



The Arbitrage Group, Inc.

\$8,970,000
Madison County, Mississippi
General Obligation Refunding Bonds
Series 2012

Rebate Computation for the Period
June 7, 2012 to May 1, 2017



The Arbitrage Group, Inc.

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July 20, 2018

Madison County
Canton, Mississippi

\$8,970,000
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General Obligation Refunding Bonds
Series 2012

Madison County, Mississippi (the "County") issued the above referenced bonds (the "Bonds") dated and delivered on June 7, 2012. At the request of the County, we have performed the procedures enumerated below for the period June 7, 2012 to May 1, 2017 (the "Computation Period"). These procedures, which were agreed to by the County, were performed solely to assist the County in evaluating compliance with the requirements of Section 148(f)(2) of the Internal Revenue Code of 1986, as amended (the "Code"). This engagement was performed in accordance with standards established by the American Institute of Certified Public Accountants for consulting services. The sufficiency of these procedures is solely the responsibility of the specified users of the report. This report is intended solely for your information and should not be used by those who have not agreed to the procedures and taken responsibility for the sufficiency of the procedures for their purposes. This report is not to be quoted or referred to without our prior written consent.

Our procedures and findings are as follows:

- (1) We read the Certificate as to Non-Arbitrage, excerpts from the Official Statement, verification report dated June 7, 2012 (the "Verification Report"), and the Trust Statements provided to us by the County.
- (2) A schedule of the sources and uses of funds (Exhibit A) was assembled based on the Certificate as to Non-Arbitrage.
- (3) A schedule of the debt service requirements of the Bonds to scheduled maturity (Exhibit B-2) was assembled based on the Official Statement.
- (4) The yield on the Bonds was computed to be the discount rate that causes the present value of all principal and interest payments on the Bonds to equal the Issue Price to the Public assuming certain early redemptions as detailed in Item (6) of Exhibit E. The yield on the Bonds assuming certain early redemptions was computed to be 1.991766% (Exhibit B-1).

Madison County, Mississippi
 July 20, 2018
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- (5) A schedule of actual earnings on the nonpurpose investments in the Escrow Fund purchased with gross proceeds of the Bonds during the Computation Period (Exhibit C) was assembled based on Verification Report and the Trust Statements.
- (6) The allowable earnings amount on the nonpurpose investments in the Escrow Fund was calculated to be the amount that the nonpurpose investments in the Escrow Fund would have earned if they had been invested at a rate equal to the yield on the Bonds assuming certain early redemptions of 1.991766% (Exhibit C).
- (7) The arbitrage earnings amount during the Computation Period for the Escrow Fund was calculated to be the difference between the actual earnings and allowable earnings for the nonpurpose investments in the Escrow Fund. The arbitrage earnings amount is as follows:

Trust Fund	Exhibit	Arbitrage Earnings
Escrow Fund	C	(\$540,968.83)
Less Computation Credit Amount	D	(6,840.15)
Total Arbitrage Earnings		(\$547,808.98)

- (8) The assumptions and computational information employed in the above calculations are explained in Exhibit E.
- (9) Based on the information provided by the County and the assumptions employed, this report reflects that there was no rebate liability due for the Bonds as of the May 1, 2017 Rebate Installment Computation Date.

Because the above procedures do not constitute an audit conducted in accordance with generally accepted auditing standards, we do not express an opinion on any of the information referred to above. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you. The terms of our engagement are such that we have no obligation to update this report because of events and transactions occurring subsequent to the date of this report.

Very truly yours,

The Arbitrage Group, Inc.

Exhibits

- A. Sources and Uses of Funds
- B. Computation of Yield on the Bonds
 - B-1. Proof of Yield on the Bonds Assuming Certain Early Redemptions
 - B-2. Debt Service Requirements of the Bonds to Scheduled Maturity
 - B-3. Computation of Net Original Issue Premium
- C. Computation of Arbitrage Earnings on the Escrow Fund
- D. Computation of Computation Credit Amount
- E. Assumptions and Computational Information

Sources and Uses of Funds

\$8,970,000
Madison County, Mississippi
General Obligation Refunding Bonds
Series 2012

SOURCES

Principal Amount of the Bonds	\$8,970,000.00
Original Issue Premium	696,545.95
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	\$9,666,545.95
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USES

Deposit to Escrow Fund	\$9,431,756.41
Deposit to Costs of Issuance Fund	145,089.54 *
Underwriter's Discount	89,700.00 *
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	\$9,666,545.95
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* These amounts were assumed to have been spent at closing and/or never invested as represented in the Certificate as to Non-Arbitrage and/or by the County.

Proof of Yield on the Bonds

Assuming Certain Early Redemptions

\$8,970,000

Madison County, Mississippi

General Obligation Refunding Bonds

Series 2012

Date	\$8,970,000 Serial Bonds			Debt Service Requirements of the Bonds	Present Value of Future Payments at 06/07/12 Using a Rate of 1.991766%
	Principal	Coupon Rate	Interest		
11/01/12			\$105,900.00	\$105,900.00	\$105,063.78
05/01/13	\$110,000.00	2.000%	132,375.00	242,375.00	238,090.03
11/01/13			131,275.00	131,275.00	127,682.61
05/01/14	80,000.00	2.000%	131,275.00	211,275.00	203,467.08
11/01/14			130,475.00	130,475.00	124,414.12
05/01/15	80,000.00	2.000%	130,475.00	210,475.00	198,718.92
11/01/15			129,675.00	129,675.00	121,224.75
05/01/16	80,000.00	2.000%	129,675.00	209,675.00	194,078.77
11/01/16			128,875.00	128,875.00	118,112.64
05/01/17	85,000.00	2.000%	128,875.00	213,875.00	194,081.46
11/01/17			128,025.00	128,025.00	115,031.07
05/01/18	840,000.00	3.000%	128,025.00	968,025.00	861,198.49
11/01/18			115,425.00	115,425.00	101,674.70
05/01/19	860,000.00	3.000%	115,425.00	975,425.00	850,752.49
11/01/19			102,525.00	102,525.00	88,539.17
05/01/20	890,000.00	3.000%	102,525.00	992,525.00	848,679.01
11/01/20			89,175.00	89,175.00	75,499.04
05/01/21	920,000.00	3.000%	89,175.00	1,009,175.00	845,982.05
11/01/21			75,375.00	75,375.00	62,563.11
05/01/22	5,025,000.00	(*)	75,375.00	5,100,375.00	4,191,692.66
	<u>\$8,970,000.00</u>		<u>\$2,299,925.00</u>	<u>\$11,269,925.00</u>	<u>\$9,666,545.95</u>
			Principal Amount of the Bonds		\$8,970,000.00
			Original Issue Premium		696,545.95
					<u>\$9,666,545.95</u>

(*) Principal amounts and interest rates are as shown on Exhibit B-3.

Assumes certain early redemptions as detailed in Item (6) of Exhibit E.

Debt Service Requirements of the Bonds to Scheduled Maturity

\$8,970,000

Madison County, Mississippi

General Obligation Refunding Bonds

Series 2012

Date	\$8,970,000 Serial Bonds			Debt Service Requirements of the Bonds
	Principal	Coupon Rate	Interest	
11/01/12			\$105,900.00	\$105,900.00
05/01/13	\$110,000.00	2.000%	132,375.00	242,375.00
11/01/13			131,275.00	131,275.00
05/01/14	80,000.00	2.000%	131,275.00	211,275.00
11/01/14			130,475.00	130,475.00
05/01/15	80,000.00	2.000%	130,475.00	210,475.00
11/01/15			129,675.00	129,675.00
05/01/16	80,000.00	2.000%	129,675.00	209,675.00
11/01/16			128,875.00	128,875.00
05/01/17	85,000.00	2.000%	128,875.00	213,875.00
11/01/17			128,025.00	128,025.00
05/01/18	840,000.00	3.000%	128,025.00	968,025.00
11/01/18			115,425.00	115,425.00
05/01/19	860,000.00	3.000%	115,425.00	975,425.00
11/01/19			102,525.00	102,525.00
05/01/20	890,000.00	3.000%	102,525.00	992,525.00
11/01/20			89,175.00	89,175.00
05/01/21	920,000.00	3.000%	89,175.00	1,009,175.00
11/01/21			75,375.00	75,375.00
05/01/22	945,000.00	3.000%	75,375.00	1,020,375.00
11/01/22			61,200.00	61,200.00
05/01/23	975,000.00	3.000%	61,200.00	1,036,200.00
11/01/23			46,575.00	46,575.00
05/01/24	1,005,000.00	3.000%	46,575.00	1,051,575.00
11/01/24			31,500.00	31,500.00
05/01/25	1,035,000.00	3.000%	31,500.00	1,066,500.00
11/01/25			15,975.00	15,975.00
05/01/26	1,065,000.00	3.000%	15,975.00	1,080,975.00
	<u>\$8,970,000.00</u>		<u>\$2,610,425.00</u>	<u>\$11,580,425.00</u>

Computation of Original Issue Premium

\$8,970,000

Madison County, Mississippi

General Obligation Refunding Bonds

Series 2012

Date	Principal	Coupon Rate	Yield	Price	Purchase Price	Accrued Interest	Original Issue Premium
05/01/13	\$110,000.00	2.000%	0.400%	101.435%	\$111,578.50	\$0.00	\$1,578.50
05/01/14	80,000.00	2.000%	0.550%	102.736%	82,188.80	0.00	2,188.80
05/01/15	80,000.00	2.000%	0.700%	103.725%	82,980.00	0.00	2,980.00
05/01/16	80,000.00	2.000%	0.900%	104.205%	83,364.00	0.00	3,364.00
05/01/17	85,000.00	2.000%	1.100%	104.281%	88,638.85	0.00	3,638.85
05/01/18	840,000.00	3.000%	1.330%	109.445%	919,338.00	0.00	79,338.00
05/01/19	860,000.00	3.000%	1.530%	109.590%	942,474.00	0.00	82,474.00
05/01/20	890,000.00	3.000%	1.730%	109.338%	973,108.20	0.00	83,108.20
05/01/21	920,000.00	3.000%	1.900%	108.966%	1,002,487.20	0.00	82,487.20
05/01/22	945,000.00	3.000%	2.000%	108.939%	1,029,473.55	0.00	84,473.55
05/01/23	975,000.00	3.000%	2.100% *	108.005% *	1,053,048.75	0.00	78,048.75
05/01/24	1,005,000.00	3.000%	2.200% *	107.080% *	1,076,154.00	0.00	71,154.00
05/01/25	1,035,000.00	3.000%	2.300% *	106.164% *	1,098,797.40	0.00	63,797.40
05/01/26	1,065,000.00	3.000%	2.380% *	105.438% *	1,122,914.70	0.00	57,914.70
	<u>\$8,970,000.00</u>				<u>\$9,666,545.95</u>	<u>\$0.00</u>	<u>\$696,545.95</u>

* Pursuant to the Official Statement, Yield/Price to May 1, 2022 call date.

Computation of Arbitrage Earnings on the Escrow Fund

\$8,970,000

Madison County, Mississippi

General Obligation Refunding Bonds

Series 2012

Date	Principal Amounts	Actual Earnings		Total Nonpurpose Investment Activity	Future Value of Total Nonpurpose Investment Activity at 05/01/17 Using a Bond Yield of 1.991766%
		Interest	Gain (Loss)		
06/07/12	(\$9,431,756.00)	\$0.00	\$0.00	(\$9,431,756.00)	(\$10,393,660.53)
11/01/12	165,659.00	18,341.46	0.00	184,000.46	201,164.77
05/01/13	160,865.00	23,134.71	0.00	183,999.71	199,180.35
11/01/13	161,125.00	22,874.50	0.00	183,999.50	197,216.08
05/01/14	161,303.00	22,697.26	0.00	184,000.26	195,272.21
11/01/14	161,521.00	22,479.50	0.00	184,000.50	193,346.96
05/01/15	161,779.00	22,221.07	0.00	184,000.07	191,439.99
11/01/15	162,078.00	21,921.78	0.00	183,999.78	189,551.97
05/01/16	8,297,426.00	21,573.31	0.00	8,318,999.31	8,485,519.37
05/01/17	0.00	0.00	0.00	(175,243.59)	(175,243.59)
	\$0.00	\$175,243.59	\$0.00	\$0.00	(\$716,212.42)
		Actual Earnings			\$175,243.59
		Allowable Earnings			(716,212.42)
		Arbitrage Earnings			(\$540,968.83)

Computation of Computation Credit Amount

\$8,970,000

Madison County, Mississippi

General Obligation Refunding Bonds

Series 2012

Date	Annual Computation Credit	Future Value of Annual Computation Credit Amounts at 05/01/17 Using a Bond Yield of 1.991766%
05/01/13	(\$1,590.00)	(\$1,721.18)
05/01/14	(1,620.00)	(1,719.24)
05/01/15	(1,650.00)	(1,716.71)
05/01/16	(1,650.00)	(1,683.02)
	(\$6,510.00)	(\$6,840.15)
	(\$6,510.00)	(\$6,840.15)
Computation Credit Amount		(\$6,840.15)

Assumptions and Computational Information

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- (1) Pursuant to Section 8.1 of the Certificate as to Non-Arbitrage, it was assumed the Bonds represented a single bond issue for arbitrage rebate and bond yield calculation purposes.
- (2) Pursuant to Section 5.1 of the Certificate as to Non-Arbitrage, the County selected the one year period (or shorter period from the date of issue of the Bonds) ending May 1 as the bond year for the purposes of calculating arbitrage rebate. Consequently, it was assumed May 1, 2017 (the end of the 5th Bond Year) represented the first Rebate Installment Computation Date for the Bonds.
- (3) As represented by the County, it was assumed the Bonds have not been refunded.
- (4) The amounts denoted by an " * " on the Sources and Uses of Funds (Exhibit A) were assumed to have been spent at closing and/or never invested as represented in the Certificate as to Non-Arbitrage and/or the County. Consequently, no investment activity was included in the computation for these amounts.
- (5) Present value and future value computations were made on the basis of a 30/360 day year and semiannual compounding.
- (6) Pursuant to Section 1.148-4(b)(3) of the Regulations, for purposes of computing the yield on the Bonds, if a fixed yield bond is subject to optional early redemption and is described in paragraph (b)(3)(ii) of this section, the yield on the issue containing the bond is computed by treating the bond as redeemed at its stated redemption price on the optional redemption date that would produce the lowest yield on the issue. The premium bonds maturing May 1 in the years 2023 through 2026 represent callable premium bonds described in paragraph (b)(3)(ii) of this section. The lowest yield on the issue resulted by treating these bonds as optionally redeemed at 100% of par on their earliest redemption date on May 1, 2022.
- (7) As represented by the County, no fees were received or paid to commence or terminate a Guaranteed Investment Contract, Investment Agreement, Forward Purchase Agreement, or similar type investment. Consequently, no such fees or payments were included in the computation.
- (8) Pursuant to the Certificate as to Non-Arbitrage, the Bonds were issued to advance refund and discharge the Series 2006 Bonds of the County on May 1, 2016. Pursuant to Section 6.3 of the Certificate as to Non-Arbitrage and as represented by the County, as of June 7, 2012 there were no unexpended gross proceeds of the Series 2006 Bonds that could have become transferred proceeds of the Bonds.
- (9) As represented by or on behalf of the County, it was assumed the only funds which were funded and contained gross proceeds of the Bonds during the Computation Period were the Escrow Fund, Costs of Issuance Fund, and the Bond Fund (the "Trust Funds").
- (10) The transaction amounts in the Principal Amounts, Interest, and Gain (Loss) columns shown in Exhibit C for each date represent the net transaction activity for that date. Net investment and interest purchases are denoted by parentheses. The Gain (Loss) columns represent the net gains and losses, if any, on investments purchased and/or sold at discounts and premiums.
- (11) It was assumed the purchase price of each investment was at fair market value, did not include brokerage or other acquisition fees, and represented an arm's length transaction which did not reduce the rebate amount to be paid to the United States.

Assumptions and Computational Information

\$8,970,000

Madison County, Mississippi

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Series 2012

- (12) All amounts withdrawn from the Trust Funds were assumed to be spent for the purpose of the bond issue on the day they were withdrawn.
- (13) The Bond Fund was excluded from the computation pursuant to Section 148(f)(4)(A)(ii) of the Code which excludes from the rebate computation bona fide debt service funds as defined in Section 1.148-1(b) of the Regulations. Section 4.2 of the Certificate as to Non-Arbitrage indicates that the Bond Fund is intended to function as a bona fide debt service fund. Trust Statements for the Bond Fund were not provided for our review.
- (14) Pursuant to Section 1.148-3(d)(1)(iv) of the Regulations, on the last day of each bond year during which there are amounts allocated to gross proceeds of an issue that are subject to the rebate requirements, and on the final maturity date, a computation credit is allowed as a payment. The payment amount is future valued from the last day of each bond year to the Computation Date at a rate equal to the yield on the Bonds (Exhibit D).