



# AES Warrior Run

*the power of being global*

March 2, 2009

**RECEIVED**

**MAR 03 2009**

**Solid Waste Program**

CCB Reports  
c/o Mr. Edward M. Dexter, Administrator  
Solid Waste Program  
Maryland Department of the Environment  
1800 Washington Boulevard  
Baltimore, MD 21230-1719

Re: Coal Combustion Byproducts (CCB) Annual Generator Tonnage Report

Dear Mr. Dexter,

Enclosed please find the subject report for AES Warrior Run, LLC. We have filled out the report as required and also have attached copies of all the CCB analysis reports that were in our files.

If there are any questions about this report please do not hesitate to contact us.

Regards,

Larry Cantrell  
Plant Manager, AES Warrior Run

Waste Management Administration • Solid Waste Program

## Coal Combustion Byproducts (CCB) Annual Generator Tonnage Report

### Instructions for Calendar Year 2008

The following is general information relating to the requirement for reporting quantities of coal combustion byproducts that were managed in the State of Maryland during calendar year 2008. Please answer the questions on the form provided, attaching additional information and any requested supplemental information to the back of the form.

**I. Background.** This requirement that generators of coal combustion byproducts (CCBs) submit an annual report was instituted in the Code of Maryland Regulations COMAR 26.04.10.08, that was promulgated effective December 1, 2008. The regulation requires that any non-residential generator of CCBs submit a report to the Department by March 1 of each year describing the manner in which CCBs generated within the State were managed during the preceding calendar year. In addition, for this first report, information concerning CCB activity during the past 5 years is required to be submitted, to the extent that this is known. Additional information and specific instructions follow. For more detailed information, please refer to COMAR 26.04.10.08.

### **II. General Information and Applicability.**

**A. Definitions.** Coal combustion byproducts are defined in COMAR 26.04.10.02B as:

*"(3) Coal Combustion Byproducts. (a) "Coal combustion byproducts" means the residue generated by or resulting from the burning of coal.  
(b) "Coal combustion byproducts" includes fly ash, bottom ash, boiler slag, pozzolan, and other solid residuals removed by air pollution control devices from the flue gas and combustion chambers of coal burning furnaces and boilers, including flue gas desulfurization sludge and other solid residuals recovered from flue gas by wet or dry methods. "*

A generator of CCBs is defined in COMAR 26.04.10.02B as:

*"(9) Generator.  
(a) "Generator" means a person whose operations, activities, processes, or actions create coal combustion byproducts.  
(b) "Generator" does not include a person who only generates coal combustion byproducts by burning coal at a private residence."*

RECEIVED  
MAR 03 2009  
Solid Waste Administration

**B. Applicability.** If you or your company meet the definition of a generator of CCBs as defined above, you must provide the information as required below. For the purposes of this report, “you” shall hereinafter refer to the generator defined above. Please note that COMAR 26.04.10.08 requires generators of CCBs to submit an annual report to the Department concerning the disposition of the CCBs that they generated the previous year.

**III. Required Information.** The following information must be provided to the Department by March 1, 2009:

A. Contact information:

Facility Name:  AES Warrior Run

Name of Permit Holder:  AES Warrior Run LLC

Facility Address:  11600 Mexico Farms RD SE   
Street

Facility Address:  Cumberland   Maryland   21502   
City State Zip

County:  Allegany

Contact Information (Person filing report or Environmental Manager)

Facility Telephone No.:  301-777-0055  Facility Fax No.:  301-777-8772

Contact Name:  Ed Giugliano

Contact Title:  Team Leader

Contact Address:  11600 Mexico Farms RD SE   
Street

Contact Address:  Cumberland   Maryland   21502   
City State Zip

Contact Email:  Ed.Giugliano@aes.com

Contact Telephone No.:  301-777-0055 ext. 106  Contact Fax No.:  301-777-8772

*For questions on how to complete this form, please call Mr. Tariq Masood, Head of the Office of Reports and Data Management, Solid Waste Program at 410-537-3326.*

B. A description of the process that generates the coal combustion byproducts, including the type of coal or other raw material that generates the coal combustion byproducts. If the space provided is insufficient, please attach additional pages:

AES Warrior Run (AES) is an electric co-generation facility located at 11600 Mexico Farms Road, S.E in Cumberland in Allegany County in Maryland. The Facility operates a 180-megawatt coal-fired steam electric cogeneration plant and a 150-ton per day food grade carbon dioxide production plant. The facility consists of an ABB CE coal-fired atmospheric fluidized bed combustion boiler (AFBC) burning bituminous coal and Number 2 fuel oil as a start up fuel.

Selective non-catalytic reduction (SNCR) system provides supplemental control of nitrogen oxides (NOx) to the AFBC boiler design. Sulfur dioxide (SO<sub>2</sub>) emissions are controlled by the introduction of limestone into the fluidized bed of the boiler. A bag house controls particulate emissions in the boiler flue gas.

Bed ash is removed at the bottom of the boiler and is loaded into a silo for eventual removal. Fly ash is removed at the bottom of the baghouse, air heater, and boiler backpass sections and is kept segregated from the bed ash in a separate silo. Both flyash and bed ash are mixed with small amounts of service water (to control dusting) and loaded into trucks for disposal off-site.

AES commenced commercial operation on February 10, 2000, and produces electricity for distribution by the Potomac Electric Power Company. The applicable SIC Code for the facility is 4911 - Electric Services

C. In the first Annual Report you submit, the annual volume of coal combustion byproducts generated during the last 5 calendar years, including an identification of the different types of coal combustion byproducts generated and the volume of each type generated. (Please note that in subsequent years you need only provide the information in this paragraph for the last calendar year.) If the space provided is insufficient, please attach additional pages in a similar format:

Table I: Volume of CCBs Generated for Previous 5 Years:

| Reporting Year | Volume of CCB Type: | Volume of CCB Type: | Volume of CCB Type: |
|----------------|---------------------|---------------------|---------------------|
|                | Fly Ash             | Bed Ash             | Slag Ash            |
| 2008           | 275,814.76          | 94,484.21           | 7,735.41            |
| 2007           | 258,745.44          | 86,739.34           | 4,579.57            |
| 2006           | 214,460.38          | 85,678.41           | 11,680.27           |
| 2005           | 272,718.75          | 104,474.66          | 13,150.23           |
| 2004           | 241,146.47          | 94,945.94           | 4,121.19            |

Additional notes:

Slag ash consists of our fly ash and bed ash as a mixture. We use the term slag ash to differentiate from the fly and bed in our system.

---

---

---

---

---

---

---

---

D. Descriptions of any modeling or risk assessments, or both, conducted relating to the coal combustion byproducts or their use, that were performed by you or your company during the reporting year. Please attach this information to the report.

NONE

E. Copies of all laboratory reports of all chemical characterizations of the coal combustion byproducts. Please attach this information to the report.

(ATTACHED)

F. In this first Annual Report you submit, a description of how you disposed of or used your coal combustion byproducts in the last 5 calendar years (Please note that in subsequent years you need only provide the information in this paragraph for the last calendar year), identifying:

(a) The types and volume of coal combustion byproducts disposed of or used (if different than described in Paragraph C above), the location of disposal, mine reclamation and use sites, and the type and volume of coal combustion byproducts disposed of or used at each site:

| <b><u>2008</u></b>                      | <b><u>Fly Ash</u></b> | <b><u>Bed Ash</u></b> | <b><u>Slag Ash</u></b> | <b><u>TYPE</u></b> |
|---|-----------------------|-----------------------|------------------------|--------------------|
| Carlos Coal                             | 97,209.93             | 30,150.68             | 1,117.19               | Mine Reclamation   |
| Jackson Mountain Coal                   | 127,908.25            | 43,981.57             | 3,826.37               | Mine Reclamation   |
| Naked Lake                              | 50,473.64             | 20,351.96             | 2,560.57               | Mine Reclamation   |
| Vindex/Anker Coal                       | 222.94                | 0.00                  | 231.28                 | Mine Reclamation   |
| <b><u>2007</u></b>                      | <b><u>Fly Ash</u></b> | <b><u>Bed Ash</u></b> | <b><u>Slag Ash</u></b> | <b><u>Type</u></b> |
| Carlos Coal                             | 29,654.50             | 9,547.41              | 922.46                 | Mine Reclamation   |
| Jackson Mountain Coal                   | 204,317.46            | 69,277.29             | 2,814.63               | Mine Reclamation   |
| Naked Lake                              | 24,773.48             | 7,914.64              | 842.48                 | Mine Reclamation   |
| <b><u>2006</u></b>                      | <b><u>Fly Ash</u></b> | <b><u>Bed Ash</u></b> | <b><u>Slag Ash</u></b> | <b><u>Type</u></b> |
| Barton Mining Co.                       | 7,032.28              | 3,130.07              | 0.00                   | Mine Reclamation   |
| Carlos Coal                             | 103,544.61            | 40,508.41             | 1,148.99               | Mine Reclamation   |
| Jackson Mountain Coal                   | 35,850.72             | 14,324.16             | 219.39                 | Mine Reclamation   |
| (East Kentucky Power)                   | 0.00                  | 865.71                | 0.00                   | Boiler Start Up    |
| Pine Mountain Coal (Ash to Carlos Mine) | 0.00                  | 0.00                  | 930.83                 | Mine Reclamation   |
| Tri-Star Mining Co.                     | 10,197.65             | 4,198.12              | 0.00                   | Mine Reclamation   |
| United Energy Coal Co.                  | 27,402.94             | 10,412.37             | 0.00                   | Mine Reclamation   |
| United/Pond Hill                        | 30,432.18             | 12,239.57             | 126.87                 | Mine Reclamation   |
| West. MD. Lumber (Ash to Carlos Mine)   | 0.00                  | 0.00                  | 9,254.19               | Mine Reclamation   |
| <b><u>2005</u></b>                      | <b><u>Fly Ash</u></b> | <b><u>Bed Ash</u></b> | <b><u>Slag Ash</u></b> | <b><u>Type</u></b> |

|   |                       |                       |                        |                    |
|---|-----------------------|-----------------------|------------------------|--------------------|
| Barton Mining Co.                       | 70,812.62             | 30,795.80             | 0.00                   | Mine Reclamation   |
| Pine Mountain Coal (Ash to Carlos Mine) | 0.00                  | 0.00                  | 18.73                  | Mine Reclamation   |
| Tri-Star Mining Co.                     | 72,360.39             | 30,214.36             | 0.00                   | Mine Reclamation   |
| United Energy Coal Co.                  | 129,545.74            | 43,464.50             | 0.00                   | Mine Reclamation   |
| West. MD. Lumber (Ash to Carlos Mine)   | 0.00                  | 0.00                  | 13,131.50              | Mine Reclamation   |
| <b>2004</b>                             | <b><u>Fly Ash</u></b> | <b><u>Bed Ash</u></b> | <b><u>Slag Ash</u></b> | <b><u>Type</u></b> |
| Barton Mining Co.                       | 66,268.72             | 31,656.67             | 531.30                 | Mine Reclamation   |
| Cobra Coal Co.                          | 0.00                  | 46.05                 | 136.02                 | Mine Reclamation   |
| Tri-Star Mining Co.                     | 80,974.25             | 31,212.18             | 1,737.63               | Mine Reclamation   |
| United Energy Coal Co.                  | 93,903.50             | 32,031.04             | 1,716.24               | Mine Reclamation   |

and (b) The different uses by type and volume of coal combustion byproducts:

---



---



---



---



---



---



---



---



---

If the space provided is insufficient, please attach additional pages in a similar format. . (Please note that in subsequent years you need only provide the information in Section F for the last calendar year).

G. A description of how you intend to dispose of or use coal combustion byproducts in the next 5 years, identifying:

SAME AS PREVIOUS YEARS

(a) The types and volume of coal combustion byproducts intended to be disposed of or used, the location of intended disposal, mine reclamation and use sites, and the type and volume of coal combustion byproducts intended to be disposed of or used at each site:

---

---

---

---

---

---

---

---

and (b) The different intended uses by type and volume of coal combustion byproducts.

---

---

---

---

---


---

---

---

If the space provided is insufficient, please attach additional pages in a similar format.

**IV. Signature and Certification.** An authorized official of the generator must sign the annual report, and certify as to the accuracy and completeness of the information contained in the annual report:

|   |   |                         |
|---|---|-------------------------|
| This is to certify that, to the best of my knowledge, the information contained in this report and any attached documents are true, accurate, and complete. |   |                         |
| <br>Signature  | <u> Larry Cantrell </u><br>Name, Title, & Telephone No. (Print or Type) | <u> 3-2-09 </u><br>Date |
|   | <u> larry.cantrell@aes.com </u><br>Your Email Address                   |                         |





RECEIVED

MAR 03 2009

Date: 18 Feb-08

Laboratory Results

Geochemical Testing

CLIENT: AES - WARRIOR RUN INC  
 Lab Order: G0801612  
 Project:  
 Lab ID: G0801612-003  
 Matrix: COAL

Client Sample ID: Fly Ash  
 Sampled By: Client  
 Collection Date: 1/22/2008  
 Received Date: 1/29/2008 1:51:17 PM

| Analyses                           | Result  | QL              | Q | Units     | DF | Date Analyzed        |
|------------------------------------|---------|-----------------|---|-----------|----|----------------------|
| <b>TOTAL METALS</b>                |         | <b>EPA 6010</b> |   |           |    | Analyst: JAS         |
| Aluminum                           | 38700   | 100             |   | mg/Kg-dry | 20 | 2/6/2008 2:16:00 AM  |
| Antimony                           | < 1.0   | 1.0             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Arsenic                            | 67.0    | 1.0             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Barium                             | 319     | 0.5             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Cadmium                            | 0.7     | 0.1             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Chromium                           | 36.5    | 0.5             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Cobalt                             | 15.0    | 0.2             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Copper                             | 39.8    | 0.5             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Iron                               | 28500   | 50.0            |   | mg/Kg-dry | 20 | 2/6/2008 2:16:00 AM  |
| Lead                               | 22.4    | 1.0             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Manganese                          | 78.4    | 0.5             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Nickel                             | 34.5    | 0.5             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Selenium                           | 5.1     | 1.0             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Silver                             | 0.3     | 0.2             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Vanadium                           | 68.8    | 0.2             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Zinc                               | 69.3    | 0.5             |   | mg/Kg-dry | 1  | 2/5/2008             |
| <b>TOTAL METALS</b>                |         | <b>EPA 7471</b> |   |           |    | Analyst: GMG         |
| Mercury                            | 1.2     | 0.10            |   | mg/Kg     | 1  | 2/14/2008 2:12:00 PM |
| <b>WASTE CHARACTERIZATION PREP</b> |         | <b>EPA 1311</b> |   |           |    | Analyst: GAK         |
| TCLP, non-volatile                 | NA      | 0               |   |           | 1  | 1/30/2008            |
| Extraction Fluid Used              | 2.0     | 0               |   |           | 1  | 1/30/2008            |
| Initial pH                         | 12      | 1.0             |   |           | 1  | 1/30/2008            |
| Final pH                           | 10      | 1.0             |   |           | 1  | 1/30/2008            |
| <b>TCLP METALS</b>                 |         | <b>EPA 6010</b> |   |           |    | Analyst: NPT         |
| Aluminum                           | 0.132   | 0.100           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Antimony                           | < 0.020 | 0.020           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Arsenic                            | < 0.020 | 0.020           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Barium                             | 1.16    | 0.010           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Cadmium                            | < 0.002 | 0.002           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Chromium                           | 0.046   | 0.010           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Cobalt                             | < 0.005 | 0.005           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Copper                             | < 0.010 | 0.010           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Iron                               | < 0.050 | 0.050           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Lead                               | < 0.020 | 0.020           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Manganese                          | < 0.010 | 0.010           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Nickel                             | < 0.010 | 0.010           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Selenium                           | 0.091   | 0.020           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Silver                             | < 0.005 | 0.005           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |
| Vanadium                           | 0.117   | 0.005           |   | mg/L      | 1  | 2/1/2008 3:12:00 PM  |



# Laboratory Results

Date: 18-Feb-08

## Geochemical Testing

CLIENT: AES - WARRIOR RUN INC

Client Sample ID: Fly Ash

Lab Order: G0801612

Project:

Sampled By: Client

Lab ID: G0801612-003

Collection Date: 1/22/2008

Matrix: COAL

Received Date: 1/29/2008 1:51:17 PM

| Analyses           | Result   | QL     | Q | Units | DF | Date Analyzed        |
|--------------------|----------|--------|---|-------|----|----------------------|
| <b>TCLP METALS</b> |          |        |   |       |    | Analyst: NPT         |
| Zinc               | < 0.010  | 0.010  |   | mg/L  | 1  | 2/1/2008 3:12:00 PM  |
| <b>TCLP METALS</b> |          |        |   |       |    | Analyst: GMG         |
| Mercury            | < 0.0004 | 0.0004 |   | mg/L  | 2  | 2/7/2008 12:00:00 PM |

# Laboratory Results

Date: 18-Feb-08

## Geochemical Testing

CLIENT: AES - WARRIOR RUN INC  
 Lab Order: G0801612  
 Project:  
 Lab ID: G0801612-004  
 Matrix: COAL

Client Sample ID: Bed Ash  
 Sampled By: Client  
 Collection Date: 1/22/2008  
 Received Date: 1/29/2008 1:51:17 PM

| Analyses                           | Result  | QL              | Q | Units     | DF | Date Analyzed        |
|------------------------------------|---------|-----------------|---|-----------|----|----------------------|
| <b>TOTAL METALS</b>                |         | <b>EPA 6010</b> |   |           |    | Analyst: JAS         |
| Aluminum                           | 20200   | 5.0             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Antimony                           | < 1.0   | 1.0             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Arsenic                            | 40.6    | 1.0             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Barium                             | 165     | 0.5             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Cadmium                            | 0.2     | 0.1             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Chromium                           | 34.1    | 0.5             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Cobalt                             | 7.6     | 0.2             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Copper                             | 19.8    | 0.5             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Iron                               | 11600   | 50.0            |   | mg/Kg-dry | 20 | 2/6/2008 2:20:00 AM  |
| Lead                               | 5.0     | 1.0             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Manganese                          | 79.4    | 0.5             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Nickel                             | 20.7    | 0.5             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Selenium                           | < 1.0   | 1.0             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Silver                             | < 0.2   | 0.2             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Vanadium                           | 57.6    | 0.2             |   | mg/Kg-dry | 1  | 2/5/2008             |
| Zinc                               | 31.9    | 0.5             |   | mg/Kg-dry | 1  | 2/5/2008             |
| <b>TOTAL METALS</b>                |         | <b>EPA 7471</b> |   |           |    | Analyst: GMG         |
| Mercury                            | < 0.10  | 0.10            |   | mg/Kg     | 1  | 2/14/2008 2:33:00 PM |
| <b>WASTE CHARACTERIZATION PREP</b> |         | <b>EPA 1311</b> |   |           |    | Analyst: GAK         |
| TCLP, non-volatile                 | NA      | 0               |   |           | 1  | 1/30/2008            |
| Extraction Fluid Used              | 1.0     | 0               |   |           | 1  | 1/30/2008            |
| Initial pH                         | 11      | 1.0             |   |           | 1  | 1/30/2008            |
| Final pH                           | 12      | 1.0             |   |           | 1  | 1/30/2008            |
| <b>TCLP METALS</b>                 |         | <b>EPA 6010</b> |   |           |    | Analyst: NPT         |
| Aluminum                           | 0.147   | 0.100           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Antimony                           | < 0.020 | 0.020           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Arsenic                            | < 0.020 | 0.020           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Barium                             | 0.491   | 0.010           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Cadmium                            | < 0.002 | 0.002           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Chromium                           | < 0.010 | 0.010           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Cobalt                             | < 0.005 | 0.005           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Copper                             | < 0.010 | 0.010           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Iron                               | < 0.050 | 0.050           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Lead                               | < 0.020 | 0.020           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Manganese                          | < 0.010 | 0.010           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Nickel                             | < 0.010 | 0.010           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Selenium                           | < 0.020 | 0.020           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Silver                             | < 0.005 | 0.005           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |
| Vanadium                           | 0.048   | 0.005           |   | mg/L      | 1  | 2/1/2008 3:08:00 PM  |



# Laboratory Results

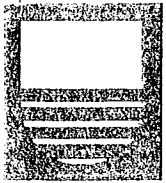
Date: 18-Feb-08

## Geochemical Testing

CLIENT: AES - WARRIOR RUN INC  
Lab Order: G0801612  
Project:  
Lab ID: G0801612-004  
Matrix: COAL

Client Sample ID: Bed Ash  
Sampled By: Client  
Collection Date: 1/22/2008  
Received Date: 1/29/2008 1:51:17 PM

| Analyses           | Result   | QL     | Q | Units | DF | Date Analyzed        |
|--------------------|----------|--------|---|-------|----|----------------------|
| <b>TCLP METALS</b> |          |        |   |       |    | Analyst: NPT         |
| Zinc               | < 0.010  | 0.010  |   | mg/L  | 1  | 2/1/2008 3:08:00 PM  |
| <b>TCLP METALS</b> |          |        |   |       |    | Analyst: GMG         |
| Mercury            | < 0.0004 | 0.0004 |   | mg/L  | 2  | 2/7/2008 12:02:00 PM |



# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N Center Ave  
Somerset PA 15501

814/445-1671  
814/445-6866  
FAX: 814/445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 01/09/2008

Analyzed on: 01/21/2008

Description: Fly Ash Silo

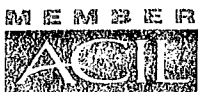
LAB NO. 08-C023581

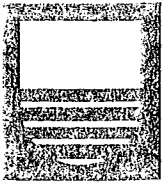
|                             | Dry   |
|-----------------------------|-------|
| Carbon.....D5373.....       | 13.01 |
| Carbonate Carbon Dry.....   | 0.34  |
| Combustible Carbon Dry..... | 12.67 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element                                | %     |
|--|-------|
| =====<br>Calcium Oxide (CaO).....      | 12.12 |
| Magnesium Oxide (MgO).....             | 3.13  |
| =====                                  |       |
| Calcium Carbonate (CaCO3) Equivalent = | 29.5  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2006 N Center Ave  
Somerset PA 15501

814/443-1971  
814/443-8886  
FAX: 814/443-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 01/09/2008

Analyzed on: 01/21/2008

Description: Bed Ash

LAB NO. 08-C023582

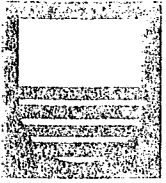
|                             | Dry  |
|-----------------------------|------|
| Carbon.....D5373.....       | 3.49 |
| Carbonate Carbon Dry.....   | .10  |
| Combustible Carbon Dry..... | 3.39 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element   | %     |
|---|-------|
| =====<br>Calcium Oxide (CaO).....               | 13.44 |
| Magnesium Oxide (MgO).....                      | 2.90  |
| =====<br>Calcium Carbonate (CaCO3) Equivalent = | 31.2  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N Center Ave  
Somerset PA 15501

814/443-1671  
814/445-6666  
FAX: 814/445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 02/07/2008

Analyzed on: 02/18/2008

Description: Fly Ash Silo

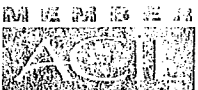
LAB NO. 08-C024263

|                             | Dry   |
|-----------------------------|-------|
| Carbon.....D5373.....       | 15.94 |
| Carbonate Carbon Dry.....   | 0.35  |
| Combustible Carbon Dry..... | 15.59 |

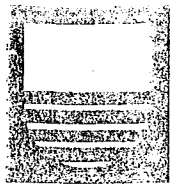
### MAJOR AND MINOR ELEMENTS IN ASH

| Element   | %     |
|---|-------|
| =====<br>Calcium Oxide (CaO).....               | 16.80 |
| Magnesium Oxide (MgO).....                      | 3.72  |
| =====<br>Calcium Carbonate (CaCO3) Equivalent = | 39.3  |

Robert L. Stull  
Director of Coal Services







# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N Center Ave  
Somerset PA 15501

814/443-1871  
814/445-6666  
FAX: 814/445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 02/07/2008

Analyzed on: 02/18/2008

Description: Bed Ash (North side)

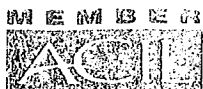
LAB NO. 08-C024264

|                             | Dry  |
|-----------------------------|------|
| Carbon.....D5373.....       | 1.39 |
| Carbonate Carbon Dry.....   | 0.11 |
| Combustible Carbon Dry..... | 1.28 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element   | %     |
|---|-------|
| =====<br>Calcium Oxide (CaO).....               | 32.97 |
| Magnesium Oxide (MgO).....                      | 6.24  |
| =====<br>Calcium Carbonate (CaCO3) Equivalent = | 40.4  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N Center Ave  
Somerset PA 15501

814/445-1671  
814/445-8656  
FAX: 814/445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 02/26/2008

Analyzed on: 03/03/2008

Description: Fly Ash Silo

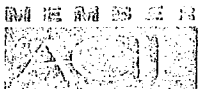
LAB NO. 08-C024451

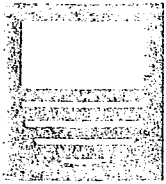
|                             | Dry   |
|-----------------------------|-------|
| Carbon.....D5373.....       | 13.45 |
| Carbonate Carbon Dry.....   | 0.37  |
| Combustible Carbon Dry..... | 13.08 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element   | %     |
|---|-------|
| =====<br>Calcium Oxide (CaO).....               | 11.89 |
| Magnesium Oxide (MgO).....                      | 2.88  |
| =====<br>Calcium Carbonate (CaCO3) Equivalent = | 28.4  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N Center Ave  
Somerset PA 15501

814/443-1671  
814/445-6666  
FAX: 814/445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 02/26/2008

Analyzed on: 03/03/2008

Description: Bed Ash

LAB NO. 08-C024452

Dry

|                             |      |
|-----------------------------|------|
| Carbon.....D5373.....       | 1.38 |
| Carbonate Carbon Dry.....   | < .1 |
| Combustible Carbon Dry..... | 1.29 |

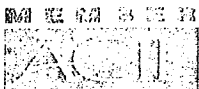
### MAJOR AND MINOR ELEMENTS IN ASH

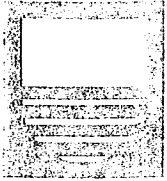
| Element | % |
|---------|---|
|---------|---|

|                                   |      |
|-----------------------------------|------|
| =====<br>Calcium Oxide (CaO)..... | 9.99 |
| Magnesium Oxide (MgO).....        | 2.41 |
| =====                             |      |

Calcium Carbonate (CaCO3) Equivalent = 23.9

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N. Center Ave  
Somerset PA 15501

814/445-6861  
814/445-6862  
FAX: 814/445-6726

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 04/09/2008

Analyzed on: 04/15/2008

Description: Fly Ash Silo

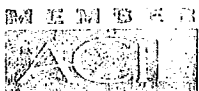
LAB NO. 08-C025284

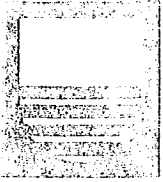
|                             | Dry   |
|-----------------------------|-------|
| Carbon.....D5373.....       | 14.66 |
| Carbonate Carbon Dry.....   | 0.36  |
| Combustible Carbon Dry..... | 14.30 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element                                | %     |
|--|-------|
| =====<br>Calcium Oxide (CaO).....      | 17.21 |
| Magnesium Oxide (MgO).....             | 3.21  |
| =====                                  |       |
| Calcium Carbonate (CaCO3) Equivalent = | 38.7  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Soils Analysis

1005 E. Center Ave  
Somersett PA 15501

TEL 412-445-1100  
FAX 412-445-6050  
FAX 412-445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 04/09/2008

Analyzed on: 04/15/2008

Description: Bed Ash

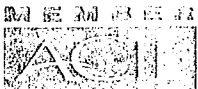
LAB NO. 08-C025285

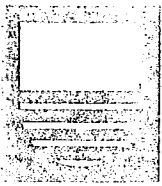
|                             | Dry  |
|-----------------------------|------|
| Carbon.....D5373.....       | 2.38 |
| Carbonate Carbon Dry.....   | < .1 |
| Combustible Carbon Dry..... | 2.28 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element   | %     |
|---|-------|
| =====<br>Calcium Oxide (CaO).....               | 13.90 |
| Magnesium Oxide (MgO).....                      | 3.03  |
| =====<br>Calcium Carbonate (CaCO3) Equivalent = | 32.4  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2015 N. Center Ave  
Swarthout PA 15501

717/445-1277  
717/445-2008  
Fax: 717/445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 05/17/2008

Analyzed on: 05/28/2008

Description: Bed Ash

LAB NO. 08-C026061

Dry

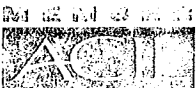
|                             |      |
|-----------------------------|------|
| Carbon.....D5373.....       | 0.83 |
| Carbonate Carbon Dry.....   | 0.11 |
| Combustible Carbon Dry..... | 0.72 |

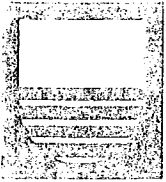
### MAJOR AND MINOR ELEMENTS IN ASH

| Element | % |
|---------|---|
|---------|---|

|   |       |
|---|-------|
| =====<br>Calcium Oxide (CaO).....               | 23.17 |
| Magnesium Oxide (MgO).....                      | 3.28  |
| =====<br>Calcium Carbonate (CaCO3) Equivalent = | 49.6  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2015 N Center Ave  
Comersol PA 15501

814/445-1871  
814/445-6008  
Fax: 814/445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 05/17/2008

Analyzed on: 05/28/2008

Description: Fly Ash Silo

LAB NO. 08-C026060

Dry

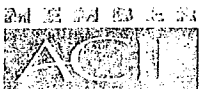
|                             |       |
|-----------------------------|-------|
| Carbon.....D5373.....       | 20.34 |
| Carbonate Carbon Dry.....   | 0.40  |
| Combustible Carbon Dry..... | 19.94 |

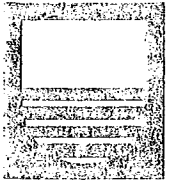
### MAJOR AND MINOR ELEMENTS IN ASH

| Element | % |
|---------|---|
|---------|---|

|   |       |
|---|-------|
| =====<br>Calcium Oxide (CaO).....               | 17.29 |
| Magnesium Oxide (MgO).....                      | 4.16  |
| =====<br>Calcium Carbonate (CaCO3) Equivalent = | 41.3  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analytical

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 06/13/2008

Analyzed on: 06/23/2008

Description: Fly Ash                      Silo

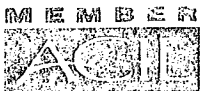
LAB NO. 08-C026406

|                             |       |
|-----------------------------|-------|
|                             | Dry   |
| Carbon.....D5373.....       | 18.70 |
| Carbonate Carbon Dry.....   | 0.30  |
| Combustible Carbon Dry..... | 18.40 |

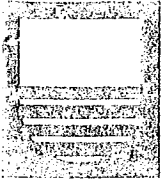
### MAJOR AND MINOR ELEMENTS IN ASH

| Element                             | %     |
|-------------------------------------|-------|
| =====                               |       |
| Calcium Oxide (CaO).....            | 12.75 |
| Magnesium Oxide (MgO).....          | 4.20  |
| =====                               |       |
| Calcium Carbon (CaCO3) Equivalent = | 33.3  |

Robert L. Stull  
Director of Coal Services







# GEOCHEMICAL TESTING

Environmental and Energy Analysis

## COAL ANALYSIS REPORT

10000  
10000  
10000  
10000  
10000

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 06/13/2008

Analyzed on: 06/23/2008

Description: Bed Ash

LAB NO. 08-C026407

Dry

|                             |      |
|-----------------------------|------|
| Carbon.....D5373.....       | 1.22 |
| Carbonate Carbon Dry.....   | 0.13 |
| Combustible Carbon Dry..... | 1.09 |

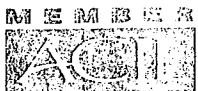
### MAJOR AND MINOR ELEMENTS IN ASH

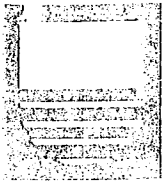
|         |   |
|---------|---|
| Element | % |
|---------|---|

|                                   |      |
|-----------------------------------|------|
| =====<br>Calcium Oxide (CaO)..... | 7.82 |
| Magnesium Oxide (MgO).....        | 1.31 |
| =====                             |      |

Calcium Carbonate (CaCO3) Equivalent = 17.2

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

1000 ...  
Schenectady, NY 12301

518-385-1177  
518-385-1178  
518-385-1179

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 07/10/2008

Analyzed on: 07/18/2008

Description: Fly Ash Silo

LAB NO. 08-C026890

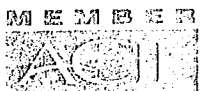
Dry

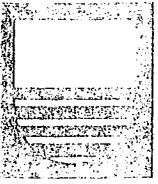
|                             |       |
|-----------------------------|-------|
| Carbon.....D5373.....       | 19.63 |
| Carbonate Carbon Dry.....   | 0.30  |
| Combustible Carbon Dry..... | 19.33 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element   | %     |
|---|-------|
| =====<br>Calcium Oxide (CaO).....               | 13.17 |
| Magnesium Oxide (MgO).....                      | 2.25  |
| =====<br>Calcium Carbonate (CaCO3) Equivalent = | 29.1  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 07/10/2008

Analyzed on: 07/18/2008

Description: Bed Ash          South Combuster

LAB NO. 08-C026891

Dry

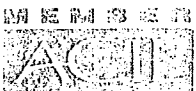
|                             |      |
|-----------------------------|------|
| Carbon.....D5373.....       | 0.68 |
| Carbonate Carbon Dry.....   | 0.13 |
| Combustible Carbon Dry..... | 0.56 |

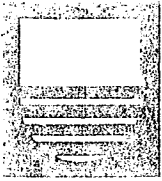
### MAJOR AND MINOR ELEMENTS IN ASH

|         |   |
|---------|---|
| Element | % |
|---------|---|

|  |       |
|--|-------|
| =====<br>Calcium Oxide (CaO).....      | 24.55 |
| Magnesium Oxide (MgO).....             | 3.98  |
| =====                                  |       |
| Calcium Carbonate (CaCO3) Equivalent = | 53.8  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N Center Ave  
Somerset PA 15501

814/443-1671  
814/445-6666  
FAX: 814/445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 08/15/2008

Analyzed on: 08/25/2008

Description: Fly Ash Silo

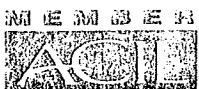
LAB NO. 08-C027943

|                             | Dry   |
|-----------------------------|-------|
| Carbon.....D5373.....       | 19.05 |
| Carbonate Carbon Dry.....   | 0.38  |
| Combustible Carbon Dry..... | 18.67 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element   | %     |
|---|-------|
| =====<br>Calcium Oxide (CaO).....               | 14.91 |
| Magnesium Oxide (MgO).....                      | 2.73  |
| =====<br>Calcium Carbonate (CaCO3) Equivalent = | 38.8  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N Center Ave  
Somerset PA 15501

814/443-1671  
814/445-6666  
FAX: 814/445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 08/15/2008

Analyzed on: 08/25/2008

Description: Bed Ash

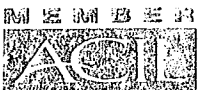
LAB NO. 08-C027944

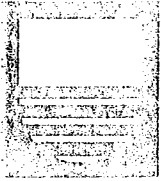
|                             | Dry  |
|-----------------------------|------|
| Carbon.....D5373.....       | 0.97 |
| Carbonate Carbon Dry.....   | 0.11 |
| Combustible Carbon Dry..... | 0.86 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element   | %     |
|---|-------|
| =====<br>Calcium Oxide (CaO).....               | 21.02 |
| Magnesium Oxide (MgO).....                      | 3.48  |
| =====<br>Calcium Carbonate (CaCO3) Equivalent = | 46.2  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 North 1st Ave  
Casper, WY 82501

307/445-1871

307/445-8866

FAX: 307/445-8735

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 09/12/2008

Analyzed on: 09/24/2008

Description: Fly Ash Silo

LAB NO. 08-C028536

Dry

|                             |       |
|-----------------------------|-------|
| Carbon.....D5373.....       | 19.70 |
| Carbonate Carbon Dry.....   | 0.37  |
| Combustible Carbon Dry..... | 19.33 |

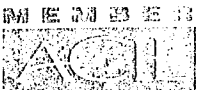
### MAJOR AND MINOR ELEMENTS IN ASH

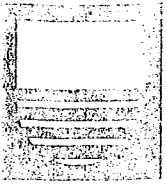
| Element | % |
|---------|---|
|---------|---|

|                                   |       |
|-----------------------------------|-------|
| =====<br>Calcium Oxide (CaO)..... | 14.71 |
| Magnesium Oxide (MgO).....        | 3.03  |
| =====                             |       |

Calcium Carbonate (CaCO3) Equivalent = 33.8

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2015 N. Central Ave.  
Tomball, TX 77375

817/443-1171  
817/443-2086  
FAX: 817/443-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 09/12/2008

Analyzed on: 09/24/2008

Description: Bed Ash

LAB NO. 08-C028537

Dry

|                             |      |
|-----------------------------|------|
| Carbon.....D5373.....       | 1.40 |
| Carbonate Carbon Dry.....   | 0.14 |
| Combustible Carbon Dry..... | 1.27 |

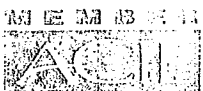
### MAJOR AND MINOR ELEMENTS IN ASH

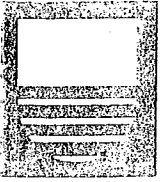
| Element | % |
|---------|---|
|---------|---|

|                                   |       |
|-----------------------------------|-------|
| =====<br>Calcium Oxide (CaO)..... | 23.21 |
| Magnesium Oxide (MgO).....        | 3.79  |
| =====                             |       |

Calcium Carbonate (CaCO3) Equivalent = 50.9

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N. Central Ave  
Somerset PA 15501

814/438-1511  
814/438-3033  
FAX: 814/438-8729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 11/14/2008

Analyzed on: 11/21/2008

Description: Fly Ash Silo

LAB NO. 08-C029668

|                             | Dry   |
|-----------------------------|-------|
| Carbon.....D5373.....       | 16.42 |
| Carbonate Carbon Dry.....   | 0.34  |
| Combustible Carbon Dry..... | 16.09 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element                                | %     |
|--|-------|
| =====<br>Calcium Oxide (CaO).....      | 13.79 |
| Magnesium Oxide (MgO).....             | 4.23  |
| =====                                  |       |
| Calcium Carbonate (CaCO3) Equivalent = | 33.5  |

REVISED REPORT (11/25/08):

Added Calcium Carbonate (CaCO3) Equivalent

Robert L. Stull  
Director of Coal Services







# GEOCHEMICAL TESTING

Environmental and Energy Analysis

## COAL ANALYSIS REPORT

2005 N. Center St.  
Somerset PA 15501

814/445-1171

814/445-8657

FAX: 814/445-6736

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 11/14/2008

Analyzed on: 11/21/2008

Description: Bed Ash

LAB NO. 08-C029669

|                             | Dry  |
|-----------------------------|------|
| Carbon.....D5373.....       | 0.89 |
| Carbonate Carbon Dry.....   | 0.14 |
| Combustible Carbon Dry..... | 0.75 |

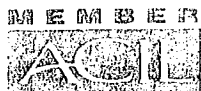
### MAJOR AND MINOR ELEMENTS IN ASH

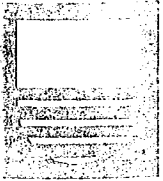
| Element                                | %    |
|--|------|
| =====<br>Calcium Oxide (CaO).....      | 8.39 |
| Magnesium Oxide (MgO).....             | 3.12 |
| =====                                  |      |
| Calcium Carbonate (CaCO3) Equivalent = | 21.5 |

REVISED REPORT (11/25/08):

Added Calcium Carbonate (CaCO3) Equivalent

Robert L. Stull  
Director of Coal Services





GEOTECHNICAL  
TESTING  
Soil, Rock and Energy Analysis

2005 N Center Ave  
Glenview, IL 60045

814/45-1671

814/45-8026

FAX: 814/45-6729

COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 12/11/2008

Analyzed on: 12/30/2008

Description: Fly Ash Silo

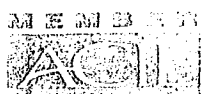
LAB NO. 08-C030088

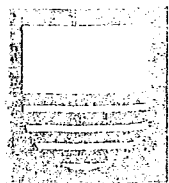
|                             |       |
|-----------------------------|-------|
|                             | Dry   |
| Carbon.....D5373.....       | 15.60 |
| Carbonate Carbon Dry.....   | 0.40  |
| Combustible Carbon Dry..... | 15.20 |

MAJOR AND MINOR ELEMENTS IN ASH

| Element   | %     |
|---|-------|
| =====<br>Calcium Oxide (CaO).....               | 16.73 |
| Magnesium Oxide (MgO).....                      | 5.70  |
| =====<br>Calcium Carbonate (CaCO3).....         | 29.9  |
| Magnesium Carbonate (MgCO3).....                | 12.0  |
| =====<br>Calcium Carbonate (CaCO3) Equivalent = | 41.8  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

In Environmental and Energy Analysis

2005 N. Coast Ave.  
Somerset, NJ 08876

814-449-1871  
814-449-1872  
FAX: 814-449-1874

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 12/11/2008

Analyzed on: 12/30/2008

Description: Bed Ash

LAB NO. 08-C030089

Dry

|                             |      |
|-----------------------------|------|
| Carbon.....D5373.....       | 1.21 |
| Carbonate Carbon Dry.....   | 0.14 |
| Combustible Carbon Dry..... | 1.07 |

### MAJOR AND MINOR ELEMENTS IN ASH

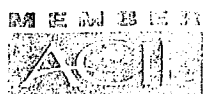
| Element | % |
|---------|---|
|---------|---|

|                                   |       |
|-----------------------------------|-------|
| =====<br>Calcium Oxide (CaO)..... | 22.18 |
| Magnesium Oxide (MgO).....        | 6.25  |
| =====                             |       |

|                                  |      |
|----------------------------------|------|
| Calcium Carbonate (CaCO3).....   | 39.6 |
| Magnesium Carbonate (MgCO3)..... | 13.1 |
| =====                            |      |

|  |      |
|--|------|
| Calcium Carbonate (CaCO3) Equivalent = | 52.7 |
|--|------|

Robert L. Stull  
Director of Coal Services



# Laboratory Results

## Geochemical Testing

**RECEIVED**  
Date: 21 Mar 07

**CLIENT:** AES - WARRIOR RUN INC  
**Lab Order:** G0703113  
**Project:**  
**Lab ID:** G0703113-002  
**Matrix:** SOLID

**Client Sample ID:** DRP1 Ash  
**Sampled By:** Client  
**Collection Date:** 3/2/2007  
**Received Date:** 3/6/2007

| Analyses                           | Result   | Limit           | Qual | Units | DF | Date Analyzed         |
|------------------------------------|----------|-----------------|------|-------|----|-----------------------|
| <b>TOTAL METALS</b>                |          | <b>EPA 6010</b> |      |       |    | <b>Analyst: JLH</b>   |
| Aluminum                           | 39400    | 250             |      | mg/Kg | 10 | 3/9/2007 6:02:00 PM   |
| Antimony                           | < 5.0    | 5.0             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| Arsenic                            | 33.1     | 5.0             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| Barium                             | 383      | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| Cadmium                            | < 0.5    | 0.5             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| Chromium                           | 55.4     | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| Cobalt                             | 11.4     | 1.2             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| Copper                             | 33.5     | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| Iron                               | 18300    | 125             |      | mg/Kg | 10 | 3/9/2007 6:02:00 PM   |
| Lead                               | 15.2     | 5.0             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| Manganese                          | 66.1     | 5.0             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| Nickel                             | 28.4     | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| Selenium                           | 6.0      | 5.0             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| Silver                             | < 2.5    | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| Vanadium                           | 88.5     | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| Zinc                               | 36.3     | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:01:00 PM   |
| <b>TCLP METALS</b>                 |          | <b>EPA 7470</b> |      |       |    | <b>Analyst: CLW</b>   |
| Mercury                            | < 0.0004 | 0.0004          |      | mg/L  | 2  | 3/12/2007 10:28:00 AM |
| <b>TOTAL METALS</b>                |          | <b>EPA 7471</b> |      |       |    | <b>Analyst: GMG</b>   |
| Mercury                            | 0.58     | 0.50            |      | mg/Kg | 1  | 3/9/2007 2:58:00 PM   |
| <b>TCLP METALS</b>                 |          | <b>EPA 6010</b> |      |       |    | <b>Analyst: JLH</b>   |
| Aluminum                           | < 0.100  | 0.100           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Antimony                           | < 0.020  | 0.020           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Arsenic                            | 0.024    | 0.020           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Barium                             | 0.944    | 0.010           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Cadmium                            | < 0.002  | 0.002           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Chromium                           | 0.038    | 0.010           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Cobalt                             | < 0.005  | 0.005           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Copper                             | < 0.010  | 0.010           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Iron                               | < 0.050  | 0.050           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Lead                               | < 0.020  | 0.020           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Manganese                          | < 0.010  | 0.010           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Nickel                             | < 0.010  | 0.010           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Selenium                           | 0.086    | 0.020           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Silver                             | < 0.005  | 0.005           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Vanadium                           | 0.354    | 0.005           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| Zinc                               | < 0.010  | 0.010           |      | mg/L  | 1  | 3/14/2007 2:59:00 PM  |
| <b>WASTE CHARACTERIZATION PREP</b> |          | <b>EPA 1311</b> |      |       |    | <b>Analyst: DAN</b>   |



# Laboratory Results

## Geochemical Testing

Date: 21-Mar-07

---

|                   |                       |                          |          |
|-------------------|-----------------------|--------------------------|----------|
| <b>CLIENT:</b>    | AES - WARRIOR RUN INC | <b>Client Sample ID:</b> | Fly Ash  |
| <b>Lab Order:</b> | G0703113              |                          |          |
| <b>Project:</b>   |                       | <b>Sampled By:</b>       | Client   |
| <b>Lab ID:</b>    | G0703113-002          | <b>Collection Date:</b>  | 3/2/2007 |
| <b>Matrix:</b>    | SOLID                 | <b>Received Date:</b>    | 3/6/2007 |

---

| Analyses                           | Result | Limit           | Qual | Units | DF | Date Analyzed |
|------------------------------------|--------|-----------------|------|-------|----|---------------|
| <b>WASTE CHARACTERIZATION PREP</b> |        | <b>EPA 1311</b> |      |       |    | Analyst: DAN  |
| TCLP, non-volatile                 | NA     | 0               |      |       | 1  | 3/7/2007      |
| Extraction Fluid Used              | 2.0    | 0               |      |       | 1  | 3/7/2007      |
| Initial pH                         | 13     | 1.0             |      |       | 1  | 3/7/2007      |
| Final pH                           | 7.4    | 1.0             |      |       | 1  | 3/7/2007      |



# Laboratory Results

## Geochemical Testing

Date: 21-Mar-07

|                   |                       |                                  |
|-------------------|-----------------------|----------------------------------|
| <b>CLIENT:</b>    | AES - WARRIOR RUN INC | <b>Client Sample ID:</b> Bed Ash |
| <b>Lab Order:</b> | G0703113              |                                  |
| <b>Project:</b>   |                       | <b>Sampled By:</b> Client        |
| <b>Lab ID:</b>    | G0703113-003          | <b>Collection Date:</b> 3/2/2007 |
| <b>Matrix:</b>    | SOLID                 | <b>Received Date:</b> 3/6/2007   |

| Analyses                           | Result   | Limit           | Qual | Units | DF | Date Analyzed         |
|------------------------------------|----------|-----------------|------|-------|----|-----------------------|
| <b>TOTAL METALS</b>                |          | <b>EPA 6010</b> |      |       |    | <b>Analyst: JLH</b>   |
| Aluminum                           | 26500    | 250             |      | mg/Kg | 10 | 3/9/2007 8:05:00 PM   |
| Antimony                           | < 5.0    | 5.0             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| Arsenic                            | 25.7     | 5.0             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| Barium                             | 174      | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| Cadmium                            | < 0.5    | 0.5             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| Chromium                           | 49.0     | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| Cobalt                             | 6.0      | 1.2             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| Copper                             | 15.8     | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| Iron                               | 11600    | 125             |      | mg/Kg | 10 | 3/9/2007 6:05:00 PM   |
| Lead                               | 6.8      | 5.0             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| Manganese                          | 100      | 5.0             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| Nickel                             | 22.6     | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| Selenium                           | < 5.0    | 5.0             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| Silver                             | < 2.5    | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| Vanadium                           | 41.0     | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| Zinc                               | 26.0     | 2.5             |      | mg/Kg | 1  | 3/9/2007 8:05:00 PM   |
| <b>TCLP METALS</b>                 |          | <b>EPA 7470</b> |      |       |    | <b>Analyst: CLW</b>   |
| Mercury                            | < 0.0004 | 0.0004          |      | mg/L  | 2  | 3/12/2007 10:30:00 AM |
| <b>TOTAL METALS</b>                |          | <b>EPA 7471</b> |      |       |    | <b>Analyst: GMG</b>   |
| Mercury                            | < 0.50   | 0.50            |      | mg/Kg | 1  | 3/9/2007 3:02:00 PM   |
| <b>TCLP METALS</b>                 |          | <b>EPA 6010</b> |      |       |    | <b>Analyst: JLH</b>   |
| Aluminum                           | < 0.100  | 0.100           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Antimony                           | < 0.020  | 0.020           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Arsenic                            | < 0.020  | 0.020           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Barium                             | 0.493    | 0.010           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Cadmium                            | < 0.002  | 0.002           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Chromium                           | < 0.010  | 0.010           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Cobalt                             | < 0.005  | 0.005           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Copper                             | < 0.010  | 0.010           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Iron                               | < 0.050  | 0.050           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Lead                               | < 0.020  | 0.020           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Manganese                          | < 0.010  | 0.010           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Nickel                             | < 0.010  | 0.010           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Selenium                           | < 0.020  | 0.020           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Silver                             | < 0.005  | 0.005           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Vanadium                           | 0.014    | 0.005           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| Zinc                               | < 0.010  | 0.010           |      | mg/L  | 1  | 3/14/2007 3:03:00 PM  |
| <b>WASTE CHARACTERIZATION PREP</b> |          | <b>EPA 1311</b> |      |       |    | <b>Analyst: DAN</b>   |



# Laboratory Results

Date: 21-Mar-07

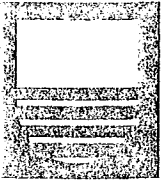
## Geochemical Testing

**CLIENT:** AES - WARRIOR RUN INC  
**Lab Order:** G0703113  
**Project:**  
**Lab ID:** G0703113-003  
**Matrix:** SOLID

**Client Sample ID:** Bed Ash  
**Sampled By:** Client  
**Collection Date:** 3/2/2007  
**Received Date:** 3/6/2007

| Analyses                           | Result | Limit           | Qual | Units | DF | Date Analyzed |
|------------------------------------|--------|-----------------|------|-------|----|---------------|
| <b>WASTE CHARACTERIZATION PREP</b> |        | <b>EPA 1311</b> |      |       |    | Analyst: DAN  |
| TCLP, non-volatile                 | NA     | 0               |      |       | 1  | 3/7/2007      |
| Extraction Fluid Used              | 1.0    | 0               |      |       | 1  | 3/7/2007      |
| Initial pH                         | 12     | 1.0             |      |       | 1  | 3/7/2007      |
| Final pH                           | 12     | 1.0             |      |       | 1  | 3/7/2007      |





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

10000  
10000  
10000  
10000  
10000

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 10/09/2007

Analyzed on: 10/17/2007

Description: Fly Ash Silo

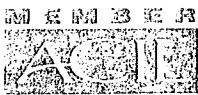
LAB NO. 07-C021829

|                             |       |
|-----------------------------|-------|
|                             | Dry   |
| Carbon.....D5373.....       | 14.55 |
| Carbonate Carbon Dry.....   | 0.31  |
| Combustible Carbon Dry..... | 14.24 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element                                | %     |
|--|-------|
| =====                                  |       |
| Calcium Oxide (CaO).....               | 14.08 |
| Magnesium Oxide (MgO).....             | 3.33  |
| =====                                  |       |
| Calcium Carbonate (CaCO3) Equivalent = | 33.5  |

Robert L. Stull  
Director of Coal Services







# GEOCHEMICAL TESTING

Environmental and Energy Analytical

## COAL ANALYSIS REPORT

2007-10-17  
10/17/2007  
10/17/2007  
10/17/2007

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 10/09/2007

Analyzed on: 10/17/2007

Description: Bed Ash

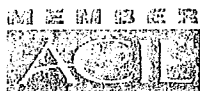
LAB NO. 07-C021830

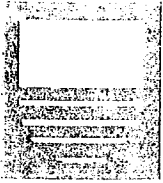
|                             | Dry  |
|-----------------------------|------|
| Carbon.....D5373.....       | 1.08 |
| Carbonate Carbon Dry.....   | < .1 |
| Combustible Carbon Dry..... | 0.99 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element                                | %     |
|--|-------|
| =====<br>Calcium Oxide (CaO).....      | 15.46 |
| Magnesium Oxide (MgO).....             | 3.38  |
| =====                                  |       |
| Calcium Carbonate (CaCO3) Equivalent = | 36.0  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N Center Ave  
Somerset PA 15501

814/443-1371  
814/445-8888  
FAX: 814/445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 11/06/2007

Analyzed on: 11/14/2007

Description: Fly Ash Silo

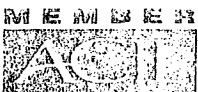
LAB NO. 07-C022342

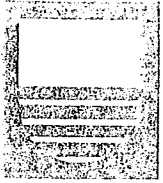
|                             | Dry   |
|-----------------------------|-------|
| Carbon.....D5373.....       | 11.25 |
| Carbonate Carbon Dry.....   | 0.32  |
| Combustible Carbon Dry..... | 10.93 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element   | %     |
|---|-------|
| =====<br>Calcium Oxide (CaO).....               | 16.00 |
| Magnesium Oxide (MgO).....                      | 4.22  |
| =====<br>Calcium Carbonate (CaCO3) Equivalent = | 39.1  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N Center Ave  
Somerset PA 15501

814/443-1671  
814/445-6666  
FAX: 814/445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 11/06/2007

Analyzed on: 11/14/2007

Description: Bed Ash

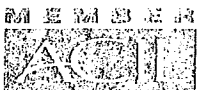
LAB NO. 07-C022343

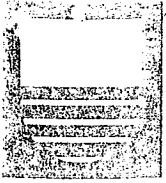
|                             | Dry  |
|-----------------------------|------|
| Carbon.....D5373.....       | 1.45 |
| Carbonate Carbon Dry.....   | 0.11 |
| Combustible Carbon Dry..... | 1.34 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element                                | %     |
|--|-------|
| =====<br>Calcium Oxide (CaO).....      | 15.95 |
| Magnesium Oxide (MgO).....             | 3.32  |
| =====                                  |       |
| Calcium Carbonate (CaCO3) Equivalent = | 36.8  |

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N Center Ave  
Somerset PA 15501

814/443-1671  
814/445-6686  
FAX: 814/445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 12/05/2007

Analyzed on: 12/13/2007

Description: Fly Ash Silo

LAB NO. 07-C023008

Dry

|                             |       |
|-----------------------------|-------|
| Carbon.....D5373.....       | 11.83 |
| Carbonate Carbon Dry.....   | 0.31  |
| Combustible Carbon Dry..... | 11.52 |

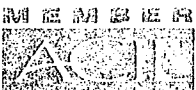
### MAJOR AND MINOR ELEMENTS IN ASH

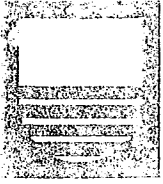
| Element | % |
|---------|---|
|---------|---|

|                                   |       |
|-----------------------------------|-------|
| =====<br>Calcium Oxide (CaO)..... | 14.30 |
| Magnesium Oxide (MgO).....        | 4.15  |
| =====                             |       |

Calcium Carbonate (CaCO3) Equivalent = 35.9

Robert L. Stull  
Director of Coal Services





# GEOCHEMICAL TESTING

Environmental and Energy Analysis

2005 N Center Ave  
Somerset PA 15501

814/443-1671  
814/445-6666  
FAX: 814/445-6729

## COAL ANALYSIS REPORT

Client: AES - WARRIOR RUN INC

Sampled by: Client

Sampling Date: 12/05/2007

Analyzed on: 12/13/2007

Description: Bed Ash

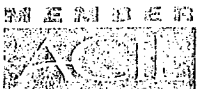
LAB NO. 07-C023009

|                             | Dry  |
|-----------------------------|------|
| Carbon.....D5373.....       | 7.42 |
| Carbonate Carbon Dry.....   | 0.18 |
| Combustible Carbon Dry..... | 7.24 |

### MAJOR AND MINOR ELEMENTS IN ASH

| Element   | %     |
|---|-------|
| =====<br>Calcium Oxide (CaO).....               | 13.16 |
| Magnesium Oxide (MgO).....                      | 2.92  |
| =====<br>Calcium Carbonate (CaCO3) Equivalent = | 30.8  |

Robert L. Stull  
Director of Coal Services



# Laboratory Results

Date: 28-Mar-06

## Geochemical Testing

|                   |                       |                                   |
|-------------------|-----------------------|-----------------------------------|
| <b>CLIENT:</b>    | AES - WARRIOR RUN INC | <b>Client Sample ID:</b> Fly Ash  |
| <b>Lab Order:</b> | G0603022              |                                   |
| <b>Project:</b>   |                       | <b>Sampled By:</b> Client         |
| <b>Lab ID:</b>    | G0603022-003          | <b>Collection Date:</b> 2/27/2006 |
| <b>Matrix:</b>    | SOLID                 | <b>Received Date:</b> 3/1/2006    |

| Analyses                | Result   | Limit            | Qual | Units     | DF | Date Analyzed         |
|-------------------------|----------|------------------|------|-----------|----|-----------------------|
| <b>TOTAL METALS</b>     |          | <b>EPA 6010B</b> |      |           |    | Analyst: NPT          |
| Aluminum                | 31300    | 25.0             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Antimony                | < 5.00   | 5.00             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Arsenic                 | 43.0     | 5.00             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Barium                  | 284      | 2.50             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Cadmium                 | < 0.50   | 0.50             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Chromium                | 37.9     | 2.50             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Cobalt                  | 20.5     | 1.25             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Copper                  | 39.1     | 2.50             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Iron                    | 35000    | 12.5             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Lead                    | 17.9     | 5.00             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Manganese               | 79.4     | 2.50             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Nickel                  | 40.7     | 2.50             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Selenium                | 13.5     | 5.00             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Silver                  | < 1.25   | 1.25             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Vanadium                | 85.3     | 1.25             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| Zinc                    | 58.9     | 2.50             |      | mg/Kg     | 1  | 3/8/2006 4:47:00 PM   |
| <b>TCLP METALS</b>      |          | <b>EPA 7470</b>  |      |           |    | Analyst: CLW          |
| Mercury                 | < 0.0008 | 0.0008           |      | mg/L      | 2  | 3/6/2006              |
| <b>INORGANIC METALS</b> |          | <b>EPA 7471</b>  |      |           |    | Analyst: CLW          |
| Mercury                 | 1.2      | 0.50             |      | mg/Kg-dry | 1  | 3/14/2006 11:31:00 AM |
| <b>TCLP METALS</b>      |          | <b>EPA 6010B</b> |      |           |    | Analyst: NPT          |
| Aluminum                | < 0.100  | 0.100            |      | mg/L      | 1  | 3/6/2006              |
| Antimony                | 0.026    | 0.020            |      | mg/L      | 1  | 3/6/2006              |
| Arsenic                 | < 0.020  | 0.020            |      | mg/L      | 1  | 3/6/2006              |
| Barium                  | 0.645    | 0.010            |      | mg/L      | 1  | 3/6/2006              |
| Cadmium                 | < 0.002  | 0.002            |      | mg/L      | 1  | 3/6/2006              |
| Chromium                | < 0.010  | 0.010            |      | mg/L      | 1  | 3/6/2006              |
| Cobalt                  | < 0.005  | 0.005            |      | mg/L      | 1  | 3/6/2006              |
| Copper                  | < 0.010  | 0.010            |      | mg/L      | 1  | 3/6/2006              |
| Iron                    | < 0.050  | 0.050            |      | mg/L      | 1  | 3/6/2006              |
| Lead                    | < 0.020  | 0.020            |      | mg/L      | 1  | 3/7/2006              |
| Manganese               | < 0.010  | 0.010            |      | mg/L      | 1  | 3/6/2006              |
| Nickel                  | < 0.010  | 0.010            |      | mg/L      | 1  | 3/6/2006              |
| Selenium                | < 0.020  | 0.020            |      | mg/L      | 1  | 3/6/2006              |
| Silver                  | < 0.005  | 0.005            |      | mg/L      | 1  | 3/6/2006              |
| Vanadium                | 0.015    | 0.005            |      | mg/L      | 1  | 3/6/2006              |
| Zinc                    | < 0.010  | 0.010            |      | mg/L      | 1  | 3/7/2006              |

**WASTE CHARACTERIZATION PREP**

**EPA 1311**

Analyst: DAN



# Laboratory Results

Date: 28-Mar-06

## Geochemical Testing

**CLIENT:** AES - WARRIOR RUN INC  
**Lab Order:** G0603022  
**Project:**  
**Lab ID:** G0603022-003  
**Matrix:** SOLID

**Client Sample ID:** Fly Ash  
**Sampled By:** Client  
**Collection Date:** 2/27/2006  
**Received Date:** 3/1/2006

| Analyses                           | Result | Limit | Qual | Units    | DF | Date Analyzed |
|------------------------------------|--------|-------|------|----------|----|---------------|
| <b>WASTE CHARACTERIZATION PREP</b> |        |       |      |          |    | Analyst: DAN  |
| TCLP, non-volatile                 | NA     | 0     |      |          | 1  | 3/2/2006      |
| pH with water                      | 11     | 1.0   |      | pH Units | 1  | 3/2/2006      |
| Extraction Fluid Used              | 2.0    | 0     |      |          | 1  | 3/2/2006      |
| Initial pH                         | NA     | 1.0   |      | pH Units | 1  | 3/2/2006      |
| Final pH                           | 11     | 1.0   |      | pH Units | 1  | 3/2/2006      |



# Laboratory Results

Date: 28-Mar-06

## Geochemical Testing

|                   |                       |                                   |
|-------------------|-----------------------|-----------------------------------|
| <b>CLIENT:</b>    | AES - WARRIOR RUN INC | <b>Client Sample ID:</b> Bed Ash  |
| <b>Lab Order:</b> | G0603022              |                                   |
| <b>Project:</b>   |                       | <b>Sampled By:</b> Client         |
| <b>Lab ID:</b>    | G0603022-004          | <b>Collection Date:</b> 2/27/2006 |
| <b>Matrix:</b>    | SOLID                 | <b>Received Date:</b> 3/1/2006    |

| Analyses                           | Result   | Limit            | Qual | Units     | DF | Date Analyzed         |
|------------------------------------|----------|------------------|------|-----------|----|-----------------------|
| <b>TOTAL METALS</b>                |          | <b>EPA 6010B</b> |      |           |    | <b>Analyst: NPT</b>   |
| Aluminum                           | 20500    | 25.0             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Antimony                           | < 5.00   | 5.00             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Arsenic                            | 38.2     | 5.00             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Barium                             | 164      | 2.50             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Cadmium                            | < 0.50   | 0.50             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Chromium                           | 30.5     | 2.50             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Cobalt                             | 9.04     | 1.25             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Copper                             | 23.7     | 2.50             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Iron                               | 16800    | 12.5             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Lead                               | 5.01     | 5.00             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Manganese                          | 128      | 2.50             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Nickel                             | 22.3     | 2.50             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Selenium                           | < 5.00   | 5.00             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Silver                             | < 1.25   | 1.25             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Vanadium                           | 54.5     | 1.25             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| Zinc                               | 36.7     | 2.50             |      | mg/Kg     | 1  | 3/8/2006 4:55:00 PM   |
| <b>TCLP METALS</b>                 |          | <b>EPA 7470</b>  |      |           |    | <b>Analyst: CLW</b>   |
| Mercury                            | < 0.0008 | 0.0008           |      | mg/L      | 2  | 3/8/2006              |
| <b>INORGANIC METALS</b>            |          | <b>EPA 7471</b>  |      |           |    | <b>Analyst: CLW</b>   |
| Mercury                            | < 0.50   | 0.50             |      | mg/Kg-dry | 1  | 3/14/2006 11:36:00 AM |
| <b>TCLP METALS</b>                 |          | <b>EPA 6010B</b> |      |           |    | <b>Analyst: NPT</b>   |
| Aluminum                           | 1.61     | 0.100            |      | mg/L      | 1  | 3/8/2006              |
| Antimony                           | < 0.020  | 0.020            |      | mg/L      | 1  | 3/8/2006              |
| Arsenic                            | 0.027    | 0.020            |      | mg/L      | 1  | 3/8/2006              |
| Barium                             | 0.495    | 0.010            |      | mg/L      | 1  | 3/8/2006              |
| Cadmium                            | < 0.002  | 0.002            |      | mg/L      | 1  | 3/8/2006              |
| Chromium                           | 0.038    | 0.010            |      | mg/L      | 1  | 3/8/2006              |
| Cobalt                             | < 0.005  | 0.005            |      | mg/L      | 1  | 3/8/2006              |
| Copper                             | < 0.010  | 0.010            |      | mg/L      | 1  | 3/8/2006              |
| Iron                               | < 0.050  | 0.050            |      | mg/L      | 1  | 3/8/2006              |
| Lead                               | < 0.020  | 0.020            |      | mg/L      | 1  | 3/7/2006              |
| Manganese                          | < 0.010  | 0.010            |      | mg/L      | 1  | 3/8/2006              |
| Nickel                             | < 0.010  | 0.010            |      | mg/L      | 1  | 3/8/2006              |
| Selenium                           | 0.105    | 0.020            |      | mg/L      | 1  | 3/8/2006              |
| Silver                             | < 0.005  | 0.005            |      | mg/L      | 1  | 3/8/2006              |
| Vanadium                           | 0.230    | 0.005            |      | mg/L      | 1  | 3/8/2006              |
| Zinc                               | < 0.010  | 0.010            |      | mg/L      | 1  | 3/7/2006              |
| <b>WASTE CHARACTERIZATION PREP</b> |          | <b>EPA 1311</b>  |      |           |    | <b>Analyst: DAN</b>   |





# Laboratory Results

Date: 28-Mar-06

## Geochemical Testing

---

|                   |                       |                                   |
|-------------------|-----------------------|-----------------------------------|
| <b>CLIENT:</b>    | AES - WARRIOR RUN INC | <b>Client Sample ID:</b> Bed Ash  |
| <b>Lab Order:</b> | G0603022              |                                   |
| <b>Project:</b>   |                       | <b>Sampled By:</b> Client         |
| <b>Lab ID:</b>    | G0603022-004          | <b>Collection Date:</b> 2/27/2006 |
| <b>Matrix:</b>    | SOLID                 | <b>Received Date:</b> 3/1/2006    |

---

| Analyses                           | Result | Limit           | Qual | Units    | DF | Date Analyzed       |
|------------------------------------|--------|-----------------|------|----------|----|---------------------|
| <b>WASTE CHARACTERIZATION PREP</b> |        |                 |      |          |    |                     |
|                                    |        | <b>EPA 1311</b> |      |          |    | <b>Analyst: DAN</b> |
| TCLP, non-volatile                 | NA     | 0               |      |          | 1  | 3/2/2006            |
| pH with water                      | 11     | 1.0             |      | pH Units | 1  | 3/2/2006            |
| Extraction Fluid Used              | 1.0    | 0               |      |          | 1  | 3/2/2006            |
| Initial pH                         | NA     | 1.0             |      | pH Units | 1  | 3/2/2006            |
| Final pH                           | 12     | 1.0             |      | pH Units | 1  | 3/2/2006            |



GOULD ENERGY DIVISION  
P.O. BOX 214  
CRESSON, PA 16630

AES WARRIOR RUN  
11600 MEXICO FARMS ROAD, S.E  
CUMBERLAND, MD 21502

DATE: 4-18-2005  
SAMPLE NO: 847844

DATE SAMPLED: 2-24-05

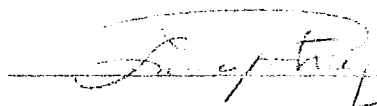
DATE RECEIVED: 3-2-05

SAMPLE ID: FLY ASH 2/24/05

CERTIFICATE OF ANALYSIS

| <u>TCLP EXTRACTION</u> |        |            | <u>METHOD NUMBER</u> | <u>PAGE NUMBER</u> |
|------------------------|--------|------------|----------------------|--------------------|
| Aluminum               | < 1.00 | Mg/L (ppm) | EPA 600/4-79-020     | Method 202.1       |
| Arsenic                | 108.0  | ug/l (ppb) | EPA SW-846           | Method 8.51        |
| Chromium               | < 0.10 | Mg/L       | EPA SW-846           | Method 8.54        |
| Copper                 | < 0.04 | Mg/L       | EPA 600/4-79-020     | Method 220.1       |
| Iron                   | < 0.15 | Mg/L       | EPA 600/4-79-020     | Method 236.1       |
| Lead                   | < 0.10 | Mg/L       | EPA SW-846           | Method 8.56        |
| Manganese              | < 0.06 | Mg/L       | EPA 600/4-79-020     | Method 243.1       |
| Mercury                | < 0.50 | ug/l (ppb) | EPA SW-846           | Method 8.57        |
| Selenium               | 5.03   | ug/l (ppb) | EPA SW-846           | Method 8.59        |
| Zinc                   | 0.06   | Mg/L       | EPA 600/4-79-020     | Method 289.1       |

Slurry pH 12.0  
Slurry pH after addition of INHCL 11.6  
Extraction Fluid Used #2  
Sample Weight 150.0 g  
Sample Volume 1000 ml

APPROVED BY 



GOULD ENERGY DIVISION  
 P.O. BOX 214  
 CRESSON, PA 16630

AES WARRIOR RUN  
 11600 MEXICO FARMS ROAD, S.E  
 CUMBERLAND, MD 21502

DATE: 4-18-2005  
 SAMPLE NO: 847843

DATE SAMPLED: 2-24-05

DATE RECEIVED: 3-2-05

SAMPLE ID: BED ASH 2/24/05

CERTIFICATE OF ANALYSIS

| <u>TCLP EXTRACTION</u> |        |            | <u>METHOD NUMBER</u> | <u>PAGE NUMBER</u> |
|------------------------|--------|------------|----------------------|--------------------|
| Aluminum               | < 1.00 | Mg/L (ppm) | EPA 600/4-79-020     | Method 202.1       |
| Arsenic                | 101.9  | ug/l (ppb) | EPA SW-846           | Method 8.51        |
| Chromium               | < 0.10 | Mg/L       | EPA SW-846           | Method 8.54        |
| Copper                 | < 0.04 | Mg/L       | EPA 600/4-79-020     | Method 220.1       |
| Iron                   | < 0.15 | Mg/L       | EPA 600/4-79-020     | Method 236.1       |
| Lead                   | < 0.10 | Mg/L       | EPA SW-846           | Method 8.56        |
| Manganese              | < 0.06 | Mg/L       | EPA 600/4-79-020     | Method 243.1       |
| Mercury                | < 0.50 | ug/l (ppb) | EPA SW-846           | Method 8.57        |
| Selenium               | 1.60   | ug/l (ppb) | EPA SW-846           | Method 8.59        |
| Zinc                   | 0.04   | Mg/L       | EPA 600/4-79-020     | Method 289.1       |

Slurry pH 7.9  
 Slurry pH after addition of INHCL 8.5  
 Extraction Fluid Used #2  
 Sample Weight 50.0 g  
 Sample Volume 1000 ml

APPROVED BY 



GOULD ENERGY DIVISION  
 P.O. BOX 214  
 CRESSON, PA 16830

AES WARRIOR RUN  
 11600 MEXICO FARMS ROAD, S.E  
 CUMBERLAND, MD 21502

DATE: 2-26-03  
 SAMPLE NO: 753717

DATE SAMPLED: 1-10-03

DATE RECEIVED: 1-14-03

SAMPLE ID: FLY ASH  
 COMBUSTIBLE CARBON 18.84 %

CERTIFICATE OF ANALYSIS

TCLP EXTRACTION

METHOD NUMBER

PAGE NUMBER

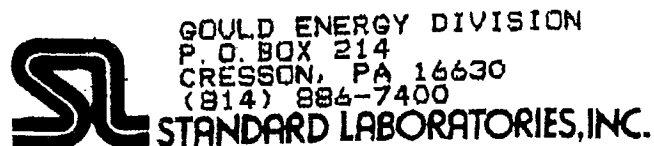
|           |        |            |                  |              |
|-----------|--------|------------|------------------|--------------|
| Aluminum  | < 1.00 | Mg/L (ppm) | EPA 600/4-79-020 | Method 202.1 |
| Arsenic   | 137.5  | ug/L (ppb) | EPA SW-846       | Method 8.51  |
| Chromium  | < 0.10 | Mg/L (ppm) | EPA SW-846       | Method 8.54  |
| Copper    | < 0.04 | Mg/L       | EPA 600/4-79-020 | Method 220.1 |
| Iron      | < 0.15 | Mg/L       | EPA 600/4-79-020 | Method 236.1 |
| Lead      | < 0.10 | Mg/L       | EPA SW-846       | Method 8.56  |
| Manganese | < 0.06 | Mg/L       | EPA 600/4-79-020 | Method 243.1 |
| Mercury   | < 0.50 | ug/L (ppb) | EPA SW-846       | Method 8.57  |
| Selenium  | 352.0  | ug/L       | EPA SW-846       | Method 8.59  |
| Zinc      | 0.05   | Mg/L (ppm) | EPA 600/4-79-020 | Method 289.1 |

Paste pH 12.2

Sample Weight 50 grams  
 Sample Volume 1000 ml.  
 Extraction Fluid Used #2

APPROVED BY

A handwritten signature in black ink, appearing to read 'A. J. [unclear]', is written over a horizontal line. The signature is enclosed within a hand-drawn circle.



GOULD ENERGY DIVISION  
P. O. BOX 214  
CRESSON, PA 16630  
(814) 886-7400

STANDARD LABORATORIES, INC.

DATE: 2-20-2003  
SAMPLE NO. 753717

AES WARRIOR RUN  
11600 MEXICO FARMS ROAD, S. E.  
CUMBERLAND, MD 21502

SAMPLE ID: FLY ASH

OPERATING CO.:  
SAMPLED BY: CUSTOMER PROVIDED  
MINE:  
LOCATION:

DATE SAMPLED: 1/10/03  
WEATHER:  
GROSS WEIGHT:

DATE RECEIVED: 1/14/03

OTHER ID: COMBUSTIBLE CARBON 18.84%

CERTIFICATE OF ANALYSIS

|                | ASTM METHOD | AS DETERMINED |
|----------------|-------------|---------------|
| CARBON         | D3178 D5373 | 19.06%        |
| CARBON DIOXIDE | D1756       | .80%          |

TRACE ELEMENTS IN ASH

|           | D3683 | D3684 | D3684 (MODIFIED) |              |
|-----------|-------|-------|------------------|--------------|
| ARSENIC   |       |       |                  | 45.33 PPM    |
| BARIUM    |       |       |                  | 77.50 PPM    |
| CADMIUM   |       |       |                  | < .05 PPM    |
| CHROMIUM  |       |       |                  | 77.50 PPM    |
| LEAD      |       |       |                  | 32.50 PPM    |
| MERCURY   |       |       |                  | 442.06 PPM   |
| SELENIUM  |       |       |                  | 104.60 PPM   |
| SILVER    |       |       |                  | < .10 PPM    |
| ZINC      |       |       |                  | 125.00 PPM   |
| MANGANESE |       |       |                  | 130.00 PPM   |
| ALUMINUM  |       |       |                  | 35750.00 PPM |
| COPPER    |       |       |                  | 32.50 PPM    |
| IRON      |       |       |                  | 35730.00 PPM |

APPROVED BY 

APPROVED BY 

BLACK SEAL ANALYSIS

FOR YOUR PROTECTION THIS DOCUMENT HAS  
BEEN PRINTED ON CONTROLLED PAPER STOCK.  
NOT VALID IF ALTERED.

Represent Instrumental Detection Limits



GOULD ENERGY DIVISION  
P.O. BOX 214  
CRESSON, PA 18630

AES WARRIOR RUN  
11600 MEXICO FARMS ROAD, S.E.  
CUMBERLAND, MD 21502

DATE: 2-26-03  
SAMPLE NO: 753716

DATE SAMPLED: 1-10-03

DATE RECEIVED: 1-14-03

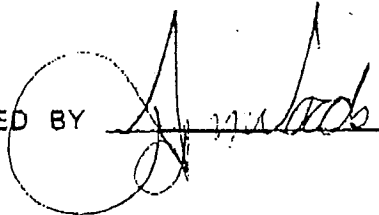
SAMPLE ID: BED ASH  
COMBUSTIBLE CARBON 2.42 %

CERTIFICATE OF ANALYSIS

| <u>TCLP EXTRACTION</u> |        |            | <u>METHOD NUMBER</u> | <u>PAGE NUMBER</u> |
|------------------------|--------|------------|----------------------|--------------------|
| Aluminum               | < 1.00 | Mg/L (ppm) | EPA 600/4-79-020     | Method 202.1       |
| Arsenic                | 104.1  | ug/L (ppb) | EPA SW-846           | Method 8.51        |
| Chromium               | < 0.10 | Mg/L (ppm) | EPA SW-846           | Method 8.54        |
| Copper                 | 0.04   | Mg/L       | EPA 600/4-79-020     | Method 220.1       |
| Iron                   | 0.15   | Mg/L       | EPA 600/4-79-020     | Method 236.1       |
| Lead                   | < 0.10 | Mg/L       | EPA SW-846           | Method 8.56        |
| Manganese              | < 0.08 | Mg/L       | EPA 600/4-79-020     | Method 243.1       |
| Mercury                | < 0.50 | ug/L (ppb) | EPA SW-846           | Method 8.57        |
| Selenium               | 360.7  | ug/L       | EPA SW-846           | Method 8.59        |
| Zinc                   | 0.04   | Mg/L (ppm) | EPA 600/4-79-020     | Method 289.1       |

Paste pH 12.1

Sample Weight 50 grams  
Sample Volume 1000 ml.  
Extraction Fluid Used #1

APPROVED BY 



GOULD ENERGY DIVISION  
P.O. BOX 214  
CRESSON, PA 16630  
(814) 886-7400  
STANDARD LABORATORIES, INC.

DATE: 2-20-2003  
SAMPLE NO. 753716

AES WARRIOR RUN  
11600 MEXICO FARMS ROAD, S. E.  
CUMBERLAND, MD 21502

SAMPLE ID: BED ASH

OPERATING CO.:  
SAMPLED BY: CUSTOMER PROVIDED  
MINE:  
LOCATION:

DATE SAMPLED: 1/10/03  
WEATHER:  
GROSS WEIGHT:

DATE RECEIVED: 1/14/03

OTHER ID: COMBUSTIBLE CARBON 2.42 %

CERTIFICATE OF ANALYSIS

|                | ASTM METHOD | AS DETERMINED |
|----------------|-------------|---------------|
| CARBON         | D3178 D5373 | 2.52%         |
| CARBON DIOXIDE | D1756       | .38%          |

TRACE ELEMENTS IN ASH

D3683 D3684 D3684 (MODIFIED)

|           |   |          |     |
|-----------|---|----------|-----|
| ARSENIC   |   | 76.18    | PPM |
| BARIUM    |   | 67.50    | PPM |
| CADMIUM   | < | 52.50    | PPM |
| CHROMIUM  |   | 32.50    | PPM |
| LEAD      | < | 53.85    | PPM |
| MERCURY   | < | 80.00    | PPM |
| SELENIUM  | < | 132.50   | PPM |
| SILVER    |   | 21200.00 | PPM |
| ZINC      |   | 27.50    | PPM |
| MANGANESE |   | 16250.00 | PPM |
| ALUMINUM  |   |          |     |
| COPPER    |   |          |     |
| IRON      |   |          |     |

APPROVED BY 

APPROVED BY 

BLACK SEAL ANALYSIS

FOR YOUR PROTECTION THIS DOCUMENT HAS  
BEEN PRINTED ON CONTROLLED PAPER STOCK.  
NOT VALID IF ALTERED.

Represent Instrumental Detection Limits