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Table 1.--Summary of geologic units, lithology, and availability and quality of ground water in Hale County

System	Series	Geologic unit	Thickness (feet)	Lithology	Availability of water	Quality of water
Quaternary	Holocene and Pleistocene	~~Low terrace and alluvial deposits~~ Alluvium	0-50±	Sand; gravel; clay; silt.	Will probably yield 10 gpm where sands are of sufficient saturated thickness. Yields adequate water supplies for domestic use; potential source of large supplies of water where aquifers are hydraulically connected with the Black Warrior River.	Water generally is of good quality; locally contains iron in excess of 0.3 mg/l.
	Pleistocene	High terrace deposits	0-50±	Gravel; sand; clay.	Will probably yield 10 gpm where sands are of sufficient saturated thickness. Yields adequate water supplies for domestic use; potential source of large supplies of water where aquifers are hydraulically connected with the Black Warrior River.	Water generally is of good quality; locally contains iron in excess of 0.3 mg/l.
Cretaceous	Upper Cretaceous	Selma Group: Demopolis Chalk	0-200±	Chalk, light-gray, fossiliferous.	Relatively impermeable; not a source of ground water.	
		Selma Group: Mooreville Chalk	300	Chalk, dark bluish-gray, silty, fossiliferous; compact calcareous fossiliferous sandstone in basal part of unit; hard limestone in upper part of unit.	Relatively impermeable; not a source of ground water.	
		Eutaw Formation	400±	Sand, gray to yellowish-brown, glauconitic; clay, light-gray to gray, laminated; shale, dark gray; thin to massive beds of fine- to coarse-grained glauconitic sand and light-gray to gray laminated clay in lower part; fine- to medium-grained fossiliferous glauconitic sand and, locally, thin beds of hard light-gray calcareous sandstone in upper part.	Principal aquifer in southern part of county; potential source of large supplies of water; will yield 1.5 mgd to individual wells from sand beds in lower part of formation in southern part of county; source of small supplies in northern part where unit is sufficiently saturated.	Water is soft to very hard; generally contains iron in excess of 0.3 mg/l from middle and lower parts of unit in central part of county. Water is soft and low in iron content from upper part of unit in southern part of county. Chloride content of water is more than 250 mg/l in extreme west-central part of county.
		Tuscaloosa Group: Gordo Formation	300-350	Sand and gravel, light-tan to brown; clay, light-gray to mottled red and gray; poorly sorted coarse-grained sand and chert gravel in lower part of ~~unit~~ formation; upper part consists of laminated to massive clay and lenticular sand beds.	Principal aquifer at Akron; potential source of large supplies of water; will yield 1.5 mgd to individual wells from sand beds in lower part of formation in central and southern parts of county; source of small to moderate supplies in northern part.	Water generally is soft; contains iron in excess of 0.3 mg/l except in local areas. Water is very hard and high in iron and chloride content in the extreme west-central part of the county.
		Tuscaloosa Group: Coker Formation	500-600	Sand, yellowish-gray, fine- to coarse-grained; gravel; clay, olive-gray to yellowish-gray, sandy; clay predominates in upper part of ~~unit~~ formation; basal part of ~~unit~~ formation consists of coarse-grained sand and gravel.	Principal aquifer at Moundville; potential source of large supplies of water; will yield 1.5 mgd to individual wells from sand and gravel beds in lower part of formation in entire county.	Water is soft to very hard; contains iron in excess of 0.3 mg/l except in local areas. Chloride content of water is more than 250 mg/l in the extreme northwestern part of county.