

**GROUND WATER RESOURCES
Of JACKSON COUNTY, MISSISSIPPI**

**By
Lindsey Stewart**

Open-File Report 286

**Mississippi Department of Environmental Quality
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In Cooperation with the Office of Land and Water Resources**

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State Geologist**

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This Report Prepared Under the Supervision of James H. Hoffmann, RPG



A handwritten signature in blue ink that reads "James H. Hoffmann". The signature is written over a horizontal line.

James H. Hoffmann, RPG

August 24, 2017

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Section I

Ground Water Resources of Jackson County, Mississippi

Ground Water Resources of Jackson County

Introduction

Jackson County is located in Southeast Mississippi on the Mississippi Gulf Coast and is one of the most important industrial areas in the state. The availability of water resources in the county has been a major topic of interest for many years, and there have been many reports published on the subject. Two of the earlier reports by Brown, et al (1944) and Harvey, et al (1965) discussed the geology and ground water resources in detail and are the foundation for this report. The reports by Brown and Harvey were excellent reports at the time, but they had limited geological information, which made it difficult to fully understand the ground water resources of the area. The availability of additional surface and subsurface data has greatly improved our understanding of the geology of Jackson County and has made it possible to subdivide the aquifer system into individual aquifer intervals. This has allowed us to relate the water levels and water quality information from one well to the next, and to improve our ability to predict the availability of ground water at a given location. This report presents the current interpretation of the geology and ground water resources of the county, and it provides detailed information, both recent and historic, on the water levels and water quality for the aquifers presently in use.

Surface Geology of Jackson County

General Discussion:

The surface geology of Jackson County can be divided into four parts: the alluvium of the Pascagoula and Escatawpa Rivers and their tributaries, river terraces, coastal terraces, and uplands. The uplands include the Graham Ferry and Pascagoula Formations. Both formations were deposited in very similar environments, and there is very little difference in appearance or composition between the two. Subdivision of these formations is based on geologic age, which is supported by fossil evidence. The Graham Ferry is Pliocene in age, while the Pascagoula Formation is late Miocene. Brown, et al (1944) mapped these formations together as undifferentiated Graham Ferry and Pascagoula, noting the difficulty of dividing these units. Harvey, et al (1965) mapped the Graham Ferry along the stream valleys on the west side of the Pascagoula River, but he did not recognize the formation on the east side of the river nor did he map any Pascagoula in Jackson County. In this report, on Plate 1, the Graham Ferry Formation is shown in grey and is present at the surface in the

northwestern part of the county and in a few places along the Mississippi and Alabama state line. The Pascagoula Formation, mapped in a rose color, is exposed on the slopes of the terrace capped hills in the northeastern part of the county. The presence of these formations was field verified, and a detailed report is given in *The Surface Geology of Jackson County* Open-File Report 285 by Stewart and Starnes (2017). The Graham Ferry and Pascagoula Formations dip into the subsurface and are unconformably overlain by alluvium and terraces to the south. The alluvium and terrace deposits can easily be distinguished from the uplands by topography alone. Surfaces of the alluvium and terrace deposits are characterized by a flat to gently sloping topography, while the surfaces of the Graham Ferry and Pascagoula Formations are more rugged and hilly. Brown divided the terraces in Jackson County into the Pamlico Sand, Low Terrace, High Terrace, and the Citronelle Formation. The Pamlico and the Low Terrace were mapped along the coast and along the lower reaches of the Pascagoula and Escatawpa Rivers. The terraces that occur at higher elevations in the northeastern part of the county were mapped as High Terrace, and those in the northwestern part of the county were mapped as the Citronelle Formation. Brown differentiated between the High Terrace and Citronelle based on topography. Harvey mapped the Pamlico and (Low) Terrace very much like Brown, but he included all the high terraces east and west of the Pascagoula River in the Citronelle Formation, assuming that it would act as one hydrologic unit. He also included much of the area mapped by Brown as Graham Ferry and Pascagoula undifferentiated with the Citronelle. Marble and Crellin (1995 unpublished maps) found that the Graham Ferry Formation was at the surface over most of the area in the northwestern part of Jackson County, with a few residual terraces on the highest hill tops. Marble concluded that much of the area mapped as Citronelle by Harvey was weathered Graham Ferry. To better understand the terraces in Jackson County, Stewart, Everett, and Marble (1995) subdivided the terraces based on the elevations at which they occurred and mapped them as individual units. It was noted that the terraces in Jackson County were very similar in elevation to the terraces of Cooke (1965). Cooke began delineating the terraces on the Atlantic Coast in the early 1920's while working with the United States Geological Survey (USGS) and continued mapping these terraces around the Florida peninsula, and into the Gulf Coast area. He concluded that the terraces in the Gulf Coast area were equivalent to the terraces on the Atlantic coast. Figure 1 provides a comparison of the terraces in this report to those of Brown, Harvey, and Cooke.

Alluvium:

The Pascagoula River Basin is a very prominent feature in Jackson County, having a broad alluvial plain that divides the county east and west. This basin was formed by erosion and downcutting of the Pascagoula River into the underlying formations during the latter part of the Pleistocene when sea levels were much lower than today. After being eroded, a subsequent sea level rise submerged the basin, and sediment deposited from the Pascagoula River flowing into the bay formed the broad flat alluvial plain that is seen today. The basin is a little over five miles wide in the northern part of the county, and the alluvium in that area has a thickness of about 60 feet. The Escatawpa River has a smaller basin that

trends north to south on the east side of the county, and it flows into the Pascagoula River from the east, just north of Moss Point. Both rivers have changed courses over the years. They once entered the Gulf to the east of the City of Pascagoula and formed Grand Bay and Grand Batture Islands which are mapped as marsh on Plate 1. Meander scrolls of the abandoned course of Pascagoula River are evident north of the town of Escatawpa. Red Creek is another major tributary of the Pascagoula River. It has a general northwest to southeast flow into the Pascagoula River Basin just south of the northern boundary of Jackson County. Red Creek is incised into the underlying Graham Ferry and Pascagoula Formations and forms the northern limit of the Graham Ferry in Jackson and George Counties. Several other smaller tributaries flow into the Pascagoula or Escatawpa basins and their associated alluvium is mapped as such. Streams in the western part of the county are much younger than the Pascagoula and Escatawpa Rivers and have much smaller basins. These rivers flow directly into Biloxi Bay.

River Terraces:

The terraces that parallel the Pascagoula and Escatawpa Rivers were deposited in the same way the broad flat plain of the Pascagoula River Basin was formed. These terraces have been given local names that relate to the locations where flat benches occur. From the lowest to the highest, these terraces and their elevations are: Wade at 50 feet, Big Point at 70 feet, Hurley at 100 feet, Harleston at 130 feet, and Movella at 150 feet (all elevations are relative to mean sea level - msl). Each successive higher terrace is an older terrace with the Movella terrace being the highest and the oldest in the study area. As would be expected, the older terraces are typically more eroded than the younger terraces and are more difficult to delineate. The terraces are relatively thin, typically no more than 30 feet thick in most places. Contacts between the terraces are typically masked by colluvium deposited on the slopes of the eroded surface between the upper terrace and lower terrace. This gives a gentler appearance of the transition from one terrace to another. A scarp separating the Hurley and Big Point Terraces has been preserved, however, and is located between the communities of Wade and Hurley on Highway 614. The land surface at the base of the scarp is very flat with an elevation of 45 to 50 feet, and the topography at the top of the scarp is also flat with an elevation of about 70 feet. The difference in elevation between the terraces, and the fact that there is a scarp separating them, is an indication that they were deposited by different stream systems and are not equivalent to one another. Even though the contacts between some of the other terraces are not as definitive as the one between the Wade and Big Point Terraces, each terrace was deposited in the same way and each should be regarded as an individual mapping unit.

Coastal Terraces:

The coastal terraces were formed in much the same way as the river terraces, but they parallel the coast and were deposited in a near shore coastal environment. These terraces and their elevations, from the lowest to the highest are: Pamlico at 25 feet, Big

Ridge at 50 feet, and Good Hope at 70 to 100 Feet. The Pamlico Terrace, as mapped here, includes the interval below an elevation of 30 feet. A flat bench typically occurs at an elevation of 25 feet on the Pamlico surface, but the Pamlico interval also includes other flat benches at lower elevations. Brown, et al (1944) and Harvey, et al (1965) treated the Pamlico as a separate geological unit from the other terraces, most likely because of the previous work by Cooke (1965 inclusive of earlier reports). The Pamlico is a prominent terrace found along the Atlantic Coast and continues around Florida into the Gulf Coastal Plain. It was named by Stephenson (1912) for exposures in the area of Pamlico Sound in North Carolina. Other names have been introduced for this interval, but due to its large regional extent and the general acceptance of the Pamlico name elsewhere, it seems appropriate to continue the use of the Pamlico nomenclature for this report. The thickness of the Pamlico Terrace varies depending on location, but it appears to be thicker than the other coastal terraces. Based on well samples and geophysical well logs, the Pamlico Terrace may be up to 70 feet thick in some places along the coast, and it thins to the north where it truncates along the southern edge of the Big Ridge and Wade terraces. A wave cut scarp is evident between the Pamlico and Big Ridge terraces, and it parallels the present coastline just to the north of D'Iberville and Ocean Springs. The southern boundary of the Big Ridge Terrace coincides with the northern limit of the Pamlico Terrace and includes the interval from 30 feet up to an elevation of 50 feet. A flat bench occurs at an elevation of about 50 feet on the crest of the terrace and is equivalent to the higher elevations of the Wade River Terrace. The estimated thickness of the Big Ridge Terrace is 25 to 30 feet just north of the contact with the Pamlico Terrace and thins to the north where it grades into the Good Hope Terrace. The Good Hope Terrace is the combination of two terraces that occur at elevations of 70 and 100 feet. Although these terraces were deposited at different times, they could not be reliably mapped as separate terraces due to the gradational contact between the two. The surface of the Good Hope Terrace is slightly rolling and includes the interval that lies between 50 to 110 feet in elevation. This interval is equivalent to the combined Big Point and Hurley River Terraces. The Good Hope Terrace is no more than 25 to 30 feet thick where it is exposed along the south side of Bluff Creek. It is characterized as fine grained clayey sand that weathers to a dark red brick color. The contact with the underlying Graham Ferry Formation is unconformable, and where observed along outcrop there is a pronounced contrast in the bedding between the two.

Citronelle Formation:

Although no Citronelle is represented on the present geologic map of Jackson County, it requires some discussion because of having been previously mapped on earlier maps of Jackson County. It was named by Matson (1916) for outcrops that occur in Citronelle, Alabama along the Mobile and Ohio Railroad (now abandoned). At the type locality, the formation is composed of fine clayey sand that weathers to a red brick color with no apparent bedding. The interval mapped as Citronelle is clearly associated with a terrace that occurs at 340 to 350 feet in elevation where the town of Citronelle is located. This is similar in elevation to the 360-foot Morley terrace of Cooke (1965). The Citronelle

Formation was deposited at an earlier time when sea levels were at a much higher elevation. Even though the terraces present in Jackson County are similar in deposition and appearance to the terrace at Citronelle, they are not related. The terraces in Jackson County are much younger and were deposited when sea levels were at lower levels. Each terrace that occurs at a lower elevation was formed first by the erosion of the previous higher terrace when sea levels were lower, and then deposition of a new terrace in its place when sea levels rose. Previous higher terraces were destroyed in those areas where the new lower terraces were deposited. Brown, et al and Harvey, et al both reported that the Citronelle dipped into the subsurface beneath the coastal terraces in Jackson County, but they mistakenly included the underlying sands of the Pascagoula and Graham Ferry Formations with the Citronelle. The Pascagoula and Graham Ferry Formations do dip into the subsurface, but the Citronelle and other lower terraces do not. Stewart and Starnes (2017) concluded that the use of the term Citronelle should be restricted to the terrace that occurs at 340 to 350 feet. A more detailed discussion on this subject is given in *The Geology of Jackson County* Open-File Report 285 for the interested reader.

Graham Ferry Formation:

The Graham Ferry Formation was named by Brown, et al (1944) for exposures of deltaic deposits on the west side of the Pascagoula River in Section 38, Township 5 South, Range 7 West. Brown differentiated the Graham Ferry from the underlying Pascagoula Formation based on fossil evidence which indicated that the Graham Ferry was younger than the Pascagoula Formation. Other than age, there is very little difference between the two. They were both deposited in deltaic to near-shore marine environments and are very similar in composition. The Graham Ferry does, however, appear to be a little more terrestrial than the Pascagoula. Clays in the Graham Ferry tend to weather to a reddish orange to tan color having a characteristic mottled appearance on outcrop. Pascagoula clays occasionally weather to a red color in places, but having less iron content, they commonly maintain a medium grey color on outcrop. Although the contact between the Graham Ferry and Pascagoula Formations was not observed at the surface, it appears that the Graham Ferry is a continuation of the Pascagoula depositional system, and it is assumed that the contact between the two is conformable. The formation dips into the subsurface and is overlain by terrace deposits and alluvium. The contact between the Graham Ferry and the overlying terraces is unconformable, and there are distinct differences in the bedding and composition between the two. On outcrop, the Graham Ferry is typically composed of clean, cross-bedded sands and medium gray to red clay. Heavy minerals are common in the sand intervals. The river and coastal terraces are generally composed of clayey sands that weather to a dark red color which are easy to distinguish from the Graham Ferry. The clayey texture and dark red color may be due to the weathering of glauconite. There are some residual terraces on the higher elevations where the Graham Ferry is mapped, but they are thin and very limited in aerial extent.

Pascagoula Formation:

The Pascagoula Formation is the oldest unit exposed at the surface in Jackson County. It was named by Johnson (1893) for exposures located along the Chickasawhay River at a place locally known as Shell Landing in Section 28, Township 1 North, Range 7 West in Green County, Mississippi. At this location, the Pascagoula Formation is fossiliferous and is characterized by the mollusk fossil *Rangia johnsoni*. Where *Rangia johnsoni* is present the formation is considered to be Pascagoula, but the lack of *Rangia johnsoni* does not preclude an interval from being part of the formation. In Jackson County, the Pascagoula is generally composed of clays and sands with some small gravel that were deposited in a near-shore estuarine or deltaic environment. The formation is exposed on the slopes of the hills in the northeastern corner of the county, and the tops of those hills are capped with terraces which unconformably overlie the Pascagoula. Access to outcrops of the Pascagoula in Jackson County is limited due to the sparse number of roads in the area in which it outcrops and much of the area being covered with vegetation. Clays of the Pascagoula can be seen along the banks of the Escatawpa River when the water is low, and cross-bedded sands of the Pascagoula are present in a sandpit just to the north in George County in Section 31, Township 3 South, Range 5 West. The Pascagoula Formation dips to the south beneath the overlying terrace deposits and Graham Ferry. Where the terrace deposits overlie the Pascagoula Formation the contact is unconformable, and, as previously discussed, the contact with the Graham Ferry Formation appears to be conformable. The Pascagoula also appears to conformably overlie the Hattiesburg Formation, although this contact is not exposed at the surface in Jackson County.

Subsurface Geology and Geohydrology of the Grand Gulf Aquifer System

The Grand Gulf Aquifer System consists of sediments overlying the Vicksburg Group and underlying the Pleistocene terraces, and includes, in ascending order, the Catahoula, Hattiesburg, Pascagoula, and Graham Ferry Formations. These formations are further divided into lower and upper aquifer intervals, such as the Lower and Upper Graham Ferry, and so on. The primary aquifers used in Jackson County are the Upper Pascagoula up through the Upper Graham Ferry and to a lesser extent the Upper Hattiesburg and Lower Pascagoula. The Lower Hattiesburg appears to be fresh in the northern part of the county, but it is not presently being used. The Upper Catahoula does not appear to be fresh in Jackson Co., and the Lower Catahoula in this area is a marine unit called the Tatum Limestone (Eargle, 1964). The Tatum Limestone and the underlying Chickasawhay-Vicksburg-Jackson Group provide the foundation to subdivide the overlying sands and clays into individual aquifer intervals. Figure 2 is a stratigraphic table showing the subdivision of the formations above the Cook Mountain and aquifer intervals of the Grand Gulf Group as defined by Hoffmann, et al (2017).

To subdivide the aquifers in Jackson Co., four cross-sections were constructed, two oriented north-south and two oriented east-west (Plates 3-6). The locations of these cross-

sections are shown on Plate 2, and a list of the wells used in constructing these cross-sections is given in Table 1. Geophysical well logs from oil and gas tests were used to establish the base of the aquifer system on top of the Tatum Limestone and the underlying Chickasawhay-Vicksburg-Jackson Group. It was assumed that the overlying formations generally had the same dip (slope) as the top of the Tatum and Chickasawhay Limestone intervals. Delineation of the Pascagoula and Hattiesburg Aquifers was largely based on previous work by Boswell, et al (1987) and Sumner, et al (1989). The base of the Graham Ferry was based on work by Sumner, and unpublished work by Marble and Crellin. The subdivision of aquifers in this report agrees with the regional work of Hoffmann, et al (2017). Earlier subsurface interpretations by Brown, et al (1944) and Harvey, et al (1965) were made by correlating relatively shallow sands without the advantage of having the more recent subsurface information to determine the dip rate or direction of dip of the formations. This led to aquifer intervals being miscorrelated, and water level and water quality information being misinterpreted. The cross-sections in this report establish the dip of the underlying Tatum and Chickasawhay Limestone intervals, and the overlying aquifers have been subdivided with respect to the dip. This permits equivalent sands to be identified and for the comparison of water levels and water quality information to be related from these equivalent sands. Based on the subdivision of aquifers from the cross-sections, six maps (Plates 7-12) were constructed on the tops of the individual aquifer intervals from the Lower Graham Ferry down to the Lower Hattiesburg, and on top of the Chickasawhay Limestone. There was insufficient data to produce a map for the Upper Graham Ferry, and maps were not produced for the Upper and Lower Catahoula due to these intervals not containing freshwater in Jackson County.

As shown on Cross Sections A-A' and B-B' (Plates 3-4), the apparent dip of the geologic units is to the south, and Cross Sections C-C' and D-D' (Plates 5-6) indicate that there is some slight dip to the west. The aquifer intervals thicken from north to south and slightly to the west. This indicates a basin subsiding to the south-southwest during deposition, although not rapidly. As indicated on the cross-sections, there is also an increase in the occurrence of sands containing freshwater from north to south and from east to west. It is not uncommon for there to be two or more sands in an aquifer interval, each of which may act as an individual aquifer (not being in connection with the other sands in the same aquifer interval). Care should be taken when comparing water levels and water quality data, even from the same aquifer interval. As shown on Cross Section A-A', the Upper Graham Ferry subcrops beneath the Pamlico Terrace in the southern part of the county and is exposed in the central and northern part of the county. On the east side of the Pascagoula River (Cross Section B-B') the Upper Graham Ferry is entirely covered by the Pamlico Terrace and is not exposed at the surface. The primary source of recharge for the Upper Graham Ferry is the exposed sands on the west side of the Pascagoula River and to a lesser extent the Pamlico. The Lower Graham Ferry is exposed at the surface in the northern part of the county west of the Pascagoula River and is almost entirely subcropping below the river terraces in the northeastern part of the county. As with the Upper Graham Ferry, the recharge for the Lower Graham Ferry is primarily from the exposed sands in the northwestern part of the county, and to a lesser extent from the river terraces to the

northeast. On Cross Section B-B' the Upper Pascagoula interval is projected to be at the surface in the northern part of the county on the east side of the Pascagoula River and is exposed on the slopes of the terrace-capped hills in that area. The recharge area for the Upper Pascagoula interval is in the northeastern part of Jackson County and further to the north in George County where the sands are exposed at the surface. The Lower Pascagoula and Hattiesburg intervals are not exposed at the surface in Jackson County. The terrace deposits, overlying the Grand Gulf Aquifer System, also contain freshwater, but they are relatively thin and are not commonly used. Some small capacity wells have been made in the Pamlico Terrace where it becomes a little thicker along the coast, but these wells are typically only used for irrigation due to the generally poor water quality in this interval. Water from this aquifer is commonly high in iron and manganese, and locally it may be brackish when in contact with surface water from the Gulf of Mexico or estuaries.

On the Top of Chickasawhay Formation Map (Plate 12), the dip rate is indicated to be 50 to 70 feet per mile to the south-southwest, depending on location. This dip rate continues to be reflected up through the Lower and Upper Hattiesburg (Plates 10 and 11). As shown on Plates 7-9, the rate of dip decreases in the shallower formations and averages about 30 to 60 feet per mile on top of the Lower Graham Ferry. On Plates 10 and 11, the downdip limits of freshwater in the Upper and Lower Hattiesburg Aquifers generally trend east and west and are in the central and northern parts of the county respectively. Any pumpage from these intervals would not affect the water availability from the aquifers being used along the coast. There appears to be an abundance of ground water resources available for future development from these intervals, and one well of particular interest is the Humble-Dantzler Lumber Company well in Section 20, Township 5 South, Range 8 West shown on Cross Section C-C', Plate 5. This well has roughly 200 feet of sand in the Upper Hattiesburg from a log depth of 1,380 feet to 1,600 feet. There are substantial sands elsewhere in the Upper and Lower Hattiesburg intervals in Jackson County, but none are as impressive as in the Humble well. Freshwater is available over the entire county in the Upper and Lower Pascagoula intervals. As shown on Plate 8, the top of the Upper Pascagoula is exposed at the surface in the northeastern part of the county and is 1,100 feet below mean sea level (bmsl) along the coast. The top of the Lower Pascagoula (Plate 9) ranges between 100 feet bmsl in the northeastern part of the county down to 1,500 feet bmsl to the south. Water use from the Upper Pascagoula is more common in the northern part of the county where it is available at shallower depths than to the south, and there are only a few wells which produce water from the Lower Pascagoula interval. Sands of one hundred feet in thickness are not uncommon in the Pascagoula intervals, but two wells of particular interest are the Davis Oil Company-Dees Well in Section 18, Township 6 South, Range 7 West, and the Imperial Resources-Allar Company Well in Section 38, Township 7 South, Range 7 West, as shown on Cross Sections A-A' and D-D', Plates 3 and 6. The Davis Oil Company well has two sands in the Lower Pascagoula interval, both over 100 feet thick, and a 60 foot sand in the Upper Pascagoula. The Imperial Resources well has a sand in the Lower Pascagoula that is 150 feet thick and another sand in the Upper Pascagoula that is slightly less than 100 feet. Both aquifers are underutilized, and, needless to say, significant additional ground water resources are available for future development from these

intervals particularly in the northern part of the county. Due to the shallow depth and relatively good aquifer qualities, the Upper and Lower Graham Ferry Aquifers are the primary aquifers used along the coast. As shown on Plate 7, the top of the Lower Graham Ferry is exposed at the surface in the northern part of the county and is 600 feet bmsl along the coast. The Upper Graham Ferry is a major source for water in the Pascagoula area but is sparsely used in the western part of the county due to a lack of sand in that area. The Lower Graham Ferry Aquifer is available along the entire coast, and thick sands are common in this interval. Three wells of particular interest are the Imperial Resources-Allar Company well in Section 38, Township 7 South, Range 7 West; the Ingalls well in Section 6, Township 8 South, Range 6 West, and the Moon, Hines & Tigrett well in Section 12, Township 7 South, Range 6 West all of which are shown on Cross Section D-D' Plate 6. Both the Imperial Resources and Ingalls wells have sands in the Lower Graham Ferry interval that are close to 100 feet thick, and a sand 140 feet thick is present in the Moon, Hines & Tigrett well. Although the Upper and Lower Graham Ferry Aquifers are heavily pumped along the coast, the pumpage in these intervals has not caused significant water level declines. This is most likely due to the close proximity of the recharge area to the north, and the good quality sands available in these intervals.

Base of Freshwater

For the purpose of this report, freshwater is considered to be water that contains less than 1,000 mg/l of total dissolved solids (TDS), and geophysical electric logs, such as those used to construct the cross-sections, are commonly used to estimate the base of freshwater in the subsurface. These logs are produced from tools run on a wireline in an open wellbore and provide an indirect way of characterizing aquifer qualities. There are analytical methods to calculate TDS in aquifers using geophysical well logs, but these methods are not reliable for ranges considered to be fresh. It is possible, however, to estimate the relative TDS of ground water using well logs. The spontaneous potential (SP) and resistivity curves on geophysical electric logs exhibit particular characteristics with varying TDS concentrations. Water with less than 1,000 mg/l TDS typically has a relatively high resistivity and a suppressed (to the right) SP. Conversely, water with greater than 10,000 mg/l TDS will have a very low resistivity with a much more pronounced SP development (to the left). The transition interval between 1,000 and 10,000 mg/l TDS generally has resistivities of more than 3 ohms and a positive SP curve. For this report, the base of freshwater (1,000 mg/l TDS) was picked at the point on each log there was a decrease in the resistivity and an increase in the SP curve. The Base of Fresh Water Map, Plate 13, was constructed using all the available geophysical well logs that logged through the freshwater interval. Well control in Jackson County is somewhat limited, having only 17 wells from which the base of the freshwater section could be estimated. The Base of Fresh Water Map will likely be improved as additional well control becomes available in the future.

Gandl's report, *Characterization of Aquifers Designated as Potential Water Sources in Mississippi*, 1982, treated the values that were calculated for the base of freshwater as if they all occurred in the same aquifer interval. The present Base of Fresh Water Map takes into account the aquifer intervals within which the base of freshwater occurs and is mapped accordingly. The base of freshwater ascends in the stratigraphic section from the Lower Hattiesburg aquifer in the northern part of the county to the Lower Pascagoula in the south. Depth to the base of freshwater ranges from 1,000 to more than 1,800 feet bmsl, depending on location and aquifer interval. In general, the base of freshwater is shallower to the east and north, and deeper to the west and south. Along the coast, the base of freshwater varies from about 1,600 feet bmsl in the Bayou Casotte area to an estimated depth of 1,700 feet bmsl in the Ingalls Shipyard area. Further to the west, in Ocean Springs, the base of freshwater is projected to be as deep as 1,900 feet bmsl; however, no wells have been drilled deep enough in this area to establish this depth. As shown on the log of the Floto well, Figure 3, the base of freshwater is in the Lower Graham Ferry Aquifer at a log depth of 1,483 feet. The Floto well is located offshore, just to the north of Horn Island, and freshwater is expected to extend to the south of the island.

Water Use

The main areas of ground water use in Jackson County are along the coast in the towns of Moss Point – Escatawpa, Pascagoula, Gautier, and Ocean Springs. There has been an increase in population in recent years in the communities of Hurley, Wade, and Vancleave in the northern part of the county, and correspondingly there has been an increase in water use in those areas. The largest industrial users are in the Bayou Casotte and Ingalls areas, which are located on the east and west sides of Pascagoula, respectively, and Mississippi Power Co. at Plant Daniel north of Escatawpa. Industries in the Bayou Casotte area use surface water from the Pascagoula River for their process water and fire protection and use ground water for their potable water needs.

Prior to 1918, 36 water wells were reported to have been drilled in Jackson County, mainly in the more populated areas along the coast. Most of these wells were completed in the Lower Graham Ferry and Pascagoula Aquifers, at depths of 514 feet to 993 feet. Initially, flowing wells were common in these intervals. With increasing use, however, natural flow could not satisfy the demand, so pumping became necessary (Brown, et al 1944). As a result, in the 1940's & 1950's water use tended to shift from the deeper sands to the shallower Upper Graham Ferry sands. Reported water use for Jackson County has increased from about 10 million gallons per day (mgd) in the 1950's to over 20 mgd in the 1990's (Stewart & Everett 1999). As shown in Figure 4, ground water use declined after Hurricane Katrina in 2005 to less than 15 mgd. Water use is projected to slowly increase to slightly more than 18 mgd by 2025.

Selection of Wells for Measuring Water Levels and Sampling

The Office of Land and Water Resources (OLWR) began investigating the ground-water resources of Jackson County in 1992 to evaluate the possibility of salt water intrusion into the Pascagoula area due to increasing ground water production. Wells selected at that time were mainly located near the coast, and were only being sampled for pH, specific conductance, chlorides, and color. Static water levels were also measured in these wells to compare the changes in water levels to the changes in water quality. The scope of this study was expanded in 1994 to include the entire county. Every well that had sufficient historical data for the comparison of water levels and water quality data was included in this study. A report for this investigation was published by Stewart and Everett, 1999, on the *Historical Water-Level and Water Quality Data in Jackson County*. For the present report every available municipal, industrial, and water association well was sampled, and water level measured. Some home wells were also measured and sampled in order to supplement the available information from the industrial and public supply wells in the northern part of the county. One hundred sixty-one wells were used in this study: thirty-eight in the Upper Graham Ferry, ninety-five in the Lower Graham Ferry, twenty-two in the Upper Pascagoula, five in the Lower Pascagoula, and one in the Upper Hattiesburg. Of the one hundred sixty-one wells, water levels were measured in one hundred thirty-five, and water samples were analyzed from one hundred eighteen wells (including both recent and historical). A list of wells from which water levels were measured or samples collected is presented in Table 2. The well numbering system used in Table 2 was originally established by the USGS many years ago, and the Office of Geology and Office of Land and Water Resources have continued its use. The letter designation is related to the Township or partial Township of the well location, and the number is, in general, based on the order in which the well was drilled in that grid. Typically wells with lower numbers are older, and wells with higher numbers are newer.

Measurement of Water Levels

Prior to measuring water levels in each well, the pump was turned off long enough to allow for reasonable recovery of the water level. The water level was then measured, using a graduated steel tape or a 30-psi pressure gauge if the well was flowing. The measurement was recorded in feet relative to both land surface and mean sea level.

Measuring static water levels can be a very useful tool to monitor water availability for a given aquifer in a localized area, but in some cases the measurement may be influenced by factors other than the pumpage. Some factors influencing water levels are the length of time a well is allowed to recover after pumping, interference from other nearby wells pumping from the same aquifer as the well being measured, and mechanical problems in the well itself. Water level trends (either up or down) should only be

determined from wells that have had a sufficient number of water levels measured over many years. Most of the water levels measured for this study were from wells which were actively being used and could only be turned off for a brief period (usually 20 minutes to an hour). As such, the water levels measured in these wells may not represent true static water levels. All available water levels are presented in Table 3.

Summary of Water Levels

Water levels were recently measured in sixty-six wells for this report. Currently, the highest water level measured is 129.2 feet above mean sea level, in the Vestry Community Center Well A135. This well was completed in the Upper Pascagoula Aquifer at 243 feet below land surface. The deepest water level measured is 235.9 feet bmsl in Moss Point Well Q600. Four flowing wells were observed. Two of these wells, McVey Well O74, and Orange Grove School Well Q34, were not gauged due to there being only a very a small amount of flow. The other two wells, Vancleave High School Well K322, and Mississippi Department of Transportation Well M349, had water levels 41.86 and 19.21 feet above mean sea level respectively.

Water levels in most wells have been relatively stable for many years. The largest water level declines have been in the Moss Point wells. These are large capacity wells which are relatively close to one another, and the aquifer appears to be of limited lateral extent. Pumpage has recently been reduced in this area and the water levels are now fairly stable at about 200 feet bmsl. Water levels are rising in some wells in the Pascagoula area that are completed in the Upper Graham Ferry. Several of the wells, such as P429, have higher water levels now than when they were first drilled. The well with the longest period of measurement is at Moss Point Presbyterian Church, Well P45, which was measured from 1919 to 2006. This well was completed in 1908 in the Lower Graham Ferry at 806 feet. Water levels in this well have ranged from 51 feet above mean sea level in 1919 to 22.8 feet bmsl in 2006. Other wells in the Moss Point area completed in the same interval have had much lower water levels over some of the same time period, leading the author to believe that the casing in the P45 well has integrity problems and that the water levels after 1970 may not be reliable. A Pascagoula well at the Communy Street water plant, P124, is another well that has a long history of water level measurements. Water levels have been periodically measured in this well since 1959, and the most recent measurement of -45.50 bmsl, made in 2015, is a few feet higher than a measurement of -49.88 made in 1966.

Collection and Analysis of Water Samples

Before sampling a well, the pump was allowed to run for a reasonable amount of time to avoid collecting water that had been in the well casing or the tank for a long period.

Flowing wells and pumping wells that were used on a regular basis required little or no purging before being sampled. Wells not in continuous use were allowed to flow for a longer period before a sample was collected. Unchlorinated water samples were collected from a sampling point as close as possible to each well. The pH and specific conductance were measured on site using a YSI meter. Each sample bottle was labeled with the county, well number, owner's name and sample date, and the sample was delivered to the Office of Pollution Control laboratory for analysis.

The U. S. Geological Survey was responsible for most of the water quality analysis for samples that were collected prior to 1992. After that date, the Office of Pollution Control laboratory has been responsible for the analysis. Some variation in chloride values is to be expected, even under ideal circumstances. According to laboratory personnel, a 3% variation between analyses using the same method is normal, and as much as 10% variation in results between different methods is acceptable. Over the years, the Pollution Control lab has used more than one method to analyze for chlorides, so some variation in the chloride values may be due to changing analytical methods. Other factors that may affect chloride values are holding time, temperature, and length of time the well is pumped prior to sampling. Due to these normal variations, it is necessary to analyze several samples over time to detect a trend. For quality control, the lab results were checked against the historic data for each well. If the chloride concentration differed greatly from previous analyses, the well was resampled as soon as possible. The basic water quality data are presented in Table 4.

The Office of Land and Water Resources began collecting water samples for a more detailed analysis of ground water constituents in 2003. The samples were analyzed for manganese, iron, magnesium, potassium, calcium, silicon, sodium, chlorides, alkalinity, fluoride, and sulfate. For the detailed analysis, two unchlorinated samples were collected. Nitric acid was added as a preservative to the sample to be analyzed for metals, and no preservatives were added to the sample to be analyzed for chlorides and other nonmetals. The Office of Pollution Control laboratory was responsible for all detailed water quality analysis, and the analyses are presented in Table 5.

Summary of Water Quality Analyses

Of the one hundred sixty-one wells used in this study, one hundred eighteen were sampled for chloride concentrations. The chloride concentrations vary from well to well, generally increasing with depth. The lowest chloride concentration was found in Jackson County Utility Authority Well C145 east of Wade, with a chloride concentration of 2.7 mg/l. The highest concentration, averaging about 500 mg/l, was found in a 1,395-foot private well, McVey O74, southeast of Ocean Springs. The southernmost well is National Park Service Well O392, located about 12 miles south of Gautier on Horn Island. This well is 835 feet deep and has a chloride concentration of about 70 mg/l. The pH was eight or above for all but six of the wells, and the remaining six had a pH above seven. Water color was

measured in fifty-four wells, and only five of these wells had color analysis within the Environmental Protection Agency recommended secondary water quality standard of fifteen cobalt units. In general, color increases with depth in Jackson County and is higher in the eastern part of the county than the west. The overall lowest measured color was in Ocean Springs Well N520, with a measurement of 8 cobalt units. The highest color was measured in the Omega Protein Inc. Well Q19, to the east of Pascagoula, with 262 cobalt units.

The detailed water quality analyses are available for one hundred and two wells used in this study. The analyses for all the wells sampled indicate that the ground water is of a soft sodium bicarbonate type and is generally low in other constituents. A few wells have slightly higher than desired iron and manganese concentrations, the highest of which is the Grand Bay Coastal Research Lab Well, Q633, having 4.81 mg/l iron and a pH of 7.34. This is the shallowest well sampled, completed at 168 feet, and it is common for wells in this depth range to have a lower pH and higher iron and manganese concentrations.

The main water quality concerns in the Jackson County area are higher chlorides in the Pascagoula-Moss Point area, and high color common in many of the wells. The high chloride problem has been addressed with the installation of reverse osmosis systems in Pascagoula and Moss Point, and both are now producing very good quality water. The high color problem is also being remedied with reverse osmosis in Pascagoula and Moss Point, and a sand filter and ionic exchange filtration system has been successfully used in Gautier.

Ground Water Resources by Area

Moss Point – Escatawpa Area:

Most of the wells used for public water supplies in the Moss Point and Escatawpa areas are completed in sands of the Lower Graham Ferry at depths between 800 to 900 feet, and 400 to 650 feet below land surface. Only a few wells have been completed in the Upper Graham Ferry and the Upper Pascagoula. In the early twentieth century, a few wells were completed in the Moss Point area from sands in the 1,000 to 1,100-foot depth range. Wells were drilled to these depths because they flowed, but as the pressures declined and pumps were required to lift the water, the shallower aquifers became more desirable. There is an area in the eastern part of Moss Point in which sands in the Upper Pascagoula and Lower Graham Ferry Aquifers are scarce, and several test wells have been drilled in the area with little encouragement. Moss Point completed a well, Q434, near the intersection of Interstate 10 and Hwy 63 that only had 25 to 30 feet of what appears to be poor quality sand in the Lower Graham Ferry. This well is now abandoned due to excessive drawdown problems. The wells in Escatawpa were sufficient for the water supply needs of the community for many years, but they also had poor sand development and have also been abandoned. Moss Point has been servicing the Escatawpa area since 2009 after a reverse osmosis

treatment facility was built to improve their water quality. Recently drilled wells in the downtown area of Moss Point and an older well, P229, located further to the west along the Pascagoula River, indicate that thicker sands are available on the western side of Moss Point and Escatawpa. Future test wells should be drilled to the west, where better quality sands may be found.

Prior to 2009, the water levels in the lower sand of the Lower Graham Ferry were very stable in the 100 to 130 feet bmsl range with little to no decline. When additional wells were drilled to supply the recently-built reverse osmosis treatment facility, pumpage from the Lower Graham Ferry was increased, and the water levels began to decline. Water levels are now in the 200 to 250 feet bmsl range and appear to have stabilized.

The water quality for the Lower Graham Ferry in the Moss Point area is relatively good except for having some color and possibly a slight hydrogen sulfide odor. The chloride levels are 50 to 60 mg/l in the upper sands of the Lower Graham Ferry and 120 to 250 mg/l in the lower sands. These chlorides are naturally occurring and are not the result of salt water intrusion. A well completed on the east side of Moss Point at 950 feet in the Upper Pascagoula (the Omega Protein Inc. Well Q19) has chlorides in the 400 mg/l range. Even though the chlorides are higher in this well than the secondary water quality standard recommended by EPA, this water would be suitable for use after being treated with reverse osmosis. This sand interval should certainly be considered as a potential source of water when looking for additional water supplies in the future. As reported by Wasson (1978), the deepest water well in Moss Point, P49, was drilled in 1926 to 1,807 feet, and as would be expected the chlorides are increasing with depth, in the 1,500 mg/l range. Obviously, water from sands at this depth would not be suitable as a source for potable water.

Pascagoula Area:

The main sources for public water supply in the City of Pascagoula are the Upper and Lower Graham Ferry Aquifers. The Upper Graham Ferry Aquifer is the most widely used due to its shallow depth and relatively good aquifer qualities. The sands that comprise the Upper Graham Ferry are present over most of the area in Pascagoula, and the wells that produce from the Upper Graham Ferry are generally at a depth of 250 to 400 feet below land surface. There are three individual sands in the Lower Graham Ferry Aquifer that are somewhat discontinuous, but at least one of these sands should be present over most of the Pascagoula area. The lowermost sand, between 700 and 800 feet below land surface, is produced on the west side of Pascagoula from wells P124, P134 & P150, while the middle sand, between 600 to 700 feet below land surface, is produced on the east side of town from wells Q180 & Q181. The upper sand in the Lower Graham Ferry interval is present on the west side of town but is not currently being produced. A well just to the east of Pascagoula in Orange Grove, Q34, was completed in the Upper Pascagoula Aquifer at a depth of 1,250 feet, and the chlorides are in the 170 to 190 mg/l range. This suggests that the Upper Pascagoula Aquifer may be a potential source of water for the area in the future, particularly on the east side of town. As reported by Wasson (1978), a well just south of

U.S. Highway 90 on the west side of town, P111, is the deepest well in the Pascagoula area for which chloride information is available. This well was completed in the lower part of the Upper Pascagoula interval at a depth of 1470 feet and had chlorides in the 550 mg/l range. Water from this interval would be suitable for use after being treated with reverse osmosis and should be considered as a potential source of water when looking for additional water supplies in the future.

The static water levels in the Upper Graham Ferry have been very stable, in the 40 to 70 feet bmsl range, with little to no overall decline in the past 20 to 30 years. Static water levels in the middle sand of the Lower Graham Ferry interval have varied greatly, depending on pumpage and the amount of recovery time allowed. Since the early 1980's water levels in this aquifer have been as high as 62 feet bmsl and as low as 198 feet bmsl in wells Q180 & Q181, with the most recent measurement in January of 2007 being 120 feet bmsl in the Q181 well. Based on the variation of water levels measured in these wells, this aquifer appears to be limited aurally or to have poor aquifer qualities. The static water levels in the lower sand of the Lower Graham Ferry have been stable for many years. Since the late 1960's, they have been in the 40 to 70 feet bmsl range in the Communny Street Wells, P124 & P150, and Beach Well P134, with the most recent measurement taken in 2015 being 45.5 feet bmsl in P124.

Except for having higher chlorides in some wells, the water quality for the Upper and Lower Graham Ferry intervals are very similar to the water quality in the Moss Point area. The chlorides, however, vary greatly between wells depending on location and the aquifer from which the water is produced. The Upper Graham Ferry Aquifer has a little less color than the Lower Graham Ferry, and the chlorides are generally in the 100 to 200 mg/l range. The chlorides in the Lower Graham Ferry are in the general range of 300 to 450 mg/l. Well P145, on the east bank of Ingalls Shipyard, is completed at a depth of 805 feet in the lower sand of the Lower Graham Ferry and has chlorides in the 500 to 600 mg/l range. Chlorides in this well are higher than would normally be expected at that depth and location, and it is likely that this well has been contaminated from another source with higher chlorides (possibly well P111). Wells P124 & P150 at Communny Street, and the Beach Well, P134, are completed in the same sand as the P145 well, and the source of higher chlorides in these wells is likely the same as the P145 well. The City of Pascagoula started using reverse osmosis in 2000 to remove the high chlorides and color from their water and have been quite successful. They now have three reverse osmosis plants in operation and are producing very good quality drinking water.

Gautier Area:

All of the public water supply in the Gautier area is produced from the Lower Graham Ferry. As in the Pascagoula area, there are three sands in the Lower Graham Ferry interval. The primary sands used in this area are the upper sand, which occurs at about 500 feet below land surface and the lower sand, at 700 feet below land surface. There are four wells producing from the upper sand in the downtown area along Highway 90, and four

wells producing from the lower sand further to the north near Interstate 10. Many of the home wells in the Gautier area are completed in the Upper Graham Ferry at depths generally around 300 to 400 feet below land surface, and there are a few shallow wells completed at less than 100 feet in the Pamlico interval. Water from the Pamlico is typically high in iron and manganese and is normally only used for irrigation. The base of freshwater in this area is about 1,700 to 1,800 feet bmsl, and, as indicated by well logs, additional freshwater sands are available in the Upper and Lower Pascagoula.

The most recent static water levels from the wells completed in the lower sand of the Lower Graham Ferry range from 14 to 44 feet bmsl. Water levels from the upper sand are a little lower, in the 49 to 87 feet bmsl range. The lower water levels measured in the upper sand are due to the wells being in close proximity to one another in the downtown area of Gautier and heavy pumpage. Some of the stress could be relieved on the aquifer by drilling additional wells and spreading pumpage over a larger area. Water level information from the Upper Graham Ferry and Pamlico is essentially nonexistent due to the difficulty of accessing these wells.

The water quality in the Lower Graham Ferry in this area is similar to that in Pascagoula and Moss Point, with the exception of having slightly lower chlorides. Chlorides in the upper sand are about 40 mg/l, and they generally range between 100 and 170 mg/l in the lower sand. Chlorides are generally less than 20 mg/l and commonly in the single digits in the Upper Graham Ferry and Pamlico Aquifers. The deepest well in this area for which water quality data is available is a private well, O13. This well was completed at 964 feet below land surface and had chlorides in the 150 mg/l range (Wasson, 1978). Gautier started using a sand filter and ionic exchange system on one of their wells, O307, in 2015 to remove color. The most recent sample of finished water taken in April 2017 had a color of 0 cobalt units.

Ocean Springs Area:

The Lower Graham Ferry Aquifer is the main source for water in the Ocean Springs area. As in the Gautier area, there are three sands within this interval. The upper sand at 500 to 600 feet and the lower sand at 800 to 900 feet are the primary sands being produced. There are a few home wells completed in the Upper Graham Ferry from 300 to 400 feet and even fewer wells completed in the Pamlico. Some wells have been completed in the Upper Pascagoula Aquifer at depths of about 1,200 feet, but most of these wells were drilled in the early 1900's and are now abandoned. Additional water resources in the Ocean Springs area are likely available from the Upper and Lower Pascagoula Aquifers.

There is not enough historical data to establish a definite trend in water level declines in the Lower Graham Ferry Aquifer. The most recent static water levels were measured in 2015, and the water levels are generally in the 50-foot bmsl range in the lower sand and 100- to 130-foot bmsl range in the upper sand. These water levels seem to be stable with only minor yearly declines. There is very little information on water levels in the Upper Graham Ferry, but the few water levels that are available in this interval indicate that they are at a

shallow depth, in the 8 to 12-foot bmsl range. Water levels in the Upper and Lower Pascagoula aquifers would likely be above land surface in this area.

Water quality from the Lower Graham Ferry Aquifer in the Ocean Springs area is relatively good, having much lower color and chlorides than that from the same aquifers to the east. Chlorides in the upper sand are generally less than 10 mg/l and vary greatly from less than 10 mg/l to over 100 mg/l in the lower sand. Information on the water quality from the Upper Graham Ferry is sparse, but what little information is available indicates that the color is fairly low and the chlorides are generally less than 10 mg/l. As reported by Harvey, et al (1965), two Upper Pascagoula wells on the north side of Highway 90, N42 and N44, had chloride concentrations in the 340 mg/l range, and another well on the south side of Highway 90, N49, had chlorides in the 700 mg/l range. Due to the close proximity of the N49 well to the N42 and N44 wells and the substantial difference in chlorides, it appears that the N49 well may have been contaminated by another source with higher chlorides. All three of these wells (N42, N44, & N49) are now abandoned.

Hurley and Wade Area:

Until recently the main source of water in the Hurley and Wade area, in northeastern Jackson County, was from private wells or from small rural water associations. Many of the homes in this area still have their own wells, but the more populated areas of Hurley and Wade are now using water produced by the Jackson County Utility Authority. The Utility Authority was formed in 2006, and they assumed responsibility for a few of the pre-existing wells and drilled two additional wells, C145 and C146. They have also started providing water to the local communities north and east of the community of Escatawpa from a surface water plant that just became operational in 2016. The source of water for the plant is from the Pascagoula River via a surface water pipeline operated by the Jackson County Port Authority. The primary source for ground water in the area is from the Upper Pascagoula interval, but additional water resources are available for future use from the Lower Graham Ferry and Lower Pascagoula intervals.

Historic water level information in this area is nonexistent. Recent water levels were measured in C145, C146, and the Mississippi Power Co. Plant Daniel Well L127. All three had relatively high static water levels, but the highest measurement was in C146 at 57.1 feet above mean sea level. The Jackson County Utility Authority Well, L183, is a flowing well, but due to the well configuration, the water level was not gauged.

There is very little historic water quality information for this area. Recent water quality analyses from wells sampled in this area indicate that chloride concentrations are very low, and iron concentrations are also low with the exception of the analysis from well C145. This well has a slightly higher than desired iron concentration of 0.766 mg/l, and a lower pH than most wells in this area of 7.58. The most notable water quality problem in the Wade and Hurley area is color. Well L183 is the deepest well sampled in the area, and by visual inspection, the color is very similar to the Orange Grove School Well Q34, which had a color of 250 cobalt color units. The other wells sampled in this area do not appear to

have as much color as well L183, but it is apparent that they are well above the maximum recommended color of 15 cobalt units. There are ample water resources available in this area, but the color is somewhat of a problem for well operators due to the byproduct of trihalomethanes being formed when water with high color is chlorinated. With recent advances in filtration systems to remove color, water in this area can be greatly improved, and the problem with trihalomethanes can be eliminated.

Vancleave Area:

The Vancleave area is very similar to the Hurley and Wade area. The Jackson County Utility Authority assumed responsibility for providing water to Vancleave and the surrounding area in 2006. Prior to that, the main source of water was from private wells or small water associations. Vancleave is the most populated community in the northwestern part of Jackson County, while the population in the surrounding area is sparse but growing. Much of the water used in this area is still being produced from private wells, but the Utility Authority has been providing water to Vancleave and the more recently developed neighborhoods for several years. The Utility Authority has assumed responsibility for maintaining the pre-existing wells in Vancleave and has drilled five new wells to provide services to this area. Four of the new wells are completed in the Upper Pascagoula in the 700 to 1100 feet below land surface range, and the fifth is completed in the Lower Graham Ferry at 325 feet below land surface. Other aquifers available in the area include the Lower Pascagoula and further to the north, the Upper and Lower Hattiesburg.

There is very little historic water level information for wells in this area, but recent water level measurements indicate that the static water levels are relatively high. Water levels in the four Jackson County Utility wells completed in the Upper Pascagoula vary from 24.3 feet above mean sea level to 26.2 feet below mean sea level, depending on location. Of these, the wells to the west of Vancleave have less pumpage and higher water levels than the K696 well located in the community of Vancleave. The Jackson County Utility Well K738, completed in the Lower Graham Ferry, is also located in the Vancleave community and had a static water level of 20.4 bmsl. The Vancleave High School Well K322 is completed at 1,254 feet and is a flowing well with a water level of 41.86 feet above mean sea level. The highest water level measured was 129.2 feet above mean sea level in Vestry Community Center Well A135.

Historic water quality information is also nonexistent for wells in the Vancleave area. Recent water quality analyses from wells sampled in this area indicate that the chloride concentrations are very low for most wells, in the range of 20 mg/l or less. The highest chloride concentration was in the San Juan Fish Camp well to the east of Vancleave, with 74.8 mg/l chlorides. Iron concentrations are slightly higher than desired in Vancleave High School Well K322, and Jr. High School Well K147, having 1.4 mg/l and 1.05 mg/l iron respectively. The GMTE Enterprise Well F464, north of Vancleave, also has a little higher iron concentration than desired at 0.531 mg/l iron. Except for a private well, F120, having a pH of 7.38, the wells in this area all have a pH above 8. As in the Hurley and Wade area,

the most notable water quality problem in the Vancleave area is color. As previously discussed, the main problem with color is the byproduct of trihalomethanes being formed when water with high color is chlorinated. In the past, treating water for color was not considered to be practical or economical, but with the recent advances in filtration systems it is much simpler and cost effective to remove the color.

Summary

Earlier reports by Brown, et al (1944) and Harvey, et al (1965) were mainly focused on the availability of water resources to support the growing population and industrial development in Jackson County. The more recent reports of Wasson (1978) and others were concerned with the sustainability of the water resources and the possibility of saltwater intrusion into the coastal area due to ground water pumpage. The Office of Land and Water Resources has been monitoring the static water levels and water quality since 1992 and has studied the aquifer system in detail. This report has presented the water level and water quality information collected over the years and provides a detailed discussion of the geology and available ground water resources in Jackson County. There are at least four conclusions that can be drawn from this report:

1. The static water levels in Jackson County have generally been stable or slightly declining since the mid-1970's. At present pumping rates, there are ample water resources available to satisfy the water supply needs of Jackson County for the foreseeable future.
2. With an improved understanding of the geology and the availability of ground water resources in Jackson County, it is apparent that there is an abundance of water resources available for future use (particularly in the central and northern parts of the county).
3. Saltwater intrusion has not occurred in the confined aquifers being produced along the coast; furthermore, there is no concern of saltwater intrusion occurring in the future.
4. The main water quality problem in Jackson County is color (which is associated with naturally occurring organics in the aquifer). With the recent advances in filtration systems the color can be effectively removed and the associated problem with trihalomethanes eliminated.

It was the intent of the author to present the information in this report in such a way that it could be used as a resource for those responsible for developing future ground water resources in Jackson County, and for the wise management of the ground water resources presently being produced. The Office of Land and Water Resources will continue to monitor the water resources of Jackson County and will update this report as needed in the future.

SELECTED REFERENCES

- Bicker, A. R., Jr., 1969, Geologic map of Mississippi: Mississippi Geological Survey.
- Boswell, E. H., 1979, The Citronelle aquifers in Mississippi: Jackson, Miss., U. S. Geological Survey Water Resources Investigations 78-131, map.
- Boswell, E. H., D. Darden, and G. A. Bednar, 1987, Ground-water resources of Jones County, Mississippi: Jackson, Miss., U. S. Geological Survey Water-Resources Investigations Report 85-4342.
- Brown, G. F., V. M. Foster, R. W. Adams, E. W. Reed, and H. D. Pagett, Jr., 1944, Geology and ground-water resources of the coastal area in Mississippi: Mississippi Geological Survey Bulletin 60, 232 p.
- Cooke, C. W., 1966, Emerged Quaternary shore lines in the Mississippi Embayment: Smithsonian Miscellaneous Collection, v. 149, no. 10 (Smithsonian Institute Publication 4677), 41 p.
- Dockery, D. T. III, 1981, Stratigraphic column of Mississippi: Mississippi Department of Environmental Quality, Office of Geology, 1 sheet.
- Dockery, D. T. III, and D. E. Thompson, 2016, The Geology of Mississippi: Mississippi Department of Environmental Quality and University Press of Mississippi, 715 p.
- Eargle, D. H., 1964, Surface and subsurface stratigraphic sequence in southeastern Mississippi: U. S. Geological Survey Professional Paper 475-D, p. D43-D48.
- Fisk, H. N., 1940, Geology of Avoyelles and Rapides Parishes, Louisiana Geological Survey Bulletin 18, 240 p.
- Foster, V. M., 1941, Forrest County mineral resources: Mississippi Geological Survey Bulletin 44, 87 p.
- Gandl, L. A., 1982, Characterization of aquifers designated as potential drinking-water sources in Mississippi: U. S. Geological Survey Water-Resources Investigations Open-File Report 81-550, 90 p.

- Hardin, D. L., J. F. Everett, and P. E. Grantham, 1993, Chemical character of ground water in the Miocene Aquifers at selected localities in the Moss Point – Pascagoula area, Mississippi: Mississippi Department of Environmental Quality, Office of Land and Water Resources Open-File Report 93-101.
- Harvey, E. J., H. G. Golden, and H. G. Jeffery, 1965, Water resources of the Pascagoula Area, Mississippi: U. S. Geological Survey Water-Supply Paper 1763, 135 p.
- Hilgard, E. W., 1860, Report on the geology and agriculture of the State of Mississippi: E. Barksdale, State Printer, Jackson, Mississippi, 391 p
- Hoffmann, J., et al, 2017, Geohydrologic cross-sections of the Grand Gulf aquifer system in southeastern Mississippi: Mississippi Department of Environmental Quality, Office of Geology, Open-File Report 284, 9 p.
- Johnson, L. C., 1893, The Miocene group of Alabama: Science, Vol. 21, No. 524, pp. 90-91.
- Lang, J. W., and R. Newcome, Jr., 1964, Status of salt-water encroachment in aquifers along the Mississippi Gulf Coast – 1964: Mississippi Board of Water Commissioners Bulletin 64-5, 17 p.
- Marble, J. C., and J. C. Crellin, (unpublished), Geologic map of the Vestry Quadrangle, George and Jackson Counties, Mississippi: Mississippi Department of Environmental Quality, Office of Geology Open-File Report 44.
- Marble, J. C., and J. C. Crellin, (unpublished), Geologic map of the Latimer Quadrangle, Jackson County, Mississippi: Mississippi Department of Environmental Quality, Office of Geology Open-File Report 45.
- Matson, G. C. 1916, The Pliocene Citronelle Formation of the Gulf Coastal Plain: U. S. Geological Survey Professional Paper 98-L, 26 p.
- Newcome, Roy, Jr., 1965, Configuration of the base of the fresh-ground-water section in Mississippi: Mississippi Board of Water Commissioners Water Resources Map 65-1, map.
- Newcome, Roy, Jr., 1967a, Ground-water resources of the Pascagoula River basin, Mississippi and Alabama: U. S. Geological Survey Water-Supply Paper 1839-K, 36 p.

- Stephenson, L. W., 1912, The coastal plain of North Carolina: Part 1, The physiography and geology of the Coastal Plain of North Carolina; The Cretaceous, Lafayette, and Quaternary formations, *in* Clark, W. B., et al., The Coastal Plain of North Carolina: North Carolina Geological Survey, V. 3, p. 73-171, 285-290, prepared in cooperation with the U.S. Geological Survey.
- Stewart, L., and J. F. Everett, 1999, Ground-water study of historical water-level and water-quality data in Jackson County, Mississippi: Mississippi Department of Environmental Quality, Office of Land and Water Resources Open-File Report 99-102, 117 p.
- Stewart, L., and J. F. Everett, 2002, Ground-water study of historical water-level and water-quality data in Harrison County, Mississippi: Mississippi Department of Environmental Quality, Office of Land and Water Resources Open-File Report 02-102, 155 p.
- Stewart, L., J. F. Everett, and J. C. Marble, 1995 (unpublished), Geologic map of Jackson County: Mississippi Department of Environmental Quality, Office of Geology.
- Stewart, L., and J. E. Starnes, 2017, Surface geology of Jackson County, Mississippi: Mississippi Department of Environmental Quality, Office of Geology, Open-File Report 285, 20 p.
- Sumner, D. M., B. E. Wasson, and S. J. Kalkhoff., 1989, Geohydrology and simulated effects of withdrawals on the Miocene aquifer system in the Mississippi Gulf Coast Area: Jackson, Mississippi, U. S. Geological Survey Water-Resources Investigations Report 87-4172, 80 p.
- Wasson, B. E., 1978, Availability of additional ground-water supplies in the Pascagoula Area, Mississippi: Mississippi Research and Development Bulletin: 32 p.
- Wasson, B. E., 1986, Sources for water supplies in Mississippi: Mississippi Research and Development Bulletin: 113 p.
- Williams, C. H., T. H. Dinkins, and T. E. McCutcheon, 1967, George County geology and mineral resources: Mississippi Geological Survey Bulletin 108, 227 p.
- Wilmarth, M. G., 1938, Lexicon of geologic names of the United States (including Alaska), Part 1: U. S. Geological Survey Bulletin 896, pp. 852-853.

Section II

Figures

Comparison of Terrace Classifications to Previous Work

Terraces in Jackson Co. This Report				Cooke (1966)		Brown (1944)	Harvey (1965)
Stream Terraces	Coastal Terraces	Map Interval	Terrace Elv.		Terrace Elv.		
	Pamlico	0' to 30'	25'	Pamlico & Silver Bluff	6' & 25'	Pamlico	Pamlico
Wade	Big Ridge	30' to 50'	50'	Talbot	42'	Low Terrace	Terrace
Big Point	Good Hope	50' to 80'	70'	Penholoway	70'	High Terrace & Citronelle	Citronelle
Hurley		80' to 110'	100'	Wicomico	100'		
Harleston		110' to 130'	130'	Not Recognized	Not Recognized		
Movella		130' to 180'	150'	Okefenokee & Sunderland	145' & 170'		
Agricola		190' to 230'	220'	Coharie	215'		
Lucedale		250' to 270'	270'	Hazlehurst	275'		
Sand Hill		280' to 300'	300'	Not Recognized	Not Recognized		
Citronelle		300' to 350'	340'	Morley	360'		

Note: All elevations are relative to sea level (MSL)

Figure 1

System	Series	Geologic Unit			Aquifer		
Quaternary	Holocene	Alluvium	Post Graham Ferry		Post Graham Ferry Undifferentiated		
	Pleistocene	Pamlico					
		Terraces					
Tertiary	Pliocene	Graham Ferry			Grand Gulf Aquifer System	Upper Graham Ferry	
						Lower Graham Ferry	
	Miocene	Pascagoula				Upper Pascagoula	
						Lower Pascagoula	
		Hattiesburg				Upper Hattiesburg	
						Lower Hattiesburg	
		Oligocene	Catahoula	Upper Catahoula		Upper Catahoula	
				Tatum Limestone		Lower Catahoula	
	Paynes Hammock Fm.						
	Chickasawhay Ls.						
	Vicksburg Group		Bucatanunna & Byram Undif.			Not an Aquifer in Jackson County	
			Glendon Ls.				
		Marianna & Mint Spring Undif.					
		Forest Hill & Red Bluff Undif.					
	Eocene	Jackson Group	Yazoo Fm. Undif.				
			Moodys Branch Fm.				
		Claiborne Group	Cockfield Fm.				
			Cook Mountain Fm.				

Figure 2: Stratigraphic Section and Geohydrologic Subdivision of Grand Gulf Aquifer System in Jackson County
(Modified from Hoffmann, et al, 2017)

C. A. Floto
State of Mississippi Well
Located 1000 Ft. North of Horn Island
in Mississippi Sound

Lat. 30 15' 00" Scale 1" = 200'
Long. 88 43' 48" Elv. KB 17'

Post Graham Ferry

Upper Graham Ferry

Lower Graham Ferry

Base of Fresh Water (1000 PPM TDS) @ 1483 ft.
Upper Pascagoula

Lower Pascagoula

Upper Hattiesburg

Lower Hattiesburg

Upper Catahoula

Lower Catahoula

Chickasawhay- Vicksburg-Jackson Group Udif.
and the Cockfied Formation

Cook Mountain

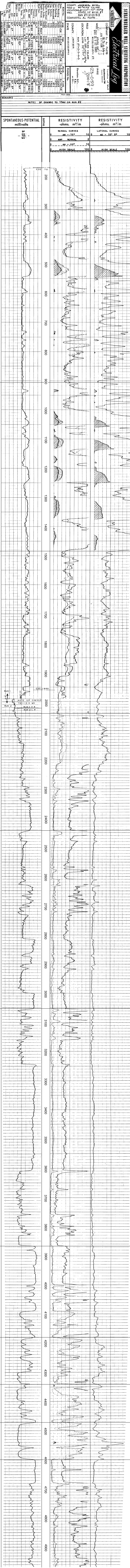


Figure 3

Jackson Co. Water Use and Projected Water Use

Date	Population	Domestic Water Use	Other Water Use	Total Water Use
2000 Actual	131,420	15.47	5.81	21.28
2005 Actual	134,950	11.45	2.75	14.20
2010 Actual	139,668	13.37	2.62	15.99
2015 Estimated	141,425	14.14	2.88	17.02
2020 Projected	144,760	14.48	3.17	17.65
2025 Projected	148,095	14.81	3.49	18.30

All water use volumes shown in millions of gallons per day.

The source of the actual water use for 2000, 2005, and 2010 is from the United States Geological Survey (based on MDEQ water use surveys). The population for those years were reported by the U.S. Census Bureau, and the population reported for 2015 is an estimation. Population projections for 2020 and 2025 were made by assuming a constant growth rate of 3,335 people per five year period, based on the average population increase from 2000 to 2015. The domestic water use projections for 2015, 2020 and 2025 were made by multiplying the population by the average water use from 2000 to 2010 of 100 gallons per day per person. That value was then divided by 1,000,000 to convert it to millions of gallons per day (MGD). The other water use projections, such as industrial, irrigation, etc., were made by cumulatively increasing the 2010 volumes by 10% each five year period.

Figure 4

Section III

Tables

Table 1

**Wells Used in Jackson County
Cross Sections and Maps**

Wells Used in Jackson County Cross Sections and Maps

Map No.	Well Owner	Well Name	Sec	Town	T-Dir	Range	R-Dir	Latitude	Longitude	Elv.
1	S. Hagar & Others	#1 Phoenix #2	34	3	S	6	W	30.737786	-88.577836	76 DF
2	The Ohio Oil Co.	L. N. Dantzler #2	30	3	S	8	W	30.759204	-88.820805	82 DF
3	Jackson Co. School Bd.	East Central High School	31	4	S	5	W	30.655139	-88.518889	82 GR
4	Conoco Inc.	W. K. Middleton #1	35	4	S	5	W	30.657899	-88.457702	75 DF
5	Jackson Co. Utility Auth.	Test Well #1 C127	13	4	S	6	W	30.702222	-88.546111	80 GR
6	Langdon & Anderson	#1 E. H. Bacot et al	25	4	S	6	W	30.663829	-88.546055	59 DF
7	Mr. Jenkins	Well B4	34	4	S	7	W	30.657222	-88.676388	143 GR
8	Pan American Petro.	#1 Gladys Carter	14	4	S	8	W	30.703936	-88.753203	134 DF
9	Office of Geology	Test Well Elico #1	34	4	S	8	W	30.651639	-88.770972	168 GR
10	Amoco Prod. Co.	#1 Cumbest Unit 13-11	13	5	S	6	W	30.609788	-88.540742	63.4 DF
11	Chesley Pruet	#1 ALCO Land & Lumber	38	5	S	6	W	30.572057	-88.608460	19 DF
12	J. R Brown & Crow Drlg.	#2 International Paper Co.	17	5	S	7	W	30.615181	-88.701874	125 DF
13	Davis Oil Co.	International Paper Co. #1	22	5	S	7	W	30.591108	-88.670370	57.9 DF
14	J. R. Brown	International Paper Co. #1	22	5	S	7	W	30.589290	-88.670241	63 DF
15	Southeastern Drlg. Co.	C. L. Dees #1	28	5	S	7	W	30.575405	-88.682589	95 DF
16	Chesley Pruet	#1 International Paper Co.	14	5	S	8	W	30.605359	-88.764770	130 DF
17	Humble Oil & Ref.	L. N. Dantzler Lbr, Co. #B-1	20	5	S	8	W	30.601787	-88.802062	108 DF
18	Weston Drlg. Co.	USA #1-J	15	5	S	9	W	30.615861	-88.878020	116 DF
19	St. Joseph Petroleum	#1 Dr. Mac J. Roberts	29	6	S	4	W	30.490083	-88.409515	29 KB
20	Arco Oil & Gas	#1 Fred Woods Jr.	33	6	S	5	W	30.475199	-88.491986	25 DF
21	Jackson Co. Utility Auth.	Test Well #7 L183	24	6	S	6	W	30.530278	-88.544167	18 GR
22	Charles Ladner	Well L28	36	6	S	6	W	30.479100	-88.540156	14 GR
23	Vancleave High School	Well K322	16	6	S	7	W	30.524722	-88.686806	21 GR
24	Davis Oil Co.	#1 C. M. Dees	18	6	S	7	W	30.528336	-88.720559	72.3 DF
25	Jackson Co. Utility Auth.	Test Well #2 J512	2	6	S	8	W	30.550000	-88.750556	85 GR
26	Christopher Gates	Well J492	24	6	S	9	W	30.510000	-88.837778	40 GR
27	Moon-Hines-Tigrett	Coastal Exp. Van Camp 12-11	12	7	S	5	W	30.447950	-88.439920	17.1 DF
28	Thiokol Chemical Corp.	Waste Disposal Well #2	19	7	S	5	W	30.427420	-88.516327	20 DF
29	Browning & Welch	Green 33-2 #1	33	7	S	5	W	30.396008	-88.487059	11.5 DF
30	Schooner Investments	Well O422	7	7	S	7	W	30.447222	-88.718333	20 GR
31	Chesley Pruet	Willam C. Quinn #1	15	7	S	7	W	30.429496	-88.678544	46 DF
32	City of Gautier	Well O286	35	7	S	7	W	30.397500	-88.658300	21 GR
33	Imperial Resources	#1 Allar Co.	38	7	S	7	W	30.391150	-88.702549	31.4 DF
34	Chuck Stone	Well N1035	8	7	S	8	W	30.453611	-88.812222	43 GR
35	St. Martin School	Well N150	16	7	S	8	W	30.440556	-88.796667	25 GR
36	GC Research Lab	Well N497	33	7	S	8	W	30.394528	-88.796250	18 GR
37	West Jackson Co. Utility	Well N996	11	7	S	9	W	30.446222	-88.862222	25 GR
38	Chevron	Industrial Well Q103	20	8	S	5	W	30.332500	-88.501389	5 GR
39	Ingalls Shipbuilding	Well #2 P145	6	8	S	6	W	30.356333	-88.560778	13 DF
40	St. Andrews	Well O549	7	8	S	7	W	30.362500	-88.721389	14 GR

Table 2

**Water Wells from Which Water Levels Were Measured
or Samples Collected**

Water Wells From Which Water Levels Were Measured or Samples Collected

Well No.	Permit No.	BOH No.	Well Owner	Well Name	Sec.	Town	Rng	Depth	Aquifer	Date Drilled	Lat	Long
A108			Brian Davis		14	4S	8W	624'	PCGLL	10/31/07	30.6925	-88.7539
A135			Jackson Co. Maintenance	Vestry Com. Center	11	4S	8W	234'	PCGLU	01/19/10	30.7189	-88.7586
B60			Tommy Tootle Jr.		34	4S	7W	676'	PCGLU	10/26/06	30.6481	-88.6783
C145	MS-GW-16625	0300166-02	Jackson Co. Utility Authority	Well #2	36	4S	6W	390'	PCGLU	01/21/10	30.6494	-88.5353
C146	MS-GW-16602	0300166-01	Jackson Co. Utility Authority	Well #1	13	4S	6W	355'	PCGLU	10/07/10	30.6989	-88.5408
D267			First Federal Savings		33	4S	5W	300'	PCGLU	04/21/07	30.6556	-88.4928
E176			Jackson Co. Maintenance	Larue Com. Center	12	5S	9W	786'	PCGLU	12/30/10	30.6244	-88.8481
F120			Tommy Tootle		04	5S	7W	243'	PCGLU	09/29/94	30.6456	-88.6822
F164			Vancleave Fire Dept.		19	5S	7W	840'	PCGLU	06/10/03	30.5953	-88.72
F464			GMTE Enterprises		30	5S	7W	288'	GRMFL	05/30/12	30.5679	-88.7203
H172			Jackson Co. Recreation Dept.	Soccer Field	06	5S	5W	460'	PCGLU	09/05/08	30.6169	-88.4947
J67		0300087-01	Tucker Hill Water Works		36	6S	9W	800'	GRMFL	01/01/37	30.4764	-88.8447
J241	MS-GW-15075	0300156-01	West Jackson Co Utility Dist.	Jordan Road Sub.	25	6S	9W	750'	GRMFL	04/18/96	30.4989	-88.8367
J344	MS-GW-16173	0300156-03	West Jackson Co Utility Dist.	Bonanza Rd.- Well #3	34	6S	9W	780'	GRMFL	07/15/06	30.4767	-88.8731
J566	MS-GW-16585	0300164-01	Jackson Co. Utility Authority	Well #1	24	6S	9W	1050'	PCGLU	09/23/09	30.5094	-88.8375
J567	MS-GW-16603	0300164-02	Jackson Co. Utility Authority	Well #2	02	6S	8W	970'	PCGLU	09/04/09	30.5494	-88.7503
J590	MS-GW-16967	0300164-08	Jackson Co. Utility Authority	Ridgeland	15	6S	8W	730'	PCGLU	07/28/14	30.5306	-88.7719
K147		0300164-04	Vancleave Jr. High School		09	6S	7W	260'	GRMFL	11/09/80	30.5436	-88.6892
K163			San Juan Fish Camp		38	6S	7W	1327'	PCGLL	06/23/90	30.4927	-88.6414
K322	MS-GW-15712	0300164-06	Vancleave High School		16	6S	7W	1254'	PCGLL	05/20/99	30.5247	-88.6867
K696	MS-GW-16611	0300164-03	Jackson Co. Utility Authority	Well #3	20	6S	7W	760'	PCGLU	11/06/09	30.5036	-88.7028
K738	MS-GW-16969	0300164-09	Jackson Co. Utility Authority	Lab Well	09	6S	7W	325'	GRMFL	08/22/14	30.5325	-88.6967
K2044		0300130-01	Vancleave Community Center		16	6S	7W	318'	GRMFL	09/27/77	30.5221	-88.6941
L9			Lionell Smith		14	6S	6W	957'	PCGLL	01/01/57	30.5217	-88.5522
L32	MS-GW-12020	0300008-13	Moss Point	Escatawpa (Well No.4)	26	6S	6W	245'	GRMFL	12/31/65	30.4917	-88.5539
L127	MS-GW-11575	0300071-02	Miss Power Co. Plant Daniel		11	6S	6W	636'	PCGLU	02/01/90	30.5358	-88.5567
L183			Jackson Co. Utility Authority	Surface Water Plant	13	6S	6W	1180'	HBRGU	01/10/09	30.53	-88.5442
M349	MS-GW-01279		MDOT		32	6S	4W	403'	GRMFL	09/12/83	30.4736	-88.4053
N37	MS-GW-02065	0300043-01	Coast Waterworks	Carolyn Dr.	25	7S	8W	496'	GRMFL	01/01/58	30.4075	-88.7472
N42			Treasure Oak Country Club		20	7S	8W	1224'	PCGLU	01/01/26	30.4192	-88.805

Water Wells From Which Water Levels Were Measured or Samples Collected

Well No.	Permit No.	BOH No.	Well Owner		Sec.	Town	Rng	Depth	Aquifer	Date Drilled	Lat	Long
N48			L and N Railroad		19	7S	8W	535'	GRMFL	01/01/12	30.4147	-88.8253
N49			L and N Railroad		19	7S	8W	1290'	PCGLU	01/01/12	30.4147	-88.825
N51	MS-GW-13850	0300005-02	Ocean Springs	Porter St.	25	7S	9W	872'	GRMFL	01/01/25	30.4125	-88.8339
N53			Ocean Springs		19	7S	8W	500'	GRMFL	01/01/56	30.4125	-88.8336
N66		0300156-12	Coast Waterworks Inc.	Shore Dr.	19	7S	8W	525'	GRMFL	05/01/58	30.4242	-88.8311
N69	MS-GW-13848	0300005-07	Ocean Springs	Bechtel Rd. Well #7	29	7S	8W	540'	GRMFL	05/10/95	30.4089	-88.8058
N73			Magnolia Park		28	7S	8W	536'	GRMFL	01/01/38	30.3994	-88.7944
N90			Ocean Springs	Well #4	28	7S	8W	565'	GRMFL	01/01/66	30.4089	-88.7864
N95	MS-GW-00180	0300156-18	West Jackson Co. Utility Dist.	Madison St.	10	7S	9W	599'	GRMFL	10/09/67	30.4503	-88.8744
N96	MS-GW-02067	0300156-11	West Jackson Co. Utility Dist.	Cherry Park - Apple Dr.	10	7S	9W	853'	GRMFL	01/01/68	30.4475	-88.8778
N159	MS-GW-13849	0300005-01	Ocean Springs	City Hall Well #1	37	7S	8W	881'	GRMFL	05/14/63	30.4106	-88.8269
N175	MS-GW-02068	0300156-10	West Jackson Co Utility Dist.	April Bayou	16	7S	9W	825'	GRMFL	10/18/66	30.4389	-88.8761
N217	MS-GW-02060	0300156-14	West Jackson Co Utility Dist.	Hotel Well	24	7S	9W	525'	GRMFL	06/28/68	30.4272	-88.8386
N278	MS-GW-00183	0300156-08	West Jackson Co Utility Dist.	Windsor Park Sub.	18	7S	8W	499'	GRMFL	05/23/69	30.4283	-88.8228
N288	MS-GW-00185	0300156-09	West Jackson Co Utility Dist.	Fort Bayou Well #9	18	7S	8W	505'	GRMFL	01/01/72	30.4407	-88.8242
N355	MS-GW-00182	0300156-19	West Jackson Co Utility Dist.	Waycross Tower	10	7S	9W	792'	GRMFL	11/10/71	30.45	-88.8764
N381	MS-GW-02061	0300156-15	West Jackson Co Utility Dist.	Puerto	13	7S	9W	874'	GRMFL	12/28/72	30.4353	-88.845
N391	MS-GW-02062	0300156-13	West Jackson Co Utility Dist.	El Bonita	13	7S	9W	876'	GRMFL	07/01/59	30.4317	-88.8389
N425	MS-GW-13086	0300044-02	Gulf Park Water Utility Service	Barnacle Rd	11	8S	8W	1058'	GRMFL	07/20/73	30.3661	-88.7608
N451	MS-GW-02063	0300156-06	West Jackson Co Utility Dist.	Sweet Brier-Twin By.	07	7S	8W	865'	GRMFL	06/11/74	30.4497	-88.8253
N461	MS-GW-00181	0300156-17	West Jackson Co Utility Dist.	Orleans St.	10	7S	9W	792'	GRMFL	06/01/64	30.4442	-88.8686
N462	MS-GW-13085	0300044-01	Gulf Park Water Utility Service	Marina Dr.-Well #2	35	7S	8W	525'	GRMFL	10/15/73	30.3867	-88.7656
N472			Frasiers Nursery		11	7S	9W	235'	GRMFU	01/01/75	30.4442	-88.8558
N479	MS-GW-01144		Gulf Coast Research Lab		33	7S	8W	578'	GRMFL	06/07/76	30.3947	-88.7961
N487			L. W. Ross		10	7S	9W	280'	GRMFU	08/19/79	30.4528	-88.8825
N496	MS-GW-01402		Ocean Springs Seafood		37	7S	8W	940'	GRMFL	04/01/81	30.4056	-88.8308
N500	MS-GW-12794	0300156-27	West Jackson Co Utility Dist.	Well #27	14	7S	9W	798'	GRMFL	12/01/81	30.4397	-88.8544
N505	MS-GW-00184	0300156-07	West Jackson Co Utility Dist.	Lancaster Well-Well #7	18	7S	8W	482'	GRMFL	11/01/82	30.4336	-88.8211
N511			Tommy Moreton		20	7S	8W	1280'	PCGLU	07/01/84	30.4178	-88.8036
N512	MS-GW-02064	0300156-16	West Jackson Co. Utility Dist.	Ridge & Pine	13	7S	9W	512'	GRMFL	02/02/78	30.4297	-88.8331

Water Wells From Which Water Levels Were Measured or Samples Collected

Well No.	Permit No.	BOH No.	Well Owner		Sec.	Town	Rng	Depth	Aquifer	Date Drilled	Lat	Long
N517	MS-GW-13851	0300005-06	Ocean Springs	Halstead Rd.-Well #8	29	7S	8W	566'	GRMFL	03/12/85	30.4053	-88.7997
N520	MS-GW-13847	0300005-03	Ocean Springs	Hardy St.-Well #2	19	7S	8W	533'	GRMFL	05/01/83	30.415	-88.8233
N535	MS-GW-02066	0300042-01	West Jackson Co. Utility Dist.	Honey Suckle Rd,	12	7S	9W	476'	GRMFL	01/01/61	30.4458	-88.8436
N543	MS-GW-11991	0300005-09	Ocean Springs	Pabst Rd.-Well #9	27	7S	8W	535'	GRMFL	08/14/90	30.4086	-88.7753
N544	MS-GW-13150		Custom Pack Inc.		01	8S	8W	1330'	PCGLU	01/08/91	30.3786	-88.7472
N566	MS-GW-14731	0300005-10	Ocean Springs	Washington St.	37	7S	8W	955'	GRMFL	04/01/94	30.4108	-88.8275
N715	MS-GW-15303	0300044-06	Gulf Park Water Utility Service	7th Street Well	35	7S	8W	565'	GRMFL	05/20/98	30.3939	-88.7586
N719	MS-GW-15302	0300044-07	Gulf Park Water Utility Service	Edge Water Blvd	02	8S	8W	576'	GRMFL	10/20/98	30.3772	-88.7564
N738	MS-GW-15368	0300160-01	Gulf Park Water Utility Service	Point Aux Chenes	01	8S	8W	576'	GRMFL	10/11/99	30.3739	-88.7431
N739	MS-GW-15305	0300156-02	West Jackson Co Utility Dist.	Tucker Rd.-Well #2	01	7S	9W	820'	GRMFL	12/13/99	30.4614	-88.8439
N741	MS-GW-15935	0300156-04	West Jackson Co Utility Dist.	Tucker Rd.-Well #4	16	7S	8W	873'	GRMFL	02/09/01	30.4283	-88.7911
N743	MS-GW-15702	0300044-08	Gulf Park Water Utility Service	Shell St. (Starfish)	11	8S	8W	593'	GRMFL	10/16/01	30.36	-88.7517
N888	MS-GW-16149	0300156-28	West Jackson Co Utility Dist.	Well #28	14	7S	9W	820'	GRMFL	03/21/05	30.4414	-88.8631
N1043	MS-GW-16239	0300156-23	West Jackson Co Utility Dist.	Well #23	11	7S	9W	800'	GRMFL	03/17/09	30.4464	-88.8617
N1048	MS-GW-16345	0300005-12	Ocean Springs	Deana Rd.	23	7S	8W	510'	GRMFL	03/05/08	30.4172	-88.7642
N1050	MS-GW-16521	0300156-24	West Jackson Co Utility Dist.	St. Martin High Sch.	16	7S	8W	465'	GRMFL	05/18/09	30.4408	-88.7972
O74			James Grimsley	McVey	07	8S	7W	1395'	PCGLU	01/01/62	30.3664	-88.7203
O156	MS-GW-07203	0300004-02	Gautier	Woodlane	13	8S	7W	768'	GRMFL	08/17/70	30.3814	-88.6475
O197	MS-GW-14496	0300033-01	Saint Andrews Water	Golf Course	17	8S	7W	628'	GRMFU	05/16/69	30.3533	-88.7142
O206	MS-GW-07205	0300004-05	Gautier	Springwood Rd.	12	8S	7W	773'	GRMFL	05/19/72	30.3736	-88.6433
O208	MS-GW-07201	0300004-04	Gautier	Westgate	24	7S	7W	762'	GRMFL	11/06/72	30.415	-88.6475
O213	MS-GW-14495	0300033-02	Saint Andrews Water	Woods	18	8S	7W	717'	GRMFL	10/31/72	30.3506	-88.7183
O273			W. W. Richardson		12	8S	7W	330'	GRMFU	01/01/75	30.3625	-88.6497
O283	MS-GW-01468		Miss. Gulf Coast Com. Col.		36	7S	7W	870'	GRMFL	06/07/78	30.3939	-88.6467
O286	MS-GW-15184	0300004-07	Gautier	Mall	35	7S	7W	577'	GRMFL	11/04/79	30.3975	-88.6583
O288			Mallette Brothers Construction		35	7S	7W	315'	GRMFU	06/14/79	30.3867	-88.6525
O295	MS-GW-03433	0300004-09	Gautier	Honduras-Merida	15	8S	7W	584'	GRMFL	03/14/81	30.3778	-88.6628
O297		0300113-02	Ocean Beach Utility		19	8S	7W	365'	GRMFU	05/28/83	30.36	-88.7056
O300	MS-GW-03431	0300004-03	Gautier	Bonita	15	8S	7W	596'	GRMFL	09/21/70	30.3842	-88.6628

Water Wells From Which Water Levels Were Measured or Samples Collected

Well No.	Permit No.	BOH No.	Well Owner		Sec.	Town	Rng	Depth	Aquifer	Date Drilled	Lat	Long
O307	MS-GW-15185	0300004-08	Gautier	Office	35	7S	7W	573'	GRMFL	05/13/80	30.3897	-88.6525
O310	MS-GW-00348	0300005-11	Ocean Springs	Sunplex	19	7S	7W	493'	GRMFL	07/01/86	30.4228	-88.7194
O313	MS-GW-05615	0300004-10	Gautier	Old Drive-in - Beasley	34	7S	7W	541'	GRMFL	11/24/86	30.3933	-88.6672
O314	MS-GW-01388	0300004-06	Gautier	Martin Bluff Well #2	37	7S	7W	847'	PCGLU	02/06/73	30.44	-88.6322
O319	MS-GW-01309	0300004-01	Gautier	Martin Bluff Well #1	37	7S	7W	730'	PCGLU	01/21/68	30.44	-88.6319
O392			National Park Service	Horn Island	22	9S	7W	835'	GRMFU	12/01/94	30.2339	-88.6686
O422	MS-GW-15736	0300004-11	Gautier	HWY 57	07	7S	7W	830'	GRMFL	01/25/01	30.4478	-88.7172
O605	MS-GW-17154	0300113-04	Ocean Beach Utility Service	Willow	08	8S	7W	580'	GRMFU	09/02/14	30.3589	-88.7136
O613	MS-GW-15329	0300113-03	Ocean Beach Utility Service	Apple	19	8S	7W	610'	GRMFU	04/01/99	30.3511	-88.6908
P45			Moss Point Presbyterian Church		10	7S	6W	806'	GRMFL	01/01/08	30.4158	-88.5483
P54	MS-GW-01411	0300008-01	Moss Point	Parallel	16	7S	6W	828'	GRMFL	01/01/58	30.4064	-88.5367
P68	MS-GW-01957	0300006-03	Pascagoula	North Market	07	8S	6W	292'	GRMFU	01/01/56	30.3789	-88.5486
P69	MS-GW-01958	0300006-04	Pascagoula	Telephone	01	8S	6W	302'	GRMFU	01/01/56	30.3786	-88.5378
P72	MS-GW-02721		Pascagoula Ice		07	8S	6W	336'	GRMFU	01/01/49	30.3717	-88.5533
P108	MS-GW-01649	0300014-01	Jackson Co. Port Athority	West Bank	00	8S	6W	777'	GRMFL	03/01/57	30.3597	-88.5683
P124	MS-GW-01954	0300006-01	Pascagoula	Communy-Well #1	05	8S	6W	801'	GRMFL	01/01/43	30.3592	-88.5528
P134	MS-GW-14952	0300006-11	Pascagoula	Beach	06	8S	6W	750'	GRMFL	01/01/46	30.3447	-88.5547
P145	MS-GW-01680	0300009-02	Ingalls Shipbuilding	East Bank	05	8S	6W	805'	GRMFL	03/29/68	30.3564	-88.5608
P150	MS-GW-01955	0300006-02	Pascagoula	Communy-Well #2	05	8S	6W	788'	GRMFL	07/29/65	30.3592	-88.5533
P226	MS-GW-12018	0300008-11	Moss Point	Neese	12	7S	6W	345'	GRMFL	01/03/66	30.4433	-88.5378
P228			Escatawpa Subur. Utility		12	7S	6W	415'	GRMFL	01/01/64	30.4469	-88.5386
P229	MS-GW-01412	0300008-02	Moss Point	Bellview	10	7S	6W	890'	GRMFL	06/15/66	30.4122	-88.5594
P326			Tiki Restaurant		08	7S	6W	262'	GRMFU	01/01/70	30.3894	-88.6142
P348	MS-GW-01679	0300009-01	Ingalls Shipbuilding	East Bank	06	8S	6W	809'	GRMFL	03/03/72	30.3497	-88.5606
P349	MS-GW-01681	0300010-02	Ingalls Shipbuilding	West Bank No. 2	00	8S	6W	782'	GRMFL	09/01/72	30.3544	-88.5719
P355	MS-GW-01414	0300008-04	Moss Point	Community	36	7S	6W	827'	GRMFL	03/16/73	30.3978	-88.535
P372	MS-GW-01956	0300006-09	Pascagoula	Communy-Well #3	05	8S	6W	346'	GRMFU	02/05/75	30.3592	-88.5531
P373	MS-GW-01678	0300010-01	Ingalls Shipbuilding	West Bank No. 1	00	8S	6W	320'	GRMFU	09/01/76	30.3558	-88.5783
P376	MS-GW-12019	0300008-12	Moss Point-Escatawpa	Rabie	12	7S	6W	417'	GRMFL	03/01/76	30.4467	-88.5386
P382	MS-GW-01415	0300008-05	Moss Point	Howze	15	7S	6W	846'	GRMFL	12/14/78	30.4075	-88.5475

Water Wells From Which Water Levels Were Measured or Samples Collected

Well No.	Permit No.	BOH No.	Well Owner		Sec.	Town	Rng	Depth	Aquifer	Date Drilled	Lat	Long
P395	MS-GW-01141		Magnolia Oaks Condos		02	8S	6W	300'	GRMFU	07/14/74	30.3828	-88.6147
P409	MS-GW-01682	0300010-03	Ingalls Shipbuilding	West Bank No. 3	00	8S	6W	597'	GRMFL	05/01/69	30.3547	-88.5717
P429	MS-GW-07765	0300147-01	State of Mississippi	Home Port	00	8S	6W	360'	GRMFU	03/21/90	30.3339	-88.5772
P430	MS-GW-07766	0300147-02	State of Mississippi	Home Port	00	8S	6W	362'	GRMFU	12/01/88	30.3372	-88.5722
P455	MS-GW-14774	0300008-07	Moss Point	Payne	16	7S	6W	860'	GRMFL	10/07/97	30.4056	-88.5367
P458	MS-GW-15791	0300006-12	Pascagoula	14th street	01	8S	6W	325'	GRMFU	02/01/02	30.3757	-88.5406
P488	MS-GW-16158	0300008-08	Moss Point	Palmetto	36	7S	6W	846'	GRMFL	12/02/05	30.3969	-88.5353
P495	MS-GW-16862	0300006-13	Pascagoula	Communy-Well #4	05	8S	6W	330'	GRMFU	04/08/11	30.3586	-88.5519
Q19	MS-GW-08529		Omega Protein Inc.	Zapata	19	7S	5W	950'	PCGLU	01/01/56	30.4239	-88.5136
Q25			Smith Fisheries		20	7S	5W	200'	GRMFU	01/01/42	30.4264	-88.5111
Q34			Orange Grove School		14	7S	5W	1253'	PCGLL	01/01/47	30.4308	-88.4478
Q43			John Glennon	Fish Camp	36	7S	5W	370'	GRMFU	01/01/53	30.3864	-88.4394
Q96			Longfellow House		18	8S	5W	810'	GRMFL	01/01/14	30.3431	-88.5272
Q100			Chevron Corp.		20	8S	5W	374'	GRMFU	01/01/57	30.3325	-88.5022
Q106			US Geological Survey		16	8S	5W	348'	GRMFU	01/01/59	30.3414	-88.4947
Q110	MS-GW-06127	0300012-01	Miss. Phosphate		17	8S	5W	363'	GRMFU	04/01/57	30.3489	-88.5006
Q112			Jackson County		09	8S	5W	202'	GRMFU	01/01/60	30.3567	-88.4939
Q137	MS-GW-02132	0300011-02	Chevron Products Co.	North Well	16	8S	5W	387'	GRMFU	05/31/62	30.3517	-88.4892
Q149			Dairy Fresh Corp.		31	7S	5W	333'	GRMFU	01/01/63	30.3853	-88.5169
Q159	MS-GW-02140		Rohm and Haas Chemicals LLC		19	7S	5W	231'	GRMFU	09/08/64	30.4258	-88.5142
Q160	MS-GW-02141		Morton East		17	7S	5W	236'	GRMFU	08/23/65	30.425	-88.5164
Q164	MS-GW-01963	0300006-07	Pascagoula		18	8S	5W	682'	GRMFL	06/11/65	30.3553	-88.5239
Q166			Moss Point		29	7S	5W	645'	GRMFL	01/01/64	30.4028	-88.5081
Q180	MS-GW-01961	0300006-05	Pascagoula	B. C.	30	8S	5W	663'	GRMFL	06/09/65	30.3617	-88.5253
Q181	MS-GW-01962	0300006-06	Pascagoula	Douglas	18	8S	5W	682'	GRMFL	06/11/65	30.3583	-88.5233
Q293	MS-GW-01959	0300006-08	Pascagoula	Sears	06	8S	5W	337'	GRMFU	06/05/69	30.3839	-88.5211
Q379		0300013-01	Jackson Co. Port Authority		17	8S	5W	374'	GRMFU	01/01/64	30.3472	-88.5039
Q403			US Geological Survey		17	8S	5W	346'	GRMFU	01/01/74	30.3472	-88.4972
Q407			Pascagoula	Old Chateau	05	7S	5W	327'	GRMFU	01/01/74	30.3794	-88.5075

Water Wells From Which Water Levels Were Measured or Samples Collected

Well No.	Permit No.	BOH No.	Well Owner		Sec.	Town	Rng	Depth	Aquifer	Date Drilled	Lat	Long
Q417	MS-GW-01413	0300008-03	Moss Point	Sue Ellen	30	7S	5W	802'	GRMFL	08/29/68	30.3997	-88.5233
Q420	MS-GW-01960	0300006-10	Pascagoula	Chateau	05	8S	5W	352'	GRMFU	05/24/76	30.3792	-88.5078
Q424			Pascagoula		30	8S	5W	182'	GRMFU	09/02/76	30.3622	-88.5253
Q429	MS-GW-01277	0300149-01	MDOT		01	7S	5W	565'	GRMFL	03/16/83	30.4622	-88.4347
Q430	MS-GW-01278		MDOT		01	7S	5W	577'	GRMFL	09/01/83	30.4592	-88.4356
Q434	MS-GW-01416	0300008-14	Moss Point	Hardy's	18	7S	5W	435'	GRMFL	10/01/84	30.4383	-88.5256
Q445			Jackson Co. Port Authority	Surface Water Plant	34	7S	5W	279'	GRMFU	06/04/82	30.3961	-88.4783
Q456			John Hudson	Alligator Farm	13	7S	5W	563'	GRMFL	05/26/92	30.4344	-88.4381
Q464			Jimmy Stork		19	7S	4W	340'	GRMFL	07/13/84	30.415	-88.4178
Q465			Norman Saks		18	7S	4W	339'	GRMFL	01/03/89	30.4417	-88.42
Q600	MS-GW-16157	0300008-09	Moss Point	New Sue Ellen	30	7S	5W	830'	GRMFL	12/02/05	30.3997	-88.5242
Q601	MS-GW-16159	0300008-10	Moss Point	Hubert	31	7S	5W	830'	GRMFL	06/02/06	30.3964	-88.5297
Q633			Grand Bay Coastal Research	NERR	18	7S	4W	168'	GRMFU	05/01/08	30.4297	-88.4283

Table 3

Jackson County Water Levels

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
A0135	Jackson Co. Maintenance	Vestry Com. Center		03/22/16	45.8	129.2	175' Elv.
C0145	Jackson Co. Utility Auth.	Well #2	MS-GW-16625	04/17/15	15.50	35.50	51' Elv.
C0146	Jackson Co. Utility Auth.	Well #1	MS-GW-16602	04/17/15	7.90	57.10	65' Elv.
E0176	Jackson Co. Maintenance	Larue Com. Center		03/22/16	88.30	43.70	132' Elv.
J0067	Tucker Hill Waterworks Inc.			07/01/62 03/10/94	11.00 53.75	39.00 -3.75	50' Elv.
J0241	West Jackson Co. Utility	Jordan Road Sub.	MS-GW-15075	09/22/15	65.10	-24.10	41' Elv.
J0344	West Jackson Co. Utility	Bonanza Rd	MS-GW-16173	09/22/15	84.70	-48.70	36' Elv.
J0566	Jackson Co. Utility Auth.	Well #1	MS-GW-16585	04/17/15	17.70	24.30	42' Elv.
J0567	Jackson Co. Utility Auth.	Well #2	MS-GW-16603	08/13/15	72.60	20.40	93' Elv.
J0590	Jackson Co. Utility Auth.	Ridgeland	MS-GW-16967	08/13/15	59.70	10.30	70' Elv.

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
K0147	Vancleave Jr. High School			11/09/80	25.00	6.00	31' Elv.
				10/28/82	27.97	3.03	
				12/05/85	30.00	1.00	
				07/20/94	35.90	-4.90	
				01/28/16	7.00	24.00	
K0322	Vancleave High School			01/28/16	-13.86	41.86	28' Elv.
K0696	Jackson Co. Utility Auth.	Well #3	MS-GW-16611	04/17/15	72.2	-26.20	46' Elv.
K0738	Jackson Co. Utility Auth.	Lab Well	MS-GW-16969	01/28/16	65.4	-20.40	45' Elv.
K2044	Vancleave Community Center			05/03/94	43.06	-15.06	28' Elv.
L0009	Lionell Smith			01/01/58	-18.00	30.00	12' Elv.
				10/27/82	-13.00	25.00	
				11/20/85	-10.50	22.50	
				10/05/86	-10.40	22.40	
				07/07/88	-9.70	21.70	
				07/21/94	-13.00	25.00	
L0032	Moss Point	Ecatawpa - Well No.4	MS-GW-12020	10/01/82	54.72	-38.72	16' Elv.
				02/17/94	82.37	-66.37	
L0127	Miss Power Co.			01/13/16	41.20	-21.20	20' Elv.

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
M0349	MDOT		MS-GW-01279	02/15/94	-12.00	24.00	10' Elv.
				01/27/16	-9.24	19.24	
N0037	Coast Waterworks	Carolyn Dr.		03/09/94	71.70	-51.70	20' Elv.
N0048	L and N Railroad			01/01/28	-30.00	53.00	23' Elv.
				01/01/39	-8.00	31.00	
				12/09/58	11.58	11.42	
				01/13/60	14.24	8.76	
				10/26/61	18.20	4.80	
				01/31/62	12.87	10.13	
				07/24/63	13.94	9.06	
				07/07/65	16.60	6.40	
				01/04/66	15.62	7.38	
				04/06/67	22.82	0.18	
				04/09/68	17.07	5.93	
				04/10/69	22.37	0.63	
				04/22/70	21.55	1.45	
				04/30/71	38.67	-15.67	
				04/21/72	42.29	-19.29	
				04/25/73	48.80	-25.80	
				12/04/74	55.56	-32.56	
				06/11/75	50.90	-27.90	
				04/20/76	55.58	-32.58	
				04/20/77	56.24	-33.24	
				04/11/78	61.84	-38.84	
				03/05/79	61.34	-38.34	
				06/04/80	65.67	-42.67	
				03/19/81	73.13	-50.13	
				04/28/82	73.26	-50.26	
				04/21/83	77.56	-54.56	
				03/29/84	79.92	-56.92	

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
N0048	L and N Railroad (Continued)			10/24/84	76.22	-53.22	23' Elv.
				04/16/85	77.88	-54.88	
				04/23/86	82.15	-59.15	
				04/08/87	82.00	-59.00	
				04/26/88	84.21	-61.21	
				04/06/89	92.17	-69.17	
				04/18/90	95.00	-72.00	
				04/03/91	95.10	-72.10	
				04/15/92	96.64	-73.64	
				05/19/93	94.30	-71.30	
				01/20/94	97.70	-74.70	
				04/11/95	86.97	-63.97	
				01/18/96	95.58	-72.58	
				04/03/97	61.81	-38.81	
				03/12/98	42.94	-19.94	
N0049	L and N Railroad			05/17/74	-28.50	53.50	25' Elv.
				12/04/74	-24.30	49.30	
				04/20/77	-24.00	49.00	
				04/11/78	-23.71	48.71	
				10/05/78	-21.87	27.87	
				03/05/79	-23.95	28.95	
				11/06/79	-20.90	45.90	
				10/22/81	-11.98	36.98	
N0051	Ocean Springs	Porter St.	MS-GW-13850	02/15/94	32.70	-17.70	15' Elv.
N0053	Ocean Springs			10/22/82	82.40	-62.40	20' Elv.

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
N0066	Coast Waterworks West Jackson Co. Utility Dist.	Shore Dr.		10/29/82	59.00	-49.00	10' Elv.
				05/12/05	97.50	-87.50	
N0069	Ocean Springs	Bechtel Rd.- Well #7	MS-GW-13848	05/01/84	75.00	-52.00	23' Elv.
				02/15/94	41.00	-18.00	
N0073	Magnolia Park			06/22/56	1.82	20.18	22' Elv.
				03/22/57	1.22	20.78	
				01/16/58	1.59	20.41	
				03/05/59	2.47	19.53	
				01/08/60	3.76	18.24	
				01/24/61	6.49	15.51	
				01/31/62	5.01	16.99	
				07/24/63	7.50	14.50	
				04/21/64	6.98	15.02	
				04/13/65	8.79	13.21	
				04/06/67	13.26	8.74	
				04/09/68	11.55	10.45	
				04/10/69	16.40	5.60	
				04/30/71	27.96	-5.96	
				04/21/72	31.75	-9.75	
				04/25/73	37.09	-15.09	
				06/07/74	49.65	-27.65	
				06/12/75	45.68	-23.68	
				04/20/76	48.61	-26.61	
				04/20/77	51.14	-29.14	
				04/11/78	54.82	-32.82	
				03/05/79	60.23	-38.23	

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
N0073	Magnolia Park (Continued)			06/04/80	63.83	-41.83	22' Elv.
				03/19/81	62.19	-40.19	
				04/29/82	66.20	-44.20	
				04/21/83	68.08	-46.08	
				03/29/84	68.99	-46.99	
				04/16/85	70.57	-48.57	
				04/22/86	69.41	-47.41	
				04/08/87	74.75	-52.75	
				04/27/88	76.34	-54.34	
				04/06/89	80.12	-58.12	
				04/18/90	78.90	-56.90	
N0090	Ocean Springs	Well #4		04/01/66	10.00	10.00	20' Elv.
				06/19/79	67.38	-47.38	
				10/22/82	74.64	-54.64	
				04/26/85	74.58	-54.58	
N0095	West Jackson Co. Utility Dist.	Madison St.	MS-GW-00180	10/01/67	25.00	15.00	39' Elv.
				02/16/94	73.00	-33.00	
N0096	West Jackson Co. Utility Dist.	Cherry Park - Apple Dr.	MS-GW-02067	01/26/68	13.00	-2.00	11' Elv.
				02/16/94	46.70	-9.70	
N0159	Ocean Springs	City Hall - Well #1	MS-GW-13849	05/14/63	5.00	17.00	22' Elv.
				02/15/94	38.00	-16.00	
N0175	West Jackson Co. Utility Dist.	April Bayou	MS-GW-02068	10/01/66	11.00	-2.00	9' Elv.
				02/16/94	22.70	-13.70	

WL BLS - Water level below land surface Water levels with a negative value are above GL GL - Ground level
WL ELV. - Water level relative to mean sea level Water levels with a negative value are below sea level

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
N0217	West Jackson Co. Utility Dist.	Hotel Well	MS-GW-02060	10/26/82 02/16/94	65.20 81.10	-50.20 -66.10	17' Elv.
N0278	West Jackson Co. Utility Dist.	Carban Place Windsor Park Sub.	MS-GW-00183	09/01/82 02/16/94	64.00 84.60	-54.00 -74.60	10' Elv,
N0288	West Jackson Co. Utility Dist.	Fort Bayou Rd.	MS-GW-00185	09/01/82 02/16/94	75.30 97.30	-50.30 -72.30	25'Elv.
N0355	West Jackson Co. Utility Dist.	Waycross Tower	MS-GW-00182	07/13/88 02/16/94	59.20 51.10	-18.20 -10.10	41' Elv.
N0381	West Jackson Co. Utility Dist.	Puerto Rd.	MS-GW-02061	10/29/82 02/16/94 05/12/05	30.00 29.50 46.50	-13.00 -12.50 -29.50	17' Elv.
N0391	West Jackson Co. Utility Dist.	El Bonito	MS-GW-02062	10/29/82 02/16/94 05/12/05	39.60 39.50 55.80	-16.60 -16.50 -32.80	23' Elv.
N0425	Gulf Park Utility Services	Barnacle - Lake Mars	MS-GW-13086	03/09/94 12/08/15	35.52 67.90	-16.52 -47.90	20' Elv.
N0451	West Jackson Co. Utility Dist.	Sweet Briar	MS-GW-02063	06/01/74 02/16/94 09/22/15	32.00 41.30 66.40	0.00 -9.30 -34.40	32' Elv.

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WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
N0461	West Jackson Co. Utility Dist.	Orleans St.	MS-GW-00181	06/01/64 02/16/94	4.00 33.40	16.00 -13.40	20' Elv.
N0462	Gulf Park Utility Services	Marina	MS-GW-13085	10/01/73 03/10/94	15.00 74.20	0.00 -59.20	15' Elv.
N0472	Frasiers Nursery			07/20/94	25.99	-8.99	17' Elv.
N0479	Gulf Coast Research Lab		MS-GW-01144	06/07/76 10/22/82 08/30/95 01/18/96 01/17/97 01/14/98 01/20/99 11/02/99 03/22/00 02/22/01 01/16/02 05/08/03 04/15/04	23.00 68.85 92.00 86.60 91.00 94.25 101.50 110.90 105.60 104.50 104.90 104.50 106.50	-13.00 -58.85 -82.00 -76.60 -81.00 -84.25 -91.50 -100.90 -95.60 -94.50 -94.90 -94.50 -96.50	10' Elv.
N0487	L. W. Ross			07/20/94	49.70	-12.70	37' Elv.
N0496	Ocean Springs Seafood		MS-GW-01402	04/01/81 07/20/94	20.00 34.92	-18.00 -32.92	2' Elv.

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Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
N0505	West Jackson Co. Utility Dist.	Lancaster St.	MS-GW-00184	11/01/82	81.00	-56.00	25' Elv.
				02/16/94	99.20	-74.20	
				09/22/15	89.20	-64.20	
N0511	Tommy Moreton			10/24/84	-23.10	43.10	20' Elv.
				04/16/85	-14.00	34.00	
				04/23/86	-17.30	37.30	
				04/08/87	-16.17	36.17	
				04/27/88	-13.86	33.86	
				04/06/89	-13.90	33.90	
				04/18/90	-11.50	31.50	
				04/03/91	-14.75	34.75	
				06/09/92	-13.92	33.92	
				04/20/94	-8.80	28.80	
				08/09/95	-7.00	27.00	
				07/10/96	-5.50	25.50	
				04/04/97	-7.00	27.00	
				03/12/98	-9.50	29.50	
				04/07/99	-3.00	23.00	
N0512	West Jackson Co. Utility Dist.	Ridge & Pine	MS-GW-02064	02/02/78	54.00	-31.00	23' Elv.
				02/16/94	91.50	-68.50	
				05/12/05	110.60	-87.60	
N0517	Ocean Springs	Halstead Rd. Well #8	MS-GW-13851	12/14/83	82.00	-60.00	22' Elv.
				03/12/85	78.00	-56.00	
				02/15/94	93.00	-71.00	
				05/12/05	132.00	-110.00	
				11/03/15	88.60	-66.60	

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Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
N0520	Ocean Springs	Hardy St. Replacement Well #2	MS-GW-13847	02/15/94 05/12/05 11/03/15	96.60 120.70 89.20	-76.60 -100.70 -69.20	20' Elv.
N0535	West Jackson Co. Utility Dist.	Laura Acres Honey Suckle Rd,	MS-GW-02066	01/01/61 02/16/94	6.00 83.10	14.00 -68.10	20' Elv.
N0543	Ocean Springs	Pabst Rd.- Well #9	MS-GW-11991	08/14/90 02/15/94 11/03/15	86.00 87.50 79.70	-69.00 -70.50 -77.70	22' Elv.
N0544	Custom Pack Inc.		MS-GW-13150	07/20/94	-14.00	21.00	7' Elv.
N0566	Ocean Springs	Washington	MS-GW-14731	05/12/05 11/03/15	55.00 61.00	-37.00 -43.00	18' Elv.
N0715	Gulf Park Water Utility Services	7th Street Well	MS-GW-15303	12/08/15	76.10	-56.10	20' Elv.
N0738	Gulf Park Water Utility Services	Point Aux Chenes	MS-GW-15368	12/08/15	58.10	-51.10	7' Elv.
N0739	West Jackson Co. Utility Dist.	Tucker Rd. Well #2	MS-GW-15305	09/22/15	71.00	-46.00	25'
N0741	West Jackson Co. Utility Dist.	Kippee-Cut Off Rd Well #4	MS-GW-15935	09/22/15	63.30	-40.30	23'

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Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
N0743	Gulf Park Water Utility Services	Shell St. (Starfish)	MS-GW-15702	12/08/15	60.00	-49.00	11' Elv.
N1043	West Jackson Co. Utility Dist.	Well #23	MS-GW-16239	09/22/15	62.60	-38.60	24'
N1048	Ocean Springs	Deana Rd.	MS-GW-16345	11/03/15	83.00	-60.00	23' Elv.
O0074	James Grimsley	McVey		12/04/74	-34.00	44.00	10' Elv.
				07/20/94	-17.00	27.00	
				07/31/96	-16.00	26.00	
				04/07/05	-28.40	38.40	
				08/17/16	Flowing No Guage		
O0156	Gautier	Woodlane	MS-GW-07203	08/01/70	15.00	0.00	15' Elv.
				02/17/94	39.70	-24.70	
				08/30/95	42.30	-27.30	
				01/17/96	43.40	-28.40	
				01/16/97	43.30	-28.30	
				02/18/98	41.40	-26.40	
				06/16/99	48.70	-33.70	
				04/05/00	46.10	-31.10	
				02/21/01	51.90	-36.90	
O0197	Saint Andrews Water	Golf Course	MS-GW-14496	06/24/69	-12.00	27.00	15' Elv.
				10/27/82	48.34	-33.34	
				03/10/94	46.82	-31.82	
				09/06/95	48.30	-33.30	
				02/21/96	48.60	-33.60	

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Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
O0197	Saint Andrews Water (Continued)	Golf Course	MS-GW-14496	08/07/97	38.70	-23.70	15' Elv.
				02/19/98	49.40	-34.40	
				01/21/99	55.50	-40.50	
				09/13/00	64.00	-49.00	
				02/21/01	60.40	-45.40	
				01/16/02	61.90	-46.90	
				05/08/03	67.30	-52.30	
				05/21/04	58.90	-43.90	
				04/07/05	59.00	-44.00	
				12/07/07	65.80	-50.80	
				01/14/09	72.40	-57.40	
				04/08/10	65.70	-50.70	
				04/12/12	68.60	-53.60	
				12/09/15	66.95	-51.95	
O0206	Gautier	Springwood Rd.	MS-GW-07205	02/17/94	37.20	-24.20	13' Elv.
O0208	Gautier	Westgate	MS-GW-07201	11/01/72	12.00	-4.00	8' Elv.
				02/17/94	25.90	-17.90	
O0213	Saint Andrews Water	Woods	MS-GW-14495	08/16/72	17.00	-5.00	12' Elv.
				10/27/82	33.79	-21.79	
				11/07/85	36.00	-24.00	
				03/09/94	56.00	-44.00	
				08/30/95	87.00	-75.00	
				02/21/96	67.80	-55.80	
				08/07/97	65.70	-53.70	
				02/19/98	66.00	-54.00	
				01/21/99	77.50	-65.50	
				09/13/00	80.50	-68.50	

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Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
O0213	Saint Andrews Water (Continued)	Woods	MS-GW-14495	02/21/01	80.90	-68.90	12' Elv.
				01/16/02	81.00	-69.00	
				05/21/04	82.40	-70.40	
				04/07/05	79.70	-67.70	
				01/14/09	67.60	-55.60	
				04/08/10	73.10	-61.10	
				04/12/12	66.80	-54.80	
				12/09/15	62.10	-51.95	
O0286	Gautier	Mall	MS-GW-15184	09/06/79	29.00	-8.00	21' Elv.
				10/29/82	46.62	-25.62	
				11/07/85	49.00	-28.00	
				02/17/94	68.20	-47.20	
				03/17/99	85.80	-64.80	
				06/16/99	80.10	-59.10	
				11/09/99	83.40	-62.40	
				04/05/00	79.60	-58.60	
				03/10/05	108.80	-87.80	
				07/23/15	70.70	-49.70	
O0288	Mallette			07/21/94	26.90	-7.90	19' Elv.
O0295	Gautier	Honduras - Merida	MS-GW-03433	03/14/81	59.00	-41.00	16' Elv.
				02/17/94	59.50	-41.50	
				07/23/15	67.30	-51.30	
O0297	Ocean Beach Utility Service	Main - Guy		07/20/94	54.55	-38.55	15' Elv.

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Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
O0300	Gautier	Bonita	MS-GW-03431	09/21/70	45.00	-28.00	17' Elv.
				02/17/94	63.50	-46.50	
				08/30/95	70.90	-53.90	
				01/17/96	68.10	-51.10	
				08/01/96	66.00	-49.00	
				08/06/97	66.80	-49.80	
				02/18/98	62.60	-45.60	
				07/17/98	67.50	-50.50	
				01/21/99	75.10	-58.10	
				06/16/99	52.40	-35.40	
O0307	Gautier	Office	MS-GW-15185	05/13/80	46.00	-27.00	19' Elv.
				02/17/94	73.30	-54.30	
				03/09/05	104.10	-85.10	
				07/23/15	106.20	-87.20	
O0310	Ocean Springs (Was Gautier)	Sunplex	MS-GW-00348	02/17/94	62.50	-39.50	19' Elv.
				05/12/05	85.90	-66.90	
				11/04/15	70.50	-59.50	
O0313	Gautier	Old Drive-in Beasley	MS-GW-05615	11/24/86	51.00	-32.00	19' Elv.
				02/17/94	65.10	-46.10	
				04/05/00	80.70	-61.70	
				09/14/00	80.70	-61.70	
				03/21/01	78.30	-59.30	
				01/16/02	81.50	-62.50	
				05/08/03	84.40	-65.40	

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Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
O0313	Gautier (Continued)	Old Drive-in Beasley	MS-GW-05615	04/14/04	83.10	-62.10	19' Elv.
				03/10/05	87.20	-68.20	
				04/18/07	87.30	-68.30	
				07/28/10	76.40	-57.40	
				04/13/12	81.90	-62.90	
				07/23/15	84.70	-65.70	
O0314	Gautier	Martin Bluff - Well #2	MS-GW-01388	01/01/73	22.00	1.00	23' Elv.
				10/26/82	43.58	-20.58	
				02/17/94	43.63	-20.63	
				03/17/99	51.50	-28.50	
				03/10/05	58.10	-35.10	
				07/23/15	67.40	-44.40	
O0319	Gautier	Martin Bluff - Well #1	MS-GW-01309	10/27/68	8.00	16.00	24' Elv.
				10/26/82	43.60	-19.60	
				12/06/85	47.00	-23.00	
				02/17/94	45.10	-21.10	
				03/17/99	53.90	-29.90	
				11/03/99	54.50	-30.50	
				03/10/05	58.30	-34.30	
O0392	National Park Service	Horn Is.		12/01/94	17.00	-12.00	5' Elv.
O0422	Gautier	HWY 57	MS-GW-15736	04/18/07	26.00	-4.00	22' Elv.
				07/23/15	36.60	-14.60	
O0605	Gulf Park Utility Service	Willow	MS-GW-17154	12/08/15	55.40	-43.40	12' Elv.

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Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
O0613	Gulf Park Utility Service	Apple	MS-GW-15329	12/08/15	54.80	-43.80	11' Elv.
P0045	Moss Point Presbyterian Church			09/06/19	-28.00	51.00	23' Elv.
				09/04/58	17.30	5.70	
				11/19/59	21.49	1.51	
				07/26/60	20.75	2.25	
				07/27/61	19.98	3.02	
				04/18/62	21.55	1.45	
				01/17/63	22.79	0.21	
				01/21/64	22.80	0.20	
				04/12/65	26.32	-3.32	
				04/01/66	28.19	-5.19	
				04/06/67	33.29	-10.29	
				04/09/68	38.03	-15.03	
				04/08/69	38.41	-15.41	
				04/23/70	40.97	-17.97	
				04/30/71	42.54	-19.54	
				04/21/72	44.19	-21.19	
				04/26/73	44.10	-21.10	
				05/15/74	46.70	-23.70	
				06/12/75	48.35	-25.35	
				04/20/76	49.17	-26.17	
				04/21/77	50.87	-27.87	
				04/12/78	49.65	-26.65	
				04/05/79	48.04	-25.04	
				06/04/80	50.92	-27.92	
				03/20/81	51.55	-28.55	
				04/29/82	49.03	-26.03	
				04/21/83	45.49	-22.49	
				03/28/84	45.42	-22.42	
				04/16/85	43.80	-20.80	
				04/22/86	44.14	-21.14	

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WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
P0045	Moss Point Presbyterian Church (Continued)			04/08/87	41.52	-18.52	23' Elv.
				04/26/88	47.45	-24.45	
				04/05/89	44.29	-21.29	
				04/17/90	43.80	-20.80	
				04/03/91	41.75	-18.75	
				04/14/92	38.70	-15.70	
				04/20/94	38.52	-15.52	
				08/09/95	38.35	-15.35	
				07/10/96	37.99	-14.99	
				04/03/97	37.51	-14.51	
				03/13/98	36.30	-13.30	
				04/07/99	35.44	-12.44	
				06/06/01	37.69	-14.69	
				10/09/02	39.14	-16.14	
				09/17/03	38.39	-15.39	
				08/25/04	40.75	-17.75	
				08/23/06	45.80	-22.80	
P0054	Moss Point	Parallel	MS-GW-01411	10/01/82	125.00	-112.00	13' Elv.
				01/26/94	114.46	-101.46	
P0068	Pascagoula	North Market	MS-GW-01957	01/01/56	29.00	-17.00	12' Elv.
				04/07/59	57.57	-45.57	
				04/20/61	64.00	-52.00	
				01/18/62	60.03	-48.03	
				01/17/63	52.25	-40.25	
				01/22/64	74.50	-62.50	
				01/21/65	74.70	-62.70	
				01/05/66	78.00	-66.00	
				01/11/67	79.48	-67.48	
				01/09/68	77.35	-65.35	

WL BLS - Water level below land surface Water levels with a negative value are above GL GL - Ground level

WL ELV. - Water level relative to mean sea level Water levels with a negative value are below sea level

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
P0068	Pascagoula (Continued)	North Market	MS-GW-01957	04/09/69	67.09	-55.09	12' Elv.
				04/23/70	66.90	-54.90	
				04/30/71	66.08	-54.08	
				04/21/72	74.48	-62.48	
				04/26/73	68.66	-56.66	
				05/15/74	73.79	-61.79	
				06/12/75	80.40	-68.40	
				06/08/76	89.65	-77.65	
				06/12/77	95.90	-83.90	
				11/06/79	81.15	-69.15	
				04/12/80	80.73	-68.73	
				03/20/81	85.15	-73.15	
				10/20/82	88.62	-76.62	
				10/26/83	84.63	-72.63	
				03/29/84	72.40	-60.40	
				04/16/85	77.09	-65.09	
				10/15/86	62.24	-50.24	
				10/15/87	59.55	-47.55	
				10/19/88	71.11	-59.11	
				04/05/89	65.94	-53.94	
				04/17/90	68.29	-56.29	
				04/03/91	62.10	-50.10	
				06/09/92	71.75	-59.75	
				10/14/92	64.20	-52.20	
				04/20/94	61.59	-49.59	
				04/11/95	76.12	-64.12	
				04/24/96	77.72	-65.72	

WL BLS - Water level below land surface Water levels with a negative value are above GL **GL - Ground level**
WL ELV. - Water level relative to mean sea level Water levels with a negative value are below sea level

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
P0069	Pascagoula	Telephone	MS-GW-01958	01/01/56	30.00	-18.00	14' Elv.
				04/07/59	50.74	-38.74	
				04/07/60	53.53	-41.53	
				04/20/61	48.58	-36.58	
				10/26/61	54.38	-42.38	
				04/18/62	61.05	-49.05	
				01/17/63	70.10	-58.10	
				04/23/63	72.03	-60.03	
				10/22/63	62.60	-50.60	
				09/14/72	83.23	-71.23	
				06/20/79	86.45	-74.45	
				10/28/81	99.73	-87.73	
				05/08/03	84.60	-70.60	
				09/01/15	59.00	-45.00	
P0108	Jackson Co. Port Athority	West Bank	MS-GW-01649	04/17/07	80.80	-75.80	5' Elv.
				08/12/15	51.50	-46.50	
P0124	Pascagoula	Communny	MS-GW-01954	05/20/59	23.83	-13.83	11' Elv.
				11/20/59	25.55	-15.55	
				04/18/60	7.24	2.76	
				04/19/61	27.84	-17.84	
				04/18/62	32.94	-22.94	
				01/22/64	40.57	-30.57	
				04/13/65	42.98	-32.98	
				04/01/66	59.88	-49.88	
				04/05/67	63.34	-53.34	
				05/16/68	76.62	-66.62	
				04/09/69	67.33	-57.33	
				04/23/70	75.20	-65.20	

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
P0124	Pascagoula (Continued)	Communny Well No.1	MS-GW-01954	04/30/71	81.52	-71.52	11' Elv.
				04/21/72	100.26	-90.26	
				06/08/76	106.78	-96.78	
				07/12/77	91.20	-81.20	
				10/05/78	76.19	-66.19	
				04/05/79	72.59	-62.59	
				06/04/80	85.63	-75.63	
				10/22/81	72.38	-62.38	
				10/20/82	72.19	-62.19	
				04/21/83	91.19	-81.19	
				03/29/84	69.89	-59.89	
				04/16/85	75.37	-65.37	
				04/22/86	70.25	-60.25	
				04/08/87	79.42	-69.42	
				04/27/88	76.05	-66.05	
				04/05/89	57.55	-47.55	
				04/17/90	57.41	-47.41	
				04/03/91	55.96	-45.96	
				04/14/92	50.98	-40.98	
				05/19/93	60.03	-50.03	
				04/12/94	63.20	-53.20	
				05/08/03	71.00	-61.00	
				03/09/05	71.10	-61.10	
				05/08/07	71.00	-61.00	
				11/15/11	70.10	-61.10	
				04/11/14	26.80	-16.80	
				09/01/15	55.50	-45.50	

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
P0134	Pascagoula	Beach	MS-GW-14952	04/07/59	12.20	-1.20	11' Elv.
				04/19/61	24.36	-13.36	
				04/18/62	21.25	-10.25	
				04/23/63	29.44	-18.44	
				04/20/64	19.52	-8.52	
				04/13/65	33.29	-22.29	
				04/01/66	43.61	-32.61	
				04/05/67	45.61	-34.61	
				04/09/68	61.50	-50.50	
				04/09/69	57.06	-46.06	
				04/23/70	61.50	-50.50	
				04/30/71	81.00	-70.00	
				04/21/72	92.83	-81.83	
				04/26/73	85.54	-74.54	
				06/08/76	99.37	-88.37	
				07/12/77	82.56	-71.56	
				04/12/78	66.52	-55.52	
				04/05/79	64.96	-53.96	
				06/04/80	75.98	-64.98	
				03/20/81	65.69	-54.69	
				04/29/82	56.23	-45.23	
				04/21/83	71.01	-60.01	
				05/10/84	65.93	-54.93	
				04/16/85	66.88	-55.88	
				04/22/86	63.53	-52.53	
				04/08/87	71.67	-60.67	
				04/27/88	66.37	-55.37	
				04/05/89	53.26	-42.26	
				04/17/90	48.72	-37.72	
				04/03/91	53.18	-42.18	
				04/14/92	55.25	-44.25	
				04/20/94	52.93	-41.93	
				08/09/95	59.45	-48.45	

WL BLS - Water level below land surface Water levels with a negative value are above GL GL - Ground level

WL ELV. - Water level relative to mean sea level Water levels with a negative value are below sea level

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
P0134	Pascagoula (Continued)	Beach	MS-GW-14952	07/10/96	59.61	-48.61	11' Elv.
				04/03/97	54.29	-43.29	
				03/17/99	47.60	-36.60	
				05/07/03	69.70	-58.70	
				03/09/05	65.30	-54.30	
				01/28/09	63.00	-52.00	
				04/09/10	66.70	-55.70	
				11/15/11	68.60	-57.60	
				09/01/15	52.00	-41.00	
P0145	Ingalls Shipbuilding	East Bank	MS-GW-01680	11/04/15	58.20	-48.20	10' Elv.
P0150	Pascagoula	Communy - Well No.2	MS-GW-01955	04/06/67	55.06	-45.06	10' Elv.
				10/20/82	68.00	-58.00	
				12/02/85	64.00	-54.00	
				02/16/94	55.08	-45.08	
				07/27/95	65.90	-55.90	
				07/31/96	58.40	-48.40	
				07/23/97	48.00	-38.00	
				07/16/98	43.90	-33.90	
				11/03/99	46.10	-36.10	
				04/06/00	56.20	-46.20	
				02/02/01	75.20	-65.20	
				01/15/02	99.70	-89.70	
				05/08/03	67.60	-57.60	
				04/15/04	68.40	-58.40	
				03/09/05	66.80	-56.80	
				12/07/07	68.00	-58.00	
				04/09/10	70.60	-60.60	
				11/15/11	73.60	-63.60	
				05/06/15	48.80	-38.80	

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
P0226	Moss Point	Neese	MS-GW-12018	10/01/65	16.00	-8.00	8' Elv.
P0228	Escatawpa Subur. Utility			11/01/85 03/09/94	137.00 103.92	-125.00 -91.92	12' Elv.
P0229	Moss Point	Bellview	MS-GW-01412	06/15/66 10/28/82 06/21/88 01/27/94 03/18/99 11/08/99	28.00 89.96 124.48 85.05 80.20 78.20	-18.00 -79.96 -114.48 -75.05 -70.20 -68.20	10' Elv.
P0326	Tiki Restaurant			07/21/94	24.09	-17.09	7' Elv.
P0348	Ingalls Shipbuilding	East Bank	MS-GW-01679	11/10/71 10/27/82 04/25/85 01/01/88 04/20/94	81.00 94.90 93.37 40.00 49.05	-71.00 -84.90 -83.37 -30.00 -39.05	10' Elv.
P0349	Ingalls Shipbuilding	West Bank No. 2	MS-GW-01681	05/12/05 11/04/15	54.00 48.90	-44.00 -38.90	10' Elv.

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
P0355	Moss Point	Community	MS-GW-01414	10/01/82	132.00	-113.00	19' Elv.
				01/26/94	111.47	-92.47	
				05/09/03	147.10	-128.10	
				02/11/05	123.20	-104.20	
P0372	Pascagoula	Communny - Well #3	MS-GW-01956	02/01/75	50.00	-39.00	11' Elv.
				10/20/82	61.08	-50.08	
				04/24/85	51.37	-40.37	
				02/16/94	42.63	-31.63	
				07/27/95	49.90	-38.90	
				07/31/96	42.50	-31.50	
				07/23/97	35.20	-24.20	
				07/16/98	37.10	-26.10	
				08/26/99	43.10	-32.10	
				04/06/00	49.20	-38.20	
				02/21/01	49.90	-38.90	
				01/15/02	37.90	-26.90	
				05/07/03	40.70	-29.70	
				04/15/04	42.50	-31.50	
				03/09/05	52.30	-41.30	
				01/09/07	45.90	-34.90	
				01/28/09	39.70	-28.70	
				04/09/10	34.20	-23.20	
				11/15/11	36.50	-25.50	
P0373	Ingalls Shipbuilding	West Bank	MS-GW-01678	11/04/15	38.70	-28.70	10' Elv.

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
P0382	Moss Point	Howze	MS-GW-01415	01/01/78	112.00	-104.00	8' Elv.
				10/20/82	135.00	-127.00	
				01/27/94	104.55	-96.55	
				03/11/05	122.05	-114.05	
				11/16/11	189.90	-181.90	
				04/10/13	186.70	-178.70	
				04/10/14	206.90	-198.90	
				08/12/15	193.80	-185.80	
P0395	Magnolia Oaks Condos		MS-GW-01141	07/23/98	32.40	-16.40	16' Elv.
				04/07/99	29.24	-13.24	
				10/24/02	32.25	-16.25	
				05/12/05	29.88	-13.88	
				08/23/06	34.85	-18.85	
				06/10/09	29.20	-13.20	
				01/12/16	29.00	-13.00	
P0409	Ingalls Shipbuilding	West Bank	MS-GW-01682	11/04/15	48.90	-38.90	10' Elv.
P0429	State of Mississippi	Home Port	MS-GW-07765	03/21/90	53.00	-41.00	10' Elv.
				02/17/94	47.13	-35.13	
				07/26/95	47.60	-37.60	
				01/17/96	47.30	-35.30	
				01/16/97	42.20	-30.20	
				07/16/98	44.60	-32.60	
				01/21/99	44.40	-34.40	
				04/05/00	46.10	-36.10	
				02/21/01	47.10	-37.10	
				01/16/02	37.20	-27.20	
				05/08/03	40.50	-30.50	

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
P0429	State of Mississippi (Continued)	Home Port	MS-GW-07765	04/14/04	42.00	-32.00	10' Elv.
				03/10/05	43.70	-33.70	
				01/10/07	46.10	-46.10	
				07/28/10	35.10	-25.10	
				03/29/12	37.10	-27.10	
				08/12/15	41.20	-31.20	
P0430	State of Mississippi	Home Port	MS-GW-07766	03/28/90	49.00	-37.00	10' Elv.
				02/17/94	46.68	-34.68	
				07/31/96	48.50	-36.50	
				02/18/98	40.20	-28.20	
				06/16/99	41.70	-31.70	
				04/05/00	45.50	-35.50	
				02/21/01	50.10	-40.10	
				01/16/02	39.30	-29.30	
				05/07/03	40.90	-30.90	
				04/14/04	42.40	-31.40	
				03/10/05	43.00	-33.00	
				01/10/07	41.90	-31.90	
				07/28/10	34.80	-24.80	
				03/29/12	36.60	-26.60	
				08/12/15	41.90	-31.90	
P0455	Moss Point	Payne	MS-GW-14774	10/07/97	110.50	-92.50	18' Elv.
				05/09/03	147.90	-129.90	
				03/11/05	128.80	-110.80	
				03/03/09	213.40	-195.40	
				11/16/11	218.20	-200.20	
				04/10/14	240.70	-222.70	
				05/05/15	195.90	-177.90	

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
P0458	Pascagoula	14th street	MS-GW-15791	05/08/03	88.50	-78.50	10' Elv.
				03/09/05	85.60	-75.60	
				11/15/11	66.60	-56.60	
				09/01/15	73.00	-63.00	
P0488	Moss Point	Palmeto	MS-GW-16158	04/10/13	248.80	-229.80	19' Elv.
				04/10/14	254.80	-235.80	
				05/05/15	210.10	-191.10	
P0495	Pascagoula	P372 Replacement Well No.4	MS-GW-16862	04/09/10	34.20	-23.20	11' Elv.
				05/06/15	47.60	-36.60	
Q0019	Omega Protein Inc,		MS-GW-08529	05/18/94	6.40	-1.40	5' Elv.
Q0025	Smith Fisheries			01/30/59	19.25	-15.25	4' Elv.
				04/15/60	10.07	-6.07	
				04/19/61	17.46	-13.46	
				10/27/61	14.94	-10.94	
				04/11/62	15.73	-11.73	
				04/16/63	19.93	-15.93	
				04/20/64	24.05	-20.05	
				04/12/65	29.57	-25.57	
				04/01/66	26.68	-22.68	
				04/04/67	27.50	-23.50	
				04/09/68	30.65	-26.65	
				04/08/69	32.42	-28.42	
				04/23/70	38.03	-34.03	
				04/27/72	42.50	-38.50	

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
Q0025	Smith Fisheries (Continued)			04/26/73	33.05	-29.05	4' Elv.
				05/15/74	41.20	-37.20	
				06/12/75	38.94	-34.94	
				04/20/76	38.53	-34.53	
				04/21/77	42.08	-38.08	
				04/12/78	42.83	-38.83	
				04/05/79	35.97	-31.97	
				06/04/80	42.15	-38.15	
				10/22/81	36.03	-32.03	
				04/29/82	37.98	-33.98	
				10/26/83	40.32	-36.32	
				03/28/84	38.58	-34.58	
				04/16/85	31.94	-27.94	
				04/22/86	31.62	-27.62	
				04/08/87	30.30	-26.30	
				04/26/88	31.85	-27.85	
				04/05/89	32.52	-28.52	
				04/25/90	31.90	-27.90	
				04/03/91	29.75	-25.75	
				04/15/92	21.73	-17.73	
				05/18/93	21.34	-17.34	
				04/20/94	24.80	-20.80	
				04/11/95	24.22	-20.22	
				11/29/95	22.56	-18.56	
				04/24/96	22.00	-18.00	
				04/03/97	23.00	-19.00	
				03/13/98	17.72	-13.72	
				12/02/03	7.82	-3.82	
				05/12/05	7.40	-3.40	

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
Q0034	Orange Grove School			04/04/00 01/26/16	Flowing No Gauge Flowing No Gauge		6' Elv.
Q0096	Longfellow House			01/26/94	16.70	-9.70	7' Elv.
Q0100				05/05/94	61.00	-53.00	8' Elv.
Q0106	US Geological Survey			09/01/59 04/11/60 03/15/61 03/01/62 04/17/63 04/05/64 04/05/65 04/05/66 04/05/67 04/05/68 05/16/69 06/10/70 04/30/71 04/21/72 04/26/73 06/12/75	45.26 48.24 51.86 59.11 104.06 82.90 84.00 82.20 88.50 86.30 91.20 106.00 97.30 96.80 95.01 110.73	-41.26 -44.24 -47.86 -55.11 -100.06 -78.90 -80.00 -78.20 -84.50 -82.30 -87.20 -102.00 -93.30 -92.80 -91.01 -106.73	4' Elv.

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
Q0112	Jackson County			04/20/94	10.39	-5.39	5' Elv.
				08/09/95	6.11	-1.11	
				07/10/96	11.05	-6.05	
				04/03/97	10.25	-5.25	
				08/10/98	10.74	-5.74	
				04/07/99	10.43	-5.43	
				06/06/01	10.4	-5.4	
				10/24/02	6.23	-1.23	
				12/02/03	8.83	-3.83	
				08/25/04	8.52	-3.52	
				08/23/06	11.72	-6.72	
Q0137	Chevron Products Co.	North Well	MS-GW-02132	09/13/63	56.00	-49.00	7' Elv.
				10/28/82	62.36	-55.36	
				11/05/85	60.00	-53.00	
Q0149	Dairy Fresh Corp.			06/01/63	63.00	-48.00	15' Elv.
				08/30/77	116.30	-101.30	
				05/17/78	111.52	-96.52	
				04/05/79	108.52	-93.52	
				06/03/80	102.39	-87.39	
				10/21/81	106.84	-91.84	
				04/29/82	102.80	-87.80	
				10/26/83	103.84	-88.84	
				05/10/84	101.03	-86.03	
				04/16/85	102.74	-87.74	
				04/22/86	98.43	-83.43	
				04/08/87	95.95	-80.95	
				04/27/88	91.51	-76.51	
				04/05/89	84.50	-69.50	

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
Q0159	Rohm and Haas Chemicals LLC		MS-GW-02140	05/18/94	24.60	-18.60	6' Elv.
Q0164	Pascagoula	Martin - Ingalls	MS-GW-01963	10/06/65 11/05/85	41.00 144.70	-31.00 -134.70	10' Elv.
Q0166	Moss Point			03/01/64 11/05/85	24.00 139.23	-14.00 -129.23	10' Elv.
Q0180	Pascagoula	B. C.	MS-GW-01961	10/05/65 03/20/81 10/20/82 04/24/85 02/16/94 02/24/95 02/21/96 07/31/96 01/16/97 02/18/98 01/21/99 09/14/00 01/15/02 05/07/03	54.00 157.00 198.47 183.95 195.65 75.30 127.80 142.50 110.85 92.30 98.40 147.80 139.60 110.90	-44.00 -147.00 -188.47 -173.95 -185.65 -65.30 -117.80 -132.50 -100.85 -82.30 -88.40 -137.80 -138.60 -100.90	10' Elv.

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
Q0181	Pascagoula	Douglas	MS-GW-01962	10/01/65	59.00	-49.00	10' Elv.
				02/16/94	193.12	-183.12	
				02/24/95	72.10	-62.10	
				02/21/96	128.70	-118.70	
				11/03/99	141.70	-131.70	
				11/15/02	145.00	-135.00	
				12/07/07	130.20	-120.20	
Q0293	Pascagoula	Sears	MS-GW-01959	06/01/62	62.00	-47.00	15' Elv.
				10/28/81	104.60	-89.60	
				04/24/85	117.55	-102.55	
				12/03/85	102.00	-87.00	
				02/16/94	97.43	-82.43	
				03/17/99	96.70	-81.70	
				09/14/00	65.30	-50.30	
				05/08/03	97.50	-82.50	
				03/09/05	90.40	-75.40	
				09/01/15	84.50	-74.50	
Q0403	US Geological Survey			06/19/74	145.10	-141.10	4' Elv.
				04/09/75	140.48	-136.48	
				04/20/76	138.30	-134.30	
				04/21/77	124.44	-120.44	
				04/04/78	121.55	-117.55	
				04/05/79	131.50	-127.50	
				06/03/80	125.90	-121.90	
				07/28/81	112.31	-108.31	
				04/01/82	83.21	-79.21	
				04/21/83	80.07	-76.07	
				05/10/84	102.23	-98.23	
				04/16/85	87.48	-83.48	

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
Q0403	US Geological Survey (Continued)			04/22/86	88.21	-84.21	4' Elv.
				04/08/87	87.44	-83.44	
				04/26/88	55.62	-51.62	
				04/05/89	95.25	-91.25	
				04/03/91	60.05	-56.05	
				04/15/92	85.24	-81.24	
				01/19/94	90.39	-86.39	
				10/29/96	91.05	-87.05	
				04/03/97	89.56	-85.56	
				01/13/99	89.4	-85.40	
				12/02/03	91.4	-87.40	
				08/25/04	95.43	-91.43	
				05/11/05	92.83	-88.83	
				09/02/15	79.90	-75.90	
Q0407	Pascagoula	Old Chateau		03/01/75	92.00	-79.00	13' Elv.
				04/12/78	136.08	-123.08	
				04/05/79	145.76	-132.76	
				06/03/80	141.90	-128.90	
				10/22/81	142.99	-129.99	
				04/29/82	126.30	-113.30	
				10/26/83	128.83	-115.83	
				05/10/84	137.17	-124.17	
				04/16/85	137.16	-124.16	
				04/22/86	134.20	-121.20	
				04/08/87	140.40	-127.40	
				04/26/88	128.33	-115.33	
				04/05/89	132.91	-119.91	
				04/03/91	114.80	-101.80	
				04/15/92	131.13	-118.13	
				02/16/94	119.20	-106.20	
				04/20/94	133.71	-120.71	
				01/18/96	137.18	-124.18	

WL BLS - Water level below land surface Water levels with a negative value are above GL **GL - Ground level**
WL ELV. - Water level relative to mean sea level Water levels with a negative value are below sea level

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
Q0407	Pascagoula (Continued)	Old Chateau		05/14/97	138.50	-125.50	13' Elv.
				11/04/98	137.20	-124.20	
				04/07/99	138.9	-125.9	
				12/02/03	111.70	-98.70	
Q0417	Moss Point	Sue Ellen	MS-GW-01413	08/29/68	84.00	-67.00	17' Elv.
				10/01/82	128.39	-111.39	
				01/27/94	109.11	-92.11	
				05/09/03	147.30	-130.30	
Q0420	Pascagoula	Chateau	MS-GW-01960	05/24/76	97.00	-84.00	13' Elv.
				10/20/82	127.72	-114.72	
				04/24/85	126.06	-113.06	
				12/03/85	121.00	-108.00	
				02/16/94	112.30	-99.30	
				03/17/99	115.50	-102.50	
				09/14/00	73.50	-60.50	
				05/07/03	116.10	-103.10	
				04/15/04	67.40	-54.40	
				03/09/05	99.20	-86.20	
Q0424	Pascagoula			10/01/92	17.96	-6.96	11' Elv.
				01/28/94	19.35	-8.35	
				04/20/94	18.82	-7.82	
				09/19/94	19.18	-8.18	
				08/09/95	18.88	-7.88	
				01/18/96	18.78	-7.78	
				07/10/96	19.90	-8.90	

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
Q0424	Pascagoula (Continued)			10/29/96	19.20	-8.20	11' Elv.
				04/13/97	18.64	-7.64	
				10/21/97	19.51	-8.51	
				03/12/98	17.80	-6.80	
				09/16/98	18.65	-7.65	
				04/07/99	18.42	-7.42	
Q0429	MDOT		MS-GW-01277	11/19/85	5.00	7.00	12' Elv.
				02/15/94	6.22	5.78	
				01/27/16	16.60	-4.60	
Q0430	MDOT		MS-GW-01278	01/01/85	2.00	10.00	12' Elv.
				02/15/94	1.15	10.85	
				01/27/16	11.80	0.20	
Q0434	Moss Point	Hardy's	MS-GW-01416	11/01/85	137.10	-131.10	6' Elv.
				01/27/94	197.40	-191.40	
Q0456	John Hudson	Alligator Farm		02/23/95	-1.00	5.00	4' Elv.
				08/06/97	-1.00	5.00	
				02/18/98	-1.00	5.00	
Q0600	Moss Point	New Sue Ellen	MS-GW-16157	03/03/09	>275		17' Elv.
				11/16/09	242.70	-225.70	
				11/16/11	242.70	-225.70	
				04/10/13	258.00	-241.00	
				04/10/14	255.90	-235.90	

WL BLS - Water level below land surface **Water levels with a negative value are above GL** **GL - Ground level**
WL ELV. - Water level relative to mean sea level **Water levels with a negative value are below sea level**

Jackson Co. Water Levels

Well No.	Owner Name	Well Name	OLWR Permit No.	WL Date	WL BLS	WL ELV.	GL
Q0601	Moss Point	Hubert	MS-GW-16159	03/03/09	237.70	-220.70	17' Elv.
				11/16/09	241.80	-224.80	
				11/16/11	241.80	-224.80	
				04/10/13	231.40	-214.40	
				04/10/14	260.40	-243.40	
				5/5/2015	208.50	-191.50	

WL BLS - Water level below land surface Water levels with a negative value are above GL GL - Ground level

WL ELV. - Water level relative to mean sea level Water levels with a negative value are below sea level

Table 4

Jackson County Basic Water Quality Analysis

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
A0108	Brian Davis			03/22/16	359	8.90	17.20	
A0135	Jackson Co. Maintenance	Vestry Com. Center		03/22/16	266	8.95	3.30	
B0060	Tommy Tootle Jr.			03/22/16	392	9.00	20.60	
C0145	Jackson Co. Utility Authority	Well #2	MS-GW-16625	04/17/15	139	7.58	2.70	
C0146	Jackson Co. Utility Authority	Well #1	MS-GW-16602	04/17/15	346	8.77	10.40	
D0267	First Federal Savings			04/13/16	421	8.67	13.90	
E0176	Jackson Co. Maintenance	Larue Com. Center		03/22/16	313	9.01	15.60	
F0120	Tommy Tootle			04/13/16	259	7.38	4.70	
F0164	Vancleave Fire Dept.			03/22/16	397	9.11	23.20	
F0464	GMTE Enterprises			04/13/16	384	8.78	6.90	
H0172	Jackson Co. Recreation	Soccer Field		03/22/16	757	8.86	25.40	

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
J0241	West Jackson Co Utility Dist.	Jordan Road Sub.	MS-GW-15075	09/22/15	428	9.01	15.50	
J0344	West Jackson Co Utility Dist.	Bonanza Rd. Well #3	MS-GW-16173	09/22/15	468	9.01	15.70	
J0566	Jackson Co. Utility Authority	Well #1	MS-GW-16585	04/17/15	618	8.97	67.90	
J0567	Jackson Co. Utility Authority	Well #2	MS-GW-16603	04/17/15	420	9.08	23.50	
J0590	Jackson Co. Utility Authority	Ridgeland	MS-GW-16967	01/28/16	438	9.03	14.00	
K0147	Vancleave Jr. High School			01/28/16	462	9.37	27.70	
K0163	San Juan Fish Camp			09/16/93	1105	8.69	74.80	
K0322	Vancleave High School			01/28/16	560	9.32	24.90	
K0696	Jackson Co. Utility Authority	Well #3	MS-GW-16611	04/17/15	611	8.94	69.30	
K0738	Jackson Co. Utility Authority	Lab Well	MS-GW-16969	01/28/16	455	9.03	9.40	
L0032	Moss Point	Escatawpa - Well No.4	MS-GW-12020	03/18/99 03/11/05	600 658	8.43 8.68	57.00 63.10	36 47
Specific Conductance Measured in umhos/cm			Chlorides Measured in mg/L		Color Measured in Platinum Colbalt Units			

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
L0127	Miss Power Co.			01/13/16	703	9.04	18.30	
L0183	Jackson Co. Utility Authority	Surface Water Plant		01/27/16 08/03/16	1145 971	8.78 8.79	47.90 54.10	
M0349	MDOT		MS-GW-01279	03/16/99 01/27/16	1050 919	8.67 8.73	148.00 140.00	
N0042	Treasure Oak Country Club			06/07/96	1050	8.47	341.00	
N0066	Coast Waterworks Inc. West Jackson Co Utility Dist.	Shore Dr.		05/12/05	307	8.74	3.30	9
N0278	West Jackson Co Utility Dist.	Carban Place Well Windsor Park Sub.	MS-GW-00183	09/14/93	422	8.09	6.20	
N0288	West Jackson Co Utility Dist.	Fort Bayou Well Well #9	MS-GW-00185	09/22/15	332	8.45	9.20	
N0381	West Jackson Co Utility Dist.	Puerto	MS-GW-02061	09/14/93 05/12/05	1051 709	8.57 8.98	99.30 85.00	
N0391	West Jackson Co Utility Dist.	El Bonita	MS-GW-02062	09/16/93 05/12/05	1167 827	8.62 8.90	116.00 104.00	
N0425	Gulf Park Water Utility Service	Barnical Rd	MS-GW-13086	12/08/15	467	8.50	15.10	

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
N0451	West Jackson Co Utility Dist.	Sweet Brier-Twin By. Well #6	MS-GW-02063	09/22/15	442	9.14	16.00	
N0462	Gulf Park Water Utility Service	Marina Dr. Well #2	MS-GW-13085	12/08/15	351	8.00	8.90	
N0479	Gulf Coast Research Lab		MS-GW-01144	10/22/82 07/12/88	490 640		11.00 39.00	
N0496	Ocean Springs Seafood		MS-GW-01402	07/14/88 04/02/93 08/30/95 01/18/96 07/31/96 01/17/97 08/07/97 01/14/98 07/15/98 01/21/99 06/15/99 03/22/00 09/13/00 02/20/01 01/16/02 05/08/03 04/14/04 04/07/05	360 348 352 341 340 333 330 345 347 347 345 348 348 363 350 352 347 382	 8.90 8.86 8.71 8.85 8.52 8.76 8.61 8.82 8.91 8.95 8.93 8.87 8.70 8.98 8.91 8.80 8.70	5.80 6.20 7.10 10.10 5.70 5.00 5.40 6.00 5.50 5.90 6.60 6.20 6.10 10.90 5.80 6.10 6.20 9.00	
N0500	West Jackson Co Utility Dist.	Well #27	MS-GW-12794	09/22/15	640	8.91	72.60	

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
N0505	West Jackson Co Utility Dist.	Lancaster Well Well #7	MS-GW-00184	09/22/15	307	8.60	4.10	
N0517	Ocean Springs	Halstead Rd. Well #8	MS-GW-13851	06/23/88			4.50	
				03/17/93	404	9.00	5.10	
				06/06/96	380	9.49	4.80	
				01/16/97	380	8.90	4.10	
				08/07/97	369	8.89	4.30	
				02/19/98	363	9.17	3.00	
				07/15/98	389	9.01	3.20	17
				01/21/99	393	9.04	4.10	10
				06/16/99	392	9.08	5.30	36
				04/04/00	394	9.10	4.90	23
				09/13/00	393	9.00	4.80	32
				02/20/01	392	9.02	5.10	8
				01/16/02	393	8.98	4.80	19
				05/07/03	395	9.09	4.80	35
				04/14/04	396	8.93	4.50	51
				03/10/05	393	8.97	4.50	25
				01/14/09	368	9.00	5.60	48
				11/03/15	398	8.98	5.50	
N0520	Ocean Springs	Hardy St. Replacment Well #2	MS-GW-13847	05/12/05	348	9.06	4.20	8
				11/03/15	354	9.10	4.90	
N0543	Ocean Springs	Pabst Rd.-Well #9	MS-GW-11991	05/12/05	367		3.90	19
				11/03/15	392	8.65	5.10	
N0566	Ocean Springs	Washington St.	MS-GW-14731	11/03/15	663	8.07	78.70	

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
N0715	Gulf Park Water Utility Service	7th Street Well	MS-GW-15303	12/08/15	254	8.50	5.20	
N0719	Gulf Park Water Utility Service	Edge Water Blvd	MS-GW-15302	12/08/15	429	7.50	8.30	
N0738	Gulf Park Water Utility Service	Point Aux Chenes	MS-GW-15368	12/08/15	601	8.00	96.80	
N0739	West Jackson Co Utility Dist.	Tucker Rd. Well #2	MS-GW-15305	09/22/15	442	9.15	17.00	
N0741	West Jackson Co Utility Dist.	Tucker Rd. Well #4	MS-GW-15935	09/22/15	465	8.64	16.30	
N0743	Gulf Park Water Utility Service	Shell St. (Starfish)	MS-GW-15702	12/08/15	435	NA	13.60	
N0888	West Jackson Co Utility Dist.	Well #28	MS-GW-16149	09/22/15	675	8.81	90.00	
N1043	West Jackson Co Utility Dist.	Well #23	MS-GW-16239	09/22/15	618	8.97	68.60	
N1048	Ocean Springs	Deana Rd.	MS-GW-16345	11/03/15	386	8.90	4.60	
N1050	West Jackson Co Utility Dist.	St. Martin High School Well #24	MS-GW-16521	09/22/15	394	8.89	4.80	

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
O0074	James Grimsley	McVey		12/04/74	1850		500.00	
				10/22/86	2010		500.00	
				03/17/93	2050	8.40	490.00	
				08/30/95	2000	8.05	430.00	
				01/17/96	1970	8.10	472.00	
				08/01/96	2020	8.33	493.00	
				02/18/97	1966	8.27	479.00	
				02/19/98	1997	8.34	550.00	
				07/16/98	2056	8.40	479.00	25
				01/20/99	2089	8.39	490.00	1
				11/03/99	2102	8.41	500.00	37
				09/13/00	2098	8.31	516.00	
				02/22/01	2090	8.40	493.00	7
				01/16/02	2110	8.50	524.00	18
				05/08/03	2098	8.46	521.00	12
				04/07/05	2076	8.39	386.00	9
				08/17/16	2075	8.38	504.00	
O0156	Gautier	Woodlane	MS-GW-07203	06/01/72	1070		160.00	30
				06/22/88	1120		170.00	40
				02/11/92	899	8.80	130.00	
				03/29/93	1100	8.60	180.00	
				09/13/93	1120	8.81	185.80	
				08/30/95	1010	8.73	135.00	
				01/17/96	533	7.30	91.00	
				08/01/96	1020	8.66	167.00	
				01/16/97	982	8.29	170.10	
				08/06/97	1055	8.70	174.00	
				02/18/98	1055	8.60	169.00	
				07/17/98	1139	8.78	170.00	57
				01/21/99	1121	8.78	144.00	280
				06/16/99	1109	8.82	203.00	114
				11/03/99	1130	8.83	182.00	89
				Specific Conductance Measured in umhos/cm		Chlorides Measured in mg/L		Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
O0156	Gautier (Continued)	Woodlane	MS-GW-07203	04/05/00	1128	8.83	174.00	93
				09/14/00	1117	8.74	182.00	75
				02/21/01	1106	8.69	180.00	65
O0197	Saint Andrews Water	Golf Course	MS-GW-14496	04/23/73	552		31.00	
				08/30/95	613	9.12	38.00	
				02/21/96	667	9.65	39.60	
				07/31/96	587	9.23	40.60	
				01/16/97	587	8.92	41.10	
				08/07/97	585	9.23	40.50	
				02/19/98	582	9.22	42.00	
				07/16/98	603	9.19	34.10	15
				06/16/99	599	9.27	40.10	28
				09/13/00	589	9.17	38.00	46
				02/21/01	588	9.20	38.00	38
				01/16/02	596	9.33	41.50	56
				05/08/03	599	9.27	42.20	40
				05/21/04	605	9.17	38.60	43
				04/07/05	600	8.74	41.60	54
				12/07/07	590	9.09	46.70	22
				01/14/09	560	9.28	26.10	27
				04/08/10	582	9.26	40.10	41
				04/12/12	583		43.10	37
				12/09/15	632	9.28	40.80	
O0208	Gautier	Westgate	MS-GW-07201	09/13/93	1279	8.36	200.70	
				09/06/95	1012	8.57	174.00	
				03/14/05	1070	8.75	175.00	73
				07/23/15	1100	8.84	189.00	

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
O0213	Saint Andrews Water	Woods	MS-GW-14495	08/30/95	598	9.07	24.90	
				02/21/96	577	8.98	26.10	
				07/31/96	486	9.08	27.10	
				01/17/97	573	8.83	26.70	
				08/07/97	565	9.01	26.80	
				02/19/98	572	9.22	27.00	
				01/21/99	598	9.15	27.90	50
				06/16/99	581	9.21	29.50	56
				09/13/00	600	9.11	29.70	58
				02/21/01	596	9.14	30.10	69
				01/16/02	599	9.20	29.70	75
				05/08/03	597	9.22	30.90	64
				05/21/04	604	9.04	30.10	59
				04/07/05	602	9.18	29.90	71
				12/07/07	596	9.35	32.00	68
				01/14/09	576	9.20	23.50	94
				04/08/10	597	8.94	28.70	66
				04/12/12	560		29.80	92
				12/09/15	629	9.38	29.40	
O0273	Richardson			05/03/93	489	9.50	25.00	10
				08/30/95	517	8.81	24.30	
				01/17/96	503	8.70	28.20	
				08/01/96	485	8.86	30.40	
				01/16/97	481	8.55	31.00	
				08/06/97	490	8.76	28.90	
				02/18/98	497	8.72	30.00	
				07/15/98	506	8.87	27.60	63
				01/21/99	540	8.90	37.50	42
				06/16/99	509	8.94	32.50	66
				04/05/00	510	8.99	33.20	59
				09/13/00	509	8.84	32.10	46
		Specific Conductance Measured in umhos/cm				Chlorides Measured in mg/L		Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
O0273	Richardson (Continued)			02/20/01	509	8.98	33.70	55
				01/16/02	510	8.97	33.80	58
				05/07/03	503	8.91	35.30	86
				04/14/04	503	8.82	35.60	62
				03/10/05	511	8.93	35.50	78
				01/09/07	484		36.10	
				04/03/09	477		34.30	72
				07/28/10	500	9.06	37.40	41
				04/13/12	494		34.50	52
O0283	Miss. Gulf Coast Com. Col.			04/14/16	1075	8.78	186.00	
O0286	Gautier	Mall	MS-GW-15184	03/17/99	740	9.04	104.00	63
				04/05/00	884	9.06	108.00	65
				01/09/02	740	8.92	108.00	
				03/14/05	832	9.00	99.00	59
				07/23/15	670	8.89	65.10	
O0295	Gautier	Honduras-Merida	MS-GW-03433	07/23/15	735	9.12	30.30	
O0300	Gautier	Bonita	MS-GW-03431	06/22/88	690		46.00	
				02/11/92	675		46.00	
				08/30/95	656	8.71	37.60	
				04/05/96		8.40	51.00	40
				08/01/96	604	8.84	43.40	
				08/06/97	622	8.76	46.00	
				02/18/98	641	8.66	45.00	
				07/17/98	684	8.88	41.70	55
Specific Conductance Measured in umhos/cm		Chlorides Measured in mg/L		Color Measured in Platinum Colbalt Units				

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
O0307	Gautier	Office	MS-GW-15185	03/10/05	664	9.11	53.40	100
				07/23/15	735	9.12	54.40	
O0310	Ocean Springs	Sunplex	MS-GW-00348	05/12/05	467	8.37	25.30	34
				11/03/15	564	8.07	63.60	
O0313	Gautier	Old Drive-in - Beasley	MS-GW-05615	06/22/88	740	9.00	58.00	
				03/29/93	651	8.87	38.00	
				09/13/93	630	8.73	40.90	
				08/30/95	624	8.86		
				04/05/00	639	9.10	35.40	54
				09/14/00	642	8.96	36.80	59
				02/21/01	640	9.07	37.20	54
				01/16/02	643	9.10	34.50	51
				05/08/03	630	9.07	35.60	78
				04/14/04	647	9.00	39.80	74
				03/10/05	647	9.05	39.60	65
				04/18/07	649	9.15	41.40	47
				01/28/09	640	9.04	41.50	30
				07/28/10	635	9.25	34.30	38
				04/13/12	627		38.60	72
				07/23/15	649	9.08	37.10	
O0314	Gautier	Martin Bluff - Well #2	MS-GW-01388	03/17/99	750	8.84	142.00	31
				03/10/05	861	8.80	102.00	44
				07/23/15	929	8.81	141.00	

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
O0319	Gautier	Martin Bluff - Well #1	MS-GW-01309	03/17/99	750	8.83	145.00	38
				03/10/05	860	8.80	109.00	38
O0392	National Park Service	Horn Island		12/01/94		8.90	89.00	50
				02/15/96	645	9.15	68.20	
				07/31/96	604	9.29	71.60	
				02/19/97	628	9.11	72.00	
				08/07/97	658	9.08	61.80	
				02/19/98	646	9.40	71.00	
				08/05/98	605	9.04	68.40	87
				03/16/99	665	9.16	69.00	59
				04/06/00	656	9.16	73.90	72
				11/17/00	664	9.03	73.80	46
				04/13/01	660	9.05	72.40	
				02/22/02	665	9.20	73.90	85
				09/02/15	686	9.13	82.10	
O0422	Gautier	HWY 57	MS-GW-15736	04/19/07	825	9.01	109.00	58
				07/23/15	790	8.88	96.40	
O0605	Ocean Beach Utility Service	Willow	MS-GW-17154	12/08/15	475	8.00	29.40	
O0613	Ocean Beach Utility Service	Apple	MS-GW-15329	12/08/15	438	8.00	23.40	
P0054	Moss Point	Parallel	MS-GW-01411	06/05/96	535	8.73	137.00	

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
P0068	Pascagoula	North Market	MS-GW-01957	06/05/96	821	8.42	121.00	
				03/19/99	710	8.10	116.00	22
P0069	Pascagoula	Telephone	MS-GW-01958	06/05/96	985	8.55	171.00	
				03/19/99	860	8.17	176.00	
				11/03/99	1100	8.08	170.00	38
				05/08/03	1020	8.16	166.00	52
				03/14/05	980	8.06	144.00	55
				01/12/16	1013	8.01	192.00	
P0072	Pascagoula Ice			06/05/96	857	7.89	154.00	
				03/18/99	890	7.79	196.00	
				11/05/99	1000	7.94	159.00	
P0108	Jackson Co. Port Athority	West Bank	MS-GW-01649	02/27/95	1400	8.75	301.00	
				03/17/99	1270	8.71	312.00	
				03/28/12	1550	8.56	300.00	
P0124	Pascagoula	Communny Well No. 1	MS-GW-01954	02/27/95	1590	8.24	360.00	
				06/05/96	1006	8.42	284.00	
				05/08/03	1714	8.70	375.00	79
				03/04/05	1640	8.66	292.00	65
				01/11/07	1660		335.00	
				04/12/10	1690	8.57	339.00	74
				03/28/12	1160	8.34	200.00	
				04/11/14	1611	8.74	321.00	76

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
P0134	Pascagoula	Beach	MS-GW-14952	03/17/99	860	9.11	123.00	
				05/07/03	966	8.95	119.00	169
				03/09/05	916	8.87	90.50	132
				01/28/09	971	8.91	136.00	75
				04/09/10	930	8.87	112.00	112
				11/15/11	955	9.51	117.00	104
				04/11/14	814	9.05	109.00	112
P0145	Ingalls Shipbuilding	East Bank	MS-GW-01680	06/06/96	1100	8.48	595.00	
				08/05/98	2300	7.74	580.00	
				11/05/99	4000	8.46	572.00	
				05/16/05	2180	8.53	512.00	23
				03/28/12	2370	8.43	610.00	
P0150	Pascagoula	Communy Well No. 2	MS-GW-01955	07/12/77	1300	8.40	300.00	
				06/20/79	1400	8.40	290.00	
				08/27/81	1300	8.70	280.00	
				10/20/82	1430	8.60	270.00	
				04/24/85	1450	8.60	300.00	
				06/24/86		8.60	280.00	50
				06/21/88	1400	8.60	270.00	
				03/15/91		8.60	307.00	60
				01/14/92	1510	8.60	290.00	
				03/25/93	1550	8.60	320.00	
				02/24/95	1640	8.71	337.00	
				07/27/95	1650	8.40	320.00	
				01/17/96	1660	8.40	335.00	
				04/05/96		8.60	360.00	40
				06/05/96	1600	8.69	349.00	
				07/31/96	1648	8.54	364.00	
				01/16/97	1635	8.48	357.70	
Specific Conductance Measured in umhos/cm			Chlorides Measured in mg/L		Color Measured in Platinum Colbalt Units			

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
P0150	Pascagoula (Continued)	Communy Well No. 2	MS-GW-01955	07/23/97	1625	8.41	368.00	
				02/18/98	1689	8.50	348.00	
				07/16/98	1730	8.62	324.00	42
				01/21/99	1759	8.61	357.00	56
				08/26/99	1732	8.74	423.00	55
				11/03/99	1806	8.69	405.00	67
				09/14/00	1790	8.61	399.00	60
				02/21/01	1759	8.64	382.00	56
				01/15/02	1818	8.67	400.00	44
				05/07/03	1832	8.68	424.00	55
				04/15/04	1828	8.61	434.00	57
				03/09/05	1775	8.68	331.00	59
				11/28/09	1813	8.61	381.00	26
				04/09/10	1994	8.57	497.00	51
				11/15/11	2060	8.10	512.00	66
				03/28/12	1990	8.55	420.00	
				04/11/14	1965	8.66	420.00	56
				05/06/15	2000	8.67	445.00	
				08/17/16	2012	8.52	449.00	
P0226	Moss Point	Neese	MS-GW-12018	03/11/05	712	9.02	73.30	48
P0229	Moss Point	Bellview	MS-GW-01412	06/05/96	1114	8.72	208.00	
				03/19/99	1020	8.79	212.00	61
				05/09/03	1296	8.76	234.00	76
				03/11/05	1256	8.75	199.00	91
P0348	Ingalls Shipbuilding	East Bank	MS-GW-01679	06/06/96	802	8.68	269.00	
				05/12/05	1150	8.76	176.00	86
Specific Conductance Measured in umhos/cm			Chlorides Measured in mg/L		Color Measured in Platinum Colbalt Units			

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
P0349	Ingalls Shipbuilding	West Bank No. 2	MS-GW-01681	05/12/05	717	8.16	218.00	118
				03/28/12	1800	8.32	380.00	
				11/04/15	761	8.21	107.00	
P0355	Moss Point	Community	MS-GW-01414	03/18/99	1080	8.79	222.00	66
				05/09/03	1310	8.81	224.00	72
				03/11/05	1260	8.80	177.00	76
P0372	Pascagoula	Communny Well No. 3	MS-GW-01956	09/08/82		7.50	181.00	50
				06/21/88	1050	8.00	190.00	
				03/15/91		8.00	193.00	
				01/14/92	1070	8.20	180.00	
				03/25/93	1040		180.00	
				02/23/95	987	8.15	181.00	25
				07/27/95	1060	8.00	216.00	
				04/05/96		8.30	190.00	
				07/31/96	1021	8.04	184.00	
				07/23/97	983	7.89	178.00	
				02/18/98	993	8.05	172.00	32
				07/16/98	1061	8.15	175.00	
				01/21/99	1056	8.19	184.00	
				08/26/99	1045	8.22	206.00	
				11/03/99	1058	8.23	183.00	
				09/14/00	1056	8.16	186.00	40
				02/21/01	1056	8.17	184.00	47
				01/15/02	1057	8.21	188.00	31
				05/07/03	1059	8.21	175.00	91
				04/15/04	1054	8.11	182.00	40
				03/09/05	1050	8.15	142.00	48
				12/07/07	1048	8.55	190.00	49
				04/09/10	1284	8.71	218.00	140
Specific Conductance Measured in umhos/cm		Chlorides Measured in mg/L		Color Measured in Platinum Colbalt Units				

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
P0373	Ingalls Shipbuilding	West Bank No. 1	MS-GW-01678	05/12/05	742	8.64	96.70	31
				03/28/12	780	8.29	101.00	
				11/04/15	786	8.43	111.00	
P0376	Escatawpa - Moss Point	Rabie	MS-GW-12019	06/07/96	733	9.02	59.00	77
				03/18/99	690	8.97	56.00	
				03/11/05	766	9.04	61.90	
P0382	Moss Point	Howze	MS-GW-01415	02/22/95	940	8.85	158.00	55
				05/09/03	971	8.92	135.00	
				03/11/05	931	8.89	123.00	
				05/28/09	973	8.89	136.00	
P0409	Ingalls Shipbuilding	West Bank No. 3	MS-GW-01682	05/12/05	710	8.28	91.50	
				03/28/12	778	8.32	112.00	
				11/04/15	753	8.24	106.00	
P0429	State of Mississippi	Home Port	MS-GW-07765	04/11/89		8.29		71
				07/31/96	646	8.41		
				02/12/97	NA	8.10	125.00	
				06/16/99	794	8.60	112.00	
				04/05/00	797	8.68	107.00	
				09/14/00	793	8.51	108.00	
				02/21/01	793	8.52	152.00	
				01/16/02	806	8.51	117.00	
				05/08/03	800	8.61	114.00	
				04/14/04	804	8.51	216.00	
				03/10/05	800	8.62	93.50	
				04/03/09	781	8.02	113.00	
Specific Conductance Measured in umhos/cm			Chlorides Measured in mg/L		Color Measured in Platinum Colbalt Units			

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
P0429	State of Mississippi (Continued)	Home Port	MS-GW-07765	07/28/10	357	8.57	125.00	44
				03/29/12	812	8.48	117.00	51
				08/12/15	800	7.92	128.00	
P0430	State of Mississippi	Home Port	MS-GW-07766	05/02/89	NA	8.09	101.00	
				03/30/93	765	8.00	100.00	
				02/22/95	710	8.02	110.00	
				07/27/95	762	8.36	108.00	
				01/17/96	747	8.20	132.00	
				01/16/97	743	7.90	113.00	
				02/19/97	730	7.67	113.00	
				07/23/97	742	8.24	110.00	
				02/18/98	755	8.46	118.00	
				07/16/98	778	8.59	104.00	38
				01/21/99	776	8.63	110.00	54
				06/16/99	773	8.74	109.00	72
				04/05/00	780	8.74	106.00	51
				02/21/01	790	8.19	109.00	45
				01/16/02	782	8.66	121.00	60
				05/07/03	754	8.72	114.00	65
				04/14/04	782	8.56	102.00	58
				03/10/05	781	8.63	86.00	66
				07/28/10	690	8.51	108.00	39
				03/29/12	803	7.80	121.00	
				08/12/15	766	8.57	111.00	
P0455	Moss Point	Payne	MS-GW-14774	03/19/99	830	8.87	148.00	
				05/09/03	1010	8.91	138.00	51
				03/11/05	975	8.87	119.00	33
				05/28/09	1450		254.00	

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
P0458	Pascagoula	14th street	MS-GW-15791	05/08/03	974	8.10	153.00	36
				03/09/05	915	8.02	121.00	33
				11/15/11	964		155.00	
				09/01/15	985	8.02	159.00	
P0488	Moss Point	Palmetto	MS-GW-16158	05/28/09	1378	8.50	254.00	
				01/12/16	1241	8.60	227.00	
P0495	Pascagoula	Communny	MS-GW-16852	05/06/15	1088	8.33	185.00	
				08/17/16	1096	8.21	187.00	
Q0019	Omega Protein Inc.	Zapata	MS-GW-08529	06/05/96	1010	8.28	424.00	
				08/17/16	1530	8.57	442.00	
Q0034	Orange Grove School			12/15/93	1540	8.00	174.00	
				04/03/09	1680	8.34		262
				04/07/00	1600	8.51	190.00	250
				08/17/16	1740	8.54	188.00	
Q0043	Don Glennon	Fish Camp on Cumbest Bayou		02/23/95	1310	8.50	228.00	
Q0110	Miss. Phosphate		MS-GW-06127	06/07/96	1023	8.36	151.00	
				03/19/99	900	8.45	150.00	62
				01/10/07	1040		144.00	
				09/23/15	1045	8.40	183.00	

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
Q0137	Chevron Products Co.	North Well	MS-GW-02132	06/27/63		8.30	103.00	65
				07/15/64	842		110.00	
				10/21/64	896		110.00	
				01/05/66	887		120.00	
				07/14/77	1050		170.00	40
				06/21/79	1100		170.00	
				09/09/81	1100		200.00	
				04/24/85	975		140.00	
				06/22/88	1010		170.00	40
				01/15/92	1050		150.00	50
				03/23/93	1090	7.90	160.00	40
				02/23/95	1020	8.12	160.00	
				08/31/95	1074	8.20	142.00	
				07/31/96	1081	8.09	172.00	
				07/23/97	1070	7.90	157.00	
				02/18/98	1018	8.16	144.00	
				07/16/98	1086	8.23	165.00	70
				01/21/99	1120	8.31	154.00	67
				08/26/99	1073	8.50	188.00	
				04/06/00	1106	8.34	161.00	80
				09/14/00	1099	8.18	167.00	74
				02/21/01	1071	8.21	170.00	73
				01/16/02	1032	8.35	148.00	97
				05/08/03	1001	8.41	140.00	160
				04/15/04	1054	8.41	145.00	112
				03/11/05	1020	8.15	137.00	
				04/11/08	1090		168.00	
				03/04/09	1032	8.36	139.00	
				09/23/10	979	8.35	140.00	107
				11/16/11	1021	8.65	143.00	143
				11/11/14	1067	8.43	159.00	90
				05/06/15	1033	8.45	149.00	
				08/17/16	1052	8.25	166.00	
Specific Conductance Measured in umhos/cm				Chlorides Measured in mg/L		Color Measured in Platinum Colbalt Units		

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
Q0160	Morton East			09/13/93	878	6.82	115.90	
Q0180	Pascagoula	B. C.	MS-GW-01961	07/12/77	1200	8.40	240.00	
				06/20/79	1350	8.50	260.00	
				09/08/82		8.60	257.00	50
				10/20/82	1300	8.50	230.00	
				04/24/85	1280	8.70	170.00	
				06/17/86		8.60	228.00	40
				10/22/86	1580	8.70	310.00	
				07/01/87	1290	8.60	250.00	
				06/21/88	1300	8.80	250.00	
				03/15/91		8.60	268.00	55
				01/14/92	1360	8.70	240.00	
				03/25/93	1340	8.66	250.00	
				02/24/95	1426	8.60	275.00	
				07/27/95	1420	8.50	250.00	
				02/21/96	1362	8.60	245.00	
				04/05/96		8.50	280.00	40
				07/31/96	1379	8.61	279.00	
				01/16/97	1329	8.59	273.40	
				07/23/97	1378	8.42	286.00	
				02/18/98	1413	8.55	266.00	
				07/16/98	1440	8.73	259.00	50
				02/18/99	1467	8.77	284.00	84
				08/26/99	1449	8.85	297.00	62
				11/03/99	1483	8.76	284.00	86
				04/06/00	1446	8.80	275.00	84
				09/14/00	1435	8.72	281.00	75
				02/21/01	1434	8.75	280.00	54
				01/15/02	1440	8.75	303.00	81
				04/15/04	1423	8.69	282.00	80
				03/09/05	1455	8.77	211.00	197
Specific Conductance Measured in umhos/cm		Chlorides Measured in mg/L		Color Measured in Platinum Colbalt Units				

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
Q0180	Pascagoula (Continued)	B. C.	MS-GW-01961	12/07/07	1463	9.01	317.00	62
				01/28/09	1436	8.77	248.00	49
				04/09/10	1479	8.80	283.00	70
				11/15/11	1421	9.27	275.00	69
				04/11/14	1423	8.87	254.00	73
				09/01/15	1466	8.65	136.00	
Q0181	Pascagoula	Douglas	MS-GW-01962	02/24/95	1779	8.41	384.00	
				05/07/03	1700	8.69	377.00	64
Q0293	Pascagoula	Sears	MS-GW-01959	03/17/99	680	8.23	91.00	93
				05/08/03	743	8.23	90.30	
				03/09/05	700	8.17	85.10	115
				09/01/15	708	8.23	84.20	
Q0379	Jackson Co. Port Authority			08/12/15	1072	8.57	171.00	
Q0417	Moss Point	Sue Ellen	MS-GW-01413	03/18/99	1010	8.74	206.00	
				05/09/03	1250	8.23	209.00	57
Q0420	Pascagoula	Chateau	MS-GW-01960	02/23/95	860	8.12	119.00	
				03/17/99	780	8.17	103.00	60
				05/07/03	898	8.16	100.00	76
				03/09/05	850	8.15	91.50	72
				09/01/15	858	8.03	115.00	

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
Q0429	MDOT		MS-GW-01277	04/03/09	1790		189.00	
				01/27/16	1532	8.80	259.00	
				08/03/16	1500	8.55	248.00	
Q0430	MDOT		MS-GW-01278	02/27/95	1320	8.91	224.00	92
				03/16/99	1200	8.84	230.00	
				08/03/16	1277	8.90	228.00	
Q0434	Moss Point	Hardy's	MS-GW-01416	06/07/96	510	9.00	51.00	
Q0445	Jackson Co. Port Authority	Surface Water Plant		02/27/95	660	8.50	173.00	
Q0456	John Hudson	Alligator Farm		06/09/92	1520	8.80	250.00	
				02/23/95	1800	8.70	305.00	
				07/26/95	1840	8.48	288.00	
				01/16/96	1829	8.50	359.00	
				01/16/97	1845	8.50	319.20	
				08/06/97	1863	8.49	325.00	
				02/18/98	1857	8.47	301.00	
				07/15/98	1936	8.58	322.00	104
				01/21/99	1966	8.54	322.00	103
				06/16/99	1962	8.68	378.00	104
				08/26/99	1939	8.71	349.00	102
				11/02/99	1971	8.59	347.00	127
				04/04/00	1957	8.69	341.00	111
				09/14/00	1992	8.56	353.00	120
				02/20/01	1974	8.59	345.00	91
				01/16/02	2009	8.64	344.00	100
				05/07/03	1997	8.65	354.00	103
Specific Conductance Measured in umhos/cm		Chlorides Measured in mg/L		Color Measured in Platinum Colbalt Units				

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
Q0456	John Hudson (Continued)	Alligator Farm		04/14/04	2001	8.56	368.00	94
				03/10/05	2017	8.66	306.00	103
				01/09/07	2230		378.00	
				05/28/09	2045	8.70	374.00	108
				09/23/10	2140	8.85	317.00	97
				11/16/11	1984	8.53	393.00	88
				04/11/14	1948	8.74	338.00	96
				05/06/15	1947	8.64	436.00	
				01/12/16	2001	8.54	380.00	
Q0464	Jimmy Stork			04/29/93	1063	8.22	161.00	
Q0465	Norman Saksa			04/19/93	950	8.00	130.00	
				02/23/95	884	7.95	130.00	
				07/28/95	949	7.92	112.00	
				01/16/96	929	8.40	123.00	
				07/30/96	914	7.58	119.00	
				01/16/97	1080	7.75	127.50	
				07/23/97	931	7.71	127.00	
				02/18/98	888	7.82	129.00	
				07/15/98	944	7.71	116.00	21
				01/21/99	948	7.86	125.00	24
				06/16/99	940	7.89	135.00	40
				04/04/00	938	7.86	125.00	29
				09/14/00	931	7.67	129.00	57
				02/20/01	961	7.84	137.00	27

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Jackson Co. Basic Water Quality Analysis

Well No.	Owner Name	Well Name	OLWR Permit No.	Sample Date	Conductance	pH	Chlorides	Color
Q0600	Moss Point	New Sue Ellen	MS-GW-16157	05/09/03	1219	8.82	209.00	57
				05/28/09	1260	8.94	205.00	65
				08/12/15	1278	8.84	211.00	
Q0601	Moss Point	Hubert	MS-GW-16159	05/28/09	1290	8.85	218.00	71
				08/12/15	1286	8.86	217.00	
Q0633	Grand Bay NERR			04/15/16	584	7.34	80.90	

Specific Conductance Measured in umhos/cm

Chlorides Measured in mg/L

Color Measured in Platinum Colbalt Units

Table 5

Jackson County Detailed Water Quality Analysis

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

A0108 Brian Davis

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
03/22/16	8.90	<MQL	<MQL	<MQL	450 ug/L	0.553 mg/L	NA	117 mg/L	359 umhos/cm	17.2 mg/L	176 mg/L	<MQL	145 mg/L	<MQL	<MQL

Well No. Owner Name

A0135 Vestry Com. Center

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
03/22/16	8.95	<MQL	<MQL	118 ug/L	407 ug/L	1.44 mg/L	NA	81.9 mg/L	266 umhos/cm	3.3 mg/L	139 mg/L	<MQL	116 mg/L	1.01 mg/L	13.4 mg/L

Well No. Owner Name

B0060 Tommy Tootle Jr.

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
03/22/16	9.00	<MQL	<MQL	<MQL	364 ug/L	0.535 mg/L	NA	134 mg/L	392 umhos/cm	20.6 mg/L	206 mg/L	<MQL	158 mg/L	1.12 mg/L	<MQL

Well No. Owner Name

C0145 Jackson Co. Utility

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
04/17/15	7.58	<MQL	766 ug/L	680 ug/L	1390 ug/L	2.55 mg/L	NA	31.9 mg/L	139 umhos/cm	2.7 mg/L	88 mg/L	8.4 mg/L	50 mg/L	0.143 mg/L	10.1 mg/L

Well No. Owner Name

C0146 Jackson Co. Utility

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
04/17/15	8.77	<MQL	<MQL	242 ug/L	958 ug/L	1.05 mg/L	NA	101 mg/L	346 umhos/cm	10.4 mg/L	204 mg/L	<MQL	164 mg/L	0.478 mg/L	<MQL

Well No. Owner Name

D0267 First Federal savings

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
04/13/16	8.67	<MQL	<MQL	319 ug/L	665 ug/L	1.84 mg/L	NA	100 mg/L	421 umhos/cm	13.9 mg/L	201 mg/L	6.3 mg/L	188 mg/L	0.339 mg/L	<MQL

Well No. Owner Name

E0176 Larue Com. Center

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
03/22/16	9.01	<MQL	<MQL	<MQL	609 ug/L	1.23 mg/L	NA	108 mg/L	313 umhos/cm	15.6 mg/L	167 mg/L	<MQL	139 mg/L	<MQL	10 mg/L

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

F0120	Tommy Tootle																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	04/13/16	7.38	<MQL	<MQL	1940 ug/L	2400 ug/L	6.0 mg/L	NA	53 mg/L	259 umhos/cm	4.7 mg/L	134 mg/L	19.2 mg/L	112 mg/L	0.175 mg/L	12.9 mg/L	

Well No. Owner Name

F0164	Vancleave Fire Dept.																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	03/22/16	9.11	<MQL	<MQL	<MQL	500 ug/L	0.79 mg/L	NA	133 mg/L	397 umhos/cm	23.2 mg/L	210 mg/L	<MQL	163 mg/L	0.479 mg/L	<MQL	

Well No. Owner Name

F0464	GMTE Enterprises																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	04/13/16	8.78	<MQL	531 ug/L	537 ug/L	1690 ug/L	1.79 mg/L	NA	91.7 mg/L	384 umhos/cm	6.9 mg/L	199 mg/L	6.3 mg/L	176 mg/L	0.378 mg/L	10.5 mg/L	

Well No. Owner Name

H0172	Jackson Co. Rec.																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	03/22/16	8.86	<MQL	<MQL	153 ug/L	562 ug/L	0.963 mg/L	NA	180 mg/L	757 umhos/cm	25.4 mg/L	362 mg/L	<MQL	365 mg/L	0.270 mg/L	<MQL	

Well No. Owner Name

J0241	W. Jackson Co Util.																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	09/22/15	9.01	<MQL	<MQL	<MQL	384 ug/L	4.18 mg/L	NA	111 mg/L	428 umhos/cm	15.5 mg/L	228 mg/L	<MQL	183 mg/L	0.374 mg/L	<MQL	

Well No. Owner Name

J0344	W. Jackson Co. Utility																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	09/22/15	9.01	<MQL	<MQL	<MQL	471 ug/L	0.702 mg/L	NA	119 mg/L	468 umhos/cm	15.7 mg/L	243 mg/L	<MQL	209 mg/L	0.419 mg/L	<MQL	

Well No. Owner Name

J0566	Jackson Co. Utility																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	04/17/16	8.97	<MQL	<MQL	164 ug/L	991 ug/L	1.69 mg/L	NA	160 mg/L	618 umhos/cm	67.9 mg/L	305 mg/L	<MQL	23.9 mg/L	0.526 mg/L	<MQL	

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

J0567	Jackson Co. Utility	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
		04/17/16	9.08	<MQL	<MQL	104 ug/L	498 ug/L	0.633 mg/L	NA	123 mg/L	420 umhos/cm	23.5 mg/L	230 mg/L	<MQL	NA	0.378 mg/L	NA

Well No. Owner Name

J0590	Jackson Co. Utility	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
		01/28/16	9.03	<MQL	59.2 ug/L	28.7 ug/L	1310 ug/L	1.06 mg/L	NA	119 mg/L	438 umhos/cm	14 mg/L	235 mg/L	<MQL	205 mg/L	0.507 mg/L	<MQL

Well No. Owner Name

K0147	Vancleave Jr. High	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
		01/28/16	9.37	14.2 ug/L	1050 ug/L	58.4 ug/L	371 ug/L	1.69 mg/L	NA	121 mg/L	462 umhos/cm	27.7 mg/L	266 mg/L	<MQL	190 mg/L	0.431 mg/L	<MQL

Well No. Owner Name

K0322	Vancleave High Sch.	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
		01/28/16	9.32	29.2 ug/L	1410 ug/L	125 ug/L	901 ug/L	2.83 mg/L	NA	152 mg/L	560 umhos/cm	24.9 mg/L	362 mg/L	6.7 mg/L	268 mg/L	0.596 mg/L	<MQL

Well No. Owner Name

K0696	Jackson Co. Utility	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
		04/17/15	8.94	<MQL	<MQL	<MQL	1820 ug/L	0.829 mg/L	NA	172 mg/L	611 umhos/cm	69.3 mg/L	358 mg/L	<MQL	199 mg/L	0.373 mg/L	<MQL

Well No. Owner Name

K0738	Jackson Co. Utility	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
		01/28/16	9.03	<MQL	114 ug/L	148 ug/L	643 ug/L	1.21 mg/L	NA	127 mg/L	455 umhos/cm	9.4 mg/L	257 mg/L	<MQL	220 mg/L	0.589 mg/L	<MQL

Well No. Owner Name

L0032	Escatawpa	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
		03/11/05	8.68	27.2 ug/L	12.8 ug/L	751 ug/L	2840 ug/L	<5 mg/L	6210 ug/L	141 mg/L	658 umhos/cm	63.1 mg/L	317 mg/L	9.5 mg/L	256 mg/L	0.898 mg/L	<10 mg/L

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

L127	Miss Power Co.																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	01/13/16	9.04	<MQL	<MQL	<MQL	385 ug/L	0.685 mg/L	NA	154 mg/L	703 umhos/cm	18.3 mg/L	380 mg/L	<MQL	329 mg/L	0.731 mg/L	<MQL	

Well No. Owner Name

L183	Jackson Co. Utility																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	01/27/16	8.78	<MQL	61.3 ug/L	219 ug/L	1230 ug/L	1.49 mg/L	NA	344 mg/L	1145 umhos/cm	47.9 mg/L	637 mg/L	<MQL	529 mg/L	1.64 mg/L	<MQL	

Well No. Owner Name

M349	MDOT																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	01/27/16	8.73	16.1 ug/L	231 ug/L	386 ug/L	1360 ug/L	2.03 mg/L	NA	242 mg/L	919 umhos/cm	140 mg/L	534 mg/L	5.9 mg/L	301 mg/L	0.698 mg/L	<MQL	

Well No. Owner Name

N0066	Coast Water Utility																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	05/12/05	8.74	1.6 ug/L	11.6 ug/L	24.5 ug/L	344 ug/L	<5 mg/L	10700 ug/L	37.8 mg/L	307 umhos/cm	3.3 mg/L	138 mg/L	<3 mg/L	140 mg/L	0.658 mg/L	<10 mg/L	

Well No. Owner Name

N0288	W. Jackson Co Utility																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	09/22/15	8.45	<MQL	<MQL	<MQL	230 ug/L	0.259 mg/L	NA	100 mg/L	332 umhos/cm	9.2 mg/L	179 mg/L	<MQL	152 mg/L	0.388 mg/L	<MQL	

Well No. Owner Name

N0381	W. Jackson Co Utility																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	05/12/05	8.98	16.3 ug/L	14.4 ug/L	180 ug/L	1280 ug/L	<5 mg/L	7920 ug/L	127 mg/L	709 umhos/cm	85 mg/L	324 mg/L	7.2 mg/L	207 mg/L	0.906 mg/L	<10 mg/L	

Well No. Owner Name

N0391	W. Jackson Co Utility																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	05/12/05	8.90	26.7 ug/L	6.84 ug/L	224 ug/L	1190 ug/L	<5 mg/L	7450 ug/L	171 mg/L	827 umhos/cm	104 mg/L	378 mg/L	7.7 mg/L	223 mg/L	0.854 mg/L	<10 mg/L	

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

N0425 Gulf Park Water

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
12/08/15	8.50	<MQL	<MQL	<MQL	305 ug/L	1.17 mg/L	NA	173 mg/L	467 umhos/cm	15.1 mg/L	305 mg/L	<MQL	305 mg/L	0.394 mg/L	<MQL

Well No. Owner Name

N0451 W. Jackson Co Utility.

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
09/22/15	9.14	<MQL	<MQL	<MQL	547 ug/L	0.530 mg/L	NA	127 mg/L	442 umhos/cm	16 mg/L	228 mg/L	<MQL	189 mg/L	0.332 mg/L	<MQL

Well No. Owner Name

N0462 Gulf Park Water

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
12/08/15	8.00	<MQL	<MQL	<MQL	277 ug/L	0.879 mg/L	NA	123 mg/L	351 umhos/cm	8.9 mg/L	232 mg/L	<MQL	223 mg/L	0.402 mg/L	<MQL

Well No. Owner Name

N0496 O. S. Seafood

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/08/03	8.91	3 ug/L	14.2 ug/L	143 ug/L	684 ug/L	<1 mg/L	NA	103 mg/L	352 umhos/cm	6.1 mg/L	165 mg/L	<3 mg/L	164 mg/L	0.726 mg/L	<10 mg/L
04/14/04	8.80	4.4 ug/L	32 ug/L	73 ug/L	400 ug/L	<5 mg/L	11700 ug/L	73.1 mg/L	347 umhos/cm	6.2 mg/L	162 mg/L	<3 mg/L	167 mg/L	0.99 mg/L	NA
04/07/05	8.70	ND	2.78 ug/L	71.7 ug/L	698 ug/L	<5 mg/L	7890 ug/L	36.2 mg/L	382 umhos/cm	9 mg/L	169 mg/L	4.1 mg/L	169 mg/L	0.557 mg/L	<10 mg/L

Well No. Owner Name

N0500 W. Jackson Co Util.

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
09/22/15	8.91	<MQL	<MQL	245 ug/L	1130 ug/L	3.4 mg/L	NA	175 mg/L	640 umhos/cm	72.6 mg/L	296 mg/L	7.21 mg/L	204 mg/L	0.416 mg/L	<MQL

Well No. Owner Name

N0505 W. Jackson Co Util.

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
09/22/15	8.60	<MQL	<MQL	<MQL	235 ug/L	0.175 mg/L	NA	88.8 mg/L	307 umhos/cm	4.1 mg/L	163 mg/L	<MQL	138 mg/L	0.345 mg/L	<MQL

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

N0517 Ocean Springs

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/07/03	9.09	10 ug/L	14 ug/L	44 ug/L	517 ug/L	<1 mg/L	NA	116 mg/L	395 umhos/cm	4.8 mg/L	187 mg/L	<3 mg/L	185 mg/L	0.519 mg/L	<10 mg/L
04/14/04	8.93	35 ug/L	2.3 ug/L	37 ug/L	284 ug/L	<5 mg/L	10900 ug/L	85 mg/L	396 umhos/cm	4.5 mg/L	184 mg/L	<3 mg/L	178 mg/L	0.78 mg/L	NA
03/10/05	8.97	5.63 ug/L	8.41 ug/L	41.6 ug/L	389 ug/L	<5 mg/L	11500 ug/L	73.9 mg/L	393 umhos/cm	4.5 mg/L	178 mg/L	5.1 mg/L	180 mg/L	0.553 mg/L	<10 mg/L
11/03/15	8.98	<MQL	<MQL	<MQL	161 ug/L	0.306 mg/L	NA	118 mg/L	398 umhos/cm	5.5 mg/L	268 mg/L	<MQL	189 mg/L	0.376 mg/L	<MQL

Well No. Owner Name

N0520 Ocean Springs

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/12/05	9.06	1.12 ug/L	3.08 ug/L	22 ug/L	370 ug/L	<5 mg/L	4400 ug/L	50.4 mg/L	348 umhos/cm	4.2 mg/L	162 mg/L	<3 mg/L	164 mg/L	0.950 mg/L	<10 mg/L
11/03/15	9.10	<MQL	<MQL	<MQL	194 ug/L	0.240 mg/L	NA	109 mg/L	354 umhos/cm	4.9 mg/L	189 mg/L	<MQL	165 mg/L	0.340 mg/L	<MQL

Well No. Owner Name

N0543 Ocean Springs

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/12/05	NA	18.1 ug/L	5.37 ug/L	63 ug/L	403 ug/L	<5 mg/L	10600 ug/L	79.5 mg/L	367 umhos/cm	3.9 mg/L	167 mg/L	<3 mg/L	178 mg/L	0.860 mg/L	<10 mg/L
11/03/15	8.65	<MQL	<MQL	<MQL	190 ug/L	0.287 mg/L	NA	121 mg/L	392 umhos/cm	5.1 mg/L	249 mg/L	<MQL	185 mg/L	0.363 mg/L	<MQL

Well No. Owner Name

N0566 Ocean Springs

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
11/03/15	8.07	<MQL	<MQL	<MQL	667 ug/L	1.35 mg/L	NA	177 mg/L	663 umhos/cm	78.7 mg/L	355 mg/L	5.9 mg/L	215 mg/L	0.356 mg/L	<MQL

Well No. Owner Name

N0715 Gulf Park Water

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
12/08/15	8.50	<MQL	<MQL	<MQL	193 ug/L	0.414 mg/L	NA	123 mg/L	254 umhos/cm	5.2 mg/L	167 mg/L	5.9 mg/L	213 mg/L	0.319 mg/L	<MQL

Well No. Owner Name

N0719 Gulf Park Water

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
12/08/15	7.50	<MQL	<MQL	<MQL	291 ug/L	0.732 mg/L	NA	165 mg/L	429 umhos/cm	8.3 mg/L	282 mg/L	<MQL	286 mg/L	0.377 mg/L	<MQL

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

N0738	Gulf Park Water																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	12/08/15	8.00	<MQL	<MQL	113 ug/L	729 ug/L	1.79 mg/L	NA	196 mg/L	601 umhos/cm	96.8 mg/L	396 mg/L	6.1 mg/L	247 mg/L	0.437 mg/L	<MQL	

Well No. Owner Name

N0739	W. Jackson Co Util.																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	09/22/15	9.15	<MQL	<MQL	<MQL	485 ug/L	0.599 mg/L	NA	111 mg/L	442 umhos/cm	17 mg/L	239 mg/L	5.02 mg/L	186 mg/L	0.311 mg/L	<MQL	

Well No. Owner Name

N0741	W. Jackson Co Util.																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	09/22/15	8.64	<MQL	<MQL	<MQL	469 ug/L	0.351 mg/L	NA	133 mg/L	465 umhos/cm	16.3 mg/L	229 mg/L	<MQL	195 mg/L	0.411 mg/L	<MQL	

Well No. Owner Name

N0743	Gulf Park Water																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	12/08/15	NA	<MQL	172 ug/L	<MQL	270 ug/L	0.637 mg/L	NA	159 mg/L	435 umhos/cm	13.6 mg/L	288 mg/L	<MQL	279 mg/L	0.471 mg/L	<MQL	

Well No. Owner Name

N0888	W. Jackson Co Util.																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	09/22/15	8.81	<MQL	<MQL	417 ug/L	1400 ug/L	6.58 mg/L	NA	190 mg/L	675 umhos/cm	90 mg/L	344 mg/L	11.4 mg/L	187 mg/L	0.270 mg/L	<MQL	

Well No. Owner Name

N1043	W. Jackson Co Util.																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	09/22/15	8.97	<MQL	<MQL	263 ug/L	1240 ug/L	4.26 mg/L	NA	167 mg/L	618 umhos/cm	68.6 mg/L	330 mg/L	8.06 mg/L	190 mg/L	0.369 mg/L	<MQL	

Well No. Owner Name

N1048	Ocean Springs																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	11/03/15	8.90	<MQL	285 ug/L	<MQL	133 ug/L	0.23 mg/L	NA	119 mg/L	386 umhos/cm	4.6 mg/L	243 mg/L	<MQL	181 mg/L	0.428 mg/L	<MQL	

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

N1050 W. Jackson Co Util.

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
09/22/15	8.89	<MQL	<MQL	<MQL	247 ug/L	.405 mg/L	NA	115 m/L	394 umhos/cm	4.8 mg/L	197 mg/L	<MQL	185 mg/L	0.486 mg/L	<MQL

Well No. Owner Name

O0074 McVey

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/08/03	8.46	54 ug/L	28.4 ug/L	1400 ug/L	5700 ug/L	11.4 mg/L	NA	613 mg/L	2098 umhos/cm	521 mg/L	1030 mg/L	32.1 mg/L	247 mg/L	0.482 mg/L	<10 mg/L
04/07/05	8.39	74.5 ug/L	13.8 ug/L	1190 ug/L	382 ug/L	8.4 mg/L	5700 ug/L	14 mg/L	2076 umhos/cm	386 mg/L	1010 mg/L	31.1 mg/L	257 mg/L	0.501 mg/L	<10 mg/L
01/13/16	8.37	<MQL	<MQL	1320 ug/L	2780 ug/L	12.2 mg/L	NA	348 mg/L	2049 umhos/cm	NA	1130 mg/L	33 mg/L	251 mg/L	0.407 mg/L	<MQL

Well No. Owner Name

O0197 Saint Andrews

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
07/31/96	9.23	NA	ND	ND	NA	NA	NA	152 mg/L	587 umhos/cm	40.6 mg/L	NA	NA	NA	NA	NA
05/08/03	9.27	8 ug/L	121 ug/L	80 ug/L	784 ug/L	1.0 mg/L	NA	179 mg/L	599 umhos/cm	42.2 mg/L	288 mg/L	4 mg/L	232 mg/L	0.549 mg/L	<10 mg/L
05/21/04	9.17	7.61 ug/L	61 ug/L	122 ug/L	NA	1.3 mg/L	NA	135 mg/L	605 umhos/cm	38.6 mg/L	287 mg/L	4.6 mg/L	236 mg/L	0.551 mg/L	<10 mg/L
04/07/05	8.74	28.5 ug/L	577 ug/L	47.9 ug/L	753 ug/L	<5 mg/L	6070 ug/L	70.2 mg/L	600 umhos/cm	41.6 mg/L	274 mg/L	5.7 mg/L	251 mg/L	0.722 mg/L	<10 mg/L
12/09/15	9.28	<MQL	150 ug/l	<MQL	382 ug/L	1.13 mg/L	NA	154 mg/L	632 umhos/cm	40.8 mg/L	303 mg/L	8.0 mg/L	232 mg/L	0.337 mg/L	<MQL

Well No. Owner Name

O0208 Gautier

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
07/23/15	8.84	<MQL	120 ug/L	260 ug/L	1200 ug/L	2.4 mg/L	NA	233 mg/L	1100 umhos/cm	189 mg/L	591 mg/L	7.05 mg/L	276 mg/L	0.660 mg/L	<MQL

Well No. Owner Name

O0213 Saint Andrews

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
07/31/96	9.08	NA	38 ug/L	ND	NA	NA	NA	157 mg/L	486 umhos/cm	27.1 mg/L	NA	NA	NA	NA	NA
05/08/03	9.22	2 ug/L	6.5 ug/L	64 ug/L	676 ug/L	<1 mg/L	NA	180 mg/L	597 umhos/cm	30.9 mg/L	286 mg/L	<3 mg/L	255 mg/L	0.839 mg/L	<10 mg/L
05/21/04	9.04	157 ug/L	157 ug/L	87.5 ug/L	NA	<1 mg/L	NA	138 mg/L	604 umhos/cm	30.1 mg/L	280 mg/L	<3 mg/L	245 mg/L	0.729 mg/L	<10 mg/L
04/07/05	9.18	ND	13.9 ug/L	49.6 ug/L	726 ug/L	<5 mg/L	6510 ug/L	81.7 mg/L	602 umhos/cm	29.9 mg/L	274 mg/L	3.8 mg/L	261 mg/L	0.736 mg/L	<10 mg/L
12/09/15	9.38	<MQL	<MQL	<MQL	322 ug/L	0.486 mg/L	NA	156 mg/L	629 umhos/cm	29.4 mg/L	309 mg/L	<MQL	254 mg/L	0.367 mg/L	<MQL

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

O0273 Richardson

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/07/03	8.91	ND	25 ug/L	135 ug/L	1310 ug/L	1.6 mg/L	NA	150 mg/L	503 umhos/cm	35.3 mg/L	243 mg/L	5.6 mg/L	200 mg/L	0.715 mg/L	<10 mg/L
04/14/04	8.82	18 ug/L	14 ug/L	116 ug/L	846 ug/L	<5 mg/L	11700 ug/L	104 mg/L	503 umhos/cm	35.6 mg/L	240 mg/L	3.7 mg/L	195 mg/L	0.9 mg/L	NA
03/10/05	8.93	3.13 ug/L	75.7 ug/L	141 ug/L	1290 ug/L	<5 mg/L	11900 ug/L	127 mg/L	511 umhos/cm	35.5 mg/L	231 mg/L	5.4 mg/L	196 mg/L	0.659 mg/L	<10 mg/L

Well No. Owner Name

O283 Miss, Gulf Coast C. C.

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
04/14/16	8.78	<MQL	<MQL	187 ug/L	1080 ug/L	1.68 mg/L	NA	226 mg/L	1075 umhos/cm	186 mg/L	480 mg/L	5.8 mg/L	279 mg/L	0.568 mg/L	<MQL

Well No. Owner Name

O0286 Gautier

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
03/14/05	9.00	19.2 ug/L	6.86 ug/L	111 ug/L	1130 ug/L	<5 mg/L	9350 ug/L	172 mg/L	832 umhos/cm	99 mg/L	400 mg/L	3.8 mg/L	278 mg/L	0.691 mg/L	<10 mg/L
07/23/15	8.89	<MQL	142 ug/L	105 ug/L	545 ug/L	1.06 mg/L	NA	182 mg/L	670 umhos/cm	65.1 mg/L	342 mg/L	<MQL	279 mg/L	0.605 mg/L	<MQL

Well No. Owner Name

O0295 Gautier

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
07/23/15	9.12	<MQL	<MQL	<MQL	428 ug/L	0.740 mg/L	NA	159 mg/L	735 umhos/cm	30.3 mg/L	364 mg/L	<MQL	310 mg/L	0.837 mg/L	<MQL

Well No. Owner Name

O0307 Gautier

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
03/10/05	9.11	4.33 ug/L	47.4 ug/L	68.9 ug/L	979 ug/L	<5 mg/L	8970 ug/L	161 mg/L	664 umhos/cm	53.4 mg/L	316 mg/L	5.4 mg/L	261 mg/L	0.877 mg/L	<10 mg/L
07/23/15	9.12	<MQL	<MQL	<MQL	445 ug/L	0.831 mg/L	NA	159 mg/L	735 umhos/cm	54.4 mg/L	386 mg/L	<MQL	287mg/L	0.665 mg/L	<MQL

Well No. Owner Name

O0310 Ocean Springs (Was Gautier)

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/12/05	8.37	8.8 ug/L	285 ug/L	83.1 ug/L	554 ug/L	<5 mg/L	6030 ug/L	96.8 mg/L	467 umhos/cm	25.3 mg/L	215 mg/L	5.3 mg/L	195 mg/L	01.06 mg/L	<10 mg/L
11/04/15	8.07	<MQL	240 ug/L	<MQL	1230 ug/L	0.731 mg/L	NA	161 mg/L	564 umhos/cm	63.6 mg/L	319 mg/L	5.1 mg/L	183 mg/L	0.363 mg/L	<MQL

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

O0313 Gautier

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/08/03	9.07	2 ug/L	12.3 ug/L	56.3 ug/L	932 ug/L	<1 mg/L	NA	194 mg/L	630 umhos/cm	35.6 mg/L	307 mg/L	3 mg/L	268 mg/L	0.724 mg/L	<10 mg/L
04/14/04	9.00	7.6 ug/L	2.7 ug/L	54 ug/L	582 ug/L	<5 mg/L	NA	140 mg/L	647 umhos/cm	39.8 mg/L	307 mg/L	<3 mg/L	268 mg/L	0.86 mg/L	NA
03/10/05	9.00	ND	33.7 ug/L	29 ug/L	892 ug/L	<5 mg/L	9540 ug/L	171 mg/L	647 umhos/cm	39.6 mg/L	295 mg/L	<3 mg/L	251 mg/L	0.826 mg/L	<10 mg/L
07/23/15	9.08	<MQL	<MQL	<MQL	431 ug/L	0.755 mg/L	NA	153 mg/L	649 umhos/cm	37.1 mg/L	317 mg/L	<MQL	284 mg/L	0.660 mg/L	<MQL

Well No. Owner Name

O0314 Gautier

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
03/10/05	8.80	1.77 ug/L	5.43 ug/L	234 ug/L	2480 ug/L	<5 mg/L	2600 ug/L	285 mg/L	861 umhos/cm	102 mg/L	416 mg/L	7.6 mg/L	211 mg/L	0.656 mg/L	<10 mg/L
07/23/15	8.81	<MQL	<MQL	237 ug/L	1210 ug/L	2.85 g/L	NA	212 mg/L	929 umhos/cm	141 mg/L	498 mg/L	<MQL	250 mg/L	0.833 mg/L	<MQL

Well No. Owner Name

O0319 Gautier

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
03/10/05	8.80	27.3 ug/L	11.3 ug/L	295 ug/L	2230 ug/L	<5 mg/L	8710 ug/L	216 mg/L	860 umhos/cm	109 mg/L	413 mg/L	7.3 mg/L	216 mg/L	0.594 mg/L	<10 mg/L

Well No. Owner Name

O392 National Park Serv. - Horn Is.

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
09/02/15	9.13	<MQL	<MQL	<MQL	761 ug/L	0.991 mg/L	NA	164 mg/L	686 umhos/cm	82.1 mg/L	334 mg/L	<MQL	229 mg/L	0.505 mg/L	<MQL

Well No. Owner Name

O0422 Gautier

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
04/19/07	9.01	<MQL	<MQL	158 ug/L	NA	<MQL	1020 ug/L	120 mg/L	825 umhos/cm	109 mg/L	399 mg/L	5.6 mg/L	227 mg/L	0.626 mg/L	<MQL
07/23/15	8.88	<MQL	<MQL	167 ug/L	1210 ug/L	1.94 mg/L	NA	182 mg/L	790 umhos/cm	96.4 mg/L	438 mg/L	6.18 mg/L	256 mg/L	0.540 mg/L	<MQL

Well No. Owner Name

O0605 Ocean Beach Wtr.

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
12/08/15	8.00	<MQL	<MQL	<MQL	313 ug/L	.631 mg/L	NA	169 mg/L	475 umhos/cm	29.4 mg/L	313 mg/L	<MQL	286 mg/L	0.480 mg/L	<MQL

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

O0613 Ocean Beach Wtr.

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
12/08/15	8.00	<MQL	<MQL	<MQL	327 ug/L	0.541 mg/L	NA	156 mg/L	438 umhos/cm	23.4 mg/L	287 mg/L	<MQL	281 mg/L	0.454 mg/L	<MQL

Well No. Owner Name

P0069 Pascagoula

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/08/03	8.16	4.5 ug/L	34 ug/L	184 ug/L	2900 ug/L	2.3 mg/L	NA	286 mg/L	1020 umhos/cm	166 mg/L	490 mg/L	11.4 mg/L	247 mg/L	01.04 mg/L	<10 mg/L
03/14/05	8.06	95.5 ug/L	428 ug/L	1360 ug/L	3790 ug/L	<5 mg/L	22100 ug/L	230 mg/L	980 umhos/cm	144 mg/L	471 mg/L	12 mg/L	237 mg/L	1.07 mg/L	<10 mg/L
01/12/16	8.01	<MQL	102 ug/L	1340 ug/L	2820 ug/L	2.13 mg/L	NA	186 mg/L	1013 umhos/cm	192 mg/L	565 mg/L	11.5 mg/L	251 mg/L	0.795 mg/L	<MQL

Well No. Owner Name

P0124 Pascagoula

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/08/03	8.70	15 ug/L	12.1 ug/L	456 ug/L	4900 ug/L	5.1 mg/L	NA	547 mg/L	1714 umhos/cm	375 mg/L	826 mg/L	12.6 mg/L	289 mg/L	1.15 mg/L	<10 mg/L
03/04/05	8.66	27.4 ug/L	39 ug/L	380 ug/L	3470 ug/L	<5 mg/L	14200 ug/L	338 mg/L	1640 umhos/cm	292 mg/L	803 mg/L	11.2 mg/L	287 mg/L	1.06 mg/L	<10 mg/L

Well No. Owner Name

P0134 Pascagoula

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/07/03	8.95	19 ug/L	36 ug/L	314 ug/L	3120 ug/L	1.8 mg/L	NA	388 mg/L	966 umhos/cm	119 mg/L	463 mg/L	5 mg/L	304 mg/L	1.13 mg/L	<10 mg/L
03/09/05	8.87	6.53 ug/L	105 ug/L	193 ug/L	3360 ug/L	<5 mg/L	17900 ug/L	180 mg/L	916 umhos/cm	90.5 mg/L	443 mg/L	5.3 mg/L	289 mg/L	1.15 mg/L	<10 mg/L

Well No. Owner Name

P0145 Ingalls

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/16/05	8.53	34.8 ug/L	23.1 ug/L	723 ug/L	5580 ug/L	<5 mg/L	12000 ug/L	426 mg/L	2180 umhos/cm	512 mg/L	1080 mg/L	15.4 mg/L	252 mg/L	1.02 mg/L	<10 mg/L

Well No. Owner Name

P0150 Pascagoula

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
07/31/96	8.54	NA	ND	386 ug/L	NA	NA	NA	374 mg/L	1648 umhos/cm	364 mg/L	NA	NA	NA	NA	NA
05/07/03	8.68	17 ug/L	19.4 ug/L	297 ug/L	2720 ug/L	4.2 mg/L	NA	399 mg/L	1832 umhos/cm	424 mg/L	900 mg/L	12.9 mg/L	275 mg/L	0.942 mg/L	<10 mg/L
04/15/04	8.61	48 ug/L	12 ug/L	449 ug/L	2380 ug/L	NA	12000 ug/L	34.9 mg/L	1828 umhos/cm	434 mg/L	915 mg/L	12.9 mg/L	262 mg/L	1.09 mg/L	NA
03/09/05	8.68	26.1 ug/L	19.9 ug/L	439 ug/L	351 ug/L	5.1 mg/L	7100 ug/L	372 mg/L	1775 umhos/cm	331 mg/L	846 mg/L	12.1 mg/L	264 mg/L	0.957 mg/L	<10 mg/L
01/12/16	8.58	<MQL	<MQL	701 ug/L	2580 ug/L	7.33 mg/L	NA	355 mg/L	1950 umhos/cm	NA	1120 mg/l	19.4 mg/L	286 mg/L	0.7 mg/L	<MQL

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

P0226 Escatawpa-Moss Pt.

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
03/11/05	9.02	NA	3.35 ug/L	266 ug/L	1280 ug/L	<5 mg/L	5760 ug/L	108 mg/L	712 umhos/cm	73.3 mg/L	342 mg/L	5.5 mg/L	255 mg/L	0.772 mg/L	<10 mg/L

Well No. Owner Name

P0229 Moss Point

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/09/03	8.76	19 ug/L	30.4 ug/L	310 ug/L	3200 ug/L	2.5 mg/L	NA	392 mg/L	1296 umhos/cm	234 mg/L	633 mg/L	9.3 mg/L	290 mg/L	1.01 mg/L	<10 mg/L
03/11/05	8.75	31 ug/L	36.6 ug/L	302 ug/L	4360 ug/L	<5 mg/L	9790 ug/L	319 mg/L	1256 umhos/cm	199 mg/L	593 mg/L	10.9 mg/L	277 mg/L	0.988 mg/L	<10 mg/L

Well No. Owner Name

P0348 Ingalls

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/12/05	8.76	18.4 ug/L	77.4 ug/L	305 ug/L	3150 ug/L	<5 mg/L	13100 ug/L	211 mg/L	1150 umhos/cm	176 mg/L	553 mg/L	9.1 mg/L	296 mg/L	1.33 mg/L	<10 mg/L

Well No. Owner Name

P0349 Ingalls

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/12/05	8.16	227 ug/L	NA	1100 ug/L	3350 ug/L	5.0 mg/L	13400 ug/L	169 mg/L	717 umhos/cm	92.8 mg/L	344 mg/L	19.5 mg/L	218 mg/L	1.13 mg/L	<10 mg/L
11/04/15	8.21	<MQL	174 ug/L	2190 ug/L	3040 ug/L	5.31 mg/L	NA	209 mg/L	761 umhos/cm	107 mg/L	479 mg/L	20.6 mg/L	230 mg/L	0.604 mg/L	<MQL

Well No. Owner Name

P0355 Moss Point

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/09/03	8.81	17 ug/L	20 ug/L	292 ug/L	2700 ug/L	2.4 mg/L	NA	395 mg/L	1310 umhos/cm	224 mg/L	625 mg/L	7.6 mg/L	304 mg/L	1.07 mg/L	<10 mg/L
03/11/05	8.80	11.9 ug/L	12.8 ug/L	286 ug/L	3000 ug/L	<5 mg/L	9710 ug/L	255 mg/L	1260 umhos/cm	177 mg/L	614 mg/L	8.9 mg/L	289 mg/L	1.03 mg/L	<10 mg/L

Well No. Owner Name

P0372 Pascagoula

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
07/31/96	8.04	NA	34 ug/L	1750 ug/L	NA	NA	NA	252 mg/L	1021 umhos/cm	184 mg/L	NA	NA	NA	NA	NA
05/07/03	8.21	36.2 ug/L	129 ug/L	1900 ug/L	4840 ug/L	3.8 mg/L	NA	302 mg/L	1059 umhos/cm	175 mg/L	511 mg/L	16.7 mg/L	242 mg/L	0.923 mg/L	<10 mg/L
04/15/04	8.11	78 ug/L	97 ug/L	1833 ug/L	2630 ug/L	<5 mg/L	19400 ug/L	193 mg/L	1054 umhos/cm	182 mg/L	509 mg/L	16.6 mg/L	231 mg/L	0.96 mg/L	NA
03/09/05	8.15	39.7 ug/L	53.2 ug/L	1800 ug/L	3840 ug/L	<5 mg/L	19400 ug/L	236 mg/L	1050 umhos/cm	142 mg/L	491 mg/L	15.8 mg/L	238 mg/L	0.942 mg/L	<10 mg/L

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

P0373 Ingalls

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/12/05	8.64	4.66 ug/L	9.48 ug/L	490 ug/L	1620 ug/L	<5 mg/L	1100 ug/L	114 mg/L	742 umhos/cm	96.7 mg/L	357 mg/L	8.6 mg/L	230 mg/L	1.01 mg/L	<10 mg/L
11/04/15	8.43	<MQL	<MQL	358 ug/L	824 ug/L	2.03 mg/L	NA	222 mg/L	786 umhos/cm	111 mg/L	510 mg/L	7.6 mg/L	225 mg/L	0.517 mg/L	<MQL

Well No. Owner Name

P0376 Escatawpa

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
03/11/05	9.04	NA	43.7 ug/L	125 ug/L	920 ug/L	<5 mg/L	5840 ug/L	153 mg/L	766 umhos/cm	61.9 mg/L	369 mg/L	5.4 mg/L	311 mg/L	0.916 mg/L	<10 mg/L

Well No. Owner Name

P0382 Moss Point

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/09/03	8.92	9.11 ug/L	7.13 ug/L	235 ug/L	1910 ug/L	1.8 mg/L	NA	282 mg/L	971 umhos/cm	135 mg/L	464 mg/L	5.6 mg/L	258 mg/L	0.706 mg/L	<10 mg/L
03/11/05	8.89	4.27 ug/L	11.9 ug/L	228 ug/L	2280 ug/L	<5 mg/L	8820 ug/L	169 mg/L	931 umhos/cm	123 mg/L	450 mg/L	6.1 mg/L	251 mg/L	0.751 mg/L	<10 mg/L
05/28/09	8.89	<MQL	<MQL	212 ug/L	1290 ug/L	NA	8470 ug/L	101 mg/L	973 umhos/cm	136 mg/L	460 mg/L	6.4 mg/L	252 mg/L	0.951 mg/L	<MQL

Well No. Owner Name

P0409 Ingalls

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/12/05	8.28	268 ug/L	575 ug/L	1110 ug/L	4620 ug/L	5.3 mg/L	12800 ug/L	121 mg/L	710 umhos/cm	91.5 mg/L	343 mg/L	21.5 mg/L	221 mg/L	1.22 mg/L	<10 mg/L
11/04/15	8.24	<MQL	292 ug/L	1950 ug/L	2800 ug/L	4.89 mg/L	NA	200 mg/L	753 umhos/cm	106 mg/L	497 mg/L	19.8 mg/L	228 mg/L	0.600 mg/L	<MQL

Well No. Owner Name

P0429 Home Port

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/08/03	8.61	92 ug/L	192 ug/L	2700 ug/L	4770 ug/L	7.9 mg/L	NA	43 mg/L	860 umhos/cm	114 mg/L	386 mg/L	34.1 mg/L	222 mg/L	0.774 mg/L	<10 mg/L
04/14/04	8.51	89 ug/L	153 ug/L	1600 ug/L	2110 ug/L	5.5 mg/L	NA	156 mg/L	804 umhos/cm	216 mg/L	526 mg/L	21.1 mg/L	208 mg/L	0.82 mg/L	NA
03/10/05	8.62	126 ug/L	175 ug/L	1140 ug/L	3620 ug/L	<5 mg/L	12000ug/L	155 mg/L	800 umhos/cm	93.5 mg/L	369 mg/L	15.5 mg/L	220 mg/L	0.843 mg/L	<10 mg/L
08/12/15	7.92	<MQL	224 ug/L	804 ug/L	1690 ug/L	10.3 mg/L	NA	172 mg/L	800 umhos/cm	128 mg/L	430 mg/L	23.4 mg/L	192 mg/L	0.495 mg/L	<MQL

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

P0430 Home Port

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
5/8/2003	8.72	39 ug/L	78 ug/L	1100 ug/L	3100 ug/L	4.9 mg/L	NA	214 mg/L	754 umhos/cm	114 mg/L	370 mg/L	17 mg/L	216 mg/L	0.721 mg/L	<10 mg/L
04/14/04	8.56	65 ug/L	27 ug/L	904 ug/L	1490 ug/L	<5 mg/L	12500 ug/L	155 mg/L	782 umhos/cm	102 mg/L	372 mg/L	14.8 mg/L	211 mg/L	0.9 mg/L	<10 mg/L
03/10/05	8.63	104 ug/L	87.6 ug/L	938 ug/L	3220 ug/L	<5 mg/L	12100 ug/L	225 mg/L	781 umhos/cm	86 mg/L	357 mg/L	14.7 mg/L	210 mg/L	0.725 mg/L	<10 mg/L
08/12/15	8.57	<MQL	<MQL	830 ug/L	1570 ug/L	5.14 mg/L	NA	176 mg/L	766 umhos/cm	111 mg/L	396 mg/L	12.4 mg/L	220 mg/L	0.495 mg/L	<MQL

Well No. Owner Name

P0455 Moss Point

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/09/03	8.91	14.1 ug/L	19.2 ug/L	238 ug/L	1920 ug/L	2.3 mg/L	NA	298 mg/L	1010 umhos/cm	138 mg/L	482 mg/L	6.9 mg/L	276 mg/L	0.812 mg/L	<10 mg/L
03/11/05	8.87	24.4 ug/L	32.2 ug/L	237 ug/L	2240 ug/L	<5 mg/L	10.4 mg/L	187 mg/L	975 umhos/cm	119 mg/L	470 mg/L	7.1 mg/L	288 mg/L	0.833 mg/L	<10 mg/L

Well No. Owner Name

P0458 Pascagoula

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/08/03	8.10	NA	NA	1600 ug/L	164 ug/L	1.5 mg/L	NA	292 mg/L	974 umhos/cm	153 mg/L	469 mg/L	13 mg/L	249 mg/L	0.721 mg/L	<10 mg/L
03/09/05	8.02	30.9 ug/L	37 ug/L	1530 ug/L	4430 ug/L	<5 mg/L	22700 ug/L	249 mg/L	915 umhos/cm	121 mg/L	442 mg/L	15.2 mg/L	240 mg/L	0.988 mg/L	<10 mg/L
09/01/15	8.02	<MQL	<MQL	1900 ug/L	4120 ug/L	3.23 mg/L	NA	224 mg/L	985 umhos/cm	159 mg/L	445 mg/L	17 mg/L	245 mg/L	0.663 mg/L	<MQL

Well No. Owner Name

P0488 Moss Point

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/28/09	8.50	16.8 ug/L	<MQL	287 ug/L	1390 ug/L	NA	8000 ug/L	156 mg/L	1378 umhos/cm	254 mg/L	688 mg/L	7.8 mg/L	311 mg/L	1.69 mg/L	<MQL
08/12/15	8.83	<MQL	<MQL	258 ug/L	1420 ug/L	2.8 mg/L	NA	311 mg/L	NA	NA	NA	NA	NA	0.780 mg/L	NA
01/12/16	8.60	<MQL	<MQL	226 ug/L	1240 ug/L	2.12 mg/L	NA	228 mg/L	1241 umhos/cm	227 mg/L	705 mg/L	6.9 mg/L	292 mg/L	0.898 mg/L	<MQL

Well No. Owner Name

P495 Pascagoula

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
01/12/16	8.33	<MQL	<MQL	1160 ug/L	1770 ug/L	3.34 mg/L	NA	223 mg/L	1036 umhos/cm	NA	610 mg/L	10.9 mg/L	249 mg/L	0.673 mg/L	<MQL

Well No. Owner Name

Q19 Zapata

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
01/12/16	8.54	<MQL	127 ug/L	544 ug/L	1610 ug/L	2.41 mg/L	NA	403 mg/L	2159 umhos/cm	NA	1140 mg/l	7.9 mg/L	408 mg/L	1.65 mg/L	<MQL

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

Q34	Orange Grove School																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	01/12/16	8.57	<MQL	146 ug/L	387 ug/L	1800 ug/L	2..01 mg/L	NA	345 mg/L	1767 umhos/cm	NA	953 mg/L	7.7 mg/L	611 mg/L	1.00 mg/L	<MQL	

Well No. Owner Name

Q0110	MS Phosphate																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	09/23/15	8.40	<MQL	<MQL	1600 ug/L	3010 ug/L	4.47 mg/L	NA	259 mg/L	1045 umhos/cm	183 mg/L	490 mg/L	14.4 mg/L	275 mg/L	0.782 mg/L	<MQL	

Well No. Owner Name

Q0137	Chevron																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	05/08/03	8.41	19 ug/L	202 ug/L	2100 ug/L	6000 ug/L	3.8 mg/L	NA	312 mg/L	1001 umhos/cm	140 mg/L	510 mg/L	18 mg/L	269 mg/L	1.32 mg/L	<10 mg/L	
	03/11/05	8.15	NA	NA	NA	NA	NA	NA	NA	1020 umhos/cm	137 mg/L	488 mg/L	NA	286 mg/L	1.33 mg/L	<10 mg/L	
	01/12/16	8.18	<MQL	130 ug/L	2540 ug/L	3480 ug/L	4.35 mg/L	NA	211 mg/L	1094 umhos/cm	NA	479 mg/L	21.5 mg/L	310 mg/L	1.04 mg/L	<MQL	

Well No. Owner Name

Q0180	Pascagoula																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	07/31/96	8.59	NA	24 ug/L	151 ug/L	NA	NA	NA	339 mg/L	1379 umhos/cm	279 mg/L	NA	NA	NA	NA	NA	
	04/15/04	8.69	49 ug/L	143 ug/L	277 ug/L	1140 ug/L	<5 mg/L	10700 ug/L	264 mg/L	1423 umhos/cm	282 mg/L	513 mg/L	7.6 mg/L	275 mg/L	1.08 mg/L	NA	
	03/09/05	8.77	7.86 ug/L	28.7 ug/L	271 ug/L	3030 ug/L	<5 mg/L	9660 ug/L	295 mg/L	1455 umhos/cm	211 mg/L	687 mg/L	7.6 mg/L	277 mg/L	1.01 mg/L	<10 mg/L	
	09/01/15	8.65	<MQL	<MQL	335 ug/L	1470 ug/L	2.78 mg/L	NA	360 mg/L	1466 umhos/cm	136 mg/L	347 mg/L	6.5 mg/L	142 mg/L	0.372 mg/L	<MQL	

Well No. Owner Name

Q0181	Pascagoula																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	05/07/03	8.69	18 ug/L	19.3 ug/L	336 ug/L	3120 ug/L	2.8 mg/L	NA	506 mg/L	1700 umhos/cm	377 mg/L	827 mg/L	8.8 mg/L	288 mg/L	0.856 mg/L	<10 mg/L	

Well No. Owner Name

Q0293	Pascagoula																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	05/08/03	8.23	16.2 ug/L	424 ug/L	1100 ug/L	3600 ug/L	1.6 mg/L	NA	218 mg/L	743 umhos/cm	90.3 mg/L	353 mg/L	9.1 mg/L	237 mg/L	1.47 mg/L	<10 mg/L	
	03/09/05	8.17	11.7 ug/L	40.4 ug/L	973 ug/L	4060 ug/L	<5 mg/L	12500 ug/L	170 mg/L	700 umhos/cm	85.1 mg/L	336 mg/L	8.5 mg/L	237 mg/L	1.51 mg/L	<10 mg/L	
	09/01/15	8.23	<MQL	<MQL	968 ug/L	2080 ug/L	1.74 mg/L	NA	173 mg/L	708 umhos/cm	84.2 mg/L	336 mg/L	6.9 mg/L	234 mg/L	1.1 mg/L	<MQL	

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

Q0379 Jackson Co. Port Authority - East Bank

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
08/12/15	8.57	<MQL	<MQL	1320 ug/L	2540 ug/L	4.81 mg/L	NA	237 mg/L	1072 umhos/cm	171 mg/L	518 mg/L	12.9 mg/L	267 mg/L	0.749 mg/L	<MQL

Well No. Owner Name

Q0417 Moss Point

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/09/03	8.23	13 ug/L	10.3 ug/L	279 ug/L	2620 ug/L	2.4 mg/L	NA	327 mg/L	1250 umhos/cm	209 mg/L	604 mg/L	8.4 mg/L	285 mg/L	0.849 mg/L	<10 mg/L

Well No. Owner Name

Q0420 Pascagoula

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/07/03	8.16	21.4 ug/L	742 ug/L	1400 ug/L	4310 ug/L	2.1 mg/L	NA	262 mg/L	898 umhos/cm	100 mg/L	430 mg/L	13 mg/L	277 mg/L	1.1 mg/L	<10 mg/L
03/09/05	8.15	12.5 ug/L	46.8 ug/L	1200 ug/L	4870 ug/L	<5 mg/L	13200 ug/L	199 mg/L	850 umhos/cm	91.5 mg/L	409 mg/L	9.7 mg/L	272 mg/L	1.31 mg/L	<10 mg/L
09/01/15	8.03	<MQL	115 ug/L	1450 ug/L	2720 ug/L	2.4 mg/L	NA	219 mg/L	858 umhos/cm	115 mg/L	383 mg/L	8.8 mg/L	272 mg/L	0.877 mg/L	<MQL

Well No. Owner Name

Q0429 MDOT

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
01/27/16	8.80	<MQL	40.6 ug/L	383 ug/L	1370 ug/L	2.02 mg/L	NA	403 mg/L	1532 umhos/cm	259 mg/L	847 mg/L	5.4 mg/L	433 mg/L	1.72 mg/L	<MQL

Well No. Owner Name

Q0430 MDOT

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
01/27/16	8.94	<MQL	212 ug/L	356 ug/L	1290 ug/L	2.2 mg/L	NA	404 mg/L	1414 umhos/cm	NA	785 mg/L	5.5 mg/L	389 mg/L	1.09 mg/L	<MQL

Well No. Owner Name

Q0456 John Hudson

Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate
05/07/03	8.65	27.4 ug/L	11 ug/L	831 ug/L	3830 ug/L	5.6 mg/L	NA	670 mg/L	1997 umhos/cm	354 mg/L	1010 mg/L	18 mg/L	491 mg/L	1.63 mg/L	<10 mg/L
04/14/04	8.56	46 ug/L	ND	816 ug/L	1690 ug/L	11.1 mg/L	10000 ug/L	396 mg/L	2001 umhos/cm	368 mg/L	1030 mg/L	17.9 mg/L	485 mg/L	2.05 mg/L	NA
03/10/05	8.66	43.4 ug/L	5.4 ug/L	397 ug/L	2740 ug/L	6 mg/L	9030 ug/L	393 mg/L	2017 umhos/cm	306 mg/L	988 mg/L	15.3 mg/L	457 mg/L	1.86 mg/L	<10 mg/L
01/12/16	8.54	<MQL	<MQL	856 ug/L	1780 ug/L	6.52 mg/L	NA	384 mg/L	2001 umhos/cm	380 mg/L	1040 mg/L	18.4 mg/L	287 mg/L	0.692 mg/L	<MQL

Manganese - MN

Iron - Fe

Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na

Jackson Co. Detailed Water Quality Analysis

Well No. Owner Name

Q0600	Moss Point																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	05/28/09	8.94	<MQL	<MQL	215 ug/L	1270 ug/L	NA	7960 ug/L	105 mg/L	1260 umhos/cm	205 mg/L	613 mg/L	6.8 mg/L	286 mg/L	0.955 mg/L	<MQL	
	08/12/15	8.84	<MQL	<MQL	289 ug/L	1630 ug/L	3.24 mg/L	NA	316 mg/L	1278 umhos/cm	211 mg/L	646 mg/L	7.9 mg/L	315 mg/L	0.707 mg/L	<MQL	

Well No. Owner Name

Q0601	Moss Point																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	05/28/09	8.85	<MQL	<MQL	199 ug/L	888 ug/L	NA	7510 ug/L	92.6 mg/L	1290 umhos/cm	218 mg/L	617 mg/L	6.7 mg/L	285 mg/L	1.19 mg/L	<MQL	
	08/12/15	8.86	<MQL	<MQL	260 ug/L	1450 ug/L	2.73 mg/L	NA	298 mg/L	1286 umhos/cm	217 mg/L	608 mg/L	6.81 mg/L	303 mg/L	0.696 mg/L	<MQL	

Well No. Owner Name

Q633	Grand Bay NERR																
	Sample Date	pH	Mn	Fe	Mg	K	CA	Si	Na	Sp. Cond.	Chlorides	TDS	Hardness	Alkalinity	Fluoride	Sulfate	
	04/15/16	7.34	<MQL	4810 ug/L	1730 ug/L	3420 ug/L	2.44 mg/L	NA	133 mg/L	584 umhos/cm	80.9 mg/L	344 mg/L	14.1 mg/L	175 mg/L	0.37 mg/L	<MQL	

Manganese - MN

Iron - Fe

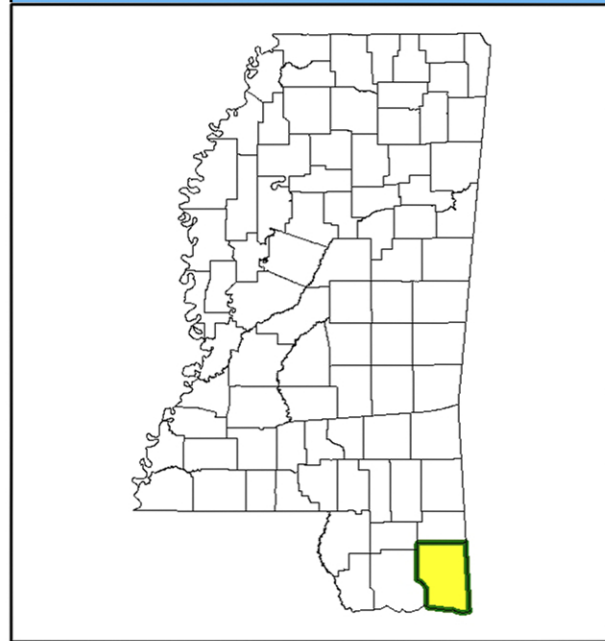
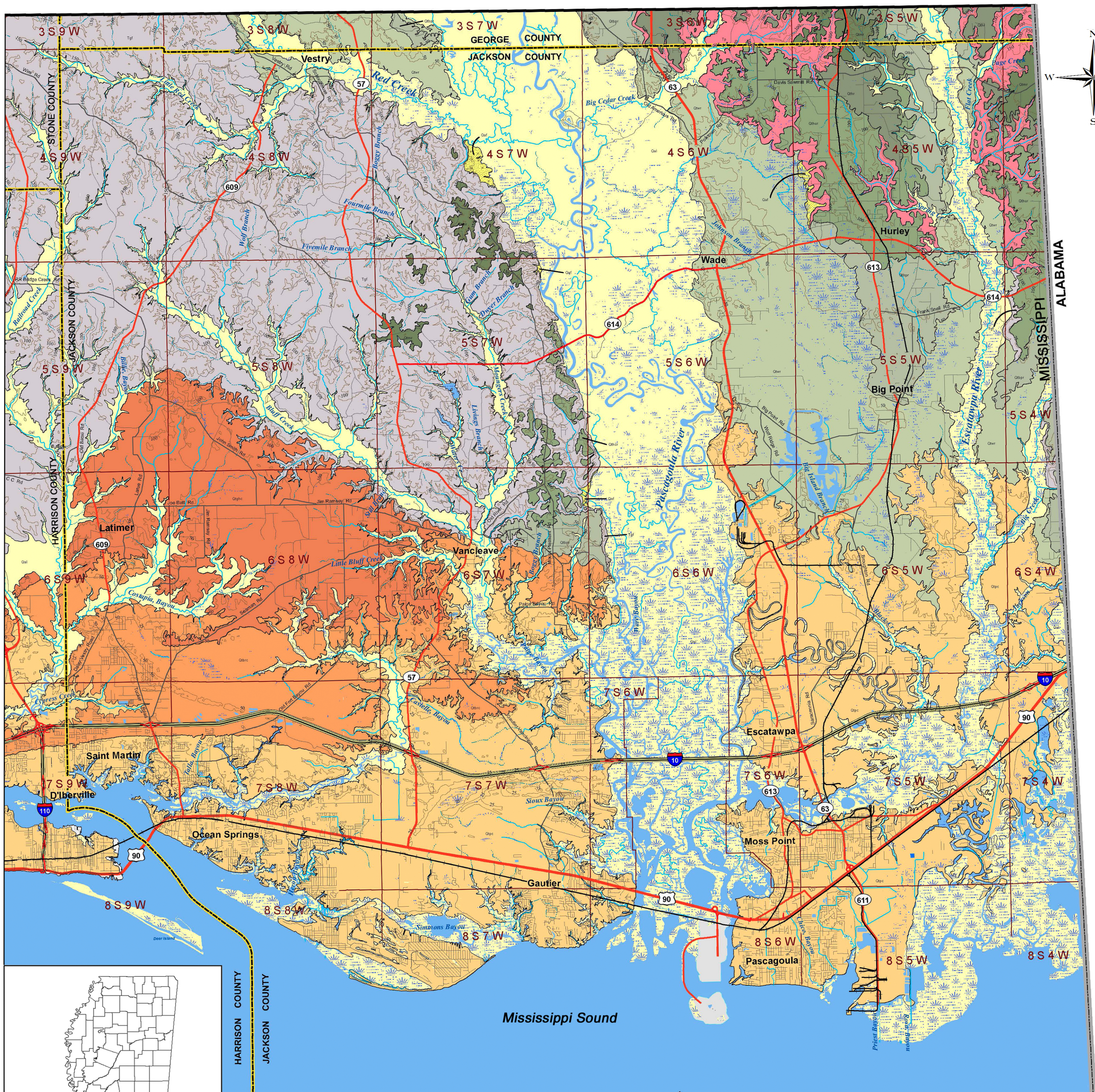
Magnesium - Mg

Potassium - K

Calcium - Ca

Silicon- Si

Sodium - Na



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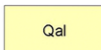

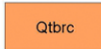

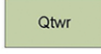
Map Projection: Mississippi Transverse Mercator

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This map prepared under the supervision of
James E. Starnes, RPG
James E. Starnes
James E. Starnes, RPG
August, 2017

MAPPING UNITS

QUATERNARY	HOLOCENE		RECENT FILL
			ALLUVIAL FAN
			ALLUVIUM
		COASTAL TERRACES	
			PAMLICO Interval: 0 to 30 feet; Terrace 25 feet
			BIG RIDGE Interval: 30 to 50 feet; Terrace 50 feet
			GOOD HOPE Interval: 50 to 110 feet; Terrace 100 feet
		RIVER TERRACES	
			WAIDE Interval: 30 to 50 feet; Terrace 50 feet
	PLEISTOCENE		

QUATERNARY	PLEISTOCENE	Qtbrp	BIG POINT Interval: 50 to 80 feet; Terrace 70 feet
		Qthur	HURLEY Interval: 80 to 110 feet; Terrace 100 feet
		Qthr	HARLESTON Interval: 110 to 130 feet; Terrace 130 feet
		Qtmr	MOVELLA Interval: 130 to 180 feet; Terrace 150 feet
TERTIARY	MIocene+Pliocene	Tgf	GRAHAM FERRY FORMATION
		Tp	PASCAGOULA FORMATION

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State Geologist

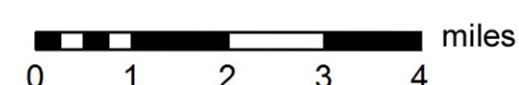
Plate 1

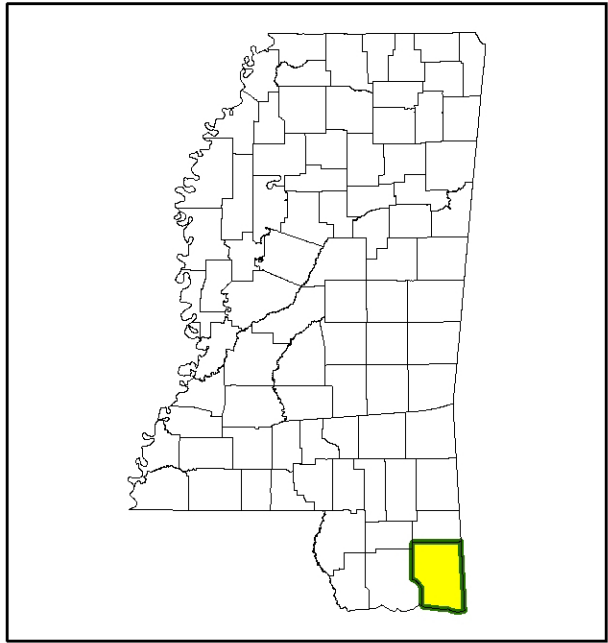
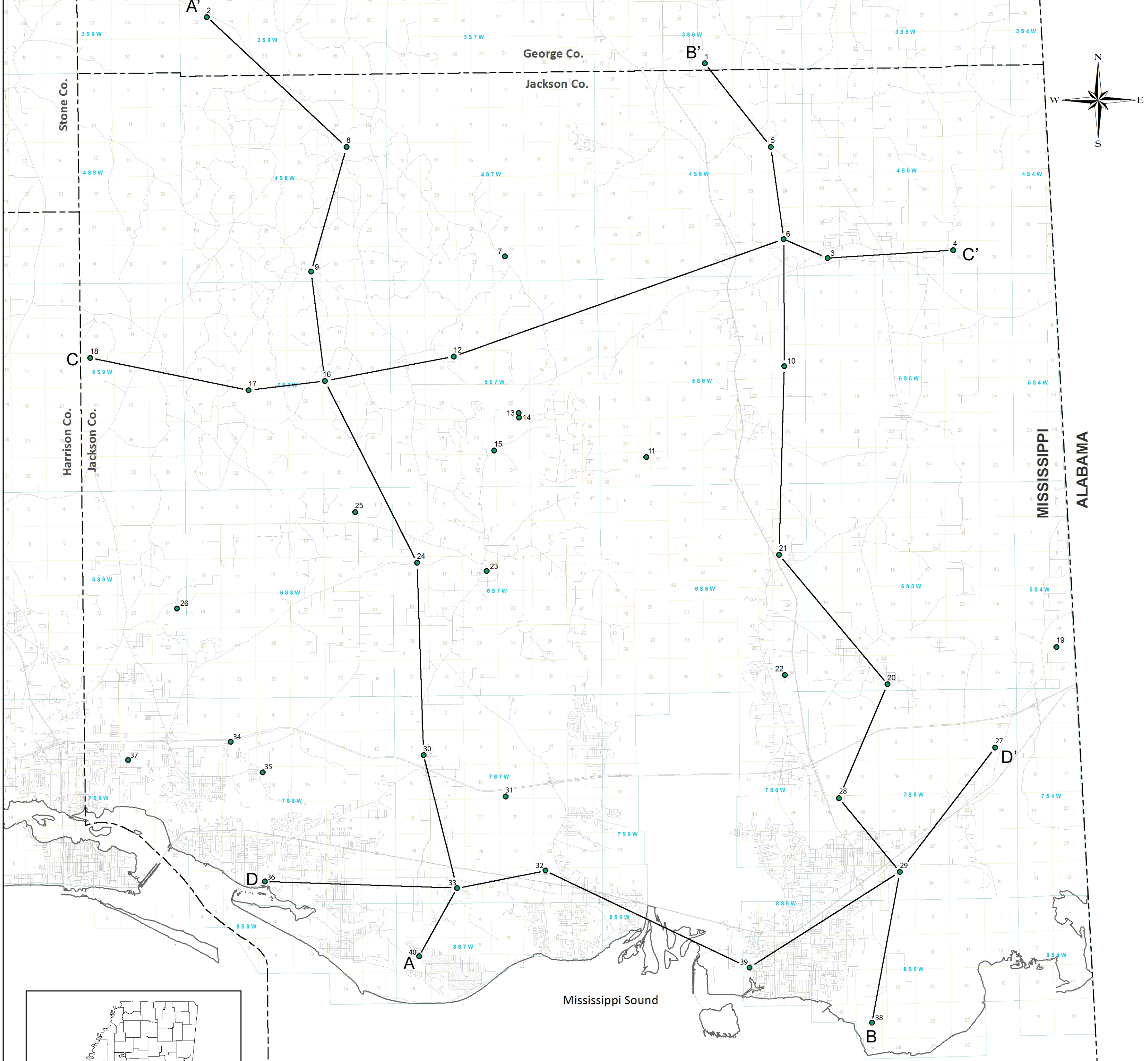
Geologic Map of Jackson County

Modified From Office of Geology Open File Report 285
by Lindsey Stewart and James E. Starnes, RPG

August, 2017

Scale 1 inch = 2 miles





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Map Projection: Mississippi Transverse Mercator

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Well information presented in Table 1

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Office of Geology
In Cooperation With the Office of Land and Water Resources
Open-File Report 286
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State Geologist

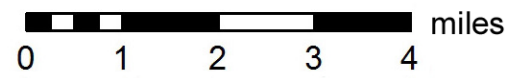
This map prepared under the supervision of James H. Hoffmann, RPG



James H. Hoffmann

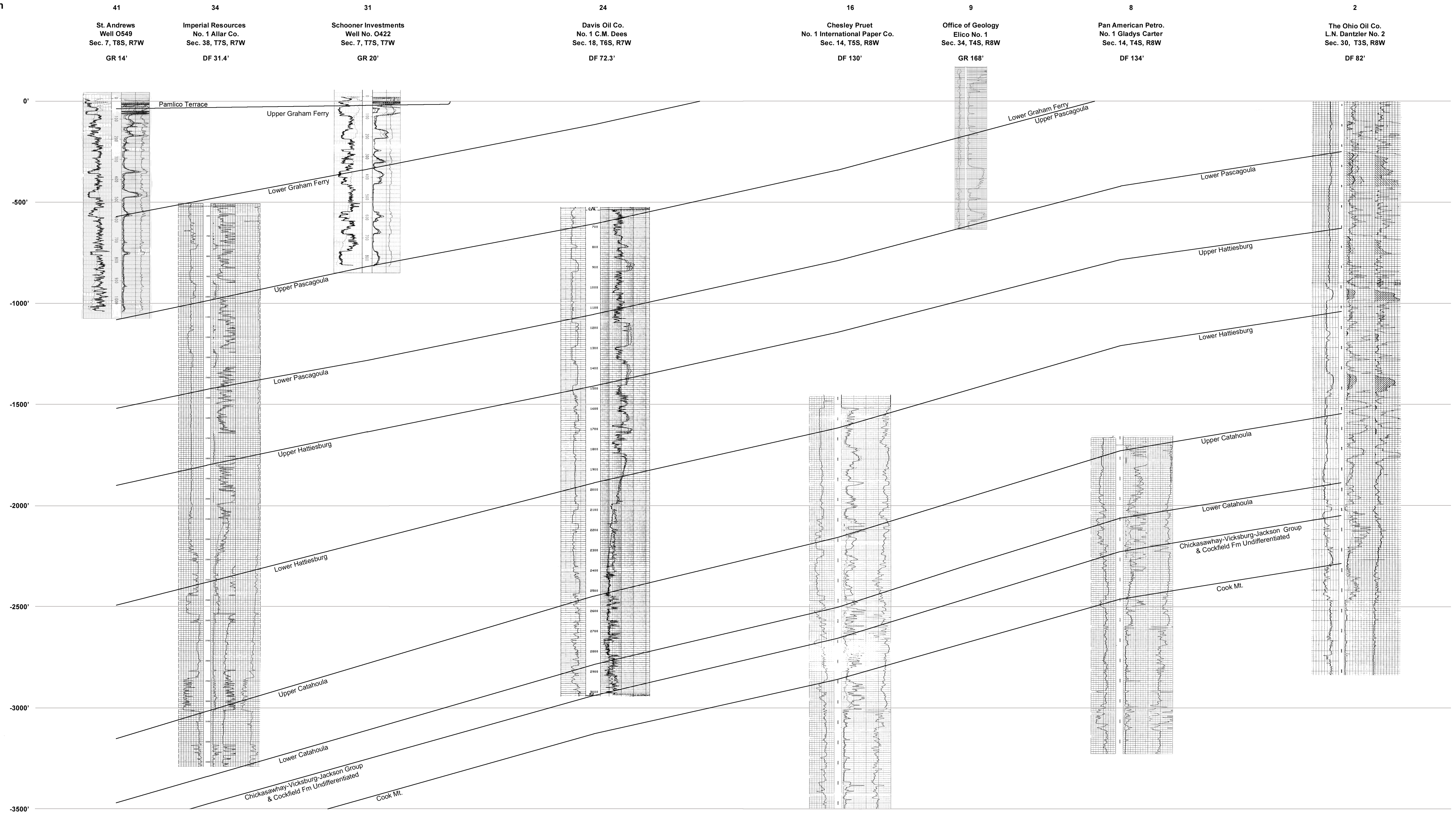
James H. Hoffmann, RPG
August 1, 2017

Plate 2
Location Plat for Cross Sections
and Wells Used to Map
Aquifer Intervals of the Grand Gulf Aquifer System
Jackson Co., Mississippi
by Lindsey Stewart
August, 2017 Scale 1 inch = 2 miles



A
South

A'
North



This cross section prepared under the supervision of James H. Hoffmann, RPG.



James H. Hoffmann
James H. Hoffmann, RPG
August 1, 2017

Mississippi Department of Environmental Quality
Office of Geology
In Cooperation with the Office of Land and Water Resources

Open - File Report 286

Michael B. E. Bograd
State Geologist

Location of cross section is shown on the location plat, Plate 2

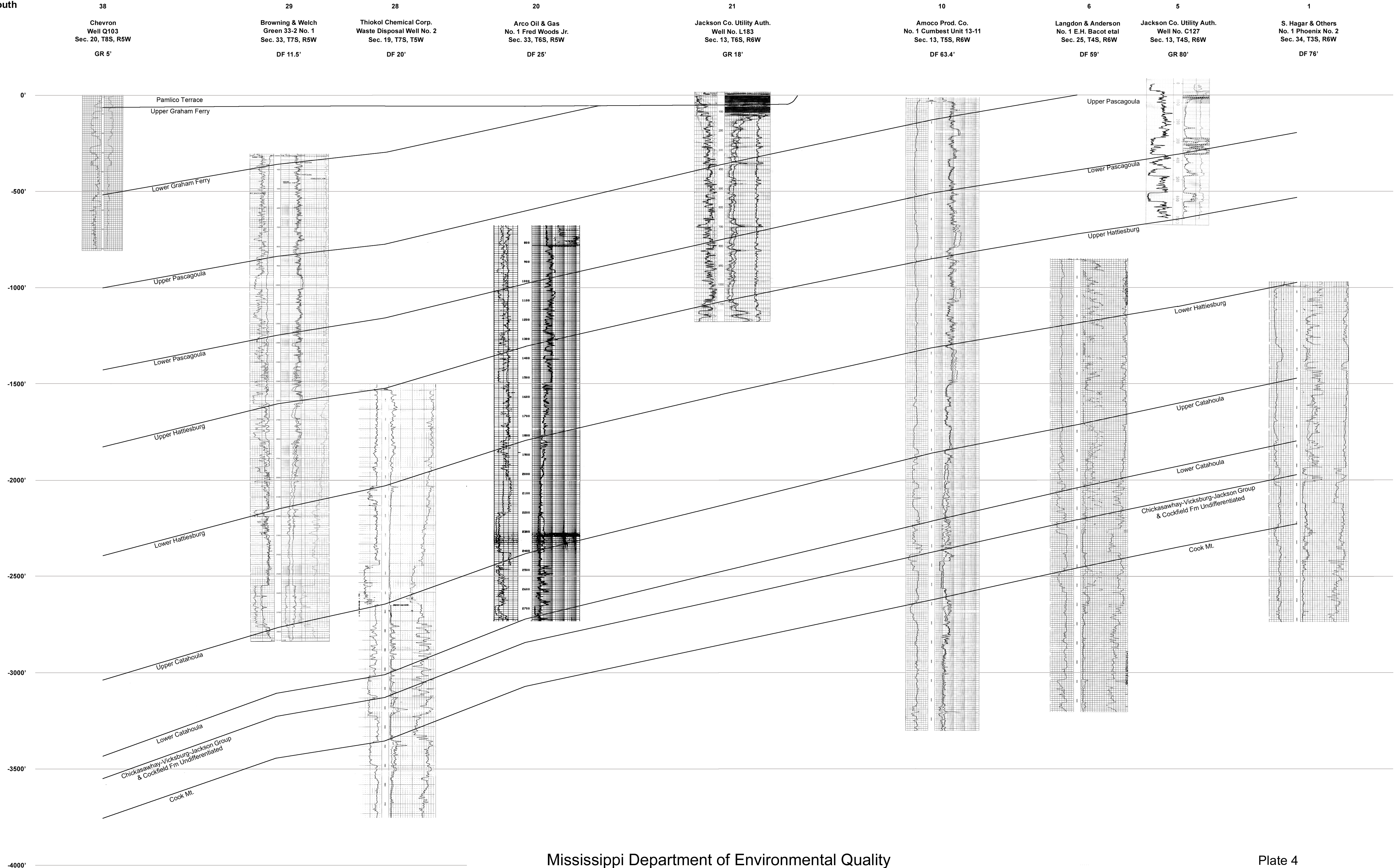
Plate 3
Structural Cross Section A - A'
Of the Grand Gulf Aquifer System
Jackson Co., Mississippi
by Lindsey Stewart

August, 2017

Horizontal Scale 1 inch = 1 mile
Vertical Scale 1 inch = 200 feet

B
South

B'
North



This cross section prepared under the supervision of James H. Hoffmann, RPG.



James H. Hoffmann
James H. Hoffmann, RPG
August 24, 2017

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Office of Geology
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Location of cross section is shown on the location plat, Plate 2

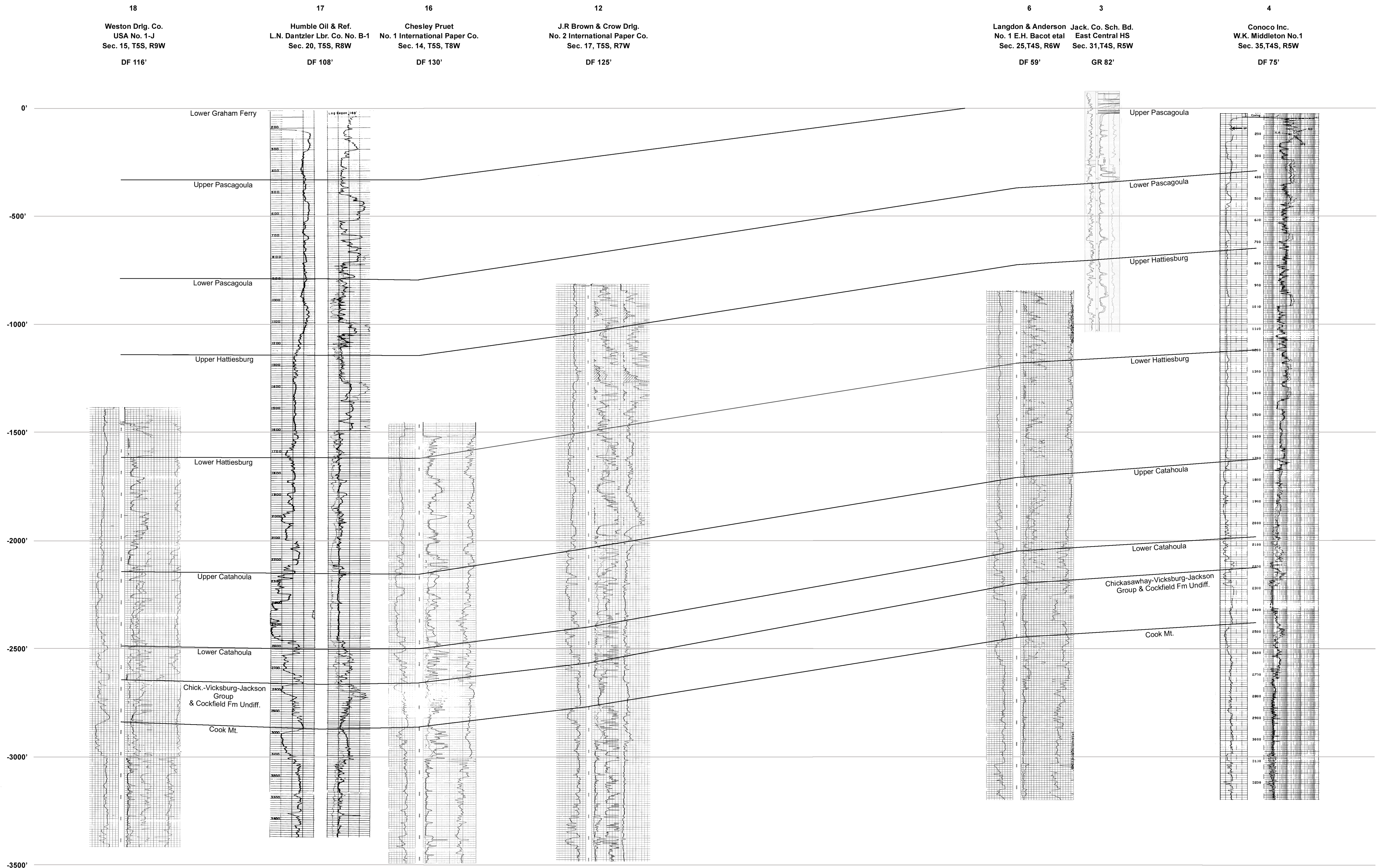
Plate 4
Structural Cross Section B - B'
of the Grand Gulf Aquifer System
Jackson Co., Mississippi
by Lindsey Stewart

August, 2017

Horizontal Scale 1 inch = 1 mile
Vertical Scale 1 inch = 200 feet

C
West

C'
East



This cross section prepared under the supervision of James H. Hoffmann, RPG.



James H. Hoffmann
James H. Hoffmann, RPG
August 1, 2017

Location of cross section is shown on the location plat, Plate 2

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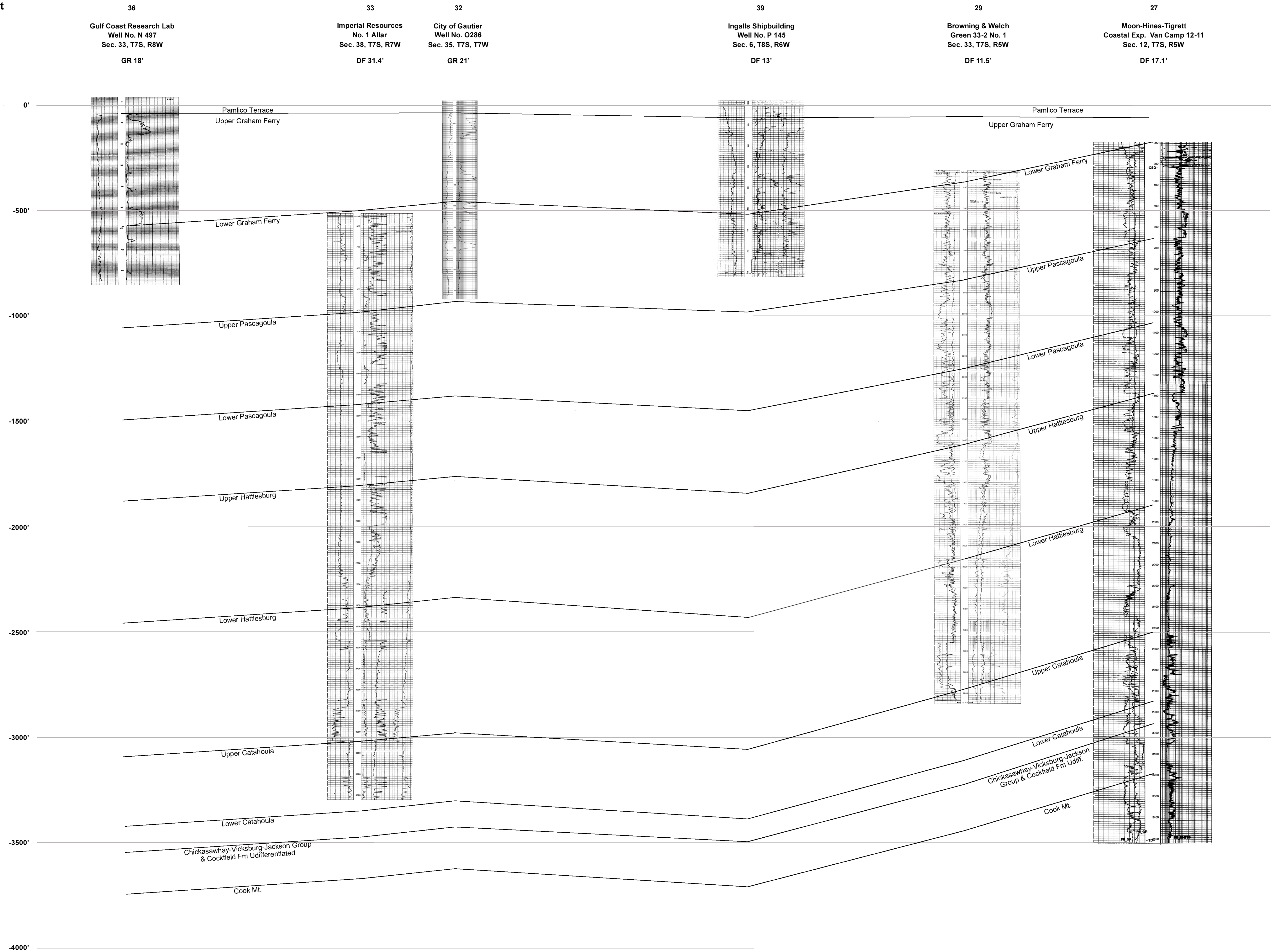
Plate 5
Structural Cross Section C - C'
Of the Grand Gulf Aquifer System
Jackson Co., Mississippi
by Lindsey Stewart

August, 2017

Horizontal Scale 1 inch = 1 mile
Vertical Scale 1 inch = 200 feet

D
West

D'
East



This cross section prepared under the supervision of James H. Hoffmann, RPG.



James H. Hoffmann
James H. Hoffmann, RPG
August 1, 2017

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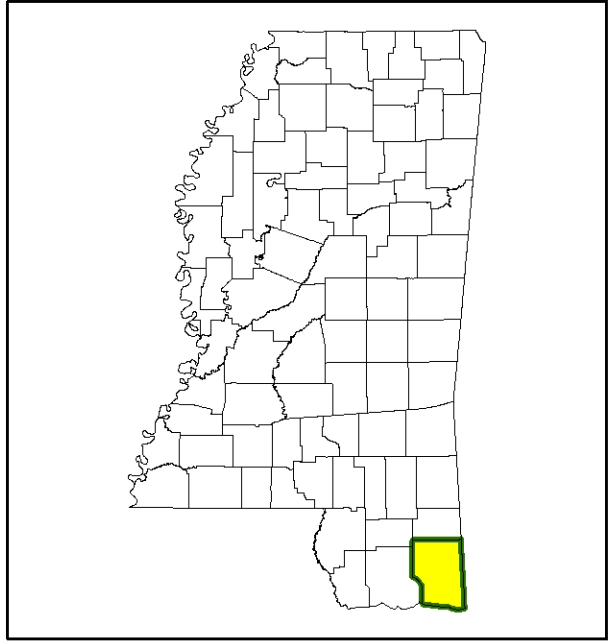
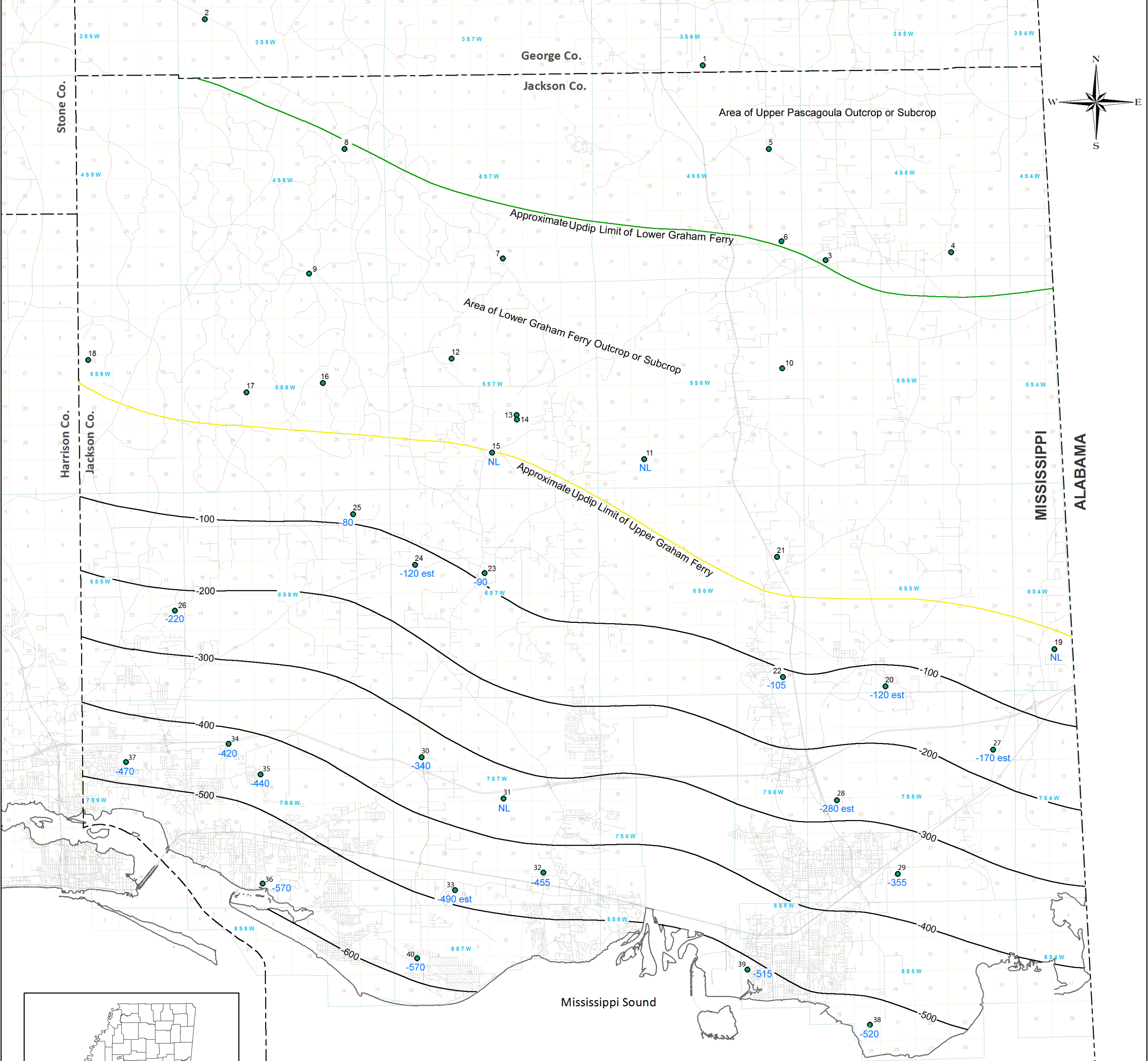
Michael B. E. Bograd
State Geologist

Location of cross section is shown on the location plat, Plate 2

Plate 6
Structural Cross Section D - D'
Of the Grand Gulf Aquifer System
Jackson Co., Mississippi
by Lindsey Stewart

August, 2017

Horizontal Scale 1 inch = 1 mile
Vertical Scale 1 inch = 200 feet



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Map Projection: Mississippi Transverse Mercator

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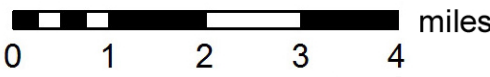
James H. Hoffmann

James H. Hoffmann, RPG
August 1, 2017

Plate 7
Top of The Lower Graham Ferry
Aquifer Interval of the Grand Gulf Aquifer System
Jackson Co., Mississippi

by Lindsey Stewart

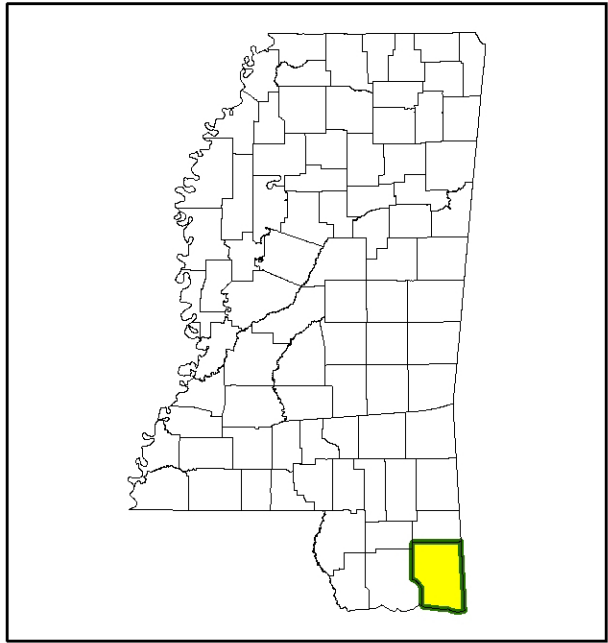
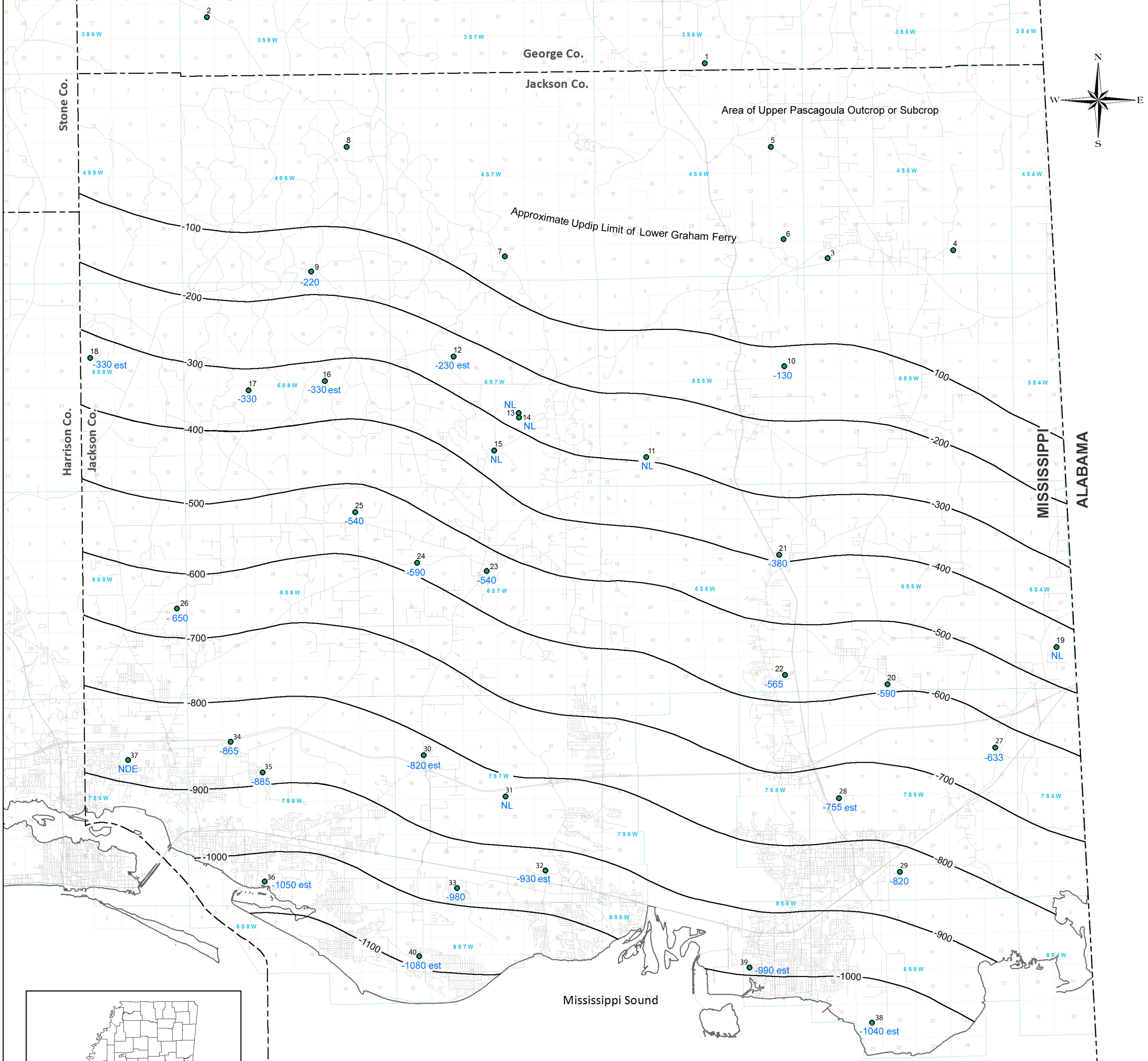
August, 2017 Scale 1 inch = 2 miles



Contour Interval 100'

Legend

- est Estimated top of aquifer
- NL Aquifer interval not logged
- 340 Elevation of top of aquifer in feet relative to MSL



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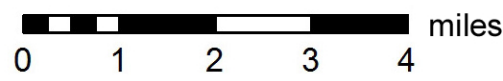
James H. Hoffmann
James H. Hoffmann, RPG
August 1, 2017

This map prepared under the supervision of James H. Hoffmann, RPG

Plate 8
Top of The Upper Pascagoula
Aquifer Interval of the Grand Gulf Aquifer System
Jackson Co., Mississippi
by Lindsey Stewart

August, 2017

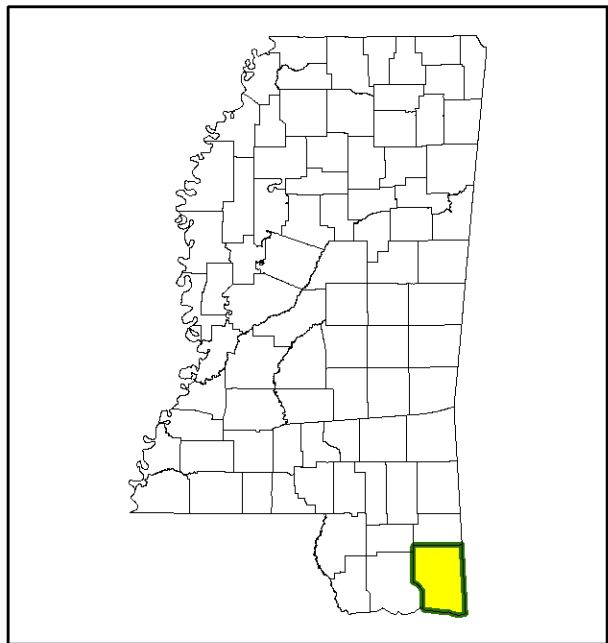
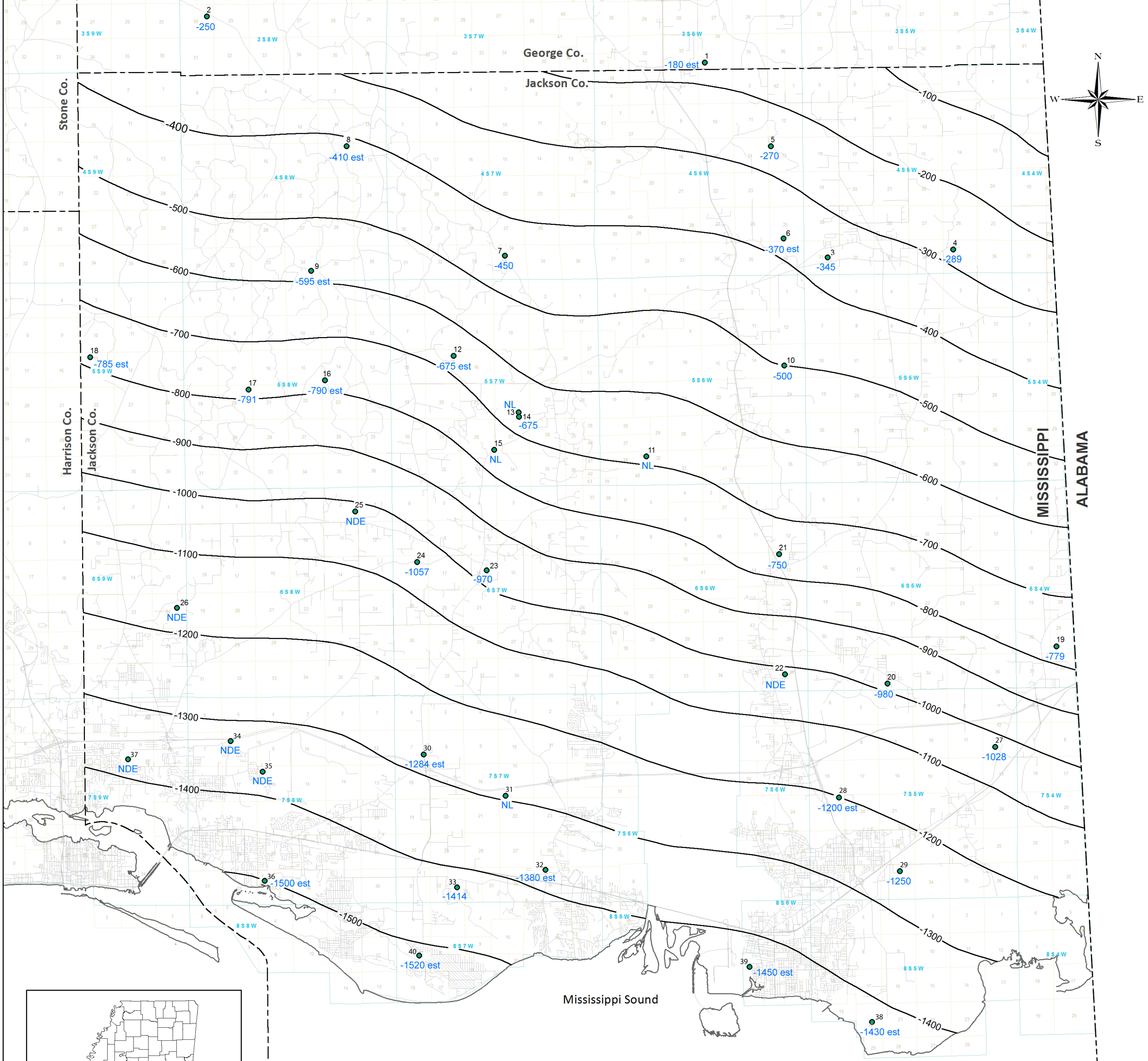
Scale 1 inch = 2 miles



Contour Interval 100'

Legend

- NDE Well not deep enough to intersect aquifer interval
- est Estimated top of aquifer
- NL Aquifer interval not logged
- 340 Elevation of top of aquifer in feet relative to MSL



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James H. Hoffmann

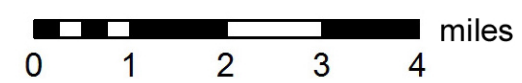
James H. Hoffmann, RPG
August 1, 2017

Plate 9
Top of The Lower Pascagoula
Aquifer Interval of the Grand Gulf Aquifer System
Jackson Co., Mississippi

by Lindsey Stewart

August, 2017

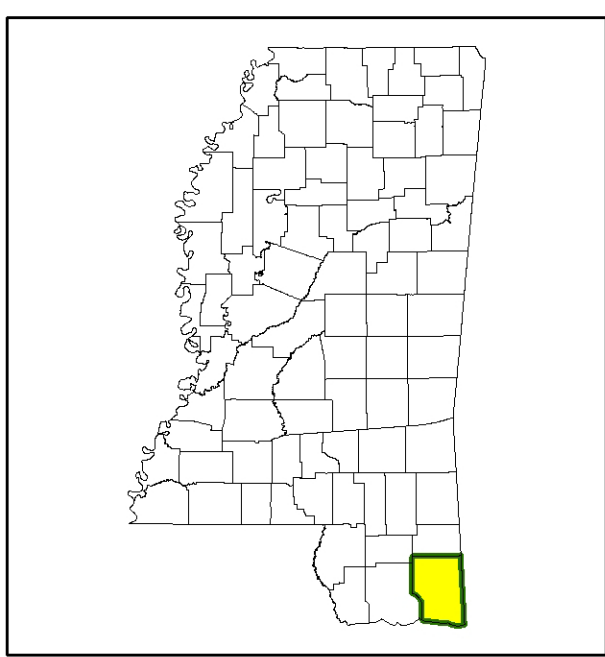
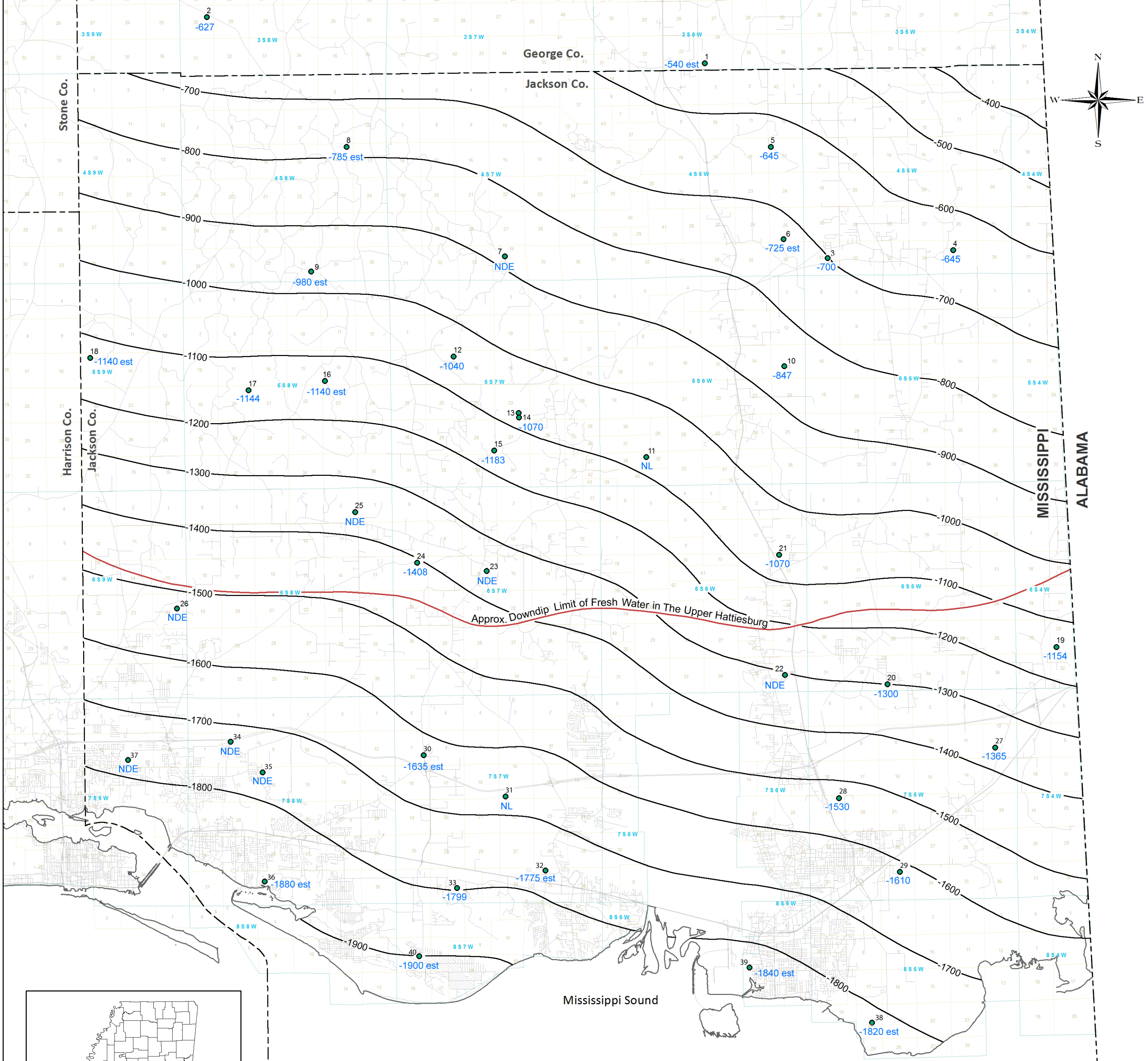
Scale 1 inch = 2 miles



Contour Interval 100'

Legend

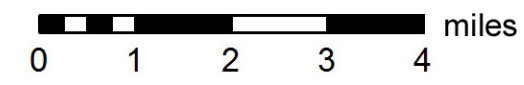
- NDE Well not deep enough to intersect aquifer interval
- est Estimated top of aquifer
- NL Aquifer interval not logged
- 340 Elevation of top of aquifer in feet relative to MSL



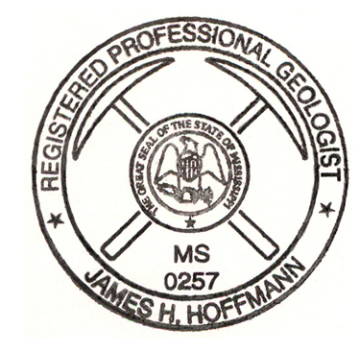
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Plate 10
Top of The Upper Hattiesburg
Aquifer Interval of the Grand Gulf Aquifer System
Jackson Co., Mississippi
by Lindsey Stewart

August, 2017 Scale 1 inch = 2 miles



Contour Interval 100'



James H. Hoffmann
James H. Hoffmann, RPG
August 1, 2017

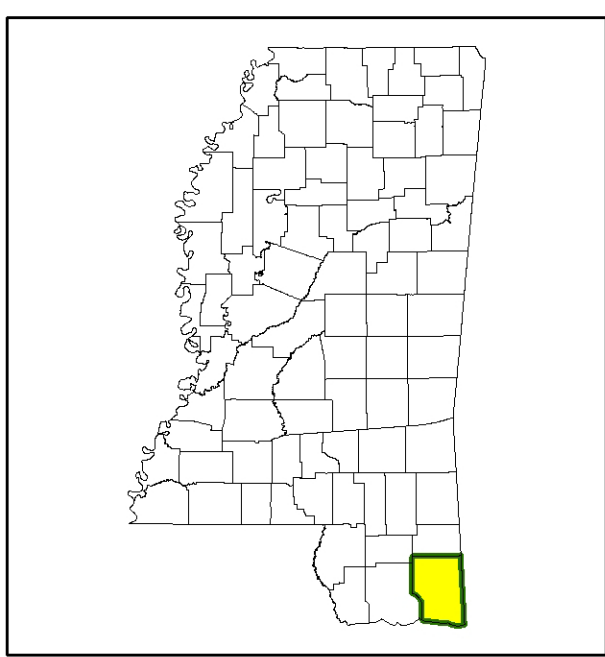
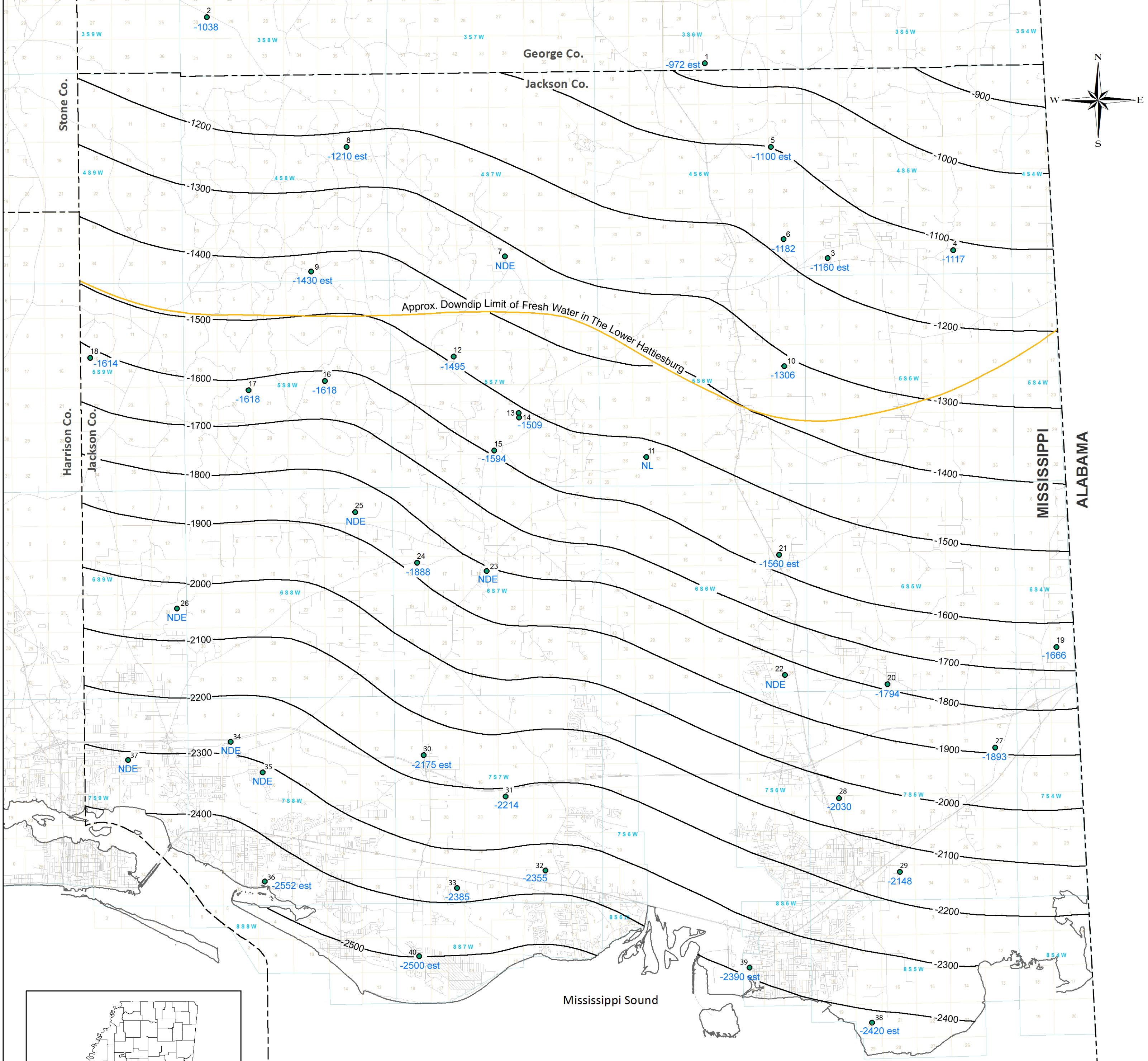
- Legend**
- NDE Well not deep enough to intersect aquifer interval
 - est Estimated top of aquifer
 - NL Aquifer interval not logged
 - 340 Elevation of top of aquifer in feet relative to MSL

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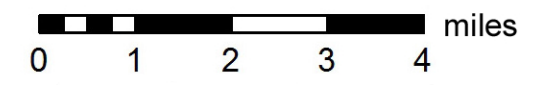
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Plate 11
Top of The Lower Hattiesburg
Aquifer Interval of the Grand Gulf Aquifer System
Jackson Co., Mississippi
by Lindsey Stewart

August, 2017 Scale 1 inch = 2 miles



Contour Interval 100'

- Legend**
- NDE Well not deep enough to intersect aquifer interval
 - est Estimated top of aquifer
 - 340 Elevation of top of aquifer in feet relative to MSL



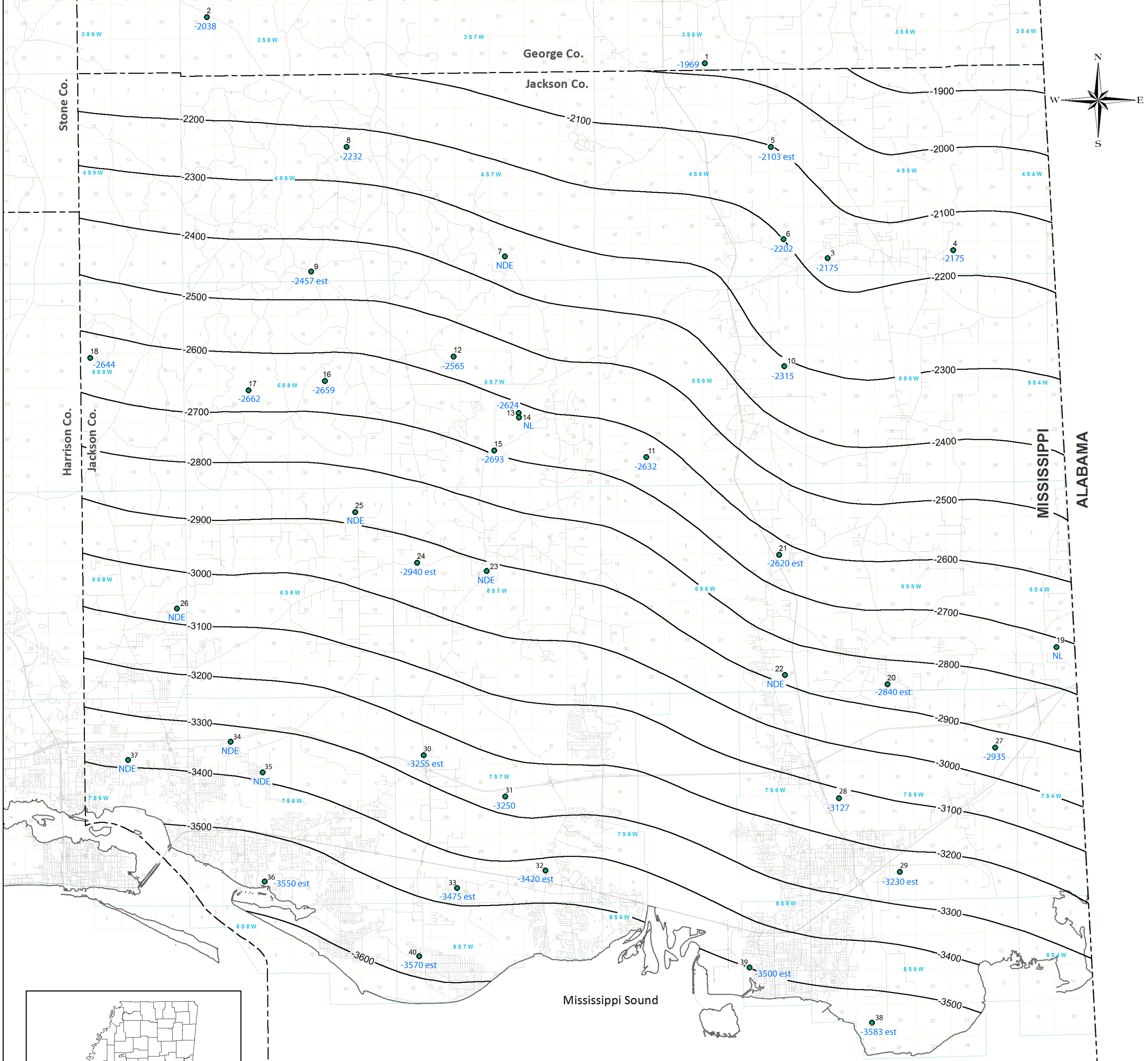
James H. Hoffmann
James H. Hoffmann, RPG
August 1, 2017

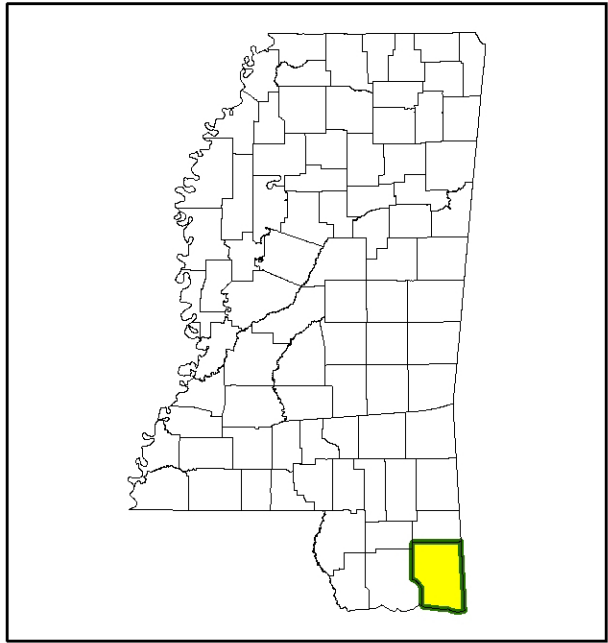
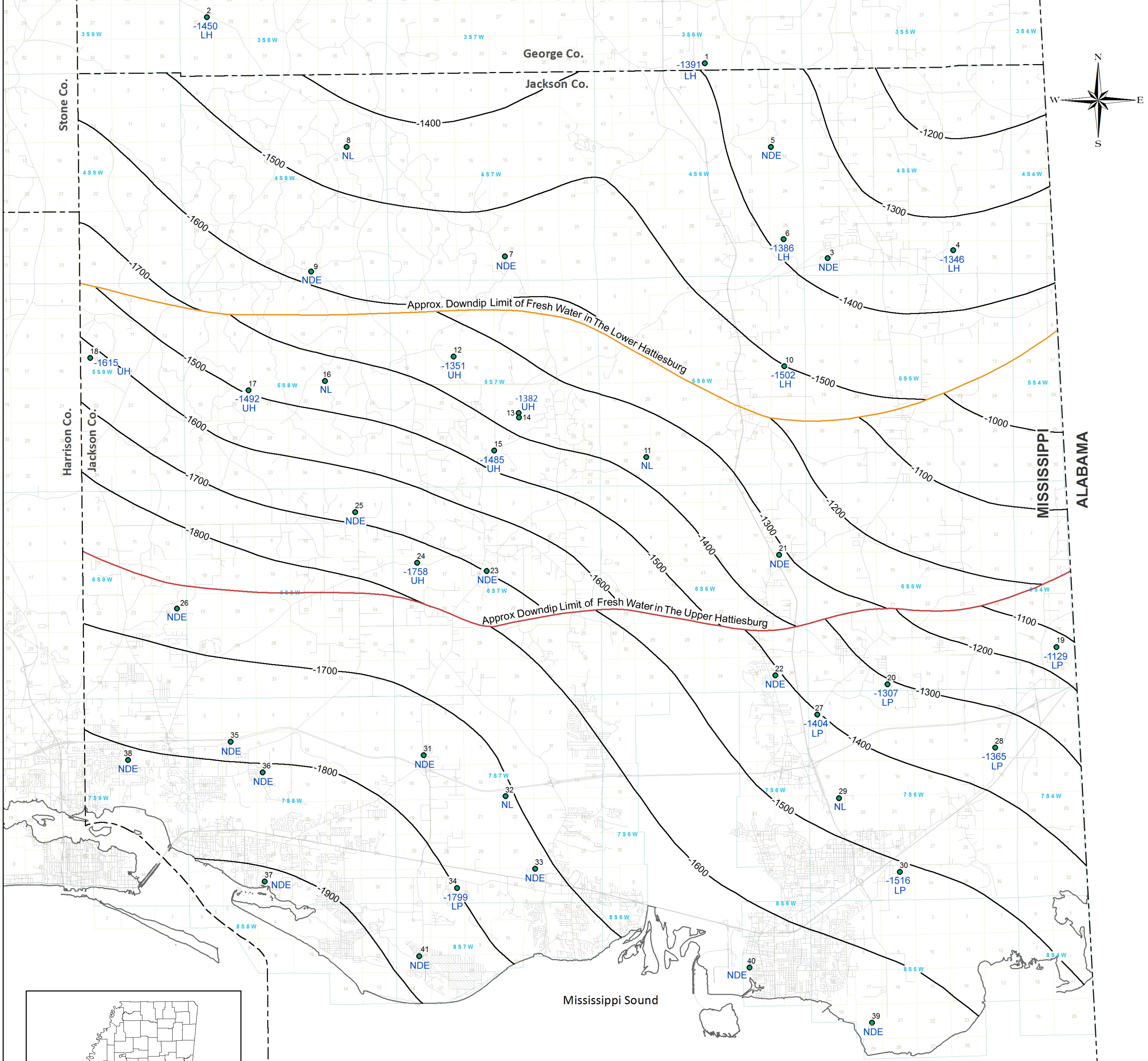
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James H. Hoffmann

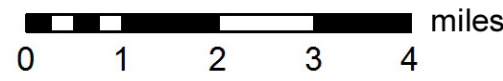
James H. Hoffmann, RPG
August 1, 2017

Plate 13
Base of Fresh Water (Less than 1000 PPM TDS) in
Aquifer Intervals of the Grand Gulf Aquifer System
Jackson Co., Mississippi

by Lindsey Stewart

August, 2017

Scale 1 inch = 2 miles

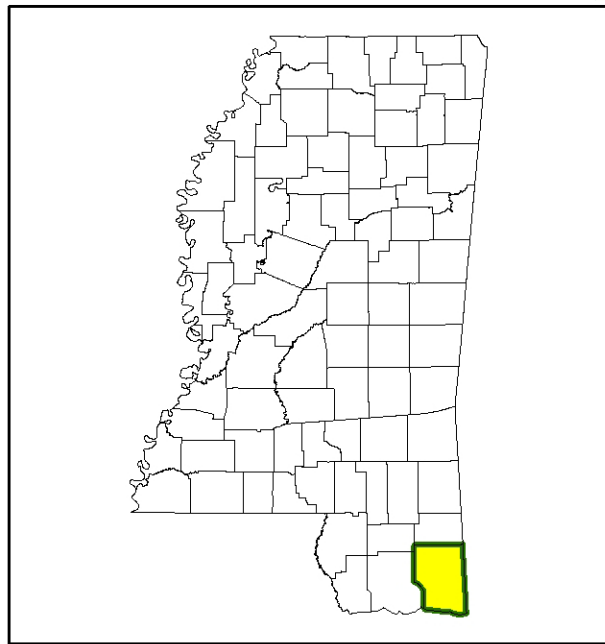
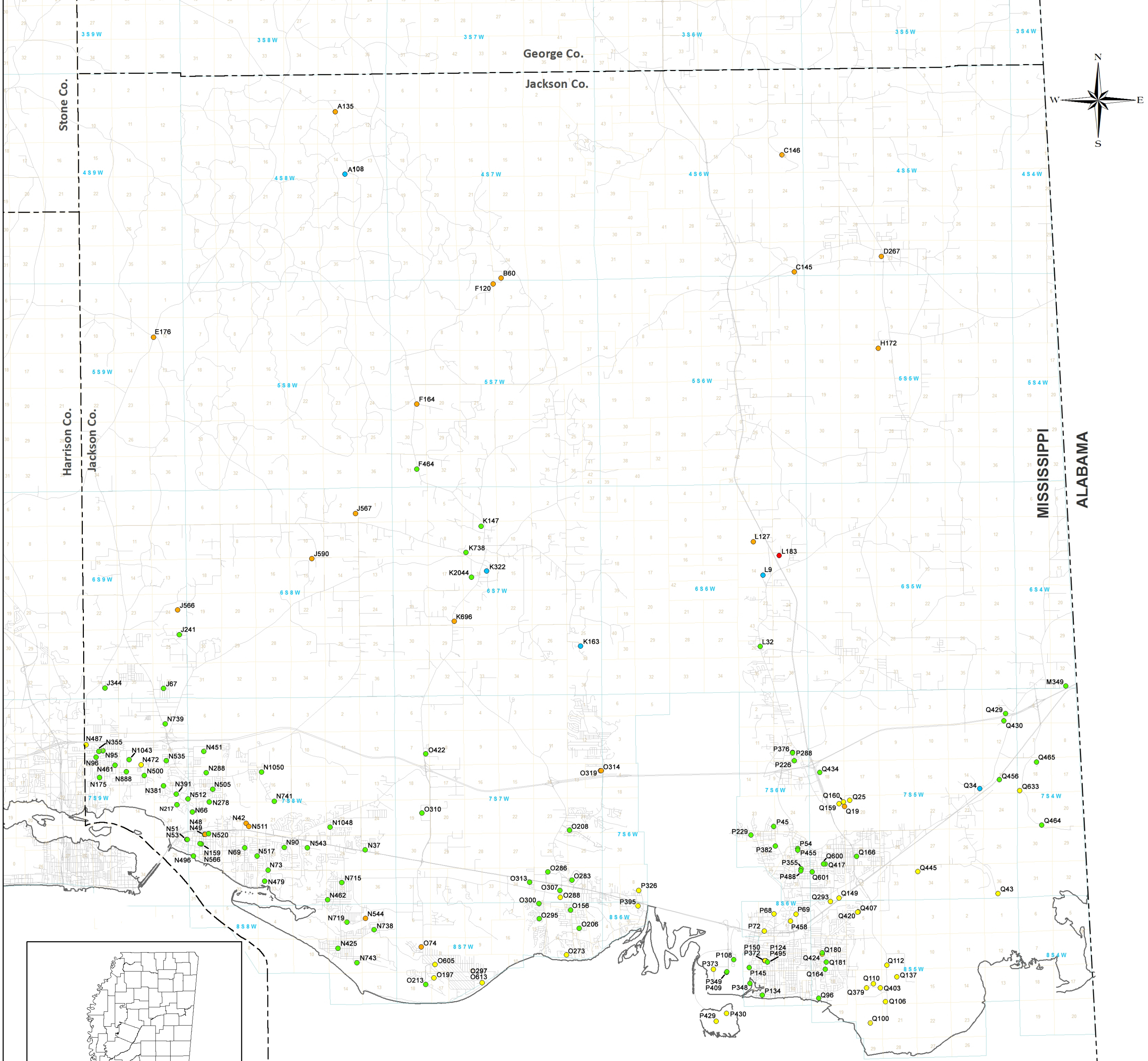


Legend

- NDE Well not deep enough to intersect aquifer interval
NL Aquifer interval not logged

Aquifer Intervals

- LP Lower Pascagoula
UH Upper Hattiesburg
LH Lower Hattiesburg



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Aquifer Intervals

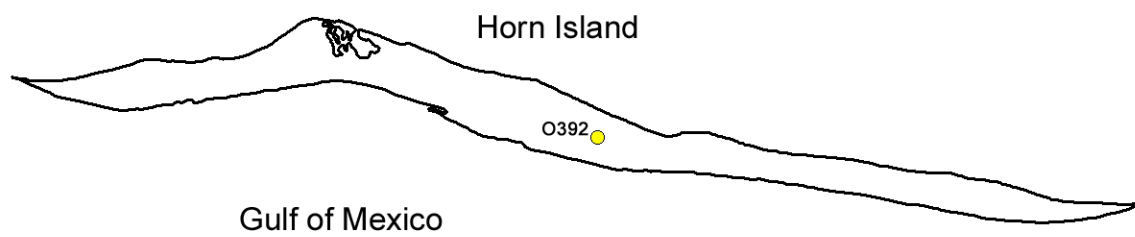
- Upper Graham Ferry
- Lower Graham Ferry
- Upper Pascagoula
- Lower Pascagoula
- Upper Hattiesburg

Well information presented in Table 2



James H. Hoffmann

James H. Hoffmann, RPG
August 1, 2017



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State Geologist

Plate 14

Location Plat for Water Wells From Which Water
Levels Were Measured or Water Samples Collected
in Jackson Co, Mississippi

by Lindsey Stewart

August, 2017

Scale 1 inch = 2 miles

