A. E.	100	U	00-00-36	C	6	312	D	79	X
Re-1184	423140073425801	423140	0734258	Benedict, Dennis	245	H	06-00-87	H	6	255	G	40	X
Re-1185	423130073430801	423130	0734308	Stevens, William	240	H	05-10-76	-	6	45	G	45	O
Re-1186	423128073431701	423128	0734317	Heilman, William	220	H	--	C	--	78	G	39	X
Re-1187	423129073423001	423129	0734230	Village of Castleton Maple Hill WC	252	P	06-06-63	A	6	83	-	83	O
Re-1188	423131073423001	423131	0734230	Village of Castleton Maple Hill WC	252	P	06-00-63	A	8	83	G	83	O
Re-1189	423128073423201	423128	0734232	Village of Castleton Maple Hill WC	252	P	--	-	8	90	G	--	-
Re-1190	423145073412601	423145	0734126	Blessing, Kathy	331	H	09-27-86	-	--	183	G	--	X
Re-1191	423137073412501	423137	0734125	Tashjian, John	315	H	12-09-77	A	6	110	D	101	X
Re-1192	423136073412501	423136	0734125	Marmont Enterprises, Inc.	308	H	01-07-78	A	6	120	G	111	X
Re-1193	423134073412701	423134	0734127	Burke, Donald	300	H	01-17-78	A	6	155	G	111	X
Re-1194	423131073413201	423131	0734132	Marmont Enterprises, Inc.-Lot No. 9	290	H	08-19-77	A	6	70	G	70	O
Re-1195	423133073412601	423133	0734126	Marmont Enterprises, Inc.-Lot No. 7	300	H	11-30-77	A	6	80	G	80	O
Re-1196	423133073411401	423133	0734114	Kennedy, Kenneth	310	H	03-01-68	A	6	65	G	65	O
Re-1197	423133073411001	423133	0734110	Wood Brothers, Inc.-Lot No. 2	320	H	01-24-91	C	6	115	G	115	O
Re-1198	423132073410401	423132	0734104	Wood Brothers, Inc.-Lot No. 1	300	H	03-24-88	-	6	61.5	G	61.5	O
Re-1199	423141073405101	423141	0734051	Teeter, Martin	315	H	00-00-47	C	4	44	D	6	X
Re-1200	423124073410201	423124	0734102	Village Of Castleton-on-Hudson	282	P	00-00-73	-	6	36	G	24	S
Re-1201	423124073410401	423124	0734104	Village Of Castleton-on-Hudson	278	P	11-18-87	C	12	36	G	19	S
Re-1202	423123073410201	423123	0734102	Village Of Castleton-on-Hudson	285	P	00-00-73	-	12	54.5	G	37	X
Re-1203	423122073410401	423122	0734104	Village Of Castleton-on-Hudson	278	P	00-00-73	-	12	42	G	--	X
Re-1204	423118073404301	423118	0734043	Lammerts, Howard	330	H	08-24-80	C	6	215	G	80.5	X
Re-1205	423118073404001	423118	0734040	Demianczyk, Steve	340	H	12-15-82	-	6	143	G	60	X
Re-1206	423111073413001	423111	0734130	Gauthier, Charles	275	H	02-08-77	C	6	106	G	40	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-1183	364NMKL	CIAY	0	--	--	-	--	Hall & Co	Dry well, abandoned. Location approximate
Re-1184	364NMKL	SHLE	20	--	--	-	10	Eckel, RB	NO3 as N, < 0.2 mg/L, Cl 26 mg/L, 7/23/87, RCHD
Re-1185	112GLCD	GRVL	25	--	--	-	8	Kleinhans, A	NO3 as N, < 0.5 mg/L, Cl 13 mg/L, 11/8/78, RCHD
Re-1186	364NMKL	SHLE	28	--	--	-	--	--	SWL 15 ft, yield 30 gpm
Re-1187	112GLCD	GRVL	76	17	06-00-63	R	150	Shortsleeves	Wells 1 & 2 are standby, well 3 is online
Re-1188	112GLCD	GRVL	--	17	06-00-63	R	50	Shortsleeves	Wells 1 & 2 are standby, well 3 is online
Re-1189	112GLCD	--	--	--	--	-	275	--	Primary well. Wells 1 & 2 are standby wells
Re-1190	377SCCK	SHLE	90	--	--	-	8	Kruyl?	NO3 as N, < 0.2 mg/L, Cl 8 mg/L, 10/14/86, RCHD
Re-1191	377SCCK	SHLE	98	38	12-09-77	R	8	Hanson	NO3 as N, < 0.5 mg/L, Cl 9 mg/L, 2/8/78, RCHD
Re-1192	377SCCK	SHLE	105	40	01-07-78	R	10	Hanson	--
Re-1193	377SCCK	SHLE	103	42	01-17-78	R	20	Hanson	NO3 as N, < 0.3 mg/L, Cl 23 mg/L, 6/17/86, RCHD
Re-1194	112ICNC	SDGL	--	20	08-19-77	R	15	Hanson	NO3 as N, < 0.5 mg/L, Cl 27 mg/L, 11/3/77, RCHD
Re-1195	112ICNC	SDGL	--	25	11-30-77	R	10	Hanson	NO3 as N, < 0.5 mg/L, Cl 5 mg/L, 1/11/78, RCHD
Re-1196	112ICNC	SDGL	0	47	03-01-68	R	20	Shortsleeves	NO3 as N, < 1.2 mg/L, Cl 60 mg/L, 2/21/69, RCHD
Re-1197	112ICNC	SDGL	0	26.4	11-19-92	S	20	Eckel	NO3 as N, < 0.6 mg/L, Cl 47 mg/L, 1/24/91, RCHD
Re-1198	112ICNC	SDGL	0	20	03-24-88	R	12	Hanson	NO3 as N, < 0.2 mg/L, Cl 18 mg/L, 12/5/91, RCHD
Re-1199	377SCCK	SHLE	6	--	--	-	10	Shaver	NO3 as N, < 4.0 mg/L, Cl 13 mg/L, 6/16/69, RCHD
Re-1200	112ICNC	SDGL	0	--	--	-	53	--	Former NYSDOT well F
Re-1201	112ICNC	SDGL	3	--	--	-	276	Alan & Brent	Former NYSDOT well E-1
Re-1202	377SCCK	SHLE	37	--	--	-	53	--	Former NYSDOT well G
Re-1203	377SCCK	SHLE	--	--	--	-	53	--	Former NYSDOT well E
Re-1204	377SCCK	SHLE	79	51	08-24-80	R	10	John Kindley	NO3 as N, 0.5 mg/L, Cl 6 mg/L, 9/17/80, RCHD
Re-1205	377SCCK	SHLE	60	--	--	-	4	Eckel	--
Re-1206	377SCCK	SHLE	25	--	--	-	5.5	Salisbury	--

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-1207	423114073410701	423114	0734107	Isabelle, Serge	320	H	04-02-87	C	6	63	G	63	O
Re-1208	423108073403901	423108	0734039	Pinehaven MHP	340	P	12-09-65	C	8	53	G	44	X
Re-1209	423104073404601	423104	0734046	Pinehaven MHP	377	P	10-00-78	-	6	176	G	--	X
Re-1210	423104073403801	423104	0734038	Pinehaven MHP	328	P	06-28-88	H	6	52	G	39	S
Re-1211	423105073403701	423105	0734037	Pinehaven MHP	325	P	06-23-84	H	6	50.5	G	42	S
Re-1212	423122073395601	423122	0733956	Kelly, Stephen	405	H	04-10-91	C	6	25	G	49.5	X
Re-1213	423114073394701	423114	0733947	Sandez, Daniel	415	H	08-00-85	H	6	180	D	46.5	X
Re-1214	423055073410301	423055	0734103	Schodack Water Dist. 1 - Clearview	295	P	04-10-62	-	8	41	G	--	S
Re-1215	423054073410201	423054	0734102	Schodack Water Dist. 1 - Clearview	295	P	11-00-63	-	8	49	G	39	S
Re-1216	423055073410101	423055	0734101	Schodack Water Dist. 1 - Clearview	295	P	06-18-65	-	10	48	G	--	S
Re-1217	423057073413501	423057	0734135	Garcia, Roger	265	H	05-00-86	C	6	110	G	65	X
Re-1218	423050073413701	423050	0734137	Defiglio, Vincent	265	H	--	C	6	50	G	50	O
Re-1219	423041073422001	423041	0734220	Mesick, Geraldine	270	H	07-11-90	C	6	290	G	40	X
Re-1220	423047073423101	423047	0734231	Morrell, Scott	250	H	11-17-82	H	6	300	G	106	X
Re-1221	423044073424801	423044	0734248	Harris, Donald	245	H	05-10-81	-	6	85	G	85	O
Re-1222	423043073425001	423043	0734250	Swartz, Arnold	240	H	07-00-90	H	6	204	G	40	X
Re-1223	423046073425901	423046	0734259	Olsen, Claude	255	H	03-30-71	C	6	80	G	25	X
Re-1224	423042073425601	423042	0734256	Palmer, Francis	240	H	08-30-81	C	6	80	G	40	X
Re-1225	423024073423001	423024	0734230	Stewart, Michael	225	H	--	C	6	263	G	40	X
Re-1226	423022073422701	423022	0734227	Overbaugh, Robert	245	H	--	C	6	223	G	48	X
Re-1227	423012073423801	423012	0734238	Cornerstone Homes, Inc.	227	H	05-30-90	H	6	482	G	58	-
Re-1228	423012073423601	423012	0734236	Busdiecker, John	230	H	05-02-90	A	6	502	G	60	X
Re-1229	423011073431701	423011	0734317	Joyner, John	215	H	05-04-91	-	6	385	G	126	X
Re-1230	423026073411401	423026	0734114	New York State Thruway Authority	335	P	05-00-69	-	6	250	G	--	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-1207	112ICNC	SDGL	0	--	--	-	10	Eckel	NO3 as N, 0.5 mg/L, Cl 13 mg/L, 6/1/87, RCHD
Re-1208	112ICNC	SDGL	34	21	12-09-65	R	110	Gordon Goold	Removed from service 1984
Re-1209	377SCCK	SHLE	--	--	--	-	120	--	Bedrock well
Re-1210	112OTSH	SDGL	0	19	06-28-88	R	100	Gordon Goold	12 ft of 16-ft screen exposed
Re-1211	112OTSH	SDGL	0	8	06-23-84	R	120	Gordon Goold	8 ft of 10-ft screen exposed
Re-1212	377SCCK	SHLE	40	20	04-10-91	R	8	Adam Hacker	NO3 as N, < 0.2 mg/L, Cl 8 mg/L, 3/26/91, RCHD
Re-1213	377SCCK	SHLE	5	--	--	-	5	--	--
Re-1214	112ICNC	SDGL	21	24.8	07-12-86	S	450	Gordon Goold	Aquifer test by driller 7/12/86
Re-1215	112ICNC	SDGL	--	24.8	07-10-86	R	150	Gordon Goold	Aquifer test by driller 7/10/86
Re-1216	112ICNC	SDGL	37	--	--	-	120	Gordon Goold	Aquifer test by driller 7/8/86
Re-1217	377SCCK	SHLE	65	12	05-00-86	R	6	Eckel	NO3 as N, < 0.2 mg/L, Cl 17 mg/L, 7/31/86, RCHD
Re-1218	112GLCD	SAND	0	--	--	-	--	Kleinhaus	--
Re-1219	377SCCK	SHLE	12	30	07-11-90	R	5	Jeff Smith	NO3 as N, 7.0 mg/L, Cl 115 mg/L, 9/17/90, RCHD
Re-1220	364NMKL	SHLE	--	45	11-17-82	R	3	Hanson	--
Re-1221	112GLCD	SDGL	48	--	--	-	10	Eckel	NO3 as N, < 0.2 mg/L, Cl 95 mg/L, 11/23/81, RCHD
Re-1222	364NMKL	SHLE	15	18	07-00-90	R	5	Eckel	NO3 as N, > 0.2 mg/L, Cl 13 mg/L, 10/17/90, RCHD
Re-1223	364NMKL	SHLE	0	--	--	-	8	Kleinhaus, A	--
Re-1224	364NMKL	SHLE	10	--	--	-	7	Eckel	NO3 as N, 0.8 mg/L, Cl 53 mg/L, 12/4/81, RCHD
Re-1225	377SCCK	SHLE	35	30	04-30-84	R	2	Kinl	NO3 as N, < 0.2 mg/L, Cl 24 mg/L, 9/21/87, RCHD
Re-1226	377SCCK	SHLE	45	--	--	-	--	--	SWL 40 ft when drilled, yield 10 gpm
Re-1227	377SCCK	SHLE	55	27.2	05-03-90	R	6	Hanson	--
Re-1228	377SCCK	SHLE	57	28.7	05-02-90	R	5	Hanson	NO3 as N, 0.5 mg/L, Cl 15 mg/L, 5/20/90, RCHD
Re-1229	364NMKL	SHLE	126	90	05-04-91	R	5	--	NO3 as N, < 0.2 mg/L, Cl 42 mg/L, 6/6/91, RCHD
Re-1230	377SCCK	SHLE	42	80	06-03-69	R	12	Hanson	Pumping test data

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.
A. Wells north of 42° 30'

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-1231	423025073411301	423025	0734113	New York State Thruway Authority	335	P	05-00-69	-	--	250	G	--	X
Re-1232	423046073403901	423046	0734039	Saxton Corp	340	C	01-09-90	C	6	203	G	70	X
Re-1233	423033073402101	423033	0734021	Dennis, Jackson	335	H	06-21-77	A	6	115	G	40	X
Re-1234	423033073402001	423033	0734020	Redden, William	335	H	07-11-77	A	6	72	G	46	X
Re-1235	423030073401801	423030	0734018	Siebert, Donald-Hoyt Subdiv. - Lot 1	335	H	08-17-85	H	6	180	G	41	X
Re-1236	423031073401101	423031	0734011	Santostefano, Frank	340	H	12-27-78	H	6	260	G	40	X
Re-1237	423040073401401	423040	0734014	Sawitzki, Dennis	345	H	05-00-77	H	6	145	G	39	X
Re-1238	423039073400501	423039	0734005	Rodrigue, F. (Mansion Subdiv-Lot 3)	355	H	02-15-85	H	6	302	G	41	X
Re-1239	423037073400201	423037	0734002	Unknown	362	H	00-00-73	H	6	126	D	19	X
Re-1240	423050073395001	423050	0733950	Natoli, James G.	360	H	11-23-87	H	6	300	G	39	X
Re-1241	423054073395101	423054	0733951	Edwards, Tim	400	H	12-02-86	C	6	243	D	40	X
Re-1242	423013073402101	423013	0734021	Nusbaum, Kirt	330	C	06-01-90	-	6	63	G	50	X
Re-1243	423003073395501	423003	0733955	Feifar, Joseph	395	H	12-00-83	C	6	80	G	40	X
Re-1244	423125073424101	423125	0734241	Maple Hill High School	250	T	05-00-54	C	--	72	G	--	-
Re-1245	423127073412401	423127	0734124	Maple Crest Water Co.	270	P	00-00-77	-	--	--	-	--	X
Re-1246	423129073412501	423129	0734125	Maplecrest Water Co.	285	P	--	-	--	--	-	--	X
Re-1272	423711073433501	423711	0734335	Hampton Manor-Hillview WD no. 4	224	P	06-00-50	C	6	74	G	66	S
Re-1273	423711073433501	423711	0734335	Hampton Manor-Hillview WD no. 4	230	P	06-00-50	C	12	100	G	88.5	S

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

A. Wells north of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-1231	377SCCK	SHLE	42	65	06-02-69	R	19	Hanson	Pumping test data
Re-1232	377SCCK	SHLE	70	50	01-09-90	-	6	Kleinhaus	--
Re-1233	377SCCK	SHLE	15	8	06-21-77	R	10	Hanson	NO3 as N, < 0.2 mg/L, Cl 2 mg/L, 5/27/86, RCHD
Re-1234	377SCCK	SHLE	44	7	07-11-77	R	8	Hanson	NO3 as N, < 0.2 mg/L, Cl 25 mg/L, 9/4/86, RCHD
Re-1235	377SCCK	SHLE	20	18	08-17-85	R	20	Gordon Goold	NO3 as N, < 0.2 mg/L, Cl 6 mg/L, 11/14/86, RCHD
Re-1236	377SCCK	SHLE	16	18	12-27-78	R	3	Gordon Goold	NO3 as N, < 0.2 mg/L, Cl 30 mg/L, 11/16/83, RCHD
Re-1237	377SCCK	SHLE	33	--	--	-	30	Shaver	--
Re-1238	377SCCK	SHLE	10	50	02-15-85	R	8	Hanson	NO3 as N, < 0.2 mg/L, Cl 2 mg/L, 3/11/86, RCHD
Re-1239	377SCCK	SHLE	0	--	--	-	12	Shaver	--
Re-1240	377SCCK	SHLE	32	20	11-23-87	R	7	Gordon Goold	--
Re-1241	377SCCK	SHLE	26	--	--	-	5	Kleinhaus	--
Re-1242	377SCCK	SHLE	48	2.83	06-12-90	R	20	--	NO3 as N, 1.4 mg/L, Cl 8 mg/L, 6/6/90, RCHD
Re-1243	377SCCK	SHLE	0	30	12-00-83	R	6	Kleinhaus, A	NO3 as N, 2.1 mg/L, Cl 11 mg/L, 2/14/84, RCHD
Re-1244	--	--	--	22	05-10-54	-	19	Hugh Mclean	NO3 as N, 0.15 mg/L, TDS 137 mg/L, abandoned 11/20/81
Re-1245	377SCCK	SHLE	--	10.5	00-00-77	R	22	--	Two abandoned wells nearby
Re-1246	377SCCK	SHLE	--	6.58	03-19-87	R	13	--	Two abandoned wells nearby
Re-1272	112ICNC	SDGL	47.5	19	06-00-50	R	240	--	Well rated at 200 gpm; WSA no. 2270
Re-1273	112ICNC	SDGL	66	30	10-01-56	R	600	Stewart Bros	Well rated at 450 gpm; WSA no. 3074

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.**B.** Wells south of 42° 30'.

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Local well number	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-624	422849073461301	422849	0734606	Schodack Landing School	75	T	624	00-00-17	C	6	159	D	47.6	X
Re-635	422952073402801	422952	0734028	Kingman, V.N.	325	H	635	00-00-38	C	6	114	D	14	X
Re-636	422952073402601	422952	0734022	Gauseman, Joseph	340	H	636	--	C	6	50	O	50	O
Re-637	422944073393301	422945	0733928	Maier, Hans	430	S	637	--	C	6	97	O	14	X
Re-638	422937073404401	422937	0734039	Mark, A.	330	H	638	--	C	6	135	O	64	X
Re-639	422918073404701	422917	0734044	Wendt, John C.	330	C	639	00-00-38	C	6	125	D	65	X
Re-640	422923073404701	422923	0734047	Wendt, Howard	325	H	640	00-00-31	C	6	150	D	50	X
Re-650	422844073422701	422844	0734221	Parks, Alonzo	235	H	650	00-00-45	C	6	92	D	92	O
Re-661	422842073455801	422842	0734550	Grooten, Albert Jr.	210	H	661	00-00-18	C	6	144	D	5	X
Re-662	422846073435401	422846	0734354	Lantz, Willard	240	H	662	--	C	6	51	O	20	X
Re-663	422839073440101	422840	0734354	Peckham, Earl	245	H	663	--	C	6	99	O	32	X
Re-676	422853073440601	422853	0734406	Steele, Ray	250	H	676	09-07-29	C	--	100	D	--	X
Re-677	422835073435601	422835	0734356	Reformed Church of Muitzeskill	250	H	677	--	C	--	180	O	--	X
Re-1114	422826073411301	422825	0734114	R. Martino	265.43	U	1114	--	-	6	68.7	S	--	-
Re-1115	422838073405801	422837	0734058	R. Martino	298.64	U	1115	--	-	6	43	S	--	-
Re-1116	422901073405101	422901	0734051	Puccio, George and Paul	285	U	1116	--	-	6	35.5	S	35.5	O
Re-1247	422951073405901	422951	0734059	Collum, Kenneth Jr.	315	H	1247	09-30-77	-	6	125	G	56	X
Re-1248	422949073405201	422949	0734052	Bramah, Jim	322	H	1248	10-29-85	-	6	88.5	G	88.5	O
Re-1249	422948073405001	422948	0734050	Parslow, George	325	H	1249	09-13-83	-	6	145	G	94	X
Re-1250	422945073404701	422945	0734047	Filkins, Tom	325	H	1250	00-00-86	-	6	527	G	101	X
Re-1251	422947073403801	422947	0734038	Lasher, Ronald	322	H	1251	--	-	6	180	G	91	X
Re-1252	422944073404101	422944	0734041	Walko, Alex	325	H	1252	--	-	6	60	G	60	O
Re-1253	422948073402501	422948	0734025	Hanaford Bros. Warehouse	330	C	1253	03-03-88	H	6	400	G	35	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

B. Wells south of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-624	364NMKL	SHLE	0	15	11-27-46	R	24	Grmntn Artsn	Weathered shale 0-47 ft. Bailed at 24 gpm
Re-635	377SCCK	SHLE	14	6	00-00-38	R	--	McQueen	Yield of well has decreased since drilling
Re-636	112OTSH	GRVL	0	15	11-26-46	R	9	McQueen	Driller: gravel, hardpan, then gravel
Re-637	377SCCK	SHLE	14	10	11-26-46	R	4	Gardenier	Driller: 0-14; shaley soil; 14-97, shale
Re-638	377SCCK	SHLE	64	--	--	-	5	--	Driller: sand, clay, hardpan, then shale
Re-639	377SCCK	SHLE	65	45	00-00-38	R	2	Germantown	Served Std Oil Co. station. Analysis in GW-21
Re-640	377SCCK	SHLE	50	40	00-00-31	R	2.5	Grmntn Artsn	Well probably destroyed by I-90 spur
Re-650	112GLCD	GRVL	89	27	00-00-45	R	30	Shaver	Soft water restd. Well taps confined gravel
Re-661	364NMKL	SHLE	5	--	--	-	5	Grmntn Artsn	Soft water and H2S reported
Re-662	377SCCK	SHLE	20	--	--	-	3	Shaver	Hard water reported
Re-663	377SCCK	SHLE	32	--	--	-	8	Shaver	Water temp 53°F
Re-676	377SCCK	SHLE	0	--	--	-	--	McQueen	Very soft water restd; rock at LSD, no casing
Re-677	377SCCK	SHLE	--	--	--	-	--	Shaver	--
Re-1114	112ICNC	SDGL	0	12.2	10-12-89	S	--	--	Serves as USGS obs. well
Re-1115	112ICNC	SDGL	0	31.8	10-12-89	S	--	--	Serves as USGS obs. well
Re-1116	112ICNC	SDGL	0	12.1	02-20-91	S	--	--	Serves as USGS obs. well
Re-1247	377SCCK	SHLE	45	20	09-30-77	R	5	Kleinhaus, A.	NO3 as N, <0.2 mg/L; Cl, 3 mg/L-10/11/83 RCHD
Re-1248	112OTSH	SDGL	0	--	--	-	10	Eckel	NO3 as N, 0.2 mg/L; Cl, 48 mg/L-11/13/85 RCHD
Re-1249	377SCCK	SHLE	94	33	09-13-83	R	6.5	Jeff Smith	--
Re-1250	377SCCK	SHLE	7	50	00-00-86	R	2	Hanson	NO3 as N, <0.2 mg/L; Cl, 40 mg/L-7/1/86 RCHD
Re-1251	377SCCK	SHLE	90	--	--	-	--	--	Yield reported as 5 gpm
Re-1252	112OTSH	SDGL	0	--	--	-	15	--	NO3 as N, 7.8 mg/L; Cl, 81 mg/L-3/20/87 RCHD
Re-1253	377SCCK	SHLE	18	18	03-03-88	R	8.5	Gordon Goold	One of 6 test wells

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.
 B. Wells south of 42° 30'.

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Local well number	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Re-1254	422949073402101	422949	0734021	Hannaford Bros. Warehouse	335	C	1254	03-04-88	H	6	400	G	35	X
Re-1255	422947073401701	422947	0734017	Hannaford Bros. Warehouse	338	C	1255	03-10-88	H	6	400	G	35	X
Re-1256	422942073402401	422942	0734024	Hannaford Bros. Warehouse	350	C	1256	11-01-89	H	6	435	G	52	X
Re-1257	422945073402201	422945	0734022	Hannaford Bros. Warehouse	340	C	1257	10-28-89	H	6	435	G	50	X
Re-1258	422946073402201	422946	0734022	Hannaford Bros. Warehouse	335	C	1258	10-26-89	H	6	435	G	40	X
Re-1259	422953073394601	422953	0733946	Simpson, Earl	410	H	1259	08-00-88	H	6	200	G	40	X
Re-1260	422943073413001	422943	0734130	Clarke, K. & J.	260	H	1260	10-26-79	H	6	385	G	40	X
Re-1261	422937073413801	422937	0734138	Spring, Earl	280	H	1261	04-00-86	-	6	120	G	40	X
Re-1262	422936073413601	422936	0734136	Weaver, Veratis	265	H	1262	03-00-88	H	6	250	G	40	X
Re-1263	422933073415801	422933	0734158	Schoonover, Linda	250	H	1263	08-15-85	C	6	210	G	89	X
Re-1264	422922073414801	422922	0734148	Hutchinson, Frederick	290	H	1264	06-06-78	-	6	350	G	80	X
Re-1265	422921073414601	422921	0734146	Delong, Don	310	H	1265	04-26-85	-	6	260	G	68	X
Re-1266	422957073422501	422957	0734225	Swartz, Edgar	230	H	1266	--	C	6	90	G	90	O
Re-1267	422900073430801	422900	0734308	Sultan, R.A. (Lot 6)	222	H	1267	07-00-87	-	6	85	G	85	O
Re-1268	422827073423001	422827	0734230	Ziegler, Edwin	260	H	1268	12-13-87	H	6	325	G	95	X
Re-1269	422833073423601	422833	0734236	Walther, Carol	230	H	1269	11-00-83	-	6	165	G	70	X
Re-1270	422830073423201	422830	0734232	Osborne, Robert	250	H	1270	08-00-87	-	6	280	G	100	X
Re-1271	422825073411801	422825	0734118	Campbell, Robert	265	H	1271	--	-	6	240	-	117	X
Cb-1	422724073461901	422724	0734619	Van Allen, Warren	60	H	1	00-00-31	C	6	87	D	45	X
Cb-2	422743073450201	422746	0734504	Schrodt Bros.	280	H	2	00-00-42	C	6	203	D	67	X
Cb-3	422809073434701	422809	0734347	Vrooman, Mr.	260	H	3	00-00-47	C	6	98	D	60	X
Cb-4	422714073444901	422714	0734449	Pucket	280	H	4	00-00-39	C	6	95	D	45	X
Cb-5	422709073441001	422707	0734408	Gibson & Son	230	H	5	--	C	6	90	D	20	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

B. Wells south of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Re-1254	377SCCK	SHLE	15	18	03-04-88	R	20	Gordon Goold	Private QW analysis, aquifer test data
Re-1255	377SCCK	SHLE	20	20	03-10-88	R	6	Gordon Goold	One of 6 test wells
Re-1256	377SCCK	SHLE	50	40	11-01-89	R	6	Gordon Goold	Private QW analysis, one of six text wells
Re-1257	377SCCK	SHLE	46	40	10-28-89	R	6	Gordon Goold	One of six test wells
Re-1258	377SCCK	SHLE	28	29	10-26-89	R	6	Gordon Goold	One of six test wells
Re-1259	377SCCK	SHLE	13	16	08-00-88	R	5	Eckel	NO3 as N, <0.2 mg/L; Cl, 2 mg/L-9/20/90 RCHD
Re-1260	377SCCK	SHLE	26	30	10-26-79	R	3	Hanson	NO3 as N, <0.5 mg/L; Cl, 55 mg/L-12/28/79 RCHD
Re-1261	377SCCK	SHLE	40	--	--	-	5	Eckel	NO3 as N, 1.0 Mg./l; Cl, 163 mg/L-7/2/86 RCHD
Re-1262	377SCCK	SHLE	--	80	03-00-88	R	6	Eckel	NO3 as N, <0.2 mg/L; Cl, 40 mg/L-8/12/88 RCHD
Re-1263	377SCCK	SHLE	85	--	--	-	5	A. Kleinhaus	NO3 as N, <0.2 mg/L; Cl, 17 mg/L-12/11/85 RCHD
Re-1264	377SCCK	SHLE	80	--	--	-	2.5	Gordon Goold	NO3 as N, <0.5 mg/L; Cl, 36 mg/L-7/14/78 RCHD
Re-1265	377SCCK	SHLE	55	--	--	-	6	Gordon Goold	NO3 as N, <0.2 mg/L; Cl, 14 mg/-7/14/88 RCHD
Re-1266	112GLCD	SDGL	65	33.2	12-02-92	S	--	Kleinhans, A.	Reported yield 10 gpm
Re-1267	112GLCD	GRVL	75	55	07-00-87	R	7	Eckel	NO3 as N, <0.2 mg/L; Cl, 9 mg/L-2/22/88 RCHD
Re-1268	377SCCK	SHLE	95	46	12-13-87	R	5	Eckel	NO3 as N, <0.2 mg/L; Cl, 19 mg/L-5/13/88 RCHD
Re-1269	377SCCK	SHLE	70	--	--	-	3	Eckel	NO3 as N, <0.2 mg/L; Cl, 3 mg/L-3/28/84 RCHD
Re-1270	377SCCK	SHLE	100		08-00-87	R	5	Eckel	NO3 as N, <0.2 mg/L; Cl, 74 mg/L-5/18/85 RCHD
Re-1271	377SCCK	SHLE	117	--	--	-	--	--	--
Cb-1	364NMKL	SHLE	45	20	00-00-31	R	--	Grmntn Artsn	Originally inventoried for county GW study
Cb-2	377SCCK	LMDM	67	43	00-00-42	R	1	Grmntn Artsn	Reported avg.WL
Cb-3	377SCCK	SHLE	60	--	--	-	6	Shaver, Wm	Originally inventoried for county GW study
Cb-4	377SCCK	SHLE	45	10	00-00-39	R	2.5	Shaver, Wm	Originally inventoried for county GW study
Cb-5	377SCCK	SHLE	20	13	00-00-47	R	2.5	--	Moderately hard water reported

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

B. Wells south of 42° 30'.

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Local well number	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Cb-6	422657073440001	422657	0734400	Lee, Mr.	220	H	6	00-00-34	C	6	39	D	10	X
Cb-7	422750073420001	422750	0734200	Winchell, Ray	280	H	7	00-00-42	C	6	162	D	96	X
Cb-8	422732073414301	422732	0734143	Stahlman, Frank & Willard	300	H	8	00-00-08	C	6	90	O	90	O
Cb-9	422716073414301	422716	0734143	St Joseph of Holy Cross	300	H	9	--	D	54	20	O	20	W
Cb-10	422705073413901	422705	0734139	Campbell, P.	308	H	10	06-00-39	C	6	119	D	119	O
Cb-11	422731073410801	422731	0734108	Camp Orinsekwa	310	H	11	00-00-38	C	6	31	D	31	O
Cb-12	422714073410701	422713	0734112	Stahlman, Ralph & Harry	321	H	12	00-00-36	C	6	90	D	90	O
Cb-13	422722073400001	422722	0734000	Dudley, Ralph (Kinderhook Orchards)	330	H	13	07-00-44	C	6	195	D	21	X
Cb-14	422723073394301	422723	0733943	Dudley, Ralph (Kinderhook Orchards)	325	H	14	06-00-44	C	6	96	D	5	X
Cb-15	422737073394201	422737	0733942	Kinderhook Orchards, Inc.	410	H	15	05-00-42	C	6	352	D	165	X
Cb-16	422743073392701	422743	0733927	Kinderhook Orchards, Inc.	299	I	16	00-00-25	V	1.25	20	O	17	T
Cb-17	422743073392702	422743	0733927	Kinderhook Orchards, Inc.	299	I	17	00-00-25	V	1.25	20	O	17	T
Cb-18	422743073392703	422743	0733927	Kinderhook Orchards, Inc.	299	I	18	00-00-25	V	1.25	20	O	17	T
Cb-19	422743073392704	422743	0733927	Kinderhook Orchards, Inc.	299	I	19	00-00-25	V	1.25	20	O	17	T
Cb-20	422825073380801	422825	0733808	Sheffield Farms, Inc.	350	C	20	--	V	2	20	O	20	T
Cb-21	422817073375401	422817	0733754	North Chatham Fire Co. Test Well	350	F	21	05-00-42	C	6	32	D	32	O
Cb-53	422637073373401	422636	0733731	Hacker, Dr. Christian	440	H	53	--	C	6	85	D	19	X
Cb-54	422647073385301	422647	0733853	Nolan, Mrs.	310	H	54	08-00-45	C	6	122	D	9	X
Cb-55	422653073385401	422652	0733852	Hover, Mike	320	H	55	00-00-30	C	6	85	D	25.5	X
Cb-56	422657073385101	422657	0733851	Carmadine, Mrs. Charles	330	H	56	00-00-22	C	6	41	D	41	O
Cb-57	422701073385001	422701	0733850	Johnson, C.	330	H	57	12-00-44	C	6	72	D	24	X
Cb-58	422629073394101	422629	0733941	Van Hoesen, Henry	320	U	58	--	C	6	186	D	130	X
Cb-59	422604073392801	422600	0733929	Standard Oil Co.	320	U	59	00-00-27	C	6	40	O	37	T

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

B. Wells south of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Cb-6	377SCCK	SHLE	6	8	00-00-34	R	4	Shaver	Originally inventoried for county GW study
Cb-7	377SCCK	SHLE	87	50	00-00-42	R	.75	Grmntn Artsn	Originally inventoried for county GW study
Cb-8	112ICNC	GRVL	89	40	00-00-38	R	3	Mcqueen, J C	Originally inventoried for county GW study
Cb-9	112OTSH	SAND	0	16.9	10-11-45	S	40	--	Rock at 100 ft from nearby drilled well
Cb-10	112GLCD	GRVL	118	46	06-00-39	R	15	Goold Bros	Originally inventoried for county GW study
Cb-11	112ICNC	SAND	14	--	--	-	25	Shaver, Wm	Originally inventoried for county GW study
Cb-12	112GLCD	GRVL	89	18	00-00-36	R	6	Shaver, Wm	Hard water reported, rock at 90 ft
Cb-13	377SCCK	SLTE	21	17	07-00-44	R	9	Goold Bros	QW analysis by NYSDOH in GW-25
Cb-14	377SCCK	SLTE	5	16	06-00-44	R	--	Goold Bros	Originally inventoried for county GW study
Cb-15	377SCCK	SHLE	165	104	05-00-42	R	3.5	Goold Bros	Originally inventoried for county GW study
Cb-16	112ICNC	GRVL	0	11	00-00-45	R	15	Former Owner	4 driven wells in pit-common suction
Cb-17	112ICNC	GRVL	0	11	00-00-45	R	15	Former Owner	4 driven wells in pit-common suction
Cb-18	112ICNC	GRVL	0	11	00-00-45	R	15	Former Owner	4 driven wells in pit-common suction
Cb-19	112ICNC	GRVL	0	11	00-00-45	R	15	Former Owner	4 driven wells in pit-common suction
Cb-20	112OTSH	SAND	15	16	01-08-47	R	--	--	Milk transfer sta. QW analysis in GW-25.
Cb-21	112OTSH	SDGL	0	7	05-00-42	R	68	Goold Bros	Originally inventoried for county GW study
Cb-53	371TCSQ	SLTE	19	9	10-16-45	R	16	Goold Bros	Stuyvesant Falls Fm.
Cb-54	371TCSQ	SLTE	9	12	08-00-45	R	--	Goold Bros	Originally inventoried for county GW study
Cb-55	371TCSQ	SHLE	25	18	00-00-30	R	3	Wm Shaver	Original 33 ft well deepened to 85 ft - 1930
Cb-56	112ICNC	GRVL	35	27.5	00-00-22	R	1.0	Grmntn Artsn	--
Cb-57	371TCSQ	SLTE	24	28	12-00-44	R	42	Goold Bros.	Originally inventoried for county GW study
Cb-58	377NSSU	SHLE	130	--	--	-	--	Grmntn Artsn	Originally inventoried for county GW study
Cb-59	112OTSH	SAND	0	15	00-00-27	R	15	Grmntn Artsn	Used from 1927-30, abandoned since 1930

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

B. Wells south of 42° 30'.

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Local well number	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Cb-60	422533073395301	422533	0733953	Ross, Sylvester	310	U	60	00-00-20	C	6	284	D	--	X
Cb-61	422503073394801	422458	0733943	Mitchell, Mrs. Abraham	310	H	61	00-00-36	C	4	45	D	45	O
Cb-62	422605073402201	422605	0734022	Wassaic State School	310	T	62	00-00-16	C	72	64	D	64	O
Cb-63	422608073402101	422605	0734020	Wassaic State School	310	T	63	00-00-34	D	60	20	S	20	W
Cb-64	422604073403301	422604	0734033	Wassaic State School	312	S	64	00-00-10	D	36	22	O	22	W
Cb-65	422643073401801	422643	0734018	Zippin, J.	320	H	65	00-00-32	C	6	96	O	40	X
Cb-66	422650073400701	422646	0734006	Winslow, Paul	315	H	66	00-00-19	C	6	82	D	25	X
Cb-67	422641073411001	422638	0734110	Davidson Bros.	310	C	67	07-00-43	C	6	156	D	106	X
Cb-68	422634073410601	422638	0734112	Davidson Bros.	310	H	68	00-00-30	C	6	100	D	100	O
Cb-69	422603073412601	422559	0734127	Myers, Dudley	300	C	69	00-00-43	C	6	70	D	70	O
Cb-70	422547073411801	422547	0734118	Pierce Farm	305	H	70	00-00-24	C	6	86	D	86	O
Cb-71	422539073412001	422539	0734120	Phillip, Joseph	301	H	71	00-00-39	V	2	12	O	9	T
Cb-72	422538073412501	422535	0734125	Pross, E.	300	H	72	00-00-41	C	6	136	D	136	O
Cb-73	422459073420801	422459	0734208	Judson, Paul	285	H	73	00-00-35	C	48	45	D	15	X
Cb-74	422505073422501	422502	0734225	Loyds, J.B.	275	H	74	00-00-20	C	6	238	D	89	X
Cb-75	422527073422101	422526	0734223	Davenport, J.	265	H	75	00-00-20	C	6	138	D	138	O
Cb-76	422608073421901	422608	0734219	Dahlgren Bros.	280	H	76	04-00-45	C	6	100	D	91	X
Cb-77	422611073421901	422608	0734219	Dahlgren Bros.	280	H	77	00-00-38	D	60	25	O	25	W
Cb-78	422329073421101	422234	0734318	Hinds, Mrs. Spencer	220	H	78	04-00-43	C	6	161	D	123	X
Cb-79	422519073425601	422518	0734256	Loyds, J.B.	230	H	79	00-00-22	C	6	185	D	75	X
Cb-80	422536073435901	422535	0734355	Leiser, George	240	H	80	09-00-30	C	6	88	D	6	X
Cb-81	422509073443201	422509	0734432	Fowler, Harold	280	H	81	00-00-41	C	6	156	D	65	X
Cb-82	422505073443801	422500	0734440	Estate of Fred Keene	225	H	82	00-00-31	C	6	95	D	7	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

B. Wells south of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Cb-60	377NSSU	SHLE	--	24	00-00-20	R	--	Grmntn Artsn	Depth to bedrock reported at 100+ ft
Cb-61	112ICNC	GRVL	20	20	00-00-36	R	10	Shaver, Wm	Soft water reported
Cb-62	112GLCD	SAND	6	19	10-11-45	R	2	Grmntn Artsn	Dug well installed around existing 6 in well
Cb-63	112OTSH	SAND	0	16	10-11-45	S	15	Owner	QW analysis in table 4, Bulletin GW-25
Cb-64	112OTSH	SAND	--	18	10-11-45	R	--	--	Originally inventoried for county GW study
Cb-65	377SCCK	SLTE	40	16	00-00-32	R	9	Hall & Co	Well drilled in existing 30 ft dug well
Cb-66	377SCCK	SHLE	10	29	00-00-19	R	6	Grmntn Artsn	Reported avg WL
Cb-67	377SCCK	SLTE	106	14	07-00-43	R	11	Goold Bros.	Driller: 0-106 ft quicksand
Cb-68	112GLCD	GRVL	98	20	00-00-30	R	25	Shaver, Wm.	Well taps gravel overlying rock
Cb-69	112GLCD	GRVL	66	15	00-00-43	R	25	Shaver, Wm	Well taps coarse gravel over rock
Cb-70	112GLCD	GRVL	83	20	00-00-45	R	20	Shaver, Wm.	Well taps gravel just above rock
Cb-71	112OTSH	SDGL	0	6	00-00-39	R	--	--	Originally inventoried for county GW study
Cb-72	112GLCD	SDGL	120	63	00-00-41	R	2.5	Grmntn Artsn	Reported avg WL
Cb-73	377NSSU	SHLE	15	15	00-00-35	R	1.0	Shaver, Wm.	Well installed in existing dug well rock at 15 ft.
Cb-74	371TCSQ	SHLE	26	26	00-00-20	R	1.0	Grmntn Artsn	--
Cb-75	112GLCD	GRVL	--	20	00-00-20	R	10	Shaver, Wm.	Supplies three households
Cb-76	377SCCK	SHLE	91	13	04-00-45	R	5	Shaver, Wm.	Originally inventoried for county GW study
Cb-77	112OTSH	SDGL	0	18	00-00-38	R	25	Shaver, Wm.	6-inch drilled bedrock well nearby
Cb-78	377NSSU	SHLE	123	55	04-00-43	R	7	Goold Bros.	Reported avg WL
Cb-79	371TCSQ	SHLE	75	32	00-00-22	R	.7	Grmntn Artsn	Reported avg WL, H2S reported
Cb-80	377SCCK	SLTE	6	17	09-00-30	R	6	Goold Bros	Average water use 700 gpd
Cb-81	377SCCK	SHLE	65	40	00-00-41	R	1	Grmntn Artsn	Originally inventoried for county GW study
Cb-82	377SCCK	SHLE	7	10	00-00-31	R	6	Grmntn Artsn	Moderately hard water reported

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

B. Wells south of 42° 30'.

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Local well number	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Cb-83	422615073450801	422611	0734507	Crouthamel, W.K.	230	H	83	00-00-25	C	6	127	D	23.5	X
Cb-84	422355073432701	422350	0734326	Ogden, Alfred	250	H	84	00-00-11	C	6	124	D	40	X
Cb-85	422255073432201	422254	0734323	Smith, Dr. Dwight	230	H	85	00-00-46	C	6	295	D	92	X
Cb-86	422343073424201	422339	0734241	Kinderhook Fruit Co.	255	U	86	07-00-23	C	8	196	D	120	X
Cb-87	422356073422701	422354	0734223	Echo Fruit Farm	265	C	87	00-00-95	C	6	87	O	80	X
Cb-88	422423073424801	422423	0734248	Howard, Lawrence	265	H	88	00-00-13	C	6	165	O	165	O
Cb-89	422429073423401	422427	0734235	Dorman, E.O.	270	H	89	12-00-44	C	6	119	D	37	X
Cb-90	422452073421301	422450	0734215	Mcvaugh, Roy	280	S	90	00-00-30	C	6	193	D	108	X
Cb-91	422328073413301	422328	0734133	Village of Kinderhook	200	P	91	00-00-38	C	8	31	D	26	S
Cb-92	422327073413401	422327	0734134	Inc. Village of Kinderhook	200	P	92	00-00-22	C	4.5	24	D	24	O
Cb-93	422327073413301	422327	0734133	Inc. Village of Kinderhook	200	P	93	00-00-22	C	4.5	24	D	24	O
Cb-94	422329073413301	422329	0734133	Inc. Village of Kinderhook	200	P	94	00-00-22	C	4.5	24	D	24	O
Cb-95	422326073413901	422326	0734139	Davie, George H.	200	H	95	00-00-22	C	6	21	D	21	S
Cb-96	422536073425001	422536	0734250	Van Alstyne, Louis	240	H	96	--	C	4	80	D	80	O
Cb-98	422325073411301	422321	0734110	Hand, J.C.	270	H	98	00-00-29	C	6	155	D	12	X
Cb-99	422330073405901	422330	0734059	Commancer, Wm.	320	H	99	00-00-30	C	6	84	D	3	X
Cb-102	422447073394401	422443	0733945	Garrigan, Walter	280	H	102	00-00-38	C	4	108	D	15	X
Cb-103	422355073393301	422355	0733933	Ibert, M.	310	H	103	00-00-36	C	6	50	O	30	X
Cb-104	422333073393301	422330	0733933	Mc Cagg, Dick	300	H	104	11-00-43	C	6	80	D	14	X
Cb-105	422346073384901	422343	0733841	Crandall, W.S.	310	H	105	00-00-14	C	6	280	D	25	X
Cb-127	422305073383401	422302	0733831	Mc Clellan, Hugh	340	H	127	05-00-35	C	6	71	D	12	X
Cb-128	422243073382301	422243	0733823	Mason, Richard	350	H	128	00-00-24	C	6	92	D	39	X
Cb-130	422243073403401	422241	0734034	Benhoffft, Fred	450	H	130	00-00-25	C	6	90	D	26	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

B. Wells south of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Cb-83	377SCCK	LMSN	23.5	27	00-00-25	R	1	Grmntn Artsn	Owner reports hard water
Cb-84	377NSSU	SHLE	40	36	00-00-11	R	16	Grmntn Artsn	Some hardness reported
Cb-85	377NSSU	SHLE	92	27	00-00-46	R	5	Gordon Goold	Original 160 ft well deepened to 295 ft 1946
Cb-86	371TCSQ	SHLE	120	125	07-00-23	R	10	Grmntn Artsn	Well not used, yield inadequate
Cb-87	371TCSQ	SLTE	80	38	00-00-95	R	30	Grmntn Artsn	Soft water reported, water for cold storage
Cb-88	112GLCD	GRVL	165	20	10-12-45	R	4.5	Grmntn Artsn	Some question as to veracity of log
Cb-89	371TCSQ	SLTE	37	21	12-00-44	R	15	Goold Bros	Very soft water reported
Cb-90	371TCSQ	SHLE	108	85	00-00-30	R	3	Grmntn Artsn	Water used primarily for fruit tree spraying
Cb-91	111ALVM	GRVL	0	12	00-00-38	R	150	Shaver, Wm	QW analysis and well data in Bull. GW-25
Cb-92	111ALVM	GRVL	0	10	00-00-22	R	50	Grmntn Artsn	One of 3 standby wells on common suction
Cb-93	111ALVM	GRVL	0	10	00-00-22	R	50	Grmntn Artsn	One of 3 standby wells on common suction
Cb-94	111ALVM	GRVL	0	10	00-00-22	R	50	Grmntn Artsn	One of 3 Standby Wells on common suction
Cb-95	111ALVM	GRVL	0	9	00-00-22	R	5	Grmntn Artsn	Originally inventoried for county GW study
Cb-96	112GLCD	GRVL	78	3	11-15-45	R	3	Shaver, Wm	Well drilled in dug well, taps grvl, brkn rx
Cb-98	377NSSU	SHLE	12	12	00-00-29	R	3	Grmntn Artsn	Moderately hard water reported
Cb-99	377NSSU	SHLE	0	12	00-00-30	R	2.5	Grmntn Artsn	Originally inventoried for county GW study
Cb-102	377NSSU	SHLE	15	25	00-00-38	R	4	Shaver, Wm	Hard water reported
Cb-103	377NSSU	SHLE	30	12	00-00-36	R	--	--	Originally inventoried for county GWsStudy
Cb-104	371TCSQ	SHLE	14	12	11-00-43	R	6	Goold Bros	Soft water reported
Cb-105	371TCSQ	SHLE	25	--	--	-	9	Grmntn Artsn	QW analysis in table 4, Bulletin GW-25
Cb-127	371TCSQ	SLTE	12	19	05-00-35	R	10	Goold Bros	Mt. Merino Fm.
Cb-128	371TCSQ	SHLE	39	17	00-00-24	R	2	Grmntn Artsn	Probably drilled in Germantown Fm.
Cb-130	377NSSU	SHLE	20	20	00-00-25	R	1.25	Grmntn Artsn	Originally inventoried for county GW study

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.**B.** Wells south of 42° 30'.

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Local well number	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Cb-131	422243073412601	422243	0734126	Ichabod Crane School (District 6)	240	T	131	00-00-38	C	6	98	D	71	X
Cb-132	422241073412801	422239	0734128	Ichabod Crane School (Carl Fisher)	250	H	132	00-00-42	C	6	100	D	75	X
Cb-143	422233073452401	422233	0734524	Best, Mary K.	110	H	143	00-00-17	C	6	281	D	159	X
Cb-144	422320073461501	422320	0734615	Mitchell, John G.	160	H	144	--	C	6	138	D	122	X
Cb-145	422327073463601	422327	0734636	Stuyvesant School	130	T	145	00-00-26	C	6	120	D	95	X
Cb-146	422337073464901	422333	0734647	Odd Fellows Home	120	T	146	12-00-27	C	8	475	D	100	X
Cb-147	422323073464701	422323	0734653	Van Alstyne, Wm.	110	H	147	11-00-31	C	6	134	D	134	O
Cb-148	422321073464601	422321	0734646	Paul, Thomas	130	H	148	07-00-33	C	6	140	D	140	O
Cb-149	422314073470001	422314	0734700	Edwards, James	100	H	149	00-00-28	C	6	100	D	14	X
Cb-150	422309073470301	422309	0734700	Stuyvesant Catholic Church	110	T	150	00-00-22	C	6	165	D	165	O
Cb-151	422245073464301	422245	0734643	McElheny, Victor	170	H	151	00-00-14	C	8	502	D	95	X
Cb-152	422245073470101	422244	0734700	McElheny, V.K.	30	H	152	00-00-26	C	6	240	D	74	X
Cb-157	422315073452801	422315	0734532	Thomas, Ralph	120	H	157	03-00-44	C	4	319	D	275	X
Cb-161	422314073433701	422314	0734337	Smith, Elliot	260	H	161	00-00-46	C	--	315	D	102	X
Cb-162	422324073461201	422322	0734611	Calkins, Arthur	160	H	162	00-00-32	C	6	160	D	118	X
Cb-163	422322073460401	422322	0734604	Losee, S.	160	H	163	00-00-36	C	6	141	D	76	X
Cb-164	422737073461501	422730	0734616	Vaneyk, John	80	H	164	00-00-10	C	6	132	D	48	X
Cb-193	422806073383301	422806	0733833	Van Der Goes, Phillip	340	H	193	--	V	--	22	O	22	T
Cb-198	422355073382801	422353	0733824	Sommers, Kate	260	H	198	00-00-27	C	6	80	D	71	X
Cb-199	422352073381901	422351	0733821	Sommers, Frank Jr.	270	H	199	00-00-27	C	6	80	D	71	X
Cb-855	422335073413501	422328	0734132	Village of Kinderhook	200	P	855	10-00-47	C	6	35	D	29	S
Cb-856	422335073413502	422328	0734132	Village of Kinderhook	200	P	856	10-00-47	C	8	34	D	28	G
Cb-862	422436073411701	422430	0734118	Inc. Village of Valatie	210	P	862	--	C	8	52	D	47	S

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

B. Wells south of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Cb-131	371TCSQ	SHLE	71	26	00-00-38	R	1	Grmntn Artsn	School abandoned in 1945
Cb-132	371TCSQ	SHLE	71	40	00-00-42	R	.75	Grmntn Artsn	Log similar to Cb-131
Cb-143	377NSSU	SHLE	159	8	00-00-17	R	8	Grmntn Artsn	Originally inventoried for county GW study
Cb-144	377SCCK	SLTE	122	98	10-00-45	R	12	Goold, G	Originally inventoried for county GW study
Cb-145	377SCCK	SHLE	95	80	00-00-26	T	2	Grmntn Artsn	Later deepened by Goold Bros.
Cb-146	377NSSU	SHLE	100	135	12-00-27	R	3.5	Grmntn Artsn	Originally inventoried for county GW study
Cb-147	112ICNC	GRVL	130	122	11-00-31	R	30	Goold Bros	Well taps cemented gravel
Cb-148	112ICNC	GRVL	135	123	07-00-33	R	15	Goold Bros	Well taps 5 ft of clean gravel
Cb-149	371TCSQ	SHLE	14	40	00-00-28	R	20	Grmntn Artsn	Soft water.
Cb-150	112ICNC	GRVL	150	128	00-00-22	R	1	Grmntn Artsn	Well taps 15 ft of gravel beneath till
Cb-151	371TCSQ	LMSN	95	135	00-00-14	R	3	Grmntn Artsn	Germantown Fm? Owner reports hard water
Cb-152	371TCSQ	SHLE	74	9	00-00-26	R	5	Grmntn Artsn	Stuyvesant Falls Fm?
Cb-157	377NSSU	SLTE	275	50	03-00-44	R	3	Goold Bros	Soft water. Gravelly till 255-275 ft.
Cb-161	371TCSQ	SHLE	102	54	00-00-46	R	2.5	Goold Bros	Originally inventoried for county GW study
Cb-162	377NSSU	SHLE	118	78	00-00-32	R	3	Grmntn Artsn	Hard water reported. Nassau Fm?
Cb-163	377NSSU	SHLE	76	129	00-00-36	R	1	Grmntn Artsn	Soft water reported
Cb-164	364NMKL	SHLE	48	--	--	-	1	Grmntn Artsn	Hard water reported
Cb-193	112OTSH	SDGL	0	--	--	-	--	--	Originally inventoried for county GW study
Cb-198	371TCSQ	SHLE	71	20	00-00-27	R	30	Grmntn Artsn	Hydrogen sulfide reported
Cb-199	371TCSQ	ROCK	71	20	00-00-27	R	30	Grmntn Artsn	Originally inventoried for county GW study
Cb-855	112GLCD	GRVL	13	18.5	10-14-47	S	110	Hall & Co.	Finished with 6 ft of 6-inch screen
Cb-856	112GLCD	GRVL	13	17.6	10-18-47	S	220	Hall & Co.	Reported avg WL
Cb-862	112GLCD	SAND	45	12	10-18-45	R	100	Shaver, Wm.	Originally inventoried for county GW study

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.**B.** Wells south of 42° 30'.

Local well number	Site ID	Latitude (degrees)	Longitude (degrees)	Owner	Altitude of land surface (feet)	Primary use of water	Local well number	Date of construction	Method constructed	Diameter of casing (in)	Depth of well (feet)	Source of depth data	Bottom of casing (feet)	Type of finish
Cb-863	422429073411101	422429	0734111	Inc. Village of Valatie	210	P	863	--	D	36	21	G	21	W
Cb-864	422429073411201	422429	0734112	Inc. Village of Valatie	210	P	864	--	D	36	10	G	10	W
Cb-865	422436073411702	422429	0734114	Inc. Village of Valatie	210	P	865	--	D	30	15.5	G	15.5	H
Cb-866	422429073411601	422429	0734116	Inc. Village of Valatie	210	P	866	--	D	36	13.5	G	13.5	W
Cb-867	422429073411701	422429	0734117	Inc. Village of Valatie	210	P	867	--	D	36	13.5	G	13.5	W
Cb-869	422436073411703	422429	0734120	Inc. Village of Valatie	210	P	869	--	C	8	50	D	45	S
Cb-870	422436073411704	422429	0734118	Inc.. Village of Valatie	210	P	870	--	C	8	35	D	30	S
Cb-986	422307073452301	422307	0734523	Webber, E.	120	H	986	00-00-17	C	6	271	O	174	X
Cb-994	422251073443101	422251	0734431	West, C. Jr.	190	H	994	--	C	6	74	O	28	X
Cb-995	422241073434701	422241	0734347	Van Alstyne, W.B.	220	H	995	00-00-00	C	6	156	O	85	X
Cb-1036	422600073404301	422600	0734043	Valatie Research Farm	310	U	1036	06-18-94	A	6	67.5	S	64.0	X
Cb-1040	422328073413304	422328	0734133	Village of Kinderhook	200	P	1040	00-00-66	C	12	36	G	27	S
Cb-1048	422602073413701	422602	0734137	Jeff Pinkowski (Builder)	303	H	1048	10-00-90	--	6	--	S	--	--
Cb-1049	422527073420501	422527	0734205	Devine, Mrs. Barbara	295	U	1049	11-09-88	C	6	138.5	D	135.5	S
Cb-1050	422527073420502	422527	0734205	Devine, Mrs. Barbara	296	U	1050	06-25-88	A	6	540	D	136	X
Cb-1051	422524073405501	422524	0734055	Austin, Sam	320	H	1051	07-08-92	-	6	180	O	--	X
Cb-1052	422427073410001	422430	0734108	Inc. Village of Valatie	207	P	1052	08-00-61	-	10	33	G	26	G
Cb-1054	422545073410701	422545	0734107	Kleeber Realty Inc.	300	U	1054	08-00-89	C	6	353	D	41	X
Cb-1056	422606073415101	422606	0734151	Associated Fruit Growers	302	H	1056	--	-	6	--	-	--	-
Cb-1057	422526073405201	422526	0734052	Austin, Wayne	308	H	1057	10-11-93	C	6	240	O	--	X
Cb-1058	422536073411601	422536	0734116	Hudson City Savings Institution	301	U	1058	--	C	6	--	-	--	X
Cb-1059	422541073411101	422541	0734111	Hudson City Savings Institution	302	U	1059	--	C	6	179	S	174	X
Cb-1060	422537073411601	422537	0734116	Hudson City Savings Institution	304	H	1060	10-27-93	-	6	173	O	--	X

Appendix 1. Records of wells in the Schodack-Kinderhook area, Rensselaer and Columbia Counties, N.Y.

B. Wells south of 42° 30'.

Local well number	Aquifer code	Lithology code	Depth to top (feet)	Water level (feet)	Date water level measured	Method water level measured	Discharge (gpm)	Contractor	Remarks
Cb-863	111ALVM	GRVL	0	11.5	10-10-45	S	35	Village of Valatie	One of 5 original dug wells, now abandoned
Cb-864	111ALVM	GRVL	0	8.6	10-10-45	S	35	Village of Valatie	One of 5 original dug wells, now abandoned
Cb-865	111ALVM	GRVL	2	8.9	10-10-45	S	100	Village of Valatie	One of 5 original dug wells, now abandoned
Cb-866	111ALVM	GRVL	0	8.3	10-10-45	S	35	Village of Valatie	One of 5 original dug wells, now abandoned
Cb-867	111ALVM	GRVL	0	8.9	10-10-45	S	100	Village of Valatie	One of 5 original dug wells, now abandoned
Cb-869	112GLCD	SAND	45	12	10-18-45	R	75	Shaver, Wm.	Originally inventoried for county GW study.
Cb-870	112GLCD	SAND	26	12	02-10-48	R	150	Shaver, Wm.	Reported avg WL
Cb-986	377NSSU	SHLE	174	--	--	-	8	Grmntn Artsn	Originally inventoried for county GW study
Cb-994	371TCSQ	LMSN	28	20	06-14-48	R	--	Gordon Goold	Germantown Fm?
Cb-995	371TCSQ	SHLE	85	18	06-10-48	R	14	Lasher	Originally inventoried for county GW study
Cb-1036	377NSSU	SHLE	59	8.39	06-22-94	S	22	Smith, Jeff	Unused--yield insufficient for irrigation.
Cb-1040	112GLCD	GRVL	--	--	--	-	--	Stewart Bros	Village of Kinderhook Well No 4
Cb-1048	--	--	--	11.5	11-07-90	S	--	--	New home, no pump when WL measured
Cb-1049	112GLCD	SAND	132	47.2	01-24-91	S	7.5	Jeff Smith	Functions as USGS obs. well
Cb-1050	371TCSQ	SHLE	136	45.1	01-24-91	S	6	Gould Bros.	Hydrofractured at 180 ft
Cb-1051	371TCSQ	SHLE	--	21.9	07-10-92	S	--	--	Temp.-conductance log taken
Cb-1052	112GLCD	SDGL	--	--	--	-	300	--	Gravel-packed supply well drilled 1961
Cb-1054	377NSSU	SHLE	41	9.98	10-10-89	S	1.75	Smith Well Drl.	Currently unused; commercial use in 1990
Cb-1056	--	--	--	12.7	02-07-90	S	--	--	--
Cb-1057	377NSSU	SHLE	--	16.7	10-13-93	S	--	Smith, J.	New home; pump installed 11/93
Cb-1058	377NSSU	SHLE	--	23.84	09-01-93	S	--	--	House destroyed for new bank
Cb-1059	377NSSU	SHLE	174	24.32	08-30-93	-	--	--	Abandoned; serves as USGS obs. wel
Cb-1060	377NSSU	SHLE	--	24.7	10-30-93	S	20	--	Supply well for bank