

U. S. GEOLOGICAL SURVEY

Ground-Water Branch

Ground-Water Conditions in the Aberdeen-Columbus area, Mississippi

By

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Prepared in cooperation with the Mississippi Board
of Water Commissioners

Open File Report

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Introduction

This report summarizes the general geologic and ground-water conditions in the Aberdeen-Columbus area, Mississippi, with particular attention to the locality around the confluence of the Tombigbee and Buttahatchie Rivers. (See attached map.) It is based on previously published and open-file reports and on field data recently collected by the Geological Survey.

An investigation of the ground-water resources in northeastern Mississippi including this area has been in progress since June 1955 as a part of the Statewide program of ground-water work being carried out by the U. S. Geological Survey and the State of Mississippi, Board of Water Commissioners. The purpose of the Statewide program is to assemble data and carry on field work for reports to be used as intelligent guides for development of the underground water resources and to aid in water conservation in Mississippi.

In addition to a map, there are included with this report a geologic section; table of records of representative wells in Monroe, Clay, and Lowndes Counties, a table of analyses of water from wells and streams in northeastern Mississippi; driller's logs of two wells at the Columbus Air Force Base; and drillers' logs of wells at Gattman; U. S. Vehicle Depot, Aberdeen; City of West Point; T. G. Owen & Sons Nursery at Columbus; and Oldbury Electro-Chemical Co. south of Columbus.

Geology of the area

The accompanying generalized geologic section illustrates the structure and approximate thicknesses of the different formations in the area. The section is essentially parallel to the lower part of the Buttahatchie River and extends a few miles southwest of the confluence of the Buttahatchie and Tombigbee Rivers (see map). It is based on all data at hand, including the logs of 2 oil tests and information on 8 water wells.

Except for the wide belt of nearly level terraced land that borders the Tombigbee River, the area under consideration is underlain by the predominantly sandy strata of the Tuscaloosa group and Eutaw formation of the Upper Cretaceous. Beneath the Upper Cretaceous strata are hard sandstones, cherts, and shaly limestones of Paleozoic age. Little is known concerning the quality and quantity of water in the Paleozoic rocks.

The Tuscaloosa, which is the basal group of formations of the Upper Cretaceous, rests on the Paleozoic rocks and appears at the surface in a narrow belt along the lower slopes of the Buttahatchie River and its tributaries in eastern Monroe County. From its outcrop the Tuscaloosa dips to the west or west-southwest at a rate of about 30 feet to the mile,

passing beneath the younger strata of the Eutaw. The Tuscaloosa is composed of irregularly bedded sand, clay and gravel, with cherty gravel in the lower part. It underlies the whole area and the beds of sand constitute very important sources of artesian water. At Gattman on the Alabama line the Tuscaloosa is about 300 feet thick. Along the Tombigbee River near the Lowndes-Monroe County line it has a thickness of more than 500 feet and extends to a depth of about 900 feet below the surface. (See cross section.)

The Eutaw formation overlies the Tuscaloosa group and is exposed at the surface or is overlain by relatively thin terrace deposits in a belt 15 to 30 miles wide west of the outcrop of the Tuscaloosa. The Eutaw (including the Tombigbee sand member) is composed predominantly of massive and crossbedded fine to medium sand, in many places interstratified with clay beds. It dips westward at a rate of about 30 feet per mile and west of the Tombigbee River passes beneath the massive and impervious Selma chalk, which forms a "cap rock" for the artesian aquifers in the Eutaw. The formation is about 200 to 400 feet thick in this area, the thickness being greater west of the Tombigbee River where the entire section is present. (See cross section.)

Belts of alluvial deposits consisting of sand, gravel, and clay form the flood plains of the streams. Along the Tombigbee River this belt of deposits ranges in width from about 4 to 6 miles and in thickness from zero to about 60 feet. These deposits lie on the old eroded surface of the Eutaw formation, and in some places the alluvial sands and gravels are in contact with the sandy beds in the Eutaw.

Water-bearing properties of the formations

Paleozoic rocks.- The only water well in the area known to penetrate the hard Paleozoic rocks is a railroad well at Gattman about 20 miles northeast of Aberdeen (see map). An analysis of water from this well is given in the table of chemical analyses. The electrical log of Atlantic Refining Co. No. 1 Myers oil test (see map and cross section) shows characteristics that indicate fresh water in the Paleozoic section from 550 to 750 feet. This information appears to help verify the report of fresh water at 800 feet in the Texas Co. No. 1 Day well about 3 miles downdip from the Myers No. 1.

Tuscaloosa group.- For this report, the Tuscaloosa group has been divided into two parts, the upper part of the Tuscaloosa or Gordo formation and the lower part of the Tuscaloosa. Along the Tombigbee River between Aberdeen and Columbus the total thickness of the entire group is about 500 feet. The Gordo formation, consisting mostly of sand and gravel, averages about 100 feet in thickness and is the most important water bearer in the area. It is the source of supply for many domestic and stock wells and for nearly all medium to large-capacity wells east of the Tombigbee River. Wells at the Columbus Air Force Base, among others, draw water from the Gordo. The water is soft and the mineral content is comparatively low except for iron. (See table of analyses, wells Q5, A9, A10, and A11).

The lower part of the Tuscaloosa is practically undeveloped as a source of water supply in the area. Test hole 1 at the Columbus Air Force Base penetrated the lower Tuscaloosa; however, no data are at hand concerning the chemical quality of the water obtained.

The drilling report on the Texas Co. No. 1 Day oil test indicated a very large and almost uncontrolled flow of water when drilling at about 800 feet. It is not known whether this water came from the Tuscaloosa section through broken casing or from the deeper Paleozoic section in which the drill was cutting at 800 feet (see cross section). In any case, the data suggest that important water-bearing beds are present that will bear future testing. Available analyses indicate that the water from the lower Tuscaloosa is of somewhat better quality than that from the upper Tuscaloosa. (See analyses for wells Q5 and Q6, T. P. Adair, and well G31, Sheffield Grocery. For a summary of well data see the attached table of records of wells in Monroe, Clay and Lowndes Counties.)

Eutaw formation.- The fine to medium sands of the Eutaw formation are the major source of water supply for domestic and small to moderately large public supplies in the central and western parts of this area. Aberdeen, Amory, Prairie, and West Point, for example, obtain all or a part of their water supplies from this formation. The rapid rate of installation of wells in the Eutaw during the past several decades and the increased withdrawal of water have resulted in moderate lowering of the artesian head throughout the area.

In general, individual wells have yields ranging from only a few gallons to about 250 gallons a minute. Data indicate that on account of the texture of the sand, which results in a relatively low transmission capacity, larger yields generally cannot be expected from the Eutaw formation, particularly east of the Tombigbee River. Therefore, this formation alone cannot be considered as a source of supply for plants

requiring large volumes of water. Conditions west of the Tombigbee River are more favorable for developing fairly large water supplies from the Eutaw, because there the entire thickness of the formation is present (see geologic section), and the river flows across the eroded sandy surface of the Eutaw so that wells near the river may be able to induce infiltration from it.

Water from the Eutaw generally is soft and of low to moderate mineral content. In the samples analyzed the iron content is much less than it is for water from sands in the Tuscaloosa. (See table of analyses.)

Alluvium-. A belt of alluvial sand, gravel, and clay deposits 4 to 6 miles wide and as much as 60 feet thick borders the Tombigbee River on the east and is a source of water for many small domestic and stock wells. Springs are common at the contact between the unconsolidated alluvial sand and gravel and the underlying more compact sand and clay of the Eutaw formation. The water in the alluvium is likely to be variable in quality from place to place and to be comparatively high in iron, according to general observation. Conditions may be favorable at some places along the Buttahatchie and Tombigbee Rivers for developing fairly large water supplies from the alluvium, particularly where the sands and gravels underlie the streams and such developments would result in induced infiltration of water from the stream into well fields. This possibility would, of course, require detailed study and close engineering appraisal.

Conclusions

Although large artesian reservoirs underlie the Aberdeen-Columbus area and many flowing wells are present, any large development of ground water must depend on pumping. On the whole, the larger the wells now in use that draw from the Butaw formation yield less than 250 gallons a minute each. As a consequence of the comparatively fine grain of the sands, which have a low transmission capacity, production of a large volume of water (such as several million gallons a day) at any one place would entail installing numerous widely spaced wells.

Conditions are more favorable along the west side of the Tombigbee River for the development of comparatively large water supplies from sands in the Butaw than they are anywhere east of the river. This is because the total thickness of the formation is present west of the river. Also, the river flows almost parallel to the strike of the formation and crosses sandy beds, allowing for additional recharge above that in other parts of the area. The Aberdeen supply wells are thus favorably situated.

The Gordo formation of the Tuscaloosa group, which underlies the Butaw formation, is the most important known water bearer in the area. The medium to coarse sand and gravel beds yield 500 gallons a minute or more to some wells and supply such installations as the Columbus Air Force Base and the Oldbury Electro-Chemical Co. This formation probably will yield several tens of millions of gallons of water a day from carefully engineered well fields. The water is soft and of comparatively low mineral content except for iron. (See analyses.)

The lower part of the Tuscaloosa group and the underlying Paleozoic rocks are practically undeveloped as sources of water supply in the area. The available data indicate that important reserves of water may be found in these formations by future testing. Also offering some possibilities for substantial water supplies are the shallow flood-plain deposits along the Tombigbee River.

It must be anticipated that any large ground-water development will be accompanied by marked areal lowering of water levels in the formation or formations pumped, that all flowing wells within a radius of several miles of the heavy pumping will cease to flow and that there will be a marked decline in the water levels of nonflowing wells.

DRILLER'S LOGS

Well No. A9*

Owner: Columbus Air Force Base, Columbus, Miss.
Base well No. 1

	Thickness (feet)	Depth (feet)
Top soil-----	10	10
Gravel and sand-----	16	26
Clay-----	21	47
Shale and clay-----	32	79
Rock-----	1	80
Clay-----	8	88
Sand-----	36	124
Shale, sandy-----	30	154
Shale-----	9	163
Rock-----	1	164
Shale-----	13	177
Clay-----	24	201
Shale-----	20	221
Sand, shale streaks-----	17	238
Shale-----	37	275
Shale, sandy-----	6	281
Clay-----	14	295
Sand, shale streaks-----	60	355
Clay, sandy-----	38	393
Sand-----	8	401
Shale, sandy-----	4	405
Sand-----	5	410
Shale-----	4	414
Sand-----	45	459
Gravel-----	16	475

Well No. A10*

Owner: Columbus Air Force Base, Columbus, Miss.
Base well No. 2

Top soil-----	7	7
Gravel-----	15	22
Shale, sandy, blue-----	58	80
Shale, streaks of fine sand-----	20	100
Sand, streaks of shale-----	47	147
Shale and boulders-----	11	158
Shale-----	8	166
Boulders-----	1	167
Shale, sandy; boulders-----	47	214
Sand, fine-----	15	229
Rock-----	1	230
Shale, sandy-----	23	253
Shale, hard-----	31	284
Sand, shale streaks-----	31	315
Rock, soft-----	5	320
Gumbo-----	6	326
Clay, tough; boulders-----	62	388
Sand-----	57	445
Sand and gravel-----	25	470
Clay-----	3	473

Well No. Li*

Owner: Oldbury Electro-Chemical Company, 5 mi. south of Columbus, Miss.
Plant well No. 1

	Thickness (feet)	Depth (feet)
Clay	12	12
Sand and gravel	29	41
Clay, tough	39	80
Clay, sandy	57	137
Rock	1	138
Shale, hard	17	155
Shale, sandy	20	175
Rock	1	176
Shale, hard, sandy	15	191
Rock	1	192
Soapstone	28	220
Shale, sandy	45	265
Shale, tough	38	303
Rock	3	306
Shale, sandy	19	325
Sand, packed	28	353
Shale, sandy, streaks of sand	87	440
Shale, tough	57	497
Sand and gravel	90	587
Shale	3	590

Well No. G19*

Owner: T. G. Owen and Sons Nursery, Columbus, Miss.

Top soil	3	3
Clay	9	12
Clay, sandy	7	19
Sand and gravel	23	42
Rock	1	43
Shale, hard, blue	153	196
Shale, hard, streaks of fine sand	66	262
Sand, streaks of rock and shale	22	284
Shale, hard, blue	89	373
Shale, hard, red	57	430
Shale, sandy	41	471
Sand	11	482
Shale, sandy	38	520
Sand	52	572
Shale	2	574

13
Well No. 01*

Owner: U. S. Air Force Vehicle Depot, Aberdeen, Miss.
Plant well No. 1

	Thickness (feet)	Depth (feet)
Clay-----	22	22
Soft shale and limestone-----	19	41
Limestone-----	14	55
Gumbo-----	9	64
Sandy shale-----	2	66
Tough gumbo-----	2	68
Limestone-----	7	75
Sandy shale-----	5	80
Soft shale-----	3	83
Lime rock-----	5	88
Shale-----	25	113
Hard sandy shale-----	30	143
Shale-----	44	187
Gravel-----	1	188
Shale-----	32	220
Lime shell-----	1	221
Hard blue sand rock-----	2	223
Sandy shale and shell-----	12	235
Shale-----	2	237
Sand-rock-----	1	238
Sand shale-----	10	248
Sand, hard shale-----	5	253
Rock-----	1	254
Shale-----	1	255
Sand-----	30	285
Sof' sand-----	21	306
Hard sand rock-----	1	307
Rock-----	2	309
Gray water sand-----	17	326
Rock-----	1	327
Hard shale-----	3	330
Sandy shale-----	20	350
Sand with little shale-----	23	373
Water-bearing sand-----	74	447
Sandy shale and soft sandy rock-----	1	448
Water-bearing sand-----	15	463
Water-bearing sand, hard-----	2	465
Water-bearing sand-----	5	470
Water-bearing sand, hard-----	11	481
Water-bearing sand, medium-----	24	505
Water-bearing sand, fine-----	10	515
Fine sand and gumbo-----	5	520

*See attached tables.

Well No. JB5*

Owner: St. Louis and San Francisco Railroad, Gattman, Miss.

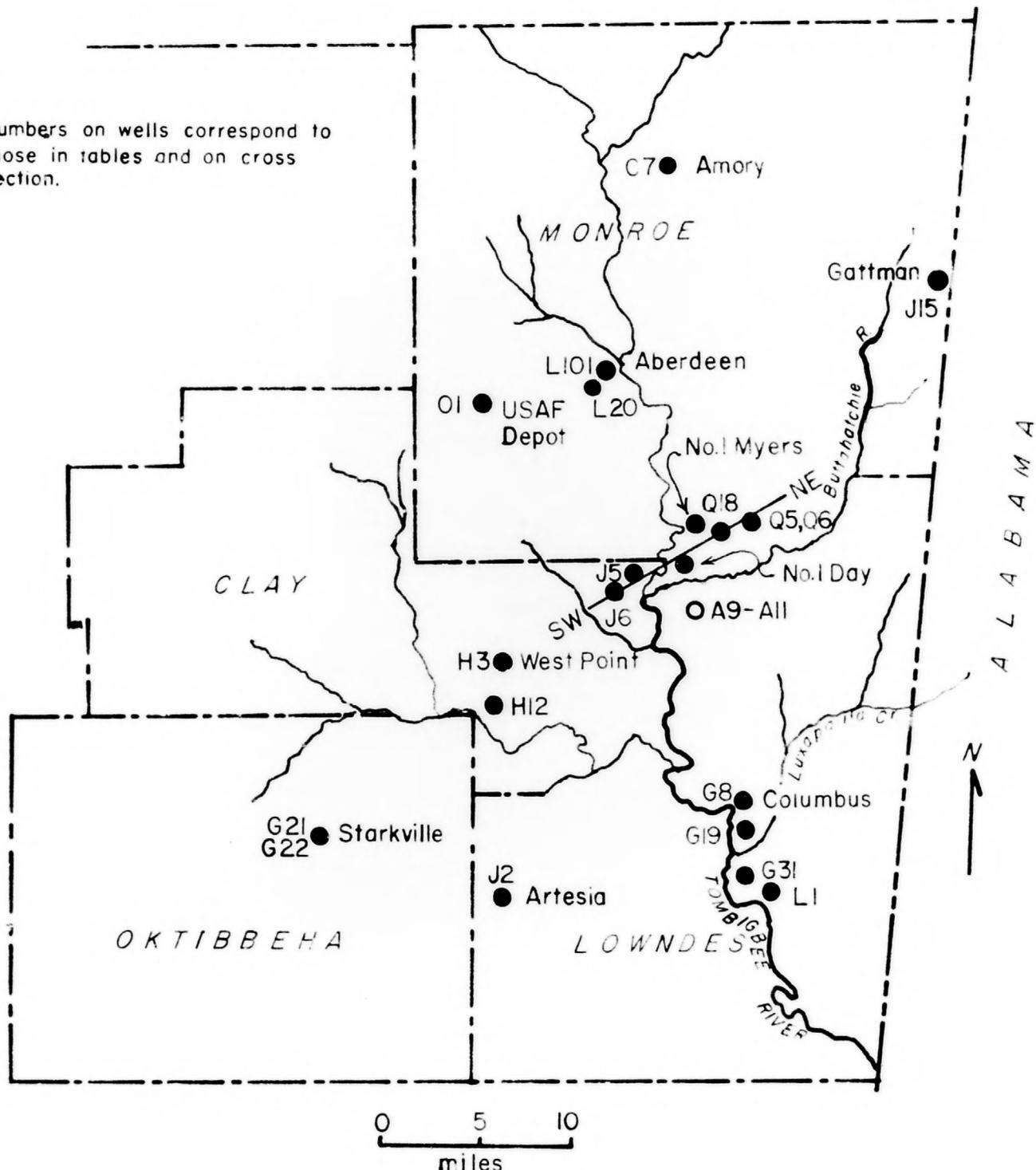
	Thickness (feet)	Depth (feet)
Clay, yellow, sandy-----	18	18
Sand, fine-----	65	83
Gravel and sand-----	4	87
Sand, yellow and gray; clay, blue and dark red; clay, lignitic-----	213	300
Sandstone, hard, gray-----	2	302
Sand, fine, water-bearing-----	6	308
Pea gravel-----	3	311
Sand, hard, gray, becoming softer and darker-----	312	623

Owner: City of West Point, West Point, Miss.
Located near well L3 in attached tables.

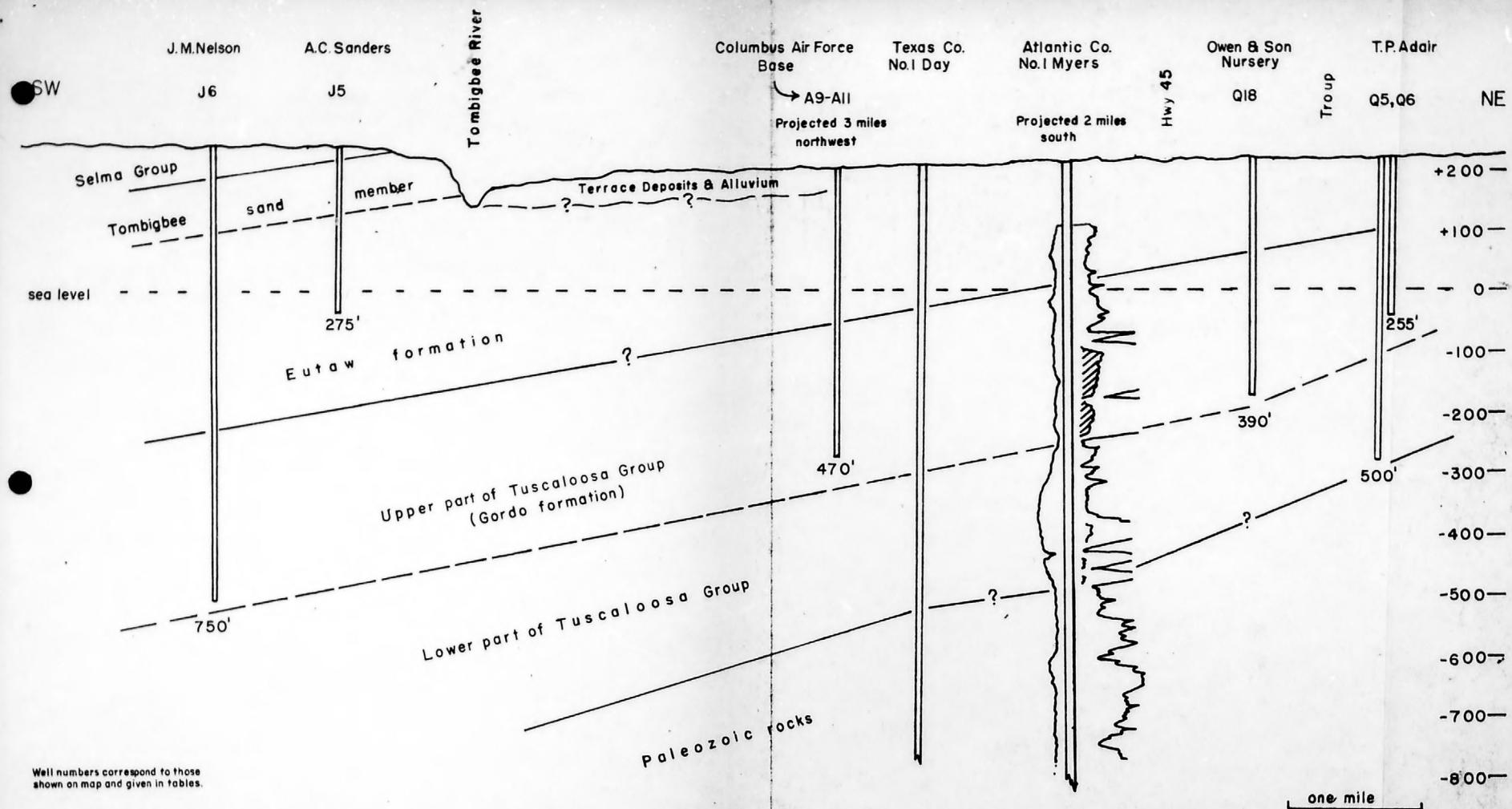
Clay, sandy-----	5	5
Clay-----	13	18
Limestone (Selma chalk)-----	42	60
Shale-----	83	143
Shale, hard; sand-----	27	170
Shale-----	15	185
Rock-----	1	186
Shale, hard; sand, fine-----	45	231
Rock-----	1	232
Shale-----	4	236
Rock-----	1	237
Sand, fine; shale-----	7	244
Rock-----	1	245
Shale, sandy-----	14	259
Rock-----	3	262
Sand-----	13	275
Rock-----	1	276
Shale-----	27	303
Sand-----	82	385
Shale, sandy-----	12	397

*See attached tables.

Numbers on wells correspond to those in tables and on cross section.



Location of wells described and of geologic section in Aberdeen-Columbus area, Miss.



GENERALIZED GEOLOGIC SECTION NE-SW AT CONFLUENCE, TOMBIGBEE-BUTTAHATCHIE RIVERS.

Analyses of water from wells and streams in northeastern Mississippi

(Analyses by U. S. Geological Survey)

No.	Owner	Location	Depth (ft.)	Date	Chemical constituents in parts per million										Total hardness as CaCO_3	Sodium and Potassium (Na+K)	Color	pH	Temp. (°F)
					Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Dissolved Solids							
TUSCALOOSA GROUP																			
A9	Columbus Air Force Base	5 mi. N. Columbus	475	10-16-53	9.8	12	7.1	2.7	50	.8	2.0	60	29	9.0	10	6.4	67		
A10	Do		473	10-16-53	8.0	13	7.3	2.5	50	1.0	2.2	61	28	9.4	5	6.4	67		
A11	Do		497	7- 8-54	3.1	16	5.6	3.5	48	1.2	2.2	56	28	9.3	5	6.6	64		
C7	City of Amory	Amory	357	9- 8-54	8.3	4.5	4.7	1.4	29	1.4	2.5	42	17	5.0	5	5.9	64		
G8	Hawatha Mfg. Co.	Columbus	550	8- 1919	26	3.7	10	3.7	74	3.2	3.0	95	40	13	-	-	-		
G21	City of Starkville	Starkville	1,460	5-21-51	24	.15	6.6	2.0	106	1.6	9.8	124	25	35	6	7.6	80		
G31	Sheffield Grocery	3 mi. S. Columbus	768	3-21-56	-	.58	14	4.3	76	4.8	2.8	85	53	12	7	7.2	68		
H12	Burgin Brothers	West Point $\frac{1}{2}$ mi. S.	800	11- 4-54	-	1.9	8.3	2.4	90	3.1	3.0	108	31	28	40	7.6	67		
J2	GM&O RR	Artesia	1,300	8- 1919	35	.22	3.6	1.3	90	4.4	5.9	133	14	37	-	-	-		
L1	Oldbury Co.	Columbus	558	1953	-	1.5	14	4.0	99	11	1.0	-	50	-	-	7.1	66 1/2		
L101	City of Aberdeen	Aberdeen	400	11- 3-54	-	11	7.5	2.4	57	.8	3.0	72	29	12	5	6.5	68		
Q5	T. P. Adair	Hamilton	255	9-10-56	-	9.8	7.2	3.5	42	8.2	3.0	63	32	9.1	5	6.2	65		
Q6	Do	Hamilton	500	9-10-56	-	5.8	5.8	2.2	35	.6	2.8	43	24	5.7	5	6.7	67		
EUTAW FORMATION																			
G22	City of Starkville	Starkville	950	11- 3-54	7.3	.18	5.2	1.2	479	1.6	198	742	18	304	5	8.1	68		
H3	City of West Point	West Point	420	11- 3-54	5.9	.22	9.9	2.0	216	3.0	58	302	32	111	5	7.9	65		
L20	City of Aberdeen	Aberdeen	170	11- 3-54	8.3	.10	19	3.7	163	6.8	22	200	63	55	5	7.8	65		
O1	USAF Vehicle Depot	Prairie-No. 1	520	8-18-52	13	.20	12	2.6	170	.7	57	251	41	84	4	7.9	71		
O2	Do	No. 2	485	8-24-54	4.8	.62	11	3.0	162	.2	56	246	39	82	5	7.8	72		
O4	Do	No. 4	496	8-24-54	7.1	.17	11	3.2	160	.4	46	224	41	74	5	8.2	72		
O5	Do	No. 5	456	8-24-54	6.7	.30	12	2.5	170	.4	52	242	40	81	5	7.6	70		
PALEOZOIC ROCKS																			
J15	Frisco RR	Gattman	726	12- 4-54	4.4	.21	10	3.1	217	1.4	36	273	38	89	5	7.6	64		
surface water																			
Luxapalila Creek at Columbus, Miss.					5-21-51	8.3	1.6	2.1	1.0	11	1.4	2	38	9	3.4	45	6.5	-	

1/ Analyzed by private laboratory.

Well locations shown on map.

Analyses of water from wells and streams in northeastern Mississippi

(Analyses by U. S. Geological Survey)

No.	Owner	Location	Depth (ft.)	Date	Chemical constituents in parts per million										Temp. (°F)		
					Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Dissolved Solids	Total hardness as CaCO ₃	Sodium and Potassium (Na+K)	Color		
TUSCALOOSA GROUP																	
A9	Columbus Air Force Base	5 mi. N. Columbus	475	10-16-53	9.8	12	7.1	2.7	50	.8	2.0	60	29	9.0	10	6.4	67
A10	Do		473	10-16-53	8.0	13	7.3	2.5	50	1.0	2.2	61	28	9.4	5	6.4	67
A11	Do		497	7-8-54	3.1	16	5.6	3.5	48	1.2	2.2	56	28	9.3	5	6.6	64
C7	City of Amory	Amory	357	9-8-54	8.3	4.5	4.7	1.4	29	1.4	2.5	42	17	5.0	5	5.9	64
G8	Hiawatha Mfg. Co.	Columbus	550	8-1919	26	3.7	10	3.7	74	3.2	3.0	95	40	13	-	-	-
G21	City of Starkville	Starkville	1,460	5-21-51	24	.15	6.6	2.0	106	1.6	9.8	124	25	35	6	7.6	80
G31	Sheffield Grocery	3 mi. S. Columbus	768	3-21-56	-	.58	14	4.3	76	4.8	2.8	85	53	12	7	7.2	68
H12	Burgin Brothers	West Point 1½ mi. S.	800	11-4-54	-	1.9	8.3	2.4	90	3.1	3.0	108	31	28	40	7.6	67
J2	GM&O RR	Artesia	1,300	8-1919	35	.22	3.6	1.3	90	4.4	5.9	133	14	37	-	-	-
L1	Oldbury Co.	Columbus	558	1953	-	1.5	14	4.0	99	11	1.0	-	50	-	-	7.1	66 1/
L10	City of Aberdeen	Aberdeen	400	11-3-54	-	11	7.5	2.4	57	.8	3.0	72	29	12	5	6.5	68
Q5	T. P. Adair	Hamilton	255	9-10-56	-	9.8	7.2	3.5	42	8.2	3.0	63	32	9.1	5	6.2	65
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EUTAW FORMATION																	
G22	City of Starkville	Starkville	950	11-3-54	7.3	.18	5.2	1.2	479	1.6	198	742	18	304	5	8.1	68
H3	City of West Point	West Point	420	11-3-54	5.9	.22	9.9	2.0	216	3.0	58	302	32	111	5	7.9	65
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G1	USAF Vehicle Depot	Prairie-No. 1	520	8-18-52	13	.20	12	2.6	170	.7	57	251	41	84	4	7.9	71
G2	Do	No. 2	485	8-24-54	4.8	.62	11	3.0	162	.2	56	246	39	82	5	7.8	72
G4	Do	No. 4	496	8-24-54	7.1	.17	11	3.2	160	.4	46	224	41	74	5	8.2	72
G5	Do	No. 5	456	8-24-54	6.7	.30	12	2.5	170	.4	52	242	40	81	5	7.6	70
PALEOZOIC ROCKS																	
J15	Frisco RR	Gattnan	726	12-4-54	4.4	.21	10	3.1	217	1.4	36	273	38	89	5	7.6	64
SURFACE WATER																	
Luxapalila Creek at Columbus, Miss.					8.3	1.6	2.1	1.0	11	1.4	2	38	9	3.4	45	6.5	-
<u>1/ Analyzed by private laboratory.</u>																	
Well locations shown on map.																	

Records of Wells in northeastern Mississippi

(For location see sketch map)

Well no.	Owner	Year completed	Depth of well (ft.)	Diameter of well (in.)	Geologic horizon	Water level		Yield		Use of water	Temp. (°F)	Remarks	
						Above (+) or below (-) land surface (ft.)	Date	Rate (gpm)	Date				
CLAY COUNTY													
H3	City of West Point	1943	420	10	Eutaw	-	-	596	12-17-53	PS	65½	Log of nearby well drilled in 1953 in table of logs. Analysis.	
H12	Burgin Brothers	1932	800 ^R	2	Tuscaloosa	+6 ^R	1954	5	1954	Dom.	67	Flows. Roadside well used by public. Analysis.	
J5	A. C. Sanders	1956	275 ^R	4-3	Eutaw	-70	1956	3	-	Dom.	-		
J6	James N. Nelson	-	750 ^R	3	Upper Tuscaloosa	-0.5	8-16-56	3	-	Stock	-	Formerly flowed.	
LOWNDES COUNTY													
A9	Columbus Air Force Base	1941	475	18-10	Upper Tuscaloosa	+19	11-24-41	503	11-24-41	PS	64	Flow, 60 gpm when drilled. Analysis and log. Air Base No. 1.	
A10	Do	1941	473	18-10	Do	+19	11-18-41	533	11-18-41	PS	64½	Drawdown 35 ft. at 533 gpm. Flow, 310 gpm when drilled. Analysis and log. Air Base No. 2.	
A11	Do	1941	497	18-7	Do	-	-	400 ^E	6-8-54	PS	64	Air Base No. 3	
G8	Hiawatha Mfg. Co.	1903	550	4	Tuscaloosa	+	1919	45	1919	-	-	No longer in use.	
G19	T. G. Owen & Sons	1953	574	8-6	Upper Tuscaloosa	+	-	350 ^E	-	Irr.	-	Flow, reported 20 gpm. Log.	
G31	Sheffield Grocery	1954	768 ^R	1-8	Lower Tuscaloosa	+10 ^R	1956	20 ^E	-	Dom.	68½	Analysis.	
J2	GM&O RR, Artesia	1906	1,300	8	Tuscaloosa	-16	1919	-	-	PS & RR	-	Supplies town of Artesia.	
L1	Oldbury Electro-Chemical Co.	1953	558	12-8	Upper Tuscaloosa	-35	2-14-56	572	-	Ind.	67	Reported drawdown 33.7 ft. at 572 gpm. Log and analysis. Plant well No. 1.	
L-2	Do	1953	599	12-8	Do	-36.7	2-14-56	608	-	Ind.	66	Water level +8 ft. when drilled. Plant well No. 2.	
L-3	Do	1953	556	12-8	Do	-34.5	2-14-56	570	-	Ind.	66	Reported drawdown 35.5 ft. at 570 gpm. Plant well No. 3.	
L4	Do	1953	598	12-8	Do	-33.7	2-14-56	620	-	Ind.	66	Reported drawdown 26.2 ft. at 620 gpm. Plant well No. 4.	
L5	Do	1955	600 ^R	12-8	Do	-	-	-	-	Ind.	-	Plant well No. 5.	
L6	Do	1955	600 ^R	12-8	Do	-	-	-	-	Ind.	-	Plant well No. 6.	
MONROE COUNTY													
G7	City of Amory	1951	357	18-10	Tuscaloosa	-4 ^E	1951	530	1951	PS	64		
J15	SL & SF RR, Gattman	1899	623	6	Paleozoic	+6	1955	20 ^E	1955	Dom.	64	Flows. Analysis	
L20	City of Aberdeen	1954	170 ^R	16-12 ^R	Eutaw	-40 ^R	1954	500 ^R	-	PS	65	Analysis	
L101	Do	-	400 ^R	6	Tuscaloosa	+10.4	1954	20	1954	None	68	Flows.	
O1	USAF Motor Vehicle Depot No. 1	1942	520	12-6	Eutaw	-112	1942	500 ^R	-	Ind.	60(?)	Water level reported -129 ft. in 1952. Five similar wells in field. Log and analysis.	
G-5	T. P. Adair	1940	255 ^R	2	Upper Tuscaloosa	+	8	1956	2	8-17-56	Stock	65	Flows.
G6	Do	1956	500 ^R	2½	Lower Tuscaloosa	+4	8	-1956	12	8-17-56	Stock	67	Flows.
Q18	T. G. Owen & Sons	1956	390	12-8	Upper Tuscaloosa	+	-	850 ^R	-	Irr.	66	Flow, reported 100 gpm.	
OKTIBBEHA COUNTY													
G21	City of Starkville	1929	1,160	16-10	Tuscaloosa	-130	-	650 ^R	-	PS	80	Screens 1250-72; 1335-80; 1402-35 ft.	
G22	Do	1920	950	8	Eutaw	-160 ^R	-	175 ^R	-	PS	68	Emergency use since about 1930.	

a/ Use of water: PS, public supply; Dom., domestic; Ind., industrial; Irr., irrigation.