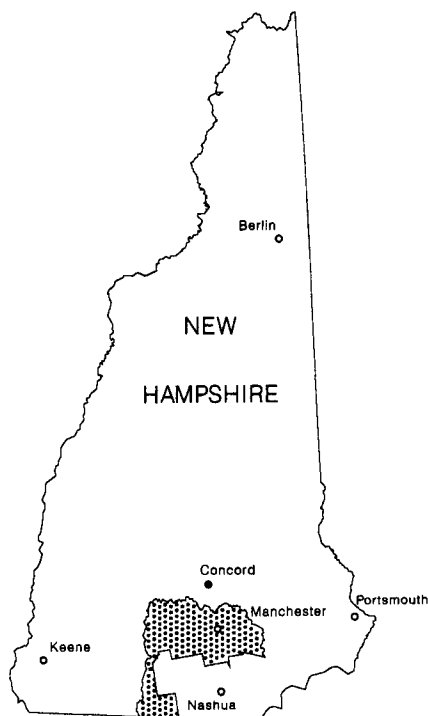


Geohydrology and Water Quality of Stratified-Drift Aquifers in the Middle Merrimack River Basin, South-Central New Hampshire

U.S. GEOLOGICAL SURVEY

Water-Resources Investigations Report 92-4192



Prepared in cooperation with the
NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES,
WATER RESOURCES DIVISION



APPENDIX B

Appendix B.--Stratigraphic logs of selected wells and borings

Local site number: First two characters are U.S. Geological Survey town code. Third character indicates--A, auger hole; B, highway bridge boring; W, well. The numbers are sequential numbers for each town.

Depth to top: Depth to top of unit, in feet below land-surface datum.

Depth to bottom: Depth to bottom of unit, in feet below land-surface datum.

Primary aquifer code: Primary aquifer code of well or boring; codes for geologic ages and materials are listed below.

110SDMN, Quaternary sediment, undifferentiated

111ALVM, Holocene alluvium

111SWMP, Holocene swamp deposits

111FILL, Holocene fill (artificial fill)

112OTSH, Pleistocene outwash

112LCSR, Pleistocene lacustrine deposits

112SRFD, Pleistocene stratified drift

112TILL, Pleistocene till

BEDROCK, Bedrock

Abbreviations: EOH, end of hole; pred., predominantly

Appendix B. Stratigraphic logs of selected wells and borings

[--,no data; EOH, end of hole; ft, feet]

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Hillsborough County				
Bedford				
BIA	1	0	112SRFD	Sand, fine to medium; some sand, very coarse
		20	BEDROCK	Bedrock
BIA	2	0	110SDMN	Sand, coarse; grading to sand, very fine
		20	112SRFD	Sand, very fine, clay and silt
		25	112TILL	Till
BIA	3	0	112SRFD	Sand fine to very coarse; pred. sand, coarse
		20	112SRFD	Clay and silt
		29	112TILL	Till, sandy
		43	BEDROCK	Bedrock
BIA	4	0	112SRFD	Sand, medium to very coarse; pred. sand, medium to coarse
		28	112SRFD	Sand, very fine
		58	112TILL	Till
		62	BEDROCK	Bedrock
BIB	1	0	111SWMP	Muck, silty
		5	111SWMP	Muck, sandy
		10	110SDMN	Sand, gravelly
		15	110SDMN	Silt and fine sand
		20	110SDMN	Sand and gravel, silty; EOH at 25 ft
BIB	2	0	110SDMN	Sand, medium to coarse; sharp
		8	110SDMN	Silt; some gravel, fine
		19	110SDMN	Gravel; EOH at 25 ft
BIB	3	0	110SDMN	Sand, some gravel
		11	110SDMN	Silt, some sand
		17	110SDMN	Gravel; refusal at 19 ft
BIB	4	0	110SDMN	Sand and gravel, silty
		7	110SDMN	Clay and silt
		25	110SDMN	Silt, trace clay
		30	110SDMN	Clay and silt
		48	110SDMN	Sand; refusal at 51 ft
BIB	5	0	110SDMN	Silt and fine sand
		8	110SDMN	Clay and silt
		43	110SDMN	Silt, some sand and gravel
		48	112SRFD	Sand and gravel; refusal at 57 ft; 15 ft rock cored
BIB	6	0	110SDMN	Sand, fine
		20	110SDMN	Silt and fine sand
		35	110SDMN	Clay and silt
		42	110SDMN	Sand, fine; gray; EOH at 81 ft

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Hillsborough County--Continued				
Bedford--Continued				
BIB 8	0	7	110SDMN	Sand, fine to coarse
	7	--	110SDMN	Sand and gravel, silty; refusal at 12 ft
BIB 9	0	4	110SDMN	Sand, fine; gravel
BIB 9	4	--	110SDMN	Sand, fine to medium; refusal at 6 ft
BIB 10	0	6	111SWMP	Muck
	6	7	110SDMN	Sand, fine to coarse
	7	30	110SDMN	Clay and silt
	30	35	110SDMN	Silt and fine sand
	35	--	BEDROCK	Bedrock; EOH at 54 ft
BIB 11	0	7	110SDMN	Sand, gravelly
	7	25	110SDMN	Clay and silt
	5	30	110SDMN	Silt, clayey
	30	35	110SDMN	Silt and sand
	35	--	112TILL	Till; refusal at 39 ft
BIB 12	0	5	110SDMN	Sand, fine to coarse
	5	9	110SDMN	Sand and gravel
	9	--	110SDMN	Sand, silty and gravel; refusal at 15 ft
BIW 4	0	--	112OTSH	Sand, very fine to fine
BIW 8	0	4	112SRFD	Sand and gravel; some boulders
	4	10	112SRFD	Silt and fine sand
	10	--	BEDROCK	Bedrock; EOH at 12.5 ft
BIW 11	0	27	112SRFD	Sand, medium
	27	40	112SRFD	Sand, very fine grading to sand, coarse
	40	44	112SRFD	Sand, coarse
	44	--	BEDROCK	Bedrock
BIW 12	0	65	112SRFD	Sand, very fine to very coarse; pred. tan sand, medium
	65	68	112TILL	Till
	68	--	BEDROCK	Bedrock
BIW 14	0	27	112SRFD	Sand, very fine to very coarse; pred. tan sand, coarse
	27	40	112SRFD	Sand, very fine to medium; pred. tan sand, fine
	40	76	112SRFD	Clay and silt; gray
	76	--	BEDROCK	Bedrock
BIW 17	0	75	112SRFD	Silt and very fine sand; pred. sand, very fine
	75	--	BEDROCK	Bedrock
BIW 18	0	35	112SRFD	Sand, fine to medium; pred. fine sand
	35	--	112TILL	Till; refusal at 39 ft
BIW 19	0	10	112SRFD	Tan sand, coarse
	10	45	112SRFD	Clay, gray

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Hillsborough County--Continued				
Bedford--Continued				
	45	50.5	112SRFD	Sand, medium to coarse sand
	50.5	--	BEDROCK	Bedrock
Deering				
DEW	3	0	110SDMN	--
		23	BEDROCK	--
		23		
Franeestown				
FCW	3	0	112SRFD	Sand, medium, tan; ranges from sand, fine to coarse
FCW	3	20	112SRFD	Sand, medium to coarse, pred.
		35	112SRFD	Sand, fine to medium
		35		
Goffstown				
GNA	1	0	112SRFD	Sand, very coarse; cobble gravel
GNA	3	0	112SRFD	Sand and gravel; very cobbly
		10	112TILL	Till; refusal at 20 ft
		10		
GNB	1	0	110SDMN	Sand and gravel; refusal at 14 ft
GNB	2	0	111FILL	Bedrock
		3	112SRFD	Sand and gravel; hard, coarse
		6	112TILL	Till
		8	BEDROCK	--
		8		
GNB	3	0	110SDMN	Gravel
		10	110SDMN	Sand and gravel; EOH at 25 ft
GNB	4	0	112SRFD	Gravel
		9	BEDROCK	Bedrock
GNW	1	0	112OTSH	Sand, fine to medium
		40	112OTSH	Sand; EOH at 40 ft
GNW	2	0	112SRFD	Sand and gravel; EOH at 41 ft
GNW	4	0	112SRFD	Sand, fine to very coarse to fine gravel
		43	112SRFD	Sand, very fine to fine
		44	BEDROCK	Bedrock
		44		

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Hillsborough County--Continued				
Goffstown--Continued				
GNW 7	0	30	112SRFD	Sand, coarse, some very coarse sand
	30	40	112SRFD	Sand, fine, grading to sand, very fine
	40	--	112TILL	Till
GNW 8	0	35	112SRFD	Sand, coarse to very coarse; some finer layers
	35	39	112SRFD	Sand, fine to medium
	39	--	BEDROCK	Bedrock
GNW 9	0	--	112SRFD	Sand, coarse; some finer bands
GNW 14	0	10	112SRFD	Sand, coarse, tan, clean
	10	20	112SRFD	Sand, medium, tan, clean
	20	30	112TILL	Till, sandy; clay and angular pebbles within
	30	59	112SRFD	Sand, very coarse; some finer layers
	59	--	112TILL	EOH at 66 ft in till
GNW 15	0	40	112SRFD	Sand, coarse to very coarse; variable thin layers
	40	54.5	112TILL	Till, sandy
	54.5	--	BEDROCK	Bedrock
GNW 16	0	33	112SRFD	Sand, coarse; variable finer lenses
	33	49	112TILL	Till, sandy
	49	--	BEDROCK	Bedrock
GNW 17	0	30	112SRFD	Sand, coarse; some sand, very coarse
	30	--	112SRFD	Sand, fine to medium; well sorted; EOH at 62 ft
Greenfield				
GSW 101	0	34	112SRFD	Sand, medium to coarse; some lenses of both finer and coarser sand
	34	--	112TILL	Till; refusal at 47 ft
GVB 1	0	2.5	112SRFD	Sand, loamy, hard; little gravel
	2.5	8	112SRFD	Sand, coarse, hard; some gravel and boulders
	8	15.5	112SRFD	Clay, hard, some sand and gravel
	15.5	19	112TILL	Clay, hard, sand, gravel; hardpan
	19	--	BEDROCK	Refusal on boulder or bedrock
Manchester				
MCB 1	0	20	111FILL	Fill, sand and wood
	20	--	BEDROCK	Bedrock; EOH at 51 ft

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Hillsborough County--Continued				
Manchester--Continued				
MCB 3	0	30	110SDMN	Sand, medium, yellow, clean
	30	35	110SDMN	Silt
	35	--	112TILL	Till; EOH at 37 ft
MCB 4	0	2	111FILL	Sand and gravel
	2	11	110SDMN	Sand, fine, peaty
	11	16	110SDMN	Silt and fine sand
	16	--	110SDMN	Sand, coarse and gravel
MCB 6	0	27	111FILL	Fill
	27	30	110SDMN	Sand, yellow, loose
	30	--	110SDMN	Sand and gravel; refusal at 35 ft
MCB 7	0	6	111FILL	Fill
	6	16	110SDMN	Sand, fine, loose
	16	--	110SDMN	Sand, medium and gravel
MCB 9	0	8.5	110SDMN	Sand; finer toward bottom
	8.5	--	BEDROCK	Bedrock; EOH at 23 ft
MCB 10	0	17	110SDMN	Sand, fine
	17	20	110SDMN	Sand, coarse
	20	26	110SDMN	Gravel
	26	40	110SDMN	Sand, fine
	40	--	110SDMN	Gravel; refusal at 42 ft
MCB 12	3	14	110SDMN	Sand and gravel
	14	44	110SDMN	Silt and fine sand
	44	--	110SDMN	Gravel; refusal at 52 ft
MCB 13	0	12	110SDMN	Sand, fine
	12	--	110SDMN	Sand and gravel, silty; refusal at 40 ft
MCB 14	2	23	110SDMN	Sand, fine
	23	33	110SDMN	Gravel
	33	--	BEDROCK	Bedrock; EOH at 46 ft
MCB 15	0	4	111FILL	Fill
	4	44	110SDMN	Silt and very-fine sand; stratified
	44	57	110SDMN	Gravel and boulders
MCB 15	57	--	112TILL	Till; refusal at 60 ft
MCB 16	0	21	110SDMN	Sand, fine to medium
	21	--	110SDMN	Silt and sand; EOH at 90 ft
MCB 17	0	11	110SDMN	Sand, very fine, dry
	11	25	110SDMN	Gravel
	25	--	110SDMN	Silt and fine sand; gray; refusal at 34 ft

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Hillsborough County--Continued				
Manchester--Continued				
MCB 18	0	15	110SDMN	Sand, fine to medium
	15	20	110SDMN	Gravel
	20	31	110SDMN	Silt and very fine sand; wet, gray
	31	--	110SDMN	Gravel; refusal at 35 ft
MCB 20	0	11	110SDMN	Silt and sand; some organic material
	11	29	110SDMN	Silt and fine sand
	29	--	110SDMN	Gravel, silty
MCB 21	0	7	111SWMP	Muck
	7	12	110SDMN	Silt and fine sand
	12	25	110SDMN	Gravel
MCB 22	0	37	110SDMN	Sand, very fine
	7	44	110SDMN	Sand, fine
	44	54	110SDMN	Sand, medium, sharp
	54	--	112TILL	Till; EOH at 58 ft
MCB 23	0	12	110SDMN	Sand, fine
	12	48	110SDMN	Sand, fine; compact
	48	--	110SDMN	Gravel? till? EOH at 57 ft
MCB 24	0	16	110SDMN	Sand, fine; trace silt
	16	18	110SDMN	Gravel
	18	22	112TILL	Till; refusal at 22 ft
MCB 26	0	11	110SDMN	Sand, fine to coarse; some gravel
	11	--	110SDMN	Silt and sand, gravel, boulders
MCB 27	0	4	110SDMN	Sand, medium to coarse
	4	13	110SDMN	Sand, medium; silt layers
	13	29	110SDMN	Sand, fine; silt
	29	--	110SDMN	Sand; hardpan
MCB 29	0	2	110SDMN	Gravel, sandy
	2	--	BEDROCK	Bedrock
MCB 38	0	16	110SDMN	Sand, fine
	16	47	110SDMN	Gravel, fine
	47	54	112TILL	Till, gravelly
	--	--	BEDROCK	Bedrock
MCB 39	0	11	110SDMN	Sand, fine
	11	27	110SDMN	Sand, medium to coarse
MCB 39	27	--	112TILL	Till, gravelly; refusal at 33 ft
MCB 40	0	5	110SDMN	Sand and gravel
	5	13	110SDMN	Sand and gravel, silty
	13	--	BEDROCK	Bedrock; EOH at 31 ft

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Hillsborough County--Continued				
Manchester--Continued				
MCB 41	0	5	111SWMP	Muck
	5	8	112SRFD	Gravel
	8	19	112SRFD	Sand and gravel, silty
	19	21	112SRFD	Boulder
	21	22	112SRFD	Sand and gravel, silty; refusal at 22 ft
MCB 42	0	5	111SWMP	Muck
	5	10	110SDMN	Sand, coarse
	10	19	110SDMN	Sand, fine
	19	27	110SDMN	Silt
	27	--	110SDMN	Gravel, sandy; refusal at 34 ft
MCB 43	0	5	110SDMN	Sand, gravelly
	5	11	110SDMN	Silt, sandy
	11	15	110SDMN	Sand, fine; silty
	15	25	110SDMN	Sand, fine to medium, uniform
	25	40	110SDMN	Sand, fine; silty
	40	41	110SDMN	Sand, fine to medium
	41	46	110SDMN	Sand and gravel, silty, gravelly
	46	--	BEDROCK	Bedrock; mica schist; EOH at 50 ft
MCB 44	0	4	110SDMN	Sand, coarse
	4	12	110SDMN	Gravel
	12	--	112TILL	Till; refusal at 24 ft
MCB 45	0	10	110SDMN	Sand and gravel
	10	20	110SDMN	Sand, coarse
	20	25	110SDMN	Sand, medium to coarse
	25	40	110SDMN	Sand, fine
	40	45	110SDMN	Sand, medium to coarse
	45	50	110SDMN	Silt and fine sand
	50	--	112TILL	Till; EOH at 57 ft
MCB 46	0	9	110SDMN	Sand and gravel, silty
	9	--	BEDROCK	Bedrock
MCB 47	0	6	111SWMP	Muck
	6	14	110SDMN	Sand, medium to coarse
	14	25	110SDMN	Sand, fine, gray
	25	33	110SDMN	Silt and fine sand
	33	46	110SDMN	Sand, fine
	46	52	112TILL	Till, sandy; refusal at 52 ft
MCB 48	14	17	110SDMN	Sand, fine

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Hillsborough County--Continued				
Manchester--Continued				
	17	38	110SDMN	Sand, medium to coarse
	38	--	112TILL	Till, gravelly
	40	--	BEDROCK	Bedrock
MCB 49	0	24	110SDMN	Gravel
	24	--	112TILL	Till, gravelly; refusal at 29 ft
MCB 50	0	5	110SDMN	Sand, fine; trace silt
	5	12	110SDMN	Sand, fine to medium
	12	--	112TILL	Till, sandy; refusal at 17 ft
MCB 51	0	4	110SDMN	Sand and gravel, silty, boulders
	4	--	BEDROCK	Bedrock
MCB 52	0	14	110SDMN	Gravel
	14	24	110SDMN	Sand
	24	40	110SDMN	Gravel
	40	48	110SDMN	Sand
	48	--	112TILL	Till, gravelly; refusal at 68 ft
MCB 53	0	10	111FILL	Gravel fill
	10	--	BEDROCK	Bedrock
MCB 54	0	7	111FILL	Sand and gravel fill
	7	--	BEDROCK	Bedrock
MCB 55	0	12	110SDMN	Sand and gravel
	12	--	112TILL	Till, sandy; refusal at 21 ft
MCB 58	0	12	111FILL	Sand and gravel fill
	12	--	112TILL	Till; refusal at 26 ft
MCB 59	0	15	111FILL	Fill
	15	--	112TILL	Till; refusal at 30 ft
MCW 3	0	--	112OTSH	Sand
MCW 6	0	3.5	111FILL	landfill
	17	44	112SRFD	Sand, fine, brown; trace silt
	44	--	112SRFD	Sand, very fine, brown; silt; EOH at 61 ft
MCW 7	0	8	111FILL	landfill
	8	12	112SRFD	Sand, fine, brown; little silt
	12	18	112SRFD	Sand, fine to medium, brown; trace silt
	18	--	112SRFD	Sand, fine to coarse, red-brown; trace silt; EOH at 20.6 ft
MCW 8	0	9	112SRFD	Sand, fine to coarse, brown; trace silt
	9	11	112SRFD	Sand, fine to medium, brown
	11	23.5	112SRFD	Sand, fine to coarse, brown; some gravel
	23.5	--	BEDROCK	Bedrock; weathered Schist; EOH at 34 ft
MCW 9	0	3.5	111FILL	Landfill

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Hillsborough County--Continued				
Manchester--Continued				
	3.5	12.5	112SRFD	Sand, fine to medium, brown; trace gravel, fine
MCW 9	12.5	23	112SRFD	Sand, fine to coarse, brown; gravel, fine to medium
	23	--	BEDROCK	Granite to gneiss; EOH at 33 ft
MCW 10	0	9.5	111FILL	landfill
	9.5	12.5	112SRFD	Sand, fine, brown; some silt
	12.5	17	112SRFD	Sand, fine to medium, brown; little gravel; trace silt
	17	--	BEDROCK	Bedrock; granite to gneiss; EOH at 55 ft
MCW 11	0	68	111FILL	Landfill
	68	74	112SRFD	Sand, very fine, black gray
	74	--	112SRFD	Sand, fine, light brown; some silt; EOH at 91 ft
Mason				
MGA 1	0	10	112SRFD	Sand, medium
	10	19	112TILL	Till
	19	--	BEDROCK	Bedrock
MGW 1	0	17	112SRFD	Sand, fine
	43.5	--	BEDROCK	Bedrock refusal
New Boston				
NCA 1	0	95	112SRFD	Silt; some sand, very fine
	95	97	112TILL	Till
	97	--	BEDROCK	Bedrock
NCA 8	0	15	112LCSR	Very fine to medium
	0	55	112LCSR	Silt and clay
	55	60	112TILL	Silty
	60	--	BEDROCK	Refusal at 60 ft
NCA 10	0	14	112SRFD	Sand and gravel
	14	--	112TILL	Till; refusal at 14 ft
NCA 99	0	15	110SDMN	Fill over fine sand and silt
	15	--	BEDROCK	Bedrock
NCB 1	0	18	112SRFD	Sand and gravel; EOH at 18 ft
NCB 2	0	18	112SRFD	Sand, fine to coarse, gravel, brown
	18	--	112TILL	Till; EOH at 35.5 ft

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Hillsborough County--Continued				
New Boston--Continued				
NCB	3	0	18	112SRFD Sand, fine to medium and gravel
		18	23	112TILL Till, sandy, dense
NCB	4	23	--	BEDROCK Bedrock; EOH at 28 ft
		0	25	112SRFD Sand, fine to medium; trace sand, coarse
NCB	5	25	--	112TILL Till; EOH at 28 ft
		0	17	112SRFD Sand, fine to medium and gravel
NCB		17	9	112SRFD Silt, clayey, trace sand, fine
		19	26	112TILL Till, sandy, dense
NCW	4	26	--	BEDROCK Bedrock; EOH at 31 ft
		0	--	111ALVM Sand and gravel
NCW	5	0	10	110SDMN Till
		10	--	BEDROCK Bedrock; Littleton Formation
NCW	8	0	48	112OTSH Sand, medium, tan with coarse to very coarse lenses
		48	55	112OTSH gray, sand, medium with coarse to very coarse lenses
		55	83	112OTSH Sand, tan with coarse to very coarse lenses
		83	--	112TILL Till; tight, compact
New Ipswich				
NJA	1	0	7	112SRFD Sand, medium
		7	24	112SRFD Silt, gray
		24	32	112TILL Till
		32	--	BEDROCK Bedrock
NJW	1	0	58.5	111FILL Sand, fine to medium, alternating bands of finer/coarser
		5	--	112SRFD Till; refusal at 67 ft
		15	--	112SRFD Sand
NJW	3	48	--	112SRFD Sand
		58.5	--	112TILL Till
		0	33	112SRFD Sand, medium, some fine to very coarse
NJW	4	33	43	112SRFD Sand, fine, well sorted
		43	53	112TILL Till
		53	--	112SRFD Sand, coarse to very coarse, some fine sand
		--	30	112SRFD Sand, medium, tan, some coarser lenses
		30	40	112SRFD Sand, coarse
NJW	4	40	63.6	112SRFD Sand, fine to medium, pred., some variable thin layers
		63.6	--	112TILL Till; refusal at 68 ft

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Hillsborough County--Continued				
New Ipswich--Continued				
NJW 5	0	53	112SRFD	Sand, very fine to fine; some silt, some sand, medium
	53	--	112TILL	Till; refusal at 64 ft
Temple				
TMA 1	0	22	112SRFD	Sand, very fine, uniform
	22	--	112TILL	Till; EOH at 42 ft
Weare				
WGA 1	--	10	112SRFD	Sand, medium
	10	--	112TILL	Till; EOH at 12.5 ft
WGW 1	0	25	112TILL	Till
	25	--	BEDROCK	Bedrock
WGW 11	0	--	112TILL	Till
WGW 17	0	13	112SRFD	Sand, coarse, poorly sorted
	13	30	112SRFD	Sand, medium, poorly sorted
	30	--	112TILL	Till; refusal at 35 ft
WGW 18	0	60	112SRFD	Silt to very fine sand
	60	69	112SRFD	Sand, very fine, clay and silt
WGW 19	69	75	112SRFD	Sand, very coarse to fine gravel
	75	82	112SRFD	Sand, fine, some clay and silt
	82	--	112TILL	Till; refusal at 91 ft
	0	20	112SRFD	Sand, coarse, muck on top
WGW 19	20	25	112SRFD	Sand, medium, gray; some sand, coarse in thin lenses
	25	35	112SRFD	Sand, coarse, tan; angular
WGW 19	35	40	112SRFD	Sand, very fine to fine, tan
	40	45	112SRFD	Sand, coarse, with some finer lenses
	45	58	112SRFD	Sand, fine, with coarse lenses, thin
	58	--	112TILL	Till; refusal at 61 ft
WGW 20	0	--	112SRFD	Gravel, fine, boulders; refusal at 35 ft
WGW 21	0	24	112SRFD	Sand, medium
	24	42	112SRFD	Sand, very fine to fine
	42	60	112TILL	Till, sandy
	60	89	112SRFD	Sand, fine to medium
	89	--	112TILL	Till; EOH at 99 ft

Appendix B. Stratigraphic logs of selected wells and borings

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Merrimack County				
Allenstown				
ATA	1	0	--	112TILL Till, compact at 23 ft; EOH at 27 ft
ATA	2	0	--	112TILL Till, gray, clayey; EOH at 24 ft
Bow				
BUW	8	0	50	112SRFD Sand, very fine to medium; pred. sand, fine
		50	68	112SRFD Sand, very coarse to pebbles; pred. sand, coarse
BUW	9	68	--	BEDROCK Bedrock
		0	17	112SRFD Sand, very fine to medium; pred. fine sand
		17	37	112SRFD Sand, medium to very coarse; pred. medium sand
		37	83	112SRFD Sand, very fine to medium; pred. very fine to fine sand
		83	--	112TILL Refusal in till
Hooksett				
HTA	1	0	10	112SRFD Sand, coarse
		10	--	112TILL Till; refusal at 23 ft
HTA	2	0	--	112TILL Refusal at 10 ft
HTA	3	0	50	112SRFD Sand, very fine to fine; pred. very fine sand
		50	80	112SRFD Sand, very fine to medium; pred. fine sand
HTA	4	80	105	112SRFD Sand, very fine to fine; pred. very fine sand
		105	114	112TILL Till
		114	--	112TILL Refusal on till
		0	22	112SRFD Sand, fine to medium; pred. fine sand
		22	27	112SRFD Sand, fine to medium; pred. medium sand
HTB	1	27	39	112SRFD Sand, very fine to medium; pred. fine sand
		39	69	112SRFD Sand, very fine to fine; pred. very fine sand
		69	75	112TILL Till
		75	--	112TILL Refusal on till
HTB	3	0	30	110SDMN Silt and fine sand
		30	--	110SDMN Sand, medium; gravel, fine; EOH at 40 ft
HTB	4	0	6	110SDMN Gravel and boulders
		6	8	110SDMN Sand, fine with silt layers
		18	--	110SDMN Gravel and boulders; EOH at 33 ft
HTB	4	0	10	110SDMN Gravel
HTB	4	10	38	110SDMN Sand, medium to coarse

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Merrimack County--Continued				
Hooksett--Continued				
	38	--	110SDMN	Sand, fine; EOH at 62 ft
HTB 5	0	35	110SDMN	Sand and gravel
	35	--	110SDMN	Sand, fine to coarse stratified sand; EOH at 60 ft; dry
HTB 8	0	10	110SDMN	Sand, fine
	10	30	110SDMN	Sand, medium to coarse
	30	--	BEDROCK	Cored rock; EOH at 45 ft
HTB 9	0	18	110SDMN	Sand, fine
	18	52	110SDMN	Gravel, fine
	52	--	112TILL	Bouldery till; refusal at 62 ft
HTB 10	0	5	110SDMN	Sand
	5	--	110SDMN	Gravel, sandy; refusal at 23 ft
HTB 11	0	6	112SRFD	Gravel; open test pit
	6	--	BEDROCK	Bedrock
HTB 14	0	2	111SWMP	Muck
	2	4	110SDMN	Silt, clayey
	4	8	110SDMN	Till; unsorted sand
	8	15	110SDMN	Sand, silty
	15	17	110SDMN	Silt, clayey
	17	--	110SDMN	Sand, unsorted
HTB 15	0	5	111FILL	Sand fill
	5	--	112TILL	Till, sandy; refusal at 60 ft
HTB 16	21	26	110SDMN	Gravel
	26	--	112TILL	Till, sandy; refusal at 33 ft
HTB 17	0	18	110SDMN	Sand
	18	--	112TILL	Till, sandy; refusal at 29 ft
HTW 1	0	40	112OTSH	Sand and gravel
HTW 2	0	--	112OTSH	Sand and gravel
HTW 3	0	48	112OTSH	Sand and gravel
	48	--	BEDROCK	Bedrock
HTW 4	0	74.5	112SRFD	Sand, fine to medium
	74.5	78.5	112SRFD	Sand and gravel
	78.5	85	112SRFD	Sand, fine to medium
	85	90	112SRFD	Sand and gravel
HTW 6	0	--	112SRFD	Rocks and boulders
HTW 7	0	--	112SRFD	Gravel; sharp, broken; brown
HTW 8	0	21	110SDMN	Sand, coarse and gravel; brown
	21	28	110SDMN	Sand, medium; brown
	28	49	110SDMN	Sand and gravel; brown

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Merrimack County--Continued				
Hooksett--Continued				
	49	--	110SDMN	Sand, coarse and gravel; brown; refusal at 68 ft
HTW 9	0	21	112SRFD	Clay, gray
	21	35	112SRFD	Sand and gravel; brown, sharp
	35	49	112SRFD	Sand and gravel, reddish brown
	49	--	112SRFD	Gravel, brown; refusal at 63 ft
HTW 10	0	28	112SRFD	Gravel, brown; clay
	28	42	112SRFD	Sand, coarse, brown and gravel
	42	54	112SRFD	Sand, coarse, brown
	54	--	112SRFD	Silt and fine sand; EOH at 56 ft
HTW 11	0	21	112SRFD	Clay and gravel
	21	28	112SRFD	Sand, fine to medium, brown
	28	42	112SRFD	Sand, brown
	42	--	112SRFD	Silt and fine sand; refusal at 56 ft
HTW 12	0	21	110SDMN	Clay and gravel
	21	--	110SDMN	Sand, fine to medium and gravel; refusal at 28 ft
HTW 13	0	--	112SRFD	Gravel; EOH at 28 ft
HTW 14	0	28	110SDMN	Gravel grading to sand, fine to coarse with depth
	28	--	110SDMN	Sand, fine to coarse; EOH at 35 ft
HTW 15	0	30	110SDMN	Sand, medium to very coarse; pred. tan sand, coarse
	30	100	112SRFD	Sand, very fine to fine; pred. sand, fine
	100	--	112SRFD	Sand, fine to coarse; pred. sand, medium; EOH at 143 ft
HTW 16	0	60	112SRFD	Silt and sand, gray
	60	--	112SRFD	Sand, very fine to medium; pred. tan fine sand; EOH at 140 ft
HTW 17	0	19	112SRFD	Sand, coarse and cobbles
	19	29	112SRFD	Sand, fine to very coarse; pred. medium sand
	29	49	112SRFD	Sand, medium to very coarse; pred. coarse sand
	49	59	112SRFD	Sand, fine to very coarse; pred. medium sand
	59	75	112SRFD	Sand, fine to very coarse; pred. medium to coarse sand
	75	77	112TILL	Till
	77	--	112TILL	Refusal in till
HTW 18	0	29	112SRFD	Sand, fine to medium; pred. fine sand
	29	34	112SRFD	Sand, fine to very coarse; pred. medium sand
	34	39	112SRFD	Sand, very fine to medium; pred. fine sand
	39	46	112SRFD	Sand, very fine to very coarse; pred. medium sand
	46	--	112TILL	Refusal in till
HTW 19	0	25	112SRFD	Sand, very coarse to pebbly gravel

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Merrimack County--Continued				
Hooksett--Continued				
	25	38	112SRFD	Sand, coarse to pebbly gravel; pred. coarse sand
	38	46	112SRFD	Sand, very fine to medium; pred. fine sand
	46	47	112TILL	Till
	47	--	112TILL	Refusal on till
HTW 20	0	30	112SRFD	Sand, very coarse
HTW 20	30	46	112SRFD	Sand, medium to very coarse; pred. coarse sand
	46	--	BEDROCK	Refusal on bedrock
HTW 23	0	28	112SRFD	Sand, coarse and gravel
	28	42	112SRFD	Sand, coarse, brown and gravel with trace clay
	42	49	112SRFD	Gravel, coarse, brown
	52	--	112SRFD	Refusal
HTW 265	0	21	112SRFD	Sand, fine to medium, brown; gravel
	21	42	112SRFD	Sand, medium to coarse, brown; gravel
	42	47	112SRFD	Sand, fine to medium, brown; gravel
	47	--	112SRFD	Refusal
Rockingham County				
Auburn				
AUA 1	0	10	112SRFD	Silt to fine sand
	10	17	112TILL	Till
	17	--	112TILL	EOH in till
AUA 2	0	17	112SRFD	Sand, medium to cobbles; pred. coarse sand
	17	29	112SRFD	Sand, medium to coarse; pebbles; pred. very coarse sand
	29	39	112SRFD	Silt to fine gravel; pred. silt
	39	47	112SRFD	Clay to silt and weathered rock
	47	--	BEDROCK	EOH in weathered rock
AUA 3	0	7	112SRFD	Sand, fine to medium; pred. medium sand
	7	12	112SRFD	Sand, medium to coarse; pred. medium sand
	12	17	112SRFD	Sand, coarse to very coarse
	17	19	112SRFD	Sand, fine to coarse; pred. fine to medium sand
	19	39	112SRFD	Silt to medium sand; pred. fine to medium sand
	39	42	112TILL	Till
	42	--	112TILL	EOH in till
AUA 4	0	15	112SRFD	Sand and gravel, cobbly
	15	--	BEDROCK	Refusal on bedrock

Appendix B. Stratigraphic logs of selected wells and borings--Continued

Local site number	Depth to top (ft)	Depth to bottom (ft)	Aquifer code	Lithologic description of material
Rockingham County--Continued				
Auburn--Continued				
AUB	1	0	19	112TILL Till, sandy; refusal at 19 ft
AUB	4	0	6	110SDMN Silt and fine sand
		6	13	110SDMN Gravel, sandy; boulders
		13	--	BEDROCK Bedrock; EOH at 25 ft
AUW	8	0	--	112TILL Till, sandy
AUW	11	0	9	112OTSH Sand and gravel
AUW	12	0	--	112OTSH Sand
AUW	31	0	49	112SRFD Sand, fine to medium; pred. fine sand
		49	75	112SRFD Sand, very fine to medium; pred. fine to medium
		75	77	112TILL Till
		77	--	112TILL EOH in till
Derry				
DFW	12	0	--	112SRFD Sand and gravel
Londonderry				
LRA	9	0	7.5	112SRFD Sand, fine to medium, brown, trace silt
LRA	10	0	22.0	112SRFD Sand, fine to medium, brown; trace silt
LRW	41	0	8	112SRFD --
		8	--	BEDROCK --
LRW	71	0	23	112SRFD Sand, coarse
		23	28	112SRFD Sand, fine
		28	33	112SRFD Sand, fine
LRW	73	0	15.0	112SRFD Sand, fine to medium, brown; trace silt
LRW	74	0	15.0	112SRFD Sand, fine, brown; trace silt
LRW	75	0	20.2	112TILL Till, sandy
		20.2	30.2	BEDROCK --
LRW	76	0	9.0	112SRFD Sand, fine, brown; trace silt
		9.0	12.0	112LCSR Silt, gray to brown; trace sand
		12.0	30.0	112SRFD Sand, fine to medium; trace silt
LRW	77	0	2.0	111SOIL --
		2.0	16.0	112SRFD Sand, fine to medium; trace silt
		16.0	25.0	112TILL Till, sandy
LRW	78	0	20.0	112SRFD Sand, fine, brown; trace silt
		20.0	25.0	112SRFD Sand, fine to coarse, brown; trace silt
		25.0	49.0	112SRFD Sand, fine; trace silt
		49.0	52.5	112TILL Till, sandy