

ARCH COAL INC  
Form 11-K  
June 29, 2010

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549**

**FORM 11-K**

(Mark One)

**Annual Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934  
For the fiscal year ended December 31, 2009**

**Transition Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_.**

**Commission file number: 1-13105**

**Arch Coal, Inc. Employee Thrift Plan**

(Full title of the plan and the address of the plan, if different from that of the issuer named below)

Arch Coal, Inc.

One CityPlace Drive, Suite 300

St. Louis, Missouri 63141

(Name of issuer of the securities held pursuant to the plan and the address of its principal executive office)

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***ARCH COAL, INC.  
EMPLOYEE THRIFT PLAN  
FINANCIAL STATEMENTS  
DECEMBER 31, 2009***

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**Report Of Independent Registered Public  
Accounting Firm**

To The Pension Committee  
Arch Coal, Inc. Employee Thrift Plan  
St. Louis, Missouri

We have audited the accompanying statement of net assets available for benefits of the Arch Coal, Inc. Employee Thrift Plan (the Plan) as of December 31, 2009 and 2008, and the related statement of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits at December 31, 2009 and 2008, and the changes in net assets available for benefits for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ RubinBrown LLP

St. Louis, Missouri  
June 29, 2010

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN  
STATEMENT OF NET ASSETS AVAILABLE FOR BENEFITS**

	December 31, 2009	2008
<b>Assets</b>		
<b>Investments, At Fair Value (Note 3)</b>		
Money market	\$ 1,818,595	\$ 1,660,650
Mutual funds	172,381,569	143,106,710
Guaranteed investment account	66,072,507	58,563,311
Company stock	34,384,617	22,387,100
Collective trust fund	32,994,515	
Brokerage securities	11,114,310	7,772,231
Participant loans (Note 4)	17,036,423	13,661,732
<b>Total Investments At Fair Value</b>	<b>335,802,536</b>	<b>247,151,734</b>
<b>Receivables</b>		
Employer contributions receivable	695,357	613,354
Employee contributions receivable	890,908	793,456
<b>Total Receivables</b>	<b>1,586,265</b>	<b>1,406,810</b>
<b>Net Assets Available For Benefits At Fair Value</b>	<b>337,388,801</b>	<b>248,558,544</b>
<b>Adjustment From Fair Value To Contract Value For Fully Benefit-Responsive Investment Contracts</b>	<b>(1,641,093)</b>	<b>2,246,423</b>
<b>Net Assets Available For Benefits</b>	<b>\$ 335,747,708</b>	<b>\$ 250,804,967</b>

See the accompanying notes to financial statements.

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN  
STATEMENT OF CHANGES IN NET ASSETS  
AVAILABLE FOR BENEFITS**

	<b>For The Years Ended December 31,</b>	
	<b>2009</b>	<b>2008</b>
<b>Additions To Net Assets Attributed To:</b>		
<b>Contributions</b>		
Salary deferral	\$ 20,993,759	\$ 21,569,194
Employer (Note 7)	15,821,598	15,540,598
Employee after-tax	1,244,008	1,464,768
Rollover (Note 8)	8,743,332	886,051
<b>Total Contributions</b>	<b>46,802,697</b>	<b>39,460,611</b>
<b>Deductions From Net Assets Attributed To:</b>		
Benefits paid directly to participants	18,742,803	21,808,914
Administrative fees	260,230	12,300
<b>Total Deductions</b>	<b>19,003,033</b>	<b>21,821,214</b>
<b>Investment Income (Loss) (Note 3)</b>		
Dividends and interest	8,587,726	9,239,721
Net appreciation (depreciation) in fair value of investments	47,954,898	(108,409,555)
<b>Net Investment Income (Loss)</b>	<b>56,542,624</b>	<b>(99,169,834)</b>
<b>Transfer Of Assets Into Plan (Note 9)</b>	<b>600,453</b>	
<b>Net Increase (Decrease)</b>	<b>84,942,741</b>	<b>(81,530,437)</b>
<b>Net Assets Available For Benefits Beginning Of Year</b>	<b>250,804,967</b>	<b>332,335,404</b>
<b>Net Assets Available For Benefits End Of Year</b>	<b>\$ 335,747,708</b>	<b>\$ 250,804,967</b>

See the accompanying notes to financial statements.

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN  
NOTES TO FINANCIAL STATEMENTS  
December 31, 2009 And 2008**

**1. Description Of The Plan**

The Arch Coal, Inc. Employee Thrift Plan (the Plan) was established by Arch Coal, Inc. (the Company) for the benefit of the eligible employees of the Company, its subsidiaries and controlled affiliates.

The following description of the Plan provides only general information. Participants should refer to the Plan Agreement for a more complete description of the Plan's provisions.

Certain provisions of the Plan as described below do not apply to or have been modified for certain subsidiaries and affiliates of the Company.

**General**

The Plan, which has been adopted by Arch Coal, Inc., is a defined contribution plan, which includes a 401(k) provision. The Plan covers substantially all salaried employees, nonunion hourly employees, and certain union employees where specified by applicable collective bargaining agreements of the Company, its subsidiaries, and any controlled affiliates that elect to participate in the Plan. It is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

On September 24, 2009, the Company completed the acquisition of Jacobs Ranch Coal, LLC, a mining complex previously owned by Rio Tinto Sage, LLC. The acquisition of the complex resulted in 595 new employees, who immediately became eligible and had the option to rollover account balances and transfer outstanding loans into the Plan.

The Plan was amended to recognize, for vesting purposes in the Plan, the prior service of Jacobs Ranch Coal, LLC employees.

**Contributions**

Participants may elect to defer between 1% and 50% of compensation. Highly compensated employees may contribute up to 16%, with the exception of the highly compensated hourly employees at Mingo Logan and Mountain Laurel who may contribute up to 17%. The Company is required to make matching contributions equal to 100% of participant contributions up to the first 6% of eligible compensation.



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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**

Notes To Financial Statements (*Continued*)

Effective March 1, 2008, the Plan was amended to allow highly compensated hourly employees at Mingo Logan and Mountain Laurel to contribute up to 16% of eligible compensation.

The Plan includes an automatic enrollment provision for all eligible employees. The automatic enrollment provides for default deferral contributions of 6% of eligible compensation, which will be invested in a target retirement fund. The participant has the option to make changes to the deferral percentage and investment allocation at any time.

**Participant Accounts**

Each participant's account is credited with the participant's contributions; the Company's matching contribution, if applicable, or Company discretionary contributions, if applicable, and an allocation of Plan earnings. The allocation of earnings is determined by the earnings of the participant's investment selection based on each participant's account balance, as defined in the Plan Agreement. The benefit to which a participant is entitled is the benefit that can be provided from the participant's account.

**Vesting**

Participants are fully vested in their contributions plus actual earnings. All eligible employees of the Company at December 31, 1997 became fully vested in the Plan. Eligible employees hired subsequent to December 31, 1997 vest in Company contributions and earnings upon the completion of three full years of service. The hourly employees at Mingo Logan and Mountain Laurel are fully vested after the completion of two full and consecutive years of service.

All participants become fully vested upon death while employed, total disability, or normal retirement age, regardless of the number of months of participation.

**Participant Loans**

Active participants, with some exceptions, may borrow from their account a minimum of \$500 or up to a maximum equal to the lesser of \$50,000 or 50% of their vested account balances. Loan terms range from one to five years or longer for the purchase of a primary residence. The loans are secured by the balance in the participant's account and bear interest at the prime rate listed in the Wall Street Journal on the first day of the month the loan is processed. Principal and interest are paid ratably through payroll deductions.

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**

Notes To Financial Statements (*Continued*)

**Payment Of Benefits**

Upon death, termination of service, or attainment of age 70-1/2, a participant may receive a lump-sum amount equal to the value of the participant's vested interest in his or her account. Participant accounts with vested balances of \$1,000 or less will be automatically distributed unless otherwise instructed.

**Forfeited Accounts**

Forfeited amounts of Company contributions are used to offset future Company matching contributions of the Plan. At December 31, 2009 and 2008, forfeited amounts that became available to reduce future Company contributions were \$256,263 and \$861,806, respectively. During the Plan years ended December 31, 2009 and 2008, \$1,330,244 and \$618,407, respectively, in forfeited funds were used to offset Company contributions.

**Investment Options**

Upon enrollment in the Plan, a participant may direct contributions in a number of investment options offered by the Plan.

**Withdrawals**

Subject to certain qualifications, participants may take an in-service withdrawal of their after-tax or Company matching contributions. A participant who has reached age 59-1/2 or experienced a qualifying financial hardship may withdraw all or part of his or her vested account. Hardship withdrawals will be approved only if they conform to the Plan provisions and established Internal Revenue Service safe harbors.

**2. Summary Of Significant Accounting Policies**

**Basis Of Accounting**

The financial statements of the Plan are prepared under the accrual basis of accounting.

**Estimates And Assumptions**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of additions to and deductions from net assets during the reporting period. Actual results could differ from those estimates.

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**

Notes To Financial Statements (*Continued*)

**Investment Valuation And Income Recognition**

The Plan's investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 3 for a discussion of fair value measurements.

In 2009, FASB Staff Position 157-4, *Disclosures Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly* (FSP 157-4), was issued and later codified into ASC Topic 820, *Fair Value Measurements and Disclosures* (ASC Topic 820), which expanded disclosures and required that major categories for debt and equity securities in the fair value hierarchy table be determined on the basis of the nature and risks of the investments. As shown in Note 4, this guidance was applied prospectively in 2009, and the impact of this standard was not material to the Plan's net assets available for benefits.

Investment income is recorded as earned on the accrual basis. Purchases and sales of securities are recorded on a trade-date basis. Dividends are recorded on the ex-dividend date.

As required by accounting standards, investment contracts held by a defined-contribution plan are required to be reported at fair value. However, contract value is the relevant measurement attribute for that portion of the net assets available for benefits of a defined-contribution plan attributable to fully benefit-responsive investment contracts because contract value is the amount participants would receive if they were to initiate permitted transactions under the terms of the Plan. As required by the FSP, the Statement of Net Assets Available for Benefits presents the fair value of the investment contracts, as well as the adjustment of the fully benefit-responsive investment contracts from fair value to contract value. The Statement of Changes in Net Assets Available for Benefits is prepared on a contract value basis.

**Payment Of Benefits**

Benefits are recorded when paid.

**3. Investments**

The Company has established a Pension Committee to oversee the activities of the Plan and has appointed the Vice President Human Resources as the Plan Administrator. Mercer Fiduciary Trust Company is the Trustee for the Plan and Mercer HR Services is the Plan's Recordkeeper.

**Table of Contents****ARCH COAL, INC. EMPLOYEE THRIFT PLAN**Notes To Financial Statements (*Continued*)**Investments, At Fair Value**

	<b>December 31,</b>	
	<b>2009</b>	<b>2008</b>
<b>Money Market</b>	<b>\$ 1,818,595</b>	<b>\$ 1,660,650</b>
<b>Mutual Funds</b>		
American Century Income and Growth Fund	18,389,814*	15,712,585*
Growth Fund of America	22,784,112*	15,671,703*
Investment Company of America	7,829,638	4,420,739
Black Rock Small Cap Core Equity Fund	2,713,372	1,985,880
Dodge & Cox Balanced Fund	27,375,060*	18,083,515*
Franklin Templeton Balance Sheet Fund	11,248,655	9,443,162
Artio International Equity Fund	14,186,316	11,562,049
PIMCO Total Return Fund	26,231,661*	21,721,712*
Putnam Asset Allocation: Balanced Fund		13,842,042*
Putman S&P 500 Index Fund		20,053,231*
Putman Vista Fund		3,955,676
Jennison Mid Cap Growth Fund	5,393,504	
Wells Fargo Advantage Outlook 2010	2,943,550	1,211,344
Wells Fargo Advantage Outlook 2020	8,414,366	1,812,897
Wells Fargo Advantage Outlook 2030	8,492,618	1,513,526
Wells Fargo Advantage Outlook 2040	16,378,903	2,116,649
<b>Total Mutual Funds</b>	<b>172,381,569</b>	<b>143,106,710</b>
<b>Guaranteed Investment Account (At Fair Value)</b>	<b>66,072,507*</b>	<b>58,563,311*</b>
<b>Company Stock</b>	<b>34,384,617*</b>	<b>22,387,100*</b>
<b>Collective Trust Fund</b>	<b>32,994,515*</b>	
<b>Brokerage Securities</b>	<b>11,114,310</b>	<b>7,772,231</b>
<b>Participant Loans</b>	<b>17,036,423*</b>	<b>13,661,732*</b>
	<b>\$ 335,802,536</b>	<b>\$ 247,151,734</b>

\* Investment  
represents 5%  
or more of net  
assets.

**Table of Contents****ARCH COAL, INC. EMPLOYEE THRIFT PLAN**Notes To Financial Statements (*Continued*)

During 2009 and 2008, the Plan's investments, including gains and losses on investments bought and sold, as well as held during the year, appreciated (depreciated) in value as follows:

	2009	2008
Mutual funds	\$ 34,795,166	\$ (76,070,878)
Company stock	9,817,650	(25,481,582)
Brokerage securities	3,342,082	(6,857,095)
	<b>\$ 47,954,898</b>	<b>\$ (108,409,555)</b>

The Plan has entered into a benefit-responsive investment contract (investment contract) with Invesco Ltd (Invesco) which maintains the contributions in a managed account. The account is credited with earnings on the underlying investments and charged for participant withdrawals and administrative expenses. The investment contract issuer is contractually obligated to repay the principal and a specified interest rate to the Plan.

As described in Note 2, because the investment contract is fully benefit-responsive, contract value is the relevant measurement attribute for that portion of the net assets available for benefits attributable to the investment contract. Contract value, as reported to the Plan by Invesco, represents contributions made under the investment contract, plus earnings, less participant withdrawals and administrative expenses. Participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value.

There are no reserves against contract value for credit risk of the investment contract issuer. Interest income on the Invesco Stable Value Fund is calculated and credited daily based on the aggregate contract yield of the underlying investments. Interest rates are reset on a monthly basis. The investment contracts included in this fund had an average yield of 4.05% and 3.91% for the years ended December 31, 2009 and 2008, respectively. The average crediting interest rate was 4.01% and 4.46% at December 31, 2009 and 2008, respectively.

Certain events limit the ability of the Plan to transact at contract value with the issuer. Such events include the following: (1) amendments to the Plan documents (including complete or partial Plan termination or merger with another plan), or (2) the decision by the Company to withdraw all assets from the funds and reinvest in another investment vehicle. The Plan Administrator does not believe that the occurrence of any such value event, which would limit the Plan's ability to transact at contract value with participants, is probable.

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**

Notes To Financial Statements (*Continued*)

The contract permits the Company or Invesco to terminate the agreement upon 90-days notice to the other party.

**Fair Value Measurements**

The Plan follows current accounting standards, which establish a framework for measuring fair value. The framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value are described below:

Level 1 Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.

Level 2 Inputs to the valuation methodology include:

Quoted prices for similar assets or liabilities in active markets;

Quoted prices for identical or similar assets or liabilities in inactive markets;

Inputs other than quoted prices that are observable for the asset or liability;

Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**

Notes To Financial Statements (*Continued*)

The asset s or liability s fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

Following is a description of the valuation methodologies used for assets measured at fair value:

**Money Market And Mutual Funds**

Valued at the net asset value (NAV) of shares held by the Plan at year end, based on quoted market prices.

**Guaranteed Investment Account**

Valued at fair value by discounting the related cash flows based on current yields of similar instruments with comparable durations considering the credit-worthiness of the issuer.

**Collective Trust Fund**

Valued at fair value as determined by the Trustee based on the market value of the underlying investment assets.

**Company Stock And Brokerage Securities**

Valued at the closing price reported on the active market on which the individual securities are traded.

**Participant Loans**

Valued at amortized cost, which approximates fair value.

The methods described above may produce fair value calculations that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.



**Table of Contents****ARCH COAL, INC. EMPLOYEE THRIFT PLAN**Notes To Financial Statements (*Continued*)

The following table sets forth by level, within the fair value hierarchy, the Plan's assets at fair value as of December 31, 2009:

	Level 1	Level 2	Level 3	Total
Money market	\$ 1,818,595	\$	\$	\$ 1,818,595
Mutual funds				
Growth funds	30,890,988			30,890,988
Balanced funds	63,604,497			63,604,497
Blended funds	22,015,954			22,015,954
Value funds	29,638,469			29,638,469
Income fund	26,231,661			26,231,661
Total mutual funds	172,381,569			172,381,569
Guaranteed investment account		66,072,507		66,072,507
Company stock	34,384,617			34,384,617
Collective trust fund		32,994,515		32,994,515
Brokerage securities	11,114,310			11,114,310
Participant loans			17,036,423	17,036,423
Total assets at fair value	\$ 219,699,091	\$ 99,067,022	\$ 17,036,423	\$ 335,802,536

The following table sets forth by level, within the fair value hierarchy, the Plan's assets at fair value as of December 31, 2008:

	Level 1	Level 2	Level 3	Total
Money market	\$ 1,660,650	\$	\$	\$ 1,660,650
Mutual funds	143,106,710			143,106,710
Guaranteed investment account		58,563,311		58,563,311
Company stock	22,387,100			22,387,100
Brokerage securities	7,772,231			7,772,231
Participant loans			13,661,732	13,661,732
Total assets at fair value	\$ 174,926,691	\$ 58,563,311	\$ 13,661,732	\$ 247,151,734

**Table of Contents****ARCH COAL, INC. EMPLOYEE THRIFT PLAN**Notes To Financial Statements (*Continued*)

The table below sets forth a summary of changes in the fair value of the Plan's Level 3 assets for the years ended December 31, 2009 and 2008.

	<b>2009</b>	2008
Balance, beginning of year	<b>\$ 13,661,732</b>	\$ 13,068,103
Purchases, sales, issuances and settlements (net)	<b>3,374,691</b>	593,629
Balance, end of year	<b>\$ 17,036,423</b>	\$ 13,661,732

There have been no changes in the methodologies used at December 31, 2009 or 2008.

**4. Participant Loans**

Participant loans are secured by participants' vested balances. The loans are due in bi-weekly payments including principal and interest at varying rates reflective of the prime rate as of the time of issue. At December 31, 2009, the interest rates on the participant loans range from 3.25% to 9.5%. The final installments are due at various dates through June 2026.

**5. Plan Termination**

Although it has not expressed intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan, subject to the provisions of ERISA. In the event of Plan termination, participants will become 100% vested in their accounts.

**6. Income Tax Status**

The Plan obtained its latest determination letter on July 17, 2009 in which the Internal Revenue Service stated that the Plan, as then designed, was in compliance with the applicable requirements of the Internal Revenue Code. The Plan has been amended since receiving the determination letter. The Plan Administrator believes the amendments made will maintain the tax qualification of the Plan and the related trust will continue to be tax exempt.

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**

Notes To Financial Statements (*Continued*)

**7. Employer Correction Contribution Receivable**

During 2008, the Company found that 64 participants did not have the correct contribution deducted from their pay and deposited into their account for various years between 2001 and 2007. At that time, management had estimated these corrections plus earnings would be approximately \$2,000,000. The actual correction for employee deferrals, Company match, and earnings amounted to \$812,890 and was deposited into the participants accounts in October 2008. In addition, the Company determined that the employer match had not been calculated correctly for 88 participants for that same period. The shortfall in employer match and earnings totaled \$44,775 and was deposited into the participants accounts in October 2008.

**8. Rollover Contributions**

During 2009, the Plan received rollover contributions amounting to \$8,272,373 as a result of the acquisition of Jacobs Ranch Coal, LLC (Note 1).

**9. Transfer Of Assets Into Plan**

During 2009, the Plan transferred in \$600,453 of outstanding participant loans as a result of the acquisition of Jacobs Ranch Coal, LLC (Note 1).

**10. Risks And Uncertainties**

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants account balances and the amounts reported in the statement of net assets available for benefits.

**Table of Contents****ARCH COAL, INC. EMPLOYEE THRIFT PLAN**Notes To Financial Statements (*Continued*)**11. Reconciliation Of Financial Statements To Form 5500**

Following is a reconciliation of net assets available for benefits and net decrease per the financial statements to the Form 5500:

	<b>December 31, 2009</b>	2008
Net assets available for benefits per the financial statements	<b>\$ 335,747,708</b>	\$ 250,804,967
Adjustment from contract value to fair value for fully benefit-responsive contracts	<b>1,641,093</b>	(2,246,423)
 Net assets available for benefits per the Form 5500	 <b>\$ 337,388,801</b>	 \$ 248,558,544
		 <b>For The Year Ended December 31, 2009</b>
Net increase per the financial statements		\$ 84,942,741
Adjustment from contract value to fair value for fully benefit-responsive contracts prior year		2,246,423
Adjustment from contract value to fair value for fully benefit-responsive contracts current year		1,641,093
 Net increase per the Form 5500		 \$ 88,830,257

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**Report Of Independent Registered Public Accounting Firm  
On Supplementary Information**

Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets held at end of year is presented for purposes of additional analysis and is not a required part of the basic financial statements, but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Income Security Act of 1974. This supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ RubinBrown LLP

St. Louis, Missouri

June 29, 2010

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**  
**E.I.N.: 43-0921172 PLAN NO.: 006**  
**SCHEDULE OF ASSETS HELD AT END OF YEAR**  
**Page 1 Of 2**  
**December 31, 2009**

<b>Identity Of Issuer</b>	<b>Description Of Investment</b>	<b>Current Value</b>
<b>Money Market</b>		
Federated	Prime Obligation Money Market Fund	\$ 1,818,595
<b>Mutual Funds</b>		
American Century	American Century Income and Growth Fund	18,389,814
American Fund Corporation	Growth Fund of America	22,784,112
American Fund Corporation	Investment Company of America	7,829,638
Black Rock Funds	Black Rock Small Cap Core Equity Fund	2,713,372
Dodge & Cox Funds	Dodge & Cox Balanced Fund	27,375,060
Franklin Investments	Franklin Templeton Balance Sheet Fund	11,248,655
Artio Investments	Artio International Equity Fund	14,186,316
PIMCO Investments	PIMCO Total Return Fund	26,231,661
Jennison Investments	Jennison Mid Cap Growth Fund	5,393,504
Wells Fargo	Wells Fargo Advantage Outlook 2010	2,943,550
Wells Fargo	Wells Fargo Advantage Outlook 2020	8,414,366
Wells Fargo	Wells Fargo Advantage Outlook 2030	8,492,618
Wells Fargo	Wells Fargo Advantage Outlook 2040	16,378,903
<b>Total Mutual Funds</b>		<b>172,381,569</b>
<b>Company Stock</b>		
Arch Coal, Inc. *	Common stock	34,384,617
<b>Collective Trust Fund</b>		
Northern Trust	Collective Daily S&P 500 Equity Index Fund	32,994,515
<b>Brokerage Securities</b>		
Putnam*	Putnam Direct Personal Choice Retirement Account (Participant Directed Brokerage Accounts)	11,114,310
<b>Balance Carried Forward</b>		<b>252,693,606</b>

\* Represents party-in-interest

The above information is a required disclosure for IRS Form 5500, Schedule H, Part IV, line 4i.

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**ARCH COAL, INC. EMPLOYEE THRIFT PLAN**  
**E.I.N.: 43-0921172 PLAN NO.: 006**  
**SCHEDULE OF ASSETS HELD AT END OF YEAR**  
**Page 2 Of 2**  
**December 31, 2009**

<b>Identity Of Issuer</b>	<b>Description Of Investment</b>	<b>Current Value</b>
<b>Balance Brought Forward</b>		\$ 252,693,606
 <b>Guaranteed Investment Account</b>		
<b>Invesco Stable Value Fund</b>		
Bank of America NT & SA	01-257	14,386,210
ING Life & Annuity	60034	14,491,149
JP Morgan Chase Bank	433119-MGC	11,764,180
Monumental Life Insurance Co.	MDA-00589TR	9,789,199
State Street Bank & Trust Co.	103077	11,732,014
State Street Bank & Trust Co.	MC7930	3,909,755
<b>Total Guaranteed Investment Account</b>		<b>66,072,507</b>
 <b>Plan Participants</b>	 Participant loans, bearing interest at 3.25% - 9.5%, due at various dates through June 2026.	 17,036,423
		\$ 335,802,536

The above information is a required disclosure for IRS Form 5500, Schedule H, Part IV, line 4i.

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**Signatures**

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on their behalf by the undersigned thereunto duly authorized.

Arch Coal, Inc. Employee Thrift Plan

By: /s/ Sheila B. Feldman  
Sheila B. Feldman  
Plan Administrator

June 29, 2010

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**Exhibit Index**

Exhibit	Description
23.1	Consent of Independent Registered Public Accounting Firm