APPENDIX A

Index of Joint Exhibits

JOINT EXHIBIT NO.	DESCRIPTION
J-1	Advisory Comm. on Water Information, Subcomm. on Ground Water, *A National Framework for Ground-Water Monitoring in the United States* (rev. July 2013)
J-2	Alley, W.M., Reilly, T.E., Franke, O.L., *Sustainability of Ground-Water Resources*, USGS Circular 1186 (1999)
J-3	Arthur, J. Kerry and Taylor, R. E., *Definition of the Geohydrologic Framework and Preliminary Simulation of Ground-Water Flow in the Mississippi Embayment Aquifer System, Gulf Coastal Plain, United States*, USGS Water-Resources Investigations Report 86-4364 (1990) (with Plates 1-2)
J-4	Arthur, J. Kerry and Taylor, Richard E., *Ground-Water Flow Analysis of the Mississippi Embayment Aquifer System, South-Central United States*, USGS Professional Paper 1416-I (1998) (with Plates 1-9)
J-5	Arthur, J. Kerry and Taylor, Richard E., *Ground-Water Flow Analysis of the Mississippi Embayment Aquifer System, South-Central United States*, USGS Open-File Report 91-451 (1991)

J-6	Barlow, J.R.B., Clark, B.R., *Simulation of Water-Use Conservation Scenarios for the Mississippi Delta Using an Existing Regional Groundwater Flow Model*, USGS Scientific Investigations Report 2011-5019 (2011)
J-7	Bell, Edwin A. and Nyman, Dale J., *Flow Pattern and Related Chemical Quality of Ground Water in the 500-Foot Sand in the Memphis Area, Tennessee*, USGS Water-Supply Paper 1853 (1968) (with plates 1-4)
J-8	Bradley, Michael W., *Ground-Water Hydrology and the Effects of Vertical Leakage and Leachate Migration on Ground-Water Quality Near the Shelby County Landfill, Memphis, Tennessee*, USGS Water-Resources Investigations Report 90-4075 (1991)
J-9	Bradley, Michael, Carmichael, Jack and Kingsbury, Jim, USGS, *Groundwater Network and Water-level Response in the Memphis Area* (June 23, 2015)
J-10	Brahana, J.V., *Digital Ground-Water Model of the Memphis Sand and Equivalent Units, Tennessee-Arkansas-Mississippi* (1981)
J-11	Brahana, J.V., *Ground Water Supply, Chapter 3 – Final Report, Memphis Metropolitan Area Urban Water Resources Study*, USGS Report (1981)

J-12	Brahana, J.V., *Two-Dimensional Digital Ground-Water Model of the Memphis Sand and Equivalent Units, Tennessee-Arkansas-Mississippi*, USGS Open-File Report 82-99 (1982)
J-13	Brahana, J. V., Parks, W. S., and Gaydos, M.W., *Quality of Water from Freshwater Aquifers and Principal Well Fields in the Memphis Area, Tennessee*, USGS Water-Resources Investigations Report 87-4052 (1987)
J-14	Brahana, J. V. and Mesko, T. O., *Hydrogeology and Preliminary Assessment of Regional Flow in the Upper Cretaceous and Adjacent Aquifers in the Northern Mississippi Embayment*, USGS Water-Resources Investigations Report 87-4000 (1988)
J-15	Brahana, J.V. and Broshears, R.E., *Hydrogeology and Ground-Water Flow in the Memphis and Fort Pillow Aquifers in the Memphis Area, Tennessee*, USGS Water-Resources Investigations Report 89-4131 (2001)
J-16	Busby, J.F., Kimball, B.A., Downey, J.S., Peter, K.D., *Geochemistry of water in aquifers and confining units of the Northern Great Plains in parts of Montana, North Dakota, South Dakota, and Wyoming,*USGS Professional Paper 1402-F (1995) (with Plates 1-2)
J-17	Carmichael, John K., Kingsburg, James A., Larsen, Daniel, and Schoefernacker,

	Scott, *Preliminary Evaluation of the Hydrogeology and Groundwater Quality of the Mississippi River Valley Alluvial Aquifer and Memphis Aquifer at the Tennessee Valley Authority Allen Power Plants, Memphis, Shelby County, Tennessee*, USGS Open-File Report 2018-1097 (2018)
J-18	Clark, Brian R. and Hart, Rheannon M., *The Mississippi Embayment Regional Aquifer Study (MERAS): Documentation of a Groundwater-Flow Model Constructed to Assess Water Availability in the Mississippi Embayment*, USGS Scientific Investigations Report 2009-5172 (2009)
J-19	Clark, B.R., Hart, R.M., Gurdak, J.J., *Groundwater Availability of the Mississippi Embayment*, USGS Professional Paper 1785 (2011)
J-20	Clark, B.R., Westerman, D.A., Fugitt, D.T., *Enhancements to the Mississippi Embayment Regional Aquifer Study (MERAS) Groundwater-Flow Model and Simulations of Sustainable Water-Level Scenarios*, USGS Scientific Investigations Report 2013-5161 (2013)
J-21	Crider, A.F. and Johnson, L.C., *Summary of the Underground Water Resources of Mississippi*, USGS Water-Supply and Irrigation Paper No. 159 (1906)
J-22	Criner, J. H., Sun, P-C. P., and Nyman, D. J., *Hydrology of Aquifer Systems in the*

	Memphis Area, Tennessee, USGS Water-Supply Paper 1779-O (1964) (with Plates 1-7)
J-23	Criner, James H. and Armstrong, Clarence A., *Ground-Water Supply of the Memphis Area*, USGS Circular 408 (1958) (with Plate 1)
J-24	Criner, James H. and Parks, William S., *Historic Water-Level Changes and Pumpage from the Principal Aquifers of the Memphis Area, Tennessee: 1886-1975*, USGS Water-Resources Investigations Report 76-67 (1976)
J-25	Cushing, E. M., Boswell, E. H., and Hosman, R. L., *General Geology of the Mississippi Embayment*, USGS Professional Paper 448-B (1964) (with Plates 1-2)
J-26	Czarnecki, J.B., Gillip, J.A., Jones, P.M., Yeatts, D.S., *Groundwater-Flow Model of the Ozark Plateaus Aquifer System, Northwestern Arkansas, Southeastern Kansas, Southwestern Missouri, and Northeastern Oklahoma,*USGS Scientific Investigation Report 2009-5148 (2010)
J-27	Fetter, C.W., *Applied Hydrogeology, 4th Edition* (Upper Saddle River, NJ: Prentice Hall, 2001)
J-28	Freethey, G.W., Cordy, G.E., *Geohydrology of Mesozoic rocks in the upper Colorado River basin in Arizona, Colorado, New Mexico, Utah, and Wyoming,*

	excluding the San Juan Basin, USGS Professional Paper 1411-C (1991) (with Plates 1-6)
J-29	Freeze, R.A., and Cherry, J.A., *Groundwater* (Englewood Cliffs, NJ: Prentice Hall, 1979)
J-30	Fuller, M., *Contributions to the Hydrology of Eastern United States*, USGS Water-Supply and Irrigation Paper No. 102 (1903)
J-31	Glenn, L.C., *Underground Waters of Tennessee and Kentucky West of Tennessee River and of an Adjacent Area in Illinois*, USGS Water-Supply and Irrigation Paper No. 164 (1906)
J-32	Gonthier, Joseph B., *A Description of Aquifer Units in Eastern Oregon*, USGS Water-Resources Investigations Report 84-4095 (1985) (with Plates 1-4)
J-33	Graham, David D., *Potentiometric Map of the Memphis Sand in the Memphis Area*, Tennessee, USGS Water-Resources Investigations Report 79-80 (1978)
J-34	Graham, David D., *Effects of Urban Development on the Aquifers in the Memphis Area, Tennessee*, USGS Water-Resources Investigations Report 82-4024 (1982) (with Plate 1)
J-35	Graham, D.D. and Parks, W.S., *Potential for Leakage Among Principal Aquifers in the Memphis Area, Tennessee*, USGS

	Water-Resources Investigations Report 85-4295 (1986)
J-36	Hart, R.M., Clark, B.R., Bolyard, S.E., *Digital Surfaces and Thicknesses of Selected Hydrogeologic Units within the Mississippi Embayment Regional Aquifer Study (MERAS)*, USGS Scientific Investigations Report 2008-5098 (2008)
J-37	Hart, R.M., Clark, B.R., *Geophysical Log Database for the Mississippi Embayment Regional Aquifer Study (MERAS)*, USGS Scientific Investigations Report 2008-5192 (2008)
J-38	Haugh, C.J., *Effects of Groundwater Withdrawals Associated with Combined-Cycle Combustion Turbine Plants in West Tennessee and Northern Mississippi*, USGS Scientific Investigations Report 2012–5072 (2012)
J-39	Haugh, Connor J., *Evaluation of Effects of Groundwater Withdrawals at the Proposed Allen Combined-Cycle Combustion Turbine Plant, Shelby County, Tennessee*, USGS Scientific Investigations Report 2016-5072 (2016)
J-40	Heath, Ralph C., *Basic Ground-Water Hydrology*, USGS Water-Supply Paper 2220 (Revised 2004)
J-41	Hosman, R. L., Long, A. T., Lambert, T. W., and others, *Tertiary Aquifers in the Mississippi Embayment*, USGS

	Professional Paper 448-D (1968) (with Plates 1-8)
J-42	Hosman, R.L.; Weiss, J.S., *Geohydrologic Units of the Mississippi Embayment and Texas Coastal Uplands Aquifer Systems, South-Central United States*, USGS Professional Paper 1416-B (1991) (with Plates 1-19)
J-43	Hosman, R. L., *Regional Stratigraphy and Subsurface Geology of Cenozoic Deposits, Gulf Coastal Plain, South-Central United States*, USGS Professional Paper 1416-G (1996) (with Plates 1-14)
J-44	Jones, L. Elliott and Torak, Lynn J., U.S. Dep't of Interior, *Simulated Effects of Impoundment of Lake Seminole on Ground-Water Flow in the Upper Floridan Aquifer in Southwestern Georgia and Adjacent Parts of Alabama and Florida*, USGS Scientific Investigations Report 2004-5077 (2004)
J-45	Jorgenson, D.G., Helgesen, J.O., Imes, J.L., *Regional aquifers in Kansas, Nebraska, and parts of Arkansas, Colorado, Missouri, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming; geohydrologic framework,*USGS Professional Paper 1414-B (1993) (with Plates 1-25)
J-46	Kahle, Sue C., Caldwell, Rodney R. and Bartolino, James R., U.S. Dep't of Interior, *Compilation of Geologic, Hydrologic, and Ground-Water Flow Modeling Information for the Spokane Valley-Rathdrum*

	Prairie Aquifer, Spokane County, Washington, and Bonner and Kootenai Counties, Idaho, USGS Scientific Investigations Report 2005-5227 (2005) (with Plates 1-2)
J-47	Kahle, S.C., Bartolino, J.R., *Hydrogeologic Framework and Ground-Water Budget of the Spokane Valley-Rathdrum Prairie Aquifer, Spokane County, Washington, and Bonner and Kootenai Counties, Idaho*, USGS Scientific Investigation Report 2007-5041 (2007) (with plates 1-2)
J-48	Kingsbury, James A., *Altitude of the Potentiometric Surface, September 1990, and Historic Water-Level Changes in the Memphis Aquifer in the Memphis Area, Tennessee*, USGS Water-Resources Investigations Report 92-4002 (1992)
J-49	Kingsbury, James A. and Parks, William S., *Hydrogeology of the Principal Aquifers and Relation of Faults to Interaquifer Leakage in the Memphis Area, Tennessee*, USGS Water-Resources Investigations Report 93-4075 (1993) (with Plates 1-5)
J-50	Kingsbury, James A., *Altitude of the Potentiometric Surfaces, September 1995, and Historical Water-Level Changes in the Memphis and Fort Pillow Aquifers in the Memphis Area, Tennessee*, USGS Water-Resources Investigations Report 96-4278 (1996)
J-51	Konikow, L.F., *Hydrogeologic Considerations for an Interstate Ground-Water*

	Compact on the Madison Aquifer, Northern Great Plains, USGS Open-File Report 78-138 (1978)
J-52	Lloyd, Jr., O.B. and Lyke, W.L., *Ground Water Atlas of the United States, Segment 10: Illinois, Indiana, Kentucky, Ohio, Tennessee*, USGS Hydrological Investigations Atlas 730-K (1995)
J-53	Masterson, John P., Pope, Jason P., Monti, Jr., Jack, Nardi, Mark R., Finkelstein, Jason S. and McCoy, Kurt J., *Hydrogeology and Hydrologic Conditions of the Northern Atlantic Coastal Plain Aquifer System From Long Island, New York, to North Carolina*, USGS Scientific Investigations Report 2013-5133 (Sept. 2015)
J-54	Masterson, John P., Pope, Jason P., Fienen, Michael N., Monti, Jr., Jack, Nardi, Mark R. and Finkelstein, Jason S., *Assessment of Groundwater Availability in the Northern Atlantic Coastal Plain Aquifer System From Long Island, New York, to North Carolina*, USGS Professional Paper 1829 (2016)
J-55	Miller, J.A., *The Ground Water Atlas of the United States*, USGS Hydrologic Atlas 730 (2000)
J-56	Mississippi Dept. of Environmental Quality, *City of Southaven water diversion / withdrawal permit from the Sparta Aquifer System for municipal use*, Office of

	Land and Water Resources. Permit No. MS-GW-15732 (March 8, 2004)
J-57	Mississippi Dept. of Environmental Quality, *Annual Report for Fiscal Year 2014* (2014)
J-58	Moore, Gerald K., *Geology and Hydrology of the Claiborne Group in Western Tennessee*, USGS Water-Supply Paper 1809-F (1965) (with Plates 1-8)
J-59	Nyman, Dale J., *Predicted Hydrologic Effects of Pumping from the Lichterman Well Field in the Memphis Area, Tennessee*, USGS Water-Supply Paper 1819-B (1965) (with Plate 1)
J-60	Parks, William S. and Lounsbury, Richard W., *Summary of Some Current and Possible Future Environmental Problems Related to Geology and Hydrology at Memphis, Tennessee*, USGS Water-Resources Investigations Report 4-76 (1976)
J-61	Parks, W. S. and Carmichael, J. K., *Geology and Ground-Water Resources of the Fort Pillow Sand in Western Tennessee*, USGS Water-Resources Investigations Report 89-4120 (1989) (with Plates 1-2)
J-62	Parks, W. S. and Carmichael, J. K., *Altitude of Potentiometric Surface, Fall 1985, and Historic Water-Level Changes in the Memphis Aquifer in Western Tennessee*, USGS Water-Resources Investigations Report 88-4180 (1990) (with Plate 1)

J-63	Parks, W.S. and Carmichael, J.K., *Geology and Ground-Water Resources of the Memphis Sand in Western Tennessee*, USGS Water-Resources Investigations Report 88-4182 (1990) (with Plates 1-2)
J-64	Parks, William S., *Hydrogeology and Preliminary Assessment of the Potential for Contamination of the Memphis Aquifer in the Memphis Area, Tennessee*, USGS Water-Resources Investigations Report 90-4092 (1990) (with Plates 1-4)
J-65	Parks, William S., Mirecki, June E., and Kingsbury, James A., *Hydrogeology, Ground-Water Quality, and Source of Ground Water Causing Water-Quality Changes in the Davis Well Field at Memphis, Tennessee*, USGS Water-Resources Investigations Report 94-4212 (1995)
J-66	Payne, J. N., *Hydrologic Significance of the Lithofacies of the Sparta Sand in Arkansas, Louisiana, Mississippi and Texas*, USGS Professional Paper 569-A (1968) (with Plates 1-10)
J-67	Reed, J.E., *Analog Simulation of Water-Level Declines in the Sparta Sand, Mississippi Embayment*, USGS Hydrologic Investigations HA-434 (1972)
J-68	Reilly, Thomas E., Dennehy, Kevin F., Alley, William M., and Cunningham, William L., *Ground-Water Availability in the United States*, USGS Circular 1323 (2008)

J-69	Renken, R.A., *Hydrogeology of the Southeastern Coastal Plain aquifer system in Mississippi, Alabama, Georgia, and South Carolina*, USGS Professional Paper 1410-B (1996) (with plates 1-42)
J-70	**Removed as duplicate – see exhibit J-55, section 5**
J-71	Schrader, Tony P., U.S. Dep't of Interior, *Potentiometric Surface in the Sparta-Memphis Aquifer of the Mississippi Embayment, Spring 2007*, USGS Scientific Investigations Map 3014 (2008)
J-72	Terry, J.E., Hosman, R. L., and Bryant, C. T., *Summary Appraisals of the Nation's Ground-Water Resources – Lower Mississippi Region*, USGS Professional Paper 813-N (1979)
J-73	U.S. Dep't of Interior, *National Water Summary 1983—Hydrologic Events and Issues*, USGS Water-Supply Paper 2250 (1984)
J-74	US Geological Survey, *Mississippi Alluvial Plain (MAP) Regional Water Availability Study* (November 23, 2016) (Excerpts), https://www2.usgs.gov/water/lowermississippigulf/map/index.html
J-75	**Withdrawn**
J-76	Waldron, Brian, Larsen, Daniel, et al., *Mississippi Embayment Regional Groundwater Study*, EPA 600/R-10/130 (2011) (with Plates 1-7)

J-77	Wells, F. G., *Ground-Water Resources of Western Tennessee*, USGS Water-Supply Paper 656 (1933) (with Plates 1-16)
J-78	Williamson, A.K., Grubb, H.F., Weiss, J.S., *Ground-Water Flow in the Gulf Coast Aquifer Systems, South Central United States – A Preliminary Analysis*, USGS Water-Resources Investigations Report 89-4071 (1990) (with Plates 1-4)
J-79	Winter, Thomas C., Harvey, Judson W., Franke, O. Lehn and Alley, William M., *Ground Water and Surface Water: A Single Resource*, USGS Circular 1139 (1998)
J-80	Young, H.L., Siegel, D.I., *Hydrogeology of the Cambrian-Ordovician aquifer system in the northern Midwest, United States; Regional aquifer-system analysis*, USGS Professional Paper 1405-B (1992) (with Plate 1)

APPENDIX B

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PLAINTIFF'S EXHIBIT NO.	DESCRIPTION
P-1	Map of the State of Mississippi
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P-3	Miss. Code Ann. § 51-3-3, Definitions
P-4	Miss. Code Ann. § 51-3-5, Water use permit required
P-5	Miss. Admin. Code § 11-7:1.1 through 7:1.7
P-6	U.S. Geological Survey Map of Principal Aquifers of the United States
P-7-50	**Removed and submitted as Joint Exhibits**
P-51	James Eddie Outlaw, Jr., *A Ground Water Flow Analysis of the Memphis Sand Aquifer in the Memphis, Tennessee Area* (1994)
P-52	"Memphis Water Termed 'Sweetest in the World,'" *Water World* (March 2003)
P-53	Ward Archer, Jr., "Liquid Assets," *Memphis* magazine (March 2005)
P-54	Palmer Water Pumping Station Wellfield (map)

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P-56	Lichterman Water Pumping Station Wellfield (map)
P-57	Excerpt from Well Field Maps to which scale has been added by GMA and well location information including address, longitude and latitude
P-58	Harold C. Mattraw, Jr. (USGS District Chief, Tennessee) letter to William S. Crawford (President, MLGW) dated October 4, 1994 (with attached draft project proposal)
P-59	Charles T. Branch, P.E., letter to Jim Hanes (Tennessee Department of Environment and Conservation), dated June 26, 1995
P-60	Jamie Crawford (Chief, Ground Water Planning Branch – MDEQ) letter to Charlie Pickel (MLGW), dated June 6, 1995 (with attachments)
P-61	MLGW Water Scanner Team Spring 2003 Presentation
P-62	Michael Russell e-mail to Nicholas Newman dated March 13, 2003
P-63	MLGW Water Scanner Team Spring 2007 Report
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P-65	Memorandum from Willie W. Herenton, Ph.D. to Director Bennie Lendermon dated February 23, 2000 (with attachments)
P-66	Milton H. Hamilton, Jr. letter to Jon Kinsey and Willie W. Herenton dated February 16, 2000 (with attachments)
P-67	Alonzo Weaver Interdepartmental Memorandum to Larry Thompson, Max Williams and Charlie Pickel dated April 25, 2000
P-68	Jerry Collins Interoffice Memorandum to Dr. Willie W. Herenton dated April 3, 2000
P-69	Memorandum from Willie W. Herenton, Ph.D. to Herman Morris dated April 4, 2000 (with attachments)
P-70	Alonzo Weaver Interdepartmental Memorandum to Larry Thompson, Max Williams, Charlie Pickel dated April 25, 2000 (with attached Willie W. Herenton, Ph.D. Interoffice Memorandum to Herman Morris dated April 4, 2000)
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P-101	John G. Morgan (Comptroller of the Tennessee Treasury, Office of Research), *Special Report – Tennessee's Water Supply: Toward a Long-Term Water Policy for Tennessee* (March 2002) (Pickel Dep. Exh. 12)
P-102	MATRAS meeting Tunica 01/08/03 – 01/09/03 (Pickel Dep. Exh. 13)
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P-109	Correspondence dated 1/7/1987 from W. H. Doyle to Jerry Olds, MLGW

	President, re ground water modeling (Pickel Dep. Exh. 35)
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P-119	Brahana Dep. Exh. 8: Hayes 7/12/84 ltr to Pickel with attachments
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P-132	Brahana Dep. Exh. 21: Criner USGS Report cover page only, "Approximate Potentiometric Surface for the Aquifer Units A2, A3 & A4 . . . "
P-133	Brahana Dep. Exh. 22: Criner USGS WRI 76-67 cover page and table of contents only, "Historic Water Level Changes and Pumpage from the Principal Aquifers of the Memphis Area, Tennessee 1886 – 1975"
P-134	Brahana Dep. Exh. 23: Criner 1779-O cover page and table of contents only, "Hydrology of Aquifer Systems in the Memphis Area, Tennessee"
P-135	Brahana Dep. Exh. 24: Nyman 1819-B cover page and table of contents only, "Predicted Hydrologic Effects of Pumping from the Lichterman Well Field in Memphis Area, Tennessee"

P-136	Brahana Dep. Exh. 25: Wells 1933, cover page and table of contents only, "Ground Water Resources of Western Tennessee"
P-137	Brahana Dep. Exh. 26: Moore USGS 1809-F, cover page and table of contents only, "Geology and Hydrology of the Claiborne Group in Western Tennessee"
P-138	Brahana Dep. Exh. 27: Bell USGS 1853, cover page and table of contents only, "Flow Pattern and Related Chemical Quality of Ground Water in the 500-Foot Sand in the Memphis Area, Tennessee
P-139	Brahana Dep. Exh. 28: Map "Potentiometric Map of the Memphis Sand in the Memphis Area, Tennessee, August 1978," by David Graham, WRI 79-80
P-140	Branch Dep. Exh. 1: Affidavit of Charles Branch dated August 31, 2007
P-141	Branch Dep. Exh. 2: Branch letter dated 6/26/1995 to Jim Hanes, Tennessee Department of Environment and Conservation funding of aquifer groundwater studies
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P-143	Gentry Dep. Exh. 1: Gentry Curriculum Vitae
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P-145	Gentry Dep. Exh. 3: Newspaper article from *The Commercial Appeal*, Friday, May 12, 2000, entitled, "Issue of Water Quantity Hits Home in Region," by David L. Feldman
P-146	Gentry Dep. Exh. 4: David Lewis Feldman, Ph.D. and Julia O. Elmendorf, J.D., *Final Report – Water Supply Challenges Facing Tennessee: Case Study Analyses and the Need for Long-Term Planning* (June 2000) prepared for the Environmental Policy Office, Tennessee Department of Environment and Conservation, Nashville, Tennessee
P-147	Gentry Dep. Exh. 5: Map of potentiometric surface of Memphis Sands in 1988 (Parks, 1990)
P-148	Gentry Dep. Exh. 6: USGS abstract entitled"Ground-Water Levels and Flow in the Memphis Aquifer, Mississippi, Arkansas and Tennessee," (2001)
P-149	Gentry Dep. Exh. 7: Document prepared by Dr. Gentry, "Methodologies

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P-152	Gentry Dep. Exh. 10: Map: Figure 41 – Flow net of the Memphis Sand, 1943
P-153	Gentry Dep. Exh. 11: Map: Figure 50 – Flow net of the Memphis Sand, 1964
P-154	Gentry Dep. Exh. 12: Map: Figure 39 – Flow net of the Memphis Sand, 1980
P-155	Gentry Dep. Exh. 13: CD: "GIS Data" CD 08/07/06 provided by Dr. Gentry
P-156	Gentry Dep. Exh. 15: GWI Technical Brief #7, James Outlaw, *A Ground Water Flow Analysis of the Memphis Sand Aquifer in the Memphis, Tennessee Area*
P-157	"Water Pumpage by Stations, Gallons Per Day, 1965-2012," Table 1 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-158	"Pumpage Amounts from MLGW and DeSoto County," 1965-2016

	Table 2 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-159	"Volume of Groundwater Taken from Mississippi Due to MLGW Pumpage," 1965-2016, Table 3 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-160	"Project Area," Figure No. 1 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-161	"Hydrogeologic Cross Section Showing an Example of Cones of Depression," Figure No. 2 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-162	"Three-Dimensional Illustration Showing Cone of Depression," Figure No. 3 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern*

	Mississippi Into the State of Tennessee prepared by David A. Wiley, P.G., WSP
P-163	"Hydrogeologic Cross Section Showing the Principle Aquifers and Confining Beds in the Study Area," Figure No. 4 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-164	"Map from the Northern Mississippi Embayment," Figure No. 5 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-165	"Hydrogeologic Cross Section Illustrating Recharge at Outcrop and Groundwater Flow," Figure No. 6 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-166	"Hydrogeologic Section of Principal Aquifers and Confining Units East to West Through the Mississippi Embayment With Groundwater Flow Direction," Figure No. 7 from June 2017 *Update Report on*

	Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee prepared by David A. Wiley, P.G., WSP
P-167	"Generalized Geology of Embayment and Pre-Development Potentiometric Surface of Middle Claiborne Aquifer," Figure No. 8 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-168	"1886 Estimated Potentiometric Surface Map for Predevelopment Conditions," Figure No. 9 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-169	"Sparta/Memphis Sand Aquifer Hydrographs," Figure No. 10 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-170	"U.S. Geological Survey 2000 Potentiometric Surface Map," Figure No. 11 from June 2017 *Update Report on Diversion and Withdrawal of*

	Groundwater from Northern Mississippi Into the State of Tennessee prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-171	"1886 Estimated Potentiometric Surface Map for Predevelopment Conditions," Figure No. 12 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-172	"1980 Potentiometric Surface Map from Brahana Groundwater Model," Figure No. 13 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-173	"2013 Drawdown Contour Map Developed from Groundwater Model," Figure No. 14 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-174	"2014 Drawdown Contour Map Developed from Groundwater Model"

	Figure No. 15 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-175	"2015 Drawdown Contour Map Developed from Groundwater Model," Figure No. 16 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-176	"2016 Drawdown Contour Map Developed from Groundwater Model," Figure No. 17 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-177	"2013 Potentiometric Surface Map Developed from Groundwater Model," Figure No. 18 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by

	David A. Wiley, P.G., WSP (clarification September 2018)
P-178	"2014 Potentiometric Surface Map Developed from Groundwater Model," Figure No. 19 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-179	"2015 Potentiometric Surface Map Developed from Groundwater Model," Figure No. 20 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-180	"2016 Potentiometric Surface Map Developed from Groundwater Model," Figure No. 21 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-181	"Volume of Groundwater Contributed to Shelby County, TN from DeSoto County, MS Due to MLGW Pumpage (1965-2016), Figure 22

	from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-182	"1886 Estimated Potentiometric Surface Map for Predevelopment Conditions," Figure No. 23 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-183	"2016 Potentiometric Surface Map Developed from Groundwater Model" Figure No. 24 from June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP (clarification September 2018)
P-184	"Pre-Development Flow Paths in Northwestern Mississippi," Figure No. 1 from 07/31/2017 Addendum #1 to June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-185	"USGS MERAS Model Pre-Development MSSA Potentiometric Surface

	With Generalized Flow Directions," Figure No. 2 from 07/31/2017 Addendum #1 to June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-186	"Model Simulated Pre-Development Potentiometric Head Contours for the Middle Claiborne Aquifer," Figure No. 3 from 07/31/2017 Addendum #1 to June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-187	"Generalized Geology of Embayment and Pre-Development Potentiometric Surface of Middle Claiborne Aquifer," Figure No. 4 from 07/31/2017 Addendum #1 to June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-188	"1886 Estimated Potentiometric Surface Map for Predevelopment Conditions," Figure No. 5 from 07/31/2017 Addendum #1 to June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee*

	prepared by David A. Wiley, P.G., WSP
P-189	"Pre-Development and 2007 Water Budget in DeSoto County Mississippi from USGS MERAS Model," Figure No. 6 from 07/31/2017 Addendum #1 to June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-190	"Heads Above and Below the Top of MSSA Aquifer from Equal Amounts of Pumpage Occurring in Mississippi and Tennessee (Based on 2016 MLGW and DeSoto County Estimates)" Figure No. 7 from 07/31/2017 Addendum #1 to June 2017 *Update Report on Diversion and Withdrawal of Groundwater from Northern Mississippi Into the State of Tennessee* prepared by David A. Wiley, P.G., WSP
P-191	"Figure 1: Groundwater Distribution in the Shallow Subsurface (modified from Alley et al., 1999)," from p. 7 of June 30, 2017, *Expert Report, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal

	Hydrogeologist, Groundwater Management Associates, Inc.
P-192	"Figure 2: Confined versus Unconfined Aquifers and Artesian Wells," from p. 9 of June 30, 2017, *Expert Report, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-193	"Figure 3: Physiographic Provinces of the Mississippi Embayment (Clark et al., 2011, Figure 1)," from p. 12 of June 30, 2017, *Expert Report, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-194	"Figure 4: Stratigraphic Correlation of Paleocene and Younger Sedimentary Units and Aquifers in Northern Mississippi and Western Tennessee (Haugh, 2016, Table 1)," from p. 14 of June 30, 2017, *Expert Report, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis,*

	and Memphis Light, Gas & Water Division, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-195	"Figure 5: Surface Distribution of Regional Aquifers and Confining Unites in the Mississippi Embayment and Gulf Coastal Plain (Grubb, 1998, Figure 7)," from p. 15 of June 30, 2017, *Expert Report, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-196	"Figure 6: Cones of Depression and Groundwater Flow Paths Associated with Municipal Well Fields in Shelby County, Tennessee (LB&G, 2014, Figure 31)," from p. 18 of June 30, 2017, *Expert Report, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.

P-197	"Figure 7: Block Diagram Illustrating Surface Recharge and Groundwater Flow Paths within the Sparta-Memphis Sand Aquifer in Northern Mississippi (LB&G, 2014, Figure 6)," from p. 19 of June 30, 2017, *Expert Report, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-198	"Figure 8: Schematic West-East Cross-Section of the Geology of the Mississippi Embayment and Generalized Pre-Development Groundwater Flow Patterns (modified from Figure 4 of Hart et al., 2008)," from p. 20 of June 30, 2017, *Expert Report, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-199	"Figure 9: Pre-Development Groundwater Equipotential Map and Flow Patterns in the Middle Claiborne Aquifer (modified from Plate 5 of Arthur and Taylor, 1998)," from p.

	21 of June 30, 2017, *Expert Report, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared June 30, 2017, by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-200	"Figure 10: Post-Development Groundwater Equipotential Map and Flow Patterns in the Middle Claiborne Aquifer (modified from Plate 7 of Arthur and Taylor, 1998)," from p. 22 of June 30, 2017, *Expert Report, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-201	"Figure 11: Unconfined Aquifers and Local Flow Systems (Modified from Grannemann et al., 2000)," from p. 25 of June 30, 2017, *Expert Report, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal

	Hydrogeologist, Groundwater Management Associates, Inc.
P-202	"Figure 12: Piezometers are used to define Groundwater Recharge, Discharge, and Flow Patterns in Unconfined Aquifers (modified from Winter et al., 1998)," from p. 26 of June 30, 2017, *Expert Report, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee, City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-203	"Figure 1: Waldron and Larsen (2015) Pre-Development Equipotential Map for the Middle Claiborne Aquifer (aka, SMS or Memphis Aquifer)," from p. 8 of July 31, 2017, Expert Report, Addendum #1, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee, City of Memphis, and Memphis Light, Gas & Water Division, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-204	"Figure 2: Criner and Parks (1976) Graph of Groundwater Withdrawals from the Middle Claiborne Aquifer (aka, SMS or Memphis Aquifer) between 1886 and 1975," from p. 9 of

	July 31, 2017, *Expert Report, Addendum #1, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-205	"Figure 3: Criner and Parks (1976) Equipotential Map for Confined Portions of the Middle Claiborne Aquifer (aka, SMS or Memphis Aquifer) in 1886," from p. 12 of July 31, 2017, *Expert Report, Addendum #1, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-206	"Figure 4: Reed (1972) Equipotential Map for Confined Portions of the Middle Claiborne Aquifer (aka, SMS or Memphis Aquifer) in 1886," from p. 13 of July 31, 2017, *Expert Report, Addendum #1, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D.,

	P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-207	"Figure 5: Comparison of Equipotential Maps for Confined Portions of the Middle Claiborne Aquifer (aka, SMS or Memphis Aquifer) in 1886 Produced by Criner and Parks (1976) and Reed (1972), Top and Bottom, Respectively," from p. 14 of July 31, 2017, *Expert Report, Addendum #1, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.
P-208	"Figure 6: Local versus Regional Groundwater Flow Systems in Unconfined and Confined Aquifers, Respectively," from p. 19 of July 31, 2017, *Expert Report, Addendum #1, Hydrogeologic Evaluation and Opinions for State of Mississippi versus State of Tennessee*, *City of Memphis, and Memphis Light, Gas & Water Division*, prepared by Richard K. Spruill, Ph.D., P.G., Principal Hydrogeologist, Groundwater Management Associates, Inc.

APPENDIX C

Index of Defendants' Exhibits

DEFENDANTS' EXHIBIT NO.	DESCRIPTION
D-1	Curriculum Vitae of David E. Langseth, Sc.D., P.E., D. WRE
D-2	Correlation of Hydrogeologic Units Across States Within the Mississippi Embayment Regional Aquifer Study
D-3	The Water Cycle
D-4	Aquifer Recharge Processes and Soil Moisture Zone
D-5	Gaining and Losing Stream Reaches
D-6	Local-scale Groundwater Flow System
D-7	Hydraulic Head in Confined and Unconfined Aquifers
D-8	Schematic of a Typical Pumping Well
D-9	Idealized Cones of Depression in Confined and Unconfined Aquifers
D-10	Process for Constructing a Potentiometric Surface Map
D-11	Principal Aquifers of the United States

D-12	Principal Aquifers of the United States showing the Mississippi Embayment Aquifer System Outline
D-13	MSSA within the Mississippi Embayment Aquifer System
D-14	Mississippi Embayment Aquifer System Generalized East-West Cross-section
D-15	Mississippi Embayment Aquifer System Generalized North-South Cross-section
D-16	Mississippi Embayment Aquifer System Surficial Geology
D-17	Pre-development Potentiometric Surface for MSSA Based on Data Available in 1976
D-18	Pre-development Potentiometric Surface for MSSA Based on Data Available in 2015
D-19	Pre-development MSSA Flow Pathways for Water that Re-charged the MSSA in Mississippi from the Outcrop Area North of the Coldwater River
D-20	Pre-development MSSA Flow Pathways for Water that Re-charged the MSSA from the Wolf River

D-21	Pre-development Flow Pathways for Water Originating in the Fort Pillow Aquifer in Mississippi (a)
D-22	Pre-development Flow Pathways for Water Originating in the Fort Pillow Aquifer in Mississippi (b)
D-23	Structure Map Showing the Bottom of the Memphis Sand Aquifer, Memphis Area, Based on Data Available in 1964
D-24	Structure Map Showing the Bottom of the MSSA Based on Data Used in the MERAS
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D-26	USGS MERAS Model Pre-development MSSA Potentiometric Surface with Generalized Flow Directions
D-27	Pre-development MSSA Flow Pathways for Water in the Northern 4 Miles of Mississippi
D-28	Pre-development MSSA Flow Pathways for Water in the Northern 4 Miles of Mississippi – DeSoto-Shelby County Area
D-29	Model-simulated Pre-development Potentiometric Head Contours for the Middle Claiborne Aquifer (Upper MSSA)

D-30	2007 Potentiometric Head Contours for the Memphis/Sparta Sand Aquifer
D-31	Model-simulated Potentiometric Head Drawdown Contours in the Middle Claiborne Aquifer (Upper MSSA), 1987
D-32	Model-simulated Potentiometric Head Drawdown Contours in the Lower Claiborne-Upper Wilcox Aquifer (Lower MSSA), 1987
D-33	Model-simulated Potentiometric Head Drawdown Contours in the Fort Pillow Aquifer from a Pumping Location in DeSoto County, Mississippi
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D-42	USGS MERAS Model Hydraulic Conductivity North-South Cross-section
D-43	Comparison of the Brahana and Broshears Model and USGS MERAS Model Domains
D-44	Comparison of the Brahana and Broshears Model and USGS MERAS Model Cross-sections
D-45	USGS MERAS Model MSSA Potentiometric Surface for Pre-development Conditions and Example Particle Track
D-46	Confirmation of Northerly Pre-Development Flow in Wiley's Figures 9, 12, and 23, and Spruill's Figure 17
D-47	Confirmation of Northerly Predevelopment Flow in Spruill's Figure 9 (Arthur and Taylor, 1998)
D-48	Confirmation of Northerly Predevelopment Flow in Brahana and Broshears (2001)
D-49	Confirmation of Northerly Predevelopment Flow in Criner and Parks (1976)

D-50	Compilation of USGS MERAS Model Particle Tracking Results
D-51	Wiley (2017) Area of Limited Pre-Development "Interstate Flow" Compared with USGS MERAS Model Results
D-52	Contrasting Geographic Scope of Brahana and Broshears (2001) and Wiley (2017)
D-53	The MSSA Is an Interstate Aquifer with Interstate Flow
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D-67-83	Removed as individual exhibits and consolidated in D195
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D-107-111	Removed as individual exhibits and consolidated in D197
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D-113	*Hood v. City of Memphis* 2:05-cv-00032-GHD (N.D. Miss) – Complaint
D-114	*Hood v. City of Memphis* 2:05-cv-00032-GHD (N.D. Miss) – Plaintiff's Response to Defendants' (I) Motion to Dismiss for Lack of Ripeness / Lack of Standing,

	(II) Motion to Dismiss for Failure to Join Indispensable Party, (III) Motion to Dismiss the Tort Claims for Lack of Subject Matter Jurisdiction / Improper Venue.
D-115	*Hood v. City of Memphis* 2:05-cv-00032-GHD (N.D. Miss) – Reply Memorandum of Authorities in Support of Plaintiff's Response to Defendants' Motion (I) to Dismiss for Lack of Ripeness / Lack of Standing, (II) to Dismiss for Failure to Join Indispensable Party, (III) to Dismiss the Tort Claims for Lack of Subject Matter Jurisdiction / Improper Venue
D-116	*Hood v. City of Memphis* 2:05-cv-00032-GHD (N.D. Miss) – Plaintiff's Surrebuttal Memorandum of Authorities
D-117	*Hood v. City of Memphis* 2:05-cv-00032-GHD (N.D. Miss) – Plaintiff's Reply Memorandum of Authorities in Support of Response in Opposition to Defendants' Motion to Alter or Amend Order or Alternatively to Certify Order for Interlocutory Appeal
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D-119	*Hood v. City of Memphis* 08-60152 (5th Cir.) – Brief for Appellant,

	State of Mississippi, to Fifth Circuit Court of Appeals
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D-121	*Miss. v. Tenn.* (Original 139) – Mississippi's Brief in Support of Motion for Leave to File Bill of Complaint in Original Action
D-122	Defendants' Notice to Take Deposition of Mississippi Department of Environmental Quality Pursuant to Rule 30(b)(6) of the Federal Rules of Civil Procedure
D-123	Source Water Assessment Program
D-124	Letter from Jamie Crawford to Fred Von Hofe (Dec. 9, 1994)
D-125	Letter from Fred Von Hofe to Jamie Crawford (Dec. 13, 1994)
D-126	1886 Estimated Potentiometric Surface Map for Predevelopment Conditions
D-127	1886 Estimated Potentiometric Surface Map for Predevelopment Conditions
D-128	Model Grid Area & Enlargement (2 pages)

D-129	Interstate Aquifer with Interstate Flow, CASE 1, fig. 14 from Expert Report of Richard Spruill (June 30, 2017)
D-130	Interstate Aquifer with Intrastate Flow, CASE 2, fig. 15 from Expert Report of Richard Spruill (June 30, 2017)
D-131	Letter from Layne GeoSciences to Isaac D. Guess (April 30, 2002)
D-132-148	**Removed and submitted as Joint Exhibits**
D-149	Mississippi's Responses to Memphis and MLGW's First Set of Interrogatories
D-150	Mississippi's Responses to Memphis and MLGW's First Set of Request [sic] for Admissions
D-151	Mississippi's Response to Tennessee's First Request for Admissions
D-152	Mississippi's Responses to Tennessee's First Set of Interrogatories
D-153	**Removed as duplicate – see D-1**
D-154	Current CV of Steven Larson
D-155	Current CV of Brian Waldron
D-156-173	**Removed and submitted as Joint Exhibits**

D-174	Waldron, Brian, and Larsen, Daniel, *Pre-development Ground-water Conditions Surrounding Memphis, Tennessee: Controversy and Unexpected Outcomes*. Journal of the American Water Resources Association (2015)
D-175-183	**Removed and submitted as Joint Exhibits**
D-184	Barksdale, HC; Greenman, DW; Lang, SM; Hilton, GS; Outlaw, DE, *Ground-water Resources in the Tri-state Region Adjacent to the Lower Delaware River*, New Jersey Department of Conservation and Economic Development, Division of Water Policy and Supply Special Report 13 (1958)
D-185-189	**Removed and submitted as Joint Exhibits**
D-190	Any exhibit listed by Mississippi that is not included in Defendants' list
D-191	Expert Report (Vol. 1) of David Langseth, Sc.D., P.E., D. WRE (June 27, 2017)
D-192	Expert Report (Vol. 2) of David Langseth, Sc.D., P.E., D. WRE (June 27, 2017)

D-193	Rebuttal Expert Report of David Langseth, Sc.D., P.E., D. WRE (July 28, 2017)
D-194	Expert Report of Brian Waldron, Ph.D (June 30, 2017)
D-195	Rebuttal Expert Report of Brian Waldron, Ph.D (July 31, 2017)
D-196	Sur-Rebuttal Expert Report of Brian Waldron, Ph.D. (August 30, 2017)
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D-198	Expert Rebuttal Report of Steven P. Larson (July 31, 2017)

APPENDIX D

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Mississippi v. Tennessee, No. 143, Original

The official docket sheet for this case is maintained by the United States Court of Appeals for the Sixth Circuit. It is available online at https://www.ca6.uscourts.gov/special-master.

Docket No.	Date	Filings
1	2014 Jun 6	Motion for leave to file a bill of complaint filed
2	2014 Jul 17	Order extending time to file response to motion for leave to file a bill of complaint to and including September 5, 2014, for all respondents
3	2014 Sept 5	Brief of respondent City of Memphis, Tennessee, and Memphis Light, Gas and Water Division in opposition filed
4	2014 Sept 5	Brief of respondent Tennessee in opposition filed
5	2014 Sept 24	DISTRIBUTED for Conference of October 17, 2014
6	2014 Sept 24	Reply of petitioner Mississippi, Plaintiff filed (Distributed)
7	2014 Oct 1	DISTRIBUTED for Conference of October 17, 2014

8	2014 Oct 20	The Solicitor General is invited to file a brief in this case expressing the views of the United States
9	2015 May 12	Brief amicus curiae of United States filed
10	2015 May 22	Supplemental brief of Mississippi, Plaintiff filed
11	2015 Jun 9	DISTRIBUTED for Conference of June 25, 2015
12	2015 Jun 29	Motion for leave to file a bill of complaint GRANTED. Defendants are allowed 30 days within which to file an answer
13	2015 Jul 20	The time to file an answer has been extended for all defendants to and including September 14, 2015
14	2015 Sept 11	Answer of Defendants City of Memphis, Tennessee, and Memphis Light, Gas & Water Division filed
15	2015 Sept 14	Answer of Defendant State of Tennessee filed
16	2015 Sept 16	DISTRIBUTED for Conference of October 9, 2015
17	2015 Nov 10	It is ordered that the Honorable Eugene E. Siler, Jr., of London, Kentucky, is appointed Special Master in this case with authority to fix the time and conditions

		for the filing of additional pleadings, to direct subsequent proceedings, to summon witnesses, to issue subpoenas, and to take such evidence as may be introduced and such as he may deem it necessary to call for. The Special Master is directed to submit Reports as he may deem appropriate. The cost of printing his Reports, and all other proper expenses, including travel expenses shall be submitted to the Court.
18	2015 Nov 18	Oath of Special Master filed
19	2015 Dec 11	Notice of Initial Conference
20	2016 Jan 15	Notice of Date and Time of Initial Conference
21	2016 Jan 26	Initial Conference Held
22	2016 Jan 27	Email Service List
23	2016 Feb 17	Agreed Proposed Order on Initial Conference
24	2016 Feb 18	Letter Re: Order on Initial Conference
25	2016 Feb 18	Order on Initial Conference

26	2016 Feb 18	Updated Email Service List
27	2016 Feb 24	Letter Re: Motion of Memphis and Memphis Light, Gas & Water Division for Judgment on the Pleadings
28	2016 Feb 24	Motion of Memphis and Memphis Light, Gas & Water Division for Judgment on the Pleadings
29	2016 Feb 25	Letter Re: Motion of Tennessee for Judgment on the Pleadings
30	2016 Feb 25	Motion of Tennessee for Judgment on the Pleadings
31	2016 Mar 3	Letter Re: Brief of the United States as Amicus Curiae in Support of Motions of Defendants for Judgment on the Pleadings
32	2016 Mar 3	Brief of the United States as Amicus Curiae in Support of the Motions of Defendants for Judgment on the Pleadings
33	2016 Mar 22	Letter Re: Agreed Proposed Order Modifying the Briefing Schedule
34	2016 Mar 22	Agreed Proposed Order Modifying the Briefing Schedule
35	2016 Mar 22	Letter Re: Order Modifying the Briefing Schedule
36	2016 Mar 22	Order Modifying the Briefing Schedule

37	2016 Apr 4	Letter Re: Agreed Proposed Order Modifying the Briefing Schedule
38	2016 Apr 4	Agreed Proposed Order Modifying the Briefing Schedule
39	2016 Apr 4	Letter Re: Order Modifying the Briefing Schedule
40	2016 Apr 4	Order Modifying the Briefing Schedule
41	2016 Apr 6	Letter Re: Response of Mississippi in Opposition to the Motions of Defendants for Judgment on the Pleadings and Motion of Mississippi to Exclude
42	2016 Apr 6	Response of Mississippi in Opposition to the Motions of Defendants for Judgment on the Pleadings
43	2016 Apr 6	Motion of Mississippi to Exclude
44	2016 Apr 28	Letter Re: Reply of Memphis and Memphis Light, Gas & Water Division in Support of Their Motion for Judgment on the Pleadings and Response of Memphis and Memphis Light, Gas & Water Division in Opposition to the Motion of Mississippi to Exclude
45	2016 Apr 28	Reply of Memphis and Memphis Light, Gas & Water Division in Support of Their Motion for Judgment on the Pleadings

46	2016 Apr 28	Response of Memphis and Memphis Light, Gas & Water Division in Opposition to the Motion of Mississippi to Exclude
47	2016 Apr 28	Letter Re: Memorandum of the United States as Amicus Curiae in Opposition to the Motion of Mississippi to Exclude
48	2016 Apr 28	Memorandum of the United States as Amicus Curiae in Opposition to the Motion of Mississippi to Exclude
49	2016 Apr 28	Letter Re: Reply of Tennessee in Support of Its Motion for Judgment on the Pleadings and Response of Tennessee in Opposition to the Motion of Mississippi to Exclude
50	2016 Apr 28	Reply of Tennessee in Support of Its Motion for Judgment on the Pleadings
51	2016 Apr 28	Response of Tennessee in Opposition to the Motion of Mississippi to Exclude
52	2016 May 5	Letter Re: Reply of Mississippi in Support of Its Motion to Exclude
53	2016 May 5	Reply of Mississippi in Support of Its Motion to Exclude

54	2016 Aug 12	Letter Re: Memorandum of Decision and Case Management Order
55	2016 Aug 12	Memorandum of Decision
56	2016 Oct 12	Order
57	2016 Oct 26	Case Management Order
58	2017 May 25	Order
59	2017 July 19	Order
60	2017 Aug 9	Order
61	2017 Nov 1	Case Management Order
62	2017 Dec 13	Order Extending Case Management Plan
63	2018 Feb 20	Order Amending Certain Deadlines in the Case Management Order
64	2018 Feb 28	Plaintiff's and Defendants' Joint Statement of Stipulated and Contested Facts
65	2018 Mar 20	Joint Proposed Pre-Hearing Scheduling Order
66	2018 Mar 20	Tennessee Letter Brief re: Pre-Hearing Scheduling Order
67	2018 Mar 20	Mississippi Letter Brief re: Pre-Hearing Scheduling Order

68	2018 Mar 22	Mississippi Reply Brief & Objection re: Pre-Hearing Scheduling Order
69	2018 Apr 11	Pre-Hearing Scheduling Order
69 (Corrected)	2018 Apr 12	Corrected Pre-Hearing Scheduling Order
70	2018 Jun 1	Defendants' Motion for Summary Judgment
70 (Exhibits)	2018 June 1	Exhibits attached to Defendants' Motion for Summary Judgment
71	2018 July 6	Plaintiff's Response to Defendants' Motion for Summary Judgment
71 (Exhibits)	2018 July 6	Exhibits attached to Plaintiff's Response to Defendants' Motion for Summary Judgment
72	2018 July 24	Defendants' Reply Brief in support of Summary Judgment
72 (Exhibit)	2018 July 24	Exhibit 19 submitted with Defendants' Reply
73	2018 Nov 2	Plaintiff's Expert Credentials
74	2018 Nov 2	Defendant MLGW's Expert Credentials
75	2018 Nov 2	Defendant State of Tennessee's Expert Credentials
76	2018 Nov 2	Plaintiff's Motion to Exclude (with Exhibits)

77	2018 Nov 2	Defendants' Motion To Exclude Plaintiff's Expert
78	2018 Nov 2	Defendants' Motion in Limine
79	2018 Nov 2	Defendants' Motion to Exclude Plaintiff's Expert
80	2018 Nov 2	Defendants' Motion to Exclude Deposition Testimony
81	2018 Nov 2	Defendants' Motion to Exclude Irrelevant Evidence
82	2018 Nov 2	Defendants' Motion to Exclude Exhibits
83	2018 Nov 2	Exhibits in Support of Defendants' Motions in Limine
84	2018 Nov 20	Plaintiff's Response to Defendants' Motion to Exclude
85	2018 Nov 20	Plaintiff's Response to Exclude Two Aquifers
86	2018 Nov 20	Plaintiff's Response to Exclude Spruill Testimony
87	2018 Nov 20	Plaintiff's Response to Exclude Designated Deposition Testimony
88	2018 Nov 20	Plaintiff's Response to Exclude Irrelevant Evidence
89	2018 Nov 20	Defendants' Joint Response to Plaintiff's Motion to Exclude
90	2018 Nov 27	Order Setting Preliminary Conference

91	2018 Nov 27	Order on Motion to Withdraw
92	2018 Nov 29	Letter Re: Memorandum of Decision
93	2018 Nov 29	Memorandum of Decision
94	2018 Dec 7	Defendants' Reply to Exclude Irrelevant Evidence
95	2018 Dec 7	Defendants' Reply to Exclude Plaintiff's Expert
96	2018 Dec 7	Defendants' Reply to Exclude Plaintiff's Expert
97	2018 Dec 7	Defendants' Reply to Preclude Two Aquifer Theory
98	2018 Dec 7	Defendants' Reply to Exclude Designated Deposition Testimony
99	2018 Dec 7	Defendants' Reply Exhibits
100	2018 Dec 7	Plaintiff's Reply to Exclude Defendants' Expert
101	2018 Dec 21	Defendant Tennessee's Pre-Hearing Brief
102	2018 Dec 21	Defendant MLGW and City of Memphis Pre-Hearing Brief
103	2018 Dec 21	Plaintiff Mississippi's Pre-Hearing Brief
104	2019 Jan 14	Order Approving Continuance of Evidentiary Hearing and Revising Scheduling Order

105	2019 May 30	Transcript of Evidentiary Hearing Day One
106	2019 May 30	Transcript of Evidentiary Hearing Day Two
107	2019 May 30	Transcript of Evidentiary Hearing Day Three
108	2019 May 30	Transcript of Evidentiary Hearing Day Four
109	2019 May 30	Transcript of Evidentiary Hearing Day Five
110	2019 Aug 12	Order Extending Deadline Post-Hearing Briefing
111	2019 Sep 9	Plaintiff's Unopposed Motion for Extension of Time to File Post-Hearing Briefing
112	2019 Sep 9	Order Granting Extension of Time to File Post-Hearing Briefing
113	2019 Sep 19	Defendants MLGW and City of Memphis's Post-Hearing Brief
114	2019 Sep 19	Defendant Tennessee's Post-Hearing Brief
115	2019 Sep 19	Defendants' Proposed Findings of Fact
116	2019 Sep 19	Defendants' Proposed Conclusions of Law
117	2019 Sep 19	Plaintiff Mississippi's Post-Hearing Brief

118	2019 Sep 19	Plaintiff Mississippi's Proposed Findings of Fact and Conclusions of Law
119	2019 Sep 20	Plaintiff Mississippi's Corrected Post-Hearing Brief
120	2019 Sep 23	Order for Joint Proposal on Procedure and Schedule for Closing Arguments
121	2019 Oct 11	Joint Proposal on Procedure and Schedule for Closing Arguments
122	2019 Oct 15	Motion for Leave to File Brief and Tendered Brief of Amici Curiae Law Professors
123	2019 Oct 16	Order Granting Motion for Leave to File Amicus Brief
124	2019 Oct 16	Brief of Amici Curiae Law Professors
125	2019 Oct 21	Defendant Tennessee's Response to Plaintiff's Post-Hearing Brief
126	2019 Oct 21	Defendants MLGW and City of Memphis's Response to Plaintiff's Post-Hearing Brief
127	2019 Oct 21	Plaintiff Mississippi's Combined Response to Defendants' Post-Hearing Briefs
128	2019 Oct 28	Order on Procedure and Schedule for Closing Arguments

129	2020 Feb 19	Plaintiff Mississippi's Notice of Appearances and Change of Addresses
130	2020 Feb 20	Updated Email Service List
131	2020 Mar 6	Transcript of Closing Arguments
132	2020 Mar 6	Plaintiff Mississippi's Closing Argument Exhibit
133	2020 Mar 6	Defendant Tennessee's Closing Argument Exhibit
134	2020 Mar 6	Defendants MLGW and City of Memphis's Closing Argument Exhibit